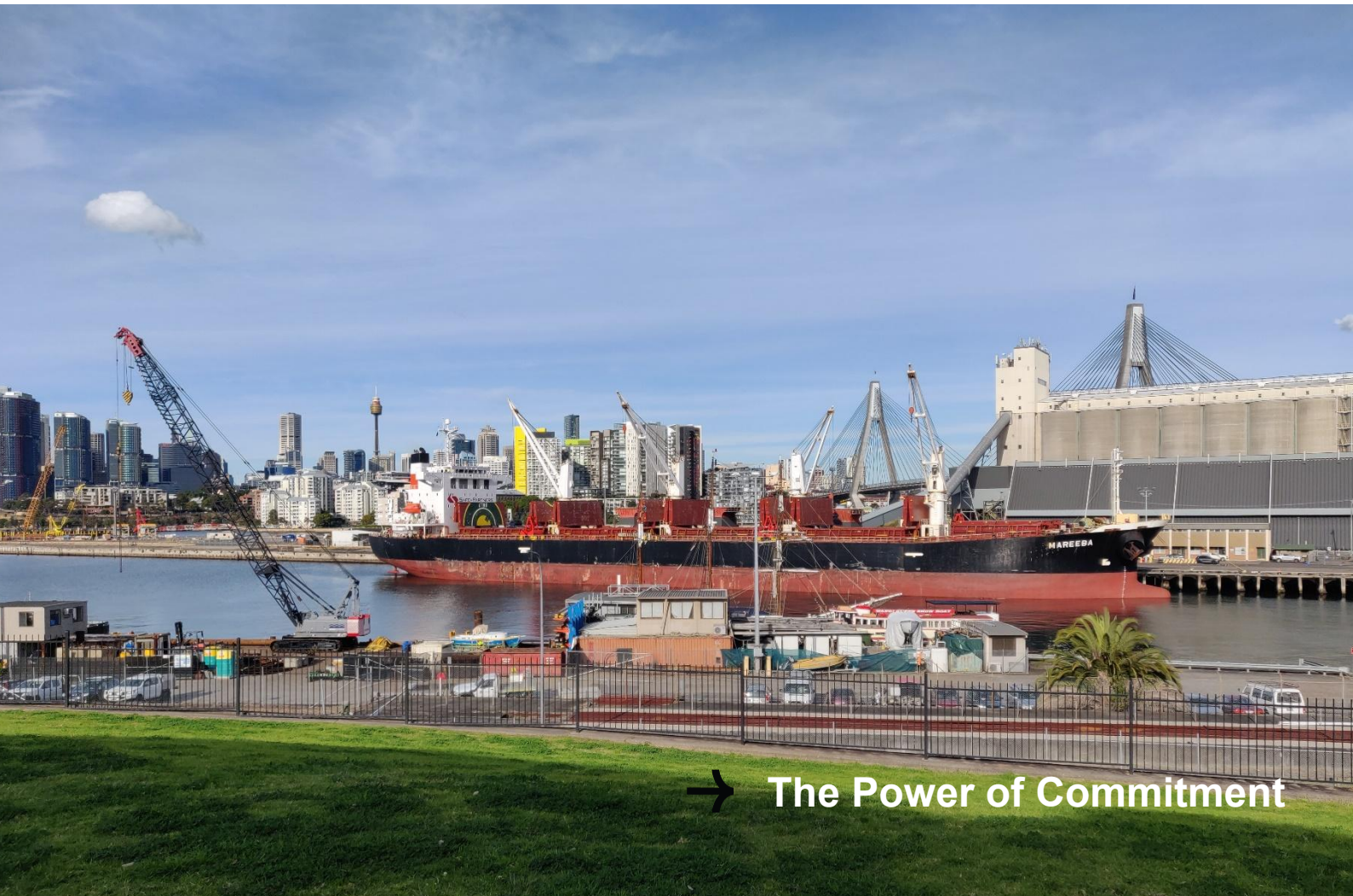
Monthly compliance noise monitoring report

Glebe Island / White Bay

Port Authority of New South Wales

June 2025



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Status Code	Revision	Author	Reviewer		Approved for issue		
			Name	Signature	Name	Signature	Date
S4	0	C Gordon	C Doyle		E Milton		05/08/2025
S4	1	C Gordon	C Doyle		E Milton		13/08/2025
S4	2	C Gordon	C Doyle		E Milton		13/11/2025

1. Introduction

GHD Pty Ltd (GHD) has been engaged by Port Authority of New South Wales (Port Authority) to undertake compliance noise monitoring, as required by the *Port Noise Policy (Port Authority, 2020).*

This report provides the details of the compliance noise monitoring for all vessels at berth during June 2025, as determined using the noise monitoring system. A detailed description of the permanent noise monitoring system including a map of monitoring locations is provided in the Noise Monitoring Plan, available on Port Authority's website.

2. Noise monitoring details and vessel schedule

Client	Company details	Noise monitor name	Noise monitor location	Noise monitor details / settings	Noise monitor serial numbers	Monthly calibration variance
Port Authority of New South Wales	GHD Pty Ltd Member of the Association of Australasian Acoustical Consultants (AAAC) Lead staff are Members of the Australian Acoustical Society (AAS)	L01	Grafton Street, Balmain	**Meter details** Norsonic Nor145 Sound Level Meter with Nor1297 Noise Compass **Meter settings** A-weighted Fast time response 15 minute intervals	14529646	**Initial calibration level 90.7 dBA** Min. deviation = 0.1 dB Max. deviation = 0.2 dB
		L02	Maintenance Building on White Bay		14529643	**Initial calibration level 91.9 dBA** Min. deviation = 0.3 dB Max. deviation = 0.3 dB
		L03	Adjacent to White Bay 2		14529645	**Initial calibration level 92.5 dBA** Min. deviation = 0.3 dB Max. deviation = 0.4 dB
		L04	Onsite at Glebe Island		14529640	**Initial calibration level 93.9 dBA** Min. deviation = -0.1 dB Max. deviation = 0.0 dB

Vessel name	Arrival date and time	Departure date and time	Berth location	Applicable noise monitoring location/s
Bulk vessels				
Kondili[1]	June 03, 2025 / 20:00	June 06, 2025 / 03:34	GLB8	L03
Ken Bos[2]	June 17, 2025 / 22:31	June 21, 2025 / 18:05	GLB7	L03

