



OTN Canada - Project Plan

Vancouver-Northern Strait of Georgia

Created: [October 24, 2011](#)
Version: 4.0

TABLE OF CONTENTS

1. BACKGROUND.....	3
2. INITIAL ARRAY DESIGN	3
3. DEPLOYMENT SCHEDULE	4
4. MAINTENANCE SCHEDULE	5
5. DATA RETRIEVAL SCHEDULE.....	5
6. MOORING DESIGN	5
7. SHIPPING DETAILS	5
8. ROLES AND RESPONSIBILITIES	5
9. RECEIVER REPLACEMENT	6
10. RISK MANAGEMENT.....	6

1. Background

The Vancouver-Northern Strait of Georgia (V-NSOG) line is deployed in collaboration with the Pacific Ocean Shelf Tracking Program (POST), in order to support research objectives of OTN Canada in the Pacific Arena and specifically OTN's NE Pacific Ocean region.

POST has maintained a series of lines in the Salish Sea (BC/WA), Prince William Sound (AK), and off of Point Reyes (CA) cooperatively with various partners since 2001. The greater POST array sees other researchers contributing data from their own acoustic receivers to make up a network consisting of more than 400 receivers that span over 3,000km of the Northeast Pacific coast.

Deployment of the V-NSOG line will provide a curtain immediately northward of the bulk of the volume of the Strait of Georgia, tracking animals transiting the Strait and the greater Salish Sea region, including Puget Sound (WA) and rivers leading into it, the Fraser River (BC) and the transboundary waters of the Strait of Juan de Fuca.

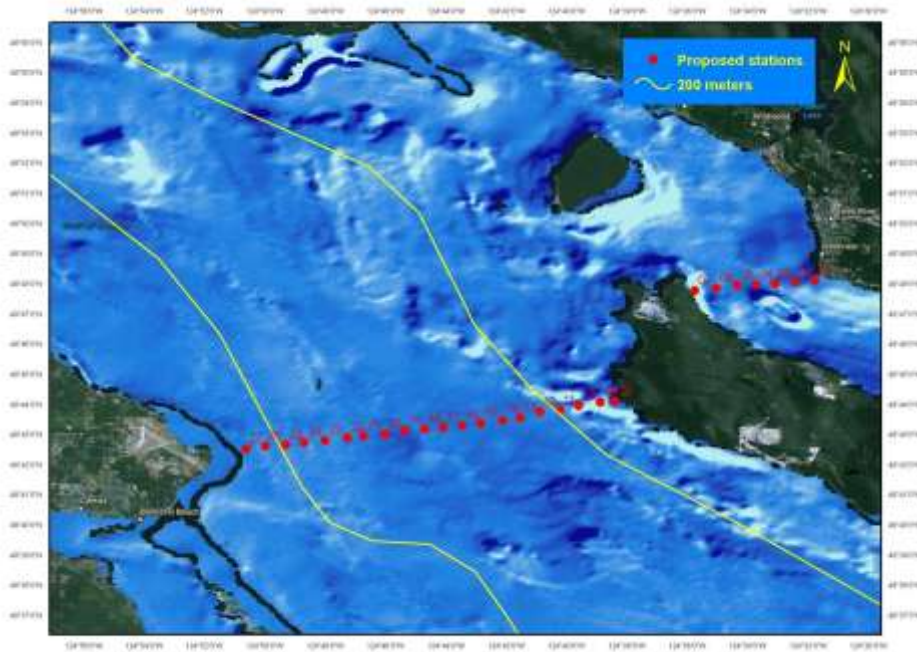
2. Initial Array Design

a. Equipment and Services:

- i. Dalhousie will provide:
 - 8 Vemco VR4 acoustic receivers with lithium batteries;
 - 8 VR4 Moorings;
 - Reimburse POST for the purchase of 24 anchors;
 - funds for the recovery of the presently deployed temporary NSOG line, and the installation, annual maintenance assistance, and data uploading of the new line.
- ii. POST will provide:
 - 1 VR2W-69kHz acoustic receiver with lithium battery for the westernmost station 27, nearest Comox, BC
 - 1 VR2W Mooring
 - Lithium batteries for all VR3 acoustic receivers on the line
 - planning and logistics for the deployment and annual maintenance of the line
 - Replacement batteries for the VR2W acoustic receiver, annually.
 - Replacement VR3 and VR2W acoustic receivers to cover any year-to-year attrition of deployed receivers from the line, to the end of the estimated lifespan of the VR3 receiver batteries.

b. Proposed Line Location:

The Vancouver-NSOG line will be located between Comox, BC and Powell River, BC, interrupted once by the northern end of Texada Island between stations 7 and 8. The line is composed of 27 stations (see maps below). Details of the deployment geometry (spacing between stations and depth of receivers) are for illustrative purpose as changes might be required upon analysis of the test phase data.



