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Rotor Tips

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ON THE COVER

Future Concept — twin-engine UH-2C, armed with "chin turret," lands aboard a DLG. Second UH-2C SEASPRITE, foreground, increases SAR capability. Cover by Donald Tisdale, Technical Publications.

FEATURES

DEPARTMENTS

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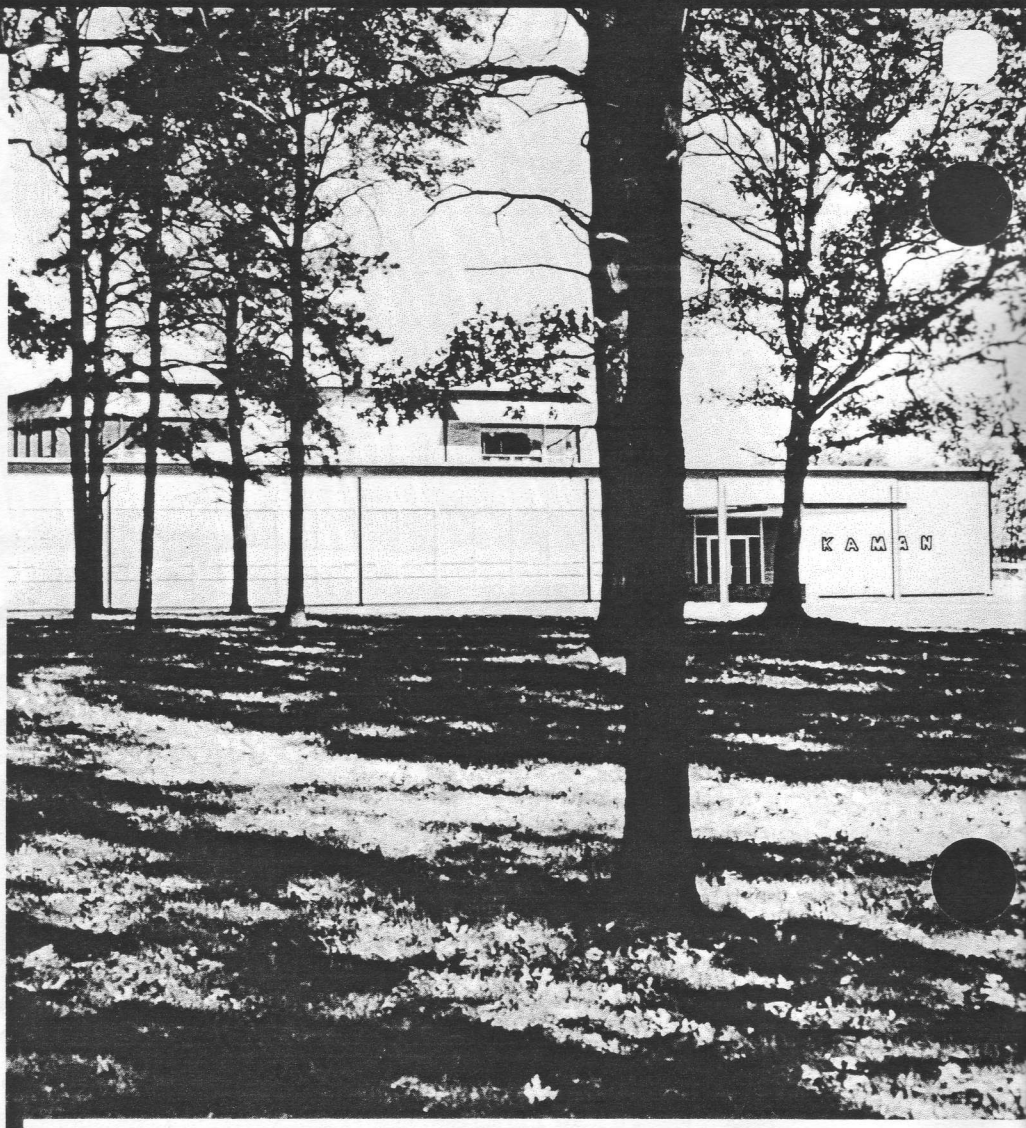

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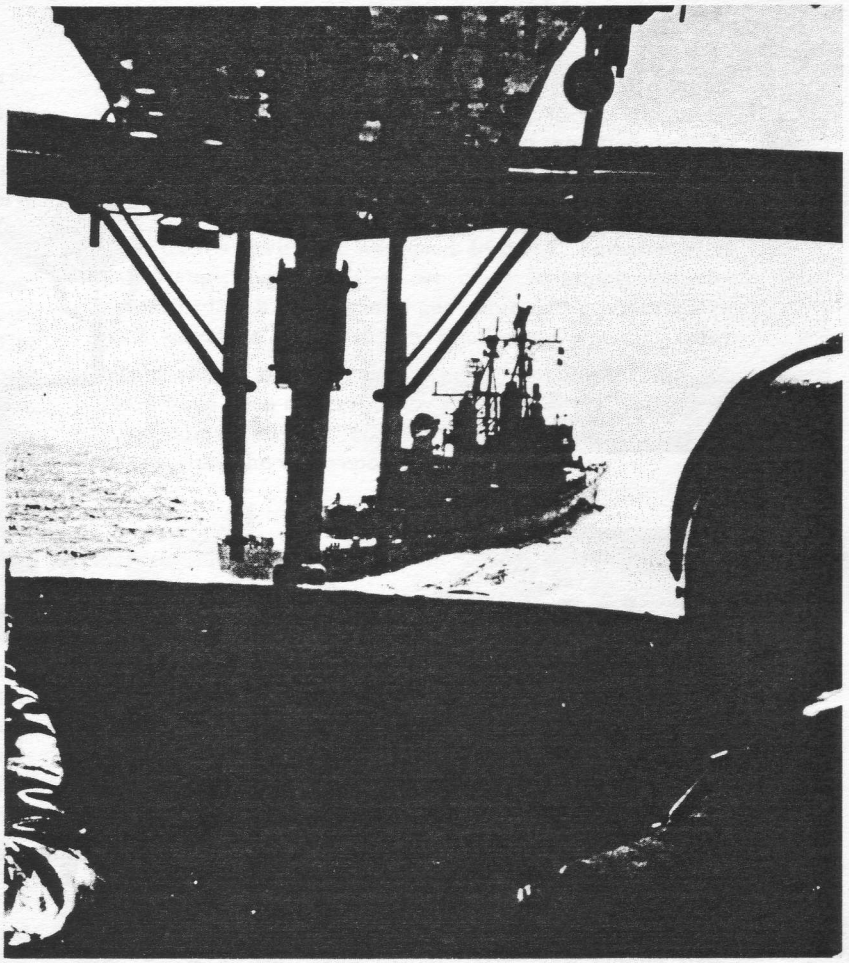
DLG ANGELS RESCUE DOWNED FLIERS

This article is dedicated to the Naval officers and men of the North and South Search and Rescue detachments operating aboard DLGs in Southeast Asian waters. Time and again they have shown their great capability, when the chips were down, to perform far beyond expectations. Their training is as special as their task. Pilots, aircrewmen and ground crew in these detachments are highly skilled men who walk proudly — and rightfully so — it takes a combination of rugged men and equipment to qualify in this environment!

WILLIAM R. MURRAY

Vice President—Test Operations/Customer Service

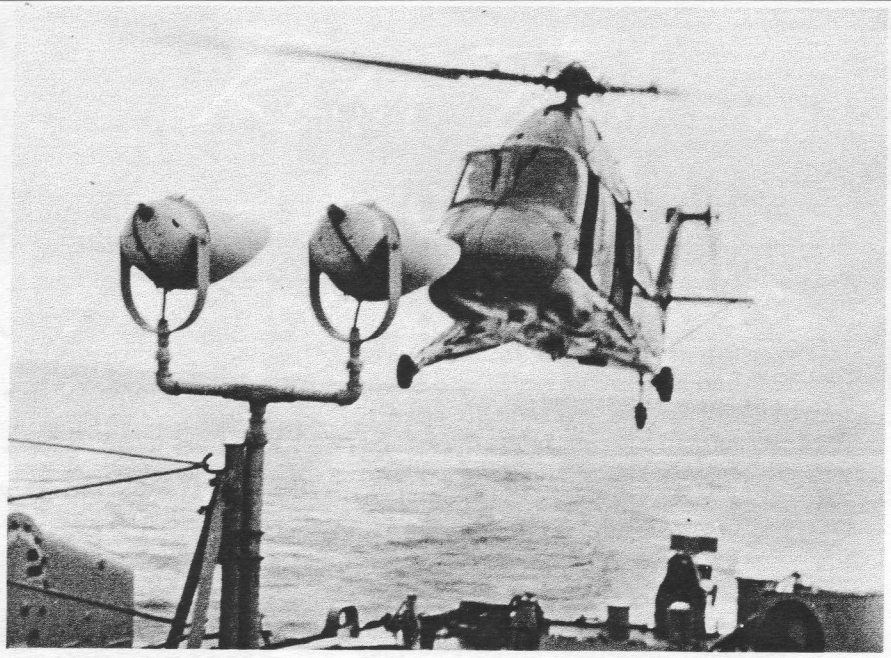


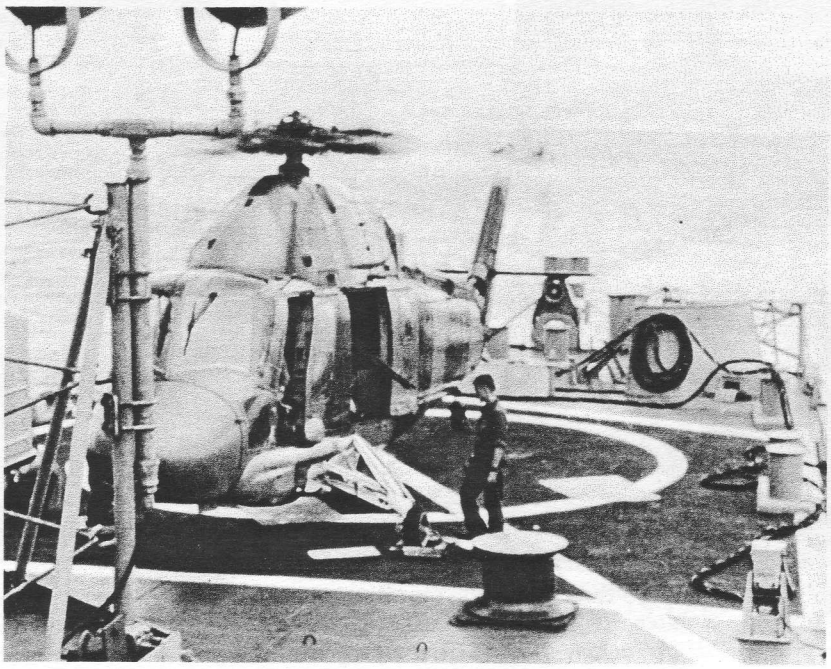
PILOT'S VIEW—To carry out their rescue missions, UH-2 pilots operate daily from guided missile frigates like the one shown. Landings aboard the small deck call for precision flying, and exact timing is necessary to anticipate the movement of the ship. Air turbulence caused by the ship's superstructure must also be considered. (USN photo)

Being aboard a DLG in rough weather has been likened to riding on the back of a submarine that is partially submerged — yet daily UH-2 SEASPRITES take off and land from the rolling, pitching sterns of these guided missile frigates stationed off the coast of North Vietnam in the Gulf of Tonkin. The skillful flying necessary to operate from the ships is obvious; the efforts expended by maintenance personnel in carrying out their duties is less apparent, but sometimes almost as heroic. Even during comparatively calm weather the rescue helicopters are constantly subjected to salt spray and, during a blow, waves have been known to almost submerge a tied-down UH-2. As a result, aircraft corrosion control is a never ending task. The SEASPRITE, with built-in work platforms and other features, was designed to operate from small ships, but when the waters of the Gulf of Tonkin begin to roughen, simple acts of maintenance can become frustratingly difficult or, sometimes, nearly impossible to perform.

Despite the limited space, maintenance facilities, and all the rest of the inconveniences connected with flight operations aboard the frigates, the men who maintain the helicopters — like the men who fly them — have shown a singular dedication in performing their tasks. For example, engine or transmission changes are usually carried out on the comparatively stable hangar deck of a carrier or at land-based facilities. When the necessity arose, however, such changes have been made aboard DLGs in order to get the rescue helicopters back into the air again as soon as possible. Maintenance personnel used the UH-2's special hoist assembly during both operations but, even with this aid, it took unusual care, skill, and timing to perform the jobs while on the open deck of a fast moving ship. Some of the 8 or so enlisted specialists in the detachments are also qualified aircrewmen and, in this capacity, man the SEASPRITES on the rescue missions. Each of these men has a close personal interest when battle damage is being repaired ... either they or their shipmates were aboard the helicopter when IT happened! Every bullet scar or jagged hole also has a special significance for the two pilots assigned to each detachment. On several occasions it was their high proficiency that brought a "wounded bird" back to the ship.

The willing help supplied by the ship's company aboard each DLG is another prime factor in making the SAR operations a success. This cooperative "all hands" awareness of the importance of their mission is reflected in each man's daily performance ... the reward for their untiring efforts is found in the ever-mounting number of downed fliers saved from enemy hands since the helicopters first began operating from the ships many months ago.





DLG-SEASPRITE OPERATION—When the SEASPRITE was designed by Kaman Aircraft several years ago, Navy specifications called for a helicopter that could operate from a variety of small vessels as well as carriers. This forward-looking requirement is paying off today as UH-2 SAR crews fly their life-saving missions from guided missile frigates and similar ships. In top left photo, a UH-2 prepares to land on the rear deck of a DLG as another SEASPRITE orbits. In right photos, a SEASPRITE pilot skillfully lands in a confined area surrounded by ship's equipment. In other photos, Lt Jaque L. Meiling, see mission report, prepares to take off on a SAR mission. As the SEASPRITE heads for enemy territory, a UH-2 crewman checks his weapon and then gives the familiar "thumbs up" signal.

Usually there are two DLGs on station — "North SAR" and "South SAR." They are among the key factors in the rescue network which has gradually evolved to save airmen who manage to eject from their battle-damaged aircraft into the sea or over the land areas of North Vietnam. Sometimes this has been a collaborative effort with other helicopters operating from carriers or from Air Force Rescue detachments stationed at land bases. One heroic UH-2 crew from a DLG made four attempts, while under almost continuous fire, to rescue a pilot from gun-ringed Haiphong harbor. Finally, after receiving numerous hits and with fuel nearly exhausted, the crippled rescue helicopter was forced to head for the open sea.

