

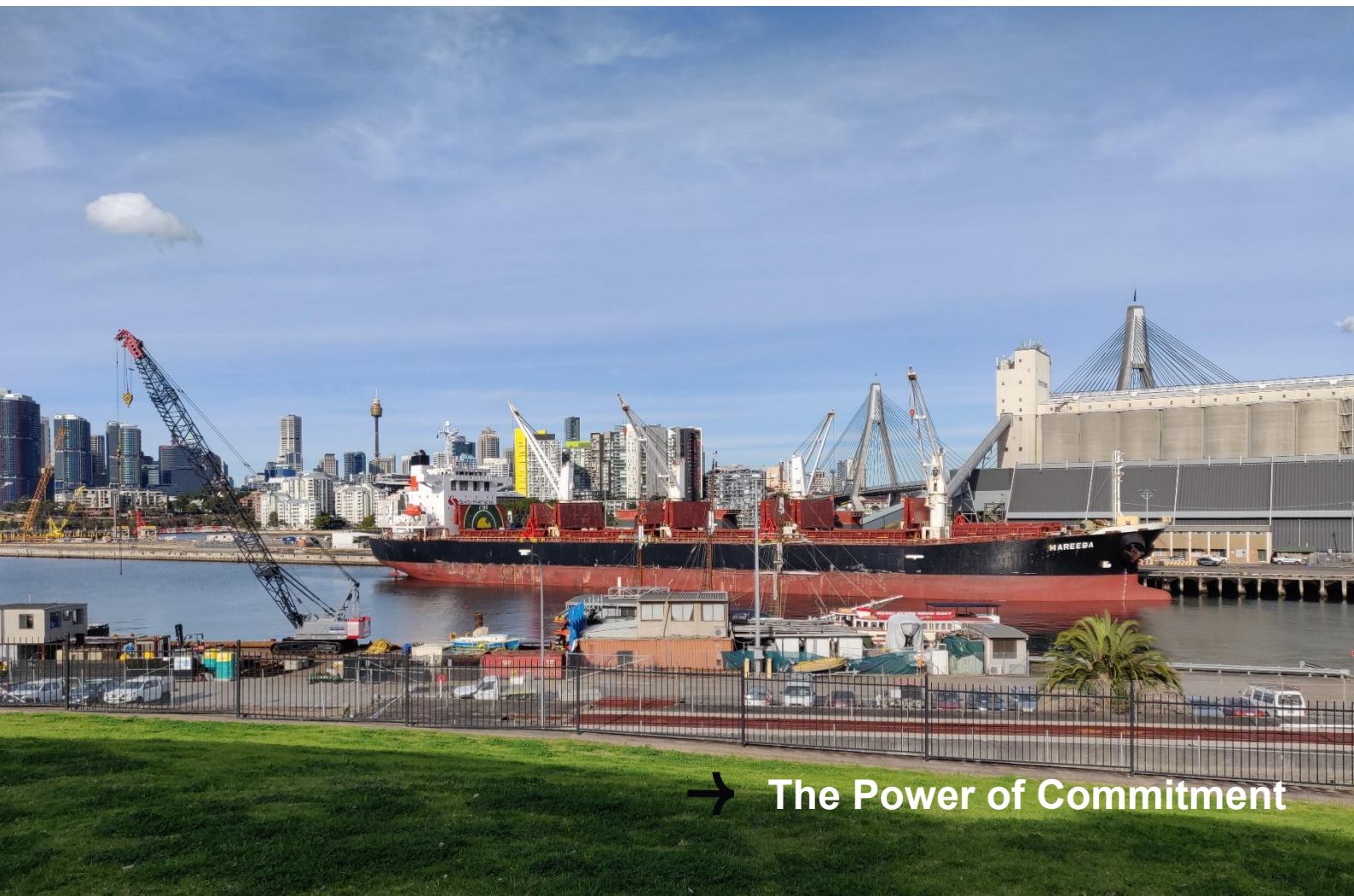


Monthly compliance noise monitoring report

Glebe Island / White Bay

Port Authority of New South Wales

March 2026



→ The Power of Commitment

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Client name	Port Authority of New South Wales
Document title	Monthly compliance noise monitoring report – March 2026
Revision version	Rev 1
Project number	12540862

Document status

Status Code	Revision	Author	Reviewer		Approved for issue		
			Name	Signature	Name	Signature	Date
S4	0	C Gordon	C Doyle		P Pandey		12/05/2026
S4	1	C. Lang Piason	C Doyle		E Milton		03/07/26