Bathymetry Information:

See above.

c. Proposed Receiver Locations:

See the attached Excel spreadsheet for the requested proposed metadata.

3. Deployment Schedule

The deployment of the 27 acoustic receivers is planned for Fall 2011/Winter 2012. Final details of the deployment schedules are still being reviewed and will depend on vessel availability and weather conditions.

4. Maintenance Schedule

It is expected that service trips to the V-NSOG line will take place (at a minimum) once per year, at which time batteries will be changed if needed in the VR2W receiver and attached acoustic release at the westernmost station 27, and biofouling will be removed from that receiver and acoustic release. Maintenance checks and upgrades (at a minimum batteries and corroded parts will be replaced, where applicable, full replacement units will be provided) will be performed during those trips. It is expected that during maintenance trips, equipment at each station will be interrogated and where necessary, recovered, maintained and redeployed in a timely manner as to avoid any prolonged absence of acoustic receivers on the acoustic array.

5. Data Retrieval Schedule

Data will be uploaded from the receivers (at a minimum) once a year, and submitted to OTN in the manner outlined in the OTN Data Management Policy.

6. Mooring Design

The mooring design for the VR4 and VR3 receivers will be OTN's. The single VR2W-69kHz receiver deployed at the westernmost station 27 of the V-NSOG line will be deployed on a Kintama Research Service-designed "pop-up" mooring unit, anchored with a (minimum) 300lb concrete or Dor-Mor anchor, and triggered with a Desert Star ARC-1 acoustic release.

7. Shipping Details

Dalhousie University will cover costs of shipping the equipment to Kintama Research Services, 10-1850 Northfield Road, Nanaimo, BC, V9S 3B3. Dalhousie will ensure that the acoustic receivers are in good working order and condition before they are shipped.

8. Roles and Responsibilities

For this deployment, roles and responsibilities will be as follows:

OTN team and collaborators:

- Array design;
- Mooring design;
- Test equipment prior to shipping; and
- Package and send equipment to address in section 7.

POST team:

- Arrange shiptime;
- Planning and logistics for the deployment;
- Provide qualified personnel for the deployment;
- deploy all equipment in a timely and safe manner.

9. Receiver Replacement

Lost or damaged receivers may be replaced at Dalhousie’s discretion.

10. Risk Management

RISK FACTORS	IMPACT	RISK LEVEL	MITIGATION STRATEGIES	STATUS
Faulty Receiver and/or Acoustic Release discovered after partner takes possession of the equipment	<ol style="list-style-type: none"> 1. a hole in the curtain 2. the curtain could be shorter than originally planned 3. Lost equipment 4. Dalhousie could be in non-compliance with the collaboration agreement 	Low	<ol style="list-style-type: none"> 1. Equipment will be tested prior to shipping. 	Complete
Poor mooring design	<ol style="list-style-type: none"> 1. Lost equipment and/or hole(s) in the curtain 	Low	<ol style="list-style-type: none"> 1. Review partner’s mooring 	Complete – Mooring design

	2. Environmental hazards		design well in advance of deployment	approved
Collaborator does not provide data and/or metadata or data/metadata of poor quality	<ol style="list-style-type: none"> 1. Data from the line is meaningless or non-existent 2. Data quality compromised 	Low	<ol style="list-style-type: none"> 1. Partner awareness of OTN data policy via signed collaboration agreement 2. Employ OTN data quality control procedures 	Complete – partner has signed project plan

Institution Name:

DALHOUSIE UNIVERSITY

By:

By: Frederick Whoriskey

Title:

Title: Executive Director OTN

Signature:

Signature: