

RAAF BASE TOWNSVILLE AND TOWNSVILLE AIRPORT

ENDORSEMENT FOR TECHNICAL ACCURACY - MILITARY INPUTS


A/g First Assistant Secretary Infrastructure Security and Estate Group
Department of Defence

Date: 24 / 07 / 2023

The aircraft noise exposure contours on this 2043 Australian Noise Exposure Forecast (ANEF) are based upon a forecast made of aircraft movement and aircraft types for the year 2043. This forecast has been used as an input to the Aviation Environmental Design Tool (AEDT) Version 3e model, to create the 2043 ANEF footprint. The model applies weighting to aircraft movements for different times of the day. The forecast has been prepared for use with AS2021:2015 and in accordance with accepted industry practice. Civilian data inputs and assumptions are incorporated from external sources. Defence makes no warranty in respect of this data and excludes all liability for any loss arising from reliance on that information.

ENDORSEMENT FOR TECHNICAL ACCURACY - CIVIL INPUTS STANDARD ANEF


airservices Environmental Assessments Team Lead

Date: 24 / 07 / 2023

The aircraft noise contours on this chart have been calculated using an appropriate modelling process. Airservices has, in accordance with the approved manner of endorsement, considered the physical ultimate capacity of the existing or proposed runway/s in its endorsement process. The data input and assumptions made in that process are derived in part from external sources. Airservices Australia makes no warranty in respect of that information and excludes all liability for any loss arising from reliance on that information.

