Heli-Hiking Good for Adventure and Environment
At Pratt & Whitney Canada, responsiveness to customer concerns starts on the drawing board. Operator input helped perfect the PW200, P&WC's new engine for the next generation of light helicopters. And that process will continue even after delivery. Because for us, total customer support also means responding to your ongoing needs.
On the Cover

The McDonnell Douglas MD Explorer (featured on this issue's cover) is one of the new helicopters which complement the many services the industry provides. This eight-place, twin-engine helicopter incorporates the company's NOTAR® (no tail rotor) technology.

The helicopter, which has exceeded 20,000 feet in altitude and 170 kts air speed, is scheduled to enter service in 1995.

Other new helicopters include: the Robinson R-44 four-seat helicopter; the Schweizer 330 for ag-spraying and law enforcement; the 10-place Bell 230; the Kaman K-Max external-load helicopter; American Eurocopter's BO 108 light-twin helicopter; the Soviet KA-32; the EH 101 long-range, passenger-carrying helicopter; and the Enstrom 480.

The versatility of civil helicopters is impressive. Typical uses span the spectrum of business activity from agriculture, air taxi and construction to electronic news gathering, emergency medical services, and offshore oil support. This issue of Rotor highlights two of the more interesting uses of the civil helicopter: heli-skiing and powerline patrol.

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"Gotta be this or that!..."

...was the name of a popular song of yesteryear. Some of the lyrics of that song were:

"Tell me what I must know
If I don't stay I'll go
If it ain't yes it's no
Gotta be this or that"

That bit of musical philosophy still makes a pretty good point: We must all be one thing or another. Organizations are either government or private sector; military or civilian; secular or non-secular, etc. Usually, there are no major problems until the lines start getting fuzzy.

That axiom certainly applies to a very serious current issue within the civil helicopter community. The laws and regulations are very clear on the definition of "public aircraft" (basically, those used by governmental entities to accomplish the legitimate functions of the using government). The Federal Aviation Regulations, FARs, are also very clear on aircraft which are flown for hire or compensation, i.e., FAR 133, or 135.

Enter those government agencies which have chosen to use their "public aircraft" for hire or compensation. These entities have chosen to adapt a "straddle" posture, which then placed them in violation of the cited FAR's, according to a determination which was made by the Federal Aviation Administration and promulgated in letters dated March 10, 1993 and April 21, 1993.*

Senator Larry Pressler, R-S.D., has introduced a bill (S.1092) that would require that Federal Aviation Administration safety regulations apply to all non-military, public-use aircraft. In a June 11 news release, Senator Pressler said, "My legislation is intended to make government entities sit up and take notice of aircraft safety regulations and to ensure that those regulations are properly enforced."

HAI's leadership recognizes the importance of aviation in both the private and public sectors, and recognizes that public safety interests are best served directly by those public officers elected or appointed to protect the health, safety and welfare of the general public.

HAI's leadership respects and also supports those governmental entities which properly use helicopters in the performance of their public responsibilities.

However, HAI's leadership also advocates understanding of and full compliance with all applicable laws and regulations, including the cited FARs. Those governmental entities which offer their helicopters for hire or compensation must now decide whether their aircraft will revert back to truly "public" aircraft, in which case there is no problem. Otherwise, in order to be in compliance, they must seek and obtain proper certification from the FAA to conduct their "for hire" operations.

After all, we "Gotta be this or that!" Best wishes to all, for safe and neighborly flying! ☞

* For copies of these two FAA letters, send a self-addressed, stamped #10 envelope with $.52 Postage, to HAI, Attn: "FAA Letters."
Ask anyone involved with helicopters which is the top-selling turbine single in North America today, and most will come up with the wrong answer. With good reason. Because for years, the answer has remained the same.

But times have changed. The turbine single with the most to offer operators is now the AS350 AStar from American Eurocopter.

With the widest and largest cabin, the most generous window area, and a multi-mission capability that goes far beyond any other single, the seven-seat AStar is the new leader in a multitude of markets and applications. Leading with an impressive cruise speed of up to 153 miles per hour. A useful load of up to 2,400 pounds. A range of up to 414 statute miles on standard fuel. And the smoothest and quietest ride of any light single. Performance that gives the advantage of cost-efficiency to its operators, backed by an improved customer service system in place here at American Eurocopter.

Because it's not just the leading turbine single that's changed, the leaders in the industry have too.
David R. Hinson Named New FAA Administrator

David R. Hinson, former vice president of Marketing and Business Development of Douglas Aircraft Co., and a former naval aviator, is the new Administrator of the Federal Aviation Administration (FAA).

The Senate confirmed Hinson by voice vote August 24, 1993.

In a statement before the Senate Committee on Commerce, Science, and Transportation, Hinson examined the changes in global aviation resulting from the end of the cold war.

He re-emphasized the importance of aviation safety, stating, "Safety is, and will continue to be, the first priority of the FAA."

Hinson expressed his eagerness to face new challenges related to: downsizing military bases which can be utilized for civilian purposes; challenging defense manufacturers to explore the civilian sector; and new satellite technology.

As executive vice president of Marketing and Business Development for the commercial segment of Douglas Aircraft, David R. Hinson was responsible for leading the marketing development and sales of McDonnell Douglas commercial jet transports, including the MD-80, MD-90, MD-11, and MD-12.

Hinson served as a naval aviator on active duty and in the reserves for 10 years. He later served as a Northwest Airlines pilot on domestic and international routes for three years. In 1961, he became the youngest flight instructor for United Airlines at the age of 28.

In 1963, he became captain and director of Flight Training for West Coast Airlines in Seattle, and then director of Flight Standards and Engineering for West Coast's successor, Air West. When Air West became Hughes Air West, Hinson was appointed executive assistant to the general manager.

In 1973, Hinson founded Hinson-Mennella, Inc., a closely held partnership, to pursue business acquisitions. Hinson was an original investor and one of four founders of Midway Airlines. He was also chairman and chief executive of Midway.

Hinson holds a B.A. in general studies and business from the University of Washington. He is a member of the Advisory Board of the Graduate School of Business at both the University of Chicago, and the University of Washington.

The publisher welcomes David R. Hinson, new Administrator of the Federal Aviation Administration, to Rotor magazine. This issue contains Administrator Hinson's biography and a list of his intended agenda items. Hinson will become a regular contributor to Rotor's "Ask the Administrator" column beginning in the Winter, 1994 Rotor.

First Column on Enforcement/Compliance
"Ask the Administrator" column was first written by Administrator T. Allan McArtor in the Winter, 1988 edition. McArtor's column concerned the promotion of safety, and re-structuring the FAA to provide a "straight-line reporting system" for its enforcement/compliance program.

In the Summer, 1989 Rotor, acting Administrator Robert E. Whittington wrote about the FAA's position on encouraging the development of inexpensive, VFR helicopters.

Admiral James B. Busey wrote his first column for the Fall, 1989 Rotor. Among the topics he discussed in his columns were: outreach to aviation interest groups, improving the FAA's infrastructure for air traffic control, the Rotorcraft Master Plan, the Vertical Flight Program office, and the workshop on helicopter economics.

In the Spring, 1992 edition, acting Administrator Barry L. Harris wrote about the Aviation Rulemaking Advisory Committee. He also discussed the National Park Service's noise survey in Rotor. General Thomas C. Richards discussed the cost of helicopter noise testing in the Fall, 1992 "Ask the Administrator" column, while acting Administrator Joe Del Balzo wrote about the value of satellite-based navigation systems to helicopters, in the Spring, 1993 Rotor, and the definition of the term "public aircraft" in his Summer, 1993 column.

* Administrator Hinson's predecessors were:

Elwood R. Quezada
Najeeb Halaby
William F. McKee
John H. Shaffer
Alexander P. Butterfield
John L. McLucas
Donald D. Engen
John P. Bullen
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T. Allan McArtor
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Fax: 708-462-1611
HELIX-EXPO, the world's largest trade exposition dedicated to the civil helicopter, will return to Anaheim, CA in 1994 for HAI's 46th annual meeting which is expected to be one of the association's most popular in years.

"HELIX-EXPO '94 (January 30 - February 1, 1994) is the annual marketplace for the display of equipment, services, and applications pertinent to the civil helicopter industry," said HAI President Frank L. Jensen, Jr. "More than ten thousand industry professionals historically attend HELIX-EXPO, and the usual high level of business transactions and information dissemination is expected at HELIX-EXPO '94," Jensen added.

Alec Dickey, HAI's Director of Membership and Expositions, agreed. "HELIX-EXPO '94 is expected to exceed all previous shows in terms of exhibitors and attendees." He noted that over 60 helicopters will be on display in the convention center.

**Safety Symposium V**

This year's program, open to all attendees, will feature a special presentation ("The Color Code System for Total Control") by safety awareness expert, and internationally recognized speaker, Chas Harral a pilot and CFI for 30 years. Participants will be introduced to a method of communicating and implementing safety awareness through a simple association of colors.

**Eighth Annual Safety Committee Forum**

This open forum will feature a panel of speakers, including representatives from the FAA, pilots, manufacturers, and safety experts. Please join safety directors, safety managers, and others in a discussion of safety issues including inadvertent IMC. The Safety Spotlight for 1994 will also be announced. The HAI Safety Committee will discuss its current activities.

