



PORT of  
**vancouver**

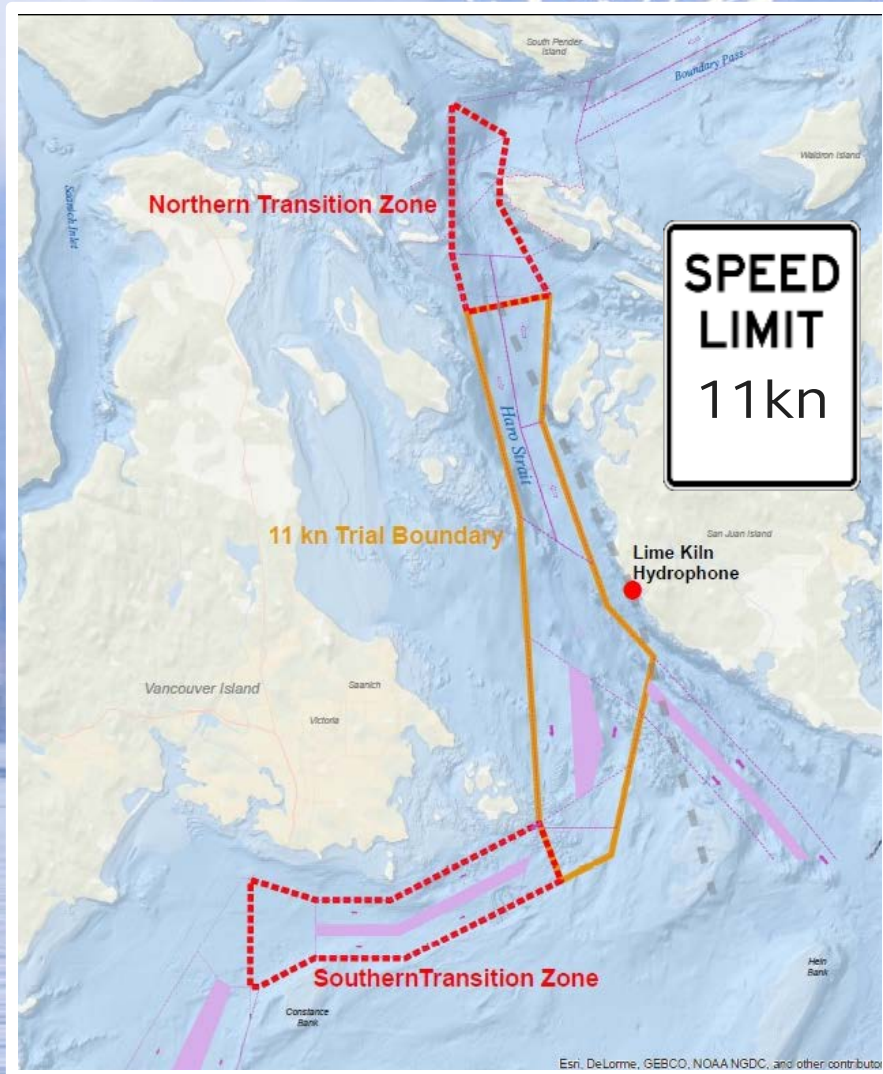
# ECHO Vessel Slowdown Trial

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# How might slowing vessels affect underwater noise?

## Vessel slowdown trial



## Vessel slowdown trial

**Why:** The trial aims to better understand the relationship between vessel speed, underwater noise and effects on killer whales

**Where:** ~16 nautical miles through critical whale foraging habitat in Haro Strait

**When:** Two (lunar) month trial, August 7 - October 6, 2017

**What speed:** 11 kn through the water – 30-60 minutes transit delay



# How might slowing vessels affect underwater noise?

Vessel slowdown trial

## Intended trial outcomes

- High vessel participation rates with minimum impacts to industry
- Robust data with which to:
  - confirm the relationship between speed and underwater noise
  - confirm the relationship between reduced underwater noise and threats to at-risk whales



