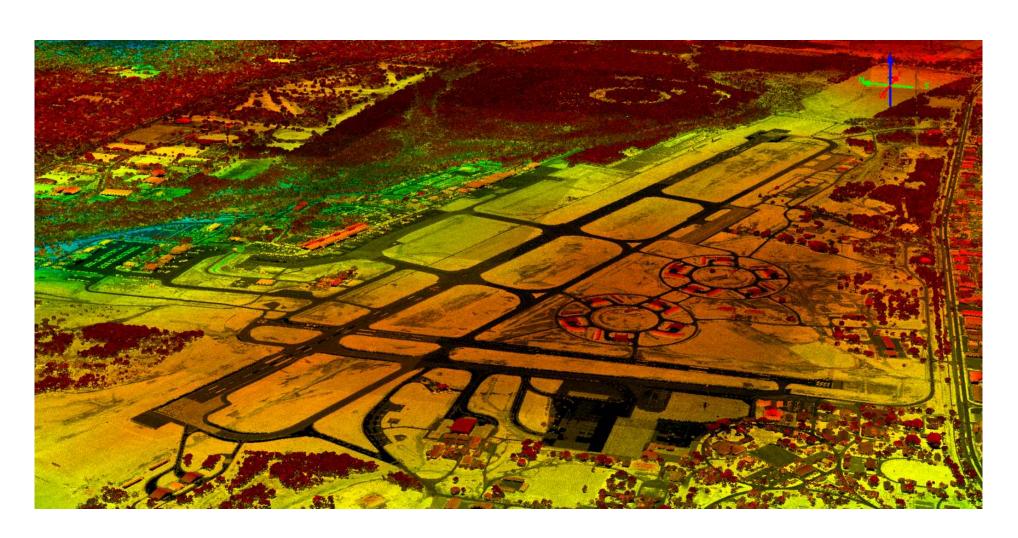
OBSTACLE LIMITATION SURVEYS AND ASSESSMENT

