Intelligence Support to Humanitarian-Disaster Relief Operations

An Intelligence Monograph

by G. Ted Constantine

"Both policymakers and operators expressed a need for significantly greater intelligence on humanitarian emergencies issues"
Intelligence Support to Humanitarian-Disaster Relief Operations

An Intelligence Monograph

by G. Ted Constantine
Foreword

Ted Constantine, author of this monograph, is a senior intelligence analyst with the Defense Intelligence Agency's Office of Transnational Issues, Low-Intensity Conflict Cell. This paper is the result of his research while serving in the DCI's Exceptional Intelligence Analyst Program from May 1994 to May 1995. Mr. Constantine was an analyst with DIA's Military Geography Branch from 1985 to 1994 and was a hydrologist with Dames & Moore, Consultants in the Environmental and Applied Earth Sciences, from 1977 to 1985. He holds a bachelor of science degree from the University of Maryland and a masters of arts degree in geography from George Washington University. He has done postgraduate work in civil engineering at the University of California, the University of Texas, and Pennsylvania State University. Throughout his professional career he has worked with disaster- and crisis-related issues.

Comments may be directed to Mr. Constantine at DIA on (202) 231-3455 or through the CIA's Center for the Study of Intelligence on (703) 351-2698.

The Center for the Study of Intelligence promotes broader understanding of the history, theory, and practice of intelligence and facilitates discussion of major issues relevant to the profession. This mission includes conducting research, writing intelligence history, declassifying historical records, and publishing a quarterly journal, books, and monographs. Inquiries may be directed to the Center's director on (703) 351-2698.

The monograph program publishes papers written by intelligence officers on rotation to the Center under its Fellows and Scholars Programs, as well as manuscripts submitted from throughout the Intelligence Community. The publications are produced in consultation with interested agency components, but there is no formal coordination. The opinions expressed do not necessarily reflect the views of the Center or CIA.

This monograph is Unclassified in its entirety.
Memorial
A black granite slab sits prominently on the grounds of Scott AFB, Illinois. On it are inscribed these words:

Airlift
In tribute to the airlifters of the United States Air Force who valiantly served and gallantly died in support of this nation's dedication to the principles of liberty and freedom.

Humanitarian airlift extends the olive branch of peace and hope to those in need. Combat airlift delivers the arrows of war against those who seek to destroy the United States of America or her Allies.

Let the events inscribed hereon remind all airlifters of their proud heritage and give them renewed strength to meet the challenges of the future.

Moslems to Mecca 1952
Haiti Hurricane 1954
Japan Typhoon 1959
Morocco Earthquake 1960
Brazil Flood 1960
Honduras Hurricane 1961
Guam Typhoon 1962-76
Iran Earthquake 1964
Costa Rica Volcano 1964
Alaska Earthquake 1964
Pakistan Flood 1964
Italy Flood 1966
Mali Drought 1974
Bolivia Flood 1974
Vietnam Refugees 1975
Guatemala Earthquake 1976
Iran Evacuation 1978-79
Marshall Islands Typhoon 1979
Algeria Earthquake 1980
Italy Earthquake 1980
Mexico Earthquake 1985
Soviet Armenia Earthquake 1988-89
East Coast Caribbean Hurricane 1989
Kurd Refugees 1991
Philippines Evacuation 1991
Aid to the former Soviet Republics 1992

Flying the Hump, World War II 1941-45
Berlin Airlift 1948-49
Korean Conflict 1950-53
Indo-China 1954
Suez Canal 1956
Hungary 1956-57
Taiwan 1958
Dominican Republic 1965
Mideast Evacuation 1967
Vietnam Conflict 1964-73
USS Pueblo 1968
POW Homecoming 1973
Israel 1973
SS Mayaguez 1975
Korea Buildup 1976
Zaire 1978
Lebanon 1978
Grenada 1983
Lebanon 1983
Panama 1989-90
Persian Gulf 1990-92

Note: of the 47 entries on the memorial, 21 were combat operations and 26 (55 percent) were humanitarian relief operations. Of the humanitarian operations, 20 were natural disaster relief operations conducted from 1954 to 1989.
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreword</td>
<td>iii</td>
</tr>
<tr>
<td>Airlift Memorial</td>
<td>v</td>
</tr>
<tr>
<td>I. Introduction and Key Findings</td>
<td>1</td>
</tr>
<tr>
<td>II. The Setting</td>
<td>3</td>
</tr>
<tr>
<td>A. The Nature of Disasters</td>
<td>3</td>
</tr>
<tr>
<td>B. History of Disaster Relief Operations</td>
<td>4</td>
</tr>
<tr>
<td>C. Doctrinal Issues</td>
<td>6</td>
</tr>
<tr>
<td>D. Managing Intelligence Support</td>
<td>7</td>
</tr>
<tr>
<td>III. Development of Disaster Relief Intelligence</td>
<td>11</td>
</tr>
<tr>
<td>A. National Intelligence Estimates: Humanitarian Emergencies</td>
<td>11</td>
</tr>
<tr>
<td>B. Environmental Defense Intelligence</td>
<td>11</td>
</tr>
<tr>
<td>C. Other Players</td>
<td>12</td>
</tr>
<tr>
<td>D. Other Activities</td>
<td>14</td>
</tr>
<tr>
<td>IV. Key Findings</td>
<td>15</td>
</tr>
<tr>
<td>A. Operations Intelligence Consumers</td>
<td>15</td>
</tr>
<tr>
<td>B. Intelligence Requirements</td>
<td>17</td>
</tr>
<tr>
<td>C. Intelligence Community Capabilities and Appropriateness</td>
<td>18</td>
</tr>
<tr>
<td>D. Best Intelligence Assets</td>
<td>20</td>
</tr>
<tr>
<td>V. Recommendations</td>
<td>23</td>
</tr>
<tr>
<td>Appendix</td>
<td></td>
</tr>
<tr>
<td>Organizations Contacted</td>
<td>25</td>
</tr>
</tbody>
</table>
I. Introduction and Key Findings

Introduction

This paper presents the results of an inquiry into the role of the US Intelligence Community in support of humanitarian-disaster relief operations conducted abroad by US military forces.

Its objectives are to provide the Intelligence Community and consumers of its products a comprehensive view of disaster relief issues and to improve understanding of a largely ill-defined and poorly understood intelligence mission. The author hopes that the results of the inquiry will help practitioners coordinate future efforts, avoid duplication, and perhaps provide models for addressing other intelligence issues associated with humanitarian emergencies. To that end the project's goals were to:

- Identify the consumers of intelligence for disaster relief operations.
- Determine their intelligence requirements.
- Assess the Intelligence Community's capabilities to provide such intelligence to meet these requirements and the appropriateness of such missions.
- Identify the best intelligence assets for performing that mission.
- Recommend any organizational changes that would facilitate provision of relevant, timely intelligence in support of relief operations.

