KAMAN Rotor Tips

JULY-AUGUST, 1972

KAMAN AEROSPACE CORPORATION

CHARLES H. KAMAN
President—Kaman Corporation
JACK G. ANDERSON
President—Kaman Aerospace Corporation
WILLIAM R. MURRAY
Vice President—Test Operations/Customer Service
WILLIAM E. ZINS
Director of Customer Service
ROBERT J. MYER
Customer Service Manager

Rotor Tips

Volume VII Numbe

ON THE COVER

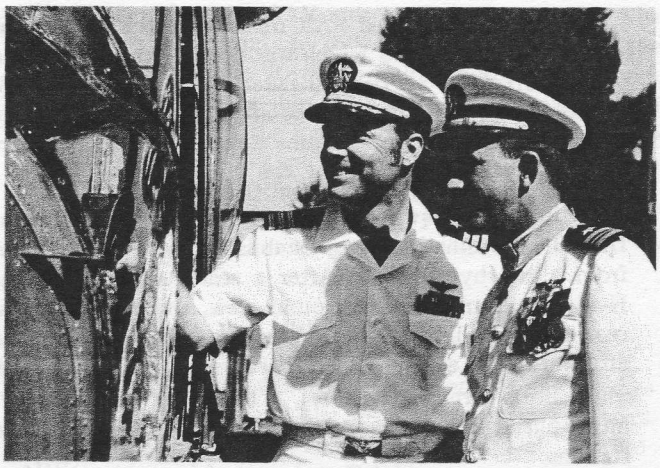
Lt(jg) Michael Skahan controls the recovery of an SH-2D LAMPS helicopter on the flight deck of the USS Harold E. Holt (DE 1074). For a report on the latest LAMPS activities, see page 8. (Teledyne Ryan Aeronautical photo)

Everett F. Hoffman
Editor
John P. Serignese
Technical Editor
Barbara R. Thompson
Editorial Assistant

Rotor Tips is published by the Customer Service Department, Kaman Aerospace 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.

FEATURES

DEPARTMENTS



Inspecting the H-2 used during HC-7's phase-out ceremony on 7 April are Cdr John W. Holtzclaw, left, and LCdr Clyde E. Lassen who rescued him and later was awarded the Medal of Honor.

HC-7, which won the Presidential Unit Citation for rescuing 81 downed airmen in Vietnam, said farewell to the Kaman-produced H-2 SEASPRITE in a recent ceremony at NAS Imperial Beach, Calif.

Utilized for more than four years by HC-7 to make rescues under combat conditions, the H-2's are being reprogrammed for use in the LAMPS helicopter operation.

During the ceremony, HC-7's commanding officer, Cdr John E. Woolam, presented a plaque to RAdm Carl J. Seiberlich as a "memorial to the rescued, unrescued, and men of combat search and rescue." Admiral Seiberlich, commander of Anti-Submarine Warfare Group 3, accepted the plaque on behalf of the Naval Aviation Museum at Pensacola, Fla.

In addition, Commander Woolam and William R. Murray, Kaman vice president, Test Operations/Customer Service, exchanged commemorative plaques. The plaque honoring the men of HC-7, with Commander Woolam's acceptance speech, appears on the back cover. Appearing on this page is the plaque presented to Kaman and a newspaper article from the San Diego Evening Tribune. It describes the ceremony and a SAR mission which brought one HC-7 pilot the Nation's highest honor—the Medal of Honor. *(Continued next page)*

"To the Kaman Aerospace Corporation from the men of Helicopter Combat Support Squadron Seven.

The H-2 Combat Search and Rescue Helos, known as "Clementine" have extracted many distressed aircrews from the most hostile environments in air warfare history while operating under the most trying maintenance conditions, that is, the small destroyer."

COPTER BADE FOND FAREWELL

Battle-scarred Clementine retires from Navy service

By ROBERT DIETRICH
EVENING TRIBUNE Military Writer

IMPERIAL BEACH — Two Navy men said farewell to a tough little, bullet-scarred helicopter named Clementine yesterday.

She had granted freedom to one and brought the Medal of Honor to the other.

Cmdr. John W. Holtzclaw patted Clementine's armor-plated side and said quietly, "I'd have been dead or a prisoner of war if she and Clyde hadn't got to us."

Clyde is Lt. Cmdr. Clyde Lassen, who won the nation's highest award for bravery for piloting the helicopter through heavy enemy fire deep inside North Vietnam Jan. 19, 1968 to rescue Holtzclaw, a downed F4 Phantom fighter-bomber pilot, and his wounded observer.

Clementine was retired yesterday in ceremonies at Imperial Beach Naval Air Station. She was the last of the Navy's Kaman H2 battle-rescue helicopters, girded with 2,000 pounds of armor plate and fitted with an arsenal of machine guns.

The H2 has been replaced by larger Sikorsky H3 helicopters nicknamed "Big Mothers." They are flown by Helicopter Combat Squadron 7, which won the Presidential Unit Citation for rescuing 81 downed U.S. airmen.

The squadron has four detachments now operating from 7th Fleet warships striking at enemy forces invading South Vietnam.

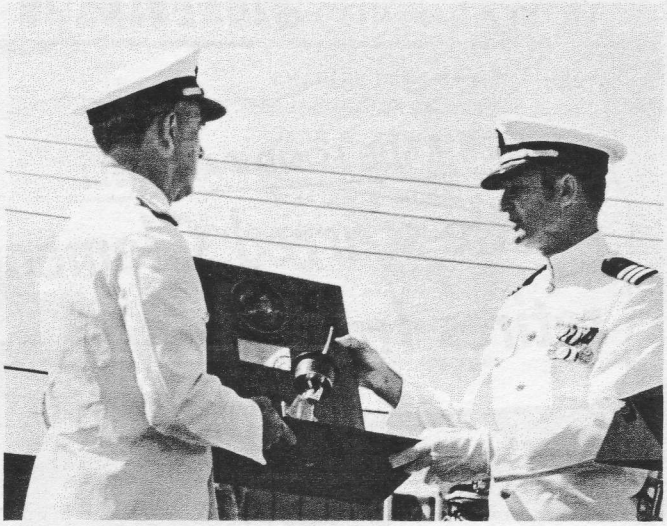
Lassen won his Medal of Honor for flying Clementine in darkness to a North Vietnamese valley after picking up signals from Holtzclaw's pocket radio. It was Lassen's first flight into North Vietnam.

Holtzclaw and his observer, who had a shattered leg, were fighting off North Vietnamese troops with their pistols.

"We just didn't think of surrendering," he said.

Lassen turned on Clementine's landing lights and hovered inches above the two Phantom fliers. Clementine's copilot and two crewmen fired machine guns at North Vietnamese on hilltops above them.

(Continued from page 3)



RAdm Carl J. Seiberlich, left, commander ASW Group 3, receives the HC-7 memorial plaque from Cdr John E. Woolam, commanding officer of the squadron. The plaque, on which is mounted a rescue hook used during SEA operations, will eventually be sent to the Naval Aviation Museum in Pensacola, Fla. (USN photo)

Three Helos Conduct "Perfect" SAR Search

The SAR Unit at NAS Oceana, Va., launched an HH-2D after notification that a Marine aircrewman had fallen from an H-46 in flight. Members of the SEASPRITE crew were Lt Jean H. Daugherty, pilot; Lt(jg) Tom B. Stables, copilot; AT1 Richard L. Holmes, and AME3 Timothy J. Patrick, crewmen. They were accompanied by LCdr Andy O'Dwyer (MC), a doctor; and HM2 David L. Evans, a corpsman.

The HH-2D assumed SAR on-scene search commander after joining the H-46 which was orbiting the search area. An SH-2D from an HSL-30 detachment aboard the USS Standley also flew to the scene after being diverted to the accident scene by the Oceana tower. A square search based on the flight path of the H-46 was set.

Utilizing three-way relays and the loud hailer on the HH-2D, coordination was established with crash crews from a nearby airfield. After a seat cushion from the H-46 was found by the ground crew, the air search was reoriented upwind of the place where it had fallen. Soon afterward, the accident victim was spotted by the H-46 which began orbiting the area. The SH-2D also began orbiting but at a higher level for communication with ground stations.

Meanwhile, the HH-2D landed on a one-lane road in the heavily-forested, swampy area. Rotor blade clearance was only two feet from the surrounding trees. The doctor, corpsman and Petty Officer Holmes disembarked and began making their way through the heavy growth toward the accident victim. They were guided by the loud hailer on the HH-2D which relayed directions from the H-46 overhead. Using this system, the Marine was quickly located but it was found that he had not survived the fall.

Lieutenant Daugherty said afterward that the aircrews from the separate commands worked together perfectly. He also said that the HH-2D's loudhailer and ability to hold slow airspeeds well out of ground effect was essential to complete the mission, "however disappointing the results."

A sailor suffering from respiratory problems and severe chest pains was airlifted from a ship to the hospital by an

(Continued next page)

"Mr. Rescue" New Commander of 43rd ARRSq

Col Royal A. Brown, Jr., who flew more than 200 missions in Vietnam, is the new commander of the 43rd ARRSq (MAC), at Richards-Gebaur AFB, Mo. Below are excerpts from an interview by Larry Fowler of the Kansas City Star.

Col Royal A. Brown, Jr., is shown with a model of the HH-43 "Pedro," the original rescue helicopter in Southeast Asia and still in operational use.

Col Royal A. Brown, Jr., believes that rescue work is one aspect of war that cannot be measured in dollars and cents. The efforts to retrieve downed servicemen in Southwest Asia are a tribute to the American regard for human life, he says. . .

The new commander. . .is in a position to know. He served two tours in Vietnam, flying over 200 missions. He earned the title "Mr. Rescue" for a record of 36 "saves," more than any other helicopter pilot with the Air Force Rescue Service.

Colonel Brown was in Vietnam from February, 1968, to March, 1969 and volunteered for a second tour from April, 1970, until June 30, 1971. On the second tour he was commander and operations officer for the 37th ARRSq at Da Nang AB. He flew over 200 search and rescue missions in North Vietnam, South Vietnam and Laos. . .

Colonel Brown said it is impossible to evaluate the rescue attempts in terms of risk to men and equipment, adding, "I thank God the American people place such value on human life. . ."

The mission about which he can say little is the Son Tay Prisoner of War Camp raid near Hanoi Nov. 21, 1970. Colonel Brown was a pilot on the raid which failed because the prisoners had been moved. Discounting criticism of the raid, Colonel Brown said:

"It was definitely worthwhile. It showed the people we care. I don't know if a rescue attempt like this will ever be made again but I would like to do it again.

HH-2D crew from the SAR unit at NAS Oceana, Va. The pickup was made from the USS Blandy, eight miles off the coast. As Lt Robert R. Stone held the SEASPRITE in a hover over the tossing ship, AT3 J. P. Shelton was lowered to the deck to assist the man into the horsecollar. Despite choppy seas and 20-knot winds, the pickup was made without incident. Other crewmembers were Lt Warren R. Eckert, copilot; and AMS3 W. P. Mueller, crewman.

Fastest SEA Rescue?

TAN SON NHUT AB, RVN—In what was described as one of the fastest—if not the fastest—rescue in Southeast Asia, two HH-43 Pedro helicopters from Det 14, 3rd ARRGp here, picked up two F-4 Phantom crew members who were forced to eject from their aircraft recently. The fighter bomber was enroute to Bien Hoa after a strike when the crew discovered they could not lower its gear.

As soon as the emergency was declared a Pedro was launched from Bien Hoa. As the helicopter circled near the crippled aircraft, another HH-43 which was enroute from Tan Son Nhut to Bien Hoa, joined the rescue. One Pedro followed each of the crewmen to the ground after they ejected from their aircraft.

LtCol Gerald Foss, commander of Det 14, landed the helicopter he commanded in a rice paddy and picked up 1stLt Vance C. Parkhurst, the pilot of the F-4. Meanwhile, Capt Howard A. Randall, pilot of the second HH-43, set down in a small clearing near the Song Dong Nai River and rescued 1stLt Mike DeLong, the back-seater of the F-4. Both of the F-4 crewmen were airborne within 90 seconds after touching the ground.

Colonel Foss' crew consisted of Capt Donald H. Eudy,copilot; and Sgt Richard A. Johnson, medical technician. Captain Randall's crew included 2ndLt Billy E. Heslip,copilot; Sgt Stephen T. Missy, medical technician; and SSgts Truman O. Blake and Clifton R. Davis, firefighters.

In another Det 14 mission, shortly before midnight, three critically wounded Navy men suffering from numerous bullet wounds, were medevaced to the hospital by an HH-43 crew.

"Pedro 03" was airborne five minutes after receiving the alert call from the USN Command and headed for the pickup site, 15 NM from Tan Son Nhut. There were no navigational aids in the vicinity, the weather was poor enroute and an altitude of 1500 feet was maintained all the way because of ground fire observed by the crew along the route. Capt Henry G. Hamby, pilot of the HH-43, was in contact with the forces at the site on the FM radio while Capt Donald H. Eudy, the copilot, coordinated suppression of the artillery in the area. He also arranged for ambulances and fuel to meet the helicopter.

A flare was used to locate the site and a steep approach was made into the small area which was surrounded by a high fence and several unlighted towers. Numerous trees were also in the vicinity. Lighting at the landing site was minimal and no wind-indicating device was available. Two of the wounded were placed in the Pedro and a maximum performance take-off was made to clear the fences and power lines. Shortly afterward the patients were delivered to Saigon. After refueling, the third man was picked up and taken to the hospital. The rapid response of the HUSKIE crew was later credited with being directly responsible for saving the lives of the three men.

SSgt Ronald Wilson, a medical technician attached to an HH-43 Pedro crew from Det 14, 3rd ARRGp, Tan Son Nhut AB, RVN, helps transfer a Spanish sailor who was medevaced from the Spanish Naval Academy training ship Juan Sebastian del Cano when he became ill. An HH-3 made the pickup and later transferred the sailor to a Det 14 helicopter for delivery to the hospital. (USAF photo)

Sharing the hazardous mission with Captains Hamby and Eudy were MSgt Ralph E. Smith and A1C Stephen E. Tasker.

