# The Demands of Humanity: Army Medical Disaster Relief



*SPECIAL STUDIES*

# THE DEMANDS OF HUMANITY: ARMY MEDICAL DISASTER RELIEF

*by*
*Gaines M. Foster*




*CENTER OF MILITARY HISTORY*
*UNITED STATES ARMY*
*WASHINGTON, D.C., 2000*

**Library of Congress Cataloging in Publication Data**

Foster, Gaines M.
The Demands of Humanity.

(Special studies / Center of Military History, United States Army)
Includes bibliographical references and index.
1. United States. Army Medical Dept.—History. 2. Disaster relief—United States—History. 3. United States—Civil defense—History. I. Title. II. Series: Special studies (Center of Military History) [DNLM: 1. Disasters—History. 2. Military medicine—History—United States. HV 553 F754d]
UH223.F75 1983 355.3'45'0973 83–8791

CMH Pub 40–3

First Printed 1983—CMH Pub 40–3

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington, D.C. 20402

SPECIAL STUDIES SERIES

David F. Trask, General Editor

*Advisory Committee*

(As of 1 January 1982)

James C. Olson
University of Missouri

Maj. Gen. Quinn H. Becker
Deputy Surgeon General, USA

Maj. Gen. John B. Blount
U.S. Army Training and Doctrine Command

Brig. Gen. Dallas C. Brown, Jr.
U.S. Army War College

Richard D. Challener
Princeton University

Col. Roy K. Flint
U.S. Military Academy

Arthur L. Funk
University of Florida

Joseph E. Harris
Howard University

John H. Hatcher
The Adjutant General Center

Morten Jay Luvaas
Allegheny College

James O'Neill
National Archives and Records Service

John Shy
University of Michigan

Col. William A. Stofft
U.S. Army Command and General Staff College

Betty M. Unterberger
Texas A. & M. University

*U.S. Army Center of Military History*

Brig. Gen. James L. Collins, Jr., Chief of Military History

Chief Historian — David F. Trask
Chief, Histories Division — Col. James W. Dunn
Editor in Chief — John Elsberg

# Foreword

From the earliest days of the Republic, the United States Army has not just maintained the national defense but has also performed a wide variety of peacetime missions. Army officers helped explore the West, Army engineers built early flood control systems, and Army pilots flew the first airmail routes. The Army Medical Department in particular has long aided the civilian community. Its members regularly contributed to the advancement of medical knowledge and in special situations provided health care for civilians. *The Demands of Humanity* examines one aspect of that direct assistance, medical aid rendered during natural disasters.

Discussing help given both at home and abroad, this third volume in the Special Studies Series examines the origin of the relief mission in the nineteenth century and recounts its history to 1976. With their special expertise in public health and the treatment of mass casualties, Army medical personnel during these years compiled an impressive record of assistance. After the Spanish-American War, Army doctors made medical history in their campaigns against epidemic diseases in Cuba, Puerto Rico, and the Philippines. In times of twentieth century floods, hurricanes, tornadoes, earthquakes, famines, and epidemics, Army medical personnel aided individuals and furnished stricken communities valuable advice on sanitation and health care.

*The Demands of Humanity* chronicles the humanitarian contribution made by Army doctors, nurses, and medical corpsmen during disaster situations. It also examines the problems their units encountered in relief operations and explains the development of the Army's assistance role. It thereby contributes not only to the often-neglected history of the peacetime role of the military but to the history of social welfare policy in the United States as well.

Washington, D.C.
30 September 1982

JAMES L. COLLINS, JR.
Brigadier General, USA
Chief of Military History

# The Author

Gaines M. Foster received his A.B. from Wofford College in 1971 and an M.A. in history from the University of North Carolina at Chapel Hill in 1973. From July 1973 to August 1975 he served as a lieutenant in the Medical Service Corps. Assigned to the Army Medical Department Historical Unit, he completed much of the work on this volume at that time. He received his Ph.D. from the University of North Carolina in 1982 and is currently an assistant professor of history at Louisiana State University.

# Preface

In 1973 the Army Medical Department Historical Unit sought a way to contribute to the celebration of the approaching Bicentennial and needed to do something with a newly arrived lieutenant. A history of Army medical relief for civilian communities struck by natural disasters offered an answer to both problems, and I received an assignment to prepare one. I have tried to make the record of that aid as complete as possible and hope my account gives a sense of the significant and commendable contribution Army medical personnel have made in relieving human suffering. In compiling a list of relief missions, however, I became intrigued by how and why the Army's role evolved. In the individual disaster relief operations, not just the delivery of health care but the relations between soldiers and civilians and the conflict between local cultural practices and modern medicine interested me. Within the constraints imposed by the focus of the volume on medical missions, I have tried to explore these larger issues.

Before I completed the study, the Bicentennial passed, the Army Medical Department Historical Unit became a part of the Center of Military History (CMH), and I returned to civilian life. I am particularly grateful to Col. John Lada, the late Rose C. Engelman, and especially the late Charles J. Simpson for helping make it possible for me to finish the project after I left active duty. I also appreciate the kindly aid of the archivists, librarians, and other individuals who eased the task of compiling a list of disasters and finding records of Army aid during them. John B. Corr, author for CMH of a brief history of Army disaster relief, and Lillian C. Kidwell, librarian at the headquarters of the American National Red Cross, were extremely helpful in the early stages. Throughout my research, the staffs of the Old and Modern Military Records sections of the National Archives—particularly Elaine Everly, Michael Musick, Tim Nenninger, and Edward Reese—guided me to their holdings. Richard J. Sommers helped me use the archives at the Military History Institute at Carlisle Barracks, Pennsylvania. His colleague John J. Slonaker, who has an awesome knowledge of the institute's library and unfailing patience with researchers, provided frequent and invaluable aid. Charles Phillips, Sarah Gastley, Mary Ambrose, and the other members of Roderick M. Engert's General Reference and Research Branch at the Army Medical

Department Historical Unit not only located documents but cheerfully filled countless interlibrary loan requests.

I owe much to several generous scholars who read and criticized earlier drafts of the study. John Duffy of the University of Maryland, Robert H. Bremner of the Ohio State University, and Samuel R. Williamson of the University of North Carolina at Chapel Hill suggested ways to improve and shorten—if a distinction can be drawn—an early 900-page draft. Robert W. Coakley, Col. James W. Dunn, Rod Engert, Walter Hermes, Col. William Strobridge, and Col. Earl L. Ziebell at CMH gave advice on a succeeding draft. Graham A. Cosmas offered useful perspective on the Spanish-American War era section, and Mary C. Gillett tried very hard to teach me a bit of medical history and at least succeeded in improving my treatment of the topic here. I am also grateful to Albert E. Cowdrey. As chief of the Medical History Branch of CMH, he inherited a bulky, unfocused manuscript and guided it into a book. Almost every line benefited from his suggestions and revision. Finally, Mary D. Nelson kept me from many errors with her conscientious and skillful editing. Not even all of these people working together could save me from my own stubbornness, and the errors and infelicitous prose that remain are mine.

Baton Rouge, Louisiana
30 September 1982

GAINES M. FOSTER

# Contents


| *Chapter* | *Page* |
|---|---|
| 1. INTRODUCTION | 3 |
| 2. THE NINETEENTH CENTURY: PRECEDENTS | 6 |
| *The Emergence of Federal Disaster Assistance* | 8 |
| *The Role of the Medical Department* | 18 |
| 3. EMERGING MISSIONS: COMBATING EPIDEMICS ABROAD | 23 |
| *Sanitary and Organizational Reform* | 26 |
| *Combating Epidemics* | 32 |
| 4. ESTABLISHING THE MISSION: VOLCANOES, EARTHQUAKES, TORNADOES, AND FLOODS, 1898–1917 | 48 |
| *Changes in the Domestic Scene and the San Francisco Earthquake* | 52 |
| *Additional Relief Operations and Formal Recognition of the Mission* | 66 |
| 5. DISEASE IN THE AFTERMATH OF WAR: DISASTER AID TO POLAND AND RUSSIA AFTER WORLD WAR I | 80 |
| *Postwar Relief and America's Sense of Humanitarian Mission* | 80 |
| *Typhus in Poland* | 83 |
| *Famine in Russia* | 94 |
| 6. RELIEF ROLE IN TRANSITION: ASSISTANCE AT HOME AND ABROAD, 1918–1939 | 99 |
| *Confusion over the Army's Disaster Relief Role* | 104 |
| *Reevaluation and Relief in the Thirties* | 115 |
| *Toward New Relief Roles* | 121 |
| 7. DOMESTIC ASSISTANCE UNDER CIVILIAN COORDINATION, 1945–1976 | 127 |
| *The Texas City Explosion* | 128 |
| *Creation of a Federal Relief Bureaucracy* | 131 |
| *Medical Relief Missions of the Fifties and Sixties* | 135 |
| *Federal Reorganization and Minor Medical Missions of the Seventies* | 142 |
| 8. ACTIVISM ABROAD: FOREIGN DISASTER RELIEF, 1945–1976 | 146 |
| *Relief in the Early Postwar Period* | 146 |
| *Establishing a Relief System and the Activism of the Early Sixties* | 150 |

*Chapter* *Page*

*Increasing Problems in Foreign Disaster Relief Operations* . 165
9. CONCLUSION . . . . . 174
BIBLIOGRAPHICAL NOTE . . . . . 177
INDEX . . . . . 185

## Illustrations

Sanitary Department, Commission and Staff, Santiago de Cuba . . . 28
Destruction after the San Francisco Earthquake . . . . . 54
Refugee Camp on Grounds Adjacent to and East of Letterman General Hospital . . . . . 59
Captain Ashford's Staff . . . . . 67
Dining Tent, Temporary Hospital . . . . . 69
The Cox-Klemin Evacuating Passengers . . . . . 109
Herbert Hoover on Board the U.S.S. *Control* . . . . . 111
Patients Prepared for Air Evacuation . . . . . 125
Flames and Destruction . . . . . 128
Army Ambulances Stand Ready . . . . . 129
Air Force Globemasters Deliver Aid . . . . . 149
American and Pakistani Soldiers Administer Typhoid Inoculation . . 150
One of the Few Patient Evacuation Missions . . . . . 154
Army Nurse Dresses the Head of Injured Woman . . . . . 155
Army Medical Corpsman Feeds the Newborn Ida . . . . . 159
Army Nurses Help Survivor of Earthquake . . . . . 160
Preparation of a Patient's Foot . . . . . 162
Cast Specialist Trims Newly Applied Upper Body Cast . . . . . 163
Air Force Doctor and Army Corpsmen Treat Disaster Victim . . . 169

Illustrations courtesy of the following sources: that on p. 54, Office of the Chief of Engineers; those on pp. 67, 69, and 125 are from the National Archives; that on p. 109 is from Army Air Corps; those on pp. 149 and 150 are from the Armed Forces Institute of Pathology; that on p. 160 is from Department of Defense files; and those on pp. 162 and 163 are from the 26th Medical Detachment. All others are from Signal Corps files with the exception of that on p. 154, courtesy of Bell Helicopter Textron, Fort Worth, Texas.

# THE DEMANDS OF HUMANITY: ARMY MEDICAL DISASTER RELIEF

CHAPTER 1

# Introduction

The term *disaster* usually evokes images of massive material damage and great human distress caused by some swift catastrophe. In offering a more rigorous definition, a leading sociologist has defined a disaster as a sudden event that disrupts the social structure and prevents execution of some or all of its essential functions. Commonly, disasters caused by natural forces or events are distinguished from those that man brings upon himself. With one exception, the disasters examined in this study are natural, though they may have been provoked or exacerbated by human customs or follies. Specifically, the study examines how Army medical personnel have responded to such events and shows how they aided disrupted civil societies or communities by furnishing health care.[1]

Studies of disaster relief usually focus on fires, floods, storms, and earthquakes. Two other types of calamities—famines and epidemics—are included here. Such happenings are in truth disasters since they disrupt the social structure and interrupt some of its essential functions. They often occur as direct results of natural upheavals or of war, and a story of medical assistance that excluded them would obviously be incomplete.

Significant changes in the response to disaster have developed over the past two centuries. Disasters of all types awed early Americans, who did not understand their causes; some interpreted disaster as a supernatural message, while others sought an elusive natural explanation. Since the eighteenth century, the search for causes has revealed disasters to be understandable natural occurrences that scientists have tried with increasing sophistication to explain, predict, and—especially for epidemics—prevent. Without an organization to deliver aid, however, more knowledge would have accomplished little. During the same period, American society developed a much more organized and comprehensive response to disaster;

---

[1]Charles E. Fritz, "Disaster," in *Contemporary Social Problems*, ed. Robert K. Merton and Robert A. Nisbet (New York: Harcourt, Brace & World, 1961), p. 655; "Disasters," in *International Encyclopedia of the Social Sciences* (New York: Macmillan Co. & Free Press, 1968), pp. 202–7. One disaster that was caused by man, the Texas City explosion of 1947, is included in this study because it did disrupt the community and because the Army responded in the same fashion as in natural disasters.

in this evolution, the federal government came to play an increasing role.

In the early nineteenth century, the national government accepted no responsibility for helping its citizens cope with disaster. Nor did many local agencies or voluntary groups exist to provide relief, though most Americans considered disaster assistance a task for local government or voluntary associations when self-help failed. But in the latter half of the nineteenth century, the suffering of victims—the "overruling demands of humanity" in the language of the War Department's first regulation on civilian assistance—began to transform traditional attitudes and practices. During the century and a half that followed, the nation organized, perhaps overorganized, for disaster relief as it did for other purposes. By the 1970's a plethora of acts administered by a host of agencies guided federal relief efforts, and many local agencies and voluntary groups furnished assistance as well.[2]

Within this changing context, the relief role of the Army Medical Department developed. Medical Department aid was almost always part of the Army's overall disaster assistance mission. From the first, Army regulations delegated authority over assistance missions to area commanders who, when they considered it necessary, integrated medical units or personnel into relief operations. These line officers rather than The Surgeon General or the department he commanded assumed responsibility in planning before disasters and in committing medical resources once calamity struck. The history of Army medical relief, consequently, is more a story of the contributions of individual medical units and personnel than an institutional study of the Medical Department. Because the department rarely acted alone, its work must be examined as part of the development of the Army's overall relief mission.

Army disaster relief began shortly after the Civil War and increased throughout the late nineteenth century. During that period, Army aid rarely included medical care, in part because of the relatively primitive state of the healing arts. Only with the emergence of modern medicine did doctors acquire skills that equipped them to offer significant help to distressed communities. At the time that happened, however, neither local authorities nor voluntary associations had the capability to provide extensive medical assistance. In this organizational near-vacuum during the first years of the twentieth century, Army medical personnel became the nation's primary source of medical and public health aid in domestic disasters.

After World War I, tensions arose between the Army and the Red

[2]Quote from Special Regulation 67, "Regulations Governing Flood Relief Work of the War Department," 1917, copy in Record Group 407, National Archives (NA).

Cross over authority in relief operations and between the Army and Congress over funding of relief activities. As a result, the Army became uncertain about its assistance role in the interwar years, and Army medical participation declined. After the Second World War, the federal government accepted greater responsibility in disaster situations and created civilian institutions to reduce tensions between agencies and ensure funding, but it never completely abandoned older traditions of localism and voluntarism. In fact, the federal government gradually concentrated its efforts on long-term rehabilitation, leaving the responsibility for immediate relief to local and private groups. Within the newly organized federal disaster aid structure, Army medical participation continued at the low pre-World War II level, though certain emergencies so taxed civilian resources that some military assistance continued to be needed.

Unlike domestic relief, foreign disaster assistance was rendered only sporadically before World War II. The United States undertook a few missions in the nineteenth century and many more—often with the help of the Army—during the early twentieth century in Caribbean countries and the Philippines. For a short time after the Spanish-American War and also after the First World War, unusual circumstances involved the Army Medical Department in substantial relief operations abroad. Both periods proved exceptions, however, to the general inactivity. In the years after 1945, intercontinental air transportation, the stationing of American troops abroad, and the cold war increased both the means and motives for the United States to provide assistance abroad. The government created civilian coordinating institutions to direct and provide such relief, but Army medical personnel still frequently rendered foreign disaster assistance.

By 1976, the United States government had a history of providing disaster assistance both to its own and to foreign communities. Relief that had been rendered only in isolated instances in the nineteenth century had become routine, and complex civilian bureaucracies had developed to direct both foreign and domestic operations. Once the only agency to which the government could turn to provide disaster relief, the Army was now but one of many from which civilian relief officials could request help. At times, however, civilian resources still proved inadequate, and Army medical personnel went once again to the assistance of civilian communities.

CHAPTER 2

# The Nineteenth Century: Precedents

Most eighteenth and early nineteenth century Americans, awed by the destructive power of natural disasters for which there were no scientific explanations, judged them to be signs from God, mighty manifestations of divine displeasure over the sins of the world. Consequently, when disaster struck, governments issued proclamations of prayer and fasting, and many individuals made or renewed religious commitments. Although their religious response in no way precluded more practical measures, in the early years of the American republic, communities rarely had the knowledge or the means to render effective relief—and no outside agency rushed assistance to them.[1]

Two similar calamities sixty years apart demonstrated the persistence of patterns of public ineptitude and citizen self-help. During the 1793 yellow fever epidemic in Philadelphia, one of the more devastating disasters of the nation's early history, most public officials fled to safer areas, and national, state, and local government in the city disintegrated. Local physicians who remained, the famous Dr. Benjamin Rush among them, had little knowledge of how to treat the sick and less of how to stop the spread of the fever. They sometimes did as much harm as good, and frequently quarreled among themselves over proper medical procedures. Other citizens volunteered to help and three weeks into the crisis formed a relief committee under the direction of the mayor. Financed for the most part by private funds, the committee and its assistants directed relief efforts until a fall cold spell finally ended the epidemic.[2]

Two generations later, New Orleans responded in similar fashion to a yellow fever epidemic. The same confusion over tactics and treatment

---

[1]John B. Blake, *Public Health in the Town of Boston, 1630–1822* (Cambridge: Harvard University Press, 1959), pp. 24–26, 50–51; Charles E. Rosenberg, *The Cholera Years: The United States in 1832, 1849, and 1866* (Chicago: University of Chicago Press, 1962); Marshall Scott Legan, "Popular Reactions to the New Madrid Earthquake, 1811–1812," *Filson Club Historical Quarterly* 50 (1976): 69; James Penick, Jr., *The New Madrid Earthquakes of 1811–1812* (Columbia: University of Missouri Press, 1976), pp. 117–21; Walter B. Posey, "The Earthquake of 1811 and Its Influence on Evangelistic Methods in the Churches of the Old South," *Tennessee Historical Magazine*, 2d ser., 1 (1931): 107–14.

[2]J. H. Powell, *Bring Out Your Dead: The Great Plague of Yellow Fever in Philadelphia in 1793* (Philadelphia: University of Pennsylvania Press, 1949).

developed, with the city trying everything from a quarantine to cannon firings intended to clear the atmosphere—the latter abandoned because they literally frightened some victims to death. Local government, particularly a board of health strengthened during the calamity, exercised greater authority than in Philadelphia's crisis, but private sources again provided most relief. The Howard Association, a voluntary association of young businessmen in the city, mobilized to care for the sick and impoverished. As in Philadelphia, however, only the arrival of cold weather rescued the city from its distress.[3]

In their lack of medical knowledge and reliance on local and often private aid, Philadelphia and New Orleans were not unusual. During the recurrent cholera epidemics that afflicted parts of America during the antebellum years, other cities responded in much the same fashion. As the century progressed, unaffected cities did begin to send money or supplies to suffering communities, and a Howard Association in one town sometimes aided victims in another. Nevertheless, disaster relief in the last years of the eighteenth and first half of the nineteenth century remained primarily local, voluntary, and ineffective.[4]

In those early years of the nation, the extremely small size of the federal establishment, the concentration of its manpower in the capital, and, above all, the lack of the means to send relief discouraged federal disaster assistance. The Army, the most obvious agency to render such aid, possessed insufficient resources to meet its normal defense mission, much less to assume additional duties in disasters. Deployed in widely scattered posts often consisting of only a hundred soldiers, the Army could spare few men, if any, for disaster work without endangering the safety of its forts. Furthermore, with posts located in remote frontier areas and transportation far from rapid, the dispatch of troops to the scene of a calamity in time to be of any real help was usually impossible.[5]

Philosophical as well as practical considerations discouraged the commitment of federal resources. In the first half of the nineteenth

---

[3]John Duffy, *Sword of Pestilence: The New Orleans Yellow Fever Epidemic of 1853* (Baton Rouge: Louisiana State University Press, 1966).

[4]Rosenberg, *Cholera Years*, passim. See also Douglas F. Stickle, "Death and Class in Baltimore: The Yellow Fever Epidemic of 1800," *Maryland Historical Magazine* 74 (1979): 282–99; Jacqueline Karnell Corn, "Community Responsibility for Public Health: The Impact of Epidemic Disease and Urban Growth on Pittsburgh," *Western Pennsylvania Historical Quarterly* 59 (1976): 319–39.

[5]On the size of the federal establishment, see James Sterling Young, *The Washington Community, 1800–1828* (New York: Harcourt, Brace & World, Harbinger Book, 1966), pp. 13–37. For the Army's difficulties in meeting its commitments, see Francis Paul Prucha, *The Sword of the Republic: The United States Army on the Frontier, 1783–1846* (New York: Macmillian Co., 1969), p.320; and Robert M. Utley, *Frontiersmen in Blue, The United States Army and the Indian, 1845–1865* (New York: Macmillan Co., 1967), pp. 10–17. For the Army's dispersion, see Francis Paul Prucha, "Distribution of Regular Army Troops before the Civil War," *Military Affairs* 16 (1952): 169–73.

century, most Americans considered health care, social welfare, and other aspects of disaster relief to be tasks best left to the individual or to private charity. If a calamity necessitated additional aid, only local, or possibly state, government had the authority to assist. The Constitution included no clause providing for federal disaster assistance, and a pervasive parsimony in Congress reinforced constitutional scruples. Disaster assistance, as one congressman typically reminded his colleagues in 1847, was a "dangerous exercise of power" best left "to the liberality and generosity and better judgment of their constituents."[6]

### *The Emergence of Federal Disaster Assistance*

That the federal government began to provide relief in a few disasters despite practical and philosophical impediments testified to the power of calamity to disrupt established patterns of thought and behavior. Congress approved aid, however, only when constitutional authority to act could be easily derived from traditional federal powers. Even then it carefully evaluated each proposed relief measure and usually approved aid only when compassion and national interest coincided. Though the bills Congress passed in the nineteenth century were taken up one by one, they can be grouped into three categories: aid to the Indians, foreign assistance, and domestic relief.

The federal government clearly had constitutional authority over Indian affairs and undertook its first disaster relief mission under that power. In 1792 a severe drought ruined the crops of the Creek Indians, and famine threatened to destroy a large part of the tribe. On 31 October, the Secretary of War, who directed Indian affairs at that time, informed his agent among the Creeks that the government had made available more than $13,000 for the tribe's relief. The agent, James Seagrove, then distributed both cash and corn. The United States fed the tribe not only for humanitarian reasons but also because it wished to supersede Spain as the Creeks' friend and to acquire thereby a ready market for American goods. The Secretary of War instructed Seagrove to make the American desire for recompense clear to the Creeks: "You may intimate to them that the President of the United States, actuated by his humanity and regard for

---

[6]Duffy, *Sword of Pestilence*, p. 43; Morris Kagan, "Federal Public Health: A Reflection of a Changing Constitution," *Journal of the History of Medicine and Allied Sciences* 16 (1961): 256–79; Walter I. Trattner, *From Poor Law to Welfare State: A History of Social Welfare in America* (New York: Free Press, 1974), especially pp. 57–59. For an exception, see Walter I. Trattner, "The Federal Government and Social Welfare in Early Nineteenth-Century America," *Social Service Review* 50 (1976): 243–55. Quote from U.S. Congress, Senate, *Congressional Globe*, 29th Cong., 2d sess., 1847, p.513.

them, will order a further quantity, provided they exhibit, on their parts, similar dispositions of kindness and attachment to the United States."[7]

If the white man granted relief to glean certain advantages, he just as easily withheld it to gain others. In the early 1830's the whites' rapid encroachment on the Creeks' land in Alabama and their depletion of local game again placed the tribe in danger of starvation. Many of the men began to beg or steal, and women and children pleaded for permission to scour the whites' fields for the small potatoes and roots that remained after the harvest. On this occasion no aid came from the government because it wished to remove the Indians to the west to free land for white settlement. As one historian explained, assistance to the Creeks would have been "unpolitic" because it "would have delayed their enrollment for emigration."[8]

In the same decade, Congress did approve a different type of assistance to tribes in another area of the country. With smallpox threatening the western Indian nations, Congress in 1832 passed a bill to provide for their vaccination. The act authorized Indian agents to employ local civilian doctors to perform the vaccinations but proposed that, where practical, military surgeons be used too. The Surgeon General procured the vaccine, and Army surgeons in several areas, notably Illinois and Michigan, vaccinated Indians who came to their forts. In most localities, though, Indian agents apparently relied on civilian physicians. Unfortunately, the nomadic life-style of the Indians undermined the government's attempt to control smallpox, and in 1837 an epidemic may have halved the population of the western nations.[9]

As with aid to the Indians, foreign relief could easily be justified on the basis of recognized constitutional powers. At any rate, Congress early rationalized such measures as legitimate when it considered them to be in the national interest. In 1812 the nation's first foreign disaster assistance mission followed an earthquake in Venezuela that killed 10,000 people in Caracas alone. American newspapers carried accounts of bodies littering

---

[7]On constitutional authority, see Francis Paul Purcha, *American Indian Policy in the Formative Years: The Indian Trade and Intercourse Acts, 1794–1834* (Cambridge: Harvard University Press, 1962), p. 41. On the aid, see George D. Harmon, *Sixty Years of Indian Affairs: Political, Economic, and Diplomatic, 1789–1850* (Chapel Hill: University of North Carolina Press, 1941), pp. 97–98. Quote from Ltr, Secretary of War to James Seagrove, 31 Oct 1792, in *American State Papers: Indian Affairs*, 3: 259–60.

[8]Harmon, *Sixty Years*, pp. 212–13.

[9]U.S. Congress, House, *Report of the Commissioner of Indian Affairs in Relation to the Act Extending the Benefit of Vaccination to the Indian Tribes*, H. Doc. 82, 22d Cong., 2d sess., 1833; Ltrs, T. Hastley Crawford to Joel R. Poinsett, 11 Dec 1838 and 25 Nov 1838. Both in Report Books of the Office of Indian Affairs, 1838–85, M348, reel 1, NA. See also Richard White, "The Winning of the West: The Expansion of the Western Sioux in the Eighteenth and Nineteenth Centuries," *Journal of American History* 65 (1978): 328–29.

the debris and orphaned children wailing for lost parents. Prompted by these reports, Alexander Scott, an American diplomatic representative to Caracas who had not yet departed for his post, urged Congress to send food to the victims. The Venezuelans also requested assistance. Congress responded by appropriating $50,000 for relief supplies to be administered by Scott upon his arrival in the country. Unfortunately, the donation arrived in May but Scott did not land until June. In the meantime, the royalists, then battling revolutionaries for control, seized many of the supplies and did not distribute them. They also impounded the vessels and crews that had brought the supplies and released both only after extended negotiations. But despite all the problems, food reached some of the people and saved them from starvation.

In sending aid, Congress obviously acted from more than purely humanitarian motives. With the outbreak of revolutions in Latin America during the early years of the nineteenth century, American interest in the region intensified. Many people in the United States believed the times auspicious for establishing closer ties with their neighbors to the south, and many merchants envisioned Latin America as a potentially lucrative market. Scott's instructions left little doubt that Congress intended the aid as a spur to closer trading ties, for he was directed to let the people of Venezuela know that the relief presented "strong proof of the friendship and interest which the United States . . . [took] in their welfare . . . [and] to explain the mutual advantages of commerce with the United States."[10]

The refusal of Congress to send aid to the locust-plagued Canary Islands at the same time it approved relief for Venezuela lent further credence to the view that in such matters Congress acted as much from national and mercantile interest as from humanitarian concern. Initially, a single resolution approved aid for both Venezuela and the Canary Islands, but some congressmen insisted upon separate consideration of the two measures. They convinced the House to instruct a committee to explore further the extent of the locust plague and famine in the Canaries. Although the committee reported additional evidence of suffering, the House still balked at sending assistance. Some of the victorious opponents continued to question the severity of the famine, but others doubted whether the relief would contribute to America's national interest. John Rhea, a representative from Tennessee, expressed the feelings of the second group. He opposed aid to the Canary Islands but said he favored an appropriation for Venezuela, with "a regard to the interests of the

---

[10]Quote from Merle Curti, *American Philanthropy Abroad: A History* (New Brunswick, N.J.: Rutgers University Press, 1963), pp. 10–12; see also E. Taylor Parks, "Foreign Aid–150 Years Ago," *Foreign Service Journal* 39 (Jul 1962): 36–39.

United States, which peculiarly required them to cultivate amity with and conciliate the South American provinces." The Canary Islands, he implied, did not offer the United States enough to merit assistance.[11]

On two other occasions during the antebellum period, Congress considered proposals to provide disaster assistance to foreign nations. In 1847, after rejecting an appropriation for sufferers in the Irish potato famine, Congress approved the loan of United States naval vessels to transport privately raised supplies. With civilian captains and crews, the United States ships *Macedonian* and *Jamestown* ferried 8,000 barrels of grain, meal, clothing, and other essentials to Ireland. Nine years later, however, Congress refused to allow the detail of twenty-five sailors to a private group that needed a crew to sail a relief ship to the drought-stricken Cape Verde Islands. The House voted in favor of the measure, but it died in the Senate; exactly why remained unclear. After the Civil War, Congress still developed no consistent policy; lawmakers approved the use of United States ships in two instances but denied it in a third.[12]

While the approach of Congress to foreign relief was practical, limited, and ad hoc, broader justifications were occasionally heard. During the debate over an appropriation for aid to Ireland in 1847, Senator John M. Clayton of Delaware proclaimed American abundance to be a sure sign of God's favor and aid an excellent opportunity to demonstrate to the world that "the genius and essential character of our institutions lead us to the indulgence, as a nation, of the best feelings of the human heart, and the noblest impulses which govern and direct the energies of man." Clayton convinced few of his fellow legislators, but a similar argument in more secular form, that such aid served to advertise the American way of life, would foster increased relief activity abroad during the next century.[13]

For domestic disaster assistance, the third type of congressionally approved aid, the nineteenth century was an era of slow but steady expansion of government involvement. Initially, Congress was more hesitant to provide relief in this category than in the others, since the

---

[11]U.S. Congress, *Annals of Congress*, 12th Cong., 1st sess., 1812, pp. 1351, 1348–50, 1429, 1435, quote on p. 1350; Curti, *American Philanthropy*, p.13.

[12]Curti, *American Philanthropy*, pp. 41–2, 94–5, 103–7; *Congressional Globe*, 29th Cong., 2d sess., 1847, pp. 503, 572–75; U.S., *Statutes at Large*, 9: 207, no. 10; Robert B. Forbes, *An* Interesting Memoir of the Jamestown Voyage to Ireland (Boston: J. B. Cullen & Co., 1890), p. 5 and passim. See also *Congressional Globe*, 34th Cong., 1st sess., 1856, pp. 1254–55, 1257–58, 1262; U.S. Congress, Senate, *Relief to the People of Foreign Nations on Account of Earthquakes, Etc.*, S. Doc. 629, 60th Cong., 2d sess., 1908; U.S. Congress, *Congressional Record*, 81st Cong., 2d sess., 1950, pp. 11900–902; E. M. Halliday, "Bread upon the Waters," *American Heritage* 11 (Aug 1960): 62–69, 104–5.

[13]Quote from *Congressional Globe*, 29th Cong., 2d sess., 1847, p. 513.

constitutional authority to contribute money, supplies, or personnel in domestic disasters seemed problematical. Whenever Congress entertained a bill authorizing domestic relief, the chambers rang with denunciations of its patent unconstitutionality. Only in a few instances before the Civil War were critics overcome and relief bills enacted.

The earliest case of congressionally approved domestic assistance followed a devastating fire in Portsmouth, New Hampshire. Here in 1803 the burning of a large section of the commercial district threatened the financial stability of many merchants. To ease their burdens, Congress granted them an extra year to pay off bonds owed at the local customhouse. Congress later passed similar measures for the relief of merchants in other ports ravaged by fire: in Norfolk, Virginia, in 1804; in Portsmouth again in 1807; and in New York in 1836.[14]

After an earthquake in the Mississippi Valley, Congress passed a measure that provided a more clearly defined precedent for future disaster relief. Between 16 December 1811 and 7 February 1812, powerful tremors struck the Missouri Territory, completely destroying Cathersville and severely damaging New Madrid, the second largest town in the territory. In January 1814, the territorial assembly petitioned Congress for aid and cited that sent to victims of the Venezuelan earthquake as precedent. A year later, Congress passed a law granting landholders with property damaged by the quake the right to relocate on other public lands in the territory. The act allowed residents to claim 160 acres if they held present claims smaller than that or a plot equivalent to their present holdings if they held no more than 640 acres. Once they had secured new claims, their land in New Madrid reverted to the government. A seemingly innocuous act of compassion, the law allowed a great deal of corruption and generated an almost endless debate over land titles.[15]

Another early disaster assistance act followed a February 1827 fire in the town of Alexandria, then still a part of the District of Columbia.

---

[14]*Congressional Record,* 81st Cong., 2d sess., 1950, p. 11900. Mention was made during the debates of 1836 of a similar relief bill for Savannah in 1820, but I can find no record of it nor was it included in the compilation above. See U.S. Congress, *Register of Debates in Congress,* 24th Cong., 1st sess., 1836, p. 120.

[15]On the earthquakes, see Penick, *New Madrid Earthquake;* Legan, "Popular Reactions"; Wayne Vitanen, "The Winter the Mississippi Ran Backwards: Early Kentuckians Report the New Madrid, Missouri, Earthquake of 1811–1812," *Register of the Kentucky Historical Society* 71 (1973): 51–68; Francis A. Sampson, "The New Madrid and Other Earthquakes in Missouri" *Proceedings of the Mississippi Valley Historical Association* 6 (1913): 218–38. For a copy of the act, see *Statutes at Large,* 3: 211–12, ch. 45. On corruption, see Penick, *New Madrid Earthquake,* pp. 49–50; Malcolm J. Rohrbough, *The Land Office Business: The Settlement and Administration of American Public Lands, 1789–1837* (New York: Oxford University Press, 1968), pp. 106–7; Benjamin H. Hibbard, *A History of the Public Land Policy* (New York: Macmillan Co., 1924), p. 264.

Moved by the proximity as well as the severity of the damage and satisfied that congressional responsibility for the District rendered aid constitutional, proponents pushed for a direct appropriation. Despite strong opposition, they secured a grant of $20,000 for the relief of "the indigent sufferers" of the fire and delegated the distribution of the fund to the mayor and city council of Alexandria.[16]

Clearly some Americans already considered the federal government a source of disaster assistance. The Missouri assembly had turned to Congress for aid. And after an 1836 fire in New York City, a public meeting appointed a committee of 125 distinguished citizens to petition Congress for help. When Congress received the committee's memorial, Daniel Webster warned his fellow lawmakers that "a strong expectation prevailed out of doors that Congress would do something for the relief of the sufferers." But despite growing public demand, Congress did not approve any other domestic disaster assistance bills before the Civil War. And all the acts that it had passed provided for long-term financial aid rather than immediate relief.[17]

By contrast, in the years after the Civil War, Congress frequently passed disaster relief bills that sought to render immediate aid to the suffering. The creation of the Bureau of Refugees, Freedmen, and Abandoned Lands, better known as the Freedmen's Bureau, contributed to this transformation of congressional policy. In 1865, the lawmakers established the bureau to help ease the slaves' transition to freedom, a task that entailed social welfare work including direct relief unprecedented on the federal level. Consequently, the Freedmen's Bureau itself became a powerful argument for future disaster relief. If Congress could act to reduce black suffering in the South, congressmen could and did ask, why could it not also help its citizens everywhere when afflicted by a natural disaster?[18]

Furthermore, during its brief existence, the bureau undertook disaster relief efforts essentially unrelated to its responsibility for the freedmen.

---

[16]*Register of Debates in Congress*, 19th Cong., 2d sess., 1827, pp. 752–77; *Statutes at Large*, 6: 356–57, ch. 3.

[17]*Register of Debates in Congress*, 24th Cong., 1st sess., 1836, pp. 13, 46–47.

[18]The standard history of the bureau is George R. Bentley, *A History of the Freedmen's Bureau* (New York: Octagon Books, 1970), but for emphasis on its welfare function see Victoria M. Olds, "The Freedmen's Bureau as a Social Agency" (Ph.D. diss., Columbia University, 1966); Louis Henry Bronson, "The Freedmen's Bureau: A Public Policy Analysis" (Ph.D. diss., University of California, 1970); and Trattner, *Poor Law to Welfare State*, p. 78. See also John Cox and Lawanda Cox, "General O. O. Howard and the 'Misrepresented Bureau,'" *Journal of Southern History* 19 (1953): 427–57; Harold M. Hyman, *A More Perfect Union: The Impact of the Civil War and Reconstruction on the Constitution* (Boston: Houghton Mifflin Co., Sentry Ed., 1975), especially pp. 285–91. For an argument for relief based on the bureau, see *Congressional Globe*, 40th Cong., lst sess., 1867, p. 47

Throughout the life of the bureau, its medical officers furnished aid and advice to civilians of both races during local outbreaks of smallpox or cholera, and its agents sometimes supplied bedding and tents to stricken communities. But it was bureau flood and famine relief, rather than aid during epidemics, that led the way to an increasing federal and eventually Army involvement in civilian disasters.[19]

In 1867 an unusually severe winter followed by a very dry spring caused many fields of food crops in the South to yield only a quarter of their normal production. In the midst of the incipient famine, the Mississippi and Tennessee rivers flooded. Concerned bureau agents wrote their headquarters in Washington relaying the dire plight of the doubly distressed South and asking permission to aid white as well as black sufferers. Though he wanted to grant their requests, bureau director O. O. Howard, a general detailed from the Army, doubted his authority to do so and therefore lobbied in Congress for authorization to provide emergency relief for all Southerners who needed it. After the predictable debate over constitutionality—on this occasion spiced by sectional animosity—Congress on 30 March 1867 granted the Freedmen's Bureau authority to supply rations for all classes of people in the South as long as the expense did not exceed already appropriated funds. Constitutional scruples, it seemed, gave way more readily than congressional niggardliness.[20]

Under the act, Howard allocated $50,000 from the bureau's budget to finance emergency relief in the south and designated General Eliphalet Whittlesey, already serving with the bureau, to administer the program. Whittlesey in turn directed the purchase of corn and wheat in northern and midwestern markets and supervised their shipment to southern ports. Together with corn bought in the South, the grain went to Louisiana, Mississippi, Alabama, Georgia, South Carolina, North Carolina, and Virginia. In each state a bureau officer accepted supplies in bulk and oversaw their delivery to local agents. The local agents, usually operating at the county level, consulted with civil officials to determine who needed aid, negotiated contracts for transporting the rations, and established distribution centers. Distribution, begun in a few areas in April, continued during May in many and until August in most. Except for the slight

---

[19]Ltr, L. A. Edwards to E. V. Duvall, 22 Apr 1867, and Circular Letter No. 1, 21 May 1867, both in Letters Sent, Chief Medical Officer, entry 98, Records of the Bureau of Refugees, Freedmen, and Abandoned Lands, Record Group 105, NA; Rpt, A. W. Shaffer, 25 Jun 1867, Records of the Assistant Commissioner for the State of North Carolina, Bureau of Refugees, Freedmen, and Abandoned Lands, 1865–70, M843, reel 24, NA; Ltr, A. C. Smartzmelder to J. R. Lewis, 31 Oct 1866, Letters Sent, Chief Medical Officer, Tennessee, entry 3436, Record Group 105, NA.

[20]Ltr, W. P. Carlin to O. O. Howard, 13 Mar 1867, Letters Received, entry 198, Record Group 105, NA; *Congressional Globe*, 40th Cong., 1st sess., 1867, pp. 39–40, 46–47, 83–91, 233–47, 281.

delay in beginning the program and a few complaints about the quality of the corn, the ad hoc relief system functioned well.[21]

The bureau's famine relief operation supplemented rather than replaced traditional voluntary and local efforts. In fact, private aid dwarfed that of the government as northern charity organizations contributed an estimated $5 million worth of food to the South.[22] The bureau's program also respected the heritage of local control by shipping supplies in bulk and leaving the determination of individual need and most of the distribution to resident civilian officials. Nevertheless, the bureau's operation involved more government employees and generated greater national interest than any of the antebellum measures. The resulting display of the potential for federal assistance helped inspire local authorities and the American public to turn increasingly to the national government for supplementary relief.[23]

In the 1870's, Congress often granted such requests, then gradually began to anticipate them. Opponents still challenged the constitutionality of relief appropriations but swayed fewer of their colleagues, who now justified assistance under the general welfare clause or boldly declared that "necessity knows neither law nor constitution, and never did in this country." To support that contention, proponents of relief cited a continually growing list of precedents. Opponents, on the other hand, lost an effective argument in the 1880's when the nation developed an embarrassingly large budget surplus. In the face of this unaccustomed plenty, even hardened dissenters realized the futility of their opposition. Lamented one: "I know from my experience here that I might just as well seek to dam up this flood in Mississippi with a paper dam as to keep members out of an overflowing Treasury when they want to get there." Increasingly, Congress became a willing though not always generous patron of relief.[24]

To administer the appropriations it voted, Congress depended on the Army, primarily because it had no other organization capable of rendering rapid relief. The postwar Army remained small, underpaid, poorly

---

[21] Account based on Records of Special Offices, Letters Received, March 1867–July 1868, entry 198, and Copies of Congressional Resolutions, War Department Issuances and Letters to and from Commissioner Howard Relating to Relief of the Destitute, entry 200. Both in Record Group 105, NA.

[22] *Southern Famine Relief Commission, Final Proceedings and General Report of the Southern Famine Relief Commission* (New York: William H. Arthur & Co., 1867).

[23] *New York Times,* 10 Jul 1874, 12 Feb 1884, 4 Apr 1897; Mabel A. Elliot, *American National* Red Cross Disaster Services, 1881–*1918* (Washington: American National Red Cross, 1950), p. 17; R. P. M. Ames, *Official Report of the Relief Furnished to the Ohio River Flood Sufferers . . . February and March 1884* (Evansville, Ind.: Journal Publ. Co., 1884), p. 25.

[24] First quote from *Congressional Record,* 48th Cong., 1st sess., 1884, p. 1033. Second quote from *Congressional Record,* 48th Cong., lst sess., 1884, p. 2296. On the budget surplus, see Robert H. Wiebe, *The Search for Order, 1877–1920* (New York: Hill & Wang, 1967), p. 31.

equipped, widely dispersed, and generally neglected, but it still maintained more of a presence throughout the nation than did any other federal agency. In addition, it held stockpiles of rations, clothing, and tentage—the staples of government grants to victims of disasters. Even when it did not have stores on hand, the Army—again more than any other government agency—had an established purchasing and transportation system. Finally, the military chain of command facilitated quick response. Once the Army had undertaken the task of relief in a few instances, its role became so fixed that Congress rarely questioned its use during the remainder of the century. In 1897, when a member introduced a resolution authorizing the United States Marine Hospital Service, an organization already involved in epidemic control, to direct a relief mission, a colleague responded that "distinctively, this duty belongs to the War Department," and Congress agreed.[25]

Between 1868 and 1898, sometimes on its own initiative but more often at the lawmakers' behest, the Army rendered some form of relief in seventeen or more disasters. Included were the Chicago fire (1871); yellow fever epidemics in Memphis and Shreveport (1873); Mississippi River flooding (1874); a locust plague in the Southwest (1874–75); another yellow fever epidemic in the South (1878); storms in Braskett, Texas, and Macon, Mississippi (1880); flooding in the Missouri River Valley (1881), the Mississippi River Valley (1882), and the Mississippi and Ohio River Valleys (1884); the Johnstown flood and Seattle fire (1889); flooding of the Mississippi (1890); drought in Oklahoma (1890); forest fires in Hinkley, Minnesota (1894); tornadoes in St. Louis (1896); and Mississippi and Rio Grande flooding (1897).[26] Though the Army's function expanded to include law enforcement during the Chicago fire and engineer support on several occasions after the Charleston earthquake, in most of these disasters Army assistance followed the pattern of the southern famine relief operation of 1867. Soldiers served primarily as administrators: they estimated needs, purchased supplies, delivered them in bulk, and left to local authorities the actual distribution to the needy.[27]

---

[25]For lack of organizational structure in government, see Wiebe, *Search for Order*, pp. 31–32. Quote from *Congressional Record*, 55th Cong., lst sess., 1897, p. 639.

[26]This list was compiled from the following sources: Reports of the Secretary of War, 1865–98; a search of military records on disasters by the Adjutant General's Office in 1915 (see Ltr, H. P. McCain to James Hay, 11 Jan 1915, file 1459754, Records of The Adjutant General's Office, General Correspondence, 1890–1917, Record Group 94, NA); and a list of disaster legislation compiled by the Congressional Research Service (see *Congressional Record*, 81st Cong., 2d sess., 1950, pp. 11900). Unfortunately, such lists do not always account for aid rendered by local units when not specifically directed by Washington. Other instances may, therefore, remain to be discovered.

[27]On police work at the Chicago fire, see The Adjutant General's office file on the fire on reel 33,

Sometimes, before voting an appropriation, Congress directed the War Department to determine the extent of destitution. The Secretary of War then sent one or more Army officers to the scene to evaluate the needs of the victims and report them by telegraph to the secretary, who in turn advised Congress. More often, Congress appropriated a lump sum without an investigation and charged the War Department with providing relief out of it. In that case, the secretary dispatched a commissary agent or instructed one stationed in the vicinity to purchase the requisite supplies, then detailed a few quartermaster or line officers to supervise delivery to local authorities. Relief items consisted primarily of rations but sometimes of clothing, bedding, and tentage as well. The original appropriation usually paid the cost of shipping or allowed use of government boats.

This system preserved the primacy both of local control and of voluntarism. Unfortunately, it thereby allowed corruption by local officials who could easily sell supplies or hoard them for personal use. Charges of such abuses surfaced during the relief operation after the grasshopper plague in 1874–75.[28] A more insidious form of corruption developed because the dominant group in any area could determine how much relief others received. Many disaster assistance missions took place in the Mississippi Valley, where whites misused supplies intended for black tenant farmers and sharecroppers. In the floods of 1874 and of 1882, whites allegedly used government supplies to coerce black votes or labor. During the floods of 1890, a group of fifty-nine black men in White Station, Mississippi, petitioned the president for relief, claiming they were unable to "get anything from the white people at all." They pleaded for the government to ship food and other supplies directly to their chairman because "if you all don't help us we will all be dead by July sure, without a doubt, and please for God's sace (sic) help us for we can not live this way and there is a great deal of our collur is dieing out on account of they can't get anything to eat." The War Department, however, appeared more sensitive to simple corruption than to that generated by race relations in the South, and the problem continued.[29]

---

Letters Received by the Office of The Adjutant General (Main Series), 1871–80, M666, NA; and Robert Cromie, *The Great Chicago Fire* (New York: McGraw Hill Book Co., 1958). On increasing engineer support, see Leland R. Johnson, "Emergency Response: A History of the Army Engineer Disaster Relief Mission, 1794–1950" (unpublished manuscript, Engineer Historical Division, Washington, D.C., 1978).

[28]Everett Dick, *The Sod-House Frontier, 1854–1890: A Social History of the Northern Plains from the Creation of Kansas and Nebraska to the Admission of the Dakotas* (New York: D. Appleton-Century Co., 1937), pp. 208-9; see also Gilbert C. Fite, "The United States Army and Relief to Pioneer Settlers, 1874–1875," *Journal of the West* 6 (Jan 1967): 99–107.

[29]Sarah Woolfolk Wiggins, *The Scalawag in Alabama Politics, 1865–1881* (University: University of Alabama Press, 1977), pp. 96–97; Ltr, James Lorrans to Benjamin H. Brewster, 21 Mar 1882,

(Continued)

### *The Role of the Medical Department*

Despite failings of prejudice and parsimony, by the end of the nineteenth century the federal government—and the soldiers who were its agents—had become an important source of assistance for disaster victims. That aid provided a strong precedent when in the early twentieth century the federal government expanded its relief operations—an expansion that included greater participation by members of the Army Medical Department. Yet for reasons rooted both in the department and the medical profession at large, the Army doctor's role remained minimal throughout the nineteenth century. Occasionally a medical officer might participate in a nonmedical relief mission, as when an assistant surgeon served as a distribution officer during the 1874 locust plague in the Southwest. Or a nonmedical officer might render medical assistance, as when Lt. Eugene A. Woodruff, an engineer officer who happened to be in Memphis when yellow fever struck in 1873, helped care for the sick. Acting on his own, Woodruff remained in the city, joined the Howard Association, and worked in a hospital where he contracted the disease and died. Such isolated occurrences, however, did not change the fact that the Army provided little medical assistance to civilians in disaster situations during the nineteenth century.[30]

Before the Civil War, medical professionals, both military and civilian, had only limited skills and knowledge to offer disaster casualties. Anesthesia, an American discovery, came into use in the 1840's, and surgeons possessed such basic skills as bone setting. But except for the use of quinine against malaria and vaccination for smallpox, the profession as yet could offer little to cure or prevent disease. The vast majority of American physicians still relied on the old practices of bleeding, purging, and blistering, which produced neither relief nor recovery. Consequently, antebellum Americans often placed little faith in physicians, and wisely so.[31]

Even if physicians had commanded more effective skills and greater

---

(Continued)
Letters Received by the Office of The Adjutant General (Main Series), 1881–89, M689, reel 84, NA; Ltr, Organization of 59 Black Men In White Station, Mississippi, to the President of the United States, 26 May 1890, Letters Sent Concerning Relief of Flood Sufferers, Mississippi Floods of 1890, entry 46, Records of the Office of Commissary General of Subsistence, Record Group 192, Washington National Records Center (WNRC). Engineer officers tended to emphasize the fact that free rations discouraged laborers from helping in relief work. See Johnson, "Emergency Response."

[30]RSW, 1875, p. 68; *New York Times*, 24 Oct 1873; Johnson, "Emergency Response."

[31]Rosenberg, *Cholera Years*, pp. 155–57; William G. Rothstein, *American Physicians in the Nineteenth Century: From Sects to Science* (Baltimore: Johns Hopkins University Press, 1972), especially pp. 41–62; Richard H. Shryock, *Medicine in America: Historical Essays* (Baltimore: Johns Hopkins University Press, 1966).

public support, the Army had too few to spare for disaster relief. The Army Medical Department was not permanently established until 1818 and for decades remained so chronically understaffed as to be unable to meet the Army's needs. In 1831, for example, the Secretary of War typically reported that the Army had sixty-four stations requiring doctors and fifty-three physicians with which to staff them. Moreover, the problems of dispersion and slow transportation that hindered all federal relief in the period were especially disadvantageous in the case of medical assistance. Scattered at distant outposts, Army physicians could hardly have reached many disaster victims in time to be of help.[32]

By increasing the awareness of sanitation, the Civil War raised the possibility of greater medical involvement in disaster relief. Although a few people had agitated for public health reform in the antebellum years, only during the war did sanitarians begin to gain popular support. Civilians eager to help the boys in the camps rallied to the cause of the soldiers' aid commissions which sponsored workers among the armies. Some commission agents were more concerned for the soldiers' spiritual well-being than for their physical health, if indeed they would or could have made the distinction. But others—particularly those of the Sanitary Commission—sought to prevent illness among the troops, agitated for improved treatment by an Army Medical Department ill-prepared for war, and often supplemented the military's own health care. Since the etiology of disease was still not understood, their most important contribution lay in mobilizing public opinion. The Union army's own widely publicized efforts to control yellow fever, particularly in New Orleans, also contributed to a new sense of the potential value of public health in preventing epidemics.[33]

Despite the increased public concern and awareness of the war years, participation in disaster assistance by the Army Medical Department remained minimal. Medical and public health capabilities advanced slowly, and traditions of localism and voluntarism remained strong in disaster situations. The newly formed American Red Cross incorporated both traditions and increasingly rendered medical and other direct relief.[34]

---

[32]Mary C. Gillett, *The Army Medical Department, 1775–1818* (Washington: GPO, 1981); RSW, 1831, p. 25.

[33]Richard H. Shryock, "A Medical Perspective on the Civil War," in *Medicine in America*, pp. 90–108; Howard D. Kramer, "Effect of the Civil War on the Public Health Movement," *Mississippi Valley Historical Review* 35 (1948): 449–62; Robert H. Bremner, "The Impact of the Civil War on Philanthropy and Social Welfare," *Civil War History* 12 (1966): 293–303. For efforts in New Orleans, see Jo Ann Carrigan, "Yankee Versus Yellow Jack in New Orleans, 1862–1866," *Civil War History* 9 (1963): 248–60; and for an example of its influence, *New York Times*, 5 Oct 1873.

[34]Foster Rhea Dulles, *The American Red Cross: A History* (New York: Harper & Bros., 1950); Elliot, *Red Cross Disaster Services*.

When the federal government proffered additional aid, it could turn to the United States Marine Hospital Service—predecessor of the Public Health Service—which was capable of furnishing some assistance. Its physicians aided civilian authorities in a Florida yellow fever epidemic, the floods of 1884, and the Johnstown flood, to cite only a few examples.[35] Finally, despite the war, the Army Medical Department remained poorly staffed and organized, with civilian contract physicians still caring for many soldiers.

Nevertheless, the Army medical personnel did provide some medical care to civilian communities, creating a legacy from which twentieth century disaster relief activity grew. Throughout the nineteenth century, sometimes but not always at the direction of Washington, Army surgeons worked to control or prevent epidemics. And on the frontier, military doctors found themselves ministering to the needs of civilians in medical emergencies of all types.

On a few occasions, the Army loaned its facilities to a community suffering from an epidemic. An early instance of such aid, though not one directly involving the Medical Department, occurred during the 1853 yellow fever epidemic in New Orleans. Military authorities there allowed the city's board of health to establish quarantine stations in Forts Jackson and Phillips, inactive posts situated on opposite sides of the Mississipi River several miles below New Orleans. Nearly a quarter of a century later, in June 1877, assistant surgeon Joseph Y. Porter in Key West, Florida, permitted the local board of health to care for epidemic victims in his post hospital.[36]

More typical of Army medical aid were the efforts of individual Army surgeons who cared for victims of epidemics. For example, in the antebellum period, Nathan S. Jarvis, a military doctor at Fort Brown, ministered to the mechanics and laborers of nearby Brownsville, Texas, during an outbreak of cholera. Civilian assistance became more common during Reconstruction, when many small units were stationed throughout the South. In 1869 a detachment commander in Warsaw, Kentucky, heard of a case of smallpox, removed the stricken family to the outskirts of town, and then directed his surgeon to vaccinate most of Warsaw's population. In another instance, Army surgeon George Taylor cared for both soldiers and civilians during a yellow fever epidemic in Galveston, Texas. Taken

---

[35]Elihu Burritt, *Jacksonville, Florida: Experiences in a Stricken City* (Jacksonville: Riverside Art and Publ. Co., 1888), p. 3; Ames, *Official Report*, passim; *New York Times*, 11 Jun 1889. For the Marine Hospital Service's limitations in disaster assistance, see *Congressional Record*, 55th Cong., 1st sess., 1897, p. 639.