RAAF BASE DARWIN AERODROME OBSTACLE CHART ICAO TYPE A (OPERATING LIMITATIONS) ISSUED JULY 2019

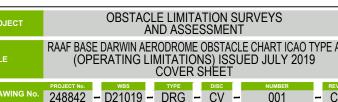


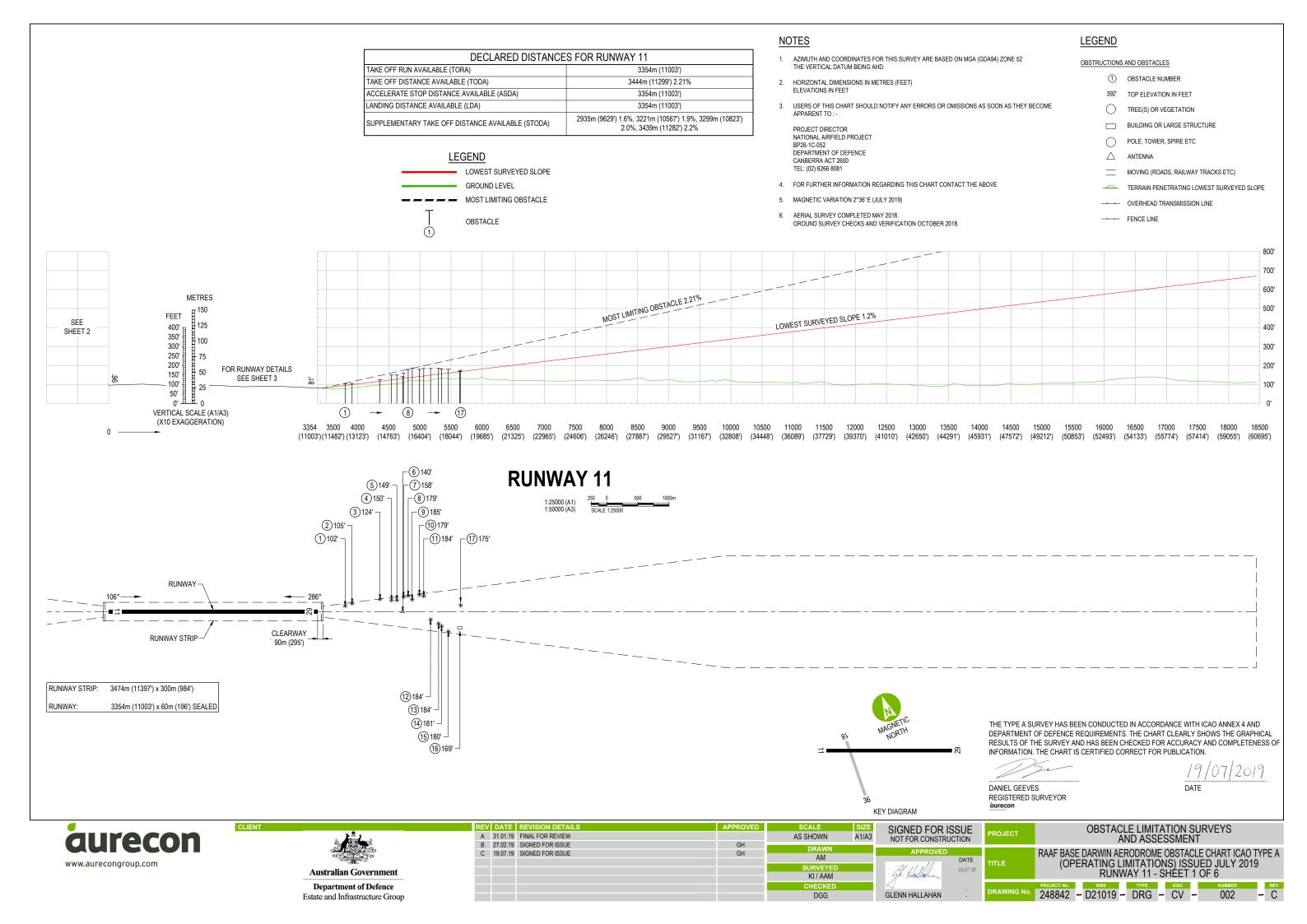




DATE	REVISION DETAILS	APPROVED	SCALE	s
1.01.19	FINAL FOR REVIEW		AS SHOWN	Α´
	SIGNED FOR ISSUE	GH	DRAWN	Ξ
9.07.19	SIGNED FOR ISSUE	GH	AM	
			SURVEYED	
			KI / AAM	
			CHECKED	
			DGG	







DECLARED DISTANCE	S FOR RUNWAY 29
TAKE OFF RUN AVAILABLE (TORA)	3354m (11003')
TAKE OFF DISTANCE AVAILABLE (TODA)	3444m (11299') 1.0%
ACCELERATE STOP DISTANCE AVAILABLE (ASDA)	3354m (11003')
LANDING DISTANCE AVAILABLE (LDA)	3354m (11003')
SUPPLEMENTARY TAKE OFF DISTANCE AVAILABLE (STODA)	N/A

LEGEND

LOWEST SURVEYED SLOPE GROUND LEVEL MOST LIMITING OBSTACLE

OBSTACLE 1

NOTES

- AZIMUTH AND COORDINATES FOR THIS SURVEY ARE BASED ON MGA (GDA94) ZONE 52 THE VERTICAL DATUM BEING AHD.
- 2. HORIZONTAL DIMENSIONS IN METRES (FEET) ELEVATIONS IN FEET
- 3. USERS OF THIS CHART SHOULD NOTIFY ANY ERRORS OR OMISSIONS AS SOON AS THEY BECOME

PROJECT DIRECTOR NATIONAL AIRFIELD PROJECT DEPARTMENT OF DEFENCE CANBERRA ACT 2600 TEL: (02) 6266 8081

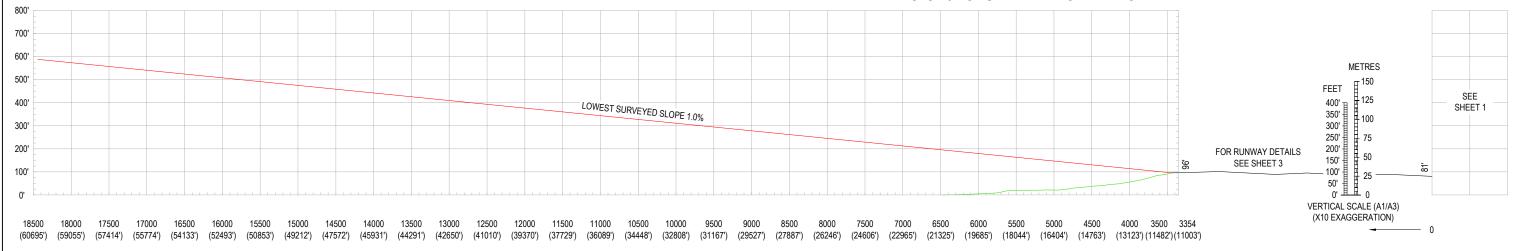
- 4. FOR FURTHER INFORMATION REGARDING THIS CHART CONTACT THE ABOVE
- 5. MAGNETIC VARIATION 2°36' E (JULY 2019)
- AERIAL SURVEY COMPLETED MAY 2018. GROUND SURVEY CHECKS AND VERIFICATION OCTOBER 2018.

