

Ice forecasting network continues to expand, aid mariners

During the recent Navigational Safety Committee meeting in Nikiski, Cook Inlet RCAC was invited to provide a briefing and demonstration of its highly successful Ice Forecasting Network of Cameras to the people who had the most to benefit from it; shippers, the US Coast Guard, marine pilots, regulatory agencies, industry representatives and oil spill prevention and response organizations, among others.

Cook Inlet RCAC's ice forecasting network was conceived following a 2007 Cook Inlet Navigational Safety Committee Winter meeting, when the NOAA Ice Forecaster solicited ice observations to complement Satellite Radar Images.

Cook Inlet RCAC staff visited the Ice Forecasting Office to discuss the difficulties encountered in interpreting Satellite Radar Images, and formulated a preliminary plan to form a network of observers, using an abbreviated reporting form based on the Sea Ice Observers Guide, and a request to include a digital photograph with each report. The Ice Forecaster approved the plan and the form.

Cook Inlet RCAC recruited observers from Cook Inlet operators, including Marine Facility Operators, Off Shore Platform Operators, Port of Anchorage, Offshore Supply Vessel Operators and Charter Aircraft Operators.

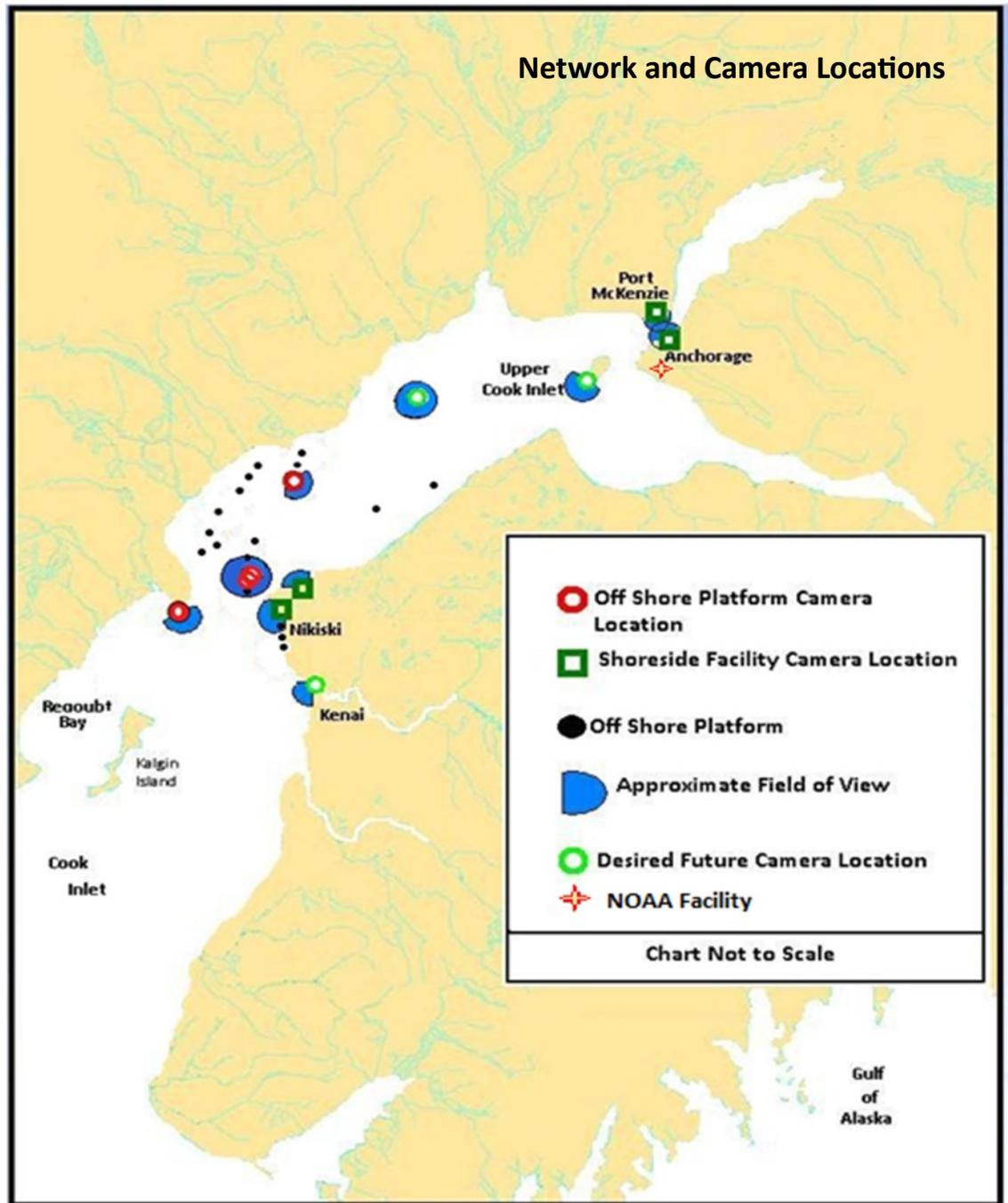


Then we recommended expanding the Ice Observers Network with cameras. Accomplishing this task required selecting suitable cameras, identifying strategic locations for camera placement, negotiating location access and use, developing a priority hierarchy and operation plan, and installation of the high resolution pan, tilt, zoom, cameras; and initializing the system. We then turned the system control over to the NOAA Ice Forecaster based in Anchorage.

The technical requirements of the cameras are many: they have to be high resolution, operable in both day and night; with pan, tilt and zoom lenses, exterior closures with heaters and fans; stand-alone control, minimum 2GB memory, separate hard drives for video storage, high resolution monitors, Windows XP Professional and image enhancing software.

The locations (now numbering 8) had to provide:

- ◆ a strategic view
- ◆ be accessible for maintenance
- ◆ a power supply
- ◆ land line access or line of sight to a land line for wireless data transmission.



Operation Plan

Use pan / tilt / zoom feature to locate and evaluate ice pan, size, and thickness

Establish location of “hard edge”

Capture vessel movement through ice when possible

Routinely record ice coverage and ice make up

Track outstanding events

Index video with on-scene observations and still photos

Archive images

Utilize data to aid in future ice forecasts



The 600' SeaBulk Nevada in Cook Inlet ice Note the scale – compared against the length of the ship, the upper left ice pan is over 1 mile in length.

Since its implementation, Cook Inlet RCAC's ice forecasting network of cameras has become invaluable to NOAA's Ice Forecaster in developing the all-important marine advisories for mariners transiting throughout Cook Inlet during the winter months.