**Helicopter Noise: Public Reaction/Political Response**

This panel discussion, led by John Helm, Chairman of HAI's Fly Neighborly Committee, will focus on ways to minimize the effects of helicopter noise on the community. Negative perceptions of noise can be alleviated by public relations, sensible flight procedures and pro-active community involvement.

**FAA Public Meeting**

The FAA Rotorcraft Directorate will conduct a formal public meeting on the day following HELIX-EXPO. Items to be discussed include: Increase in Maximum Gross Weight for Normal Category Helicopters; and FAA/JAA Rotorcraft Regulatory Program Review.

**Emerging Technologies: Impact on Rotorcraft**

This forum will preview changes which new technologies are expected to have on helicopter operations in the coming decade. Representatives from MIT, DOT, the FAA

Continued on page 7
and HAI's Flight Operations Committee will present overviews of Mode S/Data Link, GPS, DUAT/NWS modernization and newly developing helicopter routes and approaches.

**Annual Meeting and Membership Breakfast**
All Members are encouraged to attend HAI's 46th Annual General Membership Meeting. A review of HAI's accomplishments during the past year, and an announcement of priorities for 1994, will be presented.

**Health and Usage Monitoring Systems (HUMS) Workshop**
In response to industry input that Health and Usage Monitoring Systems (HUMS) should be given the high priority for Research and Development funding, the HAI and the FAA Rotorcraft Directorate will co-sponsor this overview on HUMS.

**Affiliate Member Symposium**
This new forum will bring together representatives of regional, national and special focus helicopter associations from around the world to discuss issues which impact the civil helicopter industry.

**HAI's Management Clinic: Operating Costs: And The Survey Says...**
This presentation, led by HAI's Economics Committee chairman, will focus on helicopter operating cost issues including: insurance; maintenance; inventory; and other factors, which may affect the company's bottom line.

**HAI's Helicopter Public Awareness Day**
This is the public's opportunity to see several types of helicopters in a static situation, speak to the pilots and learn about the services that helicopters provide. Several thousand members of the public typically attend.

HAI's Public Awareness Day will take place January 29, 1994.

**Professional Education Seminars**
The Helicopter Association International has, for over twenty-five years, dedicated itself to improving helicopter operations through such venues as safety courses, management programs and industry forums at HELI-EXPO. Each session has been developed by leading educators and aviation experts to improve the effectiveness of helicopter operations.

**Maintenance Directors' Forum: Unapproved Parts**
The FAA's Flight Standards and Certification Services Office will host this forum intended to provide an awareness of the necessity of using only FAA-approved parts.

**Rotorcraft Roundtable**
The Rotorcraft Roundtable, attended by representatives of the regional and special-purpose helicopter associations and HAI leadership, offers a unique opportunity for open communications on issues pertinent to the civil helicopter industry.

More than 60 helicopters are expected to be on display in HELI-EXPO '94's static area.
Enhanced Safety and Cost Reductions Are Goals of Maintenance/Technical Committee

by Robert F. Lannerd

HAI's Maintenance/Technical Committee has several ongoing programs which all have the same goals: safety and cost reduction for the HAI member fleet.

MMIR Completed

The software design of the Maintenance Malfunction Information Reporting (MMIR) program has been completed (see related story this issue) and copies are now being mailed. Members can request a copy by calling the HAI office. The Maintenance/Technical Committee believes the program will be very effective in reporting problems to the FAA, and to suppliers of equipment. The Maintenance/Technical Committee has had several meetings with the FAA on the adoption of the MMIR program into their system. At this time the program can send data to the FAA computer system in Oklahoma City; however, most local FAA FSDOs do not have computers. You can also send data to the HAI office by modem or data disk. HAI will also accept the data on the standard MMIR paper form. If you have not received your copy of the program please call the HAI Office.

Program Expansion Planned

We plan to expand this program and need industry input on changes or additions that you would like to include. We hope to add the following items: a purchase order program; a work order program; and an invoicing program to be added after the first two steps are completed.

With help and guidance from HAI's Manufacturers' and Economics committees, we hope to develop the following standard systems which will reduce costs in manpower, training, and computer equipment. Our goals are as follows:

a. A common computer bar code system that is the same as the ATA Spec 2000 program (S of 9).

b. A common data transfer layout so data can be transferred in the same order as in the Spec 2000 program.

c. A common electronic data transfer carrier that the HAI will control. This will mean only one local phone line to a worldwide system. This would be like Bell Helicopters' current system and we will ask Bell to help develop this program.

d. A common data base of all parts in the system that are for sale to be maintained at the HAI office. Users only have to look in one place and then order the part electronically. Once up and running, this could save many man hours for HAI members.

The Committee is reviewing the ATA Spec 101 which details the layout and control of service bulletins. This program could standardize all manufacturers' bulletin systems. This could be a safety-related issue plus a cost saving program.

We are looking to develop a program for training of maintenance personnel that is similar to the HELIPROPS program the safety committee developed for pilots. This program will also meet the new requirements for training that will be coming if the changes in FAR PART 65 are approved. The program will also help technicians meet the requirements to receive the FAA training awards that went into effect this past year.

The Maintenance/Technical Committee has a lot of activities going on, and we would appreciate your suggestions and support. We are also planning to hold the Director of Maintenance Forum on Jan. 29 - the day before HELI-EXPO '94. We will have the Manufacturer's Technical Briefings during the show, so please plan to support these forums with your attendance and ideas.

Robert F. Lannerd is Chairman of HAI's Maintenance/Technical Committee.
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Colorado Helicopters' Sidehook Makes Ships Quite Efficient for Powerline Patrol

by Holly Moore

Well known within the specialized industry of powerline construction, Colorado Helicopters, Inc. owner Ron Magnus and his pilots have been pulling sock line on construction projects for 16 years.

Sock line, or lead line as it is sometimes called, is the cable that is first threaded through a series of powerline towers or structures which enables linemen to later put the conductor cables in place.

After several years of flying these precision-oriented missions, Magnus invented and received an FAA Standard Type Certificate (STC) for a bracket that allows the belly hook of a Hughes or McDonnell Douglas 500 series helicopter to be mounted on the side of the aircraft, i.e. "Sidehook".

The bracket mounts in the rear steps of the 500 series helicopter. This set-up is specifically designed for the task of pulling sock line and greatly minimizes the time and effort to perform this kind of job. (See box accompanying this article.)

Seismic Projects and Hell-Skiing

Over the years, he and his pilots have flown a variety of missions including working on seismic projects, heli-skiing and telephone pole setting.

In late 1989, six helicopters were used to sling 1,500,000 Christmas trees from Oregon farms. Recently, the company was performing sightseeing and photography missions in Colorado. But powerline construction remains their primary line of work.

The company uses Hughes 500D and F helicopters doing precision long line work with 50 to 200 foot long lines. "While pulling the sock line is our primary task, we seldom do just that. We also move people up and down the line and hang the travelers, ladders and glass insulators used on towers," Magnus explains.

"We have also helped build towers at inaccessible sites by sling loading small sections to the site and stacking them as we bring them in." During these past 16 years, they have flown for more than 20 companies all over the country as subcontractors on construction projects.

While no two jobs are the same and different techniques are employed in completing each construction project, there are basic similarities to all. The differences arise from the age and type of equipment being used and whether a company is completing new construction or restringing lines on existing structures.

Normally a job entails pulling a 3/8 inch steel cable from a reel mounted on a truck. A sock line brake operator on the truck remains in constant communication on a two-way radio with the helicopter pilot.

The type of travelers on the towers (devices used to roll the wire through the towers) determines how efficient a helicopter can be. An older type traveler has a solid frame and stringing by helicopter is not as efficient as one where "fly travelers" or open frame travelers exist.

When fly travelers are on the towers, the pilot will land between the truck and the first tower. After hooking the cable onto the sidehook, the pilot will take off flying sideways up and over the first tower.

The pilot will go about 100 feet past that tower and then insert the sock line into the traveler and then continue on to the next tower.

By communicating with the brake operator, the pilot ensures that the line is either held taut or released as needed. If old style travelers are being used, a lineman will either be on the tower or on the ground to insert the sock line into the device.

Sideways Flying for Complete Control

The helicopters always fly sideways. "This enables the pilot to have complete control," explains Magnus. "The pilot can look back on line to see what is happening with the sock line and can look forward on the line to see where he is going." Once the line is inserted, the pilot, in communication with the brake operator, continues to the next tower and repeats the process.

"We usually complete about 18,000 feet per pull and our average time is about 15 to 18 minutes for 18 towers, so about a minute per tower."

With the sock lines in place, ground crews take over and a heavier pull line (usually 3/4 to 1/2 inch steel cable) mounted on a semi-trailer is pulled back through the towers by the operator of the sock line puller. Then the process is repeated again after hooking conductor cables to the pull line and reeling them back through all the towers.

Customers Appreciate Efficiency of Helicopters

"Most of our jobs take 4 to 6 months, some are longer and some are shorter."

Continued on page 30
SAFETY OVERVIEW

SAFETY - WHAT'S IN A DEFINITION?

by Jim Cheatham

It's more than thirty two years since I became a pilot. My entire adult life has been devoted to aviation in a wide variety of settings. During all this time, I have yet to meet one person in this business who was not completely in favor of safety. Everybody loves the word.

But what does it mean?

