

KAMAN

Rotor Tips

JANUARY-FEBRUARY, 1975

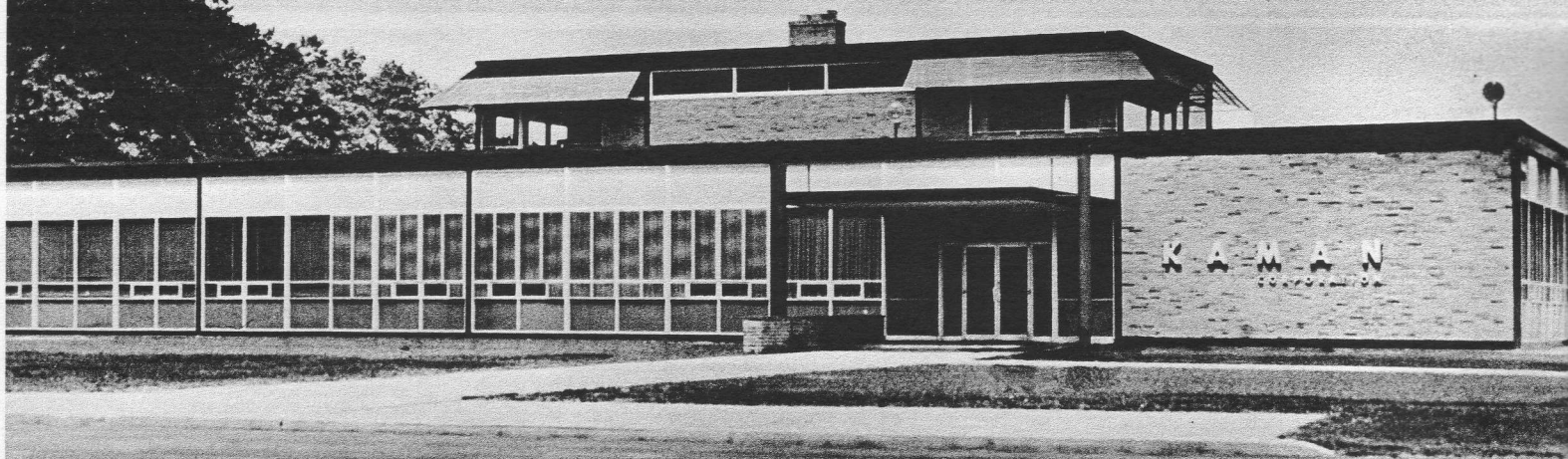


CHARLES H. KAMAN
President — Kaman Corporation

WILLIAM R. MURRAY
President — Kaman Aerospace Corporation

FRED L. SMITH
Chief, Test Operations and Customer Service

ROBERT J. MYER
Director, Customer Service



Rotor Tips

John P. Serignese, Editor

Volume VIII No. 8

On The Cover Credits

Photo on cover by ENS Ronn Rygg, HSL-32. Three-plane formation includes Det 2, OINC, LCdr Jerry Baker; Det 7, OINC, LCdr Tom McFeely; and Det 8 with LCdr Larry Hilgeman OINC. Black and white photo taken at Norfolk, Va., early on morning of 14 June, 1974.

Kaman Service Representatives

Jack L. King
Robert C. Belisle
John H. Leavitt
Richard Sloane
Donald R. Delaney
Norman M. Myers
NAS Norfolk, Va.

Donald P. Alexander
John J. McMahon
Lloyd R. Gardner
Owen Clark
William G. Wells
NAS Imperial Beach, Ca.

Donald T. Lockridge
Kenneth Smith
Lionel A. Bentley
NAS Cubi Point, P.I.

Horace F. Field
John Hendrickson
Joseph A. Peluso
Saul H. Freedman
NAF Naples, Italy

William C. Barr
Arthur H. Girard
Abraham R. Thomas
Iran

Homer C. Helm
NAS Pensacola, Fla.

David M. Rush
NAS Patuxent River, Md.

CUSTOMER OPERATIONS SECTION — ROBERT L. BASSETT, Manager

Features

HSL-32, Det 8 Reports	3
The Arabian Knights of HSL-30	4
Chance Meeting	5
The Utility H-2 — HSL-30	6
HCT-16 Established in Pensacola	15
Vibration Troubleshooting the H-2	16
Kaman Rep Aids Naval Museum	17
Naval Station Rota Medevac	18
NAS Meridian Mississippi Medevac	18
Det 12, 40th ARRS	19
HSL-32, Dets 4 and 7	19
1,000-Hour Award	19
HSL-33 Hosts British Visitors	20
FOD First	20
HSL-34 Records First Landing	20

Departments

Technical Section	7
-------------------------	---

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



In photo left above, members of HSL-32, LAMPS Det 8 pose for "Official" cruise photo . . . kneeling, from left, AE3 David Thomas, AMS3 Charles Miller, AA James Murphey, ADJ2 Leonard Auguston. Standing, from left, ATC Alfred Kyle, LCdr Larry Hilgeman, ADJ3 Bernard McKenna, AMH3 Richard Freudenberg, AX1 Richard Salmonson, AWAN Thomas Tubman, Lt(jg) Dick Landrum, AW1 Ben Holder, AE2 Michael Rhines, and Lt Brian Buzzell. In photo above right, ST's from the USS Blakely practice Lavagram analysis under the watchful eye of instructor AW1 Holder. (USN Photos)

HSL-32, Det 8 Reports

by Lt Brian Buzzell

31,000 miles, 11 different ports, 95 days at-sea, 6 months away from home, over 230 flight hours, numerous fleet ASW exercises, Multi-LAMPS operations, the Cyprus war . . . this, to HSL-32, LAMPS Det 8, is what "cruising" is all about. Home just in the "nick" of time for Christmas, the 3 officers and 11 enlisted men of Det 8 can look back on a very successful Mediterranean deployment with their aircraft, 62, Can Do.

It all began last June when the USS Blakely (DE1072; LAMPS Det 8) in company with the USS Bowen (DE1079; LAMPS Det 2) and the USS Jesse L. Brown (DE1089; LAMPS Det 7) departed Charleston, South Carolina for extended operations with the 6th Fleet. This was to be the first time in the LAMPS program there would be a realistic Multi-LAMPS capability in the Mediterranean. The USS Garcia (DE1040) and Lamps Det 6 arrived in late July to bring the total to 4 LAMPS Dets.

Following a Number 2 engine change in Rota, Spain, the Blakely and "62-Can Do" headed through the Straits of Gibraltar and a first-look at the sunny and balmy Mediterranean. After a short 4th of July visit to Beaulieu, France (French Riviera) and quick cargo/passenger stops in Naples and Souda Bay, Crete, LAMPS Det 8 was on its way to Rhodes, Greece . . . well, almost. Instead, the

next 20 days were spent off the Coast of Cyprus providing escort protection for the evacuation of refugees from Cyprus. The time was well spent as the crew renovated hangar spaces, worked-off corrosion-control gripes and painted the flight deck and safety nets. The officers were not idle either as they took their turn at Bridge and CIC watches. At cruise end, LCdr Hilgeman requalified as Officer of the Deck, Independent Steaming, and Lt Buzzell qualified as Junior Officer of the Deck, Formation Steaming.

During the ensuing period when at sea, Multi-LAMPS exercises were scheduled to develop and evaluate dual LAMPS tactics and also to evaluate Coordinated VP/Vs/HS/HSL Operations. LAMPS Det 8 was instrumental in the promulgation of two new 6th Fleet TACMEMOS: VS/HSL MAD Tactics and HSL Dual LAMPS Tactics.

In addition to port visits already mentioned, LAMPS Det 8 visited Naples, Rapallo and Citevechio, Italy; Sigonella, Tunis, and Malaga, Spain; and the island of Gibraltar. Four personnel were promoted/advanced while on cruise; LCdr Hilgeman, AW1 Holder, ADJ3 McKenna, and AMH3 Freudenberg. AW1 Holder was USS Blakely's Sailor of the Quarter. We believe this to be a First for the LAMPS community. The men of "62-Can Do" were led by OINC LCdr Larry Hilgeman.



In photo, left, AMS3 Miller, assisted by AW1 Holder, removes a main rotor blade and retention assembly as LCdr Hilgeman and AA Murphey observe. In second photo, right, ADJ2 Auguston instructs ADJ3 McKenna on troubleshooting the fuel control actuator. (USN Photos)



The Arabian Knights

Article by Lt W. G. Borries
Photos by Lt(jg) S. E. Massengale



Based in the Persian Gulf just 16 miles from the coast of Saudi Arabia is a little-publicized contingent of the US Navy, collectively referred to as "The Middle East Force." Served by three ships, it is based on the Saudi Arabian Island of Bahrain. The Flagship for Commander Middle East Forces is the USS LaSalle (AGF3), with Helicopter Anti-Submarine Squadron Light Thirty (HSL-30), Support Detachment 40, on board.

