

KAMAN

Rotor Tips

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ON THE COVER

The twin-engine UH-2C which joined the Fleet recently will serve in many places during the next few years. Symbolizing this wide-spread coverage is the helicopter, silhouettes and a sinusoidal projection. Cover by Donald Tisdale, Technical Publications.

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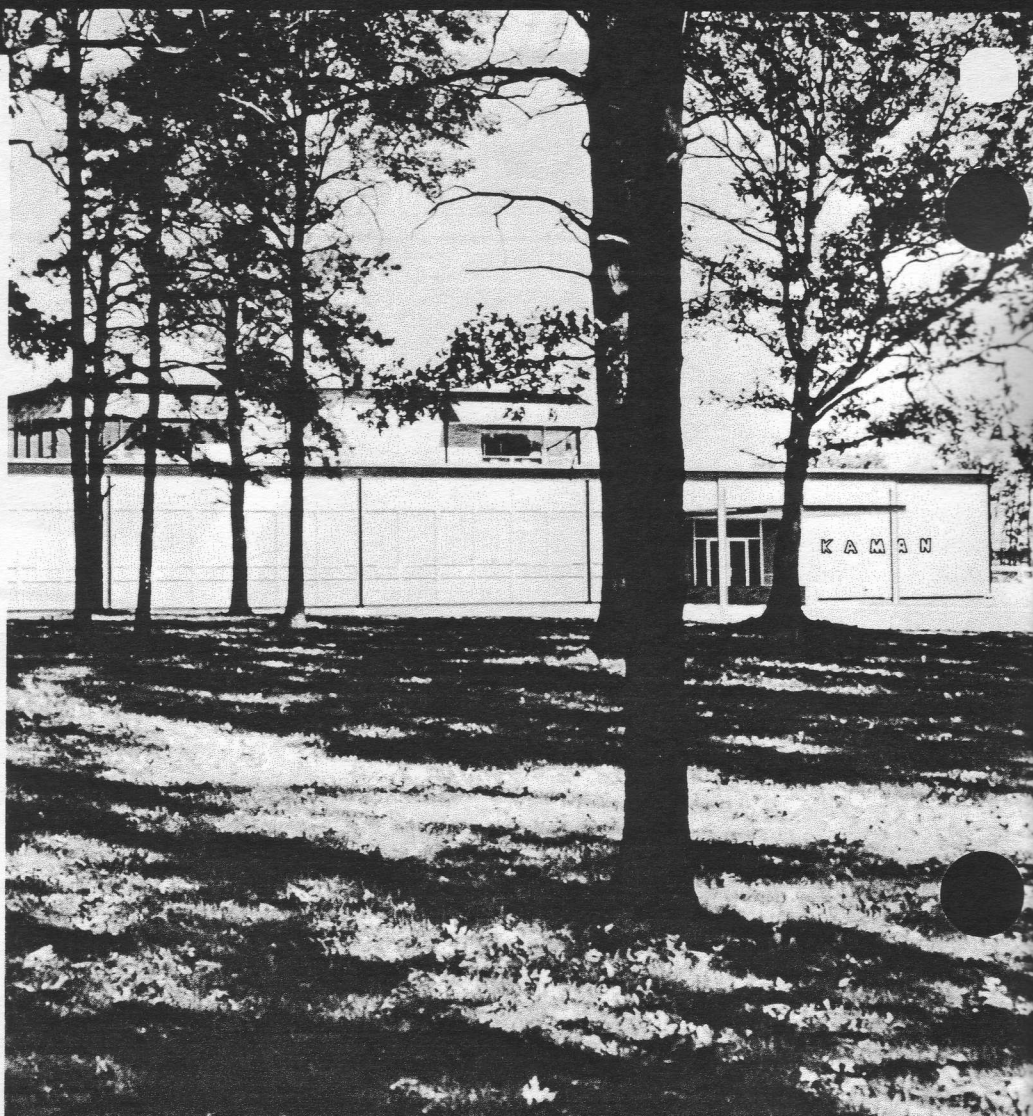
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What's With The Twin?

UH-2C JOINS FLEET

Kaman Corporation has begun deliveries to the Navy of the UH-2C utility rescue helicopter. An advanced version of the single-engine SEASPRITE, this new model has two GE T-58-8B turbine power plants which provide twin engine reliability in addition to increased altitude and payload capabilities. Structural changes have also resulted in greater ease of accessibility and maintainability. The first two Fleet operational UH-2C's were delivered on 11 August to Helicopter Combat Support Squadron One by Navy pilots who ferried the helicopters across the United States from the Kaman facility at Windsor Locks, Conn., to NAAS Ream Field, Imperial Beach, Calif. Upon arrival, press, radio and TV coverage was the order of the day. The celebration at HC-1 also included the cutting of a special UH-2C cake with all hands joining the festivities. A third SEASPRITE was received by the squadron three weeks later and additional UH-2C's are scheduled for delivery at a rate of two or three a month. The first 25 aircraft will all go to Ream Field for subsequent carrier deployment.

At HC-1, the UH-2C's have been inducted into an intensive pilot/crewman training program in preparation for deployment aboard an attack carrier in November. The ship is scheduled to operate in the Southeast Asia area where numerous rescues have already been made by UH-2 crews. Operational and service data accumulated during the present training program at Ream will be used in planning logistic support of the deployed aircraft.



AT KAMAN—In top right photo, preparations are made for UH-2C cross-country flight to NAAS Ream Field, Calif. Left to right are LCdr Ron L. Stoker, Lt(jg) Carl E. Matyas and Robert H. Selman, AFCEM, from HC-1. Lt Richard E. Klein, DCASO representative at Kaman, is at right. In second photo, Lt Commander Stoker receives "bon voyage" handshake from Vice President Robert D. Moses, Kaman Aircraft Division. Shown below are the two twin-engine helicopters just before take-off.

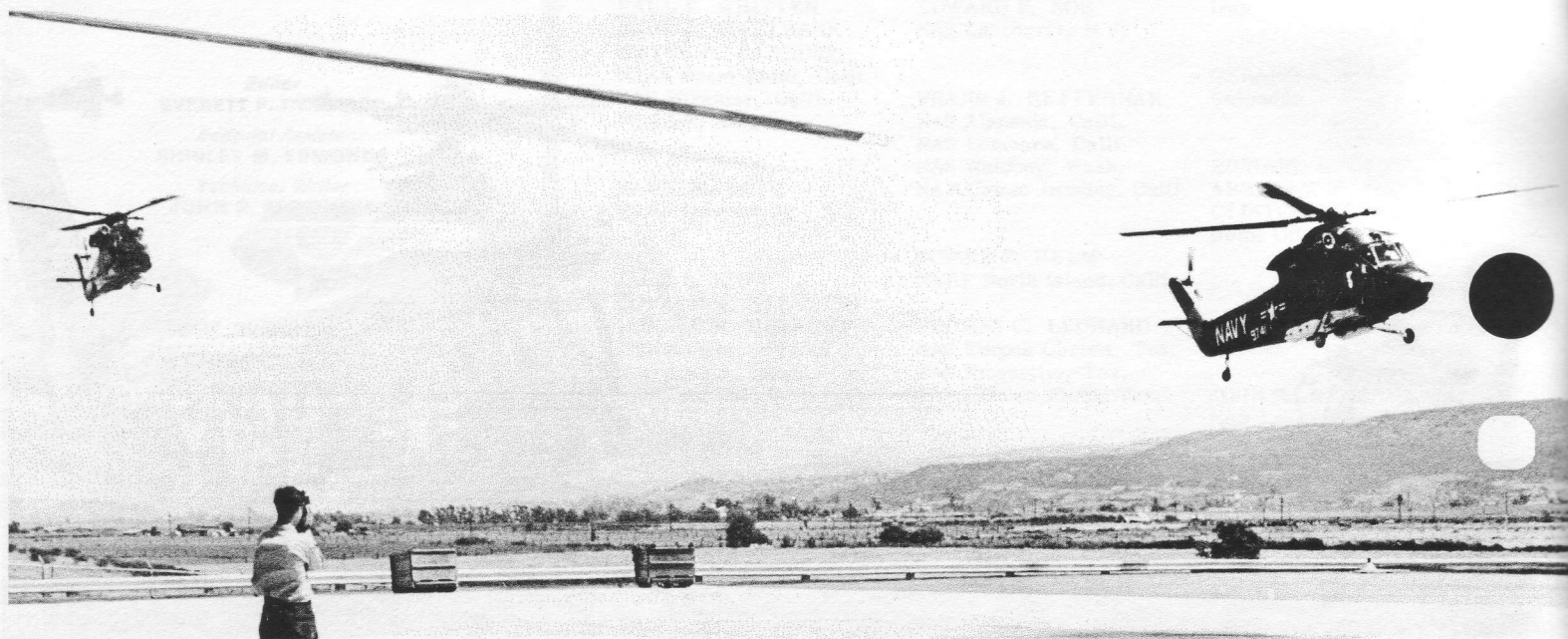




PREFLIGHT—Lt(jg) Richard R. Mason and Lt(jg) Carl E. Matyas check one of UH-2C's turbine engines before heading for Ream Field. On other SEASPRITE, LCdr Ron L. Stoker, left, and Lt(jg) Curtis W. Huffman inspect tail rotor.



FLIGHT LINE PHOTO—Navy and Kaman personnel pose for formal photograph before cross-country flight begins. Front row, left to right, Lieutenants Mason and Matyas, Al Ashley, test pilot, and Andy Foster, chief test pilot. Rear row, William E. Zins, director of customer service; George P. Bullard, plant manager - Bradley Field; Peter J. Russell, senior pilot in charge of production; Owen F. Polleys, UH-2C project manager; Lieutenant Huffman; LtCommander Stoker; Lieutenant Klein; Chief Selman; Jerome C. Henry, AE2; Mike T. Petrick, AMH1; Jack C. Goodwin, assistant chief test pilot.





NEW BIRDS AT REAM—As squadron personnel watch, crewmen begin alighting from first UH-2C's delivered to HC-1.



INFORMAL REPORT—Cdr Roger N. Kersch, commanding officer of HC-1, listens attentively as Lt Commander Stoker reviews performance of UH-2C's on flight.

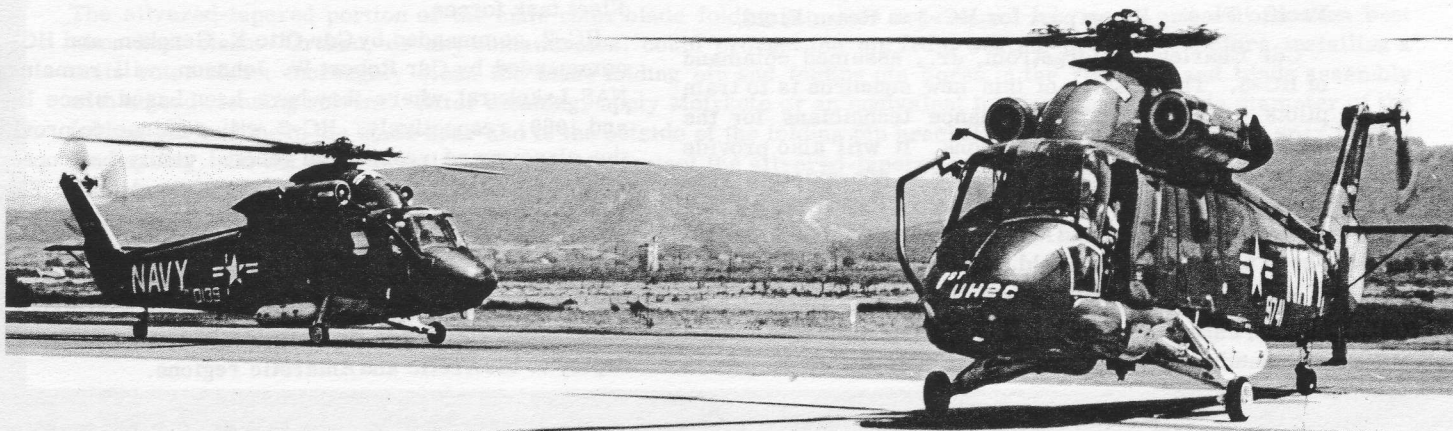


YOUNGEST GREETERS—On hand to meet their fathers were, left to right, Angela Mason, Alan Matyas and Rod Stoker. Lieutenant Huffman was the only bachelor among the four UH-2C pilots.



CELEBRATION—A special UH-2C cake baked for the occasion is cut by Lt Commander Stoker. Others who made the flight in the twin-engine SEASPRITES are, left to right, Lieutenant Mason, Petty Officer Petrick, Lieutenant Matyas, Chief Selman, Lieutenant Huffman and Petty Officer Henry. Commander Kersch is at extreme right.

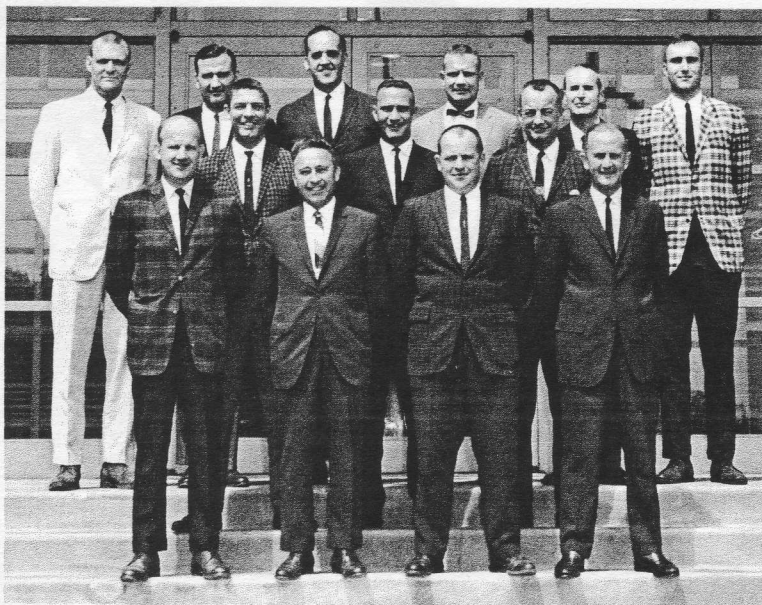
ARRIVAL AT REAM—At end of 2900-mile flight across country, UH-2C's touch down before photographers, newsmen and TV cameras and then taxi toward HC-1 apron. Rotor shutdown was signal for the beginning of a squadron celebration. (Official USN photos)





NATOPS CONFERENCE—Among the attendees at a UH-2A/B NATOPS Flight Manual conference held recently at Kaman were, front row, left to right, Cdr Jack H. Hartley, conference chairman, HC-2, NAS Lakehurst, N. J.; William E. Zins, director of customer service; LCdr Raymond K. McCullough, HC-2; Jack C. Goodwin, assistant chief test pilot. Middle row, Cdr Roger N. Kersch, HC-1, NAAS Ream Field, Calif.; Capt William W. Crews, MCAS Cherry Point, N. C.; George D. Eveland, maintainability engineer. Rear row, Ralph E. Sluis and William H. Weaver, technical writers; LCdr Howard Ziemer, CNO/NTDA, Washington, D. C.; LCdr Richard B. Dawson, HC-4, NAS Lakehurst; George L. Wood, technical author and conference coordinator; Lt James W. Strickler, HC-2. A similar conference regarding the UH-2C Flight Manual will be held in a few months.

