Mass casualty situations are major medical emergencies precipitated by various causes. Incidents such as train derailments, high-rise fires, or shipwrecks can result in large numbers of injured people with diverse injuries. Depending on the number of patients involved and the type and severity of their injuries, these situations require large numbers of trained emergency personnel, equipment, and supplies. Victim extrication, treatment, and transport necessitate a preplanned coordinated approach.

Preplanning for incidents involving large-scale medical emergencies can, as in all emergencies and disasters, favorably influence the outcome of the incident. In a mass casualty situation, preplanning can reduce potential morbidity and mortality.

The preplanning effort for this type of incident should be coordinated with other relevant emergency response agencies and local medical facilities. Agencies providing emergency medical service should inventory the availability and quantity of resources such as personnel, medical supplies, and equipment. Included in equipment availability are the number and types of emergency vehicles.

The capabilities of local and regional medical facilities need to be considered in the planning process. In addition to the special care capabilities of the hospitals and emergency departments, planning should include the number and types of beds. The availability of a hospital response team should be considered, particularly in communities without paramedic units.

Preplanning should address the on-scene management of a mass casualty situation. Specific areas are command responsibilities, extrication, triage, treatment, and transportation. Other essential areas include communications, staging, and security.

Numerous factors affect the outcome of a mass casualty situation. The quality of emergency training can affect survivorship. In many instances, emergency responders are expected to apply their normal emergency response skills and training to larger, more medically complex situations. Few emergency responders are prepared to cope with the unique problems associated with large-scale mass casualty situations without prior training.

In many communities, the first arriving company serves as the initial triage team. Other arriving emergency personnel are assigned extrication, treatment, and transport functions. Regardless of the roles that the responders play, all personnel must be trained to perform their assigned responsibilities. A specialized area of training is triage, the sorting of patients by severity and type of injury. Company officers are frequently provided training in this area through in-service exercises.

The Los Angeles, California Fire Department, which has a response area of 467.63 square miles and a population of 3 million, has developed a special training program for managing mass casualty situations. The program is targeted for all levels of response. Pre-established criteria defining the degree of a mass casualty incident and guidelines for the required response are provided. Basic components of the program include coordination and control of the Medical Division Command Organization within the Incident Command System and the operational responsibilities of the Medical Division Command Organization. Specific training areas are the Hospital Emergency Administrative Radio (H.E.A.R.) System, Medical Alert Center, Triage, and

Recordkeeping Procedures. Responsibilities of responders by function are also provided. The application of the training consists of three parts. These parts are company training, multi-responders orientation, and use of simulated exercises.

The most widely used type of training for mass casualty situations is the periodic simulated exercise. A well-planned coordinated exercise involving the participation of local and surrounding (e.g., mutual aid) agencies can test a community's capability of responding to an incident and provide training for emergency personnel. The exercise scenario should be detailed enough to provide for the utilization of personnel skills and knowledge. Evaluation by on-scene trained observers and participants is of critical importance. Subsequent emergency operations may be modified on the basis of the findings.

To better coordinate efforts and maximize efficiency, exercises should be conducted in conjunction with those annual exercises required by many hospitals for accreditation. This joint endeavor will enable responders to more efficiently and effectively manage a mass casualty situation.

Basic and advanced life support units are most frequently used as response teams in mass casualty incidents. Other types of response units such as special vans are most often found in larger communities housing major airport facilities. The Metro-Dade County, Florida Fire Department, for example, which has a response area of 895 square miles and a population of one million, maintains a disaster vehicle at the Miami International Airport. The vehicle, a 24-foot long, insulated and refrigerated van, is equipped with basic and advanced life support equipment. Medical supplies are provided to treat 300 victims of an air crash. In addition to serving as a supply distribution center, the van operates as a medical command point with communication capability provided by radio. As necessary, the van is available for incidents throughout Dade County.

The Bellingham, Washington Fire Department, which has an emergency medical response area of 2,200 square miles and a population of 106,600, operates an "EMT Disaster Van." Unlike many other specialized disaster vehicles, this van is located in the community. The vehicle is used primarily as a major supply unit for basic life support equipment including two oxygen manifolds with ten outlets each. The unit is capable of being converted to a shelter or command post. The van's communications capability operates on a fire frequency.

Other communities also maintain specialized vehicles. These vehicles include tactical command units, which serve as command posts and carry limited quantities of supplies.

Written response plans have been developed by many communities for mass casualty situations. The Phoenix, Arizona Fire Department, which protects 350 square miles and a population of 800,000, has a comprehensive plan entitled "Tactical Plans: Medical Operations." According to this plan, all Phoenix Fire Department standard fireground operating procedures will be applied to medical emergencies. It is the responsibility of the designated incident command to make an early determination of a situation requiring a declaration of a major medical emergency. These situations include those in which a number of patients involved and/or the severity of their injuries require coordination with several hospitals and those in which complex extrication, treatment, or patient transport problems are involved.

The "Medical Operations" plan consists of four sectors. These sectors are:

- Extrication responsibilities and guidelines,
- Triage and tagging responsibilities and guidelines,
- Treatment responsibilities and guidelines, and
- Transportation responsibilities and guidelines.

Other components of the plan are staging and communications coordination. The fire alarm has procedures for the initial response to mass casualty incidents. The initial first alarm dispatch includes four engine companies, two truck companies, three rescue (paramedic) units, and three battalion chiefs.

The Las Vegas, Nevada Fire Department was the only respondent indicating that it had a training manual for mass casualty incidents. The department, which protects 59 square miles and a population of 168,000, has developed a manual issued to all emergency medical personnel, company officers, and fire stations. Included in this training guide are an explanation of the emergency medical system, triage, and a resource list. Checklists for triage officers, medical scene commanders, and rescue units are also provided.

Many experienced individuals and organizations are available to assist local officials. Resources include state offices of emergency preparedness and emergency medical services and local medical societies. Other resources are professional organizations such as the Air Line Pilots Association and the American Hospital Association. Military installations located in local jurisdictions are also a valuable resource.