[36]Duffy, *Sword of Pestilence*, pp. 100–2; Continuation of Brief, 20 Aug 1877, M689, reel 541, NA.

ill himself, Taylor died when he left his sickbed to serve as a guide for a delegation of doctors studying the outbreak.[37]

The routine relationship of frontier military physician to neighboring settlers, however, did more to create a nineteenth century legacy of aid to civilian populations than did sporadic aid during epidemics. In some sparsely settled areas, Army surgeons were the first, and for many years the only, medical men. Consequently, they treated a variety of patients: soldiers, local settlers, lumbermen, hunters, Indians. In the Old Northwest, the nation's first frontier, Army doctors prescribed for whooping cough, vaccinated for smallpox, pulled teeth, and generally provided medical service for all comers—red or white, military or civilian.[38]

The best known example of such aid was rendered by Dr. William Beaumont in 1822. A military surgeon stationed at Fort Mackinac, Beaumont was the only doctor on the island in Lake Huron and received permission from the Medical Department to maintain a civilian practice. The hard-drinking, ready-fighting voyageurs and trappers who frequented the island insured him a thriving practice. When one such character, Alexis St. Martin, was wounded in the abdomen by a shotgun blast at close range during a barroom brawl, his friends sent for the Army doctor. Beaumont arrived quickly, and through his ministrations and a near miracle, Martin survived despite the fact that the opening in his stomach never completely closed. In a long series of experiments, the Army surgeon used the civilian's stomach to enlarge the world's understanding of the digestive process—the first major American contribution to medical knowledge. Of course, most military medical contacts with civilians were considerably less dramatic and celebrated—more on the level of assistant surgeon John S. Griffin's action during the 1840's in treating an old man in Los Angeles for a dog bite.[39]

Aid to civilians continued as the frontier shifted westward after the Civil War. On the advancing frontier, a generation of Army medical men who would win renown in the twentieth century cared for civilians in

---

[37]N.S. Jarvis, "Report on the Rise, Progress, and Decline of Epidemic Cholera in the Valley of the Rio Grande," *Southern Medical Reports* 1 (1849): 436; Ltr, C. A. Bell to R. Rinble, 25 Jun 1868, Letters Sent, Chief Medical Officer of Kentucky, entry 1091, Record Group 105, NA; Unlabeled newspaper clipping, in Medical Officers of the Civil War, p. 116, entry 86, Records of the Office of the Surgeon General, Record Group 112, NA.

[38]Francis Paul Prucha, *Broadax and Bayonet: The Role of the United States Army in the Development of the Northwest, 1815–1860* (Madison: State Historical Society of Wisconsin, 1953), pp. 212–13; N. S. Jarvis, "An Army Surgeon's Notes on Frontier Service, 1833–48," *Journal of the Military Service Institute* 38 (1906): 132; Gillett, *Medical Department*, pp. 139–40.

[39]Jesse S. Myer, *Life and Letters of Dr. William Beaumont* (St. Louis: C. V. Mosby Co., 1912), p. 95 and passim; John S. Griffin, *A Doctor Comes to California: The Diary of John S. Griffin, Assistant Surgeon with Kearny's Dragoons, 1846–1847*, California Historical Society Publications No. 18 (San Francisco: California Historical Society, 1943), pp. 84–85.

emergencies. Walter Reed once walked through a snowstorm to deliver a baby, and on two occasions William Gorgas nearly perished in a blizzard while trying to reach suffering civilians in isolated Dakota cabins. And George Sternberg had an active practice among settlers around his stations, among them a trapper whose life he saved by an emergency amputation.[40]

Throughout the nineteenth century, whether aiding a community threatened by an epidemic or answering an emergency call, Army doctors established a tradition of helping civilians in need. Such work anticipated the time when the Medical Department would have greater resources and the medical profession greater skills. Then Army medical personnel would play an important role in disaster relief.

In the meantime the involvement of both the federal government and the Army in disaster relief had changed. Where early in the century the federal government only hesitatingly approved minor rehabilitation programs, in later decades it undertook substantial relief missions on a routine, if still ad hoc, basis. Where before the Civil War, the Army had rarely been considered for such operations, it later served as the federal government's primary agent for disaster relief. Army assistance abroad lagged behind that at home, but even so the United States had begun to render aid in foreign countries and to contemplate the military as an agency for doing so.

---

[40]Laura N. Wood, *Walter Reed: Doctor in Uniform* (New York: Julian Messner, 1943), pp. 132–33; Marie D. Gorgas and Burton J. Hendrick, *William Crawford Gorgas: His Life and Work* (Garden City, N.J.: Doubleday, Page & Co., 1924), pp. 58–61; John M. Gibson, *Soldier in White: The Life of General George Miller Sternberg* (Durham, N.C.: Duke University Press, 1958), pp. 64, 85–86. For other examples, see Percy M. Ashburn, *A History of the Medical Department of the United States Army* (Boston: Houghton Mifflin Co., 1929), p. 116; Maria Brace Kimball, A *Soldier-Doctor of Our Army* (Boston: Houghton Mifflin Co., 1917), pp. 53–54.

CHAPTER 3

# Emerging Missions: Combating Epidemics Abroad

The accomplishments of the Army Medical Department in disaster relief between 1898 and 1917 surpassed not only its meager contributions in the nineteenth century but those of any subsequent era as well. The transformation of the department's role began as it combated epidemics in the tropical dependencies acquired by the United States as a result of the Spanish-American War. The spectacular success that resulted rested upon both the emergence of modern health science and the prewar reform of the Medical Department itself.

Between 1865 and 1890, Louis Pasteur and Robert Koch demonstrated that germs caused certain forms of infectious illness. Armed with that basic insight, other scientists soon implicated microbes as causal agents of many diseases—of typhoid, leprosy, and malaria in 1880, tuberculosis in 1882, cholera in 1883, diphtheria, tetanus, and bubonic plague in 1884, and dysentery in 1898. By 1901, the president of the American Public Health Association could proclaim: "We no longer talk vaguely of cosmic perturbations, aerial influences, noxious miasms, and epidemic constitutions of the atmosphere, but have exact and definite knowledge of the characteristics, habits, and life-story of nearly all the organisms which are the cause of contagion."[1]

Relying on this "exact and definite knowledge," physicians cured more patients, and the status of the medical profession rose. Concurrently, sanitarians and engineers spurred municipal governments into forming new or strengthening existing boards of health with authority to enforce sanitary laws and regulations. Advances in medical knowledge and practice combined with these organizations for implementing them to make the two decades between 1890 and 1910, in the words of one historian of public health, a "period of scientific control of communicable disease by the application of bacteriology."[2]

---

[1]Trattner, *Poor Law to Welfare State*, pp. 116–35. Quote from Benjamin Lee, "President's Address," *Papers and Reports of the American Public Health Association* 27 (1901): 13.

[2]Rothstein, *From Sects to Science;* Lawrence H. Larsen, "Nineteenth-Century Street Sanitation: (Continued)

The Army Medical Department was able to contribute to this age of "scientific control" for it was a reformed service in a reformed Army. In common with many other segments of American society, the Army in the late nineteenth century strove to increase professional competency within its ranks—by the creation of special service schools, for example. The Medical Department, staffed by an unusually skilled, highly educated cadre of doctors who were frequently leaders in the revolution in medical knowledge, participated in this increased professionalism. The doctors also acquired specialized enlisted support in 1887 when Congress and the president approved the formation of the Hospital Corps. The corps strengthened the department by adding enlisted personnel who received training in elementary first aid, stretcher-bearing techniques, and other aspects of hospital and evacuation work.[3]

Unfortunately, all the weaknesses of the nineteenth century had not been corrected, as the Medical Department's performance in the Spanish-American War all too prominently revealed. The department did not have sufficient numbers of surgeons or corpsmen to support the massive troop buildup, and when it expanded its ranks it did not always secure qualified or trained personnel. Problems of supply, organization, and line indifference to medical needs further contributed to a failure of health care for the armies. After the war, a specially appointed presidential commission headed by Grenville M. Dodge examined medical operations as well as the conduct of the entire War Department. Its report recommended reforms which, when enacted over the next few years, strengthened the Medical Department.[4]

---

(Continued)
A Study of Filth and Frustration," *Wisconsin Magazine of History* 52 (1969): 239–47; Stanley K. Schultz and Clay McShane, "To Engineer the Metropolis: Sewers, Sanitation, and City Planning in Late-Nineteenth-Century America," *Journal of American History* 65 (1978): 389–411; John Duffy, *A History of Public Health in New York City, 1866–1966* (New York: Russell Sage Foundation, 1974), passim, but especially pp. 70–280. Quote from C.-E. A. Winslow, *The Evolution and Significance of the Modern Public Health Campaign* (New Haven: Yale University Press, 1935), p. 49.

[3]For efforts at modernizing the Army, see Peter Karsten, "Armed Progressives: The Military Reorganization for the American Century," in *Building the Organizational Society: Essays on* Associational Activities in Modern America, ed. Jerry Israel (New York: Free Press, 1972), pp. 197–232; James E. Hewes, Jr., *From Root to McNamara: Army Organization and Administration, 1900–1963* (Washington: GPO, 1975). For developments in the Medical Department, see Reports of The Surgeon General, 1887, p. 91, and 1888, pp. 141–42; Ashburn, *History of the Medical Department*, pp. 140, 142, and passim.

[4]Graham A. Cosmas, *An Army for Empire: The United States Army in the Spanish-American War* (Columbia: University of Missouri Press, 1971), pp. 245–314. See also U.S. Congress, Senate, *Report of the Commission Appointed by the President to Investigate the Conduct of the War Department in the War with Spain*, S. Doc. 221, 56th Cong., 1st sess., 1900, 8 vols. All eight volumes include information on the Medical Department, but for the commission's findings and recommendations, see 1: 169–89.

Even before these reforms, the Army Medical Department received an opportunity to demonstrate its new professionalism in work that highlighted its members' medical expertise and abilities to administer public health programs. Army medical officers directed several campaigns against epidemics, with success that may not have atoned for earlier failings but at least rehabilitated the Medical Department's public image. Maj. Walter Reed, one of the doctors most active in this work, wrote in 1901: "Thank God that the Medical Department of the U.S. Army, which got such a 'black eye' during the Spanish-American War, has during the past year accomplished work that will always remain to its eternal credit."[5]

The Medical Department's opportunity for "eternal credit" resulted from a dramatic shift toward international activism in American foreign relations at the time of the Spanish-American War. Several of the motives that spurred early foreign disaster relief—humanitarian concern, national prestige, and commercial considerations—contributed to American imperialism as well. The practical result of the new policies was vastly expanded military involvement abroad, as the victorious United States replaced Spain as the ruler of Cuba, the Philippines, and Puerto Rico.[6]

In all three countries, the Army governed for a time, but the length and form of its administration varied in each. In Puerto Rico the Army quickly reestablished order and turned affairs over to a civilian government that ruled the island as a territory of the United States. In the Philippines an insurrection against occupying forces led to a long battle to pacify the island. Shortly after the subjugation of the rebels, the military government abdicated in favor of an American civilian Philippine Commission. In Cuba the military imposed stability and, after four years, withdrew when a newly elected government agreed to American terms. Four years later, the United States decided it had not complied and sent the Army back to support an American civil government. This time the troops remained on the island for almost three years before once again returning Cuba to the Cubans.[7]

---

[5]Quote from Ltr, Walter Reed to William C. Gorgas, 29 Jul 01, in W. C. Gorgas Papers, University of Alabama Library.

[6]For an introduction to the literature on the change in policy, see Daniel M. Smith, "Rise to Great World Power, 1865–1918," in *The Reinterpretation of American History and Culture*, ed. William H. Cartwright and Richard L. Watson, Jr. (Washington: National Council for the Social Studies, 1973), pp. 443–64.

[7]See Edward J. Berbusse, *The United States in Puerto Rico, 1898–1900* (Chapel Hill: University of North Carolina Press, 1966); John M. Gates, *Schoolbooks and Krags: The United States Army in the Philippines, 1898–1902* (Westport, Conn.: Greenwood Press, 1973), but cf. Leon Wolff, *Little Brown Brother* (Manila: Erehwsa, 1961); David F. Healy, *The United States in Cuba, 1898–1902: Generals, Politicians, and the Search for Policy* (Madison: University of Wisconsin Press, 1963); Allan R. Millett, *The Politics of Intervention: The Military Occupation of Cuba, 1906–1909* (Columbus: Ohio State University Press, 1968).

Several factors influenced the Army's decision to institute programs of sanitary reform in all three possessions. The nineteenth century legacy of Army medical aid on the frontier probably conditioned Army doctors to consider a civilian relief mission, but pragmatic considerations dictated a public health effort as well. Obviously, a reduction in the incidence of communicable disease in the civilian community would protect the health of the troops. It would also offer some protection to American civilians working in the countries and thereby facilitate the development of commercial relations.[8]

Finally, a few medical officers argued that the containment of contagious diseases, especially in Cuba and Puerto Rico, offered a means to reduce the likelihood of epidemics in the United States. Army surgeon John Van R. Hoff, in an article entitled "The Share of 'The White Man's Burden' That Has Fallen to the Medical Departments of the Public Services of Porto Rico," proclaimed: "Robbed of all superfluities, the real reason why we are in the Antilles today is because our people had determined to abate a nuisance constantly threatening their health, lives, and prosperity." "Spain," Hoff added, "was maintaining a pesthole at our front door and we could no longer endure it."[9]

The goals of protecting Americans and eliminating pestholes led the Medical Department to devote most of its attention to highly contagious diseases, though it did furnish some routine care and instituted minor programs to control tuberculosis and leprosy. But all three countries harbored various epidemic diseases—smallpox, plague, cholera, yellow fever—which with the sudden influx of nonimmunes during the war and its aftermath presented a situation of potential medical disaster. Driven by the possibility of such a calamity, the Army concentrated its efforts on the prevention or control of epidemics.

### *Sanitary and Organizational Reform*

In 1898 doctors knew how to prevent smallpox epidemics and control cholera. The transmission of yellow fever and plague by insects had not yet been proven, even though the vectors for some other diseases had been recently established. Despite rapid advances, medical theory still held filth to be the leading cause of disease and organized sanitation the

---

[8]On this point, see RSW, 1903, vol. 6, *The Philippine Commission*, part 2, p. 64; Republic of Cuba, *Report of the Provisional Administration from October 13, 1906 to December 1st, 1907*, p. 47.

[9]Quote from clipping from the *Philadelphia Medical Journal*, 7 Apr 1900, in the Jefferson R. Kean Papers, Alderman Library, University of Virginia. For evidence of popular support for this attitude in the States, see John H. Ellis, "Yellow Fever and the Origin of Modern Public Health in Memphis, Tennessee, 1870–1900" (Ph.D. diss., Tulane University, 1962), pp. 250–51.

best means to prevent sickness. Cleanups reduced the incidence of "camp diseases" such as diarrhea and dysentery, may have helped prevent the spread of cholera, eliminated some breeding places of mosquitoes, and lessened the food supply of rats. Sanitation could not, however, have prevented or controlled the epidemics of plague and yellow fever which American officials so feared. Nonetheless, knowing what sanitation could accomplish and expecting—or perhaps only hoping—it could do more, the Army first cleaned occupied areas in all three countries and then established modern boards of health to maintain that cleanliness.

On all three islands, Army doctors encountered an environment reminiscent of America in the early nineteenth century, if not Europe in the Middle Ages. One American who arrived in Havana, Cuba, about the time the Army did recalled how "dead animals abounded, garbage was encountered everywhere, gutters were foul, and open mouths of sewers running into the ocean or into the harbor were reeking. Nauseating odors filled the air, and the condition of the public buildings was such that the American army officers practically refused to occupy them." With minor geographical variations, his description fitted cities the Army occupied in the Philippines and Puerto Rico as well. Most of the residents of all three countries still considered disease an act of God's will and apparently remained oblivious to the aesthetic as well as the medical benefits of sanitation. They drank from impure water supplies and made little provision for disposal of personal waste. So many people stopped by the roadside to relieve themselves or dumped chamber pots out of windows that one American official in the Philippines advised nighttime strollers in Manila to walk only in the middle of the street and to carry an umbrella.[10]

Since this tactic was unsatisfactory, particularly for soldiers who were not issued umbrellas, the Americans had to remove the accumulated filth and teach local civilians to maintain cleanliness through proper sanitation. At first the Army resorted to draconian measures. In the early days in Cuba, American troops entered the "dirty little town" of Siboney in which yellow fever was raging. Under the direction of Col. Charles R. Greenleaf, the surgeon in charge, the Army instituted a "vigorous" cleanup program and excluded all Cuban and Spanish refugees. When those measures failed to halt the epidemic, the Army burned the town.[11]

In Santiago, Cuba, the first American military governor, Gen. Leonard

---

[10]Quote from Franklin Matthews, *The New-Born Cuba* (New York: Harper & Bros., 1899), pp. 95–96. Advice from Dean C. Worcester, *The Philippines Past and Present*, ed. Ralston Hayden (New York: Macmillan Co., 1930), p. 329. See also Joseph B. Van Hise, "American Contributions to Philippine Science and Technology, 1891–1916" (Ph.D. diss., University of Wisconsin, 1957), p. 14; L.P. Davison, "Sanitary Work in Porto Rico," *Independent* 51 (1899): 2128–29.

[11]Quote from RSG, 1898, pp. 196, 216–17.



SANITARY DEPARTMENT, COMMISSION AND STAFF, *Santiago de Cuba, Major George M. Barbour in chair, 1900.*

Wood, employed less extreme tactics but still forcibly imposed cleanliness on the community. Wood, a physician himself, sought a general reduction in the city's death rate but also hoped to prevent yellow fever. He did not assign the cleanup task to Army medical personnel but appointed "Major" George M. Barbour director of sanitation. Barbour had simply assumed the title of major; he was a civilian, a former business partner of Buffalo Bill Cody, and an experienced free-lance sanitarian. Charged with cleaning the city, Barbour commandeered carts and drafted laborers, sometimes horsewhipping the recalcitrant. But local residents probably participated to receive the food and cash Wood's government offered as wages, rather than from fear of Barbour's lash. Wood added some of his own men to the sanitary force and organized soldiers and civilians alike in military fashion. Crew foremen exercised absolute control, and subordinates saluted superiors. To keep his eye on the troops, Wood rode through the streets of the city on horseback several times a day.

This paramilitary sanitary force attacked filth with a vigor "as sharp and hot as the charge of San Juan Hill," according to one observer. Crews cleaned shops, bakeries, and slaughterhouses. And the streets became the main battlefront where workers shot stray dogs, burned trash, and began to clean what seemed to be the dirt of centuries. They compiled an impressive body count: 1,100 corpses both human and animal were removed and burned in the first 68 days. At the height of the battle, crews

carried off 200 loads of rubbish a day. The habits of the populace also came under attack: "People making sewers of the thoroughfares were publicly horsewhipped in the streets of Santiago; [and] eminently respectable citizens were forcibly brought before the commanding general and sentenced to aid in the cleaning of the streets they were in the habit of defiling." Coerced if not convinced of the merits of sanitation, local residents started to cooperate. By the middle of the summer Wood proclaimed, "the old town is at last clean, and we are down, so to speak, to modern dirt which, while not attractive, is of a less offensive character than that of 1520."[12]

In other cities in the three countries, the Army relied not on a dramatic military assault but on a modern sanitation program that combined military authority with bureaucratic methods. In the capitals, San Juan, Manila, and Havana, the Americans formed crews composed mainly of local civilians to clean streets and public buildings, established inspection procedures to examine all residences, and attempted to force citizens to practice sanitation. Though Army medical officers did not always direct the cleanup efforts, they did oversee the establishment of new public health bureaucracies and often played a central role in their administration. Efforts in Manila illustrated how their attempts at sanitary reform proceeded in all three cities.

Cleaning the Philippine capital was no simple task; the Army drastically increased the size of the former Spanish sanitation force and hired many more carts and mules. The reinforced crews scoured the city, removing refuse and garbage which the Army then burned rather than dumping it into the ocean as had been Manila's practice. The disposal of personal waste posed a special problem because of the citizens' century-old habits. Many homes had picturesque towers housing a small room at the top with a hole in the floor that served as a wretched system of indoor plumbing. According to one observer, "this pit of iniquity is never cleared out" and "the excreta of fifty or one hundred years lie there" forming "a solid column of this decayed filth." A group of American soldiers, no doubt unwilling volunteers, took three weeks to clean out just one tower. After cleaning all of them, the Army instituted a night soil pail system and hired civilian contractors to remove the buckets and barrels but even so never

[12]First two quotes from Robert P. Porter, *Industrial Cuba: Being a Study of Present Commercial and Industrial Conditions, with Suggestions as to the Opportunities Presented in the Island for American Capital, Enterprise, and Labor* (New York: G. P. Putnam's Sons, 1899), p. 63. Hermann Hagedorn, *Leonard Wood: A Biography* (New York: Harper & Bros., 1931), 1: 187–202, Wood quote on p. 202; Matthews, *New-Born Cuba* pp. 127–35, 298–99, 302; for a cautionary note on Wood's achievement, see Albert G. Robinson, *Cuba and the Intervention* (New York: Longmans, Green, & Co., 1905), pp. 79–80.

completely solved the city's waste disposal problem.[13]

Once Manila became minimally free from foulness, the Army tried to institute modern public health practices to keep it so. The Board of Health was created, directed by an Army medical officer and composed of six Army Medical Corps members and two local doctors. The board supervised cleanup operations, compiled vital statistics, regulated medical practice, and, most important, promulgated sanitary regulations. These included a ban on using public places for toilets as well as rules that required householders to empty privies at least once a week, market vendors to use garbage cans, and slaughterhouses to burn carcasses. Unfortunately, since these and other rules sometimes conflicted with Spanish or local customs, many citizens remained unconcerned about or even hostile to sanitary measures. To stimulate their cooperation, the military adopted house-to-house inspections and street patrols.[14]

The Army medical officer who directed the inspections divided the city into ten districts, recruited workers from the local Filipino and Chinese populations, and organized them into a hierarchical staff of 10 district inspectors, 30 subdistrict inspectors, and 60 inspectors. The staff tried to check every house at least once a week, and at each the inspector posted a card with his signature, the date, and his findings. If he judged the premises unsanitary, he gave the householder a set of printed instructions explaining how to correct the problem. Householders who refused to make corrections could be fined, but those who agreed to cooperate were given time to perform the work. The hierarchy of inspectors coupled with the use of posted cards allowed thorough supervision, but as a further precaution the Army never fined a citizen without first sending an Army officer to reinspect the premises. Because the inspection system was judged to be fair, local cooperation improved.[15]

The populace responded less enthusiastically to the other method of enforcement, street patrols by American soldiers. Under the direction of the provost marshal, military details patrolled Manila to enforce compliance with sanitary ordinances. The soldiers not only fined people who broke

---

[13]Quotes from G. J. Younghusband, *The Philippines and Round About* (New York: Macmillan Co., 1899), pp. 53–54. Gates, *Schoolbooks*, p. 60; *Annual Report of Major General Arthur MacArthur, Military Governor in the Philippine Islands*, 1901, 2: 8–15; Van Hise, "American Contributions," p. 14.

[14]On the Board of Health, see Gates, *Schoolbooks*, pp. 57–60; RSG, 1900, p. 189; and 1901, pp. 138–40; R. C. Humber, "Military Government in the Philippines" (a study prepared in the Historical Section, Army War College, Jun 1943), Appendix FF; Charles R. Greenleaf, "A Brief Statement of the Sanitary Work So Far Accomplished in the Philippine Islands, and of the Present Shape of the Sanitary Administration," *Papers and Reports of the American Public Health Association* 27 (1901): 157; Van Hise, "American Contributions," pp. 15–17.

[15]*MacArthur Report*, 1901, 2: 11–13; Greenleaf, "Statement on Sanitation," p. 160; RSG,

the rules but also befuddled and angered many Filipinos accustomed to Spanish informalities by refusing bribes. One English traveler described how older local residents "male and female, who from time immemorial had been accustomed to perform the offices of nature in any convenient spot in the public streets, now found that the continuance of such habits was a luxury which, pecuniarily speaking, they could no longer afford for even the most opulent would hardly care to pay a couple of dollars on each occasion." The visitor added that "the custom of emptying slops out of windows was also severely discountenanced, and one Spanish officer who happened to hit an American sentry in this way spent the night in the guardroom, and, in addition, had to pay a handsome fine in the morning."[16]

As a part of its cleanup campaign, the Army attempted to improve Manila's water system and public market. Since 97 percent of the residents drew their drinking water from the public hydrants, immediately after occupying Manila the Army restored that service. Nevertheless, military authorities still worried about the system's efficiency and safety, so they thoroughly cleansed the reservoirs, constantly checked for contamination, and continually sought to maximize pressure and minimize waste. In the case of Manila's "unsightly and malodorous" market, however, the Army decided simply to abandon it and construct a new one. Beginning in November 1899, the military government built a new market, a wonder of modern merchandising with corrugated roof with iron supports, a concrete slab floor, and water hydrants for washing the entire structure.[17]

Manila's may have been the most thorough of the Army's sanitary campaigns, but programs in Havana and San Juan were nearly as comprehensive. In both cities the Army cleaned streets and buildings and created district staffs to ensure the cleanliness of every house. Outside the three capitals, however, Army sanitarians exerted less influence, and their message never reached the majority of small villages. Even in the handful of provincial towns where they did work, Army officials provided less structured, less thorough aid than in the capitals.

In the village of Malabon, to cite another example from the Philippines, the Army found filth everywhere since residents worried little about the cleanliness of either their houses or the village. Hogs served as the town's "official scavengers," but unfortunately the job exceeded their appetites.

---

1901, p. 139.

[16]Quotes from Younghusband, *Round About*, pp. 52–53. Van Hise, "American Contributions," p. 17; Karl I. Faust, *Campaigning in the Philippines* (San Francisco: Hic! ᵉ-Judd Co., 1899), pp. 111–12.

[17]Gates, *Schoolbooks*, p. 59. Quote from Van Hise, "American Contributions," p. 47. Van Hise contends the improvements to the market were more to increase rentals than to ensure sanitary conditions.

In attempting to improve the situation, the local Army commander initially tried persuasion. He sent through the village a drum-beating crier accompanied by a soldier who delivered a speech on the people's responsibility to clean their homes. The citizens remained unpersuaded, conditions worsened, and the Army resorted to regimentation. The commander dismissed dirty people from their jobs in the market. He appointed a corporal as sanitary inspector who, with the assistance of two local civilians, examined all the houses in the village. The corporal fined householders between fifty cents and a dollar for a first offense of uncleanliness and twice as much for the second. When fine collections lagged, the Army started to double the fine after twenty-four hours, threatened uncompliant citizens with prison, and finally employed soldiers as collection agents.[18]

### *Combating Epidemics*

Despite the mammoth cleanup of major cities and lesser efforts in some smaller ones, epidemics still struck. Smallpox threatened areas of all three countries. In the Philippines, bubonic plague broke out during the military government, as did cholera after the assumption of authority by American civilians. In Cuba, yellow fever threatened throughout the first and second occupations. These outbreaks provided dramatic testimony to the limits of sanitation as a means of disease control and prompted Army Medical Department civilian disaster assistance on a unprecedented scale. To provide relief, Army medical officers mobilized the newly created boards of health and utilized the latest medical knowledge. For smallpox and cholera that knowledge proved sufficient, but with plague an effective campaign was not devised until the Army acted on a then unproven theory of the disease's transmission. In the case of yellow fever, another malady that still perplexed epidemiologists, the Medical Department itself achieved the breakthrough upon which an eradication program was then based.

Fortunately, the state of medical knowledge rendered Army medical personnel best prepared to control the first type of epidemic they encountered— smallpox. In November 1898 an outbreak occurred in the Holguin district of Cuba's Santiago province. The American military Governor sent the 2d Volunteer Infantry, composed of troops who had been vaccinated and revaccinated and augmented by several additional medical officers, to the affected area. Still influenced by the conviction of

---

[18]Ltr, A. Millard to W. A. Kobbé, 31 May 1899, William A. Kobbé Papers, Military History Institute (MHI). For variations in another town, see James Parker, *The Old Army: Memories, 1872–1918* (Philadelphia: Dorrance & Co., 1929), pp. 351–52.

a close relationship between filth and disease, the troops cleaned and disinfected the more permanent towns and burned (until Wood ordered the practice discontinued) the thatched hut communities. The medical officers vaccinated 30,000 people and, aided by the Cubans who actually provided most of the patient care, administered a hospital that treated 1,185 cases of smallpox with only a 10.1 percent death rate. The Army's efforts continued into January but then the epidemic had passed and did not recur.[19]

In Puerto Rico the Army encountered a more widespread smallpox epidemic. The outbreak began in October 1898; by the next February the disease had struck more than 3,000 people in almost all parts of the island. Since it spread from the countryside to the city, Army medical officers had no choice but to attempt to vaccinate everyone in Puerto Rico. But several factors made such a comprehensive program extremely difficult. The disease already had a firm hold in many parts of the country, the climate favored its survival, a huge number of people had to be vaccinated, and the Americans could not count on popular support since most residents discounted the danger. To counter their opposition, the Army had limited sanitary authority and few medical men to marshal for the crusade. The available Army doctors met severe difficulties in traveling because of poor roads, which also intensified the problem of supplying fresh vaccine to isolated parts of the island.

Undaunted, the chief surgeon of American forces, Maj. John Van R. Hoff, in December 1898 convinced the military government to authorize a plan to vaccinate all adults who had not previously had the disease and all infants under six months. Although in name a civil program, the vaccination effort actually was, according to its director, Maj. Azel Ames, "organized and directed wholly by medical officers of the army." Ames, also a member of the Medical Corps, both supervised the program and directed its implementation in the region around Ponce. In the four other administrative divisions designated by Hoff, medical officers also headed the project. In addition, doctors at all American Army posts inspected operations in their area, and at many vaccination stations, Hospital Corps personnel acted as orderlies, assistants, and recorders. The vaccinators, however, were usually Puerto Ricans.[20]

With the Army furnishing much of his staff, Ames's major problem

---

[19]Ltr, R.S. Woodson to Leonard Wood, 23 Nov 1898, in Hammilton V. Bail, "The Military Government of Cuba, 1898–1902" (a study prepared in the Historical Section, Army War College, 1943), Appendix HH; RSG, 1899, p. 245; Leonard Wood, "The Military Government of Cuba," *Annals of the American Academy of Political and Social Science* 21 (1903): 155.

[20]Quote from Azel Ames, "The Vaccination of Porto Rico: A Lesson to the World," *Journal of the Association of Military Surgeons* 12 (1903): 302.

became securing adequate supplies of potent vaccine. Vaccine sent from the United States tended to lose its potency before it arrived in Puerto Rico. At Hoff's suggestion and with the governor's approval, Ames built a vaccine farm on a site near Coamo and stocked it with cattle donated by local farmers. Its operators experienced considerable difficulty getting lymph brought from the States to grow, but eventually the farm's cows produced sufficient quantities of vaccine.

Ames then had to ensure the continued potency of the vaccine during shipment from the farm to the vaccinators. To do so workers at the farm placed 500 vaccine points in absorbent cotton, put them in specially constructed shallow tin boxes, wrapped the boxes in more cotton followed by oiled silk, and finally placed fifteen of the boxes in a pannier. With two panniers slung across the backs of their horses, riders immediately set off for the division vaccination stations. At the five division stations other laborers divided the packets into units of 100 points, placed them in quadruple wrappings, and mailed them to the vaccinators.

Once it had devised a way to deliver vaccine to the stations, the Army had to convince people to be vaccinated. To secure their cooperation, the Americans employed a shrewd blend of political savvy and administrative fiat. The Army obtained the support of the *alcaldes de barrio,* the Puerto Rican equivalent of ward heelers, who knew or at least were acquainted with all the people in their neighborhood. The officials in charge of vaccination had these men compile a list of all residents in their precincts. Shortly before the time scheduled for vaccination, the officials notified the local *alcalde* who in turn summoned 225 people from his list to report to the station, usually located in a nearby school. Army authority, however, reinforced the influence of the neighborhood leader, since Ames convinced the military government to issue a decree that prohibited employment of anyone without a vaccination certificate.

Under Ames's program nearly 860,000 people were vaccinated at a moderate cost of about $30,000. The United States supplied half of that sum, with Puerto Rico contributing the other half. Most of the money was paid to local physicians who served as vaccinators; the remainder defrayed the cost of operating the stations. The benefits of the expenditure and the Army's efforts were readily apparent. In the nine years before the program began, an average of 621 people died each year from smallpox. In 1899, the program's first full year of operation, total deaths dropped to 242; from 1 January to 30 April 1900, no one died of smallpox in Puerto Rico.[21]

[21]RSG, 1899, pp. 191–92, 246–248; RSW, 1900, vol. 1, part 13, *Report of the Military*

Though it employed a similar program, the Army had more limited success eliminating smallpox in the Philippines, where the disease "was so common among the natives that one met them walking in streets all broken out, with great sores on faces and hands." Almost immediately after the Army's arrival, a near epidemic broke out among American troops and Spanish prisoners in Manila. The task of eradicating smallpox in the city fell to Maj. Frank S. Bourns. Bourns, a volunteer officer serving in the Medical Corps, had been in the Philippines twice before as a civilian, spoke fluent Spanish as well as a few local dialects, and had many friends in Manila. Fortunate in its director, the American program also benefited from the fact that the Spanish colonial government earlier had undertaken a token vaccination effort. Therefore, some residents understood the process, and a pool of trained vaccinators existed. In addition, Spanish officials had built a vaccine farm that Bourns rapidly reactivated to produce vaccine from native carabao calves. With the head start provided by Spanish efforts as well as Bourns's own political and organizational abilities, the Army rapidly vaccinated 80,000 people, preventing a major disaster. As a further precaution the Americans treated infected Filipinos in a smallpox hospital opened in a local church.[22]

As the American Army subdued the rebels and gained control of other parts of the Philippines, it extended its efforts against smallpox to additional areas. For a time, local garrison surgeons vaccinated limited numbers of Filipinos when epidemics threatened. Lt. Col. Louis M. Maus, chief surgeon in the Philippines, considered that approach too haphazard and secured the military governor's approval for a systematic, compulsory vaccination plan. For adequate supplies of vaccine, Maus at first depended on the farm Bourns had used but when production fell behind demand started a second farm and, still later, three more. For his corps of vaccinators he recruited and hired Filipino medical students, taught them the fundamentals of vaccination and sterilization, and sent them throughout the islands. Maus assigned his own Army medical officers to supervise the program in their towns and neighboring villages. They hired people to keep the records and ensured that the students properly vaccinated the populace.

The program began in February 1900, and by the end of 1901 a

---

*Governor of Porto Rico*, p. 153; Ames, "Vaccination of Porto Rico," pp. 293–313; Henry K. Carroll, *Report on the Island of Porto Rico: Its Population, Civil Government, Commerce, Industries, Productions, Roads, Tariff, and Currency, with Recommendations* (Washington: GPO, 1899), pp.212–16.

[22]Quote from Mrs. L. M. Maus, "Old Army Days," manuscript in Halstead-Maus Family Papers, MHI. Van Hise, "American Contributions," pp. 134–35; Worcester, *Philippines*, p. 333; Gates, *Schoolbooks*, pp. 58, 64–65.

million people had been vaccinated. After the Army had vaccinated adults and children, however, it entrusted vaccination of the newborn to the Filipinos, who neglected it. Outbreaks of smallpox recurred, forcing the Philippine Commission in 1904 and again in 1910 to launch other vaccination programs.[23]

At the height of their efforts against smallpox, occupation forces in the Philippines faced the added threat of an outbreak of bubonic plague. In December 1899, two residents of Manila died, apparently from plague. When additional cases developed in January, alarmed Army medical officers decided to take precautions. In all the districts of the city, they established offices with direct telephone lines to the Board of Health and because of personnel shortages staffed them with Army doctors who were awaiting transportation to the United States. Each doctor received notification of every illness or death in his district and, when notified, hurried to the scene to investigate. If he found someone dead from plague, he took the corpse to be cremated. If the victim was still alive but appeared to be suffering from plague, the doctor accompanied the patient to a special hospital in an ambulance maintained solely for that purpose. When he left, another inspector assumed charge in the house until a disinfection crew arrived. The victim's personal belongings were sterilized or burned. Other residents received disinfectant baths and then were sent to a detention center for observation. Finally, the crew thoroughly washed and disinfected the premises, closed and placarded the house, then returned daily for twelve days to inspect it. Occasionally, if cleaning proved too cumbersome, the crew simply demolished the house.[24]

These measures failed to eradicate the disease. In 1900 Manila reported 271 plague causes and 200 more than that the next year. Early in 1902, Colonel Maus, now detailed to serve as president of the Board of Health in the new civilian Philippine Commission, escalated the attack. He continued the district office operation but expanded hospital service and instituted an inoculation program. Since the original plague hospital at San Lazaro had only tents, the board moved it to an old Spanish hospital where an Army surgeon directed its operation. The detention center remained at a site near San Lazaro, but now people admitted to it were inoculated against plague as were others considered likely to have had contact with the disease. Maus secured most of the vaccine used in the

---

[23]RSG, 1900, pp. 122–25; Greenleaf, "Statement on Sanitation," p. 159; Maus, "Old Army Days," passim; Van Hise, "American Contributions," pp. 135–36; Gates, *Schoolbooks*, p. 217; Victor G. Heiser, "A Note on Smallpox and Vaccination in the Philippine Islands," *United States Public Health Reports* 26 (1911): 495.

[24]RSG, 1901, pp. 139–40, 214–15; Greenleaf, "Statement on Sanitation," p. 161; *MacArthur*

program from one of the world's leading authorities on plague, Professor Shibasaburo Kitasato of Tokyo, and produced the rest in a local government laboratory. In all, the board inoculated more than 100,000 people—though the process probably provided at best temporary immunity.

Maus's major innovation, however, was to declare total war on the city's rat population. The role of the rat flea as a carrier of plague was not proved until 1905 by the Indian Plague Commission, but some scientists already suspected that rodents were involved in the transmission of the disease. Realizing the failure of the methods attempted so far, Maus decided to act upon this theory. The Board of Health organized a civilian "rat-catching corps" with forty uniformed members divided into squads. Each squad distributed poison every night and at the same time collected dead rats, caught living ones when it could, and performed spot disinfection. Not content to depend totally on its professional rat catchers, the board also paid bounties to citizens bringing the animals to stations conveniently located throughout the city.

At the stations, sanitary workers tagged each rat with the street number where it had been found, dipped it in a strong antiseptic solution, and sent it to the biological laboratory. There a staff examined the animal for plague and cremated it. Of the 75,000 rats examined by the laboratory, 4 percent were diseased. Sanitary inspectors quarantined buildings where plague carriers had been found and followed the disinfection procedures applied to houses of human plague victims. Initially, the board simply burned all thatched houses but later discontinued that practice in the face of strong public opposition. It continued, however, to force homeowners to whitewash walls, lay cement ground floors, or make other improvements to their residences.

Many people remained hostile to the program, especially since opponents of American rule made use of a few mistakes by poorly trained workers for propaganda purposes. Even some Spanish and Filipino doctors refused to participate in the plague work, although many others rendered most valuable service. Community cooperation improved, however, when Maus returned to the United States in July 1902 and Dr. Frank Bourns, at that time a civilian, succeeded him. Increased support resulted both from Bourn's skill at public relations and the success of earlier efforts. In 1902 Manila reported only three cases of plague. Unfortunately, attempts to quarantine the city had failed, and the disease spread to the provinces, obliging the government to institute similar programs there. The sporadic cases in the hinterland, though, presented less danger than would outbreaks

---

*Report*, 1900, 2: 9–12; 1901, 2: 17.

in the capital, where American efforts had all but eliminated plague.[25]

A two-year cholera epidemic that followed the plague was even more frightful and deadly. Between 1902 and 1904, 4,386 people died in Manila alone, while another 105,075 succumbed in the provinces. "The burial forces were all too slow to keep pace with the swath cut by the grim reaper," reported one American, "and the bodies were laid in rows in the trenches, the earth covering just reaching the corpses of the latest victims being constantly brought up in carts only to be covered in turn by a few shovels of earth." The rapidity with which death followed the first symptoms of the illness intensified the anxiety of the living. The same American who watched the burials commented how fear increased when "a friend who might have been perfectly well at noon, was stricken ill by mid-afternoon, and died during the night."[26]

If cholera terrified the Americans, it left the Filipinos singularly unconcerned—which of course made combating the epidemic considerably more difficult. Political distrust, differing cultural values, and ignorance of sanitary principles caused many nationals to oppose American efforts. Since the epidemic occurred shortly after the end of the war with the insurgents, tensions and antagonisms remained which hostile Filipinos exploited to portray American sanitary efforts as attempts at genocide. Even people unswayed by such charges obstructed measures that conflicted with local practices. Some tried to hide the sick in the belief that everyone should remain at home to die; others surreptitiously buried the dead because the burning of corpses violated religious beliefs.[27]

But most of those who ignored orders designed to check the spread of cholera probably did so simply through ignorance of modern sanitation. People took few if any precautions to insure the purity of the food or water that could transmit cholera. Residents of Manila bought vegetables that had been "refrigerated" on the way to market by being hung from the stern of boats in a polluted river. When someone reported seeing a patron saint rising from a well, people flocked to draw their water there, convinced it could not possibly be infected. It was. In another place, water "miraculously" broke through the ground; many interpreted the event as a sure sign of purity and avidly drank from a broken sewer line.[28]

---

[25]*Third Annual Report of the Philippine Commission,* 1902, part 1, pp. 265–73, 336–37. Maus, "Old Army Days"; clipping from *San Francisco Chronicle;* both in Halstead-Maus Papers, MHI.

[26]Statistics from Worcester, *Philippines,* p. 337. Quotes from W. Cameron Forbes, *The Philippine Islands* (Boston: Houghton Mifflin Co., 1928), 1: 336. See also Richard Johnson, "My Life in the United States Army," p. 63, manuscript in the Richard Johnson Papers, MHI.

[27]Worcester, *Philippines,* pp. 335–36; RGS, 1903, p. 82; Van Hise, "American Contributions," p. 105; James A. Le Roy, "Philippine Health Problems," *Outlook* 71 (1902): 780.

[28]John M. Banister, "Medical and Surgical Observations during a Three-Year Tour of Duty in the

Without public support or popular awareness that cholera was a waterborne disease, with Filipino officials generally "apathetic" and "native doctors . . . proverbially as scarce as hen's teeth," officials of the Philippine Commission, which now controlled the country, had few resources to battle the epidemic. They turned to the Army Medical Department for assistance. Unfortunately, the Army itself had a very limited number of medical men in the Philippines, so initially the government concentrated its scarce manpower in Manila.[29]

Cholera first broke out in the capital in late March 1902, and civilian health authorities at once asked the commander of American troops in the Philippines to patrol the Marikina River, the source of Manila's water supply. The commander dispatched patrols to prevent bathing, washing of animals, and dumping of sewage. At the same time, authorities closed Manila's wells and distributed distilled water throughout the city.

Health officials at first thought they could restrict the outbreak to the Farola district, one of the capital's worst slums, but quarantine of the section failed miserably. Since the overcrowded and filthy neighborhood defied sanitary improvement, the head of the Philippine Commission ordered it burned. Colonel Maus hesitated to destroy a whole neighborhood but, after being commanded to do so three times, complied. Just before setting fire to the area, the Army removed to a detention camp all residents who had not already fled. Maus's compassion had been wise since surely the neighborhood's water supply was the source of the disease. Burning Farola accomplished little, while it prompted many inhabitants to flee to other sections of Manila where additional cholera cases soon appeared.[30]

Patrols along the river, distribution of water, and other precautions continued. Faced with an expanding epidemic, authorities detailed 31 Army physicians with a force of 1,500 workers to conduct daily house-to-house inspections. They also disinfected and closed for five days the residence of every known cholera victim. People exposed to the disease were sent to a detention camp near San Lazaro capable of handling 2,500 inmates. When it quickly became overcrowded, authorities set up a tent camp at Santa Mesa. To care for the increasing number of victims, officials operated two cholera hospitals, both under the command of one Army medical officer. Unfortunately, the Filipinos often dreaded the detention centers and hospitals even more than the plague and tried to

---

Philippines," *Journal of the Association of Military Surgeons* 18 (1906): 151–53.

[29]First quote from RSG, 1903, p. 79; second from Johnson, "Life in the Army," p. 63.

[30]*Third Annual Report of the Philippine Commission*, 1902, part 1, pp. 267–69; Van Hise, "American Contributions," pp. 101–3.

escape being sent to them.[31]

In late summer, after conspicuous courting by the Americans, local cooperation improved. Bourns assumed direction of the program and established better relations with civilians. More important, authorities repaired physical facilities in the detention centers and served better food prepared according to local customs. The directors even began to allow inmates under observation to leave the facility during the day for work. Finally, the program received a valuable endorsement when members of a few prominent families entered cholera hospitals and recovered. With greater local support and the continuation of the Army's sanitation efforts, the scourge passed in Manila by February 1903.[32]

The epidemic continued in the provinces, however. Manila authorities had tried to seal off the city, but residents resented restrictions on their travel and took little-known paths to other parts of the islands. Cholera quickly appeared in several provinces and, by the end of May 1902, in all the islands. Since the Filipinos did little to halt its spread, American health officials depended on the aid of Army surgeons serving with small garrisons stationed throughout the country. Headquarters, Division of the Philippines, appointed the garrison surgeons to the boards of health in their towns and made them responsible for public sanitation. They were to check the purity of both foodstuffs and water supply, to ensure the removal of garbage and the proper burial of the dead, and to keep neighboring streams free of fecal matter. If their precautionary measures failed and cholera appeared in their town, the order directed surgeons to establish a detention camp and send to it all persons who had contact with the disease. They were also to ensure that townspeople boiled all drinking water and that vegetables that could be eaten raw were not sold.[33]

In most areas Army medical officers strove to comply with this rather demanding order. Many not only directed efforts in their own cities but also visited and established anticholera programs in nearby towns. As the epidemic waned in Manila, Army doctors were freed for assignment to the larger provincial towns, where they supervised sanitation or directed cholera hospitals. Reforms took effect slowly, and for a time the disease continued to spread. Eventually, though, Army and civilian efforts contained the epidemic, and on 27 April 1904 the Board of Health declared the Philippines free from cholera. Though the crisis had passed, as late as 1906 the civilian government still requested the aid of Army surgeons in

[31]*Fifth Annual Report of the Philippine Commission*, 1904, part 2, p. 116; RSG, 1902, pp. 80–81.

[32]Worcester, *Philippines*, p. 336; Le Roy, "Health Problems," p. 780.

[33]RSG, 1902, pp. 81–83; 1903, pp. 78–79. An original copy of the order is in the Wilkinson File, Spanish-American War Archive, MHI.

containing outbreaks of cholera in a few localities.[34]

In Cuba, too, the fight against epidemic disease—in this case, yellow fever—continued for several years, as total victory proved elusive. The Army's extensive sanitary efforts in Havana had left the city cleaner than ever before, but yellow fever still appeared there during the winter of 1900. In the spring, more cases developed, and that summer, yellow fever spread to other parts of the island. The recurrence of the disease despite improved sanitation, lamented Gen. Leonard Wood, who had become military governor of all of Cuba, "compelled those who looked beneath the surface to realize that the spread of yellow fever could not be controlled simply by cleaning and disinfecting methods." In Washington, Surgeon General George M. Sternberg shared Wood's conclusion and concern. On 24 May 1900, the Surgeon General established the Yellow Fever Commission in Cuba to study the etiology of the disease. Maj. Walter Reed headed the commission, which also included Army contract surgeons James Carroll, Jesse W. Lazear, and Aristides Agramonte.[35]

Well before the Yellow Fever Commission began its investigation, other medical researchers had begun to look "beneath the surface." As early as 1881 Dr. Carlos Finlay had hypothesized that the mosquito carried yellow fever. Between 1894 and 1898, Sir Ronald Ross and Sir Patrick Manson had proved that anopheline mosquitoes transmitted malarial fevers. And in 1899, Henry Rose Carter showed that approximately fourteen days passed between the introduction of yellow fever into an area and the time that area became infective. Carter's findings together with Finlay's theory and the research on malaria suggested the mosquito as a possible intermediate host.

Impressed by this evidence, Reed quickly decided to focus the commission's research on the mosquito. Early tests, one of which accidently resulted in Lazear's death, revealed that the bite of an infected mosquito caused yellow fever. In October 1900, Reed disclosed the preliminary findings in an address to the American Public Health Association. At about the same time, he asked Wood for $10,000 and authority to conduct a series of experiments to prove that the mosquito was the vector. Wood readily agreed. The commission then established an isolated camp named for Lazear and staffed by two medical officers and eleven nonimmunes from the Hospital Corps.

---

[34]RSG, 1903, pp. 80–85; *Fifth Annual Report of the Philippine Commission*, 1904, part 2, pp. 118–31; Van Hise, "American Contributions," p. 106; J. R. Hatheway, "Teachers and Cholera in the Philippines," *Nation* 77 (1903): 278–80, 297–99; Worcester, *Philippines*, p. 337; Ltr, George W. Jean to Adjutant, 10 Jul 06, George W. Jean Papers, MHI.

[35]Quote from Wood, "Military Government," p. 169. See also Hagedorn, *Wood*, p. 242; Gibson, *Soldier in White*, p. 221.

The doctors first placed two courageous Hospital Corps volunteers in a poorly ventilated cabin filled with clothing and bedding from yellow fever wards. Sometimes wearing shirts taken from victims, the volunteers spent twenty nights in the rooms without contracting the disease, thereby destroying theories that yellow fever was contagious. Then Reed and his colleagues built another hut enclosed and divided in half by wire screens. On one side, the commission ensured sanitary conditions but introduced several infected mosquitoes. There a volunteer who had been isolated to prevent previous exposure spent a few hours on two successive days. Bitten several times by the mosquitoes, he soon developed yellow fever. Meanwhile two other nonimmunes slept on the other side of the hut, protected from the insects by the screen, for eighteen days without becoming sick. Such controls demonstrated conclusively that the mosquito spread yellow fever. The commission continued its study of the etiology of the disease, but Reed reported its proof to the world in February 1901.[36]

Even before the experiments removed all doubt, the Army in Cuba had acted upon Reed's preliminary findings. On 15 October 1900, the chief surgeon of the Department of Western Cuba published a circular warning that mosquitoes might carry yellow fever and directed the use of kerosene to control them. One Army wife in Cuba wrote that "everybody is crazy about the mosquito theory, the garrison hardly talks of anything else, and they all take such an interest in killing the mosquitos with kerosene there is scarcely one on the post." In December, Wood's headquarters also issued an order directing the destruction of mosquito larvae.[37]

When the commission proved that yellow fever resulted from the bite of a *Stegomyia* mosquito (later renamed *Aedes aegypti*) that had previously fed on someone with the disease, the Army escalated its efforts. Reports

---

[36]This brief account is based on Wood, "Military Government," pp. 168–73; speech delivered by Jefferson R. Kean at the dedication of the Walter Reed Memorial in Belroi, Va., in the Kean Papers, University of Virginia (UVA); Russell H. Fitzgibbon, *Cuba and the United States, 1900–1935* (Menasha, Wis.: George Banta Publ. Co., 1935), pp. 40–42; Aristides Agramonte, "The Inside History of a Great Medical Discovery," *Scientific Monthly* 1 (1915): 209–37; Francis A Winter, "The Romantic Side of the Conquest of Yellow Fever," *Military Surgeon* 61 (1927): 438–52. Reed gave a report on his experiments in RSG, 1901, pp. 176–202. For more information, see Howard A. Kelly, *Walter Reed and Yellow Fever* (New York: McClure, Phillips, & Co., 1906); Albert E. Truby, *Memoir of Walter Reed: The Yellow Fever Episode* (New York: Paul B. Hoeber, 1943); and the Walter Reed/Yellow Fever Archive compiled by Philip S. Hench, now at UVA.

[37]The use of kerosene to control the breeding of mosquitoes was well known to Army sanitarians through the work of L. O. Howard. See Ltr, L. O. Howard to Jefferson R. Kean, 1 May 24, and copy of Ltr to *New York Times* by Kean, 27 Apr 24. Both in the Kean Papers, UVA. Quote from Ltr, Louisa Kean to Mumsie, 9 November 1900, Walter Reed/Yellow Fever Archive, UVA. General Order No. 6, 21 December 1900, Headquarters Department of Cuba, copy in Kean Papers, UVA.

of yellow fever were investigated everywhere, but since most Cubans were immune, areas with few foreigners were unlikely sites for epidemics. The real danger lay in Havana, where a sizable nonimmune population almost disappeared in the mobility and anonymity of its urban environment. If the Army hoped to eradicate yellow fever in Cuba, it first had to rid the capital of the disease.

In February 1901 the campaign in Havana began under the direction of Maj. William C. Gorgas of the Army Medical Corps. His eradication program exploited the peculiar habits of *Stegomyia,* which prefer to live near its human food supply and lay eggs only on the walls of water-filled containers. If all such vessels could be sealed or destroyed, *Stegomyia* would be eliminated and with it yellow fever. While Gorgas concentrated on eliminating breeding places, he also devised a strategy to kill all mosquitoes that had an opportunity to bite a yellow fever sufferer and a system to observe visitors to the city to see if they became sick.

To accomplish the first task, the mayor of Havana issued an ordinance that required all residents to make water containers mosquito-proof, and Gorgas designated one group of his mostly Cuban staff to ensure that they did. Gorgas divided the city into districts and assigned an inspector and assistant to each. Visiting every house monthly, they taught the principles of mosquito eradication and assisted the householders in complying with the ordinance. Rain barrels were covered with planks, leaving only a wire screen for the water to come through, and other containers were either completely covered or doused with kerosene. The inspectors fined householders who refused to take the necessary precautions, and, if on their next visit the owners still had not complied, emptied and destroyed all vessels in which mosquitoes could lay eggs. After each visit the inspector submitted a detailed report from which Gorgas's office staff compiled a card file on all premises in Havana, listing the location of water barrels, jugs, and other containers.

Through frequent inspections and detailed records, the Americans drastically reduced available breeding places. During the first inspection of the city, every house had at least a few larvae, and officials found a total of 26,000 infractions of the ordinance. The last inspection before the Americans left Havana uncovered only 258 violations. As an added precaution, Gorgas had another group drain ditches and canals or cover them with oil if draining proved impractical. Such efforts reduced the mosquito population and helped curtail malaria but, since such places provided no surfaces for *Stegomyia* to lay eggs, did little to eliminate yellow fever.

