

FLIGHT REPORT
ShoreZone Aerial Video Imaging (AVI) Survey
Team Haida North (HN)
May 06-08, 2023



Naden Harbour (bc23_hn_05955)

Prepared for:

Old Massett Village Council

Prepared by:

Sea Change Marine Conservation Society



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This flight report summarizes the field activities of the ShoreZone aerial video imaging survey conducted out of Sandspit, British Columbia on May 06-08, 2023. The survey was conducted by SeaChange Marine Conservation Society (SC) for the Old Massett Village Council under a grant from the Community Emergency Preparedness Fund. An AS-350B3 (A-Star) helicopter was chartered from Helijet Helicopters, based in Sandspit, British Columbia for the aerial survey. Table 1 provides a summary of field crew affiliations and responsibilities.

Table 1. Flight Personnel and Responsibilities for Haida North (HN).

Crew Member	Individual / Affiliation	Responsibilities
<i>Geomorphologist</i>	Kalen Morrow SC	Videography, geomorphological attribute commentary, survey planning & coordination, post-flight data processing
<i>Coastal Ecologist</i>	Cole Rader SC	Digital photography, biological attribute commentary, post-flight data processing
<i>In-Flight Navigator</i>	Seanie Malcolm SC	In-flight navigation, survey planning, post-flight data processing
<i>Pilot</i>	Andrew Scott Helijet Helicopters	Operation of AS-350B3 / A-Star aircraft

The tables and figures on the following pages summarize the extent and location of the 725 km of shoreline imagery collected around Masset Inlet, North Graham Island, and Langara Island.

All imagery was collected according to the latest ShoreZone protocol (Cook *et al.* 2017). Imagery was collected looking at the shoreline from the left side of the aircraft with the doors removed for better field of view. The helicopter maintained a speed of approximately 100km/hr at an altitude of 100m while at a distance of 100m from the low water line, allowing the imagery to be collected at an oblique angle to the intertidal. The imagery is linked to the 1-second positional fixes collected by the GPS in the helicopter by a date-time code (yyyymmddhhmmss). That flightline shapefile will be provided with the imagery.

A total of 6.25 hours of HD video and 7,146 high resolution photos were collected during the survey. This report contains summary tables and maps for the survey illustrating locations, lengths, and key geographic points. The final deliverables will be provided to the Old Massett Village Council on a hard drive and will be posted on the [British Columbia ShoreZone ArcGIS map website](#) which can also be found at www.ShoreZone.org.

Table 2. List of video segments for the May 06-08, 2023, Team Haida North (HN) ShoreZone aerial imaging survey. Corresponds with Figure 1 on the following page.

Video Number	Location	Page No.
BC23_HN_01	Rose Pt., McIntyre Bay, Masset Harbour, Wiah Pt., Craft Bay	4
BC23_HN_02	Masset, Kumdis Island, Masset Inlet	6
BC23_HN_03	Yestalon Bay, Shannon Bay, Wathus Island, Awun Bay	8
BC23_HN_04	McClinton Bay, Dinan Bay, Kwaikans Island, Masset Inlet	10
BC23_HN_05	Ship Island, Masset Inlet, Maast Island	12
BC23_HN_06	Cowhoe Bay, Harrison Islands, Juskatla Inlet	14
BC23_HN_07	Craft Bay, Naden Harbour, Virago Sound, Parry Passage	16
BC23_HN_08	Langara Island	18