Few reference materials are solely devoted to mass casualty incidents. In most situations, planning and management of these types of incidents are covered in one chapter or section of a standard emergency medical or disaster textbook. Available reference materials are identified in this directory.

State	Agency	Contact	Square Miles	Population
Alabama	Bessemer Fire Department 800 North 18th Street Bessemer, AL 35020 (205) 428-5151	J. E. Roberson Fire Chief	18.5	34,000
	Birmingham Fire and Rescue Service 1808 Seventh Avenue, North Birmingham, AL 35235 (205) 323-8304	Don Wear Captain	100	275,000
	Center Point Fire Department P.O. Box 9651 Center Point, AL 35215 (205) 853-5098	J. D. Wallace, Jr. Fire Chief	50	68,000
	Tuscaloosa Fire Department 2527 Sixth Street Tuscaloosa, AL 35401 (205) 349-2380	J. L. Watts Fire Chief	35	73,228
	Vestavia Fire Department 513 Montgomery Highway Vestavia, AL 35216 (205) 823-1296	Bill F. Towers Fire Chief	10	18,000
Arizona	Phoenix Fire Department Room 465 620 West Washington Street Phoenix, AZ 85003 (602) 262-6297	Gary P. Morris Captain	350	800,000
	Tucson Fire Department P.O. Box 27210 Tucson, AZ 85720 (602) 791-4511	Arnold Weuve Battalion Chief	112	400,000
Arkansas	Jonesboro Fire Department 316 West Washington Street Jonesboro, AR 72401 (501) 932-2428	Bill Caldron Paramedic	50	32,560
	Texarkana Fire Department P.O. Box 2711 Texarkana, AR 75504 (501) 774-3161	Clinton McCormack Deputy Director, Pul Safety Division	640* blic	36,000*

<sup>\*</sup>Multijurisdictional for emergency medical services responses

State	Agency	Contact	Square Miles	Population
California	Los Angeles Fire Department 200 North Main Street Los Angeles, CA 90012 (213) 485-6100	John Fasana Chief Paramedic	467.63	3,000,000
	Sacramento Fire Department Room 3 915 I Street Sacramento, CA 95814 (916) 449-5266	Robert Schultz Deputy Chief, Emer- gency Operations	94	285,000
Colorado	Aurora Fire Department 1470 South Havana Street Aurora, CO 80012 (303) 695-7116	David Hansford Training Chief	65	175,000
	Barcroft Fire Protection District 3301 South Field Street Lakewood, CO 80227 (303) 989-4307	Bob Porter Assistant Chief	80	155,000
Connecticut	Hartford Fire Department 275 Pearl Street Hartford, CT 06103 (203) 525-3123	John B. Stewart, Jr. Fire Chief	18.9	150,000
	New Haven Fire Department 952 Grand Avenue New Haven, CT 06510 (203) 787-6229	Edward Flynn, Jr. Lieutenant, Director of Planning and Information	18.4	124,000
	Thompsonville Fire Department Pearl Street Station Enfield, CT 06082 (203) 745-3365	Paul E. Censki Fire Marshal	12	12,000
	Tolland Fire Department 3 Rhodes Road Tolland, CT 06084 (203) 871-0002	Ronald Littell Fire Chief	41	11,000
	West Haven Fire Department 366 Elm Street West Haven, CT 06516 (203) 932-2228	William S. Johnson Fire Chief	10.4	53,000

State	Agency	Contact	Square Miles	Population
Florida	Hialeah Fire Department 501 Palm Avenue Hialeah, FL 33011 (305) 883-5840	William Ackerly District Chief—Rescue Coordinator	22	180,000
	Hollywood Fire Department 3401 Hollywood Boulevard Hollywood, FL 33022 (305) 921-3448	George Geiser Division Chief	33	130,000
	Metro-Dade County Fire Department 6000 S.W. 87th Avenue Miami, FL 33173 (305) 596-8600	Charles E. Sowers Division Chief, EMS	895	1,000,000
	Miami Fire Department P.O. Box 330708 Miami, FL 33133 (305) 579-6300	Ron Coleman Chief, Training Division	<b>34</b> 1	365,000
	Miami Beach Fire Department 2300 Pinetree Drive Miami Beach, FL 33140 (305) 673-7120	John D. Shelton Chief, Rescue Division	7.1	93,000
	Miramer Fire Department 8909 Miramar Parkway Miramar, FL 33020 (305) 431-8200	George Brown Fire Chief	33.5	32,500
Georgia	Atlanta Fire Bureau 46 Courtland Street, S.E. Atlanta, GA 30335 (404) 658-6901	Thomas Brown Chief of Rescue	131.61	450,000* 1,000,000**
Illinois	Des Plaines Fire Department 405 South River Road Des Plaines, IL 60016 (312) 824-7407	David Clark Deputy Chief, Training	17	57,000
	Libertyville Fire Department 118 West Cook Avenue Libertyville, IL 60048 (312) 362-5664	John Reitman Fire Chief	34	30,000

<sup>\*</sup>Day \*\*Night

State	Agency	Contact	Square Miles	Population
Illinois (continued)	Lisle-Woodbridge Fire District 1005 School Street P.O. Box 610 Lisle, IL 60532 (312) 964-2233	Paul H. Boecker Fire Chief	38	74,000
Iowa	Cedar Rapids Fire Department 427 First Street, S.W. Cedar Rapids, IA 52401 (319) 398-5342	Phillip Bode Chief Training Officer	55	110,000
	Webster City Fire Department 812 Des Moines Street Webster City, IA 50595 (515) 832-2431	Terry Johnston Fire Chief	77	9,000
Maryland	Anne Arundel County Fire Department P.O. Box 276 Millersville, MD 21108 (301) 987-4010	Roger Simonds Chief, EMS Division	324	400,000
	Baltimore City Fire Department 410 East Lexington Street Baltimore, MD 21202 (301) 396-4356	Michael W. Jachelski Battalion Chief	92	860,000
	Baltimore County Fire Department 724 York Road Towson, MD 21204 (301) 494-4500	Reggie Shephard, Jr. Lieutenant, EMS Emer- gency Operations	615	750,000
	Montgomery County Fire and Rescue Services 10025 Darnestown Road Rockville, MD 20850 (301) 279-1836	Mary Beth Michos, R.N Captain, EMS	. 506	600,000
	Salisbury Fire Department 143 South Division Street Salisbury, MD 21801 (301) 749-9498	Brian Adkins Senior Instructor	60	40,000

