

THE SOCIETY OF AMERICAN MILITARY ENGINEERS



Colorado and Front Range

OPERATION FASTSTART PLAN

**Denver Metro Post
2007**



Denver Metro Post

Society of American Military Engineers

“It is the policy of the United States to have an Emergency Mobilization Preparedness Capability that will ensure that government at all levels, in partnership with the private sector and the American people, can respond decisively and effectively to any major national emergency with the defense of the United States as first priority. “National Security Council NS DD-47””

The Denver Metro Posts have published the following 2005 “Operation FASTSTART” plan within the above charter. This plan is also in response to the National SAME call for industrial and governmental preparedness for the full range of national emergencies, including natural disasters, and industrial emergencies.

In the following pages you will find an explanation of what preparedness is all about and how civilian architectural and engineering firms, construction contractors, materials suppliers, and firms offering services can interact with the military and governmental construction agencies in the Colorado and Front Range area to accomplish the task of effective response to any major emergency. For the private sector you will find specific information in the form of names and addresses of organizations you can contact to assure that your firm is known as a resource available to support efforts to alleviate any such disaster. For the public sector, you will find organizations schooled in disaster relief who can respond in a disciplined, military-like manner to prevent further loss and restore normalcy.

We Post hope you will find this publication both informative and useful. Only through the efforts of concerned organizations such as yours can we achieve an effective level of preparedness. We invite you to become a member of SAME, if you are not already and to share with us your ideas, abilities, and experiences. What better way to show our support for our national defense than by working together to increase our emergency preparedness and defense readiness? We look forward to your active participation.

Gregory Kilkenny, PE
Denver Metro Post President, 2005



Denver Metro Post

Society of American Military Engineers

January 2007 update to the 2005 Joint Pikes Peak Post/Denver Metro Post Fast Start Plans.

This document is a 2007 update to the 2005 Joint Pikes Peak Post and Denver Metro Post FastStart Plan. In order to have both the Pikes Peak Post and the Denver Metro Post have 'stand alone' FastStart Plans, the 2005 joint plan has been separated into two separate plans: 1) a *Denver Metro Post Fast Start Plan*, and 2) a *Pikes Peak Post Fast Start plan*. As such, the following document is the stand alone **Denver Metro Post Fast Start Plan**, and has eliminated the Pikes Peak Post area information and participants. The reader is referred to the Pikes Peak Post SAME website to find their individual FastStart Plan.

Additionally, a spreadsheet of Denver area Sustaining Members and other Denver area FastStart participant volunteers has been attached to the FastStart Plan as Appendix E.

Patrick Scher, P.G.
Denver Metro Post
National Security Committee Chairman

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OPERATION FASTSTART SUMMARY

WHAT Private sector engineering preparedness for the full range of national disasters.

- Deter if possible.
- But FASTSTART to mitigate further loss and help restore normalcy.

WHO Society of American Military Engineers.

WHY National Security Council DD-47 calls for preparedness of government in partnership with the private sector.

SO WHAT'S IN IT FOR ME?

- Government Agencies - a way to get private sector engineering and construction organizations on board quickly.
- Industry - a leg up on the competition in emergency requirements design standards and contracting procedures.
- All - reduction in threat potential.

HOW DOES IT WORK?

- General emergency work requirements.
- Inventory private sector capabilities.
- Determine engineer applicability.
- Make capabilities known to public sector.
- Identify emergency contracting issues.
- Practice in natural disasters.
- Develop mitigation strategies and implement measures.

OPERATION FASTSTART

I. INTRODUCTION

Architects, engineers, materials suppliers, and construction contractors, particularly those who are members of the Society of American Military Engineers (SAME), need to understand the priorities and problems faced by the nation during disasters or emergencies that require rapid and significant mobilization. As an organization within the engineering construction community, SAME can be a major deterrent factor and a positive mitigating force in a national emergency. It can also provide a positive mitigating force prior to, during and after natural disasters, industrial emergencies or civil insurrection. This is particularly so if local engineering and construction organizations are ready for the possibility of disaster. SAME posts can help promote readiness both prior to and during these emergencies and natural disasters.

Of all the disasters that befall mankind, war is certainly the worst. As we saw in the aftermath of the tragic events surrounding 11 September 2001, our ability to respond and our survival as a nation depends to a great extent on our preparedness and readiness to respond. The resources of SAME are an important part of our national preparedness.

A huge, untapped deterrent value resides within the US engineering/construction industry. Construction alone in this country is a \$300 billion per year industry. To maximize its deterrent value, we must make a potential opponent count major portions of the civilian industry when computing the military engineering capacity of the United States. We have just such a national plan to develop this information; it is called "Operation FASTSTART."

"Operation FASTSTART" is designed to increase the awareness of local planners, design and construction personnel so they:

- understand the mechanisms of contracting for emergency services;
- improve their response time by understanding what they may be required to do and when; and
- assist the Society in responding effectively to the emergencies that may face our nation and/or local region. In short, it is preparedness for the full range of national emergencies: natural, industrial, defense.

II. PURPOSE

National and local readiness provides a deterrence and, therefore, lowers the probability that an attack will occur. Also, with readiness and rapid response, the effects of an attack or disaster can be further mitigated. The purposes of "Operation FASTSTART" are:

To better posture the engineering/construction assets of the Colorado and Front Range area to respond effectively in a national emergency, natural disaster, or other type of emergency.

To make the US engineering/construction industry a credible deterrent force.