Until a few months ago, Helicopter Combat Support Squadron One, NAS Imperial Beach, Calif. (formerly designated NAAS Ream Field) supplied the UH-2 detachments that were deployed aboard the frigates. Recently, with the formation of additional helicopter squadrons, these duties have been assigned to HC-7, homebased at NAS Atsugi, Japan. HC-1 continues to supply detachments for UH-2 plane guard and other duties aboard aircraft carriers operating in Southeast Asia and other areas. Many of the rescue missions flown from the DLGs have been described by the SEASPRITE crews as being comparatively "routine." But then there are the others, like the one reported here:

The Mission

The pilot of the Navy A4 Skyhawk sat in his tiny raft and worked patiently at cutting the remaining shroud lines which still hampered his movements. It had been quite an experience ... his aircraft hit by enemy fire just off the North Vietnamese coast ... the ejection after the Skyhawk caught fire and began plunging toward the Gulf of Tonkin below ... the swim and struggle to get into the raft ... but now, thankfully, it was almost ended. Overhead, planes from the carrier Bon Homme Richard flew protective cover and the enemy shore nearby was quiet. Help was also on the way in the form of a UH-2 SEASPRITE from the USS Fox, a guided missile frigate on station just a few miles away. There was nothing much to do now except cut himself completely free and wait to be picked up. Soon the familiar shape of the UH-2 appeared and a minute later the helo pilot made a slow pass with the rescue helicopter as an aircrewman leaped into the water and began swimming toward him. It was a precautionary procedure often followed to determine the condition of the survivor and prepare him for pickup. Rescue, it appeared, was only seconds away!

For the UH-2 pilot, Lt Jaque L. Meiling, and the others aboard the helo, Lt Andrew J. Curtin and Richard H. Hall, ADJ3, it looked like a "no sweat mission," but they still remained on the alert. They had come to expect almost anything when operating in enemy waters close to land and their suspicions were soon justified. Just as the approach was being made to pick up the two men from the water, 10 or more hidden shore batteries simultaneously exploded into action. The first round raised a column of water directly in the path from which the SEASPRITE had turned seconds before, then shells started landing all around the helicopter. Lieutenant Meiling applied full power and flew a weaving, erratic course back out to sea. Flak burst over the low-flying UH-2 and water bursts to the right, left and rear of the SEASPRITE followed the flight path out. Time-after-time the helicopter turned just in time to avoid being hit. Near misses continued to shake the UH-2 even when it was far off shore.

Miraculously, the rescue helicopter had escaped being hit by the guns which were, apparently, radar-controlled and in some cases of fairly large caliber. But there were still two men to be rescued from the area which might have been a death trap for the entire rescue crew but for Lieutenant Meiling's instant response in taking evasive action when the firing began. During the dodging, weaving flight, the UH-2 pilot had called for assistance from the F8 Crusaders and A4s flying overhead and they had slammed their firepower onto the enemy shore with all the force of a giant sledgehammer. Apparently the guns had been silenced — or had they? Lieutenant Meiling had left the two men in the water with the utmost reluctance but the keen judgment paid off in drawing fire from the crewman and rescuee and most likely saving the helo. Now the attempt would be made to extract them from what could again be a waiting trap....

When the attack began on the rescue helicopter, AN Allen E. Salsbury, the UH-2's second crewman, was in the water beside the raft with the downed pilot. Suddenly the water around them erupted from the enemy fire. Quickly they abandoned the raft and began swimming out to sea, and the airman stopped long enough to ignite a pencil flare signaling that they were ready for rescue. As he did so, two shells landed nearby and the third blew the raft from the water. Afterward, when it looked like the SEASPRITE was heading back toward them, Salsbury ignited a day smoke flare and then he and the downed pilot began their hopeful wait....

Flying a low and erratic high-speed course, the SEASPRITE quickly arrived over the two men in the water. Lieutenant Meiling pulled into a tight turn, flared to a quick stop and initiated a low hover. Hall quickly lowered the cable to Salsbury and seconds later he and the downed pilot were attached to the hook by their "D" rings and were being hoisted aboard. As they left the water, the helo broke hover and, with the two men still dangling below, increased speed and began another weaving course away from shore. During the pickup, the rescue crew was again fired on from the beach, but it was light and nothing like the holocaust they had encountered earlier — apparently the aircraft from the "Bonnie Dick" had done their work thoroughly. When Salsbury and the survivor were safely aboard, Lieutenant Meiling and his crew thankfully headed for the ship.

"It was a tremendous piece of flying on the part of the helo drivers," the rescued pilot said afterward. "They raced in, stopped on a dime, picked up both of us, and were out of there in a big hurry. The helo aircrewman that jumped into the water was very well trained and confident in doing everything possible to assist me. It took great courage to stay behind under concentrated and accurate shore fire to do his job. As a rescue team the entire helo crew accomplished their mission under very hazardous conditions in attempting and completing my rescue. No man would ask more than that of any helo crew."

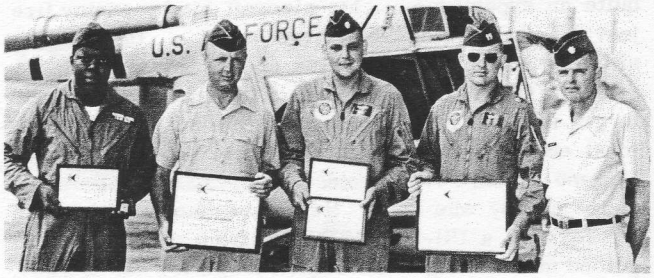
IN APPRECIATION—MajGen Kiyotoshi Goto, JASDF, and Maj Charles N. McAllister, Det 6 commander, display framed scroll after presentation ceremony witnessed by other rescuemen from the detachment. In photo at right, General Goto buckles seat belt prior to an HH-43 orientation flight with Major McAllister. (USAF photos)

DET 6 HONORED BY JASDF

HH-43B rescue crews from Det 6, PARRC (MAC), Kadena AB, Okinawa, have been honored by the Japanese Air Self Defense Force for the rescue of 17 JASDF cadets and two crewmen from a C-46 which ditched in Buckner Bay after engine trouble. A large scroll commemorating the event was presented to Maj Charles N. McAllister, detachment commander, by MajGen Kiyotoshi Goto. The General and his entire staff visited the detachment to make the presentation and to express their appreciation for the detachment's efforts. After the ceremony, the General was briefed on the rescue operation at Kadena and was also given an orientation flight in a HUSKIE by Major McAllister.

Two Det 6 HUSKIE crews had scrambled when word was received that the C-46 was about to crash into the East China Sea approximately 360 yards off the Okinawa shore. Within a few minutes the helicopters were at the scene. Aboard one HH-43 were Capt Jack C. Moore, RCC; Capt Donald H. Almanzar, copilot; A1c Peter K. Ford, flight engineer; and A1c Douglas N. Walton, medical technician. With Maj Warren K. Davis, RCC, in the second HUSKIE, were Capt Joseph T. Herr, CP; SSgt Robert G. Turner, RS; A1c Peter F. Roper, RS; and SSgt James M. Langford, FE.

The downed plane went under soon after the helicopters landed on a stretch of coral and began picking up the passengers and crew. The survivors had taken to rubber life rafts after the water landing. Kadena helicopters picked up 19 of the 22 survivors, the other three were rescued by an HU-16 Albatross from Naha AB.



HONORED BY KAMAN—Four members of Det 6 show Scrolls of Honor awarded by Kaman Aircraft for hazardous, life-saving missions flown in detachment HH-43B's. Left to right are, SSgt Harold A. McKinney, Capt Joseph T. Herr, Maj Warren K. Davis and Capt Jack C. Moore. The presentations were made by Maj Charles N. McAllister, detachment commander, extreme right. Major Davis, Captain Herr and Sergeant McKinney airlifted a critically-ill seaman from a ship to the hospital under difficult and dangerous conditions. A1c Robert J. Jordan, since transferred, was the fourth member of the crew and also received a Scroll. Captain Moore was pilot of a HUSKIE that made a 40-mile, overwater flight during poor weather to evacuate an 11-year-old Ryukyuan boy stricken with a ruptured appendix. Others aboard the rescue helicopter who also received Scrolls were Capt Edward H. Parker (MC), flight surgeon, Major Davis and TSgt Charles D. Severns. (USAF photo)

Lieutenant Kiseljack Logs 2000th Hour

Lt Charles Kiseljack of Helicopter Combat Support Squadron Two, NAS Lakehurst, N.J., recently became the first United States Naval aviator to accumulate 2000 hours in helicopters produced by Kaman Aircraft — a double distinction is that all of Lieutenant Kiseljack's hours were logged in the UH-2 SEASPRITE. In recognition of his achievement, the Lieutenant is to receive a "special" 2000-hour wall plaque and will be the only Navy pilot to have one in his possession. A similar award was made sometime ago to Capt Bert E. Cowden, the first USAF pilot to qualify. The third, and last, 2000-hour plaque will be awarded to the first Marine pilot to hit the magic number.

A graduate of Seton Hall University, South Orange, N.J., in 1960, Lieutenant Kiseljack started his Naval career in June 1961. After earning his "wings of gold" he was assigned as a helicopter pilot to HU-2, since redesignated HC-2, in May 1963. During his 4-1/2 years with the squadron the Lieutenant has served with detachments deployed aboard the carriers "Independence," "Intrepid," "Roosevelt," "Lexington" and "America." He has also served as a squadron maintenance test pilot. Lieutenant Kiseljack has participated in many missions of mercy while flying the SEASPRITE.

Timely Tips

Accessory Gearbox Shaft Movement (UH-2A/B)

Axial movement of the accessory gearbox input shaft will be noticed whenever the zurn coupling hub is removed. This end-play, which can be detected by hand pressure, is normal and not considered damage inducing, provided the play does not exceed 0.0926 (approximately 3/32 - inch). When the zurn coupling is reinstalled on the shaft, the axial movement will be eliminated.

R. J. Trella, Service Engineer

Tracking Turnbuckle Check (HH-43B,UH-2)

Upon completion of any track adjustment, insert safety wire into the inspection hole in the small diameter end of the turnbuckle barrel. The safety wire must contact threads to assure that sufficient thread engagement of the rodend bearing exists. If the safety wire goes through the turnbuckle, check the tracking turnbuckle for proper assembly per handbook procedures.

W. J. Wagemaker, Service Engineer

Proper Bolt Installation Practices (UH-2, HH-43)

It is good practice to install all bolts so that if the nut loosens and falls off, the bolt will remain installed. This is particularly true in rotating controls. For instance, in the UH-2, the bolts which attach the azimuth input control rods should be installed with the boltheads inboard. The speed of rotation is such that if the boltheads are outboard and the nut loosens, the bolt could literally be thrown out by centrifugal force. The same reasoning applies when installing bolts from the topside down; the nut should be on the bottom of the part. In the HH-43, the rotor damper assembly attach-bolts should be installed by inserting the bolt down through the rodend. If the nut were to be lost, the bolt would probably remain in place and components would continue to function.

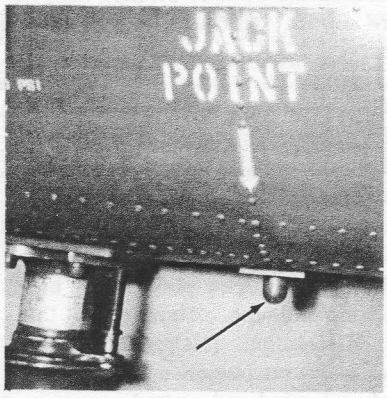
N. E. Warner, Service Engineer

Gearbox Corrosion Control (UH-2)

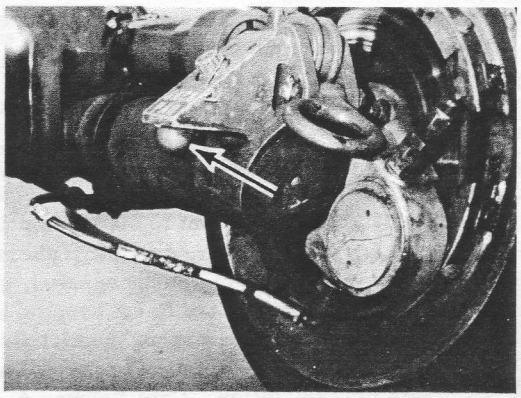
Members of HC-4's Detachment 36, aboard the USS Mt. McKinley, have been using an unusual procedure to control corrosion. They brush petroleum jelly onto the exterior of all gearboxes. When the gearbox is in operation and heat is generated, the jelly melts and runs together. This process enables the jelly to coat the entire gearbox with a corrosion-resistant film. Care should be taken not to use an excessive amount of jelly during application and, after the box has cooled, all drippings or run-off must be removed from the fuselage and adjacent areas.

D. R. Tancredi, Field Service Representative

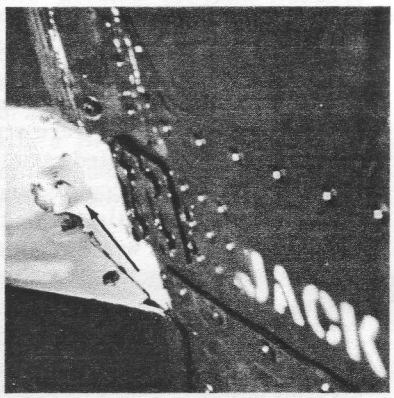
Jacking The Helicopter (UH-2)



VIEW A



VIEW B

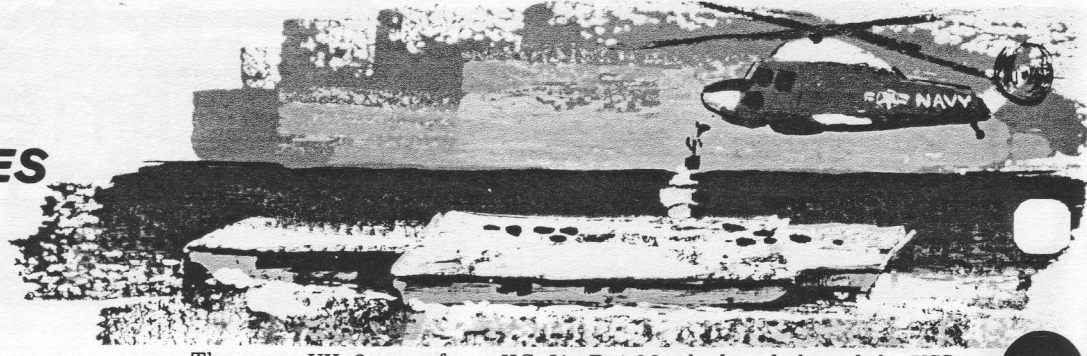


VIEW C

When jacking the helicopter, always make certain the head of the jack is centered against a solid jacking point. The accompanying views show the location of the five jacking points on the UH-2; three on the fuselage and one on each main landing gear. Markings on opposing sides of the aft fuselage point downward to the jacking point just forward of the tail wheel as shown in View A. The location of the jack pad on each landing gear is shown in View B. View C shows one of the two jack points on the FWD fuselage beneath the cabin, just inboard of the main landing gear lower fuselage fitting. Look for the words "JACK HERE," adjacent to the jack point.

