National Interagency Fire Center

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Area Command Team 4 Briefing Paper

Date: August 30, 2005

Action Item 10

Name: Radio Management Hierarchy

Issue/Topic: Identify and display radio management responsibility hierarchy for planning, purchase, management, training, and interagency coordination. The agencies lack a clearly defined radio management hierarchy to identify responsibilities for management oversight, interagency coordination, and planning for fire and aviation operations needs.

Indicators of Need for Action: By reviewing documents, and conducting interviews with field users and cooperators, frustrations emerged that no one person or group seemed to be visibly coordinating the transition to narrowband in any of the agencies and little or no information was shared on narrowband conversion problems except through the SAFENET/SAFECOM system. At all levels of the Forest Service, managers were frustrated at not being able to direct questions to the appropriate level for answers.

All organizational levels reported frustration in contacting the appropriate level of communication support in attempts to address communication needs. The complaints varied by agency with the highest dissatisfaction directed by Forest Service personnel to the Information Service Organization (ISO) and the lowest dissatisfaction in the Bureau of Land Management due to clear standard operating procedures.

With the increased emphasis in the last decade on computers and telecommunication, many agencies radio communications receive less attention and budget resulting in staff and infrastructure losses beyond the level needed to maintain the system. Where staff and budget permitted, retention narrowed to mainly maintenance technicians and a few engineers or other communication professionals. Technicians were given responsibility for multiple field units, often with unfamiliar systems. Regardless of the process for reductions in staff and budget, the responsibility remained directly under the control of the local manager.

Control and contact has been lost with the advent of the large centralized service organizational concept. The introduction of narrowbanding is focusing attention on an enduring problem of aging equipment, poor maintenance, and lack of coordination with adjoining systems. It is not uncommon to have incompatible repeaters and base station dispatch consoles that have been "patched" together due to different contactors and specifications that do not fully work in the agency computer environment. This is a radio over IP environment issue.

A NWCG interagency working team addressed the need to meet the narrow banding mandate for the members of the interagency community in 1998. As the transition occurred, no central authority was involved in monitoring and advising management or users of accomplishments, issues, or aids to ease the transition. The National Interagency Incident Communications Division (NIICD) has consistently maintained and upgraded the National Radio Kits to meet the new standards and has attempted to concurrently train and educate users. Unfortunately, these kits only constitute a very small portion of fire and aviation communication use since the vast majority are unit level suppression and operations uses. The narrowband information from NIICD is helpful but unevenly distributed throughout the interagency fire community.

The three components of the typical radio systems are base, repeaters and mobiles and are all affected by the narrowband transition. Many of the repeaters and bases have older technology and have been updated repeatedly to meet narrowbanding requirements. In general the mobiles and handheld radios are newer technology and are rapidly being replaced by narrowband equipment. Maintenance is performed either by agencies or contractors. Standards, levels, and frequency for maintenance are often exclusively budget driven. There are no national standards for the fire and aviation emergency aspect of the radio communication system to be maintained outside of the NIICD cache system.

Key Points:
- The Department of the Interior and Agriculture have different management systems for oversight, planning, purchase, and training for communication equipment for general users.
- In both departments computers and telecommunications are emphasis while radio communications takes a very small allocation of budget and personnel resources.
- In all federal agencies yearly radio communications assessments are a significant investment in the budget in direct and indirect allocations.
- There is no central interagency fire and aviation group specifically for the management, coordination and planning of future communication needs.
- Radio communication is and will continue to be the primary method of sharing immediate dispatch, safety, and incident tactical information in the wildland fire environment.
- In many areas the present radio system infrastructure is either not matched, upgradeable, nor properly maintained to meet the narrow banding issues.

Proposed Action Description: The recommend action is to assign an interagency group to assemble the individual agencies corporate charts displaying current radio communication hierarchy responsible and processes uses to upgrade, repair, and procure communications. This allows the group to provide the best suggestions to ensure that national recommendations from the NMAC/NWCG are presented to the agencies and departments to match current and future needs of the fire and aviation organizations. Nationally, agency fire management organizations need to clearly identify standards and priorities for radio communications including hardware, software, repeater systems, mobile, aircraft and handhelds. This could be accomplished by an interagency working team to establish universal standards consistent with the future vision and direction of fire and aviation programs' incident radio needs.