Through our professional organizations, such as the Society of American Military Engineers, we need to inspect our strategy, doctrine, and plans for emergency response. In doing so, we believe it is in the nation's interest to:

- A. **REDUCE RESPONSE TIME.** In any emergency, loss of life and property is lessened by quick response. Reducing the time required to reorient from peace to defense will pay dividends toward national survival.
- B. **MAKE MAXIMUM USE OF EXISTING CAPABILITIES.** The US contract construction industry is decentralized, flexible, mobile, and highly elastic to demand. The industry has demonstrated that it can respond, provided enlightened government guidelines and decentralized leadership are in place and ready for the emergency. Existing capabilities are adequate for nearly any contingency, given proper preparedness.
- C. **ENHANCE AWARENESS.** The industry must be aware of and involved in the national emergency planning process. Industry planners must understand the mechanisms involved in contracting for emergency services.
- D. **MAINTAIN FLEXIBILITY.** The worldwide threats to US interests in the decades ahead are diverse. The increased demand for limited resources worldwide is likely to increase confrontations. The requirement for flexibility in planning for any contingency is apparent.

III. KEY ORGANIZATIONS

- A. FEMA. The Federal Emergency Management Agency coordinates the establishment of policies for mobilization preparedness of Federal Agencies, prepares and maintains the Federal Master Mobilization Plan and guides the states and federal regional councils in their emergency preparedness. The United States is divided into ten FEMA regions, with Denver being the headquarters for FEMA Region VIII which covers the states of Colorado, Utah, Wyoming, Montana, and the Dakotas.
- B. THE CONSTRUCTION INDUSTRY. The US contract construction industry is the nation's largest category of industrial employers. As such, it contributes roughly 10 percent to the gross national product. With a proud, patriotic history, the industry has proven that it can expand its capacity to meet the nation's emergency requirements. In peacetime, defense needs consume only 2 to 3 percent of the construction industry's capacity. However, wartime requirements could consume as much as 60 percent of that capacity.
- C. THE SOCIETY OF AMERICAN MILITARY ENGINEERS (SAME). Dedicated to the national defense, the Society was founded following World War I, in which engineers of the Army and Navy had served with thousands of civilian engineers taken into the military services for war duty. Similarly, during periods of peace, the Society, through its local chapters, has formed a link between military and civilian engineers for training and preparedness, for development of resources and facilities in the national economy, and for enhancement of the engineering profession through education.
- D. STATE OF COLORADO, DIVISION OF EMERGENCY MANAGEMENT (CDEM). The Division of Emergency Management is organized as a division of the State Department of Local Affairs. It is responsible for preparing and maintaining the COLORADO EMERGENCY OPERATIONS PLAN. . It serves as point of contact and coordinating agency in providing assistance to local officials in designing local emergency action plans. Resource requirements for the state and its political subdivisions are determined by DEM, and when advisable, it procures essential equipment for augmenting emergency operations. It assists in the establishment and conduct of training programs and public information programs; maintains a register of search and rescue organizations operating within the state and assists them in their training and proficiency standards; and it cooperates with federal agencies and other public or private agencies to the above purposes and in implementing programs for disaster prevention, preparation, response and recovery.

Each level of government is responsible, by law, for the safety of its citizens. Citizens expect that state and local governments will keep them informed and provide assistance in the event of an emergency or disaster. All levels of government share the responsibility for working together in mitigating, preparing for, responding to, and recovering from the effects of an emergency or disaster event.

The purpose of the Colorado State Emergency Operations Plan (SEOP) is to identify the roles, responsibilities and actions of state government in disasters. Emergency operations plans address the ability to direct, control, coordinate and manage emergency operations. Each level of government should respond to an incident using its available resources, to include the use of mutual aid, and may request assistance from the next higher level of government, if required. (I.e., municipality to county; county to

state, state to federal government.) When local government capabilities are taxed, state government has resources and expertise available to provide emergency or disaster assistance. The state will modify normal operations and redirect resources to assist and support local governments in saving lives, relieving human suffering, sustaining survivors, protecting property, and reestablishing essential services. Federal government resources and expertise can be mobilized to augment emergency or disaster efforts beyond the capabilities of state government.

The SEOP gives direction to state agencies and some volunteer agencies in responding to emergencies or disasters. It delineates emergency response procedures, responsibilities, lines of authority, and continuity of Government. The format is compatible to the Federal Response Plan (FRP) by using a functional approach to providing assistance. In this functional approach, emergency support functions, i.e., transportation, communications, information and planning, etc., have been assigned to a lead state agency with other departments in supporting roles. The lead department is responsible for developing and maintaining the appropriate annex and for seeing that tasks are completed during emergency operations.

The following summary of the SEOP should give an overview of emergency operations.

1. Governor: The Governor, as the executive head of state, has the inherent responsibility, constitutional and statutory authority, to commit state and local resources (personnel, equipment, and financial) for the purpose of "... meeting the dangers to the state and its people presented by disasters" This responsibility is exercised through the Director, Office of Emergency Management (COEM), Department of Local Affairs (DOLA). The Governor's Disaster Emergency Council serves as an advisory council to the Governor and the Director, Office of Emergency Management on all matters pertaining to Declarations of State Disaster Emergencies, and on the response and recovery activities of state government.
2. Division of Emergency Management (CDEM): The Governor has delegated the Division of Emergency Management, through its director, the responsibility of managing and coordinating emergency operations which involve state and when necessary, federal resources. CDEM is charged with preparing and maintaining the SEOP and for the expeditious and efficient manner in which it is implemented. It is responsible for the organization and operations of the State Emergency Operations Center (SEOC) for both emergency and non-emergency operations. Further, the Office of Emergency Management is responsible for assisting local government emergency management in the development and maintenance of emergency operations plans, procedures and checklists. In the event of a major emergency or disaster, or the threat thereof, the Director, Division of Emergency Management, makes recommendations to the Governor and Disaster Emergency Council on matters pertaining to State Declarations of a Disaster Emergency, requests for federal assistance, and ongoing state disaster response and recovery activities.
3. Office of Preparedness, Security and Fire Safety (OPS): The mission of the OPS, in coordination with other public and private sector organizations, is to promote prevention, preparedness, communications, and counter terrorism intelligence sharing capabilities and enhance the Colorado crisis management structure to combat domestic and international terrorism. The strategy will include: implementing measures to reduce our vulnerabilities; deterring terrorism through a clear public policy; enhancing the rapid and effective response to threats or actual terrorist acts;

and developing sufficient capabilities to combat and manage the consequences of terrorist incidents involving Weapons of Mass Destruction (WMD).

