AMAN Rotor Tips

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KAMAN AIRCRAFT CORPORATION

PIONEERS IN TURBINE POWERED HELICOPTERS

FEBRUARY, 1965

KAMAN Rotor Tips

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THE COVER

HOK's (OH-43D), like the one shown in this striking photograph, and HUK's (UH-43C) began joining the Navy and Marines in 1955. Much of the knowledge gained from the sturdy "recips" has been incorporated in the turbine-powered HH-43B and UH-2A.

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MISSION REPORT FROM DET. 42

by 1st Lt. Walter J. Zimmerman ARS Det. 42, EARC (MATS) Dow AFB, Maine

The "Big Blizzard of '62," one which many old-time Downeasters describe as the worst they have experienced, began Saturday evening, 29 December. All weather prognosticators (or is the word prevaricators?) predicted "possible light snow flurries tonight, with clearing and rising temperatures on Sunday." The light snow flurries reached a total accumulation of 36 inches on top of a prior 12-inch snow, which 60-knot winds shaped into drifts 15 to 20 feet high. All roads were impassable; many motorists were stranded on highways; cars and houses were completely buried; electric power was out in some areas; AND temperatures dived to 20 below zero.

Monday morning found some Det. 42 personnel trying to convince their wives to shovel driveways clear of the head-high snow. All these attempts proved futile, so the men pooled their resources to shovel several cars tree for the trip to Dow Air Force Base. One Rescue echnician made the trip on snowshoes.

A skeleton crew was assembled by early afternoon. A snow blower arrived and plowed an area large enough to launch our two "HUSKIES," then cleared a 10-foot path to a marooned JP-4 fuel truck, to which we pushed the birds for refueling between missions.

Calls had flooded the base operators by now from persons in need of immediate help, and both HH-43B's were launched to assist the more serious cases. Bull-dozers or State Policemen beat us by a few minutes to

every spot on Monday, so we made no actual rescues that day. We did assist an FAA employee who was enroute to the Dow TACAN transmitter to perform repairs. Both of his skis broke during the trek, and when located he was plowing through waist deep snow. He was quite grateful for his three-quarter-mile ride to the transmitter, since he had walked five hours already, and had covered only two miles during that time. At nine o'clock that night we were sent to a burning house 25 miles west of Dow to evacuate the four occupants who were supposedly forced into the snow without clothing. Ground parties reached the scene as we approached the blazing buildings, so once again we were beaten to the draw.

Tuesday proved to be more fruitful, so far as rescues were concerned. Our first mission was to Lead Mountain Pond, 35 miles east of Bangor. We located the stranded man's cabin and approached it at about 25 feet above the snow's surface, since blowing snow prevented our landing. We lowered the hoist, but our victim refused assistance, indicating he was all right. Apparently he had laid in a good supply of food and firewood. A heavy snow storm and high winds forced us to return by flying 100 feet above a road which led to Bangor. Our bird was refueled while we planned our second mission of the day, which was to evacuate a family stranded in a cabin east of Lincoln, Maine. Again, we were forced to fly "on the deck" along a highway to reach our destination. We

quickly located the family of four plus their dog, landed on the edge of a frozen lake, loaded our passengers, and returned home. We then flew 20 miles west to Branch Pond for another pickup. The couple we were to evacuate was not in the cabin, but a search revealed they had gone to a farmhouse two miles away. The wind was now strong enough to keep loose snow from being blown in front of us by rotor wash, and we landed in a nearby field. Although they had no electricity, the permanent occupants of the farm decided to remain where they were. Their guests were eager to climb aboard the chopper when they found we had plenty of cigarettes (they had none for three days), but their dog had to be carried to the "giant, flapping, fire-breathing bird."



FROM THE WILDERNESS—A Hampden, Maine, family complete with pet dog, was rescued by a Dow AFB HH-43B after being marooned by huge snow drifts at a camp on Folsom Lake near Lincoln. With crewmen after landing at Dow are I to r, George Allen III (holding dog); Mrs. Evelyn Allen; Edward Willey (back to camera) and George Allen. (USAF photo)

The last mission of the day resulted in the evacuation of five persons from a farm near Ellsworth, a town 25 miles southeast of Dow. A twilight landing was made in the parking lot of a woolen mill, where a woman boarded the chopper to direct us to her family which was isolated three miles away. Her three children, one of whom had a rheumatic heart and required medical aid, and her mother were quickly brought aboard, while two members of the family volunteered to remain at the snowbound farmhouse to care for the family's two dogs, two cats, parakeet, and parrot. Had the entire menagerie been evacuated, we are sure it would have established some sort of record for unusual rescues.

By Wednesday morning most primary, and some secondary roads were opened and things began to return to normal. We did have a request from the State Police to pick up another marooned family, this time at Pleasant River Pond, which is about 50 miles east of Bangor. We had no difficulty finding the family. The father and eldest son had walked out to find a bulldozer to open a road to their camp. The mother sent her three younger children to the aircraft, but could not be persuaded to come along, as she wanted to wait for the men to return. We followed the men's trail, and found them only two miles away, although they had been walking for several hours. They asked us to return to the camp and convince the woman to return with us. After further encouragement, she reluctantly boarded the chopper.



PLANNING STAGE—Members of ARS Det. 42, Dow AFB, Maine; plan details of a rescue mission after one of the worst snow storms to hit northern Maine in recent history. Twelve Air Rescue missions were flown during the first four days of the New Year with 16 persons being lifted to safety. Crew members, I to r, are MSgt Maxwell Hartman, A2c Charles Fettinger, crew chiefs; Capt Glenn M. Marks, detachment commander; 1st Lt Walter Zimmerman, and 1st Lt Mitchell James, pilots. (USAF photo)

Several people were thought to be stranded on Pushaw Lake, 10 miles north of Bangor, so our next task was to search the area around the lake. We spotted about 20 people, all of whom were well. Since a bulldozer was cutting a path to the area, and everyone had adequate food and shelter, we returned to the base.

Two children were reported to be stranded and ill about 25 miles north of Bangor. The medic diagnose the illness as measles, and since their home was about to be plowed out, the children were not evacuated. During the day's flying, conditions were much better than before. Fifty-degree temperatures melted the snow's surface, therefore, we were no longer hampered by blowing snow during landings. Heavy turbulence was encountered, especially around mountains, due to 45-knot winds at operating altitude.

Thursday brought high temperatures, clear skies, and gentle winds. We flew reconnaissance missions east of Dow, checking the Nicatous Lake and Deblois Bomb Range area. About 10 people were interviewed in isolated areas, but all reported that they required no assistance, and knew of no one that did.

During the period between the two missions on Thursday, the Detachment received the 4038th Strategic Wing Commander's "GOER" award, inscribed "FOR OUTSTANDING RESCUE OPERATIONS DURING DISASTER CONDITIONS," from the Wing Commander, Colonel Harry R. Burrell.

By Thursday evening it appeared that the worst was over, and we could begin catching up on the paper work piling up in the office.

In summation, we can say that this is one New Year's weekend we will never forget. Flying conditions were marginal during the first two days of the operation due to high winds, snow storms and loose surface snow which always created the possibility of whiteout upon landing.

