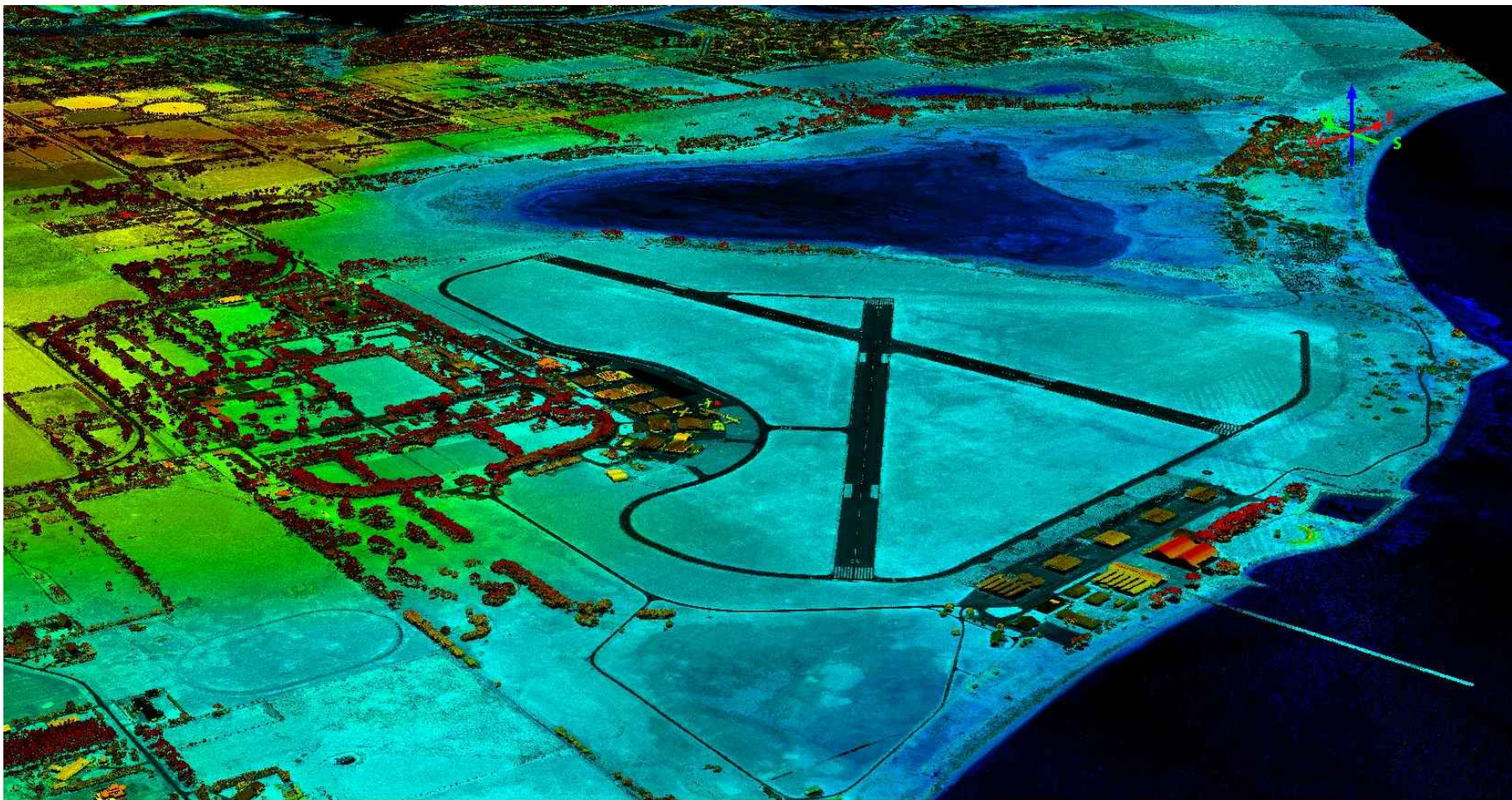




# OBSTACLE LIMITATION SURVEYS AND ASSESSMENT

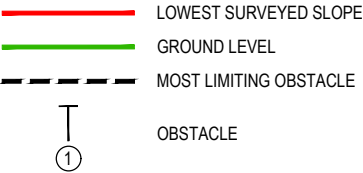
RAAF BASE POINT COOK AERODROME OBSTACLE CHART ICAO TYPE A  
(OPERATING LIMITATIONS ) ISSUED NOVEMBER 2018



<div></div> <div>Australian Government</div> <div>Department of Defence</div> <div>Estate and Infrastructure Group</div>	REV	DATE	REVISION DETAILS		APPROVED	SCALE	SIZE	SIGNED FOR ISSUE NOT FOR CONSTRUCTION		PROJECT	OBSTACLE LIMITATION SURVEYS AND ASSESSMENT					
	A	06.09.18	FINAL FOR REVIEW			AS SHOWN	A1/A3	<div><div>APPROVED</div><div> GARRY GRAHAM</div><div>DATE 09.11.18</div></div>		PROJECT	RAAF BASE POINT COOK AERODROME OBSTACLE CHART ICAO TYPE A (OPERATING LIMITATIONS) ISSUED NOVEMBER 2018 COVER SHEET					
	B	12.10.18	SIGNED FOR ISSUE		GG											
	C	09.11.18	SIGNED FOR ISSUE		GG											
						DRAWN										
						AM										
						SURVEYED										
						KI / AAM										
						CHECKED										
						DGG										
										248842	- D21023	- DRG	- CV	- 001	- C	

