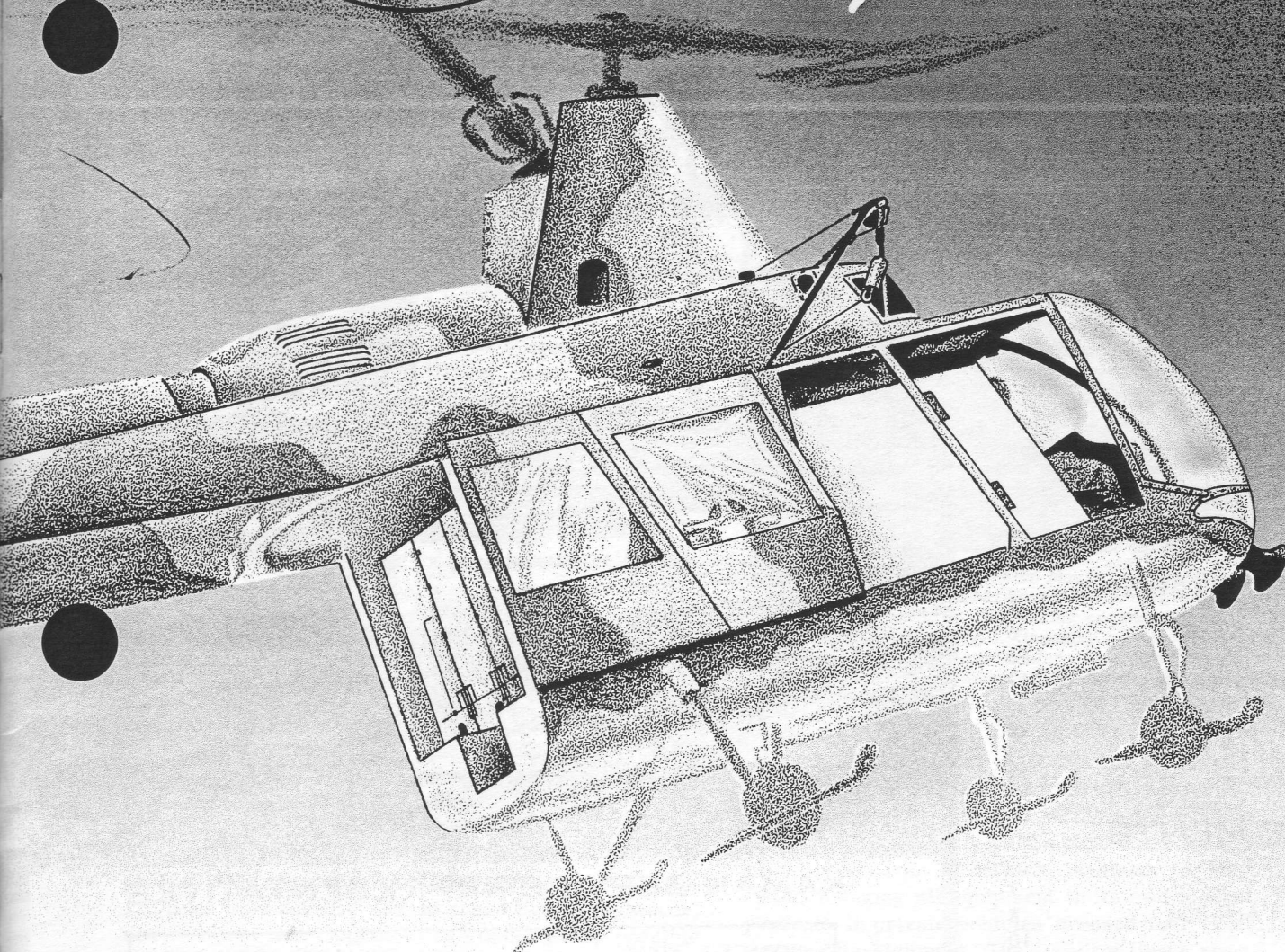
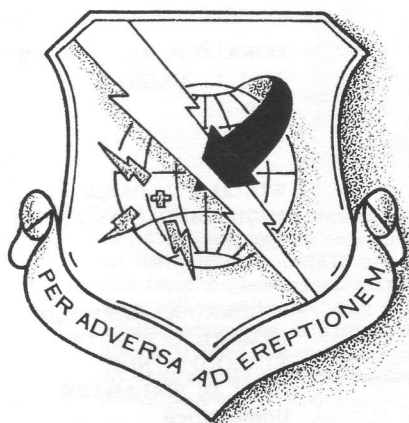


KAMAN

Rotor Tips



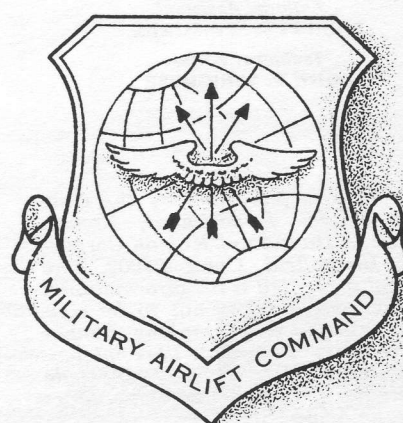
3d ARRGp



ARRS



MAC



President—Kaman Corporation
CHARLES H. KAMAN

Vice President—Kaman Aircraft Division
ROBERT D. MOSES

Vice President—Test Operations/ Customer Service
WILLIAM R. MURRAY

Director of Customer Service
WILLIAM E. ZINS

Customer Service Manager
ROBERT J. MYER

ON THE COVER

Two emblems of service have been joined by another—that of the 3rd Aerospace Rescue and Recovery Group. The armored HH-43F HUSKIE shown is widely used by the group in its rescue work in Vietnam. Cover by Donald Tisdale, Technical Publications.

FEATURES

AARRC Receives Outstanding Unit Award	3
UH-2 Aircrewman Awarded Navy Cross	5
Clancy Krow's Crew	6
UH-2 Open Sea Salvage	16
O-ring Installation Tool	19
Det 6 Awarded MAC Flight Safety Plaque	20
Pensacola UH-2 Record Still Unbroken	21

DEPARTMENTS

Timely Tips	7
SEASPRITE Activities	8
Q's And A's	10
Southeast Asia	12
HUSKIE Happenings	22

Editor

EVERETT F. HOFFMAN

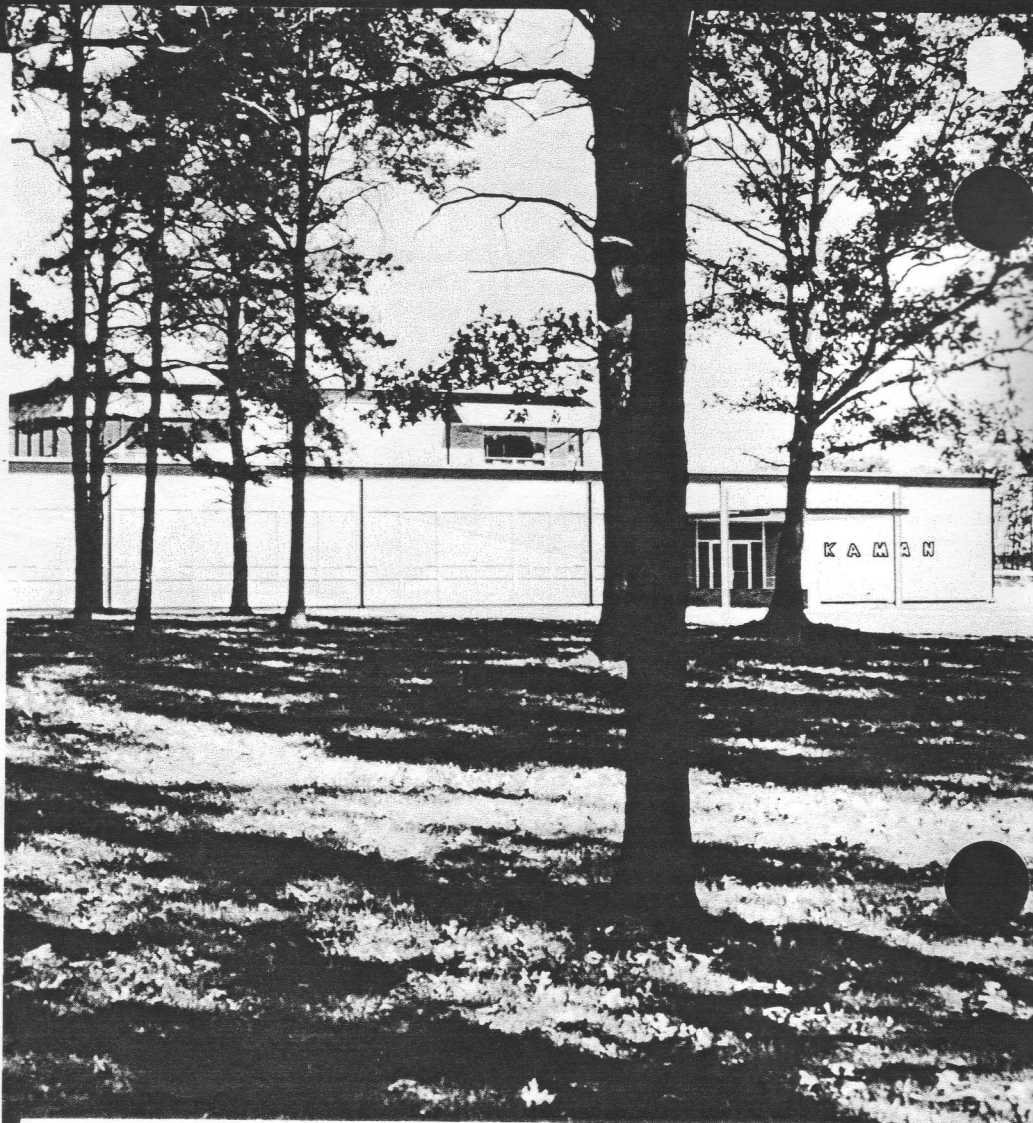
Editorial Assistant

SHIRLEY M. EDMONDS

Technical Writer

JOHN P. SERIGNESE

Rotor Tips is published by the Customer Service Department, Kaman Aircraft, a Division of Kaman Corporation, Bloomfield, Conn. 06002. The material presented is for informational purposes only and is not to be construed as authority for making changes in aircraft or equipment. This publication DOES NOT in any way supersede operational or maintenance directives set by the Armed Services.



KAMAN SERVICE REPRESENTATIVES

HORACE F. FIELD
NAS Lakehurst, N.J.

DONALD T. LOCKRIDGE
NAF Naples, Italy

WILLIAM G. WELLS
LLOYD R. GARDNER
NAS Imperial Beach, Calif.
NAS Miramar, Calif.
NS Adak, Alaska

HOMER C. HELM
NARF North Island, Calif.

DONALD P. ALEXANDER
BILL L. MAGNAN
Iran

JACK L. KING
DONALD R. TANCREDI
DONALD R. DELANEY
NORMAN M. MYERS
NAS Atsugi, Japan
NAS Cubi Point, P.I.

WILLIAM C. BARR
MICHAEL T. FIASCHETTI
USS Wright

RICHARD A. REYNOLDS
GERARD A. BOUTIN
EDWARD F. NOE
PAUL D. WALLBANK
Home Office

DAVID M. RUSH
NARF Quonset Pt., R.I.

AARRC RECEIVES OUTSTANDING UNIT AWARD

RAMSTEIN AB, GERMANY — In recent ceremonies at the Atlantic Aerospace Rescue and Recovery Center, Gen Maurice A. Preston, Commander USAFE, presented the Air Force Outstanding Unit Award (AFOUA) to the Center's commander, Col Saleen Aswad.

Although the presentation took place at the Ramstein AB Headquarters of the unit, over 800 men at 15 different bases had a vital interest. These are the airmen in the Center's three squadrons and 12 detachments. They provide America's air rescue and recovery capability for an area extending over a third of the earth. Commanders of these units contributing toward winning the Award were on hand for the presentation. And each may well have thought back over the two-year period that went into achieving Atlantic Rescue's second AFOUA.

The citation stated that the Center had distinguished itself throughout the period July 1965 through June 1967 by having maintained a sustained search and rescue commitment with a perfect flying safety record. In addition to the normal planned precautionary support of Air Force operations, extensive coverage was provided to the National Aeronautics and Space Administration space program, as well as numerous humanitarian assistance missions provided civilian agencies of the United States and foreign nationals.

"...over an area covering four continents, the Atlantic Aerospace Rescue and Recovery Center accomplished its task in an outstanding manner. The successful accomplishment of an assigned mission under some of the most adverse and exacting conditions along with the high degree of professionalism and devotion to duty which was displayed reflects great credit upon all assigned personnel and upon the United States Air Force."

What were some of these adverse and exacting conditions? What do the records reveal? Bare statistics are that 104 lives were saved by the units while they flew 3,430 missions totaling over 39,000 flying hours. (In 1967, this record was exceeded; in that period alone, 120 lives were saved.) Behind these figures, however, are men who met challenges in almost every possible facet of their work, overcame them and are going back for more.

For example: The three rescue squadrons (57th, 58th and 67th) received the Lockheed HC-130H into their in-

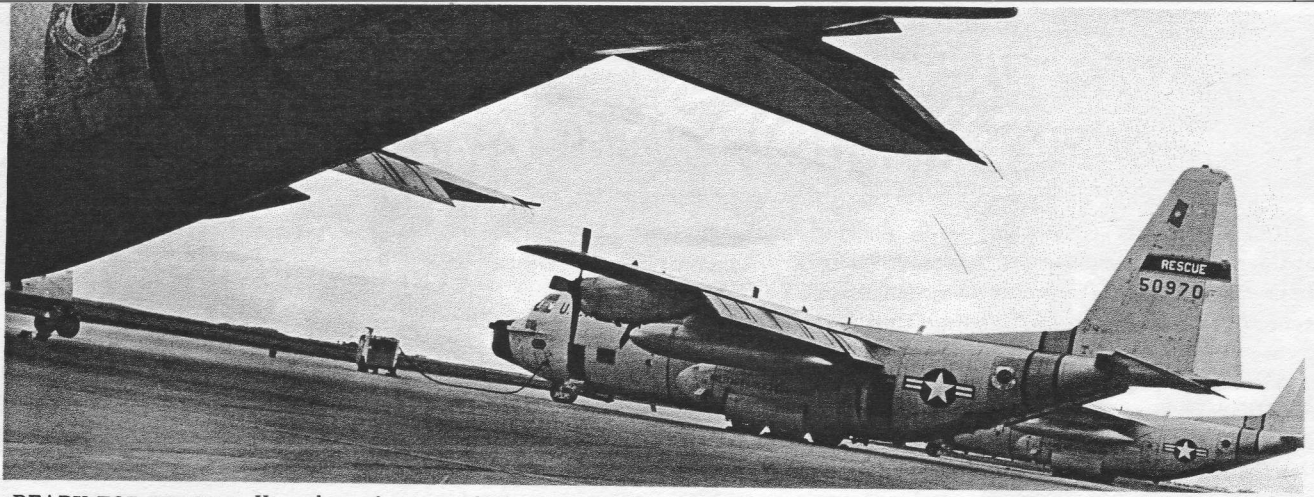


AWARD CEREMONY—Gen Maurice A. Preston, commander, USAFE, attaches an Air Force Outstanding Unit Award streamer on the Air Force flag during ceremonies at Headquarters, AARRC, Ramstein AB, Germany. This is the second award earned by the Atlantic Center. Afterward, Col Saleen Aswad, right, AARRC commander, introduced his unit commanders to General Preston. (USAF photos by TSgts H. Litt and Tom Kerns.)

