Improving the ability of Alaskans to respond to a changing climate

ACCAP.UAF.EDU

Alison York        ABoVE meeting        Jan 2016
Organization – Core Office

Director: Sarah Trainor

Co-PI John Walsh

Co-I: Nathan Kettle
Program Manager: Tina Buxbaum
Post-Docs – Josie Sam, Melanie Colavito, Brian Brettschnieder
PhD and Masters Students – 3
History

- 2006 w/funding from NOAA
- 1 of 10 RISA’s nationwide
- Stakeholder engagement key
  - Extensive collaboration with NWS
- Key activities
  - Webinars
  - Online tools
  - AK Climate Dispatch
  - Peer-reviewed publications
- Projects
  - Ocean Acidification
  - Social Network Analysis
  - Arctic research needs assessment
  - Sea Ice
  - Extreme Events
Steering Committee

NWS
USFWS/Landscape Conservation Coops
AK Climate Science Center
UAAnch/Inst Soc Econ Res
Eskimo Walrus Commission
AK Sea Grant

NOAA
Scenarios Network for AK & Arctic Planning
AK Ocean Obs System
US Arctic Res Commission
Webinars

Diverse Topics:

- Bering Strait Shipping
- Climate appropriate housing construction in Newtok, AK
- One Health Approach to Climate Change
- The North Pacific SST: The BLOB
- Changing stream flow patterns in the boreal forest

- Average online attendance of 80+ participants with maximum attendance of 180+

https://accap.uaf.edu/webinars
Satellite Sites for the ACCAP Climate Webinar Series

<table>
<thead>
<tr>
<th>Location</th>
<th>Satellite sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchorage</td>
<td>AOOS</td>
</tr>
<tr>
<td>Bethel</td>
<td>UAF Kuskokwim Campus</td>
</tr>
<tr>
<td>Homer</td>
<td>Islands &amp; Oceans Center; KBRR</td>
</tr>
<tr>
<td>Nome</td>
<td>UAF Northwest Campus; Alaska Sea Grant MAP</td>
</tr>
<tr>
<td>Seward</td>
<td>Alaska Sea Life Center</td>
</tr>
<tr>
<td>Sitka</td>
<td>UAF Cooperative Extension</td>
</tr>
</tbody>
</table>

Fig. 1. Locations of active satellite sites.
# NWS Partnership

<table>
<thead>
<tr>
<th>ACCAP</th>
<th>NWS</th>
</tr>
</thead>
<tbody>
<tr>
<td>real-time data</td>
<td>Network of stakeholders</td>
</tr>
<tr>
<td>High quality projections</td>
<td>Graphic design</td>
</tr>
<tr>
<td>Interpretations of climate data</td>
<td>Engagement technology</td>
</tr>
</tbody>
</table>
“I am not using these tools to make day-to-day decisions, but do use the information regularly to support the long-term climate monitoring efforts for the park service.”

https://accap.uaf.edu/?q=tools/climate_highlights#date/2015-02
Climate Divisions to Construct Anomalies & Trends in Alaska

Peter Bieniek, University of Alaska Fairbanks

James Partain, NOAA Alaska Regional Climate Services Director (NCDC)

Climate Science and Services Manager, NWS Alaska Region

https://sites.google.com/a/alaska.edu/climatedivisions/
NWS Alaska Climate Forecast Briefings

December 2015 Precipitation Anomalies

December 2015 Temperature Anomalies

Rick Thoman
Climate Science and Services Manager
Environmental & Scientific Services Division
NWS Alaska Region

https://accap.uaf.edu/NWS_Briefings

ALASKA FIRE SCIENCE CONSORTIUM

Alaska Center for Climate Assessment and Policy
Quarterly Climate Impacts & Outlook Graphics*

http://www.drought.gov/drought/content/resources/reports

*NCEI/NIDIS product
Alaska Climate Dispatch

- Published quarterly
- Written for a non-technical audience,
- Features seasonal weather and climate summaries as well as weather, wildlife, and sea ice outlooks.

https://accap.uaf.edu/library/dispatches
Historical Sea Ice Atlas
Alaska sea ice, mid-1800s to the present

Learn about the Atlas
Consider data sources, history, and planning

Download data
Use these data for your own analyses

Learn about sea ice
Common terms and phenomena explained

http://seai ceatlas.snap.uaf.edu/
Community Charts
Explore temperature and precipitation histories and projections for thousands of communities across Alaska and Canada

Daily Precipitation
Analyze historical and projected daily precipitation amounts for communities across Alaska

Extreme Weather
Explore CMIP5 quantile-mapped daily data to analyze the frequency of extreme daily temperature and wind events from 1958 and projected through 2100

Modeled Sea Ice Coverage
Explore and visualize various models of historical and projected arctic sea ice extent and concentration through 2099

Sea Ice and Wind
Examine projected interactions between monthly sea ice concentrations and extreme wind events
https://accap.uaf.edu/

OR email Tina Buxbaum
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