

ROTOR NEWS



Flight To Survival

A Successful Medevac Operation

It was a dreary evening on a rural road late Saturday night . . . the kind of evening that breeds accidents. You arrive with your ambulance after being called by the local police. Two cars have collided, head-on. The reasons are not yet clear—perhaps drinking, driving too fast, or losing control on the narrow road. That doesn't really matter right now. What matters is the man crumpled behind the steering wheel of one car and the youth thrown from the other.

While your partner administers aid to the youth, you rapidly assess the man's injuries and carefully remove him from the car. His breathing is very shallow; his pulse is broken. He probably has internal injuries, and he is in shock. You know your job and move into action. You do what needs to be done . . . checking the ABCs, applying splints and running I.V. fluids. Soon you have both victims in the ambulance, as stable as possible.

But now what? Can they survive? The nearest hospital is 20 miles away in a small community. You know that a competent emergency room nurse is the only one on duty on weekend nights. How quickly can she get help to manage these two severely injured people? Will they live until they get the treatment and surgery needed?—R Adams Cowley, M.D.

Such is the scenario so often recounted by emergency medical services (EMS) professionals who are responsible for responding to emergencies . . . no matter what the time or the weather conditions.

"The best care of the most critically injured patients at the scene and en route cannot save lives without definitive, sophisticated care at the receiving medical facility, within one hour—the Golden Hour," says R Adams Cowley, M.D. and director of the Maryland Institute for Emergency Medical Services Systems (MIEMSS).

The State of Maryland was the first to find the solution—dedicated shocktrauma

(Continued on page 8)



The helicopter has proven itself in Maryland. Since 1970, the state has had a dedicated shocktrauma facility in Baltimore within the University of Maryland campus. Specially trained pilots and paramedics transport up to 2600 critically-injured victims each year, with 80 percent coming from the scene of a vehicular accident.

A Good Year for HAI

The past 12 months have been busy and extremely productive for HAI. This has been the result of extraordinary contributions of time, talent, and other treasures on the part of many people. Because of limited space, it is not feasible to give credit to the many individuals who played major roles in these achievements. However, we will cover the highlights, give attribution to the extent possible, and will try to minimize repetition of details contained in *The Helicopter Annual*.

The Cast

HAI's Membership. HAI is a non-profit association, governed by the members themselves. HAI's membership has played a major role in the accomplishments of this past year, having, among other things, participated on

committees; paid dues on time; exhibited at the Annual Meeting and Industry Exposition; advertised in *The Helicopter Annual*, and elected representatives to serve on HAI's Board of Directors. While all members are important, two groups merit special note: past presidents, who continue to provide important leadership and continuity, and committee chairmen, who take an active role in HAI's ongoing work on behalf of the commercial helicopter industry. A listing of HAI's members is in *The Helicopter Annual*.

HAI's Board of Directors is comprised of nine voting directors, plus selected special representatives and advisors, as described in the Bylaws. The Board serves without compensation, and met three times in the past year.

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Helicopter History

Two Antique Bells on Display at Annual Meeting

Certification of the First Commercial Helicopter

The first helicopter commercial license ever to be granted was issued to the Bell Aircraft Corporation of Buffalo, New York, by the U.S. Civil Aeronautics Administration (CAA) on March 10, 1946. It received a CAA Airworthiness Certificate on the Model 47, two-place helicopter and CAA License Number NC-1H, the first helicopter "NC" license ever issued.

These certificates were issued after exhaustive flight tests, demonstrating that the machine met all of the CAA airworthiness requirements; they were conducted in Buffalo, New York, by Raymond B. Maloy, chief, Flight Engineering Division of the CAA, and by Floyd W. Carlson, chief helicopter test pilot for Bell. (Mr. Carlson was the 1981 recipient of the HAI's Lawrence D. Bell Memorial Award.)

Thus, the rotary-wing machine had the green light for use as a revenue-producing carrier of people and equipment, and a new and exciting dimension was added to commercial aviation.

A hearty group of pioneers had become infatuated with this machine during the early Forties. Arthur Young, whose design principles came to fruition with the licensing of NC-1H; Bartram Kelley, his apprentice-turned-expert; Pilot Carlson and others in that small band of inventive minds persevered in tedious

trial and error methods of working out the kinks.