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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 March 2026, 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	L01	Grafton Street, Balmain	Meter details Norsonic Nor145 Sound Level Meter with Nor1297 Noise Compass	14529642	Initial calibration level 94.3 dBA Min. deviation = 0.0 dB Max. deviation = 0.1 dB
	Member of the Association of Australasian Acoustical Consultants (AAAC)	L02	Maintenance Building on White Bay		14529645	Initial calibration level 91.3 dBA Min. deviation = 0.0 dB Max. deviation = 0.1 dB
	Lead staff are Members of the Australian Acoustical Society (AAS)	L03	Adjacent to White Bay 2	Meter settings A-weighted Fast time response 15 minute intervals	14529644	Initial calibration level 92.9 dBA Min. deviation = -0.1 dB Max. deviation = 0.0 dB
		L04	Onsite at Glebe Island		14529646	Initial calibration level 92.3 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						
CSL Reliance	March 4, 2026 / 13:39		March 6, 2026 / 20:51		GLB7	L03
Wyuna	March 7, 2026 / 10:59		March 9, 2026 / 21:00		GLB8	L03
Pioneer	March 11, 2026 / 9:01		March 13, 2026 / 20:53		GLB7	L03

Vessel name	Arrival date and time	Departure date and time	Berth location	Applicable noise monitoring location/s
Decisive	March 26, 2026 / 19:41	March 29, 2026 / 12:00	GLB7	L03
Luga ¹	March 29, 2026 / 17:55	April 3, 2026 / 9:47	GLB8	L03
Cruise vessels				
Amera	March 2, 2026 / 7:00	March 5, 2026 / 00:59	WHT4	L02
Azamara Onward	March 2, 2026 / 8:02	March 4, 2026 / 17:52	WBCT	L01
Norwegian Spirit	March 5, 2026 / 5:39	March 5, 2026 / 17:47	WBCT	L01
Volendam	March 7, 2026 / 7:07	March 8, 2026 / 18:39	WBCT	L01
Carnival Adventure	March 13, 2026 / 6:08	March 13, 2026 / 15:43	WBCT	L01
Noordam	March 15, 2026 / 2:45	March 15, 2026 / 21:00	WHT4	L02
Riviera	March 15, 2026 / 6:45	March 15, 2026 / 18:09	WBCT	L01
Carnival Adventure	March 16, 2026 / 1:41	March 16, 2026 / 15:29	WBCT	L01
Carnival Adventure	March 23, 2026 / 5:22	March 23, 2026 / 15:51	WBCT	L01
Norwegian Spirit	March 29, 2026 / 6:46	March 29, 2026 / 18:25	WBCT	L01
Other vessel				
Atlantic Dawn	March 4, 2026 / 16:43	March 6, 2026 / 13:48	GLB1	No monitoring undertaken
Berge Shari	March 18, 2026 / 8:25	March 27, 2026 / 6:09	GLB1	Attended ²
HMAS Stuart	March 21, 2026 / 15:40	March 25, 2026 / 16:00	WHT3	L02
HMAS Ballarat	March 21, 2026 / 16:32	March 25, 2026 / 13:50	WHT3	L02
HMAS Leeuwin	March 21, 2026 / 18:10	March 25, 2026 / 13:30	GLB1	No monitoring undertaken
Notes:				
1) A movement of Luga was recorded at 11:00 on 01/04/2026, but the vessel did not leave GLB8				
2) Results from attended monitoring have been included in a separate 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											
CSL Reliance	Mar 4 – Mar 6	L03	55	55	71	60	55	65	Yes	Yes	No
Wyuna	Mar 7 – Mar 9	L03	59	54	61	60	55	65	Yes	Yes	Yes
Pioneer	Mar 11 – Mar 13	L03	54	53	60	60	55	65	Yes	Yes	Yes
Decisive	Mar 26 – Mar 29	L03	54	48	62	60	55	65	Yes	Yes	Yes
Luga	Mar 29 – April 3	L03	57	57	64	60	55	65	Yes	No	Yes
Other vessels											
Berge Shari	Mar 18 – Mar 27	Attended ⁴	58	52	- ⁵	60	55	65	Yes	Yes	-
HMAS Stuart	Mar 21 – Mar 25	L02	51 ⁶	50 ⁵	- ⁷	60	55	65	Yes	Yes	-
HMAS Ballarat	Mar 21 – Mar 25	L02									
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) Detailed results of the attended monitoring will be provided in a separate report 5) No L _{Amax} events during the attended monitoring period 6) Both the HMAS Stuart and HMAS Ballarat were present in White Bay 3 at the same time. As such these have been processed together as the noise results can't be separated. 7) No L _{Amax} events associated with these vessels											

