

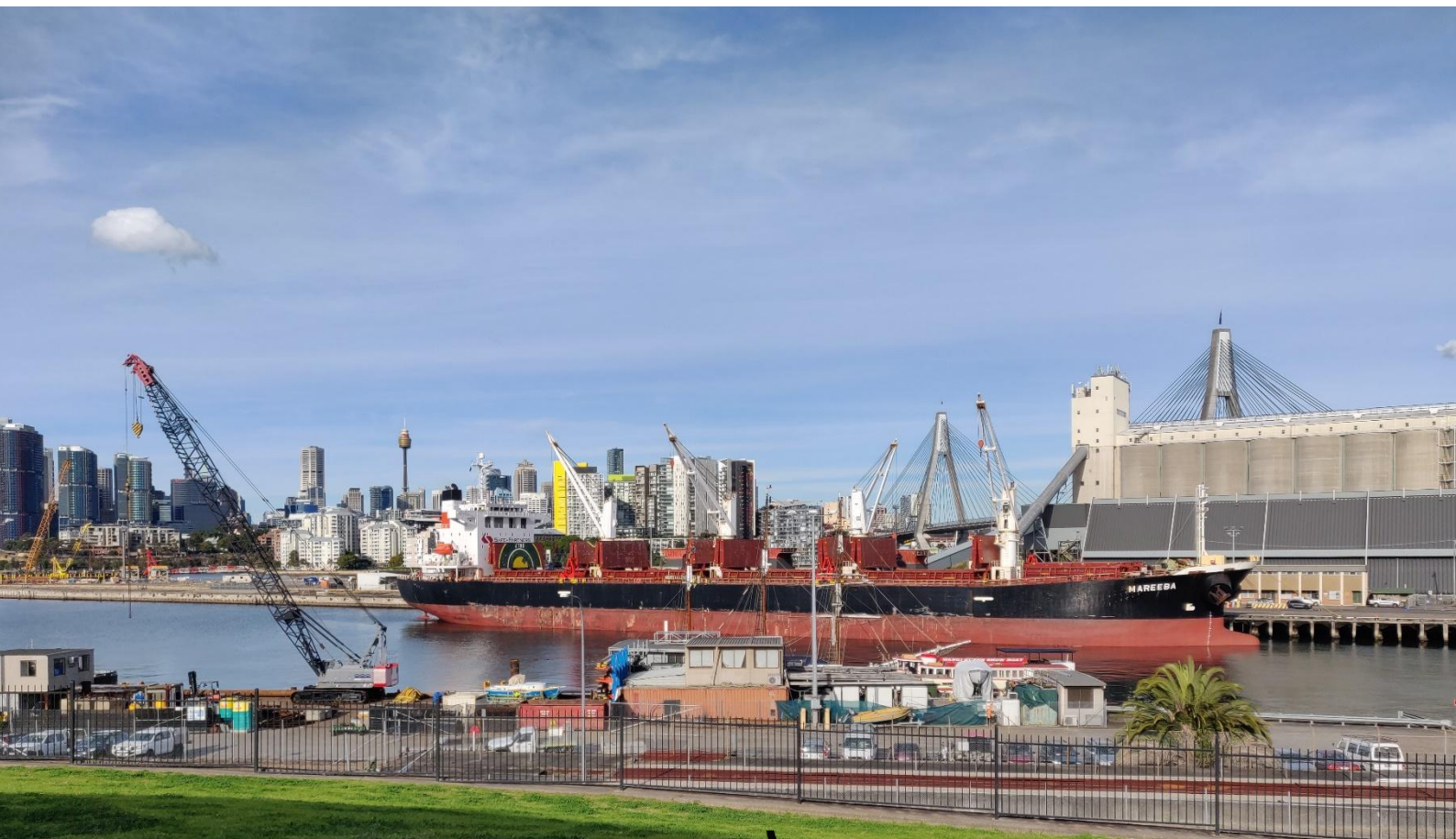


Monthly compliance noise monitoring report

Glebe Island / White Bay

Port Authority of New South Wales

December 2025



→ The Power of Commitment

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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 December 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	14529642	Initial calibration level 91.9 dBA Min. deviation = 0.0 dB Max. deviation = 0.1 dB
		L02	Maintenance Building on White Bay		14529645	Initial calibration level 91.3 dBA Min. deviation = 0.0 dB Max. deviation = 0.1 dB
		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 = 0.0 dB Max. deviation = 0.1 dB
		L04	Onsite at Glebe Island		14529646	Not operational during December
Vessel name	Arrival date and time		Departure date and time		Berth location	Applicable noise monitoring location/s
Bulk vessels						
Salvia Island ¹	December 1, 2025 / 12:50		December 5, 2025 / 9:07		GLB7	L03
Luga	December 6, 2025 / 8:22		December 8, 2025 / 21:54		GLB8	L03
Pioneer ²	December 7, 2025 / 09:28		December 12, 2025 / 21:45		GLB7 / WHT4	L03 / L02
Luga	December 29, 2025 / 20:58		January 1, 2026 / 13:48		GLB8	L03

Vessel name	Arrival date and time	Departure date and time	Berth location	Applicable noise monitoring location/s
Cruise vessels				
Viking Venus	November 29, 2025 / 07:55	December 1, 2025 / 17:59	WBCT	L01
Viking Orion ³	November 30, 2025 / 13:04	December 03, 2025 / 16:55	WHT4/WBCT	L01/L02
Carnival Adventure	December 6, 2025 / 04:57	December 6, 2025 / 15:40	WBCT	L01
Seabourn Quest	December 20, 2025 / 07:09	December 20, 2025 / 16:55	WBCT	L01
Norwegian Spirit	December 21, 2025 / 05:55	December 21, 2025 / 17:53	WBCT	L01
The World ⁴	December 21, 2025 / 10:11	December 26, 2025 / 22:47	WHT4/WBCT	L01/L02
Carnival Adventure	December 26, 2025 / 04:54	December 26, 2025 / 15:25	WBCT	L01
Viking Venus	December 27, 2025 / 07:41	December 29, 2025 / 03:54	WBCT	L01
Seven Seas Explorer	December 27, 2025 / 09:06	December 28, 2025 / 18:38	WHT4	L02
Disney Wonder	December 29, 2025 / 07:00	December 29, 2025 / 17:44	WBCT	L01
Viking Orion ⁵	December 29, 2025 / 07:59	December 30, 2025 / 20:05	WHT4/WBCT	L01/L02
Silver Moon	December 30, 2025 / 14:01	January 01, 2026 /09:01	WHT4	L02
Azamara Pursuit	December 31, 2025 / 07:38	January 01, 2026 / 10:23	WBCT	L01
Other vessels				
Hansa Homburg ⁶	October 30/10/2025 05:47	December 7, 2025 / 14:03	WHT4	L01/L02 and attended

Notes:

- 1) On 03/12/2025, a movement of Salvia Island was recorded at 07:10, but the vessel did not leave GLB7
- 2) Pioneer moved to WHT4 on 08/12/2025 at 21:09. On 09/12/2025, it moved back to GLB7 at 00:53
- 3) Viking Orion arrived at WHT4 on 30/11/2025 and moved to WBCT on 01/12/2025 at 19:07. Its departure from WBCT was on 03/12/2025
- 4) The World arrived at WHT4 on 21/12/2025 and moved to WBCT on the same day at 20:08. On 22/12/2025, a movement of The World was recorded at 07:47, but the vessel did not leave WBCT. On 25/12/2025, The World moved to WHT4 at 15:50. Its departure from WHT4 was on 26/12/2025.
- 5) Viking Orion arrived at WHT4 on 29/12/2025 and moved to WBCT on the same day at 19:12. Its departure from WBCT was on 30/12/2025.
- 6) Results for the Hansa Homburg are provided in the November report, along with specific report detailing the attended noise monitoring.

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											
Salvia Island	Dec 1 – Dec 5	L03	53	52	71	60	55	65	Yes	Yes	No ⁴
Luga	Dec 6 – Dec 8	L03	56	54	63	60	55	65	Yes	Yes	Yes
Pioneer	Dec 7 – Dec 12	L03	52	53	63	60	55	65	Yes	Yes	Yes
Luga	Dec 29 – Jan 1	L03	57	55	62	60	55	65	Yes	Yes	Yes
Hansa Homburg	Oct 30 – Dec 7	L01 / L02	66	56	78	60	55	65	No ⁵	No ⁵	No ⁵

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) This maximum level event occurred once during the night time period at 5:50 am. Given the exceedance only occurred once, and the vessel was compliant at all other times on this date, this is not considered a significant exceedance.
- 5) See November report for details

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 ⁵	Night
Viking Venus	Nov 29	L01	54	52	N/A	58	N/A	Yes
	Nov 30	L01	53	50	N/A	58	N/A	Yes
	Dec 1	L01	54	-	N/A	58	N/A	-
Viking Orion	Nov 30	L02	50	48	N/A	58	N/A	Yes
	Dec 1	L02	50	-	N/A	58	N/A	-
	Dec 1	L01	51	51	N/A	58	N/A	Yes
	Dec 2	L01	55	51	N/A	58	N/A	Yes
	Dec 3	L01	55	-	N/A	58	N/A	-
Carnival Adventure	Dec 5 ⁴	L01	-	53	N/A	58	N/A	Yes
	Dec 6	L01	58	-	N/A	58	N/A	-
Seabourn Quest	Dec 20	L01	52	-	N/A	58	N/A	-
Norwegian Spirit	Dec 20 ⁵	L01	-	58	N/A	58	N/A	Yes
	Dec 21	L01	58	-	N/A	58	N/A	-
The World	Dec 21	L02	56	-	N/A	58	N/A	-
	Dec 21	L01	51	50	N/A	58	N/A	-
	Dec 22	L01	53	50	N/A	58	N/A	Yes
	Dec 23	L01	53	50	N/A	58	N/A	Yes
	Dec 24	L01	52	52	N/A	58	N/A	Yes
	Dec 25	L01	53	-	N/A	58	N/A	-
	Dec 25	L02	54	51	N/A	58	N/A	Yes
	Dec 26	L02	56	-	N/A	58	N/A	-
Carnival Adventure	Dec 25 ⁶	L01	-	53	N/A	58	N/A	Yes
	Dec 26	L01	58	-	N/A	58	N/A	-
Viking Venus	Dec 27	L01	53	50	N/A	58	N/A	Yes
	Dec 28 ⁷	L01	55	47	N/A	58	N/A	Yes
Seven Seas Explorer	Dec 27	L02	56	51	N/A	58	N/A	Yes
	Dec 28	L02	57	-	N/A	58	N/A	-
Disney Wonder	Dec 29	L01	57	-	N/A	58	N/A	-
Viking Orion	Dec 29	L02	55	-	N/A	58	N/A	-

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
	Dec 29	L01	53	50	N/A	58	N/A	Yes
	Dec 30	L01	52	-	N/A	58	N/A	-
Silver Moon	Dec 30	L02	55	51	N/A	58	N/A	Yes
	Dec 31	L02	56	56 ⁸	N/A	58	N/A	Yes
	Jan 1	L02	54	-	N/A	58	N/A	-
Azamara Pursuit	Dec 31	L01	55	54 ⁸	N/A	58	N/A	Yes
	Jan 1	L01	55	-	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 December 5 as the period from 7 am on December 5 to 7 am on December 6. The Carnival Adventure arrived at 04:57 am on December 6, and has been incorporated in the data for December 5.
- 5) The system classifies December 20 as the period from 7 am on December 20 to 7 am on December 21. The Norwegian Spirit arrived at 04:54 am on December 21, and has been incorporated in the data for December 20.
- 6) The system classifies December 25 as the period from 7 am on December 25 to 7 am on December 26. The Carnival Adventure arrived at 04:54 am on December 26, and has been incorporated in the data for December 25.
- 7) The system classifies December 28 as the period from 7 am on December 28 to 7 am on December 29. The Viking Venus departed at 03:54 am on December 29, and has been incorporated in the data for December 28.
- 8) Noise levels were impacted by the New Year's Eve fireworks. These have excluded from these results

