



“The Italian Navy Fleet is undergoing a thorough process of preparation and training to guarantee the readiness of its forces and to ensure the maritime defence and security of our country, protecting national interests and preserving stability in the Wider Mediterranean and beyond. IT CSG is one of the highest forms in which our maritime component can contribute to multi-domain operations in a joint military campaign.”



The Italian Navy Carrier Strike Group

Vanguard for the Nation

An Interview with Vice Admiral Aurelio De Carolis,
Commander in Chief of the Italian Navy Fleet

Sir, thank you for taking the time to address the following questions and for providing insight into the Italian Navy Fleet. Could you first outline the role of Maritime Power in this age of global competition?

The highest expression of Maritime Power sits in the concepts of projecting high-end capabilities at sea and from the sea and ensuring the sustainability of maritime forces in time and space to accomplish

assigned missions, guarantee prolonged presence in the areas of operation, and quickly adapt to any possible situational change.

In the case of Italy, as in most other Western countries with similar economic strength and global interests, the joint military enterprise acknowledges the maritime component's role of force multiplier for expanding the spectrum of potential intervention options at

both national and international levels. Thus, in the possible employment scenarios of the Italian military, regardless of the theatre's type and geography, the effective prepositioning and deployment of high-readiness maritime forces is a precondition for follow-on operations. Such deployments happened in the mid-1990s in both Somalia and the Balkans, in the early 2000s with Operation Enduring Freedom in the Indian Ocean, in 2006 in Lebanon and five years later in Libya, and are currently ongoing in the Mediterranean region for deterrence purposes. All these engagements find their epitomization in the Wider Mediterranean, which represents Italy's primary area of strategic interest stretching from the Atlantic Ocean, including the Arctic, to the Persian Gulf and the Indian Ocean. In this complex geopolitical and geostrategic system, centre to multiple heterogeneous and conflicting dynamics, three continents merge, each with its respective economic, commercial, and social centres of gravity. This makes the Wider Mediterranean a multidimensional area shaken by deep historical faults that translate into geopolitical impulses continuously fuelled by tensions of social, commercial, and climatic nature. In such strategic quadrants, potential threats to national interests may originate, requiring adequate means to monitor and, if necessary, counter them or at least intervene to contain their effects and mitigate the associated risks through stabilizing actions.

Italy, a medium regional maritime power with global interests, has its peninsula stretching through the centre of this multifaceted, unstable, and dynamically evolving context where every actor – whether state or non-state – moves in an arena of ongoing competition for the exploitation of limited resources. This generates critical processes concerning the territorialization of the Mediterranean, leading to the generation of 'anti-access' and 'area denial' bubbles, currently located at specific strategic locations. In turn, this threatens the historical principle of freedom of the seas and the legitimate use of Sea Lines of Communication (SLOC), including the five strategic choke-points of Gibraltar, Sicily strait, Otranto channel, Turkish straits, and Suez Canal.

In this demanding context, the Italian maritime instrument, which includes the Naval Aviation, rests its

effectiveness on what the Italian Navy has defined as the 'Expeditionary Trident', articulated into three fundamental pillars, able to expand and operate in Multi-Domain Operations (MDO). First, the Carrier Strike Group (CSG) with 5th generation fighters acting as a self-contained force expandable with the Italian Air Force's F-35B squadron; second, the Amphibious Task Group (ATG) with a landing force that can reach brigade size with the addition of Army units; third, the sub-surface component including submarines and special forces for underwater operations. These pillars are enhanced by operational enablers, such as integrated air defence, access to satellite services from naval terminals, integrated air and ballistic missile defence, naval fire support with extended engagement range, uncrewed platforms, next-generation weapons, and additional capabilities for cyber defence and space operations.

The current global context is shaped by the will of the most industrialized coastal countries to augment their strengths in the maritime environment. Here comes into play the generation and deployment of CSGs, whose intrinsic persistence and self-sustainability create the conditions to influence an area of operations and, consequently, by their mere presence, protect national, allied, and collective interests. CSGs are strategic military capabilities that allow nations to pursue a wide range of operational and tactical objectives with greater flexibility and autonomy. At the same time, CSGs boost the relevance of ATGs, whose role is strongly growing in the multi-dimension operational arena, especially when the deterrence is aimed at the littorals where most Anti-Access/Area Denial (A2/AD) platforms are based. Finally, for their own protection, ATGs would not be deployed to a crisis area where adequate CSG support is not available.

In relation to the Maritime Power, what is the concept of employment of the Italian Carrier Strike Group (IT CSG)?