2.3 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	Night
Amera	March 2	L02	52	51	N/A	58	N/A	Yes
	March 3	L02	53	51	N/A	58	N/A	Yes
	March 4	L02	54	55	N/A	58	N/A	Yes
Azamara Onward	March 2	L01	53	55	N/A	58	N/A	Yes
	March 3	L01	56	55	N/A	58	N/A	Yes
	March 4	L01	58	-	N/A	58	N/A	-
Norwegian Spirit	March 4	L01	-	57 ⁴	N/A	58	N/A	Yes
	March 5	L01	58	-	N/A	58	N/A	-
Volendam	March 7	L01	56	51	N/A	58	N/A	Yes
	March 8	L01	57	-	N/A	58	N/A	-
Carnival Adventure	March 12	L01	-	51 ⁵	N/A	58	N/A	Yes
	March 13	L01	61	-	N/A	58	N/A	-
Noordam	March 14	L02	-	50 ⁶	N/A	58	N/A	Yes
	March 15	L02	55	-	N/A	58	N/A	-
Riviera	March 14	L01	-	- ⁷	N/A	58	N/A	-
	March 15	L01	55	-	N/A	58	N/A	-
Carnival Adventure	March 15	L01	-	52 ⁸	N/A	58	N/A	Yes
	March 16	L01	60	-	N/A	58	N/A	-
Carnival Adventure	March 22	L01	-	53 ⁹	N/A	58	N/A	Yes
	March 23	L01	59	-	N/A	58	N/A	-
Norwegian Spirit	March 28	L01	-	- ¹⁰	N/A	58	N/A	-
	March 29	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 March 4 as the period from 7 am on March 4 to 7 am on March 5. The Norwegian Spirit arrived at 05:39 am on March 5 and has been incorporated in the data for March 4."

5) The system classifies March 12 as the period from 7 am on March 12 to 7 am on March 13. The Carnival Adventure arrived at 06:08 am on March 13 and has been incorporated in the data for March 12.

6) The system classifies March 14 as the period from 7 am on March 14 to 7 am on March 15. The Noordam arrived at 2:45 am on March 15 and has been incorporated in the data for March 14.

7) The system classifies March 14 as the period from 7 am on March 14 to 7 am on March 15. While the vessel arrived at 6:45 am on March 15, it was not berthed long enough for the system to determine noise levels for the nighttime period of the 14th.

8) The system classifies March 15 as the period from 7 am on March 15 to 7 am on March 16. The Carnival Adventure arrived at 01:41 am on March 16 and has been incorporated in the data for March 15.

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	Night
9) The system classifies March 22 as the period from 7 am on March 22 to 7 am on March 23. The Carnival Adventure arrived at 05:22 am on March 23 and has been incorporated in the data for March 22.								
10) The system classifies March 28 as the period from 7 am on March 28 to 7 am on March 29. While the vessel arrived at 6:46 am on March 29, it was not berthed long enough for the system to determine noise levels for the nighttime period of the 28th.								

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 (i.e. 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 CSL Reliance (GLB7) – March 4, 2026 – March 6, 2026

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
March 4, 2026	Day	L03	L _{Aeq} , 15 hour ¹	54	No	Yes	60	Yes
	Night		L _{Aeq} , 1 hour ¹	55	-	-	55	Yes
			L _{Amax}	71	-	-	65	No
March 5, 2026	Day	L03	L _{Aeq} , 15 hour ¹	55	No	Yes	60	Yes
	Night		L _{Aeq} , 1 hour ¹	54 ⁴	Yes ⁴	Yes	55	Yes
			L _{Amax}	60	-	-	65	Yes
March 6, 2026	Day	L03	L _{Aeq} , 15 hour ¹	54	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 inclusive of any penalties for modifying factors

2) Inclusive of any penalties for modifying factors

3) LFN = Low Frequency Noise

4) Measurements determined that noise was tonal at 6,300 Hz for periods during this night time period. A further review into the data determined that this was likely associated with extraneous noise in the area rather than the vessel. As such, no tonal correction has been applied.