An HH-43 Pedro crew from Det 14, also recovered a Republic of Vietnam Air Force A-1 pilot after he bailed out of his aircraft five miles from Bien Hoa AB. The detachment covers the base on a TDY basis.

As the Pedro launched, Captain Eudy, the aircraft commander, saw the pilot floating to the ground. Captain Eudy landed the helicopter in the rice paddy near the downed VNAF pilot and SSgt Ronald Wilson, medical technician, ran to him. The RVN pilot, who appeared to be dazed, was helped into the HH-43 and airlifted back to Bien Hoa where an ambulance was waiting.

The other HH-43 crewmembers were Capt Jack Roberts, copilot; and SSgts Robert Montgomery and Ernest Taylor, firefighters.

Navy-Coast Guard Aid Crash Victim

Notified that a light plane had crashed on Horn Island, 16 miles south of Biloxi, Miss., a UH-2C from the SAR Unit, NAS Pensacola, Fla., launched at 1020. Included in the crew was a flight surgeon, LCdr Donald Flanigan (MC).

The SEASPRITE arrived at the island, 80 miles from the air station, at 1057 and landed in the only suitable area, a soft sandy beach 100 yards from the accident. A Coast Guard helicopter was already at the scene but had no medical personnel aboard. A doctor's help was needed since the survivor had suffered a broken back and internal injuries.

Under the supervision of the flight surgeon, the survivor was placed in the Coast Guard helicopter, which was closest to the wrecked aircraft. The body of a second crash victim was also taken aboard and the Coast Guard helo then headed for the hospital at Keesler AFB.

Pilot of the UH-2C was Lt(jg) Michael S. O'Leary and copilot was Lt(jg) David C. Pallesen. Crewman on the mission was AMH2 George Cianteo.

Det 5, 3rd ARRGp, Udorn Airfield, Thailand, was the winner of the coveted MAC Commander's Trophy for LBR Units. Proudly displaying their prize are, front row, left to right, SSgt Paul Harshman, SSgt Freddie Senters, firefighters; SSgt Michael Auguste, engine mechanic; Capt Tom Meyers, pilot; SMS Richard Dumler, maintenance superintendent; MSgt Benny Stegall, medical technician; SSgt Bob Neal, SSgt Jerome Short, firefighters. Second row, Capt Jonney Alexander (MC), flight surgeon; TSgt Homer Bartlett, medical technician; Sgt Larry Layne, administrative clerk; SSgt Dennis Lundine, MSgt Willie Bostic, Sgt Byron Hardie, helicopter mechanics; Lt Russ Hill, Capt Peter Buley, pilots; Sgt Larry Devore, helicopter mechanic; TSgt Lenny Brule, Sgt Tony Beaman, medical technician; Capt Bob Raggio, pilot; Maj John Cassarini, detachment commander. On the HH-43 are A1C Lemayne Dewild, A1C Ray Prew, Sgt Tom Holloway, helicopter mechanics. (USAF photo)

"Rescue Teamwork" Saves Two

TAN SON NHUT AB—Rescue forces teamed up in a perfect example of their respective rolls recently when the crew of a US Air Force F-105 was forced to eject 45 miles southwest of Korat RTAFB, Thailand. An HC-130 "King" of the 39th ARRSq, responding to the first contact with the downed crew, flew to the area to pin-point their positions while an HH-43 Pedro from Det 4, 3rd ARRGp, was being launched from Korat. When Pedro arrived on scene the King had already made contact with the survivors and located them both.

Capt Daniel Biezad brought the Pedro to a hover above the high tree tops and Maj Harold W. Stoll, the F-105 GIB, climbed on the jungle penetrator and was hoisted aboard. Captain Biezad then flew to the pilot of the downed fighter-bomber, Capt James P. Verstrete, who was approximately 100 yards from Major Stoll. Since he had been injured, the Pedro lowered its medical technician, Sgt Gerardo Ramos, to help him. The 200-foot cable on the penetrator was fully extended when Sergeant Ramos reached the ground. The rescue seat was recovered just as two HH-53 "Super Jolly Green Giant" helicopters from the 40th ARRSq arrived.

Pedro led one in for the pick-up of the injured pilot and then returned to the base at Korat, with Major Stoll. Maj Ralph Allred, aircraft commander of the big helicopter, then lowered his pararescue specialist (PJ), Sgt William M. Hughes, Jr. He placed the downed pilot on a stokes litter and it was brought on board.

As Captain Verstrete was flown to Bangkok where he could receive further medical care, one of the finest displays of rescue teamwork in recent months came to a successful conclusion. LtColonel Carl W. Rottmann, director of operations of the 3rd ARRGp, the parent unit of all the rescue forces, said "This was one of the smoothest missions I have ever seen. The King, the Pedro, and the Super Jolly Green Giant displayed perfect teamwork."

Other crewmembers included copilot Capt Douglas C. McGraw, flight engineer Sgt Dennis L. Chriswell, and P J A1C Raymond T. Crow, Jr., on the Super Jolly Green Giant and helicopter mechanic Dwight L. Berry on Pedro.

Unfortunately not all rescue missions can be termed successful. Seldom, however, does a mission fail because of lack of effort on the part of the rescue forces. In a recent example of the effort put forward in an "unsuccessful" mission, the alert HH-43 Pedro crew at Det 4 performed outstandingly. After scrambling when an F-105 crashed on take-off, they launched in record time and dashed to the scene with the Fire Suppression Kit slung below the helicopter. *(Continued next page)*

2000 HOURS

Maj Harold L. Hering has accumulated more than 2000 hours in the HH-43. Major Hering is attached to Det 15, 40th ARRWg (MAC), Zaragoza AB, Spain.

Squadron now designated HSL-30

HC-4 Receives Meritorious Unit Commendation

CHIEF OF NAVAL OPERATIONS

The Secretary of the Navy takes pleasure in presenting the MERITORIOUS UNIT COMMENDATION to

HELICOPTER COMBAT SUPPORT SQUADRON FOUR (HC-4) for service as set forth in the following

CITATION:

For meritorious service from 1 July 1969 to 1 May 1971 while conducting operations in support of units of the United States Navy. During this period, Helicopter Combat Support Squadron FOUR supplied helicopter detachments to non-aviation ships from Vietnam to the Black Sea, and from the North Atlantic to the Caribbean. Operating mostly single-engined aircraft from the relatively unstable flight decks of small non-aviation ships in all weather and sea conditions, the squadron amassed over 10,000 accident-free hours while employing existing assets and resources to the maximum. Additionally, Helicopter Combat Support Squadron FOUR provided outstanding night, all-weather search and rescue support to selected aircraft carriers of the Atlantic Fleet; provided replacement air group training for numerous helicopter pilots and aircrewmen; expeditiously acquired an operational capability in a new aircraft model; participated in numerous important test and evaluation projects; and on many occasions provided exemplary emergency services to the civilian community. By their exceptional professionalism, dedication, and superior accomplishments, the officers and men of Helicopter Combat Support Squadron FOUR contributed significantly to the readiness posture of the Navy and upheld the highest traditions of the United States Naval Service.

At the left is a copy of the meritorious unit commendation HC-4, NAS Lakehurst, N. J., received recently from the Secretary of the Navy. It was signed by Adm Elmo R. Zumwalt, Jr., CNO, on behalf of the Secretary. HC-4 has been redesignated HSL-30 to reflect its new anti-submarine warfare role.

Admiral Zumwalt also praised HSL-30, and the USS Belknap, after completion of the first LAMPS operational deployment. He said the "highly professional performance and teamwork" of the ship and squadron had proven the merit of the LAMPS system and set a precedent for future deployments.

In a similar congratulatory message, Admiral Charles K. Duncan, CINCLANTFLT, said the first LAMPS deployment was a "significant operational success" for the USS Belknap and HSL-30 Det Alpha. "Your contribution to future employment of this new Weapons System will lead the way and sustain those who follow," the admiral said.

(Continued from page 6)

Wreckage was scattered from the runway to a lightly wooded area nearly a mile away. The tower had not observed any chutes and the crew was believed to still be in the flaming wreckage. The "Thud" had been carrying 20MM shells and other armament, some of which began exploding as Pedro arrived at the scene of the main wreckage. Since the area where the plane had come to rest had closely spaced trees, the Fire Suppression Kit could not be used and was placed in an open area 200 feet from the main wreck.

Sgts Billy Whittaker and Norman Jones, firemen, were lowered to the flaming aircraft and attempted to rescue the pilots. They raced through the flames and exploding ordnance and reached the cockpit only to discover there was no one there. The pilots had apparently ejected.

Capt Daniel Biezad, the aircraft commander, returned the Pedro to the base perimeter where the crew of the ill-fated craft was found. One had successfully ejected, the other had been killed.

While Pedro made no saves, the professionalism and heroism of the crew was noteworthy. They had risked their lives to save the crew. With ordnance "cooking off" they had continued to do their job and risk their lives in an effort to save others.

The other members of the crew were Sgt Stuart Lindberg, medical technician, and Sgt Whitfield Paige, helicopter mechanic.

The entire crew was commended by the commander of the 388th TAC Fighter Wing, Col Stanley N. Ulster, Jr. "for the tremendous job the personnel of Pedro (helicopter) did in response to the emergency call. . .

"All personnel involved displayed an outstanding example of expertise and professionalism during the entire operation," he said.

Quick Action Saves Gunshot Victim

A night flight over mountainous terrain by an HH-43 crew from Det 16, 42nd ARRSq, Williams AFB, Ariz., was later credited with saving the life of a gunshot victim. Manning the HUSKIE were Capt Gale L. Webb, aircraft commander; Capt Glynn A. McGregor, copilot; SSgt Jerry K. Rabenau, helicopter mechanic; and Capt Rodney U. Anderson (MC), flight surgeon.

The services of Det 16 were requested in order to move the patient from the hospital at Globe, Ariz., to St. Joseph Hospital in Phoenix as quickly as possible, since "time was of the essence." The flight between hospitals was made in 22 minutes.

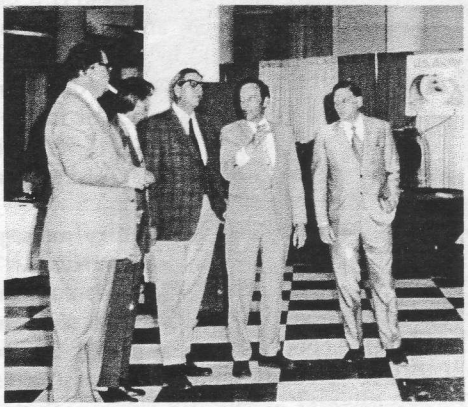
Life-Saving Flight By Det 8

MYRTLE BEACH AFB, S.C.—An HH-43 crew from Det 8, 44th ARRSq, at this base responded after a request was received for the immediate medical evacuation of a critically-ill, 15-month-old child. The tiny patient was taken aboard "Pedro 69" at the base hospital and the helicopter headed for a medical facility 75 miles away.

Shortly after takeoff, the child had a cardiac arrest and all life signs ceased. She was revived, however, by quick action on the part of Capt Allen Mantell (MC), flight surgeon; Capt Roger Ross (MC), medical attendant; and Sgt Charles W. Cannon, medical technician. Due to the critical condition of the child, Capt Stanley R. Menze diverted from Charleston AFB and landed on a Coast Guard helicopter pad closer to the medical facility. A police ambulance was standing by when the helicopter arrived. Because of the rapid response and actions taken enroute, the child's life was saved. Other members of the Det 8 crew were Capt Walter S. Hogle, Jr., copilot; and SSgt Erskine E. Brewington, helicopter mechanic.

LAMPS Activities ....

By Bruce Goodale,
LAMPS Program Manager



Capt T. C. Lonnquest, third from left, studies the model of Kaman's proposed "SEALAMP" helicopter after it was unveiled at the American Helicopter Society Forum in Washington, D. C. Captain Lonnquest recently relieved Capt S. E. Robbins as the Navy's project manager for Ship and Air Systems Integration, which includes LAMPS. KAC officials with the Captain are, left to right, David W. Demers, vice president; Don Robinson, director of Research & Development; W. Norman Stone, vice president; and Jack G. Anderson, president.

The USS Sterett (DLG 31) is scheduled to return in midsummer from the Pacific with LAMPS Detachment 1 from HSL-31, NAS Imperial Beach, Calif. In a recent action in the Gulf of Tonkin, the Sterett was commended for destroying a MIG-17 and two gun-boats. Its SH-2D remains in excellent condition and has proven a valuable part of the ship's weapons system. Five additional LAMPS detachments have deployed in the Pacific, including three from HSL-31 on the USS Harold E. Holt (DE 1074), the USS Roark (DE 1053) and the USS Marvin Shields (DE 1066); two, from HSL-30, NAS Lakehurst, N. J., are on the USS Biddle (DLG 34) and the USS Joseph Hewes (DE 1078). The Roark is not yet modified for LAMPS, and claims to be the first of the DE 1052 class operating LAMPS in a combat zone. Several of the LAMPS dets deployed to the Pacific are installing special sensors and equipment specifically for that theater, in addition to their standard LAMPS equipment.

HSL-30 also recently deployed LAMPS Detachment 2 to the Mediterranean on the USS William H. Standley (DLG 32), with the USS Bowen (DE 1079) scheduled to deploy this summer.

