



RAF Waddington Defence Aerodrome Manual (DAM) Issue 4.1 – 01 Mar 24

(For reference, all amendments to DAM Issue 4.1 are highlighted in magenta in the Table of Contents)

FOREWORD

1. Purpose and Regulatory Framework. RAF Waddington is a complicated operating environment, and the purpose of the Defence Aerodrome Manual (DAM) is to inform airfield users of the RAF Waddington operating environment, which includes the management, physical characteristics, services available & operating procedures of the aerodrome. The Manual is written to inform & direct military & civilian aircrew using the airfield & to provide orders for personnel operating on the airfield or providing airfield services. The Defence Aerodrome Manual conforms to the guidance provided by the Military Aviation Authority (MAA) in [Regulatory Article \(RA\) 1026](#). It includes the RAF Waddington Aerodrome Order Book & can be considered equivalent to the civilian Manual, [CAA CAP 168 Aerodrome Manual](#). [MAA RA1026](#) details the requirement for the appointed AO to produce and take ownership of the DAM. This document satisfies this requirement and has been produced in-line with the MAA guidance.

2. Content. This Manual contains detailed information regarding the aerodrome physical characteristics, aerodrome facilities and local area procedures however, it is essential that aircrew should refer to the Mil AIP, AIDU Aerodrome Booklet & Civil AIP documents for their primary source of aeronautical data as this document should not be relied upon for flight planning. Any anomalies should be brought to the attention of the undersigned without delay. All airfield users are to adhere to the Taxiway and Aircraft Bay nomenclature used within the DAM for any RT procedures. AESOs, Sqn Orders and SOPs should be reviewed to ensure full compliance with naming conventions.

3. Responsibilities. The Manual is mandated reading for operators of Waddington-based aircraft, and all Waddington-based personnel responsible for the delivery of airfield services. Visiting and civil aircraft operators, and aerodrome users, must comply with the rules and guidelines of this manual. The orders contained within this manual do not absolve any person from using their best judgement to ensure the safety of aircraft and personnel. Where safety or operational imperatives demand, the orders may be deviated from, provided that a convincing case can be offered in retrospect.

4. Request for Change. Authorisation of amendments (changes to process, regulation, equipment, and services) are the responsibility of Chapter, Section and Annex 'Information Owners' and are co-ordinated through Operations Support Wing Assurance Support. Notification of errors and requests for change can be made in accordance with the details found in this document.

OC Operations Support Wing
RAF Waddington

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RAF Coningsby OC Ops Wg

RAF Cranwell OC Ops Wg

Lincs TATCC – OC WAD Radar and WO WAD Radar

Lincs & Notts Air Ambulance

Internal:

Stn Cdr
Cdr Air Wg (ISTAR DDH)
Cdr Display Wg (Hawk T Mk 1 DDH)
CTP (ASCW DDH)
OC Ops Spt Wg/Aerodrome Operator
OC Air Wg Spt/ISTAR Senior Operator
COS Display HQ/Hawk T Mk1 Senior Operator
OC BSW
OC Air Wg Eng
OC ESS
OC RAFAT
OC 13 Sqn
OC 14 Sqn
OC 31 Sqn
OC 51 Sqn
OC 54 Sqn
OC 56 Sqn
OC Ops Sqn
OC Digital Support Flt
13 Sqn Ops
14 Sqn Ops
51 Sqn Ops
SATCO
OC ISTAR Staneval
1 Gp Hawk T1 Staneval
OC Safety Centre
SO2 Aerodrome Safety
OC Logs Sqn
MCO
WO Fire
SMO
OC RAFP & Sy Flt
OIC Waddington Flying School
Duty Ops Controller
Duty Eng Ops Controller
SFSO
S FOD O
S Met O

DAM REQUEST FOR CHANGE				
Person making request:				
Rank	Name	Section	Ext	Email
Change Details				
Page	Chapter		Para	

Current Text:			
Proposed Text:			
Amplifying Comments:			
Once complete the proposed changes are to be emailed to Ops Spt Wg Assurance for consideration (WAD-Ops-WgAssurance&Audit@mod.gov.uk) Newton,Andy FS (WAD-FS-OpsSptWg-Assurance)			
Implementation Actions			
Ref No.			
Ops Spt Wg Assurance & Audit Actions			
E / S / C*			
Recommendation			
Action			
*E-Editorial, S-Substantial, C-Critical			
Information Owner Review			
Role			
Implement at next update**	Immediate update**	Reject Change Request**	
Comments:			
Rank & Name		Date	
**Delete as required.			
AO Approval			
Rank & Name		Date	
Ops Spt Wg Assurance & Audit Final Actions			
Approved	• Send to Editor	Date	
	• Send to Originator	Date	
Rejected	• Send Feedback to originator	Date	

[Link to Word version of RFC.](#)

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1.2	Aerodrome Operators Authority & Letter of delegation	OC Ops Sqn
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<u>CHAPTER 2: AERODROME DATA, CHARACTERISTICS & FACILITIES</u>		
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2.4	Temporary Obstruction Orders	SATCO
2.5	Runway Strip Obstructions	SATCO
2.6	Runway End Safety Area (RESA)	SATCO
2.7	Light Aggregate (Lytag) Arrestor Beds or Engineered Materials Arrestor Systems (EMAS)	SATCO
2.8	Aerodrome Arresting System Orders	SATCO
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<u>CHAPTER 3: EMERGENCY & AERODROME RESCUE & FIREFIGHTING ORDERS</u>		
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3.2	Emergency Orders – Aerodrome Crash Plan	OC Ops Sqn
3.3	Aerodrome Rescue & Fire Fighting (ARFF) Services & Training Orders (New paragraph wording)	Flt Cdr Fire
3.4	Disabled Aircraft Removal Orders	OC Ops Sqn/OC ESS
<u>CHAPTER 4: AIR TRAFFIC SERVICES & LOCAL PROCEDURES</u>		
Para	Title	Information Owner

4.1	Air Traffic Control Orders	SATCO
4.2	Air Traffic Control Services	SATCO
4.3	Departure Procedures	SATCO
4.4	Approach Procedures	SATCO
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CHAPTER 5: AERODROME ADMINISTRATION & OPERATING PROCEDURES		
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5.5	Aerodrome Works Safety	SATCO
5.6	Aerodrome Users – Vehicle & Pedestrian Control	SATCO
5.7	Foreign Object Damage/Debris (FOD) Prevention – Training & Awareness	S FOD O
5.8	Aerodrome Wildlife Management	SATCO
5.9	Low Visibility Procedures	SATCO
5.10	Snow & Ice Operations	OC Ops Sqn
5.11	Thunderstorm & Strong Wind Procedures	OC ESS
5.12	Civil Aircraft Aerodrome Usage – Terms & Conditions	OC Ops Sqn
5.13	Safeguarding Requirements – Waivers & Exemptions	SATCO
5.14	Aerodrome Assurance Activity	OC Ops Sqn
5.15	Electrical Ground Power Procedures	OC ESS
5.16	Aviation Fuel Management Procedures	OC Logs
5.17	Hazardous Materials Spillage Plan	OC Logs
5.18	Jettison & Fuel Dumping Area	OC Ops Sqn
5.19	Compass Calibration Base	SATCO
5.20	Explosive Ordnance Disposal Area	OC ESS
5.21	Dangerous Goods (DG) Procedures	OC Logs
5.22	Hydrazine (H70) Leak	OC Ops Sqn
5.23	UAS / RPAS (other than Protector) Operations	SATCO
5.24	Aircraft Parking	OC Ops Sqn
5.25	Force Protection	OC Police & Sy
5.26	RAF Waddington Aerodrome Order Book (AOB)	SATCO

AMENDMENTS					
Amendment No	Substantial Changes	Name	Amendment Date	Date Incorporated	Signature
Issue 3.3	Wg Cdr Whitechurch removed as AO and replaced with Wg Cdr Melvin. Practice Approaches, Approach Procedures, Civil Aircraft Aerodrome Usage – Terms & Conditions and Aerodrome Rescue & Fire Fighting Services & Training Orders amended.		09 Aug 23	09 Aug 23	
Issue 3.4	AOHL/BMHL now combined; Aerodrome Operating Procedures multiple editorial changes; New FOD Reporting tool; Flying Displays – RAFAT included; ATIS content; Wind Warning Actions; and Visiting Large Aircraft Procedures – New order.		29 Nov 23	01 Dec 23	
Issue 4.0	New Stn Cdr and Letter of Authority (LOA) to operate as AO for Wg Cdr Melvin from Gp Capt Holland.		15 Jan 24	16 Jan 24	
Issue 4.1	Aerodrome Location, Control of Entry & Access, Aerodrome Rescue & Fire Fighting Services & Training Orders, Aircraft Priorities, Emergency Orders and Aerodrome Crash Plan, FOD Prevention, Training & Awareness, Thunderstorm & Strong Wind Procedures, AOB Order's B223 & B225.		27 Feb 24	01 Mar 24	
AMENDMENT PROCESS					
Any suggested amendments are to be emailed to OC Ops Sqn for consideration.					
DAM MASTER VERSION					
The RAF Waddington DAM conforms to Version 9 of the MAA DAM template.					

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ANNEXES		INFORMATION OWNER
Annex A	Aerodrome Operator Letter of Delegation	OC OSW
Annex B	Safety Meeting Structure	OC Safety Centre
Annex C	Aerodrome Key Stakeholders	OC Ops Sqn
Annex D	Aerodrome Operators Hazard Log	SATCO
Annex E	Formal Aerodrome Related Agreements	SATCO
Annex F	Aerodrome Alternative Acceptable Means of Compliance (AAMC), Waivers and Exemptions	SATCO
Annex G	Aerodrome Location & Control of Entry & Access	OC Police & Sy
Annex H	Noise Abatement Procedure – Orders	SATCO
Annex I	Temporary & Permanent Obstruction – Orders	SATCO
Annex J	Aerodrome Arresting System – Orders	SATCO (OC ESS input)
Annex K	Manoeuvring Area Safety & Control – Orders	SATCO (OC ESS & OC Ops Input)
Annex L	Emergency Orders / Aerodrome Crash Plan (New ACPM LIVEX date)	OC Ops Sqn
Annex M	Aerodrome Rescue & Fire-Fighting Services & Training – Orders (New paragraph wording)	Flt Cdr Fire
Annex N	Disabled Aircraft Removal	OC Ops Sqn
Annex O	Air Traffic Control – Orders	SATCO
Annex P	Aerodrome Data Reporting Procedures – Orders	SATCO
Annex Q	Aerodrome Serviceability Inspections – Orders	SATCO
Annex R	Aerodrome Technical Inspections – Orders	SATCO
Annex S	Radar, Radio & Navigation Aid Maintenance, Monitoring & Protection – Orders	SATCO (Action OC DSF)
Annex T	Aerodrome Works Safety – Orders	SATCO
Annex U	Aerodrome Users – Vehicle & Pedestrian Control – Orders	SATCO
Annex V	FOD Prevention, Training & Awareness – Orders (Annex content deleted and new wording added)	S FOD O
Annex W	Aerodrome Wildlife Management – Orders	SATCO
Annex X	Low Visibility Operations (LVP) – Orders	SATCO
Annex Y	Snow & Ice Operations – Orders	OC Ops Sqn
Annex Z	Thunderstorm & Strong Wind Procedures – Orders (New Op BEAUFORT link added)	OC Ops Sqn
Annex AA	Civil Aircraft Aerodrome Usage – Terms & Conditions including Breach	OC Ops Sqn
Annex BB	Safeguarding Requirements	SATCO
Annex CC	Electrical Ground Power Procedures – Orders	OC ESS
Annex DD	Aviation Fuel Management Procedures – Orders	OC Logs
Annex EE	Handling of Hazardous Materials (Spillage Plan) – Orders	OC Logs
Annex FF	Jettison Area – Orders (Nil at Present)	OC Ops Sqn

Annex GG	Compass Calibration Base – Orders	SATCO
Annex HH	Explosive Ordnance Disposal Area – Orders	OC ESS
Annex II	Dangerous Goods (DG) Procedures – Loading /Unloading – Orders	OC Logs
Annex JJ	Hydrazine (H70) Leak – Orders	OC Ops Sqn
Annex KK	UAS / RPAS – Orders	SATCO
Annex LL	Aircraft Parking	OC Ops Sqn
Annex MM	Force Protection Responsibilities – Force Protection (FP) Orders (Kept separately due to security classification)	OC Police & Sy
Annex NN	RAF Waddington AOB	SATCO

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Chapter 1 – TECHNICAL ADMINISTRATION

1.1	NAME & WORK ADDRESS OF AERODROME OPERATOR (AO)
Rank	Name
Wg Cdr	Melvin
Address	Contact
Officer Commanding Operations Support Wing	Mil: 95771 6532
RAF Waddington	Civ: 01522 72 6532
LINCOLN	Email: via Stn Ops (see 2-1)
LN5 9NB	
1.2	AERODROME OPERATORS AUTHORITY
The AO is responsible for the management of an aerodrome environment in order to accommodate the safe operation of Aircraft in accordance with MAA RA1026 . The management & running of the aerodrome is a Duty Holder Facing (DHF) responsibility. The AO has been issued a letter of delegation by the Head of Establishment (HoE) who has responsibility for the aerodrome. A copy can be found at Annex A .	
1.3	SAFETY MEETING STRUCTURE
An organisational aviation safety meeting flow diagram can be found at Annex B .	
1.4	AERODROME KEY STAKEHOLDERS
Detail of RAF Waddington Key Stakeholders can be found at Annex C .	
1.5	AERODROME OPERATING HAZARD LOG (AOHL)
The Waddington AOHL can be found at Annex D . The AOHL is a living document; it is updated regularly and reviewed monthly in the Hazard Review Group. At Waddington, the AOHL and Battlespace Management Hazard Log (BMHL) are combined into a single Hazard Log; hazards therein are categorised as BM- or AO-specific.	
1.6	FORMAL AERODROME RELATED AGREEMENTS
All formal aerodrome-related agreements are detailed at Annex E . These agreements are reviewed annually by the AO.	
1.7	AERODROME ALTERNATIVE ACCEPTABLE MEANS OF COMPLIANCE (AAMC), WAIVERS AND EXEMPTIONS
Details of all Waddington aerodrome related Waivers, Exemptions & approved AAMC can be found at Annex F .	
1.8	AERODROME LOCATION, CONTROL OF ENTRY & ACCESS
RAF Waddington is located within the village of Waddington and is 4 miles South of the city of Lincoln, Lincolnshire. The nearest train station to RAF Waddington is Lincoln Central. Buses run regularly along the A607, providing regular access to either Lincoln City Centre to the North or Grantham to the South. Local area and Aerodrome Crash Plan maps can be found below. The aerodrome location, control of entry and access points can be found at Annex G .	

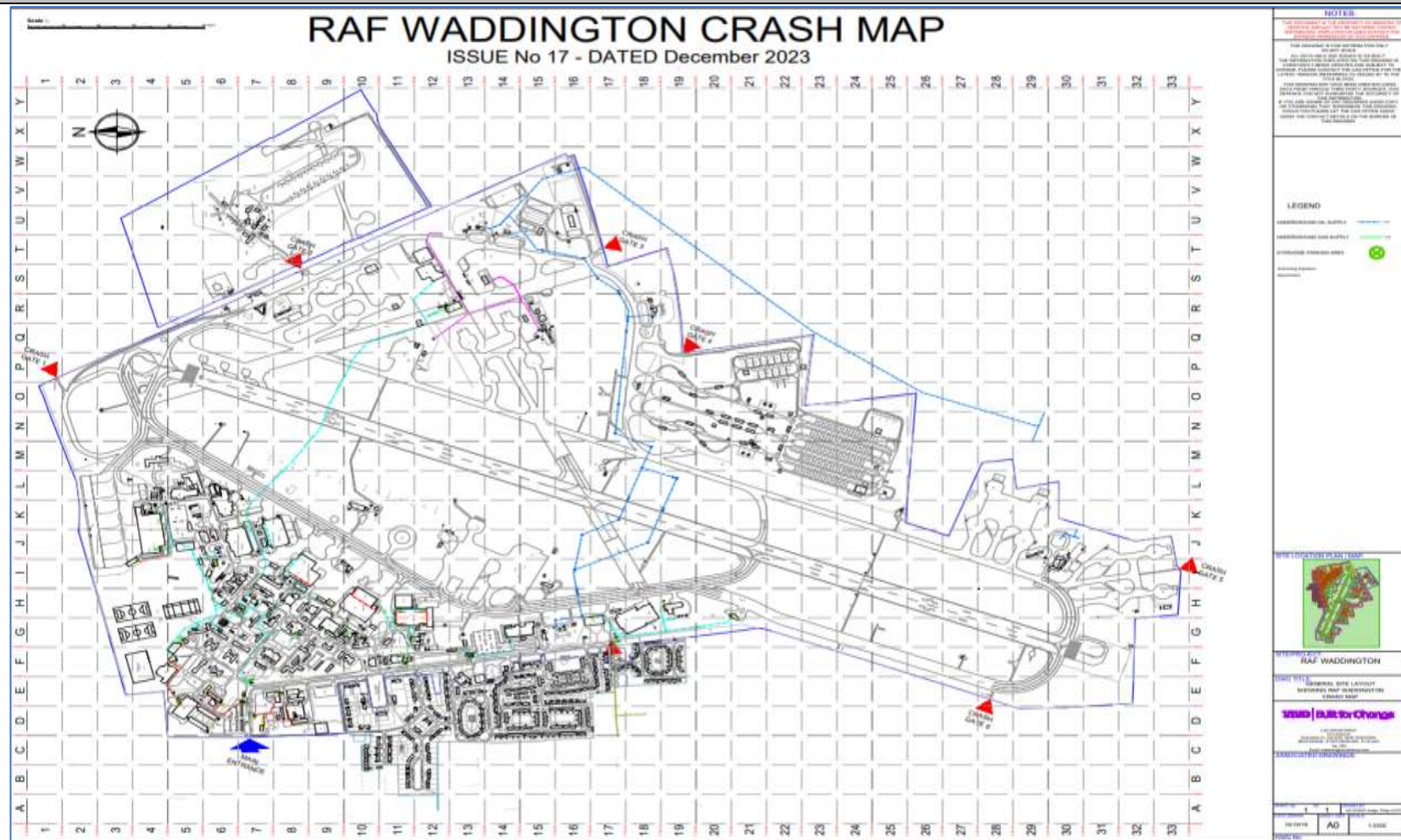
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LOCAL AREA MAP



LOCAL AREA MAP (REFINED)





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Chapter 2 – AERODROME DATA FACILITIES & CHARACTERISTICS

Source Data: Measured Height Survey (MHS) 2023 Biennial Inspection (BAIR) 2023					
2.1	AERODROME DATA				
EGXW – RAF WADDINGTON					
	ARP Co-ordinates & site at AD		53 09 58.18N 000 31 25.82W centred on mid-point of RWY 02/20.		
	Direction & distance from City		4nm South of Lincoln.		
	Elevation/Reference Temperature		230ft/21°C		
	Magnetic Variation/Annual Change		00°E (NOV 21) / 00.20°E		
	Geoid Undulation at AD Elev Position		Data not available		
	AD Administration				
	Address		Royal Air Force Waddington Lincoln LN5 9NB		
	Telephone		Mil: 95771 7301 / 6532 (Ops). Civ: (01522) 727301 / 726532		
	E-mail		Wad-StationOps@mod.gov.uk WADOPS@outlook.com		
	Website		https://www.raf.mod.uk/our-organisation/stations/raf-waddington/		
	Types of Traffic Permitted (IFR/VFR)		IFR/VFR		
	Remarks		Further Aerodrome Data, including Declared distances are now contained in the RAF Waddington Mil AIP AD2 entry. The Stn UCCL system is unserviceable TFN.		
2.2	SPECIAL PROCEDURES				
	2.2.1	2.2.2	2.2.3	2.2.4	2.2.5
	Elev	Var	TA	DATE	CHART NO.
	230ft	0°W	3000ft	25 Mar 21	B1
2.2.6	Practice Diversions	Due to high demand for use of the Waddington Visual Circuit, all PDs are to be booked in advance. Bookings made on R/T will not normally be accepted. The ATC Supervisor will accept PDs at their discretion in accordance with prevailing conditions, the flying programme, and ATC resourcing levels.			
2.2.7	Departures	Departures in the sector 130°- 220° will not normally be approved; aircraft requiring entry to Cranwell MATZ are to request coordination prior to departure. All VFR right-hand departures from Runway 20 are to climb on runway track to WAD 3nm DME or 1000QFE before commencing the turn. Non-standard IFR			

		departures, including into the instrument pattern, are to climb on runway track to 1400QFE before commencing the turn.
2.2.8	Airspace Reservations	When aerobatics are taking place in EGR 313 or EGD324A, instrument recoveries are limited and aircraft should be prepared to hold off for up to 30 minutes or execute radar-to-visual recoveries.
2.2.9	Armed Aircraft	Pilots of visiting and diverted aircraft are to inform ATC on initial contact if their aircraft is armed. Waddington does not have any licensed forward-firing bays.
2.2.10	TACAN	All right-hand departures from Runway 20 are to climb on runway track to WAD 3nm DME or 1400ft QFE before commencing the turn.
2.3	NOISE ABATEMENT PROCEDURES	
	Orders contained at Annex H detail the Waddington noise abatement procedures.	
2.4	TEMPORARY OBSTRUCTIONS ORDERS	
	Orders, contained at Annex I , are to be produced to cover the actions involved in dealing with temporary obstructions on or around any manoeuvring area that are considered a Hazard to Aircraft, vehicles or pedestrians	
2.5	RUNWAY STRIP OBSTRUCTIONS	
	A runway strip, clear of obstacles, should extend at least 140m either side of the runway centreline and 60m beyond the respective start of each runway threshold. A number of obstacles lie within the Waddington runway strip. A list of obstructions can be found in the Annex D 'Full Obstacle Schedule' of the latest Measured Height Survey (MHS), accessed at this link . Further information on obstacle limitations can be found in the MAA RA 3500 Series .	
2.6	RUNWAY END SAFETY AREA (RESA)	
	The RESA provides undershooting or overrunning aircraft with a cleared and graded area. The Waddington RESA dimensions are as follows:	
	RWY 02RH	90m
	RWY 20	90m
2.7	LIGHT AGGREGATE (LYTAG) ARRESTOR BEDS OR ENGINEERED MATERIALS ARRESTOR SYSTEM (EMAS).	
	LYTAG is not present at Waddington.	
2.8	AERODROME ARRESTING SYSTEM ORDERS	
	Orders contained at Annex J cover the maintenance and safe operation of the Rotary Hydraulic Arrestor Gear (RHAG) in accordance with extant policy guidance. Waddington does not have a barrier.	
2.9	MANOEUVRING AREA SAFETY & CONTROL ORDERS	
	The Waddington Manoeuvring Area Safety and Control Orders can be found at Annex K .	

Chapter 3 – EMERGENCY, RESCUE & FIREFIGHTING ORDERS

The AO is to be familiar with the following documents & requirements:	
RA 3261(2) :	Aerodrome Emergency Services
RA 3263 :	Aerodrome Classification
RA 3049 :	Defence Contractor Flying Organization responsibilities for UK Military Aircraft Operating Locations
DSA DFRS 02	Defence Aerodrome Rescue & Firefighting (ARFF) Regulations
Capita IRMP	RAF Waddington Integrated Risk Management Plan (Password = Scotland.1)
3.1	EMERGENCY ORGANISATION
<p>The AO is to be familiar with RA 3261(2); RA 3263 and DSA02 DFRS¹. ► ◀ RA 3049² stipulates that Defence Contractor Flying Organizations operating MAA-regulated Aircraft must meet the requirements detailed in DSA02 DFRS³. The relationship between the AO and the Defence ARFF Service Provider is defined within DSA02 DFRS³ and the Business Agreements between Defence ARFF Service Provider and the TLBs. The Defence ARFF Service Provider is a DH-Facing Organization and its Fire Stations operate to national good practice providing a service to the AO. This is detailed within the current Joint business agreement.</p>	
3.2	EMERGENCY ORDERS / AERODROME CRASH PLAN
<p>Emergency Orders / Aerodrome Crash Plans are to be produced and contained at Annex L, iaw guidance contained within the Manual of Post Crash Management (MAPCM), RA 1400(1)⁴ and DSA02 DFRS³. Orders are to cover the eventuality of an Aircraft accident / incident, on the Aerodrome or within the 1000 m area assessment from runway thresholds, AOs may also consider the establishment's Post Crash Management Area of Responsibility. The plan is to be exercised by tabletop or live-ex on alternate years iaw extant regulations. In addition, the Aerodrome Crash Plan may be made available to the local Resilience Forum. Consideration may be given to producing specific orders in the event the runway is declared 'BLACK'. For the provision of passenger management, a passenger evacuation management system (PEMS) has been detailed in CONPLAN1.</p>	
3.3	AERODROME RESCUE & FIRE FIGHTING SERVICES & TRAINING ORDERS
<p>The Fire Station Manager, iaw DSA02 DFRS³, is to ensure that the following information is produced and contained via hyperlinks at Annex M.</p>	
Operational Output	
3.3.1	Generic Standard Operational Procedures
3.3.2	Local Standard Operational Procedures
3.3.3	FRS Generic Risk Assessments
3.3.4	Defence ARFF Service Provider Chief Fire Officers Instructions
3.3.5	Tactical Information / Response Plans covering site-specific operational requirements
3.3.6	Fire Section Orders
Task Resource Analysis (TRA)	
<p>RAF Waddington is designated as ICAO 'crash category seven' airfield, providing ARFF (at a level dictated by output requirements) and structural cover 24 hours a day, seven days a week</p>	

¹ Refer to RA 3261(2): Aerodrome Emergency Services, RA 3263 – Aerodrome Classification and DSA02 DFRS – Defence ARFF Regulation.

² Refer to RA 3049 – Defence Contractor Flying Organization Responsibilities for UK Military Air System Operating Locations.

³ Refer to DSA02 DFRS – Defence ARFF Regulation.

⁴ Refer to RA 1400(1): Flight Safety.

<p>The Defence ARFF Service Provider will provide RAF Waddington with appropriate aerodrome rescue & firefighting cover, as derived from an aerodrome task & resource analysis (TRA). The TRA will be based on agreed worst credible scenarios (WCS) & will ensure that resources are always available & aligned with operating hours, to ensure that the on-site fire & rescue service is operationally prepared to provide this service. Up to ICAO 8 can be provided on a surge basis.</p> <p>The ARFF response for RAFAT formation flying at Waddington will be ICAO 7. ICAO 7 meets the requirements of ICAO 3x2 outlined within the WAD TRA v1.5.</p>	
3.3.7	TRA Report for each ICAO Aerodrome category promulgated at Annex M.
ARFF Assessments	
<p>To ensure that ARFF Services are operationally prepared for the provision of service, they are required as defined within DSA DFSR 02 to carry out the following assessments:</p> <p>Fire Section - Response Area Assessment Fire Section - 1000 Meter Assessment Fire section- Water assessment</p> <p>These assessments are contained in the Fire Service SharePoint area.</p>	
3.3.8	DFSR Form 01 – Response Area Assessment
3.3.9	DFSR Form 02 – 1000m Assessment
3.3.10	DFSR Form 03 – Water Assessment
3.3.11	DFSR Form 04 – Category for Specific Hazard Assessment
3.3.12	DFSR Form 06 – Reduction of ARFF Cover
	<p>Circumstances may require that flying is conducted to/from aerodromes with reduced levels of ARFF services. HoE/ADHs may approve such activity following a risk assessment informed by advice from the On-site ARFF provider. ARFF Reduction of Cover – Hazard Assessment – (DDH) must be completed. All completed risk assessments are to be recorded/stored within the Fire Service SharePoint area.</p>
ARFF Training Area Orders & Training Area Risk Assessments	
<p>ARFF Training area risk assessments & orders are contained at Annex M. For Units that do not have onsite training facilities this annex is to provide details of how all Mandated Core Competencies required by ARFF personnel are maintained.</p>	
3.3.13	Orders: MPFTS Trg Simulator
3.3.14	Risk Assessments: Fire Section – Risk Assesments
3.4	DISABLED AIRCRAFT REMOVAL
<p>The AO is to ensure that orders, contained at Annex N. are in place to cover the requirement to quickly and safely remove an Aircraft that has caused a temporary closure of a runway, taxiway or Aircraft Servicing Platform (ASP), but falls beneath the criteria of an accident that would be dealt with separately under the Aerodrome Aircraft Crash Plan. The following points may be considered:</p>	
ATCO I/C	
3.4.1	Notification of the ARFF Services & Duty Operations Controller (DOC).
3.4.2	Aircraft identification & type.
3.4.3	Nature of Aircraft un-serviceability.
3.4.4	Location of Aircraft.
3.4.5	Section of the manoeuvring area affected.
3.4.6	Persons On Board (POB).
3.4.7	Estimated time of Arrival (ETA) of all Aircraft requiring use of the closed runway.
3.4.8	Latest time for affected Aircraft to divert.

3.4.9	Any unserviceable areas of the manoeuvring area are correctly marked to provide for safe Aircraft operation of the remaining areas.
Stations Operations	
3.4.10	Notify ATC of a disabled Aircraft if not already aware.
3.4.11	Ensure the appropriate Notice to Airperson (NOTAM) has been raised.
3.4.12	If required carry out RUNWAY BLACK plan.
3.4.13	Notify OC OSW / OC Ops Sqn (or equivalent), Eng Ops (or equivalent), VAHS/Movements (or equivalent), appropriate Sqn (if it affects a station-based Aircraft).
3.4.14	Contact Defence Accident Investigation Branch (DAIB) Air, if applicable or if clarification is required that the Station assessment of the incident falls beneath that warranting an Air Accident Investigation Branch (AAIB) investigation ⁵ .
Station Operations Management	
3.4.15	Obtain & record permission from the owner or duly authorized representative of the owner of the Aircraft to the movement of the disabled Aircraft.
3.4.16	Notify all Aircraft operators likely to be affected if RUNWAY BLACK.
3.4.17	For civilian Aircraft, notify the Aircraft operator and AAIB.
Fire Section	
3.4.18	Respond iaw DSA DFSR 02 – Defence Aerodrome Rescue & Fire Fighting (ARFF) Regulations & site-specific Incident Plan.
Aircraft Owner	
3.4.19	The Aircraft owner is defined as the holder of the Certificate of Registration & can be held responsible for the Aircraft removal & disposal of fuel & other hazardous materials that have been spilt because of an incident (noting the aerodrome will have instigated the Stn Spill Plan). When advised of an Aircraft, the owner should liaise with Station Operations (or equivalent) to discuss its removal.
VAHS / Eng Control (or equivalent)	
3.4.20	Once cleared by Ops, tow the disabled Aircraft clear with the appropriate towing arm or 'universal dolly'.

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⁵ If the AAIB elect to conduct an on-scene investigation, the disabled aircraft cannot be removed until authorized by the AAIB. AAIB will require Aircraft identification and type; nature of un-serviceability; location; section of the manoeuvring area affected and POB. 2023DIN06-024 - The Defence Accident Investigation Branch contains additional information on when and by what method Accidents and serious Incidents are to be reported to the DAIB.

Chapter 4 – AIR TRAFFIC SERVICES & LOCAL PROCEDURES

4.1	AIR TRAFFIC CONTROL ORDERS
ATC Operational Management Orders are produced to cover all ATC procedures involved in the safe and expeditious flow of air traffic. These orders comply with direction and guidance contained within the MMATM and MAA RA 3000 Series (ATM) and are contained at Annex O .	
4.2	ATC SERVICES
4.2.1	Deconfliction Service (DS)
A surveillance-based ATS whereby a controller provides specific surveillance-derived traffic information and issues headings and / or levels to achieve planned deconfliction minima against all observed aircraft in Class G airspace, or for positioning and / or sequencing. Ultimately, the avoidance of other traffic remains the pilot's responsibility. A DS may be provided in the Waddington ATC Area Of Responsibility (AOR), in accordance with CAP 774 .	
4.2.2	Traffic Service (TS)
A surveillance-based ATS whereby a controller provides specific surveillance-derived traffic information to assist a pilot with their avoidance of other traffic. Controllers may provide headings and / or levels for the purposes of positioning and / or sequencing. The controller is not required to achieve deconfliction minima. Ultimately, the avoidance of other traffic remains the pilot's responsibility. ATS may be provided in the Waddington ATC AOR, in accordance with CAP 774 .	
4.2.3	Basic Service (BS)
An ATS provided for the purpose of giving advice and information useful for the safe and efficient conduct of flights. This may include weather information, changes in the serviceability of facilities, conditions at named aerodromes, general airspace activity information and any other information likely to affect flight safety. The avoidance of other traffic is solely the pilot's responsibility. A BS may be provided in the Waddington ATC AOR, in accordance with CAP 774 .	
4.2.4	Lower Airspace Radar Service (LARS)
Lincs TATCC is tasked with providing a LARS within 30nm of Waddington. Aircraft may call Waddington Zone on frequency 119.50 VHF or 232.70 UHF for a LARS. Within the published hours Mon-Thu 0800-1800hrs, Fri 0800-1300hrs (all times local), the availability of this LARS is subject to controller capacity and station-based operational requirements. A NOTAM would be issued in advance of any changes to published weekend LARS hours.	
4.2.5	Waddington Visual Circuit
Subject to ATC approval, visual circuits at Waddington can be flown at varying heights, dependent upon the aircraft type and training profile. The standard circuit height is 1000ft QFE (1300ft QNH). The low-level circuit height is 500ft QFE (800ft QNH), and available upon request.	
4.2.6	Helicopter Visual Recoveries / Departures
Waddington regularly hosts helicopter detachments and refuelling moves. In order to standardise arrival and departure profiles, the following procedures apply: Visual recoveries and VFR departures are to route inbound / outbound either from the West via Swinderby, or from the East via Metheringham, maintaining not above 500ft QFE (730ft QNH) inside the aerodrome boundary.	
4.2.7	Glider & Microlight Activity
Gliders and microlights operate from a number of sites around Lincolnshire. With most gliders being neither transponder or Automatic Detection System-Broadcast (ADS-B) equipped, they will not show on WAM or Airborne Collision Avoidance Systems. This leaves Star NG PSR as the only regularised equipment available to ATC that can detect a glider. However, Star NG PSR does not provide height or altitude information.	

FLARM-derived information can be accessed by ATC to provide SA for aircrew. When relaying altitude information obtained from FLARM, the SRE controller will clearly state that this is “FLARM-derived Traffic Information (TI)”

On occasion, FLARM may show glider activity that is not corroborated by assured means, i.e., Star NG PSR or WAM. The controller will provide FLARM-derived TI, stating, “No radar contact, FLARM suggests glider traffic [estimated position and range].”

4.3	DEPARTURE PROCEDURES
4.3.1	Airspace Restrictions
Departures in the sector 130°- 220° will not normally be approved; in exceptional cases, aircraft may be cleared to climb out in this sector after prior coordination with Cranwell ATC. Fast jets departing the airfield under VFR are to comply with the RAF Waddington noise abatement procedures. All right-hand VFR departures from Runway 20 are to climb on runway track to WAD 3nm DME or 1000 ft QFE before commencing the turn. Without a positive crossing clearance from ATC, EGR 313 (when active) and Cranwell MATZ are to be avoided.	
4.3.2	Standard Radar Departures
The Waddington Military Instrument Departures (MIDs) are published in the Mil AIP and Terminal Charts.	
4.3.3	Non-Standard IFR Departures
Crews conducting non-standard IFR departures are to climb initially on runway track to 1400ft QFE. To reduce R/T, this instruction will not be transmitted to station-based crews or visiting crews operating in accordance with this DAM.	
4.4	APPROACH PROCEDURES
4.4.1	Military Safety Minimum Altitude Chart
A copy of the Waddington Military Safety Minimum Altitude Chart (Mil SMAC) is in the Aerodrome Order Book (AOB) at Annex NN, Order B201 . ATC are not permitted to descend aircraft in receipt of a DS below the Terrain Safe Level (TSL) unless following a notified instrument approach procedure.	
4.4.2	Waddington Radar Patterns
A left-hand radar pattern is normally flown for both runways. The downwind leg for both runways is normally flown at 2500ft QFE. For expedition and sequencing, radar patterns may be lowered by the Director to 2000ft QFE.	
4.4.3	Radar Approaches
All radar approaches to Waddington are directed to final. QFE is the recognised pressure setting for all approaches; however, QNH approaches can be accepted with prior notice and at the discretion of the Supervisor or ATCO IC. Waddington-based ISTAR and Hawk T1 aircraft are permitted to conduct unmonitored ILS approaches. With prior approval from the AO and relevant Hazard Owner / DDH, other platforms may be permitted to conduct unmonitored ILS approaches. Arrival and approach procedures are published in the FLIPs, MIDs and TAPs.	
4.4.4	Type of Service
To reduce R/T when on departure or recovery, if the type of service required by crews is not specified, ATC will apply TS.	
4.4.5	MACF
The Missed Approach and Communications Failure (MACF) procedures are published in the Mil AIP and will be passed to crews in an emergency or upon request.	

4.4.6	Initial Call
Aircraft should provide a “30 minutes to land” call to Station Ops. Aircraft free-calling Waddington Approach are to do so at least 20nm from the MATZ boundary.	
4.4.7	Landing Datum
The primary landing datum for RAF Waddington is QFE. Rivet Joint is an agreed exception and operates on QNH. QNH approaches for other aircraft types may be approved subject to the prevailing traffic situation and controller workload. All RNP approaches are to be conducted on QNH.	
4.4.8	Visual Recovery
Visual recoveries are available to the runway in use and are controlled by Waddington Approach. Due to the range of aircraft types using Waddington, crews should expect that other aircraft on visual recovery may join via initial or the overhead, downwind, crosswind or straight-in. Helicopters may join via the eastern or western aerodrome boundaries.	
4.4.9	Radar-to-Initial Procedure
Radar-to-Initial approaches are available to the runway in use. For Runway 20, the initial point is 4nm from the aerodrome reference point (ARP), offset 0.5nm to the deadside of the extended runway centreline. For Runway 02RH, the initial point is 4nm from the ARP, offset 1nm to the deadside of the extended runway centreline.	
4.4.10	Instrument Procedures
<p>1. Instrument patterns are published as 2500ft QFE (2800ft QNH) but may be lower, in accordance with on the prevailing traffic situation. Short Pattern Circuits are normally flown at 1500ft QFE (1800ft QNH) in the same direction as the full pattern. A full list of instrument recovery profiles is available in the Mil AIP and Terminal Charts.</p> <p>2. Circling Approaches. Operating Authority minima are not to be used if they are below the minima published in the Mil AIP. Circling Approaches are prohibited west of the Runway.</p> <p>3. Instrument Recoveries to Rwy 20. Are restricted when aerobatics are taking place in EGR 313. Crews should be prepared to hold off for up to 30 minutes or execute visual or radar to visual recoveries.</p> <p>4. Available Instrument Recoveries.</p> <ol style="list-style-type: none"> RNP PAR ILS (RWY 20 only) TAC to ILS (RWY 20 only) ILS Localiser Only (RWY 20 only) SRA Internal Aids Approaches Radar to Visual Unmonitored ILS (by prior authorisation only – see 4.4.3). <p>5. WAD Radar maintains responsibility for ATS provision during all instrument approaches to Waddington.</p>	
4.4.11	Application of DS for Runway 02RH
The instrument approach profile for Runway 02RH crosses airspace that is regularly used by multiple light aircraft conducting general handling and standard separation may not be achievable. In such circumstances, a reduced service may be offered or, it is impracticable to continue, ATC will advise the pilot and offer a TS. If this is unacceptable to the pilot, ATC will suggest an alternative approach or diversion, according to the weather conditions. Lincs TATCC has a standing agreement for the coordination of DS traffic inbound to WAD Runway 02RH and	

Cranwell traffic; approaches in these circumstances may not achieve standard deconfliction minima but will be procedurally separated under the standing agreement.	
4.4.12	Missed Approach Procedure
RWY 02RH	Climb on runway track to 1500ft QFE / 1730ft QNH, then right onto track 045°, climbing to 3000ft QFE / 3230ft QNH. Call Waddington Approach.
RWY 20	Climb on runway track to 1500ft QFE / 1730ft QNH, then left onto track 045°, climbing to 3000ft QFE / 3230ft QNH. Call Waddington Approach.
RNP MPA RWY 02RH	Climb to A3800. Initially climb straight ahead to XWM01, then right to join UXONE hold, or as instructed.
RNP MPA RWY 20	Climb to A3800. Authorise climb straight ahead to XWM02, then right to XWM03, then left to join NUZWO hold, or as instructed.
4.4.13	Communications Failure Procedure
If unable to continue approach, turn towards the aerodrome, fly at minimum 3000ft QFE / 3300ft QNH, try to regain contact on any Waddington frequency.	
4.4.14	RAF Waddington Flying School Aircraft Procedures
RAF Waddington has an established Flying School (WFS), situated on the eastern side of the airfield. Flight training is conducted in various single-engine light aircraft, 7 days a week. WFS operate when ATC is both open and closed. If ATC is closed, pilots will make pre-emptive blind broadcasts of their intentions on VHF frequency 121.3 MHz, prefixed with "RAF Waddington traffic". Orders for WFS operations are contained in the AOB at Annex NN Order B221	
4.5	AERODROME PROCEDURES
4.5.1	Visual Circuits
<ol style="list-style-type: none"> For aircraft operating in the visual circuit, the following applies: <ol style="list-style-type: none"> Rwy 20. Circuits flown left-hand at 1000ft QFE (1300ft QNH). Rwy 02RH. Circuits flown right-hand at 1000ft QFE (1300ft QNH). Non-standard circuits, available with ATC permission, include a low-level circuit at 500ft QFE (800ft QNH) and a glide circuit at 1500 ft QFE. Slow moving aircraft will not be permitted to enter the MATZ when fast jet or heavy aircraft circuits are required. RAFAT Formation Breaks will be available with prior approval from the ATC Supervisor. Hawk T1 formations of 4 or less aircraft may perform RAFAT formation breaks with station-based aircraft in the visual circuit, at the discretion of the ATC Supervisor. RAFAT formations of 5 or more aircraft require a sterile circuit for the performance of RAFAT breaks. Due to the range of aircraft that use the Waddington circuit, VHF frequency 121.3 MHz should be used by all aircraft under the control of WAD Tower. For communications with WAD Ground, UHF frequency 342.12 MHz should be used; only RAFAT formations and non-UHF-equipped aircraft may communicate with WAD Ground on VHF frequency 121.3 MHz. UHF frequency 241.325 MHz should only be used to communicate with WAD Tower in extremis, when an airborne aircraft is unable to use VHF. 	
4.5.2	Hawk T1 Procedures
<ol style="list-style-type: none"> Station-based Hawk T1 aircraft will execute a variety of visual circuit procedures, some of which do not easily mix with routine station-based and visiting aircraft circuit profiles. 	

2. Hawk T1 circuit procedures are detailed in the AOB at [Annex NN Order B211](#). All station-based and visiting aircraft are encouraged to note how the flight profiles differ markedly from other circuit patterns.

