

**CATHAY PACIFIC AIRWAYS LIMITED**

**FLIGHT OPERATIONS DEPARTMENT**

**OPERATIONS MANUAL**

**PART B**

**SAFETY AND EMERGENCY**

**PROCEDURES MANUAL**

Operations Manual Part B forms part of the Operations Manual for Cathay Pacific Airways Limited and is to be used by crew, staff, servants or agents of the Company. It is issued by the Flight Operations Department and is authorised by the Director Flight Operations



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# 0 Administration & Control of Operations Manual

## 0.1 Introduction

The structure and formatting of the Operations Manual are in accordance with Hong Kong Civil Aviation Department (HKCAD) and International Civil Aviation Organisation (ICAO) requirements.

All flight/cabin crew and operational staff shall have access to the Operations Manual.

The operator's Operations Manual shall comply with the Hong Kong Civil Aviation Regulations and its Air Operators Certificate as approved or accepted by the Hong Kong Civil Aviation Department (HKCAD).

**Authority Approval** The Authority has reviewed the method, procedure or policy in question and issues a formal written approval.

**Authority Acceptance** The Authority by implication has reviewed the method, procedure or policy of an offer and has neither objected to nor approved its proposed use or implementation.

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## **0.2 Manual Ownership**

The purpose of the manual ownership is to ensure that ownership for Flight Operations (FOP) manuals is identified and their contents are defined.

The scope includes all procedural manuals within FOP. The amendment process for all manuals is defined in the Flight Publishing & Flight Library Policy & Procedures Manual.

The responsibility for the contents of all manuals rests with Director Flight Operations (DFO). However, the ownership and authority to approve changes to the various manuals is delegated by DFO in accordance with the Manual Ownership information posted on the Hub.

The Hub → Flight Operations → Publications → Manual Ownership

**Owner** - The person directly responsible for maintaining the contents of a particular document or manual (the activity for maintaining the contents may be further delegated by the owner; but not the responsibility of ownership).

**Approver** - The person responsible for approving the contents of a particular document or manual and is a different person from the owner.

Manuals available and viewed online on the Comply365 are also considered as controlled whilst viewed online. To signify that these manuals may become uncontrolled when removed from the online environment they have "UNCONTROLLED IF DOWNLOADED OR PRINTED" printed on every page header. These manuals may however still be used for operational use if they are sourced directly from the online site. Manuals downloaded or printed from the controlled online environment, must have a control process to ensure that their revision status is kept in line with the master site. It is the responsibility of the person who downloads the manual for this purpose to set up and control this procedure.

All flight/cabin crew and operational staff shall have access to the Operations Manual and are required to adhere to instructions laid down in this manual.

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## 0.3 Abbreviations

<b>A</b>	
AAP	Additional Attendant Panel
ABP	Able-Bodied Passenger Able-Bodied Person
ACARS	Aircraft Communications Addressing and Reporting System
ACP	Area Call Panel
AED	Automated External Defibrillator
AIP	Attendant Indication Panel
AMD	Archway Metal Detector
AMS	Amsterdam
AOM	Airport Operations Manager
APT DM	Airport Duty Manager
ASP	Attendant Switch Panel
ASR	Air Safety Report
ATC	Air Traffic Control
AVESCO	Aviation Security Company Limited
<b>B</b>	
BCF	Bromochlorodifluoromethane
BCR	Bar Control Report
BIT	Battery Insertion Test
BLS	Basic Life Support
<b>C</b>	
C	Celsius, Centigrade
CACP	Cabin Area Control Panel
CAPT	Captain
CARES	Child Aviation Restraint System
CAT	Clear Air Turbulence
CCOC	Cabin Crew Operational Checklist
CCOM	Cabin Crew Operating Manual
CCRC	Cabin Crew Rest Compartment
CIDS	Cabin Intercommunication Data System
cm, CM	Centimetre
CMD	Command
CO <sub>2</sub>	Carbon Dioxide
CPA	Cathay Pacific Airways Limited
CPR	Cardio Pulmonary Resuscitation
CRM	Crew Resource Management
CSCP	Cabin System Control Panel

CT	Crew Terminal
CX	Cathay Pacific Airways Limited
<b>D</b>	
DFO	Director Flight Operations
DGR	Dangerous Goods Regulations
DNR	Do Not Resuscitate
DVT	Deep Vein Thrombosis
<b>E</b>	
eARS	Electronic Airports Report
eCL	eCabin Log
eCSR	Electronic Cabin Safety Report
ELT	Emergency Locator Transmitter
EMER	Emergency
EMI	Electromagnetic Interference
ETA	Estimated Time of Arrival
eTL	Electronic Tech Log
<b>F</b>	
F	Fahrenheit
FAA	Federal Aviation Administration
FAP	Flight Attendant Panel
FAU	Flight Attendant Union
FCL	First Class
FCRC	Flight Crew Rest Compartment
FOP	Flight Operations Department
FRA	Frankfurt
ft, FT	Feet
FWD	Forward
<b>G</b>	
g, G	Gram
GMD	Group Medical Department
GPS	Global Positioning System
GSORM	Group Safety and Operational Risk Management
<b>H</b>	
H <sub>2</sub> O	Water
HAFEX	Halon Free Fire Extinguisher
HF	High Frequency (3 to 30 MHz)
HI	High
HKCAD	Hong Kong Civil Aviation Department
HKG	Hong Kong

HKIA	Hong Kong International Airport
HR	Hour
<b>I</b>	
IATA	International Air Transport Association
ICAO	International Civil Aviation
IFAR	Inflatable Free Aisle Restrictor
IFE	Inflight Entertainment
IMF	International Monetary Fund
in, IN	Inch
INOP	Inoperative
IOC	Integrated Operations Centre
IP	Incapacitated Person
ISD	Inflight Service Delivery
ISM	Inflight Service Manager
IV	Intravenous
<b>J</b>	
JCL	Business Class
<b>K</b>	
kg, KG	Kilogram
km, KM	Kilometre
kt, KT	Knot
<b>L</b>	
l, L	Litre
LAV	Lavatory
lb, LB	Pound
LCD	Liquid Crystal Display
LED	Light-Emitting Diode
LHS	Left Hand Side
LMA	Laryngeal Mask Airway
LO	Low
LRBL	Least Risk Bomb Location
LVO	Low Visibility Operations
<b>M</b>	
m ,M	Metre
MEDA	Passenger Medical Clearance
mg, MG	Milligram
MHz	Megahertz
MIN	Minute
ml, ML	Millilitre

mm, MM	Millimetre
MOD	Manager On Duty
MPED	Medical Portable Electronic Device
MRT	Manual Release Tool
<b>N</b>	
N/A	Not Applicable
NITS	Nature Intention Time Special Instructions
<b>O</b>	
O <sub>2</sub>	Oxygen
OCS	Office Courier Service
OPS	Operations
OSL	Onboard Service List
<b>P</b>	
P/A	Passenger Address
PBE	Protective Breathing Equipment
PED	Personal Electronic Device
PEEPLS	Passenger Emergency Escape Path Lighting System
PEY	Premium Economy Class
PIC	Pilot In Command
PPE	Personal Protective Equipment
PSE	Postural Support Equipment
PSI	Pound Per Square Inch
PSU	Passenger Service Unit
PTI	Positive Target Identification
PTV	Personal Television
<b>Q</b>	
QRH	Quick Reference Handbook
<b>R</b>	
RCC	Remote Control Centre Rescue Coordination Centre
RHS	Right Hand Side
<b>S</b>	
SATCOM	Satellite Communication
SCCM	Senior Cabin Crew Member
SEC	Second
SEPM	Safety and Emergency Procedures Manual
SF	Spaceflex
SIN	Singapore
SLB	Supplementary Loop Belt
SP	Senior Purser

<b>T</b>	
TOC	Table Of Contents
TTL	Taxi, Take-off, Landing
<b>U</b>	
U/S	Unserviceable
UIT	User-Initiated Test
UK	United Kingdom
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organization
UPK	Universal Precaution Kit
US	United States
<b>V</b>	
VCC	Video Control Centre
VF	Ventricular Fibrillation
VHF	Very High Frequency (30 – 300 MHz)
VIP	Very Important Passenger
<b>W</b>	
Wh	Watt-hour
<b>X</b>	
XMT	Transmit
<b>Y</b>	
YCL	Economy Class

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## 0.4 Revision Highlights

### Chapter 0 – Administration & Control of Operations Manual

0.4 Updated Revision Highlights

### Chapter 2 – Human Factors and Emergencies

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### Chapter 4 – Safety and Emergency Equipment

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4.1.2.2 Editorial

4.1.3 Updated Adult Life Jacket aircraft specific information  
Remove A321neo from spare adult life jacket pre-flight emergency equipment check

4.1.4 Update Infant Life Jacket aircraft specific information  
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4.1.5 3-in-1 Life Jacket for A321neo information added

4.2 Side test removed from all fire extinguishers' operation, rewrite the operation

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## Chapter 9 – First Aid/Illnesses/Injuries

- 9.6.11 The cause of burns and scalds edited  
Treatment for electrical burns added
- 9.6.30 Rewrite the information and treatment of poisoning
- 9.6.32 “Smoke or Fume Exposure” revised as “Smoke , Fumes or Gas Exposure”; treatment revised
- 9.6.34 Stun Gun Injury added

## Chapter 10 – Aircraft Specific

- 10.1.5.1 “Mandarin” renamed as “Putonghua”
- 10.2.5.1 “Mandarin” renamed as “Putonghua”
- 10.3.1 Spare Adult Life Jacket and Infant Life Jacket replaced by 3-in-1 Life Jacket on A321neo
- 10.3.5.1 “Mandarin” renamed as “Putonghua”
- 10.4.6.1 “Mandarin” renamed as “Putonghua”
- 10.5.6.1 “Mandarin” renamed as “Putonghua”
- 10.6.1.2 Updated 773A aircraft registration
- 10.6.6.1 “Mandarin” renamed as “Putonghua”

## Chapter 11 – Security

- 11.20.3 Editorial

## Appendix A – Pre-flight Briefing Questions

- A.4.1 Operation of fire extinguishers revised
- A.7 Moderate turbulence procedure revised
- A.8 “Mandarin” renamed as “Putonghua”
- A.11 Treatment for Smoke, Fumes and Gas Exposure revised

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# 1      **Introduction**

## 1.1    **Introduction**

Many emergencies give little warning and require initiative from crew member to deal with the situation. An orderly and planned sequence of activity as given in these notes may not be totally achieved in practice. These notes form a general guide. Experience has repeatedly shown that properly trained crew who can adapt their emergency training to the situation presented can save the lives of passengers and crew members in even the worst aircraft accident.

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## 1.2 Cabin Crew Designation Concept

1. For the purpose of evacuating the aircraft in the most efficient manner, the following main functions are performed by crew members:
  - A. Opening of doors and deployment of escape slides.
  - B. Assisting in directing passengers inside the aircraft or helping on the outside.
2. Cabin crew positions are designated as:
  - A. Door Primary – the Door Primary must be capable of carrying out the evacuation duties at the door for which they are responsible.
  - B. Door Assist – the number of Door Assists may vary from time to time according to passenger service requirements. An Assist must be prepared to take over a Door Primary's duties if necessary.
3. Senior Cabin Crew Member (SCCM) is nominated by the Company and is the most senior member of cabin crew for an assigned flight. SCCM is responsible to the Pilot-in-Command for the conduct and coordination of the cabin safety, security and emergency procedures. SCCM refers to the Inflight Service Manager (ISM) on wide-body aircraft or the Senior Purser (SP) on narrow-body aircraft. All procedures related to ISM are applicable to the SP on flights without an ISM onboard.
4. In the event that the rostered SCCM is unable to operate through unforeseen circumstances then the next most senior Cabin Crew Member (Senior Purser) must be delegated to operate in this position as an Acting SCCM. The Acting SCCM shall follow the Acting SCCM Quick Reference which is available in Comply365.
5. Cabin crew stations must be occupied during:
  - A. Taxi (except when performing safety related duties).
  - B. Take-off, approach and landing.
  - C. Emergency conditions.
  - D. When ordered to do so by the Captain or SCCM.

Seat belt/harness must be correctly worn and adjusted for all these conditions.

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## 1.3 Responsibilities of Crew

For the duration of any duty, including time down route, all crew members report to the Commander either directly, or indirectly through the SCCM. In the absence of the Commander, e.g. during rest, down route, or whenever the Commander nominates a Relief Commander, the reporting line of the crew is through the Relief Commander.

Crew members are expected at all times and in all circumstances to uphold the prestige & reputation of Cathay Pacific Airways.

Crew members shall carry out their duties in accordance with CPA Standard Operating Procedures, comply with corporate policies and assist the Commander in fulfilling their responsibilities. Crew members shall carry out any instructions given by the Commander related to the safety of the aircraft and its occupants and inform them whenever they have knowledge or information that they believe will have a positive impact on any decisions they make.

Crew members shall report to the Commander any situation that may have endangered or may endanger safety or compromise customer service.

The Commander should advise the SCCM of any operational considerations, such as forecast or reported turbulence that may impact on the planned cabin service, and agree any rescheduling that may be required.

Crew members are expected to deal with situations as they arise in the best interests of Cathay Pacific Airways, its customers and crew. They are expected to operate as one team and seek guidance when appropriate.

The SCCM is responsible for the delivery of cabin service standards and ensuring that standards are adhered to in each cabin of the aircraft. All crew with supervisory responsibility are accountable for ensuring that safety, security and customer service standards are maintained in their area of the aircraft.

The SCCM shall ensure that the Commander is kept informed of any circumstances that may impact on the delivery of the cabin service or the welfare of the customers or their crew. Whenever a crew change occurs the SCCM shall inform the Commander of the next sector of any relevant information relating to the Commander's responsibilities in a timely way.

It is the responsibility of crew members to have up to date safety and emergency procedures knowledge relevant to their duties. Cathay Pacific Airways discharges this responsibility on behalf of crew members by incorporation of all relevant statutory regulations in its Operations Manuals.

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## 1.4 Dealing with Emergencies

Each emergency situation is essentially a unique incident. No procedures or instructions can include all possible types of accidents or emergency situations. Nor is it possible to dictate the exact steps to follow in such situations.

Accordingly, conduct before, during and after an emergency is largely influenced by initiative, good judgement, alertness and a thorough knowledge of procedures and available equipment.

Cabin crew should always bear in mind that an aircraft emergency can occur at any time without the flight crew being aware of the situation, e.g. refuelling fire, cabin fire or smoke, engine flames, noise and vibrations.

In most cases, cabin crew shall start an emergency procedure only after an order from the Commander. However, certain situations, such as a cabin smoke or fire, require prompt action to prevent a situation getting out of control. In these cases, cabin crew are expected to initiate the action, but must also inform the Commander immediately.

The outcome of any emergency situation will be determined by a number of factors. A good working knowledge of drills and procedures and use of onboard safety equipment is essential, as well as a mutual crew understanding of workload priorities in both the flight deck and cabin. By their very nature emergency situations are dynamic; it is therefore important that actions and accountabilities are clearly communicated, understood and agreed.

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## 2 Human Factors and Emergencies

### 2.1 Crew Resource Management in Safety-Critical Situations

#### 2.1.1 Introduction

Flight deck and cabin crew have specific roles on the aircraft but, together, they are jointly responsible for the safety of the operation and the passengers we carry on our aircraft. Maintaining safe operation requires crew to be aware of the hazards they are exposed to and the risk factors that increase exposure to those hazards. By definition, unusual, non-normal and emergency situations include additional hazards and are high risk. In these situations, crew need to perform to the highest standard if we are to maintain safety.

In safety-critical situations, crew performance is rooted in sound training and the application of procedures. However, coping with unusual situations also requires flexibility. Because we cannot predict how an event might unfold, we know that we cannot write standard operating procedures for every situation. While memory items and checklists work most of the time, we need to be able to reflect on experience so that we know how and when to modify or adapt procedures to fit the circumstance, or even to create new solutions to problems.

This chapter will outline some research findings that relate to emergency situations and draw some key lessons that apply to Cathay Pacific operations.

#### 2.1.2 Human Response to Emergency Situations

Keeping control of an emergency situation requires us to, first, keep control of our own emotions. Humans have developed a physiological mechanism to deal with situations that could be threatening or harmful. What we know as 'stress' is, in fact, a 3 phase process that allows for a rapid response to potentially dangerous events. Of particular importance to us is the first, or Alarm, phase. Often called the 'fight or flight response', the Alarm phase is triggered by the recognition of a threat to our own personal safety. The Limbic system is one of the oldest parts of our brain, mainly linked with emotion and response, it acts as an early warning system to prepare us for danger. This system will trigger our adrenal gland to secrete the stress hormone cortisol, along with adrenaline. Our bodies will then undergo significant physical changes in order to prepare us in order to deal with the imminent threat – increased heart rate, increased blood pressure and respiration are all common characteristics in this heightened state.

When in this heightened (stress) state, the limbic system is almost hijacking the rest of our brain – this includes the pre-frontal cortex, the part of our brain which is responsible for rational thought, decision making and problem solving! This hijacking can cause us to not think straight, not remember procedures and even become focused on the thing we perceive as threatening, thus affecting our ability to see the bigger picture of the event.

As crew, we need to be aware of how the brain will cope with danger signs but we then need to be able to manage how we will respond. We will look at this in more detail in the next section. We also need to consider the effects of the other 2 phases in the process: Resistance and Exhaustion. During the Resistance phase the body continues to mobilise energy reserves in order to maintain a higher rate of effort to avoid harm. If we are repeatedly under stress, or exposed to a prolonged episode of stress, then we simply run out of energy reserves. Over the longer term, repeated triggering of the stress mechanism can have a serious effect on our health. However, what is clear is that some effects of stress do not kick in until long after we are removed from danger. While we are in the Resistance phase, we are typically working hard to resolve the threatening situation we find ourselves in. Once the danger is over, we then have the time to relax and reflect on events and this can trigger strong emotional responses.

When the Alarm phase is triggered, a common response is to freeze. The initial shock, the high level of confusion and uncertainty, results in a form of mental paralysis.

Formal training has been shown to help prepare us to deal with this Alarm phase, thus reducing the direct effect – these can be very simple techniques and can be very effective. Conducting ‘what if’ scenarios during the quiet phases of flight, or mental simulations about problems which may arise, has been shown to reduce the impact of the Alarm phase. Crews that did the ‘mental simulations’ responded better to actual emergencies in the simulator than crews who did other duties or just engaged in social chat during flight. For cabin crew, the equivalent would be doing silent reviews but also asking yourself ‘what would I do now if....’ Finally, training increases your confidence in your ability to deal with situations.

Procedures. The crew of US Airways flight 1549 – the ‘Miracle on the Hudson’ – and the air traffic controller who worked their radio frequency all commented after the event that having procedures to follow made it easier to concentrate on getting the job done. Having clear steps to follow allowed them to control the stress of the event.

## 2.1.3

### Passenger Behaviour in Stressful Situations

Despite being told to leave all personal possessions behind in an evacuation, we still see videos of passengers coming down evacuation slides with their carry-on bags. However, what we are actually seeing is one aspect of human behaviour under stress. Research into behaviour during evacuations of burning buildings has found that people will return to offices to turn off computers or collect personal possessions. These behaviours are known as ‘stereotypical’ in that they mimic the normal behaviours exhibited by passengers under ordinary conditions: when I disembark I take my bags; when I leave my office I shut down my computer. Unfortunately, in an emergency the same behaviours are no longer appropriate.

Under stress, people freeze – known as cognitive paralysis. A similar behaviour is a tendency to forget things under stress. For example, people phone the fire brigade to report a house fire but then cannot remember their own address. This may be linked to the fact that the limbic system is linked to learning but is also where the stress mechanism is triggered.

They also demonstrate denial, refusing to believe what is happening. In 1989 a B-737 crashed on approach to East Midlands Airport, UK, killing 47 passengers. One of the survivors commented that, when the Captain made a P/A ‘Prepare for crash landing’, he couldn’t believe what he was hearing. You only hear things like that in disaster movies. When the Italian ferry, the Costa Concordia, struck rocks and capsized, a passenger observed that the initial instruction to evacuate came from one of the dancers in the entertainment troupe. Unfortunately, the response was ‘what does she know, she’s a dancer’. Ironically, the Captain of the now-burning East Midlands B-737 made an announcement that the crew had shut down ‘the right engine’. Passengers could see the left hand engine on fire and simply assumed that ‘he’s the Captain, he must know what he is talking about’.

Finally, under stress we see inappropriate behaviour. After the East Midlands B-737 came to rest, the floor of the forward galley was covered in drinks miniatures from carts that had burst open. One of the cabin crew, her legs broken, started trying to pick up the bottles and store them away. In a similar way, tv footage of an earthquake in Japan showed shoppers trying to save glass bottles from smashing rather than following the correct earthquake drill. In a study of 1059 people reporting to emergency rooms after a missile attack in Israel, only 22% of the people had injuries directly resulting from the attack. The remaining injuries all came from people doing the wrong thing in response to the attack. For example, 7 people suffocated because they had left the filter closed on their gas masks.

## 2.1.4

### Additional Problems with Large Aircraft

The Qantas QF1 runway overrun at Bangkok in 1989 identified some other challenges we will need to be able to cope with. When the aircraft came to rest, there were no injuries in the cabin. However, the aircraft was damaged and there was no internal P/A system available to crew. So, communication throughout the cabin could be difficult. Some crew reported that, from their crew seats, they could not see into the cabin to assess the situation. Other crew were face with a challenge: should they stay at their door and wait for instructions or should they leave their seats to see if passengers needed first aid. Effective management of emergency situations will require crew to deal with problems such as these.

To summarise, in high stress situation, passengers will freeze, forget the safety briefing, not believe what is happening and, finally, do the wrong thing. As crew, we have to be able to overcome these fundamental problems in order to get everyone to safety. We will now look at how to manage these problems.

## 2.1.5 Managing Emergency Situations

The fundamental role of crew is to establish control and maintain the safety of passengers and crew from the point at which a non-normal or emergency situation is identified until the situation is either deemed to have returned to normal or control has been handed over to other emergency services. By definition, the event could run its course either completely in the air or on the ground or it could start in the air and be concluded on the ground. It is important to recognise that crew responsibilities might not end at the aircraft door: we also need to consider management on the ground – for example, after an evacuation – until other agencies can take control.

Effective control of the situation will require crew to rapidly build an accurate understanding of the situation and to ensure that all crew share that understanding. In addition, as the situation changes, crew will need to be updated. We saw earlier that communication systems might not be available in all circumstances so crew may have to improvise. In August 2007, a China Airlines B-737 was destroyed in a fire that started as the aircraft parked on stand at Naha Airport, Okinawa, Japan. The first signs of the fire were seen by passengers and, in fact, there is evidence that some of the doors were opened by passengers initiating their own evacuation. The point to make here is that passengers are also sources of information that can be used to make sure we understand what is going on. A thorough understanding of procedures and safety equipment and the professional execution of safety drills provide the foundation for effective situation management.

In order to maintain effective control of any situation, crew will need to demonstrate high levels of leadership, teamwork and communication. These clusters of skills, actually, overlap but we will look at each in more detail now.

Leadership. It is customary to associate leadership with a position in a hierarchy. So, we associate the Captain of the aircraft or the SCCM with a leader role. In actual fact, we require all crew to be able to take control of a situation and demonstrate leadership until a more senior member of crew assumes responsibility. The skills of leadership are something we can all exhibit. The key point, initially, is that leadership is about taking visible control. By being seen to be in control, we can reduce the level of panic experienced by those around us. The essential skills of leadership are listed below:

- Plan.  
Identifying the problem and organising activity.
- Initiate.  
Start action towards the goal.
- Control.  
Make sure things are happening in accordance with the plan.
- Support.  
Looking to see who, in the team, needs specific help.
- Inform.  
Making sure the team knows what's going on.
- Evaluate.  
Checking progress and modifying the plan as required.

Our scope for leadership activity will vary according to the time available. For example, where we have little or no notice of the development of a critical situation, initiating activity would include implementing safety drills to minimise danger to passengers and crew. Controlling events and informing others will also be important as we mobilise the whole crew to cope with the situation. Where we have more time, then planning will assume a greater importance and informing will include making sure the team is fully briefed on how the event will be handled. With time, we can also consider support needs.

**Teamwork.** Although some individuals in the team are designated as leaders, in safety-critical situations, especially, all team members have a responsibility to make sure we manage events to a successful outcome. Being the member of the team carries with it the responsibility to ensure the combined effort of the group achieves the task. Many of the skills identified as 'leadership' can also be demonstrated by team members, remembering that ultimate authority remains with the nominated leader. For example, in a dynamic, confused situation such as an emergency, team members have a responsibility to update the team leader as circumstances unfold. If the briefed plan proves unworkable, the team members need to use their initiative to maintain progress. Whenever there is uncertainty, team members must seek clarification.

Three aspects of team behaviour that are linked to success are:

- Maintaining the bigger picture.  
Making sure everyone understands the overall aim.
- Collaborative Action.  
Work both with and for other team members, remembering that some team members – airport fire and rescue teams, for example – might not be on the aircraft.
- Communication.  
Making sure information flows around the team.

It was mentioned above that the availability of time will change how we deal with a non-normal situation. In a time-critical emergency the focus will be on the execution of drills and procedures trained and rehearsed during annual recurrent safety training. Where we have time, then investing in planning will increase the probability of success. The Captain and the SCCM will probably formulate the plan after which the team will be briefed and specific tasks and roles will be assigned. A good plan will include instructions for initiating action and also contingency plans to cover anticipated problems.

**Briefing Structure.** All crew are familiar with the NITS, which is a structure designed for efficient communication under time pressure. NITS will help us structure our activity and communicate our intent effectively, an example is illustrated below:

The aircraft has had a depressurisation event. The flight crew have managed the descent and we are now at a safe altitude, heading to a diversion. The SCCM and the Captain have had a conversation and the SCCM has now called the Section Leaders together.

Nature – We have had a depressurisation but we are now at a safe altitude.

Intention – We are heading to X, which is not an on-line port.

Time – We are about an hour away and the forecast ETA is ....

Special instructions – The landing will be a normal landing and once we have parked we will be keeping the passengers on the aircraft until we have made arrangements for disembarkation. The Captain will make an announcement once I have finished this brief. I want you now to call your teams together and explain what is going on. After landing, we will leave the seatbelt signs on but make sure passengers in your sections remain seated. Once we have clarified what will happen on the ground I will rebrief you. There will probably be a delay while we arrange for immigration to arrive at the aircraft so we will do a tea/coffee service. Any questions at this point?

Read back – OK, so where are we going? What will happen after landing? How much time is left before we get there?

Having an understanding of how you or your colleagues may act or react in an emergency situation is key to positive performance. Procedures, practice and mental rehearsal will help to prepare you for dealing with an emergency. Teamwork, communication, leadership and a proactive approach to identifying potential risks and threats will serve you well when an emergency happens, and you are forced to deal with the situation you now find yourself in. Your training, your procedures and your own mental resilience will help you overcome the stress response and allow you to think more clearly about the situation you are dealing with.

Effective communication is key to the team response, you must overcome any barriers to effective communication. What might some of these barriers be? Listed below are just a few examples of barriers to effective communication:

- Noise
- Rank
- Language
- Culture
- Physical barriers (doors or distance)

You should work to overcome these barriers (rank/culture/language) or have strategies to deal with them (physical barriers/noise) during normal operations, so when dealing with an emergency you are not trying to work through these barriers, instead you are free to deal with the emergency at hand.

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<b>3</b>	<b>Communication .....</b>	<b>1</b>
3.1	Communication between the Flight Crew and the Cabin Crew .....	1
3.2	Use of Priority Codes .....	1
3.3	Emergency Report .....	1
3.4	NITS .....	1
3.5	Alert Phase.....	1
3.5.1	Initiation of Alert Phase .....	1
3.5.2	Cancellation of Alert Phase.....	2
3.5.3	Emergency Landing and Evacuation .....	2
3.6	General Communication .....	1
3.6.1	Crew to Interphones.....	1
3.7	Inoperative P/A System.....	1

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## 3 Communication

### 3.1 Communication between the Flight Crew and the Cabin Crew

Standard wording, terminology, signals or commands shall be used for communication between the flight crew and cabin crew during both normal and non-normal situations.

Should the cabin crew become aware of any safety related problems either whilst the aircraft is on the ground or inflight, the flight crew must be informed immediately using the most effective means of communication e.g. cabin interphone. In general, any occurrences that could pose danger to the aircraft or its occupants would be considered reportable to the flight crew.

If the flight crew are carrying out essential duties and may not be able to answer the call, the cabin crew member shall inform the SCCM. Flight crew should contact the SCCM when their workload permits. However, if the SCCM assesses that the situation is time critical, the SCCM should persist in establishing communication with the flight deck.

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## 3.2 Use of Priority Codes

A priority code is a cabin interphone function to be used for urgent calls to the flight deck for cases of emergencies. It can be used during any stage of the flight, including the "Sterile Flight Deck" periods. Use the Emergency Report format when relaying urgent message to the flight crew.

Examples of cases of emergencies:

- Bomb threat, hijack or sabotage
- Attempted security breach of flight deck
- Physical assault resulting in serious injury
- Fire/Smoke situation
- When crew or passengers are seriously ill, injured or become incapacitated
- Multiple or serious injuries due to turbulence

When a priority call is made to the flight deck, a lower priority call in progress (e.g. normal two-way call) will be automatically disconnected.

If the priority call was not answered in approximately 10 SEC, cabin crew shall contact the SCCM to relay the urgent message to the flight crew.

Priority codes for respective aircrafts on handset are as follow:

- A330 - Press "PRIO CAPT"
- A320/A321/A321neo - Press and hold "EMER CALL" for at least one second
- A350 - Press "PRIO", "CAPT" then "SEND"
- 777 - Press "\*\*\*"

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### 3.3 Emergency Report

If cabin crew becomes aware of any condition that could threaten the safety of the aircraft, passengers and/or the cabin crew, they shall contact the flight crew immediately. In order to ensure the flight crew receives information in a timely manner, the following format "ATTENTION" followed by, "WHO, WHAT, WHERE" is to be used.

The following table explains the emergency report format:

	<b>Person giving the report</b>	<b>Example</b>
<b>WHO</b>	Who is the one giving the report	I am Alice at R2, making an emergency report
<b>WHAT</b>	What is happening in the cabin and what is the action from cabin crew	Fire in overhead compartment and crew are fighting the fire
<b>WHERE</b>	Where is the location	It is forward of L2

The flight crew may ask for further information or for a NITS.

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## 3.4 NITS

NITS is to enhance communication between the flight crew and cabin crew especially in unusual or emergency situations e.g. emergency landing or ditching, fire/smoke/fumes situation, unruly passenger, medical emergency etc. It will ensure that all relevant information is consistently communicated between the flight deck and the cabin.

NITS can be used in communication from the flight deck to the cabin and vice versa.

The SCCM may also use the same briefing format to pass information on to the remainder of the cabin crew, and vice versa.

To enhance the effectiveness of NITS, the following may also be considered:

- Face-to-face communication will increase the value of the briefing.
- The briefing should be short and to the point.
- The person receiving the briefing should take notes to ensure key points are not missed during the repeat phase or the onward transmission of the information to other crew members.

### NITS Format

<b>N</b>	<b>Nature</b>	The Nature of the problem. A brief summary of the situation.
<b>I</b>	<b>Intention</b>	The Intention of the person giving the brief. A brief summary of what is going to happen now.
<b>T</b>	<b>Time</b>	How much Time before landing or when the next course of action will commence.
<b>S</b>	<b>Special Instructions</b>	Special instructions for the receiver. Anything they need to do or to arrange.

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## 3.5 Alert Phase

If a non-normal situation exists that could threaten the safety of the aircraft, passengers or cabin crew, flight crew may initiate an alert phase. The alert phase is initiated by the word "ATTENTION" and followed by commands. The word "ATTENTION" is designated to differentiate other P/A or commands given by the flight crew. This non-normal situation may be escalated to an emergency situation. Once the "ATTENTION" command is made, immediate cabin crew action and attention are required.

### 3.5.1 Initiation of Alert Phase

1. "Attention, ISM to the Flight Deck/Interphone" (said twice) (Passenger Aircraft)

This command is used when there is threat to safety with time available to brief cabin crew.

From	To	Duties
Flight deck	Cabin	<p><b>SCCM</b></p> <ul style="list-style-type: none"><li>• Proceed directly to the flight deck/Go to the nearest interphone and call the flight deck (as appropriate)</li></ul> <p><b>Other cabin crew</b></p> <ul style="list-style-type: none"><li>• Immediately discontinue any on-going service activities</li><li>• Return carts or trolleys to the galley</li><li>• Wake up any flight crew and cabin crew who are taking inflight rest</li><li>• Await briefing from the SCCM or the flight crew</li></ul>

2. "Attention, Description of Non Normal Event" (said twice) and/or activation of the Main Deck Alerting System (Freighter Aircraft)

From	To	Duties
Flight deck	Cabin	<ul style="list-style-type: none"><li>• Wake resting crew and return to seats</li><li>• Follow the directions of the flight crew</li></ul>

3. "Attention, Crew at Stations" (said twice)

This command is used when flight crew requires cabin crew to be at their designated crew stations whether on ground or approximately 2 MIN prior to touch down.

#### Passenger Aircraft

From	To	Duties
Flight deck	Cabin	<p><b>Ground</b></p> <ul style="list-style-type: none"><li>• Return or remain at crew stations, be alert and report any abnormalities or hazards to the flight crew</li></ul>

From	To	Duties
		<ul style="list-style-type: none"> <li>• Control passengers if necessary</li> <li>• Await further instructions from the flight crew</li> </ul> <p><b>Inflight</b></p> <ul style="list-style-type: none"> <li>• Immediately return to crew stations and secure themselves</li> <li>• Conduct a silent review</li> </ul>

### Freighter Aircraft

From	To	Duties
Flight deck	Cabin	<p><b>Ground</b></p> <ul style="list-style-type: none"> <li>• Return to seats and await flight crew's instructions</li> </ul> <p><b>Inflight</b></p> <ul style="list-style-type: none"> <li>• Return to seats and fasten seat belts</li> </ul>

### 3.5.2 Cancellation of Alert Phase

1. “Crew Normal Operations.” (said twice)

From	To	Duties
Flight deck	Cabin	<ul style="list-style-type: none"> <li>• Resume normal duties</li> </ul>

### 3.5.3 Emergency Landing and Evacuation

1. “Attention, Brace, Brace.”

This command is used 30 SEC before touchdown.

From	To	Duties
Flight deck	Cabin	<ul style="list-style-type: none"> <li>• Take up brace position and shout “BRACE, BRACE”</li> </ul>

When the P/A is inoperative, the alternative signal for ordering the cabin crew and passengers to take up the “Brace” position is to cycle the “Seat Belt” signs OFF, then ON six or more times.

2. “Attention, Evacuate, Evacuate.”

From	To	Duties
Flight deck	Cabin	<ul style="list-style-type: none"> <li>• Carry out emergency evacuation duties</li> </ul>

The order “Evacuate” is to be repeated by cabin crew to ensure that it is heard by all crew members. In case of P/A failure, the cabin crew at Doors 1 are to shout any order from the flight crew down the cabin to relay the order throughout the aircraft.

## 3.6 General Communication

### 3.6.1 Crew to Interphones

This command can be used at any time by the flight crew or the SCCM to provide instructions, briefings or situation updates to cabin crew via the interphone.

Cabin crew actions:

- Immediately discontinue any on-going service activities, return carts or trolleys to the galley.
- Cabin crew not performing safety related duties are to go to the nearest interphone and await the call from the flight crew or the SCCM.
- Pass information to other cabin crew.

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### 3.7 Inoperative P/A System

If the aircraft is dispatched with the P/A system inoperative, the Commander/PIC shall use the cabin interphone to convey all commands to the SCCM.

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<b>4</b>	<b>Safety and Emergency Equipment.....</b>	<b>1</b>
4.1	Evacuation & Ditching Equipment.....	1
4.1.1	Torch .....	1
4.1.2	Emergency Locator Transmitter (ELT).....	3
4.1.3	Adult Life Jacket (A320/A321/A330/A350/777).....	9
4.1.4	Infant Life Jacket (A320/A321/A330/A350/777).....	11
4.1.5	3-in-1 Life Jacket (A321neo).....	12
4.1.6	Baby Floatation Cot.....	15
4.1.7	Megaphone .....	17
4.1.8	Additional Survival Pack.....	18
4.1.9	Land Survival Pack (747F).....	22
4.1.10	Escape Harness (747F) .....	24
4.2	Fire and Smoke Equipment.....	1
4.2.1	BCF Extinguisher .....	1
4.2.2	HAFEX .....	5
4.2.3	Water Extinguisher .....	7
4.2.4	Protective Breathing Equipment (PBE).....	7
4.2.5	Protective Gloves .....	10
4.2.6	Crow Bar .....	11
4.2.7	Fire Axe (A320/A321/A321neo) .....	12
4.2.8	FireSock Kit.....	12
4.2.9	Fire Fighting Suit Kit (747F) .....	13
4.2.10	Portable Gaseous Oxygen Bottle with Full Face Mask (747F) .....	14
4.3	First Aid Equipment.....	1
4.3.1	Portable Gaseous Oxygen Bottle.....	1
4.3.2	Spare Oxygen Mask.....	10
4.3.3	First Aid Kit.....	11
4.3.4	Self Help Medical Kit (747F) .....	17
4.3.5	Medication Box.....	21
4.3.6	Dressing Box .....	25
4.3.7	Automated External Defibrillator (AED) .....	27
4.3.8	Inflight Medical Kit .....	42
4.3.9	Splint Pack .....	55
4.3.10	Pocket Mask & Gloves Kit.....	57
4.3.11	Sharps Box.....	59
4.3.12	Universal Precaution Kit.....	60
4.3.13	Body Bag.....	64
4.4	Miscellaneous Equipment .....	1
4.4.1	Supplementary Loop Belt/Extension Seat Belt .....	1

4.4.2	Demonstration Kit.....	3
4.4.3	Manual Release Tool (Airbus).....	4
4.4.4	Arctic Survival Kit .....	5
4.4.5	Thermal Protection Kit (A350).....	6
4.4.6	Restraint Kit.....	7

## 4 Safety and Emergency Equipment

### 4.1 Evacuation & Ditching Equipment

#### 4.1.1 Torch

##### 4.1.1.1 DME Torch (A330/A350/777)

###### 1. Features



###### 2. Operation

- A. Removing the torch from its bracket automatically activates the light.
- B. Returning it to the bracket will turn off the light.

###### 3. Pre-flight Emergency Equipment Check

Secure and the red indicator light is flashing.

#### 4.1.1.2 DME Torch (A321neo/747-8F)

##### 1. Features



##### 2. Operation

- Removing the torch from its bracket automatically activates the light.
  - Returning it to the bracket will turn off the light.
3. Pre-flight Emergency Equipment Check

Secure and press the test button to see green light flash.

#### 4.1.1.3 Emergency Torch (A320/A321)

The torch is powered by dry battery.

##### 1. Features



##### 2. Pre-flight Emergency Equipment Check

Secure and serviceable.

#### 4.1.1.4 Water Resistant Torch (747-400ERF)

There are two models.

##### 1. Features



##### 2. Pre-flight Emergency Equipment Check

Secure and serviceable.

#### 4.1.2 Emergency Locator Transmitter (ELT)

Manually deployed ELT is carried on the aircraft.

There are three models of ELT, the Rescu 406S, the Rescu 406SE and the Rescu 406SG.

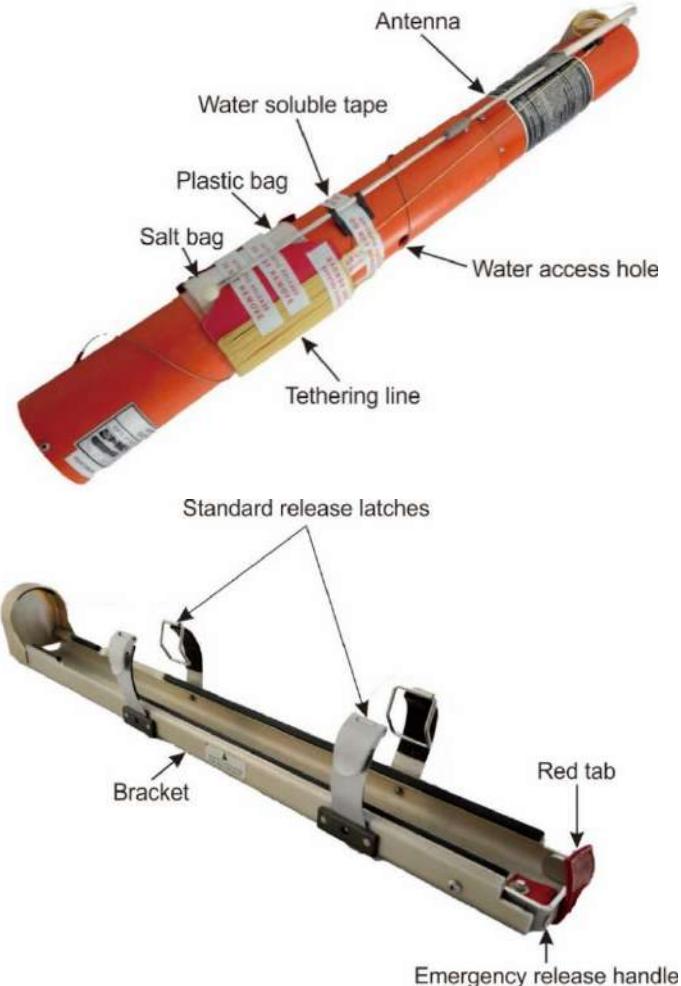
**Note:** *There is a built-in ELT in the aft of the aircraft above the ceiling panel. It is connected to an "ELT Switch" in the flight deck.*

#### 4.1.2.1 Rescu 406S

The Rescu 406S simultaneously transmits three frequencies. The civil distress frequency at 121.5 MHz, the military distress frequency at 243 MHz and the third frequency at 406 MHz which can be received by satellite.

##### 1. Features

The ELT is mounted on a bracket. The bracket consists of two standard release latches and an emergency release handle.



##### 2. Removal from bracket in emergency

- Unfasten the red tab.
- Pull the emergency release handle firmly and remove the ELT. The standard release latches will come free.

##### 3. Operation

- Deployment on sea water:
  - Remove the ELT from the stowage.
  - Tie the tethering line securely to the raft.
  - Place the ELT in sea water.
  - After approximately 5 MIN, the antenna will automatically erect. The ELT will operate automatically and will drift out to the end of the tethering line.

- B. Deployment on land or on fresh water:
- a. Remove the ELT from the stowage.
  - b. With hand over antenna, break the water-soluble tape and allow the antenna to erect.
  - c. Unwrap the plastic bag from the base of the ELT.
  - d. Break open the pouch of salt provided and pour the salt into the plastic bag.
  - e. Mix the salt with half bag of any water-based liquid e.g. water, tea, or coffee.
  - f. Place the ELT into the plastic bag of salt solution and ensure that the solution level is above the water access holes at all times.
  - g. Place the ELT in an area clear of obstructions. Select highest point and keep clear of antenna base for best transmission.

**Note:** The ELT will stop transmitting signals if it is tilted over 110° from the vertical.

4. Duration

The operating life is 50 HR (minimum) for 121.5 MHz and 243 MHz, 24 HR (minimum) for 406 MHz.

5. Pre-flight Emergency Equipment Check

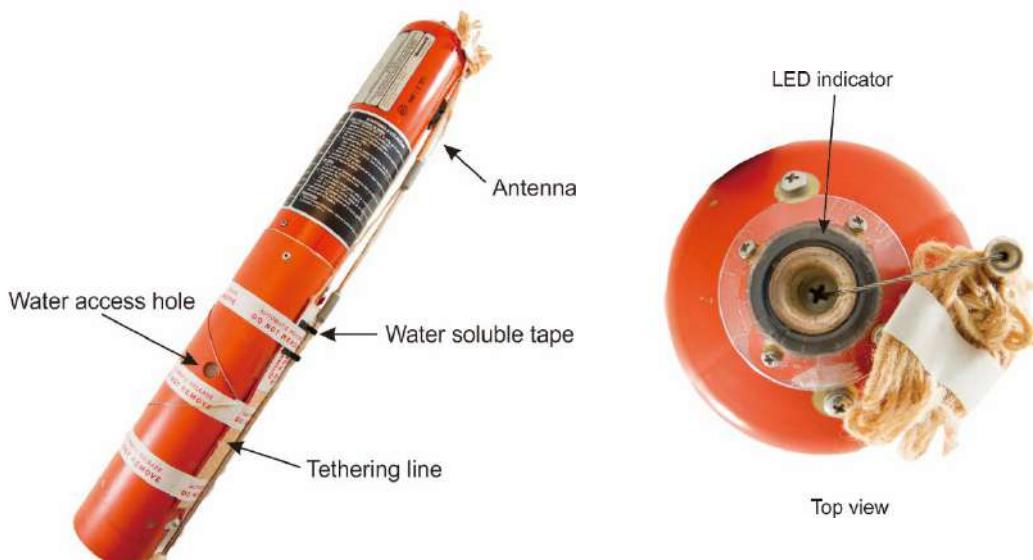
Secure.

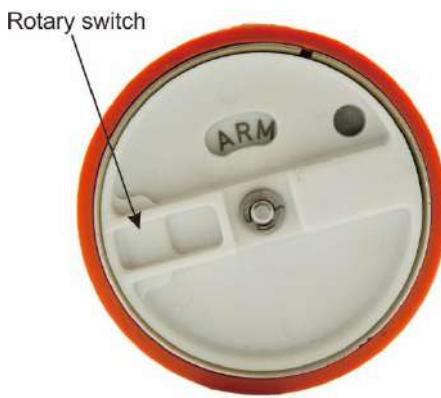
#### 4.1.2.2 Rescu 406SE

The Rescu 406SE simultaneously transmits three frequencies. The civil distress frequency at 121.5 MHz, the military distress frequency at 243 MHz and the third frequency at 406 MHz which can be received by satellite.

The Rescu 406SE is powered by a lithium ion cell battery. It has an LED indicator at the top of the ELT and a rotary switch at the bottom.

1. Features





Bottom view



Switch plate removed to show all 4 switch settings

- A. LED – The LED indicator will flash white in colour if the ELT is activated.
- B. Rotary Switch – At the bottom of the Rescu 406SE is a rotary switch which can be set to 4 possible operating positions (OFF, ARM, XMT and TEST).
  - a. OFF – When the rotary switch is turned to the OFF position, the ELT will not transmit any distress signals.
  - b. ARM – When the rotary switch is set to the ARM position, the ELT is ready to be activated automatically when immersed in water.
  - c. XMT – When the rotary switch is turned to the XMT position, the ELT will transmit the three distress frequencies even if the unit has not been immersed in water.
  - d. TEST – The TEST position is for maintenance use.

**Note:** *The Rescu 406SE will be preset to the ARM position when it is installed into the aircraft. The rotary switch can only be accessed if the ELT is removed from the bracket.*

- C. Bracket – The length of the Rescu 406SE bracket is shorter than the Rescu 406S bracket. However, there are still two release latches on the bracket which are the same as the Rescu 406S.
- 2. Removal from bracket in emergency
  - A. Unfasten the red tab.
  - B. Pull the emergency release handle firmly and remove the ELT. The standard release latches will come free.
- 3. Operation
  - A. Water activation:
    - a. Remove the ELT from the stowage.
    - b. Check the rotary switch is in the ARM position.
    - c. Tie the tethering line securely to the raft.
    - d. Place the ELT in the water. After approximately 10 SEC, the flashing LED light on top of the ELT will be visible.

- e. After approximately 5 MIN, the antenna will automatically erect. The ELT will operate automatically and will drift out to the end of the tethering line.

B. Manual activation on land:

- a. Remove the ELT from the stowage.
- b. Turn the rotary switch to the XMT position. The flashing LED light on top of the ELT will be visible immediately.
- c. With hand over antenna, break the water soluble tape and allow the antenna to erect.
- d. Place the ELT in an area clear of obstructions. Select highest point and keep clear of antenna base for best transmission.

4. Duration

The operating life is 50 HR (minimum) for 121.5 MHz and 243 MHz, 24 HR (minimum) for 406 MHz.

5. Pre-flight Emergency Equipment Check

Secure.

#### 4.1.2.3 Rescu 406SG (A321neo/A330/A350/777/747F)

Rescu 406SG is a new type, two-frequency emergency locator transmitter (ELT). It simultaneously transmits the civil distress frequency (121.5 MHz) and 406 MHz which can be received by satellite. It also has the capability to transmit global positioning system (GPS) data to improve positional accuracy.

1. Features



A. LED

The LED indicator will flash amber or green to indicate transmission in progress.

B. Toggle Switch

- a. OFF – When the toggle switch is set to OFF position, the Rescu 406SG will not transmit any distress signals.
- b. ARM – When the toggle switch is set to ARM position, the Rescu 406SG is ready to be activated automatically when immersed in water.
- c. ON – When the toggle switch is set to ON position, the Rescu 406SG will transmit distress signals.

2. Operation

Unlatch from bracket and pull out the unit.

A. Water activation:

- a. Ensure the toggle switch is in the ARM position.
- b. Pull the antenna away from the foam collar to deploy and ensure it is fully extended.
- c. Tie the tethering line securely to the sliderraft before putting into water with antenna pointing to the sky.
- d. The Rescu 406SG will automatically activate within 10 seconds and the LED indicator will start to flash in amber to indicate transmission is in progress.
- e. After 3 minutes of transmission, the LED indicator may change to green if GPS position is decoded by the Rescu 406SG.
- f. The GPS position can only be transmitted for a maximum of 4 hours, after that the LED indicator will change back to amber again.

**Note:** *The foam collar is required to keep the Rescu 406SG afloat in water.  
Do not remove from the unit.*

B. Manual activation on land:

- a. Pull the toggle switch and set to ON position.
- b. Pull the antenna away from the foam collar to deploy and ensure it is fully extended.
- c. The LED indicator will start to flash in amber to indicate transmission is in progress.
- d. After 3 minutes of transmission, the LED indicator may change to green if GPS position is decoded by the Rescu 406SG.
- e. The GPS position can only be transmitted for a maximum of 4 hours, after that the LED indicator will change back to amber again.
- f. Keep the Rescu 406SG upright on a flat or elevated surface with minimum close by obstructions for best transmission.

3. Duration

The operating life is 50 HR (minimum) for 121.5 MHz and 24 HR (minimum) for 406 MHz.

4. Pre-flight Emergency Equipment Check

Secure.

### 4.1.3 Adult Life Jacket (A320/A321/A330/A350/777)

Life jackets are provided for all persons on board and stowed in the designated stowage area on each passenger and crew seat. They are designed to keep an unconscious person's nose and mouth above water. The passenger life jacket is yellow in colour. The crew member's life jacket is orange. The jacket is kept in a transparent pouch.

1. Features

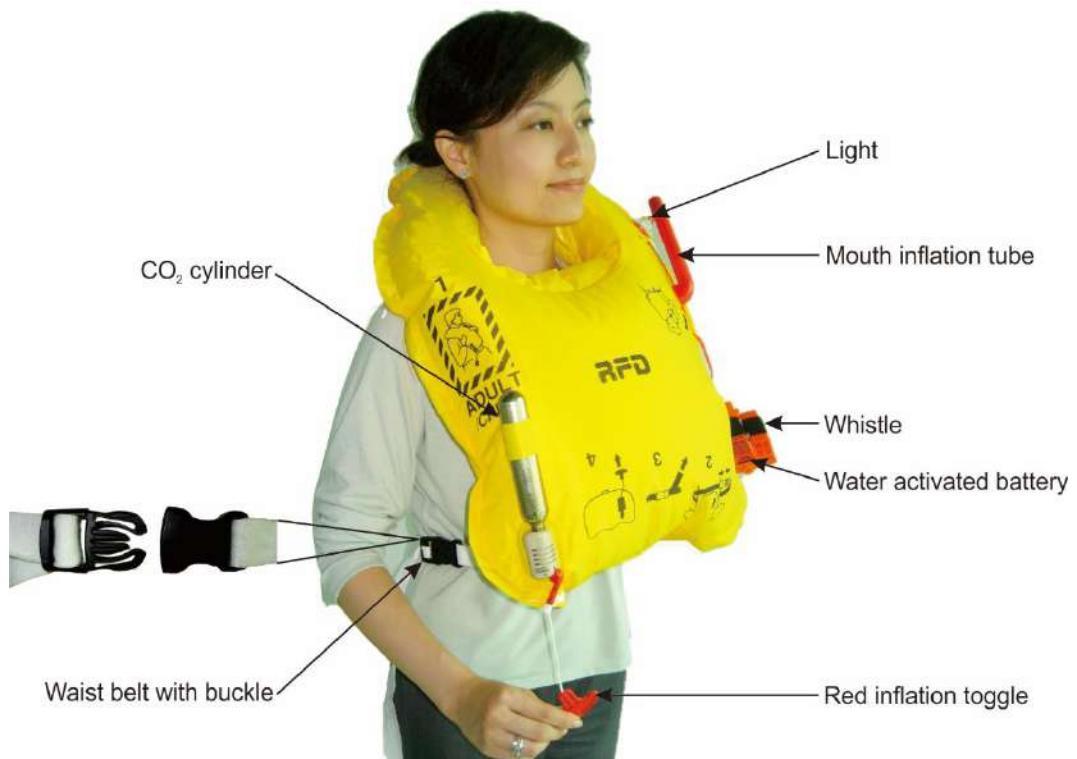


A. Inflation

The life jacket is inflated by pulling sharply downwards on the red inflation toggle. This punctures the carbon dioxide cylinder, which inflates the life jacket. It can also be inflated by blowing into the mouth inflation tube, which has a plastic non-return valve on its end. Pressing the valve can deflate the jacket.

B. Attracting attention

To attract attention in the water, a sealed bulb is wired to a water activated battery. The light will come on automatically when the water activated battery contacts water. It will stay on for approximately 9 HR. A whistle is also provided. To prevent loss a length of nylon cord ties it to the jacket.



## 2. Operation

### A. Fitting an adult life jacket on an adult

- a. Remove the jacket from its pack and unfold it.
- b. Place it over the head with the mouth inflation tube facing the front.
- c. Bring the waist belt to the back around the waist and fasten with buckle.
- d. Tighten the waist belt so that it is firmly around the waist.

**Note 1:** *The life jacket should only be inflated at the door area just before leaving the aircraft.*

**Note 2:** *The life jacket is reversible.*

### B. Fitting an adult life jacket on a child

- a. Place the jacket over the child's head.
- b. Inflate the jacket (In a prepared ditching situation, ensure passengers in the vicinity do not inflate their life jackets at this time).
- c. Bring the waist belt to the back around the waist and fasten with buckle.
- d. Tighten the waist belt so that it is firmly around the waist.



Place over child's head  
and inflate life jacket



Bring waist belt around the  
child's waist



Attach both ends of the buckle  
and tighten waist belt

### 3. Pre-flight Emergency Equipment Check

- A. Crew life jacket – Vinyl strap intact.
- B. Spare adult life jacket
  - a. A330/A350/777

Blue seal intact (on the Floatation Equipment Bag).

**Note:** Should the blue seal be broken or missing, cabin crew are to inform the SCCM and check the vinyl strap is intact on each adult life jacket and check quantity.

- b. A320/A321

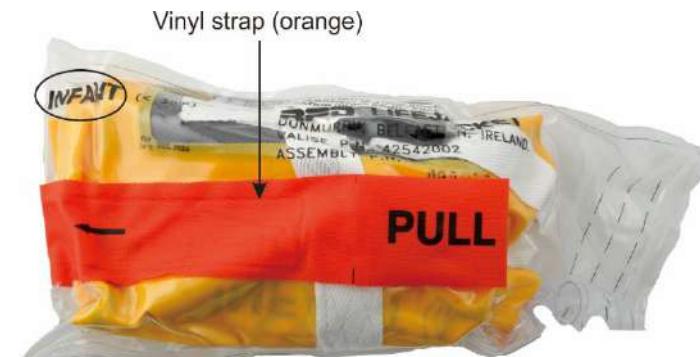
Check the vinyl strap is intact on each adult life jacket and check quantity.

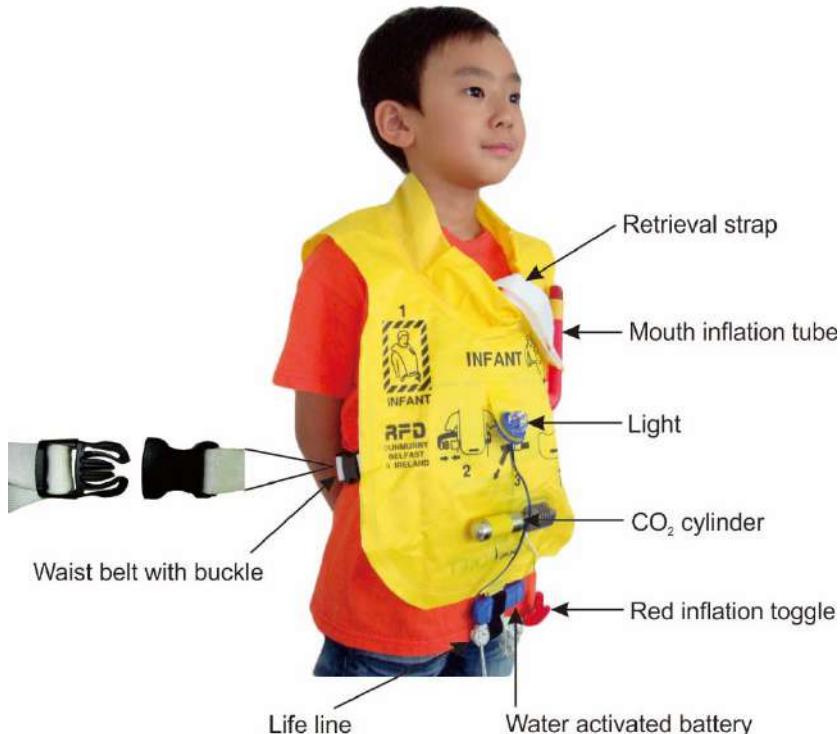
## 4.1.4 Infant Life Jacket (A320/A321/A330/A350/777)

Infant life jackets are provided for small children less than 35 pounds.

### 1. Features

The jacket is kept in a transparent pouch. In addition to the features found on an adult life jacket, the infant life jacket also has a life-line and a retrieval strap. There is no whistle.





## 2. Operation

Infant life jackets are to be used in the same manner as the adult life jacket.

## 3. Pre-flight Emergency Equipment Check

### A. A330/A350/777

Blue seal intact (on the Floatation Equipment Bag).

**Note:** Should the blue seal be broken or missing, cabin crew are to inform the SCCM and check the vinyl strap is intact on each infant life jacket and check quantity.

### B. A320/A321

Check the vinyl strap is intact on each infant life jacket and check quantity.

## 4.1.5

### 3-in-1 Life Jacket (A321neo)

Life jackets are provided for all persons on board and stowed in the designated stowage area on each passenger and crew seat. The 3-in-1 life jackets can be worn by persons of all ages. They are designed to keep an unconscious person's nose and mouth above water. The passenger life jacket is yellow in colour. The crew member's life jacket is orange. The jacket is kept in a respective coloured pouch.

#### A. Inflation

The life jacket is inflated by pulling sharply downwards on the red inflation toggle. This punctures the carbon dioxide cylinder, which inflates the life jacket. It can also be inflated by blowing into the mouth inflation tube, which has a plastic non-return valve on its end. Pressing the valve can deflate the jacket.

B. Attracting attention

To attract attention in the water, a sealed bulb is wired to a water activated battery. The light will come on automatically when the water activated battery contacts water. It will stay on for approximately 8 HR. A whistle is also provided. To prevent loss a length of nylon cord ties it to the jacket.

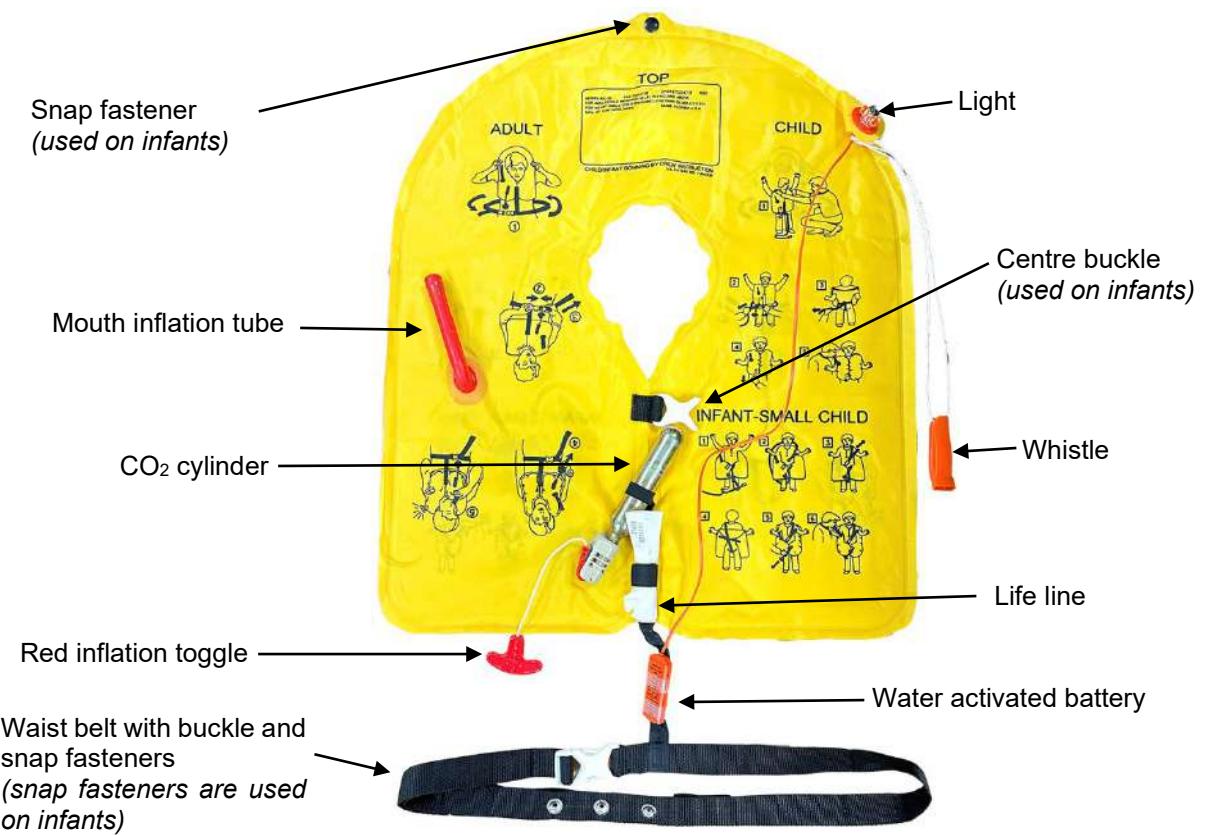
1. Features

**Passenger life jacket**



**Crew life jacket**





## 2. Operation

### A. Fitting on an adult (above 90 lbs.)

- Remove the life jacket from the pouch and unfold it.
- Place it over the head with the mouth inflation tube facing the front.
- Bring waist belt to the back around the waist and fasten with buckle.
- Tighten the waist belt so that it is firmly around the waist.

**Note 1:** *The life jacket should only be inflated at the door area just before leaving the aircraft.*

**Note 2:** *The life jacket is reversible.*

### B. Fitting on a child (35 to 90 lbs.)

- Remove the life jacket from the pouch and unfold it.
- Place it over the child's head with the mouth inflation tube facing the front.
- Bring the waist belt to the back around the waist and fasten with buckle.
- Tighten the waist belt so that it is firmly around the waist.
- For small child whose head may slip through the life jacket's neck opening, pass the excess length of the waist belt between the child's legs from front to back. Tie the excess belt securely to the waist belt at the child's back. It should be snug, but not tight against the child's crotch.

**Note 1:** *The life jacket should only be inflated at the door area just before leaving the aircraft.*

**Note 2:** *The life jacket is reversible.*

- C. Fitting on an infant (under 35 lbs.)
  - a. Remove the life jacket from the pouch and unfold it.
  - b. Have the infant step into the neck opening of the life jacket and slide it up to the waist.
  - c. Pass the waist belt through the infant's leg, around the back and over the left shoulder.
  - d. Fasten the waist belt buckle with the centre buckle at the front of the life jacket, below the infant's chest.
  - e. Tighten the waist belt so that it is firmly around the infant's torso.
  - f. Fasten the snap fastener on the waist belt and on top of the life jacket to prevent the belt from moving.

**Note:** *The life jacket should only be inflated at the door area just before leaving the aircraft.*

3. Pre-flight Emergency Equipment Check

- A. Crew life jacket – Strap intact.
- B. Spare life jacket – Blue seal intact (on the Floatation Equipment Bag).

**Note:** *Should the blue seal be broken or missing, cabin crew are to inform the SCCM and check the strap is intact on each life jacket and check quantity.*

#### 4.1.6 Baby Floatation Cot

Baby floatation cots are provided for infants up to 18 months of age.

1. Features

The cot is kept in a vacuum pack. It is inflated by removing the cot and pulling the red inflation toggle. It can also be inflated using the mouth inflation tube. The base of the cot can be inflated by blowing into the floor inflation tube. A water activated battery provides power to a light which will stay on for approximately 9 HR.





There is a vest with a clip inside the cot to secure the baby.

## 2. Operation

- Remove the cot from its pack and inflate by pulling the red inflation toggle inside the cot.
- Place the baby into the infant's vest and secure it with the clip provided.
- Ensure the baby is resting on its side.
- Use the zip to seal the canopy.

**Note:** *The cot is to be given to the accompanying adult during a prepared ditching. The cot is not to be inflated in the cabin. Cabin crew will brief the adult that the unopened cot is to be placed under the passenger seat or in the overhead locker and should be removed and taken to the raft during the evacuation. Cabin crew will brief the adult on the operation of the cot on the raft.*

## 3. Pre-flight Emergency Equipment Check

- A321neo/A330/A350/777

Blue seal intact (on the Floatation Equipment Bag).

**Note:** Should the blue seal be broken or missing, cabin crew are to inform the SCCM and check the vinyl strap is intact on each baby floatation cot and check quantity.

B. A320/A321

Check the vinyl strap is intact on each baby floatation cot and check quantity.

## 4.1.7 Megaphone

Battery powered megaphones can be used to direct passengers in an emergency evacuation. They may also be used to convey instructions to passengers should the P/A system fail.

### 4.1.7.1 Megaphone (A320/A321/A330/777)

#### 1. Features



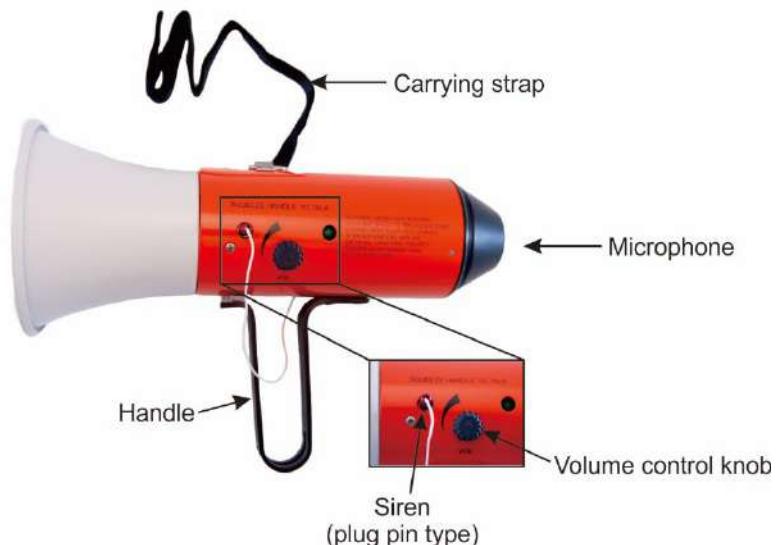
#### 2. Operation

- A. Press the trigger and place your mouth close to the microphone.
- B. Speak into the microphone.
3. Pre-flight Emergency Equipment Check

Secure.

#### 4.1.7.2 Megaphone (A321neo/A350)

##### 1. Features



##### 2. Operation

- A. Remove the pin activates the siren. This is to attract people's attention.
- B. Squeezing the handle stops the siren and place your mouth close to the microphone.
- C. Speak into the microphone.
- D. Adjust the volume by rotating the volume control knob.

##### 3. Pre-flight Emergency Equipment Check

Secure.

#### 4.1.8 Additional Survival Pack

The additional survival pack is used to supplement the survival equipment attached to the sliderafts.

##### 1. Features



A. Contents

Each pack contains the following survival equipment:

- a. Plastic water bag

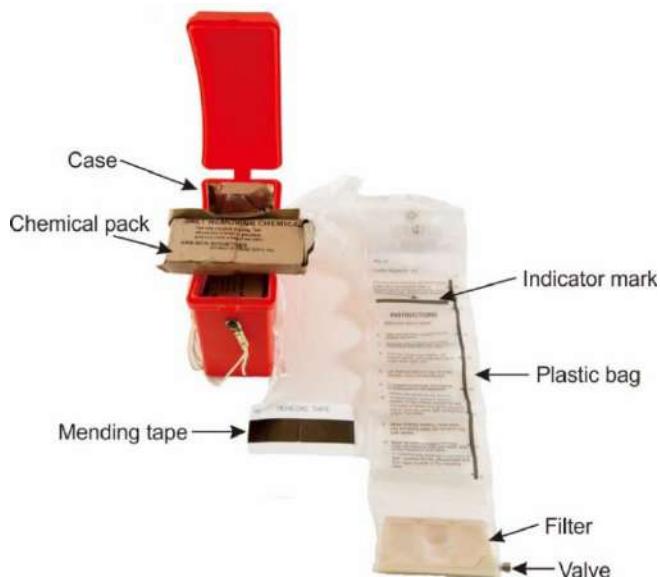
For drinking water storage.



- b. Desalting kit

Instructions for converting sea water to drinkable water are given on each kit. Each kit contains 8 desalting chemical packs. The desalting kit should only be used when no other source of drinking water is available.





**Note:** *The mending tape may be used to repair the plastic bag if required.*

i. To use:

- Remove and unroll the plastic bag. Unwrap one chemical pack and place it into the plastic bag.
- Fill the bag with sea water to the indicator mark. Roll down the top of the bag and fasten it shut.
- Shake the bag for 60 MIN. Unscrew the valve at the bottom of the plastic bag and drink the liquid directly or collect it in a container.
- When empty, rinse out the bag in the sea and repeat the process as required.

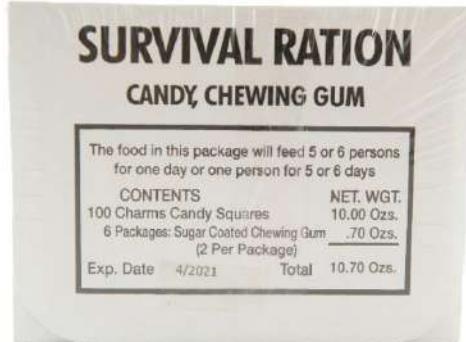
ii. In case more water is required or if the plastic bag is lost, the case may also be used to desalt the sea water.

- Remove all the chemical packs from the case.
- Put one chemical block into the case.
- Fill the case with sea water up to the black line.
- Close the case and shake it for 60 MIN.
- Stretch a handkerchief or similar material across the top of the open case. Pour the liquid out to filter the sediment.



- c. Emergency rations (pack of survival ration or bottle of glucose tablets)

The emergency rations may be distributed evenly after 24 HR.



The pack contains:

- Candy
- Chewing Gum



Each bottle contains:

- 50 Glucose tablets

2. Pre-flight Emergency Equipment Check

Blue seal intact.

## 4.1.9 Land Survival Pack (747F)

### 1. Features



### 2. Contents

#### A. Plastic water bag

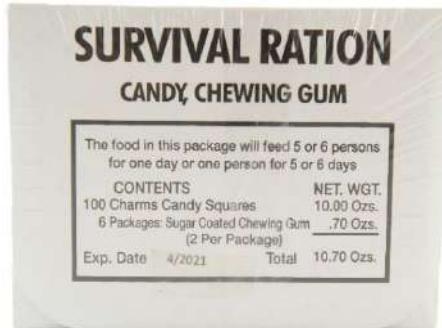
For drinking water storage.



#### B. Packaged water with purification tablets



C. Emergency ration (pack of survival ration or bottle of glucose tablets)



The pack contains:

- Candy
- Chewing Gum



Each bottle contains:

- 50 Glucose tablets

D. Signal flare

a. Features



3. Pre-flight Emergency Equipment Check

Blue seal intact.

#### 4.1.10 Escape Harness (747F)

An escape harness is provided to a passenger to use in the event of an evacuation.

##### 1. Features



##### 2. Operation

Passengers are required to wear the escape harness and attach it to the inertia reel before climbing through the Flight Deck Escape Hatch.



3. Pre-flight Emergency Equipment Check

In position.

Intentionally left blank

## 4.2 Fire and Smoke Equipment

### 4.2.1 BCF Extinguisher

BCF (bromochlorodifluoromethane), also known as Halon 1211, is a chemical used to extinguish Class B and Class C fires. It can also be used on a Class A fire, however water should be used afterwards to cool the object to prevent re-ignition.

#### 4.2.1.1 BCF Extinguisher (Safety Catch) (A320/A321/A330/A350/777)

##### 1. Features



##### 2. Operation

- A. Lift the safety catch.
- B. Hold the unit upright.
- C. Aim the nozzle at the base of the fire.
- D. Squeeze the lever to discharge.
- E. Use a sweeping motion.

**Note:** The directional indicator clearly indicate the direction in which the nozzle should aim at when in use.

##### 3. Precautions

- A. Stand 6 to 8 FT away from the fire on initial discharge, then move closer. This is to protect yourself from the fireball that may form when the BCF first reacts with the fire.
- B. Avoid breathing in the smoke and fumes from the fire as these can be toxic. Use the PBE if necessary.

4. Pre-flight Emergency Equipment Check

Secure and red disc intact.

#### 4.2.1.2 BCF Extinguisher (Safety Pin) (A320/A321)

1. Features



2. Operation

- Pull out the safety pin.
- Hold the unit upright.
- Aim the nozzle at the base of the fire.
- Squeeze the handle and lever to discharge.
- Use a sweeping motion.

**Note:** A seal is in place to ensure the safety pin will not drop accidentally when not in use. It will be broken by pulling out the safety pin.

3. Precautions

- Stand 6 to 8 FT away from the fire on initial discharge, then move closer. This is to protect yourself from the fireball that may form when the BCF first reacts with the fire.
- Avoid breathing in the smoke and fumes from the fire as these can be toxic. Use the PBE if necessary.

4. Pre-flight Emergency Equipment Check

Secure, pointer within the green range, safety pin and seal intact.

#### 4.2.1.3 BCF Extinguisher (747F)

##### 1. Features



##### 2. Operation

- A. Pull out the safety pin.
- B. Hold the unit upright.
- C. Aim the nozzle at the base of the fire.
- D. Squeeze the handle and lever to discharge.
- E. Use a sweeping motion.

**Note:** Red seal is in place to ensure the safety pin will not drop accidentally when not in use. It will be broken by pulling out the safety pin.

##### 3. Precautions

- A. Stand 6 to 8 FT away from the fire on initial discharge, then move closer. This is to protect yourself from the fireball that may form when the BCF first reacts with the fire.
- B. Avoid breathing in the smoke and fumes from the fire as these can be toxic. Use the PBE if necessary.

##### 4. Pre-flight Emergency Equipment Check

Secure, yellow pointer in green range, safety pin and seal intact.

#### 4.2.1.4 9-LB BCF Extinguisher (747F)

##### 1. Features



##### 2. Operation

- A. Remove the safety pin.
- B. Hold the plastic tube.
- C. Aim the nozzle at the base of the fire.
- D. Squeeze the handle and lever to discharge.
- E. Use a sweeping motion.

**Note:** Red seal is in place to ensure the safety pin will not drop accidentally when not in use. It will be broken by pulling out the safety pin.

##### 3. Precautions

- A. Stand 6 to 8 FT away from the fire on initial discharge, then move closer. This is to protect yourself from the fireball that may form when the BCF first reacts with the fire.
- B. Avoid breathing in the smoke and fumes from the fire as these can be toxic. Use the PBE if necessary.

##### 4. Pre-flight Emergency Equipment Check

Secure, yellow pointer in green range, safety pin and seal intact.

## 4.2.2 HAFEX

(A321neo, B-LRK and subsequent A350)

HAFEX (Halon Free Fire Extinguisher) also known as 2BTP (2-bromo-3, 3, 3-trifluoropropene), is an extinguishing agent for Class B and Class C fires. It can also be used on Class A fire, however, water should be used afterwards to cool the object to prevent re-ignition.

### 4.2.2.1 HAFEX (Old)

#### 1. Features



#### 2. Operation

- Pull out the safety pin.
- Hold the unit upright.
- Aim the nozzle at the base of the fire.
- Press the lever to discharge.
- Use a sweeping motion.

**Note:** The yellow safety seal will be detached automatically once the safety pin is pulled out.

#### 3. Precautions

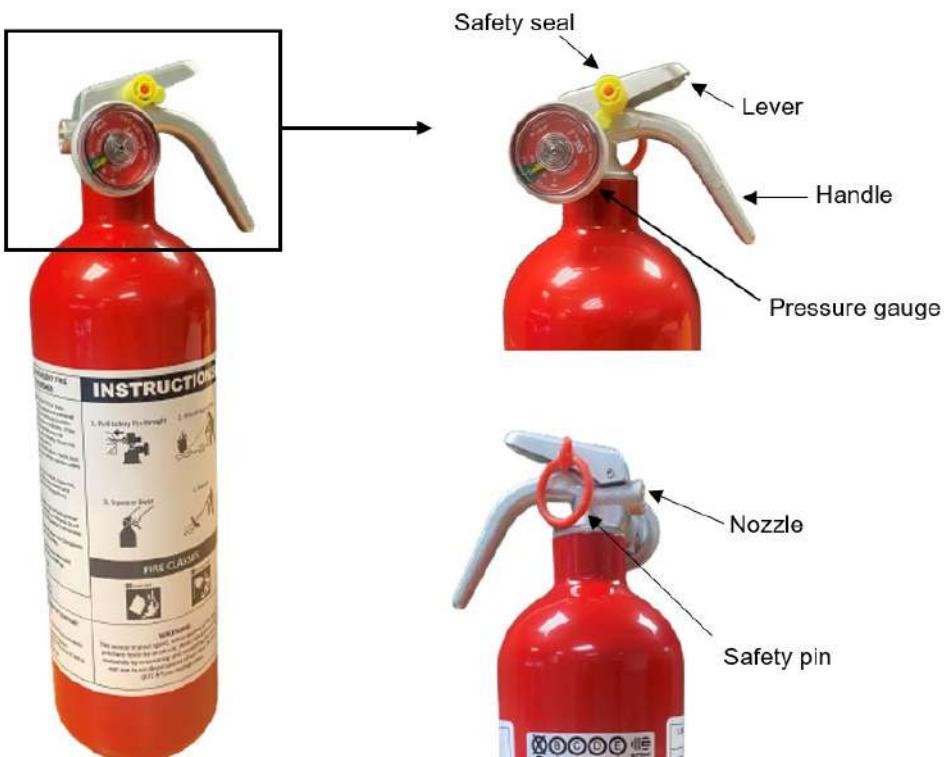
- Stand 6 to 8 FT away from the fire on initial discharge, then move closer. This is to protect yourself from the fireball that may form when the HAFEX first reacts with the fire.
- Avoid breathing in the smoke and fumes from the fire as these can be toxic. Use the PBE if necessary.

#### 4. Pre-flight Emergency Equipment Check

Secure, pointer within the green range, safety pin and seal intact.

#### 4.2.2.2 HAFEX (New)

##### 1. Features



##### 2. Operations

- A. Pull out the safety pin.
- B. Hold the unit upright.
- C. Aim the nozzle at the base of the fire.
- D. Press the lever to discharge.
- E. Use a sweeping motion.

**Note:** The yellow safety seal will be detached automatically once the safety pin is pulled out.

##### 3. Precautions

- A. Stand 6 to 8 FT away from the fire on initial discharge, then move closer. This is to protect yourself from the fireball that may form when the HAFEX first reacts with the fire.
- B. Avoid breathing in the smoke and fumes from the fire as these can be toxic. Use the PBE if necessary.

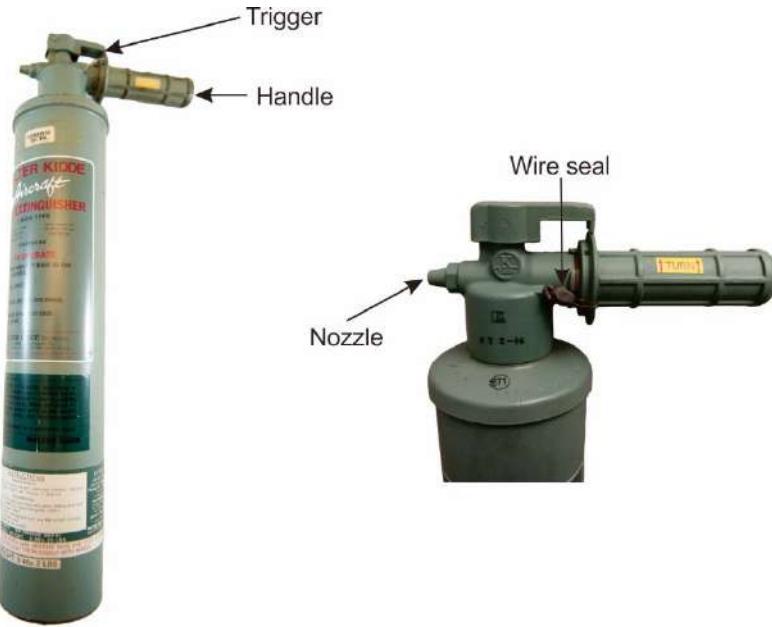
##### 4. Pre-flight Emergency Equipment Check

Secure, pointer within the green range, safety pin and seal intact.

### 4.2.3 Water Extinguisher

The water extinguisher is used to extinguish Class A fires only. It must never be used on any fire involving electrical equipment. An anti-freeze agent (glycol) is added to the water to prevent freezing in cold conditions.

#### 1. Features



#### 2. Operation

- A. Turn the handle fully clockwise. This punctures a small gas cylinder inside the handle to pressurize the water in the extinguisher.
- B. Hold the unit upright.
- C. Aim the nozzle at the base of the fire.
- D. Press the trigger to discharge.
- E. Use a sweeping motion.

#### 3. Pre-flight Emergency Equipment Check

Secure and wire seal intact.

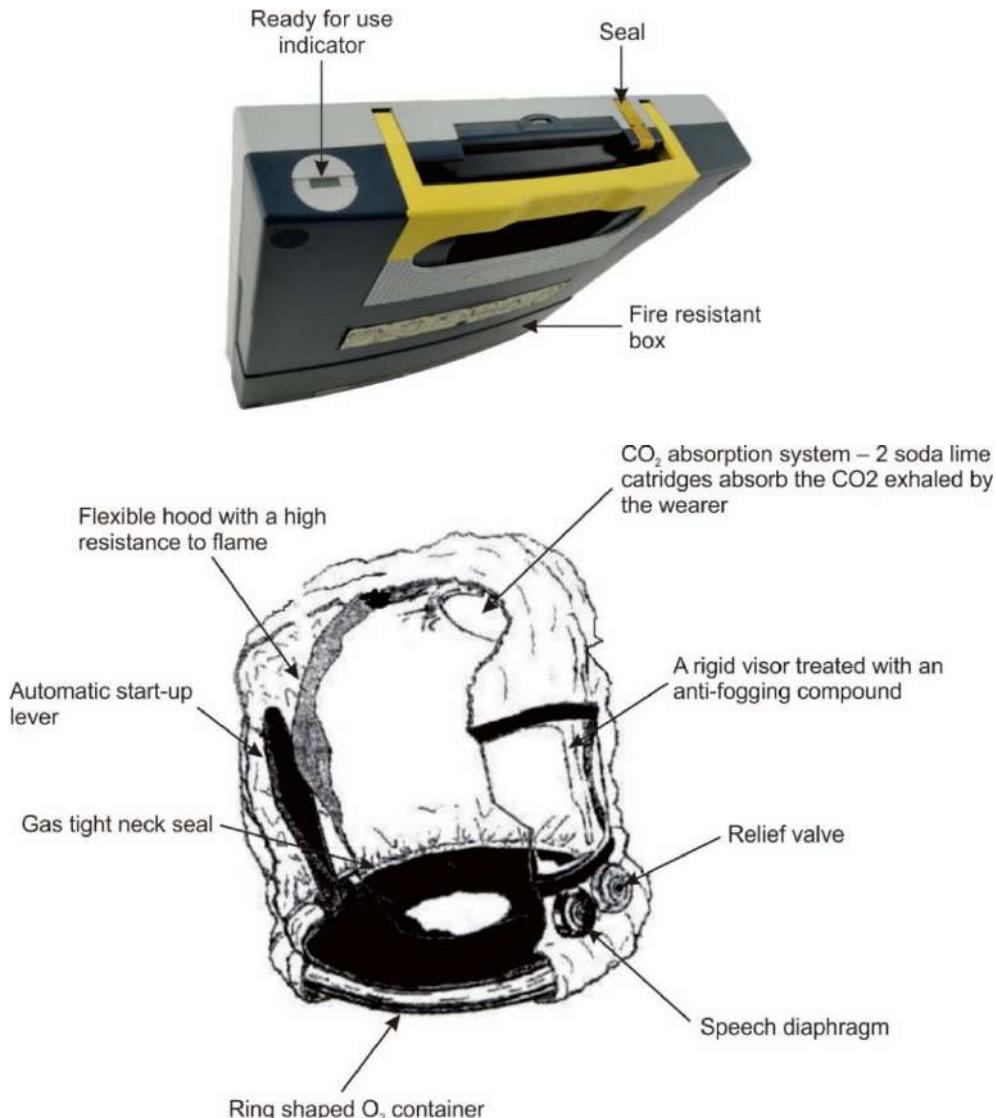
### 4.2.4 Protective Breathing Equipment (PBE)

The PBE protects the wearer from smoke up to 25,000 FT cabin altitude for a minimum of 15 MIN. The hood is stored in a specially designed packet which is mounted in a fire resistant box. Do not open the box unless the hood is to be used.

The box is equipped with a "ready for use indicator" which turns from green to red if the oxygen container leaks.

#### 4.2.4.1 Protective Breathing Equipment (PBE) (Old)

##### 1. Features



##### 2. Operation

- A. Lift up the yellow handle.
- B. Pull the box open.
- C. Pull out the foil packet and pull the tear-off strip.
- D. Take out the hood.
- E. Unfold the hood to clear from the visor.
- F. Place thumbs on markings and pull the neck seal back.
- G. Swiftly shake the hood downward.
- H. Don the hood from the back to the front.
- I. Oxygen will flow automatically.

**Note:** Crew should be aware of the fogging effect on the eye glasses if worn.

3. Precautions

- A. Do not allow hair to project outside the neck seal as this will cause a leak, and the exposed hair will be in danger of catching fire in the presence of an open flame.
- B. The wearer, whose hair is saturated with oxygen, should keep away from fire and any source of heat.
- C. After using the PBE keep it away from any source of heat as oxygen may still be flowing out.

4. Duration

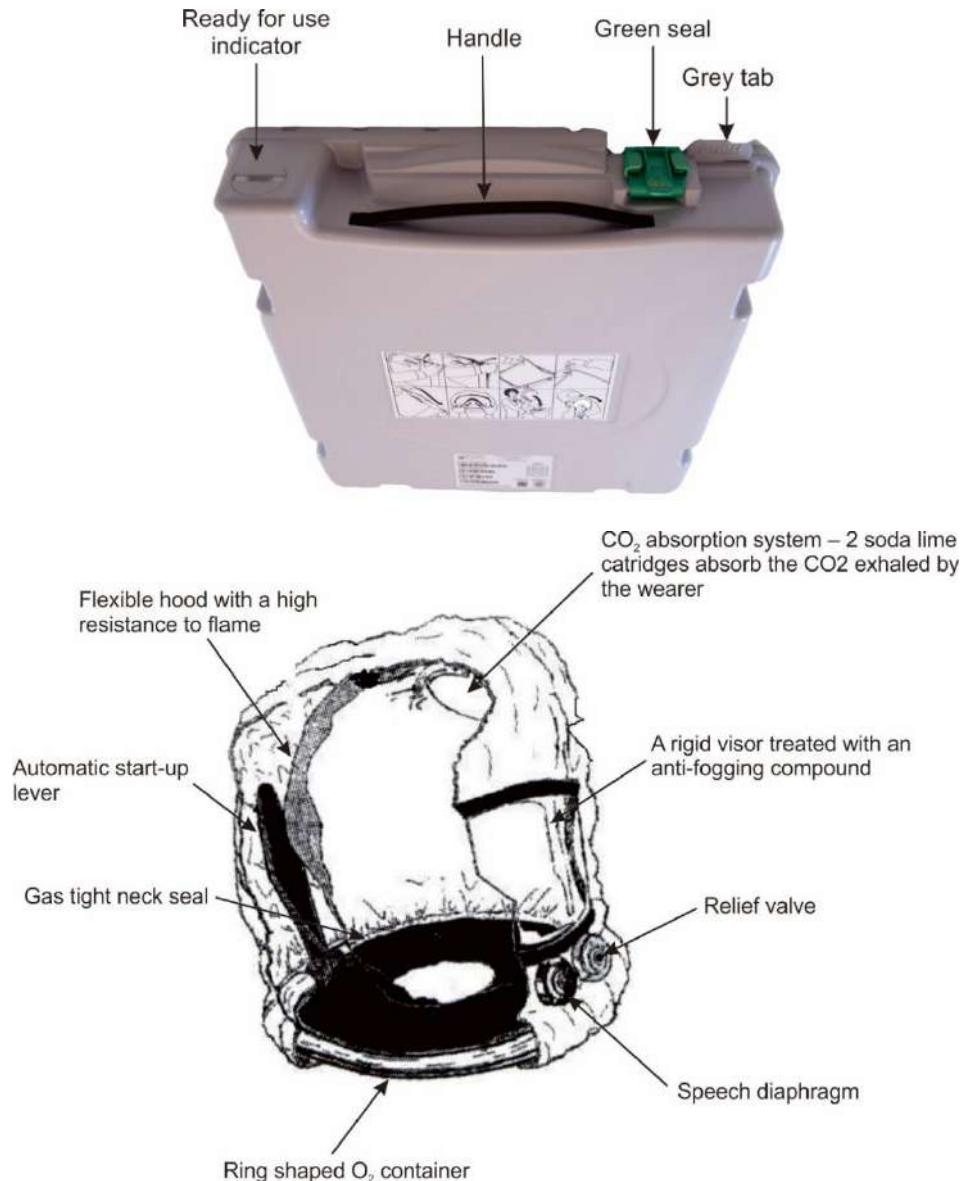
15 MIN up to a cabin altitude of 25,000 FT.

5. Pre-flight Emergency Equipment Check

Seal intact and indicator green.

#### 4.2.4.2 Protective Breathing Equipment (PBE) (New)

1. Features



2. Operation

- A. Break the green seal by lifting it up.
- B. Hold the handle and push the grey tab to open the box.
- C. Pull out the foil packet and pull the tear-off strip.
- D. Take out the hood.
- E. Unfold the hood to clear from the visor.
- F. Place thumbs on markings and pull the neck seal back.
- G. Swiftly shake the hood downward.
- H. Don the hood from the back to the front.
- I. Oxygen will flow automatically.

**Note:** Crew should be aware of the fogging effect on the eye glasses if worn.

3. Precautions

- A. Do not allow hair to project outside the neck seal as this will cause a leak, and the exposed hair will be in danger of catching fire in the presence of an open flame.
- B. The wearer, whose hair is saturated with oxygen, should keep away from fire and any source of heat.
- C. After using the PBE keep it away from any source of heat as oxygen may still be flowing out.

4. Duration

15 MIN up to a cabin altitude of 25,000 FT.

5. Pre-flight Emergency Equipment Check

Seal intact and indicator green.

## 4.2.5 Protective Gloves

1. Features

- A. A320/A321/A330/777/747F



B. A321neo/A350



2. Pre-flight Emergency Equipment Check

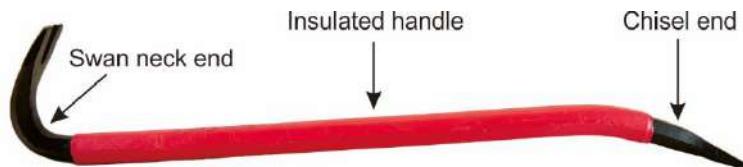
In position.

#### 4.2.6 Crow Bar

This device is used to assist crew members in gaining access behind panels for fire fighting purposes. The middle of the Crow Bar is insulated to protect the user against electrical shock should it contact "live" electrical wires when used.

1. Features

A. A330/A350/777/747F



B. A321neo



2. Operation

Care should be taken when forcing any panel open to avoid contacting any wires and cables behind the panel.

A. Insert the Chisel end into the gap between the panels and lever the panel open.

B. If necessary, use the swan neck end to make the opening bigger.

**Note:** The chisel end can also be used to make a hole in a panel.

3. Pre-flight Emergency Equipment Check

In position.

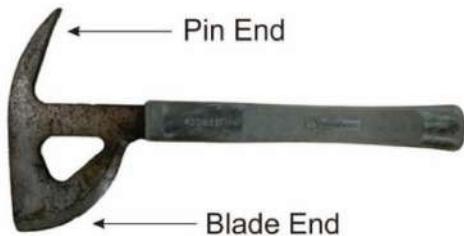
**Note 1:** *The Crow Bar is stowed inside the bag so that no part of it is visible to passengers.*

**Note 2:** *If the Crow Bar is missing, in addition to the standard procedures regarding the reporting of defects, SCCM should also notify the ground staff supervisor.*

#### 4.2.7 Fire Axe (A320/A321/A321neo)

The device is used in an emergency to assist crew members in gaining access to the source of fire should it be behind panels or used to smash a window or door.

1. Features



2. Operation

Use the pin end for opening the panels and the blade end for smashing window or door.

3. Pre-flight Emergency Equipment Check

In position.

#### 4.2.8 FireSock Kit

The FireSock kit contains a FireSock bag and a pair of heat resistant gloves. The FireSock bag is designed to contain PED/lithium battery after the fire has been extinguished and to help prevent any re-ignition.

1. Features



2. Contents

FireSock bag	
Heat resistant gloves (1 pair)	

3. Operation

- A. Open the Velcro tab of the FireSock bag and don the heat resistant gloves.
- B. Move the device into the FireSock bag.
- C. Reseal the Velcro tab tightly.
- D. Stow the bag in an appropriate location such as the lavatory.

4. Pre-flight Emergency Equipment Check

In position.

#### 4.2.9 Fire Fighting Suit Kit (747F)

1. Features



2. Contents

Fire fighting jacket	
Fire fighting pants	
Fire fighting gloves (1 pair)	

3. Pre-flight Emergency Equipment Check

Blue seal intact.

## 4.2.10 Portable Gaseous Oxygen Bottle with Full Face Mask (747F)

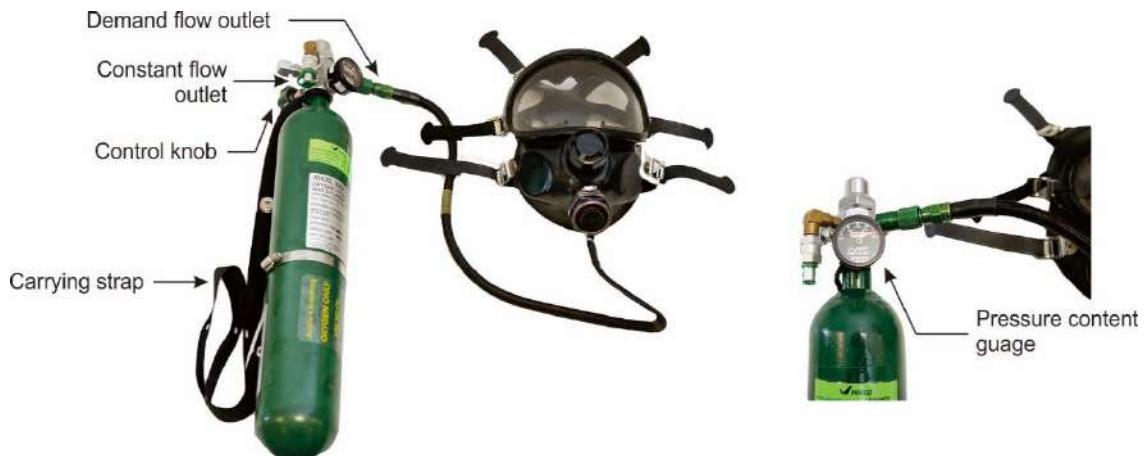
Portable gaseous oxygen bottle with full face mask is installed on the aircraft for fire-fighting.

### 4.2.10.1 Portable Gaseous Oxygen Bottle with Full Face Mask (747-400ERF)

Two different models can be found. Two types of full face masks are being randomly loaded on the aircraft.

The bottle is fully charged to 1,800 PSI and is fitted with a constant flow (4 L/MIN) outlet and a demand flow outlet. The full face mask is pre-connected to the demand flow outlet.

## 1. Features



Strap Type Full Face Mask



Quick-donning Type Full Face Mask



2. Operation

- A. Turn the control knob fully on.
- B. Don the carrying strap across the neck and shoulder.
- C. Put on the full face mask.  
  
Strap type – tighten the six straps in pairs (from bottom to top).  
Quick-donning type – turn the knobs to tighten the headbands (bottom then top).
- D. Ascertain the mask air-tightness by turning off the oxygen bottle. Take a deep breath. The mask should collapse slightly towards the face.
- E. Turn the oxygen bottle on again.

**Note 1:** *If there is a need to use another oxygen bottle. Turn off the bottle and press the purge button to release the residual oxygen before detaching.*

**Note 2:** *Ensure there is no mask connected to the constant flow outlet before plugging in the full face mask to the demand flow outlet of the new bottle.*

3. Duration

8.5 to 15 MIN.

4. Pre-flight Emergency Equipment Check

The bottle is secure with a minimum pressure of 1,800 PSI. A full face mask is pre-connected to the demand flow outlet.

#### 4.2.10.2 Portable Gaseous Oxygen Bottle with Full Face Mask (747-8F)

The bottle is fully charged to 1,800 PSI and is fitted with two constant flow (HI – 4 L/MIN, LO – 2 L/MIN) outlets and a demand flow outlet with regulator valve. The full face mask is pre-connected to the demand flow outlet.

1. Features



**2. Operation**

- A. Turn the control knob fully on.
- B. Don the carrying strap across the neck and shoulder.
- C. Put on the full face mask – tighten the six straps in pairs (from bottom to top).
- D. Ascertain the mask air-tightness by turning off the oxygen bottle. Take a deep breath. The mask should collapse slightly towards the face.
- E. Turn the oxygen bottle on again.

**3. Duration**

15 MIN.

**4. Pre-flight Emergency Equipment Check**

The bottle is secure with a minimum pressure of 1,800 PSI. A full face mask is pre-connected to the demand flow outlet.

Intentionally left blank

## 4.3 First Aid Equipment

### 4.3.1 Portable Gaseous Oxygen Bottle

Portable gaseous oxygen bottles are provided onboard for medical use.

MedLink must be contacted should the passenger require the use of oxygen inflight.

The "LO" flow (2 L/MIN) is to be used in the following cases:

1. For first aid cases when specifically instructed by MedLink.
2. After a depressurisation if needed to administer oxygen when the aircraft has levelled off at a safe altitude.

Oxygen bottles should not be completely emptied in order to avoid entry of moisture and/or contaminated gases. When using the oxygen bottles, crew member should refer to the pressure content gauge to ensure a small quantity of oxygen is left in the bottle. Before the pointer in the pressure content gauge reaches the red range on the left hand side of the gauge or 100 PSI, remove the mask from the casualty's face. Turn off the bottle and if required, replace with another oxygen bottle.

#### 4.3.1.1 Dual Constant Flow Outlet Bottle (A320/A321/A330/777)

The bottle is fully charged to 1,800 PSI and is fitted with two constant flow outlets. There is a "HI" flow outlet (4 L/MIN) and a "LO" flow outlet (2 L/MIN). The dispensing tube and yellow cup mask are pre-connected to the "HI" flow outlet.

##### 1. Features



##### 2. Operation

- A. Check the pointer of the pressure content gauge is not in the red range on the left hand side of the gauge or below 100 PSI.
- B. Ensure the dispensing tube and the yellow cup mask are connected to the "HI" flow outlet.
- C. Turn the tamper proof cap to break the seal.
- D. Turn the control knob fully on (counter clockwise – finger tight).

E. Check the flow indicator on the dispensing tube to ensure a flow of oxygen. It should turn from colourless to green.

F. Don and adjust the yellow cup mask on the casualty's face.

G. After use, remove the mask and turn the control knob fully off (clockwise). Ensure the flow indicator turns from green to colourless.

H. Once oxygen is no longer required, remove the used mask and put it into a plastic bag and dispose of all items in the lavatory waste bin.

3. After Use Procedures

A. If the pressure content gauge is not in the red range on the left hand side of the gauge or below 100 PSI, re-attach a spare oxygen mask to the "HI" flow outlet and return the bottle to the original stowage.

B. If the pressure content gauge is in the red range on the left hand side of the gauge or below 100 PSI, return the bottle to the original stowage without attaching a spare mask.

4. Precautions

C. Ensure the operator's hands and casualty's face are free from oil, grease or fatty substances.

D. No smoking in the immediate vicinity (CX policy is that there is no smoking anywhere on the aircraft).

5. Duration

A. "HI" flow outlet (4 L/MIN) – a fully charged bottle will last 60 MIN.

B. "LO" flow outlet (2 L/MIN) – a fully charged bottle will last 120 MIN.

6. Pre-flight Emergency Equipment Check

The bottle is secure with a minimum pressure of 1,800 PSI. Tamper-proof cap and seal intact. Dispensing tube and yellow cup mask are pre-connected to the "HI" flow outlet.

#### 4.3.1.2 Single Constant Flow Outlet Bottle (777-300ER)

(B-KPO and subsequent 777-300ER)

The bottle is fully charged to 1,800 PSI. There is a constant flow outlet. Dispensing tube and yellow cup mask are pre-connected to the constant flow outlet. A control knob is used to control the oxygen flow rate. Two flow rates are available, "2" (2 L/MIN) or "4" (4 L/MIN). The selected flow rate will be displayed on the flow outlet window.

## 1. Features



## 2. Operation

- A. Check the pointer of the pressure content gauge is not in the red range on the left hand side of the gauge or below 100 PSI.
- B. Ensure the dispensing tube and yellow cup mask are connected to the constant flow outlet.
- C. Turn the tamper proof cap to break the seal.
- D. Turn the control knob counter clockwise until the desired flow rate appears in the flow outlet window ("2" for 2 L/MIN and "4" for 4 L/MIN).
- E. Check the flow indicator on the dispensing tube to ensure a flow of oxygen. It should turn from colourless to green.
- F. Don and adjust the yellow cup mask on the casualty's face.
- G. After use, remove the mask and turn the control knob fully off (clockwise). Ensure the flow indicator turns from green to colourless.
- H. Once oxygen is no longer required, remove the used mask and put it into a plastic bag and dispose of all items in the lavatory waste bin.

**Note:** The Flow Outlet Window will show red colour when turning from "2" to "4" or vice versa. However, when turning off the bottle, crew must ensure that the control knob is turned fully clockwise.

## 3. After Use Procedures

- A. If the pressure content gauge is not in the red range on the left hand side of the gauge or below 100 PSI, re-attach a spare oxygen mask to the constant flow outlet and return the bottle to the original stowage.
- B. If the pressure content gauge is in the red range on the left hand side of the gauge or below 100 PSI, return the bottle to the original stowage without attaching a spare mask.

4. Precautions

- A. Ensure the operator's hands and casualty's face are free from oil, grease or fatty substances.
- B. No smoking in the immediate vicinity (CX policy is that there is no smoking anywhere on the aircraft).

5. Duration

- A. 4 L/MIN flow – a fully charged bottle will last 60 MIN.
- B. 2 L/MIN flow – a fully charged bottle will last 120 MIN.

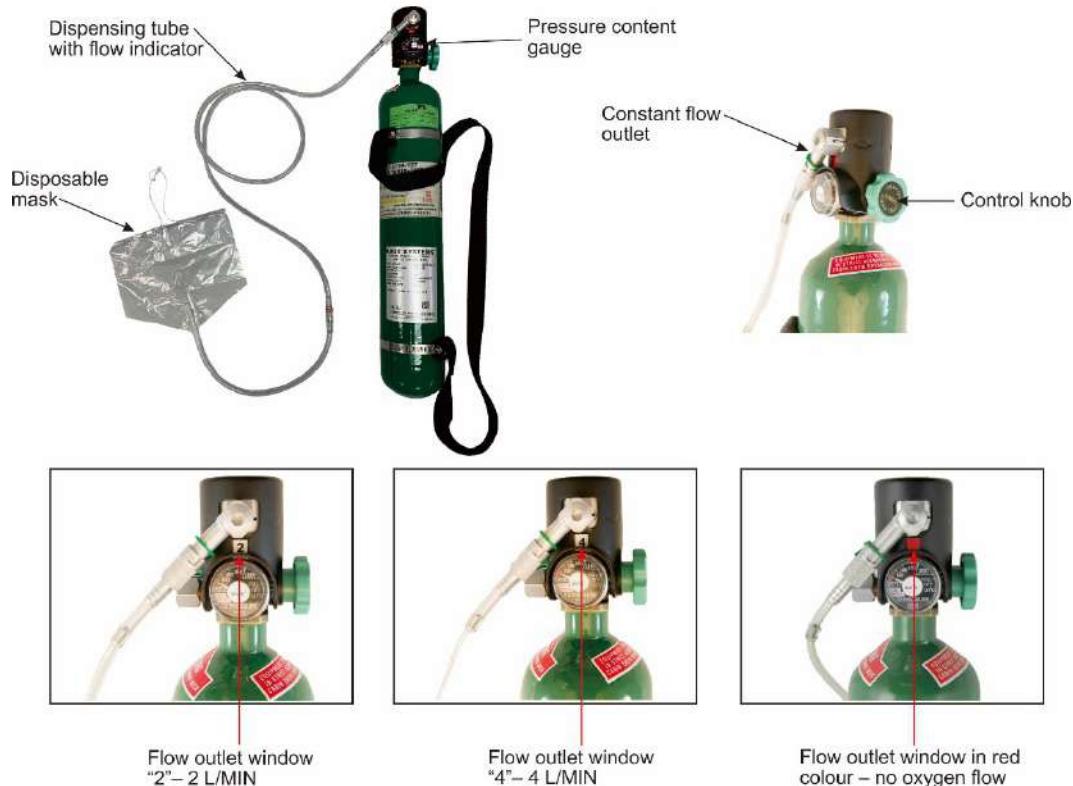
6. Pre-flight Emergency Equipment Check

The bottle is secure with a minimum pressure of 1,800 PSI. Tamper-proof cap and seal intact. Dispensing tube and yellow cup mask are pre-connected to the constant flow outlet.

#### 4.3.1.3 Single Constant Flow Outlet Bottle (747-8F)

The bottle is fully charged to 1,800 PSI. There is a constant flow outlet. Dispensing tube and disposable mask are pre-connected to the constant flow outlet. A control knob is used to control the oxygen flow rate. Two flow rates are available, "2" (2 L/MIN) or "4" (4 L/MIN). The selected flow rate will be displayed on the flow outlet window.

1. Features



2. Operation

- A. Check the pointer of the pressure content gauge is not in the red range on the left hand side of the gauge or below 100 PSI.
- B. Ensure the dispensing tube and disposable mask are connected to the constant flow outlet.
- C. Turn the control knob counter clockwise until the desired flow rate appears in the flow outlet window ("2" for 2 L/MIN and "4" for 4 L/MIN).
- D. Check the flow indicator on the dispensing tube to ensure a flow of oxygen. It should turn from red or colourless to green.
- E. Don and adjust the mask on the casualty's face.
- F. After use, remove the mask and turn the control knob fully off (clockwise). Ensure the flow indicator turns from green to red or colourless.
- G. Once oxygen is no longer required, remove the used mask and put it into a plastic bag and dispose of all items in the lavatory waste bin.

**Note:** *The Flow Outlet Window will show red colour when turning from "2" to "4" or vice versa. However, when turning off the bottle, crew must ensure that the control knob is turned fully clockwise.*

3. Precautions

- A. Ensure the operator's hands and casualty's face are free from oil, grease or fatty substances.
- B. No smoking in the immediate vicinity (CX policy is that there is no smoking anywhere on the aircraft).

4. Duration

- A. 4 L/MIN flow – a fully charged bottle will last 60 MIN.
- B. 2 L/MIN flow – a fully charged bottle will last 120 MIN.

5. Pre-flight Emergency Equipment Check

The bottle is secure with a minimum pressure of 1,800 PSI. Dispensing tube and disposable mask are pre-connected to the constant flow outlet.

#### 4.3.1.4 Single Constant Flow Outlet Bottle (A321neo/A350)

The bottle is fully charged to 1,800 PSI. There is a constant flow outlet. Dispensing tube and yellow cup mask are pre-connected to the constant flow outlet. There is a flow rate control knob to select between "2" (2 L/MIN) and "4" (4 L/MIN). The selected flow rate will be displayed on the flow outlet window. The bottle is preset in "4" by ground engineer.

## 1. Features



## 2. Operation

- A. Check the pointer of the pressure content gauge is not in the red range on the left hand side of the gauge or below 100 PSI.
- B. Ensure the dispensing tube and yellow cup mask are connected to the constant flow outlet.
- C. Turn the tamper proof cap to break the seal.
- D. Select the flow rate and turn the control knob fully on (counter clockwise – finger tight).
- E. Check the flow indicator on the dispensing tube to ensure a flow of oxygen. It should turn from colourless to green.
- F. Don and adjust the yellow cup mask on the casualty's face.
- G. After use, remove the mask and turn the control knob fully off (clockwise). Ensure the flow indicator turns from green to colourless.
- H. Once oxygen is no longer required, remove the used mask and put it into a plastic bag and dispose of all items in the lavatory waste bin.

## 3. After Use Procedures

- A. If the pressure content gauge is not in the red range on the left hand side of the gauge or below 100 PSI, re-attach a spare oxygen mask to the constant flow outlet and return the bottle to the original stowage.
- B. If the pressure content gauge is in the red range on the left hand side of the gauge or below 100 PSI, return the bottle to the original stowage without attaching a spare mask.

4. Precautions
  - A. Ensure the operator's hands and casualty's face are free from oil, grease or fatty substances.
  - B. No smoking in the immediate vicinity (CX policy is that there is no smoking anywhere on the aircraft).
5. Duration
  - A. 4 L/MIN flow – a fully charged bottle will last 60 MIN.
  - B. 2 L/MIN flow – a fully charged bottle will last 120 MIN.
6. Pre-flight Emergency Equipment Check

The bottle is secure with a minimum pressure of 1,800 PSI. Tamper-proof cap and seal intact. Dispensing tube and yellow cup mask are pre-connected to the constant flow outlet.

#### **4.3.1.5 Demand/Constant Flow Outlet Bottle (747-400ERF)**

Portable gaseous oxygen bottle with disposable mask is installed on the aircraft for first aid purposes. The bottle is the same type as the one for fire fighting.

The disposable mask is pre-connected to the constant flow (4 L/MIN) outlet.

