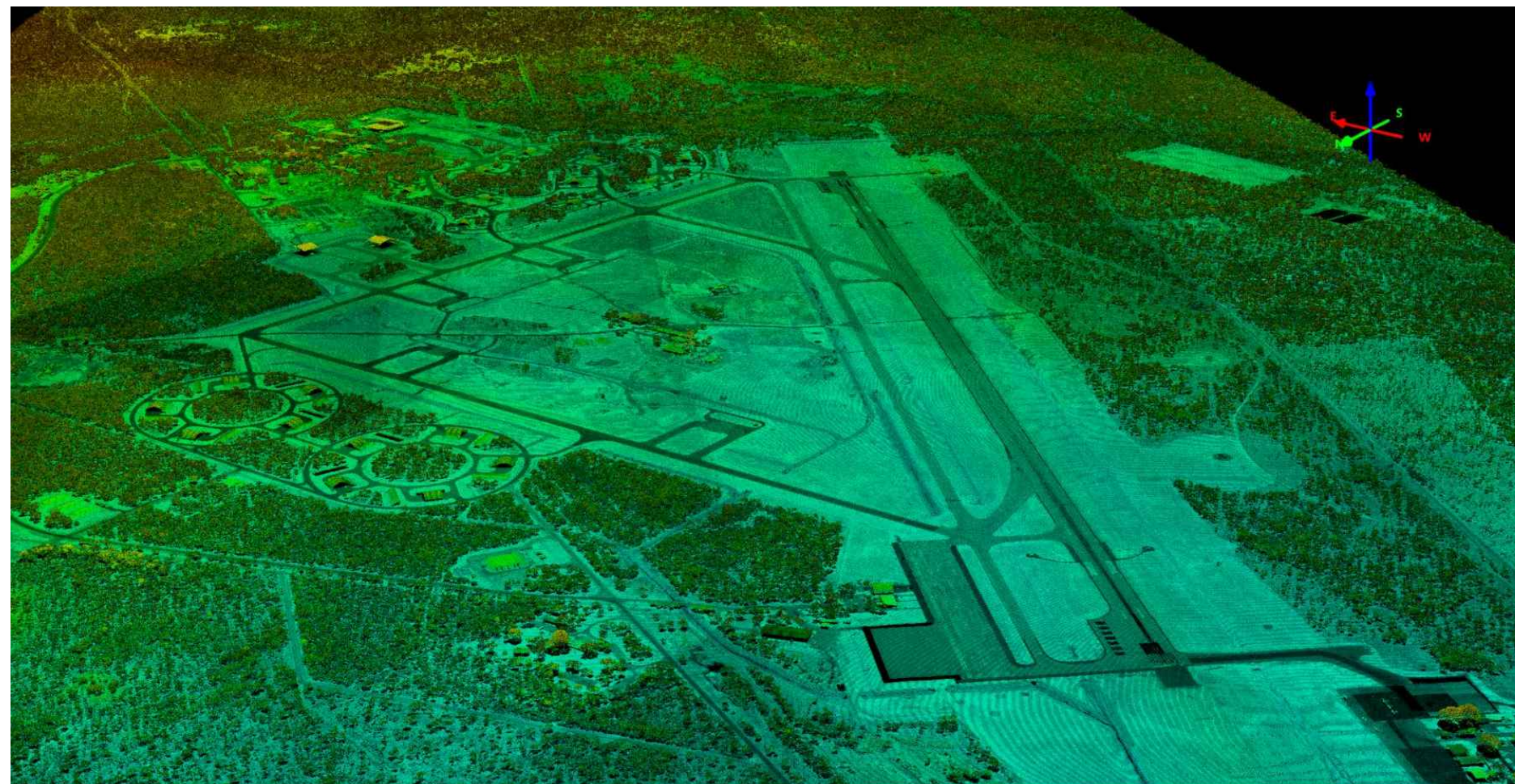


OBSTACLE LIMITATION SURVEYS AND ASSESSMENT

RAAF BASE TINDAL AERODROME OBSTACLE CHART ICAO TYPE A
(OPERATING LIMITATIONS) ISSUED MAY 2019



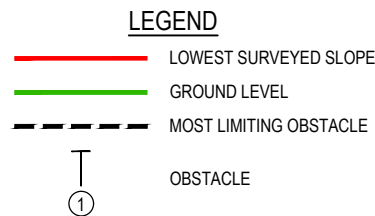
REV	DATE	REVISION DETAILS	APPROVED
A	27.03.19	FINAL FOR REVIEW	
B	10.05.19	SIGNED FOR ISSUE	GH

