



9th NOAA TBPG Workshop

Kansas City, MO

April 10-11, 2018

Roundup Presentation

Arctic Test Bed and Proving Ground
(ATPG)

Gene Petrescu



Top FY17 Highlights

Arctic Test Bed and Proving Ground

- **Year of Polar Prediction Planning Activities (YOPP)**
 - Sea Ice Verification Project - Collaborative effort between the ATPG, ASIP, NIC, CIS, and CMC to develop objective and subjective metrics and methods to evaluate sea ice models from an operational perspective
 - Continue Virtual Weather Desk – Provide additional observations / model guidance to evaluate potential improvements to forecasts and DSS
- **MIRS Evaluation**
 - In collaboration with NESDIS (JPSS) / UAF-Gina, evaluated microwave products from the SNPP/VIIRS platform (April / May 2017)



Top FY17 Highlights

Arctic Test Bed and Proving Ground

- **AWIPS Aviation Hazards Tool Evaluation (June 2017)**
 - In collaboration with the AAWU, AWC, HFO, GSD, and Raytheon. AWIPS based tool to issue aviation hazards (SIGMETs, VAAs, VA SIGMETs)
- **Evaluation of Ceiling and Visibility Guidance for Alaska**
 - Collaboration with AAWU, EMC, ESRL. Sponsored by AFS-Aviation to improve C&V guidance for Alaska

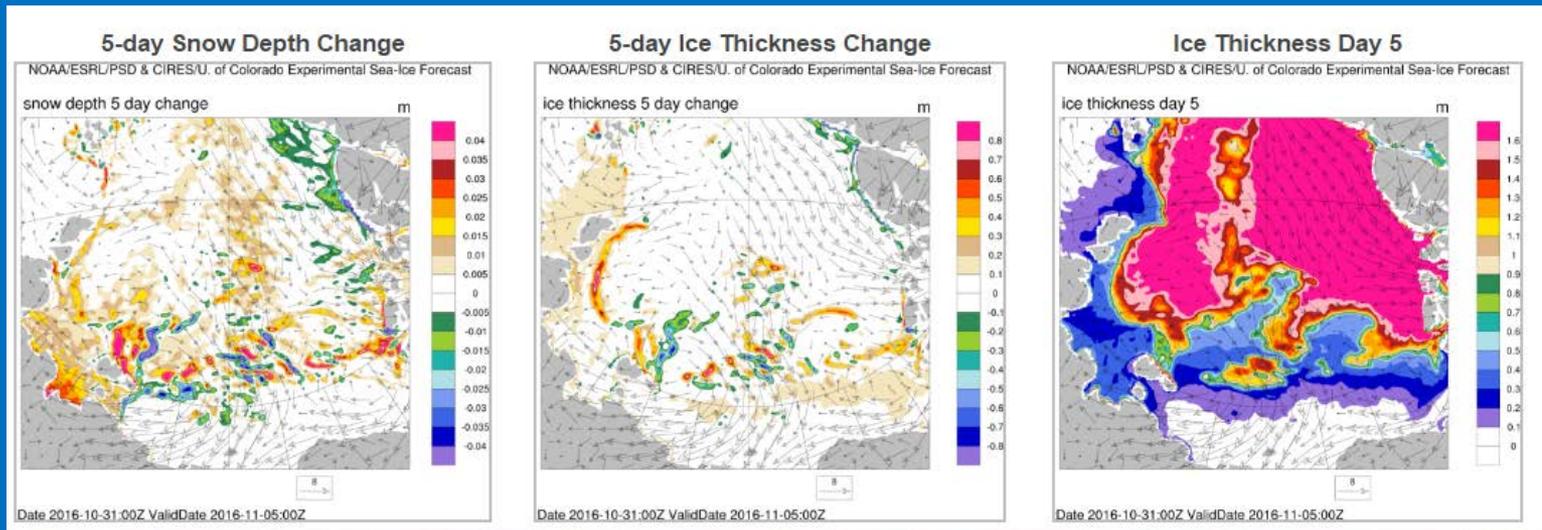


FY17 Highlights

Arctic Test Bed and Proving Ground

- **Evaluation of RASM-ESRL Sea Ice Guidance**

- Evaluation of Sea Ice Guidance during the Fall Freeze up period (Oct-Dec 2017) – Feedback being used to improve the model (Amy Solomon / Janet Intrieri)

