SAR System Organization and Management
PHASE 1

1. The General System Concept
2. System Components
3. Communications
4. The Strategic Planning Process
5. Organization and Management
6. Improving services
The General System Concept

1. Understanding the SAR System
2. Establishing Services
3. Benefits of Services
4. Legal Basis of Services
5. The Global Concept
6. National and Regional Systems
1.1. Understanding the SAR System

functions:

- Search and Rescue
- EP / Pollution Response
- Law Enforcement
- Safety and Lightning of Traffic
- Boarder Control
- Hydrographic Research
- others...
1.1. Understanding the SAR System

Emergencies are unwanted events with negative impact!

characteristics of maritime emergencies:

– multi-level
– multi-sector
– multi-agency
1.1. Understanding the SAR System

Characteristics of Maritime Emergencies: Complexity

- numerous parties concerned
- goals can be contradictorily
- priorities are not self-evident, but dependent on evaluation
- the whole emergency consists of numerous problems which can not be separated into individual modules
- trying a probable solution can lead to irreversible negative consequences
- decisions must be taken – time is running
1.1. Understanding the SAR System

maritime emergency reaction:
- absorb (no consequences)
- response

mission:
✓ minimizing consequences
✓ avoiding escalating effects
✓ long-term sustainability of systems at risk
  (ship + crew, environment, community, economy)
1.1. Understanding the SAR System

SAR Services must provide reliable operations sometimes under extreme external pressure

- imminent threat to life
- scant, scattered information
- dynamic decision making
1.1. Understanding the SAR System

Responding to Maritime Emergencies needs:

- expertise – epistemic competence
- ability to find solutions for a problem – heuristic competence
- organization/structuring of the own thinking and doing;
- work organization – process management competence
- communication skills; capacity for teamwork; ability to balance diverse social structures – social competence
- self-conscious handling of own emotions, motivation, stress – self-management competence
1.1. Understanding the SAR System

Requirements for Emergency Response Systems

Operational Emergency Response Units

Emergency Response Management Unit(s)

HARD SKILLS
EMERGENCY SKILLS
CRISIS SPECIFIC KNOWLEDGE
STRATEGIC COMPETENCES
“SOFT” SKILLS
1.1. Understanding the SAR System

3 essential components / minimum conditions in any adequate (emergency) management system:

- absence of influence from politics in professional and technical decisions
- absence of institutional or personal confrontation (unfriendly attitudes between different organizations)
- adequate level of preparedness (effective leadership, command and co-ordination structures, specific training, resources and so on)
1.1. Understanding the SAR System

“The Magic 5 Cs“
1.1. Establishing Services

Maritime SAR services shall be established under the framework of SAR initiatives by the International Civil Aviation Organization (ICAO) and the International Maritime Organization (IMO), two agencies of the United Nations devoted to aeronautical and maritime transportation safety, respectively.
With a focus on the humanitarian nature of their work, member States of ICAO and IMO co-operate

• to develop and sponsor **vital standards** and recommendations,
• to provide other types of assistance to States to help prevent and cope with distress situations
• and to facilitate **international co-operation** and co-ordination on a daily basis.
1.1. Establishing Services

Receive, acknowledge, and relay notifications of distress

Co-ordinate SAR response

Conduct SAR operations
1.1. Establishing Services

Definition of “RESCUE”

(A methodical co-ordinated and conducted) operation to retrieve persons in distress, provide for their initial medical or other needs and deliver them to place of safety

(to the best of the ability of the resources available).
1.2. Benefits of Services

- reduction of loss of life and suffering
- safer and more secure environment for maritime related industries, commerce, recreation, and travel
- initial response and relief capabilities critical to saving lives in early stages of natural and man-made disasters
- integral part of any local, national or regional emergency management system
1.2. Benefits of Services

- SAR promotes communication and co-operation among States because it is a relatively non-controversial and humanitarian mission.