1. Operation
  - A. Check the pointer of the pressure content gauge is not in the red range on the left hand side of the gauge or below 100 PSI.
  - B. Ensure the dispensing tube and the disposable mask are connected to the constant flow outlet of the oxygen bottle.
  - C. Turn the control knob fully on (counter clockwise – finger tight).
  - D. Check the flow indicator on the dispensing tube to ensure a flow of oxygen. It should turn from red or colourless to green.
  - E. Don and adjust the mask on the casualty's face.
  - F. After use, remove the mask and turn the control knob fully off (clockwise). Ensure the flow indicator turns from green to red or colourless.
  - G. Once oxygen is no longer required, remove the used mask and put it into a plastic bag and dispose of all items in the lavatory waste bin.
2. Precautions
  - A. Ensure the operator's hands and casualty's face are free from oil, grease or fatty substances.
  - B. No smoking in the immediate vicinity (CX policy is that there is no smoking anywhere on the aircraft).
3. Duration

A fully charged bottle will last 60 MIN.

#### 4. Pre-flight Emergency Equipment Check

The bottle is secure with a minimum pressure of 1,800 PSI. Dispensing tube and disposable mask are pre-connected to the constant flow outlet.

##### 4.3.1.6 Zero Two Bottle

Some passengers may need medical oxygen on board the aircraft to manage their known medical condition. The passenger will make a request through Reservations Department. Zero Two bottle(s) will be loaded on board to accommodate the passenger needs. SCCM is to confirm with the ground engineer before passenger boarding whether the requested medical oxygen bottles are loaded onboard. In the event the bottles are not loaded, the SCCM is to liaise with airport staff as to whether the request can be arranged before doors close. If the medical oxygen bottles cannot be loaded, the Airport staff will arrange for the passenger to be offloaded.

###### 1. Features



###### 2. Operation

- A. Unzip the case to expose the neck of the oxygen bottle.
- B. Check the pointer of the pressure content gauge is not in the red range on the left hand side of the gauge or below 100 PSI.
- C. Remove the nasal cannula (the SCCM will be given 1 pack of nasal cannula on ground by the ground engineer) or the Aeromedic mask (inside the Zero Two bottle case) from its plastic bag.
- D. Remove the protective cap from the flow outlet and attach the nasal cannula/Aeromedic mask.
- E. Select the desired flow rate using the flow selector (the recommended flow rate will be on the OSL – normally an oxygen flow rate of either 2 L/MIN or 4 L/MIN will be recommended).
- F. Turn on the bottle (quarter turn only).
- G. Check that oxygen is flowing. For the nasal cannula, check that oxygen is flowing from the nose piece by pointing it towards the back of your hand and feeling the oxygen flowing. For the Aeromedic mask, check that oxygen is flowing from the mask.

- H. Close the zipper and stow the case in the overhead compartment or First Class personal closet.
- I. Ensure the tube is not flattened when closing the stowage compartment.

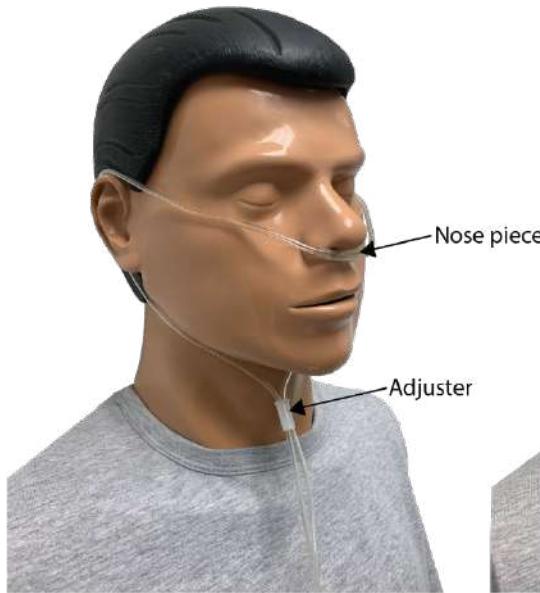


First Class closet



Business Class and Economy  
Class overhead compartment

- J. Ask the passenger to put on the nasal cannula or Aeromedic mask. For the nasal cannula, the nose piece is placed into the passenger's nose and the tube placed over the ears and adjusted.



Passenger with nasal cannula



Passenger with Aeromedic mask

- K. Before the pointer in the pressure content gauge reaches the red range on the left hand side of the gauge or 100 PSI, remove the nasal cannula or Aeromedic mask from the casualty's face. Turn the flow selector to the "0" position and turn off the bottle. If required, replace with another oxygen bottle.
- L. After use, remove the nasal cannula or Aeromedic mask and then remove the oxygen bottle from the stowage compartment. Turn the flow selector to the "0" position and turn the bottle off before returning it to the original stowage.

3. Precautions

- A. Ensure the operator's hands and casualty's face are free from oil, grease or fatty substances.
- B. No smoking in the immediate vicinity (CX policy is that there is no smoking anywhere on the aircraft).

4. Duration

The duration depends on the rate of oxygen flow required by the passenger. Cabin crew may refer to the placard on the case of the oxygen bottle for the estimated duration of oxygen flow at different flow rates.

### 4.3.2 Spare Oxygen Mask

Five (A330/A350/777) or three (A320/A321/A321neo) spare oxygen masks are kept in a grey leather pouch or a beige fabric pouch.

1. Features



2. Pre-flight Emergency Equipment Check

- A. Grey leather pouch – Blue seal intact.

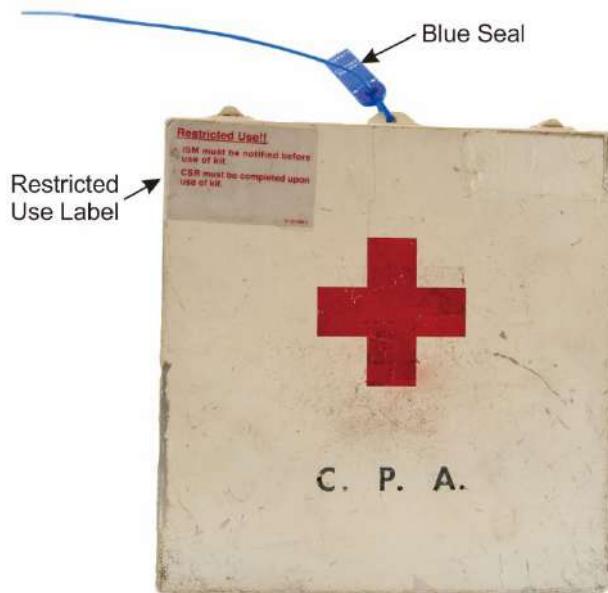
**Note:** Should the blue seal be broken or missing, cabin crew are to inform the SCCM and check quantity.

- B. Beige fabric pouch – Check quantity.

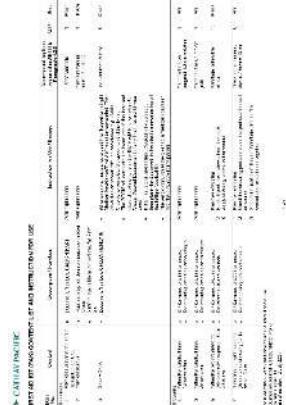
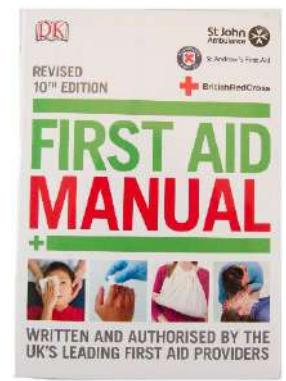
#### 4.3.3 First Aid Kit

First aid kits are provided for treating sick/injured passengers or crew.

1. Features



Each kit contains the following:

Content Description	Usage	Visual
<b>Document</b>		
Content list and instruction for use (1 copy)	A list of the contents and usage of each item is available in each kit.	
First aid manual (1 copy)	A reference guide to procedures for first aid.	
Report form (5 copies)	This report form is not to be used.	
<b>Dressing</b>		
Adhesive surgical tape – 12.5 mm x 5 m (1 roll)	For securing dressing or bandages.	
Adhesive surgical tape – 25 mm x 5 m (1 roll)	For securing dressing or bandages.	

Content Description	Usage	Visual
Adhesive wound dressing (Steropore/Primapore) – 6 cm x 8.6 cm (10 pieces)	<p>For minor cuts and wounds.</p> <ol style="list-style-type: none"> <li>1. Remove wrapping.</li> <li>2. Peel off protective sheets from the back.</li> <li>3. Apply dressing on the cut or wound.</li> </ol>	
Dressing pad with bandage (Ambulance dressing) – 12 cm x 10 cm (5 rolls)	<p>For bandaging cuts and wounds.</p> <ol style="list-style-type: none"> <li>1. Remove wrapping.</li> <li>2. Unroll the dressing pad and place the pad over the cut or wound.</li> <li>3. Secure the pad by rolling the bandage around the wound and tie both ends together.</li> </ol>	
Eye pad with bandage (2 pieces)	<p>For protecting an injured eye.</p> <ol style="list-style-type: none"> <li>1. Remove wrapping.</li> <li>2. Unroll the eye pad with bandage.</li> <li>3. Apply the pad on the injured eye.</li> <li>4. Secure the pad in place by rolling the bandage around head/face and tie both ends together.</li> </ol>	
Paraffin gauze (Jelonet) – 10 cm x 10 cm (5 pieces)	<p>For 3rd degree burns.</p> <ol style="list-style-type: none"> <li>1. Remove wrapping.</li> <li>2. Peel off protective sheets.</li> <li>3. Apply the gauze on injured area (fold gauze to appropriate size if necessary).</li> <li>4. Secure by covering with ambulance dressing.</li> </ol>	
Roller bandage (Relicrepe) – 7.5 cm x 4.5 cm (4 rolls)	<p>For bandaging wounds.</p> <ol style="list-style-type: none"> <li>1. Remove wrapping.</li> <li>2. Cover wound with dressing.</li> <li>3. Secure the dressing by rolling the crepe bandage around the affected area.</li> <li>4. Use surgical tape to secure the end of the bandage.</li> </ol>	

Content Description	Usage	Visual
Triangular bandage (4 pieces)	<p>For bandaging wounds and fractures.</p> <ol style="list-style-type: none"> <li>1. Remove wrapping.</li> <li>2. Unfold the bandage and use for immobilizing affected area.</li> </ol>	
Safety pin (12)	For securing the triangular bandage.	
Sterile non-woven swab –10 cm x 10 cm (1 pack)	<p>For bandaging cuts and wounds.</p> <ol style="list-style-type: none"> <li>1. Remove wrapping.</li> <li>2. Apply the swab on injured area (fold swab to appropriate size if necessary).</li> <li>3. Secure by adhesive surgical tape.</li> </ol>	
Steri-strip – 6 mm x 75 mm (3/pack – 2 packs)	<p>For minor cuts and wounds.</p> <ol style="list-style-type: none"> <li>1. Clean and dry skin.</li> <li>2. Remove wrapping.</li> <li>3. Remove one end of the protective sheet.</li> <li>4. Peel off one Steri-strip.</li> <li>5. With the other hand press the wound edges together and apply the Steri-strip starting on one side and pulling firmly across the wound.</li> <li>6. Apply more strips as required. Space the strips approximately 3 mm apart.</li> <li>7. Cover the wound with adhesive wound dressing.</li> </ol>	

Content Description	Usage	Visual
<b>Cleaning</b>		
Moist cleansing wipe (10/pack)	<p>For cleansing hands before treating casualty.</p> <ol style="list-style-type: none"> <li>1. Remove wrapping.</li> <li>2. Unfold moist cleansing wipes.</li> <li>3. Use wipes to clean hands before treating casualty.</li> </ol>	
Skin cleansing disinfectant wipe (10/pack)	<p>For cleansing of wound area.</p> <ol style="list-style-type: none"> <li>1. Remove wrapping.</li> <li>2. Unfold disinfectant wipe.</li> <li>3. Use disinfectant wipe to clean the wound.</li> </ol>	
<b>Others</b>		
Disposable gloves (SP Gloves) (4 pairs)	<p>For protecting the user when dealing with blood or other body fluids.</p> <ol style="list-style-type: none"> <li>1. Remove wrapping.</li> <li>2. Put on the disposable gloves before dealing with blood or other body fluids.</li> </ol>	
Forehead thermometer strip (1 set)	<p>For checking temperature of a person.</p> <ol style="list-style-type: none"> <li>1. Remove the strip from the plastic sleeve.</li> <li>2. Hold it firmly at both ends and press flat against middle of dry forehead for at least 15 SEC.</li> <li>3. Check the temperature while the strip is on the forehead by looking at indicator boxes.</li> <li>4. Green indicates the correct temperature.</li> </ol>	

Content Description	Usage	Visual
Resuscitation mask with one way valve (Vent-Aid) (1 set)	<ol style="list-style-type: none"> <li>1. Remove wrapping.</li> <li>2. Place the larger part of the mouthpiece into the casualty's mouth.</li> <li>3. Unfold the protective sheet over the casualty's face.</li> <li>4. Pinch the soft part of the nose together with protective sheet.</li> <li>5. Ventilate through the mouthpiece.</li> </ol>	
Scissors – 12.7 cm (1 pair)	For cutting bandages and tapes.	
Tweezers (1 pair)	For removing small objects from a wound.	

## 2. Operation

- A. Break the seal and use contents as required.
- B. After use, reseal the kit with a red seal.
- C. Restow the kit to its original stowage.

**Note 1:** The SCCM must be notified before use of the kit. A "Restricted Use" label on the case reminds the crew of the procedure when using the First Aid Kit.

**Note 2:** Whenever the First Aid Kit is used, the "Report on Inflight Medical Assistance/First Aid" form (can be found inside the flight file) must be completed. If only the First Aid Kit is used, the white copy shall be returned to the flight file. If both the First Aid Kit and the Inflight Medical Kit are used, the white copy shall be returned to the plastic sleeve on top of the Inflight Medical Kit. The yellow copy is to be given to the inflight medical volunteer (if applicable) and the pink copy to be given to the ambulance personnel or casualty.

## 3. Pre-flight Emergency Equipment Check

Blue seal intact.

#### **4.3.4 Self Help Medical Kit (747F)**

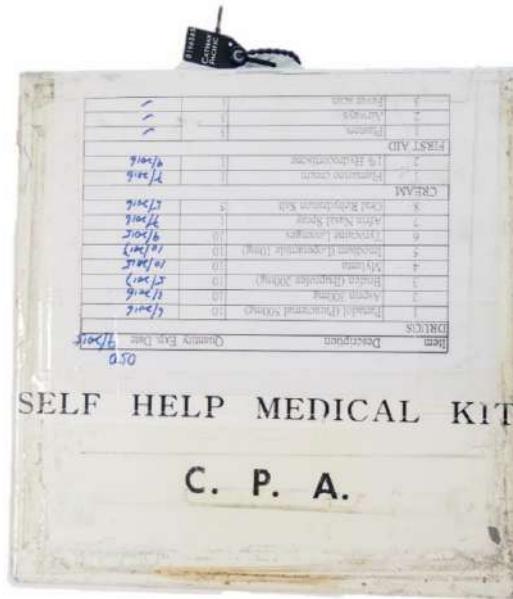
The Self Help Medical Kit should be used in the case of medical related issues (illnesses or injuries) to the operating crew or supernumeraries.

MedLink shall be contacted to provide medical advice and determine if the crew member is fit to continue duty.

MedLink will make a recommendation as to what medications can be used from the kit.

Contact the Duty Doctor whenever an operating crew member is involved.

## 1. Features



Each kit contains the following:

Content Description	Usage	Visual								
<p>Medical kit form</p>		 <p>The visual representation is a scanned document titled "CATHAY PACIFIC" with "Medical Kit Form" below it. The form includes sections for "Crew Member", "Medical Kit", "Call Medics and Duty Doctor when further medical advice or follow up is required", and "Report on medical treatment or medication for serious injuries sustained". It contains several numbered questions (1-5) about medical treatments, patient details, and signatures for the doctor, nurse, and passenger.</p> <p><b>Crew Member: Cathay Pacific Medical Kit</b></p> <p><b>Call Medics and Duty Doctor when further medical advice or follow up is required.</b></p> <p><b>Medical Kit:</b> Content listed by SATCOM or phone pack via ICD. Connectors can take up to 45 minutes.</p> <p><b>Report on medical treatment or medication for serious injuries sustained:</b> Complete this box if any drugs or first aid treatment are used from the medical kit. If still fit for flight, please complete the After-treatment Report (Form PL238) for any walk-in patient.</p> <p><b>1) Reason for requiring storage or first aid treatment:</b></p> <p><b>2) Was Medikit called and what was their recommendation?</b></p> <p><b>3) Was the Duty Doctor called and what was their recommendation?</b></p> <p><b>4) Treatment including drugs and quantity administered:</b></p> <table border="1"> <tr> <td>Medication name: Dose:</td> <td>Administration route:</td> <td>First administered:</td> <td>Recommended by:</td> </tr> <tr> <td>Paracetamol 500mg x 2 tablets</td> <td>Oral</td> <td>08:00 hrs</td> <td>Medic</td> </tr> </table> <p><b>5) Other treatment (e.g. First aid)</b></p> <p><b>6) Signature:</b></p> <p>Name of Person requiring medical treatment: _____    Position/rank: _____ (Sign DT, etc.)</p> <p>Name of Person completing this form: _____    Signature: _____</p> <p>Flight number and Date: CX _____    Sector: _____    Module case number: _____</p> <p><small>Print Name: Tom Caius Arnell, Staff Medical Officer    Date Created: 24/04/2017    Date Modified: 24/04/2017    Date Printed: 12 November 2017</small></p>	Medication name: Dose:	Administration route:	First administered:	Recommended by:	Paracetamol 500mg x 2 tablets	Oral	08:00 hrs	Medic
Medication name: Dose:	Administration route:	First administered:	Recommended by:							
Paracetamol 500mg x 2 tablets	Oral	08:00 hrs	Medic							

Content Description	Usage	Visual
Content list		 <p>The image shows a printed list of contents for a self-help kit. It includes items like Brufen 200mg tablets, Imodium 10mg tablets, Buscopan 10mg tablets, and Mylanta chewable tablets, along with instructions for use and expiry dates.</p>
Brufen (Ibuprofen 200 mg x 10)	<ul style="list-style-type: none"> <li>For anti-inflammatory and for pain.</li> <li>1-2 tablets 3 times/day as needed.</li> <li>Take with food.</li> </ul>	 <p>A photograph of a white plastic bag containing yellow Brufen 200mg Ibuprofen tablets. A small white card with printed instructions is visible.</p>
Buscopan (Hyoscine 10 mg x 10)	<ul style="list-style-type: none"> <li>For abdominal pain.</li> <li>1 tablet 3 times/day as needed.</li> <li>May cause drowsiness and blurred vision.</li> <li>Call Duty Doctor.</li> <li>Do not drive or fly after use.</li> </ul>	 <p>A photograph of a white plastic bag containing yellow Buscopan 10mg Hyoscine tablets. A small white card with printed instructions is visible.</p>
Imodium (Loperamide 10 mg x 10)	<ul style="list-style-type: none"> <li>For diarrhoea.</li> <li>1 tablet 3 times/day as needed.</li> <li>Call Duty Doctor.</li> </ul>	 <p>A photograph of a white plastic bag containing blue Imodium 10mg Loperamide tablets. A small white card with printed instructions is visible.</p>
Mylanta (x 10)	<ul style="list-style-type: none"> <li>Antacid for upper abdominal pain and heartburn.</li> <li>1 tablet 3 times/day.</li> <li>Chewable.</li> </ul>	 <p>A photograph of a white plastic bag containing yellow Mylanta chewable tablets. A small white card with printed instructions is visible.</p>

Content Description	Usage	Visual
Panadol (Paracetamol 500 mg x 10)	<ul style="list-style-type: none"> <li>For pain and fever.</li> <li>1 tablet every 4 HR as needed.</li> <li>Don't exceed 8 tablets in 24 HR.</li> </ul>	
Stemetil (Prochlorperazine 5 mg x 10)	<ul style="list-style-type: none"> <li>For nausea and vomiting.</li> <li>1 tablet 3 times/day as needed.</li> <li>Can cause drowsiness.</li> <li>Call Duty Doctor.</li> <li>Do not drive or fly after use.</li> </ul>	
Tyrocain lozenges (x 10)	<ul style="list-style-type: none"> <li>For sore throat.</li> <li>1 tablet to be sucked 4 times/day as needed.</li> </ul>	
Oral rehydration salt (x 5 sachets)	<ul style="list-style-type: none"> <li>Electrolytes replacement after diarrhoea.</li> <li>Call Duty Doctor.</li> </ul>	
Afrin nasal spray (x 1 bottle)	For nasal congestion.	
1% Hydrocortisone (cream) (x 1 tube)	<ul style="list-style-type: none"> <li>For skin allergy, itchy skin and anti-inflammatory.</li> <li>Apply to affected area 3 times/day as needed.</li> </ul>	
Plasters (Adhesive bandages) (x 3 pc)	To protect a wound.	

Content Description	Usage	Visual
Forehead thermometer strip (x 1)	<ul style="list-style-type: none"> <li>Remove the strip from the plastic sleeve.</li> <li>Hold it firmly at both ends and press flat against middle of dry forehead for at least 15 SEC.</li> <li>Check the temperature while the strip is on the forehead by looking at the indicator boxes.</li> <li>Green indicates the correct temperature.</li> </ul>	
Digital Thermometer (x 1)	To take temperature.	
Face Mask (x 8)	To protect the wearer.	
Purple seals	To reseal the kit after use.	

## 2. Operation

- Complete the medical kit form and include the MedLink Case Number at the bottom if medication from the kit is used.
- Place the completed form inside the medical kit and reseal the kit with a purple seal.
- Fill out the eTL (electronic Tech Log) for replacement in Hong Kong.
- If only the thermometer is used, the eTL shall be recorded as Non-Fault.
- Complete an ASR or Hazard Report (form PL 238), whichever is related to the incident.

## 3. Pre-flight Emergency Equipment Check

Black seal intact.

## 4.3.5 Medication Box

A medication box is available to treat passengers or crew for simple illnesses or injuries. The medication is for inflight use only.

### 1. Features



Each box contains the following:

Loperamide (2 mg, 5-10 tablets)	<p><b>Loperamide (2mg)</b> For Diarrhoea</p> <p>Children (2 years to under 12 years): 1 tablet after onset of diarrhoea, then 1 tablet after each loose stool, maximum 3 tablets per day (2-11 years) and 7 tablets per day (12-16 years).</p> <p>Children of 12 years and over / Adult: 2 tablets after onset of diarrhoea, then 1 tablet after each loose stool, maximum 8 tablets per day.</p>
Paracetamol (500 mg, 5-10 tablets)	<p><b>Paracetamol (500mg)</b> For Pain and Fever</p> <p>Children of 12 years and over / Adult: 1-2 tablets every 4-6 hours</p>
Paracetamol Syrup (120 mg/5 ml, 1 bottle) OR Paracetamol Suspension (125 mg/5 ml, 1 bottle)	<p><b>Paracetamol Syrup</b> 120mg/5ml</p> <p>Takes as needed for pain or fever or as directed by the doctor. Max 4 doses in 24 hours</p> <p>Suggested Doseage for children: 3-12 months: 2.5ml every 4-6 hours 1-5 years: 5-10ml every 4 hours 6-12 years: 10-20ml every 4-6 hours Lgt.no. BG03590 Exp. May 2020</p>

## 2. Operation

A. If a passenger requests for medication, cabin crew should:

- a. Check if the medication is available.
  - b. Check the Instruction Sheet and Log Sheet in the box that all cautions, dosages and instructions are being observed.
  - c. Ensure the passenger is not allergic to any medication or has taken any medication within the past 6 HR, otherwise, contact MedLink.

#### B. Inform SCCM.

C. The Medication Box Log Sheet should be completed and acknowledged by SCCM.

- D. The completed Log Sheet shall be placed inside the Medication Box. Caterer will forward the Log Sheet to ISD.
- E. If the passenger is allergic to any medication or their condition deteriorates that requires medical assistance, report to SCCM and contact MedLink.



**MEDICATION BOX INSTRUCTION SHEET**

This kit is only intended for basic first aid use. Medicine and Equipment contained in the medication box is for INFLIGHT USE ONLY. It should NOT be removed from the aircraft. Before giving medication to passenger, always ask passenger if they have any allergies to medication or have taken any other medication within the past 6 hours. If YES, contact MedLink first. DO NOT exceed stated dose. Please contact MEDLINK should any passenger or crew require more intensive medical treatment.

MEDICATION	QUANTITY	USES	DOSAGE	CAUTION
Loperamide (2 mg) tablets (Eurodiem, Loperamil)	5-10 tablets	<ul style="list-style-type: none"> <li>Diarrhoea</li> </ul>	<ul style="list-style-type: none"> <li>Children of 12 years and over / Adult: 2 tablets after onset of diarrhoea, then 1 tablet with each loose stool, maximum 8 tablets per day.</li> <li>Children (5 years to under 12 years): 1 tablet after onset of diarrhoea, then 1 tablet after each loose stool, maximum: 3 tablets per day (9-11 years) and 2 tablets per day (5-8 years).</li> </ul>	<ul style="list-style-type: none"> <li>DO NOT use if fever is present.</li> <li>DO NOT give to children under 5 years old.</li> <li>DO NOT exceed 8 tablets in 24 hours.</li> <li>DO NOT give to pregnant and breast feeding mothers, except on MedLink advice.</li> </ul>
Paracetamol (500 mg) tablets	5-10 Tablets	<ul style="list-style-type: none"> <li>Pain (mild to moderate)</li> <li>Fever</li> </ul>	<ul style="list-style-type: none"> <li>Children of 12 years and over / Adult: 1 to 2 tablets every 4 - 6 hours</li> </ul>	<ul style="list-style-type: none"> <li>DO NOT give to children under 12 years old.</li> <li>DO NOT take more than 4 doses in 24 hours.</li> </ul>
Paracetamol Syrup (120mg/5ml) OR Paracetamol Suspension (125mg/ 5ml)	1 Bottle	<ul style="list-style-type: none"> <li>Pain (mild to moderate)</li> <li>Fever</li> </ul>	<ul style="list-style-type: none"> <li>Children 3 to 12 months: 2.5ml every 4-6 hours</li> <li>Children 1 to 4 years: 2.5 to 5 ml every 4-6 hours</li> <li>Children 5 to 8 years: 5 to 10 ml every 4- 6 hours</li> <li>Children 9 to 12 years: 10ml to 15ml every 4-6 hours (1 teaspoon is equivalent to 5 ml)</li> </ul>	<ul style="list-style-type: none"> <li>Shake the bottle thoroughly before use.</li> <li>DO NOT give to children under 3 months old, except on MedLink advice.</li> <li>DO NOT take more than 4 doses in 24 hours.</li> </ul>
Maalox-Plus OR MAS Chewable Tablets	5- 10 Tablets	<ul style="list-style-type: none"> <li>Stomach discomfort: fast relief of acid indigestion, heartburn and gas.</li> </ul>	<ul style="list-style-type: none"> <li>Adult: Chew 2 tablets every 4-6 hours after meal</li> </ul>	<ul style="list-style-type: none"> <li>DO NOT exceed 16 tablets in 24 hours.</li> <li>DO NOT give to children under 12 years old, except on MedLink advice.</li> </ul>
Fei Fah Medicated Balm	2 Tins	<ul style="list-style-type: none"> <li>Muscular aches and pain</li> <li>Itching or insect bites.</li> </ul>	<ul style="list-style-type: none"> <li>Apply to affected area.</li> </ul>	<ul style="list-style-type: none"> <li>DO NOT ingest orally.</li> <li>DO NOT use on children under 2 years old.</li> <li>DO NOT apply more than 4 times in 24 hours.</li> </ul>
Small cup Spoon (5ml)	<ul style="list-style-type: none"> <li>10 each</li> <li>5 each</li> </ul>	<ul style="list-style-type: none"> <li>Dispensing tablets</li> <li>Dispensing syrup</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> <li>N/A</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> <li>N/A</li> </ul>

Document title: Medication Box Instruction Sheet  
Document owner: CMDAV/MSM013  
Date of issue: Nov 2012  
Date reviewed: 19 May 2020

## MEDICATION BOX LOG SHEET

1. Before giving medication to passenger, always ask passenger if they have any allergies to medication or have taken any other medication within the past 6 hours. If YES, contact MedLink first. DO NOT exceed stated dose. Please contact MEDLINK should any passenger or crew require more intensive medical treatment.
  2. The Medication Box Log Sheet shall be completed when medication is used, and acknowledged by SCCM
  3. Completed Log Sheet shall be placed inside the Medication Box
  4. The medication is for INFLIGHT USE only
  5. Due to compliance reason, the name and expiry date on the package must be kept. **Do not cut the blister pack.** Cabin Crew are required to pop out the tablets and offer to the person by using a little plastic cup provided inside the Medication Box. Put the blister pack back into the plastic medication bag
  6. There is no requirement to call MedLink or complete an CSR, unless the person's condition does not improve or further medical assistance is required

Document title: Medication box log sheet  
Document owner: CMDOH/MBLS1  
Date of Revision: 08 Jun 2021 (Revision 7)

1

Document title: Medication box log sheet  
Document owner: CMDOH/MBLS1  
Date of Revision: 08 Jun 2021 (Revision 7)

6

### 4.3.6 Dressing Box

A dressing box is available for easier access to simple wound-dressing items and to avoid having to open the First Aid Kits. The box has all the essential contents for treating wounds.

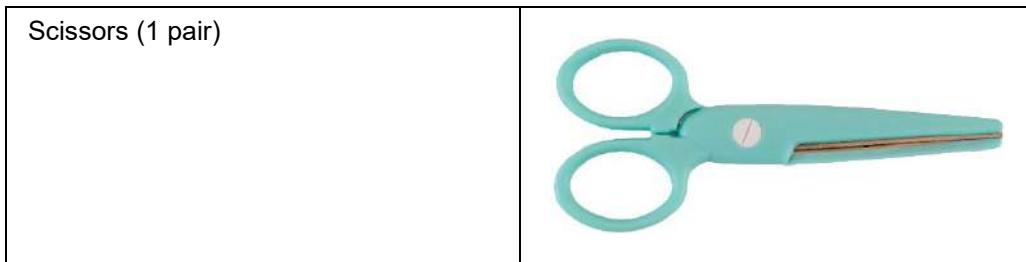
#### 1. Features



Each box contains the following:

Gloves (3 pairs)	<p>Three pairs of yellow gloves are shown in a clear plastic bag.</p>
"Unisept" 0.05% Chlorhexidine (2 x 25 ml sachet) OR "Cedium" 0.05% Chlorhexidine (2 x 10 ml tube)	<p>Two sachets of "Unisept" 0.05% Chlorhexidine (2 x 25 ml) and a tube of "Cedium" 0.05% Chlorhexidine (2 x 10 ml).</p>
Cotton balls (10 pieces)	<p>A pack of 10 cotton balls is shown.</p>

Sterile gauze pads (5 pieces)	
Wide bandages – 2 inches (2 rolls)	
Adhesive plaster strips (15 – 20 pieces)	
Surgical tape (1 roll)	



2. Operation

Use the Dressing Box to clean or dress a wound. If further medical assistance is required, contact MedLink and page for a doctor.

## 4.3.7 Automated External Defibrillator (AED)

A heart attack may lead to a heart rhythm called ventricular fibrillation (VF). Ventricular fibrillation is the most common SCA (Sudden Cardiac Arrest) rhythm, although other rhythms are possible. A fibrillating heart will be quivering and shaking, it loses the pumping properties of a healthy heart. The only treatment that can allow the heart to reset itself to a more co-ordinated rhythm (and pulse) is defibrillation.

Time is of the essence:

1. The survival rate is almost 90% if the shock is delivered within the first 2 MIN.
2. 2 – 4 MIN – the odds decrease to 40%.
3. 4 – 7 MIN – 31%.
4. 7 – 10 MIN – 23%.
5. After 10 MIN the odds drop considerably.
6. If only CPR is performed without defibrillation, the chance of survival is less than 3%.

An Automated External Defibrillator (AED) is a device which interprets heart rhythms and can deliver electrical shocks to reorganize a chaotic heart rhythm. The unit is in a pouch together with accessories.

The AED is only to be used by operating cabin crew. Medical volunteers are not to operate the AED.

### Patient criteria

The AED shall be used for a casualty who shows any of the below conditions:

1. Not breathing **NORMALLY** (e.g. gasping or agonal breathing).
2. Severe chest pain or any other signs and symptoms of heart attack.
3. Unconsciousness.

**Note:** Prepare the AED and apply the pads on the unresponsive passenger as soon as possible. The AED won't shock if not medically indicated (i.e. VF not detected).

### AED release procedure

1. Unconscious casualty
  - If the casualty is not breathing NORMALLY, CPR should be started immediately (remember to use the pocket mask and examination gloves).

- Retrieve the AED from the stowage.
  - Position the AED at the side of the rescuer and near the casualty's head. Turn on the AED and follow the voice/text prompts.
  - CPR should cease after the pads are applied and when AED prompts to stay clear of patient.
  - Inform the flight crew of the casualty's status and treatment.
  - Contact MedLink and page for medical assistance onboard to standby.
2. Conscious casualty
- The casualty may present with signs and symptoms of cardiac difficulty or heart attack though conscious.
  - The AED should be retrieved and applied. This is to monitor for the life-threatening heart rhythm. The AED can be used with the casualty still in the seat.
  - Inform the flight crew.
  - Contact MedLink and page for medical assistance onboard to standby.

### Prepare chest

1. Bare the chest – clothing must be removed (including any bra). If necessary, use the scissors found in the AED pouch to remove clothing. Do not waste time to unbutton the shirt or blouse.
2. Dry the chest if necessary (use the casualty's shirt, apron, or blanket).
3. Necklaces must be moved out of the way.
4. Do not place the pad over any chest piercing (i.e. nipple rings), pacemaker or medication patch.

### Special considerations

There are special considerations during defibrillation.

1. Pacemaker and implantable defibrillator
  - A. Pacemakers create an artificial signal for the heart to beat and control heart rate.
  - B. Implantable defibrillators monitor the heart for electrical irregularities and automatically deliver a shock when needed.
  - C. There may be a lump or scar on the right or left shoulder.
  - D. Placing the pad directly over an implanted medical device may reduce the effectiveness of the defibrillation.
  - E. Avoid placing the pad over the implanted device. Adjust the pad down or slightly to the side.
2. Medication patches
  - A. Remove all medication patches e.g. hormone, nicotine, nitroglycerin patches, motion sickness patches.
  - B. Placing a defibrillation pad on top of the patches may block delivery of the shock or cause small burns on the skin.

- C. Remove the patch and wipe the area clean before placing the pads.

**Note:** Gloves should be worn when removing patches.

3. Pregnant casualties

There are no contra-indications to using an AED during pregnancy, however the increased breast size may present some problems. You might have to respectfully move one or both breast in order to place the AED pads correctly.

### Crew communication

It is extremely important that the communication process be started immediately. The most difficult role in a medical emergency is often for those cabin crew who are not actually treating the casualty. The following should take place simultaneously:

1. Notify other cabin crew immediately. Designate a passenger to notify another cabin crew if necessary.
2. Request for the AED. It is better to have the AED available and ready than to lose precious time requesting for it later.
3. Notify the flight crew immediately, even if your preliminary information is sketchy.
4. Whoever contacts the flight crew initially should remain the one communication point if possible. Information coming to the flight deck from multiple sources is confusing, distracting and invites inaccurate information to be exchanged.
5. Complete the patch checklist and contact MedLink.
6. Page for medical assistance onboard and let the person know their role. The following is an example of what to say "Thank you for your help, we would like you to standby. Our medical officer is being contacted and may need your assistance."

### After use protocol for casualty/equipment

1. Successful defibrillation will bring about a return of breathing and pulse though not necessarily at the same time. Follow the AED prompts and act accordingly.
2. Monitor breathing and pulse.
3. Once there are signs of life, place the casualty in the recovery position to ensure an open airway. Leave the AED connected.
4. Give oxygen and secure the bottle.
5. A casualty who has been defibrillated may return back into VF. Be prepared to place the casualty back on a firm, hard surface and perform CPR/use the AED.
6. Remember oxygen is not to be used if a shock is required.

### Landing procedures

1. Pad the area surrounding the casualty.
2. Secure the oxygen bottle and any other loose equipment in proximity of the casualty.
3. Determine if medical personnel, or any crew could be seated near the casualty to assist if possible during the actual landing.

### Aircraft arrival at gate

1. During taxi-in, make a P/A to the passengers asking them to stay in their seats upon arrival at the gate in order to allow Emergency Medical Services easy access to the casualty.
2. Emergency Medical Services will likely disconnect the equipment, possibly even removing the pads, and connect their own equipment.
3. Give a report to the Emergency Medical Services.
4. Do not allow the AED to be removed from the aircraft.

### Procedures of cleaning

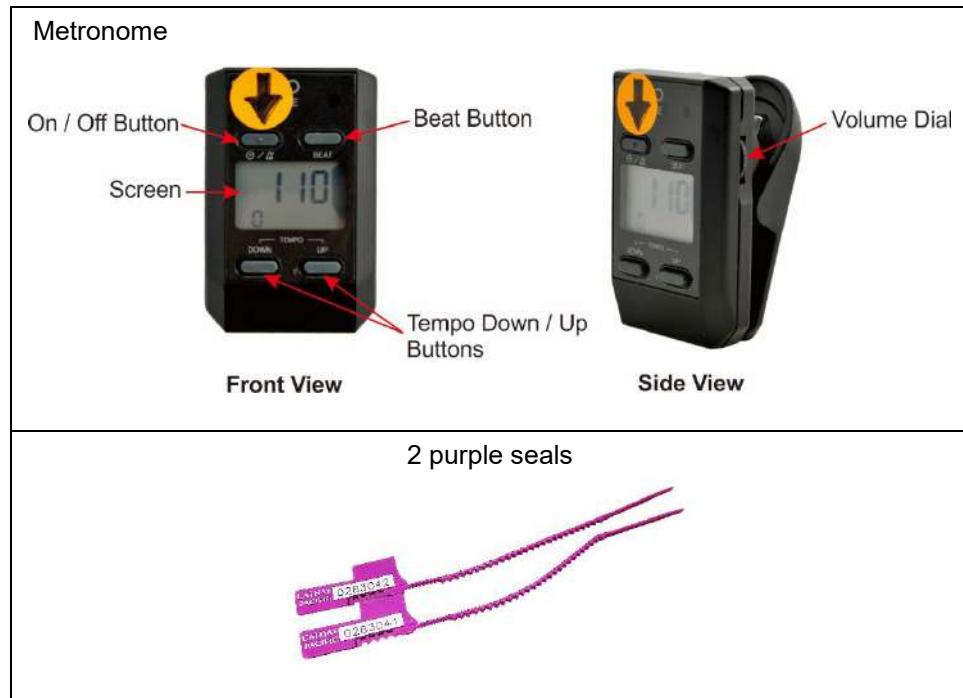
If a casualty vomited or bled onto the AED or any other furnishing, a proper cleaning procedure is essential. Universal Precaution Kit should be used as appropriate.

### 4.3.7.1 Automated External Defibrillator (AED) (FR2)

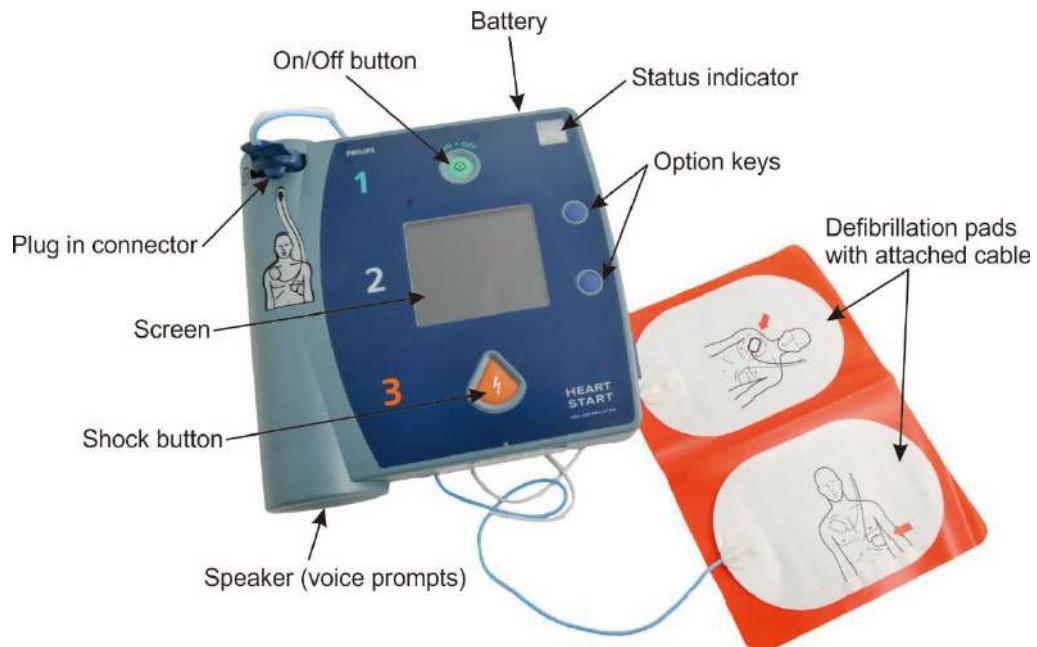
#### 1. Features

##### A. Pouch contents

AED Pouch		AED with Battery	
1 Spare Battery		2 Pairs of Defibrillation Pads	
Scissors		3 Razors	



#### B. AED Features



#### 2. Operation

##### A. Turn on the AED

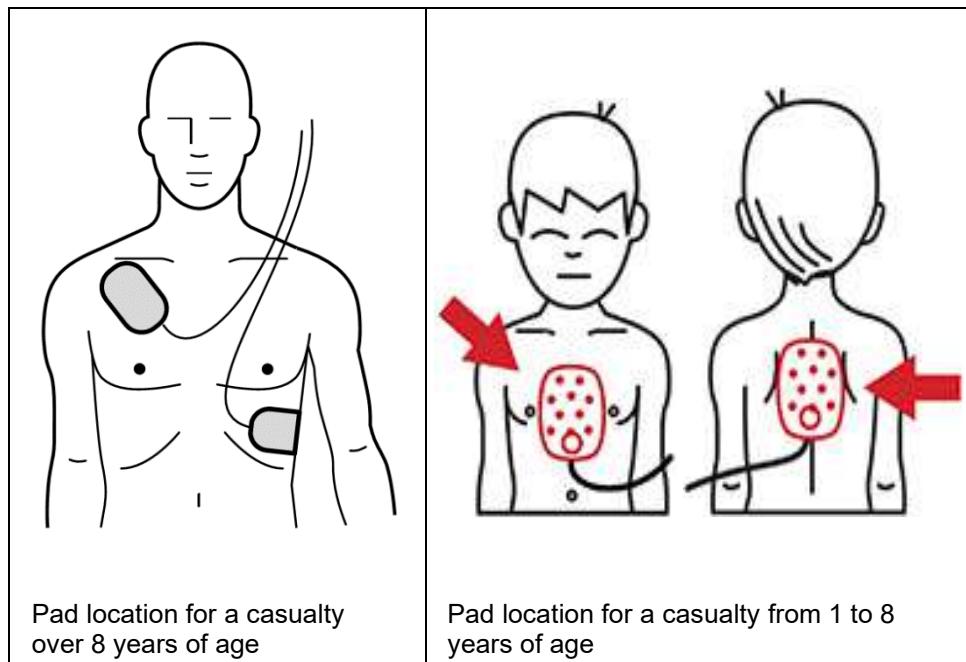
As soon as the AED arrives at the scene, turn it on. Stop CPR when AED prompts "Analyzing heart rhythm, do not touch the patient".

##### B. Place the pads on the chest

- Pads are placed on the chest one at a time.
- Handle the pads by the base and the tip to prevent the gloves sticking to the pads.

- c. For a casualty over 8 years of age, the right pad should be placed just below the collarbone and to the right of the sternum. The left pad should be placed over the ribs and below the left breast (it may be necessary to lift the breast to place the left pad properly).
- d. For a casualty from 1 to 8 years of age, one pad should be placed in the middle of the chest. Then, turn the child over and place the other pad in the middle of the back, between the shoulder blades.

**Note:** *If the pads cannot stick firmly to the chest, remove the pads, shave excessive chest hair and reapply new pads. Use the razors found in the AED pouch to remove excessive chest hair.*



- C. Plug in pads connector
- D. Turn on the metronome

The metronome is to assist cabin crew to achieve the required compression rate, i.e. 100-120 per MIN. It is placed inside the AED pouch above the spare battery. After plugging the connector into the AED, take out the metronome and clip it onto the elastic band or the side pocket of the AED pouch. Then turn on the metronome.

The tempo and the beat of the metronome are preset at 110 and 0 respectively. Cabin crew should handle the metronome with care as not to change its settings. If needed, use "Beat", "Tempo Up" or "Tempo Down" buttons to adjust to the preset values. Cabin crew shall always give priority to AED operations.

- E. Follow the AED prompts

After the pads connector is plugged into the AED, it will automatically analyze the casualty's heart rhythm. "Shock" or "No shock" will then be advised.

- F. Shock advised

If the AED detects that the heart rhythm is a shockable rhythm, it will prompt "Shock advised, charging. Stay clear of patient. Press the orange button now." The following must be carried out:

- a. The AED operator is responsible for keeping all persons (including the operator) from touching the casualty when a shock is delivered.

- b. Visually and verbally check that everyone is "clear" before delivering a shock.
  - c. Scan the casualty from head to toe to make sure no one is touching the casualty while loudly stating "I'm clear, you're clear, everybody's clear!" At the same time, wave hand across casualty's body ensuring no one is touching the casualty.
  - d. After checking that everyone is clear, press the flashing orange button to deliver the shock.
  - e. Following shock delivery, the AED will prompt "Shock delivered, paused, if needed start CPR." Crew should start CPR immediately with the aid of the metronome.
  - f. Continue to follow the AED prompts.
- G. No shock advised
- a. If the AED prompts "No shock advised, paused, if needed start CPR.", check for signs of life.
  - b. If there are no signs of life, continue CPR.
  - c. If there are signs of life, put the casualty in the recovery position.
  - d. Leave the AED on and attached until relieved by Emergency Medical Services.
3. Precautions
- A. Do not use gaseous oxygen equipment when the AED is used to apply a shock to the casualty.
  - B. Do not use the AED on an infant under 1 year old.
4. Status Indicator
- A. As part of the pre-flight emergency equipment check, one of the requirements is to check the status indicator.
  - B. When the status indicator shows a flashing or solid red "X," the AED may not be ready for use. The "X" may be accompanied by audible "chirping", so that the operator has both a visual and audible cue that the device needs attention.
  - C. Corrective action for a flashing or solid red "X" is a Battery Insertion Test (BIT).
5. Battery Insertion Test (BIT)
- During the pre-flight emergency equipment check, if there is a flashing or solid red "X," or if a problem is suspected, perform a battery insertion test by removing and re-installing the existing battery.
- A. The BIT is divided into 2 parts – an automatic part and an interactive part. During portions of the automatic test, the screen flashes and blinks, and buttons light up.
  - B. After the automatic portion of the test is complete, the interactive test begins. The interactive test requires the user to verify the correct operation of the screen, buttons, and speaker – follow the AED visual prompts. The prompts will appear on the screen.
  - C. A BIT is initiated any time a battery is inserted into the AED, except when the AED is attached to a patient.

- D. The BIT may be terminated at any time by pressing the On/Off button.
- E. If a BIT is carried out, reseal the pouch with a purple seal and reseal the AED compartment/container with a green seal (if there was a seal there before).
- F. It takes approximately 2.5 MIN for the BIT to be completed.
- G. The following are the visual prompts during the interactive part of the BIT:
  - a. Check speaker sound – one from the beeper and then one from the speaker.
  - b. Check shock button light and pads connector light.
  - c. Press the upper and lower option buttons and listen for a beep to confirm each press. Look at the screen to be sure the button presses have been verified.
  - d. Check the test pattern displayed on the screen. Adjust the contrast if desired using the option buttons.
  - e. Press the shock button and listen for a beep to confirm the press. Look at the screen to be sure the button press has been verified.
  - f. Press the On/Off button and listen for a beep to confirm the press. Look at the screen to be sure the button press has been verified.
  - g. The screen then displays a message that the test is complete.

## 6. Troubleshooting

The AED helps the user to troubleshoot the problem with precise audible and visual prompts, such as "Low battery, replace battery now."

### A. Pads

AED prompts	Possible cause	Recommended action
<ul style="list-style-type: none"> <li>• Apply pads, plug in connector.</li> <li>• Insert connector firmly.</li> <li>• Press pads firmly to patient's bare chest.</li> <li>• Poor pads contact.</li> </ul>	<ul style="list-style-type: none"> <li>• The defibrillation pads may not be properly applied.</li> <li>• The pads are not making good contact with the patient's bare chest because of moisture or excessive hair.</li> <li>• The pads are touching each other.</li> <li>• The defibrillator pads connector is not firmly inserted in the connector socket.</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure the defibrillator pads are sticking completely to the patient's skin.</li> <li>• If the pads are not sticking, dry the patient's chest and shave any excessive chest hair.</li> <li>• Reposition the pads.</li> <li>• Make sure the pads are connected to the AED.</li> <li>• If prompt continues, disconnect the connector from the AED and replace the pads.</li> <li>• Always follow the AED prompts.</li> </ul>

### B. Interference

AED prompts	Possible cause	Recommended action
<ul style="list-style-type: none"> <li>• Analysing interrupted.</li> <li>• Stop all motion.</li> <li>• Cannot analyse.</li> </ul>	<ul style="list-style-type: none"> <li>• The patient is being moved or jostled.</li> <li>• Radio or electrical sources are interfering with the analysis.</li> <li>• The environment is dry and movement around the patient is causing static electricity, interfering with the analysis.</li> </ul>	<ul style="list-style-type: none"> <li>• Stop CPR, do not touch the patient. Minimise patient motion.</li> <li>• Check and remove any possible causes of radio and electrical interference.</li> <li>• Responders and bystanders should minimise motion, particularly in dry environments that can generate static electricity.</li> </ul>

**Note 1:** Excessive movement of casualty, AED or turbulence may interfere with successful analysis.

**Note 2:** Do not conduct CPR during analysis.

**Note 3:** Be sure that no one is touching the casualty during analysis.

**Note 4:** In a very rare circumstance, when cabin crew suspect that there is software abnormality, cabin crew may perform a system reboot by turning off and on the AED once. It will restart the system's software without creating harm to the device. Cabin crew shall continue CPR during the system reboot.

#### 7. After Use Procedures

- A. After use, seal the pouch with a purple seal.
- B. Reseal the compartment/container with a green seal (if there was a seal there before).

#### 8. Pre-flight Emergency Equipment Check

- A. Break the green/blue seal on the compartment/container (if applicable). Check that the black seal is intact and the hour glass is flashing.
- B. Reseal the compartment/container with a green seal (if there was a seal there before).

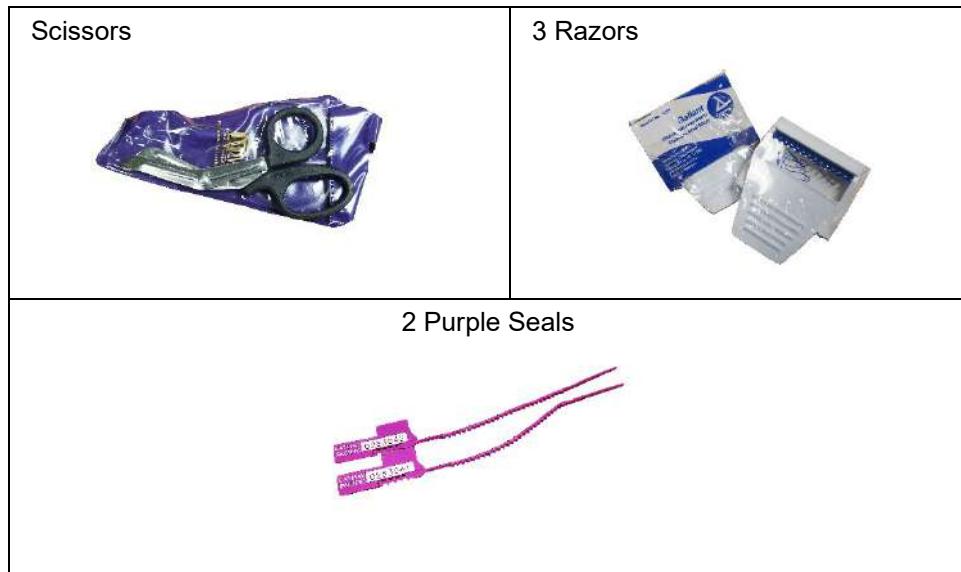
**Note:** A blue seal on the AED compartment/container indicates that the ground engineer has replaced the AED unit. A green seal indicates that the stowage was resealed by a cabin crew after having performed the pre-flight emergency equipment check on the previous flight.

### 4.3.7.2 Automated External Defibrillator (AED) (FR3)

#### 1. Features

##### A. Pouch contents

AED Pouch	AED with Battery
	
1 Spare Battery	2 Pairs of Defibrillation Pads
	



#### B. AED features



#### 2. Operation

##### A. Turn on the AED.

As soon as the AED arrives at the scene, turn it on. Stop CPR when AED prompts "Stay clear of the patient. Analyzing".

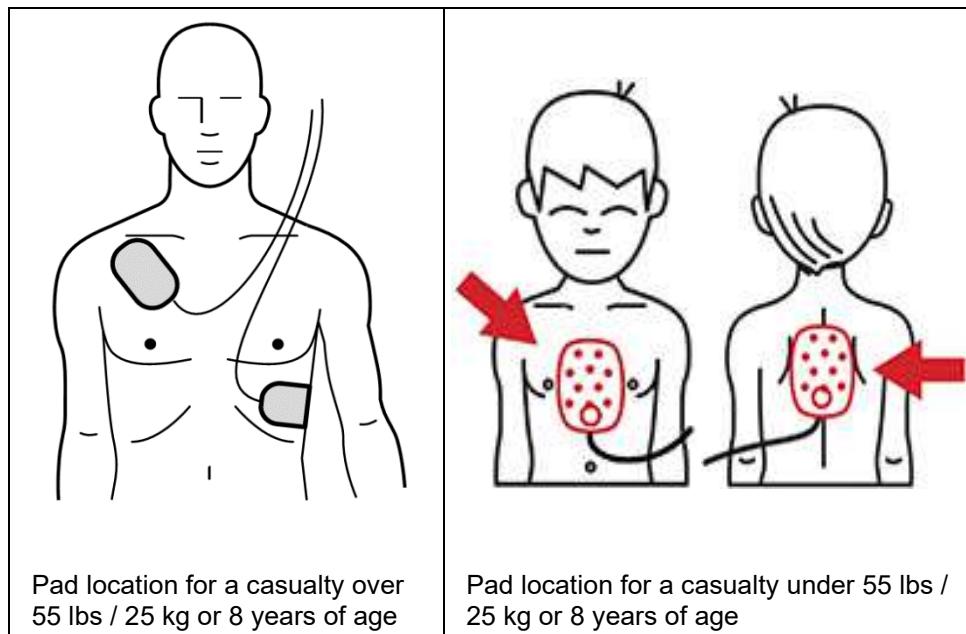
##### B. Ensure the pads connector is plugged into the connector socket.

##### C. Place the pads on the chest.

a. Pads are places on the chest one at a time.

- b. Handle the pads by the base and the tip to prevent the gloves sticking to the pads.
- c. For a casualty over 55 lbs/25 kg or 8 years of age, the right pad should be placed just below the collarbone and to the right of the sternum. The left pad should be placed over the ribs and below the left breast (it may be necessary to lift the breast to place the left pad properly).
- d. For a casualty under 55 lbs/25 kg or 8 years of age, the infant/child key should be inserted into the infant/child key port before placing the pads on the casualty. One pad should be placed in the middle of the chest. Then, turn the infant/child over and place the other pad in the middle of the back, between the shoulder blades.

**Note:** *If the pads cannot stick firmly to the chest, remove the pads, shave excessive chest hair and reapply new pads. Use the razors found in the AED pouch to remove excessive chest hair.*



D. Follow the AED prompts

After the pads are placed on the chest, the AED will automatically analyze the casualty's heart rhythm. "Shock" or "No shock" will then be advised.

E. Shock advised

If the AED detects that the heart rhythm is a shockable rhythm, it will prompt "Shock advised. Stay clear of patient. Deliver shock now. Press the flashing orange button now." The following must be carried out:

- a. The AED operator is responsible for keeping all persons (including the operator) from touching the casualty when a shock is delivered.
- b. Visually and verbally check that everyone is "clear" before delivering a shock.
- c. Scan the casualty from head to toe to make sure no one is touching the casualty while loudly stating "I'm clear, you're clear, everybody's clear!" At the same time, wave hand across casualty's body ensuring no one is touching the casualty.
- d. After checking that everyone is clear, press the flashing orange button to deliver the shock.

- e. Following shock delivery, the AED will prompt "Shock delivered. Begin CPR." Crew should start CPR immediately with the aid of the metronome (A built-in metronome will assist cabin crew to achieve the required compression rate).

- f. Continue to follow the AED prompts.

F. No shock advised

- a. If the AED prompts "No shock advised. Begin CPR.", check for signs of life.
- b. If there are no signs of life, continue CPR.
- c. If there are signs of life, put the casualty in the recovery position.
- d. Leave the AED on and attached until relieved by Emergency Medical Services.

3. Precaution

Do not use gaseous oxygen equipment when the AED is used to apply a shock to the casualty.

4. Green Ready Light

- A. As part of the pre-flight emergency equipment check, one of the requirements is to check the green ready light.
- B. If the green ready light is not visible (flashing or steady on), the AED may not be ready for use. This may be accompanied by audible "chirping", so that the operator has both a visual and audible cue that the device needs attention.
- C. Corrective action when the green ready light is not visible (flashing or steady on) is a User-Initiated Test (UIT).
- D. "Green ready light" during emergency

Green Ready Light	Chirping / Display Screen	AED Status / Action Required
Flashing	N/A	No action required. AED is ready to use.
ON	N/A	AED is performing self-test. Press On/Off button to abort the self-test and turn on again for use.
OFF	Display screen is blank	No battery is inserted or the battery is depleted or the AED needs repair. Insert or replace the battery. Press On/Off button to abort the UIT and turn on again for use.
OFF	Single chirp continuously	Press On/Off button to start the AED. When the voice prompts begin, press the button again to display the status screen. Follow the information to solve the problem.
OFF	Triple chirp continuously	The AED shall not be used. Record the defect in the e-Cabin Log.

## 5. User-Initiated Test (UIT)

It is not necessary to carry out the UIT if the green ready light is visible (flashing or steady on) and the AED is not chirping. This test uses battery power and drains the battery prematurely.

The AED prompts to run the UIT if the AED detects a problem during the routine self-testing or during the pre-flight emergency equipment check, the green ready light is not visible and the battery is subsequently removed and reinstalled.

During the UIT, do not connect or disconnect any accessories, such as the pads or the infant/child key, and make sure the battery is installed.

- A. The UIT is divided into 2 parts – an interactive part and an automatic part.
- B. The interactive part requires the user to verify the correct operation of the screen, buttons and speaker. Follow the AED visual prompts. The prompts will appear on the screen.
- C. After the interactive part of the test is complete, the automatic part of the test begins. The screen displays a progress bar indicating the test's progress.
- D. If the AED passes the test, the green ready light flashes to show that the AED is ready for use.
- E. The UIT may be terminated at any time by pressing the On/Off button.
- F. If a UIT is carried out, reseal the pouch with a purple seal and return to the original stowage.
- G. The following are the visual prompts during the interactive part of the UIT:
  - a. Press the left, middle and right option buttons and listen for a beep to confirm each press. Look at the screen to be sure the button presses have been verified.
  - b. Press the On/Off button and listen for a beep to confirm the press. Look at the screen to be sure the button press has been verified.
  - c. Check speaker sound – listen for 2 tones.
  - d. The screen then displays a progress bar to indicate the automatic test is in progress.

## 6. Troubleshooting

The AED helps the user to troubleshoot the problem with precise audible and visual prompts, such as "Low battery." or "Replace battery now."

AED prompts	Possible cause	Recommended action
<ul style="list-style-type: none"><li>Low battery.</li><li>Replace battery.</li></ul>	<ul style="list-style-type: none"><li>Battery power is low.</li><li>AED does not recognize the battery.</li><li>Battery is depleted.</li></ul>	<ul style="list-style-type: none"><li>Replace new battery.</li><li>If no new battery, attempt to complete use of the AED.</li></ul>

AED prompts	Possible cause	Recommended action
<ul style="list-style-type: none"> <li>Replace pads.</li> </ul>	<ul style="list-style-type: none"> <li>The pads, cable or connector damaged.</li> </ul>	<ul style="list-style-type: none"> <li>Replace the pads.</li> </ul>
<ul style="list-style-type: none"> <li>Plug in pads connector.</li> <li>Insert connector firmly.</li> <li>Be sure pads connector is completely inserted.</li> </ul>	<ul style="list-style-type: none"> <li>Pads connector is unplugged or not fully inserted.</li> </ul>	<ul style="list-style-type: none"> <li>Plug in the pads connector firmly.</li> <li>Replace the pads if the prompt continues.</li> </ul>
<ul style="list-style-type: none"> <li>Press pads firmly to patient's bare skin.</li> <li>Pads must not be touching clothing or each other.</li> <li>If needed, remove hair from patient's chest.</li> </ul>	<ul style="list-style-type: none"> <li>Pads are not making good contact with the casualty's bare chest.</li> <li>Pads are not properly applied to the patient.</li> </ul>	<ul style="list-style-type: none"> <li>Ensure pads are sticking completely to the patient's skin.</li> <li>Check the pads location and reposition the pads.</li> <li>Dry the patient's chest and shave excessive chest hair if pads are not sticking due to moisture or excessive hair.</li> <li>Replace the pads.</li> </ul>
<ul style="list-style-type: none"> <li>Shock button not pressed.</li> <li>Attend to patient.</li> </ul>	<ul style="list-style-type: none"> <li>Shock advised but Shock button has not been pressed within 30 SEC.</li> <li>AED has been unable to analyze for more than 45 SEC.</li> </ul>	<ul style="list-style-type: none"> <li>Press the Shock button to deliver a shock.</li> <li>Provide CPR if needed.</li> </ul>
<ul style="list-style-type: none"> <li>Press Shock button or device will disarm.</li> </ul>	<ul style="list-style-type: none"> <li>On/Off button has not been pressed while AED has prompted to press the Shock button.</li> </ul>	<ul style="list-style-type: none"> <li>Press the Shock button to deliver shock.</li> </ul>

**Note 1:** Excessive movement of casualty, AED or turbulence may interfere with successful analysis.

**Note 2:** Do not conduct CPR during analysis.

**Note 3:** Be sure that no one is touching the casualty during analysis.

#### 7. After Use Procedures

After use, seal the pouch with a purple seal.

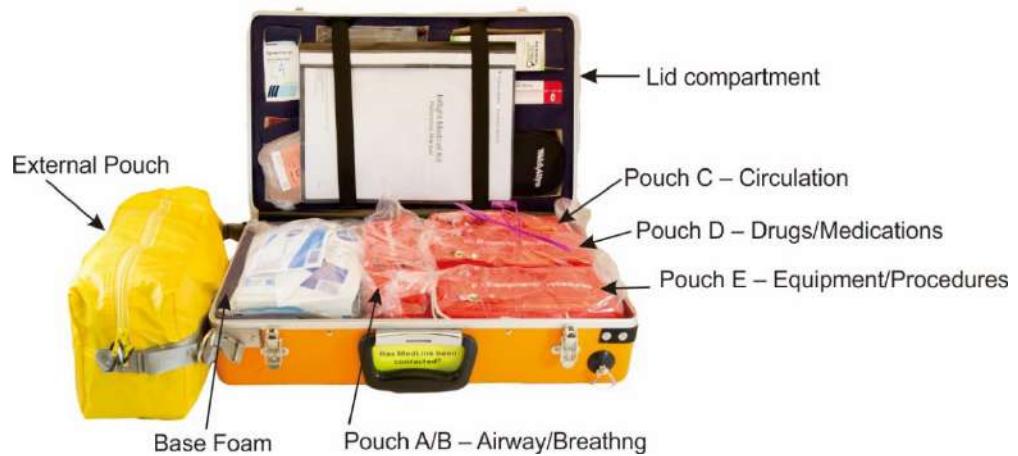
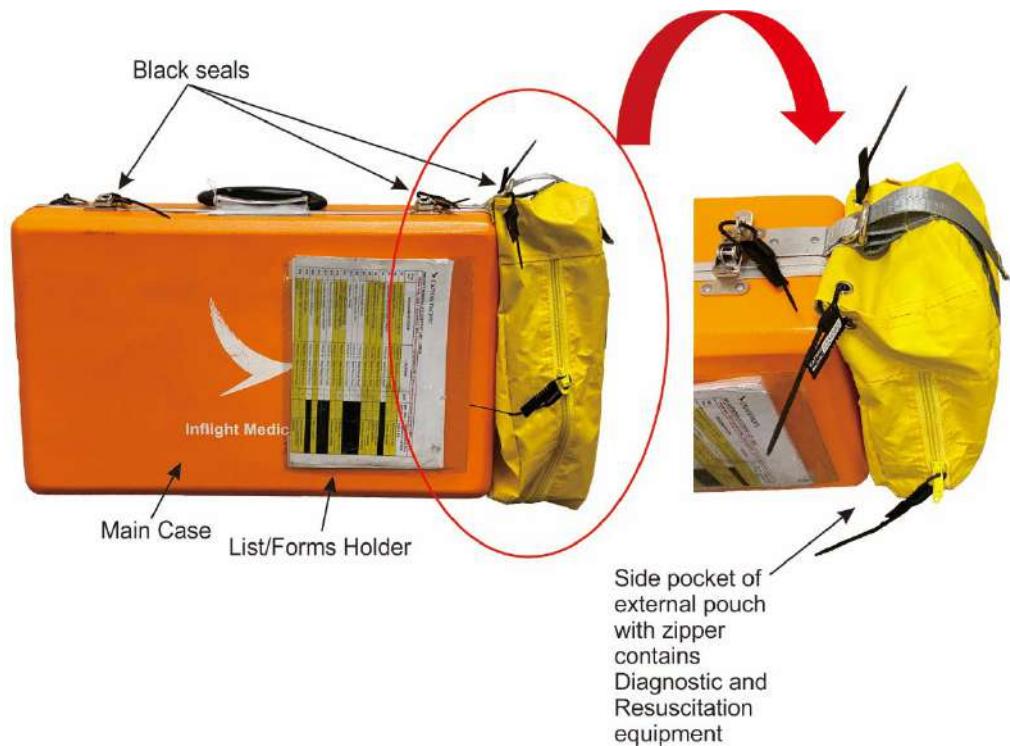
#### 8. Pre-flight Emergency Equipment Check

Check that the black seal is intact and the green ready light is visible (flashing or steady on).

### 4.3.8 Inflight Medical Kit

An Inflight Medical Kit is carried on the passenger aircraft for treating passengers or crew who may be ill or injured.

#### 1. Features



2. Contents

	<p><b>External yellow pouch</b></p> <ul style="list-style-type: none"> <li>Oro-pharyngeal Airways (Size 0,1,2,4)</li> <li>Blood glucose testing strips and lancets</li> <li>Resuscitator Ambubag: Single Use (mask &amp; tube)</li> <li>Sphygmomanometer (Blood pressure cuff)</li> <li>Stethoscope</li> <li>Thermometer (strip and digital)</li> </ul>
	<p><b>Base Foam</b></p> <ul style="list-style-type: none"> <li>Pouch AB: Airway/Breathing</li> <li>Pouch C: Circulation</li> <li>Pouch D: Drugs/Medication</li> <li>Pouch E: Equipment</li> <li>Disposable Obstetrics kit</li> <li>Portable Suction Apparatus (Res-Q-Vac/Ambu Res-Cue Pump)</li> <li>Oximeter and manual</li> </ul>
	<p><b>Lid Compartment</b></p> <ul style="list-style-type: none"> <li>Isosorbide or Nitrolingual spray</li> <li>Sodium Chloride 0.9% IV Solution 500ml (extra unit)</li> <li>Alcohol swabs (10)</li> <li>Adrenaline 1:10 000 1ml ampoules &amp; syringe</li> <li>Chlorphenamine Syrup</li> <li>Diagnostic kit (Auroscope &amp; Ophthalmoscope)</li> <li>Salbutamol (Ventolin) inhaler</li> <li>Sharps box</li> <li>Micropore tape</li> <li>Batteries</li> <li>Inflight Medical Kit Reference Manual <ul style="list-style-type: none"> <li>Drug/Equipment Content List</li> <li>Drug Reference List</li> <li>Basic Life Support (BLS) Card</li> <li>Instruction Guide for Ambu Resuscitator</li> </ul> </li> </ul>

	<p><b>Pouch A/B: Airway/Breathing</b></p> <ul style="list-style-type: none"> <li>• Airway: LMA Supreme size 4</li> <li>• Cannula: Angiocath 14g</li> <li>• Alcohol swabs</li> <li>• Syringe 20ml</li> </ul>
	<p><b>Pouch C: Circulation/IV</b></p> <ul style="list-style-type: none"> <li>• Dressing: IV site</li> <li>• Alcohol swabs</li> <li>• Tourniquet</li> <li>• Sodium Chloride 0.9% IV solution (500ml)</li> <li>• IV set</li> <li>• Cannula: Ported (16, 18, 20G)</li> </ul>
	<p><b>Pouch D: Drugs/Medication</b></p> <ul style="list-style-type: none"> <li>• Ampoule cutter</li> <li>• Black roll-up pouch with drugs</li> <li>• Card with number code for ampoules</li> <li>• Medication and drugs as listed</li> <li>• Hypodermic needles and Syringes</li> <li>• Alcohol swabs</li> </ul>
	<p><b>Pouch D: Black Roll-up Pouch</b></p> <ul style="list-style-type: none"> <li>• All Injectable Drugs are found inside the Black Roll-up pouch inside Orange Pouch D.</li> <li>• These drugs are clearly marked B1-23 with a key number to indicate which number drug you are looking for.</li> <li>• Numbers are also on the Drug Reference list found inside the kit and the Content list in the plastic pocket outside.</li> </ul>
	<p><b>Pouch D: Main and Side Compartments</b></p> <ul style="list-style-type: none"> <li>• Lignocaine and eye drops are inside the main compartment of the Orange pouch</li> <li>• Tablets are inside the side compartment numbered Or1-8</li> </ul>

	<p><b>Lid Compartment: Finding the drugs</b> Ventolin, Adrenaline 1:1000 ampoules, Chlorphenamine syrup, Nitrolingual or Isosorbide Spray and Sodium Chloride 0.9% IV solution 500ml are in the Lid compartment as they are too big for the Orange pouch (numbered L1-5)</p>
	<p><b>Pouch E: Equipment/Procedure</b></p> <ul style="list-style-type: none"><li>• Artery forceps (Spencer Wells)</li><li>• Needle holder &amp; scissor combination</li><li>• Suture (Mersilk) with curved needle</li><li>• Sterile and disposable Scalpel</li><li>• Steri-Strips 12mm x 100mm</li><li>• Catheter: Unisex Foley</li><li>• Urine Drainage bag 2L</li><li>• Sterile Surgical Gloves</li><li>• KY Jelly</li><li>• Sterile Water for injection (for catheterisation purposes)</li></ul>

### 3. List / Forms Holder

The following lists and forms are inside the holder on the outside of the Inflight Medical Kit.

#### A. Drug Content list

INFLIGHT MEDICAL KIT CONTENT LIST – DRUG					
<b>Please Note: ONLY dispatch per MEL if items highlighted in YELLOW is less than minimum quantity in MEL column.</b>					
Key No.	DRUGS/MEDICATION	LOCATION	QTY	MEL: Min QTY Req.	Corresponding item required in AN101E Para 4.4.3
B1	Adrenaline (Epinephrine) 1 in 1,000 1ml	POUCH D - Black Roll-up Pouch	2	1	Epinephrine 1:1000
B2	Atropine Amps 600mcg/ml	POUCH D - Black Roll-up Pouch	2	1	Atropine injectable
B3	Terbutaline (Bricanyl) Amps 0.5mg/ml	POUCH D - Black Roll-up Pouch	1		
B4	Ergometrine/Oxytocin (Syntometrine) Amp 1ml	POUCH D - Black Roll-up Pouch	1	1	Medication for post-partum bleeding
B5	Eurosemide Amps 20mg/2ml (Lasix)	POUCH D - Black Roll-up Pouch	2	1	Diuretic – injectable
B6	Chlorphenamine Amps 10mg/ml	POUCH D – Black Roll-up Pouch	2	2	Antihistamine injectable
B7	Haloperidol Amps 5mg/ml	POUCH D – Black Roll-up Pouch	2		
B8	Water for Injection Amps 10ml	POUCH D – Black Roll-up Pouch	2		
B13	Cefotaxime 1G Vial	POUCH D – Black Roll-up Pouch	2		
B14	Diazepam (Stesolid) Rectal tubes 5 mg/2.5ml OR Ampoules 10mg/2ml	POUCH D – Black Roll-up Pouch	2-4	1	Sedative anticonvulsant injectable
B15	Ondansetron (Zofran) Amps 4mg/2ml	POUCH D – Black Roll-up Pouch	1	1	Anti-emetic injectable
B16	Digoxin (Lanoxin) Amps 0.5mg/2ml	POUCH D – Black Roll-up Pouch	1		
B18	Hyoscine (Buscopan) Amps 20mg/ml	POUCH D – Black Roll-up Pouch	2		
B19	Morphine Sulphate Amps 10mg/ml	POUCH D – Black Roll-up Pouch	2	1	Major analgesic
B20	Naloxone Amps 400mcg/ml	POUCH D – Black Roll-up Pouch	2		
B21	Glucose 50% (D50) 20ml	POUCH D – Black Roll-up Pouch	4	3	Dextrose 50% (50ml)
B23	Hydrocortisone Vials 100mg (Solu-Cortef Act-O-Vial)	POUCH D – Black Roll-up Pouch	2	1	Adrenocortical steroid injectable
OR1	Acetylsalicylic Acid (Aspirin) Tablets 100mg	POUCH D – Inside side compartment of Orange pouch	20	12	Acetyl salicylic acid (aspirin)
OR2	Prochlorperazine Maleate 5mg tablets	POUCH D – Inside side compartment of Orange pouch	10		
OR3	Haloperidol Tablets 1mg	POUCH D – Inside side compartment of Orange pouch	10	4	
OR4	Metoprolol 50mg Tablets	POUCH D – Inside side compartment of Orange pouch	20	12	Oral beta blocker
OR5	Tramadol 50mg Capsules	POUCH D – Inside side compartment of Orange pouch	10	4	Major analgesic
OR6	Lignocaine 2% Vial 20ml (4 x 5ml)	POUCH D – Inside Orange pouch	1	1	
OR7	Lignocaine 2% Gel 30g	POUCH D – Inside Orange pouch	1		
OR8	Hypromellose Eye drops (artificial tears)	POUCH D – Inside Orange pouch	1		
L1	Adrenaline: (Epinephrine) 1 in 10,000 10ml ampoules (10ml syringe, 19G & 21G needles)	Lid compartment	2	1	Epinephrine 1:10000 for AED
L2	Chlorphenamine Syrup 2mg/5ml	Lid compartment	1	Present & not empty*	
L3	Nitrolingual Spray OR Isosorbide Spray	Lid compartment	1	Present & not empty*	Nitroglycerin tablets or spray
L4	Salbutamol (Ventolin) Inhaler 100mcg (200 doses)	Lid compartment	1	Present & not empty*	Bronchial dilator-inhaler
L5	Sodium Chloride 0.9% 500ml I.V. Solution	Lid compartment (extra)	1		
	Sodium Chloride 0.9% 500ml I.V. Solution	Pouch C – Circulation/IV	1	1	Sodium chloride 0.9% (250 ml)
	Water for Injection Amps 10ml	Pouch E – equipment/procedures	2		
<b>Key Number:</b> B1-23: Inside Black Roll-up Pouch Or1-Or8: Inside Orange pouch pockets L1-L5: Lid Compartment		1 = External Pouch 2 = Lid Compartment 3 = Base Foam 4 = Pouch A/B 5 = Pouch C 6 = Pouch D 7 = Pouch E	 <p>*This drug contains multiple doses. It remains serviceable provided it is not empty.</p>		

B. Equipment Content list

INFLIGHT MEDICAL KIT CONTENT LIST – EQUIPMENT				
<b>Please Note: ONLY dispatch per MEL if items highlighted in YELLOW is less than minimum quantity in MEL column.</b>				
EQUIPMENT	LOCATION	QTY	MEL: Min QTY Req.	Corresponding item required in AN101E Para 4.4.3
Alcohol Swabs	Lid Compartment	10	2	Antiseptic wipes
Alcohol Swabs	Pouch C, Pouch D	2 each		
Airway, LMA Supreme size 4	Pouch AB – Airway/Breathing	1		
Airway, Oropharyngeal Size 0,1,2,4	External Pouch	1 each	Min. 3 sizes	Airways, oropharyngeal
Ampoule Cutter	Pouch D – Drugs/Medications	1		
Artery Forceps (Spencer Wells)	Pouch E – Equipment/Procedures	1		
Auroscope	Lid Compartment (Heine Mini Diagnostic Kit)	1	1	Flashlight
Basic life support card	Lid Compartment	1	1	Basic life support card
Batteries AAA & AA	LID COMPARTMENT (AAA For Pulse Oximeter, AA For Diagnostic Kit)	2 each	4	Batteries
Cannula: Angiocath 14g	Pouch AB – Airway/Breathing	1	1	Emergency tracheal catheter
Cannula: Ported 16G; 18G; 20G	Pouch C – Circulation/Iv	1 each	1 each	Intravenous catheters
Dressing – IV site	Pouch C – Circulation/Iv	2		
Surgical mask	Base Compartment	1	1	Surgical mask
Gloves Surgical (S,M,L)	Pouch E – Equipment/Procedures	1 each	Min. 1 pair	Gloves
Glucose Testing Strips	External Pouch	1		
Inflight Medical Kit Content List	Transparent Pouch outside the Kit	1	1	List of Content
Intravenous Solution Administration Set	Pouch C - Circulation/Iv	1	1	System for delivering intravenous fluids
Lubricant (K-Y Jelly)	Pouch E - Equipment/Procedures	1		
Needle Hypodermic 19G,21G,23G,25G	Pouch D - Drugs/Medications	1 each	4	Needles
Obstetrical Kit (Maternity kit)	Base Compartment	1	1	Sponge gauze included
Ophthalmoscope	Lid Compartment (Heine Mini Diagnostic Kit)	1		
Oximeter, Fingertip LM-800	Base Compartment	1		
Resuscitator Ambubag Single Use	External Pouch	1	1	Bag-valve mask
Scalpel	Pouch E - Equipment/Procedures	1		
Sharps Box	Lid Compartment	1	1	Needle disposal box
Sphygmomanometer	External Pouch	1	1	Sphygmomanometer
Steri-Strips 12mm x 100mm	Pouch E - Equipment/Procedures	3		
Stethoscope	External Pouch	1	1	Stethoscope
Suction Portable Apparatus(Res-Q-Vac )	Base Compartment	1		
Suture (Mersilk) with Curved Needle	Pouch E - Equipment/Procedures	1		
Suture Needle Holder/ scissor combination	Pouch E - Equipment/Procedures	1		
Syringe Disposable 1ml, 2ml, 10ml, 20ml	Pouch D - Drugs/Medications	1 each	4	Syringe
Syringe Disposable 20ml	Pouch AB - Airway/Breathing	1		
Micropore Tape 1.25cm x 10m	Lid Compartment	1	1	Tape – adhesive
Micropore Tape 2.5cm x 10m	Lid Compartment	1	1	Tape – adhesive
Thermometer Strip (Forehead)	External Pouch	1	1	Thermometer
Thermoscan Infrared Digital	External Pouch	1	1	Thermometer
Tourniquet	Pouch C - Circulation/Iv	1	1	Venous tourniquet
Umbilical Cord Clamp Disposable	Base Compartment - Maternity Kit	1	1	Umbilical cord clamp
Urinary Unisex Catheter (Foleys) Size 12, 14	Pouch E - Equipment/Procedures	1 each	1	Urinary catheter
Urine Drainage Bag 2L	Pouch E - Equipment/Procedures	1		

Document title: Inflight Medical Kit Content List  
Document owner and number: CMDOH/IMK1  
Revision number: 04  
Date of revision: 31 May 2021

C. Report On Inflight Medical Assistance/First Aid



**REPORT ON INFLIGHT MEDICAL ASSISTANCE/FIRST AID**

Thank you for your help. May we ask you to assist us further by completing this form for record purposes.

**Name of person offering medical assistance:** \_\_\_\_\_

**Qualification or specialty / (position if crew):** \_\_\_\_\_

**Contact details:**

Address: \_\_\_\_\_

Country: \_\_\_\_\_ Postal/zip code: \_\_\_\_\_

Email address: \_\_\_\_\_ Tel: \_\_\_\_\_

**Diagnosis:** \_\_\_\_\_

**Medication administered:**

Medication Name	Dose	Administration Route	Time Administered	Administered By (If Different From Above)
EXAMPLE: <i>Morphine</i>	2ml	IV(drip)/ per mouth, injected IM/SC, etc.	18:00 HK Time	Dr. Valni Haughton (General Practitioner)

**Other Treatment:** \_\_\_\_\_

**Outcome:** \_\_\_\_\_

**Signed:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Recommended follow-up:** \_\_\_\_\_

**FOR COMPLETION BY SCCM:**

SCCM Name: \_\_\_\_\_ Inflight Medical Kit No.: \_\_\_\_\_  
Seal no: \_\_\_\_\_ If AED used insert SN AED: \_\_\_\_\_

Patient's Name: \_\_\_\_\_ Age: \_\_\_\_\_ Seat No: \_\_\_\_\_

Flight No.: \_\_\_\_\_ Date: \_\_\_\_\_ Sector: \_\_\_\_\_ MedLink Case no: \_\_\_\_\_

- **INFLIGHT MEDICAL KIT USED: REPLACE WHITE COPY OF THIS FORM IN INFLIGHT MEDICAL KIT AFTER COMPLETION**
- **FIRST AID KIT USED: RETURN THE WHITE COPY OF THIS FORM TO FLIGHT FILE AND RETURN TO INFLIGHT OPERATIONS STANDARDS – SAFETY, 5/F, Central Tower, Cathay City**
- *Yellow copy – for medical volunteer*
- *Pink copy – for patient (or ambulance personnel)*

D. Request For Medical Services



**REQUEST FOR MEDICAL SERVICES**

The SCCM must complete this form when a medical volunteer (doctor, nurse, medical technician or other person) rendering medical services requests indemnity for providing emergency medical services on board a Cathay Pacific Airways flight.

To: \_\_\_\_\_  
(Name of medical volunteer)

Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Cathay Pacific Airways Limited hereby requests the above named person to provide medical services to:

Passenger's name: \_\_\_\_\_

Flight No: \_\_\_\_\_ From: \_\_\_\_\_ to \_\_\_\_\_

On: \_\_\_\_\_  
(Day)      (Month)      (Year)

Cathay Pacific Airways Limited acknowledges that in performing such services, the medical volunteer will be acting on behalf of Cathay Pacific Airways Limited and that in so acting, the medical volunteer will be protected in the event of the passenger (or someone claiming on their behalf) alleging negligence in the provision of the services. This indemnification shall not extend to claims for gross negligence.

\_\_\_\_\_  
(Signature of Captain – on behalf of Cathay Pacific Airways Limited)

\_\_\_\_\_  
(Print name)

**TO BE RETAINED BY MEDICAL VOLUNTEER**

**Document title:** Request for Medical service

**Document owner:** CMDAVMSMO/21 Feb 2011

**Date of issue:** 21 February 2011

**Date of Review:** 5 July 2021

4. Operation

- A. When in use, the Captain must be informed.
- B. The SCCM will release the kit to any qualified person (i.e. doctor, nurse, paramedic or cabin crew with previous medical qualification) as advised by MedLink. However, if there is no medical qualified person available on the flight, cabin crew can administer medication from the medical kit as instructed by MedLink. When the external pouch is used for examination purpose only, MedLink shall be contacted for further advice when the casualty's condition cannot be treated by simple first aid or their condition gets worse. No medication shall be administered without MedLink's instruction. However, if MedLink cannot be contacted and the situation is critical, the kit can be released to the qualified person.
- C. Key Number are assigned for all drugs and medication located in Pouch D and the lid compartment of the Inflight Medical Kit. MedLink will use both the drugs/medication name and Key Number to facilitate the identification and location of these medication. Details of the Key Number are as follows:
  - a. B – Black roll up pouch located inside Pouch D (B1 to B23)
  - b. L – Lid Compartment (L1 to L5)
  - c. OR – Orange pocket inside Pouch D (OR1 to OR8)
- D. Cabin crew shall inform other crew member to obtain the Drug Content List from the Inflight Medical Kit before contacting MedLink.
  - a. MedLink staff is to provide the Key Number and the generic name of the medication. Cabin crew shall write down the Key Number and the name of medication on the Medical Patch Checklist by referring to the Drug Content List.
  - b. Cabin crew shall confirm by repeating the Key Number and the name of the medication. If unsure of the pronunciation, cabin crew shall use phonetic alphabet to spell out the generic name of the medication.
  - c. Cabin crew shall confirm the name on the medication label corresponds to the name on the Drug Content List, before administering the medication.
- E. After use, should any drug/medication be dispensed from the kit, the section "Medication administered" in the form "REPORT ON INFLIGHT MEDICAL ASSISTANCE/FIRST AID" must be completed. Cabin crew to provide Medical personnel (if applicable) with the form to fill in the top part and the SCCM shall complete the bottom part of the form. When there is no medical volunteer on board, cabin crew who administered the medication should fill in the top part of the form. The SCCM shall repack the kit together with the white copy of the form, the yellow copy is to be given to the inflight medical volunteer (if applicable) and the pink copy to be given to the ambulance personnel or patient.

Upon request of the person offering assistance, the form "Request for medical services" shall also be completed by the SCCM and signed by the Captain. The completed form is to be given to the person offering assistance (inflight medical volunteer).
- F. All used sharps, i.e. needles, syringes, blades, vials or opened/used ampoules shall be discarded in the Sharps Box contained in the medical kit. Do not disconnect needles from attached syringes, but place the entire used syringe with the needle attached into the box. The lid of the box shall be closed securely and the box placed back into its original position in the medical kit.

G. Infrared Digital Thermometer

There are two types of infrared digital thermometers, they have identical features and operations, however they differ visually. Either one of these types will be loaded on the aircraft, together with the forehead thermometer strip.

a. Features



b. Operation

- i. Break the seals of the top pocket Velcro pouch.
- ii. Press the Power ON/Scan button for one second and the system starts its self-testing.
- iii. After the self testing is complete, the last temperature recorded will be displayed on the LCD, which indicates the thermometer is ready for use.
- iv. Ensure that the forehead is clear of hair and maintain a distance (about 3 CM) between the probe tip and the forehead.
- v. Press and hold the Power ON/Scan button, aim the probe on one side of the temple and move along the forehead until the probe reaches the other side of the temple.
- vi. Release the Power ON/Scan button to obtain the reading. There will be a 'beep' sound, followed by the temperature displayed on the LCD.
  - indicates temperature lower than 38°C (100.4°F)
  - indicates temperature 38°C (100.4°F) or above
- vii. After each scan, clean the lens of the probe with an antiseptic towelette available onboard and return it to the external pouch.
- viii. The unit will turn off automatically in 1 MIN.
- ix. Reseal the top pocket Velcro pouch with green seals.

**Note:** *Blue capped Infrared Digital Thermometer can be used by Probe Tip Scanner or the Earpiece. Cabin crew may take off the blue cap and use the earpiece to measure the temperature from patient's ear canal. The earpiece should be cleaned with an alcohol wipe which is available inside the glucose stick bag in the external yellow pouch before and after use.*

c. Low Battery Indication

- i. The low battery symbol will be shown at the lower part of the screen if the battery is low, however the unit can still be used.

- ii. When the battery power reaches the lowest level, the screen displays "Lo" and the battery symbol blinks. The battery needs to be replaced.
- iii. The SCCM should be informed and eCL logged. Reseal the pouch with purple seals (from the zipped pouch).

**Note 1:** *Do not use abrasive cleanser or submerge the thermometer in water or other forms of liquid.*

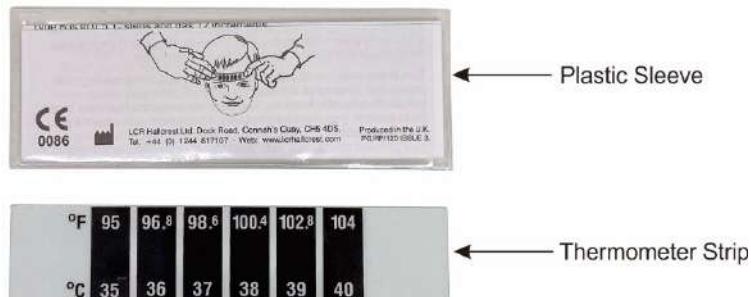
**Note 2:** *Do not expose the thermometer to extreme temperature (i.e. near the oven or beverage maker).*

**Note 3:** *Do not drop the thermometer.*

**Note 4:** *If unserviceable, use the forehead thermometer strip. The SCCM should be informed and eCL logged. Reseal the pouch with purple seals (from the zipped pouch).*

## H. Forehead Thermometer Strip

### a. Features



### b. Operation

- i. Take out the thermometer strip from the plastic sleeve.
- ii. Hold the strip firmly at both ends and press flat against middle of dry forehead for at least 15 SEC.
- iii. Check the temperature while the strip is on the forehead by looking at indicator boxes.
- iv. Green indicates the correct temperature.
- v. After use, clean the strip with alcohol swab available with the kit and return it to the plastic sleeve.

**Note:** *The thermometer strip is only to be used if the infrared digital thermometer is not working.*

- I. Ambu Resuscitator – connecting the Ambu Resuscitator with the portable gaseous oxygen bottle.

- a. Prepare a portable gaseous oxygen bottle with a dispensing tube and yellow cup mask, a pair of scissors and the Ambu Resuscitator.



- b. Cut the accumulator bag according to the dotted line.



- c. Remove the dispensing tube from the accumulator bag.



- d. Connect the dispensing tube with the Ambu Resuscitator.



- e. The oxygen bottle is connected with the Ambu Resuscitator.



**Note 1:** Operation and precaution of the portable gaseous oxygen bottle are as per current.

**Note 2:** After use the Ambu Resuscitator shall be disposed of in the Biohazard Waste Bag.

- J. Turn off power after using any electrical device.

- K. Reseal the kit with purple seals.

- L. Restow the kit in its original stowage.

5. Pre-flight Emergency Equipment Check

- A. Padlock is serviceable.

- B. Check black seals intact (2 on the main case and 1 on the zipper pouch).

- C. Check black/green seals intact on the top pocket Velcro pouch.

If the padlock is found unserviceable:

- A. Inform ground engineer for a replacement.

- B. If no replacement is available, cabin crew should use a red seal to seal the compartment.

- C. Log as defeat in eCL.

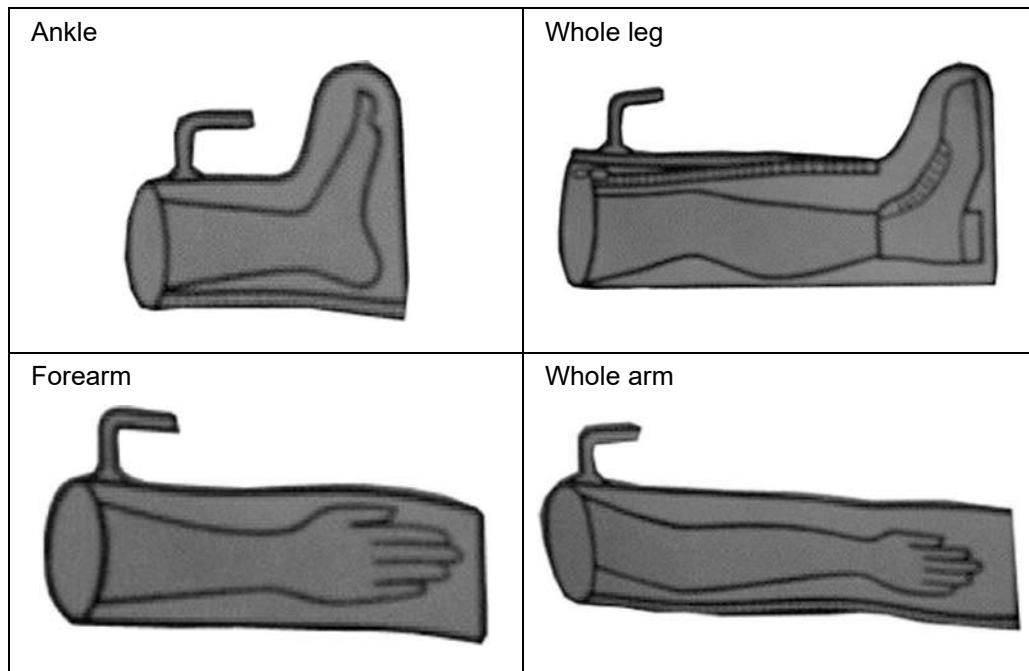
## 4.3.9 Splint Pack

There are 4 different sizes of inflatable splints inside a bag. Each piece is for a specific part of the body. They are used on closed fractures, dislocations, and open wounds requiring direct pressure.

### 4.3.9.1 Splint Pack (Old)

#### 1. Features

Each splint has an inflation tube. It also has a zip (with the exception of the forearm splint) to facilitate application of the splint.



**Note:** The bag can be inflated and used as a pillow.

#### 2. Operation

- A. Put the appropriate splint on the affected limb with the inflation tube closer to the casualty's mouth.
- B. Pull the tube to open the valve. Blow into the splint until inflation is just sufficient to immobilize the affected limb.
- C. Close the valve by pushing the tube back.

**Note:** The Captain must be informed whenever a splint is used.

#### 3. Precautions

- A. Check on the casualty's condition regularly, 2 – 5 MIN after application, 20 MIN after application and then at hourly intervals.
- B. The splint must be let down for 5 MIN every 2 HR then re-inflated.
- C. As the pressure in the splint is affected by altitude, the splint must be checked every 10 MIN during the ascent/descent and adjusted if necessary. At the end of either phase of the flight, the splint should be let down and re-adjusted.

- D. If the casualty complains of pain, or extremities swell or change colour, the pressure must be released. In addition, the casualty should be briefed on how to adjust the inflation on their own.
- 4. Pre-flight Emergency Equipment Check
  - In position.

#### 4.3.9.2 Splint Pack (New)

The splint pack consists of 4 different sizes of inflatable splint and a hand pump.

The hand pump can be used for inflating the splint.

##### 1. Features



##### 2. Operation

- A. Assemble the hand pump by placing the nozzle to the tip of the hand pump.
- B. Apply the appropriate splint on the affected limb and close the zipper.

- C. Use the hand pump to inflate the splint until the inflation is just sufficient to immobilise the injured limb.

- D. Close the valve.

**Note:** *The Captain must be informed whenever a splint is used.*

### 3. Precautions

- A. Check on the casualty's condition regularly, 2 – 5 MIN after application, 20 MIN after application and then at hourly intervals.
- B. The splint must be let down for 5 MIN every 2 HR then re-inflated.
- C. As the pressure in the splint is affected by altitude, the splint must be checked every 10 MIN during the ascent/descent and adjusted if necessary. At the end of either phase of the flight, the splint should be let down and re-adjusted.
- D. If the casualty complains of pain, or extremities swell or change colour, the pressure must be released. In addition, the casualty should be briefed on how to adjust the inflation on their own.

### 4. Pre-flight Emergency Equipment Check

In position.

## 4.3.10 Pocket Mask & Gloves Kit

The pocket mask & gloves kit contains one pocket mask and two pairs of non-powder latex examination gloves.

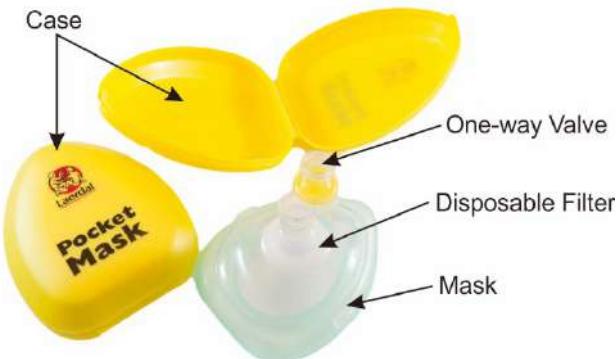
### 1. Features



### 2. Contents

- A. One pocket mask

The pocket mask is a device to protect the user from diseases transferred through body fluids.



a. Operation

- i. Open the airway of the person needing resuscitation.
- ii. Place the mask over the mouth and nose.
- iii. Press down on the mask to ensure there are no air leaks when ventilating.
- iv. Blow air through the one way valve.

B. Two pairs of examination gloves

This offers protection to the user when dealing with blood or other body fluids.



a. Operation

- i. Before treating a casualty, wear the examination gloves.

3. After Use Procedures

- A. Repack the pocket mask into its case and return it to the grey pouch. Reseal the grey pouch with a red seal.
- B. Dispose of the examination gloves by throwing them into a garbage bag.

4. Pre-flight Emergency Equipment Check

Blue seal intact.

### 4.3.11 Sharps Box

A Sharps Box is available for people who, for medical reasons, may need to dispose of used syringe or needle etc.

#### 1. Features

The Sharps Box is a yellow container with a transparent sealable lid and packed with an outer plastic bag.



#### 2. Operation

- A. Open the outer plastic bag and take out the Sharps Box.
- B. Open the lid and remove the small plastic bag.
- C. Pass the Sharps Box to the passenger or Medical Volunteer. Ask the passenger or Medical Volunteer to place the entire used syringe, or needle, blades, vials or opened/used ampoules in the box. Do not disconnect the needles from attached syringes, but place the entire used syringe with the needle attached into the box. Close the lid gently.
- D. Put the Sharps Box inside the outer plastic bag and seal the bag. Stow it in the L1 crew seat compartment (S1L-14A on A321neo). Inform the L1 Door Primary and SCCM.
- E. Since this Sharps Box is supplied ex-Hong Kong, handover information is to be left for the next set of crew (if applicable).
- F. Upon arrival into Hong Kong, the L1 Door Primary (inbound) will seal the box by pressing the lid firmly down and you should hear a click sound when pressing each point. Leave the Sharps Box in the L1 crew seat compartment (S1L-14A on A321neo).
- G. If the Sharps Box is used during the flight, the SCCM shall make an entry in the eCL.

**Note:** Aircraft services staff will collect the used Sharps Box and dispose of it by incineration. Never dispose of the box into the trash compactor.

### 4.3.12 Universal Precaution Kit

The Universal Precaution Kit is for crew to use to protect themselves against contamination from possible infectious substances when dealing with a medical situation. There are also items in the kit that are used for disinfecting and cleaning the affected area.

#### 1. Features



#### 2. Contents

Each Universal Precaution Kit contains the following:

<p>Ground mat (1 piece)</p> <ul style="list-style-type: none"><li>• To provide protection for the surrounding floor against body fluid contamination.</li><li>• Place the mat on the floor, under the passenger, when performing CPR or other first aid procedures where there is a possibility of body fluids being expelled from the person.</li><li>• 3 x 6 FT, plastic.</li></ul>	
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<p>Incontinence sheet (2 sheets)</p> <ul style="list-style-type: none"> <li>• For absorbing any body fluid.</li> <li>• Place the absorbent side of the sheet under the area where fluids are being expelled from the body (where the body is sitting or lying down).</li> <li>• Minimum 50 x 60 CM.</li> </ul>	
<p>Disposable apron (3 pieces)</p> <ul style="list-style-type: none"> <li>• To protect the user's clothing from any body fluids.</li> </ul>	
<p>Disposable gloves (3 pairs)</p> <ul style="list-style-type: none"> <li>• To protect the user when dealing with blood or other body fluids.</li> </ul>	
<p>Disposable mask (3 pieces)</p> <ul style="list-style-type: none"> <li>• To protect the user when attending to a passenger with respiratory problems.</li> </ul>	
<p>Disposable eye shield (3 pieces)</p> <ul style="list-style-type: none"> <li>• To protect the user in cases where there is a possibility of body fluids splashing or spraying onto the user's face and eyes.</li> </ul>	
<p>Dry powder (2 packs)</p> <ul style="list-style-type: none"> <li>• This powder can convert small liquid spills into a granulated gel (e.g. for semi solids such as vomit).</li> <li>• Use the dry powder to solidify the vomit.</li> <li>• Use the pan with scraper to scoop up the solidified vomit.</li> </ul>	

<p>Disinfectant spray (1 bottle)</p> <ul style="list-style-type: none"><li>For disinfecting the affected area.</li></ul>	
<p>Skin wipes (5 pieces)</p> <ul style="list-style-type: none"><li>For wiping off contaminants.</li></ul>	 <p>Antiseptic Towelette</p>
<p>Pick-up scoop (Pan) with scraper (1 set)</p> <ul style="list-style-type: none"><li>For removing any semi solid or solid waste.</li></ul>	
<p>Biohazard waste bag (2 pieces)</p> <ul style="list-style-type: none"><li>To be used as a waste container for all contaminated items.</li><li>Each bag comes with one white seal to tie up the biohazard waste bag after use.</li></ul>	
<p>Impermeable gown (1 piece)</p> <ul style="list-style-type: none"><li>To protect the user's skin and clothing from contamination.</li></ul>	

### 3. Operation

- A. The SCCM must be informed of the use of the kit.
  - B. For appropriate disposal of bio-waste:
    - a. Place all used items (including items that are contaminated) into the biohazard waste bag.
    - b. Tie the bag with the white seal provided and stow it inside a lavatory. Lock the lavatory from the outside and affix a U/S sticker on the lavatory door. Do not use the lavatory for the remainder of the flight.
  - C. Reseal the Universal Precaution Kit with a red seal and place it back in its original stowage.
  - D. After the aircraft lands, the SCCM must inform the ground engineer about the location of the used biohazard waste bag. The ground engineer will inform the cleaners for disposal of the biohazard waste bag based on local Port Health guidelines.

#### 4. Pre-flight Emergency Equipment Check

Black seal intact.

### 4.3.13 Body Bag

A 'Body Bag' is available for the containment of body fluids that may be expelled from a person who is apparently dead.

#### 1. Features

##### A. Outer Bag



##### B. Body Bag

The Body Bag is dark-grey in colour, lightweight (2.65 LB / 1.2 KG) and made of moisture absorbent material. There is a clip on buckle with an adjustable strap. There is also a zipper and four handles. The body bag measures 64 IN (163 CM) long and 32 IN (81 CM) wide.



2. Operation

- A. The SCCM must be informed of the use of the Body Bag.
- B. Inflight handling by cabin crew:
  - a. Wear the examination gloves and apron placed in the Universal Precaution Kit.
  - b. Place the body on the floor in an area with sufficient space to place the Body Bag next to it.
  - c. Unbuckle and pull on the 'clip end' of the strap to adjust the top of the Body bag to the approximate chest size of the body.



- d. Unzip the Body Bag and open it as much as possible.



- e. Roll in one side halfway.



- f. Turn the body on its side, away from the Body Bag. Beware of body fluid being expelled from the mouth or nose. Slide the Body Bag in towards the body with the rolled side as close as possible to the body. Ensure that the lowest part of Body Bag is aligned or slightly lower than the person's feet. This will allow the legs to be placed inside afterwards.



- g. Roll the body onto its opposite side and unroll the side of the bag.



- h. Return the body to a face-up position and place the feet inside the Body Bag. Zip up the bag and fasten the buckle around the waist or the chest of the body. Tighten the strap further if the bag is loose around the upper body.



- i. Move the body to a passenger seat using the handles on the Body Bag and lift the body onto the seat. A minimum of two people should perform this action.
- j. Secure the body with the seatbelt. Additional CRD(s) may be used to secure the upper body and prevent it from leaning forward.

- C. Dispose of the outer bag along with any other contaminated items in the Biohazard Waste Bag.

**Note 1:** *The SCCM should record the seat number in the eCL for seat cleaning purposes.*

**Note 2:** *The body is not to be placed in the lavatory.*

**Note 3:** *Be sensitive to the emotional needs of travelling companion(s).*

3. Pre-flight Emergency Equipment Check

Black Seal intact.

## 4.4 Miscellaneous Equipment

### 4.4.1 Supplementary Loop Belt/Extension Seat Belt

Upon passenger boarding, cabin crew will give the device to the passenger who requires its use and explain its operation. At the destination, when the fasten seat belt sign is off, cabin crew will collect and stow the device.

The Supplementary Loop Belt/Extension Seat Belt has two functions:

#### Supplementary Loop Belt (SLB)

It is used to secure infants under two years of age to the adult. It must be worn during take-off, landing, when the fasten seat belt sign is on or when instructed to do so by the Captain. The parent/guardian must be in the same travelling group as the infant. Cabin crew or other passengers (including staff passengers) must not use the device to secure the infant on behalf of the parent/guardian.

In circumstances where a child has reached the age of 2 but is under 3 years old and less than 15 KG, the device can be given when requested by the parent/guardian and used to secure the child to the adult.

#### Extension Seat Belt

The device is also used to extend the (airbag) seat belt when it is not long enough to fit around a passenger.

**Note:** Any passenger requires the use of more than one extension seat belt will not be eligible for travel.

### 4.4.1.1 Supplementary Loop Belt/Extension-Deactivation Seat Belt

It is used in all classes (except A321neo Business Class).

#### 1. Features



#### 2. Operation

- To use as a SLB, the SLB/Extension-Deactivation Seat Belt is secured to the passenger seat belt by passing one end of the passenger seat belt through the loop of the device and then fastening the passenger seat belt. The SLB/Extension-Deactivation Seat Belt is then fastened around the infant.

- B. To use as an extension seat belt, the two ends of the SLB/Extension-Deactivation Seat Belt should be attached to the respective ends of the passenger seat belt. When used on an airbag seat belt, the airbag will be deactivated, however, the passenger is still allowed to occupy the seat.
3. Pre-flight Emergency Equipment Check  
Check quantity.

#### 4.4.1.2 JCL Supplementary Loop Belt/Extension Seat Belt (A321neo)

It is to be used only on A321neo Business Class.

##### 1. Features



##### 2. Operation

- A. To use as a SLB, secure it to the passenger seat belt by passing the tongue end of the passenger seat belt through the loop of the device and then fastening the passenger seat belt. The shoulder belt must be attached onto the stud of the passenger seat belt (not the stud on the SLB) for take-off and landing. The SLB is then fastened around the infant.
- B. To use as an extension seat belt, the two ends of the JCL SLB/Extension Seat Belt should be attached to the respective ends of the passenger seat belt. The shoulder belt must be attached to the stud of the JCL SLB/Extension Seat Belt.
3. Pre-flight Emergency Equipment Check  
Check quantity.

## 4.4.2 Demonstration Kit

### 4.4.2.1 Demonstration Kit (A320/A321/A321neo/A330/A350/777)

#### 1. Features



#### 2. Contents

- A. Life Jacket (Demonstration Only)
- B. Oxygen Mask
- C. Seat Belt

#### 3. Operation

Use the items from the demonstration kit to carry out the live safety demonstration should it be required.

#### 4. Pre-flight Emergency Equipment Check

Check contents.

### 4.4.2.2 Demonstration Kit (A321neo JCL)

The contents of the JCL demonstration kit will be packed in a green colour pouch.

#### 1. Features



2. Contents

- A. Life jacket (Demonstration only)
- B. Oxygen mask
- C. JCL demonstration seat belt

3. Operation

Use the items from the demonstration kit to carry out the live safety demonstration in Business Class on A321neo should it be required.

4. Pre-flight Emergency Equipment Check

Check contents.

#### 4.4.2.3 Demonstration Kit (747F)

1. Contents

- A. Life Jacket (Demonstration Only)
- B. Oxygen Mask
- C. Seat Belt
- D. Escape Harness

2. Operation

The items are to be used to give a pre-flight safety briefing to passenger(s) carried on a freighter aircraft.

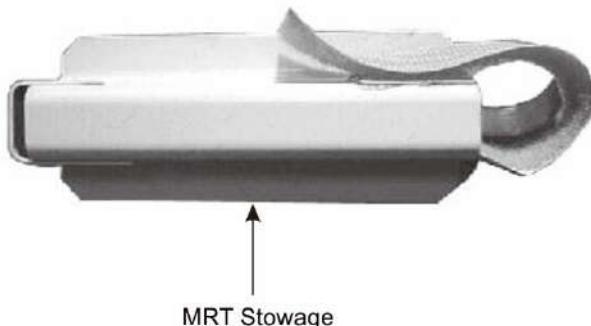
3. Pre-flight Emergency Equipment Check

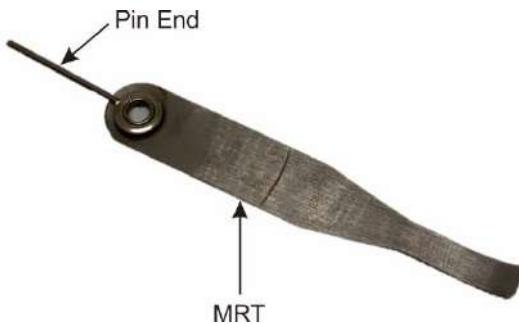
Check contents.

#### 4.4.3 Manual Release Tool (Airbus)

The Passenger Service Unit (PSU) can be opened manually with the Manual Release Tool. The MRT is not to be used during a depressurisation. After a depressurisation, when the aircraft has leveled off at a safe altitude, cabin crew will check on the passengers. If a passenger needs oxygen and the PSU has not opened, the MRT can be used to open the unit. Oxygen can then be administered to the passenger using the mask located inside the PSU. Alternatively a portable oxygen bottle can be used to administer oxygen to the passenger.

1. Features





## 2. Operation

Insert the pin end of the MRT into the pinhole of the PSU and push up.



## 3. Pre-flight Emergency Equipment Check

In position.

### 4.4.4 Arctic Survival Kit

The Arctic Survival Kit contains specialized protective clothing to protect flight crew members from hypothermia and frostbite if there is a need to go outside the aircraft in the extreme low temperature.

#### 1. Features

##### A. 777-300ER

- a. Red bag with a blue seal containing a pair of gloves, a face mask, a hat and a pair of boots.
- b. Orange pouch containing a jacket and a pair of pants.

##### B. A350/747F

Red bag with a blue seal containing a pair of gloves, a face mask, a hat, a pair of boots, a jacket and a pair of pants.



2. Pre-flight Emergency Equipment Check

A. 777-300ER

Blue seal intact (on the ceiling compartment).

**Note:** Should the blue seal be broken or missing, cabin crew are to inform the SCCM and then check the blue seal on the red bag is intact and the orange pouch is in position.

B. A350/747F

Blue seal intact (on the red bag).

#### 4.4.5 Thermal Protection Kit (A350)

The kit contains specialised protective clothing for protecting cabin crew against extreme low temperature in the event of loss of conditioned airflow with the aircraft heating system.

1. Features



2. Contents

- A. Hat (4)
- B. Gloves (4 pairs)
- C. Shoes (4 pairs)
- D. Thermal Protection Suit (4)

3. Pre-flight Emergency Equipment Check

Blue seal intact.

