

International Wildland Fire Cooperation Protocols and Pitfalls

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Abstract

Devastating fire seasons in the United States fire during 2000 and 2002 resulted in U.S. fire managers being unable to meet their fire line needs for fire fighters and resources. In 2000, 100,000 fires burned over 2,830,000 hectares, with the loss of over 800 structures. In 2002 over 71,000 fires burned approximately the same amount of hectares with the loss of 2300 structures. During both fire seasons calls went out for international assistance.

Implementing a long-standing arrangement with Canada, the U.S. requested over 1500 Canadian fire specialists to assist with the fires in 2000 and over 900 in 2002. The U.S. also used Canadian fire equipment and aircraft.

In 2000, the U.S. also used an obscure U.S. law to request emergency assistance from Australia and New Zealand. Almost 100 fire fighters travelled from Australia and New Zealand to the U.S. to fight wildland fires in the states of Montana and Idaho.

Building on the lessons learned from 2000, U.S. fire managers worked with their Australian and New Zealand fire management counterparts to develop acceptable language to all parties, which eventually led to new international arrangements in August 2002. These new arrangements clarified protocols, procedures, roles and responsibilities among five states of Australia, the country of New Zealand and the U.S. The new arrangements resulted in 50 fire fighters coming to the U.S. from Australia and New Zealand. They filled critical fire assignments on the highest priority U.S. fires in the state of Oregon for 30 days.

The “U.S. model” for international cooperation on wildland fires evolved through a deliberative and sometimes frustrating process. Is this the model that other nations should look at as they potentially seek international assistance? And what are the pitfalls of the U.S. model? What other models exist within the international community that might provide guidance and precedence for structuring international wildland fire cooperation agreements, arrangements, or memorandums of understanding?

This paper describes the U.S. model and discusses other international models that might be useful to countries considering the need for international wildland fire cooperation.

The U.S. Model

Background:

Every year, U.S. fire managers are challenged by wildland fires. The management issues associated with the suppression of those fires multiply during severe fire seasons. The severity of the fire season, and the need for additional fire fighting resources, can be the result of human activities or natural events.

The severity of the 2000 and the 2002 fire season occurred because of a variety of human and natural factors. With the growth of the U.S. population, more people are moving closer to edge of the wildlands, into what is referred to in the U.S. as the “wildland urban interface.”

This has resulted in increasing the vulnerability to wildfires for the homes and property in this interface area. It also means that more fire fighting resources must be shifted to these areas from the wildlands resulting in the need for more resources to protect the same amount of land. Another continuing challenge to U.S. fire managers is the condition of forestlands. For almost 70 years, fire managers stressed suppressing all wildland fires. This has led to large and dangerous accumulations of fuels in the forests. This factor coupled with dry seasons, led to an increase in the size and intensity of wildland fires in 2000 and 2002.

The 2000 wildland fire season in the United States was the worst fire season in over 50 years. Almost 100,000 fires consumed more than 7,000,000 acres (3,830,000 hectares) of forest and range lands. The 2000 fire season was two times larger than the ten-year average.

At the height of the 2000 fire season, the U.S. interagency wildland fire community had mobilized more than 20,000 civilian fire fighters, approximately 4,000 military troops and thousands of other support personnel in dispatch centers, warehousing facilities, and administrative centers throughout the country. The U.S. had stretched its capabilities to the limit.

With this unprecedented situation, and with no relief in sight, U.S. fire managers decided to seek international assistance. Several countries were ready and able to provide that assistance. By late August 2000, more than 1200 Canadian fire fighters and 96 fire specialists from Australia and New Zealand were on the fire lines in the Northern Rockies and about 20 Mexican fire fighters were engaged in the fire suppression efforts in the Southwest U.S. This example of international cooperation provided valuable assistance to U.S. fire managers during a critical point of the 2000 fire season.

Two years later, in 2002, the U.S. faced another severe fire season. Over 71,000 fires burned approximately the same amount of acres/hectares as 2000 but about 2300 structures (homes, barns, sheds, and garages) were lost.

Once again the U.S. was stretched beyond its limits, and as in 2000, the U.S. requested international assistance. By the end of August, there were 900 Canadians, 40 Australians, 10 New Zealanders and 16 Mexican fire fighters and fire specialists supporting U.S. fire fighting efforts. It again convinced U.S. fire managers of the value of international cooperation.