- SAR is an excellent leadership tool leading to co-operation in other areas as well.
1.2. Benefits of Services

- well performed SAR operations can provide positive publicity; poor or ineffective response to a major accident or disaster can adversely affect sensitive industries such as tourism and transportation
- saving of costs - “preventive SAR”
- increased safety promotes economic development
- possible saving of valuable property in association with SAR activities can be high
1.3. Legal Basis of Services


2. Every coastal State shall promote the establishment, operation and maintenance of an adequate and effective search and rescue service regarding safety on and over the sea and, where circumstances so require, by way of mutual regional arrangements cooperate with neighbouring States for this purpose.
1.3. Legal Basis of Services

**SOLAS** (156 contracting states / 98.88 % of world tonnage)

SOLAS Ch.V: Safety of navigation R.7 - Search and rescue services

Each Contracting Government undertakes to ensure that necessary arrangements are made for distress communication and co-ordination in their area of responsibility and for the rescue of persons in distress at sea around its coasts.

These arrangements shall include the establishment, operation and maintenance of search and rescue facilities as are deemed practicable and necessary, having regards to the density of the seagoing traffic and the navigational dangers, and shall, so far as possible, provide adequate means of locating and rescuing such persons.
1.3. Legal Basis of Services

International Convention On Maritime Search And Rescue, 1979
(88 contracting states / 51.32 % of world tonnage)

- Terms and definitions
- Organization
  - Arrangements for provision and co-ordination of search and rescue services
  - Co-ordination of search and rescue facilities
  - Establishment of rescue co-ordination centres and rescue sub-centres
  - Designation of rescue units
  - Facilities and equipment of rescue units
- Co-operation
  - Co-operation between States
  - Co-ordination with aeronautical services
- Preparatory measures
- Operating procedures
- Ship reporting systems
1.3. Legal Basis of Services


IMO/ICAO
1.3. Legal Basis of Services

Global system concept establishment and improvement of national and regional SAR systems co-operation with neighbouring States

- Volume I - Organization and Management

- Vol. I provides background information to the strategic and operational management level

- training and familiarization for SAR personnel of all levels is required
1.3. Legal Basis of Services

IAMSAR Manual

- **Volume II - Mission Co-ordination**
  - Planning and co-ordination of SAR operations and exercises
  - Vol. II offers valuable information to trainers and operational managers
  - training and familiarization for SAR personnel of all levels is required
1.3. Legal Basis of Services

IAMSAR Manual

- **Volume III - Mobile Facilities**
  intended to be carried on board of rescue units, aircrafts, and vessels to help with performance of search, rescue, or on-scene co-ordinator function and with aspects of SAR that pertain to their own emergencies

- **Vol. III to be carried on board of dedicated rescue crafts and all ships under SOLAS - recommended for all seagoing ships and boats**

- **training and familiarization for SAR personnel of all levels is required**
1.3. Legal Basis of Services

- SAR services can be provided by states individually or jointly with one or more other states.

- To ensure success, all parties to the SOLAS Convention must be committed to providing the best possible SAR services with available resources.

- This commitment must also be reflected in national legislation, multilateral national or regional plans, agreements, etc. designating agencies responsible for SAR.

- The international community expects commitments of Parties to the SOLAS Convention to be fulfilled!
1.4 Basic system functions

- To receive
- Coordinate
- Delivery of survivors
- Medical advice to provide
1.5. The Global Concept
SYSTEM MANAGEMENT AND SUPPORT

• historic approach:

national SAR systems (individual SRR + one agency + own resources) associated with each other
1.6. The Global Concept

The goal of ICAO and IMO is to provide an effective world-wide SAR system.

- Development of **regional systems** associated with each ocean area and continent

or

- establishment of complete stand-alone SAR systems with geographic areas of responsibility acceptable to their neighbouring States.