Unique is the only description of the helicopter exterior one can offer; instead of the drab, battleship-gray so prevalent among the H-2's, this bird was painted completely white, the same color as the LaSalle. Perched on the flight deck, the aircraft appeared enfolded by the matronly ship.

June 15, 1972, was a fine summer day and, for the two officers, seven enlisted men and the one white Kaman HH-2D, it was to be the beginning of a most interesting two years. Leaving from Lakehurst, New Jersey, the "White Whale," as the aircraft was to affectionately be called, joined the USS LaSalle which was to get under way for the Indian Ocean.

In order to get around Africa, it was necessary to cross the equator, where Davy Jones and Neptunus Six were waiting to greet the 75% of the ship's crew and 100% of the helo crew who were "Pollywogs." By careful maneuvering, the crossing took place exactly at the Prime Meridian and, upon completion of the initiation, the crew officially became "Golden Shellbacks." The remainder of the trip included one exciting port after another: Lourenco Marques, Mozambique; Mauritius Islands, United Kingdom; Mombasa, Kenya; Seychelles Islands, United Kingdom; and finally, Bahrain Island, Saudi Arabia. A month in port, which let the helo crew learn the topography of the island, and then back to sea for operation "Mid Link," a joint British, Iranian and US Naval exercise.

December saw the first of the five Calendar checks, the first Christmas and the first change of personnel. January '73 was a big month for training; both for the new helo crew and also for the destroyers from which they HIFR'd.

In early February, the LaSalle got under way for "Imperial Ethiopian Naval Days." For five days, representatives from all over the Indian Ocean were invited to attend the Ethiopian Naval Academy's graduation which culminated in a joint exercise on the fifth day.

The helo Det was used to ferry men and material from the Ethiopian cities of Massawa on the coast, inland to the US Communication Station at Asmara. From Ethiopia, the LaSalle visited the territories of Afars and Issus, and then Pakistan before returning for a three-month stay in Bahrain.

HSL-30, Support Det 40 on Tour

Command Pilots

Lt William G. Borries
Lt James W. Crawford
Lt Joseph J. Kavale
Lt Fred Sallee
Lt Patrick B. Sloane
Lt Tim Ziemer

Second Pilots

Lt(jg) Thomas L. Freeland
Lt(jg) John Heimlich
Lt(jg) S. E. Massengale

Crew Leaders

ADJ1 Clyde K. Bryant
AEC Bernard Kane
AMHC Kenneth Millar
ADJ1 Simmons
ADJC J. D. Sperry

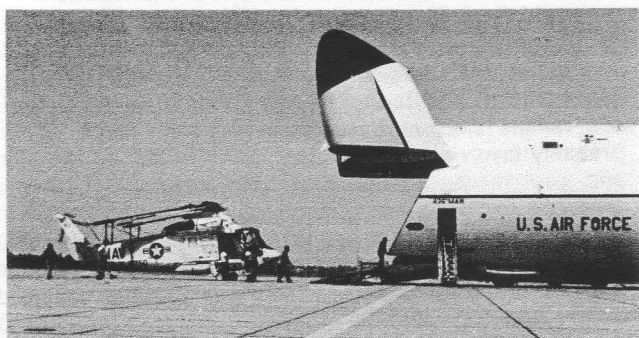
Crewmen

AE1 Achten
AMSAN Lloyd E. Barton, Jr.
AT3 Fred D. Boyce
AN Curley
AE3 Roy D. Gardner
AMS2 Herborn
AT3 Gary D. Hochstein
ADJ3 Randy L. Mitchell
ADJ2 Bennie L. Moon
ADJAN Gregory L. Paige
ADJ1 Carl E. Peterson
AT3 Luis F. Quijano
AN Danny L. Reynolds
AMH2 Michael Silvenac
AEAN Albert L. Terry
ADJAA Richard Vincent
AE3 Jackie W. Waits
AE3 Richard D. Willis

In photo left above, the members of HSL-30, Sup Det 40 who accompanied the White Whale back home. From left, AEAN Terry, AMHC Millar, Lt Borries, Lt(jg) Massengale, ADJAN Paige, AT3 Boyce, AN Reynolds, AMSAN Barton and ADJ2 Moon. In photo below, the aircraft receives one of its weekly washdowns to wash off the salt. Note truck on left . . . water was bought as needed.



March was our "glory month." While airborne on the 13th for some practice approaches, a SAR call came in. After refueling at the International Airport, the aircraft was vectored out to the SS Bamberg, a German oiler anchored 58 miles at sea. While the helo hovered over the German vessel, a Stokes litter was lowered and the injured man was hoisted aboard the aircraft. After a quick trip back, the victim was placed in an ambulance and rushed to the hospital. The crew experienced a most rewarding and difficult night, since Bahrain had lost radar contact at 33 miles and the Bamberg had no navigation aids or radios compatible with the helo equipment.



In photo at top, Kaman Service Reps Sam Field, left, and Joe Peluso, far right, based at Naples, Italy, assist the crew in maintaining/inspecting their aircraft. In photo above, a C-5A Galaxy "flips its lid" to allow the Seasprite entry into the cave-like interior for airlift back to CONUS. Sup Det 40 returned none the worse for its time spent overseas, though it was becoming obvious that the Middle East had had its effect on the crew. Note photo on right.

April resulted in another Calendar check under the bridge, and another crew change. May saw the La Salle depart for the coveted May, June and July "Southern Cruise." The helo crew was kept busy transporting the Sri Lanka Airforce in Sri Lanka; the Seabee photographers in Diego Garcia; and in Mauritius, two archeologists to a small island and the British Police in search of hashish.

After the check flights out of Calendar, and a safety standdown, January '74 was spent getting ready for "Imperial Ethiopian Days" again. This year, in addition to

the trips to Asmara, the Det put on a demonstration for His Imperial Majesty Haili Selasse, which received a standing ovation. Another trip to Karachi, where "Shopping is King" and then to Bandar Abbas and another joint exercise with the Iranians. The helo flew night "search and destroy" missions against the Orange Forces and flew the Iranian Admiral from Bandar Abbas to the Task Force and return. This month-and-a-half was most rewarding, with high availability and a heavy flight schedule.

The LaSalle returned in mid-March and the crew of HSL-30, Sup Det 40, spent the time flying around the island watching for fish, doing the last Calendar, treating corrosion and waiting for transportation home.

The White Whale was called on to make a 10-day Bahrain-to-Bahrain trip . . . its last, because the C-5 arrived on 30 June to take it back home.

This is but a short history. Those of us who were there remember much too much to put in less than two volumes. The return home climaxed two years of service to the Middle East Forces and saw a substantial reduction in the utility commitment of HSL-30. The Squadron is gradually being relieved of the utility role in order to provide LAMPS readiness training for pilots, aircrewmembers, and aviation personnel. The squadron which once sent its men down to the sea in ships is now gathering them back into its folds to serve as mentors for the "new breed."

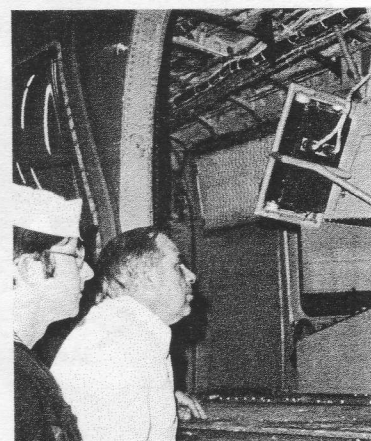


Although Det 40 was stationed in the Mid-East, it was NAF Naples that supported it so well, right from the beginning. People like H. "Sam" Field, Joe Peluso, John Hendrickson and others, went out of their way to help ease many a crisis. Our deepest thanks and gratitude.

As much fun as it was, two years was long enough and — it is good to be home.

CHANCE MEETING

As mentioned in the article "The Arabian Knights," the White Whale made many Vert rep trips to various surface vessels. One of the ships visited by the aircraft was the USS Paul, DE1080. A crewmember aboard the ship took a few photographs and sent them home to his father where he knew they would be received with pride. Why? The crewmember, now home on leave, was SH Donald R. Welsh. His father is a Service Engineering Designer for Kaman at its facilities in Bloomfield, Ct. In the photo on right, "father Bob" takes son Don on a first-hand tour of the facilities and in particular the SH-2 aircraft. Which aircraft? . . . Would you believe the actual White Whale herself? Yes, it was aircraft 149750, an HH-2D model which had returned to Kaman for conversion to the SH-2 configuration and a new paint job more in keeping with the color scheme of the LAMPS mission. Aircraft 9750 and SH Welsh will both be returning to duty and perhaps another chance meeting at sea.

