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## Conclusion

In the first days after the earthquake, the decision not to implement the Plan for Federal Response to a Catastrophic Earthquake caused confusion among the agencies involved and hampered the response. Agencies found themselves without an adequate plan to cover a less-than-catastrophic event. If implemented, the federal response plan would have forced FEMA, the California Office of Emergency Services, and other agencies to collocate. Instead FEMA needed several days to bring the various state and federal agencies together at the disaster field office. Meanwhile, Sixth Army staff had difficulty locating and contacting the offices with which they needed to work. Current plans did not provide well for the immediate response phase. Rather, FEMA's authority was primarily geared to a well-organized recovery process that involved receiving applications, sending out inspectors, evaluating inspection reports, and reimbursing local claimants. Without activating the federal response plan, FEMA had difficulty mobilizing federal resources.<sup>124</sup>

The General Accounting Office (GAO) confirmed this problem when it conducted an audit between October 1989 and September 1990. GAO concluded that, as with Hurricane Hugo, the Loma Prieta response was hampered by staffing and coordination problems between agencies at all levels. Assistance was delayed in some cases because FEMA was not authorized to assume the state's role as immediate responder. According to GAO, legislation might be needed giving FEMA such authority.<sup>125</sup>

While GAO conducted its investigation, the Office of Management and Budget (OMB) tasked FEMA to evaluate its responses to Hurricane Hugo and the Loma Prieta earthquake and to identify weaknesses, strengths, and lessons learned. FEMA formed a task force to obtain comments and prepare a report for OMB. On 25 January 1990, FEMA held a meeting in Sunnyvale, California, that included representatives of the Corps of Engineers and the other federal and state

agencies that had participated in the response. One major theme was the need to execute the federal plan for near-catastrophic events.<sup>126</sup>

The consensus was that besides flaws in the current plans, the cost-sharing requirements hampered recovery. Because of cost sharing, state officials were reluctant to ask federal agencies for assistance. For example, with the public assistance program, FEMA paid 75 percent of the damage costs; individual cities, towns, and municipalities paid the remaining 25 percent. The state reimbursed the localities for 75 percent of their 25 percent, so they ultimately paid only 6 percent. FEMA had to get the state to agree to share the costs before it could task the Corps or other agencies to do work. One Corps official complained that initially the state often had slowed the response. The Corps would have responded faster, he observed, if it had not had to wait for state coordination.<sup>127</sup>

Frustrated Sixth Army and Corps officials pointed out that they had tremendous capabilities for providing relief, but any actions had to be requested by the state and approved by FEMA. One Sixth Army official observed that they received few requests for help in a disaster because city and state governments were reluctant to pay when they could perform the mission themselves or use the National Guard. Negotiations on cost sharing are appropriate in the recovery phase, argued one Corps official, but not in the initial response phase where the focus is on eliminating human suffering. The response phase, he added, should not be hampered in any way by administrative procedures or policies.<sup>128</sup>

The Loma Prieta response highlighted the need for federal and state agencies not only to have adequate plans, but also to test those plans on a regular basis. In July 1989, the South Pacific Division, anxious to establish itself as the Corps' earthquake center of expertise, had sponsored a Tactical Command Readiness Exercise in Sacramento. Along with representatives of 25 federal, state, and local agencies (including FEMA and the California Office of Emergency Services), the division conducted this exercise to sharpen earthquake response expertise. Sobke observed that the division's "overall preparation went a long way toward helping us respond to this event."<sup>129</sup>

In August 1989, FEMA had conducted a "Response '89" exercise to test its catastrophic earthquake plan. Federal and state officials observed that this exercise improved the Loma Prieta response. Sixth Army and Corps district and division officials specifically benefitted from the exercise. The collapse of the Bay Bridge and elevated roadways, the fires and drop in water pressure, and the interruption of services had all been addressed in simulation. The August exercise, however, also revealed problems. Unfortunately, the report identifying these problems was not released until after the Loma Prieta earthquake.<sup>130</sup>

