



Spokane Aviation Outreach Program

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Outline

- ▶ Spokane County Warning Area (CWA)
 - ▶ Who are our aviation customers?
 - ▶ Weather Hazards
- ▶ Vision for the outreach program

Spokane CWA



**Seattle
CWA**

Aircraft operations: avg 1200/day *
97% commercial
2% air taxi
<1% local general aviation
<1% military
* for 12-month period ending 31 December 2018

Aircraft operations: avg 187/day *
68% commercial
12% transient general aviation
11% air taxi
7% local general aviation
3% military
* for 12-month period ending 01 January 2019

**Missoula
CWA**

Washington

TO/FROM SEA



Pangborn Memorial

Grant County International

Aircraft operations: avg 212/day *
45% local general aviation
16% transient general aviation
15% military
14% air taxi
10% commercial
* for 12-month period ending 31 December 2018

TO/FROM SEA



Pappy Boyington Field

Spokane International

Idaho

Pullman/Moscow

Lewiston-Nez Perce

TO/FROM SLC

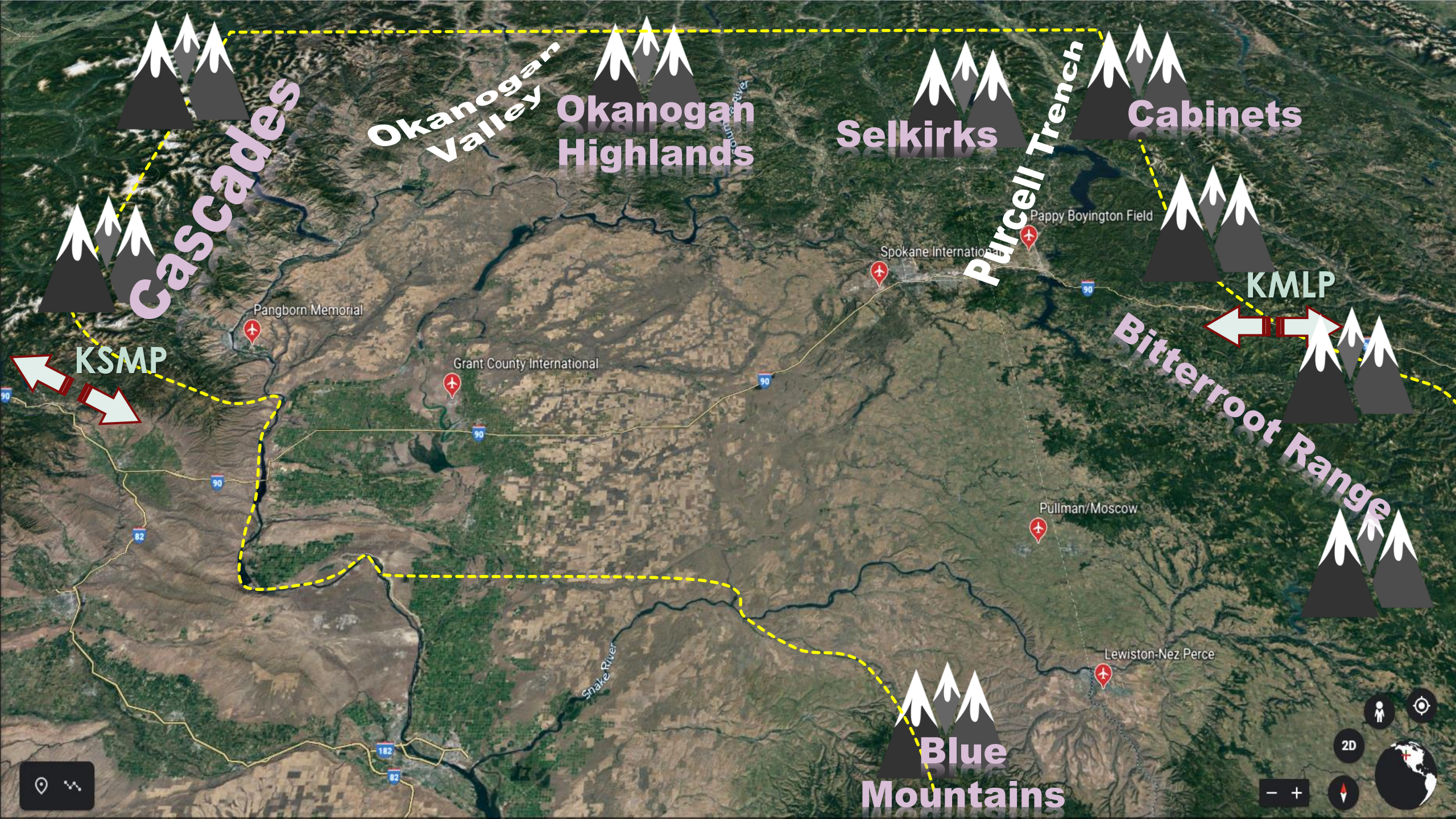


**Pendleton
CWA**

Snake River







Okanogan Valley

Okanogan Highlands

Selkirks

Cabinets

Purcell Trench

KMLP

Bitterroot Range

Blue Mountains

KSMP

Pangborn Memorial

Grant County International

