

Saildrone Mission 2016



A Saildrone docked at St. Paul Island, AK preparing to start surveys of prey availability within the northern fur seal habitat.

Project team:



NOAA FISHERIES
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

ALASKA FISHERIES SCIENCE CENTER



The Joint Institute for the Study of
Atmosphere and Ocean (JISAO) at the
University of Washington



NOAA FISHERIES

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A wind- and solar-powered autonomous sailing vessel controlled from shore through satellite communications

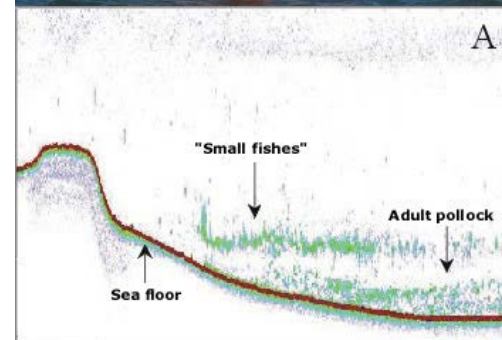
Measures oceanographic and atmospheric conditions

- Sea surface temperature
- Salinity
- Wind speed
- Air temp

Equipped with an echosounder to measure walleye pollock distribution and abundance

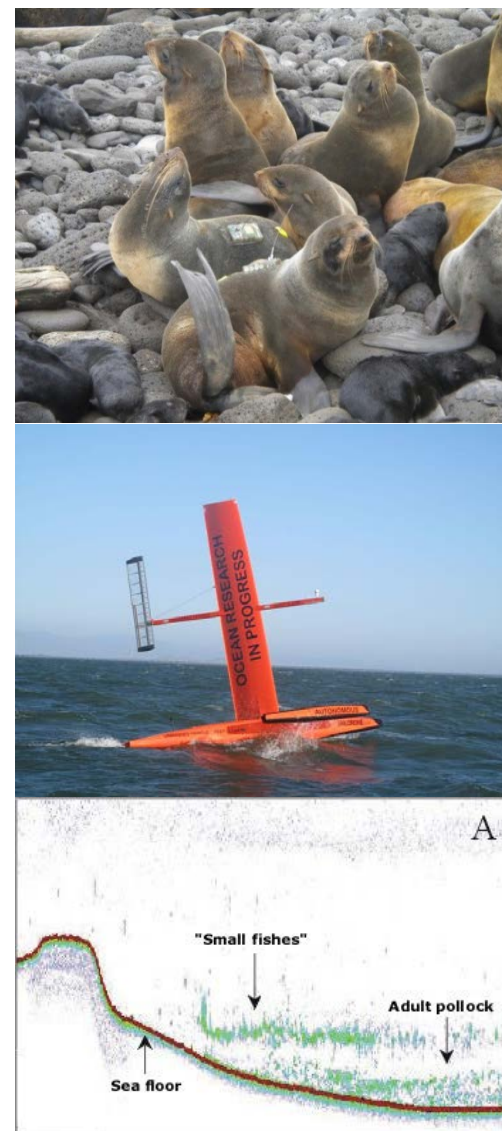
Northern fur seal project goals

- Quantify fish distribution and abundance within the northern fur seal foraging range during the breeding season
- Simultaneously track fur seal dive and movement patterns to examine foraging behavior in relation to variation in prey availability
- Determine specific prey patch characteristics (e.g., density, depth, fish size) that are associated with increased fur seal foraging success



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Fills significant data gaps for understanding northern fur seal-pollock interactions and directly addresses needs identified in the northern fur seal conservation plan



