National Interagency Fire Center
3838 S. Development Avenue
Boise, Idaho 83705

Area Command Team 4 Briefing Paper

Date: August 30, 2005

Action Item 13

Name: Fireline Communications of the Future

Issue/Topic: Develop overall strategy or vision for future fire communications which includes research and development.

Indicators of Need for Action: Area Command Team 4 could not locate an overall strategy or vision for future fire communication. It was apparent there was little in the way of overall research of new and emerging technology.

The two way radio communication industry is focused on an urban environment where there are relatively large numbers of users. This community is able to operate on a small number of frequencies by the use of expensive computing equipment which enables trunking. A high volume of users is needed to defray the cost of these systems. These systems are also characterized by fixed sites and long term occupation that enables upgrades and improvements over time

The wildland fire community, by contrast, is generally comprised of smaller user groups, widely scattered geographically. There is long term occupation, but also intermittent occupation in the case of incidents and other emergencies. Another complicating factor is the mix of equipment and personnel from all over the country.

Key Points:
- Future fireline communication technology is not defined.
- Text type communicators have not been evaluated.
- Technology is rapidly changing.
- Industry is geared towards high volume users.

Proposed Action Description: It is unclear what kind of support and product development will be available for the wildland fire community. It is clear that the wildland firefighters as customers will likely to continue to shrink in importance to the radio industry.

The team recommends an ad-hoc group with representatives from the Information Services Organization (ISO) operations, professionals in aviation, communications and procurement, and field operations representatives to review current and emerging technology to recommend a fireline communication strategy for the future.

This review should include cell phones, satellite phones, satellite radio, radio communications over IP, trunking systems and frequency ranges. Contacts include;

- Satellite Radio -- Texas Forest Service, David Abernathy
- Radio over IP -- National Forest in North Carolina, Leah Wofford

Other items for review should include:

- Trunking systems that include cellular phones.
- Personal communicators such as PDA's and Blackberry type devices