3.1.2 Additional information

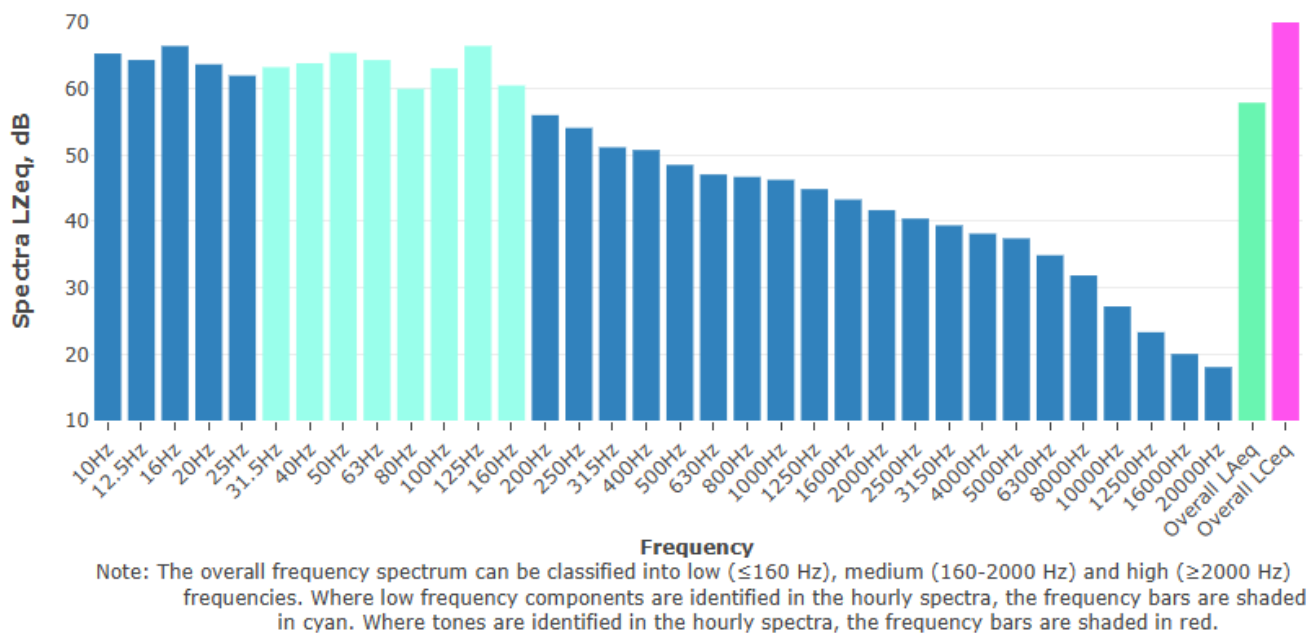


Figure 3.1 Typical vessel spectrum – noise level at L03

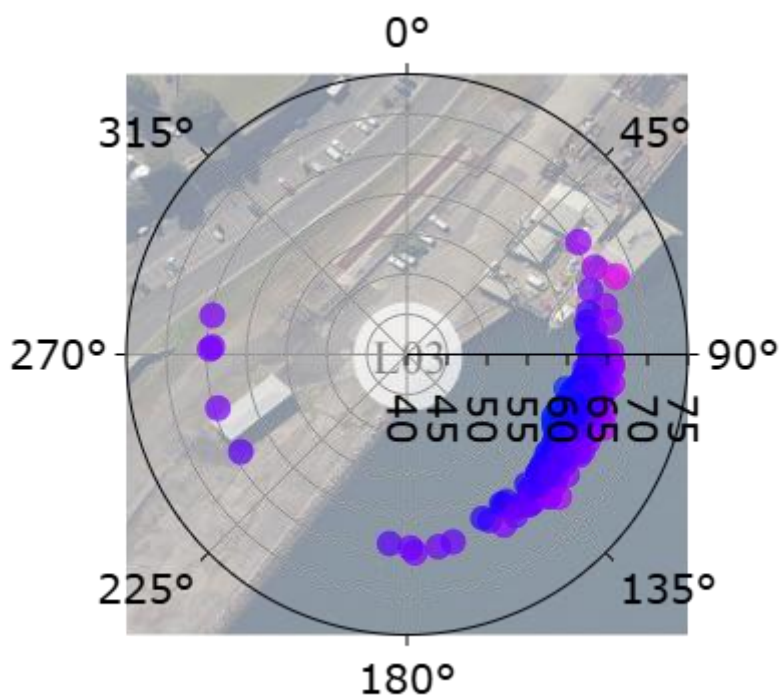


Figure 3.2 Typical vessel polar (directional) plot

3.2 Wyuna (GLB8) – March 7, 2026 – March 9, 2026

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
March 7, 2026	Day	L03	L _{Aeq} , 15 hour ¹	54	No	Yes	60	Yes
	Night		L _{Aeq} , 1 hour ¹	54 ⁴	No	Yes	55	Yes
			L _{Amax}	61 ⁴	-	-	65	Yes
March 8, 2026	Day	L03	L _{Aeq} , 15 hour ¹	59	No	Yes	60	Yes
	Night		L _{Aeq} , 1 hour ¹	The noise monitoring at L03 was not operational at this time. Results for the rest of the visit are considered representative				
			L _{Amax}					
March 9, 2026	Day	L03	L _{Aeq} , 15 hour ¹	58	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 inclusive of any penalties for modifying factors

2) Inclusive of any penalties for modifying factors

3) LFN = Low Frequency Noise

4) Noise levels during this period were impacted by extraneous weather. This data has been excluded from the results.