Besides the need to develop and exercise adequate plans, Loma Prieta dramatized the need for flexibility. The Corps of Engineers responded quickly and effectively in part because of the flexibility of its organization. The Corps is structured so that if a district or division is temporarily unable to respond, personnel from another district or division can move in rapidly and establish command and control to achieve what General Sobke called the "same professional results."<sup>131</sup> Sacramento District officials immediately assumed communications and reporting functions. The South Pacific Division and the San Francisco District officials were able to resume operations at the Presidio without delay or confusion. Moreover, General Sobke and his staff created an innovative, effective three-cell organization at the disaster field office that made the Corps more responsive to FEMA's requests. They created a structure for individual assistance and public assistance missions that could quickly absorb Corps personnel from across the country.

Hundreds of Corps employees from throughout the field responded when the call went out for assistance, giving new meaning to the motto, "The Corps Cares." The Corps' response was even more impressive given the fact that some of its personnel were still dealing with Hurricane Hugo.

At a 2 November 1989 ceremony on the parade grounds at the Presidio, the commanding general of Sixth Army, Lieutenant General Baxter; General Sobke; and San Francisco mayor, Art Agnos, recognized 11 Corps personnel for their contributions. The Santa Cruz director of public works, Larry L. Erwin, expressed gratitude for the Corps' prompt action in addressing the damage to the city's flood control

project: "The fact that the Corps had a survey team in our city one day after the October 17, 1989, earthquake is truly amazing."<sup>132</sup>

Assistant Secretary of the Army (Civil Works) Robert W. Page congratulated the Corps for its "outstanding efforts" during Hurricane Hugo and the California earthquake: "The Army Corps of Engineers distinguished itself as a unique national asset ready to serve the nation in a variety of ways." On 6 December, General Hatch presented Meritorious Service Medals to four Sacramento District military officers and Commander's Awards for Civilian Service to 14 Sacramento District employees, calling the response "absolutely magnificent." A few weeks later, he commended Corps members for responding to the challenges of Hurricane Hugo and the Loma Prieta earthquake. "I know of no other organization, in government or out," he concluded, "that could have done what we did."<sup>133</sup>

The earthquake experience gave the Corps the opportunity to demonstrate its capabilities and perform new missions, and the Corps performed well. Yet the earthquake also raised important questions that the Corps must resolve for the future.

- If FEMA offers the Corps the individual assistance mission again, should the Corps accept it?
- Should the Corps put itself in the position of delivering assistance checks?
- How can the Corps expedite its authority, approval, and funding processes?
- Should the Corps develop and maintain a database that lists the names of Corps personnel who could be called on in future disasters based on their areas of expertise?
- Should it train a cadre of Corps personnel to respond to emergencies?
- Should the Corps purchase emergency equipment and store it until needed?
- On a more philosophical level, who is the Corps' customer: the tasking agency (such as FEMA) or the disaster victim?

- What criteria should the Corps use to measure its success when it responds to an earthquake or other domestic emergency?

A tendency exists to cut back on training, exercises, personnel, and other resources for emergency operations, particularly in times of tight budgets when other needs seem more pressing. The South Pacific Division had resisted that attitude because of its location in a geologically fragile part of the world. But General Sobke cautioned, other divisions also need to be prepared.<sup>134</sup>

Though costly and destructive, the Loma Prieta earthquake was not the large earthquake that had been predicted in California. The damage was confined to certain well defined areas, and most power and communications systems were restored quickly. If the damage had been widespread, the Corps districts and the division would have had greater difficulty providing for their own personnel and for the hundreds of inspectors who converged on the bay area. Corps officials easily reestablished themselves at the Presidio, but what if that facility had been unavailable? In a more catastrophic event, district and division commanders would have been more challenged in balancing the need to reconstitute their commands with the need to respond to requests for assistance:

Serious earthquake threats exist throughout the nation. According to FEMA, 44 states have seismic risk areas and 13 heavily populated areas are in high-risk locations. Earthquake threats exist not only in California and Alaska but also along the New Madrid Fault that encompasses seven states in the midsection of the country. Severe earthquakes struck there in 1811 and 1812. The Corps of Engineers must be prepared to respond as aggressively and effectively in the future as it did in California.