Vessel name	Arrival date and time	Departure date and time	Berth location	Applicable noise monitoring location/s
Wyuna	June 22, 2025 / 04:30	June 23, 2025 / 18:05	GLB8	L03
Luga	June 30, 2025 / 03:50	July 03, 2025 / 23:05	GLB8	L03
Pioneer	June 30, 2025 / 11:06	July 03, 2025 / 21:03	GLB7	L03
Salt vessels				
TS Index[3]	June 03, 2025 / 08:23	June 13, 2025 / 15:04	GLB1	Attended noise monitoring
Cruise vessel				
Carnival Adventure	June 23, 2025 / 05:14	June 23, 2025 / 20:20	WCBT	L01
Other vessels				
Ocean Titan[4]	May 30, 2025 / 13:24	June 4, 2025 / 19:01	WHT4	L02
HMAS Canberra	June 14, 2025 / 17:20	June 23, 2025 / 13:15	WHT4	L02

Notes:

1) A movement of Kondili was recorded at 13:15 on 04/06/2025, but the vessel did not leave GLB8
2) A movement of Ken Bos was recorded at 08:02 on 19/06/2025, but the vessel did not leave GLB8
3) The details of this visit are provided in the monitoring report located on the Port Authority website
4) Results for the Ocean Titan are contained in the May report

2.1 Compliance summary

2.2 Bulk vessels / other vessels

Vessel	Dates at berth	Monitor location	Vessel Noise Level, dBA (inclusive of any modifying factor penalties)			Vessel Noise Trigger Levels, dBA			Compliance[1]		
			Day[2] $L_{Aeq(15\ hr)}$	Night[3] $L_{Aeq(1\ hr)}$	Night L_{Amax}	Day[2] $L_{Aeq(15\ hr)}$	Night[3] $L_{Aeq(1\ hr)}$	Night L_{Amax}	Day[2] $L_{Aeq(15\ hr)}$	Night[3] $L_{Aeq(1\ hr)}$	Night L_{Amax}
Bulk vessels											
Kondili	June 03 – June 06	L03	53	51	65	60	55	65	Yes	Yes	Yes
Ken Bos	June 17 – June 21	L03	50	51	60	60	55	65	Yes	Yes	Yes
Wyuna	June 22 – June 23	L03	53	51	56	60	55	65	Yes	Yes	Yes
Luga[4]	June 30 – July 03	L03	55	55	65	60	55	65	Yes	Yes	Yes
Pioneer[4]	June 30 – July 03	L03				60	55	65	Yes	Yes	Yes
Other vessels											
HMAS Canberra	June 14 – June 23	L02	58	57	65	60	55	65	Yes	No	Yes

Notes:
1) If non-compliance is detected, a detailed investigation of the results will be undertaken and reported separately if required
2) Daytime period (7 am to 10 pm) – 15 hour logarithmic average
3) Night-time (10 pm to 7 am) – loudest 1 hour period
4) Pioneer (GLB7) and Luga (GLB8) both present simultaneously. Noise was attributed to the Luga at this time and is included below in Section 3.4. Given noise levels were compliant, no further analysis has been undertaken

2.3 HMAS Canberra

The HMAS Canberra was determined to be non-compliant with the night time vessel noise trigger level on multiple occasions during the visit between June 14 and June 23. The maximum night time noise level was 57 dBA, however typically the noise level of the HMAS Canberra was 56 dBA. This occurred for most of the time during the night-time period.

2.4 Cruise vessels

Vessel	Dates at berth	Monitor location	Vessel Noise Level, dBA (inclusive of any modifying factor penalties)		Vessel Noise Trigger Levels, dBA		Compliance[1]	
			Day[2] $L_{Aeq(15\ hr)}$	Night[3] $L_{Aeq(9\ hr)}$	Day[2] $L_{Aeq(15\ hr)}$	Night[3] $L_{Aeq(9\ hr)}$	Day[5]	Night
Carnival Adventure	June 22[4]	L01	-	57	N/A	58	N/A	Yes
	June 23	L01	58	-	N/A	58	N/A	-

Notes:

1) If non-compliance is detected, a detailed investigation of the results will be undertaken and reported separately if required
2) Daytime period (7 am to 10 pm) – 15 hour logarithmic average
3) Night-time (10 pm to 7 am) – 9 hour logarithmic average
4) The system classifies June 22 as the period from 7 am on June 22 to 7 am on June 23. The Carnival Adventure arrived at 05:14 am on June 23, and has been incorporated in the data for June 21
5) Port Authority provides attenuation to a defined area of residences where noise modelling indicates that current noise levels reach or exceed 55 dBA **at night** ('attenuation eligibility trigger'). Under the White Bay Cruise Terminal Noise Restriction Policy, cruise ship noise which causes further residences than those currently identified to exceed the attenuation eligibility trigger is considered to be Excessive Noise. Hence under the Noise Restriction Policy a day time trigger level does not apply. The area of residences currently offered attenuation (ie meeting the 'attenuation eligibility trigger') is based on a reference cruise vessel intrusive noise level of 58 dBA at the nearest residence, which sets the Vessel Noise Trigger Level for assessing compliance at night.

Excessive noise is defined as "any noise including but not limited to engine, generator or ventilation noise which causes further residences than those currently identified to exceed the attenuation eligibility trigger."

3. Detailed results – bulk vessels / other vessels

3.1 Kondili (GLB8) – June 03 – June 06, 2025

3.1.1 Daily noise monitoring results

Date	Time period[1]	Monitor location	Noise descriptor	Vessel noise level dBA[2]	Tonal	LFN[3]	Vessel Noise Trigger Levels, dBA	Compliance
June 3, 2025	Day	L03	$L_{Aeq,\ 15\ hour}$[1]	48	No	Yes	60	Yes
	Night		$L_{Aeq,\ 1\ hour}$[1]	47	No	Yes	55	Yes
			L_{Amax}	65	-	-	65	Yes
June 4, 2025	Day	L03	$L_{Aeq,\ 15\ hour}$[1]	53	No	Yes	60	Yes
	Night		$L_{Aeq,\ 1\ hour}$[1]	50	No	Yes	55	Yes
			L_{Amax}	63	-	-	65	Yes
June 5, 2025[4]	Day	L03	$L_{Aeq,\ 15\ hour}$[1]	51	No	Yes	60	Yes
	Night		$L_{Aeq,\ 1\ hour}$[1]	51	No	Yes	55	Yes
			L_{Amax}	65	-	-	65	Yes

