

Date: 18-19 July 2015

Location: Transiting South – almost to the Bering Straits

Primary Activities: 3D Printing; Puma Sorties; Puma Flight-Deck Net Capture

Conditions: Fog and open water

Temperatures: Air temperature range 48 - 52 F; water temperature 40 - 51 F

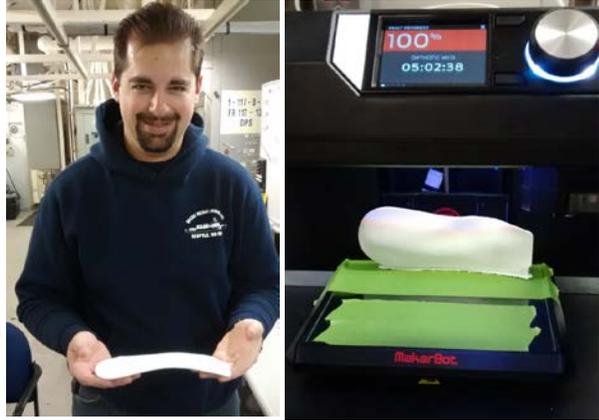
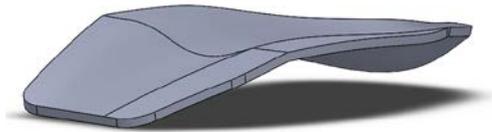
This weekend the Arctic Technology Evaluation (ATE) 2015 team continued transiting South towards the Bering Straits. With the exception of the Coast Guard R&D Center's (RDC) Shore Transfer Boat testing, most of the science teams concluded their tests over the weekend. Below is a picture of the entire ATE 2015 team, both CGC HEALY crew and science teams. The second photo is the RDC team that organized and directed the ATE 2015.





(Photos courtesy Esther Horvath)

During the ATE 2015 cruise, the HEALY medical team approached the 3D Printing team, consisting of Coast Guard Academy Professor Ron Adrezin and RDC intern Nicholas Haliscak, about a possible application to assist a crew member. The crew member was experiencing regular foot discomfort and required orthotic support to enable the member to stand watch. The 3D team investigated the issue and used a casting from the medical team to create a detailed SolidWorks orthotic model. After a few trials of adjusting the design based on member feedback and orthotic flexibility/strength, the 3D team printed an orthotic for each foot, which the member is now testing. This is another example of the unanticipated application of this technology in an operational environment.



(From left to right) SolidWorks orthotics model, Nick Haliscak holding early version, orthotic on 3D printer (Photos courtesy Prof. Ron Adrezin)

Over the weekend, the Puma team had a limited weather window but was able to achieve one other objective. They successfully executed an autonomous net capture on the HEALY flight deck. This enables them to evaluate and compare tactics, techniques, and procedures for flight-deck net captures vice port or starboard side-mounted net captures.

Weather permitting; the RDC team will begin some basic operational testing of an adapted shore transfer boat, the one pictured in the group photos above.

For description of ATE 2015 plans see newsletter at:
http://www.uscg.mil/acquisition/rdc/pdf/ATE15%20Pub_FINAL.pdf