

CARGO FROM THE HEAVENS

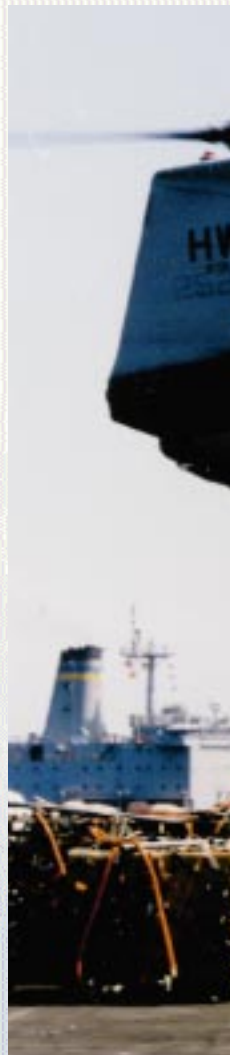
By JO2 Joshua M. Hudson

A CH-46 *Sea Knight* approaches the flight deck, taking cues from the Landing Signal Enlisted (LSE) crewman, who “parks” the aircraft in the sky. Against the force of the rotor wash from the hovering aircraft, the LSE struggles to maintain balance. One of the two aircrewmen on board the *Sea Knight* watches through a hatch in the center of the deck called the “hell hole.” The aircrewman relays information to the pilot to position the helo over the pallet of supplies destined for transport. After a thumbs up from the LSE, pilot and aircrewman, the cargo is hoisted from “Mother” (the supply ship) to its destination with steady precision. This involved process—choreographing the movement of pallets containing everything from eggs to jet engines between three or more moving platforms—is all in a day’s work in the world of vertical replenishment (VERTREP).





Left, an LSE directs a CH-46 *Sea Knight* hovering over the flight deck. LSEs are the safety gauge on deck for the pilots. Opposite, the hookman dashes from underneath an HC-6 *Sea Knight* after connecting the cargo line to the CH-46 during a VERTREP at sea from Theodore Roosevelt (CVN 71) to Saipan (LHA 2).



The men and women of the Helicopter Combat Support Squadrons (HCs) perform VERTREP with the CH-46 *Sea Knight*, providing an efficient life-line of supplies to aviation ships at sea. Lieutenant Michael Buckley of HC-6, NAS Norfolk, Va., knows the key to their success: “Crew coordination. We really work together.” Pilots rely entirely on the visual and audio cues from the LSE and aircrew VERTREP specialist. “We pick up the load from Mother and move it to the drop,” explained AD1 (AW/AC) Keith Johnson of HC-8, NAS Norfolk. “The pilots can’t see

the load so we have to paint a picture for them so they can adjust the bird.” Crews train until their missions run like clockwork.

Not just any crewmen work on CH-46 VERTREPs. After Naval Aircrewman (see Sep–Oct 96) and Search and Rescue (see Nov–Dec 96) training, they attend Fleet Replenishment Aircrew training for the *Sea Knight* at HC-3, NAS North Island, Calif. The training qualifies all graduates as second crewmen, with limited responsibilities, who are sent to one of the four active *Sea Knight* squadrons—HCs 6 and 8, NAS Norfolk; HC-11, NAS North

Island, Calif.; and HC-5, NAS Guam. After passing an evaluation flight and an oral board in their squadrons, aircrewmen advance to first crewmen and are qualified to lead VERTREP missions aboard the *Sea Knight*.

“The challenging part is learning to use good judgment,” AE3 (AW/AC) Lawrence Robinson of HC-8 said. “Learning when and how to make certain calls: when a load is safe to carry, when it is safe to pick up,

when to get rid of it, or when to tell the pilot to take it around again.”

AE2 (AW) Stephen Ware works as an LSE, which is a collateral duty in a squadron. LSEs are qualified at a one-week course where they learn the art of directing the helicopters with hand signals and maintaining safety on the flight deck. “When you’re working a VERTREP that is running smoothly and safely, it’s fun. The flight deck is good, the pilot is coming in just fine, the aircrewman puts the bird over the load and everybody is happy,” Ware said. But even textbook-perfect missions can’t afford to ignore the potential for accidents. “You put yourself at risk, along with the rest of the crew. If you misjudge your directions or fail to see a detail, something can go drastically wrong.”

The LSE has the authority to wave off a helo if the slightest margin of safety is breached. “It can be

scary,” explained AT2 Colleen Lynch, an LSE in HC-6, “especially at night. You are the only one standing there after everyone else scatters. The helo isn’t visible until it is right over the flight deck. The ship is rocking really good and you have to be steady giving directions.”

The deployed squadron provides LSEs for Mother; all other ships receiving goods provide their own LSE. It is an exhausting job, which is why LSEs have a two-hour limit before rotating to another position on the VERTREP crew or off the flight deck.

The aircrewmen rotate as well. On top of the mental stress of being constantly vigilant, the work is also physically challenging. Lying flat on the deck of the helo, looking through the “hell hole,” feeling vibrations from the rotors spinning at 264 rpm puts a pretty mean shake

on the body. “You’re lying down in a bird that is shaking you for 8 to 10 hours. It is 110 degrees, with all your gear on, and your head is sticking out the ‘hole’ looking forward trying to see where the ship is. Yes, it will wear you out!” emphasized AO1 (AW/AC) Trevor Wright, an HC-6 aircrewman. “That is why two crewmen are assigned on any VERTREP, and only one works at a time.”

