Ministry of Defence

Defence Fire and Rescue
Tactics Techniques & Procedures

Operational Instruction

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Title:	**AW 159 Wildcat - 2 x MPRV Response**			
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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			

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

Defence Fire & Rescue

AIRCRAFT TACTICS TECHNIQUES PROCEDURES (ATTP A46)

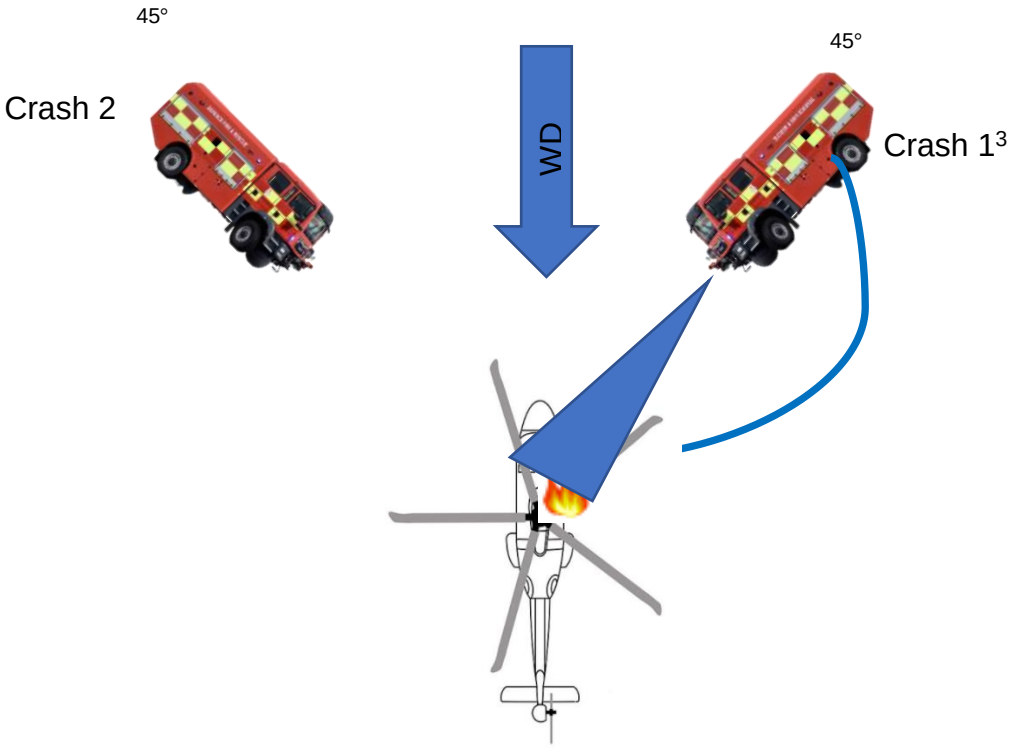
AW 159 Wildcat

This ATTP applies to a response model incorporating 2 x MPRVs

MPRV (Crash 1)	MPRV (Crash 2)
1 x Crew Manager 1 x ERD 2 x Firefighters	1 x Watch Manager 1 x ERD 2 x Firefighters

TTP 1 – External Fire

Event Plan - Initial deployment[2]



[2] In order to maintain aerodrome ARFF capability the IC may direct that all equipment is taken from Crash 1, thus leaving Crash 2 available.
[3] MPRV Capacity 4600lts - Water Requirement for Wildcat 1200lts

Incident Commander Considerations:

- Confirm whether armaments and countermeasures are present
- Consider safe deployment of ARFF Vehicles (armaments depending)
- Conduct a Dynamic Risk Assessment (DRA)
- Direct all operational control and implement Incident Command System
- Consider mass discharge from monitor
- Consider use of secondary media
- Declare Tactical Mode
- Provide M/ETHANE report[4]
- Consider contacting aircraft commander via Air Traffic Control
- Be aware of aircrew exiting aircraft (if able to self-evacuate)
- Direct firefighting actions to create survivable conditions
- Extinguish all Fires/Rapid knock down of smoke plume
- Order Crash 1 Breathing Apparatus (BA) team to don BA, using Rapid Deployment[5]
- Direct BA crew to triage casualties (can they be moved Yes/No)
- Consider required additional agencies and resources
- Maintain safe operations and ensure scene safety
- Exercise Cordon Control
- On arrival of additional agencies instigate JESIP for multi-agency incident.
- Share Situational Awareness (Hazards and Risks)
- Conduct Rescues / Assist 'Medics (appropriate PPE/RPE is to be worn)'
- Consider media run-off and water courses on scene.
- Consider preservation of evidence