UH-2 MAINTENANCE FAMILIARIZATION COURSE—A second group from HC-1, NAAS Ream Field, Calif., recently completed the UH-2C Maintenance familiarization course at Kaman Aircraft's Bloomfield, Conn., facility. Squadron personnel are, left to right, Henry A. Patterson, ADJC; George D. Dial, AMS2; John R. Schwewecke, AE3; Louis P. Combs, ADR1; "J" "T" Nelson, AMH1; Clyde S. Edwards, ADR1; Eugene M. Hartson, ADJ3; Bary D. McClain, AE3; Jerome C. Henry, AE2. At extreme left are Kaman instructor John J. McMahon and Jack Davis, General Electric representative. Jack L. King, UH-2C training supervisor, is at right. The first group from HC-1 completed the course a few weeks ago.



NEW HELICOPTER SUPPORT SQUADRONS

The rapidly increasing use of helicopters in today's modern Navy was emphasized recently with a reorganization plan that included the commissioning of four new helicopter combat support squadrons to relieve part of the workload carried by HC-1 at NAAS Ream Field, Calif., and HC-2 and HC-4, based at NAS Lakehurst, N. J.

HC-1, commanded by Cdr Roger N. Kersch, will continue to send helicopter detachments aboard the attack aircraft carriers in the Pacific for plane guard rescue duties and general helicopter utility services for the Fleet task groups. The squadron will remain at Ream Field where it has been based since 1951. Newly formed HC-3, with Cdr Henry L. Cassani as commanding officer, assumes the mission of helicopter vertical replenishment aboard the fast combat supply ships serving the Pacific Fleet. Home port for HC-3 is Ream Field.

Cdr Charles O. Borgstrom, Jr., assumed command of HC-5. The mission of this new squadron is to train pilots, crewmen and maintenance technicians for the other Pacific Fleet HC squadrons. It will also provide helicopter detachments for certain non-aviation type ships including the U.S. Coast Guard ice-breakers that deploy to the Arctic and Antarctic regions. HC-5 is also shore based at Ream Field.

The third new squadron, HC-7, is home based at NAS Atsugi, Japan. With Cdr Lloyd L. Parthemer as its first commanding officer, HC-7 takes over the tasks previ-

ously assigned to HC-1 Det Atsugi of providing support to the Seventh Fleet flag ship and other Western Pacific units. It also absorbs the shore-based detachment of HC-1 in the Philippines which gave maintenance support to units operating in that area. Other missions include providing helicopters for combat rescue units in the Tonkin Gulf and, in the future, deployment of helicopters with mine warfare counter-measures capabilities.

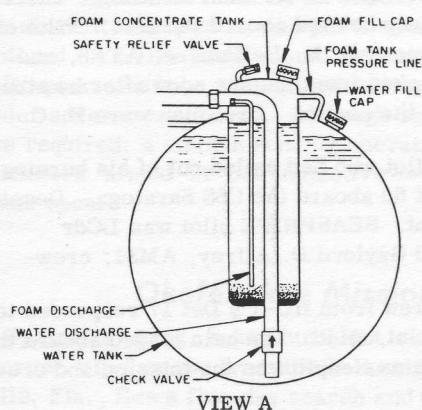
The fourth newly-commissioned squadron is HC-6, based on the East Coast at NAS Norfolk, Va. Commanded by Cdr Charles Knight, this squadron assumes the mission previously assigned to HC-4 Det 1, Norfolk, for providing helicopter vertical replenishment aboard the fast combat supply ships serving the Atlantic Fleet. In addition, HC-6 will operate helicopters with mine warfare counter-measures capabilities for the Atlantic Fleet task forces.

HC-2, commanded by Cdr Otto E. Gercken, and HC-4, commanded by Cdr Robert W. Johnson, will remain at NAS Lakehurst where they have been based since 1948 and 1960, respectively. HC-2 will continue to provide the plane guard rescue and general utility helicopters aboard the attack aircraft carriers of the Atlantic Fleet and its Mediterranean operations. When called upon, HC-2 will also deploy these helicopters for Southeast Asia area Fleet task forces. HC-4 will continue to provide helicopter detachments for certain non-aviation type ships including U.S. Coast Guard ice-breakers that deploy to the Arctic and Antarctic regions.

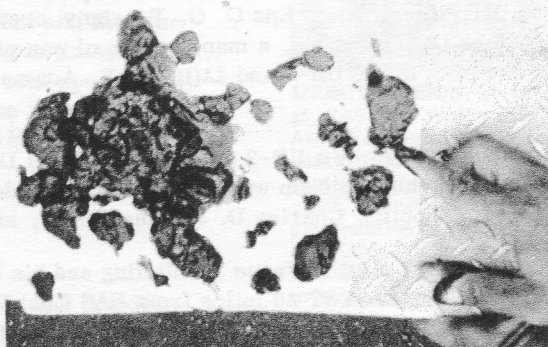
Timely Tips

FSK Cleaning (HH-43B, HH-43F)

"After each 2nd time of use or each 30 days...clean...flush with water," reads the inspection portion of the fire suppression kit maintenance manual, T.O. 36A11-8-6-1. Thorough cleaning is of prime importance because of the natural tendency of the foam to slowly solidify and eventually clog the discharge tube. Often, after a cleaning sequence, a slight build-up of solidified foam remains unnoticed on the bottom of the tank as shown in view A. Thereafter, each time the tank is cleaned, more foam is left on the bottom of the tank, usually in thin layers. As the foam build-up reaches the discharge tube, less and less foam is expelled with the water and subsequently, the discharge becomes watery and less effective. These conditions accelerate when the FSK is stored in an area where temperatures exceed 80°F (26.7°C). Do not store the unit under a heater duct or fan during winter months. Shown in view B is solidified foam taken from a FSK foam tank. Notice the size of the chunks in relation to the hand. The foam had built-up on the bottom of the tank and, when loosened by water and tank agitation, came tumbling out of the foam tank orifices. View C shows the best, most thorough, method of cleaning: 1. Fire the kit. 2. Remove the foam tank. 3. Flush with running water and be sure all orifices are clean. 4. Reinstall the foam tank. 5. Fill both the water and foam tank with water. 6. Charge the pressure tank. 7. Fire the kit. A positive indication that the foam tank is truly clean will be the amount of liquid foam the tank will accept. The foam tank holds five gallons. If five gallons will not fit into the foam tank — the tank is not clean!



VIEW A



VIEW B



VIEW C

H. Hardy, KA Crash Rescueman

Fuel Totalizer Fluctuations (UH-2)

If the fuel totalizer fluctuates during flight or on the ground with AC power applied, check the coax shields on the selector switches for proper ground. Pay particular attention to coax E125A in connector 165-61 at the bridge amplifier. While a proper ground will prevent stray signals from affecting the fuel system, an improper ground could be the reason for a fluctuation in totalizer indications.

J. J. McMahon, Service Engineer

Main Rotor Blade Folding Pin (UH-2)

The silvered-tapered portion of the main rotor blade folding pin does not require lubricants and will function best when kept clean. Grease, or any contaminants, could prevent the pin from seating properly. Before installing a main rotor blade, thoroughly clean the blade folding pin and folding pin bores in the retention and blade assembly with a good cleaning solvent. After cleaning, apply Molykote or an equivalent lubricant to the inside diameter of the folding pin bushing in the blade spar and to the outside of the folding pin bracket which contacts the blade spar folding pin bushing. Do not apply or allow Molykote to contact the silvered-tapered area of the folding pin. Apply Molykote to the folding pin bushing and nut assembly prior to installation.

W. J. Wagemaker, Service Engineer

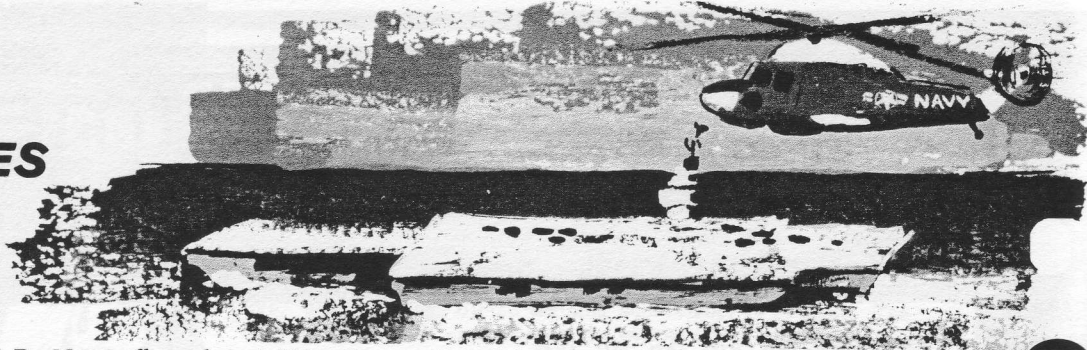
Aluminum Starter Leads (UH-2A/B)

In the event aluminum starter leads number P30F2 are unavailable, AN2 gage copper wire may be substituted. When copper wire is to be used, terminals MS205036-27 and MS205036-28 must also be used.

J. J. McMahon, Service Engineer

SEASPRITE

ACTIVITIES



... A UH-2 piloted by CWO Robert B. Mason flew almost 200 miles — 120 of them over water — to rescue three Navy men whose helicopter had plunged into the sea. The survivors were hoisted aboard the SEASPRITE without incident despite the wind-whipped 12-foot-high waves. A Coast Guard HU-16 aided the UH-2 in locating the rescuees. Cpl Kurt G. Helm was copilot of the rescue helo, from the SAR unit at MCAS Cherry Point, N.C., and SSgt Bobby G. Stokes was crewman. Mr. Mason is now serving with H&MS-17 Operations, 1st Marine Aircraft Wing, FMF PAC.

... An HC-1 crew from Det Cubi, NAS Cubi Point, R. P., made a 70-mile night flight to evacuate a sailor with a ruptured appendix from an LST. Cdr Walter Buckholts, pilot of the SEASPRITE, landed on the ship so the patient could be placed aboard. Lt T. E. Dupuy (MC), administered medical aid while enroute to the hospital. Lt(jg) David A. Craner was copilot, and S. D. Tate, ADRAN, was crewman on the mission.

... A UH-2 crew from the SAR unit at NAS Patuxent River, Md., conducted a night search of Chesapeake Bay for a small civilian boat reported in distress. The civilians, including one small child, were quickly located and the SEASPRITE circled overhead to guide an air station rescue boat to the scene. Lt J. B. Morse was pilot of the rescue helo and the crewmen were Charles Leary, ADJ2, and E. F. Brown, AC3. ... In other UH-2 missions, with Lieutenant Morse the pilot in each incident, two small boys, both Navy dependents, were evacuated to Bethesda Hospital after they had been bitten by a copperhead snake. Crewmen were Ray Fairchild, ATN3, and R. V. Van Brunt, HM3. ... The NAS UH-2B was launched when a helicopter crashed six miles from the station; however, there were no survivors. Photographic and other support was provided by the SAR helicopter afterward. Petty Officer Fairchild and E. J. Corbello, AN, were crewmen.

... Just after participating in a rescue drill, a UH-2 crew from HC-2's Det 59 aboard the USS Forrestal was called on for the real thing. Three sailors, thrown into the sea from a small boat when a line parted, were promptly hoisted aboard the helo. Pilot of the SEASPRITE was Lt(jg) F. D. Wiggins; copilot, Ens C. G. Tourigny; crewmen, D. R. Bellemare, ATN3, and O. N. Jarema, ADJAN. ... In another Det 59 rescue, a man overboard was plucked from the sea soon after he struck the water. Lieutenant Wiggins was pilot of the UH-2 and Lt(jg) P. F. Adams, the copilot. Crewmen were D. C. Harris, AA, and Airman Jarema.

... An injured pilot who had bailed out of his burning aircraft was rescued from the Mediterranean by a UH-2 crew from HC-2's Det 60 aboard the USS Saratoga. Despite 29-knot winds and seven-foot waves, the hoist pickup was made without incident. SEASPRITE pilot was LCDr Donald J. Hoyes; Ens D. Estreich was copilot; Charles D. Jennings, AE3, and Gaylord D. Alfrey, AMS1, crewmen.

... UH-2 pilot Lt Jaque L. Meiling and his crew from HC-1's Det 17 responded to a call for medical assistance from a Japanese LST 20 miles from NAS Cubi Point, R.P. The helo landed aboard the vessel, picked up two sailors, and then returned to Cubi. Lt Andrew J. Curtin was copilot on the mission and crewmen were Richard H. Han, ADJ3, and Allen E. Salsbury, AN.

... Acting on an FAA request, a UH-2 crew from the SAR unit at NAS Cecil Field, Fla., began searching for an overdue light civilian aircraft. Shortly afterward, the plane was located at an abandoned airfield 30 miles south of Jacksonville and the uninjured pilot was picked up. LCDr Richard E. Bryan was pilot of the SEASPRITE; Edward Coffey, ADR3, and Robert Johnson, AMS2, were crewmen.

... Flying on instruments in a heavy ground fog, a UH-2 crew from the SAR unit at MCAS Cherry Point, N.C., conducted a search for the seriously injured pilot of an RF-4B which had crashed in a heavily wooded area a few miles from the air station. The downed pilot's emergency signal was picked up but, after passing over the source three times, he couldn't be seen because of the fog. Landing in an open field, Capt William W. Crews shut the helo down and he and the rest of the crew began the search on foot. After groping their way through dense underbrush and swampland for almost a mile, they located the wrecked aircraft and then found the pilot nearby. He was carried to the SEASPRITE after emergency aid was given. Others taking part in the unusual mission were the copilot, Capt Richard Caramanno, and Sgt Kurt G. Helm and Cpl Richard W. Porter, crewmen. ... In another UH-2 mission, the unit evacuated an ill lance corporal from Morehead City to the air station. Captain Crews was pilot, Sergeant Helm the copilot and LCpl H. P. Thurlow, crewman. Also aboard were Lt R. M. Johnson (MC), and B. R. Edwards, HM-2. ... In a third mission, an overdue boat carrying two officers was located by a SAR UH-2. Captain Caramanno was pilot; Captain Crews, copilot; Sgt Jerry L. Leinart and Corporal Thurlow, crewmen.