Obviously, we sometimes do have safety problems, so I got curious and started trying to sort out the real meaning of the word. My computer's thesaurus gives this list of possible synonyms: Protection, Invulnerability, Refuge, Shelter, Sanctuary, Asylum, Security.

Which do you prefer? I sort of lean toward invulnerability. Wouldn't it be great if we could fly helicopters and just be invulnerable?

Unfortunately, daydreaming about invulnerability will do no good in this world. None of the other words on the list seem to quite fit either, do they? The safest helicopter is probably the one with the dead battery, right? You can't make a living with it if it won't fly, so what exactly are we talking about when we unanimously support safety?

A softer definition of safety may be achieved if we use relative terms. Some would argue that we have already achieved it, citing improving accident statistics and more dependable equipment. With hindsight, some of us would point to a continuous accident-free period of time and say, "Our organization is safe; look at our record."

A goal, of course, is to have no deaths or injuries in connection with our operations. We want no damage to equipment or property. Most of us also aim to have our operations perceived as being safe.

But in our real world, safety will always be complex; eluding precise definition. It's as if we're shooting for perfection and it's a moving target.

Maybe that's it! Maybe safety for us is really the "pursuit of perfection" in eliminating hazard. Such a pursuit requires constant vigilance. Some major areas to watch:

* Management Attitude

Continued on page 34

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OFF THE BEATEN PATH WITH HELI-HIKING

by Beth Rogers
In an era when vacationers are either trying to compress the same amount of activities into less time, or do more with the time they have, helicopters are providing opportunities for adventure seekers and nature lovers to quickly access terrain that would have taken days or longer to reach on foot.

Flight-seeing tours have been popular for decades; but today the average tourist is demanding more - instead of just flying over terrain they want to be set down in the midst of it. Industry professionals consider heli-hiking an attractive option to build into itineraries.

**Only Helicopters Have Capability**

Only helicopters truly have the capability to land in remote terrain and facilitate heli-hiking - using helicopters to allow people to experience a place, rather than just merely flying over it. Heli-hiking, sometimes labeled 'heli-adventure,' has become a phenomenon in the last ten years.

Heli-hiking is most suited for parts of the world where the land is inaccessible by other modes of transportation, such as the mountainous west or the far north. So far there appears to be no heli-hiking in the lower 48 states, possibly due to greater overflight restrictions. However, there has been some heli-hiking in Alaska.

Steve Smith, President of Alaska Helicopters, Inc. in Anchorage, notes that the company is often chartered by hikers who want to be dropped off in the wilderness with their topo maps, then picked up later at a designated place and time.

Alaska Helicopters also markets two-and-a-half hour tours to glaciers where people land, walk around, and are treated to an Alaskan-style picnic. "What we're finding," notes Smith, "is that a lot of people who want to take the helicopter are retired senior citizens who cannot hike the trails."

**Not Satisfied Going by Road**

Yet they're not satisfied with going to the end of a road, by bus or car, and then standing on a platform, 20 feet from the road, to look out at a glacier or a mountain. They want to physically fly over those mountains and land on them if possible. They want to say that they've touched them." numbers of tourists coming to the state. One disadvantage for Alaska Helicopters is that more than 90% of Alaska is wilderness refuge, with many parts banned from flyovers. Smith has tried to lobby the state government in Juneau to get more land freed up removing restrictions for the helicopter industry.

**Heli-Hiking Highlight of a Trip**

Era Helicopters, also in Anchorage, takes groups into the Juneau Icefields and through Denali National Park on Aerospatiale A-Stars 350 B2 models. Donna Harris, manager of tourism, sales and marketing with Era, says that some of the comments people make after a heli-hiking experience are, "Unforgettable experience," "Well worth the expense," "The highlight of my trip."

Era has bases in Juneau, Denali, and Valdez to capitalize on the tourism market. "Flightseeing is one of the top-rated visitor experiences in Alaska," says Harris, adding that tourism is the fastest growing segment of their business.

Harris notes that more and more cruise lines are adding helicopter side trips onto their itineraries. "As helicopter flightseeing becomes more and more accepted and people realize that it's a great way to see Alaska because there's are a limited amount of roads here, it's becoming more popular," says Harris.

Alpine Helicopters, Ltd. in Kelowna, BC, is the exclusive provider of the Bell 212s used by Canadian Mountain Holidays (CMH) for heli-hiking, according to Dave White, vice president. CMH operates a one-day heli-hiking program where hikers are flown to a lodge, outfitted, flown up into the hills to hike all day, then flown back to base; however, most programs last for several days.

Heli-hiking. A fast growing rotary-wing adventure that showcases the versatility of the civil helicopter while making nature's beauty more accessible.
New Helicopters, New Technology, New Prices, and Older Resales

by Barry Desfor

The theme of this issue of Rotor is the basis for one of the most frequently-asked questions we get at The Official Helicopter Blue Book: "What happens to the resale values of existing helicopters when a 'near duplicate' new model becomes available?"

Strangely, it's not the operators who ask the question most often, even though it's their asset base which could be most affected by these events. The question comes most often from banks and leasing companies who are thinking about becoming involved with helicopter transactions.

Three Major Areas to Be Considered

There are three major areas to be considered and evaluated before, during and after a new helicopter model is infused into the working fleet's population.

First, the cost of transitioning any different helicopter onto the job site has a number of factors which are best sorted out in advance, regardless of whether it's another used machine coming in, or the latest model straight from the manufacturer's showroom.

Will the "new" (replacement) machine be acceptable to the customer/end user? What sort of transition time frame is involved in order to make the switch, and is that acceptable? Is there any added training time, money, or personnel needed to complete the transition smoothly?

A second area of questions during the transition phase might be: Is the new machine acceptable to, and properly covered by, the operator's insurance carrier? Are there any special installations, optional equipment, job-related kits, or other new modifications which must be accomplished to the helicopter before it is ready to perform on the new job? Will the new helicopter's acquisition and operation costs be recoverable through the charges paid by the customer?

Finally, there are situations where the customer/end users have become attached to "old reliable." While it's certainly true that almost everyone loves the "latest and greatest" new machine, they also may have built up a very strong affection for the old helicopter they spent a lot of time with on the job.

Sticker Shock Major Concern

A major concern in the helicopter business is "sticker shock." The cost of getting an expensive, highly regulated, precisely maintained, operationally flexible, complex flying machine into the work force is a tough job.

Certain types of customers and end users will say that paying for a new helicopter is often worth the price. Operations such as EMS air ambulances, public service departments, such as police and fire aviation units, sightseeing operators, and many in the corporate sector frequently opt for the brand-new machines.

Older Machines Fit Some Operations Best

Often, those with the jobs where the surroundings are often very tough and "dirty," (such as external lift, offshore, agricultural applications, wildlife/land/fire management), frequently say "no thanks" to the new offerings. Their experience usually tells them the older machines fit their operations, and wallets, just fine,

Continued on page 29
Looking for Low Cost FAA Approved Spare Parts for Your T53 and T55 Engines and Fuel Controls?

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When it comes to purchasing spare parts for the T-53 and T-55 helicopter engines, you can go three ways: to the Original Equipment Manufacturer (OEM), where you'll pay top dollar; to non-qualified vendors where you'll get cheap prices, but sacrifice quality; or finally, CMP, where you'll find the best of both worlds... one of the industry's largest inventories of factory-new parts, priced well below the OEM.

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"If we are to achieve public acceptance of the helicopter, we must begin now, with a meaningful education process for elementary school children," said HAI President Frank L. Jensen, Jr. "Budgie the Little Helicopter and HELI-HOUND are two characters with which children and teachers can identify," he added.

Budgie the Little Helicopter, the rotary wing star of four children's books written by the Duchess of York, is the newest airborne hero for elementary school children. Heli-Hound is a helicopter awareness program for kindergarten through second grade students.

**Spreading the Word**

Budgie, like Heli-Hound, is spreading the good word about helicopters to a youthful audience. Budgie reportedly will become an animated TV series in England. Like the books, the series will feature aviation-oriented cartoon characters who rescue people in distress.

The Duchess of York, Sarah Ferguson, has donated $40,000 in royalties towards international children's causes, from sales of Budgie the Little Helicopter books. According to Ferguson's publishers, the series was inspired by her personal experiences as a licensed helicopter pilot.

**Successful Awareness Program**

The Heli-Hound character comes alive in the classroom. The Heli-Hound classroom instruction makes learning about helicopters fun. Students pretend they are members of a large workforce needed to launch Heli-Hound's helicopter on its way to flying a medical team, rescue personnel or crime fighters to their missions.

"Heli-Hound is an exciting way for students to learn about helicopters," said Pam Charles, HAI's Director of Heliports and Technical Programs. "Heli-Hound introduces children to exciting helicopter career choices, stimulates early interest in science and math and helps eliminate any misconceptions children may have about flying," she said.

Heli-Hound has visited students in the US, and at HAI's HELI-EXPO, for several years. For more information about Heli-Hound, please contact HAI's Operations Department at: (703) 683-4646.

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**Looking for Information**

on the civil helicopter industry? Helicopter Association International has it! Here's a partial list of the many valuable publications from HAI.

