



Gothenburg, 10 november 2015

spokesman

C.C. (GN) Marco FRACASSI

Italian Ministry of Defence
Navy Directorate

The image shows a close-up of the Italian tricolor flag (green, white, and red) with the coat of arms of the Italian Navy. The coat of arms features a golden eagle with spread wings, perched on a shield with a red and white cross. The shield is surrounded by a golden rope. The flag is waving, and the text is overlaid on it.

MARINA MILITARE ITALIANA

*Information Technologies for Naval
Safety purposes*

Maritime Scenario

Priority order

1. HUMAN LIFE
2. SHIP'S LIFE
3. CARGO

DEFINED PROCEDURES

Damage

- INTERNAL ACCIDENTS
- ACCIDENTAL COLLISIONS



Priority order

1. HUMAN LIFE
2. SHIP'S LIFE
3. CARGO

Damage

- INTERNAL ACCIDENTS
- ACCIDENTAL COLLISIONS

The background image shows the side of a large ship, likely a cargo or supply vessel. The upper portion is white, featuring a red lifebuoy on the left and a black cross-shaped navigation mark in the center. Below the white section is a grey metal railing with several yellow fenders. The lower portion of the image is a large, dark grey hull. A red stripe is visible at the very bottom. Overlaid on the center of the image is the text "DEFINED PROCEDURES" in a large, white, sans-serif font.

DEFINED PROCEDURES

Military Scenario



Priority order

**HUMAN
LIFE**

**SHIP'S
LIFE**

MISSION



INTERNAL DAMAGE



EXTERNAL THREATS



Marina  Militare
www.marina.difesa.it



Marina  Militare
www.marina.difesa.it





MARINA MILITARE



...resulting in the unpredictability of internal scenario





SO, HOW DO WE MANAGE THE DAMAGE ?

1982

Falkland-Malvinas experience suggested to Western Navies the implementation of new methods and procedures to face the damage.

the damage control organization used tools and technology available at that time (poor instruments and hardwired lines for transmission of voice information)

long training periods were needed to achieve the high coordination level between crew members and hardware instruments required to "win the external battle"

the critical issues were:

- lack of communication and coordination
- lack of information and intelligence
- lack of decision making and action

2001

Italian Navy decided to use Information Technologies to improve the damage management procedures. The SISS was born.

the Italian Navy requirements were:

- modularity
- through data links and other technologies, based on C4ISR CoreNet,
- refined and ready to use
- full control for the whole fleet (not system policy)
- independency from the supplier

Many applications have been developed to gather useful information and personnel involved in order to achieve the control of information, mainly, "created" long range, long HQ systems and (steering) Appendix pressure (steering).

The development phase was successfully concluded with the release of Battle Damage Control System (SISS TRD)