SCALE	SIZE
AS SHOWN	A1/A3
DRAWN	AM
SURVEYED	KI / AAM
CHECKED	DGG

SIGNED FOR ISSUE	DATE
NOT FOR CONSTRUCTION	10.05.19
	
GLENN HALLAHAN	

PROJECT	OBSTACLE LIMITATION SURVEYS AND ASSESSMENT
TITLE	RAAF BASE TINDAL AERODROME OBSTACLE CHART ICAO TYPE A (OPERATING LIMITATIONS) ISSUED MAY 2019 COVER SHEET
DRAWING No.	PROJECT No. 248842 - WBS D21020 - TYPE DRG - DISC CV - NUMBER 001 - REV B

DECLARED DISTANCES FOR RUNWAY 14	
TAKE OFF RUN AVAILABLE (TORA)	2742m (8996')
TAKE OFF DISTANCE AVAILABLE (TODA)	2887m (9471') 4.12%
ACCELERATE STOP DISTANCE AVAILABLE (ASDA)	2742m (8996')
LANDING DISTANCE AVAILABLE (LDA)	2742m (8996')
SUPPLEMENTARY TAKE OFF DISTANCE AVAILABLE (STODA)	2340m (7677') 1.6%, 2511m (8238') 1.9%, 2557m (8389') 2.0%, 2634m (8641') 2.2%, 2719m (8920') 2.5%, 2823m (9261') 3.3%



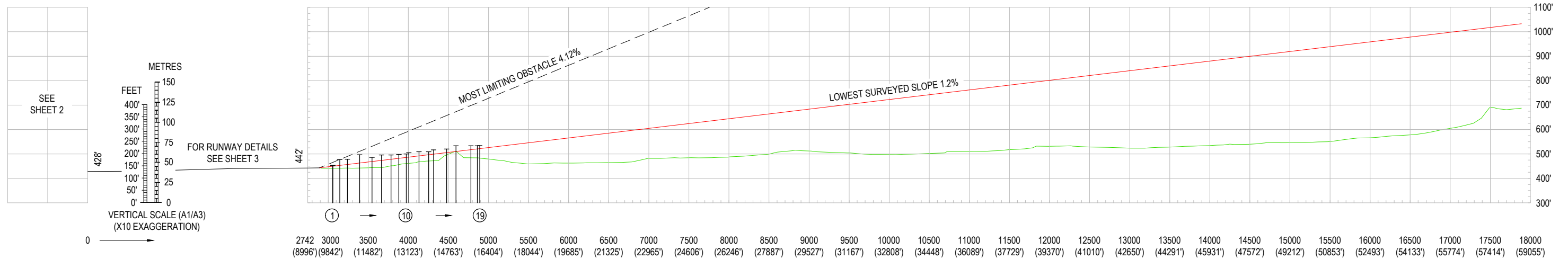
NOTES

- AZIMUTH AND COORDINATES FOR THIS SURVEY ARE BASED ON MGA (GDA94) ZONE 53 THE VERTICAL DATUM BEING AHD.
- HORIZONTAL DIMENSIONS IN METRES (FEET) ELEVATIONS IN FEET
- USERS OF THIS CHART SHOULD NOTIFY ANY ERRORS OR OMISSIONS AS SOON AS THEY BECOME APPARENT TO :-

PROJECT DIRECTOR
NATIONAL AIRFIELD PROJECT
BP26-1C-052
DEPARTMENT OF DEFENCE
CANBERRA ACT 2600
TEL: (02) 6266 8081
- FOR FURTHER INFORMATION REGARDING THIS CHART CONTACT THE ABOVE
- MAGNETIC VARIATION 3°08' E (MAY 2019)
- AERIAL SURVEY COMPLETED MAY 2018.
GROUND SURVEY CHECKS AND VERIFICATION NOVEMBER 2018.

