[Extended Abstract]

FACILITATING KNOWLEDGE EXCHANGE ABOUT WILDLAND FIRE SCIENCE

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Abstract—The Joint Fire Science Program's Knowledge Exchange Consortia Network is actively working to accelerate the awareness, understanding, and adoption of wildland fire science information by Federal, tribal, State, local and private stakeholders within ecologically similar regions. Our network of 14 regional consortia provides timely, accurate, and regionally relevant science-based information to assist with fire management challenges. Regional activities, through which we engage fire managers, scientists, and private landowners, include online newsletters and announcements, social media, regionally-focused web-based clearinghouses of relevant science, field trips and demonstration sites, workshops and conferences, webinars and online training, and syntheses and fact sheets.

INTRODUCTION

Wildland fire research has been conducted by government and nongovernment organizations for over 80 years. Results have been available through research notes, conference proceedings, and refereed papers, and translated into a variety of training manuals and guides for fire manager use. With formation of the Joint Fire Science Program (JFSP) in 1998, federally-funded fire research ramped up across the United States to levels well above historical efforts. This increase in research funding has produced thousands of papers, reports and presentations, at a rate that is far greater than fire managers can follow; they do not have time to sift through and apply the plethora of research to their particular geographic and ecosystem conditions. Recognizing the opportunity to substantially improve the application of the immense body of new fire science information (as well as older research), in 2009, JFSP began developing regional consortia to facilitate communication about fire science and management.

Each consortium evolved from an intensive regional needs assessment that sought the experience and input of fire managers and scientists to identify mechanisms that would be most helpful to them for accessing and applying fire research results. JFSP provided sideboards for the consortia in terms of general goals and principles (http://www.firescience.gov/JFSP_consortia_vision.cfm), but they allowed each consortium to develop an implementation plan based on ecologically similar conditions, existing regional resources, and stakeholder input. Through this process, a network of 14 regional consortia evolved over a three-year period, covering all parts of the country except the Northeast (fig. 1). All consortia are now in full operation, working to accelerate the awareness, understanding, and adoption of wildland fire science information by Federal, tribal, State, local, and private stakeholders. This paper describes how the consortia are operating to provide timely, accurate, and regionally relevant science-based information to assist with fire management activities and challenges.

CONSORTIA PROGRAMS AND ACTIVITIES

The consortia use a variety of outreach methods: newsletters, fact sheets, research briefs, working papers, reports, websites, webinars, demonstration sites, field days, workshops, presentations at regional meetings, and conferences (LeQuire 2011). Each of these is strengthened through collaboration and partnerships.

Each consortium distributes regular electronic and/or printed newsletters that contain new research highlights, information on upcoming training/learning opportunities, applications of new and old fire science information, descriptions of various information resources, and a number of other types of information that may help fire managers in their particular operations. Fact sheets, research briefs, working papers, research syntheses, and reports may provide: a short summary of new research or a research publication, a broader synthesis of published research results relevant to a particular topic, or a detailed evaluation of a body of literature that addresses specific needs such as fuel reduction techniques.

Each consortium has also developed a website with varying functionalities, ranging from calendars of professional development and training opportunities

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to lists of key research papers, to links to a variety of other wildland fire information resources. These websites have been developed to serve as a 'first stop' for locating region-specific fire science information without duplicating existing Web sites that provide a large amount of other fire information such as those maintained by the Geographic Area Coordination Centers and the National Wildfire Coordinating Group. A phenomenon experienced by some of the consortia was the keen interest in on-line forums expressed by fire managers and other stakeholders during the needs assessment, but to date there has been very limited use of forums that have been developed.

Written and Web-based products are effective for conveying new information, facilitating access to both new and old information, and increasing end user awareness and comprehension of fire science. However, science delivery is generally enhanced through webinars, presentations, and in-the-field interchange between researchers and managers. Although webinars are largely a one-way flow of information, they do provide opportunities for participants to ask questions. Thus, they represent a great opportunity for field personnel to increase awareness of research results and field applications, similar to conference presentations. All webinars have been archived so people can access them at a convenient time. Webinar use by consortia has rapidly increased during the last two years and provides an opportunity to reach fire science users when travel budgets are limited.

Research summaries and applications are frequently described in presentations at local and regional fire meetings. For example, Prescribed Fire Councils meet regularly in each State in the South and the Southern Fire Exchange has been able to give short presentations at most of those annual or biannual meetings that include highlights of recent published research. Scientists also frequently describe their work at these and other fire meetings. The best and most direct active science delivery occurs when scientists, managers, and landowners meet in the field (workshops, field days, demonstration areas) to discuss particular issues and topics and how research results have been, or might be, applied in different situations. Several of the consortia (Southwest, Great Basin, Northern Rockies, Northwest) have conducted very successful field workshops in the last two years. Most of the other consortia have assisted with at least one of these types of events, but all consortia will be doing more of these in the future. Unfortunately, participation in these is increasingly threatened by travel constraints for Federal agency employees, but the consortia at least partially overcome this challenge by utilizing the many collaborative partnerships they have developed.

COLLABORATION IS VITAL

Although programs in each consortium are built on a variety of collaborations and partnerships, perhaps the most valuable collaboration for the consortia has been with each other. Upon initiating the first round of consortia, JFSP made it clear that the consortia should not consider themselves in competition with one another. Consequently, the 14 consortia across the country have demonstrated a remarkable interest in working together, learning from each other, and building a community representing dozens of organizations with a commitment to cross pollination and mutually improving knowledge exchange about fire science and management. From annual meetings to regular conference calls to 'steady talk' via email, the consortia share ideas, describe pitfalls that others might want to avoid, cross-post information, and promote each other's programs. This is especially significant with consortia that share geographic boundaries, but widely-separated consortia also benefit from interacting with each other.

Collaboration is also vital within each consortium. Most of the consortia involve two or more organizations and agencies as principal partners. Each consortium also has an advisory group composed of representatives from many other organizations, including universities, Federal agencies, research stations, not-for-profit organizations, rural communities, State agencies, Prescribed Fire Councils, Fire Learning Network, and others. Many of these groups are also key partners in conducting programs.

WILL THEY MAKE A DIFFERENCE?

The regional consortia are becoming established mechanisms of fire science delivery, with strong continuing support from JFSP. 'Subscriber' lists to each consortium are growing. Web sites are maturing and regularly adding new information and features. Webinar and other research summary products are increasing. Annual evaluations indicate that the consortia are becoming recognized as major resources within each region for getting fire science 'on the ground.' Yet, the challenge remains to move increased awareness to application and adoption of scientific products. This will happen as we increase the opportunities for scientists and fire managers to interact more frequently regarding research applications and needs.

LITERATURE CITED

LeQuire, E. 2011. Knowledge exchange: a two-way street. Joint Fire Science Program Fire Science Digest 11. Boise, ID: National Interagency Fire Center: 15 p. http://www.firescience.gov/Digest/FSdigest11.pdf. [Date accessed: 4-22-13].

Figure 1—Map of the Joint Fire Science Program regional consortia.