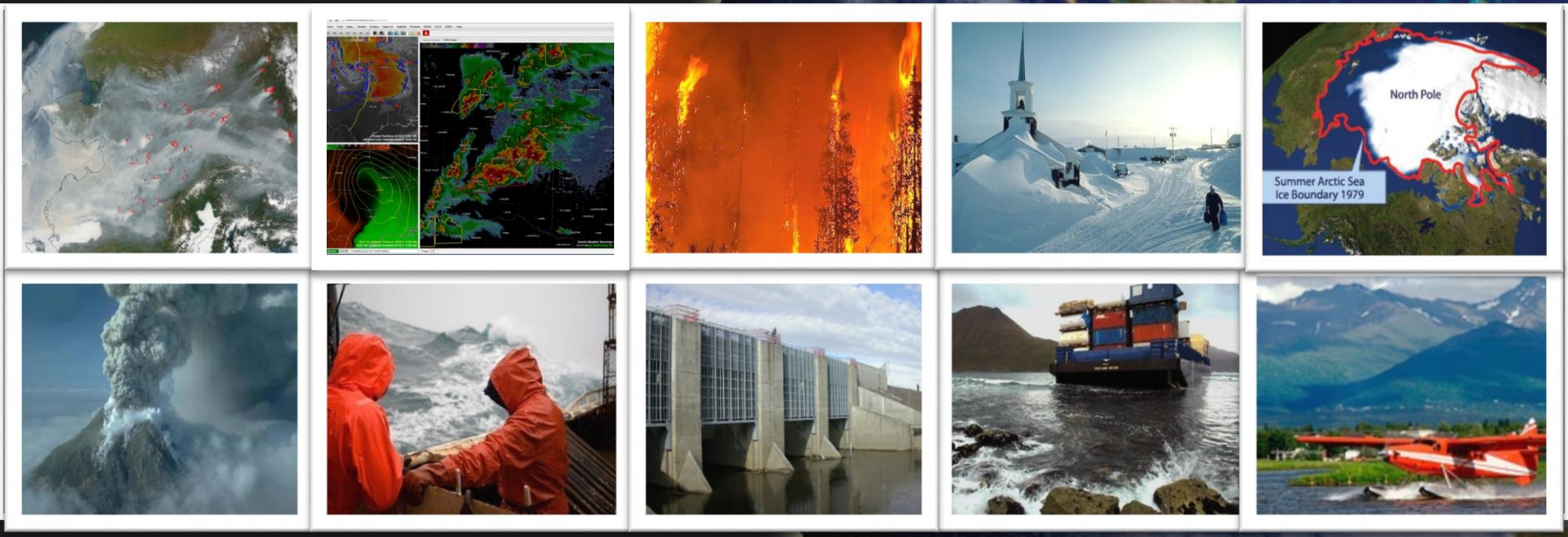
Alaska Aviation Weather Workshop



NOAA's National Weather Service
Alaska Region

Carven Scott
Regional Director

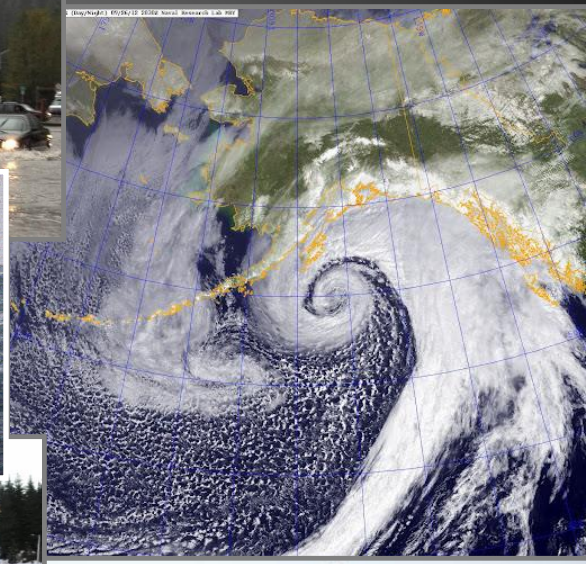
NWS Alaska Region Outline

- Who we are and what we do today
- Where we're going, and why
- How we're getting there
- Why should you care?
- Summary

NWS Alaska Region Mission and Vision

<u>Mission</u>: NWS Alaska Region provides integrated environmental analysis and forecasts, leveraging a broad spectrum of partnerships that enable communities and stakeholders to make the best possible decisions.

<u>Vision</u>: Alaska Region communities and stakeholders are ready, responsive, and resilient to environmental impacts: protecting lives and property, enhancing commerce, and safeguarding the “Last Frontier”.