- The globe is divided into **Search and Rescue Regions (SRR)**, each with associated SAR services which **assist anyone in distress within the SRR without regard to nationality or circumstances**.
# 1.7. Example of National and Regional Systems

Governmental and operational SAR agreements between Germany and neighbouring states in accordance with IMO SAR-Convention, 1979

## Governmental agreements

<table>
<thead>
<tr>
<th>Country</th>
<th>Date</th>
<th>Character</th>
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<tr>
<td><strong>Denmark</strong></td>
<td>05 June 1992</td>
<td>Letter of Exchange on maritime SAR</td>
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<tr>
<td><strong>United Kingdom</strong></td>
<td>27 April 1994</td>
<td>MoU maritime/aeronautical SAR</td>
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<td><strong>Netherlands</strong></td>
<td>19 August 1994</td>
<td>MoU on maritime SAR</td>
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<tr>
<td><strong>Sweden</strong></td>
<td>27 March 1995</td>
<td>Governmental agreement on maritime/aeronautical SAR</td>
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<td><strong>Poland</strong></td>
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## Operational agreements

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<td>25 May 1993</td>
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<tr>
<td>03 March 1994</td>
<td>Aeronautical SAR</td>
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<tr>
<td>13 Oct. 1994</td>
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<td></td>
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<td>07 Feb. 1997</td>
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<td>Aeronautical SAR</td>
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<tr>
<td>26 April 1993</td>
<td>Maritime SAR</td>
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</table>
1.7. National and Regional Systems

regional approach

advantages

• communication databases and facilities can be consolidated
  – easier for other RCCs to access data
  – easier for users to register equipment
  – easier for States to afford needed communications support

disadvantages

• more political implications
• cultural differences (cross cultural management!)
• SAR management becomes more complex
• probably more bureaucracy
The General System Concept

SUMMARY

✓ IMO and ICAO
✓ humanitarian task and economic benefits
✓ IAMSAR Manual
✓ communication, co-ordination and conduct
✓ declared SRR with associated RCC
✓ national, regional, multi-agency approach
Chapter 2

System Components
2. System Components

1. SAR as a System
2. Communications
3. Rescue Co-ordination Centres
4. Rescue Sub-Centres
5. SAR Facilities
6. On-scene Co-ordinator and Aircraft Co-ordinator
2.1. SAR as a System

set of specific problems for SAR operations

choice and composition of:

- services
- staffing
- facilities
- equipment

- transportation
- climate
- topography
- economy
- socio-demographic factors
- corruption
- others…
2.1. SAR as a System

primary system components are:

- **communications** throughout the SRR and with external SAR services or other relevant parties
- an **RCC** for the co-ordination of SAR services
- **SAR facilities**, which can be used to conduct SAR operations
- qualified resources for co-ordinating the on-scene activities of all participating facilities, as necessary
- **support facilities** that provide services in support of SAR operations
good communications are essential !!!

main functions of a SAR communications system are:

- receipt of alerts from equipment used by persons in distress
- exchange of information with person in distress
- exchange of information with all facilities/units involved for co-ordination of responses to SAR incidents
- Automatic Identification System (AIS), direction finding (DF) and homing which allow Search and Rescue Units (SRU) to be dispatched to the vicinity of the distress and to home on signals from equipment used by survivors

(figure - general SAR system communications)
2.3. Rescue Co-ordination Centres
2.5. SAR Facilities

mobile or stationary resources which can be used to conduct or support SAR operations
2.5. SAR Facilities

SAR units (SRU)

- (declared) designated composed of trained personnel and provided with equipment suitable for the expeditious and effective conduct of SAR

- specialized units or teams with specialized training and equipment created for specific rescue scenarios, for example divers, which are usually not permanently available

- non-declared
2.5. SAR Facilities

SRUs should be suitable for one or more of the following operations:

- providing assistance to prevent or reduce the severity of accidents
- conducting a search
- delivering supplies and survival equipment to the scene of distress
- rescuing survivors
- providing food, medical or other needs of survivors
- delivering the survivors to a place of safety
2.6. On-scene Co-ordinator and Aircraft Co-ordinator

On-Scene Co-ordinator (OSC):

- co-ordination of all activities at the scene of distress
- designated by the SMC
- SMC function if communication cannot be established with the RCC
- typically the first SAR unit to arrive at the scene
- should be the most capable person available, taking into consideration SAR training, communications capabilities and the length of time that the facility on which the OSC is aboard can stay in the area
- frequent changes should be avoided
2.6. On-scene Co-ordinator and Aircraft Co-ordinator

