THE CHANGING ROLE AND NEEDS OF LOCAL, RURAL, AND VOLUNTEER FIRE DEPARTMENTS IN THE WILDLAND-URBAN INTERFACE

RECOMMENDED ACTIONS FOR IMPLEMENTING THE 10-YEAR COMPREHENSIVE STRATEGY

AN ASSESSMENT AND REPORT TO CONGRESS

June 30, 2003

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EXECUTIVE SUMMARY

Purpose of This Report

Rural, volunteer and other local fire departments are the nation's first line of defense against fire starts in the Wildland-Urban Interface (WUI) and surrounding landscapes. The ability of local firefighters to contain a fire incident through quick and efficient initial response can dramatically reduce large-scale wildfire impacts to the public and to the environment.

Therefore, this report:

- Highlights the changing role and needs of these local firefighting forces with regard to wildland fire.
- Recommends actions that will improve these local forces' ability to safely and effectively carry out their roles—particularly in the rapidly growing Wildland-Urban Interface.

Key Item: Assess Training, Equipment, Safety Awareness Relating to WUI

In August 2001, the *Ten-Year Comprehensive Strategy for Reducing Wildland Fire Risks to Communities and the Environment* was jointly signed by: the Departments of Agriculture and the Interior, the National Association of State Foresters (NASF), the National Association of Counties (NACo), and the InterTribal Timber Council (ITC).

A key action item in this strategy directed the signatories to:

> *Assess the training, equipment, safety awareness and services provided by rural, volunteer, and other firefighters who work in the Wildland-Urban Interface and report to Congress.*

The National Association of State Foresters subsequently convened a representative steering group of local, state, and national firefighting interests to respond to this directive—the first step in creating this report. Core Team members included the International Association of Fire Chiefs (IAFC), the National Volunteer Fire Council (NVFC), the U.S. Fire Administration (USFA), and the National Fire Protection Association (NFPA); along with the National Association of State Foresters, the National Association of Counties, the USDA Forest Service, and the Department of the Interior (DOI).

The Core Team relied on the 1994 *Fire Protection in Rural America (FPIRA)* report and the 2002 *Needs Assessment of the U.S. Fire Service*—developed and analyzed by the U.S. Fire Administration and the National Fire Protection Association—as a foundation for their analysis and recommendations.

Four Critical Issues Identified

First Step: Key Questions

Initially, the Core Team explored the following key questions to help identify and form this report's four critical issues and their corresponding recommended actions.

- What is the current role of rural, volunteer, and other local fire departments in fighting wildland fire?
- What unique challenges are posed by fire suppression in the Wildland-Urban Interface?
- Are local fire departments able to safely and effectively fulfill these roles?
- What programs are in place to help local firefighters improve their preparedness for wildland fire?
- What changes or improvements are needed to increase the fire departments' preparedness to respond to wildland fire?

These Critical Issues and Actions Warrant Congressional Attention

Issue One: Wildland Fire Training

Fighting fire in the Wildland-Urban Interface demands training and equipment for both structural and wildland situations. Interface incidents also present unique challenges such as community evacuation, hazardous materials response, communication and coordination between multiple jurisdictions, extraordinary values-at-risk, and heightened public and media attention. The following actions will improve the ability of local fire departments to operate safely and effectively in the Wildland-Urban Interface.

Summary of Recommended Actions

- Develop training packages designed to meet the needs of rural and volunteer firefighters.
- Expand the preparation and use of locally-based trainers.
- Improve the reciprocity between structural and wildland training standards.

Issue Two: Efficient Interagency Response

Fire suppression in the Wildland-Urban Interface is particularly reliant on a multi-jurisdictional partnership between local, state, and federal forces. When even one member of this partnership fails or is unable to coordinate their response actions, significant and unacceptable losses may occur.

Summary of Recommended Actions

- Develop a clear and consistent policy regarding the incorporation of local fire personnel into extended attack and large fire situations—both within and outside their jurisdiction.
- Improve and expand fire management plans and mutual aid agreements to clarify the division of suppression responsibilities prior to an actual fire incident.

Issue Three: Initial Attack and Emergency Communications Capability

The ability of all fire responders to communicate with each other is a critical component of interagency fire management. Radio compatibility is central to this communication challenge. A multitude of emergency communication systems are currently in use. This situation leads to conflicts of frequency interference and lack of interoperability.

Summary of Recommended Actions

- Ensure that federal and state training and financial assistance programs for local fire departments prioritize efforts that facilitate interoperability or reduce opportunities for communications conflicts. If this does not occur, coordinated initial and extended attack efforts will be less effective and more dangerous.

Issue Four: Coordinated Federal and State Assistance

Studies of the U.S. fire service continue to show that rural fire departments are poorly funded for the breadth of their responsibilities. Although technical and financial assistance programs for local fire departments exist at both the federal and state levels, very few resources are focused on addressing the specific needs of rural and volunteer firefighters.

Summary of Recommended Actions

- Maximize available funding by streamlining application processes and reducing duplication between existing programs.
- Establish and maintain a more effective level of funding to ultimately address the unique situations faced by rural and volunteer firefighters operating in the wildland arena.

Tremendous Returns:

Improved Protection and Effective Suppression Response

Enhanced firefighting preparedness and increased interagency coordination at the local level will ultimately improve the effectiveness of *all* wildland firefighting efforts. A tax dollar invested in improving local firefighting resources can result in a tremendous return through:

- Improved public and firefighter safety.
- Decreased community disruption and economic losses.
- Reduced need for large-scale suppression and post-fire rehabilitation.

The critical issues and recommended actions—detailed in this report—outline a strategy through which Congress and the nation's leading firefighting organizations can facilitate the improved wildland fire preparedness of local responders across the country.

Congress—along with other elected officials and the leaders of state and federal wildland fire agencies—should act in a timely manner to carry out this report's recommendations. In doing so, they will successfully achieve the desired outcomes of both the and *Ten-Year Comprehensive Strategy* and the *National Fire Plan*:

- Healthier watersheds.
- Healthier communities.
- Diminished risk and consequences of severe wildland fires.

1. INTRODUCTION

The objective of this report is to highlight the changing role and needs of local fire departments with regard to wildland fire, and to recommend actions that will improve their ability to safely and effectively carry out these roles—particularly in the rapidly growing Wildland-Urban Interface.

Local Fire Departments Perform Critical Role

According to the National Fire Protection Association, there are more than one million active firefighters serving in local[1] fire departments across the nation. A significant portion of this community-based protection is provided by more than 24,000 rural fire departments with over 658,000 volunteer firefighters. This contrasts to the less than 16,000 full-time and seasonal wildland firefighters employed by the federal agencies.

Often completely volunteer, these local resources are frequently the first to respond to a fire start in both wildland and Wildland-Urban Interface (WUI) areas. Their ability to quickly take action allows them to efficiently contain or suppress a fire and can prevent the fire from:

- Exploding out of control.
- Threatening lives and property.
- Consuming significant natural and financial resources.