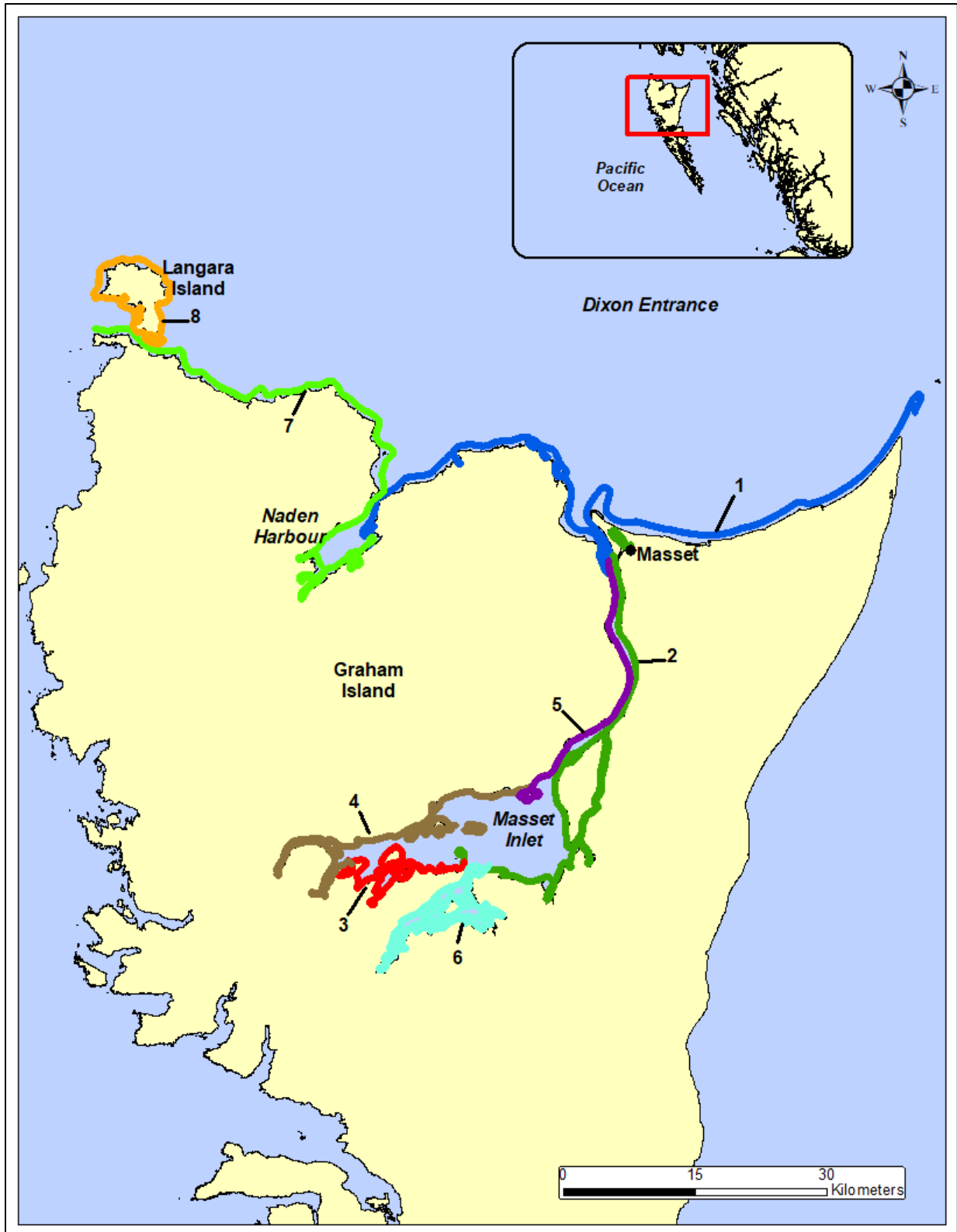


Figure 1. Video location map for the May 06-08, 2023, Team Haida North (HN) ShoreZone aerial imaging survey conducted out of Sandspit, British Columbia.

2023 British Columbia Aerial Video Imaging Survey

Team Haida North (HN)

Video: BC23_HN_01

Date: 06 May 2023

General Location: Rose Pt., McIntyre Bay, Masset Harbour, Wiah Pt., Craft Bay

Time Start (UTC): 15:28:54

Geo: Morrow

Time End (UTC): 16:39:51

Bio: Rader

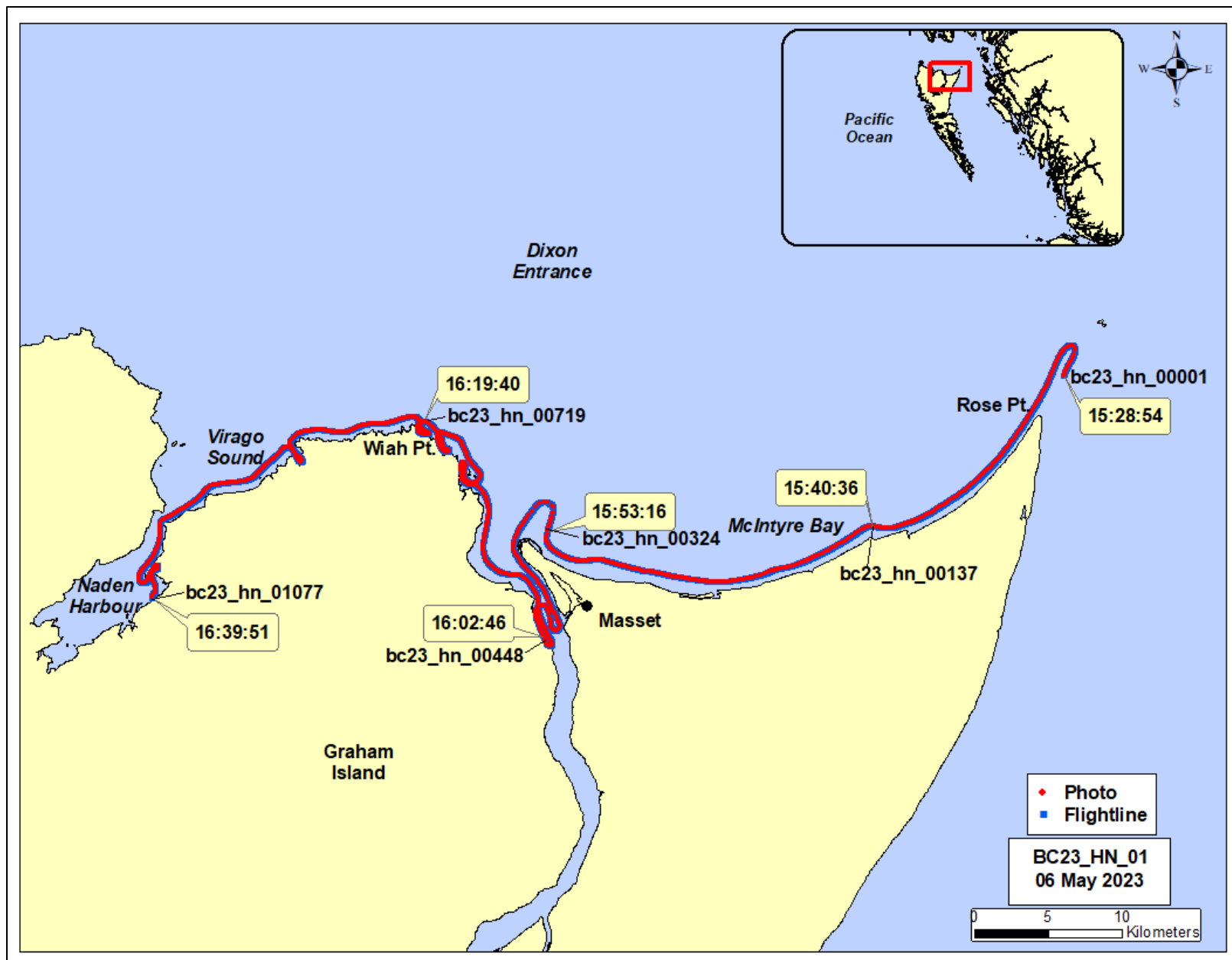
Video Length: 1 hr 10 min 57 sec

Nav: Malcolm

Weather: Overcast

Pilot: Scott

Time (UTC)	Location	Photo
15:28:54	Rose Point	bc23_hn_00001
15:40:36	Yakan Point	bc23_hn_00137
15:53:16	McIntyre Bay	bc23_hn_00324
16:02:46	Masset Harbour	bc23_hn_00448
16:19:40	Wiah Point	bc23_hn_00719
16:39:51	Craft Bay	bc23_hn_01077