LEGEND

OBSTRUCTIONS AND OBSTACLES

- OBSTACLE NUMBER
 - TOP ELEVATION IN FEET
- TREE(S) OR VEGETATION BUILDING OR LARGE STRUCTURE
- POLE, TOWER, SPIRE ETC
- \triangle ANTENNA
- MOVING (ROADS, RAILWAY TRACKS ETC)
- TERRAIN PENETRATING LOWEST SURVEYED SLOPE
- OVERHEAD TRANSMISSION LINE
- FENCE LINE

NO OBJECTS APPEAR ON THE CHART



RUNWAY 29



-RUNWAY CLEARWAY -RUNWAY STRIP 90m (295')

KEY DIAGRAM

SURVEYEI KI / AAM

DGG

RUNWAY STRIP: 3474m (11397') x 300m (984')

THE TYPE A SURVEY HAS BEEN CONDUCTED IN ACCORDANCE WITH ICAO ANNEX 4 AND DEPARTMENT OF DEFENCE REQUIREMENTS. THE CHART CLEARLY SHOWS THE GRAPHICAL RESULTS OF THE SURVEY AND HAS BEEN CHECKED FOR ACCURACY AND COMPLETENESS OF

RUNWAY:

DANIEL GEEVES REGISTERED SURVEYOR

3354m (11003') x 60m (196') SEALED

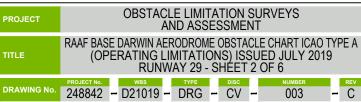
DATE

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ĺ	REV	DATE	REVISION DETAILS	APPROVED	SCALE
	Α	31.01.19	FINAL FOR REVIEW		AS SHOWN
	В	27.02.19	SIGNED FOR ISSUE	GH	DDAMA
	С	19.07.19	SIGNED FOR ISSUE	GH	DRAWN AM
					SURVEYE
					KI / AAM
					CHECKE
					DGG





DEPARTMENT OF DEFENCE

ESTATE AND INFRASTRUCTURE GROUP

AERODROME OBSTACLE CHART - ICAO TYPE A (OPERATING LIMITATIONS) JULY 2019, COMPILED BY AURECON

TO BE READ IN CONJUNCTION WITH CURRENT NOTAMS

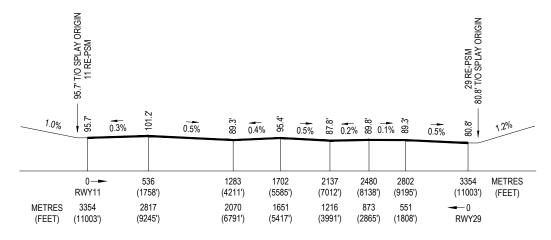
THE ORIGIN OF THE TAKE OFF SURFACE IS LOCATED AT THE END OF THE CLEARWAY. DISTANCES COMMENCE FROM THE RAAF RE-PSM AT THE START OF THE TAKE-OFF RUNWAY (SOT)

DATUM

AZIMUTH AND COORDINATES FOR THIS SURVEY ARE BASED ON MGA (GDA94) ZONE 52 THE VERTICAL DATUM BEING AHD.

DEFINITIONS

- RE-PSM: RUNWAY END PERMANENT SURVEY MARK
- LENGTH OF INNER EDGE 180m
- RATE OF DIVERGENCE OF SPLAY (EACH SIDE) 12.5%
- FINAL WIDTH 1800m
- OVERALL LENGTH 15000m