... To UH-2 pilot Lt Patrick Mahoney fell the honor recently of making the 60,000th GCA landing at the Naval Air Facility, Naples, Italy. The Lieutenant, who is attached to HC-4's Det 47 deployed aboard the USS Little Rock, participated in the traditional cake-cutting ceremony afterward.



HC-4 ON ARCTIC PATROL

ICE RECON—The Coast Guard icebreaker Edisto and a UH-2 SEASPRITE during a typical channel-clearing operation at the "top of the world." (USN photo)

One of the important tasks assigned to HC-4 at NAS Lakehurst, N.J., is aiding the U.S. Coast Guard in keeping the shipping channels open to vital United States stations on the Northern Ice Frontier. Each year, helicopter detachments from the squadron board icebreakers and head for the bleak area at the "top of the world." Lt Don E. Kent and Lt Mickey Houck are in charge of the unit taking part in SUNEK, this year's operation.

Although the deployed helicopters—UH-2 SEASPRITES—are used in cargo and personnel transport, their primary mission is searching for fissures in the massive ice packs. The information received from this "ice recon" makes it easier for the Coast Guard ships to break a patch through the ice, often a slow and laborious process.

Usually two or three officers and seven or eight enlisted men are assigned to a detachment heading for the Arctic. Each man must be an expert in his rate since the aircraft, equipment, and parts must be prepared or ordered for a five to six month deployment and then the helicopters must be maintained during this time, often under adverse conditions. Although several specialties are required, a smooth running operation is assured by teamwork aimed at one objective—keeping the sea lanes open.

Okefenokee Mission

Operating in fog, haze, turbulent winds and thunderstorms, UH-2 crews from the SAR unit at NAS Jacksonville, Fla., flew a five-day search and recovery mission after a Navy training plane crashed in the Okefenokee Swamp in Georgia. The crash site was not accessible by boat or swamp buggy and, due to the tall trees, it was necessary to hover at 90 feet with a scant five feet of rotor clearance while lowering personnel. The thunderstorms and low visibility made the transfers even more difficult and the terrain was so rugged the rescue parties had to be relieved every hour and a half.

During the first day Lt H. B. Clark flew 10.3 hours and Lt G. F. Haynes 3.9 hours. F. A. Comps, AMS1, and J. D. Dunford, ADR2, made 60 transfers including four involving the crash victims. The second day, W. A. Wilkinson, ADRC/AP, and Petty Officer Comps returned to the crash site to continue rescue operations. Bad weather forced their return after 5.9 hours of flight and recovery of the fifth crash victim. Later, by removing some trees, it was possible to hover at 30 feet and maneuver in a more routine manner.

Lieutenant Clark said the UH-2B was ideally suited for the mission and performed admirably although the weather and terrain conditions demanded maximum performance for 26.7 hours at 95° temperatures. Sixteen

battery starts during the mission were accomplished successfully, he said. Lieutenant Clark flew 20.8 hours as plane commander with Lieutenant Haynes as first pilot for 8.1 hours. Chief Wilkinson flew as plane commander for 5.9 hours. Sharing in the mission were UH-2 crewmen G. H. Grimes, ADJ1, E. P. Wilhite, AMH3, and G. A. Leroy, AN.



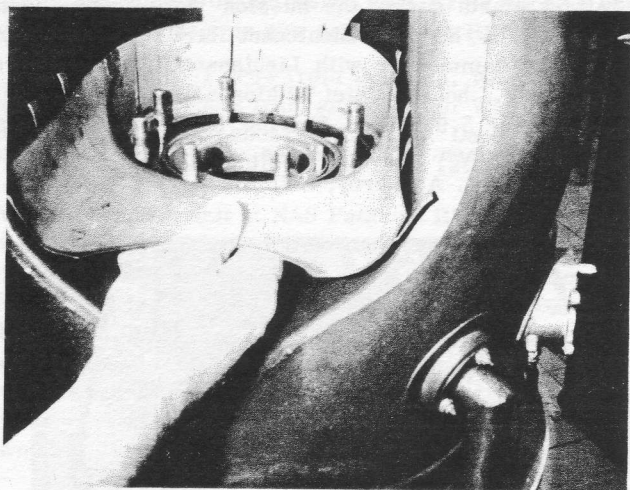
MERCY MISSION—A UH-2 crew from the SAR unit at NAS Key West was presented Kaman Mission Award cards recently for the evacuation of a seriously-ill crewman from the SS Sinclair Texas 100 nautical miles from the air station. Cdr T. H. Abbott, right, operations officer at NAS Key West made the presentation to crewman D. H. Hoverson, ADJ1, left, and LCdr Richard J. T. Wood, copilot of the SEASPRITE. The pilot, Cdr William B. Wright, was not present when the photograph was taken. (USN photo)



RESCUEES AND RESCUERS—Three crewmen from a stricken A-3 were rescued from the sea five miles off Cubi Point, R.P., by a UH-2 crew from HC-2's Det 11 on the USS Intrepid. The SEASPRITE, on a routine test flight, flew to the area and LCdr Charles P. Silvia, UH-2 copilot, was lowered to the water to assist the survivor who was entangled in his chute. Gloyd D. Yandell, AMC, not a rescue crewman, operated the hoist. The survivor couldn't be freed so Lt Billy G. Blackwelder set the UH-2 in the water to make the pickup. The other two survivors were rescued soon afterward. Commander Silvia is on the left, Lieutenant Blackwelder on the right and Chief Yandell in the UH-2. The rescuees, Don Preston, PH2, LCdr W. F. Burke and Ens Robert Edwards, are in the center. (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-2) WHAT METHOD CAN BE USED TO CHECK FOR PROPER ALIGNMENT OF FRONT HEAT SHIELD ON THE SPEED DECREASER GEAR-BOX?

A. After the speed decreaser gearbox assembly is in contact with the rear bearing housing and before removing the hoist, move the heat shield side-to-side. If the heat shield can be moved, the nuts may be torqued. However, if the shield cannot be moved, it is probably wedged between the gearbox and the engine and will prevent proper alignment of the gearbox. Improper alignment can result in rapid wear of the gearbox and/or damage to the rear bearing housing. Some heat shields fit snugly on the bearing housing while others are relatively loose. In order to help in obtaining proper alignment, it is suggested the following procedure be used: Position the heat shield over the rear bearing housing so that the end nearest to the mechanic is properly positioned. Reach in with the other hand and snap the heat shield over the housing as shown in the illustration. If the shield fits snugly, a distinct click will be heard. If the shield is loose, the mechanic will have to rely on visual verification of proper positioning. The shield should not rest on top of the housing. When the heat shield is in position, exert downward pressure with one hand and move the shield side-to-side. This will provide an indication of how much side play will be available when the gearbox is installed. Slowly lower the gearbox until its full weight is on the rear bearing housing. If the gearbox strikes the shield and displaces it, stop lowering and reposition the heat shield. When the gearbox is in position, check the side play. The heat shield must not bind between the gearbox and the bearing housing.

H. Zubkoff, Service Engineer

Q. (Applies UH-2, HH-43B/F) HOW ACCURATE ARE HUMIDITY INDICATORS USED IN SHIPPING CONTAINERS?

A. Humidity indicators used in shipping and storage containers are accurate to about 5% of the actual internal humidity. The indicators are calibrated to be read at $73.5^{\circ}\text{F} \pm 2^{\circ}\text{F}$, but they may be read at any temperature by using a correction factor of $2-1/2\%$ for each 10° above or below 73.5°F . The indicator would show a higher than actual internal humidity at low temperatures and conversely, lower than actual internal humidity at high temperatures. For example: If the indicator shows 40% internal humidity at a temperature of 33.5°F , subtract $2-1/2\%$ for each 10° below 73.5°F ($2-1/2 \times 4 = 10\%$). Actual internal humidity would be 40% minus 10% = 30%. Although indicators are manufactured in various shapes (circles, rectangles, spots), they are generally read in the same manner as the disc shown in the illustrations. The indicators are treated to respond quickly to any change in internal humidity. If it becomes necessary to change the desiccant, change the indicator at the same time. Different components are not necessarily affected by the same humidity and, because of this, indicators of various sensitivity are available. If a part is readily damaged by moisture, a 10/20/30% indicator is used. If a part is not readily damaged, a 20/40/60% indicator may be used. The illustration shows a typical disc (1) and the changes that could take place. When the 20% portion turns pink, (2) it is an indication that moisture is present within the container. Keep the container under observation so that corrective action may be taken if the 40% portion turns pink. If the 20 and the 40% sections (3) turn pink, it indicates that the desiccant, packed within the container is no longer capable of controlling internal humidity. When this occurs, the proper authority should be notified so the container may be opened, the desiccant changed and the indicator replaced. When the container is opened, the seals should be checked for damage and an examination made for small punctures in the container, particularly in the lifting areas. When a container cover is being placed back in position, care must be taken that the seal is properly seated. A disc with 20/40 and 60% sections pink (4) indicates a serious humidity problem. The container must be opened and the component given a thorough corrosion control check (a check should also be made for leaks and the desiccant and disc should be changed). If the component is a preserved item it must be resealed before resealing the container. If, at any time, the color in one section of an indicator overruns its border, (5) the indicator should be replaced.



1. New



2. Keep under observation.



3. Open container. Replace disc and desiccant. Fix leak.



4. Inspect part. Replace disc and desiccant. Fix leak.

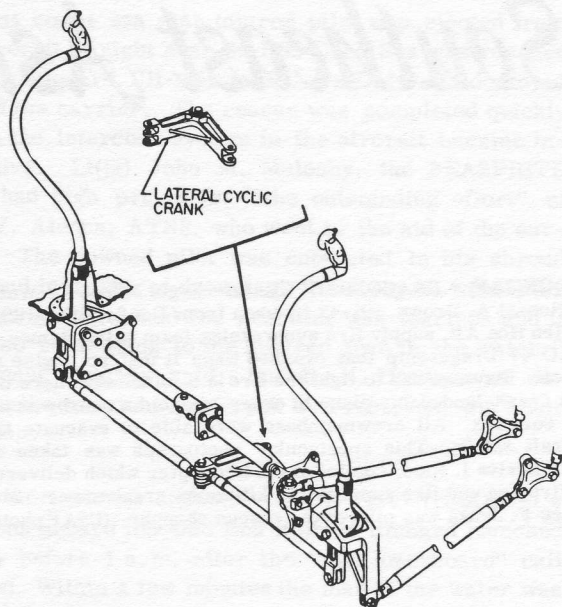


5. Replace disc.

□ BLUE

■ PINK

E. L. Parmelee, Packaging Engineer



Q. (Applies UH-2) WHAT CORROSION CONTROL MEASURES CAN BE TAKEN TO PROTECT THE LATERAL CONTROL CRANK ASSEMBLY, P/N K651021-1?

A. The lateral control crank assembly, shown in the illustration, can be protected from corrosion by coating the upper surface with EC 1675 or a similar brushable sealer. The crank, which is part of the cyclic pitch control system, is installed in a horizontal position below the cockpit floor. The large magnesium crank has deep wells which can entrap water and speed corrosion. The HMI, NAVWEPS 01-260HCA-2-2, contains the necessary information to remove, clean, refinish and reinstall the crank. Make sure all traces of corrosion and loose paint have been removed before refinishing the crank. Apply two coats of sealer conforming to KSD 9203, MIL-S-8802 or MIL-S-7502, Class A. If the preceding sealers are not readily available, the crank may be coated with Paralketone.

J. A. Kelly, Supervisor, UH-2 PAR/Mod

Q. (Applies UH-2) CAN TAIL ROTOR BLADES, P/N K614001-106, -110 AND -201 BE INTERMIXED WITH -203 OR -205 BLADES?

A. No. Do not use -106, -110, or -201 tail rotor blades with -203 or -205 blades. The following chart can be used as a tail rotor blade interchangeability reference:

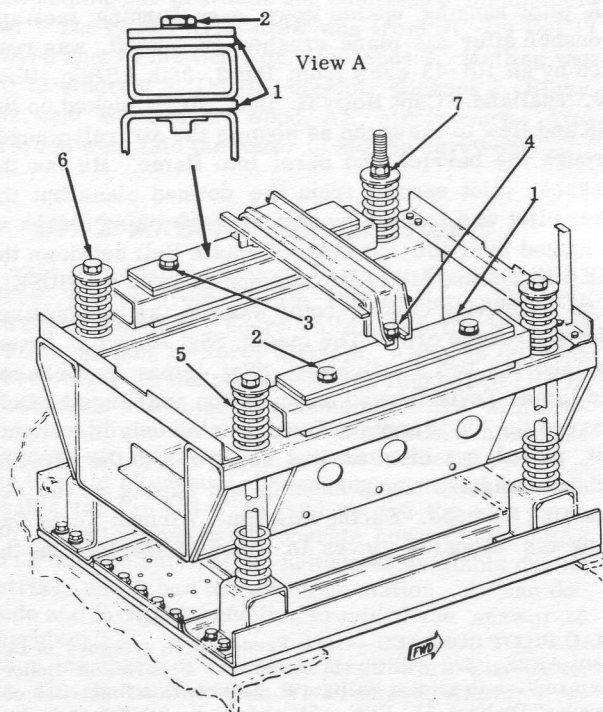
<u>This blade</u>	<u>can be used with this blade</u>	<u>on aircraft:</u>
K614001-106	K614001-110, -201	<u>Prior to AFC #93 only</u>
K614001-110	K614001-106, -201	<u>Prior to AFC #93 only</u>
K614001-201	K614001-106, -110	<u>Prior to AFC #93 only</u>
K614001-203	K614001-205	<u>After AFC #93</u>
K614001-205	K614001-203	<u>After AFC #93</u>

-203 and -205 blades can be used in ship sets prior to AFC 93 if -106, -110 or -201 blades are not available, refer to I. A. B. 130 for rigging instructions. Although -203 and -205 blades can be used prior to AFC #93, the -106, -110 and -201 may never be used after incorporation of AFC #93.