The international assistance that the U.S. received in 2000 and 2002 was based on several international arrangements. The following provides information on the current arrangements with Canada, Australia, New Zealand and Mexico.

Canada Arrangement

The United States and Canada have had a close working relationship for over 30 years. The countries have had numerous technical exchanges to share knowledge, techniques, technology and scientific research. During severe fire seasons, the countries have shared fire fighting personnel and resources numerous times across their borders. The current international arrangement between the two countries is based on an exchange of diplomatic notes dated May 7, 1982.

Contents of the Arrangement:

The Canadian – U.S. arrangement defines the following:

- Participating agencies and departments of Canada and the U.S.
- Methods for requesting assistance
- Types of resources that will be requested
- Method of reimbursement
- Establishment and updating of annual operating procedures
- Command and control relationships for shared resources
- Damage, loss and injury compensation
- Limits of international commitments
- Limits of the fiscal commitments
- Limits of liability

As mentioned above, this arrangement calls for the establishment and updating of annual operating procedures. These procedures which are reviewed during winter months provide for the following:

- Updated points of contact and addresses
- Procedures for requesting assistance and expediting border crossings
- Specifics on issues dealing with personnel, including:
 - Reimbursement
 - Orientations
 - Qualifications
 - Safety
 - Liaisons
 - Medical aid and reimbursement
 - Death or long term compensation
 - Immigration issues
- Specifics on issues dealing with equipment and supplies, including:
 - Reimbursement
 - Accountability
 - Loss or damage
 - Customs
 - Transportation
- Specifics on issues dealing with aircraft, including:
 - Reimbursement
 - Aircraft specifications and pilot qualifications
 - Recall of resources procedures
 - Specifics on billing and payments
 - Situation reporting
- Participating agencies' signatures

Australia and New Zealand

Through an ongoing informal relationship, U.S. fire managers have had exchanges and study tours with Australia and New Zealand for over 20 years. During that time, U.S. fire managers have looked at Australian and New Zealand fire fighting equipment, operational organizations and procedures, fire planning, fire education and research programs. Australian and New Zealand fire managers in turn have visited the U.S. and learned about similar programs.

During this informal relationship, U.S. fire managers never thought there would be a need to request international assistance from such a distance. The severity of the 2000 fire season changed that thinking. Using an obscure 1988 U.S. law that was established to address potential needs for international assistance during the fires in Yellowstone National Park, U.S. fire managers approached Australia and New Zealand through the Forest Fire Managers Group (FFMG) to inquire if they were interested in entering into a more formal arrangement. Using the critical fire season as the need for swiftness in concluding an arrangement, and using the U.S.-Canadian arrangement as the template, the U.S. signed arrangements with New Zealand and five Australian States in just a few days. In less than two weeks, Australian and New Zealand fire fighters were working shoulder to shoulder with U.S. and Canadian fire fighters and U.S. military troops in Montana and Idaho. With the Australian and New Zealand fire fighters in place on the fire lines, numerous U.S. fire managers were able to address other critical fire tasks.

The law that allowed the U.S. wildland fire agencies to enter into arrangements with Australia and New Zealand was intended for emergencies. Once the emergency period of the 2000 fire season was over, it was decided by all the signatories that the new arrangements needed more discussion and review by legal authorities. It took almost two years of international discussions and a U.S. Presidential signature to conclude the new arrangements which were signed in early August 2002, by the Government of the U.S., the Australian states of New South Wales, Victoria, South Australia, Tasmania, Western Australia, and the Government of New Zealand. Along with the arrangements, an annual operating plan was also signed.

In August 2002, the U.S. faced a fire season similar to 2000. The new arrangements were immediately implemented and 40 Australian and 10 New Zealand fire fighters were quickly dispatched to the U.S. to assist with very large fires in the State of Oregon. Once again international assistance arrived at a critical point in the fire season.

In early 2003, Australia was in the midst of a severe drought. Lightning sparked several large fires in the Alpine Region of the States of New South Wales and Victoria. Using the same arrangement signed with the U.S. in August of 2002, the State of Victoria requested the U.S. to help with what was turning into the most devastating and widespread fire season that Victoria had faced since 1939. Thirty-six U.S. fire fighters and an infrared equipped aircraft were dispatched to Australia to assist with the fire fighting efforts. The U.S. assistance lasted for five weeks.

