

Defence Aerodrome Manual (DAM)

Military Aviation Authority



RAF NORTHOLT



Defence Aerodrome Manual

Edition 5.0 (Effective From 30 Apr 23)

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FOREWORD

- 1. This document, the RAF Northolt Defence Aerodrome Manual, describes the aerodrome at RAF Northolt including the management, physical characteristics, services available and operating procedures. The Manual is written to inform and direct military and civilian aircrew using the aerodrome and to provide orders for personnel operating on the aerodrome or providing aerodrome services. The Defence Aerodrome Manual conforms to the guidance provided by the Military Aviation Authority (MAA) in Regulatory Article (RA) 1026 and is consistent with CAA CAP 168 Aerodrome Manual requirements.
- 2. This Manual contains information regarding the runway and instrument approaches, but due to the review period **this should not be relied upon for flight planning** and aircrew should continue to refer to the Mil Aeronautical Information Publication (AIP) for the most up-to-date information. The Manual is **mandated reading** for the pilots of Station-based aircraft, Air Traffic Control (ATC), Operations, Aerodrome Movements Sqn (AMS) and Contractor personnel responsible for the delivery of aerodrome services. The Defence Aerodrome Manual outlines some aspects of the Station Air Safety Management System; however, full details are contained in the RAF Northolt Air Safety Management Plan and the Unit Crash Plan.

V Fulton Wg Cdr OC Operations/Aerodrome Operator RAF Northolt

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5.0	19 Apr 23	30 Apr 23	Wg Cdr V A Fulton OC Ops	V A Fulton

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Annex AA Civil Aircraft Aerodrome Usage - Terms and Conditions

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Annex FF Jettison and Fuel Dumping Area (If applicable)

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Chapter 1: Technical Administration - Aerodrome Location, Layout and Access

1.1 Name and Work Address of Aerodrome Operator:

> Mil: \$\alpha\$ 95233 8904 Wing Commander V Fulton Officer Commanding Operations Wing Civ: 20208 833 8904 RAF Northolt Fax: 0208 833 8903 Email: Victoria.Fulton200@mod.gov.uk

West End Road

Ruislip HA4 6NG

- Aerodrome Operators Authority and Letter of Delegation. The AO is responsible for actively managing an environment that accommodates the safe operation of aircraft in accordance with RA1026. The management and running of the aerodrome are a Duty Holder Facing (DHF) responsibility. A copy of the Letter of Delegation is contained at Annex A.
- Safety Meeting Structure. An organisational aviation safety meeting flow diagram is at Annex B. The diagram includes the lowest level meetings (weekly/monthly) and flows up to the highest level (monthly, bi-monthly, six monthly etc). Civilian contractors and customers, as well as external defence organisations, are represented where appropriate. Further details are available in the RAF Northolt Air Safety Management Plan.
- 1.4 Aerodrome Key Stakeholders. A list of aerodrome key stakeholders, including their post role and work contact numbers, is at Annex C.
- Aerodrome Operating Hazard Log (AOHL). The AOHL can be found at Annex D.
- Formal Aerodrome Related Agreements. Copies of all formal aerodrome related agreements, which are to be reviewed annually, are captured in Annex E.
- Aerodrome Alternative Acceptable Means of Compliance (AAMC), Waivers and **Exemptions.** Details of all aerodrome related waivers, exemptions and AAMC are captured at Annex F.
- Aerodrome Location and Control of Entry and Access. Please refer to Annex G. 1.8

CHAPTER 2: AERODROME DATA, CHARACTERISTICS & FACILITIES

2.1. Aerodrome Data. The AO is to ensure all Aerodrome data provided is accurate and information contained in the DAM, where applicable, is to mirror the equivalent information published in other military aviation publications.

2.	2.1 Aerodrome Data					
1	Location Indicator and Name	EGWU – RAF Northolt.				
2	ARP co-ordinates and site at AD:	N51 33 09·77 W000 25 10·55, Mid-point of Runway 07/25.				
3	Direction and distance from city:	2nm ENE of Uxbridge.				
4	Elevation/Reference Temperature:	126ft/23°C.				
5	Magnetic Variation/Annual Change:	0.13° (Sep 19) W /-0.18° E				
6	Geoid Undulation at AD Elev Position:					
7	AD Administration: Address:	Station Operations Royal Air Force Northolt West End Road Ruislip Middlesex HA4 6NG				
	Tel:	Mil 95233 8915 Station Ops Mil. 95233 8915 Civ. +44(0)208 833 8915				
L	Email:	Commercial Booking +44(0)208 833 8137/8 nor-northoltops@mod.gov.uk				
8	Types of Traffic Permitted (IFR/VFR):	IFR/VFR/SVFR.				
9	Remarks:	Telephone calls may be recorded.				

2.2 SPECIAL	2.2 SPECIAL PROCEDURES							
Elev	Var	TA			Date	Chart No.		
Elev 126ft	Var 0°W	TA 6000			Date 08 Oct 20	Chart No. B1 & B2		

- **2.3 Noise Abatement Procedure Orders**. The following procedures are always to be observed by pilots using Northolt. However, the requirements may at any time be departed from to the extent necessary for avoiding immediate danger or for complying with ATC instructions. Orders pertaining to Noise Abatement Procedures can be found at **Annex H**.
- **2.4 Temporary Obstruction Orders**. Temporary obstructions on or around any manoeuvring area that are considered to be a hazard to either Aircraft or vehicles will be marked by ground markers, high visibility markers, tape or fencing with additional red-light markers at night. For the safe movement of aircraft, a NOTAM will be issued, and taxi patterns will be controlled by ATC and

briefed to pilots on landing or when calling for start. The Temporary Obstruction Orders are contained at **Annex I**.

- **2.5** Runway Strip Obstructions. All legacy¹ runway strip obstructions are to be published within the AOHL, Annex D. Any new runway strip obstruction² will require a waiver request to be submitted and if authorized, will be contained within Annex F.
- 2.6 Runway End Safety Area (RESA). Details can be found at Annex J.
- 2.7 Light Aggregate (Lytag) Arrestor Beds or Engineered Materials Arrestor System (EMAS). Details can be found at Annex J.
- 2.8 Aerodrome Arresting System Orders. N/A.
- 2.9 Manoeuvring Area Safety and Control Orders. Please find the orders at Annex K.

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¹ Legacy is classified as any facility in place prior to the RA 3500 series being released in Sep 2018.

² Refer to RA 3590(10): Safeguarding – Surface Obstructions.

Chapter 3: Emergency and Aerodrome Rescue and Firefighting Orders

- 3.1 **Emergency Organization**. The AO is to be familiar with RA 3261(2), RA 3263 and DSA02 DFSR³. RA 3049⁴ stipulates that Defence Contractor Flying Organizations operating MAA-regulated Aircraft must meet the requirements detailed in DSA02 DFSR⁵. The relationship between the AO and the Defence ARFF Service Provider is defined within DSA02 DFSR⁵ and the Business Agreements between Defence ARFF Service Provider and the TLBs. The Defence ARFF Service Provider is a DH-Facing Organisation, and its Fire Stations operate to national good practice providing a service to the AO.
- 3.2 **Emergency Orders / Aerodrome Crash Plan**. RAF Northolt has responsibility for Aircraft Post Crash Management (APCM) of any accident on, or in the immediate vicinity of Northolt. Additionally, the Unit has a Regional APCM responsibility covering the Greater London area. The actions in the event of an aircraft accident, either on the aerodrome, near the aerodrome or within the APCM area of responsibility are detailed in the RAF Northolt Crash and Major Incident Plan (CMIP). Northolt Ops Sqn is responsible for the upkeep of the CMIP, a copy of which can be found through the link in **Annex L** or by contacting Stn Ops. The Station CMIP is made available to the following external agencies: Uxbridge Police Station, Hillingdon Emergency Planning Office, Cabinet Office Emergency Planning College, London Ambulance Service Emergency Planning Manager, London Fire Brigade Operational Planning Division and Hillingdon Hospital.
- 3.3 **Aerodrome Rescue and Fire Fighting (ARFF) Services and Training Orders**. The orders can be found at **Annex M** and are in compliance with DSA02 DFSR⁵.
- 3.4 **Disabled Aircraft Removal**. It may be necessary to quickly and safely remove an aircraft that has caused a temporary closure of a runway, taxiway or ASP, but which falls beneath the criteria of an accident that would be dealt with under the CMIP. The disabled aircraft removal procedures are linked from Annex N. If there is any doubt as to the status of an incident, advice should be sought from the Air Accident Investigation Branch (AAIB) for civilian registered aircraft or the Defence AIB Air, for military registered aircraft.
 - a. Indemnity and Release Form for Civilian Aircraft. The form at Annex LL (Indemnity and Release Form for Disabled Aircraft) should be signed and returned to Station Ops ASAP. In the event of military necessity, the aircraft may be moved without the desired clearances being received.
 - b. **Actions**. For civilian Aircraft operations, the main points of the procedure include:

Commercial Booking Cell

- (i) For civilian aircraft, notify the aircraft operating authority that the aircraft has been involved in an incident and needs to be moved.
- (ii) Notify all aircraft operators likely to be affected by the Runway being unavailable during of an incident on the aerodrome.

Aircraft Owner

(iii) The aircraft owner is defined as the holder of the certificate of registration and can be held responsible for aircraft removal and disposal of spilt fuel and other hazardous material (noting that RAF Northolt will have instigated the Unit Spillage Response Plan).

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³ Refer to RA 3261(2): Aerodrome Emergency Services, RA 3263 – Aerodrome Classification and DSA02 DFSR – Defence ARFF Regulation.

⁴ Refer to RA 3049 – Defence Contractor Flying Organization Responsibilities for UK Military Aircraft Operating Locations.

⁵ Refer to DSA02 DFSR - Defence ARFF Regulation.

VASS/Eng Control

(iv) Once cleared by Ops, and if possible, VASS are to tow the disabled aircraft clear. This is IAW of RAF Northolt CMIP.

CHAPTER 4: AIR TRAFFIC SERVICES AND LOCAL PROCEDURES

4.1 Air Traffic Control Orders. Full ATC Orders can be found at Annex O.

ACHAPTER 5: AERODROME ADMINISTRATION AND OPERATING PROCEDURES

5.1 **Aerodrome Data Reporting**. Orders for the reporting procedures to advise the relevant agency of any permanent changes to Aerodrome information are contained at **Annex P**.

Aero	drome	Data Reporting Procedures				
1	Legislation, Standards and Technical References. The ATCO IC is to provide up-to-date information on the aerodrome and on hazards to air navigation; they do this through the AIP and NOTAM.					
	respo report	rting Procedures. The Senior Air Traffic Control Officer (SATCO) has overall nsibility for ensuring that procedures are established, and resources provided, to changes to aerodrome physical characteristics or any other change that may affect fety of aircraft operations.				
2		i. SATCO is responsible for documenting reporting procedures and for advising No1 AIDU of any permanent changes to aerodrome information.				
	ii. The ATCO IC is responsible for reporting the day-to-day serviceability of the aerodrome and notifying temporary changes to published aeronautical information through Notices to Aviation (NOTAM) filed by the Northolt Operations DOC.					
		iii. Any changes to the aerodrome are to be reported to SATCO.				
		M ⁶ . All NOTAM action is recorded for possible 1 st / 2 nd and 3 rd party audit. NOTAMs originated in the standard NOTAM format for any of the following circumstances ⁷ :				
	1	A change in the serviceability of approach aids and radios.				
	2	A change in the operational information contained in the DAM and published in the Mil AIP.				
3	3	Aerodrome works affecting the manoeuvring area or penetrating the OLS.				
	4	New obstacles which affect the Safety of Aircraft operations.				
	5	Bird or animal Hazards on or in the vicinity of the Aerodrome.				
	A change in the availability of Aerodrome visual aids, i.e. markers and markings, runway lighting, etc.					
	7	Any change in Aerodrome facilities published in AIP.				
	8	Unusual air activities at the Aerodrome.				

5.2 **Aerodrome Serviceability Inspections**. Surface inspections are carried out daily by a suitably qualified controller in accordance with RA 3264(1), as directed by the RAF Northolt Air Traffic Control Order Book (ATCOB); this can be accessed at **Annex O**. Lighting inspections are carried out twice daily by a Contracted aerodrome electrician in accordance with the Letter of

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⁶ NOTAM information must be provided by email. Where urgent advice can be given by telephone, it must be confirmed by email as soon as possible. Reporting Officers raising a NOTAM must subsequently check the issued NOTAM for accuracy.

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

Agreement (LoA), available at a request to Stn Operations (020 8833 8916). Orders pertaining to the Serviceability Inspections can be found at **Annex Q**.

- 5.3. **Aerodrome Technical Inspections**. A technical inspection of aerodrome lighting is to be conducted daily by the aerodrome electrician. A further inspection of the aerodrome and associated equipment is conducted each week by the SATCO and the Air & Space Operations Manager (ASOM). An independent in-depth check of all paved surfaces is conducted monthly on behalf of the Defence Infrastructure Organisation (DIO). In addition to these inspections, routine maintenance is carried out on all surfaces and equipment as follows:
 - a. The Contracted agency is responsible for carrying out routine inspections of the technical equipment (transmitters, receivers, ILS etc).
 - (i) Precision navigation aids are calibrated by a flight check aircraft.
 - (ii) Every 6 months on a rolling maintenance contract.
 - b. Runway, taxiway, and obstruction lights, along with Precision Approach Path Indicators (PAPIs) and aerodrome traffic lights, are inspected twice daily by the aerodrome electricians.
 - c. All earthing points are checked annually.
 - d. Movement areas and drainage are maintained and repaired on a rolling contract by MOD contractors.
 - e. All aerodrome signs are inspected weekly by ATC and monthly by a DIO approved maintenance contractor.
 - f. All Fire and Rescue vehicles and associated equipment are inspected daily with major servicing inspections being carried out every 2 months.
 - g. The Crash Ambulance and associated equipment is inspected daily with major servicing inspection being carried out every 6 months.
 - h. The Aerodrome Wildlife Control Unit (AWCU) equipment and vehicle are inspected daily with vehicle maintenance carried out in accordance with manufacturer's recommendations.
 - i. Aerodrome lighting along with other essential equipment is backed up by stand-by generators. The generators are inspected daily with a switchover test being carried out weekly in conjunction with the DIO-approved maintenance contractor.
 - j. Aerodrome Driving Orders are constantly monitored for effectiveness and reviewed annually. Traffic lights, CCTV and road barriers for the control of airside vehicle control measures are inspected daily.
 - k. Aerodrome information published in AIP, Standard Operating Procedures and other Flight Information Publications (FLIPs) are constantly reviewed and will be checked at least annually by ATC and Station Ops.
 - I. The Compass Calibration equipment is tested bi-annually, and a certificate of serviceability is available at Station Ops.

