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Force Protection of Maritime Units: The Decision-Making Process of the Italian Navy – The Holistic Approach

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FOREWORD

In modern missions, forces' survival is more than ever in the hands of those who contribute to trigger the reactions aimed at engaging and neutralising threats: in such scenarios, decision making becomes, at all levels, a key enabler.

1. INTRODUCTION

Ladies and gentlemen good morning. I am Rear Admiral Rinaldo Veri, Chief of Plans, Policy and Operations at the Italian Navy General Staff. First of all, I wish to thank the organisers of this symposium for the honour that I have been given by being invited as key note speaker.

My presentation – which revolves around the basic concepts of a speech I gave in London last March, during the Ship Self Defence Conference – will follow the agenda reported on this slide. Although I will leave around 5 minutes to take your questions at the end, I will also be happy to provide clarifications during the course of the presentation. So, please, feel free to interrupt me at any time.

Before commencing I wish to make it clear that I am not a "specialist". And neither do I want to match the other speakers who are giving very skilled and competent presentations on the technicalities of force protection in the littorals, which is the topic of this symposium. I have chosen to look at the issue from a different perspective, a more philosophical one. In other words, I have tried to examine the matter from a "policy & principles" angle, which after all is what my job in Rome is mainly about.

I would like to start by making two points that I deem essential to support the rest of my presentation:

- first, by recalling the definition of force protection[1] as "all measures and means to minimise the vulnerabilities of personnel, facilities, equipment and operations to any threat and in all situations, to preserve freedom of action and the operational effectiveness of the force";
- second, by pointing out that the domains of "force protection" and "self defence" are dramatically convergent in modern littoral scenarios, since maritime forces are subjected to constant threats that may at any time disrupt the capability to successfully accomplish their missions.

[1] From NATO AAP-6.

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14. ABSTRACT

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Furthermore, I deem it important to recall the three core capabilities that maritime forces must have to accomplish their missions: to move, to fight, and to survive. These capabilities have to be constantly exercised and reviewed, in line with the peculiar scenarios of employment, increasingly characterised by factors such as multidimensionality, uncertainty and speed of change. In such complex, uncertain and rapidly evolving scenarios, force protection becomes one of the key elements that add value to the ability to survive. Inadequate capabilities in this field would indeed not only seriously hamper the regular fulfilment of units' tasks but also endanger their personnel. Furthermore, it goes without saying that casualties to friendly forces, despite intrinsically tragic, may also reduce public opinion's support as well as hamper the cohesion among participants within coalition operations, further rising force protection among the top priorities for mission success. In our view, the improvement of force protection capabilities revolves around the combination of two main classes of factors:

- the availability of **cutting-edge** technologies;
- training in the application of appropriate **doctrine** and **procedures**.

During this symposium, there will be several interesting illustrations mostly dealing with technical and doctrinal aspects of maritime operations and more specifically force protection in the littorals. Various areas will be touched, as diverse as situation and maritime domain awareness, modelling and simulation, sensors performance in dense signal environment, underwater force protection, facets of asymmetric threats. Consequently, attention will be mainly focused on the development of better active and passive sensors, more effective weapons, more powerful command & control systems, improved doctrines and better tailored tactical procedures to challenge the foreseeable threats of the future.

I would now like to shed the light on one additional element, which I deem essential for the effectiveness of force protection in the years to come: the **decision making process**. This is a **key enabling** factor, horizontally related to all the aforementioned elements, aiming to increase the efficiency and timeliness of engagements. Indeed, only an appropriate decision making process allows the kind of "prompt reactions" that can effectively defend our forces when caught in critical situations.

A high standard of "decision making" requires two key elements: **information availability** and the **capability to timely process that information**.

2. DISCUSSION

A quick glance at past situations that caused either the loss or serious damage of ships shows that threats were often spotted in advance, with crews quite aware of the hostile actions being perpetrated against their units. This, despite the "surprise factor" typically characterising modern threats, especially when asymmetrically featured. Also, reaction processes are normally based on stepped procedures, with transition times that reduce overall speed of execution. In other words, whether the threat is represented by an incoming missile or by an approaching boat laden with explosives, making the right decisions is not sufficient to successfully counter it: speed of reaction is also necessary. To ensure the survivability of our forces it is therefore not enough that radar and sonar-operators correctly spot any closing contact and that, likewise, lookouts constantly report the suspicious behaviour of approaching boats or low-slow flying airplane: indeed, appropriate decisions have to be promptly made at various levels and expedite reactions have to be set forth accordingly. Speed of execution thus becomes the key factor enabling a successful neutralisation of incoming threats. The incapability to make correct and timely decisions may definitely render useless the availability of high-tech weapons and specialised sensors.

At this point, for the sake of completeness, we should also consider that "too quick reactions" may sometimes be equally disruptive if not even more dangerous than "late reactions". In particular, hasty reactions based on premature situation assessment may generate either unwanted collateral damage or

blue-on-blue engagements, both with highly negative effects on mission success, even worse than the outcomes of "late reactions".

All this stresses even more the initial point that I made, that is to say: "decision making is key in enabling the effectiveness of all measures concurring to force protection, such as personnel training, modern combat systems and advanced hulls and superstructures".

At the Italian Navy General Staff we are thus developing a holistic approach for enhancing the force protection capabilities of our units. Our current objective is to enable commanders on the field to effectively counter the multi-faced threats of the new operational arena, including those with an asymmetric connotation typical of the littoral environment. We are therefore working on a plan that unfolds along two main lines of action:

- **enhancing situation awareness in the maritime domain (MDA);**
- **improving the decision making process.**

Incidentally, our approach is in line with two pieces of research that have been recently published in the Harvard Business Review:

- the first is a segmentation of "**Decision Making Styles**", based on a matrix whose dimensions are "information use" and "number of options";
- the second introduces an innovative management theory, denominated **Evidence Based Management**, that overcomes the old theories by suggesting a new approach that can be epitomised by the adjectives "faster", "better" and "smarter".