Spokane International

Pappy Boyington Field

Pullman/Moscow

Lewiston-Nez Perce

Snake River



Waterville Plateau

Pangborn Memorial

Grant County International

Columbia Basin

Palouse

Pappy Boyington Field

Spokane International

Pullman/Moscow

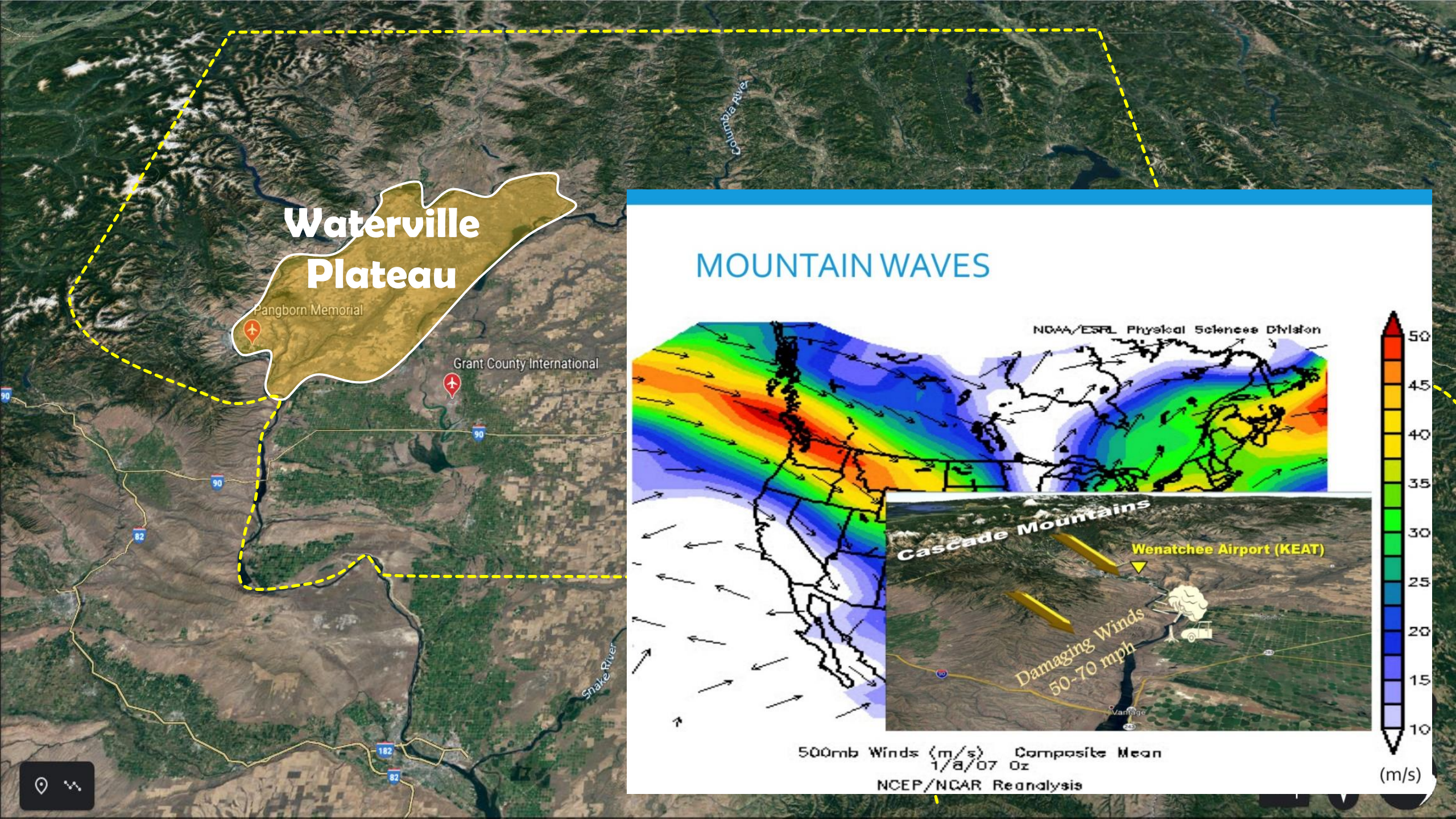
Snake River

Lewiston-Nez Perce

Columbia River

Snake River



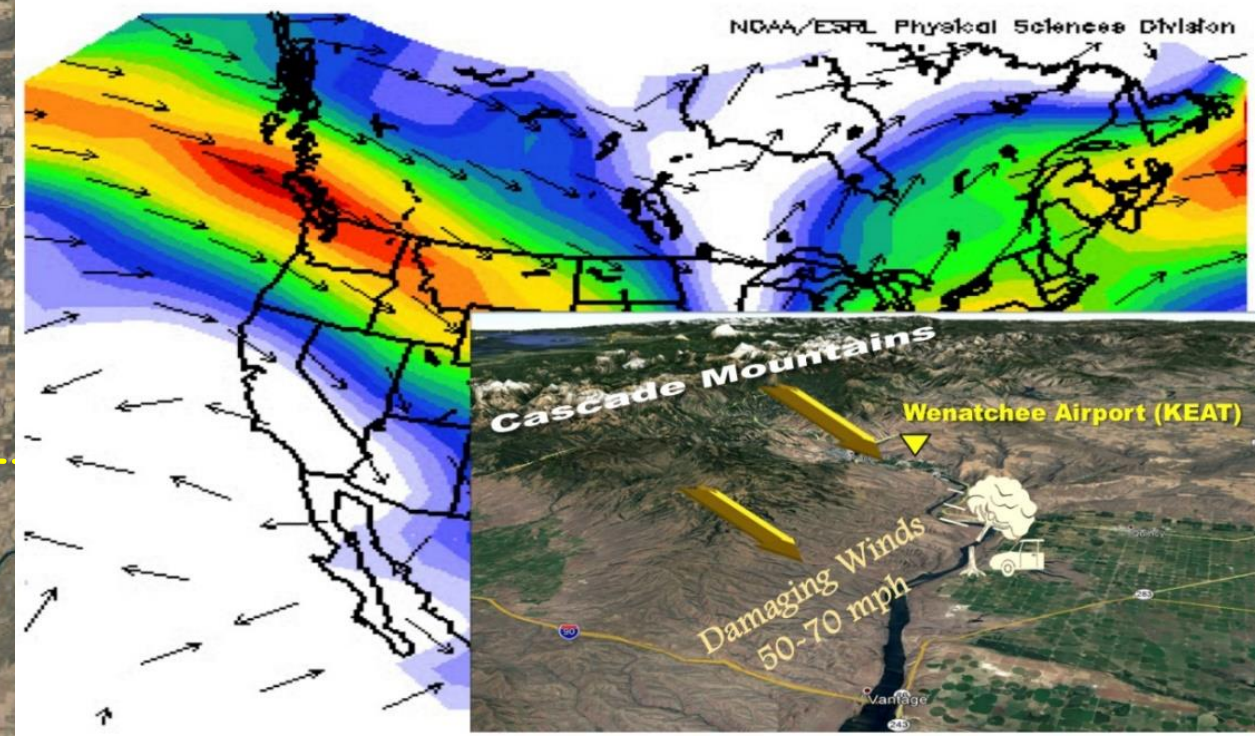


Waterville Plateau

Pangborn Memorial

Grant County International

MOUNTAIN WAVES

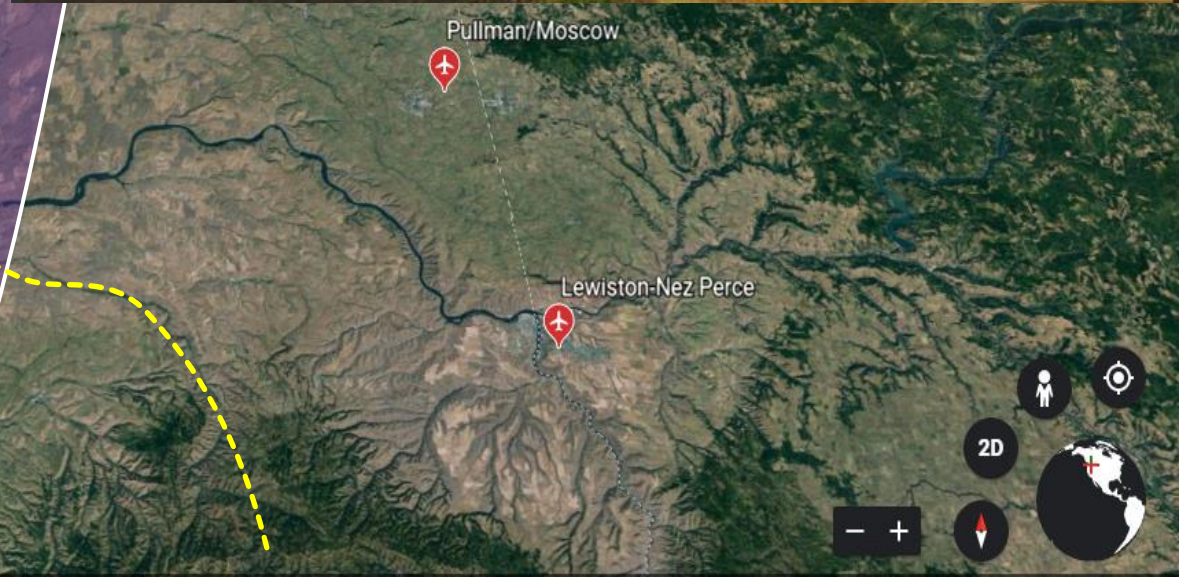


500mb Winds (m/s) Composite Mean
1/8/07 0z
NCEP/NCAR Reanalysis

(m/s)



