



Ministry
of Defence



Defence Fire and Rescue

Aviation Tactics Techniques & Procedures

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Technical Approved	DFR HQ & CFR Operations Committee
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VERSION CONTROL HISTORY

Version	Date	Author	Brief Details	Role	Status
V1.1	05/02/2024	D Cain		FS TMSQAC	Review
V1.2	29/02/2024	P McGuinness	References added: Ops Instruction 066 Ops Instruction 069	CFR Hd of Response	For Review
V1.2	05/03/2024	S Cook	Stake Holder Review	DFR HQ	Endorsed



Defence Fire & Rescue

AIRCRAFT TACTICS TECHNIQUES PROCEDURES C17 Globemaster (Cargo)

SUV	MPRV (Crash 1)	Striker HRET (Crash 2)	Striker HRET (Crash 3)
1 x WM	1 X CM, 2 X FFTR	1 X CM, 1 X FFTR	1 X CM, 1 X FFTR

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TTP 1 – Internal Fire

Event Plan - Initial Deployment:

Consider ASPN if required*



Incident Commander Considerations:

- Conduct and complete DRA
- Declare Tactical Mode
- Consider required agencies and resources
- Consider implementing MIP
- Direct firefighting actions
- Consider contacting aircraft commander via ATC or 121.6 if available
- Consider deployment of ASPN
- Be aware of PAX exiting aircraft from all exits including the rear
- Direct rescue crew
- Direct all operational control and implement ICS
- Provide M/ETHANE report
- Communicate hazards to all crews and agencies
- Maintain safe operations and ensure scene safety
- Direct other agencies
- Water consolidation/replenishment
- Consider aircraft role (cargo, passenger carrying etc)
- Consider Dangerous Goods

- Maintain contact with ATC and relevant agencies throughout
- Instigate JESIP for multi-agency incident.

Crash 1¹ - MPRV Actions:

- Deploy vehicle to rescue side of aircraft, consider best entry point to aircraft based on incident information
- Be aware of PAX and assist with them exiting the aircraft
- Consider method of entry if PAX remain on board
- Don BA and utilise Rapid Deployment Procedures, if required
- Deploy sufficient lengths of hose (45mm)
- Consider deploying 45mm safety line
- Protect escape routes from fire
- Make access to aircraft and create survivable conditions by extinguishing fire & ventilating
- Confirm/make safe aircraft systems
- Remove any casualties from immediate danger if possible
- Utilise medics to triage casualties on board if survivable conditions are present
- Aid medics in extricating casualties
- Maintain contact with IC.

Crash 2 - Striker HRET Actions:

- Deploy vehicle to the nose of the aircraft - consider wind direction, gradient, passengers and other ARFF vehicle positions
- Deploy HRET
- Consider use of FLIR to check for hot spots
- Consider water relay to MPRV Crew
- Provide scene safety
- Redeploy if required
- Maintain contact with IC.

Crash 3 - Striker HRET Actions:

- Deploy vehicle to starboard front or rear of the aircraft - consider wind direction, gradient, passengers and other ARFF vehicle positions
- Deploy HRET
- Consider use of FLIR to check for hot spots
- Consider deployment of ASPN
- Consider water relay to MPRV Crew
- Provide scene safety
- Redeploy if required
- Maintain contact with IC.

¹ Vehicle call signs may vary between fire stations, whilst actions remain the same.

Specific Aircraft Hazards (Make use of AQRC):

- Flammable liquids
- Flammable/pressurised gases
- Explosive material
- Radioactive material
- LOX
- Electronic Countermeasures
- Dangerous Goods.

Further Considerations:

- Aircraft position and wreckage
- Leaking fuel
- APU
- Passengers
- Other agencies
- Internal lighting
- Hydraulic ventilation
- Environmental conditions.