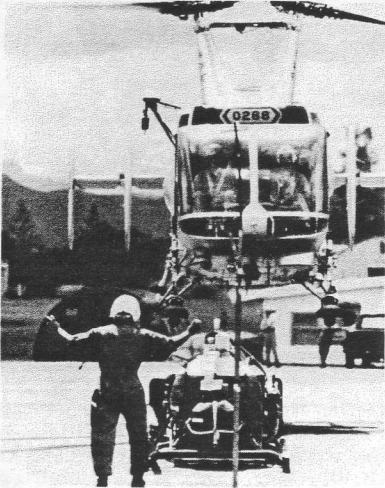
ventory without a hitch while keeping up normal rescue coverage. At the same time the units absorbed almost 50 percent more personnel with hardly a ripple. With 28 days notice, the 67th ARRSq picked up kit and baggage and moved from Prestwick, Scotland, to Moron AB, Spain, bringing all equipment in its own aircraft. Dependents in private vehicles crossed four countries to their new assignment. The squadron flew a rescue mission on the day it arrived at Moron. With equal professionalism, three detachments (2, 3, and 12) shifted from France to England during Operation FRELOC. And a fourth, Det 9, moved from Ethiopia to England.

SCRAMBLE —A rescue crew from an AARRC detachment scrambles for their HH-43B HUSKIE after a call from the base crash station. They will be airborne, with fire-fighting equipment, in a minute or two and flying a precautionary orbit near a possible crash scene. (USAF photo)





READY FOR RESCUE—Hercules, shown on alert at Moron AB, Spain, are ready to fly over land or ocean to deliver rescue-men whenever they are needed. Operating from remote deployment areas as well as from modern airfields, Atlantic Rescue crews were credited with saving 120 lives last year. (USAF photo)

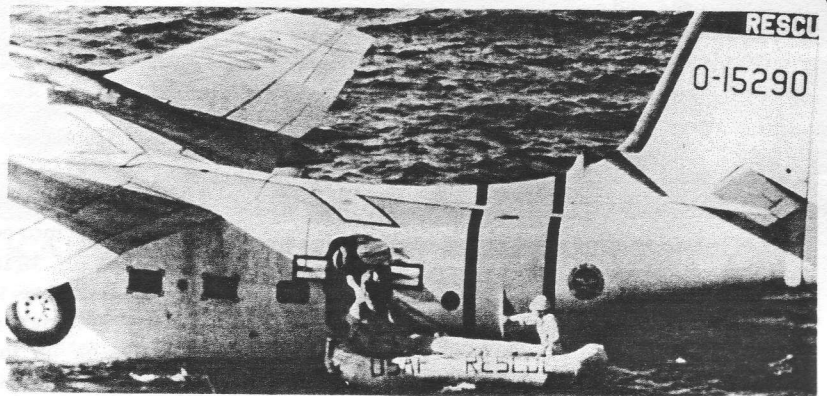


PILOT SKILL—Is necessary to hover above the fire suppression kit and attach it to the HUSKIE before speeding to the scene of an emergency landing.



RAPID RESPONSE—Delivery of medical personnel to the immediate scene of an emergency is an everyday job for AARRC helicopters. During 1967 the unit's HH-43's flew almost 1,500 sorties and were virtually always in the air in less than five minutes after notification of emergencies.

WIDE RESCUE COVERAGE—Personnel from a ship stricken in the Mediterranean are hauled aboard an HU-16 Albatross. The Center's unit at Wheelus AB, Libya, is equipped with this open-sea rescue aircraft. (USAF photos)



Highlights of a few of the rescue missions flown are:

During the September 1966 floods in Italy, HH-43B HUSKIES from Det 10, Aviano AB, airlifted 43 people from roof and tree tops while dodging high tension wires, and similar hazards in extremely stormy weather.

When the SS Tradeways sank in the Atlantic during severe weather, the 57th ARRSq from Lajes AB was able to save five people through pinpoint air dropping of equipment and then directed surface ships to the scene where 22 remaining survivors were picked up.

Because of blizzards, ground parties were unable to reach a C-47 that had gone down on one of the highest mountains in Greece. Rescue was called. The 58th ARRSq found the wreckage;

HH-43B's from Det 11 at Incirlik AB, Turkey, along with UH-2 crews from HC-2, deployed aboard the USS Forrestal, undertook the job of bringing back survivors. Literally fighting their way past ice covered, clouded precipices, with the choppers bandied about by winds, the rescue teams evacuated four injured men to safety.

Forty lives were saved in January 1967 when the 57th deployed pararescue men from an HC-130H over the burning, sinking SS Jacob Verolme near the Canary Islands.

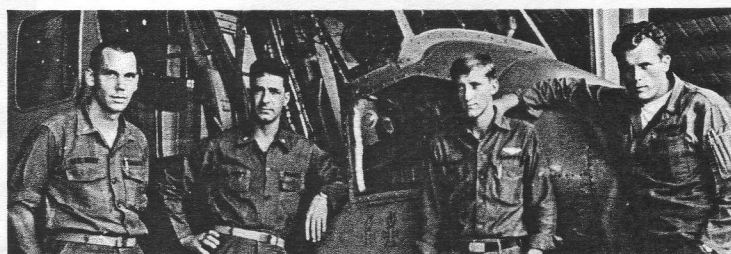
Dozens of other missions throughout the area backed up the Rescueman's motto, "That Others May Live." Rescue of flood victims in Spain, Turkey and Italy; bringing out mountain climbers; many single engine bail-out and fire suppression calls; airlift of critically injured and sick....

UH-2 AIRCREWMAN AWARDED NAVY CROSS

"The SAR helo bit nowadays is more than ever a yardstick of guts and raw courage, and we here at Cubi are just close enough to the action to really sweat out their line periods. All our 7-day weeks mean nothing compared to that lonely high-speed SAR mission over the waiting guns. They may be outnumbered and outgunned, but they will never be outclassed!"
— From "The Chopper"

RAdm C. A. Karaberis, Commander Fleet Air San Diego, presented the Navy Cross, the nation's second highest award, to AT1 (AC) Anthony C. Hanson during a Change of Command ceremony held at Helicopter Combat Support Squadron One (HC-1), NAS Imperial Beach, Calif., on April 4, 1968.

Petty Officer Hanson received the award for his extraordinary heroism on July 2, 1967, while serving with HC-1 as a combat aircrewman aboard a UH-2 SEASPRITE search and rescue helicopter assigned to the USS Reeves (DLG-24). When the helicopter rescue of a wounded USAF pilot, downed by hostile fire, was rendered impossible due to the extensive jungle growth, Petty Officer Hanson, with full knowledge that enemy ground forces were closing on the rescue scene, descended 150 feet from his helicopter to the wounded pilot. He freed the downed airman from his chute and then dragged him 100 yards through the dense undergrowth, fastened him to the hoisting equipment and guided him into the hovering helicopter. Petty Officer Hanson was directly instrumental in saving a life. His inspiring efforts were in keeping with the highest traditions of the United States Naval Service. Following the ceremony Petty Officer Hanson cut the cake that had been baked in his honor.



HONORED—In top photo, Petty Officer Hanson is presented with the Navy Cross. In second photograph, Hanson, at right, is shown with the rest of the UH-2 rescue team from HC-1 which participated in the hazardous mission. Left to right, Lt(jg) Samuel H. Arundale, copilot, LCdr Wade J. Pharis, pilot, and ADJAN (AC) Paul L. Swartz, second crewman. Lt Commander Pharis received a Silver Star for the hazardous mission. Lieutenant Arundale was also recommended for the Silver Star and Airman Swartz was cited for a Distinguished Flying Cross. (USN photos)

Det 4 Receives MAC Award

"The compressor blades on this helicopter's turbo-shaft engine had to revolve 960-million times over the past 32 months to achieve this accomplishment," proudly comments SMSgt Joe Smith, maintenance NCOIC for AARRC's Det 4 at Ramstein. "And to keep them turning this long with just minor maintenance took an all-out effort by our detachment maintenance men." With a smile he added, "She's been purring like a kitten."

The Ramstein AB sergeant was giving the reasons for an award just bestowed upon the detachment by BrigGen Allison C. Brooks, Aerospace Rescue and Recovery Service commander. General Brooks had sent Det 4 a Military Airlift Command Unit Pride (Personal Responsibility in Daily Effort) Award for achieving the maximum 800-hour engine life on one of the unit's two HH-43 HUSKIE helicopters.

Maj Clifford E. Brandon, Det 4 commander, was presented the award by Col Henry L. Tammenga, vice-commander, Hq AARRC. The Major gave the entire credit to his men, who include: Sergeant Smith, TSgt Don E. McFarland, SSgt John H. Balfour, TSgts Cecil A. Boothby, James R. Tabor, Jimmie A. Walker, Larry A. Combs and Sgt Robert M. Siegfried.

According to statistics at the Rescue Center's Maintenance Division, it's an exception rather than the rule, to achieve maximum engine time. The majority usually reach the 500-600-hour mark, says MSgt Thomas J. Brown, helicopter maintenance branch.

Det 4's second HUSKIE is already at the 777-hour mark, and with confidence, Sergeant Smith says, "We're going to reach the maximum time with this engine too." In the background seven "yea's" backed him up.

"Tougher" Scroll of Honor

In the future, recipients of the Kaman Scroll of Honor will receive a newly redesigned award. The wording and appearance of the Scroll is essentially the same as before, retaining the distinction that the award has earned over the years. The new Scroll, however, will reflect the corporate change of Kaman Aircraft to Kaman Corporation, with the Aircraft as one of its principal divisions. In addition, the Scroll will be printed on fine parchment instead of on glass, and after personalization, it will be mylar laminated. This change from glass to parchment was made to eliminate the fragility of these awards since many are sent long distances and to "hard" environments. The new Scroll can be laid flat, or rolled,

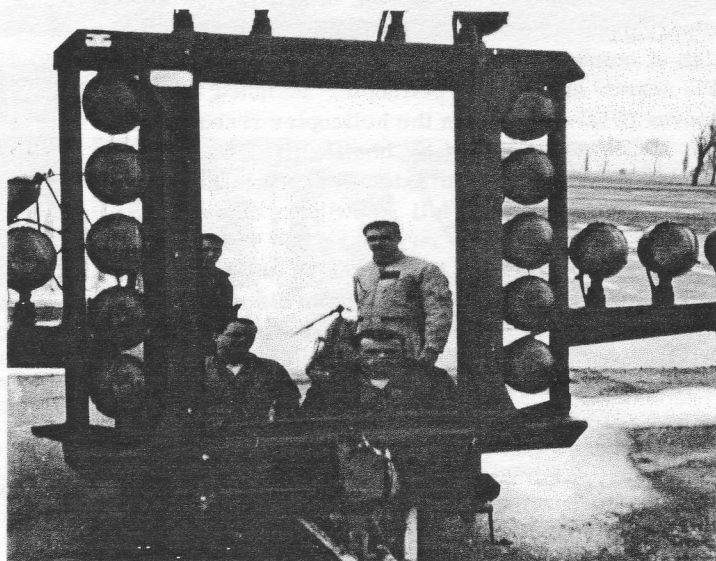
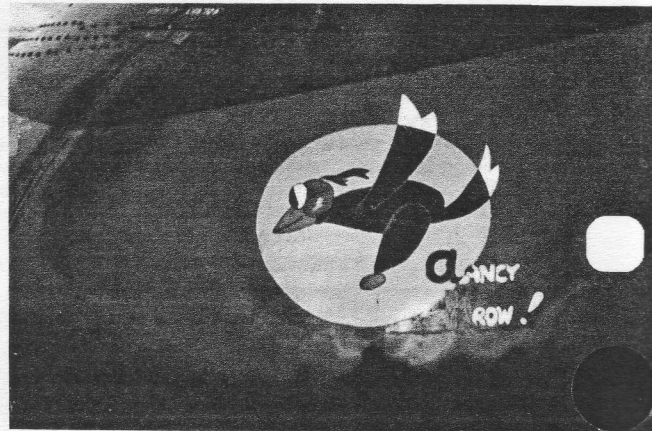
for convenience in transporting via mail, or between assignments. And the mylar lamination is designed to protect the award from disfiguration due to dirt, moisture, chemicals, etc. There is no change in the Scroll of Honor rescue pin.

We at Kaman Aircraft have received many expressions of appreciation from the military services for the recognition given to the aircrews who fly company-produced helicopters on missions of mercy. For the record, we regard it as a privilege to make the awards — a small way of expressing our appreciation for the humanitarian work accomplished by the men who fly in our aircraft.

William H. Weaver, Awards Administrator

CLancy Krow's Crew

by LCdr W. W. Wetzel
Officer-In-Charge



SMALLEST SAR UNIT—From left to right, LtCommander Wetzel, ADRI Childers, ADJ2 Goad and "Doc" Ferrin. Same crew is shown reflected in the fresnel lens used to direct carrier-based jets while landing. In top photo, CLancy Krow "eyeballs" far horizons from vantage point on front of SAR's UH-2 SEASPRITE.

In mid-California near the thriving metropolis of Crows Landing the Navy has established what is believed to be the smallest SAR unit in existence. Would you believe a complement of five? Counting the UH-2! This unit is an integral part of the important MLP station, Navy Auxiliary Landing Field, Crows Landing. Navy Crows celebrated its 25th Anniversary in May and these years reflect a rich history dating to the Second World War. Coming under the command of NAS Lemoore, Captained by Leland B. Cornell, Navy Crows serves as a satellite field to the gigantic master jet base located 85 nautical miles to the south. Because squadrons from NAS Moffett and NAS Alameda, as well as from NAS Lemoore, train at the auxiliary field one of the H-2's from NAS Lemoore is stationed at Crows Landing for greater flexibility and response.

The SAR crew consists of one pilot, LCdr W. W. Wetzel, the officer-in-charge; two mechs, James Childers, ADRI, the station "maintenance officer;" and Edward Goad, ADJ2; and the "station doctor," Albert Ferrin, HM2. Petty Officers Childers and Goad perform almost all operational level maintenance including engine changes and calender checks. Close coordination with the Operations Maintenance Division at NAS Lemoore has shown that this advance base concept can, and does, work with just a few men. Operationally this team has flown SAR missions, VIP airlift in the bay area, and other administrative flights. One of the main missions of the helo is the servicing of the station's bomb and rocket target range located in the mountains 11 miles away. During heavy rains the range can only be reached

via helo. Here they land adjacent to the rake site where the top of the mountain was cut off to accommodate a helo pad.

The station has adopted a mythical mascot — CLancy Krow — who, among other duties, is the flying guardian of the SAR crew. CLancy has been flying with the team for over a year from his perch on the nose of the helo. Not too long ago CLancy came in out of the rain when it was decided to remove the end of a building to convert it into a helo hanger. The adaption of this innovation has greatly improved working conditions which, prior to this time, were conducted completely outside. The plane is usually housed there during weekends and heavy weather, and most of the helo maintenance is conducted in the all-purpose shop inside.

Under the watchful eye of our mascot CLancy Krow, this littlest SAR unit will continue to carry forward the high state of readiness which is a SAR family tradition.

"When it comes to community relations, the 'littlest SAR unit' always responds to requests with diligence and spirit. With CNO blessing, LtCommander Wetzel and his men aided the local Junior Chamber of Commerce in organizing a sports car race on the base and many top-name drivers appeared. Periodically the UH-2 crew takes game wardens to local preserves so that bird counts may be taken. Once CLancy Krow's Crew rescued a civilian pilot after his plane crashed and several times they have directed forest fire fighting crews while, at the same time, flying SAR missions for incoming and departing aircraft from carriers at the Alameda Naval Air Station. The "spirit" of this base and crew are exemplary; a recent indication of this bears special note — the UH-2B maintenance and flight crew recently participated in three weeks of SEASPRITE schooling at NAS Imperial Beach at their own expense. This is true dedication!"... Frank J. Heffernan, Kaman Service Representative.