I will now briefly develop both these dimensions by starting with "information collection" aimed at the improvement of MDA and then move to "information processing", with specific reference to the enhancement of the "decision making process".

In particular, I will refer to the NATO definition of MDA, which entails "the understanding of anything associated with the global Maritime Domain that could impact the security, safety, economy, or environment of the member and partner nations of NATO".

Our achievement of Maritime Domain Awareness (MDA) is currently focused on the Mediterranean Sea, at both the strategic and operational levels:

- at the strategic level, by fielding and promoting projects such as the Virtual Regional Maritime Traffic Centre (V-RMTC), by strengthening numerous confidence building measures and fostering cooperation with coastal states;
- at the operational level, by improving the Navy-wide Coastal Radar Network and by implementing a dedicated "Integrated Maritime Information and Surveillance System" that collates information from military and commercial sources.

The V-RMTC project, based on the exchange of data relating to maritime traffic, was presented in October 2004, at the 5th edition of the Regional Seapower Symposium that the Italian Navy organises in Venice on a biannual basis. After the Rome kick-off meeting in February 2005, the V-RMTC achieved its Initial Operational Capability (IOC) during the forthcoming month of June; Final Operational Capability (FOC) is due to be reached by October 2006. The V-RMTC currently involves 14 participants and 12 supporting partners, including both Mediterranean and non-Mediterranean countries. The project is a very simple and cost effective one and adopts an Internet based software platform, utilising unclassified information relating, for the moment, to the positioning and movements of commercial ships above 300 tons.

The V-RMTC is supported by other initiatives of a political nature which, by strengthening cross-country relationships, provide significant boost in the promotion of the project itself. Among them I would like to highlight the Adriatic Ionian Initiative, named ADRION, and the 5+5 Initiative:

- the first, launched at the 2000 Ancona Conference, gathers 6 countries from the Adriatiac and Ionian Sea, namely Albania, Croatia, Italy, Greece, Serbia-Montenegro and Slovenia;
- the second, activated at the 1990 Conference of Rome, is a collaboration forum that includes 5 European Union countries in the Western Mediterranean (France, Italy, Portugal, Spain, and Malta) and 5 North-African countries from the same area (Mauritania, Morocco, Algeria, Tunisia and Libya). Only recently momentum has been given to its Maritime Dimension which, allow me to say, is now taking the lead.

Let's now move on to the "Integrated Maritime Surveillance Centre" that is set up and growing at our Fleet Operational Headquarters in Rome. Its main task is to build up an updated Recognised Maritime Picture (RMP) in the Mediterranean and beyond, by collating all available information from both military and commercial sources. Military sources will include national and NATO maritime, land and air assets while commercial sources will be mainly represented by those revolving around the Italian Coast Guard Operational Centre, which integrates information from the Vessel Traffic System (VTS), the AIS (Automated Identification System) and other data specifically provided by national merchant and fishing vessels, respectively through the ARES (Automatic Rescue and Search) and "Blue-box" systems.

Information processed by the "Integrated Maritime Surveillance Centre" is disseminated to our Navy ships via broad-band satellite communications, within the scope of the broader activation of the Net Enhanced Capability. This will improve both the level of security in the area of interest as well as the task of our assets to compile the maritime picture in their area of operations, particularly along the Mediterranean Sea Lines of Communication and littoral areas. The end result will be an increased capability to discriminate suspicious craft and activities and consequently a significant boosting of the force protection capabilities of our units.

I would like to point out that our holistic approach to force protection and more in general to self defence of our forces has been elaborated within the framework of the new NATO Concept for Alliance Future Joint Operations (CAFJO), whereby Information Superiority together with Network-Enabled Capability (NEC) are the two main contributors to Decision Superiority. In NATO's view, as well as, obviously, in the case of our Navy, the final objective is to "adapt its military posture to respond to challenges with timeliness, precision and flexibility". More specifically, according to the CAFJO doctrine, Information Superiority has to address three main issues: Information Management & Organisation, Knowledge Building & Situational Awareness, and Decision Making.

Incidentally, all ingredients that are part of our study.

This brings us to the second dimension of our holistic approach to force protection and self defence, whereby the target is represented by enhancing the capability to manage information for better decision making. To do this, we are launching a Navy-wide programme involving three levels: educational, technical and procedural. In particular:

- **educational**, by introducing "decision making" abilities in the educational process of our personnel;
- **technical**, by developing systems that aid the decision making process;
- **procedural**, by developing ROE's and operational as well as tactical directives that encourage the delegation of authority down the chain of command, especially as far as the application of the self-defence principle is concerned.

Educational:

Decision making is centred on the human factor. In particular, in accordance with the previously mentioned NATO CAFJO doctrine, "decision makers must be able to choose the most appropriate actions based on a common understanding of the situation. Decisions must be made and effectively implemented faster than an opponent can act".

Indeed, from commanders down to the last man in the chain of command, several people within our units, at various levels of seniority, are called to and thus must be capable of making decisions. When hostile acts are perpetrated against ships, for instance, junior conning officers, as well as enlisted and junior ratings that normally perform critical duties, such as "lookouts" and "sentries", must take the initiative and autonomously operate, including deciding the opening of fire for "self defence" purposes.