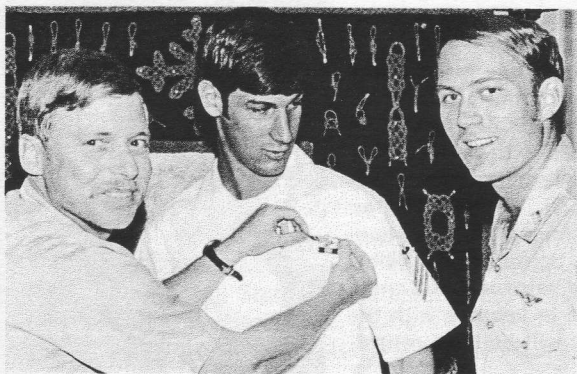


A Vanishing Breed - - The Utility H-2

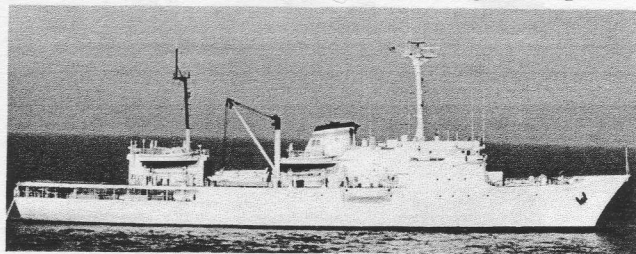
Initially, the H-2 was used as a utility helicopter, providing for vert rep, passenger service and any other "routine" mission where a helo could do it better and faster than anything else. However, the years passed, the H-2 "earned its keep" while building confidence in its ability to perform, and a new mission — LAMPS evolved. As the Seasprite aircraft are modified to the LAMPS mission configuration, fewer and fewer H-2's are assigned to the pure utility role. However, latest CNO assignments indicate that the Seasprite will continue to be utilized as a utility workhorse on the Harkness and the Chauvenet for some time to come.

On July 1, 1974, Helicopter Anti-Submarine Squadron Light Thirty (HSL-30), Marine, Coast and Geodetic (MC&G) Det A, completed one year of operations aboard the USNS Harkness (TAGS-32) since the ship's return to the Mediterranean. Harkness is a military sealift command ship which provides a base of operations for Oceanographic Unit Five and HSL-30 MC&G Det A. Oceanographic Unit Five is permanently embarked for the purpose of conducting ocean and coastal survey operations at the request of the Greek government. Areas of operations have included the islands of the Northern Aegean, Crete, and the southern Peloponnesus. MC&G Det A provides support for these survey operations and it is, in every sense, a pure utility mission. In this capacity, the detachment has logged over 750 accident-free hours in the past year.

The detachment normally consists of two pilots and an eight man maintenance crew deployed from the parent squadron, HSL-30, in Norfolk, Virginia, on a five-month staggered rotation, which ensures a consistent experience level and facilitates training of new personnel.



by Lt George H. Engstrom



THE USNS HARKNESS

The operations are varied and extensive, and entail long but rewarding hours for the pilots and maintenance crew. One day may find the helo transporting one of two Nav Aid sites, each consisting of 6 personnel and 25,000 pounds of externally-transported cargo. The next day may be spent positioning Marine Geodetic teams at various remote sites normally accessible only by helo and probably involving hoisting operations to offload the men and equipment. Statistics for the previous year lend credence to the intensity of detachment operations. In that year over 900,000 pounds of cargo and mail, 1800 passengers, 700 shipboard and 1800 shore landings were recorded by the det. This year, the det logged over 1,280,000 pounds of cargo and mail and 2300 passengers in over 750 flight-hours.

The ship's operating cycle of 23 days at sea and 5 days in port (an 83% at-sea rate) provides but a short respite from operations. More often than not, this 5-day break is even further reduced, since most heavy maintenance must be accomplished at this time to ensure the helo is available for operations once the ship is underway again.

Until operations are terminated, the helo will play a vital role in accomplishment of the ship's mission. LAMPS may be a "Better Idea," but the H-2 still continues to prove its versatility each day as a Utility Workhorse.

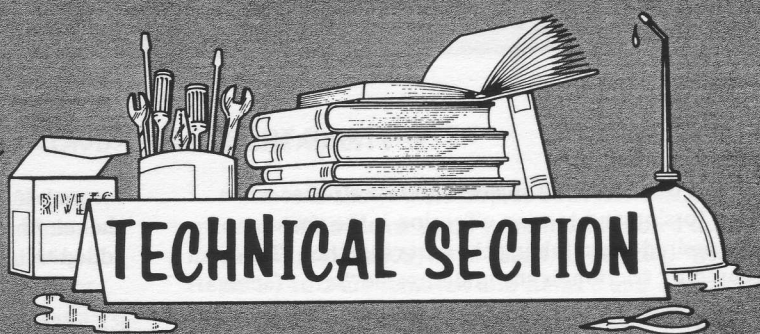
In photo on left, the Seasprite offloads cargo at one of the Nav Aid sites. In photo left below, ADJAN J. T. Morse is presented his new Aircrewman Wings by Lt Engstrom as Lt Meade offers advice. In third photo, below, the men of HSL-30, MC&G, Det A. Kneeling, from left, ADJAN John T. Morse, AT2 David P. Tyrone, AEC Bernard Kane (crewleader) and AT2 Luis F. Quijano. Standing, from left, ADJ2 John F. Mitchell, AMS3 Roy Jackson, AEAN William F. Mikulak, AMSAM Richard Dauenhaur, ADJAA Britt Boucher, Lt Martin C. Meade, team pilot, and Lt George H. Engstrom, OINC. (USN Photos)



KAMAN

Rotor Tips

Published by the
Customer Service Department
Kaman Aerospace Corporation
Bloomfield, Connecticut 06002.



The information contained here has been reviewed by Customer Service Department Engineering Personnel. The data is either in existing Official Publications or will be contained in forthcoming issues of those publications. The information supplied does not in any way supersede operation/maintenance directives established by cognizant authorities.

Table of Contents

ASE Actuator Filters, Interchangeability	7
Determining Torque of Structural Hardware	8
T-5 Thermocouple Wire Lengths	8
Pylon to Fuselage Attach Fittings	8
Main Rotor Damper Applicability	9
Main Rotor Blade Tip Cap Screws	9
Fuel Leakage at Flow Divider	10
Support Items for H-2 Lights	11
Publication Information	14

*G.M. Legault, Manager
Service Engineering*

J.P. Serignese, Editor

SERVICE ENGINEERS: Avionics, N.L. Hankins, J.M. Nenichka,
Mechanical, E.F. Noe, R.J. Trella, W.J. Wagemaker, H. Zubkoff

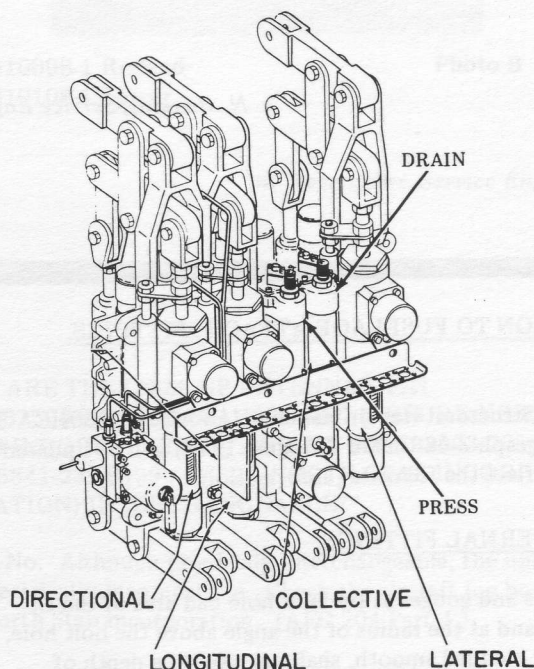
ASE ACTUATOR FILTERS: INTERCHANGEABILITY

ASE actuator inlet filters, Part Numbers 19563 and 044081 are interchangeable and have been assigned NSN, RM6615-00-870-0524BH. Outlet filters, Part Numbers 19564 and 044082 are interchangeable and carry NSN, RM6615-00-870-0525BH. The part numbers are stamped on each filter end cap.

The inlet filters, P/N 19563/044081, are 15-micron rated and must be installed in the port marked "PRESS," on the collective control valve housing as shown in the accompanying illustration.

Outlet filters, P/N 19564/044082 are 75-micron rated and must be installed in the port marked "DRAIN."

If the inlet and outlet filters were inadvertently installed in the wrong ports, the actuator would not be adequately protected from system contamination and malfunction would result. An inlet filter in the drain port could cause back pressure resulting in sluggish ASE actuator operation.