4. **State Departments:** State departments are responsible, within their statutory authorities, to provide assistance and support to local jurisdictions when they are unable to cope with a disaster emergency situation. Upon implementation of the State Emergency Operations Plan they are responsible for the implementation of assigned State Emergency Functions. The operational roles, responsibilities and intra-organizational relationships of state departments are described in detail in the assigned State Emergency Function Annexes.
5. **Local Government:** The Chief Executive Officer of each political subdivision (county and municipality) is responsible for reducing the vulnerability of people and property to the effects of emergencies and disasters. Local government's disaster emergency responsibilities include the following: (a) Ensure that local government agencies are capable of efficient and responsive mobilization of resources to protect lives, minimize property loss, and expedite recovery efforts. (b) Ensure that the jurisdiction is served by an Emergency Management Office. (c) Ensure that a Local Emergency Operations Plan is prepared and based on valid hazards and risk analysis. (d) Ensure that the local plan is exercised and kept current. (Reference: Title 24, Article 32, Part 2107, Colorado Revised Statute, as amended) Local Government retains command of an incident unless it is relinquished to another authority.
6. **Federal Government:** When a disaster emergency exceeds the capabilities of state and local governments, the Federal government supports state and local emergency operations with its resources. The Federal Emergency Management Agency (FEMA) has the responsibility for coordinating Federal emergency or disaster operations and resources in support of state and local governments. FEMA is also responsible for directing and coordinating the delivery of federal disaster relief assistance.
7. **Volunteer and Private Organizations:** There are several agencies within the state that are organized to provide assistance during a disaster or emergency to meet essential human needs. Organizations with existing Memorandums of Understanding/Agreements with the state have been assigned supporting roles to specific State Emergency Functions.

E. COEM OPERATIONS & OPERATIONS SUPPORT SECTION

This section is responsible for the Colorado State Emergency Operations Plan, the state Emergency Operations Center, and coordination with state agencies in support of local jurisdictions during emergency or disaster situations and for special events. Also in this section are Communications, Facilities and Equipment, and Hazmat.

The Colorado State Emergency Operations Plan (SEOP) was completely rewritten in 1996 and revised in 2000. The new plan follows the format of the Federal Response Plan, i.e., Basic Plan, Functional, Annexes and Hazard-specific Annexes. The functional annexes were set up to follow the federal plan as closely as possible with the addition of annexes for Law Enforcement and Damage Assessment.

The Colorado Multi-Agency Coordination Center (MACC) is located in Centennial in a building shared with South Metro Fire & Rescue. The alternate location is at Camp George West in Golden, Colorado.

- The MACC is a center for coordination of Local, State & Federal support to disaster emergencies. It has redundant communications systems, offers resource mobilization and tracking, a policy room for affected elected officials. It's capable of managing state support of large scale incidents, is expandable to accommodate multiple agencies/jurisdictions, and has a secure video teleconferencing for direct continuity of government.

The state Emergency Line is answered in-house during office hours and by the Colorado State Patrol after hours. Calls after hours are referred to our Duty Officer. Staff rotate Duty Officer responsibilities; i.e., on call during off-duty hours. The Duty Officer is supplied with a laptop computer, cell phone, and several pagers to enable a quality response from the state at any hour. The Communications Section is made up of several redundant communications systems in order to support the MACC under any circumstances. We have radio equipment that ranges through all radio bands that include low, high, very high, ultra high, and 800 megahertz frequencies. This is supplemented by a full range of amateur radios and amateur radio operator support. Additionally, the communications section is equipped with the Colorado Crime Information Computer and federal and state National Alert Warning Systems dedicated telephone circuits. The MACC has also a full range of mobile radio equipment as well as cellars.

The Colorado Division of Emergency Management is active in the hazardous materials arena by supporting the Colorado Emergency Planning Commission (CEPC) the entity charged with implementation of the Superfund Amendment and Reauthorization Act - Title III - Emergency Planning and Community Right-To-Know Act. CDEM also manages US DOT Hazardous Materials Emergency Planning grant program that makes annual grants for all aspects of hazmat planning, exercising, and training. CDEM is proactive as well as reactive in the hazardous materials venue as are many other state and local agencies.

- G. DENVER METRO AREA: each of the Counties and Municipalities in the Metro Area has an agency specifically responsible for similar functions in their jurisdiction.

Assisting county and city agencies in the performance of their assigned responsibilities through planning emergency response and an Emergency Operations and Communications Center.

- Coordinating Federal, State, County, City, volunteer and private resources during times of major emergencies and disasters.
- Pursuing and negotiating cooperative agreements and efforts to pool local public and private resources and contacts.
- Assisting the Denver Regional Council of Governments (DRCOG).
- Providing education to the citizens of their communities regarding ways to minimize the personal effects of disasters.

These agencies are listed in Appendix C. Additional information and internet links are included in the Colorado Office of Emergency Management Website at <http://www.dola.state.co.us/oem/localem.htm>.