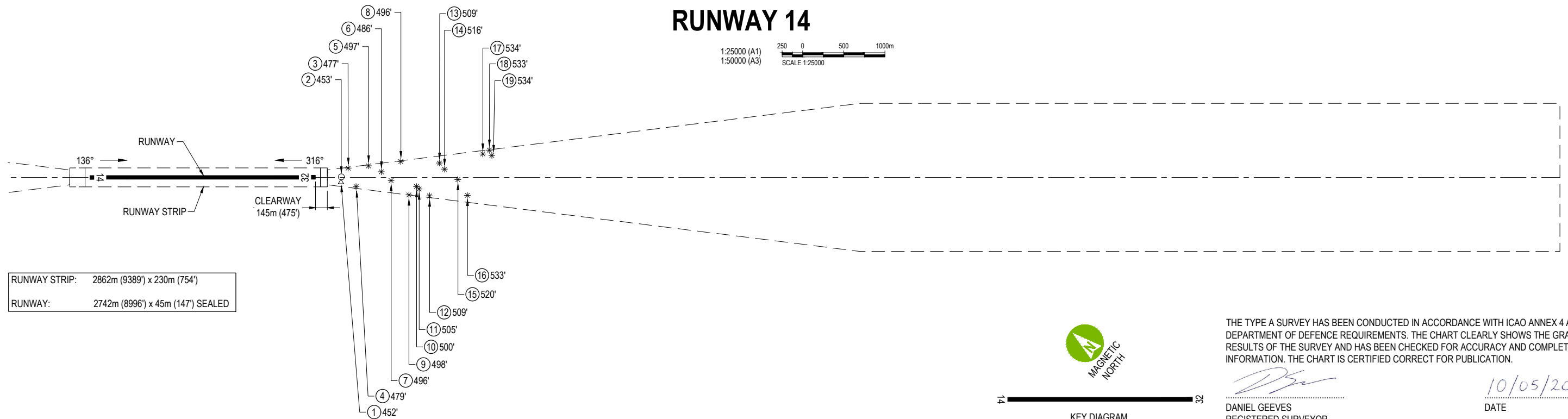
LEGEND

- OBSTRUCTIONS AND OBSTACLES**
- ⊥ (1) 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
 - OVERHEAD TRANSMISSION LINE
 - FENCE LINE



RUNWAY 14

1:25000 (A1)
1:50000 (A3)
SCALE 1:25000



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.

[Signature]
DANIEL GEEVES
REGISTERED SURVEYOR
aurecon

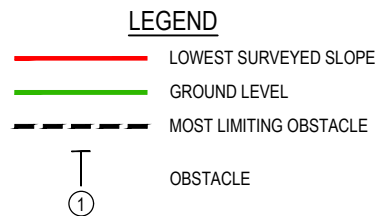
10/05/2019
DATE

REV	DATE	REVISION DETAILS	APPROVED
A	27.03.19	FINAL FOR REVIEW	
B	10.05.19	SIGNED FOR ISSUE	GH

SCALE	SIZE	SIGNED FOR ISSUE
AS SHOWN	A1/A3	NOT FOR CONSTRUCTION
DRAWN	AM	APPROVED
SURVEYED	KI / AAM	DATE 10.05.19
CHECKED	DGG	GLENN HALLAHAN

PROJECT	TITLE	DRAWING No.	PROJECT No.	WBS	TYPE	DISC	NUMBER	REV
OBSTACLE LIMITATION SURVEYS AND ASSESSMENT	RAAF BASE TINDAL AERODROME OBSTACLE CHART ICAO TYPE A (OPERATING LIMITATIONS) ISSUED MAY 2019 RUNWAY 14 - SHEET 1 OF 3	248842	D21020	DRG	CV	002	B	