W. Wagemaker, Service Engineer

TECHNICAL SECTION

DETERMINING TORQUE OF STRUCTURAL HARDWARE

A bolt or a screw is subjected to two stresses when tightened; torsion and tension. Tension is the stress or objective desired when joining the parts together. Torsion, caused by friction, is the undesirable "error factor" when torque is applied to threaded hardware. As much as 90% of the applied torque can be absorbed in overcoming friction. Variables such as self-lock nuts, lock bolts, thread roughness, scale, and paint contribute to the friction-induced torque error. Because standard torque charts relate to dry, unpainted, free turning conditions, variables can have considerable impact on the standard values. It is to these variable conditions that the following simple formula applies. To obtain the correct recommended torque value, the bolt, screw, or nut should be turned in or on until it is approximately one turn from beginning to seat. The prevailing friction torque should be noted at this time. If this torque is less than 1/3 of the minimum recommended torque, disregard the prevailing friction torque and tighten to the recommended

torque. If the prevailing friction torque is 1/3 or more of the minimum recommended torque value, it should be added to the recommended torque.

EXAMPLE:

Recommended torque: 60-90 pound inches
Prevailing friction torque: 20 pound inches

20 is 1/3 of the minimum recommended torque.
Add 20 to the recommended torque range.

$$60-90 + 20 = 80-110$$

Tighten to 80-110 pound inches

H. Zubkoff, Service Engineer

Q. Are the lengths for T-5 Thermocouple wires critical?

A. Yes. The wire lengths are critical and should be cut to the length as shown in the accompanying list. For connector and termination information, refer to NAVAIR 01-260HCA-2-8.1. For general information (thermocouple wire soldering and installation practices), refer to NAVAIR 01-1A-505, Section VII. Be sure to use wire conforming to MIL-W-5846, Type II, Class A.

N. Hankins, Service Engineer

CRITICAL WIRE LENGTHS (INCHES)

Wire No.	Length
E27E-ALML	60
E27D-ALML	25
E27C-ALML	130
E27B-ALML	12
E27D-CHROM	60
E26C-CHROM	25
E26A-CHROM	140
E211A-ALML	25
E211B-ALML	65
E211C-ALML	10
E211D-ALML	130
E210C-CHROM	25
E210B-CHROM	65
E210A-CHROM	140

PYLON TO FUSELAGE ATTACH-FITTINGS.

The Structural Repair Manual, NAVAIR 01-260HCA-3, paragraph 3-66 (dated 1 August 1974) will be updated to reflect the following information:

EXTERNAL FITTINGS:

Nicks and gouges at the bolt-hole pad area of the fitting and at the radius of the angle above the bolt hole, after blended smooth, shall not exceed a depth of 0.062-inch and shall not extend from the edge of the fitting towards the bolt-hole more than 0.125-inch. Maximum blended depth and the length of defects at other

areas of the fitting will be 0.080-inch deep and 0.125-inch from edge of fitting towards a lock-bolt.

INTERNAL FITTINGS:

Nicks and gouges at the bolt-hole pad area of the fitting and at the radius of the angle above the bolt-hole, after blended smooth, shall not exceed a depth of 0.062-inch and shall not extend from the edge of the fitting towards the bolt-hole more than 0.125-inch. Maximum blended depth and length of defects at other areas of the fitting will be 0.094-inch deep and 0.160-inch from edge of fitting towards a lock-bolt.

H. Zubkoff, Service Engineer

TECHNICAL SECTION

MAIN ROTOR DAMPER APPLICABILITY

Damper part number K610100-1 must be used on SH-2F model aircraft only. This damper is made from a K610029-1 (alternate part number 101264) damper by removing the rodend and spacer and substituting a larger rodend and spacer. Photograph A shows the obvious difference between the two models. Damper K610029-1 (and/or 101264) can only be used on UH-2C, HH-2D, and SH-2D model aircraft.

If facilities are available and the requirement exists, it is possible to modify the damper to either configuration by installing the correct parts.

Photo B shows a closeup of both rodends and spacers. When Items 1 and 2 are installed on a damper, its part number is K610029-1 and/or 101264. When Items 1 and 2 are removed and Items 3 and 4 are substituted, the damper is re-identified as a K610100-1 assembly. If serviceable, (up to 0.006 radial play allowable on K610029-1 damper rodend and 0.010 radial play on K610100-1 rodend) a rodend may be removed from a failed damper and re-used on an RFI (Ready For Issue) damper assembly.

Damper rodends should be removed and installed in accordance with NAVAIR 01-260HCA-2-4.2.

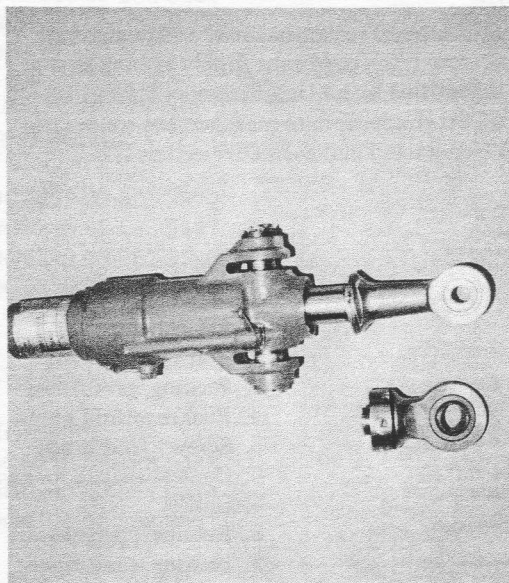


Photo A

1. 100934 Washer
2. 100899 Rodend

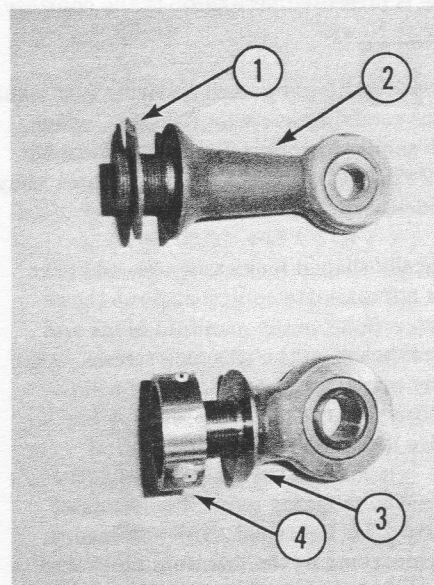


Photo B

3. K610098-1 Rodend
4. K610108-1 Spacer

W. Wagemaker, Service Engineer

Q. WHAT ARE THE PART NUMBERS FOR THE SCREWS SECURING THE MAIN ROTOR BLADE TIP CAPS ON K611670 MAIN ROTOR BLADES?

A. Screws used to secure main rotor blade tip caps on K611670 ("101") main rotor blades are:

Leading edge, upper and lower: NAS333CPA6.
Trailing edge, upper and lower: NAS333CPA5.

W. Wagemaker, Service Engineer

Q. ARE THE LN-66 HP ANTENNAS, P/N 201-732503-702; FSN 5841-239-6297 (BEFORE NORTH STAB INCORPORATION) AND P/N 201-732503-705; FSN 5841-239-9199 (AFTER NORTH STAB INCORPORATION) INTERCHANGEABLE?

A. No. Although physically interchangeable, the units are electrically incompatible. Check the aircraft log books for North Stab incorporation. (AFC 204 Part 4.)

N. Hankins, Service Engineer

FUEL LEAKAGE AT FLOW DIVIDER (T58-8B/-8F Engines)

By H. Zubkoff,
Service Engineer

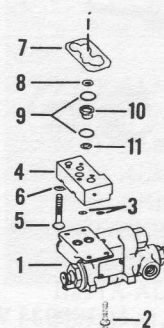
Correction of fuel leakage at the flow divider, item 1 in the accompanying illustration, often involves removal of the fuel manifold block and replacement of the gasket, seals, packings and retainers. When re-installing the manifold block, it is most important that the proper conical-shaped lockwashers be installed under the head of the block retaining screws and that the torque callouts and tightening sequence per NA 02B-105AHD-6-1, Figure 4-17, be observed. The following excerpt from a GE News article is presented here through the courtesy of the GE Jet Service News.

Using activities have reported receiving fuel manifold block retaining screw lockwashers, which, although similar in appearance to Part Number 37B200242P101 counter-sunk lockwashers, they are not identical.

The conically-shaped lockwashers should have the same approximate conical-angle as the recessed screw holes in the manifold block and the conical heads on the retaining screws. Also, a properly manufactured lockwasher will fit rather loosely on the retaining screw, while a defective lockwasher will fit tightly. If the angle is incorrect, the lockwasher will split when the retaining screw, Part Number AN510C10-20 is tightened. This will lead to eventual loosening of the manifold block and fuel leakage between the block and the flow divider.