3.2.2 Additional information

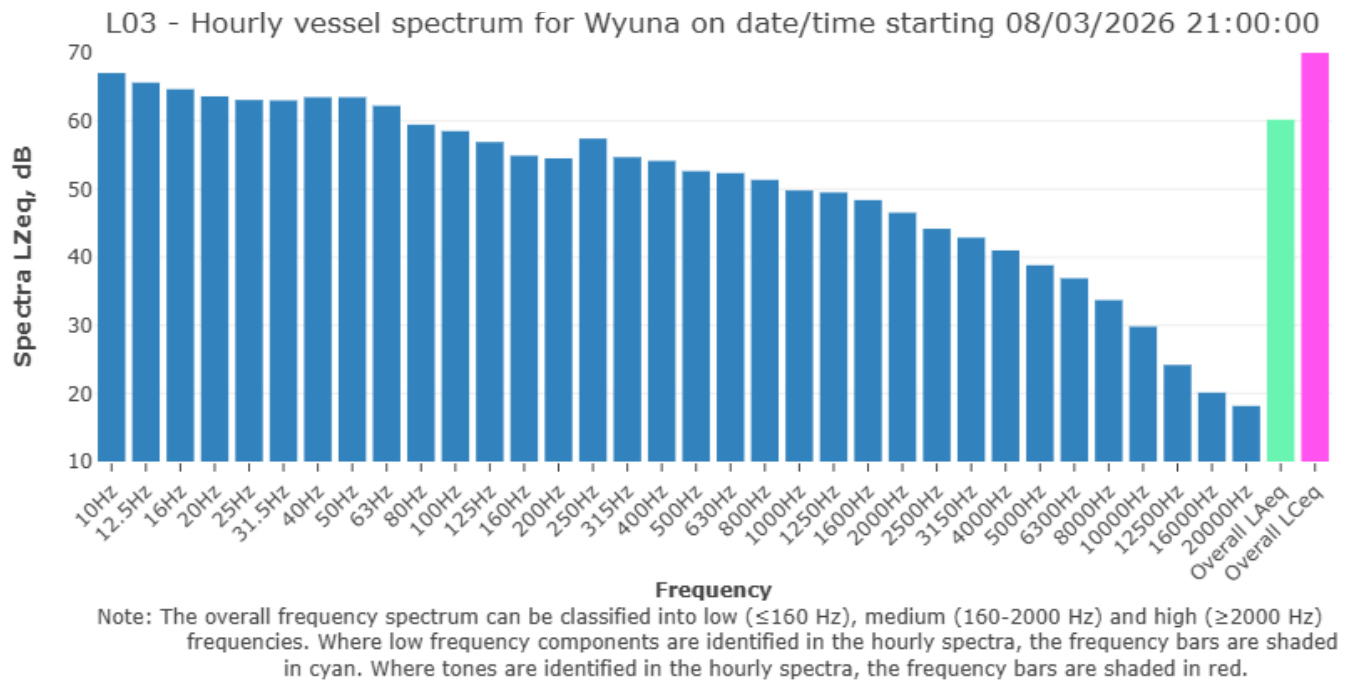


Figure 3.3 Typical vessel spectrum – noise level at L03

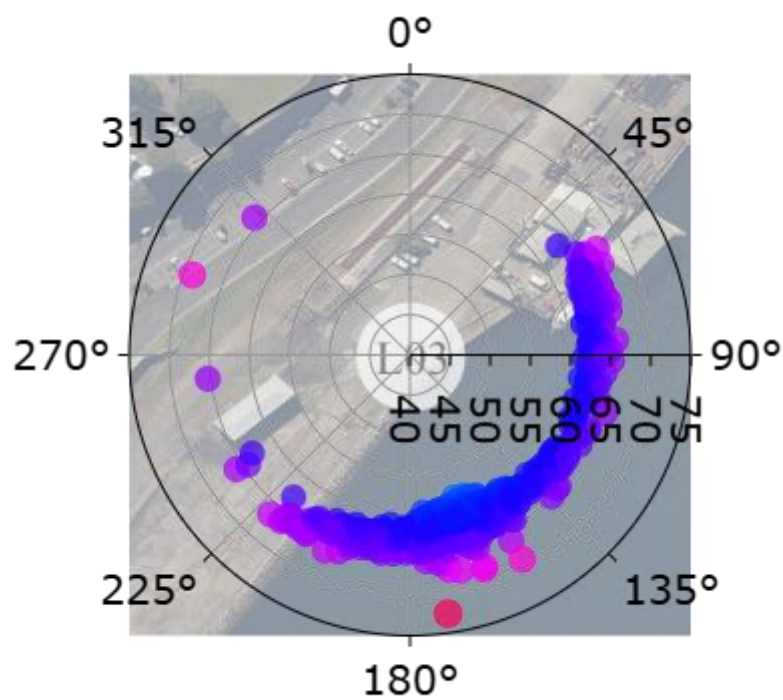


Figure 3.4 Typical vessel polar (directional) plot

3.3 Pioneer (GLB7) – March 11, 2026 – March 13, 2026

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
March 11, 2026	Day	L03	L _{Aeq} , 15 hour ¹	52	No	Yes	60	Yes
	Night		L _{Aeq} , 1 hour ¹	52	No	Yes	55	Yes
			L _{Amax}	60	-	-	65	Yes
March 12, 2026	Day	L03	L _{Aeq} , 15 hour ¹	54	Yes	Yes	60	Yes
	Night		L _{Aeq} , 1 hour ¹	53	No	Yes	55	Yes
			L _{Amax}	58 ⁵	-	-	65	Yes
March 13, 2026	Day	L03	L _{Aeq} , 15 hour ¹	54	Yes	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 inclusive of any penalties for modifying factors

2) Inclusive of any penalties for modifying factors

3) LFN = Low Frequency Noise

4) Noise levels during this period were impacted by extraneous weather. This data has been excluded from the results.