DECLARED DISTANCES FOR RUNWAY 32	
TAKE OFF RUN AVAILABLE (TORA)	2742m (8996')
TAKE OFF DISTANCE AVAILABLE (TODA)	2987m (9799') 1.97%
ACCELERATE STOP DISTANCE AVAILABLE (ASDA)	2742m (8996')
LANDING DISTANCE AVAILABLE (LDA)	2742m (8996')
SUPPLEMENTARY TAKE OFF DISTANCE AVAILABLE (STODA)	2946m (9665') 1.6%, 2981m (9780') 1.9%



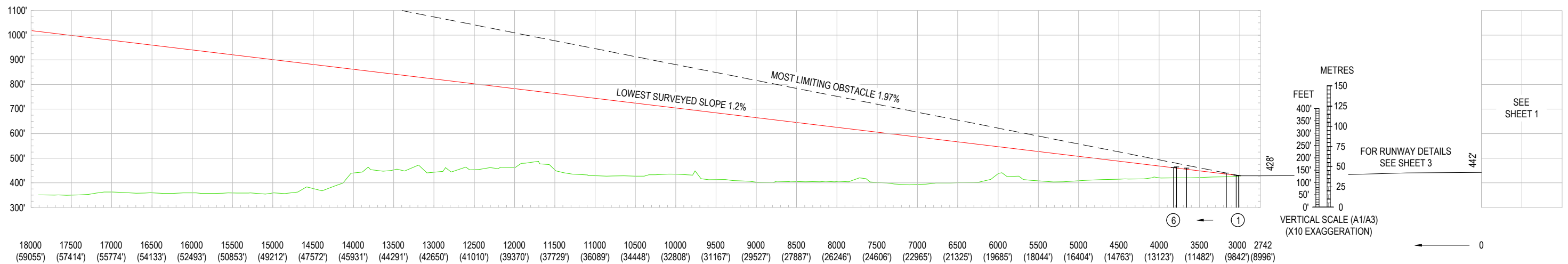
NOTES

- AZIMUTH AND COORDINATES FOR THIS SURVEY ARE BASED ON MGA (GDA94) ZONE 53 THE VERTICAL DATUM BEING AHD.
- HORIZONTAL DIMENSIONS IN METRES (FEET) ELEVATIONS IN FEET
- USERS OF THIS CHART SHOULD NOTIFY ANY ERRORS OR OMISSIONS AS SOON AS THEY BECOME APPARENT TO :-

PROJECT DIRECTOR
NATIONAL AIRFIELD PROJECT
BP26-1C-052
DEPARTMENT OF DEFENCE
CANBERRA ACT 2600
TEL: (02) 6266 8081
- FOR FURTHER INFORMATION REGARDING THIS CHART CONTACT THE ABOVE
- MAGNETIC VARIATION 3°08' E (MAY 2019)
- AERIAL SURVEY COMPLETED MAY 2018.
GROUND SURVEY CHECKS AND VERIFICATION NOVEMBER 2018.

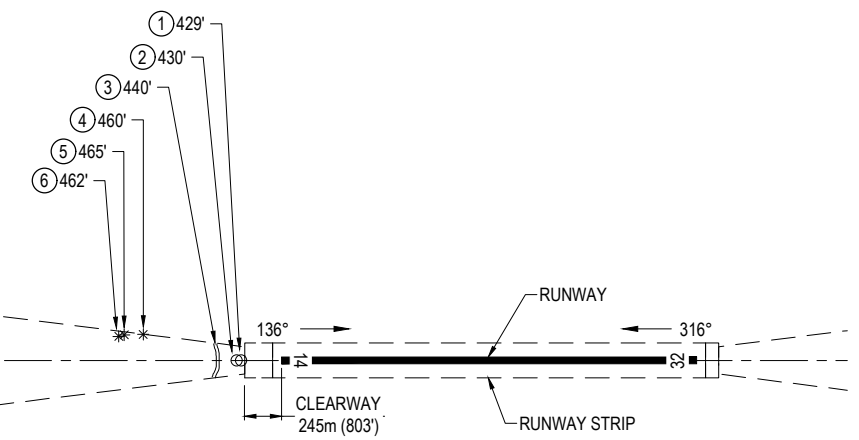
LEGEND

- OBSTRUCTIONS AND OBSTACLES**
- 1 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
 - OVERHEAD TRANSMISSION LINE
 - FENCE LINE



