

SAR Program Development Tool Box

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From the Text:

Search Management for the Initial Response Incident Commander

(for Missions Involving Lost or Missing Persons)

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Addendum C

SAR Program Development

1.0 SAR Program Elements:

- #1 Laws and Authorities (Basis for Program).
- #2 SAR Hazard Vulnerability Assessment (SAR HVA).
- #3 SAR HVA Management (Prevention, PSAR).
- #4 Resource Management.
 - Inventories.
 - Developing capacity.
 - Maintenance.
 - Mutual Aid agreements.
- #5 Planning.
 - Development of preplan, SOPs, Checklists.
- #6 Direction, Control, Coordination.
 - Lines of authority.
 - Incident Command System formalized.
- #7 Communications.
 - Systems.
 - Procedures.
- #8 Alert and Mobilization.
 - System developed.
 - Procedures.
 - Designated mobilization center(s).
- #9 Operations and Procedures.
 - Functional SOPs.
 - Field Guide(s).
- #10 Logistics and Facilities.
- #11 Training.
 - Paid staff, volunteers.
 - Professionalism.
 - Awards and recognition.

#12 Drills and Exercises.

#13 Public Education and Information.

#14 Finance and Administration.

2.0 SAR Hazard Vulnerability Assessment (SAR HVA)

2.1 One of the most important tasks that must be accomplished before the SAR preplan can be created is an accurate assessment of the locations and types of SAR problems that might occur in your area. If done properly, this document will form the foundation for:

- Mitigative efforts to prevent the problems.
- Preplanning and training activities.
- Response SOPs and resource allocation.
- Rescue and recovery procedures and identification of resources.

2.2 A Search and Rescue Vulnerability Assessment is defined as a systematic investigation of potential search and/or rescue situations that may occur by analyzing:

- The history of the area.
- Geographic factors.
- Demographic information.
- Probabilities.
- The availability of resources to solve potential problems.

2.3 Benefits of this assessment include:

- Realistic preplanning for search and rescue.
- Establishes both search and rescue resource needs.
- Gives direction for Preventive SAR (PSAR) and mitigative programs.
- Provides incentive for local SAR response effort.
- Enables local SAR coordinators to set priorities and goals that are commensurate with the local need.
- Provides a tool to raise the level of understanding for key public officials who may control budgetary emphasis for SAR response.
- Justifies management decisions for altering programming and staffing assignments.
- Identifies potential trends and future needs for funding, resource allocation and training.

2.4 Developing Your Vulnerability Assessment.

Step 1: Identification of search and/or rescue mission types.

This is the easiest of all the steps since it is simply the compilation of a list of all the mission types that are known to have occurred or that have the potential for

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occurrence. Most will be readily identifiable because of past history or recent missions, but some will be much more elusive. Some unique rescue situations may not be evident at the present time, but with increases in the area's use or population, they may become reality.

Consulting neighboring jurisdictions may also prove beneficial in this initial step.

Step 2: Collection of Information.

Research is necessary to gather all the information for the assessment. If possible, use all the agencies and organizations that might be involved in local SAR operations.

Types of information to collect and compile:

- (1) **Geographic Information.** In order to show the physical impact of missions on logistics, communications, and operations in general it is necessary to identify the size of the jurisdiction, location in the state with respect to outside resources, climate, terrain features, environments to be dealt with, etc. This provides a basis upon which further information can be overlaid.
- (2) **Demographic Information.** This information is vital in determining the potential risk that populations or outdoor users might encounter in the pursuit of certain activities. How many people go to these environments and what kinds of activities do they do. How many visitors does the local jurisdiction get every year from outside the area? How many missions can you expect from a certain number of outdoor users? In addition, other information about the local area may also be helpful. Examples:
 - Number of senior citizen convalescent home walkaways per year.
 - Population fluctuations due to seasons celebrations, holidays, etc.
 - Future incentives for more outdoor users in the area.
 - Mental health or other institution walk- aways per year (or at least population size).
 - Unusual recreational attractions in the area.
- (3) **Location of Activity (Visual Information).** Every jurisdiction will have its own special mix of factors that should be described and analyzed in terms of vulnerability. As a final information gathering step in putting together your assessment, it is advisable to develop a comprehensive risk map which visually depicts the total mission potential for your area.

This accomplishes several important functions:

- Identifies potential high mission areas.
- Provides the basis for resource allocation and backup support.
- Identifies potential high activity seasons in specific geographic areas.
- Identifies the geographic need for public education and information.
- It is a useful tool for orienting and motivating executive policy makers.