Further Orders can be found at **Annex R**.

5.4 Radar, Radio and Navigation Aid Maintenance, Monitoring and Protection. In addition to the below, further orders can be found at Annex S.

- a. All activity on the aerodrome is monitored by ATC.
 - (i) Any personnel requiring access to any of the aerodrome navigation aids or areas in their immediate vicinity are to be directed to ATC.
 - (ii) All radar and navigational aids are installed with signs warning of any hazards, including microwave radiation.
 - (iii) Ground maintenance. Any ground maintenance in the vicinity of the NAVAIDS is managed by ATC. Ground maintenance issues are directed to Estates Management through the ATC.
- b. Contracted personnel carry out daily and/or scheduled servicing in accordance with <u>AP600</u>. Where an aspect of servicing is not covered in the document, the Northolt equipment is serviced under locally generated Work Orders.
- c. Ground Radio hold the following Concession Certificates
- d. **Surveillance Equipment Maintenance & Monitoring**. Since Dec 2011, the provision of radar services to aircraft operating into or out of RAF Northolt has fallen to Northolt Radar, situated at RAF(U) Swanwick, co-located within the NATS London Terminal Control Centre, Swanwick. The provision of SRE for Northolt Radar now falls to NATS. RAF Northolt does not operate or provide primary or secondary surveillance radar but instead receives a feed from NATS. Contracted personnel maintain the links and displays for this feed in accordance with AP600.
- e. **Navigation Equipment Maintenance & Monitoring**. Contracted GRSF personnel carry out daily and/or scheduled servicing in accordance with <u>AP600</u>. Where an aspect of servicing is not covered in these documents, the Northolt equipment is serviced under locally generated Work Orders.

5.5. Aerodrome Works Safety. Orders can be found at Annex T.

Aero	Aerodrome Works Safety						
1	Work in Progress (WIP) Records. A plan of the aerodrome is kept prominently displayed in both ATC and Station Operations for the purpose of marking all obstacles, obstructions, and Work in Progress. It is the responsibility of the ATCO IC and DOC to ensure that the information displayed on the plan is always fully up to date.						
2	WIP Log. In addition to an aerodrome plan, a Work in Progress log is maintained in the control tower, in which the ATCO IC enters details of all Work in Progress. Each entry is signed by the both the ATCO IC and by the supervisor of the working party to certify that the extent of the work area and the necessary ATC briefing have been fully understood before the work has started.						
		Griefings. The ATCO IC is responsible for ensuring that the supervisor of the ag party is properly briefed. The briefing includes the following details:					
3	1	Limits of the work area.					
	2	Direction of Aircraft movements.					
	3	Route to be taken by works vehicles.					
	4	Parking area for works vehicles and equipment.					

Aero	Aerodrome Works Safety						
	5 Control to be exercised over works vehicles and workers.						
	6	Signals to be employed.					
	7	FOD prevention.					
4	possib The witasked radio of prior to and in: Progre proced	ol Measures. When work is to be carried out on the aerodrome and it is not ble to stop flying, special control rules are enforced to safeguard the working party. Orks supervisor is to be issued with an MRE radio or the ATC Duty Driver is to be it to accompany the work party. The supervisor or ATC driver is to maintain constant contact with ATC and ensure the work party moves clear of the manoeuvring area or any aircraft movement in their vicinity. SATCO is responsible for issuing orders structions to the work party. Aircraft captains are to be informed of any Work in less that may affect aircraft operations including any taxiing instructions or special dures necessary. All aerodrome work is to be clearly marked using approved high ty markers and lit during hours of darkness.					
5		Cutting. A grass cutting plan is to be established and maintained iaw the rome policy.					

5.6. **Aerodrome Users - Vehicle and Pedestrian Control**. Orders, contained at <u>Annex U</u>, for the control of vehicular and pedestrian traffic on the Aerodrome are to be written iaw RA 3262⁸. The following points are to be considered as a minimum:

Aerodrome Users - Vehicle and Pedestrian Control			
1	Aircraft Manoeuvring Area.	8Vehicle and pedestrian movement is kept to an absolute minimum and controlled at all times by an authorised person.	
2	Aprons.	As above.	
3	Aerodrome Access Permit (AAP).	Drivers operating on the aerodrome are to have an aerodrome access permit with the exception of those visiting drivers of vehicles (operating beyond the yellow line on the main ASP only) associated with: a. VIP (Royal or high level governmental only) aircraft movements. b. Civilian Emergency Service vehicles on operational tasks, including ambulances carrying patients to and from aeromed aircraft. c. HM Revenue & Customs vehicles. These vehicles are to be marshalled at all times by AMS (chocked when appropriate).	
4	Aerodrome Access Briefs.	Available through Air Traffic Control for frequent aerodrome users and contain all orders pertinent to driving airside. Aerodrome Driving Orders are available in Station Standing Orders, on request	

⁸ Refer to RA 3262 – Aerodrome Access.

		from Northolt Operations or the following link (order 8.2).
5	Access Routes.	ASP 1 access to the movement area is controlled through two remotely controlled barriers monitored via CCTV by AMS (0208 833 8945). ATC MT Route access to the movements area is controlled through a remotely controlled barrier monitored by ATC (0208 833 8227).
6	Orders for Airside Vehicle Control.	As per Annex U.
7	Additional Orders for Drivers on Aprons (ASPs).	Nil.
8	Additional Orders for the Control of Airside Vehicles at Night.	Nil.
9	Orders for Pedestrians / cyclists / riders / dog walkers / runners etc.	Pedestrian movement is restricted to authorised personnel, other than the transit of military and civilian passengers, who will be accompanied by authorised personnel. All personnel, military and civilian are to wear Hi-visibility clothing when on the ASP, this includes all military and civilian aircrew. The only exception to the rule being passengers being escorted to/from an aircraft under the guidance of the Duty Movements staff, or the Duty Air Movements Officer (DAMO) when undertaking VIP Protocol duties in accordance with their primary role. However, in this instance the DAMO is to be escorted by another member of the RAF Northolt Movements Staff who is wearing an item of Hi-visibility clothing. Pedal Cyclists are only permitted on authorised MT routes (North/South Link Road and Northern MT Route) with a valid Airfield Access Permit. Riders, dog walkers and runners are not permitted airside.
10	Signals for the Control of Vehicles and Pedestrians.	Nil.
11	Speed Limits.	All local speed limits are to be observed and in accordance with the aerodrome driving brief.
12	Annual review of Aerodrome Driving Orders.	

5.7. FOD Prevention - Training and Awareness. Orders are contained at Annex V.

- 5.8. **Aerodrome Wildlife Management**. The wildlife activity on and around the aerodrome is managed by a contractor. **Annex W** contains full details of the RAF Northolt Aerodrome Wildlife Management Plan (AWMP). Animal management on the aerodrome is dealt with by the Estates Management Section through external contractors, as and when issues are reported.
- 5.9. **Low Visibility Operations (LVO)**. Aircraft operations during reduced visibility or low cloud conditions present additional hazards to aircraft and other aerodrome users. The enhanced control measures implemented by ATC to safeguard aircraft and personnel are detailed in **Annex X**.

- 5.10. Snow and Ice Operations. Snow and Ice Orders are contained at Annex Y.
- 5.11. **Thunderstorm and Strong Wind Procedures**. The following procedures should be followed in the event of an increased risk of thunderstorms or lightning. Details on actions of these warning are contained in **Annex Z**.
 - a. **Thunderstorm Level (TL)**. The term 'Thunderstorm Level' is only issued for RAF Northolt and its immediate surrounding area. The issue of a TL includes the element of precise local observation, which is only possible when a forecaster can monitor developments in the immediate vicinity. The period of validity is maintained at a safe minimum in order not to hamper flying operations unnecessarily. Notification of a TL is to be given in the form of a single worded assessment, prefixed by the words 'Thunderstorm Level', in accordance with the following scale:
 - (i) **HIGH**. A thunderstorm is occurring or is expected to occur over the area in the immediate future (normally within 15 mins).
 - (ii) **MODERATE**. Thunderstorms are developing, or have been reported, within 40 km of the area, but are not expected to affect the area in the immediate future.
 - (iii) **LOW**. Thunderstorms are not occurring at the present time or are not expected.
 - b. **Refuelling in Thunderstorm Level High**. When a Thunderstorm Level **HIGH** warning has been issued or thunderstorm activity is apparent in the vicinity of an aircraft, fuelling operations are to cease, unless operationally essentially and specifically approved by the AO or their nominated deputy, in consultation with OC Eng.
 - c. **Strong Wind Procedures**. Details on strong wind procedures and Op BEAUFORT are contained in **Annex Z**. Gale warnings are:
 - (i) **Strong Wind**. Mean speed 25 kts or more, or gusts of 30 kts or more. Aircraft are chocked and positioned normally (light aircraft may need to be double chocked).
 - (ii) **Gale**. Mean speed of 34 kts or more, or gusts of 43 kts or more. Aircraft are to be positioned normally and double chocked. The AWCU, ATC and VASS are to make occasional inspections of the southern ASP for dislodged aircraft blanks and windblown FOD.
 - (iii) **Severe Gale**. Mean speed of 44 kts or more, or gusts of 50 kts or more. Aircraft may be positioned into wind and triple chocked if required. The AWCU, ATC and VASS are to make frequent inspections of the southern ASP for dislodged aircraft blanks and windblown FOD. In case of light aircraft, hangarage should be sought, or in extreme cases large MT vehicles should be parked in front as wind breaks.
- 5.12. Civil Registered Aircraft Aerodrome Usage Terms and Conditions. Use of MOD Aerodromes by civilian aircraft shall be in accordance with JSP 360 Use of Military Aerodromes by Civil Aircraft. The Terms and Conditions of use for civilian aircraft utilising RAF Northolt can be found within Annex AA and at www.londonvipairport.com.
- 5.13. **Safeguarding Requirements Waivers and Exemptions**. The procedures involved in safeguarding the operational environment of military Aerodromes is explained in greater detail in the RA 3500 Series⁹ and depends upon whether the obstacle is sited within or outside MOD property. All Safeguarding activities are to be conducted iaw extant regulations and any waivers or exemptions issued by the MAA are promulgated at **Annex F**.

DAM Edition 5.0

⁹ Refer to RA 3500 Series – Aerodrome Design and Safeguarding.

- 5.14. **Aerodrome Assurance Activity**. All personnel involved in activities on or around the aerodrome are to be suitably trained, standardised, and assured. The following personnel are subject to a periodic check of professional standards:
 - a. Air Traffic Controllers.
 - b. Air & Space Operations Specialists.
 - c. Duty Operations Controllers.
 - d. Aircrew.
 - e. Ground Radio Engineers.
 - f. Firefighters.
 - g. Medics.
 - h. Armourer/Supply & Movement Staff/Aerodrome.
- 5.15. **Electrical Ground Power Procedures.** Aircraft electrical ground power will be supplied and connected on request from the aircraft crew by VASS on aircraft arrival. A qualified member of the aircraft crew must be present before connection or disconnection can take place.
- 5.16. **Aviation Fuel Management Procedures**. The primary location for aircraft refuelling is ASP 1. Refuelling on ASP 2 is only permitted for essential operational reasons due to reduced fuel spillage protection. Fuel provided on ASP 2 is to be to the minimum amount and bowsers are to contain the lowest possible quantities. Fuel priorities can be found at **Annex DD**.
- 5.17. **Hazardous Materials Spillage Plan**. No Hazardous Material handling relating to commercial operations will take place on the aerodrome. The handling of Hazardous Material relating to military operations will be conducted by suitably qualified personnel. The RAF Northolt Unit Spillage Response Plan can be found at the following online link:

RAF Northolt Unit Spillage Response Plan

- 5.18. **Jettison and Fuel Dumping Area**. Not applicable.
- 5.19. **Compass Swing Area**. I The compass swing area is located and marked on Taxiway CHARLIE. The area is for use by military aircraft only and is not to be used for any aircraft parking or large vehicles/metallic objects. The RAF Northolt Compass Bay is a Class 2 facility. Calibration is maintained by OC Eng Sqn and is currently valid until late December 2022. Orders can be found at **Annex GG**.
- 5.20. Explosive Ordnance Disposal Area. Not applicable.
- 5.21. **Dangerous Goods (DG) Procedures**. There are no civilian freight services offered at RAF Northolt. Details of military freight operations are detailed in the <u>Dangerous Goods Manual</u>. Actions in the event of fuel or chemical spillage are detailed in the <u>Unit Spillage Response Plan</u>.
- 5.22. Hydrazine (H70) Leak. Not applicable
- 5.23. **RPAS Orders**. Please refer to **Annex KK**.

CHAPTER 6: FORCE PROTECTION RESPONSIBILITIES

- 6.1 **RAF Police & Security Flt**. Force Protection (FP) is provided for the Aerodrome Operator/Head of Establishment (HoE) by the RAF Police and Security Flt (RAFP & Sy Flt), part of No 7 RAFP Sqn, No 2 Police Wg (2PW) as governed by policy¹⁰ and in line with the following Mission Statements:
 - a. **2PW:** To provide focused police, counter intelligence and protective security support to Air Comd and JHC Stns and Units, that will limit the vulnerabilities of materiel, information and personnel to threats from organizations and individuals whose actions may inhibit commanders from delivering effective military capability.
 - b. **No 7 RAFP Sqn:** To provide enabling policing and security services to stns and units within the Sqn AoR, simultaneously supporting the higher-formation mission statements.
- 6.2 **RAFP & Sy FIt FP Responsibilities**. The primary FP responsibility is to deliver efficient, effective and enduring policing and security support to the Aerodrome Operator/HoE and, where applicable, operations projected from the Unit. FP for the Aerodrome¹¹ is delivered in depth through a series of mutually supporting FP capabilities and Force Elements (FEs).
- 6.3 **FP FEs and Capabilities**. In order to affect comprehensive FP for the Aerodrome and Aerodrome Operator/HoE the RAFP & Sy FIt comprises the following supporting FEs/capabilities:
 - a. **General Policing Duties**. Vehicle and foot sy and policing patrols in and around the aerodrome operating environment and Security Vigilance Area, Volume Crime Investigations, crime prevention/reduction, and liaison with other police and law enforcement agencies.
 - b. **Protective Security/Counter-Intelligence**. Security Risk Management, Physical, Personnel, Information, and Protective Sy, Counter-intelligence and Counter Intelligence Investigations, Vetting, support to Royal and VIP visits and Public Military Events, and liaison with other civilian, Home Office and MoD security organisations.
 - c. **Aviation Sy/Air Transport Sy**. Security Risk Management and Security Risk Assessment support to CSAT operations and Force Protection Independent Air Operations, and physical ATSy for Military air moves.
 - d. **Military Working Dogs**. Specialist Arms & Explosives Search, Vehicle Search, Service Police and Patrol Dog teams.
 - e. **Military Provost Guard Service Defence Platoon (MPGS Def PI)**. Overt Armed and Unarmed patrolling, Armed Quick Reaction Force, Control of Entry, Perimeter and Area Sy.
- 6.4 **Orders**. Disparate FE responsibilities and specific orders are located in the Orders section of the RAFP & Sy Flt SharePoint site. Requests for information relating to these Orders are to be directed through the Protective Security office on 020 8833 8796.