NWS Alaska Region
Where we are

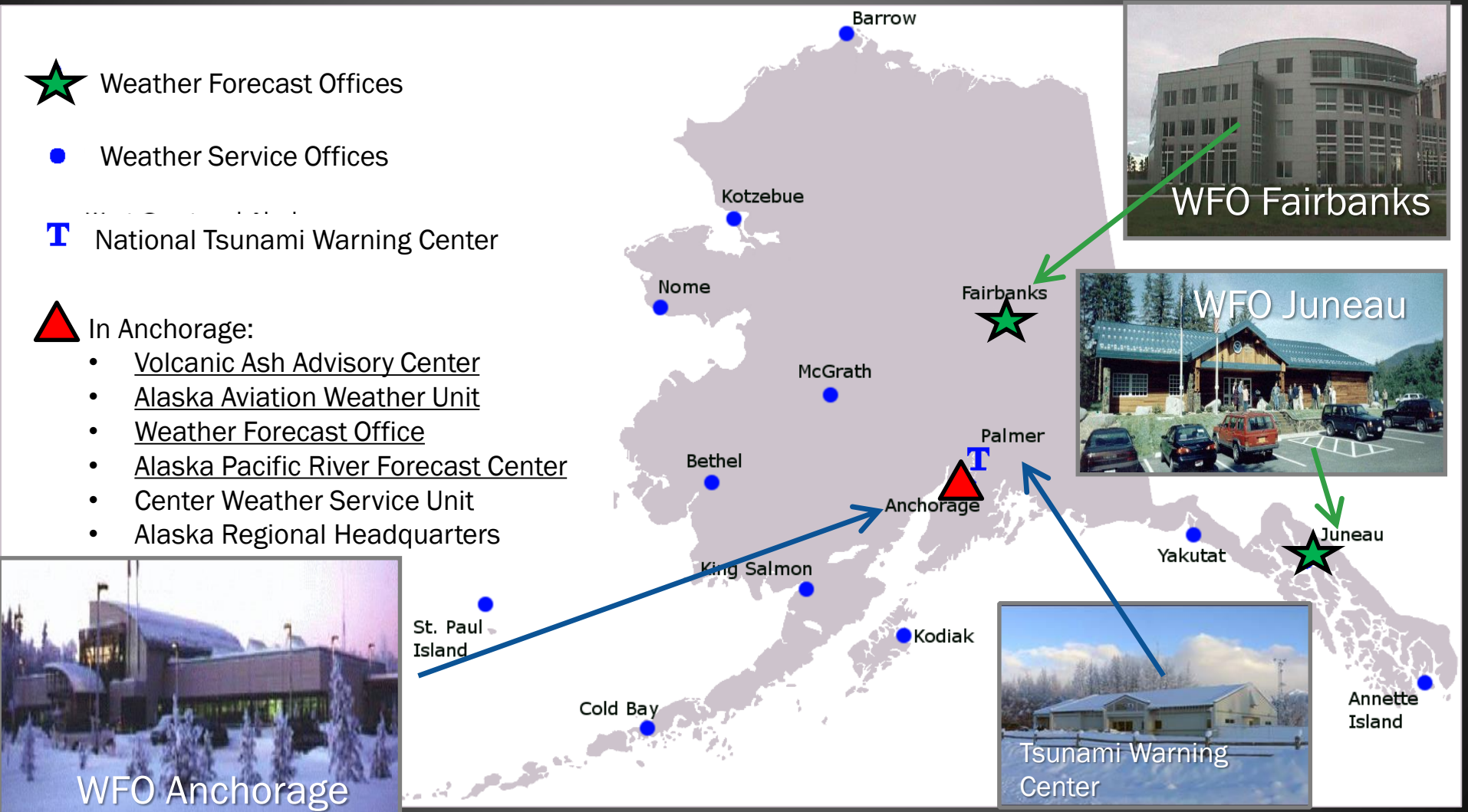
Weather Forecast Offices

Weather Service Offices

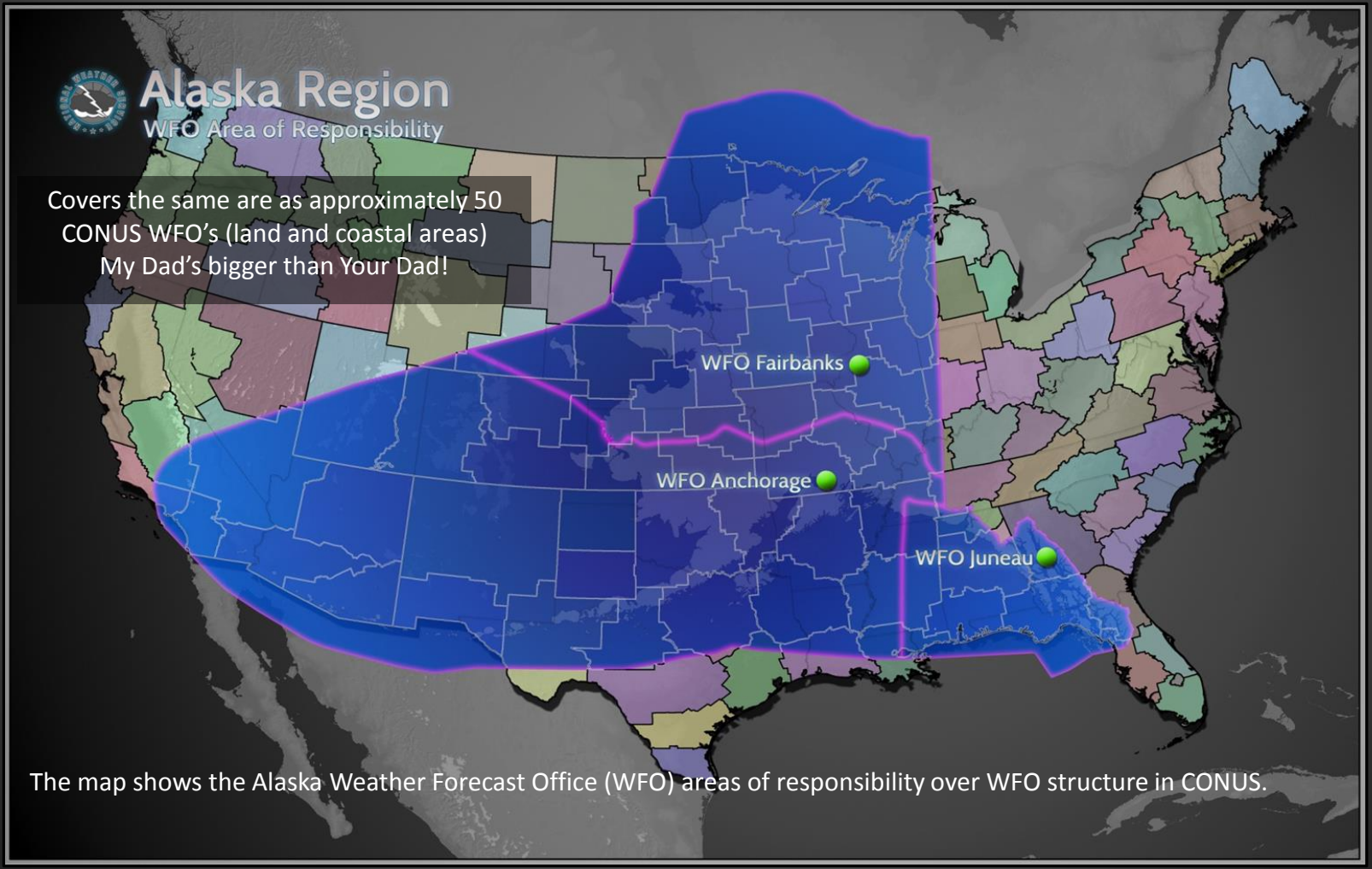
T National Tsunami Warning Center

In Anchorage:

- Volcanic Ash Advisory Center
- Alaska Aviation Weather Unit
- Weather Forecast Office
- Alaska Pacific River Forecast Center
- Center Weather Service Unit
- Alaska Regional Headquarters



NWS Alaska Region Obligatory Comparison



NWS Alaska Region Resources

Budget (FY17)

- Labor: $27.1M
- Non-Labor: $18.7M
- PCS: $1.2M

People (January 18, 2018)

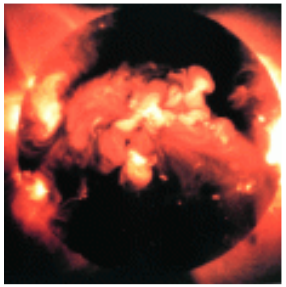
- 255 positions, 1 contractor
- Target staffing level: 223
- Actual staffing level: 185

