Ministry of Defence

Defence Fire and Rescue
Tactics Techniques & Procedures

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Conditions of Release

4. This document has been subject to a DFR HQ Equality Impact Assessment.

5. On initial release a publication will be reviewed at the 12-month point, following which reviews will be 5 yearly or where changes in circumstances warrant a review.

[1] RN (AH) stakeholders are the Operational Responders based at the Culdrose, Predannick, Yeovilton and Merryfield aerodromes.
[2] Other FRS Providers include Babcock, Mitie, QinetiQ Fire Services
[3] For the purposes of this AQRC, DFRS Fire Officers employed within DFSR, DIO & RN, are included for information purposes only.

Document Control

Version	Amendment	Para No. Affected / Brief Details	Amended By	Role	Date
V1.0	Initial draft		Sgt Patterson	WM	20/10/2022
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AIRCRAFT TACTICS TECHNIQUES PROCEDURES
(ATTP/A38)

Chinook

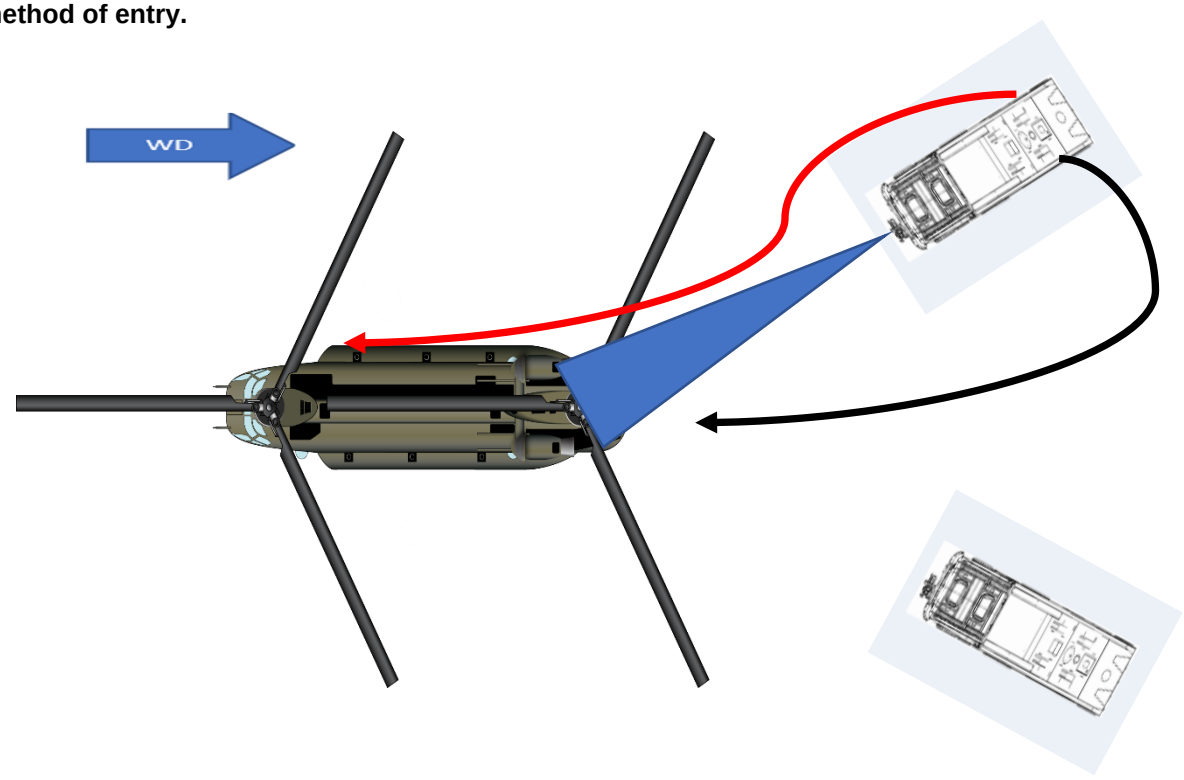
This TTP refers to the operation of all Chinook Marks aircraft utilising a response model of 2 x MPRVs

MPRV (Crash1)	MPRV (Crash 2)
1 x JNCO (CM) 1 x ERD 1 x AS 1/2 (Fftr)	1 x SNCO (WM) 1 x ERD

TTP 1 – Engine Fire

Event Plan – Initial deployment

Red line denotes hose positioning for underslung aircraft incidents. Black line denotes standard method of entry.