Federal wildland fire organizations estimate that—working cooperatively through initial response—firefighters successfully contain up to 98 percent of wildland fire starts at less than 300 acres.[2]

The remaining two percent of wildfire incidents:

- Often become large, extremely damaging events.
- Account for up to 85 percent of federal suppression expenditures.
- Incur substantial costs to governments, communities, and homeowners.

[1] Throughout this report "local" refers to entities working under the jurisdiction of a town, city, county, or other level of local government.
[2] National Interagency Coordination Center (NICC) 2002 statistics.

National Fire Plan Responds to Dramatic Fire Season

After the dramatic 2000 wildfire season, then-President Clinton directed the Secretaries of Agriculture and the Interior to develop a plan to address the wildland fire and hazardous fuels situation, as well as the need for habitat restoration and rehabilitation across the nation. The resulting documents and associated Congressional language and appropriations (*FY 2001 Interior and Related Agencies Appropriations Act* [P.L. 106-291]), are commonly referred to as the National Fire Plan (NFP).

In addition to supporting this national plan, Congress further directed the federal agencies to develop the *Ten-Year Comprehensive Strategy for Reducing Wildland Fire Risks to Communities and the Environment* by working in full partnership with state, tribal, and local governments—in collaboration with citizens and stakeholders at all levels.

To accomplish this, the Western Governors' Association (WGA) convened a national, geographically diverse group representing all levels of government, tribal interests, conservation and commodity organizations, and community-based restoration groups.

The *Ten-Year Comprehensive Strategy*, finalized in August 2001, included four primary goals:

- Improve Fire Prevention and Suppression.
- Reduce Hazardous Fuels.
- Restore Fire Adapted Ecosystems.
- Promote Community Assistance.

To more clearly define these goals and to identify specific actions and performance measures, a subsequent *Implementation Plan* was developed and released in May 2002.

Local Fire Departments Recognized

The authors of the *Ten-Year Comprehensive Strategy* and its *Implementation Plan* recognized the importance of local fire departments in achieving *Goal One: Improve Fire Prevention and Suppression*. Thus, a specific Implementation Task under this Goal directs federal, state, and local fire organizations to:

> *Assess the training, equipment, safety awareness and services provided by rural, volunteer, and other firefighters who work in the Wildland-Urban Interface and report to Congress*.

The National Association of State Foresters subsequently convened a representative steering group of local, state, and national firefighting interests to respond to this directive—the first step in creating this report. Core Team members included the International Association of Fire Chiefs (IAFC), the National Volunteer Fire Council (NVFC), the U.S. Fire Administration (USFA), and the National Fire Protection Association (NFPA), along with the National Association of State Foresters, the National Association of Counties, the USDA Forest Service, and the Department of the Interior (DOI).

Improving the Effectiveness of All Wildland Firefighting Efforts

In developing this report, the Core Team relied on the 1994 *Fire Protection in Rural America (FPIRA)* report and the 2002 *Needs Assessment of the U.S. Fire Service*—developed cooperatively by the U.S. Fire Administration and the National Fire Protection Association—as a foundation for its recommendations. The team also considered individual state and local fire department assessments and trends in technical and financial assistance programs.[3]
Key questions for the Core Team's initial review included:

- What is the current role of rural, volunteer, and other local fire departments in fighting wildland fire?
- What unique challenges are posed by fire suppression in the Wildland-Urban Interface?
- Are local fire departments able to safely and effectively fulfill these roles?
- What programs are in place to help local firefighters improve their preparedness for wildland fire?
- What changes or improvements are needed to increase the fire departments' preparedness to respond to wildland fire?

The 2002 Needs Assessment indicates that 84 percent of local fire departments provide some level of wildland fire protection. In communities under 2,500, the percentage rises to nearly 90 percent.[4] The objective of this report to Congress is to highlight the changing role and needs of local fire departments with regard to wildland fire, and to recommend actions that will improve their ability to safely and effectively carry out these roles—particularly in the rapidly growing Wildland-Urban Interface.

This report's Core Team found that enhanced firefighting capacity and increased interagency coordination at the local level will ultimately improve the effectiveness of *all* wildland firefighting efforts by:

- Moderating risks to firefighters and the public.
- Increasing the percentage of fires contained through quick and efficient initial response.
- Reducing the demand for costly suppression and rehabilitation actions necessitated by large, high-intensity wildfires.
- Increasing the ability of local fire fighters and local governments to collaboratively prevent fires through proactive planning.

[3] Although it could not be completed in time for this report, NASF is also conducting a comprehensive survey of local fire departments in each state, using a recent Texas survey as a model. The results of this nationwide effort are expected in July 2004 and should provide much needed detail to the issues highlighted here.
[4] Page 42 in the *2002 Needs Assessment of the U.S. Fire Service*.

2. AN OVERVIEW OF RURAL AND VOLUNTEER FIRE DEPARTMENTS

Non-federal interests own more than 1.5 billion acres in the United States, including more than 800 million acres of forest and rangeland.[5] This is in comparison to the approximately 450 million acres under federal ownership. Basic fire protection on non-federal lands is the responsibility of local and state entities.

In the United States, local fire departments respond to approximately 1.9 million fires per year. A substantial portion of this protection is provided by up to 28,000 rural fire departments—defined as those that serve communities with populations under 10,000.[6] The National Fire Protection Association estimates that these departments have more than 658,000 volunteer firefighters and over 27,000 career firefighters. This is in contrast to the 16,000 permanent and seasonal wildland firefighters employed by the federal agencies.[7]

Rural Departments: First Line of Defense

Rural fire departments represent the first line of defense in responding to wildland fires as well as other emergencies. These departments are typically independently governed and tightly connected to each other through formal operating agreements and procedures as well as personal and professional relationships.

They are primarily trained by a combination of state and local trainers, based on National Fire Protection Association standards, and supported by the states' fire training systems. These rural departments:

- Provide protection for homes and businesses on private land as well as for natural resources on private, state, and federal land.
- Efficiently suppress structural and wildland fires within their jurisdictions.
- Provide critical support to other local departments as well as state and federal fire response agencies.
- Respond to all types of emergencies including vehicle accidents, emergency medical calls, terrorism incidents, hazardous material spills, and others.

[5] 1997 National Resources Inventory, USDA Natural Resources Conservation Service.
[6] Page 9 in the *2002 Needs Assessment of the U.S. Fire Service* report.
[7] National Interagency Fire Center statistics.

Human Expansion Has Increased Protection Complexity

The rapid expansion of human development into previously wildland areas has increased both the need for and the complexity of rural fire protection. The National Fire Protection Association defines the Wildland-Urban Interface as: *"The line, area or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels."*

This interface zone is arguably one of the most dangerous and complicated firefighting situations currently faced by firefighters. Previously uninhabited forests and rangelands with limited values-at-risk now contain homes, communities, and associated infrastructure.

