

JFSP Fire Science Program Knowledge Exchange Consortia Annual Accomplishment Report

Consortium Title: Alaska Fire Science Consortium

Project ID: # 09-S-04-7

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Coordinator: Jennifer L. Northway, BLM – Alaska Fire Service/University of Alaska Fairbanks

Project Period: Mar. 16, 2010 (date pilot funding received) to Sept. 30, 2011

I. Overview

The Alaska Fire Science Consortium (AFSC) began as a pilot program in September 2009, although funding was not received at the University of Alaska until March 16, 2010. In the pilot phase the USGS was our federal collaborator. Full program funding began on August 30, 2010. We switched to BLM as federal collaborator starting with our full program funding to more closely align with our engaged project partners. Our geographic scope includes the entire state of Alaska. Our regional partners are outlined more fully below.

Pilot phase activities focused on 1) establishing base-line assessment of end-user knowledge and understanding of existing fire science information products; 2) identifying end-user community information needs and priorities; and 3) identifying end-user preferences for different modes of science communication.

After hosting a workshop and working with the fire management community during our pilot phase, we gained baseline information, learned from our experiences, and adjusted our activities to continue to be responsive to fire management needs. With full implementation, AFSC goals have been to 1) coordinate current science delivery efforts; 2) create a formal outreach mechanism for two-way communication between scientists and diverse fire and land managers; 3) provide an organized, centralized arena for effectively delivering available fire science information to fire and land managers; and 4) work with managers in an on-going forum to ensure that science delivery and outreach mechanisms are practical and readily implemented.

II. Consortium Outreach

The AFSC is guided by a 15 member Advisory Board (including the Principal Investigator, Co-PI, and Coordinator). This Advisory Board is composed of representatives from the **Alaska Division of Forestry (DOF), Alaska Interagency Coordination Center (AICC) – Predictive Services Section, Bureau of Indian Affairs (BIA), Bureau of Land Management, (BLM) National Park Service (NPS), University of Alaska Fairbanks (UAF), US Fish and Wildlife Service (USFWS), and US Forest Service (USFS)**. Board membership also spans a variety of expertise including operations, fire planning, fire weather/meteorology, fuels, fire ecology, and forestry as well as representation from **multiple Alaska Wildland Fire Coordinating Group (AWFCG) Committees (Fire Research Development and Applications, Fire Prevention and Education, Fire Operations, Fire Weather, and Fire Modeling and Analysis)**.

As documented in the AFSC Governance Charter, the Advisory Board is an interagency group designed to collectively guide and evaluate the activities of the AFSC. Board members are

expected to guide the direction and content of AFSC activities; review and evaluate AFSC activities to ensure goals are being achieved; develop and strengthen AFSC partnerships; solicit ideas and feedback from their respective organizations; contribute to development of AFSC activities, and products; and help promote activities and events. The AFSC Advisory Board meets monthly via teleconference, as our members are located throughout the state.

Some of our strongest advocates have been the interagency AWFCG sponsored committees, in which several committee members play a dual role on our Advisory Board. The **Fire Research Development and Applications Committee (FRDAC)** is well established in the fire and land management community and has tremendously strengthened the communication conduit between the Consortium and our management stakeholder group. One primary product of our partnership with FRDAC was development, prioritization and distribution of the 2011 Alaska Fire Research Needs List. The Consortium is also working with the newly formed **Fire Modeling and Analysis Committee** to help communicate up-to-date fire behavior modeling research and tools and help strengthen training and modeling application in Alaska through hands-on workshops, webinars, and other outreach mechanisms.

Other integral partnerships include three University of Fairbanks programs: 1) **Scenarios Network for Alaska Planning (SNAP)**; 2) **Alaska Center for Climate Assessment and Policy (ACCAP)** and; 3) **Bonanza Creek (BNZ) LTER**. We have collaborated with these groups on written products, development and improvement of fire management projects and tools (Nenana Ridge Experimental Burn Project, Seasonal Forecast of Area Burned for Interior Alaska; http://snap.uaf.edu/fire_prediction_tool/) and project specific outreach and delivery.