# Vessel slowdown trial: participants

**50+ organizations confirmed their intention to participate**

AAL Shipping	Hudson Shipping Lines	Oldendorff	Sinotrans
ACGI Shipping Inc.	Hyundai America Shipping Agency Inc.	OOCL	Swire Shipping
BC Coast Pilots	Inchcape Shipping Services	Oxbow Sulphur Canada	Trans-Oceanic Shipping
Carnival Cruise Line	K-Line	Pacific Basin Shipping	Valles Steamship (Canada) Ltd.
Celebrity Cruise Lines	Maersk	Pacific NorthWest Ship & Cargo Services Inc.	Washington State Ferries
CMA CGM	Mason Agency Ltd.	Ponant	Westward Shipping Ltd.
Colley West Shipping Ltd.	Mitsui O.S.K. Lines	Princess Cruise Line	Westwood Shipping Lines
COSCO	Montship Inc.	Ravensdown Shipping Services Ltd.	Wheelhouse Shipping Agency
Crystal Cruises	MSC Mediterranean Shipping Company	Robert Reford	Wilhelmsen Ships Service
CSL International	Navitrans Shipping Agencies West Inc.	Royal Canadian Navy	Zim
Evergreen Line	Neptune Bulk Terminal	Royal Caribbean International Cruise Line	
Fairmont Shipping (Canada) Ltd.	Norton Lilly Vancouver Norwegian Cruise Line	SAAM SMIT Vancouver Inc.	
G2 Ocean	NYK Line	Saga Welco AS	
Hamburg Sud	Oceaenia Cruises	Seabourn Cruise Line	
Hapag-Lloyd		Seaspan ULC	
Holland America Line			

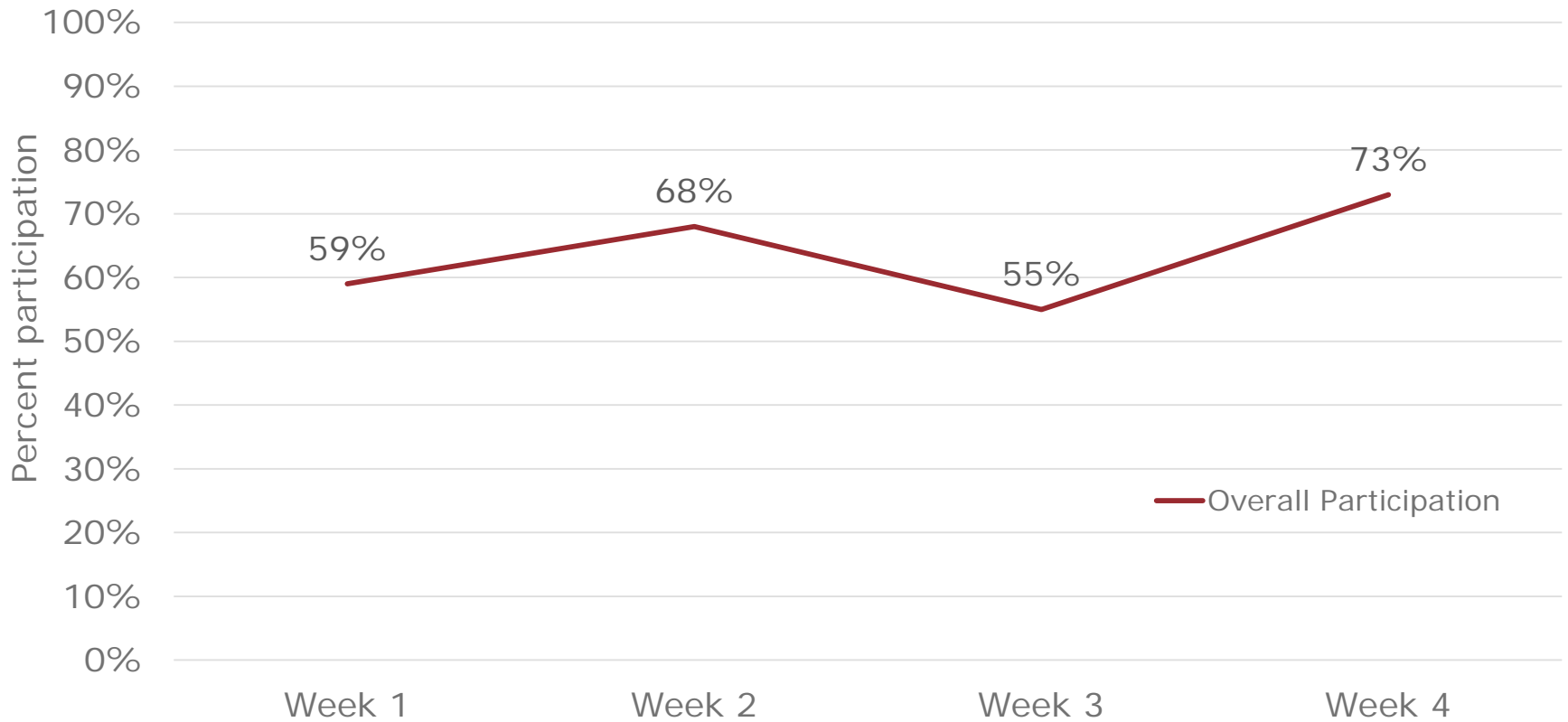
# Data collection and communications during trial

- Hydrophones recording ambient noise and vessel source levels in Haro St before, during and after the trial
- Shore based whale observations during trial
- Pilots recording and reporting vessel participation. Further validated by AIS.
- Stipend application form available online – apply anytime. Unclaimed stipends will be put back to ECHO program
- Weekly newsletter during the trial
- Survey to be circulated next week to participants to capture industry impacts during trial