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 Salvia Island (GLB7) – December 1 – December 5, 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
December 1 2025	Day	L03	L _{Aeq} , 15 hour ¹	51	No	Yes	60	Yes
	Night		L _{Aeq} , 1 hour ¹	52	No	Yes	55	Yes
			L _{Amax}	71 ⁴	-	-	65	No ⁴
December 2 2025	Day	L03	L _{Aeq} , 15 hour ¹	53	No	Yes	60	Yes
	Night		L _{Aeq} , 1 hour ¹	51	No	Yes	55	Yes
			L _{Amax}	64	-	-	65	Yes
December 3 2025	Day	L03	L _{Aeq} , 15 hour ¹	51	No	No	60	Yes
	Night		L _{Aeq} , 1 hour ¹	-.5	-.5	-.5	55	-.5
			L _{Amax}	-.5	-.5	-.5	65	-.5
December 4 2025	Day	L03	L _{Aeq} , 15 hour ¹	51	No	Yes	60	Yes
	Night		L _{Aeq} , 1 hour ¹	52	No	Yes	55	Yes
			L _{Amax}	61	-	-	65	Yes
December 5 2025	Day	L03	L _{Aeq} , 15 hour ¹	47	No	Yes	60	Yes
	Night		L _{Aeq} , 1 hour ¹	-	-	-	55	-
			L _{Amax}	-	-	-	65	-

Notes

- 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
- LFN = Low Frequency Noise
- This maximum level event occurred once during the night time period at 5:50 am. Given the exceedance only occurred once, and the vessel was compliant at all other times on this date, this is not considered a significant exceedance.
- The system was not operational during this period.

3.1.2 Additional information

The data for the Salvia Island was manually processed from the raw data. As such, the spectrum and polar plots are not available.

3.2 Luga (GLB8) – December 6 – December 8, 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
December 6 2025	Day	L03	L _{Aeq, 15 hour} ¹	55	No	Yes	60	Yes
	Night		L _{Aeq, 1 hour} ¹	54 ⁴	No	Yes	55	Yes
			L _{Amax}	63	-	-	65	Yes
December 7 2025	Day	L03	L _{Aeq, 15 hour} ¹	55	No	Yes	60	Yes
	Night		L _{Aeq, 1 hour} ¹	54 ⁵	No	Yes	55	Yes
			L _{Amax}	58	-	-	65	Yes
December 8 2025	Day	L03	L _{Aeq, 15 hour} ¹	56 ⁵	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) 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

5) Pioneer was present from this period onwards. The contribution from the Luga has been determined based on noise levels prior to the arrival of the Pioneer and historical data.

3.2.2 Additional information

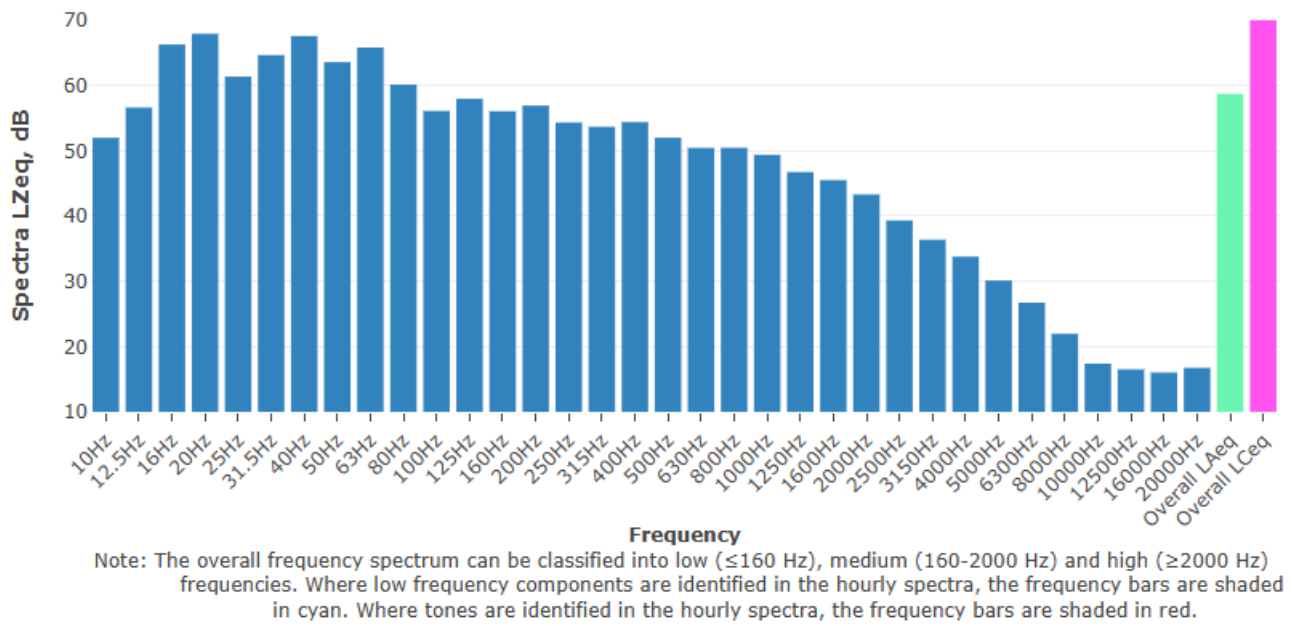


Figure 3.1 Typical vessel spectrum – noise level at L03

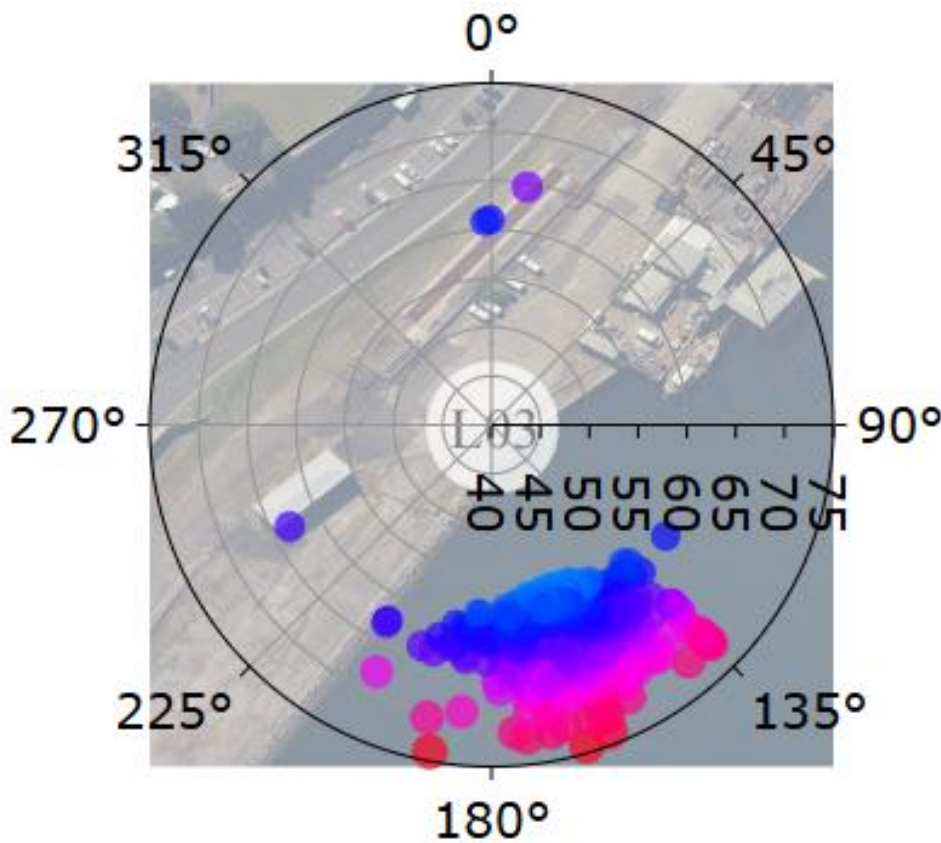


Figure 3.2 Typical vessel polar (directional) plot

3.3 Pioneer (GLB7 and WHT4) – December 7 – December 12, 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
December 7 2025	Day Night	L03	Pioneer (GLB7) and Luga (GLB8) were both present at this time. Noise from the Luga was dominant at during this period and have been assigned to this vessel					
December 8 2025	Day	L02	L _{Aeq} , 15 hour ¹	52	No	Yes	60	Yes
	Night		L _{Aeq} , 1 hour ¹	49	No	Yes	55	Yes
			L _{Amax}	63	-	-	65	Yes
December 9 2025	Day	L03	L _{Aeq} , 15 hour ¹	50	No	Yes	60	Yes
	Night		L _{Aeq} , 1 hour ¹	51	Yes ⁴	Yes	55	Yes
			L _{Amax}	- ⁵	-	-	65	- ⁵
December 10 2025	Day	L03	L _{Aeq} , 15 hour ¹	49	No	Yes	60	Yes
	Night		L _{Aeq} , 1 hour ¹	53 ⁴	Yes ⁴	Yes	55	Yes
			L _{Amax}	- ⁵	-	-	65	- ⁵
December 11 2025	Day	L03	L _{Aeq} , 15 hour ¹	51	No	Yes	60	Yes
	Night		L _{Aeq} , 1 hour ¹	52	Yes ⁴	Yes	55	Yes
			L _{Amax}	- ⁵	-	-	65	- ⁵
December 12 2025	Day	L03	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

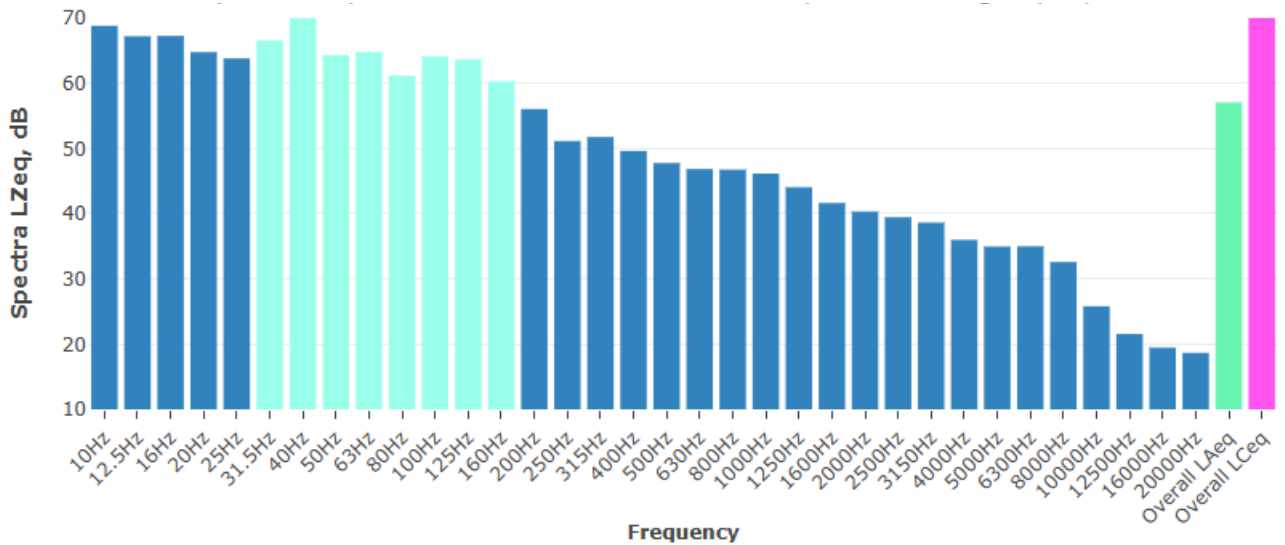
2) Inclusive of any penalties for modifying factors

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

5) During these night periods, there was a large number of maximum noise level events were triggered. A review was unable to determine the source of these exceedances, however based on the typical operations of the vessel and results from the previous visits of the Pioneer, it is unlikely that these were associated with the vessel. As such, this data has been excluded from the results.

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 3.3 Typical vessel spectrum – noise level at L03