State	Agency	Contact	Square Miles	Population
Massachusetts	Falmouth Fire Department 399 Main Street Falmouth, MA 02540 (617) 548-2324	Clifford Amaral Deputy Chief	44	23,500* 60,000**
	Pembroke Fire Department Fire Headquarters Center Street Pembroke, MA 02359 (617) 293-2300	Robert Silva Fire Investigator	23	13,000
	Sandwich Fire Department P.O. Box 303 Sandwich, MA 02563 (617) 888-0525	Fred Alvesi Fire Chief	42	9,500
Mississippi	Jackson Fire Department 555 South West Street Jackson, MS 39205 (601) 960-2013	Jon Campbell Deputy Chief, Emer- gency Services	103	300,000
	Pass Christian Fire Department 110 West Second Street Pass Christian, MS 39571 (601) 452-9715	George M. Mixon Fire Chief	6	5,050
Missouri	Carthage Fire Department 401 West Chestnut Street P.O. Box 611 Carthage, MO 64863 (417) 358-2232	Don Simmons Fire Chief	100	11,000
	Lee's Summit Fire Department 207 South Douglas Street Lee's Summit, MO 64063 (816) 251-2345	Mike Wren Acting Fire Chief	74	30,000
Nebraska	Bellevue Volunteer Fire Department 211 West 22nd Avenue Bellevue, NE 68005 (402) 291-8000	Mel Hess Fire Marshal	40	45,000

<sup>\*</sup>Permanent

<sup>\*\*</sup>Summer

State	Agency	Contact	Square Miles	Population
Nebraska (continued)	Grand Island Fire Department 302 South Pine Street Grand Island, NE 68801 (308) 381-5300	George Arnett Fire Chief	18.5	34,000
	Nebraska City Volunteer Fire Department 1409 Central Avenue Nebraska City, NE 68410 (402) 873-3579	Thomas Hemphill Fire Chief	110	7,000
	Omaha Fire Division 1516 Jackson Street Omaha, NE 68102 (402) 444-5700	Robert Warsocki Assistant Chief	92	350,000
Nevada	Carson City Fire Department 111 North Curry Street Carson City, NV 89701 (702) 887-2200	Bernie Sease Fire Chief	146	33,000
	Las Vegas Fire Department 400 East Stewart Avenue Las Vegas, NV 89101 (702) 386-6376	Rex Shelburne Captain, Paramedic Coordinator	59	168,000
Ohio	Cincinnati Fire Department 430 Central Avenue Cincinnati, OH 45202 (513) 352-2315	Robert G. Rathman Assistant Chief	78	385,457
	Columbus Fire Division 200 Greenlawn Avenue Columbus, OH 43223 (614) 222-7384	H. J. Dutko Battalion Chief, EMS	171	670,000
Oklahoma	Oklahoma City Fire Department 820 N.W. Fifth Street Oklahoma City, OK 73107 (405) 235-3314	Bob Mowles Chief Training Officer	640	410,000
Oregon	Multnomah County Fire District 10 P.O. Box 16368 Portland, OR 97216 (503) 761-7120	Len Malmquist Fire Inspector	75.2	380,000

State	Agency	Contact	Square Miles	Population
Oregon (continued)	Ontario Fire Department and Rural Fire Protection District 7-302 444 S.W. Fourth Street Ontario, OR 97914 (503) 889-7687	Larry Roberts Fire Chief	59	18,000
	Tualatin Rural Fire Protection District P.O. Box 127 Tualatin, OR 97062 (503) 682-2601	Douglas Krebs Executive Assistant Chief	104	100,000
	Winston-Dillard Rural Fire Protection District 5 P.O. Box 765 Winston, OR 97496 (503) 679-8721	Jerry Hall Fire Chief	50	10,000
Rhode Island	Cranston Fire Department 301 Pontiac Avenue Cranston, RI 02910 (401) 461-4161	Ronald S. Jones Fire Chief	28.2	74,000
	Providence Fire Department 209 Fountain Street Providence, RI 02902 (401) 421-1293	Michael F. Moise Fire Chief	18.91	170,000
Texas	Dallas Fire Department 1500 Marilla Street Dallas, TX 75201 (214) 670-4565	S. Joseph O'Briant Deputy Chief	378	904,000
	Dallas/Fort Worth Regional Airport Department of Public Safety P.O Box DFW Dallas/Fort Worth Airport, TX 75621 (214) 574-5560	James W. Woods Associate Director/ Fire Chief	26.5	25,000
	Houston Fire Department 410 Bagby Street Houston, TX 97002 (713) 222-3964	Thomas W. Dawson Administrative Assistant to the Chief	55 <b>6</b>	1,500,000

State	Agency	Contact	Square <u>Miles</u>	Population
Virginia	Alexandria Fire Department 900 Second Street Alexandria, VA 22314 (703) 838-4600	William Brown Chief of Operations	15	110,000
	Hampton Fire Department 22 East Lincoln Street Hampton, VA 23669 (804) 727-6580	William Smith Battalion Chief, EMS	55	125,000
	James City County Fire Department 449 Tyler Highway Williamsburg, VA 23185 (804) 220-0626	Richard Miller Assistant Chief	148	30,000- 100,000*
Washington	Bellingham Fire Department Suite C4 1800 C Street Bellingham, WA 98225 (206) 676-6813	Michael Leigh Assistant Chief	25	46,000
	Seattle Fire Department 301 Second Street Seattle, WA 98104 (206) 223-3057	Jerald Birt Captain	97.5	500,000
Wisconsin	Green Bay Fire Department 501 South Washington Street Green Bay, WI 54301 (414) 497-3777	Gerald Selissen Fire Chief	45	88,000