IV. CONTRACTING AGENCIES

- A. In the Denver Metro area contracting for materials and services during a major emergency or disaster could be handled by the military contracting office at Buckley Air Force Base. In addition, the US Army Corps of Engineers (USACE) maintains an area office of the Omaha District. (See Appendix D for phone numbers and addresses.) The district office of USACE is chartered to provide federal engineering management in emergencies at the local level within the civil sector. The Corps of Engineers is prepared for actions in a broad spectrum of emergency conditions that range from natural disaster to nuclear holocaust. Fundamental authority covers responsibilities for water resources protection and disaster relief and for civil defense. These missions have one thing in common. The Corps is charged with mitigating loss of life and property in national disasters, whether natural or man-made. The United States averages about 30 disasters a year of the size that requires the Corps of Engineers to assist with recovery. But these events do not compare in magnitude to those experienced and postulated in preparation for, conduct of, and recovery from war.
- B. In addition, the Naval Facilities Engineering Command (NAVFAC) contracts military construction through six Engineering Field Divisions (EFDs) located throughout the United States. Although present plans show no Naval or Marine Corps mobilization facilities needs in this area, unforeseen naval facilities requirements might arise such as a new marine corps training facility. If so, a Resident Officer-in-Charge of Construction (ROICC) would be assigned and would establish an office in the area. He would be empowered to contract A&E services and construction. This is the procedure that was followed when NAVFAC constructed the new Naval Reserve facility at Buckley ANG Base.
- C. Also, the Colorado National Guard, USP&FO, contracts for materials and services on an ongoing basis. In time of emergency, it would continue to fulfill this role up to the condition of full mobilization where it would be dissolved after all State resources are mobilized and existing contracts completed. The State of Colorado has various departments that may enter into contracts with local firms for services and/or materials in time of emergency. Depending on the department and the state of emergency, different contracting conditions may exist. Finally, the several counties and municipalities in the Denver Metro area have various departments that may also enter into contracts with local firms in times of emergency. Again, different conditions exist from one department to another.

V. MOBILIZATION READINESS

Prior to full military mobilization and dependent on congressional priorities, there may be a period of construction effort devoted to civil defense shelters, hardening of key communications facilities, emergency operations centers, infrastructure protection, and preparation for restoration of infrastructure following attack. If this does not occur in the days preceding a mobilization, it will become necessary thereafter.

During military mobilization, the focus of the nation's defense construction effort will be to first support the mobilization and deployment of both active and reserve component troops and provide construction support to other federal agencies. This support will consist of construction at military installations, to include barracks, warehouses, utilities, waterfront structures, airfields, missile installations, transportation networks, and hospitals. As the mobilization continues, emphasis can be expected to shift from construction of military facilities to construction of industrial plants and transportation systems to support and sustain the force and to construction of civil defense structures, protection of infrastructure, and hardening of key facilities not yet protected.

This construction effort will require people skilled in nearly all engineering disciplines particularly structural, mechanical, electrical, and civil engineering. In addition to using the "old hands" in military programs, maximum use will be made of the skills found in the civil programs and in the civilian construction industry. We can gain valuable response time from prearranged contract knowledge and terms between the agencies and civilian contractors. Additional response time can be gained by training people who would be coming into military programs in some aspects of their mobilization assignments before mobilization occurs.

SAME programs, including Operation FASTSTART, will play an important part in mobilization readiness by facilitating contact on an ongoing basis between government contracting officials, civil defense agencies, A&E firms, construction firms, and suppliers. The SAME post meetings, training seminars, conventions, and publications all help provide a degree of mobilization readiness to its members. It is the intent of the Society to further enhance this readiness posture by participating in civil defense and mobilization exercises being conducted by local emergency preparedness agencies. In this fashion, our members can become aware of the standardized methods of construction, the "M-drawings", and master planning already in place, and participate in the further development and refinement of these mobilization tools.

VI. CIVIL PREPAREDNESS AND READINESS

The process described for military mobilization will similarly help our response time and preparedness for civil disasters and emergencies. By clarifying channels of communications, contracting procedures, and individual responsibilities, the ability of local governments to respond to local emergencies and disasters will be greatly improved.

From time to time, local, regional, state and federal agencies conduct Civil Preparedness exercises. Too often these exercises only simulate the participation of key elements such as the A&E community and the contracting entities that will be needed to perform the work. Through SAME, more industry participation is possible in order to reach a more advanced state of readiness. The agencies conducting these exercises are encouraged to seek the voluntary participation of SAME member firms and to have SAME representation at the various levels of activity. Conversely, we encourage our member firms to volunteer their services in these exercises. Only through such cooperation can we achieve an effective level of disaster preparedness, fulfill the industry's portion of the "partnership" language contained in the National Security Council's Document 47 and directly contribute to the SAME theme "Dedicated to National Defense".

VII. THE PROCESS

To maximize the deterrent value and mitigation capacity of the industry, a doctrine of planning, preparation, and organization must be known and practiced by industry. SAME is the organization best suited to facilitate this process.

A. REPORTING. As a private contractor, when and to whom do I report availability for work in an emergency?

A&E firms, contractors, suppliers, and subcontractors can be prepared to accept mobilization direction from the local contracting officer, from the USACE District or Division Engineer or the NAVFAC EFD Commander in their local area. To insure timely and effective direction, these agencies need to know your firm's capabilities and assets. Without jeopardizing proprietary information, contractors who wish to accept mobilization work can report their assets, capabilities, and area of availability through the Front Range SAME Posts i.e. Denver Metro Post. SAME can play a role in educating firms in this process. Each interested firm normally maintains a current inventory of its assets and capabilities. Making this document available to these agencies through this plan will accomplish this purpose. Firms that see themselves playing a major role during mobilization in their locality should plan for that eventuality now. Sustaining members of SAME are being asked to provide this capability information as a part of "Operation FASTSTART". Other organizations are invited to join with us in this effort.