Incident Commander Considerations:

- Confirm whether countermeasures are present
- Conduct and complete DRA
- Order BA Team to don BA using Rapid Deployment procedures
- Declare Tactical Mode
- Consider required agencies and resources
- Consider implementing Major Incident Plan
- Direct firefighting actions to create survivable conditions
- Consider mass discharge from monitor
- Consider use of secondary media
- Consider contacting aircraft commander via ATC or 121.6 if available
- Be aware of PAX exiting aircraft
- Consider using SAPPHO to instigate PEMS.
- Direct BA rescue crew
- Direct Medical Teams
- Direct all operational control and implement ICS
- Provide M/ETHANE report
- Maintain safe operations and ensure scene safety
- Direct other agencies
- Consider media run-off and water courses on scene.
- Consider preservation of evidence
- Instigate JESIP for multi-agency incident.

Crash 1 - MPRV Actions:

- Where possible aim to deploy at 45-degree angle rear of the A/C.
- Be aware of PAX and assist them exiting the aircraft
- Direct Personnel away from the airframe
- Consider use of monitor to extinguish fire
- Consider method of entry if PAX remain onboard
- Don BA and instigate Rapid Deployment Procedures if required
- Deploy media with sufficient lengths of 45mm hose/hose reel as determined by IC DRA and prepare for entry into aircraft
- BA team access aircraft and create survivable conditions if required
- Confirm/make safe aircraft systems
- Utilise Medics to triage casualties on board if survivable conditions are present
- Aid Medics in extricating casualties
- Consider use of auxiliary equipment such as TIC
- Carry out external airframe cooling as required
- Provide scene safety.

Crash 2 – MPRV Actions

- Where possible aim to deploy at 45-degree angle rear of the A/C.
- Be aware of PAX exiting the aircraft
- Be prepared to relay water to Crash 1
- Consider utilising FLIR to monitor hot spots (post fire extinguishment)

Specific Aircraft Hazards:

- Rotors
- Pyrotechnics
- Flammable liquids
- Flammable/pressurised gases
- Composite aircraft materials

Further Considerations:

- Aircraft position and wreckage
- Leaking fuel
- Aircrew
- Other agencies.

Supporting Information:

- DFR-OG 009 - Aircraft Fires
- Ops Instruction 001 - Aircraft Incidents
- Ops Instruction 002 - CFR HSE Policy
- Ops Instruction 005 - Low Speed Manoeuvring
- Ops Instruction 006 - MPRV ARFF Positioning Deployment & Task
- Ops Instruction 007 - MPRV Vehicle Operations
- Ops Instruction 033 - BA Operations
- Ops Instruction 066 - Fire Contaminants
- Ops Instruction 069 - Polymer-Composites-and-MMMF
- Op Guidance 001 - Aircraft Incidents
- Op Guidance 002 - Incidents Involving Rotary Wing Aircraft
- Op Guidance 003 - Aircraft Fuel Fires and Foam Application
- Op Guidance 006 - Aircraft Internal Fires
- Op Guidance 007 - Aircraft Engine Fire
- Op Guidance 008 - Aircraft Undercarriage Incidents
- MOD Aircraft Crash Hazards Document Set
- ATTP A38
- DSA 1000m assessments
- DSA Water assessments
- DSA Response assessments