11/29 RWY LONGITUDINAL SECTION

								1	1 TAK	E OFF													
					- PSM	AT STAR	T OF TORA		T		RUNV	VAY MAG		TO	RA	то	DA		TION AT				
			GEOGF	RAPHIC			M	GA	ELEV	ATION		BEARING	5					T.O. C	DRIGIN				
		LAT			LONG		EASTING	NORTHING	(m)	(FT)	(DEG)	(MIN)	(SEC)	(m)	(FT)	(m)	(FT)	(m)	(FT)				
	(DEG)	(MIN)	(SEC)	(DEG)	(MIN)	(SEC)	2,01110	110111111110	(,	(,	(520)	(,	(020)	(,	(,	(,	(,	(,	()				
	-12°	24'	33.87"	130°	51'	54.92"	702771.26	8627464.63	29.2	95.7	106°	18'	36"	3354	11003	3444	11299	24.6	80.8				
								OBJECTS TH	AT APPE	AR ON TH	E CHAR	T											
			GEOGF	RAPHIC			M	GA	FIFVAT	ION TOP					E FROM	OFF	SET		DIENT				
REF No		LAT			LONG		EASTING	NORTHING			TYPE	TYPE OF OBSTACLE		SC)T		JE1	TO	TOP				
	(DEG)	(MIN)	(SEC)	(DEG)	(MIN)	(SEC)		110111111110	(m)	(FT)									(FT)	(m)	(FT)	9	%
1	-12°	25'	11.08"	130°	53'	54.85"	706385.87	8626295.64	31.1	101.9		TREE		TREE		3797.4	12458.6	92.3L	302.7L	1.82			
2	-12°	25'	11.00"	130°	53'	58.81"	706505.44	8626297.04	32.1	105.3	TREE		3909.7	12827.2	133.1L	436.8L	1.60						
3	-12°	25'	13.57"	130°	54'	13.58"	706950.99	8626214.82	37.8	124.1	TREE		4357.4	14295.8	202.9L	665.7L	1.	44					
4	-12°	25'	16.09"	130°	54'	19.21"	707120.42	8626136.37	45.6	149.5	TREE		4543.2	14905.4	184.9L	606.6L	1.	91					
5	-12°	25'	16.95"	130°	54'	21.93"	707202.35	8626109.40	45.4	149.1		TREE		4629.4	15188.4	186.5L	612.0L	1.	76				
6	-12°	25'	23.61"	130°	54'	22.90"	707230.16	8625904.53	42.7	140.0		ANTENN	Α	4723.4	15496.7	2.4L	7.9L	1.	41				
7	-12°	25'	16.49"	130°	54'	25.82"	707319.92	8626122.48	48.2	158.3		TREE		4736.0	15538.1	237.8L	780.1L	1.	83				
8	-12°	25'	16.71"	130°	54'	28.36"	707396.71	8626115.22	54.4	178.5		TREE		4810.9	15783.8	256.3L	840.9L	2.	18				
9	-12°	25'	19.27"	130°	54'	29.75"	707438.20	8626036.23	56.2	184.5		TREE		4876.2	15997.9	195.5L	641.3L	2.	21				
10	-12°	25'	18.11"	130°	54'	34.17"	707571.99	8626071.09	54.6	179.0		TREE		4990.9	16374.2	272.6L	894.5L	1.	94				
11	-12°	25'	19.52"	130°	54'	36.13"	707630.68	8626027.37	56.0	183.7		TREE		5060.7	16603.4	250.8L	822.8L	1.	94				
12	-12°	25'	32.31"	130°	54'	35.53"	707609.78	8625634.34	56.2	184.3		TREE		5171.0	16965.1	127.0R	416.7R	1.	83				
13	-12°	25'	35.67"	130°	54'	38.84"	707709.11	8625530.45	56.2	184.3		TREE		5299.1	17385.4	192.2R	630.5R	1.	70				
14	-12°	25'	37.43"	130°	54'	39.93"	707741.56	8625475.91	55.3	181.4		TREE		5347.7	17545.0	232.9R	764.2R	1.	61				
15	-12°	25'	41.26"	130°	54'	42.43"	707816.27	8625357.88	54.8	179.7		TREE		5457.2	17904.3	319.6R	1048.5R	1.	50				
16	-12°	25'	41.40"	130°	54'	48.84"	708009.82	8625352.11	51.4	168.6		BUILDIN	G	5641.8	18509.8	261.0R	856.4R	1.	22				
17	-12°	25'	30.37"	130°	54'	53.10"	708141.09	8625690.19	53.2	174.6		TREE		5653.9	18549.4	101.4L	332.7L	1.	29				

								2	9 TAKE	OFF										
				RI	E - PSM	AT STAR	T OF TORA				RUNV	VAY MA	GNETIC	то)RA	TO	DA	ELEVAT	ION AT	
			GEOGF	RAPHIC			M	GA	ELEVA	ATION	BEARING		TONA		TODA		T.O. ORIGIN			
		LAT			LONG		EASTING	NORTHING	(m)	(FT)	(DEG)	(MIN)	(SEC)	(m)	(FT)	(m)	(FT)	(m)	(FT)	
	(DEG)	(MIN)	(SEC)	(DEG)	(MIN)	(SEC)	LASTING	NOKITIING	(111)	(1.1)	(DLG)	(101114)	(SEC)	(111)	(11)	(111)	(1.1)	(111)	(11)	
	-12°	25'	09.24"	130°	53'	39.98"	705936.87	8626355.22	24.6	80.8	286°	18'	36"	3354	11003	3444	11299	29.2	95.7	
								OBJECTS TH	AT APPEA	AR ON TH	HE CHART									
			GEOGF	RAPHIC			M	GA	ELEV/ATI	ELEVATION TOP				DISTANCE FROM		OFFSET		GRADIENT		
REF No	LAT		LONG		EASTING NORTHING		LLEVATION TO		TYPE	OF OBS	TACLE	SC	TC	OFF	-3E1	ТО ТОР				
	(DEG)	(MIN)	(SEC)	(DEG)	(MIN)	(SEC)	EASTING	DMITTHON	(m)	(FT)				(m)	(FT)	(m)	(FT)	9	%	
						NO OF	JECTS AI			ТЫС	$C\Pi V$	DT								
								DIECTO A	FFLA	K ON	·□□□	CHA	IL I							

THE TYPE A SURVEY HAS BEEN CONDUCTED IN ACCORDANCE WITH ICAO ANNEX 4 AND DEPARTMENT OF DEFENCE REQUIREMENTS. THE CHART CLEARLY SHOWS THE GRAPHICAL RESULTS OF THE SURVEY AND HAS BEEN CHECKED FOR ACCURACY AND COMPLETENESS OF INFORMATION. THE CHART IS CERTIFIED CORRECT FOR PUBLICATION.