Contents of the Arrangement

These arrangements have two main purposes:

- To provide a framework for one participating agency to request and receive wildfire suppression resources from other participating agencies
- To encourage cooperation on other fire management activities

The arrangements define the following:

- Purpose
- Definitions of phases used in the document
- Understanding and assumptions to be considered in carrying out the arrangement
- Conditions for reimbursement
- Cross-waiver of claims and assumption of liability
- Entry of personnel and equipment

- Elements of the annual operating plans
- Status of personnel while fulfilling assistance requests
- Other areas of cooperation not tied directly to fire assistance
- Provisions of mutual aid
- Dispute settlement
- General provisions
- Signature page

The annual operating plans defined in these arrangements are considered a binding contract between the signatories. The Operating Plans include the following:

- The purpose of the operating plan
- Term of the contract and citing of U.S. law
- Definitions of words and phrases used in the plan
- General procedures for the following:
 - Requests for assistance
 - Billing and payment procedures
 - Expediting customs and immigrations clearances
 - Specifics on reimbursement
 - Equivalency standards for training, experience, and fitness
 - Certification of personnel
 - Content of orientations for personnel
 - Safety issues
 - Liaison requirements
 - Length of deployment, rest/rotation cycles
 - Prohibition on sending personnel with criminal convictions
 - Prescription drug requirements
 - Personal cargo amounts
 - Equipment use, loss, damage, transportation, and reimbursement issues
 - Recall of personnel
 - Personal injury and death
 - Liability issues
 - Situation reporting
 - Operating review, amendment, and termination policy
 - References to governing laws and jurisdictions
 - Signature page for participating agencies

Mexico

As with its neighbor to the north, the U.S. has had a long-term relationship with the Government of Mexico's fire-fighting organizations. Technical exchanges and some technical assistance have occurred over the years. This has been especially true along the lengthy U.S.-Mexico border where fires started on one side of the border have threatened or crossed the border resulting in the need to coordinate international fire fighting efforts. With the border issue in mind, the U.S. and Mexico's Secretariat of Environment, Natural Resources, and Fisheries, signed an international agreement in May of 1999. The agreement is similar to the Canadian, Australian and New Zealand arrangements, in that it also calls for an annual operating plan.

Contents of the Agreement:

The agreement has two main purposes:

- To enable wildfire protection resources originating in the territory of one country to cross the United States-Mexico border in order to suppress wildfires on the other side of the border within the zone of mutual assistance (10 miles/16 kilometers on either side of the border) in appropriate circumstances
- To give authority to the signatories to the agreement to cooperate on other fire management activities outside the zone of mutual assistance

Other elements of the agreement provide for:

- Definitions of words and phrases used in the agreement
- Response obligations to requests from either side of the border
- Reimbursement
- Cross-waiver of claims
- Entry of personnel and equipment
- Elements of the annual operating plans
- Status of personnel while fulfilling assistance requests
- Legal considerations and relationships to other agreements
- Methods for settlement of disputes
- Provisions for the length of or changes to the agreement
- Signature page

Other Areas of U.S. International Cooperation and Assistance

North American Forestry Commission – Fire Management Working Group: The United Nations' Food and Agricultural Organization (FAO) "considers dialogue at the international level an essential complement to the efforts of individual countries to develop appropriate forest policies, institutions and practices." FAO supports a number of groups specifically designed to provide a neutral forum for discussion in the field of forestry. The North American Forestry Commission (NAFC) is one of those forums.

Established in 1958, NAFC provides a policy and technical forum for Canada, Mexico and the United States to discuss and address forest issues on a North American basis. The NAFC has working groups, one of which is the Fire Management Working Group (FMWG). The FMWG is a forum for exchanging experience and technology for the management of forest fires; for cooperation among the three NAFC countries to develop strategies and actions to solve technical and management problems; and to actively participate with international agencies to conduct and promote activities that will foster world-wide cooperation and development. The United States views the FMWG as an excellent forum for developing and implementing regional cooperation activities.