Notes

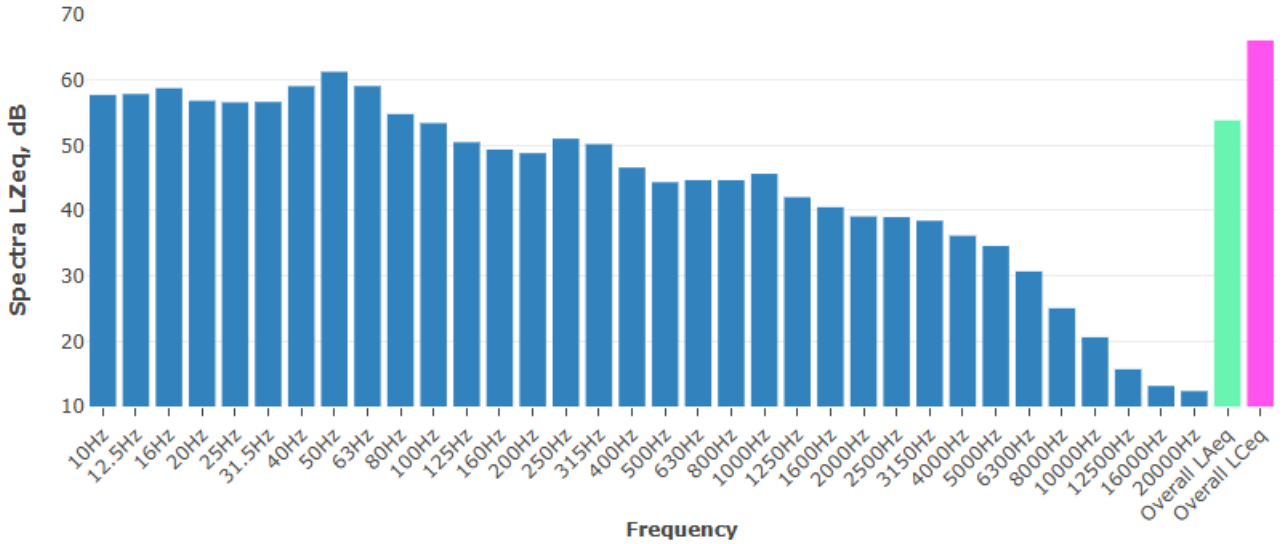
1) Daytime period (7 am to 10 pm) – 15 hours
Night-time period (10 pm to 7 am) – worst case 1 hour

2) Inclusive of any penalties for modifying factors

3) LFN = Low Frequency Noise

4) The system classifies June 5 as the period from 7 am on June 5 to 7 am on June 6. The Kondili departed at 03:34 am on June 6, and has been incorporated in the data for June 5

3.1.2 Additional information



Note: The overall frequency spectrum can be classified into low (≤160 Hz), medium (160-2000 Hz) and high (≥2000 Hz) frequencies. Where low frequency components are identified in the hourly spectra, the frequency bars are shaded in cyan. Where tones are identified in the hourly spectra, the frequency bars are shaded in red.

