

# PRESENTATION

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S.O.S.

MBA PROJECT

*Strategy for Inmarsat GMDSS*

for Inmarsat Directors:

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## ABSTRACTS

STRATEGY

FOR

INMARSAT

SAFETY & RESCUE

COMMUNICATIONS SERVICES

*The intention of this project was to identify areas of strategic and operational concern to the Inmarsat organization and to propose feasible solutions in the most sensitive domain of maritime mobile communications market.*

THE PROJECT PROPOSES THAT IN COOPERATION WITH VOLUNTARY SEARCH AND RESCUE AGENCIES INMARSAT MIGHT CONSOLIDATE ITS GLOBAL ADVANTAGE AND IMPROVE ITS COMPETITIVE EDGE!

THE STRATEGY SHOULD INCLUDE DEVELOPMENT, IMPLEMENTATION AND MANAGEMENT OF THE INTERNATIONAL MARITIME SAFETY AND RESCUE NETWORK INMAR SAR TO PROMOTE HIGHER THAN GMDSS PERFORMANCE STANDARDS, PROVIDE AN ADEQUATE RETURN OF THE INITIAL INVESTMENTS AND BOOST ITS MISSION:

*Inmar SAR -  
IS YOUR SAFETY !*



S.O.S.

*SAFETY -  
IS OUR MASTER !*

## ABSTRACTS

One of the primary needs for management in the 1990s is to deal with an increasingly uncertain environment exposing competitive pressure which matures as new technologies and global competition are leading to shorter product life cycles, tough trade-offs, and the need for more focus. In this project I wanted, *inter alia*, to provide material with which managers can build up a solid foundation to cope with the challenges of the 1990s.

### HOW DO WE RESPOND TO THE GLOBAL BUSINESS ENVIRONMENT ?

Chapter two of the project, on the basis of carefully selected data, explores the Inmarsat business environment. The chapter identifies the responsiveness of the present position of the Inmarsat and its competitors to the environment and forecasts emerging of companies with a position extended into three-dimensional environment (more than one type of systems, stronger ability to invest, greater spectrum and orbit capacity). To retain competitive global advantage Inmarsat should improve the complexity of the system and *ability to provide services direct to the system end users*. Strategic move in a way of improving direct liaison with the end user might be to establish and operate Inmarsat safety and rescue network (InmarSAR) proposed by the project.

### WHERE DO WE STAY IN THE MARITIME WORLD?

Chapter three examines historic data of the user base development and presents world-wide overview of the availability and status of telecommunications services and supporting electronics industry. The ideas of the MBA courses 'Corporate Strategy', 'Marketing' and 'International Business' and others have been employed. The concepts of the global competitive advantage of Porter, M. (1990) have been applied to the structural analysis of the business, its positioning, have been effectively employed to identify sources and scope of the competitive advantage and eventually to formulate a proposed competitive strategy.

The chapter addresses the need for realism in presenting the likely scenario of the Inmarsat business environment after 1991. The environment seems to change to a less friendly user base, more challenging new entrants, more nationalistic electronics suppliers and services providers, with a stronger threat of substitution, all leading to a split of the maritime user base by national and regional markets, provided Inmarsat continues present strategy for GMDSS. *The natural role of the GMDSS is to consolidate the user base, services providers and manufacturers on an international base. The Inmarsat is already given a natural role of a global operator.* Our strategic move should merge these both qualities and enjoy unbeatable competitive edge.

### WHAT DO WE KNOW ABOUT GMDSS COMMUNICATIONS SECTOR ?

Chapter four of the project introduces results of the research and analytical work done to the produced and selected forecasts of GMDSS market sector and the developed GMDSS evaluation model. The chapter suggests that, although the global GMDSS market sector seems to be mainly in its embryonic status at the moment, it contains strong explosive user base, which can be triggered and driven by strong international regulations. The commercially-driven user behaviour will be strongly affected by the GMDSS explosion. *Through the GMDSS regulated market there will be a threat to the commercially-driven users.* The work of the chapter justifies that the development of the GMDSS market sector by Inmarsat will consolidate efforts of different players on the market and direct them to the mutual benefit of the Inmarsat global advantage. The computations made by the model suggest that the GMDSS market, taken through the InmarSAR, will return initial investments.