<sup>\*</sup>Seasonal

State	Agency	Contact	Square Miles	Population
Alabama	Birmingham Fire and Rescue Service 1808 Seventh Avenue, North Birmingham, AL 35235 (205) 323-8304	O. N. Gallant Fire Chief	100	275,000
	Vestavia Fire Department 513 Montgomery Highway Vestavia, AL 35216 (205) 823-1296	Bill F. Towers Fire Chief	10	18,000
Arizona	Flagstaff Fire Department 120 North Beaver Flagstaff, AZ 86001 (602) 774-5281, Ext. 265	Leon H. Weidner Assistant Chief	68	37,000
Arkansas	Texarkana Fire Department P.O. Box 2711 Texarkana, AR 75504 (501) 774-3161	Clinton McCormack Deputy Director, Publi Safety Division	640 c	36,000
Colorado	Aurora Fire Department 1470 South Havana Street Aurora, CO 80012 (303) 695-7116	David Hansford Training Chief	65	175,000
	Castlewood Fire Protection District 7281 East Dry Creek Road Englewood, CO 80112 (303) 770-3720	Bob May Training Officer	40	40,000* 100,000**
	Colorado Springs Fire Department 31 South Weber Street Colorado Springs, CO 80903 (303) 471-6820	Richard Smith Fire Chief	103	215,000
	Lakewood Fire Department 1545 Robb Street Lakewood, CO 80215 (303) 237-9588	Francis Brehm Assistant Chief	30	110,000

<sup>\*</sup>Night \*\*Day

State	Agency	Contact	Square Miles	Population
Florida	Coral Gables Fire Department 2815 Salzedo Street Coral Gables, FL 33134 (305) 442-1887	Robert T. Boutelle Deputy Chief	12	45,000* 20,000**
	Hialeah Fire Department 501 Palm Avenue Hialeah, FL 33011 (305) 883-5840	William Ackerly District Chief, Rescue Coordinator	22	180,000
	Metro-Dade County Fire Department 6000 S.W. 87th Avenue Miami, FL 33173 (305) 596-8600	Charles E. Sowers Division Chief, EMS	895	1,000,000
	Miami Fire Department P.O. Box 330708 Miami, FL 33133 (305) 579-6300	Ron Coleman Chief, Training Division	34	365,000
	Miami Beach Fire Department 2300 Pinetree Drive Miami Beach, FL 33140 (305) 673-7120	John D. Shelton Chief, Rescue Division	7.1	93,000
Illinois	Libertyville Fire Department 118 West Cook Avenue Libertyville, IL 60048 (312) 362-5664	John Reitman Fire Chief	34	30,050
	Lisle-Woodbridge Fire District 1005 School Street P.O. Box 610 Lisle, IL 60532 (312) 964-2233	Paul H. Boecker Fire Chief	38	74,000
	Mount Prospect Fire Department 112 East Northwest Highway Mount Prospect, IL 60056 (312) 392-6000, Ext. 165	Lawrence A. Pairitz Fire Chief	11	54,000

<sup>\*</sup>Permanent

<sup>\*\*</sup>Student

State	Agency	Contact	Square Miles	Population
Illinois (continued)	Skokie Fire Department 9024 Grosse Point Road Skokie, IL 60076 (312) 673-2400	Harold Peters Lieutenant, Training Officer	10	70,000
	Waukegan Fire Department 105 North West Street Waukegan, IL 60085 (312) 689-7503	William Peterson Fire Chief	26	70,000
Maryland	Anne Arundel County Fire Department P.O. Box 276 Millersville, MD 21108 (301) 987-4010	Roger Simonds Division Chief, EMS	324	400,000
	Baltimore City Fire Department 410 East Lexington Street Baltimore, MD 21202 (301) 396-4356	Michael W. Jachelski Battalion Chief	92	860,000
	Montgomery County Fire and Rescue Services 10025 Darnestown Road Rockville, MD 20852 (301) 279-1836	Mary Beth Michos, R.N Captain, EMS	. 506	600,000
Nebraska	Bellevue Volunteer Fire Department 211 West 22nd Avenue Bellevue, NE 68005 (402) 291-8000	Mel Hess Fire Marshal	40	45,000
	Omaha Fire Division 1516 Jackson Street Omaha, NE 68102 (402) 444-5700	Robert Warsocki Assistant Chief	92	350,000
Nevada	Las Vegas Fire Department 400 East Stewart Avenue Las Vegas, NV 89101 (702) 386-6376	Rex Shelburne Captain, Paramedic Coordinator	59	168,000

<u>State</u>	Agency	Contact	Square <u>Miles</u>	Population
Ohio	Columbus Fire Division 200 Greenlawn Avenue Columbus, OH 43223 (614) 222-7384	H. J. Dutko Battalion Chief, EMS	171	670,000
	Upper Arlington Fire Department 3600 Tremond Road Upper Arlington, OH 43221 (614) 457-5080	Henry Litteral Fire Chief	9.2	35,000
Texas	Dallas Fire Department 1500 Marilla Street Dallas, TX 75201 (214) 670-4565	S. Joseph O'Briant Deputy Chief	378	904,000
	Dallas/Fort Worth Regional Airport Department of Public Safety P.O. Drawer DFW Dallas/Fort Worth Airport, TX 75621 (214) 574-5560	James W. Woods Associate Director/ Fire Chief	26.5	25,000
	Houston Fire Department 410 Bagby Street Houston, TX 77002 (713) 222-3964	L. O. Martin Deputy Chief	556	1,500,000
Virginia	Alexandria Fire Department 900 Second Street Alexandria, VA 22314 (703) 838-4600	William Brown Chief of Operations	15	110,000
	Hampton Fire Department 22 East Lincoln Street Hampton, VA 23669 (804) 727-6580	William Smith Battalion Chief, EMS	55	125,000
Washington	Ellensburg Fire Department 102 North Perl Street Ellensburg, WA 98926 (509) 962-9863, Ext. 274	Ed West Fire Chief	5	14,000
Washington	Seattle Fire Department 301 Second Avenue South Seattle, WA 98104 (206) 223-3057	Jerald Birt Captain	97.5	500,000

