Ministry of Defence

Defence Fire and Rescue
Tactics Techniques & Procedures

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Stakeholders:	DFR HQ	✓	Capita Fire and Rescue	✓
	RN Aircraft Handler	✓	RAF Fire and Rescue	✓
	DFRS LEC	✓	Other FRS Providers[1]	✓
	DFRS (Retained Officers)		DFRS (USVF)	
Technical Approved	Defence Fire and Rescue (CFR HQ) Operations Committee			
Sponsor Details:	**Strategic Lead Operational Capability & Development** Defence Fire & Rescue (DFR) Headquarters Sedgemoor Building, Marlborough Lines, Monxton Road, Andover, Hampshire, SP11 8HT			
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Conditions of Release

[1] Other FRS Providers include Babcock Fire Services, Mitie Fire Service, QinetiQ Fire Service.

Defence Fire & Rescue

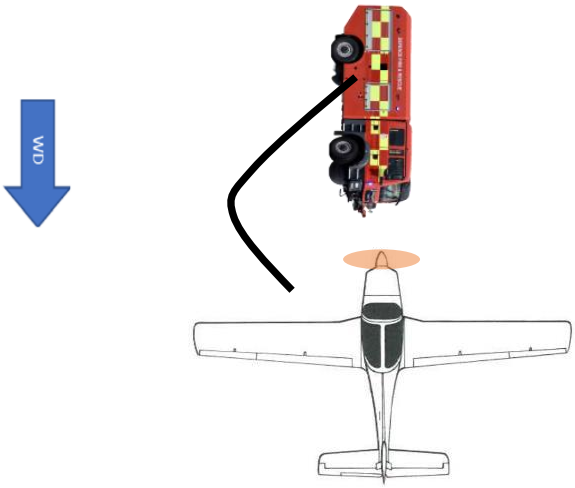
AIRCRAFT TACTICS TECHNIQUES PROCEDURES

Grob Prefect

1 x MPRV Response

TTP 1 - Engine Fire

Event Plan - Initial Deployment:



BEWARE OF APPROACH IF PROPELLER IS TURNING

Incident Commander Considerations:

- Conduct and complete DRA
- Declare Tactical Mode
- Direct rescue crew and maintain operational control, safe operations and scene safety.
- Implement ICS
- Direct firefighting actions (Monitor or dual application)
- Consider contacting aircraft commander via ATC or 121.6 if available
- Be aware of PAX exiting aircraft
- Provide M/ETHANE report if required
- Direct other agencies
- Water consolidation/replenishment
- Consider required agencies.

Crash 1 - MPRV Actions:

- Deploy vehicle to nose of aircraft
- Be aware of PAX exiting the aircraft
- Be prepared to operate Monitor if required
- Consider method of entry if PAX remain on board

- Don BA, utilise Initial Deployment Procedures following IC's DRA
- Deploy 1 or 2 x 45mm lengths of hose with Akron branch/dry powder for engine fire at IC's direction
- Make access to aircraft crew and confirm survivable conditions (If required)
- Utilise entry procedure i.a.w AQRC 14 and aircraft familiarisation training[2]
- Utilise Medics to triage casualties on board if safe and required
- Aid Medics in extricating casualties.

Specific Aircraft Hazards - (Make use of AQRC):

- Pressurised liquids (fuel, engine oil, Hydraulic oil)
- Propellers
- MMF's
- Electrical
- Batteries.

Further Considerations:

- Aircraft position and Access
- Leaking fuels and oils
- Passengers
- MMMF's
- Other agencies.