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¹⁰ AP 1722 – RAF Police Tactics, Techniques & Procedures; <u>AP 3085</u> – Manual of Security Risk Management; <u>AP 1990</u> – Manual of Aviation Security; <u>JSP 440</u> Defence Manual of Security.

¹¹ Including all airfield support elements, infrastructure and personnel.

AERODROME OPERATOR LETTER OF DELEGATION

From Group Captain V C McPhaden ADC MA(Oxon) MCIPD RAF Station Commander



Royal Air Force Northolt

West End Road Ruislip Middlesex HA4 6NG Tel: 0208 6338901 Fax: 0208 6338903

Email: Nor-StnCdr@mod.gov.uk

Wing Commander V A Fulton LLB MA RAF Aerodrome Operator RAF Northolt West End Road Ruislip Middlesex HA4 6NG

27 Sep 2021

LETTER OF AUTHORITY TO ACT (LOAA) AS THE AERODROME OPERATOR FOR ROYAL AIR FORCE NORTHOLT

References:

- A. Military Aviation Authority Charter dated 31 Aug 10.
- B. Military Aviation Authority Regulatory Policy (MAA01) Issue 8.
- C. MAA/RA 1026 Issue 6
- D. MAA/RA1200 Issue 6
- 1. The Secretary of State for Defence set the requirement at Reference A for an assurance¹ process to ensure the highest standards of Air Safety² are maintained in the conduct of military aviation. As the RAF Northolt Head of Establishment (HoE), I am responsible for implementing an effective Air Safety Management System and ensuring that air operations at RAF Northolt are at all times conducted at a level of safety that is at least Tolerable and ALARP. In discharging these responsibilities it is a requirement that I am supported by a Suitably Qualified and Experienced (SQEP) crown servant Aerodrome Operator, although I will remain accountable. In accordance with References A, Band C, I appoint you as Aerodrome Operator for RAF Northolt from 27 Sep 2021.
- In appointing you as Aerodrome Operator, I acknowledge that you will meet all of the SQEP criteria specified at Reference C at the earliest opportunity. I am content for you to subdelegate selected areas of Air Safety to SQEP personnel within Operations Wing on the basis that you remain responsible in accordance with References C and D.

AO RESPONSIBILITIES

As Aerodrome Operator you are responsible for actively managing an aerodrome

п

Assurance is defined as adequate confidence and evidence, through due process, that safety requirements have been met (MAAC2).

Air Safety is the state of freedom from unacceptable risk of injury to persons, or damage, throughout the life cycle of military are systems, its purview extends across all Defence Lines of Development and includes Airworthiness. Flight Safety, Poscy and the apportionment of Resources. It does not address survivability in a hostile environment.

environment that accommodates the safe operation of aircraft iaw Reference C. Specifically, you should:

- a. Support me in my role as HoE by ensuring that the requirements of Reference Care applied to the management and operation of the aerodrome.
- Establish formal mechanisms to ensure robust communication of any hazards and/or issues relevant to me and other affected DHs.
- Ensure any decisions made are cognisant of the impact on Air Safety. These shall include, but are not limited to, facilities, personnel, equipment and materiel.
- Establish formal mechanisms to ensure the monitoring and the assurance of all activities, operating procedures, standards and flight safety within your AoR and interfacing areas.
- Conduct Aerodrome Management activities in accordance with the Defence Aerodrome Manual (DAM) - see Reference C.
- f. Maintain a comprehensive record of aerodrome assurance activities through the use of the Defence Aerodrome Assurance Framework (DAAF) - see Reference C.
- Ensure the accuracy of aerodrome data and notification of all aerodrome hazards at all times.
- 4. If you believe that you are unable to meet any of the responsibilities placed upon you through this letter, or if you believe that the content requires amendment, you are to advise me at once. Furthermore, should you become aware of any circumstance, practice or procedure which casts doubt on the safety of operations at RAF Northolt (military, OGD, commercial etc), you are to take immediate action to restore safety including cessation of activity if required.
- You are to sign below that you have read and understood this LOAA.

V C McPhaden Gp Capt

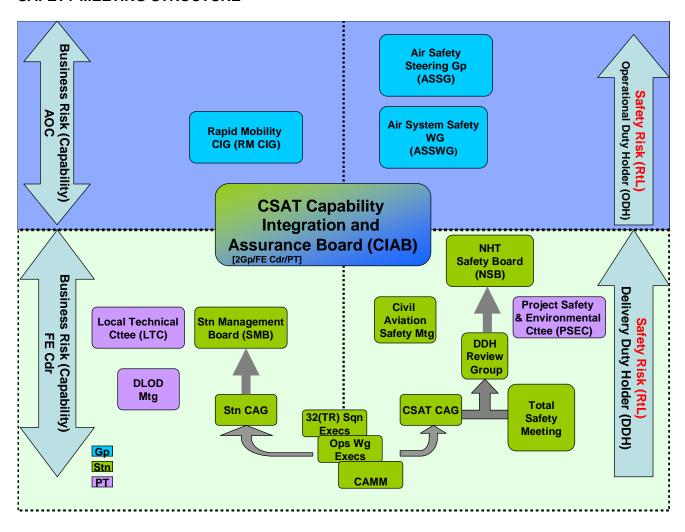
Stn Cdr

I certify that I have read, understood and received a copy of the above LOAA.

V A Fulton Wg Cdr AO

27 Sep 21

SAFETY MEETING STRUCTURE



AERODROME KEY STAKE HOLDERS

Role	Post Holder
Station Commander	Group Captain V Mcphaden
Aerodrome Operator/ OC Operations Wing	Wing Commander V Fulton
OC 32(TR) Squadron	Wing Commander E Sands
Mil Chief Air Engineer & Continuing Airworthiness Manager	Squadron Leader C Clowes
OC Operations Squadron	Squadron Leader M Walker
Senior Air Movements Officer	Squadron Leader A Eldridge
Senior Air Traffic Control Officer	Squadron Leader C Eames
OC Engineering Squadron	Squadron Leader J Read
Station Flight Safety Officer	Flight Lieutenant R Saddler
Station FOD Prevention Officer	Mr R Lawrey

Note: Contact details if required are to be requested from Station Operations 020 8833 8918 / NOR-NORTHOLTOPS@mod.gov.uk

Annex D to RAF Northolt Defence Aerodrome Manual

AERODROME OPERATING HAZARD LOG

This can be found online at this Link and can also be requested via Station Ops.

Annex E to RAF Northolt Defence Aerodrome Manual

FORMAL AERODROME RELATED AGREEMENTS

RAF Northolt holds MOUs with several aerodrome users, details of which are held by OC Ops Sqn and can be found following this \underline{link} .

AERODROME WAIVERS, EXEMPTIONS AND ALTERNATIVE ACCEPTABLE MEANS OF COMPLIANCE

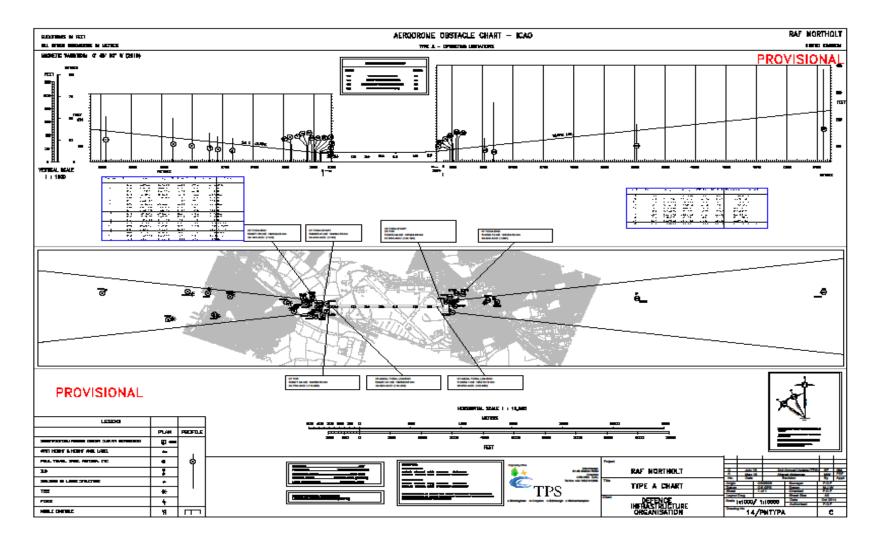
- 1. **Non-Compliant Approach Lighting**. RAF Northolt has a CL3B on both Runway 25 and Runway 07. The environment precludes the installation of a CL5B and therefore an exemption from the appropriate regulation has been granted by the Military Aviation Authority (MAA). A comprehensive safety assessment considered the risk of operating with reduced approach lighting. Risk to life is not increased as a result of the non-compliant approach lighting and a well-established go-around procedure is in place in the event that the required visual references cannot be obtained. Regulatory exemption has been granted from the requirements of RA 3016(3). MAA_AWE_2019_135.
- 2. **Non-Compliant Taxiway Lighting**. RAF Northolt AOS has 2x taxiways, BRAVO & CHARLIE, which do not have green centreline lighting and instead are equipped with non-standard taxiway lighting. Non-Standard Taxiway Lighting.
- 3. **Runway Strip Obstructions.** Northolt is classified by the MAA, RA 3500 to 3599 Aerodrome Design and Safeguarding as a code 3 Instrument Runway (>1200 m and <1800 m in length). Accordingly, a Runway Strip clear of obstacles should extend at least 150 m either side of the Runway centreline and 60 m beyond the runway end and any stopway. A number of legacy obstacles at RAF Northolt infringe the RA 3500-defined Runway Strip:
 - a. At the eastern end of the Runway (Runway 25 Threshold), the southeast Officers' Mess Block (150 130m north of the Runway centreline), trees (130 110m north of the extended centreline). MAA/Exemption/2014/25.
 - b. At the western end (Runway 07 Threshold), the A40 road and the Station Perimeter Fence infringe the Runway strip. At the very end of the Runway strip, the A40 is within 60 m (vice 150 m) of the extended centreline of the Runway. MAA/Exemption/2014/18.
 - c. At the eastern end of the Runway to the south, a wooden frangible fence and curb are located just inside the Runway Strip. An exemption has been granted from the MAA on the basis that the fence is frangible, it prevents aerodrome incursions and intruders to the Station; the curb is behind the fence (not airside) and steps down away from the aerodrome. MAA/Exemption/2013/13.
 - d. Operationally Essential Obstacles which are permitted in the Runway Strip include:
 - (i) The PAR installation, 82.5 m south of the Runway centreline, at approx. midpoint of the Runway. MAA/Exemption/2014/14.
 - (ii) ILS installation, 125 m south of the Runway centreline, at the eastern end of the Runway. MAA/Exemption/2014/14.
 - (iii) PAR MTI markers, HRDF, PAPIs, Aerodrome Signage and Runway IRDM Markers, as shown on the aerodrome map. MAA/Exemption/2014/14.
 - (iv) Operationally Essential Signage is placed at various points around the aerodrome to direct aircraft and vehicles. MAA/Exemption/2014/19.
- 4. **Runway End Safety Area (RESA).** A RESA provides an undershooting or overrunning aircraft with a cleared and graded area. The Northolt RESA details are as follows:
 - a. Eastern end (Runway 07 over-run):

Annex F to RAF Northolt Defence Aerodrome Manual

- (i) For aircraft overrunning Runway 07, the RESA length is 180 m and width is twice that of the Runway. There is An Engineered Material Arresting System occupying the 60 m furthest from the Runway. No obstacles impinge the RESA; however, the West End Road, and associated obstacles, prevent the RESA meeting the recommended length of 240 m. 20140627-NHT Minimum RESA Notification.
- (ii) For aircraft approaching Runway 25, the undershoot RESA satisfies the minimum requirement in RA 3500, i.e. 90m by twice the Runway width. The arrestor bed referred to above sits coincident with the RESA.
- b. Western end (Runway 25 over-run):
 - (i) For aircraft overrunning Runway 25, the RESA length is 131m and width is twice that of the Runway. There is An Engineered Material Arresting System occupying the 10m furthest from the runway. The A40, and associated obstacles, prevent the RESA meeting the recommended distance of 240m. 20140627-NHT Minimum RESA Notification.
 - (ii) For aircraft approaching Runway 07, the undershoot RESA satisfies the minimum requirement in RA 3500, i.e. 90m by twice the Runway width. The arrestor bed referred to above occupies the 40m furthest from the Runway.
- 5. **Obstacle Limitation Surfaces (OLS)**. Due, in part, to the proximity of the A40 and A4180 to the runway thresholds, a number of obstacles penetrate the approach and take-off climb surfaces at Northolt. Full details of these and other obstacles can be found at section 4.10 of this document. Both approach and departure procedures are PANS-OPS compliant and ensure safe clearance from relevant obstacles in the vicinity of Northolt. Operators should, nevertheless, assess aircraft performance for each arrival and departure to ensure their compliance with published procedures. Of note, pilots should be aware that the Threshold Crossing Height for a PAR approach to Runway 07 is 30 ft, as opposed to the Military Instrument Procedures and Standards (MIPS) requirement of 32ft.¹²
- 6. **Buildings infringing the OLS.** Various buildings have been identified in the CAP 232 Survey as infringing the OLS. This data is available on request from RAF Northolt Operations or in the AIP entry for RAF Northolt. MAA/Exemption/2014/25.

¹² The PAR is not a civilian procedure and, although all procedures are written iaw civilian PANS-OPS regulations, the MIPS standards apply to PAR procedures.

Appendix 1 to Annex F of RAF Northolt Defence Aerodrome Manual



AERODROME LOCATION AND CONTROL OF ENTRY AND ACCESS

RAF Northolt is located by the A40, just inside the M25 motorway and is approximately 13 miles from London's West End. Easy access to the M25 motorway provides a link to all major roads and motorways out of London. All aircrew and passengers intending to depart from RAF Northolt must report to the control of entry point at the Whitehouse Gate entrance. A Shell petrol station on the corner of the road helps to identify the Whitehouse Gate. Train and Underground Stations nearby include Ruislip Gardens and South Ruislip, both on the London Underground Central Line. The Chiltern Rail Line into Marylebone Station also serves South Ruislip. All terminals of Heathrow Airport are accessible via London Underground services or can be reached by road within 30 mins (depending on traffic).