2014

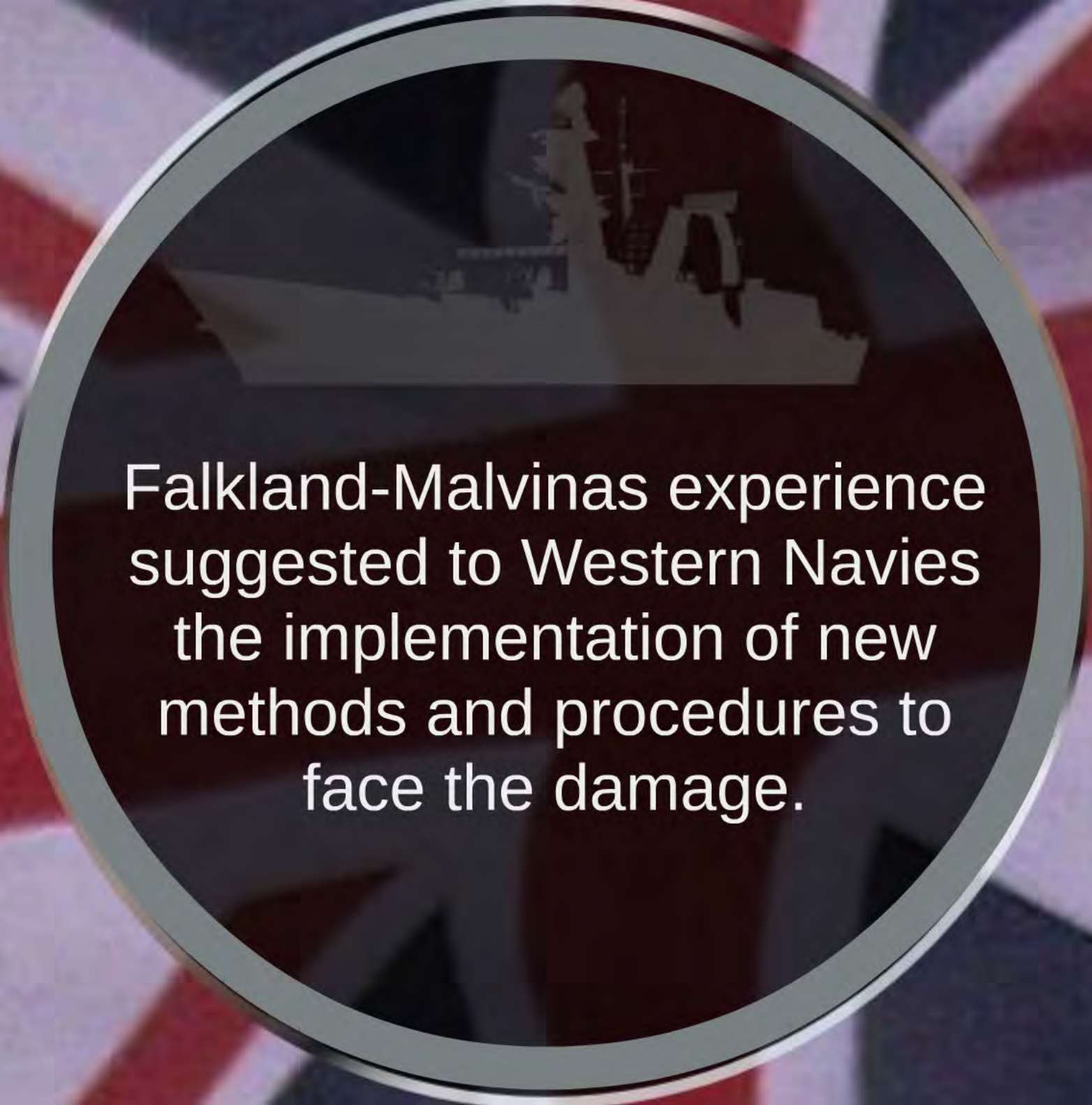


1982