H. Zubkoff, Service Engineer

SEASPRITE ACTIVITIES



...The same UH-2 crew from HC-2's Det 38, deployed aboard the USS Shangri La, made two rescues within three days. Lt(jg) Peter R. Moore and his crew were flying plane guard when informed that a pilot was ejecting from a crippled F-8. A minute later the copilot, Lt(jg) Patsy D. Scango, spotted the survivor, and Kenneth N. Holder, AN, lowered the rescue seat. The pickup was made without incident despite high winds and rough seas. The survivor reported afterward that the entire UH-2 crew "functioned in an outstanding and highly professional manner." The other crewman aboard the SEASPRITE was William E. Weibel, AE3. ...Two days later, an officer who was swept overboard during refueling operations was plucked from the ocean and back aboard the carrier nine minutes later. Both UH-2 pilots had high praise for the manner in which Weibel handled the hoist and gave directions during the pickup from heavy, wind-driven seas. The Petty Officer used the emergency system to operate the hoist after it malfunctioned,and also managed to bring the rescue seat within reach of the survivor who was encumbered by a large life preserver and heavy jacket which limited his movements in the water.

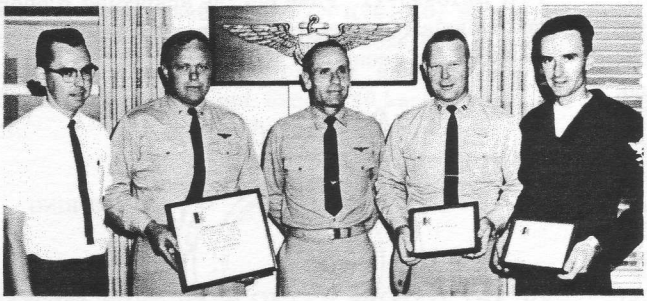
...In a night evacuation during poor weather, a Navy dependent in need of an emergency operation was flown to the Naval Hospital at Bremerton, Wash., by a UH-2 crew from NAS Whidbey Island. LCdr Robert L. Wheeler, the SEASPRITE pilot, made the entire flight on instruments. Others aboard the SEASPRITE were Lt(jg) W. A. Ryan, copilot, and P. L. Nelson, AN, crewman.

...A UH-2 crew from HC-7, NAS Atsugi, Japan, made a 400-mile, over-water flight to evacuate a smoke inhalation victim from the submarine USS Diodon. Despite high winds, the pickup was made without incident and the patient was taken to the Yokosuka hospital. SEASPRITE pilot was Lt Donald D. Confer; Lt(jg) Brit R. Armstrong was copilot; W. E. Stearns, ADJ1, and Z. K. Dunbar, HM1, crewmen....In another mission, a SEASPRITE crew from HC-7 took off in marginal weather and gathering darkness to evacuate a seriously-ill patient from the USS Monticello. Later, after the helicopter had flown 90 miles, the ship asked that the UH-2 return to base until daylight. The next day the helicopter again flew through marginal weather, landed on the ship, and evacuated the patient. Crew of the UH-2 were, Lt Robert Nowak, pilot; Lieutenant Armstrong, copilot; Lt S. H. Libien (MC), doctor; J. M. Brandon, ADJ3, and M. J. DeAndressi, AN, crewmen.

...A UH-2 crew from the SAR unit at NAAS Chase Field, Tex., evacuated a seriously injured sailor to the hospital at Lackland AFB for immediate surgery. SEASPRITE pilot on the mission was Lt Jon W. Walker and the copilot was Lt Edward R. Sager. Lt Glenn H. Reed (MC), accompanied the patient on the flight and W. C. Hickman, HM3, was crewman.

...A pilot who bailed out of his crippled aircraft and landed in the water was hoisted to safety just 19 minutes later by a UH-2 from the SAR unit at NAS Pensacola, Fla. During that time, Chief Air Controlman (AP) D. L. Barnes, pilot of the SEASPRITE, and his crew scrambled, flew 23 miles from the base, located the downed airman despite the sun's reflection on the water and made the pickup. With Chief Barnes were the copilot, AFCM/AP A. P. Metrolis; doctor, Lt D. R. Platt (MC), and crewmen, ADR3 T. Emma and ADR3 J. L. Godfrey.

...UH-2 pilot Capt Richard Caramanno and his crew from the SAR unit at MCAS Cherry Point, N.C., responded to a call that fire fighters were stranded on an island northeast of Cherry Point. Within 20 minutes the helo arrived on the scene and airlifted six civilians to MCAS Cherry Point. Other members of the SEASPRITE crew were Cpl Richard W. Porter, copilot, and SSgt Douglas G. Kirby, crewman....In other UH-2 missions, a civilian suffering from a respiratory ailment was flown from MCAS Cherry Point to MCS Camp Lejeune for medical treatment. Capt William W. Crews was SEASPRITE pilot and Corporal Porter, copilot. Others aboard the UH-2 were Lt James H. Blade (MC), doctor, and Sergeant Kirby, crewman....In a night mission, a SEASPRITE crew picked up a baby in an incubator, a doctor, and a corpsman and flew them to the Naval hospital at Camp Lejeune. Members of the UH-2 crew were, Captain Caramanno, pilot; SSgt Oakley F. Atkins, copilot; Lt F. E. Dement, (MC), USN; LCpl Howard P. Thurlow; and Robert H. Reed, HN, crewmen....A UH-2 crew from the SAR unit launched after two aircraft collided in mid-air a few miles from the air station. Capt Norman A. Urban landed and picked up one survivor, then airtaxied 100 yards and picked up another. Both men were uninjured. Corporal Porter was UH-2 copilot and Sergeant Kirby was crewman....In another mission flown by the Cherry Point SAR unit, Captain Urban and his UH-2 crew picked up an injured seaman from the trawler John D. Deal 25 miles from the station and 15 miles at sea. The fishpole was used to lower the sling through the gathering dusk to the deck of the trawler. Then, while the SEASPRITE hovered over the stern of the ship, the sling was put on the seaman by his shipmates — but they put it on backwards! This was quickly corrected when directions were given over the loudhailer on the UH-2 and the sailor was safely hoisted aboard the rescue helicopter. He was attended on the flight to the hospital by Michael C. Notzon, HM3. Crewmen on the flight were Sgt Jerry L. Leinart and Corporal Porter.

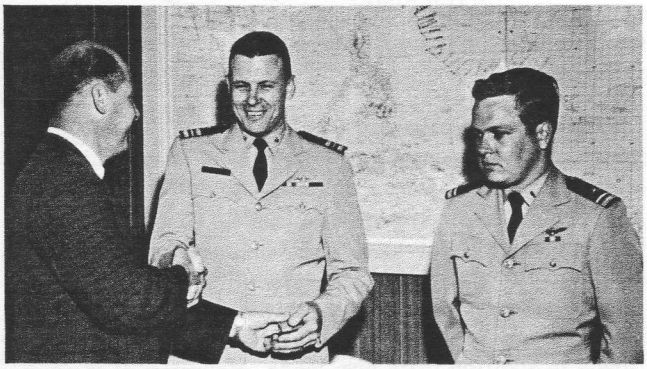


CHASE RESCUEMEN HONORED—More than a dozen Navymen were presented Mission Awards by Kaman Aircraft recently for their humanitarian work in aiding victims of hurricane Beulah. During a four-day operation, they participated in numerous missions flown by UH-2s from the SAR unit at NAAS Chase Field, Texas. Shown with Thomas Leonard, Kaman service repsentative, are: left to right, front row, PH2 J. C. Dollar, ADJ1 R. J. Phillips, AME1 Q. Locklear, ADJC M. D. Winfield, ADJ3 G. J. Hunt, and ATN3 D. L. Spillars. Rear row, LCdr L. D. Flick, Leonard, LCdr J. F. Brandau, Lt G. H. Reed (MC), Lt J. W. Walker, Lt(jg) T. R. Paterson and Cdr R. R. Romaine. Lt E. R. Sager, HMC J. A. Ledgerwood, and HN G. A. Pruitt also received mission awards. In second photo, LtCommander Brandau, Lieutenant Walker and Petty Officer Hunt display Scrolls of Honor they also received from Kaman for a hazardous mission flown in near-hurricane conditions to rescue an officer stranded atop his car by raging flood waters. Capt G. E. Peddicord, commanding officer, center, made the presentations. Leonard is at left. (USN photos)

UH-2 Makes Historic Landing

USS Wright, PAO ... Crewmembers of the USS Wright (CC-2) witnessed history in the making as the ship steamed south off the coast of New York in early January. The event was the 2500th helicopter landing on the ship since her recommissioning as a Communications Command ship in 1963. RAdm J. R. Wadleigh, Commander Cruiser-Destroyer Flotilla Four, highlighted the event as a passenger in a UH-2 SEASPRITE on the history-making flight. All branches of the service have contributed to the latest high water mark. Navy, Marine, Army, Air Force, and Coast Guard helos have whipped Wright's antenna deck with their rotors during the last few months.

Rear Admiral Wadleigh came aboard the Wright in high style despite the bitter cold weather and icy winds. Enthusiastic crewmembers greeted the Rear Admiral and looked on as Capt F. M. Romanick, commanding officer of the Wright, welcomed him aboard for his trip to Norfolk, Va. The Commander of the Norfolk-based flotilla thanked the Captain and presented the helo's pilot, Lt(jg) J. R. Williams, with a Bravo-Zulu flag for a job well done. Cake-cutting ceremonies were conducted later on the mess decks with Rear Admiral Wadleigh doing the honors.



MISSION AWARDS—Donald R. Tancredi, left, Kaman service representative at NAS Atsugi, Japan, presents Kaman Mission Awards to LCdr B. R. W. Staats, Operations flight support officer, and Lt(jg) B. Roger Armstrong, right, Operations air terminal officer. The two officers piloted a UH-2 SEASPRITE to a ship 90 miles offshore to evacuate a seriously injured sailor to the Yokosuka Naval Hospital. Lt Marv Saunders (MC), and Z. K. Dunbar, HN1, who accompanied them on the mercy mission, received similar awards from the Company. (USN photo by PH2 Charles Graham, Fleet Air Photo Lab)

WELL DONE—RAdm J. R. Wadleigh, right, presents UH-2 pilot Lt(jg) J. R. Williams with a Bravo-Zulu flag in recognition of his accomplishment in making the 2500th helicopter landing on board the USS Wright. (USN photo)

Q's AND A's

If you have a question regarding Kaman Aircraft maintenance, send it along to Rotor Tips. The Service Department's engineers will be glad to answer it.

Q. (Applies HH-43, UH-2) SHOULD FLEX CONTROL CABLE BE USED AS A SUBSTITUTE STATIC GROUND WIRE?

A. No. Flex control cable is not recommended for use as a static ground because it lacks the rigidity necessary to maintain positive contact with the ground. The static ground wire is an essential safety measure and should always be in contact with the ground until the aircraft is airborne. In the event the correct wire is not in supply and a temporary substitute must be made, select a wire rigid enough, or with enough built-in spring, to press firmly against the ground. Attach the wire with bare metal clamps, not insulated rubber clamps.

H. Zubkoff, Service Engineer

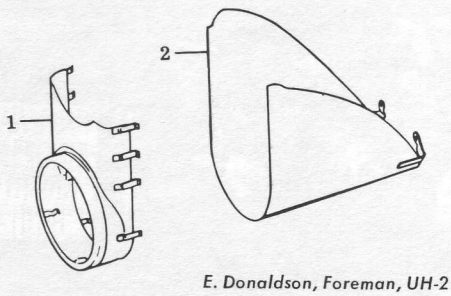
Q. (Applies UH-2) WHAT PRECAUTIONS SHOULD BE OBSERVED BEFORE USING PAINT REMOVER ON THE FUSELAGE?

A. Refer to the Structural Repair (NAVAIR 01-260HCA-3) or the Airframe Maintenance Manual (NAVAIR 01-260HCA-2-2). Remove or mask all fiberglass fairings, panels and doors. It is important that no paint solvents can come in contact with the fiberglass surface. If the remover is allowed to contact the fiberglass, it could so saturate and soften the material that replacement would be necessary. If the fiberglass becomes deformed, it could restrict movement of mechanical parts or "peel" during flight. In the event solvents do accidently come in contact with fiberglass, it must be immediately washed off with mild soap and water.

H. Zubkoff, Service Engineer

Q. (Applies UH-2A/B) WHAT ARE THE PART NUMBERS FOR THE SPEED DECREASER GEARBOX HEAT SHIELDS?

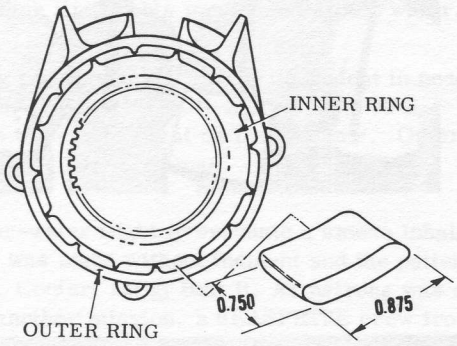
A. As shown in the illustration, SDG heat shields comprise two parts. The forward part (1) is identified as P/N 573D381P001, FSN 2RM2840-719-9214PGEC. The aft part (2) is identified as P/N 595E816G001, FSN 2RD2840-724-0636PGEC.



E. Donaldson, Foreman, UH-2 PAR/Mod

Q. (Applies UH-2) IF EXCESS PLAY IS NOTED IN THE BLADE RETENTION PITCH STOP ASSEMBLY ON THE MAIN ROTOR BLADE, WHAT COULD BE THE CAUSE?

A. Excess play in the pitch stop assembly is probably caused by improper installation of the rubber compression blocks. The blocks must be installed as shown in the illustration. Notice that the blocks are contoured to fit the opening provided and also, that they are slightly wider than long. If installed incorrectly, a slight gap will exist on both sides of the block. This gap may not be obvious to the naked eye, but under loads the inner and outer rings will be able to move radially. If repositioning is necessary, remove the pitch-lock nut, P/N K618492-11. Push out the suspected rubber blocks and reinstall correctly. When reinstalling the nut use Locktite for security.