Timely Tips

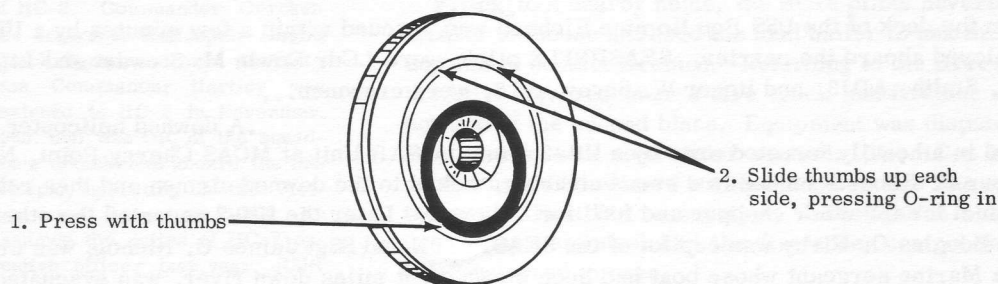
PRESETTING CONTROL ROD LENGTHS (UH-2)

Presetting the shoestring rods and tracking turnbuckles prior to installation does not automatically eliminate the need for making tracking adjustments after installation. Presetting is helpful because it eliminates the requirement for using the Lag Angle Rigging Spacer, P/N K604718-1, and the L-Crank Rigging Lock, P/N K604705-3. Also, by presetting lengths, blade installation and tracking procedures are speeded up. Because the lengths are identical at installation, a closer initial blade track should result. Another helpful feature is that a maximum amount of adjustment is available on all rods. However, presetting is only a short cut, not a cure all.

W. J. Wagemaker, Service Engineer

AIRFRAME CHANGE NO. 111 O-RING (UH-2)

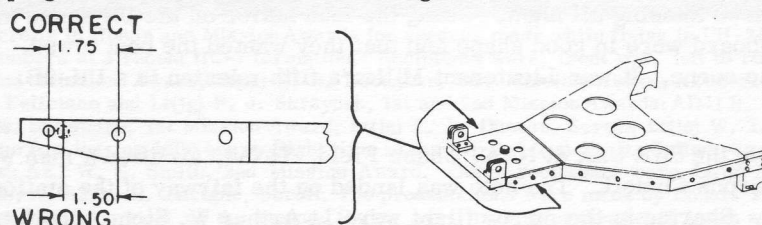
Several reports have been received indicating difficulties experienced when installing the MS17413-215 O-ring into the K616269-11 end cap shown in Figure 2 of AFC 111. The note on page 4 of the AFC indicates difficulty can be expected but it does not provide installation instructions. (The O-ring is 0.6-inch smaller in diameter than the end cap groove.) The following procedure, coupled with the fact that the end cap groove is undercut in two directions, will assure correct O-ring installation. After rolling the O-ring on the rocking pin to stretch it equally, press the O-ring into the groove with both thumbs as shown in the sketch below. Slide the thumbs up and around the full diameter of the groove, pressing the O-ring in as the thumbs move toward the other end. Because the O-ring was pressed in at one point and then stretched around into the groove, it probably wasn't stretched evenly; it must be properly stretched. Do this by holding the cap between thumbs and forefingers and again work the O-ring from the point of initial insertion toward the other side. For further information concerning AFC 111, refer to the Q & A pages of this issue, also an O-ring installation tool is described on page 19.



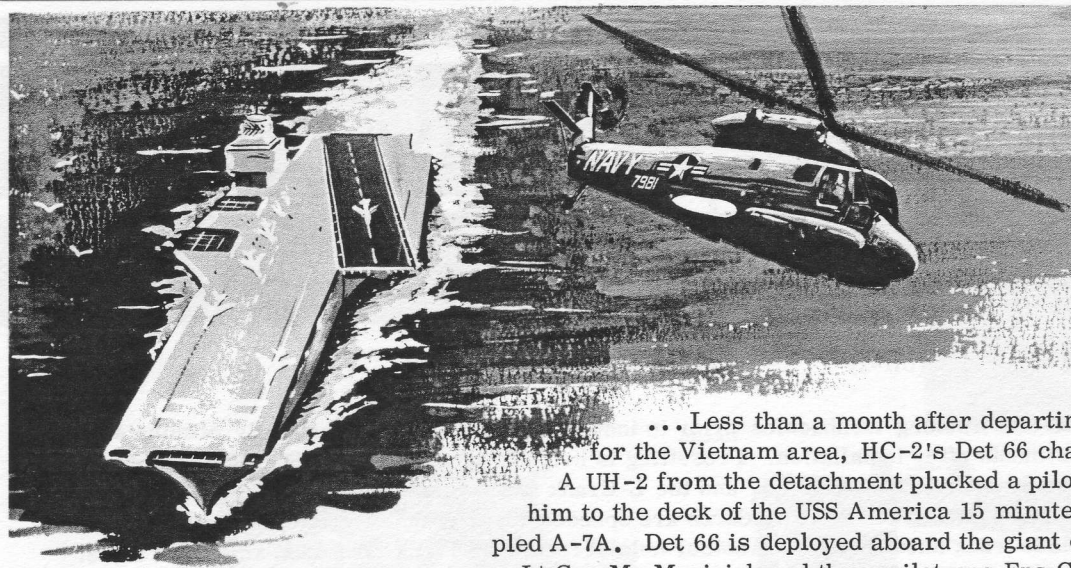
W. J. Wagemaker, Service Engineer

Flight Control Rigging Fixture (UH-2)

A minor problem has been encountered while attempting to comply with the intent of Support Equipment Change 567, SET-RIG FIXTURE (Cyclic and Directional), Modification of. On a few of the fixtures, mislocated holes were drilled in the K604802-123 and -125 arms. Normally, this could be ignored because the rigging fixture is usually not disassembled; however, in order to comply with the intent of SEC 567, the -123 arm must be removed and the locating plate, P/N K604802-121, discarded. When the new plate, P/N K604182-11, is installed, the three holes in both arms MUST match the holes in the new plate. The center hole receives a locating pin; the other holes are screw-holes. The accompanying illustration shows the correct location of the holes in both arms; the mislocated holes are represented by a dotted circle. The dimension between the last screw hole and the pin hole must be 1.75 inches, not 1.50 inches, in order to match up with the holes in the new plate. If, after checking, the last hole on the arm is found to have been mislocated, proceed as follows: Mark and drill a 0.265-inch hole, 1.75 inches from the centerline of the pin hole. When the new hole is drilled, a figure eight pattern will result but should not cause concern because the arms are not subjected to stresses or loads. If desired, however, the mislocated hole can be plugged with an aluminum plug and filed smooth before drilling.



L. J. Foss, Service Design



SEASPRITE ACTIVITIES

...Less than a month after departing from NAS Lakehurst, N. J., for the Vietnam area, HC-2's Det 66 chalked up its first WestPac rescue.

A UH-2 from the detachment plucked a pilot from the water and returned him to the deck of the USS America 15 minutes after he ejected from his crippled A-7A. Det 66 is deployed aboard the giant carrier. Pilot of the SEASPRITE was Lt Guy M. Maricich and the copilot was Ens C. Michael Hartwell. Aircrewmembers were ATN2 D. R. Bellemare and AN R. H. Jack....In answer to a call from the Coast Guard for assistance, a UH-2 crew from HC-2 located a small vessel 35 miles east of Pt Pleasant, N. J., then hoisted an injured fisherman aboard the helo and delivered him to the hospital. The helicopter was piloted by Lt W. W. Linscheid, Lt J. W. Strickler was copilot and crewmen were AMS1 G. D. Alfrey and AMS2 D. F. Durham. A backup UH-2 was piloted by Lt P. W. Kayle and Ens R. P. Blumm....Five minutes after he ejected from his A-4 when it lost power in the landing pattern, a pilot had been hoisted from the water and returned to the deck of the USS Roosevelt by a UH-2 from HC-2's Det 42. The detachment is deployed aboard the carrier which was operating in the Mediterranean. Pilot of the SEASPRITE was LCdr J. H. Long and Lt(jg) Gene Strocchio was copilot. Crewmen were ATN3 A. G. Roberts and AMH3 O. V. Fortier.

...A pilot who ejected from his F-4 after a power loss was rescued from the water a few minutes later by a UH-2C crew from HC-1's Det 64 deployed aboard the USS Constellation. The rescue was made off the coast of California by LCdr K. J. Rieder, pilot; Ens C. F. Jamaison, copilot; Michael W. Crosley, ADJ2, and Brooke P. Drexler, AMSAN, crewmen.

...A seaman who had fallen from the deck of the USS Bon Homme Richard was rescued within a few minutes by a UH-2 crew from HC-1's Det 31 deployed aboard the carrier. SEASPRITE pilots were LCdr Edwin M. Stewart and Lt(jg) William E. Bentley, Charles R. Smith, ADJ3, and Roger W. Savoy, AT3, were crewmen...

A downed helicopter missing for six hours was located in a heavily forested area by a UH-2 from the SAR Unit at MCAS Cherry Point, N. C. SEASPRITE pilot Capt Spencer F. Roberts landed in a small clearing, talked to the downed airmen and then returned to Cherry Point to pick up fuel for the other chopper and food for the crew. Later the UH-2 escorted the other helicopter back to base. Sgt Douglas G. Kirby was copilot of the SEASPRITE and SSgt James C. Nichols was crewman....In a night mission, a Marine sergeant whose boat had been blown eight miles down river, was evacuated by a UH-2 crew from the Cherry Point Unit. Visibility was poor but the pickup was made without incident from an isolated bombing range near where the boat had stranded. Captain Roberts was pilot and Sergeant Kirby was copilot on the mission. Crewmen were Cpl Edward W. Barewich and LCpl Howard P. Thurlow....A UH-2 from the unit launched when an A-6 was reported overdue and, when the wreckage was discovered, made an extensive search for the pilots. Afterward, Corporal Thurlow was lowered from the helicopter into the water seven times to gather parts of the aircraft in order to later aid the accident board in determining the cause of the crash. Capt Joseph R. Chapman, SEASPRITE pilot, said Corporal Thurlow "did an outstanding job in recovering these bits of aircraft at great personal risk." Others aboard the UH-2 were Capt F. G. Hill, copilot, and Corporal Barewich, crewman.

...A pilot who was forced to eject from his A-4 and landed in the St Johns River was rescued by a UH-2 crew from the SAR Unit at NAS Jacksonville, Fla. Pilot of the SEASPRITE was Lt Gary F. Haynes and the copilot was Francis C. Farley, ADJ1. Gregory A. Lerdy, AN, was crewman....A pilot who ejected from his crippled aircraft four miles from NAS Cecil Field, Fla., was picked up soon afterward by a UH-2 from the SAR Unit at the station. Pilot of the UH-2 was LCdr Richard E. Bryan and Robert W. Johnson, AMS2, was crewman.

...An overdue fishing boat with five persons aboard was located by a SEASPRITE from the SAR Unit at NAS Pensacola, Fla., after an 11-minute search. The craft had been missing all night. Using the loud hailer on the UH-2 and hand signals, Lt Bruce E. Miller learned that all aboard were in good shape and that they wanted the boat towed. The helo pilot directed a Coast Guard boat to the scene. It was Lieutenant Miller's fifth mission in a UH-2B.

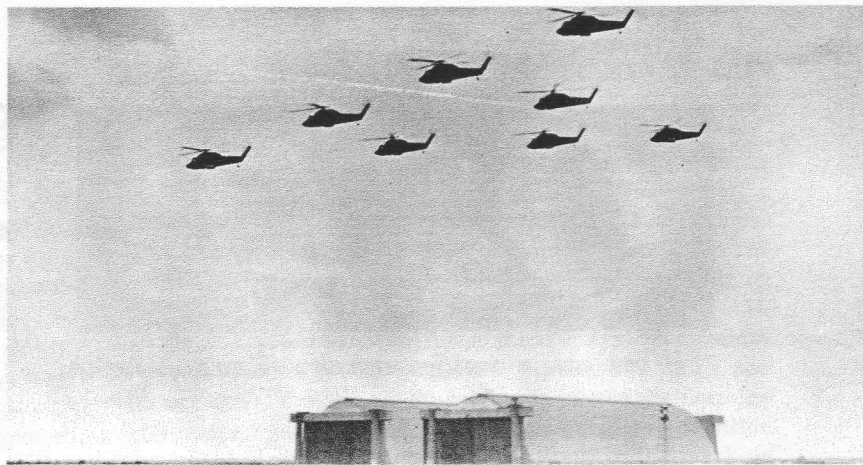
...UH-2 pilot Lt Jon W. Walker and his crew from the SAR Unit at NAAS Chase Field, Texas, airlifted a man with a ruptured appendix to the hospital at NAS Corpus Christi. The helo was landed on the fairway of the station golf course across the street from the hospital. Sharing in the mercy flight were Lt Arthur W. Stone, copilot, and J. J. Beaman, HM3.



WAVE FOR HC-5—Ens Linda D. Masters thanks Cdr C. O. Borgstrom, commanding officer of HC-5, after her first ride at NAS Imperial Beach, Calif., in one of the squadron's UH-2C SEASPRITES. Miss Masters, the unit's new assistant administrative officer, is the first Wave to be assigned to an HC squadron and the first to be stationed aboard the Naval Air Station. (USN photo by PH3 Blankenship)



NEW COMMANDING OFFICER—During recent ceremonies at NAS Lakehurst, N. J., Cdr Jack H. Hartley, left, relieved Cdr Otto E. Gercken as commanding officer of HC-2. Commander Gercken has orders to Helicopter (Light) Attack Squadron Three in Vietnam. Commander Hartley was assigned to HC-2 in November, 1965, and was OIC of the squadron's detachment aboard the USS Intrepid, operating in the Vietnam area throughout 1966. He assumed the duties of HC-2 executive officer last year. (USN photo)

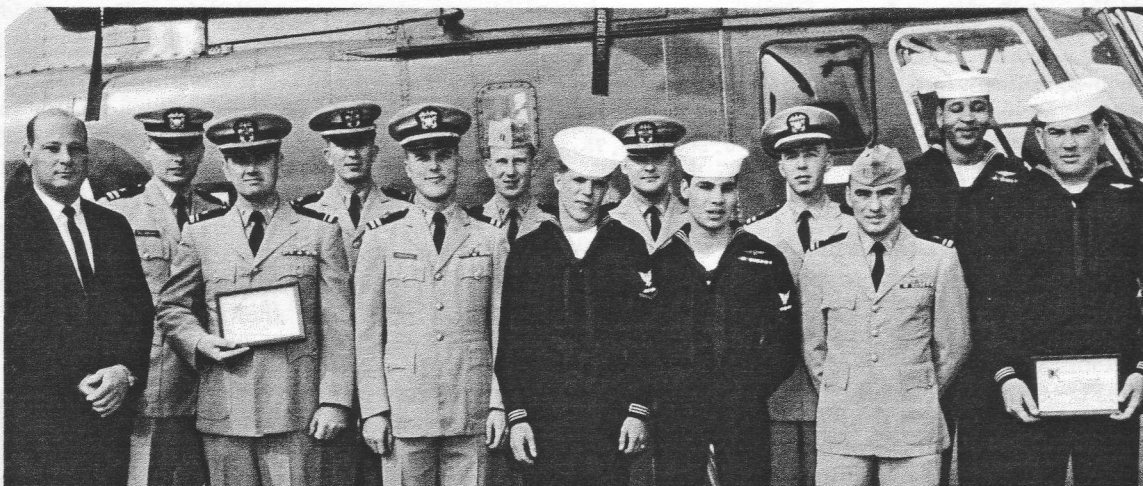


IMPRESSIVE SIGHT—Eight UH-2's from HC-4 at NAS Lakehurst, N. J., practice a fly-by in preparation for Armed Forces Day. The flight was led by Cdr R. W. Johnson, commanding officer of the squadron. During the holiday celebration later, HC-4 "put on a fantastic demonstration of helo flying, highlighted by coordinated mass maneuvers, high speed passes, a simulated rescue and formation flying." (USN photo)

HC-4 Crew Aids Firefighters

UH-2 pilots Lt David C. Wynne and Lt Richard A. Malahowski, along with crewman ATN2 Don Croom, were returning to NAS Lakehurst, N. J., at the end of a routine mission when the station tower directed them to investigate a brush fire burning near Robinsville. They found that firefighters had the blaze under control. A few seconds later, however, Lieutenant Wynne saw smoke more than a mile away and flew over the area—fire was consuming about an acre of brush and forest and no firemen were in the vicinity!