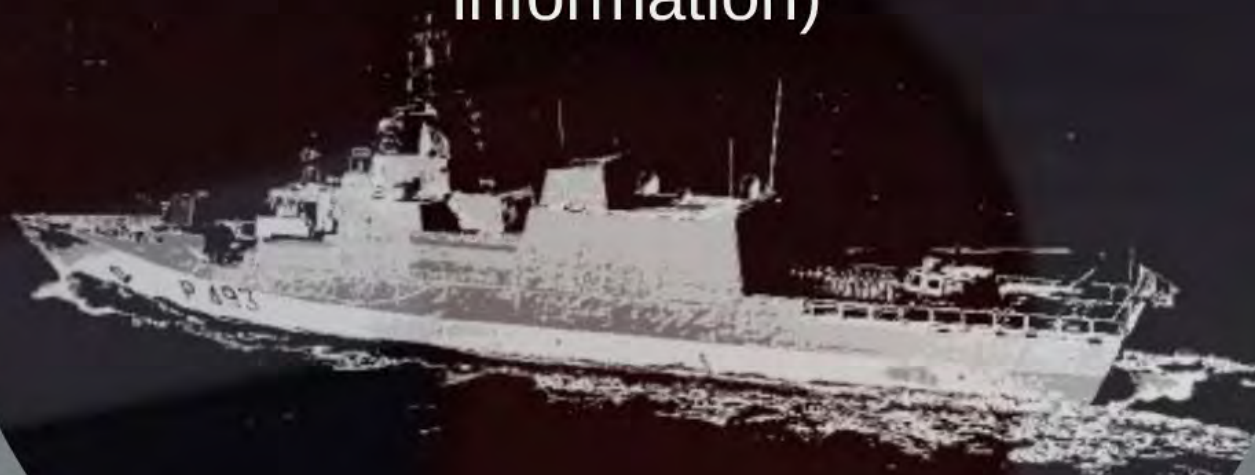
information update process was complex and slow