The USS Wainwright (DLG 28) has recently returned from a training cruise with a LAMPS det from HSL-30, which included operations with the USS Guam Interim Sea Control Ship, and is scheduled for another training cruise during the summer. On the west coast, the USS Truxton (DLGN 35) plans to train with a det from HSL-31 in July and August, prior to its deployment. *(Continued on page 12)*

U. S. S. BELKNAP (DLG-26)

FLEET POST OFFICE

NEW YORK 09501

From: Commanding Officer, USS Belknap (DLG-26)
To: Mr. Joseph A. Peluso, Field Service Representative
Kaman Aerospace Corporation

SUBJ: Letter of Appreciation

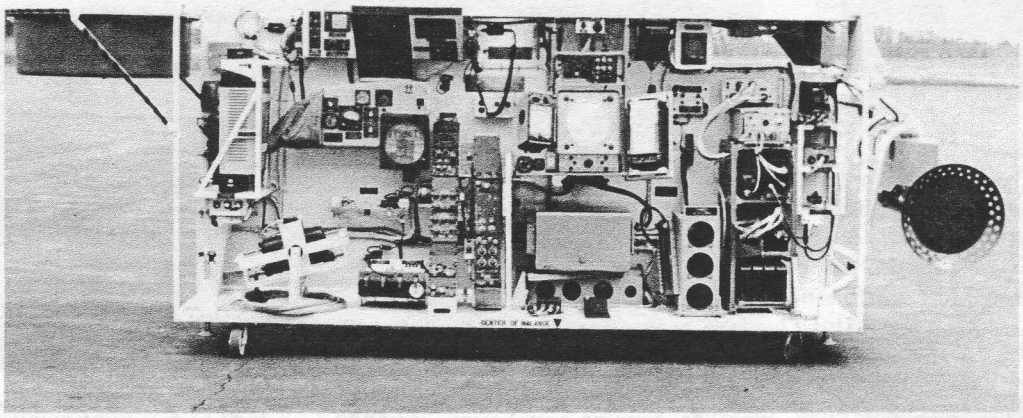
This is in appreciation of the outstanding performance displayed by you as Kaman Aerospace Corporation Technical Representative in support of the first fleet LAMPS detachment to deploy operationally in the United States Navy.

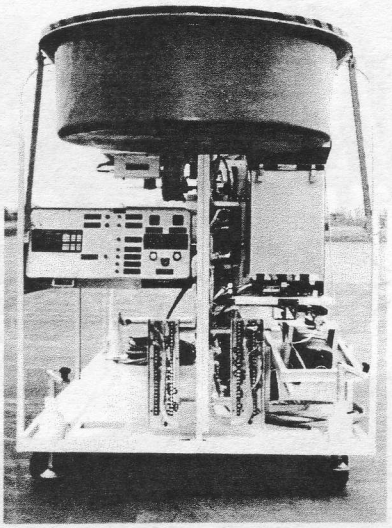
You were aboard the USS Belknap with the LAMPS detachment from the very beginning and functioned as an integral member of the Air Department. Your professional competence and keen interest in LAMPS operation proved an invaluable asset. . .You were always in the forefront of activity whether trouble-shooting, teaching, or assisting. This positive attitude and willingness to solve the problem was directly responsible for keeping the aircraft in an almost continous "fully mission capable" status. Not only did you provide valuable assistance to the LAMPS detachment, but you spent many extra hours working with ships personnel. Your informative instruction on the ALR-54 greatly enhanced the ship's ESM capability.

Your multi-mission role of good shipmate, outstanding representative of your company and good friend will be sorely missed. You have BELKNAP's good wishes for success in every future endeavor.

F. E. Field

Joseph Peluso, right, with Adm Elmo R. Zumwalt, Jr., during the admiral's visit to the USS Belknap. On left is LCdr H. E. Higginbotham, OIC of the HC-4 (now HSL-30) LAMPS Detachment. (Kaman photo)

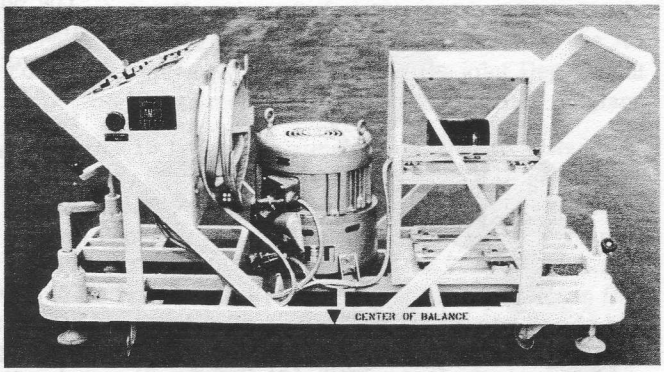




LAMPS Trainer Delivered

The SH-2D LAMPS maintenance trainer shown above was delivered recently to NAS Lakehurst, N. J. Designed and manufactured by Kaman Aerospace, the unit is being used by the Naval Air Maintenance Training Group (NAMTG) at the air station to instruct personnel who will maintain the specialized LAMPS equipment in the SH-2D.

An end view of the 12-foot-long, six-foot-high training device showing the radar housing and control panel appears at top right. The photo below shows the auxiliary unit, also Kaman designed and manufactured, which supplies power for the electronic and avionic equipment on the trainer. For trouble shooting or other training purposes, equipment or systems function in a normal manner or the instructor can make them individually malfunction when desired. A duplicate of the present SH-2D trainer is also being built at Kaman for use by the NAMTG unit at NAS Imperial Beach, Calif.



Training in the maintenance of other equipment, found on H-2's not configured for LAMPS use, is done with the use of another trainer, also Kaman-manufactured.

NATOPS CONFERENCE—Attendees at an SH-2D NATOPS Flight Manual Conference held recently at Kaman Aerospace were: Seated, left to right, W. Murray, vice president, Test Operations/Customer Service, KAC; Lt J. Dickinson, Lt R. Smith, HSL-30, NAS Lakehurst, N. J.; LCdr J. Long, NAVAIRSAFECEN, Norfolk, Va.; AWC M. Price, HSL-30; AW1 C. Watkins, NAVAIRTESTCEN, Patuxent River, Md. Standing, J. Peluso, avionic field service representative, R. Chapdelaine, supervisor, Service Publications; B. Schatz, General Electric Corp.; LCdr G. Canfield, CNO/NAV TAC DOC ACT, Washington, D. C.; W. Zins, director, Customer Service, KAC; LCdr J. Mosser, NAVAIRTESTCENT (also representing NAVAIRSYSCOMHQ), Washington; LCdr S. Milner, HSL-31, NAS Imperial Beach, Calif; LCdr C. Kiseljack, HSL-31 (also representing CNAP/CFSD); Lt A. Petrie, HSL-30 (also representing CNAL); G. Wood, group leader, Service Publications, KAC. Other attendees were LCdr D. Smolnik, chief of DCASO, KAC; A. Foster, chief test pilot, J. Goodwin, assistant chief test pilot, F. Smith, chief T & D engineer, F. Silverio, project engineer, KAC. (Ruggiero photos)

Southern California officials watch as Air Force HH-43, upper left, flies to burning wreckage with 1000-pound Fire Suppression Kit. The unit is being flown to ground-based firemen who will use the light water foam in the FSK to clear a path through the flames. The helicopter's rotor downwash is also used in suppressing the fire. The billowing black smoke in this picture will soon be eliminated as the Air Force changes to smokeless fire, using water sprays for fire-suppression training. Left to right are, Sgt David McGill, Los Angeles Police Department; Deputy Joseph Bator, Sgt Roger Griessel, Lt Robert A. Morse, San Diego Sheriff's Department; Sgt Cliff Owens, Los Angeles Police Department.

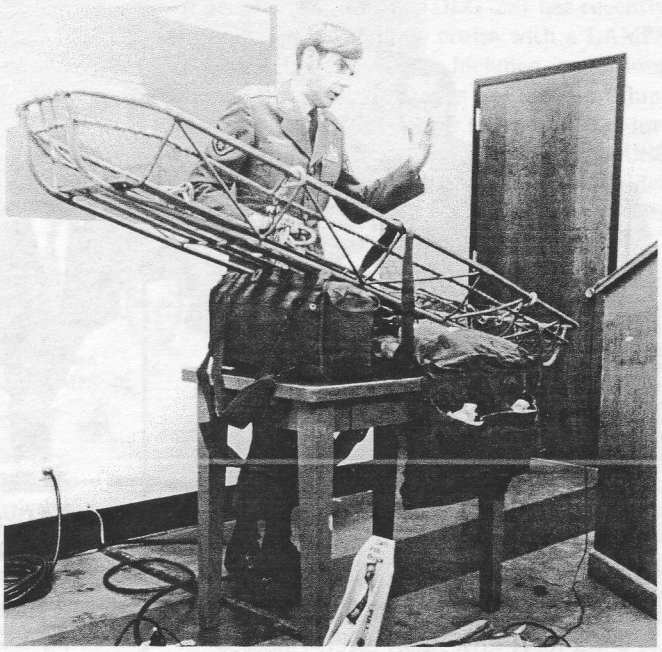
Capt John E. Rookstool of the Los Angeles City Fire Department helps Deputy Harry Jones of the Los Angeles County Sheriff's Department with his asbestos fire gear. Both Rookstool and Jones participated in a fire-fighting demonstration which called for suppressing flames around burning wreckage. (USAF photos)

Air Force Rescue And Recovery Orientation For California Law And Firefighting Personnel

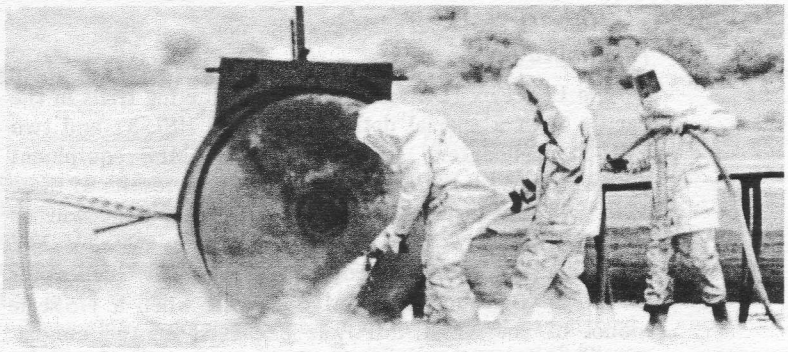
Fifteen members of Southern California city and county law enforcement and firefighting agencies recently attended a three-day orientation in the latest helicopter rescue and recovery techniques at Hill AFB, Utah. At the invitation of the Air Force, the group participated in classroom discussions and field exercises involving firefighting, mountain and water rescue, and recovery procedures.

The practical experience gained by the Air Force helicopter crews in combat and in aiding civilian populations during emergencies was shared with the local agencies during simulated field exercises. They observed a water hoist pickup in Utah Lake where techniques of water marking with flares to assist in water rescue was demonstrated.

The California officials donned Air Force asbestos suits and participated in a rescue from a simulated burning aircraft. Demonstration of the Fire Suppression Kit and the use of helicopter rotor wash to suppress flames were experienced by the local firemen. A simulated mountain rescue, using the forest penetrator, was also conducted.



Staff Sergeant Sowell explains rescue litter often used during helicopter medevacs. In front of the table, on floor, is Kaman-developed forest penetrator seat. The device, extensively used in Southeast Asia, is shown in use at upper left during a simulated mountain rescue.



During simulated rescue, three Southern California officials work to suppress flames around burning "wreckage." Hidden within the asbestos fire suits are Lt Al Juliano and Deputy Jones of the Los Angeles County Sheriff's Department and Captain Rookstool.

Det 22 Aids Two Under MAST Program

A police officer, seriously injured in an unusual accident during a high-speed chase, was air-transported to the hospital by an HH-43 crew from Det 22, 42nd ARRSq, Mountain Home AFB, Idaho. A doctor at the hospital said later that the quick reaction of the rescuemen and fast transportation undoubtedly saved the officer's life.

The accident occured when the police cruiser fell just short of clearing a 35-foot canal while in pursuit of a vehicle which successfully completed the leap across the water. The cruiser slammed into the opposite bank of the eight-foot-deep canal. By the next day the officer's condition had deteriorated to the point that hospital officials decided he had to be evacuated immediately to Boise where a neurosurgeon was available.

Det 22 was called and a MAST (Military Assistance for Safety In Traffic) mission was requested. An HH-43 took off in response and headed toward the hospital 70 miles away. Aboard were Capt John W. Petersen, aircraft commander; Capt Aram Paquin, copilot; TSgt Jimmy L. Ramsey, helicopter mechanic; and SSgt William B. Powers, medical technician. The injured officer was picked up at the hospital and then airlifted to Boise 90 miles away.

In another MAST mission, at night, a 10-year-old boy was located and rescued by a Det 22 helicopter crew after he disappeared into the desert on his brother's mini-bike. The search, which began after the lad was reported missing to the Owyhee County Sheriff's Office, finally narrowed down to about 20 square miles of very rough desert terrain. Because of the large and rugged area involved, the sheriff requested help from Det 22. An HH-43, "Pedro 42," launched with a crew consisting of Maj Roger L. Engstrom, aircraft commander; Capt Harold W. Jackson, Jr., copilot; TSgt Jimmy L. Ramsey, helicopter mechanic; and TSgt Bedford T. Lockard, medical technician.

The air search began just after midnight and ended two-and-a-half hours later when the boy was found lying under some sagebrush and tumbleweed. "About the time we were getting down to minimum fuel," Major Engstrom said, "we spotted the chrome fenders of his bike in our landing lights. If he had abandoned it, we would have had a great deal of difficulty finding him."

During the night the temperature was below freezing, but because the boy was found in a relatively short period of time he suffered only slightly from exposure.

Det 15 MAST Mission Saves Miner

LUKE AFB, ARIZ.—An HH-43 crew from Det 15, 42nd ARRSq, at this base saved the life of an Arizona miner after his jeep overturned on a rugged mountain hill, pinning him underneath. The miner was driving his jeep up a steep mountain incline late in the evening when the vehicle overturned on top of him. He managed to reach his knife, and dug for more than three hours to tunnel his way out. Once free, the miner crawled nearly five miles in the dark to a road on the side of the mountain, where he was spotted by another motorist late in the morning.