- The Helicopter Annual
- Rotor Magazine
- HAI Safety Manual
- The Heliport Development Guide
- Operations Update
- Preliminary Accident Reports
- HAI Heliport Directory
- The Fly Neighborly Guide
- Helicopter User's Guide
- Aeronautical Decision Making Manual for Helicopter Pilots
- Airworthiness Directives and Technical Notes
- Malfunction or Defect Reports
- Helicopter Operating Cost Estimate Guide

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16 *ROTOR* • Fall 1993
Improving Your Safety Posture—
What's in Store for HELI-EXPO '94

by Craig Geis

HAI realizes that individuals who attend the HELI-EXPO safety courses are also responsible for implementing and managing safety programs in their companies. The results of the recently conducted HAI Educational/Professional Development Survey confirm this and reinforce the need to continue providing training that meets the needs of HAI members.

As the Course Director for safety-related courses at HELI-EXPO, I would like to discuss what's in store for '94. The HAI Safety Committee has recently approved updating of the Safety Management and Human Factors courses in response to member feedback. Additionally, they have approved the addition of an exciting new Advanced Safety Management Course for '94. With this selection of courses, it should make implementation of effective Safety and Human Factor Training Programs as simple as one, two, three!

Just How Simple Is One, Two, Three?

It's very simple because HAI has put together everything you need. This consists of:

One: “Helping you focus on what's important.” In each of the three courses offered at HELI-EXPO '94 the regulatory and industry standard requirements for each area will be covered in detail.

Two: “Providing you with the materials needed to set the program up in your company.” In each of the three courses, HAI provides you with all the materials you need to set up your own program, or to refine your existing programs.

Continued on page 18

Air Cruisers Helicopter Floats:
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Three: "Providing you with an evaluation and tune-up of your existing program." HAI’s new Advanced Safety Manager’s Course will enable you to: evaluate your flight safety, ground safety, maintenance, and human factors programs; assist you in refining them; and provide you the opportunity to share information with the other students.

Safety Management Course

The Safety Management Course prepares attendees to assist their company in developing or modifying an existing safety program. This course lays out exactly what is required, provides attendees with the materials needed, and discusses tips for implementing a flight and ground safety program that works. The course meets the standards established by the FAA and OSHA. Emphasis is placed on understanding the principles of risk management and the identification of program development strategies. At the completion of this course, the attendee will be able to develop, implement, and manage an effective safety program.

Human Factors Course

The Human Factors Course is based on the premise that many problems in aviation can be traced, ultimately, to human error. This area has received considerable attention in the past two years and recent recommendations by the FAA and ICAO have become the accepted industry standard. This course was specifically designed to meet the requirements of FAA Advisory Circular 120-51A, Crew Resource Management, ICAO Circular 227-AN/136, “Training In Human Factors,” and the DOT/FAA Pamphlet on Aeronautical Decision Making. At the completion of the course, the attendee will be able to identify human error problems, identify strategies for reducing the probability for human error, apply the concepts to their own operations, and advise their companies in implementing human factors training for their personnel.

Advanced Safety Management Course

The new Advanced Safety Management Course being offered for 1994 is a two-and-one-half-day course designed for the experienced safety manager. Experience has shown that even after attending a Basic Safety Manager’s Course, some individuals do not have sufficient time to develop and implement an effective safety program. During this course, students will receive everything they need to immediately implement a comprehensive safety program and prepare a Flight Operations Manual.

The course will specifically address the following areas: Flight operations, ground safety, maintenance operations, FAR Part 135 requirements, recommended FAR Advisory Circular information, present Occupational Safety & Health requirements, and the proposed Comprehensive OSHA Reform Act requirements planned for 1994.

Participants will not only develop any required new material, but will share
Congress Passes $25 Commercial Tour Fee and Energy Tax Bills

by Jennifer Pitman

In a last minute scramble to find the $500 million for Clinton's deficit reduction plan, Hill staffers reinserted into the Omnibus Budget Reconciliation bill a National Parks User Fee which had previously been eliminated by the Senate. Despite widespread public opposition, the bill narrowly passed both Houses of Congress, with a vote of 218-216 in the House and 51-50 in the Senate.

The bill imposes a Commercial Tour Use Fee of $25 for each vehicle or aircraft which enters the ground or airspace of the Haleakala and Grand Canyon National Parks, as they are referred to in Public Law 100-91. The tour fee, effective October 1, 1993, may be extended by the Secretary of the Interior to include other National Parks with similar usage. The fee, to be administered by the Department of the Interior through the National Park Service, undermines the traditional role of the Federal Aviation Administration as the legitimate authority on airspace issues.

HAI Works Issue

HAI has been working on this issue since May 1993 when the House Committee on Natural Resources passed the original proposal which assessed a fee.

Continued on page 20
on aerial tours entering the airspace over all units of the National Parks which currently charge an entrance fee.

HAI formed a coalition with the Regional Airline Association, the National Tour Association, the United Bus Owners Association, and others, which successfully lobbied the Senate committee for the removal of the fee from the Budget proposal. In a position paper prepared by the coalition, the fee was called "inappropriate for air tour operators" who do not impose an economic burden on the National Park Service.

An urgent "Alert" to aerial tour operators on July 28, 1993 generated numerous phone calls to the group of Congressmen who were working on the Tour Fee provision in the Budget bill. Until a few days before the Conference Committee passed the bill, it was assumed that Congress would accept the Senate language of the provision, which limited the duration of the fee to the years 1994 through 1998 and applied only to ground tours and not to aerial tours.

The Budget Reconciliation Conference Committee reinserted the tour fee proposal into the budget bill shortly before they released the compromise budget proposal on August 3, 1993. On that same day, HAI sent out a priority "Alert" by FAX to aerial tour operators in Hawaii, Arizona and Nevada. This "Alert" urged operators to call their congressmen in an effort to influence them to vote against the President's budget package because it contained the costly tour fee provision.

Other provisions in the Budget Reconciliation legislation of concern to general aviation include the energy tax, the luxury tax on aircraft, and the aircraft registration fee. The final form of the energy tax imposes an increase of 4.3 cents per gallon on transportation fuels. This tax increase will apply to General Aviation operators, but will exempt commercial fuels, including both Jet-A fuel and aviation gasoline, for the first two years of the tax. The final form of the budget legislation eliminates the luxury tax on aircraft and does not include the proposed registration fee for General Aviation Aircraft.
Certified Repair Stations Will Require JAR 145 Certification for EEC-Registered Aircraft

by Pam Charles

The Federal Aviation Regulations (FAR's) govern the maintenance, preventive maintenance, and alterations of U.S.-registered civil aircraft operating within or outside the United States.

The FAR's require that no person may operate any aircraft that has undergone any of the above unless, among other things, the aircraft has been returned to service as authorized under FAR 43.7.

In accordance with FAR 43.7(d), the holder of a repair station certificate, issued and utilized in accordance with FAR Part 145, may approve an aircraft, airframe, aircraft engine, propeller, appliance, or component part for return to service, as appropriate.

Under FAR 145, an FAA-certificated repair station located in the United States is called a "domestic repair station" and one outside of the US is called a "foreign repair station." Both foreign and domestic repair stations are issued certificates under FAR 145. Any repair station, regardless of location, returning a U.S. registered aircraft to service in accordance with the FAR's, must possess a valid 145 certificate.

Through the existence of already established bilateral and other agreements with European countries, FAR 145-certificated repair stations have also been eligible to perform work on European aircraft.

However, under the Joint Aviation Authority (JAA) of the European Economic Community (EEC), Joint Aviation Regulations (JAR's) are being developed which regulate aeronautical repair stations. FAR Part 145 was chosen by the JAA to provide the format, and where appropriate, the content, for JAR 145. For this reason, and through the cooperative efforts of the FAA and the JAA to harmonize FAR 145 and JAR 145 as much as possible, both regulations very closely parallel one another.

Applications Must be Submitted to JAA

FAR 145-certificated repair stations which are currently conducting work on European registered aircraft must expeditiously submit an application to the JAA for JAR 145 certification.

In a letter from JAA headquarters in the Netherlands, the JAA's maintenance director has advised that applications should be received by the beginning of September, 1993 to ensure the ability to continue to provide maintenance to European aircraft after January 1, 1994.

The JAA recognized the potential negative impact to repair stations currently performing maintenance and/or repair to European-registered aircraft based on their FAR 145 Certificate. In an effort to mitigate this negative impact, they have been working closely with the FAA to contact those organizations which potentially fall into this category.

If your organization is FAR 145 Certificated and is performing maintenance and/or repair on any European registered aircraft and you have not yet applied for JAR 145 certification, please do so as soon as possible. If you need further information on this subject, or application procedures, please contact HAI at 703-683-4646.

Pam Charles is HAI’s Director of Heliports and Technical Programs.
Transactions Now Featured in ROTOR

by Andy Aaslad

This is the first of a new series of reports on "Helicopter Transactions," i.e., a listing of actual sales and leases of civil helicopters. Initially these reports will cover only turbine helicopters involved in transactions as reported on the FAA's registry. The reports will be expanded to include piston helicopters. Other countries may be included later.

Helicopter registrations are broken down into single and twin engine categories. In general, unit sales of new helicopters this year are up from last year. However, in used helicopters the increased activity appears to be due to higher aircraft availability and lower prices.

For new helicopter sales, twins represented 40% of the total through the first five months of the year, but dropped to 32.8% in June. This was caused by an anomaly of higher twin sales in May (5 singles v. 10 twins) and a sharp reversal in June (14 singles v. 10 twins). The average for twins to date is about 1/3 of total turbine helicopter transactions which is a strong position.