DECLARED DISTANCES FOR RUNWAY 17	
TAKE OFF RUN AVAILABLE (TORA)	1371m (4498')
TAKE OFF DISTANCE AVAILABLE (TODA)	1431m (4694') 4.48%
ACCELERATE STOP DISTANCE AVAILABLE (ASDA)	1371m (4498')
LANDING DISTANCE AVAILABLE (LDA)	1371m (4498')
SUPPLEMENTARY TAKE OFF DISTANCE AVAILABLE (STODA)	1326m (4350') 1.6%, 1350m (4429') 1.9%, 1357m (4452') 2.0%, 1369m (4491') 2.2%, 1383m (4537') 2.5%, 1409m (4622') 3.3%

LEGEND

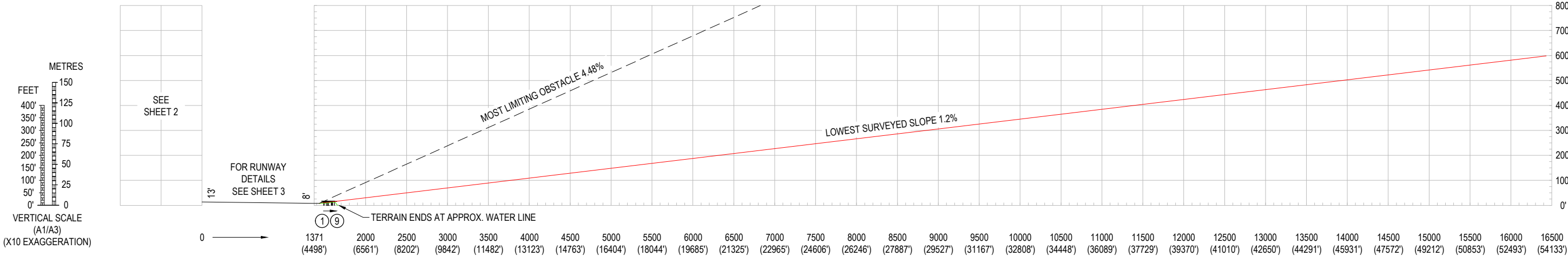


NOTES

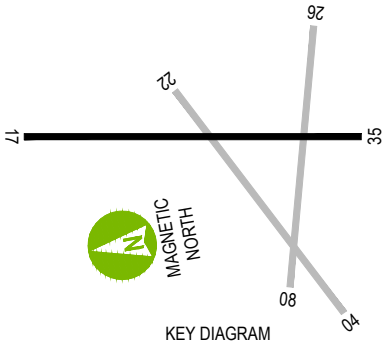
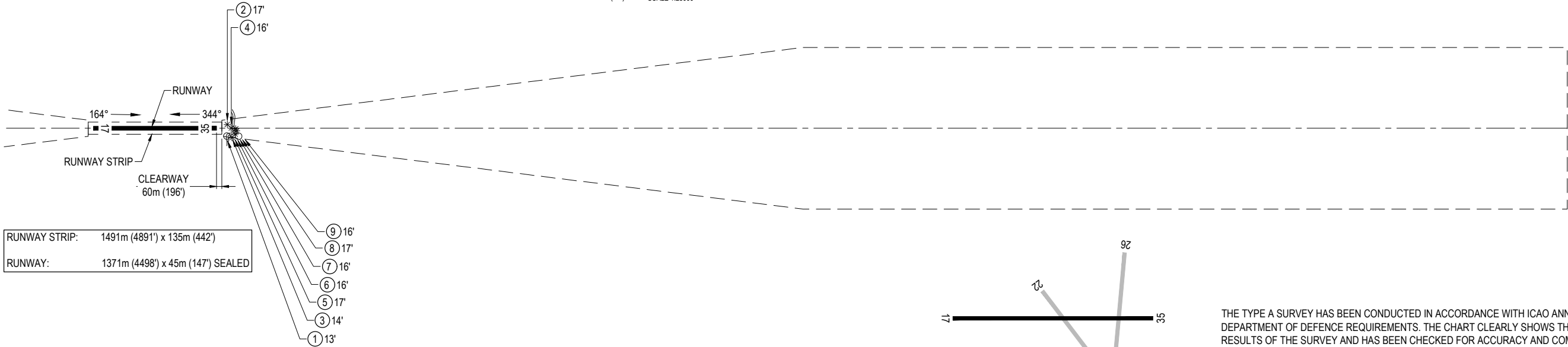
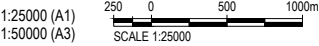
- AZIMUTH AND COORDINATES FOR THIS SURVEY ARE BASED ON MGA (GDA94) ZONE 55 THE VERTICAL DATUM BEING AHD.
- HORIZONTAL DIMENSIONS IN METRES (FEET) ELEVATIONS IN FEET
- USERS OF THIS CHART SHOULD NOTIFY ANY ERRORS OR OMISSIONS AS SOON AS THEY BECOME APPARENT TO :-  
  
PROJECT DIRECTOR  
NATIONAL AIRFIELD 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 11°28' E (NOVEMBER 2018)
- AERIAL SURVEY COMPLETED 22 NOVEMBER 2017, 25-26 JANUARY 2018 AND 9 FEBRUARY 2018. GROUND SURVEY CHECKS AND VERIFICATION AUGUST 2018.