very few information could be handled



Falkland-Malvinas experience
suggested to Western Navies
the implementation of new
methods and procedures to
face the damage.

the damage control
organization used tools and
technology available at that
time (papery instruments and
hardwired lines for
transmission of voice
information)





**INCIDENT
BOARD**

**ROOM KILL
CARD**

**TECHNICAL
DOCUMENTATION**

**COMMUNICATION
SYSTEM**

**FIRE FIGHTING
PLANTS (BY
AUTOMATION IF
REMOTED
CONTROLLED)**



general arrangement plan

communication

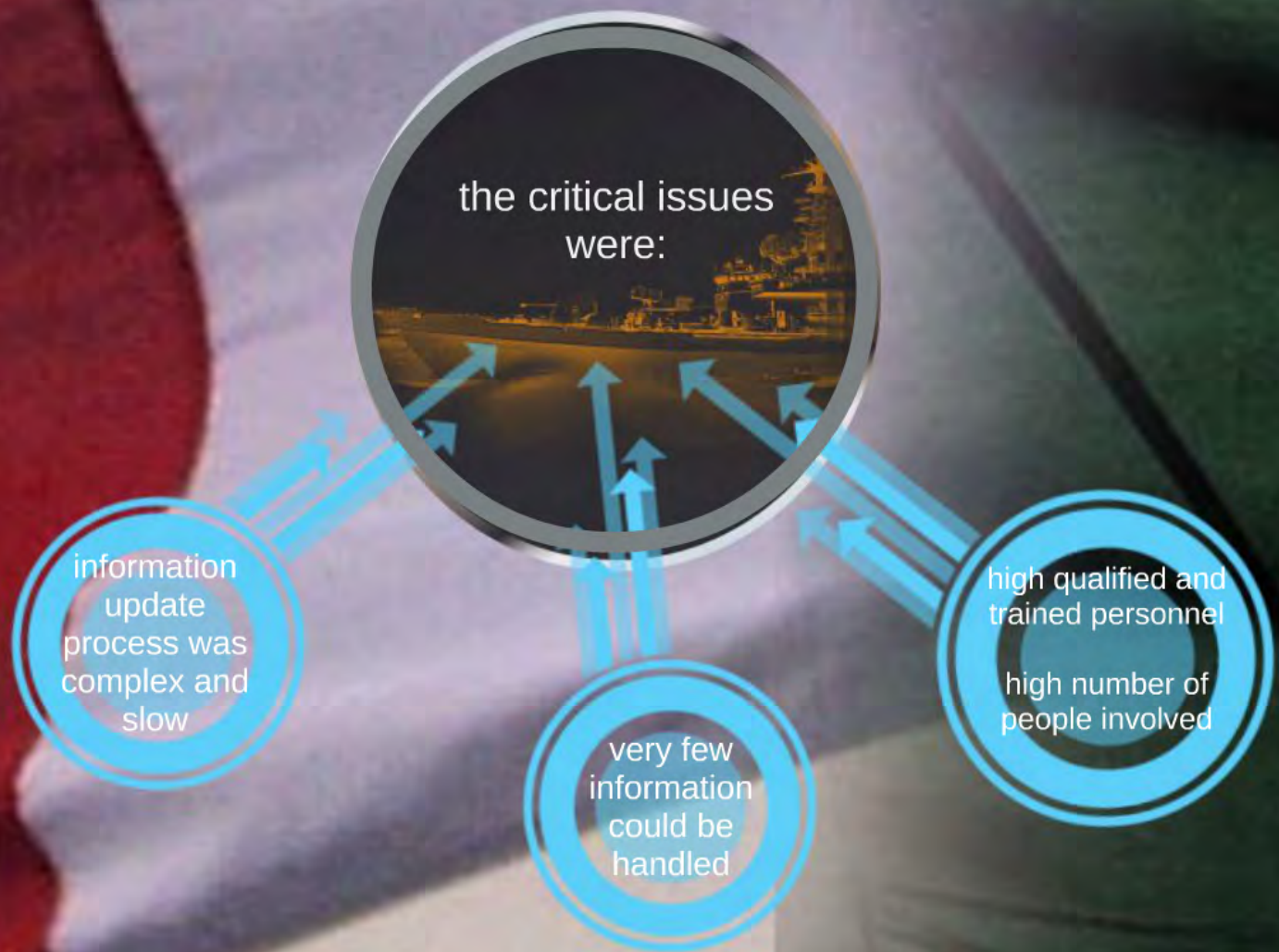
incident board

procedures



long training periods were
needed to achieve the high
coordination level between
crew members and hardware
instruments required to "win
the internal battle"

periods were
achieve the high
level between
s and hardware
required to "win
al battle"