5) Several maximum noise level events occurred between 6:24am and 6:59am of March 13. A further review into the data determined that this was likely associated with extraneous noise in the area rather than the vessel. This data has been excluded from the results

3.3.2 Additional information

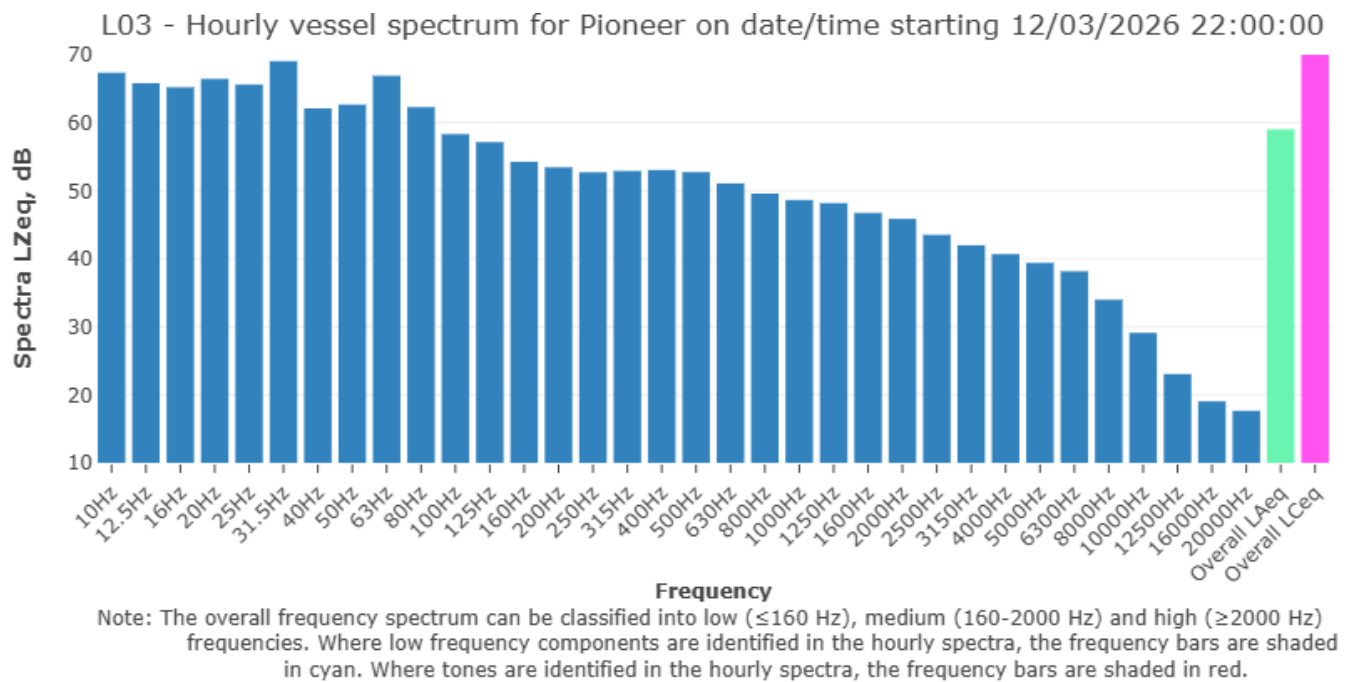


Figure 3.5 Typical vessel spectrum – noise level at L03

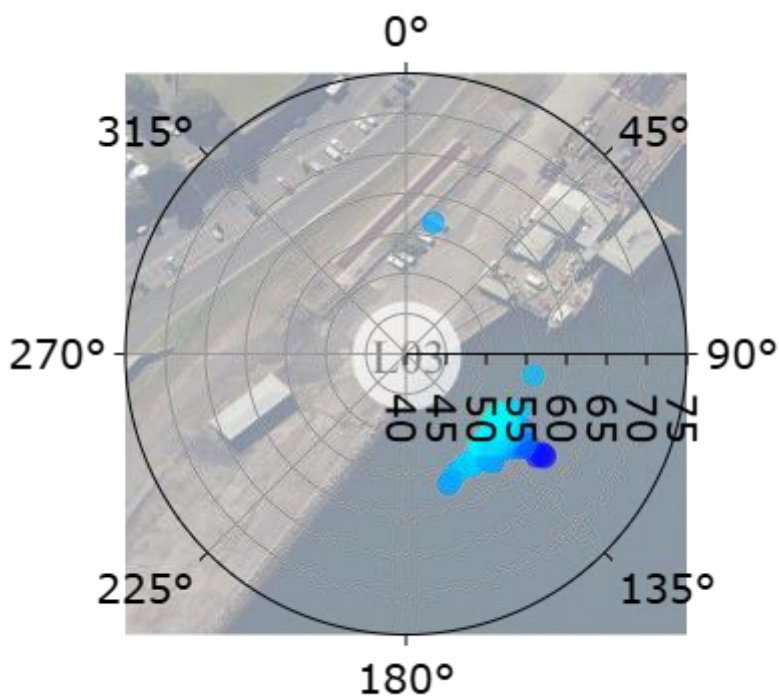


Figure 3.6 Typical vessel polar (directional) plot

3.4 Decisive (GLB7) – March 26, 2026 – March 29, 2026

The data for the Decisive was manually processed and as such, no spectrum or polar plots are available.