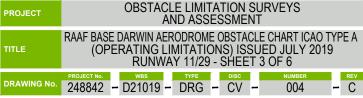
DANIEL GEEVES REGISTERED SURVEYOR DATE



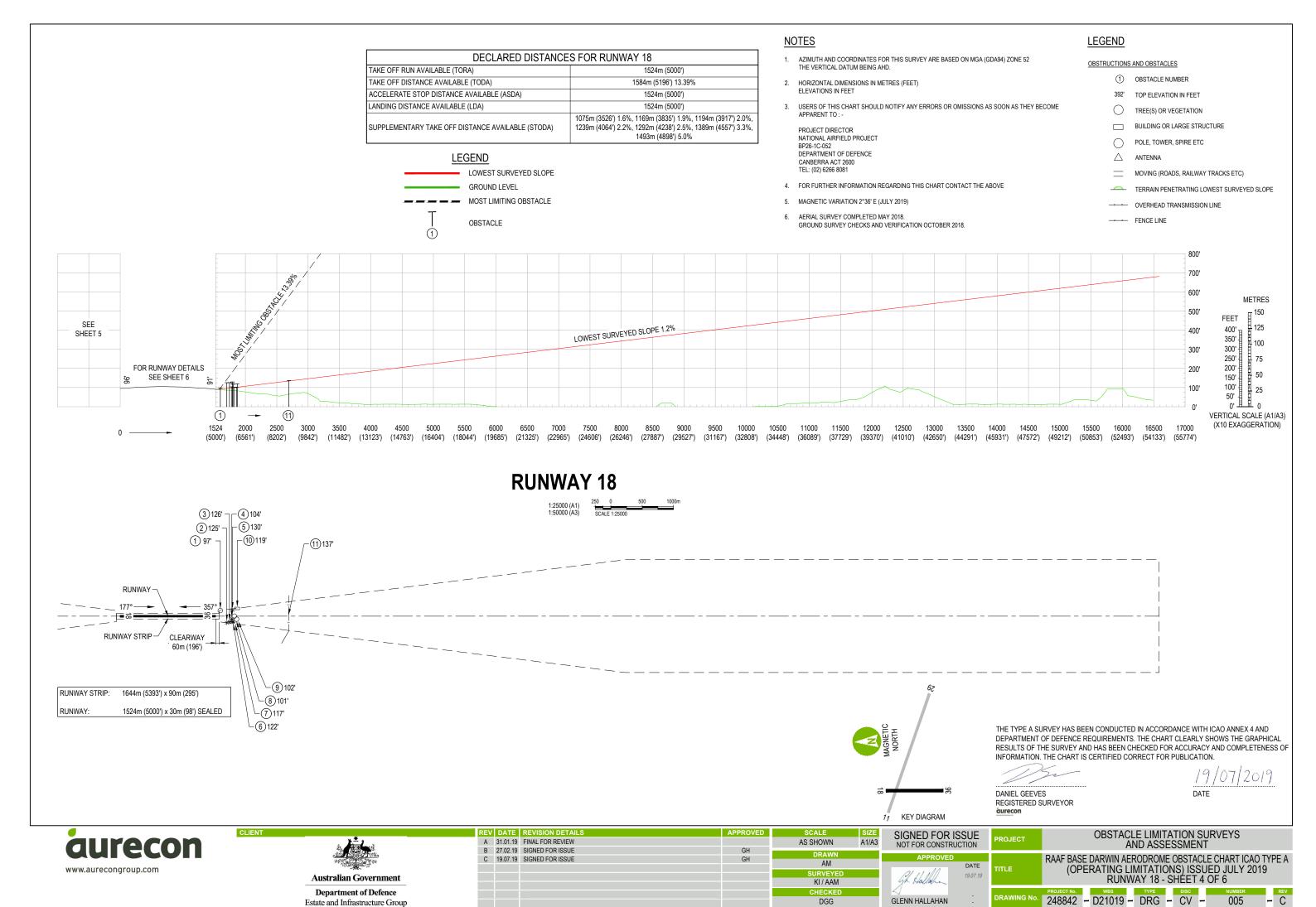


REV	DATE	REVISION DETAILS	APPROVED	SCALE	SIZ
Α	31.01.19	FINAL FOR REVIEW		AS SHOWN	A1/
В	27.02.19	SIGNED FOR ISSUE	GH	DRAWN	
С	19.07.19	SIGNED FOR ISSUE	GH	AM	
				SURVEYED	
				KI / AAM	
				CHECKED	
				DGG	