Joseph Mashman, the 1982 recipient of the Bell Memorial Award, was in on the ground floor when the company pioneered helicopter development, flying the earliest models and participating in the engineering flight test program.



Dr. Carol M. Voss, entomologist and president of AgRotors, of Gettysburg, Pennsylvania, has been involved with agricultural helicopters since 1949. He flew this Bell 47B3 in California from 1950-52, the sister ship to those on display in Anaheim at the HAI's 35th Annual Meeting and Industry Exposition. Inset: original promotional brochure for Bell Aircraft Corporation's Model 47D1.

ROTOR NEWS

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Gian F. Blower
President

Frank L. Jensen, Jr.
Executive Director

Richard G. Saker
Deputy Executive Director

Sarah Hammann,
Director of Communications

The Modern Magic Carpet

The Model 47 helicopter was the beginning of a line of models that Bell would market under the trade name of *The Modern Magic Carpet*.

"Over the past several years we have received many hundreds of requests for commercial helicopters from every state in the Union and from almost every country in the world," commented Lawrence D. Bell, company founder, on the 1946 certification. "The requirements for government agencies, disaster relief, commerce, business and industry, will be given first priority."

The Model 47B was equipped with a 178 HP, six-cylinder, Franklin Aircooled engine, with a patent two-bladed rotor and gyroscopic stabilizer system. The gross weight was 2150

lbs., including a useful load of 594 lbs. with a cruising range of 212 miles at 75 percent power and operating speed of 85 mph.

The initial cost of the Bell 47 was estimated at \$25,000; and with 250 hours of operation per year, the total annual cost of operation ran \$16,807.50.

For a Model 47 operating 1000 hours each year, the total operation ran for \$21,770.

Early charter operators and selected Bell employees acting as commercial operators took on jobs to prove that the helicopter could make money.

There was crop dusting and the spraying of apples and other high revenue operations from the fields of Washington to the cranberry bogs of New England; fogging to battle the black fly infestation

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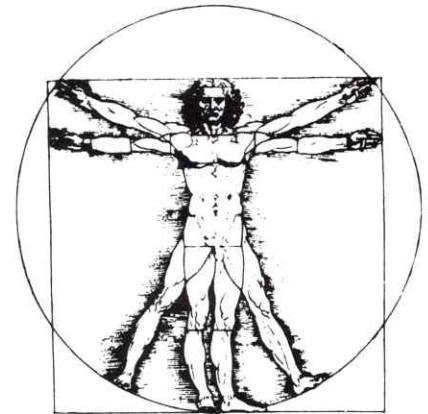
Announcing . . .

the 22nd Annual Awards

Banquet and Dance

*February 15, 1983
Anaheim, California*

Tickets available



REACHING INTO NEW DIMENSIONS

- Pilot of the Year . . . Ronald A. Eland, Trans North Air, Ltd., Whitehorse, Yukon, Canada*
- Robert E. Trimble Memorial . . . Myrl Robert "Bob" Brown, Evergreen Helicopters, McMinnville, Oregon*
- Lawrence D. Bell Memorial . . . T.E. Dumont, Sikorsky Aircraft, Stratford, Connecticut*
- Joseph Mashman, Bell Helicopter Textron, Fort Worth, Texas*
- Crew of the Year . . . Aurelio Bergodi, Pierluigi Foschi, Angelo Mazzarani, Attilio Tossini, Elitos Helicopters, Florence, Italy*
- Helicopter Maintenance . . . C.L. Tysdal, Petroleum Helicopters, Lafayette, Louisiana*
- Hughes Law Enforcement . . . Georgia State Patrol Aviation Division, Atlanta, Georgia*
- Max Schumacher Memorial . . . Fredric Fine, Island Helicopter Corporation, Garden City, New York*
- Sikorsky Fly Neighborly . . . Eastern Region Helicopter Council, Newark, New Jersey*
- Special Citation . . . H. Ross Perot, Jr. and Jay Coburn, Dallas, Texas*
- 20,000 Hour Pilot Safety Award . . . James R. Burrell (posthumously), Air Services International, Scottsdale, Arizona*
- E. Skip Henderson, Houston Helicopters, Pearland, Texas*
- Maurice Johnson, WCKT-TV, Miami, Florida*
- H. Kent Ryan, Executive Helicopter, Chicago, Illinois*
- J.A. Van Der Vliet, Public Service Commission of Indiana, Plainsfield, Indiana*

**. . . recognizing extraordinary achievement
in the civil helicopter industry**

Good Year

(From page 1)

Directors also serve on other committees, and deserve great credit for their professional fulfillment of responsibilities, often at considerable effort and expense.