Flying to a nearby home, the HC-4 pilots hovered in front of the house and used the loud hailer to ask the occupants to contact firemen. Returning to the first fire, the UH-2 hovered over a fire truck and firemen were notified of the second blaze. Equipment was dispatched and the fire was soon under control. The HC-4 helicopter turned homeward but then another fire was spotted on the Fort Dix reservation. Investigation showed that Army personnel had the fire under control so the UH-2 returned to base.



HONORED BY KAMAN—Scrolls of Honor and Mission Awards for rescues made while flying in UH-2 SEASPRITES were presented to crewmembers at a recent HC-7 formation. Recipients were, front row, left to right, Lt(jg) J. P. Brennen, Scroll and 2nd Mission Award; Lt(jg) R. B. Beougher, 2nd Mission Award; ADJ3 S. R. Hill, 1st Mission Award; AE3 J. L. Feliciano and Lt(jg) P. J. Skrzypek, 1st and 2nd Mission Awards; ADJ1 R. L. Clemons, Scroll. Rear row, Lt S. M. Salisbury, 1st Mission Award; Lt(jg) L. L. Duncan, Scroll; Lt(jg) W. L. Berry, 6th Mission Award and a plaque for logging 1000 hours flight time in the UH-2; Lt(jg) P. D. Cullen, Scroll; Lt A. J. Curtin, 6th Mission Award; AE1 W. H. Smith, 2nd Mission Award. Other recipients were Lt(jg) R. B. Lewis, 3rd and 4th Mission Awards; AMS2 R. R. Lavigne, Scroll. The presentations were made by Donald Tancredi, far left, Kaman service representative. Most of the rescue flights were made over Southeast Asian waters. (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 UH-2A/B/C) WHEN BENCH TESTING THE SENSITIVITY OF THE COCKPIT BLADE TRACKING SYSTEM'S ACTUATOR CONTROL UNIT, THE TEST SET'S LEVEL CONTROL KNOB IS ADJUSTED UNTIL THE C-UP LIGHTS TURN ON. WHAT IS THE NEXT STEP?

A. The next step is to check light deactivation and to be certain the sensitivity of the control is within the required tolerance.

Note: The following four procedures are intended as a replacement for the information presented in the last paragraph of step (b) and all of step (c) in the following maintenance manuals: NAVAIR 01-260 HCA-2-9, 15 Jan. 1964, paragraph 385, page 104 or NAVAIR 01-260HCA-2-6, 15 Oct. 1967, paragraph 5-30, page 175 which supersedes the -2-9.

1. C-UP light activation. Be sure the LEVEL CONTROL is turned slowly; record the VTVM reading at the precise moment of C-UP light activation. The VTVM trip readings should fall between 0.187 to 0.375 volts for the K687060-3 actuator control and between 0.067 to 0.133 volts for the -5 unit. Also check the DC meter which indicates the DC magnetic amplifier trip point; it should read 0.25 ± 0.01 volt. If the readings for any of these are not correct, refer to the adjustment procedures under the paragraph titled ACTUATOR RELEASE ADJUSTMENT in the MIM.

2. Multiply the value obtained in step 1 by the multiplier factor for the specific actuator control under test. For P/N K687060-3, multiply by 0.75; for P/N K687060-5, multiply by 0.66. For example, if a -3 is being tested and the VTVM trip reading was 0.200 volt, multiply 0.200 by 0.75. Record the answer as 0.15.

3. Slowly turn the LEVEL CONTROL in the opposite direction until the C-UP lights deactivate; record the VTVM reading obtained when the lights go off.

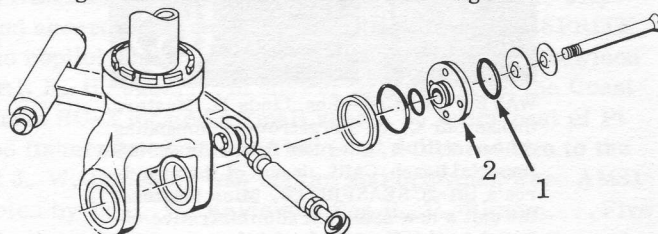
4. Compare the value obtained in step 3 (deactivation) with the answer obtained in step 2; it should be within $\pm 4\%$. If it is, continue on to step d in the MIM. If it is not within $\pm 4\%$, recheck that the light activation value (step 1) was multiplied by the correct multiplier factor 0.75 or 0.66 (step 2) depending upon which actuator is under test.

Refer back to the MIM and proceed with step d. For the remainder of this test, use the procedures and values listed here for all blade positions on the test set. These procedures will appear in a future change to the MIM NAVAIR 01-260HCA-2-6, Electrical system.

J. J. McMahon, Service Engineer

Q. (Applies UH-2A/B/C) WHAT IS THE CORRECT PART NUMBER FOR THE O-RING USED ON THE TAIL ROTOR CAP, P/N K616269-11?

A. The correct part number for the O-ring (1 in the illustration) is MS17413-215, rather than the identity now called out on the IPB. This information will be included in the next change to NAVAIR 01-260HCA-4-1 and NAVAIR 01-260HCB-4-7. It should be noted that the diameter of the O-ring is approximately 0.6-inch less than the diameter of the cap groove (2), requiring it to be stretched substantially during installation. For O-ring installation procedures, refer to the Timely Tips on Page 7 and to the O-ring installation tool described on Page 19.



W. J. Wagemaker, Service Engineer

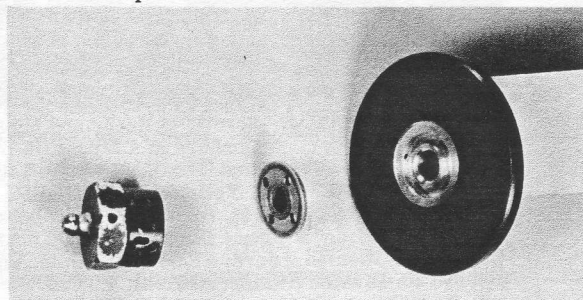
Q. (Applies UH-2A/B/C) SHOULD ASE AMPLIFIERS BE INTERCHANGED BETWEEN UH-2A/B AND UH-2C HELICOPTERS?

A. No, they should not! ASE amplifiers are not interchangeable. ASE amplifier P/N 9616-10-04 is used on UH-2A and UH-2B helicopters. ASE amplifier P/N K687703 is used on the UH-2C helicopter. Although the units fit into any of these helicopters, differences in internal wiring will prevent the ASE from functioning properly.

C. D. Morse, Service Engineer

Q. (Applies UH-2A/B/C) AFC 111, WHICH PROVIDES SINGLE-POINT TAIL ROTOR LUBRICATION, INCLUDES A NUT ASSEMBLY, P/N K616271-1. TO WHAT TORQUE SHOULD THE NUT BE TIGHTENED?

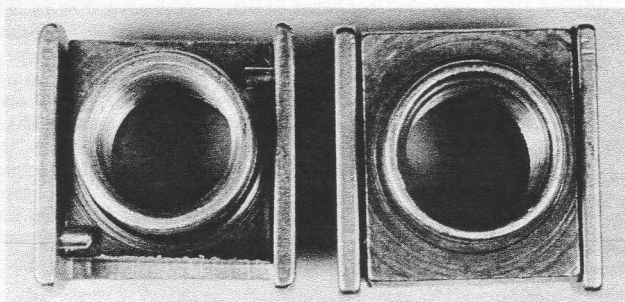
A. The nut assembly should be tightened to a torque of 100-140 pound-inches. In order to obtain this torque, and properly install a cotter pin, it is necessary to install the correct end cap and washer. Under no condition should the nut be backed off to facilitate cotter pin insertion. (When a nut is backed off, it should be backed-off all the way and then retorqued). If, with from 100-140 pound-inches torque on the nut assembly, the cotter pin cannot be installed recheck to ensure that the proper hardware and parts are installed. The photo shows the end cap, washer and nut assembly which must be installed in that order to provide correct stackup.



W. J. Wagemaker, Service Engineer

Q. (Applies UH-2A/B/C) SHOULD NEW BARREL NUTS BE USED EACH TIME A MAIN TRANSMISSION IS INSTALLED?

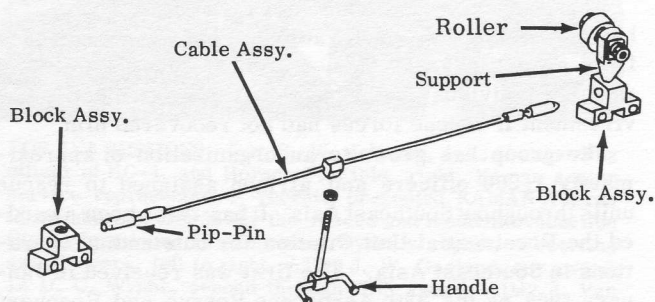
A. It depends on which of the two available barrel nuts is being installed or removed. The nut originally used, P/NSL1808, FSN 2RM5310-341-9997A110, had a one-time use and could not be reused regardless of apparent condition. The latest barrel nut, P/NSL1996, FSN 2RM5310-689-5961A110, supersedes P/N SL1808 and has a more liberal service life. The new nut may be reused as long as a minimum of 32 pound-inches of torque is necessary to run the transmission bolt through the locking feature of the nut. Although part numbers are not inscribed on the nuts, visual identification is easily accomplished as can be seen in the accompanying photo. On the left, with retaining pins exposed is P/NSL1808. This nut can only be used once and must be discarded when removed. Notice that the SL1996 nut on the right has concealed retaining pins. Because of the limited space in the transmission mounts, both barrel nuts have built-in side play which helps to align the bolt and nut.



R. J. Trella, Service Engineer

Q. (Applies UH-2A/B/C) WHAT HAPPENS WHEN THE PILOT'S DOOR EMERGENCY JETTISON HANDLE IS PULLED?

A. When the handle is pulled, pip-pins disengage the door rollers from the door allowing the door to be pushed out. The illustration shows the jettison mechanism. The block assemblies, cable and handle are built into the door. The rollers and roller supports are held to the door by the pip-pins which pass through holes in the block assemblies and enter holes in the roller supports. Pulling the handle withdraws the pip-pins and allows the door to be pushed away from the roller supports. Emergency door jettisoning is rarely used but, nevertheless, proper functioning of the mechanism is a MUST. The pip-pins and roller mechanisms should be lubricated with a general purpose oil (MIL-L-7870). The shearwire which prevents accidental actuation of the emergency handle should be MS20995CU20. Installation procedures for the doors and jettisoning mechanism are detailed in the MIM NAVAIR 01-260HCA-2-2.



H. Zubkoff, Service Engineer

Q. (Applies HH-43B/F) WHAT IS THE TOTAL CAPACITY OF THE ENGINE OIL SYSTEM?

A. The engine oil capacity is dependent on which engine is installed in the helicopter. The HH-43B, which has the T53-L-1B engine, has a system capacity of 2.9 gallons. Approximately 1.1 gallons are dispersed throughout the system in the engine, lines and cooler while the remaining 1.8 gallons are contained in the reservoir. The HH-43F utilizes the T53-L-11A engine and has a system capacity of 4.3 gallons. Of this total, 1.3 gallons are dispersed throughout the system and 3.0 gallons are contained in the reservoir. Both reservoirs have provisions for 0.8 gallon expansion and should only be filled with oil to the mark on the dipstick. If an excess amount of oil is put into the tank, it will be vented overboard, creating a cleaning problem and a fire hazard.

H. Zubkoff, Service Engineer

Q. (Applies UH-2C) WILL THE PUBLICATIONS CHANGE STRIP BE PLACED IN THE OUTER MARGINS OF THE NUMERICAL INDEX AND REFERENCE DESIGNATION INDEX, NAVAIR 01-260HCB-4-1?

A. No, the change strip, which indicates that a portion of the text has been changed, added or deleted, will be placed next to the part number as shown in the illustration. This deviation from the normal position of the change strip (in the outer margins) was necessary because of a recent change in the applicable Specification. This change required dropping of the FSN and enabled three columns to be placed on each page instead of the usual one. Until such time that a Specification change deletes or repositions the change strip, UH-2C Indexes will carry the following explanation on the A page: "NOTE: The portion of the text affected by the current change is indicated by a vertical line adjacent to the affected part number(s)."

PART NUMBER	VOLUME FIGURE & INDEX NUMBER	CODE		
		SOURCE	RECV	KIT
9430428	6- 4 - 10	P1	R	
9431023	6- 6	P1	R	
9440814	6- 6	P1	C	
	6- 4 -	P1	R	
9440878	6- 6			
9444	6- 40 -	P1	L	
945AL2	4- 33 - 28	P1	C	
	9-122 - 36			

F. G. Weber, Service Publications

Q. (Applies UH-2A/B/C) WHY IS LIQUID SPRING TIME BEFORE OVERHAUL (TBO) BASED ON FLIGHT HOURS?

A. Because for every flight hour logged, a helicopter will average so many hours of ground time, so many landings, takeoffs, etc., and these averages can be related to an average liquid spring life. No single method of record-keeping will completely take into consideration all the factors which affect liquid spring life. For instance, a few affecting factors are: type and base of operation; climatic and environmental conditions; number and frequency of peak loading cycles; gross weights; and calendar time. Obviously, tailoring a record-keeping method for each aircraft is impractical. Therefore, based upon this law of averages, and since it is by far the least complicated method, the flight-hour method for determining liquid spring TBO was selected.

H. Zubkoff, Service Engineer

Southeast Asia



A LIFE SAVED—Inside an HH-43F from Det 10, 38th ARRSq, Alc Larry D. Nickolson, pararescueman, right, gives plasma to a seriously wounded sailor from a U. S. Navy river patrol boat. Two other wounded Navy men were also in the aircraft. The boat had been hit by a Viet Cong rocket 15 miles from Binh Thuy AB where Det 10 is based. Lending assistance to Nickolson is Alc Archelous Whitehead, Jr., the flight engineer. Capt Leslie E. Johnson, copilot of the HUSKIE, is checking on his passenger's condition. Pilot on the mission was Capt Laurence W. Conover. (USAF photo)



EARNs DFC—Air Force SSgt John A. Smith, a pararescueman from Det 9, 38th ARRSq, Pleiku AB, is congratulated by Col Emil Beaudry, vice commander of the Aerospace Rescue and Recovery Service. The Colonel had presented Sergeant Smith with the Air Force Distinguished Flying Cross and two Air Medals. The pararescueman received the DFC for a mission flown in an HH-43 during which he was lowered 150 feet through the dense jungle canopy to assist in evacuating injured soldiers from heavy undergrowth. Later, as he was being hoisted to the HH-43, the cable snarled when he was still 20 feet below the helicopter. Capt Keith H. Ricks, the pilot, hover-taxied three miles to a clearing so the Sergeant could be taken aboard. (USAF photo)



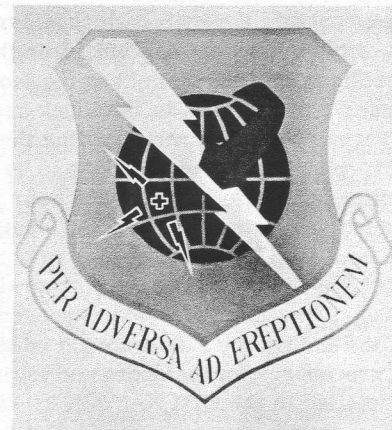
FATHER AND SON MEET—Air Force SMSgt Alvin Avants briefs his son, Army SP/4 Alvin D. Avants on the operation of the HH-43 HUSKIE. The elder Avants is maintenance superintendent with Det 14, 38th ARRSq at Tan Son Nhut AB while his son is a helicopter mechanic with the 120th Aviation Company at Long Binh. (USAF photo)

3RD ARRGp Emblem

SAIGON (7AF)—An official emblem for the 3rd Aerospace Rescue and Recovery Group was recently approved by Headquarters U.S. Air Force. The group, with its headquarters at Tan Son Nhut AB and commanded by Col Paul E. Leske, currently provides search and rescue support for the 7th Air Force and other Free World Forces in Southeast Asia.

