



# MARINE AMBULANCE

SkyeAdvance Introduction **Vessel Introduction** The Hull Propulsion System & Performance General Particulars **Equipment List** 

At Skye Advance Africa, we are more than boat builders—we are drivers of progress, committed to delivering high-quality, custom-built workboats that serve Africa's diverse maritime needs. From crew transfers and goods transportation to offshore services and fisheries, our vessels are designed for durability, efficiency, and long-term performance. Constructed using ISO-certified processes, DNV-class materials, and vacuum-infused composite technology, our boats meet the highest industry standards while ensuring operational excellence.

Guided by an "Africa First" ethos, we prioritize regional needs while fostering local talent through workforce development and skills training. Our approach integrates science and research to advance composite technology, offering tailored marine solutions to key markets including Angola, Malawi, Mozambique, and South Africa. Beyond manufacturing, we collaborate with local industries, government agencies, and private stakeholders to develop vessels that meet the evolving demands of Africa's maritime sector. Whether facilitating safe and efficient offshore crew transportation, supporting sustainable fisheries, or optimizing inland and coastal logistics, every Skye Advance vessel is built with precision and purpose.

Welcome to Skye Advance Africa—where we don't just build boats; we build solutions that shape the future of African maritime industries.

In a strategic collaboration, Skye Advance Africa is partnering with Armacraft Marine Defense, a leader in marine defense innovation.

Welcome to Armacraft Marine Defense, where we believe in the transformative power of "Physics well applied." Since our inception in 2004, we have been at the forefront of pioneering marine defense systems that push the boundaries of innovation and reliability. As a leading force in the industry, we take pride in our unwavering commitment to excellence, precision, and unmatched craftsmanship.

Armacraft Marine Defense is dedicated to developing a comprehensive range of cutting-edge marine defense solutions that ensure utmost security and protection in the most challenging environments. Our portfolio encompasses an array of formidable assets, including Combat boats, landing crafts, patrol boats, search and rescue boats, riverine patrol boats, high-speed interceptors, floating fences, diver delivery vessels, and unmanned surface vessels, among others.

Driven by a team of brilliant minds and engineers, we thrive on solving complex challenges with creativity and technical prowess, delivering unmatched products and solutions tailored to the unique needs of our clients. Our quest for perfection has earned us a reputation for setting new industry standards and consistently exceeding expectations.

As we move forward, our dedication to "Physics well applied" remains unwavering, and our resolve to provide unparalleled marine defense systems continues to guide our path. With every project we undertake, we aim to enhance the security of our clients' missions, enabling them to navigate the waters with confidence, efficiency, and absolute control.

Welcome to Armacraft Marine Defense - Where innovation meets strength, and protection knows no bounds. Join us on this journey as we redefine the future of marine defense.

### MARINE AMBULANCE 18 METER

#### INTRODUCING THE MERCY 8.5 MARINE AMBULANCE

Introducing the Skye 18 Meter Long Range Marine Ambulance — a beacon of advanced technology and unwavering commitment to maritime emergency medical services. With a design focused on speed, endurance, and the capacity to handle up to 4 or 6 patients, this vessel redefines the paradigm of long-range healthcare at sea.

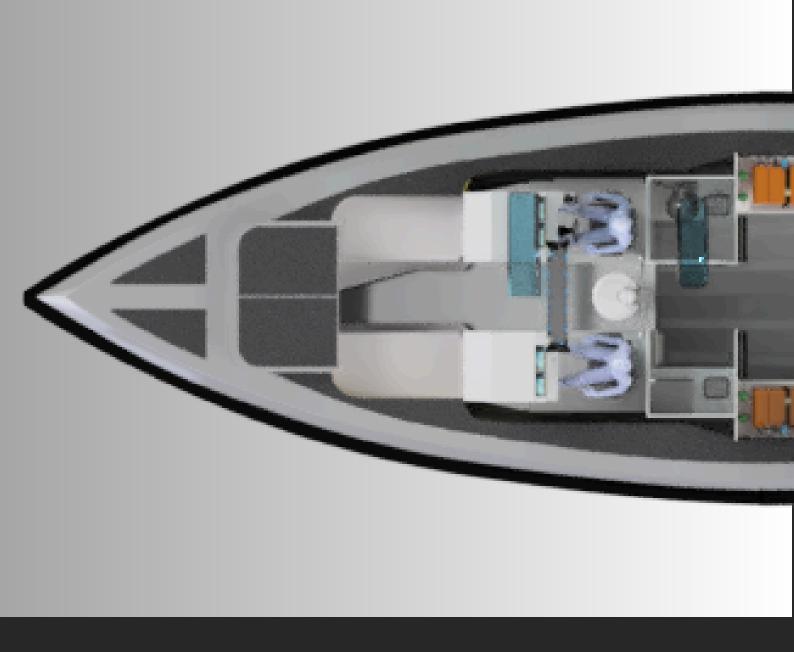
The Skye Marine Ambulance stands as a testament to innovation in emergency medical response, combining cutting-edge engineering with a purpose-built interior to deliver urgent care services in the most demanding maritime environments. Equipped with state-of-the-art medical facilities, this marine ambulance ensures that patients receive the highest level of care during critical journeys.