LEGEND

- OBSTRUCTIONS AND OBSTACLES
- ① OBSTACLE NUMBER
  - 392' TOP ELEVATION IN FEET
  - \* TREE(S) OR VEGETATION
  - BUILDING OR LARGE STRUCTURE
  - POLE, TOWER, SPIRE, POST ETC
  - △ ANTENNA
  - MOVING (ROADS, RAILWAY TRACKS ETC)
  - TERRAIN PENETRATING LOWEST SURVEYED SLOPE
  - OVERHEAD TRANSMISSION LINE
  - FENCE LINE



RUNWAY 17



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  
aurecon

9/11/2018  
DATE

REV	DATE	REVISION DETAILS	APPROVED
A	06.09.18	FINAL FOR REVIEW	
B	12.10.18	SIGNED FOR ISSUE	GG
C	09.11.18	SIGNED FOR ISSUE	GG

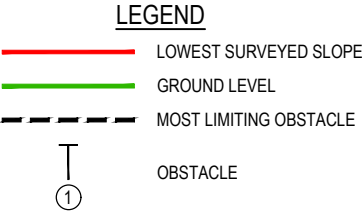
SCALE	SIZE
AS SHOWN	A1/A3
DRAWN	AM
SURVEYED	KI / AAM
CHECKED	DGG

SIGNED FOR ISSUE	NOT FOR CONSTRUCTION
APPROVED	DATE 09.11.18
GARRY GRAHAM	

PROJECT	OBSTACLE LIMITATION SURVEYS AND ASSESSMENT
TITLE	RAAF BASE POINT COOK AERODROME OBSTACLE CHART ICAO TYPE A (OPERATING LIMITATIONS) ISSUED NOVEMBER 2018 RUNWAY 17 - SHEET 1 OF 6
DRAWING No.	248842
PROJECT No.	D21023
WBS	DRG
TYPE	CV
DISC	
NUMBER	002
REV	C



DECLARED DISTANCES FOR RUNWAY 35	
TAKE OFF RUN AVAILABLE (TORA)	1371m (4498')
TAKE OFF DISTANCE AVAILABLE (TODA)	1431m (4694') 8.06%
ACCELERATE STOP DISTANCE AVAILABLE (ASDA)	1371m (4498')
LANDING DISTANCE AVAILABLE (LDA)	1371m (4498')
SUPPLEMENTARY TAKE OFF DISTANCE AVAILABLE (STODA) NOTE: UNCONTROLLED ROAD INSIDE CLEARWAY NOT ASSESSED AS PART OF STODA CALCULATIONS	833m (2732') 1.6%, 1026m (3366') 1.9%, 1076m (3530') 2.0%, 1163m (3815') 2.2%, 1258m (4127') 2.5%, 1420m (4658') 3.3%, 1426m (4678') 5.0%



**NOTES**

- AZIMUTH AND COORDINATES FOR THIS SURVEY ARE BASED ON MGA (GDA94) ZONE 55 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 11°28' E (NOVEMBER 2018)
- AERIAL SURVEY COMPLETED 22 NOVEMBER 2017, 25-26 JANUARY 2018 AND 9 FEBRUARY 2018. GROUND SURVEY CHECKS AND VERIFICATION AUGUST 2018.