HAI's President is elected from his or her peers on the Board. The president is the chief executive officer, and serves a one-year term. Like the entire Board, the president serves without compensation. Gian Franco Blower became president in February 1982, and has made significant and generous contributions of his personal time and expertise. Some of his achievements will be described in the following paragraphs.

HAI's Executive Director is a full-time HAI employee, the principal implementer of policy, and reports to the president. Frank L. Jensen, Jr. was named executive director on March 15, 1982. Frank has five years of successful experience as chairman and C.E.O. of another Washington-based aeronautical association, is a helicopter pilot, and has an M.S. in aerospace systems management.

HAI's Staff is under the supervision of the executive director, and was expanded during the past year to include positions recommended by the Strategic Planning Committee, chaired by Joe Mashman of Bell Helicopter Textron. The expansion of the staff represents reduced reliance upon consultants and other outside assistance.

(Continued on page 5)



To honor the genius of Leonardo da Vinci, the philosophical father of the helical concept of aerodynamics, HAI President Gian F. Blower (r.) places an HAI pin on Liliano Bartolesi, mayor of Vinci, Italy, in ceremonies, September 14, 1982.



1982 HAI Board of Directors. First row (l. to r.): Charles W. Johnson, ERA Helicopters; Al Averill, Northeast Helicopter Service; James M. Sanchez, Los Angeles County Fire Department; Gian F. Blower, Elitos Helicopters; Philip J. Landi, Port Authority of New York and New Jersey; Wanda Rogers, Rogers Helicopters; Joseph Mashman, Bell Helicopter Textron; L. E. "Pat" Patterson, Continental Helicopters. Second row (l. to r.): Fred McGowan, Insurance Company of North America; T. E. Dumont and William F. Paul, Sikorsky Aircraft; Richard Peck, Thomson Industries; Carl Dougherty, Petroleum Helicopters; Randy Furtick, Soloy Conversions. Absent: Peter J. Goodwin, Avco Lycoming Williamsport Division; Terry Jones, Peace Helicopters; and Frank L. Jensen, Jr., HAI.

Centuries ahead, Leonardo da Vinci perceived the aerodynamic reality of vertical flight. The past several decades have witnessed phenomenal evolution and maturity of the rotorcraft industry . . . from Leonardo's initial sketch through a worldwide fleet encompassing a myriad of helicopters.

The helicopter community has burgeoned apace with the tremendous development and expansion of rotorcraft technology. Since the helicopter's actual beginning—a short 50 years ago—the industry's revenues have grown exponentially, and helicopter manufacturers alone value in the multi-trillion lire range. Other elements of the helicopter industry—operators and service companies—collectively represent hundreds of thousands of jobs.

This unique machine—the helicopter—also has countless intangible advantages . . . services whose economic value cannot be accurately measured. One example is the helicopter's role in the valiant rescue of hundreds of victims from the earthquake in Southern Italy in November of 1980. A more recent example is the courageous extrication of five mountain climbers from a sheer face of the Appenines, with the helicopter crews battling heavy winds, low visibility and dangerous downdrafts.

Here today, the worldwide helicopter community is represented by the Helicopter Association International, an organization with 1,000 member companies in 36 countries. These HAI members operate helicopters commercially as well as in executive transport, and public service. HAI also represents the manufacturers of commercial helicopter airframes, engines, components and other parts.

In honor of the philosophical father of the helical concept of aerodynamics, Leonardo da Vinci, I, Gian F. Blower, President of the Helicopter Association International, do hereby present this proclamation and plaque to Liliano Bartolesi, Sindaco of Vinci. Please accept this plaque and proclamation on behalf of the Association's Directors and all of its Members on this 14th day of September of 1982.

(Text of Proclamation presented to the mayor of Vinci, Italy)

Good Year

(From page 4)

In the past, HAI depended quite heavily upon the late Glen A. Gilbert, Helicopter Consultant Richard F. Hodgkins, and others, who collectively contributed significantly to HAI's accomplishments in the legislative area and in community heliport planning. They enhanced HAI's stature as the representative of the commercial helicopter industry. As the permanent need for this expertise became increasingly apparent, the Board authorized the establishment of new professional staff positions, including:



A tranquil moment catches a Vancouver seagull unaware, during HAI travels in British Columbia, Canada.