We are also collaborating with a **Fairbanks-based Arts and Science Group** called 'In a Time of Change' on the supplement humanities and science delivery project, *In a Time of Change: The Art of Fire*. AFSC began collaboration with the **Fairbanks Art Association**, and BNZ LTER in December 2010, although funding did not arrive until August 2011. This new and innovative project is designed to engage the arts and humanities with fire managers and scientists to promote a public understanding and awareness of the scientific basis behind fire management practices in the context of Alaska's changing ecosystems. The primary deliverables for this project include: 1) a professional art exhibit which will be on display the full month of August 2012 at the Bear Gallery in Fairbanks as well as a traveling exhibit in Anchorage; and 2) a simultaneous community art show to encourage members of the fire community to express their knowledge and experiences through visual art. Nine professional artists were selected in April 2011 to participate in the program. Since then, AFSC has organized four field opportunities for artists to interact with fire scientists and wildfire management and suppression personnel, including close collaboration with the **BLM – Alaska Fire Service**, **NPS**, and the BNZ LTER. (See Section V below for more details on these field trips.) Recruitment for community artists is currently underway.

The **USFWS and the LANDFIRE Program** have co-sponsored an Alaska specific two-part webinar series in preparation for the fall Alaska LANDFIRE Calibration Workshop. The Consortium has also worked closely with **FRAMES**, **University of Idaho**, and **Montana State University** on website development, the Alaska Fire and Fuels Research Map, the Alaska Resources Catalog (on FRAMES), and the Boreal Fire History Project. In addition, several members of the **Canadian Forest Service** have provided invaluable feedback and guidance, helped to foster connections to the Canadian fire research and management communities, and presented at AFSC workshops and webinars.

Support from these organizations has been reciprocal. These collaborative efforts have strengthened both parties, none functioning as well without the other(s). The AFSC has provided structure, a platform, and new found motivation for many existing projects and programs to continue to grow and improve. Our efforts have added value and provided the necessary “glue” to keep things together and continue moving forward. (See Section VII below.)

III. Participation

Organizations represented	Number of people
USFS	39
NPS	22
BIA	6
BLM	80
FWS	26
USGS	6
NOAA/NWS	4
Military	3
Tribal Nations	8
State Agencies	61
County/Local Agencies	8
Private Landowners	0
NGOs	3
Universities/Colleges	42
Foreign Organizations	19
Others	11

Organizations in the “Others” category include other consortia, retired federal employees, local media organizations, and other private consulting and technology companies.

IV. Collaboration and Coordination

In addition to the groups listed above in Section II, the AFSC has connected with a diverse constellation of groups and organizations in efforts to share information, develop collaborative relationships, and achieve common goals.

The AFSC is in communication with the Interim Science Coordinator (Amanda Robertson) for the **USFWS Northwestern Interior Forest Landscape Conservation Cooperative**. She will be giving a short presentation about the LCC at our Annual Workshop, October 2011. Fire Science Officer (Dan Perrakis) from the **Government of British Columbia – Wildfire Management Branch**, is also scheduled to present at this year’s Workshop to share fire modeling tools and improve international research communication and collaboration.

We are coordinating with the **North Slope Science Initiative** to produce and distribute a written summary of tundra fire research in Alaska, especially in the vicinity of Anaktuvuk Pass. Other collaborative efforts include partnering with the new, informal **Alaska Fire Behavior Modeling Discussion Group** to help provide technical support and an organized forum for targeted

webinars and topic specific group discussion. (This group is in addition to the Fire Modeling and Analysis Committee of the AWFCG listed in Section II above.)

In efforts to strengthen the breadth of our media products and communication outlets, we work closely with the **UAF School of Natural Resources and Agriculture Science media and outreach office** in publicizing AFSC events and related activities on their Science and News Blog (<http://snras.blogspot.com/>). We were also consultants to **WonderVisions Video** in production of the video Fire in Alaska as part of the Climate Change Watch Series for their NSF funded, Frontier Scientists program (<http://frontierscientists.com/>). The AFSC worked closely with JFSP contractor **Marjie Brown** to organize materials for the Alaska Fire Focus page on the JFSP website (http://www.firescience.gov/JFSP_Fire_Focus_Alaska.cfm).