In the Platt Amendment, a resolution that set conditions for the transfer of power to the Cubans, Congress included a clause calling for the new Cuban government to continue the Army's sanitation program. But the clause accomplished nothing. Soon after the Americans left in May 1902, sanitary conditions drastically worsened, for the Cubans cared little about sanitation and rarely caught yellow fever. Moreover, their government lacked cash to finance programs, and the representatives from the eastern provinces and Pinar del Rio opposed spending what little there was for yellow fever control in Havana. The United States repeatedly remonstrated with the Cuban government for its negligence, but to no avail.[40]

In 1906 political and commercial considerations prompted the United States to intervene in Cuba once more. President Theodore Roosevelt sent an Army of Cuban Pacification but established a civil government headed by Charles E. Magoon to govern the island. Although Magoon's administration emphasized reform of Cuban laws and regeneration of its economy much more than health reform, it did include a Department of Sanitation as one of its five major administrative branches. Maj. Jefferson Randolph Kean, an Army Medical Corps officer, directed its operations.[41]

Kean was chosen because of his experience in Cuba during the previous intervention; he functioned more as a public health officer than as a soldier. In the daily administration of his department he worked both with Magoon and with the Cubans themselves. In time he reorganized the Sanitation Department and, serving only as an adviser, set policy which the Cuban civilians implemented. Kean did, however, have four Army surgeons assigned to the department and could request temporary assistance from medical officers serving with the occupying troops in thirty towns. Especially in the yellow fever campaign, he often relied on these Army doctors in the more troublesome provinces or in areas with high visibility.[42]

Yellow fever was the primary health concern of American officials

---

creation of the board, see Jose A. Lopez del Valle, *The Development of Sanitation and Charities in* Cuba during the Last Sixteen Years (Havana: La Moderna Poesia, 1914), pp. 11–14. On Wood's influence on continuing the program, see Ltr, Leonard Wood to Elihu Root, 19 Feb 01, Elihu Root Papers, Library of Congress; and James Hitchman, "Leonard Wood and the Cuban Question, 1898–1902" (Ph.D. diss., University of California, Berkeley, 1965), pp. 280–81, 310.

[40]Lopez, *Development*, p. 13; Fitzgibbon, *Cuba and U.S.*, pp. 103–4; David A. Lockmiller, *Magoon in Cuba: A History of the Second Intervention, 1906–1909* (Chapel Hill: University of North Carolina Press, 1938), pp. 22–24; Dana G. Munro, *Intervention and Dollar Diplomacy in the Caribbean, 1900–1921* (Princeton: Princeton University Press, 1964), p. 36. Munro maintains that much of this agitation actually concerned contracts with American firms for public works projects, not genuine concern for Cuban sanitation.

[41]Millett, *Politics of Intervention*, pp. 148–53, 191–208.

[42]Ltr, Kean to Provisional Governor, 1 Dec 08; Decree No. 70 prepared for Magoon, 1 Nov 06; Ltr, Kean to Dr. Agostini, 14 Jul 08; Ltr, Kean to Ireland, 16 Jan 08. All in Kean Papers, UVA. On reorganization, see Millett, *Politics of Intervention*, pp. 208–12.

More important was the work of a third group which Gorgas divided into crews for dispatch to the scene of any reported case of yellow fever. Within an hour of Gorgas's notification, a crew placed the victim under a specially designed isolation screen and allowed only a doctor and four or five immunes to enter. Then the crew killed the mosquitoes that had already had an opportunity to bite the victim. Its members sealed one room of the victim's house by papering over the cracks, burned pyrethrum powder in it, and after the fumigation swept up and burned all the insects that had fallen to the floor. They repeated the process in each room of the house, with the patient's room treated last.

In addition to mosquito control, Gorgas sought to monitor the flow of nonimmunes into Havana. On the roads leading to the city, the government posted officials to whom all nonimmunes reported their names and destinations. The officials in turn notified the city's Sanitary Department, which on the third and sixth days of the visitor's stay in Havana dispatched an inspector to the given address to ascertain that the nonimmune had not fallen ill. In the summer of 1901 the department tried to improve its information on the arrival of possible disease carriers or victims by establishing contact with individuals in neighboring towns who reported anyone visiting Havana.[38]

Killing mosquitoes, isolating patients, and monitoring the visits of nonimmunes brought quick results. During February 1901, the first month of Gorgas's program, only five people died from yellow fever. From March through September, only six more deaths occurred, and in the nine months after that no one succumbed. Cuba, declared Wood, had been freed from yellow fever. To help insure that it stayed free, in 1902 the military government issued a civil order creating a Superior Board of Health with a chief sanitary officer who served as its president. The board consisted of eleven members, four active and seven honorary, representing the different parts of the island. The order charged the board with the responsibility of monitoring and studying epidemics and developing and lobbying for necessary sanitary laws. But Wood still feared that once the Americans departed, health conditions would degenerate and again endanger American ports with yellow fever. He urged the Secretary of War to require Cuba to continue the Army's sanitation efforts.[39]

---

[38]William C. Gorgas, "A Short Account of the Results of Mosquito Work in Havana, Cuba," *Journal of the Association of Military Surgeons* 12 (1903): 138–39; William C. Gorgas, "The Results of Yellow Fever Sanitation in Havana, Cuba, for the Year 1901 Up to September 1st, Carried on upon the Basis That the Stegomyia Mosquito Is the Sole Means of Its Transmission," *Papers and Reports of the American Public Health Association* 27 (1901): 130–33; Gorgas and Hendrick, *Gorgas*, pp. 110–34.

[39]Fitzgibbon, *Cuba and U.S.*, pp. 39–43; Wood, "Military Government," p. 171. On the

during the second intervention, as it had been in the first. Kean designed his eradication program along the lines formulated by Gorgas, employing house-to-house inspections, mosquito-killing crews, and disinfection procedures. But he added a few variations of his own. Kean recruited Cuban physicians to report all suspicious cases and tightened control over nonimmunes by requiring travelers both to carry passes and to report to local health officials upon arrival in a new town. More important, because of the tenacity of the fever in rural areas, Kean extended the techniques used in Havana to more cities.[43]

Kean's regime also introduced one significant procedural innovation. Previously, mosquitoes had often escaped while workers taped the rooms in preparation for fumigation. By a change initiated in 1907, disinfecting crews covered the house itself with canvas and fumigated all of it at once, killing more insects more rapidly. Early in 1908, Capt. Henry D. Thomason, a medical officer serving with Kean, further improved the process when he covered an entire city block for fumigation all at once. Kean considered Thomason's procedure the most efficient yet developed, and it became standard procedure despite a $14,000 expenditure for canvas.[44]

Even with the help of other Army surgeons and the new procedures, Kean still had "the Devil's own time with yellow fever." When scattered outbreaks continued, Kean attributed them to increased Spanish immigration, greater movement within the island because of an improved road system built by the American government, shortage of people to discover and report cases, and lack of men trained in disinfection. The island experienced an epidemic in 1907 and again in 1908. Both were contained, but final victory never came. In January 1909, just before the Americans withdrew from Cuba, Kean wrote, "My soul is heavy within me because of those two cases of yellow fever from San Luis."[45]

The deterioration of health conditions in Cuba between the two interventions as well as Kean's failure to completely eradicate yellow fever indicated that the Army was better able to provide immediate relief than to institute long-term reform. Medical work during the occupation of Vera Cruz, Mexico, from 23 April to 23 November 1914 conformed to the pattern. There Army doctors encountered sanitary conditions and disease rates similar to those in Cuba or the Philippines. Though the Army

---

[43]Memo for Dr. Frederick C. Meyer, Mar 07, in Kean Papers, UVA; RSG, 1909, pp. 135–36; Fitzgibbon, *Cuba and U.S.*, p. 128; Ltr, Kean to Provisional Governor, 9 Apr 07, Kean Papers, UVA.

[44]Rpt, Kean to Magoon, 5 Oct 07; Ltr, Kean to Ireland, 10 Mar 08; Memo for the Provisional Governor, 18 May 08. All in Kean Papers, UVA.

[45]First quote from Ltr, Kean to Ireland, 16 Jan 08. Second quote from Ltr, Kean to Thomason, 2 Jan 09. Paper entitled only "Yellow Fever in Cuba." All in Kean Papers, UVA. *Report of the*

undertook a smallpox vaccination program, Army medical officers never faced an epidemic and were able to concentrate their efforts on cleaning the city, establishing sanitary practices, and treating victims of a few prevalent local diseases. They had stellar success, but shortly after their withdrawal, conditions returned to what they had been before the Americans came.[46]

Army medical officers proved more effective in relieving crises than in reforming local practices for many reasons, but two were crucial. First, the two aims often conflicted, and the doctors' responsibility to protect the health of the troops left them no choice but to concentrate on the former. To prepare local citizens to assume responsibility for maintaining health standards required a slow, laborious process of conversion and education. But in an epidemic, medical officers did not have time and resorted to fiat or force which residents usually resented and rarely learned from. Second, the Army brought a scientific, organizational society to countries where cultural development remained in a much earlier state. The Army—or anyone else, for that matter—simply could not impose modern methods on premodern societies. Unfortunately, Army medical men were not sensitive to the problem and tended to decry native barbarism rather than to try to understand and respect local culture—an attitude that limited their effectiveness and that, unfortunately, recurred in later missions.

Nevertheless, in Puerto Rico, the Philippines, and especially Cuba, their overall accomplishment was brilliant. The Medical Department demonstrated to the world the capability of scientific medicine and modern organization to control epidemic disease. Moreover, medical officers displayed an ability to render casualty care and furnish effective preventive measures during a health emergency. Their achievements thereby suggested the Army Medical Department's value in other types of disasters as well. More than any other single factor, the Army doctors' success in the tropics transformed the role of Medical Department personnel in relief.

---

*Provisional Administration, 1906–1907*, pp. 457–59; Millett, *Politics of Intervention*, pp. 209–10.

[46]Robert E. Quirk, *An Affair of Honor: Woodrow Wilson and the Occupation of Vera Cruz* (Louisville: University of Kentucky Press, 1962); Henry P. Birmingham, "Sanitary Work of the Army at Vera Cruz," *Military Surgeon* 36 (1915): 205–21; Charles Jenkinson, "Vera Cruz: What American Occupation Has Meant to a Mexican Community," *Survey* 33 (7 Nov 14): 133–41.

CHAPTER 4

# Establishing the Mission: Volcanoes, Earthquakes, Tornadoes, and Floods, 1898–1917

The Army's involvement in Puerto Rico, the Philippines, and Cuba had an immediate impact on the Medical Department's role, not only in combating epidemics, but in other types of disaster assistance as well. Such work was foreshadowed early. On 8 August 1899, during the military government in Puerto Rico, a severe hurricane struck the island, claiming 3,000 lives and destroying countless buildings, roads, and bridges and much of the island's sugar crop. According to many estimates, 100,000 people faced starvation.

To meet their needs, the American military governor instituted an assistance program closely resembling nineteenth century flood relief operations in the United States. He appointed a relief committee chaired by his chief surgeon, Maj. John Van R. Hoff, and composed of another Army medical officer, four other Americans from various agencies, and one Puerto Rican. It divided the island into twelve districts (later increased to seventeen) and dispatched men to inspect damage in each, report on residents' needs, and supervise distribution of supplies. With local authorities deciding who was to receive assistance, the Army fed an average of more than 180,000 people a day for the first four months after the storm. In most areas, distribution ended by 15 July 1900 but in seven of the districts continued until December of that year. Private sources in the United States paid for much of the food, but the War Department supplemented private charity with almost $400,000 in public funds.

For the most part, the principle of local control governed medical relief as well. Hoff preferred to send supplies to Puerto Rican physicians and let them care for the injured. In all, he issued 120,405 pounds of medical supplies to local doctors and boards of health. However, in two major cities on the island, San Juan and Ponce, the Army provided direct medical assistance. In San Juan the storm badly damaged the Santa Rosa Hospital, an institution for the indigent. Apparently on his own initiative, Capt. George M.

Wells, the commander of the Army's hospital in the city, opened his facility to patients from Santa Rosa, who remained there until 5 September.

In Ponce, where the brunt of the storm struck, winds and floods left the city in shambles and its only hospital virtually useless. When at the end of the month the health and sanitary situation there had not improved, Hoff instructed 1st Lt. Bailey K. Ashford, an Army surgeon stationed in the town, to establish a field hospital at a nearby abandoned convalescent camp. Ashford dispatched seven Hospital Corpsmen, who began construction of a well-equipped, sanitary tent hospital capable of accommodating 125 patients. Even before they completed it, the sick and injured besieged the site; Army corpsmen and a few Puerto Rican attendants treated the first arrivals. As word of the availability of health care quickly spread through the countryside, the flow of patients increased. As a result, the hospital, initially conceived as an emergency facility, remained open for six months. During that time, its staff of Army medical personnel and Puerto Ricans treated more than 400 patients.[1]

Unlike operations in Puerto Rico, the Army's next foreign disaster assistance mission did not occur in the context of military government. In May 1902 the West Indian islands of Martinique and St. Vincent experienced a series of devastating volcanic eruptions. On St. Vincent nearly 1,350 people died, and with crops ruined, severe shortages of food developed. As terrible as the destruction was, however, it did not approach that on Martinique, where the eruption of Mount Pelée nearly obliterated Saint-Pierre, a town near the crater. All but one of its inhabitants died, and lava flows and ashes damaged other areas of the island.[2]

American response was prompt. On 12 May, the United States consul at St. Vincent wired his superiors: "Sixteen hundred deaths at St. Vincent; four thousand destitute. Immediate wants supplied. Aid needed for 6 months. This authentic." As soon as President Theodore Roosevelt heard of the twin catastrophes, he asked Congress to appropriate $500,000 for emergency supplies and ordered the War Department to prepare to deliver them.[3]

In Congress, Roosevelt's request attracted unanimous support in the

---

[1]RSW, 1900, vol. 1, part 13, *Report of the Military Governor of Porto Rico*, pp. 211–17, 270; RSG, 1900, pp. 188–89.

[2]Henry Neil (Marshall Everett), *The Complete Story of the Martinique Horror and Other Great Disasters* (Chicago: L. G. Stahl, 1902); Charles Morris, *The Volcano's Deadly Work* (Philadelphia: W. E. Scull, 1902); Angelo Heilprin, *Mount Pelée and the Tragedy of Martinique* (Philadelphia: J. B. Lippincott, 1903).

[3]Quote from Morris, *Volcano's Deadly Work*, p. 124. Neil (Everett), *Story of Martinique*, p. 118.

Senate and only minimal opposition in the House. Though not as generous as the president, the lawmakers had approved a $200,000 appropriation by sundown of the same day. In response to objections by opponent Oscar W. Underwood of Alabama, Congressman John J. Jenkins of Wisconsin vocalized the new activism tinged by braggadocio prevalent in the United States at the time: "Does not the gentleman from Alabama understand," Jenkins almost sneered, "that this is the greatest and foremost nation in the world and that we propose to be foremost on all of these great questions, and that we have got lots of money and it is not coming out of the pockets of the poor people that the gentleman from Alabama represents? The people of the United States are ready and willing to do their duty on great occasions of this kind without reference to the Constitution or to the views of the gentleman of Alabama."[4]

Plainly there was a new spirit abroad in the once cautious, Constitution-bound nation. Two Navy ships and an Army collier delivered supplies from American stations in the Caribbean. A third naval vessel, the *Dixie*, brought relief supplies directly from the United States. In a departure that revealed the increased involvement of the Medical Department, three Medical Corps officers, six Hospital Corpsmen, and $5,000 worth of Army medical supplies sailed on the *Dixie*. Though the Americans donated half of the medical supplies to relief efforts on each island, the medical contingent provided no direct care. On St. Vincent, British health officials had the situation well under control, and at Saint-Pierre, Martinique, the American doctors found no victims in need, "every living being having been killed within three minutes."[5]

After foreign medical relief missions in successive years, a period of relative inactivity followed. Congress approved several operations: the Navy transported disaster relief to Jamaica in 1907, Italy in 1909, and Costa Rica in 1910, and Army vessels ferried privately raised supplies to famine-stricken China in 1907 and 1911. None of these, however, involved Army doctors or corpsmen.[6]

---

[4]Quote from *Congressional Record*, 57th Cong., 1st sess., 1902, p. 5332. See also Morris, *Volcano's Deadly Work*, p. 146; Neil (Everett), *Story of Martinique*, p. 118.

[5]*James Martin Miller, The Martinique Horror and St. Vincent Calamity* (Philadelphia: National Publ., 1902), pp. 32, 53, 56, 149, 330–31; *New York Times*, 3 Jun 02; U.S. Department of State, *Papers Relating to the Foreign Relations of the United States*, 1902, pp. 414–16. Telg, Buchanan to AGwar, 15 May 02; Ltr, Sternberg to AG, 12 May 02; both in file 434288, Record Group 94, NA. George Kennan, *The Tragedy of Pelée: A Narrative of Personal Experience and Observation in Martinique* (New York: Outlook Co., 1902), pp. 16–18; Ltrs in Hugh J. Gallagher Papers, MHI; RSW, 1902, p. 541. Quote from Ltr, James B. Clayton to Surgeon General, 25 May 02, file 90029, Record Group 112, NA.

[6]*Congressional Record*, 71st Cong., 3rd sess., 1930, pp. 757–58; Curti, *American Philanthropy*, pp. 219–20; Ernest P. Bicknell, *Pioneering with the Red Cross* (New York: Macmillan Co., 1935), pp. 196–97; Francis A. Coghlan, "The United States Navy and the Jamaica Earthquake," *Prologue* 8 (1976): 163–73.

Then in 1911 Army medical personnel stationed in the Philippines undertook a relief mission similar to that in Ponce, when Mount Taal, a volcano forty miles south of Manila, erupted on 30 January. An Army doctor and two Hospital Corpsmen from nearby Camp McGrath rushed to the scene in a borrowed automobile, followed later by other soldiers who brought supplies of food and clothing. While burial teams began their gruesome task, the Army medical contingent and a few Red Cross representatives ministered to the needs of injured survivors. Relief workers quickly evacuated a hundred or so victims to a temporary hospital staffed by both medical personnel from Camp McGrath and Filipino volunteers. A few of the serious cases were treated in the camp's hospital.[7]

The next year, Col. Jefferson R. Kean, two other Army physicians, and three Hospital Corpsmen helped civilian officials in Puerto Rico design and conduct an antiplague program similar to the Army's in Manila. Another medical relief mission followed a large fire in May 1915 that destroyed most of the business district and many of the homes in Colón, Canal Zone. When American soldiers pitched a 325-tent encampment for the homeless, Army medical officers and corpsmen helped the Red Cross maintain sanitary standards.[8]

These early missions abroad—especially the last two—reflected a growing awareness of the importance and efficacy of public health, spurred in part by the Medical Department's success in the tropics after the Spanish-American War. Together with the international activism reflected in Jenkins's speech, that awareness accounts for the burst of foreign disaster assistance activity in the first years of the twentieth century. The limited nature of that early relief, however, was readily apparent. None of the operations involved a large commitment of Army personnel or equipment. Most occurred either in countries where United States troops were stationed or in the Caribbean where Americans had traditionally exercised authority. Nonetheless, a foreign assistance role and a rationale for an even greater one had been established. But with the impossibility of rapid transportation to the scene and with American troops stationed in so few areas, medical assistance continued to be infrequent.

---

[7]Based primarily upon Johnson, "Life in the Army," pp. 144–47, in Johnson Papers, MHI. See also 1911 Returns from Camp McGrath, Returns from United States Military Posts, 1800–1916, M617, reel 673, NA. Miquel S. Maso, *The Eruption of Taal Volcano, January 30, 1911* (Manila: Bureau of Printing, 1911); Bicknell, *Pioneering*, p. 193.

[8]On Puerto Rico, see Ltr, Henry L. Stimson to Jefferson R. Kean, 3 Mar 13; Ltr, Kean to Secretary of War, 16 Jul 12; both in Kean Papers, UVA. RSG, 1913, pp. 177–78; Richard H. Creel, *Outbreak and Suppression of Plague in Porto Rico* (Washington: GPO, 1913). Creel's account does not mention Kean's aid. On Colón, see RSW, 1915, 1: 153; file 2283865, Record Group 94, NA; *New York Times*, 2 May 15.

### *Changes in the Domestic Scene and the San Francisco Earthquake*

A substantial increase in Medical Department relief activity occurred at home rather than abroad. The Army's successful efforts in Cuba and the Philippines trained a cadre of Army medical officers in disease control and publicized the benefits of scientific medicine in emergency situations. In 1901 three Army doctors—Walter Reed, William Gorgas, and Charles Greenleaf—delivered papers to the American Public Health Association on their work in the tropics. Health professionals in the United States not only learned from their reports but also were inspired by the Army's accomplishments. Even more important, success abroad educated the American public as well as the professionals. Public Health surgeon William C. Rucker declared that the Army's efforts had "awakened in the mind of the general public the belief that epidemics are not a visitation from God, but are wholly unnecessary offerings on the altar of ignorance and perhaps commercial greed," and his colleague Leslie L. Lumsden maintained that this realization extended to other types of disasters as well.[9]

Several factors made the nation more receptive to the Army's example and the government more willing to employ Army doctors in domestic disasters. First, urban growth with a concomitant increase in damage, death, and casualties during any one disaster increased the need for a federal response. Though sufferers in New Madrid, Missouri, had been able simply to move to new homesteads, the more numerous victims of the less severe San Francisco earthquake had no such option. And in almost all twentieth century disasters, concentrations of population and crowded building patterns multiplied relief tasks. Often, as the mayor of Galveston, Texas, observed after a devastating hurricane there in 1900, the calamity was "so terrible no municipal authority in the country could be expected to handle it unaided."[10]

In addition, profound changes had altered the nation's institutional

---

[9]Lee, "Address," passim. Quote from William C. Rucker, "The Relation of the Military and Naval Forces of the United States to Public Health," *Military Surgeon* 23 (1908): 335. Leslie L. Lumsden, *Sanitation of Flood-Stricken Towns and Cities with Special Reference to Conditions Observed in River Towns and Cities of Kentucky* (Washington: GPO, 1913), p. 1197; Edward T. Devine, *The Principles of Relief* (New York: Arno Press and *New York Times*, 1971; orig. publ. 1904), p. 51. My argument here resembles that made by Howard Gillette, Jr., in a slightly different context. See his "The Military Occupation of Cuba, 1899–1902: Workshop for American Progressivism," *American Quarterly* 25 (1973): 410–25.

[10]Quoted in Paul Lester, *The Great Galveston Disaster* (Galveston: J. Singer Book Co., 1900), p. 115.

landscape during the preceding generation, as the small isolated communities of an earlier day were integrated into a new national order. Increasingly, formal nationwide organizations replaced informal local or regional groupings. Advances in communications and transportation created a greater sense of interdependence. Mass circulation newspapers—exploiting public fascination with disasters—spread stories of suffering and helped to generate interest in sending aid.[11]

Modifications in public attitudes toward social welfare made people more forthcoming with assistance than in the early nineteenth century. As Edward T. Devine, one of the nation's leading social workers, wrote in 1904, "society has become conscious of its responsibility for the relief of distress, and is awakening to its obligations to devise effective and remedial systems of relief." As Devine's choice of the word "systems" implied, the new concern for the needy was expressed in what historians have labeled "scientific philanthropy"—efficient, ordered, carefully controlled assistance by specially trained professionals.[12]

In the early twentieth century, though, there was no organization capable of providing "scientific philanthropy" to a community stricken by a massive calamity. The United States had not developed national institutions to provide disaster assistance, especially in the fields of medical care and public health. The United States Marine Hospital Service, which in the early years of the century became the Public Health Service, had furnished most of the little medical assistance rendered by the federal government in the nineteenth century, but it did not have the resources to support a massive effort. State and local boards of health were only slowly emerging. And the American Red Cross, which would later become the nation's most important source of disaster relief, could not yet provide leadership because of its own inchoate structure. Chartered only in 1881, the voluntary society underwent an internal battle for control and direction at the turn of the century. By 1905, the forces advocating a modern organization had triumphed, and in that year Congress designated the Red Cross the nation's primary agency for disaster assistance. However, it only gradually increased its activities and still lacked the ability to support a large mission. With none of these institutions yet in a position to provide frequent or massive relief, the Army Medical Department

---

[11]Wiebe, *Search for Order;* Thomas L. Haskell, *The Emergence of Professional Social Science: The American Social Science Association and the Nineteenth-Century Crisis of Authority* (Urbana: University of Illinois Press, 1977); Neil Harris, "The Culture of Catastrophe in Nineteenth-Century America," paper delivered at the University of North Carolina at Chapel Hill, 20 Oct 75.

[12]Quote from Devine, *Principles of Relief,* pp. 4–5. Robert H. Bremner, "'Scientific Philanthropy,' 1873–1893," *Social Service Review* 30 (1956): 168–73; Trattner, *Poor Law to Welfare State,* pp.

(Continued)



DESTRUCTION AFTER THE SAN FRANCISCO EARTHQUAKE, *looking toward bay, 1906.*

with its cadre of doctors trained in public health operations abroad became a logical choice for the job.[13]

Such was the case when an earthquake struck San Francisco, California. Early on the morning of 18 April 1906, as most respectable San Franciscans slept and the less so stumbled home from another riotous night, the city shook with tremendous force. Residents tumbled into the street and began to evaluate the damage, but their ordeal had only begun. Another tremor followed at 0800 hours, and soon broken gas mains started fires which spread, combined, and created a holocaust. The raging flames burned 4.7 square miles of the city and in combination with the earthquake destroyed 28,188 buildings and left just under half of the city's 450,000 citizens

---

(Continued)
44–115; Roy Lubove, *The Professional Altruist: The Emergence of Social Work as a Career, 1880–1930* (Cambridge: Harvard University Press, 1965).

[13]On the limitations of the Marine Hospital Service, see *Congressional Record,* 55th Cong., 1st sess., 1897, pp. 601, 639. And for their existence after it became the Public Health Service, see William R. Noyes, "Influenza Epidemic, 1918–1919: A Misplaced Chapter in United States Social and Institutional History" (Ph.D. diss., University of California at Los Angeles, 1968), pp. 195–202. This interpretation of Red Cross development relies on Ellen L. Henle, "Against the Fearful Odds: Clara Barton and American Philanthropy" (Ph.D. diss., Case Western Reserve University, 1977), pp. 75–86, 94–108; Dulles, *American Red Cross,* pp.63–80. On Red Cross disaster activity, see *Congressional Record,* 58th Cong., 3d sess., 1904, pp. 404–6; Bicknell, *Pioneering,* pp. 12, 94–95; Elliot, *Red Cross Disaster Services,* passim. Figures on Red Cross activities by time period can be found in Thomas H. Reynolds, "American Red Cross Disaster Services, 1930–1947" (Ph.D. diss., Columbia University, 1954), p. 248.

homeless. A total 498 people died and another 415 were seriously injured.[14]

Brig. Gen. Frederick Funston, earlier a hero of the Philippine War and now acting commander of the Division of the Pacific headquartered in San Francisco, awoke after the first shock. Perceiving at once the magnitude of the quake, he quickly dressed and hurried on foot (no street cars were running) to the business district of the city. Funston inquired of a policeman how he might get in touch with the mayor or chief of police. The officer informed Funston he did not know, since the city's phone system no longer functioned. The general told the officer to relay to his chief Funston's intention to mobilize the Army. Then Funston went home, dispatched messengers to the commanders of the Presidio and Fort Mason to turn out the troops, saddled his horse, and galloped off to direct the Army's relief effort from the headquarters of the Pacific Division.[15]

Funston acted without any clear legal authority. The statutes provided that the president could use military force to enforce federal law when ordinary judicial process failed or to suppress riots and disorder when a state legislature or governor requested it. Only the president had the authority even in these cases, and there was no legal provision for federal military intervention in natural disasters. But, witnessing the destruction and sensing that city authorities could not provide the necessary control or relief, Funston probably gave little thought to legalities. Only later in the morning, well after he had mobilized the troops, did he even consult with Mayor E. E. Schmitz. Then the general promised complete cooperation with the civil authorities. Schmitz, realizing that he had only meager resources to meet the emergency, could only accept. Over the next few days that aid took various forms—military patrols in certain sections of the city, dynamiting of buildings in an often futile attempt to create a firebreak, distribution of food and clothing. But for the first time in a domestic disaster, it also included major medical assistance. No one issued a policy directive on the matter. Medical officers simply responded to the catastrophe.[16]

---

[14]Figures from Russell Sage Foundation, *San Francisco Relief Survey* (New York: Survey Associates, 1913), pp. 4–5. For the story of the quake with emphasis on human interest stories, see John C. Kennedy, *The Great Earthquake and Fire: San Francisco, 1906* (New York: William Morrow & Co., 1963), or the less reliable (and bitterly anti-Army) Gordon Thomas and M. Morgan Witts, *The San Francisco Earthquake* (New York: Stein and Day, 1971).

[15]Adolphus W. Greely, *Earthquake in California, April 18, 1906: Special Report of Maj. Gen. Adolphus W. Greely, U.S.A. Commanding the Pacific Division, on the Relief Operations Conducted by the Military Authorities of the United States at San Francisco and Other Points with Accompanying Documents* (Washington: GPO, 1906), pp.5–6.

[16]On the Army's taking charge, see Thomas and Witts, *Earthquake*, pp. 25–28, 49–50, (Continued)

The morning of the quake, one of the medical officers, Capt. Henry H. Rutherford, awoke in a shaking bed as the furniture danced about his Presidio room. He noticed that the chimney had tumbled down and he heard other bricks falling outside his room. Rutherford's first duty was to see that the orderlies and patients under his charge had survived unscathed, but he found himself pausing during his activities to look toward the city, noting with wonder "how tomb-like silent" it seemed. Soon another tremor struck. Rutherford decided to go downtown—not, he later admitted, because he was "foreseeing enough to first take in the situation" but "because of the itch irresistible" for "romance and adventure."

Rutherford and a party of eleven men heavily "laden down with medical supplies" hiked into the rubble of downtown San Francisco. They intended to search for the injured and "bring them in" but found only a few casualties, most of whom were receiving attention. Rutherford did meet a doctor who had loaded his patients into wagons. "Presidio?" Rutherford inquired. Yes, nodded the doctor. And the captain then mounted and drove the lead wagon because, as he recounted later, "the Colonel might balk in his dismay at an unheralded trainload of men, women, and children patients." He "feared for [his] hide" if they arrived before him and told the Colonel he had sent them. But "the Old Man arose to the situation nobly," Rutherford added; "he didn't pat me on the back exactly, [but] he welcomed the patients I'd brought and told me to get about my business and help take care of them."[17]

The Old Man—Lt. Col. George H. Torney, commanding officer at Letterman General Hospital—had already realized San Francisco's need for medical aid from the Army. Even though the quake had damaged his hospital's power plant, disrupted its telephone and telegraph system, and cut off its water supply, Torney decided to open his facility to civilians. At 0900 hours he sent three medical officers and a Hospital Corps detachment into the city with instructions to render what assistance they could and to inform the authorities that Letterman would admit civilian casualties.[18]

---

(Continued)
102–3; Kennedy, *Earthquake*, pp. 30–36; Telg., Schmitz to Taft, 22 Apr 06, file 1121191, Record Group 94, NA; Charles E. Banks and Opie Read, *The History of the San Francisco Disaster and Mount Vesuvius Horror* (Chicago: C. E. Thomas, 1906), pp. 74–75. In addition to sources already cited, on other types of aid see Johnson, "Emergency Response," 4: 11–25; Carroll A. Devol, "The Army in the San Francisco Disaster," *Journal of the United States Infantry Association* 4 (1907): 59–87.

[17]Quote from Henry H. Rutherford, "Experiences of an Army Medical Officer during the San Francisco Earthquake," *Military Surgeon* 79 (1936): 208–10.

[18]Greely, *Report*, p. 31; George H. Torney, "Report to The Surgeon General, 16 Aug 06," file 115045, Record Group 112, NA. The exact sequence of events in neither Rutherford's nor Torney's

By 0930 patients began arriving. Citizens and soldiers evacuated them from the city in volunteered or commandeered automobiles as well as in horse-drawn buggies. By 2300 hours Letterman had admitted 127 civilians. Many were victims of the fire or quake, but others were patients evacuated from destroyed or damaged hospitals. Since Letterman's register listed many admittances for shock, contusions, lacerations, fractures, concussions, and burns, casualties probably outnumbered hospital evacuees at first. [19]

The next morning more civilians from the city sought hospitalization, and a stream of sick and dazed refugees poured into Letterman. Captain Rutherford decided a receiving station in front of the hospital might ease the crush, and Torney agreed. Rutherford "grabbed four men and two pushcarts," secured the aid of ablebodied refugees, and in less than an hour had "an emergency hospital of a sort" in operation. Later in the morning, he recruited volunteer nurses and doctors to work in the facility. Before it closed, the receiving station treated thousands of patients for minor complaints and referred hundreds of more serious cases to Letterman or the small Army hospitals at Fort Mason and the Presidio. In the receiving station, the "peak of emergencies" occurred during its first night of operation, when in reaction to the stress of the quake "apoplectics had their strokes, worn old hearts gave out, neurotics went to pieces and drunkards had D.T.'s." To add to the confusion, pregnant women who were camped in the woods around the hospital summoned doctors to deliver babies by moonlight.[20]

Between the receiving station and regular military hospitals—not to mention the woods—ample bed space existed for patients during the first two days. Enough doctors were available as well. In addition to Army and local civilian practitioners, many of the participants in a just-concluded medical convention remained in San Francisco to help. Dr. K. A. J. MacKenzie, chief surgeon of the Oregon Railroad and Navigation Company, and a party of twenty physicians rushed to the city's aid, as did a medical contingent from the Oregon National Guard. But fire had destroyed the Army's medical supply depot in San Francisco, and stocks at Letterman quickly dwindled. Supply shortages developed. Soldiers rescued small

---

account is clear.

[19]Banks and Read, *History*, p. 76; Rutherford, "Experiences," p. 211; Endorsement to Ltr from E. F. Euphet, 4 May 06, in Letterman General Hospital, Register of Letters Received, entry 359, Record Group 112, WNRC; Letterman General Hospital, Register of Patients, entry 372, Record Group 112, WNRC. The register shows only 114 admittances for the first day, but the figure comes from Greely's report.

[20]Quotes from Rutherford, "Experiences," p. 211. Greely, *Report*, pp. 31–32; Torney, "Report," p. 6.

stocks from drugstores about to burn or be dynamited, and the Army purchased medicines locally and borrowed from nearby naval facilities. From such sources sufficient supplies were obtained to meet the immediate emergency.[21]

In Washington, The Surgeon General acted to support the relief operation with additional supplies and personnel. On the second day of the disaster he telegraphed doctors at Vancouver Barracks, Washington, to send gauze and cotton and instructed the medical supply depot in St. Louis to ship by rail a full complement of medical supplies. He also ordered to the city a field hospital from Washington, D.C., and fifteen surgeons from various posts in the West. In addition, two captains on leave in San Francisco and six surgeons who arrived from Manila also joined the relief effort.[22]

By the end of the second day, the Army had met emergency needs, and additional supplies and personnel were en route to the city. But in many ways San Francisco's health problems had only begun. Much of the city lay in charred ruins, and basic city services had broken down. From the first day, refugees had streamed out of the more heavily damaged sections, and by the 20th, 200,000 hungry, tired, and dirty people living in tents or shelters rigged from tablecloths or blankets occupied almost every available open lot in the city. Conditions in the makeshift camps invited an epidemic, necessitating a sanitation program similar to those the Army had undertaken abroad.

On 20 April, Dr. James Ward of the San Francisco Health Commission, apparently at Funston's suggestion, met with Colonel Torney to discuss health and sanitation in the camps as well as in the city as a whole. The two men decided to establish a committee of civilians chaired by Torney which would coordinate military and civilian aid. Torney consulted with Funston, who issued orders placing him in charge of sanitary arrangements for the city of San Francisco; at that time Torney relinquished command of Letterman to Capt. James M. Kennedy. The next day Torney talked with Mayor Schmitz and Dr. Martin Rosenberg of the State Board of Health and secured their agreement to the plan. He then appointed his committee of civilian medical leaders; the group met daily until 7 May

---

[21]Sydney Tyler, *San Francisco's Great Disaster* (Philadelphia: P. W. Zeigler Co., 1906), pp. 162, 177; Ernest P. Bicknell, "In the Thick of Relief Work at San Francisco," *Charities* 16 (1906): 295–99; U.S. Congress, House, *Relief for San Francisco*, H. Doc. 714, 59th Cong., 1st sess., 1906, pp. 28–29, 32–33.

[22]U.S. Congress, House, *Relief for San Francisco*, H. Doc. 714, 59th Cong., 1st sess., 1906, pp. 6–7, 28–29; Torney, "Report," p. 20; George H. Kress, "United States Army Field Hospital in San Francisco in 1906, an Interesting Letter: with Some Excerpts from the May, 1906, Issue of the *California State Journal of Medicine*," *California and Western Medicine* 53 (1940): 215–17.



REFUGEE CAMP *on grounds adjacent to and east of Letterman General Hospital, San Francisco, 1906.*

and every day after that until abolished on the 13th. Despite the close cooperation with civilian leaders, though, Torney remained ultimately responsible both for sanitation and for much of the health care in San Francisco.[23]

The biggest problem Torney faced was the horde of refugees scattered over the city for whom the Army now accepted direct responsibility. On the 20th he dispatched all available Army surgeons, including Letterman's dentist, to the camps. He left Captain Rutherford and Dr. Wallace I. Terry, a prominent local physician, in a command tent in front of Letterman to direct volunteer civilian doctors to camps still without physicians. The civilians, too, would answer to Torney.[24]

At the end of the day many of those he had sent out, as well as other civilian and military relief workers, straggled back to Presido. "A motley, disheveled, grimy group," they gathered beneath a tent to rehash the day and anticipate the morrow. They talked amid a cacophony of noises—chatting refugees, crying babies, groaning patients. An enterprising cadet from the University of California arrived with "quarts of shasta, hunks of

---

[23]Greely, *Report,* pp. 31-32; Torney, "Report," pp. 8–12; Marie Louise Rodriquez, *The Earthquake of 1906* (San Francisco: privately published, 1951), pp. 6–7.

[24]Torney, "Report," p. 12; Ltr., Marshall to CO of Presidio, 4 Jun 06, Letterman General

(Continued)

cheese and pretzels'' purloined from a nearby stockpile of supplies. ''Fit feast for the famished, it cheered things up mightily though there wasn't so much talk—our throats were tired, our voices had run out,'' Rutherford recalled. After their refreshments, the workers did begin to talk, to compare notes, and to realize the enormity of the task that faced them. At the same time, an unspoken consensus emerged that ''the turning of the tides was at hand.''[25]

To help turn the tide Torney began to strengthen the emergency hospital system that would care for many sick refugees in the camps. On the 20th he ordered the Oregon National Guard unit to open a temporary hospital in an industrial school. The next day he established a 200-bed contagious disease hospital at Harbor View Park, an area adjacent to the Presidio with a large pavilion and its own water supply. Captain Rutherford supervised the facility, but Portland railroad surgeon MacKenzie directed its staff of nurses and corpsmen. Also on the 21st, the Army established a temporary medical depot on the Presidio grounds. It operated for seven days, after which the Army opened a larger supply center east of the hospital reservation.[26]

Despite all Torney's activity, on the 21st a continuing role for the Army was far from certain. That day Maj. Gen. Adolphus W. Greely, Funston's superior, who had been traveling when the quake struck, returned and relieved Funston as commander of the military forces in San Francisco. Greely proved as anxious to avoid employment of the troops as Funston had been determined to commit them. For one reason, Greely appreciated the dubious legality of the operation. Furthermore, President Theodore Roosevelt had initially indicated he wanted the Red Cross to play a prominent role. On 24 April, when community leaders, Red Cross officials, and military commanders gathered at Fort Mason to discuss future relief measures, Greely offered to relinquish control in favor of the Red Cross. Edward T. Devine, the Red Cross director on the scene, quickly declined. ''The Army,'' he explained his reasons later, ''had the organization, the equipment, the trained officers and men for dealing with the situation, and no one else had it or could create it except at enormous expense, and with inevitable waste.''[27]

---

(Continued)
Hospital, Letters Sent, Dental Surgeon, entry 357, Record Group 112, WNRC; Rodriquez, *Earthquake*, pp. 7, 12; Russell Sage Foundation, *Survey*, p. 78.

[25]Quotes from Rutherford, ''Experiences,'' pp. 213–14.

[26]William E. Carll, ''The Oregon National Guard at the San Francisco Earthquake Disaster,'' *Journal of the Association of Military Surgeons* 19 (1906): 460–63; Greely, *Report*, pp. 32, 131–32; Rodriquez, *Earthquake*, p. 9.

[27]Greely, *Report*, pp. 9, 13, 39–40; Kennedy, *Earthquake*, p. 11; Russell Sage Foundation,

His effort to foist the job onto another agency blocked, Greely informed Schmitz that he wanted to remove the troops anyway. Schmitz demurred, contacted the governor, and prevailed upon him to file a formal request for military assistance with the president, who then agreed to let the Army direct operations. By that time, Congress had passed relief authorization that at last legalized the Army's presence. Still reluctant, Greely took charge in the city.[28]

The mayor and Dr. Devine may have wanted to place the Army in charge for reasons other than its organizational capabilities: they may have also sought to avoid responsibility for tough decisions that might provoke public hostility. If Greely did not suspect as much in the beginning, as relief efforts progressed he came to understand that the Army to some extent was being used. "All civil authorities, relief committees and Dr. Devine . . . look to me for final decisions and full responsibility which I am regularly assuming thus obviating embarrassments which surround men in civil life and subject to political and personal criticism," Greely wired the War Department at one point. Not only military organization and material resources but the Army's potential as a scapegoat may have led the civilians to abdicate control.[29]

With the Army firmly in command, Torney continued his direction of health affairs in San Francisco. He benefited from the volunteered assistance of Brig. Gen. Charles R. Greenleaf, retired and living in Berkeley. Relying on his experience in Cuba and the Philippines, the former Army surgeon formulated a sanitary plan that divided the city into six military districts, each under the charge of a commissioned medical officer. Greenleaf also provided guidelines on medical care and sanitation and required every camp surgeon to submit daily reports on health conditions in his camp. The district officers received these reports from camps in their areas and forwarded compilations to Torney. As a further precaution, the district officers sent inspectors to each camp to ensure maintenance of sanitary standards.[30]

Primary responsibility for health and sanitation, however, still rested with the camps' surgeon. Activities in the Coast District Camp illustrated their duties under Greenleaf's plan. Dr. René Bine, a local physician who

---

*Survey*, p. 208; Elting E. Morison, ed., *The Letters of Theodore Roosevelt* (Cambridge: Harvard University Press, 1952), 5: 216, 219–20. Quote from Edward T. Devine, "The Situation in San Francisco," *Charities* 16 (1906): 302.

[28]Kennedy, *Earthquake*, pp. 212, 223–24; *Congressional Record*, 81st Cong., 2d sess., 1950, p. 11900.

[29]Quote from Telg, Greely to Mil Sec, 11 May 06, file 1121191, Record Group 94, NA.

[30]Torney, "Report," p. 18; Greely, *Report*, pp. 58–59; Rodriquez, *Earthquake*, pp. 15–17; Russell Sage Foundation, *Survey*, p. 90.

had volunteered his services to the Army, served as surgeon in the camp, which had a population of 600 people living in 300 tents arranged along twenty numbered streets. To each street Bine assigned two inspectors who maintained a roster of the street's residents, estimated their need for clothing and bedding, kept records on the supplies issued to them, and ensured that all got to meals on time. Bine also placed garbage cans at the end of each street and installed thirteen latrines in the camp. Garbage cans were emptied and latrines cleaned, disinfected, and pumped out at least twice a day.[31]

If a resident fell ill, he reported to a daily sick call Bine conducted in a small clinic in the camp. In it Bine and an Army nurse treated an average of thirty-six patients a day for minor complaints, mainly bowel problems. When Bine or any other camp surgeon encountered a complicated case, he sent the patient to a larger, better equipped facility. The same procedure was followed with contagious diseases. Greenleaf's plan specified the evacuation of the seriously or dangerously ill both to provide better treatment for the victim and to allow the camp doctors to concentrate on sanitation.

Patients suffering from contagious diseases—measles, scarlet fever, diphtheria, or typhoid—were sent to the hospital at Harbor View Park. Other patients went to the post facilities at Fort Mason and the Presidio, temporary facilities at the Presidio, the hospital operated by the National Guard, or the field hospital sent by train from Washington which was set up in Golden Gate Park on 25 April. Throughout the relief operation, however, Letterman General Hospital remained the center for major medical procedures. In the first four days it admitted 362 civilian patients; during the following two-week period, admittances averaged a little over 10 a day. Not until 20 May did a day pass in which Letterman admitted no new civilians. In all, it cared for 593 San Franciscans with a variety of medical problems—burns and crushed toes to pregnancy and ulcers. Only 24 died, and that total included 3 who were dead on arrival.[32]

Even with Letterman hiring temporary personnel, the field hospital from Washington functioning, and additional medical officers serving in the city, responsibility for sanitation in San Francisco and hospitilization of so many civilians soon taxed the Army's resources. Greely, who had never relished the idea of military control, decided to restrict the Army's services. Citing insufficient power, personnel, and financial resources to correct sanitary abuses daily reported among the 100 camps housing

---

[31]Rodriquez, *Earthquake*, pp. 13–21.

[32]Greely, *Report*, p. 31; Kress, "Field Hospital," pp. 215–17; Letterman General Hospital Register, entry 372, Record Group 112, WNRC.

50,000 people, Greely announced that beginning 13 May the Army would no longer be accountable for all of San Francisco. Instead it would accept the "entire control and expenses of medical and sanitary measures" only in the camps then under direct military authority. By making them models of good order and health, Greely hoped to induce refugees in less sanitary sites to move to Army facilities.

Under the new system, Greely administered as a miniature military installation each of the twenty-one refugee centers that had come under Army control. He appointed Lt. Col. Robert K. Evans "commander of permanent camps" to supervise the entire system and designated Army commanders for individual camps. Greely also dissolved Torney's health committee and made him Evan's chief surgeon with staff responsibility for health affairs. Torney in turn appointed camp surgeons, many of them from the Army, who reported to the camp commander. The surgeons usually had several Hospital Corpsmen and at least one civilian physician to assist them.

Health administration, however, continued very much as before. Camp surgeons still operated only small tent hospitals and relied on evacuation to more permanent facilities in serious cases. They retained responsibility for sanitation. To aid them, the Army provided most camps with bathing facilities, efficient trash removal and disposal, and screened latrines. To insure compliance with sanitary procedures, commanders and surgeons inspected the premises every day. Less frequently, Evans, one of his assistants, or Torney checked their work.[33]

Though no epidemics occurred, health officers worried constantly about typhoid and smallpox. The city did report cases of both, mainly outside the camps. Since the Army had no authority to vaccinate the populace, it could do little about smallpox, but it did take an active role in preventing typhoid. If two or three cases appeared in the same neighborhood, the Army examined conditions in the area and, through local authorities, attempted to render them more sanitary. To check the spread of typhoid to the camps, surgeons relied on testing water samples and vaccinating all consenting residents. With such precautions and constant vigilance, neither disease became a serious problem, and the contagious hospital closed for lack of business.[34]

As the threat of an epidemic receded and the crisis passed, the Army chafed under the burden of providing civilian relief. Most of the extra

---

[33]Greely, *Report*, pp. 32–37, 72–74. On 23 May, Lt Col Charles L. Heizmann replaced Torney.

[34]Charles Keeler, *San Francisco through Earthquake and Fire* (San Francisco: Paul Elder & Co., 1906), p. 49; Greely, *Report*, pp. 33–34, 133–34.

medical officers returned to their stations, and in late May the scarcity of physicians in the Pacific Division forced Greely to reduce the number of Army surgeons on duty in San Francisco even more. Although the reductions left the Army more dependent on local civilian practitioners, it still retained control into June. As the sense of emergency faded, though, some city residents and officials tired of the military presence. Many civilian doctors and druggists, for example, complained about free clinics the Army operated in the city and pressured Greely into closing them.[35]

Tensions also rose over the enforcement of sanitary practices. On 15 June, Greely sent Secretary of War William Howard Taft a confidential telegram complaining that the last two weeks had convinced him that the "exercise of police power by troops and enforcement of military sanitary regulations on public parks and other city grounds must inevitably lead to [a] clash of authority and consequent discredit of [the] Army." In a separate telegram to the secretary, Greely added that only the day before "a health inspector invaded one of the military camps . . . and insisted on dictating changes, although this camp was in first class condition under charge of a surgeon of the Army as to sanitary arrangements." Only deft handling of the situation by the major in charge prevented an incident. Greely wanted out. Even though the mayor requested that the Army remain for another ninety days, the Army relinquished control on 2 July, leaving the Red Cross in charge of relief. The Army did, however, continue to administer camps on the Presidio grounds for a few weeks after the withdrawal.[36]

Despite some civil-military tensions toward the end, the Army had achieved an exemplary success in its relief work in San Francisco. No epidemics occurred, and the populace remained generally healthy. One visitor marveled at his inability to find any "serious illness" (which he apparently defined rather stringently) in the camps. Though he did discover a few people troubled with "pneumonia resulting from exposure, or heart trouble from excitement and fatigue, and of insanity from the nervous tensions," he considered the "general health of the population . . . improved to an unprecedented degree." Other observers agreed that the outdoor life actually helped people's health, and rates of sickness in the camps remained below 2 to 4 percent.[37]

Such an achievement did not go without praise. "'Thank God for the

---

[35]On clinics, see Greely, *Report*, pp. 32, 131–32; Russell Sage Foundation, *Survey*, p. 93.

[36]First quote from Telg, Greely to Taft, 15 Jun 06. Second from Telg, Greely to Secretary of War, 15 Jun 06. Telg, E. E. Schmitz to Taft, 14 Jun 06. All in file 1121191, Record Group 94, NA.

[37]Quote from Keeler, *San Francisco*, p. 49. Russell Sage Foundation, *Survey*, p. 7; Greely, *Report*, pp. 33, 36, 41.

soldiers' was the cry of the people of San Francisco during the days following the disaster, and it was echoed the country over,'' effused one journalist. In another paean to the Army, the Episcopal magazine *The Churchman* proclaimed: ''The nation has reason to be proud of the part played by its army in the stress of great disaster.'' Its editorial went on to commend General Funston and specifically saluted the Medical and Quartermaster Departments. Professional social workers echoed the praise from the press. Writing in one of their professional reviews, *Charities,* Robert de Forest called the ''accidental presence of federal troops under General Funston . . . all important, not only for the maintenance of order but for the distribution of relief,'' and commended the Army's efficiency in disaster situations.[38]

By contrast, a few critics, some of them quite vitriolic, condemned the Army's efforts. They usually decried the enforcement of martial law or the destruction of private property to create firebreaks rather than any of the Army's public health measures. While not as widely publicized, the civil-military tensions in June did involve disputes over sanitary procedures. The various strains that developed over medical and other activities indicated that the Army's role in disaster relief was best limited to the emergency phase. As the situation returned to normal, some people began to resent military involvement, either because of traditional civil-military hostility or because the Army's aid threatened their own interests.[39]

But neither the criticism nor the problems late in the operation significantly detracted from public appreciation of the Army's efforts. The San Francisco earthquake received wide publicity—even a movie was distributed about it—and helped fix in the public mind the feasibility of employing the Army and its Medical Department in disaster relief. The San Francisco operation became almost an archetypical disaster relief mission; the phrase ''who served with the Army in San Francisco'' after a man's name soon served to establish competence in an emergency. But even as the San Francisco mission spurred greater Army medical relief, it proved a model that few later missions could emulate. The magnitude of the calamity there had necessitated a temporary abandonment of localism and self-help. In the following years, local authorities were seldom so overwhelmed. Meanwhile the Red Cross increased its capability to provide

---

[38]First quote from Banks and Read, *History,* pp.106–7, quote on p. 74. Second from ''The Army at San Francisco,'' *Churchman* 93 (1906): 638. Third from Robert W. de Forest, ''Some Lessons of the San Francisco Disaster,'' *Charities* 16 (1906): 155. Russell Sage Foundation, *Survey,* p. 369.

[39]For a good example of criticism, see Henry A. Lafler, *How the Army Worked to Save San Francisco* (San Francisco: Calkins Newspaper Syndicate, 1906), especially p. 13. For other critics, see Kennedy, *Earthquake,* pp. 136–37.

leadership. In most future operations the Army Medical Department would provide advice and supplies, but only in areas with extreme problems would it take charge of the entire medical operation as it had in San Francisco.[40]

*Additional Relief Operations and Formal Recognition of the Mission*

The next major disaster relief operation undertaken by the Army featured this more limited role for medical personnel but demonstrated again that at least some medical assistance was acceptable. On 24 April 1908 tornadoes swept through sections of seven southern states, and shortly thereafter the Red, Black, Atchafalaya, and Mississippi rivers flooded. The combined disasters rendered nearly 33,000 people destitute. Congress appropriated $250,000 for their relief and charged the War Department with administering its distribution. Following procedures developed in the nineteenth century, the Secretary of War dispatched Army officers to the flooded or destroyed sections to evaluate the needs of residents and to supervise the issuance of food, clothing, and other essentials.[41]

As it had not in the nineteenth century, however, the Army now considered also sending medical relief. On 1 May The Adjutant General sent a memorandum to the Chief of Staff volunteering the services of ten medical officers and thirty-six Hospital Corpsmen for immediate assignment in the South. With twenty-four hours' notice, he added, he could send a fully staffed and equipped field hospital. The Chief of Staff, perhaps thinking of precedents set either in St. Vincent and Martinique or San Francisco, agreed that funds appropriated by Congress could be spent for "medicines and medical aid" and advised inspectors of that fact. But they reported only one area that needed medical assistance.[42]

In Purvis, Mississippi, a town in the southeastern part of the state with between 1,800 and 2,500 inhabitants, a tornado had killed 40 people and damaged 70 percent of the homes. Between 250 and 300 other people sustained some type of injury; many needed hospital care. Physicians from nearby Hattiesburg rushed to Purvis and by dawn of the next day had evacuated 75 percent of the injured by special train. Two Navy surgeons who had arrived shortly after the tornado and had assisted in the evacuation

---

[40]For mention of the movie, see Sylvester Q. Breard, "A History of the Motion Pictures in New Orleans, 1896–1908," (M.A. thesis, Louisiana State University, 1951), pp. 200–1, 220–21.

[41]See Incl to Ltr, H. P. McCain to James Hay, 11 Jan 15, file 1459754, Record Group 94, NA; Ltrs in file 1372113, Record Group 94, NA.

[42]Memo for Adjutant General by Chief of Staff, 1 May 08; Memo for Acting Secretary of War by Chief of Staff, 12 May 08; Ltrs from inspectors. All in file 1372113, Record Group 94, NA.



CAPTAIN ASHFORD'S STAFF, *Hattiesburg, Mississippi, 1908.*

then established relief hospitals in Hattiesburg to care for the evacuees.[43]

After Congress appropriated relief funds, the Army assumed responsibility. Maj. Caroll A. Devol, a veteran of San Francisco who headed Army relief operations in the vicinity, visited Hattiesburg and decided that the situation merited continued medical assistance. On 3 May, Maj. Weston P. Chamberlain, an Army medical officer from Jackson Barracks, relieved the Navy surgeons, although they remained until 5 May to help. Later, Capt. Bailey K. Ashford and Capt. Howard H. Baily, both surgeons at Washington Barracks, relieved Chamberlain in turn. The War Department also ordered a 24-man Hospital Corps detachment to the scene, and by 8 May both the soldiers and medical supplies from St. Louis had arrived in Hattiesburg.

