HISTORY
OF
SEARCH & RESCUE

THEN
AND
NOW
Early Days and Methods
Police, Military & Civilian Air Resources
OPP Emergency Response Team
Snowmobile Rescue
Volunteer & Canine Support
Marine Resources
Marine Support
Summer Exercise
Search Master

- Boss
- Plan
- Coordinate
- Delegate
- Decisions
- Supervise
- Evaluate
- Logistics
- Communication
- Strategy
- Tactics
- Ground
- Forces

Search Zones
Principles

Basic # 12: THE MOST IMPORTANT CONSIDERATION

THE THEORY AND PRINCIPLES OF LAND SEARCH
Successful Search is Rooted in Strong Fundamentals

SUCCESS
TACTICS & TECHNIQUES
STRATEGY
ORGANIZATION
THEORY OF SEARCH

BARRIERS TO PROGRESS
• Tradition
• Inaccurate Data
• False Economy
• Poor Training
• Afraid to Take Risks

JOB of the SEARCH BOSS (mgr.)
• Recognize that you are in charge
• You are responsible for getting things done...
  Through / with people

"The job"

PLAN ORGANIZE
COORDINATE
SUPERVISE
WORK OF OTHERS

HOW? THRU YOUR LEADERSHIP / EXPERIENCE

Create and maintain an internal working environment -- in which people can work together effectively and efficiently.
Mapping & Control
Municipal Police Training
Exercise Control

Medium Scale Scheme: (Type 2 and 3 Exercises)
(most common seasonal exercise)
(single day duration)

Type 2 Exercise may be played on smaller scale, with Ex. Director playing multiple role -- as Ex. Director, Controller, and even as Searchmaster.

Simulation Crew Ldr. may play dual role -- as Ldr. and Site Evaluator.

EX DIRECTOR

CONTROLLER

RESPONSE SECTOR (SAR)

SITE EVALUATOR

SAR HEADQUARTERS (SM)

MOBILE SITE CP (Field Officer)

SAR PATROL LDrs. (2 patrols *)

SEARCHERS

SIMULATION SECTOR

SITE EVALUATOR

SIM CREW LEADER (Situation)

UMPIRE

SIMULATOR(S)
Winter SAREX Training
Training - Survival
MAJAID
Field Ops
MAJAID
Field Ops
Canadian Forces School of Search and Rescue

“To seek and save - - so that other’s may live”
Majority of ground searches used to be for lost hunters
Map Search (Ground)

Search for overdue moose hunter (knows area well).

LRF at 1600 hrs. October 22nd.
Weather: 0°F C, cloudy.
Wind NW 25 km/ph.

You are called in at 0700 h. 23 October.
You are to plot search areas for:
-- 1 Marine, 1 helicopter, 1 Canine patrols.
-- 1 Heavy search
(totals of 9 personnel, not including pilot and skipper).

You are to plan search areas for:

Pine River
Highway
Spruce Lake
Swamp
Camp
1 km

Table Exercise
SEARCH IS AN EMERGENCY

Search is an emergency because;

The subject may need emergency care.
The subject may need protection from himself and/or the environment.
Time and weather destroy clues.
An urgent response lessens search difficulty.

The chances of success are directly related to search area size

SEARCH AREA is the potential maximum distance travelled by the subject
SUBJECT'S ABILITY TO MOVE \times \text{TIME} = \text{SEARCH AREA}

**NIGHT INITIAL RESPONSE:**

*NIGHT TIME* gives searchers a unique opportunity to confine the subject while he/she is (usually) immobile;

figure b
HUMAN TRACKING

Diagram #1

A TYPICAL TRACKING TEAM FORMATION
Tracking / Binary Search
Grid Search

GRID SEARCH: BASIC PRINCIPLES - CREEPING LINE AHEAD SEARCH
AND PARALLEL SWEEP (Fig. 2 & 3)

NATURAL BOUNDARY END OF SWEEP

DATUM LINE

BASE LINE

DATUM POINT
Grid Search

Fig. 2: The last person in the search line flags his path going out. On the return sweep he follows the same path back while picking up the flagging. In both cases he will search one visibility distance only: The one towards his neighbour. (X's denote flagging tape)

Fig. 3:
Ground Search
How Hunters Help & Hinder The Search
Air Search

- Point of departure: X
- Last known position: Y
- Destination: Z
- Track confirmed as flown: ---
- Planned track, but not confirmed as flown: ---
- Primary priority area: ---
- Secondary search area: ---
- Tertiary area: ---
- Tertiary 2 area: ---
ELT Homing
Air Search (Route)
Air Search

TRACK OF MISSING AIRCRAFT

INITIAL COVERAGE

SECOND COVERAGE

THIRD COVERAGE
DON'T SMOKE IN OR AROUND THE HELICOPTER WITHOUT PRIOR PERMISSION OF THE PILOT.

Don't touch the bubble (it's only plastic), or any moving parts.

ENSURE YOUR SEAT BELT IS SECURED BEFORE CLOSING THE DOOR.

PROTECT YOURSELF
1. FASTEN SEAT BELT on entering helicopter and leave it done up until the pilot signals to get out.
2. ASK THE PILOT about emergency exits and escape procedures.
3. DRESS for the operating environment.
4. KEEP WELL CLEAR of landing areas when the helicopter is landing or taking off, especially with Skids.
5. SHIELD YOUR EYES near a helicopter when it is landing or taking off.

NEVER APPROACH OR LEAVE UPHILL. (Rotor blades are expensive)

ALWAYS APPROACH from the downwind side.

KEEP THE LANDING AREA CLEAN. The helicopter downdraft will lift and move an amazing variety of things.

DON'T SLAM THE DOORS but close them gently and don't let them swing in the wind.

Carry tools and other long objects horizontally below waist level, not upright or over the shoulder.

Hold on to your hat. Don't make campfires near the pad — she makes great winds.
Scanning (Air)
Supply Delivery
The job's not finished... till the paper work's done!
Heavy Urban Search & Rescue
HUSAR
Prevention Programs
MAKE YOUR WEATHER DECISION WHILE YOU STILL HAVE A CHOICE.

IT'S BETTER TO ARRIVE LATE IN THIS WORLD THAN EARLY IN THE NEXT.

* Be a shrewd pilot.

BEFORE TAKE-OFF
* Get all available weather information.
* Be prepared for the worst and pre-plan alternatives.
* File a flight plan, notice or itinerary.
* Leave a margin for error or the unexpected – take ample fuel reserves.

WHILE AIRBORNE
* Keep an eye on the sky.
* Monitor weather broadcasts and ask for updates.
* Don't push your limits.
* Make your turnback/land decision early.

Transport Canada  Transports Canada
Air  Air

Canada
“Well that was easy… so what happened?”