DRAFT Agenda
Research to Operations (R2O) workshop: Using ABoVE Data in Fire and Resource
Management

May 13-15, 2021
Murie Building, UAF
In association with the ABoVE 7th Science Team Meeting

Thursday, May 13: 1330-1600 PLENARY all afternoon

1330-1400   Welcome and Introductions: AFSC staff and participants
- o goals and expected outcomes,
- o focal areas,
- o code of conduct,
- o land acknowledgement,
- o round robin brief intros

1400-1445   An R2O success story: developing a snow cover assessment product for fire
managers   Chris Potter and Heidi Strader
- o The need and process
- o The data and approach
- o Results, lessons learned, and next steps
- o Discussion

1445-1500   BREAK

1500-1530   RS data sources overview   Who?
from survey: There are so many sources and types of satellite data available, and very few people have a good grasp of the full range. I suggest a session of half an hour to go over how they each work and what data are available from them. Half an hour will limit the talks to very high-level descriptions which is all the audience will want/be able to absorb. This would be a tag team, I think.

1530-1600   GINA support of fire management   Jay Cable and Carl Dierking
what GINA is doing to assist AICC in improving the distribution of satellite products (Jay). projects to bring new satellite data processing into operations (Carl).

1600   Depart for field trip to Alaska Division of Forestry Northern Region facility
The Division provides fire protection services and related fire and aviation management activities on 150 million acres of land throughout Alaska, including the state's most populous areas. The field trip will include tours of the dispatch, GIS, aviation, and logistics facilities. The trip may be cancelled if DOF staff are unavailable due to significant fire activity.

1800   Group dinner, Venue TBD

Friday, May 14: 0800-1700 PLENARY and BREAKOUTS

0800-0900   PLENARY: Synthetic presentation 1: Soil moisture.
                     Laura Bourgeau-Chavez and Robert Ziel or Eric Miller
Potential to incorporate the new airborne and space-borne technologies (SMAP, LiDAR) in concert with ground techniques to help managers estimate NRT fuel moistures (which may drive fire mgmt. decisions) and predict post-fire effects and determinations of fire danger at the beginning and end of fire season.
- Science of remotely sensing soil moisture
- How soil moisture information is currently used in management
- What are the barriers to getting remotely sensed data on soil moisture into management systems?
- Discussion and topics for breakouts

0900-1030   BREAKOUT discussions on soil moisture topics
- next steps in overcoming barriers to use in management
- In what way will soil and fuel moisture be expressed and how will it be related to our existing fire behavior modeling framework?

1030-1130   PLENARY: Soil moisture breakouts report back and discussion

1130-1300   LUNCH and poster session

1300-1345   PLENARY: Synthetic Presentation 2: Vegetation
                     Matt Macander, Chris Potter, Randi Jandt or Lisa Saperstein
Recent products developed by ABoVE projects have identified new sources of data, data management techniques to improve latency, machine-learned algorithms for making important distinctions (i.e. high lichen cover refugia for caribou winter range, high continuity of black spruce tree cover, tundra shrub cover, etc.) to provide direct input to decision making.
- Science of remotely sensing vegetation
- How vegetation information is currently used in management
- What are the barriers to getting remotely sensed data on vegetation into management systems?
- Discussion and topics for breakouts

1345-1430   Synthetic Presentation 3: Smoke/emissions/combustion
                     Tatiana Loboda and who? DEC Staff?
Improvements in methods, models, and tools related to smoke/emissions/combustion and potential applications to public safety/health and environmental effects
- Science of remotely sensing smoke/emissions/combustion
- How smoke/emissions/combustion information is currently used in management
- What are the barriers to getting remotely sensed data on smoke/emissions/combustion into management systems?
- Discussion and topics for breakouts

1430-1530 BREAKOUTS on vegetation OR Smoke/emissions/combustion

Vegetation breakout topics
- next steps in overcoming barriers to use in management
- remote sensing of statewide recovery patterns of vegetation from fires, with attention to burn severity mapping.

Smoke/emissions/combustion breakout topics
- next steps in overcoming barriers to use in management
- health impacts of fire smoke.
- comparison of different smoke models in how they define their source terms -- fire points, obscuration caused by smoke, etc.

1530-1630   PLENARY: breakout report back and discussion

1630-1700   Wrap up and evaluation

1700   Adjourn