A local sheriff was notified and, in turn, requested assistance from Det 15. The detachment is one of the Air Force units presently participating in the joint Department of Defense/Department of Transportation MAST program.

The Det 15 helicopter launched and flew to Vista Point, Az., where a sheriff's deputy was picked up to guide them to the accident site of Four Peaks, Az., about 40 miles east of Phoenix. A small landing area had been marked out by the sheriff on the scene, and the Pedro landed. The medic on board, Sgt Ronald Knight, gave the victim first aid for his possible broken ribs and back, and placed him on a litter. The crew then airlifted him to Mesa Lutheran Hospital in Mesa, Az.,

The HH-43 was piloted by Capt Jay Hansen. Other crewmembers were Capt John Drexler, copilot; and Sgt Robert Prunty, helicopter flight mechanic. This is the sixth MAST mission for Det 15 since Jan. 1, 1972, accounting for nearly ten lives saved.

Low-Altitude Night Flight Saves Life

BITBURG AB, GERMANY—A night-flight made at low altitude over hilly, wooded terrain was credited with saving the life of a military dependent wife. An HH-43 crew from Det 8, 40th ARRWg, at this base responded to a call to airevac a patient with serious breathing difficulties to the Landstuhl Hospital 55 miles away.

The flight was conducted via radar vectors, even though the enroute altitude was less than 1,500 feet due to the patient's medical requirements for low altitude. Shortly after takeoff the aircraft compass system became unreliable and the lights on the standby compass went out, requiring LtCol Erling R. Drangstveit, the copilot, to hold a light on the compass, thus distracting him from his navigational duties. Turbulence from winds on the ridge lines made the task of maintaining a heading on the standby compass even more difficult for the pilot, Capt Richard W. Shupp. Ground navigation was almost impossible due to the darkness and the ADF system was useless due to static.

Despite the difficulties enroute, a landing was made at the Landstuhl Hospital pad, located on top of a 500-foot ridge, and the patient was turned over to hospital authorities. Others aboard the HH-43 were Maj John W. Patrick (MD), Maj Robert A. VanAtta (MD), LtCol Theda Snyder (NC), and MSgt Bernard D. Loughry, helicopter mechanic.

(Continued from page 8)

The USS Fox (DLG 33) is now conducting trials in the Pacific with a special detachment from HSL-31 and two YSH-2E helicopters, with advanced LAMPS equipment developed by NADC, Warminster, Pa. The results of these tests will assist in determining what equipment will be used in future LAMPS helicopters.

Kaman introduced its proposed "SEALAMP" helicopter as the next generation LAMPS aircraft when a 1/5-scale model of the SEALAMP was displayed at the annual Forum of the American Helicopter Society, in Washington, D. C., in mid-May. Information on the SEALAMP has been submitted to NAVAIR in response to its request to the helicopter industry for recommendations on the Mark-III LAMPS vehicle, with deliveries specified to start about 1976. The SEALAMP is a modernized and improved version of the SH-2D LAMPS helicopter. It incorporates many reliability and maintainability improvements as well as special operational features found desirable from present LAMPS experience. Among the more obvious changes are provisions for internally stowing the MAD-gear, improved cabin/cockpit access and egress, enlarged external fuel tanks for longer mission endurance, and a reduced-drag fuselage. The gross weight of the proposed SEALAMP will be increased to 13,300 pounds. The large nose-mounted radome on the SEALAMP model was sized for the MK-III radar specified by NAVAIR.

Hazardous Flight By Det 10

An 18-month-old child, critically injured in an automobile accident, was airlifted to the hospital recently by an HH-43 crew from Det 10, 40th ARRWg, Aviano AB, Italy. The 55NM flight to the hospital was made at night over mountainous terrain. A lack of navigational aids and extremely limited visibility called for precise "pilotage" on the part of Maj Darvan E. Cook. Equally precise navigation and time and distance checks were required of the copilot, Capt James F. Bauer.

The patient was delivered to a hospital pad at the hospital. There were no navigational aids at the site and the field was located solely by dead reckoning—time and distance calculations. Throughout the flight, constant attention was given the patient by the flight surgeon, Maj Thomas Irizarry (MC), and medic, SSgt Wiley T. Sanford. Helicopter mechanic was MSgt Arthur L. Ambrose.

Det 7 Aids Spanish Pilot

TORREJON AB, SPAIN—"Pedro 30," an HH-43 attached to Det 7, 40th ARRWg, at this base was on a local training mission with the alert crew on board when a Spanish Air Force T-6 left the runway and flipped over on its back. Maj Peter W. Gissing, aircraft commander of the rescue helicopter, immediately flew to the scene of the accident.

The canopy of the T-6 was crushed and the pilot was suffering from head injuries. Other rescue agencies which had arrived at the scene assisted the helicopter crew in removing the injured man. He was treated by TSgt Jimmie E. Strickland, medical technician from Pedro 30, and then airlifted to the hospital for treatment. Total time of the mission was 15 minutes.

Other members of the HH-43 crew were SSgts Lenard L. Dockter and Bobby J. Best, firefighters.

1000-HOUR PILOTS

In left photo, Squadron Leader (Major) Riaz A. Shah, Pakistan Air Force, receives congratulations from Flying Officer Sheikh S. Ahmed, HH-43B pilot, after logging 1000 hours in the HUSKIE. Others in the photo are, right, Flying Officer M. Arshad Malik, copilot on the 1000th-hour mission, and Chief Technician (M/Sergeant) Muhammad Siddique, crew chief/hoist operator who has also logged more than 1000 HH-43 hours. Squadron Leader Shah, who has been flying the HH-43 since 1963, has carried out numerous day and night Search and Rescue missions. His squadron has held the Flight Safety Trophy since its creation. (PAF photo)

In photo at right, LCdr Harry E. Higginbotham, HSL-30, NAS Lakehurst, N. J., is presented a 1000-hour plaque by Horace F. Field, Kaman senior service representative.

LtCommander Higginbotham was the OinC of the HSL-30 LAMPS Det 1 aboard the USS Belknap. He has accumulated 1200 hours in the H-2. (USN photo)

Others who have joined the growing list of Kaman 1000-hour pilot award recipients are: HH-43 — 1stLt Kalbasi Abdolhosein, 6th Tactical Fighter Base, Bushehr, and 1stLt Farshad Nasser, 1st Tactical Fighter Base, Mehrabad, Iran; Maj Arthur C. Plunkett, 33rd ARRSq, Kadena AB, Okinawa, who has flown approximately 1400 hours in the HUSKIE; LtCol Erling R. Drangstveit, commander of Det 8, 40th ARRWg, Bitburg AB, Germany. LtColonel Drangstveit has flown the HH-43 since September 1966, when he commanded the LBR at Payne Field, Wash. He headed the detachment at McChord AFB, Wash., before his present assignment.

Teamwork By Reese Rescuemen, Firefighters Saves Two

By Capt John G. Taylor, III
Det 3, 43rd ARRSq, Information Officer

It was a windy, dusty day typical to West Texas and Reese AFB. At 1450 local, the crash phone rang—a T-38A Talon training aircraft had gone off the runway and come to rest upside down. As the rescue alert crew scrambled, Capt Herbert C. Gerstenberger, HH-43F aircraft commander, elected to deploy without the Fire Suppression Kit when he saw that the downed trainer was relatively close to the alert fire trucks and there was no smoke.

The "Pedro"(HH-43) was off the ground in minimum time and Capt George H. Armentrout, the copilot, received clearance to the crash site from the control tower. Seconds later, the HH-43 landed 50 feet from the T-38 and SSgt John Henry, the medical technician, leaped out and ran toward the crash where a base fire truck was applying fire suppressing foam. He was accompanied by Sgt James E. Meiers and Sgt Charles L. Grand, firemen; and SSgt Jay R. Pruitt, the helicopter mechanic. As Sergeant Henry readied a litter and his medical kit, the others from the helicopter removed the student pilot from the front cockpit. Aided by Base Fire Chief Whittler, Sergeant Henry inserted an airway into the windpipe and began mouth-to-mouth resuscitation. He also stopped the bleeding from the injured man's head.

As the medical technician continued his life-sustaining first aid, Sergeants Pruitt, Meiers and Grand placed the patient in the helicopter and Captain Gerstenberger took off to intercept the doctor and ambulance at Base Operations. There, after a quick glance at the patient, LtCol Romberger, hospital commander, instructed Staff Sergeant Henry to "continue with what you're doing son, we're going to the hospital."

Maj Thomas C. Seebo, Det 3 commander who had remained behind at Base Operations, closed the clam shell doors on the rear of the helicopter and Captain Gerstenberger took off and headed for the hospital. Six minutes after the crash the student pilot was in the emergency room. Captain Gerstenberger immediately flew back to the crash scene.

Meanwhile, a crane requested by the fire chief had arrived and preparations were begun to lift the inverted T-38 so the back seat pilot could be removed. Chief Whittler and the rescue crew kept up their first aid efforts and continued to remove life support gear and aircraft debris in readiness for prompt removal when the crane raised the aircraft. Although spilled fuel was around the aircraft and the ejection seat could not be disarmed due to the aircraft's position, the HH-43 rescuemen and base firefighting personnel ignored the obvious danger and continued their efforts to free the second pilot. When he was removed, the injured man was placed in the HH-43 while Captain Cropper, a flight surgeon who had arrived by ambulance, administered first aid. Captain Gerstenberger flew as quickly as possible to the hospital with the second survivor and then immediately returned to the crash site to provide rescue readiness for those engaged in post-crash activity.

When the helicopter was no longer required, the Det 3 Pedro returned to the alert pad where it was met by other members of the detachment rescue team. LtColonel Romberger credits two saves to Det 3 and Captain Gerstenberger for their prompt response and immediate actions which clearly contributed to the saving of two lives.

Once again the concept of Local Base Rescue (LBR) developed so well with the Kaman HH-43F, and the highly trained professional crews of the Aerospace Rescue and Recovery Service under the Military Airlift Command, provided the expertise "That Others May Live."

For sometime the men of Det 12, 3rd ARRGp, at U-Tapao RTAFB, Thailand, had been seeking an insignia befitting their unit and the missions it carries out. Then, according to the story, Capt Dennis D. Olson leaped from his bed at midnight and feverishly began working on a design which had suddenly come to him. The result is the unique insignia shown above.

An enlargement of Captain Olson's distinctive "HH-43 Air Rescue" design was presented to the USO and is displayed in the club. It also adorns the rescuemen's personal plaques hanging in the aircrew lounge.

The detachment is on a 24-hour alert posture and responds to about 20 airborne emergencies a month. In addition personnel undergo constant training with six to eight practice fires being fought each month. Maj Bruce M. Purvine, detachment commander, said each of the six pilots attached to the unit has about 400 hours in the HH-43. Most have crossed-trained into the Air Rescue Service and average about 20 hours a month flying time. The "Pedro" unit has received MAC safety awards for the past two years.

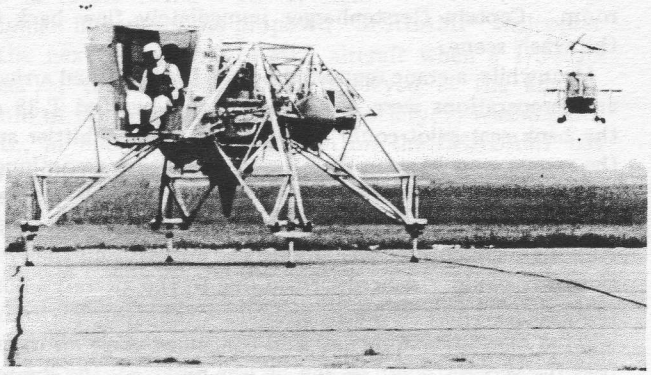
The latest life-saving mission flown by a Det 12 Pedro crew involved the medevac of a "Sunday-swimmer" who was critically injured when he hit his head on the bottom of a boat. The accident occurred as the man was swimming in the shallow waters off the islands west of Pattaya Beach. His friend managed to pull him from the water and summoned help.

Twenty minutes after the accident the HH-43 arrived and landed at the water's edge. Aboard were Capt Dante O. Fierros, pilot; Capt Ralph Bell, copilot; Sgt Thomas W. Hooker, helicopter mechanic, and Sgt Fred A. Praitano, medical technician. Also aboard was Col John R. Hoch, a flight surgeon.

The patient, who had suffered a broken neck, was placed in the helicopter by Colonel Hoch and Sergeant Praitano. A few minutes later the HH-43 landed at the base where an ambulance was waiting. Afterward, the "quick reaction" of the Pedro crew and their "professional manner" in handling the emergency was credited with saving the life of the injured man.

Historical Report From

DETACHMENT 21, 43rd ARRSq



A few months ago, Det 21, 43rd ARRSq, was deactivated after three years service. To this detachment had fallen the unique distinction of providing airborne rescue coverage during flights of NASA's Lunar Landing Training Vehicle (LLTV) at Ellington AFB, Texas. While the unit is no longer in operation, its spirit lives on in a comprehensive, 18-page "Historical Report" written by a Det 21 flight mechanic, SSgt Walter E. Myers. Unfortunately, space limitations preclude publishing the entire report in Rotor Tips, however, excerpts concerning some of the more important events in the life of Det 21 appear below.

Det 21 "Opens For Business"

The primary mission of Det 21 began on 4 April 1969 with the test flight of NASA's Lunar Landing Training Vehicle (LLTV) which would require airborne rescue coverage during its entire training program. Besides setting up the detachment, providing alert coverage for NASA and the other flying units at Ellington, and the normal training of his own people, Maj Robert A. Bunton, ably assisted by Capt Nicholas O. Gaspar, developed and perfected the flying and rescue techniques to be used in support of the LLTV. . .Being the only detachment qualified to jump pararescuemen from an HH-43. . .pararescuemen from other units came to Ellington for jump proficiency training, adding to the already full schedule of Det 21. . .