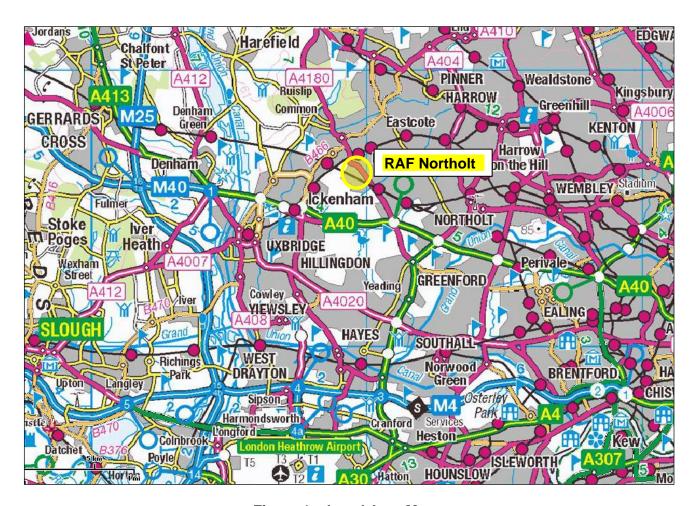


Figure 1 - Local Area Map

Control of Entry and Access. RAF Northolt is a secure military base and prior notification is required for all visitors, including civilian aircrew and passengers. Identity and vehicle checks will be conducted at the Whitehouse Gate before visitors are allowed entry. Unescorted access onto any part of the movement area is strictly prohibited to all persons other than specifically authorised employees of RAF Northolt. Arrangements for control of airside access include:

- a. Access is limited to authorised staff via security-controlled doors operating on an electronic pass system.
- b. Access to the movement area is strictly controlled. Vehicle access is via two remotely controlled barriers monitored by CCTV. Access for passengers and crew is through approved entry and exit doors with electronic scanning of both personnel and baggage and physical checks when required. Civilian aircraft operations at RAF Northolt are subject the requirements of the UK National Aviation Security Programme (NASP). In accordance with the requirements of NASP the RAF Northolt commercial operation receives regular inspections from the CAA to ensure compliance with EU and National Regulations. Further details on aviation security at RAF Northolt are available from the Senior Air Movements Officer (SAMO), who is the RAF Northolt Aviation Security Manager and owns the RAF Northolt Aviation Security Plan. ATC MT Route access to the movements area is controlled through a remotely controlled barrier monitored by ATC (0208 833 8227).
- c. Those vehicles that require regular access to the main ASP (ASP1) should be issued with, and display, a specific pass. All drivers of vehicles that require access to the ASP are also to have attended an Aerodrome Access Brief from ATC and hold a valid Aerodrome Access Permit.
- d. Inbound passengers and baggage may be subject to checks by staff from the UK Border Agency, iaw UK law, ensuring that persons arriving have a legitimate right to enter the country and that any goods being brought in are permitted.
- e. Any unauthorised entry onto the movement area is reported to, and dealt with by, the RAF Police initially, then, if necessary, handed to the Civil Police or UK Border Force.
- f. The RAF Air Movement Squadron (AMS) is responsible for controlling access to the manoeuvring area during aerodrome opening hours and can be contacted on 020 8833 8945. Outside aerodrome opening hours, the security of the manoeuvring area is the responsibility of the Police and Security Flight. All contractors who require access to the ASP, in order to conduct maintenance activity, are to report to VASS Control where they are to read, and sign as having understood, the "RAF Northolt Contractors Health & Safety Brief for Operations on the ASP".

Aerodrome Map. The layout of the aerodrome is shown below. The air terminal and operations building are situated on the south side of the aerodrome with the main Aircraft Servicing Platform (ASP) in front.

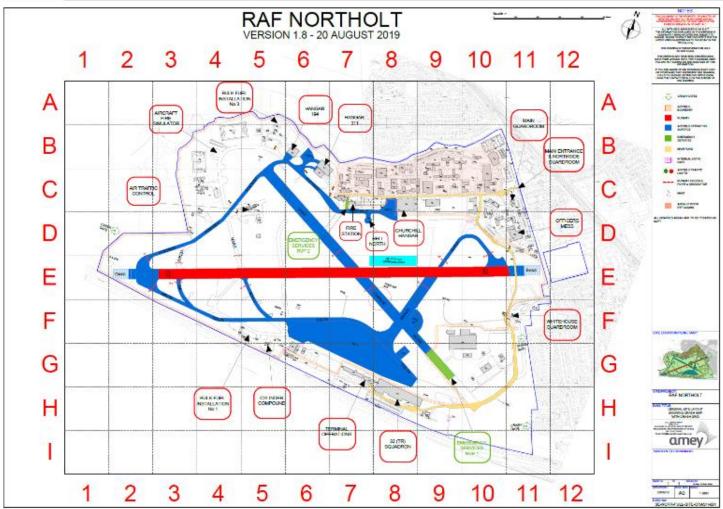


Figure 2 – Aerodrome Map

NOISE ABATEMENT PROCEDURE ORDERS

- 1. Pilots are to ensure that their aircraft are operated in a manner likely to cause the least disturbance in the areas surrounding the aerodrome.
- 2. Ground running of engines is to be kept to a minimum and confined to the areas specified. All engine runs are to be authorised by through Stn Ops and the aircraft is to be in communication with ATC.
- 3. Pilots are to ensure that their aircraft are loaded and operated in such a manner that, using normal take-off and climb procedures, a minimum height of 70ft is attained on crossing the aerodrome boundary.
- 4. Pilots are to maintain a rate of climb of at least 500ft per min at power settings which will ensure progressively decreasing noise levels at points on the ground under the flight path.
- 5. Pilots of aircraft taking-off from either runway, or carrying out a missed approach, are to climb ahead on runway heading to a minimum altitude of 700ft before turning.
- 6. Pilots of aircraft receiving a radar service shall not descend below the glidepath, nor thereafter fly below it, unless instructed by ATC.

Aircraft Engine Ground Runs (EGR). To minimise disturbance to the local community, Engine Ground Runs are to be carried out satisfying the following conditions. Should EGR be required out with these conditions i.e., to satisfy essential fleet availability and readiness requirements, permission is to be sought in writing from the AO or their nominated deputy:

a. Low Power EGR (at idle RPM):

- (i) Permitted H24.
- (ii) Runs are not to exceed 45 mins duration.
- (iii) Multiple runs are not to be undertaken consecutively.
- (iv) Appropriate precautions are taken to avoid noise or blast damage to adjacent aircraft, vehicles, buildings, and personnel.

b. High Power EGR (above idle RPM):

- (i) Permitted weekdays 0800-2200L.
- (ii) To be conducted on the Engine Running Bay (ERB). Transit to and from the ERB will require permission from ATC.
- (iii) Runs are not to exceed 45 mins duration.
- (iv) Multiple runs are not to be undertaken consecutively.
- (v) Appropriate precautions are taken to avoid noise or blast damage to adjacent aircraft, vehicles, buildings, and personnel.
- c. **Airfield Closed**. When the airfield is closed, ATC and Ops are not present to provide alerting and initiate an ARFF response should there be an incident; therefore, when the

airfield is closed, all EGR are to be conducted with an appropriate Fire Crew present for their duration.

- d. **ERB**. The purpose-built aero-engine ERB is located immediately to the east of the intersection of Taxiways BRAVO and CHARLIE at Crash Map Grid Reference F8. This ERB is to be used for all engine ground runs that require the engine(s) to be operated at higher than idle rpm.
- e. **Control of Ground Running**. When the aerodrome is open, the movement of aircraft, vehicles, and personnel to and from the ERB is only to be conducted with prior permission from local ATC, with whom radio contact is to be maintained, not only during the movements to and from the ERB, but also throughout the engine run. Ground runs may be required to cease at short notice; ATC will advise if required. When the aerodrome is closed, The Approved Maintenance Organisation will assume responsibility for the safe conduct of ground movements to and from the ERB, and of the engine runs.
- f. **Positioning of Aircraft**. An aircraft requiring one or more of its engines to be tested is normally to be positioned at the centre of the ERB, with its nose directly into wind.
- g. **De-confliction of Taxiing Aircraft from Engines being Tested**. Due to the proximity of the ERB to active Taxiways BRAVO (south) and CHARLIE (south), there is a need to ensure that engine ground runs being undertaken in still air conditions, or when the wind is from the east, do not affect any taxiing aircraft. Radio communication is to be maintained between the aircraft on the ERB and ATC, so that the movement of aircraft along taxiways BRAVO and CHARLIE can be de-conflicted.
- h. **RW Ground Runs**. Un-tethered engine ground runs of military RW aircraft may be carried out on the main ASP at any time if the following conditions are satisfied:
 - (i) Un-tethered ground runs are only to be undertaken by pilots qualified on type.
 - (ii) Where the ground run is on an aircraft with the engine cowling removed, a fire engine must be in attendance.
 - (iii) The regulations pertaining to out of hours ground runs detailed above are to be complied with.

Annex I to RAF Northolt Defence Aerodrome Manual

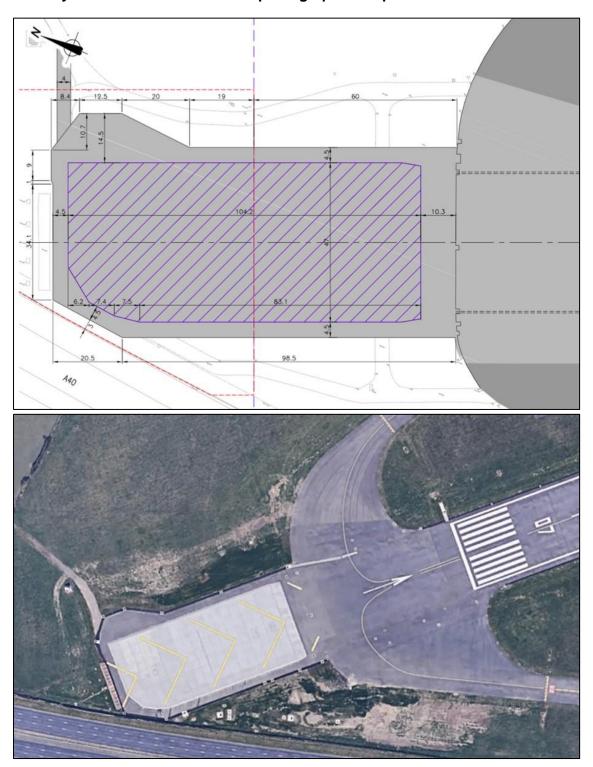
TEMPORARY OBSTRUCTION ORDERS

Please refer to the "Measured Height Survey" data on the UK Mil AIP website www.aidu.mod.uk/aip.

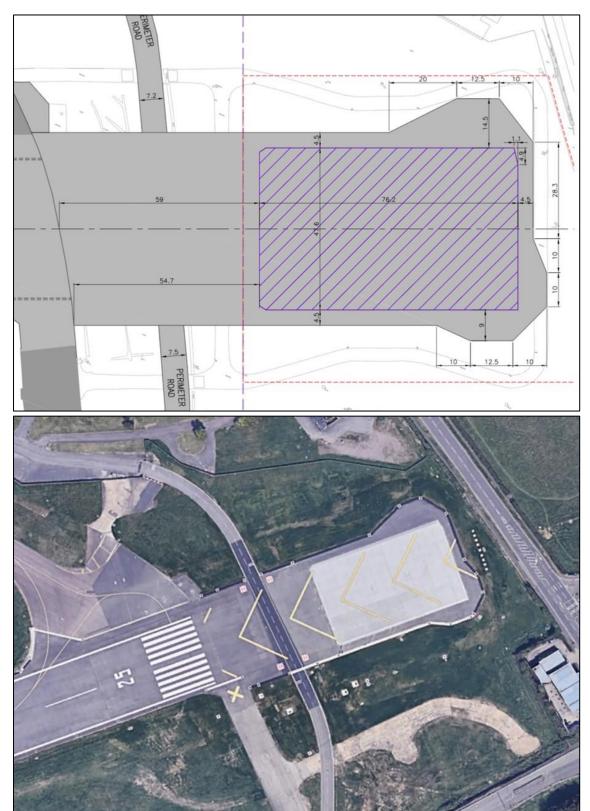
AERODROME ARRESTING SYSTEM ORDERS

- 1. An Engineered Material Arresting System (EMAS) is located within each runway overrun. The system is CAA and MAA approved and was installed at RAF Northolt during the runway refurbishment in 2019. The main component of the system is a lightweight aggregate foam made from recycled glass, which in the event of an overrun is designed to crush under the weight of the aircraft, quickly decelerating the aircraft and bringing it to a safe stop, whilst causing minimal damage to the aircraft. The design of EMAS installed at RAF Northolt is based around the mixed fleet which operate from the airfield, including the Bombardier Global Express and Cessna Citation 5600. The EMAS has the following dimensions:
 - a. Runway 07: 65m set back from runway end, 76.2m long x 47m wide.
 - b. Runway 25: 10.6m set back from runway end, 104.2m long x 47m wide.
- 2. Although engaging the EMAS should not be a desired outcome for the end of a flight, pilots need to know what EMAS is, how to identify it on the airfield diagram and on the airfield, as well as knowing what to do should they find themselves approaching an installation in an overrun situation. Pilots also need to know that an EMAS may not stop lightweight general aviation aircraft that are not heavy enough to sink into the crushable concrete. The time to discuss whether or not the runway has an EMAS at the end is during the pre-departure briefing prior to take off or during the approach briefing prior to commencing the approach. Following the guidance below ensures that the aircraft engages the EMAS according to the design entry parameters.
 - a. Continue deceleration Regardless of aircraft speed upon exiting the runway, continue to follow Rejected/Aborted take-off procedures, or if landing, Maximum Braking procedures outlined in the Flight Manual.
 - b. Maintain runway centreline Not veering left or right of the bed and continuing straight ahead will maximize stopping capability of the EMAS bed. The quality of deceleration will be best within the confines of the bed.
 - c. Maintain deceleration efforts The arrestor bed is a passive system, so this is the only action required by the pilot.
 - d. Once stopped, do not attempt to taxi, or otherwise move the aircraft.

Runway 07 EMAS Dimensions and photographical representation.

