MARINA MILITARE AT SARZANA

ARTICLE BY SIMONE BA & PAOLO ZERLOTTO - AVIATION-SHOTS

Close formtion of an MH-101 assigned to 1st Helicopter Group (forground) and an MH-90A assigned to 5th Helicopter Group (background) over the sea near the "CinqueTerre" area

MARISTAELI LUNI-SARZANA

The Helicopter Station of the Italian Navy ("Marina Militare") of Luni-Sarzana is located about 10 km from the city of La Spezia, in the last offshoots of the Lunigiana area, and together with those of Catania and Grottaglie constitutes one of the 3 Aircraft Bases of the Navy. Built in the 70s, it was named after Admiral Giovanni Fiorini, a central figure in the development of the helicopter component of the Armed Force. Maristaeli Luni hosts two Flight Groups: the 1st Helicopter Group, operational since the early 2000s with the EH-101 heavy helicopters, flanked by the 5th Group, equipped for a decade now with one of the most modern helicopters in the world: the NH-90. The two Flight Groups have a crucial role in keeping the crews and vehicles in operational readiness, meeting the operational and training needs of the Armed Force. Their main areas of expertise include anti-ship and anti-submarine warfare, support to the S. Marco Marine Brigade, and special operations. The Flight Groups are supported by the various branches belonging to the Helicopter Station, which guarantee the coordination of activities, logistical support, training and standardization of crews; in addition, the Base also ensures technical-operational support to the aircraft embarked on board the units of the Naval Squadron or deployed in the operational theaters. Luni also stands out for hosting two centers of excellence: the Sea Flight Training and Standardization Center (CASVM) and the Aeromaritime Experimental Center. The CASVM is responsible for ensuring and managing the advanced training of the flight crews of the entire Aircraft Component, using flight simulators for the EH-101 and SH-90 and synthetic training tools, as well as the operational tank for forced ditching training and survival at sea. The Aeromaritime Experimental Center, on the other hand, is in charge of conducting all the study and operational evaluation activities of helicopters and their onboard systems. During the visit to the base we had the opportunity to immerse ourselves in the various daily activities. The most significant moments, in addition to the flight mission, were attending a training session for forced ditching and seeing the flight simulators in action, today's essential tools for the education and training of crews.

Italian Navy MH-101 and MH-90A landing on the main runway at Luni-Sarzana

1st HELICOPTER GROUP

The 1st Helicopter Group of the Italian Navy was formed on 1 August 1956 on the Augusta Terrevecchie heliport, in the area now occupied by the current naval base. Initially equipped with three AB-47G helicopters, the department saw a first strengthening with the arrival of four more specimens in December 1957, and with the birth of this flight group, the modern history of Italian Naval Aviation began. In the following two years, the Group consolidated its structure by growing numerically, logistically, and above all operationally, outlining the typical organization of an operational air department. A historic moment was marked on 24 October 1961, when an AB-47J of the 1st Group made its first landing on a ship of the Italian Navy, the helicopter frigate Luigi Rizzo; subsequently, on 20 December 1967 a detachment of the Group was temporarily redeployed to Luni-Sarzana, where work was underway for the construction of the new Helicopter Station. The final transition to the new headquarters took place on 25 January 1971, when the 1st Group transferred its last three SH-34s

Main: 1st Helicopter Group MH-101 '2-21' taxiing to the main runway for a mission
Left: Pre-flight checks before engine start-up
Right: MH-101 engines starting

MH-101 'Shark 21' on the taxiway – note the shark markings under the nose

there; subsequently, starting from May of the same year, it began to receive the modern SH-3D Sea King becoming operational on these new vehicles by the end of 1971. The last SH-34s were decommissioned in 1979, marking the end of an era. In 1985, some of the SH-3Ds of the 1st Group were assigned as the first organic flight component of the aircraft carrier cruiser Garibaldi, the new flagship of the Italian Navy, this event represented a further milestone in the history of the Component. Since 2002, the 1st Helicopter Group has been assigned the EH-101 in different versions: Anti-Submarine/Anti-Ship (ASW/ASuW), Radar Discovery (HEW) and Helicopter Assault (UTI/ASH). These modern helicopters have progressively replaced the Sea Kings, expanding the operational capabilities of the unit.