Protecting national interests and preserving international stability in the Wider Mediterranean imply investigating the dynamics of such an important geopolitical and geostrategic concept that underlies the Italian national interests. Similarly, it is necessary to



June 2012, Ionian Sea, CVH Cavour in operation achieving FOC.

intervene in the right time and manner – wherever and whenever is required – to support the Alliance’s defence, deter adversaries, prevent and contain crises, and stabilize contested areas. The Italian Navy, after more than thirty years of experience in blue water and carrier operations conducted in *expeditionary sea-based* contexts, is currently transitioning to 5th generation aircraft with the F-35B.

Considering the foregoing, the IT CSG concept of operations aims to protect, promote, and sustain the nation’s maritime power status and to consolidate the full strategic potential of the entire Italian Navy Fleet.

Multinational and modular by design, the IT CSG is able to sustain an Air Campaign with tenable number of sorties to generate effective Air Power. Moreover, it offers unique versatility and flexibility to ensure the defence of national borders and territory, as well as the Euro-Atlantic and coalition areas of responsibility, including the ability to support the national and international community for humanitarian and disaster

relief operations. In the current geostrategic scenario, the operational use of the aircraft carrier Cavour and its escort group has found its maximum expression in the context of training and real-world activities promoted by NATO. In this respect, the IT CSG is a crucial enabler of collective defence and supports the effectiveness of the Alliance Comprehensive Defence and Shared Response concept.

Concerning the Diplomatic, Information, Military, and Economic (DIME) model and the objective value of defending the nation’s sovereignty and territory, the Italian CSG represents a powerful diplomatic tool for deterrence, which contextualizes and even expands the concept of Naval Diplomacy. Fielding a CSG elevates a nation’s rank and the influence it can exert at the regional and global levels. The economic pillar of any society is also strengthened by the intrinsic ability of CSGs to act as instruments for guaranteeing a nation’s vital and strategic interests. Moreover, CSGs represent an effective potential deterrent towards anyone harbouring expansionist ambitions to the detriment of

other countries' territorial integrity, as well of their economic stability and ability to access vital resources. From a military perspective, CSGs represent an enabling tool for conducting scalable operations, from reinforced vigilance to extended power projection, even at broad distances from the motherland and for prolonged periods.

Moreover, CSGs' dual capabilities, with organic health and logistics facilities, can provide considerable relief in severe natural disasters. The IT CSG, in particular, hosts an advanced hospital area, with diagnostic and intensive care units, up to NATO Role 2 Enhanced level, which expands the range of missions to combat, maritime security, cooperation, and peace support operations.

Through the embedded capabilities of multidimensional surveillance and telecommunications, CSGs contribute decisively to the compilation and distribution of Maritime Situational Awareness and Joint Intelligence Surveillance and Reconnaissance (JISR). Similarly, CSGs can embark dedicated systems and platforms to build and maintain situational awareness in non-permissive theatres far from the motherland.

Additionally, CSGs can project power from nearby areas to remote crisis theatres and from blue waters over to the land, exploiting their strategic versatility, operational autonomy, and tactical flexibility, operating as a self-contained force that can work independently or as part of a broader operation. Aircraft carriers, by themselves, represent true hubs for command and control, able to even host a Maritime Component Commander or the entire High Readiness Force Maritime Headquarters staff, with its Maritime Air Operation Centre (MAOC) as sortie generator and with

the required other agencies, to exert operational and tactical control of functional organizations, including air and sub-surface control agencies. The presence of an embedded MAOC on board the carrier would allow to either autonomously generate Air Tasking Orders (ATO) – in case of maritime operations outside the area of responsibility of an Allied CAOC – or to provide the pertinent CAOC with the Maritime ATO (M-ATO) that would then feed the consolidated ATO.

Furthermore, in an MDO environment, CSGs will contribute to local naval and air superiority by generating strategic effects and creating operational 'dilemmas' for adversaries.

The intrinsic 'binding' value of the CSG formula complements these aspects when adopted in the Alliance framework whereby, through a federated approach, different Navies – even with limited blue water capabilities – can enhance the resilience and sustainability of a CSG by contributing with escort assets.

What makes up the Italian Carrier Strike Group?

The composition of the IT CSG is tailored to the mission and centred on the aircraft carrier and the embarked air component. The CSG is completed by a modular package of escort units for its defence and by an ensemble of supporting assets that provide the required logistic sustainability.



October 2021, CentMED, IT Navy and IT Air Force F-35B performing 'Carrier Qualifications' on CVH Cavour.

a. The Aircraft Carrier with the Embarked Air Component

The primary role of the aircraft carrier is to project air power from the sea and over the sea without reliance on land bases and airports. Moreover, the aircraft carrier ensures surveillance and control of large maritime areas and SLOCs and protects military contingents and civilian populations on land.