RUNWAY 32

1:25000 (A1)
1:50000 (A3)
SCALE 1:25000



RUNWAY STRIP: 2862m (9389') x 230m (754')
RUNWAY: 2742m (8996') x 45m (147') SEALED



14 26
KEY DIAGRAM

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
DANIEL GEEVES
REGISTERED SURVEYOR
aurecon

10/05/2019
DATE



CLIENT
Australian Government
Department of Defence
Estate and Infrastructure Group

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B	10.05.19	SIGNED FOR ISSUE	GH

SCALE	SIZE
AS SHOWN	A1/A3
DRAWN	AM
SURVEYED	KI / AAM
CHECKED	DGG

SIGNED FOR ISSUE
NOT FOR CONSTRUCTION
Glenn Hallahan
APPROVED
DATE 10.05.19
GLENN HALLAHAN

PROJECT	TITLE	DRAWING No.	PROJECT No.	WBS	TYPE	DISC	NUMBER	REV
OBSTACLE LIMITATION SURVEYS AND ASSESSMENT	RAAF BASE TINDAL AERODROME OBSTACLE CHART ICAO TYPE A (OPERATING LIMITATIONS) ISSUED MAY 2019 RUNWAY 32 - SHEET 2 OF 3	248842	D21020	DRG	CV	003	B	

DEPARTMENT OF DEFENCE

ESTATE AND INFRASTRUCTURE GROUP

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

TO BE READ IN CONJUNCTION WITH CURRENT NOTAMS

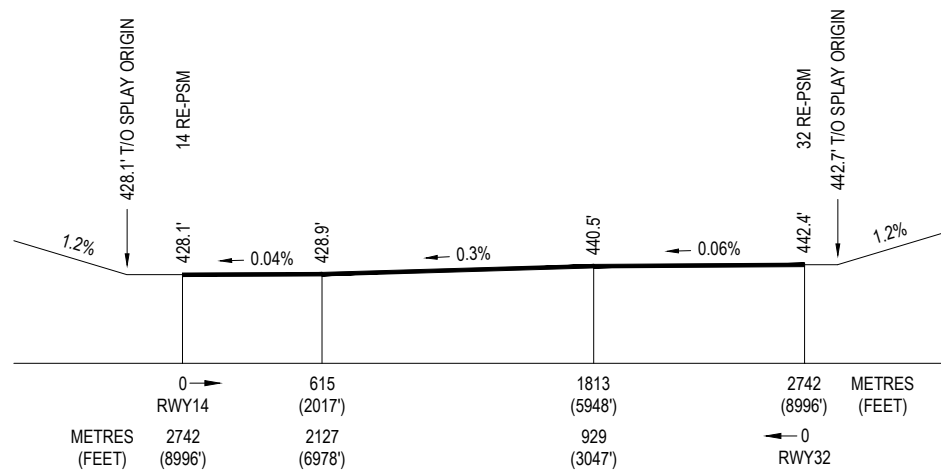
THE ORIGIN OF THE TAKE OFF SURFACE IS LOCATED AT THE END OF THE CLEARWAY.
DISTANCES COMMENCE FROM THE RAAF RE-PSM AT THE START OF THE TAKE-OFF RUNWAY (SOT)

DATUM

AZIMUTH AND COORDINATES FOR THIS SURVEY ARE BASED ON MGA (GDA94) ZONE 53
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



