

RADIO NARROWBAND ADVISORY GROUP

National Wildfire Coordinating Group

Boise, Idaho

November 14-15, 2000

MEETING MINUTES

Advisory Group Members Present:

Stephen M. Jenkins - USDA/FS, NIFC, Incident Communications Chief
Kenneth Goodwin - Louisiana Dept. of Agriculture and Forestry, Communications Chief
Dean Ross - USDI/USFWS, R2, for Roger Spaulding
Marv Storey - USDA/FS IRM, National Telecommunications Manager
Ron Strong - USDI/BLM/DSC, National Telecommunications Manager
Mike Wallace - USDI/BIA, NIFC, Fire Operations

Advisory Group Members Absent:

Bob Panko - USDI/NPS, Everglades National Park, Fire and Aviation Management Officer
Dave Dalrymple - Utah Division of Forestry, Fire, and State Lands

Presenters:

Kenneth Goodwin - Louisiana Dept. of Agriculture and Forestry, Natchitoches, LA
Ed Erlandson - USDI/BLM, Wyoming State Office, Lander, WY
Bill Ringwald - USDA/USFS, R2, Denver, CO
Ken Brown - USDA/USFS, R4, Wasatch-Cache N.F., Salt Lake City, UT
Steve German - USDI/BLM, NIFC Incident Communications, Boise, ID
Brian Conrad - Technisonic Industries Ltd., Victoria, B.C.
Royce Shearing - USDI/BLM, NIFC Incident Communications, Boise, ID

Advisory group Chair Stephen Jenkins opened the meeting with a review of the agenda and then called on the advisory group members and all attendees to introduce themselves. Over forty people attended the meeting. The meeting was held to present information to the wildland firefighting radio support community about new and changing technology and to assist the advisory group in developing recommendations for the 2001 fire season.

Update from the States' Perspective - Kenneth Goodwin

Kenneth Goodwin shared information regarding state activity on the wideband/narrowband/digital front. He said most states are just trying to keep up with maintenance on their old

wideband analog public safety systems but some are installing and successfully using narrowband analog and even Project 25 systems (operating in multi-mode). He reminded the group that the federal mandate to operate in narrowband VHF by 2005 does not apply to the states. He also stressed that the states, local entities and RFD's will probably be the last to convert due to lack of funding and that they will be the lowest common denominator in interoperability success.

The audience discussed state narrowband and digital success stories and gave updates on system upgrade plans and projects in their respective states or areas. The general consensus was to actively seek out sharing opportunities between federal, state and local entities, from the design/planning level to the funding/procurement/installation/support level, to insure interoperability.

Wyoming BLM Digital Radio System Report - Ed Erlandson

Ed Erlandson gave a presentation on the Wyoming Digital Narrowband Project, which included two handouts. In his presentation he described the project, in which 350-400 mobile and 250 portable radios along with twenty five associated mountaintop sites were replaced with new Project 25 compliant equipment. He detailed the process of creating a flexible, upgrade-able, and reliable system from the decision/procurement phase through the testing phase. He stressed that the technology is NOT unproven. All in all, the project is a success. The system has been operating in mixed-mode narrowband with no significant problems encountered during testing or deployment. DIU installation on the Motorola base stations is planned for the fall of 2001. The system has the capability to interoperate with other federal, state and county agencies and Ed stressed the importance of facilitating cooperation among agencies and of sharing information, experiences, resources, facilities and personnel with other agencies, in order to insure interoperable, safe, and efficient systems. He suggested that we establish good working relationships with our less-funded cooperators so that information and resources may be more easily shared. He also suggested joining and/or supporting organizations/programs like APCO and PSWN.

Group discussion following this presentation included methods of sharing information with cooperators and practical matters of Project 25 equipment selection and operation (consoles, solar possibilities).

There was also a discussion about narrowband versus wideband analog operation. A few problems have been reported from the field that could be attributable to the fact that narrowband transmissions result in lower receive audio volume in a wideband receiver. It was decided that narrowband analog operation presents no major communication problem as long as users are aware that they may need to adjust their receiver's volume setting. Steve Jenkins was tasked with talking to the interagency coordination centers about the possibility of adding a space on the resource order form to indicate whether aviation frequencies are operating in wideband or narrowband analog mode.

Southwest Colorado Initiative Report - Bill Ringwald

Bill Ringwald gave a presentation about the implementation of shared communications services in the Rocky Mountain Region. The Southwest Colorado Initiative is a project where partnerships between BLM Wyoming and Colorado State Offices, State of Colorado, USFS, USFWS, APHIS, BIA, NPS, and BOR, are applying appropriate technology to supply necessary shared telecommunications support to their customers in a cost effective manner. The participants responded to such influences as the expanding urban interface, national mandates, changing technology, and the need for interoperability to design and implement a shared Project 25 compliant system. Their basic challenge was to incorporate the new requirements and technologies without suffering ANY loss in functionality or reliability of their support systems. The system is operational and extensive testing is ongoing. Test data and user feedback are still being gathered so the group is not yet ready to formally analyze the results or generate a conclusive report. Preliminary conclusions are that the system seems to be working well, is answering customer needs, and has plenty of expansion capability. More extensive field testing of multi-mode operation is needed. Participants are using project accomplishments as a guide in further joint planning efforts and region-wide radio replacements.