2001

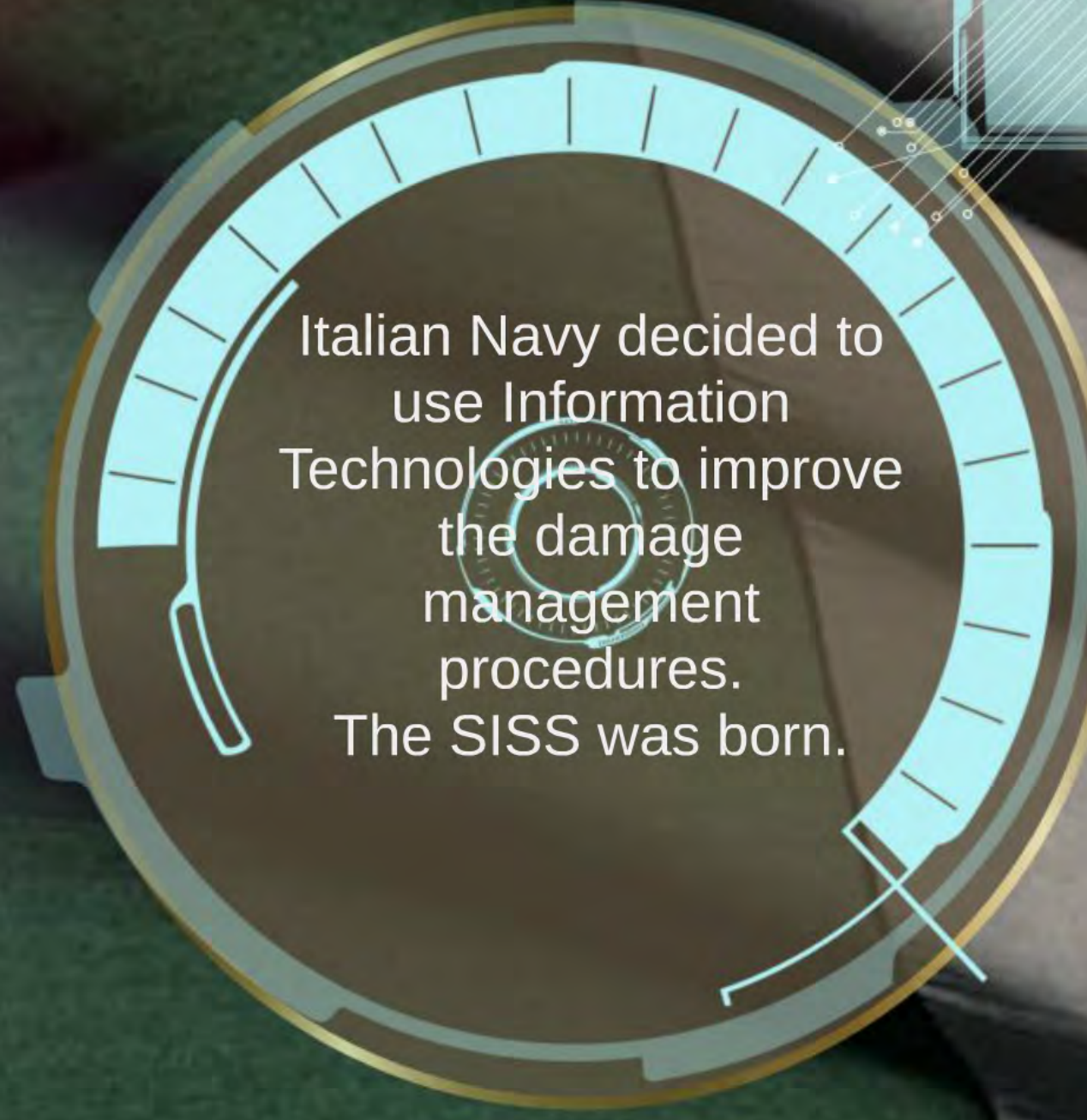
high qualified and
trained personnel

high number of
people involved

successfully
release of B
System (SIS

NAVE D





Italian Navy decided to
use Information
Technologies to improve
the damage
management
procedures.
The SISS was born.

- refined and easy to use HMI common for the whole fleet (one system policy)
- independency from the suppliers.

The d
succes
release
System

EYE IRIS MATCHED

the Italian Navy requirements were:

- modularity;
- linkage with SMS and other subsystems involved in Damage Control;
- refined and easy to use HMI common for the whole fleet (one system policy);
- independency from the suppliers.

Many subsystems have been developed to gather useful information not previously collected in order to reduce the number of information manually entered (e.g. People Tracking Systems and Breathing Apparatus pressure telemetry).

AN 459



2001 first release

The Italian Navy decided to use Information Technologies to improve the damage management procedures. The SISS was born.

The development phase was

en
ful
sly
ce
on



A large Russian missile cruiser, the Moskva, is shown sailing on the sea. The ship is white with a dark hull and features a prominent radar dome and various antennas on its superstructure. The ship is moving towards the right of the frame, leaving a wake behind it.

A large grey missile cruiser, identified as the DORIA, is shown sailing on a blue sea under a clear sky. The ship has a complex superstructure with multiple radar masts and missile launchers. The text "DORIA" is overlaid in yellow at the top, and "HORIZON CLASS" is overlaid in yellow at the bottom.

2014

The development phase was successfully concluded with the release of Battle Damage Control System (SISS TRD)