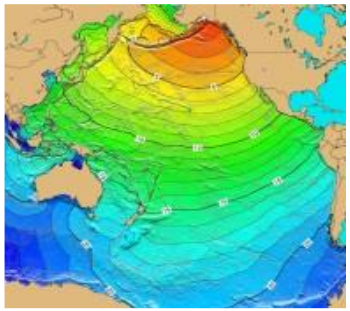
NWS Alaska Region Service Areas

- Aviation
- Climate
- Fire Weather
- Marine Weather and Sea Ice
- Public Forecasts and Warnings
- Rivers/Hydrology
- Space Weather
- Tsunami
- Volcanic Ash








NWS Alaska Region Aviation

- 42 TAFs (AFC and AFG #1 and #2)
- Alaska FIR – Not as large as AWC
  - Fewer forecasters
  - VAAC responsibility
- Short Term Aviation Guidance
  - Automated. Hands-off
  - Not a forecast
- Enhanced Aviation Services
  - Alaska Environmental Science and Service Integration Center (AESSIC)

NWS Alaska Region EvolveNWS

NWS Vision:

Weather-Ready Nation: Society is prepared for and responds to extreme weather, water, climate events

The vision is realized through the NWS mission: **Provide forecasts and warnings for the protection of life and property and to enhance the national economy**

To realize the full value of our mission and to Evolve the NWS, NWS will:

Deepen our service to core partners: Testing and implementing the Operations and Workforce Analysis (OWA) recommendations through the NWS Program Management Office (PMO)

Enhance our science and technology capabilities: Advance NWS infrastructure, science, and technology to the "cutting edge" (e.g., next generation modeling and data assimilation systems)

Engage strategically with and grow the broader enterprise: NWS fosters partnerships at all levels, proactively harnesses external advances that benefit the mission, and enables the enterprise to grow

NWS Alaska supported by many core partners

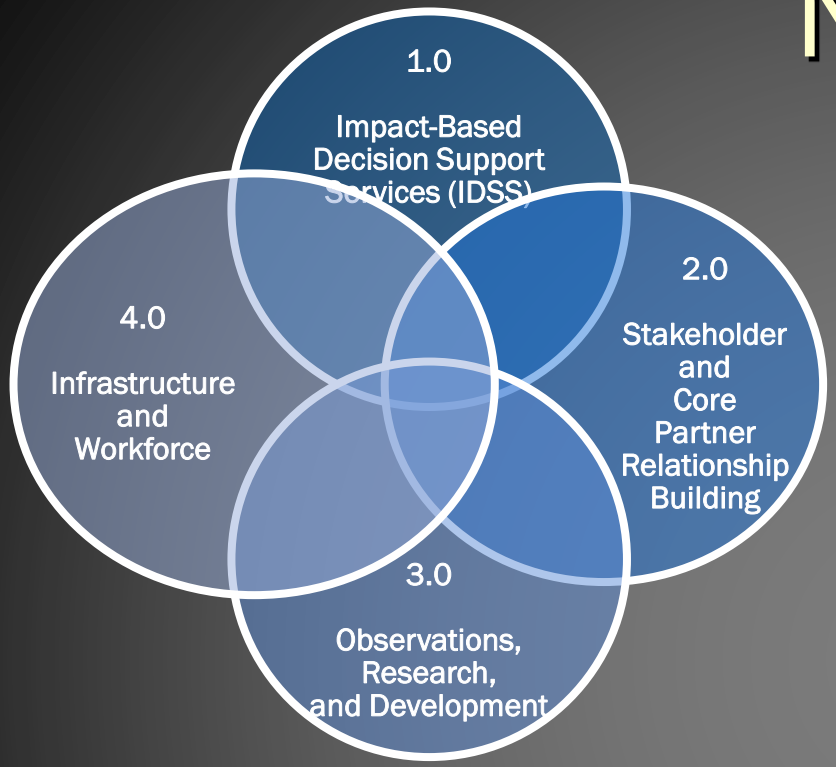
Increasing interest & activity in the Arctic will bring many new emerging customer requirements

www.weather.gov/alaska

NWS Alaska Region EvolveNWS - Alaska

- Current Missions (e.g., Aviation)
- Emerging Missions
  - Increased Marine Traffic
  - Mineral, Gas, and Oil Extraction
  - National and Homeland Security
  - Infrastructure
- Vulnerable Communities (subsistence)
- Alaska - Where Weather meets Climate Change

NWS Alaska Region Strategic Plan



1. **IMPACT-BASED DECISION SUPPORT SERVICE**

   Enable core partners to make informed decisions in response to environmental events that impact lives and livelihoods

2. **STAKEHOLDER AND CORE PARTNER RELATIONSHIP BUILDING**

   Develop and maintain deep relationships with core partners and stakeholders to better understand current and evolving needs and improve collaboration

3. **OBSERVATIONS, RESEARCH, AND DEVELOPMENT**

   Enhance data, information, models, and tools that allow Alaska Region to provide accurate, consistent, and integrated environmental information that meets validated stakeholder needs

4. **INFRASTRUCTURE AND WORKFORCE**

   Evolve the NWS Alaska Region organization and infrastructure to promote a highly skilled, adaptive, and collaborative workforce.

