Alaska Climate Teleconferences
Hosted by the Alaska Center for Climate Assessment and Policy

ALASKA STORM TRACKS:
MONITORING, OUTLOOK AND ASSESSMENT
Jon Gottschalck, NOAA Climate Prediction Center

Tuesday, July 17; 10:00-11:00AM (ADT)

SUMMARY

The Alaska Center for Climate Assessment and Policy (ACCAP) held its second of a series of monthly Climate Teleconferences on Tuesday, July 17, 2007. The focus of this conference was ALASKA STORM TRACKS: MONITORING, OUTLOOK AND ASSESSMENT. We had 24 participants including representatives from the Alaska Department of Transportation, Alaska Sea Grant, Alaska University Transportation Center, Arctic Engineering Research Center, City of Homer, City of Kotzebue, Environmental Protection Agency, National Weather Service Alaska Region, National Oceanic and Atmospheric Administration Climate Program Office, Northern Alaska Environmental Center, Northwest Arctic Borough, private consultants, print and radio news media, the Alaska State Climatologist, scientific specialists and ACCAP Steering committee members.

The goals of the teleconference were to:

1. Provide an overview of the existing Alaska Storm Track products and website.
2. Hear from Alaskan stakeholders how the website can be modified to meet their information needs.

PRESENTATION

Teleconference presentation by Jon Gottschalck is available on the ACCAP Climate Teleconference Website under "Archive of Past Conferences":
http://www.uaf.edu/accap/teleconference.htm

Storm Track Monitoring and Prediction Related Activities at the Climate Prediction Center

Jon Gottschalck and Wayne Higgins, NOAA/NWS/Climate Prediction Center

This presentation outlines and explains information available on the NOAA Alaska Storm Track website:
http://www.cpc.ncep.noaa.gov/products/precip/CWlink/stormtracks/strack_alaska.shtml

Images showing precipitation, wind speed, wave heights, sea ice extent and storm beginning and end points are available in summary form for the past 10, 30 and 90 days. One and two week forecasts for these same parameters are also available. CPC products also include global scale images that show how storm tracks in lower latitudes including hurricanes and El Niño/ La Niña events (actual and model predictions) impact Alaska.

SUGGESTIONS FOR WEBSITE CONTENT AND FORMAT

The following suggestions were made to improve the usability of the Alaska Storm Tracks website:

- It would be useful to know more about currents in Kotzebue Sound. The book "50 Years Below Zero" was recommended as reading reference.
    - Response: This scale of downsizing would require linking with other data providers in a larger, longer-term effort.
- Longer lead time outlooks would be useful in Kotzebue.
- Is it possible for NOAA to collaborate with USGS to combine storm track information with water flow information in order to predict flooding in coastal areas? This kind of information is especially useful for staging equipment that can be used to minimize impact.
    - Response: Data that is currently available may not be at a fine enough resolution. Downscaling options are being pursued including regional re-analysis (32 km resolution). The PRIDE project aims to accomplish this type of product by fiscal year 08.
- Regarding time frame of information:
    - 30-day forecast works well for people who live and travel to and from camps. Longer time frames are less useful.
    - Interest was expressed for shorter time frame.
        - Response: It is possible to present 5-day information, but that does not capture the full storm lifecycle.
- It would be useful to a lay audience to convert from metric to English units (i.e. miles/hr).
- Higher resolution would be useful.
    - Response: So far the resolution of historical data (past 50-100 years) has been a constraint. Work toward improving the resolution is in progress.
- It would be useful to see both average values and values of individual events, especially high impact events that have maximum or extreme impact.
    - Response: Investigation of including individual (and extreme) events is underway.
- It would be useful to show confidence intervals, or a possible range of values, for wave height and wind speed. This might be accomplished by showing both predicted values and the minimum and maximum based on historical data.
    - Response: This can be a direction for future work, but it will take some time to accomplish.
- In addition to the images that are viewable by placing the cursor over the image title text, it would be useful to have a downloadable composite file that shows the suite of graphics. This could be as a pdf, ppt or flash file.
    - Response: Yes, it is possible to provide this in several formats depending on stakeholder needs. For example, it can be provided in GIS or ASCII format.

OTHER COMMENTS AND QUESTIONS

The following additional questions were raised:

- How good is the ENSO signal in Alaska compared to other parts of the country?
    - Response: Strong El Niño/La Niña events have the strongest impact in Alaska. Weak and moderate events have little application. So, the predictive power of the ENSO cycle in Alaska can be large during strong events but minimal small during weaker events.
- How are strong and weak ENSO events defined?
    - Response: The operational indices (ONI) are calculated based on values from normal in the central tropical pacific. ENSO events with an ONI index greater than 1.5 or less than -1.5 are considered strong while those ranging from 0.5 to 1.5 or -0.5 to -1.5 are considered weak-moderate.

To provide feedback on this summary, the teleconference, or to suggest topics for future teleconferences please contact: Sarah Trainor, fnsft@uaf.edu, 907-474-7878.