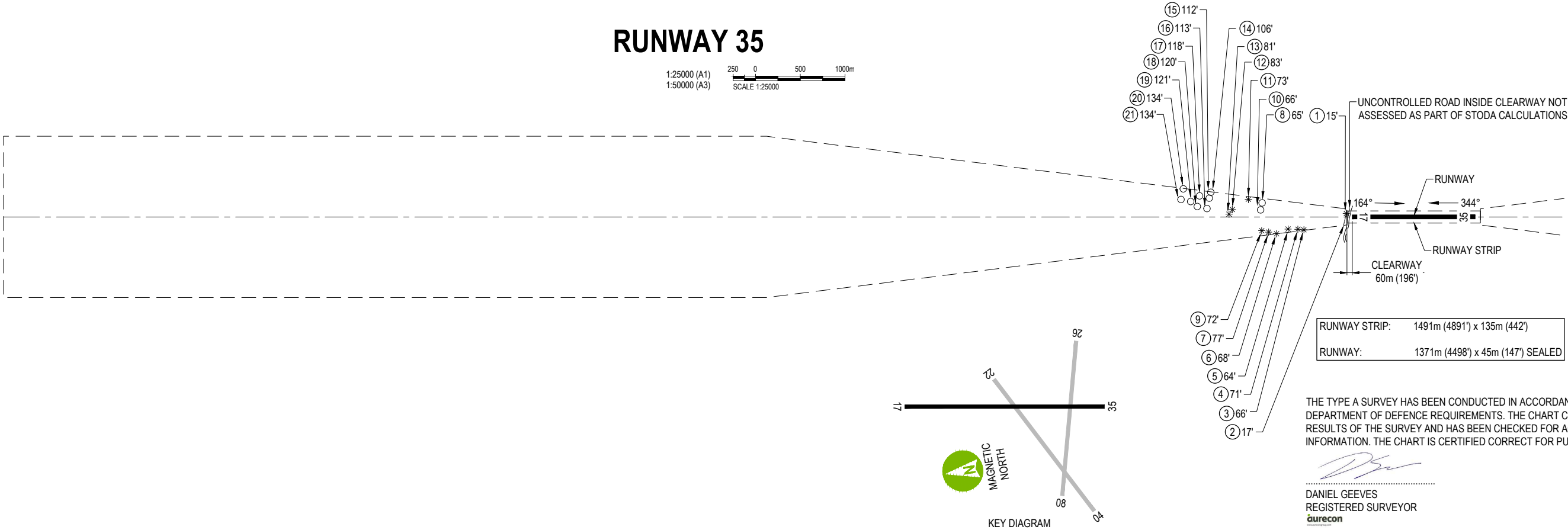
**LEGEND**

- OBSTRUCTIONS AND OBSTACLES**
- ① OBSTACLE NUMBER
- 392' TOP ELEVATION IN FEET
- \* TREE(S) OR VEGETATION
- BUILDING OR LARGE STRUCTURE
- POLE, TOWER, SPIRE, POST ETC
- △ ANTENNA
- MOVING (ROADS, RAILWAY TRACKS ETC)
- TERRAIN PENETRATING LOWEST SURVEYED SLOPE
- OVERHEAD TRANSMISSION LINE
- FENCE LINE



**RUNWAY 35**

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



DANIEL GEEVES  
REGISTERED SURVEYOR  
aurecon  
9/11/2018  
DATE

REV	DATE	REVISION DETAILS	APPROVED	SCALE	SIZE	SIGNED FOR ISSUE	PROJECT	OBSTACLE LIMITATION SURVEYS AND ASSESSMENT					
A	06.09.18	FINAL FOR REVIEW		AS SHOWN	A1/A3	NOT FOR CONSTRUCTION							
B	12.10.18	SIGNED FOR ISSUE	GG										
C	09.11.18	SIGNED FOR ISSUE	GG										

DEPARTMENT OF DEFENCE

ESTATE AND INFRASTRUCTURE GROUP

AERODROME OBSTACLE CHART - ICAO TYPE A  
(OPERATING LIMITATIONS) NOVEMBER 2018, COMPILED BY AURECON

TO BE READ IN CONJUNCTION WITH CURRENT NOTAMs

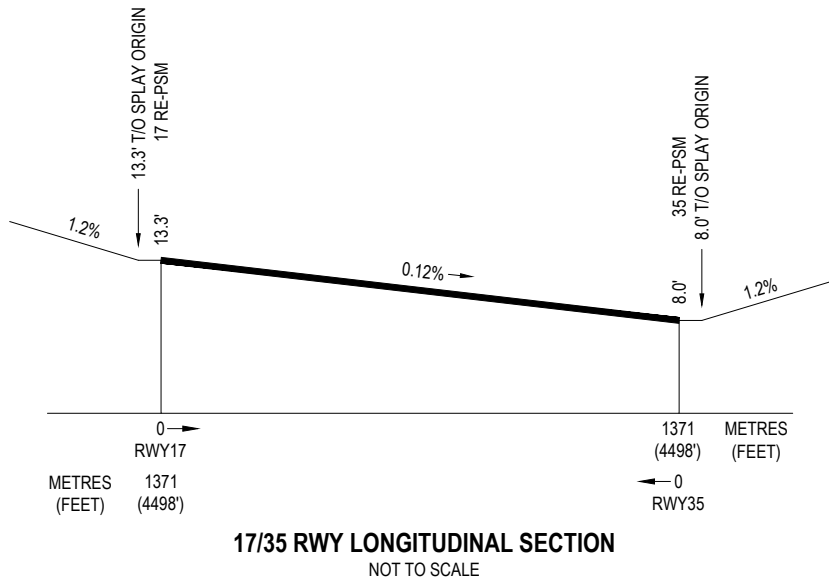
THE ORIGIN OF THE TAKE OFF SURFACE IS LOCATED AT THE END OF THE CLEARWAY.  
DISTANCES COMMENCE FROM THE RAAF RE-PSM AT THE START OF THE TAKE-OFF RUNWAY (SOT)

DATUM

AZIMUTH AND COORDINATES FOR THIS SURVEY ARE BASED ON MGA (GDA94) ZONE 55  
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



