

# Marine Exchange of Alaska

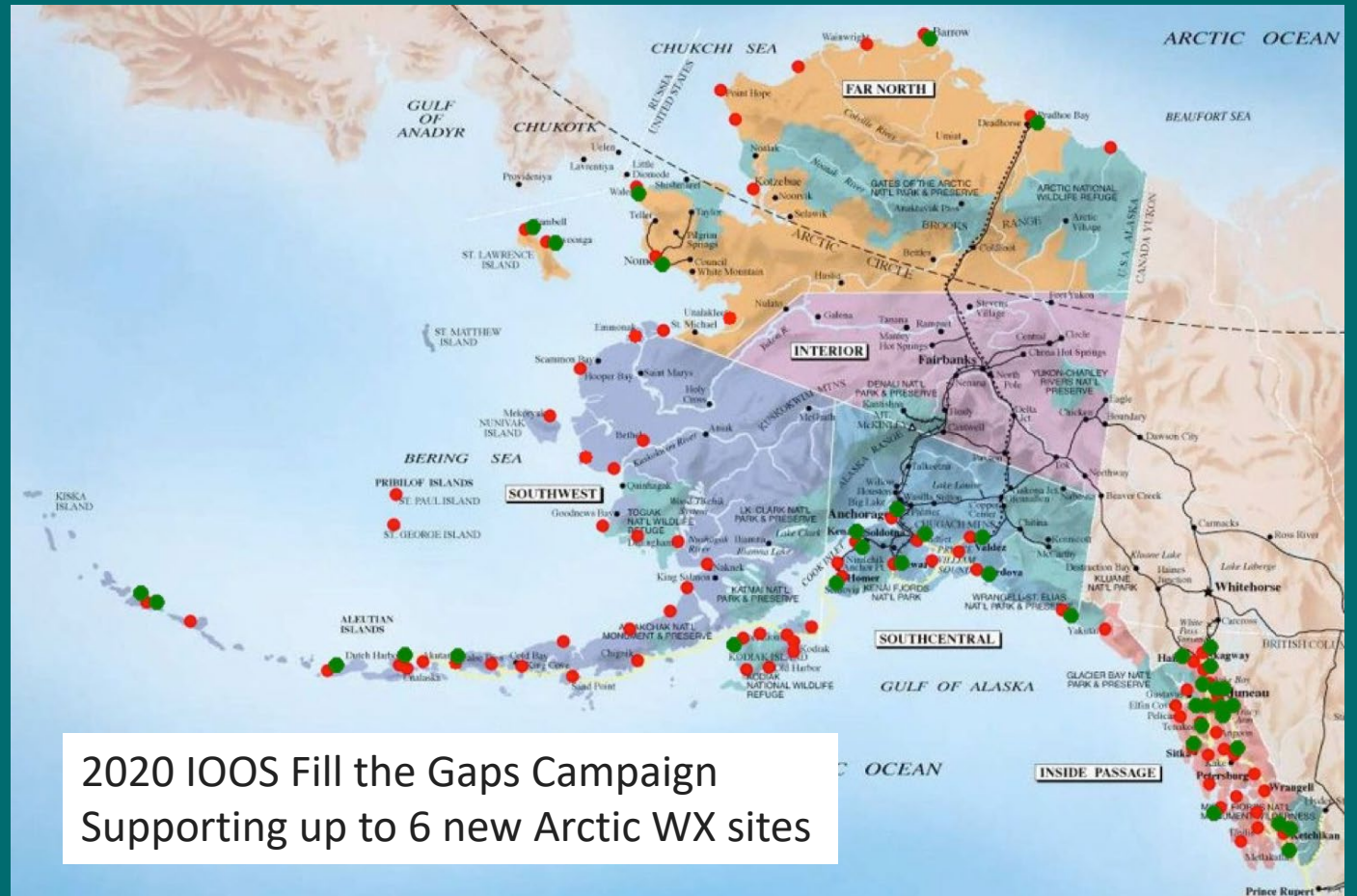
## Real-time access to weather observations for mariners through AIS

Installation of weather systems with AIS stations

Primary goal is to transmit real-time weather through AIS directly to vessels and mariners to improve maritime safety

Data also available through AOOs data portals and NDBC

NWS utilizes data for forecasting



**CONSIDERATION: Requires off-grid power across much of Arctic**

# FILL THE GAPS FUNDING FY18

## Board Approved \$50K to MXAK to help install NE Cape AIS/WX installation

Original proposal was for installation of an AIS Receive/Transmit and WX Installation on NE Cape of St. Lawrence Island (estimated install cost \$100K)