The AFSC has developed connections with the **NWCG Fire Behavior Subcommittee** (Kyle Cannon, USFS) through engaging in meetings in 2010 and 2011. Our connections also span to the **Bureau of Indian Affairs**, with participation in the 2010 and 2011 Annual Providers Conference, and to the **USGS Science Center** (Kristen Barrett) to start building collaboration opportunities and strengthen communication.

V. Accomplishments

Accomplishments	Date	Participants	Comments/Remarks
Webinars			
Introduction to the Interagency Fuels Treatment Decision Support System	October 27, 2009	50	Webinar presented by Dr. Stacy Drury.
Fire and Forest Dynamics in Northern Boreal Forests	October 28, 2010	30	Webinar presented by Dr. Jill Johnstone.
Effectiveness Monitoring of Fuel Treatments in Southwest Yukon	November 19, 2010	32	Webinar presented by Dr. Brad Hawkes.
LANDFIRE National Alaska Webinar Series: Part 1	March 16, 2011	56	Webinar presented by 9 members of the LANDFIRE Program.
LANDFIRE National Alaska Webinar Series: Part 2	March 23, 2011	37	Webinar presented by 13 members of the LANDFIRE Program.
Field Trips Demonstrating Science			
Nenana Ridge Experimental Burn Project Field Site Visit - Fairbanks, AK	September 1, 2010	24	This field trip included federal and state fire managers, researchers and members of the JFSP Governing Board.
Chena Lakes Wildland Fire Simulation – North Pole, AK	May 16, 2011	6	This field trip was part of “The Art of Fire” project.
BLM – Alaska Fire Service Facilities Tour – Ft. Wainwright, AK	June 15 & June 18, 2011	8	This field trip was part of “The Art of Fire” project.
Denali National Park (Murie Science and Learning Center & 2002 Horseshoe Lake Fire) – Denali, AK	July 21, 2011	11	This field trip was part of “The Art of Fire” project.

Bonanza Creek LTER Field Trip to 1983 Rosie Creek Fire - Fairbanks, AK	August 16, 2011	10	This field trip was part of “The Art of Fire” project.
Workshops and Conferences			
Inaugural Alaska Fire Science Consortium Workshop - Fairbanks, AK	October 16, 2009	60	Organizations represented include (10): UAF, University of Idaho, NPS, USFWS, BLM, DOF, US Army, BIA, Tanana Chiefs Conference, and Chugachmiut.
2 nd Annual Alaska Fire Science Consortium Workshop - Ft. Wainwright, Alaska	October 14-15, 2010	106	Organizations represented include (16): Alaska Climate Research Center, DOF, Anchorage Fire Department, Association of Village Council Presidents, BIA, BLM, Canadian Forest Service, Chugachmiut, Department of Defense, News Outlet KUAC, NPS, Tanana Chiefs Conference, UAF, University of Idaho, USFS, and USFWS.
Consultations – Ask an Expert – Manager/Scientist Cadre			
Ask An Expert – Fielding Fire Science Related Questions	2010-2011	4	AFSC was contacted with specific fire science related questions. These questions were addressed and sent to the appropriate research personnel.
Student Project Consultations	2010-2011	5	AFSC has provided guidance and/or input for one high school level project, two collegiate level projects, and two Technical Fire Management projects.
Meetings with Federal Agency Directors and Program Managers	2011	10	AFSC hosted two personal meetings to share our mission, goals and plans to enhance fire science delivery within the represented agencies. Participants included the Alaska BLM State Director, BLM National Office - Assistant Director of Fire and Aviation, BLM – Alaska Fire Service Program Managers and employees, and AFSC project investigators and coordinator.
Blog/online discussion			
Fire Science Highlights Blog	July 25, 2011 - Present	497	The number of participants reflects blog page views from July through September 2011. http://akfireconsortium.wordpress.com
Newsletters			
Spring 2011 Newsletter	May 17, 2011	340	This newsletter was distributed to our mailing list.
Fact Sheets and Briefs			

