

Seahawk Fills the Bill

Story and Photos by Ted Carlson

When the Light Airborne Multi-Purpose System (LAMPS) MK III was introduced to the fleet in 1983, it expanded the operational horizon of both elements of the system—the SH-60B *Seahawk* paired with a surface combatant. The helicopter's over-the-horizon capability combined with the ship's endurance made LAMPS MK III a potent force in antisubmarine warfare (ASW) and antiship warfare. The multimission SH-60B can also perform search and rescue (SAR) and vertical replenishment, and can direct naval gunfire support.

The LAMPS MK III *Seahawk* is flown by 12 light helicopter anti-submarine squadrons (HSL), based at Naval Station, Mayport, Fla., and Naval Air Stations (NAS), North Island, Calif.; Barbers Point, Hawaii; and Atsugi, Japan. "HSL squadrons are unique because we are really force providers to the

battle group," said Commander Thomas Culora, executive officer of HSL-47, NAS North Island. "Our primary goal is to provide combat-ready detachments for deployment on board surface ships, including destroyers, frigates and cruisers."

"The deployments themselves are unique since a LAMPS detachment fully integrates with the ship's crew. This differs from an aircraft carrier, since there are far less people on a frigate or destroyer and you have an opportunity to get to know most of those aboard," said Lieutenant Commander Markus Hannan, who becomes HSL-47's maintenance officer in January 1998.

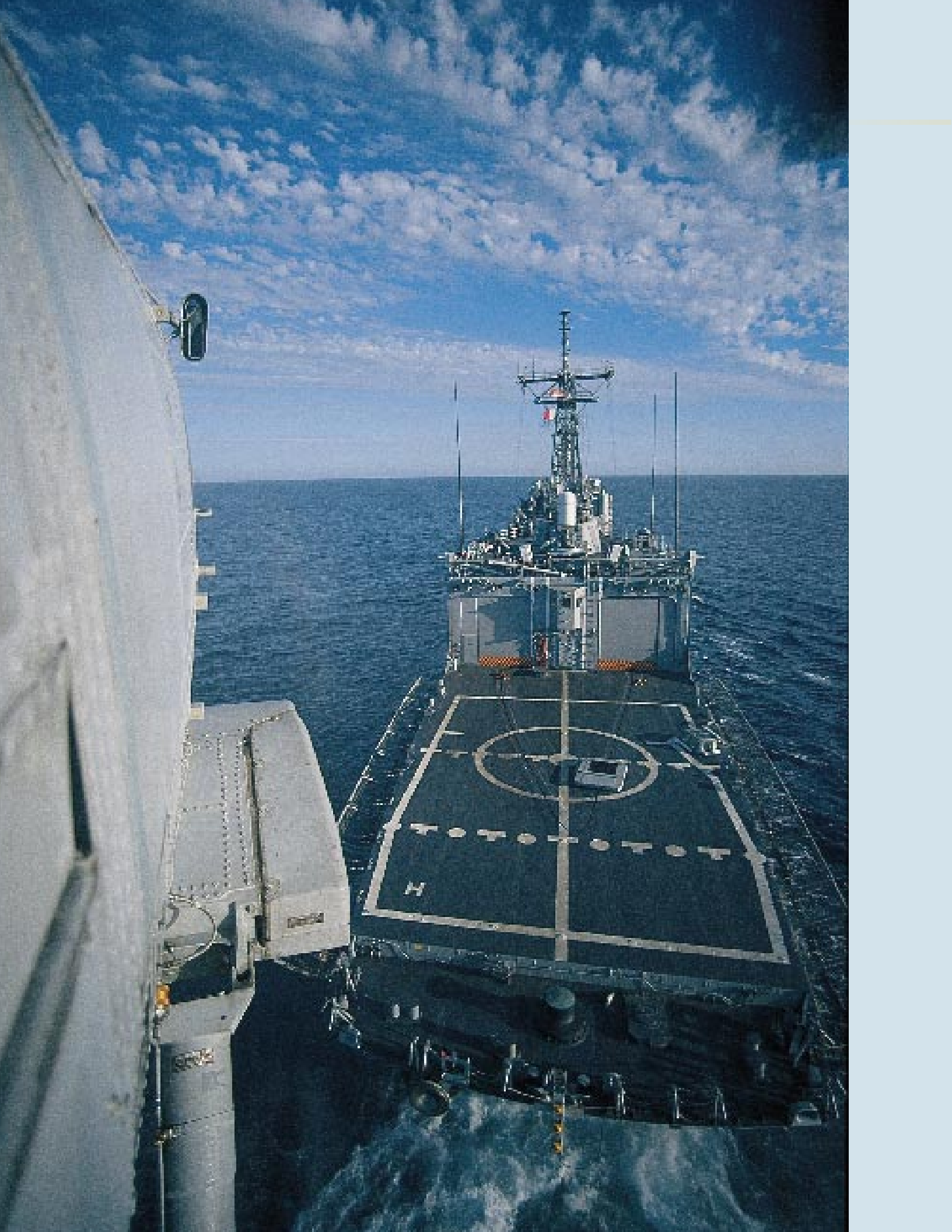
Shipboard recovery on a surface combatant also makes deployment unique. "On small ships you experience a greater degree of pitch and roll than on bigger ships. In rough seas and in poor weather, on a moonless night, the risk factor

goes up significantly. Safely recovering the helo in this environment can be a real challenge," noted LCdr. Hannan.