Currently, the 1st Helicopter Group operates mainly in the context of helicopter assault, supporting the Special Forces of COMSUBIN and the San Marco Regiment with the EH-101 in ASH (Amphibious Support Helicopter), and Utility versions. The EH-101 is a medium-heavy multirole helicopter of almost 15 tons, equipped with three General Electric T700-GE-T6A engines,

Main: MH-101 '2-21' flying in glorious winter light over the Ligurian coast
Left: MH-101 Take-off for the photo mission
Right: Both MH-101s take off in close formation from Maristaeli Luni

each capable of delivering 1,725 kW (2,300 shp), connected to a main transmission that drives a five-blade rotor. The peculiarity of the propulsion system is the possibility of disengaging, through an electromechanical actuator, engine number 3 during the cruise flight, allowing a reduction in consumption and a consequent increase in the operating range. The adoption of three motors offers decisive advantages in terms of safety and performance; The higher overall power translates into a higher load capacity, while the ability to fly even with only two engines in specific weight ranges guarantees greater safety in long-range operations or away from support bases, such as ships or coasts. The main rotor consists of five composite blades with a spoon-shaped end part, called the British Experimental Rotor Programme (BERP). This design, developed in the 1990s, reduces turbulence generated at the ends of the blades due to high rotational speeds relative to the root, improving overall stability and performance. The EH-101 was the first helicopter in the world to be built with a fuselage made entirely of composite material, while the flight controls follow a classic configuration, with

Preparing for the first photo shot over the sea with the Appennines in the background

Frontal shot of MH-101 'Shark 21'

mechanical components assisted by a hydraulic one at 200bar. With a maximum take-off weight of 14,600 kg, an MH-101A can carry up to 35 people (in addition to the two pilots), although the standard operational configuration of the 1st Group includes 19 seats; the autonomy reaches 5 hours of flight, with an operational range of 540 nautical miles (about 1,000 km); the maximum speed is 150 knots (277 km/h), while the cruising speed is 120 knots (222 km/h); The helicopter can reach a maximum operating altitude of 15,000 feet. In the MH-101A version, the helicopter is equipped with various onboard systems, including the FLIR Sapphire II for infrared vision, the SIAP self-protection system, and four chaff and flare dispensers. The

MH-101 'Shark 21' approaching from the back with a fast turn for this action shot

'Shark 21' prepares for operations over the sea with the beautiful Ligura Coast in the background

armament includes three machine guns, positioned respectively on the right and left sides of the fuselage and on the rear ramp, while the "combat ready" configuration also includes Kevlar armor, which ensures additional protection for crew and passengers. Currently, the Italian Navy has 22 EH-101s in different versions, confirming the versatility and efficiency of this aerial platform in meeting the operational needs of the Armed Force.

MH-101 hovering with light rainbow effect. Note the water in the air that is whirled up by the 5-blade rotor.

'Shark 21' performs a 360° slow turn above the 'photo ship' hovering at sunset

Flying in a very close formation – you cannot go any closer

5th HELICOPTER GROUP

The 5th Helicopter Group, established on 1 November 1969, was the first operational unit of the Luni base. Initially equipped with two AB-47Js, the group later received two AB-47Gs, seven AB-47J3s, and six SH-34J *Seabats*, transferred from the 1st Helicopter Group. With the arrival of the Seabats, now obsolete for the anti-submarine role, a strategic collaboration with COMSUBIN and the San Marco Battalion began. The anti-submarine equipment was removed, and the *Seabats* were converted into transport helicopters for raiders and amphibious forces; for this purpose, the stern of the auxiliary troop transport ship Andrea Bafile was modified in 1971 to permanently accommodate at least two *Seabats*, which remained in service until 30 June 1979, the date of decommissioning of the last three aircraft. From 1971 the 5th Group was equipped with AB-204 AS helicopters, to which were added, from 1976, the more modern AB-212 which gradually replaced all previous vehicles. Since its founding, the unit has played crucial roles, from anti-submarine and anti-ship warfare to surveillance of Soviet units during the Cold War. In the 90s the 5th Group participated in missions in international scenarios such as the Persian Gulf, Somalia, the former Yugoslavia, Albania, Lebanon, and Afghanistan, as well as responding to the numerous requests of the Civil Protection for emergency interventions. In 2000, the group created a nucleus of pilots and operators specialized in supporting Special Forces, with helicopters specially configured for the use of light-intensified visors (NVGs). On 15 June 2011, the 5th Group received the first SH-90A (Shipborne Helicopter), while on 23 January 2017, the first MH-90A (Multi-Mission Helicopter) arrived. Both versions derive from the NH-90 platform, with the difference that the SH-90A is designed for maritime patrol, anti-ship (ASuW – Anti Surface Warfare) and anti-submarine (ASW – Anti Submarine Warfare) operations, while the MH-90A is optimized for tactical transport missions in maritime and amphibious environments, collaborating mainly with the San Marco Regiment and the Special Forces of COMSUBIN (Underwater Grouping and Raiders). The NH-90 fleet of the Italian Navy consists of 56 helicopters, divided into 46 units of the SH-90A version and 10 of the MH-90A version. Both configurations are designed to operate from aboard the units of the Naval Squadron, ensuring operational capabilities both day and night, even in