Fire suppression in the Wildland-Urban Interface demands training, procedures, and equipment for both structural and wildland fire. Fire suppression here also presents additional challenges, including: community evacuation, hazardous material response, uncertain access, water supply, communication and coordination between multiple jurisdictions, extraordinary values-at-risk, and heightened public and media attention.

In 1992, a consortium of organizations led by the National Association of State Foresters sponsored an initiative to investigate the status of fire protection services in rural America. Through surveys and on-site visits, the group assessed the availability and effectiveness of funding, the levels of interagency cooperation, the roles of government, and the overall needs of the fire departments.

Findings and recommendations from this study were published in the 1994 report to Congress *Fire Protection in Rural America: A Challenge for the Future*.

Nearly ten years later, a joint U.S. Fire Administration/National Fire Protection Association *Needs Assessment of the U.S. Fire Service* reveals that local fire departments—particularly those in rural communities—continue to face many of the same challenges identified a decade ago.

Personnel and Capabilities

Both the 1994 and 2002 reports highlight the importance of rural and volunteer firefighters in protecting lives, property, and resources. Approximately half of the nation's fire service continues to be composed of rural fire departments serving communities of less than 2,500. These same small communities are almost completely protected by volunteer departments.[8]

In the 1994 *Fire Protection in Rural America* report, departments identified training as their third most pressing problem and their second priority for any federal funding received. Both reports suggest that rural and volunteer firefighters are most impacted by this need. Yet, they continue to be the least able to obtain adequate training.

The 2002 Needs Assessment report also revealed that a significant portion of firefighters in these small, rural communities have received no formal training in either wildland or structural

[8] Page 9 in the *2002 Needs Assessment of the U.S. Fire Service* report.

firefighting. Only 26 percent of departments represented in the report felt they could handle a 500-acre Wildland-Urban Interface fire with trained, local personnel.[9]

Revenues and Funding

Similar to the 1994 *Fire Protection in Rural America* report, the 2002 Needs Assessment report also found that rural communities were served primarily by volunteer fire departments that receive most of their funding from local revenue or taxing districts. Supplemental dollars are obtained through fundraising and donations. These departments do not typically receive funding from state, federal, or private industry sources. In 1994, the median annual budget for rural fire departments was $18,000 per year. This represents a small sum to meet annual operating expenses while simultaneously training personnel and maintaining or replacing equipment.

Equipment

Fire departments responding to the 1992 survey identified equipment as their highest priority need. This was further reinforced when they listed as priorities for federal funding: water supply enhancement, radio communications, and protective clothing. The 2002 Needs Assessment report reinforces this need through the finding that nearly half of all communities under 2,500 residents have engines over twenty years old.[10] Most rural fire departments currently have neither a plan nor a budget for replacing this equipment. They are therefore forced to rely on acquisition of used or converted vehicles and apparatus.[11]

While the 2002 Needs Assessment report indicates improvement over the last ten years in the area of radio communications between local, state, and federal entities, it continues to suggest that fire departments do not have enough portable radios to equip more than half of the emergency responders on a shift. This need is especially critical for small communities.

The 1994 *Fire Protection in Rural America* report also found that nearly half of the departments responding had no wildland protective clothing—even though nearly 25 percent of all of their fire runs were on wildland situations in which structural clothing can be unsafe. The 2002 Needs Assessment did not specifically ask about wildland personal protective equipment, but did indicate that an estimated 57,000 firefighters lack protective clothing—including 42,000 in departments protecting communities under 2,500 residents. Furthermore, according to the 2002 Needs Assessment report, nearly half of the personal protective clothing in these departments is at least ten years old.[12]

Federal and State Assistance

A 1991 U.S. Department of Commerce study estimated that the cost of converting the nation's volunteer firefighters to paid status would be $37 billion dollars. In 1999, almost a decade later,

[9] Pages 104-106.
[10] Page 72.
[11] Pages 10, 13.
[12] Page 82-83.

the National Fire Protection Association estimated that the cost would be $53-74 billion.[13] Today, it would likely be even more. It is indisputable that volunteer and rural firefighters are a tremendous asset to the nation and deserve support from all levels of government and the public.

Financial support to rural and volunteer fire departments has historically been very limited. The Rural Development Act of 1972 authorized the first federal program to offer meaningful financial assistance to volunteer fire departments. Contained in Title IV of P.L. 92-419, the act authorized up to $7 million to *"organize, train, and equip local fire forces to prevent, control and suppress fires in rural areas."* In Fiscal Year 1975, an initial appropriation of $3.5 million was provided to enable State Foresters to administer the financial, technical, and related assistance offered through the volunteer fire program.

The Cooperative Forestry Assistance Act of 1978 (P.L. 95-313) repealed the 1972 language, but authorized similar assistance through the new Cooperative Forest Fire Protection (CFFP) programs of the USDA Forest Service. According to this language, the Secretary of Agriculture is authorized to assist in "the prevention and control of rural fires" by working "through and in cooperation with the State Foresters, or equivalent state officials" in implementing the "federal program affecting non-federal forest lands."

Beginning with the initial appropriation in 1975, the Volunteer Fire Assistance program has provided funds to communities of less than 10,000 residents for organizing, training, and equipping firefighters. These funds are delivered through the State Forester in each state. From 1991 to 1995, an average $3.5 million per year was distributed to the nation's rural fire service. From 1996 through 2000, annual funding dropped to approximately $2 million annually. These funds are matched dollar-for-dollar by recipients—doubling the value of the federal contribution.

Under the companion Federal Excess Personal Property (FEPP) program, the Forest Service has loaned states and local fire departments federal equipment and other property suitable for meeting fire protection needs. Over 70,000 pieces of FEPP firefighting equipment are currently on loan to states and the rural fire service for rural fire protection. Unfortunately, states and local fire departments are currently so low in the screening priority for this equipment that the program's potential for significantly improving fire protection has been compromised.

Congressional funding of the National Fire Plan in FY 2001 brought a considerable influx of financial resources to the wildland fire community. Rural fire departments benefited from this increase through the Volunteer Fire Assistance program, which climbed from $2 million to a program high of $13 million. They also benefited from the newly created Rural Fire Assistance program in the Department of the Interior, which received initial funding of $10 million.

The U.S. Fire Administration also began a new grant program in FY 2001 aimed at increasing the safety, training, and response capacity of local fire departments. Known as the Assistance to Firefighters Grant (AFG) Program, this U.S. Fire Administration initiative began with an appropriation of $100 million and has risen to $750 million in FY 2003. Although it is not focused specifically on wildland firefighters, the AFG Program has elicited success stories related to grants for fire prevention, firefighting equipment and vehicles, and firefighter training.

[13] John R. Hall Jr., May 2003; personal communication.