Crash 1 – MPRV Actions

- Deploy vehicle at minimum of 45-degree angle to aircraft nose if a/c is armed
- Be aware of aircrew exiting the aircraft
- Direct aircrew away from the airframe
- Consider use of monitor to extinguish fire.
- Consider use of secondary agents.
- Consider method of entry if PAX remain onboard
- Don BA and instigate Rapid Deployment Procedures
- Deploy media with sufficient lengths of 45mm hose/hose reel as determined by Incident Commanders (IC) DRA and prepare for entry into aircraft
- BA team access aircraft and create survivable conditions where required
- Confirm/make safe aircraft systems
- Utilise Medics (appropriate RPE/PPE should be worn) to triage aircrew on board if survivable conditions are present
- Aid Medics in extricating aircrew
- Consider use of auxiliary equipment such as TIC
- Carry out external airframe cooling
- Provide scene safety.

[4] A point of note: The aerodrome operator may initiate the Stations Major Incident Plan
[5] IC may consider Stage 1 utilising Crash 2 crew

Crash 2 – MPRV Actions

- Deploy vehicle at minimum of 45-degree angle to aircraft nose if a/c is armed
- Be aware of aircrew exiting the aircraft
- Direct aircrew away from the airframe
- Crash 2 vehicle commander will maintain contact with the IC
- Crash 2 firefighters will support as tasked by the IC
- IC may task crew to implement Stage 1 BAECO
- Provide scene safety.

Specific Aircraft Hazards:

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

Further Considerations:

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

Supporting Information:

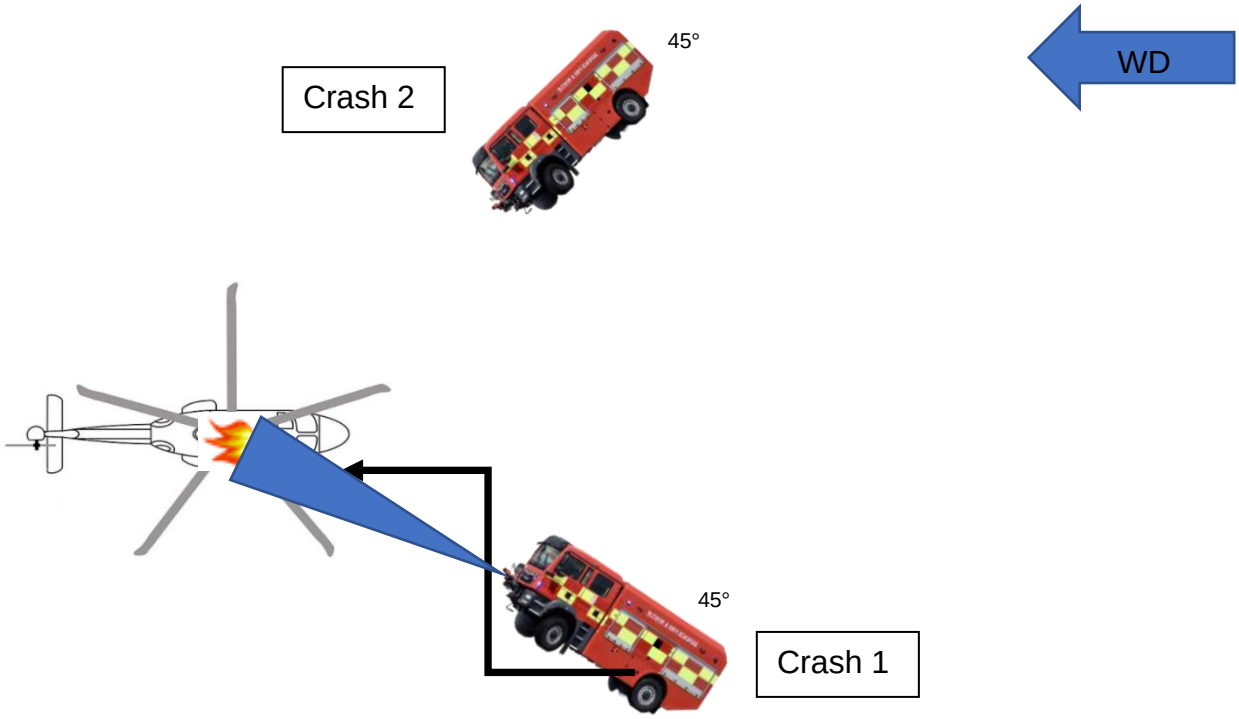
- NOG
- CFR Ops Instruction 001 – Aircraft Incidents
- CFR Ops Instruction 002 – CFR HSE Policy
- CFR Ops Instruction 005 – Low Speed Manoeuvring
- CFR Ops Instruction 006 – MPRV ARFF Positioning Deployment & Task
- CFR Ops Instruction 007 – MPRV Vehicle Operations
- CFR Ops Instruction 033 – BA Operations
- CFR Op Guidance 001 – Aircraft Incidents
- CFR Op Guidance 002 – Incidents Involving Rotary Wing Aircraft
- CFR Op Guidance 003 – Aircraft Fuel Fires
- CFR Op Guidance 006 – Aircraft Internal Fires
- CFR Op Guidance 007 – Aircraft Engine Fires
- MOD Aircraft Crash Hazards Document Set
- AP 101B-530-15A1
- AQRC A46 - Wildcat AW 159
- DOD TO 00-105E-9 (NATO STANAG 3896)
- 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 – Engine Compartment Fire