W. J. Wagemaker, Service Engineer

Q. (Applies UH-2) WHAT ARE THE FUNCTIONS OF THE NUMBER 2 GENERATOR?

A. The number 2 generator has a two-fold mission: to supply power for main rotor blade deicing and, to be available as a back-up generator in the event the number 1 generator fails. If the number 2 generator fails, the number 1 will automatically assume the deicing loads in addition to its own loads. However, if the number 1 generator fails while rotor deice is in operation, the number 2 will assume all loads except the AC monitor bus loads. This means that cabin and windshield heat, APN-130, ARN-21 or -52 will be off the line. If rotor deice is not needed, the number 2 generator will supply power to the AC monitor bus. The number 2 generator is capable of supplying the required emergency power (15KVA) for 150 hours.

J. J. McMahon, Service Engineer

Q. (Applies UH-2) WHICH ENGINE BELLMOUTH ASSEMBLIES ARE AFFECTED BY AFC 134?

A. The bellmouth assemblies affected by AFC 134 are: K677002-7, -105 and -107. Although the AFC does not specifically call out the -7 or the -105 by part number, they are referred to as "Reference (f)." Reference f is AFC 62, Revision A, which modifies the -7 assembly and reidentifies it as the -105 assembly. AFC 62, Revision A, and AFC 134 may be accomplished concurrently.

H. Zubkoff, Service Engineer

Q. (Applies HH-43) WHAT PREPARATIONS SHOULD BE MADE BEFORE AIRLIFTING A DOWNED HH-43?

A. The following general preparations should be made before airlifting a HUSKIE but, as usual, local conditions will dictate the exact method used.

Rotor Blades: (1) Install blade tiedowns and fold rotor blades. (2) Secure the two forward blades to each other; repeat for the two aft blades. (3) Lock droop stops in retracted position. (4) Lock rotor brake.

Fuselage: (1) Lock tail surfaces in neutral. (2) Check and secure all cowling and movable surfaces. (3) Close and lock all doors.

Lifting: (1) Sling assembly, P/N K704010, should be used. (2) Lift with a 3 to 8 degree nose-up attitude to provide best trailing; use ballast as required. (3) Lifting aircraft should not exceed 40 knots in forward flight.

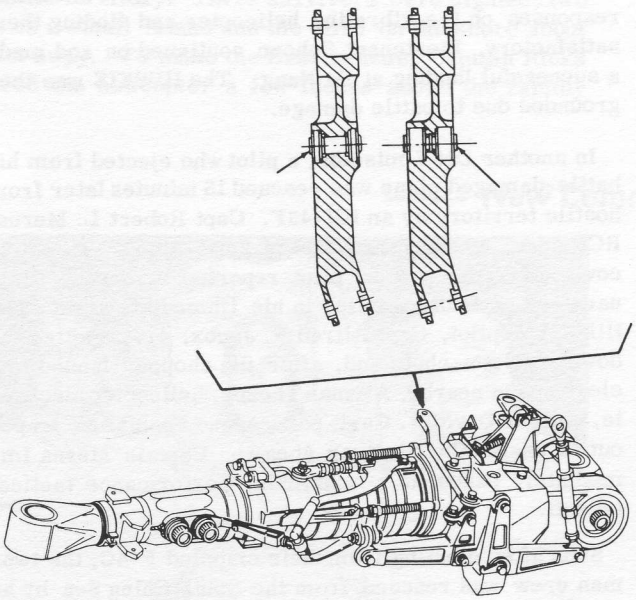
R. A. Reynolds, Field Service Representative

Q. (Applies UH-2) HOW OFTEN SHOULD THE RETENTION LEVER ASSEMBLY PIVOT BEARINGS BE REPLACED?

A. Replacement of pivot bearings is dependent on which lever assembly is in use. Replace the bearings in accordance with the following intervals and directives:

Lever Assembly	Interval	Directive
P/N K659141-103	250 Hours	IAB 73
P/N K659598-1	400 Hours	IAB 135

The difference in the two lever assemblies is a result of AFC 125 which provides for a rework of the K659141-103 assembly in order to install larger pivot bearings. The arrows in the illustration point to the pivot bearings, on the right is P/N K659598-1 lever assembly; K659141-103 is on the left.



W. J. Wagemaker, Service Engineer

Q. (Applies UH-2) AFC 81 INSTALLS A DIRECTIONAL VELOCITY LIMITER. WHAT IS ITS FUNCTION?

A. The purpose of the directional velocity limiter is to prevent structural damage to the tail rotors and tail rotor pylon through inadvertent rapid full pedal inputs. Also, the limiter provides the pilot with control "feel" which helps to reduce the tendency to overcontrol. The limiter does this by offering resistance to control inputs; the faster the input, the greater the resistance. The damping action of the limiter ceases when the hydraulic boost is turned off.

C. D. Morse, Service Engineer

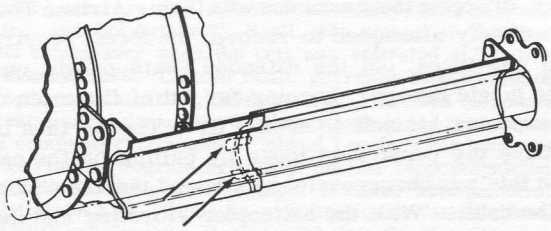
Q. (Applies UH-2) SHOULD MAIN ROTOR BLADE FOLDING PINS BE DISCARDED IF THEY HAVE BECOME STAINED?

A. Not necessarily; stained folding pins may only require a thorough cleaning. It is not unusual for a folding pin to become discolored on the unloaded side due to moisture. If this happens, the pin should be cleaned with crocus cloth. If removal of stains necessitates exposure of the base metal, the pin should be discarded. This same procedure should be used when attempting to seat a folding pin. Remove high spots by vigorously rubbing with crocus cloth. Discard a folding pin if it is nicked, dented or has scratches which expose the metal under the silver. Minor scratches may be blended out with crocus cloth.

W. J. Wagemaker, Service Engineer

Q. (Applies UH-2A/B) WHAT IS THE FSN FOR THE ENGINE DRIVE SHAFT HEAT SHIELD ASSEMBLY, P/N K670024-1, RECENTLY INTRODUCED INTO THE SUPPLY SYSTEM?

A. The heat shield assembly may be ordered by using FSN RM1560-066-7612 AKAT. The heat shield is a two-piece assembly as shown in the illustration. The forward part is installed onto the engine using the same bracket and hardware used to install the K670008-7 heat shield. The arrows point to spring clips incorporated on the inboard side of the forward part. When installing the aft part, it should be inserted into the spring clips and then bolted to the speed decreaser gearbox. This provides one heat shield assembly comprising two halves, each of which incorporates provisions for thermal expansion. Due to the increased length of the assembly, it will afford heat protection to the drive shaft from the power turbine flange back to the SDG. The expansion provisions will eliminate heat induced distortion and the accompanying drive shaft chafing.



H. Zubkoff, Service Engineer

KAMAN SERVICE ENGINEERING SECTION—*E. J. Polaski, Supervisor, Service Engineering, G. M. Legault, Asst. Supervisor.*

Southeast Asia

FLYING MEDIC—Tuy Hoa(7AF)...A1c Paul J. Volges, rides the jungle penetrator on another mission of mercy. Volges, an aeromedical technician with Det 11, 38th ARRSq at Tuy Hoa AB, has voluntarily risked his life on three occasions to search hostile territory for crash survivors. On two occasions he was ordered to leave the scene due to approaching enemy forces. During another mission he braved enemy ground fire to run 250 yards down a beach to recover the pilot's body from a crashed helicopter. Assisting Volges is SSgt William O. Johnson, flight engineer on the HH-43. Maj John J. Elliff detachment commander, is the pilot. (USAF photo)

ARRS HEAD IN SEA—Binh Thuy(7AF)... BrigGen Allison C. Brooks, commander of the Aerospace Rescue and Recovery Service, inspects the speaker system on an HH-43F HUSKIE rescue helicopter at Binh Thuy AB during a recent visit. Maj Harold Pickering, commander of Det 10, 38th ARRSq, explains some of the uses he has made of the system while controlling rescue operations. (USAF photo)

Heavy enemy ground fire slammed into the hovering HH-43F as the crew prepared to bring seriously wounded marines aboard but, despite excessive vibration and loss of rotor RPM, 1stLt William T. Sehorn managed to bring the crippled helicopter "home." Home in this case is Da Nang AB where Det 7 of the 38th ARRSq is stationed.

The mission began when the HUSKIE crew scrambled for an emergency medical evacuation of marine casualties from a mountainous jungle area 11 miles from Da Nang. With Captain Sehorn were Capt Donald D. Sams, the copilot; SSgt John H. Stemple, pararescue specialist; and A1c Edward L. Thorpe, flight engineer. Two UH-1B gunships at the site advised that Pedro, the HH-43, was cleared for pickup so Lieutenant Sehorn established a 150-foot hover which he held for 10 minutes while the ground party attempted to load their wounded on the forest penetrator. During this time, Airman Thorpe's "clear and precise voice procedures" enabled holding the helicopter in such a position that the penetrator could be kept clear of trees, while Captain Sams and Sergeant Stemple advised as to blade clearance from the surrounding obstructions. Difficulty in placing the wounded on the penetrator was being experienced by those on the ground, and Sergeant Stemple was just preparing to go down the hoist to assist when heavy ground fire from just outside the clearing forced the marines to dive for cover, dragging their wounded with them. Airman Thorpe immediately attempted to recover the forest penetrator from the trees, but the extended seats caught on the dense jungle canopy. Leaning far out of the cabin door and exposing himself to enemy fire, Thorpe then tried to shake the penetrator loose by pulling on the cable. When this was unsuccessful he advised the Lieutenant to cut the cable. With the helicopter vibrating and losing RPM due to damage from the ground fire, the pilot quickly cut the cable; with sufficient RPM regained, he then skilfully avoided the surrounding trees while translating into forward flight down the steep hillside toward a safe emergency landing zone. After checking the control responses on the vibrating helicopter and finding them satisfactory, Lieutenant Sehorn continued on and made a successful landing at Da Nang. The HUSKIE was then grounded due to battle damage.

In another Det 7 mission, a pilot who ejected from his battle-damaged plane was rescued 15 minutes later from hostile territory by an HH-43F. Capt Robert L. Merna, RCC, decided to make the pickup without protective cover after the downed pilot reported numerous Vietnamese, probably hostile, in his immediate area. The HUSKIE copilot, Capt Alfred R. Jacox, Jr., spotted the downed pilot's chute and, after the chopper landed in a clear space nearby, Airman Thorpe, helicopter mechanic, and A2c David A. Carl, pararescue specialist, leaped out to assist the survivor aboard. Captain Merna immediately executed a maximum performance tactical takeoff.

Soon after ejecting from their crippled F-4C, the two-man crew was rescued from the South China Sea by an HH-43F from Det 7. The HUSKIE, piloted by Captain Merna, was orbiting the base to assist in case of a crash landing when word came that it had been decided to eject

over the water. The helicopter rescue crew headed for the open sea, pausing on the way to set down their fire suppression kit on Monkey Mountain. A few minutes later both survivors were picked up. Captain Sams was copilot of the HH-43. Crewmen were SSgt Vernon D. Taylor and A1c Herman R. Singleton.

Two missions less than two hours apart — it was a busy but rewarding time for HH-43F pilot Capt Keith H. Ricks and his copilot, Capt Robert L. Osborne, from Det 9, 38th ARRSq, Pleiku AB. In the first mission, described as a perfect example of the ARRS local base rescue system, the HUSKIE crew scrambled with a fire suppression kit when a Vietnamese C-46 with 25 persons aboard crashed on takeoff, veered off the runway and plunged over a 30-foot embankment. With one engine afire, the plane came to rest astraddle a large section of concertina barbed wire which made it impossible for the base fire trucks to get close to the aircraft. As the Vietnamese passengers hurriedly left the C-46, Captain Ricks positioned the FSK and the airborne firefighters, A1c Robert L. Morzenti and Felipe A. Quiroz, leaped out and began extinguishing the blaze. The HH-43 pilot then hovered over the crash and used the rotor downwash to blow smoke and heat away from the passengers. With the fire out and evacuation completed, the HUSKIE took the C-46 pilot to the hospital. He was the only one seriously injured in the crash.

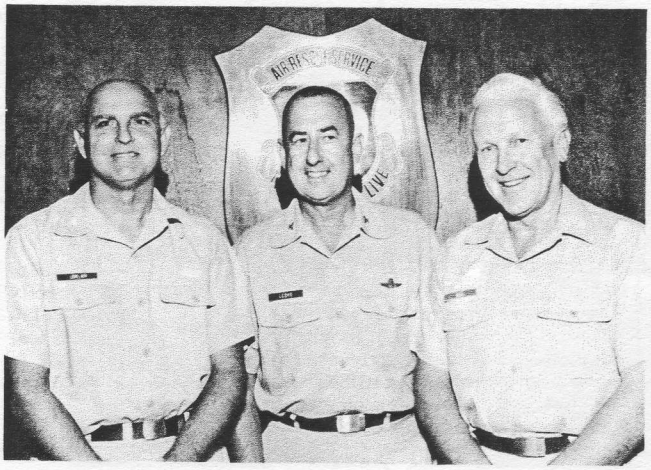
The second mission, made under unusual circumstances, involved two HH-43F's from the detachment and resulted in the saving of four lives after an Army helicopter crashed in a swift-flowing river running through the jungle. One of the rescuees was a young woman employed as a Red Cross field office assistant.

Captains Ricks and Osborne took off in the HUSKIE as soon as word was received of the crash. With them were SSgt Arthur L. Wood, flight engineer, and A1c John A. Smith, pararescueman. The rescue helicopter was accompanied by fighter escort since the river was located in hostile territory. Three survivors were sighted, two were on a small island and the third on the shore about 30 feet away. To make the first rescue, Captain Ricks hovered the helicopter a few inches above the rapidly running water — ascertained later to be flowing at 35 mph — and the survivor was hauled aboard by Sergeant Wood and Airman Smith. The other survivor was able to mount the forest penetrator without difficulty. Meanwhile, the third survivor was hoisted to another Det 9 HUSKIE which had arrived on the scene. Maj Richard A. Smith was pilot of the second HH-43 and Capt Francis B. Gilligan was copilot. Crewmen were A1c Jose C. Abara, flight engineer, and A2c David B. Ortiz, pararescueman. A2c Robert E. White, a photographer, was also aboard. Major Smith and his crew had been on a local training mission when word of the helicopter crash was received.