**Note:** Should the blue seal be broken or missing, check contents.

#### 4.4.6 Restraint Kit

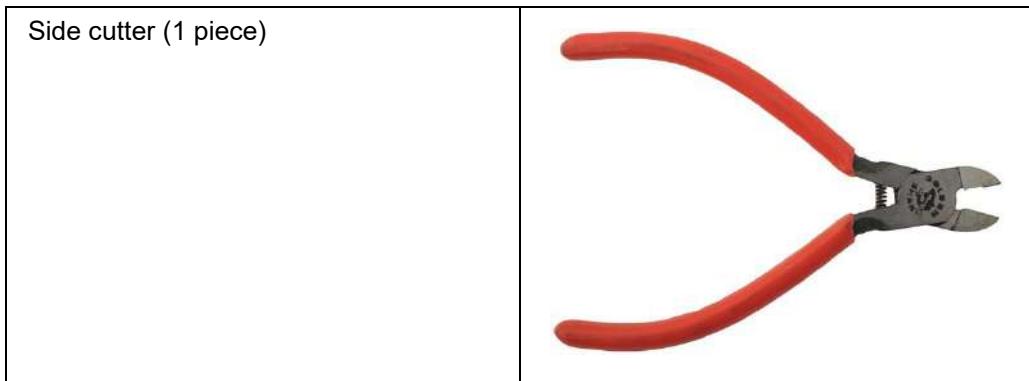
A restraint kit is carried on the passenger aircraft for restraining unruly passenger.

1. Features



2. Contents

Rigid handcuffs (1 pair)	<p>A photograph of a pair of black, rigid handcuffs with a central locking mechanism and two circular metal rings.</p>
Key (2 pieces)	<p>A photograph of a keychain consisting of a black plastic ring with two silver metal keys attached.</p>
Flex cuffs (4 pieces)	<p>A photograph of a coiled, flexible white strap, likely a component of the restraint kit.</p>



3. Pre-flight Emergency Equipment Check

A. A320/A321/A321neo

Blue seal intact (on the kit).

**Note:** *If the seal is broken or missing, cabin crew are to inform the SCCM and the ground engineer. The ground engineer will check the contents and reseal the restraint kit.*

B. A330/A350/777

Blue seal intact (on the compartment).

**Note:** *If the seal is broken or missing, cabin crew are to inform the SCCM and open the compartment to check that the blue seal on the restraint kit is intact. If the blue seal on the restraint kit is broken or missing, cabin crew are to inform the SCCM and the ground engineer. The ground engineer will check the contents and reseal both the restraint kit and the compartment.*

<b>5</b>	<b>Normal Procedures / Supplementary Procedures .....</b>	<b>1</b>
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5.2	Pre-flight Emergency Equipment Check .....	1
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## 5 Normal Procedures / Supplementary Procedures

### 5.1 Preparation for Taxi, Takeoff and Landing

A thorough knowledge of equipment and procedures is vital for a successful evacuation of the aircraft.

Prior to the commencement of ground preparation duties, cabin crew are to carry out the following duties:

1. Pre-flight emergency equipment check of all safety equipment in the cabin and crew rest areas according to the CCOC on Air Ready.
2. Video checks for video safety demonstration (where applicable).
3. Cabin security check.

After completion of the above duties, report to the Section Leader who will report to the SCCM.

During passenger boarding, cabin crew shall follow the duties and tasks as per Cabin Crew Operations Manual. Upon receiving information of last passenger from airport staff, the SCCM is to make a P/A to advise any remaining ground staff to leave the aircraft. All Section Leaders are to check their respective cabin to ensure no ground staff onboard and report to SCCM immediately. Once the last passenger is onboard, the last cabin door shall be closed by cabin crew. After the last passenger is seated, the SCCM shall send "CABIN READY" message to the flight deck (On narrow-body aircraft, the SCCM shall report "all passengers seated" to the flight deck via the interphone). All passengers must be seated before the aircraft is pushed back for departure.

All passenger doors must be armed once the aircraft begins to move. Once the doors are armed, cabin crew must occupy their crew stations with their seat belts and shoulder harnesses fastened, except when performing safety related duties.

Prior to takeoff, passengers are to be given a safety briefing, without distraction by other cabin activities. After the Captain's welcome P/A, and after all the cabin doors are closed, and all passengers are seated, the SCCM will commence the safety demonstration. In the event when the Captain has not made the P/A announcement before the aircraft commences push-back, the SCCM shall start the safety demonstration without delay.

If the aircraft starts to move after the commencement of the safety demonstration, the SCCM shall ensure the pre-take off door procedures and exit pointing by corresponding cabin crew are completed accordingly.

The following points must be covered by video or live safety demonstration:

1. Seat belt operation.
2. Life jacket operation.
3. Operation of the drop out oxygen mask, including fitting of masks on children and babies.
4. Location of emergency exits.
5. No-smoking regulation.
6. Availability of infant life jackets and baby floatation cots.
7. Wearing seat belts at all times.
8. Location of emergency lighting system.
9. Location of the safety instruction card.

- 
10. Restrictions on the use of personal electronic equipment.

A personal briefing must be given to blind or visually impaired passengers. The briefing is to cover the following points:

1. The fastening and unfastening of the seat belt.
2. Where the oxygen mask will drop (when required) and how to put the mask on. The passenger should feel or handle the demonstration mask.
3. The location of the life jacket. Explain how to wear and inflate the jacket. The passenger should feel and handle the demonstration life jacket.
4. The location of the nearest exit. This can be done by explaining how many rows of seats there are to the nearest exit.
5. How to adopt the brace position.

Flight crew will ensure passengers occupying jump seats are thoroughly briefed on procedures to be followed in an emergency.

Preparation of the aircraft for takeoff is to ensure maximum safety in the event of an unexpected emergency. Upon SCCM's P/A "Cabin crew pre-take off checks please", cabin crew shall check:

1. Hand baggage and loose articles which because of their size, weight or nature could become harmful projectiles or a tripping hazard in cases of sudden deceleration or impact, shall be stowed on the floor under passenger seats, in the overhead lockers with compartment doors securely latched or in cloakrooms (for passengers' jackets, crew bags and inflight amenities).
2. Baggage must not be stowed in toilets, immediately forward or aft of bulkheads, or in such a manner that it will impede access to emergency equipment.
3. Hand baggage and loose articles must not obstruct emergency exits or protrude into the aisle where they may become a tripping hazard.
4. All catering supplies, blankets, pillows, newspaper etc. are to be securely stowed in approved areas for take-off and landing.
5. Galley equipment shall be correctly stowed and latched in position.
6. All seat backs shall be upright or in the TTL position (where applicable), armrests down, tables stowed/latched, PTVs stowed and seat belts fastened (where applicable).
7. Cabin crew are to request passengers to have their window blinds up. At cabin crew's discretion, window blinds are allowed to remain down as requested by passengers, however, there should be sufficient window blinds up to observe any irregularities outside the aircraft.
8. Once the pre takeoff check is completed, report to the Section Leader who shall report to the SCCM. Cabin crew shall then immediately proceed to their crew stations and be seated with seat belts and shoulder harness fastened. Section Leaders shall ensure that all cabin crew in their area of responsibility and themselves are seated before report to the SCCM that the cabin is prepared for takeoff. Use interphone where applicable.
9. Upon the P/A from flight crew "Cabin crew be seated for takeoff", the SCCM will give the "Cabin Ready" signal to the flight deck.

After takeoff, the flight crew will cycle the "Seat Belt" sign. Cabin crew shall remain seated until instructed by the SCCM to commence work.

Preparation of the aircraft for landing is to ensure maximum safety in the event of an unexpected emergency. During the descent phase:

1. A P/A is made by flight crew at the top of descent "Cabin crew, 30 MIN to landing". Upon hearing the P/A, cabin crew are to start to wrap-up the service, including inflight sales and to prepare the cabin and galley for landing.
2. During descent, at 20,000 FT (approximately 15 MIN before landing), flight crew will make a P/A "Cabin crew, prepare the cabin for landing" and then turn on the "Seat Belt" sign (if the "Seat Belt" sign is already on due to anticipated turbulence, the "Seat Belt" sign will not be cycled). The SCCM will subsequently make the normal pre-landing P/A, followed by "Cabin crew, pre-landing checks please". Cabin crew are to stop all services including inflight sales and conduct the pre-landing duties (refer to pre-take off checks point 1-7).
3. At 10,000 FT (approximately 10 MIN before landing), flight crew will cycle the "Seat Belt" sign. Cabin crew shall have completed the pre-landing checks and duties, and report to their Section Leader. Cabin crew shall then immediately proceed to their crew stations and be seated with seat belt and shoulder harness fastened. Section Leaders shall ensure that all cabin crew in their area of responsibility and themselves are seated before report to the SCCM that the cabin is prepared for landing. Use interphone where applicable.
4. At 5,000 FT (approximately 5 MIN before touch-down), a P/A is made by flight crew "Cabin crew, be seated for landing". The SCCM will give the "Cabin Ready" signal to the flight deck (On narrow-body aircraft, the "Cabin Ready" signal shall only be given when the landing gears are also lowered and the exit signs illuminate with the corresponding chime).

After landing, cabin crew are to remain in their crew stations with their seat belts and shoulder harnesses fastened until the seat belt sign is turned off, except when performing safety related duties.

As evacuations may be required with little or no warning, prior to every takeoff and landing, each cabin crew is to conduct a 'silent review' of the following:

1. Brace position – FWD / AFT facing
2. Brace commands
3. Evacuation duties
4. Location of required emergency equipment
5. Nearest available exits

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## 5.2 Pre-flight Emergency Equipment Check

The pre-flight emergency equipment check is to be conducted by crew members upon boarding an aircraft, prior to the first flight or after an aircraft has been left unattended by crew member for any period of time.

During the pre-flight emergency equipment check, if any defects are found or equipment is missing, the section leader is to be informed who in turn will inform the SCCM. The SCCM will liaise with the ground engineer for the defect to be rectified or equipment to be replaced. If the defect cannot be rectified or no replacement is available, the Captain must be informed and the SCCM will make an entry in the eCabin Log (eCL).

If any equipment is used during the flight, the SCCM will also make an entry in the eCL.

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## 5.3 Cabin Security Check

Before departure from an originating station, the flight crew and cabin crew shall search the aircraft to ensure no foreign or suspicious objects or unauthorized personnel are on board. This shall be done after all caterers and cleaners have left the aircraft. The ground engineer may remain onboard during the security check, however, they shall be monitored by a cabin crew member. Any person remaining on board who is not a member of the crew, or does not have the SCCM's permission to remain on board must be identified by cabin crew and brought to the attention of the SCCM before the start of the security check.

The SCCM is to allocate sufficient time for the security check prior to scheduled passenger boarding time to ensure that the security check is carried out thoroughly. Cabin crew are to carry out the security check in their area of responsibility as specified in the CCOC on Air Ready and shall immediately report any suspicious items (e.g. items that are not normally carried onboard the aircraft, or other items which the cabin crew feels should not be onboard the aircraft) to the SCCM.

Upon completion of security checks, all cabin crew and Section Leaders shall report to the SCCM, who will in turn inform the Captain that the cabin is ready for passenger boarding. The SCCM is then to give a clear indication to ground staff that passengers can start to board the aircraft. Should adjustments be necessary (e.g. due to very short aircraft ground time), the SCCM shall inform ground staff that more time is required for cabin crew to properly complete their security checks.

Once cabin security check has been completed, one cabin crew shall be stationed at the opened aircraft door to monitor the entry and exit of ground personnel. Cabin crew shall monitor the activity of ground personnel to ensure they do not have any physical contact with passengers and check the area where the ground personnel conducted their activity to ensure no hazardous items are left behind.

The Cabin Security Check is a mandatory requirement, and must always be thoroughly carried out. If necessary to meet operational requirements, ground preparation tasks may be delayed until after takeoff. Under no circumstances is time to be made up by carrying out ground preparation or service tasks during push back or taxi.

The following table lists the procedure for conducting cabin security checks:

Aircraft Features and Fixtures	Procedure
<ul style="list-style-type: none"><li>Closets, Stowage, Doghouses and Compartments</li></ul>	<ul style="list-style-type: none"><li>Visually check inside each closet, stowage and compartment.</li><li>Remove/lift any items that may obscure your view.</li></ul>
<ul style="list-style-type: none"><li>Magazine Rack</li></ul>	<ul style="list-style-type: none"><li>Remove magazines and visually look inside the rack (use the security mirror where available) to check for any suspicious items inside the rack.</li></ul>
<ul style="list-style-type: none"><li>Meal Tray Table</li></ul>	<ul style="list-style-type: none"><li>For in-arm meal table: open the cover of the stowage and perform a visual check.</li><li>For regular meal table: 100% visual check required.</li><li>If anything unusual is identified, pull out the table to examine more closely.</li></ul>

Aircraft Features and Fixtures	Procedure
<ul style="list-style-type: none"><li>Overhead Compartments</li></ul>	<ul style="list-style-type: none"><li>Look at the convex mirror to check thoroughly inside each compartment.</li><li>Should there be no mirror fitted, step up and look inside the lockers. Cabin crew shall secure themselves when stepping up by holding on to the seat back or the edge of the overhead compartments.</li></ul>
<ul style="list-style-type: none"><li>Seats</li></ul>	<ul style="list-style-type: none"><li>Perform a visual check of all seats to ensure that there are no suspicious/restricted items hidden around the seat area – this includes the space between the passenger seats and the fuselage.</li><li>Lift all pillows and duvet/blankets to visually check around the seat area and underneath.</li><li>For FCL and JCL seat areas:<ul style="list-style-type: none"><li>Check behind every seat</li><li>Check under the ottoman</li><li>Check behind each PTV</li><li>Check inside the trinket tray</li><li>Check inside headset stowage</li><li>Check inside water bottle holder</li><li>Check inside FCL personal closet</li><li>Check inside the side cabinet (if applicable)</li><li>Check inside the side storage (if applicable)</li><li>Check inside the shoe locker (if applicable)</li></ul></li></ul>
<ul style="list-style-type: none"><li>Crew Rest Area (if applicable)</li></ul>	<ul style="list-style-type: none"><li>Ensure all compartments are opened and areas under pillows and blankets checked.</li></ul>
<ul style="list-style-type: none"><li>Life Jacket Stowage</li></ul>	<ul style="list-style-type: none"><li>Cabin crew are to perform a 100% visual check of life jacket stowage. For life jacket stowage with a security seal, ensure that the seal is intact. When security seal is missing, open the compartment and check inside, ensure that the life jacket is in position, packed in its original packing and the stowage is checked for any suspicious items. This also applies to those life jacket stowage where seals are not installed. For the features of the life jacket stowage, please refer to ISD Operations Part B Cabin Crew Operating Manual.</li></ul>

Aircraft Features and Fixtures	Procedure
• Life Jacket Stowage (Cont'd)	<ul style="list-style-type: none"> <li>If tampering of the life jacket is suspected (e.g. life jacket seal is broken, pouch is cut, life jacket is pulled out, the state, shape, size of the pouch/stowage do not appear to be in order), report the irregularity to the SCCM immediately and a thorough physical inspection of the compartment and the life jacket pouch is required.</li> </ul>
• Lavatories	<ul style="list-style-type: none"> <li>Open amenity compartments/ drawers.</li> <li>Open trash bin, door under the sink.</li> <li>Check behind lavatory seat covers.</li> <li>Check area under the toilet unit, open the access door to the water supply and manual shut off lever.</li> </ul>
• Seat Pockets/ Literature Stowage	<ul style="list-style-type: none"> <li>All seat pockets/literature stowage are to be inspected.</li> <li>Open the seat pocket/literature stowage. Remove contents of the seat pocket/literature stowage. Look inside the seat pocket/literature stowage for any suspicious items.</li> <li>Place the contents back in the seat pocket/literature stowage.</li> </ul>

**Note:** If there is any item that obstructs your ability to check thoroughly, remove it to facilitate the check. It is a good practice to look at it instead of blind check, i.e. by reaching your hand inside without looking.

### Port Specific Requirements for Cabin Security Check

For certain ports, the cabin security check has been outsourced and will be conducted according to the local requirements. Cabin crew are therefore not required to conduct Cabin Security Checks prior to passenger boarding for the following ports:

1. Ex- UK, AMS and GER – ground services provider will conduct the check in accordance with the standards of the local authorities.
2. For flights to and from the US, Security Agents/Ground Handling Services at HKG and US Airports will conduct the check. Security agents/Ground Handling Services are responsible to ensure that security stickers/seals in the lavatory are intact. However, in the event that cabin crew notice that the seals are missing or not intact, the SCCM is to contact the ground engineer who will conduct a security check on the area and reseal. In addition, all catering carts and standard units will be sealed prior to being loaded on the aircraft. The procedures for cabin crew are to ensure that the seals are intact. If the seals are observed to be missing or not intact, cabin crew must carry out a thorough check of the catering cart or compartment to ensure that no suspicious objects are inside.

In some ports e.g. ex-SIN, cabin crew may find that seals are applied to all catering carts and standard units. In this case, the same procedures are to be followed as stated above.

**Note 1:** From time-to-time, Port Authority Security in different airports will conduct inspections to check how cabin crew or outsourced personnel conduct the ground security check prior to passenger boarding. If the Port Authority notifies cabin crew in advance that they will be observing the ground security check, the SCCM shall inform the Captain prior to carrying out the ground security check.

**Note 2:** Cabin crew are to make use of a mirror (if applicable) and a service torch when areas being checked are dark.

**Note 3:** When suspicious or unusual items are discovered, cabin crew shall NOT:

- a. touch, manipulate or move the object;
- b. throw water or any other substance on the object;
- c. cover the object;
- d. remain in the immediate vicinity of the object, nor allow others to do so;
- e. use radio equipment in the vicinity of the suspected object;
- f. produce any sound, heat or vibrations in the vicinity of the object.

During transit stops all crew members should be observant to the following:

1. At stations where transit passengers remain on board, passengers will be asked to retrieve and identify all their hand baggage and personal belongings. Cabin crew will pass through the aircraft to ensure there are no items of baggage remaining which are unidentified. Any unclaimed items will be offloaded from the aircraft.
2. Access to the aircraft is restricted to authorized staff displaying appropriate permits. Before boarding the aircraft at transit stations ground staff may be subjected to a security check by security staff.

## 5.4 Door Procedures

Cabin crew shall refer to the ISD Ops Part B Cabin Crew Operating Manual on specific aircraft type.

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## 5.5 Normal Door Opening

The company policy states that all cabin doors are to be opened from the outside by Authorized Ground Personnel except in an emergency or when instructed by the Captain.

1. The ground staff will knock on the window and wait for a confirmation signal from the crew member. The crew member is to ensure:
  - A. The exit is clear.
  - B. (Airbus) The mode selector is “Disarmed” with the safety pin inserted, red streamer visible and the cabin pressure warning light is not flashing.  
(777) The mode selector is in “Manual” and the girt bar indicator flag viewing windows are completely BLACK.
2. Give a “thumbs up” signal to the ground staff and then step away from the door to avoid any injury when the door is opening.
3. Upon receiving the “thumbs up” signal, the ground staff will:  
(Airbus) Check through the observation window and ensure that the cabin pressure warning light is not flashing. Push the flap in and lift the handle fully to the horizontal green line (whilst lifting the handle, check and ensure the slide armed indicator light does not come on). The door is pulled outward and forward until the gust lock engages.  
(777) Push in the red flaps and pull the handle out. The handle is rotated and the door is pulled outward and forward until the gust lock engages.

**Note 1:** (Airbus) If the cabin pressure warning light is flashing, the door is not to be opened. The ground staff is to inform the ground engineer immediately.

**Note 2:** (Airbus) If the slide armed indicator light comes on, the door is not to be opened. The ground staff is to inform the ground engineer immediately.

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## 5.6 Alternate Door Opening

### 5.6.1 Door Opening from Inside (Non-emergency)

There may be an abnormal situation (non-emergency) which requires a cabin door to be opened from the inside. For example, if the aircraft diverts to an airport and the ground staff are not familiar with our normal door opening procedure, i.e. opening from outside. If any delay in normal door opening occurs, cabin crew will report the situation to the SCCM who will inform the Captain. If the Captain says to open the door from inside the cabin, the procedure given below is to be followed.

1. Ensure that a platform is in position outside the door e.g. connecting airbridge, stairs or high lift vehicle.
2. Ensure both the exit and the area outside the door are clear of obstruction.
3. (Airbus) Ensure that the mode selector is "Disarmed" and locked with the safety pin and the cabin pressure warning light is not flashing. On A320/1, also ensure the red arrow on the girt bar floor visual indication does not point to the dot.  
  
(777) Ensure the mode selector is in "Manual" and the girt bar indicator flag viewing windows are completely BLACK.
4. (Airbus) Lift the door operating handle fully up and at the same time ensure that the slide armed indicator light does not illuminate.  
  
(777) Rotate the door operating handle fully towards the rear of the aircraft.
5. Push open the door until the gust lock engages.

**Note 1:** (Airbus) *Do not open the door if the cabin pressure warning light is flashing. Report to the SCCM who will inform the Captain.*

**Note 2:** (Airbus) *Do not open the door if the white slide armed indicator light comes on. Report to the SCCM who will inform the Captain.*

**Note 3:** (777) *If the girt bar indicator flag viewing windows are not completely BLACK, do not open the door. Report to the SCCM who will inform the Captain.*

**Note 4:** *Whenever a door is open and steps or airbridge are not provided, a door safety strap should be fitted across the door. Additionally, a cabin crew is to guard the cabin door area to prevent other people approaching the open door. The cabin crew must stand a safe distance away from the door edge and without leaving the area, inform the Captain and SCCM of the situation. The SCCM is to inform the ground engineer or ground staff to arrange for the door to be safely closed. Cabin crew can close the door only if a platform is in position outside the door.*

### 5.6.2 Reopening of Cabin Doors

Once the aircraft doors are closed for departure, any request (by staff outside the aircraft or from the cabin) for a door to be re-opened must be passed to the Captain for approval. Communication can then be established between the flight crew and the ground engineer to ensure conditions are safe for a door to be re-opened.

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## 5.7 Normal Door Closing

Aircraft doors shall be closed from the inside or outside by suitably trained and competent personnel. Normally, the crew member shall close and lock the door(s) from inside the aircraft. Ground staff may assist the crew member to close aircraft doors by pushing on the physical structure of the door but under no circumstances should they interfere or participate in the locking process.

1. When cabin doors are to be closed by crew member:
  - A. Before closing the door, check that the door safety strap is fully retracted into the door frame. Also check that the floor area around the doorsill has no debris as this may cause a problem when closing or arming the door.
  - B. (Airbus) Press the gust lock release and pull the door inward.  
(777) Pull the gust lock release lever until the door moves inward.
  - C. (Airbus) When the door has moved into the cabin, lower the operating handle.  
(777) When the door has moved into the cabin, rotate the door operating handle fully forward.
  - D. (Airbus) Check that the door locking indicator(s) indicate(s) "LOCKED".  
(777) Check the red arrow on the door is aligned.

### 2. Normal Door Closing – Catering Services

All aircraft doors opened for catering services shall be closed by authorized caterers. In certain ports where there are some caterers who will not operate the aircraft doors, ground engineer shall be contacted to perform the task. Before the doors are closed by caterers, crew member shall check:

- A. The floor area around the doorsill to ensure there is no debris.
- B. The door safety strap is fully retracted into the door frame.

Crew shall step back from the door to avoid any injury caused by the movement of the door handle.

**Note:** (777) If the red arrow is not aligned, the power assist system has been manually deactivated.

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## 5.8 Passenger Acceptance and Seating Arrangement

### 5.8.1 Passengers with Disabilities

The SCCM is responsible for advising the flight crew of the number and location of passengers with disabilities before departure. Information is available on the Onboard Service List (OSL).

### 5.8.2 Escort

If there are escorts, they will be introduced to the SCCM by the Airport staff. The escorts should pay particular attention to the safety briefing, assist the passengers with disabilities in understanding and complying with safety instructions.

Escorts are to be briefed by cabin crew on the additional safety responsibilities they will undertake on behalf of the passengers. They are to be told that in the unlikely event of an emergency, they are to remain calm, stay in their seats and obey the orders of the cabin crew. In the event of an evacuation, they are to work with cabin crew to help evacuate the passengers they are accompanying.

### 5.8.3 Seating at Emergency Exit Row/Seat

An emergency exit row/seat is defined as a row/seat where occupants egress in not impaired by any other seat and can reach an emergency exit without first entering an aisle.

The following types of passengers are not to be seated at emergency exit rows/seats as they may impede the crew in their duties, obstruct access to emergency equipment or hinder an aircraft evacuation.

1. Children (under 12 years of age) and infants, whether accompanied or not.
2. Deportees/Inadmissible passengers/Prisoners in custody.
3. Passengers who require the use of an extension seat belt.
4. Passengers with Reduced Mobility.
  - A. Passengers who are travelling with a Guide Dog/Assistance Dog or using a mobility aid during boarding stage such as wheelchair, walking stick, Postural Support Equipment (PSE).
  - B. Passengers who are either vision or hearing impaired to the extent that they might not readily assimilate printed or verbal instructions given.
5. Passengers who are unable to understand cabin crew instructions.
6. Passengers who need to use oxygen bottles or a Medical Portable Electronic Device (MPED).
7. Passengers who have been confirmed to be intoxicated or under the influence of drugs.

**Note:** *Passengers who are unable to understand cabin crew instructions may include passengers with cognitive or developmental impairment. There is no language requirement for exit row seating. However, passengers must be able to communicate effectively with crew members, regardless of means.*

## 5.8.4 Passenger Travelling with an Infant Requesting a Seat Change

1. The number of passengers (including infants not occupying seats) must not exceed the total number of oxygen masks per seat block.
2. Cabin crew are to refer to the Oxygen Mask Layout chart before reseating a parent/guardian travelling with an infant.
3. The Oxygen Mask Layout chart is available via Comply365 using SCCM/SP cabin tablet.

## 5.9 Passenger Seat Belts

All seats are equipped with adjustable seat belts.

The Commander of the aircraft shall before it takes off and before it lands, and whenever by reason of turbulent air or any emergency occurring during the flight they consider the precaution necessary, take all reasonable steps to ensure that all passengers are properly secured in their seats by safety belts, or appropriate child restraint system. The seat belt signs are operated by the Commander to indicate the fastening of seat belts. Cabin crew must be alert at all times for this signal to see that instructions are observed and make a further P/A announcement to this effect if required. A cabin check is to be carried out immediately after the illumination of the seat belt signs to ensure passengers' compliance. Cabin crew shall check that all passengers are seated with their seat belts fastened during takeoff, landing, taxiing, turbulence, and whenever the seat belt signs are illuminated.

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## 5.10 Child Restraint Device (CRD)

There are currently three types of Child Restraint Device (CRD) accepted on CX aircraft: Supplementary Loop Belt (SLB), Child Restraint Seat (CRS) and CARES harness. The SLB is provided by CX, the CRS and CARES harness are to be provided by the passengers. All these devices can be used on CX aircraft for securing the infant/child when the seat belt sign is on.

### 5.10.1 Child Restraint Seat (CRS)

The CRS is for the infant/child age from 0 to under 3 who requires to be seated in their own seat. A separate seat must be purchased for the infant/child using the CRS. Both Forward-Facing and Aft-Facing CRS can be accepted.

#### 1. Definition

A CRS is a car-type seat on which a child is restrained and which is fastened to a passenger seat by the adult safety belt.

#### 2. For infant age from 0 to under 2 years, the CRS shall meet the following standard:

- A. European Aviation Safety Agency (EASA) ETSO-C100b
- B. Federal Aviation Administration (FAA) TSO-C100, TSO-C100a, TSO-C100b, or TSO-C100c
- C. European Safety Standard requirements of ECE Regulation 44
- D. United States Federal Motor Vehicle Safety Standard FMVSS 213
- E. Australia/New Zealand Standard (AS/NZS) 1754

#### 3. For child age from 2 years to under 3 years, the CRS shall meet the following characteristics:

- A. A CRS must have a well-defined shell and, where there is a separate shell and understructure they must be securely attached to each other.
- B. A CRS must be of such a design that a child can easily and quickly be secured in or removed from the seat.
- C. A CRS must have a single release type harness which at least secures a child's lap, torso and shoulders.
- D. The single release device for the harness of a CRS must be of such a design as to prevent unreasonably easy release by the child occupying the CRS.
- E. The harness straps of a CRS must be a minimum width of 1 IN/25 MM.
- F. Any lift-type adjusters on the harness straps of a CRS must be of a type that require a positive angular lift to release.

#### 4. CRS Installation Directions

- A. CRS with an integral harness must not be installed such that the adult safety belt is secured over the child.
- B. The buckle of an adult safety belt must not lie on any sub-frame member of the CRS after tightening.
- C. The lower part of the CRS whether it be the shell or understructure thereof must not unreasonably extend beyond the front of the passenger seat on which it rests.

5. Acceptance of Aft-Facing CRS
  - A. The CRS should not restrict the seat in front from reclining. Several seats will be pre-assigned to the passenger if available.
  - B. If the pre-assigned seats are not available during reservation or check-in stage, other window seats will be assigned to the passenger as alternatives.
  - C. During boarding, cabin crew should check if any other better alternatives are available to accommodate the passengers' preference. e.g.:
    - a. Empty seat in front, so that the use of the CRS will not affect any passenger.
    - b. Checking with the passenger sitting in front if they would mind the use of the CRS, as this may restrict their seat from reclining.
  - D. In case the above cannot be achieved, cabin crew should advise the passenger that the Aft-Facing CRS cannot be used. Cabin crew should advise the passenger to use the SLB to secure the infant.
6. Cabin crew must ensure that the following procedures are adhered to whenever CRS is used:
  - A. The CRS must be positioned on the cushion of the passenger seat. It must be secured in the passenger seat by means of the regular seat belt. In A321neo Business Class, the shoulder belt is not to be fastened.
  - B. The manufacturer's instructions for use, with emphasis on the securing of the child in the CRS must be strictly adhered to by the crew/person(s) accompanying the child. If in doubt, check with the ground staff and the passenger.
  - C. The CRS must not be installed in an emergency exit row/seat or in a row/seat immediately fwd or aft of an emergency exit row/seat. The row/seat forward or aft of an exit may only be used if a bulkhead or partition separates the row/seat from the exit.
  - D. The CRS must not be used on:
    - a. Seats which are not forward facing except A350 business class seats.
    - b. Seats which are equipped with airbag seat belt. The reason is that the airbag seat belt must be deactivated because when deployed it may cause injury to the occupant of the CRS. However, the CRS cannot be properly secured to the passenger seat when the Extension-Deactivation seat belt is used to deactivate the airbag as the extended belt will be too long.
  - E. Only one CRS is permitted in any one row of seats (see G for exception) and the CRS shall be secured on the window seat.
  - F. At least one seat adjacent to the CRS is to be occupied by a physically able parent/guardian (see G for exception).
  - G. If a group travelling together requires more than one CRS, each child can be placed in a CRS in the same row provided:
    - a. One CRS is secured on the window seat.
    - b. The only persons seated where there is a CRS between themselves and the nearest aisle shall be persons travelling as part of the group.
    - c. When a CRS is secured to an aisle seat, the parent/guardian may be seated in the aisle seat immediately across the aisle.

- H. Each CRS must be secured to a passenger seat throughout the flight and no passenger other than the designated child may occupy that seat.
- I. In an evacuation, the CRS is not to be removed from the aircraft.
- J. Where a CRS is adjustable in recline it must be set upright for all occasions when the seat belt sign is on.

**Note 1:** *Ground staff is responsible to check that the CRS brought by passenger meet the Safety Standards.*

**Note 2:** *A maximum of two infants under 2 years of age can be accepted for travel when accompanied by one parent/guardian. However, only one infant can be secured to the parent/guardian using a SLB. The other infant is to be secured using either a CRS or a CARES harness provided the conditions of use are met.*

## 5.10.2 CARES Harness

The CARES harness is a harness type safety device which secures the infant/child to a passenger seat. A separate seat must be purchased for the infant/child using the CARES harness.

The parent/guardian must inform Reservations staff during booking and Check-In staff that they wish to use the CARES harness to secure their infant/child. Cabin crew will receive the information via the OSL.

Cabin crew must ensure that the following requirements are adhered to whenever the CARES harness is used:

1. The CARES harness must be used to secure the infant/child during taxi, takeoff, landing, turbulence and whenever the seat belt sign is on. The harness is recommended to be used inflight even when the seat belt sign is off.
2. The CARES harness can only be used by an infant/child who is able to sit upright unsupported on a forward facing passenger seat.
3. For infant/child age from 0 to under 2 years – the infant/child shall be 100 CM (40 IN) tall or below and weighing between 10-20 KG (22-44 LB).
4. For infant/child age from 2 to under 3 years – the infant/child shall be 100 CM (40 IN) tall or below and weighing between 10-15 KG (22-33 LB).
5. The CARES harness can only be used on forward facing seats that are not fitted with an airbag seat belt.
6. The CARES harness is not to be used or installed on seats in exit rows.
7. The CARES harness is not to be used in A321neo Business Class as the harness cannot be looped through the back of the seat.

**Note 1:** *If a parent/guardian informs the cabin crew of their intention to use the CARES harness and Reservations or Check-In staff have not been informed, depending on appropriate seat availability, cabin crew may permit the installation of the CARES harness.*

**Note 2:** *Ground staff is responsible to check that the CARES harness brought by passenger meet the Safety standards.*

Installation of the CARES harness:

1. The parent/guardian is responsible for the installation and removal of the CARES harness, however cabin crew must ensure that the CARES harness is installed securely.

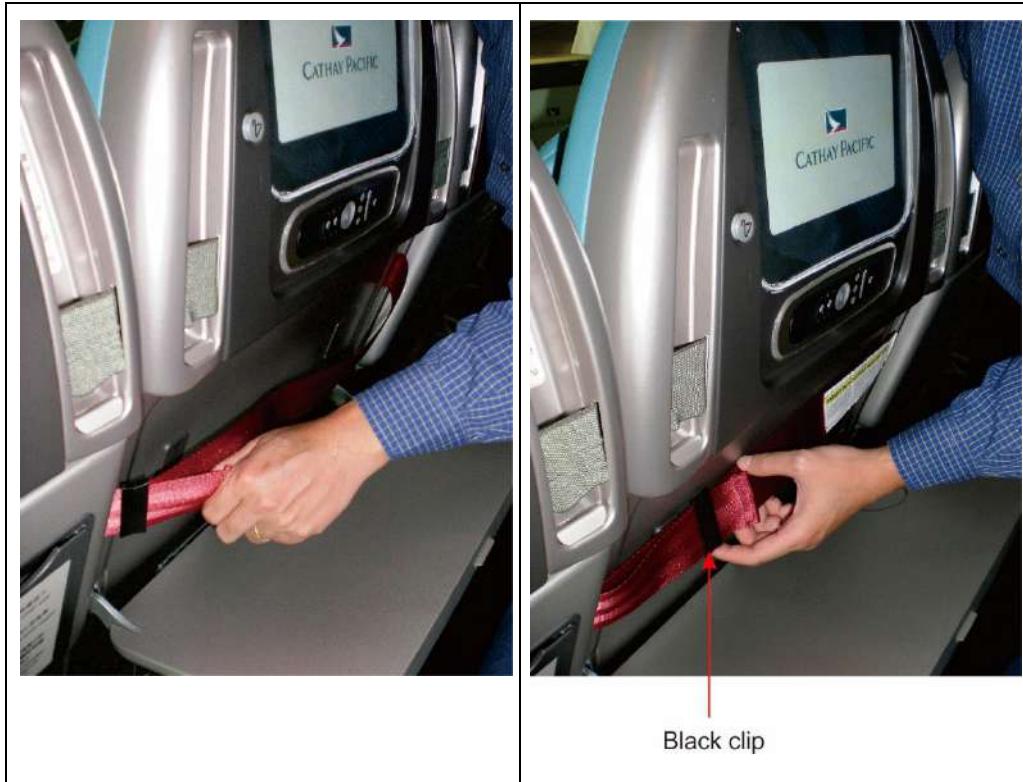
2. Prior to installation, cabin crew are to check that the CARES harness has a FAA approved indication on the back of the label.



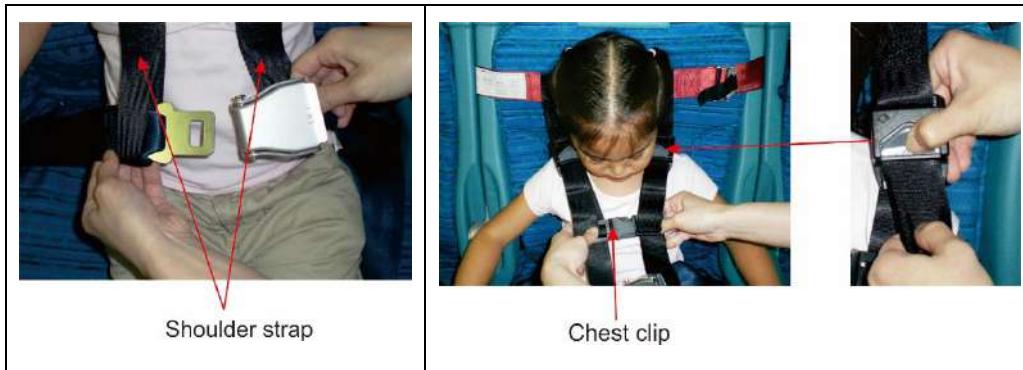
3. Cabin crew may assist the parent/guardian to lower the tray table on the back of the seat and slide the red loop of the CARES harness over the seat back. Adjust the height of the red loop so that it is above child's shoulders.



4. Tighten the red loop around the seat back. Ensure that the end of the strap is not loose by sliding the black clip towards the end of the strap. Close and latch the tray table, covering the red loop.



5. Place the shoulder strap over the infant's/child's shoulders and slide both ends of the passenger seat belt through the loops at the bottom of the shoulder straps. Buckle the seat belt and pull it snugly across the child's lap and then buckle the chest clip on the shoulder straps. Tighten the shoulder strap by pressing the button and pulling the strap downward.



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## 5.11 Requirement for Additional Equipment

### Background

1. The total number of infant floatation devices (i.e. infant life jackets and baby floatation cots) shall not be less than the total number of infants (under 2 years old) carried on the aircraft.
2. The total number of SLBs shall not be less than the total number of infants (under 2 years old) carried on the aircraft.

### Procedures

1. Ground staff shall monitor the total number of infants during check-in to ensure sufficient equipment is carried. If required, additional equipment will be up-lifted ex Hong Kong by ground engineer.
2. The extra SLBs will be placed in the SLB bag. Note that passenger may use their own devices to secure the infant in the seat, i.e. CRS, CARES harness.
3. The SCCM is to sign a Work Card from the ground engineer to acknowledge that information about the loading of the additional devices has been received. The SCCM is not required to retain a copy of the Work Card.
4. The SCCM is to inform cabin crew who will then carry out a pre-flight check of the additional equipment. Any discrepancy in the quantity must be reported to the SCCM and ground engineer as soon as possible so that the matter can be rectified prior to departure.
5. If additional equipment is loaded for use ex-outport, the SCCM who receives the equipment ex-HKG will use the Cabin Terminal (CT) to leave a message for the next set of crew.
6. At the end of the flight, cabin crew responsible for the respective pre-flight check is to ensure that all additional SLBs are returned to their original stowage. These SLBs will only be offloaded by the ground engineer when the aircraft returns to HKG.

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## 5.12 Handling Procedures for Passenger Requests Infant Life Jacket under Normal Circumstances

If a passenger is travelling with an infant and requests to keep an infant life jacket during takeoff and landing, cabin crew shall acknowledge the passenger's safety concern and explain to the passenger that the infant life jacket will be distributed in the unlikely event of prepared ditching situation.

If passenger still insists, cabin crew shall provide the infant life jacket to the passenger and advise the passenger it is available in the overhead compartment near the passenger's seat.

Brief the passenger that the infant life jacket must not be inflated inflight and they shall not tamper with the pouch.

Advise the passenger to leave the infant life jacket in the overhead compartment. The life jacket will be collected by cabin crew after passenger disembarkation.

Inform the SCCM and other cabin crew working in the area of the arrangement.

After landing, cabin crew shall place the infant life jacket in a shopping bag and return it to the original stowage. Cabin crew responsible for the respective pre-flight emergency equipment check shall reseal the Floatation Equipment Bag using a red seal (where applicable).

SCCM shall make an entry in the eCL. Any missing or damaged infant life jacket must also be reported via eCL.

Submit the eCSR with details of the incident, including the name and seat number of the passenger who made the request, sequence of event and the passenger response.

**Normal Procedures /**

**Supplementary Procedures**

**Handling Procedures for Passenger Requests**

**Infant Life Jacket under Normal Circumstances**



**5.12**

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## 5.13 Fuelling with Passenger Onboard

The Commander, or in their absence a nominated flight crew, shall remain in the flight deck for the duration of the fuelling operation and shall inform the SCCM upon commencement and completion of fuelling. Switching on the seat belt sign on completion of refuelling serves to advise the cabin crew that fuelling is completed and that they may resume normal cabin duties.

CX or the handling Company staff are to be in attendance near the aircraft to:

1. Enforce no smoking regulations.
2. Guide passengers along a safe path to and from the aircraft if an airbridge is not available.
3. If steps are in use, the route to and from the aircraft must not be crossed by fuelling hoses or cables.

The SCCM will:

1. Make the following announcement.

"Please be informed that the aircraft is now being refuelled. Please remain seated, seat belts are not to be fastened and please do not smoke".

2. Establish communication with the flight crew in the flight deck and advise them if fuel vapours or other hazards are detected during the fuelling operation.

Airbridges or aircraft steps shall be positioned preferably at L1 and L2 or the rear left hand door (L1 and L4 for A321/A321neo). They are to remain open, free from obstruction and manned by a cabin crew throughout the fuelling operation.

If only ONE door is open with an airbridge or steps in position, an additional door in a different zone preferably L1, L2 or the rear left hand door (L1 or L4 for A321/A321neo) shall have:

1. Escape system disarmed:
  - A. (777) Mode Selector in MANUAL.
  - B. (Airbus) Mode Selector in DISARMED.
2. A cabin crew stationed at this door throughout the fuelling operation.

Every main deck cabin zone not provided with an airbridge or steps is to have a minimum of one door available for emergency deplaning. That door is to have the:

1. Door area clear of obstruction.
2. Escape system disarmed.
3. Door Primary periodically check that the slide area is clear.
4. Door primaries will remain in the vicinity of their respective doors, capable of responding immediately to an evacuation order.

If due to unserviceability a door is not available in a zone, the zone either forward or aft will have two doors available for emergency use.

Cabin crew shall ensure routes to designated exits are unobstructed for deplaning or evacuation in the event of an emergency.

If it becomes necessary to evacuate the aircraft during a transit stop, the Captain or their nominated crew will assess the situation and decide on the best route to use i.e. airbridge, steps or, as a last resort the emergency escape slides.

- Note 1:** *In the event that an EVACUATION order is given, all Door Primaries are to return to their doors and evacuate passengers. If the door is unusable because the slide area is blocked, passengers shall be redirected to the nearest available exit.*
- Note 2:** *Adequate cabin crew or handling Company staff are to be available to assist unaccompanied non-ambulatory passengers in the event of an emergency evacuation.*

## 5.14 Sterile Flight Deck

“Sterile Flight Deck” aims to minimize the occurrence of non-essential activities and conversation in the flight deck during critical phases of flight. Cabin crew communication with the flight crew shall be restricted to urgent safety and security issues only.

Cabin crew must use discretion in deciding what is critical and what is not. In circumstances where cabin crew are not absolutely sure whether the issue is an urgent safety or security matter, they should still call the flight crew.

In urgent safety and security circumstances, any cabin crew member should call the flight deck, but essential duties may prevent the flight crew from answering the call. If the call is unanswered, the cabin crew member shall inform the SCCM. Flight crew should contact the SCCM when their workload permits. However, if the SCCM assesses that the situation is time critical, the SCCM should persist in establishing communication with the flight deck.

During the “Sterile Flight Deck” period, access to the flight deck is not normally permitted unless initiated by the flight crew.

The following are the times when the “Sterile Flight Deck” applies:

1. At departure, from engine start or when the aircraft first moves until the aircraft reaches cruise altitude and the flight crew establish communication with the cabin crew.
2. At descent, from the Captain’s P/A – “Cabin crew, 30 MIN to landing” until the aircraft is parked at the arrival gate and the seat belt signs are switched off.

Other than during the “Sterile Flight Deck” phase, cabin crew will aim to contact the flight crew at least once every hour as well as immediately before and after the meal service. This may be modified at the request of the Captain.

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## 5.15 Procedures in Turbulence

### 5.15.1 Introduction to Turbulence

Turbulence is usually associated with bad weather and cloud. It may be classified as:

1. Light/Mild turbulence

It momentarily causes slight, erratic changes in altitude and/or attitude. Unsecured objects may be displaced slightly. Occupants may feel a slight strain against seat belts or shoulder straps, little or no difficulty is encountered in walking.

2. Moderate turbulence

Moderate turbulence is similar to light turbulence but of greater intensity. Changes in altitude and/or attitude occur but the aircraft remains in control at all times. Unsecured objects are dislodged. Occupants feel definite strains against seat belts and walking is difficult.

3. Severe turbulence

Severe turbulence causes large, abrupt changes in altitude and/or attitude. Unsecured objects are tossed about. Aircraft may be momentarily out of control. Occupants are forced violently against seat belts or shoulder straps and walking is impossible.

4. Clear air turbulence (CAT)

This is a sudden turbulence occurring in cloudless regions that cannot be detected by the weather radar on the aircraft. It can be light, moderate or severe.

### 5.15.2 Procedures after Takeoff and During Turbulence

#### 5.15.2.1 After Takeoff

If turbulence is anticipated during departure and initial climb, the Captain will brief the cabin crew accordingly and the "Seat Belt" sign will remain on. When it is considered by the Captain that conditions are safe, the "Seat Belt" sign will be switched off and back on. Cabin crew shall remain seated until instructed by the SCCM to commence work. The SCCM shall assess if the conditions in the cabin are safe for cabin crew to leave their seats i.e. attitude of aircraft (steepness) and degree of turbulence. The SCCM will make an "all stations" call and inform crew when safe to commence duties. Hot beverage service can only commence when the seat belt sign is off.

#### 5.15.2.2 Light/Mild Turbulence

The Captain will switch on the "Seat Belt" sign.

The following are the procedures during different phases of the flight:

1. After takeoff until the completion of the first meal service – SCCM is to broadcast the pre-recorded P/A or live P/A announcement, and plays the In-seat message.
2. After the first meal service until the Captain's "30 MIN to landing" P/A – SCCM is to play the In-seat message.
3. After Captain's "30 MIN to landing" P/A – SCCM is to broadcast the pre-recorded P/A or live P/A announcement, and plays the In-seat message.

On A320 where pre-recorded P/A and In-seat message are not available or when the IFE system is unserviceable, the turbulence P/A announcement shall be made during all phases of the flight. When passenger compliance is low after cabin check, cabin crew may use the P/A announcement to advise passengers again during all phases of flight.

Cabin crew will check that all passengers are seated with seat belts fastened. Cabin crew will also check that infants are removed from bassinets and secured by a child restraint system. Cabin crew are to report to their Section Leaders who will inform the SCCM. The SCCM will report to the Captain.

Hot beverages, including soup and cup noodles must not be prepared or served. Congee, not being a liquid, can be served. If cabin service is taking place or is likely to be disrupted, the SCCM will check with the Captain whether or not service, including the use of carts and trolleys may continue. The SCCM will advise cabin crew accordingly. If cabin service continues, the tea/coffee decanters are to be stowed back in the galley or food cart.

Cabin crew must be prepared to discontinue service at short notice and stow all equipment as conditions may deteriorate to moderate/severe turbulence.

At any time, if cabin crew feel that the conditions in the cabin are unsafe to be standing (whether or not the "Seat Belt" sign is switched on), they should inform the Section Leader. The Section Leader will determine whether the degree of turbulence is safe for cabin crew in their section to continue their duties, or if they should take their seats. The Section Leader should inform cabin crew of their decision i.e. either continue duties or to take their seats. The Section Leader should then inform the SCCM. If the "Seat Belt" sign is not on, the SCCM is to recommend to the flight crew that the "Seat Belt" sign be switched on.

### **5.15.2.3 Moderate Turbulence**

Before entering an area of moderate turbulence the Captain will alert the cabin crew and passengers by switching on the "Seat Belt" sign followed by the P/A "This is your Captain speaking. Please observe the seat belt signs are ON, and cabin service will be suspended. Cabin crew, please take your seats".

Cabin crew must immediately discontinue any on-going service activities. Carts/trolleys are to be stowed and secured in the galley. Items on the carts/trolleys, opened food items and entrees (inside the blue drawer) are to be placed on the galley top. Breakables e.g. glassware, glass bottles and any loose service items are to be stowed into any available compartment. When stowing service equipment, consideration should be given to time rather than tidiness.

After securing items in the galley, cabin crew are to be seated immediately in the nearest crew seat with seat belt and shoulder harness fastened.

If the turbulence is so severe that cabin crew are unable to return carts/trolleys to the galley, cabin crew are to put the brakes on the carts/trolleys and then sit down and secure self in the nearest convenient crew seat/ passenger seat immediately and hold on to the carts/trolleys if necessary.

Cabin crew can resume normal duties after the seat belt sign is switched "OFF", or after the flight crew have advised that it is safe to do so.

### **5.15.2.4 Severe Turbulence**

If severe turbulence is anticipated or encountered, the Captain will alert the cabin crew and passengers by switching on the "Seat Belt" sign followed by the P/A "Cabin crew, please take your seats immediately."

Cabin crew must immediately move any carts/trolleys from the aisle into the galley area and put the brakes on, then be seated and secure self in the nearest convenient crew seat/passenger seat. Priority should be given to securing themselves rather than securing the carts/trolleys.

If the turbulence is so severe that cabin crew are unable to return carts/trolleys to the galley, cabin crew are to put the brakes on the carts/trolleys and then sit down in the nearest convenient crew seat/passenger seat immediately and hold on to the carts/trolleys if necessary.

Cabin Crew can resume normal duties after the seat belt sign is switched “OFF”, or after the flight crew have advised that it is safe to do so.

#### **5.15.2.5 Back-up Signal for Moderate and Severe Turbulence**

Should the P/A system be unserviceable, the cabin crew will be alerted by cycling “OFF” then “ON” the sign belt sign. Cabin crew shall then follow the severe turbulence procedure for actions.

#### **5.15.2.6 Clear Air Turbulence (CAT)**

CAT may happen suddenly without any warning. This is why passengers are advised to fasten their seat belts whenever they are seated. If necessary, cabin crew shall immediately take appropriate actions to secure themselves. Do not wait for an announcement from the flight crew.

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## 5.16 Use of Personal Electronic Devices (PEDs)

There is evidence that some electronic devices generate interference that could directly affect aircraft navigation, communications and control systems. Personal Electronic Devices (PEDs) may be used on the ground during transit at any time the cabin doors are opened unless otherwise instructed by the flight crew. PEDs shall be turned off or in "Airplane Mode" until after landing. On landing, after vacating the runway, the SCCM will make a P/A informing passengers that they may now use their mobile phones.

In the event of Electromagnetic Interference (EMI) or Low Visibility Operations (LVO), upon advice from the Captain, cabin crew shall make a P/A immediately to advise passengers to turn off all their PEDs.

Cabin Crew seeing any passengers using electronic equipment contrary to these rules should request the passenger to refrain from using the equipment. If a passenger ignores this request, the Captain shall be informed.

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## 5.17 Passenger Address and Interphone System

### 5.17.1 Inoperative Passenger Address (P/A) and Interphone System

In the event that an aircraft has an inoperative Passenger Address (P/A) system or Cabin Interphone system, the following procedures are to be followed by crew members.

#### Inoperative Interphone System

Communication	Normal Situation	Emergency Situation
Cabin to Cabin	Reporting door procedures: P/A will be used for reporting (Door Primary or LHS doors are responsible for reporting).	SCCM will use the P/A to call for a Section Leader briefing. Section Leaders will brief the rest of the cabin crew. P/A will be used to relay any messages to passengers.
	Relaying information: Section Leader will assign one crew member to relay messages from one galley to the other.	
Flight Deck to Cabin	Flight crew will use the P/A to instruct cabin crew to proceed to the flight deck.	
Cabin to Flight Deck	Cabin crew will pre-arrange with the flight crew a set timing for the frequency of visits for the duration of the flight.	Cabin crew are to gain access to the flight deck using the flight deck access procedure to personally relay the message.

#### Inoperative Passenger Address (P/A) System

Communication	Normal Situation	Emergency Situation
Cabin to Cabin	Megaphones will be used to make only the essential P/As (refer to the list of essential P/As below).	SCCM will use the megaphone to call for a Section Leader briefing. Section Leaders will brief the rest of the cabin crew. Megaphones will be used to deliver all safety/emergency instructions to passengers.
	<b>Note:</b> <i>If a passenger is inside the lavatory, cabin crew are to ask the passenger to come out before any announcement is made, or an individual briefing has to then be given to the passenger.</i>	
Flight Deck to Cabin	1. Flight crew will relay the message to the SCCM who will then write the message down (in English) and repeat it back to the flight crew for accuracy. 2. The SCCM is to brief the cabin crew member who is responsible for making the appropriate announcement to the passengers using the megaphone.	

Cabin crew shall ensure the following essential safety or security P/A is made to passengers:

1. Normal situations – e.g. Refuelling, Safety Demonstration, Descent/Transit/After landing
2. Turbulence
3. Abnormal situations – e.g. Diversions, Security – unidentified item onboard
4. Emergency situations – e.g. Medical assistance, Emergency landing/ditching

Use of megaphone when Passenger Address (P/A) is inoperative:

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1. Responsibility of cabin crew for megaphones

The cabin crew who is responsible for doing the equipment check for the megaphone will normally be responsible for its use.

2. Positioning of megaphones

- A. The SCCM shall brief the cabin crew who is responsible for the megaphones to ensure clarity of the message to be delivered, and the order in which the announcement will be made to each zone.
- B. The message may be delivered in two zones at one time, provided that the two zones are not adjacent to each other to avoid confusion in the announcement (see C for exception).
- C. Announcement may be made simultaneously in adjacent zones provided a service centre separates them.

## 5.18 Ramp Safety

The Ramp is the controlled area of an airport where aircraft are received, serviced and dispatched.

Crew member may be required to embark and disembark the aircraft from the ramp instead of using an aerobridge in some airports. The movement and operation of aircraft and ground vehicles in the ramp and apron area could cause potential hazards to the crew members, especially during darkness, periods of low visibility, strong winds and adverse weather.

### Engine Running Threats

#### 1. Jet blast

Crew member shall be aware of the danger of jet blast from an engine running or when an aircraft is moving under its own power. They are to remain at a safe distance from the aircraft, especially the engines and never walk behind an aircraft when the anti-collision beacon is on.

#### 2. Suction hazard

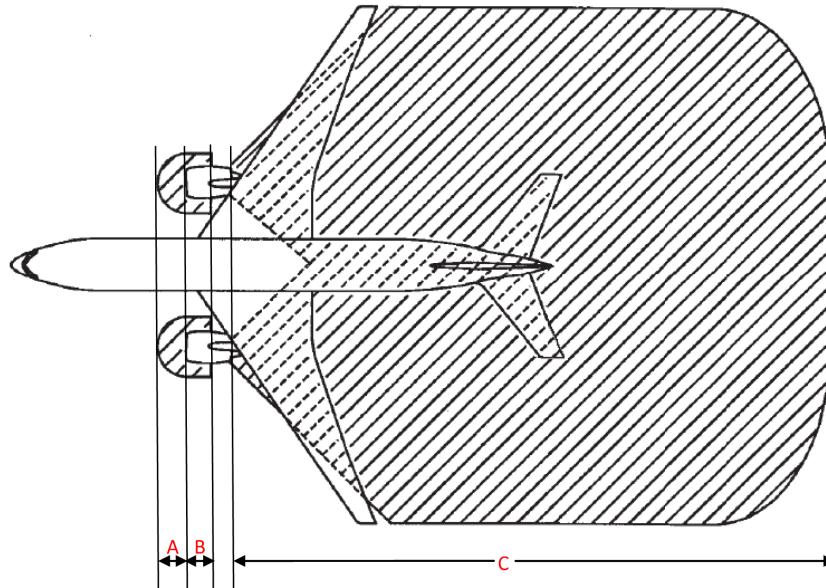
At idle, the suction hazard from the engine extends forward of door 2 and it can also reach behind the inlet up to 4 FT. Crew member shall stay away from the aircraft and jet engines when they are operating.

The aircraft anti-collision beacon located at the top and the bottom of the aircraft will flash red when the aircraft engine is running. No one shall enter the marked hazard area painted on the ramp around the aircraft if the aircraft anti-collision beacon is "ON".

Crew member must ensure the following guidelines are followed:

1. Stay on designated walkways where possible.
2. Do not walk near / between ground equipment.
3. Avoid walking over areas marked as "Clearance Zone" and "Keep Clear Box".
4. Do not board the aircraft via stairs unless the aircraft anti-collision beacons are "OFF".

The diagram below shows the danger areas around an aircraft when the anti-collision beacon is on.



1. Airbus – A320/1
  - A. Inlet hazard zone A: 9.5 FT radius
  - B. Inlet hazard zone B: 3.3 FT
  - C. Exhaust danger zone C: 127 FT (measured from the engine nozzle exit)
2. Airbus – A330
  - A. Inlet hazard zone A: 13 FT radius
  - B. Inlet hazard zone B: 3.75 FT
  - C. Exhaust danger zone C: 256 FT (measured from the engine nozzle exit)
3. Airbus – A350
  - A. Inlet hazard zone A: 15 FT radius
  - B. Inlet hazard zone B: 5 FT
  - C. Exhaust danger zone C: 220 FT (measured from the engine nozzle exit)
4. Boeing – 777
  - A. Inlet hazard zone A: 15 FT radius
  - B. Inlet hazard zone B: 4 FT
  - C. Exhaust danger zone C: 175 FT (measured from the tail of the aircraft)

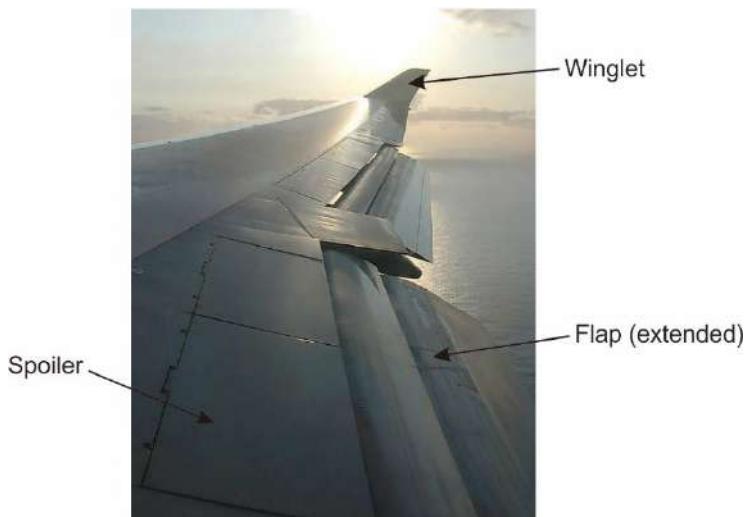
## 5.19 Aircraft Technical

### 5.19.1 Phases of Flight

1. Push back
2. Taxi
3. Takeoff
4. Climb
5. Cruise
6. Descent
7. Approach
8. Land

### 5.19.2 Major Aircraft Components

1. The Wing



Wings create lift. The air flows above and under the wing creating pressure differences which creates an upward force under the wing. The faster the aircraft speed, the greater the lift.

2. The Fuselage

Made with aluminium alloy. The flight deck, cabin, galley and cargo compartment are located inside the fuselage.

3. The Engines

Engines provide thrust (power) to move the aircraft forward. They are numbered from the left to the right.

4. The Tail

The tail includes the fin and the horizontal stabilizer.

5. The Landing Gear

Refer to the wheels underneath the aircraft that are used for taxiing, takeoff and landing. It consists of the nose gear in the front and the main landing gear beneath the wings.

The gears are extended for landing and retracted after the takeoff.

### 5.19.3 Critical Surfaces

1. Elevator (Pitch)

The elevators are attached to the horizontal stabilizer. They are used to make the aircraft climb or descend.

2. Rudder (Yaw)

The rudder is attached to the fin. It is a directional control surface which helps to balance the aircraft when it turns.

3. Aileron (Roll)

Ailerons are attached to the trailing edge of the wing. They are used to turn the aircraft. The RHS aileron goes up and the LHS aileron goes down to turn the aircraft right and vice-versa.

4. Slats

Slats are on the leading edge of the wings. By deploying slats, an aircraft can fly at slower speed or takeoff and land in shorter distances.

5. Flaps

Flaps are on the trailing edges of the wing. They are deployed for takeoff, during approach and landing to allow the wing to produce more lift at slower speed.

6. Spoilers

Spoilers are used to reduce speed and dump lift after landing to improve braking. They can also be used to co-ordinate turning and during descent to reduce speed.

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## 6 Non Normal Procedures

### 6.1 Fire Fighting

#### 1. Elements of Fire



In order for a fire to start, 3 elements must be present – oxygen, fuel and ignition temperature. This is known as the fire triangle. Removing any one of the 3 sides means that you will not have a fire.

#### 2. Types of Fire

Fire is classified into three types:

A. Class A (Solid)

Paper, fabrics, clothing etc.

B. Class B (Flammable liquid)

Any flammable liquid or grease, e.g. petrol, oil, alcohol, solvents.

C. Class C (Electrical)

Short circuits or faulty wiring in electrical equipment, e.g. entertainment system installed in passenger seats, VCC, ovens etc.

It is important to use the correct type of extinguisher depending on the class of fire. The use of the wrong extinguisher would make the situation worse. For example a water extinguisher used on a Class C fire could cause shock or death. If used on a Class B fire it will spread the fire.

Most fires start small. Except for explosions, fires can usually be brought under control if they are attacked correctly with the correct type and quantity of extinguisher within the first few minutes.

#### 3. Fire Prevention

Most cabin fires can be prevented by alertness and common sense. Crew must be vigilant and pay attention to any unusual smell, noises, unusual system behaviour that may be an indication of possible fire. Any indication of fire/smoke/fumes must be dealt with immediately.

Lavatory – Check the lavatory at frequent intervals to ensure that passengers do not smoke inside. Check that the smoke detector is not tampered with. If you suspect that a passenger has been smoking in the lavatory, check the area thoroughly. Pay particular attention to the waste bin. If there is paper or other flammable items in the bin, pour some water into it to prevent a fire from starting. Inform the SCCM and flight crew. An announcement over the P/A should be made to remind passengers of the no smoking regulations.

Galley – Use electrical equipment properly. Follow operating procedures, use correct timing and temperatures. Keep the galley area clean and tidy. Ensure that there are no spills or leftovers inside the ovens. Monitor the ovens whilst they are in use.

Cabin – Patrol the cabin frequently especially on night flights as passengers are usually sleeping and are unlikely to notice a cabin fire.

Be alert for any item of passenger's hand-baggage that represents a fire hazard. Remember, security checks are not always successful.

Ensure that passengers comply with the no smoking regulations.

4. Smoke and Fumes in the Cabin

Fumes refer to invisible gases in the air that can be detected by smell.

Smoke is the product of burning materials made visible by the presence of small particles.

Fumes in the cabin and/or flight deck can be caused by contamination of the air supply system or items in the aircraft. The air supply system can be contaminated by substances that are internal to the aircraft systems (e.g. engine oil, hydraulic fluid) or external to the aircraft (e.g. exhaust fumes, de-icing fluid, fuel, ozone). Items in the aircraft that may cause fumes include carry-on baggage, cleaning products, disinfectants, food items, galley equipment and lavatories.

Crew should attempt to identify and locate the source of the fumes/smoke (i.e. air supply system or items in the aircraft), by using all their sensory functions (smell, vision, touch and hearing). Sometimes crew may not be able to see any smoke, but may recognize such indications as an unusual smell, abnormally warm surface or an abnormal noise in the cabin.

A. Sense of smell

The following abnormal smells may indicate the presence of smoke/fumes and can be used to describe the smell:

- a. Acrid (bitter)
- b. Burning
- c. Chemical
- d. Chlorine
- e. De-icing
- f. Exhaust fumes
- g. Electrical
- h. Fuel
- i. Oily/Burning oil
- j. Musty or mouldy
- k. Sulphur
- l. Wet dogs
- m. Sweaty socks
- n. Vomit

o. Citrus

Crew should also note the intensity of the fumes whether it is mild, moderate, strong or nauseating.

B. Sense of vision

Your sight may help you to detect the presence of smoke as it may be visible. Crew shall not report smoke unless you see it.

C. Sense of touch

Your sense of touch may help you detect the likelihood of a fire. Crew shall use the back of hand to feel if there is heat from the panel or door.

D. Sense of hearing

Cracking, snapping noises heard by passengers or crew may indicate possible electrical arcing.

Possible symptoms after exposure: On some events, fume or smoke exposure may impair crew members and could potentially have an impact on the safe operation of the aircraft. Acute symptoms include: irritated eyes, sinus congestion, respiratory symptoms, gastrointestinal upset and unconsciousness.

5. Liaison between Flight Crew and Cabin Crew

The Captain must be informed of any fire/smoke/fumes situation in the cabin, using the Emergency Report format. All communications shall be carried out via the interphone and cabin crew must ensure that the flight deck door is kept closed. If the flight crew ask for further information, provide the following using NITS:

- A. The location, source, type and intensity of the fire/smoke/fumes.
- B. Is the fire/smoke/fumes visible or not?
- C. The colour, density and the smell of smoke/fumes.
- D. Are the smoke/fumes causing any irritation?
- E. Actions taken by cabin crew.
- F. Is the situation under control?
- G. Duration of exposure for each crew and passenger.
- H. Symptoms experience and duration.
- I. Condition of crew and passengers.

Flight crew will deal with fire/smoke as given in the appropriate checklist. It is vital that both flight crew and cabin crew have a complete understanding of how serious the situation is either in the cabin or in the flight deck. Do not mention the term "fire" unless flames are actually visible.

A member of the flight crew may be sent to help in the cabin if the Captain considers it necessary.

6. Fire Fighting Equipment

The following equipment is available on the aircraft to fight fires.

- A. Portable fire extinguishers

- B. Protective gloves
- C. Protective Breathing Equipment (PBE)
- D. Crow Bar

**Note:** *In smoke/fumes conditions, it is NOT recommended to activate the drop down passenger oxygen masks. Besides oxygen, cabin air is also inhaled through air inlets in the oxygen masks. In addition, the intensity of the fire may increase due to the dispersion of oxygen. Passengers should bend down and breathe through wet hand towels.*

7. Fire Fighting Procedures

- A. Should there be an outbreak of fire on the aircraft, crew must act immediately.

Vital actions

- a. Assess

Find the location and determine the source of the fire. Determine whether the fire is accessible and whether you need help in dealing with the situation.

- b. Alert

Establish communication with other cabin crew, the flight crew and passengers (if necessary).

- c. Attack

Put out the fire.

B. Immediate actions by cabin crew

- a. The crew member who first discovers smoke or fire shall assess the situation. If able to handle the situation alone, obtain the necessary fire fighting equipment and attack the fire. Inform other cabin crew. If unable to handle the situation alone and help is required, call or signal to another cabin crew, who shall alert other crew and the SCCM.
- b. Fire extinguishers and PBE shall be brought to the fire scene so that the firefighting is performed with sufficient extinguishers as deemed appropriate to fight the particular size of fire.
- c. The SCCM is to ensure that communication with the flight crew is maintained during the fire fighting activity and that all necessary actions are taken.
- d. If smoke originates from a lavatory, the door has to be kept closed until everything is prepared for fire fighting. If the door is opened too early cabin air flowing into the lavatory will spread the fire.
- e. In case of smoke or fire in small compartments without a possibility of quick withdrawal (flight deck, crew rest area, lavatory) the PBE should be used.

C. Additional actions by cabin crew

The cabin crew not directly involved in fire fighting have the following duties:

- a. Remove the portable oxygen bottles located in the direct vicinity of the fire.
- b. Remove the hand baggage from the vicinity of the fire.

- c. In case of fire in the electric installations, turn all power switches in the affected area to 'OFF' and pull the circuit breakers (where applicable).
- d. Close the air conditioning outlets in the vicinity of the fire.
- e. Direct the passengers away from the affected area, and get portable oxygen for passengers who may be experiencing breathing difficulties.
- f. Get additional fire fighting equipment ready in case it is needed.
- g. If there is a lot of smoke/fumes, request the passengers to bend down. If possible, pass out wet cloths (towels, handkerchiefs, headrest covers, etc) and tell passengers to place them over their nose and mouth and breathe through them. Cabin crew should also use wet cloths over their nose and mouth to protect themselves.
- h. After the fire is extinguished, maintain a continuous watch to prevent re-ignition.

**Note:** *Sometimes there may be fumes in an area but no fire or smoke. In this case, cabin crew should also take steps (as mentioned in "g" above) to protect passengers and themselves.*

D. Flight crew procedures

If smoke, fire or fumes are present, the appropriate type specific QRH checklist procedure should be followed. An unexpected or unfamiliar smell, particularly if associated with symptoms, may satisfy the definition of 'fumes' for the purpose of the QRH, whereas an odour or scent with no evident symptoms may simply require an attempt to trace, to monitor and, if possible, to remove.

Definitions of smoke, fire and fumes are described earlier in this chapter and may be useful in determining if the QRH procedure is applicable.

In flight, at ANY TIME if smoke, fire or fumes are confirmed and cannot be controlled, and the Captain determines that the severity of the situation is such that the aircraft is in danger, a descent and diversion should be initiated immediately.

**Note:** *In smoke/fumes conditions, it is NOT recommended to activate the drop down passenger oxygen masks. Besides oxygen, cabin air is also inhaled through air inlets in the oxygen masks. In addition, the intensity of the fire may increase due to the dispersion of oxygen. Passengers should bend down and breathe through wet hand towels.*

If the source of the smoke, fire or fumes can be positively identified, isolated and extinguished, the flight may continue to the intended destination.

Smoke, fumes or smells may take several minutes to dissipate, even after the successful management of an event. If it has not been necessary for the flight crew to action the QRH, they should consider temporarily switching off the recirculation fans to increase the rate at which clean air is circulated in the cabin.

On the ground, following notification of a smoke, fire, or fumes event, the Captain should assess the situation in the cabin. Consideration should be given to shutting down the engines to mitigate against the risk of a passenger attempting to open a cabin door whilst the engines are running.

A decision to initiate an evacuation may be necessary.

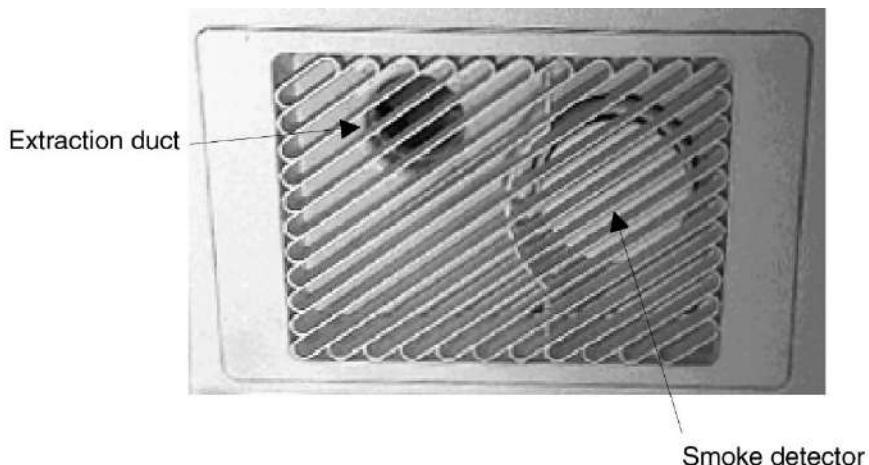
### 6.1.1 Lavatory Smoke Detector

A smoke detector is mounted in each lavatory.

### 6.1.1.1 Airbus

#### 1. Features

An example of a Lavatory Smoke Detector on A330



2. If the smoke detector activates, the following will occur:
  - A. A warning signal is transmitted to the CIDS and the flight deck.
  - B. A triple chime sounds through the cabin attendant loudspeakers every 30 SEC.
  - C. The amber light outside the affected toilet flashes.
  - D. The amber light on the respective ACP flashes.
  - E. (A330/A350) "SMOKE LAV" / "SMOKE RESET" on the respective panel comes on red i.e. FAP or AAP.  
(A320/A321 except B-HTK) "SMOKE LAV" indicator on FAP comes on red.
  - F. All AIPs displays the location of the affected lavatory, e.g. SMOKE LAV L11.  
(A320/A321/A321neo/A330) Red indicator of all AIPs will flash.  
(A350) All AIPs flashes.

On those aircraft fitted with a touch screen FAP, in addition to the above indications a "Smoke Detection" page appears on the FAP with the following:

- A. The location of the affected lavatory e.g. 'LAV 11'.
- B. A "SMOKE RESET" indication which has the same function as the "SMOKE RESET" button located below the LCD.
- C. (A321/A321neo) "Caution" light comes on amber.
- D. (A321/A321neo) "SMOKE RESET" button on FAP subpanel comes on red.
- E. (A321/A321neo) "SMOKE RESET" button on AAP comes on red.

**Note 1:** The "Smoke Detection" page remains until the smoke is no longer detected by the system.

**Note 2:** If a lavatory smoke detector becomes inoperative, a “SENSOR INOP” indication appears on the FAP with the location of the affected lavatory e.g. LAV 11.

**Note 3:** If the “SENSOR INOP” indication appears on the FAP while on ground, the SCCM will inform the ground engineer so that the problem can be rectified.

**Note 4:** In flight, if the “SENSOR INOP” indication appears on the FAP, cabin crew should check the particular lavatory frequently. The SCCM should note the defect in the electronic Cabin Log (eCL).

3. Cancelling outputs

A330/A350

- A. Pressing any “SMOKE LAV” / “SMOKE RESET” button cancels the chime throughout the aircraft and the indications on the AIPs at that set of doors.
- B. The amber light outside the affected lavatory and on the respective ACP stops flashing when the “SMOKE LAV” / “SMOKE RESET” button in the area of the affected lavatory is pressed.

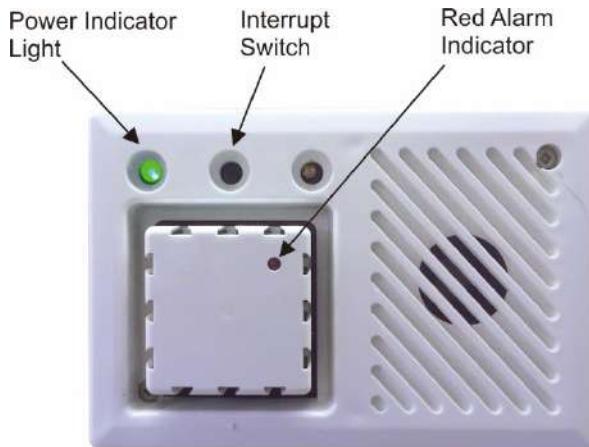
A320/A321/A321neo

- A. All warnings except the signals on FAP and AAP will be cancelled by pressing any “RESET” or “SMOKE RESET” button on FAP/AAP/EVAC Panel.
- B. On B-HTH/I, the “SMOKE RESET” button outside the affected lavatory should be pressed.
- C. The signals on FAP and AAP will extinguish when the smoke falls below a threshold level.

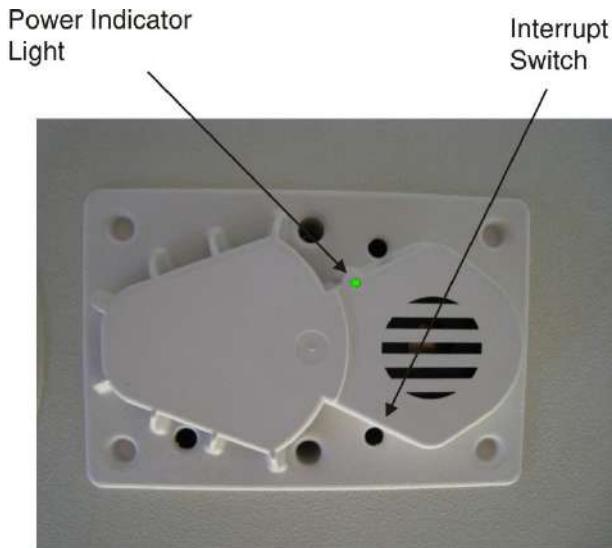
### 6.1.1.2 777

1. Features

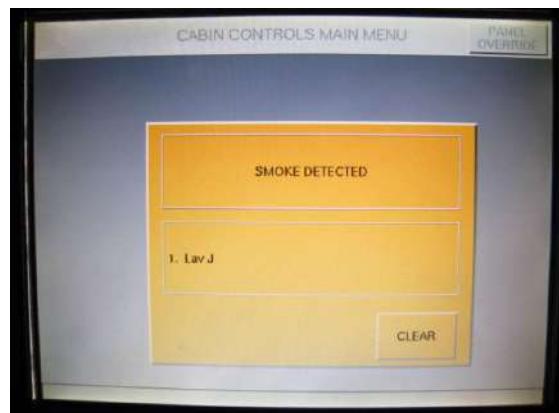
777-300, 777-300ER (prior to B-KPO)



**777-300ER (B-KPO and subsequent aircraft)**



2. If the smoke detector activates, the following will occur:
  - A. A warning signal is transmitted to the CSCP/CACP and the flight deck.
  - B. The CSCP/CACP displays "SMOKE DETECTED" and the location of the affected lavatory e.g. Lav J.



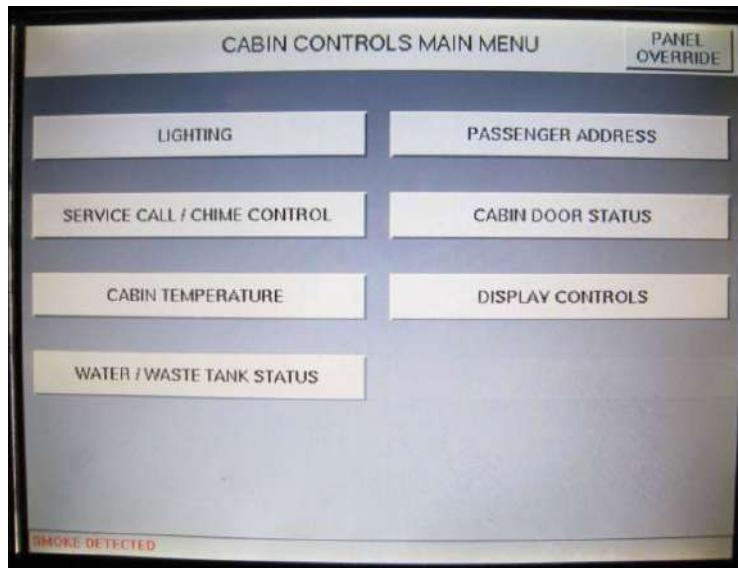
- a. For 777-300 and 777-300ER (prior to B-KPO), the red alarm indicator on the detector illuminates. For 777-300ER (B-KPO and subsequent aircraft), the power indicator light illuminates red.
- b. Pulsating horn from the unit sounds.
- c. The amber light outside the affected lavatory flashes.
- d. The amber light on the respective ACP flashes and there is a chime at the nearest attendant station.

3. Cancelling outputs
  - A. Pressing the amber light outside the affected lavatory cancels all outputs except the red alarm indicator on the detector. The "SMOKE DETECTED" window on the CSCP/CACP will also be cancelled.
  - B. For 777-300 and 777-300ER (prior to B-KPO), the red alarm indicator will only extinguish when the smoke falls below a threshold level.

- C. For 777-300ER (B-KPO and subsequent aircraft), the power indicator light will only turn from red to green when the smoke falls below a threshold level.

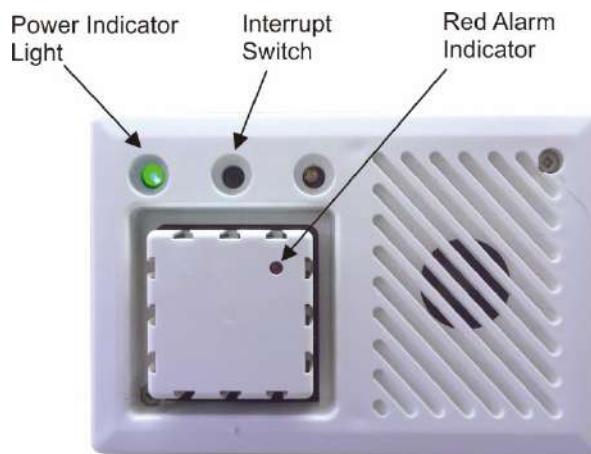
**Note 1:** Pushing the "CLEAR" button on the CSCP/CACP will remove the window (i.e. the screen will show the original display prior to the "SMOKE DETECTED" screen appearing).

**Note 2:** However, the message "SMOKE DETECTED" is displayed in small red text in the bottom left corner. The message is displayed until the amber light outside the affected lavatory is pressed.



### 6.1.1.3 747F

#### 1. Features



2. If the smoke detector activates, the following will occur:
- Red alarm indicator on the detector illuminates.
  - Pulsating horn from the unit sounds.
  - The amber light outside the lavatory flashes.

3. Cancelling outputs
  - A. Inserting a sharp object into the interrupt switch cancels all outputs except the red alarm indicator on the detector.
  - B. The red alarm indicator will only extinguish when the smoke falls below a threshold level.

### 6.1.2 Lavatory Fire Drill

The following drill is to be carried out if the lavatory smoke detector activates:

1. Identify the lavatory and cancel the chime (if possible).
2. Check if the lavatory is occupied. If so, knock on the door and ask the passenger to come out. Check the lavatory thoroughly.
3. If nobody is in the lavatory, remain outside the lavatory and alert other crew. Other crew will alert the SCCM and the Captain as well as prepare the fire fighting equipment.
4. Do not enter the lavatory until the fire fighting equipment is available. Feel the door using the back of your hand. Check if "heat" is present and look at the edges of the door for any sign of smoke. If there is no heat or smoke, push open the door slowly and check for fire. If fire is not evident, enter the lavatory and check it thoroughly. If when feeling the door, heat is present or smoke is visible, follow procedures given below.
5. Fire fighting procedures
  - A. Don PBE and protective gloves, have fire extinguisher in hand.
  - B. Stay low.
  - C. Use the toilet door/partition as protection as you open the door.
  - D. Locate the source of the fire.
  - E. Discharge the extinguisher at the base of the fire.

If unable to enter the lavatory (due to severity of the fire and smoke) and unable to locate the source:

- A. Open the door slightly and raise the extinguisher as high as you can. Place the nozzle of the extinguisher in the gap.
- B. Discharge the full bottle of fire extinguisher and close the door.
- C. Reopen the door after half a minute and re-evaluate the situation.
- D. Repeat steps A to C as necessary.

**Note:** A small extinguisher bottle containing halon is installed in each lavatory waste bin on all aircrafts. A fire or overheat condition will discharge the extinguisher automatically.

### 6.1.3 Overhead Compartment Fire Drill

If smoke is emitting from the overhead locker:

1. Use back of hand to check for heat to determine the temperature and presence of fire.
2. Open the overhead bin slightly. Locate the source of the fire and discharge the fire extinguisher at the base of the fire. Inform the SCCM and the Captain.

3. If unable to locate the source, open the compartment just enough to insert the nozzle of the fire extinguisher and discharge.
4. Close the overhead bin.
5. Reopen the bin after half a minute and re-evaluate the situation.
6. If necessary, discharge more extinguishing agent.
7. Repeat steps 3 to 5 as necessary.
8. Inform the SCCM and the Captain.

**Note 1:** Consideration should be given to donning a PBE and protective gloves.

**Note 2:** If it becomes apparent that the fire is caused by a PED/lithium battery or assesses that the fire re-ignites after using the fire extinguisher, follow the PED/Lithium batteries fire drill.

#### 6.1.4 Hidden Area Fire Drill

Hidden areas are those which are not readily accessible to the crew. Smoke emissions from the sidewall and ceiling panels may indicate a hidden fire. In some cases, smoke may appear some distance from the source. When crew suspect a fire in a hidden area, they should try to locate a "hot spot" by using the back of their hand. A "hot spot" is an abnormally warm area and is usually a good indicator as to where the source of the fire is. It may be necessary to remove or lever the panels to insert the nozzle of the fire extinguisher to put out the fire. Use the crow bar to do this. Be very careful when removing or levering panels as these areas may contain aircraft wiring or aircraft systems.

**Note:** Consideration should be given to donning a PBE and protective gloves.

#### 6.1.5 Circuit Breakers

Circuit breakers are designed to provide protection from overheating due to an electrical overload equipment. In the event of an electrical overload, the circuit breaker will trip automatically. When this occurs, some of the electrical appliances will be totally or partially deactivated.

Cabin crew must not reset a tripped circuit breaker because this may cause more damage to the equipment, may affect other electrical equipment or may result in an overheat and/or smoke/fumes. Moreover, circuit breakers must not be used as an "ON/OFF" switch for equipment.

Any tripped circuit breaker must be reported to flight crew, cabin crew may reset the circuit breaker only if instructed by the flight crew. All malfunctions and abnormalities must be reported to SCCM and flight crew. Appropriate entry must be made in the eCL.

Refer to ISD OPS Part B Cabin Crew Operations Manual for details.

#### 6.1.6 Electrical Fire Drill

If any electrical equipment catches fire:

1. Turn the power off. If the power cannot be turned off, pull the circuit breaker for the affected piece of equipment.
2. Use the fire extinguisher to put out the fire.
3. Inform the SCCM and the Captain.

## 6.1.7 Oven Contents Fire Drill

If fire is evident when an oven door is opened:

1. Immediately close the door.
2. Turn the power off. If the power cannot be turned off, pull the circuit breaker for the affected oven.
3. Allow the fire to burn out.
4. Inform the SCCM and the Captain.

The situation should be monitored and if the situation worsens:

1. Open the oven door just enough to insert the nozzle of a fire extinguisher (consideration should be given to donning a PBE and protective gloves).
2. Discharge a small amount of fire extinguisher, close the oven door and monitor the situation.
3. Repeat the procedure if necessary.

**Note:** *Never remove any burning items from an oven.*

## 6.1.8 Galley Smoke

If smoke/fumes is emerging from a piece of equipment:

1. Turn the power off. If the power cannot be turned off, pull the circuit breaker for the affected equipment.
2. Monitor the situation to ensure smoke/fumes clear.
3. Inform the SCCM and the Captain.

If the source of the smoke/fumes cannot be located but is known to be coming from a particular section of the galley:

1. Turn off all equipment in the affected area and monitor the situation.
2. If the smoke/fumes do not clear or if the power cannot be turned off, pull the circuit breakers for all equipment in the affected area.
3. If the smoke/fumes do not clear, turn off all equipment in the affected galley.
4. If the smoke/fumes still do not clear, pull the circuit breakers for all the equipment in the affected galley and monitor the situation.
5. Inform the SCCM and the Captain.

## 6.1.9 In-flight Entertainment System (IFE)

### 6.1.9.1 Smoke Detection System

Smoke detection system is installed in the Video Control Centre (VCC) on some aircraft.

1. A321
  - A. Smoke detection signals:
    - a. VCC Smoke Detection Light illuminates.

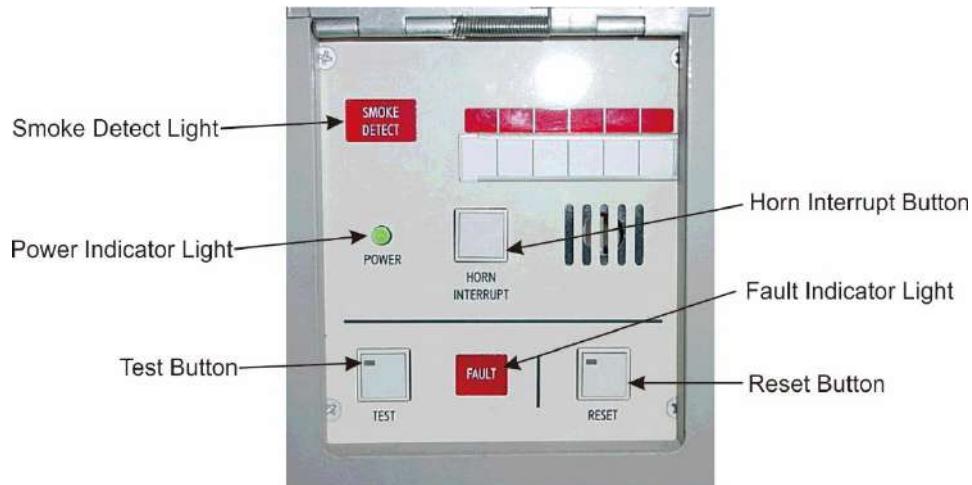
b. Pulsating horn.

B. Cancelling outputs

Press "Horn Interrupt".

2. A330 (B-HLP/Q/R/S/W)

There is a Smoke Detector Panel on the VCC. It has the following features:



**Note:** The "TEST SWITCH" and "FAULT INDICATOR LIGHT" are associated with the VCC ground test procedures.

A. Smoke detection signals:

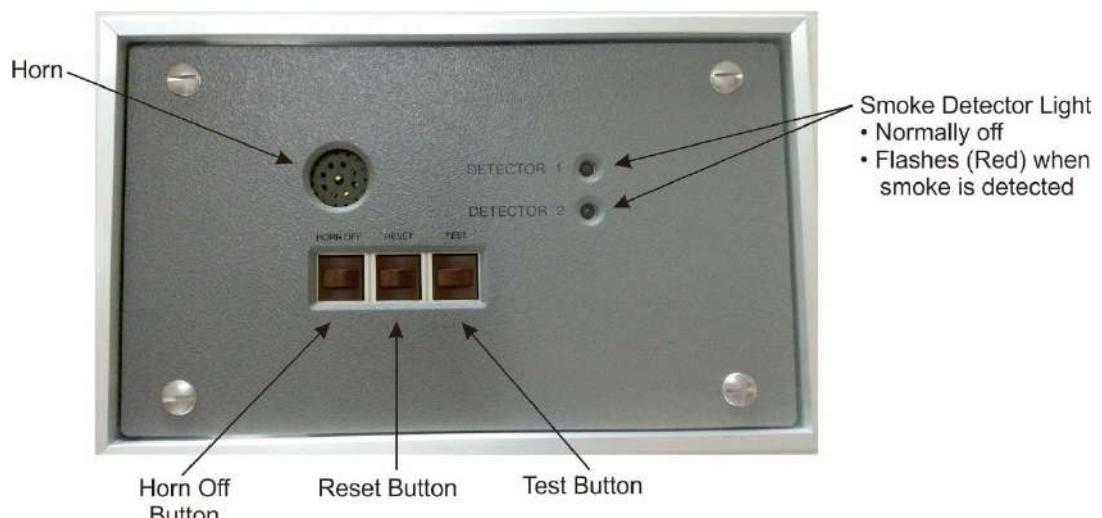
- a. Flashing of the red "SMOKE DETECT" light.
- b. Pulsating horn.

B. Cancelling outputs

Press the 'Horn Interrupt Button'.

3. A330 (B-HLM/N/O/T/U/V, B-LAA/B, B-LBD & B-HWM)

There is a Smoke Detector Panel on the VCC. It has the following features:



- A. If smoke is detected, the following occurs:
    - a. The "Smoke Detector Light" (Smoke 1/Smoke 2) flashes.
    - b. Pulsating horn.
    - c. The amber light on the VCC flashes.
  - B. Cancelling outputs

Press the "Horn Off Button".
4. A330 (except B-HLM/N/O/P/Q/R/S/T/U/V/W)
- A. A smoke detector is built in the VCC and it is not visible from the exterior. If smoke is detected, the following occurs:
    - a. A warning signal is transmitted to the CIDS.
    - b. A triple chime sounds every 30 SEC through the Cabin Attendant loudspeakers, the amber light on the respective ACP flashes and the 'SMOKE LAV' light on the L2 AAP illuminates red.
    - c. A "Smoke Detection" page appears on the FAP with a "Smoke Reset" indication which has the same function as the "Smoke Reset" button located below.
    - d. On all the AIPs "SMOKE VIDEO" is shown and the red indicator light flashes.
    - e. The amber light on the VCC flashes.
  - B. Cancelling outputs
    - a. Pressing any "SMOKE LAV" button or the "Smoke Reset" indication/button on the FAP cancels the chime throughout the aircraft and the indications on the AIPs at that set of doors.
    - b. The amber light outside the VCC and on the respective ACP stops flashing when the "SMOKE LAV" button at L2 is pressed.
5. 777 (except 773A/773K)
- If smoke is detected, the following occurs at the VCC:
- A. The "Smoke Detector Light" (Smoke 1/Smoke 2) illuminates.
  - B. Pulsating horn. (if applicable)

### 6.1.9.2 Fire/Smoke Procedures

1. If smoke detection system activates or there is sign of fire/smoke at the VCC/RCC (A350)/Crew Terminal (A321neo) or at the seat box under the passenger seat.
  - A. Set the following to "OFF":
    - a. MASTER POWER/MAIN POWER/PAX SYS/CABIN PAX SYS
    - b. PC POWER/PED POWER/PC PWR/IFE AND SEAT (where applicable)
  - B. Press the HORN INTERRUPT/HORN OFF (where applicable).
  - C. Carry out fire fighting procedures using fire extinguisher if required.

- D. Inform SCCM and Captain immediately.
  - E. IFE shall not be used for remainder of the flight.
  - F. Monitor the area.
2. If the Smoke Detector Panel activates but there is no sign of any smoke/fire at the VCC
    - A. Set the following to "OFF":
      - a. PAX SYS
      - b. PC POWER (where applicable)
    - B. Press HORN INTERRUPT/HORN OFF and RESET/SYSTEM RESET.
    - C. Set the PAX SYS to "ON" and wait for 1 MIN.
    - D. If a smoke detection signal returns, press HORN INTERRUPT/HORN OFF again and set the PAX SYS to "OFF".
    - E. Inform SCCM and Captain immediately.
    - F. IFE shall not be used for remainder of the flight.
    - G. Monitor the area.

**Note:** *If the smoke detection signal does not return, set the PC POWER (where applicable) to "ON". IFE may be used again.*

### **6.1.10 Personal Electronic Device (PED) and Lithium Batteries Fire Drill**

Lithium type batteries are commonly found in Personal Electronic Devices (PED) such as laptop computers, mobile phones and MP3 players. When these batteries are overheated, they may cause a fire and, or explosion. Using the fire extinguisher alone may not be fully effective in extinguishing PED/lithium batteries fire but it can help to extinguish visible flames and fight fire in surrounding materials. Water or other non-flammable liquid is required to be used after using fire extinguisher to provide sufficient cooling to prevent re-ignition.

If a PED is dropped between the mechanical parts of an electrically adjustable seat i.e. FCL & JCL, do not use the electrical or mechanical seat functions when attempting to retrieve the PED as it may crush and damage the battery and cause fire. If unable to retrieve the item, reseat the passenger if necessary.

Cabin crew shall not place any PEDs or spare lithium batteries on the crew seats. If unable to retrieve, log down in eCL and inform the ground engineer.

When flight crew discovers fire or smoke caused by a PED or Lithium battery in the flight deck, they will initiate the fire fighting procedures and inform cabin crew to assist inside the flight deck. Cabin crew shall immediately go to the flight deck with fire extinguisher and PBE, assist for fire fighting if necessary.

#### **PED/Lithium Batteries Fire/Smoke Procedures**

1. Immediate actions:
  - A. Remove external electrical power from device and/or switch off the power from the device, if applicable and safe to do so.
  - B. Carry out fire fighting procedures using a fire extinguisher until the visible flames have been extinguished.

- C. Use non-flammable liquid (such as water or juice) to provide sufficient cooling.
  - D. Repeat the above steps as required and monitor for any re-ignition.
  - E. Inform SCCM and Captain.
2. Follow-up actions:
- A. Do not move the device until it has cooled and is deemed safe to do so (no evidence of flames, smoke etc). This should be after approximately 15 MIN.
  - B. Obtain the FireSock kit and don the heat resistant gloves (if unavailable, use protective gloves). Move it as close to the device as possible and transfer the device into the FireSock bag. If the device is too big to fit in the FireSock bag or if FireSock kit is not available, use an empty lavatory waste bin and use non-flammable liquid and completely immerse the device in it.
  - C. Stow the bag in the lavatory or stow and secure (if possible) the lavatory waste bin to the original stowage to prevent spillage. The lavatory must be blocked for the remainder of the flight.
  - D. Monitor the device and the surrounding area at 15 MIN intervals.
  - E. Return all used items (with exception of the FireSock bag if it is being used) to the original stowage.

**Note 1:** *Do not pick up and attempt to move a burning device or a device that is emitting smoke. The device shall not be moved if displaying any of the following:*

- *Flaming/burning*
- *Smoke*
- *Unusual sounds such as crackling*
- *Debris, shards of material separating from device*

**Note 2:** *PBE and gloves must be worn whenever moving any PED/lithium battery.*

**Note 3:** *Do not cover the device or use ice to cool the device.*

**Note 4:** *Not all PEDs are powered by lithium batteries. If in doubt, treat it as lithium battery fire.*

3. After landing procedure:

- A. Identify the device to ground personnel where it is stowed as it is considered as dangerous goods.
- B. Make appropriate entry in eCL.

**Note:** *The passenger is not permitted to access the affected device after an inflight incident. Devices must be kept in the FireSock bag or immersed in non-flammable liquid in the lavatory waste bin until collected by ground personnel.*

## 6.2 Crew Incapacitation

### 6.2.1 General

On a passenger aircraft, should any of the two pilots become incapacitated more involvement by cabin crew is inevitable.

**Note:** *On flights where there are more than 2 pilots e.g. long haul flights, cabin crew involvement may not be necessary.*

One cabin crew will be assigned by the SCCM to assist in the flight deck.

It takes two people to remove the dead weight of an unconscious body from a seat without endangering any controls and switches. If it is not possible to remove the body, one cabin crew shall remain in the flight deck to take care of and observe the incapacitated pilot.

Cabin crew shall also request assistance from any medically qualified passengers and check if a type qualified company pilot is on board to replace the incapacitated pilot. Should there be no type qualified company pilot on board, any company pilot can assist the remaining pilot.

In the event that no company pilots are available, a cabin crew member is required to remain in the flight deck and assist the remaining flight crew as instructed.

### 6.2.2 Flight Crew Procedures

Flight crew should refer to the appropriate QRH checklist. Control of the aircraft is the primary requirement. Full use of the auto flight system should be made, including autoland if possible. The best way to request assistance from the cabin crew is by P/A. Refer to checklist.

If the incapacitation occurs after commencing descent and the weather falls below Category I minima, it may be safer to continue to destination rather than divert.

If the crew complement is reduced to below minimum complement for the aircraft due to pilot incapacitation, a PAN call must be made.

### 6.2.3 Cabin Crew Drill

1. Pull the pilot back into seat.

Support the head of the incapacitated pilot as you do this.

2. Restrain the pilot using shoulder harness.

3. Place the pilot's hands on their chest underneath the shoulder harness.

4. Position the seat fully aft.

Use the electrical switch to move the seat electrically or use the "H" lever (Airbus) / "FWD/AFT" lever (777) to move the seat manually.

Both the electrical switch and the manual lever are located on the inboard side of the pilot seat.

5. Recline the seat back fully.

The recline lever is on the inboard (Airbus) / outboard (777) side of the pilot seat.

6. Lock shoulder harness.

The lock lever is on the inboard side of the pilot seat.

7. Fit the oxygen mask (100% setting and emergency setting) or use resuscitation equipment.  
  
Don the mask on the incapacitated pilot. Turn the knob to emergency setting. However, if the pilot has no breathing or pulse, apply the necessary first aid treatment.
8. Remove pilot, unless they are convulsive.  
  
If the pilot is having an epileptic fit leave them in the seat.
9. Carry out flight deck duties as instructed.  
  
Assist in reading the checklist if asked to do so by the pilot flying.

## 6.2.4     **Reading of Checklist**

### 6.2.4.1    **General**

Should any flight crew member become incapacitated, it may be necessary for the cabin crew to assist in reading out "Checklists". The "NORMAL" checklist is not an "action" type checklist, each item should be accomplished before calling the checklist. The response confirms that the relevant action has been carried out.

### 6.2.4.2    **Checklist Reading**

The APPROACH and LANDING checklists (Airbus) / DESCENT, APPROACH and LANDING checklists (777) will be read by the cabin crew if requested by the pilot flying. Appropriate responses as shown in the checklist will be made by the pilot flying.

**Note:** *If the reading of the checklist is interrupted for any reason, the last item called before the interruption must be repeated before continuing with the remainder of the checklist.*

### 6.2.4.3    **Checklist Completion**

On completion of any normal checklist the cabin crew will confirm audibly that the checklist is complete i.e. "Checklist Complete".

## 6.3 Serious Injuries/Occurrences Post Incident Handling

Whenever a flight encounters major incidents that cause serious injuries to cabin crew or passengers, it is critical for cabin crew to report the situation to the SCCM and Captain in a timely and organised manner.

Cabin crew shall take note of the following steps:

1. Cabin crew shall obtain the Post Incident Report Form from the flight file when there is a major safety incident such as depressurisation and severe turbulence which resulted in aircraft damage and multiple injuries.
2. Cabin crew shall check the conditions of the cabin, the passengers and fellow cabin crew, and report accordingly to the Section Leaders.

**Note:** *If first aid treatment is required, treat on the spot as per current safety and emergency procedures.*

3. Cabin crew working in FCL and JCL are to combine the information on the two cabin classes in a copy of the form. Cabin crew working in PEY and YCL are to combine the information on their respective classes and complete a separate copy.
4. Submit the form to the SCCM who will then consolidate all the information onto the SCCM Copy and it will be submitted to the Captain as soon as practicable.
5. At the end of the flight, put all the completed forms into the flight file and send them to the Inflight Operations Standards Team.
6. The SCCM shall file an eCSR within 24 hours as per current procedure.

Post Incident Report Form

**POST INCIDENT REPORT FORM**



Please circle the relevant section

FCL & JCL	PEY & YCL	SCCM Copy
Badge Name	Crew Position	

**Cabin Crew Actions:**

- Information for FCL and JCL to be combined in a copy of this form. Information for PEY and YCL to be combined in another copy.
- Submit to the SCCM, who will consolidate all information onto the **SCCM Copy**
- Submit the **SCCM Copy** to the Captain as soon as practicable.

**Section A – Structural Damage Assessment**

➤ Mark the corresponding symbol on the diagram below to indicate types of safety issues :

	<b>A321</b> <b>A330</b> <b>A350</b>	R1      R2      R3      R4  L1      L2      L3      L4
	<b>B777-300</b>	R1      R2      R3      R4      R5  L1      L2      L3      L4      L5
	<b>A320</b>	R1      Overwing Exit      R2  L1      Overwing Exit      L2
	<b>A321 NEO</b>	R1      Overwing Exit      R3      R4  L1      Overwing Exit      L3      L4

**Section B – Initial Assessment of Passenger & Crew Condition**

Observed Injury	No. of Injured Passengers in Each Zone				No. of Injured Crew	Sub-Total
	FCL	JCL	PEY	YCL		
No signs of life						
Serious injury						
Minor injury						
					<b>Grand Total</b>	

**<Note> Serious injury:** Requires hospitalization, fracture of any bone, severe bleeding, injury to internal organ, second/third degree burns

**Minor injury:** Treatable with first aid

Please return all the completed forms via Flight File to Inflight Operations Standards - Safety, ISD, 5/F, Central Tower, Cathay City  
02112020/ISD/ICS/IOSS/Revision 4  
IOSS-045

## 6.4 Depressurisation

### 6.4.1 Pressurisation System

For a typical flight, where the flight altitude is between 31,000 to 41,000 FT and the atmospheric pressure is very low, the cabin will be pressurised to a “cabin altitude” of 6,000 to 8,000 FT so that passengers and crew’s body system can function normally without needing additional oxygen.

### 6.4.2 Types and Causes of Depressurisation

Gradual depressurisation could be caused by a fault in the pressurisation system, small cracks in the fuselage, windows or faulty door seals resulting in a gradual loss of cabin pressure. The fuselage is intact but the air escapes slowly.

Sudden/rapid depressurisation is a rapid loss in cabin pressure, for example, a hole in the fuselage structure.

### 6.4.3 Automatic Aircraft Indications During Depressurisation

1. The cabin lights will automatically come on bright.
2. “No smoking” and “Seat Belt” signs illuminate together with the corresponding chimes.
3. Deployment of oxygen masks in the cabin.
4. Automatic P/A will be broadcasted in English, Cantonese, Putonghua and Japanese.

**Note:** *Flight crew can manually deploy the oxygen masks in the cabin if required. Once the masks are deployed manually, the above automatic aircraft indications will also take place.*

### 6.4.4 Probable Effects During Depressurisation

Depending on the type of depressurisation, the aircraft will experience some or all of the following effects:

1. Cabin angle may become very steep as a result of the rapid descent by the flight crew.
2. Loud noise as air escapes the fuselage.
3. Rush of air, together with dust and objects.
4. Air becomes thin, cold and dry.
5. Fogging in the cabin.
6. Smoke detectors may be activated.
7. Sudden boiling of liquid.

### 6.4.5 Physical Effects on a Person

A person may experience the followings:

1. Hypoxia.
2. Pain, due to the trapped gases in the body, e.g., in the middle ear, sinus, teeth, stomach and intestine.
3. Chilling of the body.

4. Decompression sickness refers to injuries caused by a rapid decrease in the pressure that surrounds you, of either air or water. It occurs most commonly in scuba or deep-sea divers, although it also can occur during high-altitude or unpressurized air travel. The severity and the symptoms may vary between individuals.
  - A. Personality changes and decreasing level of consciousness.
  - B. Loss of judgment and lack of coordination.
  - C. Lips turn blue.
  - D. Hyperventilation.
  - E. Seizures.
  - F. Build up of nitrogen bubbles in the blood. It may be recognized by aching joints, rash covering the body, chest constriction causing breathing difficulties.
  - G. Headache and dizziness.
  - H. Euphoria.
  - I. Hot flushes.
  - J. Blurred/tunnel vision.
  - K. Tingling sensation.

#### 6.4.6 Time of Useful Consciousness

Time of useful consciousness is defined as the interval between loss of oxygen supply and the first evidence of disability. Immediate use of oxygen is vital during depressurisation.

FLIGHT ALTITUDE	TIME OF USEFUL CONSCIOUSNESS
25,000 FT	2 MIN
30,000 FT	1 ½ MIN
38,000 FT	30 SEC
40,000 FT	15 SEC

The above times are reduced further with any form of exertion. Besides, the forced exhalation of the lungs during an extremely rapid descent can also reduce the time of useful consciousness by up to 50%.

#### 6.4.7 Flight Crew Immediate Actions

1. Don oxygen mask whenever cabin altitude is above 10,000 FT.
2. Follow the appropriate checklist/procedure for Depressurisation/Emergency Descent.

#### 6.4.8 Cabin Crew Immediate Actions Following Oxygen Mask Deployment

Following oxygen mask deployment, cabin crew shall:

1. Don oxygen mask, adjust elastic strap and breathe normally.
2. Secure self at the nearest seat. If necessary, sit on a passenger's lap and ask the passenger to hold on to you until advised by the flight crew that it is safe to get up.

**Note:** Cabin crew shall take appropriate actions as situation requires.

Occupants of the cabin crew rest area shall don the nearest oxygen mask; secure themselves in bunk or seat and wait for the instructions from the flight crew.

During the descent, if any of the passengers do not don the mask immediately, instruct or signal them to do it without jeopardising your own safety. Monitor the passengers who appear to be in distress and note the seat location.

**Note:** Should crew observe the automatic aircraft indications but the aircraft has not started a rapid descent and there has been no advice from the flight crew, the SCCM or other cabin crew shall immediately attempt to contact the flight crew regarding the situation.

#### **6.4.9 Cabin Crew Follow-up Actions after Aircraft Levelled-off at Safe Altitude**

When advised by the flight crew that the aircraft has levelled-off at a safe altitude where oxygen is no longer required and is safe to move from the secured position, cabin crew shall:

1. Collect portable oxygen bottle and MRT (for Airbus only) as necessary.
2. Check on the other crew members and/or occupants in the flight crew rest area and the cabin crew rest area.
3. Check the area of responsibility to ensure:
  - A. Passengers have their seat belts fastened.
  - B. Lavatories are vacant.
4. Inform SCCM about the status of the cabin, for example, if there is any aircraft structural damage observed or any crew and/or passenger injuries.
5. The SCCM is to delegate the duties of the incapacitated cabin crew members to the other cabin crew members.
6. The SCCM shall report to the Captain about the status of the cabin, passengers and oxygen requirements after the cabin has been checked.

**Note 1:** Cabin crew who feel unwell shall remain seated with oxygen on.

**Note 2:** Cabin crew shall not restow the deployed oxygen masks.

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## 6.5 Emergency Descent

It is a rapid descent under the control of flight crew in response to a perceived emergency situation.

Cabin crew actions upon hearing the Emergency Descent P/A from the flight deck:

1. Return to their seats, if not already seated.
2. Fasten seat belt.
3. Be prepared for a possible cabin depressurisation.

**Note:** *If the cabin oxygen masks drop, cabin crew shall follow the “immediate actions following oxygen mask deployment” procedure.*

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## 6.6 Precautionary Landing

A precautionary landing is a landing conducted under an Alert Phase using normal procedures. This is a non-normal situation where the flight crew has assessed that there is a low risk of evacuation and they may choose to brief the SCCM about the situation.

Cabin crew shall be alert and follow flight crew instructions.

**Note:** *Precautionary landing can escalate to emergency situation at any time.*

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## 6.7 Precautionary Disembarkation

A precautionary disembarkation is conducted in a non-emergency situation when time is available to conduct a controlled disembarkation by using either the stairs or airbridges. In exceptional circumstances the use of nominated slides may be required.

The flight crew will brief the SCCM about the precautionary disembarkation, which doors shall be opened, whether stairs or airbridges are used and who will brief the passengers.

Cabin crew shall be alert and follow flight crew instructions.

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## 6.8 Emergency Preparation – Land

Should the Captain declare an emergency inflight, an emergency cabin preparation shall be carried out. This is to provide maximum safety to passengers during and after the landing. This can only be achieved if there is sufficient time for such preparation inflight. A calm manner must be maintained during this period to instill confidence and prevent panic in the passenger cabin.

The Captain, for good and valid reasons, may give instructions that differ from those listed below. The procedures described shall act as a guideline for crew members.

### Preparation – Flight Crew

All cabin crew, particularly the SCCM, should be aware of the following actions that will be carried out by the flight crew.

1. Alert Airport Authorities regarding:
  - A. The nature of the emergency.
  - B. The location/description of hazardous cargo.
  - C. Any special assistance required e.g. if certain exits will be unusable.
2. Brief the SCCM using the NITS format.
3. Make the following announcement to passengers as soon as possible, in a calm and reassuring manner:

"This is your Captain speaking. I must inform you that a state of emergency exists and that it will be necessary to make an emergency landing at ... airport. This can be done quite safely. The aircraft is fitted with emergency slides and all of the necessary equipment to assist in your evacuation and use after landing. Crew members will instruct you on the procedures to be followed and will direct you to the exits. I will order "BRACE BRACE" for impact just before landing. Remember that there could be more than one impact and you should remain in the brace position until the aircraft stops, and then move to the exits as directed. Your co-operation is essential. Thank you."