We found the HH-43B to be very stable in the turbulence, and of course it had an excess of power for operating with heavy loads in tight areas. Our number



HELPING HAND FROM ARS—HH-43B from Det. 42, lifts off on another mercy mission. Several of the air rescue flights were conducted to known isolated homes to determine the condition of people and their fuel and food supplies. (USAF photo)

of evacuations total 16 people and two dogs, while seven people, two dogs, two cats, a parakeet and a parrot decided to fight out the storm where they were, displaying real Yankee fortitude. Personnel performing our mission included Capt Glenn M. Marks, 1st Lt's Walter J. Zimmerman and Mitchell E. James, pilots; MSgt Maxwell C. Hartman, SSgt Clifford R. Langley, SSgt Weldon E. Cobb and A2c Charles E. Fettinger, crew chiefs; SSgt Michael A. Cross and A1c Eugene E. Cramer, medics.

Our rescue technicians were extremely important to the success of our mission, providing efficient ground support. The Dow AFB Search and Rescue Officer, Capt Jack Seim provided his usual excellent support, securing whatever was needed in spite of the fact that the entire base was paralyzed by the storm.

Air Force To The Rescue

Innumerable good deeds were performed in the wake of the blizzard that buried this region. But certainly no group deserves more thanks than the 42nd Eastern Air Rescue Squadron based at Dow Air Force Base.

The officers and men of this squadron carried out many missions of mercy at no little risk to themselves. They spotted marooned parties. They dropped fuel and food to families stranded in camps and in isolated rural areas. They rescued several people by air lift.

Storm deaths would have been higher and the hardship suffered much greater had it not been for the skillful rescue work carried out by the squadron. We know that many a rescued person is grateful today for what the airmen accomplished with their whirly birds... Bangor Daily News



SECRETARY MEETS HUSKIE III—Air Force Secretary Eugene M. Zuckert, in copilot's seat, and Charles H. Kaman, President of Kaman Aircraft, chat before recent Washington, D.C., demonstration flight at Pentagon. With the Secretary in the helicopter is Al Newton, KAC Chief Test Pilot. The HUSKIE III, the nation's first twin-turbine helicopter in the medium-weight range, was designed for use in anti-guerrilla warfare, missile site support and down-range recovery of missiles.



PROJECT STARGAZER—Navy astronomer William O. White, right and Air Force Capt Joseph W. Kittinger, Jr., leave HH-43B in which they were flown 150 miles to Holloman AFB, N.M. from spot where their helium-filled balloon descended. The men spent $18\frac{1}{2}$ hours in the air, most of it at about 80,000 feet, and were the first to ride a balloon to the edge of the atmosphere to observe the stars. (USAF photo)

-SEROLL OF HUHUR-



BEHIND EVERY MISSION—This photograph was taken of VMO-2 personnel on Okinawa during a Kaman Scroll of Honor presentation. Its purpose is to give recognition, not only to the crew of an OH-43D (HOK-1) which performed a hazardous mission, but to the ground support personnel whose varied jobs make such missions possible. The Scrolls were awarded to 1st Lt James H. Marshall, pilot; and Cpl Charles Bundschu, III, crewman (since rotated to the States). Shown are Lt Col Donald H. Foss, commanding officer; Lieutenant Marshall, SgtMaj Keith B. Fox, Mr. Donald Tancredi, KAC field service representative; Cpl Orel R. Mowery, crew chief; Sgt Frederick W. Artz, aviation electrician; Cpl Alton D. Mitchell, aviation maintenance clerk; Sgt Kermit A. Bail, intelligence clerk; LCpl William T. Schmeling, supply clerk; Cpl Lonnie Campbell, administrative clerk; LCpl Raymond O'Driscoll, mechanic; LCpl Earl H. Daniel, metalsmith. (USMC photo)

Kaman Scrolls of Honor were awarded to the crew of an UH-43C (HUK-1) recently for the rescue of two plane crash survivors and a Navy diver from shark-infested waters off the Florida coast. Receiving the Scrolls were LCdr George Peebles, pilot; D.G.Davis, AD2, crewman; and Lt C.J.Cox, flight surgeon; from NS Mayport, Fla.

Less than 15 minutes after the helicopter responded to the alert, one survivor of the crash was sighted in the water, rescued and flown to the beach with the doctor. The UH-43C then returned to the crash scene and located another survivor floating in a one-man life raft. He was also rescued and returned to the beach. The helo then continued the search until relieved by other aircraft. During the operation many large sharks were seen from the air. Later, after refueling, the Mayport helicopter returned to the scene in time to rescue one of the divers who required assistance while seeking the wreckage of the plane.

Four members of ARS Det. 51, EARC, Myrtle Beach, S.C., have been presented with Scrolls for the night-time rescue of two fishermen from their disabled boat six miles off shore. Receiving the Scrolls were Capt. Charles M. Roberts, pilot; Capt. Daniel M. Thomsen, copilot; TSgt Shelby Chestnut, crew chief; and SSgt Charles M. Holmes, medic.

The crew scrambled in an HH-43B (H-43B) at 2210; the ceiling was approximately 1500 feet, with five miles visibility in haze and with no horizon visible. The boat was located at 2340 and both men were safely hoisted aboard the helicopter in the rescue basket, despite gusting winds and seven-foot waves. During the rescue, which called for the utmost coordination, Captain Roberts hovered the helicopter to the left of the violently pitching and rolling boat to compensate for the prevailing wind; Captain Thomsen remained on instruments and control, keeping the helicopter level, and Sergeant Chestnut operated the hoist.

Kaman Scrolls of Honor were presented recently to the members of an HH-43B (H-43B) crew from Stead AFB, Nev.; for the rescue of a seriously injured climber from a 70-degree mountain slope. The rescue, made at 11,600 feet was carried out at night with the aid of the helicopter's landing and flood lights, despite turbulence and a lowfuel condition. Pilot of the helicopter was Capt. F. M. Donohue; Capt. G. L. Kekuna was copilot and SSgt C. E. Baker, crew chief.

Seven members of ARS Det. 9, WARC, Portland International Airport, Ore., received Scrolls for rescues in which they participated.

1st Lt Donald F. Donk, HH-43B pilot; Capt. Dennis F. Chase, copilot; SSgt Fred C. Williams, Jr., crew chief; and SSgt William H. Anderson, medic; received their awards for the rescue of an injured climber from the side of Mount Hood at 8,500 feet.

Capt. Arthur J. Bennett, pilot; Lieutenant Donk, copilot; SSgt Franklin S. Farmer, rescue technician; and SSgt R. L. Grigsby, medic; received Scrolls for the rescue of a mother and her young son who had been lost in the wilderness of the Cascade Mountains.