At this level, total sales revenue for twins is probably higher than singles.

LongRanger 42% of Single Engine Transactions

In single engine sales the winner is the Bell LongRanger with about 42% of the new engine transaction total. Eurocopter's 350 series is second with 28%. In used sales, LongRangers to date are 37 of 365 or about 10% of all used transactions.

Of the singles reported above, the breakout is as follows:

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<th>Company</th>
<th>Twins</th>
<th>Singles</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Eurocopter</td>
<td>12</td>
<td></td>
<td>21</td>
</tr>
<tr>
<td>Bell Helicopter</td>
<td>24</td>
<td></td>
<td>34</td>
</tr>
<tr>
<td>McDonnell Douglas</td>
<td>7</td>
<td></td>
<td>7</td>
</tr>
<tr>
<td>Totals</td>
<td>43</td>
<td></td>
<td>64</td>
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</tbody>
</table>

Total (new and used) June transaction activity in 1993 was 76 units, up from 52 reported in May. This moves the monthly average throughout six months to 71.5 units. So, June was up by 4.5 units over the average. In a comparison of 1993 v. 1992 we see a continuation of the earlier increases with 429 transactions to date v. the comparable 1992 total of 353 units. 1993 is ahead of 1992 by about 18%.

The total number of new turbine powered helicopter transactions in the first six months of 1993 was 64 units v. 54 in 1992. This represents a healthy 15.6% increase over 1992 and may indicate an improving economy for the helicopter industry. In comparable used helicopter transactions, the score is 365 v. 299 or an increase of about 18% for 1993.

"Dealers" still register about 1/3 of the used helicopter transactions. At 118 units in six months, this group has established a firm and growing position in used helicopter sales. Interestingly, there have been 35 Huey transactions so far in 1993.

Andy Aaslad's helicopter career began in 1952 as a helicopter flight instructor at the Navy training facilities in Pensacola, Florida. He joined Bell Helicopter Company in 1961 as a commercial marketing manager accumulating over 30 years of helicopter marketing experience to date. In 1981, Aaslad joined MBB Helicopter Corporation serving as Vice President of

Continued on page 42
GO WHERE THE ACTION IS...

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"Dick Salzarulo has served on HAI's Board of Directors since 1989," said HAI President Frank L. Jensen, Jr. "He has also served on HAI's Flight Operations Committee, and International Operations Requirements Committee, where his extensive experience in flight operations and international affairs helped to advance helicopter operations worldwide," Jensen said.

Salzarulo became a licensed pilot in 1957 at the age of 17. He attended Embry-Riddle Institute for Aeronautical Engineering, and served in the U.S. Air Force and then in the Army, where he was a standardization pilot for both fixed and rotary wing aircraft.

Following his military service, he joined Petroleum Helicopters, Inc. (PHI) working in both South America and the Gulf of Mexico. He helped set up PHI's Part 135 ground school and check pilot system.

In 1973, he joined Sun Company, Inc. where he was responsible for operations in the Amazon jungle and Andes mountains. In 1980, he moved to Sun's corporate headquarters and is responsible for the company's rotary wing department and the contract and inspection of worldwide charter operations.

Salzarulo holds multiple pilot ratings and has logged in excess of 17,000 fixed and rotary wing aircraft hours. In a recent letter to the HAI membership, Salzarulo said he is honored to be the first corporate member to be elected chairman of HAI. He intends to strengthen cooperation between HAI and the European Helicopter Association, as well as other organizations with compatible goals.

HAI President Frank L. Jensen, Jr. recently sent an open letter to insurance professionals emphasizing the growing concern over rapidly rising premiums for hull and liability insurance. HAI asked the insurance professionals for comments and suggestions about ways hull and liability insurance rates could be minimized to lessen the economic burden on operators.

In the letter Jensen wrote, "The HAI leadership is aware of the cyclical nature of insurance, based on capacity, loss experience, and other factors. Now the market is tightening up, and many operators are reporting significant premium increases. Further increases in premiums will result in less flying, smaller fleets and, ultimately, bankruptcies."

Jensen also recently submitted a written statement to the Federal Aviation Administration before issuance of an FAA study on increasing air traffic over the Grand Canyon, and establishing a plan of action to manage that traffic.

In the HAI statement, he emphasized the commendable safety record of Grand Canyon tour helicopter operators. The HAI recommendations included a warning

Continued on page 25
against using noise concerns as a basis for airspace management.

Jensen stressed the importance of developing a plan of action for the management of future air traffic increases which reflects the safety needs of the area. The FAA is expected to release its report to Congress by early 1994. The National Park Service is scheduled to release its report on national park overflights in September 1993.

Air Hanson has been appointed regional distributor for McDonnell Douglas Helicopters in France, Luxembourg, Belgium and Holland.

Enstrom Helicopter Corp. recently delivered the first production 480 helicopter during the Paris Air Show. The Enstrom 480 is the commercial variant of the TH-28 turbine-powered, three-place helicopter. The 480 certification program, which was granted type certification in June by the FAA, included new crew and passenger seats, removable flight controls and a narrower profile instrument control console.

Hillaboro Helicopters, Inc. and TransWestern Helicopters, Inc. have merged operations. The new company, to operate under the name Hillaboro Helicopters, merges helicopter flight and maintenance operations.

MedSTAR MedEVAC recently celebrated its tenth anniversary providing helicopter service at Washington Hospital Center, Washington, D.C. MedSTAR operates two BK-117s. During its ten years, the service flew more than 10,000 accident-free transports, according to company officials.

Petroleum Helicopters Inc. (PHI) Aeromedical Services division has announced it is providing helicopter support services for Samaritan AirEvac. PHI is supplying Samaritan with medically equipped helicopters, pilots and maintenance technicians for their aeromedical operations throughout Arizona.

Rocky Mountain Helicopters Inc., and the University of New Mexico Hospital, Albuquerque, NM, signed a contract to begin operating an AS 350 B2 helicopter as part of the hospital's LIFEGUARD air medical program, according to Rocky Mountain officials.

Schweizer Aircraft delivered the first 300C to Novecoper, Ltd., Moscow, Russia. According to Schweizer, the 300C is the first US-manufactured helicopter to be marketed in Russia by a Russian company. The three-passenger helicopter will reportedly be used by both government and the private sector.

**Names in the News**

Lawrence Mattiello, vice president Alpha Aviation, Inc., and special advisor to the HAI Board of Directors, was selected for inclusion in the 1993-94 edition of *Giford's Who's Who, the Elite Registry of Extraordinary Professionals*. Mattiello was selected for his career accomplishments, and for achievements in community service.

Lloyd Shoppa was appointed executive vice president, Bell Helicopter Textron, Inc. Shoppa will have responsibility for Bell's worldwide manufacturing operations.

As an update to an article in Rotor magazine (Spring, 1993) HAI's Mechanic/Technician Scholarship award winner, Stephen C. Trowbridge, was also awarded a complimentary training course from Turbomeca Engine Corporation. Turbomeca offers two training courses to winners of the HAI Mechanic/Technician Scholarship Award program. The second training course offered by Turbomeca will be attended by Mark Arnold, a graduate of Miramar College.

Willy Wilson, Director of Operations, UNC, was quoted in the Spring issue of Rotor, but his title was omitted. Rotor thanks Mr. Wilson for his comments in that edition.

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F.A.A. Repair Station also including Bell 206 series and Agusta 109A. Large stock of engine spares for the Allison 250 series. Lycoming LTS 101 and Turbomeca engines. Factory approved avionics parts. Sales and service for all major manufacturers. Aircraft sales and charter operations.
HAI ANNOUNCES MMIR VERSION 1.2

by Ed DiCampli

On August 12, 1993 HAI announced MMIR® 1.2, the newest version of its Maintenance Malfunction Information Reporting software first released in March, 1993. MMIR 1.2 significantly enhances the data entry, reporting and data transfer capabilities.

In MMIR 1.2, a new F5 function key has been defined to duplicate any MMIR record on the screen. This makes a simple task of reporting on multiple parts from the same aircraft. Lynette Francois of Petroleum Helicopters, Inc. (PHI) says, "I now look forward to creating 20 or more MMIR reports on the same aircraft. They are so easy to create. I enter the first MMIR, press the F5 key 20 times, then go to each record and update the part numbers and other pertinent data." Raylund Romero of PHI estimates the new MMIR program reduced report production time by a factor of three and gives more detailed information than the earlier report forms.

Data Import/Export Utility

MMIR 1.2 also has a data import/export utility. Data from an MMIR system at an operators site can be exported to an ASCII file. Then the data file can be sent by modem or mailed via floppy disk to another MMIR system at the participating manufacturer.

The manufacturer can import the data into their system without transcribing errors or any data entry time requirements. This will streamline the warranty claim procedures for both the operators and the manufacturers. Bell Helicopter Textron and American Eurocopter will have the MMIR system online soon.

24 Hour Accessibility

The collective MMIR database, accessible via modem 24 hours a day on the Helicopter Hotline, now has over 16,000 reported parts. The database will provide crucial information for trend monitoring which has the potential to detect incipient failures on a real time basis as well as supply data to substantiate requests for life and/or overhaul extensions, and for product improvements. Another important benefit is to improve safety and decrease down time.