State	Agency	Contact	Square Miles	Population
Alabama	Bessemer Fire Department 800 North 18th Street Bessemer, AL 35020 (205) 428-5151	J. E. Roberson Fire Chief	18.5	34,000
	Birmingham Fire and Rescue Service 1808 Seventh Avenue, North Birmingham, AL 35235 (205) 323-8304	O. N. Gallant Fire Chief	100	275,000
	Center Point Fire Department P.O. Box 9651 Center Point, AL 35215 (205) 853-5098	J. D. Wallace, Jr. Fire Chief	50	68,000
Arizona	Phoenix Fire Department Room 465 620 West Washington Street Phoenix, AZ 85003 (602) 262-6297	Gary P. Morris Captain	350	800,000
California	Sacramento Fire Department Room 3 915 I Street Sacramento, CA 95814 (916) 449-5266	Robert Schultz Deputy Chief, Emergency Operatio	94 ons	285,000
	San Clemente Fire Department 100 Avenida Presidio San Clemente, CA 92672 (714) 492-5105	Ronny Coleman Fire Chief	786*	1,900,000*
Connecticut	Tolland Fire Department 3 Rhodes Road Tolland, CT 06084 (203) 871-0002	Ronald Littel Fire Chief	41	11,000
Florida	Coral Gables Fire Department 2815 Salzedo Street Coral Gables, FL 33134 (305) 442-1887	Robert T. Boutelle Deputy Chief	12	45,000** 20,000 <sup>+</sup>

<sup>\*</sup>Multijurisdictional

\*\*Permanent

+Student

State	Agency	Contact	Square <u>Miles</u>	Population
Florida (continued)	Hialeah Fire Department 501 Palm Avenue Hialeah, FL 33011 (305) 883-5840	William Ackerly District Chief—Rescue Coordinator	22	180,000
	Hollywood Fire Department 3401 Hollywood Boulevard Hollywood, FL 33022 (305) 921-3448	George Geiser Division Chief	33	130,000
	Jacksonville Fire Division 107 Market Street Jacksonville, FL 32202 (904) 633-5433	P. N. Rudin Chief of Rescue	844	600,000
	Metro-Dade County Fire Department 600 S.W. 87th Avenue Miami, FL 33173 (305) 596-8600	Charles E. Sowers Division Chief, EMS	895	1,000,000
	Miami Beach Fire Department 2300 Pinetree Drive Miami Beach, FL 33140 (305) 673-7120	John D. Shelton Chief, Rescue Division	7.1	93,000
	Miramar Fire Department 8909 Miramar Parkway Miramar, FL 33025 (305) 431-8200	George Brown Fire Chief	33.5	32,500
Illinois	Libertyville Fire Department 118 West Cook Avenue Liberty, IL 60048 (312) 362-5664	John Reitman Fire Chief	34	30,050
	Lisle-Woodbridge Fire District 1005 School Street P.O. Box 610 Lisle, IL 60532 (312) 964-2233	Paul H. Boecker Fire Chief	38	74,000
	Mount Prospect Fire Department 112 East Northwest Highway Mount Prospect, IL 60056 (312) 392-6000, Ext. 165	Lawrence A. Pairitz Fire Chief	11	54,000

State	Agency	Contact	Square Miles	Population
Illinois (continued)	Rolling Meadows Fire Department 2455 Plum Grove Road Rolling Meadows, IL 60008 (312) 397-3352	Thomas Quillin Fire Chief	5	21,000
	Waukegan Fire Department 105 North West Street Waukegan, IL 60085 (312) 689-7503	William Peterson Fire Chief	460*	440,000*
Maryland	Baltimore City Fire Department 410 East Lexington Street Baltimore, MD 21202 (301) 396-4356	Michael W. Jachelski Battalion Chief	92	860,000
	Baltimore County Fire Department 724 York Road Towson, MD 21204 (301) 494-4500	Reggie Shephard, Jr. Lieutenant, EMS Emer gency Operations	615	750,000
Massachusetts	Pembroke Fire Department Fire Headquarters Center Street Pembroke, MA 02359 (617) 293-2300	Robert Silva Fire Investigator	23	13,000
	Princeton Fire Department 180 Beman Road East Princeton, MA 01541 (617) 464-2707	Leo Hurme Fire Chief	33.5	4,000
Missouri	Lee's Summit Fire Department 207 South Douglas Street Lee's Summit, MO 64063 (816) 251-2345	Mike Wren Acting Fire Chief 1	74 3,000*	30,000 1,600,000*

<sup>\*</sup>Multijurisdictional

State	Agency	Contact	Square Miles	Population
Nevada	Las Vegas Fire Department 400 East Stewart Avenue Las Vegas, NV 89101 (702) 386-6376	Rex Shelburne Captain, Paramedic Coordinator	120*	400,000*
New Jersey	Newark Fire Department 1010 18th Avenue Newark, NJ 07106 (201) 733-7502	Stanley J. Kossup Fire Chief	23.4	321,000
Ohio	Columbus Fire Division 200 Greenlawn Avenue Columbus, OH 43223 (614) 222-7384	H. J. Dutko Battalion Chief, EMS	171	670,000
	Upper Arlington Fire Department 3600 Tremond Road Upper Arlington, OH 43221 (614) 457-5080	Henry Litteral Fire Chief	9.2	35,000
Oregon	Portland Fire Bureau 55 S.W. Ash Street Portland, OR 97204 (503) 248-4375	Bill Hebbert Chief Training Officer	108	380,000
	Tualatin Rural Fire Pro- tection District P.O. Box 127 Tualatin, OR 97062 (503) 682-2601	Douglas Krebs Executive Assistant Chief	104	100,000
Pennsylvania	Philadelphia Fire Department Third and Spring Garden Streets Philadelphia, PA 19123 (215) 686-4700	Joseph R. Rizzo Fire Commissioner	129	1,688,210
Rhode Island	Providence Fire Department 209 Fountain Street Providence, RI 02902 (401) 421-1293	Michael F. Moise Fire Chief	18.91	170,000