In this field, the Italian Navy's educational system is therefore carrying out various initiatives. Among them, I wish to bring your attention to the Command Leadership Course that our cadets conduct during the Second Year of their educational syllabus at the Naval Academy. This course, characterised by very practical contents, is jointly designed by the Naval Academy and by the Landing Force Command. Similar activities are included in the basic education program for Petty Officers too. The main objective of these courses is to improve the decision making skills of junior leaders, by placing them in difficult situations that generate significant psychological pressure and require expedite situation assessment and quick reactions.

Another dedicated Course whereby decision making is one of the main capabilities developed is the Naval Command Course for junior Commanding Officers. This course is aimed at Lieutenants and is normally conducted during the year prior to their first command duty.

Finally, I wish to highlight the Decision Making skills that are specifically taught to officers in the rank of Lieutenant Commanders at the Navy War College in Venice. In this case the course is enriched with innovative tools that include specifically tailored "case studies" and "role-playing" exercises.

Technical:

The Italian Navy has been investigating for years the development of decision making tools, especially to speed up the reaction process and therefore further improve the force protection and self defence capabilities of our units. The Command & Control systems currently fitted on board most of our first and second line ships adopt software packages that include specific modules supporting the decision making process for self defence, especially in the field of Anti-Ship Missile Defence.

As far as the construction of our new ships is concerned, the Italian Navy is currently carrying forward a strong cooperation programme with France, for the development of both destroyers and frigates. In particular:

- the destroyer project, named Horizon, has reached its final stage, with the construction of the first 2 ships;
- the frigate project, named "Rinascimento" (Renassaince) also known as FREMM, acronym standing for Multi Mission Frigate, is in the early stage of the development and construction phase and will provide the Italian Navy with a class of new multi-mission frigates.

The command & control systems of the Horizon class will include a specific module, denominated Threat Evaluation Weapon Assignment (TEWA), which includes sub-modules specifically designed to speed up the decision making process, thereby significantly improving ship self defence and force protection performance. In particular, this system will provide kill assessments for any incoming air threat, including advice to decision makers on how to optimise reactions in terms of using hard-kill measures or soft-kills through a set of recommendations especially aimed at manoeuvring the ship itself.

The system will integrate the set of Rules of Engagement in force and will therefore present the decision makers with an array of options for the most effective and timely engagement. A special reduced version of this system is scheduled to be fitted on the FREMM frigates.

Procedural:

These measures are aimed at boosting self defence through the adoption of procedures that substantially improve the capabilities of our ships to outmanoeuvre the opponents. Also in this case, we believe that ad-hoc decision making procedures, based on speed of execution, have a key role towards the achievement of mission success. The main concept here is represented by the need to force the opponent to act inside the peculiar "range of operations" that Klausewitz describes as "region of chaos". The graphic reported on this slide shows, in fact, that a decisive increase in both "scale/scope" and "pace" of operations permits to keep own assets in "order" and at the same time forces the opponent into the "disorder" region.

The criticality of force protection and of the correlated self defence actions requires to avoid situations whereby own forces are in the region of "chaos" while opponents operate in the region of "order". This condition would be worsened should the threat be asymmetric, typical characteristic of the predictable scenarios of employment in littoral waters. In this case, the distinctive curve assumes a particular slope (closer to the X axis), as reported on the slide, and the most effective way to counter the threat is to concentrate on a significant increase in the "pace" of operations. This can be effectively done by adopting specific procedures and decision making processes to speed up the dynamics of own operations. Furthermore, since asymmetric threats provide, at the tactical level, their best performance in high "pace" and relatively low "scale/scope" operations, an "effect based" as opposed to "attrition based" approach would allow to better protect own forces. Among the actions that generate the sought effects, I would like to point out:

- actions with a deterrence effect, including force display and demonstrations;
- actions with a dissuasive effect, including firing of flares and warning shots;
- actions with a medium psychological effect, including firing of weapons that avoid casualties among opponents;
- actions with strong psychological effect, including firing of weapons that include the possibility to hit opponents.

All these actions are characterised by being intrinsically "gradual" and therefore allow to more easily comply with the principle of proportionality[2] when force protection imposes the use of force for self defence purposes.

Furthermore, these actions can be applied in a sequential way, although in some cases it might be necessary to skip some of them in order to speed up the entire process. Again, the key element becomes the adoption of an appropriate decision making system, specifically governed by high speed of execution. In this light, I would like to stress the importance of the newly introduced Evidence Based Management theory, which allows to achieve speed whilst keeping decision makers constantly focused on the situation in which they operate. The Italian Navy has adopted operational and tactical measures in the above direction, with which I would like to conclude by mentioning some:

- during port visits, ships conducting either Coalition operations or other multinational activities normally revert to national operational control, so that force protection can be easily managed under national rules of engagement, without any possible restrictions and delays from non-national directives;

[2] According to International Law, the use of force for "self defence" has to be "necessary", "gradual" and "proportional".

- both at sea and in port, ships adopt standardised operating procedures that push to the lowest possible level the delegation of responsibility to initiate and conduct any self defence action.

3. CONCLUSIONS

In closing my presentation, I wish to recall the fundamental element I have described as "central" to our holistic approach to force protection, that is to say the Decision Making Process.

I started by demonstrating that an effective decision making system requires a combined action along two dimensions: "information availability" and "capabilities to timely process that information". Our plan has been therefore aimed at improving the decision making process by adopting a framework structured along two main lines of action, one for each of the aforementioned dimensions:

- the first involves a decisive strengthening of our Maritime Domain Awareness, by launching and developing projects such as the V-RMTC, the Navy-wide radar network and more generally the "Integrated Maritime Information and Surveillance System";
- the second encompasses a series of actions within three different areas: educational, technical and procedural.

