

A CLOSER LOOK AT DEFENCE LOGISTICS



With Qatar's procurement and military spending growing rapidly, there is a greater need for the development of efficient, effective and interoperable

logistics systems and strategies. IQPC interviewed Vice Admiral Alberto Gauzolino, Admiral Chief Inspector of the Italian Navy and keynote speaker at the Qatar Defence Logistics and Support Forum, to find out how the Italian Navy has taken on some of these challenges and what can be learned from his experience.

What is the greatest challenge you have faced in your years in logistics and what was done to overcome this problem or challenge?

The greatest challenge was, and still is, to get better efficiency facing a critical decrease of resources, both in human and budget terms. In other words, we want "to do more with less". To put this challenge in the right perspective, it is important to underline that many things changed in the last decade.

First of all, the duties that the Italian Navy has to accomplish, as requested by the government and dictated by the international situation changed radically, moving from operations carried out in a "local" area of interest toward an "enlarged Mediterranean" sea. This generated the need to develop a naval capability to operate far from the bases and to stay at sea for longer time. Secondly,

there is the need to have a smaller naval instrument, but definitely a more efficient one, flexible and more sustainable by a logistic point of view.

Can you explain the differences in logistic pressures when supplying in time of war and peace?

When talking about logistics, it is usual to make reference to either the logistics close to the crisis area, named "adherence logistics", or to the activities that remain resident in the country, i.e. "support logistics". This is true in general, but for the Navies the difference between the two is not so clear cut.

Naval vessels must have an "intrinsic" logistic capability, and the crews must have the competence to carry out the scheduled maintenance (the so called "preventive maintenance") and to repair any faulty/damaged equipment during the mission, obviously within the maintenance level of competence and responsibility of the Crew.

However, there is clearly a huge difference in logistic pressures when supplying spares or providing on board repair in time of war and peace, particularly taking into account that, for the Navy, we have to consider the great distance of the ships from the home country. This means that we have to study and develop well in advance procedures in order to face problems that may arise in the most varied operational theatres, and to keep them updated, such as a more efficient and rapid way to exchange information and to deliver spare parts and engineers.

Considering the joint nature of operations in a national environment, should there be a one joint logistics core as opposed to separate tri-service organizations?

In the last years the interaction between different assets, Army, Air and Navy forces, became a must both in international and in national military contexts. Several joint commands have been created (i.e. the IT –Joint Force Headquarters, IT-JFHQ, is a permanently activated command able to carry out a wide spectrum of missions) and a number of logistic assets have been shared (i.e. air transportation assets as well as naval assets), anyway the realization of a joint logistic core lead by only one organization is still an ambitious target. The large range of equipment and logistic needs makes the establishment of one single logistic core very complex and quite slow. Nevertheless, considering the common logistic principles, in the near future this could be a challenging project in order to optimize the logistic footprint of national forces.

What about the combined nature of operations in international cooperation?

The collaboration with the allies in the combined operations is an important, may I say essential aspect, and is the main way to follow to have a more efficient and quick support. This approach could also be the better way to achieve significant savings in the costs incurred for logistics, e.g. sharing the non recurring costs that may well be a great part of the total expenditure. This is an area in which the international bodies, such as NATO, UE, etc. have been working a lot in the last years, with results that I can say are very satisfactory.

It is worth mentioning there is the European Organization called “OCCAR – Organisation Conjoint de Cooperation en Matiere d’Armement” whose mission is to facilitate and manage collaborative European Armament Programmes through their life cycle; and Technology Demonstrator Programmes, to the satisfaction of their customers. The States Members are Italy, French, German, Spain, United Kingdom and Belgium.

Of course, cooperation in this field is not simple, because the precondition is the identification and agreement of common standards and the sharing of a lot of information on equipment, common training and comparable operating procedures.

However, this is the way to proceed and must be pursued. In some areas the Italian Navy has already applied this approach, like the submarines built in cooperation with Germany and for the Horizon class, in cooperation with France.

How have the Italian Navy adapted processes, practices or systems in light of recent global financial limitations?

Many initiatives have been rolled out by the Italian Navy to adapt processes and practices in light of the situation. The areas to be considered are related to the manpower and manning, the training, maintenance capability, command and control, material availability and (last but not least) more involvement of industry.

Let's consider separately these areas.