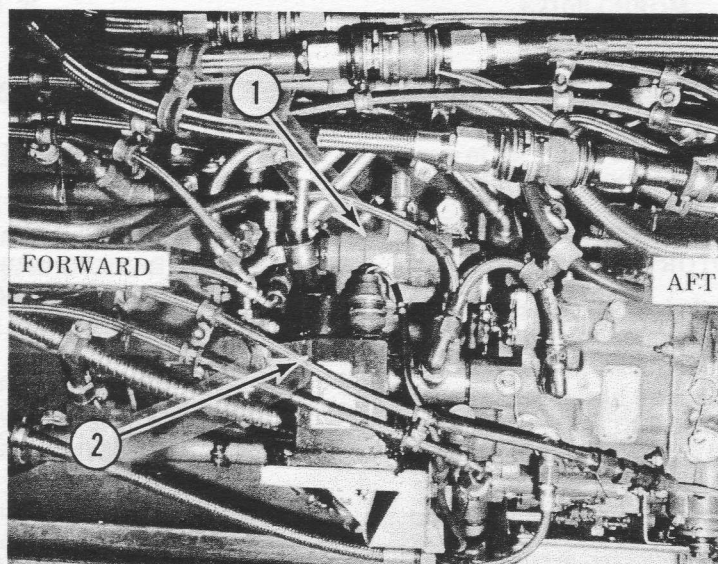
Visually inspect for an obvious difference between the conical angles of the lockwashers and the manifold block countersunk screw holes when installing the lockwashers. If a difference exists, discard the lockwasher. Do not attempt to use incorrect lockwashers on the assumption they will conform when the screws are tightened. Tightening will only break the lockwashers.

If improperly manufactured lockwashers are detected, the cognizant supply agency should be notified by an Unsatisfactory Report or by other appropriate means so the source can be contacted and corrective action taken.



1. Flow divider
2. Bolt - (12 point)
3. Packing, preformed
4. Fuel manifold block
5. Screw - (flat head)
6. Conical-shaped lockwasher
7. Gasket
8. Retainer, packing
9. Packing, preformed
10. Retainer, packing
11. Seal

1. Flow divider
2. Emergency throttle actuator



VIEW LOOKING UP AT BOTTOM OF ENGINE

SUPPLY INFORMATION

LIST OF SUPPORT ITEMS FOR H2 LIGHTS *by E.J. Cunningham, Spares Manager*

The information presented here is in response to inquiries from the Fleet. The intent is to provide a single reference for all support items for H-2 lights. Note that some items do not have a National Stock Number listed; instead, the abbreviation S/C AF is shown. This indicates the item is Source Coded AF, it must be assembled at IMA Ashore or Afloat, and it does not have a NSN.

EXTERIOR LIGHTS

<u>National Stock Number</u>	<u>Part Number</u>	<u>Nomenclature</u>
L H Position		
9G6220-00-801-3871	AN3033-12	Complete Assembly
9G6220-00-283-9337	AN3033-9	Less Lamp and Cover
9G6240-00-681-8366	MS25309-7512	Lamp
9G6220-00-151-7536	AN3042-1	Cover
R H Position		
9G6220-00-801-3872	AN3033-13	Complete Assembly
9G6220-00-283-9337	AN3033-9	Less Lamp and Cover
9G6240-00-681-8366	MS25309-7512	Lamp
9G6220-00-497-2213	AN3042-2	Cover
Tail Position		
NONE -S/C AF	MS25219-13-1683	Complete Assembly
9G6220-00-583-3085	MS25219-13	Less Lamp
9G6240-00-044-6914	MS35478-1683	Lamp
9G6220-00-504-2021	MS23006-2	Cover
Droop Stop		
NONE-S/C AF	30-3091-1-1683	Complete Assembly
9G6240-00-044-6914	MS35478-1683	Lamp
9G6220-00-826-7002	A4513-2	Cover
9G6220-00-548-0313	MS25219-11	Socket
9G6220-00-104-2656	31-1284-1	Cover Retainer
Cargo Hook		
NONE-S/C AF	A8540-10-305	Complete Assembly
9G6240-00-155-7791	MS35478-305	Lamp
9G6220-00-826-7002	A4513-2	Cover
Rotating Beacon		
RD6220-00-803-46100X	98400A24-24	Complete Assembly
9G6240-00-564-1084	MS25338-7079	Lamp

(Continued next page.)

SUPPLY INFORMATION

EXTERIOR LIGHTS (continued)

<u>National Stock Number</u>	<u>Part Number</u>	<u>Nomenclature</u>
Taxi, Hoist Flood		
9G6220-00-025-7701	D4340A2-4582	Complete Assembly
9G6240-00-594-7138	4582	Lamp
Search and Landing		
RH6220-00-849-2807BH	42365-1-4580	Complete Assembly
9G6240-00-283-9901	4580	Lamp

INTERIOR LIGHTS

Dome-HIFR		
9G6220-00-299-7136	MS25358-8	Less Lamps
9G6240-00-155-7788	MS35478-307R	Lamp - Red
9G6240-00-155-7930	MS25235R311	Lamp - Red
Dome-Cabin		
9G6220-00-891-1497	MS25358-7	Complete Assembly
9G6220-00-299-7136	MS25358-8	Less Lamps
9G6240-00-155-7930	MS25235R311	Lamp - Red
9G6240-00-155-7784	MS35478-307	Lamp - White
Senso Flood		
RM6230-00-476-0578BH	B8550-2-1385	Complete Assembly
9G6240-00-186-6276	1385	Lamp
Instrument		
9G6220-00-807-3432	A4255A	Complete Assembly
9G6240-00-155-7848	MS25233-303	Lamp
Cockpit-Utility		
9G6220-00-299-7166	30235-313	Complete Assembly
9G6220-00-628-0954	30235	Less Lamp
9G6240-00-155-8714	MS25231-313	Lamp
Cockpit-Fixed		
NONE-S/C AF	MS25027-1-313	Complete Assembly
9G6220-00-295-0897	MS25027-1	Less Lamp
9G6240-00-155-8714	MS25231-313	Lamp

(Continued next page.)

SUPPLY INFORMATION

INSTRUMENT PANEL

<u>National Stock Number</u>	<u>Part Number</u>	<u>Nomenclature</u>
Post		
9G6210-00-683-0806	A8970-1-327	Complete Assembly
RM6695-00-659-6805DA	A8970-1	Less Lamp
9G6240-00-155-7836	MS25237-327	Lamp
Eyebrow		
9G6210-00-243-8183	B4755	Complete Assembly
9G6240-00-155-7836	MS25237-327	Lamp
Post		
NONE-S/C AF	K683349-3	Complete Assembly
NONE-S/C AF	MS28799-3-327	Complete Assembly
9G6210-00-904-8870	MS28799-3	Less Lamp
9G6240-00-155-7836	MS25237-327	Lamp
Plastic Panel		
NONE-S/C AF	MS25010B11-327	Complete Assembly
9G6210-00-519-2653	MS25010B11	Less Lamp
9G6240-00-155-7836	MS25237-327	Lamp
Post		
NONE-S/C AF	MS28779-1-327	Complete Assembly
9G6210-00-063-7687	MS28799-1	Less Lamp
9G6240-00-155-7836	MS25237-327	Lamp
Post		
NONE-S/C AF	MS28799-3-327	Complete Assembly
9G6210-00-904-8870	MS28799-3	Less Lamp
9G6240-00-155-7836	MS25237-327	Lamp
Corner Post		
NONE-S/C AF	20-0074IR	Complete Assembly
9G6220-00-869-6943	20-0074IR-10	Less Lamp
9G6240-00-155-7836	MS25237-327	Lamp
Eyebrow with Post		
NONE-S/C AF	6364-1RH-R28	Complete Assembly
9G6220-00-909-3934	6364-1RH-R	Less Lamp
9G6240-00-155-7836	MS25237-327	Lamp
Eyebrow with Post		
NONE-S/C AF	6364-2LH-R28	Complete Assembly
9G6220-00-909-3933	6364-2LH-R	Less Lamp
9G6240-00-155-7836	MS25237-327	Lamp

PUBLICATION INFORMATION

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

R.H. Chapdelaine, Manager, Service Publications

NAVAIR 01-260HCA-2-4.2 — Manual, Maintenance Instructions, Navy Models UH-2C/HH-2D/SH-2D/SH-2F Helicopters, ROTORS
1 April 1973
changed 1 December 1974

NAVAIR 01-260HCA-2-5 — Manual, Maintenance Instructions, Navy Models UH-2C/HH-2D/SH-2D/SH-2F Helicopters, AUTOMATIC STABILIZATION EQUIPMENT
1 April 1973
changed 15 December 1974

NAVAIR 01-260HCB-4-1 — Illustrated Parts Breakdown, NUMERICAL INDEX AND REFERENCE DESIGNATION INDEX, Navy Models UH-2C/HH-2D/SH-2D/SH-2F Helicopters
1 April 1973
changed 1 December 1974