On-Scene Co-ordinator (OSC):
2.6. On-scene Co-ordinator and Aircraft Co-ordinator

Aircraft Co-ordinator (ACO):
2.6. On-scene Co-ordinator and Aircraft Co-ordinator

**Aircraft Co-ordinator (ACO):**

- co-ordination of SAR aircraft activities at the scene of distress
- designated by the SMC
- SMC function if no OSC available and communication cannot be established with the RCC
- typically a fixed wing aircraft or an Air Traffic Control Centre (ATC)
- frequent changes should be avoided
System Components

SUMMARY

- SRR - set of specific problems / measures
- system components
- importance of communications
- RCC requirements and staffing
- SAR facilities
- OSC and ACO
CHAPTER 3
Training and Exercises

1. Building Professionalism
2. Training Specifics
3. Exercises
3.1. Building Professionalism

probable measures

- preferable focus on one mission: SAR
- entrance qualifications
- personnel development strategy
- SAR assignments of sufficient length to develop expertise
- quality and length of training
- career development plans
3.1. Building Professionalism

training

- the **purpose of training** is meet SAR system objectives by developing SAR specialists!
- a good training programme produces true professionals, personnel who can **do it right the first time**!
- considerable **experience and judgement are needed** to handle typical (but unpredictable) SAR situations
- necessary **skills require significant time to master**
3.1. Building Professionalism

training

- training can be expensive, poor training is even more expensive, it can result in:
  - loss of lives of SAR personnel
  - loss of lives of those in distress
  - loss of valuable facilities

- training is critical to performance (save those in distress to the best of the ability) and safety (reduce risks to valuable SAR personnel and facilities)

- training personnel in making sound risk assessments will help that these sources remain available for future operations
3.3. Exercises

- exercises test and improve operational plans, provide learning experience and improve liaison and co-ordination skills.

- exercises, conducted on a realistic basis, help to demonstrate and assess the true effectiveness of training and the operational efficiency and competence of the SAR service.

- exercises will reveal deficiencies that may exist in SAR plans and enable them to be improved.
3.3. Exercises

Exercises should be conducted in three levels:

- **Communication exercises**
  - Requires the least planning
  - Consist of periodic use of all means of communications between all potential users to ensure capability for actual emergencies

- **Co-ordination exercises**
  - Simulated response to a crisis based on a series of scenarios
  - All levels of the Service are involved but do not deploy
  - Requires considerable planning, 1-3 days to execute

- **Full-scale exercise (field exercise)**
  - Actual SAR facilities are deployed
  - Increases the scope of SAR system testing and adds realistic constrains due to times involved in launching, transit and activities of the SRUs
3.3. Exercises

- exercise elements (► IAMSAR VOL.1 Ch. 3.3.4)

- evaluation
  
  evaluation experts (observers) together with relevant participants
  
  ► How many problems are discovered ?
  
  ► How many is learned ?
  
  ► How much operating plans are improved ?
  
  ► How few mistakes are repeated during the next exercise ?

- reports
  
  a permanent record of all exercises, addressing each relevant element, is necessary for system improvement (lessons learned / case studies etc.)
SUMMARY

- training produces staff who can do it right the first time
- whom, what, when, where and how to train
- importance of exercises
Chapter 4.
Communications

1. Introduction
2. Basic Functions and Requirements
3. Important Factors for SAR Communications
4. Mobile Equipment
5. Land-based Infrastructure
6. Supplemental Capabilities

MEDICO Communications
4.1 INTRODUCTION
SAR operations and communication flow
(without all internal communication)

SAR data providers

MRCC

co-ordination

ACO

SAR facilities

conduct

OSC

vessel in distress

shipping in vicinity

stakeholders
4.3. Important Factors

priority, reliability, and availability
interoperability
identification
geography
international co-ordination
available technology

“Getting the right information to the right place at the right time!”
Communications

