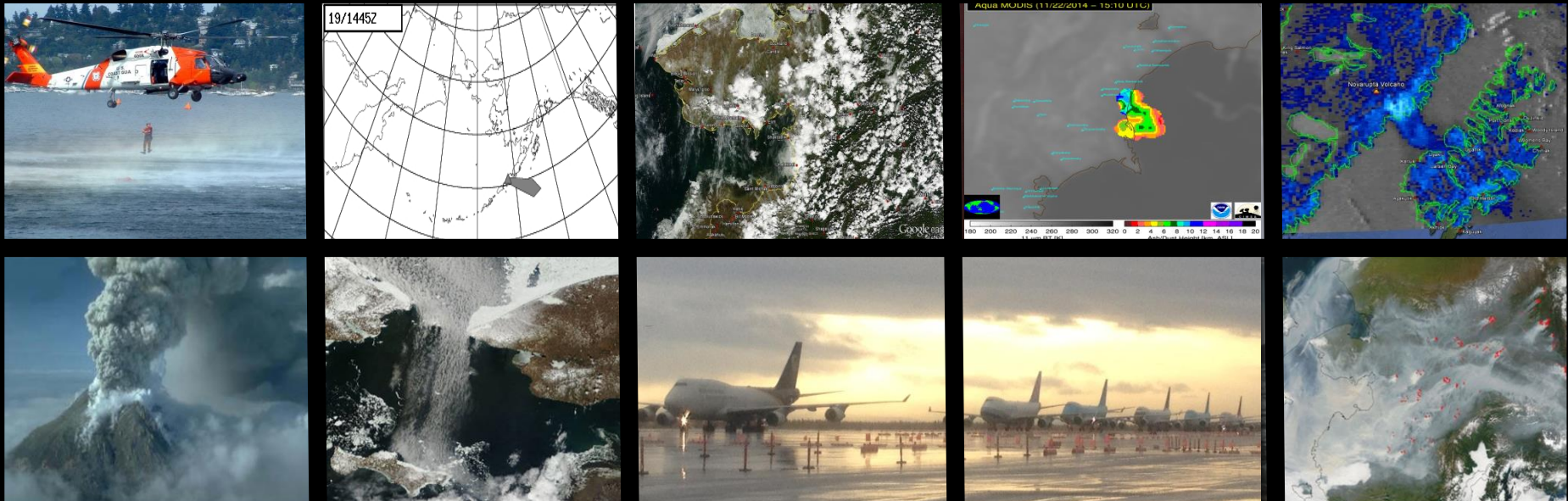


National Weather Service- Alaska Region Alaska Aviation Weather Unit (AAWU) & Anchorage Volcanic Ash Advisory Center (VAAC)