Supporting Information:

- DFR-OG 009 - Aircraft Fires
- 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 003 - Aircraft Fuel Fires
- Op Guidance 005 - Incidents Involving Small Aircraft
- Op Guidance 007 - Aircraft Engine Fires.
- Op Guidance 008 - Aircraft Undercarriage Incidents
- MOD Aircraft Crash Hazards Document Set
- NATO STANAG/TO 00-105E-9-Chapter 13 (revision 16).
- AQRC A14

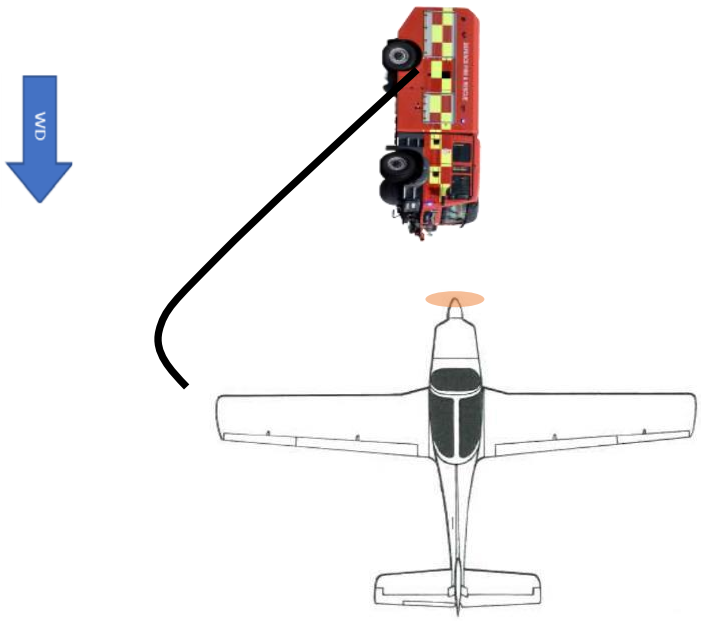
Training:

- Aircraft familiarization – Babcock Engineers
- Aircraft Engine shut down – QRC and familiarisation
- Deployment exercise(s)
- Aircraft lecture – 6 monthly lesson / familiarization presentation
- Redkite CMS.

[2] In the event of an incident where the airframe has distorted, and the canopy will not move freely on the guide rails alternative means of access will be required. Following the ICs risk assessment an option may be forcible entry into the cockpit. A crash axe may be used to break the Perspex taking care not to endanger the occupants when striking the canopy.

TTP 2 - Wheel Assembly Incidents

Event Plan - Initial Deployment:



BEWARE OF APPROACH IF PROPELLER IS TURNING

Incident Commander Considerations:

- Conduct and complete DRA
- Declare Tactical Mode
- Be aware of PAX exiting aircraft
- Formulate tactics dependent if fire is present and where escalation is likely
- Direct firefighting actions (dependent on fire scenario)
- Consider contacting aircraft commander via ATC or 121.6 if available
- Direct rescue crew and maintain operational control, safe operations and scene safety.
- Implement ICS
- Provide M/ETHANE report
- Consider water consolidation/replenishment
- Consider and direct other required agencies.

Crash 1 - MPRV Actions:

- Deploy vehicle to nose of aircraft
- Be aware of PAX exiting the aircraft
- Be prepared to operate Monitor if required
- Consider method of entry if PAX remain on board
- Don BA, utilise Initial Deployment Procedures following IC's DRA
- Deploy 1 or 2 x 45mm lengths of hose with Akron branch/dry powder for engine fire at IC's direction
- Make access to aircraft crew and confirm survivable conditions (If required)
- Utilise entry procedure i.a.w AQRC 14 and aircraft familiarisation training[3]
- Utilise Medics to triage casualties on board if safe and required
- Aid Medics in extricating casualties.

[3] In the event of an incident where the airframe has distorted, and the canopy will not move freely on the guide rails alternative means of access will be required. Following the ICs risk assessment an option may be forcible entry into the cockpit. A crash axe may be used to break the Perspex taking care not to endanger the occupants when striking the canopy.

Specific Aircraft Hazards - (Make use of AQRC):

- Pressurised liquids (hydraulic oil, fuel, engine oil)
- Pressurised Gases
- Solids
- Explosive Material.

Further Considerations:

- Aircraft position and wreckage
- Leaking fuel
- Passengers
- Other agencies
- 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?