2023 British Columbia Aerial Video Imaging Survey

Team Haida North (HN)

Video: BC23_HN_02

Date: 06 May 2023

General Location: Masset, Kumdis Island, Masset Inlet

Time Start (UTC): 17:23:20

Geo: Morrow

Time End (UTC): 18:26:00

Bio: Rader

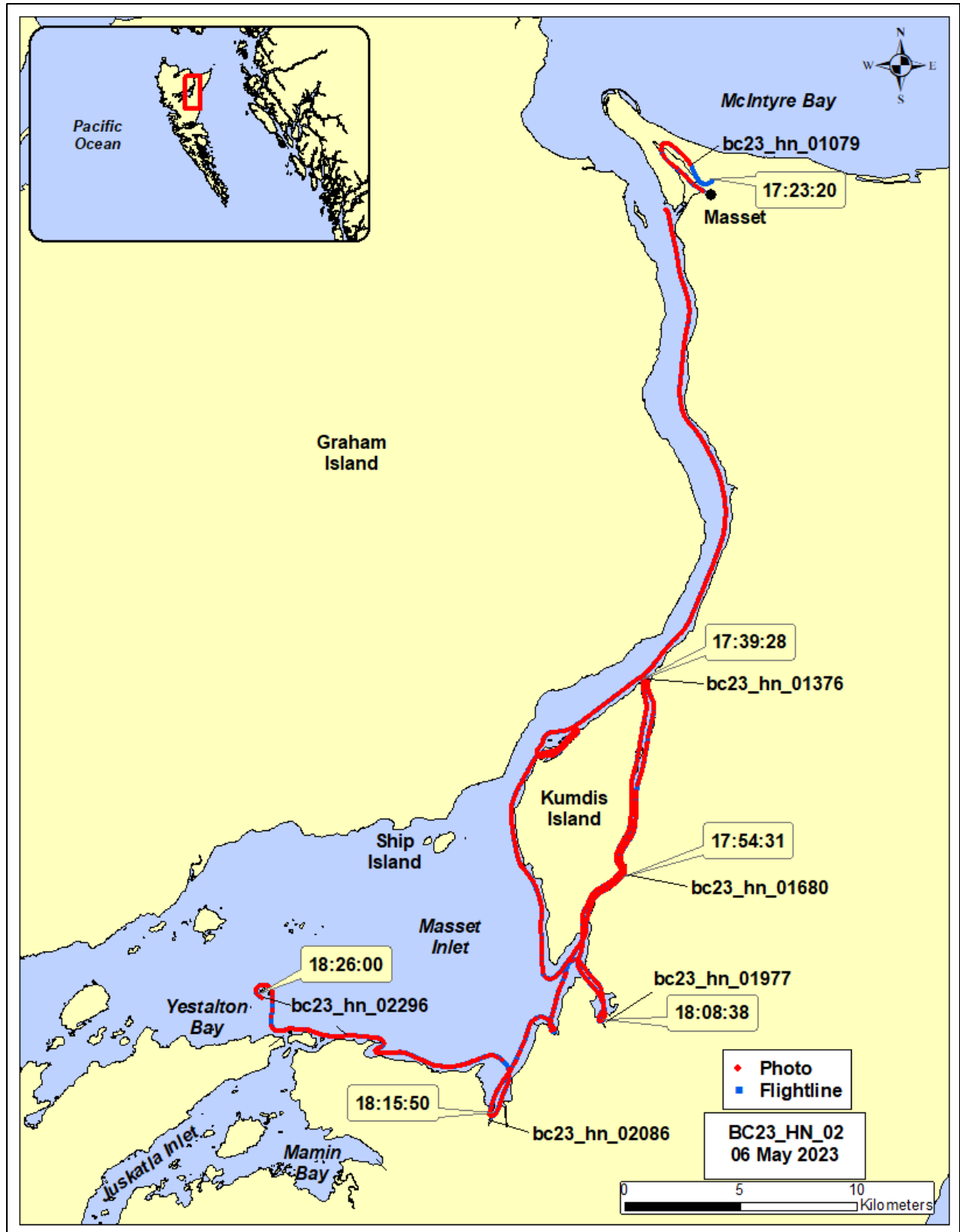
Video Length: 1 hr 02 min 40 sec

Nav: Malcolm

Weather: Overcast

Pilot: Scott

Time (UTC)	Location	Photo
17:23:20	Masset	bc23_hn_01079
17:39:28	Hogan Point	bc23_hn_01376
17:54:31	Masset Inlet	bc23_hn_01680
18:08:38	Kumdis Bay	bc23_hn_01977
18:15:50	Yakoun Bay	bc23_hn_02086
18:26:00	Cowley Islands	bc23_hn_02296



2023 British Columbia Aerial Video Imaging Survey

Team Haida North (HN)