4.5.3 Aircraft Priorities

1. Radar services for Lincolnshire are now provided centrally by the Terminal Air Traffic Control Centre (TATCC), based at RAF Coningsby. As per the TATCC LoA, the regional priorities that have been agreed by all AOs, HoEs and DDHs, are as follows:

- a. QRA(I).
- b. Emergencies and Cat A flights. Aircraft in emergency, police, emergency flights.
- c. Flights in named operations.
- d. Cat B, C, D Flights.⁶
- e. VIP / VVIPs.
- f. RAFAT, BBMF and Typhoon on a timed display.⁷
- g. Major Air Exercises with fixed airspace times.
- h. RAFAT, BBMF and Typhoon display when in critical workup phase.
- i. FGen in CA, ISTAR and JHC ops.
- j. Trials Flights.⁸
- k. Cat E flights. Flight check AS on time or weather critical flights.
- l. MFTS.
- m. Other routine CA / ISTAR / RAFAT flying.
- n. OGD authorised exercises.
- o. AEF.
- p. UAS.
- q. LARS.
- r. Flying Clubs / Schools.

2. Flying priorities at Waddington are broken down as follows:

- a. Aircraft in emergency.
- b. Helimed and other humanitarian flights.
- c. Flights in support of named operations.
- d. VIP movements.
- e. Calculated Take off Times (CTOT) to join Controlled Airspace.
- f. Instrument approaches (including visual-straight-in approaches to land).
- g. Practice emergencies.
- h. Visual approaches.

⁶ Cat NB flights include post-accident flight checks, Defence Joint Contingency Capability (DJCC) tasks and other Civil Aviation Authority (CAA) approved flights (ie Open Skies, police flights under normal priority). Cat C flights include NOTAM-ed Royal and Head of State (HOS) flights. Cat D flights include CAA-authorised flights for Heads of Government and Senior Government Ministers.

⁷ For fixed time departure or displays.

⁸ Includes Protector in the initial phase of operating from RAF Waddington.

4.5.4	Runway Occupancy
<p>1. Runway Occupancy. Aircraft may be cleared to land, touch and go, or low approach with another aircraft on the runway, only if the following circumstances apply:</p> <p>a. Land. Category D and above aircraft may only be cleared to land when the runway is clear. Other aircraft may be cleared to land behind another aircraft landing or performing a touch and go, providing that the one ahead is of a similar or faster type, has touched down, and the horizontal separation is 3500ft or more.</p> <p>b. Touch and Go. Category D and above aircraft may only be cleared to touch and go when the runway is clear. Other aircraft may be cleared to touch and go behind another aircraft performing a touch and go, providing that the aircraft ahead is of a similar or faster type, has touched down and has commenced the acceleration stage of its touch and go before the clearance is issued. See the exceptions below:</p> <p>c. Low Approach. Aircraft may be cleared to low approach when the runway is occupied by another aircraft providing that the one on is remaining on the ground; the pilot carrying out the low approach will be instructed to carry out the low approach “not below height 200ft” (or “altitude 500ft”, as relevant).</p> <p>2. Continue Approach. Aircraft in the visual circuit will be instructed to “continue approach” when ATC anticipate that they will be able to issue a positive clearance before the approach minima. In the event that a pilot is not in receipt of a positive clearance by their minima, they are to initiate a go-around.</p> <p>3. Go Around. Aircraft in the visual circuit will be instructed to “go around” when ATC cannot issue a positive clearance before the approach minima or when ATC wish them to discontinue the approach.</p> <p>4. Exceptions. Aircraft are not to be cleared to land, touch and go, or low approach when the runway is occupied by an aero-medical or DG aircraft. Further exceptions will be considered on a case-by-case basis, subject to AO and DDH prior approval.</p>	
4.5.5	Mixed Instrument & Visual Circuits
<p>1. The maximum number of speaking units permitted in the visual circuit is 4.</p> <p>2. The minimum cloud base and visibility required for the integration of instrument and visual circuit traffic are 1500ft AGL and 5000m, respectively.</p> <p>3. When instrument traffic is being integrated with visual traffic, pilots in the visual circuit are responsible for collision avoidance; ATC will advise visual circuit traffic of any inbound instrument traffic.</p> <p>4. Visual circuits are not to be extended beyond 5nm downwind without prior approval from the Tower Controller.</p> <p>5. The minimum cloud base and visibility required for radar-to-visual approaches are 1200ft AGL and 5000m, respectively.</p>	
4.5.6	Manoeuvring Area
<p>1. Waddington ATC will manage taxi patterns in accordance with the PCNs published in the Mil AIP, further pavement limitations, and taxiway surface conditions.</p>	

Due to ongoing resurfacing, the former, the Helipad adjacent to ATC is not to be used.	
4.5.7	Dangerous Air Cargo (DAC) Loading / Unloading and Armed or Flared Aircraft Parking
<p>1. The loading / unloading of DAC and parking of armed or flared aircraft is to take place in accordance with RAF Waddington AESO 2-1-1-01-37.</p> <p>2. DAC. Bay 19A is the designated area for the loading / unloading of DAC. Further information is at Annex II.</p> <p>3. Armed Aircraft Parking. Waddington has limited ability to park armed aircraft; armed aircraft will be accepted subject to approval by Station Ops. Of note, Waddington cannot accept aircraft with forward-firing weapons. Further information is at Annex II.</p>	
4.5.8	ILS Protected Area: CAT 1 Holding Points
CAT 1 holding points are controlled by ATC via a set of traffic lights short of the entry to bays 1-9.	
4.5.9	Bird-Strike Risk HIGH: Actions
<p>1. Wildlife Hazard Management at Aerodromes is detailed in CAP 772. At Waddington, bird activity levels are assessed by the Airfield Wildlife Control Unit (AWCU), in conjunction with the ATC Supervisor / ATCO IC. Levels are declared as LOW, MEDIUM, HIGH or VERY HIGH and are defined as follows:</p> <ul style="list-style-type: none"> a. LOW. The number of birds on the airfield, in the approach / climb-out lane and / or passing through is insignificant and poses little or no threat to flying activity. b. MEDIUM. There is an increased number of birds on the airfield, in the approach / climb-out lane and / or passing through, that slightly increases the threat to flying activity. c. HIGH. There is a significant increase in numbers of birds on the airfield, in the approach / climb-out lane and / or passing through, causing a significant threat to flying activity. d. VERY HIGH. There are large numbers of birds on the airfield, in the approach / climb-out lane and / or passing through. Normal wildlife control practices are unable to ensure a safe operating environment for airfield users. <p>2. Bird states may be declared for the entire airfield, including the approach / climb-out lane, or specific parts therein. Once a bird state has been declared, it remains in force until amended by the AWCU. The following procedures and restrictions apply:</p> <ul style="list-style-type: none"> a. All States. ATC is to pass details to Station Ops upon first observation and any subsequent change in state. b. LOW. No additional procedures / restrictions. c. MEDIUM. ATC is to broadcast specific warnings to aircraft joining the visual circuit and with radar clearances. The bird state is to be added to DATIS broadcasts. d. HIGH. ATC is to broadcast specific warnings to aircraft joining the visual circuit and with radar clearances. The bird state is to be added to DATIS broadcasts. <p style="margin-left: 40px;">(1) The ATC Sup / ATCO IC is to:</p> <ul style="list-style-type: none"> (a) Ensure that the AO / Dep AO / OSW Duty Exec and all SSOFs are informed, as soon as possible. 	

- (b) Inform diversion commitment aerodromes.
- (c) Inform Station Ops.
- (d) Amend all ATC calls, to include the clause 'Caution, Bird State High'.

(2) AO / Dep AO / OSW Duty Exec is to consult the ATC Supervisor / ATCO IC and consider taking one or more of the following actions, dependent upon their interpretation of the circumstances:

- (a) Restrict or stop further departures.
- (b) Arrange with the ATC Supervisor or ATCO IC for station-based aircraft to either hold off or make a single approach to land.
- (c) Limit the visual circuit and / or instrument approach pattern to avoid areas of known bird activity.

(3) Aircraft captains are to consult the ATC Supervisor / ATCO IC and may consider taking the following actions, dependent upon their interpretation of the circumstances:

- (a) Delaying or cancelling their departure.
- (b) Holding off or making a single approach to land.

e. VERY HIGH.

(1) The ATC Supervisor / ATCO IC is to:

- (a) Ensure that the AO / Dep AO / OSW Duty Exec and all SSOFs are informed as soon as possible.
- (b) Close the visual circuit.
- (c) Stop further departures unless operationally essential (to be discussed with OSW Duty Exec and SSOF).
- (d) Cancel all diversions, if those squadrons are able to book an alternative diversion aerodrome.
- (e) Inform Station Ops.
- (f) Amend all ATC calls within the terminal area to include the clause 'Caution Bird State Very High'.

(2) AO / Dep AO / OSW Duty Exec is to consult the ATC Supervisor / ATCO IC and be prepared to:

- (a) Discuss departure and approach requirements on a case-by-case basis.

(3) Aircraft captains are to consult the ATC Supervisor / ATCO IC and may take the following actions:

- (a) Delay or cancel their departure unless operationally essential (and approved).
- (b) Hold off, or make a single approach to land once approved to do so.

4.5.10	Bird Activity
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Between the start of October and end of March, Waddington has an increased likelihood of Bird State HIGH +/- 30 mins of sunrise and sunset. During this period, aircraft commanders should not routinely plan to depart or arrive during +/- 30 mins of sunrise and sunset unless it is operationally essential and they are authorised to do so by their respective SSOF. If programme changes or delays require arrivals, departures or training circuits during these timings, the relevant actions should be taken, based on the prevailing bird state as defined above.

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Chapter 5 – AERODROME ADMINISTRATION & OPERATING PROCEDURES

5.1	AERODROME DATA REPORTING PROCEDURES
The AO is responsible for the ownership of the Aerodrome data and is to ensure all data provided is always correct. Orders for the reporting procedures to advise the relevant agency of any permanent changes to Aerodrome information are to be contained at Annex P .	
5.1.1	Legislation, Standards and Technical References
Waddington routinely provides information relating to aerodrome serviceability and air navigation hazards through the Civ AIP, Mil AIP and publication of NOTAMs.	
5.1.2	Reporting Procedures
Any situation that may have an effect on flight safety is to be reported immediately. In the first instance, reports should be made to ATC on Ext. 333 / 01522 727333, or on Management Radio Equipment (MRE). If ATC is unavailable, the Duty Ops Controller (DOC) is to be contacted on Ext. 6532 / 01522 726532.	
5.1.3	NOTAM
The AO ensures that all NOTAM action is recorded for possible 1st / 2nd and 3rd party audit; NOTAMs are recorded and archived for 6 months after the their expiry or cancellation date. The DOC is the Station NOTAM focal point. NOTAM requests should be made via email to the DOC (Wad-StationOps@mod.gov.uk). In any of the following circumstances, a NOTAM will be submitted in the standard NOTAM format: ⁹	
5.1.3.1	A change in the serviceability of the AOS.
5.1.3.2	A change in the operational information contained in this document and / or published in the Mil AIP.
5.1.3.3	Aerodrome works affecting the AOS or penetrating the Obstacle Limitation Surfaces.
5.1.3.4	New obstacles affecting the safety of aircraft operations.
5.1.3.5	Bird or animal hazards on or near Waddington.
5.1.3.6	A change in the availability of aerodrome visual aids, such as markers, markings, or runway lighting.
5.1.3.7	Any change in the availability of aerodrome facilities published in the Mil AIP.
5.1.3.8	Unusual air activities at the aerodrome.
5.2	AERODROME SERVICEABILITY INSPECTION ORDERS
5.2.1	ATC Squadron are to conduct comprehensive aerodrome inspections in accordance with the orders at Annex Q .
5.3	AERODROME TECHNICAL INSPECTIONS ORDERS
Orders for the technical inspection of the aerodrome are contained at Annex R .	
5.4	RADAR, RADIO & NAVIGATION AID MAINTENANCE, MONITORING & PROTECTION
Orders for the supervision of access / entry to any of the aerodrome navigation aids or their immediate vicinity are contained at Annex S . These orders are produced as part of the Aquila ATM maintenance plan and Airfield Support Team Orders and in accordance with extant Support Policy Statements (SPS) and AP600.	
5.5	AERODROME WORKS SAFETY ORDERS

⁹ Where a permanent NOTAM is subsequently issued, the AO is to ensure that the Mil AIP is updated to reflect the change

Orders for the control and supervision of works in progress on the aerodrome are contained at Annex T .	
5.5.1	Work in Progress (WIP) Records
WIP records are maintained in accordance with RA 3266 – Aerodrome Maintenance . A plan of the aerodrome is displayed in both ATC and Station Ops for the marking of all obstacles, the nature of obstructions, their markings, and all works in progress.	
5.5.2	WIP Log
A WIP Log is established in accordance with RA 3266 – Aerodrome Maintenance and maintained in ATC.	
5.5.3	WIP Briefings
Supervisors of any working parties are to be fully briefed on their responsibilities. The ATC Supervisor / ATCO IC is to ensure that the supervisor of the working party is properly briefed by a SQEP individual.	
5.5.4	Control Measures
When work is to be carried out on the aerodrome and it is not possible to stop flying, special control rules are to be enforced to safeguard the working party. Orders for these control measures are to be produced on a case by case basis. All aerodrome work is to be clearly marked using approved high visibility markers & lit during hours of darkness.	
5.5.5	Grass Cutting
At Waddington, grass cutting takes place on a continuous rotational basis. All grass cutting activity is closely coordinated with ATC, to minimise impact to operations. In order to deter wildlife activity including breeding and foraging, grass length is managed iaw MAA RA 3270 and the RAF Waddington Aerodrome Wildlife Control Management Plan . Grass length is monitored by the Airfield Wildlife Control Team and reported to ATC on a monthly basis. Any required corrective action is subsequently reported to DIO via SATCO.	
5.6	AERODROME USERS. VEHICLE & PEDESTRIAN CONTROL
Orders, written in accordance with MAA RA 3262 for the control of aerodrome vehicular and pedestrian traffic are contained at Annex U .	
5.7	FOD PREVENTION, TRAINING & AWARENESS
Orders, following the guidance & instructions contained within RA 1400 with regards to FOD prevention, training & awareness are contained at Annex V .	
5.8	AERODROME WILDLIFE MANAGEMENT
Bird activity on and around the aerodrome is managed by Phoenix Bird Services Ltd, who are contracted to operate a continuous Airfield Wildlife Control Unit (AWCU) at Waddington. Wildlife Management orders can be found at Annex W .	
5.9	LOW VISIBILITY PROCEDURES (LVPs)
Orders, written in accordance with MAA RA 3274 , for LVPs are contained at Annex X .	
5.10	SNOW & ICE OPERATIONS
Orders to enable use of aerodrome operating surfaces during periods of snow and ice operations at RAF Waddington, known locally as Operation BLACKTOP, are exercised and reviewed annually iaw RA 3278 ¹⁰ . – Snow & Ice Operations. These are contained at Annex Y .	

¹⁰ Refer to RA 3278 – Snow and Ice Operations.

5.11	THUNDERSTORM & STRONG WIND PROCEDURES
Orders, contained at Annex Z , are to be produced to cover Aircraft operations during thunderstorm (lightning risk) warning periods and periods of forecast strong winds. The following may be considered as a minimum:	
5.11.1	Strong wind & gale procedures.
5.11.2	Use of vehicles to protect/shield Aircraft vulnerable to strong winds.
5.11.3	Pax loading/unloading limits in strong winds.
5.11.4	Lightning Risk Orders.
5.11.5	Aircraft refuelling operations
5.12	CIVIL AIRCRAFT AERODROME USAGE – TERMS & CONDITIONS
Use of MOD Aerodromes by civil registered Aircraft shall be in accordance with JSP 360 ¹¹ – Use of Military Aerodromes by Civil Aircraft Requests to use RAF Waddington should be made to Station Ops on 01522 727301. Orders governing use by civil registered Aircraft are at Annex AA . Orders may also cover the eventuality of a breach of terms and conditions; any breach could constitute grounds for the privilege of operating at the Aerodrome being withdrawn temporarily or permanently. Civil registered Aircraft captains wishing to operate in and out of a MOD Aerodrome must agree to abide by the Aerodromes extant Terms and Conditions which must reflect JSP 360 and include the following parameters as a minimum:	
5.12.1	The Terms & Conditions may be varied at any time by the Aerodrome Operator to reflect any changes, amendments or additions to working practices at the specific aerodrome. Factors may include some or all of the following:
5.12.1.1	Winter Operations.
5.12.1.2	Operational Support.
5.12.1.3	Passenger Handling.
5.12.1.4	Animal Handling.
5.12.1.5	Refuelling Services.
5.12.1.6	Catering.
5.12.1.7	Aircraft Maintenance.
5.12.1.8	Security.
5.12.1.9	Flight Safety.
5.12.1.10	Aircraft Handling.
5.12.1.11	Airworthiness.
5.12.2	Whilst the AO will use all reasonable endeavours to advise Civilian Users of any changes to the Terms & Conditions, it will be for the Civilian Users to ensure that they are aware of extant Terms & Conditions. The AO shall not be liable for any loss or damage (whether direct or indirect) arising out of any change in the Terms & Conditions.
5.12.3	All Civilian Users are to operate in accordance with extant DfT NASP & wider ATSy protocols.
5.12.4	RAF Waddington operating hours are 0800-2359L Mon-Thu and Friday 0800-1800L but frequently, the aerodrome operates non-standard hours. Movements outside of operating hours can be requested through Stn Ops.
5.12.5	Commercial charter Airline operations are not permitted to operate from RAF Waddington.
5.12.6	Scheduled aircraft operations are not permitted to operate from RAF Waddington.

¹¹ Refer to JSP 360 - Use of Military Aerodromes by Civil Aircraft. This will need to be made available to civil operators on request.

5.12.7	RAF Waddington is not a designated Port of Entry and has no permanent HM Revenue & Customs (HMRC), UK Border Agency or SO15 (CTC) presence.
5.12.8	Declaration that in the event of a Local or National Emergency whether declared or not the aerodrome may be closed to civilian operators. A non-exhaustive list of potential circumstances includes.
5.12.8.1	Loss / Reduction of Crash category.
5.12.8.2	Repatriation of troops.
5.12.8.3	Loss of power to all, or parts, of the aerodrome.
5.12.8.4	Interruptions in communications both within the aerodrome & with external agencies.
5.12.8.5	Unforeseen natural disaster (Flooding, etc).
5.12.8.6	Unforeseen national epidemics (swine flu/bird flu).
Note: In the event of such closure all access to the aerodrome for any reason whatsoever may be restricted & no liability is accepted for any loss or damage (whether direct or indirect) arising.	
5.13	SAFEGUARDING REQUIREMENTS – WAIVERS & EXEMPTIONS
All safeguarding activities are conducted in accordance with the MAA RA 3500 Series , extant regulations, and waivers / exemptions issued by the MAA. Waddington waivers and exemptions are contained at Annex F .	
5.14	AERODROME ASSURANCE ACTIVITY
The AO will ensure that reports, surveys & assurance documentation, regarding the aerodrome and its facilities are captured within the DAAF in accordance with Annex P . In addition, the AO will determine which 2 nd Party assurance reports (of those involved in activities on or around the aerodrome are also captured).	
5.15	ELECTRICAL GROUND POWER PROCEDURES
Orders contained at Annex BB deal with priorities for using Ground Power. Personnel are trained by Sqn Training Cell on how to operate safely. The following should be considered as a minimum:	
5.15.1	Use of fixed electrical ground power.
5.15.2	Use of mobile ground power units.
5.15.3	Use of Auxiliary Power Units (APU's).
5.15.4	Use of 28 Volt conversion units.
5.16	AVIATION FUEL MANAGEMENT PROCEDURES
Orders for aviation fuel management are contained at Annex CC . The following areas should be covered as a minimum:	
5.16.1	Management of Bulk Fuel installations.
5.16.2	Fuel storage, quality & delivery.
5.16.3	Safety procedures.
5.16.4	Fuelling zone procedures.
5.16.5	Bonding & grounding of Aircraft & fuelling equipment.
5.16.6	Fuelling with passengers on board.
5.16.7	Fuelling with engines running.
5.16.8	Fuelling & de-fuelling in hangers.

5.16.9	Fuel spillage procedures.
5.17	HANDLING OF HAZARDOUS MATERIALS (SPILLAGE PLAN)
	Orders for the Handling of Hazardous Materials (Spillage Plan) can be found at Annex DD .
5.18	JETTISON & FUEL DUMPING AREA
	RAF Waddington does not have any Jettison areas Annex EE is included for compliance with DAM Template.
5.19	COMPASS CALIBRATION BASE
	Orders for the management of the Compass Calibration Base can be found at Annex FF .
5.20	EXPLOSIVE ORDNANCE DISPOSAL AREA
	RAF Waddington does not have any EOD areas. Annex GG is included for compliance with DAM Template.
5.21	DANGEROUS GOODS (DG) PROCEDURES
	Orders, contained at Annex HH are to be produced for the control & management of DG in accordance with extant regulations.
5.22	HYDRAZINE (H70) LEAKS
	<p>RAF Waddington does not maintain a capability for dealing with Hydrazine leaks, & therefore does not declare an ability to accept planned detachments of F-16 aircraft. If visiting nations wish to operate from RAF Waddington, it is their responsibility to bring suitably trained & equipped personnel to handle a potential Hydrazine leak. This forms part of the conditions of usage of Waddington aerodrome for such detachments.</p> <p>Routine F-16 Diversion bookings will not be accepted either, excepting emergencies where no other suitable Aerodrome is available.</p> <p>Generic Guidance on how to deal with Hydrazine, only in extremis, is at Annex II.</p>
5.23	UAS / RPAS (other than Protector) Operations
	RPAS (other than Protector) Orders can be found at Annex JJ .
5.24	AIRCRAFT PARKING
	Orders for the management of the aircraft Parking can be found at Annex KK .
5.25	FORCE PROTECTION
	Force Protection (FP) Orders, contained at Annex LL are to be updated, exercised & activated as required. Due to the nature of the task & security classification of the orders they are beyond the classification of this document.
5.26	WADDINGTON AERODROME ORDER BOOK
	The RAF Waddington Aerodrome Order Book (AOB) can be found at Annex MM

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Information Owner: OC Waddington Safety Centre

Annex A to DAM

File reference 20240301-RAF_Waddington_DAM_4.1-O

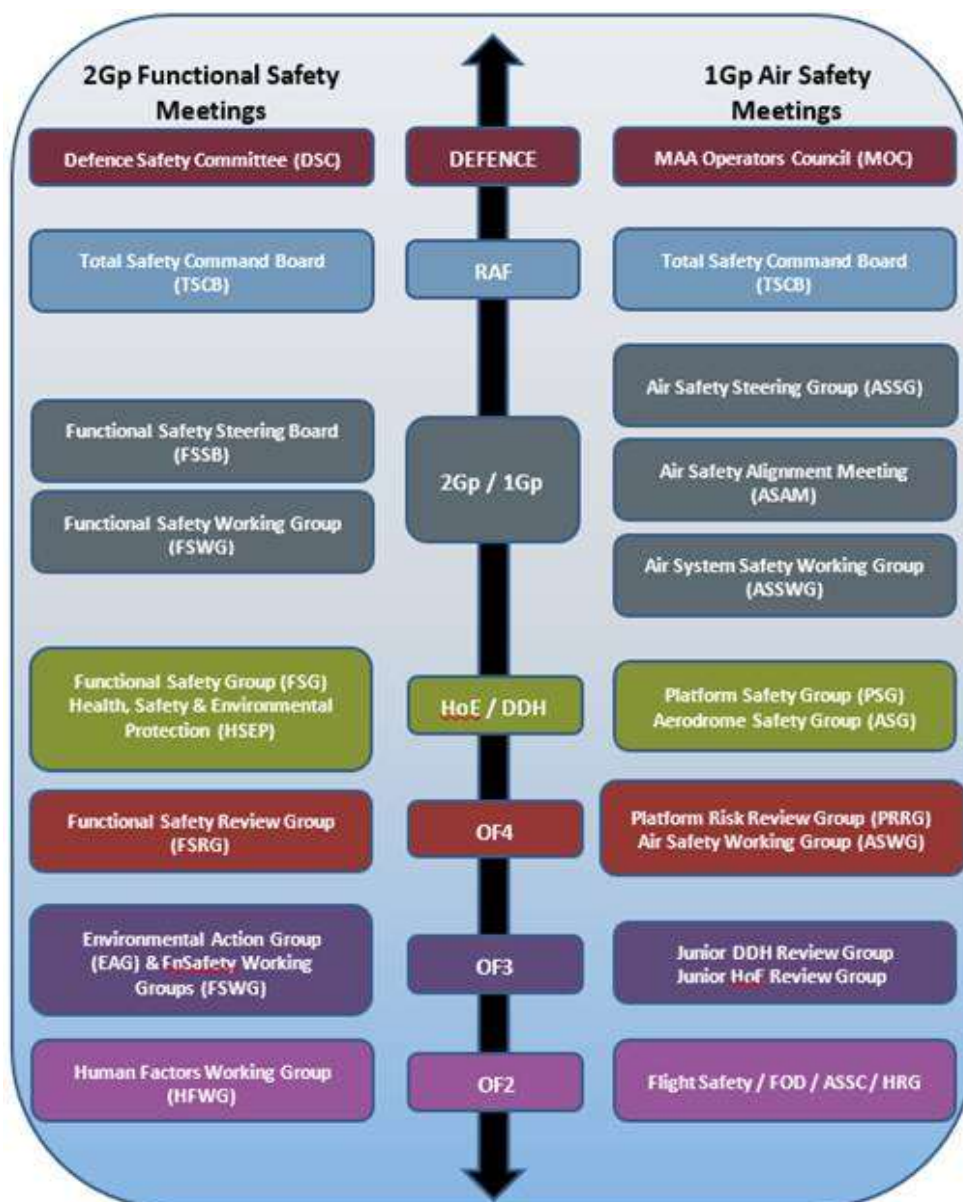
Letter of authority to act as AO for RAF Waddington

Annex B to DAM

File reference 20240301-RAF_Waddington_DAM_4.1-O

Safety Meeting Structure.

1. Safety meetings. Safety meetings are timed to fit in with the Gp battle-rhythm & are mandated by the DDH/HoE. Diagram is correct as of 11 Oct 23 but for authoritative reference, refer to the RAF Waddington [SMP](#) .

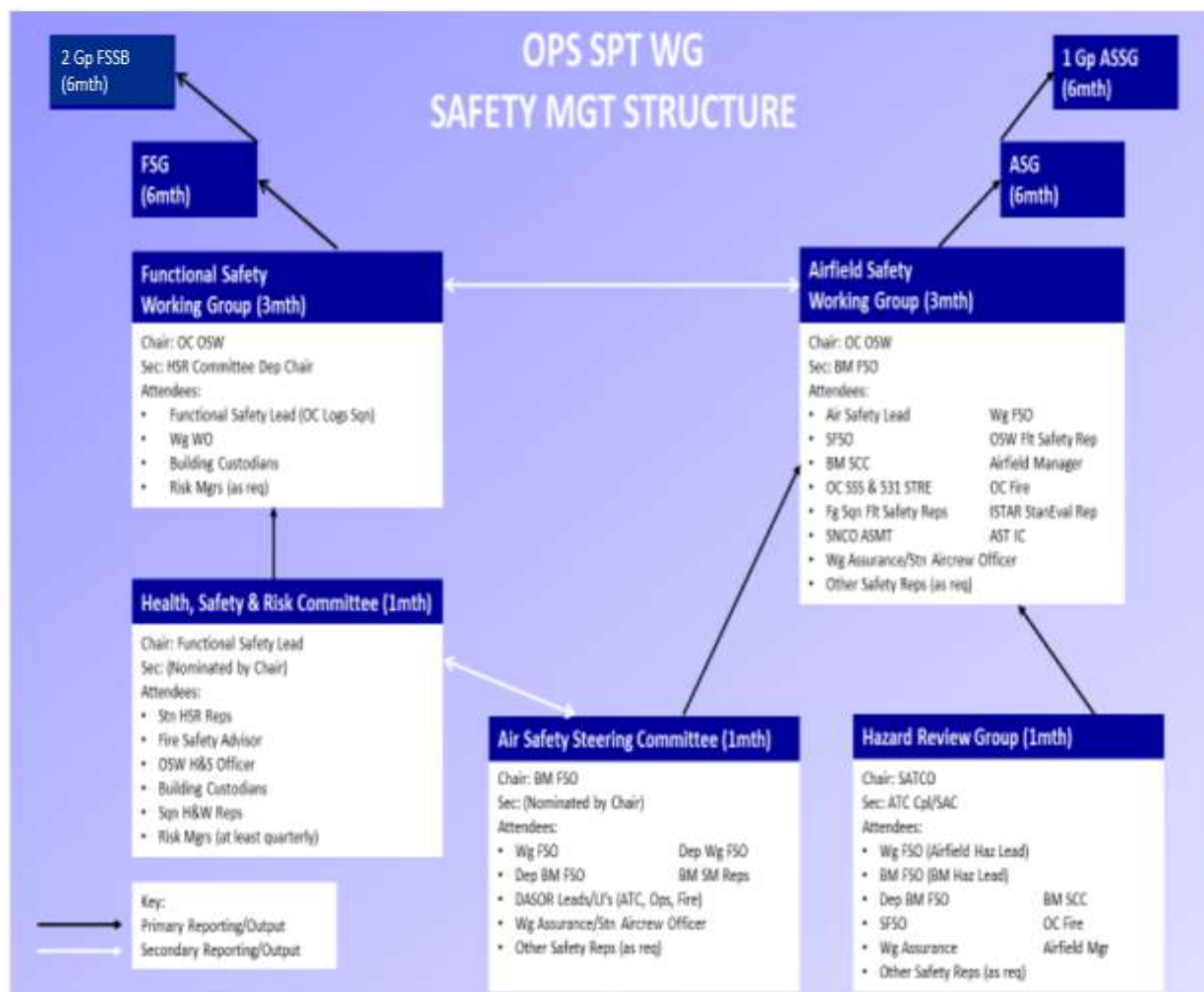


2. Aerodrome Operator (AO) Safety Management. OC Ops Spt Wg is responsible to the HoE in two areas: Air Safety & Functional Safety. This ensures OSW supports the HoE in executing their legally accountable role and subsequently their responsibility as HoE to multiple ADH chains to whom they are responsible under military policy. The SMS structure, outlined in the diagram below, is based upon working groups made up of

empowered representatives from across the Wg who meet monthly, underpinned by a First-Party Assurance system. These are the:

- Health, Safety and Risk (HSR) Committee, chaired by OC Logs.
- Hazard Review Group, chaired by SATCO.
- Air Safety Steering Committee, chaired by BMFSO.

The Chair of these working groups feeds their groups' progress and issues to the relevant overarching groups, either the Ops Spt Wg Functional Safety Working Group (FSWG) or the Air Safety Working Group (ASWG), depending upon the focus of their group. There will inevitably be crossover between Air and Functional Safety. The Ops Spt Wg FSWG and ASWG are chaired by OC Ops Spt Wg. A weekly update can also be given in the weekly Ops Spt Wg Execs mtg, or sooner if time-sensitive, to ensure that OC Ops Spt Wg is briefed routinely on the activity of the Working Groups.



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Annex C to DAM**File reference 20240301-RAF_Waddington_DAM_4.1-O****Aerodrome Key Stakeholders.**

Name	Role
	Stn Cdr, Head of Establishment
	Cdr Air Wg, ISTAR Delivery Duty Holder
	Cdr Display Wg, RAFAT Delivery Duty Holder
	Chief Test Pilot ASWC, Delivery Duty Holder
	OC Ops Spt Wg. Aerodrome Operator.
	OC Air Wing Support/Senior Operator
	COS Display Wg HQ/RAFAT Senior Operator
	OC Air Wing Eng
	Deputy Chief Test Pilot ASWC/Senior Operator
	OC Ops Sqn
	SATCO
	SO2 Aerodrome Safety
	Station Flight Safety Officer. (Stn FOD O)

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Information Owner: SATCO

Extra Input From: OC Ops Sqn

Annex D to DAM

File reference 20240301-RAF_Waddington_DAM_4.1-O

Aerodrome Operating Hazard Log (AOHL) & Battlespace Management Hazard Log (BMHL)

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Annex E to DAM**File reference 20240301-RAF_Waddington_DAM_4.1-O****Formal Aerodrome Related Agreements.**

1. All formal agreements between WAD and other aerodromes can be found in the ATC Sharepoint working area under [Letters of Agreement \(LoA\)](#). Should you require more details, please contact WAD SATCO.
2. Following the Pg MARSHALL split in April 22, the LoAs have been adjusted to reflect the relocation of the radar service to the Lincs TATCC, located at RAF Coningsby. A Letter of Agreement exists between RAF Coningsby, RAF Cranwell, RAF Barkston Heath, and RAF Waddington, detailing the provision of Air Traffic Services (ATS) by the Lincs TATCC; a full list of TATCC LoAs can be found [here](#).
3. WAD has LoAs with the following agencies:
 - a. **RAFC Cranwell.** Defines the ATC co-ordinating procedures and standing agreement co-ordination to be applied between WAD and CRN.
 - b. **Lincs TATCC.** Defines the roles, responsibilities and overarching procedures for WAD ATC and the Lincolnshire Terminal Air Traffic Control Centre (Lincs TATCC), CON ATC support to WAD Radar and co-ordination procedures.
 - c. **Aubourn Peacocks Airstrip.** Defines co-operation and ATC procedures for the safety of aircraft ivo both locations.
 - d. **National Police Air Service (NPAS).** Defines procedures for the NPAS use of WAD for refuelling support during operational flights.
 - e. **Lincs and Notts Air Ambulance (LNAA).** Defines co-operation between LNAA and WAD airspace users, deconfliction procedures and procedures for LNAA operations in EGD324(A/B).
 - f. **BMFA.** Defines procedures for safe model flying within the confines of EGD324A.

Annex F to DAM**File reference 20240301-RAF_Waddington_DAM_4.1-O****Aerodrome Waivers, Exemptions and Alternative Acceptable Means of Compliance.**

1. RAF Waddington safeguarding waivers and exemptions are detailed below. Detail of the current status of each AAMC, Exemption or Waiver are stored at this [location](#). Hard copies can be made available upon request to WAD DSATCO / SO2 Aerodrome Safety.

a. The following AAMCs were authorised by the MAA in 2015:

(1) Measurement datum for runway strip & placement of rwy end lighting. AAMC letter [here](#).

(2) Use of ZA 293 units to provide inset low intensity omni-directional runway edge lighting (AAMC Letter [here](#))

These AAMCs were updated in Nov 2020 and remain in force TFN.

b. [Waiver \(MAA AWE 2017 006\)](#) – Non-standard Threshold Crossing Height (TCH) for Instrument Landing System (ILS) on Runway 20 at RAF Waddington (expires Apr 2020). This Waiver was renegotiated in May 2020, see [link](#) to waiver extension, valid until 31 Mar 2037.

c. [Waiver \(MAA AWE 2017 050\)](#) – For Obstacle lighting control – compliance by other means. Updated by amendment against new RA and extended [here](#) until expires 31 Mar 2032.

d. [Waiver \(MAA AWE 2020 126\)](#) – Permanent infringement obstacle limitation surface caused by the installation of new TACAN until expiry on 31 Mar 2037.

e. Permanent concessions cannot be granted for trees which infringe the Navigational Aids. Waddington continues to work with DIO and local authorities to implement a tree control policy. All ATC staff are made aware of the potential degradation of radar picture and comms capabilities and the following temporary concessions are granted:

f. [Transmitters.](#)

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Annex G to DAM**File reference 20240301-RAF_Waddington_DAM_4.1-O****Control of Entry & Access**

1. RAF Waddington is a secure military base. Identity & vehicle checks will be conducted at the Main Gate before visitors are allowed entry. The Station Commander reserves the right to refuse access should he feel that the requirements are not met. Persons, who require access onto the manoeuvring area, must hold a valid airfield driving permit & be familiar with Airfield User Orders detailed at [Annex U](#).

2. The Military Provost Guard Service (MPGS) & Station Guard Force (SGF) control entry onto the Station. If operating on the airfield, users are to be in possession of a valid airfield access permit. Acceptable forms of identification required for entry onto RAF Waddington are as follows, in order of preference:

British Nationals.	Current UK photo card driving license or passport. Current full UK driving license (old paper version). Police warrant Card. Current benefit book or card.
Other EEA Nationals.	Full EEA passport. Residence permit issued by Home Office to EU nationals on sight of home country passport. National Identity Card.
Other Nationals.	Current, signed, full passport. A Home Office document confirming the individual's UK immigration status. National Identity Card.
Unacceptable forms of Identification.	Duplicate or photocopied documents. An international driving licence. A birth certificate issued more than 6 weeks after birth. Any passport that has expired.

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Annex H to DAM**File reference 20240301-RAF_Waddington_DAM_4.1-O****Noise Abatement Procedures****Waddington-based Aircraft****1. Hours of operation.**

- a. After 2200L, non-operational flying at WAD is to be kept to an absolute minimum, commensurate with the training or operational task.
- b. All non-operational flying at WAD is to cease at 2359 LOCAL. In the spirit of [noise abatement measures](#) implemented at civilian airports and the World Health Organisation [Environmental noise guidelines for the European Region](#), visual circuits, 'Touch and Go' approaches, and 'Low Approaches' after 2300L will only be permitted in extremis. Wherever possible, requests for dispensation are to be made to OC OSW via the DOC for consideration. In extremis, at short notice, WAD ATC Supervisors are empowered to apply professional judgement and authorise such approaches when necessary; in such cases, the ATC Supervisor is to inform SATCO / OC OSW at the earliest opportunity on the following day.
- c. When Runway 02RH is in use, it is impractical to avoid overflying Coleby (202° / 2nm). Low level circuits when on runway 02RH should also be kept to an absolute minimum commensurate with the training or operational task. After 2200L, low level circuits should not be conducted on Runway 02RH unless there is an urgent operational requirement.

2. Local area avoids.

- a. All aircraft joining or flying in the visual circuit should adhere to all noise abatement procedures, unless for flight safety critical or operationally essential reasons. Aircraft are to avoid overflight of the following villages and the Explosive Storage Area (ESA):

(1) 1000ft QFE (1300ft QNH)

- (a) Waddington village, including base Married Quarters (1000ft QFE (1300ft QNH) – 303° / 0.5nm)

(2) 500ft QFE (800ft QNH)

- (a) Bracebridge Heath (352° / 1.7nm).
- (b) Branston (048° / 2.5nm).
- (c) Boothby Graffoe (190° / 2.8nm).
- (d) Coleby (202° / 2.0nm).
- (e) Navenby (185° / 3.5nm).

(f) Washingborough/ Heighington (038° / 3.7nm).

(g) Harmston Village (221° / 1.3nm).

b. All pilots are advised that there is an additional risk associated with over flight of the Explosives Storage Area (ESA) due to storage of co-located explosives. Overflight of the ESA is to be avoided. If overflight unavoidable, aircraft are not to be below:

(1) FJ / FW aircraft (500' QFE).

(2) RW aircraft (2000' QFE).

c. RAFAT operational procedures differ from other FJ procedures, with display profiles occasionally requiring lower transitory heights, see Annex NN.

3. Low flying complaints and noise

a. On occasion, flying complaints may be received from the general public due to noise, low or unusual flying. All flying complaints are to be directed to the DOC, who is to handle the complaint politely and courteously. In order to be best placed to defend against future legal action being taken against the MOD as a result of noise nuisance complaints, recording and storage of pertinent data is critical. Complaints are to be recorded on Military Aircraft Activity Public Complaint Form (MOD F953) with as much information as possible. All sections of the MOD F953 must be completed.

b. Full details of how noise complaints are to be handled are contained in the following documents.

[2018DIN03-003](#)



[Stn Ops Orders – Low flying/noise](#)

Members of the public may also contact:
Low Flying Complaints and Enquiries Unit
RAF Wittering
Peterborough
PE8 6HB
Tel: 01780 417558
Email: SWK-LowFlying@mod.gov.uk

4. Stn Ops pers are to ensure that the MCO is made aware of any planned flying that is outside of expected levels, e.g. Night Flying or Practice Air Displays.
5. This can extend to unusual visiting ac such as helicopters and fast jets. Stn Ops pers are to use their discretion and report visitors to the MCO as appropriate.
6. The MCO should be informed by Stn Ops if any flying activity has the potential to cause complaints.

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Annex I to DAM**File reference 20240301-RAF_Waddington_DAM_4.1-O****Temporary and Permanent Obstruction Orders.****Temporary Obstructions**

1. If a temporary obstruction on or near any manoeuvring area is considered to present a hazard to aircraft or vehicles, it is to be reported to ATC. If necessary, ATC will mark obstructions with high visibility markers, tape or fencing, and additional red light markers at night.
2. For the safe movement of aircraft, a NOTAM will be issued and revised taxi patterns may be enforced.
3. Red obstruction lighting exists across the airfield and on Coleby Church spire. The obstruction lights for No 3 Hangar are not connected to the main Airfield Obstruction Light Circuit; these lights are operated from a manual isolation switch, located at the south side of the Hangar.

Permanent Obstructions

4. The following structures encroach the **Code D (37m) wingtip** clearance.

<u>Building ID/Obstruction</u>	<u>Distance (m)</u>	<u>Distance within Safe – 37(m)</u>
Per. Fence IVO 629 – Ent. To bays 1-9	34.230	2.770
193A - HRDF	36.280	0.720
Pillbox IVO 251 -VAHS	36.530	0.470
Generator Pen IVO 282 - Off Delta	34.390	2.610
Generator Pen IVO 286 – Off Delta	33.420	3.580

5. The following structures encroach the **Code D (33.5m) taxi lane** clearance.

<u>Building ID/Obstruction</u>	<u>Distance (m)</u>	<u>Distance within Safe – 33.5(m)</u>
Bays 26-29	25.6	7.9
(Southern taxi lane centreline to 2 x light stanchion)		
Bay 29 North	30	3.5
(Northern taxi lane centreline to light stanchion)		
Bays 30 & 31	31.6	1.9
(Southern centreline to light stanchion)		

6. The following structures encroach the **Code E (43.5m) wingtip** clearance.

<u>Building ID</u>	<u>Distance (m)</u>	<u>Distance within Safe – 43.5(m)</u>
565A – Met Compound	43.20	0.30
746 – NE corner of H2	37.58	5.92
H2	43.30	0.20
Barrier wall IVO car park (H4)	37.12	6.38
Gen. pen IVO 748 – ent. To bays 1-9	38.93	4.57
Fence IVO 680 – AWC	42.31	1.19
180A – AAR	41.34	2.16
Generator pen IVO 814 – Fire	42.00	1.50
Pillbox IVO 656C – Bay 18	41.24	2.26

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Annex J to DAM

File reference 20240301-RAF_Waddington_DAM_4.1-O

Aerodrome Arresting System Orders.

1. **Maintenance of the RHAG.** RHAG maintenance is carried out in accordance with DAP-119J-1405-12. The Latest version of this document can be accessed [here](#), entering '19J-1405-12' in the search function.
2. **Operation of the RHAG.** The RHAG is operated in accordance with RAF Waddington [ATC Orders](#) and [MAA RA 3268 – Aircraft Arresting Systems](#)
3. **Standard Configuration.** The Standard RHAG configuration at WAD is approach end cable de-rigged, overrun cable up. However, WAD airfield users often require the cable de-rigged; if the RHAG is required, ATC should be contacted with as much notice as possible. Cable rigging takes approximately 25 minutes.