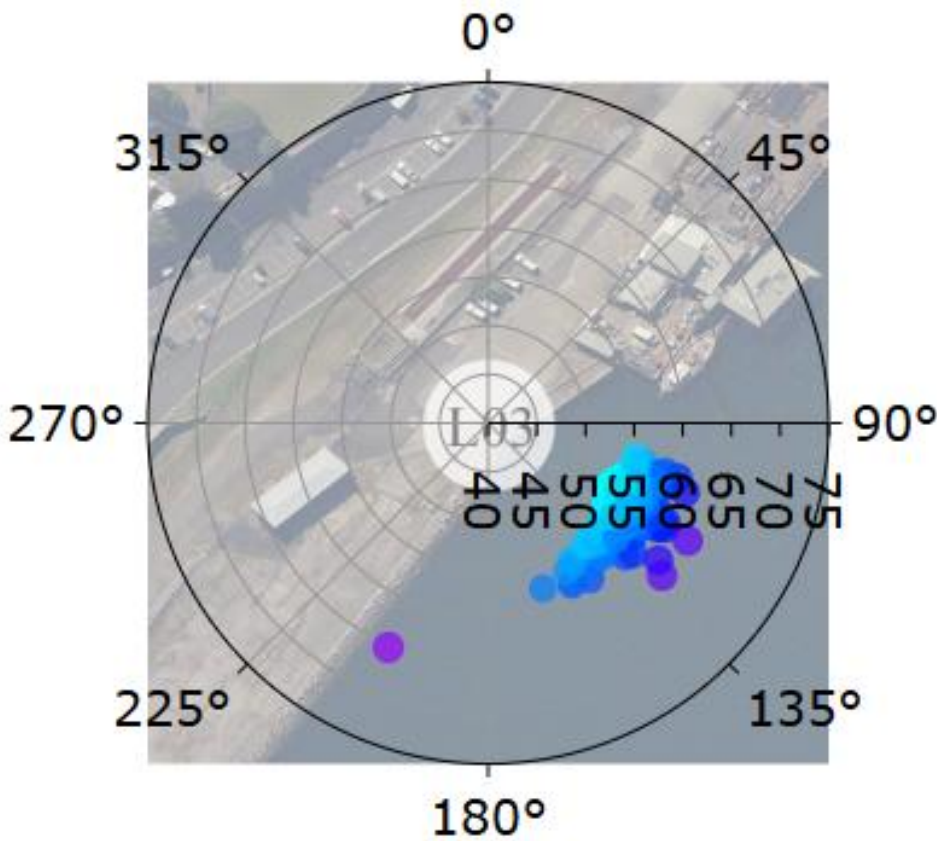


Figure 3.4 Typical vessel polar (directional) plot

3.4 Luga (GLB8) –December 29, 2025 – January 1, 2026

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
December 29 2025	Day	L03	L _{Aeq} , 15 hour ¹	- ⁴	- ⁴	- ⁴	60	- ⁴
	Night		L _{Aeq} , 1 hour ¹	- ⁴	- ⁴	- ⁴	55	- ⁴
			L _{Amax}	- ⁴	- ⁴	- ⁴	65	- ⁴
December 30 2025	Day	L03	L _{Aeq} , 15 hour ¹	54	No	Yes	60	Yes
	Night		L _{Aeq} , 1 hour ¹	53	Yes	Yes	55	Yes
			L _{Amax}	62	-	-	65	Yes
December 31 2025	Day	L03	L _{Aeq} , 15 hour ¹	54	No	Yes	60	Yes
	Night		L _{Aeq} , 1 hour ¹	55	Yes	Yes	55	Yes
			L _{Amax}	60 ⁵	-	-	65	Yes
January 1 2026	Day	L03	L _{Aeq} , 15 hour ¹	57	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) The system was not operational during this period
- 5) Noise levels were impacted by the New Year's Eve fireworks. These have excluded from these results