W. J. Wagemaker, Service Engineer

Q. (Applies UH-2A/B) WHAT IS THE RECOMMENDED TOTAL WEIGHT OF THE VIBRATION ABSORBER INSTALLATION?

A. The combined total weight of the absorber installation including battery, ballast and related hardware should be approximately 72 lbs, 10 ozs \pm 4 ozs. The initial ballast buildup (View A of the illustration) should place the minimum vibration point in the vicinity of 99 percent of rotor speed. Adjustments, as required, can then be determined during the next flight. Minimum vibration will occur at a lower RPM when ballast is added and at a higher RPM when ballast is removed. In order to aid in making an adjustment, ballast plates of two different weights are furnished: P/N K631242-11 plates (1) weigh approximately 12.5 ounces each and K631242-13 plates (not shown) weigh approximately 5.5 ounces each. Ballast plates **MUST** be added or removed **IN PAIRS OF EQUAL WEIGHT** — one plate on **EACH** side of the battery in order to prevent vibration-induced oscillation of the battery. A change in weight of approximately 1 pound, 5.5 ounces will result in a change of 1.0 percent in the rotor speed at which minimum vibration occurs. For example: If a 1 percent change is desired, add or remove 4 of the lighter plates (5.5 oz x 4 plates = 1 lb 6 ozs) or 1 pair of the heavier -11 plates (12.5 ozs x 2 = 1 lb 9 ozs). When installing the bolts which hold the ballast in place, remember that the weights must be secure. Under no circumstances allow the weights to remain loose; add washers (3) or use the correct length bolt (2) to properly secure the weights. The battery tiedown bolts (4) must also be properly torqued (85-100 lb-in). The ballast adjustment discussed here is also dependent on properly preloading the upper battery absorber springs (5) to a height of 2-3/16 inches with the battery removed or 2-1/4 inches with the battery installed. The springs can be adjusted by tightening or loosening the bolts (6) or nut (7). For further information refer to NAVAIR 01-260HCA-2-1.



H. Zubkoff, Service Engineer

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

Southeast Asia



SAIGON(7AF) - DRAGONSHIP CRASH—SSgts James D. Wells and Robert A. Brown, HH-43 firemen from Det 6, 38thARRSq, at Bien Hoa AB, supply fire suppressing foam to the flames of an AC-47 Dragonship that crashed when it lost an engine on takeoff. Firemen had to fight the fire in a minefield where the pilot crash-landed his plane in order to avoid a nearby Army tent complex. All crewmembers were able to evacuate the aircraft safely. This spectacular photograph was taken by Capt Charles I. Rice, copilot of the helicopter which delivered the firemen and fire suppression kit to the crash scene. Maj James F. Jensa was pilot of the rescue chopper. (USAF photo)

A small Vietnamese boy whose foot was blown off after he wandered into a mine field, was rescued by an HH-43 crew from the Headquarters Det at Tan Son Nhut AB. To effect the rescue, Capt Fernand M. Espiau, RCC, held the HUSKIE in a hover while A1c Michael Mayak, medical technician, was lowered in a rescue basket to approximately six inches above the ground. Airman Mayak then pulled the injured boy, who was also suffering from numerous shrapnel wounds, into the basket. Afterward, the airman said, "I've gone through this type of operation in training many times but this was the first operational basket-lift I've been on. Believe me I was scared. I'm glad we have such a great crew... six inches isn't very far in a mine field." Other members of the crew were 1stLt James T. McComsey, copilot, and TSgt Colbert Ezell, flight engineer.

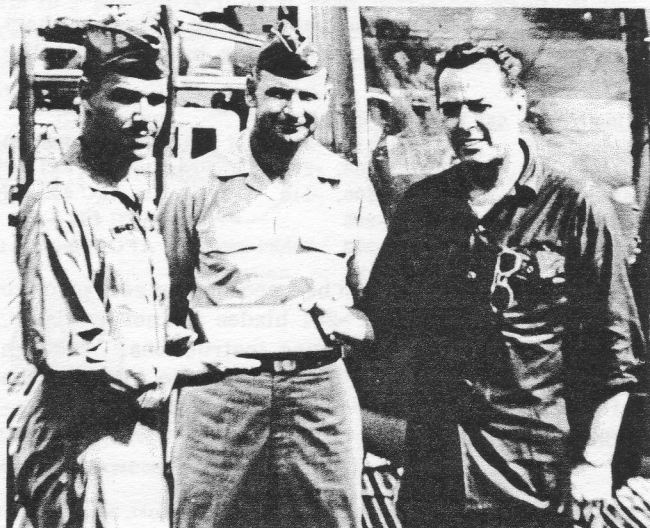
A pilot hanging upside down over burning fuel and ordnance after his plane crashed on takeoff, was rescued by an HH-43 crew from Det 3, 38thARRSq, Ubon AB, Thailand. Capt Holly G. Bell, RCC, picked up the FSK and flew to the scene as soon as the aircraft plunged through the barrier and burst into flame. He saw the backseat pilot escape from the downed plane but the other pilot was trapped by his leg restraining straps as he lunged over the left side. Captain Bell set down the FSK, dispatched his crew, and maneuvered the HUSKIE so as to provide cooling rotor wash to the immobilized pilot and rescue crew. The medic, SSgt Albert E. Teasley, and the two firefighters, SSgt James R. Delk and A1c James Tevis, moved into position and Sergeant Delk charged the kit. Sergeant Teasley, clad only in a flight-suit, pulled out his survival knife, ran to the aircraft and immediately began hacking and sawing at the restraining harness. During this time, Airman Tevis was using his asbestos gloves to smother the fire on the

pilot's flightsuit. As the two rescue crewmen were freeing the trapped pilot, some of the aircraft's ordnance exploded. As soon as the pilot was cut free, Sergeant Teasley and Airman Tevis assisted him from the wreckage and into the helicopter. Sergeant Teasley boarded the HH-43 and continued to administer to the burned pilot as he was being rushed toward the dispensary. Meanwhile, Sergeant Delk and Airman Tevis remained at the crash scene to assist in fighting the fire. Captain Bell and his copilot, 1stLt Merrill C. Hiscock, then returned to the area of the wreckage to search for any other injured personnel. After a few minutes of searching with no results, the flight was terminated.

In another Det 3 mission, two pilots who ejected from their battle-damaged aircraft after it went out of control, were picked up by HH-43 pilot Maj Dennis M. Chase and his crew a few minutes later. With the Major were A2c Henry B. Allen, medical technician, and A1c William E. Woodford and A1c Jerry L. McMeans, rescue specialists. An HH-43 crew from Det 3 also picked up a pilot whose plane crashed shortly after takeoff. Capt David H. Baur, RCC, landed the FSK but, due to the high bushy terrain and other factors, it was not used.

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MAC PILOT HONORED—1stLt Frederick D. Gregory of Det 7, 38thARRSq, 3rdARRGp, is presented a Scroll of Honor by Kaman Vice President William R. Murray in a flight-line ceremony at Da Nang AB, RVN. LtCol John H. Schafer, detachment commander, is in the center. Scrolls were also presented to Capt Donald D. Sams, 1stLt William T. Sehorn and 1stLt Alfred R. Jacox, Jr., for hazardous life-saving missions in Vietnam.



USS CORAL SEA - An injured pilot who ejected from his aircraft at night near the USS Coral Sea was rescued by a plane guard UH-2 from HC-1's Det Delta deployed aboard the carrier. The rescue was completed quickly though the intercom system in the aircraft became inoperative. Lt(jg) John M. Mulcahy, the SEASPRITE pilot, had high praise for "the outstanding effort" of Gary V. Alenza, ATN3, who went to the aid of the survivor. The downed pilot was entangled in his shroud lines and in danger of drowning. "The way he went after his man and attacked the problem was fearless and it was also reassuring to the injured man in the water," Lieutenant Mulcahy said. Ens R. K. Doane, was copilot on the mission, and Frank H. Frost, AN, the other crewman.

USS BON HOMME RICHARD - A UH-2 crew from HC-1's Det Lima aboard the USS Bon Homme Richard launched shortly before 1 a.m. after the "man overboard" call sounded. Within a few minutes the man in the water was located and Charles R. Smith, ADJ3, jumped into the water from the SEASPRITE. The Petty Officer placed the sailor in the sling and he was hoisted aboard. Lt(jg) W. A. Wendt, pilot of the rescue helicopter, said Smith did an "outstanding job" in making the rescue. Ens A. J. Billings was copilot of the SEASPRITE and T. M. Breazeale, AMS2, was the other crewman. In another Det Lima mission, a downed pilot was also rescued from the South China Sea by a UH-2 crew consisting of Lt(jg) R. H. Pasco, pilot; Ensign Billings, copilot; Breazeale; and James M. Sharp, ABH3, crewmen. Sharp went down the wire to aid the rescuee.

USS CONSTELLATION - Two downed fliers were plucked from the South China Sea by a UH-2 crew from HC-1's Det Foxtrot aboard the USS Constellation. Despite the gathering darkness, the rescue was carried out without difficulty. SEASPRITE pilot was Lt(jg) Dennis Bahm and his copilot was Lt(jg) Albert H. Sandt, Jr. Crewmen were Richard D. Reckard, PRAN, and William L. Buchanan, ADJ3. In a similar rescue carried out by Det Foxtrot, a USAF major was rescued after Buchanan leaped into the water to his aid. Both men were brought aboard without incident. Lt Gordon M. Williamson was UH-2 pilot on the mission; Ens Leonard L. Devries, copilot; and Recordo D. Davila, AE3, the other crewman. During a third Det Foxtrot mission, UH-2 crewman Richard E. Nida, ATC, went down the wire twice to aid two pilots who had ejected from their crippled aircraft. In both cases, the Chief assisted the survivor in releasing survival gear and mounting the rescue seat. Other members of the SEASPRITE crew were Lt(jg) Ronald R. Bradley, pilot; Lt(jg) John C. Connolly, copilot; and Henry H. Kleckley, AMH2, crewman.

USS TICONDEROGA - Despite haze and fog, a UH-2 crew from HC-1's Det Echo aboard the USS Ticonderoga rescued a downed pilot from the South China Sea soon after he ejected from his aircraft. UH-2 crewman Robert E. Ceccarini, ADJ2, went into the water to assist the downed pilot, hooked the cable to his "D" ring and the survivor was taken aboard without incident. Lt(jg) John W. Donaldson was pilot of the SEASPRITE. Lt(jg) R. W. Vitek was copilot, and Gerald D. Russell, AMH2, the other crewman.

USS ORISKANY - A pilot who ejected from his aircraft after a starboard catapult shot was rescued a few minutes later from the South China Sea by Lt(jg) Dixon J. Anderson, UH-2 pilot, and his crew from HC-1's Det Golf deployed aboard the Oriskany. Despite 23-knot winds and seven-foot waves, the rescuee was safely aboard the helicopter within a few minutes. Willard D. Mead, ATAA, who went into the water to aid the survivor, cut shroud lines loose and put the downed pilot in the sling. In speaking of the rescue afterward, Mead said "that it takes the cooperation of the whole crew of the helo to make everything work out as well as it did." Sharing in the mission were Lt(jg) Leroy W. Livermore, copilot, and Robert G. Mc Fadyen, AE3. In another Det Golf rescue, a UH-2 crew plucked a downed pilot from the South China Sea a minute or two after he ejected from his battle-damaged aircraft. The rescuee was secured in the sling by T. M. Wheelock, AMS2, who leaped from the SEASPRITE to his aid. Pilot of the rescue helicopter was Lt(jg) A. S. Woodle and the copilot was Ens L. M. Eiland, Jr. The other crewman was James O. James, Jr., ADJ3.

USS ENGLAND - A pilot who ejected from his crippled aircraft was rescued from the South China Sea by a UH-2 crew from HC-1's Det 3 deployed aboard the USS England. Lt Benjamin G. Garvin was pilot of the SEASPRITE and Ens John F. McMinn was copilot. Crewmen were Paul J. Meyer, ADJAN, and Jay L. Driscoll, AMH3.

USS FOX - A pilot who ejected from his battle-damaged plane and landed in the water only a mile and a half from the enemy coast, was safely aboard a UH-2 soon afterward. The rescuee said, "The whole thing was expeditious and efficient. The crew was obviously well trained and proficient. They did an outstanding job. I estimate that my total time in the water was two or three minutes. I have nothing but gratitude and admiration for the helo crew." The SEASPRITE crew was from HC-1's Det 17 deployed aboard the USS Fox. Lt Jaque L. Meiling was pilot; Lt Andrew J. Curtin, copilot; Michael J. Rigby, ATN2, and William C. Wood, AN, aircrewmen. Airman Wood went into the water to aid the survivor.

UH-2 Airborne Almost 8 Hours

In what is probably a record flight for the UH-2 SEASPRITE, a crew from HC-1's Det 19 flew above the South China Sea for 7.7 hours while supporting Navy and Air Force strikes in North Vietnam. Although no plans had been made for the record-setting flight, Lt Fritz E. Meyer and his crew met the sudden challenge with professional calm and carried out their mission — and three surface-to-air refuelings — without incident.

Due to a set of unusual circumstances, it had not been advisable for the UH-2 to land aboard the ship from which it was to temporarily operate; however, the SEASPRITE was the only rescue helicopter available during the strikes and it had to remain on station. A "can do" attitude and in-flight refueling provided the answer to the problem.

Other members of the UH-2 crew were Ens C. H. Yates, III, the copilot; John W. Freeman, AMH2, first crewman; and Ernest M. Meyer, ATR2, second crewman. Lieutenant Meyer said afterward that the aircraft flew perfectly during the long mission and showed no ill effects on post-flight inspection.

Other members of the HUSKIE crew were 1stLt Fred Ayoub, copilot; Sergeant Teasley, medic; SSgt James R. Delk and Airman Tevis, firefighters.

A Thai woman in serious condition from beri beri was evacuated from a remote village by an HH-43 crew from Det 5, 38th ARRSq, at Udorn AB. Medical authorities had advised that she probably would not survive the four-day trip by boat, the only other means of transportation available. Dodging thunderstorms and navigating over unknown mountainous terrain, Capt Owen A. Heeter and his crew reached the village, in an area known to be hostile, an hour and ten minutes after take-off. A steep approach was made into a small rice paddy, which was tightly ringed with tall teak trees, and the woman was immediately loaded aboard for the trip to the hospital. With Captain Heeter were 1stLt Billy C. Marcontell, copilot, and A1c Ernest J. Chidester, crewman.

In an after-midnight mission, a HUSKIE crew from Det 6, 38th ARRSq, Bien Hoa AB, rescued a downed flier from an area partially shrouded by ground fog and surrounded by rubber trees. Two fire-fights were in progress as Capt David L. Wiest turned on the landing lights to aid in locating the survivor. As the rescuee was being hoisted to the helicopter, the firing drew nearer and tracers streaked across the sky near the aircraft. With the downed pilot aboard, the HUSKIE climbed through the overcast to avoid further hostile fire and then headed back to the base. Earlier, to reach the pickup point, Captain Wiest had to climb through the clouds and then direct the HUSKIE down through them over the rescue site without navigational aids. The success of the mission was due to the well-coordinated efforts of the rescue team, Captain Wiest said. Other members of the crew were Capt Sheridan K. Hawk, copilot; A1c Harrison H. Ewton, flight engineer; and A2c Steve M. Northern, pararescueman.