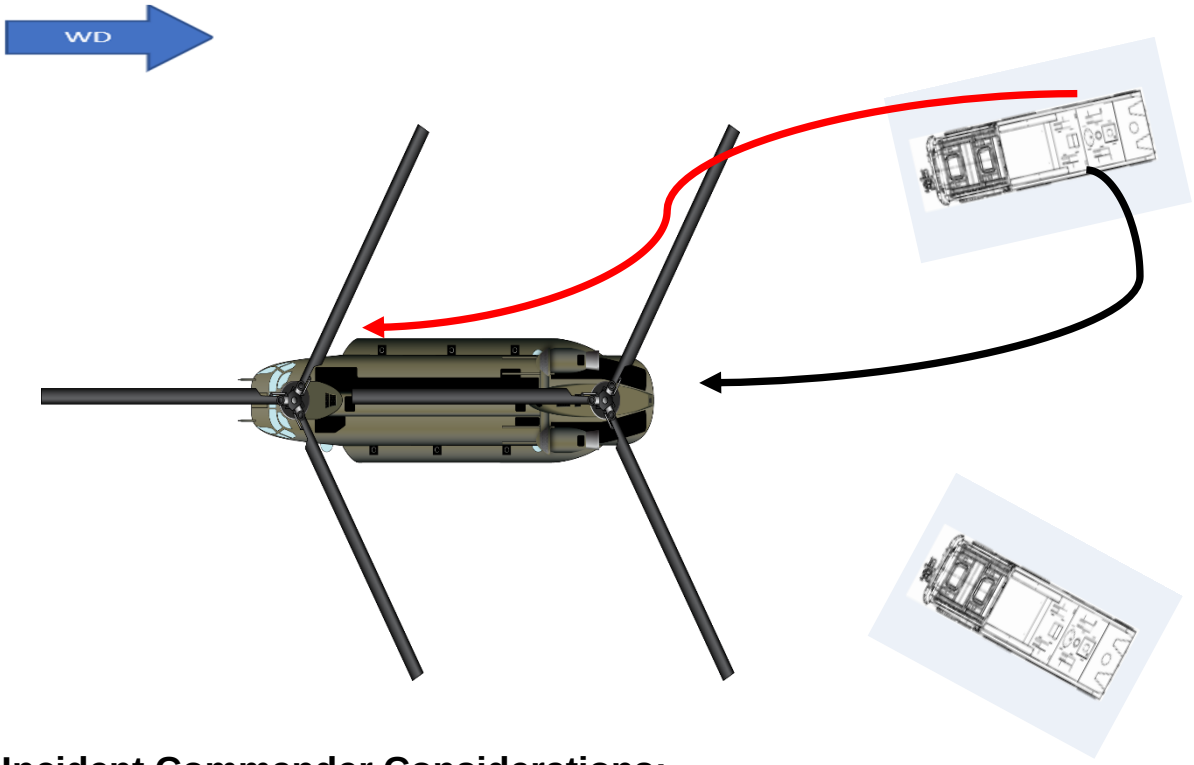
Training:

- Aircraft familiarisation
- Deployment exercise(s)
- Redkite CMS
- Aircraft lecture – 6 monthly lesson / familiarisation presentation.

TTP 2 – Wheel Assembly Incident

Event Plan - Initial Deployment

Red line denotes hose positioning for underslung aircraft incidents. Black line denotes standard method of entry.



Incident Commander Considerations:

- Confirm whether armaments and countermeasures are present
- Conduct and complete DRA
- Order BA Team to don BA using Rapid Deployment
- Declare Tactical Mode
- Consider required agencies and resources
- Consider implementing Major Incident Plan
- Direct firefighting actions to create survivable conditions
- Consider mass discharge from monitor
- Consider use of secondary media
- Consider contacting aircraft commander via ATC or 121.6 if available
- Be aware of PAX exiting aircraft
- Consider using SAPPHO to instigate PEMS.
- Direct BA rescue crew
- Direct Medical Teams
- Direct all operational control and implement ICS
- Provide M/ETHANE report
- Maintain safe operations and ensure scene safety
- Direct other agencies
- Consider media run-off and water courses on scene.
- Consider preservation of evidence
- Instigate JESIP for multi-agency incident.