The common denominator to all these areas is the achievement of Information Superiority by addressing those issues that are also emphasised in the most recent NATO doctrine under elaboration, namely the Concept for Alliance Future Joint Operations (CAFJO). In particular, the more central role is played by Decision Superiority the foundations of which lie upon the strong availability and support of information superiority and Network Enabled Capability.

After this far from comprehensive examination of measures and projects aimed at improving force protection and therefore the self defence capabilities of our units, beyond the purely technical aspects I would like to point out that they require investments, in most cases also particularly heavy. The budget constraints that our Armed Forces are currently undergoing are bound to influence the pace and final outcome of our global plan. To make ends meet, we are therefore looking for line of actions characterised by high returns (ROI = Return On Investment), while working hard for the best combinations of high-end results and investments of limited financial entity.

Italian Navy

Plans, Policy and Operations Department

Force protection of maritime units

The decision-making process of the Italian Navy. The holistic approach.

by Rear Admiral **Rinaldo VERI**

Italian Navy, Chief of Plans, Policy and Operations Department

Ottawa, September 25, 2006

AGENDA

- Introduction
- The Italian Navy's approach to Force Protection
  - Information collection
  - Information processing
- Information Superiority
- Final remarks and Conclusions

FOREWORD

In modern missions, forces' survival is more than ever in the hands of those who contribute to trigger the reactions aimed at engaging and neutralising threats: in such scenarios, decision making becomes, at all levels, a key enabler.

ESSENTIAL POINTS

- FORCE PROTECTION'S DEFINITION AS PER NATO AAP-6:

  "ALL MEASURES AND MEANS TO MINIMISE THE VULNERABILITIES OF PERSONNEL, FACILITIES, EQUIPMENT AND OPERATIONS TO ANY THREAT AND IN ALL SITUATIONS, TO PRESERVE FREEDOM OF ACTION AND THE OPERATIONAL EFFECTIVENESS OF THE FORCE"

- MODERN LITTORAL SCENARIOS EMPHASISE THE CONVERGENCE OF *FORCE PROTECTION* AND *SELF DEFENCE*

FORCE PROTECTION KEY FOR SURVIVABILITY

- **MARITIME FORCES CORE CAPABILITIES**: to move, to fight, to survive
- **CAPABILITIES** constantly exercised and reviewed
- **NEW SCENARIOS** characterised by:
  - Multidimensionality
  - Uncertainty
  - Speed of change
- **FORCE PROTECTION** : key to improve the ability to survive

Inadequate Survivability ...

- Hampers fulfilment of units' tasks
- Endangers their personnel
- May cause friendly casualties that:
  - are intrinsically tragic
  - may reduce public opinion's support
  - may hamper cohesion in Coalition operations
- Improvement of force protection capabilities requires:
  - availability of cutting edge technologies
  - appropriate doctrine and procedures

SYMPOSIUM FOCUS

- Force Protection in the Littorals: Technical and Doctrinal Aspects aimed at challenging threats of future
- The Decision Making Process (DMP):

  An additional element essential for the effectiveness of force protection and a key enabling factor
- High standards of Decision Making require:
  - Information availability
  - Capability to timely process that information

PAST EPISODES

LESSONS LEARNT

- FORCES' SURVIVAL depends on the capability to:
  - promptly make appropriate decisions
  - timely start consequent reactions
- SPEED OF EXECUTION a key factor a successful neutralisation of incoming threats
- Incapability to make CORRECT AND PROMPT DECISIONS renders availability of high-tech useless

Avoid COLLATERAL DAMAGES

- PREMATURE SITUATION ASSESSMENT may generate:
  - unwanted collateral damage
  - blue-on-blue engagements
- This may negatively impact on MISSION SUCCESS
- Worse than "LATE REACTIONS"

INITIAL POINT

"Decision making is key in enabling the effectiveness of all measures concurring to force protection, such as personnel training, modern combat systems and advanced hulls and superstructures".

ITALIAN NAVY APPROACH

- Holistic, to enhance the force protection capabilities of our forces'
- Enable commanders on the field to effectively counter threats of the new operational arena
- Two main lines of action Plan:
  - Enhancing situation awareness in the maritime domain (MDA)
  - Improving the decision making process
- In line with research recently published in Harvard Business Review

DECISION MAKING STYLES

INFORMATION USE

NUMBER OF OPTIONS

	Satisficing (less information)	Maximising (more information)
Single focus (1 option)	**DECISIVE** This decision style is direct, efficient, fast and firm In public, this action-focused style comes across as task oriented	**HIERARCHIC** People using this highly analytical and focused style expect their decisions, once taken, to be final and to stand the test of time. In public, this complex style comes across as highly intellectual.
Multifocus (many options)	**FLEXIBLE** This style is about speed and adaptability. Managers make decisions quickly and change course just as quickly to keep abreast of immediate, shifting situations. In public, this flexible style comes across as highly social and responsive.	**INTEGRATIVE** In integrative mode, people frame problems broadly, using input from many sources, and make decisions involving multiple courses of action that may evolve over time as circumstances change. In public, this creative stile come across as highly participative.

