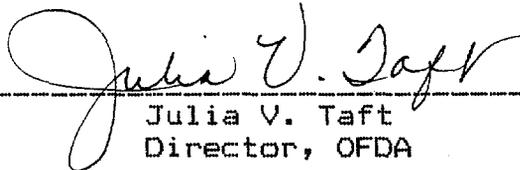


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ACTION PLAN
San Salvador Earthquake: Lessons Learned
Office of U.S. Foreign Disaster Assistance
Washington, D.C.



Julia V. Taft
Director, OFDA



Date

San Salvador Earthquake: Lessons Learned
Office of U.S. Foreign Disaster Assistance

This Action Plan is the result of a November 1986, review of OFDA's search and rescue and relief efforts following the earthquake that occurred in San Salvador, El Salvador, on October 10, 1986. The objectives of the review were to:

1. Identify opportunities and issues related to the earthquake emergency relief efforts.
2. Recommend actions that will strengthen future search and rescue and relief responses.

The January 1987, "Lessons Learned" report has been used as the basis for developing this action plan that resolves the issues. Three meetings, one with representatives of NASAR and two at OFDA, have addressed the issues and assessed who has the primary responsibility for further action. In some instances the primary responsibility for action on an issue may reside with another agency or organization, or a particular issue may not be perceived as a problem requiring action.

All OFDA action items in this plan are approved for implementation.

ACTION PLAN

ACTIVITY: MOBILIZATION

ISSUE 1: Advance Briefings. Individuals being dispatched to a disaster have not always been appropriately briefed regarding the nature of their assignment. Briefings need to take place prior to departure from the United States and upon arrival in the host country.

Agreed-On Action	Responsible Person	Target Date	Completion Date
1. Identify and prepare briefing packet materials for media, technical specialists and Washington, D.C., detailers.	DASP	3/1	
2. Maintain briefing packet material at a central location.	OFDA	Continuing	

ACTION PLAN

ACTIVITY: MOBILIZATION

ISSUE 2: Dispatch Sufficient Personnel. Sufficient emergency relief personnel have not always been dispatched to the disaster. Too few people may result in inadequate search and rescue coverage early in the relief effort and inadequate rest for personnel later in the relief effort.

Agreed-On Action	Responsible Person	Target Date	Completion Date
1. Finalize dispatch units in Action Officer's Handbook by disaster type (e.g. strike team of dogs and handlers).	DASP	5/87	
2. Develop "alarm" system to guide dispatch quantity (review statistics from previous SAR incidents).	F. Cole F. Krimgold	5/87	

ACTION PLAN

ACTIVITY: MOBILIZATION

ISSUE 3: Pre-Position Support Equipment. Pre-positioning support equipment can provide a more productive working environment for search and rescue personnel.

<u>Agreed-On Action</u>	<u>Responsible Person</u>	<u>Target Date</u>	<u>Completion Date</u>
1. Develop list of pre-positioned support equipment.	B. Keesecker	4/1	
2. Order support equipment.	C. Siegel	5/1	
3. Locate equipment at pre-position sites.	B. Keesecker	6/1	
4. Add uniform (i.e. labeled vest and/or hardhat) to the support equipment package.	B. Keesecker	4/1	

ACTION PLAN

ACTIVITY: MOBILIZATION

ISSUE 4: Dispatch Distance. A policy question needs to be answered as to whether OFDA might dispatch the same type of search and rescue forces to a disaster in Turkey or Taiwan as were sent to San Salvador.

Agreed-On Action	Responsible Person	Target Date	Completion Date
1. Review research on effects of elapsed time on effectiveness of SAR efforts.	O. Davidson	5/87	
2. Develop OFDA criteria for SAR development and team composition (draft).	O. Davidson	3/87	
3. International coordination of SAR deployment:			
- Mexico	A. Swan	3/87	
- Geneva	J. Taft	4/87	
- SAR, Orlando, FL	OFDA	5/87	

ACTION PLAN

ACTIVITY: MOBILIZATION

ISSUE 5: Dispatch Notification. Review current dispatch notification procedures for adequacy.

<u>Agreed-On Action</u>	<u>Responsible Person</u>	<u>Target Date</u>	<u>Completion Date</u>
1. Review dog team dispatch procedure w/Scott AFB.	NASAR	3/87	
2. Determine need for an agreement between Scott AFB and OFDA to define relationships.	O. Davidson	4/87	

ACTION PLAN

ACTIVITY: MOBILIZATION

ISSUE 6: Timely Dispatch. Although the dog teams and post-incident stress person were dispatched to San Salvador in a rapid manner, the assessment team waited for over 7 hours for air transportation from Costa Rica to El Salvador. Transportation alternatives need to be identified and established.