To help recover the SH-60Bs safely, the ships are equipped with a recovery assist, secure and traverse system (RAST). The RAST uses a haul-down cable to reel the helicopter in as it hovers over the ship. Although most pilots opt not to use the haul-down cable, if weather or other variables dictate, it can be employed. As soon as the helicopter touches down it is secured with a rapid securing device (RSD) which uses a mechanical set of jaws to tie down the helo and pull it along a track—also known as a rail—into the hangar. The ship's configuration dictates the number of LAMPS aircraft and crews deployed aboard. According to LCdr. Hannan, "If there are two rails and two hangars, we bring two aircraft and three flight crews. If there is only one RSD, we deploy with one SH-60B and bring

The LAMPS MK III SH-60B *Seahawk* deploys aboard small surface combatants such as cruisers, frigates and destroyers. The multimission helo can perform antisubmarine and antiship warfare, as well as search and rescue, vertical replenishment and naval gunfire support missions.





two crews. However, many destroyers have a single hangar with enough space for two SH-60Bs.”

The SH-60B typically has a crew of three: a pilot, an airborne tactical officer (ATO) and a sensor operator, or “senso.” The ATO is responsible for the tactical situation, deciding what assets will be used to prosecute the target and handling the coordination of other assets on scene. The sensor operator is an enlisted Sailor who operates the radar and magnetic anomaly detector (MAD) equipment, interprets acoustic data and performs SAR rescues. All sensos must maintain their qualifications as rescue swimmers.

HSL-47 sensor operator AW3(NAC) Jeffrey Gates commented, “For SAR sorties we have two sensor operators in the back, which means we are then SAR capable. One of the two will serve as a wet swimmer who goes in the water to retrieve the survivor. The other crew member in the back operates the hoist.” During a rescue the pilot can place the helo in an auto-hover mode, and the senso can use a joystick to direct the aircraft’s movements to better carry out the rescue.

The easiest way to externally identify a LAMPS helicopter is the large cylindrical fairing under the nose, housing the 360-degree-

capable search radar. The SH-60B carries chaff/flare dispensers and 25 sonobuoys, and is equipped with a MAD, an electronic surveillance/support measures (ESM) system, missile jamming equipment and missile plume detectors. The SH-60B can be armed with both MK 46 and MK 50 torpedoes and a single M60 machine gun.

A recent SH-60B modification incorporated the ability to carry the AGM-119B Penguin missile, giving the *Seahawk* a potent surface strike capability. The Global Positioning System has also become standard equipment on most SH-60Bs. Some LAMPS MK III *Seahawks* already carry Hellfire

Opposite, an HSL-41 *Seahawk* approaches *Jarrett* (FFG 33). The rapid securing device visible on deck will secure the helo after touchdown and bring it into the hangar. Below, an SH-60B deploys the magnetic anomaly detector which, with the helo’s 25 sonobuoys, makes the LAMPS MK III *Seahawk* a formidable antisubmarine warfare platform.





Left, this port-side view of an SH-60B shows the sonobuoy launcher and a Penguin missile mounted on the weapons pylon, two elements of the *Seahawk's* detection and defense system. The SH-60B's crew typically consists of a pilot and airborne tactical officer (below) and a sensor operator (bottom), with a second sensor operator on board for search and rescue operations. Opposite, landing on the platform aboard a small surface warship can be a challenge, especially in heavy seas or at night.

missiles and night vision goggles. In addition, funding has been allocated to retrofit all SH-60Bs in the HSL community with forward-looking infrared (FLIR) sensors.

The master plan for the Navy's helicopter forces calls for the remanufacture of the SH-60B/SH-60F/HH-60H fleet into the SH-60R, expected to provide a multi-mission platform capable of conducting undersea and surface warfare for the next 20 to 25 years. The SH-60R's systems will be able to deal with high numbers of air and sea contacts in a confined space, in shallow water. It will operate with a carrier group, or with a surface action group, where no air cover is available. To fight and survive in this environment, detection systems will be added to the SH-60R that include a new multimode radar, FLIR sensor, ESM system and a retrievable, active, low-frequency sonar with significantly greater processing power.

Other SH-60R enhancements include an updated flight control computer, a new generator and

reinforced floor panels that can withstand weights up to 300 pounds per square foot. Engineers also expect to eliminate the SH-60B's MAD in the SH-60R, because it cannot be used simultaneously with the active sonar.

First developed to fill



the need for a platform versatile enough to meet multi-mission objectives in a complex and often unpredictable threat environment, the LAMPS MK III *Seahawk* has proven itself more than capable. The SH-60R upgrade—expected to reach initial operating capability around 2002—will represent a quantum leap in technology, simi-



lar to that made by the LAMPS MK III version upon its introduction into the fleet. The upgrade will enhance the capabilities of the naval helicopter/surface warship team, making this formidable force an even more valuable asset for the future. ✈️

Ted Carlson is a professional photographer whose work regularly appears in *Naval Aviation News*. The author wishes to acknowledge the assistance of all HSL-47 squadron members in the preparation of this article, with special thanks to Cdr. Thomas Culora; LCdrs. Hal Pittman, Markus Hannan and Brian Gates; Ltjgs. Charley Brown and Colin Smith; JOCS Jackson; JOC Dave McClellan; and AW3 Jeffrey Gates.