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Annex K to DAM**File reference 20240301-RAF_Waddington_DAM_4.1-O****Manoeuvring Area Safety and Control Orders.**

1. **Aircraft Towing.** All aircraft towing is to be carried out in accordance with [AESO 2-2-2-05-05](#).
2. **Ground Support Equipment (GSE) Towing.** All GSE towing is to be carried out in accordance with [AESO 2-2-2-05-08](#) Airfield Support Equipment Towing & Manoeuvring.
3. **Allocation of Parking Positions.** Should it be necessary to park aircraft on non-intercepted areas (e.g. taxiways), the procedures in [AOB Order B224](#) are to be followed. Routine aircraft parking allocations are detailed below; parking allocations can be amended at the discretion of the DOC / DEOC:
 - a. **Parking Bays 1-6.** RAFAT (however bay allocation is not fixed, it can change daily and is at the discretion of the DOC and DEOCs).
 - b. **Parking Bay 7.** Aircraft Wash Bay.
 - c. **Parking Bays 18-25.** VAHS. Parking on Bays 10,13, 14-17 and 18-25 is at the discretion of DOC/DEOC.
 - d. **Parking Bays 26-27.** 14 Sqn.
 - e. **Parking Bays 30-31.** 51 Sqn.
4. **Arrangements for Engine Start.** UHF 342.12 (Stud 1) should be used for pilots requesting start, when taxiing in / out, and for passing departure instructions; 121.3 MHz should only be used by non-UHF equipped aircraft or those unable to use UHF for pre-agreed operational reasons.
5. **Marshalling Services.** All aircraft manoeuvring onto parking bays require aircraft marshallers. Unless other arrangements have been put in place, marshalling of WAD-based aircraft is a squadron responsibility; marshalling of visiting aircraft is a VAHS responsibility. All aircraft marshalling is to be carried out in accordance with [AESO 2-1-1-01-21](#).
6. **Follow Me Provision.** WAD does not routinely provide a 'Follow Me' service for aircraft. Aircraft captains requiring this service are to contact the DOC in advance of their flight, in order to discuss their requirements.
7. **Protection from Jet Blast.** The following is to be observed to minimise the risk posed by jet blast on the airfield:
 - a. **Aircraft Manoeuvring to Parking Bays.** All aircraft manoeuvring onto parking bays are to do so in accordance with [AESO 2-1-1-01-21](#) and the [Manual of Airworthiness Maintenance – Procedures \(MAM-P\)](#).
 - b. **Jet Blast Proximity to A15 Carriageway (Runway 20).** On limited occasions, it may be necessary to use the extended length of Runway 20 for aircraft

departures; as a result, the aircraft jet blast will be closer to the A15 carriageway. The enhanced checks outlined at Appendix 1 are to be conducted for full runway departures on Runway 20.

8. **Enforcement of Safety Procedures During Refuelling Ops.** Aircraft refuelling is to be conducted in accordance with [AESO 2-2-2-05-02](#).
9. **Orders for Airfield Sweeping.** Airfield Sweeping is carried out daily, in accordance with the WAD Sweeping Plan. A copy can be provided by SATCO upon request.
10. **Incident Reporting.** If an incident on the airfield poses an immediate hazard to aircraft, vehicle or personnel, it is to be reported immediately to ATC on telephone extension 333. Any other incident is to be reported to the Waddington Safety Centre on telephone extension 6666 or via submission of a DASOR on [ASIMS](#).

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Appendices:


1. A15 Sterilisation Procedure for Runway 20 Full Runway Departures.
2. RAF Waddington licensed Aircraft dispersals – [AESO 2-1-1-01-37](#).

Appendix 1 to Annex K

File reference 20240301-RAF_Waddington_DAM_4.1-O

A15 Sterilisation Procedure for Runway 20 Full Runway Departures

1. When aircraft require to use the full length of Runway 20 for departure, ATC call upon the RAFP to ensure that the A15 is sterile between the A15 lights. This procedure exists due to the proximity of jet efflux to the the A15 carriageway. Detail of the procedure is contained in [ATC Orders](#).

2. Full details of the SQEP panel can be found in the Safety Assessment Current Practice  [20211006-SACP WAD FRD RWY20.docx](#).

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Appendix 2 to Annex K

File reference 20240301-RAF_Waddington_DAM_4.1-O

WAD licensed aircraft dispersals – [AESO 2-1-1-01-37](#)

AIRCRAFT DISPERSAL	QTY OF WEAPONS ALLOWED BY HAZARD DIVISION	SAFETY DISTANCE (NOT FDA) ^{Note 1}	CM FLARE	FORWARD FIRING	RESTRICTIONS
Bay 18-23 not including Bay 19A	HD 1.2.1 – 1.4 = 50 Kg Permitted to park 2 x aircraft, containing 50kg each, on one bay	60m	Yes*	No	ESR must be informed prior to parking *Provided the Flare Danger Area can be met
Bay 24	NIL	N/A	No	No	Bay <u>not</u> licensed for explosives
Bay 25	HD 1.2.1 – 1.4 = 50 Kg Permitted to park 2 x aircraft, containing 50kg each, on one bay	60m	Yes*	No	ESR must be informed prior to parking Aggregation rules apply *Provided the Flare Danger Area can be met
Bay 19A DAC ONLY (See note 2)	HD 1.1 = Nil		Yes*	No	
	HD 1.2.1 = 137kg	60m			
	HD 1.2.2 = 12884kg				
	HD 1.2.3 = 1440kg				
	HD 1.3.3 = 12117kg				
	HD 1.3.4 = 15000kg				
HD 1.4 = 15000kg					

Note:

1. The Safety Distance is that generated by the Net Explosives Quantity (NEQ) and must not be confused with the Flare Danger Area, which in some cases may be larger than the NEQ generated distance stated in Table 1.
2. Bay 19A is not to be used for parking armed aircraft carrying munitions other than CM Flares.

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Annex L to DAM**File reference 20240301-RAF_Waddington_DAM_4.1-O****Emergency Orders & Aerodrome Crash Plan.**

1. The RAF Waddington Aircraft Post Crash Management (APCM) & Major Accident Plan (CONPLAN 1) can be found at this [link](#).
2. RAF Waddington maintains 24/7 coverage of Aircraft Post Crash Management Incident officer (APCMIO) duties for the airfield only through a roster of suitably qualified personnel across the whole of the site. The roster is managed by Flt Cdr Ops on behalf of OC Ops Sqn, & the orders are [here](#). The APCMIO will be activated by the DOC. The regional post-crash management lead is held by RAF Coningsby.
3. CONPLAN 1 is an all-encompassing response document for aircraft crash & Major Accident. The table below details the exercising regime of the document:

Area Exercised	Exercise Frequency	Date of Last Event & Comments
Unit Spillage Response Plan	Tier 1 & 2 – annual as part of USRP Tier 3 – Yearly tabletop with local agencies	USRPs require annual exercise for Tiers 1 & 2 USRP. contains full Exercise & Training Record. Tier 1 & 2: Local on-site practical trg 27 Feb 22, Tier 3: MACR TTX 13 Dec 22
APCM Full Scale Ex.	Every 2 years	Last APCM LIVEX – 24 Jan 24
APCM Table Top Ex.	Any year a full-scale Ex has not been carried out.	Last APCM TTX 07 Jul 22
Major Accident Control Regulations (MACR) 3PA DOSR Assessments	Every 5 years	Carried out Oct 23
MACR 3PA DOSR (documentation) Inspections due every 3 years.	Every 3 years	Ex SILVER SIREN Oct 23

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Annex M to DAM**File reference 20240301-RAF_Waddington_DAM_4.1-O****Aerodrome Rescue & Fire Fighting Services & Training Orders.**

1. These orders supplement the RAF Waddington Aircraft Post Crash Management & Major Accident Plan & [Fire Section Orders](#) to outline the actions to be taken during an incident that may affect airfield operations. This could be an incident notified by the Civilian Emergency Services; Stn Ops or on guidance from ATC requiring pre-emptive emergency action to either Aircraft, technical or domestic situations.

2. Defence ARFF Service Providers are to provide policy guidance in the form of Tactical Information Plans (TIPs), Chief Fire Officer Instructions (CFOIs) and Operational Instructions. These orders are highlighted below, anyone who needs access to these documents should contact the RAF Waddington Fire Flt Cdr or S Fire O.

a. **Operational Instructions and Guidance.** Capture the risks faced by all responding fire authorities in the execution of their operational duties.

b. **TIPs.** All Defence ARFF Service Provider – Fire Stations are required to complete & document a TIP for all 'Significant Risk' premises within their areas of responsibility. TIPs inform & assess potential risks to fire-fighters in the event of a fire or incident & inform pre-planning strategies.

c. **SOPs/TTPs.** Standard Operating Procedures written & produced for Fire personnel by the Defence ARFF Service Provider.

CFOI's. These are a means of providing the DFR Brigade with a single source of information for Civil Servants, Contractor Fire Services, Trade Group 7 (Fire) & the Royal Navy on current [CFOI Policy and Guidance](#) operating procedures & technical information in line with current practices.

3. **Release of Airfield Rescue Fire Fighting (ARFF) assets in support of incidents.** In accordance with MAA [RA 3261\(2\)](#) in the event of an incident across MOD estates with 'persons reported', or an aircraft incident reported within 5NM of the airfield boundary, the ATC Supervisor or ATCO IC is authorised to release the ARFF & to reduce or lose the Aerodrome Category in accordance with the following:

a. Once informed of persons reported, the ATC Supervisor or ATCO IC is to authorise the Crew Commander to commit resources & reduce or lose the Aerodrome Category. The ATC Supervisor or ATCO IC is to consult with Stn Ops who will confirm the Sqns' requirements for any airborne Aircraft, in consultation with the sqn DAOs. If possible, any RW Aircraft in the visual circuit will be given landing instructions for any part of the airfield before the resources are committed. If this is not possible, the AO is to be consulted about authorisation for Field Operations landings. FW Aircraft are to be sent around or diverted unless in the critical stages of flight; the ARFF are not to be delayed from crossing the runway by the landing Aircraft.

b. If the ARFF are unable to attend the incident due to an agreed higher priority on-airfield incident, confirmation from the Crew Commander is required that the local authority has been alerted via 999. Additionally, all details are to be recorded in both the ATC & Stn Ops Watch Logs.

- c. When only small elements of a unit's capability are affected in support of an ongoing off-airfield incident, the ATC Supervisor is to liaise with the Crew Commander & confirm the Aerodrome Category. The Supervisor is then to liaise with Stn Ops & decide on whether to continue Aircraft operations from the airfield.

4. **Aerodrome categories.** Aerodrome categories. Aerodrome categories. RAF Waddington is designated an ICAO 'Crash Category Seven' (Cat 7/ ICAO 7+RAFAT) airfield for Stn-based AS. This is rested to ICAO Cat 5 for agreed periods of the day and will revert to domestic cover during the periods when flying has ceased with ability to generate ICAO 3 at 1 hour readiness. Stn Operations will automatically arrange for an appropriate crash category uplift to be in place 60 mins prior to the ETD or ETA if required. Moving to ICAO Cat 8 is available with prior notice & justification.

- a. Hot refuelling of fixed wing aircraft is not permitted under any Aerodrome Category at RAF Waddington.

- b. Minimum ARFF ICAO Categories for Stn-based aircraft are:

- (1) Rivet Joint – ICAO Cat 7.

- (2) Shadow – ICAO Cat 3.

- (3) Hawk – ICAO Cat 3.

- (4) RAFAT – ICAO 3 x 2, covered by ICAO 7 at Waddington, for formation take off / landing.

- c. In order to allow for full cooldown & remove any potential hazard for fire, upon landing, the relevant ICAO category will be maintained by the Fire Section for 15 mins following declaration of engine shutdown from the ac crew. Stn Ops will be the conduit for all such information to relevant parties as required & will confirm stand-down from ICAO category as required.

- d. When holding diversions for fast jets, the Stn will routinely be at ICAO Cat 5 during the flying window.

- e. Currently there is a [standing agreement](#) with 206 Sqn Brize Norton ONLY, to allow the A400m to operate at the reduced hazard profile category, for which Waddington will provide ICAO 7.

5. **Temporary reductions in ARFF cover.** In the event of an unexpected reduction in ARFF capability e.g. unserviceability of a vehicle, specialist equipment or unplanned shortage of fire personnel, the senior RAF Fire Manager on duty shall:

- a. Complete the relevant ARFF Reduction of Cover – Hazard Assessment.

- b. Detail the nature of the reduction in ARFF capability.

- c. State what ARFF capability remains.

- d. Provide an estimate of how long the reduced capability is expected to persist.

- e. Once completed by the Senior RAF Fire Manager, ARFF Reduction of Cover – Hazard Assessment shall be sent to the DSATCO/ATCO IC to allow the HoE or AO

determine what, if any, action will be taken concerning continuance of flying operations. The decision to stop, restrict or continue flying operations will depend on the nature of the reduction of ARFF capability.

6. **Display Standby.** Following the policy laid out in the DSA02 DFSR, a SQEP Panel was held to ascertain the appropriate level of standby cover required for AC Display, practices and training event. The outcome resulted in "Display standby" detailed in both the SQEP panel and Form 4 Hazard assessment DDH display standby.

a. [SQEP Panel](#)

b.  [Form 4 Hazard assessment DDH display standby.](#)

7. **Medical cover.** The following Stn medical resources are available:

a. **Published airfield opening hours. Medical assistance.** The Duty Medic will provide an immediate Level 3-4 response utilising the AMRV. Two MT drivers & AMRV are on standby at MT during Aerodrome opening hours & will respond immediately when required. The Duty Medic (DM) will remain on standby at Medical Centre. In the event of an Aircraft crash on Stn, the DM will respond in the AMRV & ATC will telephone 999 to activate the civilian emergency response. A Military Aviation Medical Examiner (MAME) will be immediately contactable by phone or pager to provide urgent aviation medicine and specialist advice in support of the emergency medical services: they should be able to attend the airfield within 2 hours.

b. **Aerodrome opening outside of published hours.** On receipt of notification that the aerodrome has opened the DM is to contact MT & confirm the actions at 7a are in place. In the event of an Aircraft crash on Stn, the DM will respond in the AMRV & ATC will telephone 999 for civilian emergency hours' notice, for the coordination of aviation & occupational emergencies.

8. **Inspection of fire & medical vehicles.** The daily inspection of fire & medical vehicles is to be carried out IAW [JSP 800](#) & relevant AESP's; any unserviceability's are to be reported to Air Ops who will then inform ATC & other sections as required.

9. As defined within DSA DFSR 02 – Defence Aerodrome Rescue & Fire Fighting (ARFF) Regulations, RAF Waddington has carried out a Task Resource Analysis (TRA) to assess the aerodrome ARFF response capability & to determine the minimum requirement of rescue & firefighting equipment, personnel & supervisory grades. All equipment required to provide appropriate ARFF cover at Waddington are stated in the [Equipment Needs Analysis \(ENA\)](#).

10. This TRA has been finalised in consultation between the HoE/AO & the Defence ARFF Provider to ascertain the optimum level of resource required to effectively manage a Credible Worst-Case Scenario (CWCS). The outcome of the TRA is agreed with the HoE/AO & should be shared with the local Fire & Rescue Authority(s) or Host Nation equivalent & Local Resilience Forums.

11. Dependent upon the role of the aerodrome it may be necessary to have carried out TRAs for a number of ICAO Aircraft Categories. TRA reports endorsed by the AO complete with all assessments are available via the hyperlinks below:

- a. ICAO Aircraft Category 7 AO endorsed TRA Report and associated CWCs Timelines and Workload assessments located – [TRA](#) (Scotland.1)

If required, copy above for each ARFF Category to be promulgated at the Unit.

12. Response area assessment. The operational objective of the ARFF service is to achieve response times of two minutes & not exceeding three minutes to any point of each operational runway, as well as to any other part of the operating area (response area), in optimum surface & visibility¹². Response time is considered to be the time between the initial call to the ARFF service, & the time when the first responding vehicle(s) is (are) in position to apply foam at a rate of at least 50 per cent of the discharge rate required as defined within DSA DFSR 02 – Defence Aerodrome Rescue & Fire Fighting (ARFF) Regulations.

- b. RAF Waddington Response Area Assessment is located [here](#).

- c. RAF Waddington has an Aircraft Post Crash Management & Major Accident Plan – CONPLAN 1, which details how incidents on the Station, including an Air System crash, will be dealt with. Details of the plan including the exercise schedule are at Annex L. Detachment Cdrs in charge of RAF Waddington ISTAR Platforms overseas are to take appropriate APCM precautions as outlined in the MAA MPCM. RAF Waddington, under the orders of the duty ATCO, will send an initial crash response to any AC incident within 5 NM of the RAF Waddington boundary.

13. 1000Mtr assessment. As defined within DSA DFSR 02 – Defence Aerodrome Rescue & Fire Fighting (ARFF) Regulations: assessment of the approach & departure areas within 1000m of the runway threshold¹³ should be carried out to determine the options available for rescue. In considering the need for any specialist rescue & access routes, the environment of the risk area, in particular the topography & composition of the surface should be considered.

- a. Emergency access roads should be provided on an aerodrome where terrain conditions permit their construction to facilitate achieving minimum response times. Particular attention should be given to the provision of ready access to approach areas up to 1000m from the threshold, or at least within the aerodrome boundary. Where a fence is provided, the need for convenient access to outside areas should be considered.

- b. Where an aerodrome is located close to uneven ground or difficult terrain, & where a significant portion of approach or departure manoeuvres take place over these areas, the ARFF service will be expected to respond to incidents in these areas & should be appropriately resourced with specialist rescue/firefighting equipment & training.

- c. RAF Waddington 1000Mtr Assessment is located [here](#).

14. Water assessment. Additional water supplies shall be provided. The objective of providing additional water supplies at adequate pressure & flow is to ensure rapid

¹² Optimum visibility & surface conditions are defined as daytime, good visibility, no precipitation with normal response route free of surface contamination e.g. water, ice or snow & aircraft movement restrictions.

¹³ If required for rotary wing aircraft all undershoot/overshoot areas for the operating areas.

replenishment of ARFF vehicles. This supports the principle of continuous application of extinguishing media to maintain survivable conditions at the scene of an Aircraft incident for far longer than that provided for by the minimum amounts of water defined in DSA DFSR 02 – Defence Aerodrome Rescue & Fire Fighting (ARFF) Regulations. Additional water to replenish vehicles may be required in as little as five minutes after an incident.

- a. RAF Waddington Water Assessment is located [here](#).

15. **Reduction of ARFF category provision.** Circumstances may require that flying is conducted to/from aerodromes with reduced levels of ARFF services. HoE/ADHs may approve such activity following a risk assessment informed by advice from the ARFF provider.

- a. The risk assessment is conducted using ARFF Reduction of Cover – Hazard Assessment which is to be archived once completed as the auditable record of the HoE/ADH's decision. Aircraft Operating Authority are responsible for detailing in their Orders who can make risk-based decisions & to what level of reduced ARFF category will require elevation to the appropriate risk owner.

- b. All completed risk assessments are to be retained.

- c. Reduction of ARFF Category due to loss of Vehicle is located [here](#).

16. **RAF Waddington Fire Service Training Area.** RAF Waddington has 2 Fire Service Training Areas, they contain an Aircraft fire training simulator & breathing apparatus training facility; in particular the Aircraft simulator is a pressurised fuel fed system which meets the requirement of NATO STANAG 7145 ATM (Edition 5) – Minimum core competency levels & proficiency of skills for fire fighters, & part of the CSA between Defence ARFF Service Provider. Both training facilities are maintained as part of the estate maintenance programme.

17. All Firefighters at RAF Waddington complete maintenance of competence training, all Training Event Sheets (TES) & Risk Assessments (Ras) can be found [here](#).

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Annex N to DAM**File reference 20240301-RAF_Waddington_DAM_4.1-O****Disabled Aircraft Removal.**

1. **Overview.** This order outlines the actions to be taken when a requirement exists, to quickly & safely remove an Aircraft that has caused a temporary closure of a runway, taxiway or Aircraft Servicing Platform (ASP), but falls beneath the criteria of an accident that would be dealt with separately under CONPLAN 1. If there is any doubt as to the status of an incident, advice should be sought from the Military Accident Investigation Branch (MilAIB) or Air Accidents Investigation Branch (AAIB), if a civilian Aircraft is involved.

2. **Waddington Based Aircraft.** Should an RAF Waddington-based Aircraft become disabled & cause a temporary closure to any Aircraft Operating Surface, the responsibility for the recovery of the Aircraft will lie with the Aircraft owner (for Waddington based Aircraft, this will be the operating Sqn). During the procedure the following actions are to be carried out:

- a. **Waddington Air Traffic Control.** ATC are to assess the impact of the temporary closure on current flying operations. If necessary, they are to coordinate ARFF response & initial Aircraft diversion actions. If required, any unusable areas of the manoeuvring area are to be marked correctly. The following points should be considered:

ATCO I/C	
1	Notify the ARFF Services.
2	Aircraft identification & type.
3	Nature of Aircraft un-serviceability.
4	Location of Aircraft.
5	Section of the manoeuvring area affected.
6	People On Board (POB).
7	Estimated time of Arrival (ETA) of all Aircraft requiring use of the closed runway.
8	Latest time for affected Aircraft to divert.
9	Ensure that any unserviceable areas of the manoeuvring area are correctly marked, in accordance with MAA standards, to provide for safe Aircraft operation of the remaining areas.
Specifically, the ATCO IC is to pass the following information to Stn Ops.	
10	Aircraft Identification & Type.
11	Nature of unserviceability.
12	Location of Aircraft.
13	Section of the manoeuvring area affected.
14	POB
15	Time until the next Aircraft requires use of the closed manoeuvring area.

- b. **Waddington Station Operations.** Are to liaise with Eng Ops & ATC to determine the time of the anticipated closure, submit a Runway BLACK NOTAM if necessary & coordinate the response to any Aircraft diversions.

Station Operations	
1	Notify ATC of a disabled Aircraft if not already aware.
2	Ensure the appropriate Notice to Airperson (NOTAM) has been raised.
3	If required carry out RUNWAY BLACK plan.
4	Notify OC OSW / OC Ops Sqn (or equivalent).
5	Notify Eng Ops (or equivalent).
6	Notify VAHS/Movements (or equivalent).
7	Notify relevant Sqn (if it affects a station-based Aircraft).
8	<p>Notify AAIB, for civilian Aircraft, to verify that the establishment assessment of the incident falls beneath that warranting an AAIB investigation.¹⁴ AAIB will require Aircraft identification & type; nature of Aircraft un-serviceability; location of Aircraft; section of the manoeuvring area affected & POB.</p> <ul style="list-style-type: none"> • Accident reporting 01252 512299 • General enquiries 01252 510300
Duty Ops Controller	
9	Obtain & record permission from the owner or duly authorized representative of the owner of the Aircraft, for the movement of the disabled Aircraft. Due to potential for MOD liability for any damage caused during the rapid removal of a civilian aircraft, the aircraft should normally only be moved under the supervision of the operating crew or owner. The speed of removal, supervision & precautions to avoid damage, will depend on the operational constraints or safety considerations at the time. The Duty OSW Exec is to be contacted as soon as the situation is understood, to make this decision in a timely manner.
10	Notify all Aircraft operators likely to be affected if "RUNWAY BLACK".
11	For civilian Aircraft, notify the Aircraft operating authority & AAIB.
Fire Section	
12	Response iaw DSA DFRS 02 – Defence Aerodrome Rescue & Fire Fighting (ARFF) Regulations & Site-specific Crash Plans.

- c. **Waddington Engineering Operations.** Are to liaise with the relevant Engineering Sqn to determine & assist with any recovery actions. Eng Ops are to consider the possibility of activating the Stn Spillage Plan.

Eng Control (Or equivalent)	
1	Once cleared by Ops, tow the disabled Aircraft clear with the appropriate towing arm or 'universal dolly.'
Aircraft Owner	
2	The Aircraft owner is defined as the holder of the Certificate of Registration & can be held responsible for the Aircraft removal & disposal of fuel & other hazardous materials that have been spilt because of an incident (noting the aerodrome will have instigated the Stn Spill Plan). When advised of a disabled Aircraft, the owner should liaise with Station Operations (or equivalent) to discuss its removal.

3. **Visiting Military Aircraft.** Should visiting military Aircraft become disabled & cause a temporary closure to any Aircraft Operating Surface, the responsibility for the recovery

¹⁴ If the AAIB elect to conduct an on-scene investigation, the disabled Aircraft cannot be removed from the movement area until authorised by the AAIB.

of the Aircraft will lie with Waddington Eng Ops. The actions outlined in Paragraph 2 shall be carried out along with the following actions:

- a. **Waddington Air Operations.** Waddington Air Operations are to liaise with the parent unit to inform them of the situation.
- b. **Waddington Engineering Operations.** Waddington Engineering Operations are to nominate a parking bay for ASMT to tow the Aircraft for parking.
- c. **Parent Unit Operations/Engineering Section.** Parent Unit Operations/Engineering Section are to coordinate a full recovery plan through RAF Waddington Station Operations.

4. **Visiting Civilian Aircraft.** Should a civilian Aircraft become disabled & cause a temporary closure to any Aircraft Operating Surface, the responsibility for the recovery of the Aircraft will lie with the Aircraft owner, as detailed on the certificate of registration. Under the authorisation/supervision of the Aircraft owner or Captain, Waddington Eng Ops will initially tow the Aircraft clear of any Aircraft operating surfaces to a suitable parking bay. The Aircraft owner is then responsible for organising all recovery actions in coordination with Waddington Station Operations. It should be noted that, in extremis, RAF Waddington reserve the right to remove any disabled Aircraft should it pose a threat to safety or Operational output.

5. **AAIB Involvement.** In the event of a disabled civilian Aircraft, the AAIB should be contacted to verify that the assessment of the incident falls beneath that warranting an AAIB investigation. Specifically, the AAIB should be passed the following information:

- a. Aircraft Identification.
- b. Aircraft Type.
- c. Nature of unserviceability.
- d. Location of Aircraft.
- e. POB.

6. If it is deemed that an investigation is required, the Aircraft should not be moved from its location.

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Annex O to DAM

File reference 20240301-RAF_Waddington_DAM_4.1-O

Air Traffic Control Orders.

The Air Traffic Control Squadron Order Book is a live document, managed by SATCO and DSATCO.

[ATC Order Book](#)

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Annex P to DAM**File reference 20240301-RAF_Waddington_DAM_4.1-O****Aerodrome Data Reporting Procedures.**

1. **AO.** The AO is responsible for ensuring that aerodrome data is accurate. The AO ensures that personnel are equipped with the resources and processes required to report changes to the physical characteristics of the aerodrome or any other changes that may affect the safety of aircraft operations.
2. **SATCO.** SATCO has overall responsibility for ensuring that AIDU-published information pertaining to WAD is correct.

Authority to Amend

3. In order to ensure that amendments to AIDU documentation are correct and that change is appropriately controlled, the below-listed duties have been assigned to post-holders, in accordance with AIDU direction:
 - a. **Delegated Authority (DA).** Empowered by the AO to make changes to aeronautical information and the Mil AIP on their behalf. The following post-holders are WAD DAs:
 - (1) SATCO.
 - (2) OC Ops Sqn.
 - b. **Support Contacts (SC).** Involved in the change request submission process, acting on behalf of the DAs. The following post-holders are WAD SCs:
 - (1) OC Ops Spt Wg Assurance
 - (2) FS Ops Spt Wg Assurance
 - (3) Flt Cdr Stn Ops.
 - (4) DSATCO.
 - (5) FS Stn Ops.

Process

4. **Change Requests.** Personnel wishing to submit an aerodrome information change request to AIDU must submit their request through the contacts listed above.
5. **OC OSW Assurance.** OC OSW Assurance is responsible for confirming that Aerodrome Data in the DAM is correct and matches the Mil AIP. Where differences are identified, the correct information must be obtained from the relevant information owner and the discrepancy rectified.

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Annex Q to DAM

File reference 20240301-RAF_Waddington_DAM_4.1-O

Aerodrome Serviceability Inspections.

1. **Aerodrome Serviceability Inspections.** ATC conducts aerodrome serviceability inspections in accordance with [MAA RA 3264 – Aerodrome Inspections.](#)

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Annex R to DAM

File reference 20240301-RAF_Waddington_DAM_4.1-O

Aerodrome Technical Inspections.

1. **Inspection of Technical Equipment.** Contracted Aquila personnel are responsible for routine inspections of WAD technical equipment (transmitters, receivers, navigation aids etc.). Precision navigation aids are calibrated by flight check aircraft in accordance with AP 600 RAF Information and CIS Policy and relevant equipment Support Policy Statements.
2. **Airfield Lighting.** Airfield lighting is maintained and routinely checked by VIVO, in accordance with [MAA RA 3500](#).
3. **Earthing Points.** Earthing points are maintained and routinely checked by VIVO, in accordance with [MAA RA 3500](#).
4. **Manoeuvring Areas and Drainage.** The airfield manoeuvring areas are maintained and routinely checked by VIVO, in accordance with [MAA RA 3500](#). The airfield drainage plan is maintained by Severn Trent.
5. **Aerodrome Signage.** Aerodrome signage is maintained and routinely checked by VIVO, in accordance with [MAA RA 3500](#).
6. **ARFF Vehicles.** The Airfield Response Fire Fighting vehicles are maintained in accordance with [Capita Fire and Rescue Operational Instructions](#).
7. **Crash Ambulance.** Scaling for the Crash Ambulance is conducted in accordance with AP1269 and the Defence Logistics Framework.
8. **Airside Vehicle Control Measures.** Airside vehicle control measures, including traffic lights, CCTV and road barriers, are maintained in accordance with [MAA RA 3262](#).
9. **Airfield Wildlife Control Unit.** The Airfield Wildlife Control Unit equipment and vehicles are inspected on a daily basis.
10. **Standby Power System Checks.** The Airfield Standby Power System is maintained and routinely checked by VIVO, in accordance with [MAA RA 3500](#).
11. **Review of Aerodrome Driving Orders.** Aerodrome Driving Orders are maintained by SATCO and WAD ATC ASOM and reviewed at least annually.

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Annex S to DAM**File reference 20240301-RAF_Waddington_DAM_4.1-O****Radar, Radio and Navigation Aid Maintenance, Monitoring and Protection.**

1. The Airfield Support Team (AST) Supervisor and staff are responsible for the security, safety, safeguarding and infrastructure of Ground Radio Installations (GRI). This is achieved through controlled access, regular inspections and active involvement with Boards of Officers / Siting Boards, in accordance with AP 600 RAF Information and CIS Policy.
2. Security of the GRI is achieved by ensuring that access to any site is approved by either Aquila or the AST Task Control office. These personnel ensure that only those with a valid reason for entering the GRI are permitted entry, and that any visitor lacking the relevant security clearance is escorted. There are two sets of GRI keys, held by Aquila and the AST, and control is delivered by the use of site-specific Health and Safety briefs; these briefs must be read and signed for before keys are drawn. When approaching the GRI from an approved direction, clearly visible Site Integrity Signs instruct personnel to contact either Aquila or AST.
3. To ensure that the integrity of all GRI is maintained, whether staffed or unstaffed, AST staff perform weekly and monthly checks in accordance with AP600 and local orders; a copy of these orders can be obtained from OC DSF. In addition, OC DSF undertakes a 3-monthly site check in accordance with [AP600 Order 2.1.1](#) and [AP600 Order 2.1.2](#)
4. Equipment maintenance is conducted by suitably trained, authorised personnel within the Aquila GRMS¹⁵, Aquila 3rd line support and external agencies that supply and / or maintain associated equipment.
5. The maintenance policy for each item of technical equipment is detailed in the relevant Support Policy Statement (SPS). The SPS is the executive document specifying the support arrangement for each GRI and reflects the broad policy contained in [AP600](#).
6. In addition to the SPS, equipment-associated technical Air Publications (APs) detail the type and periodicity of preventative maintenance; these can be accessed via the Technical Documentation online search engine '[DR TDOL Viewer](#)'
7. Equipment monitoring is carried out by ATC duty personnel via equipment-specific Remote Control / Interface Units located in ATC. ATC reports fault indications to the Aquila Service Desk
8. Air Traffic Management Equipment Technical Safeguarding¹⁶, as detailed within [MAA RA 3136](#), is carried out by the AST, with OC DSF as the C-E Specialist Officer appointed by the HoE to ensure the technical safeguarding of all Ground Radio Installations (GRI), in accordance with the policy detailed within [JSP 604](#).

¹⁵ With the delivery of Programme MARSHALL, Air Traffic Management Services were awarded to Aquila Air Traffic Management Services Ltd. A consequence of this contract award was that not all the tasks undertaken by the RAF Ground Radio Maintenance Section (GRMS) were included. To ensure these residual 'out of scope' tasks are maintained the establishment of an Airfield Support Team took place. Full responsibilities of that team are detailed within [AP600 RAF CIS Policy](#).

¹⁶ Technical Safeguarding is the process employed to protect radio signals from being affected by physical or electromagnetic changes in their transmission environment.

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Annex T to DAM

File reference 20240301-RAF_Waddington_DAM_4.1-O

Aerodrome Works Safety.

1. Work In Progress (WIP) Brief and Contractor Control Orders.

The control and supervision of airfield WIP is carried out in accordance with the guidance issued in [MAA RA 3266](#). Contractors are briefed by ATC prior to starting work on the airfield and are made familiar with the Airfield User Orders at [Annex U](#).

2. WIP supervision. Supervisors of any working parties are to be fully briefed on their responsibilities. The ATCO IC is responsible for ensuring that the supervisor of the working party is properly briefed. The briefing is to include (but not limited to) the following details:

- a. Limits of the work area.
- b. Direction of Aircraft movements.
- c. Route to be taken by works vehicles.
- d. Parking area for works vehicles & equipment.
- e. Control to be exercised over works vehicles & workers.
- f. Signals to be employed.
- g. FOD prevention.

6. WIP log. The WIP log is kept in the ATC Tower. Contractors are to sign it prior to commencing work on the airfield.

7. WIP record. The WIP record is kept in the ATC Tower & can be made available on request to the Waddington ATC Supervisor.

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Annex U to DAM**File reference 20240301-RAF_Waddington_DAM_4.1-O****Aerodrome Users – Vehicle and Pedestrian Control.**

References:

- A. MAA [RA3261](#)
- B. MAA [RA3262](#)
- C. MAA [RA3225](#)
- D. BM Orders
- E. CAP 413
- F. CAP 774
- G. WAD DAM
- H. AP 8000 Fair Model
- I. ATC SOB
- J. Station Standing Orders: Order 34

Introduction

1. RAF Waddington is an operational flying unit & the airfield is active & operational 24 hrs a day. Therefore, all personnel are to treat the airfield as live at all times. **The airfield is out of bounds to all personnel & their vehicles unless they hold a valid Airfield Access Permit (AAP).** When ATC is open, they are the sole controllers of access to the airfield. Out of hours, Station Operations manage access to the airfield. The airfield boundary is defined in the [DAM Appendix 8 to Annex NN](#).

PERSONNEL REQUIRING ACCESS TO THE MOVEMENT AREA ARE TO CALL ATC IN THE FIRST INSTANCE ON 01522 727451 (EXT 7451).

WHEN ATC IS CLOSED, ALL PERSONNEL REQUESTING ACCESS TO THE MOVEMENT AREA ARE TO TELEPHONE THE DOC ON 01522 726532 (EXT 6532) FOR PERMISSION. THIS IS NOT REQUIRED TO TRANSIT THE MT ROUTE.

UPON ATC OPENING, THE ATC SUPERVISOR/ATCO IC HAS THE AUTHORITY TO AMEND, DELAY OR CANCEL ANY PREVIOUSLY AUTHORISED ACTIVITY ON THE AIRFIELD IN ACCORDANCE WITH RA3261 & RA3225.

2. **Applicability.** These regulations have been written for the safety of all airfield users. All airfield users are to comply with these regulations. Failure to adhere to the instructions could result in the withdrawal of an individual's permit & may result in disciplinary or administrative action.

Definitions

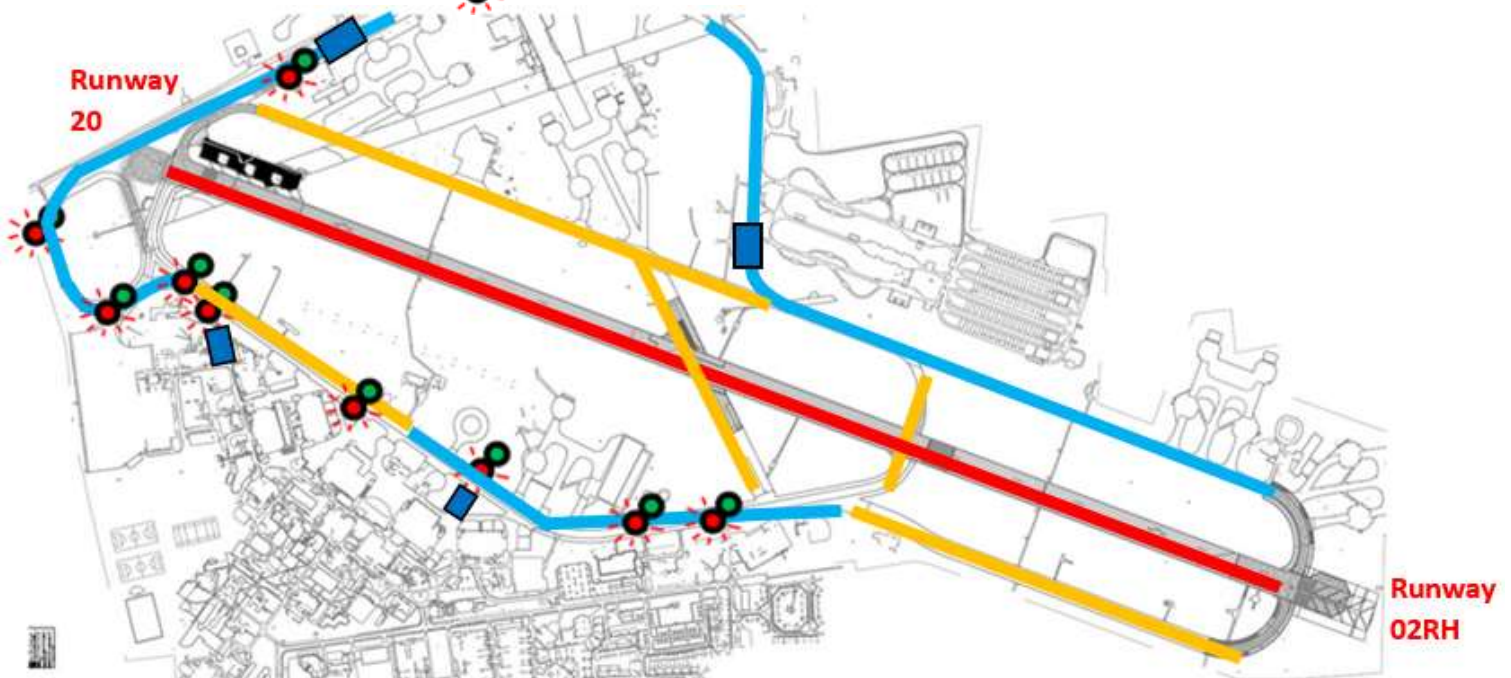
3. **Movement Area.** That part of an aerodrome intended for the surface movement of aircraft, including the manoeuvring area & apron(s).

- a. **Manoeuvring Area.** That part of an Aerodrome to be used for the take-off, landing and taxiing of aircraft, excluding Aprons.

- b. **Apron.** A defined area, on a land Aerodrome, intended to accommodate aircraft for purposes of Loading or unloading Passengers or Cargo, fuelling, parking or Maintenance. Also known as an Aircraft Servicing Platform.

4. AIRFIELD LAYOUT

Runway — Restricted access — MT Route —
 Airfield Traffic Lights  FOD Box 



5. **Permission.** Aerodrome Access Briefs are carried out in accordance with MAA [RA 3262](#). All personnel entering the airfield are to be in possession of a valid AAP. AAP Briefs for MODNET users can be booked via the RAF Waddington SharePoint Homepage > “How do I” > “Book a course”. Personnel without MODNET access are to contact ATC Ext 7451 to book an in-person brief at ATC. All personnel are to complete an exam following the brief with 100% pass mark required. MODNET users will complete an online test which when passed, enables the user to print their permit. Non-MODNET users complete a paper version and permits are issued manually by ATC. Visitors may be escorted by a person who is in possession of a valid AAP, however the escorting driver remains responsible for the visitor’s conduct. Possessing an AAP does not give personnel an automatic right to drive on the airfield. There are some activities that require specific permission & a brief from the Aerodrome Controller (ext 7448) these include, but are not limited to:

- a. Aircraft under tow.
- b. Slow moving vehicles (e.g. cranes, cherry pickers, etc).
- c. Vehicles with large or awkward loads.
- d. Vehicles towing open loaded trailers.
- e. Open top loaded vehicles.
- f. Weapons convoys.

6. Having received authority to enter the manoeuvring area, drivers are to proceed to their destinations with care & caution. Drivers are to inform ATC/Duty Ops Controller (DOC), if for any reason a delay is incurred.

7. **AAP validity.** AAP validity is as follows:

- a. AAPs are valid for the minimum period required, up to 12 months & it is the responsibility of the individual to effect renewal.
- b. AAPs will not be issued for periods of 3 days or less. Hosts of visiting drivers are to ensure that visitors do not drive on the airfield without permission. Escorts should be provided in all cases where an AAP has not been issued.
- c. Two types of AAP are issued; colour coded permits restrict access as follows:
 - (1) **MT route only (white).** Valid from airfield entrance at the Northern MT Loop Road and eastern side of the airfield up to Delta taxiway. This includes Delta South up to and including Bays 18 – 25. Access to Delta South is controlled by ATC/Station Operations when the yellow gates are closed at the entrance to Delta at the end of the MT Loop Road. When the gate is closed, permission is required from ATC/Station Operations before proceeding. ATC Ext 7448, Station Operations Ext 6532.
 - (2) **Full (red).** Valid for all airfield areas including the runway, in addition to the MT Route.
- d. Full permits must be signed by the individual's Line Manager (LM) in order to be valid. Unsigned permits are restricted to the MT Route only. LM signature confirms that the individual has received task-specific OJT following attendance at the Airfield Access Brief. Examples of best practice OJT are available via ATC on Ext 7451 (01522727451).

8. **Colour perception.** Personnel requiring an AAP are to be colour perception safe (CP2 or CP3 safe). Personnel who do not meet the required colour perception standard cannot be employed as drivers on the manoeuvring areas. If a known colour perception condition exists or is suspected, individuals are to seek medical advice prior to applying for an AAP. By accepting the issuance of an AAP, individuals are deemed to be declaring themselves CP2 or CP3 safe & are responsible for their actions.

9. **Breaches of regulation/runway incursions.** In accordance with MAA RAs, BM Orders, ATC Sqn Order Book & the FAIR Model, failure to comply with these orders may result in the following:

- a. When a breach of regulations has occurred, SATCO, or their nominated representative, is to utilise the above references to ascertain the appropriate immediate actions which can include:
 - (1) AAP suspension.
 - (2) Retraining.
 - (3) When required, administrative or disciplinary action following consultation between SATCO, OC PMS & the individual's LM.

(4) If the driver has not been stopped, the registration of the vehicle is to be passed to the RAF Police for tracing action. The DASOR reference number is to be passed to the RAFP as soon as possible.

b. Spot checks of AAPs will be conducted on authority of SATCO. All airfield users are to produce a valid AAP & ID upon demand.