17 TAKE OFF																			
RE - PSM AT START OF TORA										RUNWAY MAGNETIC BEARING			TORA		TODA		ELEVATION AT T.O. ORIGIN		
	GEOGRAPHIC						MGA		ELEVATION										
	LAT			LONG			EASTING	NORTHING	(m)	(FT)	(DEG)	(MIN)	(SEC)	(m)	(FT)	(m)	(FT)		
	(DEG)	(MIN)	(SEC)	(DEG)	(MIN)	(SEC)													
	-37°	55'	26.61"	144°	45'	12.29"	302539.19	5800216.31	4.0	13.3	163°	51'	38"	1371	4498	1431	4694	2.4	8.0
OBJECTS THAT APPEAR ON THE CHART																			
REF No	GEOGRAPHIC						MGA		ELEVATION TOP		TYPE OF OBSTACLE	DISTANCE FROM SOT		OFFSET		GRADIENT TO TOP			
	LAT			LONG			EASTING	NORTHING				(m)	(FT)	(m)	(FT)	(m)	(FT)	%	
	(DEG)	(MIN)	(SEC)	(DEG)	(MIN)	(SEC)													
1	-37°	56'	15.37"	144°	45'	13.60"	302608.14	5798728.45	4.0	13.0	SIGN	1486.7	4877.7	88.3R	289.8R	2.74			
2	-37°	56'	15.17"	144°	45'	18.92"	302737.88	5798737.69	5.1	16.9	TREE	1491.2	4892.4	41.6L	136.6L	4.48			
3	-37°	56'	16.49"	144°	45'	13.40"	302604.09	5798693.97	4.3	14.0	FENCE	1520.6	4988.8	96.0R	315.0R	2.02			
4	-37°	56'	16.68"	144°	45'	17.40"	302701.96	5798690.36	4.7	15.5	TREE	1534.5	5034.4	0.9L	3.1L	2.21			
5	-37°	56'	17.24"	144°	45'	13.19"	302599.68	5798670.78	5.1	16.8	TREE	1543.2	5062.9	102.8R	337.4R	2.40			
6	-37°	56'	18.30"	144°	45'	14.84"	302640.81	5798639.06	4.8	15.6	TREE	1579.0	5180.6	65.3R	214.2R	1.56			
7	-37°	56'	18.36"	144°	45'	17.27"	302700.12	5798638.39	4.8	15.7	TREE	1586.0	5203.3	6.4R	20.9R	1.51			
8	-37°	56'	18.71"	144°	45'	16.38"	302678.53	5798627.25	5.1	16.9	TREE	1594.8	5232.2	29.0R	95.2R	1.65			
9	-37°	56'	19.60"	144°	45'	13.96"	302620.22	5798598.21	4.8	15.6	POST	1617.5	5306.7	90.1R	295.5R	1.24			

35 TAKE OFF																			
RE - PSM AT START OF TORA										RUNWAY MAGNETIC BEARING			TORA		TODA		ELEVATION AT T.O. ORIGIN		
	GEOGRAPHIC					MGA		ELEVATION											
	LAT			LONG		EASTING	NORTHING	(m)	(FT)	(DEG)	(MIN)	(SEC)	(m)	(FT)	(m)	(FT)			
	(DEG)	(MIN)	(SEC)	(DEG)	(MIN)												(SEC)		
	-37°	56'	10.93"	144°	45'	16.86"	302683.80	5798852.76	2.4	8.0	343°	51'	38"	1371	4498	1431	4694	4.0	13.3
OBJECTS THAT APPEAR ON THE CHART																			
REF No	GEOGRAPHIC					MGA		ELEVATION TOP		TYPE OF OBSTACLE	DISTANCE FROM SOT		OFFSET		GRADIENT TO TOP				
	LAT			LONG		EASTING	NORTHING	(m)	(FT)		(m)	(FT)	(m)	(FT)	%				
	(DEG)	(MIN)	(SEC)	(DEG)	(MIN)											(SEC)			
1	-37°	55'	24.80"	144°	45'	13.62"	302571.16	5800287.25	4.6	15.2	TREE	1438.2	4718.7	39.3R	128.8R	8.06			
2	-37°	55'	24.19"	144°	45'	08.06"	302434.82	5800302.95	5.1	16.8	FENCE	1468.2	4817.1	94.6L	310.5L	2.94			
3	-37°	55'	09.99"	144°	45'	04.60"	302339.93	5800738.74	20.2	66.4	TREE	1911.6	6271.6	143.0L	469.3L	3.37			
4	-37°	55'	07.81"	144°	45'	04.59"	302338.07	5800805.73	21.7	71.3	TREE	1978.4	6490.7	137.8L	452.2L	3.23			
5	-37°	55'	04.26"	144°	45'	04.33"	302328.98	5800914.92	19.5	64.0	TREE	2087.9	6850.1	135.3L	444.0L	2.36			
6	-37°	55'	00.20"	144°	45'	01.76"	302263.32	5801038.74	20.6	67.5	TREE	2218.0	7276.7	187.6L	615.4L	2.10			
7	-37°	54'	57.31"	144°	45'	02.20"	302271.74	5801128.01	23.4	76.9	TREE	2305.8	7565.1	169.8L	557.1L	2.22			
8	-37°	54'	54.07"	144°	45'	15.20"	302586.87	5801235.64	19.7	64.8	ELEC POLE	2379.6	7807.2	154.9R	508.2R	1.65			
9	-37°	54'	54.78"	144°	45'	02.60"	302279.67	5801206.32	22.1	72.4	TREE	2382.9	7817.8	153.6L	504.1L	1.89			
10	-37°	54'	53.74"	144°	45'	11.96"	302507.43	5801243.89	20.1	65.8	ELEC POLE	2396.2	7861.5	76.8R	251.9R	1.66			
11	-37°	54'	49.05"	144°	45'	16.38"	302611.87	5801391.09	22.1	72.5	TREE	2531.6	8305.6	196.2R	643.6R	1.64			
12	-37°	54'	43.54"	144°	45'	11.12"	302479.41	5801557.76	25.3	82.8	TREE	2711.2	8895.2	82.0R	269.1R	1.66			
13	-37°	54'	42.51"	144°	45'	08.89"	302424.14	5801588.34	24.8	81.4	TREE	2747.5	9014.0	30.3R	99.4R	1.58			
14	-37°	54'	35.22"	144°	45'	18.13"	302644.38	5801818.45	32.3	106.0	LIGHT POLE	2953.1	9688.6	273.6R	897.5R	1.86			
15	-37°	54'	34.87"	144°	45'	15.47"	302579.17	5801827.71	34.0	111.7	LIGHT POLE	2969.2	9741.3	209.7R	688.0R	1.95			
16	-37°	54'	34.34"	144°	45'	10.61"	302460.19	5801841.02	34.4	112.9	LIGHT POLE	2994.9	9825.9	92.8R	304.4R	1.94			
17	-37°	54'	31.33"	144°	45'	16.07"	302591.34	5801937.12	36.1	118.4	LIGHT POLE	3076.7	10094.0	233.3R	765.5R	1.95			
18	-37°	54'	30.81"	144°	45'	11.21"	302472.15	5801950.36	36.6	120.0	LIGHT POLE	3102.4	10178.5	116.2R	381.3R	1.95			
19	-37°	54'	28.23"	144°	45'	13.17"	302518.13	5802030.99	36.9	120.9	LIGHT POLE	3177.7	10425.6	170.4R	559.2R	1.88			
20	-37°	54'	25.19"	144°	45'	18.66"	302649.90	5802127.91	40.8	133.9	LIGHT POLE	3260.2	10696.2	311.7R	1022.6R	2.01			
21	-37°	54'	24.67"	144°	45'	13.75"	302529.72	5802140.96	40.9	134.1	LIGHT POLE	3285.8	10780.3	193.6R	635.0R	1.99			