Crash 1 - MPRV Actions:

- Where possible aim to deploy at 45-degree angle rear of the A/C.
- Be aware of PAX and assist them exiting the aircraft
- Direct personnel away from the airframe
- Consider use of monitor and extinguish fire
- Consider use of secondary agents
- Consider use of in-situ airfield FAFAs
- Consider method of entry if PAX remain onboard
- Don BA and instigate Rapid Deployment Procedures if required
- Deploy media with sufficient lengths of 45mm hose/hose reel as determined by IC DRA and prepare for entry into aircraft
- BA team access aircraft and create survivable conditions if required
- Confirm/make safe aircraft systems
- Utilise Medics to triage casualties on board if survivable conditions are present
- Aid Medics in extricating casualties
- Consider use of auxiliary equipment such as TIC
- Carry out external airframe cooling as required.
- Maintain contact with IC
- Provide scene safety.

Crash 2 – MPRV Actions

- Where possible aim to deploy at 45-degree angle rear of the A/C.
- Be aware of PAX exiting the aircraft
- Be prepared to relay water to Crash 1
- Consider utilising FLIR to monitor hot spots (post fire extinguishment)

Specific Aircraft Hazards/Procedures:

- Rotors
- Pyrotechnics
- Flammable liquids
- Flammable/pressurised gases
- Composite Materials
- Oleo Leg Collapsing.

Further Considerations:

- The actions during this incident will be dependent on the following conditions:
    - Is the wheel assembly on fire?
    - Is the fire confined to one area or is escalation likely?

Supporting Information:

- DFR-OG 009 - Aircraft Fires
- Ops Instruction 001 - Aircraft Incidents
- Ops Instruction 002 - CFR HSE Policy
- Ops Instruction 005 - Low Speed Manoeuvring
- Ops Instruction 006 - MPRV ARFF Positioning Deployment & Task
- Ops Instruction 007 - MPRV Vehicle Operations
- Ops Instruction 033 - BA Operations
- Ops Instruction 066 - Fire Contaminants
- Ops Instruction 069 - Polymer-Composites-and-MMMF
- Op Guidance 001 - Aircraft Incidents
- Op Guidance 002 - Incidents Involving Rotary Wing Aircraft
- Op Guidance 003 - Aircraft Fuel Fires and Foam Application
- Op Guidance 006 - Aircraft Internal Fires
- Op Guidance 007 - Aircraft Engine Fire
- Op Guidance 008 - Aircraft Undercarriage Incidents
- MOD Aircraft Crash Hazards Document Set
- ATTP A38
- DSA 1000m assessments
- DSA Water assessments
- DSA Response assessments

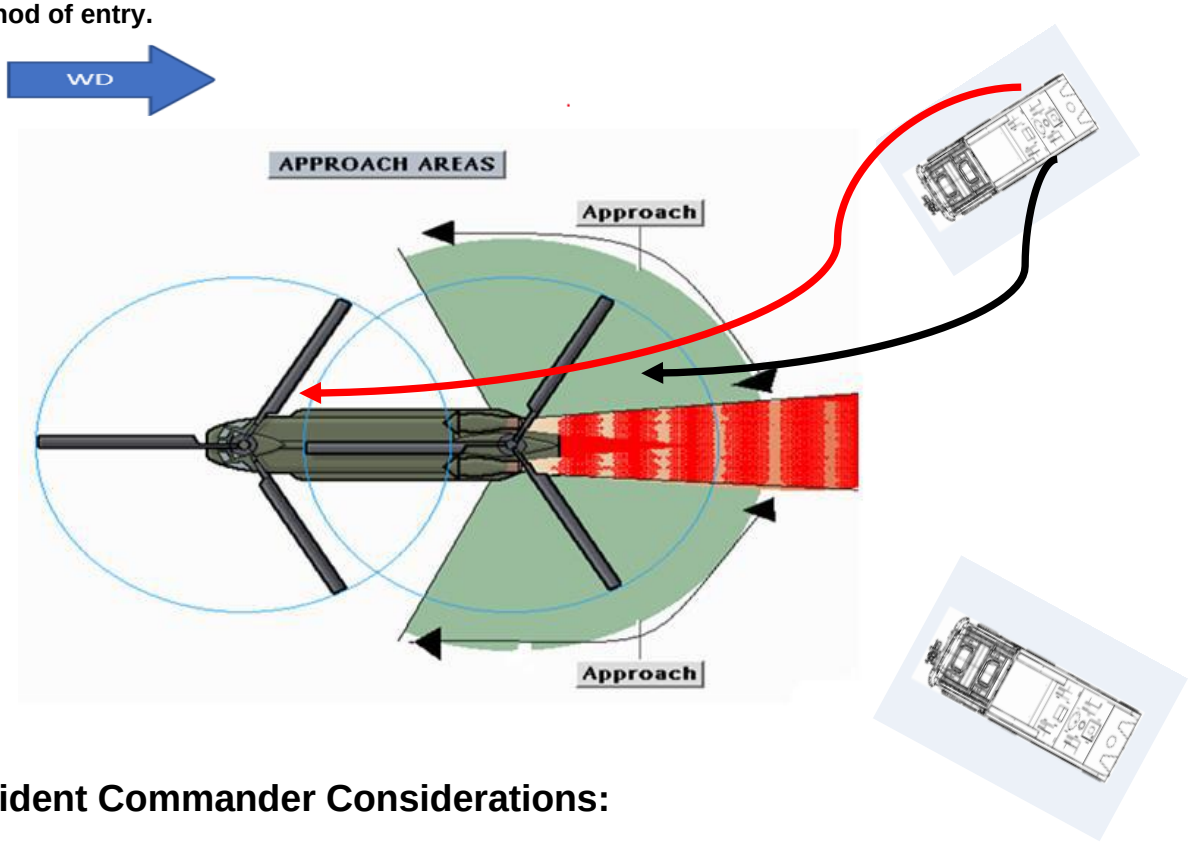
Training:

- Aircraft familiarisation
- Deployment exercise(s)
- Redkite CMS
- Aircraft lecture – 6 monthly lesson / familiarisation presentation.

TTP 3 – Internal Fire

Event Plan - Initial Deployment

Red line denotes hose positioning for underslung aircraft incidents. Black line denotes standard method of entry.



Incident Commander Considerations:

- Confirm whether armaments and countermeasures are present
- Conduct and complete DRA
- Order BA Team to don BA using Rapid Deployment
- Declare Tactical Mode
- Consider required agencies and resources
- Consider implementing Major Incident Plan
- Direct firefighting actions to create survivable conditions
- Consider use of secondary media
- Consider contacting aircraft commander via ATC or 121.6 if available
- Be aware of PAX exiting aircraft
- Consider using SAPPHO to instigate PEMS.
- Direct BA rescue crew
- Consider taking in additional secondary media to extinguish electrical fires.
- Direct Medical Teams
- Direct all operational control and implement ICS
- Provide M/ETHANE report
- Maintain safe operations and ensure scene safety
- Direct other agencies
- Consider media run-off and water courses on scene.
- Consider preservation of evidence
- Instigate JESIP for multi-agency incident

Crash 1 - MPRV Actions:

- Where possible aim to deploy at 45-degree angle rear of the A/C.
- Be aware of PAX and assist them with exiting the aircraft
- Direct personnel away from airframe
- Consider use of Monitor
- Consider method of entry if PAX remain on board
- Don BA and utilise Rapid Deployment Procedures
- Deploy media with sufficient lengths of 45mm hose/hose reel as determined by IC DRA.
- Consider use of handheld extinguisher
- BA team access aircraft and create survivable conditions
- Confirm/make safe aircraft systems
- Utilise medics to triage casualties on board if survivable conditions are present
- Aid medics in extricating casualties
- Consider use of auxiliary equipment such as TIC
- Consider requirement to cool external airframe
- Maintain contact with IC
- Provide scene safety

Crash 2 – MPRV Actions

- Where possible aim to deploy at 45-degree angle rear of the A/C.
- Be aware of PAX exiting the aircraft
- Be prepared to relay water to Crash 1
- Consider utilising FLIR to monitor hot spots (post fire extinguishment)

Specific Aircraft Hazards:

- Rotors
- Pyrotechnics
- Flammable liquids
- Flammable/pressurised gases
- Composite aircraft materials.