10. **Vehicular activity.** Regulations permitting vehicular activity are as follows:

- a. Conducting duties directly in support of Aircraft activity on the airfield.
- b. Conducting duties directly in support of the airfield.
- c. Driving to/from a place of duty.
- d. The road testing of private vehicles is strictly prohibited on the airfield.
- e. Learner drivers are not permitted on the airfield.

11. **Use of private vehicles on the airfield.** Unless driving on the MT Route or commuting to/from a place of duty, private vehicles are not to be driven on the manoeuvring area. At all other times duties should be undertaken in an appropriate service vehicle.

12. **Insurance.** Private vehicles are to be properly insured. All personnel are to note that some insurance companies operate an "Airside Exclusion" clause. Neither the Crown nor the Station accept any liability for any accidental damage or injury occurring whilst driving on the airfield; whether involving only your vehicle, with another vehicle, aircraft (both stationary or moving), person, equipment or obstacle within the airfield boundary (defined as inside the perimeter fence). Whilst driving on the airfield you must either personally obtain suitable airside insurance for your vehicle or understand that you are undertaking liability for any damage or injury caused by you or to you whilst driving on the airfield.

13. **Pedestrians.** Pedestrians are not permitted on the airfield without prior approval of the Aerodrome Controller / DOC unless they hold a valid AAP. Pedestrians on the Airfield are to wear a minimum of a high visibility vest (hi visibility belts are considered sub-optimal). Pedestrians are to route directly to/from their place of duty & obey all traffic lights & light gun. Pedestrians are not to cross the runway, including via the MT Route, without vehicular support & permission from the Aerodrome Controller. The use of the movement area for running/jogging is strictly prohibited.

14. **Cyclists.** All cyclists on the airfield are to adhere to the following instructions:

- a. Cyclists are to be in possession of a valid AAP.
- b. When cycling on the airfield high visibility clothing is to be worn. (Hi visibility belts are considered sub-optimal)
- c. Cyclists are to adhere to traffic lights & light gun signals.
- d. Cyclists may only transit to/from their place of duty. The use of the airfield for leisure cycling/sports training is strictly prohibited.

- e. Bicycles are to be fitted with working white front lights & red rear lights, which are to be operated during hours of darkness & in low visibility.
- f. The use of other non-regular modes of transport including, but not limited to, skateboards, roller skates & scooters is prohibited.

15. **Two Hangar North.** The area on Alpha Taxiway at Two Hangar North is out of bounds to pedestrians & cyclists.

AIRCRAFT WHETHER TAXIING OR ON TOW HAVE RIGHT OF WAY OVER ALL VEHICLES EXCEPT IN CERTAIN SITUATIONS (WEAPONS CONVOYS).

16. **Driving routes.** Detailed rules to be applied at RAF Waddington are as follows:

- a. An MT route runs along part of Alpha Taxiway. When traffic lights are green, vehicles are permitted to enter & transit along Alpha Taxiway iaw the Airfield Driving Brief. There are several uncontrolled access points to Alpha Taxiway; if entering from an uncontrolled access point, vehicles are to carry out a FOD check & scan along the taxi way for any moving Aircraft prior to entering. If an Aircraft is seen, vehicles are to hold position & give way to & moving Aircraft. Should a vehicle enter Alpha Taxiway & find themselves head-to-head with an Aircraft, the vehicle is to conduct a U-turn & vacate the taxiway & the first available opportunity. If any doubt exists, personnel are to contact ATC prior to entering the movement area.
- b. There is no MT Route on DELTA NORTH Taxiway (North of the MT Loop Road at the ESA); personnel requiring access are to be in possession of a Full (red) AAP and are to telephone/radio ATC prior to entry. If ATC is closed permission must be obtained from Station Operations to enter DELTA Taxiway North of the ESA.
- c. Vehicles are to be driven on the MT Route or, if authorised to operate on the movement area away from the MT Route, routes that have the minimum use of Aircraft operating surfaces.
- d. Drivers are to cross the airfield via the MT Route which passes the undershoot of RWY20 at the northern end of the airfield. However, ATC may grant permission or instruct MRE equipped personnel to cross the runway at other locations. Such instructions are mandatory, & drivers are not to cross the runway without positive MRE clearance from the Aerodrome Controller
- e. When ATC is open, the 02 Threshold Traffic Lights will be set to RED & the area is out of bounds to all vehicles unless permission has been granted via MRE from the Aerodrome Controller.
- f. When ATC is closed, the 02 Threshold Lights will be set to GREEN. The area is out of bounds to all vehicles except duty RAF Police, MPGS, QRF, & Fire vehicles. Any requests for works in the area, e.g. Airfield Electrician, are to be requested via the DOC.
- g. Drivers on Alpha Taxiway must stay on the Western shoulder (Domestic/Hangar side) of the taxiway & standard rules of the road apply. Vehicles in excess of 42 tons are exempt & must only drive on the main part of the taxiway.

h. The area of Alpha Taxiway between the 4/5 Hangar entry point & the MT Route entry point adjacent to RAFAT HQ is restricted to large airside support vehicles with MRE permission to transit (e.g. tankers, fire vehicles, ATC vehicles & LOX vehicles). Flatbed trucks & minibuses are not considered to be large airside support vehicles. If ATC is closed, permission is to be requested via telephone from the DOC. Drivers requiring access to sections within the ATC buildings are to route via 4/5 Hangar entry point to ATC unless permission has been granted from the ADC to transit from the Northern MT Route. Personal vehicles may be used to access ATC buildings as a place of duty.

i. Entry/exit points to the airfield are marked by blue FOD boxes; FOD checks are to be carried out in accordance with Station FOD Policy.

j. All areas of Alpha and Delta Taxiway can be frequently used by taxiing aircraft travelling in either direction. Drivers are to be vigilant at ALL times. If the driver's route is obstructed by taxiing aircraft, drivers are to vacate onto the nearest safe hard standing off the taxiway or turn around and go back to the next hard standing off the taxiway. In an emergency, vacate the taxiway on to the grass and conduct FOD checks on return.

17. **Parking.** The only parking areas on the airfield are as designated with Station Zonal Parking Policy. Other locations are as authorised by SATCO. Vehicles are not to be parked or left unattended on the movement area or Airfield Entry Points.

Traffic lights & Light Gun signals

18. **Taxiway traffic lights.** There are traffic lights situated at the various entrances to the taxiway. Drivers are to comply with traffic light signals as follows:

- a. STEADY RED – Stop, do not enter the taxiway until the lights change to GREEN or exit the taxiway at the next exit.
- b. STEADY GREEN – Cleared to proceed.

19. **Runway crossing traffic lights.** Drivers are to comply with traffic light signals as follows:

- a. STEADY RED – Stop, remain clear of the runway until the lights change to GREEN.
- b. FLASHING RED – Stop, remain clear of the runway until the lights change to GREEN.
- c. STEADY GREEN – Cleared to proceed with MRE permission from ATC.
- d. FLASHING AMBER WIG WAGS – These are Runway Entry Points. Unless positive MRE permission has been given by ATC, drivers are not to proceed beyond these lights.

20. **Light Gun signals.** ATC or the Runway Caravan controller may use Light Gun signals to communicate with airfield users. Drivers are to comply with Signal Light Gun as follows:

- a. STEADY RED – Stop.

- b. FLASHING RED – Clear the runway or taxiway immediately.
- c. FLASHING GREEN – Cleared to proceed (CAUTION- A STEADY GREEN IS FOR AIRCRAFT ONLY).
- d. FLASHING WHITE – Return to starting point or do as briefed.
- e. In addition to the above, a RED Verex flare fired towards or in front of a moving vehicle indicates the driver is to conduct an EMERGENCY STOP.

IF A TRAFFIC LIGHT IS SHOWING NEITHER A RED NOR GREEN, AIRFIELD USERS ARE NOT TO PROCEED WITHOUT THE PERMISSION OF ATC (OR THE DOC IF ATC IS CLOSED).

21. **Telephones.** Telephones are sited on multiple dispersals to report emergencies or Flight Safety hazards. To report an emergency dial ext 333. To report non-Flight Safety critical hazards or to speak to the Aerodrome Controller, dial ext 7448/7451. To call from a mobile phone call 01522 727448. When ATC is closed, Flight Safety Hazards are to be reported to the DOC on ext 6532 / 01522 72 6532.

22. **Speed limits.** The following maximum speed limits apply:

- a. Taxiways & MT Route Day – 30 mph.
- b. Taxiways & MT Route Night – 20 mph.
- c. Low Visibility Procedures – 15 mph.
- d. Hangars fronts – 10 mph (unless lower is signed).
- e. Dispersals – 10 mph.
- f. Aircraft under tow – 5 mph.
- g. When instructed to 'EXPEDITE' by the Aerodrome Controller. As required/authorised as safety permits for vehicles responding to an accident/incident, including practices.
- h. As required/authorised for emergency vehicles as part of 'Dis'
- i. As required for ATC vehicles conducting specific tasks (i.e. Mu-meter runs).

23. **General rules.** The following general rules are to be observed:

- a. Only authorised Vehicular Entry Points (VEP) are to be used to enter any Aircraft Operating Surfaces (AOS). Drivers entering or crossing the AOS are to stop at the blue FOD boxes & fully carry out FOD checks complying with all below:
 - (1) FOD checks are mandatory for all personnel 24/7.
 - (2) All drivers are to stop their vehicles before entering the manoeuvring area and check the outside of their vehicles for FOD; if any is found, drivers are to remove it and stow it in their vehicle until a suitable method of disposal is found.

- (3) All vehicles are to have a light source available to conduct the check when required at night & low visibility – if one is not available the driver is to sign out a torch from stores. During periods of low light levels, drivers are to take all reasonable actions and precautions to ensure their vehicles are FOD free.
 - (4) All personnel are mandated have a Hi-Visibility (hi-viz) Personal Protective Equipment (PPE) available in vehicles for use when on the AOS (in case of breakdown / to be worn during FOD checks at night & low visibility).
 - (5) All personnel are to carry out a 'vehicle roll forward' in order to check the whole tyre before driving onto any AOS.
 - (6) Personnel are to ensure that all vehicle doors are closed when carrying out a FOD check.
 - (7) Any FOD found while checking vehicles is to be retained by the driver & disposed of appropriately.
 - (8) Separate tyre checks are required each time a vehicle moves from a non-aircraft operating surface to an AOS, regardless of how many times this may occur in a single journey.
- b. Emergency vehicles, when attending an emergency need not stop at the blue FOD boxes to check for FOD. However, on returning from the emergency, emergency vehicles are to stop, & their tyres are to be checked for FOD prior to entering AOS. FOD checks are to be carried out iaw para 1. Immediately following the completion of emergency activity, each emergency vehicle commander is to contact the Eng Ops controller & arrange for all AOS over which the emergency vehicles have driven to be swept for FOD as soon as possible.
- c. When a driver's intended route is obstructed by an Aircraft taxiing or under tow, drivers are to give way & vehicles are to be cleared onto a hard standing or are to turn about & return along the taxiway. Only in an emergency are drivers to use the grassed areas & FOD checks are to be carried out before continuing on the Taxiway.
- d. Except at traffic lights or by order of ATC, an Aircraft marshaller or a security patrol acting on behalf of ATC, vehicles are not to stop on the taxiway.
- e. Vehicles are to maintain an orderly flow of traffic. Overtaking is permitted only of very slow-moving vehicles (e.g. forklifts/cherry pickers) travelling at less than 15 mph. Overtaking vehicles are to remain within the speed limit. Towed & taxiing Aircraft ARE NOT to be overtaken at any time.
- f. Reversing in the manoeuvring area is to be undertaken only as a last resort & the driver is to brief another person to take up a position on his blind side to act as a marshaller.
- g. Vehicles are not to be driven on the runway without the specific authority of the Aerodrome Controller. When ATC is closed, essential access to the runway is to be requested via the DOC.

h. Vehicles will be equipped with serviceable hazard warning lights or drivers will carry a serviceable red torch for use in the event of breakdown. In the event of a breakdown on the manoeuvring area, vehicles are not to be left unattended. Draw attention to the vehicle by contacting ATC using MRE, if available, or mobile telephone. Raise the bonnet of the vehicle, turn on the hazard lights and try and attract the attention of a passing vehicle to assist you. If a breakdown occurs in a dispersal or hangar area, the driver may leave the vehicle to summon assistance provided there are no Aircraft in the vicinity. The driver is to return to the vehicle as soon as assistance has been summoned. The Duty Operations Controller is to be contacted if ATC is closed. Drivers may warn pilots of taxiing Aircraft by shining a steady red torch beam at the cockpit if it is evident that the broken-down vehicle constitutes an immediate Hazard to the Aircraft.

i. The whole airfield is classed as a Hearing Protection Zone (HPZ). Therefore, personnel operating on the Airfield are to ensure they have the appropriate level of Personal Protective Equipment (PPE) with them at all times.

24. **Night driving.** The following additional rules apply to driving on the manoeuvring area at night:

a. Vehicles are to be equipped with serviceable hazard warning lights or drivers are to carry a red torch for use in the event of a breakdown. Drivers may warn pilots of taxiing Aircraft by shining a steady red torch beam at the cockpit if it is evident that the broken-down vehicle constitutes an immediate hazard to the Aircraft.

b. Vehicles in motion are to have DIPPED HEADLIGHTS, SIDE & TAIL LIGHTS switched on. Vehicles at the halt are to have their headlights switched to sidelights until such time as there is a real intention to proceed.

c. Drivers are to ensure that they do not cause dazzle to Aircraft pilots.

d. Drivers are to exercise greater vigilance at night, as some Aircraft cannot be readily identified. This is of particular importance when visibility is poor, i.e. less than 1500m.

25. **Crash rescue vehicles.** Crash rescue vehicles proceeding to an incident are to be given every priority.

26. **Driving on grassed areas.** Only authorised vehicles are permitted to drive on the grassed areas unless in an emergency or, as a last resort, to give way to Aircraft taxiing or under tow. Vehicles authorised to operate on the grassed areas for essential duties are:

a. ATC Vehicles.

b. Airfield Wildlife Control Unit.

c. Elements of the Crash Combine.

d. The Airfield Electrician.

e. RAFP & MPGS undertaking security patrols of the perimeter fence.

- f. The contracted grass cutters.

ALL DRIVERS ARE TO CONDUCT A FOD CHECK PRIOR TO RE-ENTERING THE MOVEMENT AREA.

27. **Poor weather conditions.** In poor weather conditions ATC may prohibit all vehicular movement or implement special escort procedures. In wintry conditions vehicles may be prohibited from the airfield in order to stop the compacting of snow in order to allow Operation BLACKTOP snow clearance to proceed unhindered. Drivers requiring essential access to the movement area & MT Route are to telephone the DOC. When visibility falls below 1500m, Low Visibility Procedures are enforced. In this case, all non-essential vehicle movements on the airfield are to cease. Vehicles requiring access to the airfield are to contact ATC for permission to proceed. If permission to enter movement area is given by ATC, drivers are to proceed with extreme caution.

28. **Out of hours activity.** The Waddington Flying School (WFS) operate when ATC is closed, including during the evening & weekends. Landing & taking off for the WFS is conducted between the RHAGs (2000ft from either threshold) with the traffic lights permanently on green. Drivers may still transit the Airfield via the MT Route & should keep a good lookout for Aircraft both on the runway & in the approach lanes. Drivers are to give way if it appears that the Aircraft is not conforming with the laid down rules. If the Aircraft appears not to be conforming with the agreed regulations, ATC & the DOC should be informed at the earliest opportunity.

29. **Humanitarian Helicopter Operations.** The Lincs & Notts Air Ambulance operate from beyond the north-eastern corner of the airfield (across the A15) 24 hours a day, 365 days of the year. Airfield users are to remain vigilant and give way to such aircraft at all times in the event they are operating on the airfield. Airfield users are to give way to all emergency vehicles.

30. **Animals.** Privately owned dogs are only permitted on the airfield in accordance with SSOs. Dogs are to be kept on a lead at all times within the aerodrome boundary. The exercising of other animals, including horses, is not permitted on the airfield.

31. **MRE.** All personnel operating on the airfield with MRE are to ensure they have received appropriate OJT of how to use it. MRE is NOT secure, therefore specific names, sortie details, Squadrons etc, are not to be used. Examples of best practice OJT are available via ATC on Ext 7451 (01522727451). MRE callsigns are to be allocated to specific vehicles or the appointment of the officer travelling therein. Their respective callsigns are as follows:

VEHICLE/ APPOINTMENT	CALLSIGN
MPRV	CRASH 1
MPRV	CRASH 2
MPRV (Spare)	CRASH 3
AMRV	MEDIC
Medical Officer	STARLIGHT
ATC Vehicles	ROVER
Stn Cdr	SUNRAY
OC Ops Spt Wg	SEAGULL
OC AWE	LUPIN
SATCO	BASEBALL
ASMT	NIMROD

S Fire O	FIREGUARD
Duty Snow & Ice Clearance Officer	DISCO

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Annex V to DAM

File reference 20240301-RAF_Waddington_DAM_4.1-O

FOD prevention, training & awareness

1. To maintain a Safe Operating Environment the Station maintains a FOD Prevention and Recovery Plan at the FOD PORTAL. The full plan (redacted of personal details) can be provided on request to non-MOD parties.

2. The scope of the plan includes:

- a. Zoning of the Stn with the highest FOD prevention measures within the Critical Area encompassing all Manoeuvring Areas, active hangars and enclosed airfield areas.
- b. Recovery activity is undertaken on the basis of risk:
 - (1) Manoeuvring Areas are mechanically swept at least three times per week. A separate Airfield Sweeping Plan is available.
 - (2) Other FOD recovery checks/sweeps by personnel are carried out at a frequency based upon proximity to aircraft activity.
- c. FOD finds on the Manoeuvring Areas are reportable and investigation undertaken to understand the source and risk. FOD finds from other areas on Stn may be reported dependent on the risk the item may pose to safe operations.
- d. FOD prevention activities include personal responsibilities, use of vehicles, access to the Manoeuvring Areas, safe working practices and tool and waste control.
- e. A FOD Working Group (WG) comprising all teams routinely active on the airfield meets periodically to discuss report data, improvements and promotion activities.
 - (1) The FOD WG members are also responsible for promotion, advice and monitoring practices within their area of work.
- f. 1PA activity is managed by and undertaken through the FOD WG to understand the knowledge and performance of areas within the plan.
- g. Promotion of FOD awareness and actions is undertaken at all levels across the Stn to support the knowledge needed by all pers to reduce the FOD risk across all zones.

Annex W to DAM**File reference 20240301-RAF_Waddington_DAM_4.1-O****Aerodrome Wildlife Management.****Introduction**

1. The primary aim of the Airfield Wildlife Control Unit (AWCU) is to reduce the risk of collision between birds and aircraft. This is achieved by maintaining, as far as reasonably practicable, a bird-free environment on and around the airfield. To achieve this, AWCU and relevant station personnel work closely together to promote a holistic approach to environmental, habitat and wildlife management. The WAD Airfield Wildlife Control Management Plan can be accessed [here](#).

Background

2. RAF Waddington is situated in a highly diverse, high bird activity area. Set in a predominantly arable environment interspersed with occasional pockets of dense woodland, most notably copses adjacent to runway 02 & runway 20 approaches. Also, there are game-rearing areas near both approaches. Farming activity has a direct influence on the numbers of hazardous species that gather in local fields. Numerous large bodies of water (gravel pits) now support large numbers of waterfowl & roosting gulls. All of these can have a negative impact on the bird protection afforded by the RAF long grass policy.

3. In accordance with [MAA RA 3270](#), this annex directs AWCU actions. It specifies tasks and provides guidance for off-station bird control, bird scaring and airfield habitat and environmental monitoring.

Airfield Bird Control and Bird Scaring

4. The AWCU should be staffed two hours before any inbound – and one hour before any outbound – aircraft movement, or as directed by ATC; however, this may be reduced to a stand-by commitment by the ATC Supervisor. When stood down, there may be a requirement to conduct regular patrols of the airfield to prevent birds becoming habituated or breeding. The AWCU will, by any legally approved means available to it, work to disperse birds away from the immediate active surfaces, and will also attempt to disperse birds away from the domestic areas of the station, subject to the flying programme, in order to create a bird sterile buffer zone.

5. The AWCU operator should report the bird state level to ATC prior to the commencement of station flying, at the start of each shift, and whenever the bird state changes. Different bird states may be in place simultaneously for different parts of the airfield.

6. The AWCU operator should inform ATC of any changes in risk to aircraft caused by any increase or reduction in bird activity, or changes in bird behaviour that could result in increased likelihood of bird strike.

7. The bird state levels are defined at [DAM Order 4.5.9](#).

8. ATC should avoid issuing instructions to AWCU operators (regarding where / how to control bird activity), unless failure to do so would impact flight safety. AWCU operators will request the flying programme in the morning and at shift changeover, however they are to be aware that the movements schedule changes constantly; to ensure the protection of military operational security, under no circumstances are AWCU operators to share flying information with anyone other than AWCU personnel on shift. Controllers should inform the AWCU when there are gaps in the programme to enable the AWCU to effectively utilise their time. This may include tasks such as the removal of nests or birds from hangars, habitat management, and monitoring the landscaping of the domestic site and hedgerows for bird-attracting trees and shrubs.

9. ATC should be aware of the visual limitations of the AWCU operator at ground-level on the airfield. They should use the extra height of the ATC tower in conjunction with aircrew reports to inform the AWCU operator of problem areas; however, to ensure that the correct course of action is taken, ATC personnel must allow the AWCU operator to prioritise tasks.

Off-airfield Bird Control and Bird Scaring

10. The AWCU priority is the control of birds on the active surfaces; however, birds use the human environment to suit their needs – building nests and roosting in and around buildings (particularly the hangars).

11. The AWCU will, by any legally-approved means available to it – and so far as is reasonably practicable – work to disperse birds away from the hangar areas and to discourage their return by making the area as inhospitable as possible, either by direct action or by advising the Station on suitable courses of action.

12. The AWCU will, in consultation with building custodians, carry out pest control programmes as deemed necessary, providing that the pest in question has a direct impact on bird activity on the Station and that this activity does not interfere with the primary role of the AWCU.

13. The AWCU will visit all station messes on a weekly basis, checking that the disposal of food waste is carried out in such a way that it does not become an attractant to scavenging birds and vertebrates. The findings of these checks will be reported to the SATCO for any action deemed necessary.

14. On a seasonal basis, the AWCU will check the landscaping of the Station for any fruit or berry producing shrubs and trees. The findings of these checks will be reported to the SATCO and DIO / VIVO.

15. The AWCU manager will carry out regular off-airfield visits to local bird attracting sites within the safeguarding zone; on these visits, they will conduct bird counts and PR meetings. The outcome of these visits will be reported to the SATCO in the monthly report.

Animal Management

16. Animal Management on the aerodrome is conducted by the AWCU. During flying hours, the AWCU team maintains a continuous presence on the airfield in order to deter and manage any animal activity in accordance with [MAA RA 3270](#). During aerodrome operating hours, the AWCU team can be contacted on 95771 7451.

Monitoring of habitat and environment

17. The AWCU will carry out monitoring activities on the airfield, including checks on grass length on and around the Station. The results of these checks will be recorded and reported to the SATCO and DIO / VIVO.

18. The AWCU will assist the Station with environmental and habitat monitoring as necessary, providing this does not interfere with the primary role of the AWCU.

19. The AWCU will assist the Station in the culling of vertebrates; however at the request of RAF Waddington; however, this is only possible if the AWCU operator on duty is qualified to do so and has the correct equipment available.

20. The AWCU operates in accordance with [CAP 772](#), [MMATM](#) and Phoenix Bird Control Services Ltd Operational Procedures.

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Annex X to DAM

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Low Visibility Procedures (LVPs)

The orders for LVPs can be found in [ATC Orders](#) and at [Annex U](#) of this DAM.

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Annex Y to DAM

File reference 20240301-RAF_Waddington_DAM_4.1-O

Snow & Ice Operations.

The RAF Waddington response to snow & ice conditions is contained within CONPLAN 2
[Op BLACKTOP.](#)

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Annex Z to DAM**File reference 20240301-RAF_Waddington_DAM_4.1-O****Thunderstorm & Strong Wind Procedures.****Thunderstorm levels / lightning risk**

1. Details of actions to be taken on notification of a 'Thunderstorm Level'/'Risk' warnings, 'Lightning Risk' warnings or when thunderstorm activity is apparent in the local vicinity can be found in [MAM-P](#) Chap 3.4.1 & 8.1.

Strong wind & gale procedures

2. **Forecast / weather warnings.** When strong winds & gales are forecast the Met Office are responsible for publishing a Weather Warning via email.

3. **Aircraft parking.** Details of actions to be taken on notification of a Strong Wind Warning can be found in [AESO 2-1-1-01-07 .docx](#) and [DAM Annex NN, AOB Order B225](#)

4. **Use of vehicles to shield light aircraft.** Wherever possible all light aircraft are to be moved into hangars. Consultation with captains of visiting aircraft on precautions & advise captains of forecast wind speeds. If light aircraft cannot be moved, refuellers may be provided as windbreaks.

5. **Hangars 1 - 6.** When wind speeds are forecast to reach or exceed 60 mph, the NCO IC Hangar is to follow the directions articulated in [AESO 2-1-1-01-01.doc](#) adverse weather conditions – Effects on Hangars 1 – 6.

6. **Hangar 6 (Formerly Sentry/Alpha hangar).** When wind speeds >40kts are forecast the Met Office will issue a Strong Wind warning via email as detailed in [AESO 2-1-1-01-07](#). RAFAT Eng (or duty Eng Rep) will then initiate the appropriate risk mitigation measures as directed by their CoC.

7. **Pax loading / unloading limits in strong winds.** The loading & unloading of pax will be conducted iaw [DAP 3150 Manual of Movements](#) Chap 9 Para 9.02.05 & Figure 9.1.

8. **Strong Wind Measures.** Details of actions to be taken on notification of strong winds can be found in the [Stn Ops - Op Orders Op BEAUFORT](#).

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Annex AA to DAM

File reference 20240301-RAF_Waddington_DAM_4.1-O

Civil Aircraft Aerodrome Usage – Terms & Conditions.

Introduction

1. All matters relating to Civil Aircraft use of RAF Waddington are governed by [JSP 360](#)
2. These General Terms & Conditions are applicable to all civilian registered Aircraft operating to/from RAF Waddington. The Aerodrome Operator reserves the right to alter or cancel these Terms & Conditions at any time.
3. Civilian Aircraft operations to/from RAF Waddington are in accordance with the guidance laid down in JSP 360. Civil Operators utilising RAF Waddington are to have a Military or UK Government sponsor prior to submitting a movement/handling request.
4. RAF Waddington operates a PPR airfield. All movement requests are to be submitted through RAF Waddington Operations (01522 72 7301) at least 48 hours in advance of the scheduled landing/departure time for Flights from Overseas & CTA, 24 hours in advance of the scheduled landing/departure time for flights within the UK.

Winter operations

5. **Winter clearance plan.** Full details of Winter operations can be found in the RAF Waddington [Op BLACKTOP](#) Op order.
6. **Operating surface clearance.** RAF Waddington will endeavour to maintain an operating surface clear from Snow/Ice, however, Snow/Ice clearance will only be conducted for specific Stn requirements & visitors are advised to contact Station Operations in advance to determine Snow/Ice clearance plans.
7. **Aircraft de-icing.** Aircraft de-icing is not routinely available for visiting civilian Aircraft. If required it must be booked through Stn Ops 24 hours in advance.

Operational support

8. **Flight planning.** RAF Waddington is able to provide the following Flt Planning services:
 - a. Flt plan submission/change/cancellation.
 - b. NOTAM pack-up.
9. **Flight following.** RAF Waddington does not provide a Flight Following Service for visiting civilian Aircraft.

Passenger handling

10. **PAX handling facility.** RAF Waddington has a limited ability to handle large numbers of passengers. All PAX requirements should be discussed in advance with RAF Waddington Operations. Aircraft PAX Operations will be subject to ATSy/DfT NASP procedures.

11. **Transport.** Visitors are responsible for organising their own onward transport from the Aircraft.

12. **Customs / immigration.** RAF Waddington is not a designated Port of Entry to the United Kingdom. Customs & Immigration facilities are available 24/7 through PPR with at least 48 hours' notice. Customs & Immigration is provided by the UK Border Force Immingham but requests must be submitted via RAF Waddington Operations.

13. **Charter Aircraft operations.** Charter airline operations may be permitted providing the AO agrees to the handling of the Aircraft.

14. **Scheduled Aircraft operations.** Scheduled Aircraft operations are not permitted at RAF Waddington. Enquiries should be forwarded to the AO.

15. **In-flight catering.** There is no In-flight catering available for visiting civilian Aircraft at RAF Waddington.

Aircraft handling

16. **Refuelling services.** Re-fuelling may be available for certain Civilian Aircraft with prior arrangement at the time of booking, minimum 24 hours in advance through RAF Waddington Air Operations. Stn Aircraft will receive priority for refuels unless prior arrangements have been made through the AO.

17. **Aircraft marshalling.** Aircraft entering designated parking bays/ASPs are to do so under the direction of a qualified Aircraft marshaller. For visiting civilian Aircraft, this will be carried out by the visiting Aircraft or appropriate WAD Eng section with prior agreement.

18. **Aircraft parking.** Aircraft parking will be decided in advance by Waddington Operations. Hangarage is not available for civilian Aircraft.

19. **Maintenance of Aircraft.** RAF Waddington will provide no maintenance assistance for visiting civilian Aircraft.

20. **Ground Support Equipment (GSE).** RAF Waddington may be able to provide certain elements of GSE. Requirements are addressed on a case by case basis & should be articulated to RAF Waddington Operations in advance of any planned movement. Stn Aircraft retain priority over Stn GSE at all times.

21. **Airfield fire protection.** Airfield Fire Protection is detailed at Annex O in this manual.

22. **Security of Aircraft.** RAF Waddington is a secure site patrolled by RAFP & MPGS. Unless requested, specific security measures will not be applied to visiting civilian Aircraft.

23. **Flight Safety.** The AO retains the right to deny landing/take off clearance to any Aircraft where flight safety/airworthiness concerns exist. Flight safety concerns are to be forwarded to the RAF Waddington Flight Safety Officer (contactable through RAF Waddington Operations).

Contingency plans

24. **Loss of fire category.** Aircrew will be informed in the event of a drop in Fire Protection. In this event, the AO retains the right to deny take off/landing.

25. **Loss of power / communications.** Contingency plans exist for the restoring of power & communications to the airfield. Where a flight safety concern exists, the AO retains the right to deny take off/landing clearances.

26. **Unforeseen natural disasters / pandemics / emergencies.** In the event of an unforeseen disaster, the AO retains the right to deny landing/take-off clearances for visiting civilian Aircraft. Additionally, it may be decided that previously agreed Stn support to Aircraft (including Aircraft parking) will be withdrawn.

Breach of terms & conditions

27. The regulations governing Civil Aircraft operations at RAF Waddington are detailed within [JSP 360](#).

28. Any breaches of the guidelines directed within JSP360 or local procedures contained within the document (known as Terms & Conditions) will be brought to the attention of the AO who shall decide on an appropriate response, which may include the privilege of operating at the aerodrome being temporarily or permanently withdrawn.

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Annex BB to DAM**File reference 20240301-RAF_Waddington_DAM_4.1-O****Safeguarding**

1. An Aerodrome is intended to be a safe place for Aircraft to operate from. Many factors need to be considered when constructing an Aerodrome. Standards that are not met could be instrumental in Aircraft damage. A safe operating environment, at MOD aerodromes, can be provided by adherence to design standards and safeguarding processes¹⁷.
2. All regulations relating to safeguarding at RAF Waddington are detailed within [RA 3500](#).
3. Air Traffic Management Equipment Technical Safeguarding as detailed within [RA3136](#) is carried out by the Airfield Support Team in accordance with the policy detailed within [JSP 604 leaflet 3032](#) and [AP600 Order 2.1.1](#)
4. A [register](#) is maintained in accordance with the requirement within RA3136 and provides details of all ATM equipment at RAF Waddington, the safeguarding status of that equipment including any infringements to the equipment and appropriate concessions issued. Technical Safeguarding is explained in greater depth within Annex S.

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¹⁷ A MOD aerodrome in the context of this RA is defined as an MOD site, establishment or base into which an Aircraft, under Aviation Duty Holder (ADH) Risk to Life (RtL) responsibility, operates, including temporary aerodromes in the UK and overseas.

Annex CC to DAM

File reference 20240301-RAF_Waddington_DAM_4.1-O

Electrical ground power procedures

1. **Operation of RAFAT (formerly Sentry) dispersal Anton pillars.** Operation of RAFAT dispersal 312KVA Anton pillars is currently suspended due to long term unserviceability.
2. **Operation of portable Ground Power Units (GPUs).** Various GPUs are used at RAF Waddington. Personnel require a specific Engineering Authorisation, awarded following suitable training, to operate these GPUs. GA90 & GA180 type GPUs may be available for visiting Aircraft in emergencies.

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Annex DD to DAM**File reference 20240301-RAF_Waddington_DAM_4.1-O****Aviation fuel management procedures**

1. **Management of Bulk Fuel Installation (BFI).** Management of BFI is carried out in accordance with the direction outlined in [JSP 317](#).
2. **Fuel storage, quality & delivery.** Fuel storage, quality & delivery is the responsibility of RAF Waddington Fuels & Lubrications Section & is carried out in accordance with the regulations in [JSP 317](#) & Defence Logistics Framework; civilian access via the [Defence Gateway](#), military access at this [link](#).
3. **Safety procedures.** All refuelling activity is to be carried out by personnel who have been trained in accordance with the HQ Air Command MTD Operator Refuelling Course Syllabus & in accordance with [AESO 2-2-2-05-2](#) Aircraft Fuel Operations. In the event of a fuel spillage, actions are to be carried out in accordance with [Annex EE](#).
4. **Aircraft fuel operations.** Aircraft fuel operations are detailed in [AESO 2-2-2-05-2](#).
5. **Bonding & grounding of Aircraft & fuelling equipment.** Bonding & grounding of Aircraft & fuelling equipment is to be carried out in accordance with HQ Air Command MTD Operator Refuelling Course Syllabus.
6. **Fuelling with passengers on board.** Aircraft based at RAF Waddington do not normally carry passengers. In the event that a visiting Aircraft requests a refuel with passengers onboard, the procedures outlined in [MAM-P, Chapter 3.4.1, Para 6.3](#) are to be followed.
7. **Fuelling with engines running.** Fuelling with Engines Running is not to be carried out at RAF Waddington, as it is prohibited in Annex O above: Aerodrome Rescue & Fire Fighting services orders. In the event that engines running refuelling is authorized by the AO, it is to be conducted in accordance with [MAM-P Chap 3.4.1 Para 5](#): For Rotors Turning/Engine Running Refuelling [See Suspended Order A102](#).
8. **Fuelling & de-fuelling in hangars.** Fuelling & de-fuelling in hangars is to be carried out in accordance with [MAM-P Chap 3.4.1 Para 6.1](#).
9. **Fuelling & de-fuelling on non-intercepted surfaces.** Fuelling & de-fuelling on non-intercepted surfaces is to be carried out in accordance with [AOB Order B224](#), Parking Refuelling & Defueling of Aircraft on Non-intercepted Areas – Environmental Protection Procedures.
10. **Fuel spillage procedures.** Fuel Spillage Procedures are detailed in the RAF Waddington Spillage Plan at [Annex EE](#).

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Annex EE to DAM

File reference 20240301-RAF_Waddington_DAM_4.1-O

Handling of hazardous materials (spillage plan)

CONPLAN 3, the [Unit Spillage Response Plan](#) can be found from the RAF Waddington Ops Spt Wg Assurance/MACR webpage.

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Annex FF to DAM

File reference 20240301-RAF_Waddington_DAM_4.1-O

Jettison area – orders

1. RAF Waddington does not have fuel jettison orders.
2. Fuel Dump Occurrence Report form is located in the ISTAR DDH Orders, available via the [ISTAR STANEVAL sharepoint page](#).

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Annex GG to DAM**File reference 20240301-RAF_Waddington_DAM_4.1-O****Compass Calibration Bay Orders**

1. **Classification and Location.** WAD has a Class 2 Compass Calibration Base which, in accordance with [MAA RA 3521](#), should only be used for standard compass swings. The Compass Calibration Base adjoins Alpha taxiway, adjacent to the ATC Tower.
2. **Periodic Surveys:**
 - a. [MAA RA 3521\(3\)](#) specifies that periodic surveys of all compass bases will be undertaken by staff from QinetiQ Land Magnetic Facilities. Whilst Class 1 bases will be re-surveyed every 5 years, Class 2 bases are normally subject to magnetic anomalies, the effects of which being liable to change with time; as such, these bases need to therefore be re-surveyed every 2 years.
 - b. The WAD Airfield Manager is responsible for the scheduling of QinetiQ biennial surveys.
 - c. A copy of the Certificate of Compass Base Calibration is held by the Airfield Manager.
3. **Booking and Allocation:**
 - a. The DEOC is responsible for the allocation of the Compass Calibration Base.
 - b. The process for booking the Base is contained in [MOE Leaflet 524, Annex V](#).
4. **Communications & Safety.** During any compass swing activity, radio communications are to be maintained with ATC.
5. **Order Compliance.** It is the responsibility of SATCO to ensure that WAD is compliant with these orders.

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Annex HH to DAM

File reference 20240301-RAF_Waddington_DAM_4.1-O

Explosive Ordnance Disposal Area (EODA).

RAF Waddington does not have an EODA.

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Annex II to DAM

File reference 20240301-RAF_Waddington_DAM_4.1-O

Dangerous Goods (DG) Procedures.

1. RAF Waddington movements Staff will carry out unloading & loading of DG IAW Current IATA or [MTSR /Dangerous Goods Manual \(DGM\)](#) regulations.
2. **DG.** The parking area for the loading/unloading of DG is allocated by Eng Ops iaw [AESO 2-1-1-01-37](#). RAF Waddington can handle Class 2-9. The handling of Class 1 is limited, and requests should be submitted for review by ESR, ESA and Movs to ascertain if it can be accepted prior to any approval being granted.
3. **Armed Aircraft parking.** RAF Waddington cannot accept Forward Firing Armed Aircraft but may accept Flared Aircraft. The parking area for Flared Aircraft is allocated by Eng Ops iaw [AESO 2-1-1-01-37](#). Aircraft must be deflated prior to loading/offloading.

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Annex JJ to DAM**File reference 20240301-RAF_Waddington_DAM_4.1-O****Hydrazine (H70) Leak.**

1. Hydrazine is a highly toxic fluid used to fuel the emergency power unit of F16 Aircraft. A hydrazine leak will occur if the pilot inadvertently initiates the EPU in flight. F16 pilots are responsible for directing procedures for handling any leaks that might occur at RAF Waddington.
2. The probability of a hydrazine leak is low. However, in the event of a suspected hydrazine contamination an F16 pilot is likely to take the following actions:
 - a. Declare an emergency with ATC.
 - b. Request parking in Hydrazine emergency area of the airfield. Crash Map ref H 31 (Bay 25), O 01 ("Z" Taxiway/Loop) are the designated areas depending on runway heading utilised.
 - c. ("Z" Taxiway/Loop) are the designated areas depending on runway heading utilised. Request that entry to the parking area be strictly controlled.
 - d. Ensure all equipment & personnel remain upwind of the Air System.
 - e. Request the establishment of rapid communication with his home base to discuss technical assistance (through Crew Commander & Ops).
3. Should RAF Waddington receive an F16 Aircraft under these circumstances the Sup/ATCO IC is to take the following actions:
 - a. Initiate Emergency State 2.
 - b. Inform the SMO.
 - c. Deploy a suitably equipped vehicle with Management Radio Equipment (MRE) for use by the F16 pilot for ground-ground comms.
 - d. Consider diverting other Aircraft in the event the Crash Crews are engaged in the incident or discharging media from Airfield Rescue Vehicles.
 - e. Modify taxi patterns to ensure all traffic remains upwind of the incident.
 - f. React to further instructions from the F16 pilot as necessary.
 - g. Tannoy Fuel/POL spillage message on consultation with Eng Ops.
4. The Duty Ops Controller is to complete the following actions:
 - a. Contact the operating base of the AC and inform of incident, and on a confirmed Hydrazine incident, request a response team to recover.

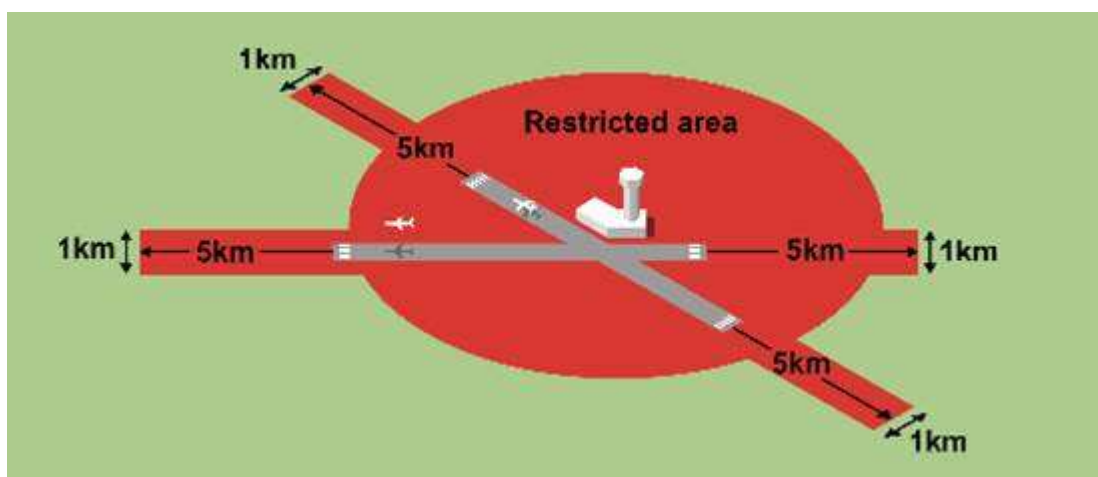
- b. Contact the Lincolnshire Fire Control Room on 01522 582222 or 999 reporting a Hazmat incident involving Hydrazine H70 from an F16 Aircraft at RAF Waddington.
 - c. Contact the MGR on ext 7005 informing them that several Lincolnshire Fire & Rescue Service (LFRS) vehicles and a team from the operating base will be arriving.
5. The Crew Commander is to complete the following actions:
- a. Carry out any firefighting or life saving actions.¹⁸
 - b. Establish a 100m cordon of the Aircraft.
 - c. Provide comms for the F-16 pilot.
 - d. Handover control of the incident to the LFRS/operating base team on their arrival and assist where requested.
6. RAF Waddington does not have the resources to control/recover a hydrazine spillage. All requests for further information are to be directed, in the first instance, to RAF Waddington Duty Ops Controller on 01522 726532 or Email WAD-Ops-DutyOpsController@mod.gov.uk.
7. In instances such as Ex COBRA WARRIOR, where Aircraft with a Hydrazine risk are operating out of RAF Waddington, it is the responsibility of the visit nation/ Sqn, to provide a Hydrazine response team and kit, to be utilised in a Hydrazine incident.

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¹⁸ Any offensive life saving firefighting to be done with the minimum level of protection of full PPE and BA. In addition any Firefighters involved in offensive firefighting are to undergo emergency decontamination or initial decontamination if set up.