Source: Harvard Business Review, February 2006 issue, pag.111

EVIDENCE BASED MANAGEMENT

- INNOVATIVE THEORY
- NEW APPROACH EPITOMISED BY:
  - FASTER
  - BETTER
  - SMARTER

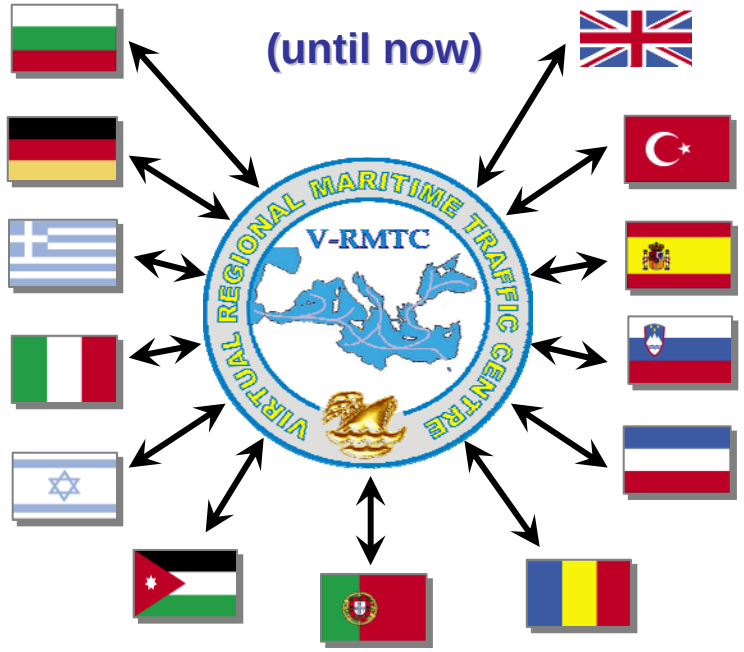
INFORMATION COLLECTION

- MDA: “the understanding of anything associated with the global Maritime Domain that could impact the security, safety, economy, or environment of the member and partner nations of NATO”.
- ITALIAN FOCUS on the Med
- STRATEGIC LEVEL : V-RMTC
- OPERATIONAL LEVEL: Coastal Radar Network and “Integrated Maritime Surveillance System”

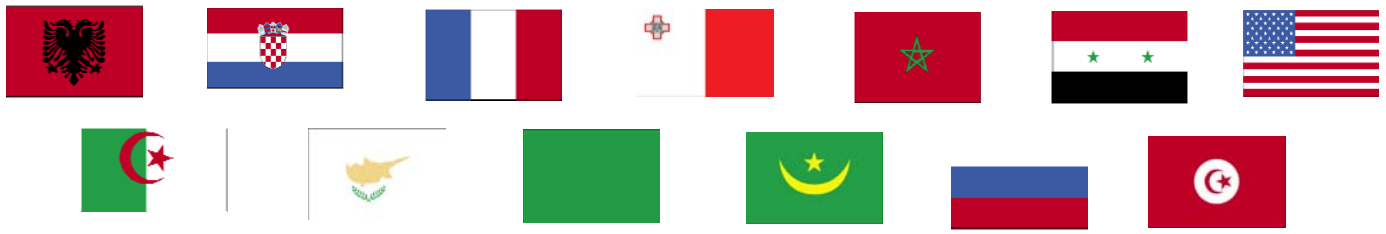
V-RMTC

ACTIVE PARTICIPANTS

(until now)