<u>Agreed-On Action</u>	<u>Responsible Person</u>	<u>Target Date</u>	<u>Completion Date</u>
1. Identify and establish transportation alternatives to insure timely dispatches (commercial, military, or charter) of SAR personnel and others to the disaster site.	O. Davidson (Keesecker)	5/87	
2. Draft letter for OFDA Director that requests approval for SAR dogs to travel in commercial airline cabin to reduce stress on dogs and maintain a familiar environment.	O. Davidson	3/87	

ACTION PLAN

ACTIVITY: EMERGENCY MANAGEMENT

ISSUES 1-5: Operational requirements at the disaster site included the need for such activities as: (1) an emergency management system, (2) communications, (3) de-mobilization, (4) facilitating international relief efforts, and (5) public relations. Implementing an emergency management system at the disaster site is the most direct way to insure that the other four issues are resolved as well, since they are integral components of the system. Identify and dispatch qualified emergency management teams to disaster site.

Agreed-On Action	Responsible Person	Target Date	Completion Date
Issue 1 Implement an emergency management system at the disaster site with personnel qualified in command, operations, planning, and logistics.	A. Swan	6/87	
Issue 2 Dispatch communication team to the disaster site.			
a. Train HAM radio operators	D. Decker	5/87;5/88	
b. Develop long term communication strategy	F. Cole	3/87	
c. Train personnel on use of communication systems	D. Decker	3/87	
d. Identify communication teams by equipment type	O. Davidson	3/87	
e. Identify BIFC communication team members and dispatch procedures	DASP	3/87	
f. Coordinate OFDA/FCC communication activities	O. Davidson	3/87	
g. Coordinate communication needs with international organizations and donors	F. Cole	4/87	
Issues 3&4 Providing for effective demobilization and facilitating international relief efforts of donors should be accommodated when an emergency management system is implemented at the disaster site (Issue 1 under Emergency Management).			
Issue 5 Public Relations. This issue			

ACTION PLAN

ACTIVITY: INCIDENT SUPPORT

ISSUE 1: Develop a Uniform. No consistent type of uniform has been provided for AID/OFDA emergency relief personnel for identification purposes at the disaster site. Communications, safety and disaster management all could be enhanced by developing and providing a uniform that furnished instant visual recognition of team members.

<u>Agreed-On Action</u>	<u>Responsible Person</u>	<u>Target Date</u>	<u>Completion Date</u>
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This issue has been transferred to Issue 3, Pre-positioned Support Equipment, under mobilization for action. An identifying symbol, like vest and/or hardhat, will be added to support equipment package to provide instant visual recognition of team members.

ACTION PLAN

ACTIVITY: INCIDENT SUPPORT

ISSUE 2: Dispatch Communication Systems. Communications were especially difficult at first between San Salvador and Washington, D.C., due to earthquake damage to communication facilities. Procedures need to be established in advance to provide for the dispatch of satellite and radio equipment with trained operators.

Agreed-On Action	Responsible Person	Target Date	Completion Date
1. Finalize BIFC communication equipment availability.	DASP	3/87	
2. Ensure COMSAT availability (Negotiate lease).	O. Davidson	4/87	
3. Inventory/assessment of existing radio equipment (Stockpile, etc.)	B. Keesecker	3/87	
4. Satellite radio coordination.	F. Cole	4/87	

ACTION PLAN

ACTIVITY: INCIDENT SUPPORT

ISSUE 3: Provide Adequate Heavy Rescue Equipment. A process needs to be implemented that verifies each stage of an order from request to receipt.

Agreed-On Action	Responsible Person	Target Date	Completion Date
1. Provide adequate heavy rescue equipment and personal protective equipment (e.g. toxic atmosphere detectors, self-contained breathing apparatus-Issue 7).	B. Keesecker		
2. Implement a process that verifies each stage of an order from request to receipt.			

ACTION PLAN

ACTIVITY: INCIDENT SUPPORT

ISSUE 4: Liability Coverage. Liability coverage for search and rescue team members needs to be clarified.

Agreed-On Action	Responsible Person	Target Date	Completion Date
1. OFDA will investigate what type of liability coverage might be provided by U.S. Government to SAR personnel.	O. Davidson	4/15/87	
2. NASAR will investigate liability coverage options and provide information to OFDA.	P. McDonald		
3. OFDA will determine feasibility of obtaining waivers to secure diplomatic privileges and immunities for SAR personnel.	O. Davidson	4/15/87	
4. Establish a procedure for refurbishing OFDA-requested support equipment used by volunteer groups at the disaster site. (Issue 6, Incident Support).	O. Davidson	4/15/87	

ACTION PLAN

ACTIVITY: INCIDENT SUPPORT

ISSUE 5: Informing Missions. Mission personnel need to clearly understand their roles and responsibilities during an emergency.

<u>Agreed-On Action</u>	<u>Responsible Person</u>	<u>Target Date</u>	<u>Completion Date</u>
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Transfer to Issue 3 under Training for action.