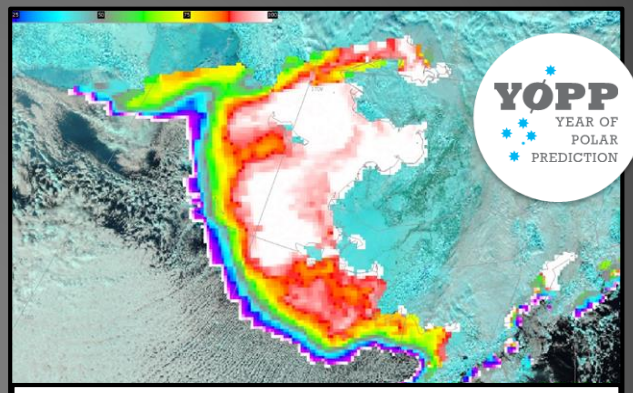
NWS Alaska Region FY18-FY23

- Automation of radiosonde technology (i.e., Autolauncher) began Q1 of FY18 with the prototype in Kodiak, AK.
- The plan is to reduce the personnel at our 10 WSO's from three to one as the Autolaunchers are deployed over the next three years.
  - CY18 – St Paul, Annette, Yakutat, Fairbanks, Bethel (and Barrow via MOU with DOE)
  - CY19 – Nome, McGrath, Anchorage, King Salmon
  - CY20 – Kotzebue, Cold Bay
- Billets will be "repurposed" to other job series, and moved to build out the Alaska Environmental Science and Service Integrations Center (AESSIC) and the Arctic Test bed and Proving Ground (ATBPG) capabilities

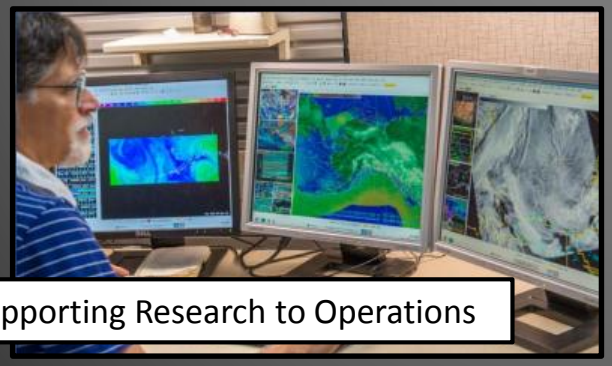
NWS Alaska Region
Arctic Test Bed and Proving Ground

Vision Statement:

NOAA's Arctic Test Bed ensures that relevant operational scientific and technology advances are made to support the mandates of our core partners with weather, water, and climate information and predictions and associated impacts related to the people, infrastructure, and environment of Alaska and the Arctic.



SNPP-MIRS sea ice product evaluation with GINA Spring 2017



Supporting Research to Operations

- Sea Ice Model Verification Project
- National Blend of Models
- Enhanced Aviation Services

NWS Alaska Region

Alaska Environmental Science & Service Integration Center (AESSIC)

The NWS AR will establish the AESSIC to better meet the current and emerging needs of partners, customers, and stakeholders, as well as those that operate in the Exclusive Economic Zone in the waters surrounding Alaska. Goals and objectives:

- More consistent and coherent science and services across internal NWS programs including enhanced aviation services
- Allow NOAA (NWS, NOS, NMFS, OAR) to better meet the current and emerging cross-cutting needs of partners, customers, and stakeholders in Alaska, as well as those that operate in the EEZ in Alaska waters (e.g., HAB forecasts, impacts to fish stocks, etc.)
- Enhance integration of interagency science and service delivery (e.g., USGS, BOEM, BSEE, NPS, BLM, USFS, NASA, EPA, etc.) to address impacts (e.g., ecological) in the Arctic and attempt to quantify the economic value chain
- Develop culturally sensitive social science services, integrate Traditional Environmental Knowledge (TEK) into NWS operations, and develop integrated service outlets in remote Alaska locations focusing on STEM activities

NWS Alaska Region Summary

- The NWS Alaska Region (AR) is evolving to meet current, and emerging requirements
- NWS AR is automating upper air observations, and plans to "repurpose" those positions to strengthen forecast operations and services
- One of the areas of focus is aviation service delivery