NAVAIR 01-260HCB-4-8 — Illustrated Parts Breakdown, RADIO AND ELECTRICAL, Navy Models UH-2C/HH-2D/SH-2D/SH-2F Helicopters
1 June 1967
changed 1 December 1974

NAVAIR 05-45RA-1 — Manual, Overhaul Instructions, AUTOMATIC STABILIZATION EQUIPMENT AMPLIFIER, P/N K687703-1, -3, -5, -9
15 March 1969
changed 15 December 1974

NAVAIR 05-45RA-2 — Illustrated Parts Breakdown, AUTOMATIC STABILIZATION EQUIPMENT AMPLIFIER, P/N K687703-1, -3, -5, -9
1 December 1964
changed 15 December 1974

***** TECHNICAL DIRECTIVES RELEASED *****

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

SEC/AFC No.	TITLE	RELEASE DATE (KAC)
H-2 Airframe Change 204, Part 3	LN66HP Radar System, REPOSITIONING OF THE VARIABLE RANGE MARKER UNIT	10 October 1974
H-2 Airframe Change 220	Airspeed System, RELOCATION OF STATIC PORTS, AND ADDITION OF AIRSPEED PLACARDS	3 October 1974
H-2 Airframe Change 228	SH-2F 101 Rotor System, ROTOR FOLDING INDEXING, AND CONING STOP MODIFICATION	10 October 1974
H-2 Airframe Change 229	Radio and Radar, ALR-54 ANTENNA PROVISIONS	10 January 1975
Support Equipment Change 2314	ASE AMPLIFIER MODULE TEST SET, MODIFICATION OF	21 November 1974
Support Equipment Change 2558	SH-2F GSE, BLADE FOLDING RETAINING ASSEMBLY, MODIFICATION OF	10 October 1974

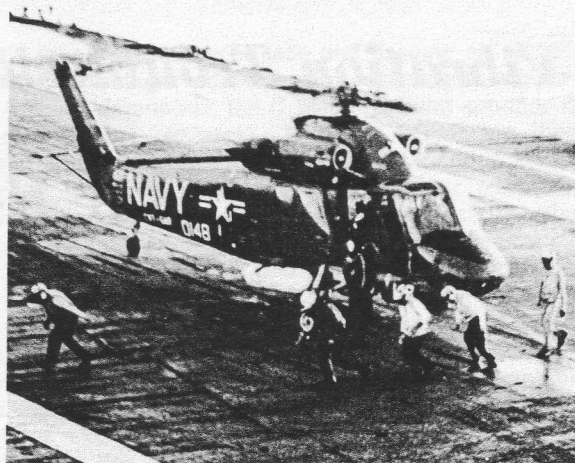
HCT-16 Established in Pensacola

by Lt(jg) Peter Lento,
HCT-16 PAO

NAS PENSACOLA, FL — Helicopter Combat Support Training Squadron Sixteen (HCT-16) was established in a ceremony here 1 November, 1974. The Commanding Officer is LCdr Lee F. Wright and LCdr James D. Karr is the Executive Officer.

The establishment of HCT-16 culminates nearly four years of buildup by the NAS Pensacola SAR Detachment. The Squadron is tasked with providing SAR coverage to the Naval Air Training complex, both in the Pensacola area and on board the USS Lexington (CVT-16). A secondary mission will be the training of pilots and Rescue Aircrewmembers in the use of the HH-46A "Sea Knight," which will be assigned to Air Station SAR units. The Kaman "Seasprite" helicopters, presently in service here will be returned for conversion to the LAMPS configuration.

Formed in April, 1970, and equipped with the Kaman UH-2A/B aircraft, the CVT SAR Detachment flew plane guard for the USS Lexington. In 1972, after two successful years of operation, the Detachment merged with the Pensacola Land SAR and was renamed the NAS Pensacola SAR Detachment. Along with the merger came the "C" model of the Seasprite used by the unit today. Providing coverage similar to that assigned the new squadron, the detachment amassed nearly 10,000 accident-free hours and effected the rescue of some 41 per-



sons. Though the emphasis has begun to shift to the Sea Knights which will assume the Seasprite's role in the future, the H-2 still bears the brunt of the squadron's mission today, and it will be with regret that we watch the last Seasprite depart.

Guest speaker at the HCT-16 Commissioning was Capt David Hughes, Commanding Officer of the Naval Education and Training Program Development Center, Ellyson. Capt Hughes, former commander of NAS Ellyson Field, and a veteran helicopter pilot, spoke of the history and the future of helicopter aviation in the Navy.

In his concluding remarks, Capt Hughes stated that: "I have found nothing more demanding of pure aviation skill than operating a helicopter during a 6-hour black-night ASW hop below 500 feet, plane guarding for the fixed-wing launch before and after, coupled with an in-flight refueling from the pitching deck of an isolated escort ship. And I have nothing more rewarding in my total aviation experience than a rescue."

Among the dignitaries present at the ceremony were Capt Edmund W. O'Callaghan, CNATRA Chief of Staff, Capt Paul H. Engel, Commodore TRAWING SIX, Capt Charles R. Long, Commanding Officer NAS Pensacola, and Capt David E. Moore, Commanding Officer USS Lexington (CVT-16).



In photo top of page, HCT-16 operates a Kaman Seasprite aboard the USS Lexington as crews make a "hot switch." In photo left, LCdr Wright cuts the first piece of cake for Airman Apprentice Paul Smith, the Squadron's youngest sailor. Photo left above, LCdr James D. Karr, Executive Officer of HCT-16. In center photo, Mr. William R. Murray, president of Kaman Aerospace Corporation, at microphone, addresses the gathering during the ceremonies. In foreground are, from left, Mrs. Wright, Capt Long, Mrs. Engel, LCdr Wright, and Mrs. Long. In photo right above, the new CO, LCdr Lee F. Wright.

Vibration Troubleshooting

The H-2 Helicopter

Part 2

by Jack L. King,
Senior Field Service Rep

The previous article (see page 24, Sept.-Oct., 1974 issue *Kaman Rotor Tips*), discussed the isolation of various vibrations through the use of the vibratach (P/N K604154-1, NSN 6RX6680-00-914-1180BH). This issue will present further information related to pinpointing the problem area and correcting the vibration, starting with the easiest to identify, the one-per-rev.

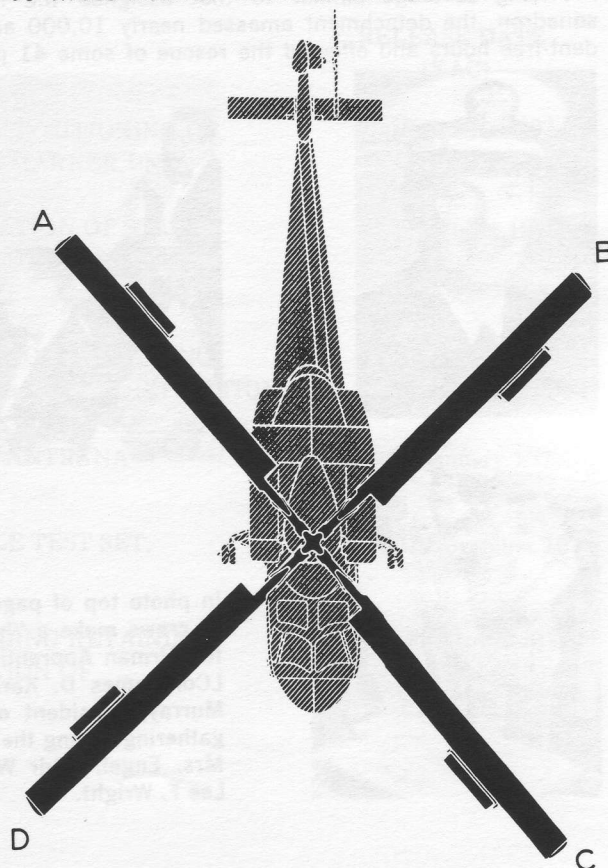
Since the introduction of the "101 rotor" incidents of one-per-rev vibrations on the H-2 have shrunk to a sporadic case every now and then. The majority of those encountered occur after some maintenance action/component replacement within the main rotor system and/or associated rigging changes in the rotating flight controls. These vibrations will usually be eliminated by correcting the out-of-rig/adjustment condition. For troubleshooting ease, divide one-per-rev vibrations into two separate categories: The first category would include those which occur as a result of component replacement/adjustment. The second category would include the vibrations occurring within a relatively short time on an aircraft which has flown without problems for a prolonged period. (The term prolonged period should be interpreted to mean at least two or three flights at the very minimum, and could extend over many hundreds of flight hours.)

In order for successful troubleshooting to be accomplished, a thorough knowledge of system operation is a must. Unless the maintenance man knows what the system is supposed to be doing during normal operation, he may fail to diagnose a symptom which could point to the heart of the problem. With this in mind, a review of some H-2 rotor system basic theories of operation is necessary before proceeding further.