2010 Alaska Fire Science Consortium Workshop Summary	January 17, 2011	340	This summary was distributed to our mailing list and is also available on our website.
Nenana Ridge Project: What have we learned so far?	January 17, 2011	340	This summary was distributed to our mailing list and is also available on our website.
Alaska Fire and Fuels Research Map – Summary	April 25, 2011	50	The number of participants is estimated. This summary was distributed at the 2011 National Consortia Meeting and to miscellaneous AFSC participants.
Summary of Paul Duffy's Seasonal Fire Forecast Tool	In Progress	N/A	
Research Summary of Tundra Fires	In Progress	N/A	On recommendation by North Slope Science Initiative.
Web Products/Social Media			
Presentation/Webinar Archive – Web Pages	February 1, 2011	Unknown	http://www.frames.gov/portal/server.p t/community/presentation_archive/794 /archive_home/3881
Twitter	May 4, 2011	77	The number of participants is the number of followers as of 9/30/11. http://twitter.com/#!/AKfirescience
Fire Behavior Modeling Discussion Group – Web Page	August 18, 2011	Unknown	http://www.frames.gov/portal/server.p t/community/fire_modeling_group/82 2/fire_modeling_group/4036
FRAMES Resource Catalog System - Alaska (Contributor)	Ongoing	Unknown	http://www.frames.gov/portal/server.p t/community/browse_alaska_records/6 32/all_records/2832
Alaska Fire and Fuels Research Map (Contributor)	Ongoing	Unknown	http://afsmaps.blm.gov/imf/imf.jsp?site=firehouse
Experimental Forecast of Area Burned for Interior Alaska – Web Tool (Contributor)	Ongoing	Unknown	http://www.snap.uaf.edu/fire_prediction_tool/
Alaska Fire Focus - JFSP Website Feature (Contributor)	In Production	N/A	(Completed after the reporting period: http://www.firescience.gov/JFSP_Fire_Focus_Alaska.cfm)
Fire in Alaska Video - Part of Climate Change Watch Series (Contributor)	In Production	N/A	(Completed after the reporting period: http://www.youtube.com/watch?v=h0JREVf8iDc)
Other Documents			
Wildland Fire Science and Management in the U.S.: Spanning the Boundaries through the Regional Knowledge Exchange Network (Peer Reviewed)	Initiated June 2010	N/A	This article was submitted to the Journal of Forestry and has been accepted with minor revisions. Co-Authors include Susie Kocher, Eric Toman, Vita Wright and PIs and social science contacts with other first phase consortia.
AFSC Operating Guidelines and Governance Charter	October 2010	15	This document was distributed to our Advisory Board Members and is also

