



Ministry
of Defence



Defence Fire and Rescue

Tactics Techniques & Procedures

Tactics Techniques & Procedures

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	RN Aircraft Handler	✓	RAF Fire and Rescue	✓
	DFRS LEC	✓	Other FRS Providers ¹	✓
	DFRS (Retained Officers)		DFRS (USVF)	

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

Document Control

Version	Amendment	Para No. Affected/Brief Details	Amended By	Date
V1.0	Draft		Sgt Patterson	21/10/22
V1.1	Final Draft	Tidy up of documents	FS Freeborn	18/11/22
V1.1	Issue	Format and New Cover	P McGuinness	06/01/23

AIRCRAFT TACTICS TECHNIQUES PROCEDURES (ATTP/A42)

Merlin Mk4

This TTP applies to the operation of 1 MPRV and 1 HRET at RAF ODIHAM.

MPRV (Crash1)

1 x JNCO (CM)

1 x ERD

1 x AS1/2 (Fftr)

Striker/HRET (Crash 2)

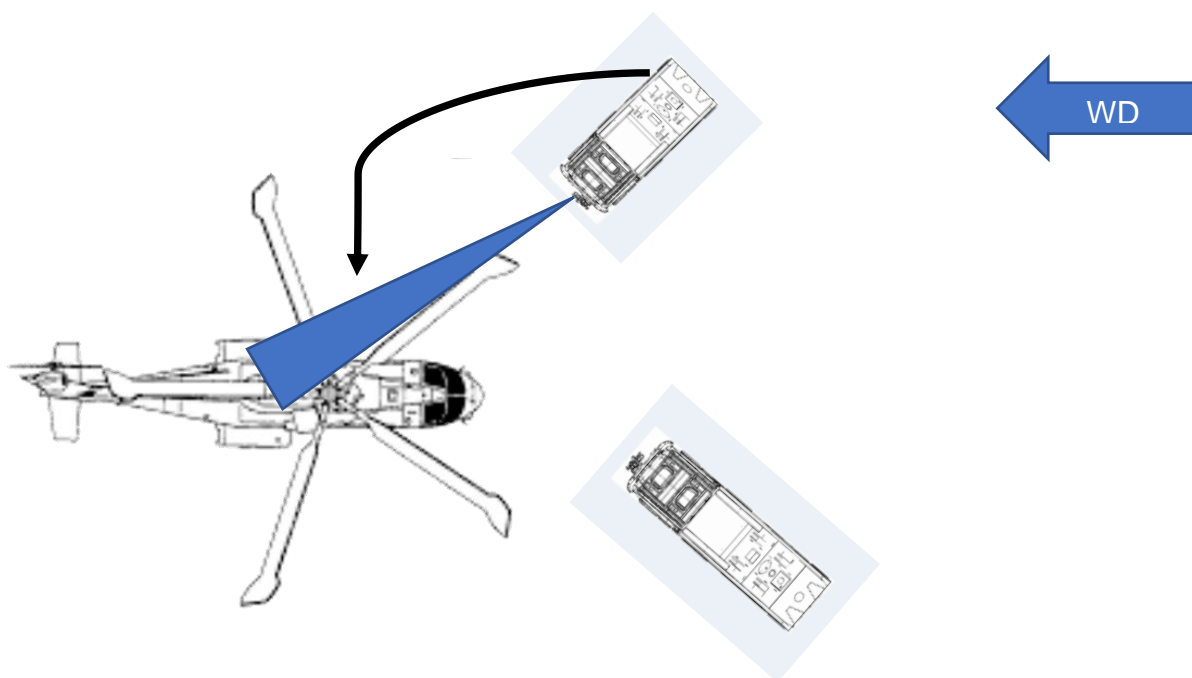
1 x SNCO IC (WM)

1 x ERD

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TTP 1 – Engine Fire

Event Plan – Initial deployment



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 water replenishment from Crash 2
- Consider media run-off and water courses on scene.
- Consider preservation of evidence
- Instigate JESIP for multi-agency incident.

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 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
- Maintain contact with IC
- Provide scene safety.

Crash 2 - Striker Actions:

- Deploy vehicle at 45 degree angle to aircraft nose
- Be aware of PAX exiting the aircraft
- Consider necessity to water relay to Crash 1.
- Consider use of FLIR (post extinguishment of fire)

Specific Aircraft Hazards:

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

Further Considerations:

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

Supporting Information:

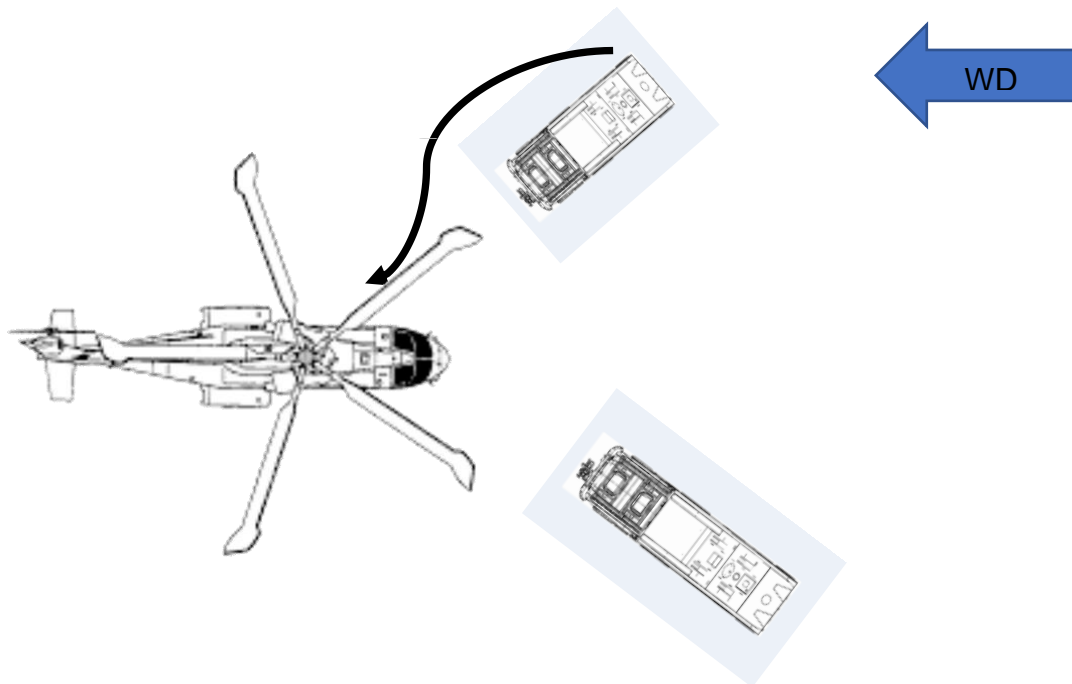
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- CFR Ops Instruction 007 – MPRV Vehicle Operations
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- CFR Op Guidance 006 – Aircraft Internal Fires
- CFR Op Guidance 007 – Aircraft Engine Fire
- CFR Op Guidance 008 – Aircraft Undercarriage Incidents
- MOD Aircraft Crash Hazards Document Set
- AQRC 42 – Merlin MK4
- AP 101B-530-15A
- DOD TO 00-105E-9 (NATO STANAG 3896).
- MOD Aircraft Crash Hazards Document Set.
- DSA 1000m assessment & Water assessments
- DSA Response assessments

Training:

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

TTP 2 – 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 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 using JESIP
- Consider water replenishment from Crash 2
- Consider media run-off and water courses on scene.
- Consider preservation of evidence
- Instigate JESIP for multi-agency incident.

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 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 - Striker Actions:

- Deploy vehicle at 45 degree angle to aircraft nose
- Be aware of PAX exiting the aircraft
- Consider necessity to water relay to Crash 1.
- Consider use of FLIR (post extinguishment of fire)

Specific Aircraft Hazards/Procedures:

- Rotors
- Armaments / 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:

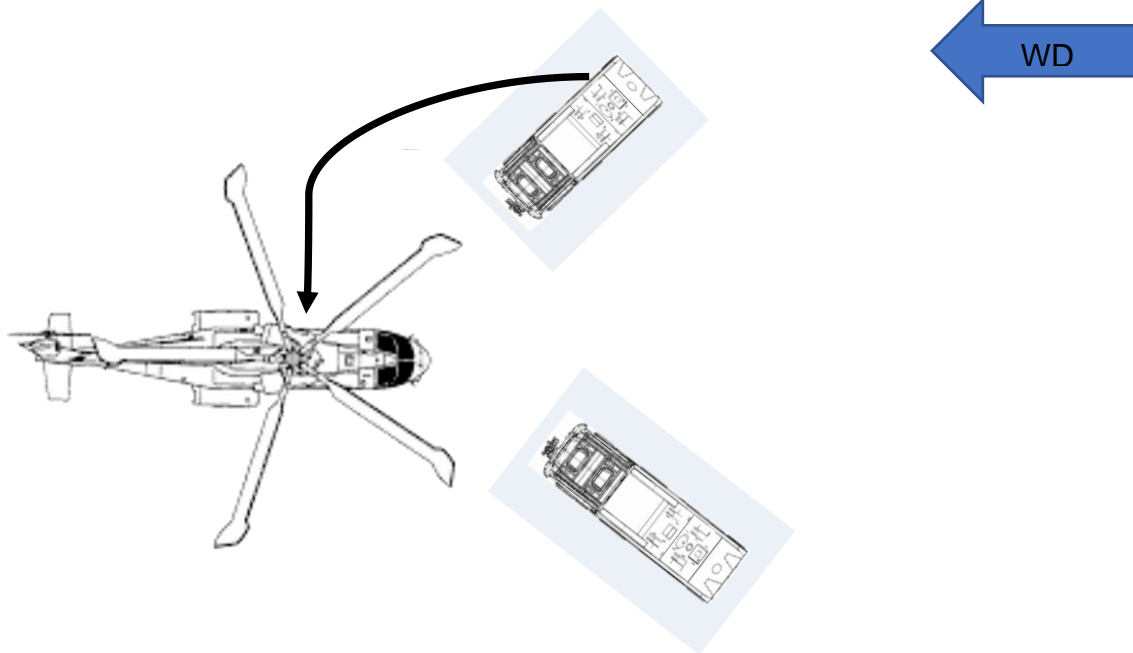
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- DSA 1000m assessment
- DSA Water assessments
- DSA Response assessments