The author conducted extensive interviews with people who have responsibilities in this field: intelligence and military personnel and both government and nongovernmental consumers of intelligence. Interviewees were asked to discuss their roles, responsibilities, intelligence requirements, and issues of concern regarding disaster relief operations. Some were invited to evaluate the usefulness to their missions of various intelligence products, specifically the Defense Intelligence Agency's, Contingency Support Study (CSS), Environmental Defense Intelligence for Natural Disaster Relief Operations, Bangladesh, published in April 1993.

Visits were made to military commands and services in the field, and to agencies and departmental units in the Washington area. UN and other international bodies; academic, scientific and research institutions; and nongovernmental relief organizations were also visited. (See appendix.)

Additional information was obtained through participation in several conferences and working groups that addressed issues relating to humanitarian and environmental disaster relief, and by extensively searching the relevant literature.

During the inquiry, several consumers of humanitarian relief operations intelligence cited the difficulties imposed by using classified information. They contended that it significantly reduced the size of the user community, excluded important players, and thereby limited the value of the information provided. This report, accordingly, is unclassified in order to make it available to anyone with responsibilities relating to relief operations. Although classified information is not included, the author believes the report is a thorough discussion of the relevant issues.
The Intelligence Community’s level of commitment to providing intelligence for disaster relief operations is . . . not commensurate with consumer needs.

Key Findings

Two general findings emerged from this inquiry:

- Both policymakers and operators expressed a need for significantly greater intelligence on humanitarian emergencies issues.

- The Intelligence Community’s level of commitment to providing intelligence for disaster relief operations is uneven and, with few exceptions, not commensurate with expressed consumer needs.

With regard to the five goals stated in the introduction:

- The principle consumers of disaster relief intelligence are the planners and operators in the military services and the unified commands who organize and manage relief operations.

- Their primary intelligence requirements are for (a) help in identifying future humanitarian emergency issues and areas where future disaster relief operations may be conducted; (b) finished intelligence products that will assist contingency planning for such operations, particularly societal and environmental information in addition to traditional contingency intelligence; (c) whenever possible, and especially when relief operations are in progress, unclassified intelligence products that can be shared with cooperating international and nongovernmental organizations.

- Within the Intelligence Community, the Defense Intelligence Agency has been designated the Defense Department’s primary producer of disaster relief operations intelligence. Intelligence analysis and production units, particularly in defense intelligence organizations, are capable of producing the comprehensive intelligence products that satisfy most consumer requirements.

- The best intelligence assets are DIA’s all-source analysis and production units, which can produce comprehensive contingency products with appropriate graphics and have the widest and most reliable consumer dissemination network. Collection assets in descending order of importance for disaster relief operations, are: human intelligence (HUMINT), open sources, imagery intelligence (IMINT), and communications intelligence (COMINT).

- The author recommends that a small unit of intelligence analysts be established within the Defense Intelligence Agency to coordinate the Intelligence Community’s collection, analysis, production, and dissemination of all-source intelligence to support humanitarian relief operations by the military services and unified commands. Whenever possible, its products should be unclassified or the classified intelligence should be provided in separate appendices.
II. The Setting

A. The Nature of Disasters

Disasters are generally divided into two broad categories:

- **Natural disasters:**
  - Floods, hurricanes, tropical cyclones, typhoons.
  - Earthquakes and volcanic eruptions.
  - Droughts and crop failures.
  - Massive tidal waves, forest fires, and insect infestations.

- **Technological disasters:**
  - Acute industrial catastrophes.
  - Pervasive or massive pollution or environmental degradation of ground, water, and air.
  - Overuse or misuse of natural resources, particularly water.
  - Environmental sabotage.

Natural and technological disasters may be acute or pervasive. For example, technological disasters may initially be a pervasive problem that becomes acute over time or after a catastrophic event. Disaster relief operations typically respond to acute events such as hurricanes and earthquakes. However, many of the pervasive, temporally extended disasters, such as droughts and crop failures, sometimes contribute to humanitarian emergencies.

Natural and technological disasters can be just as destabilizing as conflicts arising from political, economic, ethnic, religious, or territorial disputes. Such disasters often create large numbers of refugees or displaced populations in need of immediate assistance in order to prevent even greater disasters such as famines, epidemics, or complete societal collapse.

Natural disasters occur in recognized natural hazard zones that extend over limited portions of the earth's surface. The only disasters of interest from an intelligence perspective are those that affect large, vulnerable populations and overwhelm indigenous relief forces. These are the events that generate foreign government requests for immediate outside assistance that often involves the use of military forces. Identifying situations and areas where such events may occur is the first and perhaps most challenging role for disaster relief intelligence specialists.

Disasters of equal force often produce unequal consequences. The level of human and economic losses and the needs of survivor and victim populations vary significantly from country to country for similar disaster events. The difference is largely due to the nature of the affected area's physical infrastructure (construction techniques and materials, settlement patterns, transportation networks, etc.); the population's attitudes and practices (cultural and societal factors); the area's medical capabilities; and the capabilities and effectiveness of indigenous disaster warning, management, and relief forces. For example, powerful tropical cyclones of equal force striking the coasts of Bangladesh and Australia produce very different results. Relief requirements and government responses also are very different. These factors must be understood and incorporated into the disaster relief intelligence cycle.

In addition, similar events often produce different responses from governments in the affected areas. In the Kobe, Japan, earthquake of January 1995, some 5,000 people were killed, and many more were rendered homeless. The Japanese
Technological disasters present a more challenging intelligence problem than natural disasters. Government did not request any foreign assistance, but some minor assistance was eventually accepted, including delivery of blankets and water containers by US military aircraft. A similar earthquake in Armenia, would produce different effects and government reactions. In many countries, military forces are the instrument of first, rather than last, resort to mitigate the effects of disasters. These issues must also be understood and incorporated into the disaster relief intelligence cycle.

Technological disasters present a more challenging intelligence problem. Catastrophic technological disasters, particularly those that may precipitate foreign military assistance, are very difficult to assess. Is it possible to estimate the probability of the next Chernobyl type accident? Perhaps not. However, some disaster relief planners have given this serious thought. In 1994 the US European Command and the Institute for Defense Analyses (IDA) held a series of international logistics seminars employing “gaming” scenarios based on potential future disasters in the Baltic states. IDA concluded that an accident at the Ignalina Nuclear Power Plant in Lithuania met the criteria for a potential future disaster and included a scenario for such an accident.

Figure 1 shows the total number of people affected by disasters of all types, worldwide, for the years 1967-91. More than 50 percent were affected by natural disasters. Although the figures vary significantly from year to year, there is a rising trend. For the first six years of data, 1967-72, no more than 50 million people were affected by disasters in any given year. However, for the most recent five years of data, 1987-91, no less than 125 million people were affected by disasters in any given year. This reflects the explosive growth in global population in recent decades that has forced millions of people to move into more hazardous environments.

The table on page 8 shows how many people were killed worldwide for disasters from 1967 to 1991. The fact that more were killed by natural disasters than by civil strife belies a commonly held misconception that the opposite is true. (Civil strife disasters are “National [civil strife, civil war], warlike encounters between armed groups from the same country that take place within the borders.”)¹

B. History of Disaster Relief Operations

Disaster relief operations are not new to United States military forces. As one American scholar recently wrote:

After recent hurricanes . . . many people hailed the superb contributions of the Armed Forces to disaster relief as evidence of a new role. Nothing could have been more incorrect. The services have regularly provided such relief in the past . . . This has been true throughout our history, [as noted in an official 1969 Army history.]

