

WEATHER FORECAST FUNNEL

Data Sources and Links

2020 Southcentral Snow and Avalanche Workshop - *Kyle Van Peursem – National Weather Service*

1-2 Weeks Out

- Climate Prediction Center Outlooks (Seasonal, monthly, and weekly): www.cpc.ncep.noaa.gov

6-10 Days Out

- Hemispheric/regional long wave patterns
 - Tropical Tidbits Ensemble 500 mb height anomaly chart:
<https://www.tropicaltidbits.com/analysis/models/?model=gfs-ens®ion=npac&pkg=z500a>
 - Tropical Tidbits Ensemble precipitable water anomaly chart:
https://www.tropicaltidbits.com/analysis/models/?model=gfs-ens®ion=npac&pkg=mslp_pwata
 - Look for agreement between other models for confidence

3-5 Days Out

- State scale, individual weather systems.
- Start looking at deterministic weather models:
 - Tropical Tidbits surface pressure and rain/snow chart:
https://www.tropicaltidbits.com/analysis/models/?model=gfs®ion=ak&pkg=mslp_pc_pn_frzn
 - Models available: GFS, NAM 32km, CMC, and RGEM
 - Windy.com maps
 - Can compare GFS, NAM, and Euro models
- NWS Point and Click Forecast: <https://forecast.weather.gov/MapClick.php?lon=-149.15&lat=60.79>
 - Link above is for Turnagain Pass. Click anywhere on map to change location. Scroll down for hourly weather forecast graph. No snow amounts past day 3.
- NWS Forecast Discussion:
<https://forecast.weather.gov/product.php?site=NWS&issuedby=AFC&product=AFD&format=CI&version=1&glossary=1>
 - Scroll to bottom for Long Range section

1-2 Days Out

- Mountain range scale, local effects, more details (snow amounts, etc..)
- High Resolution Rapid Refresh (HRRR) model: <https://rapidrefresh.noaa.gov/hrrr/ALASKA/>
 - My favorite fields:
 - **Composite Reflectivity** (simulated radar)

- **Total Precip**
 - **Total Snowfall**
- NWS Point and Click Forecast. Snow/precip amounts included up through day 3
- NWS Forecast Discussion – Short Term section (Days 1-3) for Southcentral
- NWS Mountain Recreation Forecast:
<https://forecast.weather.gov/product.php?issuedby=AER&product=REC&site=afc>

Night Prior/Morning of

- Slope scale forecasting. Nowcast, previous/current conditions
- Check Mountain Recreation Forecast, Point and Click, and Forecast Discussion again
- College of DuPage Satellite Page: <https://weather.cod.edu/satrad/?parms=continental-Alaska>
 - My favorite loops:
 - **Lower Level WV** (Water vapor, overall large-scale pattern)
 - **Visible** (Only good during daylight hours)
 - **NT Microphysics** (Good during nighttime hours)
 - **Day Cloud Phase** (Only during daylight hours. Good distinction b/t low/med/high clouds, land, and snow)
- Radar: https://radar.weather.gov/Conus/alaska_loop.php
- NWS Weather Station Map: <https://www.wrh.noaa.gov/map>
- CNFAIC Weather Station Table: <https://www.cnfaic.org/wx/wxmap.php#weather-map-table>
- NWS Alaska Snow Depth Map: www.weather.gov/aprfc/Snow_Depth

Other Useful Links

- CNFAIC Weather Page: <https://www.cnfaic.org/wx/weather.php>
- HPAC Weather Page: <https://hpaavalanche.org/weather/>
- NWS SWE Map: https://www.weather.gov/aprfc/nrcs_AK_SWE
 - Similar to the Snow Depth Map but for Snow Water Equivalent
- Alaska Freezing Level Forecast Maps: <https://www.weather.gov/aprfc/frzlvls2>
- Statewide 7-Day Observed/Forecast Precipitation Maps:
https://www.weather.gov/aprfc/qpe_qpfViewer