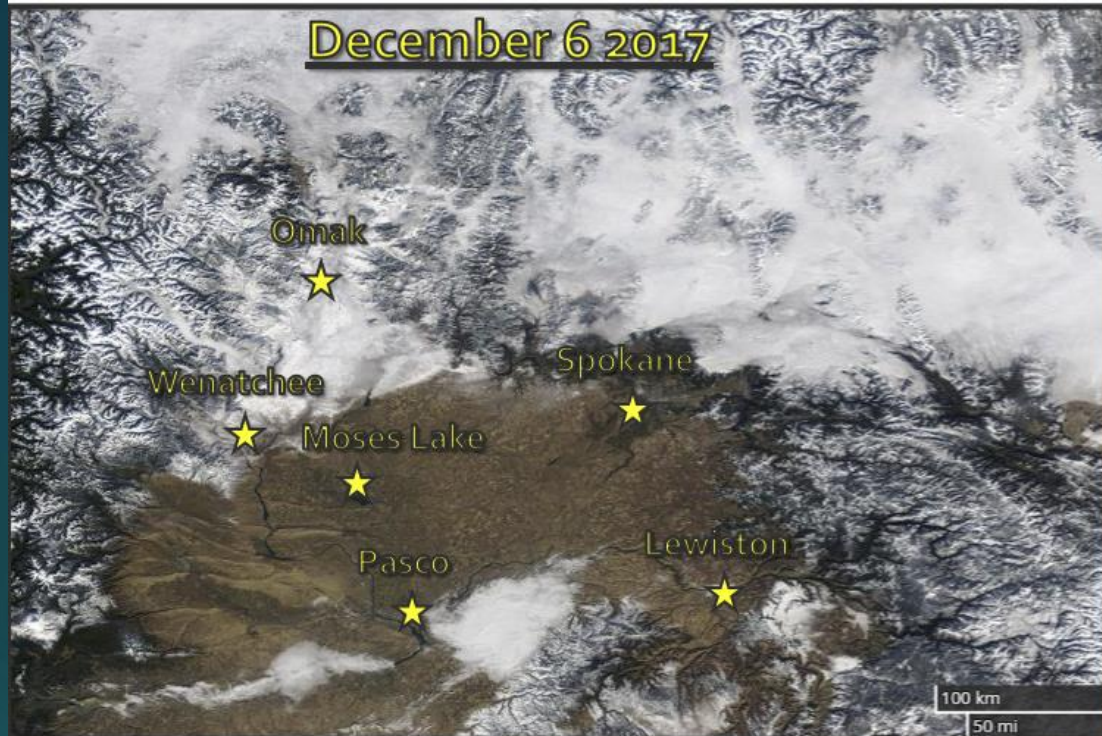
Blowing Dust



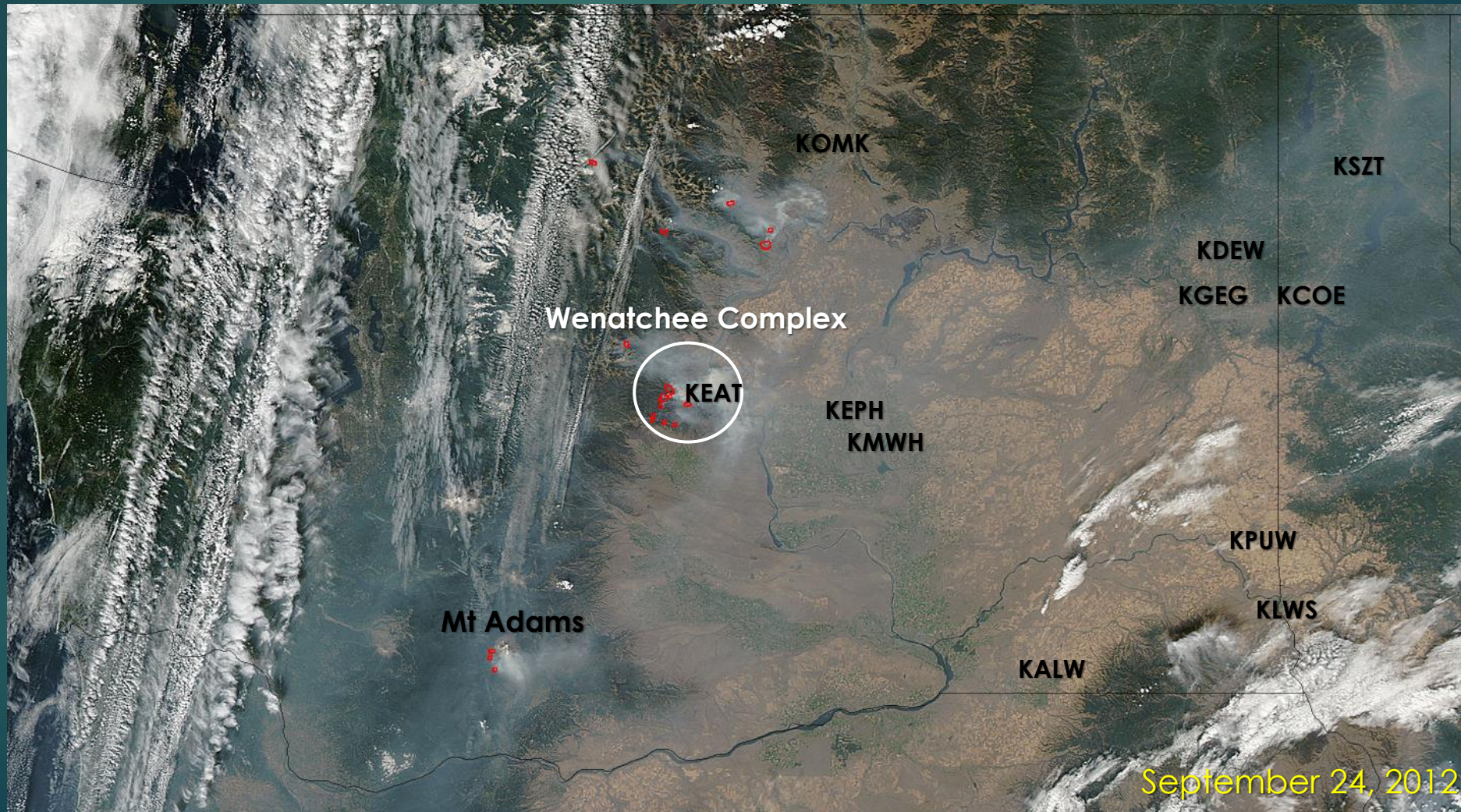
Most Common Hazards

- ▶ **Winter Season:** fog and low stratus – not uncommon for long stretches of IFR or even LIFR conditions
- ▶ **Summer Season:** fire weather – where are the large fires/will smoke impact terminals?

December 6 2017



Wildfires



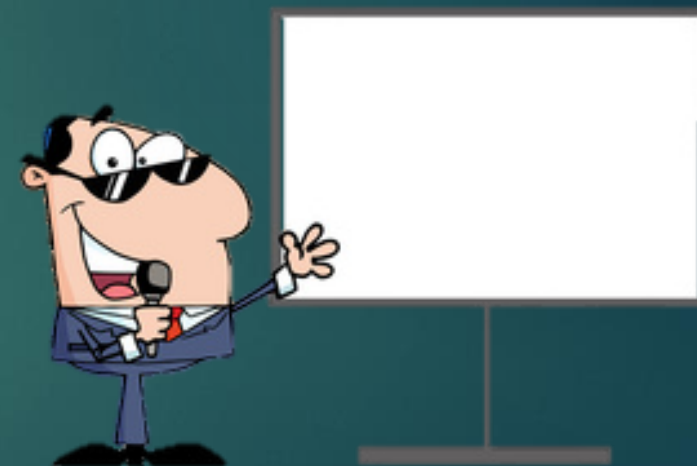
