



DIA Engine Ground Running Plan

VERSION 1.7 SEPTEMBER 2025

Contents

Amendment History.....	1
Abbreviations.....	2
List of Attachments	2
Contact List	3
Introduction.....	4
Regulatory Background	4
Approval for Engine Ground Runs	4
Dispensations Against this Plan	5
Site Restrictions.....	6
Notification and Recording of Details	6
Damage to Facilities as a result of Ground Running.....	6
Complaints	6

Amendment History

Version No	Date	Page No	Description
1.0	April 2014	All	Additional dispensation added (Number 2) and formatted to meet NTA Style Guide.
1.1	March 2015	All	Dispensations 3 and 4 added, contacts updated.
1.2	December 2017	All	Reformatted, Dispensation 5 added.
1.3	September 2020	All	Personnel changes, Dispensation 6 added.
1.4	July 2021	All	Personnel changes, delete Airnorth M23, delete Bristow dispensations, add Careflight BK117 and fixed wing dispensations, advise POB to ATC, amendments to BRA, FRA and FOD check requirements.
1.5	July 2022	All	ADG email addresses, name change Babcock to Offshore, Dispensation 7 RFDS added.
1.6	November 2023	All	ADG email addresses, ADG contacts & position changes updated, Company name change Cobham to Leidos Australia.
1.7	September 2025	All	ADG email address, contacts and position changes updated. Remove ADM abbreviation, position title changed to TAOO

Abbreviations

Abbreviation	Full Name
ABOC	Air Base Operations Centre
ATC	Air Traffic Control
ADG	Airport Development Group
AEO	Airport Environment Officer
TAOO	Terminal and Airside Operations Officer (Safety One)
BRA	Bomber Replenishment Apron
CASA	Civil Aviation Safety Authority
DIA	Darwin International Airport
FRA	Fighter Replenishment Apron
MOS 139	Manual of Standards Part 139 - Aerodromes
ATA	Air Transport Apron
RWY	Runway
THR	Threshold
TWY	Taxiway

List of Attachments

Attachment A – Summary of site locations and restrictions

Attachment B – Engine Ground Running Areas

Contact List

Darwin International Airport Pty Ltd
Terminal Control Centre
Henry Wrigley Drive, EATON NT 0812
PO Box 40996, CASUARINA NT 0811

Title	Telephone	Email
Head of Airport Operations	0421 601 461	melanie.cobbin@adgnt.com.au
Aerodrome Safety & Standards Manager	8920 1851	bob.calaby@adgnt.com.au
Aerodrome Safety & Standards Manager	0419 864 223	George.cherian@adgnt.com.au
Airside Manager	0473 957 650	van.nguyen@adgnt.com.au
Senior Compliance Coordinator	0418 105 853	kyle.schwarze@adgnt.com.au
Senior Airport Operations Coordinator	0459 598 959	Ana.futo@adgnt.com.au
Terminal and Airside Operations Officer (TAOO)(24/7)	0402 088 145 8920 1852	dia.taoo@adgnt.com.au
Environment and Sustainability Manager	8920 1820	julie.whiting@adgnt.com.au
Head of Safety	0438 654 462	Vikki.young@adgnt.com.au
Defence Contacts Air Base Operations Centre (ABOC) ATC Tower	8923 8888 8979 4816	dar.abcp@defence.gov.au dar.atc@defence.gov.au

Introduction

Darwin International Airport Pty Ltd (DIA) is a federally leased Airport and under the Airports Act 1996 is required to produce an Environment Management Strategy. This Strategy is required to specify measures for controlling environmental impacts including generation of noise from ground running aircraft.

Aircraft engine ground run-ups are routine aircraft engine maintenance tests performed for extended periods of time generating continuous elevated noise levels.