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
March 26, 2026	Day	L03	L _{Aeq} , 15 hour ¹	48	No	Yes	60	Yes
	Night		L _{Aeq} , 1 hour ¹	48	No	Yes	55	Yes
			L _{Amax}	62	-	-	65	Yes
March 27, 2026	Day	L03	L _{Aeq} , 15 hour ¹	54	No	Yes	60	Yes
	Night		L _{Aeq} , 1 hour ¹	No data was available due to extraneous weather during this period				
			L _{Amax}					
March 28, 2026	Day	L03	L _{Aeq} , 15 hour ¹	54	No	Yes	60	Yes
	Night		L _{Aeq} , 1 hour ¹	The noise monitoring at L03 was not operational at this time. Results for the rest of the visit are considered representative				
			L _{Amax}					
March 29, 2026	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 inclusive of any penalties for modifying factors 2) Inclusive of any penalties for modifying factors 3) LFN = Low Frequency Noise								

3.5 Luga (GLB8) – March 29 – April 3, 2026

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
March 29, 2026	Day	L03	L _{Aeq} , 15 hour ¹	57	No	Yes	60	Yes
	Night		L _{Aeq} , 1 hour ¹	56 ⁴	Yes ⁴	Yes	55	No
			L _{Amax}	63	-	-	65	Yes
March 30, 2026	Day	L03	L _{Aeq} , 15 hour ¹	56	No	Yes	60	Yes
	Night		L _{Aeq} , 1 hour ¹	57 ⁴	Yes ⁴	Yes	55	No
			L _{Amax}	62	-	-	65	Yes
March 31, 2026	Day	L03	L _{Aeq} , 15 hour ¹	57	No	Yes	60	Yes
	Night		L _{Aeq} , 1 hour ¹	57 ⁴	Yes ⁴	Yes	55	No
			L _{Amax}	64	-	-	65	Yes
April 1, 2026	Day	L03	L _{Aeq} , 15 hour ¹	56	No	Yes	60	Yes
	Night		L _{Aeq} , 1 hour ¹	55 ⁴	Yes ⁴	Yes	55	Yes
			L _{Amax}	59	-	-	65	Yes
April 2, 2026	Day	L03	L _{Aeq} , 15 hour ¹	55	No	Yes	60	Yes
	Night		L _{Aeq} , 1 hour ¹	57 ⁴	Yes ⁴	Yes	55	No
			L _{Amax}	64	-	-	65	Yes
April 3, 2026	Day	L03	L _{Aeq} , 15 hour ¹	57	No	Yes	60	Yes
	Night		L _{Aeq} , 1 hour ¹	-	No	Yes	55	Yes
			L _{Amax}	-	-	-	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) Measurements determined that noise was tonal at 6,300 Hz for periods during this night time period. A further review into the data determined that this was likely associated with extraneous noise in the area rather than the vessel. As such, no tonal correction has been applied.