3. ISSUES AND RECOMMENDED ACTIONS

Issue One

Wildland Fire Training

Local fire departments perform a critical role in affecting the progress of a wildland fire. These "closest forces" are often first on the scene of a wildland fire start. They have knowledge of local landscapes and fire conditions that helps them operate effectively in the Wildland-Urban Interface. Assisting these key responders in obtaining the training and resources they need results in multiple benefits to the public as well as to all wildland firefighting entities.

Safe and effective initial response requires a basic level of training in wildland fire. An incident in the Wildland-Urban Interface also demands structural firefighting skills. According to the National Wildfire Coordination Group, an introductory-level wildland firefighter should:

- Have knowledge of wildland fire behavior, fuels, and fire weather.
- Be familiar with strategies for attack and control of wildfires as well as techniques to reduce the threat of spotting or slop-over along the fireline.
- Be able to safely and effectively use firefighting hand tools and hoses.
- Know and recognize life-threatening situations and related safety procedures and be able to select a site and safely deploy a fire shelter.
- Know how to communicate with others on the crew or in the immediate vicinity.

The 2002 *Needs Assessment of the U.S. Fire Service* (developed cooperatively by the U.S. Fire Administration and the National Fire Protection Association), reveals that an estimated 41 percent of fire department personnel involved in wildland firefighting lack formal training in the above (listed) duties.[14] While this need for adequate training impacts communities of all sizes, the need is greater for smaller communities—which are also more likely to provide wildland firefighting as a service. In communities of less than 2,500 people, nearly half of those participating in wildland firefighting have no formal training. More significantly, only 26 percent of fire departments feel they can handle a Wildland-Urban Interface fire affecting 500 acres with trained local personnel. [15]

Numerous wildland fire training opportunities currently exist at the local, state, and national level, including several state or multi-state fire academies undertaken in recent years. The U.S. Fire Administration has also expanded its wildland fire training opportunities for the rural and volunteer fire community with two new courses focused specifically on wildland fire operations in the urban interface. Unfortunately, most local firefighters—particularly volunteer personnel—

[14] Page 26, 43 in the *2002 Needs Assessment of the U.S. Fire Service* report.
[15] Pages 104-106, 118-119 in the *2002 Needs Assessment of the U.S. Fire Service* report.

still find it difficult to accommodate the costs and time commitment associated with the current range of programs.

In addition, the National Wildfire Coordinating Group (NWCG) training standards lack an adequate system for recognizing the experience and qualifications of local firefighters. This lack of reciprocity in training standards creates a barrier that can inhibit good working relationships between local and federal firefighters.

Issue One – Wildland Fire Training

Recommended Actions

- Federal wildland fire agencies—including the U.S. Fire Administration—should work with local, state and national fire organizations, including existing state wildfire academies, the National Fire Academy, the National Association of State Fire Training Directors (NASFTD), and the National Fire Protection Association, to develop a performance-based wildland fire training "delivery package" that targets volunteer and rural fire departments. This package should include the following elements:
    - On-site delivery of training.
    - Three-hour training blocks.
    - Evening and weekend training options.
    - Virtual and distance education opportunities.
    - Hands-on training and field exercises.
- Federal and state wildland fire agencies should work cooperatively to identify and establish a sufficient number of skilled wildland fire trainers in each state or region. This effort should consider opportunities for—or the development of—"train-the-trainer" programs that would build a cadre of locally-based training resources.
- States and federal agencies should consider paying a fair stipend to local government trainers to assist in delivering training packages. The level of increased training suggested in this report goes beyond the duties of a volunteer training officer.
- State and federal agencies should expand and promote training opportunities that facilitate the formation of local Type 3 Incident Management Teams. State and federal financial assistance should be offered to help volunteer firefighters attend advanced training, particularly if they agree to participate in the national cadre or are pursuing much needed national qualifications (such as Strike Team Leader and Division Group Supervisor).
- State and federal agencies should study the possibility of establishing a "reserve wildland firefighter" program based on the military model of augmenting regular forces during times of national emergency. Through this program, volunteer firefighters would commit to and be compensated for annual training and participation in a minimum number of wildland fire assignments. The federal

government, in cooperation with states, would agree to provide the necessary training opportunities at a time convenient to volunteers and to also compensate them for time spent in training.

(See Appendix A Case Study.)

Issue Two

Efficient Interagency Response

The authors of the 1994 *Fire Protection in Rural America* report found that: *"Rural fire protection in America is provided through a loose-knit, multi-jurisdictional partnership, with each partner representing an essential building block in the system."* The report also notes that significant and unacceptable losses occur when these partners are unable to share their resources and coordinate their response actions. Although the 2002 Needs Assessment report indicates improvement in the number of written interagency and mutual-aid agreements between local, state and federal entities, the concurrent growth in the Wildland-Urban Interface has increased the complexity of responding to a multi-jurisdictional fire.

Confusion continues to exist over who is responsible for protecting structures in the Wildland-Urban Interface and how and when to use local personnel for extended attack on a fire under state or federal jurisdiction. This uncertainty over authorities and jurisdiction can impede the initial response to a wildfire, lead to the inefficient use of all available suppression resources and, ultimately, place firefighter and public lives at risk. Much of this dangerous ambiguity is driven by concerns over qualifications, standards, and even personal liability.

In an effort to improve firefighter safety and effectiveness, state and federal wildland fire agencies have developed a national, interagency qualification and certification system for use in mobilizing personnel for wildland fire assignments across the country. The purpose of the system is to ensure that mobilized personnel meet specific training and experience requirements for the positions to which they are assigned.

As part of this system, an individual receives classroom training and demonstrates a required knowledge or skill level through the completion of a position task book. These task books often require participation in an actual fire assignment. In some cases, skills can be documented through drills and prescribed fire operations. After successful completion of the classroom instruction and the position task book, an individual is issued a qualifications card, also known as a "red card," which lists the positions that the individual is qualified for under the national system.

Because the Red Card system was developed initially to serve federal needs, it does not effectively account for the equivalent training and experience of local firefighters. This creates tension during wildfire response. In general, it is the policy of federal wildland fire agencies—and some state agencies—to require that rural fire cooperators meet these standards if they wish

to participate in fires under federal (or state) jurisdiction. As a result, federal or state fire managers may believe they are unable to use trained, local fire personnel. They therefore believe they must order "qualified" firefighters from other—often distant—locations.

In Wildland-Urban Interface situations, a decision not to use local forces because of their lack of a Red Card is often erroneous. Furthermore, it can result in delayed action and considerable additional expense. Rural fire departments typically have the jurisdictional authority for structure protection. Thus, they have the legal right to be engaged in the surrounding wildfire suppression actions—regardless of whether or not their personnel meet federal or state qualifications.