Main: **Flight line with MH-90As assigned to the 5th Helicopter Group**
Insets: **Mission startup operations: Crew swap – same helicopter, different crew, different mission**

The MH-90A 'MM81631' is returning to its home base Lunni-Sarzana

extremely adverse weather and sea conditions. The NH-90 is equipped with an all-digital glass cockpit and is the first helicopter in the world to use the fly-by-wire flight control system. This advanced electronic control system offers absolute precision in piloting, allowing considerable weight and space savings, as it eliminates the use of steel cables and traditional pulleys; In addition, the total integration with the avionics suite significantly reduces the pilot's workload, allowing him to focus more efficiently on the mission. A distinctive aspect of the NH-90 is its modularity, which allows for quick configurations of the helicopter to adapt to the specific operational needs of the moment, making it a versatile and highly responsive platform in the most complex missions. The SH-90A version stands out for its high-level technological equipment, designed to tackle complex missions in maritime environments. Among the main equipment that stands out is the surface discovery radar with integrated ISAR and IFF capability, capable of identifying targets at sea up to a hundred nautical miles; this system is flanked by the FLIR (Forward Looking InfraRed), which guarantees infrared vision. For anti-submarine warfare, the SH-90A can be configured with HELRAS sonar, characterized by a cable of about 450 meters that allows deep dives, adaptable to various parameters such as the type of seabed, temperature, and salinity of the water. The sonar can operate both in passive (listening) and active (emission of acoustic signals) modes and can also be associated with a sonobuoy launcher to extend the search area; The launcher can carry up to 10 units between active, passive or dedicated buoys for the detection of environmental parameters. For self-defense, the aircraft is equipped with an EWS (Electronic Warfare System) system and two "Chaff and Flares" dispensers, one on each side; for the attack, however, it can carry two MU-90 torpedoes and Marte MK2/S anti-ship missiles, while the proximity armament is complemented by two 7.62 mm DILLON M134D rotary barrel machine guns. Up to two mission consoles can be installed on board: one dedicated mainly to radar and the other to sonar and sonobuoy management; all systems, including radar, sonar, electronic warfare and the Data Link link are fully integrated and manageable by both operators. For air-naval operations, the

MH-90A '3-59' flying with both doors open in front of the "Cinque Terre"

SH-90A is equipped with an automatic anchoring system to the flight deck called "Deck-Lock"; This allows the helicopter to be secured to the deck without the use of traditional chains, but thanks to a hook installed on the belly of the fuselage which, on command of the pilots, engages in a dedicated grid on the flight deck. Finally, the helicopter can fold the tail and blades of the main rotor, in order to reduce overall dimensions and optimize parking in the hangar on board the naval units. The MH-90A (Multi-Mission Helicopter) version is designed specifically for assault operations, distinguishing itself as a configuration optimized for amphibious tactical missions. Unlike the SH-90A, the MH-90A is not equipped with a discovery radar, but integrates a weather radar, a FLIR (Forward Looking InfraRed), and an EWS (Electronic Warfare System) system consisting of a Laser Warning Receiver, Radar Warning Receiver, and Infrared Warning Receiver; it also has four launchers of "Chaff and Flares". The aircraft can be equipped with two DILLON M134D 7.62 mm machine guns. In addition to the OWS (Obstacle Warning System) for the identification of obstacles during flight at very low altitude, the equipment also includes HMSD (Helmet Mounted Sight Displays) helmets, fully integrated with the FLIR and NVGs (Night Vision Goggles). These helmets allow pilots to control the FLIR simply by moving their heads: looking down, pilots can even have a view "through" the floor of the helicopter, greatly improving situational awareness. The MH-90A can be configured with up to 14 seats and has four anchor points for the Fast Rope system, which is used for the rapid descent of troops. The main technical characteristics of both versions are as follows:

- maximum take-off weight of 11 tons;
- maximum speed of 175 knots (324 km/h) at sea level,
- cruising speed of 130 knots (240 km/h),
- maximum altitude of 20,000 feet (about 6,000 meters),
- maximum autonomy of 4 hours, variable according to the type of mission.