SUMMARY

✓ Alerting, Locating, Co-ordinating
✓ What works best?
Chapter 5

System management
5. The Strategic Planning Process

1. What is “Management”?
2. What is “Strategy”?
3. The Strategic Planning Process
4. Vision and Mission
5. Situation Analysis (SWOT/PEST)
6. Stakeholder Analysis
7. Risk Analysis / IMO Formal Safety Assessment
8. Strategy Formulation
9. Goals, Objectives, Action Items
10. Strategy Communication
11. From Strategy to Implementation (Operational Management)
5.1. What is “System Management“?
Management comprises directing and controlling a group of one or more people or entities for the purpose of co-ordinating and harmonizing that group towards accomplishing a goal.

Management often encompasses the deployment and manipulation of human resources, financial resources, technological resources, and natural resources.

Management has to do with power by position, whereas leadership involves power by influence.

Management operates through various functions, often classified as planning, organizing, leading/motivating and controlling.

**Planning**: deciding what needs to happen in the future (today, next week, next month, next year, over the next five years, etc.) and generating plans for action.

**Organizing**: making optimum use of the resources required to enable the successful carrying out of plans.

**Leading/Motivating**: exhibiting skills in these areas for getting others to play an effective part in achieving plans.

**Controlling**: monitoring — checking progress against plans, which may need modification based on feedback.
Management is a closed-loop (feedback) control process!
The accompanying diagram shows a decision cycle known as the Boyd cycle, or the OODA loop, a concept originated by military strategist Col. John Boyd of the United States Air Force.

Its main outline consists of four overlapping and interacting processes: **Observe, Orient, Decide** and **Act**.

The observed information needs to be processed to orient it for further making a decision. Boyd said, “The second O, orientation – as the repository of our genetic heritage, cultural tradition, and previous experiences – is the most important part of the O-O-D-A loop since it shapes the way we observe, the way we decide, the way we act”.
Management is a closed-loop (feedback) control process!

**FORDEC**

crisis response decision making model in aeronautical industry

**Facts (collection)**

**Options (specification)**

**Risks/Chances**

(evaluation)

**Decision (making)**

**Effects (monitor)**

**Control (adjust)**

**ultimate goal/objective**

“First fly the aircraft!”
Management is a closed-loop (feedback) control process!
5.2. What is „Strategy“?

“Strategy” in its origin sense is a derivation of the Greek words “stratos” (army) and “agos” (leader) and was used to define concepts of military warfare.
In the context of business management “strategy” is still widely used to differentiate long term processes from only short term (operational) processes. This methodology is very common in both governmental and non-profit sectors.

- We talk about the operationalisation of strategy and actually mean its concretion.
- We assume that everything concrete (specific) is an operational matter.
- Additionally with “operative” we associate short-term day-to-day business, while “strategic” implements something in the long term.
- In another comprehension we see in “strategy” matters of overriding importance, while “operative” seems to mean something which is derived from that strategy – maybe which is the reason why so many people in upper management believe “strategy” is their domain, while “operations” should be a matter for lower ranks.
Today economic science uses the term “Strategic Management” to describe a structured way for the creation and development of potentials and resources while “Operational Management” is used for the process of efficient and effective utilisation of existing resources. Characteristically the strategy has to have a lasting effect to guideline the whole implementation process.
“modern approach”

Strategic Management –
development of potentials and resources

WHAT?

Operational Management –
efficient and effective utilisation of existing resources

HOW?

Both are day-to-day business!
The Top-Down Strategic Planning Model

MISSION

OBJECTIVES

SITUATION ANALYSIS

STRATEGY FORMULATION

IMPLEMENTATION

CONTROL

WHY?

MISSION

SITUATION ANALYSIS

OBJECTIVES

STRATEGY FORMULATION

IMPLEMENTATION

CONTROL

Harward Business School
Objectives follow the Situation Analysis

Goals and objectives have to be specific, achievable, result oriented and time determined.

Objectives are the challenging but achievable concrete goals that an organization seeks to reach.