In a growing number of states, federal and state wildland fire agencies have developed written mutual aid agreements with local and rural fire departments to clarify jurisdictional responsibilities. It is critical that these agreements be updated and revised to reflect the increasingly complex situations many responders confront within the Wildland-Urban Interface. Of particular concern is the question of how to divide suppression costs between federal, state, and local entities involved in a Wildland-Urban Interface incident.

Issue Two – Efficient Interagency Response

Recommended Actions

Improve coordination with—and make more effective use of—local and rural fire department personnel as follows:

- Federal and state agencies should establish and communicate a clear and consistent policy based on a nationally-recognized wildland fire standard for local agencies (such as NFPA 1051). This policy would establish qualifications and standards for using local or rural fire department personnel in initial attack, extended attack, and large fire situations.

- National wildland fire organizations should clarify to all wildland fire responders (federal, state, tribal, and local) that current national policy states that during initial attack, all wildland fire responders accept each other's qualifications. Once jurisdiction is established, the standards of the organization(s) with jurisdiction prevail. Further, if an organization has legal jurisdiction, its employees have the legal right to remain on a fire—as long as they meet their own organization's qualifications.

- Federal agencies should ensure that the current effort to develop a common, interagency analysis tool to support fire preparedness, planning and budgeting is designed to include lands and resources under the jurisdiction of state and local wildland fire protection entities.

- The National Wildfire Coordinating Group (NWCG) should add to its membership an organization that can effectively represent the interests of rural/local fire departments.

- State and federal agencies should develop a process through which a rural fire department's training, experience, and qualifications (such as NFPA 1051 qualifications) can be recognized as equivalent to NWCG qualifications, thereby allowing for the more efficient use of local government personnel on agency fires.

Improve and expand mutual aid and related agreements that allow for increased integration and use of local resources:

- State and federal agencies, in cooperation with the National Association of Counties and the International Association of Fire Chiefs, should develop a mutual aid agreement template that can: be used in each state to facilitate the involvement of all organizations with legal wildland fire response jurisdiction, clarify qualifications and standards, stipulate responsibilities, provide for federal use of local resources when appropriate, and establish a process for using "unified command" and cost-sharing on multi-jurisdiction fires.

- State and federal agencies should establish formal reporting requirements for their field units to ensure that they are establishing mutual aid and related agreements with all appropriate fire departments.

- Federal agencies should develop cooperative agreements with states to provide for the use and reimbursement of rural fire department personnel on extended attack and large fire operations, both geographically and nationally. States are responsible for communicating and consulting with local entities prior to the development of these agreements.

(See Appendix B Case Studies.)

Issue Three

Initial Attack/Emergency Communications Capability

Fire departments represented in the 1994 *Fire Protection in Rural America* report identified radio communications as one of their top three priorities for federal assistance. The 2000 Needs Assessment shows that this need continues for rural fire departments in which up to 50 percent of emergency responders on shift lack radios, and less than 50 percent of departments can communicate with "most" of their interagency partners on an incident.

The most common radio communications set-ups used by local, state and federal entities are the Land Mobile Radio (LMR) systems. Within these systems, emergency responders use a wide range of frequency types and strengths. Rural fire departments, as well as state and federal wildland agencies, typically use the VHF High Band (150-174 MHZ). Other frequencies used include VHF Low Band (30-50 MHZ), UHF Low Band (400-512 MHZ), 800 MHZ Band and frequencies up to 3000 MHZ. These LMR systems are used in conventional, analog and digital modes as well as in trunking mode—in which many users share a common pool of radio

channels. Channels from a trunking pool are allocated to users on demand and as they become unoccupied. No channels are allocated to specific users or groups of users.

This multitude of communications systems has led to two primary conflicts: frequency interference and lack of interoperability. Frequency interference occurs when a disturbance to any signal in a system causes additional, unwanted signals. Interference may be natural or human caused. Examples include "hum," crosstalk, and image frequency. Short-term frequency interference issues have been resolved by temporary frequency assignments that are nationally allocated and managed by the National Interagency Incident Communications Division (NIICD) at the National Interagency Fire Center (NIFC).

Improving interoperability and public safety communications will require: improved coordination and partnerships, spectrum management, funding, standards and technology and security.

Issue Three – Initial Attack/Emergency Communications Capability

Recommended Actions

- Federal and state programs that provide grant funding for local and rural fire departments to purchase equipment should prioritize the acquisition of radio communications technology that will facilitate interoperability between local departments and their state and federal counterparts. Granting agencies should also provide policy direction that radios purchased through federal funding must be narrow-band compatible.
- Local, state, and federal firefighting agencies in each state should develop cooperative agreements or plans for interagency frequency use to mitigate interoperability problems and promote efficient frequency utilization and management. They should then provide training in frequency management and the use of cross-banding/interoperability equipment.
- The Federal Communications Commission (FCC) should dedicate a significant portion of the VHF high-band frequency range to common and mutual aid frequencies for fire fighting.

(See Case Studies Appendix C.)

Issue Four

Coordinated Federal and State Assistance

The 2002 Needs Assessment reveals that, within the U.S. fire service, rural fire departments are often poorly funded for the breadth of their responsibilities.

This recent survey data indicate that rural fire departments serving populations of fewer than 5,000 are dependent on local revenue and taxing districts for most of their funding. For communities of less than 2,500 residents, volunteer departments commonly listed donations and fund raisers as an important source of funds.[16] This situation has remained virtually unchanged since publication of the 1994 report.

In an attempt to address this problem, Congress has authorized and funded several grant programs. There are currently four national programs that make technical and financial assistance available to rural fire departments. The programs are administered by different federal agencies with a variety of application and qualification requirements.

- Volunteer Fire Assistance (VFA). Overseen by the USDA Forest Service, the Volunteer Fire Assistance program is the most tenured of the four. Funded at $13.2 million for 2003, the VFA grant program is administered by the state forestry agency in each state and provides assistance to rural fire departments serving populations of less than 10,000 residents. Many states distribute VFA funding by soliciting grant applications for wildland fire training, equipment, and personal protective clothing. Some states also use the program to support statewide training opportunities or similar efforts that maximize the resulting benefit to volunteers. Grant awards under this program typically range from $1000–$5000 and require a 50/50 match. Prior to the National Fire Plan, funding for VFA ranged from $2-3 million nationally and allowed for only minimal grant assistance in each state.

- Federal Excess Personal Property (FEPP). Under the Federal Excess Personal Property (FEPP) program, federal property that is no longer needed by the purchasing agency is acquired by the USDA Forest Service for loan to one of the 50 states or the territories for use in rural or wildland fire protection programs. This equipment can include trucks, aircraft, personal protective equipment, fire hoses, and similar items. The Forest Service loans the property to the State Forester, who then places it with a local department to improve response capability. Over 70,000 pieces of FEPP equipment are currently loaned to state and local fire departments for rural fire protection. Unfortunately, a recent change in screening priority has hindered the ability of state and local firefighting entities to acquire the most suitable equipment available.