Video: BC23_HN_03

Date: 06 May 2023

General Location: Yestalon Bay, Shannon Bay, Wathus Island, Awun Bay

Time Start (UTC): 18:26:30

Geo: Morrow

Time End (UTC): 19:04:40

Bio: Rader

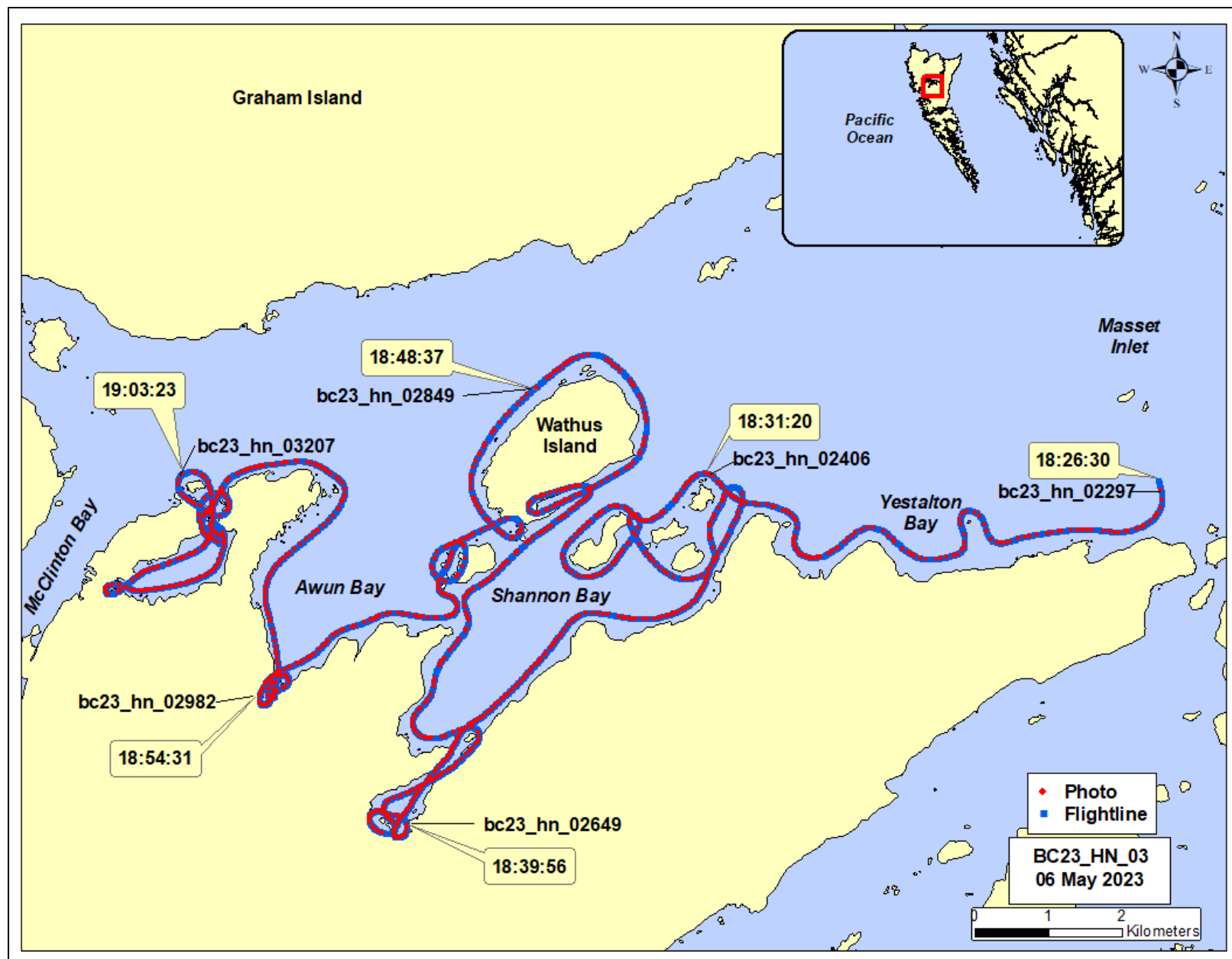
Video Length: 38 min 10 sec

Nav: Malcolm

Weather: Overcast

Pilot: Scott

Time (UTC)	Location	Photo
18:26:30	Makai Point	bc23_hn_02297
18:31:20	Learmonth Island	bc23_hn_02406
18:39:56	Head of Shannon Bay	bc23_hn_02649
18:48:37	West Wathus Island	bc23_hn_02849
18:54:31	Awun Bay	bc23_hn_02982
19:03:23	Masset Inlet	bc23_hn_03207



2023 British Columbia Aerial Video Imaging Survey

Team Haida North (HN)

Video: BC23_HN_04

Date: 07 May 2023

General Location: McClinton Bay, Dinan Bay, Kwaikans Island, Masset Inlet

Time Start (UTC): 18:38:00

Geo: Morrow

Time End (UTC): 19:30:36

Bio: Rader

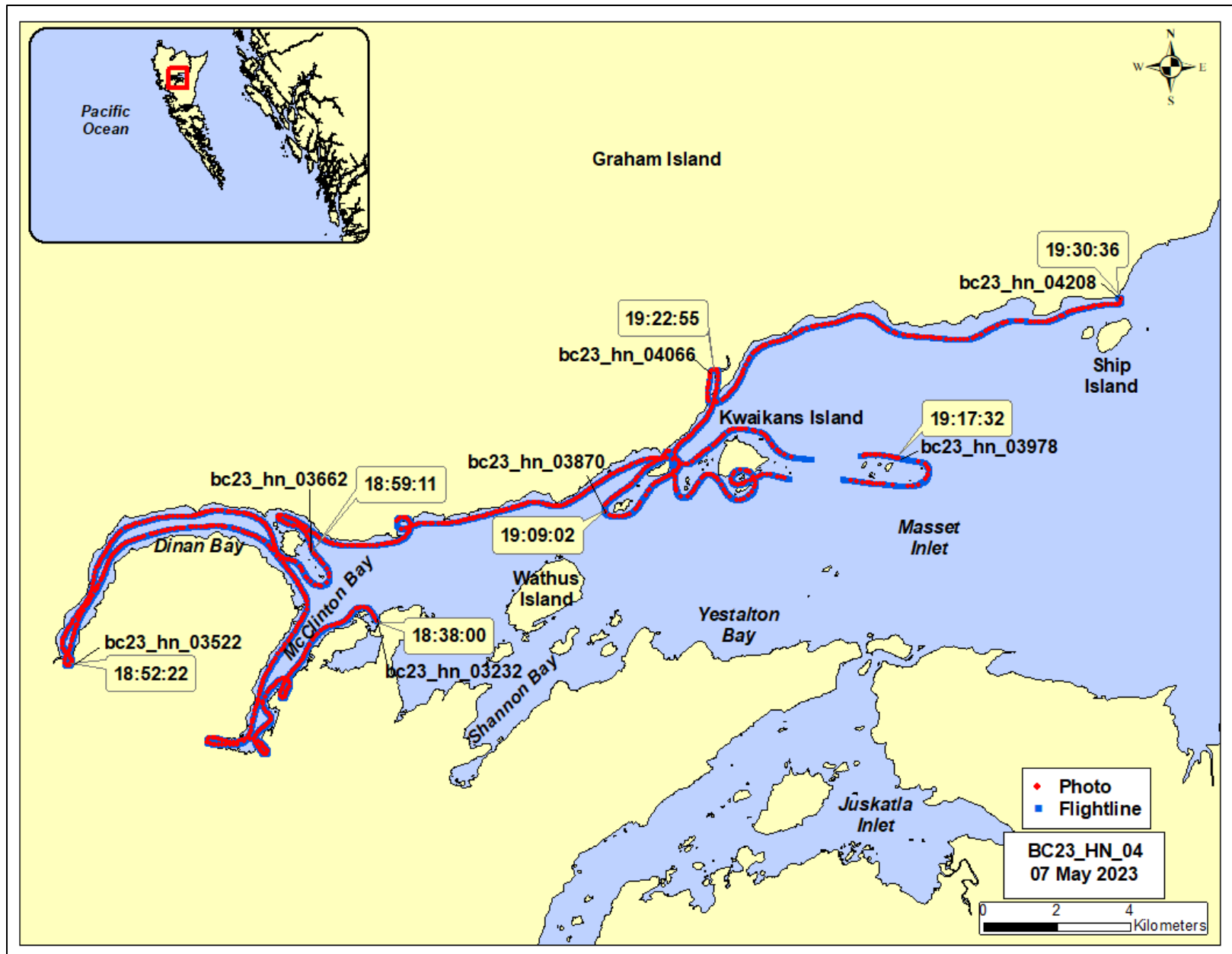
Video Length: 51 min 13 sec

Nav: Malcolm

Weather: Overcast

Pilot: Scott

Time (UTC)	Location	Photo
18:38:00	Entrance to McClinton Bay	bc23_hn_03232
18:52:22	Head of Dinan Bay	bc23_hn_03522
18:59:11	Mutus Island	bc23_hn_03662
19:09:02	McCreight Island	bc23_hn_03870
	Video Break 19:14:46 to 19:15:28	
19:17:32	Dawson Islands	bc23_hn_03978
	Video Break 19:18:05 to 19:18:46	
19:22:55	Ain River	bc23_hn_04066
19:30:36	Masset Inlet	bc23_hn_04208



2023 British Columbia Aerial Video Imaging Survey

Team Haida North (HN)

Video: BC23_HN_05

Date: 07 May 2023

General Location: Ship Island, Masset Inlet, Maast Island

Time Start (UTC): 19:30:54

Geo: Morrow

Time End (UTC): 19:51:42

Bio: Rader

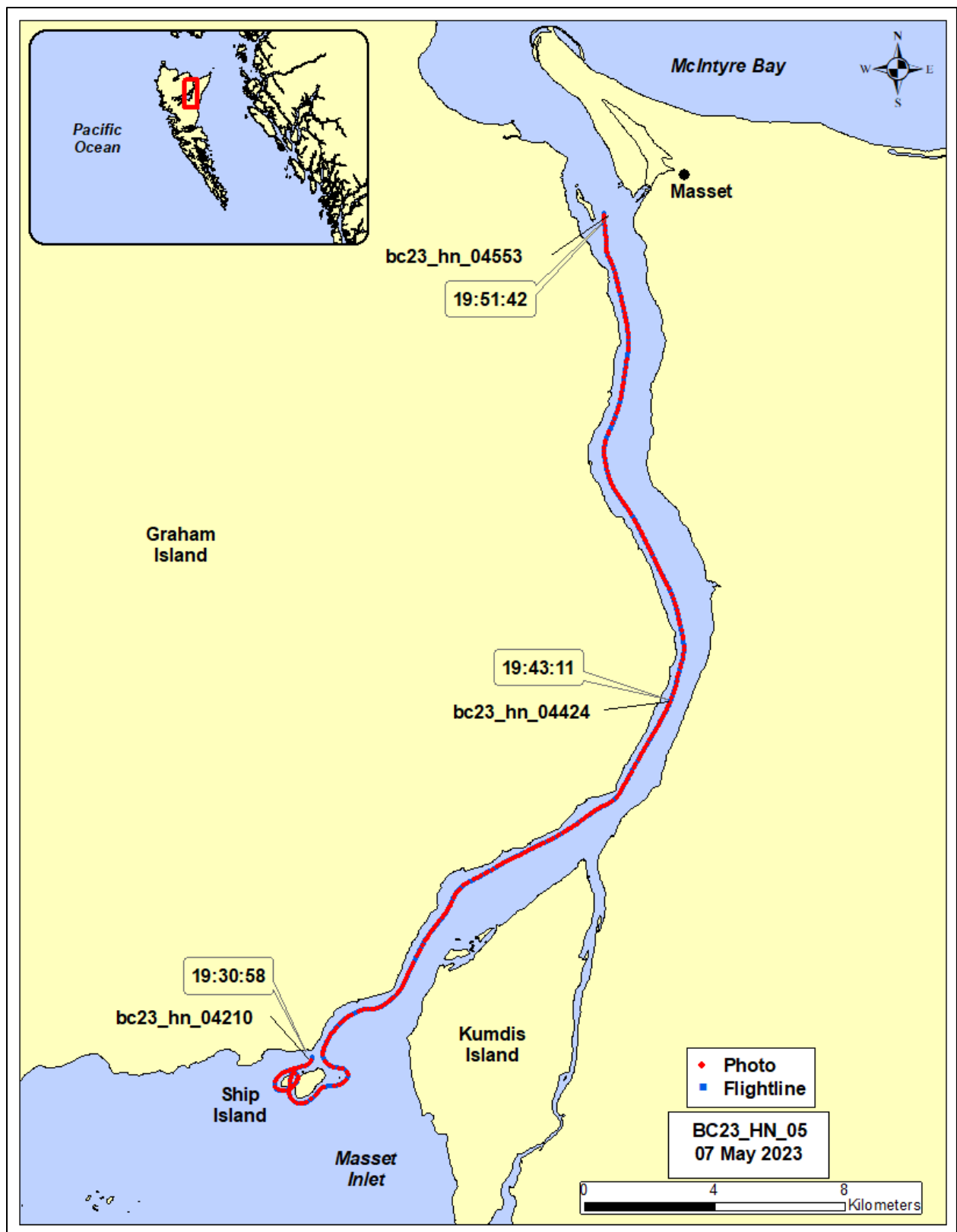
Video Length: 20 min 48 sec

Nav: Malcolm

Weather: Overcast

Pilot: Scott

Time (UTC)	Location	Photo
19:30:54	Ship Island	bc23_hn_04210
19:43:11	Masset Inlet	bc23_hn_04424
19:51:42	Maast Island	bc23_hn_04553



2023 British Columbia Aerial Video Imaging Survey

Team Haida North (HN)