Objectives operationalise that direction. They have to be determined to monitor progress and enable operational corrections as needed.
5.4. Vision

VISION – the almost “impossible dream” that provides long-time direction for the organization.

People founding an organization, whether for profit or non profit usually have a vision in the sense of an ideal and unique image of the future in their mind. The almost “impossible dream” that provides long-time direction for the organization.

It expresses a standard of excellence and implies a choice of unique values.

It is the task of the governing managers of an organization to define that collective vision.
IMO has formulated its vision as follows:

"Safe, secure and efficient shipping on clean oceans".

This is an example for an external (customer focused) vision statement – the desired impacts of the organizations work or how the world will be improved by it.
5.4. Considerations when establishing SAR Services

- Always provision of comprehensive SAR response on demand, or respond with available resources only and when it can be done safely and the service provider judges the response to be warranted?

- Will services include saving properties, and if so, under what conditions?

- Will non-administration resources used for SAR be supported by the State, train and exercise with State-owned resources and operate under the same authority and policies as State facilities?
5.4. Considerations when establishing SAR Services

- To what degree the SAR organization will ensure adequate coverage and readiness for its geographical areas of responsibility?
- How will geographic areas of responsibility be delineated?
- Will civil SAR normally be given priority over missions of multi-mission facilities, and, if so, how will that be ensured?
- How will physical risk be held to reasonable levels for those assisting, and who will determine when a particular aspect of an operation would involve undue risk?
5.5. Situation Analysis

“So it is said that if you know others and know yourself, you will not be imperilled in a hundred battles;

if you do not know others, but do know yourself, you win one and lose one;

if you do not know others and do not know yourself, you will be imperilled in every single battle.”

Sun Tzu (544 - 496 B.C.) – The Art of War
5.6. Stakeholder Analysis

- Politicians
- Employees
- Media
- Neighbouring States
- Tourism Industry
- Concurring Agencies
- Ministry of Transport
- IMO
- Immigrations
- Ministry of Finance
- Public
- Shipping Industry
- “Customers”

step 1 - Stakeholder identification
VISION

MISSION

SITUATION ANALYSIS

RISK ANALYSIS

STRATEGY FORMULATION

GOALS / OBJECTIVES / ACTION ITEMS

STRATEGY COMMUNICATION

IMPLEMENTATION

OPERATIONAL MANAGEMENT

RISK MANAGEMENT

CONTROL
Professional Risk Management can be summarized as follows:

- complete identification of potential threats;
- assessment and evaluation of the associated risks;
- Development and implementation of measures to minimize risks
  - preventive
  - responsive (if prevention failed)
  - avoiding escalating effects (if response to the risk shows not sufficient effect)
5.7. Risk Analysis

The Risk Management Process:
- identification
- assessment
- control

Strategies to minimize or control risks:
- avoidance
- transfer to third party
- elimination
- reduction of negative effects
- acceptance
The strategy formulated should reflect the situation analysis, lead to fulfillment of the organizational mission, and result in reaching organizational objectives.

- identification of “receivers” and specification of form and content
- clear description of expected outcomes - how will the organization look like after successful implementation of the strategy
- initial actions to boost the combined performance of the organization
- definition of measures, financial, managerial, and other resources to be used
- description of investment priorities
- the effect on actual business or bottom line results
VISION
MISSION
SITUATION ANALYSIS
RISK ANALYSIS
STRATEGY FORMULATION
GOALS / OBJECTIVES / ACTION ITEMS

STRATEGY COMMUNICATION

IMPLEMENTATION
OPERATIONAL MANAGEMENT

RISK MANAGEMENT
CONTROL
5.11. Strategy Implementation

Considerations when Implementing a Strategy

1. explanation of reasons for changes
2. definition of realistic goals or work packages
3. from “big picture” top down to the significant elements, considering the relationships among those elements
4. clear definition of tasks
5. analysis of motives and interests of key stakeholders
6. consideration of (ethnic, organizational) cultural differences
7. motivation of key staff
8. team building
5.11. Strategy Implementation