4. Complete appropriate checklists.
5. Time and workload permitting keep the cabin crew and passengers informed on the situation. A final announcement may be given if time permits:

"This is your Captain speaking. It may be necessary to carry out an emergency evacuation of the aircraft after landing. Make sure your seat belt is secure. You must remain in your seat and in the brace position until the aircraft stops. Follow your crew members instructions implicitly. Evacuate through the doors as directed by the crew members and move well away from the aircraft. Do not smoke. Thank you."

6. Ensure the cabin is prepared, via the SCCM.

### Preparation – Cabin Crew

1. The safety of passengers depends on three main factors: crash protection, rapid evacuation, and survival. Prior to landing, the flight crew are fully occupied with flying the aircraft. The cabin crew duties are to prepare the passengers, the cabin interior and the galleys.

2. After a full briefing by the Captain, the SCCM will brief the section leaders or all other cabin crew in groups using the NITS format.
3. A short pre-recorded emergency announcement in different languages is available on the aircraft. If time permits, the SCCM should, based on the passenger's profile, play the appropriate language of this pre-recorded announcement prior to conducting the emergency cabin preparation.
4. The SCCM will then begin the emergency cabin preparation by briefing the passengers using the emergency announcement card. The card is in the compartment under the SCCM's seat. Instructions and demonstrations will be given to passengers in conjunction with the SCCM's announcement.
5. Briefing of passengers

The briefing of passengers cannot commence until:

- A. The Captain or SCCM has given a preliminary P/A announcement.
- B. Cabin crew have taken up their allocated positions in the cabin for the briefing.

The briefing of passengers to prepare them for the emergency landing requires teamwork. Appropriate pauses by the announcer must be made to ensure cabin crew are given time to demonstrate and check the passengers. Cabin crew must not distract passengers from the P/A and shall only talk during the pauses. Adopt a calm manner in order to create a calm atmosphere during the preparation.

**Note:** *The SCCM shall be responsible for briefing all jumpseat passengers.*

#### 6. P/A Announcement – Prepared Emergency Landing

The announcement is to be done in English and Cantonese or Putonghua as the passenger complement requires.

ANNOUNCEMENT	CABIN CREW ACTIONS
(Chinese) <p>This is your Inflight Service Manager/ Senior Purser speaking. It is necessary to make an emergency landing. Follow the instructions given by the cabin crew.</p>	Take up positions in the aisles.
(Chinese) <p>We may have to move some passengers to other seats. Move to another seat if asked to do so. <b>{Pause &amp; wait for confirmation}</b></p>	Try to seat "helpers" next to anyone who may need help e.g., unaccompanied minors, elderly or incapacitated passengers. Reseat helpers next to exits. It is important to brief helpers and tell them what to do.
(Chinese) <p>Place your seat back in the up position and ensure that your table and television are stowed. <b>{Pause &amp; wait for confirmation}</b></p>	Check/assist passengers and answer any questions.

ANNOUNCEMENT	CABIN CREW ACTIONS
(Chinese)  Loosen ties and collars. Remove all sharp objects from your clothing, remove dentures, spectacles and high heel shoes. Place everything in the seat pocket.  <b>{Pause &amp; wait for confirmation}</b>	Check/assist passengers and answer any questions.
(Chinese)  Now fasten your seat belt securely. Also fasten the shoulder belt if fitted.  <b>{Pause &amp; wait for confirmation}</b>	Check/assist passengers and answer any questions.
(Chinese)  Before landing, you will be given the order " <b>BRACE</b> ". Remove the safety instruction card and review the BRACE position and the position of the exits. As there may be more than one impact on landing, you must remain in the BRACE position until the aircraft comes to a complete stop.	Show the safety instruction card.
(Chinese)  Now adopt the BRACE position so that we can check you. If you have any difficulties, please tell the cabin crew at this time.  <b>{Pause &amp; wait for confirmation}</b>	Check/assist passengers and answer any questions.
(Chinese)  When the aircraft has stopped, unfasten your seat belt and pull the straps apart. Then move to the exits as directed. Escape path lighting will also guide you to the exits. Cabin crew are now pointing out your nearest exits. Leave your bags and other belongings in the aircraft. Remain calm and follow your cabin crew's instructions.	Demonstrate the unfastening of seat belts using the demonstration seat belt and point to nearest exits.
(Chinese)  Thank you for your attention. Cabin crew please confirm the cabin is ready.  <b>{Receive confirmation from cabin crew that the cabin is ready}</b>	Check the cabin and confirm with section leader/SCCM.

7. 'BRACE' position

A. Passengers (except A321neo Business Class)

Instruct the passengers to bend fully forward, tuck chin onto chest. Place head against the seat in front, and place hands on top of head. Their feet should be flat and firm on the floor, as far back as possible (close to the seat). Padding is not to be used as it can result in secondary impact injury and impede the evacuation.



If passengers are seated at a bulkhead row or cannot reach the seat in front, instruct the passenger to bend fully forward and place hands on top of head. Their feet should be flat and firm on the floor, as far back as possible (close to the seat).



B. Passengers (A321neo Business Class)

Passengers in Business Class should rest their back against the seat, rest their chin on the chest, place the hands under the thighs, and place their feet flat and firm on the floor, as far back as possible (close to the seat).



C. Passengers travelling with an infant

If the passenger is travelling with an infant, the parent/guardian should wrap their arms around the infant in such a manner as to afford maximum protection to the infant's head and neck. In addition, the parent/guardian should bend forward as far as possible (except A321neo Business Class) or rest their back against the seat and their chin on the chest (A321neo Business Class).

All class except A321neo Business Class



A321neo Business Class



D. Cabin crew



**Aft Facing Crew Seat**

1. Seat belt/harness shall be adjusted and the seat belt fastened.
2. Feet shall be placed on the floor, slightly behind the edge of the seat.
3. Grasp the sides of the seat with both hands.
4. Back shall rest against the seat back. The head shall rest against the head-rest.
5. Do not use padding. Remain in position until the aircraft comes to a complete stop.



**Fwd Facing Crew Seat**

1. Seat belt/harness shall be adjusted and the seat belt fastened
2. Feet shall be placed on the floor, slightly behind the edge of the seat.
3. Grasp the sides of the seat with both hands.
4. Back shall rest against the seat back. Rest the chin on the chest.
5. Do not use padding. Remain in position until the aircraft comes to a complete stop.

8. Security of galleys/bars and cabin

Cabin crew not involved with the briefing of passengers shall start securing the galleys. After the briefing, cabin crew shall start securing the cabin. All loose items including passenger carry-on items shall be secured inside lockers or toilets, ensuring that all locks and latches are positively engaged. During this time reassure passengers and re-check that seat belts are fastened, seat backs are upright or in the TTL position (where applicable), PTVs and tables are stowed.

9. Reseating of passengers

Able-bodied passengers (ABP) should be reseated to assist passengers that may need help e.g. the elderly, the infirm, unaccompanied minors, a mother with more than one child etc. Reseat passengers as required. Keep families together if possible.

Select passengers and brief them for the purpose of opening doors (if necessary) and assisting at the bottom of the slides. Such passengers should be seated next to the exits. The types of persons who could assist are crew members travelling as passengers, military or security personnel and disciplined people who would respond to authority.

10. When time is very limited, the most important items to check for passengers are seat belts fastened, seat backs upright or in the TTL position, PTVs and tray-tables stowed. If additional time is available, the brace position should be demonstrated.

**11. Reporting of completion of preparation**

All section leaders will report to the SCCM when everything in their section is ready. After receiving confirmation from all section leaders, the SCCM will report to the Captain that the cabin preparation is complete.

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## 6.9 Emergency Preparation – Ditching

The same procedures as mentioned in the land emergency preparation will be followed with the addition of the donning of life jackets and the removal of all shoes.

### Preparation – Flight Crew

As soon as possible the Captain will make the following announcement over the P/A system:

"This is your Captain speaking. I must inform you that a state of emergency exists and that it will be necessary to make an emergency landing on the sea. This can be done quite safely. The aircraft is fitted with emergency slides and all of the necessary equipment to assist in your evacuation and use after landing. Crew members will instruct you on the procedures to be followed and will direct you to the exits and life rafts. I will order "BRACE BRACE" for impact just before landing. Remember that there could be more than one impact and you should remain in the brace position until the aircraft stops, and then move to the exits as directed. Your co-operation is essential. Thank you."

### Preparation – Cabin Crew

#### 1. General

Prepared ditching are remote, however in the majority of prepared ditching there has been adequate time for preparation. All remarks regarding crash protection of passengers for an emergency landing equally apply to the cabin preparation for a ditching. Precise instructions on life jacket donning and operation must be given. Remind passengers not to inflate the life jackets inside the cabin. Distribute floatation cots and life jacket for infants as required. It is stressed again that a calm manner must be preserved to install confidence and prevent panic amongst passengers.

#### 2. P/A Announcement – Prepared Emergency Ditching

ANNOUNCEMENT	CABIN CREW ACTIONS
(Chinese) This is your Inflight Service Manager/ Senior Purser speaking. It is necessary to make an emergency ditching. Follow the instructions given by the cabin crew.	Take up positions in the aisles.
(Chinese) We may have to move some passengers to other seats. Move to another seat if asked to do so. <b>{Pause &amp; wait for confirmation}</b>	Try to seat "helpers" next to anyone who may need help e.g., unaccompanied minors, elderly or incapacitated passengers. Reseat helpers next to exits. It is important to brief helpers and tell them what to do.
(Chinese) Place your seat back in the up position and ensure that your table and television are stowed. <b>{Pause &amp; wait for confirmation}</b>	Check/assist passengers and answer any questions.

ANNOUNCEMENT	CABIN CREW ACTIONS
<p>(Chinese)</p> <p>Loosen ties and collars. Remove all sharp objects from your clothing, remove dentures, spectacles and shoes. Place everything in the seat pocket.</p> <p><b>{Pause &amp; wait for confirmation}</b></p>	Check/assist passengers and answer any questions.
<p>(Chinese)</p> <p>Now take the life jacket from the pouch under your seat or in your armrest. Place the jacket over your head and secure the tapes firmly around your waist. Do not, I repeat <b>DO NOT</b> inflate the jacket at this time. When at the exit, inflate the jacket by pulling the red toggle sharply down. Blowing into this tube can also inflate the jacket. For attracting attention you have a whistle and a light.</p> <p><b>{Pause &amp; wait for confirmation}</b></p>	Demonstrate by donning the life jacket (use the real life jacket). If necessary, get "helpers" to assist neighbouring passengers.
<p>(Chinese)</p> <p>Now fasten your seat belt securely. Also fasten the shoulder belt if fitted.</p> <p><b>{Pause &amp; wait for confirmation}</b></p>	Check/assist passengers and answer any questions.
<p>(Chinese)</p> <p>Before ditching you will be given the order "<b>BRACE</b>". Remove the safety instruction card and review the BRACE position and the position of the exits. As there may be more than one impact on ditching, you must remain in the BRACE position until the aircraft comes to a complete stop.</p>	Show the safety instruction card.
<p>(Chinese)</p> <p>Now adopt the BRACE position so that we can check you. If you have any difficulties, please tell the cabin crew at this time.</p> <p><b>{Pause &amp; wait for confirmation}</b></p>	Check/assist passengers and answer any questions.
<p>(Chinese)</p> <p>When the aircraft has stopped, unfasten your seat belt and pull the straps apart. Then move to the exits as directed. Escape path lighting will also guide you to the exits. Cabin crew are now pointing out your nearest exits. When at the exit, inflate your life jacket and board the raft. Leave your bags and other belongings in the aircraft. Remain calm and follow your cabin crew's instructions.</p>	Demonstrate the unfastening of seat belts using the demonstration seat belt and point to the nearest exits.

ANNOUNCEMENT	CABIN CREW ACTIONS
(Chinese) Thank you for your attention. Cabin crew please confirm the cabin is ready. <b>{Receive confirmation from cabin crew that the cabin is ready}</b>	Check the cabin and confirm with section leader/SCCM.

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## 6.10 Emergency Evacuation

### 6.10.1 Decision to Evacuate

The decision to EVACUATE an aircraft is made when it is considered that passengers and crew are in danger if they remain in the aircraft, the command "ATTENTION, EVACUATE EVACUATE" shall be used. The decision shall be made by the most senior crew member present. Should incapacitation prevent the decision being made by the most senior person, it then passes to the next most senior crew member as given in "Command Succession" (refer to FOP Operations Manual Part A 1.6) or the "Chain of Command" (refer to ISD Manual (A) Chapter 4).

### 6.10.2 Catastrophic Situation

There are some situations where individual cabin crew may initiate the evacuation. These are called "Catastrophic" situations e.g. ditching or a crash where the aircraft breaks into pieces.

If no instruction is received from the flight crew, and the situation is not catastrophic, then cabin crew, probably the SCCM, should establish communication with the flight crew.

### 6.10.3 Evacuation of Passengers

Time is vital, it must never be wasted. Crew members must be prepared to use initiative so that incapacitation, aisle or door blockage will result in minimum delay to the evacuation. Every second gained is significant.

In emergency conditions, there are two modes of passenger reaction:

1. Positive Panic – this is sudden unreasoning infectious fright.
2. Negative Panic – this renders a person incapable of any action.

In addition, disorientation and confusion amongst passengers may have to be dealt with. The above factors require control by crew members for a rapid and successful evacuation.

The necessary control is accomplished by the use of positive, short commands given in a firm manner. In an emergency, courtesy must be dispensed with and authority asserted from the start. Correct phrases to use are:

1. Door Primary

"evacuate"  
"saw sarn"  
"seat belts off"  
"high heels off"  
"come this way"  
"jump jump, 2/1 at a time"

2. Door Assist

"evacuate"  
"saw sarn"  
"seat belts off"  
"high heels off"  
"come this way" "follow me"

**Note:** SAW SARN is Cantonese, it means "evacuate".

The evacuation and motivation commands should be repeated in the cabin crew's native language if the passenger complement in the area so requires. Below are the references:

	Cantonese	Putonghua
Evacuate		撤離
Seat Belts Off	除安全帶	解開安全帶
Life Jacket On	著好救生衣	穿上救生衣
High Heels Off	除高踭鞋	脫掉高跟鞋
Shoes Off	除鞋	脫掉鞋子
Come This Way	過嚟呢邊	到這邊來
Inflate Life Jacket	救生衣充氣	救生衣充氣
Hands and Knees	爬出去	爬出去
Jump Jump, 2 at a time/1 at a time	兩個一齊跳/ 一個一個跳	跳下去, 跳下去, 排成兩排跳下去/ 一個一個跳
Follow me	跟我走	跟我走
Move, Hurry	快啲 快啲	趕快 趕快

In an emergency people may not hear commands correctly. Negative commands may cause confusion e.g. "not this door" or "don't go out this way" – people may hear "this door" and "go out this way". Negative commands are not to be used.

To avoid any delay in an evacuation, passengers must be discouraged from carrying their bags. These items can damage slides and may become hazards if left at the bottom of the slide.

The door primary is responsible for opening the door. The assist is the first person to evacuate. If the door primary is incapacitated then the assist will immediately take over the duties of the door primary.

### 6.10.3.1 Recommended Crew Actions

1. Flight Crew
  - A. One of the most likely events culminating in an emergency evacuation is an uncontrollable engine fire on ground. This may happen after landing or following a rejected take off.
  - B. Other various emergency situations can arise, e.g. fire or smoke warnings, which may either be false or indicate an overheat condition rather than a fire.
  - C. The immediate action – to carry out the appropriate checklist – does not automatically conclude with an aircraft evacuation.
  - D. Many in-flight emergency situations are resolved to the extent that a normal landing is possible. The primary objective is passengers' safety, and it may be undesirable to carry out an unnecessary emergency evacuation with the associated risks to passengers.
  - E. Following an in-flight emergency situation, the Captain should advise the cabin crew in advance if an evacuation via the slides is a possibility.
  - F. Unless there are other compelling reasons, internal or external visual information should be taken into account before initiating an evacuation.

- G. A flight deck warning may be due to a faulty warning system rather than representing a compelling reason to evacuate.
2. Door Primary
- A. Evaluate outside conditions through the observation window for any hazards before opening the door.
  - B. If safe, open the door. Check proper deployment of the slide/slidraft and that it is safe for passengers to evacuate. Stand to the side of the door and keep the exit area clear. Hold the door assist handle to secure yourself.
  - C. Make verbal and visual contact with the passengers as far into the cabin area as possible. Maintain this contact until you are sure they have made a positive move to exit out of your door. Use whatever verbal and physical measures necessary to keep them moving.
  - D. Instruct passengers to approach the door rapidly. Attempt to establish a regular exit flow, for example, two passengers together per second through the door. If irregularities in passenger flow occur, re-establish an even flow as soon as possible.
  - E. Use commands to prevent passengers from sitting in doorways. Remain to the side of the passenger traffic lane and close enough to apply the required force to move passengers if necessary. Use whatever means necessary to establish normal flow rates. If a passenger sits down in the doorway, get the passenger behind to physically push the passenger into the slide. If a passenger remains in the traffic lane opposite the doorway, instruct other passenger(s) to assist, e.g., "help them out". Do not cross over to give physical assistance unless absolutely necessary, and then step out of the traffic lane quickly using handgrips where available.
  - F. Be alert for passengers carrying baggage. If possible, remove the baggage from the passenger.
  - G. If you are relieved of your duty at a particular door by a member of the flight crew, immediately proceed to the nearest door needing additional assistance.
  - H. As the flow of passengers to your door decreases, quickly check around to determine if you should call passengers from an overcrowded exit to your exit. When making this decision, consider the time it takes to get their attention, and move to your exit. If there are no problems at the other exits and your area is clear, evacuate yourself taking any necessary equipment (see point N).
  - I. Once on the ground, assist passengers to a secure and protected area away from the aircraft and any fuel spillage. Render whatever aid necessary.
  - J. In an emergency evacuation all available exits should be used. However be prepared for some exits or escape routes to be unusable due to fire, structural damage or an escape system malfunction. If an assigned exit is considered not safe to use, remain at the door and redirect passengers to a suitable exit if possible. Remain at the door until the passengers in the area have been redirected. The presence of smoke does not always mean that an exit cannot be used. Smoke can be blown across doors away from the fire area. The presence of fire may be ascertained by indications such as blackened windows.
  - K. Slide malfunctions that can render an exit unusable include:
    - a. A slide will not inflate.
    - b. A slide is punctured during inflation.
    - c. A slide deploys at an unusual attitude.

- d. A slide is blown across a door in strong wind conditions.
- e. The proximity of fire or wreckage at the bottom of the slide.

In such cases passengers must be redirected to another exit.

L. Redirecting passengers from an unusable exit

- a. Redirect passengers to the most suitable exit. Bear in mind that the nearest exit may not be the best choice.
- b. Redirect passengers to an exit forward or aft depending on the passenger loading in that area of the aircraft.
- c. To avoid confusion when redirecting passengers away from unusable exits tell the passengers why you are redirecting them.

**EXAMPLES:**

- i. "Fire outside; go opposite/go to the front/go to the back!" (Point to the alternate exit).
- ii. "Door jammed, go opposite/go to the front/go to the back!" (Point to the alternate exit).

M. Residual pressure

- a. Although rare, it is possible to have residual pressure in an aircraft cabin after landing.
- b. Depending on the amount of residual pressure it may be difficult or even impossible to open the cabin doors.
- c. If the doors cannot be opened in an evacuation and residual pressure is suspected, cabin crew shall immediately inform the flight crew of the situation so that remedial action can be taken.
- d. If the residual pressure is small enough, it may be possible for the cabin doors to be opened. There will be difficulty in operating the door handle but if sufficient force is applied, the door will open.
  - i. On the 777, the door is fitted with relief vents that open to release any residual pressure before the door is opened. Even so the operator must exercise caution.
  - ii. The Airbus door is not fitted with a pressure release system. If the door opens, the residual pressure will push the door open with more force. Therefore it is important that the operator always secures themselves by holding the assist handle when opening the door.

N. Removal of emergency equipment

When checking that all passengers in their area have evacuated, Door Primaries should remove the following emergency equipment if circumstances permit:

- a. If landing at airport, take:

Torch  
Megaphone  
First aid kit

- b. If not at an airport, take:

Torch  
Megaphone  
First aid kit  
ELT  
Additional survival pack

3. Door Assist

- A. After evacuating from the aircraft, assistance should be given at the bottom of the slide to keep the slide area clear. Identify able-bodied passengers and instruct them to help you catch other passengers. You may need 5-6 helpers per slide.
- B. If there is strong wind, the slide may be blown about. Instruct some able-bodied passengers to hold the slide down.
- C. Move other passengers away from the aircraft.

**Note:** *Duty Travel crew will act as assist cabin crew.*

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## 6.11 Emergency Evacuation – Ditching

### 6.11.1 General

Statistics show that the probability of a large jet aircraft carrying out an unprepared ditching is far greater than a prepared ditching. Unprepared ditchings have occurred during the takeoff, approach and landing phases at airports adjacent to water. This type of emergency is extremely critical. Crew members must be prepared for a sudden transition from a normal situation to the unexpected. A normal situation involving a runway could suddenly become a critical situation.

Points made in the item on LAND evacuation are equally relevant.

There is the possibility of no communication from the flight deck. The aircraft could have sustained impact damage which would reduce floatation time and therefore the evacuation time available. A rapid assessment of the situation by the cabin crew must be made and evacuation commands given to motivate all on board.

In an unprepared ditching the only briefing passengers will have had is the pre-flight safety demonstration. Under these conditions some passengers may neglect to don life jackets and even forget where they are stowed. The initial passenger motivation commands will be "SEAT BELTS OFF" "LIFE JACKETS ON" – "SHOES OFF". Cabin crew must don their own life jackets.

If time allows, as with preparations for a land emergency, the concept of a cabin preparation for a ditching is to afford maximum safety during and after the ditching. It is vital that a calm manner be maintained to instill confidence and prevent panic in the passenger cabin.

### 6.11.2 Commands Used in A Ditching Situation

#### 1. Door Primary

"evacuate"  
"saw sarn"  
"seat belts off"  
"life jackets on"  
"shoes off"  
"come this way"  
"inflate life jackets"  
"hands and knees"

#### 2. Door Assist

"evacuate"  
"saw sarn"  
"seat belts off"  
"life jackets on"  
"shoes off"  
"come this way"  
"inflate life jackets"  
"follow me"

### 6.11.3 Raft Boarding

#### 1. Sliderafts

- A. Door Primaries will instruct passengers to inflate their life jackets as they reach the doorway and to board the raft on their hands and knees.
- B. Door Assists will move to the far end of the raft and call passengers to them. Passengers are to be distributed evenly on both sides of the raft.

- C. When boarding is complete, the Door Primary will check the area and take any necessary equipment onto the raft, if circumstances permit. The sliderraft is then released and cast-off from the aircraft. In cases where the angle of the sliderraft is very steep, it will be necessary to release the sliderraft before boarding passengers.
  - D. Carry out the raft seaworthiness phase.
2. Boarding from the water
    - A. Every attempt must be made to board passengers dry. Should survivors be in the water, use of the heaving line may be required. The Raft Commander must never leave the raft.
    - B. The sliderraft life lines may be used to guide a survivor to the boarding station. Assistance must then be given to board the survivor as boarding is difficult for even a healthy person. Weak or unconscious survivors are best boarded by facing them away from the raft and then dragging them backwards into the raft.
  3. Raft Command

The most senior crew member aboard will establish themselves as the Raft Commander, stating their name and rank. Occupants must be told that strict discipline must be observed. Any other crew members on board must support the Raft Commander's decisions.

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## 7 Post Evacuation and Survival

### 7.1 Post Evacuation Phase

#### 7.1.1 Post Evacuation Phase – On Airport

1. General guidance to Airport Authorities for providing rescue and fire-fighting services is standardized by international agreement. Airport rescue plans are designed to:
  - A. Rescue survivors.
  - B. Fight any fires on the aircraft.
  - C. Establish a cordoned-off area around the accident site for essential rescue personnel only.
  - D. Remove injured passengers and crew to first aid posts.
2. If an emergency incident occurs at Hong Kong, airport rescue and fire-fighting services vehicles will probably be first on the scene. They will provide a mobile Command Post. This is indicated by a distinctive green and yellow pennant and a flashing green light. The post will be manned by the Incident Commander, who will be the Senior Fire Officer present and is in overall command of the airport ground rescue services. They will be wearing an orange vest with the words "RESCUE LEADER".
3. At outport stations on the Cathay network, some variations to the above can be anticipated. The procedure described shall serve as a general guide.
4. Crew duties on the ground

Having evacuated from the aircraft, crew duties are to assist on the ground. The main aim is to get passengers away from the aircraft. This is best achieved by keeping the escape slides clear of any hand baggage or injured passengers. When the rescue services arrive, the following tasks should be accomplished, if circumstances permit:

- A. Captain, First Officer

It is probable that the Captain and the First Officer will be amongst the last to leave the aircraft. Having done so, the Captain shall go to the Command Post and brief the Incident Commander on the following:

- a. The reason for the emergency e.g. an engine fire, a smoke filled cabin, a collapsed landing gear, etc.
- b. The location of any fire on the aircraft if not immediately evident.
- c. The fuel load.
- d. Any dangerous cargo carried.
- e. The number and distribution of passengers on board and any unusable doors.
- f. Whether the aircraft is, to their knowledge, completely evacuated.
- g. Any persons who may still be aboard, such as incapacitated passengers or crew who cannot move.
- h. The possible location on the aircraft of any missing crew. The Captain shall attempt to assemble their crew, particularly the SCCM, and establish if any crew is missing.

B. Cabin crew

Cabin crew must be prepared to work with and, if necessary, direct airport rescue personnel to keep the flow of survivors moving away from the aircraft. They must also ensure that passengers do not re-enter the aircraft to retrieve belongings.

### **7.1.2 Post Evacuation Phase – Off Airport**

It is impossible to be precise about crew duties where no rescue services are available. As a general guide, however, the Captain should act as the Incident Commander on the ground. Particular importance should then be paid to organizing the crew of the aircraft in such a manner that the survival phase may commence.

## 7.2 Survival

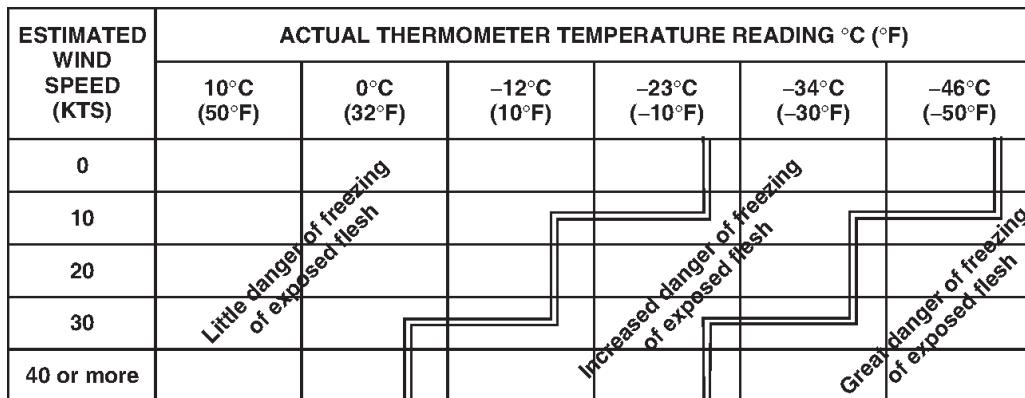
### 7.2.1 Introduction

If the evacuation is not at an airport, one of the main things to keep in mind is whether your position has been reported and acknowledged and if the ELTs are operating. This should guide your subsequent action. If your position is known, a quick rescue is likely – two days at the most, depending on weather conditions and your position. If you are uncertain as to whether your position has been reported and/or doubt exists concerning your radio equipment, you must be prepared for a longer period before being rescued. This may be five days or more. Death normally occurs as a result of exposure and/or lack of drinking water. In the tropics death from lack of drinking water is more likely than death from exposure.

1. Survival guide – time vs water temperature

TEMPERATURE	EXPECTED TIME OF SURVIVAL OF PERSON IMMERSED IN THE SEA
Less than 35°F (2°C)	Less than 3/4 HR
35°F (2°C) to 40°F (4.5°C)	Less than 1 ½ HR
40°F (4.5°C) to 50°F (10°C)	Less than 3 HR
50°F (10°C) to 60°F (15.5°C)	Less than 6 HR
60°F (15.5°C) to 70°F (21°C)	Less than 12 HR
Over 70°F (21°C)	Indefinite (depends on fatigue)

2. Effect of wind on exposed persons



**Note:** Increased wind velocities greatly increase danger of freezing of exposed flesh. Protective measures should be taken.

3. Two important factors affecting survival are:

- A. Morale

This is the first essential to survival; without it no amount of material aid will suffice. Morale is made up of will power and discipline.

- B. Knowledge

A thorough knowledge of the use of equipment and the principles of survival are essential to survival.

## 7.2.2 Survival Psychology

1. Fear is normal among survivors of accidents. Don't be ashamed. Admit your feelings and carry on.
2. Survivors can react in a number of ways:
  - A. Calm and rational
  - B. Temporary stunned / mentally disturbed
3. First group deserves our attention first, as they will be able to assist. They will do as told.
4. Second group will be temporarily passive. They are easily led during the first 24 hours after the incident and will regain a positive attitude shortly.
5. However, there will be some who remain passive. They cannot believe that this is happening to them. Try to assign these people tasks to keep their minds busy.
6. Morale is the will to live – MOST IMPORTANT IN SURVIVAL.
7. Good leadership by crew members increases the confidence of survivors. Raft Commander must take control and allocate duties, such as lookout, liferaft inspection, water collection and desalting, and signalling. This keeps people occupied, makes them feel responsible and reduces negative thoughts.
8. Signs of losing morale include non-cooperation or people challenging crew's decision.

## 7.2.3 Survival on the Sea

### 7.2.3.1 Survival at Sea is divided into Three Phases

1. Seaworthiness
2. Survival
3. Signalling

### 7.2.3.2 Seaworthiness Phase

Having cast off from the aircraft, it is also important to keep clear of floating debris as the raft can be punctured easily. Additionally, crew must perform the following actions:

1. Introduce yourself to the raft occupants.
2. Retrieve the survival kit from the water.
3. Deploy the sea anchor to reduce drift and aid stability. Adjust the line so that when the raft is on a wave crest the anchor is in a wave trough. To propel the raft throw the sea anchor in the direction in which you want to move and haul the life raft towards it. Repeat the process as necessary. To get maximum cast with the anchor and quicker sinking time, attach a weight to the anchor line, close to the anchor.
4. Use the heaving ring to pick up survivors and tie up with the other rafts, keeping about 25 FT apart.
5. Ensure all survivors are distributed evenly on the raft.
6. Deploy ELT to send out distress signal.
7. Check raft condition and repair if necessary using equipment from the survival kit. Check both upper and lower buoyancy tubes for rigidity and if under inflated top up manually with the hand pump.

8. Check passenger condition, apply first aid if necessary.

**Note:** When appropriate, crew are to set up the canopy which is provided for each slidecraft. The canopy has a highly visible orange colour and is resistant to the wind. It gives protection to the occupants against different environmental conditions. It has a sleeve to collect rain water.

### 7.2.3.3 Survival Phase

1. First aid – immediate action

A first aid kit is provided in all life rafts. Generally, a person who has been injured needs wound treatment, control of bleeding, relief from pain, and treatment for shock.

A. Wound treatment

a. Wounds

Cover with dressing after application of the antiseptic swab.

b. Burns

Apply a cold compress taking care not to burst the blisters. Bandage the burn.

c. Broken bones

Immobilize the limb. Let the person find a position where the pain is least. For a broken arm or shoulder a sling should be used. Triangular bandages are available in the first aid kit for this purpose.

B. Control of bleeding

Apply pressure with a compress bandage.

C. Relief from pain

If the first aid kit is available, a pain killer can be given to relieve pain. If not available, there is little you can do beyond immobilizing the person and trying to find the most comfortable position for them. Pain from burns is immediately reduced by exclusion of air.

D. Treatment for shock

There is a great possibility that a survivor may be suffering from shock. If the person is cold and shaking, they will primarily be in need of warmth. In the absence of any spare clothing, fit people should huddle as close as possible to the person.

2. First aid – subsequent action

A. Immersion foot and salt water boils

This is caused by prolonged immersion in salt water at a temperature cooler than the body. The feet swell and become blistered. The person should move their feet, wiggle their toes and rest their legs horizontally. Vigorous massage is harmful. Salt water boils can occur when the skin is saturated with sea water. Treat as for a normal boil keep them covered with dressings.

B. Sunburn

If exposed, large areas of skin can blister quickly and may become septic. Protect the skin by covering it. If blisters develop they should not be burst.

**C. Sea sickness**

Sea sickness is dangerous because it lowers morale and causes loss of vital body fluids. Many of the life raft occupants are likely to be affected by it. The majority should rapidly recover and adapt themselves to the motion of the life raft. The cure is to lie horizontally, maintain body warmth and refrain from eating. Drinking will be necessary to replace the lost body fluids. This should be done in small amounts to avoid loss by further vomiting.

**3. Morale**

- A.** Every effort is to be made by the Raft Commander to allocate duties in shifts. Look out, life raft inspection, the small routines within the raft itself, water collection, signalling with the mirror are all things which help to form routine. In this way minds are occupied and morale is improved. The survivor realizes that life must go on. Above all it is essential that survivors should never give up hope. Remember that in most cases survivors are picked up within two days.
- B.** Non-cooperation in allocated life raft duties is evidence of loss of morale. Good leadership by crew members increases the confidence of the survivors and is vital in maintaining a high state of morale. Remember "The Will To Live" is the most important requirement in the raft. Some people have managed to survive for weeks, even months, in open boats.

**4. Food and water – immediate action**

- A.** It is important to reduce your movements and conserve energy. This will reduce sweating and the loss of valuable body fluid. Food at the initial stage is unnecessary. A discussion on food requirements is given below.
- B.** Water should not be issued to healthy survivors for at least 24 hours. Injured or sick passengers should receive a ration if they are very thirsty.

**5. Water and food – subsequent action**

**A. Water**

- a.** A healthy person has a full water content, and if water is given they soon pass away the excess fluid in urine. After 24 hours they become slightly dehydrated, and if they then take a daily ration it is not wasted in urine but retained in the body.

**b. Suggested Rationing**

1st day – nil

2nd, 3rd, 4th days – 400 ml per person daily

5th day onwards – 110 ml to 220 ml per person daily

**c. Water sources**

- i.** The only provision in the life raft for water is by means of de-salting kits or packaged water. De-salting kits are also provided in additional survival packs for transfer to the raft.
- ii.** In a prepared ditching water can be made available using the water bags stowed in the additional survival packs. When time permits, fill the bags with drinking water for transfer to the rafts after ditching.
- iii.** When it is raining, fill all available containers. At the same time take the opportunity to drink and replenish your body fluid. Don't drink quickly after being on short rations or you may vomit.

- d. Preserving water in the body
  - i. The body contains about 40 litres of water. Generally, life cannot be maintained on less than 25 litres. When sweating takes place, the loss of body water to 25 litres may occur within 24 hours in the tropics. Thus, it is essential that you should do everything that can be done to prevent sweating. If exposed, keep clothes soaked in sea water and avoid unnecessary exertion. Bathing over the side of the raft should be discouraged in tropical waters as sea water may be swallowed; also the raft may be in shark infested water. Bathing also causes an increase in internal heat and eventual body fluid evaporation through the skin.
  - ii. As tropical nights can be quite cold, clothing which has been soaked in sea water during the day should be allowed to dry out by sunset.
- e. Effects of drinking sea water

Drinking sea water will increase your thirst and make you violently sick. However, you can obtain some relief by moistening the lips and rinsing out the mouth with sea water. Sea water taken into the body in larger quantities can be very dangerous.

B. Food

- a. People can survive without food for 20 to 30 days, provided they have water to drink.
- b. In survival conditions the kind of food taken is important. Protein foods such as meat, fish, shellfish, eggs, seaweed, are not entirely absorbed by the body and the disposal of waste products necessitates the loss of water. When a person is starving they feed on their own flesh. It has been found that if a starving person is given some sugar the body does not attack its own protein so much. Consequently there is less waste material to be disposed of in the form of urine.
- c. By giving sugar (a carbohydrate) about 33 ml of body water is conserved which would otherwise be wasted. It is for this reason that modern survival rations are mainly in the form of sugar.
- d. The rations should not be issued for the first 24 hours. About half the total amount should be issued on the second day and the remainder eaten over the third and perhaps fourth day.
- e. Some types of floating seaweed in the open ocean are quite edible. Fresh healthy seaweed has no marked odour and is firm and smooth to touch. Inspect all seaweed for small organisms that may sting. Do not in any event eat seaweed without an adequate water ration plus an extra ration to allow for salt intake.
- f. Fish may be eaten but remember that fish is salty. Water intake should be above the normal ration.

C. Conclusion

- a. When water is plentiful, food may be taken freely.
- b. If the water ration is less than the daily fluid loss (anything from 1 litre to 14 litres), then only carbohydrates should be taken. Candies may be sucked regardless of the water ration, so long as the tongue is moist, the sugar can be dissolved.

- c. When water is in short supply a little knowledge and strict discipline are necessary to ensure that it is not wasted. In the tropics, ration your sweat, not your water. In temperate climates remember dehydration starts as soon as intake is less than 1 litre a day.

#### 7.2.3.4 Signalling Phase

The following signalling equipment is available in the raft survival kit.

1. Flashlight
2. Mirror

Use in bright sunlight, in clear weather the range is limited only by the earth's curvature.

3. Sea dye marker

Place in water on the upwind side when rescue aircraft is in the area.

4. Whistle

Use at night or in fog to assist rescuers locate the raft.

5. Signal flares

The following illustrates the type of signal flare carried on passenger aircrafts.

Use at day or night when rescue team is in the area. It emits a signal up to altitude of 450 FT, and burns up to 7 seconds with brightness up to 16,000 candelas.

##### A. Features



##### B. Operation

- a. Hold the safety sleeve and press the top centre down, the tube body will drop.



- b. Pull the tube body firmly down to lock it in place.



- c. Grasp the tube body firmly, unscrew the cap and expose the ignition chain.



- d. Hold the unit upright, turn your face away and point the flare away from the raft. Maintain a firm grip and pull the ignition chain down sharply to launch.



### 7.2.3.5 Survival Equipment Dropped by Search and Rescue Aircraft

If the initial contact with survivors is by aircraft, items of survival equipment may be dropped. Common equipment consists of cylindrical containers connected to each other by buoyant rope. Maximum effort must be made to recover the survival gear. Do not allow anyone to swim to recover the equipment unless they have a life-line connecting them to the raft.

### 7.2.3.6 Air Drop Colour Codes

1. Red streamer: Medical supplies and first aid equipment.
2. Blue streamer: Food and water.
3. Yellow streamer: Blankets and protective clothing.
4. Black streamer: Miscellaneous equipment e.g. stoves, axes, compasses, cooking utensils.

**Note:** *For supplies of a mixed nature in one container or package, the code may be used in combination. Instructions on the use of the survival equipment are enclosed in each of the containers or packages.*

### 7.2.3.7 Visual Signal Code

1. Ground – Air

NUMBER	MESSAGE	CODE SYMBOL
1	Require assistance	V
2	Require medical assistance	X
3	No or negative	N
4	Yes or affirmative	Y
5	Proceeding in this direction	↑

**Note 1:** *Symbols should be at least 2.5 M (8 FT) long and should be as conspicuous as possible.*

**Note 2:** *Symbols may be formed by any means such as: strips of fabric, pieces of wood, stones or similar material, marking the surface by trampling, or staining with oil, etc.*

**Note 3:** *Use other means such as radio, flares, smoke, reflected light etc. to attract attention to these signals.*

2. Air – Ground

The following signals by aircraft mean that the ground signals have been understood:

- A. During hours of daylight  
By rocking the aircraft's wings.
- B. During hours of darkness  
By flashing the aircraft's landing lights ON and OFF twice or, if not so equipped, by switching the navigation lights ON and OFF twice.

Lack of the above signal indicates that the ground signal has not been understood.

### 7.2.4 Arctic Survival

Should it be necessary to land in the arctic regions, all appropriate drills and procedures as stated in this manual still apply.

## Survival Hints

1. After a reasonable period of time it may be possible to carry out an examination of the aircraft. If no fire risk exists, the fuselage may prove to be a suitable wind break. Do not consider living inside the aircraft as it will be too cold. Do not move away from the immediate vicinity of the crashed aircraft as individuals stand little chance of being spotted. Survivors should move to safer ground if the surface on which the aircraft has landed appears to be unsafe.
2. Much of the aircraft equipment can be used for survival. Inflated rafts with canopies erected can be used as shelter. Carpets and upholstery can be used as clothing or foot protection. Baggage from the cargo compartment, if obtainable, can be used to shape distress signals which may be visible to search and rescue aircraft. Remaining fuel and oil can be used in improvised stoves as well as for generating smoke to attract attention. When lighting a fire in an enclosed shelter, make sure there is effective ventilation to prevent carbon monoxide poisoning.
3. Low temperature is one of the biggest problems of survival in arctic areas. Every effort should be made to keep everyone warm and dry. The best way to dry clothes in sub-zero temperatures is to leave the article outside to freeze and then beat the moisture out of it. This is far more effective than drying clothes in front of a fire. Do not touch metal or other objects with bare hands as this can damage skin and cause frostbite.
4. Maintain morale by good command and organize duties. Sound does not carry well through snow. If the entire party is in a snow cave or igloo, the approach of search and rescue aircraft may not be noticed. Look out duties should be organized. Crew should work in pairs and wear sunglasses or eyeshields to avoid snowblindness when working outside.
5. Try to avoid sweating as it can freeze and cause severe loss of body heat. Do not attempt to eat ice or snow as this can freeze the tongue and reduce survival time.
6. Windchill

An increase in wind strength increases body heat loss. Take advantage of wind barriers such as the side of the crashed aircraft and raft shelters. If it is necessary to work outside try to keep your back to the wind.

7. Frostbite

Frostbite is caused by prolonged exposure to sub-zero temperatures. It is most common on the nose, ears, hands and feet. Initially there will be paleness and tingling in the affected area. This will be followed by numbness and a stiffening of the skin accompanied with pain. Treatment is to gently remove any gloves, rings, or boots. Warm the part gently with your hands or in your lap, or in the casualty's armpit. Get the casualty to warm surroundings; if the feet are affected, carry them if possible. If the colour does not return rapidly to the skin, place the affected part in warm water. Dry it carefully. Do not burst any blisters. Raise and support the limb to reduce swelling. The casualty may take two paracetamol tablets to relieve pain.

8. Hypothermia

This condition develops when the body temperature falls below 35°C (95°F). Prolonged exposure to a cold environment, especially in wet and rainy conditions, increases the cooling rate by 30 times compared to that in dry air. The casualty will be shivering, pale and the skin will be dry. Should anyone appear to be suffering from hypothermia, treatment is required immediately. Remove wet clothes, insulate the casualty with dry clothing, blankets or newspapers. Remember to cover the head. Take the casualty to a sheltered place as quickly as possible and protect them from the elements.

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## 7.3 Search and Rescue

### 7.3.1 Definitions

1. Uncertainty phase

A situation where uncertainty exists as to the safety of an aircraft and its occupants.
2. Alert phase

A situation where apprehension exists as to the safety of an aircraft and its occupants.
3. Distress phase

A situation where there is reasonable certainty that an aircraft and its occupants are threatened by grave and imminent danger or require immediate assistance.
4. Alerting post

A unit designated to receive information from the general public regarding an aircraft in an emergency and to forward the information to the associated Rescue Coordination Centre (RCC).
5. Rescue co-ordination centre (RCC)

A centre established to promote efficient organization and coordination of the search and rescue operations within a specified region.
6. Rescue sub-centre

A centre subordinate to a Rescue Co-ordination Centre established to complement the latter within a specified portion of a search and rescue region.
7. Rescue unit

A unit composed of trained personnel and provided with equipment suitable for expeditious conduct of search and rescue.

### 7.3.2 Notification of RCC When State of Emergency Exists

Air Traffic Service Units shall immediately notify the RCC when an aircraft is considered to be in a state of emergency in accordance with the following:

1. Uncertainty phase

When, no communication has been received from an aircraft within a period of 30 MIN after the time a communication should have been received or from the time an unsuccessful attempt to establish communication with such aircraft was first made, whichever is the earlier. Or when an aircraft fails to arrive within 30 MIN of ETA last notified to or estimated by Air Traffic Service Units, whichever is the later, except when no doubt exists as to the safety of the aircraft and its occupants.
2. Alert phase

When, following the Uncertainty Phase, subsequent attempts to establish communication with the aircraft or inquiries to other relevant sources have failed to reveal any news of the aircraft. Or when, an aircraft has been cleared to land and fails to land within 5 MIN of the estimated time of landing and communication has not been re-established with the aircraft. Or when information has been received which indicates that the operating efficiency of the aircraft has been impaired but not to the extent that a forced landing is likely, except when evidence exists that would remove apprehension as to the safety of the aircraft and its occupants.

3. Distress phase

When, following the Alert Phase further unsuccessful attempts to establish communication with the aircraft and more widespread unsuccessful inquiries point to the probability that the aircraft is in distress. Or when the fuel on board is considered to be exhausted, or to be insufficient to enable the aircraft to reach safety. Or when information is received which indicates that the operating efficiency of the aircraft has been impaired to the extent that a forced landing is likely. Or when information is received, or it is reasonably certain that the aircraft is about to make or has made a forced landing, except when there is reasonable certainty that the aircraft and its occupants are not threatened by grave and imminent danger and do not require immediate assistance.

### 7.3.3 Incidents Most Often Requiring an Escort

1. Unable to maintain altitude.
2. Structural damage.
3. Fire or suspected fire.
4. Pilot's control of the aircraft is impaired.
5. Insufficient fuel.
6. Threatened by grave and imminent danger in any other circumstances than those above.

### 7.3.4 Distress/Urgency Signals and Messages

1. Signals – radio, visual
  - A. Distress
    - a. Radio  
MAYDAY (three times if possible) radiotelephony.
    - b. Visual
      - i. A hand-held flare showing a red light.
      - ii. A rocket-parachute flare showing a red light.
      - iii. Morse code signal consisting of the group ...—...—... (SOS) made by any suitable signalling device e.g. signalling lamp, flash light, mirror, heliograph.
      - iv. A smoke signal giving off a volume of orange-coloured smoke.
      - v. Signal fires burning in a conspicuous place.
  - B. Urgency  
PAN – PAN (three times) radiotelephony.
2. Messages
  - A. Distress
    - MAYDAY (three times if possible) radiotelephony.
    - a. Name of the station addressed (time and circumstances permitting).
    - b. Aircraft type and identification.

- c. Nature of the distress, e.g. structural damage, losing height rapidly, uncontrolled engine fire.
- d. Present position, flight level (or altitude) and heading.
- e. Intention of Captain e.g. emergency landing, ditching.

**Note:** *The distress call has absolute priority over all other transmissions. All stations hearing a distress message shall immediately cease any transmission and shall continue to listen on the frequency used for the distress message.*

B. Urgency

- PAN – PAN (three times) radiotelephony.
- a. Name of the station addressed (time and circumstances permitting).
  - b. Aircraft type and identification.
  - c. Nature of the urgency e.g. passenger suffering from cardiac arrest.
  - d. Present position, flight level (or altitude) and heading.
  - e. Intention of Captain.
  - f. Any other useful information.

3. Cancellation of distress messages

Distress messages must always be cancelled immediately if circumstances change and assistance is no longer required.

### 7.3.5 Emergency Communications Frequencies

Attempt to contact ground or airborne stations on designated route frequencies VHF/HF. If no success utilize frequencies assigned specifically for distress purposes.

Available emergency/distress frequencies are:

- 1. 121.5 MHz – Aeronautical emergency frequency VHF.
- 2. 243 MHz – Military emergency frequency VHF.
- 3. 406 MHz – Picked up by satellite.

### 7.3.6 Rescue

#### 7.3.6.1 Rescue is likely to be by one of the following:

- 1. Helicopter
- 2. Amphibian type aircraft
- 3. Ship
- 4. Mountain rescue unit

#### 7.3.6.2 Rescue by helicopter

- 1. The helicopter rescue net

The Helicopter approaches the survivor at about 3 KTS (approximately 6 KM/HR) speed and scoops the survivor into a net. They are then winched on board the helicopter.

## 2. Rescue from the raft

In the event of rescue direct from the raft, prepare it as follows:

Remove the canopy and stow it in the accessory bag. Stow all loose items otherwise the helicopter downwash will blow them about. The helicopter winch-operator will lower a winchman with a rescue strop. On receiving the strop, place it over your head and under the armpits. Adjust the space between the lifting point and the chest by pulling the canvas toggle towards you. When ready for winching extend the arm as a signal, and then hold on to the rescue line above the toggle.

**CAUTION:** Do not struggle or attempt to board the helicopter. When you are in the right position the winch-operator will pull you on board the helicopter.

### 7.3.6.3 Rescue by amphibian type aircraft

Remain in the life raft. Do not jump over the side and attempt to swim to the plane. The pilot of the rescue aircraft will be busy taking their clearance on the raft and may not notice a survivor in the water. The general procedure in relatively smooth water is for the pilot to taxi up to the raft and board survivors from a hatch.

### 7.3.6.4 Rescue by ship

The main point to remember is to let the ship's crew help you into the life boat. Most survivors are usually in a worse physical condition than they suspect. Transferring of survivors from a raft to a boat in rough conditions can be very hazardous, therefore ensure that life jackets are fully inflated.

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## 8      Dangerous Goods

### 8.1    Introduction

International regulations restrict the type and quantity of dangerous goods allowed for carriage by passengers/crew. The following considerations are taken into account in assessing whether articles are dangerous goods and for determining the appropriate course of action in the event of an incident/accident involving dangerous goods on board an aircraft.

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## 8.2 General

### 8.2.1 Regulations

CX (Operator) is authorised by the Hong Kong Civil Aviation Department to carry dangerous goods, provided that they are carried in accordance with the provisions of the current edition of the International Civil Aviation Organisation (ICAO) "Technical Instructions for the Safe Transport of Dangerous Goods by Air".

Airlines and shippers refer to the International Air Transport Association (IATA) Dangerous Goods Regulations (DGR) when dealing with dangerous goods. These regulations comply fully with the ICAO Technical Instructions, and in some cases are more restrictive. Operator may also impose special requirements of a particular article or substance over and above the requirements laid down in DGR.

### 8.2.2 Definition

Dangerous goods are articles or substances which are capable of posing a hazard to health, safety, property or the environment and which are shown in the list of dangerous goods in these Regulations or which are classified according to these Regulations.

The characteristics of air transport (vibration, air pressure and temperature changes) can have effects on articles, substances and packaging that pose a hazard to the aircraft and its passengers/crew. This may not be apparent on the ground.

Dangerous goods are categorized into various Classes and Divisions according to the hazard they present. Certain dangerous goods are considered too dangerous for transport by air and are "Forbidden" to be carried by aircraft, whilst others may be carried by Cargo Aircraft Only (CAO). Dangerous goods which do not fall into either preceding category are deemed acceptable for carriage on passenger and cargo aircraft. Dangerous goods must not be carried as hand or checked baggage, unless exempted. Acceptable dangerous goods must be packed, labelled, marked, and documented by authorized shippers. This can be done safely by maintaining strict controls and limitations. It is everyone's responsibility to ensure the safe carriage of, and to be aware of the hazards involved in, the transportation of dangerous goods.

### 8.2.3 Responsibility

Information for passengers regarding dangerous goods regulations is available on the ticket. Notices are also displayed at the check-in counters. The regulations apply not just to revenue passengers but also to crew. Passengers/crew failing to comply with these regulations endanger themselves and others.

### 8.2.4 Training

Everyone in the transportation chain must be aware of the dangers posed and understand the regulations to a degree that satisfies their job responsibilities.

Airport services staff and ground handling staff are trained to assist in detecting, identifying and determining acceptance of dangerous goods carried by passengers.

Cabin crew shall also have a knowledge of dangerous goods including labelling, marking, limitations, provisions for passengers/crew and emergency procedures.

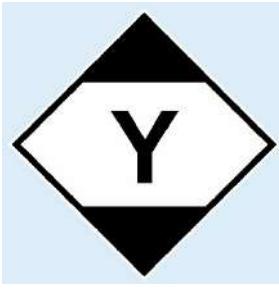
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## 8.3 Labeling and Marking

The shipper is responsible for all necessary marking and labelling of each package of dangerous goods.

### Marking

#### Examples of Marks

<p>This mark is used on packages of dangerous good shipped under the Limited Quantity provisions.</p>	
<p>This mark is used on some packages containing lithium cells or batteries.</p>	

The regulations classify dangerous goods into nine classes depending on the type of hazard involved. In some cases these classes are further sub-divided into "Divisions" to identify a particular hazard, within that class. The order in which the classes and divisions are numbered is for convenience and does not imply a relative degree of danger. This means that Class 1 is not necessarily more dangerous than Class 2 or 3, etc.

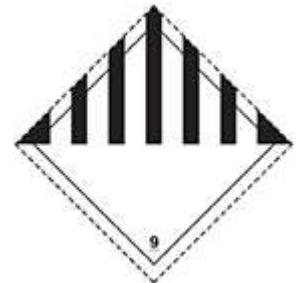
Hazard labels are used to identify the nine classes of dangerous goods. A typical hazard label has a diamond shape with the hazard identification symbol on the top half and the class or division number in the bottom corner. The hazard label indicates the type of danger the article may pose. Articles with a hazard label must not be allowed in the cabin or flight deck. Should you discover a package with a hazard label in the cabin, check with the passenger and if necessary notify the Captain immediately. In some cases the box may have previously been used to pack dangerous goods, but now contains harmless material. In this case the label must be removed from the box.

### Classes of Dangerous Goods

<p>Class 1 – Explosives Class 1 has 6 divisions i.e. Divisions 1.1, 1.2, 1.3, 1.4, 1.5, 1.6 Division 1.1, 1.2, 1.3 – Explosive Most explosives are forbidden e.g. dynamite</p>	
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<p><b>Division 1.4 – Explosive</b></p> <p>These are articles and substances with no significant hazard and therefore can be carried in checked baggage e.g. distress signals ammunition for hand weapons.</p>	
<p><b>Class 2 – Gases</b></p> <p>Class 2 has 3 divisions i.e. Division 2.1, 2.2, 2.3</p> <p><b>Division 2.1 – Gases: Flammable</b></p> <p>These are any compressed gases which, when mixed with air in certain proportions, forms a flammable mixture e.g. butane, propane.</p>	
<p><b>Division 2.2 – Gases: Non-flammable, non-toxic</b></p> <p>These gases are usually transported under pressure in cylinders or pressure vessels. They must not be exposed to heat or fire because of the risk of explosion e.g. carbon dioxide, liquefied nitrogen, helium.</p>	
<p><b>Division 2.3 – Gases: Toxic</b></p> <p>These gases are toxic or corrosive to humans and pose a health hazard. Most toxic gases are forbidden for carriage by air e.g. tear gas.</p>	
<p><b>Class 3 – Flammable Liquids</b></p> <p>If a liquid gives off a flammable vapour within a certain temperature it is considered as a flammable liquid. These liquids must never be exposed to fire e.g. paint, alcohol, gasoline.</p>	

<p>Class 4 – Flammable Solids Class 4 has 3 divisions i.e. Division 4.1, 4.2, 4.3 Division 4.1 – Flammable solid These are materials that can easily burn or may cause fire through friction e.g. matches, sulphur.</p>	
<p>Division 4.2 – Spontaneous combustible These are any substance that can spontaneously heat up when it comes into contact with air and therefore is liable to catch fire e.g. phosphorous.</p>	
<p>Division 4.3 – Dangerous when wet This is any substance that becomes spontaneously flammable or gives off flammable gases if it comes into contact with water e.g. sodium, magnesium powder.</p>	
<p>Class 5 – Oxidizing Substances Class 5 has 2 divisions i.e. Division 5.1, 5.2 Division 5.1 – Oxidizer This is a substance that produces oxygen readily to simulate the burning of other material e.g. fertilizer, bleaches.</p>	
<p>Division 5.2 – Organic peroxides This is any organic material (liquid or solid) that can be ignited readily by an external flame and then burn at accelerating rate e.g. organic peroxide.</p>	

<p>Class 6 – Toxic Substances Class 6 has 2 divisions i.e. Division 6.1, 6.2 Division 6.1 – Toxic These can be in a liquid or solid form and can cause death or injury when inhaled, swallowed or absorbed through the skin e.g. cyanide, pesticides.</p>	
<p>Division 6.2 – Infectious substances These are micro-organisms or substances whose toxins are known or suspected to cause disease in animals or humans such as foot and mouth disease, rabies e.g. bacterial culture for research, virus, biological products, medical waste.</p>	
<p>Class 7 – Radioactive Material These substances are used in medicine for treatment and in nuclear engineering to obtain energy. Radioactive materials can be harmful to health as they continuously give off radiation e.g. uranium, plutonium.</p>	
<p>Class 8 – Corrosives Corrosive materials can be in a liquid state or solid form. They can produce heat or gases that cause damage to skin tissue or have a severe corrosion rate on other materials like the aircraft structure e.g. battery acids, mercury.</p>	
<p>Class 9 – Miscellaneous Dangerous Goods This is any substance which presents a danger during air transportation that is not covered by other classes e.g. solid dry ice (carbon dioxide), magnetized material.</p>	

A specific label is used for Lithium Batteries carried as Class 9 Dangerous Goods.



### Handling Label

In addition to the hazard labels, certain dangerous goods require a special handling label because they need to be loaded in a particular manner. If you see a package with such a label, you should check the contents with the passenger. The package may contain dangerous goods.

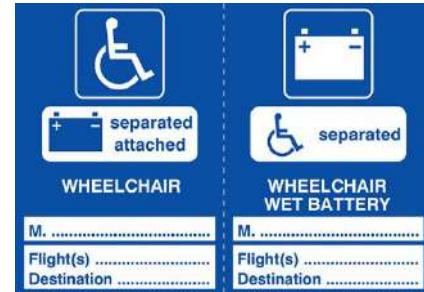
Cargo aircraft only

As the name implies, packages with this label must not be transported on a passenger aircraft.



Wheelchair, mobility aids (battery-powered)

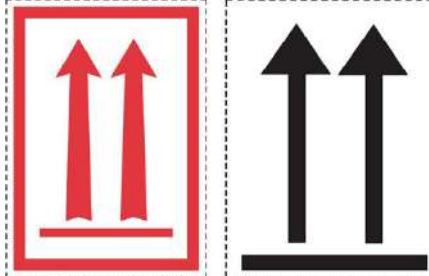
This label identifies a battery-powered wheelchair and indicates whether it has a non-spillable or spillable battery.



Cryogenic liquid

This label is used in addition to the non-flammable gas hazard label to indicate substances such as refrigerated liquid gas.



Magnetized material  Magnetized materials have a strong magnetic field that may affect magnetic compasses and potentially affect the aircraft systems. It is used on packages containing magnetized material.	
Package orientation  This must be used for packages containing liquid dangerous goods.	
Keep away from heat  This label is used on packages that are sensitive to heat.	

### Consumer Labels

Some everyday items that you buy may have a label indicating that it is dangerous. These are called 'consumer labels'. An item with any of these labels should not be carried as checked or carry-on baggage, except as otherwise listed in Table 2.3.A. These labels may appear in different sizes, shapes and colours.

#### Example of Consumer Labels



## 8.4 Packaging and Documentation

The shipper is responsible for all aspects of the packing of dangerous goods and ensure all regulations of packaging, labeling and marking are fulfilled when it is presented to the operator. A "Shipper's Declaration for Dangerous Goods" must be completed by the shipper for each consignment.

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## 8.5 Limitations

A number of limitations are placed on dangerous goods and are listed in the DGR. In addition, both the country and the individual airline may impose further restrictions. The limitations on dangerous goods are shown in more detail below.

### 8.5.1 Dangerous Goods Forbidden in an Aircraft under Any Circumstance

Any substance which, when transported, is liable to explode, dangerously react, produce a flame, dangerously build-up heat or dangerously emit toxic, corrosive or flammable gases or vapours under conditions normally encountered in transport must not be carried.

**Note:** *Some dangerous goods that are not allowed to be carried on passenger aircraft may be carried on cargo aircraft.*

### 8.5.2 Carriage of Dangerous Goods

Some dangerous goods can be carried as cargo provided they have been properly prepared so that the hazard they pose to health, safety and property are reduced to an acceptable level.

This category is referred to as 'acceptable dangerous goods' and must be properly packed, labelled, marked and documented in accordance with the IATA Regulations.

### 8.5.3 Dangerous Goods in Operator's Property

Some dangerous goods are required on an aircraft for its airworthiness or services. The operator (airline) may carry the following items as they are exempted from the regulations. Examples for airworthiness items are aircraft fuel, batteries or batteries containing lithium ion cells or lithium metal cells used in equipment, fire extinguishers, ditching equipment. Examples for services items are perfumes, alcoholic beverages and portable electronic devices containing lithium ion or lithium metal cells or batteries for the duty free sales.

### 8.5.4 Undeclared/Hidden Dangerous Goods

Sometimes it is not obvious that an item contains a dangerous substance. Cabin crew must be vigilant to detect 'undeclared/hidden dangerous goods' especially during passenger boarding. Cabin crew shall clarify with passengers should any suspicious item be seen in the cabin.

The following is a list of 'Undeclared/Hidden Dangerous Goods' and their potential hazard.

ARTICLE	POTENTIAL HAZARD
Automobile parts	May contain wet batteries, air bag inflators and gasoline.
Camping equipment	Beware of metal bottles used for stoves and lanterns that contain flammable compressed gas and flammable liquid such as kerosene and butane. Other equipment such as matches and flares may ignite.
Diagnostic specimens	May contain infectious substances.
Diving equipment	May include air cylinders containing compressed air or a special gas mixture. Emptied cylinders (pressure gauge reads zero) are acceptable. Diving lamps may contain re-chargeable lead acid batteries and high intensity diving lamps that can generate extremely high temperatures when operated in air. In order to be carried safely, the bulb or battery must be disconnected.
Electrically powered equipment	May contain wet cell batteries. e.g. wheelchairs, mobility aids

ARTICLE	POTENTIAL HAZARD
Film crew or media equipment	May contain explosive pyrotechnic devices, wet batteries, fuel and heat producing items.
Household goods	May contain dangerous substances including flammable liquids such as solvent based paint, adhesives, polishes, bleach, corrosive oven and drain cleaners, ammunition, matches, etc.
Medical supplies	Can include items such as flammable liquids, flammable solids, oxidizers, organic peroxides, toxic or corrosive substances.
Photographic supplies	May contain substances used for film developments. These may be corrosive chemicals, flammable liquids/solids and oxidizers.
Swimming pool chemicals	For cleaning swimming pools. They may contain corrosives and/or toxic chemical gases.
Tool boxes	May contain compressed gases, flammable aerosols, adhesives, paint and/or corrosive liquids.
Torches	Micro torches and utility lighters may contain flammable gas and be equipped with an electric starter.
Vaccines/medical articles	May be packed in dry ice.

The above lists some examples of ‘Undeclared/Hidden Dangerous Goods’. There may be other items that have not been mentioned. As with dangerous goods, if you discover any suspicious packages or articles, you should clarify with the passenger regarding the contents. If the item contains a dangerous substance that is not to be carried in the cabin you must off-load the item. Always inform the SCCM and the Captain, particularly if you are in doubt.

An article containing ‘Undeclared/Hidden Dangerous Goods’ does not necessarily mean that it is unacceptable for air transport as there are some exemptions. These exemptions are covered next.

### 8.5.5

### Dangerous Goods Carried by Passengers or Crew

“Table 2.3.A” is taken from the IATA-DGR. It provides a list of items that are considered as dangerous goods, but for practical reasons may, subject to certain controls, be carried by passengers and crew either as carry-on baggage and/or packed in checked baggage and/or on the person as indicated in the respective columns.

The second column in the table shows that some items require the approval of the operator. Ground staff will visually verify the items before passenger travels to ensure the items are packed securely.

The fifth column shows some items requiring the “Captain to be informed of the stowage location” due to its potential danger. Ground staff will inform the Captain if these items are carried with the exception of “oxygen or air, gaseous, cylinders”. All other articles that are acceptable according to this table do not require any notification to the Captain.

Oxygen or air, gaseous, cylinders supplied by a passenger will not be accepted.

All batteries, spare/loose, must be individually protected to prevent a short circuit. If cabin crew become aware of a passenger with batteries that have not been individually protected, they shall ask the passenger to put each spare battery into a separate plastic bag or protective pouch.

Charging and using the electronic cigarettes on board at any time is not allowed.

IATA has exempted some articles from Class 2, Division 2.2 — Non-flammable, non-toxic gas. The following are permitted as carry-on and/or checked baggage. Foodstuffs, including carbonated beverages, inflated balls intended for use in sports. Tyre that is not inflated to a gauge pressure exceeding the maximum rated pressure for that tyre and it is protected from damage during transport with a protective cover is permitted. Also, light bulbs provided they are packaged so that the projectile effects of any rupture of the bulb will be contained within the package.

If crew require assistance in clarifying whether an article is allowed to be carried, they may seek advice from the ground staff.

Where a passenger's carry-on baggage cannot be accommodated in the cabin, crew shall verify with passenger that the carry-on item does not contain dangerous goods forbidden in checked baggage.

It is a Company policy that Small Lithium Battery Powered Vehicles (e.g. Hoverboards, Mini Segways) are not allowed in both checked and cabin baggage. This policy is applicable to all passengers and crew. Cabin crew shall inform ground staff to offload the device if it is found carried on board during boarding. If this device is found inflight, cabin crew shall inform flight crew immediately.

Baggage with installed lithium batteries – the lithium batteries are used for charging an external device or to power the wheels of the bag. These lithium batteries are normally exceed 0.3g lithium metal or 2.7Wh and this kind of baggage is not considered as personal electronic device (PED).



1. If the non-removable lithium batteries > 0.3g lithium metal or 2.7 Wh, the baggage shall not be accepted as carry-on or checked baggage.
2. If the lithium batteries can be removed:
  - A. Bag can be checked in providing the batteries are removed. Passenger must carry the spare lithium batteries in the cabin baggage and will be treated as a spare lithium battery.
  - B. Bag can be carry-on baggage, however, the batteries must be removable but remain installed inside the bag.
3. Crew action if identified a baggage with non-removable lithium batteries > 0.3g lithium metal or 2.7 Wh:
  - A. On ground while aircraft door still open – inform the ground staff.
  - B. Inflight – cabin crew shall be extra vigilant around the stowage area and ask the passenger to be observant.

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## 8.6 DGR Table 2.3.A (Reference)

**TABLE 2.3.A**  
**Provisions for Dangerous Goods Carried by Passengers or Crew**  
**(Subsection 2.3)**

Dangerous goods must not be carried in or as passengers or crew, checked or carry-on baggage, except as otherwise provided below. Dangerous goods permitted in carry-on baggage are also permitted "on one's person", except where otherwise specified.

The pilot-in-command must be informed of the location				
Permitted In or as carry-on baggage				
Permitted in or as checked baggage				
The approval of the operator is required				
<b>Alcoholic beverages</b> , when in retail packagings, containing more than 24% but not more than 70% alcohol by volume, in receptacles not exceeding 5 L, with a total net quantity per person of 5 L. <i>Note: Alcoholic beverages containing 24% or less alcohol by volume are not subject to any restrictions.</i>	NO	YES	YES	NO
<b>Ammunition, securely packaged</b> (in Div. 1.4S, UN 0012 or UN 0014 only), in quantities not exceeding 5 kg gross weight per person for that person's own use. Allowances for more than one person must not be combined into one or more packages.	YES	YES	NO	NO
<b>Avalanche rescue backpack</b> , one (1) per person, containing cartridges of compressed gas in Div. 2.2. May also be equipped with a pyrotechnic trigger mechanism containing no more than 200 mg net of Div. 1.4S. The backpack must be packed in such a manner that it cannot be accidentally activated. The airbags within the backpacks must be fitted with pressure relief valves.	YES	YES	YES	NO
<b>Baggage with installed lithium batteries</b> non-removable batteries exceeding 0.3 g lithium metal or 2.7 Wh.	FORBIDDEN			
<b>Baggage with installed lithium batteries:</b>	NO	YES	YES	NO
- non-removable batteries. Batteries must contain no more than 0.3 g lithium metal or for lithium ion must not exceed 2.7 Wh;				
- removable batteries. Batteries must be removed if baggage is to be checked in. Removed batteries must be carried in the cabin.				
<b>Batteries, spare/loose</b> , including lithium batteries, non-spillable batteries, nickel-metal hydride batteries and dry batteries (IATA DGR 2.3.5.8 refers) for portable electronic devices must be carried in carry-on baggage only. Articles which have the primary purpose as a power source, e.g. power banks are considered as spare batteries. These batteries must be individually protected to prevent short circuits. Lithium metal batteries: the lithium metal content must not exceed 2 g (IATA DGR 2.3.5.8.4 refers). Lithium ion batteries: the Watt-hour rating must not exceed 100 Wh (IATA DGR 2.3.5.8.4 refers).	NO*	NO	YES	NO
Each person is limited to a maximum of 20 spare batteries.				
*The operator may approve the carriage of more than 20 batteries.				
Non-spillable batteries: must be 12 V or less and 100 Wh or less. Each person is limited to a maximum of 2 spare batteries (IATA DGR 2.3.5.8.5 refers).				
<b>Camping stoves and fuel containers that have contained a flammable liquid fuel</b> , with empty fuel tank and/or fuel container (IATA DGR 2.3.2.5 refers).	YES	YES	NO	NO
<b>Chemical Agent Monitoring Equipment</b> , when carried by staff members of the Organization for the Prohibition of Chemical Weapons on official travel (IATA DGR 2.3.4.4 refers).	YES	YES	YES	NO
<b>Disabling devices</b> such as mace, pepper spray, etc. containing an irritant or incapacitating substance are forbidden on the person, in checked and carry-on baggage.	FORBIDDEN			
<b>Dry ice (carbon dioxide, solid)</b> , in quantities not exceeding 2.5 kg per person when used to pack perishables not subject to these Regulations in checked or carry-on baggage, provided the baggage (package) permits the release of carbon dioxide gas. Checked baggage must be marked "dry ice" or "carbon dioxide, solid" and with the net weight of dry ice or an indication that there is 2.5 kg or less dry ice.	YES	YES	YES	NO
<b>e-cigarettes</b> (including e-cigars, e-pipes, other personal vaporizers) containing batteries must be individually protected to prevent accidental activation (IATA DGR 2.3.5.8.2 refers).	NO	NO	YES	NO
<b>Electro shock weapons</b> (e.g. Tasers) containing dangerous goods such as explosives, compressed gases, lithium batteries, etc. are forbidden in carry-on baggage or checked baggage or on the person.	FORBIDDEN			
<b>Fuel cells</b> containing fuel, powering portable electronic devices (e.g. cameras, cellular phones, laptop computers and camcorders), IATA DGR 2.3.5.9 refers.	NO	NO	YES	NO
<b>Fuel cell cartridges, spare</b> for portable electronic devices, IATA DGR 2.3.5.9 refers.	NO	YES	YES	NO
<b>Gas cartridges, small, non-flammable</b> containing carbon dioxide or other suitable gas in Division 2.2. Up to two (2) small cartridges fitted into a self-inflating personal safety device, intended to be worn by a person, such as a life jacket or vest. Not more than two (2) devices per passenger and up to two (2) spare small cartridges per device, not more than four (4) cartridges up to 50 mL water capacity for other devices (IATA DGR 2.3.4.2 refers).	YES	YES	YES	NO
<b>Gas cylinders, non-flammable, non-toxic</b> worn for the operation of mechanical limbs. Also, spare cylinders of a similar size if required to ensure an adequate supply for the duration of the journey.	NO	YES	YES	NO
<b>Hair styling equipment containing a hydrocarbon gas cartridge</b> , up to one (1) per passenger or crew-member, provided that the safety cover is securely fitted over the heating element. This hair styling equipment must not be used on board the aircraft. Spare gas cartridges for such hair styling equipment are not permitted in checked or carry-on baggage.	NO	YES	YES	NO
<b>Insulated packagings containing refrigerated liquid nitrogen</b> (dry shipper), fully absorbed in a porous material containing only non-dangerous goods	NO	YES	YES	NO

**TABLE 2.3.A**  
**Provisions for Dangerous Goods Carried by Passengers or Crew**  
**(Subsection 2.3)**

Dangerous goods must not be carried in or as passengers or crew, checked or carry-on baggage, except as otherwise provided below. Dangerous goods permitted in carry-on baggage are also permitted "on one's person", except where otherwise specified.

	The pilot-in-command must be informed of the location				
	Permitted in or as carry-on baggage		Permitted in or as checked baggage		
	The approval of the operator is required				
<b>Internal combustion or fuel cell engines</b> , must meet A70 (IATA DGR 2.3.5.12 refers).	NO	YES	NO	NO	NO
<b>Lithium Batteries: Portable electronic devices (PED) containing lithium metal or lithium ion cells or batteries</b> , including medical devices such as portable oxygen concentrators (POC) and consumer electronics such as cameras, mobile phones, laptops and tablets (IATA DGR 2.3.5.8 refers). For lithium metal batteries the lithium metal content must not exceed 2 g and for lithium ion batteries the Watt-hour rating must not exceed 100 Wh. Devices in checked baggage must be completely switched off and must be protected from damage. Each person is limited to a maximum of 15 PED.	NO*	YES	YES	NO	NO
*The operator may approve the carriage of more than 15 PED.					
<b>Lithium batteries, spare/loose, including power banks, see Batteries, spare/loose</b>	YES	YES	YES	NO	
<b>Lithium battery-powered electronic devices</b> . Lithium ion batteries for portable (including medical) electronic devices, a Wh rating exceeding 100 Wh but not exceeding 160 Wh. For portable medical electronic devices only, lithium metal batteries with a lithium metal content exceeding 2 g but not exceeding 8 g. Devices in checked baggage must be completely switched off and must be protected from damage.	YES	NO	YES	NO	
<b>Lithium batteries, spare/loose with a Watt-hour rating exceeding 100 Wh but not exceeding 160 Wh for consumer electronic devices and PMED or with a lithium metal content exceeding 2 g but not exceeding 8 g for PMED only. Maximum of two spare batteries in carry-on baggage only. These batteries must be individually protected to prevent short circuits.</b>	YES	ON ONE'S PERSON		NO	
<b>Matches, safety (one small packet) or a small cigarette lighter</b> that does not contain unabsorbed liquid fuel, other than liquefied gas, intended for use by an individual when carried on the person. Lighter fuel and lighter refills are not permitted on one's person or in checked or carry-on baggage.	NO	ON ONE'S PERSON		NO	
<b>Note:</b> "Strike anywhere" matches, "Blue flame" or "Cigar" lighters or lighters powered by a lithium battery without a safety cap or means of protection against unintentional activation are forbidden (IATA DGR 2.3.5.8.4(e) refers).					
<b>Mobility Aids: Battery-powered wheelchairs or other similar mobility devices with non-spillable wet batteries, nickel-metal hydride batteries or dry batteries</b> , (IATA DGR 2.3.2.2 refers).	YES	YES	NO	YES	
<b>Mobility Aids: Battery-powered wheelchairs or other similar mobility devices with spillable batteries or with lithium ion batteries</b> (IATA DGR 2.3.2.3 and 2.3.2.4 refers).	YES	YES	NO	YES	
<b>Mobility Aids: Battery-powered wheelchairs or other similar mobility devices with lithium ion batteries where the design of the mobility aid does not provide adequate protection for the battery(ies)</b> (IATA DGR 2.3.2.4.3 refers).	YES	NO	YES	YES	
<b>Non-radioactive medicinal or toiletry articles</b> (including aerosols) such as hair sprays, perfumes, colognes and medicines containing alcohol; and <b>Non-flammable, non-toxic (Division 2.2) aerosols</b> , with no subsidiary hazard, for sporting or home use (IATA DGR 2.3.5.1 refers).	NO	YES	YES	NO	
The <b>total net quantity</b> of non-radioactive medicinal or toiletry articles and non-flammable, non-toxic (Division 2.2) aerosols must not exceed 2 kg or 2 L and the net quantity of each single article must not exceed 0.5 kg or 0.5 L. Release valves on aerosols must be protected by a cap or other suitable means to prevent inadvertent release of the contents.					
<b>Oxygen or air, gaseous, cylinders required for medical use</b> . The cylinder must not exceed 5 kg gross weight.	YES	YES	YES	YES	
<b>Note:</b> Liquid oxygen systems are forbidden for transport.					
<b>Permeation devices</b> , must meet A41 (IATA DGR 2.3.5.13 refers).	NO	YES	NO	NO	
<b>Radioisotopic cardiac pacemakers or other devices, including those powered by lithium batteries, implanted into a person or fitted externally.</b>	NO	ON ONE'S PERSON		NO	
<b>Security-type equipment</b> (IATA DGR 2.3.2.6 refers).	YES	YES	NO	NO	
<b>Security-type attaché cases, cash boxes, cash bags</b> , etc. incorporating dangerous goods, such as lithium batteries and/or pyrotechnic material, except as provided in IATA DGR 2.3.2.6 are totally forbidden. See entry in 4.2-List of Dangerous Goods.			FORBIDDEN		
<b>Specimens, non-infectious packed with small quantities of flammable liquid</b> , must meet A180 (IATA DGR 2.3.5.11 refers).	NO	YES	YES	NO	
<b>Thermometer, medical or clinical</b> , which contains mercury, one (1) per person for personal use, when in its protective case.	NO	YES	NO	NO	
<b>Thermometer or barometer, mercury filled</b> carried by a representative of a government weather bureau or similar official agency (IATA DGR 2.3.3.1 refers).	YES	NO	YES	YES	

Note: IATA DGR information may be obtained from Cargo Operations Centre by contacting IOC. The provisions of 2.3 and Table 2.3.A may be limited by State or operator variations. Passengers should check with their airline for the current provisions.

## 8.7 Dangerous Good Occurrences, Incidents and Accidents

### 8.7.1 Definition

Occurrence refers to any dangerous goods are discovered when not loaded, segregated, separated, secured and documented in NOTOC (Notification to Captain) properly.

Incidents in connection with dangerous goods are light physical injuries, property or environmental damage, fire, breakage, spillage, leakage or fluid or radiation or other evidence that the integrity of the packaging has not been maintained. Any occurrence relating to the transport of dangerous goods which seriously jeopardises an aircraft or its occupants is also deemed to be dangerous good incidents.

Accidents are events occurring during operation of an aircraft, in connection with which a person is fatally or seriously injured, or results in major property or environmental damage.

### 8.7.2 Emergency Procedures in a Dangerous Goods Incident

#### Flight crew checklist for Dangerous Goods incidents

ON GROUND
<ul style="list-style-type: none"><li>• Inform Cabin Crew/Ground Staff</li><li>• Seek support from ground personnel/advise IOC</li><li>• Disembark passengers/supernumeraries and crew before opening any cargo doors</li><li>• Make appropriate entry in the AML (Aircraft Maintenance Log)/eTechLog</li><li>• Fill out ASR/inform relevant Airport Manager</li></ul>
IN FLIGHT
<ul style="list-style-type: none"><li>• Follow the appropriate aircraft emergency procedures for fire or smoke removal</li><li>• No smoking sign on</li><li>• Consider landing as soon as possible</li><li>• Consider turning off non-essential electrical power</li><li>• Determine source of smoke/fumes/fire</li><li>• For dangerous goods incidents in the passenger cabin, see Cabin Crew checklist and coordinate Flight/Cabin Crew actions</li><li>• Determine emergency response drill code</li><li>• Use guidance from aircraft emergency response drills chart to help deal with incident</li><li>• Notify ATC of the UN number, classification group and location of the dangerous goods being carried, or provide a telephone number (+852 2747 8481) where this information can be obtained</li></ul>
AFTER LANDING
<ul style="list-style-type: none"><li>• Disembark passengers/supernumeraries and crew before opening any cargo doors</li><li>• Inform ground personnel/emergency services of nature of dangerous goods and where stowed</li><li>• Make appropriate entry in the AML (Aircraft Maintenance Log)</li><li>• Fill out ASR/inform authorities</li></ul>

The ICAO Emergency Response Guidance document has been designed for in-flight use and where the goods are accessible, as correct identification of the item causing the problem is essential to the application of the correct Emergency Response Drill.

IOC can assist with the identification of the drill code for undeclared dangerous goods if suspected with a product name or UN number.

### Cabin crew checklist for Dangerous Goods incidents in the passenger cabin

<p>1. Initial action:</p> <p>A. Notify pilot-in-command.</p> <p>B. Identify the item.</p>	<ul style="list-style-type: none"><li>• Inform the Captain/SCCM immediately.</li><li>• Keep the Captain/SCCM informed of all actions taken and of their effects.</li><li>• It is essential that the cabin crew and the flight crew coordinate their actions and that each be kept fully informed of the other's actions and intentions.</li><li>• Ask the passenger concerned to identify the item and indicate its potential hazards.</li><li>• The passenger may be able to give some guidance on the hazard(s) involved.</li><li>• If the passenger can identify the item, take note of the proper name or the UN number of the substance. This may be written on the container or package.</li><li>• A UN number has four numbers and always has the letters UN at the front e.g. UN 0333.</li><li>• Providing information to the Captain may yield further considerations.</li></ul>
<p>2. In case of fire:</p> <p>A. Use standard emergency procedures/check use of water.</p>	<ul style="list-style-type: none"><li>• Standard emergency procedures must be used to deal with any fire.</li><li>• In general, water should not be used on spillage or when fumes are present since it may spread the spillage or increase the rate of fuming.</li><li>• Consideration should be given to the possible presence of electrical components when using water.</li></ul>
<p>3. In case of fire involving a portable electronic device:</p> <p>A. Use standard procedure/obtain and use the BCF/ HAFEX fire extinguisher.</p>	<ul style="list-style-type: none"><li>• Standard emergency procedures must be used to deal with any fire.</li><li>• Although the BCF/HAFEX fire extinguisher may not be effective against lithium metal fires, BCF/HAFEX fire extinguisher will be effective in fighting the subsequent fire of surrounding materials, or in fighting a lithium ion battery fire.</li></ul>

	<p>B. Remove external electrical power from device (if applicable).</p> <p>C. Douse device with water (or other non-flammable liquid) to cool cells and prevent ignition of adjacent cells.</p> <p>D. Do not move device.</p> <p>E. If the device was plugged in, remove power to remaining electrical outlets.</p>	<ul style="list-style-type: none"> <li>A battery has a higher likelihood of catching fire through thermal runaway during or immediately following a charging cycle.</li> <li>By removing external power from the device, it will be assured that additional energy is not being fed to the battery to promote a fire.</li> <li>Use water or any non-flammable liquid to cool the cells in a battery that have ignited, preventing the spread of heat to adjacent cells.</li> <li>A battery pack involved in a fire has been shown to reignite and emit flames multiple times as heat is transferred to other cells in the pack.</li> <li>Injury may occur if the device reignites while it is being moved.</li> <li>By removing power to the remaining electrical outlets, it can be assured that a malfunctioning aircraft system does not contribute to additional failures of the passengers' portable electronic devices.</li> </ul>
4. In case of spillage or leakage:	<p>A. Collect useful items.</p> <p>B. Don rubber gloves and protective breathing equipment (PBE).</p> <p>C. Move passengers away from the area and distribute wet towels or cloths.</p>	<ul style="list-style-type: none"> <li>A supply of paper towels or newspapers or other absorbent paper/fabric (e.g. seat cushion covers, head rest protectors).</li> <li>Oven gloves or fire-resistant gloves, if available.</li> <li>Large and small polyethylene bags.</li> <li>The hands should always be protected before touching suspicious packages or items.</li> <li>Fire-resistant gloves or oven gloves covered by polyethylene bags are likely to give suitable protection.</li> <li>Gas-tight breathing equipment should always be worn when attending to an incident involving smoke, fumes or fire.</li> <li>Cabin crew should take prompt action if smoke or fumes develop and move passengers away from the area involved.</li> <li>If necessary, provide wet towels or cloths and give instructions to breathe through them.</li> <li>The use of first aid portable oxygen bottles/mask should not be considered since considerable quantities of fumes or smoke would be inhaled through the mask.</li> </ul>

<p>D. Place dangerous goods item in polyethylene bags.</p> <p>E. Stow polyethylene bags.</p> <p>F. Treat affected seat cushions/covers in the same manner as dangerous goods item.</p> <p>G. Cover spillage on carpet/floor.</p>	<ul style="list-style-type: none"> <li>• Pick up the item and place it in a polyethylene bag.</li> <li>• Ensure the receptacle containing the dangerous goods is kept upright or the area of leakage is at the top.</li> <li>• Using paper towels, newspaper, etc., mop up the spillage, making sure that there will be no reaction between what is to be used to mop up and the dangerous goods.</li> <li>• Place the soiled towels, etc., in another polyethylene bag.</li> <li>• If extra bags are not available, place the towels, gloves, etc., in the same bag as the item.</li> <li>• Squeeze out excess air from the bags and close tightly so as to be secure but not so tight that pressure equalisation cannot take place.</li> <li>• Use catering or any cardboard box.</li> <li>• Place the bag(s) containing the items and any soiled towels, etc., in the box.</li> <li>• Take the box or, if no box, the bag(s) to a position as far away as possible from the flight deck and passengers.</li> <li>• Use a rear galley or toilet, but do not place the box or bag(s) against the pressure bulkhead or fuselage wall.</li> <li>• If a galley is used, the box or bag(s) can be stowed in an empty waste bin container.</li> <li>• If a toilet is used, the box can be placed on the floor or the bag(s) stowed in an empty waste container.</li> <li>• Wedge the box or bag(s) firmly to prevent it from moving and to keep the item upright.</li> <li>• The toilet door should be locked from the outside.</li> <li>• Seat cushions, seat backs or other furnishings which have been contaminated by a spillage should be removed from their fixtures and placed in a large polyethylene bag.</li> <li>• They should be stowed away in the same manner as the dangerous goods item.</li> <li>• Cover any spillage on the carpet or furnishings with polyethylene bags.</li> <li>• Carpet which has been contaminated by a spillage and which is still causing fumes despite being covered, should be rolled up, if possible, and placed in a large polyethylene bag with other dangerous goods item.</li> <li>• If the carpet cannot be removed it should remain covered by polyethylene bags, etc. to reduce fumes.</li> </ul>
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H. Regularly inspect items stowed away/ contaminated furnishings.	<ul style="list-style-type: none"><li>• Any dangerous goods, contaminated furnishings or equipment which have been removed and stowed away or covered for safety should be regularly inspected.</li></ul>
5. After landing:  A. Identify to ground personnel the dangerous goods item and where stowed.  B. Make appropriate entry in maintenance log.	<ul style="list-style-type: none"><li>• Upon arrival, take the necessary steps to identify to the ground staff where the item is stowed. Pass on all information about the item.</li><li>• Make an entry in the aircraft maintenance log so that proper maintenance action is undertaken and that any aircraft equipment used is replenished.</li></ul>

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## 8.8 Summary

For flight safety it is important that everyone in the “transportation chain” (the passengers, staff involved in the acceptance and handling of dangerous goods as well as those involved with the boarding of passengers, the cabin and flight crew) is aware of what dangerous goods are and follow the regulations for their carriage.

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## 9      First Aid/Illnesses/Injuries

### 9.1     Introduction

Flying commercially as a means of transportation is becoming more popular each year. More and more, the young and old are accepting flight as a safe, convenient and economical means of travel. Statistically then, the chance of passenger illness or injury Inflight increases daily.

Cabin crew have the responsibility of helping a sick or injured passenger. The Captain must determine whether or not the passenger in distress shall cause a non-scheduled landing (diversion). Cabin crew should have basic knowledge concerning first aid and how to comfort the passenger as much as possible.

The SCCM shall be informed of any passenger or crew illness or injury sustained inflight, during embarkation or disembarkation, and they shall in turn inform the Captain. An "electronic Cabin Safety Report" (eCSR) should be completed clearly documenting the incident and action taken.

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## 9.2 First Aid

First aid is the immediate and temporary care given to the victim of an accident or sudden illness until the service of a physician can be obtained. The objectives of first aid are to:

1. Save life;
2. Prevent the condition from worsening;
3. Promote recovery.

### 9.2.1 Actions When Giving First Aid

#### 9.2.1.1 Treat at Spot

Moving the casualty is not recommended unless you must do so e.g. laying a person down on the floor for CPR, or moving an unconscious person away from an unsafe area.

#### 9.2.1.2 Check Level of Consciousness

Check the level of consciousness. These are full consciousness (alert), drowsiness (responds to instructions), stupor (responds to pain) and coma (fully unconscious). Do not give anything by mouth to an unconscious person.

#### 9.2.1.3 Vital Signs

In order to determine the priorities of treatment, there are some checks to carry out first. These are to check breathing and bleeding. These areas should be dealt with first in order to save life and stop the condition from getting worse before you treat other relatively less critical illnesses and complaints.

#### 9.2.1.4 Obtain History

When you talk to the person, your initial objective is to obtain a common sense history from them. The history you take is as vital in helping you to treat the passenger, as is the history of an illness in the medical evaluation by a physician. Most people will give the complete story quite readily after your initial question of "What seems to be the problem?".

If the person is unconscious you can perhaps obtain the history from any relatives or friends travelling with the person. If there are none, people nearby may be able to provide some information.

#### 9.2.1.5 Signs and Symptoms

Obtaining signs and symptoms can help in your diagnosis.

1. Signs are what you see, feel, hear and smell e.g. bleeding, breathing, pulse, body temperature etc.
  - A. The normal breathing rate of an adult is 12 – 16 per minute whereas the child and infant rate is 20 – 30 per minute. When checking breathing, besides the rate, also check if the breathing is deep or shallow and easy or difficult.
  - B. The normal pulse rate of an adult is 60 – 80 per minute. The rate is faster for children, 80 – 100 per minute and even more for infants, 100 – 120 per minute. When checking the pulse, you should also check the rhythm (regular or irregular) and the strength (strong or weak).
  - C. Checking the body temperature of a passenger will also give you a good indication of the person's condition. The normal body temperature is 37°C (98.6°F). If the temperature is too low (below 35°C), this would be an indication of hypothermia and a high temperature (above 38°C) could be an indication of a fever.

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2. Symptoms are the sensations that the casualty feels physically and describes to you e.g. pain, nausea, dizziness, etc.

### **9.2.1.6 Diagnosis and Treatment**

A diagnosis is a conclusion, based on reasonable probability, on which you should be prepared to act. You will reach such a conclusion using information you have collected i.e. history, signs and symptoms.

### **9.2.1.7 Medical Support**

If necessary seek the help of MedLink and page for medical assistance.

### **9.2.1.8 Other Considerations**

As well as the obvious effects on the passenger themselves, cases where a passenger seems to be sick (e.g. sneezing or coughing) can cause discomfort to those sitting in close proximity. Some ways to help passengers include re-seating the sick passenger to a more comfortable area (e.g. a seat with no seatmates) or, if possible, discreetly re-seating persons around the ill passenger. Should there be no vacant seat available, discreetly offer a mask to a coughing or sneezing passenger.

## 9.3 MedLink

MedLink, provided by Medaire Inc., is a global emergency telemedicine service and operates 24 HR a day, 7 days a week. All MedLink physicians are board certified ER physicians. They provide emergency medical assistance and advice for the management of inflight medical problems and emergencies, as well as an onboard screening facility to determine if any person onboard (i.e. passenger and crew) of questionable health is fit to fly. MedLink's responsibilities are to:

1. assess the medical situation;
2. determine a passenger's fitness to travel or cabin crew's fitness to operate a flight;
3. give advice on managing and monitoring an inflight medical situation;
4. make sure onboard medical volunteers are credible and capable of rendering appropriate assistance;
5. determine what can be used from the medical kit to assist in managing the medical situation;
6. make a recommendation to either continue or to divert in light of the medical situation.

### 9.3.1 When to Contact MedLink

1. In the event that a passenger/crew is suffering from a medical problem and advice is needed to deal with the situation or when there is a concern regarding a passenger's/ crew's fitness to fly, cabin crew shall contact MedLink.

MedLink must be contacted for advice under any of the following circumstances:

- A. The passenger or crew member is suffering from a medical problem where further medical support or advice is needed.
- B. To take a crew member off duty (refer to ISD Manual (A) Chapter 6.1 "Medically fit to fly" for details).
- C. When a crew member wants to resume duty, after being taken off duty by MedLink.
- D. A doctor or medical personnel has been paged for, or there is a doctor or medical personnel onboard offering help.
- E. When there is a medical situation where the Inflight Medical Kit is required to be used.
- F. If, after applying first aid and/or giving medication, the symptoms still persist.
- G. If it is suspected on ground that a person's medical condition may deteriorate inflight. On MedLink's advice the person's travel can be denied.
- H. A passenger or crew with a psychological condition or unusual behaviour that the crew considers may impact on safety/security during the flight, irrespective of whether or not they are on medication.
- I. A passenger requires the use of inflight oxygen.
- J. When an infant or child is suffering from any types of burn.

2. Many inflight medical emergencies occur as the result of people boarding who are already seriously ill. By simply looking, listening and asking questions whilst still on the ground, you can help to prevent these inflight emergencies. The following may help you to evaluate the condition of the person and decide whether MedLink should be contacted to make a recommendation on the person's fitness to fly.
  - A. Anyone appearing obviously unwell, for example:
    - a. very tired, shivering, pale, sweaty, red eyes, etc;
    - b. facial swelling, trouble swallowing;
    - c. uncontrolled bleeding;
    - d. open wounds with discharge;
    - e. breathing difficulties, using an inhaler or excessive coughing;
    - f. reported fever, whether medicated or not;
    - g. complaint of or appearing to be in pain;
    - h. obvious skin rash;
    - i. seizures reported or observed;
    - j. vomiting, diarrhoea, belly pain;
    - k. discolouration on the skin — red, white, or blue anywhere on the body;
    - l. unusual, bizarre behaviour;
    - m. arrives at the aircraft with oxygen in use;
    - n. tubes in nose;
    - o. requiring assistance of companions to walk because they appear to be too ill to walk themselves;
    - p. any full cast anywhere on body;
    - q. children looking ill, prolonged crying, runny nose;
    - r. appears to be unconscious or very lethargic.
  - B. Statements made by passenger or family members concerning:
    - a. terminal illness, may die in flight;
    - b. use of oxygen at home;
    - c. difficulty breathing;
    - d. complaining of chest pain or pressure (currently or recently);
    - e. requesting any upgrade due to "medical reasons";
    - f. any hospitalization within the past 14 days;
    - g. anyone travelling alone with reported psychological condition, whether on medication or not;

- h. exposure to anything that may be contagious, obvious skin outbreak/rash;
  - i. carrying Epipen;
  - j. any announced pregnancy or vaginal bleeding;
  - k. recent miscarriage or abortion.
- C. Any reported problem on a previous flight on the same day and now making connections.
  - D. Anyone arriving by stretcher or ambulance that is not prescheduled through normal clearance channels.
- 3. When an emergency medical situation arises and CPR is needed, cabin crew shall start CPR without delay.

If the passenger's family member/travel companion presents a doctor's certificate that states clearly the passenger's will of "Do Not Resuscitate", cabin crew shall:

- A. Verify the doctor's certificate, i.e. passenger's name, identity number, and/or date of birth to be accepted as a DNR document.
  - B. Pass the information on the doctor's certificate to MedLink and ask for their advice. MedLink will then determine if cabin crew should stop CPR.
  - C. Request a copy or take a picture of the letter for reference and submit it together with an eCSR.
- 4. If a passenger is noticed to be showing symptoms of illness, but with the absence of a fever, it is important to inform MedLink if a pain reliever or fever-reducing medication was taken by the passenger. It should be stated when the medication was taken and for what reason, as this may obscure the fever – an important sign of an infection.
  - 5. Even if a passenger insists that they are fit and present a medical certificate stating their fitness to fly, cabin crew may still have reason to suspect the passenger may be suffering from a potentially serious illness. In this case, MedLink should still be contacted for further advice and medical clearance. The SCCM and Captain must be notified immediately if there is any chance that the passenger may require additional medical clearance.
  - 6. If MedLink clears the passenger to fly, but crew are not comfortable with accepting the passenger, they should contact MedLink again and explain clearly the reasons for their reluctance to accept the passenger. The more information given to MedLink the better. MedLink would rely on the doctor letter, but the passenger's condition may have changed since it was issued and therefore crew reports on actual condition may be more helpful.

If MedLink still clears the passenger after further discussion and crew are still uncomfortable with accepting them, they should escalate to the Captain. The Captain retains the authority to make the final decision on whether to accept the passenger for travel (or offload the passenger, or divert the flight for urgent medical assistance). It is therefore crucial that the Captain is kept informed of all necessary details and information pertaining to the sick passenger's condition, including input from MedLink, any onboard medical personnel and cabin crew.

**Note:** A passenger has the right to refuse treatment. If this occurs, document clearly and also inform MedLink. If there is a difference in medical opinion between MedLink and an onboard medical professional, MedLink's advice shall be followed by cabin crew. Always give the onboard medical personnel the opportunity to communicate directly with the MedLink doctor to try and reach an agreement on treatment.

## 9.3.2 How to Contact MedLink

Cabin crew shall obtain the "Medical Patch Checklist" from the flight file and use the checklist to gather medical information about the situation. This information should be passed to MedLink and the Captain must be informed immediately.

### 9.3.2.1 On Ground

MedLink can be contacted at 1 602 2824957. Cabin crew shall highlight the following information to MedLink:

1. The aircraft is still on ground.
2. Captain has been informed.
3. State whether CPR/AED has commenced, if it is a critical incident and whether medical assistance is available.

Situations	Cabin Crew Actions
Cabin Door Opened	<ul style="list-style-type: none"><li>• Informed Captain and SCCM</li><li>• Report to the Airport Boarding Gate Team (ground staff) who shall contact MedLink</li></ul>
Cabin Door Closed Airbridge connected	<ul style="list-style-type: none"><li>• Informed Captain and SCCM</li><li>• Cabin crew contact MedLink by using their phone without delay</li></ul>
Cabin Door Closed Airbridge disconnected (after pushback/taxiing out)	<ul style="list-style-type: none"><li>• Inform Captain and SCCM</li><li>• Captain will decide if aircraft shall return to the parking bay</li><li>• Cabin crew contact MedLink by using their phone without delay</li></ul>
Aircraft landed and taxiing to gate	<ul style="list-style-type: none"><li>• Inform Captain and SCCM</li><li>• Cabin crew to contact MedLink by using their phone without delay</li></ul>

### 9.3.2.2 Inflight

On wide-body aircraft, cabin crew will use the wall mounted telephone to dial \*11 (for A350, refer to A350 CCOM Chapter 1 Section 8). This may take up to 45 SEC at times. If the connection fails, the handset will indicate that the connection has failed. In this case, cabin crew shall:

1. Contact the flight crew to ascertain whether the SATCOM system is serviceable.
2. If the SATCOM system is serviceable, cabin crew shall attempt to make the connection again.
3. If the call still cannot be connected, contact IOC at \*12 who will assist in patching the call to MedLink. IOC will not stay on the line once a connection is made with MedLink unless it is a medical emergency and the flight needs to be diverted.
4. Only when MedLink cannot be reached through either \*11 and \*12 should cabin crew contact flight crew for assistance to contact MedLink.
5. If the situation deteriorates into a medical emergency or if a diversion is recommended by MedLink, cabin crew must inform the Captain immediately. The Captain will subsequently contact IOC to discuss the diversion recommendation. MedLink will also contact IOC.

On narrow-body aircraft, there is no SATCOM system in the cabin. Cabin crew shall contact MedLink via Crew Terminal - ACARS/Air Ground Messages. If there is no reply from MedLink or passenger's condition is deteriorating, cabin crew shall seek help from flight crew to contact MedLink immediately.

1. For A320/A321, SATCOM system is not available in the flight deck. Cabin crew shall request flight crew to send ACARS directly.
2. For A321neo, SATCOM system is available in the flight deck. Cabin crew shall check with flight crew for its serviceability.
  - A. If SATCOM is serviceable, request flight crew to call MedLink and, if possible, obtain the headset from flight crew to speak to MedLink directly.
  - B. If SATCOM is unserviceable, request flight crew to send ACARS.

### **To Contact MedLink (on wide-body aircraft)**

**Complete Medical Patch Checklist**



**Call MedLink at \*11**



**If connection fails, contact flight crew to ascertain  
if the SATCOM system is serviceable**



**If connection fails, call IOC at \*12 who will help to patch the call to MedLink**



**If connection cannot be established, seek flight crew's  
help to make the call from the flight deck**



**Communication with MedLink established**

**Note:** MedLink will assign a case number each time cabin crew contact them either inflight or on ground. The case number helps MedLink efficiently track and follow up on each case. Cabin crew are to take note of this case number and fill in the Medical Patch Checklist accordingly.

### 9.3.2.3 Medical Patch Checklist

#### 9.3.2.3.1 Front of Checklist

**Medical Patch Checklist**

MEDLINK number: \* 11, if connection fails: \*12 via IOC  
(MEDLINK number on Ground: 1-602-282-4957 (CX))  
Note: connection to MedLink may take up to 45 seconds / speak slowly and clearly

**Duplicate:**  
White original – CX ground staff at HKIA to show the medical practitioner at medical consultation OR passenger to keep (if there is no connecting flight)  
Yellow copy – ISM/SCCM to keep

Case No:																															
<b>PROVIDE THE FOLLOWING INFORMATION TO MEDLINK:</b>																															
Flight No: CX	Aircraft Type:	Aircraft Registration: B-																													
Departure Flight Date:	Departure Airport:	Destination:																													
ETA: _____ (ZULU i.e. same as GMT)	Estimated Flight Time to Destination:																														
Passenger's age: _____	Gender: Male/ Female	Passenger's Seat No: _____																													
Problem/ Complaint (Brief Description)																															
Passenger's status: <ul style="list-style-type: none"> <li>• CPR / AED ..... <input type="checkbox"/> YES → Call MEDLINK IMMEDIATELY <input type="checkbox"/> NO</li> <li>• Critical Incident (e.g. Unconscious, Difficulty in Breathing, Severe Bleeding, Seizures, in and out of consciousness) ..... <input type="checkbox"/> YES → Call MEDLINK IMMEDIATELY <input type="checkbox"/> NO</li> <li>• Aircraft on Ground / Taxiing..... <input type="checkbox"/> YES <input type="checkbox"/> NO</li> <li>• Captain informed ..... <input type="checkbox"/> YES <input type="checkbox"/> NO</li> <li>• Medical Assistance is available .... <input type="checkbox"/> YES <input type="checkbox"/> NO</li> </ul>																															
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Signs and Symptoms</td> <td colspan="3"></td> </tr> <tr> <td colspan="4" style="text-align: center;"><b>VITAL SIGNS (Note: if available, have on-board medical volunteer relay this information)</b></td> </tr> <tr> <td>Blood Pressure:</td> <td>Pulse: (Ref: Adult: 60-80/min Child: 80-100/min Infant: 100-120/min)</td> <td colspan="2"></td> </tr> <tr> <td>Respiration: (Ref: Adult: 12-16/min Child: 20-30/min Infant: 20-30/min)</td> <td>Body Temperature: (Ref: 37°C or 98.6°F)</td> <td colspan="2"></td> </tr> <tr> <td>Past Medical History</td> <td colspan="3">Medical Alert Tag: <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, for:</td> </tr> <tr> <td>Medication Taken by Patient</td> <td>Last Taken:</td> <td colspan="2">Dosage:</td> </tr> <tr> <td>Allergies (food / drug)</td> <td colspan="3"></td> </tr> </table>				Signs and Symptoms				<b>VITAL SIGNS (Note: if available, have on-board medical volunteer relay this information)</b>				Blood Pressure:	Pulse: (Ref: Adult: 60-80/min Child: 80-100/min Infant: 100-120/min)			Respiration: (Ref: Adult: 12-16/min Child: 20-30/min Infant: 20-30/min)	Body Temperature: (Ref: 37°C or 98.6°F)			Past Medical History	Medical Alert Tag: <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, for:			Medication Taken by Patient	Last Taken:	Dosage:		Allergies (food / drug)			
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Medication Taken by Patient	Last Taken:	Dosage:																													
Allergies (food / drug)																															
<u>Note:</u> CX does not have On-board Telemedicine Devices (e.g. Tempus IC, Tempus 2000, VitaLink3 etc)																															
Care Initiated by Crew																															
Medical Personnel Assisted:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	What Profession? _____																												
Name:	Original Seat Number: _____																														
Medication (Instructed by MedLink)	Key Number	Dose	Administration Route (Orally, Injection, etc.)	Time Administered																											

**PATIENT DETAILS (Only for cabin crew and CX ground team reference)**

Patient's Name: \_\_\_\_\_ Patient's Weight: \_\_\_\_\_

**Note to ISM/SCCM & relevant ground handler:** To comply with The Privacy Ordinance, please destroy this form after completing e-CSR or any other necessary follow up.

### 9.3.2.3.2 Back of Checklist



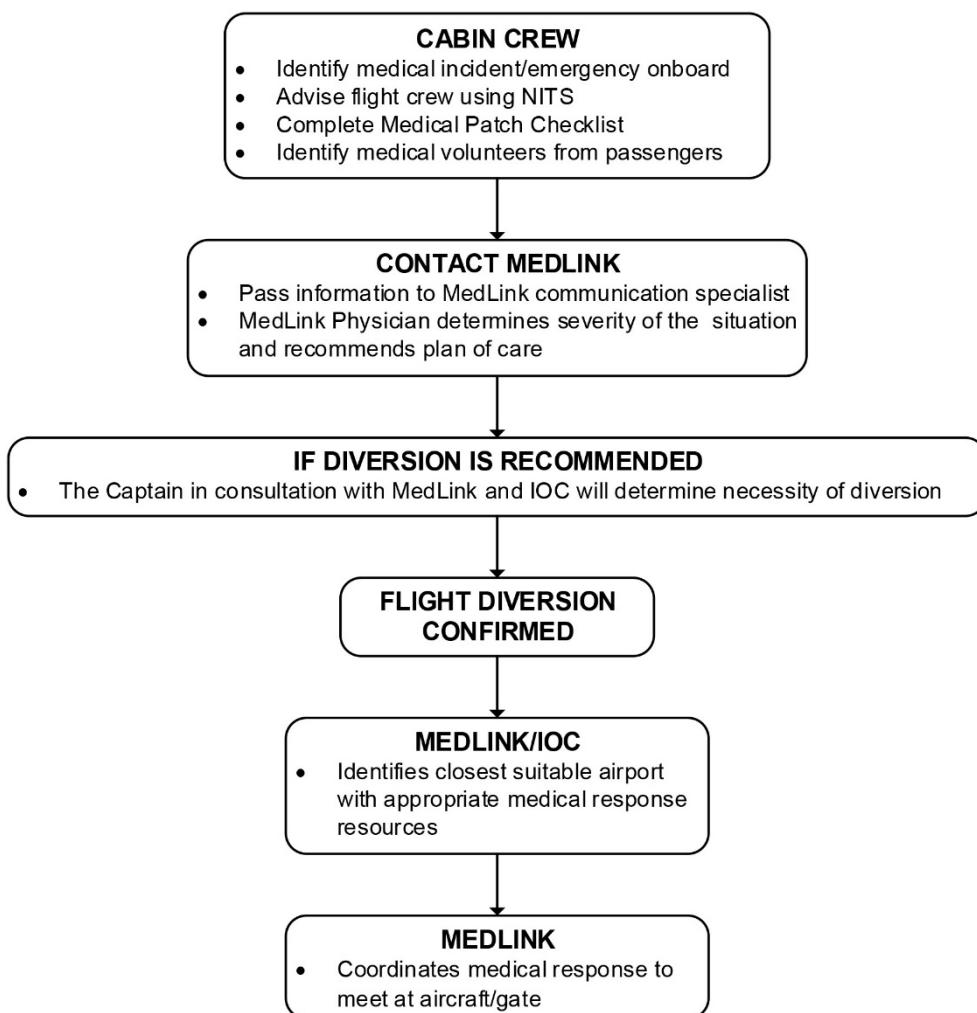
#### Medical Patch Checklist

The **Phonetic Alphabet** below may be used by MedLink, IOC or flight crew when spelling certain words, such as the names of a medication or drug.

##### Phonetic Alphabet

A	ALFA	N	NOVEMBER
B	BRAVO	O	OSCAR
C	CHARLIE	P	PAPA
D	DELTA	Q	QUEBEC
E	ECHO	R	ROMEO
F	FOXTROT	S	SIERRA
G	GOLF	T	TANGO
H	HOTEL	U	UNIFORM
I	INDIA	V	VICTOR
J	JULIETT	W	WHISKEY
K	KILO	X	X-RAY
L	LIMA	Y	YANKEE
M	MIKE	Z	ZULU

### 9.3.2.4 MedLink Patch



### 9.3.2.5 Communicating using a Satellite Phone

It is important for messages to be clearly understood. You must remember the following points when communicating using the satellite phone.

1. Before speaking decide what you want to say and keep your messages short and to the point.
2. Use plain English and simple phrases.
3. Speak a little slower than normal.
4. Speak with normal volume.
5. Speak with the microphone close to your upper lip. Speak directly into the microphone. Do not vary the distance between your lips and the microphone.
6. When speaking on the satellite phone, there will be a slight time delay in your words reaching the receiver and vice versa. It is therefore important to wait a short while for a response.
7. If someone is speaking – listen, do not speak at the same time.
8. Have writing material ready and be prepared to write down important messages.

### 9.3.2.6 Phonetic Alphabet

The following phonetic alphabet may be used by MedLink, IOC or crew when spelling certain words such as the name of a medication or drug.

PHONETIC ALPHABET		
LETTER	WORD	TRANSMITTED AS
A	Alfa	Al – fah
B	Bravo	Brah – voh
C	Charlie	Char – lee
D	Delta	Dell – tah
E	Echo	Eck – oh
F	Foxtrot	Foks – trot
G	Golf	Golf
H	Hotel	Hoh – tell
I	India	In – dee – ah
J	Juliett	Jew – lee – ett
K	Kilo	Key – lo
L	Lima	Lee – mah
M	Mike	Mike
N	November	No – vem – ber
O	Oscar	Oss – cah
P	Papa	Pah – pah
Q	Quebec	Keh – beck
R	Romeo	Row – me – oh
S	Sierra	See – air – rah
T	Tango	Tang – go
U	Uniform	You – nee – form
V	Victor	Vik – tah
W	Whiskey	Wiss – key
X	X-Ray	Ecks – ray
Y	Yankee	Yang – key
Z	Zulu	Zoo – loo

\* Emphasize the syllables in **bold** face type

### 9.3.2.7 Standard Phrases

The following standard phrases may also be used when communicating between MedLink, IOC and crew.

Word/Phase	Meaning
Correction	An error has been made in this transmission. The correct version is ....
Disregard	Consider that transmission as not sent.
Go ahead	Proceed with your message. (normally used in response to "Ready to copy?")
How do you read?	What is the readability* of my transmission?
I say again ...	I repeat for clarity or emphasis.
Acknowledge	Let me know that you have received and understood this message.
Confirm	Have I correctly received the following ...? Or did you correctly receive this message.

Word/Phase	Meaning
Negative	No/permission not granted/that is not correct.
Out	This exchange of transmission is ended and no response is expected.
Over	My transmission is ended and I expect a response from you.
Roger	I have received all of your transmission. (Not to be used in response to questions requiring an answer.)
Say again	Repeat all, or the following part of your last transmission.
Speak slower	Reduce your rate of speech.
Standby	Wait and I will call you.