MH-90A flying low and fast

MH-101 is perparing for an SAR mission to "Tino Island"

THE MISSION

After admiring and photographically documenting the numerous helicopters that have made the operational history of the Base and that today are exhibited as prestigious Gate Guardians (an Agusta-Bell AB 47J, an Agusta-Bell AB-204, a Sikorsky SH-34 "Seahorse", a Sikorsky SH-3D "Sea King" and a prototype of the AgustaWestland EH-101), it is time to prepare for the mission planned in the afternoon, which will involve both flight groups. The first stop is the 5th Helicopter Group, where we begin the preparation in the equipment room. Here we are shown the technical and operational details of the devices used by the crews: from the pilots' helmets, which can be integrated with the light amplifiers that allow night vision (NVG Night Vision Goggles), to the bulletproof vests and tactical life jackets used during missions by flight crews. For photographers, there is a simplified life jacket without a cylinder, with equipment that includes a colored smoke bomb and a whistle to facilitate any localization by rescuers; Above the life jacket, we will wear a harness that will be fixed to the anchor point on the roof of the helicopter, allowing us maximum freedom of movement in complete safety even with the rear ramp and side doors open. To complete, we'll wear headsets that ensure constant communication with the crew during the flight. After familiarizing ourselves with the equipment, we move to the hangar for a safety briefing aboard an MH-90A; here we learn about emergency procedures, including how to open emergency exits; Everything related to safety is explained to us such as the use of 5-point belts and the peculiarities of the seat equipped with a shock absorption system, which provides for the cushioned lowering of the seats in the event of a landing or forced ditching, thus reducing the risk of spinal injuries due to the impact. After becoming familiar with MH-90A, we move to the 1st Helicopter Group to perform a similar safety briefing session on board MH-101A. These activities, which are essential for safety during the flight, are followed by a passage in the briefing room, where we meet the crews who will participate in the mission. The briefing begins with the analysis of the weather report, which promises ideal conditions: some isolated clouds on land, clear skies over the sea and calm winds, with a low probability of precipitation and turbulence; The mission is illustrated in detail by the training leader with the help of special slides projected on a large screen. We will operate three helicopters, each with a specific task, and we will use the SHARK 02 call-sign for coordination with Air Traffic Control (ATC) units. The first helicopter will be an MH-101A, identified as SHARK, in charge of the transport and landing of assault troops that for this mission will only be simulated; the second helicopter will be an MH-90A, called GUNNY, with

Formation flight of an MH-101 (foreground) and MH-90A (background) close to the coast

MH-90A and MH-101 formation swap for the photo mission

the task of providing escort and protection during assault operations and possible SAR (Search And Rescue); the third helicopter, an EH-101A with the call sign FOXTROT, will be dedicated to photographic documentation of the various phases of the mission. The planning includes a take-off at 14:30 with an initial route south to the sea, followed by navigation along the coast of the Cinque Terre for a series of maneuvers in formation; the mission will then get underway with a SAR simulation on the Island of Tino and a subsequent simulated assault and release of troops on Nave Piave, anchored inside the bay of Varignano. One photographer will be embarked on GUNNY and the other on FOXTROT to capture every detail. After take-off, as planned, we head towards the Cinque Terre in tight formation; GUNNY and SHARK proceed almost side by side, while FOXTROT, with the rear ramp open, occupies the forward position to immortalize the formation. Then, in an elegant game of movement, the helicopters perform a series of tactical maneuvers in formation, with position swaps and reunions, showing flight precision and coordination derived from constant training. From the coast we move towards the Island of Tino, equipped with a small pitch; here SHARK performs a simulation of SAR operation, hovering near the pad while using the winch for retrieval. Meanwhile, GUNNY is positioned at a higher altitude, providing protection from above to prevent any threats during the operation. Once the recovery is complete, the mission continues towards Nave Piave, and the objective changes: SHARK hovers on the bow of the unit to simulate a release of troops with Fast Rope, that is, with special "ropes" used for rapid descent operations of the Special Forces. GUNNY remains stationary at the top, in a cover position, ready to intervene and engage any hostile forces. Once the operation is over, the formation rejoins and proceeds towards Luni. During the landing phase, FOXTROT anticipates by moving over the head of runway 36 to immortalize SHARK and GUNNY touching the runway in a coordinated manner. The mission ends at 16:00, after highlighting the perfect operational synergy and the level of training of the crews.