NAVE DORIA first installation



first installation

DORIA



HORIZON CLASS



INCIDENT
BOARD

ROOM KILL
CARD

TECHNICAL
DOCUMENTATION

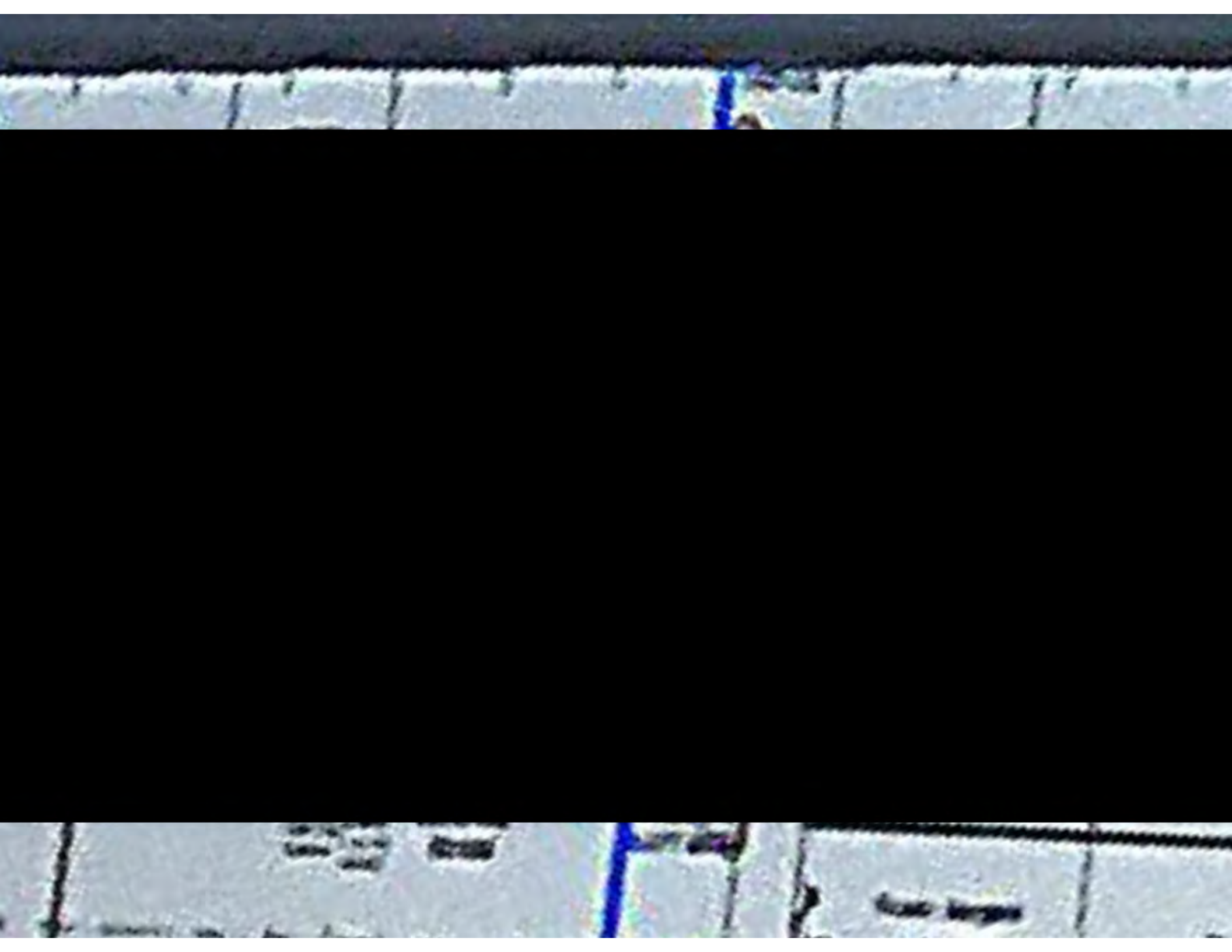
Area leader

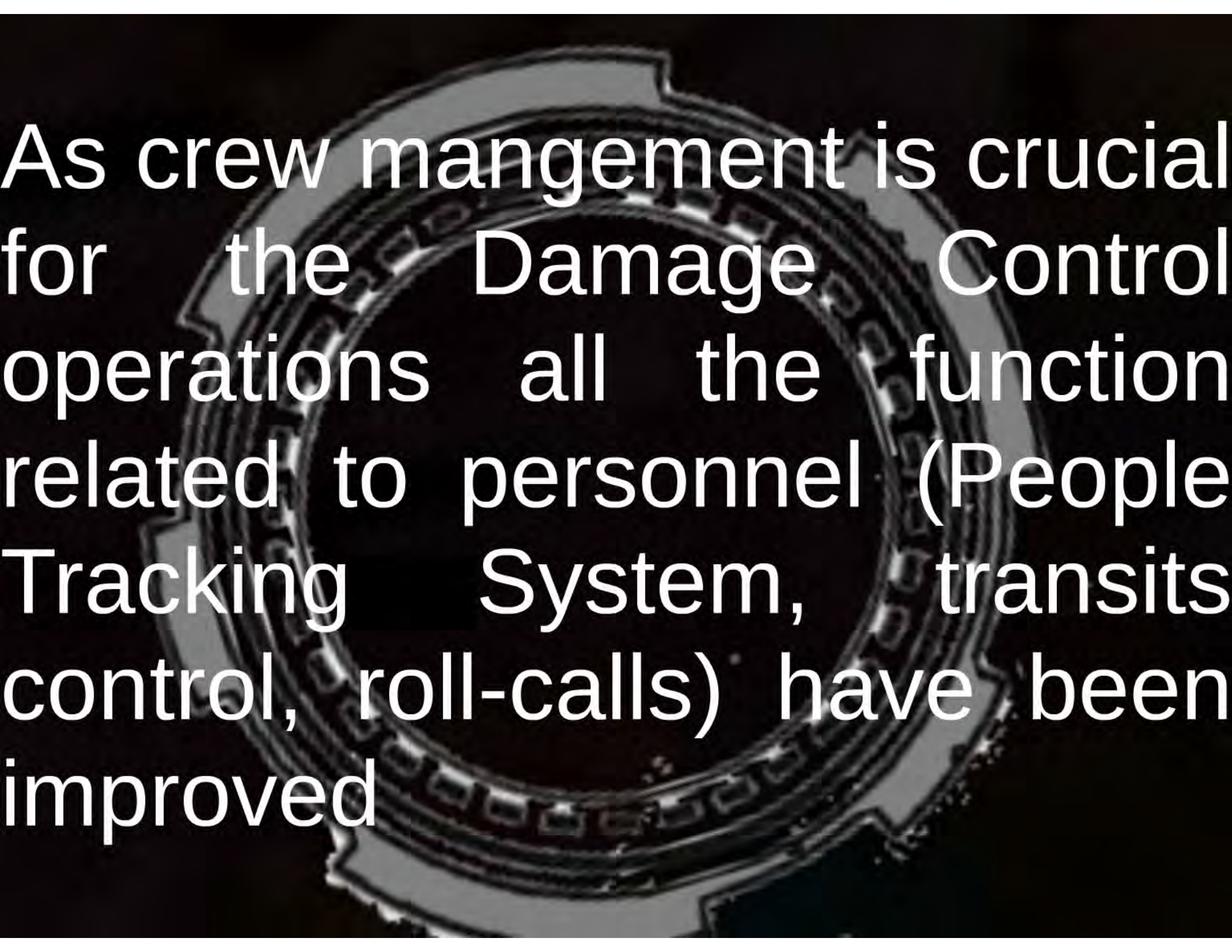
COMMUNICATION
SYSTEM

FIRE FIGHTING
PLANTS (BY
AUTOMATION IF
REMOTED
CONTROLLED)

As crew management is crucial for the Damage Control operations all the function related to personnel (People Tracking System, transits control, roll-calls) have been improved