The emblem is the result of combined efforts and ideas of several members of the group. Symbolic of the group and its mission, the emblem shows a blue globe which represents the worldwide capability of the group for search, rescue and recovery operations. A red cross on the globe depicts a location of distressed personnel or required rescue operations. A white lightning bolt denotes adversity (hostile forces or elements) which must be overcome to effect successful search and rescue operations. A green arrow piercing the lightning bolt signifies the response of the group's forces to all emergencies. A scroll immediately beneath the emblem states the Motto: "PER ADVERSA AD EREPTIONEM — Through Adversity to the Rescue."

The 3rd ARRGp recently passed the 1,000 combat-save mark since it began operating in Southeast Asia in December 1964. In all, units of the group have completed more than 1,600 successful rescues since December 1964. The combat classification results when a rescue has been accomplished in which the individual rescued



has been exposed to enemy action or has been recovered from a hostile area. A non-combat save is credited when an individual could have died in a non-hostile environment if rescue forces had not recovered him.

The group has grown to an organization of approximately 1,200 officers and airmen assigned to rescue units throughout Southeast Asia. It has twice been awarded the Presidential Unit Citation for outstanding operations in Southeast Asia. The first was received in January 1966 as the 38th Aerospace Rescue and Recovery Squadron (the group's original designation) and the second in March 1967, as the 3rd ARRGp.

continued on page 14

DET 36 PERSONNEL—Standing in front of the UH-2A known as the "Gray Ghost of the VN Coast" are: front row, left to right, P. S. Schoonover, ADR3; J. Van Simaey, ADJ2, crewchief; W. C. Snawder, AMHAN; S. R. Parker, ADJ2; and J. J. Chaon, AMH2. Rear row, J. W. Garland, ATN2; Lt D. C. Wynne, OIC; Ens D. A. Burlone; Lt(jg) C. S. Park; R. E. Owen, AE3. During their first six months in WESTPAC, detachment crews flew 820 combat missions in the SEASPRITE while supporting amphibious operations against the VC. The enemy reported hitting the elusive "Ghost" on three different occasions. The helicopter was damaged by enemy fire while flying near Danang. (USN photo)



REPORT ON DET 36 ACTIVITIES IN VIETNAM

by Lt D. C. Wynne
Officer-In-Charge

Helicopter Combat Support Squadron Four's Det 36 was established in August, 1967, to provide helo support for the Commander, Amphibious Forces, US 7th Fleet, operating in the First Corps area of Vietnam. The detachment was supplied from the East Coast squadron, based at NAS Lakehurst, N.J., and personnel traveled to NAS Cubi Point in the Philippines to meet their ship and helicopter. The helo was UH-2A BUNO 147979 provided by HC-1 to HC-4 and transported to Cubi by ship. The Det arrived in the WESTPAC operating area on the third of September and was ready to deploy to Vietnam by the eighth. Lt D. C. Wynne was officer-in-charge and ADJ2 J. Van Simaey was crew leader of a seven-man maintenance and aircrew detachment.

For the first five months the helo det was assigned to the Task Force 76 flag ship, the USS Mount McKinley (AGC-7), and after that to the USS Estes (AGC-12). There are three AGC type command ships assigned to the Pacific fleet and whichever one is deployed to WESTPAC will have the helo aboard.

In the first six months in WESTPAC the Det 36 helo compiled an enviable record—820 combat support missions were flown by the UH-2A in support of amphibious operations against the insurgent Communist forces, the Viet Cong. The Det flew 300 hours, carried 1200 passengers, flew 43,000 pounds of combat cargo, and made five mercy flights in the WESTPAC area. The Det searched for and rescued two downed F-4 pilots, flew an emergency flight to carry medical supplies to the Marines at the DMZ, flew three medical evacuation flights, established a high speed MEDEVAC system for Marine personnel wounded at the DMZ, and made a night MEDEVAC to transport two critically injured sailors in the Philippines.

The UH-2A had a 90% availability while in WESTPAC and had no serious downing gripes the entire first six months. Called "SCOOTER 54," the UH-2 became known throughout the First Corps as the "Gray Ghost" since it was the only helo in South Vietnam painted gray.

HC-4 Det 36 will continue to provide helo support for the Amphibious Forces in Vietnam and, with good fortune, will go on to compile even greater statistics and missions.



FOR SEA MISSIONS—Cdr R. W. Johnson, left, commanding officer of HC-4, and Horace F. Field, right, Kaman senior service representative, recently presented KAMAN Awards to members of Det 36 for the rescue and medical evacuation flights mentioned in Lieutenant Wynne's report. Receiving awards were, left to right, ATN2 J. W. Garland, one award; Lt D. C. Wynne, second through fifth award; ADJ2 J. Van Simaey, one award; Lt(jg) D. A. Burlone, first through third; and AMH2 J. J. Chaon, one award. Lt(jg) C. S. Park and ADJ2 S. R. Parker, not shown, each received one award. (USN photo)

Mortar fire from batteries on the shore of the Gulf of Tonkin was heavy and getting heavier, but the UH-2 crew from HC-7's Det 109 never hesitated—there were two downed pilots in the water waiting to be rescued. Lt(jg) Harry E. Jansen made a pass over one of the survivors and Airman Terry W. Grubbs leaped into the water from the helicopter and then began swimming to the aid of the rescuee. A minute or so later the UH-2 returned and both men were hoisted aboard by E. W. Leagon, ADJ3, the other SEASPRITE crewman. During this time several of the guns on shore had been knocked out by U. S. fighter aircraft but fire from the remaining mortars was becoming more and more accurate. Lieutenant Jansen made another run and Airman Grubbs again leaped into the water and swam to the second survivor. Seconds later the UH-2 threaded its way back through the shell bursts and Leagon lowered the cable to the two men. When they were hooked on and a few feet above the sur-

continued on page 14

face of the water, the SEASPRITE pilot began flying a zig-zag course toward the safety of the USS Halsey from which the helo had taken off. Lt(jg) Brit R. Armstrong, Jr., the copilot, praised both crewmen afterward for the "outstanding manner" in which they performed. After leaving the rescuees on the Halsey, the UH-2 crew headed for another area where their services were needed.

Despite darkness and poor visibility, two downed air-men were plucked from the Gulf of Tonkin by a UH-2 crew from HC-7's Det 107 deployed aboard the King. SEASPRITE crewman W. H. Smith, AE1, leaped from the helicopter into the dark waters to aid one of the survivors and later left the helicopter again to help the other survivor. Lt William L. Berry was pilot of the rescue helo and Lt(jg) Rolland B. Beougher was copilot. The other crewman was Gary W. Farrell, ATN3.

The four-man crew of a helicopter which crashed into the water near the USS Ticonderoga was rescued soon afterward by a UH-2 from HC-7's Det 101 operating from the USS Providence. Lt(jg) Ronald B. Lewis was pilot of the rescue helicopter which, at the time of the incident, was making a personnel transfer. With the rescuees, passengers and crew, the SEASPRITE had nine persons aboard. Other members of the UH-2 crew were Lt(jg) Paul J. Skrzypek, copilot, and Joseph L. Feliciano, AE3.

continued from page 12

Det 1, 38th ARRSq, has made 65 "saves" since it began operation at Phan Rang AB 22 months ago. Commanded by Maj William C. Emrie, the unit's HH-43B crews have rescued a wide variety of persons, including a Montagnard tribesman badly clawed by a tiger, and two Vietnamese youngsters trapped in the rubble of a collapsed building. More saves were recorded when five Army helicopter pilots, stranded 50 miles offshore on a sand bar, were picked up by a Det 1 chopper.

Recently, a HUSKIE from the detachment rescued a U. S. sailor adrift in a small boat in the South China Sea. He was only 400 yards from enemy-infested shores near Cam Ranh Bay when sighted by Major Emrie and his crew while delivering a patient to the hospital. In spite of the number of small boats in the area, and the fact that almost everyone waves at "Pedro"—the HH-43—Major Emrie decided on a further look. After the patient was offloaded, the helicopter returned to the area. The sailor began waving again, this time frantically.

Hovering near the 14-foot Boston Whaler, and communicating with a combination of sign language and the public address system, the helicopter crew found out that the sailor had been drifting for 15-hours after his outboard failed. Numerous aircraft had flown over him during this time. He was hoisted aboard the helicopter and flown to the hospital at Cam Ranh Bay for a check-up. The HH-43 then returned for the drifting boat. As the helicopter hovered a scant foot or two above the craft, crewmen reached out and picked up the bow line by hand. The Boston Whaler was then towed to a friendly shore. With Major Emrie on the mission were 1stLt Michael T. Fagan, copilot; SSgt Darold D. Meyer, medical technician; and SSgt James J. Rivette, crew chief.

In a "smooth as silk" rescue, a UH-2 crew from HC-7's Det 107 plucked two downed F-4B pilots from the Gulf of Tonkin close to the enemy shore. SEASPRITE pilot Lt(jg) C. H. Yates, III, said afterward: the helo and flight deck crew performed beautifully—the aircraft was airborne and enroute in just under three minutes after the SAR alert sounded. The initial vector was exact, and when over the scene, an A-7A flying rescue cover pinpointed the first survivor. The rescuees' thorough knowledge of personal survival equipment and rescue procedures were responsible for a rapid pickup. Expected enemy fire failed to materialize and the return to the USS Jouett was uneventful. Lt(jg) L. L. De Vries, the copilot, added that the flight was "smoother than a training hop in Subic Bay."

Sharing in the uneventful, but potentially dangerous, mission were UH-2 crewmen Jeff M. Payne, AE3, and George A. Smellie, ADJ2.

Five men from HC-2, NAS Lakehurst, N. J., were awarded Air Medals recently for their actions while serving aboard UH-2's conducting SAR missions in support of Southeast Asia combat operations. Receiving medals from RAdm Roger W. Mehle, ComFairNorva were Cdr Jack H. Hartley, Lt(jg) David A. Stull and Lt(jg) Frederick D. Wiggins, pilots; and aircrewmen PR2 David W. Markel and AT2 David S. Rhodes. All were attached to HC-2's Det 11, deployed aboard the USS Intrepid, when the missions took place.

A pilot who bailed out of his crippled F-4D was picked up soon afterward by an HH-43B crew from Det 3, 38th ARRSq, Ubon RTAFB, Thailand. 1stLt John R. Bland, Jr., was pilot of the HUSKIE and Capt Clarence L. Hantsell was copilot. Crewmen were Sgt James M. Payne, medical technician, and Sgt George W. Tefferteller, Jr., flight engineer.

BIEN HOA (7AF)—An HH-43 crew from Det 6, 38th ARRSq, Bien Hoa AB, needed only six minutes to scramble, pick up a downed pilot, and return to base. Piloted by Maj Keaver Holley, III, the HUSKIE was airborne immediately following notification that 1stLt William V. Tomlinson, Jr., had ejected from his F-100 Supersabre just west of the base. A minute or two later the helicopter landed in a field and the lieutenant, who was on his 405th combat mission, climbed aboard.

"Tomlinson and I served together at our last base, Cannon AFB, N. M., "the Major said afterward, "but this was the first time we had gotten together in Vietnam. Although there didn't appear to be any enemy forces in the area, he seemed in a hurry when he boarded the chopper."

Other HUSKIE crew members were SSgt James B. Reed, flight engineer, and Sgt Jerry R. Staley, pararescueman.

As friendly troops battled with hostile forces nearby, two HH-43B crews from Det 13, 38th ARRSq, Phu Cat AB, hovered in the gathering darkness to evacuate wounded from a rocky, jungle covered mountainside. Tall trees and high gusty winds added to the hazard as Capt John W. Christianson and his crew hoisted two soldiers aboard and then moved off so that two more wounded could be picked up by the other HUSKIE piloted by Maj Bert E. Cowden, RCC, and Capt Robert N. Bowers. The poor visibility made the operation more difficult but the lights on the helicopters were not turned on to avoid drawing enemy fire. As the HH-43's left, fighting on the ground intensified and artillery shells began landing in the area. Army helicopter gunships supplied cover during the pickups. Other members of Captain Christianson's crew were 1stLt Jack F. Brannan, Sgt

continued on page 18

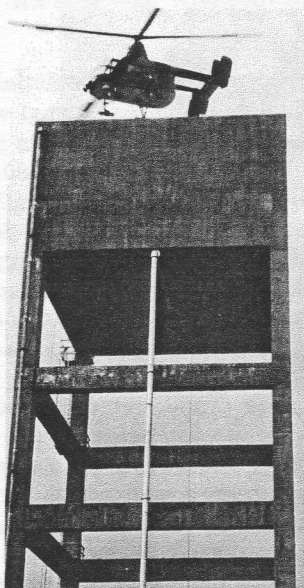


RECEIVES HUSKIE BRIEFING—1stLt Lynn F. Gormley receives a briefing on the forest penetrator from Capt Theron J. May, an HH-43 rescue crew commander with Det 14, 38th ARRSq at Tan Son Nhut AB. Lieutenant Gormley, new administrative officer with the 38th, is the first woman to be assigned to an Air Force rescue unit in Southeast Asia. (USAF photo)

NEW COMMANDER—LtCol Flavious F. Drake is the new commander of Det 8, 38th ARRSq and the senior Military Airlift Command Advisor for the 12th Tactical Fighter Wing. He is shown boarding an HH-43 HUSKIE used by his detachment at Cam Ranh Bay AB. LtColonel Drake is no stranger to the air rescue mission. During the Korean conflict he served on Okinawa with the 2nd Air Rescue Squadron at Kadena AB, which used the HU-16 Albatross. Three hundred of his 4,000 flying hours have been in helicopters. (USAF photo)



SECOND TOUR COMBAT PILOT—After more than 350 combat flying hours striking targets throughout Vietnam in a giant B-52, Capt Albert E. Tollefsen is back for a second tour. He is assigned as an HH-43 pilot, flying with Det 10, 38th ARRSq, at Binh Thuy AB, and has participated in the pickup of several combat-injured servicemen. Captain Tollefsen considers his first HH-43 mission as his most memorable one. He picked up two wounded Navy men from a moving boat in the Mekong Delta area and delivered them to a hospital. "It was undoubtedly the quietest mission I have participated in, but the crew coordination and professionalism displayed by the pararescuemen and flight engineers definitely set it aside as a most memorable one," Captain Tollefsen said. (USAF photo)



MOST UNUSUAL RESCUE—An HH-43 HUSKIE from Det 4, 38th ARRSq at Korat RTAFB, sets down atop a 100-foot tall water tower at the base prior to taking aboard an injured Thai worker. The Thai was working inside the tower when someone accidentally opened the water release valves creating a whirlpool that scraped him across the floor. He was injured severely enough that he could not be brought down from the top by a ladder. The HUSKIE was piloted by Capt John A. Canfield with Maj Pasco Parker, det commander, as copilot. SSgt Robert M. Warfield was crewman. On the way to the accident scene, the helicopter picked up Capt Gerald R. Schwarz (MC), a doctor. Afterward, Captain Canfield said that the biggest worry was that the copter's downwash might blow some of the other workers right off the top of the tower. "You just don't find them like this to often," Major Parker said about the mission. The Major should know—he's one of the few Air Force pilots with more than 2,000 hours logged in the HUSKIE. (USAF photo)

Log 2000 Hours



Two Air Force pilots recently logged 2000 hours each in the HH-43 HUSKIE. This brings to five the total number of pilots who have passed this mark while flying in helicopters produced by Kaman Aircraft. In left photo, Maj Warren K. Davis of Det 5, WARRC(MAC), McCord AFB, Wash., is congratulated by the unit's commander, Maj Erling Drangstveit, after passing the magic number while on a rescue coverage mission. In other photograph, Capt Robert S. Henderson of Det 16, CARRC(MAC), McConnell AFB, Kan., is shown after an emergency scramble during which he logged his 2000th hour in the HUSKIE. (USAF photos)

UH-2 OPEN SEA SALVAGE

by Robert J. Myer
Customer Service Manager

Enemy action, mechanical failure, weather, pilot or maintenance error—almost every day aircraft are downed for these or similar reasons. When such a mishap occurs over water, circumstances often dictate that little or no considerations be given to the possibilities of salvage. In the past, aircraft still afloat have been immediately sunk by gunfire as being hazards to navigation. However, there are other times when salvage operations are practical and should be attempted, not only because of the value of the aircraft, but because it will give investigators the opportunity to determine the cause for ditching so that corrective action can be taken. The following article deals with the subject of UH-2 open sea salvage. If further information is desired, please contact the Customer Service Department at Kamman.