Military Aircraft Daily Movements by Runway and Aircraft Type

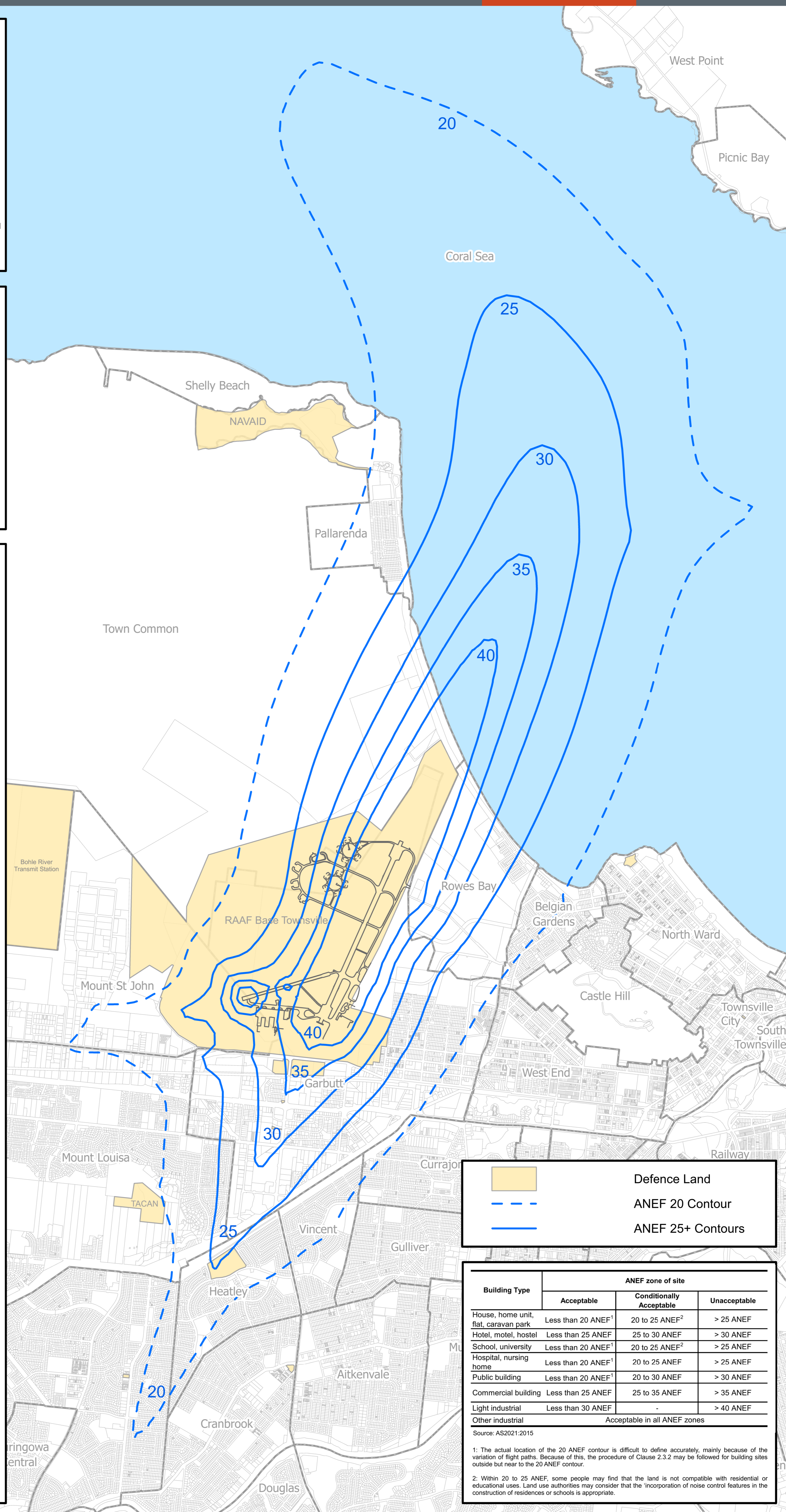
Runway	Aircraft	Arrival		Departure		Circuit		Total			
		Day	Night	Day	Night	Day	Night	Day	Night		
01	F-35A	1.7067	0.4267	1.8731	0.4683			3.5797	0.8949	4.4747	
	F-35OS	0.6400	0.1600	0.7024	0.1756			1.3424	0.3356	1.6780	
	Hawk	0.4458	0.2401	0.4756	0.2561			0.9214	0.4962	1.4176	
	C-27J	0.3384	0.1824	0.5417	0.2916	0.1219	0.0656	1.0020	0.5396	1.5417	
	C-17	0.1872	0.1008	0.2493	0.1341			0.4365	0.2349	0.6714	
	C-130J	0.1925	0.1036	0.2564	0.1380			0.4489	0.2416	0.6905	
	CL 604	0.0267	0.0144	0.0356	0.0095			0.0623	0.0239	0.0862	
	KC-30A	0.0673	0.0362	0.1191	0.0641			0.1864	0.1003	0.2867	
	KC-46	0.0367	0.0198	0.0650	0.0350			0.1017	0.0548	0.1565	
	P-8A	0.1176	0.0632	0.1567	0.0844			0.2743	0.1476	0.4219	
	PC-21	0.1114	0.0600	0.1189	0.0640			0.2303	0.1240	0.3543	
	B757	0.0107	0.0057	0.0142	0.0077			0.0249	0.0134	0.0383	
	C-5A	0.0163	0.0088	0.0216	0.0116			0.0379	0.0204	0.0583	
	CH-47	0.4697						0.4697		0.4697	
	Sum		4.3669	1.4216	4.6296	1.7400	0.1219	0.0656	9.1184	3.2272	12.3457
	07	C-27J	0.2032	0.1092					0.2032	0.1092	0.3124
Sum		0.2032	0.1092					0.2032	0.1092	0.3124	
19	F-35A	0.4267	0.1067	0.2603	0.0651			0.6869	0.1717	0.8587	
	F-35OS	0.1600	0.0400	0.0976	0.0244			0.2576	0.0644	0.3220	
	Hawk	0.0958	0.0516	0.0661	0.0356			0.1619	0.0872	0.2491	
	C-27J	0.1355	0.0729	0.1354	0.0729	0.0135	0.0073	0.2844	0.1531	0.4375	
	C-17	0.1247	0.0672	0.0623	0.0336			0.1870	0.1008	0.2878	
	C-130J	0.1282	0.0690	0.0641	0.0344			0.1922	0.1034	0.2957	
	CL 604	0.0177	0.0095	0.0089	0.0048			0.0266	0.0143	0.0409	
	KC-30A	0.0815	0.0438	0.0298	0.0161			0.1113	0.0599	0.1712	
	KC-46	0.0445	0.0240	0.0163	0.0088			0.0608	0.0328	0.0936	
	P-8A	0.0784	0.0421	0.0392	0.0211			0.1176	0.0632	0.1808	
	PC-21	0.0240	0.0129	0.0165	0.0090			0.0405	0.0219	0.0624	
	B757	0.0072	0.0040	0.0036	0.0020			0.0108	0.0060	0.0168	
	C-5A	0.0109	0.0057	0.0059	0.0029			0.0164	0.0086	0.0250	
	Sum		1.3350	0.5494	0.8055	0.3307	0.0135	0.0073	2.1541	0.8874	3.0415
	HP-3	CH-47	3.2877	1.6438	3.2877	1.6438			8.2192	3.2877	11.5068
		Sum	3.2877	1.6438	3.2877	1.6438			8.2192	3.2877	11.5068
Grand Total		9.1928	3.7240	8.7228	3.7145	1.7793	0.0729	19.6949	7.5115	27.2064	