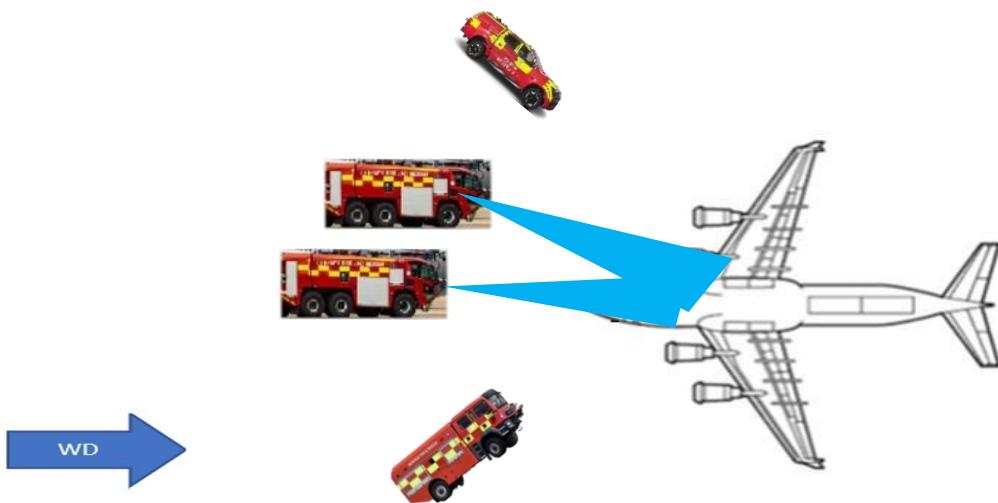
Supporting Information:

- 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 009 - Oshkosh Striker HRET Positioning Deployment & Task
- Ops Instruction 010 - Oshkosh Striker HRET Incident Commander Considerations
- Ops Instruction 012 - Oshkosh Striker HRET Controls
- Ops Instruction 013 - Oshkosh Striker HRET Manual Recovery
- Ops Instruction 014 - Oshkosh Striker HRET Safety Considerations
- Ops Instruction 016 - Oshkosh Striker HRET Operator Considerations
- Ops Instruction 018 - SUV positioning Deployment & Task
- Ops Instruction 033 - BA Operations
- Ops Instruction 066 - Fire Contaminants
- Ops Instruction 069 - Polymer-Composites-and-MMMF
- Op Guidance 003 - Aircraft Fuel Fires
- Op Guidance 006 - Aircraft Internal Fires
- Op Guidance 007 - Aircraft Engine Fires.
- Op Guidance 009 - Incidents Involving Cargo / Large Aircraft
- MOD Aircraft Crash Hazards Document Set
- NATO STANAG/TO 00-105E-9-Chapter 13 (revision 16).
- AQRC-A06-C17

Training:

- Aircraft familiarization
- Endorsed PPT
- Redkite CMS

TTP 2 – External Fire



Incident Commander Considerations:

- Conduct and complete DRA
- Declare Tactical Mode
- Consider required agencies and resources
- Consider implementing MIP
- Direct firefighting actions
- Consider contacting aircraft commander via ATC or 121.6 if available
- Consider use of MPRV monitor if solely external firefighting
- Be aware of PAX exiting aircraft from all exits including the rear
- Direct rescue crew
- Direct all operational control and implement ICS
- Provide M/ETHANE report
- Communicate hazards to all crews and agencies
- Maintain safe operations and ensure scene safety
- Direct other agencies.
- Water consolidation/replenishment
- Consider aircraft role (cargo, passenger carrying etc)
- Consider Dangerous Goods
- Maintain contact with ATC and relevant agencies throughout
- Instigate JESIP for multi-agency incident.

Crash²¹ - MPRV Actions:

- Deploy vehicle to rescue side of aircraft
- Be aware of PAX and assist them exiting the aircraft
- Consider method and point of entry if PAX remain on board
- Don BA and utilise Rapid Deployment Procedures if required
- Protect escape routes from fire
- Be prepared to operate monitor
- Deploy sufficient lengths of hose (45mm) if required
- Make access to aircraft and create survivable conditions by extinguishing fire & ventilating (if required)
- Utilise medics to triage casualties on board if survivable conditions are present

² Vehicle call signs may vary between fire stations, whilst actions remain the same.

- Aid medics in extricating casualties
- Maintain contact with IC.

Crash 2 - Striker HRET Actions

- Deploy vehicle on the nose of the aircraft - Consider wind direction, gradient, passengers and other ARFF vehicle positions
- Operate main monitor and extinguish fire utilising mass discharge
- Protect escape routes from fire
- Deploy HRET
- Consider repositioning if media is ineffective in controlling and extinguishing the fire
- Carry out check of area affected by fire utilising the FLIR to confirm area is safe
- Cool area affected by fire if required
- Consider further media application
- Provide scene safety
- Redeploy if required
- Maintain contact with IC.

Crash 3 - Striker HRET Actions

- Deploy vehicle to firefighting side or rear of the aircraft - Consider wind direction, gradient, passengers and other ARFF vehicle positions
- Operate main monitor and extinguish fire utilising mass discharge
- Protect escape routes from fire
- Deploy HRET
- Consider repositioning if media is ineffective in controlling and extinguishing the fire
- Carry out check of area affected by fire utilising the FLIR to confirm area is safe
- Cool area affected by the fire if required
- Consider further media application
- Provide scene safety
- Redeploy if required
- Maintain contact with IC
- Vehicle commander to act as Sector Commander.

Specific Aircraft Hazards – (Make use of AQRC):

- Flammable liquids
- Flammable/pressurised gases
- Explosive material
- Radioactive material
- Engines
- LOX
- Electronic Countermeasures
- Dangerous Goods.

Further Considerations:

- Aircraft position and wreckage
- Leaking fuel
- Passengers
- Other agencies
- Environmental conditions.

Supporting Information:

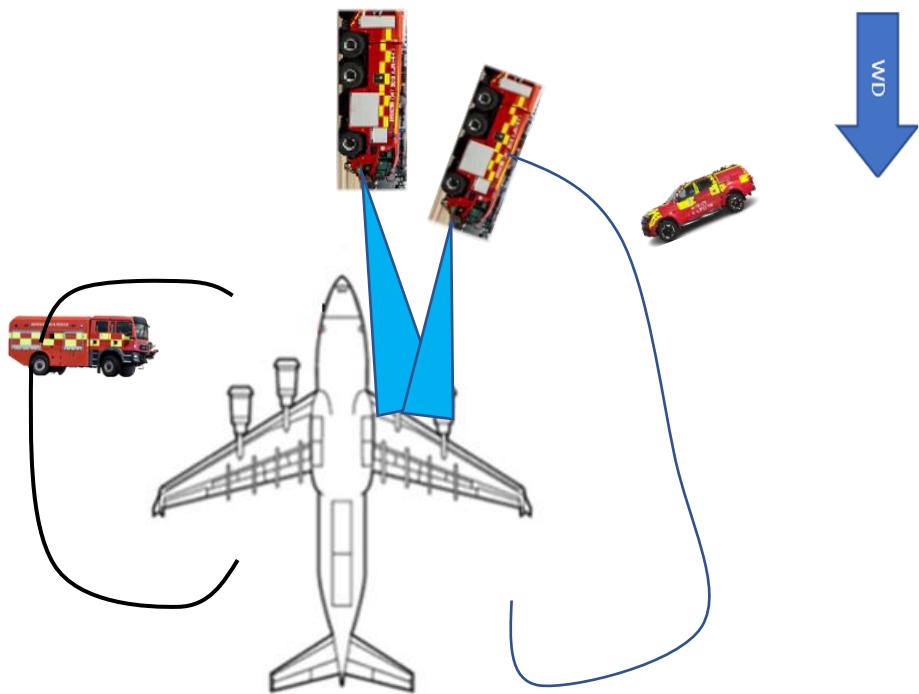
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- Ops Instruction 002 - CFR HSE Policy
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- Ops Instruction 006 - MPRV ARFF Positioning Deployment & Task
- Ops Instruction 007 - MPRV Vehicle Operations
- Ops Instruction 009 - Oshkosh Striker HRET Positioning Deployment & Task
- Ops Instruction 010 - Oshkosh Striker HRET Incident Commander Considerations
- Ops Instruction 012 - Oshkosh Striker HRET Controls
- Ops Instruction 013 - Oshkosh Striker HRET Manual Recovery
- Ops Instruction 014 - Oshkosh Striker HRET Safety Considerations
- Ops Instruction 016 - Oshkosh Striker HRET Operator Considerations
- Ops Instruction 018 - SUV positioning Deployment & Task
- Ops Instruction 033 - BA Operations
- Ops Instruction 066 - Fire Contaminants
- Ops Instruction 069 - Polymer-Composites-and-MMMF
- Op Guidance 003 - Aircraft Fuel Fires
- Op Guidance 006 - Aircraft Internal Fires
- Op Guidance 007 - Aircraft Engine Fires.
- Op Guidance 009 - Incidents Involving Cargo / Large Aircraft
- MOD Aircraft Crash Hazards Document Set
- NATO STANAG/TO 00-105E-9-Chapter 13 (revision 16).
- AQRC-A06-C17