Technical Assistance: Through the U.S. Department of State's Agency for International Development (USAID), U.S. fire managers provide wildfire technical assistance to developing countries. USAID supports institution and capacity building within the country through the provision of training materials, training programs, technical advisors, and sometimes equipment. USAID also supports travel to the U.S. by foreign fire managers to observe and study U.S. interagency wildfire management and coordination systems. Examples of countries where USAID has recently supported fire management programs include: Indonesia, Mongolia, Russia, numerous Central American countries, Mexico, Bolivia, Brazil, Ghana, and Tanzania.

Disaster Assistance: Within USAID is the Office of Foreign Disaster Assistance (OFDA). OFDA has the responsibility to coordinate the U.S. Government's international disaster response activities which includes both natural and human-caused disasters. There have been recent examples where OFDA has provided assistance to countries experiencing disastrous wildfire situations. The procedure for OFDA to provide this assistance is based on a declaration by the U.S. ambassador to the country affected by the wildfires that a disaster exists in the country. This disaster declaration is based on the appraisal by the ambassador that the wildfires are beyond the current capability of the country and the country is interested in receiving assistance. Normally the ambassador's disaster declaration triggers OFDA to review the request and identify an appropriate response to the request.

During the 1990s several U.S. ambassadors to Indonesia made disaster declarations for immense wildland fires mainly on the island of Kalimantan. At various times, several teams of U.S. fire experts were sent to evaluate these situations. Their recommendations included setting up programs that would improve the Government of Indonesia's overall fire management capabilities. These recommendations led to technical assistance programs funded by USAID.

A similar OFDA disaster response to a severe fire season in Mongolia in 1996 resulted in U.S. fire experts providing a training program on the incident command system and incident telecommunications to Mongolian emergency management officials.

In 1998, Mexico and Central America were enduring their worse fire season in a half-century. Several U.S. ambassadors throughout the region declared disasters. Over 60 U.S. fire specialists went to Mexico to assist in advising and training Mexican fire fighters in the States of Chiapas and Oaxaca. The U.S. supplied Mexico with firefighting equipment for 3000 fire fighters as well as telecommunications equipment. Two fire specialists also went to Guatemala to advise Guatemalan fire officials. Several other Central American countries also received firefighting equipment from the U.S. as a result of the disaster declarations. The 1998 effort was the most extensive U.S. international wildfire disaster response ever. A follow-up wildfire training program is still active with Mexico. There are also ongoing training programs in several Central American countries.

During 2000 when the U.S. was experiencing its worse fire season in 50 years, several countries around the Mediterranean were also experiencing severe fire seasons. OFDA dispatched a small team of wildland fire management specialists to Bulgaria and Greece to conduct an assessment of the situation and to provide technical evaluations and recommendations to those countries. The team's recommendations included instituting fire management training programs in Bulgaria with the goal of improving Bulgaria's ability to manage wildland fires.

Potential Pitfalls in Cooperative Relationships and the Responsibilities of Countries Sending and Receiving Assistance

The U.S. model of international wildland fire cooperation has been developed over the past 20 years. And yet every year, officials from the U.S. and the countries with whom it has arrangements, review, discuss, refine and in some cases, re-sign the arrangement or the annual operating plans that define the protocols, procedures, and responsibilities of their cooperative relationship. This activity is necessary because laws, regulations, and

organizations may change. Also, certain agencies and organizations within a country may wish to enter into the arrangements or discontinue current involvement in the arrangements. Without this constant vigilance and review, assumptions may be made that can lead to pitfalls in cooperation and subsequently the inability of fire managers to call upon other countries for assistance at critical points during the fire season.

From the U.S. experience in formulating these arrangements, the main potential pitfall identified is the liability issue for foreign fire fighters working in another country. Liability can involve acts performed by the fire fighters while suppressing the fire in the U.S. or involve the injury or death of a foreign fire fighter on the fireline. It is strongly recommended that the liability issue be completely reviewed, discussed, and agreed upon by the various agencies and organizations prior to signing any arrangements. This liability pitfall took the U.S. two years to overcome in the Australia and New Zealand arrangements.

Countries sending or receiving assistance through the methods and agreements identified above need to understand that certain responsibilities are inherent in these relationships. The following paragraphs identify the responsibilities of all countries, agencies, or organizations involved. There are certainly more issues than those listed below that should be discussed prior to sending or receiving assistance but the information presented attempts to identify some of the key elements of the responsibilities involved in these types of arrangements.