The conditions set out in this plan apply to the ground running of aircraft engines for the purposes of maintenance, testing and minimising noise impacts to sensitive receptors. These conditions do not apply to and are not intended to limit immediate pre-flight engine checks, normal start, taxi and shutdown procedures. The aim of this plan is to detail the conditions for ground running of aircraft engines for test purposes. Engine test ground running may only be conducted in accordance with this plan.

Changes to the plan may be required from time to time, airport operators will be advised via email when an updated copy has been issued. The latest copy can be found on the Airport Development Group (ADG) Secure Resources page and DIA website.

Regulatory Background

The Airports (Environment Protection) Regulations 1997 (the Regulations), give authority to matters that may impact on the environment, including the generation of noise. The Commonwealth Government has appointed an Airport Environmental Officer (AEO) to, amongst other environmental concerns, monitor noise.

Regulation 4.06 requires that operators of undertakings at airports must take all reasonable and practical measures to prevent the generation of offensive noise.

Offensive noise occurs when noise is generated at a volume, or in a way, or under a circumstance that, in the opinion of the AEO, offensively intrudes on an individual, community or commercial amenity.

The operator is the person or operator of the equipment or aircraft making the noise.

The undertaking is the operation of equipment or aircraft.

Regulation 7.03 provides for the AEO to make an environmental protection order directing the operator of an undertaking to comply with a duty under Regulation 4.06 by taking a particular action to minimize the generation of offensive noise. This may include a financial penalty.

Approval for Engine Ground Runs

Aircraft conducting immediate pre-flight engine checks do not require approval.

Pre-flight engine checks above idle are not permitted on aprons.

All aircraft conducting engine test ground runs are to first gain approval from the DIA Terminal and Airside Operations Officer (TAOO) prior to commencing any engine test

ground running activity. Prior notice of one hour is required. Where necessary DIA will seek permission from Defence, via Air Traffic Control (ATC).

To obtain approval for an engine run the maintenance organization is to:

Check against the site requirements in this document for a suitable site for the aircraft type, time of day, wind direction, etc.

Call the DIA TAOO for approval to conduct the engine test ground run, providing details of the intended operation (where necessary, DIA will liaise with ATC and then advise the maintenance organization whether the running has been approved). This also applies to dispensation areas.

On receipt of DIA approval, call ATC to request taxi/tow approval and advise the Tower that DIA approval has been received.

On arrival at the approved site advise ATC prior to commencing the ground running activity. Advise POB for ARFFS coverage.

Approval can be gained from the DIA TAOO (Safety One) on 0402 088 145

Dispensations Against this Plan

This plan has been developed to satisfy Airport environmental concerns and noise strategies regarding the existing infrastructure. The plan details the best options and dispensations will therefore not be given unless the matter under consideration represents an urgent operational requirement.

Dispensations may be granted by the TAOO in liaison with ATC. Note: Prior notification (one hour) to DIA and approval is still required for the following dispensations.

Dispensations issued to date:

1. Turboprop maritime patrol (Leidos Australia DHC-8) and amphibious aircraft (Paspaley G73T) may be run at ground idle only for the purpose of engine compressor wash. This may take place at the Operator's facility for a maximum of 5 minutes.
2. Engine Runs on Airnorth Apron for aircraft types E120, E170 & E190 at idle power only for leak checks, water wash or drying run, maximum of 5 minutes. Aircraft must be nose west clear of PFC Apron, jet efflux or prop wash must not affect perimeter road.
3. CareFlight AW139, BK117 helicopter compressor rinse, drying run and operational systems checks at flight idle, CareFlight apron helicopter bay, maximum 7 minutes.
4. Offshore Services S-92, EC225, H175 helicopter compressor wash and drying runs, helicopter Bays 9 - 12, maximum 7 minutes.
5. CHC S-92, AS332, B412, S-76 helicopter compressor wash and drying runs, helicopter Bays 9 - 12, maximum 7 minutes.
6. CareFlight King Air 200, Beech 400 and Gulfstream 150 for compressor rinse drying run and operational checks at idle. CareFlight apron, maximum 5 minutes. Prop wash and jet blast is not to affect adjoining RFDS and Police Air Wing Aprons.