Despite the high safety concerns, long hours and extreme stress on the nerves, as well as the body, members of the HC squadrons take pride in being responsible for this exacting work. When asked to describe how it feels to work in what most would call a dangerous environment, AE1 (AW) Jason Bristlin of HC-8 said it best: “Safety is a state of mind. That is why we train, and that is how we work.” ✈

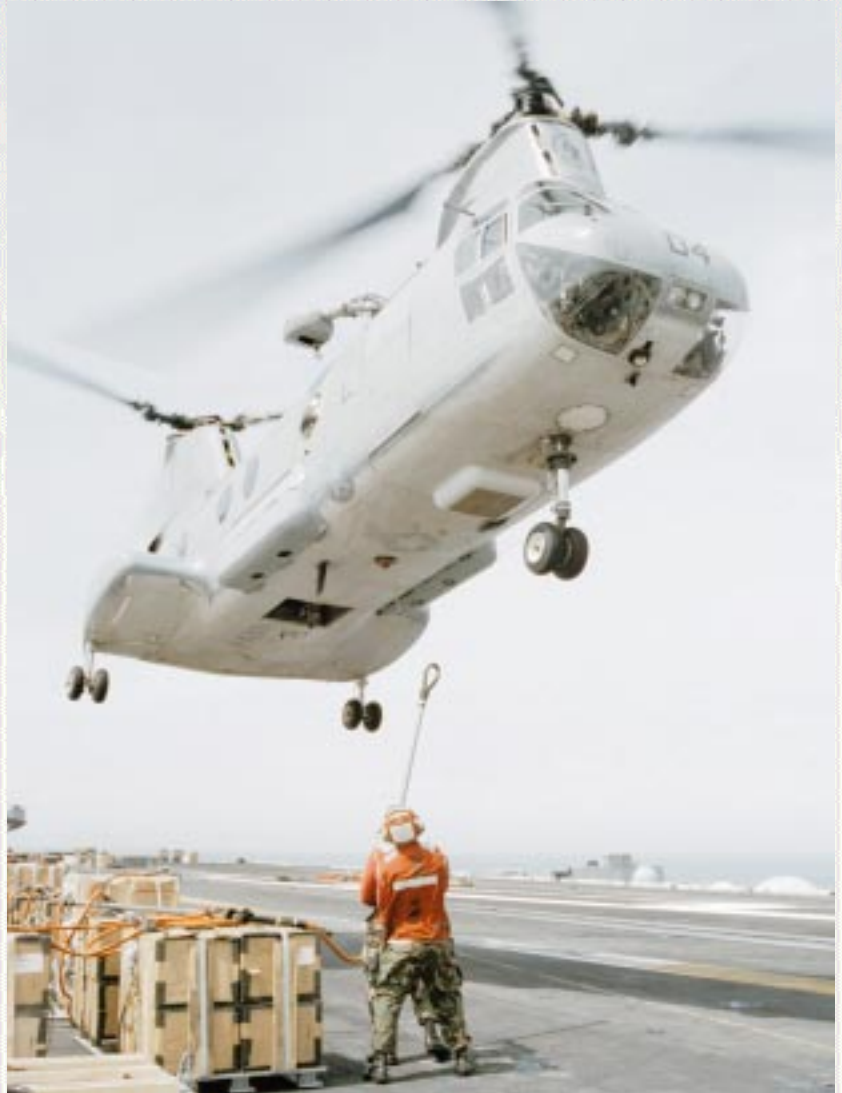


VERTREP Veteran

The CH-46 *Sea Knight*, often called “the workhorse of the fleet,” is the only Navy helicopter that has the primary mission of vertical replenishment (VERTREP). What makes the 30-year-old Boeing CH-46 still the best choice for VERTREP? Lieutenant Michael Buckley, a pilot in HC-8, NAS Norfolk, Va., explained, “Tandem-rotor helicopters can fly with increased stability and control during sideward flight,” which enables the *Sea Knight* to stabilize over the flight deck while cargo remains in the air.

In comparison a single rotor helicopter uses a tail rotor to counteract the rotation of the overhead blades. Without it, the helo would spin out of control in the opposite direction of the blades. The tail rotor stabilizes the craft so that the overhead blades can create lift. When a tail rotor helo flies in gusting high wind conditions, the tail rotor must work to counter the effects of the wind in addition to torque.

Tandem overhead rotors turn opposite of each other, cancelling torque effects from the main rotor. The CH-46 is stable in good weather and bad. In situations where the weather may effect the controllability of a single-rotor aircraft, the CH-46 provides an advantage in flight control. ✈



PHAN Joseph Strevail

PHC Roger W. Dellinger



Above, a Sailor waits for the aircrewman to give him the go-ahead to hook a pallet of ammo to an HC-6 *Sea Knight* aboard *George Washington* (CVN 73). Left, *John Paul Jones* (DDG 53) gets one of many visits from HC-11 as the squadron makes the rounds through the battle group delivering mail and cargo.