Figure 3.1 Typical vessel spectrum – noise level at L03

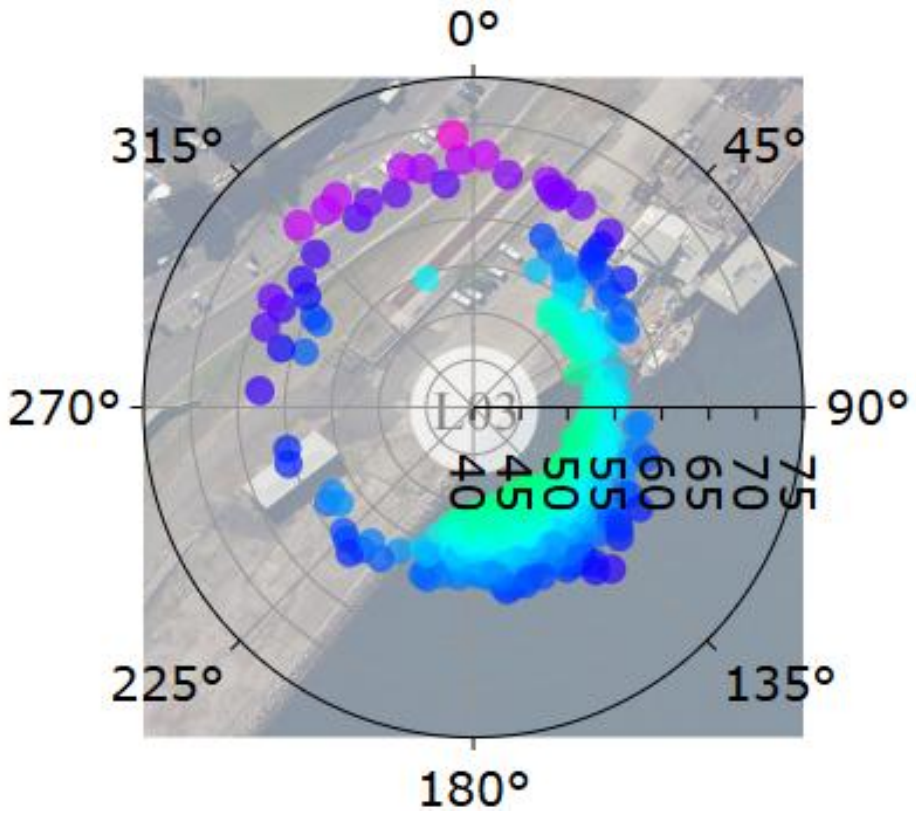


Figure 3.2 Typical vessel polar (directional) plot

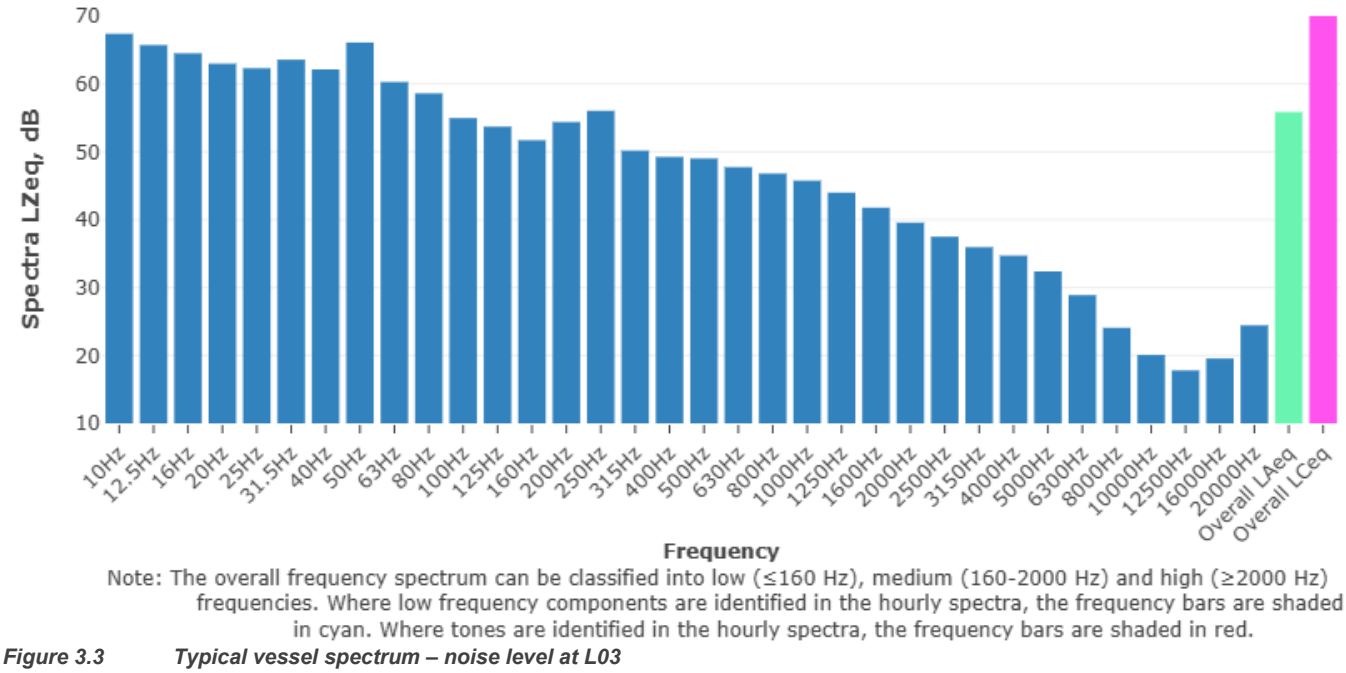
3.2 Ken Bos (GLB7) – June 17 – June 21, 2025

3.2.1 Daily noise monitoring results

Date	Time period[1]	Monitor location	Noise descriptor	Vessel noise level dBA[2]	Tonal	LFN[3]	Vessel Noise Trigger Levels, dBA	Compliance
June 17 2025	Day	L03	$L_{Aeq,\ 15\ hour}$[1]	-	-	-	60	-
	Night		$L_{Aeq,\ 1\ hour}$[1]	51	No	No	55	Yes
			L_{Amax}	59	-	-	65	Yes
June 18 2025	Day	L03	$L_{Aeq,\ 15\ hour}$[1]	50	No	No	60	Yes
	Night		$L_{Aeq,\ 1\ hour}$[1]	51	No	No	55	Yes
			L_{Amax}	60	-	-	65	Yes
June 19 2025	Day	L03	$L_{Aeq,\ 15\ hour}$[1]	50	No	Yes	60	Yes
	Night		$L_{Aeq,\ 1\ hour}$[1]	51	No	No	55	Yes
			L_{Amax}	60	-	-	65	Yes
June 20 2025	Day	L03	$L_{Aeq,\ 15\ hour}$[1]	50	No	No	60	Yes
	Night		$L_{Aeq,\ 1\ hour}$[1]	49	No	No	55	Yes
			L_{Amax}	56	-	-	65	Yes
June 21 2025	Day	L03	$L_{Aeq,\ 15\ hour}$[1]	47	No	Yes	60	Yes
	Night		$L_{Aeq,\ 1\ hour}$[1]	-	-	-	55	-
			L_{Amax}	-	-	-	65	-

Notes
1) Daytime period (7 am to 10 pm) – 15 hours
Night-time period (10 pm to 7 am) – worst case 1 hour
2) Inclusive of any penalties for modifying factors
3) LFN = Low Frequency Noise

3.2.2 Additional Information



Note: The overall frequency spectrum can be classified into low (≤160 Hz), medium (160-2000 Hz) and high (≥2000 Hz) frequencies. Where low frequency components are identified in the hourly spectra, the frequency bars are shaded in cyan. Where tones are identified in the hourly spectra, the frequency bars are shaded in red.