- Rural Fire Assistance (RFA). The Department of the Interior's Rural Fire Assistance program was created in 2001 as part of the National Fire Plan. It is separately administered by four different bureaus within the Department of the Interior: the Bureau of Land Management, the Bureau of Indian Affairs, the U.S. Fish and Wildlife Service, and National Park Service. Funded at $10 million for 2003, Rural Fire Assistance is similar in intent to the Volunteer Fire Assistance program. Through Rural Fire Assistance, the Department of the Interior agencies provide grant funds to rural fire departments in the vicinity of lands managed by the department's agencies. Implementation of the Rural Fire Assistance program varies on a state-by-state basis. It can also be coordinated with the state's Volunteer Fire Assistance program and

[16] Page 12 in the *2002 Needs Assessment of the U.S. Fire Service* report.

administered jointly with state forestry organizations. Grants range from $1000-$20,000 and require a 90/10 match.

- Assistance to Firefighters Grant Program. Also authorized in FY 2001, this program is housed under the Federal Emergency Management Agency (FEMA)—now part of the Department of Homeland Security. Funded at $750 million for 2003, the program is administered on a national basis by the U.S. Fire Administration. The grant funds are available to both rural and municipal fire departments. Congress has emphasized the importance of a balanced distribution of funds between paid, volunteer, and combination departments. In addition, Congress stressed the need for geographical considerations to include urban, suburban, and rural departments. This makes a significant amount of funding available to rural departments for training, equipping, and preparing for wildland fire response. Granted funds are often substantial and require a 90/10 cash match for departments serving populations under 50,000. The match is 70/30 for those over 50,000 in population.

The multitude of administrative requirements and differences involved in these programs creates a number of challenges for qualifying departments. For example, rural fire departments must fill out separate applications for each grant program at different times of the year. Each application process requires much of the same information, but is organized differently. This makes the overall process excessively difficult, confusing, and time consuming for department personnel.

In addition, each federal agency typically uses different criteria to evaluate grant applications and reviews them using separate processes. While it is true that in some states, the Rural Fire Assistance and Volunteer Fire Assistance program applications are reviewed using a single, interagency process, it is not uniform across all granting agencies. The U.S. Fire Administration uses a national on-line process that has been very well received by fire departments, while the USDA Forest Service and the Department of the Interior use a state-by-state process. The existence of uncoordinated granting systems is confusing. It also allows for the distinct possibility that the same, well-written grant application could be funded by more than one agency for the same purpose.

In an attempt to address these problems, the U.S. Fire Administration, the USDA Forest Service, the National Park Service, the U.S. Fish and Wildlife Service, the Bureau of Land Management, the Bureau of Indian Affairs, and the National Association of State Foresters recently signed a Memorandum of Understanding (MOU) that took a first step toward better coordination among the three grant programs (Volunteer Fire Assistance, Rural Fire Assistance, and Assistance to Firefighters) and seven primary organizations. Although helpful, this MOU only provides for general cooperation and coordination in reviewing applications, as well as for the sharing of information about pending grant awards. While this will help reduce duplicate grant awards, it does not resolve the issue of multiple applications and the administrative workload this places on small, volunteer and rural departments.

An additional coordination concern is the lack of a uniform and integrated national fire occurrence reporting system. The absence of such a system inhibits multi-agency efforts to accurately determine the scope and extent of our nation's wildland fire problem. Currently, many (but not all) rural fire departments report wildland fires through the National Fire Incident

Reporting System (NFIRS), managed by the U.S. Fire Administration. Some state agencies also report through NFIRS, but most continue to use stand-alone state systems. Federal wildland fire agencies also use separate, independent systems for compiling wildland fire statistics.

The NWCG has recognized this reporting problem and is currently initiating an effort to develop a national, integrated system for reporting state and federal fire occurrence. At this time, it is still uncertain if this effort will result in a common system and how—or if—local government's wildland fires will be included.

Issue Four – Coordinated Federal and State Assistance

Recommended Actions

- Federal and state entities that provide financial assistance to local fire departments should establish a coordination mechanism that reduces or eliminates duplicate applications and awards between the programs.
- Federal, state, and local entities should seek to establish and maintain an effective level of funding and an equitable matching requirement for all firefighter assistance programs and work to increase funding focused specifically on the needs of rural and volunteer firefighters in the Wildland-Urban Interface.
- The USDA Forest Service and the U.S. Department of the Interior should establish—in cooperation with the National Association of State Foresters—a single application process for available Volunteer Fire Assistance and Rural Fire Assistance program funds in each state. In addition, it should be required that the state and federal agencies administering these programs work cooperatively to set funding priorities, select grant recipients, and avoid duplication.
- Federal agencies should work cooperatively with state and local firefighting entities to develop an improved reporting system for tracking accomplishments made through grant and cost-share programs.
- States, federal wildland agencies, and the U.S. Fire Administration should work with local fire departments to jointly pursue the development of a uniform, national fire reporting system that integrates wildland fire occurrence data from all federal, state, and local government sources.
- The U.S. Fire Administration should develop a web-based "short form" for the reporting of fires. This form, designed for local departments that respond to less than 100 calls per year, should be easy to use and quick to fill out.
- Federal, state, and local agencies should actively support efforts to raise the screening priority for state and local governments with regard to Federal Excess Personal Property.

(See Case Study Appendix D.)

4. CONCLUSION

Congress—along with other elected officials and the leaders of state and federal wildland fire agencies—should act in a timely manner to carry out the recommendations outlined in this report.

Our Rural, Volunteer, and Local Fire Responders: Crucial to Protecting Communities from Wildland Fire

This country's rural, volunteer, and other local fire departments serve as the vanguard in protecting our communities from wildland fire—both before and during a fire incident.

These crucial first responders have the local knowledge and connections necessary to help homeowners and citizens prepare for wildfire. Their on-the-ground experience with local landscapes also proves essential in effectively mounting both initial and extended fire response.

The Implementation Plan for the August 2001 *Ten-Year Comprehensive Strategy for Reducing Wildland Fire Risks to Communities and the Environment* aims to reduce wildland fire risks to both communities and to the environment. The Implementation Plan strives to achieve this goal by encouraging a long-term approach that integrates:

- Prevention and suppression.
- Hazardous fuels reduction.
- Ecosystem restoration.
- Community assistance from the local level on up.

For this vital *Ten-Year Comprehensive Strategy* to truly succeed, each of the four elements (listed above) must be functioning well.

Furthermore, the ability of trained and equipped local forces to operate safely and effectively in the Wildland-Urban Interface is essential to building a solid foundation for this long-term strategy. Improving the preparedness of these community-based resources will strengthen the larger wildland fire protection and response system as well as provide significant local benefits.