Scrolls were presented recently to HH-43B (H-43B) crew members from Det. 4, WARC, Paine Field, Wash., for the rescue of an injured woman mountain climber from a narrow ledge at 4,200 feet on Monte Cristo Peak. Receiving the awards were Capt. Robert D. McDougal, pilot; 1st Lt Karl G. King, copilot; SMSgt Thomas J. Sternad, medical technician; and TSgt James E. Johnson, helicopter mechanic; all from the detachment, and Capt. William B. Kinzie, a doctor from the 57th USAF Dispensary. ▶



MOUNTAIN RESCUE—Scrolls of Honor were presented recently to an HH-43B (H-43B) crew from ARS Det. 5, WARC, McChord AFB, Wash., for the rescue of an exchange student from Paraguay, seriously injured in a fall while mountain climbing. Receiving the Scrolls from John Elliott, KAC field service representative, are 1st Lt James Cantey, pilot; A1c Karl F. Aldridge, paramedic; SSgt Ronald A. Warren, crew chief; and 1st Lt William A. Luther, copilot. (USAF photo)

Timely Tips

Fuel Control Rigging

If flameouts occur in the HH-43B (H-43B) when decelerating from flight idle to ground idle, try using the "lump of clay" method to check the fuel control rigging, if a visual check indicates no rigging problem. Place a small piece of clay on the idle cutoff index line with the fuel control above the idle cutoff. With the aircraft engine in operation, use the twist grip to decrease to ground idle. Afterward, if examination shows a depression in the clay, this indicates that either the throttle control is over-traveling below ground idle to cutoff or the pilot/mechanic is going past the idle detent on the control stick. A second check in which care is taken not to go past the idle detent will determine if it is necessary to re-rig the control. If this is necessary, be sure to follow the appropriate T.O.

B. S. Liff, Engineer, Power Plants

Tip Grip

Phillips head, Reed and Prince or slotted screws can often be hard to remove. If this happens, try putting a small amount of valve grinding compound on the tip of the screwdriver and the gripping power will be greatly intensified. This also works on pneumatic screwdriver tips. Care should be taken, of course, to keep the grinding compound from finding its way into the engine or other moving parts on the helicopter.

W. C. Barr, Field Service Representative

Work Saver

Maintenance personnel can save themselves unnecessary work (and expense to the government) by establishing the "droop stop check habit" when performing work involving the azimuths or rotor blades. When it becomes necessary to rotate the azimuth assembly to obtain access to the rotor shaft control rods or to move the rotor blades, the position of the droop stops should be checked to make certain they are "IN." If the stops are OUT, blade damage may result and necessitate a blade change. See article in February, 1962, issue of Rotor Tips.

C. J. Nolin, Service Engineer

Fuel Quantity Calibration

There are certain precautions which must be observed when calibrating any fuel quantity system and the UH-2A (HU2K-1) is no exception. Less apparent, though, is the actual physical process of making the adjustment, therefore the following points should be kept in mind when such calibration is performed on the UH-2A. REMEMBER - Loosen the jam nut which locks the adjustment screw. Failure to do so may cause damage to the screw slot which will, in turn, prevent adjustment and require that the amplifier be changed. The jam nut is also the threaded portion which receives the protection cap. Two sides of the threaded portion have been milled. Use a 3/8 - inch, open-end wrench to loosen and tighten the jam nut. REMEMBER - Each time an adjustment is made, the opposite end of the scale must be calibrated; ie: adjust empty, adjust full, recheck empty. If the empty end requires readjustment, recheck the full end and so on until no further adjustment is required at either end of the scale. REMEMBER - After adjustments are completed, tighten the jam nuts and replace the protection caps.

R. W. Olsen, Service Engineer



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

- **Q.** Applies UH-2A, UH-2B (HU2K-1, HU2K-1U) WHAT PRECAUTION SHOULD BE TAKEN WHEN PERFORMING MAINTENANCE ON THE OVERHEAD CIRCUIT BREAKER PANEL, P/N K683003-5?
- A. As a precautionary measure, the panel should be held in position until all 11 "shurlock" screws are released. This prevents the panel from suddenly falling and causing possible damage to the wires or circuit breakers. Once the maintenance is complete and the panel is ready to be reinstalled, care should be taken to see that all the screws are properly secured. If sufficient torque is not applied to the screws, the wire terminating lugs may become loose when the panel is reinstalled. This can cause shorts, arcing or intermittent connections.

M. T. Fiaschetti, Service Engineer

- Q. Applies UH-2A (HU2K-1) WHAT IS THE BEST WAY TO REMOVE A SEIZED SPIDER ASSEMBLY, K616170, FROM THE OUTPUT CONTROL SHAFT IN THE TAIL ROTOR GEARBOX?
- A. A popular standard tool used for this purpose is an OTC (Owatonna Tool Co.) three-jaw puller, P/N 1010-1/2L, and a standard step place adapter, OTC P/N 630-1. The adapter provides a base for the puller screw against the control shaft opening and the puller fingers are so positioned that they grasp the inside areas between the spider legs. A suitable material such as aluminum or phenolic should be placed at the points of contact to prevent possible gouging by the puller fingers. If the Owatonna tool is not available, a similar three-jaw puller and adapter may be used. A two-jaw puller is not suitable, however.

D. W. MacDonald, Service Engineer

- **Q.** Applies HH-43B (H-43B) IS IT POSSIBLE FOR A MALFUNCTIONING RUDDER LOCK SOLENOID VALVE TO AFFECT THE COLLECTIVE LIMITER?
- A. Yes, both the limiter and the rudder lock system depend on the same stage of the transmission oil pump for fluid pressure. If the solenoid valve failed to close properly, it would allow the fluid pressure to by-pass, thus starving the collective limiter of normal operating pressure. Loss of adequate pressure in the collective limiter results in a "heavy collective stick." Turning the DSAS "OFF," thus de-energizing the valve, should restore proper collective stick feel.

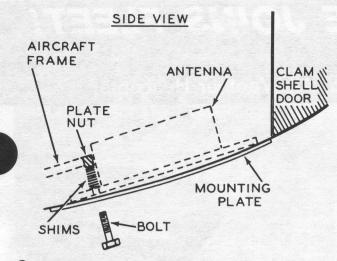
W. J. Wagemaker, Service Engineer

- **Q.** Applies UH-2A (HU2K-1) WHAT IS THE PROCEDURE FOR TIGHTENING THE INBOARD FLAP BRACKET DIAGONAL ROD ON THE MAIN ROTOR BLADE?
- A. Hold the diagonal rod with a suitable wrench, and loosen the securing nut, P/N 12NE2935-064, until rod looseness is obtained. Then tighten the nut but only enough to create sufficient friction between the base (washer), P/N 2935-06, and bracket fitting so that base movement, when tested by hand, is eliminated. Next, holding rod, again tighten the nut one(1) full, additional turn. Proper torque is now completed.

D. W. MacDonald, Service Engineer

- Q. Applies HH-43B (H-43B) DURING LAG PIN INSTALLATION, DOES THE WASHER, P/N K310057, GO ON TOP OF THE BLADE GRIP LINER OR THE BOTTOM OF THE LINER?
- A. This washer goes ON TOP of the blade grip liner in accordance with T.O. 1H-43B-2. If it is placed between the lower hub ear and bottom of the blade grip liner, the blade installation is raised approximately 1/8 of an inch in its relative position in the hub. This, in turn, raises the lag pin and gives the impression that the lag pin is oversize and cannot be seated flush to the upper hub bearing.