			available on our website.
Article in Forest Wisdom (Issue 16, 2010) (Peer Reviewed)	November 2010	340	This article was distributed to our mailing list, posted on our webpage, and also posted on the Forest Guild website.
AFSC Brochure	November 2010	Unknown	This brochure is posted on our website, is available at our office, and has been distributed at multiple events.
2011 Alaska Fire Science Research Needs – Full List and Top 5 Research Priorities (Contributed)	January 2011	340	This document was distributed to our mailing list and is also available on our website.
Quick Reference Guide to Fire Research Websites, Databases & Texts (Contributed)	March 10, 2011	35	This document was updated and distributed to students at the RX-310 course.
Alaska Climate Dispatch, Autumn 2011 Issue (Contributed)	September 22, 2011	569	AFSC contributed to the 2011 Fire Season Summary and it was distributed to the ACCAP mailing list.
Wildfires: Alaska Climate Change Adaptation Series (Contributed)	In Press	N/A	This document will be published by UAF Cooperative Extension Service.
Joint Fire Science Digest (Contributed)	In Press	N/A	Interviewed by science writer Elise LeQuire.
Other Events			
2009 Alaska Interagency Fall Fire Review (Presentation)	October 14, 2009	120	Estimated number of participants.
International Fire Congress (Poster Presentation) - Savannah, Georgia	Nov 30- Dec 4, 2009	Unknown	This poster was presented by Jennifer Barnes (Advisory Board Member).
Joint Fire Science Program Governing Board Listening Session (Participation)	August 31, 2010	20	Estimated number of participants.
Joint Fire Science Governing Board Visit – Presentations of JFSP Funded Project Results (Organized Meeting/Presenters)	September 1, 2010	33	
2010 Alaska Interagency Fall Fire Review (Presentation)	October 13, 2010	120	Estimated number of participants.
2010 BIA Rural Providers Conference (Staffed Booth)	Nov 29 – Dec 1, 2010	5	Distributed AFSC materials and signup form. The number of participants reflects new members.
2011 Alaska Forum on the Environment (Handouts Only)	February 7-10, 2011	Unknown	Materials were given to ACCAP to distribute at the event booth.
Bonanza Creek LTER Symposium (Presentation)	February 25, 2011	75	Presentation Title: “The Alaska Fire Science Consortium: A Key to Fire Agency Outreach”
RX-310 Introduction to Fire Effects (2 Presentations)	March 10, 2011	35	Presentation Titles: “Human Dimensions of Fire” and “Alaska Fire Effects & Ecology Resources”
Presentation of “Experimental	March 29,	32	Presentation by Dr. Paul Duffy.

Seasonal Fire Forecasts for Alaska” (Hosted/Organized Presentation)	2011		
Nenana Ridge Experimental RX Burn (Project Outreach and Research Coordination Support)	April – August 2011	N/A	This prescribed burn was never conducted due to weather and resource availability.
NPS Fire Management Spring Training – Fire Communication Scenario (Participation)	May 6, 2011	30	Participated in Fire Communication Scenario (as role player), introduced AFSC and presented materials at After Action Review.
Poster Submission (Contributed)	September 2011	5	AFSC contributed to SAF poster: Refining Prescriptions for Ruffed Grouse Habitat Burns in Interior Alaska.

VI. Web

Since the AFSC’s inception, our website has been hosted by FRAMES. Due to the limitations of FRAMES analytics, our website monitoring during the pilot phase and nearly half of our fully funded project was inconsistent with analytics outages, limited functionality, and no filters. In June 2011, we requested the addition of Google Analytics to our website which has resulted in our best and most consistent website analytics collection. Although we cannot directly compare our older website data with more recent activity, we were able to identify and highlight several trends.

Overall, use of the AFSC website (<http://akfireconsortium.uaf.edu>) has continued to grow, based on visits and page views. Interestingly, we have found visits to our website to follow an annual cycle with higher usage in late summer/fall and lower usage in February through April (2009-2011). This may be attributed to spring fire season preparation and associated heavy training demands. Although usage varies throughout the year, the number of unique visitors to the AFSC website has steadily and dramatically increased from 4 unique visitors in March 2010 to 103 in September 2011. Visitor loyalty statistics also show high numbers of new visitors (ranging from 70 to 119 new visitors per month), indicating strong visitor recruitment, and multiple highly engaged users with over 50 visits in one month.

There is a slight user preference to access the AFSC website via search engine, primarily Google, though most months show a nearly even split between search engines, referrals, and direct access (i.e., bookmarking the homepage). Our bounce rate has ranged from 41-69%, falling within the acceptable range of 0-69%.