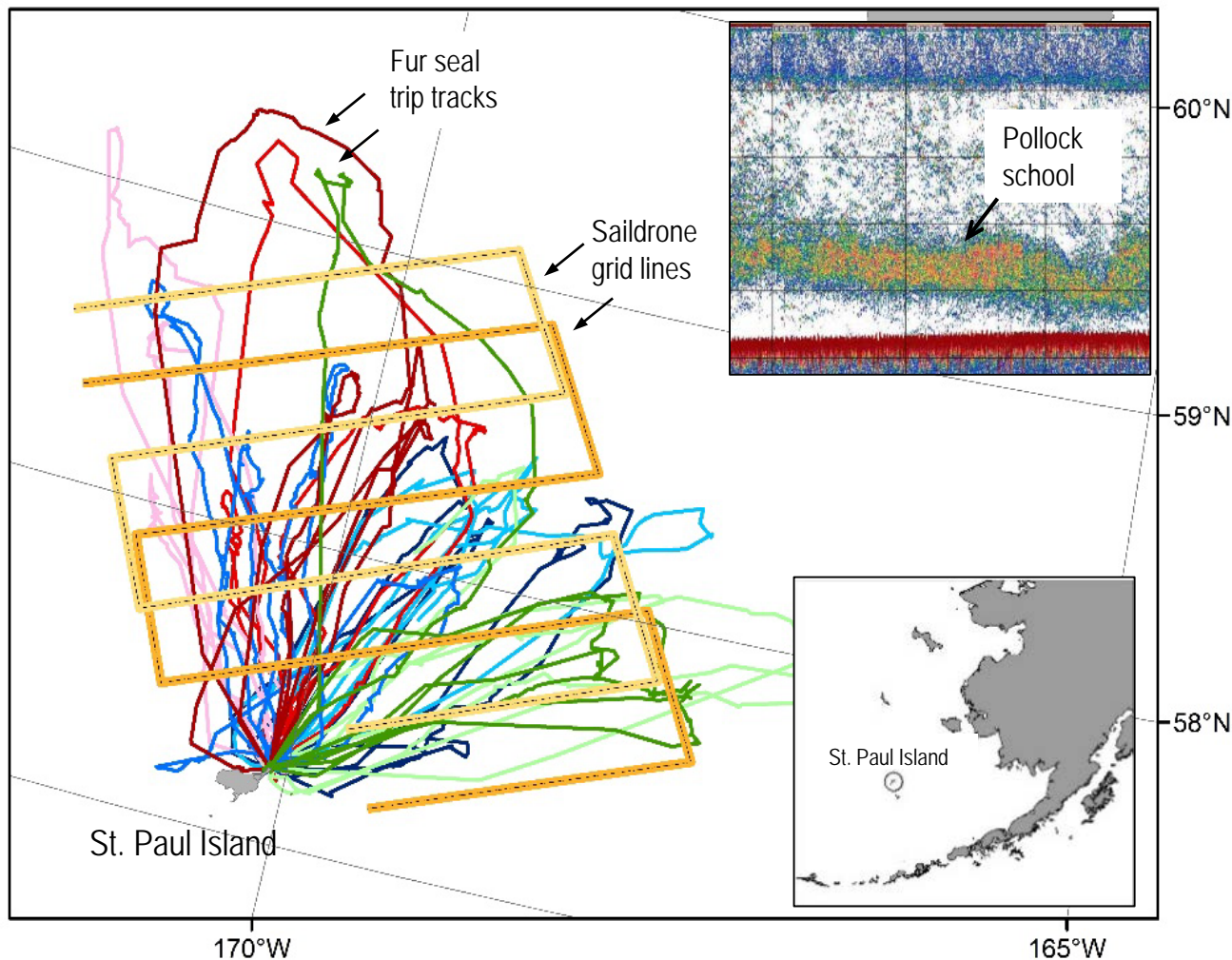
Progress to date

July 2016

- 30 mother-pup pairs captured on St. Paul Island, AK
- Adult female fur seals equipped with dive and satellite tracking instruments



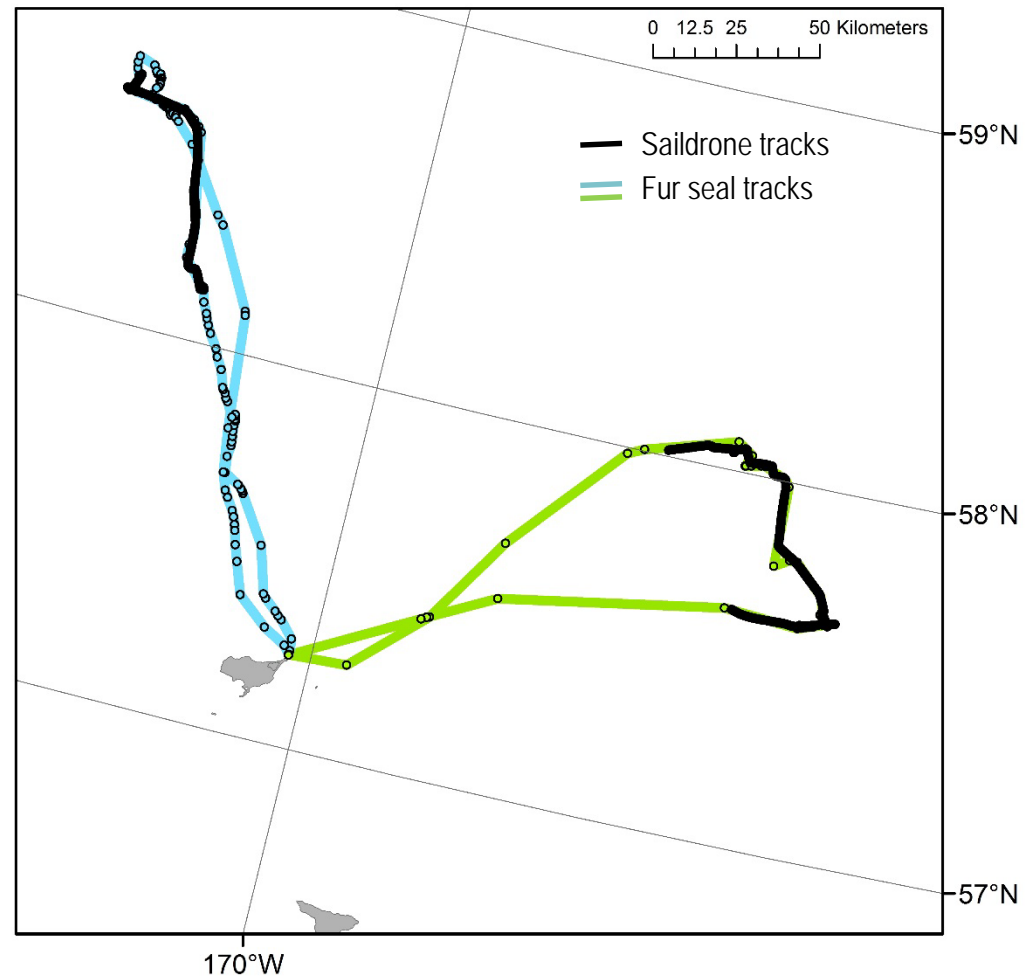
Progress to date



- 2 Saldrones completed 2 survey grids
- Over 1700 miles covered measuring walleye pollock distribution and abundance
- Saldrones were recovered after 101 day mission (Sept. 3, 2016)

Progress to date

- Tested the ability to use Sairdrones for a focal follow studies
- Goal: characterize fine-scale prey resources available to fur seals by following near real-time foraging tracks of individual seals



The next step

- Fur seal tracking instruments will be recovered in late September
- Measure mass change of adult females and pups to quantify foraging success
- Echosounder data processing to begin early 2017