Training:

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

TTP 3 – Engine Fire

Event Plan - Initial Deployment



Incident Commander Actions:

- Conduct and complete DRA
- Declare Tactical Mode
- Consider required agencies and resources
- Consider implementing MIP
- Direct firefighting actions
- Consider contacting aircraft commander via ATC or 121.6 if available
- Be aware of PAX exiting aircraft from all exits including the rear
- Direct rescue crew
- Direct all operational control and implement ICS
- Provide M/ETHANE report
- Communicate hazards to all crews and agencies
- Maintain safe operations and ensure scene safety utilising available manpower
- Direct other agencies
- Consider water consolidation/replenishment
- Consider aircraft role (cargo, passenger carrying etc)
- Consider Dangerous Goods
- Maintain contact with ATC and relevant agencies throughout
- Instigate JESIP for multi-agency incident.

Crash³1 - MPRV Actions

- Deploy vehicle to rescue side of aircraft
- Be aware of PAX and assist those exiting the aircraft
- Be prepared to operate monitor
- Consider method and point of entry if PAX remain on board
- Don BA and utilise Rapid Deployment Procedures if required
- Deploy sufficient lengths of hose (45mm) and covering lines to prepare for entry into aircraft
- Protect escape routes from fire
- BA team access aircraft and create survivable conditions by extinguishing fire & ventilating (If required)
- Make safe aircraft systems
- Utilise medics to triage casualties on board if survivable conditions are present
- Aid medics by extricating casualties under medical supervision
- Maintain foam blankets if large quantities of fuel are present
- Maintain contact with IC.

Crash 2 - Striker HRET Actions

- Deploy vehicle to front of engine fire if possible, taking into consideration wind direction, gradient, passengers and other ARFF vehicle positions
- Operate main monitor and extinguish fire utilising mass discharge
- Deploy HRET (mid-attack position)
- Consider use of Hydrochem from HRET
- Assess area affected by fire to confirm area is safe or requires further firefighting actions
- Consider further media application/cooling through hand lines if required
- Provide scene safety
- Redeploy if required
- Maintain contact with IC.

Crash 3 - Striker HRET Actions

- Deploy vehicle to front or rear of engine fire if possible, taking into consideration wind direction, gradient, passengers and other ARFF vehicle positions
- Operate main monitor and extinguish fire utilising mass discharge
- Deploy HRET (mid-attack position)
- Consider use of Hydrochem from HRET
- Assess area affected by fire to confirm area is safe or requires further firefighting actions
- Consider further media application/cooling through hand lines if required
- Provide scene safety
- Provide second/emergency BA team if required
- Redeploy if required
- Maintain contact with IC
- Vehicle commander to act as Sector Commander.

³ Vehicle call signs may vary between fire stations, whilst actions remain the same.

Specific Aircraft Hazards – (Make use of AQRC):

- Flammable liquids
- Flammable/pressurised gases
- Explosive material
- Dangerous Goods
- Electronic Countermeasures
- LOX.

Further Considerations:

- Aircraft position and wreckage
- Leaking fuel
- Passengers/cargo
- Other agencies inc. Armourers/ EOD
- Environmental conditions.