With assistance from eighteen Red Cross nurses, Ashford took charge. His policies displayed a continued regard for local control: as far as possible, he left patient care to resident physicians, and he respected the racial segregation practiced in the area. Over the next two weeks, 179 victims were hospitalized. Ashford relied on the town's two permanent hospitals to care for many of them. Although he assigned a few nurses and corpsmen to each, local doctors provided care, with the government

[43]Following account based on Rpt of Maj C. A. Devol, 6 May 08; Rpt of W. P. Chamberlain, 7 May 08; Rpt of Bailey K. Ashford, 1 Jun 08; and other ltrs and telgs. All in file 1372113, Record Group 94, NA.

paying a fixed per diem fee for each disaster victim. In both hospitals, patients were segregated by race, with whites receiving substantially better accommodations. In addition, Ashford set up temporary wards in a local hotel and oversaw completion of a tent hospital that the Navy surgeons had started. The tent facility boasted electricity, water pipes, water closets, operating tents, dining tents, and five patient tents, all connected by boardwalks.

Ashford and Baily also drove one of the hospital's ambulances down the path left by the storm to search for additional victims. Some they found were evacuated by ambulance to the railroad and then to Hattiesburg. Others, slightly injured or too seriously ill to move, were treated on the spot. At the battered town of Purvis, the Army doctors prodded local officials into sanitary reforms and furnished advice and supplies for the effort. By the end of May, their emergency role ended, the soldiers departed.

In 1912 Army medical personnel performed a different type of relief service—one in many ways more like future missions than those in San Francisco and Hattiesburg. Rather than rendering direct care to victims in one locality, Army doctors furnished medical supplies and professional advice to civilian officials throughout an afflicted region. The occasion of the operation was a flood of the Mississippi River which at its height covered an irregular strip of land varying from 5 to 60 miles wide for a distance of nearly 800 miles. Though surprisingly few people perished, the magnitude of the flood demanded a massive assistance operation.[44]

Informed of the devastation, President William Howard Taft decided that the government should help and that "only the War Department" had the organization and resources to respond at once. The president contacted members of the House Appropriations Committee who assured him that Congress would replace any deficit the War Department incurred. Yet until Congress actually appropriated funds, the department had no authority to send assistance. Taft told his Secretary of War, Henry L. Stimson, that "we have to act without legal authority . . . and depend upon the action of Congress to ratify what we have done." He reminded Stimson that previous disaster relief operations had proceeded on such an assumption and assured Stimson that he would accept full responsibility for their actions. Taft's ploy worked. The relief mission began at once, and Congress later appropriated $1,240,000 to pay its costs.[45]

---

[44]Ernest P. Bicknell, *Mississippi River Flood of 1912* (Washington: American Red Cross, n.d.), p. 3.

[45]Quote from Ltr, W. H. Taft to H. L. Stimson, 4 Apr 12, file 1897542, Record Group 94, NA. RSW, 1912, 1:14.



DINING TENT, TEMPORARY HOSPITAL, *Hattiesburg, Mississippi, 1908.*

In carrying out the president's decision, Stimson appointed Maj. James E. Normoyle of the Quartermaster Corps to direct relief operations. Normoyle divided the flooded area into districts and assigned an Army officer to direct a program of rescue and relief in each. Although these officers supervised the removal of stranded people and livestock from housetops and levees, their major contribution was delivering food, clothing, and tents to local authorities. More than in previous floods, the Army also participated in the erection of refugee centers. Some camps had Army commanders, but more often the regulars pitched the camp and then left its administration to National Guard officers or Red Cross representatives.[46]

In all of the camps, National Guard physicians, Red Cross doctors, state health department personnel, or private practitioners furnished health care. At the outset of the mission, the Army adopted a policy of utilizing army doctors to distribute supplies and advise camps on sanitation but not

[46]Memo for Chief of Staff by Quartermaster General, 8 Apr 12, file 1897542, Record Group 94, NA; James E. Normoyle, *Flood Sufferers in the Mississippi and Ohio Valleys, Report of James E. Normoyle in Charge of Relief Operations, April, May, June, July, 1912* (Washington: GPO, 1913); "Flood Sufferers of the Mississippi River, 1912," entry 31C, Record Group 192, WNRC; Bicknell, *Pioneering*, p. 164.

providing direct medical assistance. To perform these duties, The Surgeon General assigned two medical officers, Maj. Reuben B. Miller of the Army and Navy General Hospital in Arkansas and Capt. Jacob M. Coffin of Fort Riley, Kansas. Though they received support from other Medical Department personnel at various times, Miller and Coffin performed the bulk of the relief work.[47]

Miller feared that if he had to determine the needs of each camp, make separate requisitions, wait for the return shipment, and then forward the supplies, the resulting delay would largely nullify the benefits of Army aid. To avoid that, he directed the St. Louis Medical Depot to pack an assortment of essential remedies, surgical dressings, and hospital stores in standard units which were stored at convenient spots along the river. Miller mailed a printed circular explaining his system and listing the units' contents to chairmen of all relief committees. When a camp or community needed medical supplies, the committee simply requested a certain number of units which Miller then sent from the nearest storage site. Since the units did not include everything a physician might want or need, Miller authorized the camp surgeons to purchase small amounts of supplies locally at government expense. This method held cost to a minimum and enabled the two officers to service a large area.

Miller and Coffin advised local authorities on sanitation as well as distributed supplies. Between them, they visited every camp or refugee center that received government rations between Hickman, Kentucky, and the Gulf of Mexico. The two were aided by Col. Jefferson R. Kean, something of a sanitation celebrity after his work in Cuba and Puerto Rico, who inspected all the camps in Kentucky, Mississippi, Arkansas, and Louisiana. Although detailed to the Red Cross and acting under its authority, Kean worked closely with Miller and Coffin.[48]

Traveling mostly by boat, the physicians inspected each camp and recommended sanitary improvements. Because of the many camps to be visited, they could ensure that the measures they suggested were actually enforced only in the larger ones. In the numerous small camps they could not supervise compliance, and as a consequence many of their recommendations were never stringently enforced.

Health conditions among the refugees remained stable and the region escaped serious epidemics, but outbreaks threatened in a few areas.

---

[47]On policy, see Memo for Adjutant General from Secretary of War, 19 Apr 12, file 1897542, Record Group 94, NA. Unless otherwise indicated, the following account is based on Miller's report in Normoyle, *Flood Sufferers*, pp. 122–34.

[48]On Kean's mission, see Ltr, Henry L. Stimson to Jefferson R. Kean, 3 Mar 12, Kean Papers, UVA; Bicknell, *Flood of 1912*, p. 11.

Miller blamed the failings on local officials who expected sanitary precautions to continue without supervision. The overall success of the effort he attributed to the cooperation of the Red Cross, the dedication of the state boards of health, and the resiliency of the mostly black refugee population. Even though Miller found local authorities undependable and attributed the success of the operation to other factors, in succeeding missions the government did not abandon local control and only slightly expanded the scope of federal medical involvement.

In the year that followed Miller's work in the Mississippi Valley, the Army Medical Department participated in relief missions in three disasters: tornadoes in Lower Peach Tree, Alabama, and Omaha, Nebraska, and another massive flood in the Ohio and Mississippi River valleys. In all three, medical personnel rendered more direct assistance than in the floods of 1912 but under conditions that testified to the strength of localism and voluntarism. Local authorities refused to turn the entire relief operation over to the military, and the Army itself tried to limit its role. The relief missions of 1913 also involved two problems that would plague such operations in future years: confusion over authority and funding when the War Department acted before Congress voted an appropriation, and duplication of effort when several agencies rendered aid without proper coordination.

In the first relief mission both problems arose. A tornado struck the small southeastern Alabama town of Lower Peach Tree early on the morning of 21 March, destroying much of it and leaving a trail of corpses stripped of hair and clothing. The storm killed 28 people immediately, injured another 68, and left about 200 destitute. When one resident wired President Woodrow Wilson pleading for medical assistance, the president instructed the War Department to provide it. The commander of Fort Oglethorpe, Georgia, after finding exactly where Lower Peach Tree was, dispatched a four-man medical relief party on the morning of the 22d.[49]

Commanded by Medical Corps officer Capt. Daniel W. Harmon, the party quickly transformed a church into a temporary hospital for black victims. White sufferers had already been housed in private homes. But during his first day in the village, Harmon learned that the little town's plight had aroused the sympathies of many. Doctors sent by the Mobile Chamber of Commerce and others who came on their own had formed a

---

[49]*Mobile Sunday Register*, 23 Mar 13; Logan Marshall, *The True Story of Our National Calamity of Flood, Fire, and Tornado* (Philadelphia: George F. Lasher, 1913), p. 243; Telg, C. C. Hare to President, 21 Mar 13; Ltr, J. P. Famety to L. M. Garrison, 21 Mar 13; Telg, Garrison to CO, Fort Oglethorpe, Ga., 21 Mar 13; Telg, Morgan to AG, 21 Mar 13. All in file 2020998, Record Group 94, NA.

relief corps. A National Guard doctor arrived to represent the Red Cross. Following instructions from the War Department, Harmon determined that the Red Cross had the situation under control and returned to Fort Oglethorpe. Brief as the mission was, The Surgeon General had already begun to worry about the propriety of acting without congressional appropriation. If the work involved only personnel and supplies already purchased, everything was proper, he informed the Secretary of War. But the Army did not have the legal authority to spend additional funds. He might have added that in this case it did not need to, because the response was uncoordinated and unnecessary.[50]

The next relief operation followed within two days and met with greater success. Early on the morning of 23 March a tornado tore diagonally across the most populous section of Omaha, Nebraska, causing severe damage. The Army waited for neither congressional approval nor a presidential order but responded within minutes when an alert teenager reported the calamity at Fort Omaha. The post's commander, Maj. Carl F. Hartmann, who had seen duty in the San Francisco quake, ordered three companies to the heart of the damaged area. Officers assigned part of the soldiers to guard duty and put the rest to work clearing wreckage. They labored until the next evening without relief, resting occasionally on the snow-covered ground with only their blankets for protection. Meanwhile, the fort's medical personnel established a temporary hospital at the scene of the tragedy. Stretcher and ambulance parties brought the wounded to it, and 1st Lt. John H. Trinder, the surgeon at Fort Omaha, toiled through the night caring for the victims. He had a rough job. One private detailed to work with the hospital recounted: "I have been through two wars, and I have carried men off the battlefield in the Philippines, shot to pieces, but this thing of women—and in one case, a women and her two children, we carried them in the same stretcher—that just got my goat."[51]

The troops from Fort Omaha remained in the city for a few days, and the War Department sent a quartermaster officer to distribute rations. No one seemed to question the propriety of dispatching troops, perhaps because Hartmann had conferred on the first morning with the mayor, who welcomed the Army's aid. After the crisis passed, the Commercial Club of Omaha wrote the War Department commending "most highly the

---

[50]Telgs, Harmon to AG, 24 and 25 Mar 13; Ltr, Capt W. R. Doores to AG, 2 Apr 13; Memo for AG by Chief of Staff, 26 Mar 13; Memo for Secretary of War by Surgeon General, 24 Mar 13. All in file 2020988, Record Group 94, NA. *Mobile Register*, 25 and 26 Mar 13.

[51]Quote from Miles Greenleaf and Carl G. Eddy, *The Omaha Tornado: Omaha, Nebraska, Easter Sunday, March 23, 1913* (Omaha: John L. Gideon, 1913), no pagination. Marshall, *True Story*, pp. 212—13; Thomas H. Russell, *Swept by Mighty Waters* (Chicago: Laird & Lee, 1913), p. 280; Victor Rosewater, "Repairing a Tornado's Havoc," *Review of Reviews* 47 (1913): 706.

quick response of Major Carl Hartmann'' and thanking several other officers, including Trinder, for handling ''the situation in so masterly a manner as to win the admiration and respect of the entire community.'' Clearly, in certain situations the public appreciated rapid response by the Army and did not consider it a threat to local control.[52]

Even if Hartmann's efforts in Omaha were successful, relief operations both there and in Lower Peach Tree were relatively minor. The same week, the Army became involved in a major disaster after a series of deadly floods in the Ohio and Mississippi valleys. On 26 March, President Wilson read in the newspapers of the first flooding along the Dayton and Ohio rivers and immediately went to the Executive Office Building to ascertain how the federal government could help. There he received a telegram from Ohio's Governor James M. Cox informing him that Cox had already contacted the War Department about assistance. Wilson called Secretary of War Lindley M. Garrison and learned, among other things, that the executive branch had no explicit authority to act. But it had done so in the past, and Wilson decided to proceed. In this, he followed precedents set by other chief executives, but the problem of authorization remained unresolved.[53]

Garrison appointed Major Normoyle, who had directed flood relief in 1912, to command the operation. As he had the year before, Normoyle divided the affected area into districts, appointed officers to direct operations in each, and instructed them to work closely with local committees. Again officers plied the rivers in steamers, rescuing the stranded and feeding the starving. Army medical efforts, however, differed somewhat from those in 1912.[54]

When he first took charge, Normoyle requested the services of his former assistants Miller and Coffin, but the War Department had already ordered other medical officers to the scene. Governor Cox's original request for aid included medical supplies, and the department sent him more than he asked for. On 26 March, the day of Cox's request, The Adjutant General ordered Maj. Powell C. Fauntleroy of the Surgeon General's Office to Columbus, Ohio, instructed the commanding general in Chicago to dispatch eight medical officers within ''convenient reach of Columbus'' to join Fauntleroy, and wired the St. Louis Medical Supply Depot to send fifty Hospital Corpsmen and supplies to the flooded region. On the following day, a party of three hospital stewards and fourteen

---

[52]Quote from Incl to Ltr, H. P. McCain to James Hay, 11 Jan 15, file 1459754, Record Group 94, NA; Greenleaf and Eddy, *Omaha Tornado;* Russell, *Mighty Waters.*

[53]*New York Times,* 27 Mar 13.

[54]For an overview of the operation, see RSW, 1913, pp. 213–15.

corpsmen left Washington with medicine and equipment, and another load of medical supplies was sent from New York.[55]

Army work in Columbus began even before officers ordered to flood duty by The Adjutant General arrived. On 28 March, the commander of nearby Columbus Barracks had dispatched his post surgeon Maj. Frank T. Woodbury and five enlisted men to Columbus at the request of the Ohio National Guard. Upon arrival they hastily set up a headquarters, and Woodbury ordered a sanitary inspection of the city. Within eight hours, the thirty-five cadets from Ohio State University who conducted the survey compiled a report. Two days later, Major Fauntleroy arrived in Columbus and was later joined by four other medical officers. Occasionally the Army doctors helped in the hospitals, but they spent most of their time conducting sanitary surveys, determining medical needs, or furnishing hospital stores. The treatment of patients was left to the Ohio National Guard or local physicians.[56]

Once Fauntleroy considered the situation in Columbus stabilized, he expanded his operations to other towns in the affected area. He had only four officers and a few enlisted men to commit to the effort, since the flood prevented others from reaching Columbus. Nevertheless, Fauntleroy sent his small staff to survey sanitary conditions in the Ohio Valley. On arriving in each town, its members first contacted local relief or health officials, consulted with them to determine the needs of the community, and then issued necessary vaccines or other supplies. Major Fauntleroy remained in Columbus but received daily telephone or telegraph reports from his men. He limited his relief activities not only because of the size of his staff but also because Normoyle did not want the Army "to get in too deep"—no pun intended, surely—but rather intended "to force states to take proper measures."[57]

As civil authorities in the area assumed greater control and the crisis eased, military sanitarians followed the flood downriver. Four Medical Corps officers and three Hospital Corpsmen served under Normoyle in the lower reaches of the Mississippi system, where they concentrated on inspecting refugee centers rather than advising towns. In both areas, Army assistance encouraged proper precautions, and only a few sporadic

---

[55]*New York Times*, 27 and 28 Mar 13; Telg, Normoyle to Chief of Staff, 26 Mar 13; Ltr, Surgeon General to Adjutant General, 26 Mar 13; Memo for Adjutant General by Chief of Staff, 26 Mar 13. All in file 2022074, Record Group 94, NA.

[56]Ltr, Sterling Taylor to George A. Dodd, 13 May 13; Telg, Fauntleroy to AG, 30 Mar 13; Telg, CO Columbus Barracks to AG, 13 May 13; Ltr, John W. Keegair to George A. Dodd, 12 Apr 13. All in file 2022074, Record Group 94, NA. RSG, pp. 174–75.

[57]Telg, Normoyle to Wood, 30 Mar 13. Quote from Telg, Normoyle to Chief of Staff, 6 Apr 13. Both in file 2022074, Record Group 94, NA.

cases of contagious disease developed. But in two towns—Dayton, Ohio, and Deckerville, Arkansas—conditions necessitated more direct involvement by Army medical personnel.[58]

The March flooding of the Dayton River was particularly devastating in the city that bears its name. Quick response by the Dayton-based National Cash Register Company, the Ohio National Guard, and a few surgeons from the Navy and Marine Hospital Service met the city's emergency needs. Yet when Secretary of War Garrison, touring the flooded region, arrived at noon on the 29th, sanitary conditions remained hazardous. Garrison assembled local physicians to discuss the city's plight, and a consensus emerged in favor of placing Dayton under federal control. Later Garrison, other federal representatives, and local relief officials met again and consulted with Governor Cox by telephone. This group decided to leave the city under control of the state militia but to place a federal officer in charge of sanitation. Garrison appointed to that post Maj. Thomas L. Rhoads, a Medical Corps officer serving as President Wilson's personal physician, but then traveling with the secretary.[59]

Rhoads commanded a force of local physicians, state and city health officials, national guardsmen, Navy surgeons, Marine Hospital Service physicians, six Army doctors, and forty-six Hospital Corpsmen—the Army contingent composed mainly of men originally ordered to Columbus who had been unable to get there. Rhoads divided Dayton into sixteen districts of roughly equal population and appointed local doctors to oversee each one. He granted the physicians the authority to hire or impress assistants, nurses, and laborers to conduct house-to-house inspections. During their inspections, medical workers treated or evacuated the sick and injured, isolated people with contagious diseases, disseminated advice on disease prevention, and located sanitary hazards.[60]

Once such dangers were identified, district officers sent cleaning crews to correct them. By the 31st, Rhoads had assembled a large labor force and several hundred teams to remove dirt and debris from homes,

---

[58]Telg, Normoyle to Wood, 11 Apr 13; Telg, Bankhead to Chief of Staff, 27 Apr 13. Both in file 2022074, Record Group 94, NA. RSG, 1913, pp. 174–75.

[59]Allen W. Eckert, *A Time of Terror: The Great Dayton Flood* (Boston: Little, Brown & Co., 1965), pp. 56–63; Guy L. Irwin, *Tragic Story of the Great Flood* (Chicago: Hamming Publ. Co., 1913), p. 25; Henry Neil [Marshall Everett], *Tragic Story of America's Greatest Disaster* (Chicago: J. S. Ziegler Co., 1913), pp. 150–53; Marshall, *True Story*, p. 77; Frederick E. Drinker, *Horrors of Tornado, Flood, and Fire* (Philadelphia: National Publ. Co., 1913), p. 94.

[60]Account of work in Dayton based on RSG, 1913, pp. 174–76; Marshall, *True Story*, pp. 92–93; and Rpts by Thomas Rhoads dated 29, 31 Mar, 2, 11, 22 Apr 13. All in file 2022074, Record Group 94, NA. See also Thomas L. Rhoads to Secretary of War, Rpt of Chief Sanitary Officer on the Work of the Sanitary Department at Dayton, Ohio, and Vicinity, 29 Mar to 25 Apr 13, file 88925, Records of the Office of the Chief of Engineers, Record Group 77, NA.

lots, and streets. Its crews accomplished a major feat of sanitary engineering, removing massive amounts of filth and a considerable number of corpses. Rhoads charged the secretary of the Ohio State Board of Health with the task of restoring water and sewer services. While work went on, Rhoads took emergency precautions. Until completely confident of the water system's purity, he ordered citizens to boil all drinking water. When reconnection of damaged sewer tie-ins from private homes proceeded slowly, Rhoads installed public comfort stations over manholes. He closely supervised all sanitary work and met with district officers and health officials every night to discuss the progress and problems of the day.

Since Rhoads had responsibility for other types of aid, he also worked closely with relief committees. Learning that food was becoming scarce, he requested rations from Normoyle and established stations throughout the city where residents drew food, clothing, and medical supplies. Rhoads also established two refugee centers for the homeless. These were needed because many buildings in which people had sought shelter had become overcrowded. To add to the crush, the district officers required the residents of homes that failed to pass sanitary inspection to move out until repairs were completed.

To care for the city's sick, Rhoads wanted to establish a full field hospital in conjunction with one of the centers. When Normoyle refused to send one, Rhoads instead employed small improvised aid stations located throughout the city. He also relied on Red Cross nurses to treat minor illnesses in the patients' homes, while Dayton's regular hospitals, which had survived the flood, cared for the seriously ill. With such service available, the field hospital did prove unnecessary, and by 2 April the small neighborhood facilities had begun to close.

Rhoads's success in practicing preventive medicine helped to prevent an overflow in the hospitals. Although Dayton experienced scattered cases of measles, scarlet fever, and especially diphtheria, no serious outbreaks developed. Rhoads claimed that the rate of sickness dropped to half what it had been before the flood. By 11 April he considered the situation sufficiently improved to allow his return to Washington; he departed on the 26th. The local boards of health carried on the program he had begun. Rhoads had provided much of the expertise and administrative savvy to guide the civilian authorities through the worst of the crisis without the total control or large military staff Torney had in San Francisco. As Rhoads began to relinquish control in Dayton, a representative of the Army Medical Department undertook another direct aid mission further south. On 14 April, Normoyle received reports of an epidemic of

cerebromeningitis in Deckerville, Arkansas, and ordered Maj. Sanford H. Wadhams, a Medical Corps officer on flood relief duty in Helena, to investigate. When Wadhams arrived in Deckerville—a "small town right in the center of about One Thousand square miles of flood country"—only the railroad tracks remained above water, and the town's mostly black population "had taken refuge in box cars." They had no doctor, meningitis had indeed struck, and several people had already died. The state of Arkansas offered no help, but the county did send Dr. M. S. Alexander from nearby Weiner.

In the following nine days, the two physicians vaccinated 500 people, fed the sufferers, and improved the sanitary condition of their refuge. Using a technique that had been developed only a few years earlier, Alexander and Wadhams cared for those who had already contracted meningitis. "We have treated them all by spinal puncture and injection of serum," Wadhams reported. "It has been done under the greatest of difficulties, but the results have been excellent." Soon he believed the danger of an epidemic had passed, even though he expected a "few more sporadic cases of meningitis in the surrounding country." Wadhams left Deckerville on 23 April, commenting that "the people have been most appreciative" and feeling "better satisfied with the work . . . than at any other place." Shortly thereafter, Normoyle directed him to return to his station. By the end of April, only one member of the medical contingent remained on relief duty, and he worked only until about the end of May, when Army relief operations of 1913 came to an end.[61]

The three operations that spring illustrated that the Army had become a ready source of aid in a variety of disasters. Not only Congress but also private citizens summoned the Army in times of crisis. No longer did relief missions await congressional appropriations. Instead, presidents boldly ordered the War Department to act at once and sought reimbursement later. De facto, the Army was in the business of aiding civilian disaster victims, and medical assistance was an important part of the services it offered.

Issuance on 2 October 1917 of Special Regulation 67, "Regulations

---

[61]Account of Deckerville and all quotes from Ltr, Wadhams to Fauntleroy, 24 Apr 13, file 2022074, Record Group 94, NA. Wadham's report does not state how he performed the vaccinations. An effective vaccine for meningitis was not developed until the early 1970's; however, doctors were performing vaccinations at this time. See Abraham Sophian and J. Black, "Prophylactic Vaccination against Epidemic Meningitis," *Journal of the American Medical Association* 59 (1912): 527–32; Wesley W. Spink, *Infectious Diseases: Prevention and Treatment in the Nineteenth and Twentieth Centuries* (Minneapolis: University of Minnesota Press, 1978), pp. 291–92. On the end of the mission, see RSG, 1913, pp. 174–75; Telg, Bankhead to Chief of Staff, 27 Apr 13, file 2022074, Record Group 94, NA.

Governing the Flood Relief Work of the War Department," signaled the department's official acceptance of its new mission. The regulation even provided blank forms for requesting aid—in the new bureaucratic society, a sure sign of official commitment. Though claiming to cover actions in all types of disaster, the title clearly indicated that the regulation had been written with the most frequent type of assistance, flood relief along the Mississippi, in mind. The regulation assigned responsibility for direction of relief efforts to department commanders, directed the afflicted area to be divided into districts, and laid out proper accounting procedures for the issuance of supplies. Placing the Army's role in the context of local control, the regulation made no mention of total military responsibility for relief efforts, as in San Francisco. It authorized distribution of medical supplies but contained little else about medical relief.[62]

The regulation did, however, address some major problems that marred relief missions in the late nineteenth and early twentieth centuries. It provided safeguards to prevent fraud and provided for proper accountability of government property. To prevent whites from withholding relief supplies to compel black agricultural labor, it ordered that "wherever and whenever possible supplies will be issued direct to sufferers" and specified that "in no case will relief supplies of any description be issued to employers for their employees." But the regulation also urged that relief be given to the ablebodied only when they worked in order to "safeguard against a promiscuous distribution of supplies and consequent demoralization of labor conditions thereby." Concerning the problem of authorization, the regulation stated that flood relief without the approval of Congress "is not contemplated . . . unless the overruling demands of humanity compel immediate action to prevent starvation and extreme suffering and local resources are clearly inadequate to cope with the situation." On coordination with other agencies, the regulation urged cooperation with local relief committees but failed to mention liaison with the Red Cross or any other national group.

Special Regulation 67 certainly did not resolve all the problems associated with relief operations, and it said almost nothing about the nature of medical relief. The work of the skilled personnel of the Medical Department had been part of the Army's expanded and more frequent assistance mission but was provided under the direction of officers from other branches of the service. The Medical Department as an organization exercised little or no control and provided only limited administrative

---

[62]Copy of Special Regulation 67 in Record Group 407, NA. All quotes below are from the regulation. For the drafting of the regulation, see Johnson, "Emergency Response," 6:27–32.

support—a pattern that would continue in future years. Nonetheless, medical personnel had rendered considerable civilian assistance between 1898 and 1917, aid that ranged from near total control in San Francisco to limited support and advice during the floods of 1912 and 1913. With little mention in the regulations and such varied precedents, the Army's medical role in domestic disaster assistance still remained to be fully defined.

CHAPTER 5

# Disease in the Aftermath of War: Disaster Aid to Poland and Russia after World War I

In the aftermath of World War I, members of the Army Medical Department became involved in unusual foreign relief operations that resembled earlier battles with epidemics after the Spanish-American War. This postwar activity contributed very little to the definition of the Army's medical assistance role; but it illustrated the variety of relief tasks that Army doctors could perform and further illuminated the complex motivations of the United States government in providing assistance.

## *Postwar Relief and America's Sense of Humanitarian Mission*

The unusual postwar medical missions occurred as part of a larger, comprehensive American relief effort designed to reduce starvation and disease among European noncombatants during and after the First World War. To help them, several American private and governmental agencies furnished food, medical care, and other assistance. They did not do so solely for humanitarian reasons, however. On occasion, American relief officials frankly donated or withheld food to further American policy—not unlike the time ninety years earlier when the government had used similar tactics with the Creek Indians.

More important was the fact that the entire assistance program implied a decision by American leaders to employ humanitarian relief to encourage governments and ideologies compatible with those of the United States. Herbert Hoover, who directed the American effort, and his boss, President Woodrow Wilson, sought through American relief measures to prevent civil disintegration, preserve a liberal world order, and thereby check the spread of bolshevism. Hoover declared that his program was designed to "sustain the feeble plants of parliamentary government which had sprung up in all of these countries. A weak government possessed of the weapon of food and supplies for the starving people can preserve and strengthen itself more effectively than by arms." President Wilson agreed: "Bolshevism

is steadily advancing westward, it is poisoning Germany. It cannot be stopped by force, but it can be stopped by food."[1]

With such statements, Hoover and Wilson displayed a political motivation for humanitarian relief that had rarely been so forcefully or clearly enunciated. Their thinking, however, did not differ drastically from that of earlier leaders who had supported overseas relief as a means to gain commercial entry into an area or to demonstrate to the world America's superiority. In fact, in the debate over a later phase of postwar relief—the decision to send aid to Russia during its famine of 1921—the continuity with previous efforts was especially pronounced.

Some historians have argued that the relief effort in Russia was but a cleverly disguised attempt at counterrevolution, and such a goal probably influenced Hoover's support for it. Yet few Americans shared Hoover's hope that American aid would reverse the fortunes of Russian communism; rather, they suspended their hostility toward Russia's new leaders for a time to ease the suffering of its citizens. Many probably agreed with New York Congressman W. Bourke Cockran, who vividly evoked the traditional American sense of humanitarian mission.[2]

In 1921 Cockran told his colleagues in the House that he supported an appropriation for famine relief in Russia because it was a " measure of sound policy" and "of absolute necessity to the security of our civilization, which is seriously imperiled—aye, rocking on its foundation—by reason of conditions which must be remedied if it is to survive." And, Cockran

---

[1]See George W. Hopkins, "The Politics of Food: United States and Soviet Hungary, March–August, 1919," *Mid-America* 55 (1973): 245–70; Benjamin M. Weissman, "The American Relief Administration in Russia, 1921–1923: A Case Study in the Interaction between Opposing Political Systems," (Ph.D. diss., Columbia University, 1968), p. 47. Quote from Herbert Hoover, *The Memoirs of Herbert Hoover: The Years of Adventure, 1874–1920* (New York: Macmillan Co., 1951), p. 301, but see also pp. 412–14, 427. Wilson quoted in Weissman, "ARA in Russia," p. 37. For additional evidence on Wilson's attitude, see Raymond L. Bland and Frank M. Surface, *American Food in the World War and Reconstruction Period: Operations of the Organizations under the Direction of Herbert Hoover, 1914 to 1924* (Stanford: Stanford University Press, 1931), p. 30; Joan Hoff Wilson, *Ideology and Economics: United States Relations with the Soviet Union, 1918–1933* (Columbia: University of Missouri Press, 1974), pp. 6–7; John M. Thompson, *Russia, Bolshevism, and the Versailles Peace* (Princeton: Princeton University Press, 1966), pp. 15–16, 220.

[2]For a summary of the historiographical controversy, see Banjamin M. Weissman, *Herbert Hoover and Famine Relief to Soviet Russia: 1921–1923* (Stanford: Hoover Institution Press, 1974), pp. 188–89, but also Leo Eugene Chavez, "Herbert Hoover and Food Relief: An Application of American Ideology," (Ph.D. diss., University of Michigan, 1976), which stresses Hoover's search for a new world order, and Wilson, *Ideology and Economics*, p. 7, which emphasizes its political intent. Even one of the scholars who stresses its counterrevolutionary purpose admits the American public considered it humanitarian relief. See Peter G. Filene, *Americans and the Soviet Experiment, 1917–1933* (Cambridge: Harvard University Press, 1967), pp. 76–79. Another factor in the American decision may have been support for domestic grain prices. See Weissman, *Hoover and Famine*, p. 103, and Thompson, *Russia, Bolshevism, and Versailles*, p. 222.

continued, no one could "dispute the proposition that of the civilization which we call Christian, this country is at once the bulwark and the citadel, the latest fruit and the crowning glory." In a situation where a people are "starving before our eyes" and will "disappear under conditions too awful to describe or even to conceive" if not given food, he thanked God that "philanthropy is always included within the scope of duty to American patriotism." The United States must now act to preserve "an important part of the human family" and on all other occasions as well to bring "relief to the uttermost ends of the earth wherever the hand of God rests heavily upon His creatures." In evoking an American, God-given responsibility to provide relief for the world, Cockran unknowingly expanded on themes in speeches delivered by Clayton in 1845 and Jenkins in 1902.[3]

Cockran expressed the older tradition of American philanthropy, but Herbert Hoover gave it new form. Hoover directed all the major American agencies that rendered assistance in Europe, and his personality and goals shaped each one. During the first years of fighting in Europe, Hoover headed the private Commission for Relief in Belgium and after American entry into the war directed the government's Food Administration. Following the armistice he continued the same efforts under the aegis of the American Relief Administration (ARA), a governmental agency that later became a private corporation. Through the four different bureaucracies, Hoover and the United States distributed more than 33 million tons of food at a cost of about $5 billion.[4]

In the ARA, Hoover's staff included some soldiers, nearly all volunteer officers whose wartime enlistments were extended so that they could serve while still salaried by the government. Hoover also secured presidential approval to draw supplies from the surplus stocks of food and equipment the Army had at the end of the war. Even with this Army aid, Hoover's relief operations were always civilian, not military, programs. They could not precisely be called disaster relief, and only rarely did they involve Army Medical Department personnel. On three occasions, however, Hoover did summon the Army and its doctors to perform relief missions—and two of them involved disaster relief.[5]

---

[3]Quote from *Congressional Record*, 67th Cong., 2d sess., 1921, pp. 470–71; see also pp. 452–58, 556–58, 574–81.

[4]Curti, *American Philanthropy*, pp. 224–300; Robert D. Cuff, "Herbert Hoover, the Ideology of Voluntarism and War Organization during the Great War," *Journal of American History* 64 (1977): 358–72; Chavez, "Hoover and Food Relief"; Bland and Surface, *American Food*, passim, statistics from pp. 274–75.

[5]On Army involvement in the ARA, see Bland and Surface, *American Food*, pp. 52–55; Herbert Hoover, *An American Epic*, 4 vols. (Chicago: H. Regnery Co., 1959–64), 2: 247–49, 274–79, 373; Hoover, *Memoirs*, pp. 306, 319.

In 1919, Hoover asked the Army to conduct what would later come to be called a nation building mission. Near East Relief, a private philanthropic organization, discovered its resources insufficient to strengthen Armenia in its struggle for independence amid a flood of returning refugees, shortages of food, and the threat of a Russian invasion. Officials of the organization asked Hoover for government assistance, and in August 1919 he and President Woodrow Wilson dispatched a military mission under Col. William N. Haskell, a Regular Army officer. Haskell's contingent included a medical department headed by Medical Corps officer Maj. Walter P. Davenport. Davenport and his American and Armenian staff provided hospital service for about 4,000 people each month and significantly improved Armenia's health care facilities. The American doctors also conducted a successful program of inoculation against typhoid and vaccination for smallpox, which reduced death rates from both diseases. Finally, they tried to improve sanitary practices in local communities but devoted less attention to that work and met with less success. Early in the summer of 1920, a Bolshevik invasion seemed imminent, and Haskell's mission withdrew. Shortly after it did, the Russians overran Armenia.[6]

### *Typhus in Poland*

Concurrently, and again at Hoover's instigation, Army medical personnel undertook a second mission, one that did involve disaster relief. From the first months of World War I, typhus had been a threat in many areas of Europe. Transmitted by lice, typhus was a particularly painful and dangerous disease whose course ran from twelve to sixteen days, during which the victim suffered from high fever, a generalized rash, severe headaches, and nervous disorders. Historically, typhus epidemics had been associated with a cold climate, a starving population, and the movement of armies or refugees. All three conditions existed in Europe following the outbreak of war.[7]

Typhus was endemic in southeastern Europe, the Balkans, and Russia, and with the breakdown of social discipline in the area the disease spread

---

[6]On private efforts, see James Barton, *Story of Near East Relief (1915–1930): An Interpretation* (New York: Macmillan Co., 1930) or Robert L. Daniel, *American Philanthropy in the Near East* (Athens: Ohio University Press, 1970), pp. 148–70. On the Haskell mission, see Barton, *Near East Relief;* Bland and Surface, *American Food,* pp. 151–52; Hoover, *American Epic,* 3: 397–408; Walter P. Davenport, "General Health Conditions and Medical Relief Work in Armenia," *Military Surgeon* 48 (1921): 139–58.

[7]Melville D. Mackenzie, "Louse-Borne Typhus Fever," in *Medical Diseases of War,* ed. Sir Arthur Hurst et al. (Baltimore: Williams & Wilkins Co., 1944), pp. 235–60; Hans Zinsser, *Rats, Lice and History* (New York: Blue Ribbon Books, 1934).

rapidly. In 1915 it ravaged Serbia, and by 1920 it had struck in Russia, Rumania, Lithuania, and the Near East. Poland—where typhus first appeared in the closing months of 1916 and raged for nearly four years—was one of the more severely afflicted countries. Multitudes of refugees fleeing Russia and the Ukraine repeatedly reinfected its people. In 1919 alone, more than 230,000 Poles contracted typhus, and nearly 20,000 died.[8]

In late March of that year, Hoover began receiving reports of the dire developments in Poland. Moved by the human suffering and fearful that typhus would spread to other parts of Europe, Hoover sought a means to check the epidemic. He may have considered relief a means to halt the spread of communism as well; certainly some Americans eventually sent to Poland considered stopping the spread of bolshevism a part of their task. In any case, Hoover verified the reports of suffering and investigated various means of sending relief.[9]

He found that the international community was only slowly responding to Poland's plight. In the spring of 1919, the American Red Cross sent a delegation of about fifty relief workers. Later its contingent grew to more than 150 people who distributed clothing, provided medical care, and helped the Poles establish preventive measures. That summer, the British Society of Friends also dispatched a small unit to Poland. Late in 1919 and early in 1920, the League of Red Cross Societies sent two groups—one to aid in the treatment of the sick and to assist in the battle against the epidemic, the other to study the etiology of the disease.[10]

In the late spring and early summer of 1919, however, the expectation for sufficient private aid was extremely dim. Hoover determined that his

---

[8]Richard P. Strong, "The Anti-Typhus Campaign in 1915 in Serbia Considered in Connection with the Present Typhus Epidemic in Poland," *International Journal of Public Health* 1 (1920): 188–210; Harry L. Gilchrist, "Typhus Fever in Poland," *Military Surgeon* 46 (1920): 622–29; Harold H. Fisher and Sidney Brooks, *America and the New Poland* (New York: Macmillan Co., 1928), p. 242; Richard P. Strong et al., *Typhus Fever with Particular Reference to the Serbian Epidemic* (Cambridge: Harvard University Press, 1920), pp. 94–98.

[9]Hoover, *Memoirs*, pp. 324–25; Fisher and Brooks, *America and Poland*, pp. 238–40. For participants' references to political motives, see Marjorie K. Snively, comp., *The Battle of the Non-combatants: The Letters of Dr. Harry Hamilton Snively to His Family from Russia, Poland, France, Belgium, Persia, etc., Assembled by His Daughter* (New York: Business Bourse, 1933), p. 110; Ltr, Harry L. Gilchrist to James Grindstaff, 27 Jul 20, box 2, American-Polish Relief Expedition (APRE), Record Group 120, NA. Also see Vernon Kellogg, "Poland, the Verge of Bolshevism," *Atlantic Monthly* 124 (1919): 126–31; William R. Grove, *War's Aftermath (Polish Relief in 1919)* (New York: House of Field, 1940), pp. 127–28, 152–54, 191–92.

[10]Strong, *Typhus Fever*, pp. 98–104; E. W. Goodall, "Typhus Fever in Poland, 1916–1919," *Proceedings of the Royal Society of Medicine* 13 (1920): 261–76; Charles Halliday, "Conditions in Poland, 1919–1920," *Military Surgeon* 51 (1922): 418–43; S. Burt Wolbach, John L. Todd, and Francis W. Palfrey, *The Etiology and Pathology of Typhus: Being the Main Report of the Typhus Research Commission of the League of Red Cross Societies to Poland* (Cambridge: Harvard University Press, 1922).

only recourse was to enlist the aid of the United States government. He expected no problems in arranging the sale of American stores to Poland but realized that the Polish government needed expert advice as badly as it did supplies. "The mere furnishing of equipment . . . ," Hoover wrote the president, "will have little result unless it is handled by experienced men." The American Army had men who possessed the requisite expertise and experience, and Hoover urged their dispatch to Poland as an expression of America's "sympathy for the distressed peoples of Central Europe." Wilson approved both the sale of equipment and dispatch of medical experts if Gen. John J. Pershing, commander of Army forces in Europe, concurred. Pershing did, and once Hoover had circumvented bureaucratic objections to the detailing of Regular Army officers, he secured his relief force.[11]

To direct the Polish Typhus Relief Mission—in October 1919 redesignated the American-Polish Relief Expedition (APRE)—Hoover, apparently at Pershing's suggestion, requested Col. Harry L. Gilchrist. A Medical Corps officer, Gilchrist had gained experience in public health work while serving in the military government of Manila and with disaster relief as part of the Army's medical contingent in San Francisco after the earthquake. He had arrived in Europe with the first American units in World War I and stayed to direct the Medical Section of the American Expeditionary Forces Gas Warfare Service. More important, Gilchrist had commanded the Army's delousing program in France after the armistice and so was familiar with typhus control. In the last days of June 1919, Gilchrist, who was still in Paris conducting research on gas warfare, received orders to organize a relief expedition and take it to Poland.[12]

Remaining in Paris and relying on second- or thirdhand reports of the epidemic, Gilchrist decided he would need at least 500 enlisted men and 25 or 30 officers, 12 of whom should be medical officers. On 16 July the Secretary of War approved Gilchrist's request for personnel and authorized the detail of the necessary officers and enlisted men, though he insisted Gilchrist accept only volunteers. Meanwhile, Gilchrist had begun to assemble his staff. He convinced Col. Harry H. Snively to serve as his

---

[11]Hoover, *American Epic*, 2: 444–45. Quotes from Fisher and Brooks, *America and Poland*, pp. 240–41; Telg, Pershing to AG, 3 Jul 19, box 3, APRE, Record Group 120, NA. On a similar pattern of behavior by Hoover in a later disaster see Bruce Lohof, "Herbert Hoover, Spokesman of Humane Efficiency: The Mississippi Flood of 1927," *American Quarterly* 22 (1970): 690–700.

[12]"Obituaries: Major General Harry L. Gilchrist, U.S. Army Ret.," *Military Surgeon* 94 (1944): 122–23. After this study was completed, an extensive discussion of the APRE appeared; see Alfred E. Cornebise, *Typhus and Doughboys: The American-Polish Typhus Relief Expedition, 1919–1921* (Newark: University of Delaware Press, 1982).

deputy; launched a search for officers who spoke French, German, or Polish; and wired several posts seeking enlisted volunteers. For the most part the officers who responded, like Snively, had served in the Army's delousing program and therefore had the necessary expertise. The enlisted volunteers did not always possess the required skills, and some were not even of suitable character. But at least they were easily recruited, and by the end of July, Gilchrist had the number if not the type of men he needed. He and three other medical officers departed for Poland on 6 August, leaving Capt. Fred Pumphrey in charge of collecting and forwarding equipment and personnel.[13]

Pumphrey, a Sanitary Corps officer, inherited an irksome responsibility. The United States Army donated beds, hair clippers, portable baths, a million and a half suits of underclothes, and tons of soap to the Polish government. In addition, the Poles bought great stocks of surplus supplies from the American Expeditionary Forces, including numerous motorized bath plants, mobile steam laundries, mobile machine shops, portable bathing plants, trucks, ambulances, touring cars, beds, bedding, more soap and underclothes, and many other items. Pumphrey and his assistants were to advise the Polish government on acceptance of individual items in the huge purchase. But the Polish officer in charge, who Pumphrey alleged spent all of his time motoring about Paris with his lady friends, neglected to inspect the goods and even accepted damaged or useless equipment against the counsel of the American advisers.[14]

Once the Poles had accepted the purchases, Pumphrey had to ship the supplies to Poland, no mean logistical feat in an area recently ravaged by war. He sent some by rail; in all, thirty-three trains with a total of 1,291 cars carried supplies to Poland. But shortages of rolling stock necessitated transporting many of the vehicles and other parts of the purchase by motorcade. Unfortunately, the convoys were slow and expensive and the troops in them undisciplined. Many of the vehicles that had been accepted with mechanical problems broke down, and others were demolished in accidents caused by inexperienced drivers among Gilchrist's volunteers. All along the route, citizens complained about the soldiers' rowdy behavior. One convoy commander, for example, dressed a group of French women in American uniforms and brought them along. When the "men under him reported to Warsaw undisciplined and a large number of them with

---

[13]Harry L. Gilchrist, Rpt of the American-Polish Relief Expedition, 1 Aug to 31 Dec 19, box 1, APRE, Record Group 120, NA. See also Telgs sent from the Paris office, box 8, APRE, Record Group 120, NA.

[14]Hoover, *Memoirs*, p. 326; Strong, *Typhus Fever*, p. 100. Memo for Gilchrist by Fred Pumphrey, 1 Sep 19, box 1; Ltr, Gilchrist to Minister of Public Health of Poland, 29 Oct 19, box 4. Both in APRE, Record Group 120, NA.

venereal disease,'' the captain was court-martialed, convicted, and discharged.[15]

As Pumphrey struggled with purchasing and shipping supplies, Gilchrist began operations in Poland. He and the three medical officers arrived in Warsaw on 10 August and immediately met with the minister of health, through whom the Americans would coordinate their relief effort. After conferring with him, Gilchrist traveled about the countryside to observe conditions, discussed Poland's problems with other Americans on the scene, and reviewed the lessons learned by the Army in earlier campaigns against plague, cholera, and yellow fever. Gilchrist concluded that his relief program had to achieve two interrelated goals: elimination of typhus-bearing lice and modernization of the Polish health care system. In its dual aim, his program resembled Army medical operations after the Spanish-American War. But in Poland, unlike Cuba and the Philippines in 1898, a national ministry of health had already begun efforts to check the epidemic, so Gilchrist adapted his plans to it.[16]

To eliminate the lice, Gilchrist committed his relief force to the maintenance of a sanitary cordon along the eastern border of Poland, the project that Hoover had intended for the APRE all along. The APRE and Polish officials would operate facilities for cleaning and delousing everyone crossing the border to destroy the typhus-bearing lice before entering Poland. The Americans would also help eliminate typhus where it already existed through establishment of bathing and delousing plants in local communities and the operation of mobile columns to delouse residents of the remaining towns and villages.

Gilchrist also wanted to accomplish the second goal, modernization of the Polish health care system. That involved American participation in the reorganization of Poland's various health agencies into one administration with a central committee to direct operations and functional departments to carry out its will. Gilchrist joined four Polish physicians on this central committee which was supported by departments of Propaganda, Transportation, Statistics, Hospitalization, Quarantine, Finance, and Schooling. This bureaucracy oversaw health and sanitation throughout Poland. To administer its policies, the committee and the minister of health created six districts of 18 to 25 counties each and appointed resident chief medical officers for every county.

To provide ''expert'' advice, not only in typhus control but also in the administration of public health, Gilchrist assigned three Army physicians

---

[15]Gilchrist, Report of APRE; Ltr, Gilchrist to J. C. White, 11 Jun 20; Ltrs, Pumphrey to Gilchrist, 10 Sep 19, 29 Aug 19. All in box 1, APRE, Record Group 120, NA. Quote from Statement by Gilchrist, 29 Jan 20, box 3, APRE, Record Group 120, NA.

[16]Ltr, Gilchrist to Surgeon General, 20 Aug 19, box 1, APRE, Record Group 120, NA.

to work with Polish medical officers at the district and county levels. Visiting the districts, the American doctors advised local officials on general sanitary conditions and inspected facilities and management in hospitals, orphanages, and other public institutions. To improve their services, other Americans distributed the supplies that had arrived from Paris and had been stored in a Warsaw warehouse to local hospitals throughout Poland. Still other members of the APRE established bathing and delousing stations in various towns and trained local citizens to operate them.[17]

Another facet of the modernization of the Polish health service—motorizing it—absorbed the energies of a large number of the American enlisted personnel. The Polish government had purchased a sizable fleet of mobile steam baths, trucks, ambulances, and assorted sedans. The lax inspection process at purchase, the long and rugged convoy to Poland, and the lack of spare parts which necessitated frequent cannibalization combined to make keeping the vehicles in operating condition a task beyond the capabilities of the Polish nationals, who had little experience with motorized vehicles. The American soldiers, not always the best of mechanics themselves, trained the Poles to operate and repair their new equipment.

A chauffeurs' school graduated more than 300 Polish drivers from a twenty-day course, but in a school for mechanics training took longer and never really succeeded. Language difficulties complicated instruction, and even the use of pictures only slightly eased the confusion. Too often the Americans, who either did not speak Polish or lacked the necessary technical vocabulary, tired of the tedious process of explaining repairs to the Poles and simply performed the maintenance themselves. Certainly the temptation to do so grew as the months passed, language imbroglios continued, the Poles learned only gradually, and commanders ranted about slow service. When Americans yielded to the temptation, however, they achieved efficiency at the cost of subverting attempts to teach the Poles to operate a motorized health service.[18]

The soldiers participating in vehicle maintenance not only trained the Poles but also serviced many of the vehicles used in the second aspect of Gilchrist's plan, the direct assault on lice. In the APRE's first fall season in Poland, five Army medical officers assumed command at stations with bathing, delousing, and quarantine operations in the sanitary cordon

---

[17] "Information from Poland," *Military Surgeon* 46 (1920): 221–28; Gilchrist, "Typhus Fever," passim.

[18] "Information from Poland," passim; Rpt of the Service Department of the Motor Transportation Service, 1 Feb 20; Ltr, I. L. Hunt to Commanding General, American Forces in Germany (AFG), 3

along Poland's eastern border. They worked at the important border crossings, while Polish officials administered the remaining posts. The program intended to clean and delouse everyone entering Poland, but between 1 November 1918 and 1 January 1920, more than 2.5 million prisoners of war and civilian refugees entered the country. American and Polish officials did their best against such odds, but the sanitary cordon was far from totally effective.

In addition to the cordon, the APRE utilized mobile field columns in its attack on lice. Each column had a staff of one commissioned officer, three noncommissioned officers, and fifteen privates and was equipped with a motorized bath plant, tents, stoves, bedding, and everything needed to support the staff and its operations. Gilchrist had initially considered sending 10 to 40 such units into the Polish hinterland but actually deployed only 4, which traveled from town to town in affected areas.

The commander preceded the column to each town and conferred with the medical officer and other local leaders. With his advice, they chose a site for the temporary bathing facility and set its hours of operation. Then the commander and the officials attempted to convince the residents to submit to the delousing program. Rumors proliferated about the "real" purpose of the columns, and in one town everyone fled fearing the baths were in preparation for deportation. In other instances, Polish reluctance stemmed simply from a natural fear of the strange and unknown. One old lady living in a filthy little shack could not be persuaded to participate. "Death here in my hovel," she reportedly cried, "rather than the torture of bathing." Such vehement opposition should not have surprised Army medical officers whose predecessors after the Spanish-American War had encountered similar mistrust when bringing modern health care to a people unused to it. Nevertheless, the Americans in Poland quickly became exasperated and forced the people to cooperate, usually by withholding bread from anyone without a certificate from the bathing units.[19]

As preliminary coordination was accomplished, the column entered the town or village. With the help of civilians hired locally, the soldiers pitched two tents in a line with showers near one end and a sterilizer positioned to one side. When the equipment was in place and the appointed hour had arrived, local residents—whether cajoled or coerced—reported in designated groups. The process began with clipping the people's hair;

---

Mar 20; Ltr, Frank H. Dixon to Gilchrist, 14 Oct 20. All in box 1, APRE, Record Group 120, NA. Ltr, Francis McFitts to All Units, 17 Oct 19, box 6, APRE, Record Group 120, NA.

[19]Quote from Ltr, Howard J. Gorman to CO, 17 Nov 19, box 1, APRE, Record Group 120, NA.

Snively told of one column that had four or five men who spent an entire day doing nothing else. "If long hair means Bolsheviki," he commented, "we are converting a big bunch every day." For many Polish Jews, long hair had a very different symbolic meaning, and in deference to their religious practices the Americans never insisted that they be shorn.[20]

Clipped and unclipped alike then entered the tents, where American attendants, or Polish employees in the case of women, directed them through the showers and at the same time took and sterilized their clothes. Scarcity of water and the high cost of heating it necessitated strict regimentation in bathing; the attendants allowed each group only a short time under the showers. After their baths, the people dressed and left, clutching their bars of soap—a valuable commodity in Poland—which they were allowed to keep.[21]

Through this systematic procedure, each column bathed an average of 500 people each day, and on some days as many as 800. In all, the four columns deloused 28,000 Poles, and no area in which they operated reported cases of typhus. Unfortunately, early winter storms forced the Americans to discontinue field operations in the first days of November. "From now on to May there will be intense suffering among these people," Snively wrote home, "cold, lack of fuel, clothing, food. My God! How I pity them." In the remainder of the letter, Snively recounted an earlier experience in the field that revealed the psychological and emotional turmoil that the relief workers themselves had endured. "I went back to Warsaw after two weeks in the villages, more nearly knocked out and nervous than ever in my life. I stayed in my room, refused to think of them, read the lightest literature." Only "after a week away from it" could he return to the field without "those awful nightmares." "It is awful when you cannot keep from seeing this mass of hungry, staring, hollow-eyed, ghostly, ragged, verminous humans. When they stare out at you from the walls of your locked room, from the sky, from the forest, from the rivers, and from the books you are trying to read."[22]

The winter storms that ended the operations of the field columns arrived only shortly before the scheduled departure of the Americans. The Polish government wanted to retain American assistance, however, so the minister of health wrote Secretary of War Newton D. Baker requesting that the APRE be allowed to remain in Poland. The minister also convinced

---

[20]Quote from Snively, *Non-combatants*, p. 127.

[21]Ltr, Howard J. Gorman to CO, 17 Nov 19; J. M. Gillespie, Rpt on Activities of the Field Column No. 3, 1 Oct to 8 Nov 19; Rpt to Commanding Officer, AFG, 21 Jan 20. All in box 1, APRE, Record Group 120, NA. Snively, *Non-combatants*, passim.

[22]"Information from Poland," passim; J. M. Gillespie, Rpt on Activities of the Field Column

Hoover to intervene with the secretary on Poland's behalf. The lobbying succeeded, and Baker extended the APRE's stay, at first until 30 June 1920 and later to 1 November 1920. Baker reasoned that the Polish campaign provided the Army Medical Department with "experience not otherwise to be secured in dealing with an epidemic disease" at a minimal cost since Poland provided the equipment and with the help of private agencies paid most of the administrative expenses. Despite the extension, the strength of the APRE was reduced to 161 men in November and even further cut in December. Between January and November 1920, the total number of soldiers serving with the APRE fluctuated between 94 and 51.[23]

Despite his smaller staff, Gilchrist attempted to continue all the programs except the field columns. Efforts to strengthen and modernize the Polish health service continued and increased. After a crisis in the Polish cabinet in early 1920, the government appointed a new health administrator with authority over areas of the country previously subject only to military rule. He became an antityphus dictator of sorts, and Gilchrist worked closely with him. Even under the reorganization, however, American officers continued to inspect health facilities, counsel local authorities on sanitary matters, and instruct the Poles in delousing procedures and the operation of sterilizers.[24]

In fact, Gilchrist wanted to expand efforts at sanitary reform in the smaller Polish towns. As an experiment, he sent 1st Lt. Robert C. Snidow to one of the filthiest villages, Garwolin. Snidow and three American enlisted men, two of whom spoke Polish, instituted programs to clean and disinfect houses and public facilities. Partly because of tensions between Poles and Jews, but mostly because of the reluctance of all the villagers to participate, the Americans exercised greater and greater authority. Serving simply as advisers did not ensure reform, Snidow reported, and "we in a very insidious manner gradually assumed the control of the town so that at the end of the work we were practically the government." Lack of time

---

No. 3, 8 Nov 19, box 1, APRE, Record Group 120, NA. Quote from Snively, *Non-combatants*, p. 143.

