



NOAA Transitions: FY21 Quarter 2

Gary Matlock, Chair of the NOAA Line Office Transition Managers Committee
Presentation to the NOAA Science Council
August 10, 2021



PURPOSE

The purpose of this presentation is to

Provide an update on NOAA's R&D transitions
from January 1 - March 31, 2021 (FY21 Q2)



BACKGROUND

- Transition of NOAA R&D to **operations, applications, commercialization, and other uses** is key to delivering continually improved products and services
- This is the fourth iteration of quarterly transition updates from the Line Office Transition Managers Committee (LOTMC)
- Past reports can be found on the [NOAA Science Council website](#) under “Council Products”



RESULTS

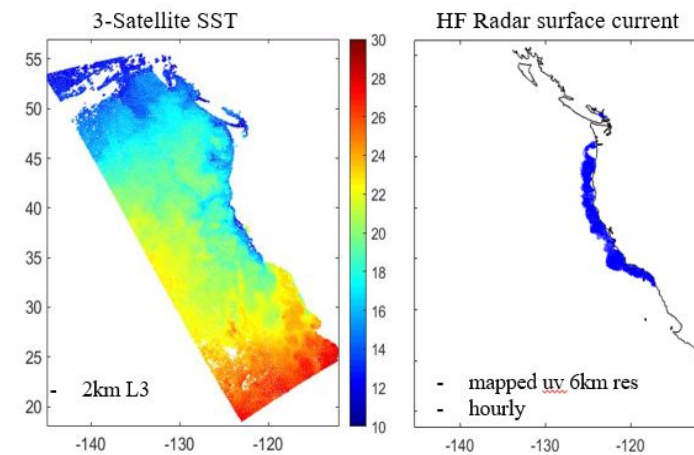
- 11 transitioned projects were identified for FY21 Q2, additional details can be found in the [summary document](#)
 - 6 improvements to enhance weather and climate forecasts
 - An improvement to natural resource management
 - 2 assessments to strengthen NOAA's R&D
 - 2 research to commercialization
- Organizations that were adopters for the transitioned projects included FAA, Florida Fish and Wildlife Conservation Commission, and NOAA NWS, and NOS
- The full list of projects can be found in [this spreadsheet](#)

Transition Highlight – Unified Forecast System*

West Coast Operational Forecast System (WCOFS)

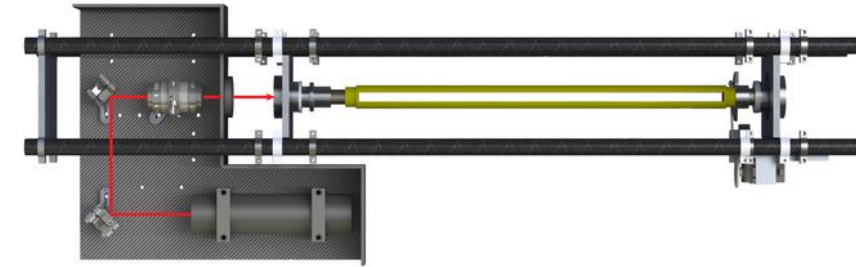
A cross line office effort between **NESDIS** and **NOS** implemented the West Coast Operational Forecast System (WCOFS) into operations.

- WCOFS comprises of two main components for its forecast: ocean circulation model and data assimilation system
- This is the first NOS Operational Forecast System that incorporates data assimilation
- WCOFS provides high-resolution predictions along the entire U.S. West Coast for up to three days for sea level, currents, temperature, and salinity
- WCOFS became operational on 22 March 2021



*Note there are other projects from FY21 Q2 identified as part of the Unified Forecast System. More information on these projects can be found in the [spreadsheet](#).

Transition Highlight – Commercialization



Patent technology for measuring aerosol and trace gases

NOAA OAR, in close collaboration with **TPO**, transitioned a system for measuring trace species in a sample gas to commercialization.

- The technology for this was developed by ESRL-CSL and is related to Cavity Ringdown Analysis of air components
- The patent component is the design which allows for an open path for airflow through the analysis chamber, which can then be easily closed to zero the machine with a reference air sample
- NOAA has licensed the technology to two US companies: [Handix Scientific](#) and [Nikira Labs](#)
- NOAA will likely be a customer for these final products, as they will likely be mounted to UxS platforms in the future for air quality sampling



Transition Highlight – Citizen Engagement

Habitat Forecasting: Protection of Fish Spawning Aggregations in Florida Keys

Using citizen science and sonar, **NOAA NOS** partnered with **NOAA NMFS, Florida Keys National Marine Sanctuary**, and the **state of Florida** to create habitat maps and characterization of aggregations of reef fish species

- Collected locations and historical fish spawning aggregations (FSAs) descriptions from interviews of recreational and commercial anglers.
- Using sonar and divers to confirm the citizen science data and reproduce the data into habitat maps
- Habitat maps and fish aggregation characteristics are transitioned to Florida Fish and Wildlife Conservation Commission for regional fisheries management



Thank You!