Supporting Information:

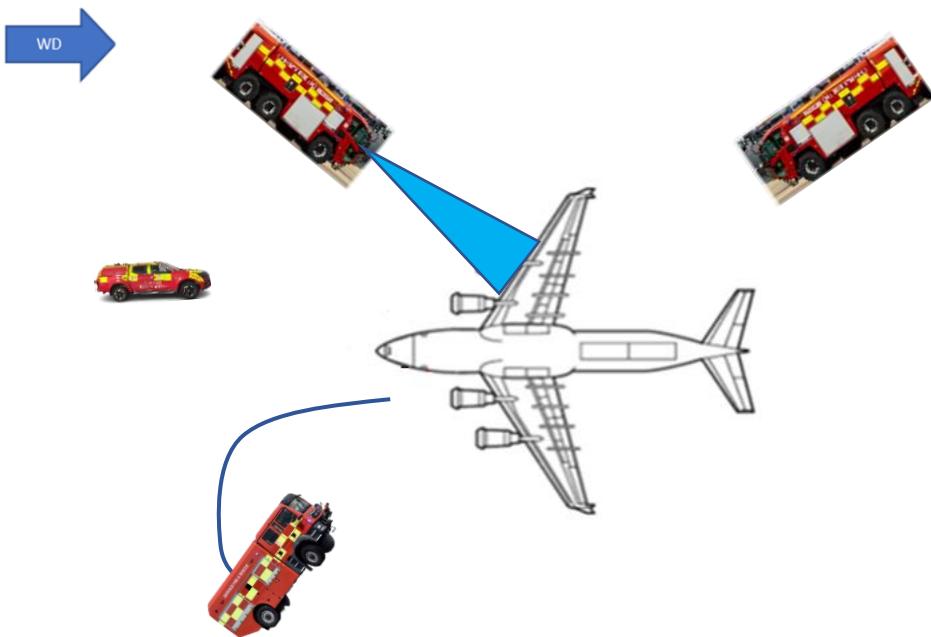
- DFR-OG 009 - Aircraft Fires
- Ops Instruction 001 - Aircraft Incidents
- Ops Instruction 002 - CFR HSE Policy
- Ops Instruction 005 - Low Speed Manoeuvring
- Ops Instruction 006 - MPRV ARFF Positioning Deployment & Task
- Ops Instruction 007 - MPRV Vehicle Operations
- Ops Instruction 009 - Oshkosh Striker HRET Positioning Deployment & Task
- Ops Instruction 010 - Oshkosh Striker HRET Incident Commander Considerations
- Ops Instruction 012 - Oshkosh Striker HRET Controls
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- Ops Instruction 014 - Oshkosh Striker HRET Safety Considerations
- Ops Instruction 016 - Oshkosh Striker HRET Operator Considerations
- Ops Instruction 018 - SUV positioning Deployment & Task
- Ops Instruction 033 - BA Operations
- Ops Instruction 066 - Fire Contaminants
- Ops Instruction 069 - Polymer-Composites-and-MMMF
- Op Guidance 003 - Aircraft Fuel Fires
- Op Guidance 006 - Aircraft Internal Fires
- Op Guidance 007 - Aircraft Engine Fires.
- Op Guidance 009 - Incidents Involving Cargo / Large Aircraft
- MOD Aircraft Crash Hazards Document Set
- NATO STANAG/TO 00-105E-9-Chapter 13 (revision 16).
- AQRC-A06-C17

Training:

- Aircraft familiarization
- Aircraft lecture - 6 monthly lesson
- CT Technical Note 63 - Engine Fires
- Redkite CMS
- Deployment exercise(s)

TTP 4 - Wheel Assembly Incidents

Event Plan – Initial Deployment



Incident Commander Actions:

- Conduct and complete DRA
- Declare Tactical Mode
- Consider required agencies and resources
- Consider implementing MIP
- Direct firefighting actions if required
- Consider contacting aircraft commander via ATC or 121.6 if available
- Be aware of PAX exiting aircraft from all exits including the rear
- Load considerations (movement of load on hard landing)
- Direct rescue crew
- Direct all operational control and implement ICS
- Provide M/ETHANE report
- Communicate hazards to all crews and agencies
- Maintain safe operations and ensure scene safety utilising available manpower
- Direct other agencies
- Consider water consolidation/replenishment if required
- Consider aircraft role (cargo, passenger carrying etc)
- Consider Dangerous Goods
- Maintain contact with ATC and relevant agencies throughout
- Instigate JESIP for multi-agency incident.