Soon after a Viet Cong mortar attack at 1 a.m., an HH-43 crew from Det 6 began airlifting wounded to an Army field hospital five miles away. Although the attack on the base had stopped, fighting continued all along the route to the hospital in the form of artillery, ground-to-

air, air-to-ground, ground-to-ground, and air strikes. Captain Wiest and his crew flew eight sorties to evacuate 11 critically wounded. All flying was done with lights out and landings and takeoffs were generally also made without lights. Others aboard the HUSKIE were Captain Hawk, copilot; TSgt Robert S. Loud, pararescueman, Airman Ewton, flight engineer.

In another Det 6 night mission, Maj Breeden P. Hamer and his crew scrambled in a HUSKIE after receiving word that a civilian was trapped in a mine field at the perimeter of the air base. The forest penetrator was lowered and grounded outside the heavily mined area and then the device, maintained about two feet above the ground, was moved across the field and positioned directly in front of the rescuee. He was hoisted aboard without difficulty and later turned over to the Air Police. Lt Wendell B. Wood was copilot on the mission; A1c Robert A. Sloat, flight engineer; A1c Roger A. Porter, rescue specialist.

Eight minutes after a pilot bailed out of his battle-damaged plane, he had been picked up by a Det 6 crew consisting of Maj James F. Jansa, pilot; 1stLt Robert A. Reilly, copilot; SSgt Barry Sherman, flight engineer; and A2c Gunther Bahrenburg, pararescue specialist. In a similar mission, a few minutes after a small transport plane made a deadstick landing on an unsecured dirt road seven miles from Bien Hoa, the crew was picked up by a Det 6 HH-43. Maj David M. Randall was HUSKIE pilot, Sergeant Sherman was helicopter mechanic and Airman Bahrenburg, pararescueman.

A Marine pilot whose plane disappeared from the scope while on a night flight and executing a turn from base to final under radar control, was located and rescued from the sea by an HH-43 crew from Det 7, 38th ARRSq, at Danang AB. 1stLt Frederick D. Gregory and his crew scrambled with the FSK at 2300 and began a precautionary orbit when it was reported the plane had lost its radio and all navigational aids but would attempt a landing. Later, when the aircraft failed to appear, the HH-43 landed the FSK, refueled and then flew through the heavy overcast to join in the search. When the general

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Det 7 Logs 1000th USAF Save

SAIGON (7AF) - The 1000th rescue save recorded by Air Force aircrews since the start of the Vietnam war was turned in by a four-man crew from Det 7, 38th ARRSq following the Communist rocket attack July 15 at Da Nang AB. Number 1000 — one of the 21 wounded men airlifted by the Da Nang-based helicopter to medical facilities — passed from the rescue crew to the medics without fanfare or identification. A rescue save is credited when an individual might have died from injuries or probably been captured if he had not been recovered.

At the controls of the HUSKIE making the 1000th save were LtCol John H. Schafer and 1stLt Alfred R. Jacox, Jr. Other crewmembers included TSgt James L. Johnson, flight engineer, and A2c David A. Carl, pararescueman. For two and one half hours, the HH-43 crew located and evacuated wounded from scattered areas of the base. Meanwhile, many other detachment personnel

worked on the ground, searching bunkers and burning buildings for the injured.

In an earlier mission, a Det 7 HH-43 HUSKIE logged its 1000th hour while evacuating a Marine from the Viet Cong-infested jungle in a confined area between two ridges. Rotor blade to tree clearance was marginal and Capt Robert L. Merna, RCC, maintained as low a hover as possible into the trees to afford the enemy on the surrounding ridges a minimum target. Sergeant Johnson directed the hover as Lieutenant Jacox and A1c William J. Flower, pararescueman, watched for unusual enemy activity. After the litter was hoisted aboard, Captain Merna transitioned from hover to flying air-speed. A second later the HH-43 was subjected to fierce ground fire from one of the ridges 200 yards away, however, the pilot's immediate evasive action kept the helicopter from being hit. The Marine was then taken to the hospital without further incident.

UH-2 IN-FLIGHT REFUELING

Helicopters which have AFC 138 incorporated can refuel from surface ships while in a hover. The refueling steps informally presented here are based on formal procedures approved at a NATOPS Flight Manual conference held recently at Kaman.

When airborne refueling is anticipated, it should be preceded by careful planning. Special attention should be given to maximum gross weights for existing conditions (at time of refueling) and the amount of fuel on board; also, a decision must be made as to which tanks will be filled. While in a hover and receiving fuel, the pilot not flying the helicopter should carefully monitor rotor RPM, Ng and T5. Photo 1 shows the location of the in-flight refueling panel.

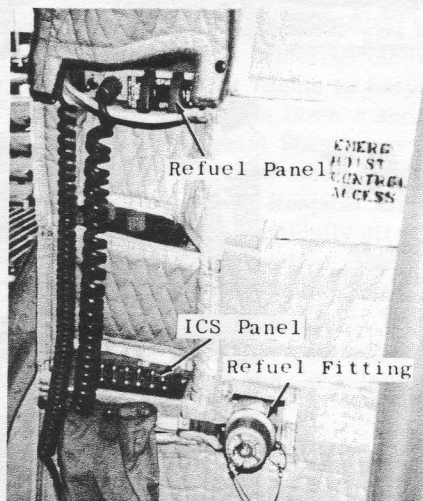
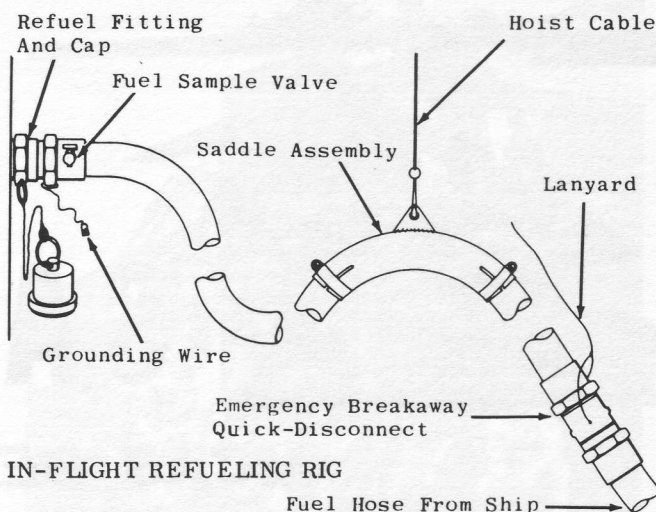


PHOTO 1

With the hover established and the copilot monitoring the instruments, the crewman proceeds as follows: 1. As soon as the hoist and fishpole booms are extended, lower hoist cable to ship's deck. Ship's crew will attach refueling rig to cable and give reel-in signal. 2. Reel in cable until the rig is within reach of hoist operator. 3. Attach the strap assembly to the top of the saddle on the refuel rig and to the ring located on the underside of the hoist boom. The strap will support the weight of the fuel line. (This step is not necessary on the UH-2C because of the new hoist boom. The hoist and fishpole booms will support the weight of the line.) 4. Connect the grounding wire from the rig to the helicopter. 5. Remove the cover from the refuel fitting and attach the refueling nozzle to the fitting. A small valve is located near the end of the fuel line. When the line is pressurized, a fuel sample may be taken from this valve. 6. (See drawing.) Check that the lanyard is attached to the breakaway or quick-disconnect coupling located outboard from the saddle assembly. The crewman must hold on to this lanyard and, if necessary, be prepared to actuate an emergency breakaway by pulling sharply on the lanyard. If it becomes necessary to execute an



IN-FLIGHT REFUELING RIG

emergency breakaway, the saddle assembly and part of the fuel line will remain attached to the helicopter. 7. Signal the ship's crew to pressurize the fuel line. When fuel is available, and if necessary, draw a fuel sample from the small valve near the end of the hose. 8. Lift the safety covers on the refueling panel and move the applicable switch or switches to the refuel position. Photo 2 shows the in-flight refueling panel with the safety covers in the raised position.

NOTE: Placing the MAIN TANKS switch to refuel will allow fuel to flow into the sump and the aft tank. Placing the AUX TANKS switch in the refuel position will allow fuel to flow into the aux tanks. Placing both switches in the refuel position will allow fuel to enter all tanks. Fuel flow may vary because of delivery pressure but will automatically stop when the selected tanks are full.

9. Signal the ship's crew to depressurize the fuel line. Move refueling panel switch or switches to the off position; push down safety covers. 10. Disconnect refueling nozzle and replace refueling cap; disconnect grounding wire. 11. On UH-2A/B helicopters, raise the refueling rig slightly and remove the strap assembly. 12. Lower the rig to the ship's crew. 13. Reel in cable when crew gives all clear signal. 14. Notify pilot of completion of refueling sequence. 15. After each flight involving in-flight refueling, inspect the special filter which is located aft of the cabin bulkhead, see photo 3.

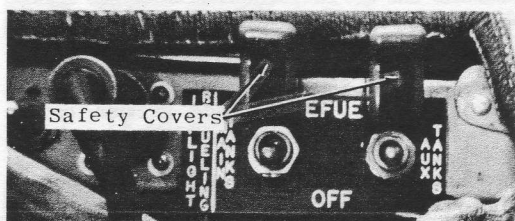


PHOTO 2

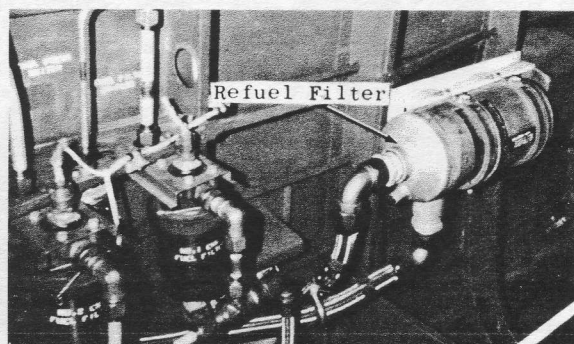
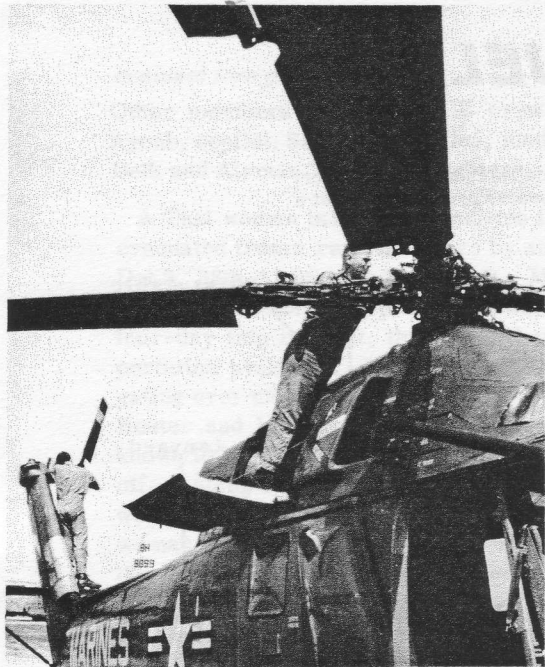


PHOTO 3

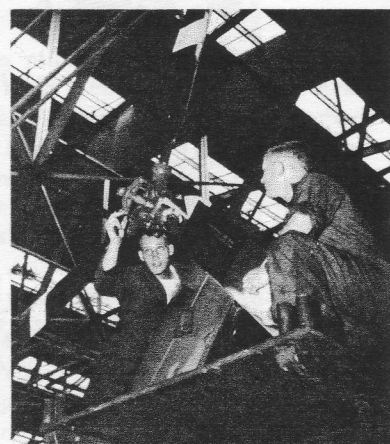
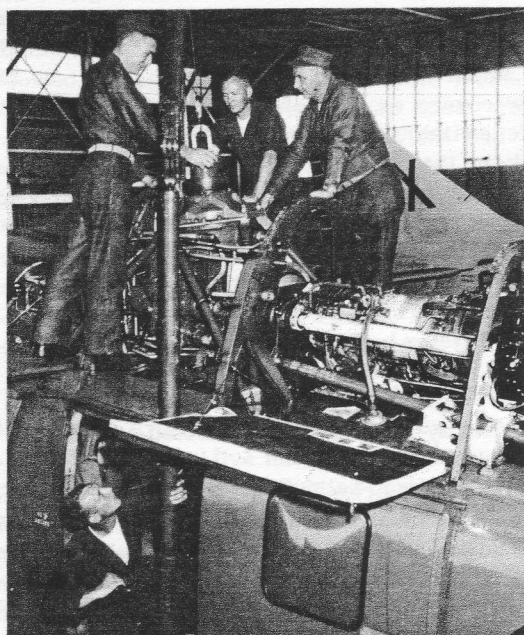


SAR

MCAS BEAUFORT

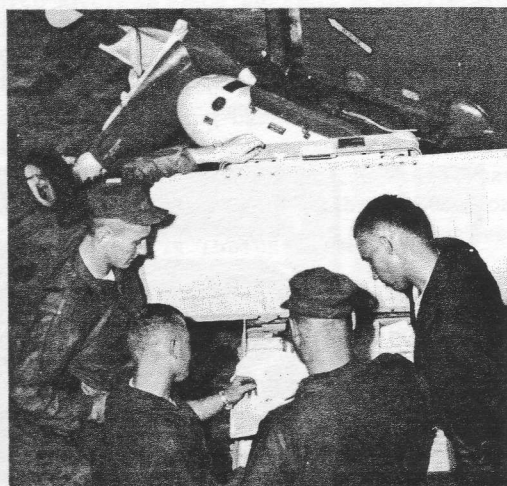


Story by Paul F. Whitten, KA Service Representative. Photos by LCpl Ted Moreno and PFC James L. Jagoda, MCAS Beaufort Photo Lab.



The Marine Corps Air Station at Beaufort, S.C., is located 45 miles northeast of Savannah, Ga., and within 10 miles of the Marine Recruit Training Facility at Parris Island. The primary activity at the station, which is commanded by Col Lewis Steman, is the training of fighter and attack pilots in USMC tactical aircraft. The two UH-2's in the Station Operation's SAR unit are used in direct support of this mission—one of the helicopters and a crew are in a ready alert condition any-time tactical aircraft are airborne.