It is important to note that as countries enter into formal cooperative agreements, the success or failure of those agreements rests just as much on how the sending country's personnel conduct themselves on and off the fire line as it does on the effectiveness of the sending country's fire management capabilities. And it is critical to always send the most capable and experienced people, as the receiving country will quickly detect whether they are receiving the help it needs or individuals who were selected on rank or seniority and not on skills and capabilities. This is especially critical when agreements are reimbursable.

Sending country teams must also be made aware of local issues dealing with laws, customs, culture, traditions, language, dress, food, etc. They should be advised on what to bring and what not to bring. They must also understand how they will fit into the fire management system of the receiving country.

Just as sending countries have certain responsibilities, receiving countries must also accept the responsibility of hosting other countries. Receiving countries must be prepared to brief sending country teams and representatives on the issues mentioned above as well as fire issues such as fuels, weather, topography, safety, security, management structure on the fires, medical support, fire fighting techniques and equipment, types and lengths of assignments, etc. Receiving countries must also be prepared to provide required logistical and operational support.

Informational Websites Containing Examples of Existing Cooperative Agreements and Arrangements

The following websites provide a great deal of background and information on existing international cooperative agreements and arrangements. The organizers of this Conference and Summit welcome and indeed encourage participants to contribute brief case studies, based on their own national experiences, to illustrate the different types of cooperation/assistance agreements that are currently in place or being prepared. Such

information would highlight the broad spectrum of existing cooperation and would also help further develop and fine-tune the information presented in this paper.

Websites:

U.S. Fire Management System

National Interagency Fire Center (NIFC) - Boise, Idaho:

The NIFC website provides detailed information about U.S. interagency fire management system. The *National Interagency Mobilization Guide* found on that website has a chapter on cooperation which includes international agreements and arrangements. The website for the Guide and the cooperation chapter is:

http://www.nifc.gov/news/mobguide/nmg_chapter_40.pdf

Food and Agriculture Organization of the United Nations (FAO)

- Forest Fire Web Page on International Agreements:

This web page provides an earlier version of a template for international agreements (2002) and an overview on existing agreements.

<http://www.fao.org/forestry/foris/webview/forestry2/index.jsp?siteId=1520&languageId=1>

- The full texts are accessible at the FAO Forestry Department's website:

http://www.fao.org/forestry/foris/index.jsp?start_id=5288

as well as through FAOLEX, the FAO Legislative Database, at:

<http://www.fao.org/Legal/default.htm>

- Global Fire Monitoring Centre (GFMC)

International Agreements for Assistance in Wildland Fire Emergencies:

This GFMC page provides access to documents and other websites, including the FAO documentation

http://www.fire.uni-freiburg.de/emergency/int_agree.htm

Global Wildland Fire Network:

The Regional Wildland Fire Networks operate through formal regional agreements (e.g. within the ASEAN and the Mesoamerica Region) and informal cooperation. The web pages of the Regional Wildland Fire Networks contain a large number of documents on national to regional fire management strategies and cooperative efforts

<http://www.fire.uni-freiburg.de/GlobalNetworks/globalNet.html>

Emergency Assistance through the United Nations and the GFMC:

This page provides information on UN and GFMC mechanisms for disaster assistance (assessment, coordination of international response)

http://www.fire.uni-freiburg.de/emergency/un_gfmc.htm

Conclusion

For more than 20 years, U.S. international wildland fire cooperation arrangements and agreements have proven to be of significant value to U.S. fire managers. Without them, additional international fire-fighting capabilities would not have been available during critical portions of U.S. fire seasons. Fire fighting support is only one of the benefits of these cooperative relationships; they have also improved U.S. fire-fighting capabilities through the sharing of knowledge, experiences, and techniques. These relationships have also led to a common understanding of similar challenges facing fire managers worldwide. U.S. fire managers will continue to review these relationships with the goal of improving them, and, where practical and needed, expanding them.

The model and methods presented in this paper represent the U.S. approach to international wildland fire cooperation. They are offered as an example for other fire managers to review and possibly use as they consider entering into similar cooperative relationships. Important points to remember are the need to clarify, simplify, and streamline the protocols and procedures as much as possible and be vigilant for potential pitfalls. Flexibility will be needed as unforeseen national or world events may impact these relationships. Finally, regular revalidation of the relationships will ensure that cooperation will be meaningful and current, and support will be timely and efficient.