3.4.2 Additional information

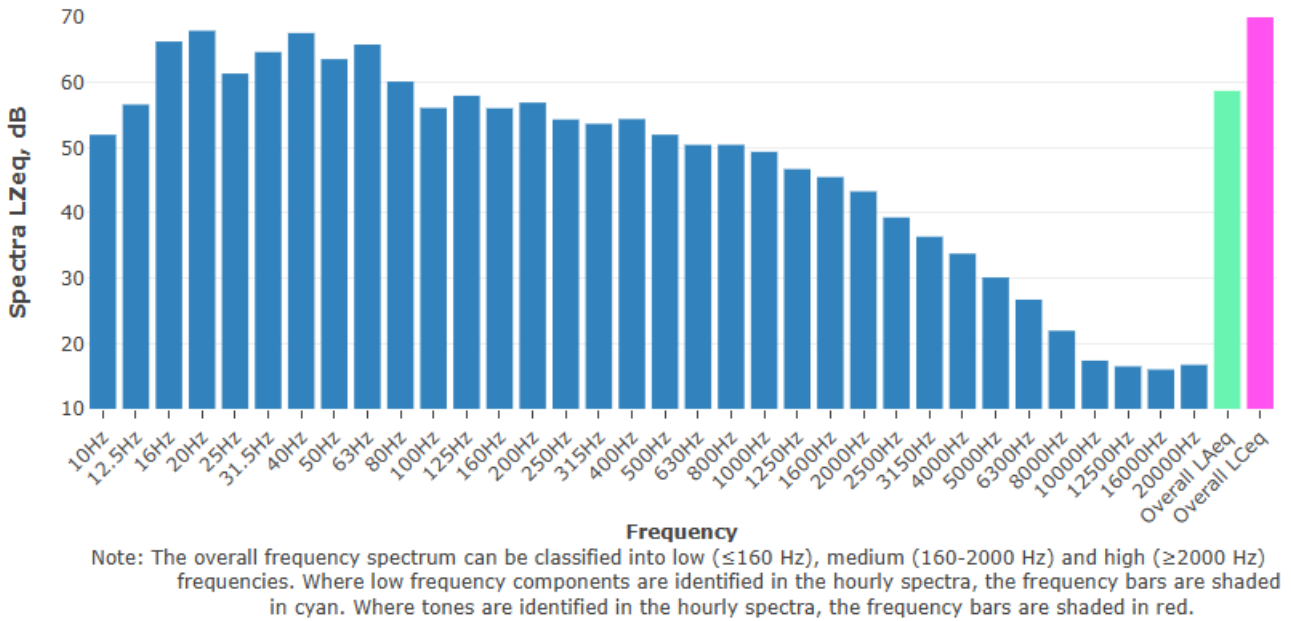


Figure 3.5 Typical vessel spectrum – noise level at L03

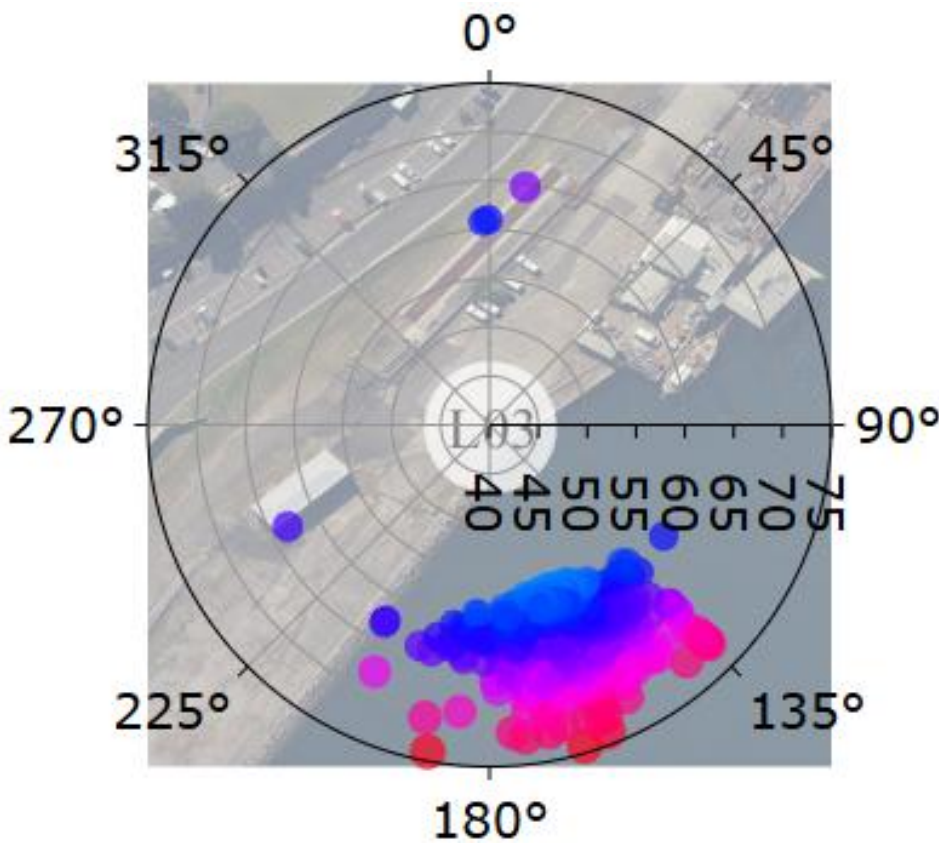


Figure 3.6 Typical vessel polar (directional) plot



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