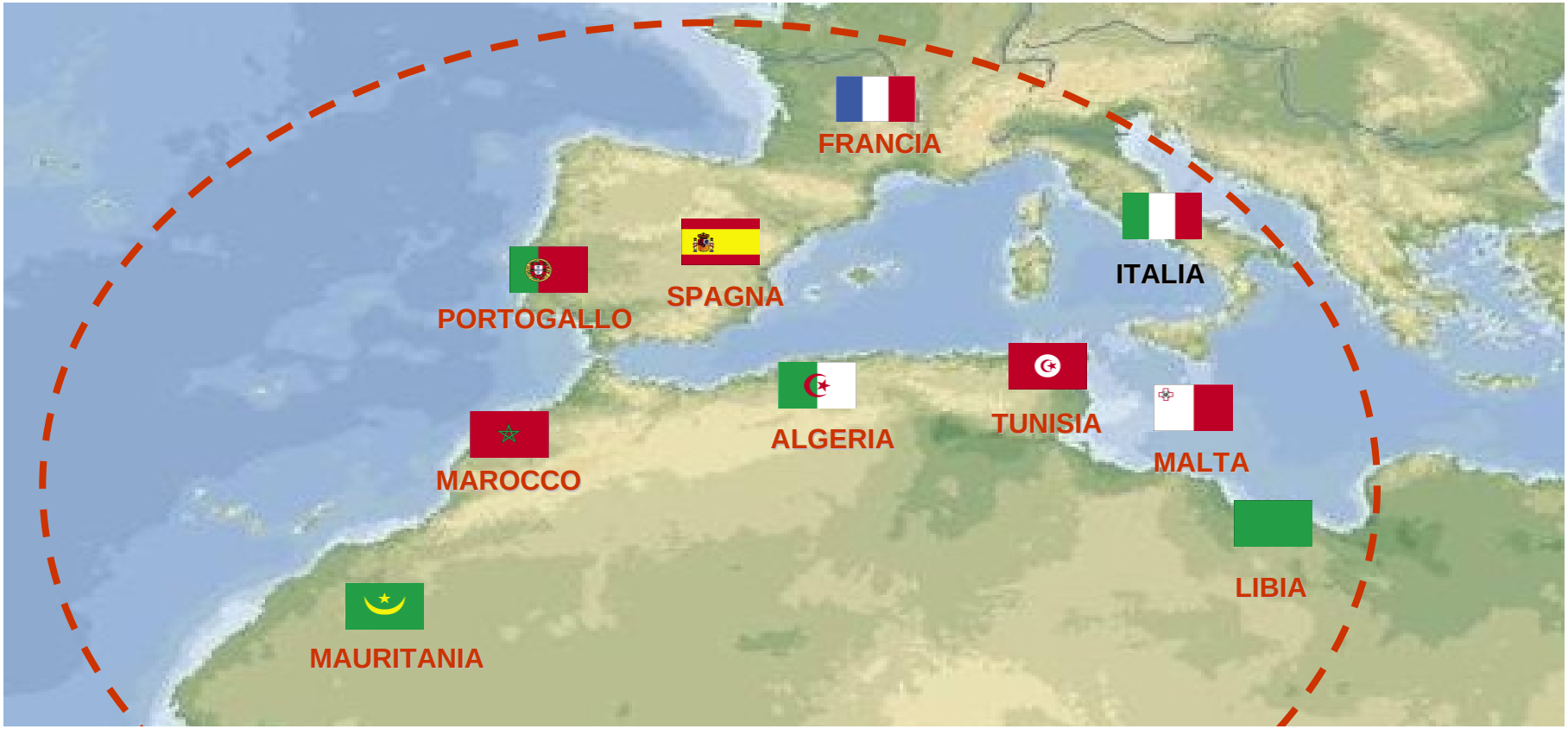
SUPPORTING PARTNERS



ADRION

- Launched at the Ancona Conference
- Gathers 6 countries from the Adriatic and Ionian Sea

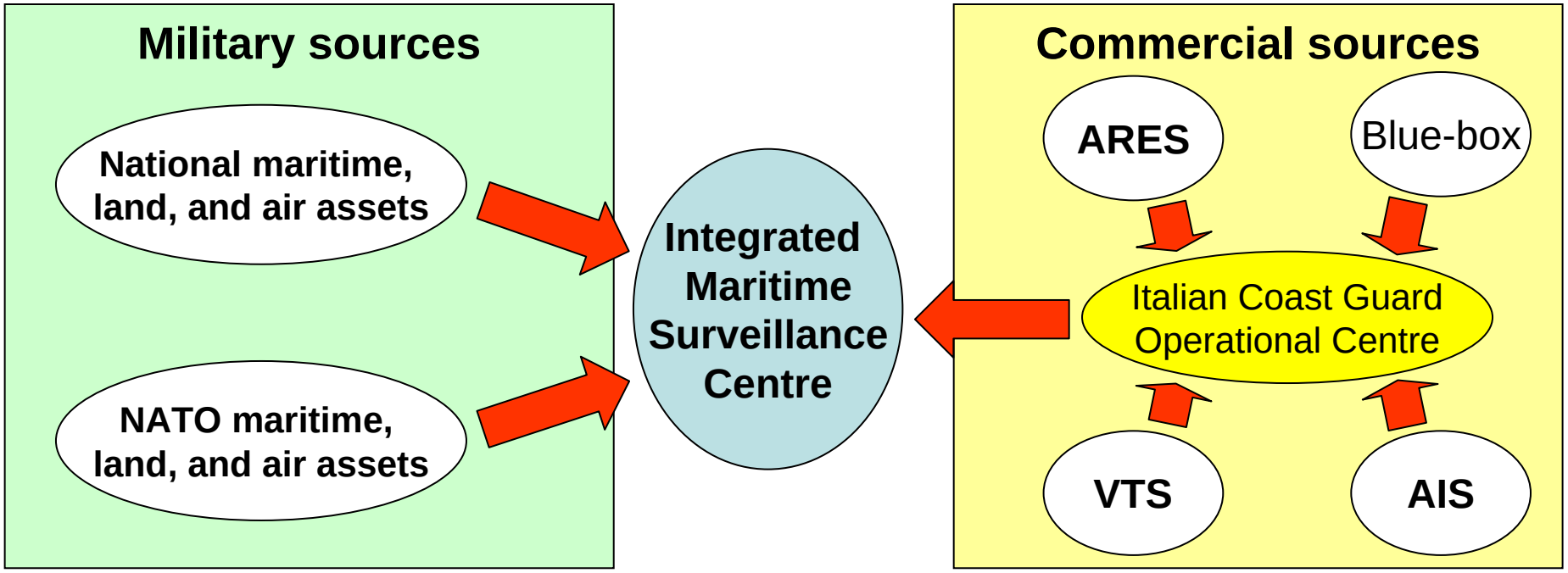
5 + 5 INITIATIVE



- Collaboration forum between 5 European countries and 5 North-African countries

INTEGRATED MARITIME SURVEILLANCE CENTRE

- Fleet Operational HQ in Rome
- RMP in the Med and beyond
- Military and Commercial sources



INFORMATION DISSEMINATION

- Information disseminated to Navy ships via satellite
- Improves:
  - level of security in the area
  - compilation of Maritime Picture
- End results :
  - increased capability to discriminate suspicious craft and activities
  - improvement of force protection capabilities

ALIGNMENT WITH **NATO**

- Approach consistent with New **NATO Concept for Alliance Future Joint Operations** (CAFJO), based on:
  - Information Superiority
  - Network Enabled Capability

- **Final objective**: “adapt the Navy’s posture to respond to challenges with timeliness, precision and flexibility”
- **Information Superiority** has to address:
  - Information management & Organisation
  - Knowledge Building & Situation Awareness
  - Decision Making Decision Making

INFORMATION MANAGEMENT

Navy-wide programme involving 3 levels:

- EDUCATIONAL, introducing “decision making” in educational process
- TECHNICAL, developing systems that aid the decision making process;
- PROCEDURAL, developing ROE’s and operational and tactical directives encouraging delegation of authority

EDUCATIONAL LEVEL (1)

- Human factor
- Decision makers: common understanding of the situation.
- Decisions: faster than an opponent can act.
- Decision making at all levels
- Fire for “self defence” purposes

EDUCATIONAL LEVEL (2)

- Command Leadership Course, at the Naval Academy
- Naval Command Course for junior Commanding Officers
- Decision Making Course at the War College in Venice, with “case studies” and “role-playing” exercises

TECHNICAL LEVEL (1)