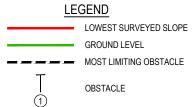




OBSTACLE LIMITATION SURVEYS AND ASSESSMENT RAAF BASE DARWIN AERODROME OBSTACLE CHART ICAO TYPE A (OPERATING LIMITATIONS) ISSUED JULY 2019 RUNWAY 11/29 - SHEET 3 OF 6



DECLARED DISTANCE	S FOR RUNWAY 36
TAKE OFF RUN AVAILABLE (TORA)	1524m (5000')
TAKE OFF DISTANCE AVAILABLE (TODA)	1584m (5196') 2.63%
ACCELERATE STOP DISTANCE AVAILABLE (ASDA)	1524m (5000')
LANDING DISTANCE AVAILABLE (LDA)	1524m (5000')
SUPPLEMENTARY TAKE OFF DISTANCE AVAILABLE (STODA)	1543m (5062') 1.6%, 1560m (5118') 1.9%, 1564m (5131') 2.0%, 1572m (5157') 2.2%, 1581m (5187') 2.5%



NOTES

- 1. AZIMUTH AND COORDINATES FOR THIS SURVEY ARE BASED ON MGA (GDA94) ZONE 52 THE VERTICAL DATUM BEING AHD.
- 2. HORIZONTAL DIMENSIONS IN METRES (FEET) ELEVATIONS IN FEET
- 3. USERS OF THIS CHART SHOULD NOTIFY ANY ERRORS OR OMISSIONS AS SOON AS THEY BECOME

PROJECT DIRECTOR NATIONAL AIRFIELD PROJECT BP26-1C-052 DEPARTMENT OF DEFENCE CANBERRA ACT 2600 TEL: (02) 6266 8081

- 4. FOR FURTHER INFORMATION REGARDING THIS CHART CONTACT THE ABOVE
- 5. MAGNETIC VARIATION 2°36' E (JULY 2019)
- AERIAL SURVEY COMPLETED MAY 2018.
 GROUND SURVEY CHECKS AND VERIFICATION OCTOBER 2018.



OBSTRUCTIONS AND OBSTACLES

- OBSTACLE NUMBER
- 392' TOP ELEVATION IN FEET
- TREE(S) OR VEGETATION

 BUILDING OR LARGE STRUCTURE
- POLE, TOWER, SPIRE ETC
- △ ANTENNA
- MOVING (ROADS, RAILWAY TRACKS ETC)
- TERRAIN PENETRATING LOWEST SURVEYED SLOPE

METRES

125

∄ 100

₽ 75

∯ 50

∄ 25

VERTICAL SCALE (A1/A3) (X10 EXAGGERATION)

FEET

400'

350'

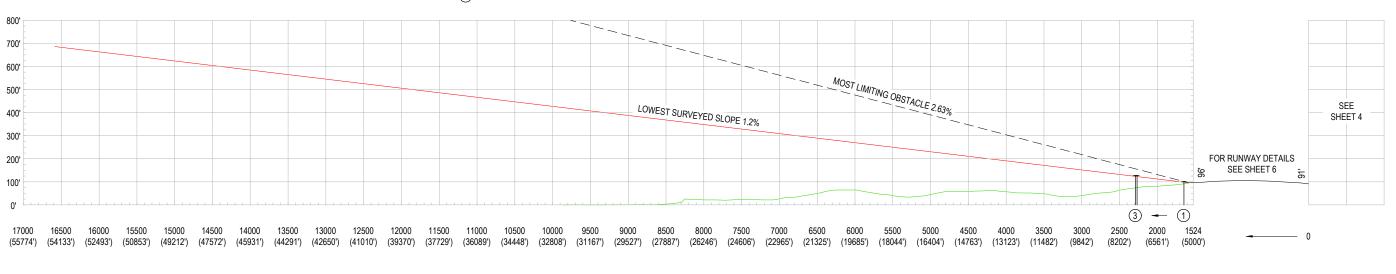
300'

250' -200' -

150' -100' -

50' -

- OVERHEAD TRANSMISSION LINE
- ---- FENCE LINE



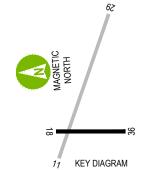
RUNWAY 36

②127*
③127*
①101*

RUNWAY

TOTAL STRIP

GOM (196)



AS SHOWN

AM

KI / AAM

DGG

A1/A3

RUNWAY STRIP: 1644m (5393') x 90m (295')

THE TYPE A SURVEY HAS BEEN CONDUCTED IN ACCORDANCE WITH ICAO ANNEX 4 AND DEPARTMENT OF DEFENCE REQUIREMENTS. THE CHART CLEARLY SHOWS THE GRAPHICAL RESULTS OF THE SURVEY AND HAS BEEN CHECKED FOR ACCURACY AND COMPLETENESS OF INFORMATION. THE CHART IS CERTIFIED CORRECT FOR PUBLICATION.