The following features are available are available on the AFSC website:

1. Fire Science Highlights Blog – This blog was created to quickly and easily post new publications, upcoming events, new projects, news, etc. and allow comments and discussion. The four most recent posts are accessible on our home page via RSS Feed Widget. Web users can subscribe to the blog to receive post notifications by email or follow the RSS feed. (<http://akfireconsortium.wordpress.com>)
2. Twitter – The Twitter widget shows recent tweets and is displayed on every web page. (<http://twitter.com/AKfirescience>)
3. Events Calendar – Google Calendar

4. Individual Event Web Pages – This includes webinars, workshops, and applicable meetings.
5. Fire Modeling Discussion Group Web Page – This page is used to announce and post group meeting supplements.
6. Fire Science in the News – A collection of news articles related to boreal fire science.
7. Presentation Archive – All presentations and webinars are organized by topic including a pdf file of the presentation, downloadable recording, and/or podcast.
8. Fire Science Help Desk – Google Form
9. Join our Mailing List – Google Form
10. About Us - AFSC description and contact information.
11. Multiple image slideshows – Visual Slideshow program

Along with the above website features, there are over 120 downloadable products posted to site (including documents, publications, announcements/invitations, presentations, recorded presentations and webinars, etc.).

The Fire Science Highlights Blog has become the most popular web feature, rating in the top three pages viewed since it was created in July 2011. Other popular web pages and features include Twitter, the AFSC home page, the About Us page, and the Alaska Fire Portal. The least utilized web features are the Events Calendar and the Fire Science in the News page. By monitoring our “Top Content” and other web statistics, we plan to make adjustments to our marketing, web content and layout.

VII. Program Effectiveness

We have engaged multiple methods to evaluate individual events such as workshops and webinars as well as to solicit feedback from our user audience and Advisory Board for assessment with a larger, more programmatic focus. We are responsive to the results of each of these methods, reviewing assessment outcomes and adjusting our communication methods and program priorities to best meet our user needs and program goals.

Methods of assessing program effectiveness include web-based and in-person surveys, workshop discussion groups, and personal communication. The AFSC Annual Workshops (2009 and 2010) have been our largest and most well attended events with highly diverse audiences. We have utilized these events to distribute workshop evaluation surveys referencing the event and overall consortium performance and to distribute technology transfer surveys, used to determine information needs and methods of delivery. Both years we also conducted workshop discussion sessions to brainstorm ideas and identify the missing links in science delivery. Electronic post-webinar surveys, ranging from two to four questions, have also been implemented. We closely monitor event participation to evaluate trends and changes in agency/organization representation, along with subscribers to our mailing list. Finally, feedback from personal conversations, one-on-one interviews, and meetings with the AFSC Advisory Board has been essential to evaluating our progress and effectiveness.

In these first two years, evidence shows that constituents support and find value in the AFSC. For example, in our October 2010 Technology Transfer survey respondents overwhelmingly agreed that a consortium is needed to coordinate sharing of fire science information and to help summarize and consolidate research results (>90% of respondents agreed). Nearly 75% (20 people) of respondents agreed or strongly agreed that the consortium has helped improve

communication between managers and fire scientists/researchers with 3 people providing neutral responses and 2 people disagreeing. In terms of evaluating actions resulting from consortium activities, 85% of respondents (23 people) indicated that they would recommend consortium involvement to colleagues. We have ramped up our efforts to get a better response rate for 2011 evaluation surveys.

Evaluations of individual events, such as our annual workshop also show overall positive response from participants. In 2009, over 40% of workshop participants filled out the workshop evaluation and of those people 100% found the workshop interesting and informative. In an open ended question about the most useful or interesting aspects of the 2009 workshop, responses were evenly split between research presentations by scientists and the opportunity for networking, discussion and brainstorming with a diverse audience. We incorporated suggestions from the 2009 survey when planning and organizing our 2010 workshop, include logistical requests for more space, a longer workshop, and specific requests for topical presentations. In 2010, we had <20% response rate for our workshop evaluation. Of these people, nearly 50% found improvements from the 2009 to 2010 workshops. Workshop participation nearly doubled from 2009 to 2010. Our webinars have also been very successful with survey responses indicating that 100% of participants found the topics presented to be useful and interesting. Webinars have also been an asset to expanding our Consortium and 10 members have joined our mailing list as a direct result.

As per Timothy Swedberg, instructions sent Oct. 27, 2011, we have intentionally omitted quotes from our open-ended survey responses and our one-on-one communications from this annual accomplishments report.