Deputy Executive Director. Richard G. Saker assumed this position in April of 1982. This position is an expansion of the former administrative manager position, and thus does not constitute an added staff position. Dick Saker's principal areas of responsibility include Annual Meeting; budget; support staff; and data base. Dick's experience as a commercial helicopter pilot and his familiarity with HAI's activities have been major assets.

Communications Assistant Julie Clancy began her work with HAI on August 15, 1982. Julie's position was authorized on the basis of the considerable additional work-load anticipated by *The Helicopter Annual*. She has devoted most of her time and effort to coordinating the advertising for the Annual, at which she has been quite successful. Julie is a 1982 graduate of Trinity College with a B.A. in English.

Director of Heliports and Airways. Glenn A. Leister was appointed to this newly-authorized position on August 16, 1982. Glenn represents HAI on the National Airspace Review (NAR), and is a member of the FAA's NAR Steering Group, in addition to participating in the work sessions. Also, Glenn has staff responsibility for the Heliports and Airways Committee, chaired by Dick Stutz of Sikorsky Aircraft, and for the Helicopter Systems

Planning Group, chaired by Ron Reber of Bell Helicopter Textron. Glenn is the HAI staff representative for the *Fly Neighborly* program. His qualifications as a helicopter instrument examiner and his seven years at FAA's headquarters are important attributes.

Director, European Office. Rob Vinckx was selected for this new post, and started on October 1. Actually, he had already attended a meeting of the HAI's European Regional Council in Milan, Italy, in July, and the HAI Board of Directors meeting in Florence in September. Rob has spent his career as an aviator in the Royal Dutch Navy, and his thorough knowledge of the European community makes him an ideal person for this position.

Legislative Specialist Patricia Brand was promoted to her present position in October 1982, soon after the Board authorized this position. Patricia has already become very productive, with her work on the Tax Equity and Fiscal Responsibility Act; leased and surplus aircraft; letters to U.S. senators, members of Congress and foreign dignitaries, inviting them to HAI's Annual Meeting; revitalization of the HeliPAC, and some preliminary work toward establishing a Helicopter Legislative Committee. Patricia's two years with HAI's Safety Department, plus some legislative experience with another association, have been most helpful.

Director of Regulations Louis P. Bartolotta, Jr. joined HAI's staff as its first director of Regulations on December 6, 1982. Lou's primary areas of responsibility are airworthiness and aircraft certification. He has staff

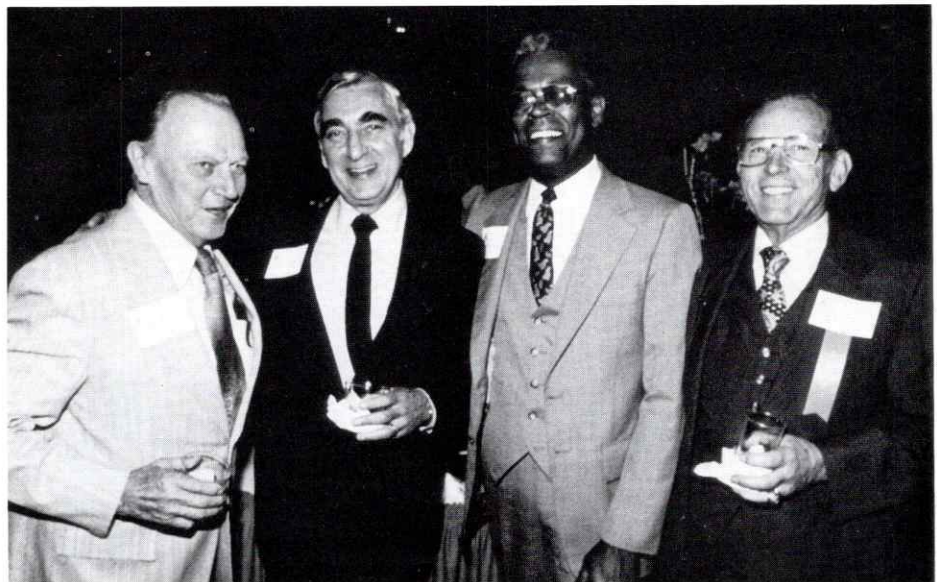
responsibility for HAI's Regulations Committee, which has been ably chaired for many years by T.E. Dumont of Sikorsky Aircraft. Lou comes from Bristow Helicopters, where he was a senior captain on S-61s and S-76s, flying offshore support missions in the North Sea. This recent hands-on experience in the commercial helicopter business is an important attribute, along with his familiarity with both U.S. and British airworthiness regulations.