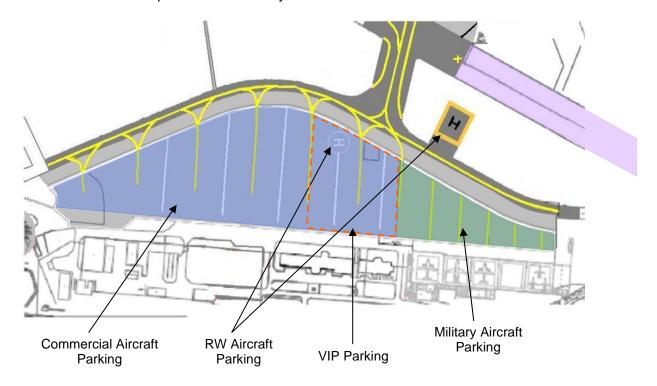


Runway 25 EMAS Dimensions and photographical representation.



MANOEUVRING AREA SAFETY AND CONTROL ORDERS

- 1. Aircraft Parking and Southside Ground Operations.
 - a. **ASP 1 Markings.** ASP 1 parking lines are numbered from 1 to 9. The VIP parking lines are Line 5 (primary) and Line 6 (secondary). Due to potential interference with Distress and Diversion (D and D) triangulation equipment at the far west of ASP 1, Aircrafts are only permitted to be parked on with prior permission. Figure 4 shows the ASP 1 markings and how the ASP is split between Military and Civilian Aircrafts.



ASP 1 Markings

- b. **32(TR) Sqn FW** Aircraft. Procedures for 32(TR) Sqn fixed wing Aircrafts operating from the main ASP (ASP 1) are:
 - i. Aircrafts due to depart with VIP passengers are to be towed onto a VIP parking line under control of Eng Line personnel but with coordination from VASS/Load Control.
 - ii. Aircrafts departing without VIP passengers are to be towed out of the hangar and should depart from immediately outside on Line 7.
 - iii. Aircrafts arriving with VIP passengers are to be marshalled by VASS until the passengers have left the ASP. On departure of the VIP passengers, VASS Control is to inform 32(TR) Sqn Line Control. An Aircraft towing team is not to arrive before the VIP convoy/principal car has left the ASP.
 - iv. Aircrafts arriving without VIP passengers are to taxi back to Line 7 and will remain under the direct control of a 32(TR) Sqn Aircraft marshaller.
- c. **Aircraft Parking and Start-up Procedure.** Allocation for Aircraft parking on the main ASP (ASP1) is the responsibility of Air Movements Sqn (AMS) which co-ordinates this through the VASS. VASS will pass Aircraft parking positions to ATC for onward transmission

to approaching Aircrafts. ATC are to inform VASS of Aircraft arrivals in order to have a marshaller on the apron ready to direct the Aircraft to its allocated parking position. Aircrafts are not to start-up without prior permission from Northolt Ground. If permission is granted pilots should expect the response, "With Northolt marshaller approval, start-up approved". This indicates that a marshaller has been dispatched and that once he is positioned in front of the Aircraft, with the fire trolley and contact has been made with the captain, a normal start-up can commence. Aircraft start-up is **NOT** to commence without a VASS marshaller in attendance.

- d. **Visiting FW Military Aircraft.** Visiting military fixed wing Aircrafts are generally to be parked on Line 6. However, military Aircrafts may be parked on any line.
- e. **Visiting RW Aircraft.** Visiting RW Aircrafts can use Helipad South or the RW Aircrafts parking spots on the end of Lines 3 and 5. The following apply:
- f. Helipad South is suitable for large helicopters, including Chinook, Merlin and Puma and equivalent foreign military rotary Aircrafts (e.g. CH-53).
- g. Only those RW Aircrafts capable of ground taxi (i.e. with wheels) are allowed to occupy the inner slots.
- h. RW Aircrafts capable of hover taxi only (i.e. with fixed undercarriage) are not permitted to occupy the inner slots and are to be parked on the Helipad South or the RW Aircraft spots, regardless of the status of the passenger(s) on board.
- i. The potential effects of downwash from lines 7 and 8 against the pod doors are to be considered, particularly for larger RW Aircrafts such as CH-47 and Merlin.
- j. Bays 1 4 along Taxiway GOLF can be used for overflow parking with permission from the Aerodrome Operator. Bays are 64 m apart and RW Aircrafts must be parked clear of active taxiway by 5 m.
- k. **Visiting Civilian Aircrafts.** Visiting Civilian FW Aircrafts are to be parked, whenever possible, on one of the main ASP parking lines. In addition, Helipad South, ERB, and Bays 1 4 on Taxiway GOLF13 can be used for overflow parking with permission from OC Ops Wg. As per the "Terms and Conditions for Civilian Aircraft Operators", in the event of military necessity all commercial Aircrafts should be parked ready for Aircraft towing operations. This is to include: the Aircraft being parked with the "Brakes-Off", and the Aircraft being parked with the Nose Wheel disconnected.
- I. **Hangar 311 Engine Start.** Permission to start an Aircraft outside Hangar 311 must be obtained through ATC.
- m. **Aircrew movement**. Aircrew are to be escorted to their Aircrafts by Load Control. Aircrew are not to commence start-up procedures without receiving permission to do so from ATC and must have a VASS member in attendance. VASS are to be available in adequate time before departure of Aircrafts at the request of Aircrew and/or ATC.

¹³ Bays are 64 m apart and Aircraft must be parked clear of Taxiway GOLF by 5 meters.

Annex L to RAF Northolt Defence Aerodrome Manual

EMERGENCY ORDERS / AERODROME CRASH PLAN

The RAF Northolt Crash and Major Incident Plan (CMIP) can be found at this Link.

AERODROME RESCUE AND FIRE FIGHTING SERVICE AND TRAINING ORDERS

1. Fire Section Orders can be found at the following online link:

Fire Section Fire Orders Part 1 – Administration

Fire Section Fire Orders Part 2 – Operations

Fire Section Fire Orders Part 3 – Training Orders

Fire Section Fire Orders Part 4 – Local Orders

Fire Section Fire Orders Part 5 – Health & Safety

CFR Standard Operating Procedures & CFR Capita Operating Instructions can be found at the following online link:

CFR SOP & COI

2. Fire Rescue Service Generic Risk Assessments can be found at the following link:

FRS Generic Risk Assessment

- 3. Fire Rescue Service Fire Facts can be found within the Incident Command System pack carried on the Crash vehicles and in the Crew Commanders Office at the Fire Section.
- 4. Fire Section Tactical Information Plans (TIPs) can be found at the following online link:

RAF Northolt TIPs

5. RAF Northolt Training Area Orders can be found at the following online links:

Training Simulator Orders

Training Simulator H&S Event Sheet

Training Simulator Work Instructions

6. Fire Section Task Resource Analysis (TRA) can be found using the following online link

TRA Covering Letter

TRA V1.2 with addendum

7. The Fire Section Equipment Needs (ENA) analysis can be found using the following link

ENA

Annex M to RAF Northolt Defence Aerodrome Manual

8. Fire Section Audit reports can be found using the following online links

1 PA Aerodrome Operations

2 PA DFR ARFF

3 PA DFSR ARFF

DISABLED AIRCRAFT REMOVAL

- 1. **Overview**. This order outlines the actions to be taken when a requirement exists, 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 RAF Northolt Major Incident Plan. For any civilian aircraft incident, advice is to be sought from the Military Accident Investigation Branch (MilAIB) or Air Accidents Investigation Branch (AAIB) after immediate hazards are cleared.
- 2. **Northolt Based Aircraft**. Should an RAF Northolt-based aircraft become disabled and cause a temporary closure to any aircraft Operating Surface, the responsibility for the recovery of the aircraft will lie with the relevant aircraft engineers e.g., Sloane/Centreline. During the procedure the following actions are to be carried out:
 - a. **Northolt Air Traffic Control**. ATC are to assess the impact of the temporary closure on current flying operations. If necessary, they are to coordinate ARFF (Aerodrome Rescue and Fire Fighting) response and initial aircraft diversion actions. If required, any unusable areas of the manoeuvring area are to be marked correctly. Initial actions should include:

ATCO IC		
1	Initiate emergency alerting action as appropriate.	
2	Inform SATCO.	
3	Liaise with NHT Radar to understand impact on flying programme.	
4	Determine a Decision Point for diversion action.	
5	Assess serviceability of the AOS and determine the impact on Ops. Ensure that	
	any closed surfaces on manoeuvring area are marked appropriately.	
6	Implement an amended taxi pattern if required.	
The ATCO IC is to pass the following information to the DOC		
7	The emergency message, if appropriate.	
8	If an emergency has not been declared: the nature of unserviceability, location	
	of the aircraft, the POB and any assistance requested by the Capt.	
9	Aircraft to be diverted and departures delayed.	

b. **Northolt Station Operations**. Are to liaise with ATC to determine the time of the anticipated closure, submit a Runway BLACK NOTAM if necessary and coordinate the response to any aircraft diversions.

Station Operations			
1	Ensure the appropriate Notice to Airmen (NOTAM) has been raised.		
2	If required carry out RUNWAY BLACK plan.		
3	Notify OC Ops Wg / OC Ops Sqn (or equivalent).		
4	Notify OC Eng (or equivalent).		
5	Notify VASS/Movements (or equivalent). To define parking location of aircraft once		
	recovered.		
6	Notify relevant aircraft engineering section (if it affects a station-based aircraft).		
7	Notify AAIB, for civilian aircraft, to verify that the establishment assessment of the		
	incident falls beneath that warranting an AAIB investigation. ¹ AAIB will require aircraft		
	identification and type; nature of aircraft un-serviceability; location of aircraft; section of		
	the manoeuvring area affected and POB. • Accident reporting 01252 512299 • General		
	enquiries 01252 510300.		
Duty	Duty Ops Controller		
8	Obtain and record permission via CBC, 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 and precautions to	
	avoid damage, will depend on the operational constraints or safety considerations at	
	the time. The Duty Ops Wg Exec is to be contacted as soon as the situation is	
	understood, to make this decision in a timely manner.	
9	Notify all aircraft operators likely to be affected if "RUNWAY BLACK".	
10	For civilian aircraft, notify the aircraft operating authority and AAIB.	
11	Liaise with VASS and the relevant aircraft Engineering section (Northolt based) to	
	determine and assist with any recovery actions. Station Ops are to consider the	
	possibility of activating the Stn Spillage Plan in consultation with Fuels Group.	
Fire Section		
12	Response iaw SOP's or under direction of the incident commander – Defence	
	Aerodrome Rescue & Fire Fighting (ARFF) Regulations and CMIP.	
VASS or the relevant aircraft Engineering section (Northolt based)		
13	If the aircraft can be towed, Stn Ops may authorise the removal of the disabled aircraft	
	clear with the appropriate towing arm or 'universal dolly.'	
Aircraft Owner		
14	The aircraft owner is defined as the holder of the Certificate of Registration and can	
	be held responsible for the aircraft removal and disposal of fuel and other hazardous	
	materials that have been spilt because of an incident (noting the aerodrome may 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 based on all	
	advice sought from AAIB and other agencies.	

¹ 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.

- 3. **Visiting Military Aircraft**. Should visiting military aircraft become disabled and cause a temporary closure to any aircraft Operating Surface, the responsibility for the recovery of the aircraft will lie with Northolt VASS. The actions outlined in Paragraph 2 shall be carried out along with the following actions:
 - a. **Northolt Air Operations**. Northolt Air Operations are to liaise with the parent unit to inform them of the situation.
 - b. **Northolt VASS**. Northolt VASS 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 Northolt Station Operations.
- 4. **Visiting Civilian Aircraft**. Should a civilian aircraft become disabled and 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, Northolt VASS 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 Northolt Station Operations. It should be noted that, in extremis, RAF Northolt 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.

Annex N to RAF Northolt Defence Aerodrome Manual

- 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 noting this may limit airfield operation.

AIR TRAFFIC CONTROL ORDERS

The Northolt Air Traffic Control and Northolt Radar Controllers' Order Books can be found at the following online links:

Northolt Air Traffic Control Order Book

Northolt Radar Controllers' Order Book (Section 5) (This document is updated every 28 days) (information required from this will be on request from RAF Northolt Station Operations).

Aerodrome Circuit: To avoid Heathrow traffic there is no dead side, aircraft are to make circuits to the North of the aerodrome, within the ATZ at 1,000ft Northolt QNH, as depicted in Figure 1. Single engine aircraft and helicopters may fly within the ground track depicted as required to achieve a safe glide profile or trg objectives.

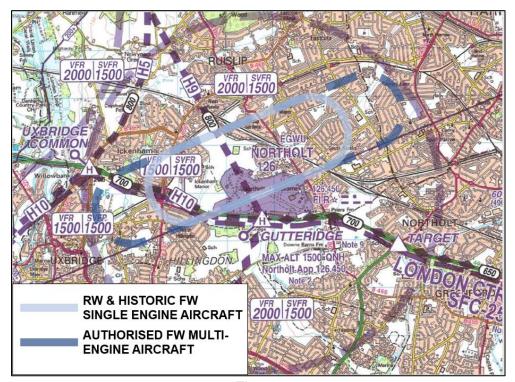


Fig. 1

Annex P to RAF Northolt Defence Aerodrome Manual

AERODROME DATA REPORTING PROCEDURES

Any requests for permanent changes to aerodrome information are to be submitted via email to RAF Northolt Station Ops, for the attention of SATCO and OC Station Operations Squadron. Following consultation with relevant agencies, approved changes will be passed to the RAF Northolt Station Ops for onwards transmission to No1 AIDU. NOTAMs will be issued to inform all personnel of approved changes. It is the responsibility of all personnel to inform Station Operations Squadron of any errors identified in current aerodrome information documents at the earliest possible opportunity.

Further information on reporting procedures is contained in the UK AIP/Mil AIP.

For enquiries via email to No.1 AIDU, please use the following address:

UKStratCom-DI-NCGI-AIDU-OpsCntr@mod.gov.uk

Annex Q to RAF Northolt Defence Aerodrome Manual

AERODROME SERVICEABILITY INSPECTIONS

Prior to the commencement of daily flying, all surfaces accessed by aircraft or vehicles is inspected by a qualified controller. The same inspection is also carried out prior to any night flying. Any faults that are found are recorded and reported to the correct agency and a contingency plan for the day can then be planned if a surface is declared U/S. All inspections are recorded in the ATC F6658.

AERODROME TECHNICAL INSPECTIONS

The table below details the requirements and actions following aerodrome serviceability inspections at RAF Northolt.