Recent coordination with our WestPacService Representatives concerned the raising of a submerged UH-2 from a depth of approximately 95 feet. The success of the operation not only returned much needed equipment to service, but also allowed a determination of the cause for ditching. Our research included a review of the salvage information developed during the COMNAVAIRLANT Open Sea Salvage Conference held in 1963. At that time, COMNAVAIRLANT expressed the opinion that, because of a lack of a workable salvage plan, many recoverable aircraft were abandoned or sunk. Subsequently COMNAVAIRLANT Instruction 11135.1, dated 7 December 1963, entitled "Open Sea Salvage of SH-3A and UH-2A Aircraft; recommended procedures for:" was released for use by aircraft carriers, squadrons or any ship equipped with heavy cranes.

A review of our records revealed only 25% of UH-2 helos ditched at sea were effectively recovered and returned to service. Three recovered aircraft were stricken because of damage induced during salvage. The unrecovered aircraft fell into three categories: (1) Floated initially but were sunk or left to sink due to the ship's lack of salvage capability, or tactical circumstances; (2) Marginal flotation because flotation bags detached or did not completely inflate; and (3) Contacted water without flotation bags deployed.

It seems apparent that if detailed salvage procedures for specific aircraft were available, a larger percentage of ditched aircraft would have been recovered. It also seems apparent that regardless of the circumstances, the key elements in affecting a successful salvage operation



FLOTATION GEAR—The primary objective is to keep the UH-2 afloat long enough for the crew to leave the aircraft if it must be abandoned immediately after an emergency water landing is made. When such a landing is to be made, the bags can be inflated and, if sufficient power is available, the rotors kept turning to augment stability. Depending on the circumstances, it may even be possible to taxi the helicopter as shown in the above photo.

ation are: (a) Evaluation of tactical commitments; (b) Having salvage procedures available and personnel familiar with them; and (c) Having the necessary equipment.

As with all tactical situations, the final decision concerning possible salvage rests in the hands of the ship's commanding officer. Naturally, if he is aware of the relative ease with which successful salvage operations can be accomplished, a decision to salvage rather than abandon or sink could probably be influenced by the detachment and/or aircraft salvage personnel. To assist the CO and his men in arriving at the most expedient decision, the salvage procedures will be presented under these two headings: A. **REQUIRED EQUIPMENT** and B. **POSITION OF AIRCRAFT IN THE WATER**

REQUIRED EQUIPMENT

The equipment must necessarily be substantial enough to handle the weight of the helicopter. Normal weight of a UH-2 with no personnel and a full fuel load is approximately 9,000 pounds for a UH-2A/B and 10,400 pounds for a UH-2C. (Due to buoyancy effect, aircraft underwater weight would be 1,000 to 2,000 pounds less.) If the cabin and tail cone are full of water, the aircraft will weigh an additional 10,000 pounds. Also, a factor of 3 or more should be applied to these weights in order to compensate for any sudden accelerations caused by sea surface conditions.

1. Aircraft-type cargo crane, rated 50,000 pounds minimum.
2. Hoist Adapter, P/N K604010-1, or an equivalent line capable of handling 50,000 pounds within 20° of vertical plane—attached to main rotor hub.
3. Nylon lines, straps, manila lines or steel cable—used for primary or supplementary lifting, righting, guiding, and towing.
4. Minimum of two MK4 life rafts—used to stabilize and keep aircraft afloat.
5. The following assorted tools should be available: Quick-attach hooks, snatch blocks, various size shackles, hatchet, heavy duty bolt or cable cutter, hack saw and blades, marlin spikes, and a large screwdriver. (Tie safety lines to tools to avoid loss during over-water handling.)

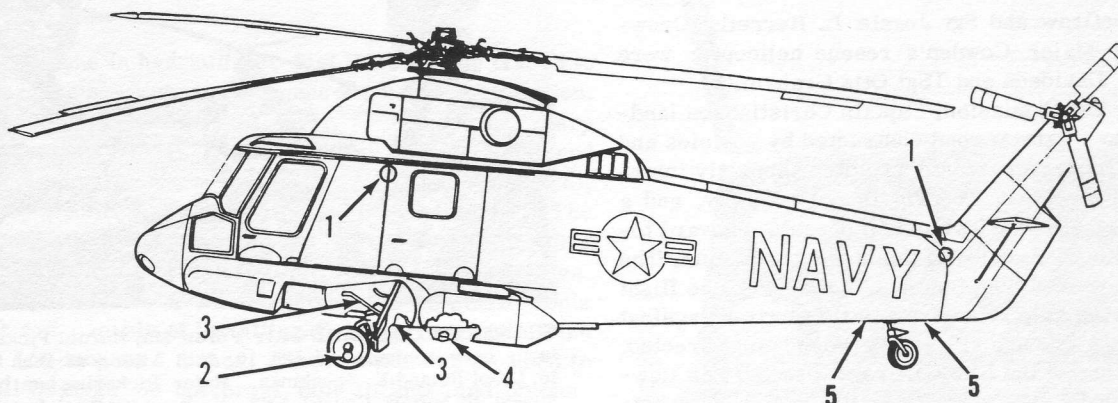
POSITION OF AIRCRAFT IN THE WATER

POSITION A. Afloat upright and apparently stabilized.

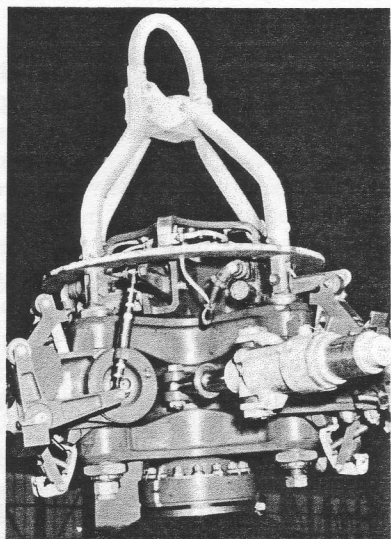
1. Attach lifting lines or adapter.
2. Attach guide lines.
3. Slowly lift helicopter aboard.

POSITION B. Inverted and marginally afloat.

1. Attach two MK4 life rafts to stabilize and keep aircraft afloat.
2. Secure safety line to latched cargo hook; take up slack.
3. Have divers attach righting line(s) to main rotor hub area.
4. Take up on righting line; allow slack on cargo hook line until aircraft is turned 90° (on its side with rotor hub visible).



Lifting points and other areas on the UH-2 with which salvage crews should be familiar are shown above. 1. Fuselage tiedowns (4) 2. Wheel tiedowns (2) 3. Landing gear members 4. Cargo hook 5. Tail cone (chopping point). Photograph on left is of the lifting adapter installed on the rotor hub. Attaching procedures are given in NAVAIR 01-260HCA-2-1.



5. Install lifting adapter or lifting line to rotor hub and take up most of slack. **CAUTION:** Avoid taking up all slack in lifting line at this time because variations in water surface can apply sudden loads.

6. Detach cargo hook and auxiliary flotation device lines (life rafts).

7. Attach guide lines and roll aircraft upright.

8. SLOWLY lift aircraft out of water. **NOTE:** Hoisting out of water slowly will enable water to drain. If faster drainage is required, chop holes in the skin at the rear portion of the tail cone.

9. Complete lift; carefully lower onto deck, flush with fresh water and commence preservation.



READY FOR SALVAGE—With step 1 of POSITION B accomplished, this downed bird is ready for a salvage crew to start the righting sequence which will eventually return the aircraft to service. (USN photo)

POSITION C. Aircraft floating stabilized but inverted.

1. Proceed with POSITION B, step 2.

POSITION D. Aircraft sunk and on bottom in inverted position.

1. Have divers attach lifting line to latched cargo hook.

2. SLOWLY lift helicopter to surface.

3. Proceed with POSITION B, step 2.

POSITION E. Aircraft sunk and on bottom upright or on its side.

1. Attach lifting line to main rotor hub area.

2. SLOWLY lift helicopter to surface.

3. When at surface, recheck security of lifting line (lifting adapter may be installed at this time).

4. Take up most of slack and proceed with POSITION B, step 8.

Two additional considerations worthy of mention are the possibility of attaching lifting lines to the main landing gear strut members if the cargo hook is inaccessible or damaged; and the option of removing main rotor blades if required to facilitate righting or lifting operations. The most suitable location to sever blades is across the two flat plate aluminum spar extensions just outboard of the folding pin. The control rod and wires in this area can be readily parted with a heavy duty bolt or cable cutter.

In conclusion, it is fully recognized that the above salvage conditions do not take into account the many possible unforeseen, uncontrollable situations or circumstances associated with emergency operations of this nature. For example, weather and sea state can adversely influence any of the recommendations presented here, not to mention tactical situations in unfriendly waters or other mission priorities. It is hoped, however, that this review of an old operational concern will help influence the decision affirmatively as to whether or not to attempt a UH-2 salvage when satisfactory or marginal conditions exist.

Kaman Rotor Tips will welcome information from detachment OIC's or salvage officers regarding the procedures they used during such an operation, especially under unusual circumstances or where a minimum of lifting equipment was available.

James E. DeGraw and Sgt Jessie L. Herrell. Crewmen aboard Major Cowden's rescue helicopter were SSgt Noel S. Davidson and TSgt Otis Graham.

In another Det 13 mission, Captain Christianson landed at dusk on a narrow road obstructed by vehicles and bordered by trees to evacuate a soldier seriously injured in a jeep accident. Debris in the roadway, and a mass of onlookers who insisted on pressing forward toward the helicopter, added to the landing problems. The pickup was made without incident, however. The flight to and from the area was over hostile territory against which artillery fire and air strikes were being directed. Other members of the HUSKIE crew were Captain Bowers, copilot; TSgt Delmer R. Smith, medical technician; and Sgt Charles R. Bulinda, flight engineer.

Cam Ranh Bay (7AF)—Due to the efforts of Sgt Richard H. Garlie, a Navy seaman is alive today. The Sergeant, a paramedic, was a member of an HH-43B crew from Det 8, 38th ARRSq, Cam Ranh Bay AB, which scrambled when word was received that a sailor at a radar site had been bitten by a poisonous snake. The man's respiration had stopped, but Navy personnel got breathing restarted as the HUSKIE landed. During the six-minute trip back to the base hospital, the seaman's heartbeat and breathing stopped.

"As soon as we got airborne," Garlie said, "I checked his pulse. It was dangerously slow. Then his breathing stopped. I began mouth-to-mouth resuscitation. I had just begun that, when his heart stopped. So then I began alternating mouth-to-mouth resuscitation and heart massage. I kept this up until the helicopter landed at the hospital's helicopter pad, across from their emergency room. Just before we landed, I got the heart started again and then he began breathing."

Other HUSKIE crew members, were Maj Jerry D. Stroh, pilot; Capt Peter W. Gissing, copilot; and A1C Wilber Jeffcoat, Jr., flight engineer.

A few months ago DaNang AB was attacked by rockets, mortars and enemy penetration teams shortly after 3 a.m. Five minutes after the rocket fire ceased, an HH-43 from Det 7, 38th ARRSq, was airborne to assess damage and search for casualties. Manning the HUSKIE were Capt George R. Andrews, RCC; Capt Richard A. Mayer, copilot; SSgt Evert E. Handy, airborne fireman; and TSgt John L. Hennessey, pararescue specialist. From their vantage point, they could see bursts of light as mortar shells continued to fall on the base and flashes where fighting was still underway along the perimeter. Flares from an exploding dump as well as blazing warehouses, aircraft, and storage areas lit the sky at scattered points around the giant facility.

Constantly threatened by sporadically exploding ordnance, as well as enemy fire, the rescuemen made landing after landing in the search for casualties. Each time, Sergeant Handy used a crash control radio to advise base fire and crash teams as to the exact location of each fire, the type, and equipment needed to contain it. When a large fire fed by a ruptured hose endangered a fuel storage area, the HUSKIE landed nearby and Sergeant Handy coordinated the firefighting efforts of the ground equipment with those of the helicopter. He also issued an urgent call to the fire department to send all available equipment to check the spreading blaze. Meanwhile, Captain Andrews had taken off again and, ignoring the obvious danger, placed the helicopter in a low hover just beyond reach of the 35-foot-high flames. Using the rotor downwash, he blew the fire away from threatened fuel tanks and also cleared a path for the fire fighters on the ground.



CHANGE OF COMMAND—Air Force Maj Harold Pickering, left turns over command of Det 10, 38th ARRSq at Binh Thuy AB to LtCol Roland E. Speckman. Major Pickering has been assigned to Suffolk County AFB, N. Y. LtColonel Speckman is beginning his second Vietnam tour. He was previously stationed at Tan Son Nhut AB. (USAF photo)

Soon afterward, another emergency situation arose but was quickly eliminated by the hard-working HH-43 crew—an aircraft was inbound and the base runways were covered with debris and shrapnel! Captain Mayer hovered the HUSKIE over one runway and used the downwash to clear it of obstructions. A minute later the tower dispatched the rescue helicopter to the dispensary to evacuate a critically injured airman to the Naval hospital. As he was placed aboard, the Det 7 crew was advised that the area between the air base and hospital was in enemy control and "heavy enemy contact" was occurring within 200 yards of the hospital. An AC-47 flew escort during most of the flight and two helicopter gunships agreed to cover the approach to the hospital. As Captain Andrews neared his destination, he found another hazard to complicate an already hazardous situation—the entire area was blacked out and it was impossible to see the power lines known to border the landing pad. As the gunships engaged the enemy, Captain Andrews used the landing lights to locate the lines and then made a vertical landing before the helicopter drew enemy fire.

On the return flight the HH-43 crew was again exposed to enemy ground fire and at the base found fighting was still continuing on the perimeter. No further assistance was required of the HUSKIE, however, so at 0615 Captain Andrews terminated the two-and-a-half hour flight.

An Air Force spokesman said afterward that the "outstanding courage, airmanship and professionalism displayed by the HUSKIE crew prevented the loss of a multimillion dollar storage area, enabled the field to remain operational for incoming aircraft and saved the life of a critically injured casualty."