- After some careful evaluations, the NE Cape option was estimated to be cost prohibitive without substantially more funding

***“It has the potential to be the most expensive AIS/WX station in Alaska.”***

(Ed Page, 24 Sep 2019)

- Communications (satellite) costs several thousands \$\$ annually alone
- Long-term O&M costs are expected to be high for service and operations
- Local community support was not as high as previously implied
- According to NWS, the existing Gambell and Savoonga AIS/WX and FAA Wx at airports satisfy the NWS need
- Locals and Brian Brettschneider from NWS/Fairbanks suggested SE on SLI better

# MXAK offered alternative proposal in September 2019

Install 3 (up to 6) weather stations and AIS Transmit capability in gapped areas of the Arctic

Challenges of locating suitable sites and hosts:

- Entering into MOUs/contracts with land or infrastructure owners
- Permits (state, federal, tribal)
- NEPA per above if on tribal community land
- Costs due to location and remoteness (on grid/off grid, communications, distance from road service)

MXAK offered 6 options...Kivalina was added to the list later:

- St. Paul Island
- St. George Island
- Point Lay
- Kotzebue
- Shishmaref
- Point Hope
- Kivalina

# AOOS also asked for input on priorities from NWS and ACCAP

NWS: MXAK should target sites with no existing NWS or FAA Wx observations if possible

NWS Fairbanks: Would love one on Little Diomedede Island

MXAK: Purpose is to provide localized near the water obs for mariners through AIS

AOOS: Possible to put one on Fairway Rock if HFR goes there in 2020....but not certain

Location Wx already?	MXAK Priority	NWS Priority Anchorage	NWS Priority Fairbanks	ACCAP Priority	AOOS
Yes - airport	St. Paul Island	St. Paul	Shishmaerf	St. Paul	St. Paul
Yes - airport	St. George Island	St. George	Kotzebue	Shishmaref	St. George
Yes - airport	Point Lay	x	x	Kivalina	Shishmaref
Yes - airport	Kotzebue	x	x	Kotzebue	Point Hope
Yes - airport	Shismaref	x	x	Point Lay	Point Lay
Yes - airport	Point Hope	x	x	Point Hope	Kotzebue
Yes - airport	Kivalina	x	x	St. George	Kivalina