C. J. Nolin, Service Engineer



Q. Applies UH-2A, UH-2B (HU2K-1, HU2K-1U) WHAT PRECAUTION SHOULD BE OBSERVED WHEN MOUNTING THE AS 578A/ARA-25 ANTENNA?

The AS 578A/ARA-25 antenna on the A. UH-2A/B must have a correctly adjusted ground plane, that is, mounted flush with the aircraft skin, in order to function properly. To achieve the correct ground plane, washers are used as shims on the bolts holding the antenna to the helicopter. When the antanna is removed, care should be taken to prevent 'lost' shims. Observe the number of shims on each bolt. When the antenna is reinstalled or replaced, the original shims can be used to attain the correct ground plane (see diagram). A note of caution—DO NOT glue washers together. When glue is used to hold the washers in place, the electrical ground path is isolated.

M. T. Fiaschetti, Service Engineer

Q. Applies UH-2A (HU2K-1) WHEN THE CABIN HEATING AND VENTING AIR SHUT-OFF VALVE, KW 12052, IS BEING CHANGED, WHAT PRECAUTION SHOULD BE TAKEN?

A. Be certain to reconnect the ground strap, KSD7158-68-10. Secure the strap to one of the four screws which attach the receptacle to the valve body. Ground the other end to the aircraft structure. The valve is grounded internally, but the ground strap is required to make certain that the circuit is electrically grounded.

R. W. Olsen, Service Engineer

- Q. Applies HH-43B (H-43B) WHEN COM-PONENTS OF THE MAIN ROTOR SYSTEM ARE REPLACED, IS IT NECESSARY TO PERFORM A VIBRATION CHECK ON THE ENGINE?
- A. No, it is not necessary to perform a check on the engine when components of the main rotor system are replaced. This action is necessary, however, whenever "rotating" components of the engine, such as compressors, turbine wheels, etc., are changed or removed and then replaced. Paragraph 3-71, Sect. III, "Power Plant and Related Systems" of T.O. 1H-43B-2 dated Jan. 25, 1962 (Change July 2, 1962) refers to the turbine rotor system within the engine.

A. A. Werkheiser, Service Engineer

- Q. Applies UH-2A, UH-2B (HU2K-1, HU2K-1U) IS THE TEST POINT TP14(E) ON THE ASE AMPLIFIER TEST SET, K604603-2, COLOR CODED BLACK BECAUSE IT IS A GROUND POINT?
- A. No, the test point is not a common ground. The color coded test points TP1-TP2-TP3-TP4-TP14-TP15 correspond to the color coded test cards to the right of these test points. Ground points are marked GRD on the test set.

M. T. Fiaschetti, Service Engineer

- **Q.** Applies HH-43B (H-43B) SHOULD THE K774680-3 OR -7 DRIVE SHAFT ASSEMBLY BE REPLACED AFTER A ROTOR OVERSPEED CONDITION?
- A. If a power-on overspeed is experienced, either in flight or on the ground, in which both the engine and rotors overspeed between 111 to 117 percent, the drive shaft must be replaced in accordance with T.O. 1H-43B-6. If, however, a rotor overspeed existed in autorotation (power-off), the drive shaft assembly does not exceed RPM due to the slip clutch or free-wheeling feature in the input pinion assembly of the transmission. In this case, it is not necessary to replace the component.

C. J. Nolin, Service Engineer

KAMAN SERVICE ENGINEERING SECTION—E. J. Polaski, Supervisor, Service Engineering, G. M. Legault, G. S. Garte, Asst. Supervisors; N. E. Warner, A. Savard, W. J. Rudershausen, Group Leaders.

UH-2A SEASPRITE JOINS FLEET!

HU-1, HU-2 Receive Turbine-Powered, All-Weather Helicopter



(USN photo)

he Navy's new high speed, all-weather UH-2A SEASPRITE utility and rescue helicopter has joined the fleet.

The first of the advanced, turbine-powered aircraft was delivered to Cdr A. C. LeFevre, commanding officer of Helicopter Utility Squadron 2, on Dec. 18th. Commander LeFevre flew the aircraft from the Kaman Aircraft plant at Bloomfield, Conn., to the Naval Air Station at Lakehurst, N.J., where HU-2 is based. Two weeks later, Helicopter Utility Squadron 1, Ream Field, Calif., received the first of its helicopters. Cdr William C. Casey, commanding officer of HU-1, flew the helicopter from Kaman to California.

The SEASPRITE is being purchased by the Navy to replace piston engine helicopters now in use and will add dimensions of speed and all-weather operability to the vital fleet mission for which the two squadrons are responsible. HU-1 and HU-2 are charged with the job of providing fleet units with plane guard and search and rescue operations. Approximately 70 pilots, mechanics, avionic technicians, electricians and storekeepers from the two squadrons completed an intensive indoctrination program on the SEASPRITE at the Naval Air Test Center, NAS Patuxent River, Md.

With its extensive electronic navigation gear, the SEASPRITE is capable of operation at night or in any weather situation. When operating with the fleet, the UH-2A will be able to take off from a moving ship, navigate independently to its target, pick up as many as 12

survivors from the water and then return to its mother ship. It will be able to carry out all-weather utility and rescue missions at distances greater than 235 nautical miles. Depending on the specific mission, cruising speeds in excess of 130 knots with dash speeds up to 145 knots can be attained by the helicopter. For over-water operations, emergency flotation provisions are incorporated and for anti-submarine warfare missions the UH-2A has the payload capacity to carry submarine detection equipment.

In addition to rescue missions and round-the-clock plane guard duty, the UH-2A will perform such utility missions as observation, reconnaissance, cargo, mail and courier services, personnel transfer, evacuation of wounded, radiological reconnaissance, emergency supply and tactical air control operations.

A single rotor helicopter, the SEASPRITE is powered by a General Electric T-58-8 gas turbine engine developing 1, 250 horsepower. The rotor system employs the unique Kaman-developed servo flap control, a small aileron type flap located on the trailing edge of the rotor blades. The Kaman control system has been recognized for its inherent stability characteristics which, in turn, enhances the helicopter's all-weather operating capability.

Transition to the UH-2A from the utility helicopters now being used by the Navy will take place in the fleet during 1963.



SEASPRITE DELIVERED—Prior to take-off, Cdr A.C. LeFevre, commanding officer of Helicopter Utility Squadron Two, NAS Lakehurst, N.J., left, receives congratulations from William R. Murray, vice president in charge of flight test at Kaman. Watching is Lcdr Richard B. Dawson, the Navy's Bureau of Weapons resident representative at KAC and former operations officer of HU-2.



WELCOME ABOARD—Cdr R.C. Olive, left, executive officer of Helicopter Utility Squadron One, NAAS, Ream Field, Calif.; welcomes Lt (jg) L. W. Beguin, pilot of first UH-2A to touch down at Ream. Cdr. William C. Casey, commanding officer of HU-1, also flew one of the turbine-powered helicopters from the Kaman plant in Bloomfield, Conn. (USN photo)



Four Saved In First UH-2A Rescue

On the first SAR mission flown by the UH-2A, four civilians were rescued from the houseboat where they had been stranded in below-freezing weather for almost 24 hours.

Pilot of the SEASPRITE was Lt John Thoma of the Naval Air Test Center at NAS Patuxent River, Md., who volunteered to fly the hazardous mission despite winds gusting up to 60 knots. He was accompanied by S. R. Kryzs, ADR3; as crewman.