Video: BC23_HN_06

Date: 07 May 2023

General Location: Cowhoe Bay, Harrison Islands, Juskatla Inlet

Time Start (UTC): 21:05:14

Geo: Morrow

Time End (UTC): 22:06:15

Bio: Rader

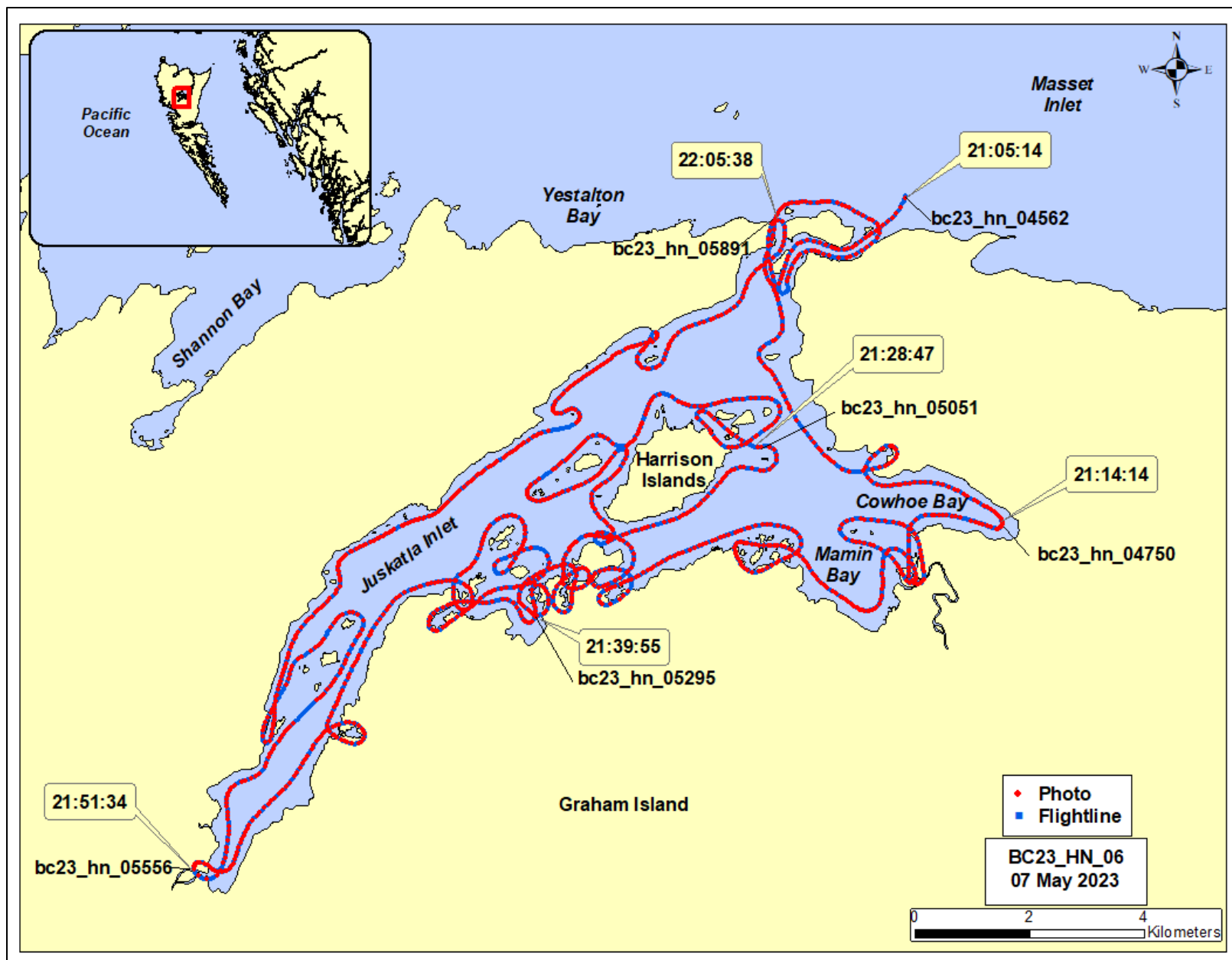
Video Length: 1 hr 01 min 01 sec

Nav: Malcolm

Weather: Overcast

Pilot: Scott

Time (UTC)	Location	Photo
21:05:14	Juskatla Inlet	bc23_hn_04562
21:14:14	Cowhoe Bay	bc23_hn_04750
21:28:47	Harrison Islands	bc23_hn_05051
21:39:55	Juskatla Inlet	bc23_hn_05296
21:51:34	Head of Juskatla Inlet	bc23_hn_05556
22:05:38	Juskatla Narrows	bc23_hn_05891



2023 British Columbia Aerial Video Imaging Survey

Team Haida North (HN)

Video: BC23_HN_07

Date: 08 May 2023

General Location: Craft Bay, Naden Harbour, Virago Sound, Parry Passage

Time Start (UTC): 15:05:48

Geo: Morrow

Time End (UTC): 15:54:06

Bio: Rader

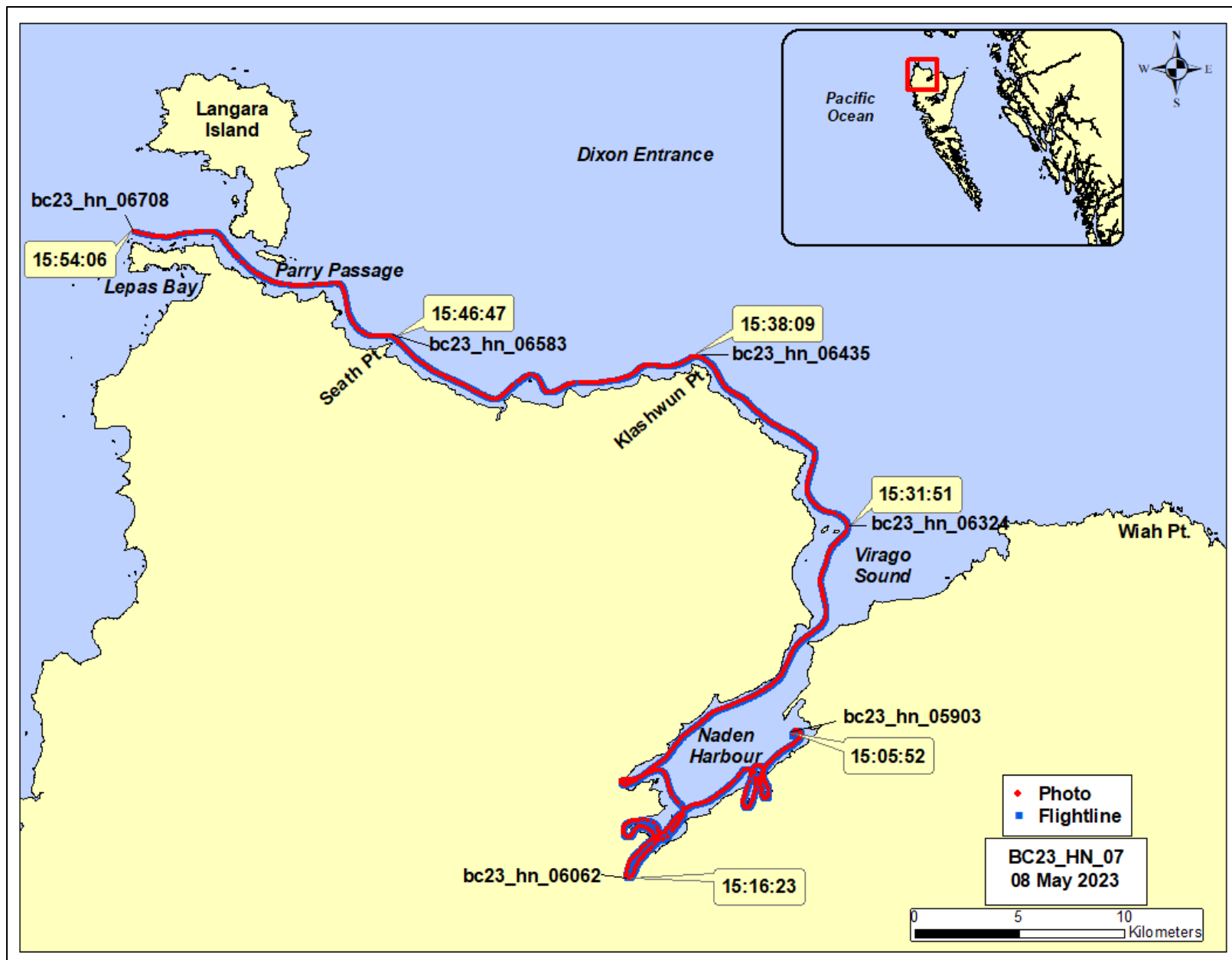
Video Length: 48 min 18 sec

Nav: Malcolm

Weather: Partly cloudy, sun

Pilot: Scott

Time (UTC)	Location	Photo
15:05:52	Craft Bay	bc23_hn_05903
15:16:23	Head of Naden Harbour	bc23_hn_06062
15:31:51	Mazarredo Islands	bc23_hn_06324
15:38:09	Klashwun Point	bc23_hn_06435
15:46:47	Seath Point	bc23_hn_06583
15:54:06	NW Graham Island	bc23_hn_06708