The search continued when it was learned there had been nine persons on the downed helicopter instead of the three originally reported. The Red Cross worker was found lying on a small rock, apparently injured and in shock. Major Smith came to a hover over the island and Airman Ortiz was lowered to the slippery rock by Airman Abara. She was placed in a litter and hoisted to the HH-43. A minute or two later the low fuel light came on so Major Smith headed for the base at Kontum to refuel and get medical aid. Several heavy rainstorms were encountered on the way. Meanwhile, as Airman Smith administered first aid to the two rescuees, Captain Ricks continued the search for other survivors. After 50 minutes, the bad weather and approaching nightfall finally forced him to head for Kontum. On the way, the rain became so heavy the HH-43 pilot dropped down to within 50 feet of a road and followed it to Kontum. Each time the helicopter was raised to clear the trees, the pilot went to instrument conditions until the ground could again be spotted. Other helicopters at the base turned on their navigation lights to give the HH-43 pilot reference for landing. When the weather improved, both HUSKIES transported the survivors to the hospital at Pleiku.

An HH-43 crew from Det 10, 38th ARRSq, Binh Thuy AB, rescued three crewmen from an Army aircraft that crashed in a rice paddy 26 miles north of the base. Constant cover was flown by USAF fighters as the pickup was made and a small patrol of ARVN troops also entered the area to provide close ground support against possible hostile action. Capt Armand J. Fiola was pilot

—— New Commander ——



SAIGON(7AF)—Col Paul E. Leske, center, who recently took command of the 3rd Aerospace Rescue and Recovery Group, meets with his predecessor and another former group commander following ceremonies at Tan Son Nhut AB. Congratulating Colonel Leske are Col Albert P. Lovelady, left, outgoing commander, and Col Arthur W. Beall, who served as the first 3rd ARRG commander when the unit was activated at Tan Son Nhut in January, 1966. Colonel Beall, currently deputy chief of staff for operations at ARRS, Orlando AFB, Fla., was on a staff visit to rescue units throughout Southeast Asia at the time of the change of command ceremonies. Colonel Lovelady has been reassigned as system program director in the Life Support Systems Program Office, Aeronautical System Division headquarters, Wright-Patterson AFB. Since its organization at Tan Son Nhut, the 3rd ARRG received the Presidential Unit Citation for outstanding search and rescue support given Seventh Air Force and other Free World Forces in Southeast Asia. (USAF photo)

TO THE RESCUE—Phu Cat(7AF)...An HH-43 HUSKIE helicopter from Det 13, 38th ARRSq at Phu Cat AB, hovers while a hoist is attached to the fire suppression kit carried on local rescue missions. The unit responds to calls for recovery of downed pilots, air evacuation missions and local in-flight emergencies. Recently, an HH-43 from the detachment made a hazardous night flight over a mountainous area near the South China Sea to evacuate an airman suffering from extensive phosphorous burns and a serious hand injury. The aircraft was under fire for several minutes during the mission. Capt Harold L. Hering was pilot on the flight and 1stLt Ronald P. Wojack was copilot. Crewmen were TSgts Delmer R. Smith and Arthur J. Cole. In an earlier mission, a critically-ill patient was evacuated to the hospital by an HH-43 crew consisting of 1stLt James E. McLain, pilot; Lieutenant Wojack, copilot; Capt Jerald B. Turner (MC), flight surgeon; and A1c Curtis E. Nickles, crewman. This was the 616th save made by ARRS this year and equaled the total number of saves for 1966. (USAF photo)

of the HUSKIE and Captain Shea was copilot. Crewmen were TSgt Walter H. May, flight engineer, and A2c James L. Parks, paramedic.

Four Vietnamese Regional Force soldiers seriously injured in an ambush, were evacuated by an HH-43F piloted by Capt James H. Brahney, RCC, and Captain Shea. The evacuation was made from a highly hostile area with constant air coverage being furnished by an Army helicopter fire team. The injured were treated on the way to the hospital by TSgt Clyde R. Ross, pararescueman. The speedy evacuation was credited with saving the lives of the soldiers.

Det 10 HUSKIES have also been involved in a variety of other missions. Four search sorties totaling two hours and 30 minutes were flown in poor visibility and at night by an HH-43 crew in attempt to locate a downed pilot. The pilot had been on an airstrike in support of an outpost under seige when his plane crashed in an area covered by a layer of smoke from fires set by the attacking forces. Disregarding the danger, the helicopter crew landed and checked the wreckage but found no sign of the pilot. The hazardous search then began and was only suspended later because of ground fire. The next day the pilot was found in the wreckage which was almost submerged by water in a rice paddy. Capt Harold Pickering was pilot on the mission and Lieutenant Goza, III, copilot. A1c Larry E. Hawkins was flight engineer and Airman Parks, pararescueman.

Maj James F. Jansa, HH-43 rescue crew commander from Det 6, 38th ARRSq, Bien Hoa AB, has accumulated 3000 hours as a helicopter pilot during the last 10 years. The "most difficult flying" he ever experienced in that time took place recently during the mountainside rescue of two Vietnamese and a Swiss National from their crashed helicopter. Sharing in the hazardous mission were Capt Charles I. Rice, the copilot, A1c Thomas M. Alves, mechanic, and A2c Gunther Bahrenburg, pararescueman.

After a 60-mile flight through rain showers and very low ceiling, the wreckage was located at 3000 feet in a ravine which pierced the steeply sloping mountainside. As Major Jansa held a hover among 150-foot trees and below overhanging branches, Airman Bahrenburg was lowered and prepared the two injured Vietnamese for hoisting. For 40 minutes — as the ceiling gradually lowered and cloud wisps were pulled through the rotor system — the pilot held the HUSKIE in the hover. Finally, with the Vietnamese and airman aboard, the helicopter eased out of the precarious spot and headed for Bao Loc so the survivors could be questioned. There it was learned a third man was still pinned in the wreckage. Plans were immediately made to rescue him; however, the evacuation attempt failed due to a cloud bank on the mountain. A second try was thwarted by fog and extremely heavy rain. Afterward, a damaged blade was temporarily repaired with cloth tape, but nightfall and continued heavy rain prevented further attempts that day. The next morning the first and second flights also failed due to fog but, at noon the ceiling lifted just as a ground party reached the crash site. The HH-43 reached the area a few minutes later and 20 minutes of the "most difficult hovering" were expended while repeated attempts were made to lower the litter through the dense trees. Finally a chain saw was lowered and some of the trees felled. As the litter was being hoisted the fog again closed in but the pilot used a large tree, five feet from the rotor blades, as a reference and gently moved down the mountain away from the dangerous site. The area was not considered secure but, luckily, no hostile ground fire was encountered.

In another Det 6 mission, a pilot who bailed out of a crippled F-100 at night, was rescued from a "patchy" jungle area a short while later by an HH-43 flown by Major Jansa. The pickup was made without incident. Other members of the rescue crew were Captain Rice,

continued on page 18

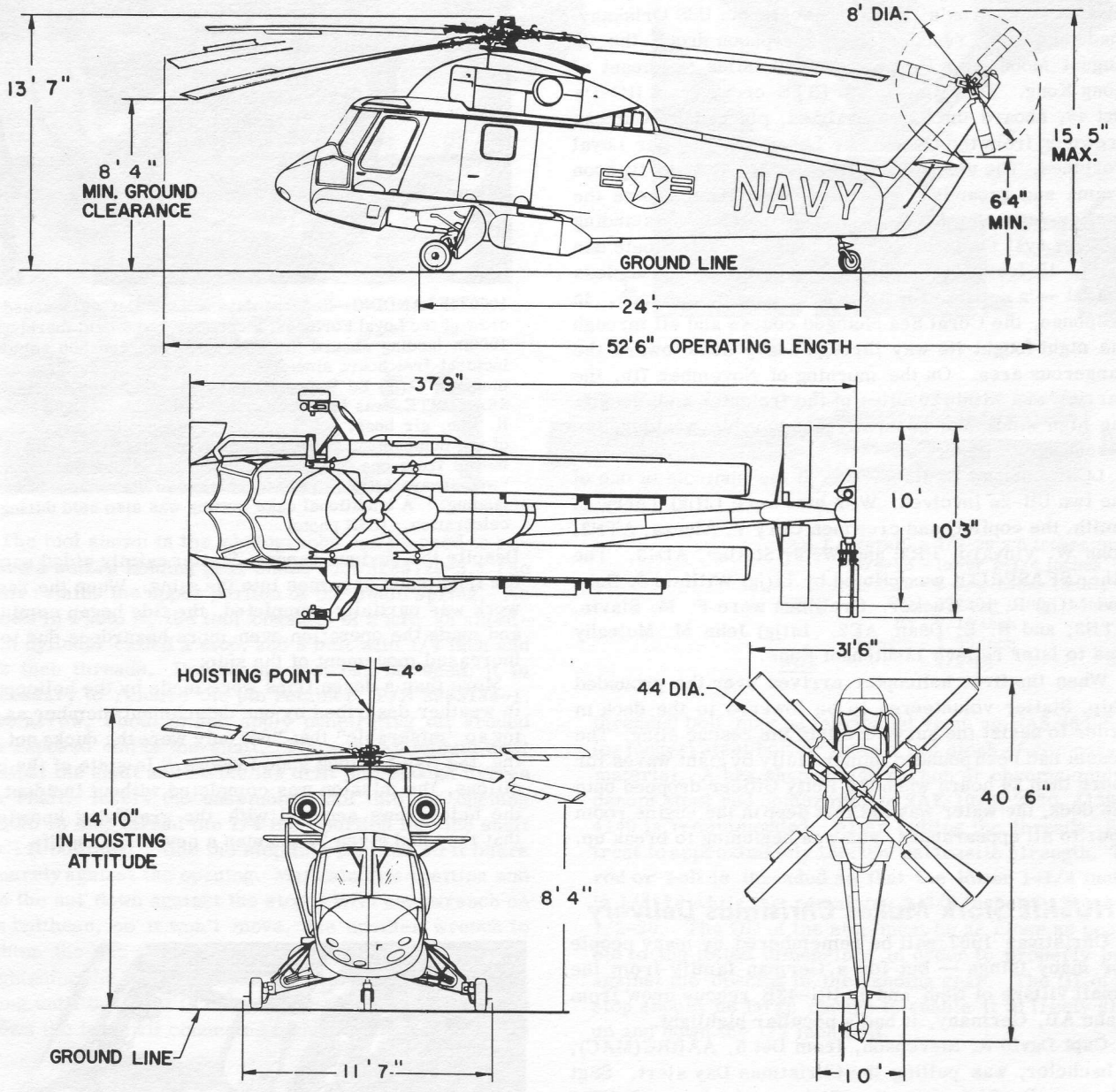
Captain Weist Honored

Capt David L. Weist, an HH-43 pilot from Det 6, 38th ARRSq, Bien Hoa AB, was awarded the Silver Star recently for the night-time rescue, while under fire, of a downed F-100 pilot. Low clouds obscured tall trees in the rescue area and also hampered the effectiveness of on-the-scene aircraft in providing cover for the HUSKIE. As the downed airman was hoisted to the helicopter on a forest penetrator, both he and the helicopter came under hostile fire.

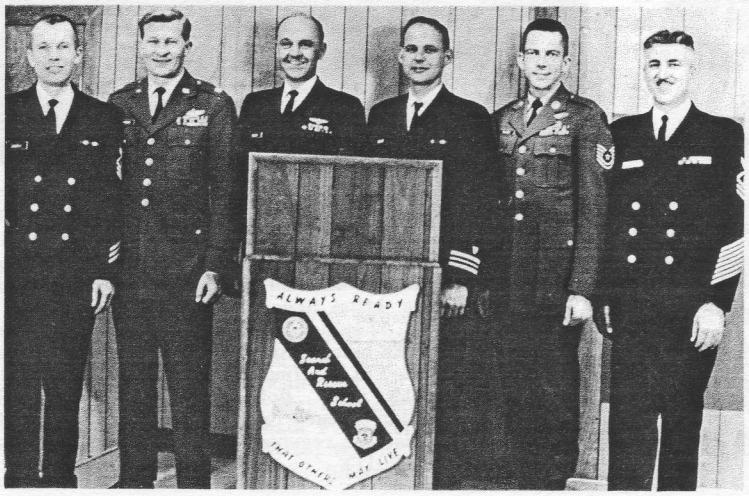
UH-2A/B/C PRINCIPAL DIMENSIONS

Although the UH-2C incorporates a step-cambered tail rotor pylon and an additional engine, its principal dimensions are the same as those of the UH-2A and UH-2B. Therefore, even though only the UH-2C configuration is shown here, the dimensions apply to all three models. The information will be incorporated in all UH-2 manuals at the next scheduled change.

by *N. E. Warner*
Service Engineer



USCG-USAF SAR School



RESCUE EXPERTS—Air Force and Coast Guard personnel attending the USCG-USAF SAR School at the Coast Guard Base on Governor's Island, N. Y., will probably, with one exception, meet the instructors pictured. From left to right are, QMC Gary Dowell, USCG, maritime instructor; Maj Paul Gerblick, USAF, head, aerospace studies; Cdr C. C. Hobdy, USCG, officer-in-charge; LCdr Chuck Busby, USCG, head, maritime studies; TSgt Dave Milsten, USAF, aerospace instructor; BMC Pat Patterino, USCG, who retired recently. Said to be the world's first organization to specialize exclusively in search and rescue operations, the school's four-week courses cover all aspects of SAR in every conceivable environment — over water, under water, inland and even in outer space. Included is instruction on the HH-43 HUSKIE and UH-2 SEASPRITE.

HC-1 SEASPRITES RESCUE 37

A year after rescuing 47 sailors from a British ship grounded on a reef in the South China Sea, HC-1 SEASPRITES answered another call for assistance from the same area and airlifted 37 men to safety. UH-2 crews from the squadron's Det Golf, aboard the USS Oriskany, made the 1966 rescues after a typhoon drove the SS August Moon onto Pratas Reef 180 miles southeast of Hong Kong. This time SEASPRITE crews from HC-1's Det 43, aboard the USS Coral Sea, plucked 37 Chinese crewmen from the deck of the Lebanese freighter Loyal Fortunes. The vessel struck Pratas Reef during typhoon Emma and grounded about ten miles from where the earlier rescues took place. HMS Manxman was standing by the Loyal Fortunes but was unable to send boats due to the 15-foot waves which were battering the hapless vessel — a call was sent for helicopter assistance. In response, the Coral Sea changed course and all through the night fought its way through heavy seas toward the dangerous area. On the morning of November 7th, the carrier was within 20 miles of the freighter and, despite the high winds and generally unfavorable weather, the rescue operation began.

