



MAKING IT FIT

SPECTRUM AEROMED
IS A ONE-STOP SHOP
FOR INSTALLING EMS
EQUIPMENT INTO
HELICOPTERS.

BY JAMES CARELESS
PHOTOS COURTESY OF SPECTRUM AEROMED

Helicopters are an ideal air medical platform, but only if emergency medical services (EMS) operators can carry the equipment they need to do the job.

Making this happen is the mission of Spectrum Aeromed.

Founded in 1991, Spectrum Aeromed designs, develops, and installs air ambulance medical interiors for hospital programs, military branches around the world, multi-mission charters and private operators.

The company also creates and builds custom VIP emergency medical interior suites for executive aircraft and heads of state and is based in a 17,000 square-foot, state-of-the-art facility at Fargo, North Dakota's Hector International Airport.

"We are your one-stop shop for air ambulance medical interiors," said Matt Christenson, Spectrum Aeromed's vice president and account executive. "We will design and install the specific custom interior you need for whatever rotary- or fixed-wing platform that you are working with. We don't take a cookie-cutter approach."

Mindful that air medical operators need to carry a wide range of medical instruments—and that the suite varies from hospital to hospital—Spectrum Aeromed offers a large portfolio of equipment mounts for its interiors.



"We will provide mounts for whatever equipment the hospital is providing to their air medical units," said Christenson. "And if they need to have the mounted equipment certified by the FAA [Federal Aviation Administration], we will help them with that process—they won't be alone."

With a staff of experienced designers, engineers, and technicians on staff, Spectrum Aeromed has the depth and know-how to build the air medical interiors customers need. Options include an interior based on the company's pivoting base stretcher on the floor or on a base with drawers, 20/2200 and 2800 Series

pre-configured air medical suites, or a fully-customized interior.

The pivot base stretcher is built with the smaller helicopter cabins in mind. The pivot stretcher rotates and tracks out of the aircraft for easier patient loading and handling. It also allows for multiple patient positions in the cabin during flight, giving the medical team nice access to the patient while they are secured to their seat.

The 20/2200 Series air medical interior is built around a compact stretcher, which Spectrum Aeromed commonly refers to as the "shortbox." This is because the stretcher's short module base

contains all the components for critical care transports in a form that is just 48 inches long by 17 inches wide and 10 inches high (off the mounting bench).

Perfect for helicopters with limited floor space, and configurable for either single- or multiple-patient transport, the 2200 stretcher has tapered corners to allow it to fit through narrow doors and/or confined helicopter interiors. Its fabric is flame retardant and easy to clean. The backrest is fully adjustable for patient comfort, and the stretcher has expandable armrests to accommodate larger patients, or medical staff performing intubations in-flight.

Spectrum Aeromed's 2800 air medical interior is a lightweight, compact system whose stretcher extends 72 inches long by 17 inches wide by 10 inches high (off the mounting bench). This is a durable, robust system that can be configured for single or multi-patient layouts.

Each 20/2200 and 2800 Series stretcher station comes with dual supply outlets for medical air, oxygen, and vacuum systems, plus four mounts for IV bags.

For both the 20/2200 and 2800 Series, the suite's overhead/Medwall supply panel can be moved along the length of the patient or removed entirely. The Medwall also comes

an examination light and a second set of pneumatic outlets, which keeps the cabin's limited floor space free from clutter and equipment.

For operators who have multi-mission helicopters, Spectrum Aeromed's seat rail adapter system allows the aircraft interior to be converted from executive to EMS mode in approximately 25 minutes. Better yet, no special tools are required for the conversion. Meanwhile, the company's modular systems can be configured to carry a stretcher for adult patients, or a transport deck that includes an incubator and cylinder housing for neonatal patients.

When it comes to custom interiors, "we can change the design of our base systems to meet our customers' needs, and create whatever they are looking for, including a flying ICU [intensive care unit] that could include ECMO [extra-corporeal membrane oxygenation] system, balloon pump, defibrillators, ventilators and infusion pumps," said Christenson.

An ECMO-equipped air ambulance can provide cardiac and respiratory support oxygen to patients whose heart and lungs are too severely diseased or damaged to keep the patient alive on their own. Conversely, "other customization aspects can be as simple as providing the proper electrical outlets for the customer's country," he said.

In addition to Spectrum Aeromed's one-stop shop services for air medical interiors, the company also provides training support so its EMS customers can become adept at operating their air medical suites before the first mission is flown.

"We can provide training at our facility, or on the customer's premises," said Christenson. "Whatever they need, we are there for them."

Taken as a whole, Spectrum Aeromed has the air medical products, the engineering expertise, and the facilities to equip air ambulances of any given size and capability.

"We truly have the full capabilities to be your one-stop shop, including providing all the medical equipment mounts you need to carry whatever equipment your hospital has specified," said Christenson. "We've been in business providing these services for 27 years, so we are the experts." ❖



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