**EXTRA SLIDES IN CASE SOMEONE WANTS TO SEE WHERE EXISTING STATIONS ARE**

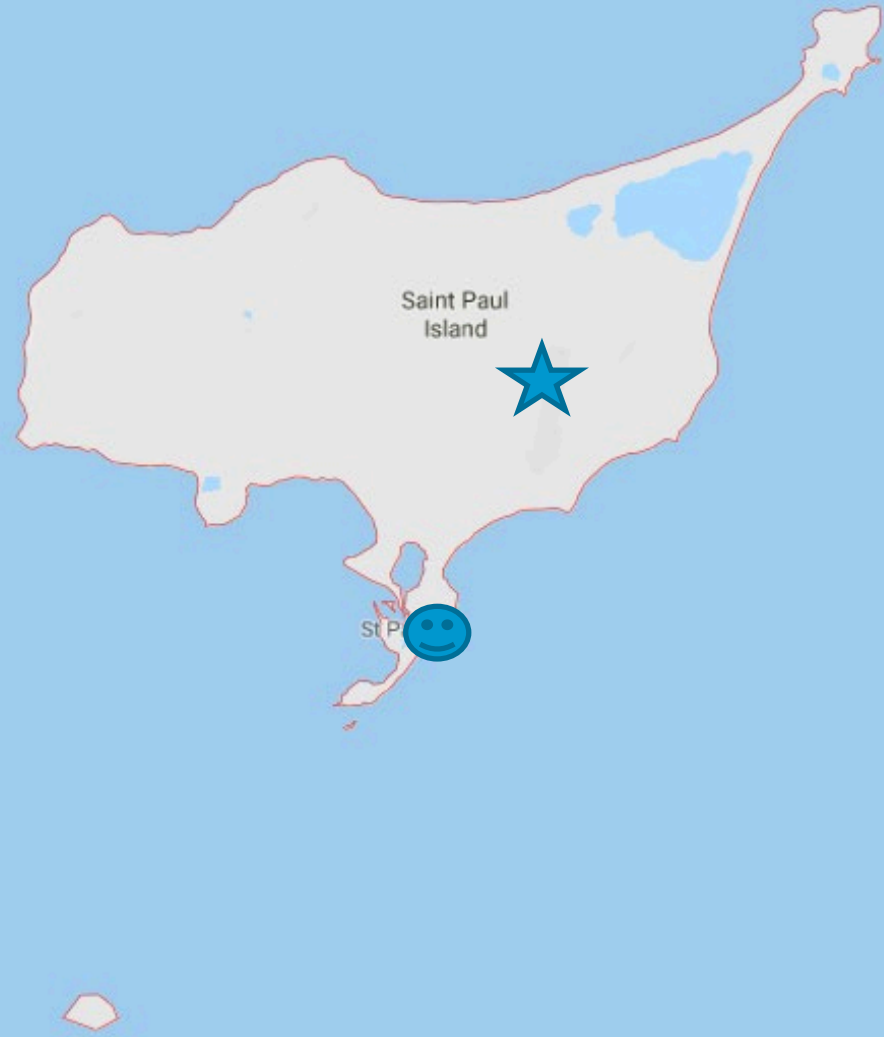
# St. George Island



Proposed  
MXAK Station