2023 British Columbia Aerial Video Imaging Survey

Team Haida North (HN)

Video: BC23_HN_08

Date: 08 May 2023

General Location: Langara Island

Time Start (UTC): 15:55:46

Geo: Morrow

Time End (UTC): 16:18:22

Bio: Rader

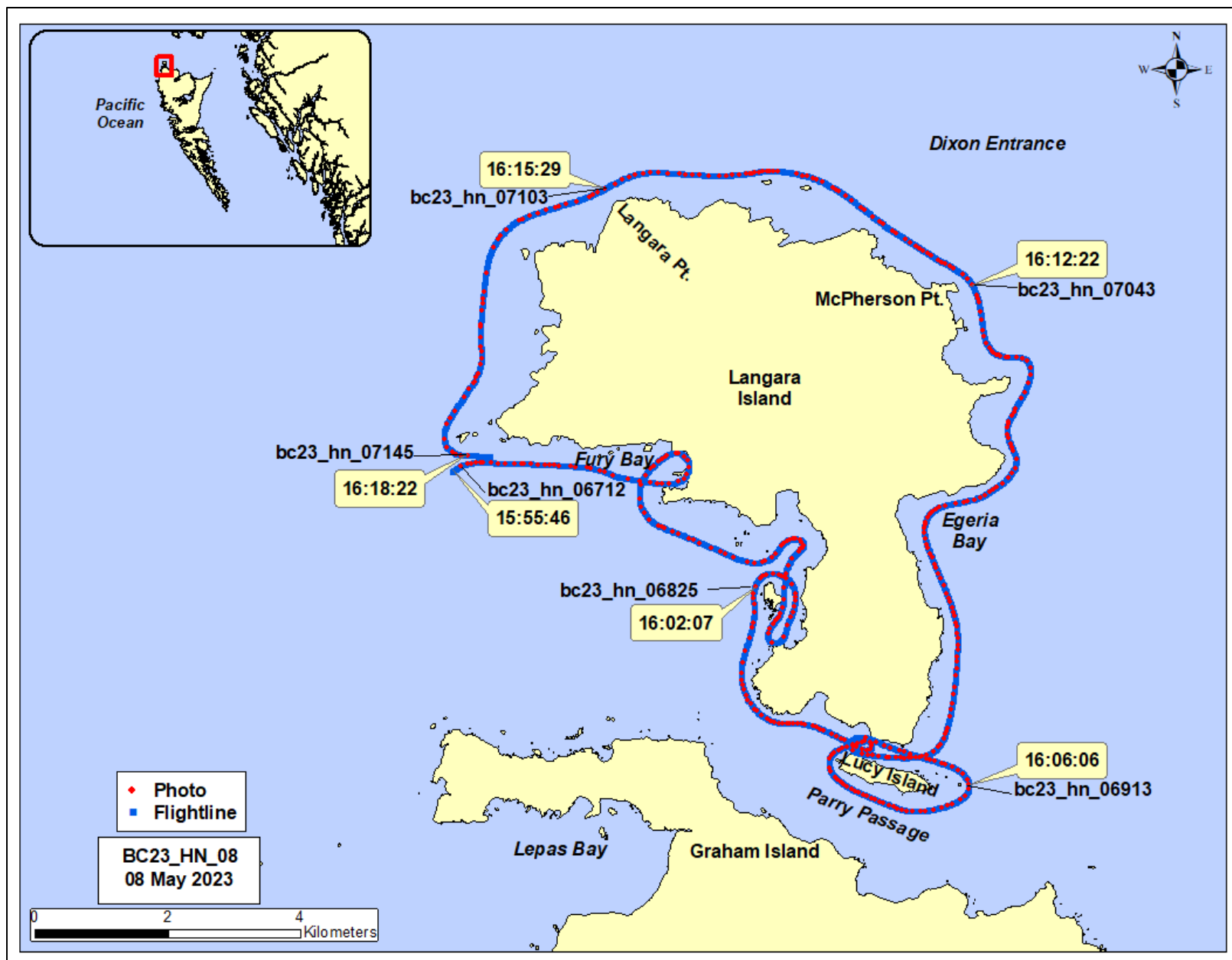
Video Length: 22 min 36 sec

Nav: Malcolm

Weather: Partly cloudy, sun

Pilot: Scott

Time (UTC)	Location	Photo
15:55:46	Lacy Island	bc23_hn_06712
16:02:07	Cox Island	bc23_hn_06825
16:06:06	Lucy Island	bc23_hn_06913
16:12:22	McPherson Point	bc23_hn_07043
16:15:29	Langara Point	bc23_hn_07103
16:18:22	Lacy Island	bc23_hn_07145



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References

Cook, S.E., Daley, S., Morrow, K. and Ward, S. 2017. ShoreZone Coastal Imaging and Habitat Mapping Protocol. Prepared for NOAA Fisheries, Alaska Regional Office, Juneau, Alaska. 78p.

Acknowledgments

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Access and Use Constraints

Any hardcopies or published data sets utilizing ShoreZone products shall clearly indicate their source. If the user has modified the data in any way, the user is obligated to describe the types of modifications performed. The user specifically agrees not to misrepresent ShoreZone data, nor to imply that changes made were approved by the ShoreZone program or its partners.

To ensure distribution of the most current public information or for correct interpretation, contact the ShoreZone project manager at Sea Change Marine Conservation Society (www.seachangesociety.com). At the time of publication, that person is Sarah Cook (sarah@seachangesociety.com).

To effectively and appropriately use ShoreZone data, the user shall refer to the current ShoreZone Coastal Imaging and Habitat Mapping Protocol (Cook *et al.* 2017).



Masset Inlet (bc23_hn_04026)