This Report's Four Critical Issues Need Urgent Attention

This report identifies four critical issues that urgently need attention if local firefighters—particularly rural and volunteer forces—are to operate as safely and effectively as possible in the Wildland-Urban Interface:

- **Issue One**: Wildland Fire Training.
- **Issue Two**: Efficient Interagency Response.
- **Issue Three**: Initial Attack and Emergency Communications Capability.
- **Issue Four**: Coordinated Federal and State Assistance.

The corresponding recommendations (outlined in Chapter 3 of this report), involve tailoring technical and financial assistance to meet the needs of rural and volunteer fire departments. If implemented, these important recommended actions will also improve interagency communication and cooperation—both on the fire line and in non-emergency situations.

Improved Protection and Effective Suppression Response

A public investment in strengthening the preparedness of local firefighting resources offers a greater immediate return in improved protection and effective suppression response than any other component of the *Ten-Year Comprehensive Strategy* or the *National Fire Plan*.

Therefore, Congress—along with other elected officials and the leaders of our state and federal wildland fire agencies—should act in a timely manner to carry out this report's recommendations. In doing so, they will successfully achieve the desired outcomes of both the *Ten-Year Comprehensive Strategy* and the *National Fire Plan*:

- Healthier watersheds.
- Healthier communities.
- Diminished risk and consequences of severe wildland fires.

5. ACKNOWLEDGEMENTS

Sponsoring Organizations

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Other Contributors and Reviewers

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6. APPENDICES – CASE STUDIES

Appendix A

Issue One – Wildland Fire Training

Case Study: California

The state of California, with its large population, extensive areas of Wildland-Urban Interface, volatile fuels, and historic high fire occurrence, has long recognized the need for a process to quickly and efficiently mobilize all available wildland fire personnel and equipment (federal, state, and local).

To achieve this, the Office of Emergency Services has established minimum training and qualification standards for personnel who manage or respond to incidents using the Incident Command System. The State Board of Fire Services developed these standards with the help of a task force that was focused on developing a certification system for all risk incident management positions (including wildland fire) within the Incident Command System.

The result of this effort was the California Incident Command Certification System (CICCS). It includes the following components:

- Participation. The CICCS standards apply to those emergency incidents that historically involve the statewide movement of resources from one agency to another, including wildland fire. They do not necessarily apply to routine first level responses within a single agency.
- Historical Recognition. The system includes the ability of an agency or organization to formally recognize the training and experience of existing personnel as equivalent (grand-fathering) for a two-year period. After the two-year period (August 1, 2004), only the CICCS may be used to certify emergency personnel.
- System Components. CICCS includes minimum prerequisites, training standards, experience, and performance standards tracked using position task books. Further, a computer program has been developed to track each individual's training, certifications, qualifications, and experience.
- National Wildfire Coordinating Group (NWCG) Compatibility. The NWCG "*Wildland & Prescribed Fire Qualification Guide*, PMS 310-1" is recognized as the model for the CICCS format. Therefore, NWCG 310-1 qualifications are considered equivalent with CICCS.

California has now adopted a statewide Memorandum of Understanding (MOU), which recognizes the equivalency of CICCS and NWCG 310-1 qualifications, and accepts either for response within the state. This greatly facilitates the rapid, efficient mobilization of personnel and equipment from all agencies and organizations within the State of California.

Appendix B

Issue Two – Efficient Interagency Response

Case Study A: Community Defense from Wildland-Urban Interface Fires in Montana

The Sourdough and Rae fire departments in Gallatin County, Montana have developed an innovative community protection plan that includes effective pre-incident planning, neighborhood-based actions, and real-time response practice.

Planning for this comprehensive approach began with an analysis of potential fire behavior, which indicated that fire spread would be fast, far-reaching, and sustained by wind events. Recognizing that federal assistance could take from 48 to 72 hours, the local departments realized that they would need a safe, quick, proactive and robust local response.

Using this information, they set out to develop a strategy for effective deployment and oversight of 100 fire engines in 100 minutes. First, they prepared solid response plans that involved local residents in their own defense, utilized local and statewide mutual aid, and provided detailed area information to all responders. Next, the departments worked with the Gallatin County Geographic Information System (GIS) Department to develop mapping for all aspects of the wildland fire initial response. This exercise identified at least 500 homes inside the fire departments' jurisdictions that were within 1.5 miles of an adjacent national forest.

Finally, the departments developed an Incident Action Plan (IAP) that includes: a description of the hazard, the incident commander's intent, strategic goals, an organization and communications plan, safety and risk management plans, basic information gathering, times and location for a strategy meeting, and logistics information. Ongoing command simulations and real-time practice deployments enable the departments to improve their capabilities and test and refine their plan before a Wildland-Urban Interface fire event occurs.

Through a combination of neighborhood outreach, solid pre-incident planning and practice, the Sourdough and Rae Fire departments are ready to respond in a safe, aggressive, informed, and controlled manner. This style of response offers the opportunity to capitalize on opportunities to stop the fire when it is small and therefore minimizes threats to lives and property.

Case Study B: The Greater Okefenokee Association of Landowners

The Greater Okefenokee Association of Landowners (GOAL) was developed in 1994 to: improve fire-related communication between land management agencies and the forest industry, encourage more efficient use of fire response resources, and increase cooperation for fire prevention and preparedness activities. Since its creation, the association has become a successful model of cooperative, interagency wildland fire management and suppression.

The members of GOAL include the Georgia and Florida state forestry organizations, the USDA Forest Service, the U.S. Fish and Wildlife Service, and several industrial and private forest landowners around the Okefenokee National Wildlife Refuge (NWR). More than 2 million acres are within the participants' various jurisdictions.

GOAL is not a federal or state operated organization. The chairperson is an employee of International Paper Company and is supported by a small, representative steering committee. Cooperative efforts are based on mutual aid zones that have been established around the Okefenokee National Wildlife Refuge and other federal lands and are coordinated with the states and private industry.

GOAL's state and federal members work together to train private industry and volunteer fire department personnel in addition to their own employees. In some cases, federal agencies have paid to have state employees receive advanced training at off-site facilities.

Initial attack is provided across state lines by local, state, federal and private resources. All parties have the ability to communicate over a radio system during an incident. Compact agreements are used for extended attack involving both states. Funding issues rarely exist due to these in-place agreements that describe times when reimbursement for services is required.

Since 1994, GOAL has effectively managed multiple campaign fires over several months of wildland fire activity. The members of GOAL attribute its success to their mutual trust and understanding, the development of a common mission, and the avoidance of turf battles.

Case Study C: Interagency Cooperation with Fire Departments in Minnesota

After three major Wildland-Urban Interface fires in and near the Twin Cities metro area in 1999 and 2000, it was evident that wildland agencies and local fire departments needed to have better communication and coordination.

To achieve this goal, a task force comprised of wildland fire agency representatives and suburban fire chiefs met during an 18-month period to develop statewide guidelines, also known as the "Minnesota Wildland-Urban Interface Plan."