Next Steps: Meteorology to Outreach

- ▶ **Communicating our products/hazards**

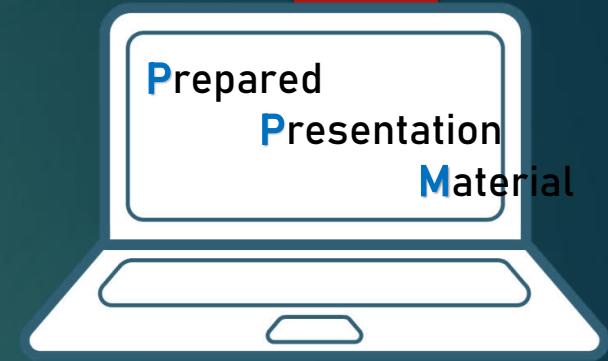
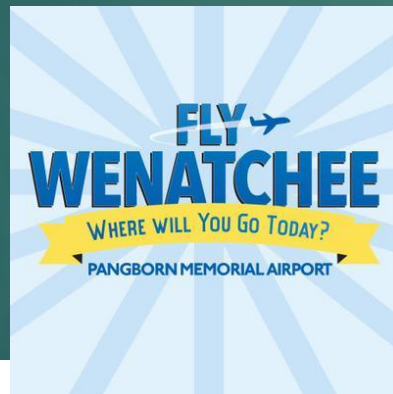
- 1) Getting out and providing talks
- 2) Going to events and setting up a booth

- ▶ **Being proactive in our approach**

- ▶ Contact pilot groups
- ▶ Contact the airport managers
- ▶ See where that leads...