The main rotor on an H-2 helicopter is composed of four main rotor blades with retentions, a rotor hub and turret assembly. Related flight controls extend from the azimuth to the control clevis cranks on the servo flaps. The azimuth, which is located beneath the main transmission, consists of both rotating and non-rotating portions. Control inputs originating in the cockpit are mechanically and directly linked up to the azimuth. At the azimuth, the direct control inputs must be interrupted and converted to rotating inputs. The component installed between these two motions is the azimuth bar (with trunnions). The azimuth bar rotates at main rotor speed (approximately 298 RPM) because it is splined into the bottom of the main rotor shaft in the main transmission. To better understand the relationship, consider the azimuth bar as a small disc mechanically attached to and in the same plane as the main

rotor. Thus we have two discs rotating about the same axis. With this situation, any tilting of the azimuth bar via cyclic input will result in the rotor tilting until it once again becomes parallel with the smaller disc, the azimuth bar. (When collective inputs are applied to the azimuth bar, both discs would rise and lower together.) How does this relate to one-per-rev? In almost every case, the cause of a one-per-rev will be found among the rotating components. Consider this carefully. Do not assume one-per-rev problems exist only in the flight control linkage; do however, look for the cause of one-per-rev problems somewhere from the azimuth bar up to and including all rotor components.

The H-2 blade tracking system is a valuable aid in helping to pinpoint one-per-rev problem areas. Again, understanding the applicable or affected system is a must if one expects to use it properly. The illustration depicts the four main rotor blades, labeled A, B, C, and D, as blades installed on the aircraft are also identified.



During flight with the automatic blade tracker operating, the C blade is slaved to track with the A blade and the D blade is slaved to track with the B blade. Any dynamic imbalance (usually due to an out-of-track condition), between the A-C pair or B-D pair of blades will be sensed by the blade tracking system accelerometer mounted on the aircraft structure. Through the tracking system, a corrective signal will be sent to the appropriate tracking actuator which will then run until the vibration is eliminated or the actuator reaches the limit of its travel, whichever occurs first. A point to remember here is that the aircraft will fly without one-per-rev vibrations as long as the A-C blades and B-D blades are flying in balance together; it does not matter if the two pairs are inches apart in the tip-path plane, the rotor is in balance from a dynamic balance standpoint when the opposite pairs are in balance with each other. A condition where one pair of blades is flying higher or lower than the other is termed an "out-of-cone" or "cone split." With the split cone, the aircraft will not have a vibration in the one-per-rev frequency and the pilot will be able to move the B-D pair through the use of the coning switch on the rotor track panel in the cockpit until all four blades have the same tip-path plane. Since tracking motor travel is limited, large cone splits may require ground adjustment of the servo flap for correction. Normal on-ground/hover range of the tracking actuator is 3 inches of rotor blade tip movement on either side of neutral (a total of 6 inches from one extreme to the other).

Since the blade tracking system will normally attempt to eliminate the vertical vibration caused by an out-of-track condition, it is common to discover either the C or the D blade actuators in the "topped" (in the white area) or "bottomed" (in the red area) condition if the aircraft is flying with a one-per-rev. Remember, the vibration must be one-per-rev of the main rotor frequency, and vertical in nature in order for the tracking system to sense it and take corrective action. Lateral vibrations of one-per-rev frequency are not sensed nor corrected by the automatic tracking system.

How does this information relate to one-per-rev vibration troubleshooting? Well, if an aircraft has been flying smoothly for a few months and then suddenly returns from a flight with the pilot reporting a one-per-rev vibration of the main rotor, the first check should be the tracking actuator indicators. If the tracking system is operating properly, one or more motors are going to be in a "topped" or "bottomed" condition.

Let's take a hypothetical case and assume an aircraft returns from a flight with the pilot reporting a one-per-rev. A check determines the C blade tracking actuator is bottomed (in the red area). B and D blades are then checked and found to be between the color-coded areas, indicating they both have additional actuator travel remaining. It now takes simple logic to suspect that the cause of the problem lies in the A-C pair of blades rather than the B-D pair. If B and D were not in dynamic balance and were the cause of the vibration, the presence of the one-per-rev would cause additional travel of the D tracking actuator until one of the two conditions is met: Either the vibration would be eliminated or the actuator would reach the limit of its travel. Since neither of these conditions exist in the D blade actuator, the cause of the vibration lies somewhere in the A-C pair, assuming the tracking system is functioning properly.

Since the tracking system is used as an aid in troubleshooting, it makes sense to first ensure that the blade tracking system is operating properly. It could be giving erroneous indications due to misadjustment and/or component failure. NAVAIR 01-260HCA-2-6 contains the information required to check out the tracking system while on the ground. Some of the items which should be checked are resolver phasing, accelerometer null and blade track actuator travel in both directions.

Once it has been established that the blade tracking system is functioning properly, we can proceed with troubleshooting the main rotor system. In this hypothetical case, it was determined that the problem lies in the A-C blade pair, and it will be found somewhere between the azimuth and the servo flap.

In order to narrow the field down further, more information is needed because although the tracking system can narrow the troubleshooting down to two particular azimuth-to-flap systems, it cannot pinpoint the discrepant system or component. Furthermore, a wear condition (and subsequent looseness) will cause a blade to fly higher and a binding condition limiting control travel will cause a blade to fly lower at the time of the binding.

The next article will explore methods of gathering information and using it to solve our one-per-rev problem. Meanwhile, apply what you have learned up to this point and let us know of your results.

Naval Aviation Museum Fund Drive

As their contribution to the Navy-wide effort to raise funds for the Naval Aviation Museum, the Staff of Commander, Helicopter Sea Control Wing One recently held a raffle. Kaman's Senior Service Rep, NAS Norfolk, Jack L. King, obtained a desk model of the SH-2F helicopter and donated it to the cause. Chances were sold and the drawing held.

The photo on the right shows the lucky winner, RMCS C.A. Rhines (center), of NAVCOMSTA, Norfolk, Va. Jack King, right, offers congratulations as the Deputy Commander of Helicopter Sea Control Wing One, Cdr C. Myers holds the winning ticket. Over \$150.00 was raised for the Naval Aviation Museum as a result of the model raffle.





Missions of Mercy

Naval Station Rota Medevac

When the government of Morocco had to turn down a request for emergency aid because of poor weather, the emergency call went to the Naval Station at Rota, Spain. An explosion of a steam pipe on an Italian merchant ship, the SS Agusta, had burned several seamen. The vessel was about eight miles offshore and at least three of the victims were in need of further medical assistance. A medevac was deemed necessary, and, at 2255Z, a Kaman Seasprite, UH-2C, BuNo 150150, launched from NavSta, Rota, enroute to Kenitra, Morocco. Lt W. E. Williamson was aircraft commander, Lt (jg) R. H. DeJaegher, copilot, ADJC J. H. Neugent, first crewman, and ADJ2 D. F. McDermott was second crewman. The flight was to be approximately 150 miles into unfamiliar areas with very limited navigation aids (even these later became unuseable in the thunderstorms). Enroute, the deteriorating weather conditions, including rain showers, low ceilings and poor visibility forced the pilots to descend and navigate visually by following the dimly-lit coastline. At 0024Z, while about 15 miles north of Kenitra, the SS Agusta was sighted. Thus, the aircraft crew had completed the "easy" part of their journey.

The immediate problem was one of communications. The aircraft had no way to inform the ship's crew of what was needed. A decision was made to lower a rescue crewmember to the deck. Upon commencing the approach to the ship, the pilot's windshield wiper came loose and the wiper system was secured to prevent FOD. Despite loss of forward visibility, the aircraft commander successfully brought the helo to a hover over the unfamiliar, violently pitching ship. By this time, the rain showers, 20-knot wind and 12-foot seas seemed to be doing their best to hinder the mission. Hovering the aircraft was extremely difficult because the wind coming over the bow created an air burble, further affecting aircraft stability.

Despite these problems, ADJ2 McDermott was lowered to the deck to assist in hoisting the rescuees to the aircraft. The first patient, strapped into a Stokes litter, was hoisted aboard the helo with considerable difficulty due to the inexperience of the ship's crew and the language barrier. With the first man safely on board the aircraft, crewman ADJC Neugent discovered the hoist cable was frayed and recommended the aircraft be hovered even lower to pick up McDermott. Meanwhile, McDermott, aboard the Italian vessel, had to use all his persuasive powers to assure the ship's captain, the helo would return after making the necessary repairs to the hoist.