7. RFDS and Police Air Wing PC-12 for compressor rinse drying run and operational checks at idle. RFDS apron, maximum 5 minutes. Prop wash is not to affect adjoining Airnorth and CareFlight Aprons.

Site Restrictions

Each site is restricted to aircraft types, time restrictions, aircraft headings and directions, as shown in the tables in **Attachment A**.

Where a time limit applies to the maximum allowable duration of an engine test ground run, the total time allowed is the cumulative time at the relevant throttle settings e.g. less than 5 minutes above idle power means a total time above idle throttle setting of less than 5 minutes.

Notification and Recording of Details

Requests for approval with details of operator, aircraft type, location, start time, power setting and duration are to be telephoned to the TAOO on 0402 088 145 or if not available, on 0401 005 977.

DIA will log engine test ground run details and grant approval subject to availability. Where multiple requests are made for use of a particular site, the sites will be made available at the discretion of the TAOO.

Damage to Facilities as a result of Ground Running

Maintenance organizations need to be aware of the impact of propeller wash, rotor wash and jet blast onto ADG, Defence and other facilities.

Approval to carry out a ground run still requires the maintenance organization to carry out a risk assessment of possible damage to facilities, and the cost of any repairs from ground running activities will be borne by the maintenance organization.

For civilian operators conducting engine runs on Defence apron areas i.e. Bomber Replenishment Apron (BRA), they are to ensure a FOD inspection is conducted prior to the engine run and another conducted at the completion of the activity. Should an abnormality occur during the engine run, it is a requirement that the aircraft operator provide immediate advice to ABOC and DIA. Full remediation of the BRA is the responsibility of the aircraft operator.

ADG accepts no responsibility for loss or damage caused by a maintenance organization engine test ground run.

Complaints

Airport tenants who wish to make a complaint regarding an engine ground run operation can contact the DIA TAOO on 0402 088 145.

Formal complaints can be directed to the DIA Aerodrome Safety & Standards Manager. DIA will recognise any complaints received and as a result may review current processes.

Attachment A – SUMMARY OF SITE LOCATIONS AND RESTRICTIONS

AIRCRAFT TYPES: PISTON ENGINE GA SINGLES AND TWINS				
SITE	LOCATION	APPROVAL	POWER AND TIME LIMITS	SITE RESTRICTIONS
1	TWY VICTOR 1 PASSING BAY (NO ENGINE TEST GROUND RUNNING – PRE-FLIGHT CHECKS ONLY)	ATC	PRE-FLIGHT LESS THAN 3 MINUTES TO HIGH RPM	CAUTION: ARFF COMPLEX
			NO TIME LIMIT AT IDLE POWER	CAUTION: ARFF COMPLEX
2	TWY YANKEE	DIA and ATC	DAYLIGHT HOURS (TWY UNLIT) - NO LIMITS	HEADING TO ALIGN WITH TAXIWAY ESSENTIAL MAINTENANCE ONLY
3	TWY CHARLIE 4 (COMPASS SWING)	DIA and ATC	DAYLIGHT HOURS ONLY (TWY UNLIT) – NO LIMITS	HEADING 180° REQUESTS FOR HEADINGS OTHER THAN 180° CAN BE MADE TO DIA AND WILL DEPEND ON AIRCRAFT TYPE, GROUND CONDITIONS, WEATHER AND TRAFFIC. IN GENERAL SINGLE AND TWIN PISTON AIRCRAFT MAY OPERATE UNRESTRICTED.
4	TWY UNIFORM 1 (BETWEEN TWY UNIFORM 2 AND TWY ECHO 2)	DIA and ATC	- UPTO 50% POWER - NO LIMITS - OVER 50% POWER – RELOCATE TO TAXIWAY C4 NIGHT HOURS - NO TIME LIMIT AT IDLE POWER, ABOVE IDLE TO 50% POWER - LIMITED TO 15 MIN	HEADING TO ALIGN WITH TAXIWAY
9	TWY UNIFORM 1 (BETWEEN EASTERN HELIPAD AND TWY UNIFORM 2)	DIA and ATC	- UP TO 50% POWER - NO LIMITS - OVER 50% POWER – RELOCATE TO TAXIWAY C4 (TWY C4 IS UNLIT, NOT AVBL NIGHT HOURS)	HEADING TO ALIGN WITH TAXIWAY