Taking off at 1445, Dec. 31st, the pilot located the houseboat approximately half an hour later stranded in the frozen marshes of an islet five and one-half miles south of Wallops Island. Coast Guard cutters had been unable to break through the ice to make the pickup. Dropping the SEAS PRITE down near the boat, Lieutenant Thoma held collective to keep the helicopter wheels resting on the frozen surface while Kryzs aided the cold and shivering civilians, one man and three women, aboard.

Afterward, the UH-2A was flown to a field at Bloxom, Va., where State Police cars were waiting to take the rescuees to the hospital.



NAVY PILOT HONORED—KAC President Charles H. Kaman pins rescue emblem on Lt John Thoma, UH-2A pilot; after presenting him with Kaman Scroll of Honor for over-water rescue mission flown in 60-knot winds. The presentation was made at the company's Bloomfield, Conn., plant. S. R. Kryzs, ADR3; crewman aboard the SEASPRITE when four civilians were rescued, will also receive a Scroll

HH-43B TRAINING SHEPPARD AIR FORCE BASE

3750TH TECHNICAL SCHOOL, USAF (ATC)



NOVEMBER 6, 1962—Front row, I to r, A2C Leondus Hunter, Det. 20, Minot AFB, N.D.; Fred Morrison (Instr.), Sheppard AFB, Texas; SSgt Curtis Washington (Instr.), Sheppard AFB; A1C James B. Kermon, Det. 44, Westover AFB, Mass. Rear row, SSgt Leonard A. Nicholson (Instr.), Sheppard AFB; A2C James A. Volz, 54 Air Rescue, Goose Bay, Labrador; SSgt James A. Davis, Det. 49, Seymour Johnson AFB, N.C.; SSgt Ronald L. Jones, Det. 58, Brookley AFB, Ala.; SSgt Roberto Rodruquez, Det. 36, Laredo AFB, Texas; A1C Millard L. Brickle, Det. 39, Laughlin AFB, Texas. (USAF photo)

NOVEMBER 27, 1962—Front row, I to r, SSgt Braulio A. Tomboc, 433 DMS, PAF, NAB, Pasay City, Phillippines; SSgt Samuel E. Ray, Det. 46 Suffolk County AFB, N.Y.; AlC Philip A. Velasquez, 433 DMS, PAF, NAB, Pasay City; AlC Wilfredo Velez, 52 CAM Squadron, Suffolk County AFB, A2C Paterno C. Dalag, 433 DMS, PAF, NAB, Pasay City. Rear row, Fred Morrison (Instr.), Sheppard AFB, Texas; A2C Stanley E. Godson, Det. 35 CARC, Kirtland AFB, N.M.; AlC Joseph R. Reck, 4683 CAM, Thule AB, APO 23, N.Y., N.Y.; SSgt Donald F. Larsen, Det. 28 CARC, Randolph AFB, Texas; AlC Cristomo B. Pena, 433 DMS, PAF, NAB, Pasay City; Richard H. Maxwell (Instr.), Sheppard AFB. (USAF photo)



Druther Have A Mermaid -



If ARS personnel attached to Det. 51, Myrtle Beach AFB, S.C., had their "druthers" undoubtedly they'd druther have found a mermaid washed up on the beach than this World War II mine. Capt Charles M. Roberts was on a routine training mission in a detachment HH-43B when he spotted the live mine and notified demolition experts at the base. Capt John K. Kinnebrew and MSgt James H. Heath deactivated the mine, used by the Navy in training exercises, and it was then air-lifted back to the air base by a HUSKIE. Capt Armand J. Fiola was pilot and 1stLt William F. Wall, copilot. (USAF photo)

ON WHOSE SHOULDERS WILL THE BURDEN LIE?



by Alfred Savard Service Engineer, Group Leader Field Service Department

On whose shoulders will the burden lie? It may seem strange to begin an article with a question, but with the introduction of the UH-2A SEASPRITE helicopter into the fleet, this question, as it pertains to operational success, will be answered soon... and by the avionics maintenance man as much as the pilot. Since the pilot's part in the mission is well known, let us discuss the expanding role the avionics maintenance man will be playing in the formation of a successful operational team.

Embodied in the "SEASPRITE" is the exacting performance demanded by the important role being filled by naval aviation in our country's defense. The high speed, extensive range capabilities coupled with all-weather navigation and stabilization aids allows the fleet a scope of operation never thought possible for a utility-type helicopter. In fulfilling its myriad duties, this aircraft can reach out over a 235-mile radius at speeds up to 145 knots without undue concern about adverse weather conditions and with pin-point navigational accuracy. To meet these stringent requirements, the aircraft has been equipped with the variety of electronic systems outlined in Table I. Their functions are melded into the basic flight characteristics of the airframe resulting in a navagational-stabilization complex that lessens the pilot's dependence on external sources for

Table 1. Electronic Equipment Characteristics

Description	Designation	Function
Interphone set	AN/AIC-14	Central control for communication and navigation equipment
HF communication, 2.0 to 9.1 mc.	AN/ARC-39 (XN-2)	Voice communications over extended range
UHF communication, 225.0 to 399.9 mc.	AN/ARC-52	Voice communications for line-of-sight contact
LF-MF direction finder, 0.19 to 1.75 mc.	AN/ARN-59	Automatic direction finding
Directional compass	MA-1	Directional control and/or magnetic compass
UHF direction finder, 225.0 to 399.9 mc.	AN/ARA-25A	Direction finding
Navigation computer	AN/ASA-13A	Compute true wind velocity and direction
Plotting board	PT-429/A	Provide visual display of helicopter heading and dead reckoning position with respect to an initial fix
UHF navigation set	AN/ARN-21	Indicate course and range to selected UHF omni-range stations
Radar altimeter	AN/APN-117	Provide indication of height above terrain or large bodies of water. Range 0 to 1000 ft.
Doppler radar set	AN/APN-130	Provide ground speed and vertical velocity signals
IFF set	AN/APX-6B	Provide identification signals
Coder group	AN/APA-89	Provide selector identification for IFF
Automatic stabilization equipment		Provide automatic stabilization of the aircraft

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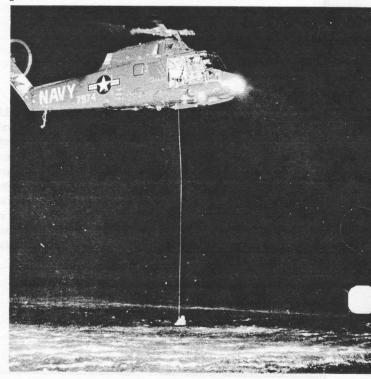
the success of his mission. The interrelationship of these systems and the airframe is illustrated in Figure I. This combining of the functions of several systems into a single integrated navigation-stabilization system is the major reason why the success of a mission is as much the responsibility of the avionics maintenance man as it is the pilot's.