Further Considerations:

- Aircraft position and wreckage
- Leaking fuel
- Aircrew
- Other agencies.
- Internal Lighting
- Hydraulic Ventilation

Supporting Information:

- DFR-OG 009 - Aircraft Fires
- Ops Instruction 001 - Aircraft Incidents
- Ops Instruction 002 - CFR HSE Policy
- Ops Instruction 005 - Low Speed Manoeuvring
- Ops Instruction 006 - MPRV ARFF Positioning Deployment & Task
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- MOD Aircraft Crash Hazards Document Set
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- DSA 1000m assessments
- DSA Water assessments
- DSA Response assessments

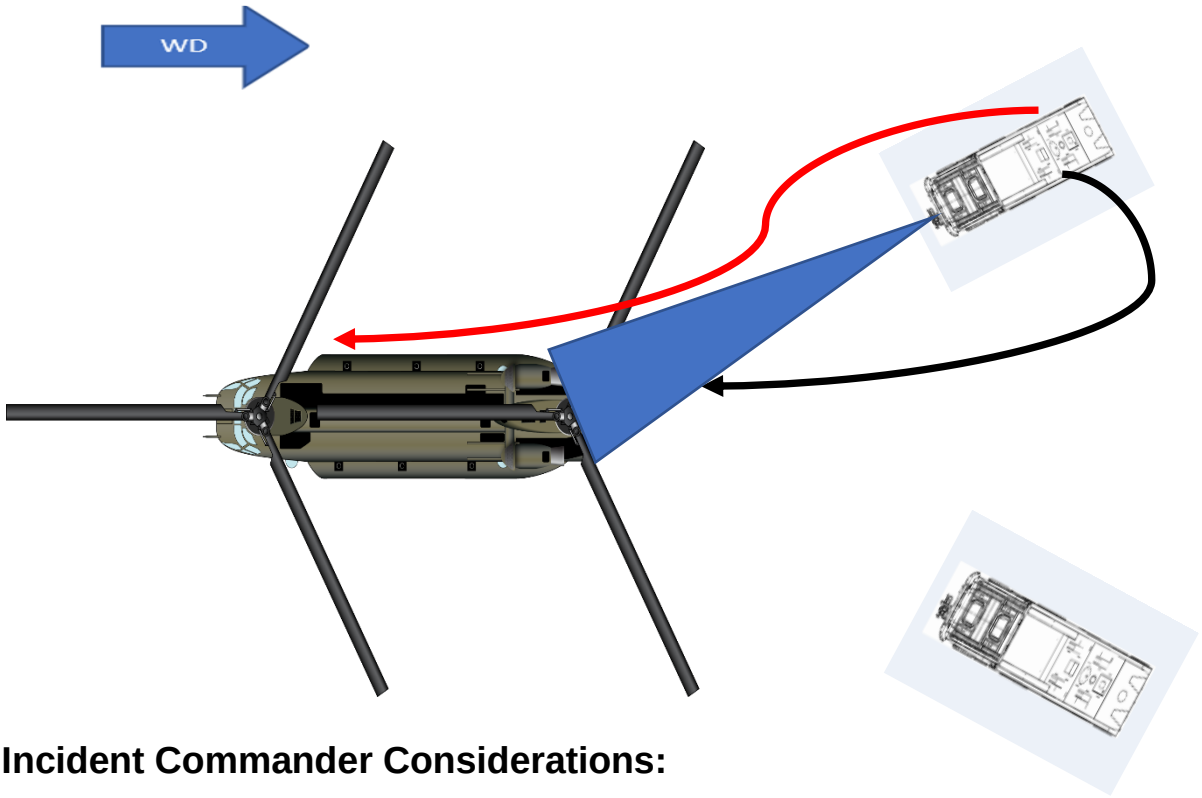
Training:

- Aircraft familiarisation
- Deployment exercise(s)
- Redkite CMS
- Aircraft lecture – 6 monthly lesson / familiarisation presentation.

TTP 4 – External Engine Fire

Event Plan - Initial Deployment

Red line denotes hose positioning for underslung aircraft incidents. Black line denotes standard method of entry.