Photo: Joan Lopez

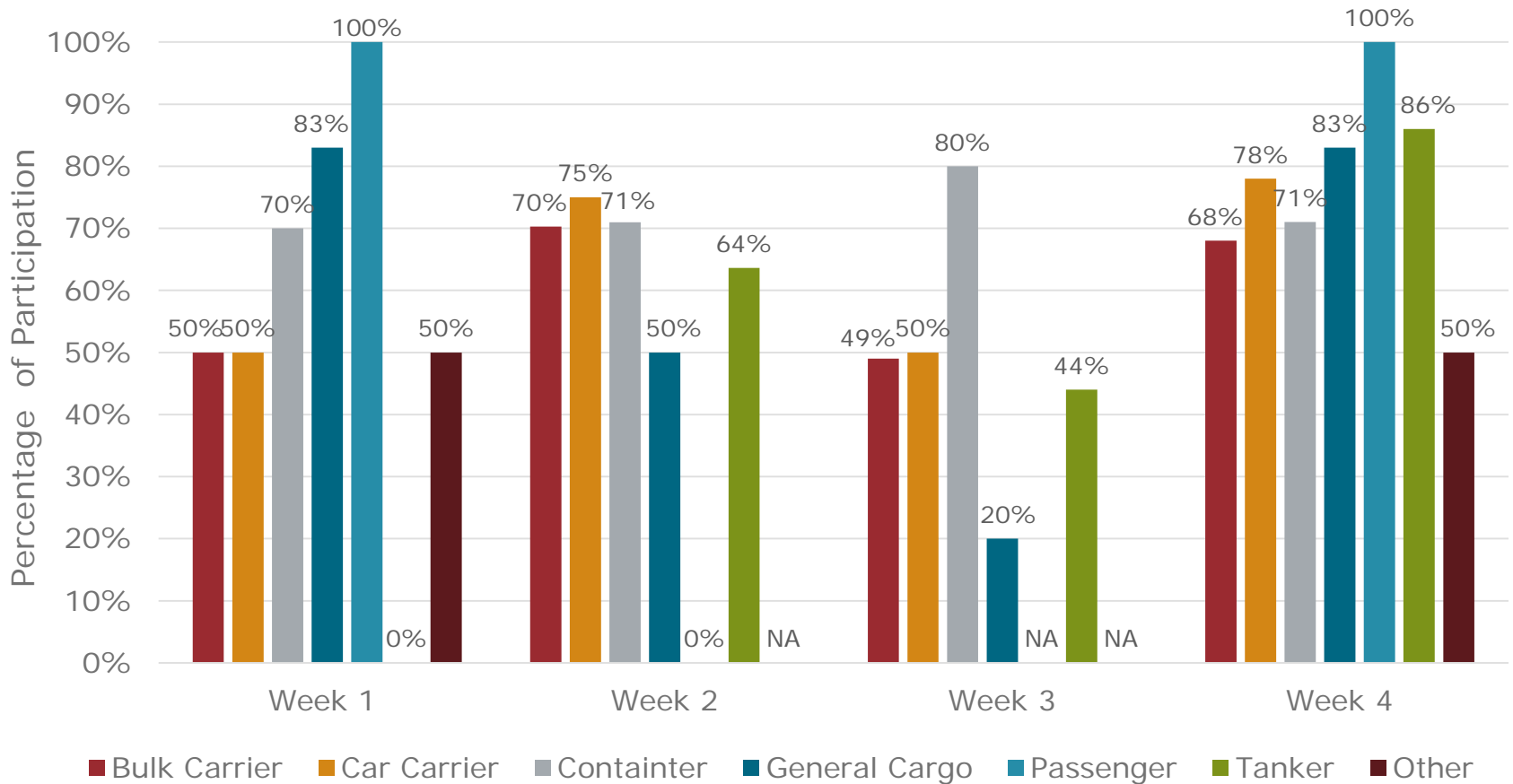
# Vessel slowdown trial: results to-date

Overall & container trial participation\* rate by week



# Vessel slowdown trial: results to-date

Participation rate\* by vessel sector and week





## Vessel slowdown trial: post-trial

- Data analysis
- Post-trial modeling of underwater noise impacts & behavioural response
- Full trial results available early 2018
- Inform government's next steps
- Case study for other ports or sensitive whale regions around the world

Photo: Vancouver Aquarium/NOAA



Two orcas are swimming in clear blue water. The orca in the foreground is larger and more prominent, showing its dark back and white belly. The second orca is slightly behind and to the right. The water is a deep, clear blue.

Thank you for participating in the  
vessel slow down trial

The vessel slowdown trial is led by  
the VFPA's ECHO Program.

For more information about the  
ECHO program, please contact us:

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