



Seabird Data Summary Cambriol G-92 July 07, 2020, to September 21, 2020

Facility: Transocean Barents

- Position: 47°51.32' North 046°59.08' West
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1.0 INTRODUCTION

PAL Aerospace Ice and Environmental Services were contracted by Equinor Canada Ltd. (Equinor) to provide environmental and seabird and mammal monitoring services in support of operations on the Cambriol G-92 wellsite (Figure 1) from July 07, 2020, at 0515z to September 21, 2020, at 1115z.

During this time, the Transocean Barents (Figure 2) was staffed with PAL Aerospace's Offshore Ice and Environmental Observers/Specialists as the Marine Mammal, Sea Turtle, and Seabird Observers (MMSTSO), by request of the operator. They conducted three seabird surveys daily and visual observations for marine mammals; all following the Geophysical, Geological, Environmental and Geotechnical Program Guidelines (C-NLOPB, 2019).

The MMSTSO was responsible for systematic searches for stranded seabirds while on the Cambriol G-92 wellsite. Information provided in this report spans from August 10, 2020, to September 21, 2020; however, any stranded seabirds identified on the Transocean Barents' deck were brought to the PAL employee's attention onboard and recorded in the appropriate documentation.

All data collected on the Transocean Barents was stored in a local database at PAL Aerospace and used to compile this report. For environmental data comparison, all times and dates are in Coordinated Universal Time (UTC).





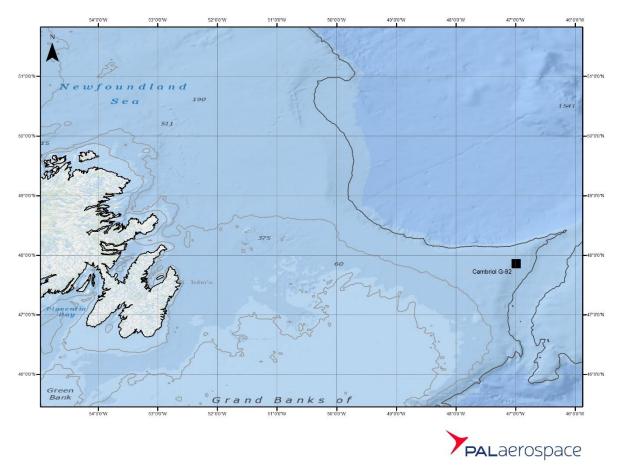


Figure 1: Cambriol G-92 Well Site Location (47°51.32'N, 046°59.08'W)







Figure 2: Transocean Barents





2.0 SUMMARY OF SEABIRD SURVEY, HANDLING, AND OBSERVATION

Equinor conducted a seabird monitoring program on the Cambriol G-92 well site from July 07, 2020, when the Transocean Barents arrived on location, to September 21, 2020, when the project completed for that well site. Observations on the Transocean Barents were conducted by the MMSTSO. These observations were completed as per the Eastern Canada Seabirds at Sea (ECSAS) Standardized Protocol for Pelagic Seabird Surveys from Moving and Stationary Platforms (Gjerdrum C., 2012) and the Seabird Survey, Handling, and Observation Protocol (Equinor, 2020).

2.1 OBSERVATION PROCEDURES

- Scan a 180 arc if possible, giving priority to any birds within a 300m semi-circle (Figure 3)
- The semi-circle is broken down into five zones
 - o A: 0 50m
 - o B: 50 100m
 - o C: 100 200m
 - o D: 200 300m
 - o E: >300m

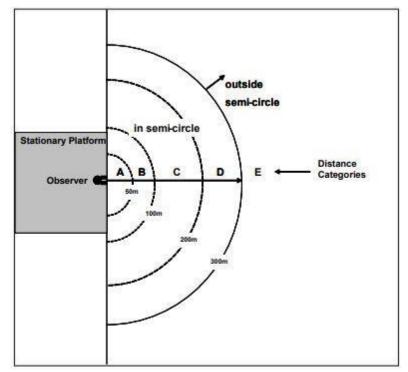


Figure 3: Seabird Observations Zones





- Visually sweep the area, once per scan, scanning from one direction to another
- Systematically record all birds on the water and in-flight
- The survey is conducted from a position outdoors whenever possible, as close to the edge of the platform as permitted
- A position near the edge will increase the detection rates of birds, especially for birds that use the waters at the base of the platform
- If surveys are being conducted from a stationary platform, such as an oil drilling rig, the MMSTSO should scan from the same location each time to increase the comparability among scans
- In poor visibility, note how far you can see and conduct the scan
- When no birds are detected during a scan, it is important to record "No birds observed."