Aero	Aerodrome Technical Inspections - Orders		
1	Routine inspections of the technical equipment (transmitters, receivers, ILS etc) with		
	precision navigation aids being calibrated by a flight check aircraft are conducted		
	accordance with AP 600-Royal Air Force Information CIS policy and relevant SPS.		
2	Rwy, taxiway and obstruction lights, along with PAPIs and aerodrome traffic lights are		
	inspected daily.		
3	All earthing points are checked annually by Vinci.		
4	Manoeuvring Areas and drainage are inspected, maintained and repaired in accordance with DIO guidance.		
5	All aerodrome signs are inspected weekly by ATC and monthly by DIO SME. All defects		
	should be reported through the Vinci Helpdesk on 0800 707 6000 from civilian telephone		
	networks. They are addressed in accordance with priority matrix. The Helpdesk will inform		
	the individual reporting the fault what priority number the job has been given with a		
	confirmed response time.		
6	Aerodrome lighting along with other essential equipment is backed up by stand-by power system. The stand-by power system is to be inspected daily with a switchover test being		
	carried out weekly, which is covered under Vinci pre-planned maintenance regime.		
	carried out weekly, which is covered under viries pre-planned maintenance regime.		
7	All ARFF vehicles and equipment are inspected and tested daily in accordance with MT,		
	manufacturer's instructions and MOD policy. Unserviceability is to be reported to the		
	relevant agencies through MT Control or DFR.		
8	The Crash Ambulance and associated equipment is inspected and tested in accordance		
	with MT, manufacturer's instructions and MOD policy. Unserviceability is to be reported to		
	the relevant agencies through MT Control or Medical & Dental Support Squadron.		
9	The duty AWCU Operator is responsible for a daily inspection.		
10	Traffic lights, for the control of airside vehicles, are inspected daily during the morning		
	inspection and prior to any station night flying. Any fault should be immediately reported		
	and recorded.		
11	Annual review of Aerodrome Driving orders is undertaken by SATCO. Training is carried		
	out by ATC personnel every Monday or by exception following liaison with the ASOM.		

RADAR, RADIO AND NAVIGATION AID MAINTENANCE, MONITORING AND PROTECTION

- 1. Only authorised personnel are permitted to access aerodrome navigation aids. Anyone requiring access must contact the Ground Radio Section on 020 8833 8434.
- 2. To ensure that all navigation, approach aid and surveillance equipment at RAF Northolt meets the required service schedules the orders in AP 600, in conjunction or direction from the RAF High Wycombe Engineering Role Office are strictly enforced and adhered to.
- 3. Local orders, within this annex for the maintenance and monitoring of navigational, approach aid and surveillance equipment have been produced in accordance with extant Support Policy Statements (SPS), AP 600 and in conjunction with the RAF High Wycombe Engineering Role Office.
- 4. All RAF Northolt navigation aids & associated equipment under the ownership of GRMS are checked on a daily basis to ensure optimum performance, if during this these checks any fault is found to be present the duty GRMS Shift Technicians aim to rectify any fault promptly in accordance with AP 600 or relevant equipment AP references. Navigational Aids that are owned and serviced by Aquila are monitored by GRMS and highlighted to the Aquila Helpdesk on 01329 722711 should any faults occur.
- 5. During normal working hours ATC have control of the navigation equipment and ground to air communications; if during this period a fault is suspected ATC would report all changes to the operational status to the Aquila Helpdesk on 01329 722 711 who with in turn inform GRMS and task an engineer to attend station if it equipment not maintained by GRMS.
- 6. Any airfield operator who believes there may be a fault with a particular system should report it immediately to either ATC or GRMS.
- 7. All RAF Northolt GRMS navigation aids & associated equipment are checked on a daily basis to ensure optimum performance, if during this these checks any fault is found to be present the duty GRMS Shift Technicians aim to rectify any fault promptly in accordance with AP 600 or relevant equipment AP references.

Annex T to RAF Northolt Defence Aerodrome Manual

AERODROME WORKS SAFETY

For any works planned to be carried out on the airfield, a foreman is to report to the ATCO IC to receive and Work In Progress brief. The ATCO IC will ensure that the working party has the required access permits and understand the planned movements for the duration of their works. A record of the brief is signed by both the foreman and ATCO IC which is then held in ATC. Station Ops will be informed of the works via a phone call.

Work In Progress Brief Form

AERODROME USERS - VEHICLE AND PEDESTRIAN CONTROL

- 1. **Airside Vehicle Control.** Orders for the control of vehicular and pedestrian traffic on the aerodrome are written iaw the RA 3262 Aerodrome Access and can be found in **Annex T** to the Order 57 to the Station Standing Orders. Drivers operating on the aerodrome are to have an aerodrome access permit, available through Air Traffic Control once the relevant Briefs and Tests have been undertaken. The exemptions are limited to visiting drivers of vehicles (operating beyond the yellow line on the main ASP only) associated with:
 - a. VIP¹⁴ aircraft movements.
 - b. Civilian Emergency Service vehicles on operational tasks, including ambulances carrying patients to and from aeromed aircraft.
 - c. HM Revenue & Customs vehicles.

These vehicles are to be marshalled at all times by AMS (and where appropriate chocked).

- 2. **Airside Vehicle Access.** Airside access for all other vehicles should be kept to a minimum. All drivers of vehicles that require access to the ASP are to have attended an Aerodrome Access Brief from ATC and hold a valid Aerodrome Access Permit. The only exception to this rule is if under the escort of a member of RAF Northolt staff who holds a Valid Aerodrome Access Permit. In addition, all contractors who require access to the ASP, in order to conduct maintenance activity, are to report to VASS Control where they are to read, and sign as having understood, the "RAF Northolt Contractors Health & Safety Brief for Operations on the ASP".
- 3. **FOD Checks.** All vehicles other than Royal, VIP, and those vehicles within the respective convoy, are to have 100% physical FOD and security check carried out prior to gaining access to the main ASP. The duty NCO in Load Control is to witness the check using the CCTV facility before granting airside access. If they are not satisfied that a thorough check has been completed, they are to hold the vehicle at the barrier and dispatch a member of the AMS to advise the driver accordingly.
- 4. **Non-VIP Vehicles.** If any non-VIP passengers arrive in vehicles that are outside of the main convoy of VIP vehicles, then Load Control is to instruct the Whitehouse Gate (WHG) to direct the vehicles to the long-stay car park and for the passenger to report to the Ops Building Passenger Reception. However, at the DAMO's discretion, they may be directed airside.
- 4. **Civilian Passenger Movements.** The conditions of operation for the Premier Passenger Service (PPS) are detailed in the license between RAF Northolt and the provider. Only dedicated Passenger Handling vehicles are allowed airside access. No other civilian passengers or companies are allowed direct access airside unless OC Ops Wg or the Senior Air Movements Officer (SAMO) has granted prior authority.
- 5. **Non-PPS Visiting Crew Movements.** If any non-PPS visiting crews require transport from the ASP to the Operations Building/Station Area (or vice-versa), it is the crew's responsibility to request this service through the Duty Mover or Station Operations on 020 8833 8915. Station Operations are to contact Military Transport Control (Ext 8438) and request the Duty Driver or Ops Bus to collect the crew. The driver must have an in-date Airfield Driving Permit in order to complete the request. Any onward transport off Station should then be arranged by the crew themselves

¹⁴ Royal or high level governmental only; high ranking military only by exception.

Annex V to RAF Northolt Defence Aerodrome Manual

FOD PREVENTION - TRAINING AND AWARENESS

Station FOD prevention, training and awareness details can be found in the RAF Northolt Air Safety Management Plan at the following <u>Link</u>.

Annex W to RAF Northolt Defence Aerodrome Manual

AERODROME WILDLIFE MANAGEMENT

- 1. As recommended by CAP 772 Wildlife Hazard Management at Aerodromes and RA 3270 Aerodrome Wildlife Control, SATCO and the contracted AWCU have produced the Wildlife Control Management Plan.
- 2. The Aerodrome Wildlife Control Unit are contactable on 020 8833 8117, NOR-OPSAWCUGpMailbox@mod.gov.uk or through ATC on 020 8833 8228 and are required to:
 - a. Assess and effectively minimise the local wildlife hazard to aircraft through a coordinated wildlife control effort on the Station.
 - b. Record and collate information on wildlife concentrations and movement patterns both on the aerodrome and within its safeguarded zone.
 - c. Liaise with Station executives, Property Manager representatives, local authorities and landowners and tenant farmers whose land abuts the aerodrome, concerning such matters as the identification and dispersal of local wildlife concentrations, and the elimination of wildlife food sources and other topographical features which might attract wildlife to the aerodrome vicinity.
 - d. Coordinate the use of wildlife dispersal equipment and materials and ensure that their use is properly controlled in accordance with current regulations.
 - e. Ensure that all wildlife control equipment is properly serviced in accordance with current servicing schedules and that any unserviceability is rectified promptly.
 - f. Ensure that all wildlife control personnel are correctly trained in the use of wildlife dispersal equipment and its safe handling.
 - g. Ensure that wildlife hazard warnings are issued in accordance with the procedures published in FLIPs.
 - h. Attend Station Safety Management Committee meetings and report any general concerns or wildlife related issues.
 - Ensure all wildlife strikes are reported on a DASOR.
 - Seek specialist advice whenever necessary from DEFRA.
 - k. Supervise the maintenance of the Wildlife Control Log.
- 3. The grass on the aerodrome is maintained in accordance with the RAF Policy to reduce the risk of wildlife-strikes to as low as reasonably practicable, whilst maintaining the ability to provide the full suite of air traffic services.

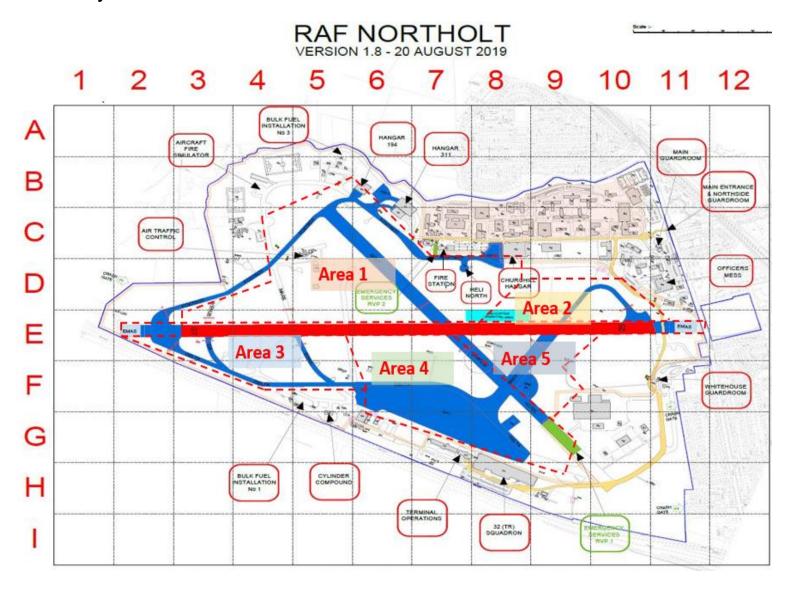
LOW VISIBILITY PROCEDURES OPERATIONS¹⁵

- 1. **Introduction.** Aircraft operations during reduced visibility or low-cloud conditions present additional hazards to aircraft and other aerodrome users and require measures to mitigate the associated hazards. When LVP operations are declared, all measures should be verified as in place prior to resumption of flying operations. All LVP declarations shall be notified to Northolt Radar.
- 2. **Visibility Condition One.** Reported Met visibility is less than 1600m or a cloud ceiling 200ft AGL. Reported met visibility of less than 1600m can preclude some approaches. Converted Met Visibility (CMV) can be utilised in the absence of RVR. Cloud ceiling should also be considered as increasing the risk of a MAP. RW aircraft may approach via the Heli-routes if SVFR minima are met. All WIP on the manoeuvring area is to cease. If FOD could be a concern, an inspection is to be made by ATC before the continuance of operations.
- 3. **Visibility Condition Two.** Reported Met visibility is less than 600m or when the ADC can no longer see all the manoeuvring area.
 - a. Only 1 aircraft or vehicle may be permitted to taxi/proceed within each LVP area at a time unless:
 - (i) The leading aircraft reports at a specified Rwy holding point, then a subsequent aircraft may be permitted to taxi.
 - (ii) Vehicles are notified of other vehicles/aircraft within their LVP area.
 - b. A station wide broadcast on the tannoy & MRE is to be made.
 - c. The NSLR traffic lights are to be selected to RED. The ATCO IC is to inform the MGR and WHG of the NSLR closure. When conditions improve to LVP1 the MGR and WHG is to be informed that the NSLR is open.
 - d. The MT and Fire section traffic lights will remain at green until notification of a Station Flight movement. As soon as the ADC is informed of a Station Flight movement the MT and Fire section lights are to be set to RED. The ATC driver is to be despatched to undertake the following:
 - (i) Proceed to the aerodrome entry point at the Fire section using the Northern taxiway and ensure lights are at RED.
 - (ii) Inspect Northern taxiway.
 - (iii) Proceed to Tanker Pool and ensure lights are at RED.
 - (iv) Position on the Northern taxiway to provide a 'follow me' for Station Flight.
 - e. Before a clearance to depart or land is issued, the ATC driver is to complete a visual inspection of the entire Rwy starting from the Rwy 07 threshold. They are to vacate at the Rwy 25 threshold and are to confirm that the North South Link Road (NSLR) is sterile with the barriers down.

¹⁵ RA 3274 – LVP.

- f. Only operational essential vehicles are to be permitted access to the manoeuvring area and all vehicles are to use dipped headlights.
- g. The following sections are to be informed of the restrictions by the VCR Specialist:
 - (i) AQUILA GR.
 - (ii) Aerodrome Electricians.
 - (iii) Fire Section.
 - (iv) Medical Centre.
 - (v) MWD Section.
 - (vi) Stn Flt.
 - (vii) DJCC (Hangar 311).
- h. The Main Guard Room are to be instructed to display Low Visibility Procedures in Force on the Stn entrance LED board.
- 4. **Visibility Condition Three.** Reported met visibility is below 350m.
 - a. Departures are only permitted when the met visibility is greater than 250m.
 - b. Only one aircraft /vehicle (except Follow Me escorting an aircraft) may be permitted movement on the manoeuvring area at a time when the reported met visibility is 350m or less. Additionally:
 - (i) Stn Based aircraft may taxi without a 'follow me' vehicle at their discretion.
 - (ii) All other aircraft are to be escorted to the runway by a 'follow me' vehicle
 - c. All vehicles (including VASS, Universal Aviation and Movements Sqn) requiring access to the ASP are to be in contact with ATC.

Airfield Low Visibility Procedure Areas



Annex Y to RAF Northolt Defence Aerodrome Manual

SNOW AND ICE OPERATIONS ORDERS

RAF Northolt Snow and Ice Operation Orders can be found here.