- Manpower and training: the trend in the last few years has been to reduce crew human resource. All the ships designs have been developed keeping this approach in mind, leading to a reduction of almost 40% of crew for ships of the same size or

capability in the last decade. This means that the principle of “on job training” is no longer valid or applicable and therefore the training has to change in order to provide a fully trained crew from the first day on board. Furthermore, this means that a significant investment has been required for shore facilities, such as properly updated training centers equipped with specific tools and for longer training periods.

- Maintenance capability: The IT Navy chose to consider shore facilities as part of its own core business, and therefore to keep the navy shipyards and all the relevant technical facilities under the Navy’s control and responsibility. This meant that many problems had to be dealt with and solved. Aspects such as a proper balance between the design authority (industries) and the final responsibility for efficiency (Navy), the progressive move towards an industrial approach for the management of governmental shipyards and technical centers and finally the tailoring and optimizing of shore facilities resulting in a more cost effective management. One other major problem is related to the need to comply with different rules for the collective employment contract, i.e. a different governmental vs. industrial approach.
- Command and control: Nowadays the IT Navy is redesigning its organization, aiming at a reduction of the command center, a shortened decision chain and a more precise individualization of responsibilities.
- Material availability: It is well known that timely and effective corrective maintenance, required following damage events, depends mainly on the prompt availability of spare parts. Therefore, an

important effort has been devoted to keeping a precise inventory of all the items stored and of the utilization rate, with a continuous feed-back from the field used as input data for a process of re-evaluation of spare part stocks and of the equipment replicas number. Traditionally this process of evaluation of needs was left to the industries procuring equipment and spare parts as suggested by them. This approach is no longer applicable due to the fact that data from the field is generated and can only be properly evaluated by the Navy. Our experience is that giving full responsibility of the overall efficiency and availability to the suppliers, even for single equipment, is very costly, no longer affordable and has produced unsatisfactory results.

- Involvement of industry. There is no doubt that industry has to be involved in this process from the design phase to define the whole life-cycle and the associated costs, but a careful, cost effective approach must be applied.

How do you expect naval logistics processes to change over the next 10 years and what technologies do you expect to be at the forefront of this?

The logistics processes applied by different Navies have, of course, all the same aim: To provide the best availability and readiness to the fleet, in the most cost efficient way. It must be realized that the processes could be different for different Navies, depending on the national industrial capability, existing capabilities in technical areas of governmental facilities and for reasons of national interest or even tradition.

For the IT Navy, it is intended to define better and develop further the project already under way, based

on this strategic vision: Keep the control of the logistics processes within the Navy.

On this basis, the overall design that we are developing for the future is made up of various elements, all coherent between them:

- Gathering of the field data, in order to constantly increase the logistics support expertise and awareness and to direct industries to provide equipment with more and more intrinsic reliability and availability. This process is to be carried out in the Navy facilities, sharing the results with industries;
- To empower the Navy with a strategic capability to provide support for the readiness of the fleet in collaboration with manufacturing industries. i.e. design authorities must be established aiming towards a balanced and cost effective relationship that finds a role for the important local industrial entities who traditionally cooperate with our shipyards.
- In addition, as far as the logistics support is concerned, this feedback puts the Navy in the best position to optimize the stocks of spare parts and the execution of maintenance tasks, improving the efficiency and, as much as possible, the sustainability.
- The informatics tool for logistics is, and will be, the ***“back bone”*** of the logistics process. The IT Navy is developing a single information tool, capable of gathering the output from onboard systems; in Navy Shipyards where the maintenance work is carried out, and the inventory center where the spare parts are monitored. All these systems are Navy owned and managed, and keep in mind the interfaces

towards the other services and the information that is shared with industry.

The Three Principles of the Italian Navy

1. The logistics for the fleet, in its wider sense, is part of the “core business” of the Navy, keeping in mind that the operational capability is strictly related to the efficiency and availability/readiness of the ships.
2. The logistics could be very expensive, therefore it is an area where significant cost saving could be done: ***“do better with less”***.
3. In order to have a cost effective approach, the customer, i.e. the Navy, must maintain the control of the logistics process and therefore must be capable to guide industries. The operational capability, and therefore the readiness, of the fleet is the “soul” of the Navy, and we don’t intend to pass, or to sell, to anyone else the responsibility for it.

Vice Admiral Alberto Gauzolino will be speaking at the **Qatar Defence Logistics and Support Forum 2012**, taking place on 11 - 13 November 2012 at the Oryx Rotana Hotel, Doha, Qatar. The event is officially supported by the Qatar Armed Forces.

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