The embarked air component, with its organic fixed and rotary wing aircraft, is an integral part of the unit's main combat system that ensures the integrated defence of the CSG and represents the highest expression of surveillance and power projection. The air assets also contribute decisively to other strategic activities, such as maritime security, infiltration/exfiltration of special and underwater forces, search and rescue, personnel recovery, humanitarian assistance, and support to governmental and non-governmental entities in the event of natural disasters. The aircraft carrier's new 5th generation weapon system ensures more effective employment of Air Power as a functional and integral element of the broader Maritime Power concept.

ITS Cavour was upgraded to F-35B standards in 2020 and completed the certification process at the beginning of 2021, undergoing carrier qualification and training with allied aircraft carriers. During ITS Cavour's unavailability, e.g. maintenance cycles, the Italian Navy plans to adapt the ITS Trieste, an amphibious assault ship that will be delivered in 2024, to the carrier functions, yet with obvious limitations.

The F-35B represents the enabling element that guarantees remote engagement of air and surface threats to sustain an Air Campaign, Air Power projection deep into the opponent's territory, and support of the landing force in amphibious operations.

b. The Group of Escort Units

CSG's escort units are self-protection first-line warships in all the main maritime warfare areas, i.e. anti-air, anti-submarine, and anti-surface. These combatants usually are cruisers, destroyers, and frigates.

Given that the Italian Navy no longer has cruisers in its inventory, depending on the availability and threat assessment, the CSG's escort may be composed of:

1. One to three anti-air warfare destroyers to ensure airspace surveillance, air and missile protection, and ballistic missile defence that are capable of integrating within the national Air Defence system and with the allied data and information sharing systems supporting, for instance, the development of the recognized air picture.
2. One to four anti-submarine warfare frigates to ensure detection, deterrence and, if necessary, to counter the threat posed by enemy submarines.

c. The Set of Support Elements

The support elements are naval platforms providing either logistic sustainability or additional defensive/offensive capabilities. In the IT CSG, these elements include:

1. A logistic support ship to provide fuel, food, water, materials, spares, and supplies, as well as to ensure the availability at sea of ad-hoc teams to conduct maintenance and technical interventions and provide additional NATO Role 2 medical facilities.
2. One or two hybrid propulsion submarines to covertly conduct deterrence, surveillance, and intelligence activities, increase the surface and sub-surface protection of the CSG, and support special operations forces.
3. One intelligence-gathering ship.
4. One to two mine countermeasures vessels, essential for the CSG's protection when transiting through shallow waters, including approaching/departing from ports and harbours.
5. One to two maritime patrol aircraft dedicated to increasing the long-range surveillance capability of the CSG.

When deployed in selected carrier vessel operations area (CVOA), the IT CSG is able to generate pre-planned and on-call fixed-wing offensive and defensive sorties (OCA, DCA, maritime/land strike, RECCE, CAS) in support of air, naval, and amphibious operations, also as



May 2023, Tyrrhenian Sea, IT CSG underway during exercise MARE APERTO 23-1.

part of a joint campaign, which are planned and tasked through the M-ATO issued by the MCC in accordance with the NATO air tasking cycle.

The streamlined, dynamic, and modular configuration of the IT CSG represents a key contribution of the Italian Navy to the Joint General Staff force planning process development of the entire military instrument, in line with the prescriptions and requirements brought forward by the Alliance through the NATO Defence Planning Process.

What are the Italian Navy Fleet's contributions to Alliance Maritime Air Power?

The Italian Navy is actively contributing to international stability, as witnessed early in 2022 when combined activities between the IT CSG and homologues groups centred on the USS Harry S. Truman and the FS Charles de Gaulle occurred. The three NATO CSGs carried out

coordinated drills aimed at consolidating interoperability between their embarked aero-tactical components, as well as between the escort and support groups. These training activities followed the November 2021 interaction when the IT CSG cooperated with the British CSG centred on the HMS Queen Elizabeth. On every occasion, these collaborations underlined the firm will of the participating countries and, in general, of the Alliance to cooperate and implement every action aimed at guaranteeing a prompt and credible deterrent to support and preserve international peace and security. Under the umbrella of the 'Neptune Strike' exercise, similar activities were performed with the USS George HW Bush between 2022 and the first months of 2023, with the participation of the Spanish ESG centred on the ESPS Juan Carlos I. An additional boost to the effectiveness of collaboration came during the exercise with the transfer of authority of the IT CSG under STRIKFORNATO's Operational Control through SACEUR. Similarly, interactions are planned



March 2022, Ionian Sea, US-FR-IT CSGs in Multi Carrier Operations.

during 2023, with the European Carrier Group Interoperability Initiative that, in June 2023, transferred its chairmanship from Italy to the United Kingdom (UK).