[23]Fisher and Brooks, *America and Poland*, pp. 243–44; RSG, 1920, p. 378; Memo for Chief of Staff by Newton D. Baker, 6 May 20, Poland 710, Records of the Adjutant General's Office, 1917–, Record Group 407, NA. Company Returns, 1 Oct 19 to 31 Dec 20, HQRA, APRE, box 9, APRE, Record Group 120, NA. Hoover estimated total costs at well over $100 million (see Hoover, *American Epic*, 3:266). The ARA paid $950,000 for transportation and incidental expenses; the U.S. Foreign Service paid some civilians; The Surgeon General listed the cost to the Medical Department at $105,601 (see RSG, 1921, p. 192).

[24]Summary Report, APRE, 1920, box 10, APRE, Record Group 120, NA; RSG, 1921, p. 193; Fisher and Brooks, *America and Poland*, pp. 246–47. For a report by one such American officer, see Ltr, Frank H. Dixon to Gilchrist, 14 Oct 20, box 10, APRE, Record Group 120, NA.

and personnel, however, limited work in individual communities.[25]

The major focus of American and Polish health officials during the winter of 1919–1920 remained maintenance of the sanitary cordon along Poland's eastern border. American medical officials helped to staff the stations. In December 1919 one of them, Lt. Col. Edward C. Register, contracted typhus and several weeks later died. He was not the only casualty in the APRE; one enlisted man was killed when a sterilizer exploded, and another died of pneumonia. Still the work of the fifteen delousing stations continued, and at each, health officials let no one pass without a bath and sterilization of his clothes. As an added precaution, Gilchrist assigned Lt. Arthur E. Fox and a group of eighteen enlisted men to a mobile unit that included four rail-mounted delousing plants located in cities where rail lines entered Poland.[26]

Just as the increased activity along the border began to yield results, a Russian invasion of Poland destroyed the sanitary cordon. As early as May 1920, Fox reported difficulty maintaining contact with his units because of the Russian advance, and during early summer the Bolsheviks completely overran the area. One American sergeant who waited until the last minute to get his train out of the Soviet's path was captured but soon released. Other bathing trains were captured, and all the quarantine stations fell to the Russian troops. Gilchrist termed the Bolshevik advance "a great calamity," and later ARA historians estimated that the invasion nullified 75 percent of the progress the APRE had made against typhus.[27]

With its major program so summarily suspended, the APRE turned to other, less important tasks. Some of its members deloused and prepared for repatriation of a group of Polish-Americans, known as Haller's army, who had come to Europe to fight for Poland before American entry into the war and had remained to help the Allies. Other members of the APRE supervised sanitation and conducted a delousing program in a refugee camp near Krakow with more than 6,000 residents. Late in August 1920, stunned by the success of the Russian invasion, Gilchrist agreed to establish within the Polish Army a delousing program similar to that he conducted for the American Army in France. Although Poles performed most of the work, American soldiers traveling with Polish fighting divisions instructed and supervised them. Their contribution to the Polish

---

[25]Quote from Rpt of Duties Performed, APRE, 1 Jan to 1 Nov 20, by 1st Lt Robert C. Snidow, box 1, APRE, Record Group 120, NA.

[26]Gilchrist, "Typhus Fever," p. 625; RSG, 1921, p. 192–93; Rpt, Inspector General to Commanding General, AFG, 1 Sep 20, Poland 710, Record Group 407, NA.

[27]Ltrs, A. H. Fox to Commanding Officer, 27 May and 27 Jul 20, box 10, APRE, Record Group 120, NA. Ltr, Gilchrist to Col Godlowski, 9 Sep 20, box 1, APRE, Record Group 120, NA. Quote from Rad, Commanding Officer, APRE, to Commanding General, AFG, 21 Aug 20, Poland 710,

Army was neither large nor of long duration. It began at a time when only fifty soldiers remained with the APRE, and by October almost all APRE activities had ended.[28]

On 2 November all of the Americans except Gilchrist and four enlisted men left Poland; the latter stayed to finish the paperwork and dispose of the remaining supplies. On 4 January 1921 they, too, completed their duties, and the unit officially disbanded. It could not easily be labeled a stellar success. A highly negative Inspector General's report on its operation concluded that the APRE had simply not accomplished its mission. The inspector proposed several reasons for the failure: Gilchrist had to plan his mission in Paris without knowing the real situation in Poland; the personnel sent did not best represent the United States; the constant breakdown of motor transportation curtailed effectiveness; and the Americans coordinated relief through the Ministry of Health rather than the Polish Army, which actually had the power to accomplish things.[29]

Even though tainted by line prejudice against a medical officer in command, the report retained some validity. The troops who went to Poland did not conduct themselves in exemplary fashion. Courts-martial for drunkenness, introducing women into quarters, theft, disorderly conduct, disobeying officers, striking civilians, and various combinations of these were frequent. Gilchrist may not have exercised sufficient control amid such disorder, but his task was more difficult than it need have been. He simply had too many responsibilities: professional consultant to the Polish Ministry of Health, director of a campaign against an epidemic entrenched in a large area wracked by war, as well as commander of a military unit. And the unit had been especially assembled—though thrown together might more accurately describe the process—for the mission, when one already established might have served better. Finally, a development over which he had no control, the Russian invasion, more severely limited the APRE's accomplishments than did poor planning, shoddy maintenance, or disciplinary problems.[30]

---

Record Group 407, NA; Fisher and Brooks, *America and Poland*, p. 247.

[28]Rpt, Inspector General to Commanding General, 1 Sep 20; Rpt, Commanding Officer APRE to Commanding General AFG, 21 Aug 20. Both in Poland 710, Record Group 407, NA. Ltr, Gilchrist to Minister of Public Health, 26 May 20, box 4, APRE, Record Group 120, NA: Rpt of Duties Performed, APRE, 1 Jan to 1 Nov 20, by 1st Lt Robert C. Snidow, box 1, APRE, Record Group 120, NA; Company Returns, APRE, Mar to Nov 20, box 9, APRE, Record Group 120, NA.

[29]Company Returns, APRE, box 9, APRE, Record Group 120, NA; Rpt, Inspector General to Commanding General, AFG, 1 Sep 20, Poland 710, Record Group 407, NA. The IG came from Headquarters, AFG, which had administrative control over the APRE after 5 Nov 19. See Memo for Chief Surgeon by Brehon Somervell, 29 Jan 20, box 10, APRE, Record Group 120, NA.

[30]See the records of special courts-martial and summary courts-martial, box 10, APRE, Record

(Continued)

Despite all shortcomings, the unit did help the Polish people. The APRE may have failed to rid the country of typhus, but it did ease the intensity of the epidemic. It deloused thousands of entering refugees; it deloused many residents in the hinterland that first fall; it helped to modernize, motorize, and generally strengthen the Polish health service. The American-Polish Relief Expedition proved something less than a total success, but it was far from an abject failure.

### *Famine in Russia*

In the year after the antityphus campaign in Poland ended, Hoover called on Army medical personnel a third time. In 1921 the devastation of war followed by the disruption of revolution, both compounded by the cruelties of nature, left Russia in the throes of one of the worst famines in recorded history. Starvation loomed for nearly 10 million people; 2 or 3 million did die; and some survivors were desperate enough to turn to cannibalism. In a small village, young boys orphaned by the famine hanged their little sister, left her swinging in the kitchen, and cut off pieces of her body to eat as they became hungry. Those who survived starvation, by whatever means, still had to endure intense cold and outbreaks of typhus, typhoid, cholera, smallpox, and other diseases. Taxed by war and reorganized by the Communists, the Russian medical system offered little comfort to the suffering. Medical personnel fell victim to famine as readily and rapidly as patients, and poorly supplied, unsanitary hospitals did not have sufficient space to accommodate the sick and dying.[31]

On 13 July 1921 Russian writer Maxim Gorky appealed for foreign assistance to save his starving countrymen. Gorky's plea prompted Herbert Hoover, then secretary of commerce but still head of the ARA, to instigate a new ARA relief program. He began a complicated series of

---

(Continued)
Group 120, NA. Although no one was tried, at least one Pole accused an American serviceman of the rape of a Polish woman. For a comment on the creation of the unit, see Synopsis of Reports from APRE, Poland 710, Record Group 407, NA.

[31]On the causes of the famine, see Weissman, *Hoover and Famine*, pp. 1–3; Harold H. Fisher, *The Famine in Soviet Russia, 1919–1923: The Operations of the American Relief Administration* (New York: Macmillan Co., 1927), pp. 429–36, 469–506; Frank Golder and Lincoln Hutchinson, *On the Trail of the Russian Famine* (Stanford: Stanford University Press, 1927), pp. 1–26. The incident of cannibalism is mentioned in W. R. Dear, "The A.R.A. in Russia," *Military Surgeon* 69 (1931): 403–4; but for others, see F. H. Foucar, "Resume of Experiences and Work Accomplished in Russia with the American Relief Administration, 1921–1923, Part I," *Military Surgeon* 54 (1924): 688; Henry Beeuwkes, "American Medical and Sanitary Relief in the Russian Famine, 1921–1923," *American Relief Administration Bulletin*, 2d ser., no. 45 (Apr 26): 20–21. On problems in the Russian medical system, see Golder and Hutchinson, *On the Trail*, pp. 70, 125–26, 137, 143; Beeuwkes, "Medical and Sanitary Relief."

negotiations with the Russian government to set the conditions under which the ARA would render aid to the famine-stricken. With each side extremely suspicious of the other's intent, the talks dragged on for nearly two months before reaching agreement. Though the ARA had become a private corporation, its need for huge sums of money and large quantities of supplies to fulfill the pact forced it to seek United States government support. During the fall, Hoover asked Congress for aid; after a heated debate it appropriated $20 million for Russian famine relief. Still later in the fall, at the request of the president, Congress made $4 million worth of War Department, Navy, and Public Health Service medical supplies available to the ARA.[32]

Well before the congressional appropriation, the ARA had begun its work in Russia. Toward the end of the summer, Hoover appointed Col. William N. Haskell, who had headed the Army mission to Armenia and served with relief forces in Rumania, to direct the operation. The agreement with the Russians allowed him a staff of about 180 Americans, who started trickling into Russia in August. They served both in administrative departments and as district supervisors and assistants actually controlling the flow of food and supplies to the people. Though some of them were Regular Army personnel, Haskell directed an essentially civilian operation that happened to have soldiers serving with it.[33]

However, a little more than a fifth of the Regulars who served in Russia with the ARA were in its Medical Division, in which military doctors occupied key leadership positions. Hoover again called on the Army to direct medical relief, appointing Medical Corps officer Col. Henry Beeuwkes to head the division. Beeuwkes assembled a staff that included five other Regular Army officers from the Medical Department: Maj. Walter P. Davenport, his assistant director; Capt. John H. Dawson, of the Medical Administrative Corps, chief of the central medical warehouse; and Majors William R. Dear, Frederick H. Foucar, and Glenn I. Jones, all district medical officers. Thus medical relief work depended more on the Army than did other aspects of the operation, even though the remainder of the division's personnel were civilians.[34]

When Beeuwkes arrived in Russia on 21 September 1921 he promptly opened a Moscow office from which he directed medical operations. The

---

[32]Fisher, *Famine*, passim, but especially pp. 138–54; Weissman, *Hoover and Famine*, pp. 1–110; Bland and Surface, *American Food*, pp. 115–16.

[33]On Army involvement, see Weissman, *Hoover and Famine*, p. 85; on the administration of relief, see Fisher, *Famine*, pp. 112–15.

[34]Hoover, *American Epic*, 3: 467; Beeuwkes, "Medical and Sanitary Relief," pp. 85–87. A list of the Medical Division's personnel was compared with the *Army Register*. In all, 26 Regulars served with the ARA, but no more than 19 were in Russia at any one time.

capital was also the site of the ARA's central warehouse, which received medical supplies shipped from the United States and channeled them to locations throughout Russia. Both Beeuwkes's office and the warehouse supported health teams in the districts that had an American doctor in charge, one or two American assistants, and a varying number of Russian workers. Together, they conducted four types of assistance programs.[35]

First, and most important, the district medical officers sought to improve the Russian health care system. They frequently inspected hospitals and other types of health care facilities to determine their needs and then requested appropriate supplies from the central warehouse. When the warehouse shipped their requests, the district staff distributed them to the various facilities. In all, the ARA Medical Division furnished medical stores and equipment to 16,419 institutions—most of them hospitals, dispensaries, or children's homes—with a total capacity of more than a million beds. Supplies furnished included 357 kinds of medicine, 627 types of surgical instruments, and hundreds of varieties of laboratory supplies, disinfectants, and other medical items. Some of them came from the cache of Army supplies donated by Congress, but since it offered limited variety the ARA also depended on purchases and grants from the American Red Cross. District medical officers also ensured that the Russian personnel at medical institutions had enough food to eat. With staffs no longer starving and facilities better equipped, hospital service in Russia improved.[36]

Perhaps not as important as the resupply of Russian hospitals but still a major aspect of medical operations was a program to vaccinate and inoculate the people. The district medical officers administered the program but employed and trained Russians to serve as vaccinators. Both the Americans and the Russians had to proceed cautiously, because in earlier attempts visiting vaccinators had been beaten or killed by suspicious or hostile villagers. Before sending vaccinators to any town, the medical staff conducted an extensive educational and propaganda campaign. For the most part it succeeded, and nearly 10 million Russians submitted to inoculation against five types of disease: typhoid fever, two kinds of paratyphoid, smallpox, and diphtheria.[37]

The other types of medical relief, public sanitation and delousing,

---

[35]For the philosophy behind them, see Beeuwkes, "Medical and Sanitary Relief," pp. 75–76.

[36]Beeuwkes, "Medical and Sanitary Relief," pp. v, 70–72; Bland and Surface, *American Food*, pp. 252, 936–86.

[37]Bland and Surface, *American Food*, pp. 252–53. For the operation of the program in the districts, see F. H. Foucar, "Resume of Experiences and Work Accomplished in Russia with the American Relief Administration, 1921–1923, Part II," *Military Surgeon* 55 (1924): 32–34; Dear, "ARA in Russia," pp. 393–94.

were not as central to the ARA medical staff's efforts. District officers did encourage local officials to improve sanitary practices and sometimes used food to hire local citizens to clean streets, sewers, and drains. To delouse the residents, medical workers opened baths equipped with autoclaves for sterilizing clothes in Moscow, Samara, and other locations. The district doctors insisted that institutions supported by the ARA operate delousing programs for their own patients. Between the two methods, many Russians were deloused.[38]

A list of the various types of medical relief, although indicating what the Americans did, obscures the personal sacrifice and dedication the work entailed. The American doctors lived and labored among an alien people and under the watch of hostile political officials. When they visited a town to discuss inoculation, they did not know if they would be killed for their trouble, as some previous health emissaries had been. But they did know that their visits necessitated freezing rides through vast snow-covered regions where any accident meant they would not be found until the spring thaw, if then. Many times they slept in cold haylofts rather than endanger themselves in the warmer but usually contaminated peasant huts. Despite their precautions, several of the Americans contracted typhus, and others for whom the mental strain surpassed the physical suffered nervous breakdowns. And, one of the Army medical officers observed, "the horrifying experiences to which [they] were continually subjected in this land of despair" left none who were not "permanently changed by the experience."[39]

Their sacrifices helped to ease the suffering, however, and by April 1922 Hoover suggested the mission conclude its work in Russia. Other relief officials disagreed, and Hoover consented to the continuation of the ARA's labors, though after the September harvest the Americans did greatly reduce their assistance. The next month they sensed pressure from the Soviets to withdraw, which indicated the crisis had indeed passed and political priorities were reemerging. Nevertheless, the ARA continued a less extensive program until June 1923, when the operation drew to a close. By then all the district physicians had gone home and of the medical contingent only Beeuwkes and his assistant remained. On 20 July, Haskell, Beeuwkes, and the remainder of the staff left Moscow, and the ARA mission to Russia ended. It had fed almost ten million people, inoculated nearly as many, and significantly improved medical and hospital service. The ARA had done so with a minimum of political

---

[38]Hoover, *American Epic*, 3: 474; Bland and Surface, *American Food*, p. 253; Foucar, "Experiences, Part II," pp. 29–30; Dear, "ARA in Russia," pp. 401–2.

[39]Based on Foucar, "Experiences, Parts I and II"; Dear, "ARA in Russia," quote from p. 396.

friction and without subverting the Russian government. The operation had proved both a helpful humanitarian venture and a successful experiment in cooperation between hostile political systems.[40]

The operations in both Russia and Poland had been responses to particular situations to some extent created by the war, and Army Medical Department personnel undertook no more such missions. Both operations, though, testified to the continued strength of America's sense of humanitarian mission. The famine relief operation in Russia revealed that the United States would undertake aid in a nation with whom it shared few political values if the needs of humanity demanded it. On the other hand, the ARA's operation in Europe—and Gilchrist's typhus control efforts as part of it—suggested that the United States often sought political as well as benevolent goals in its relief activities. Just as Hoover had hoped to use American food and medical care to strengthen the free countries of Europe, government leaders after World War II would dispatch disaster relief to many parts of the world for similar reasons. But for the remainder of the interwar years, America's fear of expanding bolshevism as well as its commitment to internationalism waned, and the relative inactivity of Army medical personnel in foreign disaster assistance resumed.

---

[40]Fisher, *Famine*, pp. 393–401; Weissman, "ARA in Russia," pp. 2, 308–94; Weissman, *Hoover and Famine*, pp. 192–202.

CHAPTER 6

# Relief Role in Transition: Assistance at Home and Abroad, 1918–1939

Though World War I had generated a need for unusual relief missions in Poland and Russia, it did not spur increased Army medical involvement in other types of disaster assistance. In fact, the war effort precluded the participation of the Medical Department in providing major aid in the nation's deadliest disaster—the 1918–1919 epidemic of influenza, which claimed about 675,000 lives. State and local boards of health along with the Red Cross rendered most of the relief, though all three received support from the United States Public Health Service (PHS). Congress passed a special appropriation to pay for the PHS's efforts; the bill also authorized the Army and Navy medical departments to provide civilian relief. But the influenza struck first and possibly hardest in Army training camps and aboard troopships bound for Europe, and caring for soldiers absorbed the military's medical resources. The Army Medical Department did occasionally assist civilians—as when it loaned hospital tents and corpsmen to Washington, D.C., for a temporary influenza hospital—but for the most part its own responsibilities prevented significant civilian aid.[1]

After the war, Army Medical Department personnel resumed their role in relief operations. Following a June 1921 flood in Pueblo, Colorado, 11 doctors, 15 nurses, and 25 enlisted men from Fitzsimons General Hospital in Denver provided health care as part of a larger relief operation directed by Army engineers. On 6 June the medical contingent established a 250-bed hospital in Pueblo, which remained in service until early July. During that time, its staff treated cases of smallpox, typhoid fever, and other illnesses. In August of the same year, Fort Dix, New Jersey, assisted nearby Jacobstown during an outbreak of typhoid fever. The post loaned the town equipment to establish a hospital in a local chapel, sent

---

[1]Alfred W. Crosby, Jr., *Epidemic and Peace, 1918* (Westport, Conn.: Greenwood Press, 1976), p. 206 and passim; Dorothy A. Pettit, "A Cruel Wind: America Experiences Pandemic Influenza, 1918–1920: A Social History" (Ph.D. diss., University of New Hampshire, 1976), pp. 121–22 and passim; Noyes, "Influenza Epidemic," pp. 195–202 and passim. See also Richard Collier, *The Plague of the Spanish Lady: The Influenza Pandemic of 1918–1919* (New York: Atheneum, 1974).

soldiers to set it up, and detailed medical officers to serve on its staff and to administer an antityphoid program.[2]

Such minor domestic missions were much more common in the 1920's than foreign operations, but the largest single medical effort of the interwar years did occur abroad. From 1 to 3 September 1923 an earthquake rocked Japan, causing terrific destruction centered in the large cities of Tokyo and Yokohama, where fires burned out of control. Reports told of 2 million people homeless, 100,000 seriously injured, and upwards of 200,000 dead.[3] Under the direction of the American military attaché, the small Army delegation in Japan at once mobilized to locate, succor, and report on their stranded countrymen. Almost as quickly, the United States Navy's Asiatic Squadron dispatched ships to the area to aid distressed Americans and provide a communication link with the outside world.[4]

Because of special circumstances, the response of the United States to the quake in Japan was unusually generous and the Army's mission atypically large. Many businessmen considered it a propitious time for increased trading ties, while other Americans recalled the large Japanese contribution to the Red Cross relief fund during the San Francisco earthquake. Of course, some people were simply moved by the magnitude of the suffering. Contributors channeled funds through private groups, but the United States government decided to send a relief force as well. As reports from the Asiatic Squadron became bleaker, the size of that delegation grew, and the War Department eventually ordered preparation of two relief vessels in the Philippines and another in San Francisco. To coordinate supplies and personnel, the Secretary of War sent Brig. Gen. Frank R. McCoy and Col. George T. Langhorne to Japan to command the expedition. Assistants to the governor general of the Philippines, the two happened to be in China at the time of the quake.[5]

---

[2]On Pueblo, see Johnson, "Emergency Response," 7: 1–10; Memo for Assistant Chief of Staff by Kenzie Walker, 22 May 22, box 929, 400.38, Record Group 407, NA; "Army Notes," *Army and Navy Journal* 58 (1921): 1124; "Army Medical Department Aids Flood Sufferers," *Army and Navy Journal* 58 (1921): 1179. On Jacobstown, see S. Jay Turnbull, "Report on an Outbreak of Typhoid Fever at Jacobstown, N.J., August, 1921," *Military Surgeon* 50 (1922): 306–9.

[3]Mark J. McNeal, "Destruction of Tokyo," *Catholic World* 118 (1924): 315–16; Curti, *American Philanthropy*, p. 339. For a comprehensive account of the quake and its aftermath, see Bureau of Social Affairs, *The Great Earthquake of 1923 in Japan* (Japan: Bureau of Social Affairs, Home Office, 1926).

[4]Rpt of Lt Col Charles Burnett, bulky package, 400.38, Record Group 407, NA; "Destroyer Division No. 38 Makes Record Cruise," *Army and Navy Journal* 62 (1925): 1; Bureau of Social Affairs, *Great Earthquake*, p. 411; U.S. Department of State, *Papers Relating to the Foreign Affairs of the United States*, 1923, 2: 470.

[5]On motivations and private relief, see Curti, *American Philanthropy*, pp. 339–43. On government aid, see Memos for AG by S. Heintzeman, 2 and 4 Sep 23; Telg, Read to AG, 5 Sep 23; Telg, Secretary of War to Secretary of State, 6 Sep 23. All in box 929, 400.38, Record Group 407, NA.

As McCoy sailed to Japan, preparation of the relief ships proceeded. In the Philippines, crews quickly loaded the U.S. transport *Merritt* with subsistence and medical supplies. On the 6th, a relief party including ten Medical Corps officers, two Medical Administrative Corps officers, a few American civilian physicians, and a sizable contingent of Filipino medical personnel sailed on it. A second ship, the *Meigs*, had to be unloaded and then reloaded with relief items, so it did not depart until the 10th. In San Francisco, meanwhile, laborers rapidly loaded the U.S.S. *Somme* with hospitals, camp infirmaries, and other medical equipment. The *Somme* left San Francisco harbor on the 8th, but in the haste to be under way it sailed without tents for the field hospitals it carried or all of the personnel originally assigned to the mission. Even without them, the contingent included 10 Medical Corps officers, 6 Army Nurse Corps officers, and 41 medical enlisted personnel.[6]

As the ships sailed, the role their relief parties would play remained unclear, and the political situation in Japan appeared potentially as volatile as that in Russia had been. Japanese-American relations were strained because of ill will engendered during joint occupation of Siberia in 1918–1920 and by what the Japanese perceived as a slight to their national stature at the Washington Naval Conference of 1921. Japan's traditional hostility toward visiting military delegations did nothing to improve prospects for a harmonious operation. American Ambassador Cyrus E. Woods warned Washington that a "small incident" could have devastating diplomatic reverberations and suggested the American delegation simply give its supplies to the Japanese rather than attempt to distribute them.[7]

Partially heeding Woods' warning, American relief officials proposed to aid only foreigners in Japan unless they were specifically requested by the government to help the Japanese. But as the relief ships approached, Japan decreed that no foreign delegations would be allowed ashore for any reason. McCoy, who had already arrived, pleaded with a few of the country's leaders to disavow that policy. He failed to convince the Japanese to abandon it completely but secured a modification allowing

---

McCoy's Narrative, bulky package, 400.38, Record Group 407, NA.

[6]On activities in Philippines, see Memo for AG by Chas. C. Aalcutt, 6 Sep 23; Telg, Bundy to AG, 6 Sep 23. Both in box 929, 400.38, Record Group 407, NA. E. L. Munson, "Report on the Medical and Hospital Service of the Japan Relief Mission," *Monthly Bulletin of the Philippine Health Service* 4 (1924): 52. On loading in San Francisco, see Rpt of Maj G. R. McBrayor, bulky package, 400.38, Record Group 407, NA. Telgs, Morton to AG, 8 and 11 Sep 23; Memo for AG by R. U. Patterson, 15 Sep 23. All in box 929, 400.38, Record Group 407, NA.

[7]Quote from U.S. Department of State, *Papers Relating to the Foreign Relations of the United States*, 1923, 2: 469.

any party already en route to land.[8]

Even so, American relief officials chose to minimize American involvement to avoid any infringement of Japanese sovereignty. They decided, first, "to establish nothing ashore unless requested by the Japanese authorities; second, to turn over to the Japanese any installations or equipment requiring personnel ashore as rapidly as they can be taken over by Japanese personnel; [and] third, after delivering Army supplies now en route to withdraw all facilities and personnel." Under the policy, McCoy would give the American embassy all the subsistence supplies it needed and donate the remainder to the Japanese Relief Bureau for distribution. With medical and hospital stores, he planned to have American troops establish an operating model of every type of facility in the shipment to be transferred as quickly as feasible to the Japanese and to give the others to them at once.[9]

On 15 September the *Merritt* arrived in Yokohama and was followed over the next few days by the other ships. As each arrived it began to unload, but rough weather, a shortage of lighters, and jumbled cargo holds resulting from hasty and haphazard loading slowed the process. Crews spent a good deal of their time sorting supplies before sending them ashore, and one officer complained that "a delay of half a day in Manila . . . would certainly have saved more than a week's delay in rendering hospital service in Japan." Once on shore, soldiers unsystematically dumped the supplies, creating new snarls which slowed erection of the contingent's own bivouac. When at last it was pitched, the Americans and Filipinos turned to the work of constructing the first model hospital.[10]

Although ideally located in the midst of the distressed populace, the site adjacent to the bivouac had several shortcomings. Tremors continued to shake it periodically, the old and new fissures that crisscrossed its surface created severe drainage problems, and the resulting bog proved hazardous to trucks. Since no water supply existed, the Navy brought in distilled water until a fairly efficient system could be jury-rigged from a well discovered nearby. Despite these disadvantages, construction began. Quarters for the hospital staff and most of the ancillary tents went up quickly, and a dispensary opened. But ward tents had been loaded at the very bottom of the hold on the second ship and were not brought ashore until 29 September, ten days after the ship's arrival. They too were finally

---

[8]Cable, AG to McCoy, 6 Sep 23; Telg, Davis to McCoy, 8 Sep 23. Both in box 929, 400.38, Record Group 407, NA. McCoy's Narrative, bulky package, 400.38, Record Group 407, NA.

[9]Quote from Cable, McCoy to AG, 22 Sep 23, box 929, 400.38, Record Group 407, NA. McCoy's Rpt; McCoy's Narrative. Both in bulky package, 400.38, Record Group 407, NA.

[10]Quote from Munson, "Report on Hospital Service," pp. 55–56.

pitched, and on the same day the Americans turned the completed hospital over to the Japanese.[11]

Then the relief force boarded the *Somme* for transfer to Tokyo, where it continued to render assistance. At the request of the staff and with the permission of the Japanese government, McCoy's troops rebuilt and resupplied St. Luke's Hospital, an American-administered facility in the city that treated both foreign and resident patients. Disorganization in unloading again prolonged the process, but line officers with guidance from medical personnel supervised construction of a 216-bed hospital complete with field laboratory, bedside X-ray outfit, and a stock of medicines. When finally completed, it was turned over to the St. Luke's staff.

As this work proceeded, the remainder of the American contingent began constructing a 1,000-bed facility on a "beautiful inclosed park-like area" in the Azabu district donated by a Japanese prince. Named the Bei-Hi Hospital, when finished it had administrative and personnel sections; laboratory, X-ray, and operating facilities; but ward tents to accommodate only 480 patients. For a few days a combined American Army and Filipino staff provided care for Japanese patients. On 10 October the staff began familiarizing Japanese replacements with administrative procedures, operation of the equipment, and other hospital matters. On the afternoon of 13 October, the Americans formally transferred Bei-Hi to Japan along with tentage and equipment to expand it to the full 1,000 beds if the Japanese felt they needed the additional bed space. The Americans also left a 24-bed camp hospital pitched nearby to demonstrate its capabilities to the Japanese. In the succeeding weeks the Japanese found the fifty-two camp hospitals their visitors had brought more useful than a large facility like Bei-Hi because they could be moved wherever needed to handle refugees.[12]

The day after the transfer of Bei-Hi, all but a small group of McCoy's relief force departed. The commanders stayed for two days of sightseeing as guests of the Japanese government, and one medical officer with a small detachment remained to assist the ambassador. The Americans had delivered more than $5 million worth of food and medical supplies and left three functioning hospitals. In doing so, McCoy had kept control over his men and avoided any unpleasant incidents. Though initially some relief workers perceived a great deal of Japanese hostility, by the

---

[11]McCoy's Narrative, bulky package, 400.38, Record Group 407, NA; Munson, "Report on Hospital Service," pp. 55–57; clipping from *Nichi-Nichi* (a Tokyo newspaper), 30 Sep 23, filed with Ltr, McCoy to AG, 29 Oct 23, box 929, 400.38, Record Group 407.

[12]Munson, "Report on Hospital Service," pp. 57–60.

end of their stay most believed that their hosts accepted and appreciated the "altruistic spirit" in which the Americans came. Other participants still considered local officials hostile to the expedition. If they were, the Japanese presented a good diplomatic front, sending the Americans off with a cordial farewell and several months later forwarding the State Department a book of thanks signed by 500,000 citizens.[13]

### *Confusion over the Army's Disaster Relief Role*

After the Japanese operation, medical personnel did not participate in another foreign disaster relief mission for five years, and not until after World War II would they undertake one of similar size. Domestic operations continued on a more frequent basis, but throughout the interwar years the Army encountered problems in defining its disaster relief role that often indirectly influenced Medical Department participation. The process of definition began in December 1924 when the Army published AR 500–60, "Employment of Troops: Relief Work by the War Department, in Cases of Flood, Earthquake, or Other Great Catastrophe." The new regulation replaced Special Regulation 67 but did not significantly change its procedures. Primarily, the new regulation only incorporated changes in the Army's geographical command structure from departments to corps areas made by the National Defense Act of 1920. Like their predecessors, the department commanders, corps area commanders were placed in charge of all civilian assistance in their region—continuing the practice of having medical personnel act under line command. On the question of authority to render aid, AR 500–60 slightly revised the language but did not clarify the ambiguity of the earlier regulation. AR 500–60 stated that relief would be given only at congressional request, unless the "overruling demands of humanity" compelled it or a "clearly inadequate" local response necessitated it.

AR 500–60 did differ from Special Regulation 67 in minor ways. The regulation provided more detailed directions for filling out forms and reports, and it furnished instructions on establishing refugee centers. These included the seemingly prudish suggestion that single men and women be housed on opposite sides of the camps, but extremely high venereal disease rates among refugees during the 1927 Mississippi flood later made the proposal appear a well-meaning if futile attempt at disease control rather than a vestige of Victorianism. For the most part, though,

---

[13]Ltr, McCoy to AG, 15 Oct 23; Cable, AG to Burnett, 20 Nov 23. Quote from Read's Rpt. D. W. Hand's Rpt; Note from State Department, 22 Jan 24. All in box 929, 400.38, Record Group 407, NA.

the regulation introduced no alterations in medical relief policy.[14]

In fact, simply continuing older policies was not enough. The context in which the military provided assistance had changed. No longer need the government depend on the Army and its Medical Department—as it had at the turn of the century—because no other agency existed to perform the work. By the mid-twenties state and local boards of health had become increasingly competent to manage emergency situations. After the PHS's weakness had been demonstrated in the flu epidemic, Congress strengthened its resources for mass medical relief activities. National Guard units became more active in relief, and, most important of all, the Red Cross emerged during the two decades under its 1905 charter as a strong organization capable of handling most disaster situations. During the interwar years, it sent aid following a substantially higher number of disasters and became increasingly jealous of its position as the nation's primary relief agency.[15]

As all these agencies became more active in disaster situations, no institution arose to coordinate their efforts. The federal government did not even establish a definite relief policy for its own agencies. Bedlam did not reign, but bureaucratic confusion did develop. For the Army, the confusion centered on two recurring problems: reimbursement from Congress and coordination with the Red Cross. Though hints of possible difficulties in both areas had appeared before World War I, the mid-twenties saw both become central concerns of the Army that were crucial to the definition of its relief role.

The War Department had always responded immediately to requests for disaster assistance, confident that Congress would later reimburse its expenditures. But in the twenties, Congress did not automatically pay the Army back for the cost of its relief work. Lawmakers took five years to reimburse the Army for a 1920 mission to West Point, Georgia, and more than a year to fund a 1923 operation in northeastern Mississippi. After the Japanese earthquake, Congress did not move to restore the $6 million the Army had spent out of its own funds. The executive branch, which had ordered the Army to Japan in the first place, discouraged the War

---

[14]Copies of AR 500–60 and drafts of it are filed in bulky package, 400.38, Record Group 407, NA. On venereal disease in 1927 floods, see Pete Daniel, *Deep'n As It Comes: The 1927 Mississippi River Flood* (New York: Oxford University Press, 1977), pp. 118–23.

[15]On PHS, see Noyes, "Influenza Epidemic," pp. 195–202. For National Guard activity, see Annual Reports of the Chief of the Militia Bureau for these years. State units were not required to report relief work, so the records are incomplete. On the Red Cross's attitude, see Bicknell, *Pioneering*, pp. 1–10, 216–18; Mabel T. Boardman, *Under the Red Cross Flag at Home and Abroad* (Philadelphia: J. B. Lippincott, 1915), pp. 156–68. For statistics on activity, see Reynolds, "Disaster Service," p. 248.

Department from requesting repayment since the additional appropriation would conflict with the administration's policy of budgetary restraint. The Secretary of War went to Congress for the money anyway, lobbied actively, and in February 1925 finally convinced the lawmakers to reimburse its expenses. The necessity of appealing to Congress for funding, however, shook the Army's confidence in reimbursement, which of course raised questions about its continuing relief role. An April 1924 staff memorandum on the problem concluded: "Unless the Army can be assured that its meagre funds and supplies will not be taken from it by reason of its doing [relief] work, it must either have greater funds and supplies or relief from the duty."[16]

Since the War Department preferred to continue its relief activities, it decided to attempt to establish the principle of reimbursement at a minimal price. In May 1925 it requested $733.37 from Congress to pay for Army disaster assistance performed in Georgia that year. Congress refused to appropriate funds for that or any other mission, though over the next few years it occasionally passed bills legalizing Army expenditures in disasters. The unwritten procedures under which the Army had furnished relief for half a century began to disintegrate. Congress expected the Army to finance civilian assistance out of its current budget, but an already financially hard-pressed War Department naturally considered that an unsatisfactory method.[17]

Shortly after its troubles with Congress, the War Department found itself in a dispute with the Red Cross. In December 1925, John Barton Payne, the president of the American National Red Cross, wrote Secretary of War Dwight F. Davis complaining that corps area commanders realized neither his agency's supremacy nor their own authority to assist it. To correct their misapprehension, Payne suggested revision of Army regulations to recognize the Red Cross as the nation's official disaster agency and to make more explicit the commanders' authority to lend it supplies.[18]

Army officials rejected Payne's suggestion for several reasons. They felt it would lead to "increased demands for supplies which in many cases might not be justified." Despite the Red Cross's claim to supremacy, they still wanted to be able to fill requests from local groups. And,

---

[16]On early mission, see U.S., *Statutes at Large*, 43: 1252, ch. 478; 43: 1285–86, ch. 547–48. On Japan, see series of memos, box 929, 400.38, Record Group 407, NA; U.S., *Statutes at Large*, 42: 963, ch. 297. Quote from Memo for the Budget Officer for the War Department, 7 Apr 25, box 929, 400.38, Record Group 407, NA.

[17]Ltr, Secretary of War to the Speaker of the House, 22 May 25, box 929, 400.38, Record Group 407, NA; U.S., *Statutes at Large*, 44: 1065, ch. 89.

[18]Ltr, John B. Payne to Dwight F. Davis, 17 Dec 25, box 191, 080 Red Cross, Record Group 407, NA.

perhaps most important, since the Army always acted without statutory authority in disaster relief, the officials perceived an "added obligation on the War Department to take adequate measures" to safeguard military property. The surest way to do so was to keep it under military control. Consequently, Davis informed Payne that corps area commanders would continue to investigate conditions themselves before issuing Army equipment and would retain control over it when they did decide the situation merited Army intervention. Davis's reply apparently failed to convince Payne, the Red Cross and War Department reached no agreement, and friction between the two agencies over rights and responsibilities in relief continued.[19]

The War Department's relations with both Congress and the Red Cross influenced the level of Medical Department participation in disaster relief operations. Any restriction of Army involvement because of lack of funding obviously would have led to a curtailment of direct medical assistance. And the modification of the Army's function sought by Payne—making the Army responsible for supply while the Red Cross rendered direct aid—would have meant a return to late nineteenth century patterns of relief in which Medical Department personnel did almost nothing in disaster situations. In the mid-twenties the Red Cross did not succeed in modifying the Army's mission, however, and the Army continued to perform medical relief operations.

In January 1925 a senator from Georgia relayed a constituent's request for disaster assistance to the War Department. The entire southwestern portion of the state, the petitioner wrote, had experienced severe flooding, leaving the people badly in need of help. In response, the War Department ordered the corps area commander to investigate conditions and render any necessary relief. The commander dispatched several officers to the affected region, but most of them reported little need for Army assistance.[20]

In Newton, Georgia, a Medical Corps officer serving as an inspector, Col. Percy L. Jones, did encounter unsanitary conditions that he feared could easily lead to an epidemic. Jones held a mass meeting to warn the citizens of the danger and then supervised the committees appointed to conduct relief work. Still the threat of an epidemic persisted. On his third day in Newton, Jones asked his superiors to send another medical officer, a sergeant from the Medical Department, and the equipment for a battalion dispensary. Nearby Fort McPherson dispatched the men and equipment,

---

[19]Quotes from Memo for Chief of Staff by Fox Conner, 29 Dec 25, box 191, 080 Red Cross, Record Group 407, NA. Ltr, Secretary of War to J. B. Payne, 31 Dec 25, box 191, 080 Red Cross, Record Group 407, NA.

[20]Copy of Telg, John M. Spence to Senator Harris, 23 Jan 25; Memo for Chief of Staff by Assistant Chief of Staff, 27 Jan 25. Both in box 929, 400.38, Record Group 407, NA.

and Jones and his new assistants promptly opened a dispensary in a local church, where they inoculated the town's residents against typhoid and paratyphoid. They also sent one of the Army doctors to make a house call on anyone too sick to come to the church. In addition, the Army team supervised various public health programs, including a limited mosquito control project and the distribution of Lyster bags to provide residents with safe drinking water until Newton's water system was repaired. After a week of such activities, Jones returned to his station, but the other two men remained in Newton until 2 February. When they departed they took the dispensary equipment with them but left expendable articles, drugs, serums, and a roster of citizens who had been inoculated.[21]

Two years after operations in Newton, the Army undertook another small relief mission, one which for the first time involved air medical evacuation of disaster victims. In 1924 the Army Air Service had let its first contracts for air ambulances. Under them the Army received a Douglas C−1 and two Cox-Klemin XA−1's; it was the Cox-Klemin that proved extremely valuable in emergency medical missions. Powered by a Liberty−12 engine, the little biplane had an exposed cockpit and a "humpbacked compartment or cabin" behind it capable of transporting a medical attendant and two litter patients. Reputedly the Cox-Klemin could land on any road or cotton patch, and its partisans swore it could take off in a backyard. In 1926 the Army deployed one Cox-Klemin at Kelly Field in Texas and the other at France Field in the Canal Zone. The plane stationed in Panama operated what amounted to a prototype of the Military Assistance to Safety and Traffic program sponsored by helicopter units in the 1970's, evacuating victims of automobile accidents, hunting mishaps, and other emergency cases. The plane at Kelly Field performed similar missions but also participated in a disaster relief operation.[22]

On 13 April 1927, a tornado struck the small town of Rocksprings, Texas, killing 56 people and injuring another 200. The Army sent eighteen DH−4 observation planes, two Douglas transports, and, later in the day, the Cox-Klemin from Kelly Field. In the planes came several Army and Veterans Bureau doctors as well as large stocks of medical supplies, litters, and blankets. The physicians quickly commandeered a local warehouse and established a hospital where they treated minor cases. Since many of the victims had dirty puncture wounds, the physicians

---

[21]Rad, Commanding General 4th Corps Area to AG, 24 Jan 25; Ltr, E. T. Conley to AG, 10 Mar 25; Ltr, AG to William J. Harris, 4 Feb 25; Summary of Action Taken in Flooded Districts, by Thomas H. Darrel, 3 Feb 25. All in box 929, 400.38, Record Group 407, NA.

[22]Robert F. Futrell, *Development of Aeromedical Evacuation in the USAF, 1909−1960*, USAF Historical Studies No. 23 (Air University: USAF Historical Division, 1960), pp. 4−21; Memo for



THE COX-KLEMIN EVACUATING PASSENGERS AT ROCKSPRINGS, TEXAS, *1927*.

feared an epidemic of tetanus. Using serum flown in from Fort Sam Houston, one of the Army doctors inoculated all of the people in the warehouse and then, with a nurse assistant, drove through the town inoculating everyone else he could find.

A possible epidemic was not the only medical problem in Rocksprings. As the physicians sorted the sick, they realized several had injuries requiring sophisticated hospital treatment that they could not provide in the warehouse. The doctors decided to evacuate such patients in the Cox-Klemin. Shortly after it arrived that afternoon, its pilot began a series of flights to and from San Antonio. On the first flight the ambulance plane took only one patient, but after a ground crew cleared a landing field, on later flights it carried two patients and a medical attendant. Late in the afternoon several people unexpectedly ran across the runway as the plane taxied for takeoff; the pilot swerved to avoid killing them and crashed the plane into the nearby mesquite. Fortunately the accident did not injure the nurse or the patient aboard, a little boy. He was transferred to one of the DH–4's for transport to San Antonio, and the pilot repaired the Cox-Klemin "using cat-gut, a surgical needle, sheets, some tacks, a splint or two, adhesive and flour-paste." Minus a tail skid but with another seriously injured patient on board, the Cox-Klemin took off for the day's

---

Maj Rush B. Lincoln by Delos C. Emmons, 10 Jan 28, box 2416, 400.38, Record Group 407, NA.

final flight to San Antonio.[23]

Within twenty-four hours after the storm, the Army had treated the slightly ill, evacuated the seriously injured, and inoculated the population against tetanus. Their work done, the surgeons and corpsmen left supplies for civilians to complete the work and returned to their stations. The airplanes, especially the Cox-Klemin, had greatly increased the speed of the operation and ensured victims the best possible care. But the Rocksprings operations remained for many years an isolated example of the utility of air ambulances in domestic disasters, followed up only once during the floods of 1927 when a sergeant who had flown in Rocksprings evacuated a seriously ill fifteen-year-old girl in his observation plane. After the crash of both Cox-Klemins in 1929, the Army built no more of them, replacing them with two Fokker air ambulances that had more space for patients but lacked their predecessors' sturdy versatility. In the thirties the Army concentrated on the development of a large transport ambulance rather than small rescue craft more adaptable to disaster service. Not until the development of helicopter ambulances after World War II did Army medical aviation come to play an important role in domestic assistance missions.[24]

The month of the Rocksprings incident, the Army became involved in an operation more typical of disaster assistance in the interwar years and more important to the evolution of its relief role. In April 1927, one of the worst floods in the history of the Mississippi Valley caused suffering that was intense, widespread, and long lasting. When several state governors requested federal assistance, President Calvin Coolidge appointed Herbert Hoover, his secretary of commerce and America's leading relief expert, to chair a committee of other department heads and a few Red Cross officials to direct federal relief. As anyone who had served with the American Relief Administration in Europe would have predicted, the relief operation quickly became Hoover's show.

Through a policy that a recent study has labeled "concentrated decentralization," he sought to amass all available resources from various organizations, consolidate them, and then through a well-managed organization place them at the disposal of an efficient grass roots operation. To do so, Hoover's committee decreed general policy and delegated day-to-day management to Henry M. Baker of the Red Cross. Baker

---

[23]C. L. Beaven, "Airplane Ambulance Evacuation of Tornado Victims at Rocksprings, Texas," *Military Surgeon* 61 (1927): 99–101, quote on p. 100. "The Airplane Ambulances of the U.S. Army Air Corps," *Red Cross Courier* 8 (15 Feb 29): 6; "Army Lauded for Tornado Aid," *Army and Navy Journal* 64 (1927): 868.

[24]"Airplane Ambulances of the Army," p. 6; Futrell, *Development*, pp. 20–27.



HERBERT HOOVER ON BOARD THE U.S.S. *CONTROL during the floods of 1927.*

opened a headquarters in Memphis from which he directed shipments of supplies and handled other administrative chores. Meanwhile, Hoover journeyed through the devastated regions, rallying the populace.[25]

Hoover's plan resembled the Army's system in the nineteenth century in that the federal government provided supplies in bulk for local officials to distribute and control as they pleased. Not surprisingly, this approach opened the way for some of the most serious racial discrimination ever to mar a disaster relief operation. But despite the basic similarity, at least one crucial change had occurred: a civilian official and the Red Cross directed relief operations, not the War Department and its corps area commanders. Since Hoover wanted local forces—primarily the volunteers of the Red Cross and the sometime-soldiers of the National Guard—to render relief, the Army functioned as what amounted to a wholesaler of equipment, though no one paid it for its merchandise. From 0900 to 2300 hours, seven days a week, the Finance and Supply Division of the War Department operated a command post in Washington to process requests,

[25]Bruce A. Lohof, "Hoover and the Mississippi Valley Flood of 1927: A Case Study of the Political Thought of Herbert Hoover," (D.S.S. diss., Syracuse University, 1968), quote on p. 105 and passim. For his argument in brief, see Lohof, "Herbert Hoover, Spokesman." For a somewhat anecdotal history of the flood based on many oral sources, see Daniel, *Deep'n As It Comes*.

and corps area commanders filled orders as well. In all, the Army loaned more than $2.6 million in materiel—tents, blankets, cots, mess gear, and the like—to the relief effort.[26]

In most of the operations in which the Army had functioned mainly as a supply agent, its Medical Department had not played an active role. During the 1927 flood, the absence of Army medical participation was a clearly enunciated policy. On 28 April representatives from the Army Medical Department, the Public Health Service, the American Medical Association, state medical associations, and the Red Cross met in Memphis to plan for the medical and sanitary aspects of relief operations. Following Hoover's suggestions, the assembly established procedures for local groups to request medical assistance and espoused several general policies. The group, as one participant reported, "put the responsibility for the protection of the health of the refugees and the sanitation of the camps and flooded areas where it belonged, on the state boards of health, and offered to the state boards of health the resources of the American Red Cross, and through the Red Cross the resources of the U.S. Public Health Service and the trained personnel of other states, who volunteered to help in the emergency." That policy all but eliminated a relief role for Army physicians. Only in Arkansas, a state with a traditionally weak health service, did Regular Army medical officers participate in flood relief. In late April and early May, four of them went to Arkansas and made sanitary surveys, rendered first aid, directed sanitation in camps, inoculated refugees, and furnished many supplies.[27]

Hoover's system was intended to dispense medical and other relief supplies with a minimum of confusion and conflict, but many soldiers believed it promoted chaos. One corps area commander claimed he had lost control of Army property and accused the Red Cross of being impossible to work with. He attributed much of his frustration to Hoover: "when the powerful head of another department of Government gets into the game, and especially when that head is apparently the Supreme High Cockolorum *[sic]* of the administration in flood matters, I am forced to admit that the fellow who had the bear by the tail has nothing on me."

---

[26]On charges of peonage and other mistreatment of blacks, see Daniel, *Deep 'n As It Comes*, or perhaps the better account in his earlier *The Shadow of Slavery: Peonage in the South, 1901–1969* (New York: Oxford University Press, 1972), pp. 149–69. On Army distribution of supplies, see Memo for Lt Col R. L. Collins by T. J. Flynn, 25 Apr 27, box 2418, 400.38, Record Group 407, NA; Financial Report of the Floods of 1927, box 2410, 400.38, Record Group 407, NA.

[27]Quote from J. H. O'Neill, "Relief Measures during and following the Mississippi Valley Flood," *American Journal of Public Health* 18 (1928): 156–57. Rad, Craig to AG, 30 Apr 27, box 2418, 400.38, Record Group 407, NA. On work in Arkansas, see Ltr, John E. Marineau to Dwight F. Davis, 7 May 27; Telg, Ireland to W. R. Redden, 26 Apr 27; Memo for AG by Deputy Chief of Staff, 26 Apr 27. All in box 2418, 400.38, Record Group 407, NA.

Perhaps the commander unfairly blamed Hoover, but the relief operation did exasperate many Army officials. The Army had previously expressed its hesitancy to abdicate control over its equipment, yet Hoover's plan necessitated that it do just that. To make matters worse, when the Army loaned its property, the Red Cross sometimes refused to accept responsibility for it. In New Orleans, for example, Maj. Reese M. Howell reported that Red Cross officials stoutly maintained that "under no conditions" would they "be held responsible for any property lost damaged or destroyed during flood relief work." Consequently, Howell added, "the government has . . . thousands of dollars of property in the hands of people who assume no responsibility whatsoever."[28]

The fears of Howell and other officers proved justified. Much of the equipment the Army loaned was never returned, and some that it did recover was in such poor shape as to be worthless or in need of extensive, expensive repairs. Some of the losses resulted from carelessness or confusion, but a number of tents went home with the refugees when camps broke up. Since many of the poorer inmates had no home to return to because the flood waters had swept away their shacks, local and Red Cross officials allowed them to take their tents with them—a very understandable policy. Yet whether through mismanagement or justifiable charity, the Army still had a $1.3 million bill for loss and depreciation on its equipment.[29]

The War Department thought the Red Cross should pay the bill; not surprisingly, the Red Cross disagreed. Payne had a close friend of Hoover's speak with the "Supreme High Cockolorum" who agreed that the Red Cross owed the Army nothing. Rebuffed, the Army asked the executive branch of government for funds. The Bureau of the Budget returned its request for reimbursement marked not in accord with the financial policy of the president. The Secretary of War next turned to the congressional leadership. Late in 1927 after extensive debate, Congress approved a supplemental appropriation of $2 million to cover administrative costs of the Army flood relief operation but not the lost equipment.[30]

Despite limited success in the funding fight following the 1927 flood,

---

[28]First quote from Ltr, Malin Craig to Braint H. Wells, 25 May 27. Second quote from Ltr, R. M. Howell to Malin Craig, 23 May 27. Both in box 2418, 400.38, Record Group 407, NA.

[29]Ltr, Earl Kilpatrick to Red Cross representatives in the field, box 2418, 400.38, Record Group 407, NA; Financial Report of the Floods of 1927, box 2410, 400.38, Record Group 407, NA.

[30]Ltr, Dwight F. Davis to John B. Payne, 30 Dec 27; Ltr, Payne to Davis, 26 Jan 28; Memo for the Director of the Bureau of the Budget by F. W. Coleman, 9 May 28; Ltr, Dwight Davis to Senator David A. Reed, 23 Jun 28. All in box 2410, 400.38, Record Group 407, NA. Lohof, "Hoover and the 1927 Flood," pp. 183–85; "Steps Taken by the Federal Government for Mississippi Flood Relief," *Congressional Digest* 7 (1928): 41.

the Army continued to participate in disaster relief. Mostly confined to engineer support or the distribution of supplies, such aid involved little Medical Department activity. In the New England floods of 1927, Maj. George B. Foster, Jr., of the Medical Corps rendered conspicuous service in delivering relief supplies to isolated areas rather than as a doctor. After a 1928 hurricane, Col. Percy Jones again served as an adviser on sanitary matters, this time in West Palm Beach, Florida.[31]

Medical Department personnel proved slightly more active in disaster relief outside the continental United States around the turn of the decade. In the same year that Jones assisted in West Palm Beach, the Army sent five physicians and large quantities of hospital stores to aid Red Cross efforts after a storm in Puerto Rico. In January of the next year the Army shipped supplies to Cumaná, Venezuela, after an earthquake and in September sent medical personnel, supplies, and airplanes to the southern part of the Philippine Archipelago after a typhoon. In 1930 the Army played a very minor role when the Navy and Marine Corps rendered assistance in hurricane-devastated Santo Domingo, Dominican Republic.[32]

An Army physician also played a secondary role after a 31 March 1931 earthquake in Managua, Nicaragua. Army troops were in the Latin American country surveying possible locations for a new interoceanic canal, but United States marines occupied Nicaragua at the time and therefore had more men and resources on the scene. Marines performed much of the rescue work, cared for casualties, fought the fires that broke out, and maintained civil order. But a party from the Army survey team rushed to the capital's aid, too. Most of the Army men were engineers who joined in fighting the blazes, but with them came surgeon Maj. Paul R. Hawley and three enlisted assistants who reported to the marines' temporary hospital set up to care for quake victims. Hawley joined with four Navy physicians to perform more than 500 operations in two days and later helped evacuate the recuperating patients to neighboring towns.[33]

---

[31]On Foster, see General Brown's Report on Flood Conditions, box 2417, 400.38, Record Group 407, NA; "Vermont Flood Relief by the 3rd Cavalry," *Cavalry Journal* 37 (1928): 137–39. On Jones, see Telg, Davis to AG, 19 Sep 28, Miscellaneous Division Correspondence, 1923–35, Army Postal Service to Floods and Cyclones, Record Group 407, NA.

[32]On Puerto Rico, see documents in box 2416 and bulky package, 400.38, Record Group 407, NA; Ltrs, in Miscellaneous Division Correspondence, 1923–35, Army Postal Service to Floods and Cyclones, Record Group 407, NA; RSW, 1929, p. 8; *Official Report of Relief Work in Porto Rico, the Virgin Islands and Florida* (Washington: American Red Cross, 1929), pp. 15, 17. On Venezuela, see RSW, 1929, p. 9; Indorsement to Ltr on Requests for Reports on Disasters, 31 May 29, box 2416, 400.38, Record Group 407, NA; *New York Times,* 27 Jan 29 and 2 Feb 29. On the Philippines, see RSG, 1930, p. 401; "Typhoon in the Philippines Wrecks Many Villages," *Red Cross Courier* 8 (1 Oct 29): 7. On Dominican Republic, see RSG, 1931, p. 425; "Santo Domingo Tornado Relief Quick and Generous," *Red Cross Courier* 9 (1 Oct 30): 6–7.