# St. Paul Island



# Shismaref

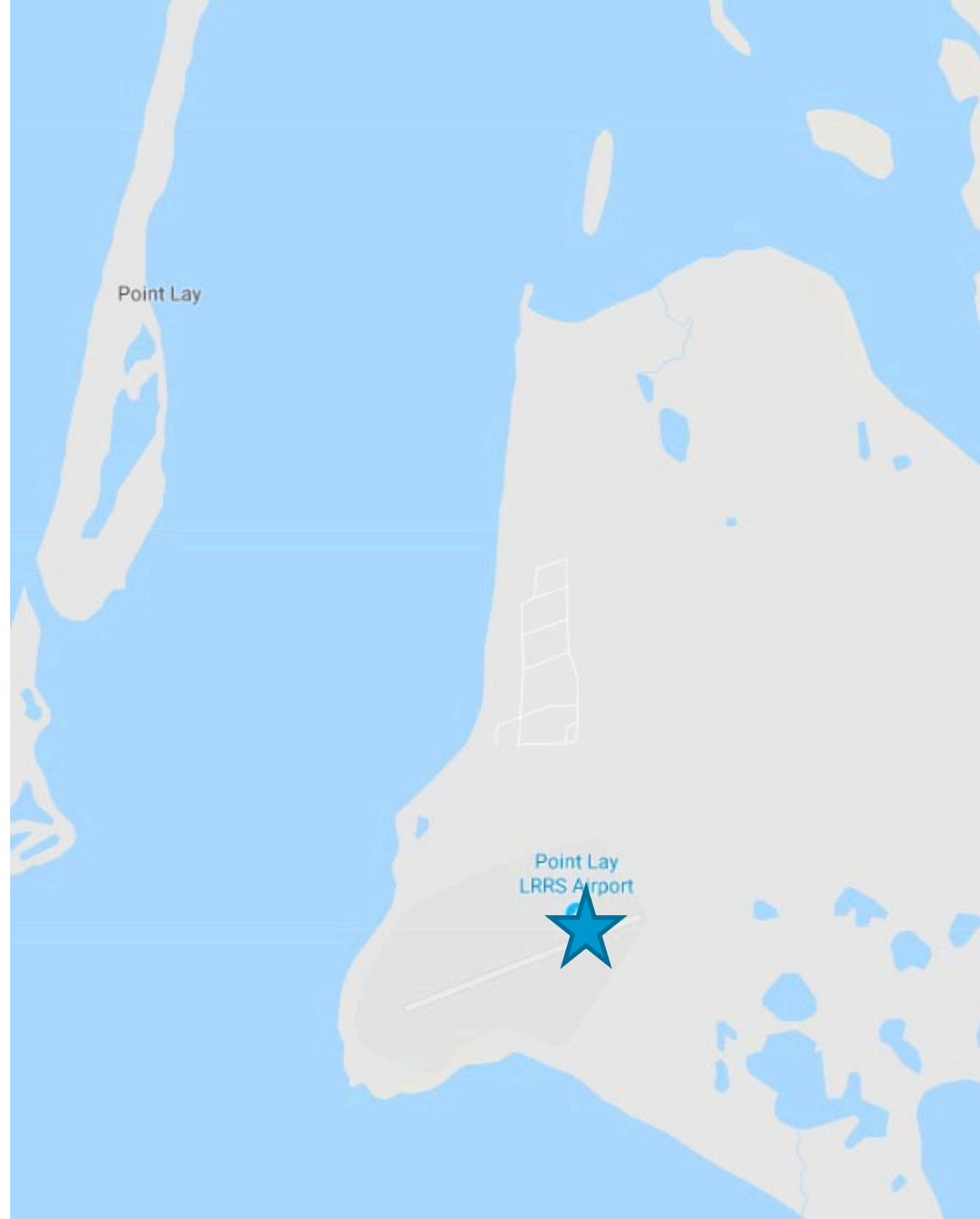




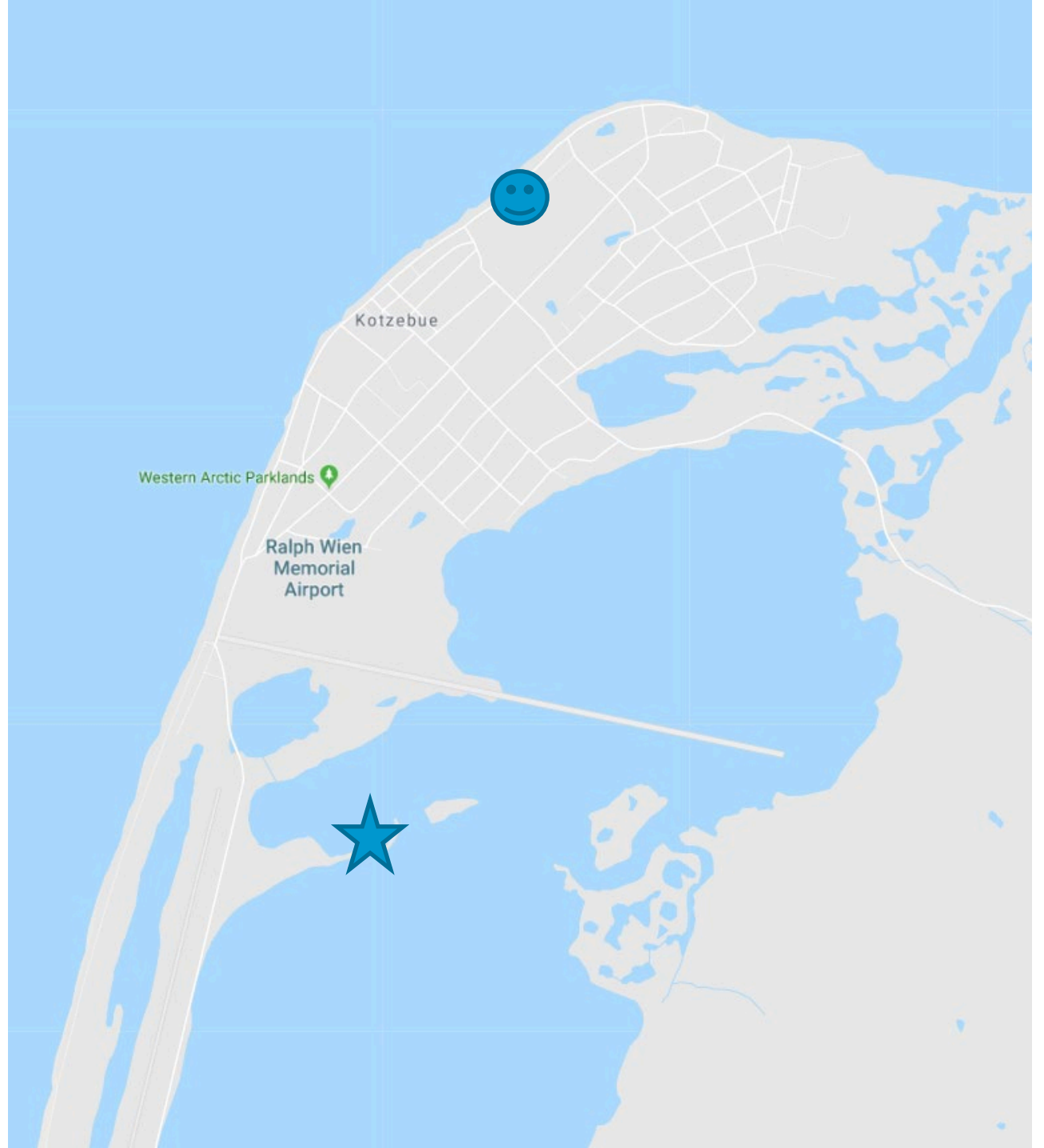
# Point Hope



# Point Lay



# Kotzebue



# Kivalina