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  
aurecon

9/11/2018  
DATE

REV	DATE	REVISION DETAILS	APPROVED
A	06.09.18	FINAL FOR REVIEW	
B	12.10.18	SIGNED FOR ISSUE	GG
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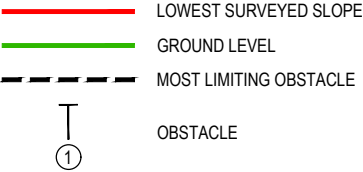
SCALE	SIZE
AS SHOWN	A1/A3
DRAWN	
AM	
SURVEYED	
KI / AAM	
CHECKED	
DGG	

SIGNED FOR ISSUE	
NOT FOR CONSTRUCTION	
APPROVED	
	DATE 09.11.18
GARRY GRAHAM	

PROJECT	OBSTACLE LIMITATION SURVEYS AND ASSESSMENT					
TITLE	RAAF BASE POINT COOK AERODROME OBSTACLE CHART ICAO TYPE A (OPERATING LIMITATIONS) ISSUED NOVEMBER 2018 RUNWAY 17 & 35 - SHEET 3 OF 6					
DRAWING No.	248842	PROJECT No.	D21023	WBS	DRG	TYPE
					CV	DISC
						NUMBER
						004
						REV
						C

DECLARED DISTANCES FOR RUNWAY 04	
TAKE OFF RUN AVAILABLE (TORA)	1135m (3723')
TAKE OFF DISTANCE AVAILABLE (TODA)	1195m (3920') 3.15%
ACCELERATE STOP DISTANCE AVAILABLE (ASDA)	1135m (3723')
LANDING DISTANCE AVAILABLE (LDA)	1135m (3723')
SUPPLEMENTARY TAKE OFF DISTANCE AVAILABLE (STODA)	977m (3205') 1.6%, 1047m (3435') 1.9%, 1066m (3497') 2.0%, 1098m (3602') 2.2%, 1137m (3730') 2.5%

LEGEND

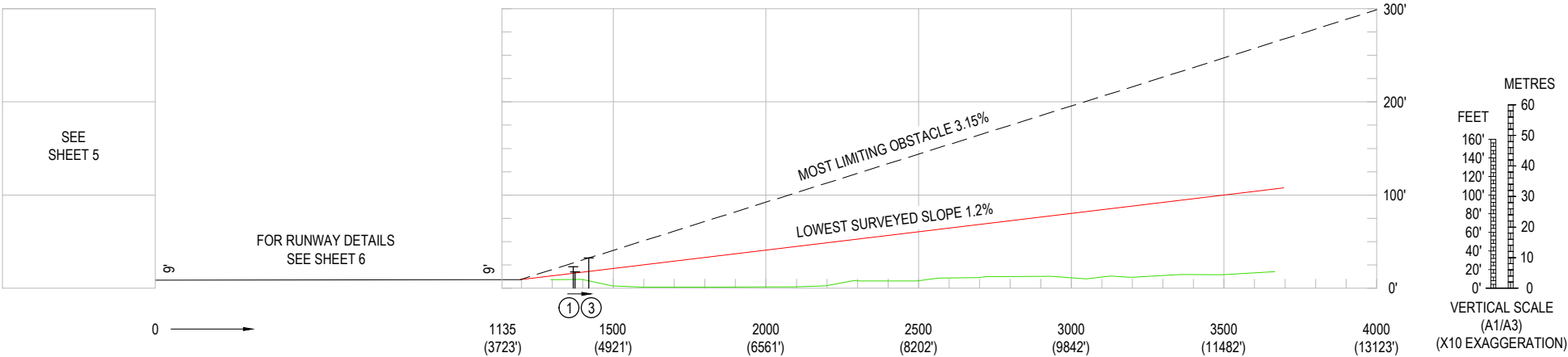


NOTES

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- HORIZONTAL DIMENSIONS IN METRES (FEET) ELEVATIONS IN FEET
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BP26-1C-052  
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CANBERRA ACT 2600  
TEL: (02) 6266 8081
- FOR FURTHER INFORMATION REGARDING THIS CHART CONTACT THE ABOVE
- MAGNETIC VARIATION 11°28' E (NOVEMBER 2018)
- AERIAL SURVEY COMPLETED 22 NOVEMBER 2017, 25-26 JANUARY 2018 AND 9 FEBRUARY 2018. GROUND SURVEY CHECKS AND VERIFICATION AUGUST 2018.