[33]*New York Times,* 1 and 3 Apr 31; G. D. Hale and H. R. Boone, "Relief Work in the Managua

*Reevaluation and Relief in the Thirties*

Although efforts such as Hawley's certainly placed little hardship on the Army, the frequent request for military supplies from the Red Cross and other groups did tax military material stockpiles. A study of the problem initiated by the Secretary of War in 1929 concluded that the donation of supplies to civilian relief had "not only depleted the stocks of items held for war reserve, but many supplies required for immediate use of the Army and purchased out of current appropriations have been diverted from their purpose and the Army left without certain articles needed for current use." To dam the drain of military resources, the War Department wrote and submitted several proposed acts to reimburse the Army for relief expenditures. One even proposed the establishment of an emergency fund to cover the cost of any future relief operations. Congress passed none of the bills during the first session they were introduced; in the next session they granted the Army credit for equipment lost during the 1927 floods—which it had earlier declined to do—but refused reimbursement for any other operations.[34]

Congress's parsimony and the debate within the executive branch over the issue convinced Army Chief of Staff General Douglas MacArthur that both Congress and the president opposed the loan of Army supplies to the Red Cross or any other agency without assurance of reimbursement. Although no such consensus on a definite policy existed, perhaps MacArthur felt that it did because he and the Army had wearied of the constant demands on military resources. Certainly the Hoover administration's public calls for significant reductions in military expenditures did nothing to increase his or the Army's enthusiasm. The Army considered its budget totally insufficient and naturally resented donating a share of its paltry appropriation to civilian assistance—which, after all, was not a part of its mission to defend the nation.[35]

---

Earthquake," *U.S. Naval Medical Bulletin* 30 (1932): 3–5. Rads, Sultan to Chief of Engineers, 1 and 2 Apr 31; Ltr, Brigade Commander to MG Command, 16 Apr 31. All in box 2410, 400.38, Record Group 407, NA.

[34]On equipment sent to Red Cross, see Value of Government Property Turned Over to the American Red Cross by the War Department for Relief Purposes, 1925–1930, box 2406, 400.38, Record Group 407, NA. Quote from Memo for AG by E. V. D. Murphey, 26 Mar 29, box 2416, 400.38, Record Group 407, NA. On Army legislative proposals, see Memo for AG by W. B. Wallace, 1 Jul 29; Ltr, Robert L. Collins to Chief of Finance, 20 Mar 29; Ltr, AG to Judge Advocate General, 4 Apr 29. All in box 2416, 400.38, Record Group 407, NA. U.S., *Statutes at Large*, 46: 1045, ch. 63; U.S. Congress, Senate, *Relief of Sufferers of the Mississippi River Flood of 1927*, S. Rpt. 1360, 71st Cong., 3d sess., 1931.

[35]Ltr, Douglas MacArthur to James K. McClintock, 11 Apr 31, box 2409, 400.38, Record Group 407, NA. On the Army and Hoover's budget, see John R. M. Wilson, "Herbert Hoover and the Armed Forces: A Study of Presidential Attitudes and Policy," (Ph.D. diss., Northwestern University,

(Continued)

In 1932 MacArthur implied that congressional refusal to reimburse the Army and its own inability to absorb any loss with its tightened budget influenced his decision to restrict assistance during the Puerto Rican storm of that year. In any case, during the emergency the Army only issued a few supplies and allowed the use of Army barracks, leaving almost all relief work to the Red Cross. The ensuing controversy over the Army's meager aid apparently prompted another War Department reevaluation of the Army's role in disaster assistance. "The large amount of War Department stocks on hand at the close of the World War has been reduced to the bare necessities of war reserve," wrote the officer who staffed the study. For that reason, he concluded, the Army must abandon the "very liberal policy" that the surplus had allowed. "The time has arrived when the War Department must cease to be regarded as an eleemosynary institution and insist upon a strict observance of the law regarding the use of public property." MacArthur fully agreed with the study's conclusions but suggested waiting for the "repercussions of the Porto Rican controversy" to die down before announcing any restrictions.[36]

The War Department did wait, then issued a directive to corps area commanders reminding them of the limits of Army participation. It decreed that supplies on hand could be dispensed only under the provision of AR 500–60, that no shipment could be ordered from a depot or post without prior approval from the War Department, that any organization borrowing supplies must be informed that the Army expected reimbursement for all consumable and unreturned noncomsumable items, and, finally, that troops could be used only in the emergency phase and even then must be withdrawn at "the earliest possible moment." Although the directive promulgated no new policy, it intended and effected a restriction of Army disaster relief.[37]

The restriction did not mean an abandonment of a relief role for the Army, however. The Army could hardly refuse to perform such work if so directed by the commander in chief, nor did it want to alienate members of Congress who drafted the military budget by refusing their requests for aid. Morever, many military leaders had long appreciated the public relations value of such work and were not averse to tactics designed

---

(continued)
1971), pp. 114–21, 129–33; D. Clayton James, *The Years of MacArthur: Volume I, 1880–1941* (Boston: Houghton Mifflin Co., 1970), pp. 351–63.

[36]On Puerto Rican controversy, see Ltr, Douglas MacArthur to Merton L. Corey, 12 Oct 32, box 2410, 400.38, Record Group 407, NA. On aid rendered there, see Ltrs in box 2410, 400.38, Record Group 407, NA. Quote from Memo for Chief of Staff by C. C. Humphrey, Jr., 4 Oct 32, box 2409, 400.38, Record Group 407, NA. MacArthur's comment is penciled in.

[37]Quote from Ltr, TAG to all corps area and department commanders, 21 Dec 32, box 2409, 400.38, Record Group 407, NA.

to maximize it. In the following years the Army continued to furnish assistance, including medical support, when the need was clear and the situation met the conditions of AR 500–60. A medical relief expedition in 1933 to Harlingen, Texas, ideally suited the Army's conception of its role: troops responded at once, worked alone and on their own authority, furnished emergency aid, and then quickly withdrew when other agencies could take charge.[38]

The mission originated with a request from both a Texas congressman and the governor of the state after a destructive hurricane came ashore along the lower Rio Grande Valley on 5 September 1933. The governor informed Maj. Gen. Edwin B. Winans, the commander of the 8th Corps Area, that local authorities would be unable to meet the medical needs of victims for at least a couple of days. Army air and ground reconnaissance of the area confirmed reports of distress, and Winans wired the Chief of Staff that he planned to send part of the 2d Medical Regiment from Fort Sam Houston to Harlingen, the principal town in the area. MacArthur "fully approved" his plan and commended him for acting with his "usual energy and splendid efficiency"—a response that suggested MacArthur had objected all along more to congressional parsimony than to a relief role for the Army.[39]

After receiving MacArthur's approval, Winans ordered the 2d Medical Regiment, less the 2d Veterinary Company, to report to Harlingen. He attached to the regiment a surgical team from the station hospital at Fort Sam Houston, additional quartermaster troops, and the 7th Signal Service Company. The 10 officers and 175 enlisted personnel who formed the expedition boarded a special train in San Antonio. Difficulties in loading the train delayed its departure, and the poor condition of the track along the route further slowed its journey.

When the regiment finally arrived, its commander, Col. Louis Brechemin, Jr., immediately conferred with the mayor and local law enforcement officials. They feared looting that night and urged Brechemin to assume responsibility for maintaining order in the town. Brechemin refused, rightly arguing he had no authority to declare martial law, and

---

[38]For examples of publicity, see *Army and Navy Journal* 64 (1927): 824; "Army Tornado Aid Lauded by Governor," *Army and Navy Journal* 62 (1925): 2087; "Peacetime Wars," *New York National Guardsman* (12 Mar 37), p. 12; Ltr, T. Siminoff to George H. Dearn, 12 Mar 33, box 2409, 400.38, Record Group 407, NA. On efforts to foster it, see Typhus Fever in Poland; Ltr, Publicity Officer, APRE to Commanding Officer, 20 Sep 20 (both in box 2, APRE, Record Group 120, NA); Telg, AG to McCoy, 8 Sep 23, box 929, 400.38, Record Group 407, NA; Memo for Assistant Chief of Staff, G–2, by Chief of Staff, 30 Dec 27, box 2417, 400.38, Record Group 407, NA; Memo for AG by H. E. Knight, 7 Jun 35, box 2408, 400.38, Record Group 407, NA.

[39]Winans to AG, 5 Sep 33. Quote from Rad, MacArthur to Winans, 5 Sep 33. Both in box 2409, 400.38, Record Group 407, NA.

said his men would only provide medical assistance. After the meeting, city officials took the colonel to several possible camp sites for his troops; when at last shown a dry spot, Brechemin selected it. Rather than pitch camp in the dark, he had his men unload the train and spend the night in the cars. Early the next morning, they erected their camp and began providing medical assistance.

Local residents had already established treatment centers for the storm's victims in the Valley Baptist Hospital, the Commerce Building, and the Reese-Will-Mond Hotel. As inspection revealed that none of the three was equipped to render satisfactory care, Brechemin decided to eliminate the temporary hospital in the hotel and to concentrate on improving services in the other two facilities. He assigned the 4th Hospital Company to provide patient care in the Valley Baptist Hospital and the Commerce Building. At the Valley Baptist Hospital, soldiers set up a ward tent in the front yard, transferred the patients to it temporarily, and spent two hours that morning trying to repair and refurbish the facility. When they completed their improvements, Valley Baptist housed the more serious cases, and the surgical team used its operating room. The 4th Collecting Company transferred patients from the hotel to it, while other personnel continued to care for the injured at the Commerce Building. With the help of local doctors and nurses, the Army treated 103 patients in the two facilities.

Once the patients in the hospitals had received emergency care, the relief team turned its attention to the sick and injured in isolated, outlying areas. Many residents of the countryside around Harlingen had telephoned for ambulance service, and an aerial survey located others in need of help. To evacuate them, Brechemin had five animal-drawn and eight motor ambulances—the former in greater demand because of the muddy terrain and poor road network. Brechemin sent all five animal-drawn ambulances to Rio Hondo, an area reportedly in the worst condition, where they brought patients out over thirty miles of miry roads to concrete highways. Corpsmen then transferred them to motor ambulances for the remainder of the trip to the hospitals in Harlingen. In other, less isolated areas, the Army requested that people bring the sick to the concrete highways where ambulances met them.

On the 8th, requests for evacuation eased, so Brechemin toured the surrounding countryside and decided to suspend the ambulance operation. The next day Red Cross officials arrived in Harlingen, investigated conditions, and announced they would take over the hospital work. On the 10th, the Army transferred control of all health facilities and much of the Army's medical supplies to the Red Cross. Then the 2d Medical

Regiment returned to San Antonio, part by train and the rest by motor convoy.[40]

Unlike its aid to Harlingen, the final domestic assistance operations before World War II in which members of the Medical Department participated—those during the floods of 1936 and of 1937—were not the kind of clearly delineated missions the Army preferred. In 1936, the War Department left most of the flood relief work in the New England and Atlantic states to the Red Cross and other agencies. The Office of the Surgeon General helped solve a few administrative problems, a few Army medical officers provided administrative support for the medical relief effort of the Civilian Conservation Corps, and a representative of the 3d Corps Area Chief Surgeon along with a sanitary engineer from the Quartermaster Department conducted a sanitary survey of the affected region.[41]

In January and February of the next year the Ohio and Mississippi Rivers flooded more than 12,721 square miles in twelve states. As part of the federal relief operation—directed by a committee of officials from several private and governmental agencies—personnel and units from the Army Medical Department provided various types of assistance. Its medical depots supplied serums, vaccines, field hospitals, and medical equipment to relief agencies throughout the flooded region. In some areas Army medical officers conducted sanitary surveys, advised local officials on medical matters, inspected—and in Arkansas even administered—refugee camps. But only in two Kentucky cities, West Point and Louisville, did Army doctors provide substantial direct medical care.[42]

For two days in the flooded town of West Point, members of the 7th Cavalry Brigade (Mechanized) rowed heavy pontoon boats amidst sleet, driving rain, and a ferocious wind, picking up stranded residents and ferrying them to safety. Once the evacuees were landed, they boarded a

---

[40]Col Louis Brechemin, Jr., Rpt of Relief Expedition to Harlingen, Texas, 21 Sep 33, box 2409, 400.38, Record Group 407, NA. There may have been a similar mission to Oklahoma City in 1935, but information is sketchy. See Rad, Hagood to AG, 21 May 35, box 2408, 400.38, Record Group 407, NA.

[41]Memo for Franklin D. Roosevelt, 18 Mar 36, box 2409, 400.38, Record Group 407, NA; Rad, Conley to all corps areas, 19 Mar 36, box 2407, 400.38, Record Group 407, NA; Summary of Flood Relief Activities of the Medical Department, 3d Corps Area, bulky package, 400.38, Record Group 407, NA; "The Army in Flood Time," *Quartermaster Review* 15 (Mar-Apr 36): 33–35; Reynolds, "Disaster Services," pp. 89, 119–21.

[42]On Army aid in general, see Telg, R. G. Bress to AG, 24 Mar 37; War Department Directive, 27 Jan 37. Both in box 2407, 400.38, Record Group 407, NA. Reynolds, "Disaster Services," pp. 169–71; RSW, 1937, p. 36. On medical aid, see Rpt of Commanding General, 5th Corps Area, on Flood Relief Activities; Final Report of Flood Relief, 6th Corps Area; Rpt. Flood Relief of Southern Illinois. All in box 2406, 400.38, Record Group 407, NA. Rads, Ford to AG, 24 Jan and 9 Feb 37. Both in box 2407, 400.38, Record Group 407, NA.

train and rode to Fort Knox, where other soldiers had established a refugee camp in unoccupied barracks. Survivors requiring surgery or about to give birth were admitted to the post hospital, but refugees with minor illnesses went to a temporary infirmary that medical officer Maj. Gaston W. Rogers had opened. As the number of evacuees climbed to over a thousand, his facility became completely inadequate. Under the direction of an officer's wife who had served as an Army nurse in World War I, the post opened another temporary hospital where other wives and a few soldiers served as nurses. For four-footed refugees, the post veterinarian opened a quarantine camp in an older section of the post's stables, and before long he had assembled a small dairy herd that produced milk for sale at Fort Knox.[43]

In Louisville, Army medical personnel brought health care to the town rather than the converse, as in West Point. Sanitary conditions remained perilous for more than a week after the flood; Company G (Hospital) from Carlisle Barracks, Pennsylvania, arrived by train to furnish the distressed populace with additional hospital service. As the unit unloaded, its commander inspected the school building his troops would occupy. Capt. Alvin L. Gorby judged the modern structure with its good cafeteria and conveniently located, indoor bathrooms an excellent location for an emergency hospital. Even though civilian volunteers had operated a hospital there for a week, the Medical Corps officer decided it needed a thorough reorganization. He quickly moved his troops into the school and got them settled into quarters on the top floor. Gorby then assigned them various tasks in administering and improving the emergency facility and reorganized the civilian volunteers into regular shifts. To his dismay, he found that the school's abysmally poor water pressure rendered the water pipes and toilets worthless, so Gorby arranged for water to be trucked in and for latrines to be dug in the backyard. Despite the unforeseen plumbing difficulties, within a day or two the high school housed an efficient temporary medical facility.

With the hospital functioning smoothly, the doctors and corpsmen from Carlisle Barracks expanded their assistance in Louisville. First they assumed responsibility for the typhoid inoculation station, then repaired and reorganized another high school turned hospital—this one serving black patients. During the unit's thirteen-day stay in the city, it administered more than 5,000 inoculations and provided nearly 2,000 patient-days of care in the two hospitals.[44]

---

[43]R. H. Garity, "Fort Knox Flood Relief Activities," *Cavalry Journal* 46 (1937): 133–37.
[44]Garity, "Flood Relief," pp. 127–40; Alvin L. Gorby, "Army Flood Relief in the Ohio River

After Gorby's and all other units had completed their assistance missions, the Army had the good fortune to recover the money it had spent for flood relief. President Franklin D. Roosevelt reimbursed the War Department with money diverted from two unrelated economic relief funds. The Army was reimbursed in similar fashion for its expenses incurred in a small assistance operation after the New England floods of 1937. The War Department's suggestion at the beginning of the relief effort that an account be created to which relief expenses could be charged was, however, ignored.[45]

### *Toward New Relief Roles*

After the floods of 1937, the Army did not undertake another major domestic relief mission before the Second World War. It did, however, continue its effort to define its role in assistance operations. In May 1938, Secretary of War Harry H. Woodring and President of the Red Cross Norman H. Davis exchanged letters delineating a new relationship between their respective agencies. The Army recognized the Red Cross as the nation's primary disaster relief agency, though its corps area commanders retained the prerogative of committing Army personnel and resources. Once involved, however, the Army would abdicate a great deal of authority to the Red Cross, because as soon as the Red Cross established a headquarters the Army would issue supplies through it. To ensure proper accountability in the Army's supply system, all materiel issued to the Red Cross would be receipted for by its officials, but that did not commit the Red Cross to reimburse the Army for losses. In rescue work as well as supply, which of course included medical relief, the Army consented to submit to the direction of the civilian organization. The War Department informed all corps area commanders and interested departments of the terms of the agreement and later incorporated them into a revised AR 500–60 with an entire section on the authority, organization, and responsibility of the American National Red Cross.[46]

If the Army appeared to be abandoning its relief mission in its agreement with the Red Cross, other developments in 1937–1938 revealed that was not the case. In the spring of 1937 the War Department instituted—as

---

Flood Area," *Army Medical Bulletin* 39 (Apr 37): 45–50. Rad, 5th Corps Area CG to AG, 3 Feb 37; Rad, Cole to AG, 7 and 8 Feb 37. All in box 2406, 400.38, Record Group 407, NA.

[45]Ltr, V. V. Tayler to Budget Officer for the War Department, 17 Feb 37, box 2403, 400.38, Record Group 407, NA; Memo to Assistant Chief of Staff from the Budget Officer, 10 Oct 38, box 2402, 400.38, Record Group 407, NA.

[46]Ltrs, Harry H. Woodring to Norman H. Davis, 19 May 38, and Davis to Woodring, 26 May 38. Both in box 2404, 400.38, Record Group 407, NA.

if by habit—another study of the Army's response to disaster and asked corps area commanders for suggestions. Maj. Gen. George Van Horn Moseley, commander of the 4th Corps Area who had much experience in assistance operations, replied that over the past three years he had repeatedly urged local communities to prepare for disasters and believed that the War Department should too. He recommended that the department require corps areas to have disaster plans similar to mobilization plans. The War Department concurred, and at its direction early in 1938 each area drafted and submitted such a document. The formulation of relief plans suggests that the War Department in the late thirties really sought a more efficient, organized response to domestic disasters, something that confusion over relief programs during the previous two decades had shown to be needed.[47]

The War Department did not insist on a dominant role in the emerging disaster relief system, because many more institutions existed to provide aid, the Red Cross had become capable and politically powerful, and the Army realized the limitations of its own resources. In early 1938, General Moseley succinctly summarized the Army's position in a letter to civilian relief officials in Tennessee. "There was a feeling for a long time," Moseley wrote, "that parts of the Army could be employed in the event of an emergency and that funds were ample to meet all such cases. That is not a fact." The Army figured its budget in great detail and with little slack, he continued, for which reason any Army supplies issued must "be replaced in kind or paid for in fact." And if financed, Moseley added, the Army should be called only in an "emergency so critical and so extensive that it taxes the regular civil institutions beyond their power." Even on such occasions the Army should remain only for as long as absolutely necessary. As soon as possible, civilian authorities must take control.[48]

More than in many aspects of disaster assistance, the restrictions on Army aid sketched by Moseley applied to medical relief. No longer would Army medical personnel take charge of sanitation and health care as they had in San Francisco. Rather, corps area commanders might send a medical unit to a community where local authorities needed help in quickly stabilizing the situation, as happened in Harlingen. Or a medical unit might supplement other groups' efforts in coping with a massive

---

[47]Memo for AG by John J. Hughes, 13 Apr 37, box 2404, 400.38, Record Group 407, NA; Ltr, George Van Horn Moseley to AG, 6 May 37, box 2405, 400.38, Record Group 407, NA. Memo for Chief of Staff, 4 Nov 37; Memo for Chief of Staff by G. W. Cocheu, 14 Dec 37. Both in box 2404, 400.38, Record Group 407, NA. Ltr, Edward Crowly to all corps area commanders, 27 Dec 37, box 2409, 400.38, Record Group 407, NA; Flood Relief Plan, 5th Corps Area, 1 Feb 38, box 2406, 400.38, Record Group 407, NA.

[48]Quote from Ltr, George Van Horn Moseley to Mrs. Amy Brown, 26 Mar 38, box 2402,

calamity, as happened in Louisville. But as the 4th Corps Area commander explained in a field order, state National Guard and civilian medical resources should provide the first line of defense in disaster. If they did all that they could and it proved insufficient, Regular Army medical personnel and equipment should "augment" civilian resources and the National Guard.[49]

The restriction of the domestic medical and other missions during the interwar years paralleled what actually happened in most individual disasters. With a crisis at its bleakest, people invited, even pleaded, for Army assistance, but as conditions improved, bickering among various factions began. As the feuding escalated and sometimes involved the military, the Army realized the time had come to withdraw; its aid was no longer essential. A similar development occurred in the realm of policy. In the late nineteenth century and first two decades of the twentieth, local authorities lacked the means to respond to disasters, other relief organizations had not developed sufficiently to aid them, and the Army answered the nation's plea for help. But after World War I, the states, local authorities, and especially that peculiar amalgam of local volunteers and centralized professionals, the American Red Cross, gradually became capable of rendering necessary assistance. The institutional crisis in disaster relief eased, the bickering began. The Red Cross adamantly defended its supremacy, and Congress withdrew its firm support for Army relief activities. Realizing the crisis had passed and it was no longer indispensable, the Army began to restrict its relief activities, especially those involving medical personnel.

Throughout the process of study and evaluation that led to the restriction of domestic relief activity, the Army medical role in foreign assistance received little attention, probably because the Army undertook few major operations abroad during these years. Since Hawley's efforts in Managua, which were to some extent only the result of the chance presence of troops in the area, the Army had performed only two foreign missions, neither involving direct medical care. In 1934 Army planes flew tents and water purification chemicals to Honduras during a flood, and three years later the Army helped citizens of Manila after a fire. Then in 1939 the Army conducted a relief mission which though it did not result in any new policy still foretold increased activity in foreign disasters after World War II. And though the Medical Department only contributed supplies, the operation suggested that the postwar activism would include

---

400.38, Record Group 407, NA.

[49]Quote from Field Order 1, 4th Corps Area, Jan 37, box 2405, 400.38, Record 407, NA.

unprecedented medical participation.[50]

On 24 January 1939 an earthquake shook Chile for a full three minutes, leaving a 450-mile-long segment of the country in ruins. On the evening of the 26th, officials in Concepción, one of the hardest hit areas, wired Santiago requesting more medical supplies, especially antitetanus and antigangrene serums. Learning of the request, the American ambassador in Santiago cabled a report of the city's medical needs to the State Department. In response, Army forces in the Canal Zone dispatched two bombers, a Martin B–10 and a Douglas B–18, to Chile. Loaded with several types of typhoid vaccine, antitetanus serum, and gas gangrene antitoxin, they took off from the Canal Zone on the 27th and arrived in Santiago two days later after stops in Peru and Columbia.[51]

As the planes flew south, Col. Ralph H. Wooten, a military attaché in Santiago, asked his superiors in Washington about employing the planes in relief work once they had arrived. Warning Wooten that the bombers were probably too big for the small Chilean airfields, they granted him permission to use the planes at his discretion. When the bombers arrived, Wooten sent the B–18 to Chillán and the B–10 to Concepción to deliver their supplies. Over the next ten days—from 30 January to 9 February—the two planes made daily flights to those cities and others. On the flight from Santiago they ferried into the stricken area ten thousand pounds of bread, medical supplies, and mail, as well as relief workers. On the return flights, the bombers served as ambulance planes, with the B–18 evacuating a total of sixty patients and the B–10 another five. The constant missions took their toll on the aircraft, but Pan American Airlines helped with maintenance and furnished spare parts for the planes.[52]

On 1 February a Red Cross survey revealed a need for additional supplies. Officers in Chile called Washington, dictated a list of wanted items, and requested that 30 percent of them be shipped by air. In response, the War Department authorized a flight by a still experimental B–15 aircraft from Langley Field in Virginia, and on 4 February, Maj. Caleb V. Haynes took off in the B–15 loaded to capacity with 3,300 pounds of medical supplies. He delivered his cargo in Santiago 49 hours and 18 minutes later, after a flight through very rough weather. He

---

[50]On Honduras, see box 2408, 400.38, Record Group 407, NA; *New York Times*, 17 Jun 34. On the Philippines, see file 4–8–37, box 2403, 400.38, Record Group 407, NA.

[51]"Worst Shake," *Time* 33 (6 Feb 39): 18; *New York Times*, 27 Jan 39. Telg, Craig to Commanding General, Panama Department, 26 Jan 39; Telg, Stone to Chief of Staff, 28 Jan 39; Rad, from Canal Zone, 28 Jan 39; Rads, Stone to AG, 28 and 30 Jan 39. All in box 2403, 400.38, Record Group 407, NA.

[52]Rad, Adams to Wooten, 30 Jan 39; Rpt to AG, 9 Feb 39; Rad, Franklin C. Wolfe to AG, 19 Feb 39; Ltr, Wooten to John D. McGregor, 9 Feb 39. All in box 2403, 400.38, Record Group 407, NA.



PATIENTS PREPARED FOR AIR EVACUATION, *Chile, 1939.*

stopped twice, once in the Canal Zone and again in Peru; his actual air time was only 29 hours and 53 minutes.[53]

As a further precaution the War Department alerted a company of 100 men at Carlisle Barracks' Army Field Medical Service School for possible deployment to Chile. Plans called for the troops to motor to Middletown, Pennsylvania, board a plane for Pensacola, Florida, then fly by commercial airliner to Chile. The Army never dispatched them because the situation in Chile quickly improved enough to eliminate the need for additional American troops and to allow American planes there to depart after ten days. But the plan to send the company as well as the speed with which all relief was rendered pointed toward new capabilities in assistance abroad.[54]

Before the Chilean operation, the Army's inability to deliver personnel and supplies to a foreign disaster scene in a short time had curtailed medical and other types of relief. With the exception of the massive mission to Japan, during the interwar years medical personnel had only undertaken sporadic, small foreign assistance operations, primarily in the Caribbean or the Philippines. Coming at the end of two decades of

---

[53]Rpt. to AG, 9 Feb 39, box 2403, 400.38, Record Group 407, NA; clipping from *Washington Post,* 15 Feb 39, in the American Red Cross Library, Washington D.C. Haynes received the Distinguished Flying Cross for his efforts.

[54]*New York Times,* 29 Jan 39; Rad, Wooten (?) to AG, 9 Feb 39, box 2403, 400.38, Record Group 407, NA.

relative inactivity, the airlift to Chile suggested the possibility of a very different role for personnel and units of the Army Medical Department in the future. By 1960 the Army, with the help of the Air Force, would be able to airlift an entire hospital to Chile in about the same time it took to deliver the 3,300 pounds of supplies in 1939.

CHAPTER 7

# Domestic Assistance under Civilian Coordination, 1945–1976

The Second World War curtailed U.S. Army medical as well as other types of disaster assistance—though some soldiers participated in at least one flood relief operation during the war. After the end of the conflict, military aid efforts resumed, but in the late forties and early fifties the federal government reorganized its procedures for rendering assistance. The changes influenced the role of Army medical personnel in civilian relief, although medical matters had not prompted them.[1]

To some extent, the new methods and organizations were designed to provide coordination and planning to reduce the problems that had characterized the interwar years. But in addition, they followed from the gradual transformation of nineteenth century attitudes toward disasters and government aid to communities stricken by them. Americans by the 1950's considered disasters natural phenomena rather than supernatural messages. Scientists had, for the most part, explained their causes, and social scientists had even begun to study how human beings behaved during them. Years of government assistance in individual disasters had left a heritage of federal involvement, and many people thought aid should be made automatic. In the postwar years, Congress responded with laws approving continuing federal disaster assistance and creating a civilian bureaucracy to coordinate it.[2]

The laws delegated responsibility for foreign and for domestic operations to different agencies, and to some extent the Army's procedures for

---

[1]For records of the wartime operation, see box 3149, 400.38, Record Group 407, NA.

[2]The evidence on changes in the religious interpretation of disasters is fragmentary and occasionally contradictory. It is important to remember that many people could see disaster (and the relief effort) as God's work without retaining the nineteenth century view of disasters as punishment from God. On the issue, see especially Russell R. Dynes and Daniel Yutzy, "The Religious Interpretation of Disaster," *Topic 10: A Journal of the Liberal Arts* 10 (1965): 34–48, but also Harry E. Moore, *Tornadoes over Texas: A Study of Waco and San Angelo in Disaster* (Austin: University of Texas Press, 1958), pp. 102–9, 220–23; Donald B. Robinson, *The Face of Disaster* (Garden City, N.Y.: Doubleday & Co., 1959), pp. 183–89. For an introduction to the new social science approach to disasters, see Fritz, "Disaster"; Anthony F. C. Wallace, *Human Behavior in Extreme Situations: A Study of the Literature and Suggestions for Further Research,* Disaster Study No. 1 (Washington: National Academy of Sciences-National Research Council, 1956), passim, but especially pp. 4–5.



ARMY AMBULANCES STAND READY *during Texas City explosion, 1947.*

2,500 feet. Where they fell, these missiles ignited warehouse and fuel storage tanks on shore. Almost instantly the entire dock area erupted in flames. Many dockhands and onlookers died immediately; others sustained injuries from the blast or the projectiles.[3]

Lt. Col. John P. Horan, commander at neighboring Fort Crockett, heard the explosion and saw the smoke; he immediately phoned the sheriff and offered his post's services. When the sheriff accepted, Horan at once alerted the entire garrison. Within fifteen minutes Army ambulances and crews had begun the rescue and evacuation effort. Horan realized, however, that Texas City would need even more assistance. Early that morning he requested help from Fourth Army Headquarters. Because of the requirements the Army adopted in the later 1930's, the command had a disaster plan, which it implemented at once. Commanding General Jonathan M. Wainwright assumed direction of the relief effort and that afternoon arrived in Texas City with several of his staff officers. Wainwright personally inspected the destruction and left Brig. Gen. Josef Sheetz in

[3]Elizabeth L. Wheaton, comp., *Texas City Remembers* (San Antonio: Naylor Co., 1948); Adolph A. Hoehling, *Disaster: Major American Catastrophes* (New York: Hawthorn Books, 1973), pp. 114–30; Virginia Blocker and T. G. Blocker, "The Texas City Disaster: A Survey of 3,000 Casualties," *American Journal of Surgery* 78 (1949): 756–71.



FLAMES AND DESTRUCTION *after the Texas City explosion, 1947.*

rendering both became distinct as well. Futhermore, the two types of relief missions developed in such different fashion after the war as to merit separate discussion. Army medical assistance abroad, discussed in the next chapter, increased in the postwar period. Domestic assistance, on the other hand, continued at the restricted level of the late thirties, or possibly even declined.

### *The Texas City Explosion*

Before all the administrative changes began, however, personnel from the Army Medical Department became involved in another large-scale relief effort. On the morning of 16 April 1947, longshoremen at the port of Texas City, Texas, discovered fire aboard the ship *Grand Camp* docked there and loaded with ammonium nitrate. Few people considered the fire a serious danger, attempts to extinguish it proceeded perfunctorily, and no one bothered to evacuate the area or disperse the crowds that gathered to watch the excitement. The fire fighters did not realize the danger of the highly volatile cargo until 0912 hours, when the *Grand Camp* exploded, atomizing two sight-seeing planes flying over it. Flaming metal fragments, some as large as 60 tons, were thrown up to

passed laws providing for loans to victims of certain disasters, and in 1941 it enacted a measure authorizing the Army Corps of Engineers to conduct rescue operations and emergency repairs during floods. Three years later, in legislation with important implications for the Army Medical Department's role, Congress placed the Public Health Service (PHS) in charge of assisting states during health emergencies. This law gave legal authority to the increased PHS activity that had begun during the twenties and thirties and recognized the reduced participation of Army medical personnel.[6]

None of these acts, however, authorized automatic relief or created a civilian agency to coordinate federal assistance. A major step in that direction occurred in July 1947 when Congress enacted Public Law 233, the Surplus Property Law, which authorized the president to initiate federal disaster relief without specific funding or approval from Congress. The law allowed him to transfer surplus property held by the War Assets Administrator to the Federal Works Administrator, who could then transfer it to any state or local government in a distressed area. The administrator could donate medicines or other expendable items, loan nonexpendable supplies, and pay shipping costs. The statute permitted the Federal Works Administrator to use officers of other federal agencies when necessary to fulfill his mission and directed all departments to cooperate with him.[7]

Although precedent-setting, the Surplus Property Law did not mark a dramatic change in policy. After World War I a similar distribution of war surplus property had occurred without benefit of law. Furthermore, the program obviously had a limited life span—roughly until surplus stocks were depleted—at which time either a return to the prewar ad hoc system or another program would have to replace it. The law did, however, further reduce Army involvement by delegating the responsibility for distributing surplus property to a civilian agency.

Under these provisions, the federal government rendered assistance in thirty-two disasters. Surplus stocks quickly dwindled, and Congress twice revitalized the program with supplementary appropriations. Many people advocated new legislation that would offer a permanent solution to the disaster relief problem, and those who administered the law perceived

---

[6]*Congressional Record*, 81st Cong., 2d sess., 1950, pp. 11901–2; Office of Emergency Preparedness, *Report to the Congress: Disaster Preparedness* (Washington: GPO, 1972), 1:168; L. E. Burney, "Public Health Problems in Major Disasters," *Annals of the American Academy of Political and Social Science* 309 (1957): 82–84.

[7]Surplus Property Law of 1917; Subcommittee on Natural Disaster Relief, *A Subcommittee Report on Natural Disaster Relief* (Washington: GPO, 1955), pp. 3–4; U.S. Congress, Senate, *Alleviation of Damage from Flood or Other Catastrophe*, S. Rpt, 435, 80th Cong., 1st sess., 1947; *Congressional Record*, 80th Cong., 1st sess., 1947, pp. 8300–1; *Congressional Record*, 81st Cong.,

charge of the Army's operation, with all the resources of Fourth Army available to him.[4]

Lt. Col. Irvine H. Marshall, a medical officer from the Fourth Army surgeon's office, initially directed medical aspects of the relief effort. To assist him, Fourth Army ordered 36 doctors, 40 nurses, a medical administrator, and the 32d Medical Battalion—all from posts in San Antonio—to report to Texas City without delay. It also sent all expendable medicines from its own stocks and requested the St. Louis Medical Depot to ship additional items. By midnight all the extra personnel and the first of the supplies had arrived at Fort Crockett.

Some of the personnel started work at once in the Fort Crockett Station Hospital. The facility had been inactive at the time of the explosion, but shortly after the blast Lt. Col. Eugene H. Mitchell, a military science teacher at a Galveston high school, volunteered to help reopen it. With the assistance of Army wives, a medical sergeant, and fifty Red Cross volunteers, he quickly had the hospital in operation. By 2100 hours it had admitted fifty-eight civilians, though the majority of casualties had been sent to local hospitals. That night Colonel Marshall toured those institutions and assigned the remainder of the Army's doctors and nurses from San Antonio to them. He placed the 32d Battalion on standby at Fort Crockett. Soon it, too, was called into service.

In the rush to rescue as many people as possible, little had been done to extinguish the flames along the dock. Late in the afternoon, fire broke out on a second ship carrying ammonium nitrate, the *High Flyer*. Attempts that night to tow it out to sea failed, and workers noticed the same orange smoke that preceded the explosion of the *Grand Camp*. Forewarned this time, they quickly evacuated the area. Shortly after midnight the *High Flyer* exploded with an intensity equal to the first blast and reignited fires along the waterfront. Officials at Fort Crockett sent doctors from the station hospital and ambulances from the 32d Battalion to evacuate any new victims. Fortunately, the late hour and prior warning held casualties to a minumum, and by 0900 hours the ambulances returned, their services unneeded.

---

[4]Unless otherwise cited, account based on J. R. Sheetz, "Disaster Relief Activities by Military Personnel during the Texas City Disaster," 5 May 47; Statement by John P. Horan filed with Sheetz Rpt; Ltr, Lewis C. Beebe to War Department, 16 May 47; Memo for MG Kirk by Robert P. Williams, 23 Apr 47. All in 370.1 (Texas City), Record Group 407, NA. Wheaton, *Texas City*, passim, but especially pp. 6, 32–33, 46–48; Reynolds, "Disaster Services," pp. 317–46; American National Red Cross, *A Preliminary Report on the Texas City Explosion* (St. Louis: American National Red Cross, 1947), pp. 20–22; William H. Witt, "The Army's Coming," *Army Information Digest* 3 (Mar 48): 14–18.

Even without additional victims, casualties still taxed available health care facilities. The blast killed 513 people almost at once; another 50 died after hospitalization. Between 2,000 and 3,000 people were treated for injuries that did not require hospital care, and 150 serious cases were sent to Houston hospitals. That still left 836 patients to be cared for in three local civilian hospitals and the Fort Crockett facility. Staffed by the clearing company of the 32d Battalion after the first day, the station hospital treated a total of 121 patients during the emergency, although its patient census fluctuated between 40 and 60. With the approval of Col. Prentice L. Moore, who relieved Marshall as head of medical operations on the 17th, the Army continued to detail surgeons and nurses to the overburdened civilian facilities. In addition to the hospital work, Army doctors and first aid teams periodically visited Camp Baldwin, a refugee center ten miles from Texas City. They provided routine care for its residents and identified several cases of infectious diseases—mumps, chicken pox, possibly whooping cough—but no serious health threat developed.[5]

An outbreak of gas gangrene in Texas City itself was reported, however, and on the 17th a specialist from Brooke Army Medical Center investigated but confirmed only one case. When rumors of more persisted, the Army's Surgeon General sent two surgical consultants, one a civilian and the other an Army medical officer, to conduct another study. The two experts confirmed nine cases but still pronounced previous reports exaggerated. With no serious gas gangrene outbreak or problems with infectious diseases, the necessity for Army medical support in Texas City quickly passed. By the 19th, requests from civilian hospitals for surgical services had ended, and some Army personnel began returning to their stations. On the 22nd the Army transferred the remaining patients in the station hospital to civilian facilities and closed it. By that time all but a few of the Army's medical personnel had gone home.

### *Creation of a Federal Relief Bureaucracy*

Army medical missions like that in Texas City, which had been unusual in the interwar years, became more so after the war as military involvement declined and the trend toward greater centralization and increased civilian control continued. In the late thirties Congress had

---

[5]Statistics from Blocker and Blocker, "Survey of Casualties," p. 759; and Sheetz Rpt, Inclosure 13, p.6. See also David Minard, John H. Killough, and Bernard Zimmerman, "Medical Aspects of the Texas City Disaster with Special Reference to the Effects of Air Blast," project NM 0111 015, Report No. 4, Naval Medical Research Institute, 1948.

law substantially altered the means of rendering federal assistance and set a strong precedent for increased federal involvement.

At the same time Congress had considered the disaster act, it had debated a civil defense bill, and most officials expected one agency to administer both programs. But President Harry S. Truman decided that the fledgling Federal Civil Defense Administration (FCDA) had enough responsibility and assigned the disaster work to the Housing and Home Finance Agency (HHFA). Then in 1952 Truman transferred the disaster relief function to FCDA. In 1958 the FCDA—still responsible for disaster relief—merged with another agency to form the Office of Defense and Civilian Mobilization (ODCM), but three years later ODCM split, with the Office of Emergency Planning (OEP) assuming responsibility for disaster relief.[10]

The Army had at first been ambivalent about civilian control of disaster relief, but by 1950 its officials welcomed the new law and agency. The Army really did not have the resources to coordinate federal assistance itself, and reorganization eased some of the problems that had complicated its disaster relief function during the interwar years. Funding for each mission no longer depended on special congressional action, and the law provided for Red Cross reimbursement of the Army for the transfer of supplies if the president did not declare a major disaster. If he did, the Red Cross received expendable equipment free of charge and accepted responsibility to return nonexpendable items, but the Army's costs were refunded by the president from disaster relief funds.[11]

On the question of the Army's authority to approve and conduct relief operations, Army regulations were slow to recognize the new civilian relief organization's responsibility. In the early 1950's AR 500–60 made no mention of it and delegated relief responsibility to the continental Army commanders—a policy similar to the earlier practice of relying on the corps area commands (which no longer existed). In 1956 a revised AR 500–60 first incorporated the principle of civilian coordination with sections defining the FCDA's role. That same year, a Department of

---

[10]Shifts between agencies and the rationale for them can be followed in *Report to Congress: Disaster Preparedness*, 1: 168; Peterson, "Coordinating Assistance," p. 58; Lyon G. Tyler, Jr., "Civil Defense: The Impact of the Planning Years, 1945–1950" (Ph.D. diss., Duke University, 1967), p. 291; Executive Order 10427, 16 Jan 53; Edward A. McDermott, "Emergency Planning," *Military Review* 44 (Feb 64): 19–28; Executive Order 10773, 1 Jul 58; Executive Order 11051, 27 Sep 62.

[11]For two views in 1948, see *Coordinating Emergency Activities of Federal Agencies in Disaster Areas: Hearings before the Subcommittee of the Committee on Public Works, U.S. Senate, 80th Congress, 2d Session, on S 2831* (Washington: GPO, 1948), pp. 9, 16, 67. On official view in 1950, see Ltr, Frank Pace, Jr., to William M. Whittington, 7 Jun 50, box 695, 370.1, Record Group 407, NA.

a need—as the Army had in the thirties—for more coordination in relief efforts. Gen. Philip Fleming, Federal Works Administrator, complained that in a relief operation "with so many public and private agencies converging on a panic-stricken area, they are bound to get into each other's way and that confusion is certain to result in wasteful duplication of effort and failure to accomplish some necessary measures."[8]

Some congressional advocates of disaster relief realized the need for both continued funding and closer cooperation among federal agencies. After three years of discussions, in 1950 Congress passed a comprehensive Federal Disaster Act with three stated goals: to furnish "an orderly and continuing means" of federal assistance to state and local governments "in carrying out their responsibilities to alleviate suffering and damage resulting from major disasters"; to provide for the repair of essential public facilities; and to foster the development of state and local organizations to cope with disasters. To accomplish these goals the law authorized federal agencies to lend personnel, supplies, facilities, and other resources to state and local governments and approved the distribution of federal medicines, food, and other consumable supplies through the American National Red Cross. It also allowed using federal personnel for saving lives and property, clearing debris, and making emergency repairs to public facilities. Authority to mobilize federal aid was given to the president, but the law instructed him to designate an existing office to coordinate relief rather than create a new agency.[9]

Although in many ways a dramatic assumption of federal responsibility, the Federal Disaster Act of 1950 did incorporate much of the traditional response to disasters. In its stated purpose of aiding states and the Red Cross to render relief, it continued the heritage of local control and voluntarism. In granting authority to act to the president, it simply legalized what had been customary practice since the 1880's. Nevertheless, the statute made the federal response automatic rather than dependent on the whims of Congress, and for the first time it provided for an agency with authority to coordinate all federal relief efforts. To that extent the

---

2d sess., 1950, p. 11896.

[8]Quote from "Gen. Philip Fleming Seeks Coordination in Disaster Relief," *Eastern Underwriter* 49 (20 Aug 48): 1. On developments in this period, see also *Report to Congress: Disaster Preparedness*, 1: 168; *Subcommittee on Natural Disaster Relief*, p. 4; *Hearings before the Committee on Public Works, House of Representatives, 81st Congress, 2d Session on HR 8396, HR 8461, HR 8420, HR 8390, and HR 8435, Bills to Authorize Federal Assistance to States and Local Government in Major Disasters* (Washington: GPO, 1950) pp. 81–82; Val Peterson, "Co-ordinating and Extending Federal Assistance," *Annals of the American Academy of Political and Social Science* 309 (1957): 53.

[9]*Congressional Record*, 81st Cong., 2d sess., 1950, pp. 11895–915, 15095–98. Quote from Federal Disaster Act of 1950.

Defense directive established channels for liaison between its officials and those of the civilian agency but reaffirmed that the Army was to be the department's primary source of domestic aid. Within the Army, responsibility for providing assistance remained with the continental Army commands, though under the direction and supervision of the Continental Army Command (CONARC) after its creation in 1955.[12]

Even with the newly established channels for requesting and administering relief, the revised AR 500–60 still retained the clause carried by its predecessors, allowing aid without prior appeal from the coordinating agency when "local resources" were "clearly inadequate" or the "overruling demands of humanity" compelled it. The clause remained through repeated changes in the regulation, though in later years the phrasing—reflecting the increasing bureaucratization of relief—was changed to "imminent seriousness" and still later to "imminently serious condition."[13]

### *Medical Relief Missions of the Fifties and Sixties*

In the 1950's an "imminently serious condition" did not arise very often, and the Army rarely undertook relief on its own authority. Although the civilian bureaucracy did request Army's assistance occasionally, it rarely summoned members of the Army Medical Department. Both the Red Cross and the Public Health Service had been designated by law to render assistance, and their roles had been reaffirmed in the Federal Disaster Act of 1950. In addition, two other agencies assumed an increasing share of the medical burden. In the late thirties the Army had advocated reliance on the National Guard in disasters, and state units increased their relief activities after the Second World War. Local civil defense organizations created after 1950 because of fears of nuclear war also rendered aid in local natural disasters, even though civil defense and disaster relief were not always coordinated by the same agency on the federal level. Together,

---

[12]On Department of Defense policy, see DOD Directive 3025.1, "Responsibilities for Civil Defense and Other Domestic Emergencies," 14 Jul 56; DOD Directive 3025.1, "Employment of Military Resources in Natural Disaster Emergencies within the United States, Its Territories, and Possessions," 18 Nov 65. DOD Directive 3025.1, "Responsibilities for Civil Defense and Related Programs," 24 Jan 52, the first of this series, set policy for civil defense and other emergencies but did not mention disaster relief. On changing Army regulations, see AR 500–60, "Emergency Employment of Army Resources: Disaster Relief," 1 Oct 52; AR 500–60, change 2, "Emergency Employment of Army Resources: Disaster Relief," 29 Feb 56; AR 500–60, "Emergency Employment of Army Resources: Disaster Relief," 10 Jul 59.

[13]AR 500–60, "Emergency Employment of Army Resources: Disaster Relief," 1 Oct 52; AR 500–60, "Emergency Employment of Army Resources: Disaster Relief," 6 May 66; AR 500–60, "Emergency Employment of Army and Other Resources: Disaster Relief," 14 Feb 72.

the Red Cross, Public Health Service, National Guard, and local civil defense organizations were usually capable of meeting emergency medical needs in domestic disasters. Hence the civilian relief bureaucracy rarely had to request Regular Army assistance.[14]

The Army Medical Department did, however, have resources and capabilities for one type of assistance, helicopter support, that the civilian agencies lacked. The Army received many requests for the dispatch of helicopters, and the rotary-wing aircraft proved most versatile in relief operations. They served not only as air ambulances but could also fly rescue, reconnaissance, and supply missions. The Army had begun development of the helicopter before World War II; a few served as air ambulances during that conflict but only proved themselves fully in the Korean War. Though Air Force helicopters had participated in domestic relief operations as early as 1949, it was only after Korea that Army helicopters became active in disaster assistance missions. When Army craft did participate, they were not, of course, always from medical units, since other Army organizations had them, too. But when air ambulance units did participate, they not only evacuated patients but also performed other relief tasks. Two missions flown by Army medical aviators during the 1950's illustrated the versatility of helicopter ambulances in disaster situations.[15]

One of the earliest domestic missions involving Army helicopter ambulances occurred in June and July of 1954 when the Rio Grande and its tributaries flooded much of the area along the Mexican border between Langtry and Laredo, Texas. Operating out of Laughlin Air Force Base, Air Force and Navy craft with two H−25's and nine H−13's from the Army's Medical Field Service School and two ambulance detachments at Fort Sam Houston, Texas, participated. Shortly after their arrival on the

---

[14]Demonstrating statistically the increase in National Guard medical participation is almost impossible since accurate statistics are unavailable and even numbers for all missions are difficult to find. However, between 1947 and 1953, guard units aided in 194 disasters. See Bennett M. Rich and Philip H. Burch, Jr., "The Changing Role of the National Guard," *American Political Science Review* 50 (1956): 704. Reports of the Militia Bureau, with incomplete statistics, for the interwar years show nowhere near that many missions in an equivalent period. Of course, one has to assume that the number of medical missions within the overall figures remains constant. No good overview of civil defense medical assistance in natural disasters exists, but for indications of what was happening, see William L. Wilson, "Medical Plans for Civil Defense and Disaster," *American Practitioner and Digest of Treatment* 2 (1951): 151−62; and a series of articles on disaster medicine in *California Medicine* 93 (1960): 69−98.

[15]On the development of helicopters, see Peter Dorland and James Nanney, *Dust Off: Army Aeromedical Evacuation in Vietnam* (Washington: GPO, 1982). On the employment of Air Force helicopters in 1949, see Memo for Secretary of Defense by William H. Draper, Jr., 5 Feb 49, box 695, 370.1, Record Group 407, NA. On general use of Army helicopters in disasters during this period, see William E. Vance, "Ready, Willing, and Able," *U.S. Army Aviation Digest* 2 (Nov 56): 5−9; "Disaster and Emergency Relief Operations," *U.S. Army Aviation Digest* 4 (Mar 58): 26−27.

scene, the Army helicopter ambulances evacuated the passengers of a train stranded near Langtry. Later they transported medical supplies, food, and mail to isolated cities along the border and maintained a communications link between United States and Mexican relief officials by flying messages between Laughlin and the roof of a hotel in Nuevo Laredo. Ten days after they reported, all of the helicopters except one H–25 had returned to station. In this craft Capt. Joseph L. Bowler, a veteran of air evacuations in Korea, continued to fly food, milk, and Red Cross supplies to isolated spots on both sides of the border.[16]

Five years after the Texas floods, the 57th Medical Detachment (Helicopter Ambulance) at Fort Meade, Maryland, undertook a very different type of relief mission. On 27 January 1959, three of the unit's H–19 helicopters with a demolition team from the 19th Engineer Battalion flew to Meadville, Pennsylvania, where an ice jam in a nearby creek threatened to renew flooding in an area already hard-hit. That afternoon the crews conducted air reconnaissance of the jam, and blasting operations began shortly thereafter. The crews of the H–19's flew demolition experts to inaccessible areas on the ice and dropped 540-pound loads of TNT for their use. By 9 February the jam had been blasted loose, and the helicopters returned to Fort Meade.[17]

Despite continued minor and occasional missions, the early sixties saw little relief work by Army medical personnel. In 1964, however, a calamity severe enough to tax civilian resources compelled renewed Army medical assistance. On 27 March 1964 a massive earthquake struck south-central Alaska, triggering tidal waves along the coast. The quake damaged military facilities in the area; patients from the post hospital at Elmendorf Air Force Base near Anchorage had to be transferred to a temporary facility the Army's 64th Field Hospital from nearby Fort Richardson helped operate. But despite their own problems, military units in Alaska answered pleas for help from their civilian neighbors.[18]

---

[16]"Copters Aid Flood Victims in Stricken Del Rio Region," *American Helicopter* 36 (Aug 54): 16. "Brooke AMC 'Chopper' Continues Mercy Flights," unidentified clipping; Ltr, John R. Russell to CO, Brooke Army Medical Center, 16 Jul 54. Both in CMH files.

[17]Tempest Rapid Report of Installation Resources Employed at Meadville, Pennsylvania, 57th Medical Detachment (Helicopter Ambulance), 13 Mar 59; Sections from Log, 57th Medical Detachment (Helicopter Ambulance). Both in 2–05 Organizational Historical File, 57th Medical Detachment, WNRC.

[18]Unless otherwise cited, account based on Herbert H. Kerr, "Earthquake," *Medical Service Digest* 15 (1964): 2–9; Daniel Yutzy, *Community Priorities in the Anchorage, Alaska, Earthquake, 1964*, Disaster Research Center Monograph Series No. 4 (Columbus: Ohio State University, 1969); Truman R. Strobridge, *Operation Helping Hand: The United States Army and the Alaskan Earthquake, 27 March to 7 May 1964* (Historian, U.S. Army, Alaska); *Operation Helping Hand: The Armed Forces React to Earthquake Disaster* (Headquarters, Alaskan Command, 1964). Army Medical Service Activities, Annual Rpts, U.S. Army Alaska; HQ, U.S. Army, Alaska, Support Command,

(Continued)

Since power service had been disrupted, the night of the quake troops at Fort Richardson worked by candlelight to establish a logistical center. The soldiers manned phones and poured Army supplies into the civilian relief effort. During the remainder of the emergency, requests for supplies or assistance generally came from civil defense officials to Alaskan Command (ALCOM). ALCOM passed them on to the U.S. Army, Alaska (USARAL), which sent them to the logistical brigade or to the office best equipped to fill the request. Bassett Army Hospital at Fort Wainwright coordinated all Army medical assistance. That aid primarily supplemented civilian health care efforts and went mostly to the cities of Anchorage and Valdez.

On the night of the quake, Anchorage police requested and received two Army ambulances staffed by four aidmen and stocked with emergency equipment. The next day the aidmen participated with other soldiers and local policemen in a search of all buildings in the downtown area. The Army also loaned equipment and personnel to local civilian hospitals. Late the first night Fort Richardson sent a generator to Presbyterian Hospital and cots, blankets, and pure water to Providence Hospital. During the next few days, two Army doctors worked at Providence, and twenty Army technicians helped care for additional patients transferred there from a psychiatric institute damaged by the quake. Since Presbyterian Hospital had sustained damage too extensive to continue its services, authorities evacuated its patients to other civilian facilities. Before it reopened, Army troops helped clean and prepare it to receive patients, and during the first four days of its renewed operations Fort Richardson did its laundry.

The Army also furnished public health assistance in Anchorage. Because the quake broke water and sewage lines, polluting the city's water supply, Anchorage health officials asked the Army for water trailers. The Army provided and staffed them, and for a time these water distribution points furnished the only potable water in many areas. They were phased out as public officials restored water service, but an Army preventive medicine officer and two technicians continuously monitored the city's water supply during the process. In addition, a USARAL veterinarian inspected food outlets in the anchorage area to prevent public health problems from that source.

Battered both by the quake and the subsequent tidal wave, the small coastal town of Valdez experienced greater devastation than Anchorage

---

(Continued)
and Fort Richardson; 64th Field Hospital; and Bassett Army Hospital; all for 1964 and in CMH files.

and did not have so well organized a civil defense force to help it recover. Since more help was needed from the Army, Fort Wainwright dispatched relief troops late on the night of the quake. Because of bad weather, the advance party, which included an Army surgeon, did not arrive until the next morning. Its members immediately examined the extensive damage, consulted with local officials, and decided to evacuate most of the population.