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Start with a plain map of the area. Reproduce the outline of your jurisdiction on numerous acetate sheets and attach them together so that they overlap each other exactly. Each overlay should identify a mission type and the locations that these types of missions would be expected to occur. (This could be broken down as to time of year also.) The combination of all missions on the acetate and overlaid, one upon the other is extremely impressive in depicting total risk. (Note: GIS technology can be very helpful in creating risk maps.

Step 3: Development of the SAR Vulnerability Assessment Report.

When the information has been gathered and analyzed, a report should be written and disseminated to the appropriate individuals.

Report format:

1. Justification and Problem.
2. Assumptions.
3. Facts bearing on the situation.
4. Discussion.
5. Conclusions.
6. Recommendations.

And don't forget a cost/benefit analysis that speaks to the liability issues as well.

3.0 Components of a Comprehensive SAR Plan

1. Laws and Authorities (Basis for Program).
2. SAR Hazard Vulnerability Assessment (SAR HVA).
 - 2.1 Knowledge of the environment.
 - 2.2 Documents to include maps:
 - Identify high danger areas, hazards.
 - Identify points of attraction.
 - Show roads and trails.
 - Location of previous incidents.
 - 2.3 Method for collection and analysis of data from incidents.
 - Case histories.
 - Lost person behavior.
3. SAR Mitigation (methods for prevention of future incidents).
 - 3.1 Public Education and Information.
 - Preventive SAR (PSAR) education.
 - Some way to tell the public why these missions are occurring (and how to prevent).
4. Resource Management.

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- 4.1 Inventories.
 - Human Resources (What people are available? Location? Qualifications? Response time?).
 - Physical Resources (What is available? Who to contact? Response time? Limitations?).
 - Informational Resources.
 - Special Resources.
- 4.2 Developing capacity.
- 4.3 Maintenance.
- 4.4 Mutual Aid agreements.
- 4.5 Attachments:
 - Resource lists.
 - Phone lists.
 - Equipment lists.
 - Cooperative (mutual aid) agreements.

- 5. Planning Process and Plan Maintenance.
 - 5.1 Development of preplan, SOPs, checklists.
 - 5.2 Post mission activities.
 - Critique of the operation.
 - After-action paperwork.
 - Change, update plan, procedures.

- 6. Direction, Control, Coordination.
 - 6.1 Lines of authority.
 - 6.2 Incident Command System formalized.

- 7. Communications.
 - 7.1 Systems.
 - 7.2 Procedures.

- 8. Alert and Mobilization.
 - 8.1 System for collection of information on missing subject(s).
 - First notice procedures.
 - Planning, searching data.
 - Lost person questionnaire.
 - Investigation procedures.
 - System developed.
 - Procedures.
 - Designated mobilization center(s).

- 9. Operations and Procedures.
 - 9.1 Development of an action plan, includes procedures for:
 - Establishing priority, urgency.
 - Investigation.
 - Initial response (callout).
 - Establishing an organization (overhead team).

- Briefing/Debriefing.
- Reporting and Documentation.
- Establishing base camp.
- Monitoring, planning mission progress (POA x POD = POS).
- Step-up plan (increasing size of response).
- Communications.
- Providing logistical support.
- Dealing with critical allies (family, media, political).
- Communications.
- Medical, evacuation, rescue plans.
- When, how to suspend.
- Demobilization plan.

9.2 Functional SOPs.

9.3 Field Guide(s).

10. Logistics and Facilities.

11. Training.

11.1 Paid staff, volunteers.

11.2 Professionalism.

11.3 Awards and recognition.

12. Drills and Exercises.

13. Finance and Administration.

“The key to making a Plan work is the ability of the plan to vividly paint clear mental images of the plan to the people who have to know and who have to act.”

—Snowshoe Thompson, 1856.

4.0 The Major Job/Responsibility of the Search Manager is Search Management

4.1 Search Management: Providing the leadership necessary to effectively coordinate work efforts of others to find lost person(s).

- The overall job of the search manager is leading the entire operation, from start to finish and obtaining results.
- The search manager is responsible for getting the right things done at the right time with and through other members of the search organization.

“Never tell people how to do things. Tell them what to do and they will surprise you with their ingenuity.” - General George S. Patton.

4.2 Some Specific Leadership Considerations for Search Management.

- Identify key people. Leaders must be identified and obviously marked (uniform, peacock feather in hat, etc.).
- Everyone must know “who is in charge”!
- You must exert your authority, by taking action and being responsible for decisions.
- When the organization/search effort is large, you have to delegate and use subordinates.
- Identify locations of key functions in base camp.

4.3 What do SAR volunteers expect from the on-scene Search Manager?

- An awareness and understanding of their capabilities and expertise.
- To be given an idea of what they are expected to do (what is their mission?).
- A briefing on the overall plan of action.
- An opportunity to provide input into the search plan by having key volunteer leaders involved in planning sessions.
- To be provided adequate briefings and on-going information.
- To be adequately debriefed.
- To be invited to constructive critiques.