LEGEND

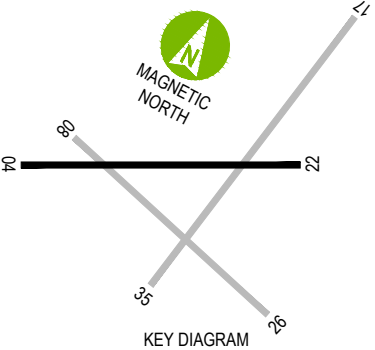
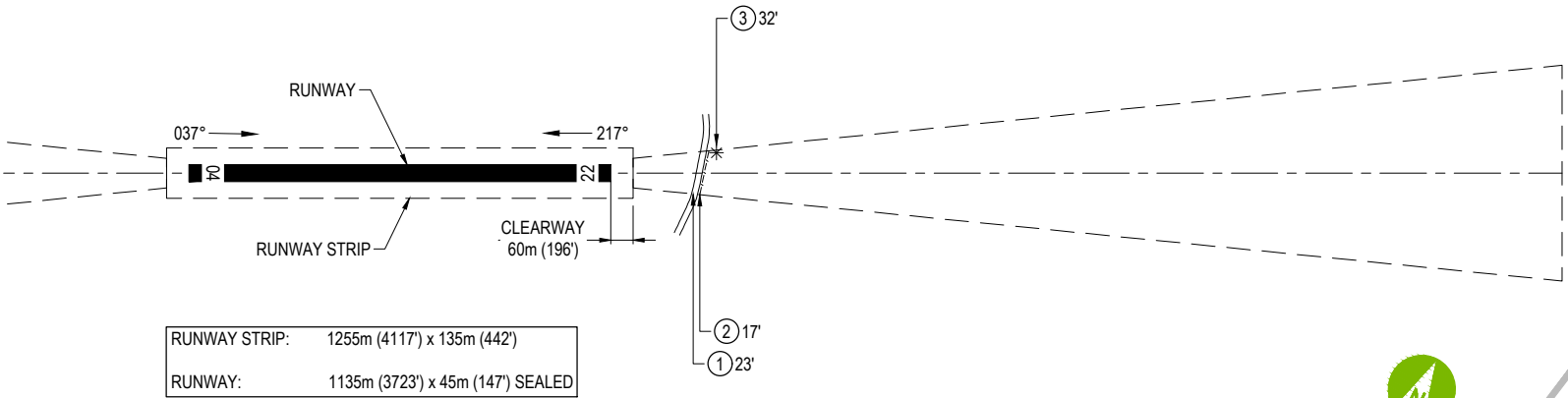
- OBSTRUCTIONS AND OBSTACLES
- ① OBSTACLE NUMBER
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  - △ ANTENNA
  - MOVING (ROADS, RAILWAY TRACKS ETC)
  - TERRAIN PENETRATING LOWEST SURVEYED SLOPE
  - OVERHEAD TRANSMISSION LINE
  - FENCE LINE



RUNWAY 04 (CODE 2)

1:10000 (A1)  
1:20000 (A3)  
SCALE 1:10000

RUNWAY 04 SURVEY HAS BEEN ASSESSED BASED ON THE FOLLOWING "CODE 2" TAKE-OFF PARAMETERS:  
LENGTH OF INNER EDGE - 80M  
RATE OF DIVERGENCE (EACH SIDE) - 10%  
FINAL WIDTH - 580M  
OVERALL LENGTH - 2500M



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  
aurecon

9/11/2018  
DATE

REV	DATE	REVISION DETAILS	APPROVED
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B	12.10.18	SIGNED FOR ISSUE	GG
C	09.11.18	SIGNED FOR ISSUE	GG

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

SIGNED FOR ISSUE	DATE
NOT FOR CONSTRUCTION	09.11.18
GARRY GRAHAM	

PROJECT	TITLE	DRAWING No.	PROJECT No.	WBS	TYPE	DISC	NUMBER	REV
	RAAF BASE POINT COOK AERODROME OBSTACLE CHART ICAO TYPE A (OPERATING LIMITATIONS) ISSUED NOVEMBER 2018 RUNWAY 04 - SHEET 4 OF 6	248842	D21023	DRG	CV		005	C