### CAN I PROPOSE A STRATEGY FOR GMDSS ?

Chapter five addresses practical aspects of implementing the strategy on the developed principles and discusses the operational plan for the Inmarsat safety and rescue communications network InmarSAR.

Four annexes contain valuable details of the proposed and implemented tools to justify the statements and conclusions of the project.

*The ideas would have been only a dream if I could not have acquired new knowledge on the MBA course. I would like to thank Mr David Sagar, MBA Course Director and the tutor of the project; Mr Noel Isotta, Inmarsat Director General's Deputy, and Captain Jim L. Fear, Manager, Maritime Services Operations, for their continuous encouragement and support generously given to me during my long years on the course.*

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MBA PROJECT

*Strategy for Inmarsat GMDSS*

INMARSAT VS GLOBAL BUSINESS ENVIRONMENT

INMARSAT AND THE MARITIME WORLD

GMDSS COMMUNICATIONS SECTOR

CAN INMARSAT HAVE A GMDSS STRATEGY ?

*InmarSAR –  
IS YOUR SAFETY !*



*SAFETY –  
IS OUR MASTER !*

### Business-user service liaison

*Carrier - value added - end user*

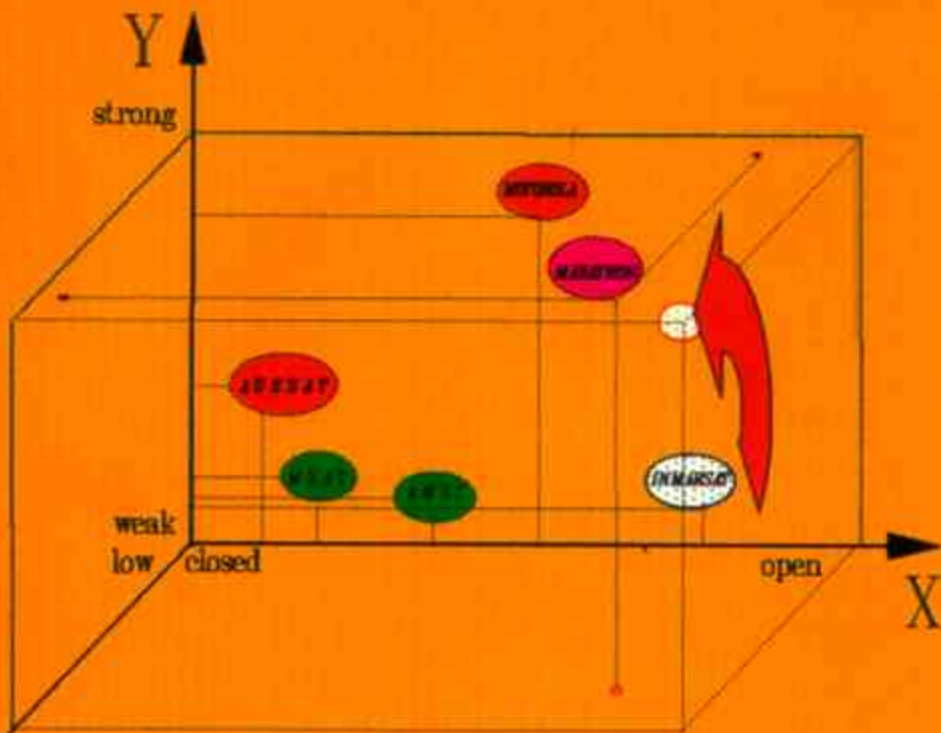
### system complexity/cost

*single LEO/GEO/FIBRE - combinations*

*low - high capacity of allocated band/orbit*

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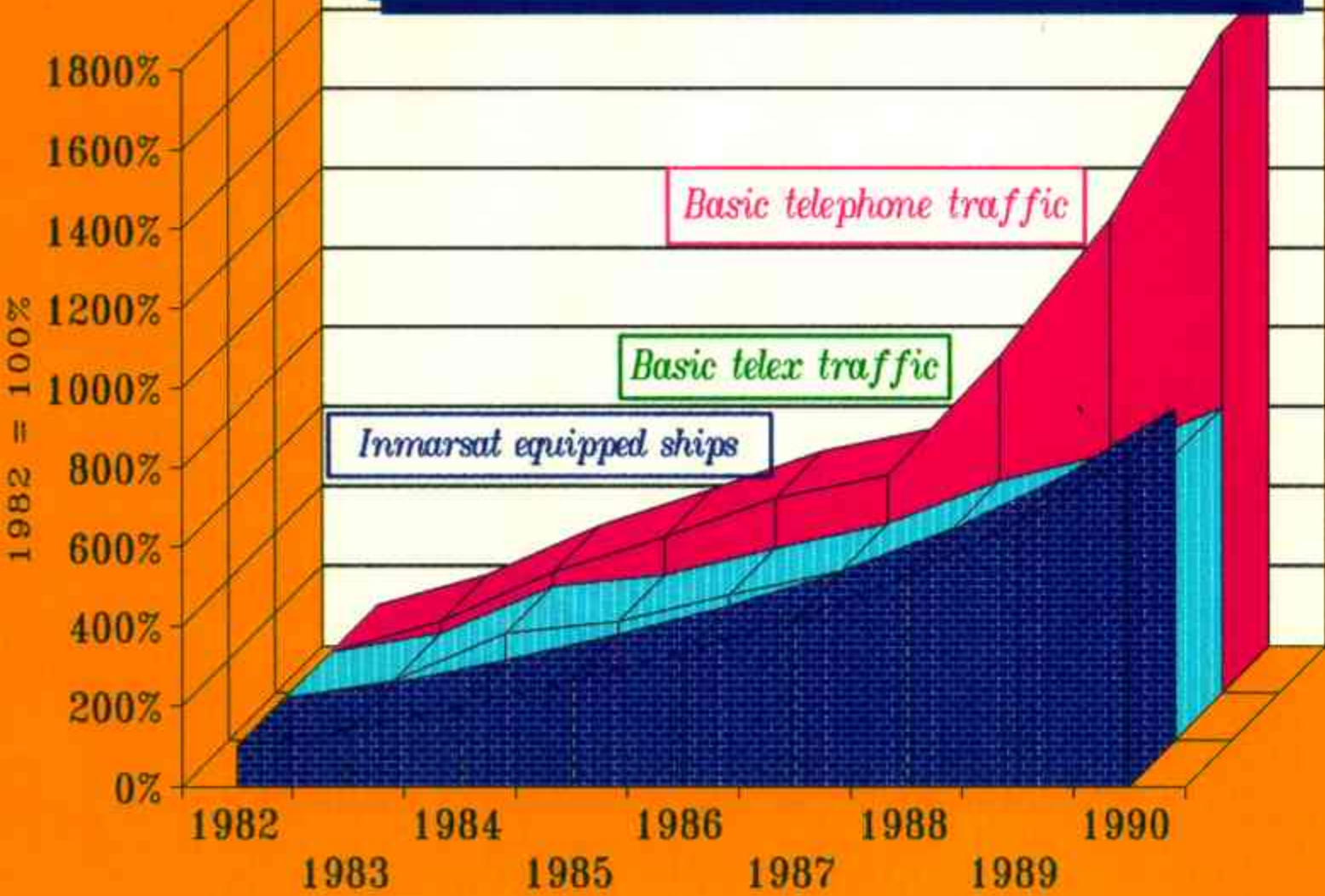
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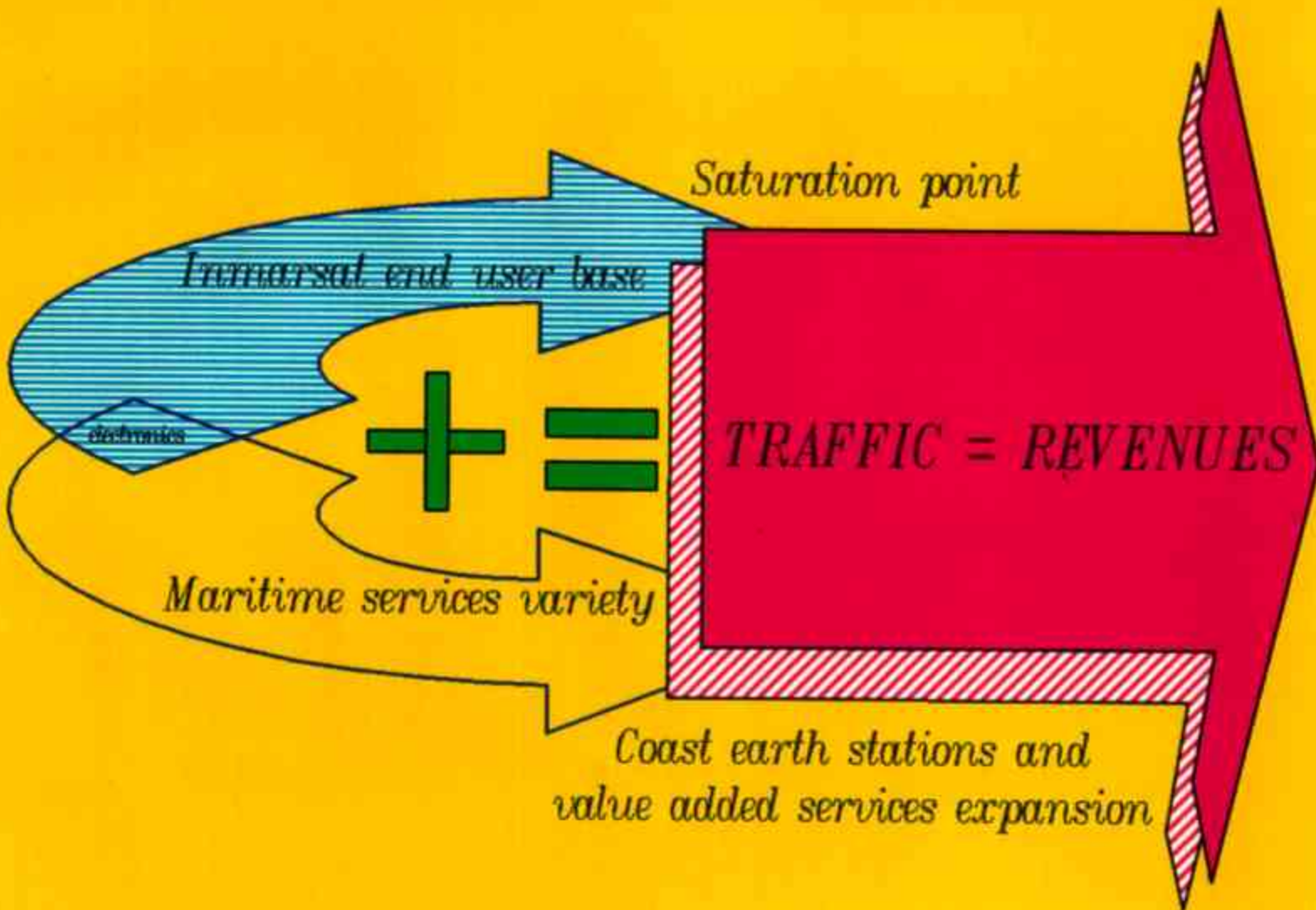