Figure 3.3 Typical vessel spectrum – noise level at L03

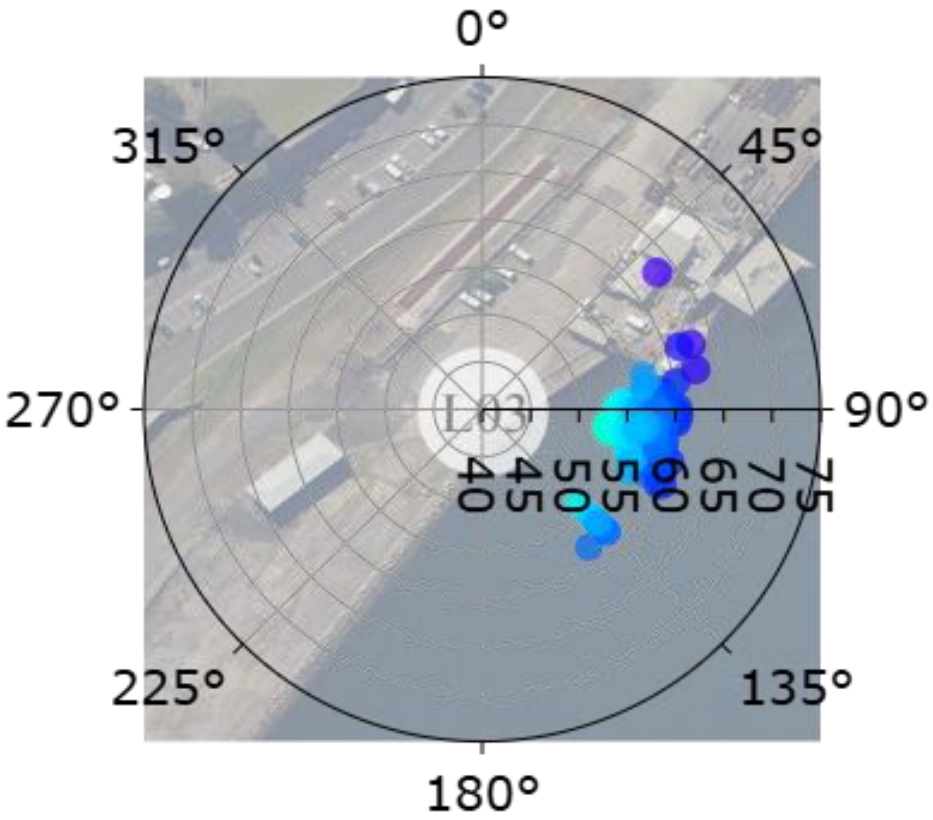


Figure 3.4 Typical vessel polar (directional) plot

3.3 Wyuna (GLB8) – June 22 – June 23, 2025

3.3.1 Daily noise monitoring results

Date	Time period[1]	Monitor location	Noise descriptor	Vessel noise level dBA[2]	Tonal	LFN[3]	Vessel Noise Trigger Levels, dBA	Compliance
June 21[3] 2025	Day	L03	$L_{Aeq,\ 15\ hour}$[1]	-	-	-	60	-
	Night		$L_{Aeq,\ 1\ hour}$[1]	49	No	Yes	55	Yes
			L_{Amax}	56	-	-	65	Yes
June 22 2025	Day	L03	$L_{Aeq,\ 15\ hour}$[1]	53	Yes[5]	No	60	Yes
	Night		$L_{Aeq,\ 1\ hour}$[1]	51	Yes[5]	No	55	Yes
			L_{Amax}	56	-	-	65	Yes
June 23 2025	Day	L03	$L_{Aeq,\ 15\ hour}$[1]	49	No	Yes	60	Yes
	Night		$L_{Aeq,\ 1\ hour}$[1]	-	-	-	55	-
			L_{Amax}	-	-	-	65	-

Notes

1) Daytime period (7 am to 10 pm) – 15 hours

Night-time period (10 pm to 7 am) – worst case 1 hour

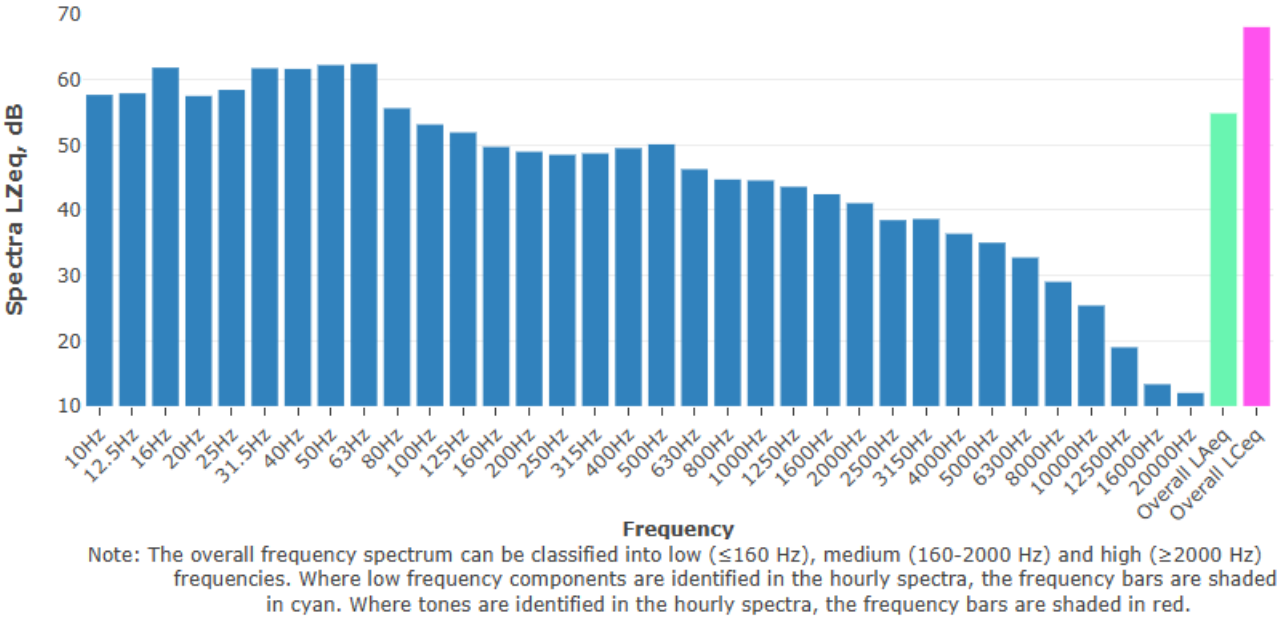
2) Inclusive of any penalties for modifying factors

3) LFN = Low Frequency Noise

4) Note that the system classifies June 21 as the period from 7 am on June 21 to 7 am on June 22. The Wyuna arrived at 04:30 am on June 22, and has been incorporated in the data for June 21

5) The system identified that the vessel was tonal at 3,150 Hz for 7 hours between 6:00 pm on June 22 to 1:00 am on June 23. The results presented are inclusive of a 5 dB correction in accordance with the EPA's Noise Policy for Industry

3.3.2 Additional information



Note: The overall frequency spectrum can be classified into low (≤160 Hz), medium (160-2000 Hz) and high (≥2000 Hz) frequencies. Where low frequency components are identified in the hourly spectra, the frequency bars are shaded in cyan. Where tones are identified in the hourly spectra, the frequency bars are shaded in red.