DEPARTMENT OF DEFENCE

ESTATE AND INFRASTRUCTURE GROUP

AERODROME OBSTACLE CHART - ICAO TYPE A  
(OPERATING LIMITATIONS) NOVEMBER 2018, COMPILED BY AURECON

TO BE READ IN CONJUNCTION WITH CURRENT NOTAMs

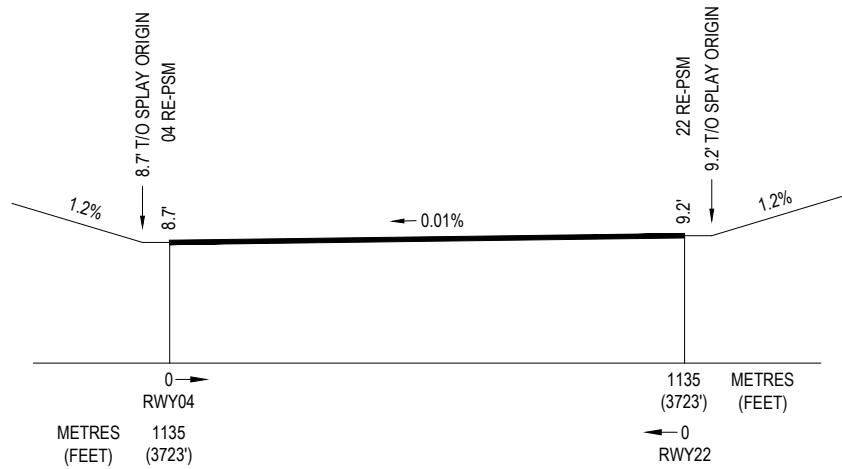
THE ORIGIN OF THE TAKE OFF SURFACE IS LOCATED AT THE END OF THE CLEARWAY.  
DISTANCES COMMENCE FROM THE RAAF RE-PSM AT THE START OF THE TAKE-OFF RUNWAY (SOT)

DATUM

AZIMUTH AND COORDINATES FOR THIS SURVEY ARE BASED ON MGA (GDA94) ZONE 55  
THE VERTICAL DATUM BEING AHD.

DEFINITIONS

- RE-PSM: RUNWAY END PERMANENT SURVEY MARK
- LENGTH OF INNER EDGE 80m
- RATE OF DIVERGENCE OF SPLAY (EACH SIDE) 10.0%
- FINAL WIDTH 580m
- OVERALL LENGTH 2500m



04/22 RWY LONGITUDINAL SECTION  
NOT TO SCALE

04 TAKE OFF (CODE 2)																			
RE - PSM AT START OF TORA										RUNWAY MAGNETIC BEARING			TORA		TODA		ELEVATION AT T.O. ORIGIN		
	GEOGRAPHIC					MGA		ELEVATION											
	LAT			LONG		EASTING	NORTHING	(m)	(FT)	(DEG)	(MIN)	(SEC)	(m)	(FT)	(m)	(FT)			
	(DEG)	(MIN)	(SEC)	(DEG)	(MIN)												(SEC)		
	-37°	56'	10.54"	144°	44'	47.40"	301964.21	5798847.22	2.7	8.7	36°	35'	30"	1135	3723	1195	3920	2.8	9.2
OBJECTS THAT APPEAR ON THE CHART																			
REF No	GEOGRAPHIC					MGA		ELEVATION TOP		TYPE OF OBSTACLE	DISTANCE FROM SOT		OFFSET		GRADIENT TO TOP				
	LAT			LONG		EASTING	NORTHING	(m)	(FT)		(m)	(FT)	(m)	(FT)	%				
	(DEG)	(MIN)	(SEC)	(DEG)	(MIN)											(SEC)			
1	-37°	55'	42.73"	144°	45'	30.61"	302999.35	5799744.66	7.0	23.0	ROAD		1368.7	4490.5	57.3R	188.1R	2.43		
2	-37°	55'	42.61"	144°	45'	30.81"	303004.11	5799748.33	5.3	17.4	FENCE		1374.7	4510.1	57.9R	190.0R	1.39		
3	-37°	55'	38.92"	144°	45'	29.10"	302959.58	5799861.15	9.9	32.4	TREE		1419.7	4657.7	54.7L	179.4L	3.15		

22 TAKE OFF (CODE 2)																			
RE - PSM AT START OF TORA										RUNWAY MAGNETIC BEARING			TORA		TODA		ELEVATION AT T.O. ORIGIN		
	GEOGRAPHIC						MGA		ELEVATION										
	LAT			LONG			EASTING	NORTHING	(m)	(FT)	(DEG)	(MIN)	(SEC)	(m)	(FT)	(m)	(FT)		
	(DEG)	(MIN)	(SEC)	(DEG)	(MIN)	(SEC)													
	-37°	55'	45.93"	144°	45'	21.98"	302790.32	5799626.33	2.8	9.2	216°	35'	30"	1135	3723	1195	3920	2.7	8.7
OBJECTS THAT APPEAR ON THE CHART																			
REF No	GEOGRAPHIC						MGA		ELEVATION TOP		TYPE OF OBSTACLE	DISTANCE FROM SOT		OFFSET		GRADIENT TO TOP			
	LAT			LONG			EASTING	NORTHING				(m)	(FT)	(m)	(FT)	(m)	(FT)	%	
	(DEG)	(MIN)	(SEC)	(DEG)	(MIN)	(SEC)													
1	-37°	56'	20.63"	144°	44'	37.45"	301729.64	5798545.08	7.6	24.8	FLAG POLE	1513.4	4965.1	58.9L	193.1L	1.54			
2	-37°	56'	19.43"	144°	44'	31.44"	301582.06	5798578.39	8.2	26.8	FLAG POLE	1597.9	5242.4	66.6R	218.5R	1.37			
3	-37°	56'	22.31"	144°	44'	29.72"	301542.21	5798488.60	13.0	42.8	LIGHT POLE	1688.5	5539.6	28.6R	94.0R	2.11			
4	-37°	56'	21.18"	144°	44'	27.49"	301486.99	5798522.11	13.9	45.6	TREE	1705.6	5596.0	90.9R	298.2R	2.20			
5	-37°	56'	24.79"	144°	44'	24.23"	301410.02	5798408.96	12.0	39.2	TREE	1839.3	6034.3	61.4R	201.4R	1.44			

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.

  
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REGISTERED SURVEYOR  
aurecon

9/11/2018  
DATE