Maintenance Section Lauded

During these busy days, with the dawn-to-dusk operation, the Maintenance Section was really put to the test. All major component changes, routine maintenance, servicing, scheduled inspections, etc., had to be performed after normal duty hours. Many a long night and many a weekend had to be spent to keep the valiant "HUSKIE" in the air. Probably nobody except the individuals themselves will really know what these mechanics went through and the personal sacrifices made by these truly dedicated men.

Armstrong Completes Training

Pride in a job well done shone like a new star in the faces of the men of Det 21 when on June 16th astronaut Neil Armstrong completed his training in the LLTV. . . "Neil Armstrong walked on the moon this date. 1st man to set foot on another planet or celestial body. Buzz Aldrin followed by approximately 8 min. Det 21 released to watch this event on T. V." Although similar entries were recorded in hundreds of other places at the time, few could record the events of the day with such personal feeling and satisfaction, knowing they had in some way contributed to making these events possible. . .

Pedro Protects Crew, "Moon Rocks"

The Apollo 11 capsule and the lunar samples (better known as the "Moon Rocks") were returned to the NASA Manned Spacecraft Center on board a C-141 via Ellington. As the aircraft approached the base, the No. 2 engine failed. "Pedro" was immediately scrambled to rescue the crew and precious cargo in the event of an accident. . .The aircraft landed without incident.

Second HH-43 Arrives

More relief. . .came in November with the arrival of the detachment's second HH-43B helicopter. Now the unit was shaping up to a normal LBR operation. With two helicopters, the long nights and frequent weekend work schedules of the maintenance section were almost a thing of the past.

First Civil Rescue

The first civil rescue mission flown by the crews of Det 21 came in January of 1970. When three workmen became stranded on the top of a 1500' tower, both the Coast Guard Rescue Unit and Det 21 were called for assistance. The joint mission of the two teams went like clockwork. . .

New Commander

January also brought the arrival of Major Wayne L. Ritter who assumed command of the detachment on 26 January 1970 and would command the unit until the deactivation in 1972. . .While the decorations and publicity were flying, so were the crews and helicopters of the detachment. With the Apollo 13 mission in the near future, LLTV training for Astronauts Jim Lovell and John Young was in full swing. A total of 37 LLTV missions were flown during the month of March to again set a record. . .

Hurricane Victims Aided

Assisting civil authorities in time of local or national disaster is common to most Rescue Detachments. Action of this type can also be found in the records of Det 21, when in August 1970, Hurricane Celia hit southern Texas, and Corpus Christi became a disaster area. . .

Decorations Presented

August was also a month for the presentation of another award, when Mr. Mark Heath, Director of LLTV Operations, presented 12 members of Det 21 with the NASA Apollo Achievement Award, adding to the growing list of outstanding achievements of the men of the unit. . . The month of October became another month for collecting more of the many awards and decorations for the men and the detachment. Colonel Gray, Base Commander at Ellington, presented eight members of Det 21 with eleven decorations, ranging from the Purple Heart to the Dis-

tinguished Flying Cross. A few days later, Colonel Gray again made a presentation, this time in the form of the Outstanding Unit Award, to the rescue unit. In a ceremony attended by both military and NASA officials, Major Ritter accepted the award for the men of Det 21.

HH-43 Protects During LLTV Crash

Colonel Gray wasn't the only one presenting awards that month. Dr. Robert C. Seamans, Secretary of the Air Force, arrived at Ellington to present the Air Force Commendation Medal to TSgt Carless Looney, a Flight Mechanic assigned to Det 21. Sgt Looney received the award for his actions which were credited with saving the life of a 14 month old Houston child. . .The LLTV, on a test flight, piloted by Mr. Stuart M. Present, Test Pilot for LLTV Operations, encountered flight control difficulties and subsequently crashed and burned. (The response of the Det 21 HH-43 crew is described in the March-April, 1971 issue of Rotor Tips. ed.)

Det 21 Activities Publicized

The feature article in the February issue of the Airman magazine was about the LLTV and Det 21. The same issue included an article on TSgt Looney's life saving award. Throughout its short period of existence, stories about Det 21 appeared in newspapers across the country, Kaman Rotor Tips magazine, MAC News Service, the Daedalus Flyer, 39th ARRWg's Rescue Beacon, the Air Force Reserve News Service, Airman magazine, the base newspaper, Skylander and the Sikorsky 1025 News. This list could go on and on, but would not demonstrate how well known and widely publicized this little group of men became during the unit's three year history.

Maintenance Team Meets Challenge

The dedication of the maintenance section of this unit has been mentioned several times in this report, and here again it was displayed admirably. In order to meet the LLTV requirement, the maintenance team, led by SMSgt Adams, worked a total of 28 straight hours to ready the helicopter for the flight. Through their efforts, the Detachment was able to complete their mission right on schedule. Late in the afternoon of May 9th the scramble horn sounded and the Rescue Team launched to aid a civilian C-46 which had incurred serious problems over the field. . .with the Fire Suppression Kit in its familiar place beneath the H-43, the intercept pattern was established while the disabled aircraft clipped power lines and crash landed in an open field just south of Ellington. Maj Wayne L. Ritter, pilot of the HUSKIE, kept the Ellington tower informed of the situation as he completed his approach to the crash site, set the FSK on the ground and deployed his Pararescue team. Fortunately, no fire broke out in the C-46 and nobody was seriously hurt. . .

Astronaut Helps Publicize Det 21

With the approaching Apollo 15 mission, and the cooperation of Astronaut Air Force Col David Scott, the men of Det 21 got quite a thrill and individual publicity as each in turn had his picture taken with the astronaut for publication in their hometown newspapers. Articles appeared in newspapers across the nation carrying the story of 43 ARRSq, Ellington AFB, NASA and Det 21.

. . .No matter where I go from here, I have the personal satisfaction of knowing I have served with the finest group ever assembled by Rescue and the United States Air Force.

SSgt Walt Myers

Detachment To Be Deactivated

Then in September the word came down from higher headquarters! Det 21 would be deactivated in March of 1972. With the close of the Apollo program drawing near, the last astronaut training being completed until the final "shot" in November of 1972, it was determined that the primary mission of the unit no longer existed after 31 March 1972. Other arrangements would be made to cover the final Apollo mission training, and almost three years from the date of activation Det 21, 43 ARRSq would pass into history.

HH-43 Aids Oil Spill Cleanup

Ecology and Conservation have been brought to light recently and especially in the Houston area they are of major importance. Fuel or oil spills in the waters around Houston are a very serious matter. Early on the morning of November 2nd, Det 21 received a call for help from the base fuel dump. It seems that due to an unusual accident, several thousand gallons of JP-4 were inadvertently dumped into Horsepen Bayou. The HH-43 "HUSKIE" from the rescue unit provided rotor wash to blow the fuel spillage back to the shore where huge suction pumps waited to "vacuum" the spilled fuel out of the water.

"True Professionals" Prepare For Deactivation

Deactivation started during the month of February, as inventories were made on unit equipment and dispersal instructions for unit property were set up to be implemented on 31 March. . .To watch the everyday hustle and bustle of activity, no one could tell that in a few short weeks the detachment would cease to exist. Each aircraft was given a thorough maintenance check and "face lift" in preparation for transfer. As a result, they were able to ship two HH-43's which they could say were unsurpassed in mechanical condition and appearance. Within the last two months of operation, all of the assigned support equipment was repainted to ready it for transfer. As true professionals, the men of this outstanding unit worked with the attitude "don't quit until the job is done."

3 Years Accident Free Flying

With pride, the men of Det 21 could boast of a complete three year history of accident-free flying and 100% mission accomplishment for the LLTV. Considering the hectic schedules, the many activities, and the coverage they provided, this indeed was a feat to be proud of.

"Doors Close" For Last Time

On 31 March 1972, the doors of Det 21, 43 ARRSq closed for the last time. With the ARRS men leaving Ellington Air Force go the memories and experiences of one of the finest groups of military men ever to set foot on an Air Force installation.

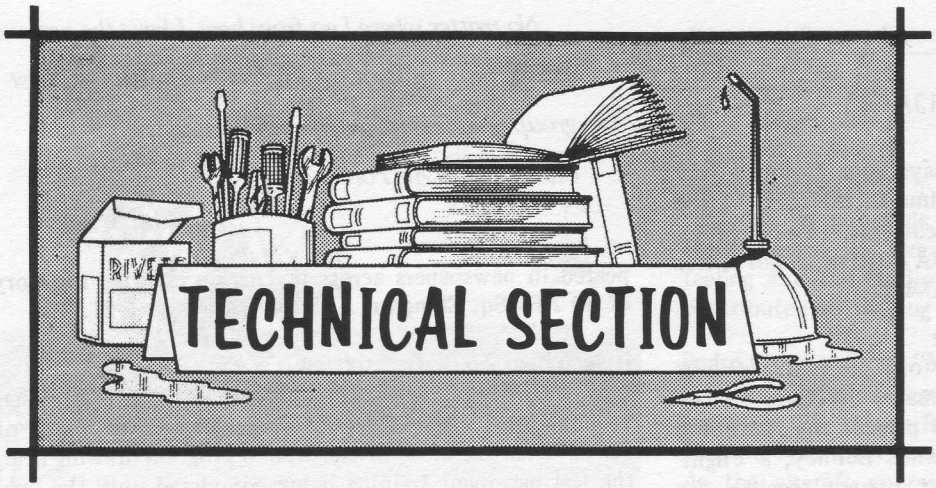


Table of Contents

Technical Section information has been reviewed and approved by Service Engineering.
G. M. Legault, Supervisor

H-2 FLAP CONTROL ROD L-CRANK

W. Wagemaker, Service Engineer

Main rotor blade vibrations/out-of-track conditions can be caused by worn bearings in the flap control L-crank, P/N K659453, shown in Illustration 1, on opposite page.

Normally it is recommended that disassembly and removal of the main rotor blade flap crank be accomplished at a maintenance level higher than Organizational due to the critical nature of this area of the rotor blade assembly.

The following procedures, which have been recommended for inclusion in applicable manuals, are provided to enable accomplishment of crank/pivot bearing replacement at other than the depot level in the event a replacement blade is not readily available. For further information refer to NAVAIR 01-260HCB-4-7 and NAVAIR 01-260HCA-2-2.1.

NOTE

When work is performed in this area, special consideration should be given to:

a. Avoidance of structural damage.
b. Integrity of crank assembly due to hidden nature of installation.
c. Inspection of blade cavity prior to sealing to be sure no loose materials have been overlooked.
d. Proper sealing to avoid onset of corrosion.

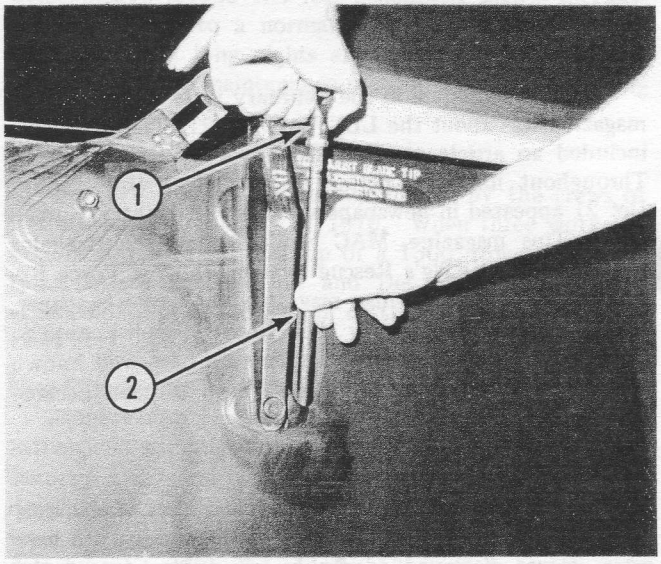


Photo A

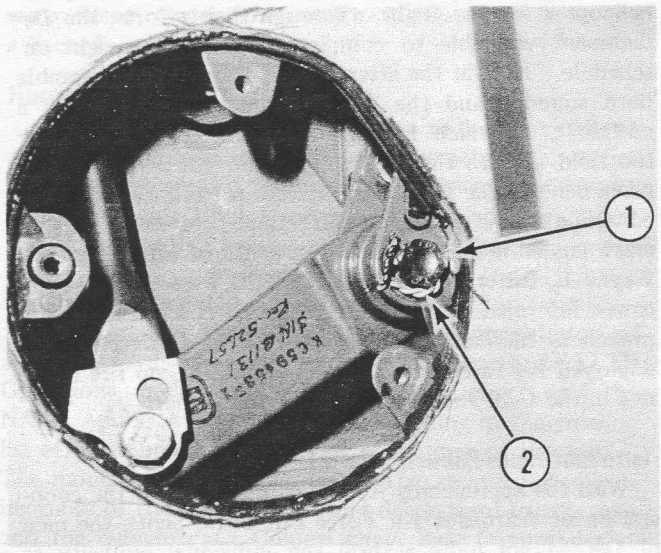


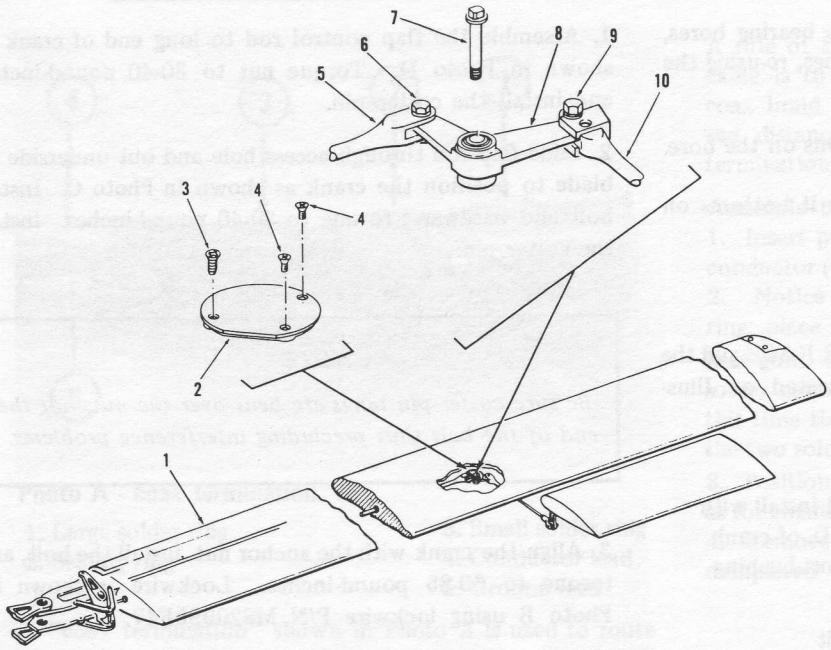
Photo B

1. Bolt
2. Lockwire

INSPECTION

To determine the condition of the crank bearings, grasp the flap as shown in Photo A. Hold the rod steady at the flap end (index 1) and alternately push up and pull down on the rod with the other hand in the area shown by index 2. Some looseness may be evident and is acceptable; excessive looseness will, however, cause an out-of-track problem. If it has been determined that excessive looseness exists (approximately 1/8-inch movement up and down of the flap rod), either blade replacement or replacement of the L-crank assembly or bearings should be accomplished.