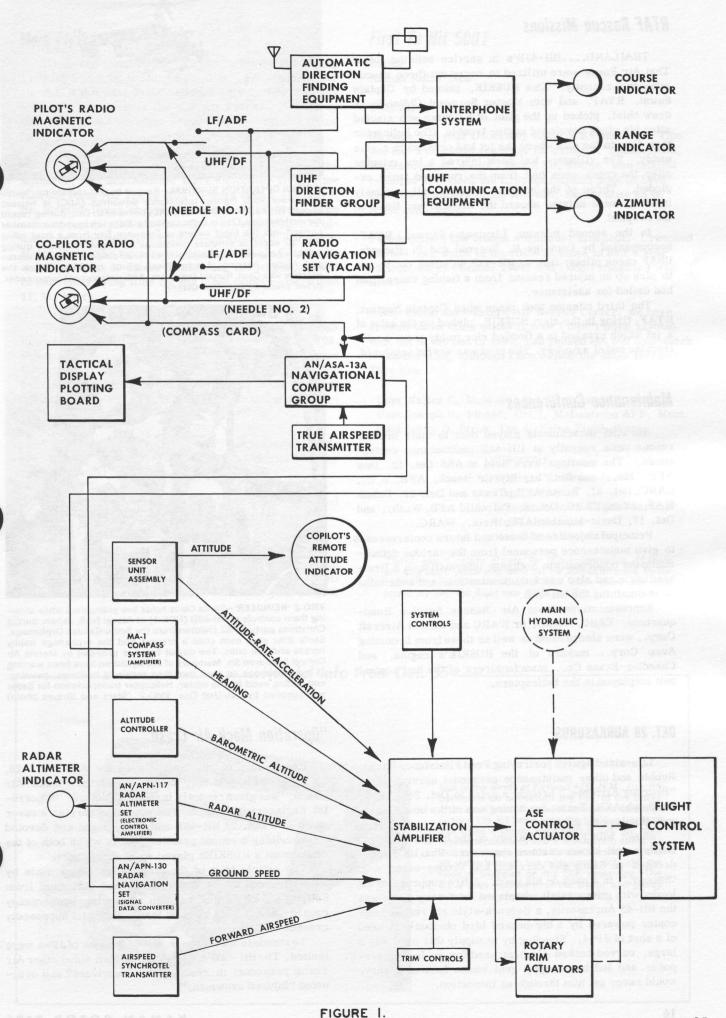
In navigation, accuracy is the byword. There is little room for error when a life or lives may depend on a pilot's proficiency in finding a specific unmarked place in the middle of nowhere. To assist the pilot in solving navigational problems and allow greater precision, the SEASPRITE is equipped with a selection of visual computing aids which furnish simple and precise information. Due to its brevity, this data is a boon to the pilot but, at the same time, the way in which it is presented tends to obscure the fact that this simplicity was attained through the use of sophisticated, hydra-mechanical, electronic equipment. The accuracy of the information presented to the UH-2A pilot depends entirely on how close to "optimum" this equipment can be made to operate. Getting this "best possible performance" out of the system is the direct responsibility of the avionics maintenance man. Whatever success the pilot has in carrying out his mission can hinge directly on how well this maintenance job is performed.

To the maintenance man dealing with integrated system performance on the UH-2A it will soon become apparent that system accuracy is totally dependent on sub-system tolerances. But all of the sub-systems used in the UH-2A were developed independently for primary functions other than the integrated sys-For example, the MA-1 Remote Compass not only provides a heading or azimuth visual indication to the pilot but provides heading information to the Automatic Stabilization Equipment and the ASA-13A Navigation Computer; and the APN-130 Radar Navigation Set provides heading and drift velocity information to the ASE and the ASA-13A as well as a visual indication of ground speed and drift angle Therefore, the allowable tolerto the pilot. ances of each of the systems do not provide optimum integrated system performance. By taking into account all of the tolerances allow-

ed in each sub-system, an integrated system tolerance of ± 4.5% can result. But remember. we have been talking optimum—best perform-The 4.5% figure represents an outer limit, not optimum. With such an error the ground track plot would be off as much as 900 yds in 10 miles of flight, one mile off in 25 miles of flight and 4.5 miles off in 100 miles of flight. It is in this area of system adjustment that the avionics maintenance man can make his most important con-By striving for the optimum...by tribution. putting in a little extra effort...and not being satisfied with barely acceptable work, the errors noted above can be reduced to less than This extra effort means that the system can be accurate to 400 yds in 10 miles of flight, and corresponding amounts at greater ranges.

Navigation is a numbers game. The numbers that we have been harping on may seem small, but they can loom large in terms of life and death. The SEASPRITE undoubtedly will be flown on many emergency missions in the normal course of its duties. The key to the operational mission success of this helicopter is largely held in the hands of the maintenance man. The performance we have been speaking of is inherent in the machine, it is designed in—but it will take a craftsman's approach to the job at hand to make sure that this performance is always available to the pilot.





RTAF Rescue Missions

THAILAND....HH-43B's in service with the Royal Thai Air Force were utilized to carry out three rescue missions recently. One HUSKIE, piloted by Captain Suwat, RTAF, and with Master Sergeant Chitnook as crew chief, picked up the pilot of a fighter who ejected after his plane developed engine trouble. The helicopter then flew to the site where the jet had crashed in a rice paddy. Ten villagers had been injured a few minutes after the crash when fuel from the ruptured tanks exploded. Three of the accident victims, all seriously injured, were hoisted aboard the HH-43B and flown to the hospital.

In the second mission Lieutenant Sauwat, RTAF, accompanied by Captains R. Rosvold and P. Roberts, USAF check pilots; flew an HH-43B 40 miles out to sea to pick up an injured seaman from a fishing vessel that had called for assistance.

The third mission took place when Captain Nopiart, RTAF, flying in the alert HUSKIE, picked up the pilot of a jet which crashed in a flooded rice paddy about a mile from the end of a runway. The pilot was wet but uninjured.

Maintenance Conferences

Six ARS detachments played host to their brother rescue units recently at HH-43B maintenance conferences. The meetings were held at ARS Det. 42, Dow AFB, Me., and Det. 51, Myrtle Beach, AFB, S.C., EARC; Det. 31, Reese AFB, Texas and Det. 22, Duluth MAP, Minn, CARC; Det. 6, Fairchild AFB, Wash., and Det. 17, Davis-Monthan AFB, Ariz., WARC.

Principal objective of these and future conferences is to give maintenance personnel from the various detachments the opportunity to exchange information on a first-hand basis and also watch demonstrations and hear talks on maintaining the HH-43B.

Representatives from Air Rescue Service Headquarters, EARC, CARC, or WARC and Kaman Aircraft Corp., were also present as well as those from Lycoming Avco Corp., makers of the HUSKIE's engine, and Chandler-Evans Co., manufacturers of the fuel control unit employed in the helicopters.

DET. 28 AURKASORUS

Life-sized figures portraying Fred Flintstone, Barney Rubble and other maintenance personnel serving in the "Bedrock Airforce," brought a prize to Det. 28, CARC, Randolph AFB, Texas, for having one of the best Christmas displays on the base.

Shown with Fred and Barney on the hangar lawn was another well-known cartoon character, Charlie Brown, dressed as Santa and carrying his droopy-eared dog, "Snoopy," in a pack on his back. A fire suppression kit loaded with gifts was also displayed but the key piece was the HH-43 Aurkasorus, a Bedrock-style air rescue helicopter powered by a big-beaked bird obviously in need of a shot of JP-4. Standing by to supply this need was a large, curved-tusked elephant used for re-fueling purposes and led by a happy gent whose lack of a shave would never get him through an inspection.



