



NOAA Transitions: FY21 Quarter 3

Stephan Smith, Chair of the NOAA Line Office Transition Managers Committee
Presentation to the NOAA Science Council
November 9, 2021



PURPOSE

The purpose of this presentation is to

Provide an update on NOAA's R&D transitions
from April 1 - June 30, 2021 (FY21 Q3)





BACKGROUND

- Transition of NOAA R&D to **operations, applications, commercialization, and other uses** is key to delivering continually improved products and services
- Past reports can be found on the [NOAA Science Council website](#) under “Council Products”



RESULTS

- 24 transitioned projects were identified for FY21 Q3, additional details can be found in the [summary document](#)
 - 17 improvements to enhance weather and climate forecasts
 - 3 improvements for environmental monitoring
 - 2 model assessments
- The LOTMC also [identified 12 projects](#) from OAR and NESDIS that are stalled from transitioning
- Organizations that were adopters for the transitioned projects included FAA, EPA, World Meteorology Organization, and NOAA NESDIS, NWS, and NOS
- The full list of transitioned projects can be found in [this spreadsheet](#)

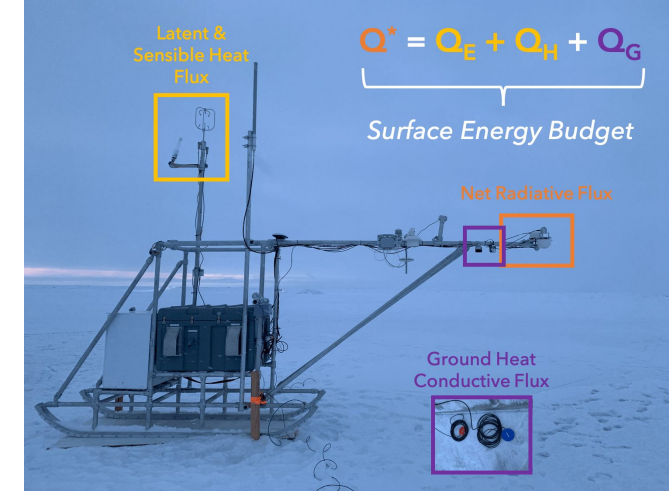


Transition Highlight – Mobile Observing System

Atmospheric Surface Flux Stations (ASFS)

OAR deployed Atmospheric Surface Flux stations into operation in the Arctic ([website](#))

- ASFS is a moveable instrument tower that collects all components of the surface energy budget – net radiative flux, latent and sensible heat flux, and sub-surface conductive heat flux.
- Multiple ASFSs were deployed starting Fall 2019 at various locations across the Arctic to collect data as part of the Multidisciplinary drifting Observatory for the Study of Arctic Climate (MOSAIC) expedition.
- ASFS technology can be used for many other applications, including on land and buoy-based systems. The current sled structure will continue to be utilized during experiments over the sea ice.