All but forty-five people left. Other members of the Army rescue party, who had stopped in Gulkana when poor weather prevented them from proceeding to Valdez, prepared to receive the evacuees. After conferring with local civil defense officials, the soldiers established a hospital ward and refugee center in the gymnasium of a local high school. In addition, the Army established a checkpoint along the highway leading from Valdez where a medical team could examine evacuees for possible injury or disease. Over the next two days, Army medical personnel processed about six hundred refugees and sheltered a hundred of them in the gym.

Back in Valdez, Army medical and engineer troops labored to restore sanitary conditions. Fearing an epidemic, Army doctors inoculated all remaining residents. Dogs left behind by the evacuees posed another health problem as they began to prowl for food. Some anxious civilians suggested the Army shoot them, but realizing that most were family pets, the task force commander detailed dogcatchers to impound them. Meanwhile cleanup operations continued, and a preventive medicine officer and an enlisted technician arrived from Fort Wainwright to conduct final sanitary surveys.

No other towns or cities in the affected area received as much medical assistance as Valdez or Anchorage, though in Seward preventive medicine specialists spent two weeks checking all sources of food and water for possible contamination. In other areas, assistance was not required, though the armed forces were ready to furnish it. Upon receiving word of the disaster, Bassett Army Hospital immediately alerted all personnel and expanded to maximum capacity but admitted no civilian casualties. A medical team from Madigan General Hospital at Fort Lewis, Washington, arrived in Anchorage on 29 March to support the 64th Field Hospital, but the unit was not needed for civilian relief and returned to Madigan on 5 April. Two air transportable 36-bed hospitals and a 100-bed casualty staging unit flown in from Air Force bases in CONUS were never off-loaded, and two Army hospitals alerted in CONUS were never actually deployed.

Most of the Army medical personnel committed to civilian relief

completed their work within five days. In badly damaged Valdez, Army doctors remained on duty a little longer, until 14 April, but by that time public health conditions even there had returned to normal. Throughout the area, despite massive property damage, total casualties from the quake remained low and no medical emergency developed. Consequently the need for Army medical assistance from CONUS never developed, and aid rendered by ALCOM could be quickly withdrawn.[19]

As had happened following earlier major relief efforts, requests for Army medical assistance increased after the Alaskan quake, as widespread publicity reminded relief officials of the Army's availability. After Hurricane Betsy in September 1965, Fourth Army dispatched ten medical officers and fifty-nine enlisted men from Fort Polk, Louisiana, to the stricken city of New Orleans. There they provided outpatient care, immunization, and ambulance services. The next year Army helicopters flew water, food, and vaccines into flooded Dell City, Texas, and sent a motor column from Fort Bliss. Though Dell City officials believed they could handle the immediate health problems, they feared the possibility of an epidemic. At their requests, Army medical personnel established an aid station and vaccinated 2,000 residents against typhoid.[20]

In August 1967 the Army again provided medical assistance in Alaska when the Chena River, which borders Fort Wainwright and flows through nearby Fairbanks, rose dramatically. The rising river endangered the city's St. Joseph Hospital, perched precariously on the north bank of the Chena. On 14 August the mayor decided to evacuate its patients and consulted military authorities at Fort Wainwright who agreed to admit them to Bassett Army Hospital on the post. Bassett's commanding officer summoned all physicians and staff for duty; they activated the reserve ward, and within three hours of notification the hospital had admitted all sixty-one patients from St. Joseph's. Bassett became the only operational hospital in the area, receiving all civilian emergency cases during the remainder of the flood crisis.[21]

Only hours after the influx of patients, the Chena's waters flooded the

---

[19]"Medicine in Alaska Nearly Normal; Major Hospitals Are Being Repaired," *Medical Tribune*, 20 Apr 64, clipping in CMH files.

[20]One student of disaster situations has suggested that as a rule people do not associate the military and medicine; perhaps a large disaster reminds them. See William A. Anderson, *Military-Civilian Relations in Disaster Operations*, Disaster Research Center Report Series No. 5 (Washington: Office of Civil Defense, 1968), p. 63. On Hurricane Betsy, see "White House Fact Sheet: Rpt on Army Medical Service Activities to Chief of Staff from OTSG," 20 Sept 65, in Directorate of Military Support (DOMS) files, WNRC. Army Medical Service Activities, Annual Rpt, Army Hospital, Fort Polk, La., 1965, in CMH files. On Dell City, see *New York Times*, 24 Aug 66; John J. Koehler, "Dell City, Texas, Flood Disaster" (student essay, Army War College, 1968).

[21]Following account based on Army Medical Service Activities, Annual Rpts, U.S. Army,

basement at Bassett. All available hospital personnel worked feverishly in a vain attempt to salvage emergency equipment located there, but by morning the basement was completely underwater. Engineers installed pumps to keep down the rising water level, and strategic points throughout the hospital were sandbagged. Since the hospital had already lost power from the post's regular electrical system and the flood in the basement eliminated its emergency source, the staff placed large mobile generators in critical areas such as the operating room, delivery suite, and X-ray and outpatient clinics. On the 17th, power from private and Air Force sources replaced the emergency generators, but the building still lacked heat, water, and sewage facilities. Loss of heat posed the most immediate danger because after three days the hospital had cooled to a dangerously low temperature. To alleviate the crisis, the staff set up electrical units and a few Herman Nelson heaters in strategic spots. Tankers brought in water from Eielson Air Force Base, and the hospital used chemical toilets.

Even though dependent on emergency or makeshift support systems most of the time, Bassett operated an efficient relief facility. It treated 172 civilians for a total of 1,135 patient days of care. Its own staff physicians handled the increased patient load, but the hospital did hire additional civilian help and borrowed Air Force nurses. The Air Force also provided Bassett with supplementary supplies. Although the emergency passed quickly, the last civilian patient was not discharged until 6 September.

Obviously Army medical resources could still be useful in emergency situations. By the late sixties, though, demand for Army medical support in civilian disaster had declined. Two Army relief missions, one in 1967 and the other in 1969, illustrated the reason why. Only two weeks after the floods in Alaska, Hurricane Beulah severely damaged Rio Grande City, Texas, and the Army dispatched a large relief force. Its medical contingent, however, found civilian resources sufficient to meet all health care needs. Army medical personnel operated a communications center and worked as sanitary teams in refugee centers. Only the task force surgeon, who conducted a health survey of the area, actually served in a professional capacity. In the second relief operation, after Hurricane Camille struck the Gulf coast in 1969, Army doctors and corpsmen did little, even though more than 1,500 soldiers took part. Army aviators—not from Medical Department units—flew 600 medical evacuation missions, and Army medical depots furnished vaccines and other supplies. Nonetheless, direct health care by Army personnel was simply unnecessary in this

---

Alaska; Bassett Army Hospital; 171st Infantry Brigade (M). All for 1967, in CMH files.

relief effort as in most domestic disasters.[22]

*Federal Reorganization and Minor Medical Missions of the Seventies*

The year before Camille struck, 1968, marked the beginning of further administrative changes in the procedures by which the Army and the federal government rendered relief. Spurred by increasing demand for Regular Army assistance in quelling civil disorders, the Defense Department created the Directorate of Military Support (DOMS). Staffed primarily by Army personnel, DOMS set policy and coordinated all military assistance to civilian communities, including disaster relief. On medical matters, DOMS worked closely with Plans and Operations Division of the Office of the Surgeon General.[23]

Even after the creation of DOMS, the commanding general of CONARC and the continental Army commanders actually conducted disaster assistance operations. In 1972–1973 the Army adopted a new organizational structure under which the Training and Doctrine Command (TRADOC) and Forces Command (FORSCOM) replaced CONARC. Within the new structure, the commanding general of FORSCOM assumed responsibility for domestic disaster assistance. He could delegate relief missions to his subordinate CONUS Army commanders or call on resources from TRADOC, the Health Services Command (created in the reorganization, HSC included all medical installations), or other DOD components. Most relief operations, though, involved FORSCOM's own units. In such cases, the FORSCOM surgeon provided his command with advice on medical relief, and the surgeon's office of the CONUS Army commands did the same for them. As before, actual control of medical resources most often remained with officers designated by the Army commander rather than the Medical Department.[24]

---

[22]On Beulah see Task Force Bravo, After Action Report, Hurricane Beulah, 22 Sep–8 Oct 67, DOMS files, WNRC. Army Medical Service Activities, Annual Rpts, 47th Field Hospital, 1st Medical Group, Fort Sam Houston, Tex.; 37th Medical Battalion, 1st Medical Group, Fort Sam Houston, Tex. Both for 1967, in CMH files. On Camille, see "Hurricane Camille: Amount of Federal Assistance, Office of Emergency Preparedness"; Memo to Director of OEP by Richard G. Stilwell, 23 Sep 69; "Hurricane Camille, Military Disaster Relief," 22 Aug 69. Copies of all in DOMS files, WNRC. *Federal Response to Hurricane Camille, Hearings before the Special Subcommittee on Disaster Relief of the Committee on Public Works, U.S. Senate, 91st Congress, 2d Session* (Washington: GPO, 1970), part 1, pp. 10–11, 27–29, 104; Jimmie S. Ford, "Hurricane Camille: 4th Army Operations," *U.S. Army Aviation Digest* 16 (Jul 70): 18–20; D. T. Irby, Jr., "Virginia Disaster Relief," *U.S. Army Aviation Digest* 16 (Jul 70): 21–23; John W. Griffin, "Operation Camille," *U.S. Army Aviation Digest* 16 (Jul 70): 3–9.

[23]On DOMS, see Marshall B. Garth, "Military Support: A Helping Hand for the Civilian Community," *Army* 23 (Oct 73): 83–87. See also "Information Paper: Support for Civil Disasters," prepared by DASG-HCO, copy in CMH files.

[24]AR 500–60, "Emergency Employment of Army and Other Resources: Disaster Relief,"

During the years of Army reorganization, the civilian relief establishment was also undergoing change. Though the rechristening of the OEP in 1969 as the Office of Emergency Preparedness entailed no change of mission, significant new departures were on the way. Later that year Congress passed a new disaster relief law with greater provision for long-term rehabilitation, including direct financial aid to victims. In 1970 Congress passed a revised omnibus Disaster Relief Act which incorporated most of the features of its predecessors but increased aid to individuals, expanded assistance to local communities for the repair of public facilities, and allowed OEP to coordinate relief by private agencies such as the Red Cross with their permission. In 1973 President Richard M. Nixon transferred relief responsibility from OEP to the Department of Housing and Urban Development, which created a new agency, the Federal Disaster Assistance Administration, to coordinate federal disaster aid.[25]

This bureaucratic shift symbolized a change in emphasis in federal aid from relief to rehabilitation. Since 1950 all disaster acts had by implication endorsed a division of function that charged the federal government with greater responsibility for rehabilitation and left most immediate aid to local and voluntary groups. In fact, the trend in that direction dated to the early twentieth century and was obviously related to the increasing capabilities of the Red Cross, National Guard, and civil defense organizations to render emergency assistance.[26]

In addition, a shift in the primary problem in disasters from mass casualties to massive property loss spurred the federal government to devote more of its resources to rehabilitation. In 1900 the Galveston hurricane killed 6,000 people and caused $30 million damage. Sixty-one years later Hurricane Camille struck the same region, killing only 46 people but destroying $400 million worth of property. Although obviously an imprecise comparison, the dramatic difference nevertheless highlighted the change that had taken place. The shift was clearly present in the Alaskan earthquake of 1964 in which casualties were few but property damage was substantial. Over the course of the twentieth century, early warning systems for tornadoes and hurricanes, evacuation planning, and

---

28 Nov 69; AR 500–60, "Emergency Employment of Army and Other Resources: Disaster Relief," 31 Mar 72; AR 500–60, "Emergency Employment of Army and Other Resources: Disaster Relief," 20 Aug 73; "Information Paper: Support for Civil Disasters." For mention of use of TRADOC and HSC resources, see "Tornado: Fort Knox Units Respond," *HSC Mercury* 1 (17 May 74): 1, 8.

[25]*Report to Congress: Disaster Preparedness*, 1: 168–69; Executive Order 11575, 31 Dec 70; Executive Order 11725, 27 Jun 73.

[26]Peterson, "Coordinating Assistance," p. 53.

improved building techniques reduced deaths and injuries in disasters. During the same period, however, increased urbanization and greater use of marginal lands in floodplains and along the coast meant that the costs of property damage soared. In most disasters—though any loss of life was tragic—the larger problem became reconstruction, and the federal government increasingly directed its efforts toward that end.[27]

The shift in federal efforts affected various types of Army aid in different ways. For the Corps of Engineers, with a Civil Works Directorate able to repair community facilities, it meant increased responsibility. For the Army Medical Department, it became one more factor contributing to a decline in disaster relief activity. Medical aid never completely ceased, of course. For no matter how strong other relief agencies became, no matter what federal responsibility became, the Army still had medical resources that could be of value to distressed civilian communities. It also had a long heritage of helping civilians in emergencies, and procedures existed whereby it could be called upon to help. After 1970 the Army continued to render medical aid, but only in isolated emergencies or as a small part of a larger civilian relief effort.

The pattern of minor aid within a predominantly civilian program was more common. In 1972, for example, Tropical Storm Agnes caused tremendous destruction in the mid-Atlantic states and prompted a large relief operation. Though other agencies provided most medical care, the Army did ship supplies and furnished ambulances in Maryland and Pennsylvania. That same year, civilian agencies and West Virginia National Guard conducted relief operations after the Buffalo Creek dam burst. Four Military Service Corps sanitarians from Fort Meade, however, aided local authorities in establishing emergency procedures to safeguard public health.[28]

On other occasions Army medical units provided helicopter support while civilians furnished medical care. After a tornado in the small town of Salina, Kansas, on 25 September 1973, the 82d Medical Detachment (Helicopter Ambulance) received a request from the Kansas Highway Patrol for search and rescue assistance. Over the next few days the unit flew survey missions along the track of the storm, kept civilian officials

---

[27]This argument based on Douglas C. Dacy and Howard Kunreuther, *The Economics of Natural Disasters: Implications for Federal Policy* (New York: Free Press, 1969), pp. 3–5, 13–18, 44–57. See also Hoyt Lemons, "Physical Characteristics of Disasters: Historical and Statistical Review," *Annals of the American Academy of Political and Social Science* 309 (1957): 1–14.

[28]On Agnes, see "Tropical Storm Agnes" in DOMS files; Early J. Rush, "Disaster Relief: Domestic Action in the Spotlight" (case study, Army War College, 1973). On dam burst, see "Assistance Provided in Flood Areas," *Army Photo Features*, 7 Mar 72; "Army Medics Aid in West Virginia," press release, Office of the Surgeon General, 3 Mar 73. Copies of both in CMH files.

apprised of the damage and of new tornadoes, and resupplied local hospitals. Throughout the emergency, its commander reported, civilian resources proved "totally effective and in most cases an excess of ambulances and medical personnel were on hand at the sites hardest hit."[29]

Not all medical missions in the seventies consisted only of support for civilian efforts, however. On 3 April 1974 a tornado nearly demolished the small Kentucky town of Brandenberg. Nearby Fort Knox received a request from the state police for helicopter evacuation of the injured, but bad weather conditions prevented helicopter operations. Military personnel, including the 42d Field Hospital, drove to the scene. Since Brandenberg had only two doctors and the storm had incapacitated its sole clinic, Army medical personnel cared for the injured. As soon as the weather cleared, they evacuated the more serious cases by air to Ireland General Hospital at Fort Knox and sent many less seriously injured patients by ground ambulance either to Fort Knox or to a civilian hospital in Elizabethtown, Kentucky. Residents with only minor injuries were treated in an emergency clinic set up in a local school. Within twenty-two hours, the Army had completed its mission and returned to post.[30]

As the Fort Knox effort demonstrated, the changes that the seventies had brought to the federal government's domestic disaster mission had not completely eliminated a role for Army medical personnel. In fact, dispersion of troops and the ubiquitous helicopter had increased the Army's potential for rapid medical relief to almost any area of the nation. On the other hand, the federal government in the years after the Second World War had created a disaster assistance establishment based upon civilian rather than military control and with primary federal responsibility for rehabilitation rather than relief. Both principles entailed a further reduction in Army Medical Department participation. Nevertheless, in certain situations—either a massive calamity that exhausted civilian resources or a less severe disaster in a small, isolated community that had few resources to begin with—Army medical units continued to be summoned for aid.

---

[29]Quote from Civilian Mission 51, Disaster After Action Report, 73–1, 82d Medical Detachment, copy in CMH files; Joesph L. Bradley, Jr., "Twister," *U.S. Army Aviation Digest* 21(Jun 75): 16–18.

[30]Ronald O. Naser, Jr., and Walter A. Cole, "3 April 1974—Tornado," *Journal of the Kentucky Medical Association* 72 (1974): 319–21; "Tornado: Fort Knox Units Respond," *HSC Mercury* 1 (17 May 74): 1,8.

CHAPTER 8

# Activism Abroad: Foreign Disaster Relief, 1945–1976

After the Second World War, procedures for rendering foreign disaster relief developed like those set up for domestic assistance. Congress passed a series of laws authorizing aid to other lands and establishing a civilian bureaucracy to administer it. Unlike developments on the domestic scene, however, the resulting changes led to greater Army Medical Department participation in foreign assistance than had been the case in the interwar years. In fact, the sixties and seventies witnessed unprecedented involvement in disaster relief abroad by Army medical personnel.

## *Relief in the Early Postwar Period*

The Army did not actively assist destitute civilians after the Second World War as it had after the First. Army medical personnel were often the first to aid displaced persons and the victims of concentration camps. But in rendering long-term aid, the United States, rather than create another American Relief Administration, joined with forty-two other nations to set up the United Nations Relief and Rehabilitation Administration (UNRRA). Though this nation financed roughly 75 percent of the operating costs and American citizens—including a few soldiers—served on its staff, UNRRA was an internationally controlled civilian agency. Performing services similar to those of the ARA, in the first two years after the war it rebuilt transportation systems, repaired and reequipped hospitals, distributed food, inoculated refugees, and provided many other relief measures in Europe and Asia.[1]

However, in time Americans became critical both of UNRRA's efficiency and of its politics. In late 1946 the United States withdrew its support from the organization, which then concluded operations in July

---

[1]On medical work of UNRRA, see *A Program on United Nations Relief and Rehabilitation* (Washington: United Nations Relief and Rehabilitation Administration, 1944), p. 2; Marvin Klemme, *The Inside Story of UNRRA: An Exercise in Internationalism; A First Hand Report on the Displaced People of Europe* (New York: Lifetime Editions, 1949), p. 254; Thomas G. Paterson, *Soviet-American Confrontation: Postwar Reconstruction and the Origins of the Cold War* (Baltimore: Johns Hopkins University Press, 1973), p. 77.

1947. Far from signaling abandonment of America's sense of humanitarian mission, the action marked a return to more traditional forms of assistance abroad. In May 1947 Congress passed an appropriation for unilateral aid to the needy people of Europe. As usual, compassion mingled with the urge to seek "diplomatic profits . . . in terms of order, stability, prosperity, and anti-Communism." When, three years later, Congress debated aid for famine-stricken Yugoslavia, an agricultural attaché more poetically phrased the motivation for American assistance: "Every morsel of food that goes into Yugoslavia from America, every kernel of hybrid corn seed is a golden yellow diplomat."[2]

Over the next twenty years, as the United States engaged in a cold war with what it considered to be international communism, Army medical personnel also served as diplomats. American medicine offered a means of demonstrating the superiority of the American system and building the strength of the free world. In 1961, Maj. Gen. Leonard D. Heaton, Surgeon General of the Army, advocated such a policy of employing "American medicine . . . to improve our relations with the free nations of the world," in particular the "under-developed" countries. Doing so, he argued, would help to remove the sources of totalitarianism and thereby make America more secure in its freedom. Although The Surgeon General wrote primarily of civic action, he mentioned opportunities for improving America's foreign relations through disaster relief. Medicine had assumed a greater importance than in earlier days, but such goals and attitudes reflected an American tradition almost a century and a half old.[3]

As postwar developments encouraged greater American international involvement, the United States became better able to provide disaster assistance. New definitions of national security led to the stationing of American military forces in many areas of the world. From these outposts, American aid could move rapidly to the scene of a disaster. Even more important, advances in aviation meant that huge Air Force transport planes could quickly carry field hospitals and their staffs wherever needed.[4]

Though between 1946 and 1950 such planes delivered medicines and other supplies to the Dominican Republic, Bolivia, Ecuador, and Mexico

---

[2]On U.S. withdrawal from UNRRA, see Paterson, *Soviet-American Confrontation*, pp. 77–98; Curti, *American Philanthropy*, pp. 484–86. On appropriation of unilateral aid, see *Statutes at Large*, 61: 125. First quote from Paterson, *Soviet-American Confrontation*, p. 97. Second from *Yugoslav Emergency Relief Assistance Act of 1950. Hearings before the Committee on Foreign Affairs, House of Representatives, 81st Congress, 2d Session on HR 9853* (Washington: GPO, 1950), p. 74.

[3]Leonard D. Heaton and Carl W. Tempel, "The Role of the Army Medical Service in America's People-to-People Program," *Military Medicine* 126 (1961): 256–58.

[4]On the change in the nature of America's security requirements, see C. Vann Woodward, "The Age of Reinterpretation," *American Historical Review* 66 (1960): 1–19.

after disasters, these missions resembled earlier American activities in the Caribbean. The year 1953 saw the first major relief operation demonstrating the new ability of Americans stationed outside the Western Hemisphere to render assistance in more distant areas of the world.[5]

During February of that year, high tides and very strong offshore winds overwhelmed Holland's dikes and flooded much of the country. The Dutch accepted an offer of assistance from the United States, and American military forces in other parts of Europe organized the American Military Relief Organization (AMRO). A temporary unit tailored specifically for the operation, AMRO rendered much valuable assistance, particularly in rescue work performed by Army amphibious tracked vehicles and helicopters. Initially the Army alerted several medical units, but Dutch authorities considered their own health resources adequate and declined American medical aid. Two surgeons did serve on the staff of the commander of AMRO, and the 5th Mobile Army Surgical Hospital provided medical support for its personnel. AMRO, however, furnished no medical care for civilians.[6]

The next year the Danube River in Germany and Austria flooded, prompting another massive American rescue and relief effort. Again medical relief was minimal, though the Army furnished Linz, Austria, with emergency stocks of typhoid vaccine. Perhaps the major American contribution was rescue and reconnaissance flights by Army helicopter units, including the 58th Medical Detachment (Helicopter Ambulance). Certainly their work proved popular with the victims. On one mission a pilot plucked several people from an isolated housetop and noticed that one of them looked familiar. "Didn't I bring you out a few hours ago?" inquired the curious aviator. "Yes," answered the man, "I enjoy riding in a helicopter and so I went back by rowboat."[7]

A major medical operation followed about a month later when the

---

[5]On Dominican Republic and on Bolivia, see Rpt, Operations Branch, AGO to Chief of Finance, 5 Aug 47, 400.38, Record Group 407, NA. On Bolivia, see also *New York Times*, 26 Feb 47, 3 Mar 47. On Ecuador, see Ltr, Dillon S. Meyer to John R. Dey, 1 Sep 49, box 203, 201.22, Record Group 407, NA; *New York Times*, 8, 11 Aug 49. On Panama, see Ltr, B. M. Bryan to AG, 10 Aug 50, box 794, 400.38, Record Group 407, NA.

[6]Historical Division, U.S. Army, Europe, *U.S. Military Flood Relief Operations in the Netherlands* (published by the command, n.d.); Harvey F. Ludwig, "Sanitary Engineering in 'Operation Tulip,' " *Public Health Reports* 69 (1954): 533–37; James W. Reed, "QM Operations in Holland Disaster," *Quartermaster Review* 32 (1953): 118–20; Instituut Voor Sociaal Onderzoek Van Het Nederlandse Volk Amsterdam, *Studies in Holland Flood Disaster, 1953* (Washington: Committee on Disaster Studies of the National Academy of Sciences–National Research Council, 1955).

[7]Quote from *New York Times*, 14 Jul 54. See also *New York Times*, 10, 11, 18 Jul 54; Final Report on Civil Disaster—Floods in Austria during Period 8–15 Jul 54, box 245, 370.1, Record Group 407, NA.



AIR FORCE GLOBEMASTERS DELIVER AID *to Pakistan, 1954.*

Brahmaputra River and its tributaries overflowed in Pakistan. On 11 August 1954 the Defense Department placed the Chief, Military Assistance and Advisory Group, Pakistan, in charge of coordinating relief under the general supervision of the American ambassador. To assist, Far East Command sent the chief of its Preventive Medicine Division and the 37th Medical Company (Preventive Medicine) augmented by forty two-man enlisted inoculation teams from stations in Korea. The first elements of the relief party arrived in Dacca on 16 August, and by the 18th the 37th Medical Company had assembled there. The next day Air Force Globemasters landed in Pakistan with ninety-three tons of supplies including multivitamins, drugs, hypodermic needles, powdered food, bedding, shirts, jeeps, and trailers.[8]

On the 19th and 20th, the Americans and local health officials designed an inoculation program and formed thirty-seven teams, each composed of two U.S. Army enlisted medics, two medics from the Pakistani Army, and one Pakistani soldier who was to keep order in the inoculation station. The teams dispersed to the major towns in the flooded region, where they inoculated inhabitants for cholera and typhoid. The

[8]Following account based on John O. Thisler, "On Mercy's Wings," *Army Information Digest* 10 (Feb 55): 18–21; Office of the Surgeon General, "Summary of Major Events and Problems, 1 July 1954 to 30 June 1955," pp. 122–24, in CMH files; Historical Summary, Office of the Chief Surgeon, U.S. Army Forces, Far East and Eighth United States Army, 1954, in CMH files; *New York Times*, 17, 19, 27 Aug and 23 Sep 54.



AMERICAN AND PAKISTANI SOLDIERS ADMINISTER TYPHOID INOCULATION, *Pakistan, 1954.*

natives were frightened by the hypodermic needles, but the promise of rice and clothes with each shot encouraged them to overcome their fears. By 30 August, the teams had completed work in the major centers of population and shifted their efforts to the smaller provincial towns, where they not only immunized the populace but also treated sufferers from various ailments. By 20 September, American and Pakistani medical personnel had inoculated 850,000 people and completed the program. On 21 September the scattered medical teams assembled at the Dacca airport, and on the following day the Americans departed.

### *Establishing a Relief System and the Activism of the Early Sixties*

Despite the frequency of foreign assistance operations in the late forties and early fifties, the United States still had no established policy on relief nor any agency responsible for its administration. In 1954 Congress passed the first act that granted the president continuing authority to order disaster assistance abroad: the Agricultural and Trade Development and Assistance Act (PL 480), which authorized free distribution of commodities to foreign nations threatened by famine or other emergencies. In certain circumstances it also allowed other types of aid financed out of foreign

currencies that had accrued from grain sales. Four years later, the Mutual Security Act created a contingency fund from which the president could finance relief after "any economic, political, or natural emergency abroad" to further the ends of the act. The fact that the first provisions for routine disaster assistance abroad were contained in acts devoted to trade development and security helped to underscore the importance of economic and political motives to American humanitarian activities in the postwar world.[9]

Following Congress's authorization of continuing relief, the government had to assign some agency the task of supervising it. As with domestic relief, the task went to a civilian agency—eventually to several of them. In turn, the Foreign Operations Administration and the International Cooperation Administration received the assignment, but in 1956 the Operations Coordinating Board, a part of the Executive Office of the President, created a special committee to supervise disaster relief abroad. Under its guidelines, the Department of State assumed responsibility for recommending aid missions for presidential approval. State, however, depended on the assistance of other departments and agencies, including the Department of Defense if its larger mission allowed, to assist in carrying out any actions the president approved.[10]

The creation of standing procedures for providing foreign relief did not immediately spur increased assistance abroad. In the late fifties the Army helped civilians after floods in Italy and Korea and a typhoon in Japan, but none of the missions involved Medical Department aid. During a 1958 polio outbreak in Nicaragua, the Army did send two iron lungs, two chest respirators, and a medical technician to train nationals in operating both, but that aid hardly constituted a new activism. However, the United States Army, Caribbean, had been making preparations to play a greater role in disasters. In 1956 the command, with responsibility for a region in which historically the Army had rendered aid most often, set up disaster survey teams headed by a quartermaster officer and composed of specialists in medicine, refugee care, food service, communications, and other relief functions. The teams were designed to serve as advance parties in a disaster area with the task of determining how the United States could best render aid.[11]

On 21 May 1960 an earthquake and tidal wave struck Chile, prompting

---

[9]U.S. Congress, House, *U.S. Foreign Aid: Its Purposes, Scope, Administration, and Related Information*, H. Doc. 116, 86th Cong., 1st sess., 1959, pp. 69, 80.

[10]Operations Coordinating Board, "Foreign Disaster Relief Operations," 22 Aug 58, manuscript copy in Army War College Library.

[11]On aid to Italy, see *New York Times*, 10 Feb 56. On aid to Korea, see *New York Times*, 7, 14 Sep 58. On aid to Japan, see *New York Times*, 28 Sep 58, 1 Oct 59. On aid to Nicaragua, see Annual

(Continued)

the first deployment of such a team in a major disaster. The Chilean government requested United States assistance, including hospitals, and two days after the quake the Caribbean Command dispatched an eleven-man team to evaluate the situation. Unfortunately, officials in Washington did not wait for its report to send medical aid.[12]

That same afternoon, the 7th Field Hospital at Fort Belvoir, Virginia, and the 15th Field Hospital at Fort Bragg, North Carolina, received orders for Chile. Professional staffs for both units were drawn from various neighboring posts. Because the hospitals would have to serve a diverse civilian population, an obstetrician, two pediatricians, an orthopedic surgeon, an internist with psychiatric training, and a dentist with maxillary-facial background were substituted for some of the general medical officers and general surgeons. To support the hospitals, laundry, water purification, Signal Corps, and maintenance detachments were also ordered to Chile. Two air ambulance units—the 56th Medical Detachment (Helicopter Ambulance) and the 57th Medical Platoon (Air Ambulance)—followed in time. All flew in Air Force Globemasters from Andrews or Pope Air Force Base, an airlift that required fifty-nine planes.[13]

After stops in Panama and Peru, on 27 May the transport planes began to land in Santiago, and by the 30th all had arrived. While the American units awaited transportation to the scene of the disaster, their leaders met with Chilean officials, the American ambassador, and members of the survey team, who were back from the scene. From team members, the hospital commanders now learned that the emergency had been vastly exaggerated and that local medical personnel had the situation well under control. The officers decided to provide medical supplies for the Chileans but to give direct care or even professional advice only if specifically asked by their hosts. At the request of local officials, the visitors supported Chilean operations in Valdivia and Puerto Montt, where hospitals had been destroyed by the quake. Between 28 and 31 May the 15th Field Hospital moved to Puerto Montt, the 7th to Valdivia, and both helicopter

---

(Continued)
Report, Headquarters, United States Army, Caribbean, 1958, sec. 1, p. 10, in CMH files. On survey teams, see Jobie J. Dixon, "Mercy Mission to Chile," *Quartermaster Review* 39 (Sep–Oct 60): 28.

[12]Dixon, "Mercy Mission," pp.28, 31. Daily Log, 13 Jul 60; CINCARIB to JCS, 26 May 60. Both in "Chilean Operations Daily Staff Journal, Emergency Planning Branch, OTSG," notebooks in CMH files. All manuscript material on this subject cited below is in these notebooks, unless otherwise indicated. An unpublished history of the Chilean operation, "U.S. Army Medical Service Disaster Relief Operations in Chile," also in CMH files, provides a longer, more detailed account than presented here.

[13]Daily Staff Journal, 26 May 60; gist of telephone conversation between Colonel Godwin and representative of the OTSG. See also After Action Reports: 7th Field Hospital, 15th Field Hospital, 56th Medical Detachment, 57th Medical Platoon; and untitled manuscript by Thomas J. Whelan, Jr., Jun 60, pp. 4–5. All in CMH files.

units deployed with the former.[14]

Upon arrival in Puerto Montt, the 15th Field Hospital under Col. James C. Van Valin pitched its personnel tents in a soccer field, near a school where the Chileans had established a temporary hospital. There the unit's physicians operated a consultation service for local doctors, while the remainder of the staff trained the Chilean relief workers in the operation of equipment donated to their facility. In addition, the 15th established a dispensary and treated many citizens for minor illnesses, few of which were related to the quake. Personnel from the unit also established a tent city and field kitchen for displaced persons and distributed medical supplies as needed.[15]

In Valdivia the 7th Field Hospital, under Lt. Col. Howard G. Krieger, furnished much the same type of assistance to an emergency facility there. Unlike the 15th, the 7th pitched its ward tents because of apprehensions about a possible epidemic, but, when none developed, opened them to refugees. The unit supplied laboratory and X-ray equipment to the temporary hospital. It also set up and staffed an operating room in the school where a team of its doctors performed one operation and an anesthetist assisted with a birth by cesarean section. Army nurses attempted to help in the wards but found they were not needed and that, in any case, the language barrier limited their effectiveness.[16]

American helicopter units proved more active and useful than the two partly utilized field hospitals. Initially, all the air ambulances were stationed at Puerto Montt, but after 2 June some were moved to Valdivia. Even operating from two locations, the units evacuated only thirty-two people, since most casualties had been evacuated before their arrival. The helicopters were still extremely valuable, enabling Chilean and American officials to inspect vast areas quickly and transporting more than 100,000 pounds of relief supplies. One unit, the 56th Medical Detachment, also supported an inoculation program in the isolated department of Castro. Both units accomplished their varied tasks despite foul weather—high winds, rain, and poor visibility.[17]

Except for the busy air ambulance units, the American relief contingent found itself overstaffed, and the hospitals quickly began to return personnel

---

[14]"U.S. Army in Chile," pp. 22–25; Howard G. Krieger, "After Action Report (Medical), Valdivia, Chile, 22 Jul 60," pp. 4–5. Copies in CMH files.

[15]After Action Report, 15th Field Hospital, in CMH files.

[16]Krieger, "After Action Report"; Daily Log, 17 Jun 60; TWX, CINCARIB to Ambassador in Chile, 16 Jun 60; Whelan manuscript, pp. 17–18. All in CMH files.

[17]After Action Report, 56th Medical Detachment (Helicopter Ambulance), 55th Medical Group, Fort Bragg, N.C.; After Action Report, 57th Medical Platoon (Air Ambulance), Fort George G. Meade, Md.; Daily Log, news release, Bell Helicopter. All in CMH files.



ONE OF THE FEW PATIENT EVACUATION MISSIONS, *Chile, 1960.*

to the States. On 4 June, sixty people from the 15th went home, and on 6 June all but a skeleton staff left the 7th. Two weeks later the helicopter units disassembled their aircraft and loaded them for return to the United States. On 24 June, the United States government donated the two hospitals to Chile, and by 14 July all the Americans had departed.[18]

Despite the Army's failure to use its own survey teams properly, most participants considered the operation a success, the experience good training, and their reception by the Chileans gratifying. Although the local left-wing press lambasted the Americans, the rest of the country seemingly adored them. People warmly greeted soldiers on the streets and besieged them with offers of drinks, prompting one pilot to remark, "If I accepted half the drinks the Chileans want to buy me, I couldn't stand up." In a more serious observation, an American reporter noted how the apparent friendliness among black and white servicemen served to improve Chilean perceptions of North American race relations. A local official considered the mercy mission "a serious blow to the size of the Chilean Communist Party," and a South American diplomat labeled it "not only a great humanitarian act but the smartest diplomatic move the United States had made in Latin America in years." Despite a certain hyperbole,

[18]Whelan manuscript, p. 43, in CMH files.

such observations indicated that the mission had achieved political gains.[19]

The failings of the mission received little notice. Dispatch of the hospitals before a valid estimate of the situation had been received resulted in too many people being sent and therefore in unnecessary costs. Because casualty loads were much smaller than initially reported, medical professionals left installations in the United States understaffed only to find they had no patients in Chile. But uncritical newsmen, perhaps themselves influenced by the atmosphere of the cold war, gave little attention to the inactivity of Army personnel and instead praised their success in representing American society.



ARMY NURSE *dresses the head of injured woman, Chile, 1960.*

After the diplomatic points scored by the Chilean mission—and in part because of its success, though the Kennedy administration's activist foreign policy was the larger reason—the United States increased its commitment to an involvement in foreign disaster assistance. In 1961 Congress passed a comprehensive foreign aid bill, one provision of which established a contingency fund to finance disaster relief and other emergency measures. That same year, the State Department created the Agency for International Development (AID) and assigned it responsibility for coordinating disaster relief. Three years of vigorous activity by Army medical personnel followed.[20]

The series of medical missions began when the prime minister of the flooded African nation of Somalia requested medical assistance from the American ambassador. After the request passed through the channels established to coordinate foreign assistance, Lt. Col. John H. Painter, a

---

[19]On left-wing press, see TWX, USARMA to ACSI, 1 Jun 60, Daily Log. On race relations, see "Chilean Disaster Appraisal Drops, Aid by U.S. Held Gain in Prestige," clipping from *Washington Sunday Star*, 5 Jun 60. All quotes from "U.S. Mercy Airlift to Chile Ends in Wave of Goodwill," clipping from *Philadelphia Inquirer*, 2 Jun 60. All in CMH files.

[20]For a survey of the development of foreign disaster relief legislation and organizations, see Agency for International Development, 1966 Rpt, in Foreign Disaster Relief Division Offices, Department of State.

Medical Corps officer with the 9th Hospital Center in Landstuhl, Germany, was ordered to head the relief effort. To accompany him, Painter selected two other medical officers and six enlisted men from the 2d General Hospital and the 540th General Dispensary. Meanwhile, the Army Medical Depot at Einsiedlerhof prepared six tons of medical supplies for shipment to Somalia. Shortly before midnight on 18 November 1961—the same day that Painter was notified—the team and its supplies left Ramstein Air Force Base.[21]

The team arrived in Mogadiscio, Somalia, on 20 November, turned over most of their supplies to the government, and began to plan for the mission. From embassy, AID, and local officials, Painter learned that no valid assessment of the flood damage had been made, so he conducted his own aerial reconnaissance. He found that the area had a poor road network and few landing strips and decided that only helicopters could quickly reach many of the villages. At his request, Army officials in Europe ordered a team of nineteen men and two H–19 Chickasaw helicopters airlifted to Somalia. Team members, who came from the 421st Medical Company (Air Ambulance) and several nonmedical units in Seventh Army, left Echterdingen Air Field on 25 November and arrived in Somalia on the 28th.[22]

Painter stationed the helicopters at a base camp from which they could fly into the area of worst destruction. After initial survey flights, crews began delivering food and medicines to the stranded villages on 4 December. Sometimes while out of radio contact with their base, the pilots flew over crocodile-infested waters and densely forested terrain where a crash site would have been inaccessible to rescuers. In many places helicopters could not land to unload but had to fly low over a village while their crew chief pushed packages through the door.

To supplement helicopter delivery, Painter had two thirty-foot power barges constructed to ferry teams and supplies to villages along the rivers. Each boat carried one American doctor, two American medical corpsmen, and two Somalis, a helmsman and an interpreter who acted as a general assistant. Operations began on 12 December but did not proceed smoothly. The barges had trouble finding places to land and consumed excessive amounts of fuel. Then on 15 December, while attempting to cross under a cable stretched across the river, a barge snagged on it, dumped the entire

---

[21]Unless otherwise cited, account based on "Record of Events, HQ, U.S. Army Medical Teams, Flood Disaster Relief, Mogadiscio, Somalia"; "Summary Report of U.S. Medical Relief Team Operations"; "Daily Activity Log of Emergency Helicopter Disaster Relief Team While Participating in the Somalia Republic Flood"; "USAFE, Army Aids Somali Flood Victims," clipping from *Stars and Stripes* (22 Nov 61). All in CMH files.

[22]"Team Effort," *U.S. Army Aviation Digest* 8 (Feb 62): 22.

crew into the water, and sank. All of the crew but Pfc. Edward Lovett swam to shore. Attempts to find the missing man were in vain. Later, villagers recovered Lovett's body; it was honored at the village as well as in the Somali capital and then flown back to the United States. A veteran of World War II and Korea, Lovett had volunteered for the mission.[23]

After the tragedy, the Americans temporarily abandoned barge operations but helicopter deliveries continued and medical teams still visited villages. By 19 December, conditions in the area had so improved that the Somalis themselves could deliver food by barge to any village still in need. In addition, the helicopters had reached their mechanical limits and could no longer be safely flown without substantial maintenance. On 22 December team members returned to Mogadiscio, were entertained by their hosts, turned over a barge-mounted dispensary to a local public health official, and then flew back to Germany. In their 35-day stay in Somalia, the Americans had distributed nearly 38,000 pounds of food and over 500 pounds of medicine to more than 60 villages.[24]

The stepped-up pace of relief work continued. A month after Painter's return, an Army medical team of one doctor and six enlisted men conducted a smallpox vaccination program in Ethiopia. Later in 1962 another major relief operation occurred. On 1 September a series of earthquakes struck northwestern Iran, and on the 3d the Joint Chiefs of Staff directed United States Army, Europe (USAREUR), to send aid to the victims. Early the next morning, the airlift of the 8th Evacuation Hospital with a professional staff drawn from several hospitals in Europe began at Ramstein Air Force Base. With the 8th Evacuation Hospital went helicopter elements of the 421st Medical Company (Air Ambulance), a field maintenance detachment from the 29th Transportation Company, a preventive medicine detachment from the 485th Laboratory (Preventive Medicine), and a water purification unit from the 299th Engineer Battalion. Lt. Col. Alexander M. Boysen, 8th Evacuation Hospital commander, assumed command of the entire relief force.[25]

When the Americans arrived in Tehran, Iranian officials instructed them to locate their hospital on the plain of Kazvin, a site near the worst

---

[23]*Somali News Weekly*, 22 Dec 61; United States Information Service, American Embassy, Mogadiscio release, "Airport Ceremony and Funeral Service Held for American Soldier, 21 Dec 1961." Copies of both in CMH files.

[24]*Landstuhl Army Medical Center Record* 2 (12 Jan 62): 1.

[25]On Ethiopia, see Staff Meeting, 16 Feb 62, account in book 25, Staff Conference Notes, Office of the Surgeon General, in CMH files. Unless otherwise cited, account of operations in Iran based on Floyd L. Wergeland and Joseph W. Cooch, "Operation Ida," *Military Medicine* 128 (1963): 850–57; Alexander M. Boysen, "Operation Ida," *Medical Bulletin, U.S. Army, Europe* 20 (1963): 275–76, 278; After Action Report of Operation Ida (Iranian Disaster Assistance), 14 Nov 62; Army Medical Service Activities, Annual Rpt, U.S. Army, Europe, 1962. Both reports in CMH files.

area of destruction but adjacent to a rail line and a hard-surface road. Iranian drivers transported the unit, and the Americans worked through the night to become operational at 0900 hours on 6 September. The next day the Americans established a base camp near Buin, further into the disaster area, to serve both as a first aid station and as a helicopter base. From it, crews flew medical teams into the distressed area and evacuated seriously injured victims to the hospital. On the flight back into the area to pick up the teams, the helicopters brought in food, tents, and other essentials. In all, the choppers flew 404 sorties, delivered 45,000 pounds of supplies, and evacuated 66 patients.[26]

Operations at the 8th Evacuation Hospital where the helicopters brought the casualties did not proceed without difficulties. High winds wreaked havoc on the unit's tents because pegs did not hold in the sandy soil. After two days' service, the laundry exploded, badly burning three enlisted men. Supply shortages developed, particularly of items not ordinarily required by a fighting unit—catheters for small children, for example. The professional staff drawn from various facilities in Europe had never trained with the hospital, and the resulting confusion hindered operations.

Another difficulty, the suspicion and hostility of the local population, was only overcome through Iranian cooperation and American flexibility. Local government officials, and the shah himself during a visit, urged the people to cooperate. Even with a royal endorsement, however, the 8th Evacuation Hospital's staff had to make minor adjustments to local customs—such as constructing latrines that pointed south. Its commander reported: "Many decisions that . . . were strange to Americans were made because they were not strange to Iranians . . . When one helps a foreign nation you accept their strange philosophy in many things, if by doing this it means you eventually gain" your objective.[27]

As it solved its organizational problems and slowly secured the cooperation of the Iranians, the 8th Evacuation Hospital became an efficient emergency hospital. It admitted 182 victims, provided a total of 794 patient-days of care, and reported five deaths. Its surgeons performed seventy-five surgical procedures, most involving multiple fractures or internal injuries. Many victims suffered cuts and bruises; other patients had been badly burned, and one of the burn cases had a baby during her stay in the hospital. Fortunately, a doctor assigned for general medical work had an obstetrical specialty, and he delivered a healthy baby,

---

[26]Louis L. Mizell, "IDA," *U.S. Army Aviation Digest* 9 (Jun 63); 27–28.
[27]Quote from Boysen, "Operation Ida," p. 276.




ARMY MEDICAL CORPSMAN FEEDS NEWBORN IDA, *Iran, 1962*.

promptly named Ida after the code name of the American relief operation (Iranian Disaster Assistance). Hospital staff members cut fingers from rubber gloves to make bottles, the kitchen crews and pharmacists improvised a formula, and a sergeant constructed a crib for Ida from packing crates.

In addition to nursery service, hospitalization, and helicopter support, the American relief force furnished preventive medicine assistance within the disaster area. Working out of the base at Buin, Army specialists visited some 150 villages where they supervised delousing and immunization teams and instructed the local populace in personal hygiene and public health. The Americans also tried to ensure a clean, pure water supply for each of the villages. The Erdlator, a water purification machine the engineers had brought with them, proved useless since the ambling, truck-mounted monster could not traverse the rugged terrain. The Americans relied on the simpler Water Purification Set No. 3 or chlorinated water from deep wells distributed in tank trucks.

By September the medical and sanitary situation in the area had stabilized, and the United States ambassador approved the withdrawal of the 8th Evacuation Hospital. Because of difficulties in air transportation,



ARMY NURSES HELP SURVIVOR OF EARTHQUAKE, *Iran, 1962.*

all were not able to leave until the middle of October; when they finally did depart, the Americans left the equipped hospital for the Iranians.

More like the Somali operation than that in Iran was a mission to Morocco's Rharb Valley in January 1963. After a flood, United States Air Force personnel at an American air base there conducted supply and rescue missions, but as the flood waters receded, USAREUR was requested to provide medical assistance to prevent a possible epidemic. Lt. Col. Joseph W. Cooch of the Medical Corps headed the mission. With a small group of medical officers and enlisted men, Cooch arrived at Sidi Slimane Air Base in Morocco early on the morning of 11 January, only thirty-two hours after their initial alert.[28]

Cooch and Moroccan health officials decided to send five American teams into the flooded area to vaccinate the people and perform sanitary work. Borrowing vehicles and one doctor from the Air Force, Cooch formed teams of a doctor, a Medical Service Corps officer, and one or two enlisted men. Each team carried a multiple injector gun with generator,

---

[28]On Air Force aid, see "Diary of Disaster," *Airman* 7 (Apr 63): 46–49; Joseph Micci and John Vitter, "Iroquois Airlifts 36 in a Single Load," *U.S. Army Aviation Digest* 9 (Apr 63): 24–25. The following account of Army aid based on Joseph W. Cooch, "Moroccan Flood Relief—An Essay in Co-operation," *Military Medicine* 128 (1963): 1173–76; Philip J. Keating, "Moroccan Flood Relief: A Personal Report," *Medical Bulletin, U.S. Army, Europe* 20 (1963): 96–99; Joseph W. Cooch, "Moroccan Relief, Journal of Operations for Moroccan Relief," copy in CMH files.

a delousing machine, a residual sprayer, and other supplies. On the morning of 13 January the teams and their interpreters went to different sections within the Rharb Valley and then traveled from village to village. The Americans inoculated 41,000 residents for typhoid and dusted 9,000 with DDT to kill lice—standard procedure before scientists became fully aware of the chemical's dangers. They also discovered a large number of people suffering from trachoma or other chronic eye troubles for which the doctors dispensed ointment. In addition, team members usually inspected each village well and sprayed houses and public buildings with residual insecticides to control mosquitoes. (One soldier unthinkingly sprayed a picture of Mohammed V and barely escaped alive after profuse apologies rendered in French.) By 18 January the teams had visited most of the villages in the area; Cooch conferred with Moroccan health officials and decided to end American operations. The teams concluded their work on the 19th and flew back to Germany on the 22d. The deputy chief of the United States Mission to Morocco pronounced their efforts a significant humanitarian accomplishment and a benefit to American interests in the African nation.

Later in the same year, the 8th Evacuation Hospital at Landstuhl Army Medical Center in Germany undertook still another relief mission. Personnel of the 120-bed facility had returned from Iran enthusiastic about such exercises and had maintained their readiness. When on 27 July 1963 the United States decided to send medical aid to Yugoslavia after an earthquake, Seventh Army again chose the 8th Evacuation Hospital for the mission. Within eight hours of its notification, an advance party from the hospital flew out of Ramstein Air Force Base. Hospital commander Lt. Col. George C. Santos with the remainder of the unit and its equipment followed shortly thereafter.[29]

The 8th Evacuation Hospital flew to Belgrade and then drove the 270 miles to Kumanovo, a town fifteen miles northeast of Skopje. The quake had claimed 4,000 casualties in the Skopje area and severely damaged the hospitals available to care for them. Consequently, the 8th received the mission of relieving the excess patient load upon Yugoslavian facilities.

---

[29]Unless otherwise cited, account based on "Operation Blue Boy: Earthquake Relief Mission to Skopje, Yugoslavia, July–August, 1963, 8th Evacuation Hospital and Attachments"; "The Skopje Disaster—Operations of 8th Evacuation Hospital in Yugoslavia." Both in CMH files. "Yugoslav Earthquake Relief Activities," *Medical Bulletin, U.S. Army, Europe* 20 (1963): 295–97; U.S. Congress, House, *Skopje, Yugoslavia, Earthquake Tragedy: Hearing before the Subcommittee on Foreign Agricultural Operations of the Committee on Agriculture, House of Representatives, 88th Congress, 1st Session* (Washington: GPO, 1963); Isador Popo, "Surgical Care in the Disaster of Skopje," in *Helping Hand: A Report on Exercise Helping Hand at Ash Vale on 6, 7, and 8 October 1972*, copy in OTSG files; John P. Angstadt, "Army Disaster Relief at Skopje," *Military Engineer* 57 (1965): 159–61.



PREPARATION OF A PATIENT'S FOOT *prior to receiving a skin graft, Yugoslavia, 1963.*

Upon arrival in Kumanovo on 28 July, Santos first met with the American consul—who served as an invaluable liaison with the Yugoslavs throughout the hospital's stay—and with local officials. After consultation, the commander quickly selected an old airfield four or five miles from the center of town for the hospital site, and the staff began setting up the facility. At 0630 hours the next day Santos declared the hospital operational.

The first patients arrived three hours later, and by the end of the day the 8th Evacuation Hospital had admitted seventy-eight people. The Americans placed them in wards by sex; one doctor assumed responsibility for each ward but could refer his patients to a consultation service. Of the 124 Yugoslavs eventually admitted, eighty-two were orthopedic patients, with injuries primarily to the extremities rather than to the abdomen or pelvis as in Iran. The large number of orthopedic cases kept the X-ray section, which took over 300 films, and the cast room, which made 124 appliances, quite busy. On the third day one doctor and two nurses became full-time physical therapists. Because the medical problems differed from those in Iran, even the disaster-experienced 8th at first found itself short of certain supplies not normally stocked, but resupply functioned properly and no acute shortages developed.

As in so many other disaster missions, the 8th Evacuation Hospital staff had to practice diplomatic discretion as well as medicine. The



CAST SPECIALIST TRIMS NEWLY APPLIED UPPER BODY CAST *for a patient with a fractured cervical vertebra, Yugoslavia, 1963.*

hospital's headquarters unit exercised firm control, and Santos frequently reminded both officers and enlisted men of the importance of international relations. The hospital staff also devoted much time to public relations, entertaining American Army officials from Germany and even the United States secretary of agriculture. Many Yugoslavian officials and medical professionals visited the facility, too. In return, some of the hospital's personnel toured local hospitals and feasted at their hosts' tables.

By 7 August the patient census dropped to seventy-four, all but two of the wards were closed, and some of the staff returned to Germany. Over the next four days the 8th Evacuation Hospital discharged or transferred to Yugoslavian hospitals the remaining patients. On 13 August, after a three-day wait for air transport, hospital personnel motored back to Belgrade, while Yugoslavs along the route tossed flowers and cheered as they passed. After a brief ceremony at the airport, the unit loaded the aircraft and took off for the return flight to Germany. Throughout their stay Army medical personnel received lavish praise and profuse expressions of gratitude from the local populace.[30]

[30]See Memo for the Commander in Chief by Maj. Gen. Floyd L. Wergeland, 3 Aug 63; clipping "Dysentery Breaks Out in Skopje," 1 Aug 63, unidentified; clipping "U.S. Troops Winding Up Skopje Mercy Effort," from *Washington Star,* 11 Aug 63; David Bender, "GI's Leave Skopje and (Continued)

The Yugoslavian mission occurred at the end of three years of frequent disaster assistance by members of the Army Medical Department. In that time the Army had learned much about providing medical assistance: the importance of sending survey teams, of augmenting hospitals with special personnel and equipment, of displaying proper respect for local sovereignty and cultural practices. But as happened in domestic relief, increased frequency led to the creation of a civilian coordinating agency and a concomitant reduction in Army involvement.

In 1963, consultations among State, Defense, and AID resulted in revised assistance procedures. The State Department still initiated plans for major disaster missions, and, when necessary, could request assistance through the Office of the Secretary of Defense and the Joint Chiefs of Staff. The new plan, however, allowed the American ambassador in any country to spend up to $25,000 on disaster relief without securing approval from his State Department superiors. In such cases, an American military commander on the scene could commit his resources without consulting Washington.

To coordinate all overseas relief, both that above and below $25,000, AID in 1964 created the Foreign Disaster Relief Division. This office kept the State Department—and through it the president—informed of disaster developments throughout the world and, if the president authorized aid, monitored the relief effort. When AID wanted military help, it contacted the coordinator for Foreign Disaster Relief Operations, who worked for the Assistant Secretary of Defense (International Security Affairs). The secretary, acting through the Joint Chiefs of Staff, then directed the appropriate unified command to furnish assistance. After its creation in 1968, the Directorate of Military Support (DOMS) assumed the coordinator's liaison duties and monitored all military relief activity abroad. When AID asked the military to provide medical relief, the unified commands maintained control over any Army medical units involved, but DOMS often sought advice and assistance from Plans and Operations Division, Office of the Surgeon General. Though on paper and sometimes in practice this seemed a confusing system, a civilian bureaucracy now existed to coordinate foreign disaster relief on a nearly routine basis.[31]

---

(Continued)
Recall Patients' Gratitude after Quake," clipping from *New York Times*, 14 Aug 63. All in CMH files. *New York Times*, 1, 15 Aug 63.

[31]Agency for International Development, 1966 Rpt; "Foreign Disaster Emergency Relief Operations, 1964." Copies of both in AID, Foreign Disaster Relief Division Office, Department of State. Department of Defense Directive 5100.46, "Responsibilities for Foreign Disaster Relief Operations," 15 Oct 64; "Information Paper: Support of Civil Disasters."