\* Readability Scale

- 1 – Unreadable
- 2 – Readable now and then
- 3 – Readable but with difficulty
- 4 – Readable
- 5 – Perfectly readable

For example: "How do you read?"  
"I read you 3." — (meaning "I can hear you but with difficulty")

### 9.3.2.8 Handling of the MedLink Patch Checklist

1. For flights arriving into Hong Kong, when an injured or ill passenger requires any further medical assessment/treatment or have any onward journey on CX flights, cabin crew shall adhere to the procedure for handing over of information to ground personnel:
  - A. The white (original) copy of the Medical Patch Checklist is to be given to the relevant ground staff (e.g. Special Team at HKIA) who will escort the passenger to see the doctor and update the MedLink of the passenger's condition after the medical consultation. The relevant ground staff shall input the MedLink case number into the Onboard Service List (OSL) for their onward journey.
  - B. The yellow (carbon) copy of the Medical Patch Checklist shall be kept by the SCCM of the original flight sector for reference when filing an appropriate report.
2. In case the passenger does not have any connecting flights with CX, the white copy of the Medical Patch Checklist shall be given to the passenger.
3. For cases requiring assistance in an outport, the white copy of the Medical Patch Checklist shall be given to the passenger for their reference when seeking medical treatment.
4. The SCCM shall always quote the same case number provided by MedLink in the white copy of the Medical Patch Checklist when further medical advice is required from MedLink.
5. Once the passenger has completed the last flight sector, the Medical Patch Checklist must be destroyed after completing the eCSR.

## 9.4 Universal Precautions

Hepatitis and Human Immunodeficiency Virus (HIV) are diseases that can be transmitted through body fluids. Examples of body fluids are:

1. Blood;
2. Semen, vaginal secretions;
3. Breast milk.

To prevent risk of exposure to these diseases, follow universal precautions by avoiding direct contact with body fluids. This is done by wearing gloves whenever dealing with body fluids and in addition, using a pocket mask if required to perform CPR.

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## 9.5 Cardio Pulmonary Resuscitation (CPR)

### 9.5.1 Background

The air we breathe in is inhaled into the lungs where oxygen is absorbed by the blood. Carbon dioxide from the blood is passed into the lung and is then exhaled. Arteries carry oxygenated blood from the heart to the rest of the body and veins carry deoxygenated blood from the body back to the heart. The heart pumps blood around the body. If the heart stops (cardiac arrest), immediate action is required to prevent death. If the cardiac arrest is due to a heart attack then using the AED offers the best chance of reviving the person. Before the AED arrives, it is important to keep oxygenated blood flowing to the brain to keep it alive. The technique is known as CPR i.e. a combination of chest compression and artificial ventilation. Brain damage will begin if the brain goes without oxygen for 4 MIN.

For a person who suffers from cardiac arrest, every second without compression decreases the chance of survival. It is vital for cabin crew to recognize the cardiac arrest as soon as possible as to initiate CPR procedure without delay. Once the heart stops beating, blood circulation will stop and the casualty will lose consciousness in 10 to 20 SEC. Sometimes the casualty may experience brief convulsions for a short moment. Agonal breathing may, but not always, occur at the start of cardiac arrest and may last for several minutes. Agonal breathing is recognized by 3 to 4 short, irregular gasps for breath per minute. This abnormal pattern of breathing may start when the heart stops beating, causing other organs to stop functioning. When the brain is still functioning and fighting to get oxygen, the patient exhibits agonal breathing, which does not supply the body with enough oxygen for survival.

CPR should normally only be performed by the operating cabin crew. Medical volunteers may carry out other tasks to assist, however they should not normally perform CPR. In the extreme event that cabin crew are unable to continue with CPR (e.g. too tired or have another emergency to attend to), the medical volunteer may then be requested to help with CPR. Cabin crew are to remain in control of the situation.

### 9.5.2 Positioning of Patient

CPR must be conducted on a hard, flat surface. Position the casualty where there will be no obstruction to carry out CPR and defibrillation. Consider this first to save time.

#### 9.5.2.1 Seat/Aisle

If the casualty is found unconscious on the seat, two people (crew or passengers) are required to move the casualty onto an open, hard, flat surface.

Suggested technique:

1. Drag casualty to aisle seat by pulling their clothes. Crew should position next to the casualty, both will then support the passenger under the armpits with one hand, the other arms will form a cross behind the casualty when supporting their back while moving the casualty to the aisle.
2. Crew on the aisle change the way gripping the casualty and support both sides under the arms behind the casualty. Crew in the window side should move to the front, lower the casualty down by supporting the arms. Secure the head and neck gently.
3. Keeping the casualty close to the person's body will help lifting the casualty and also minimize the chance of dropping the casualty. Maximize the use of your leg muscles while lifting i.e. bend your legs.



If the casualty is lying in the aisle another method of moving them is to hold the casualty's legs and pull the casualty in position.

#### **9.5.2.2 Large Casualty**

If the person is very large, it may be necessary to ask for more crew members or passengers to help to move the casualty.

#### **9.5.2.3 Galley**

The galley is quite open and provides room to treat the casualty. Nevertheless, it could be dangerous so make sure the area is safe and secure (i.e. carts, coffeepots, crew meals, loose items).

#### **9.5.2.4 Lavatory**

If the casualty is found in the lavatory, they have to be removed from there before carrying out CPR.

#### **9.5.2.5 Flight Deck**

Move the casualty out of the flight deck before carrying out CPR.

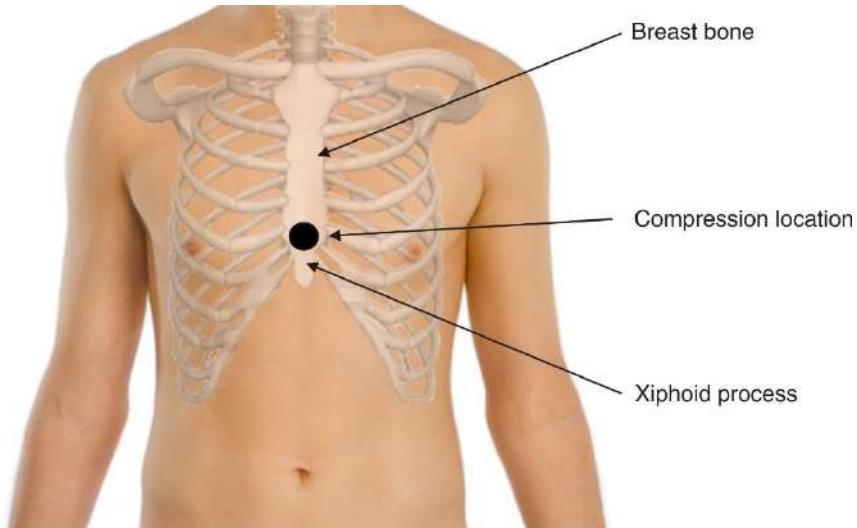
### **9.5.3 Compression Location**

Knowing basic human anatomy will help to identify the correct compression location.

Ribs form a core portion of the human skeleton. One of its major functions is to protect the heart and lungs. At the middle of the front part of the rib between the breasts is a flat elongated bone called the breastbone. Behind the breastbone lies the heart which is about the size of a fist.

Compression is to be performed by placing the heel of one hand in the centre of the chest, which is the lower half of the breastbone. Then place the heel of the other hand on top of the first, so that the hands are overlapped and parallel.

Do not press on casualty's ribs, stomach or bottom of breastbone (xiphoid process) to avoid injuries. For instance, pressing onto the xiphoid process may cause liver injury and internal bleeding.



#### 9.5.4 Sequence of CPR

1. Check the scene is safe. Take Universal Precautions (obtain examination gloves and pocket mask).
2. Check consciousness.



3. Call for help. Ask other crew to get the AED, inform the ISM and the Captain.

4. Open the airway – if necessary, remove any obvious obstruction from the casualty's mouth.



5. Check for NORMAL breathing (10 SEC).

**Note:** Gasping or agonal breathing is not considered to be NORMAL breathing.



6. If not breathing NORMALLY, start CPR.

Locate the position for compression. Lean over the casualty, with your arms straight and press straight down. Give 30 compressions.



Then open the airway and give two ventilations. This completes 1 cycle (1 cycle = 30:2).



7. Repeat until there are signs of life (e.g. movement) or until AED prompts to stay clear of the patient.
8. If there are signs of life but the casualty is unconscious, place them in the recovery position.

9.

	Ratio	Compression Rate	How to locate compression point	Technique	Depth
Adult (above 8 years old)	1 man/ 2 man 30:2		Place the heel of hand in the centre of the chest, lower half of the breastbone.	2 hands	Between 2 IN to 2.4 IN or 5 CM to 6 CM
Child (between 1 to 8 years old)	1 man 30:2	100 to 120 compressions per MIN	In the centre of the chest just below the nipple line.	1 hand	
Infant (below 1 year old)				2 fingers	At least 1.5 IN or 4 CM

**Note 1:** A metronome (together with the AED) is available to aid the cabin crew to achieve the compression rate.

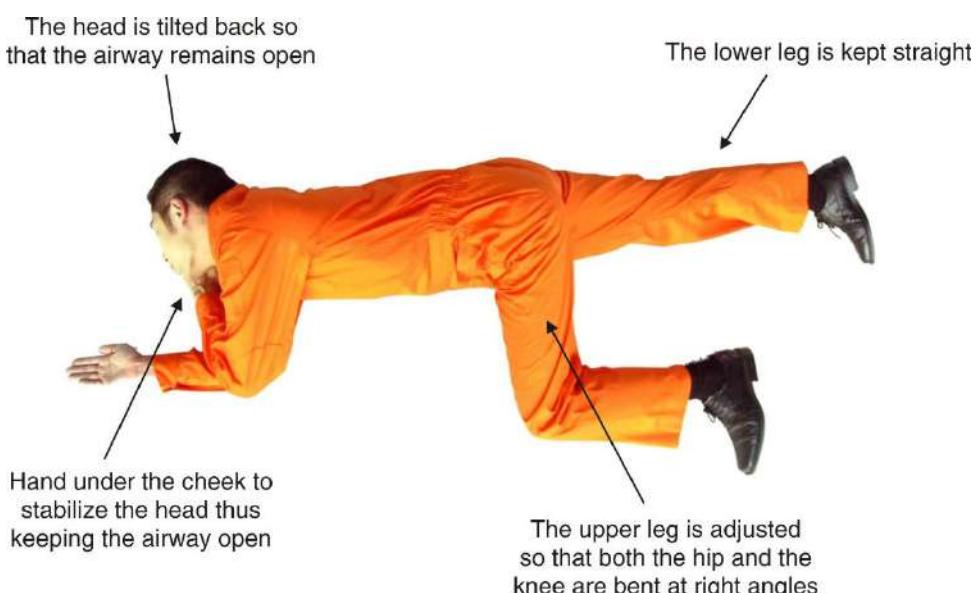
**Note 2:** Allow full recoil of chest after each compression.

**Note 3:** Minimize pauses or interruptions in chest compressions to less than 10 SEC.

**Note 4:** In case of emergency child birth inflight, if necessary to apply CPR on the newly born infant, give 2 ventilations before starting the first cycle of CPR.

### 9.5.5 Recovery Position for Adult and Child

Casualty who is unconscious with breathing should be placed in recovery position to maintain an open airway. This position prevents the casualty from choking on their tongue or from inhaling vomit.



## 9.5.6 Stopping CPR

If a passenger/crew is found to be unconscious and not breathing NORMALLY, crew are required to commence CPR and use the AED immediately. CPR and use of the AED should stop only if one of the following occurs:

1. Signs of life resume.
2. The MedLink doctor gives instruction to cease resuscitation (regardless of whether there is a doctor on board).
3. If MedLink cannot be contacted and the doctor onboard gives the instruction to cease resuscitation.
4. If MedLink cannot be contacted, there is no doctor onboard and CPR has been given for 30 MIN with no signs of life within this period, and no shocks have been recommended by the AED within the same period.
5. The scene becomes unsafe.
6. All crew are too tired to continue.
7. The aircraft lands and care is transferred to emergency medical services.

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## 9.6 Signs, Symptoms and Treatment of Illnesses and Injuries

When dealing with any illness or injury, remember that the services of MedLink are readily available if needed and page for medical assistance when required. MedLink must be informed if a passenger is suspected of having a high alcohol intake and requires treatment.

### 9.6.1 Airsickness/Motion Sickness

Any type of transportation can cause motion sickness. Airsickness is a specific form of motion sickness which is induced by air travel. It occurs when the central nervous system receives conflicting messages from the body, thereby affecting balance and equilibrium. Airsickness usually quietens as soon as the motion stops. The more one travels, the more easily one will adjust to being in motion.

#### 9.6.1.1 Signs and Symptoms

1. Cold and clammy skin.
2. Dizziness.
3. Nausea, and possibly vomiting.

#### 9.6.1.2 Treatment

1. Offer the casualty a cool, damp washcloth to place on their forehead.
2. If possible, reseat the casualty in the middle of the aircraft e.g. to a seat over the front edge of the wings.
3. Tell the casualty to keep their head still while resting against a seat back and focusing on distant objects rather than trying to read or look at something inside the aircraft.
4. Offer the casualty clear liquids such as water, apple juice, ginger ale or plain tea to drink.
5. Contact MedLink if nausea is present and becomes severe or persistent.

### 9.6.2 Allergic Reactions

Allergic reactions occur as a result of an adverse reaction, caused by hypersensitivity to some substance that is not generally known to be harmful e.g. pollen, food, chemicals, drugs, and certain insect stings. Allergic reactions can be fatal. If a passenger has declared their allergy and asks for an item they are allergic to cabin crew must not serve them the item.

#### 9.6.2.1 Signs and Symptoms

1. Anxiety.
2. Red, blotchy skin.
3. Swelling of the face and neck.
4. Puffiness around eyes.
5. Red, itchy or watery eyes.
6. Impaired breathing or wheezing.
7. Rapid pulse.
8. Mild itching.

9. Anaphylactic shock.

### **9.6.2.2 Treatment**

1. Ask casualty if they have any known allergies.
2. Monitor casualty, check breathing, pulse and level of consciousness.
3. Treat any symptoms e.g. itchy rash or impaired breathing.
4. Remove the trigger if possible or move casualty away from the trigger.
5. Ask casualty if they have any medication to treat the allergic reaction, e.g. EpiPen.
6. Contact MedLink.

### **9.6.3 Alcohol Intoxication**

Prolonged or excessive intake of alcohol can severely impair all physical and mental functions, and the person may become unresponsive. Do not assume a casualty is intoxicated if they are unconscious and an odour of alcohol is present. If in doubt, treat as a stroke case, skull fracture or a diabetes problem.

#### **9.6.3.1 Signs and Symptoms**

1. Odour of alcohol.
2. Partial or complete unconsciousness.
3. Face flushed at first, then pale.
4. Pulse strong, then weak.
5. Breathing slow and deep, as in sound sleep.
6. Vomiting.

#### **9.6.3.2 Treatment**

1. Cover the casualty with a coat or blanket, reassure the casualty.
2. Assess the casualty for any injuries especially head injuries, and or other medical conditions.
3. Monitor breathing and pulse.

### **9.6.4 Asthma**

This is a distressing condition in which the muscles of the air passage go into spasm and the linings of the airway swell, making breathing difficult. Asthmatic attacks may be triggered by a number of things including physical exertion, an allergy, a cold, a particular drug or smoke. People who suffer from asthma usually carry an inhaler that they take to prevent attacks. The drug in the inhaler dilates the air passage making breathing easier.

#### **9.6.4.1 Signs and Symptoms**

1. Distress and anxiety.
2. Difficulty in breathing.
3. Wheezing as the casualty breathes out.

4. Difficulty in speaking (whispering).
5. Grey blue skin.
6. Dry, tickly cough.
7. May be exhausted.
8. Unconsciousness may develop.
9. Breathing and heart beat may stop.

#### **9.6.4.2 Treatment**

1. Reassure and calm the casualty.
2. Loosen tight clothing.
3. Ask casualty to breathe slowly and deeply.
4. Use inhaler if available.
5. If unconscious with breathing, put in the recovery position.
6. CPR and AED are needed if there is no breathing.
7. Contact MedLink.

#### **9.6.5 Aviation Fluid Contamination**

Skin may be contaminated with kerosene, other aviation fuels or hydraulic fluids. Contamination of the skin or eyes by these fluids can produce serious burns. There is a greater danger if the contaminated and soaked clothing is left on the person.

#### **9.6.5.1 Treatment**

1. All affected clothing should be removed.
2. Thoroughly wash the affected area with running water.
3. If eyes are involved, immediately gently wash with a large amount of cold water. Ensure both surfaces of the eye-lids are washed.

#### **9.6.6 Back and Neck Injuries**

Back and neck injuries can occur inflight due to objects falling out of overhead lockers and falls against hard surfaces during turbulence. Injuries to the back and neck, such as fractures, are very serious because they may damage the spinal cord. Such damage can result in paralysis below the site of the injury. The casualty should be assessed for possible back and neck injuries if they have a head injury or a severe fall.

#### **9.6.6.1 Signs and Symptoms**

1. Possible pain or tenderness in back or neck.
2. Numbness or weakness in legs and/or arms, and difficulty moving limbs.
3. Loss of sensation in the area below the injured area.
4. Irregularity in the normal curve of the spine.
5. Difficulty in breathing.

### 9.6.6.2 Treatment

1. If possible, do not move the casualty from the position in which you found them.
2. Determine the nature and severity of the injury. Ask the casualty to move their toes, feet, legs, hands, and arms, to test for loss of movement. Check if they can feel you touching their arms and legs.
3. Stabilize the casualty's neck. Have your helper kneeling behind the casualty's head and keep their head aligned with their neck and spine.
4. Put thick padding, such as rolled-up blankets or coats, on either side of their head to support it.
5. Contact MedLink.

### 9.6.7 Bleeding – External

The sight of major external bleeding can be very distressing. Disposable gloves should be worn before handling this type of injury.

#### 9.6.7.1 Signs and Symptoms

1. Evidence of major external bleeding.
2. Feels faint, giddy.
3. Looks pale.
4. Skin feels cold and clammy.
5. Pulse is rapid but weak.
6. Thirsty.
7. Restless and talkative.
8. Breathing becomes shallower, sometimes accompanied by yawning and air hunger.
9. Shock may develop.
10. Possible unconsciousness.

#### 9.6.7.2 Treatment

1. Check if there is any foreign object or fracture at the site of the wound.
2. If there is no foreign object or fracture seen, apply direct pressure on the wound using a clean dressing to try to stop the bleeding.
  - A. If unable to use direct pressure, e.g. bleeding with fracture or with large embedded foreign object, then use indirect pressure. The indirect pressure point for the arm is the brachial artery. This is found on the inner side of the upper arm between the muscles. The indirect pressure point for the leg is the femoral artery. This can be found on the leg at a point corresponding to the centre fold of the groin.
  - B. Indirect pressure should not be applied for more than 10 MIN at a time. Release for a few SEC every 5 – 10 MIN to allow circulation.
3. If possible, raise the injured part higher than the heart. This will help slow down the bleeding.

4. Treat for shock.
5. When bleeding stops or slows down, apply a further dressing (leaving the original dressing in place) and bandage it.
6. Tiny pieces of foreign objects stuck in the skin such as broken glass, wooden splinter can usually be successfully removed with tweezers.
7. Never try to remove objects that are embedded in the wound. It may cause further tissue damage and bleeding. In this case, you can try to control the bleeding by applying pressure on either side of the wound or use a ring pad and place a piece of gauze lightly over wound to minimize the risk of germs entering it.
8. Contact MedLink.

**Note:** *For minor bleeding, apply direct pressure on the wound using a clean dressing and if possible raise the injured part above the passenger's heart.*

## 9.6.8 Bleeding – Internal

Bleeding within the body cavities may follow an injury, such as a fracture or a penetrating wound, but can also occur spontaneously – for example, bleeding from a stomach ulcer. Internal bleeding is serious. Although blood may not be spilt from the body, it is lost from the circulation, and shock can develop. In addition, accumulated blood can exert damaging pressure on organs such as the lungs or the brain.

Internal bleeding usually occurs without any obvious signs to the crew. Suspect internal bleeding if shock develops without any obvious loss of blood. Less often, internal bleeding will manifest itself externally if the person vomits or bleeds from one of the body orifices. Always apply universal precaution when exposed to blood or body fluid.

### 9.6.8.1 Signs and Symptoms

1. Looks pale.
2. Skin feels cold and clammy.
3. If bleeding continues, skin may turn blue-grey.
4. Pulse is rapid but weak.
5. Pain.
6. Swelling and tension may be seen or felt.
7. Thirsty.
8. Shock may develop.
9. The absence of obvious blood loss or bleeding from orifices.
10. Confusion, restlessness, possibly leading to collapse and unconsciousness.

### 9.6.8.2 Treatment

1. Lay the casualty down, instruct them not to move.
2. Reassure the casualty and explain the necessity to relax.
3. Raise legs to allow more blood supply to the vital organs, if the injury allows.
4. Loosen tight clothing.

5. Keep samples of vomit and give it to emergency medical services personnel.
6. Monitor breathing and pulse.
7. Treat for shock.
8. Do not give anything by mouth.
9. Contact MedLink.

### 9.6.8.3 Bleeding from Orifices

Site	Appearance	Possible Cause
Mouth	Bright red, frothy, coughed-up blood	Bleeding in the lungs
	Vomited blood, possibly dark reddish-brown like coffee grounds	Bleeding within the digestive system
Ear	Fresh, bright red blood	Injury to the inner ear, perforated ear drum
	Thin, watery blood	Leakage of cerebrospinal fluid following head injury
Nose	Fresh, bright red blood	Ruptured blood vessel in the nostril
	Thin, watery blood	Leakage of cerebrospinal fluid following head injury
Anus	Fresh, bright red blood	Injury to the anus or lower bowel
	Black, tarry offensive smelling stool	Injury to the upper bowel
Urethra	Urine with a red or smoky appearance	Bleeding from the bladder or kidneys
Vagina	Either fresh or dark blood	Menstruation; miscarriage; disease of, or injury to, the vagina or womb

### 9.6.9 Blood and Body Fluid Exposure

Always use universal precautions when exposed to blood or body fluid.

#### 9.6.9.1 Treatment

1. If eyes are involved, immediately gently wash with a large amount of cold water. Ensure both surfaces of the eye-lids are washed.
2. If blood or body fluid gets in mouth, spit out any fluid, rinse mouth with water and spit out again.
3. If blood or body fluid gets on broken skin, encourage bleeding by squeezing the edges of the area and wash with soap under running water.
4. Consult a doctor as soon as possible for further treatment and blood tests.

### 9.6.10 Bruises

A bruise is an area of skin discolouration. A bruise occurs when small blood vessels break and leak their contents into the soft tissue beneath the skin. A cut and a bruise, with or without swelling, are basically the same thing, except that one occurs at the body's surface, and the other occurs under the surface, in the soft tissue below the skin. If someone takes a blood thinner, like aspirin, the person is likely to bruise more easily.

### 9.6.10.1 Signs and Symptoms

1. Pain.
2. Swelling and skin discolouration.
3. The bruise begins as a pinkish red colour that can be very tender to touch.

### 9.6.10.2 Treatment

1. Place a cold compress on the bruise to help it heal faster and to reduce swelling. Apply the cold compress for up to 15 MIN per HR. A cold compress is a clean towel soaked in very cold water or a bag of ice wrapped in a cloth — DO NOT place ice directly on the skin.
2. Keep the bruised area raised above the heart, if practical. This helps keep blood from pooling in the bruised tissue.
3. Try to rest the bruised body part by not overworking muscles in that area.
4. If needed, offer Paracetamol to passenger in order to reduce pain.
5. Seek prompt medical help if there is any swelling around the bruise, especially if it occurs at a joint. This can signal danger to nerves, muscles, and bones, all of which require a trained physician's attention.

## 9.6.11 Burns and Scalds

Burns are usually caused by dry heat or extreme cold but could also be due to electrical current passing through a victim. Scalds are caused by wet heat from hot liquids and vapours.

### 9.6.11.1 Superficial Burns (1st Degree)

These involve only the outer layer of the skin, and are characterised by redness, swelling, and tenderness. Superficial burns usually heal well if prompt first aid is given, and do not require medical attention unless extensive.

### 9.6.11.2 Intermediate Burns (2nd Degree)

The skin will look raw and blisters will form. These burns usually heal well, but, if extensive, they can be serious. Intermediate burns affecting more than 60 per cent of the body's surface (less in children and the elderly) can be fatal.

### 9.6.11.3 Deep Burns (3rd Degree)

All layers of the skin are burned in this case. Damage may extend beyond the skin to affect nerves, muscle, and fat. The skin may appear pale, waxy, and sometimes charred. Deep burns of any size always need medical attention without delay, and will usually require specialist treatment.

### 9.6.11.4 Treatment (Superficial and Intermediate)

1. Place the injured part under slow running cold water, immerse it in cold water or apply cold compress for about 10 MIN to stop the burning effect and relieve the pain.  
  
Cold compress in here refers to towel soak in very cold water. Ensure liquid is wrung out and not dripping wet, but remains cold and damp. Do not use ice.
2. Carefully remove any jewellery, watches, or constricting clothing from the injured area before it starts to swell.
3. Do not remove anything sticking to the burn as this may cause infection.

4. No lotions or ointments should be applied on the burn.
5. Do not break any blisters to avoid infection.
6. Cover the area with a sterile non-adhesive dressing and then bandage the area.
7. For any types of burn to an infant or child, MedLink must be contacted.
8. Inform Captain.

#### **For electrical burns:**

1. Cut off the electric current if possible
2. Move the casualty from the source.
3. Treat as superficial and intermediate burns
4. In addition to the above treatment, if the casualty has no signs of life, perform CPR

### **9.6.11.5 Treatment for Deep Burns**

1. In addition to the above steps, treat for shock.
2. Apply paraffin gauze on the wound and then bandage the area.
3. Contact MedLink.
4. Inform Captain.

**Note 1:** When treating burns caused by extreme cold (e.g. dry ice), treat as superficial and intermediate burn, however, cooling the burn is not required.

**Note 2:** Advice and assistance shall be proactively provided to the injured passenger and crew member whether they called for further assistance or not.

### **9.6.12 Choking**

A foreign object stuck at the back of the throat may either block the throat, or induce muscular spasm. This is known as choking. A person may choke on a piece of food that has not been adequately chewed.

#### **9.6.12.1 Signs and Symptoms**

1. Difficulty in breathing.
2. Difficulty in coughing.
3. Unable to speak.
4. Grasping the neck or pointing to the throat.
5. Congestion of the face and neck with veins becoming prominent.
6. Lips turn blue eventually.
7. Possible unconsciousness.

#### **9.6.12.2 Treatment for a Conscious Person Aged 1 Year and Above**

1. Encourage the casualty to cough. Remove any obvious obstructions from the mouth.

2. If unsuccessful, apply 5 sharp and forceful back slaps. Support person's upper body with one hand, and help the person to lean forward. Apply back slaps between the shoulder blades with the heel of your hand. Stop if the obstruction clears. Check the mouth.



3. If unsuccessful, apply 5 sharp abdominal thrusts. Stand behind the casualty and make sure that the person is bending well forward. With one hand make a fist and place the thumb side of the fist on the casualty's upper abdomen (between the navel and the bottom of the breastbone). Grasp your fist firmly with the other hand and pull sharply inward and upward against the abdomen. Stop if the obstruction clears. Check the mouth.



4. If still unsuccessful, repeat 5 back slaps alternating with 5 abdominal thrusts until the object is dislodged.

**Note 1:** For pregnant or obese person, use chest thrusts rather than abdominal thrusts. The correct position is with the hands on the breastbone just above where the lowest ribs join.

**Note 2:** Cabin crew may need to squat down behind the child so as to adjust to the casualty's height.

### 9.6.12.3 Treatment for a Conscious Infant (Below 1 Year Old)

1. Lay the infant face down on your forearm with the head low. Support the infant's chest and chin.
2. Apply 5 back slaps between the shoulder blades with the heel of your hand. Stop if the obstruction clears. Check infant's mouth for obstruction. Remove the object if seen.



3. If not successful, turn infant on its back and give 5 chest thrusts. Use two fingers and push inwards and upwards (towards head) against the breastbone, one finger's width below the nipple line. Stop if the obstruction clears. Check the infant's mouth.



4. If still unsuccessful, repeat 5 back slaps alternating with 5 chest thrusts until the object is dislodged.

#### 9.6.12.4 Treatment for an Unconscious Person (All Ages)

1. Put the casualty on a hard, flat surface and call for help.
2. Open airway and check for obstruction. Remove the object if seen.
3. Check for breathing for 10 SEC.
4. If casualty is not breathing:
  - A. Locate the point for chest compression as for CPR and give 30 compressions (same CPR compression techniques according to the age of the casualty).
  - B. Open airway and check for obstruction.
  - C. Attempt to give 2 ventilations.
  - D. Repeat steps A to C until the airway is clear.
5. If the airway is clear but the casualty remains unconscious with breathing, place them in the recovery position and continue to monitor the vital signs.
6. If the airway is clear but there is no breathing, begin CPR.
7. Contact MedLink.

#### 9.6.13 Deep Vein Thrombosis

Deep Vein Thrombosis (DVT) is a condition where blood clots form in the deep veins on the leg, primarily in the calf area. The clot may subsequently break off and travel through the heart to the lungs, blocking off the blood supply to those vital organs. This is then called "Pulmonary Embolus" (P.E.) and can be a threat to life. DVT can happen to passengers travelling in any class in any mode of transport.

##### 9.6.13.1 Signs and Symptoms

1. Only about half of the casualties with deep vein thrombosis have symptoms. The symptoms may include:
  - A. Swelling of the calf – this is usually different from the mild ankle swelling that people may get during long haul flights.
  - B. Pain or tenderness in the leg – the pain is usually in one leg and may be worse when standing or walking.
  - C. Redness of the affected leg.
2. Some people may not find out that they have DVT until "Pulmonary Embolism" occurs. In addition to the above, the symptoms include:
  - A. Chest pain when taking a deep breath.
  - B. Shortness of breath.

##### 9.6.13.2 Treatment

1. Raise the leg (at least 6 IN) to prevent the clot from enlarging and to reduce swelling.
2. Loosen tight clothing.
3. If "Pulmonary Embolism" occurs, give oxygen.

4. Monitor breathing and pulse.
5. Contact MedLink.

### **9.6.13.3 Prevention**

Encourage passengers to carry out in-seat exercises as illustrated in the Discovery Magazine and the Inflight health video.

## **9.6.14 Diabetes**

Insulin is produced in the pancreas and regulates the sugar concentration in the blood. Diabetics do not produce sufficient insulin and therefore must carefully balance the amount of sugar in their diet or regulate their blood sugar concentration with insulin tablets or injections. When the blood sugar level reaches abnormal levels, the function of the brain is rapidly affected.

### **9.6.14.1 Hypoglycaemia (Lack of Sugar)**

Hypoglycaemia is a lack of sugar or too much insulin. It can occur if a meal is missed, after heavy drinking or if the person over exerts themselves. Most diabetics are aware of their condition and may carry sugar lumps or glucose tablets that will raise their blood sugar level quickly. However, if the attack is advanced, consciousness may be lost.

#### **9.6.14.1.1 Signs and Symptoms**

1. A history of diabetes; the casualty recognizes the onset of an attack.
2. Feels weak and faint.
3. Possible hunger.
4. Muscle tremors.
5. May appear confused.
6. Sweating.
7. Looks pale.
8. Skin feels cold and clammy.
9. A stronger than normal pulse.
10. Shallow breathing.
11. Possible unconsciousness may develop.

#### **9.6.14.1.2 Treatment**

1. Help the casualty to sit or lie down, and give them a sugary drink, sugar lumps, chocolate, or other sweetened food.
2. If the casualty's condition improves quickly, give more sweet food or drink, and let them rest until fully recovered.
3. If the condition does not improve, contact MedLink.
4. Monitor breathing and pulse.

## 9.6.14.2 Hyperglycaemia (Too Much Sugar)

Hyperglycaemia is too much sugar or a lack of insulin. This can result in a loss of consciousness but person will drift into this state over a few days.

### 9.6.14.2.1 Signs and Symptoms

1. Dry skin.
2. Rapid pulse.
3. Deep breathing.
4. Breath smells faintly of nail varnish remover or fruity sweet breath.
5. Excessive thirst.

### 9.6.14.2.2 Treatment

1. Make casualty as comfortable as possible.
2. Contact MedLink.
3. Monitor breathing and pulse.

**Note 1:** *The casualty may have a medic alert or a warning card. The casualty, may also be carrying sugar lumps, tablets, or an insulin syringe (which may look like a pen).*

**Note 2:** *If unsure whether the person is suffering from “too little sugar” or “too much sugar”, treat for “too little sugar”. If the casualty is suffering from “too much sugar”, the amount of sugar you give will not worsen the condition.*

## 9.6.15 Drug Intoxication or Poisoning

Excessive intake of over-the-counter, prescribed or illegal drugs can severely impair physical and mental functions, which could have various effects depending on the type of drug and the amount used.

### 9.6.15.1 Signs and Symptoms

PULSE	FACE	SKIN	CLOTHING
<ul style="list-style-type: none"> <li>• Weak</li> <li>• Irregular</li> <li>• Abnormally slow or fast</li> </ul>	<ul style="list-style-type: none"> <li>•Flushed</li> <li>• Pale</li> <li>• Runny Nose</li> </ul>	<ul style="list-style-type: none"> <li>• Pale</li> <li>• Needle marks</li> <li>• Sweaty</li> </ul>	<ul style="list-style-type: none"> <li>• Soiled</li> <li>• Disarranged</li> </ul>
BALANCE	SPEECH	BEATHING	EYES
<ul style="list-style-type: none"> <li>• Falling</li> <li>• Unsteady</li> <li>• Staggering</li> <li>• Swaying</li> <li>• Sagging</li> </ul>	<ul style="list-style-type: none"> <li>• Confused</li> <li>• Fast or slow</li> <li>• Incoherent</li> <li>• Slurred</li> </ul>	<ul style="list-style-type: none"> <li>• Shallow</li> <li>• Fast or slow</li> <li>• Jerky</li> <li>• Rapid</li> </ul>	<ul style="list-style-type: none"> <li>• Pupils enlarged or pinpoint</li> <li>• Bloodshot</li> <li>• Watery, glazed, droopy eyes</li> <li>• Sensitive to light</li> </ul>
MOVEMENTS		ALCOHOL	
<ul style="list-style-type: none"> <li>• Sluggish</li> <li>• Clumsy</li> <li>• Tremors</li> <li>• Need support</li> <li>• Jerky</li> </ul>		<ul style="list-style-type: none"> <li>• Smell of alcohol on breath</li> </ul>	
ATTITUDE		ACTIONS	
<ul style="list-style-type: none"> <li>• Dreamy</li> <li>• Sleepy</li> <li>• Depressed</li> <li>• Talkative</li> <li>• Relaxed</li> <li>• Hostile</li> <li>• Antagonistic</li> <li>• Anxious</li> <li>• Indifferent</li> <li>• Irritable</li> <li>• Cocky</li> <li>• Confused</li> </ul>		<ul style="list-style-type: none"> <li>• Fighting</li> <li>• Scratching</li> <li>• Swearing</li> <li>• Drooling</li> <li>• Itching</li> <li>• Hiccupping</li> <li>• Nausea and Vomiting</li> <li>• Restless</li> <li>• Loss of emotional control</li> <li>• Can't follow instructions</li> <li>• Hallucinating (Hearing voices or seeing things)</li> </ul>	

### 9.6.15.2 Treatment

1. If the casualty is conscious, help the casualty into a comfortable position and ask what they have taken.
2. Contact MedLink and inform them of your suspicion that the casualty has taken drugs and monitor their vital signs.
3. If the casualty loses consciousness, open the airway and check breathing. Follow treatment for unconsciousness.
4. Keep samples of any vomited material and handover to ambulance personnel.

### 9.6.16 Emergency Childbirth

It is important to remember that childbirth is meant to be a natural process. Your primary role is to help and reassure the mother as she delivers the baby.

There are 3 stages of labour.

### **9.6.16.1 First Stage**

#### **9.6.16.1.1 Signs and Symptoms**

1. Contractions at half hour intervals gradually increasing in frequency.
2. Waters may break at this stage.

#### **9.6.16.1.2 Treatment**

1. Reassure the mother and make her as comfortable as possible.
2. Massaging the lower back can help relieve some pain.
3. Inform the Captain and contact MedLink.
4. Page for a medical helper.
5. Select a place on the aircraft with maximum space and privacy and prepare blankets, pillows, boiled water, sanitary pads, oxygen bottles, Universal Precaution Kit and maternity kit from the Inflight Medical Kit. Use the biohazard waste bag to dispose of all soiled items.

### **9.6.16.2 Second Stage**

#### **9.6.16.2.1 Signs and Symptoms**

1. Contractions are much closer (once every 5 MIN).
2. The mother will want to bear down.

#### **9.6.16.2.2 Treatment**

1. Cover the floor with some newspapers, towels or blankets for warmth and to absorb mess.
2. Help the mother into a half-sitting position with legs raised. Support her back and shoulders.
3. Encourage the mother to push with each contraction.
4. When the baby's head is visible, instruct mother to stop pushing and begin panting.
5. The baby's head and shoulders will appear and the baby will be expelled naturally.
6. Support the baby as it is delivered. The baby will be slippery so handle it carefully.
7. If the umbilical cord is wrapped around the baby's neck, check that it is loose, then very carefully pull it over the head to avoid strangulation.
8. Wipe away any fluid or mucus from the baby's mouth and nose.
9. The baby should start to cry at this point. If it does not cry, then check breathing. Carry out CPR if necessary.
10. Wrap the baby in a clean cloth and lay it across the mother's abdomen.

### **9.6.16.3 Third Stage**

#### **9.6.16.3.1 Signs and Symptoms**

Mild contractions until the placenta is delivered.

#### **9.6.16.3.2 Treatment**

1. Encourage the mother to push the placenta out.
2. Do not pull on the umbilical cord.
3. Keep the placenta in a plastic bag for a doctor to examine it.
4. Clean the mother.
5. It is normal for the mother to bleed slightly. Gently massage the lower abdomen to help the uterus to contract and stop the bleeding.

### **9.6.16.4 Care of the Mother**

1. Provide warm water, clean towel and sanitary pad for the mother.
2. Keep the baby and placenta package near the mother.

### **9.6.16.5 Care of the Baby**

1. As soon as the baby has been delivered, wipe away any fluid from its mouth.
2. Clean the baby up and wrap them up with anything soft and warm.
3. Do not cut the umbilical cord.

## **9.6.17 Epilepsy**

Epilepsy is a brief disruption in the normal electrical activity of the brain.

#### **9.6.17.1 Signs and Symptoms**

1. Casualty suddenly falls unconscious, often letting out a strange cry.
2. The casualty's body becomes rigid for a few seconds with arching of the back.
3. Breathing may cease for a short time.
4. Lips may turn blue.
5. Convulsive movements begin.
6. The jaw may be clenched and breathing noisily with loss of bladder or bowel control. Saliva may appear at the mouth, blood-stained if lips or tongue is bitten.
7. Finally the muscles relax and breathing becomes normal.
8. The casualty regains consciousness, usually within a few minutes. They may feel dazed and be unaware of their actions.
9. The casualty may want to sleep following an epileptic fit.

#### **9.6.17.2 Treatment**

1. If possible, support the casualty or ease their fall.

2. Do not move them unless they are in danger.
3. Protect the casualty from hurting themselves by padding area around the casualty.
4. Do not forcibly restrain their movements.
5. Do not put anything in their mouth or try to open it.
6. When the convulsions cease, place them in the recovery position. Stay with them until they are completely recovered.
7. Contact MedLink.

**Note:** *Small children may have epileptic fits with some illnesses or infections. This will be associated with a greatly raised body temperature or fever (above 38°C). In addition to the above treatment, sponge the child with a wet towel to lower the temperature.*

## 9.6.18 Fainting

A faint is a brief loss of consciousness caused by a temporary reduction of blood flow to the brain. Unlike shock, the pulse becomes very slow, though it soon picks up and returns to normal. Recovery is usually rapid and complete.

A faint may be a reaction to pain or fright, or the result of being emotionally upset, exhaustion, or lack of food. It is more common, however, after long periods of physical inactivity, especially in warm weather. Blood pools in the lower part of the body, reducing the amount available to the brain.

### 9.6.18.1 Signs and Symptoms

1. A brief loss of consciousness.
2. Slow and weak pulse.
3. Looks pale.
4. Sweating.
5. Skin is cold.

### 9.6.18.2 Treatment

1. If the casualty is conscious, sit them down. Ask them to lean forward and place their head between their knees.
2. Take deep breaths.
3. If they become unconscious, lay them down. Raise their legs and monitor breathing and pulse.
4. Contact MedLink if the passenger does not recover in a few minutes.

**Note:** *There is no need to give oxygen to a person who has fainted. The person is suffering from a lack of blood to the brain, not from a lack of oxygen intake.*

## 9.6.19 Fever

Fever occurs when the body temperature rises above its normal level. Most fevers are caused by infections. It may also result from some other illnesses. Fever itself is not a disease, but a symptom of an underlying problem. In fact, fever plays a key role in helping the body fight off a number of bacterial and viral infections.

### 9.6.19.1 Signs and Symptoms

1. Body temperature higher than 38°C or 100.4°F.
2. Headache.
3. Muscle aches.
4. Shivering.
5. Sweating.
6. Lack of appetite.
7. Dehydration.
8. Weakness.

**Note:** *Moderate fever is not harmful, but a fever above 40°C (104°F) can be dangerous and may trigger seizures in very young children.*

### 9.6.19.2 Treatment

1. Offer Paracetamol. Medication is not always needed to lower a temperature. This is to help to relieve the aches and pains that go with fever.
2. Offer plenty of fluids to avoid dehydration (avoid drinks containing caffeine, including colas and tea as it can cause the casualty to urinate more).
3. Remove extra blankets and clothing so heat can leave the body and help lower the body temperature.
4. A tepid/lukewarm towel applied to the forehead or neck may help. Ice packs/cold water should not be used as it may cause shivering which raises the body temperature.
5. Contact MedLink if the fever persists after 1 HR.

**Note 1:** *Rubs with alcohol should be avoided because it can cause poisoning when absorbed through skin.*

**Note 2:** *Do not force the casualty to eat if they do not feel like eating. If the casualty has diarrhoea, limit the intake of fruits and juice.*

### 9.6.20 Fracture and Dislocation

A fracture is a break or crack in a bone. Fractures can cause a lot of pain, but may not be easy to detect unless there is a deformity in the affected area. There are two major types of fractures: simple (closed) and compound (open). Dislocation can be caused by a strong force wrenching the bone into an abnormal position, or by violent muscle contraction. Complications may exist such as multiple fractures, dislocations, or even damage to blood vessels or nerves. Unnecessary movement of the affected area should be avoided because broken bone ends can cause further tissue damage.

### 9.6.20.1 Signs and Symptoms

1. Pain or tenderness.
2. Bruising and swelling.
3. Deformation of injured area, such as shortening of limb or visible broken bone ends.
4. Discoloration will appear sometimes after the injury.

5. Poor blood flow in the affected area.
6. Inability to move injured area.
7. Shock.

### **9.6.20.2 Treatment**

1. Do not try to straighten the fractured limb.
2. If there is a wound with the bone visible, do not try to push the bone back inside the wound.
3. Control any bleeding. Cover the wound with a dressing and secure it with a bandage.
4. Do not try to replace the dislocated joint, as this might cause further injury.
5. Remove bracelets, rings and watches in case of swelling of an arm, wrist or hand.
6. Immobilise closed fracture and dislocations using an inflatable splint or a triangular bandage.
7. Offer the casualty pain killer.
8. Check for circulation by feeling the skin, and checking the colour of the nail bed. Reapply the bandages more loosely if necessary. Check again every 10 MIN.
9. Monitor the casualty, particularly for any signs of shock.
10. Contact MedLink.

## **9.6.21 Gas Expansion**

Due to reduced atmospheric pressure encountered at high altitude, gases contained within the body are affected. The atmospheric pressure decreases and the volume of gas increases. This may affect the cavities in the middle of ear, sinuses, alimentary canal and teeth.

### **9.6.21.1 Ear Pain**

Many people suffer from ear pain when travelling on planes. This is due to pressure changes in the aircraft as it ascends and descends.

#### **9.6.21.1.1 Treatment**

1. Ask the casualty to chew gum or suck a sweet.
2. If it does not ease the pain, tell the casualty to swallow with their mouth wide open.
3. If it fails to make the ears 'pop', tell the casualty to close their mouth, pinch their nose tightly and 'blow' through their nose.
4. Infants should be encouraged to suck on a pacifier, drink a bottle or be breast fed.
5. If the casualty still complains of ear pain, contact MedLink for advice.

### **9.6.21.2 Sinus Headache**

Sinus headache results from change in pressure and is usually associated with a cold. There may be pain in the regions under or over the eyes, pain in the face, or headache.

### 9.6.21.2.1 Treatment

Instruct the casualty to blow the nose one side at a time.

### 9.6.21.3 Abdominal Pain

Abdominal pain may have a wide range of causes (often quite trivial) but can be related to something quite serious.

#### 9.6.21.3.1 Signs and Symptoms

1. Pain in the abdomen.
2. May vomit.

#### 9.6.21.3.2 Treatment

1. Place the person in a reclined position with knees bent or let the person sit in their most comfortable position.
2. Do not give any pain killer or anything to eat or drink. The use of a pain killer may hinder the doctor's diagnosis.
3. Contact MedLink if required.

*Note:* For abdominal pain related to food poisoning see treatment for food poisoning.

### 9.6.21.4 Toothache

Toothache may be the result of gases expanding on the nerve ending.

#### 9.6.21.4.1 Treatment

1. Apply a heat source such as a hot towel on the affected side.
2. Offer Paracetamol to help relieve the pain.

## 9.6.22 Head Injuries

Head injuries can be dangerous. Besides treating the visible wound, be alert with signs and symptoms that will indicate serious injury.

### 9.6.22.1 Signs and Symptoms

1. Mental confusion or loss of memory.
2. Loss of consciousness.
3. Possible wound on scalp.
4. A flow of clear fluid or watery blood from one or both ears and nose.
5. Drooping of one side of the face.
6. Pulse rate slower than 60 or greater than 100 times per MIN.
7. Dizziness and/or nausea.
8. Mild headache.
9. Unequal pupil size.

## 9.6.22.2 Treatment

1. Keep person in reclining position with head slightly raised.
2. Keep warm.
3. Give oxygen.
4. Dress open wounds.

## 9.6.23 Heart Disorders

There are many types of heart disorders, ranging from coronary heart disease to cardiac arrest.

Coronary heart disease is caused by the accumulation of fat and calcium deposits within the walls of the coronary arteries and thus restricts blood flow to the heart muscle. Without an adequate blood supply, the heart lacks the oxygen and vital nutrients that it needs to function properly. Angina pectoris and heart attack are two of the common manifestations of coronary heart disease.

### 9.6.23.1 Angina Pectoris

It is caused by temporary inadequate blood supply to the heart muscle. In many cases, it occurs when the narrowed arteries cannot carry sufficient blood to meet increased demands during exertion or excitement.

#### 9.6.23.1.1 Signs and Symptoms

1. Vice-like chest pain, which may spread to the jaw and down one or both arms. Pain eases with rest.
2. Shortness of breath.
3. Tiredness, which is often sudden and extreme.
4. Feeling of anxiety.

#### 9.6.23.1.2 Treatment

1. Make the casualty sit comfortably.
2. Assist casualty in taking their medicine if available.
3. Give oxygen.
4. Encourage the casualty to rest. The pain should ease within a few minutes.
5. If pain persists, or returns, suspect and treat for a heart attack.
6. Contact MedLink.

### 9.6.23.2 Heart Attack

It occurs when a blood clot blocks a coronary artery. The area of heart muscle beyond the clot is deprived of oxygen and is damaged. The effects of a heart attack depend mostly on how much of the heart muscle is affected.

#### 9.6.23.2.1 Signs and Symptoms

1. Continuous vice-like chest pain which may spread to the jaw and down one or both arms. The pain does not ease with rest.

2. Discomfort occurring high in the abdomen, may feel similar to severe indigestion/heartburn.
3. Difficulty in breathing, extreme gasping for air.
4. Sudden faintness, dizziness, or collapsing.
5. Pale, grey skin.
6. Lips turn blue.
7. Rapid, weak and irregular pulse.
8. Profuse sweating.
9. Shock.
10. Unconsciousness may develop.
11. Breathing and heart beat may stop.

#### **9.6.23.2.2 Treatment**

1. Treat on the spot.
2. Make the casualty comfortable in a half sitting position.
3. Assist casualty in taking their medicine if available.
4. Loosen tight clothing.
5. Give oxygen.
6. Use AED.
7. Treat shock.
8. If unconscious with breathing, put casualty in the recovery position.
9. If not breathing NORMALLY, start CPR.
10. Contact MedLink.

#### **9.6.23.3 Cardiac Arrest**

It is the discontinuation of normal circulation of blood due to failure of the heart to contract effectively – see section Cardio-Pulmonary Resuscitation (CPR).

#### **9.6.24 Hyperventilation**

It is also known as “emotional over breathing”. Hyperventilation causes an excessive loss of carbon dioxide from the body. This condition of over breathing is almost always due to anxiety or fear, which is usually subconscious in nature. The over breathing is the body’s reaction to release nervous tension.

##### **9.6.24.1 Signs and Symptoms**

1. Unnaturally fast or deep breathing.
2. Dizziness and blurring of vision.
3. Numbness and tingling sensation of hands and feet.

4. No apparent change in skin colour.

### **9.6.24.2 Treatment**

1. Reassure the casualty.
2. Instruct the casualty to breathe slowly.
3. Contact MedLink.

**Note:** *Do not advise the casualty to rebreathe their own air from paper bags as it may aggravate a more serious illness.*

## **9.6.25 Hypoxia**

Respiration difficulties can be caused by a multitude of things, e.g. collapsed lung, pneumonia, heart failure, severe bleeding etc. Shortness of breath is always indicative of one thing, i.e. the casualty is not obtaining enough oxygen.

### **9.6.25.1 Signs and Symptoms**

1. Headache and dizziness.
2. Rapid, distressed breathing and gasping.
3. Difficulty speaking.
4. Anxiety and restlessness.
5. Fatigue, excessive sleepiness and loss of coordination.
6. Bluish discolouration of the skin.

### **9.6.25.2 Treatment**

1. Give oxygen.
2. Loosen tight clothing.
3. Contact MedLink.

## **9.6.26 Hysterical Attack**

Hysteria is a subconscious condition caused by psychological stress.

### **9.6.26.1 Signs and Symptoms**

1. Attention seeking
2. Loss of control of behaviour
3. If unconscious, it can be distinguished from other attacks by the following:
  - A. Face does not change colour.
  - B. Person will resist any attempt to open eyes.
  - C. Usually falls on something soft, will not usually hit head or bite tongue.
  - D. Seldom occurs unless someone is present.

## 9.6.26.2 Treatment

1. Take the casualty to a less observed area.
2. Do not give more attention than necessary.

## 9.6.27 Miscarriage

This is the loss of the fetus before the 24th week of pregnancy.

### 9.6.27.1 Signs and Symptoms

1. Cramp-like pains in her lower abdomen.
2. Vaginal bleeding.
3. Shock.
4. Loss of the fetus.

### 9.6.27.2 Treatment

1. Reassure the mother, place her in a half sitting position.
2. Give her a sanitary pad or clean towel to use.
3. Check and record pulse and breathing rate.
4. Keep any expelled material for medical inspection (out of the mother's sight, if possible).
5. Give oxygen.
6. Keep the mother warm.
7. Contact MedLink.

## 9.6.28 Needle-Stick Injury

If a sharp object (needle or blade) causes injury, dispose of the object in the Sharps Box.

### 9.6.28.1 Treatment

1. If a used needle/blade causes injury, encourage bleeding by squeezing the edges of the wound area.
2. Wash the area with soap and running water.
3. Consult a doctor as soon as possible for further treatment and blood tests.

## 9.6.29 Nose Bleeding

This is most common when blood vessels are ruptured, either by a blow to the nose, or as a result of sneezing, picking, or blowing the nose. Nosebleeds may also occur as a result of high blood pressure. Nosebleeds are usually merely unpleasant, but they can sometimes be dangerous, since the casualty can lose a great deal of blood. Where a nosebleed follows a head injury, the blood may appear thin and watery. This is very serious, as it indicates that cerebrospinal fluid is leaking from around the brain.

### 9.6.29.1 Treatment

1. Sit the casualty down with their head well forward. Do not let their head tip back; blood may run down the back of the throat, which can induce vomiting.

2. Ask casualty to pinch the soft part of the nose and breathe through their mouth.



3. Tell casualty not to speak, swallow, cough, or sniff, as this may disturb the blood clot. Give them a clean cloth or tissue to wipe away any blood.
4. Tell the casualty to spit out any blood from the mouth.
5. Apply a cold compress to the bridge of the nose.
6. After 10 MIN, gently release the pressure and remind the casualty to breathe through the mouth. Advise them to rest quietly for the remainder of the flight. Remind them not to sniff or blow their nose. Most people have a strong urge to blow the nose and promptly blow off the clot that has formed.
7. If nose is still bleeding, reapply the pressure for another 10 MIN.
8. If the nosebleed persists beyond 30 MIN, contact MedLink and seek medical help onboard.

**Note:** *Disposable gloves should be worn when dealing with bodily fluid of the casualty.*

## 9.6.30 Poisoning

A poison is a substance that, if taken into the body in sufficient quantity, may cause temporary or permanent damage. Poisoning can occur anywhere as a result of accidents, or by eating contaminated food. Poison can be in the form of a solid, liquid or gas (could include pepper spray or tear gas).

### 9.6.30.1 Signs and Symptoms

1. A conscious casualty or an onlooker may tell you poisoning has occurred.
2. Casualty feels unwell, nausea, vomiting.
3. Cramping abdominal pain.
4. Diarrhoea, possibly blood-stained.
5. Possible shock.

### 9.6.30.2 Treatment

1. If the individual is unconscious, open the airway and monitor breathing and pulse. Put casualty in recovery position.

2. For a suspected case of gaseous poisoning: immediately move the victim to a ventilated place.
3. If chemical on skin or eyes — flush away any residual chemical on the skin or eyes with plenty of cold water. Remove all contaminated clothing or accessories. Record details of the chemical.
4. If swallowed poison — do not induce vomiting as this may harm the casualty further. Maintain an open airway, breathing and circulation. Try to identify the poison.
5. For food poisoning — symptoms may appear within a few hours (about 4 HR) to a day or so after eating the affected food. Help casualty to lie down and rest. Offer plenty of water to drink and an airsick bag to use in case they might vomit. If possible, move casualty close to the lavatory. Treat for shock.
6. Contact MedLink if vomiting or diarrhoea become severe or persistent.

## 9.6.31 Shock

When the circulatory system fails and becomes unable to distribute sufficient oxygen and nutrients to different parts of the body, a condition known as “shock” will develop.

Shock can be caused by a heart attack where the heart fails to do its work and the pressure of the circulating blood is reduced. Another major cause is a decrease in the volume of fluid circulating around the body. Most common examples are external or internal bleeding, or loss of other bodily fluids through severe diarrhoea, vomiting, or burns. In order to maintain the function of the vital organs, the blood supply will be withdrawn from the surface to the core of the body.

### 9.6.31.1 Signs and Symptoms

1. Rapid and shallow breathing.
2. Pulse rate increases, but is weak and irregular.
3. Pale, grey skin.
4. Lips turn blue.
5. Weakness and dizziness.
6. Restless and anxious.
7. Nausea, and possibly vomiting.
8. Sweating, cold and clammy skin.
9. Thirsty.
10. Finally, the heart may stop.

### 9.6.31.2 Treatment

1. Treat any obvious cause of shock if possible e.g. external bleeding.
2. Lay the casualty down, keep the head low, raise and support the legs to improve the blood supply to the vital organs i.e. brain, heart and lungs.
3. Loosen tight clothing.
4. Keep the casualty warm.

5. Do not give anything to eat or drink. If they complain of thirst, moisten their lips with water.
6. If unconscious with breathing, place them in the recovery position.
7. CPR and AED are needed if there is no breathing.
8. Monitor breathing and pulse.
9. Contact MedLink.

## 9.6.32 Smoke, Fumes or Gas Exposure

There may be incidents where crew or passengers are exposed to smoke, fumes or gas (could include pepper spray or tear gas).

### 9.6.32.1 Signs and Symptoms

1. Headache.
2. Irritation of the eyes, nose, throat and sinus congestion.
3. Difficulty in breathing.
4. Coughing.
5. Burning sensation in or around the nose or mouth.
6. Diarrhoea, vomiting and nausea.
7. Unconsciousness may develop.
8. Breathing and heart beat may stop.

### 9.6.32.2 Treatment

1. Don PBE if smoke/fumes is still visible in the area to avoid inhaling the smoke/fumes before managing the casualty.
2. Remove the casualty from the area of smoke, fumes, or gas and immediately move the victim to a ventilated place. Give oxygen.
3. Take off all contaminated clothing and rinse the skin with water.
4. Treat as a burn if the victim shows any signs of burns.
5. If unconscious with breathing, put them in the recovery position.
6. CPR and AED are needed if there is no breathing.
7. Contact MedLink.

## 9.6.33 Strains and Sprains

A strain is caused by over-stretching of a muscle or tendon. A sprain is an injury to a ligament. It often occurs as a result of a sudden unexpected movement at the joint. Strains and sprains are usually painful and cause swelling and bruising. It is not easy to distinguish them from fractures and they can occur together with a fracture. If you are not sure if an injury is a fracture, strain, or sprain, treat it as a fracture.

### 9.6.33.1 Signs and Symptoms

1. Pain or tenderness.
2. Bruising and swelling.
3. Inability to move or pain when moving injured area.

### 9.6.33.2 Treatment

1. To treat a strain or sprain, first help the casualty to sit in a comfortable position, rest the injured part, preferably raise.
2. Use a cold compress on the affected area for up to 10 MIN to help minimize the swelling and pain.
3. Apply comfortable support to the injured part – even pressure on the affected area by surrounding the area with soft padding secured with a bandage.
4. Raise and support the injured limb to reduce blood flow to the injury. Check the circulation and reapply the bandage more loosely if necessary. Check again every 10 MIN.

**Note:** This treatment is also known as *RICE treatment*.

*R – Rest the injured part*

*I – Apply Ice pack or cold compress*

*C – Provide Comfortable support*

*E – Elevate the injured part*

### 9.6.34 Stun Gun Injury

Stun guns use electricity to stun a person and could cause muscle spasms, burns and even cardiac arrest. Certain stun guns shoot out electrodes which could penetrate the skin.

#### 9.6.34.1 Signs and Symptoms

1. Small puncture wounds on the skin
2. Painful muscles
3. Muscle spasms. Unable to relax the contracted muscle
4. Electrical burns
5. Confusion
6. Irregular heart rhythm
7. Breathing and heartbeat may stop.

#### 9.6.34.2 Treatment

1. Puncture wound: wound dressing
2. Sore muscles: Refer to 9.6.33 Strains and Sprains
3. Muscle spasms: gently massage the muscle affected and ask the victim to stretch the cramping muscle.
4. Electrical burn: Refer to Burns and Scalds

5. Cardiac arrest: Refer to Heart Disorders – Cardiac Arrest

## 9.6.35 Stroke

This occurs when the blood supply to part of the brain is suddenly impaired by a blood clot or a ruptured artery. Strokes are common in elderly people and in people with high blood pressure or other circulatory disorders. The extent of a stroke depends on how much, and which part, of the brain is affected. Major strokes can be fatal, but many people make successful recoveries from minor strokes.

### 9.6.35.1 Signs and Symptoms

1. Perhaps a few minutes of warnings — headache, dizziness, ringing in ears, spots before eyes.
2. Sudden severe headache with no apparent cause.
3. Sudden confusion.
4. Depending on the seriousness, the casualty may have paralysis on one side or both sides of the body. The casualty may be dribbling from the mouth, have slurred speech, unequally dilated pupils and even loss of bladder or bowel control.
5. Sudden or progressive loss of consciousness.
6. Breathing and heart beat may stop.

### 9.6.35.2 Treatment

1. Lay the casualty down with their head and shoulder slightly raised. Turn the casualty's head to one side, and place a towel or cloth to absorb any dribble.
2. Loosen tight clothing.
3. Do not give anything to eat or drink.
4. Monitor breathing and pulse.
5. If unconscious with breathing, put casualty in the recovery position.
6. Apply CPR and AED if there is no breathing.
7. Contact MedLink.

## 9.6.36 Unconsciousness

This results from an interruption of the brain's normal activity.

### 9.6.36.1 Treatment

1. Check the casualty's level of consciousness.
2. Ensure airway is clear.
3. Place in recovery position and open airway.
4. Loosen tight clothing.
5. Treat any serious wounds or fractures.
6. Keep the casualty warm.

7. Give oxygen if difficulty in breathing.
8. Do not give anything by mouth.
9. Do not move unnecessarily because of the possibility of back and neck injury.
10. Do not leave the casualty unattended.
11. Commence with CPR and use AED if required.
12. Monitor breathing and pulse.
13. Contact MedLink.

## 9.7 Seriously Ill or Injured Passenger/Crew

If a passenger/crew member is seriously ill or injured inflight and needs assistance deplaning or medical assistance on arrival, the SCCM should verify with MedLink that arrangements have been made with the arrival port ground staff to have ground services or emergency medical services personnel meet the flight on arrival.

For cases where MedLink could not be contacted, the SCCM should make advance arrangements with the arrival port ground staff to have ground services or emergency medical services personnel meet the flight on arrival. On arrival, the SCCM should be ready to provide the following information to the ground services or medical personnel: the individual's name, seat number, approximate age, gender, injury or symptoms, pre-existing conditions, treatment and/or medication given, as well as the time any medication was administered.

Passengers seated in close proximity to the sick passenger/crew member should be re-seated wherever possible. Due to medical confidentiality and data privacy, information concerning the sick individual should not be given to other passengers without the person's consent. The passenger's personal items such as documents and valuables should be handed to the family member or their travel companion. If the passenger is travelling alone, their property which is found on board after disembarkation shall be handed to SCCM. Items should be inspected and contents noted down by the SCCM in the presence of another crew member. SCCM will complete the Form F "Lost and Found Form" and hand the items and a copy of Form F to the Airport Service staff at outports or Baggage Enquiry Counter staff in HKG. The other copy of Form F shall be returned via the flight file, and the details of the lost property logged in the Flight Journal. eCSR shall be submitted to report the incident.

Australian Quarantine Laws require that the Captain of an international flight to report to a Quarantine officer from the Australian Quarantine and Inspection Service (AQIS) prior to arrival in Australia, any passengers or crew who are found to be suffering from any illness and are unable to disembark from the aircraft without assistance, this includes wheelchair requests (except for a person with restricted mobility). The SCCM shall inform the Captain who shall ensure that IOC, the Ground Handling Agent or ATC at the Arrival Airport contacts AQIS prior to landing in Australia.

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## 9.8 Infectious Disease

An infectious disease should be suspected when a traveller (passenger or crew member) has a fever (temperature of 38°C/100.4°F or greater) AND one or more of the following signs or symptoms:

1. Appearing obviously unwell
2. Persistent coughing
3. Difficulty breathing
4. Persistent or bloody diarrhea
5. Persistent vomiting
6. Skin rash
7. Bruising or bleeding without previous injury
8. Confusion of recent onset

**Note:** *If the temperature of the affected person is normal, but several travellers have similar symptoms, think of other possible public health issues such as chemical exposure.*

### 9.8.1 Handling Procedures (Passenger Aircraft)

#### 9.8.1.1 During Boarding

1. If during boarding a traveller is suspected to be suffering from an infectious disease, MedLink shall be contacted for medical clearance.
2. This applies even if the traveller insists that they are fit to fly and even if they present a medical certificate to that effect.
3. SCCM and Captain shall be notified immediately if there is any chance that the traveller may require additional medical clearance and/or need to be offloaded.
4. If a crew member has been in contact with a traveller suspected of suffering from an infectious disease, the crew member shall wash their hands immediately with soap and water for at least 20 SEC and disinfect any common surfaces that the traveller may have come in contact with. An alcohol-based hand rub can be used if the hands are not visibly soiled.

#### 9.8.1.2 Inflight

If a traveller falls ill inflight with fever and one or more of the above listed signs or symptoms, crew shall take the following action:

1. Complete the "Checklist for Handling Travellers with Suspected Infectious Disease".
2. Keep interactions with the ill traveller as brief as possible and avoid touching them or their belongings without wearing appropriate PPE.
3. Contact MedLink to share the information collected on the checklist.

If MedLink considers the ill traveller to be potentially contagious, crew shall follow their medical advice and the following guidelines apply:

1. As soon as possible, advise the Captain of the situation, because they are required by the International Civil Aviation Organization (ICAO) regulations and the World Health Organization International Health Regulations (WHO IHR) to report the suspected case(s) to air traffic control.
  - A. The Captain should share the following information regarding the ill traveller:
    - a. body temperature
    - b. main symptoms
    - c. travel history
    - d. contact history
  - B. Keep the Captain informed throughout the flight and advise them of any MedLink recommendations and changes in the traveller's condition.
  - C. Also remind the Captain to advise the destination port that specific cleaning and disinfection may be required.
2. Designate one cabin crew member to look after the ill traveller, preferably the crew member that has already been dealing with the traveller (more than one cabin crew member may be necessary if more care is required).
  - A. If touching the ill traveller (or their mask, contaminated clothes, etc.) is required and/or if there is a risk of direct contact with body fluids, the designated cabin crew member shall wear the personal protective equipment (PPE) found in the Universal Precaution Kit (UPK).
  - B. Do not place the UPK on the floor, in the toilet or in contaminated areas while putting on the PPE.
  - C. After use, the PPE shall be carefully removed as per instructions and discarded in the biohazard waste bag. (Remove the PPE if you need to rest or eat.)
  - D. PPE is not intended to replace proper hand hygiene. Hands should be washed with soap and water for at least 20 SEC after removing the PPE. An alcohol-based hand cleanser can be used if hands are not visibly soiled. Touching the face with unwashed or gloved hands should be avoided.
3. If possible, the ill traveller should be separated from others (who are not travelling with them) by reseating them to a window seat in the last row of the aircraft and leaving the seats next to them open. Ideally the 2 rows in front of them should also be kept empty.
  - A. Block off their original seat for the remainder of the flight by placing an "unserviceable" sticker on the seat.
  - B. If there is no space available to move the traveller, give a mask to every passenger seated within two seats forward, behind and diagonally of the sick traveller.
4. Designate a toilet for the exclusive use of the ill traveller.
  - A. This should be the toilet closest to where they are seated.
  - B. Use appropriate signage on the door to mark the toilet for exclusive use of the ill traveller.
  - C. Do not clean this toilet inflight, but mark it clearly for the cleaning team to conduct extra disinfection after the flight.
5. If the ill traveller is coughing and/or sneezing:

- A. Provide them with a face mask and ask them to wear it.
  - B. As soon as the mask becomes damp or humid, it should be replaced by a new one. The used masks must be disposed of safely in the biohazard waste bag. After touching the used mask, proper hand hygiene must be practiced immediately.
  - C. If no mask is available or if the ill person cannot tolerate the mask, e.g. because of breathing difficulties, provide tissues and ask them to cover the mouth and nose when coughing, speaking or sneezing. Provide an airsick bag for the safe disposal of the used tissues. Remind the ill traveller to practice proper hand hygiene.
  - D. If the ill traveller cannot tolerate the mask or refuses it, the designated cabin crew member and any person in close contact with the ill traveller (i.e. those seated next to and within 2 rows in front and behind) should wear a mask.
  - E. Remind anyone provided with masks to remove the mask in the event of a depressurisation incident.
6. If the ill traveller is vomiting:
- A. Provide them with airsickness bags and ask them to dispose of the used airsickness bags in the biohazard waste bag.
  - B. Encourage them to wash their hands or use alcohol-based hand cleaner after vomiting.
7. Store soiled items (used tissues, disposable masks, oxygen mask and tubing, linen, pillows, blankets, seat pocket items, etc.) in a biohazard waste bag if one is available. If not, use a sealed plastic bag and label it "biohazard".
8. Keep MedLink and the arrival port updated on any changes in the ill traveller's condition.
9. Unless stated otherwise by MedLink or public health officials, ask all passengers seated in the same row, 2 rows in front and 2 rows behind the ill traveller to provide their name, seat number and contact telephone number using the passenger comment cards or Passenger Locator Card if available. Explain to the passengers that such information may be required by the public health officials as part of the case follow up.
10. SCCM shall complete the "General Declaration" form and hand it over to the Captain for their signature.

11. Checklist for Handling Travellers with Suspected Infectious Disease (PDF version)



**CHECKLIST FOR HANDLING TRAVELERS WITH SUSPECTED INFECTIOUS DISEASE**

MEDLINK number: \* 11, if connection fails: \*12 via IOC      Case No: \_\_\_\_\_  
Flight number: \_\_\_\_\_ Route: \_\_\_\_\_ Departure Flight Date: \_\_\_\_\_

**Essential Traveler Information**

Name: \_\_\_\_\_  
Sex: \_\_\_\_\_ Age: \_\_\_\_\_ Nationality: \_\_\_\_\_ Seat Number: \_\_\_\_\_  
General Condition (e.g. stable, distressed, sleepy): \_\_\_\_\_  
Body temperature: \_\_\_\_\_ Has the traveler recently taken any medication Yes / No  
Time last dose taken: \_\_\_\_\_ Name of medication: \_\_\_\_\_

**Symptoms** (Tick the following if appropriate)

- |  |   |
|--|---|
| <input type="checkbox"/> Temperature greater than 38.0°C/100.4°F | <input type="checkbox"/> Persistent Vomiting                          |
| <input type="checkbox"/> Persistent coughing                     | <input type="checkbox"/> Skin rash                                    |
| <input type="checkbox"/> Difficulty breathing                    | <input type="checkbox"/> Bruising or bleeding without previous injury |
| <input type="checkbox"/> Appearing obviously unwell              | <input type="checkbox"/> Confusion of recent onset                    |
| <input type="checkbox"/> Persistent or bloody diarrhea           | <input type="checkbox"/> Other: _____                                 |

How long has the traveler been suffering from the symptoms? \_\_\_\_\_

Has the traveler been in contact with any person confirmed as suffering from an infectious disease? \_\_\_\_\_ Yes/No

Has the traveler had any contact with live animals or their carcasses in the last 21 days? \_\_\_\_\_ Yes/No

Has the traveler been visiting any countries within the last 21 days where there are confirmed cases of an infectious disease outbreak? Yes/No. Details if yes: \_\_\_\_\_

Is there any history of the traveler working in a laboratory that handles infectious diseases? \_\_\_\_\_ Yes/No

**Supplementary information to be obtained**

Number of travel companions/group (including tour guide if present, and number with symptoms): \_\_\_\_\_

Number and condition of other passengers/crew with symptoms, if applicable: \_\_\_\_\_

**Crew Member Assigned to Take Care of Passenger**

Name: \_\_\_\_\_ Position: \_\_\_\_\_

**Tick the following if appropriate:**

- Provide face mask, tissues and air sick bag to ill traveler
- Contact Medlink
- Isolate ill traveler (Seat Numbers Assigned: \_\_\_\_\_)
- Block and mark the ill traveller's original seat (Seat Number: \_\_\_\_\_) (Mark clearly)
- Assign a dedicated toilet for ill traveler (Toilet Assigned: \_\_\_\_\_) (Mark clearly)
- Designated crew member use personal protective equipment from Universal Precaution kit and maintain good hygiene.
- Use the biohazard waste bag for all soiled items
- Inform Captain (for advance notification if necessary to arrival port)
- Keep Medlink and arrival port updated
- Hand the completed "Appendix 1 General Declaration" form to Captain to sign and give it to Port Health Medical Officer after arrival.
- Advise arrival port staff to conduct extra cleaning/disinfection of traveler's seat and toilet
- Passengers in same row, two rows in front and two behind index passenger seat, should complete PLC

After completion, this form together with PLC (if the local Port Health authority does not want to retain the PLC) should be returned to Group Medical Department by e-mail: CMD8MED@cathaypacific.com

12. Public Health Passenger Locator Card



**Public Health Passenger Locator Card:** To protect your health, public health officers need you to complete this form whenever they suspect a communicable disease on-board a flight. Your information will help public health officers to contact you if you were exposed to a communicable disease. It is important to fill out this form completely and accurately. Your information is intended to be held in accordance with applicable laws and used only for public health purposes.

*One form should be completed by an adult member of each family. Print in capital (UPPERCASE) letters and underline relevant information.*

**1) Flight information**

Airline: CX Flight number: \_\_\_\_\_ Seat number: \_\_\_\_\_ Date of Arrival \_\_\_\_\_ / \_\_\_\_\_ /20 \_\_\_\_\_  
(DD MM YYYY)

**2) Personal information**

Last Name: \_\_\_\_\_

Given names: \_\_\_\_\_

Contact phone number: \_\_\_\_\_ (Home, work or mobile, including country code)

E-mail address: \_\_\_\_\_

Home address \_\_\_\_\_  
\_\_\_\_\_

City: \_\_\_\_\_ State/Province: \_\_\_\_\_

Country: \_\_\_\_\_

**3) Contact information during stay**

Address: \_\_\_\_\_  
\_\_\_\_\_ City: \_\_\_\_\_

State/Province: \_\_\_\_\_ Country: \_\_\_\_\_

Telephone number (including country code): \_\_\_\_\_

**4) Emergency Contact information:**

Name: \_\_\_\_\_

Telephone number: \_\_\_\_\_ E-mail address: \_\_\_\_\_

**5) Travel companions: (Only include age if younger than 18 years)**

Last name:	First/Given name:	Seat number:	Age: (<18)
a) _____	_____	_____	_____
b) _____	_____	_____	_____
c) _____	_____	_____	_____
d) _____	_____	_____	_____

Please hand over form to local Quarantine or Port Health Officer

### 9.8.1.3 After Landing

1. Provide the public health officials with the "General Declaration" form and share the relevant information regarding the ill traveller, any passengers seated around them, cabin crew who were assigned to take care of them and the "Passenger Locator Cards". If the public health officials do not want to retain the documents, return them in the flight file.
2. Disembarkation shall only be initiated upon confirmation from the public health officials. No company personnel shall be allowed to board the aircraft until cleared by the public health officials.
3. Cabin crew shall advise local staff of the need to conduct extra cleaning and disinfection of the ill traveller's seat and toilet used by them. If the person was relocated, ensure that the staff are advised to clean and disinfect both locations. Also indicate the area where the assigned cabin crew took off their PPE, so the cleaning staff can do disinfection of the area.
4. Ensure hand carried baggage follows the ill traveller and comply with all requests from the public health officials.
5. The designated crew member/s who had direct contact with the ill traveller, should be provided transportation to facilities where they can clean and disinfect themselves before making contact with other people. If this is not possible, the crew member should carefully remove the PPE, wash and disinfect their hands and may be isolated on board if it is a return flight.

### 9.8.1.4 After Flight

Health Authorities will notify the Company of any confirmed infectious disease cases and guidance will be provided to crew members who are considered close contacts.

If a crew member should fall ill within 14 days of being in close contact with a suspected infectious disease case, they should:

1. Seek immediate medical attention and inform the doctor of the history of potential exposure.
2. Put on a surgical mask before leaving home and avoid public transport as far as possible.
3. Report your illness to the Company.
4. Remain at home and follow directions from the attending doctor until fully recovered.
5. Medical clearance may be required by Group Medical Department (GMD) before the crew member returns to cabin crew duties and this will be advised on a case-by-case basis.

**Note:** A close contact is typically defined as someone being within 1-2 M for a 15 MIN period with a suspected/confirmed infectious disease case.

## 9.8.2 Handling Procedures (Freighter)

### 9.8.2.1 During Boarding

1. If during boarding a traveller is suspected to be suffering from an infectious disease, MedLink shall be contacted for medical clearance.
2. This applies even if the traveller insists that they are fit to fly and even if they present a medical certificate to that effect.

3. The Captain shall be notified immediately if there is any chance that the traveler may require additional medical clearance and/or need to be offloaded.
4. If a crew member has been in contact with a traveller suspected of suffering from an infectious disease, the crew member shall wash their hands immediately with soap and water for at least 20 SEC and disinfect any common surfaces that the traveller may have come in contact with. An alcohol-based hand rub can be used if the hands are not visibly soiled.

### 9.8.2.2 Inflight

If the traveller falls ill inflight with fever and one or more of the above listed signs or symptoms, crew shall take the following action:

1. Move them away from others by reseating them to the left hand seat on the upper deck.
2. Limit exposure to the person by not touching them while collecting information and hand them a mask immediately.
3. Contact MedLink immediately. Collect the following from the ill traveller:
  - A. How long have they been suffering from a fever and/or other symptoms?
  - B. Have they been in contact with any person with an infectious disease?
  - C. Where have they travelled in the last 21 days?
  - D. Have they been in contact with any live animals or animal carcasses within the last 21 days?

If MedLink considers the ill traveller to be potentially infectious, crew shall follow their medical advice and the following guidelines apply:

1. As soon as possible, advise the Captain of the situation, because they are required by the International Civil Aviation Organization (ICAO) regulations and the World Health Organization International Health Regulations (WHO IHR) to report the suspected case(s) to air traffic control.
  - A. The Captain should share the following information regarding the ill traveller:
    - a. body temperature
    - b. main symptoms
    - c. travel history
    - d. contact history
  - B. Keep the Captain informed throughout the flight and advise them of any MedLink recommendations and changes in the traveller's condition.
  - C. Also remind the Captain to advise the destination port that specific cleaning and disinfection may be required.
2. Limit exposure to the person by not touching them and assign one person (if possible) to attend to them.
  - A. Full PPE (gloves, mask, eye protection, and gown/apron) must be worn by the person designated to attend to them.
  - B. Do not place the UPK on the floor, in the toilet or in contaminated areas while putting on the PPE.

- C. After use, the PPE shall be carefully removed as per instructions and discarded in the biohazard waste bag. (Remove the PPE if you need to rest or eat.)
  - D. PPE is not intended to replace proper hand hygiene. Hands should be washed with soap and water for at least 20 SEC after removing the PPE. An alcohol-based hand cleaner can be used if hands are not visibly soiled. Touching the face with unwashed hands should be avoided.
3. If possible, the ill traveller should be separated from others. Reseat them to the left hand seat on the upper deck.
- A. Block off the original seat if possible.
  - B. If other passengers are seated in the upper deck, provide masks for them to wear if available.
  - C. If seat is in the flight deck and needs to be occupied by another flight crew, spray disinfectant on the seat and leave for 10 MIN before occupying. Wipe down other common areas with disinfectant wipe. Wear mask, eye protection and gloves whilst cleaning and wash hands after removing gloves.
4. The ill traveller should be wearing a face mask.
- A. As soon as the face mask becomes damp or humid, it should be replaced by a new one (if available). The used mask should be disposed of safely in the biohazard waste bag. After touching the used face mask, proper hand hygiene must be practiced immediately.
  - B. If no face mask is available or if the ill traveller cannot tolerate the face mask, e.g. because of breathing difficulties, provide tissues and ask them to cover mouth and nose when coughing, speaking or sneezing.
  - C. Provide an airsickness bag to be used for the safe disposal of the used tissues.
  - D. Remind them to practice proper hand hygiene.
5. If they are vomiting:
- A. Provide them with airsickness bags and ask them to dispose of the used airsickness bags in the biohazard waste bag.
  - B. Encourage them to wash hands or use alcohol-based hand cleaner (if available) after vomiting.
6. If the ill traveller uses the toilet, spray the toilet with disinfectant after use. Leave for 10 MIN before re-entering.
7. Store soiled items (used tissues, disposable masks, oxygen mask and tubing, linen, pillows, blankets, seat pocket items, etc.) in a biohazard waste bag if one is available. If not, use a sealed plastic bag and label it "biohazard".
8. Keep MedLink and the arrival port updated on any changes in the ill traveller's condition.
9. Unless stated otherwise by MedLink or public health officials, as all flight crew and passengers to provide their name, seat number and contact telephone number using the "General Declaration" form. Such information is required in case follow up action by local destination Port Health is needed.

### 9.8.2.3 After Landing

1. Provide public health officials with the "General Declaration" form and share the relevant information regarding the ill traveller, any passengers seated around them, person who handled the ill traveller.
2. Disembarkation shall only be initiated upon confirmation received from public health officials. No company personnel should be allowed to board the aircraft until cleared by the public health officials.
3. Flight crew shall advise local staff of the need to conduct extra cleaning and disinfection of the ill traveller's seat and toilet used by them. If the person was relocated, ensure that the staff are advised to clean and disinfect both locations. Also, indicate the area where the PPE was taken off, so the cleaning staff can do the disinfection of the area.
4. Ensure hand carried baggage follows the person and comply with all requests from the public health officials.

### 9.8.2.4 After Flight

If a crew member should fall ill within two weeks of being in close contact with a suspected infectious disease case, they should:

1. Seek immediate medical attention and inform the doctor of the history of potential exposure.
2. Report your illness to the Company.
3. Remain at home and follow directions from the attending doctor until fully recovered.

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## 9.9 Death Pronouncement

It is not a recommended practice to pronounce an individual as legally dead on board the aircraft prior to arrival. If a qualified medical doctor is onboard the aircraft, it is recommended that the doctor communicate with MedLink regarding the further management of the individual without making an official declaration of death. It is always preferable for the arrival port emergency medical services to meet the flight, transport the passenger to the appropriate hospital facility, where the declaration of death can be made. It is more appropriate for the SCCM to request the arrival port emergency medical services to meet a passenger who is "non-responsive to resuscitative efforts".

A detailed report will be required from the SCCM, outlining the resuscitation attempt (use of oxygen, 2 man or 1 man CPR, duration of CPR, use of AED etc). The report should be objective and a factual recount of the events that took place e.g. "The passenger failed to respond to all attempts at resuscitation. Following the advice of Dr \_\_\_\_\_ /MedLink, the resuscitation was discontinued at \_\_\_\_\_ HR."

The regulations governing the handling of an individual who dies inflight (in the rare event they have been declared dead inflight by a qualified medical doctor) vary from country to country. However, they can be cumbersome as passengers are generally required to stay onboard until the Port Health can evaluate the individual thoroughly. Deplaning maybe delayed, the aircraft may be parked remotely, passengers and crew may be interviewed by the local police and decontamination procedures may be required by the local Port Health.

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## 9.10 Handling Procedure for an Apparent Death Inflight

The individual should be placed in the Body Bag and moved to a vacant seat, preferably one where there are only a few passengers nearby. If the aircraft is full, place the passenger back in the original seat or other designated area while ensuring the aisles or exits are not obstructed. The individual is not to be placed in the galley or lavatory.

The individual must be restrained with the seat belt. Additional SLB/Extension Seat Belt may be used to secure the upper body and prevent it from leaning forward.

Close the individual's eyelids and cover the body bag with a blanket up to the neck.

Wherever possible, obtain contact information from any travelling companion(s), health professionals and any others persons involved in the incident.

Be sensitive to the emotional needs of travelling companion(s). Remember to take extra care when moving or handling the individual.

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<b>10</b>	<b>Aircraft Specific .....</b>	<b>1</b>
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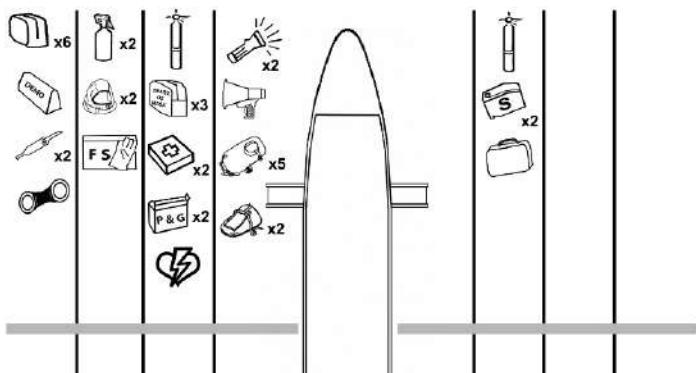
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# 10 Aircraft Specific

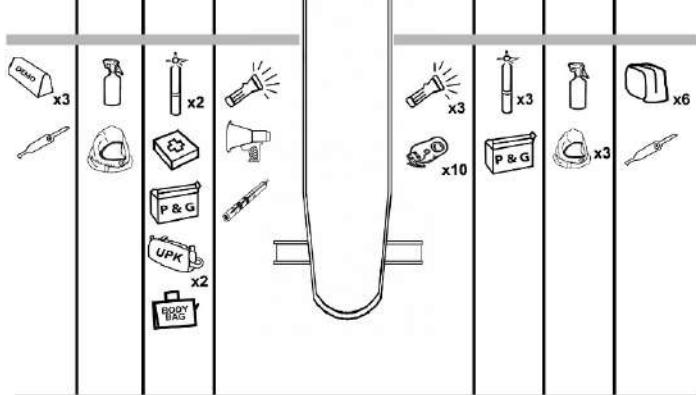
## 10.1 A320

### 10.1.1 Emergency Equipment Locations

Evacuation & Ditching	
	TORCH (8)
	ELT (1)
	CREW LIFE JACKET * (10)
	SPARE ADULT LIFE JACKET (5)
	INFANT LIFE JACKET (10)
	BABY FLOATATION COT (2)
	MEGAPHONE (2)



Fire & Smoke	
	BCF EXTINGUISHER (SAFETY CATCH) (4)
	BCF EXTINGUISHER (SAFETY PIN) (1)
	PBE (7)
	PROTECTIVE GLOVES (1 PAIR)
	FIRE AXE (1)
	FIRESOCK KIT (2)



First Aid	
	PORTABLE GASEOUS O2 (7)
	SPARE O2 MASK (3)
	FIRST AID KIT (3)
	AUTOMATED EXTERNAL DEFIBRILLATOR (1)
	INFLIGHT MEDICAL KIT (1)
	SPLINT PACK (2)
	POCKET MASK AND GLOVES KIT (4)
	UNIVERSAL PRECAUTION KIT (2)
	BODY BAG (1)

\* There are a total of 10 Crew Life Jackets, 1 per cabin crew seat and 1 per flight deck seat.



Miscellaneous	
	SUPPLEMENTARY LOOP BELT/EXTENSION-DEACTIVATION SEAT BELT (12)
	DEMONSTRATION KIT (4)
	MANUAL RELEASE TOOL (4)
	RESTRAINT KIT (1)

1. Torch (8)  
**Flight deck:** Adjacent to Captain's seat (1)  
Adjacent to First Officer's seat (1)  
**L1, L1A, L2, R2, R2A, Swivel Seat:** Crew seat compartment (1 each)
2. ELT (1)  
**L2:** Next to crew seat (1)
3. Spare Adult Life Jacket (5)  
**L1:** Overhead compartment aft of door (5)
4. Infant Life Jacket (10)  
**R2:** Overhead compartment forward of door (10)
5. Baby Floatation Cot (2)  
**L1:** Overhead compartment aft of door (2)
6. Megaphone (2)  
**L1:** Overhead compartment aft of door (1)  
**L2:** Overhead compartment forward of door (1)
7. BCF Extinguisher (5)  
**Flight deck:** Aft of First Officer's seat (1)  
**L1, L1A, L2, R2:** Crew seat compartment (1 each)
8. PBE (7)  
**Flight deck:** Right hand aft side stowage (1)  
**L1, L1A, L2, R2, R2A, Swivel Seat:** Headrest compartment (1 each)
9. Protective Gloves (1 pair)  
**Flight deck:** Closet (1 pair)
10. Fire Axe (1)  
**Flight deck:** Right hand aft wall (1)
11. FireSock Kit (2)  
**Flight deck:** Closet (1)  
**L1:** Closet aft of door (1)

- 
- 12. Portable Gaseous O<sub>2</sub> (7)
    - L1:** Overhead compartment aft of door (1)
    - R1:** Overhead compartment aft of door (1)
    - L2:** Overhead compartment forward of door (2)
    - R2:** Overhead compartment forward of door (3)
  - 13. Spare O<sub>2</sub> Mask (3)
    - L1:** Closet aft of door (3)
  - 14. First Aid Kit (3)
    - L1:** Closet aft of door (1)
    - Overhead compartment aft of door (1)
    - L2:** Overhead compartment forward of door (1)
  - 15. Automated External Defibrillator (1)
    - L1:** Overhead compartment aft of door (1)
  - 16. Inflight Medical Kit (1)
    - R1:** Overhead compartment aft of door (1)
  - 17. Splint Pack (2)
    - R1:** Overhead compartment aft of door (2)
  - 18. Pocket Mask and Gloves Kit (4)
    - L1, L1A, L2, Swivel Seat:** Crew seat compartment (1 each)
  - 19. Universal Precaution Kit (2)
    - L2:** Overhead compartment forward of door (2)
  - 20. Body Bag (1)
    - L2:** Stowage compartment behind crew seat (1)
  - 21. Supplementary Loop Belt/Extension-Deactivation Seat Belt (12)
    - L1:** Overhead compartment aft of door (6)
    - R2:** Overhead compartment forward of door (6)
  - 22. Demonstration Kit (4)
    - L1:** Closet aft of door (1)
    - L2:** Stowage compartment behind crew seat (3)

23. Manual Release Tool (4)

L1, L1A, L2, Swivel Seat: Crew seat compartment (1 each)

24. Restraint Kit (1)

L1: Crew seat compartment (1)

## 10.1.2 Cabin Doors and Escape Systems

### 10.1.2.1 Type I Door

#### 10.1.2.1.1 General

Fitted with a single channel slide. Primary exit for land and ditching evacuations.

Each door has an observation window. Close to the window, there are two lights.

1. The slide armed indicator light illuminates white when the door is "Armed" and the door operating handle is moved up.
2. The cabin pressure warning light flashes red if there is residual cabin pressure above 0.0362 PSI when all engines shut down and the door is disarmed.
3. The warning lights are visible from both inside and outside of the aircraft.

#### 10.1.2.1.2 Pre-flight Emergency Equipment Check

Ensure the mode selector is in the "Disarmed" position with the safety pin inserted and the red streamer visible.

#### 10.1.2.1.3 Arming and Disarming

##### Arming

1. Check the door locking indicator shows "LOCKED" (green).
2. Remove and stow the safety pin (in the hole behind the gust lock release).
3. Move the mode selector to the "Armed" position.
4. Secure the red streamer across the door operating handle.
5. Check the red arrow on the girt bar floor visual indication points to the dot.

##### Disarming

1. Move the mode selector to the "Disarmed" position.
2. Insert the safety pin (to lock the mode selector in place) and ensure the red streamer is visible.
3. Check the red arrow on the girt bar floor visual indication does not point to the dot.

#### 10.1.2.1.4 Emergency Door Operation

With the mode selector in the "Armed" position, the door is armed. When the door operating handle is lifted, a power assist system is triggered and the door is power driven to the fully open position. Slide will deploy automatically. Full inflation will take approximately 3 SEC.

**Note:** Caution is to be exercised by the operator of the door. Once the power assist takes over the opening of the door, the operator is to release the door operating handle.

### **Operation (Land)**

1. Evaluate outside.
2. Check the mode selector is in the "Armed" position, i.e. in the down position.
3. Lift the door operating handle fully to open the door.
4. Check the escape route is safe.

### **Alternate Actions**

1. If the Door Power Assist System fails, using a steady force, push the door fully open until it latches. Strength will be required to push open the door fully and pull the slide out from the door bustle. Call for assistance from passengers if necessary.
2. If the slide fails to inflate automatically, pull the Red Manual Inflation Handle at the right hand side of the girt bar.
3. If the slide cannot be inflated or is unusable, guard the door and redirect passengers to usable exits.

### **Operation (Ditch)**

1. Assess the aircraft attitude.
2. Check the mode selector is in the "Armed" position, i.e. in the down position.
3. Lift the door operating handle fully to open the door.
4. Check the escape route is safe.
5. Release the slide from the aircraft by pulling the white girt release handle which is located under the girt cover. The slide still connects to the aircraft by means of a mooring line. Evacuate passengers into the water and use the slide as a floatation device. The mooring line should be cut (cast off) by the use of the hook knife after everyone has left the aircraft.

### **Alternate Actions**

1. If the Door Power Assist System fails, using a steady force, push the door fully open until it latches. Strength will be required to push open the door fully and pull the slide out from the door bustle. Call for assistance from passengers if necessary.
2. If the slide fails to inflate automatically, pull the Red Manual Inflation Handle at the right hand side of the girt bar.
3. If the slide cannot be inflated but the escape route is safe, direct passengers to inflate life jacket and jump into the water.

## **10.1.2.2 Type III Exit**

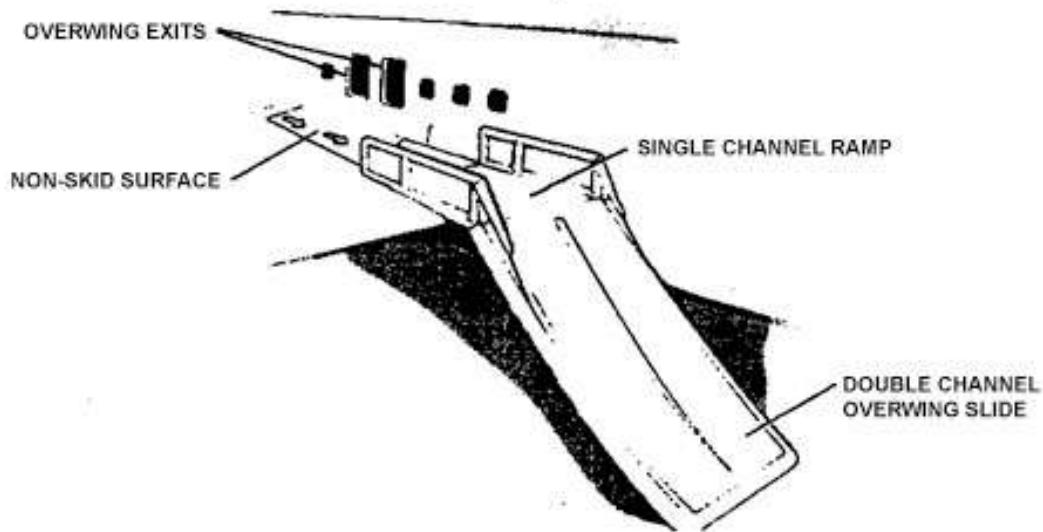
### **10.1.2.2.1 General**

Fitted with double channel overwing slide. Primary exit for land and ditching evacuations.

There are two overwing emergency exits at each side of the aircraft adjacent to passenger seat row 29 and 30. Each pair of overwing emergency exits has an associated evacuation slide stowed in the wing/fuselage fairing. Each emergency exit comprises of a lower grip mould and an emergency pull handle for manual opening, and a handle cover which can be opened manually. Overwing exits are self-helping exits. Opening instructions are fixed on the exit upper section and on the tray table of the passenger seats on the overwing exit row. It is also available in the safety card stored in passenger seat pocket.

A slide armed indicator light is installed between two overwing exits. It illuminates white when either one of the handle covers is removed.

Silver-coloured double channel overwing slides are installed in the wing/fuselage fairing, aft of the overwing exits. They facilitate evacuation from the upper surface of the wing. The slides include a ramp section to provide positive entry guidance for the evacuees.



#### 10.1.2.2 Operation

Grasp the hand grip of handle cover, pull and discard. Hold the emergency pull handle and grasp the lower grip mould. Pull down the emergency pull handle. Pull the hatch inside the aircraft and turn it into its frame. The hatch is discarded through its frame over the wing.

When either overwing exit on the same side of the aircraft is opened, the overwing slide will inflate automatically. Full inflation will take approximately 4 SEC. Opening the overwing exit from outside will have the same effect.



REMOVAL OF AN OVERWING WINDOW EXIT - STANDING POSITION



REMOVAL OF AN OVERWING WINDOW EXIT - SITTING POSITION

## Operation (Land)

1. Evaluate outside.
2. Open the hatch.
3. Check the escape route is safe.

## Alternate Actions

1. If inflation is not initiated automatically, pull the Red Manual Inflation Handle found at the upper corner of each emergency exit opening near the EXIT sign.
2. If the slide cannot be inflated or is unusable, guard the exit and redirect passengers to usable exits.
3. In case the overwing slide has been damaged and deflated, it can still be used as a hand hold escape chute. However, priority should be given to Type I doors for evacuation under such circumstances. Look for the snap hook on the slide. Fix the snap hook to the hook attachment point on the wing. Four able bodied persons must hold the slide by using two no fail handles installed on each side of the slide. Passengers can then be evacuated down the overwing slide.

## Operation (Ditch)

1. Assess the aircraft attitude.
2. Open the hatch.
3. Check the escape route is safe.

### Overwing Exit Briefing

The overwing exits rows should only be allocated to passengers who appear capable of operating and/or assisting with the operation of the exits. A pre-take off safety briefing must be given to all passengers who occupy overwing exit row. They must be made aware before take-off that they are occupying the overwing exit row and in case of emergency, under crew member's instruction, they are required to open the exit. They shall also be advised to refer to the opening instruction which is available on the safety card, placarded on the hatch and at the back of the tray tables. Passengers who appear not to understand the briefing and/or attempt to open the exit should be reseated to other seats.

Should an overwing exit row be vacant, cabin crew will look for an able bodied person (ABP) to cover that particular overwing exit from an extended area of 3 rows forward or aft of the affected overwing exit row.

The ABP(s) can be at any seat within the extended area. Cabin crew will check that they are willing to accept the responsibility of opening the overwing exit in case of emergency evacuation. If they agree to do so, the ABP(s) will be briefed accordingly by using the safety card. In addition to the briefing, they must be made aware of which overwing exit they are responsible for. They are welcome to reseat to the overwing exit rows if they want to. Despite the effort cabin crew make to look for capable persons to take care of the overwing exit, there will be cases where no/insufficient ABP(s) can be found, or the ABP(s) are reluctant to take up the task in the vicinity. This is acceptable.

The overwing exit row can be empty in normal circumstances, however, in case of emergency, cabin crew should move capable passengers to occupy the window seat of an empty overwing exit row and brief them accordingly.

#### 10.1.2.3 Unusual Aircraft Attitudes

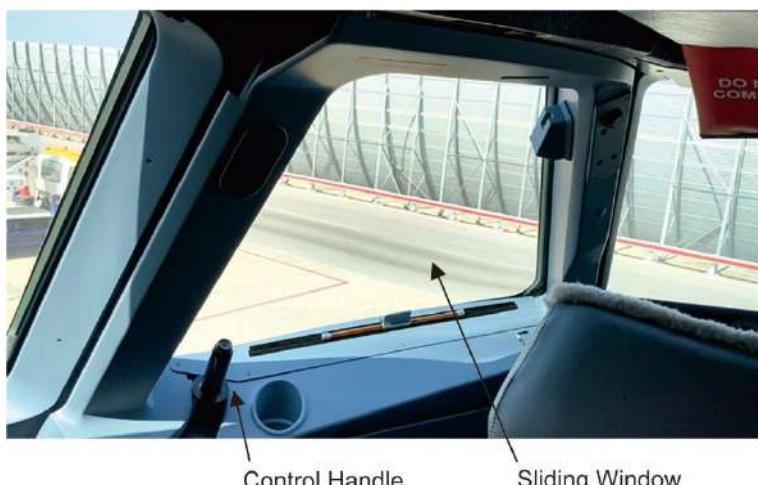
All doors/exits are usable in all aircraft attitudes.

#### 10.1.2.4 Flight Deck Exits

##### Opening of Sliding Windows

1. Depress the button on top of the control handle.
2. Rotate the handle rearwards.
3. Slide window rearwards using the hand-grip on the front of the sliding window until the lock engages.

**Note:** These windows cannot be opened from outside.



### Escape Rope

1. A 5.5 M long rope is located in a stowage above each sliding window. It can support a load up to 181 KG.
2. Deploy the escape rope out of the window. Climb through the window and lower self down the rope. The rope is knotted to assist the descent.

## 10.1.3 Land Evacuation

### 10.1.3.1 Land Evacuation Duties – Flight Crew

#### 10.1.3.1.1 Captain

1. Take torch.
2. Ensure the flight deck is clear.
3. Proceed to the cabin and assist with the evacuation.
4. Evacuate.
5. Take command on the ground.

#### 10.1.3.1.2 First Officer

1. Take torch.
2. Ensure the flight deck is clear.
3. Proceed to the cabin and assist with the evacuation.
4. Evacuate.
5. Assist on the ground.

#### 10.1.3.1.3 Second Officer (if carried) or Supernumerary Crew

Perform duties as assigned by the Captain.

### 10.1.3.2 Land Evacuation Duties – Cabin Crew

#### 10.1.3.2.1 Type I Door Primary Duties

<b>Evacuation and motivation commands</b>	Immediately after the command "EVACUATE" has been repeated, order "SAW SARN", "SEAT BELTS OFF, HIGH HEELS OFF, COME THIS WAY". This is to enable the cabin crew to establish control over the passengers at the first opportunity.
<b>Evaluate outside</b>	If fire/smoke is evident, do not open the door. Redirect passengers to usable exits.
<b>Check mode "Armed"</b>	The mode selector is in the "down" position.
<b>Open door</b>	Lift the door operating handle fully up and release the handle when the power assist system starts to open the door.
<b>Check escape route safe</b>	Ensure proper slide deployment and that it is safe to exit, e.g. no fire or obstruction.

<b>Direct passengers</b>	Direct evacuation at the door. Stay clear of the passenger flow by stepping to one side and secure yourself by holding the assist handle.  Monitor evacuation in respect of the sliding angle, the condition of the slide, congestion at the bottom of slide, spreading fire.
<b>Check area – evacuate</b>	Quickly walk around your area to look for injured, unconscious, incapacitated passengers or crew. Pay particular attention to the toilets and the space between seat rows.  On completion, evacuate.  After evacuation, assist and control passengers by gathering them together. Move passengers away from the aircraft as far as practicable. It may be necessary to render first aid and reassure passengers before help arrives. Passengers may wish to re-enter the aircraft for their belongings; they must be stopped.

**Note 1:** *Door primaries are to reset the Evacuation Alert System (if applicable) before giving commands in an evacuation.*

**Note 2:** *The PBE should be used in a smoke filled environment.*

**Note 3:** *Should it be necessary to remove the ELT, the door primary at the door where the ELT is located is responsible for doing this.*

#### 10.1.3.2.2 Type III Exit Responsible Crew Duties

<b>Evacuation and motivation commands</b>	Immediately after the command "EVACUATE" has been repeated, order "SAW SARN", "SEAT BELTS OFF, HIGH HEELS OFF, COME THIS WAY". This is to enable the cabin crew to establish control over the passengers at the first opportunity.
<b>Evaluate outside</b>	Proceed to overwing exit. If fire/smoke is evident, do not open the hatch. Redirect passengers to usable exits.
<b>Open hatch</b>	Open the hatch, at the same time instruct other passengers to open the other exits.
<b>Check escape route safe</b>	Ensure proper overwing slide deployment and that it is safe to exit, e.g. no fire or obstruction.
<b>Direct passengers</b>	Direct evacuation near the exit. Order "MOVE, HURRY". Stay clear of the passenger flow by standing on the seat in front of the exit.  Monitor evacuation in respect of the sliding angle, the condition of the overwing slide, congestion at the bottom of overwing slide, spreading fire.

<b>Check area – evacuate</b>	Quickly walk around your area to look for injured, unconscious, incapacitated passengers or crew. Pay particular attention to the toilets and the space between seat rows.  On completion, evacuate.  After evacuation, assist and control passengers by gathering them together. Move passengers away from the aircraft as far as practicable. It may be necessary to render first aid and reassure passengers before help arrives. Passengers may wish to re-enter the aircraft for their belongings; they must be stopped.
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**Note 1:** *If the crew responsible for the overwing area cannot proceed to the overwing exits, verbal instruction shall be given to passengers sitting in that area to open the exits for evacuation.*

**Note 2:** *The PBE should be used in a smoke filled environment.*

## 10.1.4 Ditching Evacuation

### 10.1.4.1 Ditching Evacuation Duties – Flight Crew

#### 10.1.4.1.1 Captain

1. Take own life jacket and torch.
2. Ensure the flight deck is clear.
3. Proceed to the cabin and assist with the evacuation.
4. Evacuate.
5. Take command in water.

#### 10.1.4.1.2 First Officer

1. Take own life jacket and torch.
2. Ensure the flight deck is clear.
3. Proceed to the cabin and assist with the evacuation.
4. Evacuate.
5. Assist in water.

#### 10.1.4.1.3 Second Officer (if carried) or Supernumerary Crew

Perform duties as assigned by the Captain.

### 10.1.4.2 Ditching Evacuation Duties – Cabin Crew

#### 10.1.4.2.1 Type I Door Primary Duties

<b>Evacuation and motivation commands</b>	Immediately after the command "EVACUATE" has been repeated, order "SAW SARN", "SEAT BELTS OFF, LIFE JACKETS ON, SHOES OFF, COME THIS WAY". This is to enable the cabin crew to establish control over the passengers at the first opportunity.
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<b>Assess aircraft attitude</b>	It is important to ensure that the doorsill is above water level before door opening. Cabin crew should rapidly assess whether the door is usable by checking the water level through the door window and referring to the slope of the cabin floor. If the door is unusable, guard the door to prevent use by passengers.
<b>Check mode “Armed”</b>	The mode selector is in the “down” position.
<b>Open door</b>	Lift the door operating handle fully up and release the handle when the power assist system starts to open the door.
<b>Check escape route safe</b>	Ensure that it is safe to exit, e.g. no fire or obstruction.
<b>Direct passengers</b>	Direct evacuation at the door. Order “INFLATE LIFE JACKET, JUMP INTO WATER.” Stay clear of the passenger flow by stepping to one side and secure yourself by holding the assist handle. Ensure passenger life jackets are inflated and all shoes are removed before jumping into the water and hold on to the handle of slide.
<b>Check area – evacuate</b>	Quickly walk around your area to look for injured, unconscious, incapacitated passengers or crew. Pay particular attention to the toilets and the space between seat rows. On completion, evacuate.

**Note 1:** *Door primaries are to reset the Evacuation Alert System (if applicable) before giving commands in an evacuation.*

**Note 2:** *The PBE should be used in a smoke filled environment.*

**Note 3:** *Should it be necessary to remove the ELT, the door primary at the door where the ELT is located is responsible for doing this.*

#### 10.1.4.2.2 Type III Exit Responsible Crew Duties

<b>Evacuation and motivation commands</b>	Immediately after the command “EVACUATE” has been repeated, order “SAW SARN”, “SEAT BELTS OFF, LIFE JACKETS ON, SHOES OFF, COME THIS WAY”. This is to enable the cabin crew to establish control over the passengers at the first opportunity.
<b>Assess aircraft attitude</b>	It is important to ensure that the exit is above water level before opening. Cabin crew should rapidly assess whether the exit is usable by checking the water level through the window and referring to the slope of the cabin floor. If the exit is unusable, guard the exit to prevent use by passengers.
<b>Open hatch</b>	Open the hatch, at the same time instruct other passengers to open the other exits.
<b>Check escape route safe</b>	Ensure that it is safe to exit, e.g. no fire or obstruction.
<b>Direct passengers</b>	Direct evacuation near the exit. Order “MOVE, HURRY”. Stay clear of the passenger flow by standing on the seat in front of the exit.

<b>Check area – evacuate</b>	Quickly walk around your area to look for injured, unconscious, incapacitated passengers or crew. Pay particular attention to the toilets and the space between seat rows.  On completion, evacuate.
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**Note 1:** *If the crew responsible for the overwing area cannot proceed to the overwing exits, verbal instruction shall be given to passengers sitting in that area to open the exits for evacuation.*

**Note 2:** *The PBE should be used in a smoke filled environment.*

## 10.1.5 Aircraft Emergency Oxygen Systems

### 10.1.5.1 Cabin

1. When the cabin altitude exceeds 14,000 FT, all cabin lights will come on bright, the “no smoking” and “seat belt” signs will illuminate with the corresponding chimes, and the oxygen masks will deploy automatically. Additionally, there will be an automatic P/A in English, Cantonese, Putonghua and Japanese.
2. A chemical oxygen generator provides oxygen to the masks. After deploying, the masks must be pulled down to start the chemical reaction to generate oxygen flow. The chemical reaction creates heat and therefore the smell of burning and smoke (where dust has gathered), along with a cabin temperature increase may be associated with the operation of the chemical oxygen generators.
3. The accumulator bag attached to the oxygen mask may not inflate even when oxygen is flowing to the mask.
4. Masks are provided in the oxygen modules above every passenger and cabin crew seat. There are two in each lavatory. A lanyard is fitted in the lavatory to enable the oxygen mask to be easily reached.
5. Spare masks are available at most of the passenger seats.
6. Once activated, oxygen flow from the chemical oxygen system cannot be stopped.
7. The chemical system supplies oxygen for 15 MIN.

**Note:** *The oxygen masks can also be manually deployed from the flight deck.*

### 10.1.5.2 Flight Deck

The oxygen system in the flight deck uses a gaseous system. A mask is available for each flight deck occupant. It is different to the type provided in the cabin. The mask does not deploy automatically and must be pulled out from its stowage.

## 10.1.6 Emergency Lighting System

### 10.1.6.1 General

The emergency lighting system provides emergency lighting to illuminate the cabin, aisles, cross aisles and exit signs. Control switch is in flight deck and Cabin FAP. Emergency lights on the slides are turned on when they are deployed.

Passenger Emergency Escape Path Lighting System (PEEPLS) is part of the emergency lighting system. In the event of a smoke filled cabin, the PEEPLS will guide passengers to the nearest exit.

The emergency lighting may be controlled either automatically or manually.

### 10.1.6.2 Duration

Approximately 12 MIN.

### 10.1.7 Evacuation Alert System

#### 10.1.7.1 Operation

##### 10.1.7.1.1 “CAPT” Position

1. When the “EVAC ON” button in the flight deck is pressed, the following occurs in the cabin.
  - A. There will be an alarm at all door stations.
  - B. The “EVAC” indicators on FAP and AAP flash red.

**Note:** *The “EVAC ON” button in the flight deck flashes red.*

2. When the “EVAC CMD” button on the FAP is pressed, the following occurs in the flight deck.
  - A. The “EVAC ON” button flashes red.
  - B. There will be a chime for approximately 3 SEC.
  - C. The Captain will order “ATTENTION, EVACUATE, EVACUATE” or “ATTENTION, CREW AT STATIONS. ATTENTION, CREW AT STATIONS”.

**Note:** *The “EVAC CMD” button on the FAP illuminates green.*

##### 10.1.7.1.2 Cancelling Outputs

By pressing the “RESET” or “EVAC RESET” button on FAP/AAP, the alarm at the respective station is silenced.

##### 10.1.7.1.3 Company Policy

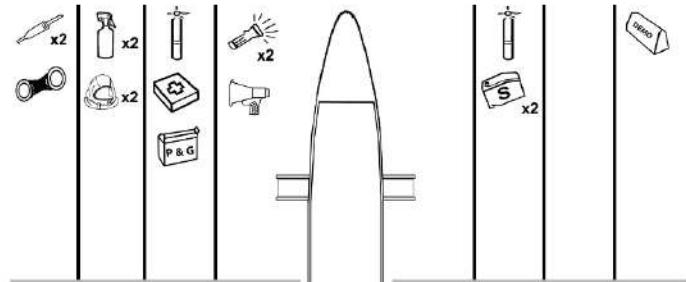
The Company policy is to have the toggle switch in the “CAPT” position.