12	YANKEE RUNUP BAY	DIA and ATC	DAYLIGHT HOURS ONLY (TWY UNLIT) – NO LIMITS	CAUTION: MAX 15M WINGSPAN, AIRCRAFT MUST REMAIN ON PAINTED CENTRELINE, 3M CLEARANCE TO CONCRETE WALLS.
----	------------------	-------------	--	--

AIRCRAFT TYPES: TURBOPROPS AND JETS TO 22,000 KG				
SITE	LOCATION	APPROVAL	POWER AND TIME LIMITS	SITE RESTRICTIONS
1	TWY VICTOR 1 PASSING BAY (NO ENGINE TEST GROUND RUNS – PRE-FLIGHT CHECKS ONLY)	ATC	PRE-FLIGHT LESS THAN 3 MINUTES TO HIGH RPM	CAUTION: ARFF COMPLEX
			NO TIME LIMIT AT IDLE POWER	CAUTION: ARFF COMPLEX
3	TWY CHARLIE 4 (COMPASS SWING)	DIA and ATC	DAYLIGHT HOURS ONLY (TWY UNLIT) – NO LIMITS	HEADING 180°. REQUESTS FOR HEADINGS OTHER THAN 180° CAN BE MADE TO DIA AND WILL DEPEND ON AIRCRAFT TYPE, GROUND CONDITIONS, WEATHER AND TRAFFIC.
4	TWY UNIFORM 1 (BTN TWY UNIFORM 2 AND TWY ECHO 2).	DIA and ATC	0700 - 2200 - UPTO 50% POWER - NO LIMITS - OVER 50% POWER – RELOCATE TO TAXIWAY C4 (TWY C4 IS UNLIT, NOT AVBL NIGHT HOURS)	HEADING TO ALIGN WITH TAXIWAY
			2200 – 0700 - NO TIME LIMIT AT IDLE POWER, ABOVE IDLE TO 50% POWER - LIMITED TO 15 MINUTES	HEADING TO ALIGN WITH TAXIWAY ESSENTIAL MAINTENANCE ONLY

9	TWY UNIFORM 1 (BETWEEN EASTERN HELIPAD AND TWY UNIFORM 2)	DIA and ATC	- UPTO 50% POWER - NO LIMITS - OVER 50% POWER – RELOCATE TO TAXIWAY C4 (TWY C4 IS UNLIT, NOT AVBL NIGHT HOURS)	HEADING TO ALIGN WITH TAXIWAY
---	--	-------------	--	-------------------------------

5	FRA	DIA and ATC	0700 – 2200 UP TO 100% POWER (TURBOPROP) UP TO 80% (JET), UP TO 15 MIN. >15 MIN SUBJECT TO ABOC APPROVAL.	AS DIRECTED REQUIREMENT FOR FOD CHECK PRIOR AND ON COMPLETION. NOTE FRA MAY FREQUENTLY NOT BE AVAILABLE DUE MILITARY MOVEMENTS
			2200 – 0700 IDLE ONLY	
6	THR RWY 29	DIA and ATC	0700 – 1900 LESS THAN 10 MIN AT IDLE POWER	AS DIRECTED