*Increasing Problems in Foreign Disaster Relief Operations*

Whether because the formation of AID's Foreign Disaster Relief Division increased civilian capabilities or because the growing involvement in Vietnam reduced those of the Army, less frequent and less substantial military medical relief was provided during the remainder of the sixties. Army assistance did not cease, however. Preventive medicine specialists assisted local officials after a fire in Panama City in 1964 and an earthquake in San Salvador in 1965. In 1966 the Army donated medical supplies to the Sudan after a cholera epidemic and to Colombia after a fire. That same year Army medical teams spent a day in Colimes, Ecuador, furnishing medical and dental treatment to nearly 2,000 victims of another fire. An earthquake in Turkey in July 1967 prompted American military authorities there to dispatch ambulances, doctors, medicines, and tents to the scene, but local officials refused all but the tents.[32]

The following year a minor medical mission to Sicily revealed that the new bureaucratic structure had not eliminated inefficiencies in international relief. On 15 June 1968 USAREUR ordered a team of two enlisted medical personnel and four drivers under the command of Capt. Eugene L. Mascoli to the scene of an earthquake in Sicily. While at Ramstein Air Force Base awaiting transportation, Mascoli learned that the Army planned to ship general purpose tents, blankets, C-rations, and two 3/4-ton trucks with the team. When the Medical Corps officer questioned the absence of medical supplies in the shipment, he was told he could take only what he could gather himself. Mascoli then visited the nearby 2d General Hospital at Landstuhl and scrounged six boxes of medical supplies and a trusty black medical bag.[33]

The next day the team flew to Trapani/Birgi, Sicily, where it was met by the American consulate general, who knew little about the purpose of Mascoli's mission. Since the quake had disrupted phone service to his superiors in Rome, he and Mascoli decided to work in a refugee center in Santa Ninfa to which American relief supplies had been sent. After a night's delay, the team arrived to find five or six hundred people milling about the tents, blankets, and C-rations which lay unused in the center of the field. The Italians asked the Americans for help in pitching the tents. The Americans complied, and Mascoli considered that "the most important thing the medical team did during its stay in Sicily." The Americans also showed the Italians how to open C-rations, but that

[32]Agency for International Development, 1964 Rpt; AID 5th Rpt, 1966; 7th Rpt, Federal Emergency Relief. Copies of all in AID offices.

[33]Account based on After Action Report, USAREUR Medical Team Disaster Relief, Sicily, Jan 68, in CMH files.

proved a less important contribution, since the refugees refused to eat them.

With the camp pitched, Mascoli decided to remain to furnish medical care for its residents, only to discover that the camp already had an Italian doctor. Mascoli took one of the trucks and visited nearby towns but found little to do since the towns, too, had adequate medical service. On the return leg of one trip he did give away supplies to small groups along his route. Frustrated by his inactivity and finding phone service restored, Mascoli requested permission to return to Germany. This was granted. On the 19th the team broke camp. As it did, a five-man Army photography team, loaded with equipment, drove up in a rented car, too late to take pictures of the relief team in action. Mascoli and his men continued to pack, flew that night to Rome, then on to Germany.

Mascoli, understandably disgruntled about the mission on which he had been sent, pointed in his report to the confused instructions he had received and complained that "we were a medical team without medical supplies." The problem might have been more serious if there had been patients. "All of the injured," he pointed out, "had been cared for by Italian medical personnel prior to our arrival."

Although a minor mission, Mascoli's frustrating trip to Sicily revealed again the necessity for an accurate survey of damage and full cooperation among all relief forces. It also demonstrated an unfortunate obsession with public relations during assistance work. But, more important, it suggested that in many disaster situations local resources were quite sufficient. Such problems, which seemed almost amusing in so small an operation, were indicative of growing inefficiencies in international disaster assistance. A relief mission to Peru in May and June of 1970—critiqued by an Army medical officer who took part—illustrated how the same confusion and waste occurred in large operations.

After a disastrous earthquake and avalanche in the Andes, an Army disaster survey team went to Peru but, according to critics, conducted at best a perfunctory investigation. The Navy sent a hospital ship with helicopter ambulances that could not operate in the mountains. AID sent expensive tents that did not have enough insulation to keep people warm in the disaster area. Only Army helicopters and fixed-wing aircraft rendered valuable assistance, delivering almost two million pounds of cargo and evacuating nearly 5,000 people. Their work, however, was interrupted for two days so that they could support a visit to the scene by American First Lady Patricia Nixon accompanied by a host of reporters.[34]

---

[34]U.S. Congress, House, *Review of U.S. Assistance Activities Related to the Earthquake Disaster*

The problems of relief received thoughtful criticism in the report of an Army Medical Department officer, Maj. Craig H. Llewellyn of the Epidemiology Consultant Service at Walter Reed Army Institute of Research. Llewellyn went to Peru as part of the North American Andean Relief Mission organized by an American alpine club. He spent three weeks in the disaster area, working first with mountain rescue teams and later with the Army helicopter crews. Llewellyn found operations in chaos and casualties greatly exaggerated. Rather than the reported 50,000 victims, he learned there had actually been three to four thousand. Most had received care, and over half the injured had been discharged by the time the Americans arrived. Local authorities had been capable of handling all casualties, Llewellyn emphasized in his report, which pointed again to the necessity for prior surveys by the Defense Department to ensure the validity of disaster reports. He recommended that surveys include an epidemiological study by a trained professional, possibly a junior preventive medicine officer, for whom such work would provide excellent training.[35]

Llewellyn's report examined a basic problem in Army medical relief but spurred no systematic reform. Perhaps the success of other relief missions may have contributed to this; not all Army efforts in the seventies were as marred by confusion and duplication as those in Sicily and Peru. And the Army did experiment with new techniques in disaster assistance. Special Action Force Asia (SAFAsia), an Army Special Forces group stationed in Okinawa, developed the Disaster Assistance Relief Team (DART) concept. A twelve-man Special Forces detachment augmented by medical and engineer personnel, a DART could be flown or air-dropped at the scene of a disaster anywhere in Asia. Once there, the team could conduct an immunization program and carry out other minor medical missions.

SAFAsia undertook two such missions in the early seventies. In 1971 a Medical Corps major and four enlisted medical personnel from the 1st Special Forces Group aided medical officers from the U.S. Army Medical Research Unit and nationals in immunizing more than 100,000 people for typhoid when an epidemic threatened Malaysia. The next year, during floods in the central Luzon Valley of the Philippines, the 2d Special Forces Battalion sent a command and control element and seven DART's

---

*in Peru: Report of a Staff Survey Team to the Subcommittee for Review of Foreign Aid Programs, Committee on Foreign Affairs, U.S. House of Representatives* (Washington: GPO, 1970), passim, but especially pp. 3–4, 14–15; Roger Class, "AID Fiasco in Peru," clipping from *New Republic* attached to Llewellyn's report; Craig H. Llewellyn, "Trip Report: Participation in Disaster Relief Operations following the Recent Earthquake in Peru, 26 October 1970," in OTSG, Plans and Operations Division files.

[35]Llewellyn, "Trip Rpt," passim.

into the inundated region. At first the teams performed rescue missions, but as the weather cleared and flood waters receded they redeployed to conduct an immunization campaign. Over the next ten days, they inoculated more than 325,000 people for typhoid and treated more than 23,000 Filipinos for minor ailments. Two years later the DART program ended when the Special Forces left Okinawa. The concept, however, persisted.[36]

The Army also successfully employed traditional methods during a mission to Nicaragua at the end of 1972. At 0035 hours on 23 December an earthquake struck the most populated section of Managua, injuring nearly 20,000 residents. Since the quake substantially damaged the city's hospitals as well, they could offer little or no help to the sufferers. When reports of the devastation reached AID, officials there asked the Department of Defense to send a disaster survey team augmented by forty medical personnel from Southern Command in Panama. DOD agreed, sending also the 24-bed 1st Tactical Hospital (Air Transportable) from McDill Air Force Base, Florida, and a 120-bed segment of the 21st Evacuation Hospital from Fort Hood, Texas.[37]

An advance party of eight physicians, an MSC officer, and eighteen enlisted medics arrived in Managua at 1400 hours the same day—only 14 hours after the quake and 5 hours after Southern Command had been notified. Headed by Maj. Paul Manson, the party moved immediately to the front lawn of the partially collapsed General Hospital where Nicaraguan health officials had already set up an open-air center to sort the injured. The Americans established a staging area nearby, which, during the next 24 hours, received nearly 300 patients. Because the Americans had the only functioning X-ray equipment, they received the more serious cases. Manson's party worked through the night, operating and setting bones.

By this time, Col. Raymond L. Coultrip, Jr., the chief surgeon of the survey team, had arrived and had been made director of all American military medical relief. When the Air Force's 1st Tactical Hospital landed in Managua at 0600 hours on Christmas Eve, Coultrip directed it to the General Hospital site. Under the command of Lt. Col. George Sutton, it

---

[36]On Malaysia, see After Action Report (Medical), DART Malaysia, 24 Mar 71. On Philippines, see After Action Report, DART Philippines, 19 Sep 72, Headquarters and Headquarters Detachment, 2d Special Forces Battalion, copies of both in CMH files.

[37]Following account based on Raymond L. Coultrip, Jr., "After Action Report on Medical Activities, Nicaraguan Disaster Relief Operations," in CMH files; and "Medical Aspects of U.S. Disaster Relief Operations in Nicaragua," *Military Medicine* 139 (1974): 879–83. See also Richard Whittaker et al., "Earthquake Disaster in Nicaragua: Reflections on the Initial Management of Massive Casualties," *Journal of Trauma* 14 (1974): 37–43; U.S. Congress, House, *Report on the Earthquake in Nicaragua, Hearing before the Subcommittee on Inter-American Affairs of the Committee on Foreign Affairs, House of Representatives, 93d Congress, 1st Session* (Washington: GPO, 1973).



AIR FORCE DOCTOR AND ARMY CORPSMEN TREAT DISASTER VICTIM, *after Managua earthquake, 1972.*

became fully operational by 1600 hours. Normally a casualty staging facility with a staff of only thirty-eight, this unit added civilian volunteers and personnel from the Army survey team to its staff, expanded its bed capacity to 105, and undertook regular patient care.

Like Manson's temporary operation which it replaced, the 1st Tactical Hospital, because of its X-ray capabilities, received badly injured casualties, mostly with bone injuries, usually to the arms and legs. The first day its doctors saw 520 patients, performed 20 major operations, and put casts on more than 100 fractures. Thereafter, its patient load steadily declined. It admitted only 378 more patients over the next 4 days, and toward the end of its stay it treated mostly outpatients. On 29 December the hospital closed, its staff returned to the States, and the survey team personnel departed to the Canal Zone. The tents and equipment were donated to the Nicaraguans.

Meanwhile the 21st Evacuation Hospital had arrived in Managua, becoming partially operational on the 25th and fully so on the 26th. From then until the Americans turned the facility over to the Nicaraguans on 3 January, the 21st treated between 500 and 600 outpatients a day and maintained a 40- to 50-patient census. Since the medical crisis had passed

by the time it opened, its doctors saw mostly routine cases rather than disaster-related injuries.

In addition to the hospitals, the Americans furnished other medical services in Managua. An environmental health specialist from Southern Command worked to repair the city's water system, and Colonel Coultrip advised local officials on health and sanitation. Army personnel brought order to the chaos of medical supplies sent to Nicaragua by various countries, moving the materiel from the airport to a field where they sorted, inventoried, and organized them. Finally they set up a depot system based on the Army model and turned it over to the Nicaraguans on 2 January.

The progressive takeover by locals was ably handled. Nicaraguan personnel took jobs in the 21st Evacuation Hospital to receive training from its American staff without any interruption in service. By the 4th it had become apparent that the Nicaraguans could administer the facility. The 21st returned to Fort Hood. Only Maj. Dugald S. McIntyre, Jr., and three enlisted specialists remained in Managua; they furnished medical care for Americans still in the city but also worked in refugee camps and advised the government on health matters. On 16 January they too left, and the American medical mission to Managua ended.

Despite some successful missions, however, problems in postwar international disaster assistance persisted. In 1976 a major medical mission proved less successful than that in Nicaragua and again raised questions about the utility of large-scale foreign assistance. On 4 February 1976 an earthquake struck Guatemala, a land little touched by modernity, where the Indian population lived barely above subsistence level. Moved by their plight, the United States responded with a wealth of aid and a welter of administrators to deliver it. Southern Command quickly mobilized a disaster survey team, and its seven members—including a preventive medicine officer—flew to Guatemala the first night. Upon arrival it conducted a helicopter survey of the area and discovered devastation worse than early reports had indicated.[38]

When the Army mobilized to send a hospital to Guatemala, the Army reorganization of 1972–1973, mentioned in the last chapter, made it an administrative challenge. Following standard procedures, the State Department requested the deployment from the Joint Chiefs of Staff, who

---

[38]Unless otherwise cited, following account based on After Action Report—Guatemala Disaster Relief Operations, 3 Mar 76, prepared by Headquarters, United States Army Medical Department Activity, Canal Zone; After Action Report—Guatemala Earthquake, not otherwise identified but apparently prepared by OTSG. Both in CMH files. "HSC's Medical People Help Field Hospital Care for Guatemala's Earthquake Victims," *HSC Mercury* 3 (Apr 76): 4–5.

in turn charged the Directorate of Military Support with coordinating the Army's part in the operation. The DOMS's staff contacted Plans and Operations Division, Office of the Surgeon General (OTSG). But The Surgeon General actually controlled no hospitals. Hence OTSG had to coordinate with Forces Command (FORSCOM), which had the hospital, and Health Services Command (HSC), which controlled the professional staff. Staffs at all three commands worked together and exercised great care to prevent any infringement on each other's area of responsibility. In fact, medical officers at OTSG may have been too careful since some of them thought the type of hospital sent was a mistake but considered it unwise to question a FORSCOM decision.[39]

In any case, FORSCOM sent the 47th Field Hospital to Guatemala, and HSC designated Col. Thomas C. Birk of Fort Sill Medical Activity as hospital commander. HSC also filled the professional slots with as many Fort Sill people as possible, pulling the remainder from other installations, particularly Fort Sam Houston. After a flight on Air Force transport planes, the hospital assembled in Guatemala City and moved to Chimaltenango, forty miles west of the capital. American and Guatemalan officials had agreed that the United States would operate within a fifteen-mile radius of this spot. An advance party from the 47th Field Hospital had preceded the main party there and selected a hospital site. Here the 47th became operational at 2035 hours on 6 February, two days after the quake.

Patients who came to the hospital suffered primarily from cuts and broken bones; nearly 30 percent had crushed pelvises. The unit encountered so many orthopedic cases that its professional staff, which already included one orthopedic surgeon, had to be reinforced with another, plus two cast specialists from the United States. During its stay, the 47th treated 700 patients. Yet more than half were outpatients, and the hospital would have operated at no more than 50 to 60 percent capacity during its first week if many less seriously injured people had not stayed there because they had nowhere else to go.

Underutilization resulted in part from the low number of casualties in the area, but the hospital staff alienated many local residents. At the request of the Americans, Guatemalan soldiers blocked the paths to the hospital to keep families from visiting relatives. This made sense from a medical standpoint but seemed absurd to local peasants. An American doctor who had lived and worked in the area for fourteen years reported that some people wanted "to take their relatives out of the Army hospital

[39]On this point, see After Action Report—Guatemala, pp. 5, 7, and 8.

because they say the Americans don't speak their language, don't understand them and never explain anything." The doctor added that though the Army was "doing a good job" and "keeping a low profile" it practiced a medicine unadapted to the customs and lives of the people it served.[40]

Modern medicine did aid the Guatemalans, though, not only in the field hospital but also through public sanitation projects. Soldiers from the 105th Medical Detachment (Preventive Medicine) carried on immunization campaigns, while other medical officers were helping restore the water supply in Guatemala City and the surrounding area. As the emergency phase of the disaster passed, the 47th Field Hospital ceased operations on 17 February, and the entire Army contingent began to withdraw.

Although medical operations went well in Guatemala, American personnel adjusted poorly to local customs, and the Army hospital was underemployed. The latter failing was not necessarily the fault of the Army but part of a larger problem with the entire American relief effort. Guatemala became, figuratively speaking, filled with relief workers. Some observers complained that the American effort was, in one reporter's words, "overstaffed, overorganized, and slow."[41]

Problems that hindered operations in Guatemala, Peru, and Sicily were characteristic of international relief operations in the seventies. Frequently so many supplies arrived that the resulting confusion actually made relief more difficult—especially if no one organized them as the Army medical supply personnel had in Managua. Too much aid—not just from the Army but from all sources—and too little coordination sometimes meant international aid was as much harmful as helpful. A situation had developed like that in the domestic sphere in the late thirties, when too many agencies sent aid and no one group had responsibility for coordinating it. As early as 1972 several conferences discussed the formation of some sort of international coordinating institution for disaster assistance operations. The United Nations did create a Disaster Relief Office, but it never functioned as a true coordinating agency, and problems continued.[42]

---

[40]Quotes from *New York Times,* 13 Feb 76.

[41]Quote from *New York Times,* 14 Feb 76; see 18 Feb 76 for a particularly interesting analysis.

[42]For a helpful overview of aid in the seventies, see Leslie Plommer, "The Disaster Game," *New York Times,* 17 Nov 78. On talk of international agency, see Conference on Disaster Relief, London, 1972, *An International Disaster Relief Force: Report on the Conference Held by the Church of England Board of Social Responsibility, 17th November 1972* (London: Church Information Service, 1973); U.S. Congress, House, *Disaster Assistance Authorization: Hearing before the Committee on Foreign Affairs, United States Senate, 93d Congress, 2d Session on House Resolution 12412* (Washington: GPO, 1974), pp. 61, 64–65; R. J. B. Rossborough, "The Need for Coordinated Relief Efforts in Natural Disaster Internationally," in *Helping Hand: A Report on Exercise Helping Hand at Ash Vale on 6, 7, and 8 October 1972,* copy in OTSG files.

The United States Army, obviously, could not solve the problem by itself, but within the context of international aid it still faced a difficult situation when deciding to send aid. After action reports by medical units in disaster operations reiterated the necessity of an accurate survey of the medical situation coupled with careful tailoring of units to the problems discovered. But a "Catch-22" situation could develop. In a disaster in which a hospital was needed, the casualty load might peak and the need for a hospital decline in the time it took the survey team to report and a hospital to mobilize, move to the scene, and become operational. On the other hand, the immediate dispatch before the survey team reported could mean the costly shipment of an unsuitable facility, which might well be underutilized or even be without patients.

The activism of the postwar period had not always escaped the "catch." Army medical units had undertaken some missions that constituted questionable employment of scarce resources—the Chilean or Guatemalan operations, for instance. On other occasions, in situations where a small team could do great good—such as missions in Somalia, Morocco, Malaysia, the Philippines—or where a hospital eased the crush of patients in damaged local facilities—as in Iran, Yugoslavia, or Nicaragua—the Army Medical Department had made a significant humanitarian contribution. If activism is to continue, Army medical relief must be undertaken with an awareness that too much aid can be almost as debilitating as too little and that reports of mass casualties in disasters must be quickly yet competently investigated before costly relief operations are ordered.

CHAPTER 9

# Conclusion

An Army medical role in disaster relief emerged from a particular historical context. It followed three developments: the rise of an urban, interdependent nation in which traditional local sources of assistance were sometimes insufficient; the acceptance by the federal government of responsibility to augment those sources when necessary; and the development of the medical knowledge and skills to render effective care. Even then, Americans preferred to leave health care to the private sector and disaster relief to local and voluntary agencies, so Army medical participation was always limited to instances when "the overruling demands of humanity" required it. When a network of voluntary, municipal, state, and federal agencies which furnished and coordinated disaster assistance matured after 1950, such occasions occurred less frequently and the Army further reduced its efforts. It did not end them, however, for a few disasters overwhelmed established relief institutions and prompted Army aid.

Though the Army assumed a medical role partly by default and reduced its involvement when other relief agencies were created, its participation proved beneficial to civilians and soldiers alike. In the first years of the twentieth century, Reed, Gorgas, and other military surgeons were among the most talented health care professionals in the country. Employing and expanding the latest medical discoveries and techniques, they saved lives in Cuba, the Philippines, and several domestic disasters. As medical practice advanced, their less-heralded successors rendered valuable assistance in many later crises. The history of their efforts revealed the ability of Army medical personnel to furnish rapid and effective aid to civilians in emergencies.

This history also suggested that the Army itself benefited from disaster relief operations. Civilian emergencies provided more realistic experience in the care of mass casualties than most training exercises, and participating units learned a great deal about operating in an environment that resembled combat. Moreover, the personnel felt a sense of accomplishment that came from helping people in need and using the skills they had worked to develop. Successful disaster relief missions, in sum, improved technical

skills while they increased morale and esprit. They thereby strengthened the Army Medical Department as well as aided civilians.

Not every Army medical relief operation was totally successful, and all of them encountered various difficulties. Failures in planning and execution plagued many missions. Not until the 1960's did the Army send survey teams to estimate the medical needs in a stricken area, and even in the 1970's a few critics contended the teams did not accurately assess the medical situation. On a few occasions, the wrong kind of health care facility was dispatched. In other instances, medical units arrived at the site with inappropriate personnel or insufficient equipment for the types of casualties they encountered. Other minor problems sometimes hindered operations: sloppy packing or unloading of equipment, poor coordination between hospital and professional staffs unused to working together, minor maintenance failures, to name a few. Such failings could have occurred in any mission.

Problems also arose out of the special character of disaster assistance missions. Relations between the military unit and host community sometimes generated difficulties. Medical personnel in domestic disaster missions had to be careful not to provoke civilian hostility. After the San Francisco earthquake, for example, civil-military tensions developed because some residents resented what they considered arbitrary military intrusion into their affairs. The Army had to respect their feelings but could not totally give way to their complaints. Medical officers had to maintain strict sanitary measures even if a few San Franciscans objected. Wisely, the relief force also moved to reduce tensions by first restricting and then quickly withdrawing its services. On other occasions, officials were too solicitous of civilian attitudes. During Mississippi flood relief in the decades around 1900, Army officials may have too readily accommodated their plans to the white racial attitudes prevailing in the delta.

Relations with civilians, especially knowing when to conform to and when to confront their cultural attitudes, became more troublesome in operations abroad. In Cuba and the Philippines after the Spanish-American War, and in other missions as well, American medical personnel were not always sufficiently responsive to local beliefs and practices. Their insensitivity sometimes undermined medical goals, though they rightly felt they could not abandon basic principles of scientific medicine. Military doctors had to respect the local culture, abide by its practices when possible, but still provide modern health care. Theirs was not an easy task.

In addition to the potential conflict between local custom and modern medicine, political differences sometimes complicated relations with foreign civilians. In all relief operations abroad, participants found they

served as diplomats as well as doctors. In a few—those in Japan in 1923, Chile and Yugoslavia in the 1960's—Army medical personnel encountered extremely tense political situations. Commanders exercised strict control during these and other operations, and their units proved successful ambassadors. In fact, medical personnel appeared to cope with political tensions better than with the more insidious cultural conflicts.

Operational difficulties and civil-military tensions were present throughout the history of Army medical aid. A third problem developed only after the establishment of a disaster bureaucracy. In the late nineteenth century there had been too little assistance, but by the mid-twentieth century, there was sometimes too much aid from too many groups. An abundance of help but a dearth of coordination complicated a few domestic missions during the interwar years and a number of foreign operations after World War II. Working as part of an increasingly bureaucratized system of relief, medical personnel could do little to eliminate the inefficiencies, since responsibility for planning and coordinating relief resided with civilian agencies. But they had to be aware of the difficulties and dangers involved.

Though all three types of problems bedeviled assistance operations, they never overshadowed the success of Army medical relief. Army medical personnel employed their special talents and resources to succor countless victims of nature's wrath who might not otherwise have received help. Though the historical conditions changed and the phase of extensive Army Medical Department assistance quickly passed, emergencies continued to arise that necessitated use of its expertise and manpower. The people it aided on those occasions probably cared little about operational difficulties, civil-military tensions, or the complications of the relief bureaucracy. Their personal suffering was eased, and that was enough.

# Bibliographical Note

Most of the sources for this study deal with only one disaster and can be more easily located in the footnotes than in a bibliography. Sources that were particularly helpful in delineating the development of the mission or providing necessary background information are discussed below.

## *Primary Sources*

Compiling a list of instances in which the Army aided civilian communities in natural disasters proved no simple task. Hoping that the offices and agencies responsible for relief work might have such a list, I naively began my research by calling them. The responses to my inquiries were depressingly uniform. First the respondent laughed heartily, then told me his office kept no such record and kindly suggested two other offices or names to call. Each time I followed the suggestion but to no avail. Days later my final contact suggested I call the one with whom I had begun.

The idea of compiling a complete record of Army aid in natural disasters—to determine when it had involved medical assistance—proved as ludicrous as my respondents found it. A fairly comprehensive list, though, was obtained by exploiting a variety of sources. Useful, though disappointingly incomplete, were the Reports of the Surgeon General, published annually from the creation of the Medical Department to the present. Sometimes, but not always, these reported on medical relief missions. More helpful as a rule, but still far from complete, were the Reports of the Secretary of War published each year before World War II. In 1969, the Office of the Chief of Military History began publication of the *Department of the Army Historical Summary,* which sometimes mentioned disaster relief. All of the annual reviews, however, were incomplete and had to be supplemented with information from other sources.

Most useful was a list of congressionally approved disaster relief operations prepared by the Congressional Research Service, the majority of which before the Second World War were Army missions. This compilation first appeared in the *Congressional Record,* 71st Congress,

3d Session, 1930, pp. 757–59, and was updated in the *Congressional Record,* 81st Congress, 2d Session, 1950, pp. 11900–902. Another helpful compilation of congressional actions on disasters turned up in a letter and attachments, Edward H. Cavin to Mr. Schaeffer, 24 April 1952, in the Library of the American National Red Cross, Washington, D.C.

More complete listings of Army aid, though covering only limited periods of time, can be found in the military records at the National Archives. For the period before 1915, a helpful compilation, brought to my attention early in my research by John B. Corr, can be found in a letter and attachments, H. P. McCain to James Hay, 11 January 1915, file 1459754, in Record Group 94. For later periods, Record Group 407, 400.38, contains the following documents that list missions: Relief Operations of the War Department, 1903–1928 (box 2416); Value of Government Property Turned Over to the American Red Cross by the War Department for Relief Purposes, 1925–1930 (box 2406); B. J. Tourville, "Department of the Army Participation in Disaster Relief," 12 July 1948 (box 1351). In addition, Operations in Disaster Relief Assistance Since 1 July 1951, dated 13 January 1954, is filed in 370.1, Record Group 407.

For the years between 1954 and the early 1960's, no good source for finding Army disaster missions exists. For the years after 1963, lists can be made from the files of two "action agencies": the Office of the Disaster Relief Coordinator, Agency for International Development, in the State Department; and the now abolished Directorate of Military Support, the records of which are in the Washington National Records Center. For all periods, however, such listings are incomplete, because Army units sometimes rendered aid without reporting it to the authorities who kept these lists. Mention of some—but assuredly not all—of such missions can be found in articles in military periodicals and through the *New York Times Index*.

Records and reports for the missions are also located in a variety of places. For relief missions undertaken before 1954, they are found in the National Archives, primarily in two groups of Adjutant General's Office papers. Reports on missions before 1917 are filed in Record Group 94, Records of the Adjutant General's Office, 1784–1917, General Records. Documents for each mission are grouped together under one file number that can be found through the indexes. Papers from missions that occurred from 1918 to 1954 are located in Record Group 407, Records of the Adjutant General's Office, 1918–, decimal file. Toward the end of that period, a few disaster relief reports are filed under decimal 370.1, that designated for disasters, but most are under 400.38, a supply designation.

A few other record groups in the National Archives contain information on certain pre-1954 relief missions. Some accounts of Army medical aid to civilian communities stricken by epidemics appear in Record Group 105, Records of the Bureau of Refugees, Freedmen, and Abandoned Lands. Record Group 112, Records of the Office of the Surgeon General (Army), contains some but surprisingly few medical reports from disaster missions. Records of some late nineteenth and early twentieth century relief operations are in Record Group 192, Records of the Office of the Commissary General. Finally, the papers of the American-Polish Relief Expedition are in Record Group 120, Records of the American Expeditionary Force (World War I), 1917–1923.

After 1954 the Army abandoned its central decimal file, making the historian's task in locating records of disaster relief missions more difficult. Records management people at the Adjutant General's Office explained that there was no way to locate all the reports after that date except to go through almost all the records of the Army. Such a task was clearly impractical. However, the annual Medical Service Activities reports for major medical commands for available years after 1954 were examined. When they were consulted, these reports were in the files of the Army Medical Department Historical Unit, which has now become a part of the Center of Military History (CMH). For missions in the early 1960's and after, new sources of records exist to ease the problem created by the abolition of the central decimal file. In addition to the annual Medical Service Activities reports on individual commands, after action reports and other records from medical relief missions in the sixties and seventies are in CMH files. Reports on most of the major relief operations by the Army after 1964–1965 can be found in the files of the Directorate of Military Support in the Department of Defense. They were examined when still in the DOMS office but have since been moved to the Washington National Records Center. Yearly summaries and printed case reports on individual foreign disaster missions are kept in the Office of Disaster Relief Coordinator, Agency for International Development, in the Department of State. Although neither type of AID report provides much detail, both show any Army assistance rendered.

Because of the nature of this project, few private manuscript collections were consulted. However, the papers of individual medical officers involved in relief efforts after the Spanish-American War did prove helpful. The most useful of them, the Papers of Jefferson R. Kean at the Alderman Library of the University of Virginia, included some information on relief efforts during the American military government of Cuba and a great deal on such work during the 1906–1909 intervention. Also of

value in studying the Spanish-American War relief missions are the William A. Kobbé, Halstead-Maus Family, George W. Jean, and Richard M. Johnson papers as well as the H. B. Wilkinson file in the Spanish-American War Collection—all in the archives of the United States Military History Institute at Carlisle Barracks, Pennsylvania.

In addition to private papers and records of individual missions, other government documents provide information on the development of federal disaster relief policy. Special Regulation 67 (a copy of which is in the Old Military Records Branch, NA) and the series of revisions to Army Regulation 500–60 (available in the Army Library) reveal changes in the Army's conception of its role. In addition, for the post-World War II period, policy changes can also be found in several Department of Defense directives, especially DOD Directive 3025.1, first issued 14 July 1956 but changed several times since, usually titled "Employment of Military Resources in Natural Disaster Emergencies within the United States, Its Territories and Possessions," and DOD Directive 5100.46, "Responsibilities for Foreign Disaster Relief Operations."

Changes in the federal government's relief role can be traced through the *Congressional Record* and its predecessors using the lists of legislation mentioned above. For an overview of developments after 1947 see Office of Emergency Preparedness, *Report to the Congress: Disaster Preparedness* (Washington: GPO, 1972), pp. 165–73. A list of federal disaster statutes since 1947 appears in *Federal Response to Hurricane Camille, Hearings before the Special Subcommittee on Disaster Relief of the Committee on Public Works, U.S. Senate, 91st Congress, 2d Session* (Washington: GPO, 1970), part 2, Appendix. The shift in bureaucratic responsibility for relief can be traced through the following presidential Executive Orders: 10346 (17 April 1952); 10427 (16 January 1953); 10737 (29 October 1957); 10773 (1 July 1958); 11051 (27 September 1962); 11575 (31 December 1970); 11725 (27 June 1973).

### *Secondary Sources*

No adequate history of Army disaster relief exists, and the best available brief overview is unpublished. See John B. Corr, "Disaster Relief and Rescue Operations," in "Two Centuries of Service" (unpublished manuscript, Center of Military History, 1974). Leland R. Johnson has completed a soon-to-be-published history of the Corps of Engineers' role in relief, "Emergency Response: A History of the Army Engineer Disaster Relief Mission, 1794–1950" (unpublished manuscript, Engineer Historical Division, Washington, D.C., 1978). Johnson's thorough account is based

primarily on Corps of Engineers records not consulted for this study. Because of its different capabilities in disaster situations, the corps' role developed differently from that of the Medical Department or other Army agencies.

General histories of the institutional development of the Army tend to ignore the disaster relief mission, though several studies of the civic action mission mention it in passing. Perhaps the most useful is Edward B. Glick, *Peaceful Conflict: The Non-Military Use of the Military* (Harrisburg, Pa.: Stackpole Press, 1967), but also of some value are Harry F. Walterhouse, *A Time to Build: Military Civic Action, Medium for Economic Development and Social Reform* (Columbia: University of South Carolina Press, 1964), and the helpful brief summary (which unfortunately is hard to find) Virgil Ney, *The United States Soldier in a Nonviolent Role (An Historical Overview)* (Fort Belvoir: Headquarters, United States Army Combat Development Command, 1967). For an examination of civic action work by armies of several countries with some discussion of disaster relief included, see Hugh Hanning, *The Peaceful Uses of Military Forces* (New York: Frederick A. Praeger, 1967).

No thorough history of the Army Medical Department exists, but Percy M. Ashburn, *A History of the Medical Department of the United States Army* (Boston: Houghton Mifflin Co., 1929) provides a survey of its development. Mary C. Gillett's *The Army Medical Department, 1775–1818* (Washington: GPO, 1981) furnishes helpful background but covers a period prior to most of the activity covered in this study; a second volume in this series covering subsequent years through 1865 is in preparation. Additional information on some aspects of the Medical Department's history can be found in Edgar E. Hume, *Victories of Army Medicine* (Philadelphia: J. B. Lippincott, 1943) and Stanhope Bayne-Jones, *The Evolution of Preventive Medicine in the United States Army, 1607–1939* (Washington: GPO, 1968).

With one exception, the role of the organizations that aided and eventually replaced the Army Medical Department in providing civilian disaster has not been well documented. I found no general histories of disaster relief work by the Public Health Service, local civil defense organizations, or the National Guard. Even general histories of the guard devote little attention to its role in natural disasters.

The Red Cross, the one exception, has had its disaster relief accomplishments frequently examined. The resulting studies shed much light on the changing nature of disaster relief and the role of the Army, as well as on the Red Cross's own work. Foster Rhea Dulles, *The American*

*Red Cross: A History* (New York: Harper & Bros., 1950) provides a useful organizational history with a good deal of attention to disaster relief. For a discussion of the development of the Red Cross assistance role (though with little on specific instances of aid), see Clyde E. Buckingham, *Red Cross Disaster Relief: Its Origins and Development* (Washington: Public Affairs Press, 1956). The Red Cross also sponsored a valuable history of the relief operations themselves. It is presented in three volumes, the first two in mimeographed form from the Red Cross library and the third available as a dissertation. They are: Mabel A. Elliott, *American National Red Cross Disaster Services, 1881–1918, History of the American National Red Cross* (Washington: American National Red Cross, 1950), vol. 20-A; Catherine Fennelly, *American Red Cross Disaster Services, 1919–1939* (Washington: American National Red Cross, 1950), vol. 20–B; and Thomas H. Reynolds, "American Red Cross Disaster Services, 1930–1947" (Ph.D. diss., Columbia University, 1954).

Social welfare historians have devoted little more attention to the history of disaster relief than have their military and institutional colleagues. No general history exists, but there are three surveys of closely related topics. Walter I. Trattner in *From Poor Law to Welfare State: A History of Social Welfare in America* (New York: Free Press, 1974) traces governmental policy toward charity, public health, and other welfare activities often associated with disaster relief. Robert H. Bremner's *American Philanthropy* (Chicago: University of Chicago Press, 1960) discusses all types of organized charity over the course of American history. Perhaps most helpful of all is Merle Curti's *American Philanthropy Abroad: A History* (New Brunswick, N.J.: Rutgers University Press, 1963). Curti deals in his encyclopedic volume with all types of foreign assistance rendered by Americans except that by government. Nevertheless, his chapters on private disaster relief abroad are still extremely useful in studying military aid, and his interpretation of American motives in foreign assistance is provocative.

Medical practice has received more attention than social welfare policy, and historians of medicine have provided many good studies of changes in medical science and public health that furnish useful background material for this study. Among those I relied on heavily were: C.-E. A. Winslow, *The Evolution and Significance of the Modern Public Health Campaign* (New Haven: Yale University Press, 1935); Richard H. Shryock, *Medicine in America: Historical Essays* (Baltimore: Johns Hopkins University Press, 1966); William G. Rothstein, *American Physicians in the Nineteenth Century: From Sects to Science* (Baltimore: Johns Hopkins

University Press, 1972); and John Duffy, *A History of Public Health in New York City, 1866–1966* (New York: Russell Sage Foundation, 1974). Historians of medicine and other scholars have also written several histories of individual epidemic disasters. Two good ones that I found informative are J. H. Powell, *Bring Out Your Dead: The Great Plague of Yellow Fever in Philadelphia in 1793* (Philadelphia: University of Pennsylvania Press, 1949) and John Duffy, *Sword of Pestilence: The New Orleans Yellow Fever Epidemic of 1853* (Baton Rouge: Louisiana State University, 1966). Social historian Charles E. Rosenberg's *The Cholera Years: The United States in 1832, 1849, and 1866* (Chicago: University of Chicago Press, 1962) is particularly helpful because of his concern with public attitudes toward disaster and how they changed with time.

A few historians have published scholarly examinations of individual disasters other than epidemics. Recently appeared are a history of a very early disaster, James Penick, Jr., *The New Madrid Earthquakes of 1811–1812* (Columbia: University of Missouri Press, 1976), and two studies of an important twentieth century disaster, Bruce A. Lohof, "Hoover and the Mississippi Valley Flood of 1927: A Case Study of the Political Thought of Herbert Hoover" (D.S.S. diss., Syracuse University, 1968) and Pete Daniel, *Deep'n As It Comes: The 1927 Mississippi River Flood* (New York: Oxford University Press, 1977). Penick and Daniel focus on the disaster and its effect on people's lives but include some information on relief efforts, while Lohof provides a valuable discussion of the government's organized relief effort. Other historians, usually popular rather than professorial, have published accounts of many disasters, some of which are cited in the text. Something of a genre, these books usually present a series of human interest anecdotes, though the better of them also furnish some useful information on relief efforts.

If historians have not devoted a great deal of scholarly attention to the study of disasters, since 1950 social scientists have. A good introduction to social science theory about human behavior in disasters is Allen H. Barton, *Communities in Disaster: A Sociological Analysis of Collective Stress Situations* (Garden City, N.Y.: Doubleday & Co., 1969). In the early fifties the National Science Foundation–National Research Council created a Committee on Disaster Studies which published reports on disaster phenomena. It was abolished in the early sixties; since 1963 the Disaster Research Center in the Department of Sociology at Ohio State University has continued the work. The two groups have prepared and published many studies of disaster behavior, a few of which have been cited in the text. Many of their other monographs also mention military relief efforts (though not Army medical aid), and a few address the theme

directly. John H. Balloch et al., *Studies of Military Assistance in Civilian Disasters: England and the United States,* Disaster Research Report No. 2 (Washington: National Academy of Sciences–National Research Council, 1953) offers a study of Air Force response in natural disasters. Also pertinent are a monograph and two articles by William A. Anderson: *Military-Civilian Relations in Disaster Operations,* Disaster Research Center Report Series, no. 5 (Washington: Office of Civil Defense, 1968); "Social Structure and the Role of the Military in Natural Disaster," *Sociology and Social Research* 53, no. 2 (January 1969); and "Military Organizations in Natural Disaster: Established and Emergent Norms," *American Behavioral Scientists* 13, no. 3 (January/February 1970).

Another theoretical perspective, one developed by historians in contexts other than disaster assistance, has influenced my interpretation of the development of the Army medical relief mission. Over the last decade, a host of scholars have espoused what one of them has labeled the "organizational synthesis of modern American history." Emphasizing the institutional changes in American society as it evolved from homogeneous communities to heterogeneous society, the interpretation is best represented in a survey text in Robert Wiebe's *The Search for Order, 1877–1920* (New York: Hill & Wang, 1967), but many other books and articles have contributed to it or utilized its general framework. Most important of them for my work were: Samuel P. Hays, "The Social Analysis of American Political History, 1880–1920," *Political Science Quarterly* 80, no. 3 (September 1965); Louis Galambos, "The Emerging Organizational Synthesis in Modern American History," *Business History Review* 44, no. 3 (Autumn 1970); Alfred D. Chandler, Jr., and Louis Galambos, "The Development of Large-Scale Economic Organizations in Modern America," *Journal of Economic History* 30, no. 1 (March 1970); Robert D. Cuff, "American Historians and the 'Organizational Factor,'" *Canadian Review of American Studies* 4, no. 1 (Spring 1973); and John Higham, "Hanging Together: Divergent Unities in American History," *Journal of American History,"* 61, no. 1 (June 1974).

# Index


Agnes, tropical storm, 144
Agramonte, Aristides, 41
Air medical evacuation, 108
Alexander, Dr. M. S., 77
Alexandria, Virginia, fire, 12–13
American Medical Association, 112
American Military Relief Organization, 148
American policy and food supply, 8–9, 80
American-Polish Relief Expedition, 85, 87–94
American Public Health Association, 23, 52
American Relief Administration, 82, 94–98
Ames, Maj. A. Azel, 33
Anesthesia, 18
Army Corps of Engineers, 144
Ashford, Capt. Bailey K., 48, 67
Avalanche, in the Andes, 166–67

Baily, Capt. Howard H., 67–68
Baker, Henry M., 110–11
Baker, Newton D., 90
Barbour, George M., 28
Beaumont, Dr. William, 21
Beeuwkes, Col. Henry, 95, 96, 97
Bine, Dr. René, 61
Birk, Col. Thomas C., 171
Board of Health, 30
Bourns, Maj. Frank S., 35, 37
Bowler, Capt. Joseph L., 137
Boysen, Lt. Col. Alexander M., 157
Braskett, Texas, storm, 16
Brechemin, Col. Louis, Jr., 117
Bubonic plague, 23, 26, 32, 36–38
Budgetary restraint, in disaster relief, 105–06
Bureau of Refugees, Freedmen, and Abandoned Lands, 13–14

Camille, hurricane, 142, 143
Canary Islands, 10–11
Cape Verde Islands, 11
Carroll, James, 41
Carter, Henry Rose, 41
Cerebromeningitis, 77
Chamberlain, Maj. Weston P., 67
Chicago fire, 16
Chile, earthquake, 151–55
China, 50
Cholera, 20, 23, 26, 38–41, 149–50
Civil War, 4, 11, 13, 18, 19
Civilian Conservation Corps, 119
Civilian control of disaster relief, 134–35
Civilian medical emergencies, 20, 21
Clayton, Senator John M., 11
Cockran, Congressman W. Bourke, 81, 82
Coffin, Capt. Jacob M., 70
Congress, 8–17
Constitution, provision for federal disaster assistance, 8
Cooch, Lt. Col. Joseph W., 160, 161
Coolidge, Calvin, 110
Coultrip, Col. Raymond L. Jr., 168, 170
Cuba, 25, 26, 27, 28–30, 32

Davenport, Maj. Walter P., 83, 95
Davis, Dwight F., 106, 107
Davis, Norman H., 121
Dawson, Capt. John H., 95
DDT, 161
Dear, Maj. William R., 95
Delousing programs. *See* Lice elimination.
Demolition of houses after bubonic plague, 36
Devine, Edward T., 53, 60
Devol, Maj. Caroll A., 67
Diarrhea, 27
Diphtheria, 23, 76
Directorate of Military Support, 142, 164, 171
Disaster
  assistance, and abuse of blacks, 17
  assistance, domestic, 11–12
  Assistance Relief Team, 167–68
  definition of, 3
  Relief Act, 143
  relief operations, foreign, increasing problems in, 165–73
  relief role of Army, confusion over, 104–14
Discrimination, 17
Dodge, Grenville M., 24
Domestic disaster assistance, 11–12, 54–66, 99–100, 105–14, 117–21, 127–45
Dysentery, 23, 27

Earthquakes, 12
  in Alaska, 137–40
  in Chile, 124, 151–55
  in Guatemala, 170–72
  in Iran, 157–60
  in Japan 100–104
  in Managua, Nicaragua, 114, 168–70
  in Peru, 166–67
  in San Francisco, 54–66, 100
  in Sicily, 165–66
  in Skopje, Yugoslavia, 161–62
  in Venezuela, 9–10

Epidemics, 3, 20, 32–47, 99
Erdlator, water purification machine, 159
Evans, Lt. Col. Robert K., 63
Explosions in Texas City, Texas, 128–31

Famine, 10, 11, 14, 94–98
Fauntleroy, Maj. Powell C., 73, 74
Federal Civil Defense Administration, 134–35
Federal Disaster Act, 133–34
Federal disaster assistance, emergency, 8–17
Federal government, responsibility of in disaster situation, 5
Federal relief bureaucracy, creation of, 131–35
Finlay, Dr. Carlos, 41
Fire, 12–13, 16, 51, 54
Fitzsimons General Hospital, 99
Fleming, Gen. Philip, 133
Floods, 16, 68–71, 73, 74–77, 119–21, 140–42, 148–49, 155–57, 160–61
Food supplies and American policy, 8–9, 80
Foreign disaster assistance, 5, 9–11, 23–47, 48–51, 80–98, 100–104, 114, 123–26, 146–73
Foreign Disaster Relief Division
  creation of, 164
  increasing problems in, 165–73
Foreign Operations Administration, 151
Forest fires, 16
Fort Crockett, 130
Foster, Maj. George B., Jr., 114
Foucar, Maj. Frederick H., 95
Fox, Lt. Arthur E., 92
Freedmen's Bureau, 13–14
Funston, Brig. Gen. Frederick, 55

Garrison, Lindley M., 75
Gas gangrene, 131
Gilchrist, Col. Harry L., 85, 93
Gorby, Capt. Elvin L., 120
Gorgas, Maj. William C., 43, 52, 174
Gorky, Maxim, 94
Government involvement, early, 4
*Grand Camp*, 128
Grasshopper plague, 17
Greely, Maj. Gen. Adolphus, 60
Greenleaf, Brig. Gen. Charles R., 27, 52, 61
Griffin, John S., 21

Harmon, Capt. Daniel W., 71
Hartmann, Maj. Carl F., 72, 73
Haskell, Col. William N., 83, 95, 97
Hawley, Maj. Paul R., 114
Haynes, Maj. Caleb V.,124
Heaton, Maj. Gen. Leonard D., 147
Helicopters, 136–37, 144–45, 148, 156

Hoff, Maj. John Van R., 26, 33, 34, 48
Hoover, Herbert, 80, 83–84, 91, 94, 110, 111
Horan, Lt. Col. John P., 129
Hospital Corps, formation of, 24
Housing and Home Finance Agency, 134
Howard Association, 7, 18
Howard, O. O., 14
Howell, Maj. Reese M., 113
Humanitarian missions, post-World War I, 80–98
Hurricanes, 48–49, 117–19, 141, 142

Indian affairs, 8–9
Innoculation program in Pakistan, 148–50
International Cooperation Administration, 151
Ireland, 11
Italy, 50

Jamaica, 50
*Jamestown*, 11
Japanese Relief Bureau, 102
Jarvis, Nathan S., 20
Jenkins, Congressman John J., 50
Jones, Maj. Glenn I., 95
Jones, Col. Percy L., 107, 114

Kean, Col. Jefferson R., 45, 46, 51, 70
Kennedy, Capt. James M., 58
Kitasato, Prof. Shibasaburo, 37
Koch, Robert, 23
Krieger, Lt. Col. Howard G., 153

Langhorne, Col. George T., 100
Latin America, 10
Lazear, Jesse W., 41
League of Red Cross Societies, 84
Leprosy, 23
Letterman General Hospital, 56, 57, 62
Lice elimination
  in Poland, 87–90
  in Russia, 96–97
Llewellyn, Maj. Craig H., 167
Locusts, 10, 16, 18
Lovett, Pfc. Edward, 157
Lumsden, Leslie L., 52

MacArthur, Douglas, 115
McCoy, Brig. Gen. Frank R., 100, 101, 102, 103
*Macedonian*, 11
McIntyre, Maj. Dugald S., Jr., 170
MacKenzie, Dr. K. A. J., 57, 60
Magoon, Charles E., 45
Malaria, 23
Manila, 30, 31
Manson, Sir Patrick, 41

Manson, Maj. Paul, 168, 169
Marikina River, 39
Marshall, Lt. Col. Irvine H., 130, 131
Mascoli, Capt. Eugene L., 165
Maus, Lt. Col. Louis M., 35, 36, 37, 39
Media coverage of disasters, 53
Medical Department, U.S. Army
  major domestic disaster relief assistance
    in Alaska, 137–42
    in California, 52–66
    in Colorado, 99
    in Florida, 114
    in Georgia, 107–08
    in Ohio and Mississippi, 119–21
    in the Mississippi Valley, 110–13
    in New England, 114
    in New England and the Atlantic states, 119
    in New Jersey, 99–100
    in Pennsylvania, 137
    in Texas, 108–10, 117–19, 128–31
  major foreign disaster relief assistance
    in Chile, 123–26, 151–55
    in Cuba, 27–29, 32–33, 41–47
    in the Dominican Republic, 114
    in Guatemala, 170–72
    in Honduras, 123
    in Iran, 157–60
    in Japan, 100–104
    in Mexico, 136
    in Morocco, 160–61
    in Nicaragua, 114, 168–70
    in Pakistan, 148–50
    in the Philippines, 29–32, 35–41, 114, 123
    in Puerto Rico, 33–34, 114
    in Somalia, 155–57
    in Venezuela, 114
    in Yugoslavia, 161–63
  minor assistance, 16–22, 142–45, 165–68
  relief role
    definition of, 78–79, 104–07, 115–16, 121–23, 127–28, 131–34
    regulation of, 104–05, 134–35, 146–48, 150–51, 164, 172–73, 174–76
*Meios*, 101
Memphis yellow fever epidemic, 16
*Merritt*, 101, 102
Miller, Maj. Reuben D., 70
Mississippi, floods in, 14, 16, 68–71
Mississippi Valley, earthquake, 12
Missouri
  earthquake, 12
  River Valley flood, 16
Mitchell, Lt. Col. Eugene, 130
Moore, Col. Prentice L., 131
Moseley, Maj. Gen. George Vanhorn, 122
Mosquitoes, 27, 41–44

Natural disasters, vs. man-made, 3
Near East relief, 83
New Hampshire, 12
New Madrid, 12
New York, fire, 13
Newspaper coverage of disasters, 53
Nixon, Patricia, 166
Nixon, Richard M., 143
Normoyle, Maj. James E., 69, 73

Office of Defense and Civilian Mobilization, 134
Office of Emergency Preparedness, 143
Ohio River Valley flood, 16
Organizational reform, 26–32

Painter, Lt. Col. John H., 155–56
Pasteur, Louis, 23
Payne, John Barton, 106, 107
Perry, Dr. Wallace I., 59
Pershing, Gen. John J., 85
Philippine Commission, 25, 36, 39
Philippines, 25, 31–32, 51
Platt Amendment, 45
Poland, typhus in, 83–94
Polish Typhus Relief Mission, 85
Porter, Joseph Y., 20
Portsmouth, New Hampshire, 12
President, U.S. *See* Coolidge, Calvin; Nixon, Richard; Roosevelt, Franklin; Roosevelt, Theodore; Taft, William Howard; Truman, Harry S.; Wilson, Woodrow.
Presidential commission, in medical operations, 24
Prevention of disasters, 3
Public Health Service, 20, 53, 99, 105, 112, 132, 135, 136
Puerto Rico, 25, 26, 33, 48
Pumphrey, Capt. Fred, 86

Red Cross, 53, 84, 105, 106, 107, 112–13, 114–16, 118–19, 121, 123, 133, 135, 136, 143
Reed, Maj. Walter, 22, 25, 52, 174
Register, Lt. Col. Edward C., 92
Relief
  bureaucracy, federal, creation of, 131–35
  missions, medical, of the '50s and '60s, 135–42
  operations (additional) and formal recognition of the mission, 66–79
  and reevaluation in the '30s, 115–21
  roles (new), 121–26
  system, establishing, and the activism of the early '60s, 150–64

Rhea, John, 10
Rhoades, Maj. Thomas L., 75–76
Rogers, Gaston W., 120
Roosevelt, Franklin, 121
Roosevelt, Theodore, 45, 49, 60
Rosenberg, Dr. Martin, 58
Ross, Sir Ronald, 41
Rucker, William C., 52
Rush, Dr. Benjamin, 6
Russia, famine in, 94–98
Russian invasion of Poland, interference in typhus program, 92
Rutherford, Capt. Henry H., 56, 59, 60

St. Martin, Alexis, 21
San Francisco earthquake, 52–66
Sanitary reform, 26–32
Santa Rosa Hospital, 48
Santos, Lt. Col. George C., 161
Schmitz, Mayor E. E., 55, 58, 61
Scott, Alexander, 10
Secretary of War. *See* Baker, Newton D.; Davis, Dwight F.; Garrison, Lindley M.; Stimson, Henry L.; Woodring, Harry H.
Sheetz, Brig. Gen. Josef, 129
Shreveport yellow fever epidemic, 16
Slavery, 13
Smallpox, 9, 26, 83
  in Cuba and Puerto Rico, 32–33
  in Ethiopia, 157
  vaccination, 33–36
Snidow, 1st Lt. Robert C., 91
Snively, Col. Harry H., 85
Society of Friends, 84
Somalia, flood, 155–57
*Somme*, 103
Spanish-American War, 5, 25
Special Action Force Asia, 167
Sternberg, Surgeon General George M., 41
Stimson, Henry L., 68
Surplus Property Law, 132
Sutton, Lt. Col. George, 168

Taal Mountain volcano, 51
Taft, William Howard, 64, 68
Taylor, George, 20
Tennessee
  Memphis yellow fever epidemic, 16
  River, 14
Tetanus, 23, 106–10
Texas City, Texas, explosion, 128–31
Thomas, Capt. Henry D., 46
Tornadoes, 16, 66–68, 71, 72, 108–10, 145
Torney, Lt. Col. George H., 56, 58, 59, 60
Training and Doctrine Command, 142
Trinder, 1st Lt. John H., 72
Truman, Harry S., 134
Tuberculosis, 23
Typhoid, 23, 83, 99–100, 149–50, 161
Typhus, in Poland, 83–94

Underwood, Oscar W., 50
United Nations Relief and Rehabilitation Administration, 146
United States Marine Hospital Service, 16, 20, 53

Van Valin, Col. James C., 153
Venezuela, 9–10
Volcanoes, 49–50, 51
Volunteer disaster assistance, 4
Volunteerism, 17, 19

Wadhams, Maj. Sanford H., 77
Wainwright, Johathan M., 129
Ward, Dr. James, 58
Water, drinking, 31, 76, 159
Webster, Daniel, 13
Wells, Capt. George M., 48–49
West Indian islands, 49
Whittlesey, General Eliphalet, 14
Wilson, Woodrow, 71, 80
Winans, Maj. Gen. Edwin B., 117
Wood, General Leonard, 27–28, 41
Woodring, Harry H., 121
Woodruff, Lt. Eugene A., 18
Woods, Cyrus E., 101
Wooten, Col. Ralph H., 124

Yellow fever, 6, 16, 20, 26, 32, 41–47

☆ U.S. GOVERNMENT PRINTING OFFICE: 2000 O—458-670

PIN: 052511–000