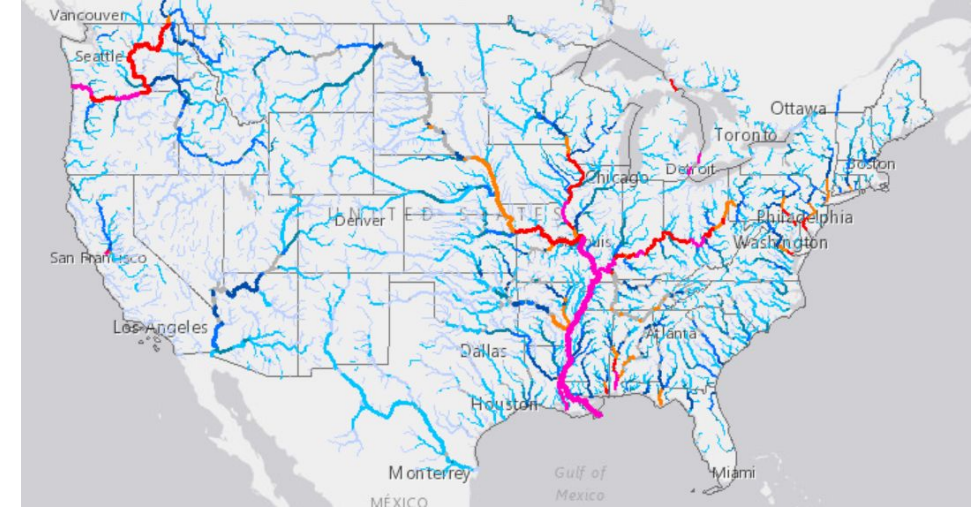


Transition Highlight – Model Upgrade

National Water Model v2.1

NOAA NWS, in partnership with **OAR**, deployed the National Water Model (NWM) v2.1 into operations ([website](#)).

- NWM v2.1 addresses known gaps in modeling capabilities and stakeholder-required improvements
- NWM v2.1 includes two sub transitions from OAR: updates to Great Lakes and Lake Champlain basins
- NWM v2.1 expanded to include Puerto Rico and the Laurentian Basin domains
- Other improvements included code modularization supporting community development, improved snowmelt runoff dynamics, and improved model calibration.

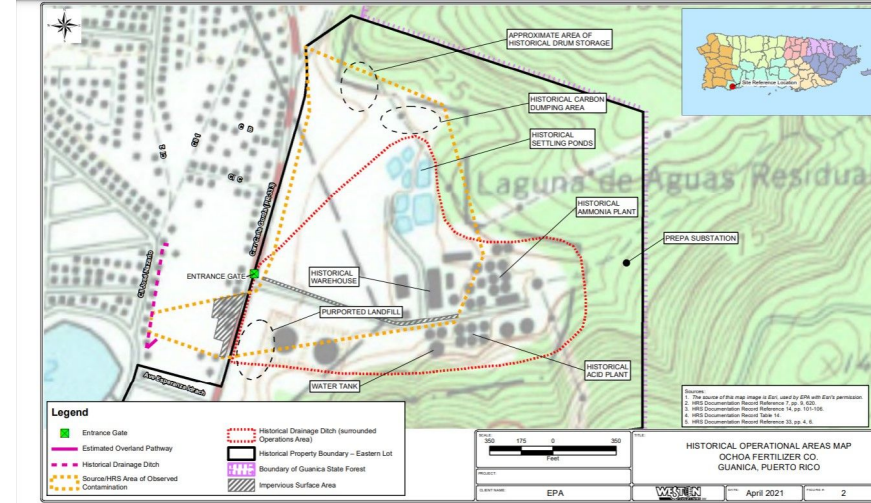


Transition Highlight – Data

National Priorities List

NOAA NOS provided contaminants detection and monitoring data directly to the EPA to support the National Priorities List ([press release](#)).

- NOS NCCOS performed an assessment to provide novel data demonstrating significant previously unknown contaminant impacts at the Ochoa Fertilizer Company site
- NOS provided the original notification of the findings to EPA as early as 2012 with supporting publications in 2014/2015
- The project reached RL9 in 2021, when EPA used this data to justify the proposed listing of the Ochoa Fertilizer Company site in Guanica, Puerto Rico to the National Priorities List





Stalled Transition



Oceanic Heat Content Indian Ocean

NESDIS STAR/SOCD/Blended SST science team are developing a suite of ocean heat content products for the Indian Ocean

- This is a proof of concept R&D to produce heat content products for a new area
- The products were planned to transition to NESDIS STAR SOCD and CoastWatch
- The project is on hold or at risk of later completion due to lack of funding;
 - The NOAA Ocean Remote Sensing (ORS) funding was not allocated in FY21



Stalled Transition

Verification Services for Aviation Forecast Evaluation

OAR Global Systems Laboratory, with NWS collaboration, has developed a suite of web-based, automated verification tools to provide ongoing performance metrics of NWS aviation weather forecast products

- The R&D to develop the prototype was originally funded by NWS/AFS, with additional funding from JTTI
- After NWS reorganization, the tools were not deemed high enough priority to warrant funding for transition and O&M
- Transition Plan not signed by the receiving line office



Thank You!