Training:

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

TTP 3 – Internal Fire

Event Plan - Initial Deployment



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 water consolidation / replenishment from Crash 2
- Consider media run-off and water courses on scene.
- Consider preservation of evidence
- Instigate JESIP for multi-agency incident

Crash 1 - MPRV Actions

- Deploy vehicle at 45 degrees to the aircraft onto the cargo 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
- 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 - Striker Actions:

- Deploy vehicle at 45 degrees to the aircraft
- Be aware of aircrew exiting the aircraft
- Direct personnel away from airframe
- Consider requirement to water relay to Crash 1.
- Consider use of FLIR (post extinguishment of fire)

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

Supporting Information:

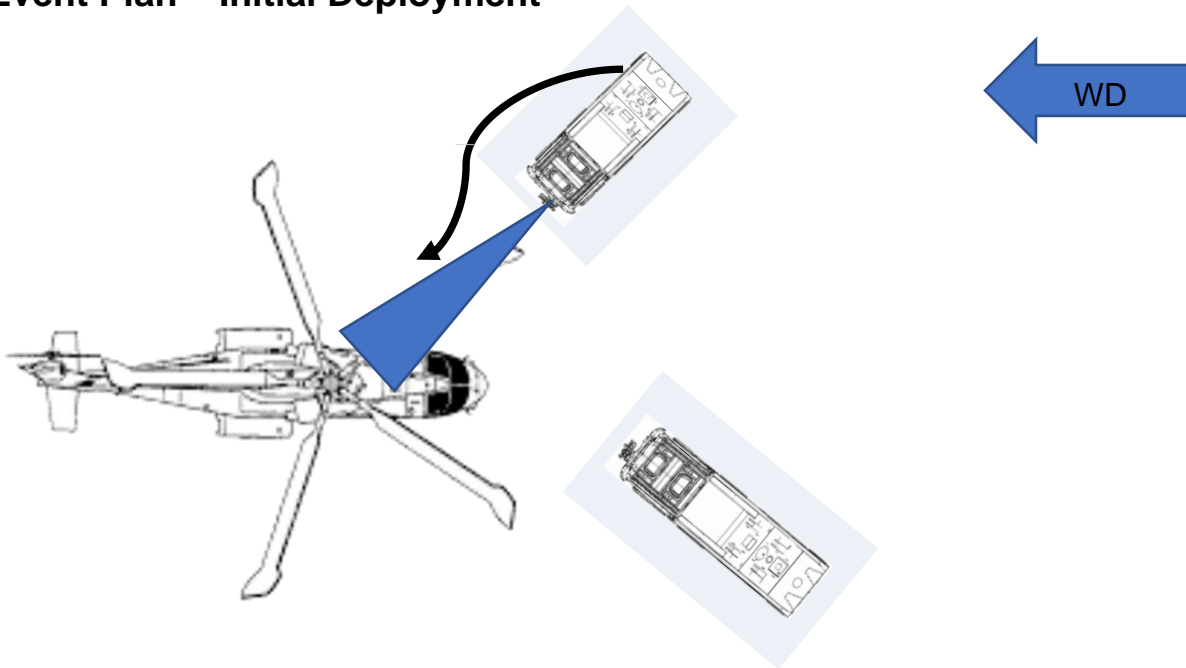
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- DSA 1000m assessment & Water assessments
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Training:

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

TTP 4 - External 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 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 water replenishment from Crash 2
- Consider media run-off and water courses on scene.
- Consider preservation of evidence
- Instigate JESIP for multi-agency incident.

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 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
- Maintain contact with IC
- Provide scene safety.

Crash 2 - Striker Actions:

- Deploy vehicle at 45 degree angle to aircraft nose
- Be aware of PAX exiting the aircraft
- Consider necessity to water relay to Crash 1.
- Consider use of FLIR (post extinguishment of fire)

Specific Aircraft Hazards/Procedures:

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

Further Considerations:

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

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- MOD Aircraft Crash Hazards Document Set.
- DSA 1000m assessment & Water assessments
- DSA Response assessments

Training:

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