Samuel P. Huntington, Harvard University, Joint Forces Quarterly, Autumn 1993

Historical data from the US Air Mobility Command (AMC) indicates that in the past three decades the US military response to foreign natural disasters has been as consistently robust as Huntington’s claim for earlier years. The AMC (formerly Military Airlift Command) has primary responsibility in the DOD for airlift. Hence, it almost always is involved in Department of Defense disaster relief operations.

"Until very recently, US military forces lacked official DOD doctrine manuals or training exercises for humanitarian and disaster relief operations."

Figure 1
Number of People Affected by Disasters per Year, 1967-91

Note: The number of people affected by disasters varies greatly from year to year, but there is a general rising trend.


Figure 2 shows the "significant" or "major" relief operations conducted by AMC from 1972 through 1994. After the mid-1970s, a clear trend emerges when the yearly numbers of AMC operations are roughly proportional to the yearly numbers of people "affected" by the disasters. The peak "affected" years, shown in figure 1, correlate well with the years when AMC foreign natural disaster operations exceeded the yearly average (for the 22-year period of record) of 4.5 operations per year shown in figure 2. The relationship is most pronounced for the years 1979, 1983, and 1991 in figure 1.

The level of US military responses to foreign disasters is difficult to gauge and largely misunderstood even by people familiar with these operations. Many interviewees had little knowledge of response levels, particularly efforts beyond their immediate chain of command. The problem reflects difficulties in identifying scales of measure and the lack of data.

Military historians suggested that one way to provide perspective is to examine "named" US military operations. Figure 3 shows all "named" US military operations from 1989 through 1993. During these formative years of the post–Cold War era, there was considerable debate over roles and missions for both the defense and intelligence communities.
"Within the unified commands, the US Pacific Command has played a leading role in disaster relief operations preparedness and contingency information planning."

In figure 3, foreign disaster relief operations represent 11 of all "named" operations. The bar representing "Humanitarian" operations (25 percent) does not include disaster operations, although they are a type of humanitarian operation. If disaster operations are combined with the other "humanitarian" operations, total humanitarian operations represent a startling 36 percent of all named US military operations for this time period.

Different operations involve differing levels of military force, resource commitments, or threats, thus complicating efforts to gauge the level of intelligence support required. In any case, humanitarian operations clearly are an important component of military missions in recent years.

### C. Doctrinal Issues

Until very recently, US military forces lacked official DOD doctrine manuals or training exercises for humanitarian and disaster relief operations. Most operators noted that this severely constrained their ability to articulate intelligence requirements. Several military organizations have recognized and addressed these deficiencies and have published documents addressing humanitarian/disaster relief doctrine, tactics, techniques, and procedures. A sample of these publications follows.

Within the "joint" community, the Air-Land-Sea Application Center, Langley AFB, VA, published the manual, *Multi-Service Procedures for Humanitarian Assistance Operations*, in March 1994. The center is a joint Army, Marine Corps, Air Force, and Navy organization responsible for developing multiservice tactics, techniques, and procedures. In interviews, authors of the manual stated that it was intended as a precursor for a future Joint Chiefs of Staff (JCS) manual for humanitarian relief operations.

The purpose of the center's manual is to provide "military forces, civilians, and volunteer organizations with information pertaining to humanitarian assistance (HA) operations where the size or extent of the assistance requires the formulation of a US military joint task force (JTF) . . . (HA) provides the JTF commander, his staff, and supporting components with information to assist in the planning and execution of HA operations." For disaster relief operations, "HA missions . . . include efforts to mitigate the results of natural or manmade disasters."

Within the unified commands, the US Pacific Command has played a leading role in disaster relief operations preparedness and contingency information planning. Starting in the late 1980s, USPACOM developed *Disaster Preparedness Planning Survey (DPPS)* manuals. They are based on the concept that "past experience indicates prior planning significantly reduces response time in initiating appropriate relief operations." Therefore, the "DPPS program is part of the USCINCPAC Strategic Peacetime Initiatives . . . It was developed to support Humanitarian Assistance programs by providing a source document for disaster assistance . . . ."

DPPS manuals have been produced for several disaster-prone countries within USPACOM's area of responsibility. The manuals are similar to DIA's Contingency Support Study on Bangladesh but are less comprehensive and have fewer graphics. The DPPS program is managed by USPACOM J3 (Operations). In interviews, J3 personnel opined that the information in their manuals could be adapted to a CSS-type product. Both J3 and other staff elements at USPACOM expressed hopes for closer coordination and possible joint production with DIA.
Figure 2
Air Mobility Command (AMC) "Significant/Major" Foreign Disaster Relief Operations, 1972-94

Number of operations

15

10

5

0 1972 75 80 85 90 94

Note: Although there appears to be no trend in the number of AMC operations per year, there is in fact a correlation between the peak years for people "affected" by disasters shown in figure 1 and the years when AMC operations exceed their mean of 4.5 operations per year. The relationship is strongest for the peak "affected" years 1979, 1983, and 1991 in figure 1.


Within the services, publications of the Center for Army Lessons Learned (CALL), US Army Combined Arms Command, Fort Leavenworth, KS, have addressed humanitarian and disaster relief operations doctrine, recognizing that "operations other than war constitute a continuing and growing mission. Given the current coexisting environments of peacetime and conflict (as opposed to war), we can expect to be involved in the full gamut of operations other than war, from peace enforcement and antiterrorism to counterdrug and disaster assistance." Two CALL volumes have addressed humanitarian operations issues: Operations Other Than War, Volume I, Humanitarian Assistance, December 1992, focuses on complex humanitarian emergency operations; Operations Other Than War, Volume II, October 1993, focuses on natural disaster relief operations.

D. Managing Intelligence Support

Within the US Government, the primary responsibility for the management of foreign disaster relief operations resides with the State Department and the Office of US Foreign Disaster Assistance (OFDA) in the Agency for International Development (AID). OFDA is a small organization (about 50 people) with limited relief operations capabilities. Its primary
"Information management and organizational responsibilities for disasters within the United States are better developed and more clearly delineated than for foreign disasters."

Responsibility is the management of US foreign disaster assistance efforts, not the management of intelligence information.

Under most circumstances, the US Government first becomes involved in foreign disasters when the State Department declares a state of disaster. OFDA is first required to try to use commercial carriers to transport relief supplies to foreign countries, but often the urgency of the disaster and its remote location necessitate tasking DOD resources. In some cases, US military forces eventually dominate the relief mission.

Within DOD, the Office of the Assistant Secretary of Defense, Special Operations/Low-Intensity Conflict, Humanitarian and Refugee Affairs coordinates DOD’s assets for disaster assistance overseas. The command component for military relief forces varies depending on the scale, scope, and area of the operation.

Several US Government civilian agencies may be tasked to provide some information to support the military’s disaster relief operations abroad. These have included AID, OFDA, and the US Geological Survey.