Annex KK to DAM**File reference 20240301-RAF_Waddington_DAM_4.1-O****UAS / RPAS (other than Protector) Orders.**

1. **Flight Restriction Zone (FRZ).** The FRZ consists of the following two elements:
 - a. **The Aerodrome Traffic Zone (ATZ):** A cylinder of airspace, 2nm in radius, centred on the runway and extending 2000ft above aerodrome level.
 - b. **Runway Protection Zones:** A rectangle extending from the threshold of the runway to 5km away from the aerodrome, 500m either side of the runway centreline, and 2000ft above aerodrome level.



The exact shape of the FRZ varies depending on the specific aerodrome that it protects.

It is illegal to fly any RPAS at any time within these restricted zones unless you have permission from ATC. If ATC is closed, permission should be sought from the Duty Operations Controller (DOC), ext 6532.



2. **Authorised Operators.** During ATC opening hours, RPAS are operated by Station-
authorised users under the direct control of ATC. RPAS (other than Protector) may
operate outside ATC opening hours under the control of the DOC. All RPAS (other than
Protector) operators should be qualified and assured to MAA or Station standards.
3. **RPAS (other than Protector) Integration.** Details of RPAS (other than Protector)
activity will be published on DATIS and ATC will inform pilots of activity where
appropriate.
4. Full RPAS (other than Protector) operating procedures can be found in [ATC Orders](#)
5. **Out-of-hours RPAS (other than Protector) Operations (Airfield Active, ATC
Closed).** When ATC is closed, WAD airfield remains active; during these periods, RPAS
operators (RPASOs) are to liaise directly with the DOC, providing at least 30 minutes'
warning prior to any planned activity.
6. RPAS (other than Protector) are to operate not above 400ft AGL and remain clear
of the Lincolnshire and Nottinghamshire Air Ambulance (callsign HELIMED) and
Waddington Flying School (WFS) aircraft and operating areas.
7. **Lincolnshire and Nottinghamshire Air Ambulance (LNAA) Deconfliction.** If
HELMED is inbound / outbound, RPAS (other than Protector) are to operate not above
200ft AGL. RPASOs are to monitor an air-to-ground radio (frequency 121.3 MHz) for
HELMED activity.
8. If ATC is unstaffed and unexpected HELIMED activity is heard or seen, RPAS
(other than Protector) are to land.
9. **Waddington Flying School Deconfliction.** Waddington Flying School (WFS)
should notify of their intention to fly at the OPG and book out through the DOC. WFS are
to be warned of all RPAS (other than Protector) operations. RPAS (other than Protector)
are to operate not above 200ft AGL if WFS are active outside of ATC opening hours.
10. **Security Incident Response.** If responding to a security incident, RPASOs will:
 - a. Call the LNAA Duty Pilot or LNAA HQ directly, to inform them of their activity.
RPASOs are to contact the DOC in order to warn WFS of RPAS (other than
Protector) activity. On warn-out, WFS pilots are to provide the DOC with a mobile
number. RPAS (other than Protector) are to land if WFS aircraft are observed in, or
approaching, the visual circuit.
 - b. Once deployed at the launch location, RPASOs are to remain contactable on
the Waddington Skyranger (RPAS) Operator mobile number 07976688411.
11. **Single Occupancy Principle.** The DOC is to adhere to the single occupancy
principle when the airfield is under their control. A visual representation of airfield activity
should be maintained within Stn Ops.

Annex LL to DAM

File reference 20240301-RAF_Waddington_DAM_4.1-O

Aircraft parking

1. In accordance with [AOB Order B224](#) Parking, refuelling & defueling of Aircraft on non-intercepted areas – environmental protection procedures, all Aircraft are to be parked on paved areas protected by drainage & interceptors.
2. Unless agreed through prior arrangement with RAF Waddington Station Operations, handling of visiting Aircraft at RAF Waddington is conducted by VAHS in accordance with [AESO 2-1-1-01-37](#) Instruction for parking of visiting Aircraft including armed Aircraft. The exact slot for parking will be decided by RAF Waddington Station Operations. Procedures governing Dangerous Air Cargo / Armed Aircraft can be found at the above AESO, DAM Chapter 7 & Appendix 2 to [Annex II](#).
3. Deviations from the established parking locations detailed above are to be managed by RAF Waddington Station Operations in accordance with relevant regulatory documentation.
4. When Station Operations are selecting suitable parking locations for ac, consideration should be given to the possibility of damage to tarmac surfaces from hydraulic fluid & fuel leaking from ac. Furthermore, Aircraft can sink into tarmac due to hot tyres or when the OAT is high or when parked in one location for a long period, even when the pavement is of the correct PCN.

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Annex MM to DAM

File reference 20240301-RAF_Waddington_DAM_4.1-O

Force Protection Responsibilities

RAF Waddington Force Protection Orders are beyond the security classification of this document. If required contact RAF Waddington Air Operations.

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**Annex NN To DAM
Dated 01 Mar 24**



RAF Waddington Aerodrome Order Book (AOB) DAM Issue 4.1 – 01 Mar 24

(For reference, all amendments to AOB Issue 4.1 are highlighted in magenta in the Table of contents)

**Info Owner – SATCO
Info Input – Fg Sqns, STANEVAL, SFODO & Ops
Support Wg**

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AOB FOREWORD

1. RAF Waddington has two resident Air Wings (Display and ISTAR), each with their own DDH Orders; to better reflect the Aerodrome Operator and Head of Establishment responsibilities, the Flying Order Book has been renamed the Aerodrome Order Book (AOB). The orders contained in this AOB are mandatory for all personnel involved in flying operations at RAF Waddington. The AOB is supplementary to King's Regulations (KRs), the Air Navigation Order (ANO), Military Aviation Authority Regulatory Publications (MRPs), No 1 Gp ASOs, aircraft document sets, and any other applicable flying orders / guidance. In the event of a conflict between orders, the most stringent rules are to be applied while clarification is sought. Upon arrival, upon DAM amendment thereafter, or as directed, all relevant personnel are to read, and sign as having understood these orders. The electronic version of the AOB is to be considered the master. Any printed copies are not subject to amendment and are to be treated as uncontrolled. All formerly-printed versions are to be destroyed.
2. The content of the AOB is controlled by SATCO, with input from the flying squadrons, STANEVAL teams and Ops Support Wing personnel. SATCO is to maintain the online master copy. All requests for amendment are to be staffed through SATCO.
3. All times provided in these orders are LOCAL unless otherwise stated.

OC Operations Support Wing
RAF Waddington

AOB SECTION A – TEMPORARY & SUSPENDED ORDERS

Temporary Orders A101 – TEMPORARY ORDERS

Currently there are no temporary orders.

Suspended Orders A102 – SUSPENDED ORDERS

Content A102 – REFUELLING OF ROTARY AIRCRAFT WITH ROTORS
TURNING/ ENGINE RUNNING

References A. MAM-P 3.4.1.
 B. DAP 3150 - MTIs, PT 3, INS 9 and relevant local authorisations
 C. IETP / DAAvn 44/022/07 and STARS Apache Authorisation in
 accordance with MAM-P 2.1
 D. [CONPLAN 3 - Unit Spillage Response Plan \(USRP\)](#)
 E. ATP 49, Part 4, Chapt 4

Annexes A. RRRF Layout

1. **Authorisation.** The refuelling of aircraft with rotors turning / engine running may be carried out at WAD for operational or training reasons, when specifically authorised by the Head of Establishment (HoE), or their nominated deputy, as well as the DDH for the visiting platform.
2. Due to the hazardous nature of rotors turning / engines running refuelling, this activity requires a risk assessment to be undertaken by the HoE / ADH / AM(MF)s, taking advice from the Senior ARFF Officer in order to identify the appropriate levels of fire protection commensurate to the risk. Agreed procedures are published within unit orders.
3. **Applicability.** This order is applicable to all personnel involved in the refuelling of helicopters / propeller-driven aircraft visiting or on short term deployment to WAD. The term 'Rotors Running Refuel (RRRF)' will be used throughout this document and will apply to all variations of refuelling of rotary / propeller driven aircraft with rotors / propellers turning / engine running.
4. **Aim.** The aim of this order is to amplify the operating procedures and safety precautions contained at Reference A and adopted by all personnel during the RRRF of aircraft at WAD.
5. **Implementation.** An Aircraft Rescue and Fire-Fighting Vehicle (ARFFV) is to be crewed, located at the active nominated site during all RRRF operations, and parked in such a manner that it does not obstruct the movement of the aircraft or refueller. At all times during the RRRF, the Fire Commander must have line-of-sight to the Aircraft Commander, Refueller Operator and Crewmen conducting the refuel (see Annex A). Should the ARFFV be recalled for an emergency elsewhere, the Crewman IC RRRF is to terminate the refuel immediately and ensure that the hose and bonding lead are safely disconnected. If the aircraft has insufficient fuel to continue on task, it is to be shut down and a cold refuel conducted.

6. The Refueller Driver / Operator should pre-position the refueller alongside the ARFF, so that the aircraft under refuel can safely taxi into the RRRF area and then be marshalled into position by the Crewman IC RRRF.

7. **RRRF Team Composition.** The minimum requirements for a RRRF team are;

- a. IC RRRF - Aircraft Crewman / AAC REME holding relevant authorisations.
- b. An ARFFV with the requisite capacity depending on the Crash Category.
- c. Refueller Operator who holds the relevant authorisations in accordance with Reference B.
- d. Safety Person.

Note 1: Refuelling may only be conducted by the authorised personnel in accordance with Reference A.

Note 2: Apache refuelling may only be conducted by authorised personnel holding the requisite authorisations in accordance with Reference C. It is likely that Apache RRRFs will only be available if the aircraft is deployed with engineering support, due to limited SQEP at WAD.

8. **Locations for RRRF.** All intercepted ASPs at WAD are available for RRRF, providing that they do not conflict with other aircraft operations. The relevant bay will be nominated by the DEOC and this information will be passed to ATC, ASMT and Fire prior to the commencement of flying. If the bay needs to be amended during the flying day, the relevant personnel must be informed.

Although many sites are authorised, only one will be active at any given time and will depend upon the runway in use and visiting aircraft requirements. Suitable spacing between aircraft must be maintained if multiple RRRF events are occurring simultaneously. Under no circumstances should an aircraft be refuelled whilst it is parked on grassed areas; these areas do not have drainage interceptors and, as a result, any fuel spillage could contaminate local water course.

9. All booking requests for RRRFs are to be submitted to WAD Ops Sqn by the operations personnel for the visiting aircraft; these requests are to be submitted using a Visiting Aircraft Proforma (VAP) which can be obtained from the WAD DOC. Wherever possible, such requests should be made with a minimum of 24hrs' notice. The day prior to RRRF operations, Ops Sqn will inform the DEOC, Fire Station Officer, SNCO VAHS, SNCO ASMT and ATC. Booking details are to be recorded using Reference E, filed in the Duty Ops Archive folder and retained for 6 months.

10. **Refueller.**

- a. **Positioning.** The Refueller Driver is to be RRRF qualified in accordance with Reference B. Once in position, the refueller must be able to drive away through a clear escape lane in case of an emergency. The refueller must be positioned outside the rotor / propeller disc / arc area, **final responsibility for separation**

between the refueller and the disc area remains the responsibility of the aircraft captain in accordance with their Flight Reference Cards (FRCs). The fire crew providing fire cover for the refuel will position themselves in the appropriate position, maintaining line-of-sight with the Aircraft Commander, Refueller Driver and Crewman IC RRRF.

b. **Hose and Bonding Lead.** Sufficient hose is to be reeled-out, allowing doubling-back of at least 4m. The refuel hose nozzle is to be placed on the ground with the nozzle cover fitted. **ONLY REEL TYPE REFUELLER IS TO BE USED.**

c. **FOD.** Once the refueller and hose are positioned, the ground crew are to ensure that the refuel area is clear of FOD.

d. **Vehicle Lighting.** Refueller vehicles are to have their amber anti-collision lights switched on at all times when operating in the vicinity of aircraft. At night, side lights and marker lights are also to be switched on. When instructed by the aircrew, refueller floodlights are to be used to illuminate the refuelling area. The Refueller Driver is to position their vehicle so that their headlights do not shine directly into the cockpit.

e. **Operation.** The Refueller Operator is to pass the earth bonding lead to the Crewman IC RRRF when requested; the Crewman IC RRRF will then connect the bonding lead to an aircraft earthing point and then connect the refuelling hose to the aircraft. Upon instruction from the Crewman IC RRRF, the Refueller Operator is to start and stop refuelling. When refuelling is completed, and before the aircraft moves, the refuel hose is to be disconnected and doubled back to the refueller, with the earth bonding lead to be disconnected and fully wound in. **AT NO POINT ARE ASMT PERSONNEL TO ENTER THE DISK AREA.**

NB: *When reeling the aircraft earth lead in or out, care is to be taken to ensure that it does not become slack and enter the rotor disc area.*

11. Safety Precautions.

a. **Passengers.** Reference A details the regulations for refuelling operations with passengers enplaned; the preferred method is to de-plane before commencement of refuelling operations. This activity will be controlled by members of the flight crew, under the guidance of the Aircraft Captain.

b. **Wind Speed.** The decision on whether a RRRF will be conducted rests with the Aircraft Captain, in accordance with their FRCs.

c. **Protective Clothing.** The Aircraft Tradesman and Refueller Driver are to wear safety boots, gloves, ear defenders, goggles and protective clothing (which covers the arms and legs), as well as high visibility vests. All clothing is to be of an anti-static quality.

d. **Fire Precautions.** An ARFF vehicle is to be in attendance and positioned upwind as required during the refuelling operation.

e. **Fuel Spillages.** In the event of a fuel spillage, refuelling is to cease immediately. The Hose and Earth Bonding Lead are to be disconnected from the aircraft, the Refuel Nozzle Cover is to be fitted and the hose and earth bonding lead are to be drawn back to the refueller. If the spillage is deemed minor, it should be mopped up by the RRRF team personnel. If the spillage is estimated to be above 50 litres, ATC is to be contacted with the request for CONPLAN 3 to be initiated. The decision to shut down or to move the aircraft will be made by the Aircraft Captain.

12. **Emergency Procedures**

a. In the event of a refueller fire, the Crewman IC RRRF is to inform the Aircraft Commander, the Refueller Driver is to cease the flow of fuel and the Crewman IC RRRF is to disconnect the hose whilst fire crews attempt to fight the fire. The Aircraft Commander will decide whether to move the aircraft away to a safe position or to remain in situ.

b. In the event of an aircraft fire, the Crewman IC RRRF is to inform the Aircraft Commander, the Refueller Driver is to cease the flow of fuel and the Crewman IC RRRF is to disconnect the hose. The Aircraft Commander will shut the aircraft down and fire crews will attempt to fight the fire.

c. In both events, the fire crews are to inform ATC and Ops Sqn.

Annex A to AOB Order A102**File reference 20240103-RAF_Waddington_AOB-Issue 4.1-O****RRRF Layout**

Fire cdr visual with a/c
cdr, bowser driver and
crewman conducting
refuel

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AOB SECTION B PART 1 – CONTROL OF FLYING

Order B101 - AERODROME & FLYING SUPERVISION

References

- A. [MAA RA 1010: Head of Establishment – Aerodrome Responsibilities](#)
- B. [MAA RA 1026: Aerodrome Operator and Aerodrome Supervisor \(Recreational Flying\) Roles and Responsibilities](#)
- C. [MAA RA 1032 – Aviation Duty Holder-Facing Organizations and Accountable Manager \(Military Flying\)-Facing Organizations - Roles and Responsibilities](#)
- D. [MAA RA 2335: Flying Displays & Special Events](#)

Annexes

- A. RAF Waddington Ops Spt Wg Duty Exec Terms of Reference

1. **Stn Cdr / HoE.** The Head of Establishment (HoE) is responsible for actively providing a Safe Operating Environment (SOE) for aircraft on MOD Aerodromes, Air Weapons Ranges, Electronic Warfare Ranges, aviation-capable ships and Helicopter Landing Sites (HLS), in order to meet their Duty Holder-Facing (DH-Facing) responsibilities in accordance with References A, B and C. Providing a SOE also enables the HoE to meet their legal Duty of Care responsibilities for all aerodrome users. The Stn Cdr as HoE is responsible for the provision of a SOE for WAD-based and visiting aircraft.
2. **ADHs.** As Delivery Duty Holders (DDHs), Cdr Air Wg (ISTAR), Cdr Display and the Chief Test Pilot (CTP) have responsibility for the routine supervision and oversight of flying of WAD-based ISTAR platforms, RAFAT, and trials aircraft, respectively. For visiting aircraft, responsibility is held by respective DDHs or national equivalents.
3. **Aerodrome Operator.** In accordance with Reference B, OC OSW has been appointed by the HoE as the WAD Aerodrome Operator (AO). As AO, OC OSW is responsible to the HoE for the oversight of all WAD flying and is DH-facing in their provision of a SOE for all WAD-based and visiting aircraft. Outside of normal working hours, and when OC OSW is unavailable, responsibility will be delegated first to the Deputy Aerodrome Operator (Dep AO) in accordance with their TORs, and then the OSW Duty Exec. Eligibility criteria and Terms of Reference (ToRs) for the OSW Duty Exec are at [Annex A](#) to this order.
4. **Sqn Supervisor of Flying (SSOF).** For the duration of the duty period, Force Elements (FEs) are to provide a SSOF (contactable by telephone as a minimum) in order to provide platform-specific information and advice to relevant sections / personnel, as required. The SSOF may be required to liaise with the OSW Duty Exec for matters not directly related to aircraft operations.
5. **ATC Supervisor.** The ATC Supervisor / ATCO IC is responsible to the AO – via SATCO – for the safe and efficient control of aircraft operations at WAD, as well as the day-to-day management of airfield activity. They are to keep the respective Sqn Duty Exec and DOC informed of any occurrence that could affect the safe conduct of flying, such as aircraft emergencies, deteriorating weather and any change in airfield status. They are to invite the AO / Dep AO / Duty OSW Exec and relevant SSOF to ATC whenever they consider that there is a need for closer oversight / supervision of flying. The ATC Supervisor / ATCO IC is to be available and contactable in ATC at all times, whenever the aerodrome is active.
6. **Duty Ops Controller (DOC).** The DOC is responsible to the AO for the routine management and oversight of all WAD-based and visiting aircraft operations. In addition, they are responsible to the Stn Duty Exec for all operational matters affecting the Stn outside of normal working hours. The DOC is to be available and contactable via Stn Ops at all times.

7. **Duty Meteorological Officer (DMetO).** The DMetO is to be an Operational Meteorologist (OM) or Operational Meteorologist Technician (OMT). The OM or OMT is to be on duty in the WAD Meteorological Office whilst the airfield is open. The OM is on duty from 1900L Sunday until COP Friday, and on call COP Friday until 1900L Sunday.
8. **Flying Display Director.** In accordance with Reference D, it is a mandatory requirement for all public flying displays at WAD (such as Families' Days) to have a SQEP Flying Display Director (FDD) assigned to them. SQEP for FDDs is defined by the MAA; any nominated FDD for an event at WAD must contact the MAA with a resume of their experience, in order to obtain authorisation. In most cases, they must also attend an MAA-hosted FDD Training Event. Waivers will only be granted in exceptional circumstances. OC OSW is to be provided with evidence that the MAA have authorised a nominated FDD for flying display events at WAD.
9. **Supported Units and Visiting Detachments.** All non-WAD-based assets are to nominate a flying supervisor (or equivalent). As part of their responsibility, they are to ensure that they are in direct contact with the DOC and ATC Supervisor during flying hours.

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Annex A to AOB Order B101**File reference 20240103-RAF_Waddington_AOB-Issue 4.1-O****RAF WADDINGTON OPS SPT WG EXEC TERMS OF REFERENCE**

- References:**
- A. Defence Aerodrome Manual (DAM)
 - B. [CONPLAN 1 \(Aircraft Post Crash Management and Major Accident Control Regulations\)](#)
 - C. [CONPLAN 2 \(Op BLACKTOP\)](#)

1. **Eligibility Criteria.** OF3 officers in command appointments are eligible for Ops Spt Wg (OSW) Duty Exec duties. Exceptionally, OF2 / OR9 may also be selected for OSW Duty Exec duties, with OC OSW's endorsement. Selected and endorsed OF2 / OR9s are only to be scheduled for OSW Duty Exec when OC OSW is available to provide supervisory oversight and support.

2. **Responsibilities.** The OSW Duty Exec is responsible for representing OC OSW outside normal working hours. They are responsible to the Aerodrome Operator (AO), through the DOC, for maintaining a Safe Operating Environment (SOE) for all WAD-based and visiting aircraft, in accordance with [MAA RA 1026](#). Specifically, the OSW Duty Exec is to:

- a. Remain contactable by telephone for the duration of the duty period (contact details to be passed to the DOC the day before the duty begins).
- b. Be on duty from 1200L Friday – 1159L the following Friday (unless agreed with OC OSW or agreed internally across OSW Duty Exec cadre), and as scheduled in the OSW Execs availability planner.
- c. The OSW Duty Exec may leave the stn during their duty but are to ensure that they remain within 3 hours¹⁹ of Stn and are to be **contactable at all times**. If they cannot remain within 3 hours of Stn for part of their duty they are to arrange appropriate cover during their absence from another OSW Exec and inform the DOC.
- d. Ensure that the DOC notifies any changes in aerodrome status to station based and visiting aircraft.
- e. Upon notification from, and based on advice from the DOC, subsequently notify the AO of any aerodrome-related matter that may affect the safe conduct of flight at WAD. In the event that the AO is unavailable, matters affecting the safe conduct of flight are to be first notified to the Dep AO. If they are uncontactable, matters are to be notified direct to the HoE. If operationally essential to meet planned departure / recovery times, the relevant DDH is to be notified directly. If a SOE cannot be maintained, flying operations are to cease until further AO / HoE / DDH direction is obtained. Notwithstanding the above, airborne aircraft in distress may recover at the discretion of the Aircraft Captain.
- f. Through liaison with the DOC, provide Duty Exec cover for decisions relating to out-of-hours visiting aircraft requests, subject to requirements and available resources, as assessed by the DOC.
- g. Out of hours, the Duty OSW Exec might be required to make a decision regarding the removal of a disabled aircraft from airfield operating surfaces. The Duty Exec will be contacted by the DOC as soon as the situation is understood, to consent to moving the

¹⁹ Every effort should be made to return to stn as quickly as possible on notification.

aircraft in a timely manner; consideration should be given to the potential for MOD liability for any damage caused during the movement. The speed of removal, supervision and precautions to avoid damage will depend upon the operational constraints and safety considerations at the time. The aircraft should normally only be moved under the supervision of the operating crew or owner. [Annex N, Orders for disabled Aircraft Removal](#), refers.

h. All individuals nominated to hold the OSW Duty Exec role are to read the classified folders held within cabinet E12, both before they sign for becoming a Duty Exec and every 3 months thereafter.

3. **ECC COS.** The OSW Duty Exec is to authorise the activation of the ECC OOH, through liaison with the DOC where necessary; they are also to assume the role of Emergency Coordination Cell Chief of Staff (ECC COS) in the event of the ECC being activated. Where appropriate, they will be relieved of ECC COS duties by SLOps during normal working hours. ECC COS duties are listed in [CONPLAN 1](#).

4. **Op BLACKTOP.** The OSW Duty Exec is not required to attend the 1330L Op BLACKTOP daily planning meeting but should be prepared to fulfil the duties detailed within [CONPLAN 2](#) regarding Op BLACKTOP. In summary, these are:

a. Establish the ECC in the event of Op BLACKTOP PLUS procedures being initiated by OC OSW (Refer to [CONPLAN 2](#)).

b. During normal working hours, the DISCO will make a request to the DOC for the activation of Tiger Teams. During the working day, OC OSW may approve the activation of personnel to be placed on RS60 overnight. This will be co-ordinated through the SWO. However, if the Station Tiger Team are required to be activated OOH (e.g. weekends or stand down), the OSW Duty Exec will liaise with the DOC to activate the Tiger Team and place personnel on RS60.

(1) OOH, the DOC is responsible for contacting units / sqns across the Stn, as per Annex H of [CONPLAN 2](#), and reporting back to the Stn Duty Exec the workforce levels of the Tiger Team.

(2) If there are any concerns regarding the safety of individuals fulfilling the Tiger Team role, or the Tiger Team workforce levels are less than 50%, the OSW Duty Exec should refer to the Station Duty Exec.

5. **OSW Recall.** The OSW Duty Exec is responsible for initiating the recall of OSW personnel, either as directed by the Stn Cdr or SDE, or upon judgement that a situation has arisen that requires the recall of OSW personnel out of hours / back from leave, as relevant. The OSW Duty Exec is to contact the SO2s, who will each initiate internal cascade. OC OSW should be informed of the requirement as soon as practically possible.

6. **MACA** (Military Aid to Civil Authorities). The MACA Request process has 5 levels of authorisation (from HoE up to ministerial authorisation). The first level, where 'assistance is required to urgently save life, alleviate distress, or protect significant property', requires HoE authority. If, however, out of hours, the OSW Duty Exec decides that MACA is appropriate to urgently save life only, every attempt should be made to contact the Station Duty Exec (SDE) or OC OSW, in order to sanction the activity. Consideration should be given to WAD activity (e.g., if the ICAO Crash Category is to be reduced and for how long); this consideration should be made in consultation with the DOC. If the SDE cannot be contacted within the timeline that the activity is required, the OSW Duty Exec is authorised to approve the activity and should back-brief the SDE as soon as possible.

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Appendix 1 to Annex A to AOB Order B101**File reference 20240103-RAF_Waddington_AOB-Issue 4.1-O****DUTY AUTH LIST FOR OPS SUPPORT WING DUTY EXEC****1. OC Ops Sqn**

Name	Signature	OC OSW Signature	Date

2. SATCO

Name	Signature	OC OSW Signature	Date

3. OC Logs Sqn

Name	Signature	OC OSW Signature	Date

4. OC WSC

Name	Signature	OC OSW Signature	Date

5. OC ESS

Name	Signature	OC OSW Signature	Date

6. Other – Flt Cdr MSF

Name	Signature	OC OSW Signature	Date

7. Other – Flt Cdr Ops

Name	Signature	OC Ops OSW Signature	Date

8. Other – DSATCO

Name	Signature	OC OSW Signature	Date

9. Other – to be notified

Name	Signature	OC OSW Signature	Date

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Order B102 – AUTHORISATION OF FLYING

References A. [MAA RA 2306: Authorisation of Flying](#)

Annexes Nil

1. **Authorisation.** All flights are to be authorised in accordance with Reference A. Individual platforms are to comply with all orders mandated to them by their DDH.
2. **Aircrew Briefing.** Flying Unit Cdrs are to ensure that aircrew under their command are fully conversant with the regulations, orders, instructions and information applicable to their respective platforms, including those in the MAA RA 1000 and 2000 Series.
3. **WAD Stn Ops.** WAD Stn Ops will notify flying squadrons of updates to the following documents.

Note: Notification of the latest amendments to the documents listed below will be passed from Ops Sqn to individual squadron ops desks, who will then be responsible for notifying their own squadron personnel of amendments.

- a. MAA RA 1000 and 2000 Series.
 - b. 1 Gp ASOs.
 - c. RAF Waddington DAM.
4. **Flying Squadrons.** Flying squadrons are responsible for ensuring that they remain abreast of DDH-mandated orders applicable to their aircraft type, such as Air Training Instructions, Read Files, and DDH orders

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AOB SECTION B PART 2 – AIRFIELD OPERATIONS

Order B201 – RAF WADDINGTON

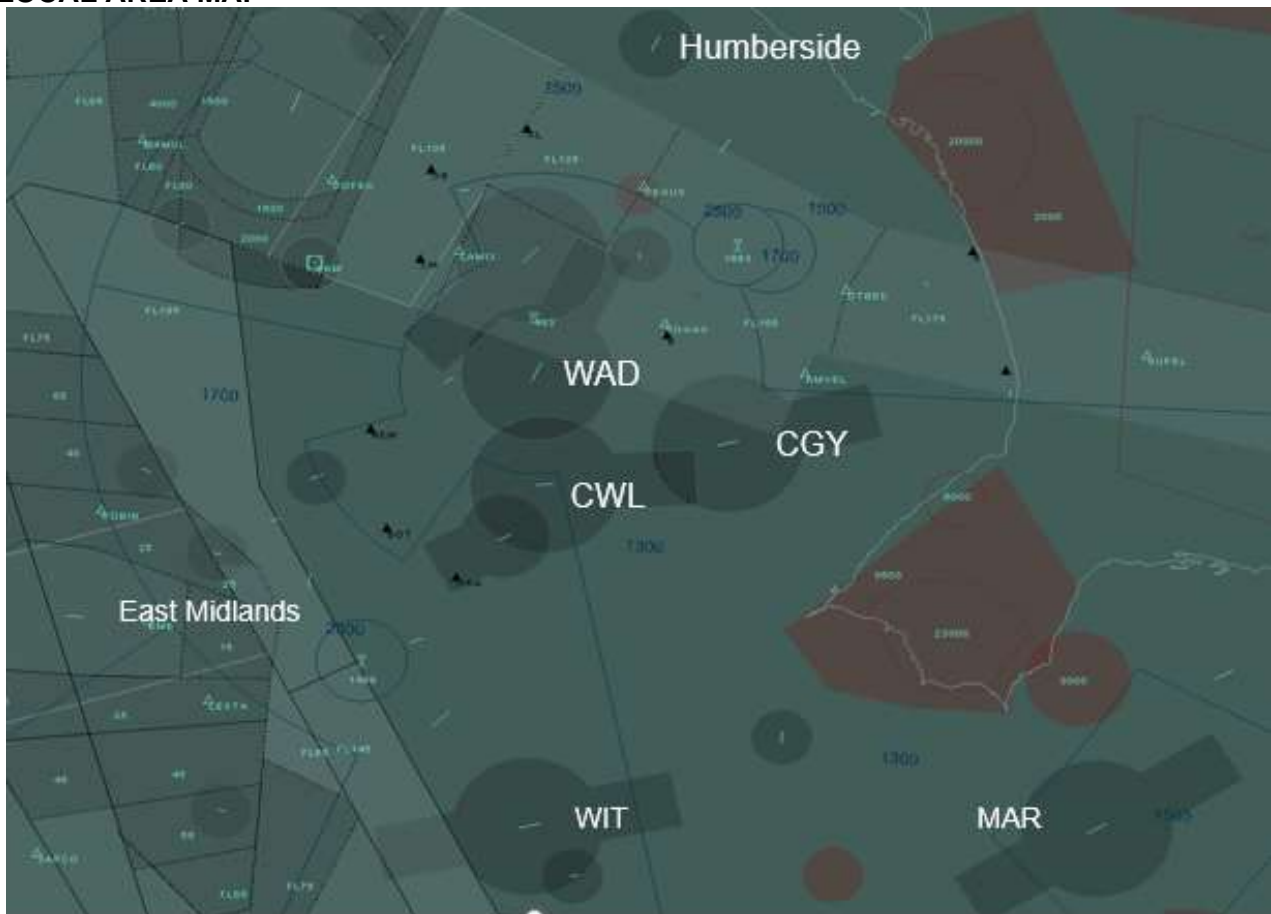
References A. [JSP 506: UK Peacetime Air/Ground Word Call Sign Policy, Instructions and Allocation](#)
B. 1 Gp ASOs

Annexes Nil

Aerodrome Location

1. WAD aerodrome is located alongside the village of Waddington and is 4 miles south of the city of Lincoln. WAD operates in close proximity to a number of local military, civilian and minor aerodromes.

LOCAL AREA MAP



Note: DON and SCA aerodromes no longer exist. ATC maps will be updated idc.

2. Local Airspace Restrictions

a. Military Aerodromes

- (1) RAF Waddington MATZ (5nm radius, surface – 3000ft AGL)
- (2) RAFC Cranwell MATZ (5nm radius, surface – 3000ft AGL)

- (3) RAF Coningsby MATZ (5nm radius, surface – 3000ft AGL)
- (4) RAF Barkston Heath MATZ (3nm radius, surface – 3000ft AGL)
- (5) RAF Syerston ATZ (2nm radius, surface – 2000ft AGL)

b. **Civilian Aerodromes**

- (1) Humberside International Airport ATZ (2.5nm, surface – 2000ft AGL)
- (2) Wickenby ATZ (2.0nm, surface – 2000ft AGL)
- (3) Gamston ATZ (2.0nm, surface – 2000ft AGL)

c. **Minor Aerodromes**

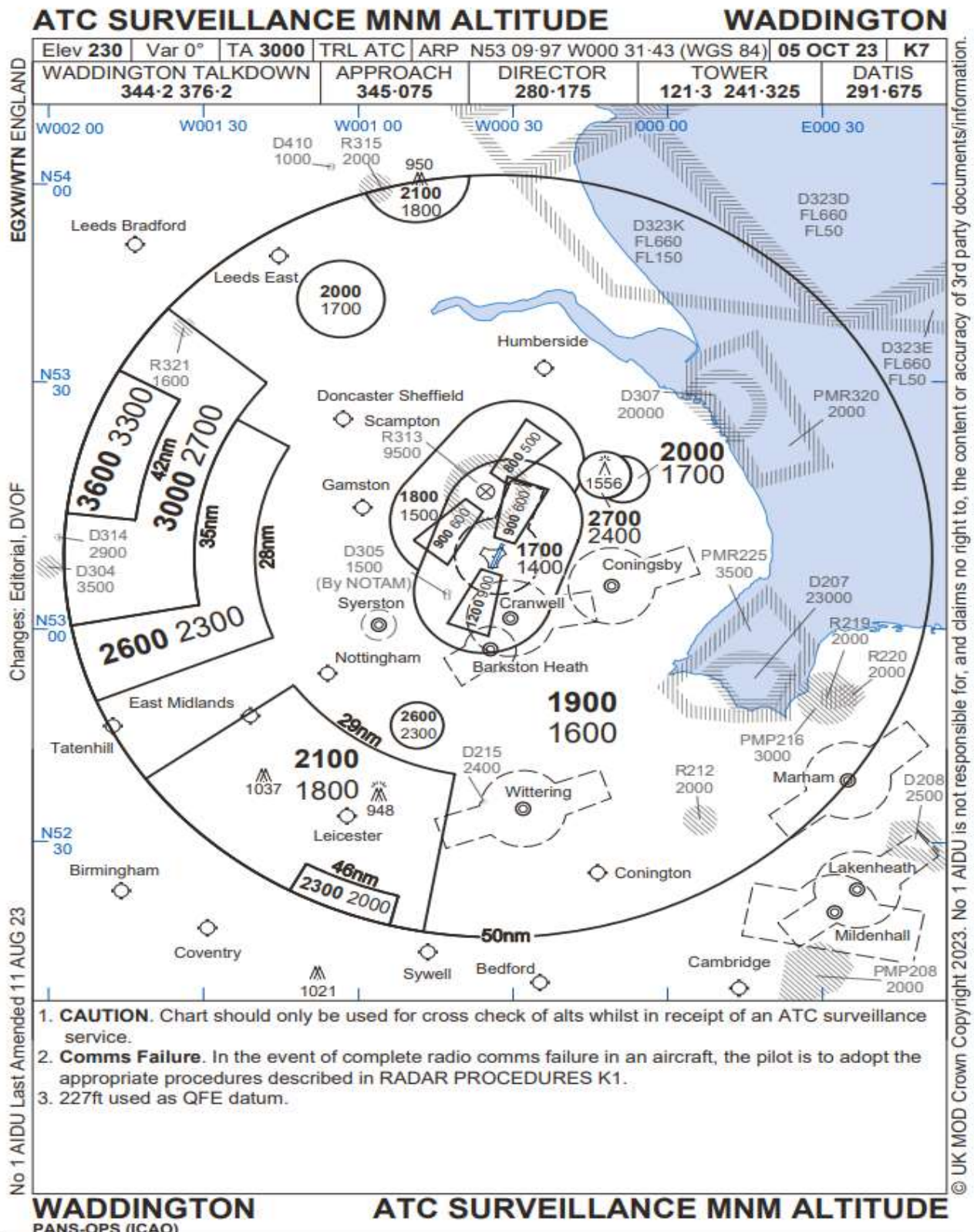
- (1) Hibaldstow Freefall Drop Zone (1.5nm, surface – FL160 when notified)
- (2) Kirton-in-Lynsey Unpublished (when notified)
- (3) Darlton Glider Site (when notified)
- (4) Langer Freefall Drop Zone (1.5nm, surface – FL150 when notified)
- (5) Saltby Glider Site (when notified)
- (6) Strubby Glider Site (when notified)

3. **EG R313.** EG R313 is restricted airspace centred over Scampton and is used by RAFAT for practice acrobatic displays and air tests. WAD Radar at Lincs TATCC is the controlling authority of EG R313. Commonly referred to as R313, the airspace is currently de-activated and only activated by NOTAM.

4. **D307 – Donna Nook Range.** Donna Nook Range (DNR) is a Danger Area located on the East coast. The airspace is active 0900 – 1630Z Monday to Thursday and 0900 – 1500Z on Friday, as well as 1630 – 2200Z Monday and Wednesday from September to April, SFC – altitude 20,000 ft (RPS) (occasionally 23,000ft RPS). If active outside these published hours, a NOTAM will be issued.

5. **D207 – Holbeach Range.** Holbeach Range is a Danger Area on the North Norfolk coast. The airspace is active 0900 – 1700Z Monday to Thursday and 0900 – 1200Z Friday, as well as 1700 – 2200Z Tuesday and Thursday from September to April, SCF – altitude 23,000 ft (RPS). If

active outside these published hours, a NOTAM will be issued.



6. **Extraordinary Air Activity.** All extraordinary air activity such as RPAS (other than Protector) activity, model aircraft flying, ballooning, paragliding, falconry etc. must have prior approval from the Aerodrome Operator before commencing activity.

- a. Standing agreements may be issued when appropriate.
- b. All RPAS activity on the aerodrome is to be conducted iaw:
 - i. [ATC Orders](#)
 - ii. [Ops Sqn Orders](#)

7. Mandatory Avoid Areas



8. **Embargos.** The following embargos can be authorised by OC OSW and promulgated by Stn Ops / ATC.

Type	Visual Circuits	Radar Training Circuit	Ground Operations	
1	No visual circuits	Radar patterns only	N/A	N/A

2	No take-offs, circuits or PDs	Straight-in approaches to land only	Minimum thrust reverse	No EGRs
3	No take-offs, circuits, PDs or taxiing aircraft	No approaches	No landings	No EGRs

Note: Aircraft in an emergency are exempt from the above restrictions.

9. **Visiting Aircraft** . Visiting aircraft will be accepted on a case-by-case basis and with the express permission of OC OSW. If issued with a PPR, captains of visiting aircraft are to abide by the WAD noise abatement procedures.

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Order B202 – R/T FREQUENCIES – STUD CARDS

References A. CAP 413 Radiotelephony Manual

Annexes Nil

1. The Lincolnshire Terminal Air Traffic Control Centre (Lincs TATCC) at RAF Coningsby is responsible for providing Radar ATS to aircraft using WAD.
2. **Tower Frequency.** Due to the range of aircraft that use the Waddington circuit, VHF frequency 121.3 MHz should be used by all aircraft under the control of WAD Tower. UHF frequency 241.325 MHz should only be used to communicate with WAD Tower in extremis, when an airborne aircraft is unable to use VHF.

Pre-Set Frequencies.

RAF WADDINGTON STUD CARD									
#1	#2	VHF	#3	#4	#5	#6	#13	VHF	VHF
GRD	TWR	TWR	APP	DIR	T/D1	T/D2	ZONE	ZONE	RAFAT
342.12	241.32	121.3	345.07	280.17	344.20	376.20	232.70	119.5	125.35

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Order B203 – R/T PROCEDURES

References A. [CAP 413 Radiotelephony Manual](#)

Annexes A. Poor UHF/VHF Performance Map

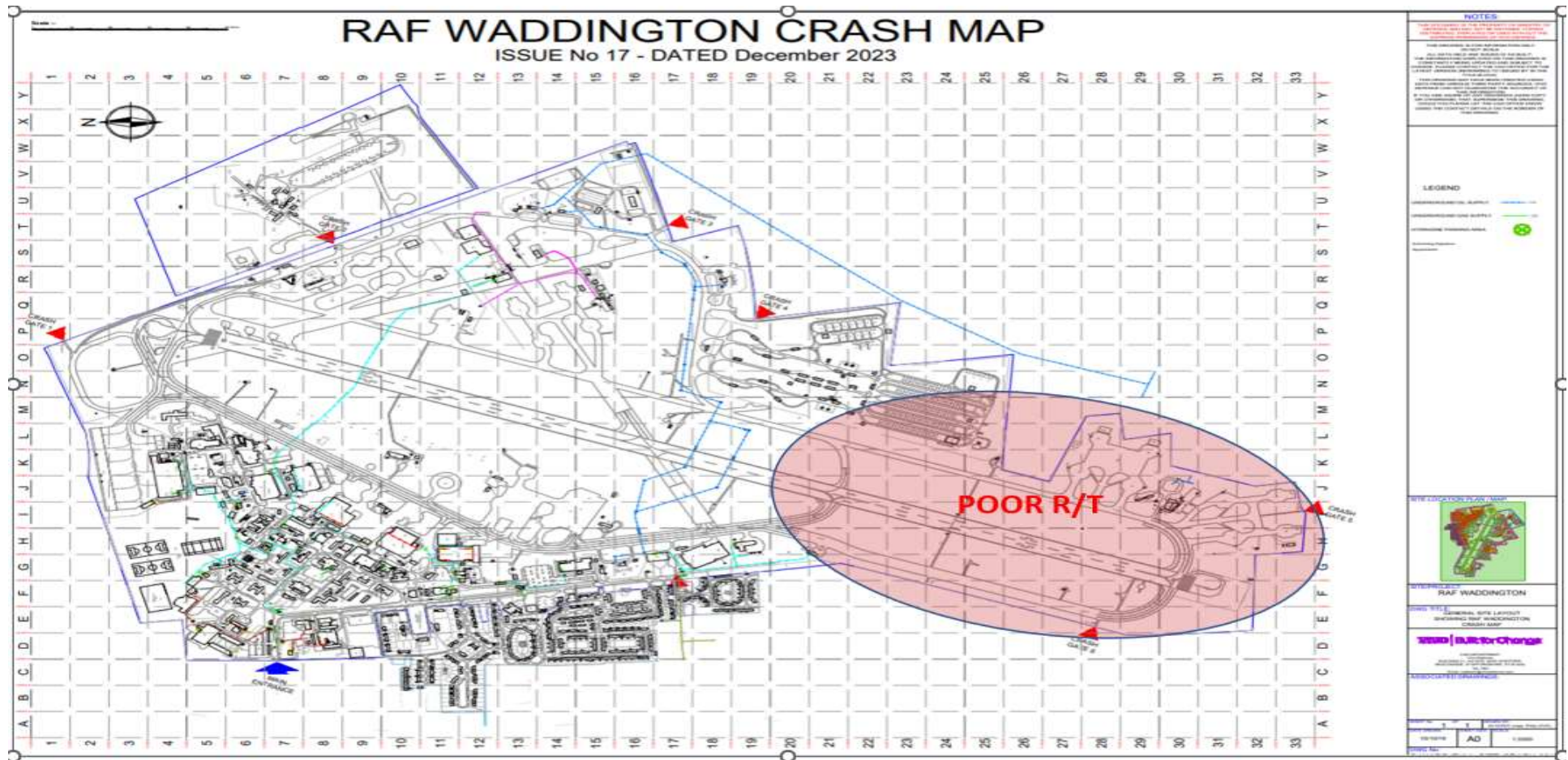
1. **Local R/T Procedures.** Whenever possible all procedures and phraseology are to comply with Reference A.
2. **Aircraft Start.** All aircraft are to ensure positive two-way R/T has been established with the RAF Waddington Ground Controller prior to engine start. An exception applies for RW Field Ops when authorised, see Order B220.
3. **Areas of Poor UHF / VHF Performance.** WAD has known areas of poor UHF / VHF reception. ATC personnel and aircrew operating in the vicinity of the areas shown at Annex A to this order are to be aware of the potential for reduced-quality R/T exchanges and are therefore to pay particular attention to ensuring that clearances and instructions are correctly acknowledged by all concerned.