1524m (5000') x 30m (98') SEALED

DANIEL GEEVES REGISTERED SURVEYOR

RUNWAY.

19/07/2019

DATE

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REV	DATE	REVISION DETAILS	APPROVED	
Α	31.01.19	FINAL FOR REVIEW		
В	27.02.19	SIGNED FOR ISSUE	GH	
С	19.07.19	SIGNED FOR ISSUE	GH	

SIGNED FOR IS		F
APPROVED		
11	DATE	١,
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GI FNN HALLAHAN	_	1

PROJECT		OBSTAC	LE LIMIT AND ASS			IRVEYS		
TITLE		ERATING L		SI (SNC	SU	E CHART ICAO ED JULY 2019 OF 6		
DRAWING No.	248842 -	- D21019	- DRG	- CV	-	NUMBER 006	- C	

DEPARTMENT OF DEFENCE

ESTATE AND INFRASTRUCTURE GROUP

AERODROME OBSTACLE CHART - ICAO TYPE A (OPERATING LIMITATIONS) JULY 2019, COMPILED BY AURECON

TO BE READ IN CONJUNCTION WITH CURRENT NOTAMS

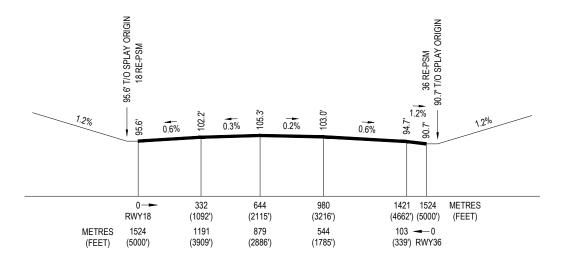
THE ORIGIN OF THE TAKE OFF SURFACE IS LOCATED AT THE END OF THE CLEARWAY. DISTANCES COMMENCE FROM THE RAAF RE-PSM AT THE START OF THE TAKE-OFF RUNWAY (SOT)

DATUM

AZIMUTH AND COORDINATES FOR THIS SURVEY ARE BASED ON MGA (GDA94) ZONE 52 THE VERTICAL DATUM BEING AHD.

DEFINITIONS

- RE-PSM: RUNWAY END PERMANENT SURVEY MARK
- LENGTH OF INNER EDGE 180m
- RATE OF DIVERGENCE OF SPLAY (EACH SIDE) 12.5%
- FINAL WIDTH 1800m
- OVERALL LENGTH 15000m



18/36 RWY LONGITUDINAL SECTION

								1	8 TAK	E OFF										
				RE	E - PSM	AT STAR	T OF TORA				RUNV	VAY MA	GNETIC	то	RA	то	DA	ELEVAT	TION AT	
			GEOGF	RAPHIC			M	IGA	ELEV	ATION		BEARING	G	10	KA	10	DA	T.O. C	DRIGIN	
		LAT			LONG		EASTING	NORTHING	(m)	(FT)	(DEG)	(MIN)	(SEC)	(m)	(FT)	(m)	(FT)	(m)	(FT)	
	(DEG)	(MIN)	(SEC)	(DEG)	(MIN)	(SEC)	LASTING	NORTHING	(111)	(11)	(DEG)	(101114)	(320)	(111)	(1 1)	(111)	(1.1)	(111)	(11)	
	-12°	24'	31.83"	130°	52'	14.35"	703358.42	8627523.14	29.1	95.6	177°	14'	26"	1524	5000	1584	5196	27.6	90.7	
								OBJECTS TH	IAT APPE	AR ON TH	IE CHAR	T								
			GEOGF	RAPHIC			M	IGA	ELEV/AT	ION TOP				DISTANC	E FROM	OE	SET	GRAI	DIENT	
REF No		LAT			LONG		EASTING	NORTHING	LLEVATION TO		TYPE OF OBSTACLE		TYPE OF OB		SC	TC	UFF	SEI	то	TOP
	(DEG)	(MIN)	(SEC)	(DEG)	(MIN)	(SEC)	EASTING	NOKTHING	(m)	(FT)				(m)	(FT)	(m)	(FT)	9	%	
1	-12°	25'	23.83"	130°	52'	17.42"	703440.09	8625924.51	29.4	96.6		POST		1598.1	5243.1	88.5L	290.3L	13	.39	
2	-12°	25'	27.25"	130°	52'	11.04"	703246.46	8625820.68	38.1	125.1		TREE		1702.7	5586.4	104.7R	343.5R	8.	87	
3	-12°	25'	28.64"	130°	52'	11.46"	703258.89	8625777.98	38.3	125.7		TREE		1745.4	5726.3	92.1R	302.1R	6.	64	
4	-12°	25'	29.86"	130°	52'	13.02"	703305.75	8625740.09	31.6	103.6		TREE		1783.1	5849.9	45.1R	147.9R	1.	99	
5	-12°	25'	30.19"	130°	52'	17.67"	703446.14	8625729.15	39.6	129.8		TREE		1793.4	5883.9	95.4L	312.8L	5.	71	
6	-12°	25'	30.27"	130°	52'	11.71"	703266.31	8625727.84	37.1	121.7		TREE		1795.5	5890.7	84.5R	277.1R	4.	48	
7	-12°	25'	30.51"	130°	52'	11.28"	703253.08	8625720.53	35.7	117.1		TREE		1802.8	5914.8	97.6R	320.4R	3.	68	
8	-12°	25'	31.13"	130°	52'	14.46"	703349.11	8625700.86	30.9	101.3	L	IGHT PO	LE	1822.1	5978.0	1.5R	5.1R	1.	36	
9	-12°	25'	32.31"	130°	52'	12.90"	703301.75	8625664.84	31.1	102.1		POLE TO	Р	1858.3	6096.8	48.7R	159.9R	1.	27	
10	-12°	25'	32.68"	130°	52'	18.58"	703473.02	8625652.35	36.3	119.0		BUILDIN	G	1870.1	6135.4	122.6L	402.1L	3.	02	
11	-12°	25'	59.41"	130°	52'	15.83"	703384.40	8624831.34	41.9	137.4	ELEC.	TRANS.	TOWER	2691.4	8829.9	37.4L	122.8L	1.	29	