ACTION PLAN

ACTIVITY: INCIDENT SUPPORT

ISSUE 6: Re-Condition Equipment. Establish a procedure for volunteer groups to follow in order to refurbish support equipment following a disaster relief assignment.

<u>Agreed-On Action</u>	<u>Responsible Person</u>	<u>Target Date</u>	<u>Completion Date</u>
Transfer this issue to Issue 4, Liability Coverage, under Incident Support for action.			

ACTION PLAN

ACTIVITY: INCIDENT SUPPORT

ISSUE 7: Personal Protective Equipment. Develop a checklist of personal protective equipment to use as a dispatching guide for various disaster types.

Agreed-On Action	Responsible Person	Target Date	Completion Date
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Transfer this issue to Issue 3, Heavy Rescue Equipment, under Incident Support for Action.

ACTION PLAN

ACTIVITY: INCIDENT SUPPORT

ISSUE 8: International Search and Rescue Standards. Develop international search and rescue standards to help guide training, personnel qualifications, operations, and coordination.

<u>Agreed-On Action</u>	<u>Responsible Person</u>	<u>Target Date</u>	<u>Completion Date</u>
NASAR will recommend Search and Rescue standards to OFDA for adoption on international incidents.	P. McDonald		

ACTION PLAN

ACTIVITY: TRAINING

ISSUE 1: Rubble Simulation Training. Locate or develop training opportunities for dog teams in a simulated rubble environment.

Agreed-On Action	Responsible Person	Target Date	Completion Date
NASAR will identify key training needs for SAR personnel; and identify potential rubble training sites for dog teams.	P. McDonald		

ACTION PLAN

ACTIVITY: TRAINING

ISSUE 2: Emergency Management System. Identify groups of people needing emergency management training and develop an international emergency management training course for these groups.

Agreed-On Action	Responsible Person	Target Date	Completion Date
1. Identify groups of people needing emergency management training.	A.Swan	4/87	
2. Develop a one week emergency management training course.	A. Swan	2/88	

ACTION PLAN

ACTIVITY: TRAINING

ISSUE 3: Disaster Assessment. Develop training, checklists, and guidelines to better prepare Embassy/Mission personnel to provide preliminary disaster assessments to OFDA.

<u>Agreed-On Action</u>	<u>Responsible Person</u>	<u>Target Date</u>	<u>Completion Date</u>
1. Develop disaster assessment training plan.	A. Swan	3/87	
2. Implement training program.	A. Swan	8/87	
3. Identify STATE/AID personnel with technical assessment skills.	A. Swan et al.	4/87	
4. Establish a process for handling public relations at the disaster site.	A. Swan	5/87	
5. Inform missions regarding their roles and responsibilities during an emergency (this was transferred here from Issue 5, Incident Support).	A. Swan		

ACTION PLAN

ACTIVITY: TRAINING

ISSUE 4: OFDA Orientation. Schedule an OFDA orientation for dog handlers and coordinators to better prepare them to understand disaster relief procedures.

<u>Agreed-On Action</u>	<u>Responsible Person</u>	<u>Target Date</u>	<u>Completion Date</u>
Include this orientation material during OFDA's presentation to SAR conference at Orlando, Florida.	O. Davidson	5/87	

(Note: There are two opportunities at Orlando; an International Dog Seminar on Monday-Tuesday and a General Session later in the week).

ACTION PLAN

ACTIVITY: TRAINING

ISSUE 5: International Search and Rescue Symposium. Develop opportunities on the May 1987, program to exchange ideas and information on international search and rescue standards, international coordination, and simulated training in rubble environments.

<u>Agreed-On Action</u>	<u>Responsible Person</u>	<u>Target Date</u>	<u>Completion Date</u>
OFDA to make presentation to NASAR conference in Orlando, Florida.	O. Davidson	5/87	

ACTION PLAN

ACTIVITY: TRAINING

ISSUE 6: Trainee Assignments. Provide training opportunities for dog teams at disaster sites through the establishment of a trainee pool dispatch list.

Agreed-On Action	Responsible Person	Target Date	Completion Date
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OFDA wants only fully trained SAR personnel for international dispatches.

ACTION PLAN

ACTIVITY: TRAINING

ISSUE 7: Cadaver Training Environment. Determine the feasibility of providing cadavers for search training with dog teams.

Agreed-On Action	Responsible Person	Target Date	Completion Date
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OFDA has no role or responsibility regarding this issue. If such training is desired, it should be coordinated at the local level.

ACTION PLAN

ACTIVITY: TRAINING

ISSUE 8: Cross Training. Schedule cross training opportunities during disaster relief efforts where appropriate to enhance credibility, trust and understanding among search and rescue personnel.

Agreed-On Action	Responsible Person	Target Date	Completion Date
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Such opportunities should be pursued to the extent feasible at the disaster site.