14/32 RWY LONGITUDINAL SECTION
NOT TO SCALE

14 TAKE OFF																			
RE - PSM AT START OF TORA										RUNWAY MAGNETIC BEARING		TORA		TODA		ELEVATION AT T.O. ORIGIN			
REF No	GEOGRAPHIC			MGA		ELEVATION		(DEG)	(MIN)	(SEC)	(m)	(FT)	(m)	(FT)	(m)	(FT)	(m)	(FT)	
	(DEG)	(MIN)	(SEC)	(DEG)	(MIN)	(SEC)	(DEG)												(MIN)
	-14°	30'	43.91"	132°	22'	07.89"	216413.85	8393993.52	130.5	428.1	135°	46'	23"	2742	8996	2887	9471	134.9	442.7
OBJECTS THAT APPEAR ON THE CHART																			
REF No	GEOGRAPHIC			MGA		ELEVATION TOP		TYPE OF OBSTACLE	DISTANCE FROM SOT		OFFSET		GRADIENT TO TOP						
	(DEG)	(MIN)	(SEC)	(DEG)	(MIN)	(SEC)	(m)		(FT)	(m)	(FT)	(m)	(FT)	(m)	(FT)				
1	-14°	32'	00.04"	132°	23'	13.45"	218404.52	8391674.96	137.9	452.3	ANTENNA	3053.5	10018.1	59.0R	193.6R	1.77			
2	-14°	31'	58.73"	132°	23'	15.15"	218455.15	8391716.03	138.2	453.3	LIGHT POLE	3056.6	10028.2	6.1L	19.9L	1.91			
3	-14°	31'	58.53"	132°	23'	19.70"	218591.20	8391723.69	145.4	477.0	TREE	3141.4	10306.6	112.6L	369.4L	4.12			
4	-14°	32'	05.67"	132°	23'	16.16"	218487.87	8391502.89	145.9	478.5	TREE	3237.3	10621.0	111.4R	365.5R	3.12			
5	-14°	32'	04.01"	132°	23'	25.81"	218776.37	8391557.14	151.4	496.7	TREE	3388.9	11118.3	139.8L	458.7L	3.28			
6	-14°	32'	09.34"	132°	23'	27.40"	218825.83	8391393.77	148.2	486.3	TREE	3543.6	11625.9	67.9L	222.9L	2.03			
7	-14°	32'	14.54"	132°	23'	27.33"	218825.41	8391233.80	151.1	495.8	TREE	3662.6	12016.3	38.8R	127.5R	2.09			
8	-14°	32'	12.48"	132°	23'	35.76"	219077.21	8391300.15	151.2	496.0	TREE	3780.7	12403.8	193.0L	633.4L	1.82			
9	-14°	32'	23.60"	132°	23'	27.70"	218839.82	8390955.56	151.7	497.6	TREE	3879.6	12728.3	213.3R	699.8R	1.69			
10	-14°	32'	23.71"	132°	23'	32.26"	218976.33	8390953.60	152.3	499.6	TREE	3971.9	13031.2	112.8R	370.1R	1.60			
11	-14°	32'	25.09"	132°	23'	32.25"	218976.47	8390911.23	153.8	504.8	TREE	4003.6	13135.2	140.9R	462.3R	1.69			
12	-14°	32'	30.01"	132°	23'	32.91"	218998.12	8390760.12	155.1	508.7	TREE	4130.7	13552.1	225.3R	739.3R	1.62			
13	-14°	32'	24.39"	132°	23'	45.60"	219376.05	8390937.16	155.1	508.7	TREE	4250.2	13944.3	174.3L	571.7L	1.48			
14	-14°	32'	27.52"	132°	23'	45.10"	219362.35	8390840.98	157.4	516.4	TREE	4312.8	14149.6	100.0L	328.2L	1.58			
15	-14°	32'	34.19"	132°	23'	45.47"	219375.79	8390636.01	158.4	519.8	TREE	4474.6	14680.3	26.4R	86.5R	1.48			
16	-14°	32'	41.14"	132°	23'	43.20"	219310.09	8390421.45	162.6	533.4	TREE	4590.8	15061.7	218.2R	715.8R	1.62			
17	-14°	32'	34.95"	132°	23'	59.96"	219809.92	8390617.50	162.6	533.6	TREE	4777.3	15673.6	285.0L	934.9L	1.47			
18	-14°	32'	35.91"	132°	24'	02.89"	219898.07	8390588.83	162.5	533.2	TREE	4857.3	15936.2	331.6L	1087.9L	1.40			
19	-14°	32'	38.07"	132°	24'	01.90"	219869.29	8390522.28	162.8	534.0	TREE	4887.8	16036.1	265.9L	872.2L	1.39			