Within the Intelligence Community, the Central Intelligence Agency and intelligence components of the military commands and services provide varying levels of intelligence support to deployed US disaster relief forces. However, these organizations typically do not provide comprehensive intelligence analyses or prepare contingency support products on the full range of disaster operations intelligence issues.

Information management and organizational responsibilities for disasters within the United States are better developed and more clearly delineated than for foreign disasters. For domestic disasters, The Federal Response Plan (Public Law 93-288, as Amended) defines organizational responsibilities for US

Total Number of People Killed, by Type of Disaster, 1967-91

<table>
<thead>
<tr>
<th>Type</th>
<th>Number Killed</th>
</tr>
</thead>
<tbody>
<tr>
<td>All types of natural disasters</td>
<td>3,413,529^8</td>
</tr>
<tr>
<td>Accidents</td>
<td>71,745</td>
</tr>
<tr>
<td>Avalanche</td>
<td>1,237</td>
</tr>
<tr>
<td>Chemical accident</td>
<td>15,787</td>
</tr>
<tr>
<td>Civil strife</td>
<td>3,007,154</td>
</tr>
<tr>
<td>Cold wave</td>
<td>4,926</td>
</tr>
<tr>
<td>Cyclone</td>
<td>846,240</td>
</tr>
<tr>
<td>Displaced persons</td>
<td>68,741</td>
</tr>
<tr>
<td>Drought</td>
<td>1,333,728</td>
</tr>
<tr>
<td>Epidemic</td>
<td>124,338</td>
</tr>
<tr>
<td>Earthquake</td>
<td>646,307</td>
</tr>
<tr>
<td>Famine</td>
<td>605,832</td>
</tr>
<tr>
<td>Fire</td>
<td>81,970</td>
</tr>
<tr>
<td>Flood</td>
<td>304,870</td>
</tr>
<tr>
<td>Food shortage</td>
<td>252</td>
</tr>
<tr>
<td>Hurricane</td>
<td>15,139</td>
</tr>
<tr>
<td>High wind</td>
<td>13,904</td>
</tr>
<tr>
<td>Insect Infestation</td>
<td>0</td>
</tr>
<tr>
<td>Landslide</td>
<td>41,992</td>
</tr>
<tr>
<td>Power shortage</td>
<td>0</td>
</tr>
<tr>
<td>Storm</td>
<td>54,500</td>
</tr>
<tr>
<td>Tsunami</td>
<td>6,390</td>
</tr>
<tr>
<td>Typhoon</td>
<td>34,684</td>
</tr>
<tr>
<td>Volcano</td>
<td>27,642</td>
</tr>
</tbody>
</table>

^8This number is the sum only of natural disaster types. These events killed more people than civil strife disasters during the 25-year period, 1967-91.


Government agencies, including the application of Department of Defense resources. The Federal Response Plan designates the Federal Emergency Management Agency (FEMA) as the primary
Figure 3
Named US Military Operations Abroad, January 1989 to December 1993$^a$$^b$

<table>
<thead>
<tr>
<th>Types of operations</th>
<th>Number of operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanitarian</td>
<td>0 2 4 6 8 10</td>
</tr>
<tr>
<td>Peacekeeping</td>
<td>25%</td>
</tr>
<tr>
<td>Evacuation</td>
<td>16%</td>
</tr>
<tr>
<td>Disaster relief</td>
<td>11%</td>
</tr>
<tr>
<td>Offensive$^c$</td>
<td>11%</td>
</tr>
<tr>
<td>Defensive$^c$</td>
<td>5%</td>
</tr>
<tr>
<td>Logistics</td>
<td>5%</td>
</tr>
<tr>
<td>Drug intervention</td>
<td>5%</td>
</tr>
<tr>
<td>Interdiction of sea lanes</td>
<td>3%</td>
</tr>
<tr>
<td>Rescue</td>
<td>3%</td>
</tr>
<tr>
<td>Internal defense</td>
<td>3%</td>
</tr>
</tbody>
</table>

$^a$Figures do not add to 100 percent due to rounding.
$^b$Total operations equals 38.
$^c$Three of the four offensive operations and all defensive operations were part of the 1990-91 Gulf war.


producer and manager of disaster relief information. Information products widely used for contingency planning are the Flood Insurance Studies (FIS) produced under FEMA's National Flood Insurance Program. The studies identify the nature, location, and extent of domestic flood disasters and provide estimates and cartographic displays of potential future flood disasters and flood hazard zones.

There is no single official document for foreign disasters similar to the Federal Response Plan, but a loosely analogous structure exists for producing intelligence relating to foreign military disaster relief operations. DOD intelligence production responsibilities are prescribed in a document published under the auspices of the Department of Defense Intelligence Production Program (DODIPP).$^2$

The DODIPP document assigns primary responsibility for producing intelligence for humanitarian relief operations to DIA's National Military Intelligence Production Center (NMIPC). The document also designates NMIPC as primary manager of DOD production of physical and environment intelligence relating to natural disasters. These production management responsibilities apply, in general, when a DOD consumer requires information from non-DOD organizations. In these cases, NMIPC “will negotiate with the appropriate non-DOD intelligence producer for the required product.”

This inquiry found DIA elements largely unaware of their DODIPP assignments for disaster relief. In addition, none wanted to devote the resources necessary to produce intelligence products that would satisfy consumer requirements.

III. Development of Disaster Relief Intelligence

National-level intelligence support of disaster relief operations is a relatively new mission. Discussed below are important related developments within the Intelligence Community that have occurred in recent years.

A. National Intelligence Estimates: Humanitarian Emergencies

Perhaps the most important has been the development of the process that produces the annual National Intelligence Estimate (NIE) for Humanitarian Emergencies and the establishment of the position of National Intelligence Officer (NIO) for Global and Multilateral Issues.

The humanitarian emergencies NIE assesses the location, extent, type, likelihood of need, and severity of need for global humanitarian emergencies in the coming year. It provides, for the first time, information on possible natural disasters, including countries with significant populations vulnerable to major natural disasters. The first NIE on humanitarian emergencies was produced in 1992 under the auspices of the NIO for Warning. In 1993 the first NIO for Global and Multilateral Issues was appointed and assigned responsibility for producing the annual NIE for humanitarian emergencies.

The NIE production process is important to disaster relief operations for two reasons. First, by participating in the production of the humanitarian emergencies NIE, a cadre of intelligence analysts from throughout the Community has developed minimal levels of expertise in intelligence for humanitarian emergencies, but because their offices are tasked annually to contribute to the NIE, a fund of basic knowledge has been established that did not exist previously. Second, the NIO for Global and Multilateral Issues provides an authoritative focal point for addressing environmental and humanitarian intelligence issues, including disaster relief.

B. Environmental Defense Intelligence

In 1992 the Defense Intelligence Agency sought to improve support for future disaster relief operations. The initiative was largely a response to Operation Sea Angel, a major disaster relief operation in Bangladesh in May 1991 in which some 152,000 people were killed by a tropical cyclone. Interviews with Sea Angel commanders indicated they had not had adequate intelligence on Bangladesh’s physical and cultural environment, infrastructure, disaster relief capabilities, and the potential for further disasters. The DIA initiative attempted to satisfy these requirements in preparing for disasters.