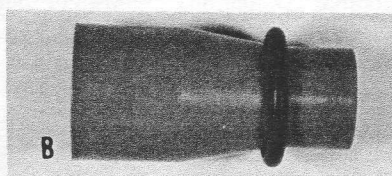
A "can do" attitude of maintenance men of Det 9, 38th ARRSq at Pleiku AB, coupled with support from other base units, has put a battle-damaged HH-43 HUSKIE back in the air in as good a shape as when it came from the manufacturer. The helicopter received about 200 shrapnel holes when it was damaged during an enemy rocket attack on the base.

The aircraft was disassembled and all damage repaired by rescue maintenance men supervised by SMSgt Marcus L. Burrough. Their efforts were fully supported by base supply, maintenance, and the sheet metal and paint shops. The repair included change of the rotor blades, tail section and nose bubbles. Then the craft was repainted.

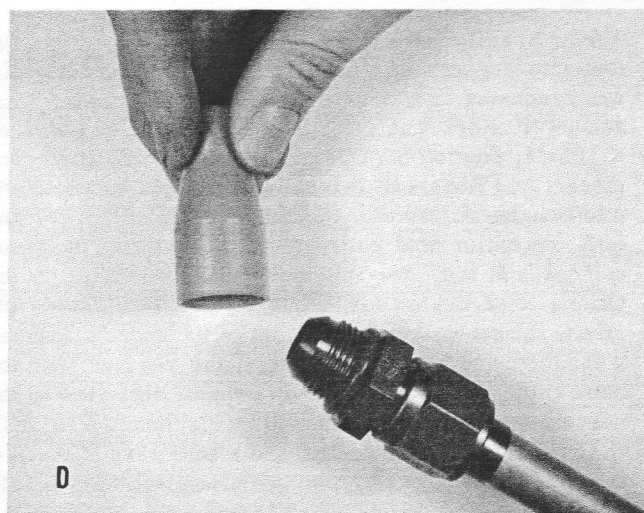
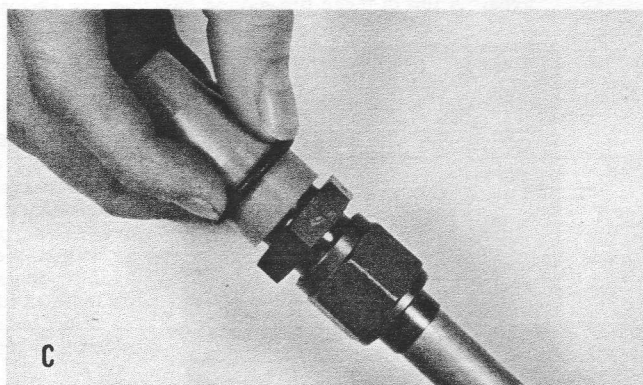
Other maintenance men helping repair the aircraft were TSgts Dale G. Haley and Paul T. Simmons; SSgts Paul W. Noble, Dennis R. Stevens, and Roy T. Trent; Sgts Floyd M. Barnes, Donald Hardwick, Roger E. Lawson, and Spencer J. Watson; and A1c Robert E. White, David M. Wichman, and David E. Thompson.

O-RING INSTALLATION TOOL

Most leaks in hydraulic or fuel lines can be traced to O-ring seals which were damaged during installation. It is common practice to force O-rings over sharp threads on fittings. Naturally, any damage incurred during this procedure weakens or deforms the seal, thereby resulting in premature failure or leakage. The O-ring Fitting Tool Kit, FSN 5120-937-7428, P/N WE301K, should prevent most installation-induced O-ring damage. The kit, as shown in Photo A, contains 13 plastic tools which are capable of installing O-rings ranging in size from 1/8-inch to 2 inches. These tools can be used to install O-rings on universal bolt fittings and unions, bulkhead fittings and unions, non-positioning type fittings, flared tube unions and banjo fittings.



To use the tool, proceed as follows: (1) Be sure the O-ring groove on the fitting is free of dirt, chips, dents, or nicks. (2) Select the correct size tool. The ID of the narrow, closed end should correspond to the OD of the tube. (3) Place the correct O-ring on the narrow end of the tool, Photo B. The narrow end is also a go-no-go check for proper O-ring size. The O-ring should fit snugly without stretching. Lubricate both with the same fluid as that contained in the system. (Using the tool without lubrication will cause the O-ring to twist.) (4) Slide the wide end of the tool over the threads and push the O-ring down the tool into the groove, Photo C. The finished operation is shown in Photo D. All that remains is to check that the O-ring is properly seated in the groove.



During evaluation of this tool, two small problems and their solutions were discovered. First, someone may try to use this tool as a line cap. Preclude this possibility by drilling a small hole in the closed end of each tool indicating to the user that this tool is not a cap. Second, the tool is not as efficient on MS fittings; internal positioners stop the tool about two threads short of the O-ring slot. If MS fittings are the most-used, file these positioners just enough to allow the tool to reach the MS fitting groove. Then when using the tool on other fittings, it will be necessary to physically position the tool for O-ring drop-off.

— 1000-Hour Pilot Awards —

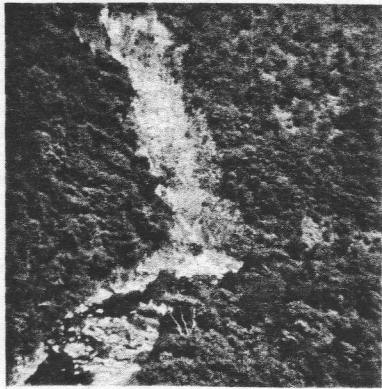


SEASPRITE pilot Lt Robert H. Hamel of HC-2 NAS Lakehurst, N.J., is presented a Kaman Aircraft 1000-hour plaque by Horace F. Field, a senior service representative with the company. Cdr O. E. Gercken, HC-2 commanding officer, is looking on. One Air Force and four other Navy pilots recently logged 1000 hours each in helicopters produced by Kaman. Receiving plaques in recognition of the achievement are: HH-43 HUSKIE, Capt Richard C. Goven, chief of safety, Hq, AARRC (MAC), Ramstein AB, Germany. UH-2 SEASPRITE, Lt John S. Passiglia and Lt James M. Flynn, HC-1, NAS Imperial Beach, Calif.; Lt Frederick C. Meyer and Lt William L. Berry, HC-7, NAS Atsugi, Japan. (USN photo)

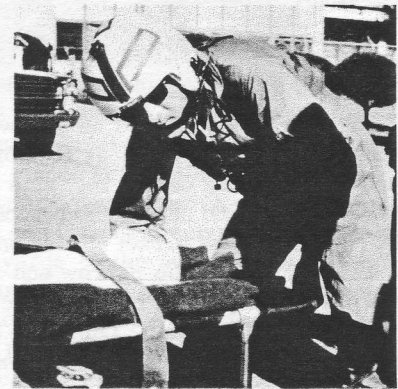
DET 6 AWARDED MAC FLIGHT SAFETY PLAQUE



ACCIDENT-FREE RECORD—BrigGen Allison C. Brooks, left, ARRS commander, presents the MAC Flight Safety Plaque to Maj Dale L. Potter, commander of Det 6, PARRC(MAC), Kadena AB, Okinawa. Major Potter's unit has qualified for the award on an annual basis since it was activated. In addition to the accident-free record, during 1967 HH-43 crews from the detachment saved the lives of 67 military personnel or civilians in the Ryukyuan Island area. A few of these life-saving missions are reported below. (USAF photo)



MERCY MISSIONS—Left photo shows rescuemen's view of the approach to the upper area of Okuma Creek from which a Det 6 HUSKIE evacuated an injured sailor. In right photo, A1c Douglas Walton, medical technician, assists in off-loading small Ryukyuan burn victim from an HH-43B. These were just two of the many mercy missions flown by Det 6 in 1967.



A U. S. sailor on a hiking trip, who fell more than 100 feet into a gorge and landed at the base of a waterfall, was evacuated by a Det 6 helicopter rescue crew. Capt Joseph T. Herr was pilot of the HH-43B; Maj Warren K. Davis, copilot; SSgt James M. Langford, flight engineer; Maj Robert H. Bonner (MC), flight surgeon; and A1c Douglas N. Walton, medical technician. After the fall, the sailor was pulled from the water by his companions and then one ran more than two miles to the Okuma Rest Center for help. When the helicopter arrived, the steep, confining walls of the gorge prevented a landing, and attempts to reach the rescuee with the hoist cable were unsuccessful. Captain Herr flew to the nearest suitable spot in the valley and held the HUSKIE in a hover while the doctor and medic were lowered to the ground. After fighting their way for half a mile through brush and over rough terrain, they reached the rescuee. Major Bonner determined that the sailor was suffering from a fractured skull, concussion and other serious injuries. He had been given first aid by the Army medics from the Rest Center. Plagued by clouds of mosquitoes and hampered by the heat and high humidity, the medical technicians then carried the rescuee over the tortuous half-mile path to the HUSKIE and he was airlifted to the hospital.

In another Det 6 mission an Army captain who had been bitten by a habu snake at 7:40p. m. was picked up from Ihei Shima by an HH-43 crew and delivered to the hospital at Camp Kue less than an hour afterward. A Camp Kue doctor credited the rescuemen's quick response with saving the officer's life. HUSKIE crewmembers were

Capt Donald H. Almanzar, pilot; Maj Charles N. McAllister, copilot; TSgt David D. Dere and A1c Peter K. Ford, flight engineers; and SSgt Harold A. McKinney, medical technician.

A few days later a Det 6 HH-43 was called on again when a six-year-old girl on Izena Shima suffered 2nd degree burns over 45 percent of her body. The HUSKIE crew airlifted the girl from the Izena Dispensary to the hospital at Naha AB. Major, then Captain, Dale L. Potter was pilot of the rescue helicopter and Capt Jack C. Moore was copilot. SSgt James M. Langford was flight engineer and Airman Walton was medical technician.

HH-43 Crew Aids Stork

It isn't often that an HH-43B crew leaves the ground with one passenger and lands with two, but it happened during a recent mission flown by Det 15, WARRC(MAC), Luke AFB, Ariz.

Capt John F. Patterson, RCC, and his copilot, 1st Lt Wayne A. Grant, III, flew to a Supai Village in the Grand Canyon to evacuate a pregnant woman who had fallen from a horse and broken her pelvis. Enroute at 7,000 feet altitude and 10 miles from Williams, Ariz., Maj Wesley E. Romberger, a flight surgeon who had wisely been included in the crew, announced that the baby was coming. Three minutes later a 5-1/2-pound baby girl was born—mother and baby were reported as being fine. The fourth member of the HUSKIE crew was Sgt Frederick L. Reuter, a helicopter mechanic, who undoubtedly shared Captain Patterson and Lieutenant Grant's relief that Major Romberger was aboard.

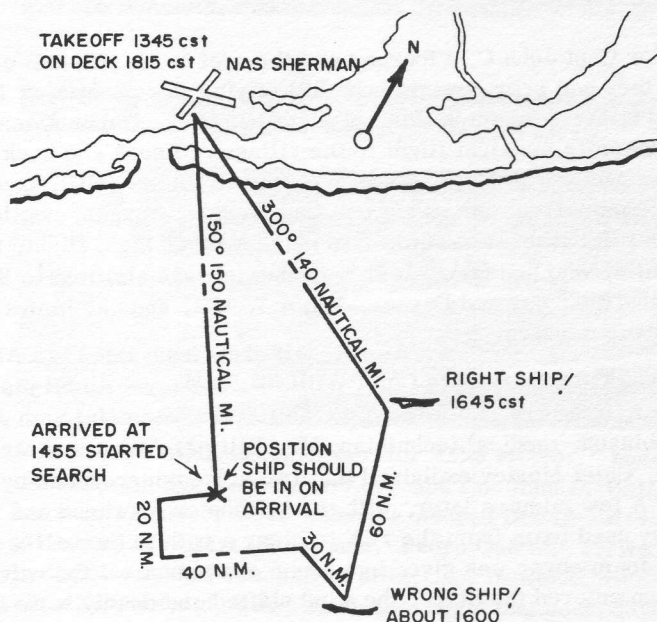
PENSACOLA UH-2 RECORD STILL UNBROKEN

UH-2 SEASPRITE crews, while carrying out their rescue missions, have made several long overwater flights during the last few years. A recent check of records at Kaman reveals that apparently the honor for the longest of such unrefueled flights—460 nautical miles—is held by the SAR Unit at NAS Pensacola, Fla. It was also the greatest number of miles flown by any UH-2 crew while carrying out any type of rescue mission.

The "longest flight" was made more than a year ago when a SAR UH-2 launched at 1345 CST to evacuate a seriously-ill seaman from a Greek cargo vessel 150 miles from Pensacola. With SEASPRITE pilot LCdr James T. Denny were Lt J. B. Lench (MC), a flight surgeon, and crewmen Thomas G. Morrison, ADJ2, and William W. Reece, AMH1. When the SEASPRITE arrived at the position given, there was no sign of the vessel so LtCommander Denny began an expanding square search. It was not until 1645 CST, after 170 search miles had been covered, that the cargo vessel was found. Morrison was lowered to the deck and prepared the injured man for hoisting. Afterward the petty officer was hoisted aboard and the SEASPRITE returned to the air station.

During most of the mission the SAR crew had no communications with the ship or base and very limited communications with the covering fixed-wing aircraft. A vessel was located during the search, see the accompa-

nying chart, but it turned out to be the wrong one. In recognition of their humanitarian service, LtCommander Denny and ADJ2 Morrison were awarded Coast Guard Commendation Medals. Lieutenant Lench and AM1 Reece received Coast Guard Commendations. Kaman Scrolls of Honor were also presented to the UH-2 crew.



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 10, Amend 1 - Fuselage, MODIFICATION OF MAIN LANDING GEAR BACK-UP STRUCTURE	1 April 1968	NAVAIR 01-260HCA-2-4.2 - Manual, Maintenance Instructions, Navy Models UH-2A/UH-2B/UH-2C Helicopters, ROTOR SYSTEM	1 October 1967
H-2 Airframe Change 28, Amend 2 - EIGHT FOOT RESCUE BOOM INSTALLATION	1 April 1968		changed 15 April 1968
H-2 Airframe Change 29, Amend 1 - LOUD HAILER INSTALLATION	1 April 1968	NAVAIR 01-260HCA-2-8 - Manual, Maintenance Instructions, Navy Model UH-2A/UH-2B Helicopters, WIRING DATA	1 October 1967
H-2 Airframe Change 89, Amend 1 - Flight Controls, AZIMUTH-TO-HUB CONTROL RODS, PHASING DEVICE; INSTALLATION OF	1 April 1968		changed 15 January 1968
H-2 Airframe Change 92, Amend 1 - Communication System, INSTALLATION OF ADDITIONAL ICS STATION	15 April 1968	NAVAIR 01-260HCA-4-6 - Illustrated Parts Breakdown, Navy Model UH-2A/UH-2B Helicopters, AIRFRAME	15 October 1962
H-2 Airframe Change 99 - Fuel System, RELLOCATION OF AUXILIARY FUEL COMPRESSOR SYSTEM	15 March 1968		changed 15 April 1968
H-2 Airframe Change 130 - Airframe, MA-1 COMPASS ACCESS PANEL PROVISION	15 March 1968	NAVAIR 01-260HCB-4-6 - Illustrated Parts Breakdown, Navy Model UH-2C Helicopters, TRANSMISSION SYSTEM	1 June 1967
H-2 Airframe Change 131 - Main Rotor, MODIFICATION OF BLADE RETENTION PITCH STOP ASSEMBLY	1 May 1968		changed 1 March 1968
NAVAIR 01-260HCA-2-2 - Manual, Maintenance Instructions, Navy Models UH-2A/UH-2B/UH-2C Helicopters, AIRFRAME	1 October 1967	NAVAIR 03-25GAC-3 - Manual, Overhaul Instructions, DISC BRAKES	15 October 1964
	changed 15 April 1968		changed 15 March 1968
NAVAIR 01-260HCA-2-4.1 - Manual, Maintenance Instructions, Navy Models UH-2A/UH-2B/UH-2C Helicopters, TRANSMISSION SYSTEM	1 October 1967	NAVAIR 03-25GAC-4 - Illustrated Parts Breakdown, DISC BRAKES	15 October 1964
	changed 15 March 1968		changed 15 March 1968
		NAVAIR 03-95D-11 - Manual, Overhaul Instructions, Navy Models UH-2A/UH-2B/UH-2C Helicopters, MAIN ROTOR SYSTEM	15 January 1966
			changed 15 January 1968
		NAVAIR 03-95D-17 - Manual, Overhaul Instructions, TAIL ROTOR BLADE AND GRIP ASSEMBLY, P/N K614001-201, -205, -207	1 April 1966
			changed 1 May 1968