The helicopters are flying towards the harbor of La Zpezia for a simulated attack on the ship 'Nave Piave'

Simulation of an attack on the "Nave Piave" by MH-101 'Shark' and MH-90A 'Gunny'. After a quick fly-by over the ship, both helicopters circled the ship several times and simulated deploying troops onto the ship.

Formation split at sunset

HELICOPTER WASHING

Every mission at sea, especially those conducted at low altitudes, exposes the Navy helicopters to high concentrations of salt. This factor, if not properly managed, can accelerate the deterioration of the external structure and promote the formation of scale on the high-temperature parts of the engines, compromising the operational efficiency of the aircraft. To prevent these risks, at the end of each mission carried out at low altitudes at sea, the helicopters are subjected to a thorough washing process. On the way back, before reaching the parking area, the aircraft goes to a dedicated spot of the taxiway, where there are water jets that, similar to a car wash, remove the salt residues accumulated on the external surface; This treatment guarantees immediate protection against corrosion. The internal washing of the engines, on the other hand, is a more complex operation and takes place by injecting distilled water into each engine through a dedicated valve located on the side of the helicopter. The turbines are rotated without starting the engine, allowing the water to circulate inside and subsequently be expelled, eliminating any salt deposits or impurities. At scheduled intervals, defined according to the number of hours of flight over the sea, the treatment is intensified by using a specific descaling foam instead of distilled water; the foam is left to act for about 20 minutes to break up any more resistant accumulations, before being carefully removed by further washing.

Main: An MH-90 is passing through the first washing station with water jets to remove salt. The procedure has to be done after each mission over the sea

Left: Formation hovering and landing on the main runway at Luni-Sarzana

Right: MH-90A landing after the last mission of the day

THE SEA FLIGHT TRAINING AND STANDARDIZATION CENTER (CASVM)

Established in 2023, the Center represents a center of excellence that brings together key skills and functions in the education and training of flight crews. With the establishment of the CASVM, a new impetus has been given to the ability to generate highly qualified and standardized crews, through a constant updating of training courses in full compliance with the aeronautical regulations in force. For its function, the Center uses advanced teaching aids such as the Full Crew Mission Simulators (FCMS) of EH-101 and SH-90A, state-of-the-art simulation tools that allow an immersive and realistic training experience. In addition, under the supervision of the Center, the operational tank operates with the forced ditching structure and the skills in survival at sea, a strategic asset for the education and training of flight crews.

Left: **Workplace of the simulator operator, who provides and checks all settings and configurations required by the pilots and crew for their training flight**

Right top: **The EH-101 full crew mission simulator is in use since 2012 and received a major software update in 2023**

Right bottom: **All cockpit panels and projectors give a realistic, immersive vision to the crew. The scenery displayed here is the Etna volcano area in Sicily**

EH-101 "Full Crew Mission Simulator"

The EH-101 Simulator was inaugurated in 2012 and received a major technical software update in 2023. It is an FCMS (Full Crew Mission Simulator), i.e. it allows the entire crew to be trained in any type of operational mission, allowing you to maximize the training return in a safe and immersive environment. Built by the Canadian company CAE with the support of Leonardo Helicopters, despite being a static simulator, it achieves a very high degree of realism thanks to a graphic system consisting of 8 projectors that allow pilots an immersive vision with a horizontal field of view of 220 ° and a vertical field of view of 60 °. The mission consoles of the flight operators are located in a different environment, inside a cabin called Rear Crew Trainer, which allows you to simulate all the sensors and weapons: Radar, Helras Sonar, Data Link 11, Missiles, and Torpedoes. The cockpit and system operator parts can function completely separately or in combination for integrated mission simulation. Both modules are supervised by a central "direction", consisting of a workstation capable of generating a very wide range of operational scenarios, weather conditions, emergencies, and threats, both in day and night conditions, also allowing the use of NVG viewers. In addition to anti-ship and anti-submarine missions, maritime Helicopter Assault operations, operations on board naval units, and Search and Rescue activities can also be simulated.

