



Ministry  
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## Defence Fire and Rescue Tactics Techniques & Procedures

### Tactics, Techniques & Procedures

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<sup>1</sup> Other FRS Providers include Babcock Fire Services, Mitie Fire Service, QinetiQ Fire Service.

## Document Control

Version	Date	Author	Role/Name	Status	Changes
V1.0	09/10/2023		WM Yeovilton	Initial draft	
V1.1	07/11/2023	Tom Meechan	CPO FSM Yeovilton	Submitted for Final Review	
V1.1	09/11/2023	S Cook	DFR HQ	Stakeholder Review	
V1.1	09/11/2023	P McGuinness	CFR Hd of Response	For Issue	



## Defence Fire & Rescue

### Merlin Mk4

This TTP applies H3 Operation of a single  
MPRV 5-seater variant.

1 x WM/CM (IC)

2 x BA

1 x Ff

1 x DVR

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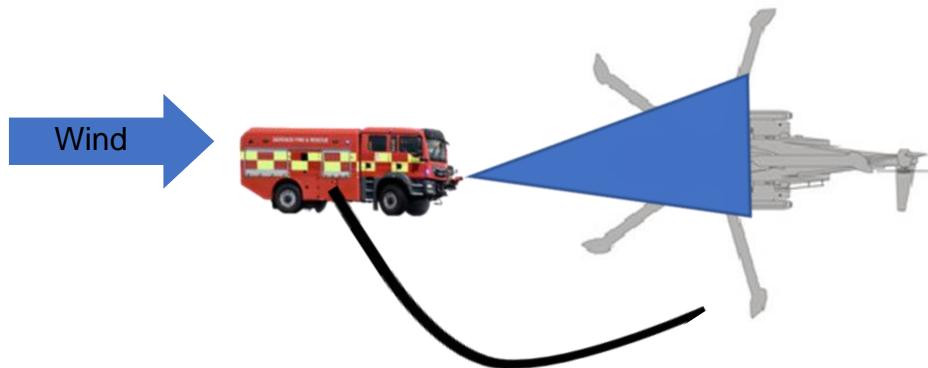


### MERLIN MK 4/4A COMMANDO TROOP CARRIER

Crash Cat	H3
Min Water Req	1600 Ltrs
MPRV Water Capacity	4600 Ltrs
ARFF Minimum Crew	5

## TTP 1 – Engine Compartment Fire

### Event Plan – Initial deployment



### 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 contacting aircraft commander via ATC or 121.6 if available
- Be aware of PAX exiting aircraft Note: Role of the Merlin Mk 4/4A (Troop Carrier)/ rear access ramp maybe available
- 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 using JESIP
- Consider water replenishment
- Consider media run-off and water courses on scene.
- Consider preservation of evidence

### Crash 1 - MPRV Actions:

- Deploy vehicle head or nose dominate on the aircraft
- Operate monitor and extinguish fire utilising mass discharge if required
- Consider secondary agents
- Be aware of PAX exiting the aircraft Rear access ramp maybe available
- Deploy 2 x 45mm hose and prepare for entry into aircraft
- Don BA and utilise Rapid Deployment Procedures and gain access
- Create survivable conditions
- Confirm/make safe aircraft systems
- Aid Medics in extricating casualties
- Utilise Medics to triage casualties on board if survivable conditions are present
- Cool Engines and prevent internal fire spread
- Assist BA team.
- Consider use of TIC

## **Specific Aircraft Hazards/Procedures:**

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

## **Further Considerations:**

- Aircraft position and wreckage
- Leaking fuel
- Aircrew
- Other agencies.
- Provide scene safety.

## **Supporting Information:**

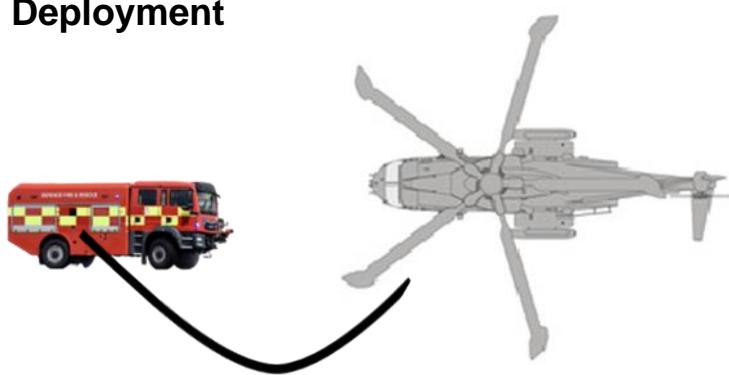
- NOG
- CFR ARFF TOG
- CFR Ops Instruction 001 – Aircraft Incidents
- CFR Ops Instruction 002 – CFR HSE Policy
- CFR Ops Instruction 005 – Low Speed Manoeuvring
- CFR Ops Instruction 006 – MPRV ARFF Positioning Deployment & Task
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- CFR Op Guidance 006 – Aircraft Internal Fires
- CFR Op Guidance 007 – Aircraft Engine Fires
- MOD Aircraft Crash Hazards Document Set
- DSA 1000m assessments
- DSA Water assessments
- DSA Response assessments

## **Training:**

- Aircraft familiarisation – Sqn engineers
- Deployment exercise(s)
- Aircraft lecture – 6 monthly lesson / familiarisation presentation
- AQRC A42 – Merlin Mk4
- [Redkite CMS](#).