The MMSTSO utilizes instantaneous counts of seabird occurrences and behaviour from stationary platforms at regular intervals for a total of three observations daily (from 0600 NDT to 1800 NDT). Data is collected regardless if seabirds are present or not. PAL Aerospace's environmental monitoring software, the Ice Data Network System (IDNS), records the number, species, and activities of all seabirds observed.

The MMSTSO was responsible for searching and scanning the decks for stranded and deceased seabirds twice daily. All crew members were also requested to alert the MMSTSO if stranded birds were found. The Equinor SSU Coach was available to assist the MMSTSO if needed. When stranded birds are recovered and released, the MMSTSO follows the handling methods devised by Williams and Chardine (1999).

2.2 STRANDED SEABIRD SEARCH PROCEDURES

MMSTSOs conduct daily inspections of the facility to search for potentially stranded birds. This survey quantifies species numbers and status (alive or dead), and timing of migratory bird stranding in the area. This survey consists of outlining the area searched, as well as all findings in the search. Full procedures for stranded seabird searches can be found in the Seabird Survey, Handling, and Observation Protocol (Equinor, 2020).





3.0 SUMMARY OF MARINE MAMMAL AND SEA TURTLE MONITORING

Visual observations on the Transocean Barents were conducted by the onboard MMSTSO during daylight hours. Observations were conducted primarily from the bridge. There were several sightings observed throughout the project period on the Cambriol G-92 well site. See Table 1: Marine Mammal Sightings for the Cambriol G-92 Well Site below for marine mammals identified between July 07 – September 21, 2020, on the Cambriol G-92 wellsite.

Visual scans were made with the naked eye and with 7x50 binoculars. The detection cues that were used were the presence of groups of birds, unexpected splashes, blows, and black objects breaking the surface. Whenever possible, sightings would have been photographed to aid species identification.

Species are identified based upon physical characteristics and behaviours. Identification is facilitated by consulting relevant field guides and by observer experience.

It should be noted that on July 27, 2020, a species of "Ocean Sunfish" was recorded. In the comments, the MMSTSO indicated that although this was a fish, the information was still pertinent to record. The Ocean Sunfish was reported as floating on the surface of the water.

The MMSTSO recorded all pertinent information about the sightings within PAL Aerospace's environmental monitoring software, the IDNS.





Month	Day	Year	Time (UTC)	Species	Number	Activity	Distance (m)
7	14	2020	12:50	Pilot Whale	3	Swimming By	100
7	27	2020	13:36	Ocean Sunfish	1	Other	50
9	4	2020	9:35	Atlantic White-Sided Dolphin	5	Swimming By	500
9	4	2020	12:19	Atlantic White-Sided Dolphin	7	Swimming By	500
9	4	2020	12:28	Common Dolphin	5	Swimming By	300
9	13	2020	18:20	Minke Whale	2	Swimming By	1,500

Table 1: Marine Mammal Sightings for the Cambriol G-92 Well Site





4.0 **RESULTS**

4.1 SEABIRD SIGHTINGS

The MMSTSOs provided by PAL Aerospace Ice and Environmental Services conducted seabird monitoring services on the Cambriol G-92 well site from July 07, 2020, to September 21, 2020. During this period, a total of 239 seabird observation entries recorded 4,531 individual seabirds. 62 observations (25.9% of all observations) resulted in no seabirds identified in viewing distance of the MMSTSO's facility. 20 observations (8.4% of all observations) resulted in no sightings. The most frequent individual seabird sighting was the Northern Fulmar (2,237 individual birds sighted, 49.4% of all birds sighted), followed by the Black-Legged Kittiwake (1,228 individual birds sighted, 27.1% of all birds sighted).

Table 2 and Figure 4 summarize all seabird observations recorded on the Cambriol G-92 location from July 07, 2020, to September 21, 2020.

Species	Number		
Black-Legged Kittiwake	1,228		
Great Black-Backed Gull	388		
Great Shearwater	603		
Herring Gull	16		
Leach's Storm-Petrel	10		
Northern Cardinal	4		
Northern Fulmar	2,237		
Northern Gannet	1		
Sooty Shearwater	5		
Swamp Sparrow	1		
Unknown Gull	8		
Wilson's Storm-Petrel	30		
Total	4,531		