The Events

President Blower set a rapid pace from the moment he took office. He immediately travelled from Las Vegas, scene of the 1982 Annual Meeting, to HAI Headquarters. There, he coordinated with Past President J. Cullen ("Cully") Weadock, who was serving as acting executive director. During his stay in Washington, Gian, Cully and others screened candidates for a new executive director, while Gian firmly took the reins as the C.E.O. of HAI.

Travelling next to California, President Blower participated with the selection committee in naming Jensen the new executive director.

Having spent his first weeks as HAI's president without an opportunity to return to his native Italy, Gian returned to Florence for a few weeks with Elitos Helicopters, before coming back to Washington for an Executive Committee meeting in April. He continued at the same rapid pace, establishing goals and providing an example of dedicated service. He laid the groundwork for HAI's first annual Washington reception, which was to be a resounding success.



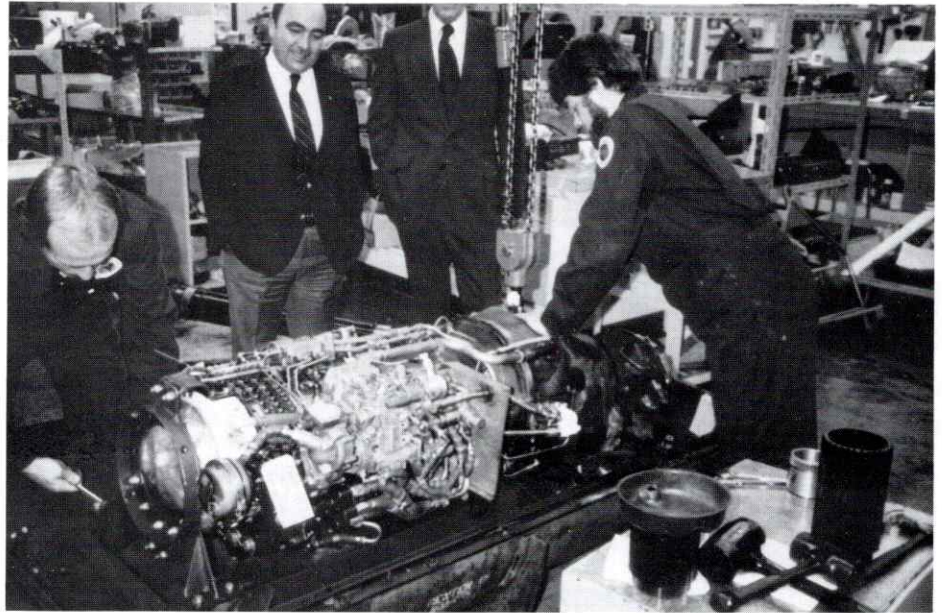
The HAI's First Annual Washington Reception was enjoyed by industry and government officials alike. (l. to r.) The late Glen A. Gilbert, HAI consultant; Michael Fenello, FAA associate administrator; Quentin Taylor, FAA's director of international aviation; and William D.C. Jones, HAI's director of safety.

He also directed the collection of photographs of all past presidents, to enhance HAI's Archives.

With new leadership at HAI's Washington Headquarters, there were learning curves to be surmounted on a number of important matters, such as preparation of a budget for the fiscal year, beginning on July 1. Also, there was testimony to be prepared and presented at a number of congressional hearings and committee meetings. HAI's committees were active during this entire period, meeting, coordinating, and being supportive. (Look for a separate report on committee activities in a future issue of *ROTORnews*.)

In other words, the routine but demanding business of a major international aerospace association headquartered in Washington had to be accomplished. To the credit of the staff and others who cooperated, this was done.