Event Plan - Initial Deployment



Incident Commander Considerations:

- Confirm whether armaments and countermeasures are present
- Consider safe deployment of ARFF Vehicles (armaments depending)
- Conduct a Dynamic Risk Assessment (DRA)
- Direct all operational control and implement Incident Command System
- Consider mass discharge from monitor
- Consider use of secondary media
- Declare Tactical Mode
- Provide M/ETHANE report[6]
- Consider contacting aircraft commander via Air Traffic Control
- Be aware of aircrew exiting aircraft (if able to self-evacuate)
- Direct firefighting actions to create survivable conditions
- Extinguish all Fires/Rapid knock down of smoke plume
- Order Crash 1 Breathing Apparatus (BA) team to don BA, using Rapid Deployment[7]
- Direct BA crew to triage casualties (can they be moved Yes/No)
- Consider required additional agencies and resources
- Maintain safe operations and ensure scene safety
- IC may consider cordon control
- On arrival of additional agencies instigate JESIP for multi-agency incident.
- Share Situational Awareness (Hazards and Risks)
- Conduct Rescues / Assist 'Medics (appropriate PPE/RPE is to be worn)'
- Consider media run-off and water courses on scene.
- Consider preservation of evidence

[6] A point of note: The aerodrome operator may initiate the Stations Major Incident Plan
[7] IC may consider Stage 1 utilising Crash 2 crew

Crash 1 – MPRV Actions

- Deploy vehicle at minimum of 45-degree angle to the aircraft nose if a/c is armed
- Be aware of aircrew exiting the aircraft
- Direct aircrew away from the airframe
- Consider use of monitor to extinguish fire
- Consider use of secondary agents
- 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 where required
- Confirm/make safe aircraft systems
- Utilise Medics to triage aircrew on board if survivable conditions are present
- Aid Medics in extricating aircrew
- Consider use of auxiliary equipment such as TIC
- Carry out external airframe cooling
- Provide scene safety

Crash 2 – MPRV Actions

- Deploy vehicle at minimum of 45-degree angle to the aircraft nose if a/c is armed
- Be aware of aircrew exiting the aircraft
- Direct aircrew away from the airframe
- Crash 2 vehicle commander will maintain contact with the IC
- Crash 2 firefighters will support as tasked by the IC
- Provide scene safety.

Specific Aircraft Hazards/Procedures:

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

Further Considerations:

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

Training:

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

Supporting Information:

- NOG
- CFR Ops Instruction 001 – Aircraft Incidents
- CFR Ops Instruction 002 – CFR HSE Policy
- CFR Ops Instruction 005 – Low Speed Manoeuvring
- CFR Ops Instruction 006 – MPRV ARFF Positioning Deployment & Task
- CFR Ops Instruction 007 – MPRV Vehicle Operations
- CFR Ops Instruction 033 – BA Operations
- CFR Op Guidance 001 – Aircraft Incidents
- CFR Op Guidance 002 – Incidents Involving Rotary Wing Aircraft
- CFR Op Guidance 003 – Aircraft Fuel Fires
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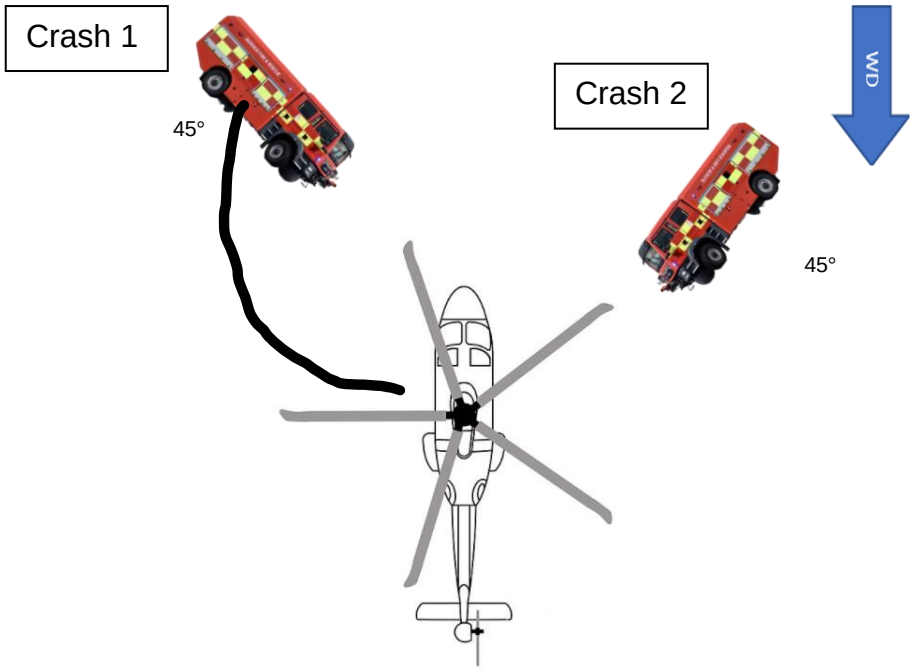
TTP 3 – Internal Fire

Event Plan - Initial Deployment



Incident Commander Considerations:

- Confirm whether armaments and countermeasures are present
- Consider safe deployment of ARFF Vehicles (armaments depending)
- Conduct a Dynamic Risk Assessment (DRA)
- Direct all operational control and implement Incident Command System
- Consider mass discharge from monitor
- Consider use of secondary media
- Declare Tactical Mode
- Provide M/ETHANE report[8]
- Consider contacting aircraft commander via Air Traffic Control
- Be aware of aircrew exiting aircraft (if able to self-evacuate)
- Direct firefighting actions to create survivable conditions
- Extinguish all Fires/Rapid knock down of smoke plume
- Order Crash 1 Breathing Apparatus (BA) team to don BA, using Rapid Deployment[9]
- Direct BA crew to triage casualties (can they be moved Yes/No)
- Consider required additional agencies and resources
- Maintain safe operations and ensure scene safety
- IC may consider cordon control
- On arrival of additional agencies instigate JESIP for multi-agency incident.
- Share Situational Awareness (Hazards and Risks)
- Conduct Rescues/ Assist ‘Medics (appropriate PPE/RPE is to be worn)’
- Consider media run-off and water courses on scene.
- Consider preservation of evidence

[8] A point of note: The aerodrome operator may initiate the Stations Major Incident Plan
[9] IC may consider Stage 1 utilising Crash 2 crew

Crash 1 - MPRV Actions:

- Deploy vehicle at 45 degrees to the aircraft onto the PAX door
- 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 (When directed)
- 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:

- Deploy vehicle at minimum of 45-degree angle to the aircraft nose if a/c is armed
- Be aware of aircrew exiting the aircraft
- Direct aircrew away from the airframe
- Crash 2 vehicle commander will maintain contact with the IC
- Crash 2 firefighters will support as tasked by the IC
- Provide scene safety.

Specific Aircraft Hazards/Procedures:

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

Further Considerations:

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

Training:

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

Supporting Information:

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Document Control

Version	Date	Author	Role/Name	Status	Changes
V1.0	03/02/2021	D Bowering	WM	Initial	
V1.1	04/02/2021	A Kipling	FSM	For Issue	
V1.2	31/10/2023	T Meecham	FSM Yeovilton	Review	
V1.2	10/11/2023	P McGuinness	Hd of Response	Review	New cover, tabs, and layout