<sup>\*</sup> Multijurisdictional

State	Agency	Contact	Square Miles	Population
Texas	Dallas Fire Department 1500 Marilla Street Dallas, TX 75201 (214) 670-4565	S. Joseph O'Briant Deputy Chief	378	904,000
	Dallas/Fort Worth Regional Airport Department of Public Safety P.O. Drawer DFW Dallas/Fort Worth Airport, TX 75621 (214) 574-5560	James W. Woods Associate Director/ Fire Chief	26.5	25,000
	Houston Fire Department 410 Bagby Street Houston, TX 77002 (713) 222-3964	L. O. Martin Deputy Chief	556	1,500,000

# D. Training Manuals

State	Agency	Contact	Square Miles	Population
Nevada	Las Vegas Fire Department 400 East Stewart Avenue Las Vegas, NV 89101 (702) 386-6376	Rex Shelburne Captain, Paramedic Coordinator	59	168,000

State	Contact	Agency	Areas of Expertise
Arizona	Greenberg, Joseph Director	Center for Professional Develop- ment College of Engineering and Applied Sciences Arizona State University Tempe, AZ 85287 (602) 965-1740	Training Programs
	Morris, Gary P. Captain	Phoenix Fire Department Room 465 620 West Washington Street Phoenix, AZ 85003 (602) 262-6297	Training Response Procedures
	Rooney, John F. Fire Chief	Tucson Airport Authority Tucson International Airport Tucson, AZ 85706 (602) 294-3411	Aviation Accidents
California	Davidson, Alan, Ph.D. Clinical Psychologist	Suite 305 5469 Kearny Villa Road San Diego, CA 92123 (714) 268-0851	Psychological Impact of Large-Scale Disasters
	Ehrmann, Larry R. Director of Environ- mental Health and Safety	University Safety Office (STO) University of Southern California University Park Los Angeles, CA 90007 (213) 743-6443	Planning
	Fasana, John Chief Paramedic	Los Angeles Fire Department 200 North Main Street Los Angeles, CA 90012 (213) 485-6093	Training Planning
	Fender, Gerald V. Training Supervisor	Contra Costa County Consolidated Fire District 2010 Geary Road Pleasant Hill, CA 94523 (415) 939-3400	Training Response
	Stefanki, John X. Aviation Safety Consultant	26901 Beatrice Lane Los Altos Hills, CA 94022 (415) 941-1299	Planning Aviation Accidents

State	Contact	Agency	Areas of Expertise
Colorado	Lindemann, C. T., Jr. Aviation Safety Consultant	31218 King Valley West Conifer, CO 80433 (303) 838-5000	Planning Aviation Accidents
Connecticut	Goodwin, Cressy Emergency Medical Services Project Director	North Central Connecticut Emergency Medical Services Council, Inc. 999 Asylum Avenue Hartford, CT 06105 (203) 522-9111	Planning Training Evaluation
	Judd, R. L., Ph.D. Professor of Emergency Medical Services	Central Connecticut State College 1615 Stanley Street New Britain, CT 06050 (203) 827-7230 (203) 827-7210	Training and Education Risk Analysis
District of Columbia	Vessey, Robert D. National Director	Disaster Services American National Red Cross Washington, DC 20006 (202) 857-3722	Resource Identification Planning Response
Florida	Briese, Garry P. Executive Director	Florida Chapter American College of Emergency Physicians Suite 420 600 Courtland Street Orlando, FL 32804 (305) 628-4800	Training Evaluation Risk Analysis
	Hass, Gilbert J. Executive Director	Lee County Disaster Preparedness Agency P.O. Box 6926 Fort Myers, FL 33901 (813) 335-2111	Training Multijurisdic- tional Response Coordination Aviation Accidents
	Leahy, John R., Jr. Deputy Chief	Largo Fire Department 205 Cleveland Avenue, S.W. Largo, FL 33540 (813) 581-6400	Planning Training
	Nagel, Eugene L., M.D. Clinical Professor	Department of Anesthesiology University of Florida School of Medicine 3650 Country Club Road Winter Haven, FL 33880 (813) 299-3965	Training

State	Contact	Agency	Areas of Expertise
Florida (continued)	Ponsell, Dwight D. District Chief, Rescue	Jacksonville Fire Department 107 Market Street Jacksonville, FL 32202 (904) 739-1862 (904) 633-5425	Training Response
Georgia	Hewes, B. Victor Regional Vice- President	International Federation of Air Line Pilots Association c/o Air Line Pilots Association Suite B200 1007 Virginia Avenue Atlanta, GA 30354 (404) 763-3800 (O) (404) 767-2947 (H)	Aviation Accidents
Idaho	Anderson, Paul Chief	Emergency Medical Services Bureau Health Services Division Department of Health and Welfare Statehouse Boise, ID 83720 (208) 334-4245	Planning
Illinois	Carothers, Harvey Fire Chief	Palatine Fire Department 39 East Colfax Palatine, IL 60067 (312) 359-0098	Aviation Accidents
	Smurthwaite, Stephen K. Director of Corporate Safety and Loss Prevention	Abbott Laboratories Abbott Park Department 518 North Chicago, IL 60064 (312) 937-3091	Training
Indiana	McCue, James J. Director of Operations	Indianapolis International Airport Indianapolis Airport Authority Indianapolis, IN 46241 (317) 247-6271	Planning Resource Identification
	Taylor, Steven L.	Apartment H 6717 Ramblewood Drive Fort Wayne, IN 46815 (219) 486-1239	Multimedia Exer- cise Simulations