WINTER OPERATION SURVIVAL—Rescue basket containing "survivor" from 98th Fighter Interceptor Squadron (ADC) is hoisted aboard HH-43B from Det. 48, EARC, Dover AFB, Del., during recent survival exercise. Clad in arctic survival suits, each squadron member jumped into the frigid waters of Delaware Bay from a boat going 5 to 10 knots to simulate conditions he might encounter during actual emergency. The helicopter was then called to begin its search and rescue mission. Among those giving briefings before the exercise was Capt. Ronald Ingraham, ARS detachment commander. (USAF photo by SSgt Bob Olsen).



VMO-2 'REINDEER'—Santa Claus holds two youngsters while showing them controls of OH-43D (HOK-1) at Atsugi NAS, Japan, during Christmas party for 52 children from the Seibu Gakuen Orphanage. Santa later gave each child a present and the orphanage hobby horses and doll cribs. The day of fun was provided by Marine Air Control Squadron Six. Members of the squadron have been working at the orphanage on their own time repairing buildings, painting, and cutting wood for the winter. Helicopter transportation for Santa was supplied by Sub-Unit One, VMO-2. (Stars and Stripes photo)

"Operation Mock Air Crash"

Recognition of the part played by ARS Det. 26, Selfridge AFB., Mich., during operation "Mock Air Crash," was given recently in General Motors' "Chevrolet Engineering News." The magazine carries a cover photo of a Det. 26 HH-43B and three pages are devoted to describing a recent practice fire in which both of the detachment's HUSKIES played a prominent part.

The article tells of the cooperative effort made by local fire and police departments and personnel from Selfridge AFB in dealing with a simulated emergency caused when a B-47 bomber loaded with fuel supposedly crashed on GM property.

To simulate a real crash, 2,000 gallons of JP-4 were ignited. The HH-43B's from Det. 26 then aided other Air Force personnel in rescuing the "survivors" and evacuated "injured crewmen."

More Flying Time?

Pilots and instructors assigned to the 3638th Flying Training Squadron at Stead AFB, Nev., are staking their claim that they have more helicopter flying time than any helicopter squadron in the U.S. Air Force. To back up their claim, the squadron presents these enviable flying facts:

Maj Carles O. Weir, an instructor assigned to the squadron, has accumulated more helicopter flying time than any other Air Force pilot—more than 4,410 hours. He started flying choppers in January of 1945. The veteran copter pilot also has the most consecutive accident free helicopter flying time—more than 3,900 hours. Major Weir joins squadron mates Maj Merle Clapsaddle and Capt Stuart J. Silver in claiming the largest amount of helicopter flying time for any three pilots—more than 11,351 hours.

The squadron has the largest number of landings logged for one unit (helicopter; or otherwise) —229, 706. Pilots and instructors have the highest average helicopter flying time of any one unit—more than 2, 061 hours. The helicopter squadron claims participation in the greatest number of HH-43B Fire Suppression Training Fires—2,250.

Col. Francis M. Carney, squadron commander, made one of the highest autorotations ever performed in any helicopter—31,000 ft. to 10,000 ft.

The highest hovering rescue pickup ever attempted was made at 11,600 ft. in an HH-43B by Capt Fred Donohue on a night sortie.

From Jan. 8, 1960 to January, 1962, the squadron received the greatest number of Flying Safety's "Well Done Awards" presented to one unit in a two-year period.

First To Hit 500?

Editor Kaman Rotor Tips

Dear Sir:

On page 9 of your December issue of Kaman Rotor Tips you had a comment from 1st Lt Walter J. Zimmerman, Detachment 42, EARC, Dow AFB, Maine, who thought he might have been the first operational pilot to have reached 500 hours in the HH-43B, having done so on April 10th, 1962.

I think quite a few troops might have him beat. I reached the 500 hour mark in the HH-43B close to half a year earlier, on 24 October 1961, and I don't imagine I was first.

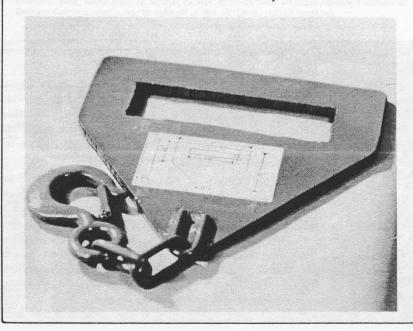
Also, within the Western Air Rescue Center, we have at least three other pilots (I hope I didn't miss anyone) who, as of the end of 1962, had passed the 500 hour mark in the HH-43B, although I don't know the dates involved. They are:

Capt Walter C. McMeen, Det 15, Luke AFB, Ariz. Capt Joseph H. Pinaud, Det 7, Malmstrom AFB, Mont. Capt Jerry D. Stroh, Det 4, Paine Field, Wash.

Sincerely,
William T. Hayes Jr.
Capt, USAF
Standardization Flight Examiner
Hq WARC
Hamilton AFB, Calif.

Thank you, Captain Hayes, for this information. If there are any other pilots who have hit the 500-hour mark in the HH-43B, KRT would like to hear from them and also record the date the flight was made . . . Ed.

Helpful Info From Det. 35 -



Due to the winds at Kirtland AFB, N.M., Det. 35 personnel do not return the FSK to the trailer after each alert, instead it is lowered to ramp. Getting the kit back onto the trailer afterward was quite a chore, even with a fork lift, until rescue technicians and a metalsmith came up with this simple device. One of the forks on the lift slides through the rectangular hole and the hook is snapped on the FSK cable ring. The kit is then hoisted over the trailer and gently lowered into position. (USAF photo)

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...HH-43B's from ARS <u>Det. 35</u>, Kirtland AFB, and <u>Det. 30</u>, CARC, Cannon AFB, N.M., on standby rescue duty for Air Force's "number one aircraft," President Kennedy's plane, during top official's visit to New Mexico...HUSKIE crew and flight surgeon from <u>Stead AFB</u>, Nev., credited with saving life of Reno hunter accidentally shot through both legs and suffering from shock and loss of blood. HH-43B piloted by Capt G.F. Ullmann, Jr., picks up hunter near top of Red Rock Mountain and flys him to hospital. Also aboard chopper were Capt D.W. Thomas, copilot; A2c T. Claringbold, medic; and Capt Charles Becnert, flight surgeon.

...HH-43B from ARS <u>Det. 48</u>, EARC, Dover AFB, Del., responds to night call for assistance from USS Destroyer Parle with seaman aboard suffering from acute appendicitis. Copter arrives at ship at 12:45 a.m., half-an-hour later, and hovers over destroyer as seaman in litter is hoisted aboard. Temporary aid administered by Capt Peter Townsend, flight surgeon; as HUSKIE heads for shore and hospital where successful operation performed at 2 a.m. Lt Frank Larson, HH-43B pilot; Capt Hugh Caldwell, copilot; and A2c Andrew Paparella, crew chief....Crew of HH-43B from ARS <u>Det. 36</u>, CARC, Laredo AFB, Texas, scrambles to area more than 21 miles southeast of base to scene of plane crash and picks up two pilots who parachuted to safety. Survivors flown to Laredo AFB where chopper lands on pad adjacent to hospital. Total mission time—45 minutes. Capt Theodore C. Vurbeff, pilot on mission; 1st Lt D. E. Van Meter, copilot; Capt Richard A. Shirley, flight surgeon; and A2c Charles F. Soderboom, crew chief.