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Annex A to AOB Order B203

File reference 20240103-RAF_Waddington_AOB-Issue 4.1-O

RAF WADDINGTON POOR UHF/VHF PERFORMANCE MAP



Order B204 – NOTIFICATION OF FLIGHTS

References Nil

Annexes Nil

1. **STARS.** STARS is the sole flying programme software used by WAD.

a. Sqn Ops are responsible for ensuring that STARS is kept up-to-date with their daily and weekly flying programme.

b. Flying squadrons are responsible for maintaining and updating their contact details on STARS.

c. OOH, Stn Ops will update STARS with airborne and landing times.

2. **Updating Sortie Information**

a. **WAD-based Aircraft.** Sqn Ops are responsible for keeping STARS up-to-date with sortie information. This should include all involved parties and their contact details. Specific information required includes IFR / VFR departure, direction of departure, known transit levels, area of operations, agencies required, and timings.

b. If a sortie changes or cancels within 24hrs of the planned departure, the following is to take place:

(1) During normal working hours:

a. Sqn Ops will update STARS.

b. Sqn Ops are to inform all relevant parties of the flight delay or cancellation, including Stn Ops and any external agencies.

(2) Outside normal working hours:

a. Stn Ops will update STARS.

b. Stn Ops will call all relevant parties and inform them of the flight delay or cancellation according to the individual Sqn's "out of hours" procedure and include any external agencies annotated on STARS by the Sqn.

c. If a sortie changes or cancels 24hrs or more before the planned departure, the following is to take place:

(1) Sqn Ops are to amend STARS. All agencies are expected to check STARS daily for changes to the flying programme.

d. **Visiting Aircraft.** When any visiting aircraft operates from WAD, Stn Ops is responsible for updating STARS for any sorties. Visiting detachments, 2xcel / Gama Aviation and Waddington Flying School are responsible for providing Stn Ops with updated sortie details.

e. Sortie details are to be passed to Stn Ops. If this is not possible, the following information should also be passed when calling for taxi:

- (1) Departure details (including heading, transit altitude / FL, IFR / VFR / non-standard departure, radar service required).
- (2) Sortie length, if other than standard.
- (3) Destination airfield and time en-route, if other than operating base.

3. Diplomatic Clearances. All international transit flights for WAD aircraft must have the appropriate diplomatic clearances. In order to do so, it is the responsibility of the Aircraft Captain to ensure that a diplomatic clearance request form is completed.

- a. A separate form must be completed for each leg of the transit.
- b. It is the responsibility of the Stn Ops personnel to submit the diplomatic clearance request.

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Order B205 – ENGINEERING DISTRACTION

References Nil

Annexes Nil

1. **Engineering Distraction.** Distraction during engineering shift handovers has been identified as a significant cause of incidents and accidents.
2. To avoid this distraction and thus enhance flight safety, aircraft sorties should be routinely planned so that the aircrew engineering de-briefs avoid the hour surrounding the engineering shift handover.
3. For the majority of squadrons the 'Golden Hour' is 1545L – 1645L. This will ensure that the engineering day-to-night shift handover is protected and uninterrupted, therefore reducing the risk of Human Factors-related incidents.

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Order B206 – DIVERSION AIRFIELDS

References FLIP En-Route Supplement – B.I.N.A.

Annexes Nil

1. Prior to daily flying, the DOC – in consultation with the OM and Sqn Ops personnel – will book suitable diversion airfields for WAD-based platforms. Sqn Ops personnel staff are to inform the DOC if a diversion is not suitable or if additional diversions are required. A list of Shadow and Rivet Joint-suitable diversion airfields is in the table below.

AIRFIELD	ICAO	LDA (ft)	BEARING /RANGE (nms)	Civil ILS Monitored	ICAO	Aircraft Type
Boscombe Down	EGDM	RWY 05: 10,440 RWY 23: 10,187	201.22/128.97		ICAO A6	SHADOW
Bristol	EGGD	RWY 09: 6,598 RWY 27: 6,175	217.77/134.1	Yes	CAT A8. CAT 9 under remission	SHADOW
Brize Norton	EGVN	RWY 7/25: 10,007	205.05/93.29	Yes – On request	ICAO 8	RJ, SHADOW
Cranwell	EGYD	RWY 08: 6,286 RWY 26: 6,529	172.5/08.19		ICAO 5	SHADOW
Coningsby	EGXC	RWY 07/25: 9,003	108.89/13.52		ICAO 5	SHADOW
Teeside Intl	EGNV	RWY 05/23: 7,516	338.77/87.22	Yes	ICAO 6	SHADOW
East Midlands	EGNX	RWY 09: 8,904 RWY 27: 9,068	236.23/34.96	Yes	CAT A7. CAT 8 On remission. CAT 9 by arrangement minimum 12hrs notice required.	RJ, SHADOW
Humberside	EGNJ	RWY 02: 6,791 RWY 20: 6,398	016/25.25	Yes	CAT A6. CAT 7 & 8 By Arrangement	SHADOW
Lakenheath	EGUL	RWY 06/24: 8,996	138.58/60.07		NATO 7	SHADOW
Leeming	EGXE	RWY 16/34: 7,516	332.71/076.8		ICAO 5	SHADOW
Leuchars	EGQL	RWY 08: 7,602 RWY 26: 8,484	338.28/209.33		ICAO 5	SHADOW
Lossiemouth	EGQS	RWY 05: 9,068 RWY 23: 8,780	341.81/289.31		ICAO 7	SHADOW
Marham	EGYM	RWY 05/23: 9,131	128.18/049.72		ICAO 5	SHADOW
Mildenhall	EGUN	RWY 10/28: 9,214	142.36/060.61		NATO 9	RJ, SHADOW
Newcastle	EGNT	RWY 07: 7,247 RWY 25: 6,969	340.33/119.76	No	ICAO 8	SHADOW
Newquay	EGHQ	RWY 12: 8,652 RWY 30: 8,018	227.38/233.45	RWY30 only	ICAO 6	SHADOW
Norwich	EGSH	RWY 09/27: 6,043	113.48/071.77	No	ICAO 6	SHADOW
Prestwick	EGPK	RWY 12: 8,996 RWY 30: 9,800	316.33/200.94	Yes	ICAO 7	RJ, SHADOW
Shawbury	EGOS	RWY 18/36: 6,007	255.58/080.7		ICAO 5	SHADOW
Valley	EGOV	RWY 13/31: 7,513	273.67/144.61		ICAO 5	SHADOW
Warton	EGNO	RWY 07: 7,730 RWY 25: 7,680	293.53/091.62	By request	CAT 6: PEAK Hrs. CAT 9: PN O/R.	SHADOW IF REQUESTED
Wattisham	EGUW	RWY 05/23: 7,490	138.1/82.28		H3	SHADOW

Yeovilton	EGDY	RWY 08/26: 7,523	212.12/151.1		ICAO 5	SHADOW
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2. RAFAT diversion airfields are booked by RAFAT Ops and communicated to Stn Ops.

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Order	B207 – TAXI PATTERNS, PROCEDURES & PARKING BAYS
References	A. RA3261(1) – Aerodrome Service
Annexes	Nil

1. To ensure the safe and effective operation of aircraft on the Manoeuvring Area, aircrew shall conform with ATC instructions regarding taxi patterns. When safe to do so, ATC may impose alternative taxi instructions for safety reasons or for increased expedition. All instructions passed by ATC to aircraft on the Manoeuvring Area are mandatory.
2. Aircrew are to provide the following information when requesting start / taxi clearance:
 - a. POB (if not given previously when requesting start up clearance).
 - b. ATIS Flight Information Code Letter (to be obtained before calling for start)
 - c. Bay number or location.
3. **Taxi Clearance.** Taxi instructions issued by ATC will contain a clearance limit; this is the point at which the aircraft must stop unless further permission is given. For departing aircraft, the clearance limit will normally be the holding point of the runway in use, but will depend on the traffic situation. If an aircraft starts to taxi for Runway 20 while instrument traffic is inbound using the ILS, the aircraft on taxi will be held at the Cat 1 Hold until the instrument traffic has finished its approach.
4. **Restrictions of Code D / E Aircraft.** Obstructions affecting wingtip clearances can be found at [Annex I](#).
5. **Ground Support Equipment (GSE).** RAF Waddington may be able to provide certain elements of GSE. Requirements are addressed on a case by case basis and should be articulated to Stn Ops in advance of any planned movement. WAD-based aircraft retain priority for use of WAD GSE at all times.
6. **Dangerous Air Cargo / Armed Aircraft Parking.** The loading / unloading of DAC and parking of armed aircraft is to take place in accordance with [AESO 2-1-1-01-37](#). The designated parking area for the loading / unloading of DAC is Bay 19A. Further information is at [Annex II](#).
7. **Armed Aircraft Parking.** Limitations on accepting armed aircraft are in force and are subject to Stn Ops approval. Of note, WAD does not accept aircraft with forward-firing weapons. Further information is at [Annex II](#).

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Order B208 – CONTINUOUS CHARGE

References Nil

Annexes Nil

1. Any sortie that requires an Engine Running Crew Change (ERCC) should be pre-noted to Stn Ops who will liaise with ATC for approval. This allows the ATC Supervisor to plan for the disruption this may cause and to arrange appropriate fire cover. If the ATC Supervisor believes that priority tasking will be affected or safety compromised by an ERCC, the request may be denied. The respective squadron will be informed of this as soon as possible, allowing them to react accordingly.
2. Whilst an ERCC is in progress, the ADC may utilise the runway to backtrack an aircraft and taxi them against the stream, or to move aircraft in and out of bays that are positioned along Alpha Taxiway.
3. 14 Sqn have continuous charge procedures that allow them to carry out ERCC on Alpha Taxiway at 2 Hangar North.
4. Appropriate fire cover if required is to be arranged via ATC prior to the aircraft being positioned for the ERCC.

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B209 – VEHICLE MOVEMENTS

Vehicle and pedestrian control orders can be found at [Annex U.](#)

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Order B210 – DEPARTURES

References A. Mil AIP

Annexes Nil

1. **General Departure Information.** Departures in the sector 130°- 220° will not normally be approved; in exceptional cases, aircraft may be cleared to climb out in this sector after prior coordination with Cranwell ATC. Fast jets departing the airfield under VFR are to comply with the WAD noise abatement procedures until clear of the WAD MATZ boundary. All right hand VFR departures from Runway 20 are to climb on runway track to WAD 3nm DME or 1000 ft QFE before commencing the turn. Without a positive crossing clearance from ATC, EGR 313 (when active) and Cranwell MATZ are to be avoided.
2. Aircraft conducting non-standard IFR departures are to climb on runway track to 1400ft QFE prior to turning. To reduce R/T, this instruction will not be transmitted to WAD-based crews or visiting crews operating in accordance with this AOB. Without a positive crossing clearance from ATC, EGR 313 (when active) and Cranwell MATZ are to be avoided.
3. **Helicopter VFR Departures.** WAD regularly hosts helicopter detachments and refuelling moves. In order to standardise arrival and departure profiles, the following procedures apply:
 - a. Visual recoveries and VFR departures are to route inbound / outbound either from the West via Swinderby, or East via Metherringham, maintaining not above 500ft QFE inside the aerodrome boundary.
4. **Military Instrument Departures (MIDs).** The MIDs are safeguarded iaw PANS-OPS Military Instrument Procedures and Standards (MIPS). All WAD MIDs are published in the TAP Charts.
 - a. **MID NE RWY 02RH** – Climb on runway track to 500ft QFE / 730ft QNH, then turn right to intercept Waddington 045R, climbing to FL120.
 - b. **MID NE RWY 20** – Climb on runway track to 500ft QFE / 730ft QNH, then turn left OTR climbing to FL120 (if entering the RTC, stop climb 2500ft QFE / 2800ft QNH).
 - c. **MID SE RWY 02RH** – Climb on runway track to 500ft QFE / 730ft QNH, then turn right onto track 090°, at WAD 8nm DME, turn right direct CGY. Outbound, 180R to CGY 6nm DME, climbing FL120.
5. Aircraft conducting non-standard IFR departures are to climb initially on runway track to 1400ft QFE prior to turning. To reduce R/T, this instruction will not be transmitted to WAD-based crews or visiting crews operating in accordance with this AOB. Without a positive crossing clearance from ATC, Cranwell MATZ is to be avoided.
6. **Application of Radar Services.** WAD-based aircraft will be given a Traffic Service on departure, unless otherwise requested. Visiting aircraft requiring a radar service are to request their desired type of service on initial contact with WAD Radar.
7. **WAD / CGY Agreement.** Due to the proximity of WAD, CRN and CGY, some non-standard departure profiles for some larger aircraft may be denied or altered in order to remain clear of adjacent MATZs.

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Order B211 – WADDINGTON VISUAL CIRCUIT PROCEDURES

References A. CAP 413 - Radiotelephony Manual

Annexes Nil

1. **Standard WAD Visual Circuit Procedures.** See [DAM Orders 4.51 – 4.5.4](#)
2. **Mixed Instrument and Visual Circuits.** See [DAM Orders 4.5.5](#)
3. **Circuit Capacity.** See [DAM Orders 4.5.5](#)
4. **RHAG Operations.** [See DAM Annex J.](#)
5. **Practice Emergencies.** All requests for non-standard visual circuits are to be requested with ATC.
6. **Wake Turbulence.** During approaches in light wind conditions, crews are to be alert to the possibility of experiencing wake turbulence from preceding aircraft and are to comply with the Wake Turbulence Separation Criteria specified in the FIH.
7. **Hawk T1 Procedures.** The following information applies to recoveries for single Hawk T1 aircraft and formations of up to 4 aircraft. All heights given are in QFE, unless otherwise stated. Dashed lines show aircraft climbing, solid lines level or descending. Hawk T1 aircraft planning to depart the circuit pattern to initials or to low / high key should make this request to ATC, ideally passing their intentions downwind on the circuit prior. For example, 'Vulcan 80, downwind touch and go, depart wide downwind to initial for a RAFAT Break Profile'.
 - a. **Standard Fast Jet Breaks.** Standard Fast Jet Breaks can be flown with other aircraft in the circuit. Hawk T1 aircraft joining the circuit will visually deconflict with aircraft already established in the circuit. Formations of up to 4 aircraft will route via standard Waddington IPs and break from the deadside, at between 300 and 400kts. Breaks will be flown from either 1000ft, or 500ft if a "Low Break" is requested and approved by ATC. 500ft breaks can either be flown level or climbing to 1000ft.

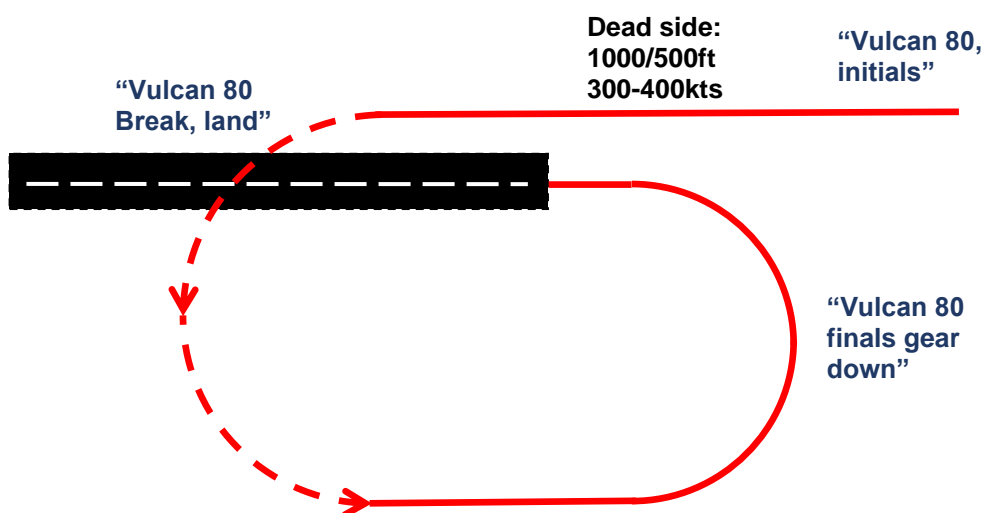


Fig 1: Standard FJ Break

b. **RAFAT Break Profile.** The RAFAT Break profile can be flown with WAD-based aircraft in the circuit. Aircraft will route via the IP before descending to 300ft and reducing speed to between 310 and 330kts on the deadside. The break will be flown from 300ft, climbing to 700ft. Aircraft will use standard visual run-in-and-break (VRIAB) RT.

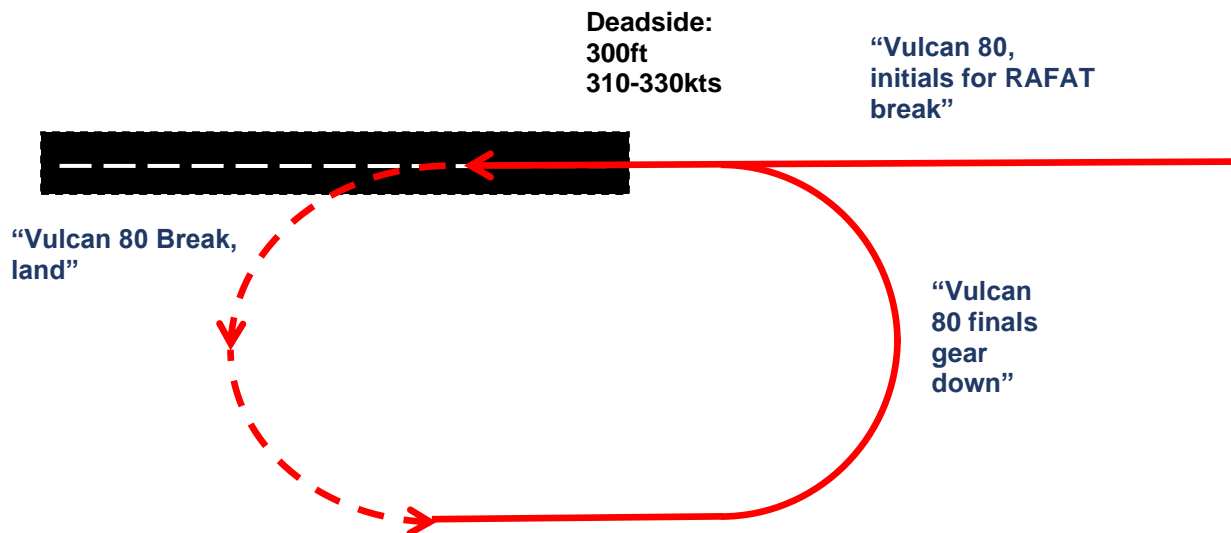


Fig 2: RAFAT Break

c. **RAFAT Circuit Profile.** RAFAT circuits can be flown with WAD-based traffic in the circuit. Aircraft will request a RAFAT circuit upwind. RAFAT circuits are flown at 700ft downwind, using the same ground track as a normal fast jet circuit.

d. **Visual Practise Forced Landing (PFL).** Visual PFLs can be flown with other aircraft in the circuit and are flown by single aircraft only. Positioning from the circuit (after a touch-and-go or low approach), aircraft will use a high rate of climb (20-25° nose up), extending ahead to 1500ft and 250kts before commencing a turn, opposite to the circuit direction, and climbing to 4500ft. High Key is at 4500ft, perpendicular to the runway, and approximately 6000ft from the threshold in use. "High Key" will be called, with intentions, before a continuous descending turn to Low Key is commenced. Aircraft will not descend from High Key without SA on other circuit traffic. Low Key is between 2500 and 3000ft, in approximately the late downwind position, slightly wider than a normal circuit, and is called for positional awareness. "Final" will be called. "Gear down" will be called when the gear has travelled. Expect a steep approach and aircraft to touch down approximately 2-3000ft into the runway. PFLs are flown to low approach or touch-and-go only.

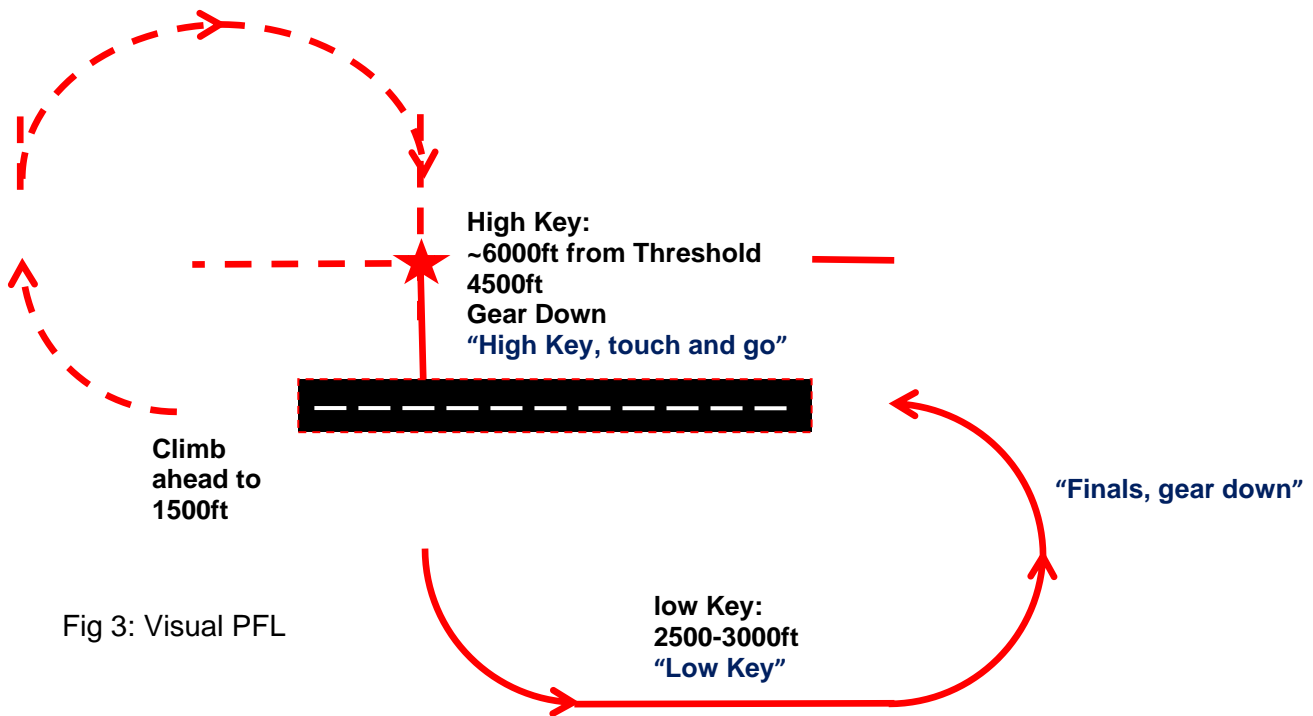


Fig 3: Visual PFL

e. **Practise Engine Failure After Take Off (PEFATO).** PEFATOs are flown by single aircraft only. PEFATOs can be flown to the runway in use, or the reciprocal; both require a clear circuit and ATC approval. The PEFATO will be initiated from a minimum of 300kts and from either a straight ahead or turning ground track. To initiate the procedure, the pilot will call "simulated engine failure, positioning for runway [02/20]" if turning for the reciprocal, or "simulated engine failure, positioning for low key" if turning for the runway in use. A climbing turn (in either direction), back towards the airfield, will be flown with an apex of up to 3000ft. All PEFATOs will be to low approach only, with a go-around initiated by 300ft. The "final, gear down" call may come late, if the aircraft is kept clean for longer, to maximise gliding performance. Expect a steep approach. Following the go around, aircraft flying a PEFATO to the reciprocal runway will position to intercept the departure ground track for the runway in use, unless a clearance to deviate from this ground track has been approved by ATC.



Fig 4: Reciprocal PEFATO

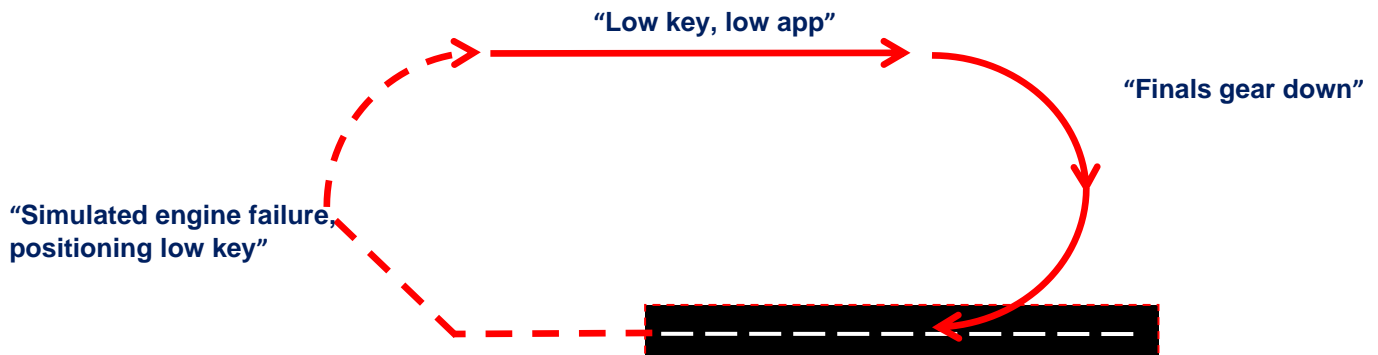


Fig 5: Low Key PEFATO

f. **1000ft PFL.** 1000ft PFLs can be flown with WAD-based traffic in the circuit. They are flown by single aircraft only. Aircraft will be positioned to run in through the IP at 1000ft and approximately 300kts, calling "initial for 1000ft PFL". The aircraft may descend when running in from initials as 1000ft PFLs can be initiated at any height between 300ft and 1000ft, subject to ATC restrictions. Idle will be selected on the deadside, normally between the threshold of the runway in use and the runway midpoint, and a climbing or level turn to the Low Key lateral position will be flown. The pilot will call "Low Key" with intentions, but the landing gear will remain up. The aircraft is likely to tip final without gear, to maximise glide performance. Gear selection and the call of "final gear down" may come as late, as the aircraft is rolling out in line with the runway. Aircraft will not proceed below 300ft unless the gear is down and locked and ATC clearance has been obtained.

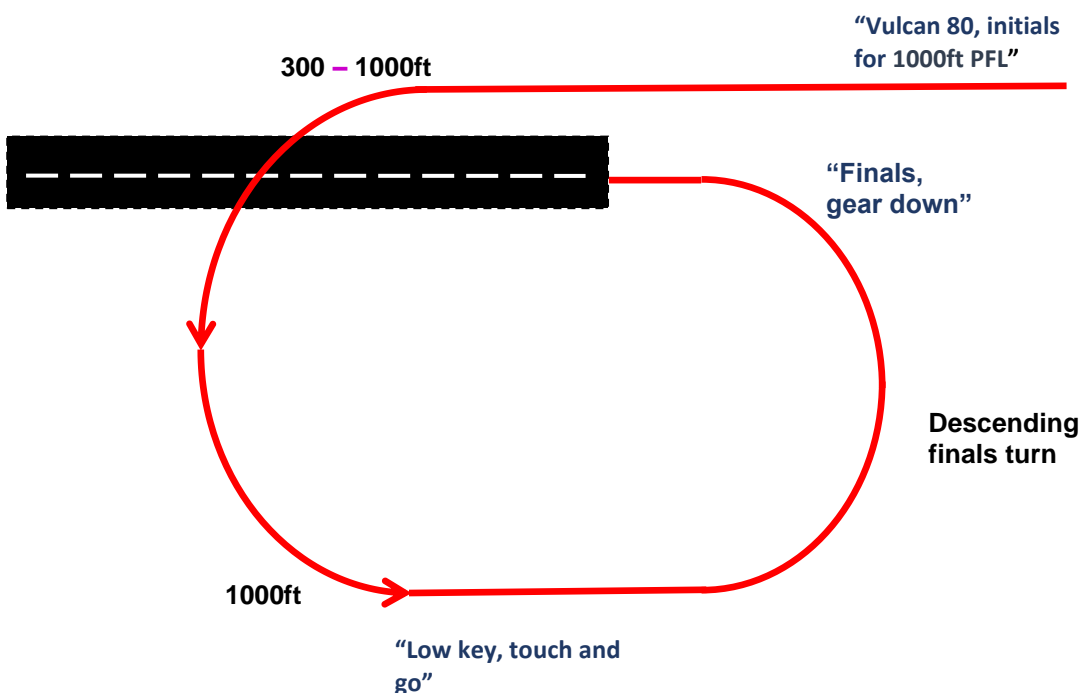


Fig 6: 1000ft PFL

g. **Flapless Straight-in Approach.** Flapless Straight-in Approaches can be flown with other aircraft in the circuit and are flown by single aircraft only. Aircraft will position on the extended centreline of the runway in use, at approximately 1000ft and 5nm. A visual straight-in approach will then be flown. At 5nm, the pilot will call "Long Final" with intentions, and at 2nm they will call "Short Final, gear down". Airspeed on the approach will be high, up to 170kts and tapering to approximately 140kts at touch down. Visibility of the runway on light crosswind days will be restricted, especially from the rear seat. Practise flapless approaches will be flown to touch-and-go or low approach only.

h. **Bolter Landings.** Bolter landings can be flown with other aircraft in the circuit and are flown by single aircraft only; these landings are flown during conversion-to-type training, to give pilots experience of having to bolt from a landing with large numbers of aircraft ahead on the runway. ATC will be pre-noted downwind with a "downwind for practise bolter landing" call. Aircraft will carry out a normal approach and touchdown before gently decelerating to around 70kts. Power will then be applied to complete a touch-and-go. The aircraft will remain configured for the subsequent circuit, to aid brake cooling.

i. **Red Arrows Procedures.** This section applies to Red Arrows formations of between 5 and 12 aircraft. The circuit should be clear for all Red Arrows formation recoveries. Red Arrows formations will request a formation clearance to land, normally prior to the break, and conduct internal gear checks on the internal formation UHF frequency.

j. **Flat Break.** A Flat Break is the standard Red Arrows formation recovery, and can be flown by up to 12 aircraft. The Red Arrows formation will route via the IP before descending to 300ft, at between 310-330kts on the centreline. A 'Flat Break' will be requested. The break will be flown from 300ft, climbing to 700ft. All aircraft will break in the same direction. Aircraft will come to a stop on the runway and remain stationary until the last aircraft has landed safely and reduced to slow speed. The formation will then taxi clear of the runway, or execute a Reverse. A Flat Break can be flown in 2 sections at approx. 0.5nm separation; sections will deconflict internally in accordance with the RAFAT Display Directive / Hawk T1 SOPs. If an aircraft executes a go-around, the pilot will fly a RAFAT Circuit in the same direction that the break was executed.

k. **Left-Right Break.** A Left-Right Break can be flown by up to 10 aircraft. The Red Arrows formation will route via the IP before descending to 300ft, at between 310-330kts on the centreline. A 'Left-Right Break' will be requested. The break will be flown from 300ft, climbing to 700ft. Pairs of aircraft will fly simultaneous breaks to the left and right, and land in sequence from opposite circuit directions. Aircraft will come to a stop on the runway and remain stationary until the last aircraft has landed safely and reduced to slow speed. The formation will then taxi clear of the runway, or execute a Reverse. If an aircraft executes a go-around, the pilot will fly a RAFAT Circuit in the same direction that they flew their break.

l. **Spaghetti and Magnum Breaks.** A Spaghetti or Magnum Break can be flown by up to 9 aircraft. A 'Spaghetti Break' or 'Magnum Break' will be requested. The break requires use of airspace up to 6000ft above the airfield. The Red Arrows formation will route via the IP before descending to 300ft, at 360kts on the centreline. The Red Arrows formation will pull up into a loop at least halfway down the active runway, before breaking simultaneously to pre-briefed angles and landing in sequence from opposite direction circuits. The minimum

height for aircraft recovering from the loop is 500ft MSD and the opposing circuits are flown at 1000ft QFE. Aircraft will come to a stop on the runway and remain stationary until the last aircraft has landed safely and reduced to slow speed. The formation will then taxi clear of the runway or execute a Reverse. If an aircraft executes a go-around, the pilot will fly a RAFAT Circuit and turn downwind in the same direction that they flew their break.

m. **Reverse.** The objective of a Reverse is to turn the Red Arrows formation around on the runway in a safe and expeditious manner. A 'Backtrack' will be requested prior to the break, or after landing. All aircraft will come to a complete stop on the runway prior to simultaneously turning inwards through two 90° turns, ending up on the other side of the runway, pointing in the opposite direction. The Red Arrows formation will then taxi clear of the runway.

n. **Lincolnshire and Nottinghamshire Air Ambulance (LNAA).** In the event of an LNAA launch before reaching initials, RAFAT will be informed immediately and provided with a 'not below height' restriction to enable the LNAA to safely depart at 500ft AGL. Inside of initials, aircraft executing a break will expeditiously climb to 1000ft or greater until deconfliction can be achieved.

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Order B212 – FLYING DISPLAYS, ROLE DEMOS AND FLYPASTS

References

- A. [MAA RA 2335](#)
- B. 1Gp ASOs G2335
- C. [20230814-RAFAT_WAD_PDL_RA_FINAL-OS.docx](#)
- D. [RAFAT Display Directive – Change 31](#)
- E. [RAFAT Desktop Review for RAF Waddington](#)
- F. [Ops Ins 023-Ops-2020-CFR Air Safety Management Plan-Final.pdf](#)
- G. [20230426-WAD Display SQEP Panel](#)

Annexes Nil

1. Flying Displays – General Information

a. Guidance. References A and B contain detailed guidance on the planning, approval and execution of flying displays, display flying, role demonstrations and flypasts. References A and B should be used as the primary reference documents.

b. Flypasts. In addition to the contents of References A and B, flypasts being conducted at WAD are to be approved in advance by the Aerodrome Operator. For the avoidance of doubt, Wad is classed as ‘Rural’ and not ‘Urban’ / Built Up²⁰.

2. RAF Aerobatics Team (RAFAT) Procedures

a. RAFAT Practice Displays. WAD was approved at Ref C, as the Practice Display Location (PDL) for RAFAT. RAFAT will continue their home-based training programme using WAD until further notice. The following detail replaces Aerodrome Temp Order 01/23, to catalogue the RAFAT and Aerodrome procedures required by Risk Holders. In addition to the contents of this Order, all Practice Display (PD) events will be conducted in accordance with References A-G.

3. Concept of Operations. All Practice Display events will be undertaken by the appropriate aircrew, in accordance with their authorisations and their Display Directive.

4. Flying Supervision. OC RAFAT is the responsible Supervisor in accordance with Display Wing Orders.

5. A15 Lights and MT Route control. The A15 and MT Route lights will be managed in accordance with extant ATC SOPs. During any RAFAT activity, these lights may be switched to red at the discretion of the ATC Supervisor or ADC.

6. Timings and Notification. Timings and deconfliction are to be achieved through the longer-term Station Flying Co-Ordination Meeting (formerly known as the ‘PCC’), at the weekly Operational Planning Group (OPG), use of STARS, and tactical discussion at the Stn Ops 0800 daily brief, held in the OSW Main Ops Room.

7. Holding Pattern. Should RAFAT require to hold throughout any phase of their sortie, they are to hold under the direction of WAD Tower or WAD Radar.

8. Datums: Each Practice Display event may use the ‘Datum North’ (runway mid-point; N 53 10.00 W 000 31 23) or ‘Datum South’ (runway intersection with Taxiways C and E; N53 09 35 W

²⁰ Within 1Gp ASOs, advice on the definition of Urban Areas is listed in the UKLFH. Within the UKLFH, Lincoln City is listed as an Urban Area with the boundary of the Urban Area being depicted as ‘Grey Fill’ on the UKLFC (reference OC Low Flying Spt Centre - 25 Dec 17). As there is a clear gap between RAF Waddington & the Lincoln City boundary (UKLFC), & as Waddington Village + RAF Waddington have a population of less than 10,000; RAF Waddington is therefore classified as ‘Rural’ under normal circumstances.

000 31 35).

9. **Departure Procedures.** RAFAT will depart WAD in accordance with RAFAT SOPs and will adhere to the Hawk T1 Circuit Procedures outlined in this AOB.

10. **Restricted Airspace.** RAFAT Practice Display activity will be conducted in either a RA(T), TDA or EGD R324 (when established), as required.

11. **Flying Embargoes.** A flying embargo will be in place during the planned practice time slots. Emergency aircraft inbound to WAD will take priority, and RAFAT will cease activity and hold as directed by WAD Tower or WAD Radar.

12. **Emergency Procedures.**

- a. Emergencies will be handled IAW BM Orders and RAFAT SOPs.
- b. There is no pre-meditated ejection area in the immediate vicinity of Wad. If a pre-meditated ejection area is required, then the nearest pre-meditated ejection area for RAF Coningsby is the Skegness Bale Out Area – 30 nm East of Skegness pointing out to sea on a heading of 035 degree Mag.
- c. Any crash response will be IAW CONPLAN 1.
- d. WAD SMO is to arrange for the crash ambulance to be staffed and available to cover specific Practice Display events, OSPs / ISPs.

13. **Emergency Procedures – Loss of R/T.** If aircraft captains are unable to maintain satisfactory two-way contact with WAD Radar or WAD Tower, they are to operate in accordance with RAFAT SOPs.

14. **Truck Runway Caravan (TRC).** The TRC can remain on the airfield during practices, but it will not be crewed for specific activities, as detailed at the morning Stn Ops 0800 daily brief, held in the OSW Main Ops Room.

15. **Lincs Fire & Rescue Service (LFRS).** LFRS have been informed that RAFAT Practice Display activity will be enduring at WAD following PDL approval; no specific notifications are required.

16. **Lincs & Notts Air Ambulance (LNAA).** LNAA has been informed that, with effect from 16 Oct 23, RAFAT activity will be enduring at WAD. Established SOPs for LNAA emergency activity remain extant. In the event of an LNAA (callsign HELIMED) launch or recovery, RAFAT will be informed immediately and provided with a 'not below' height restriction, to enable LNAA to safely depart or recover. The agreed procedure is as follows:

- a. On start, LNAA will notify WAD Tower that they are on start, providing a general cardinal for their departure direction. For example:

(1) HELIMED: "WAD Tower, HELIMED 29A on start for a westerly departure"

- b. If RAFAT are conducting a training slot / elements of display flying in the WAD overhead, WAD Tower will intercom WAD Radar, ensuring they receive a readback. For example:

(1) "Radar, Tower, HELIMED 29A on start for a westerly departure"

(2) "HELIMED 29A on start for a westerly departure, roger"

c. If no readback received from WAD Radar, WAD Tower will call WAD Radar on landline and pass the same information, obtaining a readback.

d. WAD Radar will then inform RAFAT. For example:

(1) "RAFAT, HELIMED 29A on start for a westerly departure"

e. In good weather conditions (full display conditions), RAFAT will climb to 'not below' 1,000ft QFE.

f. In marginal weather conditions (flat display conditions), RAFAT will climb as high as safe and displace laterally from the intended cardinal, informing WAD Radar of their 'height not below'.

g. HELIMED will climb not above 500ft QFE until clear of the MATZ or safe to climb, clear of RAFAT (supported by traffic information from WAD Tower and WAD Radar).

17. **Cat A Flights.** In the event of a Cat A flight requesting transit through the airspace above Wad, RAFAT will be informed immediately and provided with a safe height restriction to enable safe transit.

18. **Operational Support.** The following additional resources and services will be requested for RAFAT activity:

a. **Crash Cover.** ARFF State 'Display Standby' will be provided in accordance with Annex H.

b. **Medical Cover.** The SMO is to provide appropriate crash and medical cover for the duration of the practices, noting the 'Display Standby' requirement above.

c. **Media.** In the event of a major incident the MCO is to report immediately to the ECG.

d. **AWCU.** AWCU will be withdrawn from the aerodrome for specific RAFAT activity, as detailed at the morning Stn Ops 0800 daily brief, held in the OSW Main Ops Room.

19. **ATC Procedures.** RAFAT are to adhere to the requirements of this AOB and the extant UK Mil AIP procedures when operating within the Wad MATZ.

20. **Callsigns.** Normal RAFAT callsigns are to be used throughout.

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Order B213 – VISUAL RECOVERIES

References

- A. CAP 413 - Radiotelephony Manual
- B. RA 3232 – Provision of Vectors to Aircraft Conducting Radar to Visual Recoveries or Short Pattern Circuits Below The Air Traffic Control Unit Terrain Safe Level

Annexes Nil

1. Visual recoveries may be carried out to either runway and will be controlled by WAD Approach, based at the Lincs TATCC. Due to the diverse aircraft types encountered, crews should anticipate that other aircraft on visual recovery may be joining via initial, the overhead, downwind, crosswind or straight-in. WAD regularly hosts helicopter detachments and refuelling moves. Helicopters may join via the eastern or western aerodrome boundaries. Specific orders on Helicopter Operations are at [Order B220](#).
2. Waddington Approach will confirm that the ATIS Code is current, or pass the relevant ATIS changes, and will either give the pilot the position of any radar traffic or confirm that there is no traffic to affect.
3. If a VFR Basic Service recovery conflicts with a radar recovery, the Approach Controller may ask the VFR aircraft to “squawk ident” and stay on frequency until the pilot is visual with the radar traffic.
4. **Rotary Visual Recoveries.** Visual recoveries and VFR departures are to route inbound / outbound, either from the West via Swinderby, or East via Metheringham, maintaining not above 500ft QFE inside the aerodrome boundary.
5. **Radar-to-Visual Recoveries.** Aircraft will be vectored towards the airfield and be given a descent to 1000ft QFE when safe to do so, in accordance with Reference B. On becoming visual with the airfield, the pilot is to carry out an appropriate visual join. If the pilot is not visual with the airfield by 4nm, ATC are to pass break off instructions and vector the aircraft for a further approach.
6. The weather minima for radar-to-visual approaches are as follows:
 - a. Cloud base (SCT) \geq 1200ft agl.
 - b. Visibility \geq 5000m.
7. **Radar-to-Initial Recoveries.** Aircraft may be vectored for a recovery via the initial point (IP). The IP locations are as follows: Aircraft may be vectored for a recovery via initials point (IP). The IP locations are as follows:
 - a. **IP Runway 20:** 4nm from the Aerodrome Reference Point (ARP), offset 0.5 nm to the deadside of the extended runway centreline.
 - b. **IP Runway 02:** 4nm from the ARP, offset 1.0 nm to the deadside of the extended runway centreline.
8. **Radar Straight-in Approaches.** Multi-engine, RAF transport and civilian aircraft often conduct radar straight-in approaches. At the approval of the Tower controller, the aircraft is vectored to intercept the extended centreline at a point whereby the pilot can see the aerodrome and can position for a visual landing.