Illustration 1



1. Main rotor blade assembly
2. Access box cover
3. Screw
4. Screw
5. Blade control rod
6. Cotter pin,nut,washer,bolt
7. Bolt
8. Flap control L-crank
9. Cotter pin,nut,washers,bolt
10. Flap control rod

L-CRANK REMOVAL FROM BLADE

1. To aid in removal of the crank,disconnect the flap control rod at the flap clevis. Retain hardware for re-installation.

2. Remove and retain the three screws (3 and 4) securing the access cover (2) shown in Illustration 1. Note the location of the different length screws for re-installation. Remove the access cover.

3. Push the flap control rod inboard to position the crank as shown in Photo B. Remove the lockwire (2) and bolt (1).

4. Move the flap rod outboard to position the loose crank as shown in Photo C. Remove the cotter pin (1) and the bolt, washer, and nut (2).

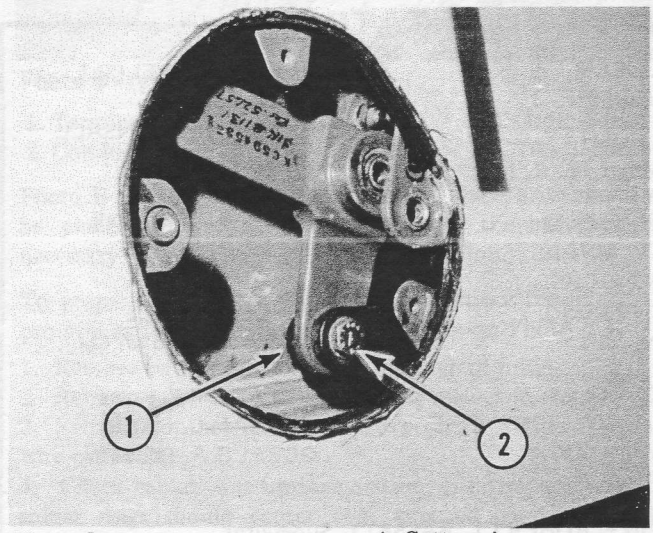


Photo C

1. Cotter pin
2. Bolt, washer and nut

5. The L-crank is now detached from the blade assembly and may be withdrawn through the access hole along with the flap control rod.

6. Remove hardware at index 1, Photo D. Separate rod (2) from crank (3).

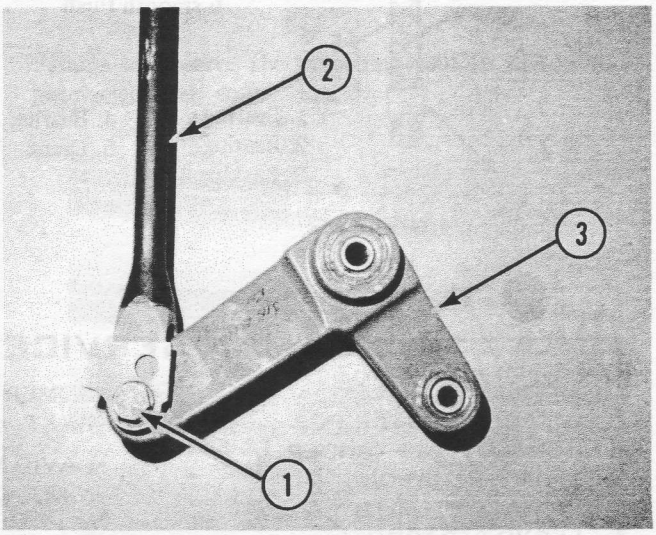


Photo D

1. Bolt, washers and nut
2. Flap rod
3. L-crank

BEARING REMOVAL AND INSTALLATION

1. Remove the sealant around the slip-fit bearing periphery and remove the slip-fit bearing (refer to Item 1 in Illustration 2).

2. Remove the slip-fit bushing (3).

(Continued on next page)

3. Remove the press-fit bearing (2).

4. Remove all traces of sealant, clean the bearing bores, and proceed with installation of new bearings, re-using the slip-fit bushing.

5. Press in a new bearing (2) until it bottoms on the bore.

6. Install the slip-fit bushing, making sure it bottoms on the press-fit bearing.

7. Install the slip-fit bearing (1).

8. Fill the gap between the bearing OUTER RACE and the CRANK with sealing compound as indicated on Illustration 2.

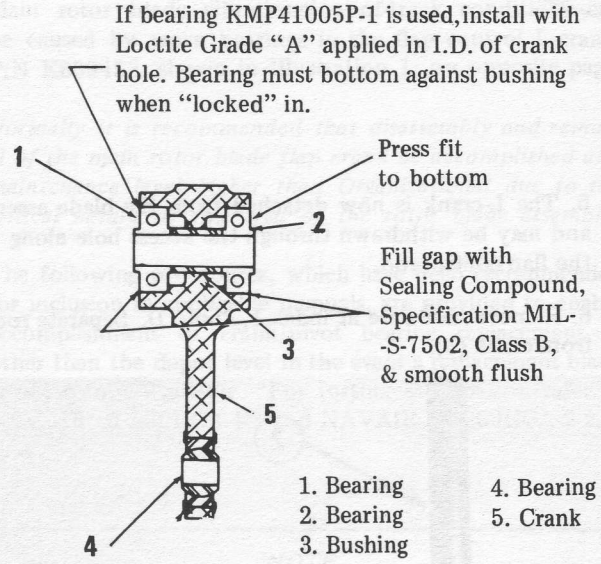


Illustration 2

L-CRANK INSTALLATION INTO BLADE

1. Assemble the flap control rod to long end of crank as shown in Photo D. Torque nut to 30-40 pound-inches and install the cotter pin.

2. Slide flap rod through access hole and out underside of blade to position the crank as shown in Photo C. Install bolt and hardware; torque to 30-40 pound-inches. Install the cotter pin.

NOTE

Be sure cotter pin tangs are bent over the nut, not the end of the bolt thus precluding interference problems.

3. Align the crank with the anchor nut, install the bolt, and torque to 60-85 pound-inches. Lockwire as shown in Photo B using lockwire P/N MS20995F47.

CAUTION

Be sure to closely inspect area, paying particular attention to potential interference, proper safety and removal of loose material.

4. Install access cover onto blade assembly. (Short screw is installed in hole closest to blade leading edge.)

5. Cover screw heads and periphery of the cover with sealant, MIL-S-8802, Class A, 1/2. Heat-cure the sealant at 160° F (71° C) for 1/2-hour. Be sure the sealant is smoothed after curing.

KAMAN SERVICE REPRESENTATIVES

LIONEL A. BENTLEY
DONALD T. LOCKRIDGE
DONALD P. ALEXANDER
JOHN J. McMAHON
RICHARD L. SMITH
LLOYD R. GARDNER
KENNETH SMITH
NAS Imperial Beach, Calif.

DONALD R. DELANEY
WILFRED L. MAGNAN
Home Office

SAUL H. FREEDMAN
NATF Lakehurst, N. J.

HOMER C. HELM
NAS Pensacola, Fla.

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

HORACE F. FIELD
NORMAN M. MYERS
JOHN HENDRICKSON
JOSEPH A. PELUSO
NAF Naples, Italy

WILLIAM G. WELLS
RICHARD A. COLLIER
JAMES J. SHERLOCK
NAS Cubi Point, P. I.

ROBERT C. BELISLE
JACK L. KING
DONALD E. BONSALL
JOHN H. LEAVITT
EDWARD NOE
RICHARD SLOANE
NAS Lakehurst, N. J.

WILLIAM MILES
NAS North Island, Calif.

WILLIAM C. BARR
GERALD A. BOUTIN
Iran

CUSTOMER OPERATIONS SECTION — ROBERT L. BASSETT, Supervisor

SH-2D ARL54 (IDF 7.5) WIRING

N. Hankins, Service Engineer

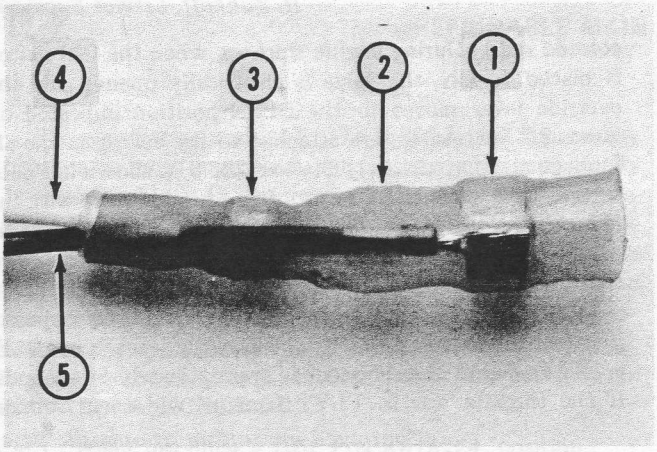


Photo A - coax termination

1. Large solder ring
2. Sealing ring
3. Small solder ring
4. Conductor lead
5. Ground lead

A "coax termination" shown in Photo A is used to route coax cable through a standard connector in the ARL54 system. The coax termination,P/N D133-06,FSN 9G5940-929-8558, is similar to solder sleeves in that a hook-shaped heater is used to melt the solder rings and shrink the assembly.

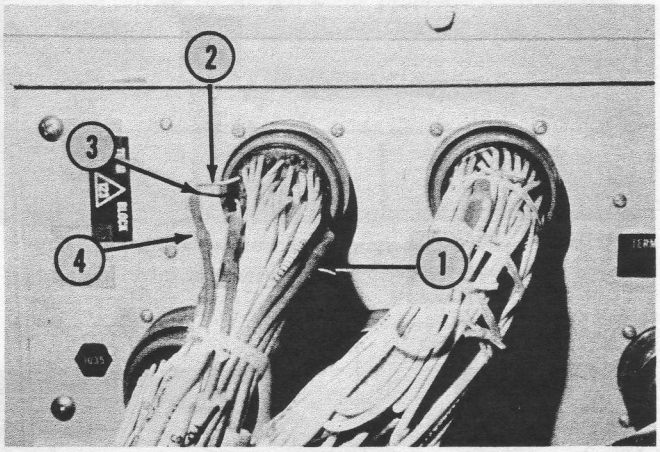


Photo B - typical installation

1. Termination
2. Conductor lead
3. Ground lead
4. Termination

Photo B shows a typical application. (The coax cable may be picked up on the opposite side of the bulkhead if necessary, by utilizing another termination.)

To prepare coax cable for installation into a termination, proceed as follows: (Use index numbers on Photo C.)

1. Remove outer cover exposing 3/4-inch of braid.
2. Remove 1/2-inch of braid exposing dielectric.
3. Remove 1/4-inch of dielectric exposing 1/4-inch of wire conductor.
4. Check cable: line up termination with prepared cable; solder rings should center over exposed conductor and shield. (Note: better results can be obtained by tinning the conductor.) Index 5 shows completed assembly.

A rule of thumb which can be applied to preparing coax cable is to be sure the distance from center of exposed coax braid to center of exposed conductor is the same as the distance between the two solder rings in the coax termination.

Assemble the cable and termination as follows:

1. Insert prepared cable into termination. Center exposed conductor (and braid) under solder rings.
2. Notice the termination has one small and one larger ring; place the smaller ring into the hook-reflector of the heat gun. Allow unit to heat until solder ring collapses and solder color changes from dull grey to bright silver. (At this time the sealing ring will also collapse, thus separating the two solder connections.)
3. Position large solder ring into hook reflector and repeat as for smaller ring.
4. Remove termination from heat and allow to cool. The completed connection is shown in Photo C, index 5.

CAUTION

DO NOT ALLOW CABLE OR TERMINATION WIRES TO MOVE UNTIL SOLDER HAS SET.

Failure to observe the preceding caution will result in a poor electrical connection.