LCdr Norman L. Haney was at the controls of one of the two UH-2s involved. With him were Lt(jg) Terry L. Smith, the copilot, and crewmen Gary V. Alenza, ATN3; John W. Vinyard, PR2; and W. J. Statler, ADJ3. The other SEASPRITE was piloted by Lt(jg) William J. Ruhe and Lt(jg) R. K. Tucker. Crewmen were F. M. Slavin, ATN3; and R. E. Dean, AE2. Lt(jg) John M. Mulcahy was to later relieve Lieutenant Ruhe.

When the first helicopter arrived over the grounded ship, Statler volunteered to be lowered to the deck in order to assist the survivors into the rescue sling. The vessel had been pounded unmercifully by giant waves for more than 24 hours when the Petty Officer dropped onto the deck, the water was six feet deep in the engine room and, to all appearances, she was beginning to break up.

1000TH LANDING—Several days before Det 43 rescued the crew of the Loyal Fortunes, a ceremony was held marking the 1000th landing aboard the USS Coral Sea and 800 accident-incident-free hours since the ship's deployment. Detachment member Lt(jg) Ed Weigel, right, who made the landing in a SEASPRITE, was later presented with an "award" by Cdr R. H. Boh, air boss, and LCdr N. L. Haney, officer-in-charge of the detachment. The Lieutenant received a worn tire removed from one of the three embarked UH-2As so that he "will always know where at least one of his wheels is before landing." A traditional cake cutting was also held during the celebration. (USN photo)

Despite the obvious danger, Statler calmly aided each of the frightened crewmen into the sling. When the rescue work was partially completed, the tide began coming in and made the operation even more hazardous due to the increased movement of the ship.

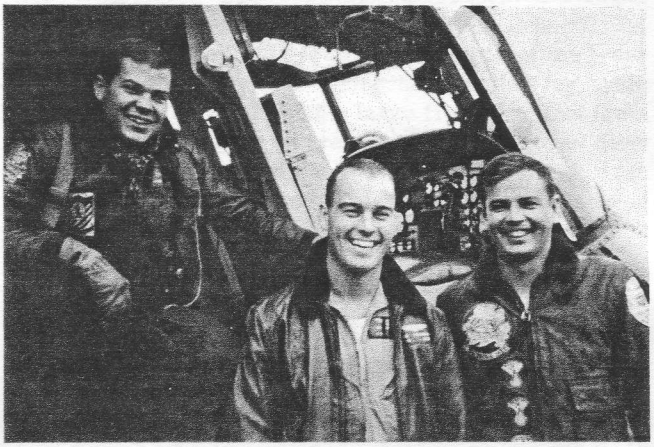
More than a dozen trips were made by the helicopters in weather described by one detachment member as being so "miserable" that "not only were the ducks not flying, the fish had long gone indoors." In spite of the conditions, the mission was completed without incident and the helo crews secured with the gratifying knowledge that they had given 37 seamen a new lease on life.

HUSKIE Stork Makes Christmas Delivery

Christmas 1967 will be remembered by many people for many things — but for a German family from the small village of Neef and an HH-43B rescue crew from Hahn AB, Germany, it had a peculiar highlight.

Capt David R. Stevenson, from Det 5, AARRC(MAC), a bachelor, was pulling the Christmas Day alert. SSgt Thomas D. Blakeney, the flight engineer, and MSgt Winfred H. Macklin, the medical technician, were anticipating a quiet Christmas at home with their families. At 0940 hours, the tranquility erupted into a flurry of activity after an urgent call for help was received from Neef ... the village, surrounded by the rising flood water of the Mosel River, was harboring an expectant mother!

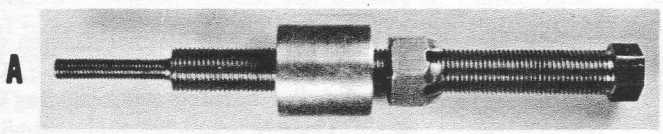
The fabled stork would not respect the timetable of the flooding river, so a telephone call by the local authorities put the Rescue machinery in motion. At 1035 hours the stork — correction, the HUSKIE — landed in a small garden plot on the edge of town. The expectant mother was quickly placed on board the helicopter and flown to the civilian medical facility at Zell. So far, everything had progressed in a very routine manner. However, 30 minutes after their arrival at the Zell, the helicopter crew found that they had become eligible for congratulations as mid-wife assistants to the birth of healthy TWINS.

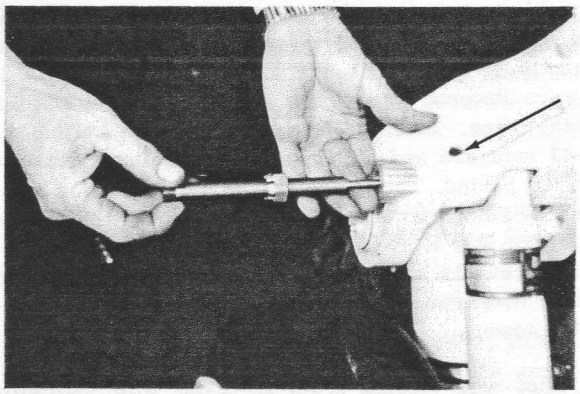


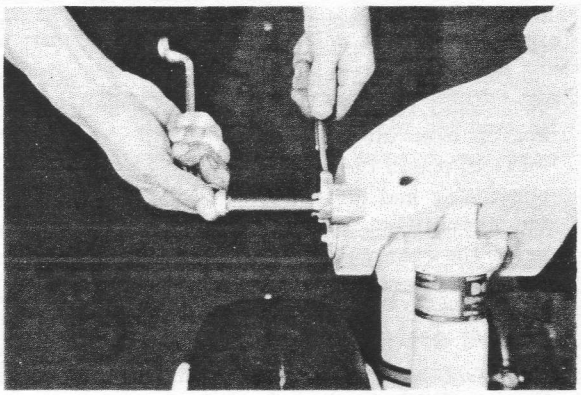
FIRST "C" RESCUE CREWMAN—To H. Scott Lanes, ATNAN, left, fell the distinction of being a member of the first UH-2C crew to make a rescue at sea. Lanes was attached to HC-1's Det 61 aboard the USS Ranger at the time. The photograph was taken a few weeks ago when the Airman visited Kaman Aircraft with UH-2 pilots Lt(jg) Robert Parkinson, middle, and Lt(jg) John F. McMinn. They accepted delivery of one of the twin-engine SEASPRITES being produced at Kaman and flew the helicopter back to HC-1 at NAS Imperial Beach (formerly designated NAAS Ream Field), Calif. Both pilots have received Kaman Mission Awards for rescues carried out in the UH-2 and Lieutenant McMinn also has received two Scrolls of Honor for missions in the SEASPRITE

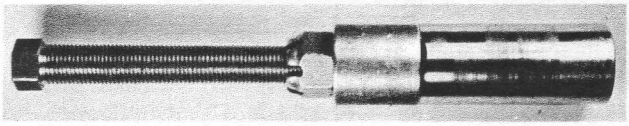
UH-2 Dowty Main Landing Gear Shaft Removal Tool

by Herman Zubkoff
Service Engineer









The tool shown in the photographs can be used to remove a seized landing gear shaft, P/N 3283129-3. The shaft retains the upper portion of the liquid spring. As shown in Photo A, the tool consists of a nut, an aluminum cylinder called a stop, and a bolt with 1/4 inch and 1/2 inch threads. Before the tool can be used, it is necessary to remove the pin retainer, P/N 3283134-1, (see arrow, Photo B) and apply penetrating oil around the exposed end of the shaft. Place an aluminum drift against the shaft and strike the drift just enough to free the shaft. Insert the assembled tool into the opening (Photo B) and thread the 1/4 inch portion into the shaft until it bottoms. Slide the stop into position so it bears squarely against the opening. Maintain this position and run the nut down against the stop. With one wrench on the bolthead, so it won't move, use another wrench to tighten the nut against the stop as shown in Photo C. Tightening the nut withdraws the shaft. Continue tightening until the shaft is completely withdrawn. Photo D shows the tool still connected to the removed shaft. The threaded bolt may be fabricated from an NAS 464-8-86 (or longer) steel bolt or from a rod stock of comparable material. A hex shaped high carbon or chrome-molybdenum steel rod conforming to SAE 1045, 2330, 4130 or 4140 is recommended. After cutting the threads, heat treat to approximately 180,000 psi tensile strength. The rod or bolt is threaded so that the lower 1-1/4 inches is 1/4-28 while the remaining 3-3/4 inches is threaded 1/2-20. The OD of the stop must be as close as possible to the listed dimensions in order to properly bear against the opening in the landing gear. The ID of the stop should be large enough to enable it to freely slide up and down the 1/2 inch bolt.

BOLT	(overall)	- 1/2-20 x 5 inches (min.)
	1/4-28	- lower 1-1/4 inches
	1/2-20	- 3-3/4 inches (min.)
STOP	OD	- 1.230 ± 0.005 inches
	ID	- 9/16 inch
	Length	- 1.00 inch
NUT		- 1/2-20

1000-Hour Pilot Awards

In left photo, Horace F. Field, Kaman service representative, presents a 1000-hour plaque to **Lt Paul W. Kayle**, UH-2 SEASPRITE pilot from HC-2, NAS Lakehurst, N.J. In right photograph, **Maj Ronald E. Davison**, 58th ARRSq at Wheelus AB, Libya, logs his 1000th flight hour in the HH-43 HUSKIE and qualifies for a similar plaque. Other pilots who recently logged 1000 hours in Kaman-produced helicopters are: UH-2 SEASPRITE — **Lt Robert E. Jones** and **Lt David A. Hubbs**, HC-2. HH-43 HUSKIE — **Maj Hamid Matinfar**, IIAF, Search and Rescue squadron commander and helicopter pilot for the Royal Family; **Capt William F. Cunningham, Jr.**, and **Capt Ronald L. Bachman**, Det 6, EARRC, Andrews AFB, Md.; **Capt Ellis E. Wallace**, Det 15, WARRC, Luke AFB, Ariz. Captain Wallace logged his 1000th hour while on a rescue mission in the Grand Canyon. (USN and USAF photos)

continued from page 14

copilot; SSgt Barry Sherman, flight engineer; and Airman Bahrenburg, pararescueman.

Two HH-43's from Det 6, 38th ARRSq, Bien Hoa AB, teamed up to rescue a downed forward air controller (FAC) who had hidden for two hours in Viet Cong infested jungle. After a 50-minute flight through low clouds and occasional rain, the HUSKIE crews began a low level search over the dense jungle. When the survivor was located, one of the rescue helicopters lowered the forest penetrator and hoisted the downed airman to safety as the other HH-43 flew cover. Although the survivor had heard the enemy moving all around him, no hostile fire was encountered. Manning one HUSKIE were Maj James F. Okonek, RCC; Maj Lawrence W. Heflin, copilot; SSgt Richard D. Almond, flight engineer; and Sgt Roger A. Porter, rescue specialist. Flying with Capt James A. Darden, RCC, in the other HH-43 were 1stLt Jon C. Long, copilot; SSgt Donald S. Kearton, flight engineer; and A1c Terrence Treutel, rescue specialist.

In another mission, a Det 6 HH-43, assisted by a HUSKIE from Det 14, 38th ARRSq, Tan Son Nhut AB, evacuated the injured member of a MACV team from a hostile area 61 miles from Bien Hoa. The rescuee, who had a compound fracture of the leg, was on the bottom of a deep ravine at the base of a nearly vertical cliff. To make the mountainside pickup, at 3500 feet, Major Okonek held the HUSKIE in a high hover close to the cliff so the litter could be lowered. Other members of the crew were Capt Sheridan K. Hawk, Sergeant Almond and Sergeant Porter, all from Det 6. Flying in the covering HH-43 were Capt Charles W. Burridge, RCC, Sergeant Kearton and Airman Treutel, Det 6; Capt Joseph K. Dennis, CP, and A1c Walter H. Westbrook, FE, Det 14. Earlier, the MACV team had entered the area to secure it after an army plane was downed by enemy fire. The remains of the crew were recovered at that time by Det 6 helicopters.

An HH-43 crew from Det 8, 38th ARRSq, Cam Ranh Bay AB, landed in an insecure area to evacuate nine men from an Army helicopter which had been forced down by a ruptured oil line. Maj Armand J. Fiola was pilot of the rescue helicopter and 1st Lt Willie L. Farrow was copilot. Crewmen were SSgt Thomas E. Hand and A1c William L. Russell. During the pickup, cover was flown by another HUSKIE from the detachment.

In a second mission, an HH-43 crew from Det 8 aided in evacuating four soldiers from a helicopter which crashed in an insecure wooded area a few miles from the base. Sgt Norman Edney, HUSKIE crew chief, and A1c George S. Armstrong, medic, assisted in freeing the trapped men from the wreckage and two were placed aboard the HH-43. The other two were airlifted by an Army helicopter. HUSKIE pilot on the mission was Major Fiola and Lieutenant Farrow was copilot.

Rescuemen of Det 10, 38th ARRSq, Binh Thuy AB, completed their 50th rescue recently with the evacuation of a U.S. sailor who had suffered serious leg wounds due to enemy fire. Capt Donald E. Van Meter, RCC of the HH-43F, received the request for air evacuation at 8:03 a.m. and within 22 minutes the patient was on his way to the hospital. During the flight, treatment was given by MSgt Ted R. Hawkins, pararescueman. Other HUSKIE crew members were Capt Laurence W. Conover, copilot, and Sgt Larry E. Hawkins, flight engineer.

During a series of missions, 12 downed airmen were rescued by HH-43 crews from Det 3, 38th ARRSq, Ubon AB, Thailand. Disregarding burning and exploding ordnance nearby, an HH-43 crew from Det 3 picked up one of two pilots who had ejected from an F4 that crashed on take-off. After lowering a medic to assist the second pilot, who was injured, the first pilot was taken to the base and a doctor and litter were taken on board. Upon return to the rescue site, the doctor and rescue specialist were lowered to assist in loading the injured pilot into the litter. After he was taken to the hospital, the HH-43 returned and picked up the three men who had been left behind. The entire rescue operation was hampered by smoke from the burning aircraft. Maj Glenn M. Marks was RCC and 1stLt Fred M. Ayoub was copilot. Crewmen were A2c Charles T. McSweeney, SSgt John A. N. Yarwood, A1c Donald E. Hale, and A1c Donald W. Jowers.