## 10.2 A321

### 10.2.1 Emergency Equipment Locations

#### Evacuation & Ditching

	TORCH	(11)
	ELT	(1)
	CREW LIFE JACKET	*(13)
	SPARE ADULT LIFE JACKET	(5)
	INFANT LIFE JACKET	(10)
	BABY FLOATATION COT	(2)
	MEGAPHONE	(2)

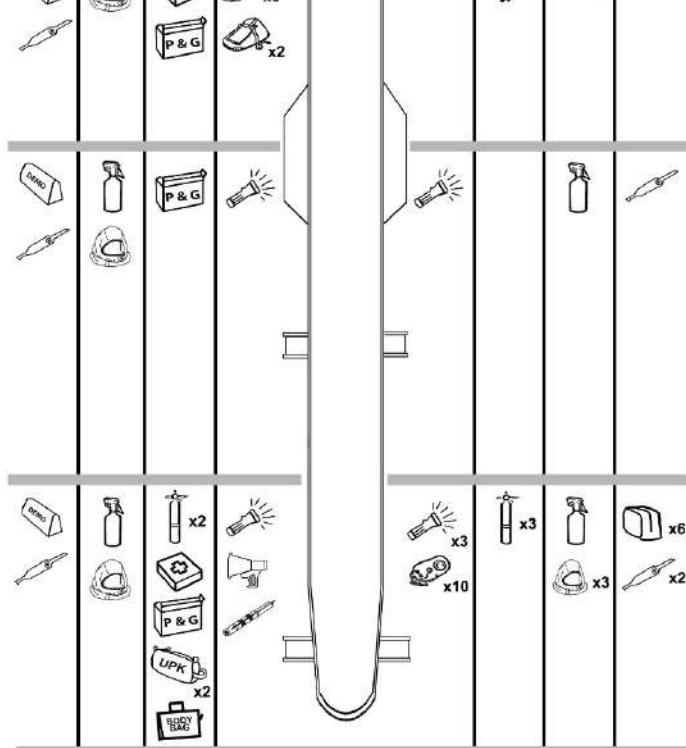


#### Fire & Smoke

	BCF EXTINGUISHER (SAFETY CATCH)	(8)
	BCF EXTINGUISHER (SAFETY PIN)	(1)
	PBE	(9)
	PROTECTIVE GLOVES	(1 PAIR)
	FIRE AXE	(1)
	FIRESOCK KIT	(2)

#### First Aid

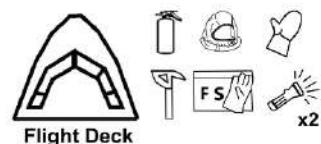
	PORTABLE GASEOUS O2	(7)
	SPARE O2 MASK	(3)
	FIRST AID KIT	(3)
	AUTOMATED EXTERNAL DEFIBRILLATOR	(1)
	INFLIGHT MEDICAL KIT	(1)
	SPLINT PACK	(2)
	POCKET MASK AND GLOVES KIT	(4)
	UNIVERSAL PRECAUTION KIT	(2)
	BODY BAG	(1)



#### Miscellaneous

	SUPPLEMENTARY LOOP BELT/EXTENSION-DEACTIVATION SEAT BELT	(12)
	Demonstration Kit	(4)
	MANUAL RELEASE TOOL	(8)
	RESTRAINT KIT	(1)

\* There are a total of 13 Crew Life Jackets, 1 per cabin crew seat and 1 per flight deck seat.



Flight Deck

1. Torch (11)  
**Flight deck:** Adjacent to Captain's seat (1)  
Adjacent to First Officer's seat (1)  
**L1, L1A, L2, L3, R3, L4, R4, R4A, Swivel Seat:** Crew seat compartment (1 each)
2. ELT (1)  
**L4:** Next to crew seat (1)
3. Spare Adult Life Jacket (5)  
**L2:** Overhead compartment forward of door (5)
4. Infant Life Jacket (10)  
**R4:** Doghouse forward of door (10)
5. Baby Floatation Cot (2)  
**L2:** Overhead compartment forward of door (2)
6. Megaphone (2)  
**L1:** Overhead compartment aft of door (1)  
**L4:** Overhead compartment forward of door (1)
7. BCF Extinguisher (9)  
**Flight deck:** Aft of First Officer's seat (1)  
**L1, L1A, L2, L3, R3, L4, R4:** Crew seat compartment (1 each)  
**R2:** Partition forward of door (1)
8. PBE (9)  
**Flight deck:** Right hand aft side stowage (1)  
**L1, L1A, L2, L4, R4, R4A, Swivel Seat:** Headrest compartment (1 each)  
**L3:** Overhead compartment above door (1)
9. Protective Gloves (1 pair)  
**Flight deck:** Closet (1 pair)
10. Fire Axe (1)  
**Flight deck:** Right hand aft wall (1)
11. FireSock Kit (2)  
**Flight deck:** Closet (1)  
**R2:** Doghouse forward of door (1)

12. Portable Gaseous O<sub>2</sub> (7)
  - L1:** Overhead compartment aft of door (1)
  - R1:** Overhead compartment aft of door (1)
  - L4:** Overhead compartment forward of door (2)
  - R4:** Overhead compartment forward of door (3)
13. Spare O<sub>2</sub> Mask (3)
  - L2:** Overhead compartment forward of door (3)
14. First Aid Kit (3)
  - L1:** Overhead compartment aft of door (1)
  - L2:** 26ABC overhead compartment (1)
  - L4:** Overhead compartment forward of door (1)
15. Automated External Defibrillator (1)
  - R2:** Overhead compartment aft of door (1)
16. Inflight Medical Kit (1)
  - R2:** Overhead compartment aft of door (1)
17. Splint Pack (2)
  - R1:** Overhead compartment aft of door (2)
18. Pocket Mask and Gloves Kit (4)
  - L1, L2, L3, L4:** Crew seat compartment (1 each)
19. Universal Precaution Kit (2)
  - L4:** Doghouse forward of door (2)
20. Body Bag (1)
  - L4:** Stowage compartment behind crew seat (1)
21. Supplementary Loop Belt/Extension-Deactivation Seat Belt (12)
  - L2:** Overhead compartment forward of door (6)
  - R4:** Doghouse forward of door (6)

22. Demonstration Kit (4)

- R1:** Overhead compartment aft of door (1)
- L2:** (except B-HTK) Crew seat compartment (1)  
(B-HTK) Stowage compartment behind crew seat (1)
- L3:** Overhead compartment above seat (1)
- L4:** Stowage compartment behind crew seat (1)

23. Manual Release Tool (8)

- L1, L1A, L2, L3, R3, L4, R4,** Crew seat compartment (1 each)
- Swivel Seat:**

24. Restraint Kit (1)

- L1:** Crew seat compartment (1)

## 10.2.2 Cabin Doors and Escape Systems

### 10.2.2.1 Type I Door

#### 10.2.2.1.1 General

Fitted with single channel slide. Primary exit for land and ditching evacuations.

Each door has an observation window. Close to the window, there are two lights.

1. The slide armed indicator light illuminates white when the door is “Armed” and the door operating handle is moved up.
2. The cabin pressure warning light flashes red if there is residual cabin pressure above 0.0362 PSI when engines are shut down and the door is disarmed.
3. The warning lights are visible from both inside and outside of the aircraft.

#### 10.2.2.1.2 Pre-flight Emergency Equipment Check

Ensure the mode selector is in the “Disarmed” position with the safety pin inserted and the red streamer visible.

#### 10.2.2.1.3 Arming and Disarming

##### Arming

1. Check the door locking indicator shows “LOCKED” (green).
2. Remove and stow the safety pin (in the hole behind the gust lock release).
3. Move the mode selector to the “Armed” position.
4. Secure the red streamer across the door operating handle.
5. Check the red arrow on the girt bar floor visual indication points to the dot.

##### Disarming

1. Move the mode selector to the “Disarmed” position.

2. Insert the safety pin (to lock the mode selector in place) and ensure the red streamer is visible.
3. Check the red arrow on the girt bar floor visual indication does not point to the dot.

#### 10.2.2.1.4 Emergency Door Operation

With the mode selector in the "Armed" position, the door is armed. When the door operating handle is lifted, a power assist system is triggered and the door is power driven to the fully open position. Slide will deploy automatically. Full inflation will take approximately 3 SEC.

**Note:** *Caution is to be exercised by the operator of the door. Once the power assist takes over the opening of the door, the operator is to release the door operating handle.*

##### Operation (Land)

1. Evaluate outside.
2. Check the mode selector is in the "Armed" position, i.e. in the down position.
3. Lift the door operating handle fully to open the door.
4. Check the escape route is safe.

##### Alternate Actions

1. If the Door Power Assist System fails, using a steady force, push the door fully open until it latches. Strength will be required to push open the door fully and pull the slide out from the door bustle. Call for assistance from passengers if necessary.
2. If the slide fails to inflate automatically, pull the Red Manual Inflation Handle at the right hand side of the girt bar.
3. If the slide cannot be inflated or is unusable, guard the door and redirect passengers to usable exits.

##### Operation (Ditch)

1. Assess the aircraft attitude.
2. Check the mode selector is in the "Armed" position, i.e. in the down position.
3. Lift the door operating handle fully to open the door.
4. Check the escape route is safe.
5. Release the slide from the aircraft by pulling the white girt release handle which is located under the girt cover. The slide still connects to the aircraft by means of a mooring line. Evacuate passengers into the water and use the slide as a floatation device. The mooring line should be cut (cast off) by the use of the hook knife after everyone has left the aircraft.

##### Alternate Actions

1. If the Door Power Assist System fails, using a steady force, push the door fully open until it latches. Strength will be required to push open the door fully and pull the slide out from the door bustle. Call for assistance from passengers if necessary.
2. If the slide fails to inflate automatically, pull the Red Manual Inflation Handle at the right hand side of the girt bar.

3. If the slide cannot be inflated but the escape route is safe, direct passengers to inflate life jacket and jump into the water.

## 10.2.2.2 Type C Door

### 10.2.2.2.1 General

Fitted with single channel slide. Primary exit for land and ditching evacuations.

Each door has an observation window. Close to the window, there are two lights.

1. The slide armed indicator light illuminates white when the door is "Armed" and the door operating handle is moved up.
2. The cabin pressure warning light flashes red if there is residual cabin pressure above 0.0362 PSI when engines are shut down and the door is disarmed.
3. The warning lights are visible from both inside and outside of the aircraft.

### 10.2.2.2.2 Pre-flight Emergency Equipment Check

Ensure the mode selector is in the "Disarmed" position with the safety pin inserted and the red streamer visible.

### 10.2.2.2.3 Arming and Disarming

#### Arming

1. Check the door locking indicator shows "LOCKED" (green).
2. Remove and stow the safety pin and red streamer (B-HTG/H/I – in the hole below the observation window, B-HTK – in the crew seat compartment).
3. Move the mode selector to the "Armed" position.

#### Disarming

1. Move the mode selector to the "Disarmed" position.
2. Insert the safety pin and ensure the red streamer is visible.

### 10.2.2.2.4 Emergency Door Operation

With the mode selector in the "Armed" position, the door is armed. When the door operating handle is lifted, a power assist system is triggered and the door is power driven to the fully open position. Slide will deploy automatically. Full inflation will take approximately 3 SEC.

**Note:** *Caution is to be exercised by the operator of the door. Once the power assist takes over the opening of the door, the operator is to release the door operating handle.*

#### Operation (Land)

1. Evaluate outside.
2. Check the mode selector is in the "Armed" position, i.e. in the down position.
3. Lift the door operating handle fully to open the door (remove the safety cover to access the handle).
4. Check the escape route is safe.

### Alternate Actions

1. If the Door Power Assist System fails, using a steady force, push the door fully open until it latches. Strength will be required to push open the door fully. Call for assistance from passengers if necessary.
2. If the slide fails to inflate automatically, pull the Red Manual Inflation Handle, which is located at the upper right hand side of the exit frame and is protected by a cover.



3. If the slide cannot be inflated or is unusable, guard the door and redirect passengers to usable exits.

### Operation (Ditch)

The slide cannot be released and cast-off.

1. Assess aircraft attitude.
2. Change the mode selector to the "Disarmed" position, i.e. in the up position.
3. Lift the door operating handle fully to open the door (remove the safety cover to access the handle).
4. Check the escape route is safe.

#### 10.2.2.5 Unstaffed Exit

Subject to the cabin crew complement on the flight, some exits may not be manned by cabin crew. These are known as unstaffed exits.

The emergency exit row associated with the unstaffed exit should only be allocated to passengers who appear capable of operating and/or assisting with the operation of the exits. A pre take-off safety briefing must be given to all passengers who occupy such an emergency exit row. They must be made aware before take-off that they are occupying the emergency exit row and in case of emergency, under crew member's instruction, they are required to open the exit. They shall also be advised to refer to the opening instruction which is available on the safety card and instructions on the exit (placard or arrow). Passengers who appear not to understand the briefing and/or attempt to open the exit should be reseated to other seats.

Should the emergency exit row be vacant, cabin crew will look for an able bodied person (ABP) to cover that particular exit from an extended area of 3 rows forward or aft of the affected exit.

The ABP(s) can be at any seat within the extended area. Cabin crew will check that they are willing to accept the responsibility of opening the exit in case of emergency evacuation. If they agree to do so, the ABP(s) will be briefed accordingly by using the safety card. In addition to the briefing, they must be made aware of which exit they are responsible for. They are welcome to reseat to the emergency exit row if they want to. Despite the effort cabin crew make to look for capable persons to take care of the exit, there will be cases where no/insufficient ABP(s) can be found or the ABP(s) are reluctant to take up the task in the vicinity. This is acceptable.

The emergency exit row can be empty in normal circumstances, however, in case of emergency, cabin crew should move capable passengers to occupy the emergency exit row of the unstaffed exit and brief them accordingly.

### 10.2.2.3 Unusual Aircraft Attitudes

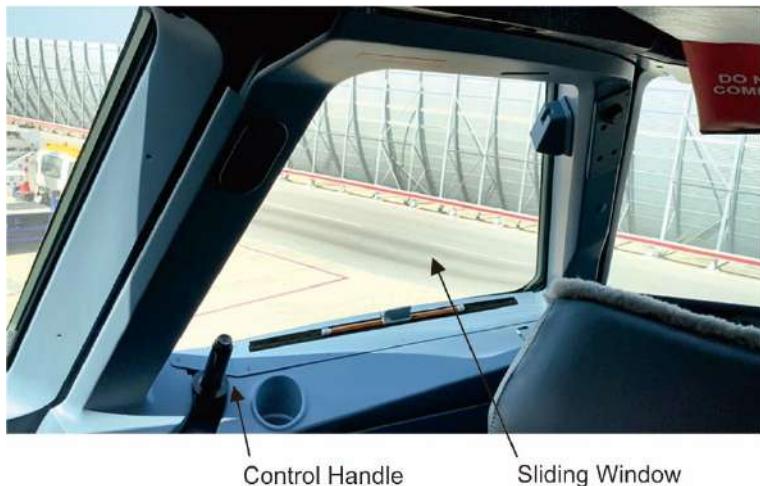
All doors are usable in all aircraft attitudes.

### 10.2.2.4 Flight Deck Exits

#### Opening of Sliding Windows

1. Depress the button on top of the control handle.
2. Rotate the handle rearwards.
3. Slide window rearwards using the hand-grip on the front of the sliding window until the lock engages.

**Note:** *These windows cannot be opened from outside.*



#### Escape Rope

1. A 5.7 M long rope is located in a stowage above each sliding window. It can support a load up to 181 KG.
2. Deploy the escape rope out of the window. Climb through the window and lower self down the rope. The rope is knotted to assist the descent.

## 10.2.3 Land Evacuation

### 10.2.3.1 Land Evacuation Duties – Flight Crew

#### 10.2.3.1.1 Captain

1. Take torch.
2. Ensure the flight deck is clear.
3. Proceed to the cabin and assist with the evacuation.
4. Evacuate.
5. Take command on the ground.

#### 10.2.3.1.2 First Officer

1. Take torch.
2. Ensure the flight deck is clear.
3. Proceed to the cabin and assist with the evacuation.
4. Evacuate.
5. Assist on the ground.

#### 10.2.3.1.3 Second Officer (if carried) or Supernumerary Crew

Perform duties as assigned by the Captain.

### 10.2.3.2 Land Evacuation Duties – Cabin Crew

#### 10.2.3.2.1 Type I Door Primary Duties

<b>Evacuation and motivation commands</b>	Immediately after the command "EVACUATE" has been repeated, order "SAW SARN", "SEAT BELTS OFF, HIGH HEELS OFF, COME THIS WAY". This is to enable the cabin crew to establish control over the passengers at the first opportunity.
<b>Evaluate outside</b>	If fire/smoke is evident, do not open the door. Redirect passengers to usable exits.
<b>Check mode "Armed"</b>	The mode selector is in the "down" position.
<b>Open door</b>	Lift the door operating handle fully up and release the handle when the power assist system starts to open the door.
<b>Check escape route safe</b>	Ensure proper slide deployment and that it is safe to exit, e.g. no fire or obstruction.
<b>Direct passengers</b>	Direct evacuation at the door. Stay clear of the passenger flow by stepping to one side and secure yourself by holding the assist handle. Monitor evacuation in respect of the sliding angle, the condition of the slide, congestion at the bottom of slide, spreading fire.

<b>Check area – evacuate</b>	Quickly walk around your area to look for injured, unconscious, incapacitated passengers or crew. Pay particular attention to the toilets and the space between seat rows.  On completion, evacuate.  After evacuation, assist and control passengers by gathering them together. Move passengers away from the aircraft as far as practicable. It may be necessary to render first aid and reassure passengers before help arrives. Passengers may wish to re-enter the aircraft for their belongings; they must be stopped.
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**Note 1:** *Door primaries are to reset the Evacuation Alert System (if applicable) before giving commands in an evacuation.*

**Note 2:** *In cases where a door primary is responsible for two exits, the priority is to open the nearest exit. If the situation requires, the door primary should then open the unstaffed exit for evacuation.*

**Note 3:** *The PBE should be used in a smoke filled environment.*

**Note 4:** *Should it be necessary to remove the ELT, the door primary at the door where the ELT is located is responsible for doing this.*

#### 10.2.3.2.2 Type C Door Primary Duties

<b>Evacuation and motivation commands</b>	Immediately after the command "EVACUATE" has been repeated, order "SAW SARN", "SEAT BELTS OFF, HIGH HEELS OFF, COME THIS WAY". This is to enable the cabin crew to establish control over the passengers at the first opportunity.
<b>Evaluate outside</b>	If fire/smoke is evident, do not open the door. Redirect passengers to usable exits.
<b>Check mode "Armed"</b>	The mode selector is in the "down" position.
<b>Open door</b>	Uncover the door operating handle, lift it fully up and release it when the power assist system starts to open the door.
<b>Check escape route safe</b>	Ensure proper slide deployment and that it is safe to exit, e.g. no fire or obstruction.
<b>Direct passengers</b>	Direct evacuation at the door. Stay clear of the passenger flow by stepping to one side and secure yourself by holding the assist handle.  Monitor evacuation in respect of the sliding angle, the condition of the slide, congestion at the bottom of slide, spreading fire.
<b>Check area – evacuate</b>	Quickly walk around your area to look for injured, unconscious, incapacitated passengers or crew. Pay particular attention to the toilets and the space between seat rows.  On completion, evacuate.  After evacuation, assist and control passengers by gathering them together. Move passengers away from the aircraft as far as practicable. It may be necessary to render first aid and reassure passengers before help arrives. Passengers may wish to re-enter the aircraft for their belongings; they must be stopped.

- Note 1:** *Door primaries are to reset the Evacuation Alert System (if applicable) before giving commands in an evacuation.*
- Note 2:** *In cases where a door primary is responsible for two exits, the priority is to open the nearest exit. If the situation requires, the door primary should then open the unstaffed exit for evacuation.*
- Note 3:** *The PBE should be used in a smoke filled environment.*
- Note 4:** *Should it be necessary to remove the ELT, the door primary at the door where the ELT is located is responsible for doing this.*

## 10.2.4 Ditching Evacuation

### 10.2.4.1 Ditching Evacuation Duties – Flight Crew

#### 10.2.4.1.1 Captain

1. Take own life jacket and torch.
2. Ensure the flight deck is clear.
3. Proceed to the cabin and assist with the evacuation.
4. Evacuate.
5. Take command in water.

#### 10.2.4.1.2 First Officer

1. Take own life jacket and torch.
2. Ensure the flight deck is clear.
3. Proceed to the cabin and assist with the evacuation.
4. Evacuate.
5. Assist in water.

#### 10.2.4.1.3 Second Officer (if carried) or Supernumerary Crew

Perform duties as assigned by the Captain.

### 10.2.4.2 Ditching Evacuation Duties – Cabin Crew

#### 10.2.4.2.1 Type I Door Primary Duties

<b>Evacuation and motivation commands</b>	Immediately after the command "EVACUATE" has been repeated, order "SAW SARN", "SEAT BELTS OFF, LIFE JACKETS ON, SHOES OFF, COME THIS WAY". This is to enable the cabin crew to establish control over the passengers at the first opportunity.
<b>Assess aircraft attitude</b>	It is important to ensure that the doorsill is above water level before door opening. Cabin crew should rapidly assess whether the door is usable by checking the water level through the door window and referring to the slope of the cabin floor. If the door is unusable, guard the door to prevent use by passengers.
<b>Check mode "Armed"</b>	The mode selector is in the "down" position.

<b>Open door</b>	Lift the door operating handle fully up and release the handle when the power assist system starts to open the door.
<b>Check escape route safe</b>	Ensure that it is safe to exit, e.g. no fire or obstruction.
<b>Direct passengers</b>	Direct evacuation at the door. Order "INFLATE LIFE JACKET, JUMP INTO WATER." Stay clear of the passenger flow by stepping to one side and secure yourself by holding the assist handle. Ensure passenger life jackets are inflated and all shoes are removed before jumping into the water and hold on to the handle of slide.
<b>Check area – evacuate</b>	Quickly walk around your area to look for injured, unconscious, incapacitated passengers or crew. Pay particular attention to the toilets and the space between seat rows. On completion, evacuate.

**Note 1:** *Door primaries are to reset the Evacuation Alert System (if applicable) before giving commands in an evacuation.*

**Note 2:** *In cases where a door primary is responsible for two exits, the priority is to open the nearest exit. If the situation requires, the door primary should then open the unstaffed exit for evacuation.*

**Note 3:** *The PBE should be used in a smoke filled environment.*

**Note 4:** *Should it be necessary to remove the ELT, the door primary at the door where the ELT is located is responsible for doing this.*

#### 10.2.4.2.2 Type C Door Primary Duties

<b>Evacuation and motivation commands</b>	Immediately after the command "EVACUATE" has been repeated, order "SAW SARN", "SEAT BELTS OFF, LIFE JACKETS ON, SHOES OFF, COME THIS WAY". This is to enable the cabin crew to establish control over the passengers at the first opportunity.
<b>Assess aircraft attitude</b>	It is important to ensure that the doorsill is above water level before door opening. Cabin crew should rapidly assess whether the door is usable by checking the water level through the door window and referring to the slope of the cabin floor. If the door is unusable, guard the door to prevent use by passengers.
<b>Change mode to "Disarmed"</b>	The mode selector is in the "up" position.
<b>Open door</b>	Uncover door operating handle, lift it fully up and push the door until it latches.
<b>Check escape route safe</b>	Ensure that it is safe to exit, e.g. no fire or obstruction.
<b>Direct passengers</b>	Direct evacuation at the door. Order "INFLATE LIFE JACKET, JUMP INTO WATER." Stay clear of the passenger flow by stepping to one side and secure yourself by holding the assist handle. Ensure passenger life jackets are inflated and all shoes are removed before jumping into the water.

<b>Check area – evacuate</b>	Quickly walk around your area to look for injured, unconscious, incapacitated passengers or crew. Pay particular attention to the toilets and the space between seat rows.  On completion, evacuate.
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**Note 1:** *Door primaries are to reset the Evacuation Alert System (if applicable) before giving commands in an evacuation.*

**Note 2:** *In cases where a door primary is responsible for two exits, the priority is to open the nearest exit. If the situation requires, the door primary should then open the unstaffed exit for evacuation.*

**Note 3:** *The PBE should be used in a smoke filled environment.*

**Note 4:** *Should it be necessary to remove the ELT, the door primary at the door where the ELT is located is responsible for doing this.*

## 10.2.5 Aircraft Emergency Oxygen Systems

### 10.2.5.1 Cabin

1. When the cabin altitude exceeds 14,000 FT, all cabin lights will come on bright, the “no smoking” and “seat belt” signs will illuminate with the corresponding chimes, and the oxygen masks will deploy automatically. Additionally, there will be an automatic P/A in English, Cantonese, Putonghua and Japanese.
2. A chemical oxygen generator provides oxygen to the masks. After deploying, the masks must be pulled down to start the chemical reaction to generate oxygen flow. The chemical reaction creates heat and therefore the smell of burning and smoke (where dust has gathered), along with a cabin temperature increase may be associated with the operation of the chemical oxygen generators.
3. The accumulator bag attached to the oxygen mask may not inflate even when oxygen is flowing to the mask.
4. Masks are provided in the oxygen modules above every passenger and cabin crew seat. There are two in each lavatory. A lanyard is fitted in the lavatory to enable the oxygen mask to be easily reached.
5. Spare masks are available at most of the passenger seats and at designated baby bassinet positions.
6. Once activated, oxygen flow from the chemical oxygen system cannot be stopped.
7. The chemical system supplies oxygen for 15 MIN.

**Note:** *The oxygen masks can also be manually deployed from the flight deck.*

### 10.2.5.2 Flight Deck

The oxygen system in the flight deck uses a gaseous system. A mask is available for each flight deck occupant. It is different to the type provided in the cabin. The mask does not deploy automatically and must be pulled out from its stowage.

## 10.2.6 Emergency Lighting System

### 10.2.6.1 General

The emergency lighting system provides emergency lighting to illuminate the cabin, aisles, cross aisles and exit signs. Control switch is in flight deck and Cabin FAP. Emergency lights on the slides are turned on when they are deployed.

Passenger Emergency Escape Path Lighting System (PEEPLS) is part of the emergency lighting system. In the event of a smoke filled cabin, the PEEPLS will guide passengers to the nearest exit.

The emergency lighting may be controlled either automatically or manually.

### 10.2.6.2 Duration

Approximately 12 MIN.

## 10.2.7 Evacuation Alert System

### 10.2.7.1 Operation

#### 10.2.7.1.1 “CAPT” Position

1. When the “EVAC ON” button in the flight deck is pressed, the following occurs in the cabin.

##### **On B-HTG/H/I:**

- A. There will be an alarm at all door stations.
- B. The “EVAC” indicators on FAP, AAP and EVAC Panels flash red.

##### **On B-HTK:**

- A. There will be an alarm at all door stations.
- B. The “EVAC RESET” button on FAP flashes red.
- C. The “EVAC” indicators on AAP and EVAC Panels flash red.

**Note:** *The “EVAC ON” button in the flight deck flashes red.*

2. When the “EVAC CMD” button on the FAP is pressed, the following occurs in the flight deck.
  - A. The “EVAC ON” button flashes red.
  - B. There will be a chime for approximately 3 SEC.
  - C. The Captain will order “ATTENTION, EVACUATE, EVACUATE” or “ATTENTION, CREW AT STATIONS. ATTENTION, CREW AT STATIONS”.

**Note:** *The “EVAC CMD” button on the FAP illuminates green.*

#### 10.2.7.1.2 Cancelling Outputs

By pressing the “RESET” or “EVAC RESET” button on FAP/AAP/EVAC Panel, the alarm at the respective station is silenced.

#### 10.2.7.1.3 Company Policy

The Company policy is to have the toggle switch in the “CAPT” position.

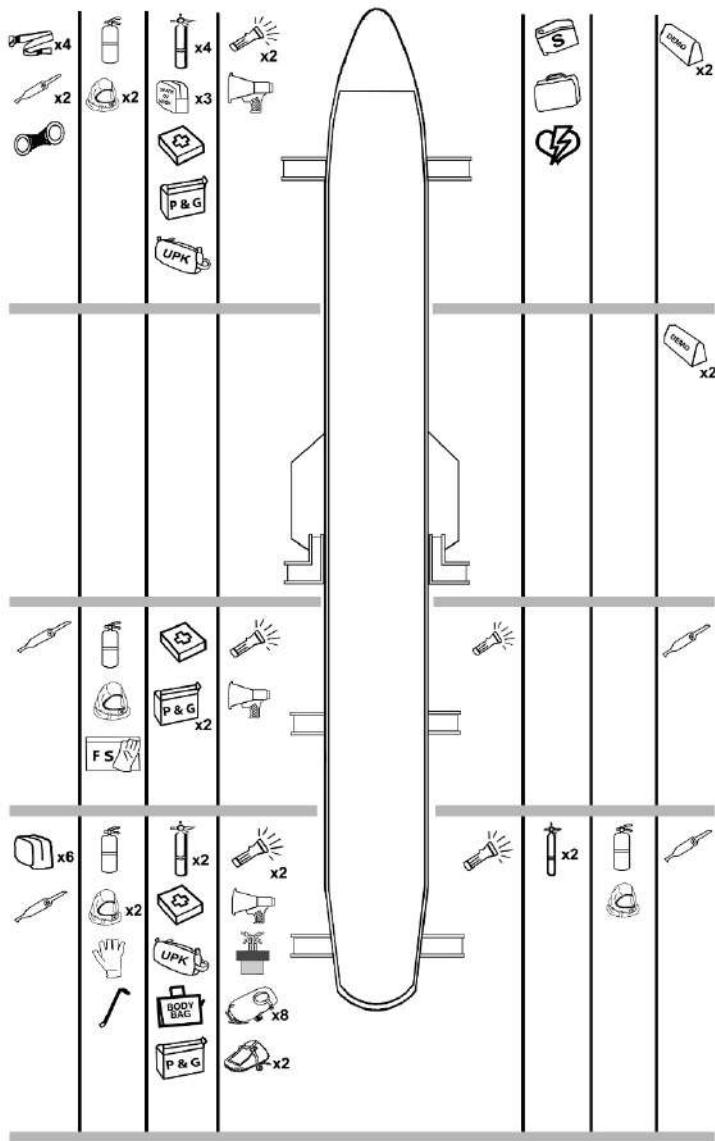
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## 10.3 A321neo

### 10.3.1 Emergency Equipment Locations

#### Evacuation & Ditching

	TORCH	(9)
	ELT	(1)
	CREW LIFE JACKET	*(11)
	SPARE 3-IN-1 LIFE JACKET	(8)
	BABY FLOATATION COT	(2)
	MEGAPHONE	(3)



#### First Aid

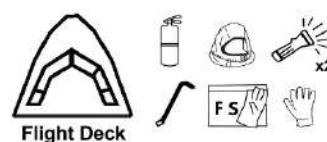
	PORTRABLE GASEOUS O2	(8)
	SPARE O2 MASK	(3)
	FIRST AID KIT	(3)
	AUTOMATED EXTERNAL DEFIBRILLATOR	(1)
	INFLIGHT MEDICAL KIT	(1)
	SPLINT PACK	(1)
	POCKET MASK AND GLOVES KIT	(4)
	UNIVERSAL PRECAUTION KIT	(2)
	BODY BAG	(1)

#### Miscellaneous

	SUPPLEMENTARY LOOP BELT/ EXTENSION-DEACTIVATION SEAT BELT	(6)
	JCL SUPPLEMENTARY LOOP BELT/ EXTENSION SEAT BELT	(4)
	DEMONSTRATION KIT	(4)
	MANUAL RELEASE TOOL	(6)
	RESTRAINT KIT	(1)

\* There are a total of 11 Crew Life Jackets, 1 per cabin crew seat and 1 per flight deck seat.

\*\* On B-HPB, the Crow Bar is replaced by Fire Axe in the flight deck.



1. Torch (9)

**Flight deck:** Adjacent to Captain's seat (1)  
Adjacent to First Officer's seat (1)

**L1, L1A, L3, R3, L4, L4A, Space Flex Seat:** Crew seat compartment (1 each)

2. ELT (1)

**L4:** Overhead compartment forward of door (1)

3. Spare 3-in-1 Life Jacket (8)

**L4:** Overhead compartment forward of door (8)

4. Baby Floatation Cot (2)

**L4:** Overhead compartment forward of door (2)

5. Megaphone (3)

**L1:** Door frame forward of door (1)

**L3:** Overhead compartment above door (1)

**L4:** Overhead compartment forward of door (1)

6. HAFEX (5)

**Flight deck:** Aft of First Officer's seat (1)

**L1A, L3, L4, Space Flex Seat:** Crew seat compartment (1 each)

7. PBE (7)

**Flight deck:** Right hand aft side stowage (1)

**L1, L1A, L4, L4A, Space Flex Seat:** Headrest compartment (1 each)

**L3:** Overhead compartment above door (1)

8. Protective Gloves (2 pairs)

**Flight deck:** Right hand aft wall (1 pair)

**L4:** Crew seat compartment (1 pair)

9. Crow Bar

- (2) (except B-HPB)
- (1) (B-HPB)

**Flight deck:** (except B-HPB) Right hand aft wall (1)

**L4:** Crew seat compartment (1)

10. Fire Axe (1) (B-HPB only)

**Flight deck:** Right hand aft wall (1)

11. FireSock Kit (2)

**Flight deck:** Closet (1)

**L3:** Overhead compartment above door (1)

12. Portable Gaseous O<sub>2</sub> (8)

**L1:** Compartment aft of door (4)

**L4:** Doghouse forward of door (2)

**R4:** Doghouse forward of door (2)

13. Spare O<sub>2</sub> Mask (3)

**L1:** Compartment aft of door (3)

14. First Aid Kit (3)

**L1:** Compartment aft of door (1)

**L3:** Overhead compartment above door (1)

**L4:** Overhead compartment forward of door (1)

15. Automated External Defibrillator (1)

**R1:** Stowage compartment aft of door (1)

16. Inflight Medical Kit (1)

**R1:** Stowage compartment aft of door (1)

17. Splint Pack (1)

**R1:** Stowage compartment aft of door (1)

18. Pocket Mask and Gloves Kit (4)

**L1:** Crew seat compartment (1)

**L3:** Overhead compartment above door (2)

**L4:** Crew seat compartment (1)

19. Universal Precaution Kit (2)

**L1:** Compartment aft of door (1)

**L4:** Overhead compartment forward of door (1)

20. Body Bag (1)

**L4:** Overhead compartment forward of door (1)

21. Supplementary Loop Belt/Extension-Deactivation Seat Belt (6)  
**L4:** Overhead compartment forward of door (6)
22. JCL Supplementary Loop Belt/Extension Seat Belt (4)  
**L1:** Compartment aft of door (4)
23. Demonstration Kit (4)  
**R1:** Stowage compartment aft of door (1 standard + 1 JCL)  
**35HJK:** Overhead compartment (2)
24. Manual Release Tool (6)  
**L1, L1A, L3, R3, L4, Space Flex Seat:** Crew seat compartment (1 each)
25. Restraint Kit (1)  
**L1:** Crew seat compartment (1)

## 10.3.2 Cabin Doors and Escape Systems

### 10.3.2.1 Oversized Type I Door

#### 10.3.2.1.1 General

Fitted with single channel slide. Primary exit for land and ditching evacuations.

**Note:** The term “oversized” is used for aircraft certification.

Each door has an observation window. Close to the window, there are two lights.

1. The slide armed indicator light illuminates white when the door is “Armed” and the door operating handle is moved up.
2. The cabin pressure warning light flashes red if there is residual cabin pressure above 0.0362 PSI when engines are shut down and the door is disarmed.
3. The warning lights are visible from both inside and outside of the aircraft.

#### 10.3.2.1.2 Pre-flight Emergency Equipment Check

Ensure the mode selector is in the “Disarmed” position with the safety pin inserted and the red streamer visible.

#### 10.3.2.1.3 Arming and Disarming

##### Arming

1. Check the door locking indicator shows “LOCKED” (green).
2. Remove and stow the safety pin (in the hole behind the gust lock release).
3. Move the mode selector to the “Armed” position.
4. Secure the red streamer across the door operating handle.

5. Check the red arrow on the girt bar floor visual indication points to the dot.

### **Disarming**

1. Move the mode selector to the "Disarmed" position.
2. Insert the safety pin (to lock the mode selector in place) and ensure the red streamer is visible.
3. Check the red arrow on the girt bar floor visual indication does not point to the dot.

#### **10.3.2.1.4 Emergency Door Operation**

With the mode selector in the "Armed" position, the door is armed. When the door operating handle is lifted, a power assist system is triggered and the door is power driven to the fully open position. Slide will deploy automatically. Full inflation will take approximately 3 SEC.

**Note:** *Caution is to be exercised by the operator of the door. Once the power assist takes over the opening of the door, the operator is to release the door operating handle.*

### **Operation (Land)**

1. Evaluate outside.
2. Check the mode selector is in the "Armed" position, i.e. in the down position.
3. Lift the door operating handle fully to open the door.
4. Check the escape route is safe.

### **Alternate Actions**

1. If the Door Power Assist System fails, using a steady force, push the door fully open until it latches. Strength will be required to push open the door fully and pull the slide out from the door bustle. Call for assistance from passengers if necessary.
2. If the slide fails to inflate automatically, pull the Red Manual Inflation Handle at the right hand side of the girt bar.
3. If the slide cannot be inflated or is unusable, guard the door and redirect passengers to usable exits.

### **Operation (Ditch)**

1. Assess the aircraft attitude.
2. Check the mode selector is in the "Armed" position, i.e. in the down position.
3. Lift the door operating handle fully to open the door.
4. Check the escape route is safe.
5. Release the slide from the aircraft by pulling the white girt release handle which is located under the girt cover. The slide still connects to the aircraft by means of a mooring line. Evacuate passengers into the water and use the slide as a floatation device. The mooring line should be cut (cast off) by the use of the hook knife after everyone has left the aircraft.

### Alternate Actions

1. If the Door Power Assist System fails, using a steady force, push the door fully open until it latches. Strength will be required to push open the door fully and pull the slide out from the door bustle. Call for assistance from passengers if necessary.
2. If the slide fails to inflate automatically, pull the Red Manual Inflation Handle at the right hand side of the girt bar.
3. If the slide cannot be inflated but the escape route is safe, direct passengers to inflate life jacket and jump into the water.

## 10.3.2.2 Type C Door

### 10.3.2.2.1 General

Fitted with single channel slide. Primary exit for land and ditching evacuations.

Each door has an observation window. Close to the window, there are two lights.

1. The slide armed indicator light illuminates white when the door is "Armed" and the door operating handle is moved up.
2. The cabin pressure warning light flashes red if there is residual cabin pressure above 0.0362 PSI when engines are shut down and the door is disarmed.
3. The warning lights are visible from both inside and outside of the aircraft.

### 10.3.2.2.2 Pre-flight Emergency Equipment Check

Ensure the mode selector is in the "Disarmed" position with the safety pin inserted and the red streamer visible.

### 10.3.2.2.3 Arming and Disarming

#### Arming

1. Check the door locking indicator shows "LOCKED" (green).
2. Remove and stow the safety pin and red streamer (in the designated pouch in the crew seat compartment).
3. Move the mode selector to the "Armed" position.

#### Disarming

1. Move the mode selector to the "Disarmed" position.
2. Insert the safety pin and ensure the red streamer is visible.

### 10.3.2.2.4 Emergency Door Operation

With the mode selector in the "Armed" position, the door is armed. When the door operating handle is lifted, a power assist system is triggered and the door is power driven to the fully open position. Slide will deploy automatically. Full inflation will take approximately 3 SEC.

**Note:** *Caution is to be exercised by the operator of the door. Once the power assist takes over the opening of the door, the operator is to release the door operating handle.*

#### Operation (Land)

1. Evaluate outside.

2. Check the mode selector is in the "Armed" position, i.e. in the down position.
3. Lift the door operating handle fully to open the door (remove the safety cover to access the handle).
4. Check the escape route is safe.

### Alternate Actions

1. If the Door Power Assist System fails, using a steady force, push the door fully open until it latches. Strength will be required to push open the door fully. Call for assistance from passengers if necessary.
2. If the slide fails to inflate automatically, pull the Red Manual Inflation Handle, which is located at the upper right hand side of the exit frame and is protected by a cover.



3. If the slide cannot be inflated or is unusable, guard the door and redirect passengers to usable exits.

### Operation (Ditch)

The slide cannot be released and cast-off.

1. Assess aircraft attitude.
2. Change the mode selector to the "Disarmed" position, i.e. in the up position.
3. Lift the door operating handle fully to open the door (remove the safety cover to access the handle).
4. Check the escape route is safe.

## 10.3.2.3 Type III Exit

### 10.3.2.3.1 General

Fitted with double channel overwing slide. Primary exit for land and ditching evacuations.

There are two overwing emergency exits, one at each side of the aircraft adjacent to row 35. Each overwing emergency exit has an associated evacuation slide stowed in the wing/fuselage. Each emergency exit comprises of an emergency pull handle for opening, and a handle cover which can be opened manually. These exits are self-helping exits. Opening instructions are fixed on the exit upper section and on the seat back of passenger seats on the emergency exit row. It is also available in the safety card stored in the passenger seat pocket.

There is a slide armed indicator light installed aft of the overwing exit. It illuminates when the handle cover is removed.

Silver-coloured double channel overwing slides are installed in the wing/fuselage fairing, aft of the overwing exits. They facilitate evacuation from the upper surface of the wing. The slides include a ramp section to provide positive entry guidance for the evacuees. The overwing slides are canted away from the slides of doors 3 to provide clearance from each other.



#### 10.3.2.3.2 Operation

Remove and discard the handle cover. Pull the emergency pull handle fully down and release. The hatch opens outward and upward and remains attached to the exit frame in an upward position.

When the overwing exit is opened, the overwing slide on that side will inflate automatically. Full inflation will take approximately 4 SEC. Opening the overwing exit from outside will have the same effect.

##### Operation (Land)

1. Evaluate outside.
2. Open the hatch.
3. Check the escape route is safe.

##### Alternate Actions

1. If inflation is not initiated automatically, pull the Red Manual Inflation Handle found on the aft side of the exit frame.



2. If the slide cannot be inflated or is unusable, guard the exit and redirect passengers to usable exits.

### **Operation (Ditch)**

1. Assess the aircraft attitude.
2. Open the hatch.
3. Check the escape route is safe.

If there is an attempt to remove the handle cover of the overwing emergency exit in the case when at least one engine is running, the following indications will occur in the cabin:

1. Hi/Hi/Hi/Lo chime is distributed via all cabin loudspeakers.
2. Red indicator light of all AIPs will flash, displaying the location of the affected exit, i.e. EXIT FWD L GUARD or EXIT FWD R GUARD.
3. Red light flashes on all ACPs on the respective side of the cabin.
4. CAUTION light illuminates on FAP.
5. Affected exit is shown as yellow on the DOORS/SLIDES page on FAP; the message CHECK SAFE GUARD is displayed on the side of the affected exit.

### **Overwing Exit Briefing**

The overwing exits rows should only be allocated to passengers who appear capable of operating and/or assisting with the operation of the exits. A pre-take off safety briefing must be given to passengers who occupy window seats at overwing exit row. They must be made aware before take-off that they are occupying overwing exit row and in case of emergency, under crew member's instruction, they are required to open the exit. They shall also be advised to refer to the opening instruction which is available on safety card, placarded on the hatch and at the seat back of the overwing exit row. Passengers who appear not to understand the briefing and/or attempt to open the exit should be reseated to other seats.

Should an overwing exit row be vacant, cabin crew will look for an able bodied person (ABP) to cover that particular overwing exit from an extended area of 3 rows forward or aft of the affected overwing exit row.

The ABP(s) can be at any seat within the extended area. Cabin crew will check that they are willing to accept the responsibility of opening the overwing exit in case of emergency evacuation. If they agree to do so, the ABP(s) will be briefed accordingly by using the safety card. In addition to the briefing, they must be made aware of which overwing exit they are responsible for. They are welcome to reseat to the overwing exit rows if they want to. Despite the effort cabin crew make to look for capable persons to take care of the overwing exit, there will be cases where no/insufficient ABP(s) can be found, or the ABP(s) are reluctant to take up the task in the vicinity. This is acceptable.

The overwing exit row can be empty in normal circumstances, however, in case of emergency, cabin crew should move capable passengers to occupy the window seat of the empty overwing exit row and brief them accordingly.

#### 10.3.2.4 Unusual Aircraft Attitudes

All doors/exits are usable in all aircraft attitudes.

#### 10.3.2.5 Flight Deck Exits

##### Opening of Sliding Windows

1. Depress the button on top of the control handle.
2. Rotate the handle rearwards.
3. Slide window rearwards using the hand-grip on the front of the sliding window until the lock engages.

**Note:** *These windows cannot be opened from outside.*



##### Escape Rope

1. A 5.5 M long rope is located in a stowage above each sliding window. It can support a load up to 181 KG.
2. Deploy the escape rope out of the window. Climb through the window and lower self down the rope. The rope is knotted to assist the descent.

#### 10.3.3 Land Evacuation

##### 10.3.3.1 Land Evacuation Duties – Flight Crew

###### 10.3.3.1.1 Captain

1. Take torch.

2. Ensure the flight deck is clear.
3. Proceed to the cabin and assist with the evacuation.
4. Evacuate.
5. Take command on the ground.

#### 10.3.3.1.2 First Officer

1. Take torch.
2. Ensure the flight deck is clear.
3. Proceed to the cabin and assist with the evacuation.
4. Evacuate.
5. Assist on the ground.

#### 10.3.3.1.3 Second Officer (if carried) or Supernumerary Crew

Perform duties as assigned by the Captain.

### 10.3.3.2 Land Evacuation Duties – Cabin Crew

#### 10.3.3.2.1 Oversized Type I Door Primary Duties

<b>Evacuation and motivation commands</b>	Immediately after the command "EVACUATE" has been repeated, order "SAW SARN", "SEAT BELTS OFF, HIGH HEELS OFF, COME THIS WAY". This is to enable the cabin crew to establish control over the passengers at the first opportunity.
<b>Evaluate outside</b>	If fire/smoke is evident, do not open the door. Redirect passengers to usable exits.
<b>Check mode "Armed"</b>	The mode selector is in the "down" position.
<b>Open door</b>	Lift the door operating handle fully up and release the handle when the power assist system starts to open the door.
<b>Check escape route safe</b>	Ensure proper slide deployment and that it is safe to exit, e.g. no fire or obstruction.
<b>Direct passengers</b>	Direct evacuation at the door. Stay clear of the passenger flow by stepping to one side and secure yourself by holding the assist handle. Monitor evacuation in respect of the sliding angle, the condition of the slide, congestion at the bottom of slide, spreading fire.

<b>Check area – evacuate</b>	Quickly walk around your area to look for injured, unconscious, incapacitated passengers or crew. Pay particular attention to the toilets and the space between seat rows.  On completion, evacuate.  After evacuation, assist and control passengers by gathering them together. Move passengers away from the aircraft as far as practicable. It may be necessary to render first aid and reassure passengers before help arrives. Passengers may wish to re-enter the aircraft for their belongings; they must be stopped.
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**Note 1:** *Door primaries are to reset the Evacuation Alert System (if applicable) before giving commands in an evacuation.*

**Note 2:** *In cases where a door primary is responsible for two exits, the priority is to open the nearest exit. If the situation requires, the door primary should then open the unstaffed exit for evacuation.*

**Note 3:** *The PBE should be used in a smoke filled environment.*

**Note 4:** *Should it be necessary to remove the ELT, the door primary at the door where the ELT is located is responsible for doing this.*

#### 10.3.3.2.2 Type C Door Primary Duties

<b>Evacuation and motivation commands</b>	Immediately after the command "EVACUATE" has been repeated, order "SAW SARN", "SEAT BELTS OFF, HIGH HEELS OFF, COME THIS WAY". This is to enable the cabin crew to establish control over the passengers at the first opportunity.
<b>Evaluate outside</b>	If fire/smoke is evident, do not open the door. Redirect passengers to usable exits.
<b>Check mode "Armed"</b>	The mode selector is in the "down" position.
<b>Open door</b>	Uncover the door operating handle, lift it fully up and release it when the power assist system starts to open the door.
<b>Check escape route safe</b>	Ensure proper slide deployment and that it is safe to exit, e.g. no fire or obstruction.
<b>Direct passengers</b>	Direct evacuation at the door. Stay clear of the passenger flow by stepping to one side and secure yourself by holding the assist handle.  Monitor evacuation in respect of the sliding angle, the condition of the slide, congestion at the bottom of slide, spreading fire.
<b>Check area – evacuate</b>	Quickly walk around your area to look for injured, unconscious, incapacitated passengers or crew. Pay particular attention to the toilets and the space between seat rows.  On completion, evacuate.  After evacuation, assist and control passengers by gathering them together. Move passengers away from the aircraft as far as practicable. It may be necessary to render first aid and reassure passengers before help arrives. Passengers may wish to re-enter the aircraft for their belongings; they must be stopped.

**Note 1:** Door primaries are to reset the Evacuation Alert System (if applicable) before giving commands in an evacuation.

**Note 2:** In cases where a door primary is responsible for two exits, the priority is to open the nearest exit. If situation requires, the door primary should then open the unstaffed exit for evacuation.

**Note 3:** The PBE should be used in a smoke filled environment.

**Note 4:** Should it be necessary to remove the ELT, the door primary at the door where the ELT is located is responsible for doing this.

## 10.3.4 Ditching Evacuation

### 10.3.4.1 Ditching Evacuation Duties – Flight Crew

#### 10.3.4.1.1 Captain

1. Take own life jacket and torch.
2. Ensure the flight deck is clear.
3. Proceed to the cabin and assist with the evacuation.
4. Evacuate.
5. Take command in water.

#### 10.3.4.1.2 First Officer

1. Take own life jacket and torch.
2. Ensure the flight deck is clear.
3. Proceed to the cabin and assist with the evacuation.
4. Evacuate.
5. Assist in water.

#### 10.3.4.1.3 Second Officer (if carried) or Supernumerary Crew

Perform duties as assigned by the Captain.

### 10.3.4.2 Ditching Evacuation Duties – Cabin Crew

#### 10.3.4.2.1 Oversized Type I Door Primary Duties

<b>Evacuation and motivation commands</b>	Immediately after the command "EVACUATE" has been repeated, order "SAW SARN", "SEAT BELTS OFF, LIFE JACKETS ON, SHOES OFF, COME THIS WAY". This is to enable the cabin crew to establish control over the passengers at the first opportunity.
<b>Assess aircraft attitude</b>	It is important to ensure that the doorsill is above water level before door opening. Cabin crew should rapidly assess whether the door is usable by checking the water level through the door window and referring to the slope of the cabin floor. If the door is unusable, guard the door to prevent use by passengers.

<b>Check mode “Armed”</b>	The mode selector is in the “down” position.
<b>Open door</b>	Lift the door operating handle fully up and release the handle when the power assist system starts to open the door.
<b>Check escape route safe</b>	Ensure that it is safe to exit, e.g. no fire or obstruction.
<b>Direct passengers</b>	<p>Direct evacuation at the door. Order “INFLATE LIFE JACKET, JUMP INTO WATER.” Stay clear of the passenger flow by stepping to one side and secure yourself by holding the assist handle.</p> <p>Ensure passenger life jackets are inflated and all shoes are removed before jumping into the water and hold on to the handle of slide.</p>
<b>Check area – evacuate</b>	<p>Quickly walk around your area to look for injured, unconscious, incapacitated passengers or crew. Pay particular attention to the toilets and the space between seat rows.</p> <p>On completion, evacuate.</p>

**Note 1:** *Door primaries are to reset the Evacuation Alert System (if applicable) before giving commands in an evacuation.*

**Note 2:** *In cases where a door primary is responsible for two exits, the priority is to open the nearest exit. If the situation requires, the door primary should then open the unstaffed exit for evacuation.*

**Note 3:** *The PBE should be used in a smoke filled environment.*

**Note 4:** *Should it be necessary to remove the ELT, the door primary at the door where the ELT is located is responsible for doing this.*

#### 10.3.4.2.2 Type C Door Primary Duties

<b>Evacuation and motivation commands</b>	Immediately after the command “EVACUATE” has been repeated, order “SAW SARN”, “SEAT BELTS OFF, LIFE JACKETS ON, SHOES OFF, COME THIS WAY”. This is to enable the cabin crew to establish control over the passengers at the first opportunity.
<b>Assess aircraft attitude</b>	It is important to ensure that the doorsill is above water level before door opening. Cabin crew should rapidly assess whether the door is usable by checking the water level through the door window and referring to the slope of the cabin floor. If the door is unusable, guard the door to prevent use by passengers.
<b>Change mode to “Disarmed”</b>	The mode selector is in the “up” position.
<b>Open door</b>	Uncover door operating handle, lift it fully up and push the door until it latches.
<b>Check escape route safe</b>	Ensure that it is safe to exit, e.g. no fire or obstruction.
<b>Direct passengers</b>	<p>Direct evacuation at the door. Order “INFLATE LIFE JACKET, JUMP INTO WATER.” Stay clear of the passenger flow by stepping to one side and secure yourself by holding the assist handle.</p> <p>Ensure passenger life jackets are inflated and all shoes are removed before jumping into the water.</p>

<b>Check area – evacuate</b>	Quickly walk around your area to look for injured, unconscious, incapacitated passengers or crew. Pay particular attention to the toilets and the space between seat rows.  On completion, evacuate.
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**Note 1:** *Door primaries are to reset the Evacuation Alert System (if applicable) before giving commands in an evacuation.*

**Note 2:** *In cases where a door primary is responsible for two exits, the priority is to open the nearest exit. If the situation requires, the door primary should then open the unstaffed exit for evacuation.*

**Note 3:** *The PBE should be used in a smoke filled environment.*

**Note 4:** *Should it be necessary to remove the ELT, the door primary at the door where the ELT is located is responsible for doing this.*

## 10.3.5 Aircraft Emergency Oxygen Systems

### 10.3.5.1 Cabin

1. When the cabin altitude exceeds 14,000 FT, all cabin lights will come on bright, the “no smoking” and “seat belt” signs will illuminate with the corresponding chimes, and the oxygen masks will deploy automatically. Additionally, there will be an automatic P/A in English, Cantonese, Putonghua and Japanese.
2. A chemical oxygen generator provides oxygen to the masks. After deploying, the masks must be pulled down to start the chemical reaction to generate oxygen flow. The chemical reaction creates heat and therefore the smell of burning and smoke (where dust has gathered), along with a cabin temperature increase may be associated with the operation of the chemical oxygen generators.
3. The accumulator bag attached to the oxygen mask may not inflate even when oxygen is flowing to the mask.
4. Masks are provided in the oxygen modules above every passenger and cabin crew seat. There are two in each lavatory. A lanyard is fitted in the lavatory to enable the oxygen mask to be easily reached.
5. Spare masks are available at most of the passenger seats.
6. Once activated, oxygen flow from the chemical oxygen system cannot be stopped.
7. The chemical system supplies oxygen for 15 MIN.

**Note:** *The oxygen masks can also be manually deployed from the flight deck.*

### 10.3.5.2 Flight Deck

The oxygen system in the flight deck uses a gaseous system. A mask is available for each flight deck occupant. It is different to the type provided in the cabin. The mask does not deploy automatically and must be pulled out from its stowage.

## 10.3.6 Emergency Lighting System

### 10.3.6.1 General

The emergency lighting system provides emergency lighting to illuminate the cabin, aisles, cross aisles and exit signs. Control switch is in flight deck and Cabin FAP. Emergency lights on the slides are turned on when they are deployed.

Passenger Emergency Escape Path Lighting System (PEEPLS) is part of the emergency lighting system. In the event of a smoke filled cabin, the PEEPLS will guide passengers to the nearest exit.

The emergency lighting may be controlled either automatically or manually.

### 10.3.6.2 Duration

Approximately 12 MIN.

### 10.3.7 Evacuation Alert System

#### 10.3.7.1 Operation

##### 10.3.7.1.1 “CAPT” Position

1. When the “EVAC ON” button in the flight deck is pressed, the following occurs in the cabin.
  - A. There will be an alarm at all door stations.
  - B. “EVAC RESET” on FAP flashes red.
  - C. The “EVAC” indicators on AAP and EVAC Panel flash red.
  - D. The text “EVACUATION ALERT” appears on all AIPs with the red light flashing.

**Note:** *The “EVAC ON” button in the flight deck flashes red.*

2. When the “EVAC CMD” button on the FAP is pressed, the following occurs in the flight deck.
  - A. The “EVAC ON” button flashes red.
  - B. There will be a chime for approximately 3 SEC.
  - C. The Captain will order “ATTENTION, EVACUATE, EVACUATE” or “ATTENTION, CREW AT STATIONS. ATTENTION, CREW AT STATIONS”.

**Note:** *The “EVAC CMD” button on the FAP illuminates green.*

##### 10.3.7.1.2 Cancelling Outputs

By pressing the “RESET” or “EVAC RESET” button on FAP/AAP/EVAC Panel, the alarm at the respective station is silenced.

##### 10.3.7.1.3 Company Policy

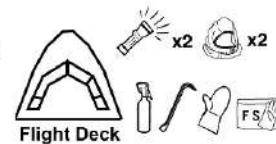
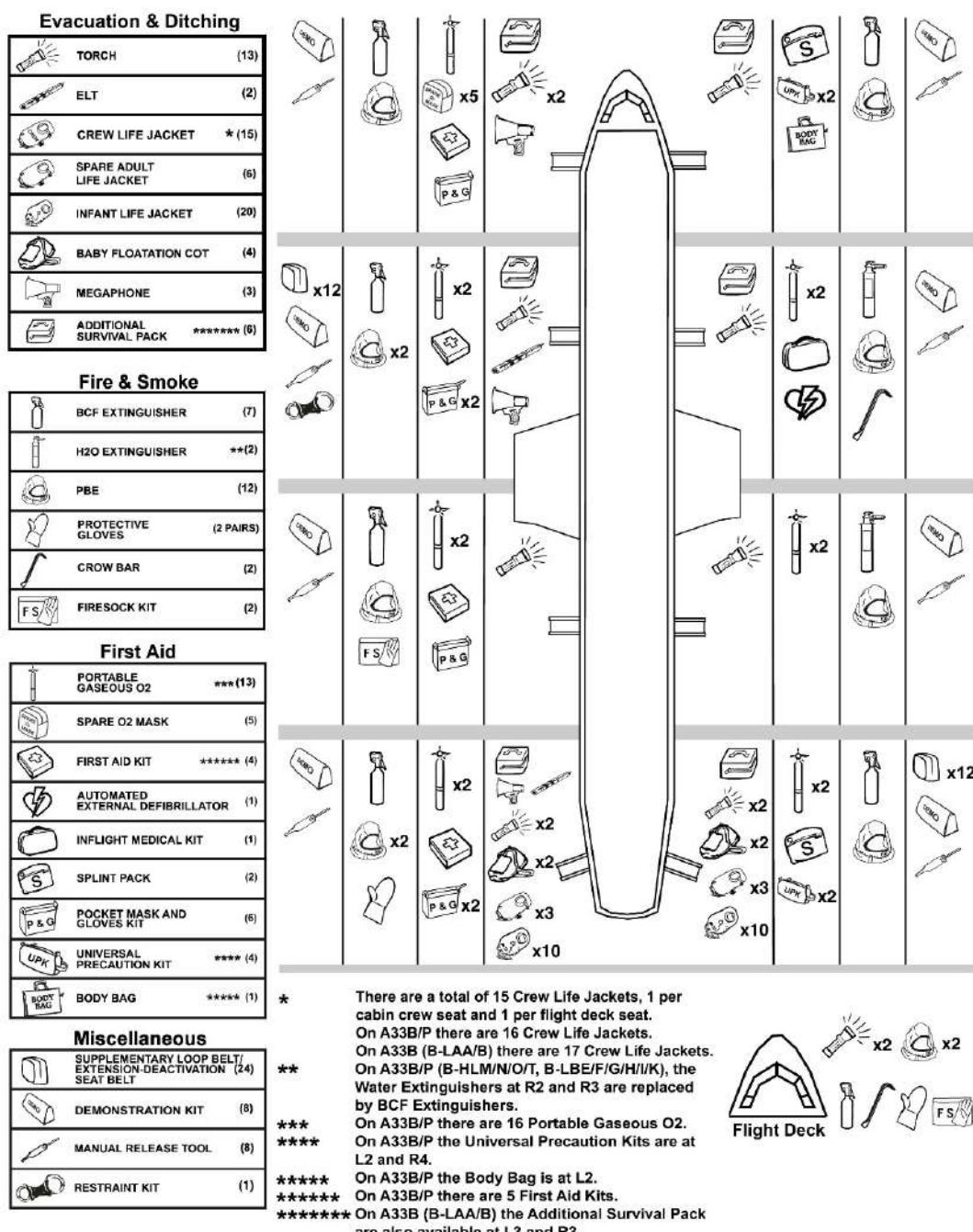
The Company policy is to have the toggle switch in the “CAPT” position.

## 10.4 A330

### 10.4.1 Emergency Equipment Locations

(The emergency equipment location diagram is based on A33E/K/J. Refer to notes for A33P and A33B differences)

A33E	B-HLP/R/W, B-LAJ/M/N/O/R/X/Z & B-LBA/B/C
A33K	B-HLQ/S, B-LAF
A33J	B-LAD/E/K/L/P/Q & B-LBJ
A33P	B-HLM/N/O/T/U/V & B-LBE/F/G/H/I/K
A33B	B-LAA/B, B-LBD & B-HWM



1. Torch (13)

**Flight deck:** Next to Captain and First Officer's seat (1 each)

**A33E/K/J:**

**L1, L1A, R1, L2, R2, L3, R3,** Crew seat compartment (1 each)  
**L4, L4A, R4, R4A:**

**A33P/B:**

**L1, L1A2, R1, L2, R2, L3, R3,** Crew seat compartment (1 each)  
**L4, L4A, R4, R4A:**

2. ELT (2)

**L2:**

A33E/K/J:  
Compartment forward of door (1)  
A33P (B-HLU/V):  
Doghouse forward of door (1)  
A33P (B-HLM/N/O/T & B-LBE/F/G/H/I/K) & A33B:  
Overhead compartment forward of door (1)

**L4:**

A33E/K/J & A33P (B-HLU/V):  
Aft stowage compartment (1)  
A33P (B-HLM/N/O/T & B-LBE/F/G/H/I/K) & A33B:  
Overhead compartment forward of door (1)

3. Spare Adult Life Jacket (6)

**L4, R4:** Centre overhead compartment (3 each)

4. Infant Life Jacket (20)

**L4, R4:** Centre overhead compartment (10 each)

5. Baby Floatation Cot (4)

**L4, R4:** Centre overhead compartment (2 each)

6. Megaphone (3)

**L1:** Next to L1 crew seat (1)

**L2:** Compartment forward of door (1)

**L4:** Aft stowage compartment (1)

7. Additional Survival Pack

A33E/K/J/P & A33B (B-LBD & B-HWM) (6)

**L1, R1, L2, R2:** Overhead compartment aft of door (1 each)

**L4, R4:** Aft stowage compartment (1 each)

A33B (B-LAA/B) (8)

**L1, R1, L2, R2:** Overhead compartment aft of door (1 each)

**L3, R3:** Overhead compartment forward of door (1 each)

**L4, R4:** Aft stowage compartment (1 each)

8. BCF Extinguisher  
(A33E/K/J) (7)

**Flight deck:** Behind Captain's seat (1)  
**L1A, R1, L2, L3,** Crew seat compartment (1 each)  
**L4, R4:**

(A33P (B-HLU/V)) (7)

**Flight deck:** Behind Captain's seat (1)  
**L1A:** Crew seat compartment (1)  
**R1:** Forward stowage compartment (1)  
**L2:** Compartment forward of door (1)  
**L3:** Cabinet next to crew seat (1)  
**L4:** Aft stowage compartment (1)  
**R4:** Aft stowage compartment (1)

(A33P (B-HLM/N/O/T & B-LBE/F/G/H/I/K) & A33B) (9)

**Flight deck:** Behind Captain's seat (1)  
**L1A:** Crew seat compartment (1)  
**R1:** Forward stowage compartment (1)  
**L2:** A33P (B-HLM/N/O/T & B-LBE/F/G/H/I/K) & A33B:  
Compartment forward of door (1)  
**R2:** A33P (B-HLM/N/O/T & B-LBE/F/G/H/I/K) & A33B (B-LBD):  
Compartment forward of door (1)  
A33B (B-HWM & B-LAA/B):  
Crew seat compartment (1)  
**L3, R3:** A33P (B-HLM/N/O/T & B-LBE/F/G/H/I/K) &  
A33B (B-LBD & B-HWM):  
Cabinet next to crew seat (1)  
A33B (B-LAA/B):  
Crew seat compartment (1)  
**L4, R4:** Aft stowage compartment (1 each)

9. H<sub>2</sub>O Extinguisher (2)  
(A33E/K/J & A33P (B-HLU/V) only)

**R2:** Compartment forward of door (1)  
**R3:** Cabinet next to crew seat (1)

10. PBE (12)

**Flight deck:** Behind Captain's seat (1)  
Closet (1)  
**L1:** Compartment aft of door (1)  
**R1:** Forward stowage compartment (1)  
**L2:** A33E/K/J:  
Compartment forward of door (2)

- A33P:  
Compartment forward of door (1)  
Forward face of centre closet (1)
- A33B:  
Forward face of compartment forward of door (1)  
Forward face of centre closet (1)
- R2:** A33E/K/J:  
Compartment forward of door (1)
- A33P/B:  
Forward face of compartment forward of door (1)
- L3, R3:** A33E/K/J/P & A33B (B-LBD & B-HWM):  
Cabinet next to crew seat (1 each)
- A33B (B-LAA/B only):  
Forward face of doghouse forward of door (1 each)
- L4:** A33E/K/J/P & A33B (B-LBD & B-HWM):  
Aft stowage compartment (1)  
Behind inboard last row passenger seats (1)
- A33B (B-LAA/B):  
Aft stowage compartment (1)  
Centre doghouse (1)
- R4:** Aft stowage compartment (1)
11. Protective Gloves (2 pairs)
- Flight deck:** Behind Captain's seat (1 pair)
- L4:** Aft stowage compartment (1 pair)
12. Crow Bar (2)
- Flight deck:** Closet (1)
- R2:** A33E/K:  
Centre compartment aft of door (1)
- A33J:  
Compartment aft of door (1)
- A33P/B:  
Closet forward of door (1)
13. FireSock Kit (2)
- Flight deck:** Closet (1)
- L3:** A33E/K/J:  
Centre doghouse (1)
- A33P & A33B (B-LBD & B-HWM):  
Cabinet next to crew seat (1)
- A33B (B-LAA/B):  
Centre doghouse (1)
14. A33E/K/J:  
Portable Gaseous O<sub>2</sub> (13)
- L1:** Forward stowage compartment (1)
- L2, R2:** Compartment forward of door (2 each)
- L3, R3:** Cabinet next to crew seat (2 each)

- L4:** Under last row passenger seats (2)  
**R4:** Doghouse forward of door (2)

A33P/B:  
Portable Gaseous O<sub>2</sub> (16)

- L1:** Forward stowage compartment (2)  
**L2:** Doghouse forward of door (3)  
**R2:** A33P & A33B (B-LBD):  
Compartment forward of door (3)  
A33B (B-LAA/B & B-HWM):  
Centre stowage (3)  
**L3, R3:** A33P & A33B (B-LBD & B-HWM):  
Cabinet next to crew seat (2 each)  
A33B (B-LAA/B):  
Doghouse forward of door (2 each)  
**L4:** Under last row passenger seats (2)  
**R4:** A33P & A33B (B-LBD):  
Doghouse forward of door (2)  
A33B (B-LAA/B & B-HWM):  
Stowage forward of door (2)

15. Spare O<sub>2</sub> Mask (5)

- L1:** Forward stowage compartment (5)

16. A33E/K/J:  
First Aid Kit (4)

- L1:** Compartment aft of door (1)  
**L2, L3:** Overhead compartment forward of door (1 each)  
**L4:** Aft stowage compartment (1)

A33P/B:  
First Aid Kit (5)

- L1:** Closet aft of door (1)  
Overhead compartment aft of door (1)  
**L2:** Compartment forward of door (1)  
**L3:** Overhead compartment forward of door (1)  
**L4:** Aft stowage compartment (1)

17. Automated External Defibrillator (1)

- R2:** A33E/K:  
Centre compartment aft of door (1)  
A33J:  
Compartment aft of door (1)  
A33P/B:  
Compartment forward of door (1)

18. Inflight Medical Kit (1)

- R2:** A33E/K:  
Centre compartment aft of door (1)  
**A33J:**  
Compartment aft of door (1)  
**A33P/B:**  
Compartment forward of door (1)

19. Splint Pack (2)

- R1:** Overhead compartment aft of door (1)  
**R4:** Aft stowage compartment (1)

20. Pocket Mask and Gloves Kit (6)

- L1, L3:** Crew seat compartment (1 each)  
**L2, L4:** Crew seat compartment (2 each)

21. Universal Precaution Kit (4)

- R1:** A33E/K/J:  
Stowage forward of door (2)  
**L2:** A33P/B:  
Door 2 service centre (2)  
**R4:** Compartment aft of door (2)

22. Body Bag (1)

- R1:** A33E/K/J:  
Stowage forward of door (1)  
**L2:** A33P/B:  
Door 2 service centre (1)

23. Supplementary Loop Belt/Extension-Deactivation Seat Belt (24)

- L2:** A33E/K/J:  
Overhead compartment forward of door (12)  
A33P/B:  
Compartment forward of door (12)  
**R4:** A33E/K/J:  
Aft stowage compartment (12)  
A33P/B:  
Centre overhead compartment (12)

24. Demonstration Kit (8)

- L1, R1, L2, R2:** Overhead compartment aft of door (1 each)  
**L3, R3:** Overhead compartment forward of door (1 each)  
**L4, R4:** Aft stowage compartment (1 each)

25. Manual Release Tool (8)

L1, R1, L2, R2, L3, R3, L4, R4: Crew seat compartment (1 each)

26. Restraint Kit (1)

L2: VCC unit (1)

## 10.4.2 Cabin Doors and Escape Systems

### 10.4.2.1 Type A Door

#### 10.4.2.1.1 General

Fitted with double channel sliderraft. Primary exit for land and ditching evacuations.

Each door has an observation window. Close to the window, there are two lights.

1. The slide armed indicator light illuminates white when the door is "Armed" and the door operating handle is moved up.
2. The cabin pressure warning light flashes red if there is residual cabin pressure above 0.0362 PSI when all engines shut down and the door is disarmed.
3. The warning lights are visible from both inside and outside of the aircraft.

#### 10.4.2.1.2 Pre-flight Emergency Equipment Check

Ensure the mode selector is in the "Disarmed" position with the safety pin inserted and the red streamer visible.

#### 10.4.2.1.3 Arming and Disarming

##### Arming

1. Check the door locking indicators show "LOCKED" (green).
2. Remove and stow the safety pin and red streamer (in the hole behind the gust lock release).
3. Move the mode selector to the "Armed" position.

##### Disarming

1. Move the mode selector to the "Disarmed" position.
2. Insert the safety pin and ensure the red streamer is visible.

#### 10.4.2.1.4 Emergency Door Operation

With the mode selector in the "Armed" position, the door is armed. When the door operating handle is lifted, a power assist system is triggered and the door is power driven to the fully open position. Sliderraft will deploy automatically. Full inflation will take approximately 6-8 SEC.

**Note:** Caution is to be exercised by the operator of the door. Once the power assist takes over the opening of the door, the operator is to release the door operating handle.

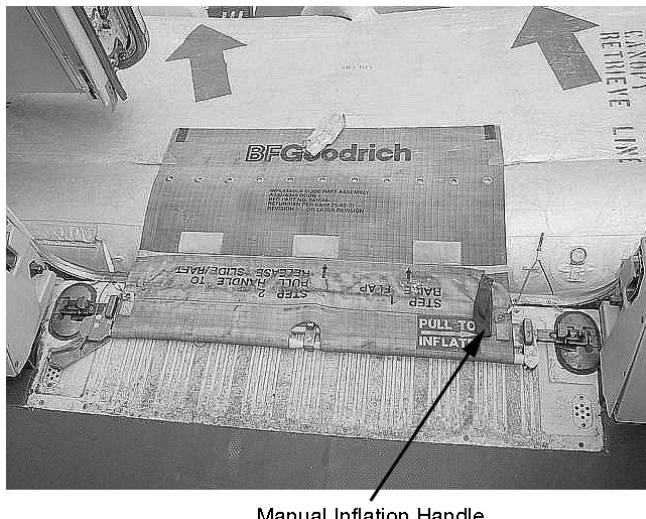
##### Operation (Land/Ditch)

1. Evaluate outside (Land)/Assess the aircraft attitude (Ditch).

2. Check the mode selector is in the "Armed" position, i.e. in the forward position.
3. Lift the door operating handle fully to open the door.
4. Check the escape route is safe (Land)/Check the sliderraft deployment (Ditch).

### Alternate Actions

1. If the Door Power Assist System fails, using a steady force, push the door fully open until it latches. Strength will be required to push open the door fully and pull the sliderraft out from the door bustle. Call for assistance from passengers if necessary.
2. If the sliderraft fails to inflate automatically, pull the red manual inflation handle at the right hand side of the girt bar.



3. If the sliderraft cannot be inflated or is unusable, guard the door and redirect passengers to usable exits.

### Sliderraft Deployment

When the door is "Armed", the girt bar is locked to the aircraft floor brackets. When the door is opened, the sliderraft/slide is pulled out of the door bustle and when it drops below the doorsill, it inflates automatically.

### Slideraft Deployed at R2



## 10.4.2.2 Type I Door

### 10.4.2.2.1 General

Fitted with single channel slide. Primary exit for land evacuation and secondary exit for ditching.

Each door has an observation window. Close to the window, there are two lights.

1. The slide armed indicator light illuminates white when the door is "Armed" and the door operating handle is moved up.
2. The cabin pressure warning light flashes red if there is residual cabin pressure above 0.0362 PSI when all engines shut down and the door is disarmed.
3. The warning lights are visible from both inside and outside of the aircraft.

### 10.4.2.2.2 Pre-flight Emergency Equipment Check

Ensure the mode selector is in the "Disarmed" position with the safety pin inserted and the red streamer visible.

### 10.4.2.2.3 Arming and Disarming

#### Arming

1. Check the door locking indicator shows "LOCKED" (green).
2. Remove and stow the safety pin and red streamer (in the hole next to the door).
3. Move the mode selector to the "Armed" position.

#### Disarming

1. Move the mode selector to the "Disarmed" position.

2. Insert the safety pin and ensure the red streamer is visible.

#### 10.4.2.2.4 Emergency Door Operation

With the mode selector in the “Armed” position, the door is armed. When the door operating handle is lifted, a power assist system is triggered and the door is power driven to the fully open position. Slide will deploy automatically. Full inflation will take approximately 6-8 SEC.

**Note:** *Caution is to be exercised by the operator of the door. Once the power assist takes over the opening of the door, the operator is to release the door operating handle.*

##### Operation (Land)

1. Evaluate outside.
2. Check the mode selector is in the “Armed” position i.e. in the forward position.
3. Lift the door operating handle fully to open the door (remove the cover to access the handle).
4. Check the escape route is safe.

##### Alternate Actions

1. If the Door Power Assist System fails, using a steady force, push the door fully open until it latches. Strength will be required to push open the door fully and pull the slide out from the door bustle. Call for assistance from passengers if necessary.
2. If the slide fails to inflate automatically, pull the red manual inflation handle at the right hand side of the girt bar.
3. If the slide cannot be inflated or is unusable, guard the door and redirect passengers to usable exits.

##### Operation (Ditch)

Ditching evacuation via Type I doors is not recommended and passengers are to be redirected to usable exits. However, should it be necessary to use Type I doors in a ditching:

1. Assess the aircraft attitude.
2. Check the mode selector is in the “Armed” position i.e. in the forward position.
3. Lift the door operating handle fully to open the door.
4. Check the slide deployment.
5. Release and cast off the slide. The slide can be used as a floatation device.

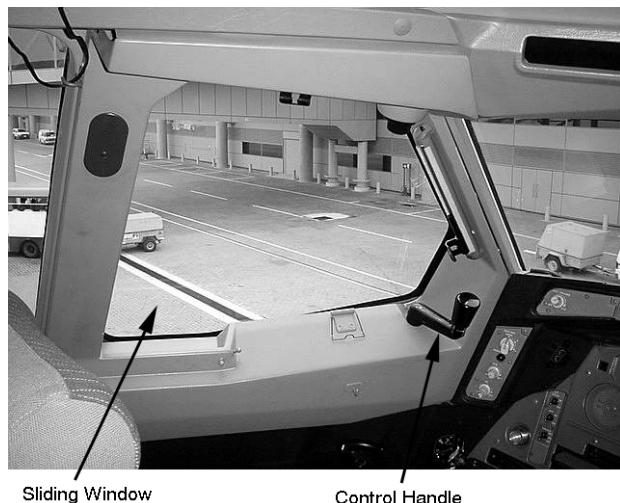
#### 10.4.2.3 Unusual Aircraft Attitudes

All doors are usable in all aircraft attitudes.

#### 10.4.2.4 Flight Deck Exits

##### Opening of Sliding Windows

1. Push down the control handle – a red indicator appears.
2. Rotate the control handle rearwards.
3. Slide the window fully aft until it is fully open.



### Escape Rope

1. A 6.7 M long rope is located in a stowage above each sliding window. It can support a load of up to 181 KG.
2. Deploy the escape rope out of the window. Climb through the window and lower self down the rope. The rope is knotted to assist the descent.

#### Escape Rope Deployed (Left Hand Side)



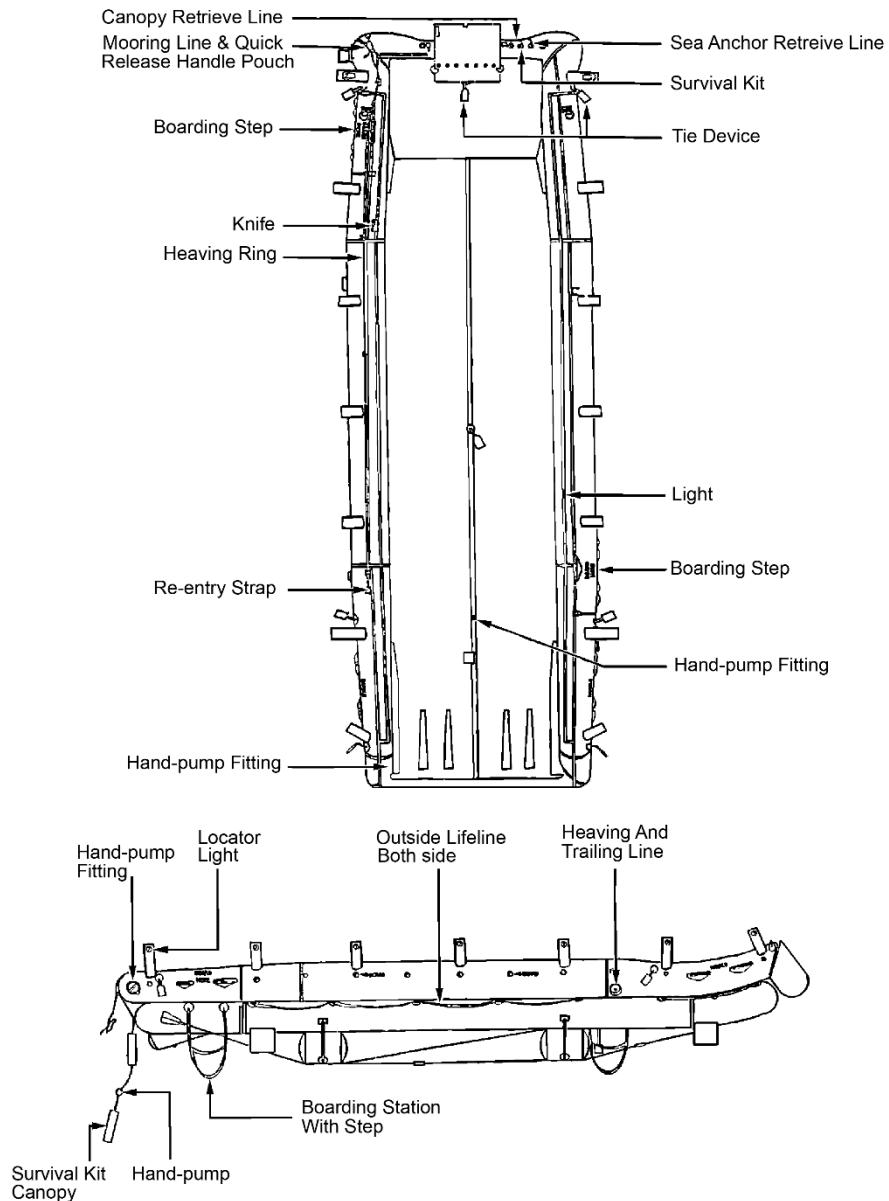
## 10.4.3 Slideraft

### 10.4.3.1 General

Type A doors are equipped with sliderafts which, in a ditching, can be readily released from the aircraft. Depending upon the door sill height above the water, passengers will either crawl or jump onto the sliderraft and be told to disperse evenly left and right to the far end.

Type I doors are equipped with slides only. These slides can also be released from the aircraft. However, the slides can only be used as floatation devices, not rafts, and therefore these doors are to be used as secondary exits in a ditching.

### 10.4.3.2 Features

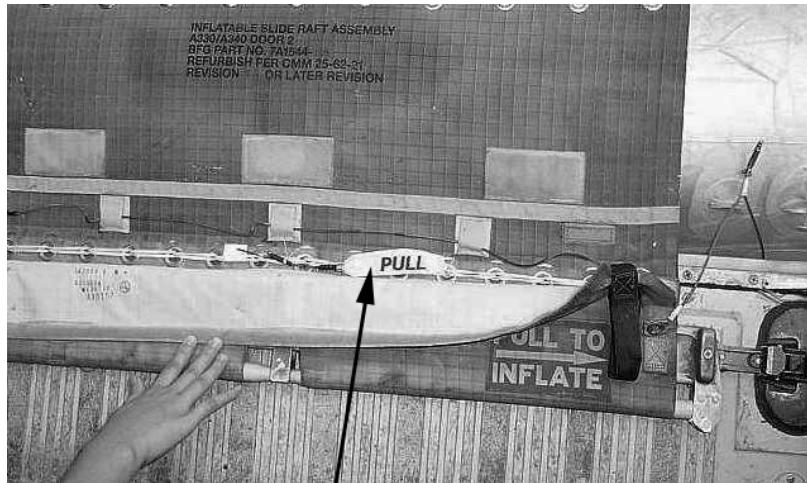


### 10.4.3.3 Releasing from the Aircraft

#### 10.4.3.3.1 To Release the Slideraft/Slide

Pull open the girt cover and pull the white girt release handle. This unties the lacing attaching the slideraft/slide to the doorsill. Once the lacing is undone, the slideraft/slide drops clear of the doorsill.

**Note:** *If you pull the girt release handle whilst on the slideraft, keep your head and body well away from the doorsill because a loaded slideraft will drop suddenly and rapidly.*



Girt Release Handle Under Girt Cover

### 10.4.3.4 Cast Off

A 6 M long mooring line is pre-attached to the girt bar whilst the other end is pre-attached to the slideraft/slide. The mooring line holds the slideraft/slide in the vicinity when it is released. The mooring line has to be disconnected to completely separate the slideraft/slide from the aircraft.

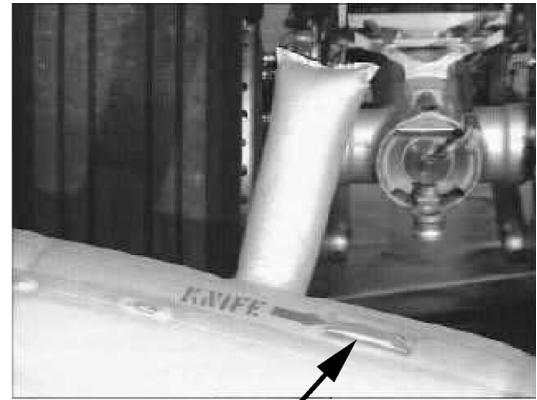
#### To Cast Off the Slideraft/Slide

Pull the quick release handle located in a pouch OR use the hook knife to cut the mooring line.

**Note:** *If the aircraft sinks, the mooring line will break automatically.*



Quick Release Handle



Hook Knife

## 10.4.3.5 Slidraft Accessories

### 10.4.3.5.1 Survival Kit

One survival kit is tied to each slidraft and stowed in the door bustle. It is pulled out of the door bustle when the slidraft deploys and inflates. The survival kit is located at the doorsill end of the slidraft and is clearly marked. The kit has to be retrieved from the water.

Each kit contains the following items:

First Aid and Survival Items	Quantity
Antiseptic Swab	20
Bandage Compress (2 IN)	12
Bandage Compress (4 IN)	2
Bandage Strips	32
Eye Ointment	6
Packaged Water (473 ML each/package)	2
Sucrose Candy (10 each/package)	2
Triangular Bandage	3
Water Purification Tablet (50 each/package)	1

Seaworthiness Equipment	Quantity
Bailing Bucket	1
Raft Repair Clamp (3 IN)	2
Sea Dye Marker	1
Signal Flare	4
Signalling Mirror	1
Slide / Raft Management Guide	1
Sponge	1
Survival Manual	1
Torch (powered by lithium battery)	2
Water Storage Bag (946 ML)	3
Whistle	1

#### 10.4.3.5.2 Locator Lights

Two water activated lights are mounted, one at each end of the sliderraft.

#### 10.4.3.5.3 Canopy

A canopy is attached to the survival kit and has to be retrieved from the water.

#### 10.4.3.5.4 Sea Anchor / Heaving Line and Ring / Hook Knife

These items are found at the doorsill end of the sliderraft and are clearly marked.

#### 10.4.3.5.5 Hand Pump

A hand-pump is attached in a pouch next to the survival kit. It is tied to a rope to prevent it being lost.

### 10.4.3.6 Setting Up the Canopy

1. Spread the canopy over the legs of the occupants so that the ties are downwards. Match the numbers on the tie down string patches with those on the canopy supports. The marking on the canopy "BOARD END" should be placed next to the girt, and the marking "THIS SIDE UP" should be outside.
2. Starting from the up-wind side, lift the canopy up and over the canopy supports. The supports are numbered 1, 3, 5, 7, 9, 11 on the left and 2, 4, 6, 8, 10, 12 on the right.
3. Tie the canopy to the fabric loops on top of the canopy supports of the sliderraft.
4. Orally inflate the three canopy centre supports. Tie the canopy to the fabric loops on top of the canopy centre supports.
5. The sides and ends of the canopy may be tied to the fabric loops on the buoyancy chamber, or in calm conditions, folded upwards and tied by the tapes provided.

### 10.4.3.7 Sliderraft Capacity

Door Number	Normal Capacity	Overload Capacity
L1, R1	65	78
L2, R2	55	68
L4, R4	65	78

## 10.4 Land Evacuation

### 10.4.4.1 Land Evacuation Duties – Flight Crew

#### 10.4.4.1.1 Captain

1. Take torch.
2. Ensure the flight deck is clear.
3. Proceed to the cabin and assist with the evacuation on the left hand side.
4. Evacuate.
5. Take command on the ground.

#### 10.4.4.1.2 First Officer

1. Take torch.
2. Ensure the flight deck is clear.
3. Proceed to the cabin and assist with the evacuation on the right hand side.
4. Evacuate.
5. Assist on the ground.

#### 10.4.4.1.3 Second Officer (if carried) or Supernumerary Crew

Perform duties as assigned by the Captain.

## 10.4.4.2 Land Evacuation Duties – Cabin Crew

### 10.4.4.2.1 Door Primary Duties

<b>Evacuation and motivation commands</b>	Immediately after the command "EVACUATE" has been repeated, order "SAW SARN" "SEAT BELTS OFF, HIGH HEELS OFF, COME THIS WAY". This is to enable the cabin crew to establish control over the passengers at the first opportunity.
<b>Evaluate outside</b>	If fire/smoke is evident, do not open the door. Redirect passengers to usable exits.
<b>Check mode "Armed"</b>	The mode selector is in the "forward" position.
<b>Open door</b>	Lift the door operating handle fully up and release the handle when the power assist system starts to open the door.  Type I Doors — uncover control handle before lifting it fully up.
<b>Check escape route safe</b>	Ensure proper sliderraft/slide deployment and that it is safe to exit e.g. no fire or obstruction.
<b>Direct passengers</b>	Direct evacuation at the door. Stay clear of the passenger flow by stepping to one side and secure yourself by holding the assist handle.  Monitor evacuation in respect of the sliding angle, the condition of the sliderraft/slide, congestion at the bottom of sliderraft/slide, spreading fire.
<b>Check area – evacuate</b>	Quickly walk around your area to look for injured, unconscious, incapacitated passengers or crew. Pay particular attention to the toilets and the space between seat rows.  On completion, evacuate.  After evacuation, assist and control passengers by gathering them together. Move passengers away from the aircraft as far as practicable. It may be necessary to render first aid and reassure passengers before help arrives. Passengers may wish to re-enter the aircraft for their belongings; they must be stopped.

**Note 1:** *Door primaries are to reset the Evacuation Alert System (if applicable) before giving commands in an evacuation.*

**Note 2:** *The PBE should be used in a smoke filled environment.*

**Note 3:** *Should it be necessary to remove the ELT, the door primary at the door where the ELT is located is responsible for doing this.*

#### 10.4.4.2.2 Door Assist Duties

<b>Evacuation and motivation commands</b>	Repeat the command "EVACUATE" "SAW SARN" "SEAT BELTS OFF, HIGH HEELS OFF, COME THIS WAY, FOLLOW ME". Use gestures to attract attention if necessary.
<b>Evacuate</b>	Lead passengers out through the nearest available exit.
<b>Assist on ground</b>	After exiting, remain at the bottom of the slide and assist passengers by helping them off the sliderraft/slide, keeping the exit route clear of hand baggage or passengers who fail to gain their footing when reaching the ground. Move passengers away from the aircraft. Most important of all, as quickly as possible, organize suitable passengers to take over your job so that you are free to move over to help at other slides (where necessary).

**Note:** *If circumstances are such (e.g. failure of doors to open, injured door primary) that Door Assist can be of greater use directing passengers inside the cabin, they should use their own judgement when to evacuate.*

### 10.4.5 Ditching Evacuation

#### 10.4.5.1 Ditching Evacuation Duties – Flight Crew

##### 10.4.5.1.1 Captain

1. Take own life jacket and torch.
2. Ensure the flight deck is clear.
3. Proceed to the cabin and assist with the evacuation on the left hand side.
4. Board the sliderraft and take command.

##### 10.4.5.1.2 First Officer

1. Take own life jacket and torch.
2. Ensure the flight deck is clear.
3. Proceed to the cabin and assist with the evacuation on the right hand side.
4. Board the sliderraft and take command.

##### 10.4.5.1.3 Second Officer (if carried) or Supernumerary Crew

Perform duties as assigned by the Captain.

## 10.4.5.2 Ditching Evacuation Duties – Cabin Crew

### 10.4.5.2.1 Type A Door Primary Duties

<b>Evacuation and motivation commands</b>	Immediately after the command "EVACUATE" has been repeated, order "SAW SARN" "SEAT BELTS OFF, LIFE JACKETS ON, SHOES OFF, COME THIS WAY".
<b>Assess aircraft attitude</b>	It is important to ensure that the doorsill is above water level before door opening. Cabin crew should rapidly assess whether the door is usable by checking the water level through the door window and referring to the slope of the cabin floor. If the door is unusable, guard the door to prevent use by passengers.
<b>Check mode "Armed"</b>	The mode selector is in the "forward" position.
<b>Open door</b>	Lift the door operating handle fully up and release the handle when the power assist system starts to open the door.
<b>Check sliderraft deployment</b>	Ensure proper sliderraft deployment and that it is safe to board the sliderraft.
<b>Direct passengers</b>	Direct evacuation at the door. Stay clear of the passenger flow by stepping to one side and secure yourself by holding the assist handle. Ensure passengers life jackets are inflated and all shoes are removed before boarding the passengers.
<b>Check area – evacuate</b>	Quickly walk around your area to look for injured, unconscious, incapacitated passengers or crew. Pay particular attention to the toilets and the space between seat rows. On completion, board the sliderraft. Release and cast off after boarding.

**Note 1:** *Door primaries are to reset the Evacuation Alert System (if applicable) before giving commands in an evacuation.*

**Note 2:** *The PBE should be used in a smoke filled environment.*

**Note 3:** *Should it be necessary to remove the ELT, the door primary at the door where the ELT is located is responsible for doing this.*

#### 10.4.5.2.2 Type I Door Primary Duties

<b>Evacuation and motivation commands</b>	Immediately after the command "EVACUATE" has been repeated, order "SAW SARN" "SEAT BELTS OFF, LIFE JACKETS ON, SHOES OFF".
<b>Guard door and redirect passengers</b>	Prevent passengers from opening the door and redirect them to usable exits using commands "GO TO THE FRONT" or "GO TO THE BACK".
<b>Check area – evacuate</b>	Quickly walk around your area to look for injured, unconscious, incapacitated passengers or crew. Pay particular attention to the toilets and the space between seat rows.  On completion, board the nearest available sliderraft.

**Note 1:** *The PBE should be used in a smoke filled environment.*

**Note 2:** *Type I doors are to be used as a last resort. The door should be opened in the "Armed" position. The slide is to be released, cast off and then used as a floatation device.*

#### 10.4.5.2.3 Door Assist Duties

<b>Evacuation and motivation commands</b>	Repeat the command "EVACUATE" "SAW SARN" "SEAT BELTS OFF, LIFE JACKETS ON, SHOES OFF, COME THIS WAY, FOLLOW ME". Use gestures to attract attention if necessary.
<b>Evacuate</b>	Lead passengers onto the nearest available sliderraft.
<b>Assist on raft</b>	Instruct passengers to inflate their life jackets and to move on hands and knees. Ensure they are evenly distributed on the sliderraft.

**Note:** *If circumstances are such that Door Assist can be of greater use directing passengers inside the cabin, they should use their own judgement when to evacuate.*

### 10.4.6 Aircraft Emergency Oxygen Systems

#### 10.4.6.1 Cabin

1. When the cabin altitude exceeds 14,000 FT, all cabin lights will come on bright, the "no smoking" and "seat belt" signs will illuminate with the corresponding chimes, and the oxygen masks will deploy automatically. Additionally, there will be an automatic P/A in English, Cantonese, Putonghua and Japanese.
2. A chemical oxygen generator provides oxygen to the masks. After deploying, the masks must be pulled down to start the chemical reaction to generate oxygen flow. The chemical reaction creates heat and therefore the smell of burning and smoke (where dust has gathered), along with a cabin temperature increase may be associated with the operation of the chemical oxygen generators.
3. The accumulator bag attached to the oxygen mask may not inflate even when oxygen is flowing to the mask.
4. Masks are provided in the oxygen modules above every passenger and cabin crew seat. There are two in each lavatory. A lanyard is fitted in the lavatory to enable the oxygen mask to be easily reached.



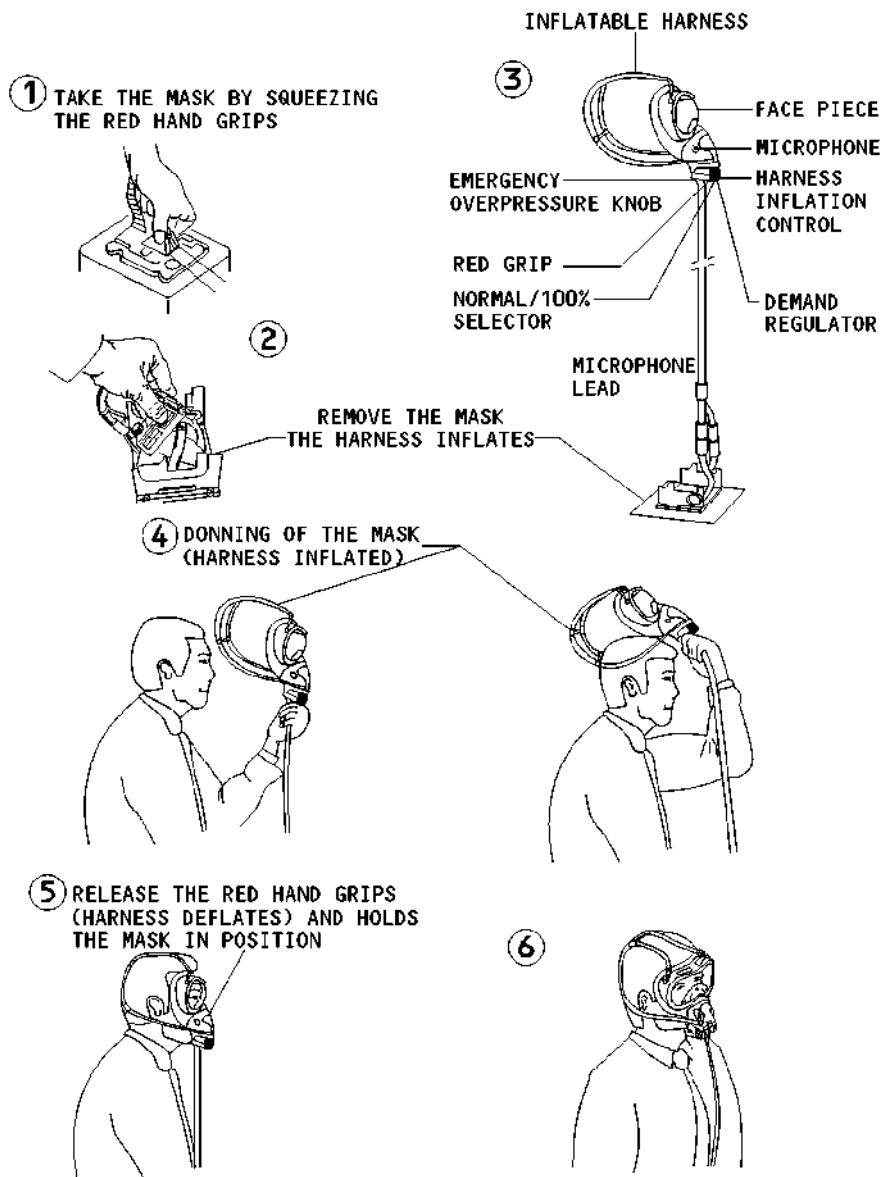
5. Spare masks are available at most of the passenger seats and at designated baby bassinet positions.
6. Once activated, oxygen flow from the chemical oxygen system cannot be stopped.
7. The chemical system supplies oxygen for 22 MIN.

*Note:* The oxygen masks can also be manually deployed from the flight deck.

#### 10.4.6.2 Flight Deck

The oxygen system in the flight deck uses a gaseous system. A mask is available for each flight deck occupant. It is different to the type provided in the cabin. The mask does not deploy automatically and must be pulled out from its stowage.

### Flight Deck – Mask Donning



## 10.4.7 Emergency Lighting System

### 10.4.7.1 General

The emergency lighting system provides emergency lighting to illuminate the cabin, aisles, cross aisles and exit signs. Control switch is in flight deck and Cabin FAP. Emergency lights on the sliderafts/slides are turned on when they are deployed.

Passenger Emergency Escape Path Lighting System (PEEPLS) is part of the emergency lighting system. In the event of a smoke filled cabin, the PEEPLS will guide passengers to the nearest exit.

Electrical powered seat mounted lights are installed on passenger seats on one side of each aisle.

The emergency lighting may be controlled either automatically or manually.

### 10.4.7.2 Duration

Approximately 12 MIN.

### 10.4.8 Evacuation Alert System

#### 10.4.8.1 Operation

##### 10.4.8.1.1 “CAPT” Position

1. When the “EVAC ON” button in the flight deck is pressed, the following occurs in the cabin.
  - A. The red light on all AIPs flashes and a message “EVACUATION ALERT” is displayed.
  - B. There will be an alarm.
  - C. The “EVAC RESET” buttons flash red.

**Note:** *The “EVAC ON” button in the flight deck flashes red.*

2. When the “EVAC CMD” button on the FAP is pressed, the following occurs in the flight deck.
  - A. The “EVAC ON” button flashes red.
  - B. There will be a chime for approximately 3 SEC.
  - C. The Captain will order “ATTENTION, EVACUATE, EVACUATE” or “ATTENTION, CREW AT STATIONS. ATTENTION, CREW AT STATIONS”.

**Note:** *The “EVAC CMD” button on the FAP illuminates (green in colour).*

##### 10.4.8.1.2 “CAPT & PURS” Position

1. When the “EVAC ON” button in the flight deck is pressed, the following occurs in the cabin.
  - A. The red light on all AIPs flashes and a message “EVACUATION ALERT” is displayed.
  - B. There will be an alarm.
  - C. The “EVAC RESET” buttons flash red.

**Note:** *The “EVAC ON” button in the flight deck flashes red.*

2. When the “EVAC CMD” button on the FAP is pressed, the following occurs.
  - A. In the flight deck:
    - a. The “EVAC ON” button flashes red.
    - b. There is a continuous chime.
  - B. In the cabin:
    - a. The red light on all AIPs flashes and a message “EVACUATION ALERT” is displayed.
    - b. There will be an alarm.

- c. The "EVAC CMD" button illuminates (green in colour).
- d. The "EVAC RESET" buttons flash red.

#### **10.4.8.1.3 Cancelling Outputs**

By pressing the "EVAC RESET" button, the alarm at the respective station is silenced but the button remains flashing.

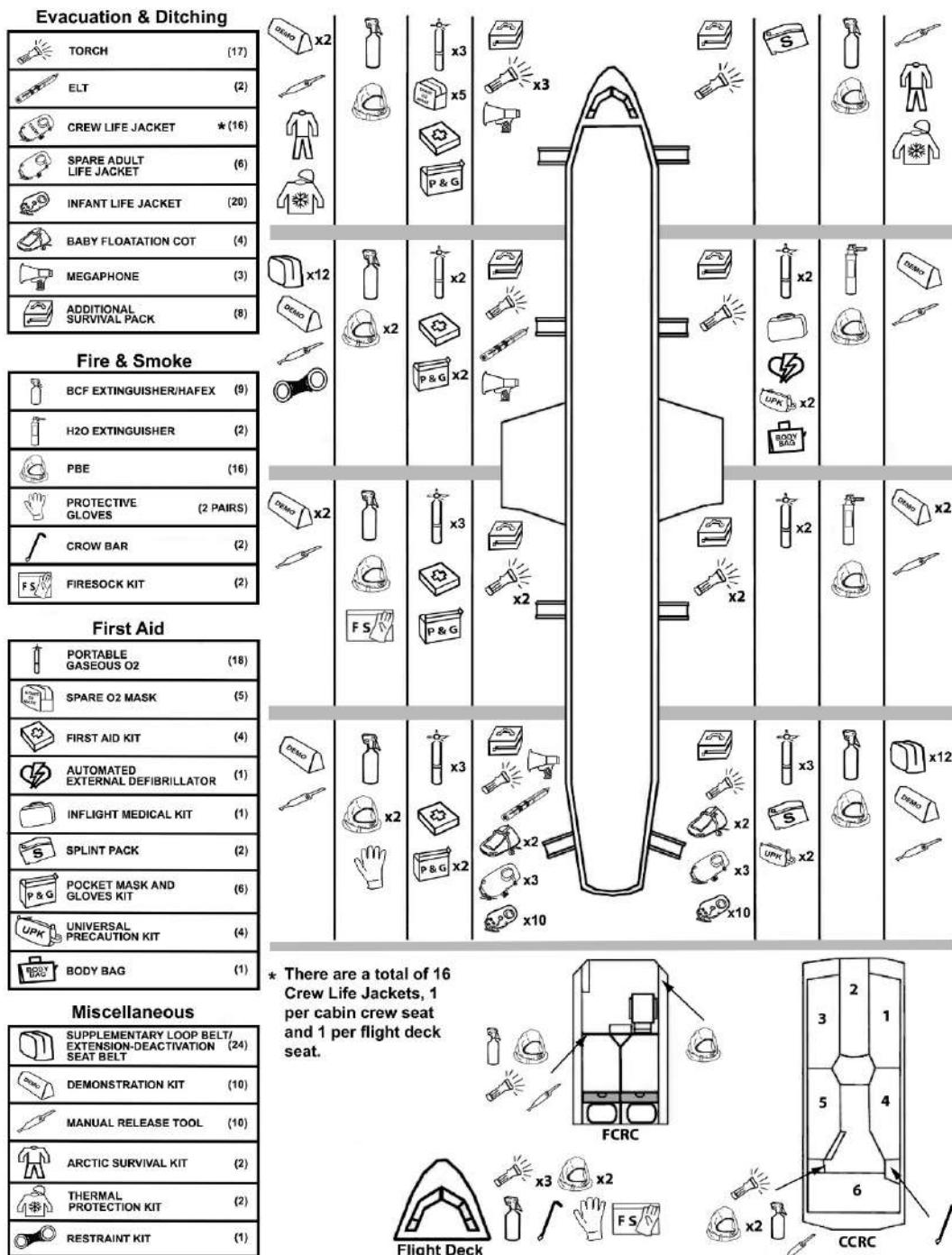
#### **10.4.8.1.4 Company Policy**

The Company policy is to have the toggle switch in the "CAPT" position.

## 10.5 A350

### 10.5.1 Emergency Equipment Locations

#### 10.5.1.1 A350-900



1. Torch (17)

**Flight deck:** Next to Captain and First Officer's seat (1 each)  
Next to 4th occupant seat (1)

**L1, L1A1, L1A2, R1, L2, R2,  
L3, L3A, R3, R3A, L4, R4:** Crew seat compartment (1 each)

**FCRC:** Partition opposite to bunk 1 (1)

**CCRC:** Below the compartment adjacent to bunk 5 (1)

2. ELT (2)

**L2, L4:** Compartment aft of door (1 each)

3. Spare Adult Life Jacket (6)

**L4, R4:** Overhead compartment forward of door (3 each)

4. Infant Life Jacket (20)

**L4, R4:** Overhead compartment forward of door (10 each)

5. Baby Floatation Cot (4)

**L4, R4:** Overhead compartment forward of door (2 each)

6. Megaphone (3)

**L1:** Door frame forward of door (1)

**L2, L4:** Compartment aft of door (1 each)

7. Additional Survival Pack (8)

**L1, R1, R2:** Compartment forward of door (1 each)

**L2, L4, R4:** Compartment aft of door (1 each)

**L3, R3:** Overhead compartment aft of door (1 each)

8. BCF Extinguisher/HAFEX (9)

**Flight deck:** Next to 4th occupant seat (1)

**L1, R1, L2, L3, L4, R4:** Crew seat compartment (1 each)

**FCRC:** Partition opposite to bunk 1 (1)

**CCRC:** Compartment adjacent to bunk 5 (1)

9. H<sub>2</sub>O Extinguisher (2)

**R2:** Compartment forward of door (1)

**R3:** Doghouse forward of door (1)

10. PBE (16)

<b>Flight deck:</b>	3rd occupant seat (1) 4th occupant seat (1)
<b>L1, R1, L2, R2, L3, R3, L4, R4:</b>	Crew seat (1 each)
<b>L2:</b>	Compartment forward of door (1)
<b>L4:</b>	Forward face of doghouse forward of door (1)
<b>FCRC:</b>	Next to crew rest seat (1) Partition opposite to bunk 1 (1)
<b>CCRC:</b>	Compartment adjacent to bunk 5 (2)

11. Protective Gloves (2 pairs)

<b>Flight deck:</b>	Next to 4th occupant seat (1 pair)
<b>L4:</b>	Compartment aft of door (1 pair)

12. Crow Bar (2)

<b>Flight deck:</b>	Next to 4th occupant seat (1)
<b>CCRC:</b>	Compartment between bunk 4 and bunk 6 (1)

13. FireSock Kit (2)

<b>Flight deck:</b>	Closet (1)
<b>L3:</b>	Centre doghouse (1)

14. Portable Gaseous O<sub>2</sub> (18)

<b>L1:</b>	Compartment forward of door (3)
<b>L2, R2:</b>	Stowage forward of door (2 each)
<b>L3:</b>	Doghouse forward of door (3)
<b>R3:</b>	Doghouse forward of door (2)
<b>L4, R4:</b>	Doghouse forward of door (3 each)

15. Spare O<sub>2</sub> Mask (5)

<b>L1:</b>	Compartment forward of door (5)
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16. First Aid Kit (4)

<b>L1:</b>	Compartment forward of door (1)
<b>L2, L4:</b>	Compartment aft of door (1 each)
<b>L3:</b>	Overhead compartment aft of door (1)

17. Automated External Defibrillator (1)

<b>R2:</b>	Compartment aft of door (1)
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- 
- 18. Inflight Medical Kit (1)
    - R2:** Compartment aft of door (1)
  - 19. Splint Pack (2)
    - R1:** Compartment forward of door (1)
    - R4:** Compartment aft of door (1)
  - 20. Pocket Mask and Gloves Kit (6)
    - L1A:** Crew seat compartment (1)
    - L2:** Crew seat compartment (1)  
Stowage forward of door (1)
    - L3A:** Crew seat compartment (1)
    - L4:** Crew seat compartment (1)  
Compartment aft of door (1)
  - 21. Universal Precaution Kit (4)
    - R2:** Stowage aft of door (2)
    - R4:** Compartment aft of door (2)
  - 22. Body Bag (1)
    - R2:** Stowage aft of door (1)
  - 23. Supplementary Loop Belt/Extension-Deactivation Seat Belt (24)
    - L2, R4:** Compartment aft of door (12 each)
  - 24. Demonstration Kit (10)
    - L1:** Stowage compartment forward of door (2)
    - L2, R2:** Stowage forward of door (1 each)
    - L3, R3:** Overhead compartment aft of door (2 each)
    - L4, R4:** Compartment aft of door (1 each)
  - 25. Manual Release Tool (10)
    - L1, R1, L2, R2, L3, R3, L4, R4:** Crew seat compartment (1 each)
    - FCRC:** Partition opposite to bunk 1 (1)
    - CCRC:** Compartment adjacent to bunk 5 (1)
  - 26. Arctic Survival Kit (2)
    - L1, R1:** Overhead compartment aft of door (1 each)

27. Thermal Protection Kit (2)

**L1, R1:** Centre overhead compartment aft of door (1 each)

28. Restraint Kit (1)

**L2:** Galley compartment (1)

## 10.5.1.2 A350-1000

### Evacuation & Ditching

	x2				x3				x3				
	(2)				x5								
	*(18)												
	(6)												
	(20)												
	(4)												
	(3)												
	(8)												

### Fire & Smoke

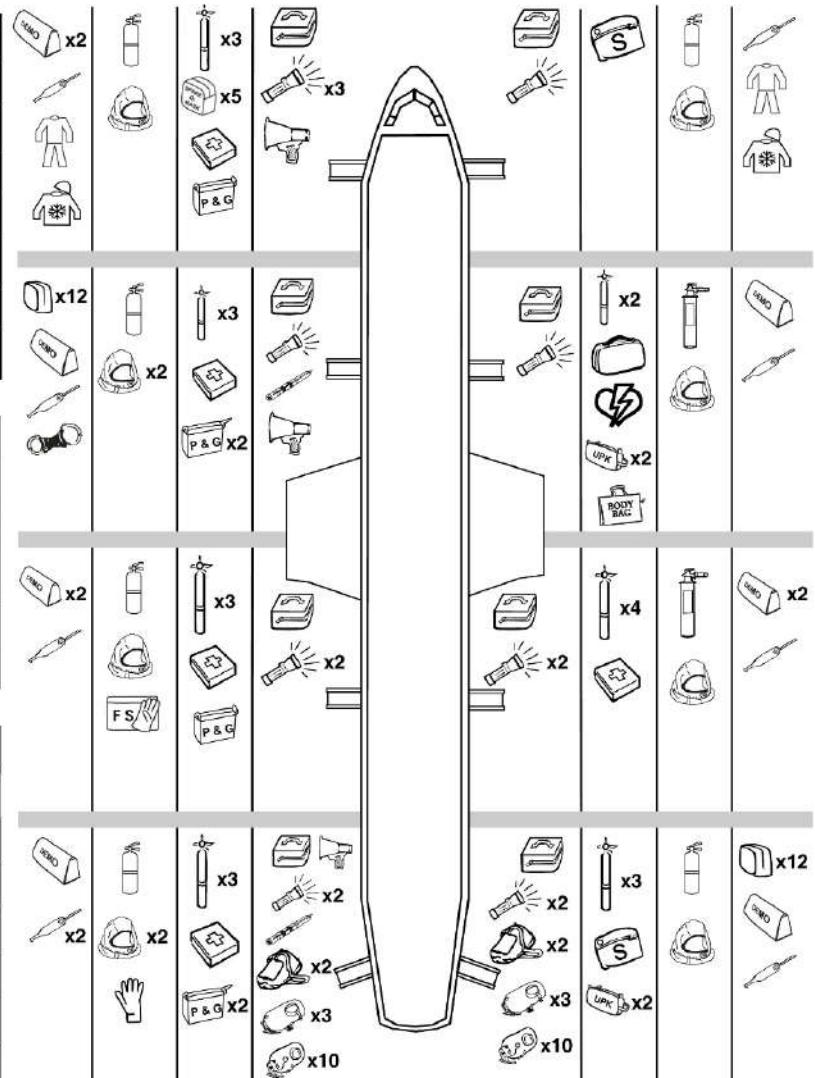
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### First Aid

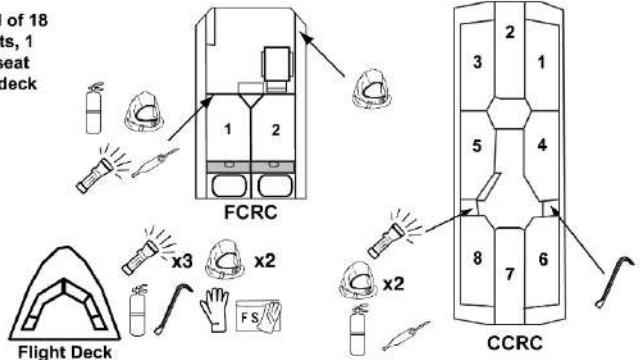
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### Miscellaneous

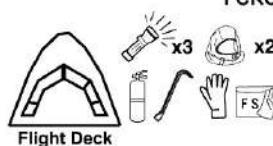
	SUPPLEMENTARY LOOP BELT/ EXTENSION-DEACTIVATION (24) SEAT BELT												
	DEMONSTRATION KIT	(10)											
	MANUAL RELEASE TOOL	(11)											
	ARCTIC SURVIVAL KIT	(2)											
	THERMAL PROTECTION KIT	(2)											
	RESTRAINT KIT	(1)											



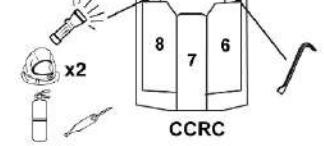
\* There are a total of 18 Crew Life Jackets, 1 per cabin crew seat and 1 per flight deck seat.