State	Contact	Agency	Areas of Expertise
Maryland	Barranco, F. T., M.D. Surgeon, Baltimore County Fire Department Surgeon General, Maryland Army National Guard	600 West Northern Parkway Baltimore, MD 21210 (301) 323-4343	Training and Education Protocols Medical Control
	Cowley, R Adams, M.D. Director	Maryland Institute for Emergency Medical Services Systems 22 South Greene Street Baltimore, MD 21201 (301) 528-5085	Planning Training and Education
	Hess, John C. Instructor, Disaster Training Program	Maryland Fire and Rescue Institute University of Maryland College Park, MD 20742 (301) 454-2416	Planning Training
	Michos, Mary Beth,R.N. Captain, Emergency Medical Services	Montgomery County Fire and Rescue Services 10025 Darnestown Road Rockville, MD 20850 (301) 279-1836	Training Response Evaluation
Massachusetts	Arena, Charles Chief Manager of Public Safety	Logan International Airport Boston, MA 02128 (617) 482-2930, Ext. 398	Training Planning Response
Missouri	Fagan, Richard K. Assistant Chief	Lee's Summit Fire Department 207 South Douglas Street Lee's Summit, MO 64063 (816) 251-2345	Training Planning Response
	Norman, Ron Vice President	Kansas City Area Hospital Association 4420 Madison Kansas City, MO 64111 (816) 531-5969	Hospital Planning Communications
	Overton, Jerry Executive Director	Mid-America Regional Council Emergency Rescue (MARCER) 21 West North Street Kansas City, MO 64105 (816) 474-4240	Disaster Planning Response

State	Contact	Agency	Areas of Expertise
Nevada	Shelburne, Rex Captain, Paramedic Coordinator	Las Vegas Fire Department 400 East Stewart Avenue Las Vegas, NV 89101 (702) 386-6376	Training
New Hampshire	Shamer, Lawrence C. Assistant Chief	Concord Fire Department 17 South Fruit Street Concord, NH 03301 (603) 244-0389	Planning Training
New Jersey	Page, James O. Executive Director	ACT Foundation P.O. Box 911 Basking Ridge, NJ 07920 (201) 766-2273	Planning Resource Identification
New York	Ableson, Louis, M.D. Associate Director, Medical Office	John F. Kennedy International Airport Building 198 Jamaica, NY 11310 (212) 656-5395	Aviation Accidents
	Star, Leon D., M.D. Director, Medical Office	John F. Kennedy International Airport Building 198 Jamaica, NY 11310 (212) 656-5395	Aviation Accidents
Ohio	Quarantelli, E., Ph.D. Director	Disaster Research Center Ohio State University 128 Derby Hall 154 North Oval Mall Columbus, OH 43210 (614) 422-5916	Resource Identification
Oklahoma	Wilder, R. J., M.D. Director of Emergency Medicine and Trauma Center Medical Director of Emergency Medical Services	Oklahoma Teaching Hospitals Oklahoma State Health P.O. Box 26307 Oklahoma City, OK 73126 (405) 271-5135 (405) 271-5656 (page)	Planning Medical Control
Oregon	Carter, Roosevelt Airport Operations Manager	Portland International Airport P.O. Box 3529 Portland, OR 97208 (503) 231-5000	Planning

State	Contact	Agency	Areas of Expertise
Pennsylvania	Cannon, Glenn M. Director	Pittsburgh Department of Emergency Medical Services 700 Filbert Street Pittsburgh, PA 15232 (412) 681-5757	Planning Training Communications
	Paris, Paul, M.D.	University of Pittsburgh Affiliated Residency in Emergency Medicine 113 Lothrop Hall Pittsburgh, PA 15261 (412) 624-1934	Disaster Planning Training and Education
	Safar, Peter, M.D. University Professor and Director	Resuscitation Research Center University of Pittsburgh School of Medicine 3434 Fifth Avenue Pittsburgh, PA 15260 (412) 624-6735	Cardiopulmonary Resuscitation Research Training and Education
	Stewart, Ron Director	Center for Emergency Medicine University of Pittsburgh Health Center Room 113 190 Lothrop Street Pittsburgh, PA 15213 (412) 624-2858	Training and Education
Texas	Mattox, K. L., M.D. Deputy Surgeon-in Chief and Director of Emergency Surgical Services	Ben Taub General Hospital 1200 Moursand Avenue Houston, TX 77030 (713) 790-4557	Planning Training and Education
	Roberts, Bill Assistant Chief	Dallas Fire Department 1500 Marilla Street Dallas, TX 75201 (214) 670-4516	Planning Training
	Woods, James W. Associate Director/ Fire Chief	Department of Public Safety Dallas/Fort Worth Regional Airport P.O. Drawer DFW Dallas/Fort Worth Airport, TX 75621 (214) 574-5560	Training Planning Response

State	Contact	Agency	Areas of Expertise
Virginia	DeAtley, Craig, P.A.	700 Leeland Street Springfield, VA 22151 (202) 676-4034 (O) (703) 256-4407 (H)	Planning Training Evaluation Response
	McCarthy, Paul J. Program Head	Emergency Medical Training Northern Virginia Community College Annandale Campus 8333 Little River Turnpike Annandale, VA 22008 (703) 323-3409	Training
	Olsen, Michael F. Managing Director	The Foundation for Fire Safety Suite 1508 1700 North Monroe Street Rosslyn, VA 22209 (703) 276-9222	Planning Training
	Saitta, Joseph V. Director	EMS Management Institute, Inc. Suite 200 207 East Holly Avenue Sterling, VA 22170 (703) 450-5370 (O) (703) 450-5813 (H)	Planning Resource Identification
	Wright, Terry L. Training Coordinator	Old Dominion Emergency Medical Services Alliance, Inc. 4002 Hermitage Road Richmond, VA 23227 (804) 264-3911	Planning Training Evaluation
Washington	Frazelle, Jack Assistant Airport Manager	Boeing Field-King County International Airport P.O. Box 80245 Seattle, WA 98108 (206) 344-7380	Planning Training Response
	Lovelace, Bob Medical Services Officer	Bellingham Fire Department Suite C4 1800 C Street Bellingham, WA 98225 (206) 676-6813	Training
West Virginia	Rich, James D. Systems Coordinator	Regional Medical Services P.O. Box 89 Fairmont, WV 26554 (304) 366-8764	Planning