If you already received a copy of MMIR 1.0 or 1.1, you will automatically receive the 1.2 update from HAI. The update will transfer your current data to the new system so there is no need to re-enter data. If you would like a new copy of MMIR 1.2 (currently free to anyone who requests it), please contact HAI's Manager of Information Systems at: (703) 683-4646; fax your request to (703) 683-4745; or modem: (703) 683-6488.

Continued from page 28

Sponsor: Clay (D- MO)
Status: House passed 239-190 on June 15, 1993
Senate version (S.55) to be addressed soon
Description: This legislation prohibits the hiring of permanent workers during a labor dispute. Support in the Senate is lukewarm at best. HAI, as a member of the Small Business Legislative Council, opposes passage of this bill.

HR 1696
Title: Hawaii National Park Overflight Act
Sponsor: Mink (D- HI)
Status: Introduced 4/05/93
Assigned jointly to the Natural Resources and the Public Works Committee
Description: The bill would require compliance with a 2,000 feet AGL minimum altitude over Park System lands, as well as a 2 mile standoff distance from noise-sensitive areas designated by the National Park Service. HAI is opposed to this legislation and supports the efforts of the Hawaii Helicopter Operators Association to address the concerns of the residents of Hawaii and the Park Service.

Senate Bills

S 67
Title: General Aviation Product Liability Reform
Sponsor: Kassebaum (R- KS)
Status: Assigned to Senate Commerce Committee
Description: This legislation provides for uniform standards of liability for harm arising out of general aviation accidents. HAI supports this legislation as well as the Glickman-Hansen bill, which calls for a 15 year statute of repose and currently has 171 co-sponsors.

S 1092
Title: Application of Federal Regulations to Public Aircraft
Sponsor: Pressler (R- SD)
Status: Introduced on June 10, 1993 and assigned to Senate Commerce Committee
Description: This bill would require that FAA safety regulations apply to all non-military, public-use aircraft and gives the NTSB authority to investigate public-use aircraft accidents. Pressler's interest in the issue follows the April 19 crash of a Mitsubishi Mu-2 which killed South Dakota Governor Mickelson and seven others.

Jennifer Pilman is HAII's Legislative Intern from the University of Wisconsin at Oshkosh.
**HAI Gift Shop**

- **Puff Ink Neon T-Shirts** - $15.00
  - Colors: Orange, Green
  - Sizes: Adult, one size fits all
  - Kids, one size fits all
- **Toy Helicopter** - $10.00
  - Cable operated, battery powered
- **HAI Poplin Caps** - $10.50
  - Colors: Royal with White, White with Royal
- **HAI Yo-Yo** - $2.00
  - Colors: Blue with White, Red with White
- **HAI White Coffee Mugs** - $5.00
- **Take-Apart Toy Helicopter** - $12.00
- **HAI Frisbee** - $2.00
  - Colors: Royal and White, White and Royal
- **HAI Inflatable Helicopter** - $10.00
  - Color: Red and White with HAI logo
- **HAI Oversized Folding Umbrella** - $22.00
  - Color: Blue with White panels

- **HAI Crest Emblem Sweat Shirt** - $25.00
  - Colors: Grey, White
  - Size: Small, Medium, Large, Extra Large

- **HAI Winged Logo Sweat Pants** - $20.00
  - Color: Navy
  - Sizes: Small, Medium, Large, Extra Large

- **HAI Embroidered Logo Sweat Shirts** - $25.00
  - Sizes: Small, Medium, Large, Extra Large

- **Mesh Cap** - $5.00
  - Colors: White with Royal, Royal with White

Please send your orders to:
Heliocopter Association International
Fulfillment Department
1619 Duke Street
Alexandria, VA 22314-3439

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**Shipping & Handling**
- Domestic: 3 items or less, $3.50; 5-9 items $4.50; 10 or more items $8.00.
- International: 3 items or less, $8.00; 3-9 items $12.00; 10 or more items $18.00.

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| SHIPPING & HANDLING | $ |

**Grand Total**
Continued from page 11

* Competitive Attitudes

* Economic Priorities and Attitudes

When you get right down to it then, it looks like safety is just a matter of establishing and maintaining reasonable attitudes and priorities, right? Easy to say, much more challenging to do. Safety is something we work very hard to attain. R

Jim Cheatham, President, Verticare, Inc. is Chairman of HAI's Safety Committee.

Continued from page 18

existing programs with other students. Students attending this course will be required to bring copies of their flight and ground safety programs and Flight Operations Manual. During the course these documents will be reviewed and updated as appropriate. At the completion of the course, attendees will be able to immediately implement a revised or refined company safety program. This is an advanced course and enrollment is limited to the first 25 qualified registrants.

In order to ensure that course objectives are achieved, all registrants for this course must certify that they have completed either the HAI Safety Program Management Course, or an approved equivalent Safety Management Course, and have a written Safety Program and Flight Operations Manual to bring for evaluation and revision. If you wish to reserve an advanced seat in this course you may do so by calling David Carter, HAI's Director of Safety and Flight Operations at: (703)683-4646. Seats will be allocated on a first-come first-serve basis; then by stand-by only.

That's HAI's safety course lineup for HELI-EXPO '94. It includes everything members asked for and more. R

Craig Geis is the Course Director for the safety courses presented at HELI-EXPO '94.

HAI and EHA Sign Memorandum of Understanding

The Helicopter Association International and the European Helicopter Association recently signed a memorandum of understanding which constitutes a formal ratification of growing cooperation between the two international helicopter groups.

The memorandum states that the best interests of the two organizations can best be served by a review and comment on international regulations pertaining to civil helicopters including regulations and standards promulgated by the International Civil Aviation Organization, the Joint Airworthiness Authorities and the Federal Aviation Organization.

Information Exchange

The organizations also agreed to exchange information on safety and technical operations; to bring about noise reduction through joint efforts; and to promote civil helicopters through public acceptance activities and programs.

The memorandum was signed by then HAI Chairman Robert McNab, Edwards and Associates; HAI President Frank L. Jensen, Jr.; EHA chairman Harry Schoevers; and EHA Chief Executive Jan Stuurman.

"This constitutes formal ratification of growing cooperation between these two international helicopter groups whose combined membership comprises the vast majority of civil helicopter operators in the world," Jensen said.

EHA's aim is to promote the flow of commercial and private helicopter traffic between European countries through the standardization of realistic operating legislation. EHA has thirteen member companies. R

ROTAR Calendar of Events

September 13-17-The Human Element in Aviation, Montreal, Quebec. Contact: Richardson Management Associates, Ltd., (514) 935-2593.
September 20-24-Recruent Training, Montreal, Quebec. Contact: Richardson Management Associates, Ltd., (514) 935-2593.
September 21-23-National Business Aircraft Association (NBAA) 46th Annual Meeting and Convention, Atlanta, Georgia. Contact: David Franson (202) 783-9000.
September 28 - October 1-Helitech '93, Redhill Aerodrome, Gatwick Airport, UK. Contact: Spearhead Exhibition Ltd., Rowe House, 55/59 Fife Road, Kingston upon Thames, Surrey KT1 1TA. Phone: 081-549-5831 or Fax: 081-541-5657.
October 2-6-Air Medical Transport Conference, St. Louis, Missouri. Contact Christine Becker, AAMS, (818) 793-1232.
October 3-7-AAAE/FAA Advanced Aircraft Rescue & Firefighting "Train the Trainer" School, South Bend, Indiana. Contact: AAAE, (703)824-0500.
January 30 - February 1, 1994--HAI's HELI-EXPO '94, Anaheim, California. Contact: Melanie Beames, Exhibit Sales or Linda Peters, Exhibits Mgr., 1619 Duke Street, Alexandria, VA 22314, or call 1-800-HELIXPO.
Revised HAI Safety Manual is Available; IFR Access, Charting are Key Issues

by David Carter

The HAI Safety Manual has been reviewed and updated, and is now being printed. The revised version contains registration and revision cards, and the manuals are serialized. This will update our Safety Manual owner data base and allow us to send revisions to the registered owner without replacing the entire manual.

Updates/revisions are planned for publication once a year unless they are of an urgent safety nature which requires immediate distribution. New manuals will be sent free of charge to all HAI Regular members. Additional copies may be purchased for $95.00 for HAI members and $110.00 for non-members, plus $10.00 postage.

Helicopter Operators have an opportunity to gain IFR access to locations which have been unavailable. The FAA has opened the door to our industry for the certification of helicopter GPS non-precision approaches at heliports. This opportunity is presented in advance of the normal process of defining approach TERPS criteria.

Now is the time to request specific helicopter GPS approaches. Requests will be evaluated on existing RNAV TERPS criteria and if the situation does not meet this criteria, a special exception may be authorized. This method can allow helicopter non-precision approaches "possibly" down to 200 ft AGL with eventual precision approach DH’s much lower.

Helicopter operators have a unique opportunity to lead the aviation industry and access the benefits of GPS before the airplane community. Even though the GPS system has not been declared operational, and although the TSO - 129 has been approved, no receivers are certified yet; but now is the time to be heard. The helicopter industry must step forward now and show the FAA that we are serious about IFR operations by requesting as many GPS approaches as possible or we may lose this opportunity.

Contact Your Local FAA Office to request an approach to your site. Please copy HAI with your written correspondence so that we will have it on file if our support is needed to work with the FAA in Washington, DC.