Flight Deck



FCRC



CCRC

1. Torch (19)

**Flight deck:** Next to Captain and First Officer's seat (1 each)  
Next to 4th occupant seat (1)

**L1, L1A1, L1A2, R1, L2, R2, L3, L3A, R3, R3A, L4, L4A, R4, R4A:** Crew seat compartment (1 each)

**FCRC:** Partition opposite to bunk 1 (1)

**CCRC:** Below the compartment adjacent to bunk 5 (1)

2. ELT (2)

**L2, L4:** Compartment aft of door (1 each)

3. Spare Adult Life Jacket (6)

**L4, R4:** Overhead compartment forward of door (3 each)

4. Infant Life Jacket (20)

**L4, R4:** Overhead compartment forward of door (10 each)

5. Baby Floatation Cot (4)

**L4, R4:** Overhead compartment forward of door (2 each)

6. Megaphone (3)

**L1:** Door frame forward of door (1)

**L2, L4:** Compartment aft of door (1 each)

7. Additional Survival Pack (8)

**L1, R1, R2:** Compartment forward of door (1 each)

**L2, L4, R4:** Compartment aft of door (1 each)

**L3, R3:** Overhead compartment aft of door (1 each)

8. HAFEX (9)

**Flight deck:** Next to 4<sup>th</sup> occupant seat (1)

**L1, R1, L2, L3, L4, R4:** Crew seat compartment (1 each)

**FCRC:** Partition opposite to bunk 1 (1)

**CCRC:** Compartment adjacent to bunk 5 (1)

9. H<sub>2</sub>O Extinguisher (2)

**R2:** Compartment forward of door (1)

**R3:** Doghouse forward of door (1)

10. PBE (16)

**Flight deck:** 3rd occupant seat (1)  
4th occupant seat (1)

- L1, R1, L2, R2, L3, R3, L4, R4:** Crew seat (1 each)
- L2:** Compartment forward of door (1)
- L4:** Forward face of doghouse forward of door (1)
- FCRC:** Next to crew rest seat (1)  
Partition opposite to bunk 1 (1)
- CCRC:** Compartment adjacent to bunk 5 (2)
11. Protective Gloves (2 pairs)
- Flight deck:** Next to 4th occupant seat (1 pair)
- L4:** Compartment aft of door (1 pair)
12. Crow Bar (2)
- Flight deck:** Next to 4th occupant seat (1)
- CCRC:** Compartment between bunk 4 and bunk 6 (1)
13. FireSock Kit (2)
- Flight deck:** Closet (1)
- L3:** Centre doghouse (1)
14. Portable Gaseous O<sub>2</sub> (21)
- L1:** Compartment forward of door (3)
- L2:** Stowage forward of door (3)
- R2:** Stowage forward of door (2)
- L3:** Doghouse forward of door (3)
- R3:** Doghouse forward of door (2)  
Centre doghouse forward of door (2)
- L4, R4:** Doghouse forward of door (3 each)
15. Spare O<sub>2</sub> Mask (5)
- L1:** Compartment forward of door (5)
16. First Aid Kit (5)
- L1:** Compartment forward of door (1)
- L2, L4:** Compartment aft of door (1 each)
- L3, R3:** Overhead compartment aft of door (1 each)
17. Automated External Defibrillator (1)
- R2:** Compartment aft of door (1)
18. Inflight Medical Kit (1)
- R2:** Compartment aft of door (1)

- 
- 19. Splint Pack (2)
    - R1:** Compartment forward of door (1)
    - R4:** Compartment aft of door (1)
  - 20. Pocket Mask and Gloves Kit (6)
    - L1A, L2:** Crew seat compartment (1 each)
    - L2:** Stowage forward of door (1)
    - L3A:** Crew seat compartment (1)
    - L4:** Compartment aft of door (2)
  - 21. Universal Precaution Kit (4)
    - R2:** Stowage aft of door (2)
    - R4:** Compartment aft of door (2)
  - 22. Body Bag (1)
    - R2:** Stowage aft of door (1)
  - 23. Child Restraint Device/Extension-Deactivation Seat Belt (24)
    - L2, R4:** Compartment aft of door (12 each)
  - 24. Demonstration Kit (10)
    - L1:** Stowage compartment forward of door (2)
    - L2, R2:** Stowage forward of door (1 each)
    - L3, R3:** Overhead compartment aft of door (2 each)
    - L4, R4:** Compartment aft of door (1 each)
  - 25. Manual Release Tool (11)
    - L1, R1, L2, R2, L3, R3, L4, L4A, R4:** Crew seat compartment(1 each)
    - FCRC:** Partition opposite to bunk 1 (1)
    - CCRC:** Compartment adjacent to bunk 5 (1)
  - 26. Arctic Survival Kit (2)
    - L1, R1:** Overhead compartment aft of door (1 each)
  - 27. Thermal Protection Kit (2)
    - L1, R1:** Centre overhead compartment aft of door (1 each)
  - 28. Restraint Kit (1)
    - L2:** Galley compartment (1)

## 10.5.2 Cabin Doors and Escape Systems

### 10.5.2.1 Type A Door

#### 10.5.2.1.1 General

Fitted with a double channel sliderraft. Primary exit for land and ditching evacuations.

Each door has an observation window. Close to the window, there are two lights.

1. The slide armed indicator light illuminates white when the door is "Armed" and the door operating handle is moved up, a buzzer also sound.
2. The cabin pressure warning light flashes red if there is residual cabin pressure above 0.0362 PSI when all engines are shut down and the door is disarmed. In addition, an aural warning sounds when the door operating handle is lifted up.
3. The warning lights are visible from both inside and outside of the aircraft.

#### 10.5.2.1.2 Pre-flight Emergency Equipment Check

Ensure the mode selector is in the "Disarmed" position with the safety pin inserted and the red streamer visible.

#### 10.5.2.1.3 Arming and Disarming

##### Arming

1. Check the door locking indicators show "LOCKED" (green).
2. Remove and stow the safety pin and red streamer (in the designated pouch in the crew seat compartment).
3. Move the mode selector to the "Armed" position.

##### Disarming

1. Move the mode selector to the "Disarmed" position.
2. Insert the safety pin and ensure the red streamer is visible.

#### 10.5.2.1.4 Emergency Door Operation

With the mode selector in the "Armed" position, the door is armed. When the door operating handle is lifted, a power assist system is triggered and the door is power driven to the fully open position. Sliderraft will deploy automatically. Full inflation will take approximately 6-8 SEC.

**Note:** *Caution is to be exercised by the operator of the door. Once the power assist takes over the opening of the door, the operator is to release the door operating handle.*

##### Operation (Land/Ditch)

1. Evaluate outside (Land)/Assess the aircraft attitude (Ditch).
2. Check the mode selector is in the "Armed" position i.e. in the forward position.
3. Lift the door operating handle fully to open the door.
4. Check the escape route is safe (Land)/Check the sliderraft deployment (Ditch).

### Alternate Actions

1. If the Door Power Assist System fails, using a steady force, push the door fully open until it latches. Strength will be required to push open the door fully and pull the sliderraft out from the door bustle. Call for assistance from passengers if necessary.
2. If the sliderraft fails to inflate automatically, pull the red manual inflation handle at the right hand side of the girt bar.
3. If the sliderraft cannot be inflated or is unusable, guard the door and redirect passengers to usable exits.

## 10.5.2.2 Type C Door

### 10.5.2.2.1 General

Fitted with a single channel sliderraft with an Inflatable Free Aisle Restrictor (IFAR). Primary exit for land and ditching evacuations.

Each door has an observation window. Close to the window, there are two lights.

1. The slide armed indicator light illuminates white when the door is “Armed” and the door operating handle is moved up, a buzzer also sound.
2. The cabin pressure warning light flashes red if there is residual cabin pressure above 0.0362 PSI when all engines are shut down and the door is disarmed. In addition, an aural warning sounds when the door operating handle is lifted up.
3. The warning lights are visible from both inside and outside of the aircraft.

### 10.5.2.2.2 Pre-flight Emergency Equipment Check

Ensure the mode selector is in the “Disarmed” position with the safety pin inserted and the red streamer visible.

### 10.5.2.2.3 Arming and Disarming

#### Arming

1. Check the door locking indicators show “LOCKED” (green).
2. Remove and stow the safety pin and red streamer (in the designated pouch in the crew seat compartment).
3. Move the mode selector to the “Armed” position.

#### Disarming

1. Move the mode selector to the “Disarmed” position.
2. Insert the safety pin and ensure the red streamer is visible.

### 10.5.2.2.4 Emergency Door Operation

With the mode selector in the “Armed” position, the door is armed. When the door operating handle is lifted, a power assist system is triggered and the door is power driven to the fully open position. Sliderraft will deploy automatically. Full inflation will take approximately 6-8 SEC.

**Note:** *Caution is to be exercised by the operator of the door. Once the power assist takes over the opening of the door, the operator is to release the door operating handle.*

### Operation (Land/Ditch)

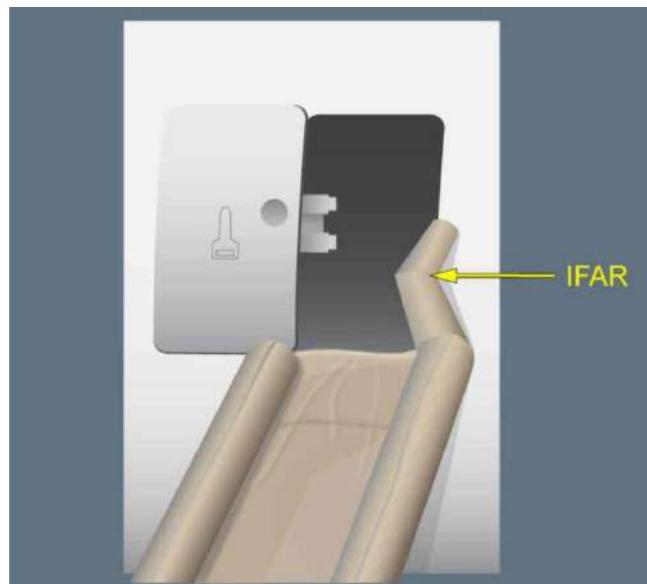
1. Evaluate outside (Land)/Assess the aircraft attitude (Ditch).
2. Check the mode selector is in the “Armed” position i.e. in the forward position.
3. Lift the door operating handle fully to open the door.
4. Check the escape route is safe (Land)/Check the sliderraft deployment (Ditch).

### Alternate Actions

1. If the Door Power Assist System fails, using a steady force, push the door fully open until it latches. Strength will be required to push open the door fully and pull the sliderraft out from the door bustle. Call for assistance from passengers if necessary.
2. If the sliderraft fails to inflate automatically, pull the red manual inflation handle at the right hand side of the girt bar.
3. If the sliderraft cannot be inflated or is unusable, guard the door and redirect passengers to usable exits.

### Sliderraft Deployment

Type C doors are fitted with single channel sliderrafts. There is an Inflatable Free Aisle Restrictor (IFAR) equipped on one side of the sliderraft. In case of land or ditching evacuation, IFAR can restrict passengers from using the sliderraft two at a time.



### 10.5.2.3 Unusual Aircraft Attitudes

All doors are usable in all aircraft attitudes.

## 10.5.2.4 Flight Deck Exits

### 10.5.2.4.1 Opening of the Hatch

1. Open the ceiling panel by pressing the release handle.



2. Move the red handle to the open position and pull to open the hatch.



3. The hatch opens toward the flight deck.

**Note:** *The hatch can also be opened from the outside.*



#### 10.5.2.4.2 Escape Rope

1. A 8.65 M long rope is stowed next to the hatch.



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2. Deploy the escape rope out of the hatch. Evacuation is possible on both side of the aircraft. The rope is knotted to assist the descent.



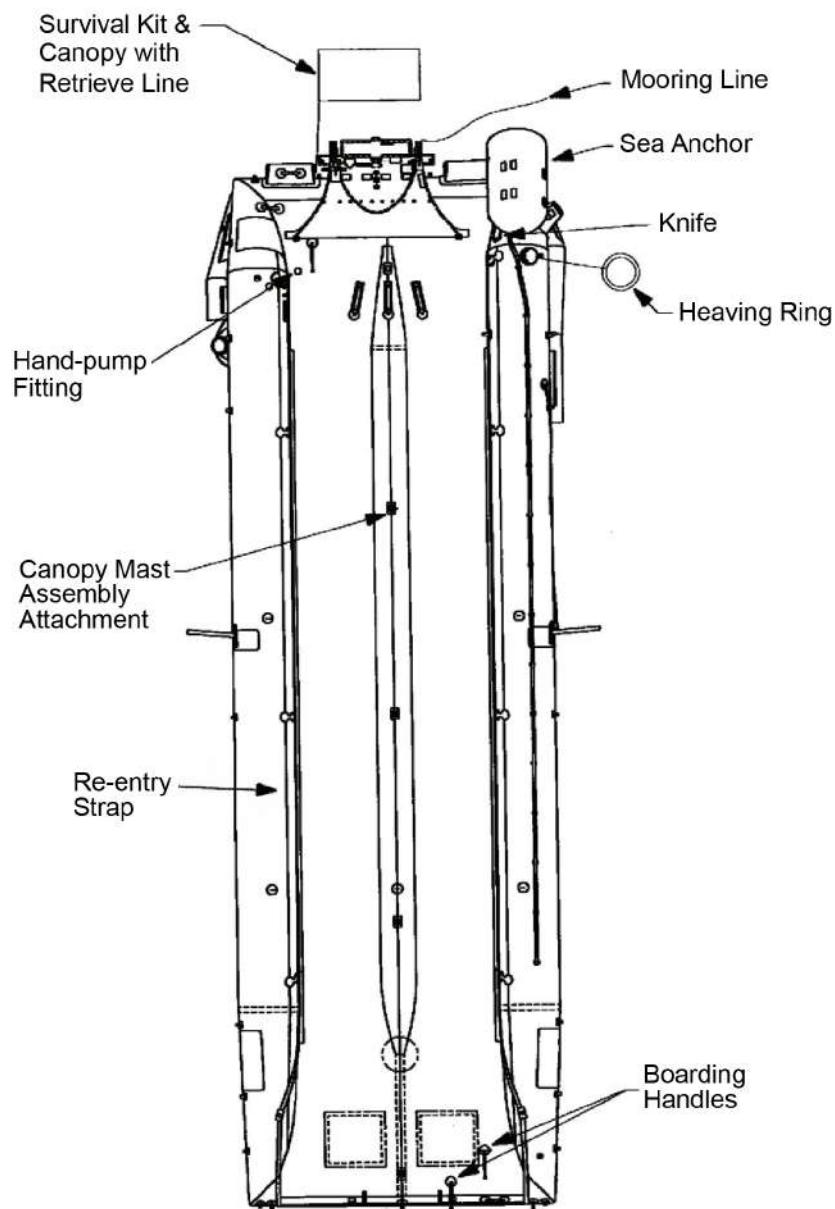
## 10.5.3 Slideraft

### 10.5.3.1 General

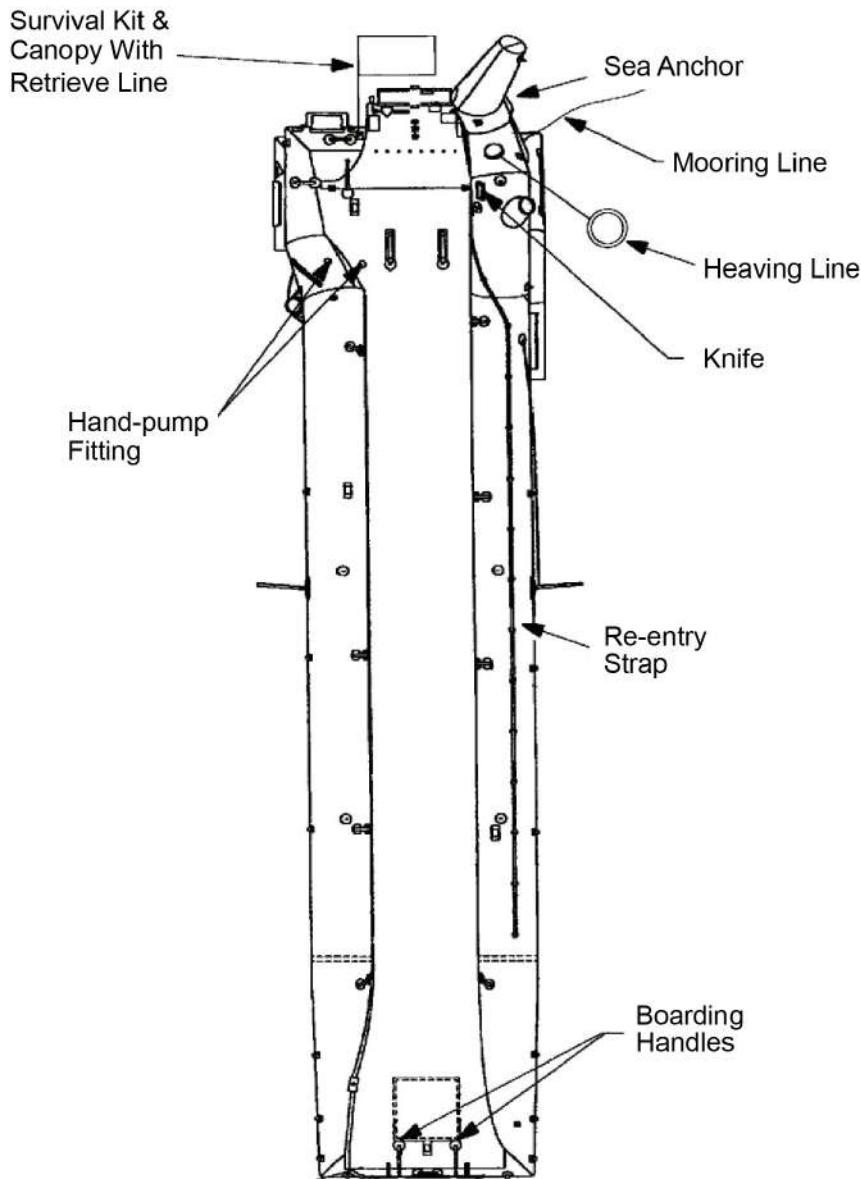
Type A doors are equipped with double channel sliderafts and Type C doors are equipped with single channel sliderafts which, in a ditching, both can be readily released from the aircraft.

### 10.5.3.2 Features

1. Double channel sliderraft at Type A doors.



2. Single channel sliderraft at Type C doors.



### 10.5.3.3 Sliderraft Accessories

Each kit contains the following items:

First Aid and Survival Items	Quantity
Ammonia Inhalant	12
Antiseptic Swab	20
Bandages (1 IN x 3 IN)	2
Bandages Compress (2 IN)	12
Bandages Compress (4 IN)	2
Burn Ointment	4

First Aid and Survival Items	Quantity
Triangular Bandages	3
Water Purification Tablets	50

Seaworthiness Equipment	Quantity
Bailing Bucket	1
Canopy	1
Canopy Support Rod	9
Distress Signal, Parachute	1
Hand Pump	1
Repair Clamps	2
Sea Dye Marker	1
Signal Flares	1
Signalling Mirror	1
Sponge	1
Survival Manual	1
Torch (powered by lithium battery)	1
Utility Knife	1
Whistle	1

#### 10.5.3.4 Setting Up the Canopy

1. Spread the canopy over the legs of the occupants.
2. Install the centre masts along the centre tube of the raft.
3. Install the side support rods along the upper side tubes of the raft.
4. Attach the canopy over the side support rods and the centre masts. The side ends of the canopy may be tied to the fabric loops on the buoyancy chamber, or in calm conditions, folded upwards and tied by the tapes provided.
5. Sliderraft Capacity:

Door Number	Normal Capacity		Overload Capacity	
	A350-900	A350-1000	A350-900	A350-1000
L1, R1	35	35	46	46
L2, R2	48	48	68	68
L3, R3	32	61	41	77
L4, R4	62	62	76	76

## 10.5.4 Land Evacuation

### 10.5.4.1 Land Evacuation Duties – Flight Crew

#### 10.5.4.1.1 Captain

1. Take torch.
2. Ensure the flight deck is clear.
3. Proceed to the cabin and assist with the evacuation on the left hand side.
4. Evacuate.
5. Take command on the ground.

#### 10.5.4.1.2 First Officer

1. Take torch.
2. Ensure the flight deck is clear.
3. Proceed to the cabin and assist with the evacuation on the right hand side.
4. Evacuate.
5. Assist on the ground.

#### 10.5.4.1.3 Second Officer (if carried) or Supernumerary Crew

Perform duties as assigned by the Captain.

### 10.5.4.2 Land Evacuation Duties – Cabin Crew

#### 10.5.4.2.1 Door Primary Duties

<b>Evacuation and motivation commands</b>	Immediately after the command "EVACUATE" has been repeated, order "SAW SARN" "SEAT BELTS OFF, HIGH HEELS OFF, COME THIS WAY". This is to enable the cabin crew to establish control over the passengers at the first opportunity.
<b>Evaluate outside</b>	If fire/smoke is evident, do not open the door. Redirect passengers to usable exits.
<b>Check mode "Armed"</b>	The mode selector is in the "forward" position.
<b>Open door</b>	Lift the door operating handle fully up and release the handle when the power assist system starts to open the door.
<b>Check escape route safe</b>	Ensure proper sliderraft deployment and that it is safe to exit e.g. no fire or obstruction.
<b>Direct passengers</b>	Direct evacuation at the door. Stay clear of the passenger flow by stepping to one side and secure yourself by holding the assist handle. Monitor evacuation in respect of the sliding angle, the condition of the sliderraft, congestion at the bottom of sliderraft, spreading fire.

<b>Check area – evacuate</b>	Quickly walk around your area to look for injured, unconscious, incapacitated passengers or crew. Pay particular attention to the toilets and the space between seat rows.  On completion, evacuate.  After evacuation, assist and control passengers by gathering them together. Move passengers away from the aircraft as far as practicable. It may be necessary to render first aid and reassure passengers before help arrives. Passengers may wish to re-enter the aircraft for their belongings; they must be stopped.
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**Note 1:** *Door primaries are to reset the Evacuation Alert System (if applicable) before giving commands in an evacuation.*

**Note 2:** *The PBE should be used in a smoke filled environment.*

**Note 3:** *Should it be necessary to remove the ELT, the door primary at the door where the ELT is located is responsible for doing this.*

#### 10.5.4.2.2 Door Assist Duties

<b>Evacuation and motivation commands</b>	Repeat the command "EVACUATE" "SAW SARN" "SEAT BELTS OFF, HIGH HEELS OFF, COME THIS WAY, FOLLOW ME". Use gestures to attract attention if necessary.
<b>Evacuate</b>	Lead passengers out through the nearest available exit.
<b>Assist on ground</b>	After exiting, remain at the bottom of the slide and assist passengers by helping them off the sliderraft, keeping the exit route clear of hand baggage or passengers who fail to gain their footing when reaching the ground. Move passengers away from the aircraft. Most important of all, as quickly as possible, organize suitable passengers to take over your job so that you are free to move over to help at other slides (where necessary).

**Note:** *If circumstances are such (e.g. failure of doors to open, injured door primary) that Door Assist can be of greater use directing passengers inside the cabin, they should use their own judgement when to evacuate.*

#### 10.5.5 Ditching Evacuation

##### 10.5.5.1 Ditching Evacuation Duties – Flight Crew

###### 10.5.5.1.1 Captain

1. Take own life jacket and torch.
2. Ensure the flight deck is clear.
3. Proceed to the cabin and assist with the evacuation on the left hand side.
4. Board the sliderraft and take command.

###### 10.5.5.1.2 First Officer

1. Take own life jacket and torch.

2. Ensure the flight deck is clear.
3. Proceed to the cabin and assist with the evacuation on the right hand side.
4. Board the sliderraft and take command.

#### 10.5.5.1.3 Second Officer (if carried) or Supernumerary Crew

Perform duties as assigned by the Captain.

#### 10.5.5.2 Ditching Evacuation Duties – Cabin Crew

##### 10.5.5.2.1 Door Primary Duties

<b>Evacuation and motivation commands</b>	Immediately after the command "EVACUATE" has been repeated, order "SAW SARN" "SEAT BELTS OFF, LIFE JACKETS ON, SHOES OFF, COME THIS WAY".
<b>Assess aircraft attitude</b>	It is important to ensure that the doorsill is above water level before door opening. Cabin crew should rapidly assess whether the door is usable by checking the water level through the door window and referring to the slope of the cabin floor. If the door is unusable, guard the door to prevent use by passengers.
<b>Check mode "Armed"</b>	The mode selector is in the "forward" position.
<b>Open door</b>	Lift the door operating handle fully up and release the handle when the power assist system starts to open the door.
<b>Check sliderraft deployment</b>	Ensure proper sliderraft deployment and that it is safe to board the sliderraft.
<b>Direct passengers</b>	Direct evacuation at the door. Stay clear of the passenger flow by stepping to one side and secure yourself by holding the assist handle. Ensure passengers life jackets are inflated and all shoes are removed before boarding the passengers.
<b>Check area – evacuate</b>	Quickly walk around your area to look for injured, unconscious, incapacitated passengers or crew. Pay particular attention to the toilets and the space between seat rows. On completion, board the sliderraft. Release and cast off after boarding.

**Note 1:** *Door primaries are to reset the Evacuation Alert System (if applicable) before giving commands in an evacuation.*

**Note 2:** *The PBE should be used in a smoke filled environment.*

**Note 3:** *Should it be necessary to remove the ELT, the door primary at the door where the ELT is located is responsible for doing this.*

### 10.5.5.2.2 Door Assist Duties

<b>Evacuation and motivation commands</b>	Repeat the command "EVACUATE" "SAW SARN" "SEAT BELTS OFF, LIFE JACKETS ON, SHOES OFF, COME THIS WAY, FOLLOW ME". Use gestures to attract attention if necessary.
<b>Evacuate</b>	Lead passengers onto the nearest available sliderraft.
<b>Assist on raft</b>	Instruct passengers to inflate their life jackets and to move on hands and knees. Ensure they are evenly distributed on the sliderraft.

**Note:** If circumstances are such that Door Assist can be of greater use directing passengers inside the cabin, they should use their own judgement when to evacuate.

## 10.5.6 Aircraft Emergency Oxygen Systems

### 10.5.6.1 Cabin

1. When the cabin altitude reaches 9,550 FT, all cabin lights will come on bright, the "No Smoking" and "Seat Belt" signs will illuminate with the corresponding chimes. When cabin altitude reaches 13,800 FT, oxygen masks will deploy automatically. The masks must be pulled down to initiate oxygen flow. Additionally, there will be an automatic P/A in English, Cantonese, Putonghua and Japanese.
2. The accumulator bag attached to the oxygen mask may not inflate even when oxygen is flowing to the mask.
3. Masks are provided in the oxygen modules above every passenger and cabin crew seat. There are two in each lavatory.
4. Spare masks are available at most of passenger seats and at designated baby bassinet positions.
5. Due to the height of the ceiling in certain locations, a lanyard may be fitted with a red PULL flag to enable passenger/crew to grasp and pull the mask. Pulling the lanyard allows the masks to drop and initiates the oxygen flow.
6. The oxygen system in the cabin uses a gaseous oxygen supply. Once initiated, the oxygen flow cannot be stopped.

**Note:** The oxygen masks can also be manually deployed from the flight deck.

### 10.5.6.2 Flight Deck

The oxygen system in the flight deck uses a gaseous system. A mask is available for each flight deck occupant. It is different to the type provided in the cabin. The mask does not deploy automatically and must be pulled out from its stowage.

## 10.5.7 Emergency Lighting System

### 10.5.7.1 General

The emergency lighting system provides emergency lighting to illuminate the cabin, aisles, cross aisles and exit signs. Control switch is in flight deck and Cabin FAP. Emergency lights on the slides are turned on when they are deployed.

Passenger Emergency Escape Path Lighting System (PEEPLS) is part of the emergency lighting system. In the event of a smoke filled cabin, the PEEPLS will guide passengers to the nearest exit.

Seat mounted emergency lights are installed in the lower part of the aisle passenger seats.

The emergency lighting may be controlled either automatically or manually.

### 10.5.7.2 Duration

Approximately 10 MIN.

## 10.5.8 Evacuation Alert System

### 10.5.8.1 Operation

#### 10.5.8.1.1 "CAPT" Position

1. When the "EVAC ON" button in the flight deck is pressed, the following occurs in the cabin.
  - A. All AIPs flashes and a message "EVACUATION ALERT" is displayed.
  - B. There will be an alarm.
  - C. The "EVAC RESET" buttons flash red.

**Note:** *The "EVAC ON" button in the flight deck flashes red.*

2. When the "EVAC CMD" button on the FAP is pressed, the following occurs in the flight deck.
  - A. The "EVAC ON" button flashes red.
  - B. There will be a chime for approximately 3 SEC.
  - C. The Captain will order "ATTENTION, EVACUATE, EVACUATE" or "ATTENTION, CREW AT STATIONS. ATTENTION, CREW AT STATIONS".

**Note:** *The "EVAC CMD" button on the FAP illuminates (green in colour).*

#### 10.5.8.1.2 "CAPT & PURS" Position

1. When the "EVAC ON" button in the flight deck is pressed, the following occurs in the cabin.
  - A. AIPs flashes and a message "EVACUATION ALERT" is displayed.
  - B. There will be an alarm.
  - C. The "EVAC RESET" buttons flash red.

**Note:** *The "EVAC ON" button in the flight deck flashes red.*

2. When the "EVAC CMD" button at the FAP is pressed, the following occurs.
  - A. In the flight deck:
    - a. The "EVAC ON" button flashes red.
    - b. There is a continuous chime.
  - B. In the cabin:
    - a. All AIPs flashes and a message "EVACUATION ALERT" is displayed.

- b. There will be an alarm.
- c. The “EVAC CMD” button illuminates (green in colour).
- d. The “EVAC RESET” buttons flash red.

#### 10.5.8.1.3 Cancelling Outputs

By pressing the “EVAC RESET” button, the alarm at the respective station is silenced but the button remains flashing.

#### 10.5.8.1.4 Company Policy

The company policy is to have the toggle switch in the “CAPT” position.

### 10.5.9 Flight Crew Rest Compartment (FCRC)

#### 10.5.9.1 Crew Evacuation Procedures

Should it be necessary to evacuate the area, the primary means of escape is through the FCRC entrance door. An emergency hatch is also available.

1. To open the Emergency Hatch from inside the FCRC:
  - A. Turn the lower latch clockwise until the emergency hatch is unlocked.



- B. Pull the emergency hatch inward and remove.



- C. Push the outer hatch cover out and leave the FCRC through the hole.



- D. If the lower latch is jammed, unlock both upper latches and pull the emergency hatch inward and remove.



2. To open the Emergency Hatch from inside the cabin:
- A. Push through the flap into the grip hole to pull the hatch cover.



- B. Turn the lower latch counter-clockwise to unlock the emergency hatch.



- C. Push the emergency hatch inward and remove.



- D. If the emergency hatch is jammed, turn the lower latch clockwise to lock the hatch again. Then unlatch both upper latches to unlock the emergency hatch. Push the emergency hatch inward and remove.



3. Moving an Incapacitated Person (IP) via the entrance door:
  - A. Move the IP toward FCRC door, with the feet towards the door.
  - B. With the upper crew member supporting the upper torso (chest and head), the lower crew member supporting the legs, carry the IP down and out of the staircase.



4. Moving and Incapacitated Person (IP) through the emergency hatch.
  - A. Move the IP toward the emergency hatch and sit the IP on the crew rest seat.



- 
- B. The crew in the cabin shall support the IP's head from the hatch opening and the other crew member shall support the chest and legs while moving the IP down.



### 10.5.9.2 Emergency Lights

The FCRC is equipped with emergency lights and emergency exit signs which are supplied and controlled by the aircraft emergency lighting system.

### 10.5.9.3 Emergency Oxygen System

1. In an event of depressurisation, a continuous high chime sounds through the FCRC loudspeakers.
2. Oxygen masks are mounted on the partition next to each bunk and the crew rest seat.
3. Oxygen masks drop automatically when the cabin altitude exceeds 13,800 FT.

### 10.5.9.4 Smoke Detection System

Smoke detectors are installed in the FCRC.

1. When smoke is detected, a warning signal is transmitted to the CIDS and the flight deck and the following occur:
  - A. In the FCRC:
    - a. A single triple low chime sounds for smoke alert, after that a sequence of 4 low chimes sounds for 30 SEC then, a triple low chime sounds every 30 SEC.
    - b. AIP indicates "SMOKE FCRC" in a red flashing alert info box.
    - c. FCRC lighting is automatically set to 100% intensity.
  - B. In the Cabin:
    - a. A triple low chime sounds every 30 SEC in the cabin, the amber light on the respective ACP flashes, all AIPs indicates "SMOKE FCRC" in a red flashing alert info box.
    - b. The smoke indicator outside the FCRC flashes amber.
    - c. "SMOKE DETECTION" page appears on the FAP with the location of the affected area, and the "SMOKE RESET" comes on red.
2. If there is a smoke warning in the crew rest area and the area is occupied by crew members:
  - A. The crew inside shall prepare fire fighting equipment.
  - B. Locate the source and fight the fire.If fire is not evident in the crew rest area, check the area thoroughly. In all cases, report the incident to the Captain and the SCCM.
3. If there is a smoke warning in the crew rest area and the area is unoccupied:
  - A. Ensure the entrance door is closed.
  - B. Prepare the fire fighting equipment.
  - C. Feel the door.
    - a. If the door is not hot:
      - i. Open the entrance door with caution.

- ii. Locate the source of fire/smoke.
- iii. Fight the fire.

If fire/smoke is not evident, check the area thoroughly. In all cases, report the incident to the Captain and the SCCM.

- b. If the door is hot or smoke is visible:
  - i. Keep the entrance door closed.
  - ii. Stay low.
  - iii. Use the entrance door as protection as you open the door.
  - iv. Locate the source of the fire/smoke.
  - v. Discharge the extinguisher at the base of the fire.
  - vi. Inform the Captain and the SCCM.
- c. If unable to enter the area (due to severity of the fire and smoke) and unable to locate the source:
  - i. Open the door slightly and raise the extinguisher as high as you can.
  - ii. Place the nozzle of the extinguisher in the gap.
  - iii. Discharge the full bottle of fire extinguisher and close the door.
  - iv. Reopen the door after half a minute and re-evaluate the situation.
  - v. If necessary, discharge another bottle.

## 10.5.10 Cabin Crew Rest Compartment (CCRC)

### 10.5.10.1 General

1. Occupancy is limited to the number of bunks:
  - o A350-900 (6)
  - o A350-1000 (8)
2. Occupants shall fasten lap belts while in the bunk.
3. All loose items must be secured. If this is not possible, they should be removed and secured in the cabin.

### 10.5.10.2 Crew Evacuation Procedures

Should it be necessary to evacuate the area, the primary means of escape is through the CCRC entrance door. An emergency hatch is also available at the end of the common area.

1. To open the Emergency Hatch from inside the CCRC.

If time permits, before opening the hatch, use the interphone to call cabin crew in the main cabin to clear the area below the hatch.

- A. Remove the carpet from the emergency hatch.



- B. Slide both latch handles to the OPEN position.



- C. Pull both latch handles simultaneously to lift the emergency hatch and put it aside.



- D. Push down the lower hatch cover.



- E. Release the lanyards pulling the two red straps.



2. To open the Emergency Hatch from the cabin:

- A. Push the hand through the placard into the grip hole and pull down the hatch cover.



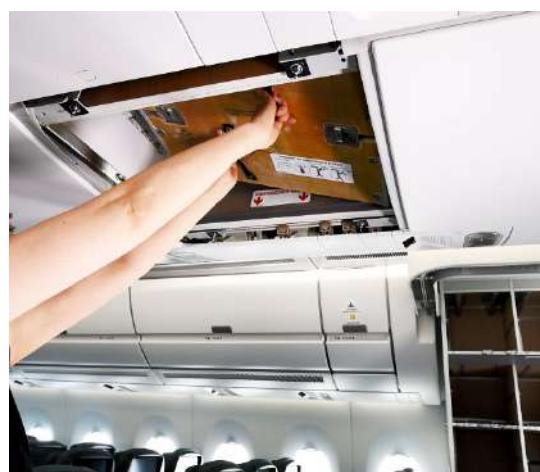
- B. Pull both red straps to release the lanyards.



- C. Slide both latch handles to the OPEN position.



- D. Hold the two handles and push the hatch upwards and open.



3. Moving an Incapacitated Person (IP) via the entrance door:

- A. Move the IP toward the CCRC door, with the head towards the door.



- B. With the crew member in the cabin carry the back and head of the IP, the other crew supporting the legs, carry the IP out of the CCRC.



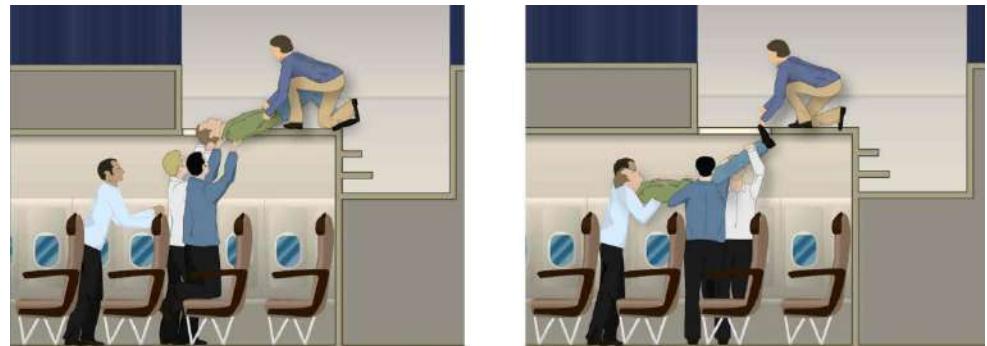
4. Moving an Incapacitated Person (IP) through the emergency hatch:

If time permits, before opening the hatch, use the interphone to call cabin crew in the main cabin to clear the area below the hatch.

- A. Move the IP toward the emergency hatch with the head towards the hatch.



- B. The crew in the cabin shall support the IP's head and neck from the hatch opening and the other crew member shall support the chest and legs while moving the IP down.



### 10.5.10.3 Emergency Lights

The CCRC is equipped with emergency lights and emergency exit signs which are supplied and controlled by the aircraft emergency lighting system.

### 10.5.10.4 Emergency Oxygen System

1. In an event of depressurisation, a continuous high chime sounds through the CCRC loudspeakers.
2. Oxygen masks are located on the partition next to each bunk.
3. Oxygen masks drop automatically when the cabin altitude exceeds 13,800 FT.

### 10.5.10.5 Smoke Detection System

Smoke detectors are installed in the CCRC.

1. When smoke is detected, a warning signal is transmitted to the CIDS and the flight deck and the following occur.

- A. In the CCRC:
  - a. A single triple low chime sounds for smoke alert, after that a sequence of 4 low chimes sounds for 30 SEC then, a triple low chime sounds every 30 SEC.
  - b. AIP indicates the affected area in a red flashing alert info box.
  - c. CCRC lighting is automatically set to 100% intensity.
- B. In the cabin:
  - a. A triple low chime sounds every 30 SEC in the cabin, the amber light on the respective ACP flashes, all AIPs indicated the affected area in a red flashing alert info box.
  - b. Respective CCRC smoke indicator flashes amber.
  - c. "SMOKE DETECTION" page appears on the FAP with the location of the affected area, and the "SMOKE RESET" comes on red.
- 2. If there is a smoke warning in the crew rest area and the area is occupied by crew members:
  - A. The crew inside shall prepare fire fighting equipment.
  - B. Locate the source and fight the fire.

If fire is not evident in the crew rest area, check the area thoroughly. In all cases, the incident shall report to the Captain and the SCCM.
- 3. If there is a smoke warning in the crew rest area and the area is unoccupied:
  - A. Ensure the entrance door is closed.
  - B. Prepare the fire fighting equipment.
  - C. Feel the door.
    - a. If the door is not hot:
      - i. Open the entrance door with caution.
      - ii. Locate the source of fire/smoke.
      - iii. Fight the fire.
    - b. If the door is hot or smoke is visible:
      - i. Keep the entrance door closed.
      - ii. Stay low.
      - iii. Use the entrance door as protection as you open the door.
      - iv. Locate the source of the fire/smoke.
      - v. Discharge the extinguisher at the base of the fire.
      - vi. Inform the Captain and the SCCM.

If fire/smoke is not evident, check the area thoroughly. In all cases, the incident shall report to the Captain and the SCCM.

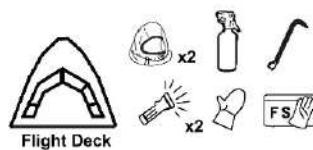
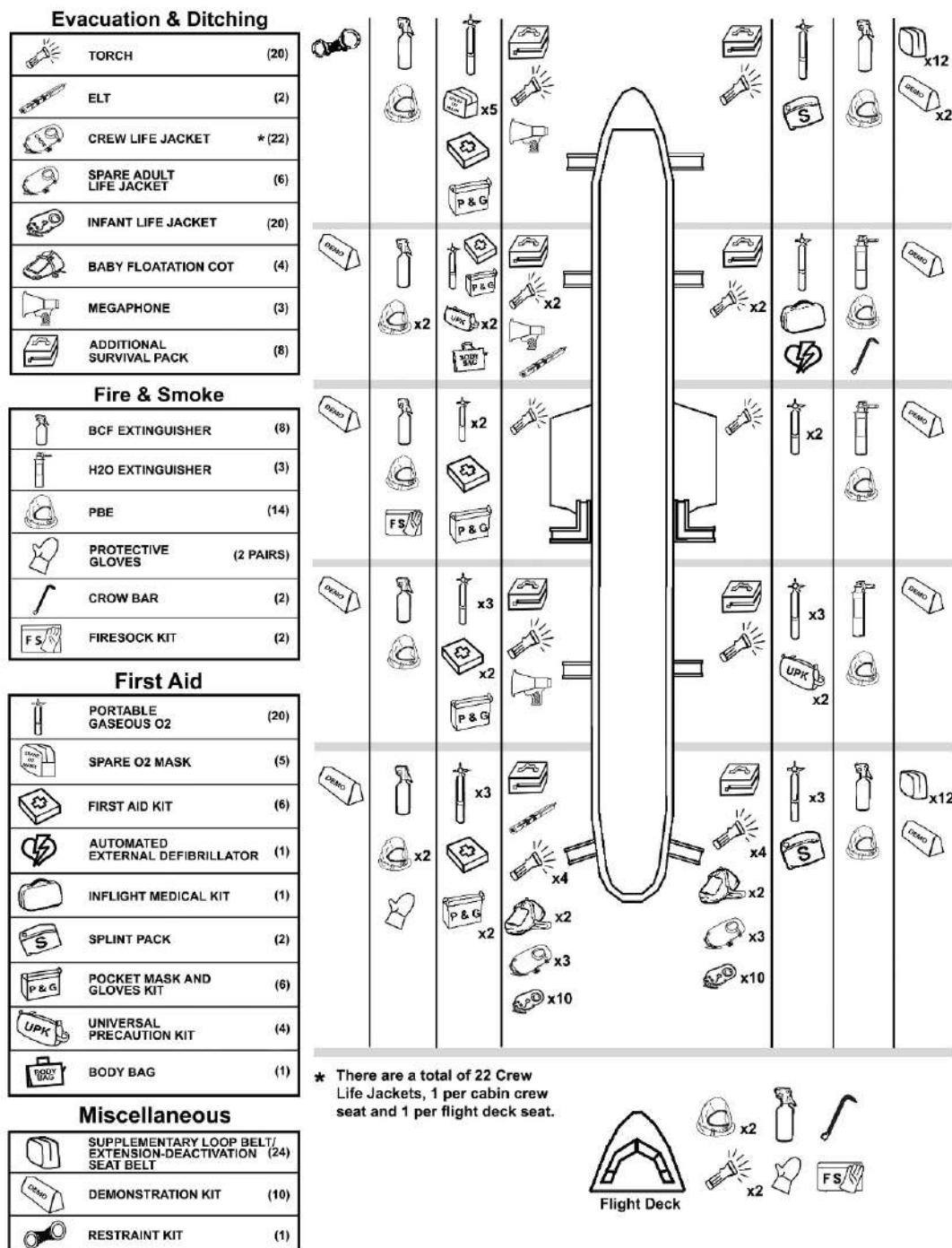
- c. If unable to enter the area (due to severity of the fire and smoke), and unable to locate the source:
  - i. Open the door slightly and raise the extinguisher as high as you can.
  - ii. Place the nozzle of the extinguisher in the gap.
  - iii. Discharge the full bottle of fire extinguisher and close the door.
  - iv. Reopen the door after half a minute and re-evaluate the situation.
  - v. If necessary, discharge another bottle.

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## 10.6 777

### 10.6.1 Emergency Equipment Locations

#### 10.6.1.1 777-300 (773P)



1. Torch (20)  
**Flight deck:** Next to Captain and First Officer's seat (1 each)  
**L1, R1, L2, L2A, R2, R2A, L3, R3, L4, R4, L5, L5A1, L5A2, L5A3, R5, R5A1, R5A2, R5A3:** Crew seat compartment (1 each)
2. ELT (2)  
**L2, L5:** Centre stowage compartment (1 each)
3. Spare Adult Life Jacket (6)  
**L5, R5:** Centre overhead compartment (3 each)
4. Infant Life Jacket (20)  
**L5, R5:** Centre overhead compartment (10 each)
5. Baby Floatation Cot (4)  
**L5, R5:** Centre overhead compartment (2 each)
6. Megaphone (3)  
**L1:** Forward stowage compartment (1)  
**L2:** Centre stowage compartment (1)  
**L4:** Compartment aft of door (1)
7. Additional Survival Pack (8)  
**L1:** Compartment forward of door (1)  
**R1:** Compartment aft of door (1)  
**L2, R2, L4, R4:** Doghouse forward of door (1 each)  
**L5, R5:** Centre overhead compartment (1 each)
8. BCF Extinguisher (8)  
**Flight deck:** Behind Captain's seat (1)  
**L1, R1:** Forward stowage compartment (1 each)  
**L2, L3, L4:** Doghouse forward of door (1 each)  
**L5, R5:** Partition forward of door (1 each)
9. H<sub>2</sub>O Extinguisher (3)  
**R2, R3, R4:** Doghouse forward of door (1 each)

10. PBE (14)

- Flight deck:** On aft wall (2)  
**L1, R1:** Forward stowage compartment (1 each)  
**L2:** Centre stowage compartment (1)  
Forward face of centre stowage compartment (1)  
**R2:** Centre stowage compartment (1)  
**L3, R3, L4, R4:** On top of doghouse forward of door (1 each)  
**L5:** Partition forward of door (1)  
Forward face of centre stowage compartment (1)  
**R5:** Partition forward of door (1)

11. Protective Gloves (2 pairs)

- Flight deck:** Behind Captain's seat (1 pair)  
**L5:** Centre doghouse (1 pair)

12. Crow Bar (2)

- Flight deck:** Closet (1)  
**R2:** Centre stowage compartment (1)

13. FireSock Kit (2)

- Flight deck:** Closet (1)  
**L3:** Doghouse forward of door (1)

14. Portable Gaseous O<sub>2</sub> (20)

- L1, R1:** Forward stowage compartment (1 each)  
**L2, R2:** Centre stowage compartment (1 each)  
**L3, R3:** Centre doghouse (2 each)  
**L4, R4:** Centre doghouse (3 each)  
**L5, R5:** Centre doghouse (3 each)

15. Spare O<sub>2</sub> Mask (5)

- L1:** Forward stowage compartment (5)

16. First Aid Kit (6)

- L1:** Compartment forward of door (1)  
**L2, L3, L4:** Doghouse forward of door (1 each)  
**L4:** Compartment aft of door (1)  
**L5:** Centre overhead compartment (1)

17. Automated External Defibrillator (1)

- R2:** Centre stowage compartment (1)

18. Inflight Medical Kit (1)

**R2:** Centre stowage compartment (1)

19. Splint Pack (2)

**R1:** Compartment aft of door (1)

**R5:** Centre overhead compartment (1)

20. Pocket Mask and Gloves Kit (6)

**L1, L2, L3, L4:** Crew seat compartment (1 each)

**L5:** Crew seat compartment (2)

21. Universal Precaution Kit (4)

**L2:** Centre stowage forward of door (2)

**R4:** Compartment forward of door (2)

22. Body Bag (1)

**L2:** Centre stowage forward of door (1)

23. Supplementary Loop Belt/Extension-Deactivation Seat Belt (24)

**R1:** Compartment aft of door (12)

**R5:** Centre overhead compartment (12)

24. Demonstration Kit (10)

**R1:** Forward stowage compartment (2)

**L2, R2, L3, R3,  
L4, R4:** Doghouse forward of door (1 each)

**L5, R5:** Centre overhead compartment (1 each)

25. Restraint Kit (1)

**L1:** VCC unit (1)

## 10.6.1.2 777-300ER (773A/K)

(The emergency equipment location diagram is based on 773A. Refer to notes for 773K differences.)

773A B-KPA/D/E/F/I/O/Q/R/U/V/W/X & B-KQG/H/I/J/K/M/U/V/W

773K B-KPY/Z, B-KQC/D/E/F/L/N/O/P/Q/R/S/T/X/Y/Z & B-HNR

### Evacuation & Ditching

TORCH (19)	* (21)	(6)	(24)	(8)	(3)	(8)
x2	x5	x2	x2	x2	x2	x2

### Fire & Smoke

BCF EXTINGUISHER (12)	H2O EXTINGUISHER (3)	PBE (21)	PROTECTIVE GLOVES (2 PAIRS)	CROW BAR (2)	FIRESOCK KIT (2)	
x2	x2	x2	x2	x2	x2	x2

### First Aid

PORTABLE GASEOUS O2 *** (18)	SPARE O2 MASK (5)	FIRST AID KIT (5)	AUTOMATED EXTERNAL DEFIBRILLATOR (1)	INFILIGHT MEDICAL KIT (1)	SPLINT PACK (2)	
x2	x3	x2	x2	x2	x2	x2

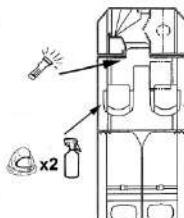
### Miscellaneous

SUPPLEMENTARY LOOP BELT/EXTENSION-DEACTIVATION SEAT BELT (32)	DEMONSTRATION KIT ** (13)	ARCTIC SURVIVAL KIT (2)	RESTRAINT KIT (1)
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\* There are a total of 21 Crew Life Jackets, 1 per cabin crew seat, 1 per flight deck seat and 1 per flight crew rest seat.

\*\* On 773K there are 12 Demonstration Kits.

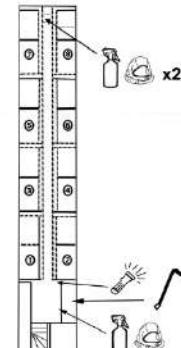
\*\*\* On 773K there are 22 Portable Gaseous O2.



Door 1 Upper Crew Rest Area



Flight Deck



Door 5 Upper Crew Rest Area

1. Torch (19)

**Flight deck:** Next to Captain and First Officer's seat (1 each)

**L1, L1A, R1, L2, L2A, R2, L3, R3, L4, R4, L5, L5A, R5, R5A1, R5A2:** Crew seat compartment (1 each)

**Door 1 upper crew rest area:** Partition forward of left crew rest seat (1)

**Door 5 upper crew rest area:** Aft of bunk 2 (1)

2. ELT (2)

**L2:** 773A:

Overhead compartment aft of door (1)

773K:

Overhead compartment forward of door (1)

**L5:** Doghouse forward of door (1)

3. Spare Adult Life Jacket (6)

**L5, R5:** Overhead compartment forward of door (3 each)

4. Infant Life Jacket (24)

**L5, R5:** Overhead compartment forward of door (12 each)

5. Baby Floatation Cot (8)

**L5, R5:** Overhead compartment forward of door (4 each)

6. Megaphone (3)

**L1:** Forward stowage compartment (1)

**L2:**

773A: Overhead compartment aft of door (1)

773K:

Overhead compartment forward of door (1)

**L4:**

773A: Compartment forward of door (1)

773K:

Overhead compartment forward of door (1)

7. Additional Survival Pack (8)

**L1:** Top compartment next to crew rest area (1)

**R1:** Centre stowage compartment (1)

**L2:** 773A:

Overhead compartment aft of door (1)

773K:

Overhead compartment forward of door (1)

**R2:** Overhead compartment aft of door (1)

**L4, L5:** Overhead compartment forward of door (1 each)

**R4:** Doghouse forward of door (1)

**R5:** Compartment forward of door (1)

8. BCF Extinguisher (12)

<b>Flight deck:</b>	Behind Captain's seat (1)
<b>L1, R1:</b>	Forward stowage compartment (1 each)
<b>L2:</b>	Compartment aft of door (1)
<b>L3:</b>	773A: Compartment forward of door (1)
	773K: Doghouse forward of door (1)
<b>L4:</b>	773A: Doghouse forward of door (1)
	773K: Partition forward of door (1)
<b>L5, R5:</b>	Doghouse forward of door (1 each)
<b>Door 1 upper crew rest area:</b>	Behind each flight crew rest seat (1 each)
<b>Door 5 upper crew rest area:</b>	Aft of bunk 2 (1) Drawer between bunk 7 and 8 (1)

9. H<sub>2</sub>O Extinguisher (3)

<b>R2:</b>	Compartment aft of door (1)
<b>R3:</b>	773A: Compartment forward of door (1)
	773K: Doghouse forward of door (1)
<b>R4:</b>	Doghouse forward of door (1)

10. PBE (21)

<b>Flight deck:</b>	On aft wall (2)
<b>L1, R1:</b>	Forward stowage compartment (1 each)
<b>L2:</b>	Compartment aft of door (2)
<b>R2:</b>	Compartment aft of door (1)
<b>L3, R3:</b>	773A: Compartment forward of door (1 each)
	773K: On top of doghouse forward of door (1 each)
<b>L4:</b>	773A: Doghouse forward of door (1)
	773K: Partition forward of door (1)
<b>R4, R5:</b>	Doghouse forward of door (1 each)
<b>L5:</b>	Doghouse forward of door (2)
<b>Door 1 upper crew rest area:</b>	Next to each flight crew rest seat (1 each) Behind each flight crew rest seat (1 each)
<b>Door 5 upper crew rest area:</b>	Aft of bunk 2 (1) Drawer between bunk 7 and 8 (2)

11. Protective Gloves (2 pairs)

**Flight deck:** Behind Captain's seat (1 pair)

**L5:** Overhead compartment forward of door (1 pair)

12. Crow Bar (2)

**Flight deck:** Closet (1)

**Door 5 upper crew rest area:** Stowage compartment next to bunk 2 (1)

13. FireSock Kit (2)

**Flight deck:** Closet (1)

**L3:** 773A:  
Compartment forward of door (1)  
773K:  
Doghouse forward of door (1)

14. 773A:

Portable Gaseous O<sub>2</sub> (18)

**L1, R1:** Forward stowage compartment (1 each)

**L2, R2:** Compartment aft of door (1 each)

**L3, R3:** Compartment forward of door (2 each)

**L4, R4:** Centre doghouse (2 each)

**L5, R5:** Centre doghouse (3 each)

773K:

Portable Gaseous O<sub>2</sub> (22)

**L1, R1:** Forward stowage compartment (1 each)

**L2, R2:** Compartment aft of door (1 each)

**L3, R3, L4, R4, L5, R5:** Centre doghouse (3 each)

15. Spare O<sub>2</sub> Mask (5)

**L1:** Forward stowage compartment (5)

16. First Aid Kit (5)

**L1:** Top compartment next to crew rest area (1)

**L2:** Compartment aft of door (1)

**L3:** 773A:  
Compartment forward of door (1)

773K:  
Doghouse forward of door (1)

**L4, L5:** Overhead compartment forward of door (1 each)

17. Automated External Defibrillator (1)

**R2:** Compartment aft of door (1)

18. Inflight Medical Kit (1)  
  
**R2:** Compartment aft of door (1)
19. Splint Pack (2)  
  
**R1:** Centre stowage compartment (1)  
**R5:** Compartment forward of door (1)
20. Pocket Mask and Gloves Kit (6)  
  
**L1, L2, L3, L4:** Crew seat compartment (1 each)  
**L5:** Crew seat compartment (2)
21. Universal Precaution Kit (4)  
  
**R1:** Centre stowage compartment (2)  
**R4:** Compartment forward of door (2)
22. Body Bag (1)  
  
**R1:** Centre stowage compartment (1)
23. Supplementary Loop Belt/Extension-Deactivation Seat Belt (32)  
  
**R1:** Centre stowage compartment (16)  
**R5:** Overhead compartment forward of door (16)
24. 773A:  
Demonstration Kit (13)  
  
**R1:** Forward stowage compartment (2)  
**L2:** Overhead compartment aft of door (2)  
**R2:** Compartment aft of door (2)  
**L3, R3:** Compartment forward of door (1 each)  
**L4:** Centre overhead compartment forward of door (2)  
**R4:** Centre overhead compartment forward of door (1)  
**L5, R5:** Overhead compartment forward of door (1 each)  
  
773K:  
Demonstration Kit (12)  
  
**R1:** Forward stowage compartment (2)  
**L2:** Overhead compartment forward of door (2)  
**R2:** Compartment aft of door (2)  
**L3, R3:** Overhead compartment forward of door (1 each)  
**L4, R4:** Centre overhead compartment forward of door (1 each)  
**L5, R5:** Overhead compartment forward of door (1 each)

- 25. Arctic Survival Kit (2)
  - L1, R1: Ceiling compartment (1 each)
- 26. Restraint Kit (1)
  - L1: VCC unit (1)

## 10.6.2 Cabin Doors and Escape Systems

### 10.6.2.1 Doors 1, 2, 4 & 5

#### 10.6.2.1.1 General

Fitted with double channel sliderafts. Primary exits for both land and ditching evacuations.

Girt bar indicator flag viewing windows - "Black" when mode selector in Manual, "Yellow" when mode selector in Automatic.

#### 10.6.2.1.2 Pre-flight Emergency Equipment Check

Ensure the mode selector is in "Manual", check girt bar indicator flag viewing windows in "BLACK" and the red arrow on the door is aligned.

#### 10.6.2.1.3 Arming and Disarming

##### Arming

- 1. Move the mode selector to "Automatic".
- 2. Check the girt bar indicator flag viewing windows are "Yellow".

##### Disarming

- 1. Move the mode selector to "Manual".
- 2. Check the girt bar indicator flag viewing windows are "Black".

#### 10.6.2.1.4 Emergency Door Operation

With the mode selector in "Automatic", the door is armed. When the door operating handle is rotated to the rear, a power assist system is triggered and the door is power driven to the fully open position. Sliderraft will deploy automatically. Full inflation will take approximately 6-8 SEC.

**Note:** *Caution is to be exercised by the operator of the door. Once the power assist takes over the opening of the door, the operator is to release the door operating handle.*

##### Operation (Land/Ditch)

- 1. Evaluate outside (Land)/Assess the aircraft attitude (Ditch).
- 2. Check the mode selector is in "Automatic", i.e. in the aft position.
- 3. Rotate the door operating handle rearwards to open the door.
- 4. Check the escape route is safe (Land)/Check the sliderraft deployment (Ditch).

## Alternate Actions

1. If the Door Power Assist System fails, using a steady force, push the door fully open until it latches. Strength will be required to push open the door fully and pull the sliderraft out from the door bustle. Call for assistance from passengers if necessary.
2. If the sliderraft fails to inflate automatically, pull the red manual inflation handle at the right hand side of the girt bar.



3. If the sliderraft cannot be inflated or is unusable, guard the door and redirect passengers to other usable exits.

**Note:** *The sliderraft may also be used as an APRON SLIDE by using the hand-holds on the ground end to hold it taut while passengers exit one at a time. This is to be used as a last resort.*

## Sliderraft Deployment

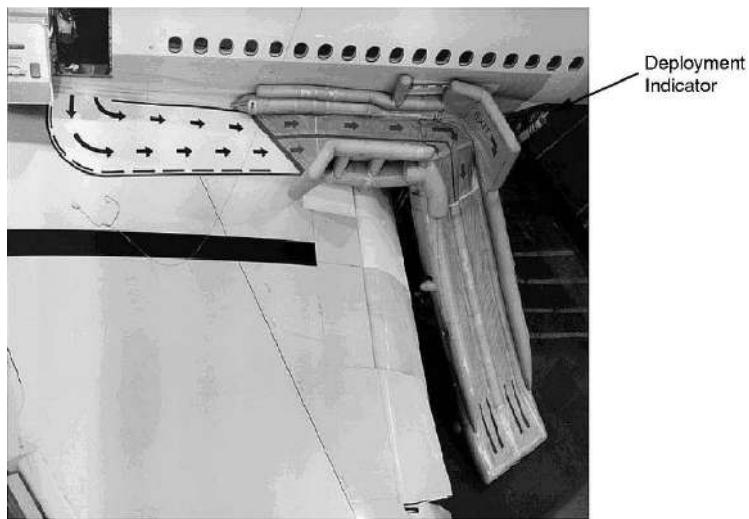
When "Automatic" is selected the girt bar is locked to the aircraft floor brackets. When the door is opened, the sliderraft is pulled out of the door bustle and when it drops below the doorsill, it inflates automatically.

### 10.6.2.2 Doors 3

#### 10.6.2.2.1 General

Fitted with double channel overwing slide. Primary exit for land evacuation and secondary for ditching.

Doors 3 (overwing exits) are emergency exits only. The overwing slide is packed in a compartment on the exterior of the aircraft between Doors 3 and 4. To check proper inflation of the overwing slide, look for the deployment indicator towards the aft of the aircraft. The double channel overwing slide when deployed is not attached to the doorsill but is a few meters aft of the door. It is necessary to step onto and move along the wing to reach the overwing slide. As the overwing slide cannot be used as a raft, therefore use of the door in a ditching evacuation is not recommended.



#### 10.6.2.2.2 Pre-flight Emergency Equipment Check

Ensure the mode selector is in “Manual” and the red arrow on the door is aligned.

#### 10.6.2.2.3 Arming and Disarming

##### Arming

1. Move the mode selector to “Automatic”.

##### Disarming

1. Move the mode selector to “Manual”.

#### 10.6.2.2.4 Emergency Door Operation

With the mode selector in “Automatic”, the door is armed. When the door operating handle is rotated to the rear, a power assist system is triggered and the door is power driven to the fully open position. Slide will deploy automatically. Full inflation will take approximately 6-8 SEC.

**Note:** *Caution is to be exercised by the operator of the door. Once the power assist takes over the opening of the door, the operator is to release the door operating handle.*

##### Operation (Land)

1. Evaluate outside.
2. Check the mode selector is in “Automatic”, i.e. in the aft position.
3. Rotate the door operating handle rearwards to open the door.
4. Check the escape route is safe, i.e. check the deployment indicator is visible.

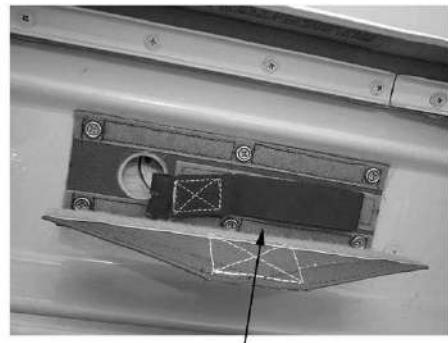
##### Alternate Actions

1. If the Door Power Assist System fails, forcibly push the door open until it latches.

2. If the automatic inflation of the overwing slide fails (deployment indicator is not visible), pull the red manual inflation handle at the upper aft corner of the door frame.



Manual Inflation Handle (under cover)



Manual Inflation Handle

3. If the overwing slide cannot be inflated or is unusable, guard the door and redirect passengers to other usable exits.

**Note:** *If the door is opened in "Manual" and the manual inflation handle is pulled, the slide will deploy and inflate.*

### Operation (Ditch)

In a ditching, Doors 3 are to be disarmed, i.e., the mode selectors shall be placed to "Manual", as the overwing slides cannot be released from the aircraft. Passengers are to be redirected to usable exits during the evacuation. For a prepared ditching, the mode selector will be placed to 'Manual' inflight upon instruction from the flight crew.

Ditching evacuation via Doors 3 is not recommended, however, should it be necessary to use Doors 3 in a ditching:

1. Assess the aircraft attitude.
2. Check the mode selector is in "Manual".
3. Rotate the door operating handle rearwards and push the door open until the gust lock engages.
4. Deploy the escape strap.
5. Direct passengers onto the wing using the escape strap.
6. Passengers should remain on the wing and wait for further directions.

**Note:** *Further directions are to be given by flight crew, cabin crew or the Rescue team, e.g., board the raft from the wing or enter the water and swim to the nearest raft, etc.*

### Escape Straps

An escape strap is stowed in the upper forward corner of each of the door frame at Doors 3. By connecting it to the attachment point (yellow bracket) on the leading edge of the wing (outboard of the engine), it will assist passengers and crew alighting from the cabin onto the wing.



### 10.6.2.3 Unusual Aircraft Attitudes

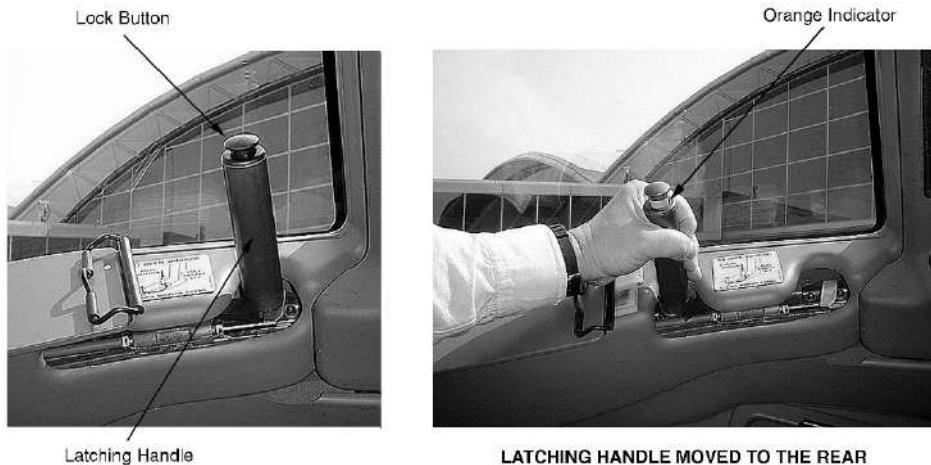
All doors are usable in all aircraft attitudes.

### 10.6.2.4 Flight Deck Exits

#### Opening of Sliding Windows

1. Push the latching handle lock button fully down and release – an orange indicator appears.

2. Move the latching handle to the rear.



3. Rotate the window operating handle to open the window.



### Escape Rope

1. An escape rope is located in a stowage above each sliding window.
2. Deploy the escape rope out of the window. Climb through the window and lower self down the rope. The rope is knotted to assist the descent.

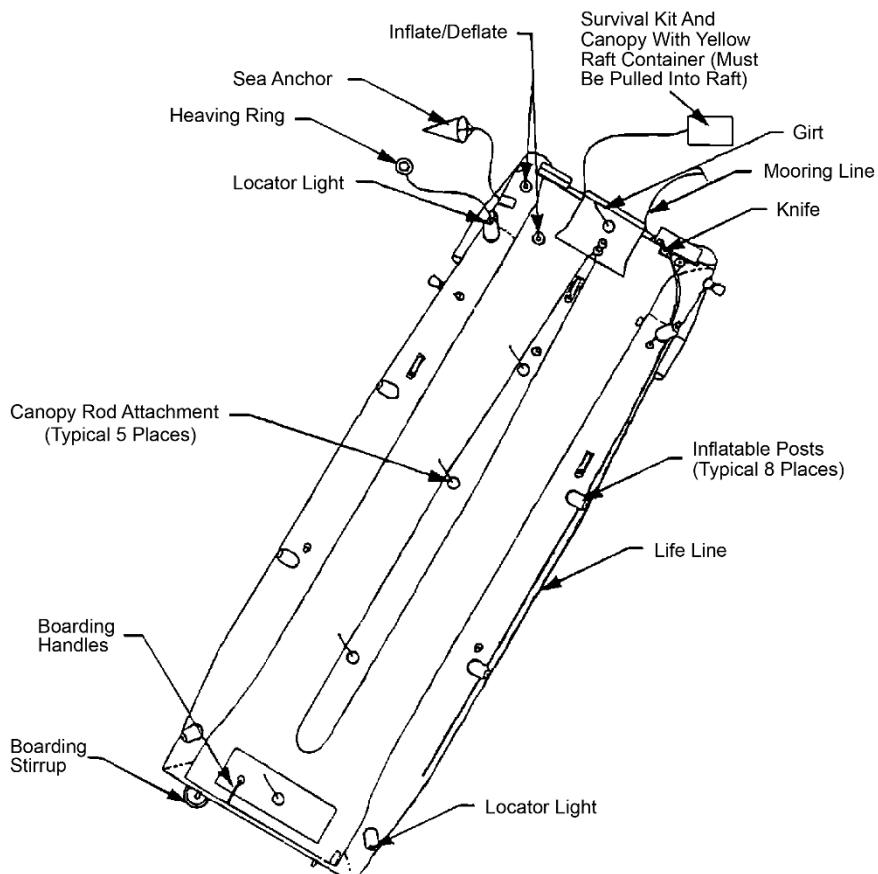
## 10.6.3 Slidraft

### 10.6.3.1 General

Doors 1, 2, 4 & 5 are equipped with slidrafts. Doors 3 are equipped with overwing slides and cannot be released from the aircraft. Therefore Doors 3 are not recommended to be used in a ditching.

Depending upon the doorsill height above the water, passengers will either crawl or jump onto the sliderraft and be told to disperse evenly left and right to the far end.

### 10.6.3.2 Features



### 10.6.3.3 Releasing from the Aircraft

#### 10.6.3.3.1 To Release the Sliderraft

Pull open the girt cover and pull the white girt release handle. This unties the lacing attaching the sliderraft to the doorsill. Once the lacing is undone, the sliderraft drops clear of the doorsill.

**Note:** If you pull the girt release handle whilst on the sliderraft, keep your head and body well away from the doorsill because a loaded sliderraft will drop suddenly and rapidly.



Girt Release Handle Under Girt Cover

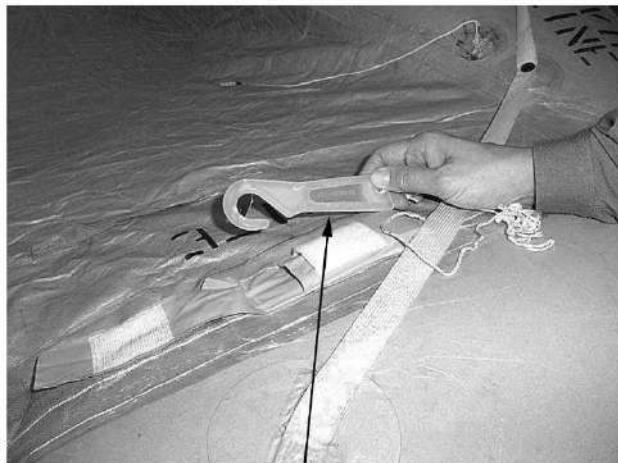
### 10.6.3.4 Cast Off

One end of the mooring line is pre-attached to the girt bar whilst the other end is pre-attached to the sliderraft. The mooring line holds the sliderraft in the vicinity when it is released. The mooring line has to be disconnected in order to completely separate the sliderraft from the aircraft.

#### 10.6.3.4.1 To Cast Off the Sliderraft

Pull the quick release handle OR use the hook knife to cut the mooring line.

**Note:** *If the aircraft sinks, the mooring line will break automatically.*



Hook Knife

### 10.6.3.5 Sliderraft Accessories

#### 10.6.3.5.1 Survival Kit

One survival kit is tied to each sliderraft and stowed in the door bustle. It is pulled out of the door bustle when the sliderraft deploys and inflates. The location of the survival kit is clearly marked on the sliderraft. The kit has to be retrieved from the water.

Each kit contains the following items:

First Aid and Survival Items	Quantity
Ammonia Inhalant	12
Antiseptic Swab	20
Bandages Compress (2 IN)	12
Bandages Compress (4 IN)	2
Bandage Strips	32
Burn Ointment	4
Packaged water (125 ML each/package)	8
Triangular Bandages	3
Water Purification Tablets (50 each/package)	1

Seaworthiness Equipment	Quantity
Bailing Bucket	1
Knife	1
Raft Repair Clamp (3 IN)	2
Sea Dye Marker	1
Signal Flare	2
Signalling Mirror	1
Sponge	1
Torch (powered by lithium battery)	2
Whistle	1

#### 10.6.3.5.2 Locator Lights

Two water activated locator lights are mounted, one at each end of the sliderraft.

#### 10.6.3.5.3 Canopy

It is stowed in a yellow bag together with the survival kit.

#### 10.6.3.5.4 Sea Anchor / Heaving Line and Ring / Hook Knife

Those items are found at the doorsill end of the sliderraft and are clearly marked.

#### 10.6.3.6 Setting up the Canopy

1. Spread the canopy over the legs of the occupants so that the ties are downwards.
2. Starting from the up-wind side, lift the canopy up and over the canopy supports.
3. Tie the canopy to the fabric loops and attach the velcro patches on the canopy supports.
4. Assemble the three 2-piece centre masts by screwing the pieces together. Attach the top of the mast to the canopy and secure the bottom of the mast to the floor of the sliderraft with velcro and strings at the designated locations.
5. Attach the two 1-piece masts at the ends of the sliderraft in the same manner as the centre masts.
6. The sides and ends may be tied to the fabric loops on the buoyancy chamber, or in calm conditions, folded upwards and tied by the tapes provided.

#### 10.6.3.7 Sliderraft Capacity

The following tables show the number of occupants allowed in each sliderraft.

Door Number	Normal Capacity	Overload Capacity
L1	65	81
R1	65	81
L2	65	81
R2	65	81
L4	57	71
R4	57	71

Door Number	Normal Capacity	Overload Capacity
L5	777-300: 60 777-300ER: 64	777-300: 75 777-300ER: 79
R5	777-300: 60 777-300ER: 64	777-300: 75 777-300ER: 79

## 10.6.4 Land Evacuation

### 10.6.4.1 Land Evacuation Duties – Flight Crew

#### 10.6.4.1.1 Captain

1. Take torch.
2. Ensure the flight deck is clear.
3. Proceed to the cabin and assist with the evacuation on the left hand side.
4. Evacuate.
5. Take command on the ground.

#### 10.6.4.1.2 First Officer

1. Take torch.
2. Ensure the flight deck is clear.
3. Proceed to the cabin and assist with the evacuation on the right hand side.
4. Evacuate.
5. Assist on the ground.

#### 10.6.4.1.3 Second Officer (if carried) or Supernumerary Crew

Perform duties as assigned by the Captain.

### 10.6.4.2 Land Evacuation Duties – Cabin Crew

#### 10.6.4.2.1 Door Primary Duties

Evacuation and motivation commands	Immediately after the command "EVACUATE" has been repeated, order "SAW SARN" "SEAT BELTS OFF, HIGH HEELS OFF, COME THIS WAY". This is to enable the cabin crew to establish control over the passengers at the first opportunity.
Evaluate outside	If fire/smoke is evident, do not open the door. Redirect passengers to usable exits.
Check mode "Automatic"	The mode selector is in the "aft" position.
Open door	Rotate the door operating handle towards the rear and release the handle when the power assist system starts to open the door.

Check escape route safe	Doors 1, 2, 4 and 5 — ensure proper sliderraft deployment and that it is safe to exit e.g. no fire or obstruction. Doors 3 — check deployment indicator is visible to ensure the overwing slide is fully inflated.
Direct passengers	Direct evacuation at the door. Stay clear of the passenger flow by stepping to one side and secure yourself by holding the assist handle. Monitor evacuation in respect of the sliding angle, the condition of the sliderraft/slide, congestion at the bottom of the sliderraft/slide and spreading fire.
Check area – evacuate	Quickly walk around your area to look for injured, unconscious, incapacitated passengers or crew. Pay particular attention to the toilets and the space between seat rows. On completion, evacuate. After evacuation, assist and control passengers by gathering them together. Move passengers away from the aircraft as far as practicable. It may be necessary to render first aid and reassure passengers before help arrives. Passengers may wish to re-enter the aircraft for their belongings; they must be stopped.

**Note 1:** *The PBE should be used in a smoke filled environment.*

**Note 2:** *Should it be necessary to remove the ELT, the door primary at the door where the ELT is located is responsible for doing this.*

#### 10.6.4.2.2 Door Assist Duties

Evacuation and motivation commands	Repeat the command "EVACUATE" "SAW SARN" "SEAT BELTS OFF, HIGH HEELS OFF, COME THIS WAY, FOLLOW ME". Use gestures to attract attention if necessary.
Evacuate	Lead passengers out through the nearest available exit.
Assist on ground	After exiting, remain at the bottom of the slide and assist passengers by helping them off the sliderraft/slide, keeping the exit route clear of hand baggage or passengers who fail to gain their footing when reaching the ground. Move passengers away from the aircraft. Most important of all, as quickly as possible, organize suitable passengers to take over your job so that you are free to move over to help at other slides (where necessary).

**Note:** *If circumstances are such (e.g. failure of doors to open, injured door primary) that Door Assist can be of greater use directing passengers inside the cabin, they should use their own judgement when to evacuate.*

## 10.6.5 Ditching Evacuation

### 10.6.5.1 Ditching Evacuation Duties – Flight Crew

#### 10.6.5.1.1 Captain

1. Take own life jacket and torch.
2. Ensure the flight deck is clear.
3. Proceed to the cabin and assist with the evacuation on the left hand side.
4. Board the sliderraft and take command.

#### 10.6.5.1.2 First Officer

1. Take own life jacket and torch.
2. Ensure the flight deck is clear.
3. Proceed to the cabin and assist with the evacuation on the right hand side.
4. Board the sliderraft and take command.

#### 10.6.5.1.3 Second Officer (if carried) or Supernumerary Crew

Perform duties as assigned by the Captain.

### 10.6.5.2 Ditching Evacuation Duties – Cabin Crew

#### 10.6.5.2.1 Doors 1, 2, 4 and 5 Door Primary Duties

Evacuation and motivation commands	Immediately after the command "EVACUATE" has been repeated, order "SAW SARN" "SEAT BELTS OFF LIFE JACKETS ON, SHOES OFF, COME THIS WAY".
Assess aircraft attitude	It is important to ensure that the doorsill is above water level before door opening. cabin crew should rapidly assess whether the door is usable by checking the water level through the door window and referring to the slope of the cabin floor. If the door is unusable, guard the door to prevent use by passengers.
Check mode "Automatic"	The mode selector is in the "aft" position.
Open door	Rotate the door operating handle towards the rear and release the handle when the power assist system starts to open the door.
Check sliderraft deployment	Ensure proper sliderraft deployment and that it is safe to board the sliderraft.

Direct passengers	Direct evacuation at the door. Stay clear of the passenger flow by stepping to one side and secure yourself by holding the assist handle.  Ensure passengers life jackets are inflated and all shoes are removed before boarding the passengers.
Check area – evacuate	Quickly walk around your area to look for injured, unconscious, incapacitated passengers or crew. Pay particular attention to the toilets and the space between seat rows.  On completion, board the sliderraft. Release and cast off after boarding.

**Note 1:** *The PBE should be used in a smoke filled environment.*

**Note 2:** *Should it be necessary to remove the ELT, the door primary at the door where the ELT is located is responsible for doing this.*

#### 10.6.5.2.2 Doors 3 Door Primary Duties

Evacuation and motivation commands	Immediately after the command "EVACUATE" has been repeated, order "SAW SARN" "SEAT BELTS OFF, LIFE JACKETS ON, SHOES OFF".
Mode to "Manual"	Move the mode selector to the vertical position.
Guard door and redirect passengers	Prevent passengers from opening the door and redirect them to usable exits using commands "GO TO THE FRONT" or "GO TO THE BACK".
Check area – evacuate	Quickly walk around your area to look for injured, unconscious, incapacitated passengers or crew. Pay particular attention to the toilets and the space between seat rows.  On completion, board the nearest available sliderraft.

**Note:** *The PBE should be used in a smoke filled environment.*

### 10.6.5.2.3 Door Assist Duties

Evacuation and motivation commands	Repeat the command "EVACUATE" "SAW SARN" "SEAT BELTS OFF, LIFE JACKETS ON, SHOES OFF, FOLLOW ME". Use gestures to attract attention if necessary.
Evacuate	Lead passengers onto the nearest available sliderraft.
Assist on raft	Instruct passengers to inflate their life jackets and to move on hands and knees. Ensure they are evenly distributed on the sliderraft.

**Note:** If circumstances are such that Door Assist can be of greater use directing passengers inside the cabin, they should use their own judgement when to evacuate.

## 10.6.6 Aircraft Emergency Oxygen Systems

### 10.6.6.1 Cabin

1. When the cabin altitude exceeds 13,500 FT, all cabin lights will come on bright, the "no smoking" and "seat belt" signs will illuminate with the corresponding chimes, and the oxygen masks will deploy automatically. The masks must be pulled down to initiate oxygen flow. Additionally, there will be an automatic P/A in English, Cantonese, Putonghua and Japanese.
2. The accumulator bag attached to the oxygen mask may not inflate even when oxygen is flowing to the mask.
3. Masks are provided in the oxygen modules above every passenger and cabin crew seat. They are also provided in the Doors 2 service centre and there are two in each lavatory.
4. Spare masks are available at most of passenger seats and at designated baby bassinet positions.
5. Due to the height of the ceiling on the aircraft, cabin crew may not be able to reach the oxygen masks at their stations when seated with seat belts and harnesses on. A yellow lanyard is fitted. Pulling the lanyard allows the masks to drop and initiates the oxygen flow. This lanyard is also fitted in the lavatories.



Yellow lanyard at cabin crew seat

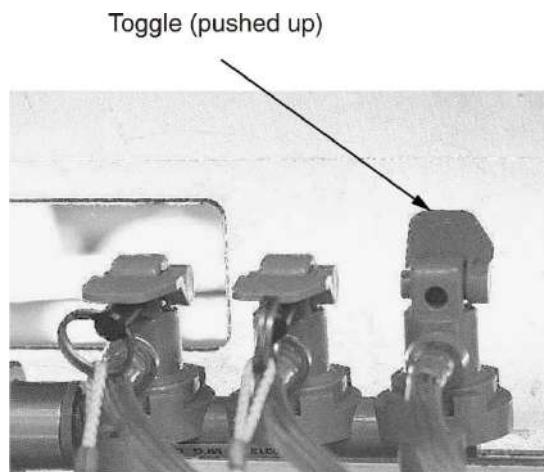


Yellow lanyard in lavatory

**Note:** The oxygen masks can also be manually deployed from the flight deck.

6. The oxygen system in the cabin uses a gaseous oxygen supply except B-HNS, HNU, HNV, HNW, HNX. If advised by the flight crew that oxygen is no longer required, the cabin crew will stop the oxygen flow to masks that are no longer required to be used (except on B-HNS, B-HNU, B-HNV, B-HNW, B-HNX).

The stopping of the oxygen flow to the masks is done by pushing up the toggles found in each oxygen module. This will ensure that oxygen is not wasted and prevent a fire hazard in the cabin.

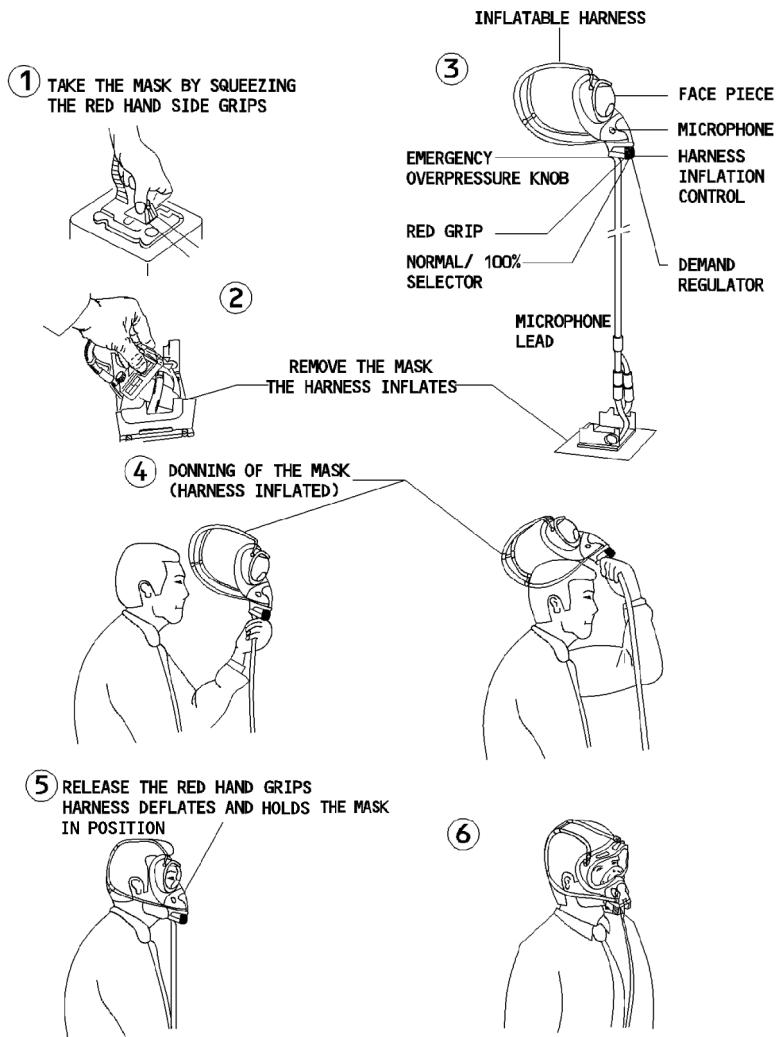


7. B-HNS, HNU, HNV, HNW, HNX are fitted with chemical emergency oxygen systems with a duration of 22 MIN. Once activated, oxygen flow from the chemical oxygen system cannot be stopped.

## 10.6.6.2 Flight Deck

The oxygen system in the flight deck uses a gaseous system. A mask is available for each flight deck occupant. It is different to the type provided in the cabin. The mask does not deploy automatically and must be pulled out from its stowage.

### MASK DONNING



## 10.6.7 Emergency Lighting System

### 10.6.7.1 General

The emergency lighting system provides emergency lighting to illuminate the cabin, aisles, cross aisles and exit signs. Lights are also fitted externally on the fuselage aft of the cabin doors to illuminate the evacuation slide areas.

Passenger Emergency Escape Path Lighting System (PEEPLS) is part of the emergency lighting system. Electrical powered seat mounted lights are installed on passenger seats on the outboard aisle centre seats. In the event of a smoke filled cabin, the lights will guide passengers to the nearest exit.

The emergency lighting system is powered by separate battery packs.

The emergency lighting may be controlled either automatically or manually.

### 10.6.7.2 Operation

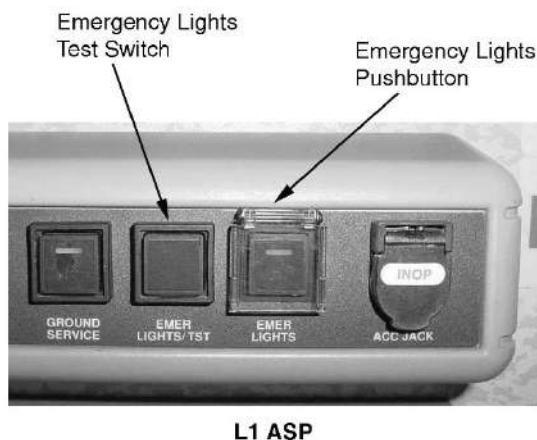
1. The 'EMER LIGHTS' switch in the flight deck has 3 positions:
  - A. 'OFF': emergency lighting is off.

- B. 'ARM': emergency lighting illuminates automatically if the aircraft normal electrical power fails.
  - C. 'ON': emergency lighting is on.
2. Emergency lights pushbutton at L1 ASP

An emergency lights pushbutton is fitted at the L1 ASP. It is an ON/OFF button. When this button is pressed, the emergency lights illuminate. There is a protective cover to prevent accidental illumination of the emergency lights.

3. Emergency Lights Test Switch

There are two emergency lights test switches on the ASP, one each at L1 and R5.



### 10.6.7.3 Duration

Approximately 15 MIN.

## 10.6.8 Door 1 Upper Crew Rest Area (777-300ER)

### 10.6.8.1 General

The crew seat area must be secured for taxi, takeoff and landing.

The Captain is to ensure that a flight crew member briefs occupants on the emergency procedures and exits for the area.

If the crew rest area is occupied, the SCCM must be informed and the entrance door must be latched open during taxi, takeoff, descent and landing. The door may be closed inflight. During descent, when the "fasten seat belt" sign is illuminated, the entrance door must be latched open. Cabin crew are responsible for these procedures.

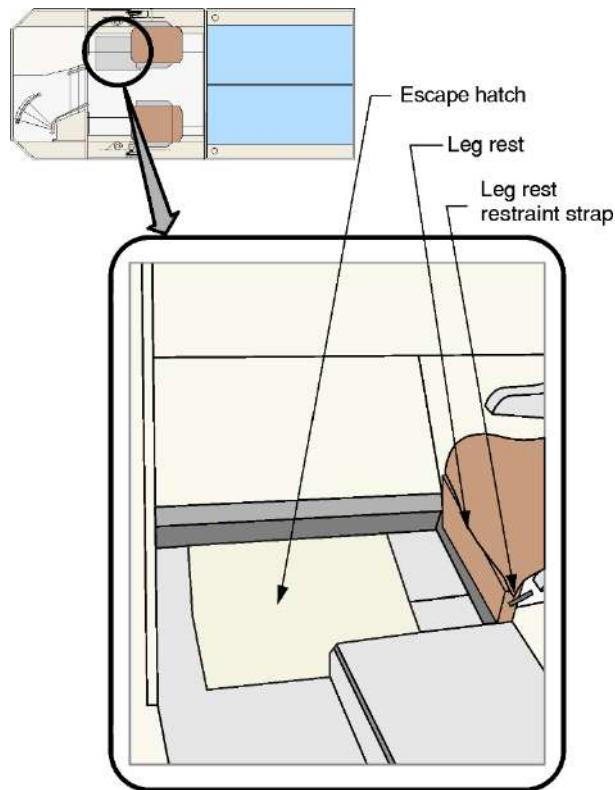
### 10.6.8.2 Crew Evacuation Procedures

Should it be necessary to evacuate the area, the primary means of escape is the staircase. If the staircase is unusable, evacuation is possible through the emergency hatch located on the right side of the crew rest area.

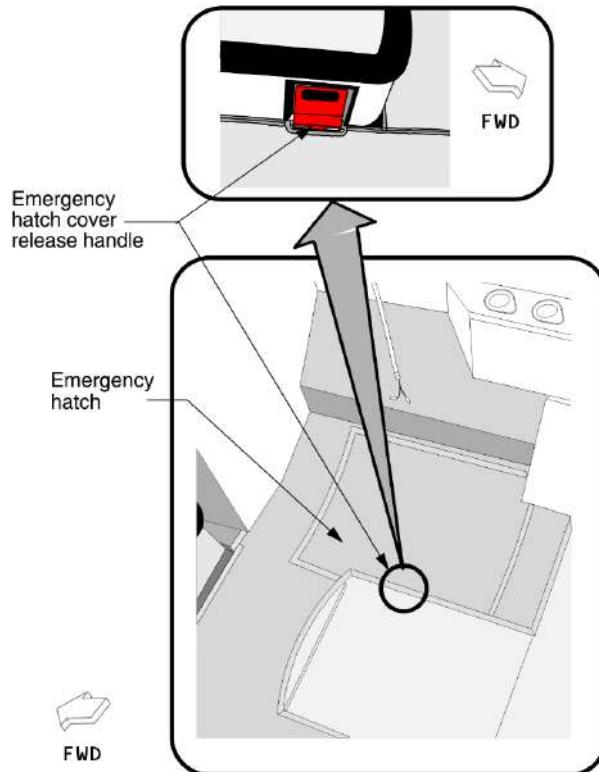
#### 10.6.8.2.1 Use of the Emergency Hatch

If time permits, before opening the hatch, use the interphone to call cabin crew in the main cabin to clear the area immediately below the hatch.

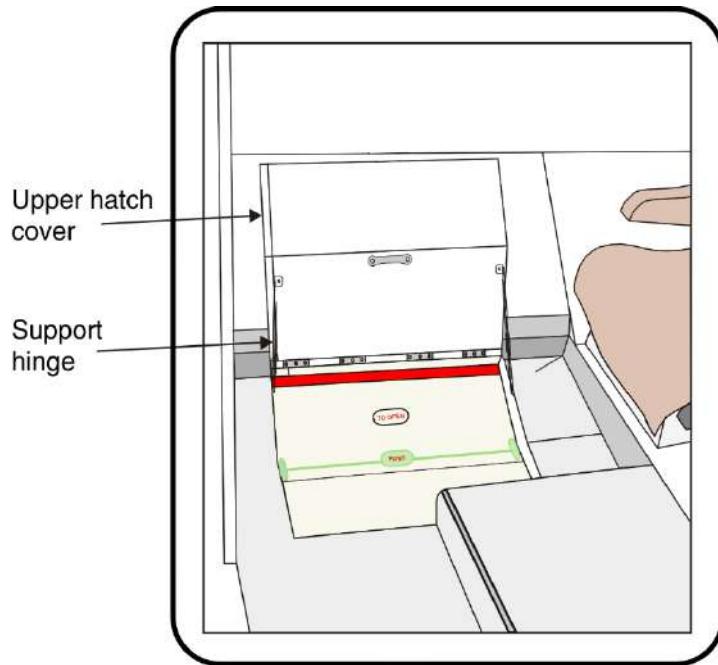
1. Secure the seat leg rest using the seat leg rest restraint straps if required.



2. Lift up the carpet and unlatch the upper hatch using the emergency hatch cover release handle.



3. Raise the upper hatch cover to the fully open position to lock the hatch support hinge in place.



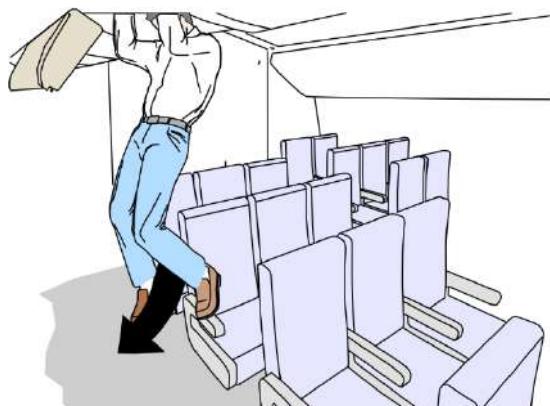
4. Unlatch the lower hatch by pushing the lower hatch release lever.



5. Sit on the floor facing outboard, lower legs into the hatch opening and grab the handhold.



6. Then swing down to the main cabin.



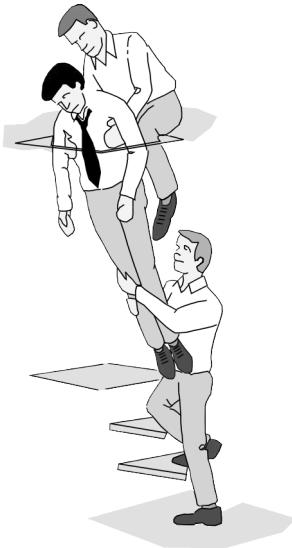
**Note:** If the emergency hatch is used for crew evacuation, the lower hatch must be closed to prevent the spread of smoke or fire.

#### 10.6.8.2.2 Moving an Incapacitated Person (IP) down the stairway

1. Move the IP to the top of the staircase into a sitting position. Straddle the IP and firmly support them under the arms.



2. The lower crew member should work the IP's legs around into the lower staircase and take as much of the IP's weight as possible.



3. With the upper crew member supporting the upper torso and the lower crew member supporting the legs, carry the IP down and out of the staircase.



#### 10.6.8.2.3 Moving an IP through the Emergency Hatch

Prior to moving the IP through the emergency hatch to the main cabin, the crew member should clear passengers in the immediate area.

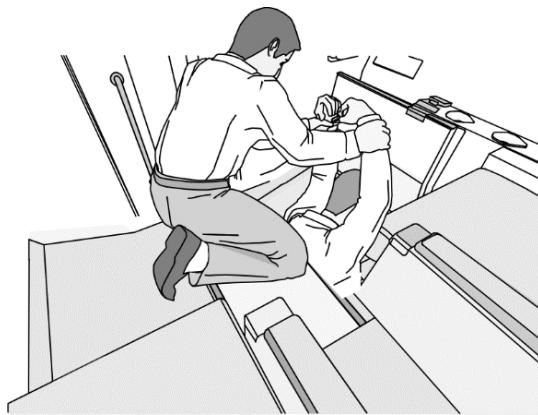
1. Lay the IP across the rest area with the face up and place the IP's feet in the hatch opening.



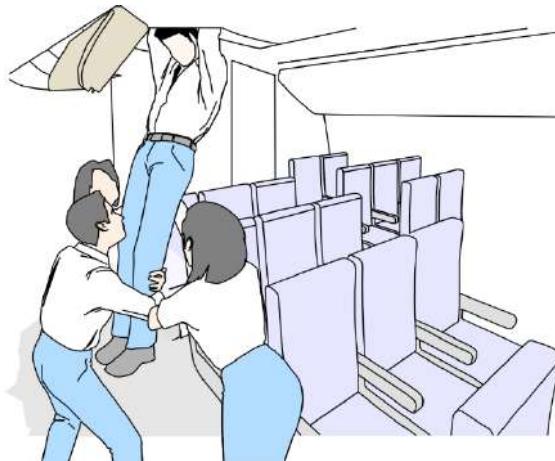
2. Move behind the IP and raise the IP to a sitting position. Place hands under the IP's shoulders and slide the IP legs into the hatch.



3. Hold the IP's wrists and carefully lower the IP down through the hatch.



4. The crew member in the main cabin should receive the IP and lower the IP to the floor while protecting the head and neck at all times. The hatch should then be closed.



### 10.6.8.3 Emergency Lights

The crew rest area is equipped with emergency lights and emergency exit signs, which are supplied and controlled by the aircraft emergency lighting system.

### 10.6.8.4 Emergency Oxygen System

1. In the event of a depressurisation, a continuous horn sounds in the crew rest area.
2. Oxygen masks are located above the bunks and crew rest seats.
3. Oxygen masks drop automatically when the cabin altitude exceeds 13,500 FT.
4. Oxygen flow to the masks is initiated when the mask or yellow lanyard attached to the mask is pulled.

**Note:** To silence the depressurisation alarm horn in the crew rest area, push the HORN SHUT OFF switch located on the common area control panel.

### 10.6.8.5 Smoke Detection System

Two smoke detectors are installed in the common area of the crew rest area. Additionally, there is one smoke detector in each bunk area, one in the closet and one on the top of staircase. The system is linked to the flight deck annunciator panel.

1. The smoke detector is the same type as the lavatory smoke detector.
2. If the smoke detector activates, the following will occur:
  - A. A warning signal is transmitted to the flight deck.
  - B. The CSCP/CACP displays "SMOKE DETECTED DR 1 UPR REST".
  - C. The red alarm indicator on the detector illuminates and a pulsating horn sounds from the unit.
  - D. All lights in the crew rest area illuminate.
  - E. The SUPPLY AIRFLOW OFF light illuminates and the horn sounds at the entrance main control panel.
  - F. The amber light outside the entrance door flashes.
  - G. A continuous chime sounds in the door 1 and 2 areas.

- H. The amber light on the respective ACP flashes.
3. If there is a smoke warning in the crew rest area and the area is occupied by crew members:
- The crew inside pushes the HORN SHUT OFF switch in the common area to silence the horn in the area and the chime at doors 1 and 2. Pushing the HORN SHUT OFF switch also removes the smoke detection page on the CSCP/CACP.
  - Prepare fire fighting equipment.
  - Locate the source and fight the fire.

If fire is not evident in the crew rest area, check the area thoroughly. In all cases, the incident must be reported to the Captain and the SCCM.

**Note 1:** *Ensure all non crew members have evacuated the crew rest area.*

**Note 2:** *After smoke has been cleared from the crew rest area, push and hold the AIRFLOW/SMOKE RESET switch for 2 SEC if instructed by the flight crew. This resets the airflow to the area and the crew rest smoke detection system.*

**Note 3:** *The red alarm indicator only extinguishes when the smoke falls below a threshold level.*

**Note 4:** *If the amber light outside the entrance door is pushed, this will silence the horn in the area and the chime at doors 1 and 2. It will also remove the smoke detection page on the CSCP/CACP.*

4. If there is a smoke warning in the crew rest area and the area is unoccupied:
- Ensure the entrance door is closed.
  - Push the amber light outside the entrance door to silence the horn in the area and the chime at doors 1 and 2. It also removes the smoke detection page on the CSCP/CACP.
  - Prepare fire fighting equipment.
  - Feel the door.
    - If when feeling the door heat is present or smoke is visible:
      - Keep the door closed.
      - Stay low.
      - Use the entrance door as protection as you open the door.
      - Locate the source of the fire.
      - Discharge the extinguisher at the base of the fire.
      - Inform the Captain and the SCCM.
- If unable to enter the area (due to severity of the fire and smoke) and unable to locate the source:
- Open the door slightly and raise the extinguisher as high as you can. Place the nozzle of the extinguisher in the gap.

- ii. Discharge the full bottle of fire extinguisher and close the door.
  - iii. Reopen the door after half a minute and re-evaluate the situation.
  - iv. If necessary, discharge another bottle.
- b. If the door is cool:
- i. Prepare fire fighting equipment.
  - ii. Enter enclosure and close the door.
  - iii. Proceed to the main area.
  - iv. Locate source of fire/smoke.
  - v. Fight the fire.

If fire is not evident in the crew rest area, check the area thoroughly. In all cases, the incident must be reported to the Captain and the SCCM.

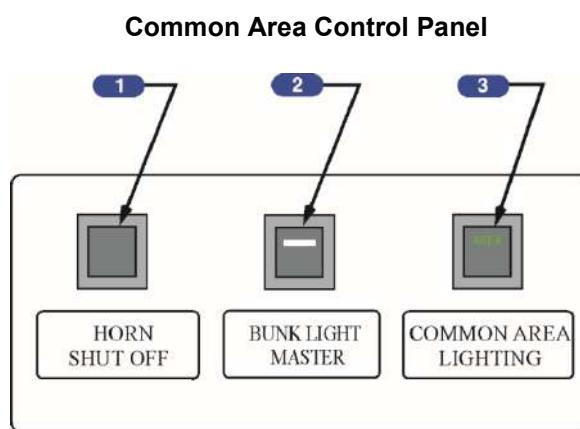
**Note:** After smoke has been cleared from the crew rest area, push and hold the AIRFLOW/SMOKE RESET switch for 2 SEC if instructed by the flight crew. This resets the airflow to the area and the crew rest smoke detection system.

## 10.6.9 Door 5 Upper Crew Rest Area (777-300ER)

### 10.6.9.1 General

1. Occupancy is limited to a maximum of 8 crew members.
2. Occupants shall fasten belts while in the bunk.
3. Whenever the crew rest area is occupied, the staircase lights should be left on.

### 10.6.9.2 Common Area Control Panel



1. HORN SHUT OFF switch  
Push to silence:
  - A. The depressurisation horn.
  - B. The smoke detector horn.
2. BUNK LIGHT MASTER switch

This is for maintenance use only.

3. COMMON AREA LIGHTING switch

Push to turn the common area lights on/off.

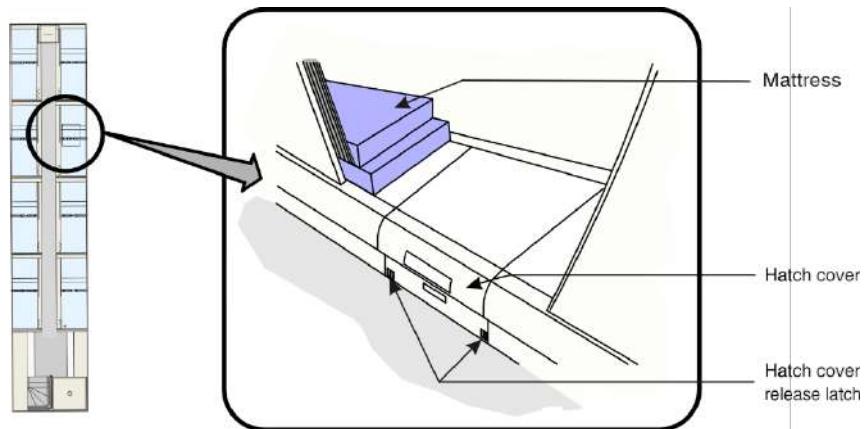
### 10.6.9.3 Crew Evacuation Procedures

Should it be necessary to evacuate the area, the primary means of escape is the staircase. If the staircase is unusable, evacuation is possible through the emergency hatch under bunk 6.

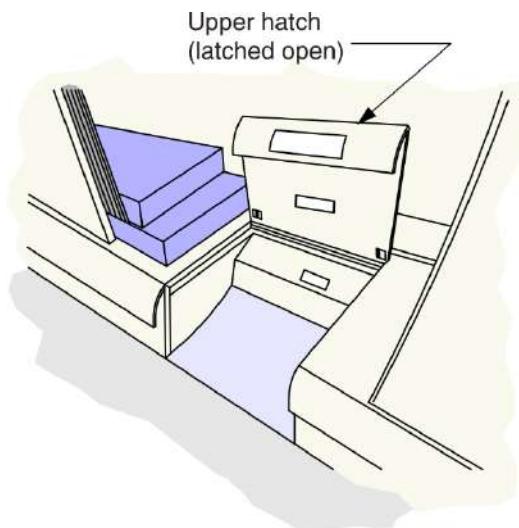
#### 10.6.9.3.1 Use of the Emergency Hatch

If time permits, before opening the hatch, use the interphone to call cabin crew in the main cabin to clear the area below the hatch.

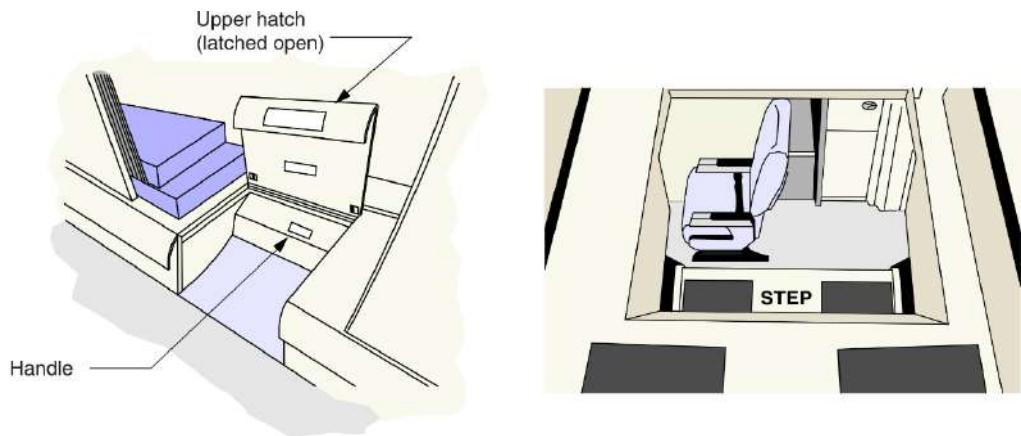
1. Lift and remove the mattress pad.



2. Unlatch and raise the upper hatch cover.



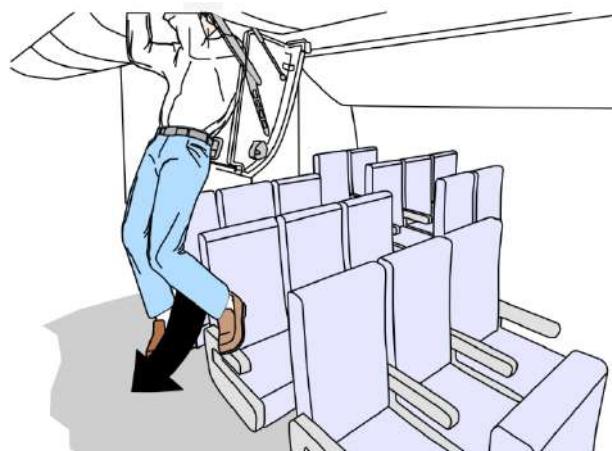
3. Pull the handle to unlatch the lower hatch.