B. OPERATIONS. What is the nature of emergency operations?

Emergencies can run the gamut of situations from blizzards, floods, earthquakes and tornadoes to chemical/nuclear accident, terrorist attack, war mobilization and/or nuclear attack. Operations at the peace to emergency interface are discontinuous, and time becomes the most precious resource. Private firms, whether they are A-E firms, contractors, suppliers, and/or subcontractors, must be able to make adjustments in their operations. New relationships must be established with local, state, regional, and national agencies to determine the response ethic necessary for the private sector to perform its role while averting panic. Again, SAME can act as the facilitator of this process. A partial list of agencies responsible for emergency response is at Appendix D.

C. PROCEDURES. What types of contracting procedures can be expected during national emergencies?

The procedures will probably depend on the severity of the emergency and the response time required. The competitive bid process is always desirable. In previous mobilization experiences, the use of cost plus fixed fee contracts was the norm, although not necessarily the most economical. Where competitive bid contracts can be used, history shows they should be used. Where expediency is most important, the cost plus fixed fee contract allows construction to begin before plans and specifications are finalized. It also guarantees that the contractor and A&E firm will be reimbursed for any rapidly rising, unpredictable labor and material costs necessary to perform the task they have been assigned. Standard procedures are established for A&E selection, contractor selection, types of contracts, percentage figures, cost plus fixed fee contracts, and/or different methods of contracting out work to accomplish the mission.

D. **LIABILITY.** What relief from liability for ongoing projects can be expected?

Mechanisms to determine which projects are to be stopped and how, which projects should be continued, and which projects that should be started depend on the magnitude of the mobilization and the nature of the project. The government's mobilization efforts and priorities will be available to the private sector to facilitate private industry's conversion from peacetime work to the mobilization effort. Contractors will be engaged in both government contracts and private contracts, and the rules for relief differ between the two. SAME can assist in this exchange.

E. **DESIGN STANDARDS/STANDARD DESIGNS.** What are the design standards for mobilization construction?

Peacetime standards provide "permanency," whereas emergency standards are best described as "expedient." Design criteria and standards and construction specifications standards for mobilization installations are being developed. A combined effort by the government, A&E firms, and contractors is necessary to establish standards consistent with good construction practices and with the environment of the area where the district and/or division offices are located. These design standards take into account the manpower, equipment, supplies, and subcontractors available within a mobilization period to perform the necessary construction activities. Mobilization construction, as currently envisioned, will use standard plans and noncritical materials (primarily wood). The objective is to build functional facilities in a minimum of time. It can be expected that maximum use of "alternatives" to construction will be sought, such as leasing civilian or other government facilities, and converting nonessential military facilities. The design of standard mobilization facilities is in progress, to include all drawings, standard specifications and individual bills of materials. These designs include all drawings. Once the specific construction requirements are established, a complete bill of materials can be compiled. This will allow a quick assessment of suppliers' ability to meet the demand for materials.

F. **MANPOWER AND EQUIPMENT READINESS.** How can the private sector enhance its readiness?

Prior planning and analysis is the key to enhanced readiness. First, a firm should examine its manpower availability under mobilization conditions. Key personnel who are members of the Active or Inactive Reserves should be identified and discounted, and plans should be made for filling gaps. Second, the change in employee priorities and needs during emergency conditions must be recognized. At these times, people's professional dedication will be tempered with worries about the safety of themselves and their families. A readiness plan must be sensitive to the psychological condition of those charged with its execution. The principals of a firm must be prepared to assume a leadership role in restoring order to the disorder that inevitably follows a mobilization.

Employees must be made to feel confident in their firm's ability to perform during emergency conditions. Also, emergency relationships with A&Es, subcontractors, and suppliers should be prepared based on specific sectors of emergency work. Finally, the organization should inform the local emergency authorities of its manpower preparedness.

We recommend equipment readiness lists be established with each firm that has submitted its qualifications and expertise and whose expertise will be needed in a

mobilization deterrence. Lists for A&E firms should include all types of survey instruments, computers, plotters, and computer software. Contracting and construction firms should list necessary construction equipment, such as road building equipment, cranes, pile driving equipment, and small equipment necessary to perform the mission.

VIII. THE FEEDBACK MECHANISM

Once we as a society of military and civil engineers think through the probability of disaster, our ability to deter, and our response capability, important new thoughts, concepts, tactics, equipment, and processes will evolve. These can save precious minutes, lives, and property. It is here that SAME can play the greatest role. The Society must have a vehicle to make this happen -- to provide this feedback. The first step is this Post Plan. The next step is to maintain the plan. We need you, the individual member, the Sustaining Member, the interested prospect, to provide us continual feedback in the form of questions, concerns, and/or suggestions for improvement, as well as updates of your readiness inventory. Please let us hear from you! Only through your involvement will this plan grow. Only through your involvement will our readiness condition improve.

IX. WORK EFFORT REQUIREMENTS

- A. **WARTIME (MOBILIZATION).** The work effort required to support mobilization, the buildup of the armed forces, includes immediate construction of military facilities and long-term expansion of the industrial base. The construction of military facilities will support the increased manpower required to supplement existing active duty forces. The initial phase of mobilization construction will center around troop support, maintenance, and training projects, and projects to convert existing peacetime facilities to wartime uses. These construction projects will use either existing plans and specifications or the COE mobilization designs with expedited completion schedules. Following the initial phase, the requirements will shift to more site specific design and construction of more permanent facilities. Expansion of existing facilities may also be included. The primary locations for military construction work will center around the existing active duty and reserve installations. Several such facilities in this area are:

Denver Area

The Denver Federal Center, Rocky Mountain Arsenal, Buckley Air Force Base (AF& COANG), Camp George West (COARNG).