9. **Radar-to-Overhead.** The aircraft is vectored towards the overhead, not below 3000ft QFE. When visual, the pilot is instructed to continue with WAD Tower.

a. Shadow aircraft will approach the airfield at least 1000 ft above the normal circuit height and position to cross the landing threshold towards the deadside. Once on the deadside, providing there is no conflicting traffic either going around or joining through initials, Shadow will call “deadside descending” and fly a continuous curving descent on the deadside, to cross the upwind threshold of the active runway at 1000ft and at a right angle, to intercept the normal downwind leg. If there is conflicting circuit traffic, the descent will be modified – or the turn adjusted on the deadside – to fit in behind aircraft that are already established in the circuit. The turn will then be continued onto the live-side, to intercept the normal downwind leg.

b. Other aircraft may conduct overhead joins as appropriate for their aircraft type.

10. **Break-off.** Any radar-to-visual aircraft not visual with the aerodrome by 4nm will be instructed to “break off the approach”. The aircraft will be given a safe heading, climbed to a safe height in accordance with the Terrain Safe Level, and the pilot’s intentions will be confirmed.

11. **Joining The Visual Circuit.** The Visual Circuit Joining Procedure is in place to enhance flight safety processes and simplifies matters for both controllers and aircrew. Upon first contact with WAD Tower, aircrew are to pass intentions, the runway in use and QFE / QNH. For example:

a. Waddington Tower, [call-sign], request join, Information Code [X], QFE / QNH [X] set

12. If the Tower controller does not receive the correct runway and QFE / QNH on the initial call, they will pass the information and request a read back. Any relevant change to airfield details will be transmitted to all circuit traffic.

13. **Lights-off Approaches.** All lights-off approaches by WAD-based or visiting aircraft are to be requested via ATC.

14. **Weekend Operations.** The Waddington Flying School (WFS) operate when ATC is closed, including during the evening and weekends. WFS departures and arrivals are conducted between the RHAGs, with the traffic lights permanently on green. Drivers may still transit the airfield via the MT Route and should keep a good lookout for aircraft both on the runway and in the approach lane. Drivers are to give way if it appears that an aircraft is not conforming with these rules. If the aircraft appears not to be conforming with these rules, ATC and the DOC should be informed at the earliest opportunity.

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Order B214 – INSTRUMENT RECOVERIES

- References**
- A. RA 3232 – Provision of vectors to aircraft conducting radar to visual recoveries or short pattern circuits below the air traffic control unit terrain safe level
 - B. [CAP774](#)
 - C. [MMATM](#)
 - D. [DAM Orders 4.5.4 – Runway Occupancy](#)
 - E. Mil FLIPs – WAD Terminal Approach Procedure Charts (TAP Charts)

Annexes Nil

1. **Radar Training Circuit (RTC).** All radar approaches to WAD are directed to finals. QFE is the recognised pressure setting for all approaches, except RNP; however, QNH approaches can be accepted with prior notice and at the discretion of the Supervisor / ATCO IC. Approach procedures are published in FLIPs, MIDs and TAP Charts.

a. **RWY 20 RTC.** Left-hand pattern, at 2500ft QFE (2800ft QNH). Radar patterns may be lowered by the Director to 2000ft QFE (2300ft QNH) for expedition and sequencing.

b. **RWY 02RH RTC.** Right-hand pattern at 2500ft QFE (2800ft QNH). Radar patterns may be lowered by the Director to 2000ft QFE (2300ft QNH) for expedition and sequencing.

2. **Radar Recoveries.**

a. **Minimum Visibility for Instrument Approaches.** The minimum visibility and approach minima for instrument approaches are published for each type of approach and aircraft category in the relevant TAP Charts.

b. **SRA Runway 02RH.** The SRA approach for Runway 02RH incorporates a stepfix at 3nm. Aircraft are not to descend below 730' QNH (500' QFE) until cleared by ATC. A busy public road crosses the Runway 20 undershoot; pilots are to be aware of the possibility of high-sided vehicles not observing traffic lights or a traffic light failure. There is a 6ft-high perimeter fence in the Runway 20 undershoot.

c. **ILS RWY 20.** WAD offers an ILS approach to RWY 20 only.

d. **TAC-to-ILS.** As published in TAP Charts.

e. **RPFL.** Controlled as per the Manual of Military Air Traffic Management (MMATM).

f. **Short-pattern Circuits (SPCs).** SPCs will normally be flown at 1500ft QFE (1800ft QNH), traffic conditions permitting. During practices, the downwind leg will normally be flown at 1500ft QFE (1800ft QNH), until 6nm before turning inbound. The change to the Talkdown frequency will, when possible, be initiated by the Director on the downwind leg. Practice SPCs may be denied, dependent upon controller workload and traffic intensity. In accordance with Reference A, SPCs can be flown up to 500ft below the SMAC under Traffic Service.

g. **Application of Radar Services.** Pilots requiring a radar service will be placed under a Traffic Service (TS), unless the pilot requests an upgrade to a Deconfliction Service (DS).

h. If a pilot is unable to accept a TS as stipulated, they may request a DS. However, standard separation may not be achieved in areas of high traffic density and a re-route and / or delay may be necessary in order to achieve the deconfliction minima.

- i. **Reduction of Radar Service.** In accordance with CAP 774, aircraft will not knowingly be vectored towards a radar contact. Action and advice will be given, appropriate to the service being provided. Under DS, aircrew will be notified if it is not possible to maintain standard separation between their aircraft and a known persistent radar contact. Crews are advised to maintain an increased level of lookout in these areas.
- j. **Landing Clearances.**
 - i. **Full Stop.** As per Chapter 4.5.4.
 - ii. **Touch & Go.** As per Chapter 4.5.4.
 - iii. **Low Approach.** As per Chapter 4.5.4.
- k. **Pilots' Actions if Not Visual.** If not visual with the aerodrome, the pilot must respond accordingly to the Talkdown Controller; the pilot will be instructed to either execute the MAP or fly as directed.
- l. **Clearances When Broken Off.** Aircraft will be instructed to "Break off the approach", no later than 2nm, when there is no possibility of the approach being completed. Aircraft will then be instructed to fly through or join deadside, execute the MAP, or fly as directed by ATC, depending on whether the pilot is visual with the aerodrome. Aircraft commanders are to comply with ATC break-off instructions.
- m. **Missed Approach Procedure And Communications Failure Procedure.** As per the Mil AIP.
- n. **Communications Failure Procedure.** As per the Mil AIP.

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Order B215 - EMERGENCY PROCEDURES

References

- A. [MAA RA 3312](#) Ovedue Action by Air Traffic Control
- B. [MMATM](#)
- C. [ATC Orders Order 4.14](#)

Annexes Nil

1. **Overdue Action.** The Ground Controller / Approach Controller (as appropriate) is to notify the ATC Supervisor in the event of an aircraft failing to make R/T contact at the end of its notified sortie duration, or by the ETA notified to ATC, whichever is later. The Supervisor is to inform the DOC and take appropriate action to trace the missing aircraft. If the aircraft cannot be located, then full overdue action is to be taken without delay.
2. In order to avoid unnecessary tracing action being taken, aircraft commanders are to ensure that, whenever possible:
 - a. They advise ATC of their operating frequency.
 - b. They make every effort to inform ATC, either directly or via another agency, whenever it appears that their sorties may be extended beyond their original ETA.
3. **SSR Emergency Squawk.** In the event of an unintentional 'Emergency Squawk' when airborne, pilots are to call their ATC authority and announce their error. This is to prevent any unnecessary SAR action being taken.
4. **Total Electrics Failure (TEF) / RT Failure / Visual Gear Check Procedures.** An aircraft suffering from TEF, RT Failure or requiring a visual gear check from ATC will fly over the airfield, on the deadside of the active runway, and in front of ATC, at 300ft QFE. The pilot will either inform WAD Tower of their requirement, or attract attention by switching landing and navigation lights on and off, rocking their aircraft wings and / or making distinctive engine noise (as available or appropriate). On observing, hearing or being made aware that a TEF / RT Failure aircraft has joined or is about to join the circuit, or that an aircraft requires a visual gear check for any other reason, WAD ATC is to:
 - a. Warn circuit traffic and instruct other aircraft to orbit 500ft above circuit height.
 - b. Inform WAD Radar.
 - c. At night (and when serviceable), switch on the undercarriage check lights (UCCLs).
5. When an aircraft requires an undercarriage check prior to landing, WAD ATC is to:
 - a. Follow a port-to-starboard sequence to check and communicate the status of undercarriage elements.
 - b. Use green pyrotechnics to indicate undercarriage down, red to indicate any position other than down.
 - c. Provide a fourth green pyrotechnic to hook-fitted aircraft, only to indicate that the hook is down.
 - d. Provide all pyrotechnic indications when the aircraft is downwind.

- e. Recognise that it is the responsibility of the aircraft captain to decide whether or not to attempt a landing.
- f. Advise the ARFF of any irregularities in the gear position.
- g. Pass instructions, as normal, to the pilot in case their receiver is still serviceable.
- h. Initiate an ES2.
- i. Acknowledge the presence of an aircraft by use of a green pyrotechnic as the aircraft proceeded downwind, accompanied by the transmission "RT Failure / Total Electrics turning downwind".
- j. Provide landing clearances when such aircraft are on final, using lamp or pyrotechnic signals.

6. **No Compass No Gyro (NCNG).** Any practice NCNG requests are subject to controller workload and airspace restrictions at the time of request

7. **Speechless.** Any practice speechless requests are subject to controller workload and airspace restrictions at the time of request.

8. **CBY Typhoon Emergency VFR Diversion Procedure.** The procedure for an emergency VFR diversion for CBY-based Typhoon aircraft is executed in accordance with Reference C. Aircrew may elect to practice this procedure at any time, retaining their routine squawk. Practice of this procedure is subject to WAD Radar and WAD Tower approval.

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Order B216 – AERODROME RESCUE & FIRE FIGHTING (ARFF) CATEGORIES

References A. DSA DFSR 02
B. 2Gp BM Orders 401

Annexes A. RAF Waddington Crash Gate Map

1. **Aerodrome Categories.** WAD is established for ICAO 7 Crash Category (Crash Cat) for WAD-based aircraft, which is rested to ICAO 5 for pre-agreed periods of the day; WAD will revert to domestic cover when flying has ceased, and will retain the ability to generate ICAO 3 at 1 hour's readiness. Stn Ops will automatically arrange for an appropriate Crash Cat uplift to be in place 60 minutes prior to the ETD or ETA of an aircraft movement, if required. Moving to ICAO Cat 8 is available with 24 hours' prior notice and justification.
2. Engine or rotors running refuels are not currently permitted at WAD.
3. **Minimum Crash Cats for WAD-based aircraft.** In accordance with Reference A, the following minimum Crash Cats are required for WAD-based aircraft:
 - a. **Rivet Joint** – ICAO Cat 7
 - b. **Hawk T1** – ICAO Cat 3
 - c. **Shadow** – ICAO Cat 3
 - d. **RAFAT Formations** – ICAO 3 x 2, covered by ICAO 7 at Waddington, for formation take off / landing.
4. There is no ICAO requirement for any engine ground run and the duty Crew Commander will delegate the appropriate Airfield Rescue and Fire Fighting (ARFF) vehicle(s) when fire cover is requested from Eng Ops.
5. When holding diversions for fast jets, WAD will be at Crash Cat 5.
6. **Visiting Aircraft.** Should a non-MoD aircraft visit WAD, Stn Ops will liaise with the aircraft controlling authority, to determine the Crash Cat required for that movement. It is the responsibility of the controlling authority to judge the operational necessity of the flight, balanced against any risks associated with operations at WAD. However, visiting aircraft are not to be accepted without the authority of the DOC, and AO agreement is required if the available Crash Cat is less than that required by the aircraft.
7. **Crash Cat Control.** Stn Ops will arrange planned Crash Cats, commensurate with aircraft movements and airfield activity.
8. The ATC Supervisor / ATCO IC will retain tactical management of the Crash Cat and position of ARFF vehicles, enabling timely deployment in response to both airfield and domestic incidents. Any deployment that reduces the Crash Cat will be communicated to Stn Ops, who will inform the AO.
9. Once ARFF vehicles have been deployed, command will be retained by the crash crew's CoC. This includes command of the crash ambulance, callsign 'MEDIC'.

10. **Communications Testing.** Daily communications tests are to be arranged by the ATC Supervisor / ATCO IC. At the start of their watch, ATC are to ascertain the serviceability of the following:

- a. ARFF vehicles, in order to ascertain the Crash Cat.
- b. The MRE in the VCR.
- c. ARFF rescue & ambulance MRE radios (each vehicle is to call for a radio check).
- d. ARFF vehicle MRE, including the crash ambulance (each vehicle is to call for a radio check).
- e. The Stn ARFF alarm and broadcast system.
- f. Emergency telephone Ext 333.

11. Before any element of the ARFF service leaves its normal location, permission is to be sought from the Supervisor / ATCO IC; this is not required if the ARFF elements are undertaking routine business on the airfield or responding to an incident. Permission should normally be obtained by telephone. On departure from the Fire Section, crews are to establish and maintain radio contact with ATC throughout their journey; vehicles are not to be left unattended and crews are to respond to all radio calls, including but not limited to, emergency state broadcasts.

12. **ARFF Response To Dangerous Air Cargo (DAC).** DAC will be handled at WAD in accordance with Chapter 4.5.7. The Supervisor / ATCO IC will initiate an 'Emergency State 3' for the arrival and departure of aircraft carrying UN Class 1 DAC. During unloading / loading of UN Class 1.1 DAC, a staffed ARFF vehicle shall be located near the operation for optimum response. Flare safety exclusion zones are to be used for aircraft loaded with countermeasure flares.

13. If a live armed aircraft (applies only to HD 1.1) intends to park at WAD, HoE approval must be obtained; the Explosive Safety Representative will provide relevant advice. This is a local restriction. Flare safety exclusion zones are to be used for aircraft loaded with countermeasure flares. The HD 1.1 quantity can be increased to 8,125kg provided:

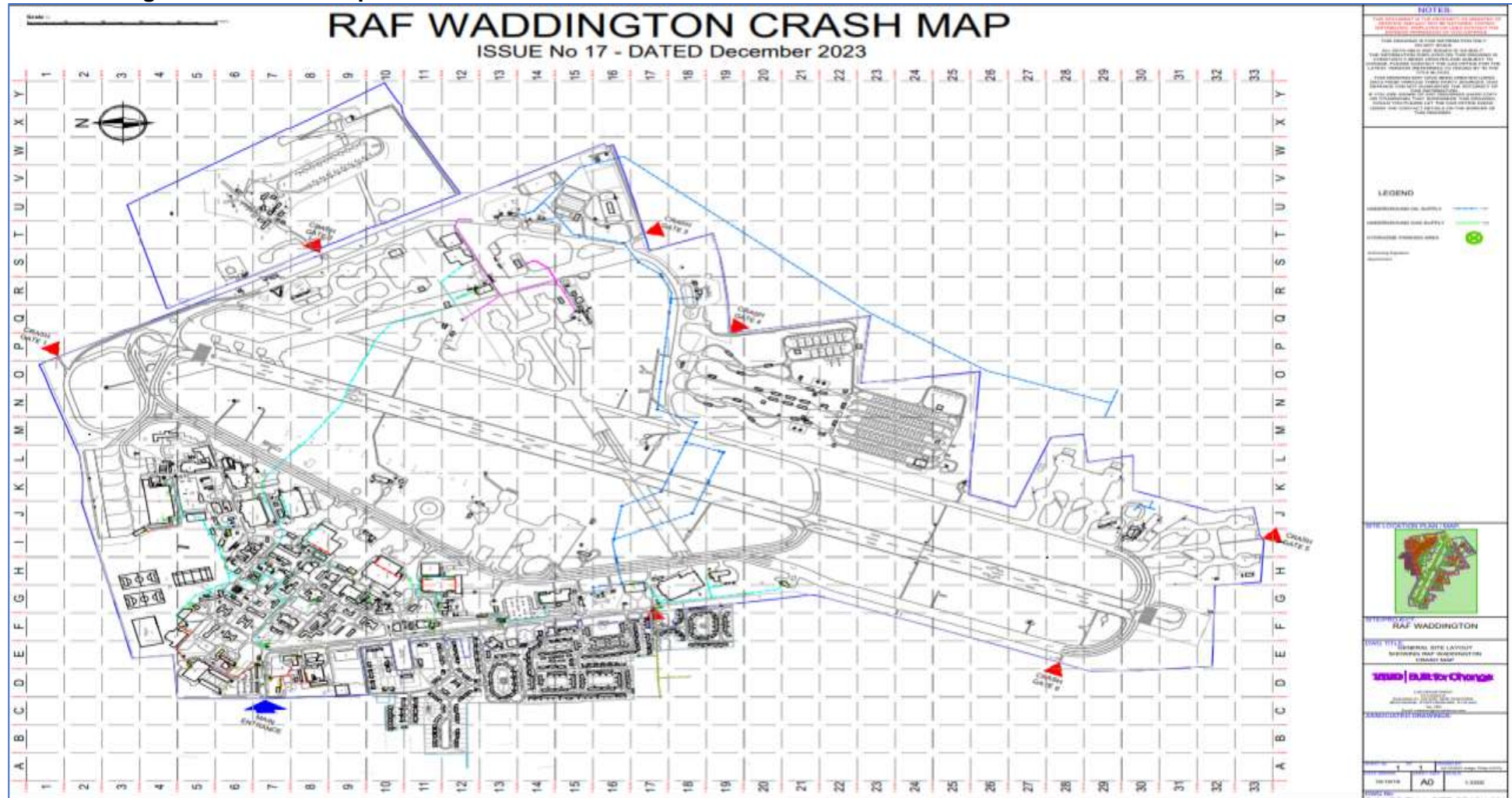
- a. Bay 18,19, 20, 21 and the Building 785 carpark are vacated.
- b. If the above are not vacated the limit reduces to 101kg.

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Annex A to AOB Order B216

File reference 20240103-RAF_Waddington_AOB-Issue 4.1-O

RAF Waddington Crash Gate Map



Order B217 – FLYING RESTRICTIONS

References A. [RA 3278](#) – Snow & Ice Operations

Annexes Nil

1. **Icing Conditions.** Regulations for snow and ice clearance operations are detailed at Reference A.
2. WAD BLACKTOP season runs from 1 Nov to 30 Apr each year. The season can be brought forward, or extended, should prevailing weather conditions dictate. Whenever moderate or severe icing conditions exist, or are forecast in the local area during the flying period, the following orders apply.
3. **Forecast.** The Met Forecaster is to include in their reports any moderate or severe icing cloud, as well as the altitude band in which airframe and / or engine icing is likely to be experienced
4. **In-flight Reporting.** Whenever aircraft commanders experience airframe and / or engine icing during departure or recovery, they are to report the details as follows:
 - a. Type of icing and severity.
 - b. Height band in which icing occurred.
 - c. Position of the aircraft.
5. **DOC Actions.** On receiving an airborne icing report, the DOC is to:
 - a. Instruct ATC to inform all aircraft in the local area.
 - b. Consider advising the diversion of aircraft.
 - c. Instruct ATC to avoid holding aircraft in icing bands and adopt icing let-down procedures where possible.
 - d. Consider prohibiting departures.
 - e. Inform all flying squadrons, via the relevant SSOF.
6. **Icing Let-down Procedures.** When icing is forecast or reported below 3000ft AGL and aircraft commanders are unable to avoid icing conditions, the following icing let down procedures are available:
 - a. **Cloud base \geq 1000ft AGL / Visibility \geq 5km.** Pilots may elect to fly a radar-to-visual approach.
 - b. **Cloud base $<$ 1000ft AGL / Visibility $<$ 5km.** Aircraft are to be held above the icing band until cleared to descend on a published approach. Level flight in the icing band is to be kept to a minimum.
 - c. In all instances, the aircraft captain has the right to elect to fly whichever approach they deem most suitable for the circumstances encountered. The option to divert to a suitable alternate airfield is also available.

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Order B218 – AUTOMATED TRAFFIC INFORMATION SYSTEM

References A. CAP 413 – Radiotelephony Manual

Annexes Nil

1. WAD ATIS will broadcast routine and special changes to airfield information during ATC opening hours on frequency 291.675MHz.

2. WAD will publish one of two different ATIS formats, dependant on the weather state. When the Met colour state is WHITE / BLUE, a short format ATIS will be broadcast, including the following:

- a. ATIS Information Code
- b. Time
- c. Runway
- d. Surface Wind
- e. Met Colour State
- f. Outside Air Temperature
- g. Dew Point
- h. Pressure Altitude
- i. QFE (hPa & INS) / QNH (hPa & INS)
- j. Serviceability of Approach Aids
- k. RHAG State
- l. Runway State (If 5/5/5 only)
- m. Aerodrome Category
- n. End of ATIS Information Code

3. When the colour state is Green or worse a long format ATIS will be broadcast.

- a. ATIS Information Code
- b. Time
- c. Runway
- d. Surface Wind
- e. Met Colour State
- f. Visibility

- g. Present Weather
 - h. Current Cloud
 - i. Outside Air Temperature
 - j. Pressure Altitude
 - k. Dew Point
 - l. QFE (hPa and inches) / QNH (hPa and inches)
 - m. Serviceability of Approach Aids
 - n. RHAG State
 - o. Runway State (If 5/5/5 only)
 - p. Aerodrome Category
 - q. End of ATIS Information Code
4. When the airfield closes the broadcast will be as follows:
- a. 'The next transmission on ATIS will be at [XXXX]Z [the next ATC working day's date]
 - b. Weather Specials (QFE and QNH only)
 - c. Approach Aid Serviceability
 - d. Met Colour code
 - e. Runway Changes
 - f. Aircraft Diversion Changes
 - g. Fuel on the Ground
 - h. Crash Cat
 - i. Runway State (If 5/5/5 only)
 - j. Air Experience Flying

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Order	B219 – HELICOPTER OPERATIONS – GENERAL
References	Nil
Annexes	Nil

1. Rotary operations at WAD will follow the procedures outlined in Chapter 4.
2. **Landing.** Once in the visual circuit, light helicopters (such as Gazelle, Leonardo, Juno, Jupiter, Wildcat) may land directly onto a dispersal, at the discretion of the ATC Supervisor. Larger helicopters with significant ground wash (such as Chinook, Merlin, Puma, Apache) are to make their final approach to the runway and ground taxi to the dispersal.
3. **Departures.** At the discretion of the ATC Supervisor, light helicopters (such as Gazelle, Leonardo, Juno, Jupiter, Wildcat) may make VFR departures directly from a dispersal. Larger helicopters with significant ground wash (such as Chinook, Merlin, Puma, Apache) are to ground taxi to – and depart from – the runway.
4. Under no circumstances will helicopters be permitted to take off from Alpha or Delta taxiway.
5. Rotary aircraft are not permitted to hover taxi over grass at WAD.
6. All IFR rotary departures are to be made from the runway, to ensure obstacle clearance.
7. The restrictions above do not apply to the Lincolnshire and Nottinghamshire Air Ambulance on an emergency mission.

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Order B220 – HELICOPTER OPERATIONS – FIELD OPERATIONS

References A. WAD CONPLAN 11

Annexes A. RW Crew Awareness Information

1. **Field Operations (Field Ops).** Rotary Wing (RW) Field Ops are considered to be in force when airfield services (ATC, ARFF (ICAO 5)) are unavailable and authorisation has been granted. Approval for RW Field Ops will not routinely be granted, unless for Priority 1 tasks that cannot be achieved by other means. For approval to be considered, any other RW Field Ops requests must be robustly justified against a definite Service need. No FW Field Ops will be permitted to take place simultaneously.
2. **High priority RW tasks.** Joint Helicopter Command has a number of RW assets, some of which are kept on varying readiness states. There may be occasions when there is a requirement for WAD to accept short notice, high-priority RW aircraft movements outside of the ATC opening hours.
3. **Recce.** Aircraft commanders are responsible for ensuring that the airfield has been appropriately recce-d prior to landing / taxiing. The airfield will have been prepared in accordance with Reference A.
4. **Meteorological Conditions.** RW Field Ops will only be authorised in VMC conditions. If the meteorological conditions are forecast to be below GREEN,²¹ the DOC must inform both the WAD AO / nominated deputy and the requesting unit SSOF. RW Field Ops will not be permitted during BLACKTOP operations.
5. **ARFF Cover.** The appropriate Crash Cat must be confirmed, in accordance with JSP 426 Vol 3, Leaflet 2.²² However, in extremis, AO authorisation can be sought for operations below the prescribed Crash Cat, in consultation with the platform DDH. Should the aircraft be carrying passengers, the appropriate Crash Cat must be in place.
6. **Authorisation for Field Ops.** The AO or, in their absence, the OSW Duty Exec may authorise the arrival or departure of RW aircraft to / from WAD under 'RW Field Ops'. The AO / nominated deputy is to ensure that the relevant DDH approves, in writing, the arrival / departure of their aircraft under RW Field Ops at WAD. Authorisations for RW Field Ops are to be e-mailed to the Duty Ops Controller (DOC) in Stn Ops.
7. **Actions on Approval of Field Ops.** Full details of the actions required are captured within [CONPLAN 11](#). In addition, the DOC is to ensure that the incoming crew are aware of the points at Annex A to this order, and that this information is passed at the point of booking in.
8. **Changes.** Any changes to timings / cancellations, are to be passed to the DOC for onward dissemination to the Fire Section, Med Centre and other airfield users.

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²¹ Surface visibility of 3.7km or 2nm, base of lowest cloud layer 3/8 or more, 700ft AGL.

²² Chinook ARFF 5, Merlin ARFF 4, Puma ARFF3, Dauphin ARFF 3, Wildcat ARFF 3.

Annex A to AOB Order B220**File reference 20240103-RAF_Waddington_AOB-Issue 4.1-O**

1. RW Crew Awareness. The following points are to be passed, by the DOC, to the operating crews as part of the booking process:

- a. Crews are to make routine blind calls to ATC on 121.3 MHz and establish two-way comms with Vulcan Ops on 369.4 MHz when 10 minutes away from the airfield / on departure.
- b. When WAD ATC is closed, crews are to operate with extreme caution within the MATZ, in case of aircraft operating not under the control of WAD ATC. LNAA (callsign HELIMED) operate autonomously from 'Kookaburra' (on the opposite side of the A15, adjacent to WAD) and make blind calls on 121.3 MHz. For reference, the LNAA landline number is 01522 548469.
- c. Crews are to satisfy their own recce requirements, land on the runway and ground taxi to their designated parking bay, as passed by Vulcan Ops.

2. Airfield Lighting. Crews are advised that airfield lighting cannot be changed at short notice outside of ATC operating hours; lighting controls are in ATC. Should a specific lighting configuration be required, this is to be requested upon booking RW Field Ops. WAD Fire Section will attempt to turn airfield lighting on for Runway 20 prior to the aircraft arrival (lights can be seen from both runway directions). When the aircraft is parked at its designated location, ARFF vehicles will be in attendance.

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Order B221 – OPERATIONS BY RAF WADDINGTON FLYING SCHOOL

References Nil

Annexes Nil

1. WAD has an established Flying School, situated on the eastern side of the airfield. Waddington Flying School (WFS)²³ conducts training for the Private Pilot's License (PPL) and associated ratings. Flight training is conducted in various single engine light aircraft by WFS instructors and students, 7 days a week. WFS operates a variety of civilian-registered aircraft, primarily under UK CAA regulations but, due to its location and service pedigree, also adheres to MAA and MoD regulations, should they be relevant and more restrictive.
2. **Permitted Operating Hours.** WFS is permitted to operate from WAD during ATC operating hours, during weekends / bank-holidays, and during the week, when station flying has ceased. WFS aircraft will normally route in and out of WAD, either east- or west-bound, under VFR. If ATC is closed, pilots will make pre-emptive blind broadcasts of their intentions on VHF frequency 121.3 MHz, prefixed with 'RAF Waddington traffic'.
3. **Standard Procedures.** All departures and recoveries are to be VFR. Pilots requiring a BS are to contact Waddington Zone on 119.50 MHz. Pilots are to request the desired direction of VFR departure. They are to comply with ATC clearances, taking the most direct turn in the approved direction. If a downwind departure is desired, this must be specifically approved by ATC. On recovery, pilots are to broadcast their intentions on 121.3 MHz, prior to entering the visual circuit. All pilots are responsible for self-sequencing and are to squawk 7000, or as instructed by ATC, with mode C if available.
4. **During ATC Operating Hours.** All aircraft movements are to be notified at the OPG and then requested and agreed with Stn Ops (Ext 6731). Once agreed, Stn Ops will then notify ATC via telephone call. WFS pilots shall be familiar with this AOB and shall follow all procedures herein; WFS aircraft are to fly military style circuits at WAD.
 - a. **Start-up and Taxi Procedures.** Pilots are to make an initial call on WAD Tower 121.3 MHz to request start-up and taxi clearance. Aircraft will routinely be taxied to Foxtrot via Delta taxiway.
 - b. **Departures.** If the approach cable is de-rigged, and ATC permission is granted, pilots may request a to enter the runway at holding point D1, line up, and depart from the runway, adjacent to D1.
 - c. **Landings.** All landings are to be between the RHAG lines and exit from the main will routinely be at Foxtrot (subject to ATC instructions). The runway traffic lights at the 02RH threshold will be left on GREEN (out of hours) & pilots are to be aware that the thresholds are uncontrolled; vehicles may cross at any time. Traffic lights will be at RED while ATC is open. After landing, the runway is to be vacated as soon as possible. WFS are to request and comply with ATC taxi instructions.
 - d. **Airfield Traffic Lights.** WFS arrivals and departures are to be conducted between the RHAGs, with the traffic lights on green as default. Drivers are to conform with Order B213 of this AOB.

²³ Waddington Flying Club was re-branded as the 'Waddington Flying School' in Spring 2020. However, some trading accounts and CAA licences may still refer to the Waddington Flying Club.

5. **Outside ATC Operating Hours.** When ATC is closed, control of the airfield is transferred to Stn Ops; WFS pilots must consult the DOC to confirm runway availability, and to deconflict airfield use between WFS, the Airfield Sweeper, Airfield Electrician, and any other airfield maintenance activities.

6. The DOC is to adhere to a single occupancy principle, forbidding dual use (air and ground activity) of the runway. The DOC is not able to provide any ATS / FIS; they are only able to deliver procedural co-ordination of runway use.

7. Standard RT phraseology should be maintained at all times. Blind calls are to be made prior to each key stage of flight (taxi, entering runway, circuits, landing, etc.). This ensures that all units listening on the frequency are aware of the WFS aircraft's intentions. If ATC respond, then all ATC instructions are to be complied with, in accordance with 'ATC Open' procedures.

a. **Start-up and Taxi Procedures.** There may be occasions upon which WAD Radar is staffed, despite the airfield being closed. Therefore, pilots should follow standard operating and RT procedures at all times, alerting other users of their activity, or shut-down.

b. **Departures.** All entries to the runway are to be via Delta and Foxtrot Taxiways. There is sufficient runway available to depart from the Foxtrot entry point. All flying operations are to be performed between the RHAG lines. Alpha Taxiway and Delta Taxiway south of Foxtrot are not to be used unless authorised by the DOC. Pilots are to make blind calls on WAD Tower 121.3 MHz and remain on this frequency until clear of the visual circuit.

c. **Landings.** All flying operations are to be performed between the RHAG lines. All exits from to the runway are to be via Delta and Foxtrot Taxiways. Alpha Taxiway and Delta Taxiway south of Foxtrot are not to be used unless authorised by the DOC. Pilots are to make blind calls on WAD Tower 121.3 MHz and remain on this frequency until shut down. After landing, the runway is to be vacated as soon as possible.

d. **Airfield Traffic Lights.** WFS arrivals and departures are to be conducted between the RHAGs; ATC will control traffic lights as appropriate to circuit and ground-based movements.

e. **Circuit Procedures.** Whilst conducting visual circuits out of ATC hours, pilots are to make blind calls at the relevant points within the visual circuit on the tower frequency, 121.30 MHz. Other than for an aircraft in emergency, LNAA has priority at all times. If LNAA is on frequency (callsign HELIMED), aircraft within the visual circuit who are visual with the LNAA aircraft are to remain visual and maintain separation, whilst continuing to make blind calls.

f. **Delta Taxiway.** Delta Taxiway is not to be used as a TLZ.²⁴

g. **Reporting Out-of-hours Incidents.** WFS operates its own Safety Management System. The WFS Duty Pilot has an incident check-list to follow. The primary method of reporting any incident is by using the Military DASOR system; a tick-box within the DASOR can be used to release the information to the CAA Safety Reporting System and is the easiest way to cover this responsibility. In the event of a serious incident or accident out of hours, the following should be informed.

- (1) Main Guard Room 01522 727005
- (2) Stn Ops Duty Assistant 01522 726731
- (3) Senior Duty Exec 07976 689117
- (4) Station Orderly Officer 07976 684807

²⁴ TLZ operations on Delta Taxiway ceased in Sep 20 due to long-term construction work east side of airfield.

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Order B222 – Lincs & NOTTS AIR AMBULANCE OPERATIONS

References A. [Lincs TATCC Order Book](#)

Annexes Nil

1. The Lincolnshire and Nottinghamshire Air Ambulance (LNAA) operates from 'Kookaburra' – its main operating base – situated on the opposite side of the A15 and to the north of the Runway 20 threshold. LNAA crews are instrument rated, however, will normally operate VFR. The aircraft will squawk 0020 and use the callsign 'HELIMED 29' with the appropriate suffix Alpha, Echo or Zulu. When the Alpha suffix is used, the aircraft is to be afforded priority in accordance with standing ATS civil / military regulation. When ATC is closed, LNAA liaison with WAD is to be performed via the DOC, on Ext 6532.
2. **Letter of Agreement.** The LoA between WAD and LNAA can be found [here](#).
3. **Access to EG R313 (When Active).** Should there be a requirement for Helimed 29A to penetrate EG R313 when it is active, WAD Radar will contact RAFAT and request that they operate not below 1000ft WAD QFE, allowing Helimed 29A to transit safely through the area not above 500ft QFE. When the LNAA aircraft has either landed or cleared the area, WAD Radar will permit RAFAT to resume full use of EG R313. A further clearance must be obtained before Helimed 29A may lift from within EG R313, or re-enter the area following collection of a casualty. Should EG R313 be active but LARS be unavailable, Helimed 29A should transit through the area not above 500ft WAD QFE and make blind calls on LARS frequency 119.5 MHz.
4. **VFR Departure and Recovery.** HELIMED is normally controlled by WAD Radar on 119.50MHz.
5. **IFR Recovery.** HELIMED is to be controlled by a Director-qualified Controller. With the Approach Controller's permission, this may be carried out by the LARS controller if suitably qualified.
6. **During ATC Closure Periods:**
 - a. When WAD Radar is staffed but WAD Tower is closed, Radar are to maintain a listening watch for HELIMED on 121.3MHz. The LARS Controller will note the POB and departure details, informing the pilot that WAD Tower is closed and that blind calls are required.
 - b. The LNAA aircraft will remain on 121.3 MHz for departure and will transfer to the LARS frequency (119.50 MHz) at the aerodrome boundary.
 - c. On recovery to WAD, the LARS Controller will pass the runway, QFE and surface wind, and ask the pilot to report visual with the aerodrome. Once visual with the aerodrome, and free from conflict, the LNAA aircraft will transfer to 121.3 MHz, making blind calls.

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Order	B223 – ENGINE GROUND RUNNING
References	Nil
Annexes	A WAD Timings and Approval Flowchart B WAD EGR location table C Engine ground running positions on ERP showing Rivet Joint safety zones (at 100% N1 RPM)

1. **Background.** Aero-engines and / or auxiliary power units (APU) may need to be started for diagnostic or testing purposes, or to provide aircraft services for maintenance activities when ground support equipment (GSE) is neither available nor suitable. This order applies to all personnel involved with aircraft Engine ground runs (EGRs). This is also applicable to personnel employed at WAD for short periods of attachment.
2. **Aim.** This order outlines the procedures specific for all RAF Waddington based and visiting aircraft.
3. **Precautions.** Personnel are to comply with the following safety precautions:
 - a. **Notifications.** All EGR requests are to be passed to Eng Ops for prior approval. Eng Ops will then notify Stn Ops (via email) and the Fire Section (via telephone) of the EGR details in order to ensure the appropriate Fire Section readiness in case of an emergency during the EGR. Stn Ops will then email the EGR details to ATC so that ATC have evidence of prior approval when the EGR aircraft calls for permission to start (this action is not required when ATC are closed, as the airfield is then under the control of the DOC). It is vital that any changes to the requested EGR are communicated to and approved by Eng Ops, such that Stn Ops and the Fire Section can be informed. Annex A provides guidance on approval timings and approval authority.
 - b. **EGR Start Permission.** EGR start permission is to be obtained from ATC, prior to the commencement of any EGR. If ATC is closed, start permission is to be obtained from the DOC on telephone Ext 6532. Communications are to be maintained between the EGR team and ATC / DOC until the EGR has ceased, such that the Fire Section can be dispatched in the case of an emergency.
 - c. **Jet efflux hazard.** Engineers are to refer to the appropriate aircraft safety and maintenance notes (Topic 5A2) or equivalent.
 - d. **Noise hazard.** Engineers are to refer to the appropriate aircraft safety & maintenance notes (Topic 5A2) or equivalent.
4. **FOD.** Should an EGR be carried out away from the normal area of platform operation (as seen in Annex A), the NCO IC EGR or on-shift Engineering Manager is to perform a full ground survey prior to engine start. This statement does not apply to EGRs carried out on the ERP. A FOD sweep should be carried out prior to any EGR, irrespective of the location. All EGR team members are to remain FOD-aware throughout the EGR.
5. **Fire precautions.** In addition to the normal first aid fire appliances, additional fire section support is to be requested through Eng Ops if any of the following conditions are met.
 - a. Initial EGR post-engine installation.

- b. Aircraft on-board fire suppression systems are anything other than fully serviceable.
 - c. The aircraft configurations that compromise its fire suppression capability i.e. removed cowlings/panel.
 - d. The aircraft has an increased fire risk due to known or suspected fuel leaks.
6. **Icing Conditions.** Engine operators are to be aware of ambient icing conditions and take relevant precautions specific to aircraft type.
7. **GSE.** The EGR Supervisor is to ensure that all GSE is parked (and chocked if necessary) in a safe and appropriate position, prior to the commencement of the EGR.
8. **Emergency Procedures.** All aircraft emergency actions are to be carried out in accordance with the relevant aircraft documentation.
9. **EGRs Conducted Away from The MOB.** EGRs required away from MOB are to be conducted in accordance with local engineering orders. This order is for EGRs at WAD only.
10. **Safety Personnel.** In accordance with DDH AESO 2-1-1-01-20, sufficient safety personnel are to be pre-positioned to prevent vehicles / personnel entering danger areas.
11. **Location.** EGR locations take into account impact to the local community (noise), impact to operations on the airfield, hazards associated with jet efflux and the load classifications of the parking area.²⁵ The Engine Running Platform (ERP)²⁶ is a purpose-built facility designed to minimise the impact of engine running up to 100% N1 RPM / take-off thrust and must be used, in the first instance, for high-power Rivet Joint and sustained 100% NH Hawk EGRs. Aircraft can be positioned on the ERP to suit wind direction and velocity, except for jet efflux blowing towards the ERP building (Building 572). The following locations, in priority order, are also permitted for each aircraft type, with constraints:
- a. **Hawk Aircraft.** EGRs are permitted to take place on Bays 1 - 6. The significant hazard areas shown at the appropriate Aircraft Safety and Maintenance Notes (Topic 5A2) or Equivalent, limit the authorised running power settings and running locations to:
 - (1) **EGRs up to 90% NH with transient periods (<5 secs) of 100% NH.** Bay 1-6. The aircraft is to be positioned correctly within the bay; particular attention is to be made to ensure that the aircraft is correctly aligned, chocked and all items of ASE are clear of danger Areas and areas forward of the aircraft.
 - (2) **EGRs up to sustained 100% NH.** ERP.
 - (3) In exceptional circumstances EGRs may be carried out on the threshold of Runway 20, with the prior permission of OC Ops Spt Wg.
 - b. **Rivet Joint Aircraft.** EGRs at ground idle thrust are permitted to take place on any Rivet Joint approved bay²⁷. The significant hazard areas shown at Rivet Joint T.O 1C-135-2-4-1-1 limit the authorised running power settings and running locations to:

²⁵ As per the Aircraft / Pavement Classification Number (ACN / PCN) System detailed in No 1 AIDU Flight Information Handbook.

²⁶ OC Ops Spt Wg has authorised overload operations on the ERP for RJ, due to the PCN being less than the aircraft ACN.

²⁷ As per the ACN/PCN System detailed in No 1 AIDU Flight Information Handbook.

(1) **EGRs up to 40% N1 RPM.** Bay 7 (the aircraft wash area normally for engine compressors washes) with the aircraft tail nearest the blast fence. The aircraft is to be positioned correctly within the bay; particular attention is to be made to ensure that the aircraft is correctly aligned with the marked lines within the bay and that the nose wheels are within the painted nose wheel spot.

(2) **Engine ground runs up to 55% N1 RPM.** Bay 31. The aircraft is to be positioned facing North for 2 engines to be run.

(a) The EGR supervisor is to ensure no personnel are located on Bays 26-29 nor can personnel enter these bays during the EGR.

(b) Aircraft can remain present on Bays 26-29 during the EGR.

(c) Occupants of building 266 (Training Cell) should be notified of the EGR and afforded the opportunity to relocate if they wish.

(3) **Engine ground runs going up to 100% N1 RPM.**

(a) The engine running platform for 2-engine runs (No 1 and 4, or 2 and 3, for balanced thrust) or 4-engine runs.

(b) When the ERP is out of use or where the wind limits of AP101B-5301-12C would position the ac on the ERP with jet efflux blowing towards the ERP building (572), alternative locations can be considered with prior permission from Air Ops (DOC), under delegated authority from OC Ops Wg and co-ordinated via Eng Ops x 7544 to organise bay / taxi way allocation.

(c) **RWY 20 threshold.** In exceptional circumstances EGRs may be carried out on the threshold of runway 20, with the prior permission of OC Ops Spt Wg.

c. **Shadow aircraft.** The dangerous areas are detailed in the Shadow Tech Log. Engine ground running is to be carried out on Bays 26-29 where there are no restrictions on the number of engines or power settings. EGRs at ground idle are permitted to take place on any Shadow approved bay¹. Low power engine ground runs may also be carried out outside 2 Hangar North. Other bays may be used following consultation with the Eng Ops Controller.

d. **Visiting Aircraft.** Visiting aircraft are permitted to conduct low power/idle engine ground run on any approved parking bay for the type. All high-power engine ground runs for visiting aircraft are to be carried out on the ERP.

12. Engine Operation:

a. **Hawk Aircraft.** EGRs on Hawk aircraft are to be carried out strictly in accordance with AP101B-4401-1A Chap 6.

b. **Shadow Aircraft.** EGRs on Shadow aircraft are to be carried out strictly in accordance with the Pilots Operating Handbook and the P&WC Maintenance Manual.