Civil Aircraft Daily Movements by Runway and Aircraft Type

Runway	Aircraft	Arrival		Departure		Circuit		Total			
		Day	Night	Day	Night	Day	Night	Day	Night		
01	A220	6.5000	1.9500	5.8500	1.9500	0.0000	0.0000	12.3500	3.9000	16.2500	
	A320	1.9500	0.0000	1.9500	0.0000	0.0000	0.0000	3.9000	0.0000	3.9000	
	A321	7.1500	1.9500	7.1500	1.9500	0.0000	0.0000	14.3000	3.9000	18.2000	
	ATR72	3.2500	0.0000	1.9500	0.0000	0.0000	0.0000	5.2000	0.0000	5.2000	
	B738	12.7000	4.5500	14.6500	2.6000	0.0000	0.0000	27.3500	7.1500	34.5000	
	E170	0.6500	0.0000	0.0000	0.6500	0.0000	0.0000	0.6500	0.0000	1.3000	
	E190	2.6000	1.9500	1.9500	0.6500	0.0000	0.0000	4.5500	2.6000	7.1500	
	BEC58P	8.4871	2.4046	8.4871	2.4046	0.0000	0.0000	16.9742	4.8093	21.7835	
	GASEPF	20.4288	5.7882	20.4288	5.7882	0.0000	0.0000	41.8576	11.5764	53.4340	
	GASEPV	15.4054	4.3648	15.4054	4.3648	0.0000	0.0000	30.8108	8.7296	39.5404	
	LEAR45	0.9281	0.2629	0.9281	0.2629	0.0000	0.0000	1.8561	0.5259	2.3820	
	Sum		80.0494	23.2206	78.7494	20.6206	0.0000	0.0000	163.3565	44.9513	208.3079
	07	BEC58P	1.8444	0.0000	1.8444	0.0000	0.0000	0.0000	3.6889	0.0000	3.6889
		GASEPF	1.8444	0.0000	4.4396	0.0000	0.0000	0.0000	6.3285	0.0000	6.3285
		GASEPV	3.3480	0.0000	3.3480	0.0000	0.0000	0.0000	6.6960	0.0000	6.6960
		Sum		7.0368	0.0000	9.6320	0.0000	0.0000	19.2108	0.0000	19.2108
19	A220	3.5000	1.0500	3.1500	1.0500	0.0000	0.0000	6.6500	2.1000	8.7500	
	A320	1.0500	0.0000	1.0500	0.0000	0.0000	0.0000	2.1000	0.0000	2.1000	
	A321	3.8500	1.0500	3.8500	1.0500	0.0000	0.0000	7.7000	2.1000	9.8000	
	ATR72	1.7500	0.0000	1.0500	0.0000	0.0000	0.0000	2.8000	0.0000	2.8000	
	B738	6.3000	2.4500	7.3500	1.4000	0.0000	0.0000	13.6500	3.8500	17.5000	
	E170	0.3500	0.0000	0.0000	0.3500	0.0000	0.0000	0.3500	0.3500	0.7000	
	E190	1.4000	1.0500	1.0500	0.3500	0.0000	0.0000	2.4500	1.4000	3.8500	
	BEC58P	1.7012	0.2923	1.5512	0.2923	0.0000	0.0000	3.2524	0.5847	3.8371	
	GASEPF	4.0947	0.7036	3.7340	0.7036	0.0000	0.0000	7.8288	1.4072	9.2360	
	GASEPV	3.0878	0.5306	2.8158	0.5306	0.2045	0.0000	6.1082	1.0611	7.1693	
	LEAR45	0.1696	0.0320	0.1696	0.0320	0.0000	0.0000	0.3392	0.0640	0.4032	
	Sum		27.2533	7.1585	25.7707	7.5785	0.2045	0.0000	53.2285	12.9170	66.1455
	25	BEC58P	0.0000	0.0000	0.1499	0.0000	0.2045	0.0000	0.3544	0.0000	0.3544
		GASEPF	0.0000	0.0000	0.3607	0.0000	0.0000	0.0000	0.3607	0.0000	0.3607
		GASEPV	0.0000	0.0000	0.2720	0.0000	0.0000	0.0000	0.2720	0.0000	0.2720
		Sum		0.0000	0.0000	0.7827	0.0000	0.2045	0.0000	0.9872	0.0000
Grand Total		114.3396	30.3791	114.1520	26.3791	7.3042	1.1102	235.7958	57.8683	294.6641	