...Capt Richard C. Pfadenhauer of Det. 1, 54th ARS, Thule AFB, Greenland, passes 500th HH-43B flying hour mark....Two HH-43B crews scramble when F-102 flames out and unable to make it back to base. One HUSKIE crew from Det. 49, EARC, Seymour Johnson AFB, N.C., picks up fighter pilot who ejected safely and flys him to base hospital. Detachment's other HH-43B crew aids ground personnel by using FM radio to direct them to crash scene....1st Lt William A. Luther and SSgt Ronald A. Warren of Det. 5, WARC, McChord AFB, Wash., receive Air Rescue Service Certificates of Achievement for HH-43B rescue of 18-year-old Paraguay youth from Cascade Mountain slope.

... Two HH-43B crews from ARS Det. 4, Paine Field, Wash., and one HUSKIE crew from Det. 5, McChord AFB, Wash., join in intensive but unsuccessful 10-day search for fighter plane which disappeared in the Olympic Peninsula area. The two HH-43B's from Det. 4 log approximately 94 hours and the one from Det. 5 approximately 40 hours during search...Account in Stead AFB, Nev., "Flight Times" of hazardous mountain side rescue carried by Capt F.M. Donohue of Stead AFB, and his crew in HH-43B wins newspaper staff ATC award for "Best News Story" for quarterly period...ARS Det. 59, EARC, Andrews AFB, Md., makes night rescue of fisherman stranded in small boat by ice in Port Tobacco River. Rescuee hoisted to safety of HH-43B half-an-hour after detachment called upon for help by civilian authorities. HUSKIE crew consists of Capt John C. Armstrong, Jr., pilot; Lt. Darvan E. Cook, copilot; TSgt Claude Ratcliff, rescue technician and hoist operator; TSgt Jack Homburg, medic.

Perseverance Plus -

HH-43B's from Det. 41, EARC, Loring AFB conducted a four-day search for an F-101B, lost Nov. 15 in the Maine wilderness about 50 miles from the base. BUT the first two are the one's which will be long-remembered by Capt Dale R. Tyree, detachment commander; and his crew, Capt Harry J. English, SSgt Robert J. Watson and Flight Surgeon Stephen J. O'Connor. Here's why:

They left in calm, clear weather but ran into a blizzard and had to follow a highway to get to the general area of the crash. They conducted a search despite the 300-foot ceiling and quarter-mile visibility until forced to quit by darkness. They landed at the edge of a small town in the midst of the raging storm with the aid of State Police who turned on the revolving blue beacons atop their cars and also released smoke bombs as guides.

They tried for three and a half hours the next day to continue the search but were forced to land the HH-43B time and time again in small clearing until visibility lifted. They encountered freezing rain that night and had to work for an hour and a half the next day to de-ice the helicopter before resuming the search.

The F-101B radar observor had walked out of the woods the day after the crash and later, aboard an HH-43B from Det. 42, Dow AFB, aided in the search. The observer had heard the 41st rescue copter about two hours after he bailed out of the stricken aircraft which was based at Dow. Saturday, Capt James H. Black, 1st Lt Bruce B. Duffy and A2c Gary Archdeacon replaced the first Loring rescue crew and the search continued. It wasn't until late that afternoon that the snow-covered fighter was discovered.



VICE PRESIDENT AT PERRIN—Capt. J. F. Okonek was pilot and 2nd Lt W. D. Murphy, copilot; of an ARS Det. 33 HH-43B used to fly Vice President Lyndon B. Johnson and party from Perrin AFB to Bonham, Texas, to dedicate a stamp honoring the late Sam Rayburn.

(USAF photo)



SENATOR VISITS ORLANDO—A1c Harold H. Bailey, rescue technician, signals Capt Armand J. Fiola of Det. 51, Myrtle Beach, S.C., and his "copilot," Sen. George Smathers in one of unit's HH-43B's. The Senator, on a visit to Orlando, was flown from McCoy AFB to Herndon Airport, in the helicopter. (USAF photo)

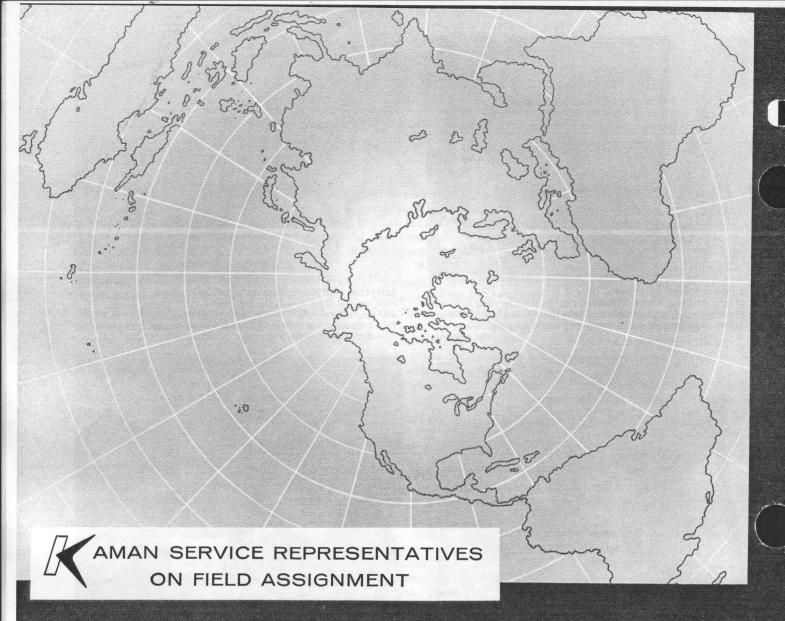




DIGNITARIES AT KIRTLAND—In the copilot's seat of an HH-43B from ARS Det. 35 at Kirtland AFB, Senator Clinton P. Anderson, left photo, dons Air Force hard hat prior to take off on flight from the base to Los Alamos Scientific Laboratory, Los Alamos, N. M. Capt. Roy K. Baliles, detachment commander, is explaining the controls to the Senator. In right photo, Air Force Special Weapons Center's Commander, Brig. Gen. John W. White, center, confers with Representative Thomas G. Morris, left, and Col. Carey L. O'Bryan, Jr., AFSWC Deputy Commander; prior to takeoff in the HUSKIE. (USAF photos)



RECORD BREAKERS—Det. 59, EARC, Andrews AFB, Md., personnel after receiving word that the detachment had achieved two LBR record flying time highs with the unit's two HH-43B's. During November, when 47 scrambles were made, 111 hours were flown. A total of 210 hours was logged for the quarter. Capt John C. Armstrong, Jr., detachment commander; said the excellent maintenance supervision of SMS F. P. Tyler, maintenance NCOIC, was largely responsible for the fine showing. Front row, I to r, are Sergeant Tyler, SSgt S. Pilgrim, Jr., A2c R. L. Willis, A1c R. H. Syverson, A2c K. S. Morrin, A1c J. T. LaVana. Second row, Lt. D. E. Cook, Captain Armstrong, Lt J. H. McKibbon, Jr., Capt. R. L. Haglund. Lt. Q. F. Staudt, Jr., not shown, helped in achieving the record. (USAF photo)



DONALD P. ALEXANDER ARS Orlando, Fla.

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