Figure 3.5 Typical vessel spectrum – noise level at L03

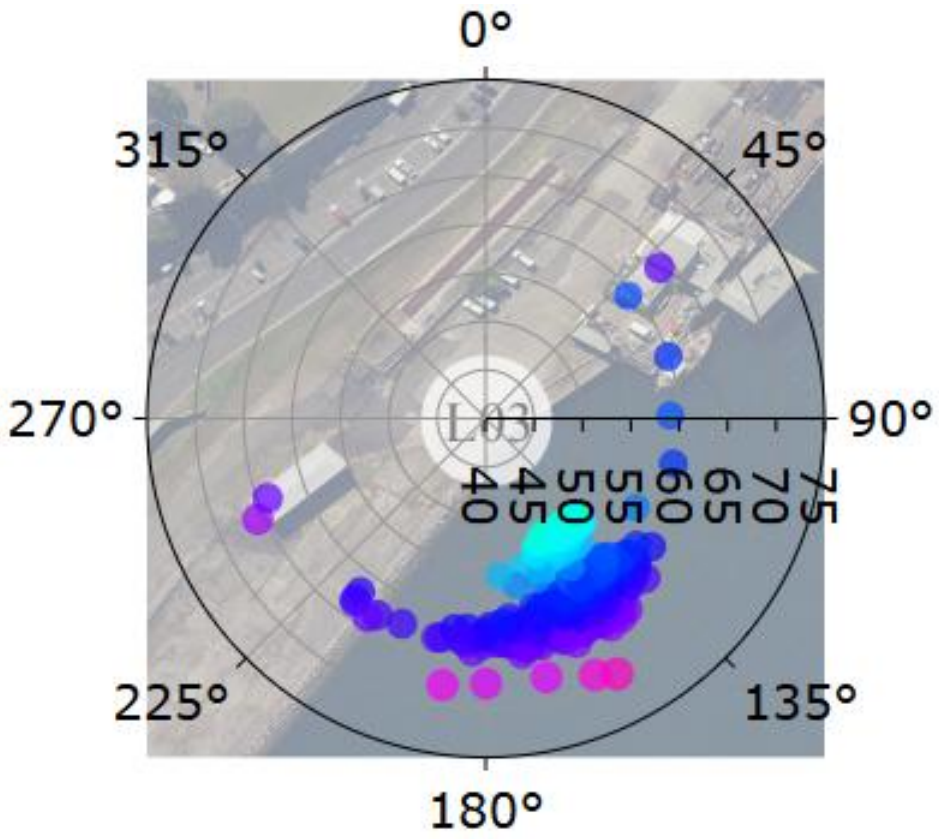


Figure 3.6 Typical vessel polar (directional) plot

3.4 Luga (GLB8) – June 30 – July 03, 2025

3.4.1 Daily noise monitoring results

Date	Time period[1]	Monitor location	Noise descriptor	Vessel noise level dBA[2]	Tonal	LFN[3]	Vessel Noise Trigger Levels, dBA	Compliance
June 29[4] 2025	Day	L03	$L_{Aeq,\ 15\ hour}$[1]	-	-	-	60	-
	Night		$L_{Aeq,\ 1\ hour}$[1]	55	No	Yes	55	Yes
			L_{Amax}	57	-	-	65	Yes
June 30 2025	Day	L03	$L_{Aeq,\ 15\ hour}$[1]	55	No	No	60	Yes
	Night		$L_{Aeq,\ 1\ hour}$[1]	55	No	No	55	Yes
			L_{Amax}	65	-	-	65	Yes
July 1 2025	Day	L03	$L_{Aeq,\ 15\ hour}$[1]	-[5]	-	-	60	-[5]
	Night		$L_{Aeq,\ 1\ hour}$[1]	-[5]	-	-	55	-[5]
			L_{Amax}	-[5]	-	-	65	-[5]
July 2 2025	Day	L03	$L_{Aeq,\ 15\ hour}$[1]	-[5]	-	-	60	-[5]
	Night		$L_{Aeq,\ 1\ hour}$[1]	-[5]	-	-	55	-[5]
			L_{Amax}	-[5]	-	-	65	-[5]
July 3 2025	Day	L03	$L_{Aeq,\ 15\ hour}$[1]	-[5]	-	-	60	-[5]
	Night		$L_{Aeq,\ 1\ hour}$[1]	55	No	Yes	55	Yes
			L_{Amax}	56	-	-	65	Yes

Notes

1) Daytime period (7 am to 10 pm) – 15 hours

Night-time period (10 pm to 7 am) – worst case 1 hour

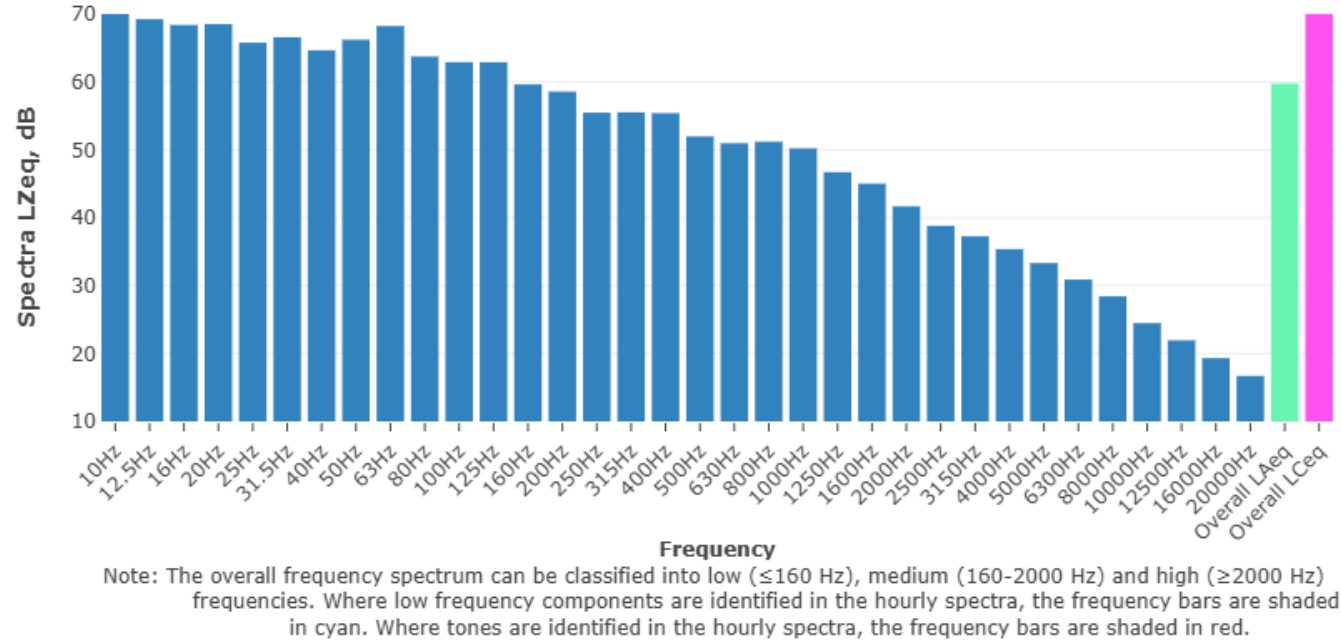
2) Inclusive of any penalties for modifying factors

3) LFN = Low Frequency Noise

4) Note that the system classifies June 29 as the period from 7 am on June 21 to 7 am on June 30. The Luga arrived at 03:50 am on June 30, and has been incorporated in the data for June 29

5) No data during this period due to rain and high winds

3.4.2 Additional information



Note: The overall frequency spectrum can be classified into low (≤160 Hz), medium (160-2000 Hz) and high (≥2000 Hz) frequencies. Where low frequency components are identified in the hourly spectra, the frequency bars are shaded in cyan. Where tones are identified in the hourly spectra, the frequency bars are shaded in red.