THUNDERSTORM AND STRONG WIND PROCEDURES

- 1. The RAF Northolt MET Office Issue the Thunderstorm and Strong Wind Warnings as follows:
 - a. **Thunderstorm General/Level Low.** Issued to highlight that thunderstorms are expected in the area at some point. Level remains low.

The warning is printed, retained, and logged in the Stn Ops F6658.

b. **Thunderstorm – Level Moderate.** Thunderstorms are developing, or have been reported, within 40 km of the aerodrome, but are not expected to affect the site in the immediate future.

The warning is printed, retained, and logged in the Stn Ops F6658.

- c. **Thunderstorm Level High.** A thunderstorm is occurring or is expected over the site in the immediate future.
 - Inform VASS and Refuellers that refuelling operations are to cease, only the Aerodrome Operator can give permission for refuelling if deemed operationally essential.
 - ii. Inform CBC, 32(TR) Sqn and visiting AC as it may affect their schedule.
 - iii. The warning is printed, retained, and logged in the F6658.
 - iv. A Stn wide tannoy should be broadcast by ATC.

d. Strong Wind

If a Strong Wind / Gale warning is issued the following procedures should be followed:

- i. The warning is printed, retained, and logged in the F6658.
- ii. Op BEAUFORT is to be reviewed in contingency plans to check if the criteria for the Op to be implemented is met, if so, the procedures are followed as laid down in the order.

Note: All faxes and emails are automatically disseminated through the RAF Northolt Met Office comms equipment.

Annex AA to RAF Northolt Defence Aerodrome Manual

CIVIL AIRCRAFT AERODROME USAGE - TERMS AND CONDITIONS

RAF Northolt's Terms and Conditions for Civil Aircraft Usage can be found at www.londonvipairport.com

Annex BB to RAF Northolt Defence Aerodrome Manual

SAFEGUARDING REQUIREMENTS - WAIVERS AND EXEMPTIONS

WIP - Please contact ATC (020 8833 8228) or Stn Ops (020 8833 8915) for further information.

Annex CC to RAF Northolt Defence Aerodrome Manual

ELECTRICAL GROUND POWER PROCEDURES

RAF Northolt Orders for Electrical Ground Power Procedures are as per 5.15.

AVIATION FUEL MANAGEMENT PROCEDURES

- 1. The following fuel priorities apply at RAF Northolt¹⁶:
 - Priority 1 Military and State Aircraft. a.
 - Priority 2 Other Government Department Aircraft. b.
 - Priority 3 Aeromed Aircraft.¹⁷ C.
 - Priority 4 Commercial Aircraft. 18 d.
- 2. Further detail on refuelling can be found in Section 5.16.

Subject to discretionary change by the Aerodrome Operator or their nominated deputy.
 London Air Ambulance take priority as a Stn based aircraft and will routinely be refuelled by contacted provider unless unavailable, then permitted to be refuelled by ASMT.

¹⁸ In the first instance commercial aircraft will be refuelled on a first come first served basis.

Annex EE to RAF Northolt Defence Aerodrome Manual

HAZARDOUS MATERIALS - SPILLAGE PLAN

Fuel Spillage. In the event of a fuel spillage, fuelling operations are to cease and the Unit Spillage Response Plan immediately activated. Fuelling operations are not to recommence until clear up action has been completed.

The RAF Northolt Spillage Plan can be found here.

Annex FF to RAF Northolt Defence Aerodrome Manual

JETTISON AND FUEL DUMPING AREA

Not Applicable.

Annex GG to RAF Northolt Defence Aerodrome Manual

COMPASS SWING AREA

See section 5.19.

Annex HH to RAF Northolt Defence Aerodrome Manual

EXPLOSIVE ORDNANCE DISPOSAL AREA

Not Applicable.

Annex II to RAF Northolt Defence Aerodrome Manual

DANGEROUS GOODS PROCEDURES

The RAF Northolt Dangerous Goods Orders can be found here.

Annex JJ to RAF Northolt Defence Aerodrome Manual

HYDRAZINE (H70) LEAK

Not Applicable.

Annex KK to RAF Northolt Defence Aerodrome Manual

C-UAS / RPAS ORDERS

The RAF Northolt C-UAS / RPAS Orders can be found here.

INDEMNITY AND RELEASE FORM FOR DISABLED AIRCRAFT

To: Aerodrome Operator

- 1. I, the undersigned, being the owner or the duly authorised representative of the owner of the aircraft described below hereby agree to provide this indemnity and release on the conditions set out below.
- 2. I agree and consent to the Aerodrome Operator, its servants, agents, contractors and employees to move at any time required the aircraft at my sole cost and expense.
- 3. In consideration of the Aerodrome Operator moving the aircraft I agree to indemnify and keep indemnified the Aerodrome Operator against all and any loss damage cost charge expense or other liability however suffered paid or incurred by or threatened against the Aerodrome Operator in relation to or arising out of or in consequence of any action, proceeding, claim or demand which is or may be brought made or prosecuted or threatened against the Aerodrome Operator in respect of any loss of or damage to property, loss of life or personal injury or other loss that may arise in any way from the moving of the aircraft by the Aerodrome Operator.
- 4. I further agree to release the Aerodrome Operator from all claims actions, causes of actions, proceedings and demands which I and or the owner now has or but for this indemnity and release would or might at any time in the future have against the Aerodrome Operator and from all present and future liability of the Aerodrome Operator to me and or the owner however caused in relation to or arising out of or in consequence of the moving of the aircraft.
- 5. I confirm that it is the intention of this indemnity and release that each servant, agent, contractor and employee of the Aerodrome Operator obtain the benefits expressed in their favour under this indemnity and release and be entitled to enforce such benefits.
- 6. I confirm that I and the owner have abided and will abide by all applicable laws including without limitation acts, regulations, bylaws, directions, and determinations relating to or made by the Civil Aviation Authority, the Aircraft Accident Investigation Branch, the Aerodrome Operator and any other relevant authority or body which has authority in relation to interference with or movement of an aircraft.

Description of aircraft:	
Type of aircraft:	
Registration No:	
Full name:	
Signed by:	Date:

AERODROME USERS - OTHER USERS OF RAF NORTHOLT AERODROME

- 1. **KCS C-IED Training Lane Access.** Prior approval is required from the ATCO IC for access to the C-IED lane, which is situated on the aerodrome in front of the Churchill Hangar. The NCO IC is to ensure all personnel remain within the C-IED Trg Area marked by earth bunds. On completion of training, a FOD sweep is to be conducted and ATC informed. Use of the northern grassed area by helicopters takes priority over use of the C-IED lane.
- 2. **Orders for Organised Running/Marching on the Aerodrome.** Prior approval is required from the ATCO IC for KCS and NHT Regt Flt to utilise the aerodrome for organised training runs and marches. Use of the aerodrome is subject to the following orders:
 - a. A safety vehicle with a driver and assistant, holding a valid Aerodrome Access Permit, are to collect an MRE radio from ATC prior to commencing the run. The MRE is to be used to maintain radio communications with ATC during the session and obtain clearances to cross the Runway thresholds and proceed through traffic lights.
 - b. The safety vehicle is responsible for the transport of any personnel who have had to drop out of the session to the SMC on completion of the session.
 - c. All runners or marching troops must be in organised groups and under the direction of a Lead Guide (Flt Commander/SNCO). The Lead Guide is to ensure all running/marching/training personnel are fully briefed on the aerodrome layout and actions in the event of an emergency.
 - d. The Lead Guide must call ATC on Mil: 95233 8227/Civ: 0208 842 8227 immediately before starting and on completion of any form of training. The Lead Guide is to follow the routes and timings specified by the ATCO IC.
 - e. The Lead Guide is responsible for adhering to all traffic lights and must carry a mobile phone and provide ATC with the number prior to departure. If clearance to cross a traffic light or to proceed across the Runway threshold has not been received by the safety vehicle, the lead guide must call ATC on 0208 842 8227 before proceeding.
 - f. Groups are to conduct a FOD check prior to starting the session and when entering the aerodrome through the Southside gate.
 - g. Personnel at the front, rear and right-hand side of the running/marching troops are to wear a high visibility vest.
 - h. The group are to be aware of their FOD responsibilities. All equipment is to be checked for loose items and all muzzle covers are to be removed from weapons at the start of a run. Any group members who suspect that a personal item has been lost on the manoeuvring area are to report the fact to ATC.
 - i. All personnel are to move clear of any taxiways for aircraft movement.
 - j. If any personnel have any doubts regarding access to the aerodrome, advice and guidance must always be sought from ATC.
- 3. **Military Working Dogs (MWD) Training.** Station based MWD require a training area in the proximity of the kennels. This training may involve attack dogs being released from their chain. MWD may utilise the grassed area between the MWD Section and the transmitter masts, or the dedicated training area on the grassed area opposite the Fire Section Fire Simulator across the road from the MWD Section. When notified by other

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users of their intention to operate on the movements area in the vicinity of the MWD Section, the ATCO IC is to contact the MWD Section with details of the other proposed activity. If a conflict of usage arises, MWD have priority over all other sections other than KCS, DJCC and AWCU. Priority between the MWD and KCS is dependent upon the operational requirement of the training. The ATCO IC is to judge which training is the most urgent, whilst maintaining access for AWCU as required.

4. **Civil Model Flying Club.** A civil model flying club (The Flying Fish) operates in the field outside the perimeter fence, behind the rugby pitch (Crash Map coordinate A3-4), or at an alternative location agreed with the SATCO, DSATCO or ATCO IC. The model aircraft can be flown up to 250ft AGL. RW traffic may be accepted and coordinated by RAF Northolt during model aircraft activity.

TASK RESOURCE ANALYSIS

- 1. As defined within DSA DFSR 02, RAF Northolt has carried out a Task Resource Analysis (TRA) to assess the aerodrome ARFF response capability and to determine the minimum requirement of rescue and firefighting equipment, personnel, and supervisory grades.
- 2. This TRA was completed in consultation between the HoE/AO and DFRMO to ascertain the optimum level of resource required to effectively manage a Credible Worst-Case Scenario (CWCS). The outcome of the TRA has been agreed with the HoE/AO and should be shared with the local Fire and Rescue Authority(s) or Host Nation equivalent and Local Resilience Forums.
- 3. 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 hyperlink below:
 - a. ICAO Aircraft Category Six AO endorsed TRA Report is located at the following link below.
 - b. The TRA is a password protected document which can be accessed upon request through the SFireO. All CWCS are retained within the TRA document & they capture the following ICAO Aircraft Categories.
 - c. ICAO H2, H3, 2, 5, 6, 8
 - d. TRA REPORT

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

ARFF ASSESSMENT REQUIREMENTS

Response Area Assessment

- 1. The operational objective of the ARFF service is to achieve response times of two minutes and 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 and visibility¹⁹.
- 2. Response time is considered to be the time between the initial call to the ARFF service, and 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 Table of DSA DFSR 02.

RAF Northolt Response Area Assessment is located at Response Area Assessment

1000Mtr Assessment

- **3.** As defined within DSA DFSR 02 assessment of the approach and departure areas within 1000m of the runway threshold²⁰ should be carried out to determine the options available for rescue. In considering the need for any specialist rescue and access routes, the environment of the risk area, in particular the topography and composition of the surface should be considered.
- 4. 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 1000 m 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 taken into account.
- 5. Where an aerodrome is located close to uneven ground or difficult terrain, and 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 and should be appropriately resourced with specialist rescue/firefighting equipment and training.

RAF Northolt 1000Mtr Assessment is located at 1000m Assessment

Water Assessment

6. Additional water supplies shall be provided. The objective of providing additional water supplies at adequate pressure and flow is to ensure rapid 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. Additional water to replenish vehicles may be required in as little as five minutes after an incident.

RAF Northolt Water Assessment is located at Water Assessment

¹⁹Optimum visibility and surface conditions are defined as daytime, good visibility, no precipitation with normal response route free of surface contamination e.g. water, ice or snow and aircraft movement restrictions.

²⁰ If required for rotary wing aircraft all undershoot/overshoot areas for the operating areas.

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REDUCTION OF ARFF CATEGORY PROVISION

- 1. 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 Defence F&R ARFF provider.
- 2. The risk assessment is conducted using DSA DFSR 02 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 and to what level of reduced ARFF category will require elevation to the appropriate risk owner.

All completed risk assessments are to be retained and can be located by utilising the following hyperlinks: ARFF Reduction of Cover - Hazard Assessment - (DDH)

Submission for Waiver

RAF NORTHOLT ASP 1 OPERATING ORDERS

References:

- A. JAP 100E-10 Military Airfield Support Equipment Management and Policy
- B. RAF Northolt Snow and Ice Clearance Plan (Op BLACKTOP)
- C. Manual of Airworthiness Maintenance Processes (MAM-P)

Background

1. These orders apply to all users of Aircraft Servicing Platform (ASP) 1, located adjacent to the Terminal Building and Southside Hangars. It has been produced to provide a clear, aligned understanding of the procedures and interactions that take place on the ASP in order to ensure safe and efficient daily operations.

Prior to Airfield Opening

- 2. Prior to opening the airfield, the following activities are to take place:
 - a. Air Traffic Control (ATC) will conduct an airfield inspection, which includes the ASP. Any adverse findings of this inspection will be passed to Ops.
 - b. Visiting Aircraft Support Squadron (VASS) will conduct the following actions iaw with VASS local orders.
 - i. Inspect the ASP for Foreign Object Debris (FOD).
 - ii. Remove Civilian Omni-directional Runway Edge Lighting (COREL) from any visiting aircraft parked overnight²¹.
 - iii. Position chocks by parking line number boxes south of the ASP (terminal building side)
 - iv. Turn off ASP lighting²².
 - c. Ground Engineering Flight (GEF) are to perform a MISCRIT Check law Ref A and inform Stn Ops of any deficiencies.
 - d. World Fuels and Fuels Group will conduct AS refuelling on request from ATC. If out of hours, Stn Ops will coordinate.
 - e. If required, de-icing of aircraft and surfaces is to be completed iaw Ref B.
 - f. Any airfield or equipment defects or deficiencies are to be reported to the Duty Operations Controller (DOC) at the morning briefing in order to coordinate rectification or inform the CoC.
 - g. Having consulted the Flying Programme (Flypro), VASS and Air Movements Squadron (AMS) are responsible for producing a daily parking plan, which is to be checked by Stn Ops. All stakeholders are to be consulted when changes are required.
 - h. Stn Ops are to ensure that any ASP lighting left on overnight is turned off²³.

²¹ COREL lighting to remain in place if airfield opens during hours of darkness or low visibility conditions.

²² ASP lighting to remain on if airfield opens during hours of darkness or low visibility conditions.

²³ If the airfield is opened during hours of darkness or low visibility conditions, lighting is to remain on.

