

GLOBAL TELECOMMUNICATIONS NETWORK

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Effective access to telecommunications and information is a key to efficient and timely disaster response, playing an essential role in saving lives and more effectively aiding the most vulnerable. Good communications have always played a vital role in disaster relief operations, and today's global telecommunications environment provides a rich matrix of technologies that can be used in such situations. However, careful planning and resources are needed to ensure optimum effectiveness.

Over the years the Federation has been a leader in the use of the tools and has routinely included them in the planning and execution of specific projects and relief operations. More than 40 Federation delegations (or sub-delegations) already use the organisation's CC:Mail system and over 50 National Societies (NSs) have access to Internet based electronic mail. In addition, some 80 PACTOR radio installations provide text transmission facilities where other means of communications are lacking. It is essential that the basic information exchange tool of E-mail be extended to all delegations and NSs before the end of the decade; support is required to facilitate connection of technically challenging sites.

The choice of appropriate technologies from the vast panoply available, balancing factors such as speed, ease of deployment, ongoing operating cost, technical complexity, maintainability, redundancy, reliability and resiliency, is a major task.

Beneath the "high tech" or "futuristic" glamour of many of today's telecommunications and information technologies there is an increasingly robust, resilient and flexible array of devices and services that have great relevance to the fields of emergency response and disaster relief. A positive response to this appeal will provide the Federation with resources to enable it to move forward in deploying these tools to effectively and efficiently aid the world's most vulnerable people.

Objectives

- w To further strengthen the Secretariat's preparedness and emergency telecommunications capacity by deploying essential equipment to field delegations and Regional Delegations in advance of operational requirements;

- w to support the development of NS telecommunications and information management capacity with particular attention to regions or countries that are especially prone to disasters or where existing infrastructure is limited (Sub-Saharan Africa, Afghanistan, Central Asia, etc.).

Plan of Action

Fostering the ability of the Federation to act quickly and effectively in the telecommunications and information management area in its 1998 emergency operations will require the addition of two new staff:

- w A field based computer specialist to work, on site, with delegations to optimise the installation, maintenance and operation of computer systems in support of emergency operations. Based in a field location (probably initially in Africa) this specialist will systematically visit delegations to help them ensure that their computer systems are operating effectively, to install software and hardware upgrades, to do essential maintenance and to provide support for NSs in their attempts to install computer systems. This position will assist delegations and NSs to establish Internet connections where possible.
- w A Geneva-based telecommunications and field computer stock manager position to improve the effectiveness of the operation of the Federation's Geneva based stock and its ability to respond to emergency situations. Creation of this position will allow more effective use of existing Secretariat telecommunications staff in direct support of field operations.

In the context of preparing for emergency operations in 1998, several areas of telecommunications technology need to be addressed. Some equipment should be distributed to local Federation sites around the world as part of the disaster preparedness strategy. Some must be retained in Geneva as part of a core stock for rapid, direct deployment in times of disaster.

- w Distribution of at least one Inmarsat Mini-M readily portable satellite telephone terminal to each Regional Delegation for quick deployment during emergencies. These units are particularly useful for assessment missions and for initial use in an operation.
- w Acquisition of eight High Frequency (HF) Radio data transceivers (PACTOR compatible) for quick deployment in emergency operations.
- w Acquisition of HF, Very High Frequency (VHF) and Ultra High Frequency (UHF) equipment (base stations, mobiles, repeaters and hand-held portable units) to be ready for quick deployment to emergency operations. This equipment is particularly important for delegate security as well as operational communications.
- w Acquisition of portable computers (including five special rugged units) for quick deployment to emergency operations, primarily as communications units (i.e. equipped with communications software, CC:Mail, a "mailer" program, World Wide Web browser etc.)

Given the rapid changes in telecommunications technology, funds are urgently required to enable the Federation's Field Support and Telecommunications Service to explore and field test a number of new technologies before deployment in the field:

- w Improved data transmission over High Frequency Radio links: a successor to the PACTOR system that has provided a robust backbone network for Federation operations, but needs to be upgraded to meet present operational requirements and to tie fully into the Federation's global network (e.g. via CC:Mail).

- w Exploration of the potential use of LEO (low earth orbit) satellite systems such as IRIDIUM (which will become operational in 1998). It is essential that such new technologies be rigorously tested for potential emergency operation use.
- w Latest generation HF/VHF/UHF radio equipment.
- w GPS (global positioning systems) and GIS (geographic information systems) and their integration into other field telecommunications systems.
- w LAN (local area network) technologies for use in operational settings — the requirements are quite different than those in traditional/normal LAN environments. Time and resources to build and test such systems are required.