HAI is participating in the General Aviation Action Plan, Accident Prevention Working Group, which is an industry/FAA partnership. This working group is addressing new ways to assure that safety educational materials are distributed to a greater number of pilots. This effort will complement the FAA’s "Back to Basics" program because most accidents are a result of one or more simple errors.

HAI is working with the FAA and National Oceanographic Aeronautics Administration (NOAA) to find a solution to the budget situation which has resulted in a proposed discontinuance of charting products.

Helicopter pilots/chart users beware! We are low volume purchasers of helicopter specific products. The U.S. Gulf Coast (VFR) Aeronautical Chart, World Aeronautical Charts, Helicopter Route Charts, Wall Planning Charts, and Flight

Continued on page 38
'Timed Out' Vietnam-era Parts Should Not Be Allowed In U.S.

by Ray Robinson

When Saigon fell to the North Vietnamese Communist forces in the spring of 1975, a large quantity of aviation assets were captured from the South Vietnamese military.

Figures recently obtained from the Department of Defense (DoD) through the Freedom of Information Act reveals a June 1975, intelligence estimate of 1,100 aircraft, both rotary and fixed wing, fell into the hands of the Communists, more than doubling the size of the North Vietnamese Air Force (NVAF), "if only 25% of the 1,100 captured aircraft are usable, North Vietnam has almost doubled the aircraft in its military inventory," according to DoD.

Approximately 50% of these aircraft were rotary wing (an estimated 430 Bell Helicopter UH1 models and 36 Boeing-Vertol CH47 "Chinooks"). The balance was fixed wing aircraft. The aircraft spares captured were believed to be minimal, as the South Vietnamese government had reported a shortage of parts, however, one should remember the South Vietnamese were notorious for under-reporting materials in their possession, always asserting a need for more.

The report went on, "some items apparently had been in short supply since the reduction in US aid began. Nevertheless, stocks available to the Communists could probably be augmented considerably through selective cannibalization."

The Defense Intelligence Agency (DIA) appraisal went on to report "large quantities of munitions and aircraft-support equipment" were captured. "The aircraft and equipment that proves excess to Communist needs will either be sold for hard currency or traded for needed items. A foreign market probably exists for much of the equipment" (parts) "as (certain models) are in use worldwide."

U.S. Aircraft Cannibalized

Over the course of the next two decades, Communist Vietnam used those aircraft parts as a means to keep that economically unstable government afloat. This was done, in part, be cannibalizing those U.S.-made aircraft. (Virtually every U.S. defense contractor and civilian manufacturer was represented in Vietnam.) One should remember the intelligence estimate was based on satellite photo reconnaissance; thus the actual number of captured aircraft could be much greater.

The 1992 Vietnam Helicopter Pilot Association Directory listed 4,955 helicopters destroyed in Southeast Asia during the period 1961-1975. Bell Helicopter - Textron, Inc., a firm that dominates the world helicopter market with a market share of about 48%, manufactured approximately 65% of those lost rotorcraft. How many of those craft were abandoned or recovered by U.S. or friendly forces or enemy forces is unknown.

What is certain is Bell Helicopter has encountered numerous "timed out" flight component manufactured and sold to the military, particularly parts manufactured during the Vietnam era. May of these parts undoubtedly came from the almost 6,000 helicopter destroyed or captured in

Continued on page 38
HAI’s “Salute To Excellence” Award’s Nominations Due October 15, 1993

HAI’s commitment to the advancement of the civil helicopter industry, through professionalism, safety and courage, is the hallmark of the Helicopter Association International’s (HAI) award program; and award recipients of the 33rd annual competition are no exception. The winners will be honored on February 1, 1993 at the conclusion of HAI’s HELI-EXPO ’94 in Anaheim, California.

"HAI’s four new technician awards commends technicians whose proficiency, daily maintenance of the helicopter provides a vital service to civil helicopter operators, and ultimately contributes to the increased safety records of the helicopter industry," HAI President Frank L. Jensen, Jr. said.

The Salute to Excellence Awards Program recognizes extraordinary achievement in all areas of civil helicopter operations. The award categories are:

- Lawrence D. Bell Memorial Award
- Crew of the Year Excellence in Communications
- Helicopter Maintenance Award
- American Eurocopter Golden Hour Award
- Safety Award
- Igor I. Sikorsky Award for Humanitarian Service
- McDonnell Douglas Law Enforcement
- Outstanding CFI Award
- Pilot of the Year

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*Limited copies may be purchased.
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Case Planning Charts are being considered for discontinuation. Users should decide which charting products they use and write HAI to express their concerns.

The FAA budget does not include the revenues produced by chart sales because this money goes into the general fund not back to the FAA or NOAA. The FAA considers only the costs of production of these products and the volume of distribution when deciding on chart continuation.

MIT Lincoln Labs is working on Mode-S Data Link for the FAA and has an impressive demonstration to show the system’s capability. The system can provide, out of radar coverage, position reporting, communications, and weather products into the cockpit. This is not TCAs.

The FAA and the helicopter industry are researching the requirements for Extremely Low Visibility IFR Rotorcraft Approach (ELVIRA). The objectives of this workshop, held in Santa Fe, New Mexico on August 24-26, 1993, were to

1. Specify directions and find answers to achieve ELVIRA,

2. Develop near term operational concepts for ELVIRA consistent with current aircraft, navigation and NAS capabilities,

3. Achieve lower minima near term which can evolve into a large payoff for operators as the capabilities (E.g., GPS, NVG, Training, Etc.) increase,

4. Initiate design of a full IFR System for ELVIRA operations conducted to category II, or III minima. This operational reliability will be available for all who need it based upon demonstrated operational capabilities.

The National EMS Pilots Association (NEMSPA), the FAA, and HAI, jointly sponsored an EMS Helicopter Safety Workshop on Recommended Practices, on September 10-12, 1993 in Grand Prairie, Texas. American Eurocopter hosted the workshop at their facilities. The primary issues or areas to be addressed are flight training and other operational areas as identified during the course of the workshop. These issues include: initial pilot training, recurrent pilot training, IFR and VFR training, and inadvertent IMC training.

HAI has initiated significant efforts to reduce the risk of wire-strike accidents. At HELEXPO '92 HAI President Frank L. Jensen, Jr. convened a meeting of principal operators and utility companies from the southern California area to discuss the wire-strike issue.

HAI Director Robert Cloud was elected chairman of a working group to continue the dialogue. On March 18, 1992 C.A. Senators Boatwright and Keene with

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Many Buyers Unscrupulous

Many buyers were unscrupulous businessmen willing to ignore the U.S. embargo imposed against Vietnam. How was the U.S. embargo beaten? Very simply. As an example, certain U.S. businessmen would travel to Thailand, illegally enter Communist Vietnam, and select for purchase the aircraft parts which would readily sell in the U.S. The parts were then shipped from Vietnam to Thailand, a nation friendly to the U.S., and not subject to embargo.

From there, the aircraft parts are simply sold to the U.S. buyer for export to the U.S. Documents could be easily obtained from Thai officials certifying the aircraft components were surplus from the Thai Air Force. This is analogous to laundering money, as the components were then legitimized.

These “businessmen,” not having any idea how many hours the component may have actually flown, routinely certified the component as having been used 10% to 25% of the components’ flight life expectancy.

Blade Time Inaccurate

For instance, if a rotor blade were a 1,000-hours blade, the records would reflect the blade had been flown approximately 100 to 250 hours. Literally hundreds of transmissions and engines were illegally smuggled into the U.S. through various transshipment points from Communist Vietnam, a “black list” nation. These components were almost certainly entered into U.S. commerce in the mid-1980s and continue to be imported into the U.S. even today.

Measures must be instituted to protect U.S. aviation. One manufacturer’s representative, upon receiving a briefing regarding this matter, stated each U.S. manufacturer would merely purchase and destroy any aircraft components in Vietnam when relations are restored with that nation. The Vietnamese will undoubtedly seize this opportunity to extract a horrendous price for the components. That is, if they would even agree to such a plan. Why should they?

The Clinton Administration should be
urged to initiate action whereby any flight component entering the U.S. must be accompanied by appropriate flight records. If the component has been scrapped for having met its "life limits," or has attained a certain age (20 years for instance), the component should not be allowed entry into the U.S. except for overhaul, if overhaul is possible, and must be exported upon completion.

Ray Robinson is a former Federal agent who retired in January 1993, following 22 years of service. He formerly served with the U.S. Army as an infantry advisor and helicopter pilot in Vietnam in 1965 and 1968. He is currently a private investigator/aviation consultant to a private investigative firm, Brown & Sikes, Dallas, Texas. The views expressed in this article are solely those of the writer, and it is expressly not meant to be construed as the policy or opinion of any U.S. governmental department or that of the publisher.

Timed Out Components Sold "As Is"

Currently, the greatest enemy of U.S. aviation is the utterly senseless actions of the Department of Defense by selling "flight critical" aircraft components to the public when the components are intact. A flight component which has been "timed out" (met or exceeded its recommended time specifications) may be sold to the general public as an "as is" condition. These very same unscrupulous aircraft parts dealers who trafficked with Vietnam, purchase these flight components as scrap for pittance, forge the historical service records, and sell these components as "like new."

Certain flight components purchased as scrap from DoD for approximately $1 can be sold for approximately $1,000 to unwary U.S. and foreign buyers. It is imperative this inane policy of DoD be halted. This can be accomplished quite simply -- by re-entering the scrap flight components totally unusable, such as chopping the components into bits.