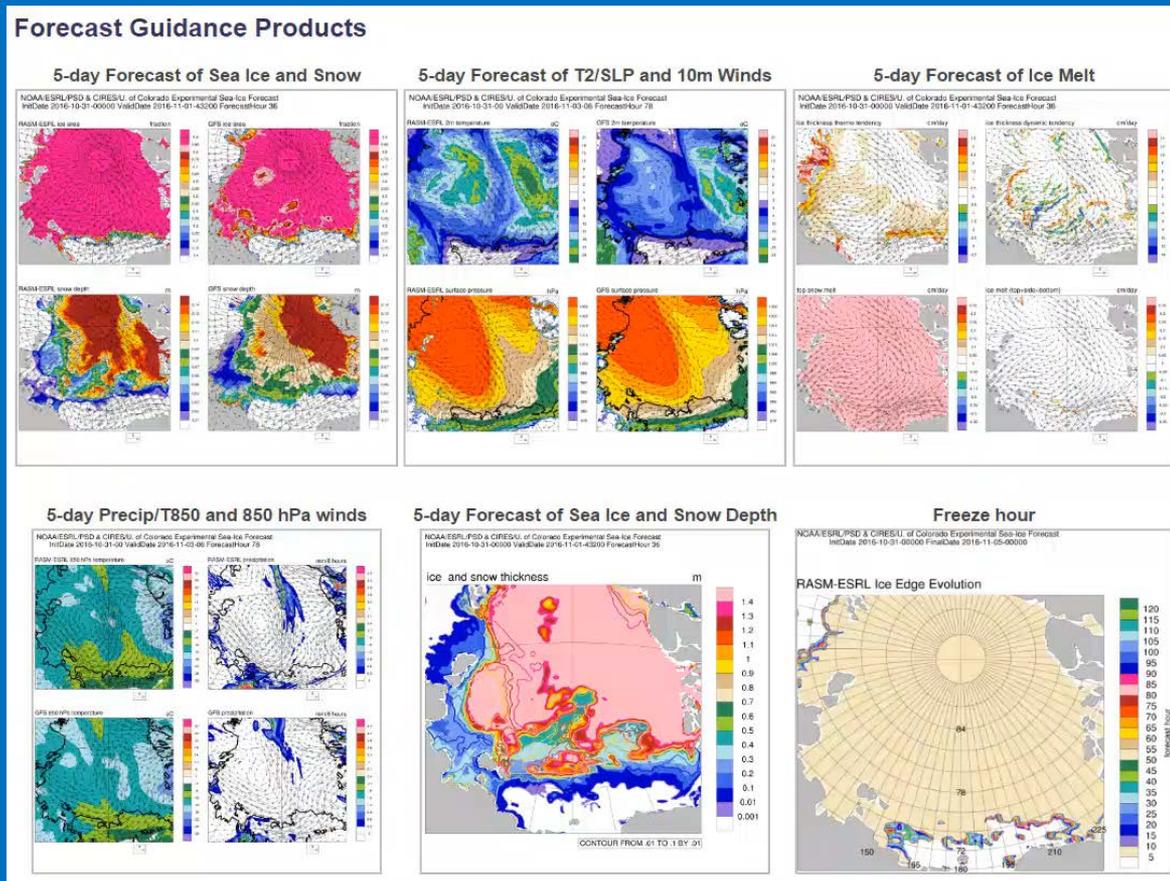




FY17 Highlights

Arctic Test Bed and Proving Ground

- RASM-ESRL Output





FY17 Highlights

Arctic Test Bed and Proving Ground

- **Riverwatch 2017 APRFC / UAF / NOAA UAS PROGRAM**
 - Collaborative effort investigating the utility of UAS surveillance to monitor River Ice Breakup
 - Continued Expansion to Investigate feasibility to upscale



FY17 Transition Metrics

Arctic Test Bed and Proving Ground

Major Tests Conducted	Transitioned to Operations (RL9)	Recommended for Transition to Operations (RL9)	Advanced To Experimental Testing (RL8)	Further Demonstration/ Development (RL 5-7)	Rejected For Further Testing
RASM-ERSL Sea Ice Guidance				X	
MIRS Evaluation			X		
AWIPS Hazards Tool Testing		X			
Alaska C&V Evaluation			X		



Top FY18 Highlights

Arctic Test Bed and Proving Ground

- **Initial National Blend of Models Eval in Alaska (Feb 2018)**
 - Evaluate the use of the NBM T/Td/RH/QPF fields as a first guess in the forecast process
- **Evaluate New Methods to Modify Precipitation Type grids in the GFE (April 2018)**
 - Forecasters from Alaska WFOs will test new concepts and tools to modify Precipitation Type forecasts generate from model fields



Top FY18 Highlights

Arctic Test Bed and Proving Ground

- **Evaluate Ceiling & Visibility Guidance (Starting Summer 2018)**

- Begin the objective evaluation of various model C&V guidance including NBM Guidance
- Develop a baseline to help inform C&V forecast practices in the AAWU

- **NOAA-20 OT&E**

- In Collaboration with NESDIS JPSS Program
- Evaluate new NOAA-20 Full Resolution (375m) imagery in Alaska and the Arctic
- Expand use of NUCAPS, Microwave, and imagery RGBs to new targets of opportunity



Top FY18 Highlights

Arctic Test Bed and Proving Ground

- **Evaluate Ensemble Storm Tracks Guidance (Sep 2018)**
 - Funded by Climate Program Office
 - Storm Track guidance for improved Forecaster Situational Awareness and to message coastal storm threat to at risk communities
- **NOAA-20 OT&E**
 - In Collaboration with NESDIS JPSS Program...Evaluate new NOAA-20 Full Resolution (375m) imagery in Alaska and the Arctic



Questions

Arctic Test Bed and Proving Ground

- **Additional Information**

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