Supporting Information:

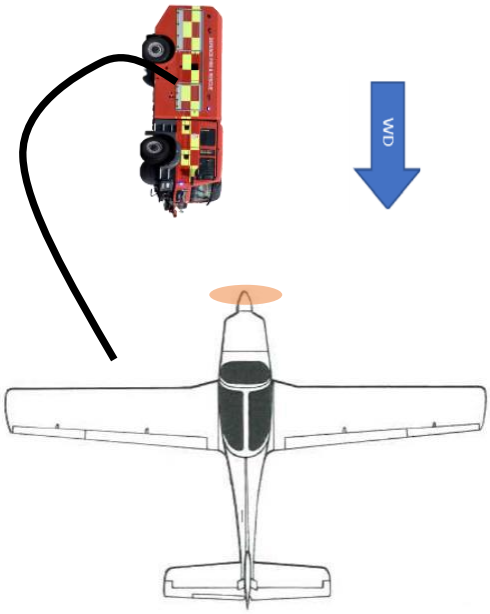
- DFR-OG 009 - Aircraft Fires
- Ops Instruction 002 - CFR HSE Policy
- Ops Instruction 005 - Low Speed Manoeuvring
- Ops Instruction 006 - MPRV ARFF Positioning Deployment & Task
- Ops Instruction 007 - MPRV Vehicle Operations
- Ops Instruction 033 - BA Operations
- Ops Instruction 066 - Fire Contaminants
- Ops Instruction 069 - Polymer-Composites-and-MMMF
- Op Guidance 001 - Aircraft Incidents
- Op Guidance 003 - Aircraft Fuel Fires
- Op Guidance 005 - Incidents Involving Small Aircraft
- Op Guidance 007 - Aircraft Engine Fires.
- Op Guidance 008 - Aircraft Undercarriage Incidents
- MOD Aircraft Crash Hazards Document Set
- NATO STANAG/TO 00-105E-9-Chapter 13 (revision 16).
- AQRC A14

Training:

- Aircraft familiarization – Babcock Engineers/Information posters
- Deployment exercise(s)
- Aircraft lecture - 6 monthly lesson / familiarization presentation
- Redkite CMS.

TTP 3 - Internal Fire

Event Plan - Initial Deployment



BEWARE OF APPROACH IF PROPELLER IS TURNING

Incident Commander Considerations:

- Conduct and complete DRA
- Declare Tactical Mode
- Be aware of PAX exiting aircraft
- Formulate tactics dependent if fire is present and where escalation is likely
- Consider implementing the MIP
- Direct firefighting actions
- Consider contacting aircraft commander via ATC or 121.6 (if available)
- Direct rescue crew and maintain operational control, safe operations and scene safety.
- Implement ICS
- Provide M/ETHANE report
- Consider water consolidation/replenishment Consider and direct other required agencies.

Crash 1 - MPRV Actions:

- Deploy vehicle upwind of aircraft to avoid smoke plume
- Be aware of PAX exiting the aircraft
- Consider method of entry if PAX remain on board
- Don BA and utilise Initial Deployment Procedures
- Deploy 1 or 2 x 45mm lengths of hose with Akron branch
- Make access to aircraft and create survivable conditions by extinguishing fire and ventilating
- Utilise entry procedure iaw AQRC 14 and aircraft familiarisation training[4]
- Remove any casualties from immediate danger
- Utilise Medics to triage casualties on board if survivable conditions are present
- Aid Medics in extricating casualties.

[4] In the event of an incident where the airframe has distorted, and the canopy will not move freely on the guide rails alternative means of access will be required. Following the ICs risk assessment an option may be forcible entry into the cockpit. A crash axe may be used to break the Perspex taking care not to endanger the occupants when striking the canopy.

Specific Aircraft Hazards - (Make use of AQRC):

- Pressurised liquids (fuel, engine oil, Hydraulic oil)
- Batteries
- Pressurised Gases
- Explosive Material
- Dimethylformamide – strobe power packs at wing tips and cockpit floor.

Further Considerations:

- Aircraft position, bystanders
- Leaking fuel, water course
- Passengers
- Other agencies.