AIRCRAFT TYPES: TURBOPROPS AND JETS TO 22,000 KG (CONT).				
SITE	LOCATION	APPROVAL	POWER AND TIME LIMITS	SITE RESTRICTIONS
7	THR RWY 11	DIA and ATC	0700 – 1900 LESS THAN 10 MIN AT IDLE POWER	AS DIRECTED
			1900 – 0700 NOT AVAILABLE	
10	BRA	DIA and ATC	0700 – 2200 UP TO 100% POWER (TURBOPROP) UP TO 80% (JET), UP TO 15 MIN. >15 MIN SUBJECT TO ABOC APPROVAL.	AS DIRECTED REQUIREMENT FOR FOD CHECK PRIOR AND ON COMPLETION. NOTE BRA MAY FREQUENTLY NOT BE AVAILABLE DUE MILITARY MOVEMENTS
			2200 – 0700 IDLE ONLY	
11	TWY A	DIA and ATC	0700 – 2200 UP TO 100% POWER (TURBOPROP) UP TO 80% (JET), UP TO 15 MIN. >15 MIN SUBJECT TO ABOC APPROVAL.	TWY A HAS 6 SECTIONS – LOCATION AS DIRECTED

AIRCRAFT TYPES: TURBOPROPS AND JETS <u>ABOVE</u> 22,000 KG				