Speed is of the essence in emergencies, and the Skye Marine Ambulance to the occasion with unparalleled velocity. Its high-speed capabilities allow for swift response times, crucial in situations where time is a critical factor. The vessel's long-range capacity extends its operational reach, providing comprehensive healthcare services in remote or challenging maritime locations.

Designed to accommodate up to 4 or 6 patients, the Skye Marine Ambulance prioritizes both efficiency and patient comfort. The interior layout is meticulously crafted to enable medical personnel to deliver urgent care seamlessly, even during high-speed transits. The vessel's adaptability ensures that it can cater to a range of medical scenarios, from immediate response to extended patient care during longer journeys.

In a world where every second counts, the 18 Meter Long Range Marine Ambulance emerges as a beacon of hope for those in need at sea. Armacraft's dedication to pushing the boundaries of maritime technology ensures that this vessel not only meets but exceeds the expectations of long-range emergency medical services. Prepare to witness a new era in marine healthcare, where speed, range, and patient care converge in a vessel that embodies the epitome of excellence.





### **Main Cabin**

The cabin of the Mercy 18 is a meticulously designed space that prioritizes functionality, comfort, and efficiency to facilitate optimal medical care in various environments. Here are the key features and aspects of the cabin:

Layout and Configuration: The cabin is intelligently configured to maximize space utilization while ensuring easy access to essential equipment. It is organized to accommodate four stretchers and four paramedics comfortably, allowing for efficient patient care.

**Communication and Connectivity:** Advanced communication systems are integrated into the cabin, enabling seamless coordination with external medical facilities, emergency services, and relevant authorities. This ensures a high level of connectivity during missions.



**Medical Equipment and Supplies**: The cabin is equipped with secure storage compartments and mounts to house a range of medical equipment and supplies. This includes vital monitoring devices, life-saving medications, and specialized tools needed for various medical emergencies.

**Lighting and Visibility:** The cabin is designed with ample lighting to ensure optimal visibility for medical procedures, even in low-light conditions. This includes overhead lighting fixtures and strategically placed task lighting for focused examination and treatment.

Ventilation and Climate Control: The cabin is equipped with a reliable ventilation system to ensure a consistent flow of fresh air. This is essential for maintaining a comfortable and healthy environment for both patients and paramedics. Additionally, climate control features ensure a suitable temperature regardless of external conditions.

## THE HULL ARCHITECTURE AND DESIGN

The hull was developed to achieve strict performance targets with the overall size dictated by the operational conditions.

The basic hull design is a two stepped hull with integrated bracket of 17.2 Meter length and 4.4-meter beam, the steps provide reduced surface at speed which leads to better efficiencies in terms of speed and fuel economy, the reduced surface also improves comfort as pounding is minimized.

The performance is further aided by the addition of a 45 cm wide path at the center of the hull behind the steps to further minimize the wetted area. Typically, a serious disadvantage of a stepped hull is its tendency to raise the bow when plaining, this was counteracted by the introduction of the Venturi tunnels that accelerate the water under the hull by creating air suction from the deck, this net result is a fast stepped hull that also accelerates very quickly.

While the hull can operate with inboard engines combined with either stern or surface drives, the design was optimized to allow for the installation of up to five outboards, this decision was further validated by the introduction of the 450, 500, and 600 reliable outboard engines. And the net result is a boat that can achieve speeds of more than 60 knots.

The lifting strakes and spray rails have been developed to be significantly larger than usual on such a boat to allow the boat to track straight even in the toughest conditions, the downside is that the hull is a bit hesitant to turn with subtle steering input, it does, however, overcome this almost immediately once the operator commits to a turn. This tradeoff was felt to be necessary to provide the crew with more stability during combat conditions.

To further enhance the capabilities of the hull, every unutilized cavity in the hull is filled with close-cell foam for added buoyancy and to prevent unintended flooding making the boat unsinkable.



#### **PROPULSION SYSTEM**



In recent years, modern gasoline outboards have emerged as the preferred choice for commercial applications. Their enhanced refinement, reliability, value, and superior design allow them to largely stay above water. Additionally, their trim feature enables operation in shallow waters, providing an added advantage.