8. planning of “quick wins”
9. measurement and communication of success
10. thinking in processes, not structures (form follows function)
11. development of communication and feedback systems
12. definition of standards by setting an example
13. rewards and sanctions
14. from outside to inside
   (satisfaction of: needs of clients ➤ relevant stakeholders ➤ operations staff ➤ administration)
The SAR Manager’s mission:
focus on quality

- do more with fewer mistakes & save more lives
- quality breeds good reputation and more resources

profile of successful SAR management

- process orientation vs. result orientation
- important matters more than urgent matters
- satisfaction of the need of others
- a philosophy of continuous improvement
5.12. Organization and Operational Management

Managing resources to meet requirements!

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<th>operations</th>
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<tr>
<td>• planning</td>
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<tr>
<td>• organizing</td>
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a process to transform operational requirements and national commitments into the provision of SAR services in a defined geographic area
5.12. Organization and Operational Management

general levels and functions of the SAR system

Ministry Authority Agency

SAR Co-ordination
(Administration and Management)

Unified Command
(for multi-agency,-sector scenarios)

SAR Mission Co-ordination
(mission planning and co-ordination)

On-scene Co-ordination
(operational oversight and conduct)

National SAR Co-ordinating Committees

Strategic/Policy Command
"GOLD"

Tactical/Directive Command
"SILVER"

Operational Command
"BRONZE"
5.12. Organization and Operational Management

SAR plans

- describe how SAR services will be provided, organized and supported
- SAR Co-ordinators oversee and implement these documents
- SAR plans should be signed by all agencies which can provide or support SAR services
5.12. Organization and Operational Management

SAR Plans contain, i.a.

- description of the SRR region
- description of available facilities, personnel, equipment
- training programmes, qualification standards, certification procedures
- roles and responsibilities of all organizations and agencies providing facilities and services not under the direct control of the SAR managers
- summary of all agreements regarding mutual assistance with neighbouring RCCs

(IAMSAR Manual Vol. I – Appendix I contains guidance and sample text for a national SAR plan)
5.12. Organization and Operational Management

General Staffing Considerations

The objective of staffing is to fill organizational roles with qualified personnel.

- **key aspects**
  - position definition
  - skill definition
  - matching qualifications
  - performance evaluation
  - training, qualification and certification
  - continuing development
### 5.12. Organization and Operational Management

#### General Staffing Considerations

<table>
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<tr>
<th>SAR requirements</th>
<th>functional areas</th>
<th>positions</th>
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</table>
| establish national or regional SAR systems as part of the global SAR system | - develop legislation  
- arrange to use resources  
- provide resources  
- establish SRRs with RCCs  
- establish RSRs with RSCs  
- provide staff  
- train personnel  
- ensure adequate communication  
- develop plans and agreements  
- form SAR committees | SAR co-ordinators, and managers, administrative staff and support staff within the State’s administration |
### General Staffing Considerations

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<th>SAR requirements</th>
<th>functional areas</th>
<th>positions</th>
</tr>
</thead>
</table>
| co-ordinate SAR services | - relay distress alerts if necessary  
- acknowledge alerts if necessary  
- co-ordinate response  
- plan searches:  
  - alert and dispatch facilities  
  - assign OSCs and OSC duties  
  - prepare SAR action plans  
  - provide medical advice  
  - document each case | SMC with support of staff at the RCC or RSC |
Building International SAR Co-operation

- both are **United Nations** agencies that focus on SAFETY
- both develop global SAR plans, procedures, techniques and training

**International Maritime Organization (IMO)**

**International Civil Aviation Organization (ICAO)**

**United Nations High Commissioner for Refugees (UNHCR)**

**Food and Agriculture Organization (FAO)**

**World Health Organization (WHO)**

**International Labour Organization (ILO)**

**International Monetary Fund (IMF)**
6.5 Reducing Response Time

major element in improving SAR effectiveness

rescue within 2 hours is critical, but many believe in the “Golden Hour”

improve SAR awareness and understanding
  ▪ among potential victims, and potential rescuers
  ▪ improve SAR training

improve SAR technology
  ▪ better communications for faster alerts and better co-ordination
  ▪ improve SAR facilities
6.6 Mass rescue operations