Maj David Elam heads the Operations Department, Maj James Fullbright is the operations maintenance officer, 2ndLt Thomas Silk and CWO Walter Anderson are the assistant maintenance officers. The rescue unit is almost entirely self-sufficient and takes care of all aircraft maintenance during normal operations. During calendar inspections, however, the hangar crew is called on for assistance. The SAR maintenance crew consists of SSgt Robert Braske, Sgt Richard Shaughnessy, Sgt



DAILY INSPECTION—Sgt Edward Martens checks retention while Cpl George Suess inspects tail rotor. **AIRSHOW**—UH-2 crew from SAR unit shows rescue technique. PFC Ronald Wade is in sling, pilot is Capt Joseph Gunnels and Sgt Richard Shaughnessy is crewman. **RIGGING**—Private Wade and Cpl Michael Brossett rig tail rotor blades. **INSTALLATION**—Maintenance crew completes installation of the main gear box. Left to right are Sergeant Shaughnessy, Corporal Brossett and SSgt Robert Braske. Private Wade, in cabin, operates the hoist. **INSTRUCTION**—Sergeant Braske explains use of Maintenance Requirements Cards. Left to right are Sergeant Shaughnessy, Corporal Brossett, Sergeant Braske and Private Wade.

Edward Martens, Cpl George Suess, Cpl Michael Brossett, Cpl Charles Singley, PFC Ronald Wade and PFC William Thomas. Several of these Marine helicopter specialists have worked on a wide variety of aircraft — including the Kaman HOK — and some recently returned to the United States after service in Vietnam.

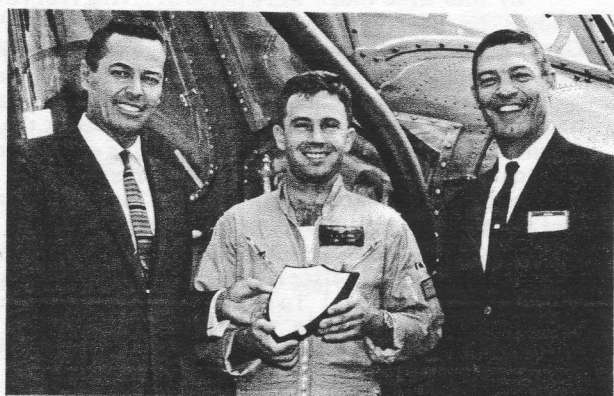
All of the SAR pilots — Capt Kelly Patterson, Capt Joseph Gunnels and CWO James Gauthier — also served in Southeast Asia. The flight records of these pilots and the awards they received attest to their skill, courage and devotion to duty. CWO Gauthier is also a recipient of one of the Kaman Scrolls of Honor which have been awarded to unit personnel. The Scrolls, and the numerous Kaman Mission Awards also received, point out quite vividly the necessity for the rescue operation and the success of the activity in meeting its requirement.

In addition to base rescue work, the UH-2 crews at Beaufort have participated in numerous other activities including several life-saving flights to hospitals in the area. Typical was the mission flown a short time ago by Captain Patterson, Sergeant Shaughnessy and Corporal Brossett. The UH-2 crew made an 85-mile night flight to the Charleston Naval Hospital for emergency medical supplies needed for a critically-ill woman. The entire flight was made under positive radar control because of reduced visibility due to the heavy smoke and haze between Charleston and Beaufort. Recently, the SAR personnel exhibited their rescue techniques before a class of officer candidates and, at a later date, flew

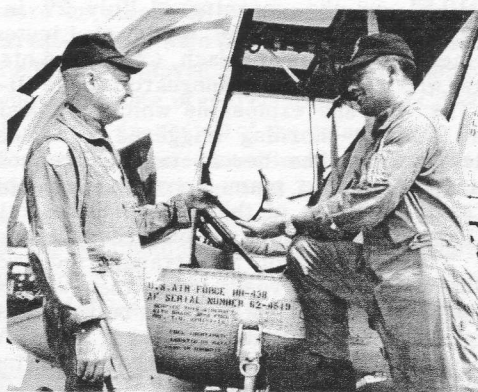
to Charleston, S. C. to participate in an airshow. As with many other SAR units, the one at MCAS Beaufort is credited with being a definite asset in maintaining good community relations.



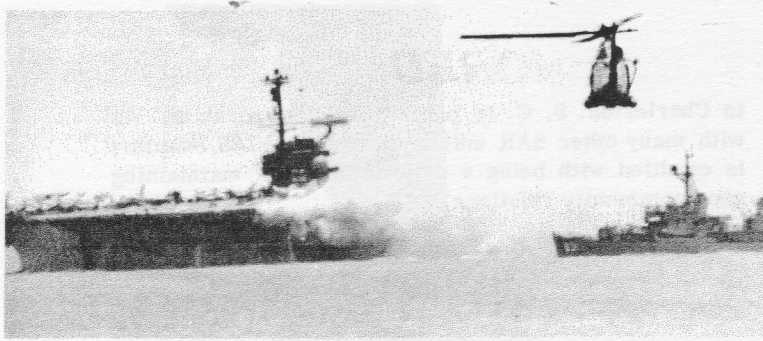
THE BEAUFORT SAR UNIT—Front row, left to right, Cpl Charles Singley, Cpl George Suess, PFC William Thomas, PFC Ronald Wade, Cpl Michael Brossett. Rear row, SSgt Robert Braske, CWO James Gauthier, Capt Kelly Patterson, Capt Joseph Gunnels, Sgt Edward Martens, Sgt Richard Shaughnessy. (USMC photos)



1000-Hour Pilot Awards



In top left photo, **Lt(jg) Gary L. French** of HC-1, NAAS Ream Field, Calif., displays plaque he received from Kaman Aircraft after logging his 1000th hour in the UH-2 SEASPRITE. The presentation was made by William R. Murray, left, vice president, test operations/customer service. On right is Cdr Roger N. Kersch, commanding officer of HC-1. At the time, Lieutenant French was receiving UH-2C flight training at Kaman and Commander Kersch was attending a NATOPS conference at the company. In top right photo, **Capt Richard L. Brubaker**, right, is presented a Kaman 1000-hour plaque by Maj Bert E. Cowden, commander of Det 4, AARRC(MAC), Ramstein AB, Germany. All four Det 4 pilots — Major Cowden, Maj Leonard N. Buck, Captain Brubaker, and Capt Joseph V. Leech — have received Kaman Scrolls of Honor for life-saving missions, as well as the 1000-hour plaques. As of June 30, they had a combined total of 12,125 hours accident-free flying time with 10,193 hours in helicopters. A total of 6027 hours has been flown in the HH-43 with an average of 1507 each. In third photo, **Capt Ronald C. Tubbs**, Det 4, EARRC(MAC), Keesler AFB, Miss., logs his 1000th hour in an HH-43 HUSKIE as SSgt Ahurt R. Reed, crew chief, stands by to offer his congratulations. Capt Tubbs flew many of the hours while in Thailand where he earned the Air Medal for numerous rescue missions. Others who qualified recently for 1000-hour plaques are: **Maj Maxie L. Trainer**, with 1265 hours; **Maj Hayden C. Moore**, 1275 hours; and **Capt Edwin J. Hartke**, 1012 hours. All are from Det 12, AARRC(MAC), Woodbridge RAF Station, England; **Capt Derry A. Adamson**, Det 5, WARRC(MAC), McChord AFB, Wash.; **Maj Ryland R. Dreibelbis**, **Capt Donald R. Berdeaux**, **Capt Jimmy D. Gammon**, Det 12, WARRC(MAC), George AFB, Calif.; **Capt Paul R. Schildgen**, Det 2, AARRC(MAC), Upper Heyford RAF Station, England; **Maj Jay M. Strayer**, 1154 hours, and **Capt James E. Sovell**, 1004 hours, Det 18, CARRC, Little Rock AFB, Ark. (USAF - KA photos)



ANGELS FROM REAM FIELD PLAY ROLE IN FORRESTAL TRAGEDY

This story of a UH-2 crew's heroic action during the USS Forrester fire first appeared in the "San Diego Dispatch." The photograph of the SEASPRITE heading toward the stricken vessel is also furnished through the courtesy of the newspaper.

ABOARD USS ORISKANY (CVA-34)—"There was a horrendous explosion that shook 'Angel Two Zero' it seemed as if the whole stern of the Forrester had erupted. Suddenly there were rafts, fuel tanks, oxygen tanks, drop tanks and debris of every description floating in the water below."

This was the first-hand description of the tragic Forrester fire from the pilot of the USS Oriskany rescue helicopter which was first on the scene of the Navy's worst disaster of the Vietnam war. It started at 10:53 on the morning of July 29 in the Gulf of Tonkin and altered the world of Lieutenant David Clement, 30, Imperial Beach, Calif., and his three-man crew who were flying planeguard for the ill-fated ship.

The fire and explosions which wracked Forrester that Saturday morning triggered a series of events which led to one heroic feat after another as the helicopter rescue team skirted death while battling to save the lives of the injured Forrester crewmen.

Lieutenant Clement and his rescue helicopter, "Angel Two Zero" had just transported two Oriskany officers to the Forrester when they were asked to fly planeguard for Forrester planes being launched against targets in North Vietnam. As a matter of standard procedure, helos remain airborne during launches should a pilot eject shortly after take-off.

"Angel Two Zero" took off from Forrester's flight deck and had just made a turn back toward the ship when Lt. Clement saw "smoke coming from their port side. It was thick and grey at first and then turned black as only a fuel-fed fire can."

"Angel Two Zero" increased speed and approached the ship as fast as possible. It took 30 seconds to reach the stricken carrier; in that time, "at least three or four aircraft on Forrester's flight deck were blazing" said Lt. Clement, adding: "Flames and black smoke were billowing up high in the sky."

"Angel Two Zero" co-pilot, Ensign Leonard M. "Butch" Eiland, Jr., 24, Montgomery, Ala., "saw something fall or jump overboard." A thundering explosion followed and the helo moved back down the Forrester's wake to investigate.

Within seconds "Angel Two Zero" found a survivor floating in the water among a myriad of debris and damaged equipment.

Coming into a hover, crewman Airman Albert E. Barrows, 21, Whittier, Calif., prepared to go into the water to aid the survivor. Barrows removed his boots and helmet and put on swim fins. He was lowered down

a wire by hoist operator, Aviation Jet Mechanic James O. James, Jr., 22, from Santa Rosa, Calif.

"I swam a short way, placed the harness around the man and then we were hoisted up to the helo," Barrows said. This was the first of five trips into the water for Barrows who repeatedly went into the Gulf of Tonkin to help hoist injured men aboard "Angel Two Zero."

The pilot, Lt. Clement, recounted the events: "Right after bringing the first survivor aboard, two more were sighted and Barrows again went into the water. He came up with each survivor individually—they were all badly burned and in shock. The destroyer USS Rupertus (DD-851) approached and started cruising up in the wake, along with an Oriskany lifeboat. Soon we sighted a fourth survivor and hoisted him aboard. The four survivors plus the four man crew made "Angel Two Zero" too heavy to safely maintain a hover. The helo then proceeded to Oriskany and dropped off the four survivors.

During this entire operation James was either operating the hoist, directing the "Angel Two Zero" into a hover; attending to immediate needs of the injured—or a combination of all three.

"Throughout these rescues there were explosions from the Forrester that rocked the helo," Lt. Clement recalled. "After dropping off the survivors, we took off and immediately proceeded back up the wake of the burning ship. As we came very near I spotted another survivor. We came into a hover and put Barrows into the water for the fifth time in less than an hour. James hoisted both aboard as before." "Angel Two Zero" flew the survivor back to Forrester and now, nearly an hour after the blaze first ignited, Lt. Clement observed that the ship's aft end was "a mass of twisted steel, with holes in the flight deck, a vacant space where there had been many aircraft and a towering column of black and grey smoke and flames."

"By this time there were helos arriving from everywhere: Navy "Big Mothers" and Air Force "Jolly Greens" from all over the North and South China Sea arrived on the scene.

Lt. Clement and his crew then returned to Oriskany and made two more trips to Forrester, being the first to shuttle desperately needed fire-fighting equipment and medical personnel to the stricken carrier.

Following the second trip "Angel Two Zero" landed on Oriskany, switched crews and refueled.

The ordeal was over for Lt. Clement, Ens. Eiland, Third Class Petty Officer James and Airman Barrows—but not for "Angel Two Zero" and her new crew. They continued shuttling first-aid gear, medical supplies, fog foam, oxygen breathing apparatuses (OBA's) as well as the dead and injured—until almost dawn the following morning.

It was about midnight when the hospital ship USS Repose reached the area after steaming from her station far to the south. The helo pilots then began to transfer the more critically injured Forrester crewmen from Oriskany to the more extensive medical facilities of the Repose.

Lt. Clement, Officer-in-Charge of Oriskany's Helicopter Combat Support Squadron One (Detachment 34) expressed the feelings of many who knew that Oriskany's "Angel Two Zero" was the first on the scene and one of the last to leave: "My hat is off to the entire detachment."

HelSuppRon One, Det. 34, is home-based at Ream Field. Commander Roger N. Kersch is the Commanding Officer.

HAZARDOUS MEETING

At least one aircrewman aboard a UH-2 has learned there are hazards other than the enemy to be faced during rescue missions.

After one particularly hairy rescue the dripping wet survivor struggled free from the rescue sling, threw his arms around the surprised aircrewman and kissed him!

KAMAN TECH REPS HONORED



HELM



FICKES



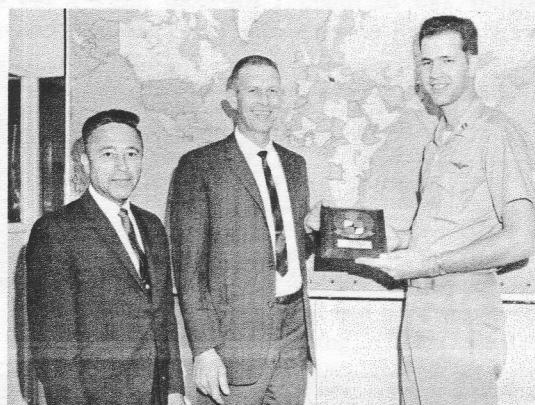
ALEXANDER



BOUTIN

Five technical representatives from Kaman's Customer Service Department have received Navy recognition for the manner in which they carried out their various assignments while serving with activities in widely separated areas. Homer C. Helm and Gordon R. Fickes were commended in a letter for a "job extremely well done" while aiding UH-2 SEASPRITE personnel in the Pacific; David M. Rush, who performed similar tasks while in the Mediterranean area, received a plaque and memento in recognition of his services. Donald P. Alexander was presented with a plaque, and Gerard A. Boutin received a letter of appreciation, for services performed at NAS Lakehurst, N. J.