A pilot who ejected from an F105 with hydraulic trouble was picked up by an HH-43 crew from Det 3 almost as soon as he landed in a rice paddy. Major Marks was pilot of the HUSKIE; crewmen were A1c James M. Payne, Cyrus G. Hartwell and David J. Meade. Two pilots who ejected from their crippled plane were picked up soon afterward by a HUSKIE crew consisting of 1st Lt Thomas E. Kullgren, Airman Payne, A1c Hoke Johnson and Airman Hale.

When two planes collided in mid-air, a HUSKIE crew from Det 3 scrambled with the FSK and covered the successful landing of one of the aircraft. The FSK was then returned to the ramp and Major Marks and his crew headed for the area where the pilots from the second plane had bailed out. Both were picked up and taken to the dispensary. Other members of the HUSKIE crew were 1st Lt John R. Bland, the copilot, and A1c Herbert H. Gentry, Jr., Payne, Hale and Jowers, crewmen.

In other Det 3 missions, an HH-43 piloted by Maj Dennis M. Chase deployed a fire suppression kit and fireman near a burning plane, then picked up one survivor from the ground and another from a tree. To make the second pickup, the forest penetrator was lowered onto the rescuee's chest so he could secure himself to the device. With Major Chase were A1c Theodore Chandler, MT; A1c James Tevis and Airman Hartwell, RS. Two other pilots who ejected 12 miles from the base after a flight control failure, were picked up in rice paddies by Capt David H. Baur and his crew: Airman Johnson, Airman Hartwell and A1c Eugene P. Ronning. Another pilot was picked up after Lt Merrill C. Hiscock landed in a rice paddy and sent Airman Chandler, the medic, and SSgt Jimmie E. Rogers, flight engineer, to assist him. The downed pilot had suffered an ankle injury. Copilot on the mission was Capt Ted Schroeder.

Flying through rain, haze and fog an HH-43 crew from Det 13, 38th ARRS, Phu Cat AB, delivered a seriously-injured Army officer to the hospital at Qui Nhon. The officer had suffered possible brain damage after his jeep overturned on a wet bridge and plummeted 15 feet into

a ravine. The HUSKIE, piloted by Maj Bert E. Cowden, made the 25 mile flight over hostile, mountainous territory without escort. With Major Cowden were 1stLt Ronald P. Wojack, copilot; Sgt Delmer R. Smith, medical technician; and Capt Jerald B. Turner (MC), flight surgeon.

The pilot of an O-1 spotter plane, which crash-landed in hostile territory after an engine failure, was rescued by an HH-43 from Det 7, 38th ARRSq, Da Nang AB. The wreckage was sighted by 2ndLt Michael L. Walker, copilot of the HUSKIE, and Capt George R. Andrews, RCC, landed in a clearing to make the pickup. Numerous airstrikes were being made in the vicinity at the time. The clearing had been made temporarily secure by a marine patrol which had seen the plane crash. SSgt Daniel M. Palmer was crewman on the mission.

An injured Army pilot and a wounded Vietnamese firefighter were rescued by an HH-43F crew from Det 9, 38th ARRSq, Pleiku AB, after a fully-armed helicopter crashed near Holloway Army airfield and began burning.

"When we arrived," Capt Jack V. Butler, RCC, said, "we could see and hear violent explosions apparently from the rockets and other ordnance in the burning helicopter. We orbited the area to let the explosions settle down a little, then we went down, dropped off our fire suppression kit and deployed our two airborne firefighters."

A1c Felipe A. Quiroz said the Vietnamese firefighters were already fighting the blaze when he and A1c Eric W. Nelson, the other airborne firefighter, ran to the FSK and started to use it on the fire. However, because of the exploding ordnance, the pilot and copilot (Capt Robert L. Osborne) called them back.

A few minutes later Quiroz and Nelson returned to the downed helicopter and suppressed the fire enough for A2c David R. Berrio, pararescueman, to aid the gun ship pilot and a Vietnamese firefighter who had been hit by exploding ordnance. Both of the injured men were taken to the hospital in the HUSKIE.

"It was a very rewarding mission because we did save lives," Captain Osborne said afterward.

Det 9 has recorded nearly 100 saves, 90 of them under combat conditions, since its formation less than two years ago.

SSgt Vincent L. Davis, an aeromedical technician assigned to Det 1, 38th ARRSq, Phan Rang AB, recently assisted in saving the life of a South Vietnamese soldier who had been shot in the back twice. The Sergeant was flying in an HH-43 when the pilot, 1stLt Gary L. Gross, received a call for help from an ARVN force operating in a Viet Cong controlled area 10 miles from Phan Rang. When it was found the helicopter could not land due to the terrain, Sergeant Davis volunteered to descend to aid the critically wounded soldier. With the help of the ground troops, the Air Force medic carried the man to a place where the HUSKIE could land and the patient was placed aboard. Ten minutes later he was receiving hospital treatment.

CURRENT CHANGES

This list reflects the latest changes to the handbooks. Consult applicable "A" page for changes issued prior to those listed below.

	Issue Date
H-2 Airframe Change 110 - Instruments, INTERCHANGE OF PILOT'S RATE-OF-CLIMB INDICATOR AND CLOCK	29 September 1967
NAVAIR 01-260HCA-N2 - Manual, Cross Servicing Schedule, Navy Models UH-2A/UH-2B/UH-2C Helicopters	1 October 1967
NAVAIR 01-260HCA-2-1 - Manual, Maintenance Instructions, Navy Models UH-2A/UH-2B/UH-2C Helicopters, GENERAL INFORMATION	1 October 1967 changed 1 November 1967
NAVAIR 01-260HCA-2-2 - Manual, Maintenance Instructions, Navy Models UH-2A/UH-2B/UH-2C Helicopters, AIRFRAME	1 October 1967
NAVAIR 01-260HCA-2-2.1 - Manual, Maintenance Instructions, Navy Models UH-2A/UH-2B/UH-2C Helicopters, FLIGHT CONTROLS	1 October 1967
NAVAIR 01-260HCA-2-3 - Manual, Maintenance Instructions, Navy Models UH-2A/UH-2B/UH-2C Helicopters, EQUIPMENT (FURNISHINGS, HYDRAULICS, UTILITIES)	1 October 1967
NAVAIR 01-260HCA-2-4.1 - Manual, Maintenance Instructions, Navy Models UH-2A/UH-2B/UH-2C Helicopters, TRANSMISSION SYSTEM	1 October 1967
NAVAIR 01-260HCA-2-4.2 - Manual, Maintenance Instructions, Navy Models UH-2A/UH-2B/UH-2C Helicopters, ROTOR SYSTEM	1 October 1967
NAVAIR 01-260HCA-2-5.1 - Manual, Maintenance Instructions, Navy Models UH-2A/UH-2B/UH-2C Helicopters, INSTRUMENTS	1 October 1967
NAVAIR 01-260HCA-2-6 - Manual, Maintenance Instructions, Navy Models UH-2A/UH-2B/UH-2C Helicopters, ELECTRICAL SYSTEM	1 October 1967
NAVAIR 01-260HCA-3 - Manual, Structural Repair, Navy Models UH-2A/UH-2B/UH-2C Helicopters	1 October 1967
NAVAIR 01-260HCA-4-1 - Illustrated Parts Breakdown, Navy Models UH-2A/UH-2B Helicopters, ROTORS AND CONTROLS	1 December 1965 changed 1 November 1967
NAVAIR 01-260HCA-4-8 - Illustrated Parts Breakdown, Navy Models UH-2A/UH-2B Helicopters, NUMERICAL INDEX AND REFERENCE DESIGNATION INDEX	15 January 1967 changed 1 November 1967
NAVAIR 01-260HCB-4-1 - Illustrated Parts Breakdown, Navy Model UH-2C Helicopters, NUMERICAL INDEX AND REFERENCE DESIGNATION INDEX	1 June 1967 changed 1 November 1967
NAVAIR 01-260HCB-4-7 - Illustrated Parts Breakdown, Navy Model UH-2C Helicopters, ROTORS	1 June 1967 changed 1 November 1967
NAVAIR 03-40KAM-1 - Technical Manual, Overhaul Instructions, Navy Models UH-2A/UH-2B Helicopters, FLIGHT CONTROL SYSTEM	15 November 1965 changed 15 July 1967
Support Equipment Change 799 - Modification of Engine Sling Assembly, Part Number K604501-203 to K604501-301	10 November 1967
Support Equipment Change 800 - Modification of Jack Screw Set, Part Number K604215-1 to K604215-103	10 November 1967
Support Equipment Change 801 - Modification of Socket Assembly, Part Number K604205-101 to K604205-103	10 November 1967
Support Equipment Change 819 - Modification of Flap Protractor Set, Part Number K604701-201 to K604701-301	10 November 1967

F. G. Weber, Supervisor, Service Publications

'ARCTIC ANGELS' BRING AID TO ESKIMOS

Below-freezing cold intensified by winds that sweep unchecked across the barren arctic wasteland.... mile-after-mile of rugged, uninhabited terrain.... icy sea water dotted with jagged floes.... treacherous weather .... few navigational aides — each year as winter tightens its icy grip on this lonely land, the men attached to Det 18, EARRC, Thule AB, Greenland, brave these conditions to carry out their life-saving missions.

Two HH-43B crews recently flew to Savigsivik, a village 70 miles south of Thule, to evacuate three Eskimos who had been seriously burned. Capt Harold L. Hiner was pilot of Pedro 1, Capt George R. Ehler was copilot, and A1c Gary D. McGrew, crew chief. Maj Leroy Weeks (MC), flight surgeon, who was also aboard, treated the injured. Flying in Pedro 2 were 1stLt Albert C. Schube, IP; Capt John J. Duggan, pilot; and A1c Gary McRae, crew chief. The entire operation, which covered approximately 140 miles, was conducted in slightly more than two hours despite a hampering cloud cover.

During a busy two-day period, HH-43B crews flew a total of 420 nautical miles through bitter cold to bring medical assistance to isolated villagers. Captain Ehler and his crew flew to Kanak so a critically-ill infant could be treated by Major Weeks. The baby was then airlifted back to Thule. Other members of the HUSKIE crew were Captain Hiner and A1c Wendell Granstaff, helicopter mechanic. Manning the second HH-43 on the mission were Capt John C. Flournoy, pilot, and Lieutenant Schube, the copilot.

The next day another Eskimo infant at Kanak became critically ill and two HH-43's from the detachment responded. When they arrived, word was received that an Eskimo woman was critically ill at Savigsivik, which was approximately 140 miles away. Major Weeks also found that the baby was too ill to move so for several hours he worked to save the life of his tiny patient. With the baby out of danger, the two HH-43's returned to Thule, refueled and then headed for Savigsivik to evacuate the other patient. Manning Pedro 1 were Captain Flournoy, IP; Lieutenant Schube, pilot; Captain Duggan, copilot; and Airman McGrew. Aboard Pedro 2 were Captains Ehler and Hiner, Major Weeks, and Airman McRae.

When not involved in mercy or rescue missions, HH-43 crews from Det 18 have been involved in another type of "recovery" — that of a 16-ton meteorite which crashed to the earth in the dim past. The HUSKIES flew more than 30 support missions while assisting Danish and Greenlandic officials seeking to recover the meteorite. ADC's 4683d Air Base GP. furnished civil engineering assistance and provided the use of a landing craft. The ancient celestial fragment was finally loaded aboard a freighter bound for Copenhagen.

UH-2 Crews Assist

Det HUSKIE Recovers HUSKIE

While on a routine return flight from Kanak to Thule AB, one of the HH-43B's from Det 18, EARRC, was forced to make an emergency landing after an engine power loss. Despite poor visibility and 25-knot winds, Capt Harold L. Hiner made a safe autorotation landing on the Ice Trail about 40 miles from Thule. With him were Capt George R. Ehler and A1c Gary McRae. The accompanying HUSKIE, manned by Capt John C. Flournoy, Capt John J. Duggan, 1stLt Albert C. Schube and A1c Wendell D. Granstaff, immediately landed and the rescued crew was airlifted to Thule. Several rescuemen stayed behind to finish the job of securing the downed helicopter and were picked up about six hours later.

After a 10-day wait for the weather to clear, disassembly of the downed HUSKIE began. Working under extremely difficult conditions, maintenance crews removed the rotor blades, engine, clamshell doors, seats and other equipment. Due to the bitter cold and other unfavorable working conditions, one airman became ill and was evacuated in an HH-43 flown by Captain Flournoy and Capt Raymond Murden; CWO Wickersham was cabin attendant. Toward the end of the recovery operation the Coast Guard ice breaker Edisto arrived and her UH-2 SEASPRITE crews from HC-4 aided the Air Force men in the disassembly work. An HH-43 from the detachment then picked up the other HUSKIE and airlifted it to the Edisto. This is believed to be the first time one HH-43 lifted another HH-43 with the transmission still intact. During this time, alert duties at Thule were assumed by the HC-4 SEASPRITES.

INDEX OF KRT FEATURE ARTICLES

1962 To 1968

FEBRUARY, 1962
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APRIL, 1962
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JUNE, 1962
Engine Mount Checkout; USAF HUSKIE Breaks Distance Mark; Helicopter With A Personality.

AUGUST, 1962
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OCTOBER, 1962
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DECEMBER, 1962
H-43B Fuel System; Records Official H-43B; Hovering Rescue At 11,600 Feet; Trouble Shooting The HH-43B Fuel System.

FEBRUARY, 1963
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APRIL, 1963
Climatic Testing The UH-2A; Parachuting From The UH-43C; The HH-43B Collective Limiter; Design For Rescue.

JUNE-JULY, 1963
UH-2A/B Fuel Quantity Measuring System, Part I; HH-43B Fuel Boost Pump Check; HUSKIES Fly At 17,000 Feet In South American Mission.

AUGUST-SEPTEMBER, 1963
Modified Fire Suppression Kit; HH-43B Inter-Blade Dampers; UH-2A/B Fuel Quantity Measuring System, Part II.

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DECEMBER-JANUARY, 1963/64
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FEBRUARY-MARCH, 1964
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JUNE-JULY, 1964
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UH-2 Barometric Altitude Control; Wings, Twin Engines For Test UH-2; Line Level Helicopter Maintenance, Part VI.

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UH-2 Water Operability Characteristics; UH-2 Fuel System, Part I; Line Level Helicopter Maintenance, Part VIII.

FEBRUARY-MARCH, 1965
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APRIL-MAY, 1966
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What's With The Twin; Salute To Aerospace Rescue And Recovery Service; Ground Support Equipment, Part II.