Joshua Maloy, Warning Coordination Meteorologist



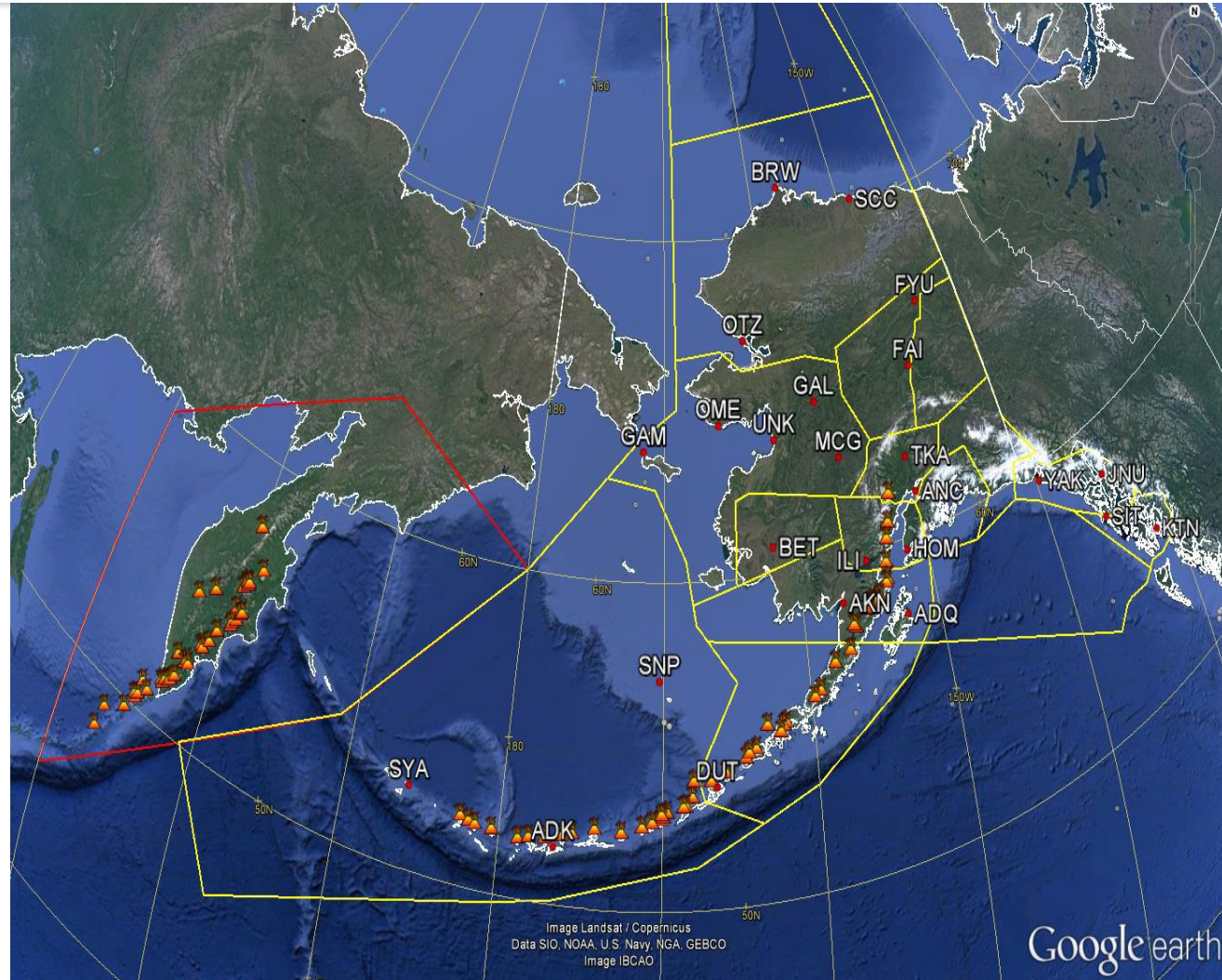
We are two offices in one!!!

Also co-located with the Anchorage Weather Forecast Office, Alaska-Pacific River Forecast Center, and the Alaska Regional Operations Center, at NWS's Sand Lake Complex; just south of Ted Stevens International Airport in Anchorage, AK.