In May, President Blower and Executive Director Jensen participated in the annual forum of the American Helicopter Society, held in Anaheim. While there, they also conducted considerable HAI business, including meetings of the Manufacturers Committee, European Regional Council, and the Heliports and Airways Committee. Along with Special Advisor Joe Mashman, they visited the Anaheim Convention Center and the Anaheim Stadium, to make preliminary arrangements for HAI's 1983 Annual Meeting, and its flight line. At the same time, Dick Saker represented HAI at the Hanover Air Show in West Germany, where he met with several European members.



A GE-CT58 engine gets a careful inspection in the engine facility of Okanagan Helicopters in Richmond, British Columbia, Canada, as HAI President Gian F. Blower (l.) and Fred Moore (background) of Okanagan complete the tour.

Board Significa

The June meeting of HAI's Board of Directors was held in Washington, D.C., and was a model of accomplishment. A full and ambitious agenda was handled with aplomb. Among the landmark decisions was the authorization of the publication of *The Helicopter Annual*, and the establishment of a European Office of HAI, to be located in Amsterdam. Thanks to the generosity of Bell Helicopter Textron, office space was initially available at no cost to HAI. Also, the fiscal year 1982-83 budget

was approved at this meeting, as was the establishment of an in-house data base management system. Later in June, Executive Director Jensen travelled to the Gulf of Mexico and visited Bell Helicopter Textron, ERA Helicopters, Houston Helicopters, and Petroleum Helicopters. Frank also addressed the Aviation Committee of the Houston Chamber of Commerce.

An Executive Committee meeting was held in August, in Provo, Utah. Sponsored by Continental Helicopters, this was again a very productive session. While in Provo, the Executive Committee and Special Advisors visited Rocky Mountain Helicopters.

September was a particularly active and productive month for HAI. The regular meeting of the Board was held in Florence, Italy. Thanks to a special discount from KLM Airlines, travel arrangements were made at a reasonable cost. The agenda was full, and again handled professionally by the elected leaders.

During the trip, President Blower made a presentation to the mayor of Vinci, in recognition of the fourth centennial of Leonardo da Vinci. A beautiful bronze plaque, designed by Gian, was installed in the birthplace of Leonardo. Look for a replica of that plaque at the 1983 Annual Meeting.

Also during September, HAI took delivery of an Alpha-Micro data base management system, to replace the service bureau which had been used in recent years. This new in-house system has five terminals (CRTs) and a dot-matrix and a letter-quality printer.



The Houston Helicopter Happening, November 6-7, 1982, was only one of the HAI stops on the southern route. From left to right: George Masterson, FAA-Houston GADO; Tom Marlow, ERA Helicopters; Gian F. Blower, HAI; and Bill James, Agusta Aviation.

Software packages include mailing lists, membership directory, word processing and accounting. The cost is less than that of the previous system. And, incidentally, the Headquarters staff has nicknamed the new computer "Leonardo".

Autumn Activity

October was the beginning of an especially interesting period. The in-house data base management system was brought on line, new personnel were indoctrinated, preparations were in full swing for the Annual Meeting and Industry Exposition. *The Helicopter Annual* was developed; the routine tasks of an international association were being accomplished, and there evolved an especially heavy demand for HAI presence in far-away places. To elaborate on the latter . . .

President Blower was scheduled as a panelist at the 1982 Aerospace Congress of the Society of Automotive Engineers, held in Anaheim, California. Executive Director Jensen gave a paper at the same congress, where the two met, along with other HAI members.

From Anaheim, Blower and Jensen continued north, visiting NASA's Ames Research Center. On to San Jose, where they visited Aris Helicopters. From there to San Francisco, where they evaluated the San Francisco Convention Center and environs as a prospective site for an HAI Annual Meeting. On to McMinnville, Oregon, and Evergreen Helicopters, and then to Columbia Helicopters, nearby.

Continuing on to Chehalis, Washington, they were guests of Soloy Conversions, and then on to Vancouver, British Columbia, where President Blower was a speaker for the annual meeting of the Air Transport Association of Canada. Terry Jones, chairman of HAI's Inter-Regional Council, was also a featured speaker. While in Vancouver, they visited Okanagan Helicopters.

From there they travelled to Houston for the AHS/HAI User Design Conference. This was followed by participation in the *Houston Helicopter Happening*, where President Blower shared the platform with H. Ross Perot, Jr., who spoke of his recent around-the-world helicopter flight.