Table 2: Seabird Sightings for the Cambriol G-92 Well Site

Observation	Number		
Total Observations	239		
No Birds	62		
No Sightings	20		





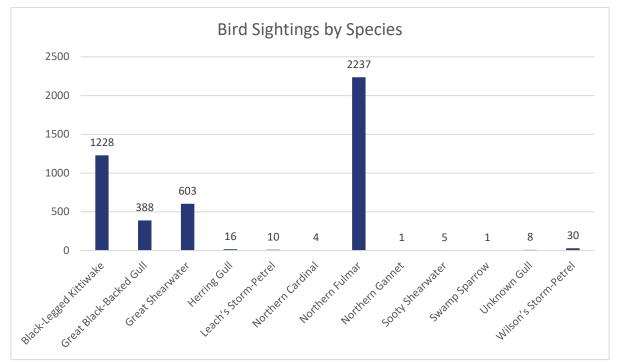


Figure 4: Seabird Sightings for the Cambriol G-92 Well Site

4.2 SEABIRD RECOVERY

Throughout the time that the Transocean Barents was in operation on the Cambriol G-92 well site, there were five separate instances where stranded seabirds were found onboard the facility. Please see Table 3: Seabird Strandings for the Cambriol G-92 Well Site for reference. The first instance occurred on September 06, 2020, at 1810z. There were two seabirds discovered, both Leach's Storm - Petrel. The birds were deceased and sent ashore.

On September 12, 2020, a Leach's Storm – Petrel was found. It was captured at 0300z, put in recovery for 2 hours, and eventually released at 0744z. It flew away unharmed.

On September 18, 2020, another Leach's Storm – Petrel was found. It was released on September 20, at 2225z, and landed in the FRC. By the next observation time, on September 19, the seabird was gone.

In the fourth instance, on September 19, a Leach's Storm – Petrel landed in the FRC; however, it was unable to be retrieved. This instance took place between 1820z – 1850z.

In the final instance, on September 20, at 0945z, a Leach's Storm – Petrel was in the box in the electrical room. Another Leach's Storm – Petrel was caught near the FRC at 1535z. Both seabirds were released at dark, between 2225z – 2246z.





Date (yyyy/mm/dd)			2020-09-06	2020-09-12	2020-09-18	2020-09-19	2020-09-20
Location of stranding (Lat/Long, or Name)			,	,	Cambriol G-92, Flemish Pass	· · ·	Cambriol G-92, Flemish Pass
Bird Species					Leach's Storm- Petrel		Leach's Storm- Petrel
Total # of Stranded Birds			2	1	1	1	2
	# Oiled		0	0	0	0	0
Found Dead	Fate	# Disposed of at Sea	0	0	0	0	0
		# Send Ashore	2	0	0	0	0
	Oiled	# Died in Care	0	0	0	0	0
		# Released Alive	0	0	0	0	0
Captured		# Sent Ashore	0	0	0	0	0
Alive	Not Oiled	# Died in Care	0	0	0	0	0
		# Released Alive	0	1	1	1	2
		# Sent Ashore	0	0	0	0	0
Fog (y/n)			Υ	Ν	Ν	Ν	Ν
Rain (y/n)			Ν	Ν	Ν	Ν	Ν

Table 3: Seabird Strandings for the Cambriol G-92 Well Site

5.0 ENVIRONMENTAL EFFECTS OF THE SURVEY

The marine mammal, sea turtle, seabird observations and stranded seabird checks summarized in this report demonstrate that appropriate monitoring procedures were implemented during the project, including following the requirements in the Canadian Statement of Practice (Government of Canada, 2016).

6.0 SUPPLEMENTARY DIGITAL DATA

The following data has also been provided for this report:

- The Seabird Spreadsheet: Spreadsheet outlining all data and statistical analysis completed (July 07, 2020 September 21, 2020);
- The Seabird Daily Reports: Forms identifying numbers for seabird searches performed (August 10, 2020 September 21, 2020);
- The Marine Mammal Reports (September 04, 2020 September 13, 2020)
- The Seabird Encounter Datasheet Tracker: Spreadsheets identifying numbers for seabirds encountered (September 02, 2020 September 13, 2020); and,
- ECSAS Spreadsheet for Import: The spreadsheet to be imported into the active database for all observation information recorded.

SEABIRD DATA SUMMARY – CAMBRIOL G-92 DOC: IES-BMM-EQU-9999-12-19-2020





7.0 WORKS CITED

- Chardine, U. W. (1999). Leach's Storm-petrel (Oceanodroma leucorhoa). A Handbook on Release Techniques Prepared for Workers on the Terra Nova Oil Field.
- C-NLOPB. (2019). Geophysical, Geological, Environmental and Geotechnical Program Guidelines. June 2019. C-NLOPB.

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- Gjerdrum, C. D. F. (2012). Eastern Canada Seabirds at Sea (ECSAS) standardized protocol for pelagic seabird surveys from moving and stationary platforms. Canadian Wildlife Service Technical Report Series No. 515.
- Government of Canada, Fisheries, Oceans Canada, and Communications Branch. 2016. "Statement of Canadian Practice with Respect to the Mitigation of Seismic Sound in the Marine Environment." https://www.dfo-mpo.gc.ca/oceans/publications/seismic-sismique/index-eng.html.