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4.4 What does the on-scene Search Manager expect from SAR volunteers?

- Organization.
- Discipline.
- Cooperation.
- Advice.
- High performance standards.
- Proper clothing, equipment.
- The ability to be self-sufficient.

4.5 From the Research: Five common mistakes made during emergency operations:

- Ambiguity of authority.
- Poor utilization of specialized resources.
- Lack of good interagency communications.
- Unplanned media relations.
- Inability to deal with unplanned volunteer response.

5.0 IC SAR “Tools”

Tools = Items, things necessary to do a proper job.

- Forms (ICS).
- Communication System.
- Resources.
 - Directory of resources (where to obtain).
 - T-Card system (tracking their deployment, use).
- Maps (enough for CP and each team).
 - Topos, colored.
 - Use of UMS.
- Pre-plan.
 - Includes SAR HVA.
- SOP (FOG).
- ICS Kit.
 - Signs, hats, vest, tape, etc.
- Admin supplies.
 - Paper, pencil.
- 48-hour kit (how much?)
 - Rescue equipment.
 - Safety equipment.
 - Personal items.
- Credit card.
- Reference Materials:
 - Managing Search Operations textbook.
 - ICS field operations guide.
 - Other reference materials.
- What else: _____ ?
- Additionally, the Initial Response Incident Commander needs:
 - Authority.
 - Knowledge, ability, and willingness to command.
 - Ability to locate and dispatch needed resources.

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6.0 Suggested Personal Equipment for Search

by Hugh Dougher

- 3 clothing layers*
 - Long underwear.
 - Shorts, turtleneck, socks, gaiters.
 - Medium weight jacket and pants.
- Rain gear (weight as important as material).
- Lightweight boots.
- Wool gloves and waterproof overmitts.
- Knit hat, balaclava, or capuche.
- Ballcap.
- Goggles.
- Bivy bag, nylon fly, or plastic sheet.
- Ready-to-eat, high energy food (power bars, chocolate, candy, dried fruit, etc.).
- Electrolyte replacement drinks.
- Water bottle.
- Water purification tablets, iodine, or filter.
- Headlamp with batteries for entire night, extra bulb. Spare light source.
- Flagging.
- Compass.
- Altimeter (if in mountains).
- Map.
- Handkerchief.
- Signaling kit: Mirror, whistle, smoke flare, cyalume sticks, bright colored clothing item.
- Walking/tracking stick (ski pole), measuring tape (for tracks).
- Sun screen, sunglasses, and/or insect repellent (seasonal).
- Several large garbage bags.
- Pencil and notebook.
- Personal medical kit: Analgesic tablets, moleskin, antiseptic cleaning pads or ointment, band-aids.
- Personal medications.
- Extra pair eye glasses/reading glasses.
- Multipurpose knife.
- Repair kit: Wire, cord, duct tape, large safety pins, paper clips.
- Radio, with extra battery.
- Fire starting kit: candle, waterproof/strike anywhere matches, steel wool, metal match, lighter in ziplock bag.
- Sanitation kit: Soap, towelettes, liquid hand sanitizer, tooth brush/paste, toilet paper, rubber gloves.
- Medium to large pack.

**All insulation layers, including briefs, should be poly-pro type synthetic, or wool. However, if flying in helicopter, NO clothing worn should be synthetic, but rather cotton, wool, or nomex.*

Some Concepts Regarding Personal Search Gear:

- Be self-sufficient for 24 hours.
- Equip for search, not camping.
- Travel light.
- Have room in pack for team and rescue gear.
- It is OK to be wet and tired.
- It is not OK to be hungry, cold, or thirsty.

7.0 Example “Mandatory Training for Search and Rescue Coordinators.”

(Borrowed from King County Sheriff's Office, Washington State)

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|--------------------------------------|---------------------------------------|
| 1. Basic and Intermediate Helicopter | 4 hours |
| 2. CPR | 4 hours |
| 3. First Aid | 4 hours |
| 4. Pathogens: Blood, Air | 2 hours |
| 5. SAR Survival | 4 hours |
| 6. SAR Techniques | 4 hours |
| 7. Map and Compass | 8 hours |
| 8. Crime Scene Search | 2 hours |
| 9. Searching for Alzheimers | 2 hours |
| 10. Swift Water Awareness | 4 hours |
| 11. Avalanche Awareness | 4 hours |
| 12. Tracking Awareness | 4 hours |
| 13. Managing Search Operations | 16 hours minimum (40 hours preferred) |
| 14. Incident Command System | 8 hours |
| 15. SAR Orientation | 8 hours |