Back to Washington for a few days, where President Blower was a guest at the White House, for the occasion of a special award to young Perot.

Travels to the Far East

Blower and Jensen then departed for Jakarta, Indonesia, to take part in a special ceremony at P.T. Derazona



The MBB BO 105 CB comes to rest at the Heli-Services Heliport in Singapore, after HAI officials toured the facility in November 1982.

Helicopters. Travelling by special arrangements with KLM, they flew straight to Singapore. As guests of P.T. Derazona, they remained overnight before continuing on to Jakarta, where, still guests of Derazona, they met Air Marshall Sutoyo, director general of Civil Aviation, and Director of Safety Supartolo. The highlight of the stayover in Jakarta was the truly outstanding ceremony, held in the Mandarin Hotel, where 16 Derazona pilots were honored with HAI Pilot Safety awards for having achieved 5000 hours of accident and incident free civilian helicopter flying hours.

They also flew by P.T. Derazona helicopter to Bandung, where they visited the Nurtanio Aircraft factory. Back in Jakarta, they visited P.T. Indonesia Air Transport, where President Blower presented several HAI Pilot Safety Awards. Other tours on the trip included P.T. Pelita Air Service and the offices of the

Ministry of Research and Technology.

Upon returning to Singapore, Blower and Jensen (then referred to as Marco and Polo!) were guests at a cocktail party hosted by Heli-Orient, attended by HAI members from the local area. They visited Lim Hock San, Singapore's director of Civil Aviation, and the facilities of Mobil Producing Services East Asia, and then were given a helicopter tour of Singapore, courtesy of Heli-Services. They also toured Heli-Orient's impressive facilities.

This entire trip was accomplished at a minimal cost to HAI, because of the generosity of HAI members who provided air transport, accommodations, and meals. The benefits which were obtained were incalculable, both in terms of good will of members and in terms of opening lines of communication.

The remaining few months of the year have continued at the same pace as the first nine. President Blower has had



P. T. Derazona in Jakarta, Indonesia, now proudly displays several HAI Pilot Safety Awards, for having 18 pilots successfully complete at least 5000 accident and violation free civilian helicopter flight hours. Seated (l. to r.): Asril Lamisi, director; Ken Broyles, president director; Frank Jensen, HAI; Soyoto, director general of civil aviation; Gian Blower, HAI; Wasito, secretary general of DCA; and Supartolo, director of safety DCA. Standing (l. to r.): Kine Caudill; Milton C. Smith; Richard Sbrolla; Soedarsono; Duane Speirs; Jerry Roberts; Putranto; Tampubolon; R. H. Ogg; Purnomo; Stan Gray; Indra Jaya; Peter Byrne; Machfuld; Prabowo; and Supardi.



One final look at P. T. Derazona before HAI emissaries move on to the next HAI member operation. Left to right: Captain Supardi and Milton Smith, P. T. Derazona; Gian F. Blower, HAI; Andrew Kwek and Brock Wright, P. T. Derazona.

a number of important U.S. visitors in Florence, including FAA Administrator J. Lynn Helms, Deputy Administrator Michael Fenello, and Associate Administrator Donald Segner. He has continued to communicate with the Washington staff regularly, by telephone and telex, giving guidance and encouragement.

January finds *The Helicopter Annual* coming off the presses, as scheduled. The Headquarters staff refers to it as a minor miracle of modern times. And indeed it is.

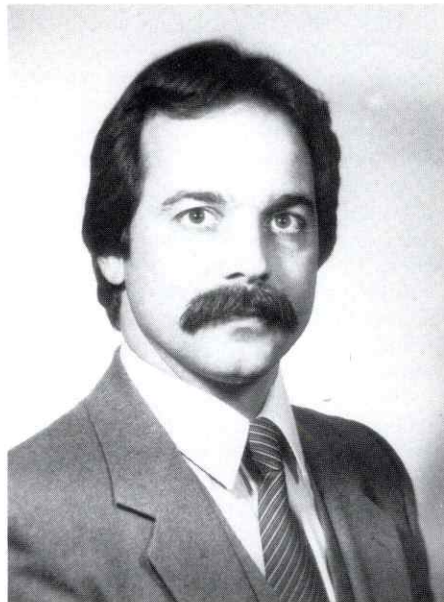
Summing It up

This was just a quick overview of some of the events that your Association has experienced during this past year, and some of the accomplishments. You have a right to feel proud . . . because your association—the Helicopter Association International—is truly the representative of the commercial helicopter industry.