The expansion of the industrial base may be required to support a long-term conflict. The main emphasis will be to provide support to manufacturers who participate in defense programs. The primary work will be to build structures and production facilities. The estimated construction requirements for military construction in this area are approximately \$250 million. Industrial base expansion is estimated to require approximately \$500 million.

- B. **NATURAL DISASTER.** The most devastating natural disasters that could occur within the region are earthquakes, tornadoes, and floods. Although the likelihood of a major earthquake, tornado, or flood in this region is low, the impact would be catastrophic for the area hit. Other emergencies including blizzards, wind storms, and chemical or nuclear accidents can also be anticipated.

The Federal Emergency Management Agency has estimated, for example, that a major disaster in the Denver Area could result in hundreds of deaths and millions of dollars in property damage. Major damage to energy facilities (power plants, oil refineries) is also a possibility resulting in disruption to energy supplies.

The type of construction required would range from debris removal and emergency restoration of essential services to major reconstruction of all types of facilities, including bridge and road construction, renovation and reconstruction of structures, and restoration of utility systems.

- C. **TERRORIST THREAT OR ACTIVITY.** Not as unlikely as it may seem (especially since the Oklahoma City Federal Building bombing and September 11th attacks on the World Trade Center and Pentagon), there are elements within and outside our society that seek to enhance their own goals through the use of sabotage of key installations and the transportation and communications infrastructure. Such activities have the potential for crippling our nation in a time of emergency.

Normally, the responsibility for controlling such disturbances falls to the local civil authorities such as city and state police. When civil authority is unable to cope with such disturbances the Governor has the authority to call up the National Guard to quell these disturbances. The construction industry may also be called upon. Participation by member firms would be similar to that of a natural disaster in that construction efforts would be aimed at restoration of essential services, debris removal, and reconstruction of public facilities such as roads and bridges, utilities and other structures. Design consideration for new facilities should emphasize, where possible, mitigation of threat. The industry through SAME can also make a contribution in this mitigation effort.

- D. RESOURCES. The Society of American Military Engineers in Colorado has significant resources, the Denver Metro Post currently has approximately 60 sustaining member firms, although some firms are members of both posts. These firms are engineering and construction-related businesses in the Denver Metro Area. (See lists in Appendix B.) SAME sustaining member firms have been asked to identify the type and extent of resources at their disposal that might then become available in the event of natural disaster in the area or national military mobilization. The SAME profile questionnaire was used to collect the data (Appendix A).

Other firms in the area are also being asked to participate in this information gathering effort and to join us either as sustaining member firms or as individual members.

It is our intent to use this plan to help recruit additional members and in the process expand the resources available in time of emergencies through Operation FASTSTART. **Membership information for the Denver Metro Post is at <http://same.org/Denver/>.**

Appendix A is a copy of the SAME Membership Profile Questionnaire.

Appendix B is our "Honor Roll of Sustaining Members".

Appendix C is a summary of the Federal, State and Local Agencies that can be involved in emergencies of various natures.

Appendix D contains Website addresses for emergency preparedness organizations.

Appendix E is the Colorado Expertise Data Sheet.

X. COLORADO EXPERTISE DATA SHEET.

After data was gathered using the SAME Membership Profile Questionnaire (Appendix A), it was placed into the Colorado Expertise Data Sheet shown in Appendix E. This sortable Excel spread sheet allows the data to be access rapidly for each of the Areas of Expertise. The data sheet lists the volunteer companies and their point of contact's phone numbers and email address. The geographic area of coverage is listed, as are the general heading for the each area of expertise. Ratings as determined by company input for each specific technical requirement are listed within the spread sheet. This format allows the user to sort on a specific area and to obtain the companies that have that expertise. The final column lists any existing contact vehicles for each company.

The Colorado Expertise Data Sheet will expedite the process of finding the talents needed in an emergency, either by an SAME member assigned to an Emergency Operations Center or by the individual with the Emergency Operations Center staff who has the task to find the expertise. The data sheet has been reviewed by the Colorado State, Denver City and County, and Federal emergency agencies and improved based upon their comments.

APPENDIX A

SAME Membership Profile Questionnaire

We realize the following questionnaire is not as applicable to design and consultant firms as it is to construction firms. However, please respond to the items with your expertise in mind whether it is construction, design, consulting, or supply. It allows data to be placed onto the FASTSTART Colorado Expertise Data Sheet.

If you have suggestions to improve this form for future update, please let us know. Thank you.

AREAS OF EXPERTISE

** Please use this self-scoring scale to fill in the following blanks:

4 -- We have a great deal of experience in this area (our specialty).

3 -- We do this work on a routine basis.

2 -- We have some experience in this area.

1 -- We have this capability but little experience.

0 -- We do not do this type of work.