- i. An Airfield Coordination Brief is held at 0815L and 1600L in Stn Ops to ensure that all stakeholders have a comprehensive understanding of the airfield facilities, activities and restrictions for the day ahead. It will also cover Met, Commercial moves, VIP taskings and any other points relevant to the day's operations. AMS, Met, VASS, VIP Protocol, Commercial Business Cell (CBC) and Stn Ops are to be represented.
- 3. ATC will inform Stn Ops when all required pre-opening checks are complete.
- 4. ATC will declare the airfield open and inform Stn Ops followed by all relevant stakeholders.

Day Operations - Stn-based

- 5. **Departures.** The following procedures are to be followed for AS departures:
 - a. Passengers are to be escorted to their AS by AMS personnel.
 - b. For safety purposes, a marshaller is to be present and equipped with appropriate fire extinguishing equipment during engine start. The following are responsible for marshalling AS:
 - i. Sloane A109 training flights.
 - ii. Pod 5 users are to provide their own marshaller.
 - iii. VASS A109 VIP tasks²⁴.
 - c. Following engine start, AS are to taxy in accordance with ATC taxi instructions.
 - d. Once Ground Support Equipment (GSE) use is complete, it must be returned to the GSE Park by Pod 5, or the VASS GSE park. GSE is not to be left on the ASP when not in use.
- 6. **Arrivals.** The following procedures are to be followed for AS arrivals:
 - a. Northolt RADAR will call ATC when the AS is approximately 15-minutes from landing. This estimate is to be passed to the agencies responsible for handling the AS, as detailed in para 4b, and AMS if required.
 - b. Handling agencies are to ensure that an appropriate team is ready to marshal in the aircraft and that they are equipped with appropriate fire extinguishing equipment. Should ATC be informed of a delay, the AS is to be held on the taxiway until a marshalling team is present.
 - c. AMS are to meet and escort passengers and/or freight from the AS to the Terminal building, or their vehicles if parked airside.

Days Operations - Commercial

- 7. **Arrivals.** The following procedures are to be followed for AS arrivals:
 - a. Northolt RADAR will pass a 'stack time' to ATC, which indicates when the AS will be approximately 15 minutes away from arrival. This is followed by '10-mile' call to ATC, indicating that the AS is 5-10 minutes from landing.

²⁴ To be in position 5 mins prior to expected departure.

- b. ATC are to contact VASS with the estimates to enable marshallers to prepare to meet the AS. Close communication is to be maintained to ensure minimal delays. If ATC is informed there is a delay, the AS is to be held on the taxiway until a marshaller is in place.
- c. VASS will perform the following actions:
 - i. Inform Tower of the AS allocated parking spot and contact Universal Aviation.
 - ii. Conduct an internal brief before moving out onto the ASP 5 minutes before the aircraft is due to arrive.
 - iii. Check which ground handling services have been pre-booked and log any services provided using a form F603. The Commercial Booking Cell will use this to generate a bill.
 - iv. Liaise with World Fuels to coordinate refuelling.
 - v. On completion, ensure any GSE is returned to GSE Park.
- d. Universal Aviation are to meet and escort passengers and crew from the AS to the Terminal building.
- 7. **Departures.** The following procedures are to be followed for AS departures:
 - a. Universal Aviation are to escort crew from the Terminal building to the AS to conduct pre-flight checks.
 - b. VASS are to provide ground handling services as requested.
 - c. Universal Aviation are to escort passengers from the Terminal building to the AS when requested by the AS Captain. Universal Aviation will notify VASS to make their way outside ready for engine start.
 - d. When ready for engine start, the AS Capt will make the request to ATC. A VASS Marshalling team is to be present with appropriate fire extinguishing equipment prior to the AS starting engines.
 - e. Once the AS has taxied off the ASP, VASS are to remove any GSE and return it to GSE Park.

Day Operations – Visiting Military

- 8. **Arrivals.** The following procedures are to be followed for AS arrivals:
 - a. Northolt RADAR will prenote the inbound AS to ATC, who are to notify VASS and Stn Ops.
 - b. VASS are to confirm the parking spot and to hold their own internal brief, coordinating with AMS if required. VASS are to provide a marshaller.
 - c. AMS are to meet and escort passengers & crew²⁵ and freight from the AS to the terminal building or their vehicles if parked airside.

²⁵ If the AS is crew only, no AMS support will be required. Crew are to contact Stn Ops (020 8833 8915) for any transport requirements.

- d. Engine Running Off/Onloads (ERO) are permitted for RW AS but must be pre-booked through Stn Ops iaw the DAM. The activity is to be controlled by the Air Load Master (ALM) or suitably qualified member of crew, who will provide a handover of passenger and cargo manifests and any Dangerous Goods (DG) paperwork to AMS at the Double White Line of the ASP/MT Route. From the Double White Line, the passengers are under the control of AMS staff.
- e. VASS are to contact Fuels Group to carry out refuelling.
- 9. **Departures.** The following procedures are to be followed for AS departures:
 - a. AMS are to escort the crew to AS. Any drivers requiring access to the ASP will be given an ASP brief by AMS/VASS personnel.
 - b. AMS are to supervise and handle any freight loading, along with visiting AS crew. They are to co-ordinate the use of GSE and ACHE as appropriate.
 - c. Passengers arriving for 'direct reporting' (no Air Transport Security (ATSy) screening required) will be driven directly to the barrier and then airside for embarkation. AMS personnel will marshal the vehicle to the desire location, the DAMO will be present to meet the passenger if they are categorised as a VIP. The DAMO will escort the passengers from the vehicle to the AS. Passengers or their security detail will have been briefed prior to arrival and White House Gate will inform passengers whether they are to park airside or landside.
 - d. Passengers requiring ATSy screening will wait in the lounge for a brief from AMS personnel prior to embarkation. The DAMO is to escort passengers to the AS following the crew call to start.
 - e. VASS are to provide a marshaller with appropriate fire extinguishing
 - f. equipment prior to engine start.

Day Operations – AS Parking Orientation

- 10. As standard, all AS will be parked in a west-facing orientation, however, if the prevailing wind is observed to be constant 15Kts easterly, the AS parking orientation will change to east-facing.
- 11. Parking orientation, based on wind forecast for the day ahead, is to be discussed as part of the Morning Coordination Brief. The DOC is then responsible for promulgating any changes to VASS and ATC.
- 12. For FW VIP tasks, all AS are to be parked in the same orientation.

Transition to Night²⁶ Operations

- 13. Stn Ops will perform the following actions:
 - a. Stn Ops are responsible for ensuring that ASP lighting is turned on before evening civil twilight (ECT). They are to check with Met at start of shift for the day's ECT time and either

²⁶Night is defined as the time between the end of ECT and the beginning of morning civil twilight (MCT).

arrange for another appropriate ASP user to turn on the lighting or complete the action themselves.

- b. Conduct a visual check, using binoculars, from the Ops Room to ensure that all parked military AS are chocked and that those remaining on the ASP during hours of darkness have COREL lighting in position and switched on.
- 14. VASS will perform the following actions:
 - Double chock aircraft.
 - b. For any visiting or Commercial AS that will be parked on the ASP during hours of darkness, place COREL lighting on the outermost AS wing tip, closest to taxiway.
- 15. ATC will perform the following actions:
 - a. Turn on and inspect the aerodrome ground lighting (AGL)²⁷.
 - b. Conduct an airfield inspection.
- 16. AMS will perform the following actions:
 - a. Check that the ASP barriers are lit.
 - b. In conjunction with VASS, produce the parking plan for the next day.
- 17. An Evening Co-Ordination Brief is held at 1600L in Stn Ops to ensure that all stakeholders have a comprehensive understanding of the airfield facilities, activities and restrictions for the evening ahead and next day. AMS, Met, VASS, VIP Protocol, CBC and Ops are to be represented.

Night Operations

- 18. All actions and interactions are carried out as per day operations, with the following exceptions:
 - a. VASS will utilise Seal marshalling wands when marshalling AS at night.
 - b. LAA generally returns to RAF Northolt one hour after sunset but may operate until 2359L. Movements are permitted when the airfield is closed but must be conducted iaw Safety Assessment NOH/2018/02²⁸.

Airfield Closure

- 19. At airfield closure, the following actions are to be performed:
 - a. ATC will inform Ops that the final planned move is complete.
 - b. Ops will declare the airfield closed and inform all relevant stakeholders.

Personnel Movements on the ASP

20. All personnel entering the ASP are to adhere to the following:

²⁷ AGL inspection will be undertaken by the Airfield Electricians, or ATC in their absence.

²⁸ NOH/2018/02-LAA Field Ops

- a. Personnel are to remain on the MT route (building side of the double white lines), as close to the building as practicable, and only cross the double white lines when specific access onto the ASP is required. When entering the ASP, the shortest route to and from the AS must be taken, i.e. perpendicular to the double white lines.
- b. High visibility clothing and ear defenders are to be worn when operating on the ASP iaw Ref C. For groups of personnel, guidance on an appropriate distribution of high visibility clothing should be sought from AMS.
- c. All visitors requiring access to the ASP are to visit Load Control for approval and safety brief before proceeding. When Load Control is not manned, visitors are to contact the DOC.
- d. Visitors, including VIPs, are to be escorted by AMS personnel at all times.

Vehicle Movements on the ASP

- 21. All drivers of vehicles being operated on the ASP are to:
 - a. Have conducted an Airfield Driving Brief (minimum Tier 1) and be in possession of their Airfield Access Permit, iaw Stn Routine Orders (SROs).
 - b. Drive on the designated MT routes and lines in order to minimise distance travelled on the ASP.
 - c. Turn on the beacon, if the vehicle is equipped, otherwise turn on dipped headlights.
 - d. Reverse only when in the presence of a marshaller.
 - e. Except for emergency services and World Fuels, any vehicle proceeding within the 5m of an AS is to be marshalled into position by the appropriate handling agency.
 - f. In the event of a break down, carry out 'actions on breakdown' as detailed within the Airfield Driving Brief.
- 22. Vehicles may be parked or left with engines running, however drivers are to:
 - a. Turn on side lights.
 - b. Park in line with any adjacent AS and turn the vehicle wheels away from the AS.
 - c. Apply the hand brake (vehicle chocks are not required).
- 23. Prior to an AS being towed on the ASP (in or out of their Pods or for repositioning), the DOC is to be informed. To maintain situational awareness (SA), the DOC will inform ATC and VASS.
- 24. Visiting vehicles, where the driver does not hold an Airfield Access Permit, are permitted to drive up to the double white line, where they will be met by AMS personnel. AMS will remain on foot while escorting the car to an appropriate location close to the aircraft and then escort the passengers to the aircraft steps. The vehicle will then be escorted back to the double white line and instructed to leave the ASP on the marked vehicle route.

Lighting of AS on the ASP

25. All AS parked on the ASP in low visibility conditions or darkness are to be lit with COREL lighting. The following stakeholders have responsibility for their own AS:

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- a. Sloane A109.
- b. Pod 5 users are to light their own AS.
- c. VASS Visiting military and commercial AS.
- 26. The process for obtaining CORELs is as follows:
 - a. Serviceable CORELs will be available in the GSE Dutch Barn. GEF will ensure that CORELs are available for use by recharging or servicing, as required.
 - b. All sections are responsible for the collection and return of CORELs from the labelled rack in the GSE Dutch Barn. CORELs must be returned when no longer required (including when low visibility ceases i.e. the morning) and placed in the correct section of the rack i.e. 'serviceable', 'requires charge' or 'unserviceable'.
 - c. All sections using CORELs are to familiarise themselves with DAP 120K-0118-1 for this equipment, with particular reference to the self-testing function and safety.
- 27. If the number of CORELs required exceeds the available stock, a decision on priority and location will be made by the DOC. If any AS do not have COREL lighting, ATC are to be informed and the position given so that they can make taxying AS aware.
- 28. The DOC is responsible for checking at ECT/airfield closing, whichever is earlier, that all AS parked on the ASP are correctly lit. If any AS are not correctly lit, they are to contact the appropriate section and direct them to light their AS.

RAF Northolt Embargo Procedures

- 1. **Noise Embargoes and Flying Bans.** The impact of noise pollution on the local population requires careful management. In addition, certain occasions will require a noise, movement and/or flying embargo. A full noise and movement embargo is to be applied for Aircraft movements involving HM The King. At all other times a limited noise embargo for Aircraft movements involving all senior members of the Royal Family or a VVIP (in consultation with the Duty Air Movements Officer (DAMO)). In accordance with the parking plan, Movements will keep adjacent lines (see Fig 5 as an example) clear of Aircrafts APU/GPU activity during the embargo, in addition high powered ground runs are not to take place on the ASP while the embargo is in place (operational exemptions may apply at the discretion of the DAMO). The DAMO is to contact Station Operations if they are concerned that the embargo has not been initiated/ deactivated in a timely manner.
- 2. **Noise and Movements Embargo Procedures Full Embargo.** During a full noise embargo, all Aircraft on the main ASP are to be shut down, have their power units turned off and doors closed. Vehicle movement on or within the ASP are prohibited, except for flight safety reasons or by prior arrangement with Station Operations. Authorised CAT A/B/C Aircraft may use Delta providing the Royal Flight has priority at all times. All arriving passengers are to stay on-board their Aircraft, while all passengers waiting to depart are to stay in the lounge until the Royal party has boarded their Aircraft and departed the ASP. All Aircraft noise/movement embargoes take precedence over ATC slot times.



Figure 5 - Limited Noise Embargo Area

- 3. **Control of Noise and Movement Embargo**. The embargo is to be controlled by Station Ops, under liaison with the DAMO through the Load Control Staff. The DAMO is to inform the Premier Passenger Service Provider when a noise and movement embargo is in operation. If ATC is unable to comply with the embargo, Stn Operations should be informed immediately. Crews affected by the embargo who require clarification are to be referred to the SAMO, OC Ops Sqn or OC Ops Wg through the Duty Operations Controller. A station broadcast will be performed by Station Operations to inform all station personnel that a noise and movement embargo is in force. A subsequent station broadcast will be performed when a noise and movement embargo has ceased.
- 4. **Noise and Movement Embargo Timings**. Provided timings have not been specifically notified, the noise embargo will be in effect as follows:
 - a. Aircraft Arrivals. The embargo is to apply from when Station Operations receive an inbound call and until after the VIP exits the ASP. Load Control staff are to advise Station Operations when the VIP has departed.

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- b. Aircraft Departures. The DAMO is to obtain the ETA of the VIP at the WHG and pass this information to Station Operations. The embargo will apply from the expected time of the VIP's arrival at the WHG until the Aircraft starts to taxi.
- c. Where any uncertainty exists as to the timings of the noise and movement embargo, Station Operations, in liaison with the DAMO, will initiate the embargo as per published NOTAM timings.