Overview of services/Area of responsibility

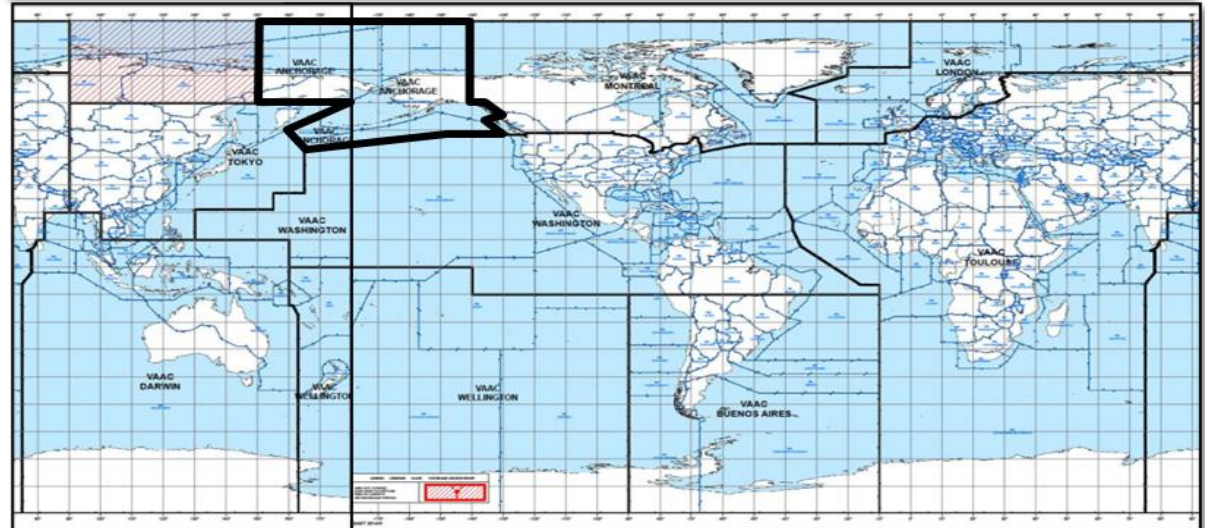
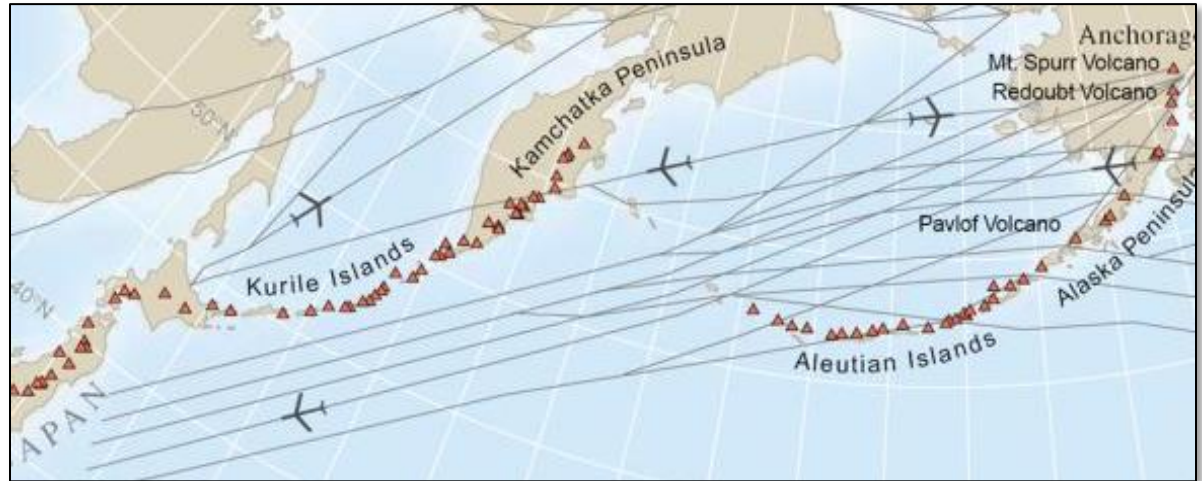
- SIGMETs for Anchorage FIRs; 2.4 million sq. mile airspace
- AIRMETs and Area Forecasts for Flight Service Stations
- Aviation graphics- Icing, Turbulence, Thunderstorms, Flight categories, Outlooks
- Ad-hoc phone briefings to general aviation community
- Briefings for government agencies, exercises and missions (ie Arctic Heat/ARCEX)