Runway	Aircraft	Arrival	Departure	Total
Helipad North	EC130	2.2711	2.2711	4.5422
	R44	5.2978	5.2978	10.5956
	Sum	7.5689	7.5689	15.1378
Helipad South	EC130	2.2711	2.2711	4.5422
	R44	5.2978	5.2978	10.5956
	Sum	7.5689	7.5689	15.1378
Grand Total		15.1378	15.1378	30.2756

Note: Due to rounding, discrepancies may occur between totals and sum of component items.



Defence Land
ANEF 20 Contour
ANEF 25+ Contours

Building Type	ANEF zone of site		
	Acceptable	Conditionally Acceptable	Unacceptable
House, home unit, flat, caravan park	Less than 20 ANEF ¹	20 to 25 ANEF ²	> 25 ANEF
Hotel, motel, hostel	Less than 25 ANEF	25 to 30 ANEF	> 30 ANEF
School, university	Less than 20 ANEF ¹	20 to 25 ANEF ²	> 25 ANEF
Hospital, nursing home	Less than 20 ANEF ¹	20 to 25 ANEF	> 25 ANEF
Public building	Less than 20 ANEF ¹	20 to 30 ANEF	> 30 ANEF
Commercial building	Less than 25 ANEF	25 to 35 ANEF	> 35 ANEF
Light industrial	Less than 30 ANEF	-	> 40 ANEF
Other industrial	Acceptable in all ANEF zones		

Source: AS2021:2015
¹: The actual location of the 20 ANEF contour is difficult to define accurately, mainly because of the variation of flight paths. Because of this, the procedure of Clause 2.3.2 may be followed for building sites outside but near to the 20 ANEF contour.
²: Within 20 to 25 ANEF, some people may find that the land is not compatible with residential or educational uses. Land use authorities may consider that the 'incorporation of noise control features in the construction of residences or schools is appropriate.'

2043 Joint Military-Civil Australian Noise Exposure Forecast
 To be read in conjunction with AS2021:2015