Figure 3.7 Typical vessel spectrum – noise level at L03

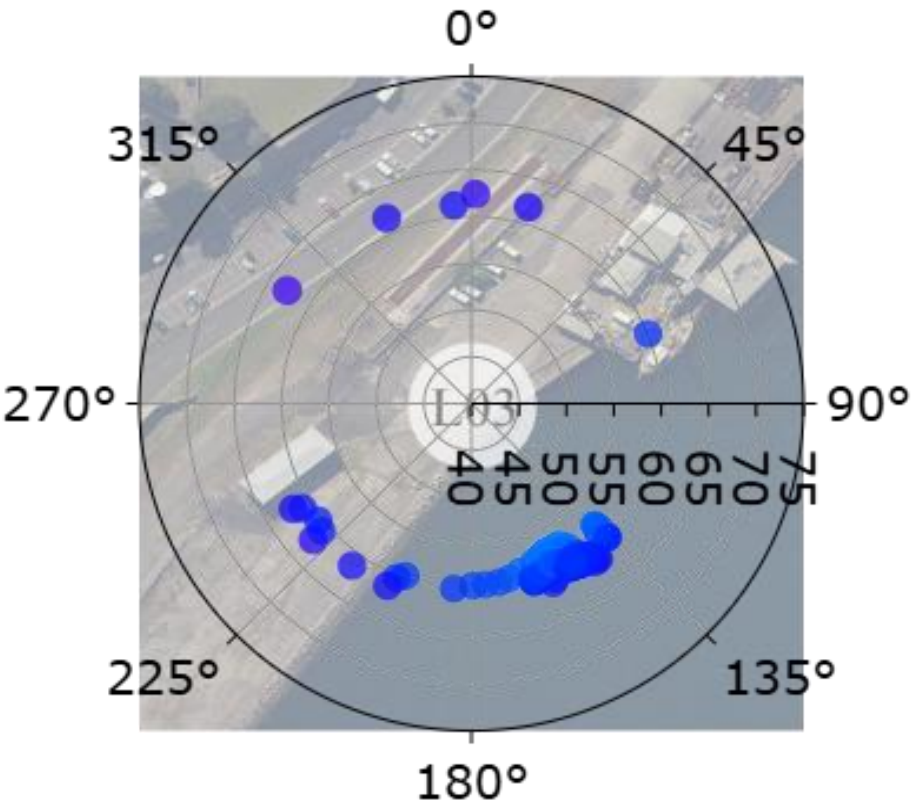


Figure 3.8 Typical vessel polar (directional) plot

3.5 Pioneer (GLB7) – June 30 – July 03, 2025

3.5.1 Daily noise monitoring results

Date	Time period[1]	Monitor location	Noise descriptor	Vessel noise level dBA[2]	Tonal	LFN[3]	Vessel Noise Trigger Levels, dBA	Compliance
June 30 2025	Day	L03	$L_{Aeq,\ 15\ hour}$[1]	Luga and Pioneer were berthed simultaneously at Glebe Island 7 and 8. Noise levels determined by the online noise system were assigned to the Luga during this period, as this was the dominant noise source at the time. Note that noise from both vessels was compliant with the daytime $L_{Aeq\ (15\ hour)}$ and the $L_{Aeq\ (1hour)}$ criteria and therefore a detailed assessment is not required.				
	Night		$L_{Aeq,\ 1\ hour}$[1]					
			L_{Amax}					
July 1 2025	Day	L03	$L_{Aeq,\ 15\ hour}$[1]					
	Night		$L_{Aeq,\ 1\ hour}$[1]					
			L_{Amax}					
July 2 2025	Day	L03	$L_{Aeq,\ 15\ hour}$[1]					
	Night		$L_{Aeq,\ 1\ hour}$[1]					
			L_{Amax}					
July 3 2025	Day	L03	$L_{Aeq,\ 15\ hour}$[1]					
	Night		$L_{Aeq,\ 1\ hour}$[1]					
			L_{Amax}					

Notes
1) Daytime period (7 am to 10 pm) – 15 hours
Night-time period (10 pm to 7 am) – worst case 1 hour
2) Inclusive of any penalties for modifying factors
3) LFN = Low Frequency Noise

3.6 HMAS Canberra (WHT4) – June 14 – June 23, 2025

3.6.1 Daily noise monitoring results

Date	Time period[1]	Monitor location	Noise descriptor	Vessel noise level dBA[2,4]	Tonal	LFN[3]	Vessel Noise Trigger Levels, dBA	Compliance
June 14, 2025	Day	L02	$L_{Aeq, 15\ hour}$[1]	55	No	No	60	Yes
	Night		$L_{Aeq, 1\ hour}$[1]	56	No	No	55	No
			L_{Amax}	61	-	-	65	Yes
June 15, 2025	Day	L02	$L_{Aeq, 15\ hour}$[1]	54	No	No	60	Yes
	Night		$L_{Aeq, 1\ hour}$[1]	55	No	No	55	Yes
			L_{Amax}	63	-	-	65	Yes
June 16, 2025	Day	L02	$L_{Aeq, 15\ hour}$[1]	55	No	No	60	Yes
	Night		$L_{Aeq, 1\ hour}$[1]	57	No	No	55	No
			L_{Amax}	63	-	-	65	Yes
June 17, 2025	Day	L02	$L_{Aeq, 15\ hour}$[1]	56	No	No	60	Yes
	Night		$L_{Aeq, 1\ hour}$[1]	55	No	No	55	Yes
			L_{Amax}	62	-	-	65	Yes
June 18, 2025	Day	L02	$L_{Aeq, 15\ hour}$[1]	58	No	No	60	Yes
	Night		$L_{Aeq, 1\ hour}$[1]	56	No	No	55	No
			L_{Amax}	64	-	-	65	Yes
June 19, 2025	Day	L02	$L_{Aeq, 15\ hour}$[1]	56	No	No	60	Yes
	Night		$L_{Aeq, 1\ hour}$[1]	56	No	No	55	No
			L_{Amax}	65	-	-	65	Yes
June 20, 2025	Day	L02	$L_{Aeq, 15\ hour}$[1]	55	No	No	60	Yes
	Night		$L_{Aeq, 1\ hour}$[1]	56	No	No	55	No
			L_{Amax}	64	-	-	65	Yes
June 21, 2025	Day	L02	$L_{Aeq, 15\ hour}$[1]	55	No	No	60	Yes
	Night		$L_{Aeq, 1\ hour}$[1]	54	No	No	55	Yes
			L_{Amax}	65	-	-	65	Yes
June 22, 2025	Day	L02	$L_{Aeq, 15\ hour}$[1]	54	No	No	60	Yes
	Night		$L_{Aeq, 1\ hour}$[1]	56	No	No	55	No
			L_{Amax}	65	-	-	65	Yes
June 23, 2025	Day	L02	$L_{Aeq, 15\ hour}$[1]	56	No	No	60	Yes
	Night		$L_{Aeq, 1\ hour}$[1]	-	-	-	-	-
			L_{Amax}	-	-	-	-	-