SH-90A "Full Crew Mission Simulator"

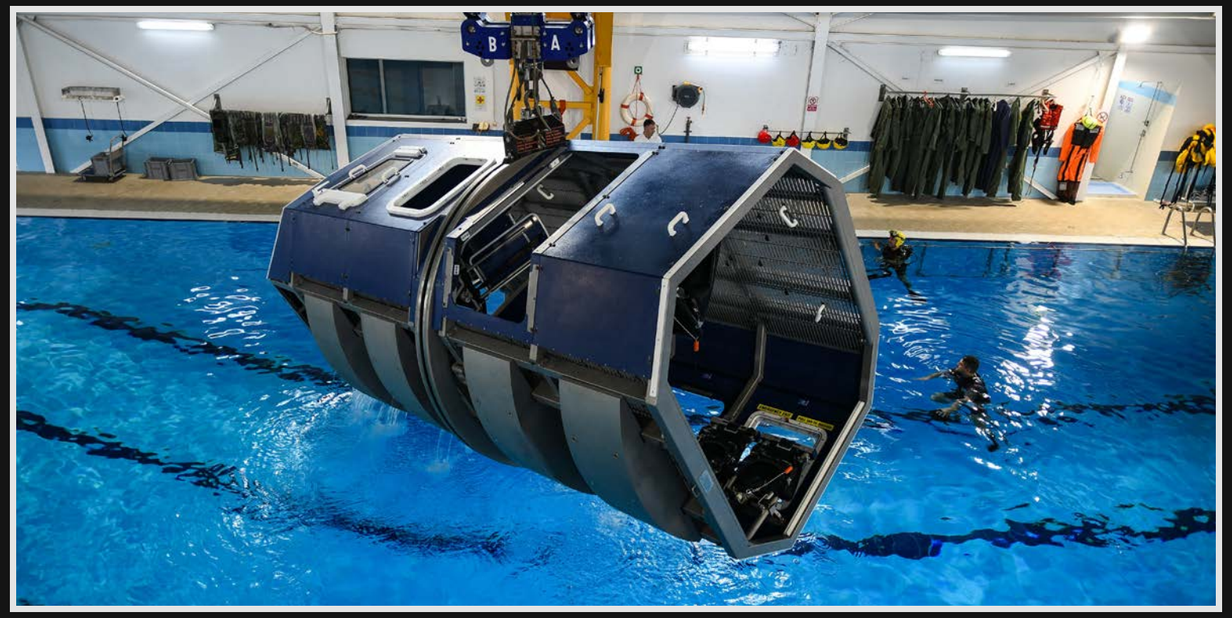
The simulator of the SH-90 A line was inaugurated in September 2023 and is a state-of-the-art system built and developed by Leonardo Helicopters. Unlike the FCMS of the EH-101 which is static, that of the SH-90A is full-motion with six degrees of movement, i.e. it allows the cabin to physically move in all directions up to an angle of 30°, thus ensuring perfect fidelity and realism in the execution of the mission. Outside the cockpit, there are two mission consoles identical to the real ones which, through a special software called Mission System Trainer, allow operators realistic and effective training with all the integrated systems on board. The simulation is programmed by instructors through a workstation dedicated to management and can also be controlled remotely via a console in the cockpit, like the FCMS EH-101. Also, in this case, a diversified range of missions can be generated in all weather and operational conditions, both day and night. We had the opportunity to sit inside the simulator to watch the demonstration of a short mission; this included a take-off, a visual flight of about 20 minutes, and a return to the Luni base; The realism is incredible, and the view is identical to what the live driver experiences and we assure you that we also felt a bit of "motion sickness" during the most accentuated maneuvers.

The Leonardo SH-90A FCMS is a full motion simulator and it is in use since 2023

Forced ditching - Helo Dunker

At the operating tank, there is the cabin of the Modular Egress Training System METS, the only military forced ditching simulator in Italy, and one of the few operating in Europe. In this structure, every year about 1,000 soldiers from all the Italian armed forces train to escape the emergency exit from a ditched helicopter. In the structure there is a 25m swimming pool whose depth varies from 1 to 5 meters; the METS simulates the helicopter cabin including all its characteristics; this is lowered into the water by means of a special overhead crane at a descent speed similar to that of a helicopter splashdown in a semi-controlled regime by the pilot. Once in the water, various scenarios and different profiles of rotation and sinking of the cabin can be simulated depending on the training phase to be faced. The METS is fully modular and configurable: it can become an EH-101, an NH-90 or an AW-139, with all the features in terms of emergency exits, cabin configuration, and installation of simulacra of onboard weapons.