The most important component of this initiative was the development of a new, all-source, comprehensive finished intelligence product modeled on DIA’s Contingency Support Studies (CSS) and Contingency Support Products. Such products originally were designed to provide “off-the-shelf” contingency intelligence for combat operations and Noncombatant Evacuation Operations. The new CSS-type product was designed for potential future humanitarian relief operations generated by natural or technological disasters. In addition to the traditional Essential Elements of Information (EEI) included in studies that support the movement and deployment of military forces—such as transportation infrastructure intelligence—the product was designed to include EEIs that are unique and yet critical to the planning and prosecution of disaster relief operations.

3 National Intelligence Officers are responsible for coordinating National Intelligence Estimates relating to regions or subjects for which they have jurisdiction. Together they comprise the National Intelligence Council (NIC), which serves under the Director of Central Intelligence.
The EEIs for disaster relief operations include details on the physical, environmental, and cultural or societal factors relating to target areas. These are important to planners who must understand what causes disasters and to operators who must know what and whom they are likely to encounter in the target areas.

The physical and environmental information required includes estimates of the probabilities for future disasters as well as the types, locations, and magnitudes of devastation for events that would most likely precipitate requests for foreign military assistance. Estimates of probabilities (which are not predictions) provide perspective and context that are essential to the contingency planning process.

The new intelligence product was designed to include information on the roles and capabilities of host governments, military forces, and nongovernmental organizations that respond to disasters, as well as cultural and societal intelligence on a target area. Relief operations often occur in countries that are low on the list of intelligence priorities. Frequently, little or no information resides in intelligence data bases on the roles and capabilities of host government and nongovernmental disaster relief organizations and victim populations—information that has been crucial to US military operating forces.

The effort at DIA to produce this kind of intelligence was labeled Environmental Defense Intelligence, or EDI. An article outlining this effort was published in DIA's Global Intelligence Issues, in May 1993. The first EDI Contingency Support Study, Environmental Defense Intelligence for Disaster Relief Operations, Bangladesh, was published in April 1993. Consumers reported that the product was well received and widely used for contingency planning. No other foreign disaster contingency intelligence products have been published within the Intelligence Community since that time.

The Bangladesh publication and the EDI article were produced in the Military Geography Branch. DIA currently has no planned production effort for contingency support of disaster relief operations. If tasked, the Military Geography Branch—within the National Military Intelligence Production Center (NMIPC), Combat Support Directorate (PG)—would most likely be the primary producer, with support from imagery and other intelligence elements.

C. Other Players

Armed Forces Medical Intelligence Center (AFMIC), located at Fort Detrick, MD, is part of the Defense Intelligence Agency. It directs collection, maintains data bases, and produces medical intelligence products. The center's primary mission is to identify medical, disease, and health threats to the war fighter. For some disaster-prone countries, its efforts have potential disaster operations in mind. AFMIC does not produce disaster relief contingency products, but, when tasked on an ad hoc basis, has produced information on the roles and capabilities of a disaster area's medical infrastructure as well as environmental health and disease threats to relief forces. AFMIC interviewees said they would welcome collaboration with other intelligence organizations, particularly DIA/NMIPC, in producing comprehensive contingency intelligence for humanitarian and disaster relief operations.

Defense Intelligence Agency/Indications and Warning Threat Management Division (DIA/J2 I&W) addresses disasters from the perspective that after disasters strike they may generate instability or unrest threatening US interests or personnel. This can include disasters that threaten US personnel while in the theater of a humanitarian mission. Disasters that may generate foreign disaster relief operations by US military units, however, are not the division's responsibility.
US Transportation Command (TRANSCOM), located at Scott AFB, IL, provides the primary airlift and sealift capability for DOD. This includes rapid deployment for disaster relief operations, which often are provided by the Air Mobility Command (AMC). The Joint Intelligence Center US Transportation Command (JICTRANS), produces transportation intelligence products in support of TRANSCOM missions.

JICTRANS has a robust effort to support disaster relief operations. The majority of its currently planned intelligence products are for potential humanitarian and disaster relief operations. These products typically provide an overview of a target area’s transportation infrastructure and ability to sustain contingency operations. They are frequently prepared with the assistance of DIA, CIA, State Department, and the Defense Mapping Agency. JICTRANS products do not attempt to cover disaster relief intelligence issues other than those relating to transportation.

Most interviewees at TRANSCOM, JICTRANS, and AMC were familiar with, and enthusiastically supported, DIA efforts to support disaster relief operations, including the production of the Bangladesh CSS. TRANSCOM used the Bangladesh study during another more recent crisis in Bangladesh and found it useful. Personnel in the command encouraged future collaboration with DIA in producing comprehensive intelligence to support disaster relief operations.

National Photographic Interpretation Center (NPIC) has an experienced imagery analysis team that supports domestic and foreign disaster relief operations, providing information and products that emergency response managers use to perform triage in a disaster area. Consumer interviews confirm that NPIC’s imagery-derived maps and related reports have greatly improved the timeliness and effectiveness of relief operations on numerous occasions. At the request of the Federal Emergency Management Agency, NIPC is developing contingency plans for imagery support for potential domestic disasters. It provides analysis on a broad range of foreign disasters but has not been tasked to develop contingency plans for potential foreign relief operations.

The Office of Transnational Security and Technology Issues (TSTI) at CIA (formerly the Office of Resources, Trade, and Technology) has primary responsibility there for disaster issues. One analyst addresses these issues on a part-time basis and several other analysts are familiar with the issues. The office does not produce contingency support products in anticipation of disaster relief operations. It has, however, provided products that address the nature, extent, and potential effects of some on-going disasters that pose potential threats to relief efforts. At press time, a small unit has been formed in TSTI to address humanitarian issues.

The National Intelligence Officer (NIO) for Warning publishes The Warning Committee’s Watchlist. This weekly publication incorporates contributions from CIA, DIA, State Department, and the National Security Agency (NSA). The Watchlist now includes a new regular feature, the “Humanitarian Crisis” list, which identifies countries with ongoing or potential humanitarian crises of all types.

Marine Corps Intelligence Activity (MCIA) produces the Generic Intelligence Requirements Handbook, in its humanitarian intervention chapter, contains EEIs that may guide other intelligence producers in supporting military relief operations.
At the request of the First Marine Expeditionary Force, MCIA also published *Expeditionary Warfare Intelligence Support Product (EWISP), 1-94: Southern Sudan*, which was based on a potential complex humanitarian emergency there.

MCIA intelligence analysts noted that, if tasked, they could produce disaster relief contingency products but that DIA should produce the more comprehensive contingency products.

The Bureau of Intelligence and Research (INR) has responsibility within the Department of State for humanitarian and disaster relief intelligence issues. It has lead several Intelligence Community efforts to facilitate better communication among private, government, and military organizations involved in humanitarian relief activities, including sponsoring several conferences. INR maintains data bases on some humanitarian relief issues, publishes articles, and contributes to the NIE on humanitarian emergencies but does not produce products directly supporting military disaster relief operations.