Associations/Airports Contacted



- Power points ready to go
- Covering a range of topics

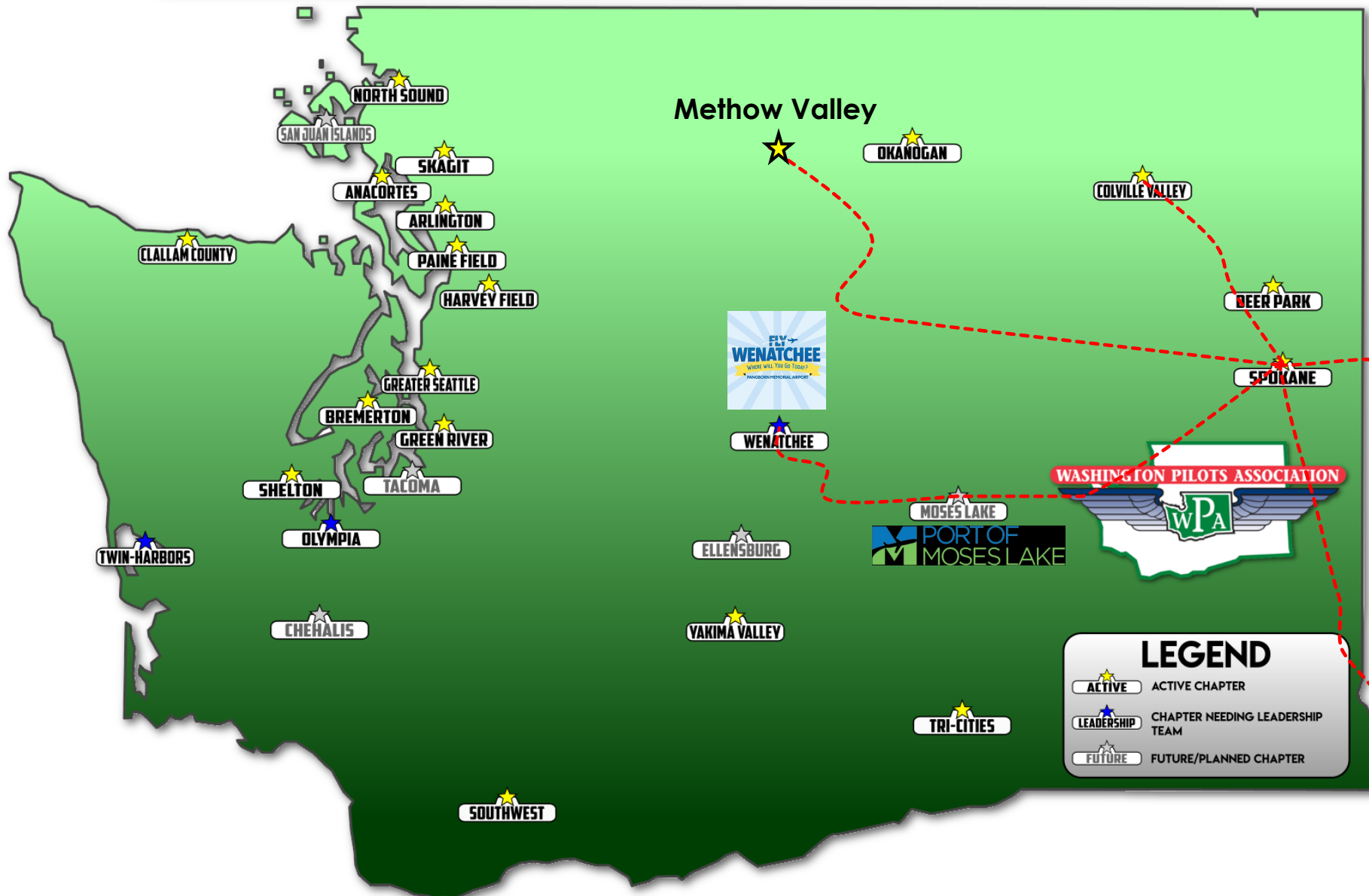
Fog/Stratus Convection
NWS
Products
Mountain Waves

Aviation Booths



- Cycle through events every 1-3 years
- Include hazards specific to that area

2018 CHAPTERS OF THE WASHINGTON PILOTS ASSOCIATION



The 2019 Tour



Aviation Booth Example

Three Stations

Station 1 – Big Board (eye candy)

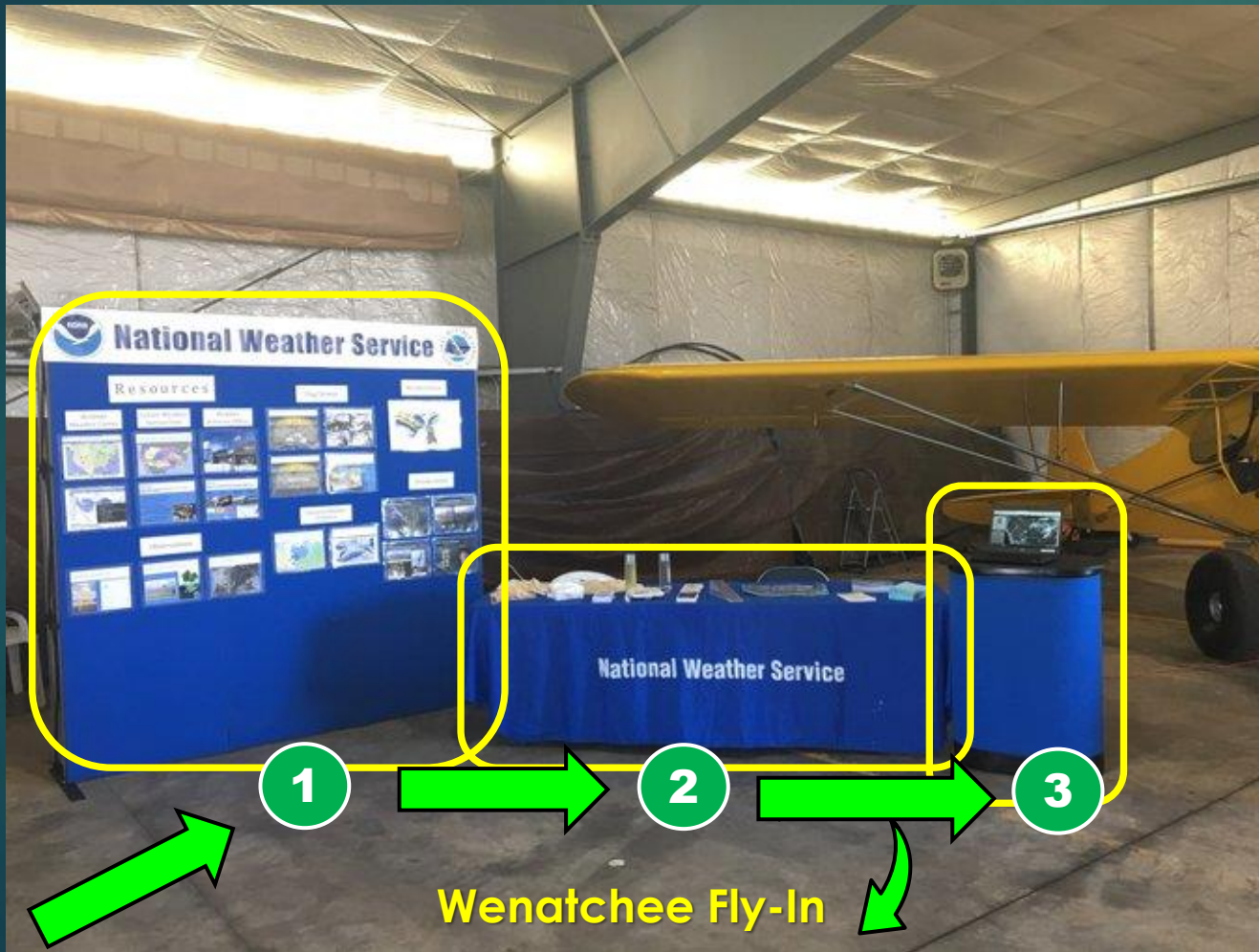
- ✓ NWS Resources
- ✓ Hazardous Weather Information
- ✓ Pictures