Incident Commander Considerations:

- Confirm whether countermeasures are present
- Conduct and complete DRA
- Order BA Team to don BA using Rapid Deployment
- Declare Tactical Mode
- Consider required agencies and resources
- Consider implementing Major Incident Plan
- Direct firefighting actions to create survivable conditions
- Consider mass discharge from monitor
- Consider use of secondary media
- Consider contacting aircraft commander via ATC or 121.6 if available
- Be aware of PAX exiting aircraft
- Consider using SAPPHO to instigate PEMS.
- Direct BA rescue crew
- Direct Medical Teams
- Direct all operational control and implement ICS
- Provide M/ETHANE report
- Maintain safe operations and ensure scene safety
- Direct other agencies
- Consider media run-off and water courses on scene.
- Consider preservation of evidence
- Instigate JESIP for multi-agency incident.

Crash 1 - MPRV Actions:

- Where possible aim to deploy at 45-degree angle rear of the A/C.
- Be aware of PAX and assist them exiting the aircraft
- Direct Personnel away from the airframe
- Consider use of monitor and extinguish fire
- Consider method of entry if PAX remain onboard
- Don BA and instigate Rapid Deployment Procedures if required
- Deploy media with sufficient lengths of 45mm hose/hose reel as determined by IC DRA and prepare for entry into aircraft
- BA team access aircraft and create survivable conditions if required
- Confirm/make safe aircraft systems
- Utilise Medics to triage casualties on board if survivable conditions are present
- Aid Medics in extricating casualties
- Consider use of auxiliary equipment such as TIC
- Carry out external airframe cooling
- Provide scene safety.

Crash 2 – MPRV Actions

- Where possible aim to deploy at 45-degree angle rear of the A/C.
- Be aware of PAX exiting the aircraft
- Be prepared to relay water to Crash 1
- Consider utilising FLIR to monitor hot spots (post fire extinguishment)

Specific Aircraft Hazards:

- Rotors
- Pyrotechnics
- Flammable liquids
- Flammable/pressurised gases
- Composite aircraft materials.

Further Considerations:

- Aircraft position and wreckage
- Leaking fuel
- Aircrew
- Other agencies.

Supporting Information:

- DFR-OG 009 - Aircraft Fires
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Training:

- Aircraft familiarisation
- Deployment exercise(s)
- Redkite CMS
- Aircraft lecture – 6 monthly lesson / familiarisation presentation.

Additional Hazard Information

62/11 Rotor Blades

The rotor blades are a potential lethal hazard, personnel are to observe the following precautions:

- Keep away from the rotor blades unless necessary for the work being carried out.
- Only go near an aircraft with the rotors operating when clearance has been given by the pilot or crewman.
- Make sure that there is sufficient clearance before entering the area below the rotor blades.
- Only approach or leave the aircraft along the direction shown in Fig 5.

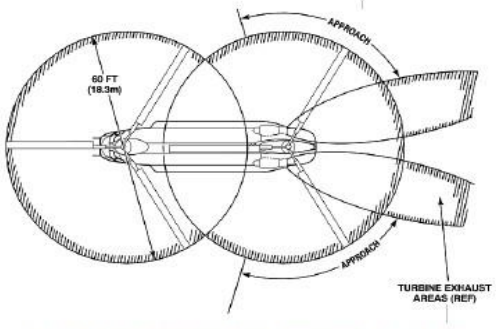

Fig 5 Aircraft operating approach direction

00/22 Aircraft Danger Areas

Keep out of the areas shown in Fig 3 when an aircraft engine, APU or rotors are operating or being started.