Huskie Happenings



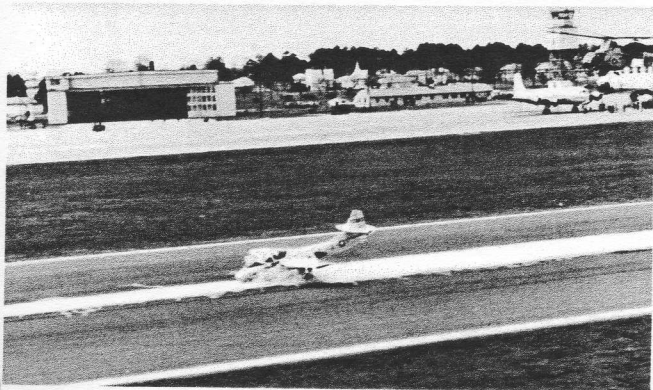
...For Capt John C. Flournoy and the rest of his HH-43B crew from Det 18, EARRC(MAC), it was the "most turbulent flight they had ever experienced while flying missions from Thule AB, Greenland." The turbulence was experienced during a mercy mission flown at night over rugged mountains and the polar ice cap to evacuate a seriously-ill Eskimo. The 190-mile midnight flight to the village of Kanak and back was made in a temperature of minus 38° F. Maj Leroy Weeks, (MC), a flight surgeon, and Capt R. Baker (MC), medical officer, treated the patient during the return to base. Other members of the crew were Capt John J. Duggan, copilot, and SSgt Ronald E. Levi, flight engineer.... Two days later a HUSKIE crew from Det 18 made another night flight, to evacuate an Eskimo child from the village of Siropaluk. The child, who had fallen down a mountain, was airlifted to Kanak and placed in the hospital. Manning the HH-43 were Captains Flournoy and Duggan, Major Weeks, and Sgt James F. Wittfeldt, flight engineer. The base C-54 flew top cover during the mission.

...An HH-43B crew from Det 14, CARRC(MAC), Vance AFB, Okla., responded when a request was received from Base Fire Chief Willis B. Moxley. An oil pipeline station was on fire and the HUSKIE, with its fire suppression kit, was needed. Aboard the helicopter were Maj Sam J. Scamardo, RCC; Maj Ralph L. Gaede, copilot; SSgt Leroy S. Robinson, medical technician; Mr. Billy J. Avery and Mr. Paul E. Bowen, firefighters. When the HH-43 arrived at the scene, Chief Moxley explained that two valves surrounded by the flames should be turned off to assist in extinguishing the fire. A few minutes later, with the helicopter overhead and its downwash supplying cooling air, the firefighters and Chief Moxley used foam from the FSK to clear a path to the valves—but they couldn't be turned! Other attempts were made during which foam cover was given by ground equipment but the valves still wouldn't budge. During a final attempt, just as eight firemen entered the blaze, the wind shifted and deadly toxic fumes engulfed them. On this attempt, the HUSKIE was hovering in the rear as a safety backup so Major Scamardo quickly moved in with the helicopter and dissipated the threatening fumes with the rotor downwash.

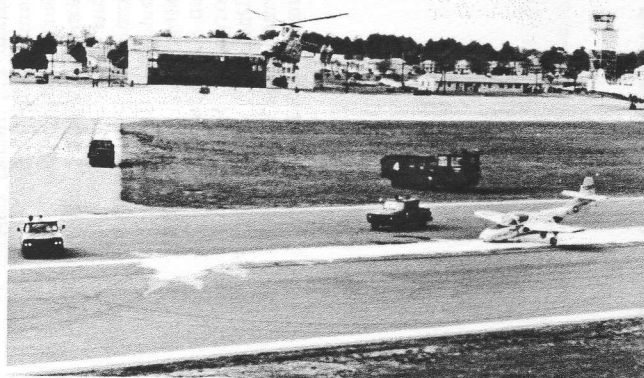
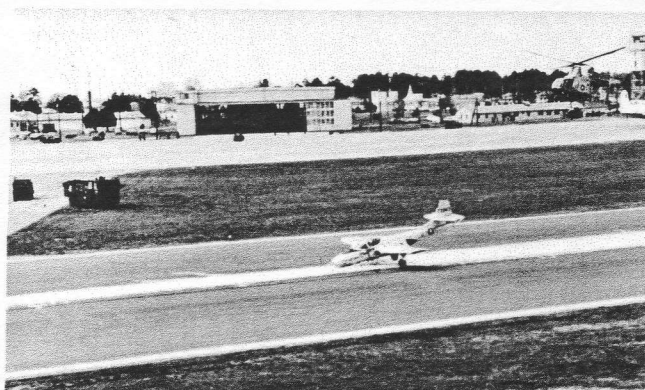
...Flying through 35-knot winds and gathering darkness, an HH-43B crew from TUSLOG Det 153, Cigli, Turkey, rescued two Turkish fishermen from an island. Stranded by turbulent seas for from two to three days, they had no food, water, or shelter, from the heavy rain and strong winds. Capt Walter E. Hogan, RCC, brought the HUSKIE to a 10-foot hover and the flight medic, SSgt Richard C. Hudson, was lowered to the ground to assist in recovering the two survivors. Once aboard, Sergeant Hudson gave them medical attention as the helicopter headed for the Turkish Naval Station at Foca. Sharing in the mission were Capt Robert A. Reilly, copilot, and SSgt Willie F. Stubblefield, flight engineer.... In another mission a Det 153 HUSKIE crew evacuated two Turkish Air Force pilots who bailed out of a crippled F-104 and landed in the mountains surrounding Balikesir AB. The HH-43 arrived in the vicinity of the bailout but the low ceiling prevented it from getting to the actual crash site so Maj Robert T. Rosvold, the pilot, landed at the village of Kozderegüveni. Later when the weather improved, the HH-43 located the two survivors in the village of Gokcukur. They were returned to Balikesir for medical treatment and the HUSKIE remained in the village overnight when the weather closed in. Other members of the HH-43 crew were Captain Reilly, copilot; Sgt Eric L. Samuelson, flight engineer; and SSgt Felix E. Torres-Puigsubira, flight medic.

...Three life-saving medical evacuations, all of them involving accident victims, were carried out during the last few months by HH-43B crews from Det 5, AARRC (MAC), Hahn AB, Germany. A German Army sergeant, critically injured when a tank ran over his jeep, was taken to the hospital in a HUSKIE manned by Maj Ralph H. Bush, pilot; MSgt Winfred H. Macklin, medical technician; Sgt Michael L. Baltad, rescue specialist; and Capt William B. Moore (MC), flight surgeon. A letter praising the detachment's quick response was sent afterward by the German sergeant's commanding officer to Gen Howell M. Estes, MAC commander.... A serviceman's 22-month-old child who fell from a fourth story window was taken to the hospital by Major Bush and his HH-43B crew consisting of Captain Moore and Sgt Nicholas F. Beaumonte, FE.... A security policeman's wife, critically injured in a traffic accident, was transferred by HH-43B to the USAF hospital at Wiesbaden. Capt David R. Stevenson was RCC; Major Bush, CP; and SSgt Thomas D. Blakeney, FE. Maj Frank Avantaggio (MC), was the doctor aboard.

...An F-105 pilot who ejected 50 nautical miles east of Kunsan, South Korea, after experiencing difficulty with the aircraft, was rescued by an HH-43B crew from Det 1, Prov ARRSq 1646. The pickup was made after an hour of very turbulent flying over some of the roughest mountains in the country. A landing was impossible at the rescue site so, despite 35-knot winds, Capt Ronald C. Tubbs held the HUSKIE in a hover close to the tree tops and Sgt Donald W. Van Houtin was lowered to the ground. The Sergeant assisted the injured pilot and then both were hoisted aboard. Copilot on the mission was Maj Alma L. Williams. Other crew members were SSgt Ray Payne and Sgt Kenneth G. Klein.



Chances for aircrew survival in the event of a crash landing are greatly increased by close cooperation between ground firefighters and airborne HH-43 crews flying local base rescue coverage. An excellent example of such cooperation is shown in the sequence above. With a fire suppression kit slung beneath it, an HH-43 from Det 12, EARRC (MAC), Moody AFB, Ga., intercepts and follows a T-37 with a "hung" nose wheel. With ground equipment standing by close at hand, the HUSKIE flies cover, ready if needed. In other cases, especially in rugged or fenced areas beyond the base perimeter, HH-43 crews have arrived seconds after a crash, extricated the crew and then fought the fire until base equipment arrived on the scene. "Pedro One," the HH-43 shown, scrambled with the FSK when the nose gear in the T-37 refused to extend. A 10 by 1500-foot-long path of foam was laid on the runway and the T-37 pilot held the nose off until over the foam. He then gently lowered onto the extended speedbrake. Without the use of wheel brakes, the aircraft came to rest 200 feet short of the end of the foam. Damage was confined to wear on the speedbrake. The dramatic sequence was photographed by Sgt Andy



Coke-Kerr, staff photographer for "The Meteor," base newspaper. Sergeant Coke-Kerr and Col John O. Hall, base commander, were aboard a second Det 12 HH-43 piloted by Maj Carl G. Layman. Pedro One was crewed by Capt Louis S. Pottschmidt, pilot; Capt Daniel A. Nicholson, copilot; Sgt Jackie L. Beach, flight engineer; SSgt Jerol R. Dixon and SSgt Charles L. Byrd, firefighters. (USAF photos)

Det 3 Saves Stranded Motorists

Nine civilians were evacuated from vehicles stranded on snow-choked roads by an HH-43B crew from Det 3, WARRC (MAC), Kirtland AFB, N.M. Capt Edmund W. Fischbeck, Jr., RCC, and his crew were on a training flight when directed to proceed to Vaughn, N.M., to evacuate two children from a stranded pickup truck. When the HUSKIE landed at the location, approximately 55 vehicles were found to be stranded. Capt Thomas Currey (MC), FMO, examined the survivors and nine of the most critical cases were flown through the gathering darkness to Vaughn. One child was dead on arrival.

Additional fuel was obtained from prepositioned barrels at Vaughn and another civilian was picked up. Since he required immediate hospitalization and the weather

had deteriorated, the return route was flown in the vicinity of plowed roads. Others aboard the HUSKIE on the mercy flights were Maj Alex Lupenski, CP; Sgt Victor Moffett, MT; and SSgt Norman Edney, FE.

In another mission, an HH-43 from Det 3 scrambled after a light civilian plane with two persons aboard crashed on a ranch 70 miles from Albuquerque. The passenger was seriously injured. After arriving in the area, the HUSKIE crew requested that a small fire be lit to aid in locating the ranch and to furnish wind information. Soon afterward both survivors were picked up and taken to the hospital. Manning the HUSKIE were Capt Johnny R. Johnson, RCC; Captain Fischbeck, CP; Sergeant Edney, FE; Sgts Leonard P. Fechter and Carol G. Moore, RS.



RESCUE CREWS—Left photo, Major Lupenski, Captain Fischbeck and Sergeant Edney. Not pictured are Captain Currey and Sergeant Moffett. Right photo, Captain Johnson, Captain Fischbeck, and Sergeants Edney, Moore and Fechter. (USAF photos)

SCROLL OF HONOR

1966

Roemer, Ronald, Capt, USMC
 Rogalio, Vincent P., A1c, USAF
 Rogers, Jimmie, SSgt, USAF
 Rosler, Michael J., A2c, USAF
 Ruhe, William J., Lt(jg), USN
 Rupp, G. L., HN3, USN
 Salem, Harold D., Capt, USAF
 Sams, Donald D., 1stLt, USAF
 Salsbury, Allen E., AN, USN
 Sanger, Frederick L., A2c, USAF
 Sargent, Wayne E., AN, USN
 Schibler, Mark C., 1stLt, USAF
 Schipper, George E., SSgt, USAF
 Schnaidt, Loran C., 1stLt, USAF
 Sehorn, William T., 1stLt, USAF
 Selph, Benjamin, SSgt, USAF
 Sherman, Barry, SSgt, USAF
 Shipman, James L., A2c, USAF
 Smith, Michael O., Lt, USN
 Solberg, Harold A., Capt, USAF
 Spaur, Kenneth L., Capt, USAF
 Sprague, Joseph W., 1stLt, USAF
 Stanek, Allen R., A2c, USAF
 Stanley, George B., Sgt, USMC
 Stevenson, David E., 1stLt, USAF
 Stokes, Raymond E., A2c, USAF
 Story, Thomas C., A1c, USAF

Stout, E. E., ADR3, USN
 Strayer, Jay M., Capt, USAF
 Sullivan, Charles A., Jr., SSgt, USAF
 Sullivan, Patrick J., Capt, USAF
 Sutton, William C., SSgt, USAF
 Symonds, Joseph E., Jr., Capt, USAF
 Taulbee, Roy F., SSgt, USAF
 Tebow, Kenneth D., ADR2, USN
 Thienes, Harold A., Lt, USN
 Tiller, C. R., ADJC, USN
 Tobey, John F., A1c, USAF
 Tooley, Gordon O., 1stLt, USAF
 Tubbs, Ronald C., 1stLt, USAF
 Tyree, Dale R., Capt, USAF
 Venable, C. F., AMH1, USN
 Vermeys, Carlton P., Capt, USAF
 Vespico, Robert D., Capt, USAF
 Vick, Ralph E., 1stLt, USAF
 Walczak, William, A1c, USAF
 Wall, Robert J., ADR2, USN
 Wall, William F., Capt, USAF
 Wallingford, Richard K., Sgt, USAF
 Weatherly, J. H., LCdr, USN
 Weddel, Raymond S., TSgt, USAF
 Wegmann, D. R., ADJ2, USN
 Welsh, Donald M., Capt, USAF
 Welsh, James R., Lt(jg), USNR
 Wheeler, David J., SSgt, USAF
 Wiest, David L., Capt, USAF
 Williams, Alma L., Capt, USAF

Williams, John I., SMSgt, USAF
 Williamson, Gordon M., Lt(jg), USN
 Willis, Reginald W., TSgt, USAF
 Wilson, Dennis J., A2c, USAF
 Wirstrom, William C., 1stLt, USAF
 Wissert, James L., Capt, USAF
 Wittenbrink, Herman L., A2c, USAF
 Wood, Wendell B., Lt, USAF
 Woodford, William E., A1c, USAF
 Woodie, Allan S., Ens, USNR
 Woodward, Samuel P., ADJ3, USN
 Wrigley, Norman, A2c, USAF
 Yancy, Curtis F., SSgt, USAF
 Zelonis, Richard A., SSgt, USAF

1967

Aaron, Dean S., TSgt, USAF
 Abara, Jose G., A1c, USAF
 Acreman, James E., SSgt, USAF
 Adamson, Derry A., Capt, USAF
 Agnew, M. C., ADJAN, USN
 Albee, Norman R., Capt, USAF
 Almanzar, Donald H., Capt, USAF
 Alves, Thomas M., A1c, USAF
 Armstrong, George S., SSgt, USAF
 Armstrong, J. A., Capt, USAF
 Arundale, Samuel H., Lt(jg), USN

KAMAN AIRCRAFT

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.