

Date: 17 July 2015

Location: Transiting South

Primary Activities: Puma Range Extension + Ice Profiling; US Interagency Arctic Buoy Program

Conditions: Overcast skies; 2/10s to 4/10s ice coverage

Temperatures: Air temperature range 38 - 43 F; water temperature 31 - 37 F

Today, we transited to the Arctic Technology Evaluation (ATE) 2015's highest Northern point, approximate latitude 73 43.5 N. Unfortunately, the ice coverage was marginal; so, we were unable to conduct off ice Puma flights, ice characterization, or ice liberty on this cruise. We are now transiting South, returning to Nome. Some of our science and technology evaluations continue, and the teams and crew continue to interact.



Team Building by moving shore transfer test boat (Photo courtesy ATE 2015 RDC Team)



Flight Deck Puma Operations (Photo courtesy ATE 2015 RDC Team)



Communications Testing – Can you hear me now? (Photo courtesy ATE 2015 RDC Team)

Today, the Puma team conducted a sortie with two objectives in mind. First, utilizing a high gain antenna, they flew up to 5 nautical miles ahead of CGC HEALY, which was the maximum allowable for the ATE. They were successful in verifying this capability as well as the ability to broadcast imagery from that range. Their second objective was to test the Puma's ability to aid HEALY in ice profiling. The team established a live feed of the Puma imagery to the bridge of HEALY. There, the Operations Officer, LCDR Bill Woityra, attempted to correlate the images from the Puma and the ship's ice radar. Unfortunately, ice coverage was minimal, and the fog was increasing; so, they were unable to collect sufficient information. However, they did verify the proof-of-concept, but further flights and analysis are required.

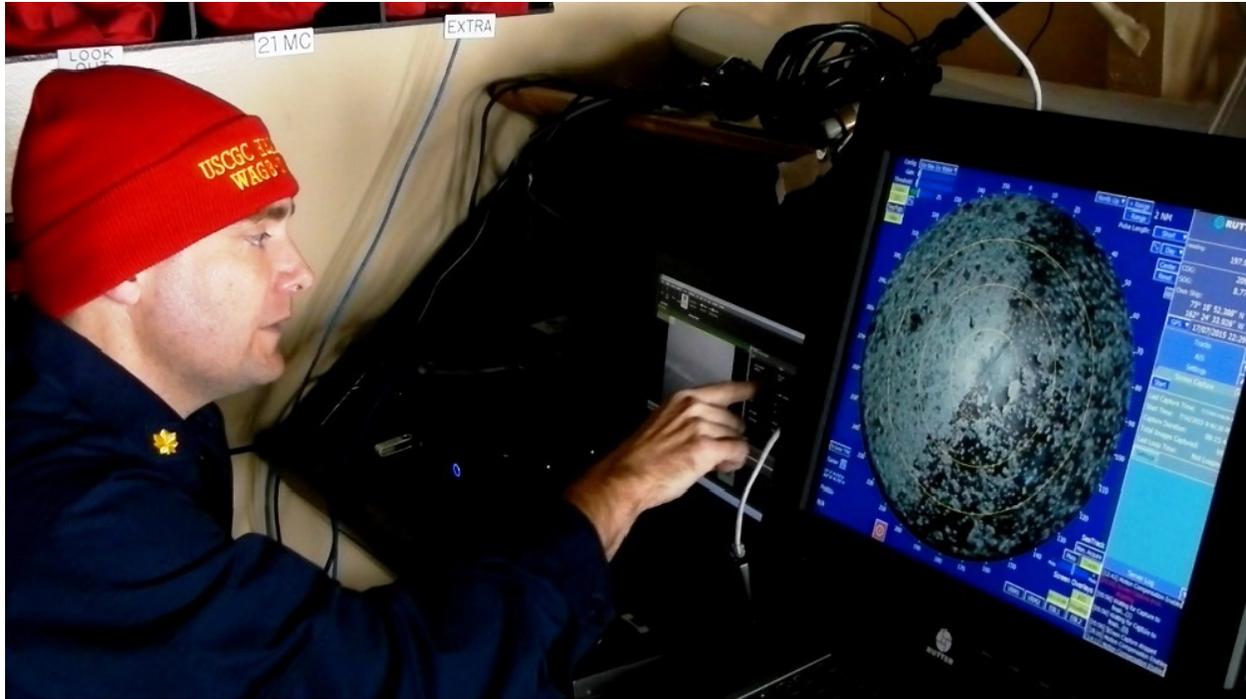
???
03X WB 83446 29651
Alt: 186 ft MSL
True Heading: 28°



CFOV Hdg: 269°
CFOV Position:
03X WB 83250 29657
CFOV Elevation: 0 ft

FOV Corner Positions:
UL: 03X WB 83167 29574
UR: 03X WB 83133 29739
LR: 03X WB 83304 29710
LL: 03X WB 83316 29612

Puma Imagery of Ice Profiling (Photo courtesy Puma Team)



Operations Officer in Action (Photo courtesy ATE 2015 RDC Team)

As part of ATE 2015, the U.S. Interagency Arctic Buoy Program (USIABP) arranged to deploy multiple drift buoys to observe air, sea, and ice conditions. A multitude of government and industry entities use these observations for both operations and research. These uses include forecasting weather and ice, validating climate models, validating satellite data, and studying climate change. The USIABP requested assistance for this cruise because they have gaps in their network along the ATE 2015's planned track line.



Deck Crew in Action Deploying USIABP Buoy (Photo courtesy ATE 2015 RDC Team)



R&D Center Helping CGC HEALY Crew with USIABP Buoy Launch (Photo courtesy ATE 2015 RDC Team)

Weather permitting, the Puma team will conduct additional sorties, and NOAA plans another CTD cast near their moored surface buoy deployed on 10 July. Next stop from there – Nome!

For description of ATE 2015 plans see newsletter at:

http://www.uscg.mil/acquisition/rdc/pdf/ATE15%20Pub_FINAL.pdf