I. HIGHWAYS, STREETS, AND BRIDGES

- | | | | |
|---------------------------|-----|-------------|-----|
| 1) Clearing | () | 4) Concrete | () |
| 2) Earthwork | () | 5) Asphalt | () |
| 3) Bridge Const. & Repair | () | 6) Other | () |

II. BUILDING

- | | | | |
|------------------------|-----|---------------|-----|
| 1) General Contracting | () | 5) HVAC | () |
| 2) Erection | () | 6) Electrical | () |
| 3) Foundations | () | 7) Roofing | () |
| 4) Plumbing | () | 8) Interiors | () |

III. UTILITIES

- | | | | |
|----------------------------|-----|------------------------------|-----|
| 1) Telephone | () | 5) Communication Towers | () |
| 2) Electrical Transmission | () | 6) Water and Sewer Treatment | () |
| 3) Natural Gas | () | 7) Power Plants | () |
| 4) Water and Sewer Systems | () | 8) Nuclear Plants | () |

IV. RAILROADS

- | | | | |
|-------------------------|-----|------------------|-----|
| 1) General Construction | () | 3) Signal Repair | () |
| 2) Track Repair | () | | |

V. AIRPORTS

- | | | | |
|------------------|-----|--|-----|
| 1) Construction | () | 4) Electronic Facilities Repair
And Install | () |
| 2) Runway Repair | () | 5) Fueling Facilities Repair | () |
| 3) Design | () | | |

VI. MINING

- | | | | |
|--------------------|-----|----------|-----|
| 1) Sand and Gravel | () | 3) Other | () |
| 2) Rock Crushing | () | | |

VII. DEBRIS

- | | | | |
|-----------------|-----|------------|-----|
| 1) Clearing | () | 3) Salvage | () |
| 2) Transporting | () | | |

VIII. OTHER

Please Return to:

Denver Metro Post

Patrick Scher

email: PScher@ecc.net

APPENDIX B

Honor Roll of Sustaining Members

Denver Metro Post

NAME	ADDRESS		CITY	STATE	ZIP	WPHONE
AMEC	550 S Wadsworth Blvd	Ste 500	Lakewood	CO	80226-3100	(303)935-6505
ARCADIS	630 Plaza Dr	Ste 200	Highlands Ranch	CO	80129-2379	(720)344-3500
ASCG Inc.	12596 W Bayaud Ave	Suite 200	Lakewood	CO	80228-2000	(303)458-5550
Boyle Engineering Corp.	215 Union Blvd	Ste 500	Lakewood	CO	80228-1839	(303)987-3443
Calibre	11001 W 120th Ave	Ste 400	Broomfield	CO	80021-3494	(303)456-9082
CDM	1331 17th St	Ste 1050	Denver	CO	80202-1566	(303)295-1237
CH2M HILL	9191 S Jamaica St		Englewood	CO	80112-5942	(303)771-0900
Clayton Group Services Inc.	165 S Union Blvd	Ste 310	Lakewood	CO	80228-2215	(303)988-2585
Colorado State University Dept Construction Mgmt	Guggenheim Hall		Fort Collins	CO	80523-1584	(970)491-7353
DataChem Laboratories Inc.	7031 S Oak Ct		Littleton	CO	80127-5801	
Dynamac Corporation	4891 Independence St	Ste 149	Wheat Ridge	CO	80033-6752	(580)436-5740
Earth Tech Inc.	5575 DTC Pkwy	Ste 200	Englewood	CO	80111-3008	(303)694-6660
ECC	1746 Cole Blvd	Bldg 21 Ste 350	Lakewood	CO	80401-3208	(303)298-7607
EMC Engineers Inc.	143 Union Blvd	Ste 350	Lakewood	CO	80228-1816	(303)974-1200
Engineering-Environmental Management Inc.	9563 S Kingston Ct		Englewood	CO	80112-5952	(303)721-9219
ESN Rocky Mountain	130 Capital Dr	Ste C	Golden	CO	80401-5655	(303)278-1911
ETI Professionals Inc.	165 S Union Blvd	Ste 700	Lakewood	CO	80228-2215	(888)540-5018
Farnsworth Group Inc.	8055 E Tufts Ave	Ste 850	Denver	CO	80237-2835	(303)692-8838
HNTB	1600 Broadway	Ste 1300	Denver	CO	80202-4927	(303)839-8300
Hudspeth and Associates	14 Inverness Dr E	Ste F124	Englewood	CO	80112-5625	(303)791-5562
Huitt-Zollars Inc.	4582 S Ulster St	Ste 1303	Denver	CO	80237-2632	(303)740-7325
HydroGeoLogic Inc	2460 W 26th Ave	Ste 450C	Denver	CO	80211-5308	(303)598-5264
JACOBS	1527 Cole Blvd	Suite 100	Golden	CO	80401-3409	(303)462-7186
Kiewit Construction Company	7200 S Alton Way	Ste A-300	Englewood	CO	80112-2201	(303)930-9000
Kleinfelder Inc	747 Sheridan Blvd	Ste 9B	Denver	CO	80214-2563	(303)237-6601
MACTEC Engineering and Consulting	14062 Denver West Pkwy	Ste 300	Golden	CO	80401-3187	(303)292-5365
Matrix Design Group	2925 Professional Pl	Ste 202	Colorado Springs	CO	80904-8126	(719)575-0100
Merrick & Company	PO Box 22026		Denver	CO	80222-0026	(303)751-0741
Michael Baker Corp./Michael Baker Jr. Inc.	355 Union Blvd	Ste 200	Lakewood	CO	80228-6516	(720)514-1103
MWH	370 Interlocken Blvd	Ste 300	Broomfield	CO	80021-8009	(303)410-4000
Nolte Associates Inc.	8000 S Chester St	Ste 200	Centennial	CO	80112-3520	(303)220-6400
Olson Engineering Inc.	12401 W 49th Ave		Wheat Ridge	CO	80033-1927	(303)423-1212
Olsson Associates	143 Union Blvd	Ste 700	Denver	CO	80228-1824	(720)962-6072
Pacific Western Tech. Ltd.	605 Parfet St	Ste 200	Lakewood	CO	80215-5576	(303)274-5400
Pangea Group	10475 Park Ridge Dr	Ste 600	Littleton	CO	80124	(720)279-2383
Parsons	1700 Broadway	Ste 900	Denver	CO	80290-1700	(303)831-8100