Until recently Helm and Fickes were assigned to NAS Atsugi, Japan, and NAS Cubi Point, R. P. Upon their transfer, (Helm to NARF, North Island, Calif.; Fickes to NAAS Ream Field, Calif.) LCdr James E. Waldron, Jr., officer-in-charge of HC-1's Det Atsugi, wrote a



SERVICE REP HONORED—A plaque from HC-4 is presented to David M. Rush, Kaman senior service representative, in recognition of "services rendered" from May, 1964 to June, 1967. Making the presentation on behalf of the officers of the NAS Lakehurst, N. J., helicopter combat support squadron is Lt Richard E. Klein, DCASO representative at Kaman. Waiting to offer his congratulations is William E. Zins, director of customer service. A similar plaque from HC-4 was also received by Donald P. Alexander, senior service rep. A group photograph which Rush also received before his recent transfer is presented below.

letter of appreciation to Charles H. Kaman, president of Kaman Corporation, for assigning such "highly capable and well-motivated personnel to this important task of maintaining Fleet helicopters." Rush, who was assigned to NAF Naples, Italy, and is now stationed at NARF Quonset Point, R. I., received a plaque from the officers of HC-4 for "services rendered" during the three years he aided UH-2 personnel in the Mediterranean area. He was also presented a group photograph of HC-2's Det 66, deployed aboard the USS America, with an accompanying note of appreciation from LCdr Thomas S. Bryan, officer-in-charge of the detachment. A plaque from HC-4 was also presented to Alexander who served as senior representative at NAS Lakehurst, and is now stationed in Iran. Boutin received a letter of appreciation for "the outstanding support you have rendered this command during the past year," from Cdr Raymond G. Burkemper of HC-4. Boutin is now stationed in Colombia, S. A., as a service representative for Kaman.



REPS' MEMENTO—Formal photograph of HC-2's Det 66 while deployed aboard USS America. Front row, left to right, are E. A. Reeder, ADJ3; V. Keiter, ADR1; S. D. Thompson, ADJC; Lt(jg) Wayne Stiles; Lt(jg) John Meyn; Lt Kent Fixman; LCdr Tom Bryan; Lt Dave Hubbs; Lt Bob Chandler; Lt(jg) Jeff Foss; Ens Jack Lecorn; H. L. Leonard, AT1; R. L. Foster, AE2. Second row, J. M. Krakau, ADRAN; T. C. Sobotka, ADJ2; E. R. Leimbach, AMH3; D. P. Seibert, AMSAN; P. C. Carroll, AN; M. A. Dubois, AN; K. J. Hildreth, AMH2; G. E. King, AMS3; M. H. Butler, ADR2; D. R. Arnold, AN; G. A. Flores, ADJ3; K. W. Urton, AMS3. Third row, F. D. Mawn, ADJAN; J. L. Harlan, AMS3; J. W. Harris, ADJAN; W. A. Speelman, ADJ3; J. M. Hann, AN; C. P. Carnes, AN; A. A. Perry, ATNAN; R. L. Prosper, ATN3; G. W. Bailey, AN; R. L. Hart, AE3; B. R. Turner, AE3; H. O. Sechrest, ADJ3; J. L. Abernathy, YN3; D. L. Kiser, AKAN. Not shown, Lt Scott Gordon; Lt Bob Hamel; J. O. Smith, ADJ3; and M. V. Sanding, SD3. (USN photo)

HH-43 Blade Flap Tool

by Abraham R. Thomas
Field Service Representative

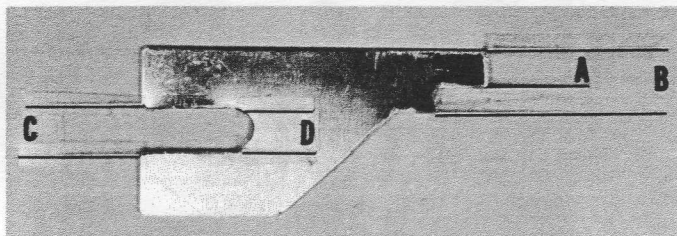


PHOTO ONE

THICKNESS: 0.035 MATERIAL: Steel or Aluminum
A = 15/64(0.2343) square end - minimum protrusion
B = 25/64(0.3906) step - maximum protrusion
C = 1/4(0.250) slot - check gap
D = 1/8(0.125) radius
MATERIAL: Steel or Aluminum

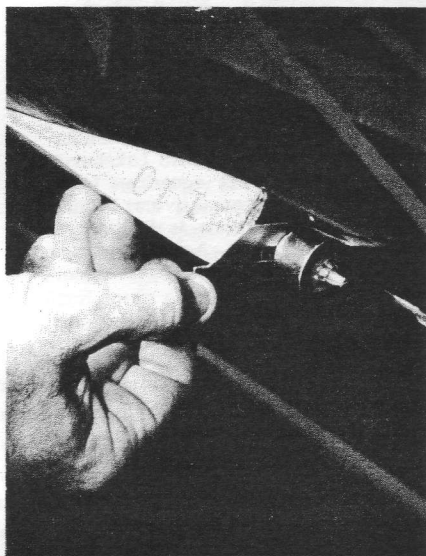


PHOTO TWO



PHOTO THREE

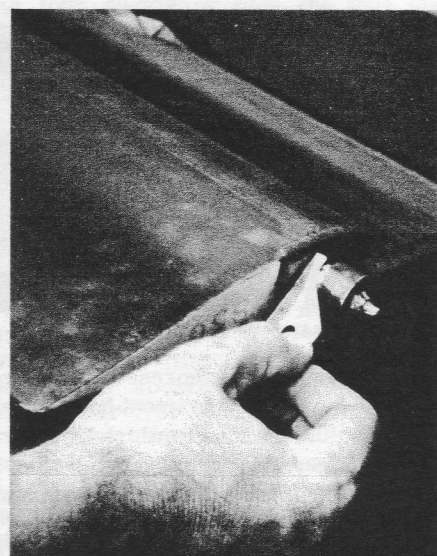


PHOTO FOUR

The small but efficient rotor blade flap tool shown in photo 1 can be used to set the gap and outboard bearing protrusion when assembling blade flaps. The second photo shows how, by holding the square end, the slot is inserted between the flap and the outboard bearing. There should be a slight drag on the tool to indicate correct gap. Photo 3 shows the tool being used to check minimum bearing protrusion; the square end (dimension A, photo 1) is placed on the bearing with the step (dimension B) touching the bracket. The bearing should protrude from the bracket at least the width of the square end of the tool. Photo 4 shows how maximum bearing protrusion is checked. The step is placed against the bearing with the bracket touching the angle-edge; the bearing should not protrude beyond the width of the tool (dimension B). When installing an outboard bearing, the tool can be used to set the gap by inserting the slot over the rod and tightening the nut. As soon as a slight drag is felt on the tool, the gap is set. The tool is then turned around to check bearing protrusion as explained above. Secure the nut with a cotter pin to hold the established position. Photo 1 and the adjacent dimensions should be used as a guide when fabricating the tool.

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 92 - Communication System, INSTALLATION OF ADDITIONAL ICS STATION	31 July 1967	TION OF CAUTION LIGHT PANEL BENCH TEST SET, P/N K604627-1 to K604627-3	28 July 1967
H-2 Airframe Change 134 - Engine Air Inlet, BELLMOUTH SEAL AND PLENUM CHAMBER SEAL IMPROVEMENT	31 August 1967	T.O. 1H-43(H)B-2 - Technical Manual, MAINTENANCE INSTRUCTIONS, HH-43B and HH-43F Helicopters	16 September 1966 changed 13 July 1967
H-2 Airframe Change 142 - Main Rotor Blade Assembly, ADDITION OF TRAILING EDGE CAPS	1 August 1967	T.O. 1H-43(H)B-4 - Technical Manual, ILLUSTRATED PARTS BREAKDOWN, HH-43B and HH-43F Helicopters	16 March 1964 changed 17 July 1967
NAVAIR 01-260HCB-1 - NATOPS FLIGHT MANUAL, Navy Model UH-2C Helicopter	1 June 1967	T.O. 1H-43(H)B-5 - Technical Manual, BASIC WEIGHT CHECKLIST AND LOADING DATA, HH-43B and HH-43F Helicopters	3 April 1964 changed 17 July 1967
NAVAIR 01-260HCB-4-5 - Illustrated Parts Breakdown, Navy Model UH-2C Helicopter, POWER PLANT AND RELATED SYSTEMS	1 June 1967		
Support Equipment Change 803 - MODIFICA-			

F. G. Weber, Supervisor, Service Publications

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area was located, Lieutenant Gregory let down through the overcast to 1000 feet but visibility was limited. The HUSKIE dropped to 100 feet and the pilot began flashing the landing lights. This enabled the survivor to direct the helicopter to his position. The pickup from the sea, about 40 miles from Danang, was made without incident. Others in the rescue crew were Capt Donald D. Sams, copilot; A1c Clyde E. Chavis, flight mechanic; and A2c Duane D. Hackney, pararescue specialist.

Three minutes after two pilots bailed out of their crippled aircraft, 1stLt William T. Sehorn and his Det 7 crew were airborne and heading for the area five miles away. Although the flight was made into a known hostile area with a heavy enemy troop concentration, Lieutenant Sehorn, elected to try for an immediate rescue without additional support or cover aircraft because he believed that he could recover the pilots before the hostile forces could block the attempt. After spotting the two chutes in a rice paddy the HUSKIE pilot landed near the small mounds of earth where the downed airmen were lying. SSgt Hubert O. Marsh, helicopter flight mechanic, then darted from the helicopter to aid one of the rescuees who was injured. Meanwhile, instead of waiting until the HH-43 moved to his position, the second pilot broke cover and ran 150 yards across the paddy to the rescue helicopter. Takeoff was made without incident. Sharing in the mission were Maj John J. Hoyer, copilot; and SSgt Willard P. Barrow and A1c Herman R. Singleton, airborne firefighters.

In another Det 7 mission, a C-47 pilot who bailed out of his crippled plane was plucked from the sea by an HH-43 piloted by Capt Robert L. Merna, RCC, and Captain Sams. Crewmen were SSgts Hubert O. Marsh, flight engineer, William P. Tracey, pararescue specialist. The downed pilot was rescued as fishing boats from a nearby island chain were closing in on him.

Four rescuemen who started out on one mercy mission ended up on another. Capt Lawrence D. Jones, RCC of an HH-43 HUSKIE and his crew from Det 8, 38th ARRSq, Cam Ranh Bay AB, were on their way to a ship in the South China Sea to pick up a sailor with an inflamed appendix. Because of fuel problems and bad weather enroute, however, they were forced to land on How Chu Lao Island, approximately 35 miles off the coast of Phan Rang. Captain Jones had called for assistance and received word that help was on the way. By the time the chopper landed a crowd of 200 natives had gathered so 1stLt Ronald W. Murray, the copilot; SSgt Thomas E. Hand, helicopter mechanic; and A1c Benny G. Perez, pararescueman; followed Captain Jones to meet the audience but neither the Americans nor the natives could speak the other's language. Finally one of the villagers used hand signals to tell that one of the islanders needed medical care. Airman Perez immediately went to work. From his small first aid kit, he cleaned the man's laceration and bandaged it. Before he finished, a line of patients had formed, all waiting to receive first aid. "They were all either young children or old folks," remembers Airman Perez. "Their problems were many — skin ulcers, various lacerations, cuts and boils. The last person I treated had a cut about four inches long that had never been treated. It appeared to be about three weeks old and whatever punctured the

skin, cut a vein, too. All I could do was thoroughly clean and wrap it," continued Airman Perez. When the crew arrived back at Cam Ranh Bay, they learned the sailor they were to pick up had been airlifted to a land-based hospital by another unit of the 38th for removal of his appendix.

In another Det 8 mission, the prompt action of MSgt Roland H. Lutz, a medical technician, saved the life of a seriously wounded Army sergeant being transferred in an HH-43 from Cam Ranh Bay to Nha Trang AB for immediate surgery. The takeoff had been made despite poor visibility, heavy rain and fog, after Capt Richard L. Van Allen, RCC, obtained permission to fly low in order to maintain visual contact with the ground. After five minutes of flight, Sergeant Lutz changed the oxygen apparatus as the attending physician kept a constant vigil over the patient's pulse. Shortly afterward the wounded man's heartbeat became extremely weak so Sergeant Lutz immediately applied external cardiac massage and started the pulse back to a normal beat. He then returned to operating the oxygen equipment. After 10 minutes of blinding rain, the HUSKIE broke out of the storm and landed safely at Nha Trang. Capt Allen R. Martin was copilot on the mission and A1c Andres B. Perez was flight engineer.

A pilot downed in rugged, mountainous territory described as "very hostile and definitely not secure," was rescued by an HH-43 crew from Det 9, 38th ARRSq, Pleiku AB. Army helicopters had arrived but were unable to effect the recovery due to the high temperatures and high pressure altitude. Disregarding the possibility of enemy fire, Capt Keith H. Ricks, RCC, initiated an approach to a spot between the towering trees and made the pickup. With him were Capt Jack V. Butler, copilot; SSgt Arthur L. Wood and A1c John A. Smith, crewmen. During the recovery, a second Det 9 HUSKIE, piloted by Maj Richard A. Smith, orbited the area. With him were Capt Francis B. Gilligan, copilot; MSgt Frederick F. Wharton and A2c David R. Berrio, crewmen.

In another Det 9 mission, HH-43 crewman SSgt Charles Jenkins was lowered into dense jungle on a mountainside to aid a downed pilot suffering from two broken ankles. After being given first aid, the rescuee was hoisted to the helicopter and then the Sergeant was taken aboard. Pilot of the HUSKIE was Captain Ricks and Captain Gilligan was copilot. The other crewman was Sergeant Wood. During the recovery, Major Smith with another crew orbited the area, braving the possibility of enemy fire, so as to be in a position to rescue the first crew if necessary. Others in the crew were Capt Robert L. Osborne, copilot, A1c Jose G. Abara and A1c Louis K. Chesnee, crewmen. After the rescuee was aboard the helicopter, Major Smith noticed that the survivor's radio was still on the ground. Fearful that it might be used by the VC against friendly forces, he brought the HH-43 to a hover and the radio was retrieved by the crewchief.