Upon arrival at Kenitra, the patient was removed from the aircraft and dispatched to the hospital in an awaiting ambulance. Close inspection of the hoist cable revealed it was badly frayed and further hoisting could not be accomplished without making repairs. A temporary repair was made, the hoist tested, fresh fuel was unloaded and the aircraft headed back to the merchant ship. Petty Officer McDermott was once again lowered to the ship's deck and the rescue operation continued. One victim was hoisted in the litter while the other was able to make it up in the "horse collar."

The weary crewmembers hurried to Kenitra, deplaned the rescuees and headed back to the surface craft for the last time. Finally, the injured men were all back at Kenitra and the aircraft headed back to its base, still in the heavy rain.

The mission could not have been accomplished without the cooperation of all crewmen including Lt (jg) DeJaegher who handled the communications and navigation chores. Later, safely back at home base, the crew was informed their efforts had paid off. Doctors advised them that two of the Italian crew who had been critically injured, would have died without the helo crew's efforts.

NAS Meridian Mississippi Medevac

While on a local flight to an outlying field, the NAS Meridian SAR helo was requested by Meridian Approach Control to respond to an emergency call. A civilian pilot was experiencing trouble with the engine on his Cherokee 140. The UH-2C pilot, Lt John B. Manly, and copilot Lt W.R. Anderson hurried to land at the small field, off-load their passengers and re-launch. Approach Control furnished the radar vectors and the rescue helo sped to the area. The civilian pilot had crash-landed into an area of tall trees and the helo crew had some difficulty

locating the crash site. Once the wreckage was found, the helo was landed in a small open field near the scene. The rescue crewmen, ABH2 E.T. Verhelst and AH T.C. Habersham rushed to the downed aircraft where they found the pilot in a semiconscious state. He was taken from the aircraft, placed on a Stokes litter and brought back to the waiting helo. Because of the victim's condition, the pilots flew him directly to St Joseph's Hospital in Meridian where medical personnel took over caring for the injured man.

Det 12, 40th ARRS

Sangiem Panpukwan, a Thai National, U.S. Government employee, was suffering from multiple skull fractures and neurological complications. The civilian was a patient at the 11th USAF Hospital and the doctors had decided the man should be moved to Bangkok General Hospital. An emergency medevac call went out to Det 12, 40th ARRS. In the professional tradition of their chosen field, the rescue crewmembers responded with calm speed. The patient was soon transferred from the USAF hospital to the waiting ambulance and then to Bangkok General. The Air Force Doctor who accompanied the patient on the medevac, Maj Lin Ho, credited the helicopter crew with another "save." The text-book flight was conducted by 1st Lt Douglas M. Smith, pilot, 1st Lt William E. Rial, copilot, crewmen, Sgt John M. Coiro and SSgt Norman V. Thomas . . . in another Det 12 mission, an emergency medevac request from the 11th USAF Hospital concerned a dependent wife who was suffering from internal hemorrhaging. Alert aircraft "Pedro" was already in the air but soon landed to top-off their fuel before starting the mission. Pedro's pilots, Maj John C. Flournoy, and 1st Lt Thomas W. Kemper brought the aircraft to the hospital so quickly, they had to wait while blood-typing and transfusions were completed. The doctor, Maj Ledro R. Justice, stated that the rescuee was bleeding profusely and her red cell blood count was down approximately two thirds. Because of the patient's deteriorating condition, the time-saving flight to the Bangkok Hospital was imperative. Sgt John M. Coiro and SSgt Howard R. Sheets assisted Dr Justice as the helo sped the ill woman to Bangkok.

After the rescuee was delivered to the hospital attendants, the helo crew boarded the aircraft for the flight back to U-Tapao. Det 12 was again credited with a "save."

HSL-32, Dets 4 and 7

The adaptability of the SH-2 and its experienced, professional crews was recently illustrated by two of HSL-32's Dets when they started out on routine LAMPS missions only to become involved in "routine" life-saving missions . . .

One aircraft, from HSL-32, Det 4, aboard the USS Sims, was 17 miles away from the ship on an inbound course when the pilots were notified of a man overboard. The helo had just left an area where an ASW search was being conducted and still had the MAD gear deployed. The SH-2 pilot, Lt C. Carroll, slowed the aircraft to retrieve the streamed bird. With the detection unit in the stowed position, AW3 J. Crandall readied his rescue equipment. Lt(jg) W. Howdyshehl, the copilot, assisted Lt Carroll and soon the men sighted a life ring in the water. The Det OINC manned the helo tower aboard the Sims and directed the aircraft to the man in the water. The hoist was lowered and SA Veron Mullins was brought onboard for the ride back to the Sims. Lt Carroll made an uneventful landing on the Sims to complete the save.

In another mission, Det 7, aboard the USS Jesse L. Brown (DE1089), was preparing for a night ASW mission when the call of "Downed Aircraft" came just as the pilots observed a flare in the dark sky. An SH-3 had gone down off the USS Saratoga. The SH-2F helo, crewed by pilot, LCdr Thomas E. McFeely, copilot, Lt(jg) James D. Kuemmel, and crewman, AWAN Todd S. Mack, launched to aid the downed SH-3 crew. The Seasprite crew searched the night-darkened waters for signs of the men and were rewarded when they sighted flares and strobe lights. Twice the rescue hoist was lowered and rescuees brought up to the safety of the helo. Then, notified by radio that the ship's whaleboat would pick up the remainder of the downed aircraft's crew, LCdr McFeely brought the helo to the USS Saratoga (CV-60) to return her men.

1,000 Hour Award

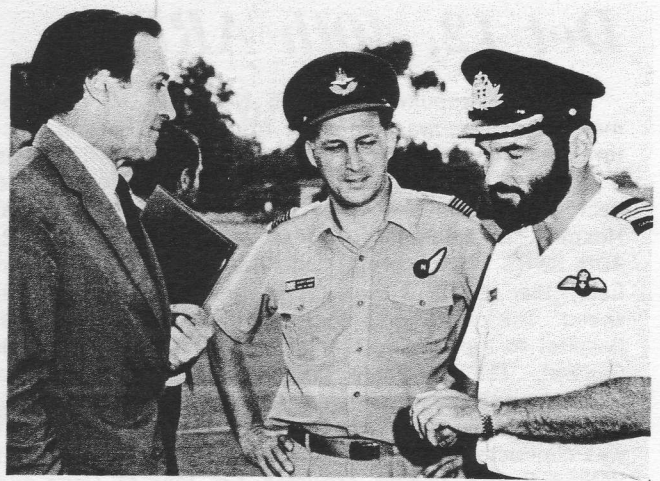
NAF, NAPLES . . . Capt William A. Platte, right, CO of NAF Sigonella, assists John W. Hendrickson, KAC Logistics Rep, left, in presenting a 1,000-hour plaque to Lt George T. Daughtry. Lt Daughtry has accumulated over 1,000 hours of helicopter time . . . all of them in H-2's. Lt Daughtry is currently the SAR pilot for the NAF Sigonella det. (Photo by PH2 McLean.)



HSL-33 Hosts

British Visitors

The officers and men of HSL-33 hosted visiting British officials in a brief of the LAMPS operations. In photo on right, LCdr Herb Harzan, far right, Canadian Armed Forces exchange pilot, assigned to HSL-33, relates experiences to Wing Commander D.F. Akhurst, RAF, and other interested listeners. (USN Photo)



FOD First

Then there's the claim to a first reported in AERO-SPACE SAFETY: Just as the T-38 pilot gave the pull-chocks signal, a young airman spotted fluid on the nose steering unit. The pilot was given the hold signal, and the airman headed for the nose steering unit to take a closer look. As the airman passed forward and below the left intake, the engine began to vibrate and stall. The engine was immediately shut down, and the crew deplaned.

Here was the first in F O D history: The airman was a young lady, and the foreign object that entered the engine was her wig.

HSL-34 Records First Shipboard Landing

by Lt Brent L. Worms
HSL-34 PAO

Helicopter Anti-Submarine Squadron Light Thirty Four (HSL-34), the newest LAMPS squadron in the Atlantic Fleet, achieved a milestone recently when Lt Mariner G. Cox and Lt James M. Kapinos flew aboard the USS Truett, DE1095. The event marked the first shipboard landing of a Squadron aircraft since its commissioning two months ago.

Prompting the flight aboard the Truett, was a visit by Adm Hiroichi Samejimi, Chief of Maritime Staff, Japanese Maritime Self Defense Force . . . the equivalent of our Navy's CNO. Shown discussing the LAMPS concept in photo below left, are, from left, Lt Cox, LCdr Frank Lugo, Executive Officer, USS Truett, Adm Samejimi, and RAdm R. S. Wentworth, Jr., Commander Cruiser-Destroyer Force Atlantic Fleet.

In second photo below right, Lt Kapinos, left, and Lt Cox pose for the occasion. "The Professionals" of HSL-34 are commanded by Cdr Bruce W. Borgquist and are home-based at NAS Norfolk, Va. (USN Photos)