Station 2 – Tangible Material/Literature

- ✓ Balloon/Radiosonde, Family Activities
- ✓ Pamphlets (Roles of NWS, Local Office)

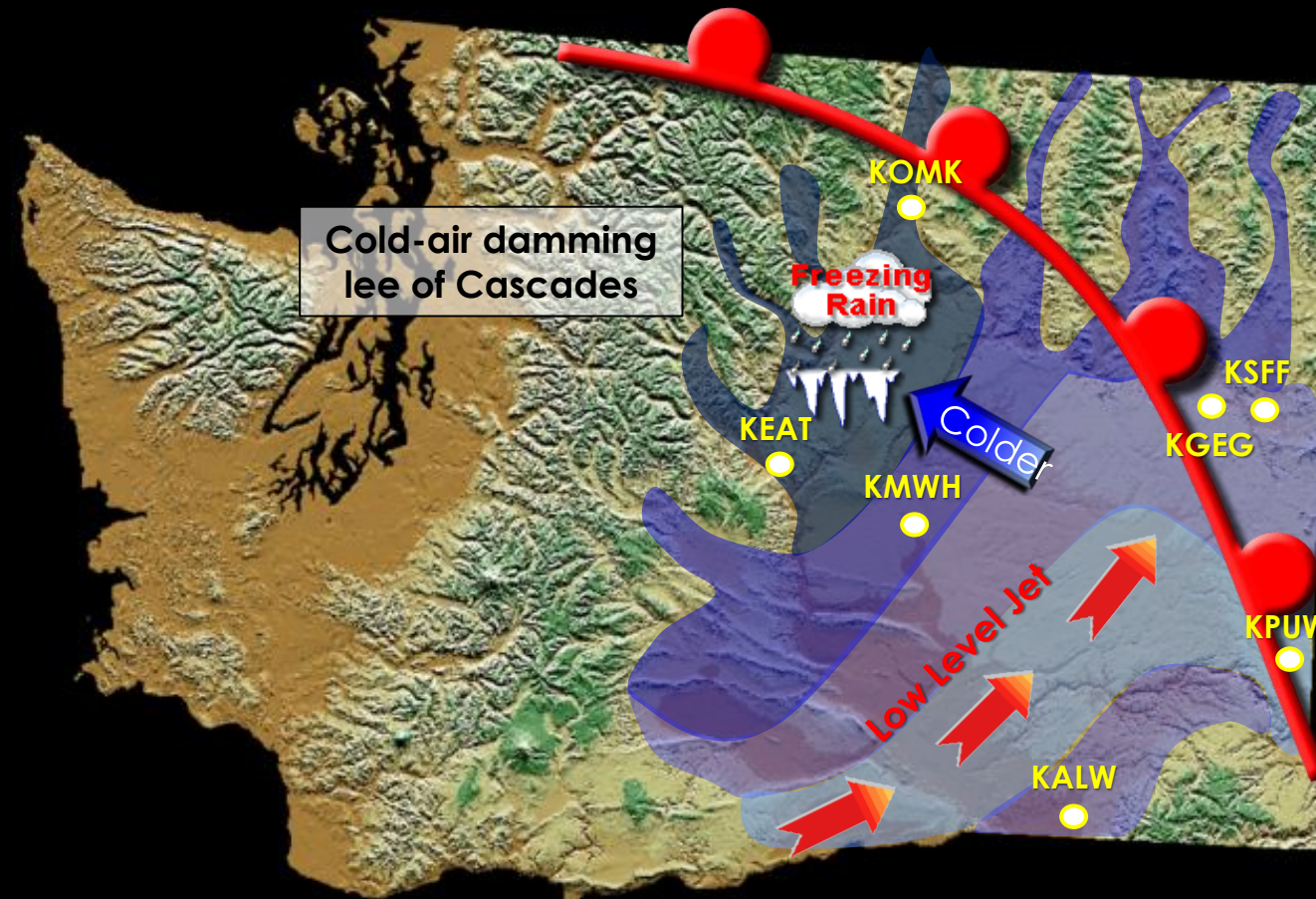
Station 3 – Web Based Resources

- ✓ AWC/CWSU/WFO pages
- ✓ Digital Aviation Services (DAS)
- ✓ Observations
- ✓ Model Data
- ✓ Soundings