Group discussion following this presentation included the importance of extensive field user training with the new systems, solutions to the problem of air guard and flight-following frequency congestion, and planning scheduled replacements using Project 25 compliant equipment versus narrowband analog equipment.

Air Worthiness Release Program - Ken Brown

Ken Brown gave a short presentation describing the communications requirements for military aircraft used on a wildfire, national disaster, or drug interdiction incident. He said we used over fifty military helicopters on incidents this year. He outlined the installation and testing parameters and the military-required AWR process. He wanted the group to be aware that this strict process existed and that there are only a few specific people in our system that are certified to implement it. The Communications Duty Officer must be notified (to start the process) whenever military aircraft are to be used on an incident.

Update of DOI Radio Contract

Steve German gave a presentation describing the status of the five-year DOI Project 25 radio contract. The contract is now in its third year. A second five-year contract is planned, possibly overlapping the last year of the first contract. Also, the current contract may be opened up to allow submittals of new products. He noted that prices under the contract are negotiable and are dropping. Vendors have been very responsive in correcting deficiencies. Current deficiencies for each product are listed on the DOI contract website: www.blm.gov/natacq/IDIQ/index.html.

Steve listed some of the equipment included in the contract and announced that the RACAL 25

portable VHF radio is the first to meet all contract and fire use requirements.

Group discussion following this presentation included updates on test equipment under the contract and concern about new or special requirements surfacing and being added to the contract.

Marv Storey clarified that before the Forest Service can purchase equipment off of the DOI contract, the equipment must be tested for compliance with the original minimum Forest Service contract specifications, "equipment packaging" (standard packages of radios and required accessories) must be decided upon, and a pricing structure must be agreed upon for those packages. The states are able to buy off of the Forest Service contract once a radio is accepted by the Forest Service and added to the Forest Service contract. However, this does not provide the states with a method to purchase digital equipment through government contracts.

Ron Strong stressed the need for strong configuration management with the Project 25 radios. Radio features, I.D.'s, software revision numbers, programming, etc. all need to be tracked. It would help if each vendor maintained a central clearinghouse for software updates.

Steve Jenkins opened the second day of the meeting by addressing the growing problem of Family Radio Service radio use on incidents. Group discussion ensued. The consensus was that FRS radios have no place in health and safety related uses, and that the advisory group should issue a statement banning their use on any incident.

Project 25 - Brian Conrad

Brian Conrad gave a short presentation about the history and the future of Project 25. He stressed that Project 25 is all about interoperability. Any manufacturer's compliant equipment will be able to interface with any other manufacturer's compliant equipment. He talked about the Project 25 subcommittees in which engineering and technical issues are discussed and voted upon by committee members. Brian highlighted the "User Needs Subcommittee" of which both he and Steve German are members. He wanted the group to know that they are encouraged to voice their needs, special requirements or concerns through that subcommittee.

NIFC/Incident Communications Digital Testing Report - Steve German & Royce Shearing

Steve German and Royce Shearing gave a presentation in which they described the testing process they used for selection of a Project 25 compliant radio(s) for the federal fire and aviation community. They started by giving an overview of the organization and mission of the National Interagency Fire Center and the Incident Communications Support Unit. They detailed fire and aviation-specific radio requirements and described their test parameters, procedures and results. Their testing of radios in a field environment prior to actual use on an incident is unprecedented.

They not only tested radios for field performance in wideband analog, narrowband analog and digital modes but also tested feature sets and battery clamshells, and talked extensively with

firefighters, engine crews and LEO's on incidents.

They found no problems with interoperability or backwards compatibility and no coverage difference between analog and digital. They will continue field testing as deficiencies under the contract are cleared and as new products are developed. They praised the support they have received from manufacturers.

The meeting concluded with a guided tour of the NIFC campus while the advisory group composed its recommendations for the 2001 fire season.

Advisory Group Recommendations

Incident Communications Mode of Operations - FY 2001

- ✓ *All fire communications activity (interagency), including initial attack, will be performed in wideband or narrowband analog mode. The group will annually revisit this decision and consider progress in digital technology and increases in the number of digital sites.*
- ✓ *Any federal, state or local entity that does convert their system to digital must keep it in the multi-mode configuration during fire activity. Multi-mode permits both analog and digital transmission and reception.*
- ✓ *All emergency radio equipment issued by the National Incident Radio Support Cache, for Type I and Type II teams, will be configured in the wideband analog mode.*
- ✓ *All FM aviation communications (federal and contracted) will be in the wideband or narrowband analog mode.*
- ✓ *Family Radio Service (FRS) radios are not to be used on incidents - this includes federal, state, and contracted.*