Supporting Information:

- DFR-OG 009 - Aircraft Fires
- 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
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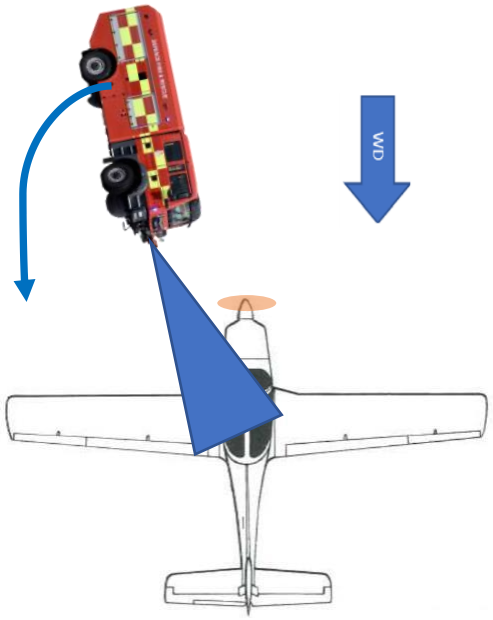
- Op Guidance 007 - Aircraft Engine Fires.
- Op Guidance 008 - Aircraft Undercarriage Incidents
- MOD Aircraft Crash Hazards Document Set
- NATO STANAG/TO 00-105E-9-Chapter 13 (revision 16).
- AQRC A14.

Training:

- Aircraft familiarization – Babcock Engineers/Information posters
- Deployment exercise(s)
- Aircraft lecture – 6 monthly lesson / familiarization presentation
- Redkite CMS.

TTP 4 - External Fires

Event Plan - Initial Deployment



BEWARE OF APPROACH IF PROPELLER IS TURNING

Incident Commander Considerations:

- Conduct and complete DRA
- Declare Tactical Mode
- Be aware of PAX exiting aircraft
- Formulate tactics dependent if fire is present and where escalation is likely
- If external fire only then utilise MPRV Monitor
- Consider implementing the MIP
- Direct firefighting actions
- Consider contacting aircraft commander via ATC or 121.6 if available
- Direct rescue crew and maintain operational control, safe operations and scene safety.
- Implement ICS
- Provide M/ETHANE report
- Consider water consolidation/replenishment
- Consider and direct other required agencies.

Crash 1 - MPRV Actions:

- Deploy vehicle to nose of aircraft where conditions permit
- Deploy monitor to create survivable conditions and/or extinguish fire utilising mass discharge
- Be aware of PAX exiting the aircraft
- Consider method of entry if PAX remain on board
- Don BA and utilise Initial Deployment Procedures (if required)
- Deploy 1 or 2 x 45mm lengths of hose with Akron branch
- Make access to aircraft crew and confirm survivable conditions (If required)
- Utilise entry procedure iaw AQRC 14 and aircraft familiarisation training[5]
- Utilise Medics to triage casualties on board if survivable conditions are present
- Aid Medics in extricating casualties.

[5] In the event of an incident where the airframe has distorted, and the canopy will not move freely on the guide rails alternative means of access will be required. Following the ICs risk assessment an option may be forcible entry into the cockpit. A crash axe may be used to break the Perspex taking care not to endanger the occupants when striking the canopy.

Specific Aircraft Hazards (Make use of AQRC):

- Pressurised liquids (fuel, engine oil, Hydraulic oil)
- Batteries
- Pressurised Gases
- Explosive Material
- Dimethylformamide – strobe power packs at wing tips and cockpit floor.

Further Considerations:

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

Supporting Information:

- DFR-OG 009 - Aircraft Fires
- 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
- NATO STANAG/TO 00-105E-9-Chapter 13 (revision 16).
- AQRC A14

Training:

- Aircraft familiarization
- Deployment exercise(s)
- Redkite CMS
- Aircraft lecture – 6 monthly lesson / familiarization presentation.
- Aircraft familiarization – Sqn/Babcock engineers
- Deployment exercise(s)
- Aircraft lecture – 6 monthly lesson / familiarization presentation
- Redkite CMS.

Document Control					
Version	**Date**	**Author**	**Role**	**Status**	**Changes**
V1.0	20/02/2024	J Crossland	FSM - Cranwell	draft	
V1.1	20/02/2023	P McGuinness	Hd of Response	Review	Footnote added to 3,4,6 & 8
V1.2	22/02/2024	S Cook	DFR HQ	Reviewed	N/A