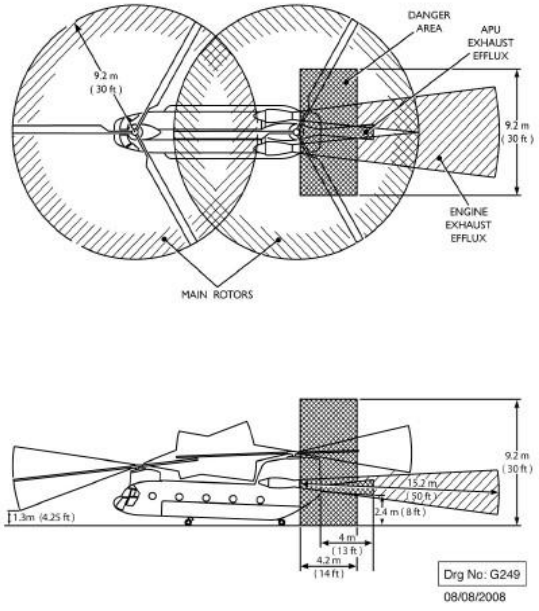

Fig 3 Aircraft danger areas

28/30 Fuel Jettison Tubes

Accidental discharge of the fuel jettison tube propellant will result in the immediate extension of the fuel jettison tubes. Injury or death to personnel may occur. Do not enter the area adjacent to the fuel jettison tubes as shown below.

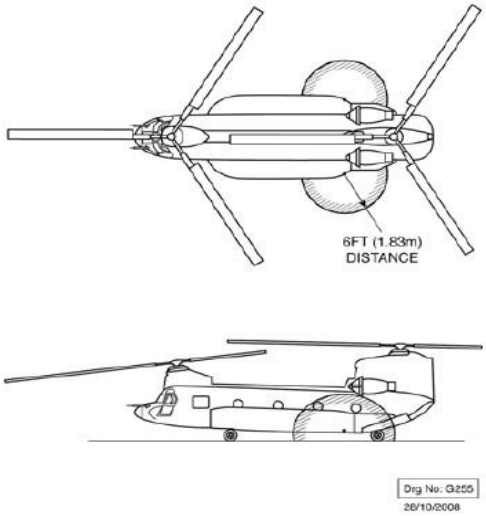

Fig 4 Fuel Jettison Tube Area.

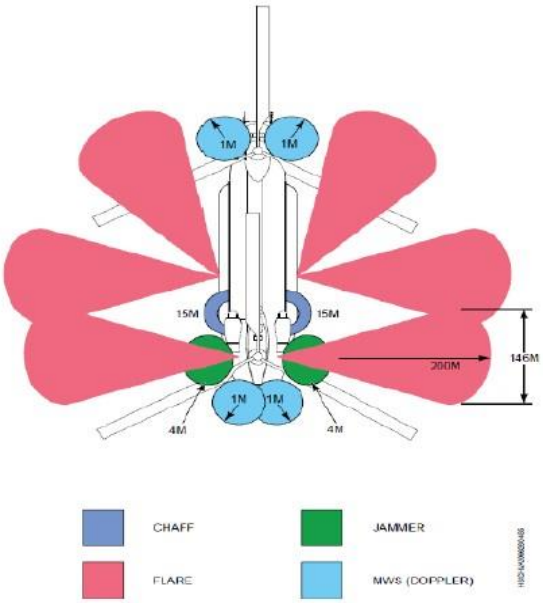

Figure 6 – DAS Safety Distances
(Chinook Mk4, Mk6 and Mk6A only)

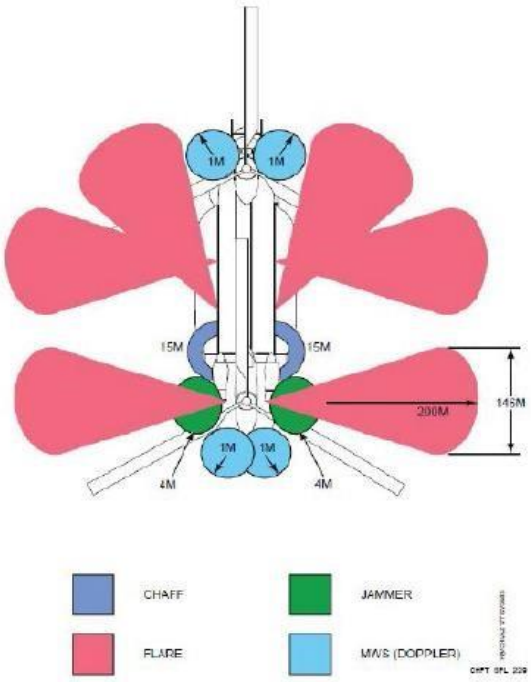

Figure 7 – DAS Safety Distances
(Chinook Mk5 only)