								3	6 TAKI	E OFF									
				RE	E - PSM	AT STAR	T OF TORA				RUNV	VAY MA	GNETIC	то	RA	то	DA	ELEVAT	ION AT
			GEOGF	RAPHIC			M	1GA	ELEV	ATION		BEARIN	G	10	KA	10	DA	T.O. C	DRIGIN
		LAT			LONG		EASTING	NORTHING	(m)	(FT)	(DEG)	(MIN)	(SEC)	(m)	(FT)	(m)	(FT)	(m)	(FT)
	(DEG)	(MIN)	(SEC)	(DEG)	(MIN)	(SEC)	EASTING	NOKTHING	(111)	(11)	(DLG)	(IVIIIV)	(SLC)	(111)	(F1)	(111)	(F1)	(111)	(11)
	-12°	25'	21.45"	130°	52'	14.49"	703351.92	8625998.39	27.6	90.7	357°	14'	26"	1524	5000	1584	5196	29.1	95.6
								OBJECTS TH	AT APPE	AR ON TH	E CHAR	Т							
			GEOGF	RAPHIC			M	1GA	ELEV/AT	ION TOP				DISTANO	E FROM	055	CET	GRAD	DIENT
REF No		LAT			LONG		EASTING	NORTHING	LLLVAI	ION TOP	TYPE OF OBSTACLE			TYPE OF OBSTACLE SOT		OFFSET		ТО ТОР	
	(DEG)	(MIN)	(SEC)	(DEG)	(MIN)	(SEC)	LASTING	NORTHING	(m)	(FT)				(m)	(FT)	(m)	(FT)	9	%
1	-12°	24'	27.80"	130°	52'	16.50"	703424.44	8627646.53	30.8	101.0		ROAD		1648.2	5407.6	65.5R	214.9R	2.	63
2	-12°	24'	07.64"	130°	52'	08.72"	703193.79	8628267.94	38.8	127.2		TREE		2268.6	7442.9	167.8L	550.5L	1.	41
3	3 -12° 24' 06.92" 130° 52'						703187.73	8628289.86	38.8	127.4		TREE		2290.5	7514.7	173.9L	570.7L	1.	38

THE TYPE A SURVEY HAS BEEN CONDUCTED IN ACCORDANCE WITH ICAO ANNEX 4 AND DEPARTMENT OF DEFENCE REQUIREMENTS. THE CHART CLEARLY SHOWS THE GRAPHICAL RESULTS OF THE SURVEY AND HAS BEEN CHECKED FOR ACCURACY AND COMPLETENESS OF INFORMATION. THE CHART IS CERTIFIED CORRECT FOR PUBLICATION.

DANIEL GEEVES REGISTERED SURVEYOR DATE





A B C

,	DATE	REVISION DETAILS	APPROVED	SCALE	SIZE
	31.01.19	FINAL FOR REVIEW		AS SHOWN	A1/A
		SIGNED FOR ISSUE	GH	DRAWN	
	19.07.19	SIGNED FOR ISSUE	GH	AM	
				SURVEYED	
				KI / AAM	
				CHECKED	
				DGG	