- Decision making tools investigated to improve the force protection and self defence capabilities of our units
- C2 systems currently fitted include modules supporting decision making for ASMD
- Italy and France cooperating in Horizon and FREMM projects

TECHNICAL LEVEL (2)

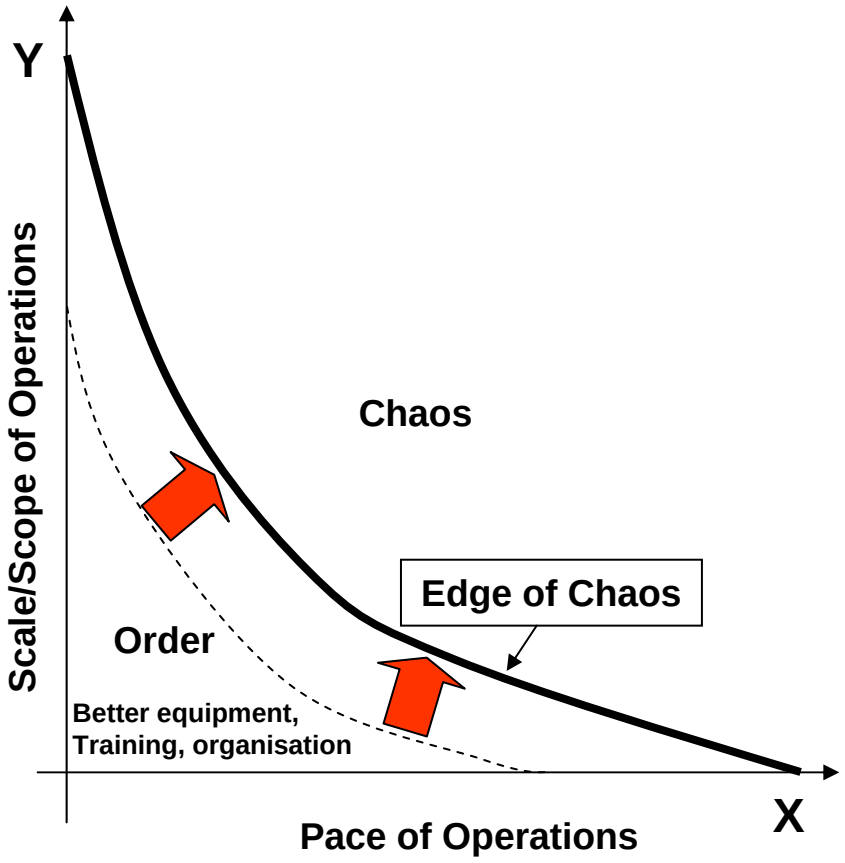
- TEWA (Threat Evaluation Weapon Assignment) module
- TEWA comprises sub-modules specifically designed to speed up decision making process for SSD
- TEWA will integrate ROE’s and present decision makers with options for engagements

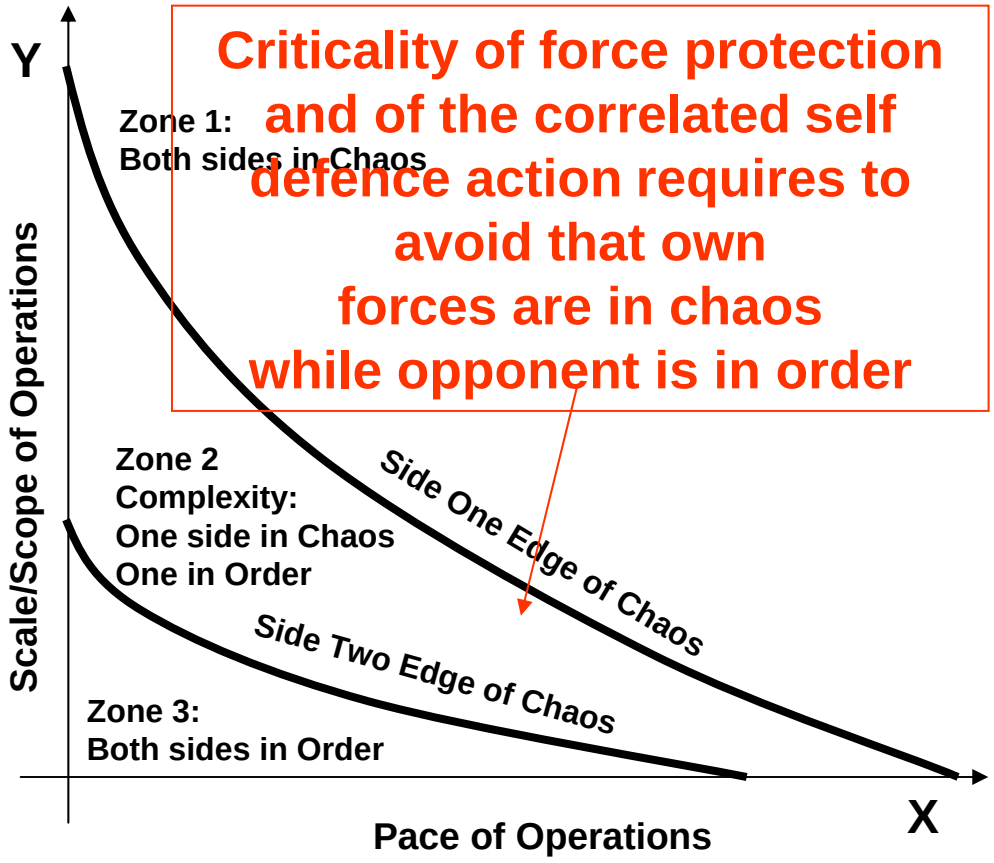
PROCEDURAL LEVEL (1)

