

Search and Rescue

Search – locate

Rescue – retrieval, medical, transport

Attitude

Strength

Agility

Flexibility

Endurance

Qualities

Proficient

Humble

Able

Competent

Knowledgeable

Solicitous

Locate – Search

Access – Rescue

Stabilize – Rescue

Transport – Rescue

Components

1. Preplanning
2. Notification

3. Planning and strategy
4. Operations and tactics
5. Suspension
 - a. Demobilization
6. Critique (After action report)
 - a. Modification of preplan

Tactic – action used to achieve objective

Strategy – overall plan

National Search and Rescue Plan

IAMSAR

National Response Framework Catastrophic Incident Search and Rescue Addendum

US Air Force

FAA

CAP

US Coast Guard – any navigable water

Local – Law Enforcement and Emergency Management

Legal

Standard of Care

Negligence

6 expected traits

1. Professional
2. Competent

3. Prepared
4. Focused
5. Trained
6. Caring

NIMS, FEMA, DHS

National Incident Management System

ICS

1. Common terminology
2. Modular organization
3. Chain of command
4. Unity of command
5. Unified command
6. Span of control
7. Pre-designated incident facilities
8. Resource management
9. Integrated communications
10. Transfer of command

5 functional areas

1. Command
 - a. Commander
 - b. Safety officer
 - c. Liaison officer
 - d. Information officer

General staff

Operations section

Planning Section

Logistics section

Finance/admin section

2. Operations

- a. Single resources are smallest independent unit
- b. Strike team is made of several single resources
- c. Task force is a combination of different resources

Group – functional

Division – geographic

Branches

RESTAT – resource status

- available

- assigned

- out of service

3. Planning

- a. Incident Action Plan

4. Logistics section

- a. Services and support needs

5. Finance/Administration section

- a. Financial activities

Features

- common terminology

- incident command post

- staging areas

- incident base

- Helibase – staffed

- helispot – temporary

Position – title

Incident commander

Command staff – officer

Section – chief

Branch – director

Division/group – Supervisor

Strike team/task force – Leader

Unit – Leader

Single Resource – Unit designation

Modular organization

Chain of Command

Unity of command – one supervisor

Span of control 1:3-7

1:5 optimum

Land navigation

Celestial

Pilotage

Dead reckoning

Off-course

Electronic

Compass

Floating dial – lensatic

Cruiser

Fixed dial – not accurate

Orienteering – ideal

Rotating bezel with 1 or 2 degree increments

Direction of travel arrow

Index line

N 360

S 180

E 90

W 270

NE 45

SE 135

SW 225

NW 315

Waist high

Eye level

Maps

Topographic – brown line show elevation

Planimetric – street maps

Nautical – maritime and coastal

Aeronautical – aircraft

Orthophoto

Relief

Hydrologic – natural waterways

Geologic

Pace beads

Metric

4 – 1000 meter

9 – 100 meter

English

6 – 880 yard (1/2 mile)

7 – 110 yard (1/16 mile)

Latitude parallels

Longitude meridians

360 degree – 60 minutes – 1/10 minute

USNG – US National Grid

UTM – Universal Transverse Mercator

Read left to right bottom to top

Resources

Search teams

Hasty – fast, not thorough

Grid

- loose grid is far apart communicate by voice

- tight grid looks for clues

Human trackers look for clues

Search management

Interviews and investigation

- continuous

Technical rope rescue

Urban search and rescue

- structural collapse

Mountain Rescue Association

Water rescue

- tidal

- lakes

- swiftwater

Canine

Scenting cells

Air scent canines

Ground scent

Tracking canines

Trailing canines – track and air

Human remains detection canines

Disaster canines

Avalanche canines

Water search canines

Equestrian

Search theory

$POS = POA \times POD$

Probability of Area – percentage of being in a search segment

Probability of Detection – object being detected

Probability of Success

Last known point – last place subject is verifiably known to have been

Point last seen – location at which someone can confirm the subject was seen

Initial planning point – the starting point

Clue consciousness

Protect last known point or point last seen

Clue – objects or facts

Sign – change in the environment 18-20 inches

Clue awareness – includes the detailed information that clues may provide to the search effort

Lost person questionnaire – contains questions to help obtain information about the lost person. Start asap

Planning data – needed to plan a strategy. Maps, weather, trip plans, circumstances

Searching data – needed by searchers. Name, description, clothing, footwear

Clue categories

Physical: any sign or track left on the environment

Recorded: documentation left by the subject

Testimonial: gathered through interviews and investigation

Analytical: being able to separate things into parts to examine them, draw conclusions, and solve problems

Sensory: hearing someone, smelling smoke

Probable: items found that could belong to the subject

Clue life span

- wind can blow clues around or mask sound
- rain can flood or destroy tracks. Water can move objects
- frost/ice/snow can hide or highlight clues
- heat can melt clue. Clue could reflect light and be easier to see
- time is worst enemy

Search tactics

1. Indirect (passive)
 - a. Bring subject to searchers
 - b. Confinement/containment
 - i. Route blocks
 - ii. Look outs
 - iii. Track traps
 - iv. Road patrols
 - c. Attraction
 - i. Visual
 - ii. Sound
 - iii. Don't forget to listen for a response
2. Direct (active)
 - a. Bring searcher to subject
 - b. Hasty search/trail running
 - c. Human trackers
 - d. Trailing dogs

Investigation/Interview/Information/Intelligence

- lost person questionnaire
- Don't turn interview into interrogation.
- investigation occurs throughout.

Search operations

Search is an emergency.

Urban – age, health, mental status

Search urgency form

1. Age
2. Medical condition
3. Number of subjects

4. Subject experience profile
5. Weather profile
6. Equipment profile
7. Terrain/hazards profile

Arriving on scene

- Must check in!
- set up ICS

General and tactical briefings

- situation
- strategies
- organization
- agencies providing resources
- subject information
- safety briefing

Searcher consciousness