Freezing Precipitation Pattern

Typically after an Arctic Intrusion



Key Takeaways

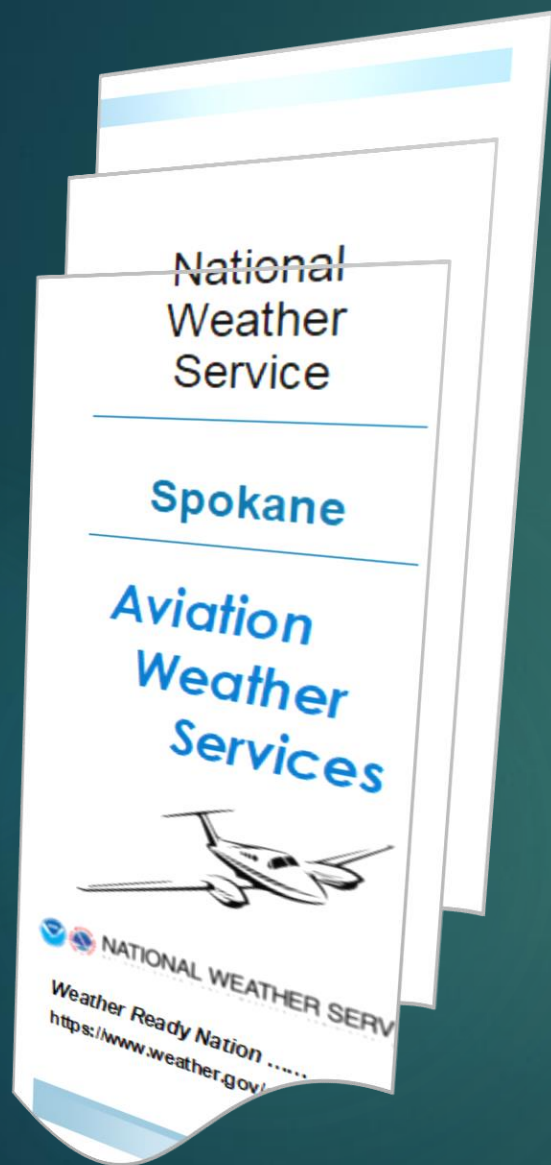
Warm frontal precipitation overruns much colder air at the surface

Best set up for widespread freezing precipitation is after modified Arctic air settles in over the Inland Northwest

Low level jet will funnel up through the Columbia Gorge, across the Columbia Basin

Valleys in the lee of the Cascades are the last to mix out and modify with subfreezing temperatures at the surface

Local Aviation Pamphlet



AVIATION WEATHER CENTER



<http://aviationweather.gov/gfa>

National Weather Service provide web based services...

- ⇒ METARS, Automated Observations and Terminal Aerodrome Forecasts (TAF)
- ⇒ Regional Radar Images across the Contiguous United States.
- ⇒ Higher Resolution Imagery from GOES-R Series Satellite
- ⇒ Latest AIRMET, SIGMET, and Center Weather Advisories
- ⇒ Graphical Forecasts for Aviation (GFA tool) for Self-Weather Briefs



NWS Spokane Local Support

The National Weather Service (NWS) Weather Forecast Office (WFO) in Spokane, Washington has a two-fold mission. First, to provide warnings of significant weather, water and climate events for the protection of life and property and second, to provide the most up-to-date and accurate forecasts for the people and industry of the Inland Northwest.



Aviation Program - WFO Spokane has full responsibility for several Terminal Aerodrome Forecasts (TAFs). Other aviation duties include completion of reports for aircraft accidents in our CWA, soaring forecasts and providing general information to various aviation interests including private and commercial aircraft, sailplane, hang glider and hot air balloon pilots.

TAF
KLWS 180537Z 1806/2006 24005KT 5SM SN BR OVC060
TEMPO 1806/1809 2SM SN BKN006 OVC024
FM180900 26005KT P6SM VCSH BKN025 OVC050



U.S. Dept of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
Spokane, WA
2601 N Rambo Rd
Spokane, WA 99224
509-244-0110

TAFs

ASOS/AWOS

Local Support

Glossary

AWC

In Conclusion...

- ▶ Here is Spokane, we are taking a proactive approach to aviation outreach
- ▶ Plenty of opportunities have been found by reaching out to pilot associations and airport managers
 - ▶ These discussions lead to a better understanding of our aviation customers
- ▶ Creating a resource of discussion topics and strategies for hosting a booth at events will more likely get other forecasters involved

Thank You!