Parts Flood

Once again, a veritable flood of surplus aircraft parts will be sold by DoD. There will be, I think, a tremendous number of bargain purchases in the next few years. However, new surplus parts, not "timed out" scrap component, should be purchased. Further, if those parts are sold to a foreign country, they should not be allowed back into the U.S. except under the provisions outlined previously. Such a plan would accomplish two important objectives for the new administration -- help initiate a very important public safety program and simultaneously save tax revenues.
National Parks Overflights Act is Under Review by FAA and National Park Service

Both the FAA and the National Park Service (NPS) are scheduled to report on issues related to the implementation of the National Parks Overflights Act of 1987 (P.L. 100-91). The FAA will be reporting on the air traffic and carrying capacity of the airspace over the Grand Canyon to ensure aviation safety and to meet the requirements of P.L. 100-91. The NPS report will include a study of the impact of overflights on the "natural quiet" of National Parks and is due in Congress in September 1993.

The United States Forest Service released a similar study in July 1992 which reported no significant noise impact as a result of civil aircraft flights over wilderness areas.

Grand Canyon Officials Report 97% Compliance with SFAR 50-2

At the February, 1992 meeting of the Grand Canyon SFAR 50-2 user committee, Grand Canyon officials reported a compliance level of 97%. The official stated that most gross violations of the Special Federal Aviation Regulation (SFAR) 50-2, which established five "flight free zones" and created minimum altitudes and air corridors within the Grand Canyon airspace, are committed by military or general aviation pilots, not commercial aerial tour operators. An FAA official at that meeting stated that there is no airspace related safety problem in the Grand Canyon under the SFAR 50-2.

The Grand Canyon is a popular destination for tourists from across the nation and around the world. Despite increases in passenger traffic, the safety record of helicopter tour operators remains exemplary. Initial concerns over the safety of the Grand Canyon airspace resulted from the 1986 midair collision between a Twin Otter and a Bell 206 helicopter.

Under pressure from the National Park Service (NPS) and environmental interests, tour routes were revised about 30 days before the crash. The NPS influence on this revision of tour routes was cited by the National Transportation Safety Board (NTSB) as a main factor contributing to the incident. This is the only fatality of a passenger of an air tour helicopter in the Grand Canyon.

This tragic case demonstrates the importance of maintaining FAA jurisdiction in the regulation of airspace over the Grand Canyon. Attempts by the National Park Service to usurp the authority of the FAA on aviation matters would set a dangerous precedent for aviation safety and would have possible ramifications for other airspace situations nationwide.

The airspace of the Grand Canyon National Park is one of the safest and most regulated in the country. As the prescribed flight zones remain under-utilized, the airspace above the GCNP is at a small fraction of carrying capacity limits in regard to any potential safety concerns.

Recent Tusayan Accident

Investigations are currently under way by the NTSB to determine the cause of the collision at Tusayan, AZ on August 7, 1992.

Continued on page 42
Now it is easier than ever to fill out Warranty Claim Forms and FAA Service Difficulty Reports with HAI's new MMIR computer program. Lookup tables provide an easy "point and shoot" approach to data entry, thus eliminating the need to key in redundant data for every form entered. Over 100 different types of dot matrix and laser printers are supported, or the data can be sent electronically to the FAA and to the HAI. Best of all, for a limited time the software package is free!

A collective database is available via HAI's Helicopter Hotline 24 hours a day. Users can log on to analyze component malfunctions for a specific airframe model or corrective actions taken for specific part numbers. Access to the MMIR database is free for the first one hour per month for HAI members.

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VACANCY

HAI is seeking an executive vice president; the position is to be filled by December 20, 1993. The ideal candidate will:

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2) Be an excellent communicator both verbally and in writing
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1993 between two Bell 206 helicopters operated by Papillon Grand Canyon Helicopters. This accident occurred at the landing site and not over the Grand Canyon airspace which is the object of the present FAA study. The NTSB has not yet determined probable cause.

The accident may have resulted from cramped landing quarters at the Tusayan helipad. Aerial tour operators in the Grand Canyon began requests for heliport space in 1968. Efforts to build a heliport have been stalled by law makers and environmentalists. This is the first accident of a Papillon helicopter which resulted in any injury.

Aircraft Sound

In addition to reporting on the carrying capacity to ensure airspace safety, the FAA and the NPS studies will also weigh the "substantial restoration of natural quiet" at the park. In an HAI submission to the FAA, Frank Jensen stated the danger of basing aviation traffic management on the subjective term, "natural quiet."

Air traffic control systems based on planning from ground-based agencies, such as the National Park Service, compromise both public safety concerns and the advancement of the civil aviation industry.

The regulation of airspace is the jurisdiction of the FAA which Congress charged with the duty of providing for public safety and promoting aviation. SFAR 50-2 has achieved the substantial restoration of natural quiet to the park by creating flight free zones over the canyon which constitute 44% of the park. This SFAR, which concentrates aircraft into prescribed flight paths, created vast amounts of the park where aircraft noise would be totally eliminated.

Continued from page 22

Marketing and Customer Service until his retirement in June of 1992. Upon retirement he accepted a position with American Eurocopter Corporation as a marketing consultant which he still holds.

While active as a marketing vice president Aastad recognized the need for improved, dependable and regular marketing information. In 1991 he began to work with FAA registration data which was then becoming available. It soon became obvious that careful analysis of this data could provide the crucial marketing information on commercial helicopter sales activity with a high degree of accuracy. This work resulted in the development of The Helicopter Transaction Report in early 1991. Publication of this report by the Aastad Company began in April of 1993 for distribution to the helicopter industry.

The Helicopter Transaction Report has grown from an initial study of new turbine powered helicopter sales to a broader coverage of new and used turbine and reciprocating engine helicopter sales. It also includes: names of buyers and sellers; a summary categorizing helicopters; and application of helicopters sold. The resulting statistics are reported monthly and compared with the preceding month and year to provide possible trends of current activity. The complete report is available to interested parties on a subscription basis.
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Since 1948, the Helicopter Association International (HAI) has brought together the leaders of the civil helicopter industry. Our membership includes helicopter operators and owners, users, manufacturers and suppliers, service organizations, and individuals interested in following the events of the commercial helicopter industry. Members are classified according to their roles in the industry.

**REGULAR MEMBERS**
Regular members are organizations which operate civil helicopters as a principal business, in private use as a business tool, or in public service. Classifications include Commercial, Corporate/Private and Public Service Operators. Annual dues for Regular Members are based upon the number of helicopters operated.

1 helicopter $275
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20-39 .................. $1,100
40 or more .............. $1,550

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Associate members provide certified products, supplies or services to the civil helicopter industry and/or are lessors of helicopters, rather than an operator. Annual dues for Associate Members are based upon the gross revenue of the company or division applying for membership.

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A-3 - $15-50M,............. $6,600
A-4 - $5M or below,........ $4,850

Associate B - Manufacturers and suppliers of products and services other than as applicable to Associate A.

B-1 - $5M or more,......... $1,100
B-2 - $1M-5M,............... $900
B-3 - $250K-1M,........... $675
B-4 - $250K or less,........ $250

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Affiliate Members are national, regional and international organizations whose purpose and interests are similar to those of HAI. Affiliate Members do not pay dues.

**SUSTAINING MEMBERS**
Any individual interested in following the events of the commercial helicopter operating industry, providing he does not earn over 50% of his livelihood from civil helicopter operators, or he is not an officer, director, or employee of a firm that would qualify for Regular or Associate membership.

Annual dues for Sustaining Members are $50.

**PILOT, MECHANIC/TECHNICIAN MEMBERS**
This individual membership category is offered to industry professionals—pilots, mechanics and licensed technicians—who are employed by or associated with an HAI company. In addition, individuals employed by a government entity, or the military services in the capacity of pilot or mechanic, are eligible for HAI membership under this category.

Annual dues for pilots, mechanics/technicians are $35.

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A Student Member is any individual interested in following the events of the civil helicopter industry who is a full or part time student in a flight training or A&P school, or a college or university.

Annual dues for Student Members are $30.

For information on becoming an HAI member, please return the postage paid card in this issue of Rotor.
MIL-Mi 10 Was Once Largest Helicopter in the World

The MIL Mi-10 (HARKE) heavy-lift, transport helicopter, which first flew in 1960, was the largest helicopter in the world for more than a decade. It was a derivative of the Mi-6 (first flown in 1957) which was the first Soviet turbine-powered machine to enter series production.

Powered by twin 5,500 shp Soloviev turbines, it had a main rotor diameter of 114 ft. 8 in.; a fuselage length of 107 ft. x 8 in.; a height of 32 ft.; an empty weight of 60,185 lbs.; a maximum gross weight of 96,340 lb.; service ceiling of 9,850; and a maximum cruise speed, without external load, of 97 kts.

The HARKE retained the power plant and dynamic components of the Mi-6, but was intended to carry outsize loads beneath, rather than within, the fuselage. It could sling a maximum payload of 19,840 lbs. A scale replica of the MIL Mi-10 is part of the Helicopter Foundation International's (HFI) model collection in Alexandria, VA. For information about the world's largest collection of helicopter models, contact HFI Curator, John Slattery, at: (703) 683-4646.

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