4. Sit on floor facing outboard, lower legs into the hatch opening and grab the handhold.



5. Use step on lower hatch to climb/swing down to the main cabin.



**Note:** If the emergency hatch is used for crew evacuation, the lower hatch must be closed to help prevent the spread of smoke or fire.

### 10.6.9.3.2 Moving an Incapacitated Person (IP) down the stairway

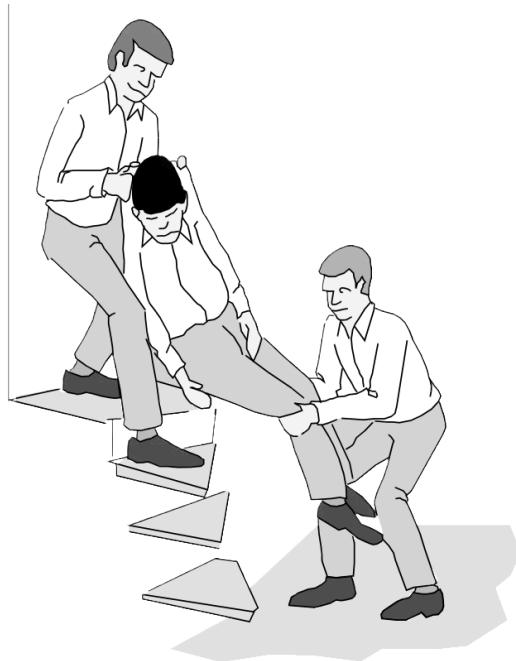
1. Move the IP to the top of the staircase into the sitting position. Straddle the IP and firmly support them under the arms.



2. The lower cabin crew should work the IP's legs around into the lower staircase and take as much of the IP's weight as possible.



3. With the upper cabin crew supporting the upper torso and the lower cabin crew supporting the legs, carry the IP down and out of the staircase.



#### 10.6.9.3.3 Moving an IP through the Emergency Hatch

Prior to moving the IP through the emergency hatch to the main cabin, cabin crew should clear passengers in the immediate area.

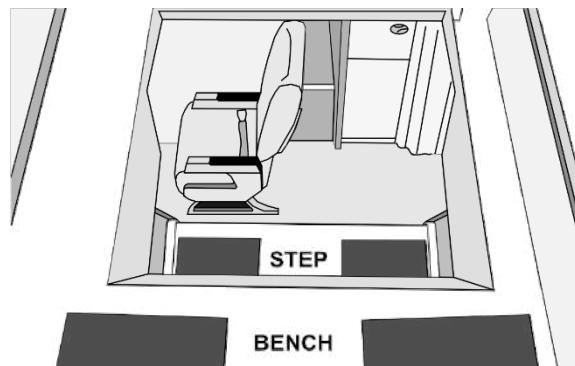
1. Move the IP to the hatch opening.



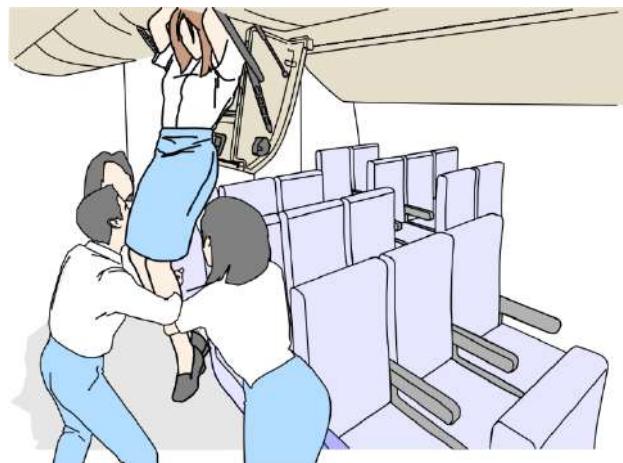
2. Place the IP's feet in the hatch opening. Move behind the IP and raise the IP to a sitting position. Place hands under the IP's shoulders and slide the IP legs into the hatch.



3. Transfer the IP's weight to the hatch step if necessary.



4. The cabin crew in the main cabin should receive the IP and lower the IP to the floor while protecting the head and neck at all times. The hatch should then be closed.



#### 10.6.9.4 Emergency Lights

The crew rest area is equipped with emergency lights and emergency exit signs, which are supplied and controlled by the aircraft emergency lighting system.

#### 10.6.9.5 Emergency Oxygen System

1. In the event of a depressurisation, a continuous horn sounds in the crew rest area.
2. Oxygen masks are located above the bunks.
3. Oxygen masks drop automatically when the cabin altitude exceeds 13,500 FT.
4. Oxygen flow to the masks is initiated when the mask or yellow lanyard attached to the mask is pulled.

**Note:** To silence the depressurisation alarm horn in the crew rest area, push the HORN SHUT OFF switch located on the common area control panel.

#### 10.6.9.6 Smoke Detection System

Two smoke detectors are installed in the common area of the crew rest area. Additionally, there is one smoke detector in each bunk area and one in the aisle between the bunks. The system is linked to the flight deck annunciator panel.

1. The smoke detector is the same type as the lavatory smoke detector.
2. If the smoke detector activates, the following will occur:
  - A. A warning signal is transmitted to the flight deck.
  - B. The CSCP/CACP displays "SMOKE DETECTED DR 5 UPR REST".
  - C. The red alarm indicator on the detector illuminates and a pulsating horn sounds from the unit.
  - D. All lights in the crew rest area illuminate.
  - E. The AIRFLOW OFF light illuminates and the horn sounds at the entrance main control panel.

- F. The amber light outside the crew rest area above the entrance door flashes.
  - G. A continuous chime sounds in the door 4 and 5 area.
  - H. The amber light on the respective ACP flashes.
3. If there is a smoke warning in the crew rest area and the area is occupied:
- A. The crew inside pushes the HORN SHUT OFF switch in the main area to silence the horn in the area and the chime at doors 4 and 5. Pushing the HORN SHUT OFF switch also removes the smoke detection page on the CSCP/CACP.
  - B. Prepare fire fighting equipment.
  - C. Locate the source and fight the fire.

If fire is not evident in the crew rest area, check the area thoroughly. In all cases, the incident must be reported to the Captain and the SCCM.

**Note 1:** *After smoke has been cleared from the crew rest area, push and hold the AIRFLOW/SMOKE RESET switch for 2 SEC if instructed by the flight crew. This resets the airflow to the area and the crew rest smoke detection system.*

**Note 2:** *The red alarm indicator only extinguishes when the smoke falls below a threshold level.*

**Note 3:** *If the amber light above the entrance door is pushed, this will silence the horn in the area and the chime at doors 4 and 5. It will also remove the smoke detection page on the CSCP/CACP.*

4. If there is a smoke warning in the crew rest area and the area is unoccupied:
- A. Ensure the entrance door is closed.
  - B. Push the amber light above the entrance door to silence the horn in the area and the chime at doors 4 and 5. It also removes the smoke detection page on the CSCP/CACP.
  - C. Prepare fire fighting equipment.
  - D. Feel the door.
    - a. If when feeling the door heat is present or smoke is visible:
      - i. Keep the door closed.
      - ii. Stay low.
      - iii. Use the entrance door as protection as you open the door.
      - iv. Locate the source of the fire.
      - v. Discharge the extinguisher at the base of the fire.
      - vi. Inform the Captain and the SCCM.

If unable to enter the area (due to severity of the fire and smoke) and unable to locate the source:

- i. Open the door slightly and raise the extinguisher as high as you can. Place the nozzle of the extinguisher in the gap.

- ii. Discharge the full bottle of fire extinguisher and close the door.
  - iii. Reopen the door after half a minute and re-evaluate the situation.
  - iv. If necessary, discharge another bottle.
- b. If the door is cool:
- i. Prepare fire fighting equipment.
  - ii. Enter enclosure and close the door.
  - iii. Proceed to the common area.
  - iv. Locate source of fire/smoke.
  - v. Fight the fire.

If fire is not evident in the crew rest area, check the area thoroughly. In all cases, the incident must be reported to the Captain and the SCCM.

**Note:** *After smoke has been cleared from the crew rest area, push and hold the AIRFLOW/SMOKE RESET switch for 2 SEC if instructed by the flight crew. This resets the airflow to the area and the crew rest smoke detection system.*

## 10.7 747F

### 10.7.1 Emergency Equipment Locations

#### 10.7.1.1 747-400F

##### Evacuation & Ditching

	TORCH	(4)
	ELT	(2)
	CREW LIFE JACKET	(4)
	LAND / ADDITIONAL SURVIVAL PACK	(2)
	ESCAPE HANESSS	(6)
	INERTIA REEL	(8)
	10-MAN RAFT	(2)

##### Fire & Smoke

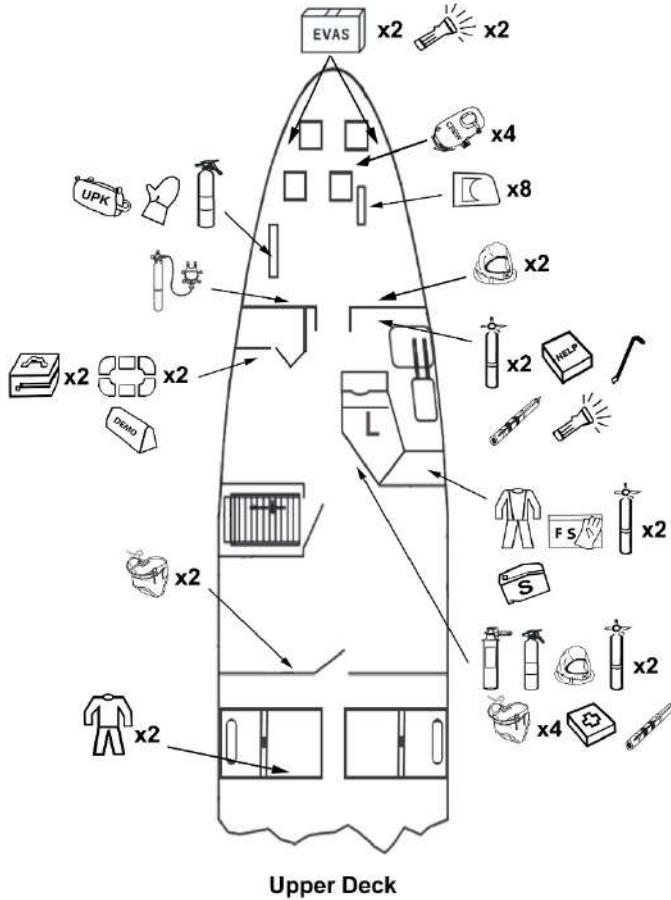
	BCF EXTINGUISHER	(2)
	9-LB BCF EXTINGUISHER	(1)
	H2O EXTINGUISHER	(2)
	PBE	(4)
	PROTECTIVE GLOVES	(1 PAIR)
	CROW BAR	(1)
	FIRESOCK KIT	(1)
	FIRE FIGHTING SUIT KIT	(1)
	PORTABLE GASEOUS O2 W/ FULL FACE MASK	(1)
	EVAS	(2)

##### First Aid

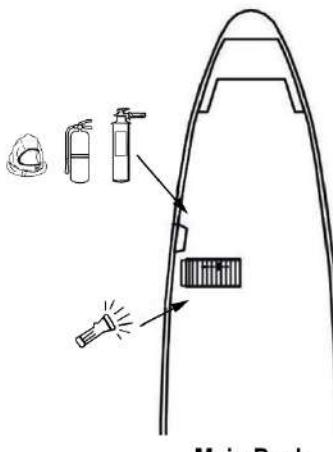
	PORTABLE GASEOUS O2	(6)
	FIRST AID KIT	(1)
	SELF HELP MEDICAL KIT	(1)
	SPLINT PACK	(1)
	UNIVERSAL PRECAUTION KIT	(1)

##### Miscellaneous

	DEMONSTRATION KIT	(1)
	ARCTIC SURVIVAL KIT	(2)



Upper Deck

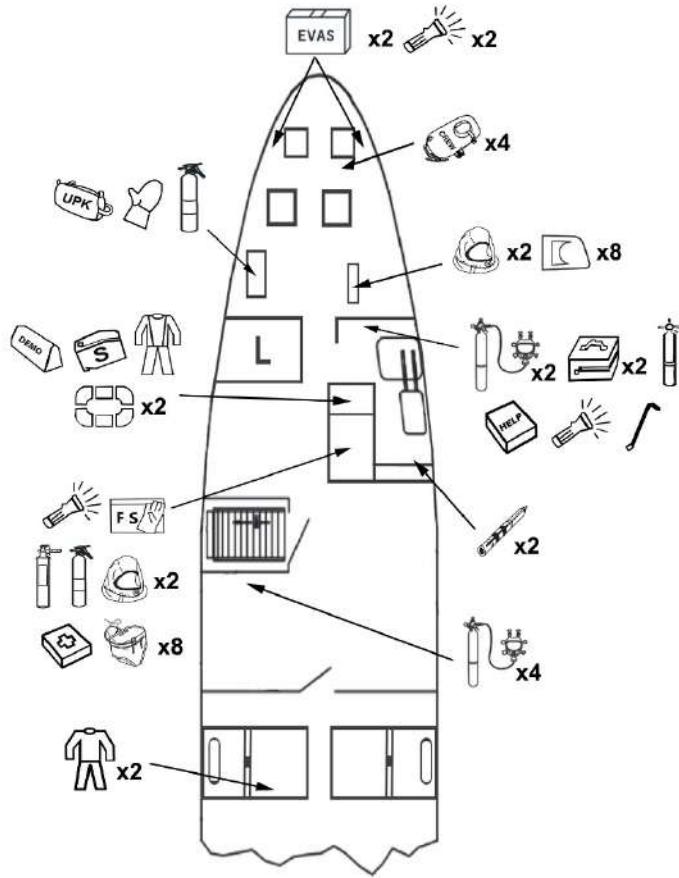


Main Deck

## 10.7.1.2 747-8F

### Evacuation & Ditching

	TORCH	(5)
	ELT	(2)
	CREW LIFE JACKET	(4)
	LAND / ADDITIONAL SURVIVAL PACK	(2)
	ESCAPE HANESSS	(8)
	INERTIA REEL	(8)
	10-MAN RAFT	(2)

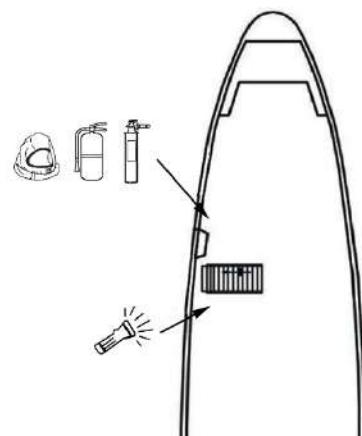


### Fire & Smoke

	BCF EXTINGUISHER	(2)
	9-LB BCF EXTINGUISHER	(1)
	H2O EXTINGUISHER	(2)
	PBE	(5)
	PROTECTIVE GLOVES	(1 PAIR)
	CROW BAR	(1)
	FIRESOCK KIT	(1)
	FIRE FIGHTING SUIT KIT	(1)
	PORTABLE GASEOUS O2 W/ FULL FACE MASK	(6)
	EVAS	(2)

### First Aid

	PORTRABLE GASEOUS O2	(1)
	FIRST AID KIT	(1)
	SELF HELP MEDICAL KIT	(1)
	SPLINT PACK	(1)
	UNIVERSAL PRECAUTION KIT	(1)



### Miscellaneous

	DEMONSTRATION KIT	(1)
	ARCTIC SURVIVAL KIT	(2)

## 10.7.2 Cabin Doors and Escape Systems

### 10.7.2.1 General

There are cabin doors on the upper deck and the main deck. There is also an overhead escape hatch in the flight deck.

### 10.7.2.2 Upper Deck Crew Service Door

It is located on the right hand side forward of the upper deck cabin. It is equipped with a single channel slide. It is a primary exit for both land and ditching evacuation.

#### Door Features



#### 10.7.2.2.1 Pre-flight Emergency Equipment Check

Slidepack in the forward position and the safety pin is removed and stowed.

#### 10.7.2.2.2 Emergency Door Operation (Land/Ditch)

##### Operation

1. Evaluate outside.
2. Check slidepack forward.

3. Open door.
  - A. Pull the door operating handle inward.
  - B. Rotate the handle fully aft.
  - C. Push the handle outward to restow the handle.
4. Push the door fully aft until it latches.
5. Lift the packboard release handle (forward of slidepack) to release the slide.
6. Lift and push the slidepack out.
7. Check the escape route safe.

**Note 1:** *The slide should inflate automatically within 6-8 SEC.*

**Note 2:** *Occupants should perform a sit and slide to evacuate.*

#### **Alternate action**

Should the slide fail to inflate automatically, pull the manual inflation handle (aft of slidepack).

#### **Unusual aircraft attitude**

1. In a nose-up situation, the upper deck slide should not be used as the slide is not long enough to reach the ground.
2. Alternate means of escape (escape hatch or main deck door) should be used.

### **10.7.2.3 Flight Deck Escape Hatch**

An overhead escape hatch is fitted on the upper left side of the flight deck. It is an inward-opening plug type hatch. It can be used either from inside or outside. It is the secondary means of escape on the aircraft. It is used together with inertia reel to escape from the aircraft.

#### **Operation**

1. Remove cushion.
2. Rotate the handle 180 degrees anti-clockwise.
3. Lower the hatch.
4. Remove inertia reel from stowage.
5. Climb through hatch, hold the handle of inertia reel with both hands and slide off the fuselage.

**Note:** *Passengers are required to wear the escape harness and attach it to the inertia reel before climbing through the hatch.*

*The inertia reel can be used through the Upper Deck Crew Service Door. The slidepack must be ejected first as there is a sharp metal sticking out under the door.*

### 10.7.2.3.1 Main Deck Door (L1/L5 on 747-400ERF) or (L1 on 747-8F)

The main deck door is the third means of escape from the aircraft.

#### Door Features



#### Emergency Door Operation

1. Evaluate outside.
2. Open the door by rotating the door operating handle fully aft.
3. Push the door fully forward until it latches.
4. Pull out the escape rope completely and lower self to ground.

## 10.7.2.4 Ditching

The priority of escape is the same as for a land evacuation. There are 2 10-man life rafts fitted in the cabin. They are to be used through the Upper Deck Crew Service Door or alternatively through the Flight Deck Escape Hatch.

### 10.7.2.4.1 Operation

1. Open the upper deck door and deploy the slide (or alternatively open the hatch).
2. Attach the mooring/inflation line to the attachment point.
3. Throw the raft into the water.
4. Pull the mooring/inflation line sharply to inflate the raft.
5. Check raft deployment.
6. Evacuate and board the raft.

### 10.7.2.4.2 10 Man Raft

#### Raft Accessories

1. Survival Kit

One survival kit is tied to each raft. The kit has to be retrieved from the water. Each kit contains the following items:

First Aid and Survival Items	Quantity
First Aid Kit	1

Seaworthiness Equipment	Quantity
Bailing Bucket	1
Hand Pump	1
Knife	1
Raft Repair Clamp	1
Sea Dye Marker	1
Signal Flare	2
Signalling Mirror	1
Sponge	2
Survival Manual	1
Torch	1
Water Storage Bag	2
Whistle	1

2. Locator Lights

Water activated lights are mounted on the raft.

3. Canopy

A canopy is attached to the survival kit and has to be retrieved from the water.

4. Sea Anchor
5. Heaving Line and Ring
6. Hook Knife
7. Mooring/Inflation Line

**Note:** *Each raft weighs approximately 80 LB.*

### **Setting Up the Canopy**

1. Fit the support rods on the side of the raft.
2. Install the centre mast.
3. Match the opening of the canopy with the raft.
4. Fit canopy over support rods.
5. Roll up the sides to allow ventilation.
6. If required, the canopy sides can be rolled down and toed.
7. A water collection sleeve may be found on the canopy.

## **10.7.3 Land Evacuation**

### **10.7.3.1 Land Evacuation Duties – Flight Crew**

#### **10.7.3.1.1 Captain**

1. Take torch.
2. Supervise evacuation of all non-crew members.
3. If necessary, remove ELT, first aid kit and other survival equipment.
4. Evacuate.
5. Take command on the ground.

#### **10.7.3.1.2 First Officer**

1. Take torch.
2. Evaluate outside.
3. Open upper deck door and deploy the slide.
4. Check escape route safe.
5. Direct all non-crew members down the slide.
6. Confirm the upper deck is clear.
7. Evacuate and assist on the ground.

#### **10.7.3.1.3 Second Officer (if carried) or Supernumerary Crew**

Perform duties as assigned by the Captain.

## **10.7.4 Ditching Evacuation**

### **10.7.4.1 Ditching Evacuation Duties – Flight Crew**

#### **10.7.4.1.1 Captain**

1. Take torch and life jacket.
2. Assist the First Officer to launch the raft.
3. Direct all non-crew members to leave when ready.
4. Ensure the upper deck is clear.
5. Ensure removal of ELT and other survival equipment.
6. Board the raft and take command on raft.

#### **10.7.4.1.2 First Officer**

1. Take torch and life jacket.
2. Evaluate outside.
3. Open upper deck door and deploy the slide.
4. Check escape route safe.
5. Launch the raft.
6. Evacuate first.
7. Board raft and assist on raft.

#### **10.7.4.1.3 Second Officer (if carried) or Supernumerary Crew**

Perform duties as assigned by the Captain.

## **10.7.5 Aircraft Emergency Oxygen Systems**

### **10.7.5.1 General**

#### **10.7.5.1.1 Cabin**

1. The accumulator bag attached to the oxygen mask may not inflate even when oxygen is flowing to the mask.
2. Masks are provided in the oxygen modules above every supernumerary seat, in the lavatory and the crew rest area.
3. Due to the height of the ceiling in the lavatory, a yellow lanyard is fitted. Pulling the lanyard allows the masks to drop and initiates the oxygen flow.

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## 11 Security

### 11.1 General

Your life may depend upon Cathay Pacific security procedures remaining confidential. Do not discuss the contents of this section with passengers, your family or the general public.

Company operational security procedures are based on the sterile area concept. This requires screening of all passengers and hand baggage for weapons and explosives either before they enter the departure lounge or, where departure lounges are not considered secure, before they board the aircraft. Where possible, screening will be conducted with the aid of archway metal detectors, handheld metal detectors and X-ray screening equipment. Use of such equipment reduces passenger embarrassment, speeds processing rates and reduces the need for physical searches.

**Note:** *Standard security procedures may be modified from time to time according to local regulations and equipment available.*

Crew members should exercise continual vigilance regarding security procedures and should report any irregularities to their SCCM.

Crew members are advised that all Company operational information and publications such as crew roster movements, scheduling practices, Port, Route and Service Briefings, etc are strictly confidential and should not be divulged to non-Company persons.

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## 11.2 Catering

Catering containers must be security checked by the cabin crew prior to takeoff. Cabin crew shall check containers where seals are not intact. The SCCM should ascertain as much detail as possible as to the container's content background. The SCCM should be alerted if there are any discrepancies. If the container cannot be physically inspected, it shall be offloaded.

At transit ports, if there is no crew change, cabin crew will be responsible for checking all joining catering. However, where a crew change is involved, security checks will be required as for originating ports.

Last minute catering uplifts shall be checked by cabin crew before departure.

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## 11.3 Bonded Items

Overnight, on ground all bonded items must be locked in bar boxes or bar carts and sealed with the seal numbers recorded on the BCR.

At some stations, ground security staff may require verification of seal numbers.

Cabin crew taking over sealed containers should check to ensure they are the same as recorded on the BCR.

Bonded items must be checked on the ground if time allows. Any discrepancies must be reported to the SCCM immediately. Ground staff should be notified.

If bar boxes can only be opened inflight, the SCCM should be notified of any discrepancies.

Seals must be kept or attached on the BCR and seal numbers must be recorded.

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## 11.4 Passenger Handling

Unless the Captain indicates otherwise, passenger loading may be commenced by ground staff at a pre-arranged time before scheduled departure. In the case of an anticipated delay, e.g. late arrival of aircraft, maintenance requirements, etc, the Ramp Co-ordinator will liaise with the Captain regarding passenger boarding.

At most transit stations, passengers are given the choice of disembarking or remaining on board, however this may vary according to Company and Airport Authority requirements.

Where transit passengers are required to remain on board, they should be requested to remain seated in order that cabin cleaning and catering will not be impeded. They should also be requested to observe the no smoking signs. On no account should passengers be allowed to exit from the aircraft. Access to the flight deck shall be restricted throughout.

Where passenger facilities i.e. lavatories are close to the flight deck, cabin crew shall monitor passengers when they use such facilities. Passengers should not be allowed to loiter in the area adjacent to the flight deck door.

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## 11.5 Passenger with a Special Security Significance

The Captain will be notified through the Onboard Service List (OSL) when any of the following categories of passengers are to be carried:

1. Diplomats.
2. Officials of international bodies having diplomatic status e.g. United Nations Assembly, UNESCO, IMF, etc.
3. VIPs.
4. Deportees including prisoners under escort.
5. Inadmissible passengers.
6. Any passengers considered to be a special security risk.

Airport Operations Managers will advise the Captain when such deviations from standard security procedures are to be applied.

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## 11.6 Carriage of Persons in Custody

Persons who are normally in custody are those who are to be removed from a state/country because of a conviction for a criminal offence or they are under judicial or administrative procedures.

### 11.6.1 Passengers Needing Escorts

A passenger must be escorted by one or more officers from the relevant government department or authorised agency if:

1. they are deemed to be a safety and/or security risk because of their conduct.
2. they have an appearance or conduct which could cause discomfort, or make them objectionable, to other passengers.
3. they are wanted by the police in another state or have already committed a criminal action.
4. they personally object to carriage or is likely to resist deportation.

### 11.6.2 Pre-departure Handling

When a person is to be removed because of a conviction for a criminal offence or if they are under judicial or administrative procedures, information must be provided by the relevant government department arranging transportation of such a passenger in order to assess what special arrangements are necessary to safeguard the flight on which the passenger is travelling. Cathay Pacific, under normal circumstances, is to be given a minimum of three working days notice. Such information may include:

1. full name of the person (including aliases),
2. date of birth,
3. racial origin and nationality,
4. physical description (weight and height),
5. list of identity documents held,
6. reasons for carriage or deportation,
7. known criminal or mental history,
8. names of escorts,
9. fare payment details,
10. proposed travel details, and
11. special escort requirements.

A communication will be issued to appropriate departments providing all relevant details of carriage. In the event that the carriage involves other airline operators whose prior consent must be obtained, such details will also be issued to them.

The Departments to be contacted should include:

1. Flight Operations Department (FOP),
2. Group Safety and Operational Risk Management Department (GSORM),

3. Inflight Service Delivery (ISD),
4. originating, transit and destination ports.

Passenger information should include:

1. the booking name of the passenger,
2. full address at destination,
3. date of removal and nature of cases, e.g. criminal or political offence,
4. whether the authorities are providing escort(s) and name(s) of the escort(s),
5. seat allocation for the passenger under escort and escorts if available,
6. any other arrangements, e.g. the provision of plastic cutlery.

Confirmation replies are required from the various departments contacted and, if applicable, the connecting airline operator. If the department does not respond, a verbal communication will be made.

Information must be passed to the Captain and the SCCM prior to boarding the party onto the aircraft.

The operating Captain will be contacted whenever possible at an appropriate time in advance and given a verbal brief of the intended carriage.

The Company has the right to refuse carriage if such carriage is considered as one which could adversely jeopardise the safety and comfort of other passengers.

Where a passenger is considered a potential risk, a minimum of two escorts should be provided on the flight and no more than one such passenger should be transported on any one flight.

If a passenger is not considered a potential risk, then the carriage of a maximum of three such passengers is permitted subject to each being under individual escort and providing the acceptance meets with specified condition as per this paragraph, including adequate separation of each passenger and escort; and to negate physical, oral or direct visual contact.

Where possible the carriage of potentially risky passengers should be performed by the national carrier of the Government pursuing prosecution.

No public disclosure of the movements is to be made.

### **11.6.3 Check In**

A minimum of one escort for each person in custody should be carried on the same aircraft.

Escorting officers must not carry mace, tear gas or similar incapacitating gas generating devices on board an aircraft. Carriage of firearms by escorts is also prohibited.

Persons in custody and their hand baggage must be thoroughly screened, including a secondary hand search, to ensure that there is no restricted article in their possession, paying special attention to any dangerous item that could be used as a weapon. Lighters, cigarettes and other smoking materials should be seized and removed from the person in custody for the duration of the flight.

Escorts are required to be equipped with adequate and sufficient restraining devices to be used in the event they determine that restraint is necessary. Under normal circumstances, a passenger should not be restrained to any part of the aircraft, including seats, tables, etc.

Persons in custody and escorts are to be seated as far to the rear of the aircraft as possible but not immediately adjacent to any exit door. The escort will be seated between the person in custody and the aisle.

Escorts should, if possible, be of the same gender and speak the language of the passenger under escort.

No public disclosure of the movements is to be made.

#### **11.6.4 Boarding**

Ground staff should identify the escort to a member of the flight crew and the SCCM prior to boarding the aircraft.

Escorted persons are to be boarded before other passengers and deplaned after all other passengers have left the aircraft.

No public disclosure of the movements is to be made. Boarding of passengers in custody should be performed as discreetly as possible.

Travel documents of the deportee must be retained by the escort and handed to the Immigration Authorities on arrival at the country of destination.

#### **11.6.5 During Flight**

The deportee should be accompanied at all times, even to the toilet. The party of escort(s) and deportee(s) must not be served alcohol.

Plastic cutlery must be used during flight.

#### **11.6.6 Other Passengers Needing Escorts**

A passenger who is mentally disturbed, or who is in a physical state which requires special attention, must be escorted by a person physically capable of coping with untoward actions during flight. The escort should also be skilled in administering sedatives as required by the passenger.

Information must be passed to the Captain and the SCCM prior to boarding the party onto the aircraft.

If the passenger requires sedation prior to departure, each portion of the flight should last no longer than the effective duration of the sedative administered.

Where necessary, advice may be sought from the Company medical officer, and if there is doubt to the adequacy of the proposed arrangements, the mentally disturbed passenger should not be carried.

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## 11.7 Passenger under Administrative Control

A passenger travelling under administrative control (e.g. deportee) or otherwise against their will (e.g. inadmissible passenger) may travel without any escorts. However, before carriage as much information as possible is to be obtained about the passenger to determine whether the passenger presents a risk to the safety of the flight and/or other passengers. Such information may include:

1. full name of the person (including aliases),
2. date of birth,
3. racial origin and nationality,
4. physical description (weight and height),
5. list of identity documents held,
6. reasons for carriage or deportation,
7. known criminal or mental history,
8. fare payment details, and
9. proposed travel details.

If it is ascertained that the passenger presents a risk to the safety of the flight and/or other passengers, the procedures under 'Passenger Needing Escorts' must be adopted.

In all cases of carriage information must be passed to the Captain and the SCCM prior to boarding the aircraft.

All travel requirements for transit, transfer and entry at destination must be complied with.

In the event that the deportation involves other airline operators, full details of the passenger and travel requirements will be passed to them.

Travel documents must be retained where possible by the SCCM and handed to the ground staff on arrival at the country of destination.

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## 11.8 Assault on Crew Members Inflight

Should an assault occur inflight the crew member concerned should obtain the names, addresses and seat number of two passengers who witnessed the assault.

The Captain must be informed of any incident and under the Tokyo Convention and Aviation Security Ordinance they have the power to control offending passengers.

The crew member should advise the Captain whether they wish charges to be laid against the person concerned and the Captain will radio this information to the next port.

A member of the Group Safety and Operational Risk Management Department will be available to meet any flight returning to Hong Kong on which an assault has occurred. At outports this may be a member of the ground staff and/or the local police or airport authority.

The crew member concerned will be asked to make a statement concerning the incident and will be asked to identify the passenger to the police. It is normal police procedure to photograph any marks or bruises that may have been inflicted.

The Authorities will be responsible for deciding whether further action will be taken against the passenger concerned. The Company will support the crew member's wishes to the best of its ability. It should be noted that in some countries there may be problems with jurisdiction.

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## 11.9 No Show Passengers

A head count of all passengers will be carried out by ground staff before or during boarding as laid down in the passenger reconciliation programme in place at all ports and duplicated after boarding by the SCCM. Any discrepancies must be reported to the Captain. No-show passenger baggage must be off loaded.

It is the responsibility of ground staff to ensure that screening of checked baggage and passenger reconciliation is carried out and that the Captain and appropriate authorities are advised of any discrepancies.

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## 11.10 Passenger Checked Baggage

Checked baggage to be placed in the hold will be subjected to a security check. This will usually be done by X-ray screening supplemented by a physical search where necessary.

It is the responsibility of the ground staff to ensure that such screening is carried out and that the Captain and appropriate authorities are advised of any significant discrepancies.

Cathay Pacific practices baggage reconciliation. This means that there is a check to ensure that the same passenger or crew member that has checked in an item of checked baggage actually boards the flight. If a passenger or crew has checked baggage for a flight and does not board the aircraft, the baggage will be removed from the aircraft before departure.

Interline baggage will be subject to the above-mentioned security procedures.

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## 11.11 Passenger Hand Baggage

Before boarding the aircraft, all joining passengers will be required to undergo a search of hand baggage and a body check for restricted articles. The hand baggage check will preferably be carried out by means of X-ray equipment and the body check by means of archway metal detectors and handheld metal detectors. This search will normally be carried out either at the boarding gate or at the entrance to a sterile departure lounge.

At stations where a sterile transit lounge exists, transit passengers will not be required to pass through security screening before reboarding the aircraft provided they remain in the transit lounge area. If no separate sterile transit lounge exists, if the passengers have left the transit lounge area, or if the security of the transit lounge area is degraded in any way, e.g. by passengers mixing with transit passengers from other flights, then standard security screening including passenger screening and baggage examination will be carried out before boarding.

At most transit stations, passengers are given the option to disembark or remain on board. If passengers elect to disembark they must take all their hand baggage and personal belongings with them. If they choose to remain on board then they must identify and take charge of all their cabin baggage and personal belongings so that crew can pass through the aircraft to ensure no items of baggage remain on board that are unidentified. Announcements shall be made to this effect.

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## 11.12 Restricted Articles

Restricted articles that are not allowed to be carried into the cabin can be grouped into five generic categories:

Category 1 – Firearms, guns and weapons

Any object capable, or appearing capable, of discharging a projectile or causing injury.

Category 2 – Pointed/edged weapons and sharp objects

Any pointed or bladed item capable of being used to cause injury.

Category 3 – Blunt instruments

Any blunt object capable of being used to cause injury.

Category 4 – Explosive and flammable substances

Any explosive or highly combustible substances which pose a risk to the health of passengers and crew or the security/safety of the aircraft or property.

Category 5 – Chemical and toxic substances

Any chemical or toxic substances which pose a risk to health of passengers and crew or the security/safety of the aircraft or property.

**Note:** Local authorities may have slight variation when enforcing the above policy.

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## 11.13 Crew Members

Cathay Pacific crew members must carry their Company identification card with them at all times when on duty. The card must be displayed when requested by authorized personnel.

Upon commencement of a flight, all cabin crew including duty-travel crew, will report to the SCCM and identify themselves. The wearing of a uniform does not guarantee that a person is a Company employee. All crew members' names must be entered on the General Declaration before departure.

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## 11.14 Crew Baggage

In general, crew members will be responsible for the security of their own baggage. Crew baggage must not be left unattended in public places e.g. hotel lobbies and airport check-in areas.

All checked baggage belonging to crew members should be locked before loading. It should bear a Company crew baggage yellow and black label CX3380 with the crew member's name, flight number, date and destination clearly printed on it. If there is an overnight stop enroute, crew members must ensure that the crew baggage tag is clearly labelled with the correct destination before embarking on the next leg of the trip.

At most ports crew baggage is handed over by each crew member at the First Class counter. If crew baggage has been delivered to the aircraft rather than being carried by its owner, or if it has been left unattended at any time and it does not bear an intact security seal, then the contents of the bags should be checked by the owner before the bags are loaded on the aircraft.

Crew baggage arrangement at Cathay City Crew Channel.

1. Cathay Pacific Airways operates its own dedicated crew channel for outbound crew. The crew channel is located at the Ground Level of the South Tower of Cathay City. At the crew channel Cathay flight crew and cabin crew operating a departing flight from Hong Kong International Airport undergo immigration formalities and security screening prior to transfer to the aircraft by means of a sealed bus. On behalf of Cathay Pacific Airways the channel is operated by AVSECO.
2. The standard of security screening at CXCC is set out under the Hong Kong Aviation Security Programme and is the same as that which applies at other screening points at Hong Kong International Airport. Crew members, hand baggage and checked baggage must be screened to a standard "sufficient reasonably to detect a restricted article".
3. The main channel comprises an archway metal detector ('AMD') and an X-ray unit. Crew are required to remove metallic objects and proceed through the AMD. All loose items and hand carry baggage must be placed on the X-ray carousel for screening. Any crew who activates the AMD will be required to undergo a secondary check by use of a hand held metal detector. A physical check of the bag may be required in the event that the X-ray operator cannot clear a bag. In such cases the crew concerned will be requested to open the bag in order for AVSECO staff to carry out a visual inspection.
4. An adjacent screening channel is used for X-ray clearance of crew checked baggage for all CX long haul flights. Checked baggage should be presented at the X-ray housing located immediately to the right of the main entrance turnstiles. Crew members must ensure that their checked baggage is correctly labelled with their names, destination codes, flight departure dates and flight numbers displayed on the labels. This is in order for the baggage handlers to load the checked baggage into the correct container.

At any outport, crew members are to ensure that their hand baggage and suitcases are locked and left in their hotel room until just prior to check-out.

Do not accept any items for carriage on behalf of a third party, including letters, sealed gifts, parcels or baggage. Last minute 'gifts' or purchases such as food, cakes and fruit which are delivered to the aircraft are not to be accepted. Apart from legal and commercial implications such items might have been used to conceal weapons and narcotics without the crew member being aware of the fact. Contravention of this regulation will render a crew member liable to dismissal.

Crew members shall take all necessary measures to protect their personal property inflight.

1. Lock handbags.
2. Place handbags in overhead lockers.

3. During rest periods take all valuables with you.
4. In the event that any crew member loses any item of uniform they must report the loss immediately to the Team Office in Hong Kong, and to the Captain and SCCM as applicable whilst on flying duties.

## **11.15 Carriage of Commercial Goods Through Departures Crew Channel**

Crew members are advised that the carriage of commercial goods through the departures crew channel is strictly forbidden. Offenders render themselves liable to prosecution under the Hong Kong Airport Regulations CAP 292.

The only articles that crew are permitted to carry through the departure crew channel are personal effects and Company equipment or documents required for operation of the flight.

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## 11.16    **Valuables**

Valuable cargo and valuable articles belonging to individual passengers will not be accepted for custody by cabin crew.

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## 11.17 Traffic Document Satchel (Flight Satchel)

When all documents relating to the flight have been placed in the satchel it will be brought to the aircraft by the responsible ground staff. It will be delivered personally to the SCCM. On receiving the satchel, the SCCM will check the contents to ensure that it does not contain unauthorized items.

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## 11.18 Company Mail and Stores

Company stores will not be loaded unless they are accompanied by the appropriate documentation. Packages should bear a label stating the nature of the contents, the consignor and the consignee.

Last minute packages will be opened and inspected if considered necessary.

Items of Company material, e.g. large supplies of time tables, ABC guides, etc, will not be accepted as Company mail. These items will be manifested and handled as Company stores.

No single item of Company mail should exceed a weight of 2 KG.

Items unauthorized by the Company will not be placed in OCS mail bags. Sealed OCS mail bags will be kept under security surveillance from the time they are sealed until loading on the aircraft.

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## 11.19 Bomb Warning

### 11.19.1 General

Crew members may be required to assist in the search of an aircraft after a bomb threat has been received. Do not be alarmed. Such threats are almost always hoaxes intended to frighten passengers and create confusion. The real bomber does not usually give advance warning and our main defences against such people are our security procedures and your vigilance.

There are two distinctly different bomb warning situations which must be considered. They are:

1. The aircraft on the ground and
2. The aircraft inflight.

### 11.19.2 Positive Target Identification (PTI)

A Positive Target Identification (PTI) process is used to assess a bomb warning before classifying it as "green", "amber", or "red".

Green	A warning that may not identify a target or specific group of targets, or which otherwise lacks credibility. Such a warning does not justify extra precautions.
Amber	A warning that can be related to one or more targets but where there is a doubt about its credibility or about the effectiveness of the existing countermeasures. Such a warning may involve danger and may require additional precautionary measures.
Red	A specific warning where the threat is of a nature which permits identification of a specific target, or where the caller has positively identified themselves or the organization involved and is judged to be credible. Such a warning is likely to involve danger to aircraft, people or airport activities and therefore merits specific countermeasures.

### 11.19.3 Aircraft on the Ground

If a "Green" bomb warning is received, no special action is required, normal security procedures shall apply.

If an "Amber" bomb warning is received, disembarkation of all passengers and crew may be required. Additional security measures shall be taken by the ground staff.

If a "Red" bomb warning is received, disembarkation of all passengers and crew is required. However, the seriousness of the threat may dictate a precautionary disembarkation or emergency evacuation. Additional security measures shall be taken by the ground staff.

### 11.19.4 Aircraft In Flight

1. If a "Green" bomb warning is received, no special action is required, normal security procedures shall apply.
2. If an "Amber" bomb warning is received, additional measures may be required. The flight crew, in consultation with IOC, will decide on the course of action. Depending on the time available, a search of the flight deck and cabin may be requested by the flight crew.

If so, cabin crew will then conduct a thorough search of the cabin using the "Security Search Checklist — Cabin".

3. If a "Red" bomb warning is received, IOC shall provide any additional information to the flight crew who shall determine a course of action and commence a diversion if required. Depending on the time available, a search of the flight deck and cabin may be requested by the flight crew.

If so, cabin crew will then conduct a thorough search of the cabin using the "Security Search Checklist — Cabin".

4. In the event that a suspect device is located in an accessible part of the cabin, cabin crew should not touch the device until advice is given by the flight crew. If advised to do so by the flight crew, use the "Suspected Bomb on Board Checklist".
5. A decision will be made whether to leave the device in place or to move it to a position where the destructive effect of the explosion will be reduced. If asked by the flight crew to move the suspect device, refer to the "Least Risk Bomb Location (LRBL) Cabin Preparation Checklist".

## 11.19.5 Security Search Checklist – Cabin

### CATHAY PACIFIC

#### SECURITY SEARCH CHECKLIST – CABIN

The procedure given below is a guideline for crew to follow when conducting a security search of the cabin. If an object is found which gives reason for suspicion, do not touch it. Inform the flight crew immediately and follow their advice. If a suspicious object is found, and provided the safety of the search team can be maintained, the search shall be continued in case there are multiple devices.

Check from the aisle towards the window, and from floor to ceiling. Use search aids such as torches and mirrors if available.

##### INFLIGHT:

###### For A330, A350, 777:

- A. Divide the cabin into two sections with a “Buffer” zone in between. Suggested “Buffer” zone is the Door 2 service centre.
- B. Instruct passengers from the forward section (not more than 3 to 5 rows) to take all their belongings, including items in the overhead lockers, and move to a point to the rear.
- C. Position one cabin crew in each aisle to prevent passengers from entering the search area.
- D. Commence the search of the area with another two cabin crew (one in each aisle).
- E. After checking the area, instruct the passengers to return to their seats. Check their belongings as they do so.
- F. Repeat the process through the forward section until the “Buffer” zone is reached.
- G. At the same time, if manpower permits, instruct passengers from the aft section to move forward and follow the same procedure at the aft section.
- H. Search the “Buffer” zone when all of the forward and aft sections have been checked. Prevent passengers from entering the “Buffer” zone when it is being checked.
- I. Check crew rest areas thoroughly including all compartments and stowages.

###### For A320/A321:

- A. Instruct passengers from the forward section of the cabin (not more than 2 to 3 rows) to take all their belongings, including items in the overhead lockers, and move to a point to the rear.
- B. Position one cabin crew in the aisle to prevent unscreened passengers from entering the search area and one cabin crew at the aft to monitor.
- C. Commence the search of the area with the two cabin crew (one each seat row).
- D. After checking the area, instruct the passengers to return to their seats. Check their belongings as they do so.

##### GROUND:

Containers and cabinets shall be left open and waste bins emptied and fitted with new plastic bags after the initial search is completed. Only close compartments and containers once authorized by the PIC after the search has been satisfactorily completed.

NOTE: Areas to be checked are listed on the reverse of this card.

## CATHAY PACIFIC

### SECURITY SEARCH CHECKLIST – CABIN

The areas listed below are to be checked when conducting a security search of the aircraft cabin.

- **Passenger seats:**
  - This should include the seat cushions, pillows, area underneath the seat, tray table and its stowage, life jacket (check sealed) and its housing, IFE control housing, headphones and PTV housing (where applicable).
  - When the search of each seat is complete, fold the seat belt in a cross configuration to indicate completion.
- **Overhead lockers:**
  - The overhead lockers should be opened and all passenger belongings removed. Visually check the area with the aid of the search mirrors where fitted. Check any pillows or blankets individually.
- **Cloakrooms:**
  - Remove all coats and baggage and search each item. Every recess of the cloakroom should be checked.
- **Lavatories:**
  - Containers (eg. waste bins) under the sink should be removed and their contents and recesses checked.
  - Check the towel compartment and tissue dispenser.
  - Check the compartment behind the mirror (if any).
- **Galleys:**
  - Remove and check all containers, drawers, food/bar carts.
  - If the seals of the bar carts do not look tampered with, do not break them.
  - Check all galley compartments, bar boxes and chillers.
  - Check aircraft inspection panels located within the galley are in position.
- **Ceiling compartments:**
  - Check all ceiling compartments.
- **Magazine racks:**
  - Remove all magazines and check the racks.
- **Doghouses:**
  - Open and check all doghouses.
- **Crew seats:**
  - Check each seat individually. Open the seat and search down the sides and along the recess area.
  - Check the crew seat compartment.
- **Emergency equipment:**
  - Check all emergency equipment.
  - If an item has a seal and the seal does not appear to be tampered with, do not break it.
  - Open and check items that do not have seals (eg. demo kits).

## 11.19.6 Suspected Bomb on Board Checklist

### CATHAY PACIFIC

#### SUSPECTED BOMB ON BOARD CHECKLIST

If a suspect device is found in the cabin, inform the flight crew. Only follow this checklist if instructed to do so by the flight crew.

**DO NOT CUT OR DISCONNECT ANY WIRES**

**DO NOT OPEN OR ATTEMPT TO GAIN ENTRY TO INTERNAL COMPONENTS OF A CLOSED OR CONCEALED SUSPECT DEVICE**

**DO NOT TAKE A SUSPECT DEVICE TO THE FLIGHT DECK**

1. Ensure passengers have switched off all electronic devices.
2. Secure the suspect device in the attitude found.
3. Move passengers at least 4 seat rows away from the location. Passengers near the suspect device should protect their heads with pillows and blankets. All passengers must remain seated with seat belts fastened, and if possible with the head below the top of the headrest. Seat backs should be upright and tray tables and PTVs stowed.

**Inform the flight crew and follow their advice.**

If instructed by the flight crew to check for an anti-lift device:

4. Slide a stiff thin card (e.g. safety instruction card) under the suspect device without disturbing it.
- 5A. **If the card cannot be slipped under the device, it may indicate that an anti-lift switch or lever is present and that the device cannot be moved. Inform the flight crew and follow their advice. If instructed by the flight crew:**
  - i. Surround the device with a single thin sheet of plastic, then with wetted materials, and other blast energy absorbing soft materials such as seat cushions and soft bags saturated with water or other non-flammable liquid.
  - ii. Remove all emergency equipment (e.g. PBE, fire extinguisher, oxygen bottles etc.) located close to the device and stow in an alternate location.
  - iii. Switch off all galley and IFE equipment located close to the device.

**OR**

- 5B. **If the card can be slipped under the suspect device, leave it under the device. Inform the flight crew and follow their advice. If instructed by the flight crew:**
  - i. Prepare the Least Risk Bomb Location (LRBL) according to the LRBL Cabin Preparation Checklist provided on the reverse of this card.
  - ii. Do NOT move the suspect device until instructed to do so by the flight crew.

## 11.19.7 Least Risk Bomb Location (LRBL) Cabin Preparation Checklist

CATHAY PACIFIC

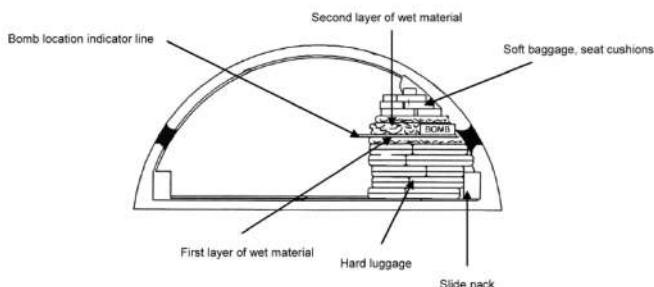
### LEAST RISK BOMB LOCATION (LRBL) CABIN PREPARATION CHECKLIST

**Only prepare the LRBL when instructed by the flight crew.**

- A. Identify the LRBL (aft most cabin door on the right side of the aircraft).
- B. Remove all emergency equipment (e.g. PBE, fire extinguisher, oxygen bottles etc.) located close to the LRBL and stow in an alternate location.
- C. Switch off all galley and IFE equipment located close to the LRBL.
- D. Disarm the escape slide.
- E. Stack hard carry-on luggage up to 10 inches below the middle of the door.
- F. Place 10 inches of wetted materials (e.g. wet blankets and pillows) on top of the stacked luggage.
- G. Place a plastic sheet (e.g. trash bag) on top of the wetted materials.
- H. Place a 6-8 foot long "bomb location indicator line" (e.g. neckties or belts connected together, preferably of contrasting colour) on top of the plastic sheet near to where the suspect device will be placed. Ensure the "bomb location indicator line" is long enough so that it extends into the aisle and is visible after the whole area is prepared.

**Do NOT move the suspect device until instructed to do so by the flight crew**

- I. Carefully move the suspect device in the attitude found to the LRBL and place it against the door on top of the plastic sheet, keeping the device in the same attitude. Ensure the device is above the slide pack but not inside the observation window and, if possible, not against the door handle.
- J. Place another plastic sheet over the suspect device.
- K. Place another 10 inches of wetted materials on top and around the sides of the suspect device. Do not place anything between the suspect device and the door, and minimize air space around the device.
- L. Fill the entire area used as the LRBL with blast energy absorbing soft materials (e.g. seat cushions and soft bags) until it extends up to the cabin ceiling and out to the aisle, packing the material as tightly as possible.
- M. Tie the entire stack securely in place with belts, ties and other appropriate materials.



- N. Move passengers at least 4 seat rows away from the LRBL. Passengers near the suspect device should protect their heads with pillows and blankets. All passengers must remain seated with seat belts fastened, and if possible with the head below the top of the headrest. Seat backs should be upright and tray tables stowed.

Notify the flight crew that the suspect device is secured at the LRBL.

## 11.20 Policy and Procedures for Handling Disruptive / Unruly Passengers

### 11.20.1 Policy

#### General Policy

The Cathay Pacific Airways policy towards unruly passengers is "Zero Tolerance". The Company will take all practical measures to minimise unruly passenger incidents and will ensure that staff are given total support when dealing with these incidents.

The fundamental security principle is prevention. It is our objective to identify potential troublemakers and, if need be, to stop them from boarding our flights to reduce the inflight problem. It must be appreciated that there are limited resources with which to deal with a situation inflight and the carriage of passengers who have the potential for creating disturbances onboard the aircraft and who could therefore endanger the aircraft or any person therein must be discouraged. To end this, ground staff are to be trained in techniques that will assist them in the identification and handling of potential troublemakers.

If a troublemaker is detected inflight, cabin crew should, whenever possible, inform the Aircraft Commander (Commander) and should then handle the situation without flight crew involvement. In the event that a passenger is required to be restrained by crew they should do so in a safe and efficient manner. They should then ensure that the passenger is handed over to the authorities at the port of arrival so that legal action can be initiated if possible. The extent and type of legal action will depend on the port. The Head of Security has issued guidelines to Commanders, SCCMs, Airport Operations Managers and security staff on how this process should be initiated.

The above policy can only be effectively implemented if all staff are fully aware of their rights and responsibilities and, if they receive appropriate guidance and are provided with the necessary tools to enable them to carry out those responsibilities. Prevention of a disturbance should be the main aim of the education programme and should be of concern to all staff who come into contact with our customers. It is the responsibility of Department Heads to integrate this corporate policy into their department's procedures and training programmes.

#### Aviation Security Offences

The Air Navigation (Hong Kong) Order 1995 and particularly the Aviation Security Ordinance stipulates clearly the authority of a Commander and the acts which constitute an aviation security offence. Seven specific unruly or disruptive behaviour committed onboard civil aircraft constitute an offence against Section 12B of the Aviation Security Ordinance, their details are as follows:

1. Obstruction of crew members in performing their duties;
2. Failure to comply with instructions given by crew members;
3. Disorderly behaviour;
4. Tampering or interfering with aircraft component, apparatus, equipment or system;
5. Intoxication by alcohol, drugs or other intoxicating substances;
6. Smoking in the aircraft when it is prohibited; and
7. Operating electronic devices in the aircraft when it is prohibited.

Refer to the Aviation Security Ordinance, Chapter 494 of the Laws of Hong Kong for the full description of the above offences (a copy may be found on the Security website).

In addition to the Air Navigation (Hong Kong) Order and the Aviation Security Ordinance, the Tokyo Convention of 1963 bestows powers on the Commander in respect of offences and certain other acts committed onboard an aircraft. These power include the right to refuse passage, to restrain an offender and/or to offload the offender and deliver them to the authorities at the place of landing. Commanders are to be made aware of these powers and are encouraged to use them as necessary.

### **Prevention**

Disruptive/unruly behaviour is first of all a safety and security issue. Secondly it also puts great mental strain on passengers and employees involved. It is reiterated that prevention of (escalated) disruptive behaviour may serve as a deterrent, but its effects cannot relied upon. In many disruptive incidents, passengers behave irrationally, and will not calculate the consequences of their behaviour.

The study of disruptive behaviour shows that often a series of events build up to the disruptive behaviour and early signs of potential disruptive behaviour can be observed. By acting on these early signs, rather than dealing exclusively with the escalated incident, situations may be far better controlled.

Research further indicates that many incidents, especially those which tend to be particularly violent; are related to excessive alcohol consumption, or the combination of alcohol consumption with drugs, as well as to nicotine withdrawal symptoms of smokers. The service on board provided by the crew must take a responsible approach with regards to the serving of alcohol.

## **11.20.2 Special Policy Relating to Alcohol**

### **General**

It is an offence under the Air Navigation Order (Hong Kong) 1995 and Aviation Security Ordinance for a person to board an aircraft and be onboard an aircraft when intoxicated. A passenger who boards a Cathay Pacific aircraft when intoxicated not only contravenes this law but conflicts with our commitment to safety and security and lowers the level of satisfaction of other customers onboard the flight. It is the responsibility of passengers not to be intoxicated or become intoxicated on the aircraft. However, it is unlikely that an intoxicated passenger would be aware of this and it is up to staff to be vigilant and to stop these passengers from travelling in such a state. Cathay Pacific's policy in regard to intoxicated passengers is set out below.

### **Check-in and Boarding**

Intoxicated passengers are a danger to themselves and others when onboard the aircraft, especially in the event of an emergency situation. When the condition of a passenger is found to be unfit for travel they must be denied carriage in line with our General Conditions of Carriage for Passenger and Baggage. Cathay Pacific will support all ground staff and crew who deny boarding to passengers who are intoxicated.

### **Passengers Under the Age of 18**

Alcohol must never be served to any passenger under the age of 18. The rule applies even when the child or young adult is travelling with their parents or an adult and that parent or adult has requested that alcohol should be served. If cabin crew are in doubt, request the travel document of the child or young adult in order to verify their age. Crew will be supported when enforcing this rule.

### **Intoxicated Onboard the Aircraft**

Excessive drinking often causes disruptive incidents and assaults onboard. It is extremely important that crew exercise discretion in serving alcohol to passengers who appear to show signs of intoxication. If there is any doubt on the part of crew, they should act on the side of caution and tactfully, but firmly decline the request to serve more alcohol to the passenger.

Consumption of passenger's own alcohol is not permitted.

### **Removal of Drink**

The crew may, at the absolute discretion of the Commander, or SCCM, remove alcohol including the passenger's duty free for safe custody. Any alcohol removed must be returned when the passenger leaves the aircraft.

### **Drugs**

Crew must not serve alcohol to passengers whom they suspect are under the influence of drugs or medicine.

### **Illnesses**

It is possible to confuse intoxicated behaviour with that due to illness. In particular those suffering from the effects of diabetes, epilepsy and recent head injuries can behave disruptively. Questioning the passenger, or their friends and family may help to exclude such causes. Assistance from a medically trained person might also be useful if there is doubt in this area.

## **11.20.3 Legal Aspects**

### **General Conditions of Carriage of Passengers and Baggage**

Cathay Pacific has a right under its Conditions of Carriage to refuse carriage of any passenger or passenger's baggage for reasons of safety or if, in the exercise of its reasonable discretion, Cathay Pacific determines that:

1. Such action is necessary in order to comply with any applicable laws, regulations or orders of any state or country to be flown from, into or over; or
2. The conduct, age, mental or physical state of the passenger is such as to:
  - A. Cause discomfort or make themselves objectionable to other passengers; or
  - B. Involve any hazard or risk to themselves or to other persons or to property; or
3. Such action is necessary because the passenger has failed to observe the instructions of Cathay Pacific staff.

### **Conduct Aboard Aircraft**

If the passenger conducts themselves onboard the aircraft so as to endanger the aircraft or any person or property onboard, or obstructs the crew in the performance of their duties, or fails to comply with any instruction of the crew, or behaves in a manner to as it deems necessary to prevent continuation of such conduct, including restraint of the passenger and request the local or Hong Kong police to take criminal sanctions on the passenger.

With regards to handcuffing the passenger, restraining the passenger in a seat using seat belts is considered to be the most appropriate form of restraint. In particular the crew, and especially the Commander, must be satisfied that these are the necessary reasonable measures, which have to be carried out to restrain the unruly passenger and ensure the person no longer jeopardises the safety of the aircraft or other passengers.

The restrained passenger should be moved to a seat where they can be monitored by a crew member, and be restrained by metal handcuffs/plastic cuffs at the rear of the body plus the seat belts. The reasoning behind this advice is to provide a better degree of supervision should oxygen be required in a depressurisation situation or in the event of an evacuation on the ground. This passenger is to be under constant supervision for the remainder of the flight. The restraints should remain applied until the offender is handed over to the appropriate authorities or in preparation for an emergency landing.

## Tokyo Convention

China is a signatory to the Tokyo Convention in 1963 which addresses the global concern about Unruly and Disruptive passengers. Extracts from the convention are set out below:

1. The Commander may, when they have reasonable grounds to believe that a person
  - A. has committed, or is about to commit, onboard the aircraft, an offence, or;
  - B. has committed or is about to commit onboard the aircraft acts which, whether or not they are offences, may or do jeopardise the safety of the aircraft or persons or property therein or which jeopardise good order and discipline onboard impose upon such persons reasonable measures including restraint, which are deemed necessary;
    - To protect the safety of the aircraft, or persons or property therein, or;
    - To maintain good order and discipline onboard, or;
    - To enable them to deliver such persons to competent authorities or to disembark the passenger in accordance with the provisions of the Tokyo Convention.
2. The Commander may require or authorise the assistance of other crew members and passengers to restrain any person whom they are entitled to restrain,
3. Any crew member or passenger may also take reasonable preventative measures without such authorisation when they have reasonable grounds to believe that such action is immediately necessary to protect the safety of the aircraft, or the persons or property therein,
4. The Commander may
  - A. in so far it is necessary for the purposes of subparagraph 1.A or B, disembark in the territory of any state in which the aircraft lands any person who they have reasonable grounds to believe has committed, or is about to commit onboard the aircraft an act contemplated in paragraph 1. above.
  - B. deliver to the competent authorities of any Contracting State (Tokyo Convention of 1963) in the territory of which the aircraft lands any person who they have reasonable grounds to believe has committed onboard the aircraft an act, which, in their opinion, is a serious offence according to the Laws of Hong Kong.

## 11.20.4 Handling Procedures for Unruly Passenger(s)

### 11.20.4.1 Pre-flight

Several opportunities exist at the pre-flight stage for staff to recognise the potential troublemaker. These include check in, the lounges and at the boarding gate. Given the emphasis on 'prevention', training in ways to avoid or prevent a situation exacerbating is provided to ground staff. This would minimise a situation being transferred inflight, having potential to get nasty.

If in doubt, a passenger should be refused carriage. Initial action to refuse carriage will normally be taken by the most senior airports staff on duty, who must exercise discretion in deciding whether to:

1. exclude them from the flight.
2. confer with the Commander and SCCM to decide on the appropriate course of action if considering whether to allow the passenger to travel.

Airport Operations Managers (AOM) will be provided with clear guidelines on the correct procedure to be followed when this course of action is considered to be appropriate.

#### 11.20.4.2 Check-in/Boarding

During check-in or in the lounge or at the boarding gate the following procedures must be observed:

1. Staff should, at all times, be observant of any unusual passenger behaviour,
2. Supervisor on duty should be discreetly informed of their observations,
3. The supervisor is to approach the passenger and assess if in their opinion the passenger is unfit for travel, inform the Manager On Duty (MOD) or AOM,
4. MOD and AOM are authorised to exclude any passenger from the flight in accordance with the General Conditions of Carriage for Passenger and Baggage and their actions will be fully supported by Management,
5. If it is apparent that the passenger is intoxicated, under no circumstances should the passenger be accepted on the flight,
6. Should a passenger be accepted for the flight after assessment by the MOD/AOM, the following procedures must be followed:
  - A. Confer with the Commander and SCCM to decide on the appropriate course of action to take given all the relevant information, and
  - B. The case should be recorded in the Electronic Airports Report (eARS) and the Electronic Cabin Safety Report (eCSR) with specific details of the passenger's state for future reference.
  - C. The Commander, in consultation with the SCCM has the final decision whether to accept or exclude the passenger during boarding.
7. Should a passenger be excluded from the flight, the following procedures must be followed:
  - A. A security guard or the local authority should be notified to stand by at the counter or boarding gate, if necessary,
  - B. The passenger's baggage must be offloaded, and amendments made to the relevant onboard documents,
  - C. Return uplifted tickets and airport tax (if applicable) to the passenger,
  - D. Assist the passenger to clear airport formalities, if necessary, and
  - E. Send a potential complaint report to Customer Relations Department for follow up action, report to APT DM and record the case in the eARS. Report with specific details of the passenger's state, i.e. intoxicated, general abuse, etc.
  - F. The SCCM is to record the case in the eCSR with specific details of the passenger's state and why the decision was made to exclude the passenger.

#### 11.20.4.3 After Boarding

Should a passenger be offloaded after boarding, the following procedures must be followed:

1. The Commander or SCCM will inform the ramp coordinator or MOD/AOM,

2. MOD/AOM is to notify airport security or the appropriate local authority to stand by at the gate, if necessary, to offload the passenger,
3. The passenger's baggage must be offloaded, and amendments made to the relevant onboard documents,
4. Return uplifted tickets and airport tax (if applicable) to the passenger,
5. Assist the passenger to clear airport formalities, if necessary,
6. Send a potential complaint report to the Customer Relations Department for follow up action, report to APT DM and record the case in the eARS Report with specific details of the passenger's state, i.e. intoxicated, general abuse, etc, and
7. The SCCM is to record the case in the eCSR with specific details of the incident onboard the aircraft that warranted the offloading of the passenger.

#### 11.20.4.4 Inflight – Cabin Crew

If, at any time, a cabin crew notices unusual behaviour on the part of a passenger, the SCCM is to be advised.

The SCCM will inform the Commander of any disturbances in the cabin in accordance with the following four-tier threat level alert to describe the seriousness of the situation:

- Level 1 – Disruptive behaviour
- Level 2 – Physically abusive behaviour
- Level 3 – Life threatening behaviour
- Level 4 – Attempted breach of the flight deck

As a precautionary measure in the interest of safety, during routine pre-departure checks, the SCCM should note the seat numbers of physically capable staff passengers and identify other suitable persons who may be approached at a later stage should assistance be required to restrain an unruly passenger.

If a passenger's behaviour results from the non-observance of the Air Navigation Order (Hong Kong) 1995 or Aviation Security Ordinance, then the SCCM shall clearly advise the passenger of the regulation. The passenger is to be left in no doubt as to the legal requirement where it exists, and this may be reinforced by issuing the passenger with the Cathay Pacific Unruly Passenger Notification, which can be found in the flight file.

The normal course of action in dealing with a disruptive/unruly passenger is as outlined below:

1. Verbal Warning

Warn the passenger verbally and inform the Commander. Refer to the "Guidelines for the issuance of Cathay Pacific Unruly Passenger Notification".

2. Written Warning

Obtain Commander's consent, then complete the Cathay Pacific Unruly Passenger Notification and hand over the original copy to the passenger. The carbonised copy should be returned to the Group Safety and Operational Risk Management Department via the flight file.

3. Restrain and Prosecute

If the passenger continues to act unruly, seek the authority from the Commander/PIC to restrain the passenger and have the authorities called to meet the passenger at the arrival station for prosecution action.

In the event that the authorities are called, crew members involved should positively identify the disruptive/unruly passenger to the authorities.

For all incidents involving a disruptive passenger, an eCSR should be completed.

#### **11.20.4.5 Inflight – Commander**

Commanders should thoroughly familiarise themselves with the powers bestowed to them by the Tokyo Convention of 1963 and the Aviation Security Ordinance, and these powers should be exercised whenever warranted. When an incident occurs on board, the Commander has the ultimate authority on the issue for the purposes of the Tokyo Convention and the Aviation Security Ordinance. The Management of the Company will give the Commander full backing any time these powers are justifiably used.

It is a requirement that the flight deck door is secured once the Commander has been advised by the SCCM or other members of the cabin crew of a potential incident. In the interest of the safe operation of the aircraft, the Commander or any other member of the flight crew should not physically handle any inflight cabin incidents.

If the Commander considers that a passenger's behaviour jeopardises the safety of the aircraft or persons on board, they should consider restraining the passenger. A passenger so restrained should be handed to the police at the destination airfield for detention and/or prosecution.

The Commander should, as early as possible, communicate to the Integrated Operations Centre (IOC) their decision to request assistance from the arrival port to handle the passenger. IOC will notify the Duty Operations Manager, Group Safety and Operational Risk Management Department and the AOM/MOD at the port of arrival.

Early communication of the Commander's decision is essential to allow the AOM/MOD to determine the best course of action when the aircraft lands and to make the necessary arrangements.

A standard statement form, which can be found in the flight file, is available for use by the operating crew and any witnesses to the incident inflight. The completed form should include detailed information of the incident and must be signed by the person writing the statement. The original copy of the form is to be handed over to the ground authorities on arrival of the flight and be used as a formal complaint against the passenger. The carbonised copy should be returned to the Group Safety and Operational Risk Management Department via the flight file.

The Commander is required to ensure that the involved crew has filled out the necessary documentation and is to assist in the collection of data. They will also need to ensure that witness statements are available upon arrival and to cooperate with the relevant authorities in pursuing a prosecution.

The Commander will be required to assist with the internal investigation into the incident.

#### **11.20.4.6 Arrival**

If alerted by the Commander or IOC of an inflight unruly passenger incident, the AOM/MOD shall:

1. Confirm the actions requested by the Commander;
2. If necessary, notify a security guard or the local authority to standby at the arrival gate (or passenger steps) for flight arrival;

3. Retrieve and return the baggage to the passenger, if the passenger is to be detained by the local authority;
4. Send a potential compliant report to the Customer Relations Department for follow up action, report to APT DM and record the case in the eARS Report with specific details of the passenger's state, i.e. intoxicated, general abuse, etc;
5. Details and statements of witnesses and/or passenger who assisted crew should also be recorded in the appropriate reports.

#### 11.20.4.7 Ground Services/Security Support

In the event that the support from ground personnel is required due to an unruly/disruptive passenger, SCCM is to inform the Commander. The Commander will then notify, by the most expeditious means (SATCOM, ACARS) the station of arrival as well as IOC if the situation on board, requesting for CX security staff or the MOD/AOM to meet the aircraft on arrival.

The SCCM should obtain statements from the passengers who witnessed the incident and preserve or collect all available evidence.

It will be the responsibility of the local CX security staff, or MOD/AOM to determine whether the Police are to be called. The support that can be expected from the local CX security staff and MOD/AOM at the port of landing will depend on the local practice.

Details of the witness names and addresses should be noted, as well as details that will be useful to the local authorities, such as aircraft registration, Commanders name, aircraft position and time of incident, name, nationality (if available) and details of the journey of the unruly person (list of reports where details are to be noted: flight reports/eCSR/Commanders report).

#### 11.20.4.8 Additional Considerations

The Commander has an obligation to deliver evidence and information to the authorities at the point of landing. Signatory countries to the Tokyo Convention are obliged to take custody of such passengers.

The Commander, any crew member and any passengers are relieved from responsibility in any proceedings where necessary and reasonable action has been taken in accordance with the Tokyo Convention.

Under the law, a physical assault or intimidation can only take place against an individual not against a corporation. This is the reason why a crew member must report and initiate legal action individually.

#### 11.20.4.9 Training and Briefing

1. To allow the above policy to be effectively implemented, a training video has been produced.
2. Cabin crew will view the video in their training session and be taught how to defuse a potential or actual conflict situation given the constraints imposed by the confined space of the cabin.
3. Ground staff who deal directly with passengers prior to boarding will view the video and be provided with procedures for the handling of unruly passengers.
4. Airport Operations Managers are to ensure that all customer services staff are aware of the policy and procedures to refuse passage. Emphasis to be placed on assuring staff that they will receive full Company support.
5. All ground staff are to be reminded of their responsibility to pass information on potential troublesome passengers to the Commander / SCCM in accordance with the laid down procedures.

6. The Commanders are to be made fully aware to their rights and powers under Hong Kong law and the Tokyo Convention.

#### 11.20.4.10 Manuals

Detailed procedures for the co-ordination of resources to handle unruly passengers in accordance with the above policy have been included in the following manuals:

1. ISD Manual (A)
2. Cathay Pacific Security Programme
3. Airports Customer Services Policies and Procedures

#### 11.20.4.11 Group Safety and Operational Risk Management Department (GSORM)

If a situation arises at an airport where a passenger becomes unruly or disruptive, the staff member involved should attempt to handle the situation. The Supervisor, MOD or AOM should be called to assist if the situation escalates. The airport security and/or local police should be called if a staff member or passenger feels frightened or is threatened by the unruly passenger(s).

In the event the flight is arriving into Hong Kong, the GSORM Security Operations can be contacted through IOC. The Commander may ask that security meet the aircraft on arrival.

In order to free staff from their normal duties, the GSORM Security Operations will take over the handling of a situation upon arrival of the aircraft. After assessment of the situation and if it is considered necessary, the GSORM Security Operations will call the Airport Police. Outside the operational hours of GSORM Security Operations (0045 to 0630 hours daily), police assistance can be requested directly by IOC, HKIA Duty AOM or MOD.

Under normal circumstances operating crew and other witnesses will be required to provide a statement to the police at the police station. If required a member of staff from GSORM will accompany the crew giving advice as necessary.

The GSORM Security Operations will also compile an initial incident report and forward to all relevant departments for their necessary actions or information. Further, a close liaison will be maintained with the police regarding the incident providing updates to all relevant departments as appropriate.

At outports the relevant MOD or AOM will be informed that the incoming flight has an unruly passenger and that the Commander is seeking assistance. The MOD or AOM will then call airport security or the local police as appropriate.

It is stressed that a report to the police does not necessarily result in a successful prosecution of the offender. Independent of police actions, the GSORM will assess the incident after receiving the relevant information / reports of the incident and will make a decision on the sanctions to be imposed on the unruly passenger. Sanctions range from a warning to behave, up to denial of further carriage on Cathay Pacific Airways operated flights.

#### 11.20.4.12 Company Support for Staff

It has been stated that Cathay Pacific staff can expect full Company support if they are involved in an incident.

The management appreciates that our operating crew and customer services staff are in the "frontline" when these unfortunate incidents of unruly and disruptive behaviour occur. Any such incidents will seriously affect the level of customer satisfaction of other passengers and thus bring the element of "Service Recovery" into account as part of the aftermath of the incident.

The following points emphasise the commitment of the Company to its staff where they become involved in an incident of this nature whilst in the course of their Company duties:

<b>Financial</b>	Any time expended in giving statements or attending court proceedings etc. will be considered "on duty" time and will be remunerated accordingly.
<b>Medical</b>	Medical expenses resulting from any injuries caused by an assault while on duty will be borne by the Company in accordance with the work injury management policy.
<b>Counselling</b>	In extreme circumstances staff may require counselling as part of their rehabilitation in the aftermath of an incident. These costs will be borne by the Company.
<b>Legal</b>	The Company will cover all legal costs resulting from an incident occurring whilst on duty subject to the approval of a cross departmental committee ("The Committee").

The Committee consists of:

- Cabin Crew Manager of Inflight Services Delivery or its delegate;
- Representative of People Department or its delegate;
- Legal Counsel of the Company or its delegate;
- Representative of Flight Attendants Union (as an observer member);
- The legal representative of Flight Attendants Union (as an observer member).

The attendance of representative of Flight Attendants Union ("FAU") and its legal representative as observer members is only applicable when staff concerned in the incident is a FAU member, and they have given written consent for the representative of FAU and its legal representative to be observers in the Committee meeting.

The staff requesting legal assistance will be notified of the decision in writing by the Committee within 5 days of the decision of the Committee.

If the staff concerned is satisfied with the Committee's decision, they may send a request in writing to Head of Cabin Crew Performance and Operations, within 15 days of the decision of the Committee to appeal the decision of the Committee. On receipt of the written request for appeal, the Appeal Committee will consider the appeal within 15 days. The Appeal Committee consists of:

- Head of Cabin Crew Performance and Operations of Inflight Services Delivery or its delegate;
- Representative of People Department or its delegate; and
- Group Legal Counsel of the Company and its delegate.

The Appeal Committee shall seek input from FAU (if the staff concerned is a FAU member) which should be put in writing to the Appeal Committee before the meeting. The input from FAU shall be considered.

The decision of the Appeal Committee is final.

#### **11.20.4.13 Guidelines for the Issuance of Cathay Pacific Unruly Passenger Notification**

SCCM when issuing an Unruly Passenger Notification (Written Warning) to a passenger, should use the following phases for guidance. Details of the incident leading to the issuance of the Notification shall be fully recorded in the appropriate report (Flight Report, eCSR, and Commanders Report).

- **Phase 1**

Passenger receives a verbal warning because of their disturbing behaviour.

- Passenger stops disturbance – inform Commander, no further action needed.

- **Phase 2**

Passenger behaviour deteriorates further.

- The SCCM fills in the Cathay Pacific Unruly Passenger Notification and hands the original copy to the passenger. The carbonised copy should be returned to the GSORM via the flight file.
  - Passenger stops disturbance – no further action needed.

- **Phase 3**

Passenger continues with such behaviour and/or passenger's behaviour becomes illegal:

- Seek the authority of the Commander to restrain the said passenger and have the authorities called to handle the passenger at the arrival situation. The involved crew shall positively identify the passenger to the authorities.

## 11.20.4.14 Written Warning – English



Passenger Full Name : \_\_\_\_\_

Flight Number : \_\_\_\_\_ Assigned Seat Number : \_\_\_\_\_

Flight Date : \_\_\_\_\_ Aircraft Registration : B - \_\_\_\_\_

### **THIS IS A WRITTEN WARNING GIVEN BY THE CAPTAIN OF THIS AIRCRAFT**

Cathay Pacific Airways Limited (“Cathay Pacific Airways”) will not tolerate disruptive or unruly behaviour on board an aircraft and your behaviour has resulted in this written warning being issued to you.

The Hong Kong Aviation Security Ordinance Chapter 494, prohibits, but is not limited to, the following:

- Passengers who behave in a disruptive or unruly manner.
- Passengers who smoke or are intoxicated.
- Passengers who tamper/damage with any equipment onboard the aircraft.
- Passengers whose conduct jeopardises or threatens the safety and security of other passengers, our crew and/or our aircraft.
- Passengers who disobey a lawful instruction by the Captain or crew of the aircraft.

You may have already committed a criminal offence and the police may be asked to meet the flight on arrival. This can result in you being arrested, charged and prosecuted and if found guilty, you will have a criminal record and may face imprisonment or fines. If you continue to disobey the lawful instructions of the Captain or crew members, you may be restrained. In addition, the Captain may decide to land the aircraft at the nearest available airport and offload you. Claims will be made against you for the diversion costs and your ticket will be invalidated for further carriage.

**IT IS THE COMPANY'S POLICY TO PURSUE PROSECUTION OF ANY PERSON WHOSE ACTIONS CONTRAVENE ANY STATUTORY REGULATIONS AND MAY AFFECT THE SAFETY OF THIS AIRCRAFT AND WELL-BEING OF OTHER PASSENGERS AND CREW ONBOARD**

### 11.20.4.15 Written Warning – Traditional Chinese



乘客姓名：(姓)\_\_\_\_\_ (名)\_\_\_\_\_ 原定座位編號：\_\_\_\_\_

航班編號：\_\_\_\_\_ 飛機註冊號碼：B - \_\_\_\_\_

航班日期：\_\_\_\_\_

#### 此乃本航機機長發出之書面警告

國泰航空不會容忍任何擾亂或難受管束的行為，故此這書面警告乃因你的行為而發出。

根據香港航空保安條例第 494 章規定，禁止(惟並不限於)以下情況：

- 乘客在飛機上作出擾亂秩序或難受管束的行為。
- 乘客在飛機上吸煙或變得神智不清。
- 乘客在飛機上故意破壞、干預或干擾該飛機任何儀器或設備。
- 乘客之行為危及或威脅到其他機上乘客，機組人員及 / 或本航機的安全，良好秩序及紀律。
- 乘客不遵從機長或機組人員所發出的合法指示。

你可能已經干犯了刑事罪行，同時在航機到達時，可能會被送交警務人員。你或會被拘捕、檢控及起訴。如一經定罪，你將會有刑事紀錄，並可能會被監禁或罰款。如你仍繼續不遵從機長或機組人員的合法指示，你將會被束縛。此外，機長亦可能會將航機改道並降落於最接近之機場將你卸載，你將可能要負擔有關航機改道之費用，而你的機票所餘下之旅程亦將被即時取消。

根據本公司的政策，如任何人違反法定規例，而可能影響本航機、  
其他機上乘客及機組人員的安全，將會對該人作出起訴。

以上譯文以英文本為準

## **11.20.4.16 Statement Form**

# Statement Form

Flight No.:	Sector:	Aircraft registration:	Name of Captain:
CX _____	From _____ To _____	B - _____	ERN: _____
Date:	Time of incident: HH : MM <input type="checkbox"/> HKG time <input type="checkbox"/> GMT <input type="checkbox"/> Outport time Name of port	Flight Phase: <input type="checkbox"/> Parked <input type="checkbox"/> Taxiing <input type="checkbox"/> T/O or Landing <input type="checkbox"/> Cruise	Name of SCCM:  ERN: _____

**Details of Witness:** Please provide details of any witness and have them complete and sign a separate Statement Form if applicable

Surname: _____	Seat No.:	Gender:	Passport/ HK ID No.:
Other Names: _____		<input type="checkbox"/> M <input type="checkbox"/> F	Nationality: _____

Address: _____	MPO/AM No.: (If applicable)	Email Address: _____
Telephone No: (Country code) - (Area code) - (Phone number)		

Details of Unruly Passenger:	Seat No.:	Gender:	Passport/ HK ID No.:
Surname: _____		<input type="checkbox"/> M <input type="checkbox"/> F	Nationality: _____
Other Names: _____			

Address: _____	MPO/AM No.: (If applicable)	Email Address: _____
Telephone No: (Country code) - (Area code) - (Phone number)		

Details of the incident:*
---------------------------

This Statement Form has been completed by (Please '✓' the relevant box):			
<input type="checkbox"/> Captain	<input type="checkbox"/> SCCM	<input type="checkbox"/> Other Cabin Crew (Cabin Crew's name): _____	(ERN): _____
<input type="checkbox"/> Witness			

Captain's Signature:	Cabin Crew's Roster Name & ERN:	Cabin Crew's Signature:
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(The witness to the incident who has completed this Statement Form please sign here):

\*Please use a separate Statement Form if more space is required and attach it to the original Statement Form.

## 11.21 Hijacking

### 11.21.1 General

Company policy is based on "PASSIVE DEFENCE AND PASSIVE CONTROL". The primary consideration at all times must be the safety of the passengers and crew. Violent action should be left to trained experts and should not be condoned unless there is a reasonable chance of success with minimum risk to passengers and crew.

### 11.21.2 Basic Precautions

1. The first line of defence against hijackers lies in the pre-boarding screening of passengers. Be alert to any deficiencies and obvious weaknesses in procedures and equipment and report them.
2. Do not hesitate to report suspicious behaviour, unauthorized entry to security restricted areas, suspicious packages and baggage.
3. Ensure that you are aware of special security procedures, and that you know how to use the intercom/interphone.

### 11.21.3 The Hijacker

1. The methods of dealing with a hijacking will depend to a considerable extent on the personality of the hijacker, their motivation and whether they have accomplices.

There are 4 main categories of hijacker:

A. Criminal

An individual whose motive is greed, values life, may carry out a violent act in final desperation due to failure or frustration and is open to negotiation.

B. Psychotic

Such a person or persons may show evidence of confusion, inability, failure or refusal to state a destination or by ordering the aircraft to be placed in an impossible situation. Such a person or persons must be treated carefully due to unpredictable behaviour.

C. Asylum Seekers/Refugees

These are a group of people who for political or economic reasons wish to flee a country. They are prone to making mistakes, may commit a violent act in desperation, quite often have families on board with them.

D. Terrorists

Political activists and terrorists supporting wars of liberation, national or local, seeking as part of a larger strategy to attack, embarrass or coerce an establishment.

2. Extortion may be a primary or secondary motive with any of these categories. If it is the primary motive, nothing would be gained by carrying out threats of injury or destruction since their primary objective could be prejudiced. However, a violent act in final desperation should be anticipated as a precaution.

### 11.21.4 Dealing with the Hijacker

1. ABOVE ALL, REMAIN CALM AND DO AS YOU ARE TOLD.

The hijacker will undoubtedly be in a nervous state of mind and further irritation or sudden action may provoke a violent response.

2. Avoid sudden movement. Explain what you are doing.
3. The hijacker will probably ask to speak to the Captain. This should be avoided or delayed if at all possible by saying you must obtain permission to enter the flight deck and then contact the Captain advising them by using the Company hijack code.
4. Communicate in a friendly reassuring manner with the hijacker and try to establish their motives. Try to persuade them that their chances of success are remote and that they will be treated reasonably if the aircraft is permitted to proceed to its scheduled destination.
5. If the hijackers are members of a well organized group such as Category D, do not get involved in discussions on politics or religion.
6. Do not attempt to be a hero by trying to fool or overwhelm them by force. Leave it to the trained experts on the ground to negotiate for your release.
7. If at all possible try to keep them in their seat particularly if the Category is A – C. Failing this, it may be possible to persuade them to sit in an isolated position in the First Class cabin, thus keeping them away from passengers.
8. Offer them drinks but avoid alcohol. The objective is not to stimulate them but to get them to go the toilet.
9. You may be required to interpret for the hijacker, if so avoid using expressions which may cause anger or unnecessary excitement. Be polite and friendly.
10. A communication card, form CP 8198, is carried on the flight deck to assist in communicating standard expressions in various languages. If possible, avoid using passengers as interpreters.

## 11.21.5 The Passengers

1. When the situation permits, advise your passengers what is happening. Request them to remain seated, avoid sudden moves and not to get excited. Reassure them as much as possible and keep calm yourself. You are their example.
2. Try to persuade the hijacker to allow disembarkation of passengers and cabin staff. Arguments used successfully in the past are:
  - A. The need to reduce loads so that additional fuel can be uplifted.
  - B. Off-loading passengers will eliminate problems of catering, baggage, toilet servicing, water, etc.
  - C. Hijackers will have less people to guard.
  - D. Political complications of involving passengers of various nationalities.
  - E. Humanitarian aspects.

## 11.22 The Hostage Situation

1. It is quite possible that you may be held hostage on the ground, either on the aircraft or in close confinement, for a long period. In this case the previously mentioned methods of passive resistance still apply. Try to keep the situation under control. Communicate with ground agencies as much as possible and provide them with as much information as you can. Communicate with the hijacker and continue to pose them problems. If crew fatigue becomes a significant problem assign a roster of responsible crew members to remain on watch.
2. Experience of hostage situations has indicated that after captors and captives have been confined together for long periods and have communicated freely, the captors are often reluctant to carry out their threats of execution. Remember — TIME IS ON YOUR SIDE, REMAIN CALM.
3. Be aware that you are going to experience various psychological reactions to being held captive: The hostage situation:
  - A. Shock

You will not believe it is happening to you, refuse to accept the situation, may fall asleep temporarily.
  - B. Realization

Suddenly realizing it is not a dream and becoming very negative about life, resort to mind games counting windows, etc., to take your mind off what is actually happening.
  - C. Self Preservation

Begin to get positive about life and feeling of well being, at this point start to remember training.
4. Use your time constructively OBSERVE the hijackers for future debriefing:
  - A. Names
  - B. Language spoken
  - C. Nationality
  - D. Clothes worn
  - E. Types of weapon used

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## **A      Appendix A – Pre-flight Briefing Questions**

### **A.1     Introduction**

During ad-hoc circumstances (e.g. when computerised sign-on system breaks down), SCCM shall:

1. Ask a minimum of 4 safety questions from this section.
2. Select the question related to the aircraft type which the crew are to operate.
3. Read the question to the entire set of crew first and then assign a crew to answer.
4. Choose different ranks to answer the questions.
5. Answers need not be verbatim (word for word as the model answer).

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## A.2 Evacuation (Airbus)

### A.2.1 Evacuation (A320)

1. What are the silent review items?
  - Brace position
  - Brace commands
  - Evacuation duties
  - Location of required emergency equipment
  - Nearest available exits
2. What should the door primary do if the door power assist fails to open the door in an evacuation?
  - Forcibly push the door open until it latches
3. What should the cabin crew do if the slide fails to inflate automatically?
  - Type I: Pull the manual inflation handle on the right hand side of the girt bar
  - Type III: Pull the manual inflation handle on the upper corner of each exit opening near the EXIT sign
4. What are the land evacuation duties for a door primary?
  - Evacuation and motivation commands
  - Evaluate outside
  - Open door (Type III: Open Hatch)
  - Check escape route safe
  - Direct passengers
  - Check area
  - Evacuate
5. When does the cabin pressure warning light flash?
  - The cabin is not fully depressurized after landing
  - Engines are shut down
  - Door is disarmed
6. When does the slide armed indicator light illuminate?
  - Type I: When the door is Armed and the door operating handle is lifted up
  - Type III: When either one of the handle covers is removed

## A.2.2 Evacuation (A321)

1. What are the silent review items?
  - Brace position
  - Brace commands
  - Evacuation duties
  - Location of required emergency equipment
  - Nearest available exits
2. What should the door primary do if the door power assist fails to open the door in an evacuation?
  - Forcibly push the door open until it latches
3. What should the door primary do if the slide fails to inflate automatically?
  - Type I: Pull the manual inflation handle on the right hand side of the girt bar
  - Type C: Pull the manual inflation handle on the upper right hand side of the exit frame
4. What are the land evacuation duties for a door primary?
  - Evacuation and motivation commands
  - Evaluate outside
  - Check mode 'ARMED'
  - Open door
  - Check escape route safe
  - Direct passengers
  - Check area
  - Evacuate
5. When does the cabin pressure warning light flash?
  - The cabin is not fully depressurized after landing
  - Engines are shut down
  - Door is disarmed
6. When does the slide armed indicator light illuminate?
  - When the door is Armed and the door operating handle is lifted up

## A.2.3 Evacuation (A321neo)

1. What are the silent review items?
  - Brace position
  - Brace commands

- Evacuation duties
  - Location of required emergency equipment
  - Nearest available exits
2. What should the door primary do if the door power assist fails to open the door in an evacuation?
- Forcibly push the door open until it latches
3. What should the cabin crew do if the slide fails to inflate automatically?
- Oversized Type I: Pull the manual inflation handle on the right hand side of the girt bar
  - Type III: Pull the manual inflation handle on the aft side of the EXIT frame
  - Type C: Pull the manual inflation handle on the upper right hand side of the exit frame
4. Oversized Type I/Type C doors: What are the land evacuation duties for a door primary?
- Evacuation and motivation commands
  - Evaluate outside
  - Check mode 'ARMED'
  - Open door
  - Check escape route safe
  - Direct passengers
  - Check area
  - Evacuate
5. When does the cabin pressure warning light flash?
- The cabin is not fully depressurized after landing
  - Engines are shut down
  - Door is disarmed
6. When does the slide armed indicator light illuminate?
- Oversized Type I/Type C: When the door is Armed and the door operating handle is lifted up
  - Type III: When the handle cover is removed

## **A.2.4      Evacuation (A330)**

1. What are the silent review items?
- Brace position
  - Brace commands
  - Evacuation duties

- Location of required emergency equipment
  - Nearest available exits
2. What should the door primary do if the door power assist fails to open the door in an evacuation?
- Forcibly push the door open until it latches
3. What should the door primary do if the slide fails to inflate automatically?
- Pull the manual inflation handle on the right hand side of the girt bar
4. What are the land evacuation duties for a door primary?
- Evacuation and motivation commands
  - Evaluate outside
  - Check mode 'ARMED'
  - Open door
  - Check escape route safe
  - Direct passengers
  - Check area
  - Evacuate
5. When does the cabin pressure warning light flash?
- The cabin is not fully depressurized after landing
  - Engines are shut down
  - Door is disarmed
6. When does the slide armed indicator light illuminate?
- When the door is Armed and the door operating handle is lifted up

## **A.2.5      Evacuation (A350)**

1. What are the silent review items?
- Brace position
  - Brace commands
  - Evacuation duties
  - Location of required emergency equipment
  - Nearest available exits
2. What should the door primary do if the door power assist fails to open the door in an evacuation?
- Forcibly push the door open until it latches

3. What should the door primary do if the slide fails to inflate automatically?
  - Pull the manual inflation handle on the right hand side of the girt bar
4. What are the land evacuation duties for a door primary?
  - Evacuation and motivation commands
  - Evaluate outside
  - Check mode 'ARMED'
  - Open door
  - Check escape route safe
  - Direct passengers
  - Check area
  - Evacuate
5. When does the cabin pressure warning light flash?
  - The cabin is not fully depressurized after landing
  - Engines are shut down
  - Door is disarmed
6. When does the slide armed indicator light illuminate?
  - When the door is Armed and the door operating handle is lifted up

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## A.3 Evacuation (777)

1. What are the silent review items?
  - Brace position
  - Brace commands
  - Evacuation duties
  - Location of required emergency equipment
  - Nearest available exits
2. What should the door primary do if the door power assist fails to open the door in an evacuation?
  - Forcibly push the door open until it latches
3. What should the door primary do if the deployment indicator at Door 3 is not visible during a land evacuation?
  - Pull the manual inflation handle on the upper aft corner of the door frame
4. What are the land evacuation duties for a door primary?
  - Evacuation and motivation commands
  - Evaluate outside
  - Check mode ‘AUTO’
  - Open door
  - Check escape route safe (Doors 3: check deployment indicator)
  - Direct passengers
  - Check area
  - Evacuate
5. What are the ditching evacuation duties for the door primaries at doors 3?
  - Evacuation and motivation commands
  - Place the mode to “Manual”
  - Guard door and redirect passengers
  - Check area
  - Evacuate

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## A.4 Equipment

### A.4.1 Operation

1. How do you operate a BCF extinguisher (safety catch)?
  - Lift the safety catch
  - Hold the unit upright
  - Aim the nozzle at the base of the fire
  - Squeeze the lever to discharge
  - Use a sweeping motion
2. A321neo/A350: How do you operate a HAFEX fire extinguisher?
  - Remove the safety pin
  - Hold the unit upright
  - Aim the nozzle at the base of the fire
  - Squeeze the handle and lever to discharge
  - Use a sweeping motion
3. After turning on the portable gaseous oxygen bottle, what do you need to check before donning the yellow cup mask onto a casualty's face?
  - Check the flow indicator on the dispensing tube. It should turn from colourless to green.

### A.4.2 Precaution

1. What are the precautions when using a BCF/HAFEX fire extinguisher?
  - Stand 6-8 FT away from the fire on initial discharge, then move closer
  - Avoid breathing in smoke and fumes from the fire
2. What are the precautions before administering oxygen for first aid?
  - Ensure the operator's hands and casualty's face are free from oil, grease or fatty substances
  - No smoking in the immediate vicinity

### A.4.3 Pre-flight Check

1. What is the pre-flight check of the BCF extinguisher (safety catch)?
  - Secure and red disc intact
2. A321neo/A350: What is the pre-flight check of the HAFEX fire extinguisher?
  - Secure, pointer within green range, safety pin and seal intact
3. What is the pre-flight check of the PBE?
  - Seal intact and indicator green

4. What is the pre-flight check of the first aid kit?
  - Blue seal intact

#### **A.4.4 Location**

1. Where are the BCF/HAFEX fire extinguishers located?
  - A320: Flight deck, L1, L2, R2
  - A321: Flight deck, L1, L2, R2, L3, R3, L4, R4
  - A321neo: Flight deck, L1, L3, L4, R4 (SF)
  - A330 (except A33P/A33B): Flight deck, L1, R1, L2, L3, L4, R4
  - A350: Flight deck, L1, R1, L2, L3, L4, R4, FCRC, CCRC
  - 777-300: Flight deck, L1, R1, L2, L3, L4, L5, R5
  - 777-300ER: Flight deck, L1, R1, L2, L3, L4, L5, R5, Door 1 upper crew rest area, Door 5 upper crew rest area
2. Where are the PBEs located?
  - A320: Flight deck, L1, L2, R2
  - A321: Flight deck, L1, L2, L3, L4, R4
  - A321neo: Flight deck, L1, L3, L4, R4 (SF)
  - A330: Flight deck & all doors
  - A350: Flight deck, all doors, FCRC & CCRC
  - 777-300ER: Flight deck, all doors, door 1 upper crew rest area & door 5 upper crew rest area
3. Where are the ELTs located?
  - A320: L2
  - A321/A321neo: L4
  - A330/A350: L2 & L4
  - 777 (except 77C): L2 & L5
4. Where are the additional survival packs located?
  - A330 (except B-LAA/LAB): All doors except doors 3
  - A330 (B-LAA/LAB): All doors
  - A350: All doors
  - 777: All doors except doors 3

5. Where are the first aid kits located?
  - A320: L1, L2
  - A321: L1, L2, L4
  - A321neo: L1, L3, L4
  - A330: All left hand side doors
  - A350-900: All left hand side doors
  - A350-1000: L1, L2, L3, R3, L4
  - 777: All left hand side doors

#### **A.4.5 Miscellaneous**

1. For what types of fire do we use a BCF/HAFEX fire extinguisher?
  - Class A, B & C. However, for class A fire, water should be used afterwards to cool the object to prevent re-ignition
2. What are the casualty criteria when using the AED?

The AED shall be used for a casualty who shows any of the below conditions:

  - Not breathing NORMALLY
  - Severe chest pain or any other signs and symptoms of heart attack
  - Unconsciousness
3. How long does the oxygen last after donning the PBE?
  - 15 MIN up to a cabin altitude of 25,000 FT

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## **A.5 Ditching**

1. In a ditching, how do you assess the aircraft attitude?
  - By looking through the door window and referring to the slope of the cabin floor
2. When should the infant life jacket be inflated?
  - At the door area, just before leaving the aircraft
3. How do you release the slide/slideraft from the aircraft?
  - A320/A321/A321neo Type I door, A330/A350/777: Raise the girt cover and pull the white girt release handle
4. How do you cast off the slide/slideraft from the aircraft?
  - A320/A321/A321neo Type I door: Cut the mooring line with the hook knife
  - A330/A350/777: Cut the mooring line with the hook knife or pull the quick release handle

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## A.6 Fire

1. What is the electrical fire drill?

- Turn the power off. If the power cannot be turned off, pull the circuit breaker for the affected piece of equipment.
- Use the BCF/HAFEX fire extinguisher to put out the fire
- Inform SCCM and the Captain

2. What are the lavatory fire fighting procedures?

- Don PBE and protective gloves, have BCF/HAFEX extinguisher in hand
- Stay low
- Use the lavatory door/partition as protection as the door is opened
- Locate the source of the fire
- Discharge the extinguisher at the base of the fire

If unable to enter the lavatory (due to severity of the fire and smoke) and unable to locate the source:

- Open the door slightly and raise the extinguisher as high as possible
- Place the nozzle of the extinguisher in the gap
- Discharge the full bottle of BCF/HAFEX and close the door
- Reopen the door after half a minute and re-evaluate the situation
- If necessary, discharge another bottle

3. What are the immediate actions upon discovering fire or smoke caused by a PED or Lithium battery?

- Remove external electrical power from device and/or switch off the power from device, if applicable
- Carry out fire fighting procedures using fire extinguisher until visible flames have been extinguished
- Use non-flammable liquid (such as water) to provide sufficient cooling
- Repeat the above steps as required and monitor for any re-ignition
- Inform SCCM and Captain

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## A.7 Turbulence

1. What are the procedures for light/mild turbulence?
  - Check all passengers seated with their seat belts fastened
  - Hot beverages, including soup and cup noodles must not be served
  - Report to the section leader who will then report to the SCCM
2. What are your procedures for moderate turbulence?
  - After secure the galley and then secure myself in the nearest crew seat

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## A.8 Depressurisation

1. What are the cabin signs of a depressurisation?
  - Cabin lights will automatically come 'ON' bright
  - Automatic illumination of the 'No Smoking' and 'Seat Belt' signs
  - Emergency oxygen masks drop automatically
  - Automatic P/A in 4 languages: English, Cantonese, Putonghua and Japanese
2. What are your immediate actions in a depressurisation?
  - Don the drop down oxygen mask
  - Secure self

**Note:** *These two actions need not to be comparative in sequence.*
3. After a depressurisation, what should you do when you are informed to get up from your seat by the flight crew?
  - Obtain an oxygen bottle, check other crew members and crew rest area before checking passengers
  - Check passengers seat belts' are fastened, lavatories are vacant
  - Advise SCCM the status of the cabin (e.g. structure) and any passengers/crew injuries

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## A.9 Refuelling

1. During refuelling with passengers on board, if you are positioned at an open door, what are your duties?
  - Man the door throughout the fuelling operation
  - Ensure the door is free from obstruction
  - Observe and report if fuel vapours or any other hazards are detected
  - Evacuate passengers if necessary

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## **A.10 Dangerous Goods**

1. What should be your action if you discover a passenger carrying a package with a hazard label in the cabin whilst the aircraft is still on the ground?
  - Confirm with the passenger whether the package contains dangerous goods. If it does, notify the Captain immediately. If it does not, ask passenger to remove the label from the box.
2. What should be your action if you find a package containing dangerous goods in the cabin inflight?
  - Identify the item
  - Notify the Captain

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## A.11 First Aid

1. Give three examples of when to stop CPR?
  - Signs of life resume
  - The MedLink doctor gives instruction to stop resuscitation (regardless of whether there is a doctor on board)
  - If MedLink cannot be contacted and the doctor onboard gives the instruction to stop resuscitation
  - If MedLink cannot be contacted, there is no doctor onboard and CPR has been given for 30 MIN with no signs of life within this period, and no shocks have been recommended by the AED within the same period
  - The scene becomes unsafe
  - All cabin crew are too tired to continue
  - The aircraft lands and care is transferred to emergency medical services
2. What are the signs and symptoms of angina pectoris?
  - Vice-like chest pain which may spread to the jaw and down one or both arms. Pain eases with rest
  - Shortness of breath
  - Tiredness, which is often sudden and extreme
  - Feeling of anxiety
3. What are the signs and symptoms of heart attack?
  - Continuous vice-like chest pain which may spread to the jaw and down one or both arms. Pain does not ease with rest
  - Discomfort occurring high in the abdomen, may feel similar to severe indigestion / heartburn
  - Difficulty in breathing, extreme gasping for air
  - Sudden faintness, dizziness or collapsing
  - Pale, grey skin
  - Lips turn blue
  - Rapid, weak and irregular pulse
  - Profuse sweating
  - Shock
  - Unconsciousness may develop
  - Breathing and heart beat may stop
4. What are the signs and symptoms of allergic reactions?
  - Anxiety

- Red, blotchy skin
- Swelling of the face and neck
- Puffiness around eyes
- Red, itchy or watery eyes
- Impaired breathing or wheezing
- Rapid pulse
- Mild itching
- Anaphylactic shock

5. What are the signs and symptoms of shock?

- Rapid and shallow breathing
- Pulse rate increases, but is weak and irregular
- Pale grey skin
- Lips turn blue
- Weakness and dizziness
- Restless and anxious
- Nausea and possible vomiting
- Sweating, cold and clammy skin
- Thirsty
- Heartbeat may stop

6. What is the treatment for fainting?

If the casualty is conscious:

- Sit them down, ask them to lean forward and place their head between their knees
- Take deep breaths

If the casualty becomes unconscious:

- Lay the person down, raise legs and monitor breathing and pulse

7. If a passenger burnt their hand, a blister is formed and the affected area becomes red, what is the treatment?

- Place the injured part under slow running cold water, immerse it in cold water or apply cold compress for about 10 MIN to stop the burning effect and relieve the pain
- Carefully remove any jewellery, watches, or constricting clothing from the injured area before it starts to swell
- Do not remove anything sticking to the burn
- No lotions or ointments should be applied on the burn

- Do not break any blisters to avoid infection
  - Cover the area with a sterile non-adhesive dressing and then bandage the area
8. What is the treatment for smoke, fumes or gas exposure?
- Don PBE if smoke/fumes is still visible in the area
  - Remove the casualty from the area of smoke or fumes
  - Give oxygen
  - Take off all contaminated clothing, and rinse the skin with water.
  - Treat as a burn if the victim shows any signs of burns.
  - If unconscious with breathing, put them in recovery position
  - CPR and AED are needed if there is no breathing
  - Contact MedLink

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## **A.12 Security**

1. What are the four levels of threat?
  - Level 1: Disruptive behaviour
  - Level 2: Physically abusive behaviour
  - Level 3: Life threatening behaviour
  - Level 4: Attempted breach of the Flight deck
2. If an unruly passenger is being restrained by handcuffs, when do we release them?
  - When the person is handed to the authorities
  - In an emergency where an evacuation may be required – release in sufficient time
  - In a medical emergency

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## **A.13      Miscellaneous**

1. When will “Sterile Flight Deck” apply for departure?
  - From engine start/aircraft first moves until flight crew establishes communication with cabin crew.

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<b>B</b>	<b>Appendix B – Emergency and Survival Equipment Quick Reference .....</b>	<b>1</b>
B.1	Passenger Aircraft.....	1
B.2	Freighter .....	1

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## B Appendix B – Emergency and Survival Equipment Quick Reference

### B.1 Passenger Aircraft

Emergency and Survival Equipment	SEPM Reference	Quantity in A320/1/neo	Quantity in A330	Quantity in A350-900	Quantity in A350-1000	Quantity in 773/ER
1. First Aid Kit	4.3.3	3	4 A33P/B: 5	4	5	5 773P: 6
2. Inflight Medical Kit	4.3.8	1	1	1	1	1
3. Emergency Locator Transmitter: o Rescu 406S o Rescu 406SE o Rescu 406SG	4.1.2	1	2	2	2	2
4. Additional Survival Pack	4.1.7	Nil	6 A33B (B-LAA/B): 8	8	8	8
5. Slideraft A. Colour: Silver Type: Double channel slideraft  Average Seating capacity: Normal/ Overload	10.4.3 10.5.3 10.6.3	Nil	6 A33B (B-LAA/B): 8  62/75	4	6	8  773: 62/77  773ER: 63/78
B. Colour: Silver Type: Single channel slideraft  Average Seating capacity: Normal/ Overload			—	4	2	—
6. Survival Kit – attached with each slideraft	10.4.3 10.5.3 10.6.3	Nil	1 Total: 6	1 Total: 8	1 Total: 8	1 Total: 8
7. Signal Flares (Pyrotechnics) – inside each survival kit	10.4.3 10.5.3 10.6.3	Nil	4 Total: 24 A33B (B-LAA/B): 32	1 Total: 8	1 Total: 8	2 Total: 16

Emergency and Survival Equipment	SEPM Reference	Quantity in A320/1/neo	Quantity in A330	Quantity in A350-900	Quantity in A350-1000	Quantity in 773/ER
8. Drinkable Water – inside each survival kit	10.4.3 10.5.3 10.6.3	Nil	2 x 1 pint Total: 12 pint A33B (B-LAA/B): 16 pint	–	–	8 x 125 ml Total: 8 L

## B.2 Freighter

Emergency and Survival Equipment	FCOM Reference (Systems Description)	SEPM Reference	Quantity in 747-400ERF	Quantity in 747-8F
1. First Aid Kit	1.45.6 to 1.45.11	4.3.3	1	1
2. Self Help Medical Kit	1.45.6 to 1.45.11	4.3.4	1	1
3. Emergency Locator Transmitter: o Rescu 406S o Rescu 406SE o Rescu 406SG	1.45.2 1.45.6 to 1.45.11	4.1.2	2	2
4. Land / Additional Survival Pack	1.45.6 to 1.45.11	4.1.8	2	2
5. Signal Flares (Pyrotechnics) – inside each Land Survival Pack	--	4.1.8	4 Total: 8	4 Total: 8
6. Drinkable Water – inside each Land Survival Pack	--	4.1.8	2 Pint	3 Pint
7. Slide Colour: Silver	1.30.37 to 1.30.38 1.50.3	10.7.2.2	1 x Single Channel	1 x Single Channel
8. 10-Man Raft Colour: Orange Capacity: Normal/Overload	1.45.6 to 1.45.11	10.7.2.4	2 10/15	2 10/15
9. Survival Kit – attached with each 10-Man Raft	--	10.7.2.4	1 Total: 2	1 Total: 2
10. Signal Flares (Pyrotechnics) – inside each Survival Kit	--	10.7.2.4	2 Total: 4	2 Total: 4
11. Drinkable Water – inside each Survival Kit	--	10.7.2.4	2 x 125 ml Total: 250 ml	2 x 125 ml Total: 250 ml

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<b>C</b>	<b>Appendix C – Training Requirements .....</b>	<b>1</b>
C.1	Cabin Crew Training Requirements .....	1

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## C Appendix C – Training Requirements

### C.1 Cabin Crew Training Requirements

The training requirements for cabin crew are given below. The courses are for initial, recurrent, revalidation and conversion training. Training includes lectures as well as practical drills. All courses have exams and competence checks. Course details are given in the Safety Training Syllabus Manual.

Initial training – to be conducted for newly joined cabin crew and completed before assignment to duty.

Recurrent training – the HKCAD requirement is that all cabin crew shall be trained and tested in safety and emergency procedures every 13 months. The company policy is for cabin crew to be scheduled for training every 12 months.

Revalidation training – to be conducted for any cabin crew who has been absent from all flying duties for more than a certain period. Details are in ISD Manual (A) Chapter 5.

Conversion training – to be conducted for cabin crew who are qualifying on a new aircraft type.

	Initial	Recurrent			Re-validation	Conversion
		12 Months	24 Months	36 Months		
<b>Aviation Indoctrination</b>						
Regulations	✓	✓			✓	
Aviation terminology	✓					
Theory of flight	✓					
Major aircraft components	✓					
Critical surfaces	✓					
Pressurization	✓					
Weight and balance	✓					
Meteorology/turbulence	✓					
Physiology of flight	✓					
<b>Safety Policies &amp; Procedures</b>						
Crew coordination	✓	✓			✓	
Crew communication	✓	✓			✓	
Sterile flight deck	✓	✓			✓	
Mandatory briefings	✓	✓			✓	
Safety checks	✓	✓			✓	
Passengers acceptance/handling	✓	✓			✓	
Carry-on baggage	✓	✓			✓	
Personal electronic devices	✓	✓			✓	
Fueling – passengers onboard	✓	✓			✓	

## Cabin Crew Training Requirements

	Initial	Recurrent			Re-validation	Conversion
		12 Months	24 Months	36 Months		
Turbulence	✓	✓			✓	
Crew member incapacitation	✓		✓		✓	
Flight deck access/protocol	✓	✓			✓	✓
<b>Emergency Procedures</b>						
Fire fighting	✓	✓			✓	
Smoke/fumes in cabin	✓	✓			✓	
Depressurisation – slow/rapid	✓	✓			✓	
Evacuation procedures	✓	✓			✓	✓
Emergency cabin preparations	✓	✓			✓	✓
Ditching	✓	✓			✓	✓
Expected/Unexpected evacuations	✓	✓			✓	
<b>Emergency Equipment</b>						
Pre-flight checks	✓	✓			✓	✓
Function and operation	✓	✓			✓	✓
<b>Aircraft Specific</b>						
Aircraft Interior	✓					✓
Passenger seats/restraints	✓					✓
Crew member seats/restraints	✓					
Galley systems	✓	✓			✓	✓
Communication systems	✓					✓
Lighting systems	✓	✓			✓	✓
Oxygen systems	✓	✓			✓	✓
Exit location and operation	✓	✓			✓	✓
Emergency equipment location	✓	✓			✓	✓
Emergency assignments	✓	✓			✓	✓
Differences training	✓	✓			✓	✓
<b>Hands-on Practical Drills</b>						
P/A & Intercom system	✓					
Mandatory briefings	✓			✓		
Aircraft exit operation	✓	✓			✓	✓
Evacuation	✓	✓			✓	✓
Raft	✓					

	Initial	Recurrent			Re-validation	Conversion
		12 Months	24 Months	36 Months		
Wet drill	✓					
Life jacket	✓	✓			✓	
Aircraft slide egress	✓					
Extinguish actual fire	✓		✓		✓	
Operate hand-held fire extinguishers	✓	✓			✓	✓
PBE	✓	✓			✓	
Depressurisation (group drill)	✓			✓		
Oxygen administration	✓	✓			✓	
<b>Testing/Evaluation</b>						
Tests	✓	✓			✓	✓
Competence checks	✓	✓			✓	✓
<b>Aviation First Aid</b>						
Cabin crew responsibilities	✓	✓			✓	
Life-threatening emergencies	✓	✓			✓	
Cardiopulmonary resuscitation (CPR)	✓	✓			✓	
Injuries	✓	✓			✓	
Illnesses	✓	✓			✓	
Childbirth	✓	✓			✓	
<b>Human Factors</b>						
Fundamental concepts	✓					
Crew resource management	✓	✓			✓	✓
Flight/Cabin crew joint CRM		✓			✓	
<b>Dangerous Goods</b>						
General philosophy	✓	✓			✓	
Limitations	✓	✓			✓	
Labeling and marking	✓	✓			✓	
Recognition of undeclared dangerous goods	✓	✓			✓	
Provisions for passengers and crew	✓	✓			✓	
Emergency procedures	✓	✓			✓	
<b>Aviation Security</b>						
Security training	✓	✓			✓	✓

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