An important INR contribution to humanitarian and disaster relief intelligence is the current development of “ReliefWeb,” a multilateral, strategic, global communication network linked to Internet that contains open-source and unclassified intelligence information on humanitarian and disaster relief issues. ReliefWeb is being developed in cooperation with a consortium of humanitarian assistance organizations, the UN, and other US agencies, including the Department of Defense.

INR also is developing a humanitarian emergencies early warning capability that is not yet connected with military or other intelligence components.

D. Other Activities

Humanitarian-disaster relief issues were also addressed in 1994-95 in several forums including three conferences, a seminar, and an exercise that brought together US officials involved in humanitarian and disaster relief operations and—at the seminar—responsible personnel from international organizations. These events were:


- *Emerald Express '95 Conference on Humanitarian Assistance and Peace Operations, Integrating Military and Civilian Efforts*, hosted by the Department of State, Bureau of Intelligence and Research and First Marine Expeditionary Force, Camp Pendleton, CA, April 1995.

IV. Key Findings

Two overriding findings emerged from this inquiry:

• **Both policymakers and operators expressed the need for significantly greater intelligence support on humanitarian emergencies issues.** The fact that, from 1989 through 1993, humanitarian and disaster relief operations constituted 36 percent of all named US military operations (humanitarian, 25 percent; disaster, 11 percent) underscores the need. Several senior commanders pointed out that humanitarian missions are distinct from other military operations, with unique sets of intelligence requirements and procedures. They recommended that the Intelligence Community develop a cadre thoroughly versed in the intelligence issues associated with such missions. Some suggested that a "Humanitarian Assistance Intelligence Center" be established.

• **The Intelligence Community's level of commitment to providing intelligence for disaster relief operations is uneven and, with few exceptions, not commensurate with expressed consumer needs.** Institutional commitments vary between the requisite resource allocations made to intelligence components at some unified commands and services—lead by the Marine Corps—to a cautious and largely noncommittal approach at DIA. This inquiry found that such nonuniformity has hindered overall capabilities to satisfy the intelligence requirements.

Many intelligence consumers, particularly senior officers and veterans of humanitarian and disaster relief operations, expressed dismay at what they perceived is the Intelligence Community's haphazard efforts to support such operations. They want to receive the same level of intelligence support and institutional commitment for these missions from the Intelligence Community—particularly DIA—that other types of military operations receive.

Although DIA has been assigned responsibility within the DOD for providing intelligence to support humanitarian and disaster relief missions, this responsibility has not been institutionalized to the extent necessary.

A. Operations Intelligence Consumers

**Principle Consumers**

The principle consumers for disaster relief operations intelligence are the planners (J5—Plans and Policy) and operators (J3—Operations) in the unified commands and military services.

Planners who were interviewed stated that finished intelligence products such as DIA's prototype for Bangladesh would be the most important intelligence support product for planning and executing disaster relief operations.

Operators also stressed the importance of having a contingency support product on hand both before and during deployment. Products combining text and graphics—including liberal use of photographs, maps, and charts—were deemed crucial to the preparatory phase of operations. For field deployed forces, they placed greater value on unclassified products, whenever possible, which could be shared with coalition partners, host government officials, and nongovernmental organizations.

Senior officials interviewed at USEUCOM, USPACOM, USTRANSCOM, and the services—particularly the Marine Corps—encouraged closer working relationships with DIA on the full spectrum of humanitarian emergency intelligence issues, and the production of contingency support products.
It is important to have prior knowledge of a target area's medical capabilities and the roles and capabilities of nongovernment organizations.

Other principle consumers include the intelligence (J2), and logistic (J4) components in the commands and services.

Military medical components stressed the importance of having prior knowledge of a target area's medical capabilities, the roles and capabilities of nongovernmental organizations, and the likely requirements of surviving victims.

Other Consumers
Defense Department. The Office of the Assistant Secretary of Defense, Special Operations/Low-Intensity Conflict, Humanitarian and Refugee Affairs, coordinates DOD's assets for disaster assistance overseas. Its officials said the Bangladesh CSS prototype provided valuable support for their mission, and they encouraged closer working relationships with DIA and the production of humanitarian and disaster relief contingency products for other countries.

Transportation Command. Personnel in TRANSCOM, both a producer and consumer of disaster relief intelligence, found great value in Intelligence Community products that support their disaster relief missions.

Department of State: Office of the Undersecretary of State for Global Affairs. State Department interviewees were enthusiastic about an Intelligence Community effort to provide products that would support humanitarian and disaster relief operations. They were familiar with those already produced under the direction of the NIO for Global and Multilateral Issues and regard contingency support intelligence products as a logical extension of that process.

Agency for International Development: Office of US Foreign Disaster Assistance (OFDA). Interviewees at the OFDA praised Intelligence Community products in support of the office's mission. They want to develop closer working relationships with DIA and would welcome additional contingency intelligence products supportive of their mission.

Other Intelligence Agencies. Producers also are often consumers; they use each others' products to support their missions. Finished intelligence products are frequently shared and used by agencies of the Intelligence Community. These additional "consumers" expressed interest in receiving disaster relief intelligence products similar to DIA's Bangladesh prototype. They included various elements at: CIA, DIA, the NIC, State/INR, I&W components, Army's Intelligence and Threat Analysis Center, and other military service intelligence components.

Potential Nongovernment Consumers
- United Nations Department of Humanitarian Affairs, Geneva, Switzerland.
- InterAction, a Washington DC-based umbrella organization representing over 160 American-based groups involved in foreign humanitarian relief operations.
- Refugee Policy Group, a Washington DC-based organization that recently produced an unclassified version of the NIE for Humanitarian Emergencies, under contract to the National Intelligence Council.

Personnel from potential nongovernment consumer organizations were interviewed, and all enthusiastically supported any effort by the Intelligence Community to provide disaster relief intelligence. Most had at times received unclassified intelligence information while conducting their missions. When shown an unclassified version of the DIA Bangladesh prototype, they extolled it as the type of product needed to support their missions in cooperation with US forces.

Whether US intelligence information should be passed to the United Nations or to foreign disaster assistance organizations based in the
United States is a policy issue beyond the scope of this report. UN and private interviewees stated that they would not, in any case, anticipate having tasking authority or receiving intelligence information directly from US intelligence producers.

Potential UN and nongovernmental consumers were primarily concerned with sharing unclassified information with US military forces or intelligence components while participating as coalition partners in foreign disaster relief missions. All of them believed that such sharing could significantly improve prospects for successful missions. UN representatives in particular expressed a strong desire for this kind of information sharing.

B. Intelligence Requirements

The requirements cited by the large and diverse consumer interview pool were in four general categories:

• Help consumers identify future humanitarian emergency issues and areas where disaster relief operations may be conducted. All consumer interviewees believed that humanitarian relief operations will constitute significant shares of their future missions. However, many were unaware of most intelligence efforts to support disaster relief operations, and few had training or experience with relief operations.