The personnel who have to take the test are first subjected to a medical examination, and then go to the operational tank where they wear the normal equipment for the flight: suit, flight shoes, helmet, and ife jacket equipped with an emergency canister. The flight equipment also includes, in fact, a small oxygen tank, containing enough air to breathe underwater for about four minutes; It should be specified that the four minutes are theoretical because if a person is agitated and breathing heavily, the air could last drastically less. During this type of training, it is therefore essential to maintain the right mental approach, manage stress, and focus on the emergency maneuvers necessary to exit the cabin. Before facing the tests inside the METS, the staff practices in the pool with swimming tests, freediving, and a review of how to use the safety devices supplied. There are generally 3 tests of forced ditching. The first phase consists of a controlled ditching: the cabin enters the water and begins to sink slowly, allowing the crew to open the "tank", take air and evacuate the helicopter; Being a controlled ditching there is usually plenty of time to release the hatches and open the emergency exits before the helicopter sinks. The second phase simulates a forced ditching, followed by the sinking and capsizing of the cabin; At this stage, it is assumed that there was time for the pilot to warn the crew and to open the doors in advance. The third phase represents the worst case, because it simulates a violent impact in the water with the helicopter in a swooped or dived attitude, followed by an immediate sinking and capsizing of the cabin. In this situation, it was not possible to open the doors in advance, so they must be located, opened, and evacuated quickly. During these three tests, there are 10 military personnel providing assistance, including four divers, making the simulation extremely safe, even if the level of attention and stress is always high.



**The modular egress training system ("Helo Dunker") can simulate a forced landing of a helicopter in the water and is used to train crews to escape safely from an underwater, upside down position. This requires also the removal of one of the helicopter's doors.
Not an easy task that everyone has to pass every year to be qualified to operate in a Navy helicopter**

CONCLUSION

These two days spent at the Luni Sarzana Helicopter Station allowed us to document the activities of the Base and the characteristics of the EH-101A and MH-90A / SH-90A aircraft, but also to visit unique facilities such as the CASVM and the forced ditching, the EH-101A FCMS and the brand new SH-90A FCMS. We would therefore like to thank the Public Information and Communication Office of the Navy General Staff and the Commander of the Base Captain Leonardo Vivi. Particular thanks go to Lieutenant Captain Riccardo Ferri of CASVM who guided us throughout the route with refined kindness, genuine passion, and tireless support, not sparing anecdotes and fully satisfying our requests and curiosities.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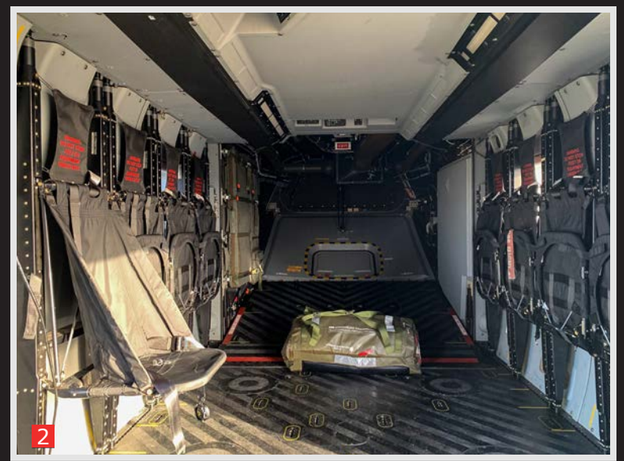
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3

A distinctive aspect of the NH-90 is its modularity, which allows for quick configurations of the helicopter to adapt to the specific operational needs.

1, 2, 4 **MH-90 configuration for troops transport and assault missions**

3, 5, 6: **An SH-90A configured with HELRAS sonar for anti-sub missions support. Note the two operator workplaces**


4


5


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5th Helicopter Group mantenance hangar and operations with NH-90. The NH-90 fleet of the Italian Navy consists of 56 helicopters, divided into 46 of the SH-90A version and 10 of the MH-90A version

1st Helicopter Group manteinance hangar and operations with EH-101. The Italian Navy currently has 22 EH-101s in various versions, which underlines the versatility and efficiency of this helicopter platform