Diesel outboard propulsion combines the advantages of a stern drive, with increased fuel efficiency, durability, and reliability. This makes them highly suitable for modern vessels across military, commercial, and leisure sectors. This powertrain guarantees optimal performance and operational efficiency, solidifying its position as a compelling choice for contemporary watercraft.



### GENERAL PARTICULARS

### For the 2024 model year

LENGTH OVERALL	17.6 M	FUEL CAPACITY	3068 L
LENGTH OF HULL	16.75 M	WATER CAPACITY	400 L
BEAM	4.5 M	BLACK WATER TANK CAPACITY	110 L
DRAFT	0.87 M	POWER	1200 - 1800 hp
DRY WEIGHT	12,000 kg	MAX SPEED (LIGHTSHIP)	50+ KNOTS
WEGHT	19,000 kg	MAX ECONOMIC RANGE	525 NM
ENGINES	Outboards	CREW	4
CARGO cAPACITY	3000 KG	EMTs	4
CLASSIFICATION	Category B OffShore (up to and including Beaufort sea state 7).		



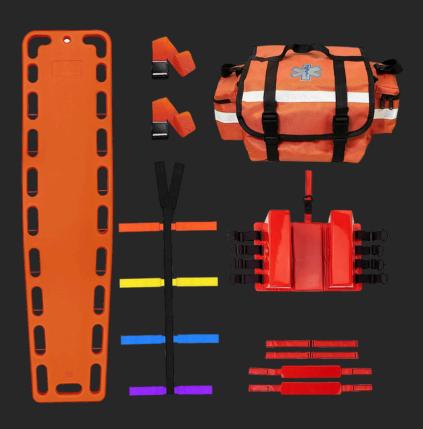


### Certification

The Mercy 8.5 meets the stringent criteria set forth by Rina, allowing it to be certified as a Search and Rescue (SAR) vessel. This underscores the vessel's exceptional design and functionality tailored to meet the demanding requirements of ambulance operations.

### **EQUIPMENT LIST**

Automtic bilge pumps X 4	S	Vacuum flush toilet	С
Manual bilge pump	S	First Aid Bag X 4	С
LED navigation lights	S	Blood Pressure Cu <b>ff</b> s	С
Blue courtesy lights	S	Medical Gases	С
Swim ladder	S	Medical Suction Unit	С
Digital Switching	S	Patient monitor X 4	С
NAV System with GPS & Sounder	S	Defibrillator unit	С
Bow Ramp	S	Intubation Kits	С
Digital switching system	S	Patient monitor X 4	С
Chartploter/fishfinder 12"	S	Defibrillator unit	С
Electric Windlass	0	Marine Air Conditioning	С
Generator 11 KW	0	Freshwater system (5 points)	С
25 Watt Megaphone	0	Air Horn	С
Searchlight	0	Emergency Strobe Lights	С
Basket stretcher X 4	0	Battery charger	С







### **WHY MERCY 18**

Having a marine ambulance is crucial for countries with long coastlines or numerous islands due to several significant reasons:

- **1.Rapid Response in Emergencies**: Marine ambulances significantly reduce response times in emergencies that occur in coastal or island areas. They can swiftly reach locations inaccessible by land, ensuring timely medical attention to those in need.
- **2.**Access to Remote Areas: Coastal and island regions often have remote or hard-to-reach locations. A marine ambulance can navigate through waterways and reach places that may be inaccessible by traditional land-based ambulances. This is especially critical for emergencies in secluded or isolated areas.
- **3. Natural Disasters and Emergencies:** Countries with long coastlines or many islands are often prone to natural disasters like tsunamis, hurricanes, or floods. A marine ambulance can play a vital role in evacuation efforts and providing immediate medical assistance during such crises.
- **4. Supporting Fishing and Maritime Industries:** In countries heavily dependent on fishing or maritime industries, having a marine ambulance is critical for ensuring the health and safety of workers. It provides prompt medical attention in case of accidents or emergencies at sea.
- **5. Tourism and Recreational Activities:** Coastal areas and islands are often popular tourist destinations. A marine ambulance ensures the safety and well-being of visitors engaged in water-based activities, such as swimming, diving, or boating.
- **6.Preventive Healthcare Measures:** A marine ambulance can also be used for preventive healthcare initiatives, such as conducting medical check-ups or vaccinations in remote coastal or island communities.

In summary, a marine ambulance is an indispensable asset for countries with long coastlines or many islands. It enhances emergency medical response capabilities, safeguards the well-being of coastal and island populations, and contributes to the overall resilience of a nation's healthcare infrastructure.