Five Army men whose helicopter crashed in the South China Sea were rescued by HH-43's from Det 11, 38th ARRSq, at Tuy Hoa AB. A school of sharks was circling nearby as the survivors were hoisted to safety. One of the HH-43's, Pedro 24, was piloted by Maj John J. Elliff. 1stLt David Dean was copilot; SSgt James A. Phillips,

continued on page 23

Huskie Happenings



...A mountain climber who had broken his leg in a fall at the 6000-foot level in the Cascade Mountains, was evacuated by an HH-43B crew from Det 5, WARRC(MAC), McChord AFB, Wash. To make the pickup, Capt Derry A. Adamson landed in a small cul-de-sac with mountain walls on three sides and trees on the other. A very steep approach was made and during the vertical phase of the descent, approximately 200 feet, the pilot was completely committed — there was no escape route. The area had been made accessible by deputies from the Snohomish County sheriff's office, who had cut down almost a dozen trees, but even with this assistance the rotor blades on the HUSKIE were passing between the branches of several larger trees. Due to the unevenness of the ground, Captain Adamson held the rear wheels of the HUSKIE in the air during the entire ground operation. A max performance climb was made out of the area and the climber was taken to the hospital. Sharing in the hazardous mission were Maj Erling R. Drangstveit, copilot; A1c William P. Owens, crew chief; and SSgt Joe J. Brown, medical technician.

...The crew of a Turkish helicopter which crashed four miles from Cigli AB were taken to the dispensary by an HH-43B crew from TUSLOG 153 at the base. Maj Robert T. Rosvold was pilot of the rescue chopper; TSgt Gordon L. Ball, crew chief; SSgt Richard C. Hudson, medical technician; and A2c John T. Holmes, fireman.

...An HH-43B alert crew from Det 14, EARRC(MAC), MacDill AFB, Fla., scrambled with the FSK after an F-4 crashed near the base. The pilots, who had ejected, landed 100 to 200 yards from a large brush fire started by the downed plane. After setting the FSK down, the HUSKIE picked up one survivor from a swamp just outside the "antenna farm," after first aid was given by TSgt Haydn T. Poore, Mt, and SSgt Norris W. Davidson, RS. A1c Harold J. Marten, RS, remained on board to reconfigure the cabin to receive the rescuee. Maj James N. Madsen then made a second landing, inside the farm, to pick up the second downed pilot. Sergeant Poore gave first aid as Sergeant Davidson set up the litter and Airman Marten prepared the cabin. A1c Johnny W. Shipman was flight engineer on the mission.

...Two injured pilots who bailed out of the F4D 20 miles from Ramstein AB, Germany, were picked up and returned to the hospital by an HH-43 crew from Det 4, AARRC(MAC), at the base. SSgt Robert A. Twigg, medical technician, administered first aid on the flight to the hospital. Maj Bert E. Cowden was pilot of the HUSKIE, Capt Richard L. Brubaker, copilot; SSgt John H. Balfour, helicopter mechanic; A1c George E. King and A1c James B. Potthier were firefighters.

...HH-43B pilots Capt Michael F. Langford and 1stLt Curtis K. Bayer of Det 9, PARRC(MAC), Osan AB, Korea, were honored recently by Col Donald T. Smith, commander of PARRC, during a staff visit and inspection. Captain Langford received the Air Medal for taking part in 24 combat missions in Vietnam while on a 35-day temporary assignment there. During these missions he evacuated 15 casualties including U. S., Vietnamese, and Republic of Korea personnel. During another six-month temporary duty period in SEA, the Captain took part in approximately 120 scrambles. Captain Langford will assume command of Det 9 when Capt Robert R. Reeves departs for Eglin AFB, Fla. Lieutenant Bayer received a Kaman Mission Award for rescuing four persons during floods last summer in the Carlsbad-Pecos, N. M., area. During the ceremony Captain Reeves recalled that, during the past year, Det 9 had received outstanding ratings in all inspections and evaluations. "We think we've got the finest detachment in the whole rescue service," he said, "and I hope Captain Langford has the same pleasurable assignment here which I have had."

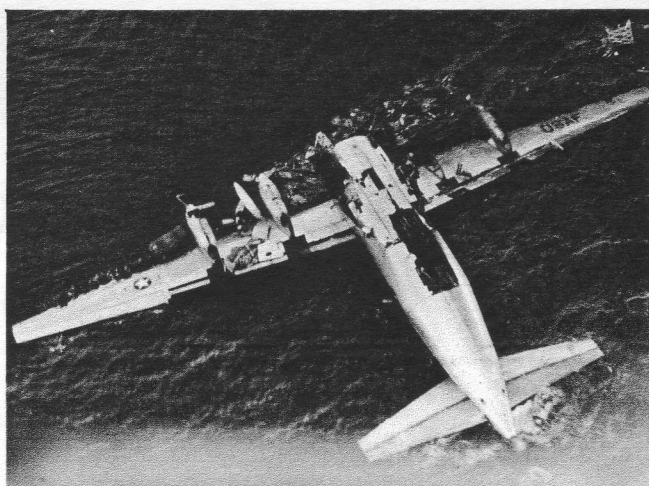


AIR RESCUE ASSISTANCE—Over the shoulders of rescue commander 1stLt Curtis K. Bayer, right, and copilot Capt Paul Drucker, the cameraman catches a firefighting team at work on an aircraft accident near Suwon AB. The Republic of Korea Air Force fighter had just taken off from Suwon when it crashed. Det 9, PARRC (MAC), at Osan, responded to the emergency call to assist ROK rescue operations. (USAF photo by Covolo)

DET SIX CREWS RESCUE FIVE

Five of the nine crewmen aboard a C-133 were rescued by HH-43B crews after the huge transport ditched 35 miles from Kadena AB, Okinawa. Two HUSKIES from Det 6, PARRC(MAC), at the base joined two Army helicopters and a HU-16 from the 33rd ARRSq at Naha AB in the rescue effort. Maj Warren K. Davis was pilot of "Pedro Two," the lead HH-43. With him were Capt Jack C. Moore, copilot; SSgt Harold A. McKinney, medical technician; and TSgt Charles D. Severns, flight engineer. Capt Joseph T. Herr, was pilot of "Pedro One." Maj Charles N. McAllister was copilot; TSgt Alvin C. Reed, crew chief; Capt John M. Barry (MC), flight surgeon; and TSgt Leonard Fullerton, medical technician.

As Major Davis' helicopter began picking up the survivors, swimming or floating amongst the debris, Captain Herr's crew spotted one man draped across a piece of wreckage with his body half in the water. Sergeant Fullerton asked permission to go in after him and was lowered in the sling. The survivor said his back hurt so the Sergeant signaled for a rescue basket. Sergeant Fullerton maneuvered the basket under the injured man, carefully slid him onto it, and then the slack was slowly taken up. Afterward, as Sergeant Reed and Captain Barry were preparing the injured rescuee for examination, Sergeant Fullerton swam around to check for any other crewmembers not yet accounted for. There were none, however. Four survivors had been picked up by Major Davis and his crew, and the other four men from



DOWNED BIRD—Five of the nine men aboard this C-133 were rescued by HH-43's from Det 6. The most seriously injured was aided by TSgt Leonard Fullerton, medical technician, who was lowered from the HUSKIE. (USAF photo)

the transport were rescued by the Army helicopters.

In another Det 6 mission, an HH-43B crew from the unit made a night, overwater flight to Ie Shima to evacuate an airman suffering from severe abdominal pains. After delivery to Kadena, the airman was operated on for appendicitis. Capt Dale L. Potter was pilot of the HUSKIE and Major Davis was copilot. Crewmen were A1c Peter K. Ford, flight engineer; and A1c Alexander S. Waligorski, medic.

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flight engineer; and A1c Paul J. Volges, aero medical technician. The other helicopter, Pedro 20, was manned by Maj Zack L. Stockett, pilot; Capt John E. Passant, copilot; SSgt William O. Johnson, flight engineer; and A2c Robert A. Lavender, rescue specialist. Before locating the downed aircraft, both helicopters conducted an intensive search over the many islands and mountainous peninsulas that dot the Vietnamese coast. The territory covered had been described as "hot" by local ground forces. In spite of the threat of ground fire, both crews made several low passes over smoke and debris along their search routes. Pedro 24 picked up three of the survivors and Major Elliff's crew hoisted the other two aboard.

Two HH-43B crews from Det 12, 38th ARRSq, Nha Trang AB, flew 92 miles to sea to evacuate a merchant seaman who had fallen through a hatch on the SS Steel Rover and required immediate medical attention. Manning one helicopter, Pedro 99, were Capt Melroy Borland, pilot; Capt Gary E. Robertson, copilot; Capt Chesley R. Davies (MC), flight surgeon; SSgt James Souza, pararescueman; and SSgt Frank W. Davis, flight engineer. In the other HH-43, Pedro 98, Capt Carol D. Hayden was pilot; Capt John L. Belina, copilot; and A2c Jerard J. Pearson, pararescueman. With auxiliary fuel tanks installed, the two helicopters took off as an AC-47 moved in to supply cover. After locating the ship, farther from shore than originally reported, Captain Robertson held the chopper in a hover while Captain Davies and Sergeant Souza were lowered to the deck. Turbulence, nearby

cables, loading booms, and the ship's superstructure complicated the task of holding the HH-43 in the required position. When the patient was prepared for pickup, Pedro 99 headed for shore due to a low fuel state. The doctor, patient, and pararescueman were then hoisted to Captain Hayden's helicopter for the flight to the hospital.

In another Det 12 mission, the crew of an Air Force helicopter which crashed in hostile territory eight miles from Nha Trang was rescued after two HH-43 pararescuemen, Sergeant Souza and Airman Pearson, were lowered into the dense jungle to prepare the injured survivors for hoisting. During the two sorties necessary to evacuate the four men, Captain Borland hovered close to the towering trees as Captain Hayden, the copilot, called out rotor blade clearances and maintained communications with the pararescuemen on the ground. Sergeant Davis was flight engineer and SSgt Jack L. Mitchell, rescue specialist, during the mission.

A sailor suffering from severe abdominal pains was evacuated from the USS Holmes County, at sea 55 miles north-northeast of Qui Nhon, by an HH-43 crew from Det 13, 38th ARRSq, at Phu Cat AB. Capt Edmund W. Fischbeck, Jr. was pilot on the mission; 2ndLt Ronald P. Wojack, copilot; TSgts Delmar R. Smith and William A. Renten, crewmen. The landing aboard the vessel was made without incident and the patient was loaded aboard; however, soon after takeoff, fluctuating transmission oil and fuel pressures were encountered. An AC-47, flying RESCAP, provided escort for the helicopter back to the base.

KAMAN AIRCRAFT

SCROLL OF HONOR

1965

Ek, Roger W., Lt(jg), USN
Elstad, Lief A., Lt(jg), USN
Evans, George G., Capt, USMC
Evans, Larry C., Capt, USAF
Fallows, Thomas E., Capt, USAF
Farmer, Enson J., SSgt, USAF
Fiola, Armand J., Capt, USAF
Flower, William J., A2c, USAF
Forrester, Edgar W., A1c, USAF
Foster, Albert W., A2c, USAF
Freedman, Israel, Capt, USAF
Fullwood, Leon, SSgt, USAF
Garner, Terry V., AA, USN
Gladhart, Rodney D., Capt, USAF
Gorny, Jerome C., SSgt, USAF
Graham, Roger L., A3c, USAF
Greene, Rockwell N., Capt, USAF
Griffis, Kenneth G., 1stLt, USAF
Hagerman, Eddie, TSgt, USAF
Hamel, Freddie S., Sgt, USMC
Hamel, Robert H., Lt(jg), USN
Hammond, Gerald C., A1c, USAF
Hammond, Julian D., Lt, USN
Hanutke, Frank P., A3c, USAF
Harbison, Gerald E., Capt, USMC
Hartley, Jim F., Capt, USAF
Hayes, William T., Maj, USAF
Heitger, Robert G., A2c, USAF
Henderson, Larry K., SSgt, USAF
Henderson, Robert S., Capt, USAF
Henningson, Edwin A., Capt, USAF
Henry, David G., Capt, USAF
Hepp, Bruce C., Capt, USAF
Hickey, Curtis V., SSgt, USAF
Hills, Leonard L., Capt, USAF
Hoffman, Paul M., Lt(jg), USNR
Hollyfield, T. E., A1c, USAF
Holmstrom, Robert Lt, USN
Howell, J. D. Lt, USN
Hug, J. L., AN, USN
Hughes, Dennis C., A1c, USAF
Ingraham, Ronald L., Maj, USAF
Islam, Moin Ul, Flt. Lt, PAF
Jarrett, Berry, Civilian
Johnson, Michael A., Lt(jg), USN
Jones, Gerald A. Capt., USAF
Kelly, John J., TSgt, USAF
Kelly, Joseph W., Capt, USAF
Kessler, Maurice G., Maj, USAF
Kezer, Charles A., SSgt, USAF
Khan, M. Ahmad, Flt. Lt, PAF
Kidwell, J. A., AMS1, USN
Kilpatrick, Dewey A., SSgt, USAF
King, Karl G., Capt, USAF
Kneen, John B., Capt, USAF
Kniely, J. L., LCdr, USN
Knight, C. L., ADJ2, USN
Knofler, Daruyne, C., Civilian
Krause, W. M., LCdr, USN
Landry, Richard H., A2c, USAF
Larson, Douglas A., AT3, USN
Laws, Michael P., AE, USN
Layman, Carl G., Capt, USAF
Le Fevre, Ramon M., Capt, USAF
Lemke, Clyde W., Capt, USAF
Leonard, Michael D., A1c, USAF
Lepsey, George O., A3c, USAF
Levi, Ronald E., A1c, USAF
Lockhart, Floyd R., Capt, USAF
Logan, H. Edmond, Lt, USN
Long, Henry Q., Capt, USAF
Longmire, Harlan D., TSgt, USAF
Lye, Charles F., SSgt, USAF
Machado, Arthur J., 1stLt, USAF
Madden, Thomas F., Capt, USAF
Magassy, Csaba, Capt, USAF
Mapes, Delmar F., TSgt, USAF
Matterson, G. S., AE2, USN
May, Theron J., 1stLt, USAF
McCall, Archie R., TSgt, USAF
McGuire, Guy W., AMH3, USN
McKiddie, Thomas D., A1c, USAF
McMillan, Charles E., Capt, USAF
Metzinger, Donald D., Capt, USAF
Meyer, Deloy, LCdr, USN
Michael, William H., TSgt, USAF
Michelsen, Robert S., Lt, USAF
Montgomery, Alexander, A1c, USAF
Moore, John A., A2c, USAF
Mullen, David E., 1stLt, USAF
Murden, Raymond L., Capt, USAF
Murray, Julius, SSgt, USAF
Myhre, Kenneth K., AMS2, USN

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.