SITE	LOCATION	APPROVAL	POWER AND TIME LIMITS	SITE RESTRICTIONS
4	TWY UNIFORM 1 (BTN TWY UNIFORM 2 AND TWY ECHO 2).	DIA and ATC	IDLE POWER ONLY	APPLY TO AIRNORTH E170 ONLY HEADING TO ALIGN WITH TAXIWAY

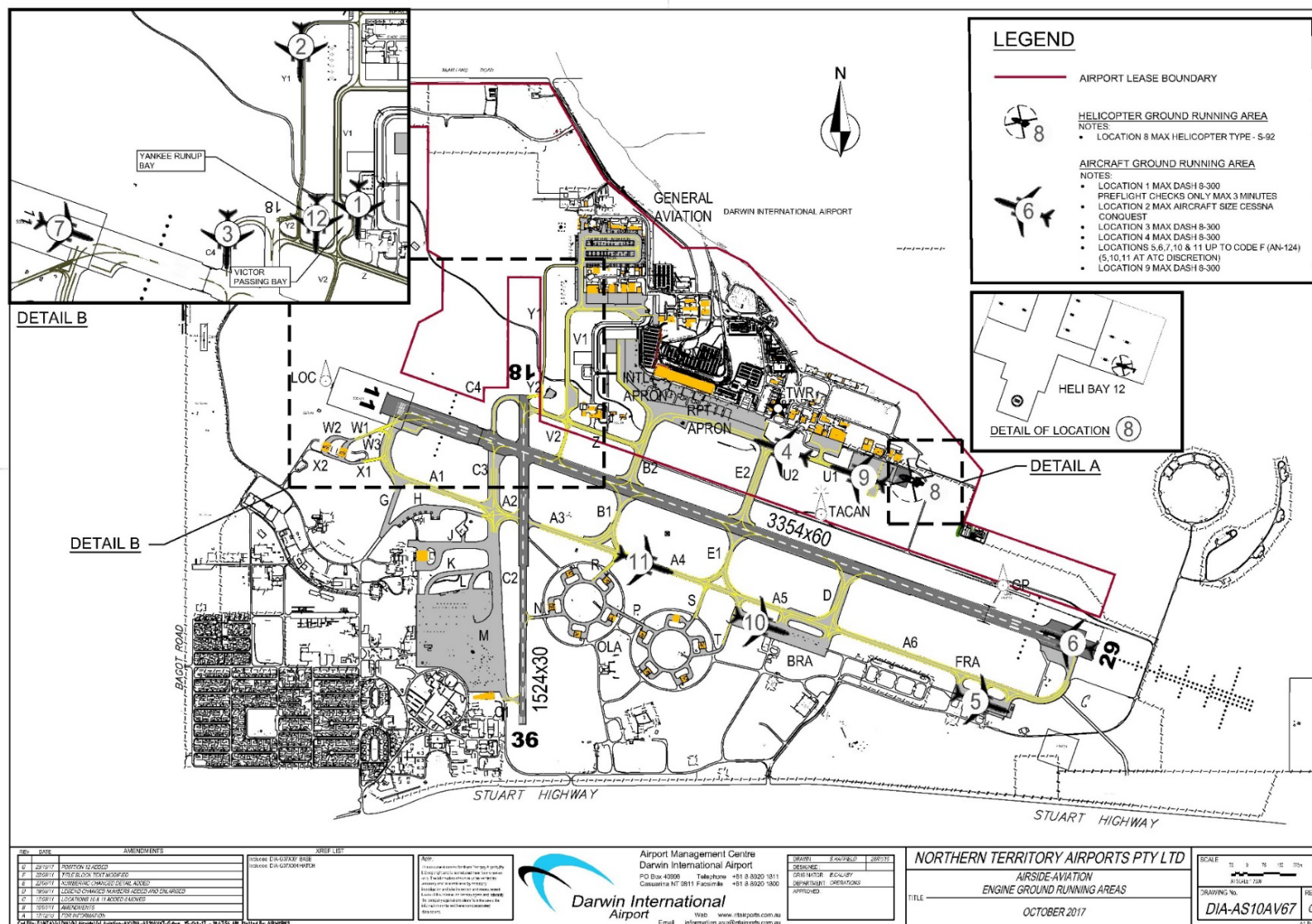
5	FRA	DIA and ATC	0700 – 1900 POWER AND TIME AS DIRECTED 1900 – 2200 LESS THAN 10 MIN AT UP TO FULL POWER 2200 – 0700 IDLE ONLY	AS DIRECTED REQUIREMENT FOR FOD CHECK PRIOR AND ON COMPLETION. NOTE FRA MAY FREQUENTLY NOT BE AVAILABLE DUE MILITARY MOVEMENTS
6	THR RWY 29	DIA and ATC	0700 – 1900 LESS THAN 10 MIN AT IDLE POWER	AS DIRECTED
			1900 – 0700 NOT AVAILABLE	
7	THR RWY 11	DIA and ATC	0700 – 1900 LESS THAN 10 MIN AT IDLE POWER	AS DIRECTED
			1900 - 0700 NOT AVAILABLE	