Overview of services/Area of responsibility

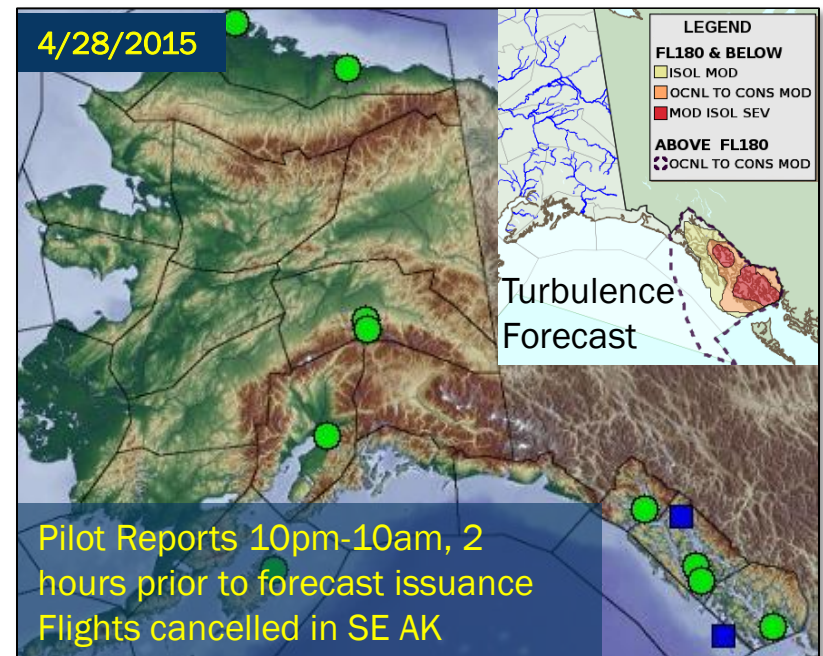
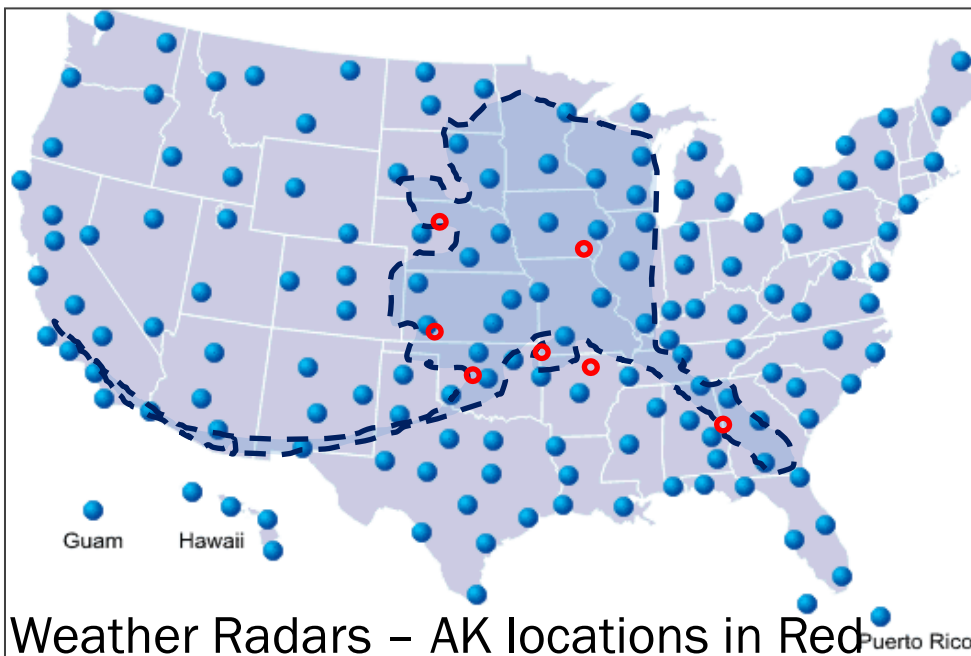
- Detect and track volcanic ash for more than fifty (50) active volcanoes in AK
- Several Kamchatka peninsula volcanoes with downstream impacts on Anchorage FIRs
- Domestic and International coordination
- Volcanic Ash Advisories and graphics to fulfill the International Airways Volcano Watch





Considerable forecast challenges

- Observation sparseness and resultant impacts on accuracy for computer simulation and official forecasts
 - Surface Observations do not exist for many critical locations
 - Weather radar coverage does not cover a majority of Alaska
 - Pilot Report density is not sufficient to verify many forecasts issued
 - Warnings encourage areas to be avoided, resulting in no pilot reports





Areas of research needed

- Better guidance to project volcanic ash density and eventual dispersion
- Better flight category guidance to distinguish between IFR/LIFR/VLIFR threats
- Better guidance to identify and project areas of cold air aloft (-65C or colder temperatures)
- Better guidance to identify icing potential in areas below -20C
- Probabilities for blowing dust or re-suspended volcanic ash





Thank You! Questions?



- weather.gov/arh -- Alaska Public Forecasts
- weather.gov/aawu -- Alaska Aviation Forecasts
- aviationweather.gov -- Lower 48 Aviation Forecasts
- weather.gov -- U.S. Public forecasts

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