Some consumers were hesitant to request contingency products, largely because they were uncertain how to define the problem set and frame appropriate questions. Others noted that they simply did not know what to ask for, despite their belief that they would participate in future disaster operations. Virtually all consumers stated the need for better coordination with national-level intelligence agencies on disaster relief issues. Many opined that the national agencies should be responsible for advising them and providing estimates and appropriate contingency products for potential humanitarian emergencies, thereby improving their grasp of the issues and their ability to articulate future requirements.

Many consumers (and some producers) believed that estimating where future disasters might occur is beyond anyone’s capabilities. This common misconception confuses “estimates” or “probabilities” with “predictions.” Although no one can predict the time and place of future disasters beyond immediate time frames, the state of the art for estimating probabilities and identifying hazard zones for certain natural disasters, particularly meteorologically generated events, is quite good. Intelligence producers can identify these areas, estimate frequency probabilities for some types of disasters, and readily provide this information to consumers. It can be packaged in familiar products and be readily accessible to intelligence consumers via normal dissemination channels. This kind of information has been valuable to US domestic disaster relief planners, managers, and operators, including military forces.

• Contingency support products that aid planning and execution of disaster relief operations are needed. Many consumers noted the dearth of such products. They were familiar with the coordination process between intelligence producers (particularly DIA) and consumers that facilitates robust production of other contingency products and overwhelmingly suggested the establishment of similar procedures for disaster relief products. Several suggested using the Humanitarian Emergencies NIE as a baseline for identifying potential humanitarian emergencies.

The principle consumers in the unified commands and services stressed the importance of graphics in contingency
Successful relief operations often hinge on relief forces understanding the needs of the population, on cooperating with nongovernmental organizations, and on working with local tribal and administrative entities.

products and recommended liberal use of both ground and overhead photographs, maps, and charts.

• More cultural, societal, and environmental intelligence for potential "target areas" is desired. This refers primarily to information on disaster area populations and the roles and capabilities of host governments and private organizations in relief operations. Disaster relief operations often occur in countries that are low on intelligence priority lists. Hence, planners and operators typically have little information on local populations and relief organizations. Successful relief operations often hinge on relief forces understanding the needs of the population, on cooperating with nongovernmental organizations, and on working with local tribal and administrative entities.

Environmental intelligence includes traditional military geography for the target area (terrain, vegetation, meteorology). It also embraces estimates of potential future disasters, the possible extent of disaster-induced damage, the impact on cross-country movement, and environmental constraints on operating forces. Much of this information is typically in short supply for many of the low-priority, disaster-prone countries. This type of environmental intelligence is critical to the planning process.

• If possible, produce disaster relief intelligence products at the unclassified level. Most consumers emphasized the importance of sharing intelligence information, when appropriate, with coalition partners, UN participants, host governments, and especially nongovernmental organizations. These bodies are usually more familiar with the target area than US forces. Nonhost coalition partners often possess even less intelligence on the target area than do US forces. Sharing unclassified intelligence information could significantly improve operational coordination and chances for mission success.

Essential Elements of Information

Many of the disaster relief EEIs discussed during this project were recently published for the first time in an unclassified and conveniently formatted document: the US Marine Corps' Intelligence Activity, Generic Intelligence Requirements Handbook (GIRH). The handbook is oriented for USMC operations and therefore does not include all consumers' requirements, but it provides a sound guide for intelligence producers to satisfy most intelligence needs. The EEI categories from the Marine handbook listed in the inset show the breadth of consumers' requirements.

C. Intelligence Community Capabilities and Appropriateness

The original query addressing "capabilities and appropriateness" was refined during the course of the inquiry to pose the following more definitive queries: (1) Does the Intelligence Community have the tools or resources to produce disaster relief intelligence products, and (2) is it appropriate for the community to produce these products?

Capabilities

The Intelligence Community has demonstrated that it has the requisite resources to provide products that satisfy disaster relief policy and operational requirements. These resources include vast and effective collection assets, both open-source and classified intelligence databases, experienced analytic resources, rapid and reliable communications, and the requisite publication and dissemination facilities.

The resources that are most capable of providing finished contingency support intelligence are all-source analysis and production units within defense intelligence.
## Essential Elements of Information (EEI)*

<table>
<thead>
<tr>
<th>Question</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>What organizations are providing relief?</td>
<td>1</td>
</tr>
<tr>
<td>What type of service are they providing?</td>
<td>1</td>
</tr>
<tr>
<td>What is the home base of unit/organization(s) involved?</td>
<td>1</td>
</tr>
<tr>
<td>What are the intended results of the effort?</td>
<td>1</td>
</tr>
<tr>
<td>What were the date(s) unit/organization arrived in the area?</td>
<td>1</td>
</tr>
<tr>
<td>What maps are needed? Are there native edition maps available?</td>
<td>3</td>
</tr>
<tr>
<td>What information can be gained from available interviewee?</td>
<td>2</td>
</tr>
<tr>
<td>What is the sociological and cultural makeup?</td>
<td>16</td>
</tr>
<tr>
<td>What type of equipment is in the country:</td>
<td></td>
</tr>
<tr>
<td>- Telecommunication/Information systems?</td>
<td>7</td>
</tr>
<tr>
<td>- Vehicles?</td>
<td>5</td>
</tr>
<tr>
<td>- Engineering and demolition equipment?</td>
<td>4</td>
</tr>
<tr>
<td>- Aircraft/airports?</td>
<td>5</td>
</tr>
<tr>
<td>Where are the logistic and food distribution points?</td>
<td>5</td>
</tr>
<tr>
<td>What is the geography in the operations area:</td>
<td></td>
</tr>
<tr>
<td>- Surface configuration?</td>
<td>70</td>
</tr>
<tr>
<td>- Topography?</td>
<td>19</td>
</tr>
<tr>
<td>- Meteorology?</td>
<td>40</td>
</tr>
<tr>
<td>- Hydrology?</td>
<td>66</td>
</tr>
<tr>
<td>- Vegetation?</td>
<td>61</td>
</tr>
<tr>
<td>- Airfields</td>
<td>100</td>
</tr>
<tr>
<td>- Helicopter landing zones?</td>
<td>29</td>
</tr>
<tr>
<td>- Ports and harbors?</td>
<td>189</td>
</tr>
<tr>
<td>What are the lines of communication and transportation?</td>
<td>7</td>
</tr>
<tr>
<td>What types of agriculture and livestock are in the country?</td>
<td>3</td>
</tr>
<tr>
<td>What is the availability of water?</td>
<td>4</td>
</tr>
<tr>
<td>What are potential manmade facilities to aid relief operations (specify location(s) by best available method: geo/UTM/grid coordinates/reference points/etc.)?</td>
<td>7</td>
</tr>
<tr>
<td>What is the present state of the economy where relief efforts are to be performed?</td>
<td>12</td>
</tr>
<tr>
<td>What information is available concerning the government where the relief effort is to take place?</td>
<td>8</td>
</tr>
<tr>
<td>What is the medical situation in the area where the relief effort is to take place?</td>
<td>21</td>
</tr>
<tr>
<td>Who currently provides security to the relief area of operations?</td>
<td>12</td>
</tr>
</tbody>
</table>

*US Marine Corps, Marine Corps Intelligence Activity, Generic Intelligence Requirements Handbook, (GIRH), Quantico, VA, 1994. (The numbers in
Intelligence Community support to disaster relief operations . . . is somewhat controversial because of the additional demands it places on community resources.