Notes

1) Daytime period (7 am to 10 pm) – 15 hours
Night-time period (10 pm to 7 am) – worst case 1 hour

2) Inclusive of any penalties for modifying factors

3) LFN = Low Frequency Noise

4) Due to extraneous noise, L90 statistical data has been used to determine the L_{Aeq}

3.6.2 Additional information

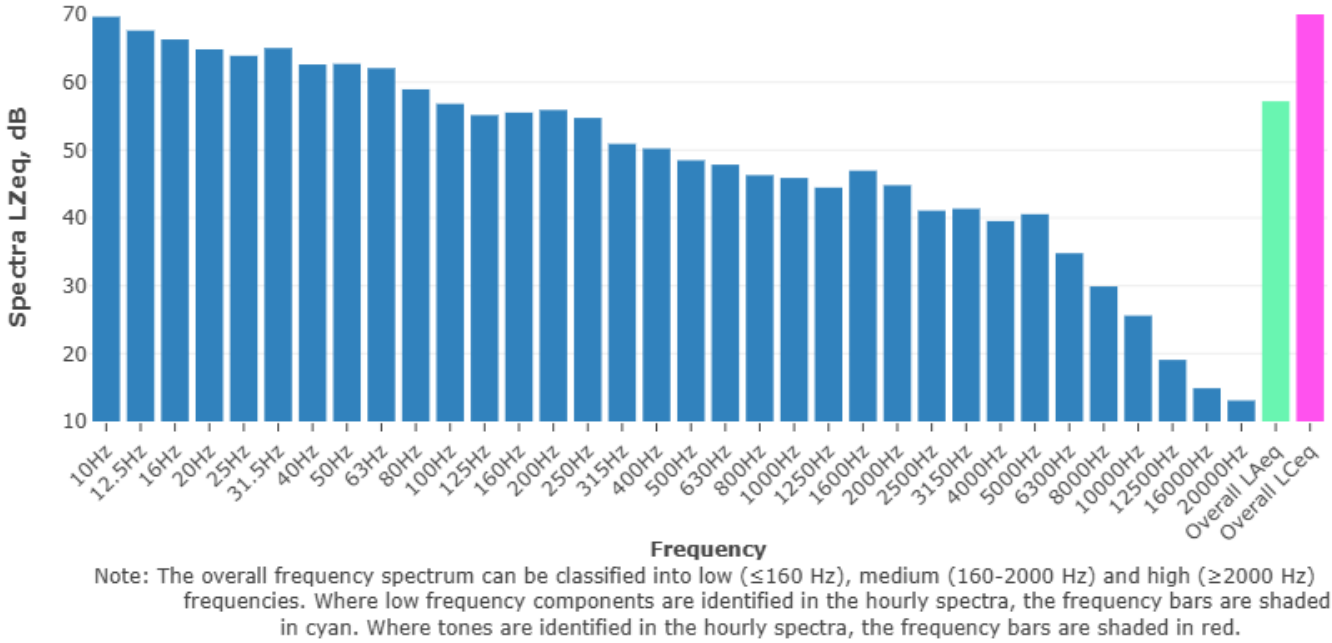


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Figure 3.9 Typical vessel spectrum – noise level at L02

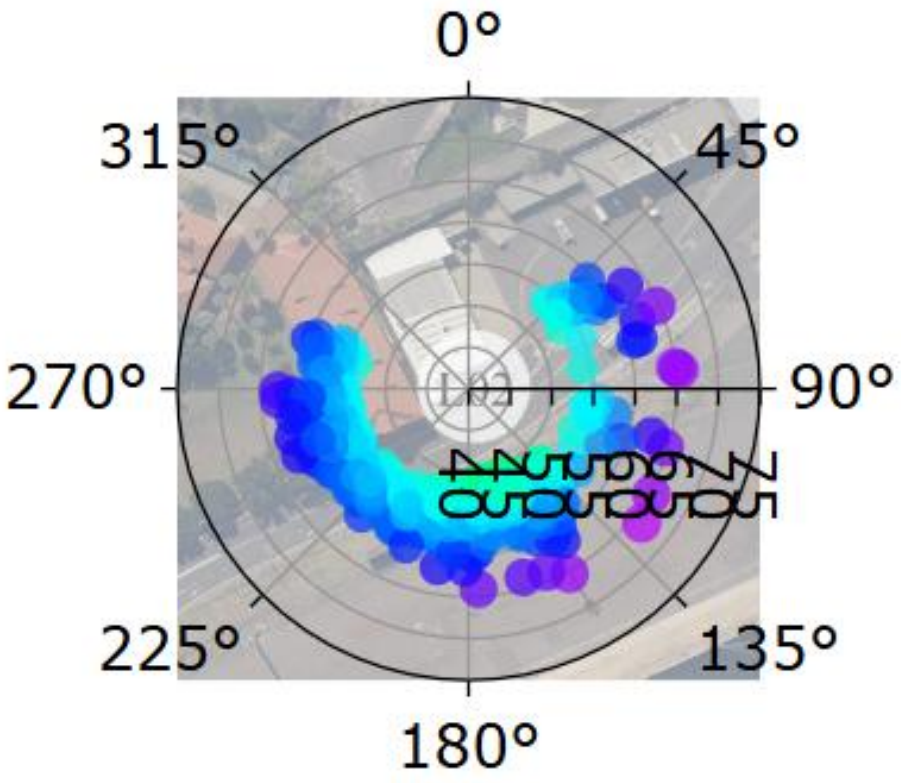

Figure 3.10 Typical vessel polar (directional) plot

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