United States	Contact	Agency	Areas of Expertise
Federal	Fay, Michael D. Training Instructor	National Emergency Training Center National Fire Academy Emmitsburg, MD 21727 (800) 638-9600	Training Planning
	Gemma, W. R., Ph.D. Associate Administrator for International Health Affairs	Office of International Health Health Services Administration U.S. Public Health Service Rockville, MD 20857 (301) 443-6152	Planning Evaluation International Health Hospital Disaster Preparedness

United States	Contact	Agency	Areas of Expertise
Military	Baker, Robert Brigadier General	Academy of Health Sciences Fort Sam Houston, TX 78234 (512) 221-4325	Training
	Bisgard, Jay C., M.D. Deputy Assistant Secretary of Defense for Medical Readiness	Office of Assistant Secretary of Defense (Health Affairs) Room 3E279 Pentagon Washington, DC 20301 (202) 694-1418	International Health Disaster Preparedness Medical Readiness Resource Identification
	Brown, Jerry M., Ph.D. Director of Inter- national Health Affairs	Office of Assistant Secretary of Defense (Health Affairs) Room 3E279 Pentagon Washington, DC 20301 (202) 694-4157	International Health Disaster Preparedness Medical Readiness Resource Identification
	Wolcott, B. W., M.D. Colonel, U.S. Army Medical Corps Consultant in Emer- gency Medicine to the Surgeon General	Headquarters, Brook Army Medical Center Fort Sam Houston, TX 78234 (512) 221-5288 (512) 221-3017	Planning Training and Education

Country/ Province	Contact	Agency	Areas of Expertise
Canada/Ontario	Burrows, Douglas K. Chief of Police	Peel Regional Police Force Box 7750 7750 Hurontario Street Brampton, Ontario 76V3W6 (416) 453-3311	Evacuation Planning
Canada/Quebec	Santa Maria, Jose L. Technical Officer	International Civil Aviation Organization (ICAO) 1000 Sherbrooke Street West Montreal, Quebec H3A2R2 (514) 285-8180	Aviation Accidents

#### F. Reference Materials

#### Books and Reports

- Butman, Alexander M. Responding to the Mass Casualty Incident: A Guide for EMS Personnel. Westport, CT: Emergency Training, 1981.
- Cowley, R Adams, M.D., ed. <u>Emergency Management at an Airport Catastrophe</u>. Baltimore: Maryland Institute for Emergency Medical Services Systems, 1979.
- Quarantelli, E. L. <u>Delivery of Emergency Medical Services Disasters: Assumptions and Realities.</u> New York: Irvington Press, 1981.
- Rund, Douglas A., M.D. and Rausch, Tondra S. Triage. St. Louis: C. V. Mosby Company, 1981.

#### F. Reference Materials

#### **Articles in Journals**

- Dyche, William J.; Felsen, Daniel; and Gay, John, M.D. "Organizing Medical Services for Large Groups in Field Situations." The EMT Journal 4 (December 1980): 43-49.
- Edlich, Richard F., M.D., et al. "Response of a Regional Emergency Medical System to a Local Disaster." The EMT Journal 4 (September 1980): 29-34.
- Frank, Stanley. "EMS at Chicago's O'Hare Airport." Firehouse 3 (July 1978): 16, 53.
- Garvin, John M., M.D. "The Logistics of a Disaster Drill: Medex 78." The Journal of Emergency Care and Transportation 10 (January/February 1981): 39-48.
- "Medical Disaster Van Serves Miami Airport." Fire Chief Magazine 25 (April 1981): 72.
- Melton, Robert J. and Riner, R. Miles. "Revising the Rural Hospital Disaster Plan: A Role for the EMS System in Managing the Multiple Casualty Incident." Annals of Emergency Medicine 10 (January 1981): 39-44.
- Morris, Gary P. "Major Medical Incident Planning Part 1." Fire Command 46 (June 1979): 48-49.
- . "Major Medical Incident Planning Part 2." Fire Command 46 (July 1979):
- . "Major Medical Incident Planning Part 3." <u>Fire Command</u> 46 (August 1979): 57.
- . "Major Medical Incident Planning Part 4." Fire Command 46 (September 1979): 44-45.
- . "Preplan Was the Key to MGM Rescue Response as EMS Helped Thousands of Hotel Fire Victims." Fire Command 48 (June 1981): 20.
- Neff, Joan L. "Responsibility for the Delivery of Emergency Medical Services in a Mass Casualty Situation: The Problem of Overlapping Jurisdictions." Mass Emergencies 2 (September 1977): 179-188.
- Rowan, Donald. "New York's Educated Response." <u>Journal of Emergency Services</u> 11 (February 1979): 31-33.
- Shamer, Laurence C. "Triage: The Treatment of Mass Casualties by Fire Rescue Personnel." The International Fire Chief 43 (October 1977): 18-21.
- Star, Leon D., M.D. and Ableson, Louis C., M.D. "The Mobile Emergency Hospital."

  Journal of Emergency Services 11 (November 1979): 52-54.
- Stout, Jack and Smith, Patrick. "Nightmare in Kansas City." A Journal of Emergency Medical Services 6 (September 1981): 32-41.

#### F. Reference Materials

## Articles in Journals (continued)

- Withington, R. L., M.D. "Avoiding the 'Second Disaster'." The Journal of Emergency Services 11 (November 1979): 55-57.
- Wright, J. E., Ph.D. "Mass Casualty Situations." The Journal of Emergency Services (December 1978): 57-60.