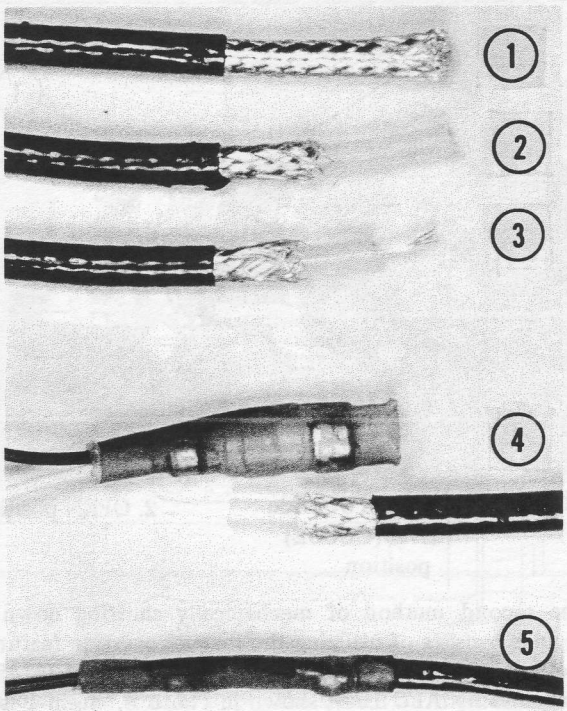


Photo C - coax cable preparation

H-2 ENGINE SHUTDOWN-COMPLETE ELECTRICAL FAILURE

H. Zubkoff, Service Engineer

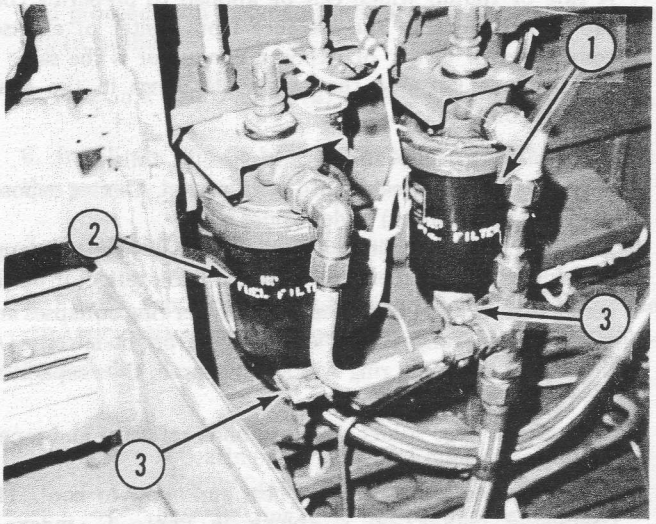


Photo A 1. No. 1 Engine fuel filter 3. Drain valves
2. No. 2 Engine fuel filter

In the event of complete electrical failure, one of two methods can be used to shut down the engines. One method is to open the airframe filter drain valves shown in Photo A. This allows air to be drawn into the fuel system by the engine-driven fuel pump causing engine flameout. If the throttle is in FLY and the drain valve is opened, flameout will occur in approximately 10-12 seconds. If the throttle is in idle and the valve is opened, flameout will occur in 2-3 minutes.

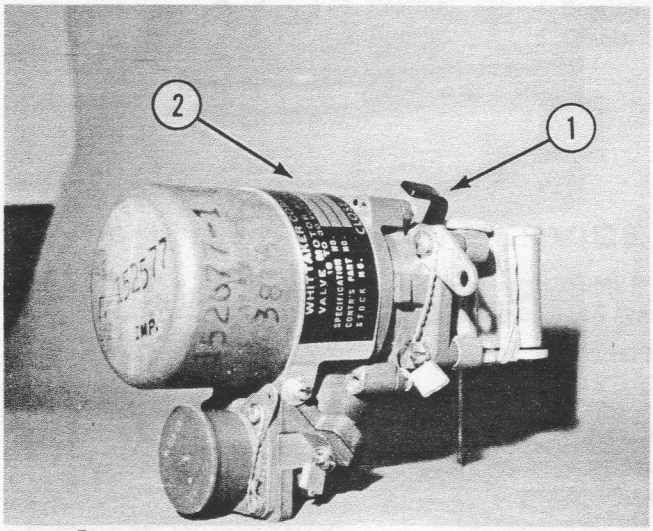


Photo B 1. Manual override lever (CLOSE) position 2. OPEN position

The second method of mechanically shutting down the engines consists of utilizing the manual override feature of the solenoid-operated fuel shutoff valve, P/N 134145-15 (installed by AFC 164), shown in Photo B. Item 1 is the manual override lever in the CLOSE position. (The lever is colored red.) During engine start-up, when the fuel switch is placed to ON, the valve is electrically opened and the override lever moves to the OPEN position indicated by index 2. Both valves are attached to the ceiling in the aft fuselage at approximately Station 226.0 as shown in Photo C. Photo D shows a close up of an installed valve with the red override lever in the OPEN position as the handle would be in the event of complete electrical failure. To shut down the engines, reach up to the top of the valves and move the handles (on both valves) to the opposite side (OPEN to CLOSE). If the throttle lever is in IDLE, engine flameout should occur in approximately 30 seconds. If the throttle was in FLY, flameout will occur sooner.

(Continued on bottom of opposite page)

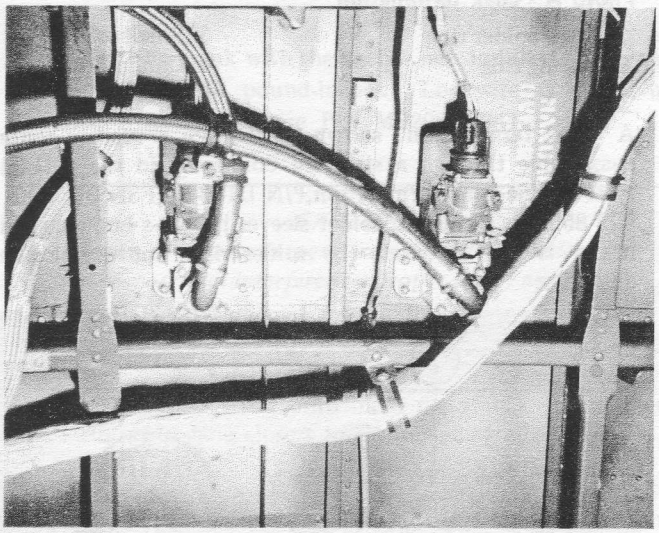


Photo C

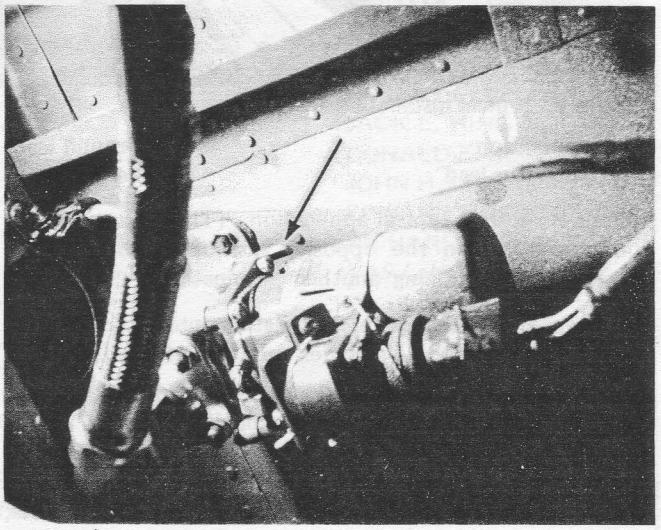


Photo D

H-2 REPAIRABLE MAIN ROTOR BLADE FLAP

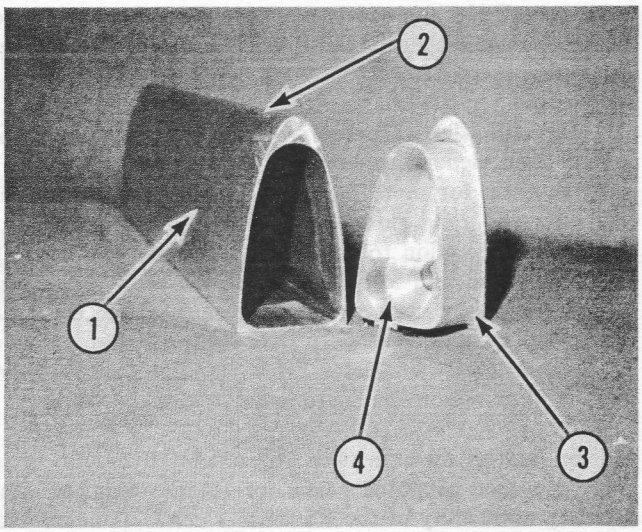
W. Wagemaker, Service Engineer

The new flap assembly, P/N K615224, which is presently being introduced into the supply system is not individually interchangeable with the present flap, P/N K615002, because it is lighter. Kaman tests reveal the new flap may be used in ship sets or on opposing blades but should not be used on only one main rotor blade. The new flap has no tunnel to guide the flap rod, therefore, installation procedures for rod insertion must be modified. The following procedure has been recommended for inclusion in NAVAIR 01-260HCA-2-4.2.

> When installing a flap, P/N K615224, position the flap *with the trailing edge down.* Insert the flap rod through the inboard flap bracket and flap until the rod contacts the outer end fitting in the flap. Rotate or twist the rod while maintaining slight outboard pressure until the rod emerges from the flap.

CAUTION

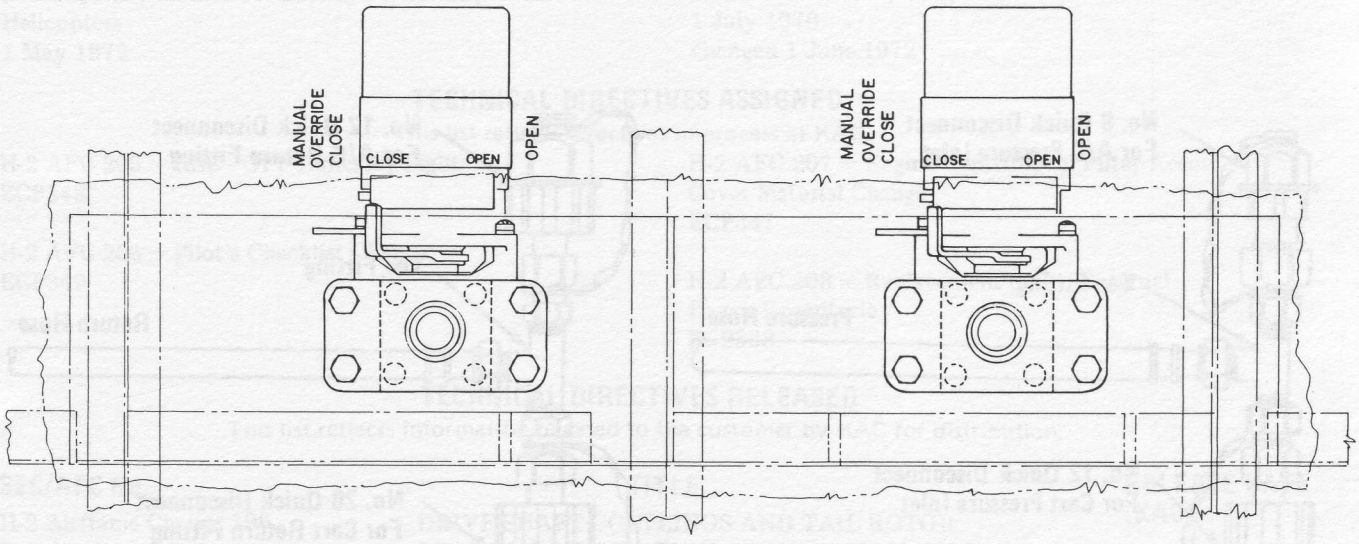
When placing the flap in the Trailing Edge down position, be careful not to allow the inboard clevis to strike the underside of the main rotor blade. The need for the slightly different installation procedure can be seen by studying the accompanying photo.



1. Flap
2. Leading edge
3. Outboard fitting
4. Ramp

Because there is no guide for the rod, it passes through the spar until it contacts the cone shaped area of the outboard fitting. This provides a ramp which guides the rod through the outboard fitting bore. All other installation requirements for both flaps are the same.

Engine Shutdown - Complete Electrical Failure
Continued from preceding page



The accompanying illustration details the position of stencils which were recently authorized for use. Detachments may apply the stencils at their descretion. Make the stencil with 1/2-inch letters and apply with Insignia white paint as shown. Be sure to apply the stencil on the correct side of the valve. The intent of this article will be incorporated into applicable manuals by a future change.

H-2 HYDRAULIC POWER CARTS

W. Wagemaker, Service Engineer

The limited space available on LAMPS-type surface craft has necessitated design of a "compact" hydraulic cart. The new cart, P/N K604844-1, not only requires less storage space than available carts but it will also provide the following desirable characteristics:

1. Large filtration capacity providing longer interval between filter element servicing.
2. Provisions for more accurate control of temperature, pressure, and fluid flow.
3. Manual operation to provide replenishment of aircraft hydraulic fluid and also incorporate self-priming feature.
4. Integral safety devices shut entire unit off in event of high-temp condition or when fluid contamination exceeds acceptable level. (Indicator lights pinpoint contaminated filter and/or reason for shutdown.)

As an interim measure, two AN/AWA-6 hydraulic carts were modified as noted below for LAMPS requirements, pending availability of the K604844-1 carts. (Unmodified carts are used on F4 aircraft.)

1. HD-415 A/U cooler, air electronic equipment, removed.
2. Pressure compensator on pump adjusted to produce 1500 psi instead of 2250 psi.
3. A 3-micron filter assembly, P/N HH9021A12UP-RWP, containing element P/N HC9021FUP4H (FSN not available) was added to the pressure line mounted on rear of panel. For information, the other filters in the cart are:

AN6235-1A. . .Element, 10 micron, in pump bypass line.
AN6237-1. . .Element in purge tank vent.
54052. . .Disc filter in return line from aircraft line at cart connection.
AC2466E5. . .Element, 5 micron, in pressure line.