Crash ⁴1 - MPRV Actions:

- Deploy vehicle to rescue side of aircraft
- Be aware of PAX and assist those exiting the aircraft
- Be prepared to operate monitor
- Consider method and point of entry if PAX remain on board.
- Don BA and utilise Rapid Deployment Procedures if required
- Deploy sufficient lengths of hose (45mm) and covering lines to prepare for entry into a/c
- Protect escape routes from fire
- BA team access aircraft and create survivable conditions by extinguishing fire & ventilating (If required)
- Make safe aircraft systems
- Utilise medics to triage any casualties on board if survivable conditions are present
- Aid medics by extricating casualties under medical supervision
- Maintain contact with IC.

Crash 2 - Striker HRET Actions

- Deploy vehicle to the front affected side of aircraft remaining within safety zone. Consider wind direction, gradient, passengers and other ARFF vehicle positions
- Select appropriate firefighting media if fire is present and to what extent
- Deploy main monitor and extinguish fire utilising mass discharge (If required)
- Deploy HRET (low-attack position)
- Assess area affected by fire/collapse to confirm if the area is safe or requires further firefighting actions
- Consider further media application/cooling with handlines
- Provide scene safety
- Redeploy if required
- Maintain contact with IC.

Crash 3 - Striker HRET Actions

- Deploy vehicle to the rear affected side of aircraft remaining within safety zone. Consider wind direction, gradient, passengers and other ARFF vehicle positions
- Select appropriate firefighting media if fire is present and to what extent
- Deploy main monitor and extinguish fire utilising mass discharge (If required)
- Deploy HRET (low-attack position)
- Assess area affected by fire/collapse to confirm if the area is safe or requires further firefighting actions
- Consider further media application/cooling with handlines
- Provide scene safety
- Redeploy if required
- Maintain contact with IC
- Vehicle commander to act as Sector Commander.

Specific Aircraft Hazards - (Make use of AQRC):

- Flammable liquids
- Flammable/pressurised gases
- Explosive material
- Dangerous Goods
- Electronic Countermeasures
- LOX.

⁴ Vehicle call signs may vary between fire stations, whilst actions remain the same.

Further Considerations:

- Aircraft position and wreckage
- Leaking fuel
- Passengers /cargo
- Other agencies inc. Armourers/EOD
- Environmental conditions
- The actions during this incident will be dependent on the following conditions:
 1. Is the wheel assembly on fire?
 2. Is the fire confined to one area or is escalation likely?
 3. Is there damage to other areas of the fuselage due to heavy landing?

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 009 - Oshkosh Striker HRET Positioning Deployment & Task
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- Ops Instruction 014 - Oshkosh Striker HRET Safety Considerations
- Ops Instruction 016 - Oshkosh Striker HRET Operator Considerations
- Ops Instruction 018 - SUV positioning Deployment & Task
- Ops Instruction 033 - BA Operations
- Ops Instruction 066 - Fire Contaminants
- Ops Instruction 069 - Polymer-Composites-and-MMMF
- Op Guidance 003 - Aircraft Fuel Fires
- Op Guidance 006 - Aircraft Internal Fires
- Op Guidance 007 - Aircraft Engine Fires.
- Op Guidance 008 - Aircraft Undercarriage
- Op Guidance 009 - Incidents Involving Cargo / Large Aircraft
- MOD Aircraft Crash Hazards Document Set
- NATO STANAG/TO 00-105E-9-Chapter 13 (revision 16).
- AQRC-A06-C17

Training:

- Aircraft familiarization
- Aircraft lecture - 6 monthly lesson.
- Redkite CMS
- Deployment exercise(s)