How to deal with?
6.7 Multiple aircraft SAR operations

Effectiveness in use
SAR organisation
improve SAR facilities
co-operation can be key

- share R+D concerns and projects with others
  - within region
  - with common operational challenges

- research what has already been done
  - learn from others R+D efforts
  - “steal shamelessly and ruthlessly”

- sources of R+D resources:
  - academic institutions, Industry, other agencies
6.9 Other Factors

- listen to the voices of experience
- never be satisfied with the status quo
- it always costs less to prevent a problem
- understand basic International SAR principles and procedures
- keep the RCC the “Hub” of the SAR System
- admit mistakes and weaknesses, and turn them to your advantage:

"When life hands you lemons, make lemonade!"
Strategy Implementation and Operational Management

SUMMARY

- strategy implementation and team work
- general levels and functions of the SAR system
- SAR Plans
- maximizing system effectiveness and benefits
- core system components and available resources
- SAR Managers
- team typing
- obtaining resources
- general staffing considerations
Risk Management and Control

SUMMARY

❖ Periodic review
❖ SAR data tracking
❖ demand and difficulties of measuring system effectiveness and efficiency
❖ 55 items check list ► IAMSAR VOL.I Appendix H
THE CROWD AT THANIRBAVI BEACH INCREASED TO ABOUT 15000 AT 23 1530 HRS.

THE ENTIRE OPERATIONS WAS TELECAST LIVE ON 6 LOCAL CHANNELS AND 2 NATIONAL CHANNELS.
Establishing Relationships

If you don’t tell them the story, they will report it anyhow, and any way that they can.

Tell it all; tell it first; tell it fast!

Become the sole authoritative voice!

SAR Services have to establish with the general public its credibility as a professional, caring and open organization.

The SAR Service must learn about the media; the media must learn about the SAR Service.
Establishing Relationships

Learning about the media

Find out about local press, radio and TV stations.

Approach reporters proactively. Provide information about the SAR Service, new equipment, or successful missions carried out.

Get familiar with interviews (what, when, where, how, why).
Establishing Relationships

The media learning about the SAR Service

Does the media know of the existence of the SAR Service?

Do they know what and where the RCC is?

Build up corporate reputation before major SAR mission happen.
Establishing Relationships

- must be based on mutual trust
- everything must be factual and complete
  - they WANT to get the story right
- can communicate overall image of SAR Service,
  - and the value of it provided to the community
- SAR Services can do this by providing:
  - background information and facts
  - “Good News” stories
  - “preventive” SAR information
Major Incidents

Try to identify the Nationalities of those at risk – this will assist you in anticipating where media enquiries will come from and will also assist in reducing media enquiries from countries not involved.

Announce the times of press conferences as early as possible.

Never identify victims to the media. If other agencies wish to act differently then that is not the concern of the SAR Service.
Public and Media Relations

SUMMARY

- Importance of Media Relations
- Media Response Plan
- “pitfalls”
SOUTH AFRICA: Angola, Namibia, South Africa, Mozambique, Madagascar and Comores

KENYA: Tanzania, Kenya, Seychelles and Somalie

LIBERIA: Guinea, Sierra Leone, Liberia, Côte d’Ivoire, Ghana and Togo

MOROCCO: Mauritania, Senegal, Gambia, Cabo Verde and Guinea Bissau

NIGERIA: Benin, Nigeria, Cameroon, Equatorial Guinea, Sao Tome et Principe, Gabon, Congo and Democratic Republic of Congo

SOUTH AFRICA: Angola, Namibia, South Africa, Mozambique, Madagascar and Comores
MISE EN PLACE

Elements standards du système SAR

- Structure de Coordination Nationale;
- Structure de coordination opérationnelle;
- Moyens d’intervention;
- Plateforme de coopération Internationale.
REGION DE RESPONSABILITE SAR AFRICAINE DU MAROC