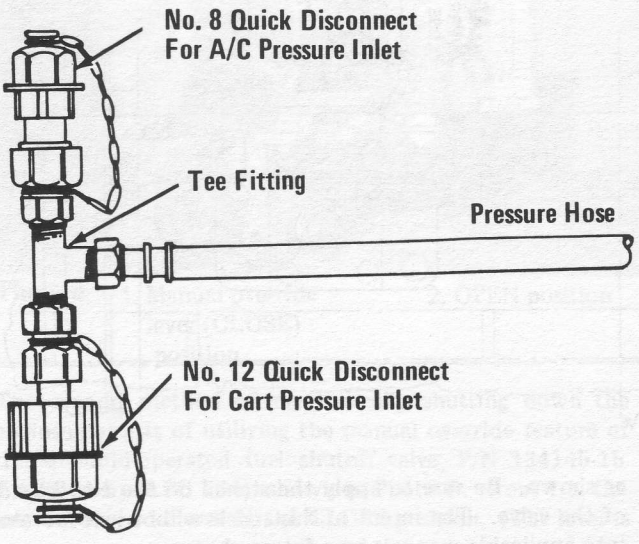
4. "Tee"fittings and quick-disconnects were added to hoses to permit connection to the H-2 and the purge tank on the cart as shown in accompanying illustration.
5. Operating instructions for carts modified in accordance with the foregoing information are as follows: (For further information, refer to NAVAIR 16-30AWA6-1.)
Power requirements: 115VAC, 3 phase, 400 cycle.
Hydraulic fluid in purge tank: MIL-H-5606.

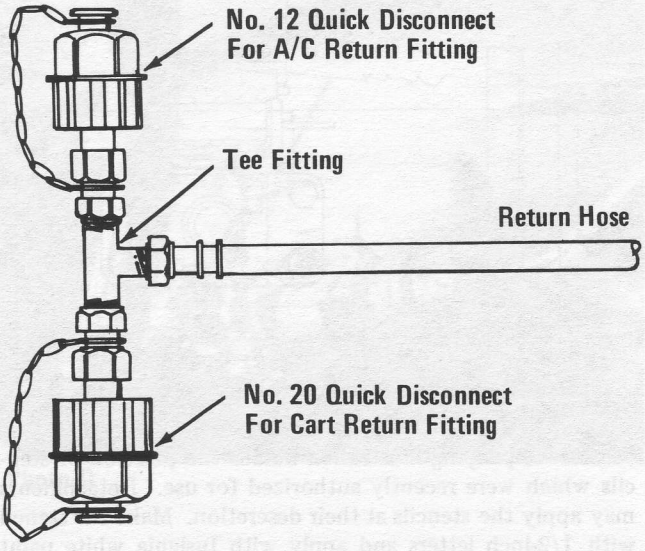
BEFORE CONNECTING TO AIRCRAFT

1. Fill the purge tank with hydraulic fluid conforming to MIL-H-5606.
2. Connect hydraulic hoses to purge connections on hydraulic cart; pressure line to pressure "in" connection; and suction line to "return out" connection.
3. Turn all switches to OFF position and connect APU at junction box.
4. Turn master switch on junction box to ON position.
5. Put pump circuit breaker on hydraulic cart to ON position.
6. Actuate pump ON switch and purge for one minute. Place all switches to OFF.

AFTER CONNECTING TO AIRCRAFT

1. Attach the No. 8 quick-disconnect fitting on pressure line tee to the aircraft fitting and the No. 12 quick-disconnect fitting on the return line tee to the aircraft return fitting.
2. Actuate the master switch, pump circuit breaker, and the pump ON switch to generate hydraulic pressure.





PUBLICATION INFORMATION

This list reflects latest manual changes and technical directives released to the field.

R. H. Chapdelaine, Supervisor, Service Publications

NAVAIR 01-260HCA-2-2.1 — Manual, Maintenance Instructions, Navy Models UH-2C/HH-2C/HH-2D/SH-2D Helicopters, FLIGHT CONTROLS
15 April 1972
changed 15 June 1972

NAVAIR 01-260HCA-2-3 — Manual, Maintenance Instructions, Navy Models UH-2C/HH-2C/HH-2D/SH-2D Helicopters, EQUIPMENT (FURNISHINGS, HYDRAULICS, UTILITIES, ARMAMENT)
1 March 1972
changed 1 July 1972

NAVAIR 01-260HCA-2-4.2 — Manual, Maintenance Instructions, Navy Models UH-2C/HH-2C/HH-2D/SH-2D Helicopters, ROTOR SYSTEM
1 October 1967
changed 1 July 1972

NAVAIR 01-260HCA-2-5 — Manual, Maintenance Instructions, Navy Models UH-2C/HH-2C/HH-2D/SH-2D Helicopters, AUTOMATIC STABILIZATION EQUIPMENT
1 October 1967
changed 15 July 1972

NAVAIR 01-260HCA-2-7 — Manual, Maintenance Instructions, Navy Models UH-2C/HH-2C/HH-2D/SH-2D Helicopters, RADIO AND RADAR SYSTEMS
1 October 1967
changed 1 March 1972

NAVAIR 01-260HCA-2-8.1 — Manual, Maintenance Instructions, Navy Models UH-2C/HH-2C/HH-2D/SH-2D Helicopters, WIRING DATA
1 October 1967
changed 15 May 1972

NAVAIR 01-260HCB-4-1 — Illustrated Parts Breakdown, NUMERICAL INDEX AND REFERENCE DESIGNATION INDEX, Navy Models UH-2C/HH-2C/HH-2D/SH-2D Helicopters
1 May 1972

NAVAIR 01-260HCB-4-2 — Illustrated Parts Breakdown, AIRFRAME, Navy Models UH-2C/HH-2C/HH-2D/SH-2D Helicopters
1 June 1967
changed 1 May 1972

NAVAIR 01-260HCB-4-8 — Illustrated Parts Breakdown, RADIO AND ELECTRICAL, Navy Models UH-2C/HH-2C/HH-2D/SH-2D Helicopters
1 June 1967
changed 1 May 1972

NAVAIR 03-5CGP-1 — Manual, Depot Maintenance Instructions, FUEL CONTROL ACTUATOR ASSEMBLY, P/N K673836-1
1 May 1972

NAVAIR 03-25KAM-1 — Manual, Overhaul Instructions, MAIN LANDING GEAR SYSTEM, Navy Models UH-2C/HH-2C/HH-2D/SH-2D Helicopters
15 September 1965
changed 1 June 1972

NAVAIR 03-40KAM-1 — Manual, Overhaul Instructions, FLIGHT CONTROL SYSTEM, Navy Models UH-2C/HH-2C/HH-2D/SH-2D Helicopters
15 November 1965
changed 15 June 1972

NAVAIR 03-95D-11 — Manual, Depot Maintenance Instructions, MAIN ROTOR SYSTEM, Navy Models UH-2C/HH-2C/HH-2D/SH-2D Helicopters
15 January 1966
changed 15 June 1972

NAVAIR 03-95D-17 — Manual Overhaul Instructions, TAIL ROTOR BLADE AND GRIP ASSEMBLY, P/N K614001-201, -205, -207
1 July 1970
changed 1 June 1972

TECHNICAL DIRECTIVES ASSIGNED

This list reflects directives in-process at KAC.

H-2 AFC 205 — ASE - OFF Indicator Light
ECP348

H-2 AFC 206 — Pilot's Checklist Change
ECP349

H-2 AFC 207 — Engine Centrifugual Filter Access Cover Material Change
ECP347

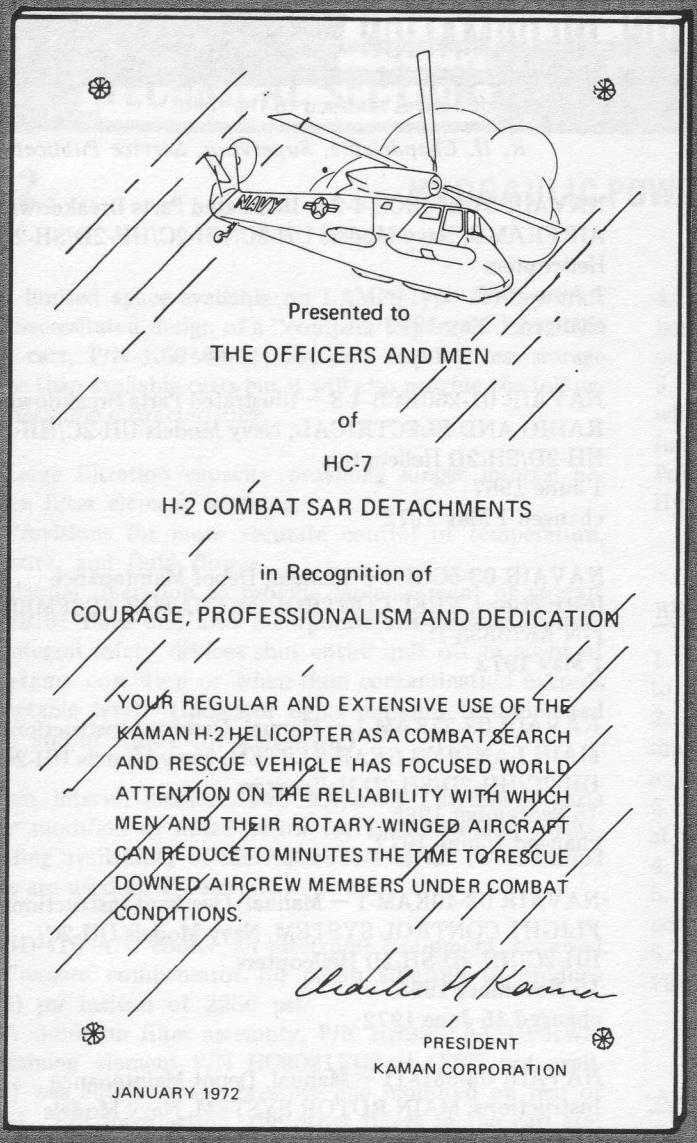
H-2 AFC 208 — Replacement of AC External Power Receptacle
ECP338

TECHNICAL DIRECTIVES RELEASED

This list reflects information released to the customer by KAC for distribution.

SEC/AFC No.	TITLE	RELEASE DATE (KAC)
H-2 Airframe Change 196, Part 1	DRIVE SHAFT COUPLINGS AND TAIL ROTOR GEARBOX; UTILIZATION OF MIL-G-81322 WIDE TEMPERATURE RANGE GREASE IN	23 May 1972
H-2 Airframe Change 105, Amend 2	Hydraulic System, REPLACEMENT OF H-2 AFC 105 CHECK VALVE WITH A ONE-WAY RESTRICTOR	23 May 1972

(Continued from page 3)



Acceptance Of Kaman Plaque By Cdr John E. Woolam

Commanding Officer, HC-7, NAS Imperial Beach, Calif.

"This plaque, probably more than any other award today, represents the efforts of our squadron's fine maintenance personnel. Although the largest number of men in our squadron are maintenance, they seldom receive the recognition they so strongly deserve.

The combat search and rescue team is like the proverbial chain in that it is only as strong as its weakest link. The aircrews perform heroically but certainly not without good aircraft and fine maintenance. Although in original concept, the H-2 SEASPRITE was not designed to operate from the decks of small frigates and destroyers, this maintenance nightmare was accomplished not only with an outstanding performance by the maintenance men, but also by close support and cooperation from the manufacturer and its field representatives. Perhaps the greatest tribute to all concerned was that in five years of all-weather operations under the most difficult conditions, our SEASPRITE never missed a rescue due to a maintenance problem.

"Now that this great era in naval aviation is closing, it is fitting to reflect briefly on the last five years. In January of 1966, the first combat search and rescue detachments went out to sea with very little prior experience in combat search and rescue, but certainly a great deal of courage. Our present executive officer, Cdr David J. McCracken, then in HC-1, departed San Diego in early 1966 aboard the USS Coontz with a hastily modified H-2 SEASPRITE. This past January our last two H-2 combat search and rescue detachments came home for the last time. Between those two events there has been as many as six H-2 combat SAR detachments at sea at one time ranging from the Indian Ocean to the sea of Japan, always on 15-minute alert, 24 hours a day to rescue distressed aircrews.

"Our most heroic achievements by these aircrewmen have taken place in the Gulf of Tonkin off the coast of North Vietnam from the DMZ north to the Chinese border. It was not uncommon for these detachments to stay at sea from 60 to 80 days at one time with the only land in sight. . . .North Vietnam!

"It is in memory of men like these that we have instituted the HC-7 memorial plaque. This has certainly been a proud era in naval aviation where the procedures and capabilities that have been pioneered will be carried on. The combat search and rescue team concept was the first time that the surface combat vessel, the jet aircraft and the helicopter have acted as a close-knit team. The cruisers, frigates and destroyers have not only acted as miniature aircraft carriers and refueling stations, but also as homes for our gypsy-like aircrews who move from ship to ship as the needs require; the fighter and attack aircraft crews who have guided our helos across the hostile territory, providing fire suppression and advice from their high vantage point, and last but not least, the radar guidance and protection afforded us by the many ships of the Pacific fleet. This has truly been an all Navy effort. As we sit here now, our HH-3A combat SAR helos are still on alert in the Gulf of Tonkin, continuing the fine tradition set by the H-2.

The dedication of these men is something that we can be proud of. Their job was perhaps the most honorable of any in modern warfare. . . .that of saving lives. Had it not been for these men of the combat search and rescue team there would have been more POW's and MIA's on that list of unreturned soldiers, sailors and airmen. In spite of the monumental and heroic efforts of these men, there are those whom we could not reach in time. The case of the two men of an A-6 crew near Vinh in North Vietnam one night a few years ago where our helo crew, contacting both men and discovering that they were about two miles apart is heartbreaking. While they rushed to pick up one man, his partner was captured. Another night rescue of two F-4 crewman deep in North Vietnam brought one of our detachments OINC's, Lt Clyde Lassen, the coveted Medal of Honor. Not only is Lieutenant Lassen here with us this afternoon but also one of the two men he rescued at that time—Commander Holtzclaw.

"To commemorate these past accomplishments and permanently pay tribute to the many who so bravely fought in these most dangerous skys to retrieve those in need, the HC-7 memorial plaque is being presented to hang in the Naval Aviation Museum at Pensacola, to not only honor the combat search and rescue aircrews, but to remind all people that in spite of our efforts, there are many we could not reach."