3.5.2 Additional information

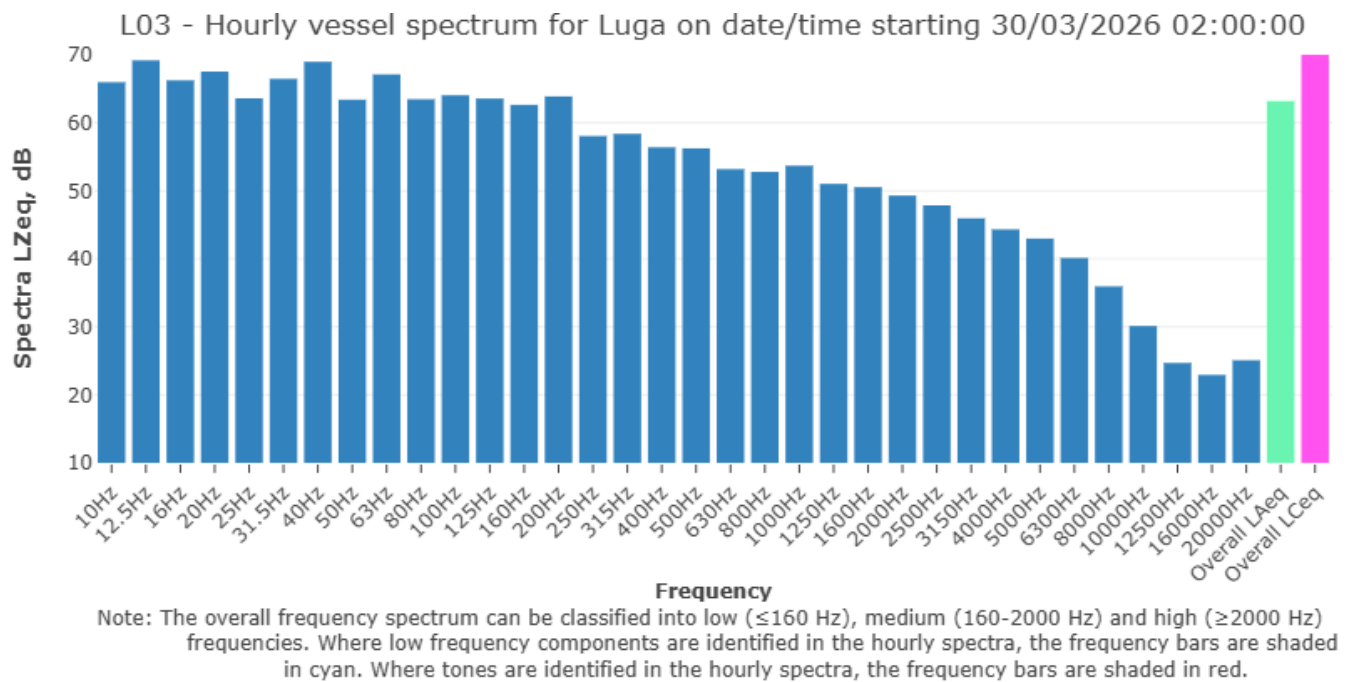


Figure 3.7 Typical vessel spectrum – noise level at L03

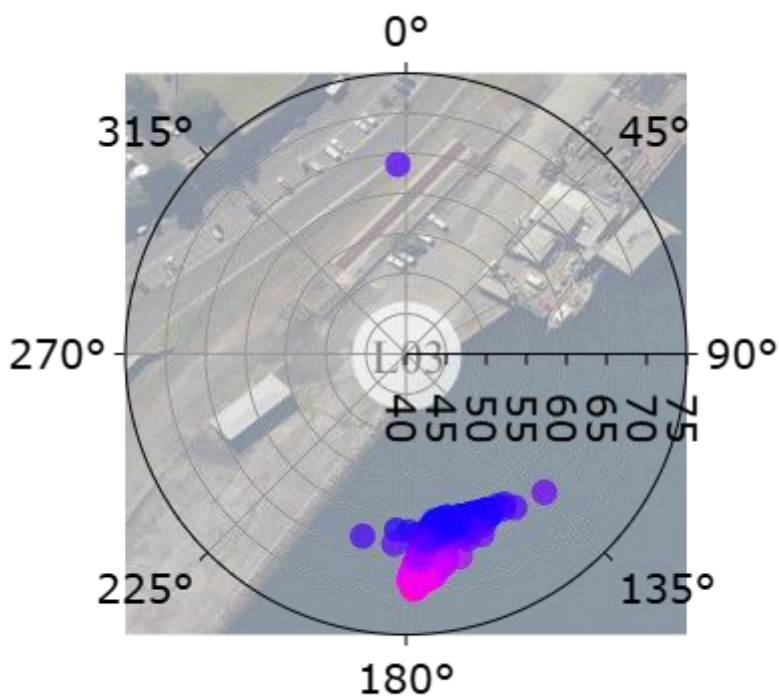


Figure 3.8 Typical vessel polar (directional) plot

3.6 HMAS Stuart and HMAS Ballarat (WHT3) – March 21, 2026 – March 25, 2026

Both the HMAS Stuart and HMAS Ballarat were present in White Bay 3 at the same time. As such these have been processed together as the noise results can't be separated. These were manually processed and as such, no spectrum or polar plots are available.

3.6.1 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
March 21, 2026	Day	L02	L _{Aeq} , 15 hour ¹	47	No	Yes	60	Yes
	Night		L _{Aeq} , 1 hour ¹	47	Yes	Yes	55	Yes
			L _{Amax}	– ⁴	-	-	65	-
March 22, 2026	Day	L02	L _{Aeq} , 15 hour ¹	48	No	Yes	60	Yes
	Night		L _{Aeq} , 1 hour ¹	50	-	-	55	Yes
			L _{Amax}	– ⁴	-	-	65	-
March 23, 2026	Day	L02	L _{Aeq} , 15 hour ¹	48	No	Yes	60	Yes
	Night		L _{Aeq} , 1 hour ¹	47	-	-	55	Yes
			L _{Amax}	– ⁴	-	-	65	-
March 24, 2026	Day	L02	L _{Aeq} , 15 hour ¹	48	No	Yes	60	Yes
	Night		L _{Aeq} , 1 hour ¹	47	-	-	55	Yes
			L _{Amax}	– ⁴	-	-	65	-
March 25, 2026	Day	L02	L _{Aeq} , 15 hour ¹	51	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 inclusive of any penalties for modifying factors

2) Inclusive of any penalties for modifying factors

3) LFN = Low Frequency Noise

4) No maximum noise level events associated with these vessels.



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