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UH-2C Mobile Trainer; Paneloc Adjusting Tool; New Kaman Rescue Pins.

JANUARY-FEBRUARY, 1967
UH-2 Modification To Twin-Engine Begins; HH-43 Auxiliary Fuel Tank; Design For Rescue, Part I (The Forest Penetrator); UH-2 Tail Rotor Flapping Bearing Tool.

MARCH-APRIL, 1967
UH-2C New 'Look' Reflects Speed, Power And Maneuverability; Design For Rescue, Part II (The Fishpole Boom and Rescue Net).

MAY-JUNE, 1967
Crew Safety Stressed In UH-2C Testing; HH-43F Maintenance School In Iran; Design For Rescue, Part III (The Loud Hailer and P. A. Systems); Testing The Fishpole Boom And Net; UH-2 Split Bushing Removal Tool.

JULY-AUGUST, 1967
UH-2C Training; Iranian HH-43F Evacuates 18 At One Time.

SEPTEMBER-OCTOBER, 1967
UH-2C Joins Fleet; New Helicopter Support Squadrons; UH-2 In-flight Refueling; HH-43 Blade Flap Tool.

NOVEMBER-DECEMBER, 1967
What A Life!; UH-2 Emergency Actuator Rigging; HH-43 Engine Yoke Fitting Removal Tool; Information On UH-2 Manuals.

In most cases, back issues of Rotor Tips are available in limited quantities and will be supplied, upon request, to readers wishing to complete their files. Also available are booklets containing technical Questions and Answers or Timely Tips regarding UH-2 and HH-43 maintenance. This information originally appeared in the magazine but has been up-dated to reflect the latest changes. Requests for these publications should be made to: Kaman Rotor Tips, Customer Service Department, Kaman Aircraft, Bloomfield, Conn. 06002.

Huskie Happenings

...Maj Charles P. Nadler from Det 11, EARRC(MAC), Craig AFB, Ala., and his HH-43B crew were preparing to use the Fire Suppression Kit on a practice fire when heavy black smoke was seen coming from an area about a mile from the base. Quickly the HUSKIE flew to investigate — a house was on fire! Major Nadler set the FSK down and Sgts Paul W. Mullikin and George J. Sheehan leaped from the helicopter. Then, as the HH-43B hovered near the house, the two firefighters expended the contents of the FSK on the fiercely blazing structure. Unfortunately, the fire had too much of a head start and the Rescuemen were unable to save the dwelling. They did, however, keep the blaze from spreading and also summoned help from the base fire department. Sharing in the training mission turned real thing were Capt William F. Cunningham, the copilot, TDY to Det 11 from Det 6, EARRC, Andrews AFB, Md., and Sgt Serge Lecomte, medical technician.

...In a day and night mission during which 8.6 hours were logged, an HH-43B crew from Det 4, AARRC(MAC), Ramstein AB, Germany, took part in a search for a missing Canadian F-104. The search was conducted with the help of an HC-130H and a French pilot was aboard the HUSKIE to aid as an interpreter. He also helped with the navigation over the Rhine Valley and the partially cloud-obscured mountains nearby. After the wreckage was located atop a tree-covered mountain, Capt Joseph V. Leech landed in a small clearing near a ground party some distance away. As Capt Carol D. Hayden, the copilot, and Capt Howard C. Joondeph (MC), headed for the crash site, the HUSKIE began searching for the downed pilot on the chance that he had managed to eject. After refueling later at a French base, the HUSKIE returned to the crash scene and it was determined that the F-104 pilot had been with the aircraft on impact. As the HH-43B pilot hovered over the impact point with the rotor blades inches from the trees, the entire 100 feet of cable was let out but, due to the slope and trees, it was impossible to reach the ground. The flight surgeon, coordinating efforts with Canadian officials and French Gendarmerie, made the recovery after a 2-1/2 hour trip down the mountain. The HUSKIE then returned to Strasbourge, refueled, and headed for Ramstein, following the Rhine River north to the Autobahn and the Autobahn to the base. The entire return flight was made during marginal night VFR conditions. SSgt John H. Balfour was crew chief on the mission.

...An HH-43B crew from Det 14, EARRC(MAC), MacDill AFB, Fla., scrambled shortly before midnight after a light civilian aircraft crashed near Tampa International Airport. While enroute to the area, Maj Frank W. Schnee was notified that the downed pilot was safe. A few minutes later the plane was located by the searching HUSKIE and the floodlights on the helicopter were used to aid FAA inspectors and highway patrol officers who arrived at the scene. The Public Address System on the HH-43 was used to relay directions from the Tampa Tower to the highway patrolmen. With Major Schnee on the mission were 1stLt Billy C. Marcontell, copilot; Sgt Ralph E. Franzese, medical technician; Sgt Johnny W. Shipman, flight engineer; Sgts Joseph A. Renaud and Longino Franco, rescue specialists....In another Det 14 mission, an HH-43 alert crew at Avon Park AF Aux picked up two pilots who ejected from an F-4 after it caught fire. First aid was given to one of the downed pilots, who was seriously injured, by Sergeant Franzese, medical technician; SSgt Leon Partin and Sergeant Renaud, rescue specialists. The survivor was taken to the hospital and then the HUSKIE returned to pick up the second F-4 pilot. Capt Thomas F. Madden was pilot of the HH-43 and A1c Lawrence R. Gosford was flight engineer....In a third mission, a Det 14 crew at Avon Park scrambled with the Fire Suppression Kit after being notified that an F-4 was in trouble over the gunnery range. Maj Edwin J. Christy, RCC, placed the Kit adjacent to the runway and then proceeded to pick up the two pilots who had ejected. A landing was made in a clear area and one survivor was placed aboard after receiving first aid from A1c William H. Tyler, Jr., medical technician. A short approach was then made to the other survivor and he was placed aboard the HUSKIE after receiving first aid. Both men were treated for shock on the flight to the hospital. Other members of the HH-43 crew were Airman Gosford, A1c Solomon Rutledge and David J. Smith, rescue specialists.

...Night had fallen several hours before and temperatures were dropping toward a forecasted 18 to 20^{o} when Det 25, EARRC(MAC), Eglin AFB, Fla., received word that an elderly fisherman was overdue. A HUSKIE crew headed by Capt Robert R. Reeves scrambled immediately and a short time later began a search pattern at 300 feet over the dark waters of Choctawhatchee Bay in the vicinity of Live Oak Point. The area had been selected after taking into consideration the winds and currents. During the search a thin haze layer diffused the flood and landing lights being used and obscured the pilot's vision so he flew on instruments while the other members kept a lookout for the missing man. After 50 minutes the fisherman and his raft were located in a sandy swamp. The terrain made a landing impossible so the Public Address system on the helicopter was used to instruct the survivor in the use of the sling. Once aboard, the fisherman was found to be suffering from exhaustion, dehydration and exposure from the just-above freezing temperatures. The helicopter immediately headed for the hospital at Eglin. Others with Captain Reeves were 1stLt Roland J. Page, copilot; SSgt Billy J. Craig, flight engineer; and Sgt Edmund T. Leonard, medical technician.

SHAH FLIES HUSKIE

DISTINGUISHED PILOT—In first photo, Mohammed Riza Pahlevi, Shahanshah Aryeamehr of Iran, the only government head in the world to pilot an HH-43 HUSKIE, leaves the helicopter after landing at Shiraz. In second photo, the Shah and his Empress are shown in the cockpit of one of the Iranian HUSKIES. Both the Imperial Army and Air Force utilize the helicopters.

Det 14 Canyon Mission Saves Two

The young woman and small boy were safe — but it had been a busy and hazardous time for the HH-43B crew responsible for their rescue. The mission began for Det 14, WARRC(MAC), Nellis AFB, Nev., when a request for assistance was received from the county sheriff. The pair had disappeared in a rugged, 1000-foot-deep canyon about 15 miles from Las Vegas. A HUSKIE manned by Capt Cortland D. Field, RCC; Capt Norman R. Albee, copilot; and A1c Charles B. Stewart, rescue specialist; flew to the site in the gathering darkness and made a confined area landing near the search party. After a briefing, the HH-43B took off and the landing lights were used in an unsuccessful search of the canyon wall for the missing pair or a safe route for the ground parties to follow. After dropping off food and water to the searchers, the HUSKIE returned to base.

Early the next morning the helicopter returned with Captain Albee as RCC, Captain Field as copilot, and A2c Robert J. Pfannenstiel as flight engineer. After another briefing, the HH-43 crew determined that it was possible to hover out of ground effect at approximately 5000' MSL under marginal power conditions. A deputy sheriff was then lowered from the helicopter to a ledge high up the sheer wall in an area where the pair were thought to be. Blade clearance was about 10 feet and the rotorwash bouncing off the wall made hovering difficult. As the HH-43 started to return for a second deputy, Airman Pfannenstiel spotted the two survivors on a narrow ledge above and to the right of the first deputy. The HUSKIE picked up the second deputy and lowered him to a ledge above and slightly to the left of the survivors — rotor clearance was approximately five feet and again hovering was difficult. The deputies could not reach one another or the survivors so a rope was dropped from the helicopter to the higher man. As he assisted the other in climbing up the cliff, the HH-43 flew farther into the canyon to evacuate another deputy who was ill and unable to walk from his position about 200 feet above the canyon floor. Rotor clearance was less than three feet as he was hoisted aboard.

Meanwhile, the first deputy made his way to the survivors and then hauled the second deputy to the ledge. Both deputies then took the rescuees to a higher ledge for helicopter pickup. Once again the HUSKIE took up a precarious position close to the cliff and the woman and boy were hoisted aboard in a rescue basket. A doctor was picked up a few minutes later and the HH-43 headed for the hospital. After refueling, the Det 14 helicopter returned to the area and picked up each deputy. Mission completed and two lives saved — the HUSKIE crew headed back to base.

Captain Lists Possible 'Firsts'

CLARK AB, R. P.... Capt William F. Austin, III, HH-43B RCC with the 31st ARRSq, recalls a "trio" of events he thinks might be "firsts." Item: During three and one-half years with the section, SSgt James Shannon performed 1000 maintenance hours on aircraft #625979 — an HH-43B — the same period that the HUSKIE logged 1000 flying hours. Item: From January 1965 to July 1967, members of Captain Austin's section earned four Air Medals and 18 Air Force Commendation Medals. He considers this number of awards unusually high for a rescue section performing missions outside a combat area. Item: While attempting the rescue of a survivor of a Philippine Air Lines aircraft accident, Captain Austin, piloting an HH-43B, saw that necessary descent was impeded by dense jungle growth. The medic, SSgt Charles A. Sullivan, had the patient ready for lift, but was momentarily unable to act further until Captain Austin instructed him to tie a piece of rope to the life line. The added length allowed the pilot to effect the rescue.

KAMAN AIRCRAFT

SCROLL OF HONOR

1966

Aldridge, Malcolm G., A1c, USAF
Anderson, Dixon J., Lt(jg) USN
Andrews, Edward R., A1c, USAF
Armstrong, John M., 1stLt, USAF
Aylward, William E. LCdr, USN
Bacon, John L., LCdr, USN
Balfour, John H., SSgt, USAF
Bankston, George, A1c, USAF
Barck, Dale E., LCdr, USN
Barker, Millard E., A1c, USAF
Beason, Tyrone D., Lt, USN
Bednar, Robert, Lt, USN
Behm, Douglas E., Lt(jg) USN
Benno, Michael P., A2c, USAF
Bergold, Fredrik M., Capt, USAF
Berryhill, James V., Capt, USAF
Blakely, Josslyn F., Lt(jg) USN
Bonnell, George H., 2ndLt, USAF
Boteler, Wayne L., A1c, USAF
Bouc, Frank J., Cpl, USMC
Bowers, Patrick A., TSgt, USAF
Britton, Delford G., 1stLt, USAF
Brown, Lawrence F., SSgt, USAF
Brown, Tommy L., 1stLt, USAF
Brubaker, Richard L., Capt, USAF
Brundridge, Bertrum L., SSgt, USAF
Buck, Leonard N., Capt, USAF
Buggie, Thomas W., A1c, USAF
Burgess, Gary E., AMS3, USN
Brukenbine, W. L., ADR2, USN
Burridge, Charles W., Capt, USAF
Bush, Ralph H., Maj, USAF
Campbell, Edward B., ADJ1, USN
Cardwell, Richard L., Capt, USAF
Carl, David A., A2c, USAF
Chambers, Earl E., SSgt, USAF
Chapman, Ronald W., SSgt, USAF
Chase, Franklin L., Capt, USAF
Chenault, Oran W., Jr., LCdr, USN
Clark, Robert H., Jr., Ens, USNR
Cobb, Vernon G., AN, USN
Colunga, Ramon N., SSgt, USAF
Connon, Richard A., TSgt, USAF
Cooper, R. L., Lt, USN
Cosby, William W., Lt, USNR
Couture, Donald J., Capt, USAF
Cox, Wylie G., A2c, USAF
Creamer, Kenneth W., AME2, USN
Dagneau, John J., A2c, USAF
Davis, Herbert G., AECS, USN
Davis, Michael E., 1stLt, USAF
Davis, Shelley C., Capt, USAF
Demaris, J. H., HMI, USN
Deming, William J., Capt, USAF
Dicken, Terry M., Jr., A2c, USAF
Donovan, Dennis M., Lt(jg), USN
Dorgan, John F., SSgt, USAF
Dotson, Kenneth W., Capt, USAF
Dougan, Robert H., ADRAN, USN
Driscoll, J. L., AMH3, USN
Duffy, John E., Capt, USAF
Dunlow, Henry V., A1c, USAF
Emery, William J., Jr., SSgt, USAF
Espinoza, Alvino, A2c, USAF
Foster, Albert W., A2c, USAF
Freeman, George W., ATN3, USN
Freeman, Israel, Capt, USAF
Fullwood, Leon, SSgt, USAF
Gauthier, James R., CWO, USMC
Gautreaux, Sidney B., SSgt, USAF
Geisler, Patrick J., A1c, USAF
Gibney, Roger P., AE3, USN
Goff, Melvin G., A1c, USAF
Grant, Louis R., Lt, USN
Gregory, Fredrick D., 1stLt, USAF
Griffis, Kenneth G., 1stLt, USAF
Grunsven, Gerald B., 1stLt, USAF

THE PERSONNEL ABOVE WERE HONORED FOR THEIR SKILL, COURAGE AND JUDGEMENT DISPLAYED WHILE PARTICIPATING IN RESCUE OR MERCY MISSIONS PERFORMED UNDER ADVERSE OR HAZARDOUS CONDITIONS WHILE FLYING IN KAMAN HELICOPTERS.