NAME	ADDRESS		CITY	STATE	ZIP	WPHONE
Polycon Systems Inc.	7135 S Tucson Way		Englewood	CO	80112-3987	(303)790-9100
Project Time & Cost Inc.	10355 Westmoor Dr	Ste 200	Westminster	CO	80021-2578	(303)940-3200
Research Management Consultants Inc.	651 Corporate Cir Ste 123		Golden	CO	80401-5652	(303)277-0066
RNL Design	1515 Arapahoe St	Ste 700 Tower 3	Denver	CO	80202	(303)295-1717
RockSol Consulting Group Inc.	2995 Wilderness Pl	Ste 200	Boulder	CO	80301-5408	(303)998-0696
Shaw Environmental & Infrastructure Inc.	9201 E Dry Creek Rd		Centennial	CO	80112-2818	(303)741-7700
Short Elliott Hendrickson Inc. (SEH)	2000 S Colorado Blvd., Ste 6000	Colorado Ctr Tower One	Denver	CO	80222-1900	(720)540-6800
Stanley Consultants Inc.	9200 E Mineral Ave	Ste 400	Englewood	CO	80112-3412	(303)799-6806
TEC Inc.	1546 Cole Blvd	Ste 120	Golden	CO	80401-3406	(303)273-0231
TechLaw Inc.	560 Golden Ridge Rd	Ste 130	Golden	CO	80401-9568	(303)763-7188
Tetra Tech EC Inc.	143 Union Blvd	Ste 1010	Lakewood	CO	80228-1824	(303)980-3738
Tetra Tech EM Inc.	950 17th St	Ste 2200	Denver	CO	80202-2805	(303)295-1101
Tetra Tech Inc.	8301 E Prentice Ave	Ste 101	Greenwood Village	CO	80111-2903	(303)741-6000
Trihydro Corporation	1252 Commerce Dr		Laramie	WY	82070-7000	(307)745-7474
URS Corporation	8181 E Tufts Ave		Denver	CO	80237-2579	(303)694-2770
VECO	9000 E Nichols Ave	Ste 250	Centennial	CO	80112-3475	(303)792-2211
Versar Inc	11990 Grant St	Ste 500	Northglenn	CO	80233-1137	(303)452-5700
Washington Group International Inc.	PO Box 5888		Denver	CO	80217-5888	(303)843-2000
WESTON Solutions Inc.	143 Union Blvd	Ste 810	Lakewood	CO	80228-1824	(303)729-6100
Woolpert Inc	8811 E Hampden Ave	Ste 3G	Denver	CO	80231-4960	(720)748-6433

APPENDIX C

Agency Listing

FEDERAL

FEMA - Federal Emergency Management Agency	303.235.4800
After hours emergency	303.235.4847
Department of Agriculture, Forest Service Region 2, Rocky Mountain Region, Engineering	303.275.5171
USDA-Natural Resources Conservation Service	720.544.2841
Bureau of Land Management	303.239.3600
Department of Housing & Urban Development	303.672.5440
Department of Interior, Bureau of Reclamation	303.659.0833
National Park Service	303.969.2100
Department of Transportation, Regional Federal Highway Administration	720.963.3471
Federal Highway Administration, Colorado Division Administration	720.963.3000
Department of Commerce, Economic Development Administration	303.844.4715
Department of Labor, Mine Safety, and Health	303.231.5465
Federal Aviation Administration	303.342.1180
US Army Corps of Engineers, Area Office	303.979.4120

STATE

Colorado Office of Emergency Management	720.852.6600
Department of Highways Region 2	719.546.5452
Department of Highways Region 6	303.757.9459
Civil Air Patrol	719.282.0543
State Forest Services	970.491.6303
Department of Health (Emergencies)	877.518.5608
Department of Military Affairs (National Guard)	720.847.8000
Department of Public Safety	303.239.4400
Office of the State Engineer (Dam Safety)	303.866.3581

COUNTY

For complete listing with names, phone numbers, and e-mail addresses go to www.dola.state.co.us/oem/localem.htm

LOCAL DENVER LISTING

Arvada Emergency Management Office	720.898.7010
Aurora Office of Emergency Management	303.326.8963
Boulder Emergency Management	303.441.3390
Broomfield Emergency Management	720.887.2063
Denver, Office of Emergency Management	303.865.7600
Denver Department of Public Works	303.640.1000
Denver Board of Water Commissioners	303.628.6000
Regional Transportation District (RTD)	303.292.6560
Lakewood Emergency Preparedness Office	303.987.7190
Littleton Emergencies	303.794.1551
Colorado Contractors Association	303.290.6611
Colorado Building and Construction Trades Council	303.936.3301
Colorado Motor Carriers Association	303.433.3375
American Council of Engineering Companies of Colorado	303.832.2200

APPENDIX D

Websites of Interest

Organization

Disaster Preparedness and Emergency Response Association (DERA)
American Red Cross
Federal Emergency Management Agency (FEMA)
National Emergency Management Association (NEMA)
National Voluntary Organizations Active in Disasters (NVOAD)
Center for Preparedness and Training
Disaster News Network
Colorado Office of Emergency Management - OEM
Colorado County and City Emergency Managers and Sheriffs and Colorado Regional Planners
EPA Chemical Emergency Preparedness and Prevention Office (CEPP)

URL

<http://www.disasters.org/dera/dera.htm>
<http://www.crossnet.org/>
<http://www.fema.gov/>
<http://www.nemaweb.org/index.cfm>
<http://www.nvoad.org/>
<http://www.preparedness-center.com/>
<http://www.disasterresponse.net/>
<http://www.dola.state.co.us/oem/oemindex.htm>
<http://www.dola.state.co.us/oem/localem.htm>
<http://www.epa.gov/swercepp/>

Appendix E

Colorado Expertise Data Sheet