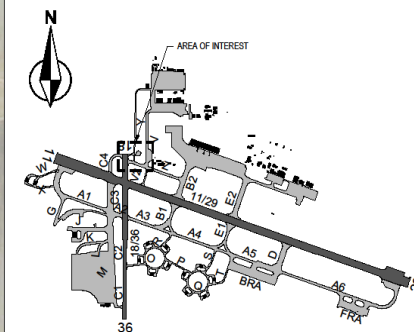
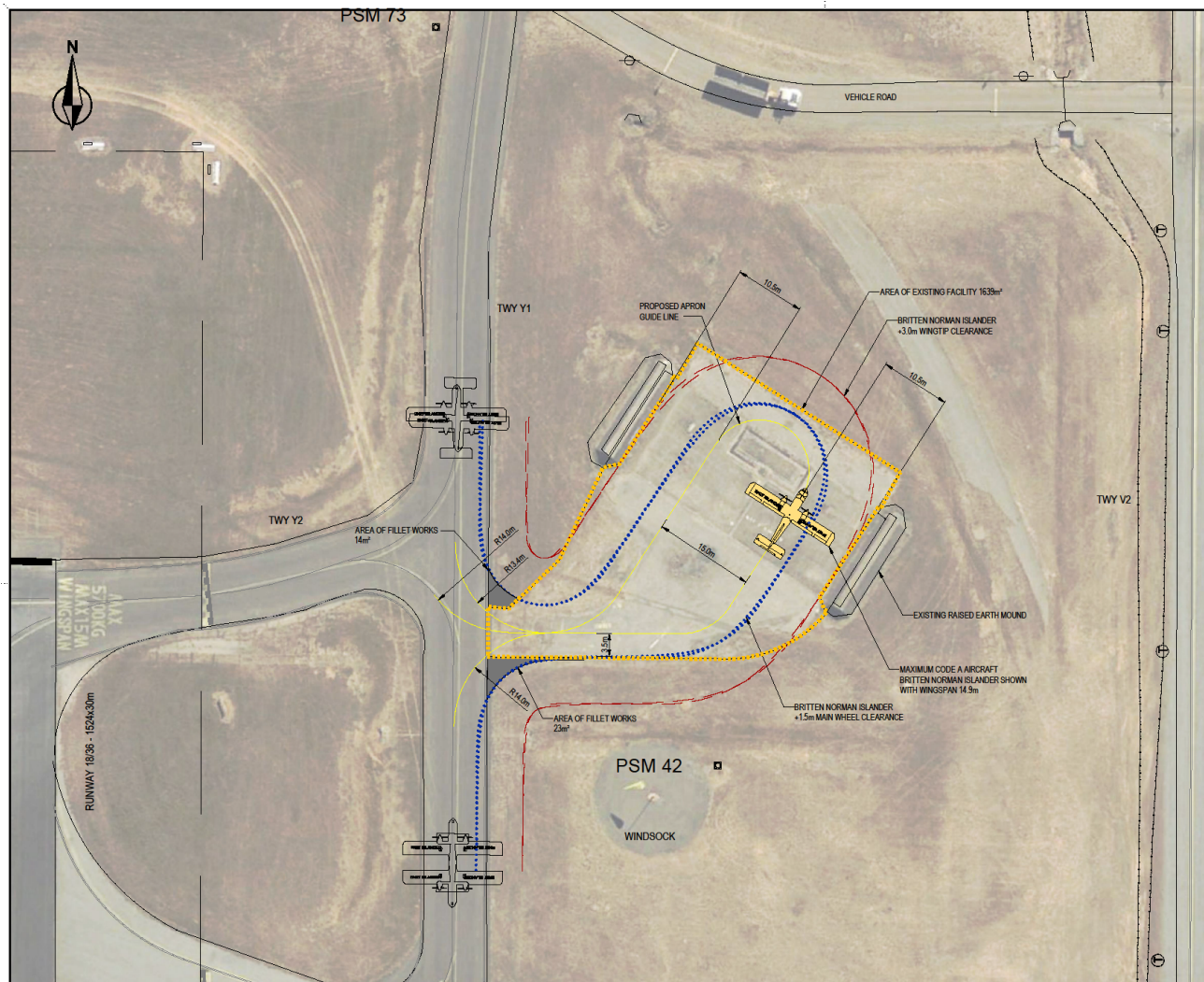
10	BRA	DIA and ATC	0700 – 2200 UP TO 100% POWER (TURBOPROP) UP TO 80% (JET), UP TO 15 MIN. >15 MIN SUBJECT TO ABOC APPROVAL TEL 8923 8888	AS DIRECTED REQUIREMENT FOR FOD CHECK PRIOR AND ON COMPLETION.
			2200 – 0700 IDLE ONLY	NOTE BRA MAY FREQUENTLY NOT BE AVAILABLE DUE MILITARY MOVEMENTS
11	TWY A	DIA and ATC	700 – 2200 UP TO 100% POWER (TURBOPROP) UP TO 80% (JET), UP TO 15 MIN. >15 MIN SUBJECT TO ABOV APPROVAL.	AS DIRECTED
			2200 – 0700 NOT AVAILABLE	