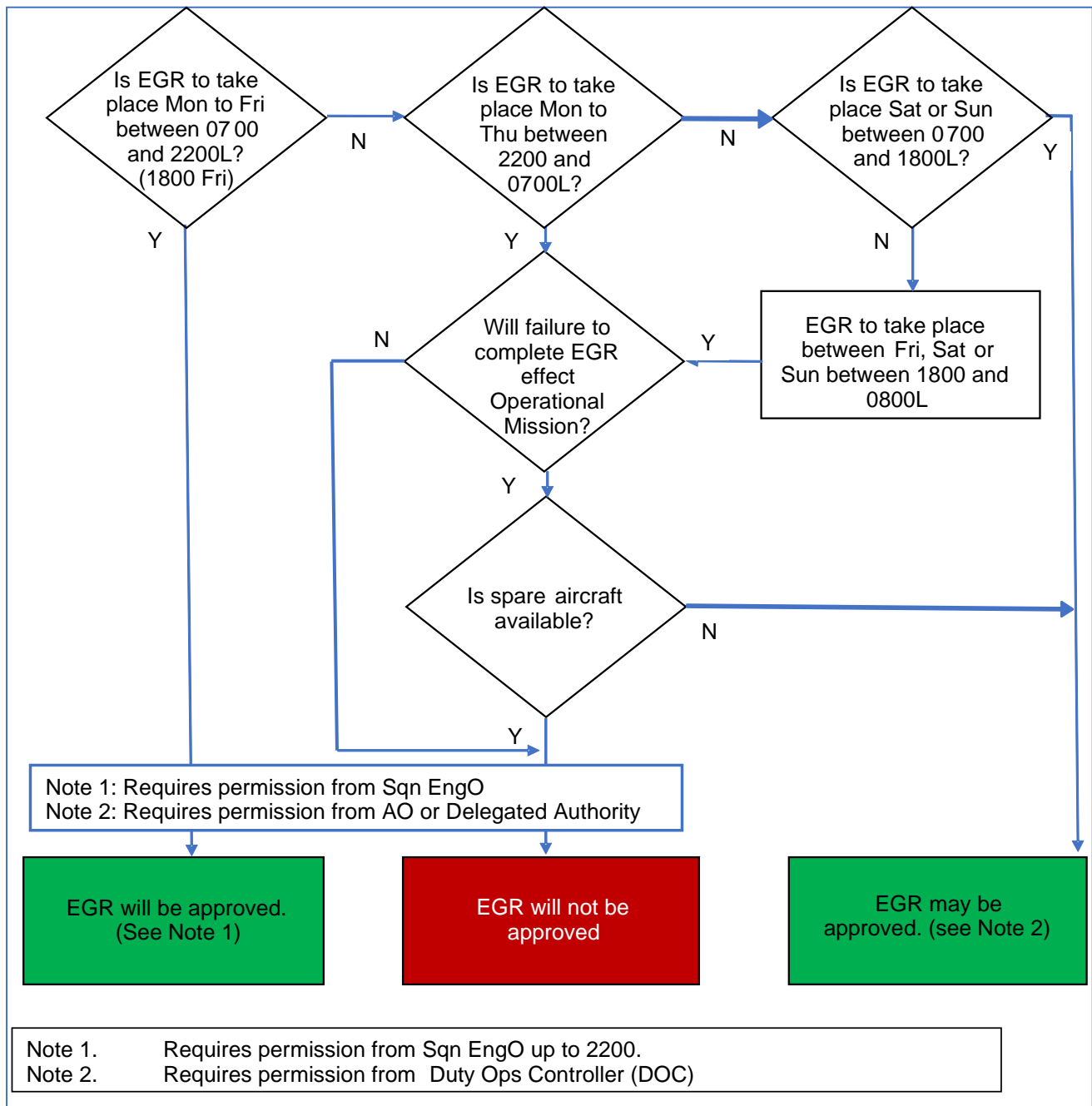
c. **Rivet Joint Aircraft.** EGRs on Rivet Joint aircraft are to be carried out strictly in accordance with Rivet Joint T.O. 1C-135-2-4-1-1.

- d. **Visiting Aircraft.** EGRs of visiting aircraft are only to be undertaken by the pilot, flight engineer or authorised engine operator for the specific type.

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Annex A**to AOB Order B223****File reference 20240224-RAF_Waddington_AOB-Issue 4.1-O****RAF Waddington Timings and Approval Flowchart**

<u>Day</u>	<u>Times</u>	<u>EGR Approver</u>
Mon to Thu	0700 to 2200	DEOC
	2200 to 0700	AO or Delegated Authority ²⁸
Fri	0700 to 1800	Sqn EngO
Fri To Mon	1800 to 0700	AO or Delegated Authority



²⁸ The AO has delegated authority for the approval of OOH EGRs to the DOC, providing the above flowchart is followed.

Annex B
to AOB Order B223
File reference 20240103-RAF_Waddington_AOB-Issue 4.1-O

RAF Waddington EGR Locations

EGR Power Setting	Standard	Alternative with permission from Air Ops	Alternative with permission from OC Ops
Ground Idle (all ac)	All Bays	N/A	N/A
Low power < 67% N1 (ground idle) (Shadow)	All suitable bays Inc 2HN	N/A	N/A
Med – High > 67% N1 (Shadow)	Bays 1-6 / 26-29	All approved operating bays (Not 2HN)	N/A
Up to 90% NH (with transient periods of 100% NH <5 secs). (Hawk)	Bays 1-6	ERP	Runway 20 Threshold
Up to 100% NH sustained. (Hawk)	ERP		Runway 20 Threshold
Up to 40% N1 RPM (RJ)	Bay 7	Bay 31	Runway 20 Threshold
Up to 55% N1 RPM (RJ, 4 Engines), (2 Engines BAY 31)	Bays 1 to 6, 31	ERP	Runway 20 Threshold
Up to 100% N1 RPM / Take-off Thrust (all ac)	ERP	N/A	Runway 20 Threshold

All EGRs require prior permission from WAD Eng Ops.

Note 1: Requires permission from Sqn EngO.
Note 2: Requires permission from AO or Delegated Authority.

Annex C**to AOB Order B223****File reference 20240103-RAF_Waddington_AOB-Issue 4.1-O****EGR Positions on ERP, Showing Rivet Joint Safety Zones (at 100% N1 RPM)**

*Ensure that jet efflux does not point directly towards OWI fencing and adjacent infra – The aircraft symbols used above are for illustration purposes only and do not dictate the orientation of the aircraft.

Order	B224 – PARKING, REFUELLING AND DEFUELLING OF AIRCRAFT ON NON-INTERCEPTED AREAS – ENVIRONMENTAL PROTECTION PROCEDURES
References	A. Water Resources Act 1991 B. WAD CONPLAN 3 Unit Spillage Plan
Annexes	Nil

1. **Introduction.** This order applies to WAD personnel involved in the parking, refuelling and defueling of aircraft on non-intercepted areas. This order is also applicable to personnel employed at WAD for short periods. Mitigation measures are to be in place prior to the parking, refuelling or defueling of aircraft in order to protect the environment and comply with Reference A in the event of a leak or uncontrolled discharge of fuel during refuel / defuel operations.
2. The Duty Engineering Operations Controller (DEOC) shall obtain authority from OC Ops Support Wg (OSW) via the Duty Ops Controller (DOC) to park, refuel or defuel aircraft on non-intercepted areas. When an aircraft is parked on a non-intercepted area, the measures contained in this order shall be followed.
3. **Implementation.** The airfield paved areas protected by drains and interceptors are:
 - a. Bays 1 to 32 inclusive. Additional areas include:
 - (1) Alpha taxiway between Bays 26 and 32.
 - (2) Entrance to the Bays 1-9 ASP.
 - (3) The areas between 3 and 4 Hangars.
 - (4) The Engine Running Platform (ERP).
4. All other areas of the airfield drainage system are not served by interceptors, thus do not comply with the requirements laid out in Reference A. To protect the environment from the effects of leaks and fuel spills, it is necessary to implement the following additional measures; by containing the leak / spillage, the Unit Spillage Response Plan can be implemented:
 - a. Under no circumstances is the DEOC to give approval to park aircraft or conduct refuel / defuel operations on non-intercepted areas without authority from OC OSW via the DOC. When an aircraft is parked on a non-intercepted area, the following measures are to be implemented, taking into account any slope of the parking area:
 - (1) Portable booms are to be deployed around the aircraft such that any inadvertent spillage is contained within the boom. The boom cordon area is to be large enough to include any refuel / defuel vehicle and other GSE required.
 - (2) The boom should be 'opened' to allow the access and egress of refuelling vehicles or other GSE; the boom shall be closed again before any refuelling operation commences.
 - (3) A major spill kit is to be immediately available.
 - (4) Depending upon the size of aircraft and amount of fuel to be delivered, consideration is to given to the pre-positioning of an ARFF vehicle near the aircraft.
 - b. Should a spillage occur or a leak is discovered the actions laid down in the Unit Spillage Plan, Reference B, should be implemented immediately.

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Order	B225 – ACTION TO BE TAKEN ON RECEIPT OF WIND WARNINGS
References	Nil
Annexes	Nil

1. The Operational Meteorologist will issue a Wind Warning when wind speeds are expected to exceed 35 knots or issue a Fast Jet Strong Wind Warning for wind speeds 36G41KT (by day) 31G36KT (by night). These warnings will contain details of the expected maximum wind speed and details can be found in [Stn Ops - Op Orders Op BEAUFORT](#).
2. **Implementation.** The Met Office will email the Section Controllers listed below with the expected maximum wind speeds.
 - a. ASMT.
 - b. GEF.
 - c. Movements.
 - d. VAHS.
3. Addition to the above described distribution list is to be requested via nimbuswad@metoffice.gov.uk
4. **SNCO Visiting Aircraft Handling Squadron (VAHS).** For visiting aircraft, VAHS are to inform the Aircraft Captain / Detachment Commander about of the wind warning and obtain advice from them. If they are unable to specify the precise precautions to be taken, they are to be advised to contact their home base for specialist advice. The Aircraft Captain / Detachment Commander shall remain responsible for their aircraft, although the general requirements of this order should be applied.
5. **Expected Wind Speed >35 knots, but <40 knots (Gust or Mean).**
 - a. **Personnel:** Brief personnel, cease any aircraft upper wing surface work.
 - b. **Aircraft:** Check the security of aircraft in your area of responsibility.
 - c. **Visiting aircraft.** Visiting aircraft captains are to be consulted on precautions and advised of forecast wind speeds. If light aircraft cannot be moved, refuellers may be provided as windbreaks.
 - d. **Ground Support Equipment (GSE)²⁹.**
 - (1) **In-use GSE.** Items shall not to be operated in conditions exceeding their wind speed limitations as detailed in relevant AP119F Topic 1. Where no formal wind speed limitations are published, users are to seek Level G approval prior to use.
 - (2) **Not in-use GSE.** Items shall be moved from the vicinity of aircraft to a sterile area and where possible, pointed into wind. The smallest GSE profile is to be presented into the wind, lowering if possible. Braking and stabilising devices are to be correctly applied. Stabilising devices are not to be wound down so that they lift the GSE off the ground. All lightweight GSE is to be held inside or secured to an immobile structure.

²⁹ When using items of GSE in windy conditions, they are not to be operated in conditions exceeding their wind speed limitations found in AP119F Topic 1 (for relevant GSE) or AESP 201-601 (for relevant vehicle). Where no formal wind speed limitations are published, users are to seek Level G approval prior to use.

e. **Reporting actions complete.** When all applicable actions have been completed, a report is to be made to the DEOC confirming the precautions taken.

6. **Expected Wind Speed >40 knots, but <80 knots (Gust or Mean).**

a. Carry out all actions listed under Paragraph 5.

b. **Personnel.** Cease all work, except the actions below.

c. **Aircraft.** For aircraft parked in the open, carry out periodic checks of chocks, blanks and brake pressure levels.

d. **Visiting Aircraft.** VAHS are to take direction from the Aircraft Captain / Detachment Commander.

e. **GSE.** >50 knots, all GSE is to be removed from the vicinity of aircraft and held inside where possible.

f. **Hangar Doors.** >40 knots, consider closing hangar doors. >60 knots, hangar doors must be closed in accordance with AESO-2-1-1-1-01.

7. **Expected Wind Speed >80 knots (Gust or Mean).**

a. Carry out all actions listed under Paragraphs 5 and 6.

b. **Aircraft.**

(1) For visiting aircraft, VAHS are to inform the Aircraft Captain / Detachment Commander and discuss options to evacuate aircraft to a safe weather area.

(2) Aircraft are to be prepared to fly as directed by Sqn Executives, within the constraints of this order, in readiness for severe weather fly off³⁰.

c. **Reporting actions complete.** When all applicable actions have been completed, a report is to be made to the DEOC confirming the precautions taken.

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³⁰ Note: The severe weather Fly-Off Instruction will be given by Stn Ops before the wind speed reaches 60 knots

Order B226 – AIRCRAFT WASH PROCEDURE

References Nil

Annexes Nil

1. **Introduction.** This order applies to WAD Engineering Operations (Eng Ops) personnel in the role of Duty Eng Ops Controller (DEOC) responsible for the facilitation of aircraft washes at WAD.
2. **Implementation.** The DEOC is to act as the POC for all aircraft wash requests at WAD and should fulfil the following:
 - a. **51 Sqn.** Process all requests in accordance with AESO 2-1-1-01-17 and ESS MOE Leaflet 524.
 - b. **Reservations.** For all FEs and visiting aircraft, act as the POC for the Aircraft Wash Bay (Slot 7) reservations.
 - c. **Drainage Arrangements.** Make arrangements to drain the Wash Pan Holding Tank if required.

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Order B227 - RESUMPTION OF SHADOW OPS FROM 2 HANGAR NORTH

References

- A. [Eng Ops \(Hangar 2\)- No 03-EAR 2022-23.pdf](#)
- B. [Eng Ops \(Non Intercepted Areas\)- No 01 EAR 2022-23.pdf](#)
- C. [Eng Ops \(Engine Runs\)- No 02 EAR 2022-23.pdf](#)
- D. [AOB Order B224](#): Parking, refuelling, and defueling of aircraft on non-intercepted areas – Environmental protection procedures.

Annex A. RAF Waddington 2 Hangar North Order Schematic.

1. **Background.** Shadow refuelling ops at 2 Hangar North were paused due to surface degradation, assumed to be caused by fuel spills. The cause of the degradation has since been determined to have been tight vehicular turns on the surface. This order permits a resumption of refuelling at 2 Hangar North, subject to procedural compliance and checks, ensuring that the AOS is not damaged.
2. **Shadow Ops.** The following rules apply:
 - a. A maximum of two Shadow aircraft can conduct routine line ops in the area outside 2 Hangar North. The 'operating area' and 'refuelling area' in which routine line ops are permitted, can be seen by the corresponding green and orange lines in Annex A.
 - b. A taxiway edge line is marked incorrectly and will be re-marked to aid wingtip clearance deconfliction in the event of non-standard ops.
 - c. In the event of non-standard ops (aircraft with fine wingtip clearance), the procedures stated within this order may be temporarily suspended. In the event of non-standard ops, operators should refer to Reference A.
3. **Aircraft refuelling.** The following rules apply.
 - a. Open line refuelling (non-pressurised) is to be conducted in intercepted refuelling area bound by the orange lines seen in Annex A. The surface of this area is concrete to avoid degradation upon spillage. Refuelling is therefore NOT to be conducted on the asphalt operating area.
 - b. A spill kit is to be positioned in the operating area of 2 Hangar North for immediate availability during all scheduled fuelling times.
 - c. Refuellers are to position on the concrete surface labelled 'bowser' seen in Annex A, bound by red lines. Refuellers are to conduct a wide approach and departure to the bowser area to avoid tight turns on the asphalt surfaces.
 - d. When ATC is open, refuelling is to be conducted under the control of ATC; the Refueller will be operating within the normal width of the active taxiway. When the refuel is starting and ending, ASMT are to inform ATC via MRE. When ATC is closed, refuelling is to be conducted under the control of Stn Ops, as per the single occupancy rule.
4. **EGRs.** The following rules apply.
 - a. Low powered EGRs may be conducted within the operating area bound by the green and orange lines seen in Annex A.
 - b. In accordance with Reference A, high powered EGRs and propellor tunes are not to be conducted in the operating area of 2 Hangar North, in accordance with Ref A.

5. **Crew Changes.** Projected refuel windows are to be considered in the weekly OPG, in order to deconflict this activity with with large aircraft moves. It is anticipated that the total time for refuel activity will be 45 minutes.
6. **Surface condition checks.** The following rules apply.
 - a. The Airfield Manager is to conduct weekly checks of the surfaces around 2 Hangar North, in order to monitor the potential degradation of surfaces in the area.
 - b. If a degradation of the surfaces outside 2 Hangar North is observed, these procedures will be temporarily suspended, enabling casual investigation. Procedures will be modified as required.

Annex A-1 to AOB Order B227

File reference 20240103-RAF_Waddington_AOB-Issue 4.1-O

2 Hangar North

1. The green area represents the tarmacked operating area.
2. The orange area represents the concrete refuelling area.
3. The red area represents the concrete bowser area.
4. The red lines represent the refueller's intended approach and departure path, in order to access the bowser area.



Order B228 – Non-Standard Take-off Distances

References A. [Annex K Appendix 1](#)

Annexes A. Local Declared Distances

1. Standard declared distances are contained in the Mil AIP. However, there are occasions upon which distances not included in the Mil AIP are required for use by WAD-based aircraft. In exceptional circumstances, an additional local departure, known as the 'Full Runway Departure (FRD)' may be available, with prior permission from the AO.
2. **FRD.** WAD-based ISTAR assets may require more runway distance for departures than is declared in the Mil AIP. In such circumstances, a departure from Runway 20, using the intersection from Zulu Taxiway, may be authorised by the AO. To ensure that the Full Runway Departure procedure is assured, the declared distance data given at Annex A – along with the information given at Reference A – is to be followed.
3. **Runway 02 Intersection A/D Departure.** For expediency, WAD-based assets may wish to depart from Runway 02RH using the intersection of Taxiways A and D (as opposed to the full runway length using the turning loop). The declared distance data for such a departure is at Annex A.
4. **Intersection F Departures.** For expediency, WAD-based assets may wish to depart from Runway 02RH or 20 using the intersection with Taxiway F. The declared distance data for such a departure is at Annex A.

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Annex A to AOB Order B228**File reference 20240103-RAF_Waddington_AOB-Issue 4.1-O****Non-Standard Take-off Distances**

	DECLARED DISTANCES								
2.13.1	2.13.2		2.13.3		2.13.4		2.13.5		2.13.6
RUNWAY	TORA		TODA		ASDA		LDA		COMMENTS
	M	FT	M	FT	M	FT	M	FT	
Zulu 20	2878	9444	3017	9898	2878	9444	N/A	N/A	a. TORA = Taxiway Zulu Origin of Intersection to 02RH Threshold. b. TODA = Taxiway Zulu Origin of Intersection to 02RH Fence. c. ASDA = Taxiway Zulu Origin of Intersection to 02RH Threshold.
Alpha / Delta 02RH	2666	8746	2805	9203	2666	8746	N/A	N/A	a. TORA = Taxiway Alpha / Delta Origin of Intersection to 20 Threshold. b. TODA = Taxiway Alpha / Delta Origin of Intersection to 20 Fence. c. ASDA = Taxiway Alpha / Delta Origin of Intersection to 20 Threshold.
Foxtrot 02RH	1202	3943	1340	4396	1202	3943	N/A	N/A	a. TORA = Downwind edge of Foxtrot to 20 Threshold. b. TODA = Downwind edge of Foxtrot to 20 Fence. c. ASDA = Downwind edge of Foxtrot to 20 Threshold.
Foxtrot 20	1531	5023	1669	5475	1531	5023	N/A	N/A	a. TORA = Downwind edge of Foxtrot to 02RH Threshold. b. TODA = Downwind edge of Foxtrot to 02 Fence. c. ASDA = Downwind edge of Foxtrot to 02RH Threshold.

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Order B229 – VISITING LARGE AIRCRAFT PROCEDURES

- References**
- A. [MAA RA3510](#): permanent fixed wing aerodrome: reference information
 - B. [MAA RA 3511](#): permanent fixed wing aerodrome: physical characteristics
 - C. [MAA RA1010](#) : head of establishment aviation responsibilities
 - D. [MAA RA1026](#) : aerodrome operator roles and responsibilities

Annexes A. Visiting Large Aircraft Types and General Guidance

1. **Purpose.** This order provides direction and guidance for those at WAD involved in the planning for - or handing of – Cat D and larger visiting aircraft. As some areas of the aerodrome are non-compliant for large aircraft types, effective control is required to ensure their safe handling. Whilst WAD is a Code 4C Aerodrome, some WAD-based aircraft have a wingspan or undercarriage track that would normally require operation from a Code 4D Aerodrome. Safe operation of these WAD-based aircraft is effected through ISTAR DDH acceptance of the airfield hazards that prevent classification as Code D Aerodrome. This order refers specifically to visiting aircraft.

2. **Approval (Code D Aircraft).** WAD routinely handles visiting Code D aircraft, up to and including C-17; duty personnel and planners are familiar with the necessary restrictions.

a. **Restrictions.** Restrictions for Code D aircraft include:

(1) **Delta Taxiway Width.** Too narrow (18m).

(2) **Fixed Objects.** Some fixed objects infringe the wingtip clearances given in Reference B. Wingtip clearance infringement objects are detailed in Annex U and included in the AOHL at Annex D. When a visiting aircraft is accepted, A5 Plans / Stn Ops are to ensure that the Visiting Aircraft Proforma includes an acceptance, by the relevant DDH, of the risks associated with operating at a Code C aerodrome.

3. **Approval (Code E Aircraft or Larger).** The AO, or Dep AO, must be informed of any intent to accept an aircraft that would normally require a Code E or higher aerodrome.

a. **Restrictions.** Reference A provides the necessary data, based on wingspan, noting that undercarriage track should also be considered.

b. **AO Approval.** Only with AO approval can such an aircraft be accepted; AO approval will require the presentation of a thorough parking, taxiing and operating plan by A5 Plans / Stn Ops.

4. **Planning (Code E and above).**

a. OC Ops Sqn is responsible for the effective planning of all aspects of visiting aircraft handling. Annex A provides a basis for such planning, but does not provide comprehensive detail for every eventuality.

b. The aircraft (Code D-F) listed at Annex A have been successfully handled at WAD with risks accepted as ALARP and Tolerable, together with specific limitations and considerations. Any proposed visitor not included in this list will require more detailed planning with aircraft operating authority.

5. **Execution.**

a. The AO and / or OSW Duty Exec should be briefed on the plan before execution.

b. Ops Sqn / A5 Plans are responsible for providing relevant planning detail to all relevant parties, including: ATC; DOC; DEOC; VAHS; Fire; ASMT; Movers; RAFF; Media / Comms. Ops Flt will execute the plan as directed, updating the OSW Duty Exec as appropriate.

6. **Safety Management.** Any airfield activity at WAD must have its risks reduced to 'ALARP' and the relevant duty holder must formally 'Tolerate' the residual risk. Deviations from planned procedure that could increase risk to aircraft or personnel must be approved by the AO.

a. **Stn Cdr.**

(1) As HoE, and in accordance with Reference C, has a Duty Holder Facing (DH-F) responsibility to provide a Safe Operating Environment for visiting aircraft.

(2) As HoE, is responsible for ensuring a Safe Place of Work for all personnel involved in aircraft handling.

b. **OC OSW.** As AO, OC OSW is responsible for managing all aspects of Aerodrome Operations; the AO is responsible to the Stn Cdr for advising on any changes to the agreed 'ALARP and Tolerable' position.

Annex A to AOB Order B229**File reference 20240103-RAF_Waddington_AOB-Issue 4.1-O****Visiting Aircraft Types Guidance**

Aircraft	Wingspan/ Aerodrome Code/ ICAO ARFF Code^{31 32}	Taxi restrictions or guidance	Parking	Handling Guidance
C-17 (Globemaster)	51.74m / Code D / ICAO 8	Towed only on Taxiway Delta (for DAC Bay 19A) Normally parked on Bays 30/31 for PCN	ACN dependent, according to RAF Waddington Biennial Inspection Final BAIR Nov 22	VAHS are only trained in use of Toilet Service Truck, Crew are to connect the Toilet services to their own aircraft. Sufficient space required for access to the AC ramp for an Atlas Loader or forklift.

³¹ Any requests for aircraft to operate at Reduced Hazard Profile RHP or Remission is to be done assessed by the fire station manager in the first instance and appropriate authorisation be sought.

³² [DSA02 DFSR Defence: Aerodrome Rescue Fire Fighting \(ARFF\) Regulations - GOV.UK \(www.gov.uk\)](#)

A400M (Atlas C1)	42.40m / Code D / ICAO 8	Has previously operated under power on Delta to load and unload on Bays 10-13, but needs Platform Risk owner approval (18m taxiway vs RA3511 24m requirement)	ACN dependent, according to RAF Waddington Biennial Inspection Final BAIR Nov 22	<p>VAHS do not hold a Towbar for A400M. Aircraft to be parked in Taxi In / Out Bays.</p> <p>VAHS are only trained in the use of Toilet Service Truck; aircraft crew are to connect the toilet services to their own aircraft. Sufficient space is required for access to the aircraft ramp for an Atlas Loader or forklift.</p>
C130H (many other variants, check variant)	40.41m / Code D / ICAO 6	Has previously operated under power on Delta, but needs Platform Risk owner approval (18m taxiway vs RA3511 24m requirement)	ACN dependent, according to RAF Waddington Biennial Inspection Final BAIR Nov 22	<p>VAHS hold a C130 Towbar.</p> <p>VAHS are only trained in the use of Toilet Service Truck; aircraft crew are to connect the toilet services to their own aircraft.</p> <p>Sufficient space is required for access to the aircraft ramp for an Atlas Loader or forklift.</p>
P-8 (RAF) / Other (Poseidon)	37.70 / Code D / ICAO 7 (See footnotes 33 & 34 above)	To be taxied on taxiways to the West of the Runway only (under power) due to ACN and Delta Taxiway width.	ACN dependent, according to RAF Waddington Biennial Inspection Final BAIR Nov 22 ; ACN is high due to number of mainwheels, limited parking options	<p>VAHS have a fit for purpose towbar required to handle P8 outside of Bays 30/31.</p> <p>VAHS are only trained in the use of Toilet Service Truck; aircraft crew are to</p>

				connect the toilet services to their own aircraft.
A310 MRTT (CAN CC150) and A310 PCF / Charter	43.9m / Code D / ICAO 8 (See footnotes 33 & 34 above)	Has taxied under power to Bay 19A. Delta Taxiway not Code D compliant; platform risk holder approval required for use of Delta Taxiway under power.	ACN dependent, according to RAF Waddington Biennial Inspection Final BAIR Nov 22	<p>Canadian A310 Pax door is forward port side. Italian A310 is Aft port side.</p> <p>VAHS are only trained in the use of Toilet Service Truck; aircraft crew are to connect the toilet services to their own aircraft.</p> <p>Sufficient space required for access to the AC ramp for an Atlas Loader or forklift.</p>
A330 MRTT, RAF (Voyager)	60.3m / Code E / ICAO 8 (See footnotes 33 & 34 above)	Must turn on runway end turnpads. Cannot use taxiways under power. Even under tow, impractical to tow on Alpha taxiway.	Normally towed only from runway to Foxtrot/Delta intersection due to ACN. Access for loading and unloading and fuelling possible at this location. Other parking options are possible but operationally limiting.	<p>VAHS require a A330 Towbar to accept A330. Nose wheel steering Pin in VAHS Tool Kit.</p> <p>VAHS are only trained in the use of Toilet Service Truck; aircraft crew are to connect the toilet services to their own aircraft.</p> <p>Sufficient space is required for access to the aircraft ramp for an Atlas Loader or forklift.</p> <p>Aircraft pallets preferred ULD vs Tins.</p>

AN-124 Ruslan (Antonov)	73.3m / Code F / ICAO 9 (See footnotes 33 & 34 above)	Cannot taxi away from runway surface and turn pads under power. Specific HoE approval required and special measures for fuelling.	Parking/loading only on runway end turn pads. In extremis, tow to Foxtrot/Delta intersection to clear runway for use.	Refuel is to be avoided on the runway turn-pads; AO / HoE decision required due to fuel spill consequences. No tow-bar available at WAD; aircraft required to bring a towbar on board. Sufficient space required for access to the AC ramp for an Atlas Loader or forklift.
Ilyushin II - 76	50.5m / Code D / ICAO 7 (See footnotes 33 & 34 above)			No tow-bar available at WAD; aircraft required to bring a towbar on board. Aircraft are to be parked in Taxi In / Out Bays. VAHS are only trained in the use of Toilet Service Truck; aircraft crew are to connect the toilet services to their own aircraft.

AOB SECTION C – DECONFLICTION PROCEDURE

Order C101 – LINCOLNSHIRE AGREED AIRSPACE

References A. CAP 774 UK Flight Information Services

Annexes A. AA Sectors & Capabilities
B. Visual Reporting Points of AA

1. The airspace around WAD and CRN has been split into 8 notional sectors, in order to offer systemic deconfliction to local units.

2. **Airspace Structure.**

a. **Lateral.** Annex A to this order provides lateral boundaries & is split into four equal sectors. All bearings are in degrees magnetic as follows:

- (1) North-East Sector 000° - 089°. (AA Sector 2)
- (2) South-East Sector 090° - 179°. (AA Sector 4)
- (3) South-West Sector 180° - 269°. (AA Sector 3)
- (4) North-West Sector 270° - 359°. (AA Sector 1)

b. Sectors 5 - 8 are to the south of RAF Wittering (WIT), primarily for the use of WIT based Aircraft.

3. **Vertical.** The vertical dimensions of the procedures are 4000ft to 10000ft.

4. **Concept of Operations.** As the sectors fall into uncontrolled airspace, the primary responsibility for separation rests with pilot 'see and avoid'. The concept of 'soft boundaries' applies to the sectors – aircraft may operate next to and along boundaries; occasional minor incursions may occur, provided crews return to the allocated sector as soon as practical.

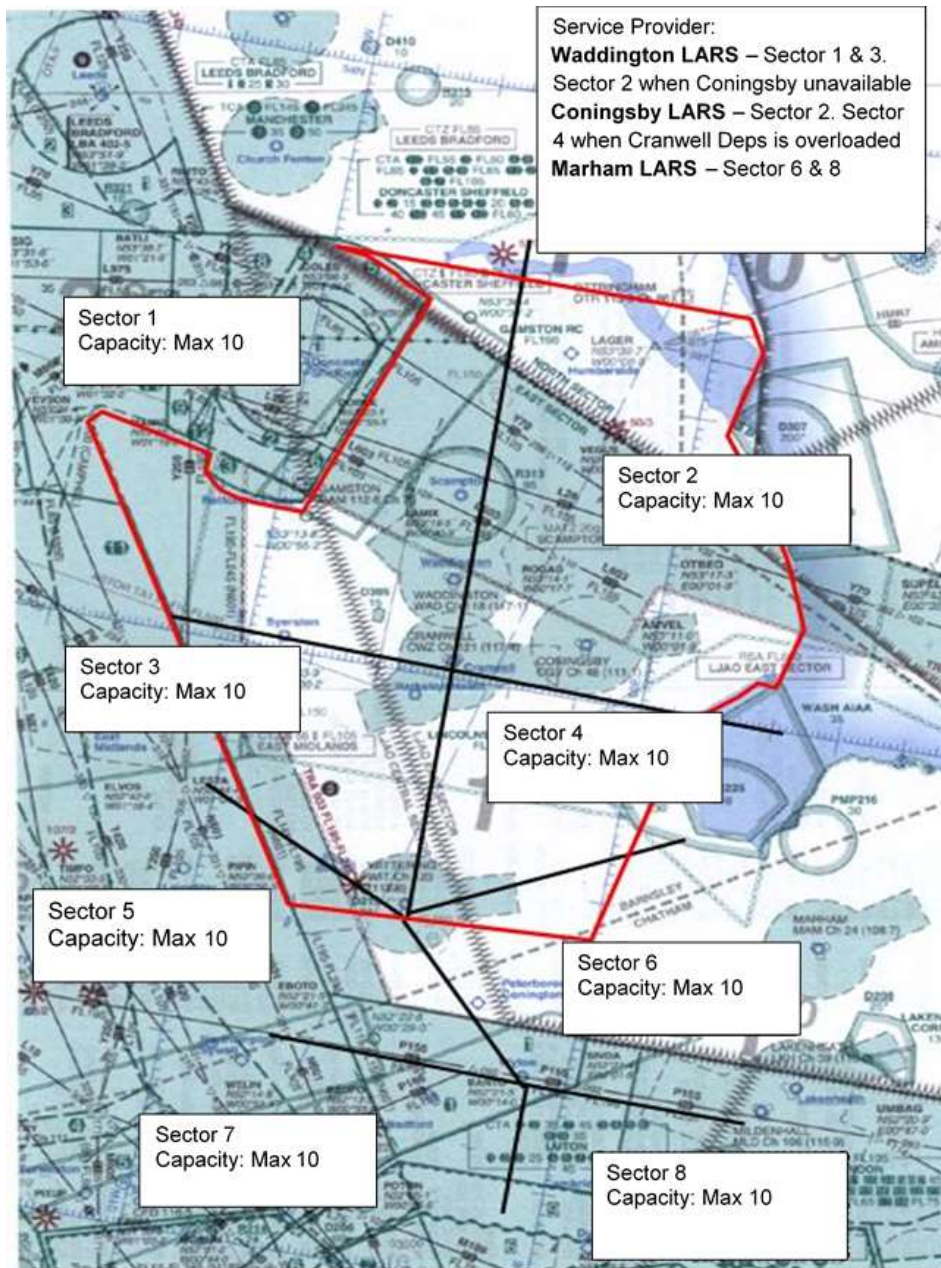
5. Aircraft commanders can change operating sector when airborne for reasons such as weather. They are to request this change via ATC. Aircraft commanders are to use & appropriate FIS.

a. Aircraft commanders are to depart CRN as normal for their planned sector and expect a traffic service from WAD Radar.

b. Aircraft commanders are to call established in the sector and pass brief operating details with the planned requested altitudes.

6. When Mode C indicates that an aircraft, under the receipt of a radar service, is above the base height / altitude stipulated in the pre-booked AA sector block, ATC will initiate approval for aircraft to manoeuvre as required.

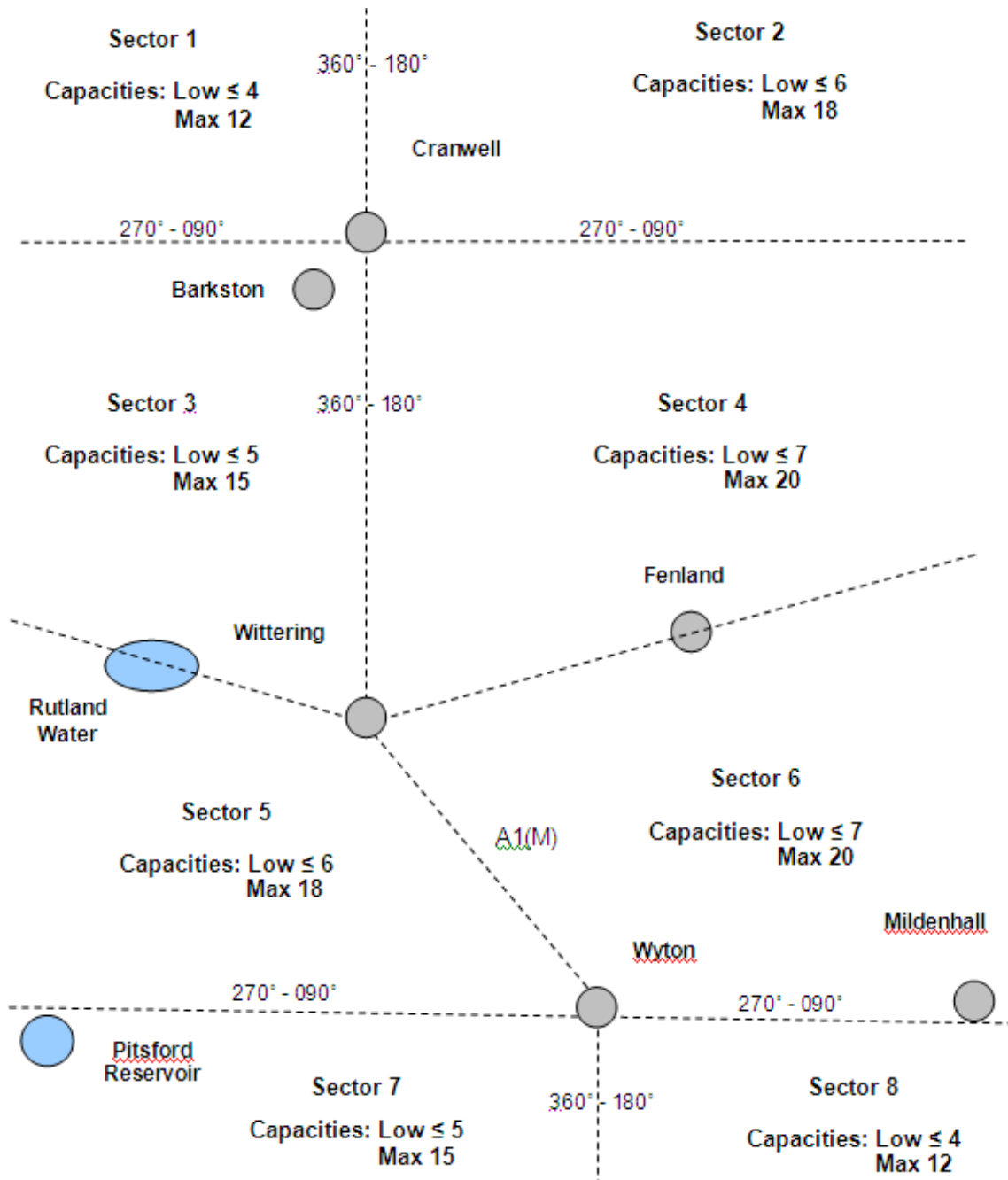
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Annex A-1 to AOB Order C101**File reference 20240103-RAF_Waddington_AOB-Issue 4.1-O****AAT Sectors and Capacities**

Annex A-2 to AOB Order C101

File reference 20240103-RAF_Waddington_AOB-Issue 4.1-O

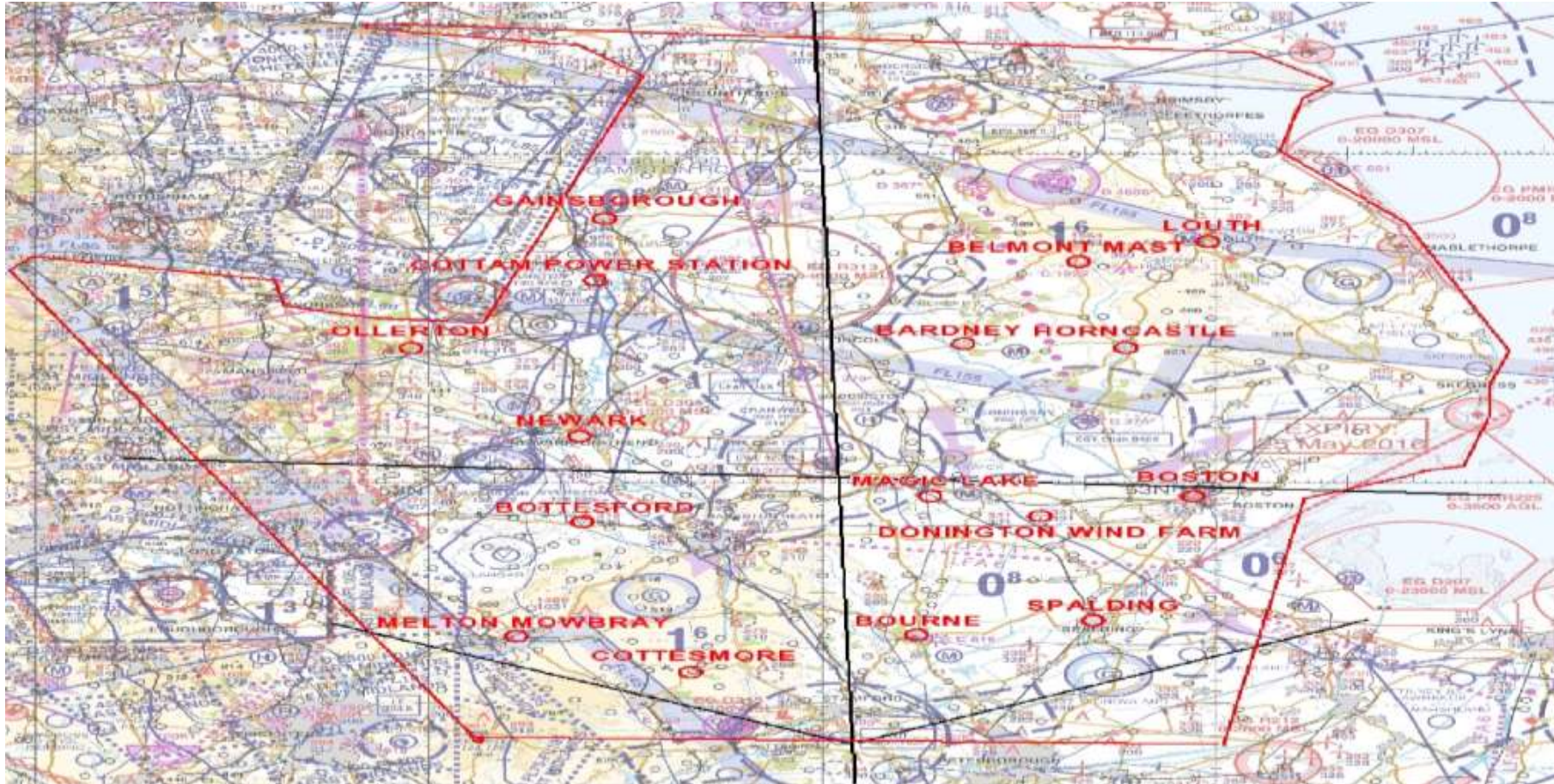
AAT Sectors and Capacities



Annex B to AOB Order C101

File reference 20240103-RAF_Waddington_AOB-Issue 4.1-O

Visual Reporting Points in Sectors 1-4 of Lincolnshire Agreed Airspace



Order C102 – RAF WADDINGTON/RAFC CRANWELL TRANSIT PROCEDURE

References Nil

Annexes A. Tower to Tower Transit procedures

WAD / CRN Transit Procedures

1. Aircraft are to depart CRN at 1000ft CRN QFE, to join WAD visual circuit via initial for Runway 02RH or downwind for Runway 20. On return to CRN, aircraft are to fly at 1500ft CRN QFE, to join via the IP at CRN. Aircraft transiting are to squawk Mode 3/A 3627. If CRN Runway 01/19 is in use, aircraft are to fly the transit procedure for the CRN instrument runway.
2. Pilots are to notify ATC of their transit intention when downwind on their final circuit, or on taxi, by requesting a 'Tower to Tower'. The aircraft is to contact the destination airfield as soon as the aircraft is clear of the visual circuit of the departure airfield.

Annex A to AOB Order C102

File reference 20240103-RAF_Waddington_AOB-Issue 4.1-O

Tower-to-Tower Transit Procedure



CRN Runway 26

1. **Point A.** Start of WAD Runway 20 downwind leg.
2. **Point B (Indicative only).** IP for WAD Runway 02RH (4nm – slight offset from indication on map).

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CRN Runway 08