Appropriateness

Intelligence Community support to disaster relief operations is relatively new. It also is somewhat controversial because of the additional demands it places on community resources.

When the United States decides to take action in response to a foreign natural disaster, the unified commands and services of the United States occasionally are called upon to conduct disaster relief operations. Hence, they are the principal consumers of operational intelligence developed to support those missions, and it is appropriate for the Intelligence Community to produce that intelligence.

In the Department of Defense Intelligence Production Program (DODIPP) of March 1995, DIA's National Military Intelligence Production Center (NMIPC) already has been assigned responsibility for both producing disaster relief operations intelligence and managing the Department's production of environmental intelligence relating to natural disasters.

D. Best Intelligence Assets

As previously stated, the best qualified units for addressing the majority of consumer intelligence requirements reside within defense intelligence—particularly DIA. They can produce comprehensive finished intelligence with appropriate graphics and have the widest and best established dissemination network.

Intelligence collection assets that best support intelligence analysis associated with disaster relief operations are, in order of importance: human intelligence (HUMINT), imagery intelligence (IMINT), and communications intelligence (COMINT).

Much of the relevant HUMINT can be derived from open sources and is available from other government agencies, nongovernmental relief organizations, academia, scientific and research institutions, and international agencies. Increasingly, the information will be accessible from automated electronic databases via the Internet or other electronic mail services. Examples include:

- Consortium for International Earth Science Information Network (CIESIN), a US Government–funded (partially by DOD) initiative providing the largest, worldwide automated data network of physical, natural, and socioeconomic information.
- Volunteers in Technical Assistance (VITA), Disaster Information Center/Disaster Information Resources Program, a disaster-related information clearing house.
- ReliefWeb, a multilateral, strategic, global communications network funded, directed, and operated by a consortium of humanitarian assistance organizations and governments.

Other information from human sources is available through regular HUMINT collection channels.

Imagery plays an important role in disaster relief operations and is readily available through open sources as well as classified channels. The consumers who were interviewed extolled the high-quality photographs in the DIA Bangladesh CSS.
COMINT is the least important collection asset contributing to the analytic process but may provide unique and important missing pieces of the disaster relief intelligence puzzle.
V. Recommendations

For the foreseeable future some of the most challenging and rewarding operations on the horizon are apt to involve humanitarian intervention and disaster relief. Every military unit that is likely to be committed to these missions should anticipate what could be required and plan accordingly.

Marine Corps Gazette, February 1993

Catastrophic disasters will continue to occur and occasionally will overwhelm indigenous relief forces, causing foreign governments to request immediate outside assistance. The United States Government will respond positively to these requests, and, in the worst disasters, it will order US military forces to deliver that assistance.

An official poster on a Pentagon wall depicts an American soldier helping a small child, an apparent survivor of a recent natural disaster. The caption reads: "I'm a soldier, count on me."

Who shall the soldier count on to provide him the intelligence he needs to perform his mission? Virtually all consumers—and most producers—of intelligence recommended that DIA provide the leadership in this effort and that it develop a robust capability for producing the required intelligence.

Several veteran Joint Task Force commanders of humanitarian and disaster relief operations recommended that the Intelligence Community develop what some referred to as a "Humanitarian Assistance (or Relief) Intelligence Center (or Cell)." Virtually all humanitarian emergency intelligence personnel supported this concept.

It was recommended that such a unit have clearly dedicated responsibility for all humanitarian emergency intelligence issues—not just disaster relief—and be composed of analysts who are well versed in the EEIs and who have the unique skills these issues require. Like other teams of intelligence analysts focused on discrete intelligence disciplines (for instance, counterdrug specialists), such a team would benefit from the synergistic effects of unit cohesion and teamwork.

Two recommendations accordingly follow.

A Humanitarian Emergencies Intelligence Unit of All-Source Intelligence Analysts Should Be Formed.

It should have full-time dedicated responsibility for covering the full range of foreign humanitarian emergency issues, not just disaster relief, that might lead to US military intervention.

The unit should reside within the Defense Intelligence Agency where it could best coordinate collection, analysis, production and dissemination, avoid duplication throughout the community, and ensure that the requirements of the principle consumers in the military services and unified commands are satisfied.

Strive for Unclassified Intelligence Products

Humanitarian and disaster relief support products should be produced at the unclassified level whenever possible so they can be shared with coalition forces and host governments and private organizations. Those portions of products that cannot be unclassified should be put in a separate classified appendix.

These measures would address the concerns and needs expressed during this inquiry. The military organizations involved in humanitarian relief operations, as a result, would be assured of having the intelligence required to perform their important missions.
Appendix

Organizations Contacted

Many organizations within the Department of Defense, services, commands, and CIA that were contacted are not listed separately. Similarly, only the key non-US Government organizations consulted are identified. Asterisks indicate where on-site interviews or meetings occurred.

Intelligence Community

Central Intelligence Agency*
National Intelligence Council*
Community Management Staff*
National Photographic Interpretation Center*
Defense Intelligence Agency*
Central Imagery Office*
National Security Agency
Marine Corps Intelligence Activity*
Office of Naval Intelligence*
Army Intelligence and Threat Analysis Center*
Bureau of Intelligence and Research,* Department of State

Unified Commands

European Command, Stuttgart, Germany*
Pacific Command, Camp Smith, HI*
Transportation Command, Scott AFB, IL*
Southern Command
Atlantic Command
Special Operations Command

Military Services

Army*
Navy*
Air Force*
Marine Corps*
Coast Guard
Joint Chiefs of Staff*
Other US Government

Department of Defense*
Department of State*
Department of Commerce, National Oceanic and Atmospheric Administration*
Department of Interior, US Geological Survey*
Federal Emergency Management Agency*
Agency for International Development, Office of US Foreign Disaster Assistance*
Environmental Protection Agency
House of Representatives, Staff of Committee on Foreign Affairs

International

United Nations Department of Humanitarian Affairs, Geneva, Switzerland*
Organizations for Economic Cooperation and Development
World Bank

Scientific and Research Institutions

Center for Naval Analyses*
Institute for Defense Analyses*
National Academy of Sciences, National Research Council, Commission on Geosciences, Board on Natural Disasters*
American Association for the Advancement of Science, Science and International Security
The Woodrow Wilson International Center for Scholars, Environmental Change and Security Project*
Consortium for International Earth Science Information Network*

Academic

US Army War College, Center for Strategic Leadership
University of Hawaii, John A. Burns School of Medicine
Georgetown University, Department of Demography
University of Maryland, Department of Government and Politics*
Tufts University, The Fletcher School of Law and Diplomacy
The George Washington University, Institute for Crisis and Disaster Management

Nongovernmental Relief Organizations

InterAction*
International Federation of Red Cross and Red Crescent Societies
American Red Cross
Refugee Policy Group*