VIII. Budget

The majority of funds for the AFSC was budgeted and has been spent on salary, related benefits and facilities & administration costs for program outreach and science delivery staff. AFSC PI, Trainor is research faculty and relies on grant funding for her year-round salary. We encountered an unforeseen event in hiring our Consortium Coordinator. The best available candidate for the job requested to maintain her federal employment status and as such was hired through an Intergovernmental Agreement (IGA). Funds were retained at BLM to cover her salary; however, this amount (based on her existing federal employment status) was less than originally budgeted for the coordinator position. We are currently in the process of advertising to hire a communications specialist with the balance of funds to enhance our capacity to translate fire science research results into formats that can be useful and directly applied by managers. The remainder of the project funds have been spent on travel for workshop participants and workshop supplies.

The Bureau of Land Management - Alaska Fire Service (BLM-AFS) has contributed \$30,000 toward the salary for the AFSC Coordinator. As noted above (see Section II), we have received supplemental funding from JFSP for the experimental humanities and science delivery project, *In a Time of Change: The Art of Fire* (\$23,000) as well as in-kind support from collaborating agencies for project field trips.

IX. Future Plans

Diverse partnerships and collaborations play a key role in the success and growth of the

Consortia. In response to suggestions from our Advisory Board and stakeholder interactions, we plan to strengthen our existing relationships and make new connections through cooperative development and organization of fire science related products and events, including: 1) Partnering with the AWFCG Fire Research and Development Committee (FRDAC) in organizing a 2012 Fire Effects Workshop and Field Training Session, along with development of a FRDAC specific web page focusing on Alaska Research Needs and other written products; 2) Providing webinar service and event support for the Alaska LANDFIRE Calibration Workshop; 3) Collaborating with the Alaska Fire Modeling and Discussion Group and AWFCG Fire Modeling and Analysis Committee on web page development for sharing meeting supplements, organizing a 2012 Fire Behavior Modeling Workshop, and writing a Technical Report; and 4) Assisting with planning and engagement in the Society of American Foresters' 2012 Symposium session on fire and disturbance.

Our technology transfer surveys and questions have been aimed at assessing our user needs and preferences so that we can tailor our products and activities for maximum effectiveness. Our 2009 and 2010 surveys revealed that 1-page fact sheets, an annual in-person workshop, a 4-6 pg newsletter, and periodic webinars/seminars/teleconferences are the ways that our constituents prefer to receive fire science information. We have therefore placed these activities and products as priorities for AFSC.

In order to increase exposure and deliver information to a wider audience, we plan to bolster our web presence and social media toolbox by using Youtube or Vimeo to showcase videos and presentations, experimenting with Facebook, and utilizing Mail Chimp to send more dynamic newsletters and announcements. We will continue to develop new web and blog content, including a web page dedicated to the Nenana Ridge Experimental Burn Project (JFSP Project 06-2-1-39).

Our in-person workshops have been our most well attended events with webinars also being very popular. However, we found from Advisory Board meetings and tech transfer and workshop evaluation survey results, that neither hosting field trips in remote villages (in our original proposal) nor hosting a large Alaska-wide field trip would effectively meet our stakeholder needs and program goals for the 2009-2011 project phases. We therefore modified our original plan to accommodate several small, more targeted field trips for visiting groups and as part of the Art of Fire project.

We also plan to use our new staff communications position (not yet filled - see Section VIII) to further develop and strengthen our current written products and expand beyond research summaries and newsletters to technology reports and possible synthesis papers.

AFSC will continue to rely on feedback from our stakeholders and Advisory Board when organizing events, prioritizing topics for research summaries, selecting speakers/topic experts, and developing many of our other products. We are continually learning from our experiences and adjusting our methods. We plan to continue this form of adaptive learning to respond to user demand and an evolving landscape of scientific research and social media.

Overall, based on surveys, Advisory Board communications and informal feedback, we consider all of our past events and products (refer to Section V) a success and plan to continue with these activities.