## TTP 2 - Internal Fire

### Event Plan - Initial Deployment



### 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 contacting aircraft commander via ATC or 121.6 if available
- Be aware of PAX exiting aircraft Note: Role of the Merlin Mk 4/4A (Troop Carrier) / rear access ramp if available
- 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 using JESIP
- Consider water replenishment
- Consider media run-off and water courses on scene.
- Consider preservation of evidence

### Crash 1 - MPRV Actions:

- Deploy vehicle head or nose dominate on the aircraft
- Operate monitor and extinguish fire utilising mass discharge if required
- Consider secondary agents
- Be aware of PAX exiting the aircraft Rear access ramp maybe available
- Deploy 2 x 45mm hose and prepare for entry into aircraft
- Don BA and utilise Rapid Deployment Procedures and gain access
- Create survivable conditions
- Confirm/make safe aircraft systems
- Aid Medics in extricating casualties
- Utilise Medics to triage casualties on board if survivable conditions are present
- Cool Engines and prevent internal fire spread
- Assist BA team.
- Consider use of TIC

## **Specific Aircraft Hazards/Procedures:**

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

## **Further Considerations:**

- Aircraft position and wreckage
- Leaking fuel
- Aircrew
- Other agencies.
- Provide scene safety.

## **Supporting Information:**

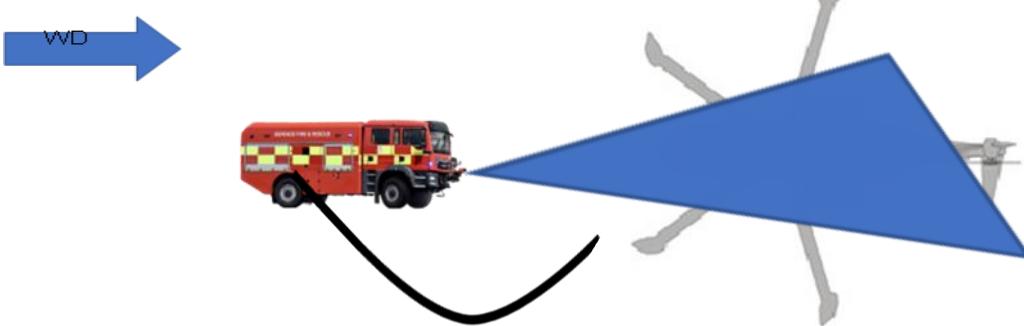
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- CFR Op Guidance 007 – Aircraft Engine Fires
- MOD Aircraft Crash Hazards Document Set
- DSA 1000m assessments
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- DSA Response assessments

## **Training:**

- Aircraft familiarisation – Sqn engineers
- Deployment exercise(s)
- Aircraft lecture – 6 monthly lesson / familiarisation presentation
- AQRC A42 – Merlin Mk4
- [Redkite CMS](#).

## TTP - 3 External Fires

### Event Plan - Initial Deployment



### 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 contacting aircraft commander via ATC or 121.6 if available
- Be aware of PAX exiting aircraft Note: Role of the Merlin Mk 4/4A (Troop Carrier) / rear access ramp if available
- 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 using JESIP
- Consider water replenishment
- Consider media run-off and water courses on scene.
- Consider preservation of evidence

### Crash 1 - MPRV Actions:

- Deploy vehicle head or nose dominate on the aircraft
- Operate monitor and extinguish fire utilising mass discharge if required
- Consider secondary agents
- Be aware of PAX exiting the aircraft Rear access ramp maybe available
- Deploy 2 x 45mm hose and prepare for entry into aircraft
- Don BA and utilise Rapid Deployment Procedures and gain access
- Create survivable conditions
- Confirm/make safe aircraft systems
- Aid Medics in extricating casualties
- Utilise Medics to triage casualties on board if survivable conditions are present
- Cool Engines and prevent internal fire spread
- Assist BA team.
- Consider use of TIC

## **Specific Aircraft Hazards/Procedures:**

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

## **Further Considerations:**

- Aircraft position and wreckage
- Leaking fuel
- Aircrew
- Other agencies.
- Provide scene safety.

## **Supporting Information:**

- NOG
- CFR ARFF TOG
- CFR Ops Instruction 001 – Aircraft Incidents
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## **Training:**

- Aircraft familiarisation – Sqn engineers
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- Aircraft lecture – 6 monthly lesson / familiarisation presentation
- AQRC A42 – Merlin Mk4
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## TTP - 4 Wheel Assembly Incidents

### Event Plan - Initial Deployment



### 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 contacting aircraft commander via ATC or 121.6 if available
- Be aware of PAX exiting aircraft Note: Role of the Merlin Mk 4/4A (Troop Carrier) / rear access ramp if available
- 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 using JESIP
- Consider water replenishment
- Consider media run-off and water courses on scene.
- Consider preservation of evidence

## **Crash 1 - MPRV Actions:**

- Deploy vehicle at 45 degree angle to aircraft nose
- 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 FAFAAs
- 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.

## **Specific Aircraft Hazards:**

- Rotors
- Flammable liquids
- Flammable/pressurised gases
- Composite aircraft materials.
- Pressurised Wheel hub and fusible plugs

## **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:**

- NOG
- CFR Op Instruction 001 – Aircraft Incidents
- CFR Op Instruction 002 – CFR HSE Policy
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## **Training:**

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