

## **An Introduction with Four Proposals**

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Over the past 20 years, sudden-onset natural disasters—earthquakes, floods, tidal waves, and volcanoes—have killed nearly three million people and caused incalculable suffering and untold damage. More people have been killed by such catastrophes than in the wars in Vietnam, Afghanistan, or Iran/Iraq.

Thousands of lives could be saved in disasters through use of the latest communications technology, but this technology too often is not available or, if available, not put to use. The reasons—understandable or not—are political, financial, and institutional.

The Annenberg Washington Program convened this study group, deliberately inviting members with diverse specialties, to determine what the latest communications technology can do in the aftermath of disasters, particularly those involving international prevention and relief efforts and those that occur suddenly.

So this study is not about all disasters. It does not deal with famine, nor AIDS, nor smoking—disasters of quite different varieties that raise different communication problems. Our emphasis is on *sudden* disasters because communications can make the vital difference in the 24 hours that follow the incident itself. Our emphasis is international because transborder emergencies present the most complex and difficult relief problems. And our emphasis is on the developing countries because they bear more than their share of suffering from disasters and generally need outside help to recover. We are not interested in technology alone; we also look at policy problems that arise from the changing patterns in communications and the structure of the communications industry.

As this new decade begins, we expect growing attention to be paid to disaster mitigation. Specialists worldwide will be focusing their efforts on the subject during the 1990s, which has been designated by the United Nations as the International Decade for Natural Disaster Reduction. The papers and our proposals below are a contribution to that task.

Uppermost in our minds have been the expressed communications needs of relief workers and planners. As reported in the paper by Robert Vessey and Jose Aponte of the American Red Cross, preparedness and relief both depend on having the right information at the right time. Hardware must be cost-effective—nor necessarily involving the most glamorous technology—and systems used by different relief groups must be able to talk with one another. But hardware alone cannot suffice; training and maintenance, speed of deployment and prior administrative agreements are also essential.

With all of these thoughts in mind, the group proposes four broad, practical initiatives, which can be ranked by their levels of ambition and probability of implementation. Some require new spending new technology or major institutional reform. Others merely reallocate existing resources or make them go further.

### **Proposals**

**1.** Disaster relief and mitigation agencies should lay the groundwork for formal cooperation with the mass media, especially broadcasters. Television not only multiplies the public's awareness of and involvement in others' suffering, but also could give direct help. Under cooperation agreements, for instance, broadcasters could make available any sur-

plus remote transmission capacity to relief authorities desperate for electronic links to the disaster scene. In exchange, disaster specialists would provide their expertise to journalists, not only at the moment of crisis, but also in prior training sessions and video and printed materials. The LifeNet project, described in Matthew Tietze and Lydia Kan's paper, offers a model for valuable partnership with the media.

2. A new international treaty is needed to facilitate the swift and unhampered deployment of relief equipment and personnel across borders. A draft Convention on Telecommunications Assistance for Disaster, prepared for this study group by Philippe Sands, would:

- ◆ direct the International Telecommunication Union or some other suitable body to collect and disseminate information on available disaster communications resources, evaluate potential satellite needs, and help requesting nations make disaster contingency plans;
- ◆ formalize a procedure for disaster-stricken nations to request help in disaster communications;
- ◆ give assisting nations' personnel and equipment immunity from arrest, seizure, and taxation, and otherwise encourage rapid entry into requesting nations; and
- ◆ provide procedures for termination of assistance and arbitration of disputes.

3. A new international clearinghouse should be established as the central point of contact and information in the case of sudden major disaster, or an existing agency such as the United Nations Office of the Disaster Relief Coordinator (UNDRO) should be strengthened and re-mandated to take on these tasks. Despite all the tragic experience with disasters, there is no central repository of gained knowledge about disaster mitigation. Nor is there a recognized central databank listing available relief resources, nor archive of hazard maps or of pre-disaster satellite images of the land for the vital comparison with post-disaster images. Existing international agencies lack the resources and the clout to coordinate effectively.

4. Remote-imaging satellite systems now being planned and built for commercial purposes should be modified to be usable as parts of an eventual global system to be used in hazard mapping, disaster prevention, warning, and relief.

Some of the secret "technical means" of the United States, the Soviet Union, and China currently restricted to military and intelligence satellites could be made available for lifesaving purposes. Were that capability applied to disaster mitigation, we would have most of the tools we need. At present, even the discussion of this technology is inhibited by the cloak of national security. How much that cloak really needs to cover should be rethought.

Eventually the disaster-mitigation agencies may have access to a remote-sensing satellite system designed for the job. They should pursue that possibility as technology advances and other revenue-producing applications, which could share the costs, come on the scene. The mass media, for instance, have such similar needs that the proposed remote-sensing system for newsgathering (MediaSat) might well be used for disaster mitigation as well.

In making these recommendations, we paid attention to long-term economic viability. Clearly, there is a danger in prescribing the rich man's solution to the poor man's problem—solutions that may be impractical over the long run. We have also avoided recommending new communications systems dedicated solely to emergency use. Disasters by their very nature demand relief resources only occasionally and unpredictably. Nobody would invent and install a national telephone system merely to use it for flood warnings. Telephones do have that lifesaving capability, but in the real economic world, other uses of phones carry the bulk of their cost. Ideally, private sector initiatives will, by design or otherwise, create new capabilities that, with a little planning and a little money, can help save property and lives.

Once you strip away all the analysis and the anecdotes and the descriptions, what emerges from these papers is a broad consensus that there are ways in which modern communications technology can be more effectively applied to disaster mitigation and relief. But severe problems of cost, politics, and security, and also a kind of institutional drag, have slowed down the adoption of many measures that are now both possible and desirable.