AIRCRAFT TYPES: HELICOPTERS				
SITE	LOCATION	APPROVAL	POWER AND TIME LIMITS	SITE RESTRICTIONS
6	THR RWY 29	DIA and ATC	0700 – 2200 AS COORDINATED AT 50% POWER 2200 – 0700 NOT AVAILABLE	AS DIRECTED
7	THR RWY 11	DIA and ATC	0700 – 2200 AS COORDINATED AT 50% POWER 2200 – 0700 NOT AVAILABLE	AS DIRECTED

8	HELI APRON BAY 12 Or EASTERN HELIPAD	DIA and ATC	0530 – 2100 NO LIMITS 2100 – 0530 NO TIME LIMIT AT IDLE POWER, LESS THAN 5 MINUTES AT ABOVE IDLE POWER	AS DIRECTED
---	---	-------------	--	-------------

Attachment B – Engine Ground Running Areas





SITE PLAN
SCALE 1:20,000

NOTES

1. ALL DIMENSIONS IN METERS UNO.
2. APRON DESIGN IN ACCORDANCE WITH MOS PART 139 - AERODROMES.
3. DESIGN AIRCRAFT DETAIL IS CODE A MAXIMUM WINGSPAN OF 15m.

AIRCRAFT DATA					
MAKE	MODEL	ICAO	WSPAN (m)	LENGTH (m)	MTOW (kg)
BEECHCRAFT	BONANZA	B33	10.0	7.87	1418
BEECHCRAFT	BARON 58	B58	11.53	9.09	2495
CESSNA	150	C150	10.17	6.56	726
CESSNA	SKYHAWK	C172	11.0	8.20	1270
CESSNA	CARDINAL	C177	10.85	8.22	1270
CESSNA	SKYLANE	C182	10.97	8.84	1406
CESSNA	CARAVAN	C208	15.88	12.67	3969
CESSNA	210	C210	11.21	8.59	1960
CESSNA	310	C310	11.25	9.74	2495
CESSNA	440	C440	13.45	11.09	3107
CESSNA	TITAN	C441	14.23	12.04	3810
CESSNA	CONQUEST	C441	15.04	11.89	4468
VICTA	AIRTOURER	TOUR	7.92	6.55	750
PIPER	TWIN COMMANDER	PA30	11.22	7.87	1633
PIPER	CHEROKEE 6	PA32	9.99	8.44	1633
PIPER	NAVJO	PA31	12.40	10.52	3540
PIPER	CHEFTAIN	PA31	13.56	10.52	3175
ROCKWELL	AEROCOMMANDER	AC50	13.43	13.10	4082
PILATUS	PC12	PC12	16.23	14.4	4500
BEECHCRAFT	KINGAIR 200	B200	16.6	14.22	6804
BEECHCRAFT	KINGAIR 350	B350	17.65	14.22	6750
FAIRCHILD	METROD3	SW4	17.37	18.09	7484
EMBRAER	BRASILIA	E120	19.78	20.00	11,990
DORNIER	328	D328	20.98	21.23	13,990

PROPOSED ENGINE TEST / RUN UP BAY

REV	DATE	AMENDMENTS
1	1/20/17	PER INFORMATION

Includes: AIRCRAFT
Includes: DIA-GT70001 BASE
Images: 1702019 Ramp Day.jpg

Notes:

This document contains Airworks copyright and is to be used only for the information only. This document contains information that is not to be used for any other purpose without the written consent of Airworks. All information is provided as a guide only and is not to be used for any other purpose without the written consent of Airworks.

Airworks
airworks17@gmail.com
NORTHERN TERRITORY AIRPORTS
AIR SHOULD NOT BE COPIED OR REPRODUCED IN ANY FORM OR BY ANY MEANS WITHOUT THE WRITTEN PERMISSION OF AIRWORKS.

CLIENT
NORTHERN TERRITORY AIRPORTS

DRAWN: AIRWORKS 1702017
DESIGNED: AIRWORKS 1702017
CHECKED: AIRWORKS 1702017
APPROVED: AIRWORKS 1702017

DARWIN INTERNATIONAL AIRPORT

GENERAL AVIATION
PROPOSED CODE A ENGINE TEST AREA / RUN UP BAY
GENERAL ARRANGEMENT

SCALE 1:20,000
DRAWING NO. YPDN17AV01

REV A