Components of the Minnesota Wildland-Urban Interface Plan include: guidelines for managing wildfires in the urban interface, Minnesota incident management team information, suggested organization charts (stressing unified command), common wildfire definitions, how to establish a communications network, radio frequency sharing procedures, local resource lists, air operations safety and guidelines, cooperative agreements, and Firewise information. The plan is in outline format, enabling agencies and fire departments adopting it to fill in their local specifics.

During the process of developing the plan, it was decided to implement a four- to six-hour functional Wildland-Urban Interface fire exercise to test it. This exercise would also provide experience for the three Minnesota type 2 interagency management teams in Wildland-Urban Interface response. An area in the northern Twin Cities metro region—that has potential for a large Wildland-Urban Interface fire—was selected. An actual fire here would threaten many homes, businesses, and cause major traffic disruptions. The fire scenario involved four fire department jurisdictions and two county sheriff departments and included participation in a unified command.

Approximately 70 wildland firefighters and incident management team members, along with 30 local fire department officers and firefighters from nine fire departments, participated in the exercise. According to the evaluations, the exercise proved to be: challenging, helpful for pointing out issues that need more work, supportive for developing better relationships between the wildland agencies and the fire departments. It also gave the Minnesota type 2 incident management teams an excellent opportunity to become familiar with the methods and procedures of their urban counterparts.

The next step is to develop a template of the local area emergency wildfire plan and operating guidelines for inclusion in the Minnesota Wildland-Urban Interface Plan. Incorporating this local plan template will help ensure that mutual aid resources will be able to recognize and utilize the local plan throughout the entire state.

The coordination and collaboration involved in developing a local area emergency wildfire plan and operating guidelines is one of the major benefits in conducting such an activity. Through meeting and creating the local plan, the participating agencies have the opportunity to develop good working relationships, learn each other's capabilities, and resolve potential problems before a major incident occurs.

Appendix C

Issue Three – Initial Attack/Emergency Communications Ability

Case Study A: Communications Tragedy on Idaho's 1995 Point Fire

The lack of common communication capability among all units on a wildfire incident can have deadly consequences. An example of this basic truth was tragically demonstrated on July 28, 1995, 16 miles southwest of Boise, Idaho. On that day, a dry lightning storm started several fires, one of which became the Point Fire. The Bureau of Land Managment initially responded to the fire, later calling on the Kuna Rural Fire District for assistance. Two Kuna RFD engines and one water tender responded and began assisting with the suppression efforts.

Later in the evening, the fire's spread was stopped at 120 acres. At 8:22 p.m. a "red flag warning" for dry thunderstorms and wind gusts of up to 50 mph was issued for the area. Subsequently, winds associated with a thunderstorm cell blew the fire out of the containment lines. The fast-spreading fire overran one of the Kuna engines. Two crew members were killed.

The accident investigation identified the lack of common communication capability as a significant contributing factor in the two deaths. The problem with communication was illustrated most dramatically at the time of the blow-up. The responsible unit leader was aware of the location of the doomed engine and the peril faced by the crew, but was unable to contact them.

Case Study B: Proactive Planning for Communications and Response in New Jersey

On June 2, 2002, the New Jersey Forest Fire Service's (FFS) Cedar Bridge lookout tower reported a smoke in the Berkeley Township, 60 miles south of Manhattan and 40 miles north of Atlantic City. The start grew into the 1,300-acre Jake's Branch Fire, which resulted in the evacuation of over 500 homes in the Wildland-Urban Interface of the New Jersey Pine Barrens.

Along with the New Jersey FFS, those responding to the wildfire included 52 volunteer fire departments from two counties, the Fire Marshal's Office, the Sheriff's Department, the Prosecutor's Office, state and local Offices of Emergency Management, and the New Jersey Transportation Incident Management Team. Had it not been for this proactive pre-incident preparation, interagency and multi-jurisdictional coordination had the potential to overwhelm an already complicated situation.

After a 1997 wildfire, the Mayor of Berkeley Township brought community leaders into the fire planning process. The New Jersey FFS developed an

operations manual and training program for fire protection in the Wildland-Urban Interface.

Mild conditions during the winter of 2002 exacerbated the state's already severe drought and caused fire officials to give preparations for the spring fire season a higher than normal priority. State, county and local fire officials in Ocean County held a series of meetings and training exercises that focused on a recently developed forest fire task force. The roles and responsibilities of each organization were clearly defined and reinforced.

One of the largest hurdles to vault was the coordination of all the different radio frequencies currently in use by the various agencies. The Ocean County Communications Center upgraded their mobile communications van to help alleviate this situation. On June 2, 2002, the van was parked at the Jake's Branch incident command post and proved to be an invaluable resource to bridge the communication gap.

Local pre-suppression activities prior to the Jake's Branch fire significantly reduced the confusion that often accompanies a major incident. These activities proved key to the overall success of the suppression effort.

In conclusion, *"Be Prepared"* is a good motto for more than the Boy Scouts.

Appendix D

Issue Four – Coordinated Federal and State Assistance

Case Study: Colorado

The Colorado State Forest Service has administered the Volunteer Fire Assistance (VFA) Program, funded through a grant from USDA Forest Service since the program's inception. In 2001, Congress authorized and funded a similar Rural Fire Assistance (RFA) Program to be administered through the Department of the Interior. Both the Volunteer Fire Assistance program and Rural Fire Assistance programs are designed to improve rural fire protection by assisting fire departments in equipment acquisition, firefighter training, and the establishment of fire departments and organizations.

In Colorado, interagency wildland fire response has evolved into the norm rather than the exception. Due to this long history of partnership, cooperative delivery and administration of both the Volunteer Fire Assistance program and Rural Fire Assistance programs was inevitable. Through this combined process:

- Fire departments only have to work through one application and reimbursement process, decreasing both paperwork and confusion.

- Program administration is carried out through a proven administrative process, eliminating the need for the Department of the Interior to invent a new system.
- Program delivery is able to benefit from existing relationships between the Colorado State Forest Service and local fire departments.
- Federal administrative time and paperwork is reduced by using the state to process payments to fire departments.
- Interagency relationships are strengthened by bringing state and federal fire managers together to review and prioritize applications from fire departments.

Combining the two programs has not been without its challenges and pitfalls. In addition, the administrative process is subject to continuous review and adjustment as needed.

For example, the Department of the Interior agencies were initially concerned that Rural Fire Assistance funds would lose their Department of the Interior identity when mixed with Volunteer Fire Assistance program dollars. This concern was addressed through clear agency identification on the application forms as well as on the awards to departments.

In addition, the receipt of federal funding by USDA and USDI agencies is sometimes out of sync. Several agencies within the Department of the Interior have different procedures for transferring funds to the state. Establishing consistency in program administration—despite these individual agency differences—has proven critical to the goal of simplifying and improving service to local fire departments.