- Outmanoeuvre of opponents
- Speed of execution key to mission success
- Opponent to operate in the region of “chaos”

THEORETICAL C2 CAPABILITY

(with respect to Scale/Scope and Pace of operations)

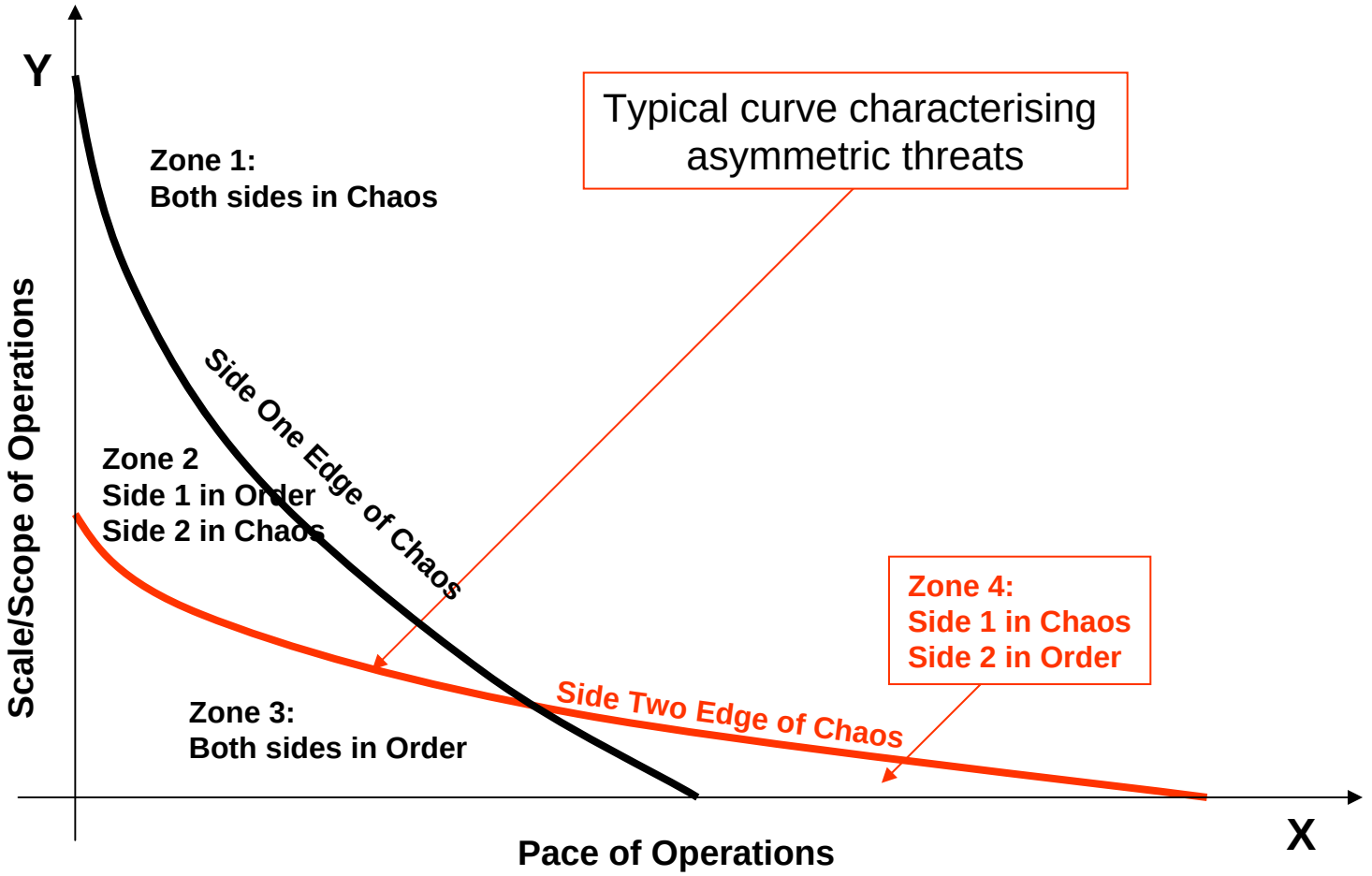




Source: Smith Edward R., "Effects Based Operations, Applying Network Centric Warfare in Peace, Crisis and War"

THEORETICAL C2 CAPABILITY

(in case of asymmetric situations)



Source: Smith Edward R., "Effects Based Operations, Applying Network Centric Warfare in Peace, Crisis and War"

PROCEDURAL LEVEL (2)

- Effect based approach
- Actions generating sought effect:
  - actions with deterrence effect
  - actions with dissuasive effect
  - actions with medium psychological effect
  - actions with strong psychological effect
- All actions are:
  - intrinsically gradual
  - allow proportionality
  - applied in a sequential way
- Speed up entire process

PROCEDURAL LEVEL (3)

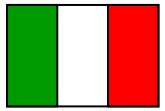
- Appropriate decision making system
- High speed of execution
- Evidence Based Management theory in line with this approach
- Operational and tactical measures:
  - Port visits,
  - Standard Operating Procedures

FINAL REMARKS

- Decision Making Process (DMP) central to force protection
- Effective decision making along 2 main dimensions:
  - information availability
  - capability to timely process that information
- Improve DMP within following framework:
  - Enhance MDA through:
    - V-RMTC
    - Integrated Maritime Information & Surveillance System
  - Strategic actions in 3 different areas:
    - Educational; Technical; Procedural

CONCLUSIONS

- Information Superiority: Common Denominator
- NATO CAFJO
- Decision Superiority requires
  - Information Superiority
  - Network Enabled Capability
- Large investments
- Current budget constraints influence final outcome
- Best combination of results vs. investments



Q & A