The Italian Navy also provides escort units to allied CSGs, mainly when they operate in the Mediterranean. To this extent, several Italian Navy frigates and destroyers have already been attached, mostly over the last three quarters of 2022, to French, UK, and US CSGs, for anti-air and anti-submarine protection. In this view, the Italian Navy is intensifying its contacts with the mentioned navies to deepen the achievable degree of interoperability to the point at which we may reach a certain level of 'interchangeability', to adopt an expression recently used by the US Navy's NATO top leaders at both JFC Naples and STRIKFORNATO.

This last aspect allows me to highlight another relevant feature connected with the defence of the CSG and the ongoing evolution of the missile threat. The Italian Navy's escort destroyers and frigates regularly participate in the Formidable Shield exercises, which the US Navy and UK Royal Navy conduct every other year. Given the onset of hypersonic threats, these engagements allow for constant improvement of our anti-air and anti-missile capabilities, which are particularly critical today. CSGs are military strategic capabilities revolving around capital ships – the aircraft carriers – that will always be easier to protect and defend than an airport or a land forward operating base.

How does the future look for the IT Navy CSG?

The national Expeditionary Sea-based concept, centred on the experience gathered by the Italian Navy in thirty years of aircraft carrier operations, is going through a profound renewal phase. The main element of this evolution is the stand-up of the 5th generation air power, which is to achieve IOC at the end of 2024 and FOC in 2030. This represents the very essence of the future of the IT CSG. The Italian Navy Air Power, to sustain an Air Campaign, relies on a combination of 5th generation aircraft and AV-8Bs. In this light, developing CSG's tactical potential goes through several stages, structured around two major national maritime training exercises per year codenamed Mare Aperto, which are live opportunities for the entire CSG to operate at sea with all escort and support groups. Before each session, the aircraft carrier conducts separate training with the embarked air component whilst escort ships and support elements train separately. In particular, the training of the IT CSG is achieved in the context of national and international exercises, as well as through standardization agreements and multinational frameworks.

Prior to any deployment, the IT CSG undergoes an adequate integration phase among the units constituting the group. The capacitive development path of the IT CSG must be oriented to support, adapt, and expand its potential according to the contextual development of the maritime and strategic scenarios.



For continuous availability of this strategic tool, to which the nation can entrust specific tasks, it is necessary to act in the medium and long term. This will foster a balanced upsizing of the fleet, combat progressive obsolescence, and enable gradual upgrades for each component of the CSG.

The process of developing the IT CSG to its full potential requires acquiring enabling capabilities that include maritime uncrewed systems, standoff weapon systems, satellite-based early warning, advanced ISR, long-range transport for carrier-on-board deliveries, air-to-air refuelling assets, and improved cyber defence capabilities.

The development of the CSG focuses on achieving full interoperability with allied systems and assets and seamless integration with homologous forces belonging to NATO allies and partners and European Union (EU) member nations.

The Italian Navy Fleet is undergoing a thorough process of preparation and training to maintain all assets at high readiness, ensure the maritime defence and

security of our nation, and support the strategic roles and lines of defence outlined in the national defence strategy. Moreover, its contribution is essential – within the framework of international alliances and agreements – to the regional stabilization processes and the protection of legitimate interests. Finally, establishing the IT CSG is the essential step to the path to achieving the 5th generation aircraft carrier capability and the concomitant development of the maritime instrument.

As a last note, I wish to highlight that a CSG is one of the highest forms in which the maritime component can contribute to the overall effort in a joint military campaign while providing the air component with a valuable set of capabilities. This consideration provides a recommendation for NATO and EU countries operating aircraft carriers to synchronize the availability periods of these ‘capital ships’ and thus maximize the overall CSG coverage, in the end, to ensure that CSGs will continuously play their crucial deterrence and defence role for the Alliance.

Sir, thank you for your time and your comments. ●

ABOUT THE AUTHOR

Vice Admiral Aurelio De Carolis

Commander in Chief of the Italian Navy Fleet



Vice Admiral Aurelio De Carolis graduated from the Italian Naval Academy in 1986. He is the Commander in Chief of the Italian Fleet (CINCNAV) since 17 December 2021 and previously served for two years as the Deputy Chief of Staff of the Italian Navy. As a surface warfare officer, he was embarked on board cruisers and frigates, deploying in NATO, EU and coalition operations. He commanded the patrol vessel SPICA, the frigate ESPERO, the aircraft carrier CAVOUR, the Italian Amphibious Force and the Second Naval Division. In this last position, from 2017 to 2019, he was dual hatted as Commander Italian

Maritime Force (COMITMARFOR) for the NATO Response Forces and Commander of the Italian Carrier Strike Group. His primary shore duties include naval military assistant to the President of the Italian Republic, Chief Communications Officer at the Italian Defence General Staff, Head of the Amphibious Department and Head of the Plans and Policy Department at the Italian Navy General Staff. He holds a Master's in Physics and International Studies, a BS in Maritime and Naval Sciences and a full-time MBA from the London Business School (class of 2000).