OUTPUT



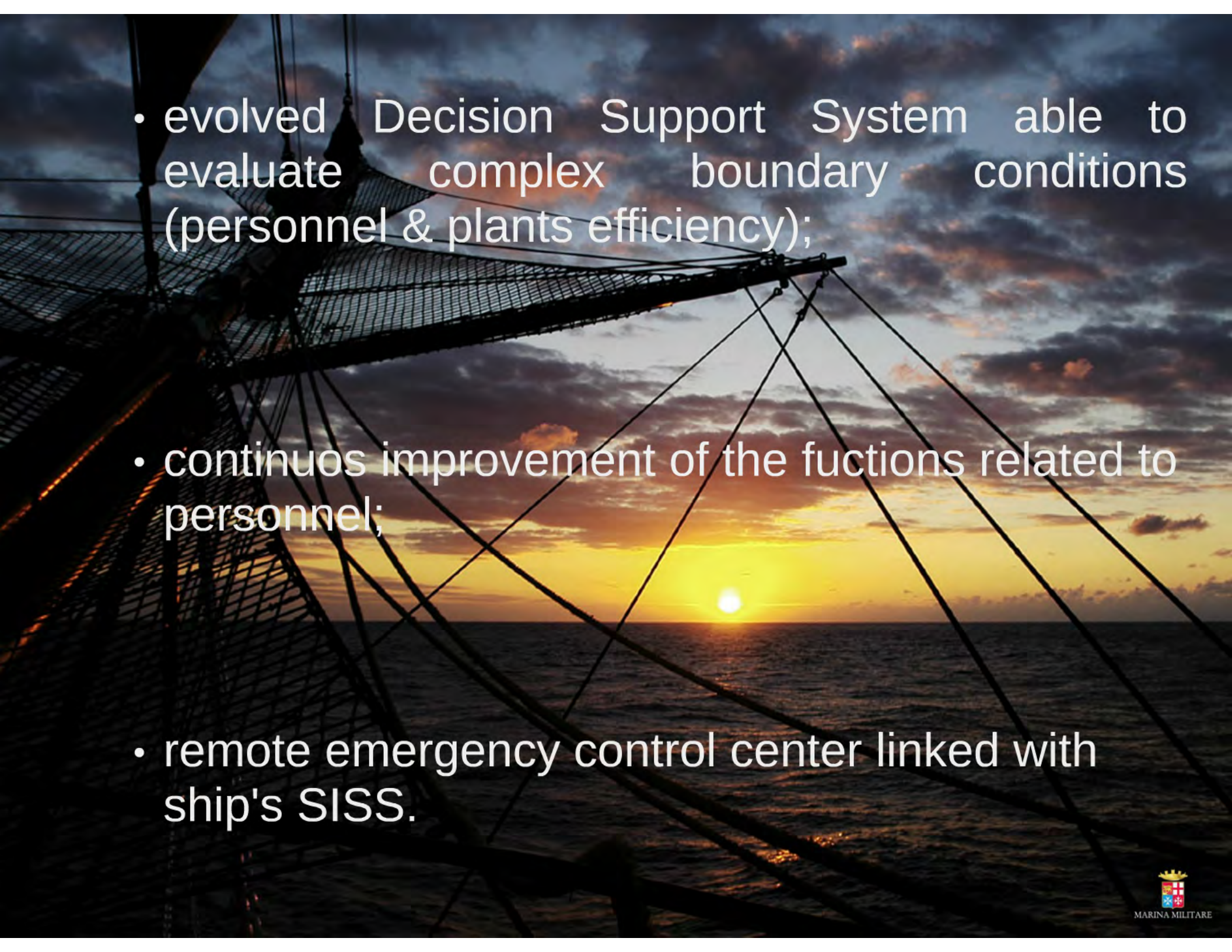


As crew management is crucial for the Damage Control operations all the function related to personnel (People Tracking System, transits control, roll-calls) have been improved



The background is a light blue gradient. It features several dark blue squares of varying sizes connected by thin, faint lines, creating a network-like pattern. The text "what's next..." is centered in a large, dark grey, sans-serif font.

what's next...

- 
- evolved Decision Support System able to evaluate complex boundary conditions (personnel & plants efficiency);
 - continuous improvement of the functions related to personnel;
 - remote emergency control center linked with ship's SISS.



CONCLUSIONS



ML2 interesting project:

- "dual use" technology (Keep it up!)
- cooperation between MoD & MoT
- congratulations to Swedish Administration

Thank you for hospitality



Gothenburg, 10 november 2015

spokesman
C.C. (GN) Marco FRACASSI
Italian Ministry of Defence
Navy Directorate



Thanks