32 TAKE OFF																			
RE - PSM AT START OF TORA										RUNWAY MAGNETIC BEARING		TORA		TODA		ELEVATION AT T.O. ORIGIN			
REF No	GEOGRAPHIC			MGA		ELEVATION		(DEG)	(MIN)	(SEC)	(m)	(FT)	(m)	(FT)	(m)	(FT)	(m)	(FT)	
	(DEG)	(MIN)	(SEC)	(DEG)	(MIN)	(SEC)	(DEG)												(MIN)
	-14°	31'	51.16"	132°	23'	08.10"	218241.36	8391946.40	134.9	442.4	315°	46'	23"	2742	8996	2987	9799	130.5	428.1
OBJECTS THAT APPEAR ON THE CHART																			
REF No	GEOGRAPHIC			MGA		ELEVATION TOP		TYPE OF OBSTACLE	DISTANCE FROM SOT		OFFSET		GRADIENT TO TOP						
	(DEG)	(MIN)	(SEC)	(DEG)	(MIN)	(SEC)	(m)		(FT)	(m)	(FT)	(m)	(FT)	(m)	(FT)				
1	-14°	30'	37.29"	132°	22'	01.96"	216233.94	8394195.04	130.9	429.3	LIGHT POLE	3012.5	9883.7	0.0	0.0	1.44			
2	-14°	30'	36.57"	132°	22'	01.31"	216214.20	8394217.07	131.2	430.3	LIGHT POLE	3042.1	9980.7	0.1L	0.2L	1.22			
3	-14°	30'	33.57"	132°	21'	58.56"	216130.57	8394308.38	134.0	439.6	ROAD	3165.9	10386.7	1.6L	5.4L	1.97			
4	-14°	30'	17.80"	132°	21'	52.12"	215932.26	8394791.11	140.1	459.8	TREE	3657.7	12000.5	171.8R	563.6R	1.44			
5	-14°	30'	14.79"	132°	21'	49.29"	215846.15	8394882.48	141.7	464.8	TREE	3783.2	12412.0	168.4R	552.5R	1.40			
6	-14°	30'	14.11"	132°	21'	48.23"	215814.36	8394903.21	140.8	461.9	TREE	3819.8	12532.1	158.5R	520.0R	1.24			

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[Signature]
DANIEL GEEVES
REGISTERED SURVEYOR
aurecon

10/05/2019
DATE



www.aurecongroup.com



REV	DATE	REVISION DETAILS	APPROVED	SCALE	SIZE	SIGNED FOR ISSUE	PROJECT
A	27.03.19	FINAL FOR REVIEW		AS SHOWN	A1/A3	NOT FOR CONSTRUCTION	OBSTACLE LIMITATION SURVEYS AND ASSESSMENT
B	10.05.19	SIGNED FOR ISSUE	GH				
				DRAWN		APPROVED	
				AM			
				SURVEYED		DATE	TITLE
				KI / AAM		10.05.19	RAAF BASE TINDAL AERODROME OBSTACLE CHART ICAO TYPE A (OPERATING LIMITATIONS) ISSUED MAY 2019 RUNWAY 14 & 32 - SHEET 3 OF 3
				CHECKED			
				DGG		GLENN HALLAHAN	
							DRAWING No. PROJECT No. WBS TYPE DISC NUMBER REV
							248842 - D21020 - DRG - CV - 004 - B