### confines - openness

*Technology transfer: closed - restricted - open*  
*Standards: national - regional - international*  
*Deregulation: national - regional - international*  
*Culture: national - multinational - international*  
*Operating area: local - state - region - globe*

*TRAFFIC GENERATED BY THE INMARSAT USER BASE*





# BEFORE 1991

POTENTIAL ENTRANTS

Serious economic barriers to entry

SERVICES PROVIDERS

Rapid growth in number  
Strong power

EQUIPMENT PROVIDERS

Stable, dominating companies,  
global competition

INDUSTRY COMPETITIVENESS  
TOP in global world  
TOP in national sectors  
TOP in expanding

Rapidly growing base,  
strong power

END USERS of equipment and services

Little threat of substitution

SUBSTITUTES

# AFTER 1991

POTENTIAL ENTRANTS

More attractive to new entrants

INDUSTRY  
COMPETITIVENESS  
TOP in global world  
TOP in national sectors  
TOP in expanding

Bargaining power up, Split by national sectors

END  
USERS  
of  
equipment  
and  
services

SERVICES  
PROVIDERS

EQUIPMENT  
PROVIDERS

Increased as competes with outside providers

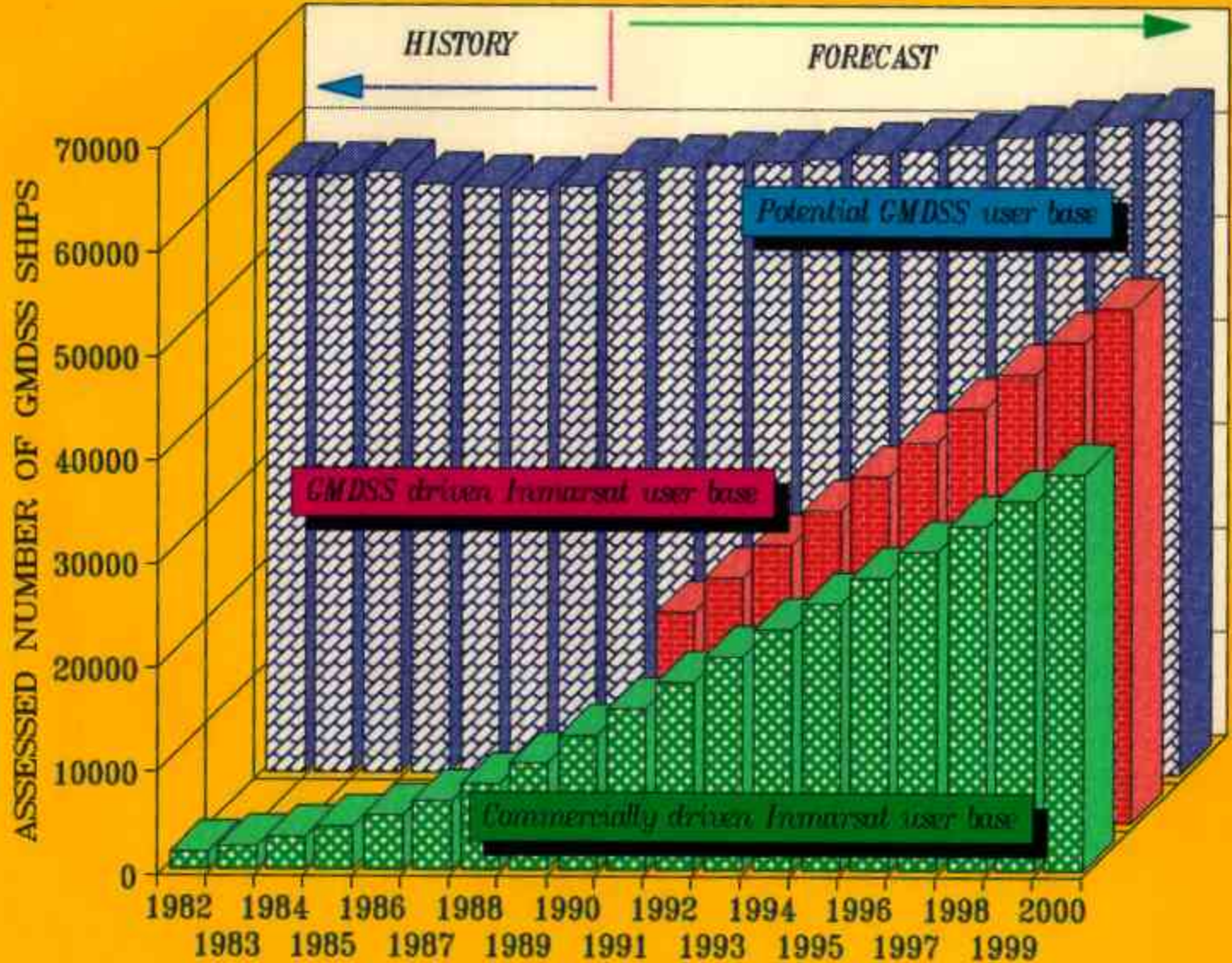
Increased as competes with other manufacturers

Strong threat of substitution

to consolidate services and equipment providers + the Inmarsat user base to undermine the threat of substitutes

G M D S S  
SUBSTITUTES





USER  
BASE

USER  
BEHAVIOUR

MARKET  
SPECIFICS

Inmarsat  
user  
base

GMDSS-driven

dictatorSHIP

COMMERCIALY-driven

COMPETITION

# CUMULATIVE ASSESSMENTS

DISTRESS RELATED TRAFFIC: GMDSS functions 1, 2, 3, 4, 5, 6, 9

TRAFFIC VOLUME (UNITS)

TRAFFIC COST (\$US)

*Scenario:  
test  
required*

Inmarsat:  
NON-Inmarsat:  
TOTAL:

219,400  
513,600  
1,079,100

638,200  
284,300  
922,500

*Scenario:  
test  
prohibited*

Inmarsat:  
NON-Inmarsat:  
TOTAL:

5,594  
13,054  
18,648

87,600  
32,250  
119,850

SAFETY RELATED TRAFFIC: GMDSS function 7

Inmarsat:  
NON-Inmarsat:  
TOTAL:

18,729,780  
42,768,420  
61,498,200

56,189,340  
21,384,210  
77,573,550

# CUMULATIVE ASSESSMENTS

## MODEL 2: GMDSS services-charges matrix

SAFETY & RESCUE TRAFFIC: GMDSS functions 1, 3, 4, 7

TO ABSORB BY Inmarsat

TO GENERATE EARNINGS

Scenario:  
test required

Inmarsat-C system ONLY:  
Inmarsat-A system ONLY:

1,600,000  
435,000

40,000,000  
20,000,000

Scenario:  
InmarSAR

Inmarsat-C system ONLY:  
Inmarsat-A system ONLY:

NIL  
NIL

41,600,000  
20,435,000

# InmarSAR: PRINCIPLES

InmarSAR network is sponsored by Inmarsat by providing initial investments

InmarSAR is developed, implemented and managed by Inmarsat in cooperation with SAR agencies

InmarSAR Recovery Mechanism performs on a not-for-profit base and due commercial principles

InmarSAR operates a Central Registration Database, DataNetwork and Quality Control System

InmarsAR returns initial investments, maintenance and operating costs via a recovery mechanism

InmarSAR sets up the highest technical, operational and management standards

InmarSAR is open to voluntary participation of end users subject to its Communications Code

InmarSAR contracts the best offers from IT and CES Services Providers and Manufacturer

InmarSAR promotes the best balance of SatCom and IT for Safety Of Life at Sea

# InmarSAR: CASH FLOW

## REQUIRED INVESTMENTS IN:

CES (8) over 10 years (CMO costs) =====	1, 200, 000
RCC terminal (8) over 10 years (CMO costs) =	400, 000
RCC terminal R&D =====	100, 000
SES 'Black Box' =====	100, 000
Central Database and DATA network =====	1, 500, 000
TOTAL =====	\$3, 3 m

## COST RECOVERY MECHANISM:

Inmarsat sponsorship =====	62%
Advertising service =====	15%
World Media Broadcasting ==	10%
Additional MSI on request ==	5%
Additional Tests on requests -	5%
Registration Fee =====	1%
Voluntary Donations =====	1%
'Thank You' Button =====	1%

*InmarSAR will generate additional revenues to Inmarsat at around 30% of the present forecast of the maritime earnings per year.*

# Inmarsat to InmarsAR EVOLUTION PLAN

## STAGE I

GMDSS communications function 1.  
10 SEC CHANNEL SET-UP, 99.5% AVAILABILITY.  
TERMINALS: Inmarsat-A, -B, -C, -E.

## STAGE II

GMDSS communications functions 1, 2.  
AS AT STAGE I

## STAGE III

GMDSS communications functions 1, 2, 3, 4.  
AS AT STAGE II + RCC INTEGRATED TERMINAL

## STAGE IV

GMDSS communications functions 1, 2, 3, 4, 7.  
20 SEC MESSAGE DELIVERY TIME, 99,95% AVAILABILITY.  
AS AT STAGE III + Inmarsat GMDSS terminal 'BLACK BOX'.

# InmarSAT: ADVANTAGES

*TO  
IN  
MAR  
SAT*

STRENGTH OF INTERNATIONAL IMAGE AS GMDSS GUARANTOR

ACCELERATION OF MARITIME USER BASE GROWTH

ENLARGED USER BASE AT THE COST OF GMDSS-DRIVEN USERS

ENHANCED ABILITY TO CONTROL SYSTEM OPERATIONS

*TO SES manufacturers*

REDUCTION IN DESIGN, DEVELOPMENT,  
TYPE ACCEPTANCE AND PRODUCTION COSTS

*TO SHIP  
OWNERS*

LOWER RETAIL AND WHOLE SALE PRICES

REDUCTION IN INSTALLATION, MAINTENANCE AND OPERATIONS COSTS

*TO GOVERNMENTS*

BETTER GLOBAL CONTROL OVER GMDSS  
FUNCTIONS, OPERATIONS AND USE