We're not resting on our laurels. We believe the adage, that *When you cease to improve, you cease to be good.*

In Appreciation

We would like to say a special word of thanks to KLM Royal Dutch Airlines, without whose generous support much of the travel during 1982 would not have been possible. We would also like to thank Elitos Helicopters, ERA Helicopters, P.T. Derazona, Heli-Orient, Heli-Services, Houston Helicopters, Petroleum Helicopters and Soloy Con-



The Association's long-range accomplishment in regulations lies in the appointment of an HAI director of regulations, a newly-formed post. Louis P. Bartolotta, Jr., an experienced offshore civilian helicopter pilot, will, in conjunction with the HAI Regulations Committee and its Task Forces, provide improved representation to the entire membership.

versions, for their hospitality and special transport, and all of the helicopter community who made this past year such a resounding success. ✈️

chiatrist, radiologist and other specialists are on call 24 hours a day.

The Golden Hour

But the underlying premise for the success of the shocktrauma operation—any shocktrauma operation—is the ability to transport the victim within

the *Golden Hour* to a medical facility with specially trained physicians and nurses. The vehicle: the helicopter.

Dr. Cowley proved in the mid-'70s that the mortality rate is directly related to the degree of shock experienced by a trauma victim.

The Maryland Medevac fleet now numbers 10—all flying ambulances—on duty 24 hours a day at five bases around the state. The first comprehensive statewide communications system in the nation is now operating, linking helicopters, ambulances, hospitals and trauma centers. A vital component of this system is telemetry, which allows a patient's heart rhythms to be monitored at any location by radio-electrocardiogram.

The Maryland system is unique in its aggressive treatment of patients by teams of doctors and other personnel who are forewarned and waiting when the patients arrive by helicopter or ambulance.

"To be effective, a trauma center cannot exist in isolation. There has to be a system of access, with a communication and transportation network for patients, resuscitation at the scene, care en route, specialized facilities for definitive care and rehabilitation," Cowley said.

Accidents are the number one cause of death in the U.S. in persons up to 38 years of age, and the third leading cause of death for the entire population, ranking right behind cancer and heart disease. Seventy percent of accidental deaths occur in rural areas, where good emergency medical services are often scarce.

In the cities, only one auto accident injury in 70 results in death; in rural areas the ratio is one in 20. Thus, the Maryland program uses helicopters to successfully transport faraway patients who will most likely die unless treated promptly.

Out on the highway, the helicopter pilots try to control external hemorrhaging, establish a clear airway, and then concentrate on getting the patient to definitive care as quickly as possible.

The Fleet

MIEMSS fleet has grown steadily to incorporate the 10 Bell JetRangers, with 28 pilots—all trained paramedics—operating the aircraft. In 1982 they reached an all-time high by transporting 2535 patients. The state division has transported 17,545 patients since the program began in March 1970. By October 1983, the division expects to record 20,000 transports. The overall survival rate is 84.5 percent, having risen from 33 percent only a decade earlier.

Shock is a "pause in the act of death," and when a human being is in shock, the

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Flight to Survival

(From page 1)

treatment centers. Unlike most emergency rooms, MIEMSS has at least two surgeons, two anesthesiologists and three surgical residents present at all times. A neurosurgeon, orthopedic surgeon, psy-

HAI to Stage National Medevac Conference

The HAI's first National Medevac Helicopter Conference will be held jointly with the Maryland Institute for Emergency Medical Services Systems (MIEMSS) April 18-20 in Crystal City, Virginia.

The Conference's purpose is to establish a national forum at which the benefits of the use of helicopters in medevac operations can be discussed.

The Conference's Objectives

- to consider the government regulations and requirements for the siting, design and construction of hospital heliports
- to compare and contrast the organization, cost and operational utility of various helicopter operations
- to exhibit or present the types and models of helicopters available, including the equipment requirements and capabilities of each
- to present the latest advances in rotorcraft and medical technology and related equipment
- to present and discuss the types of medical flight personnel used in helicopter medevac missions
- to explore the financial considerations in providing medevac helicopter service

(Continued on page 10)

Flight to Survival

(From page 8)

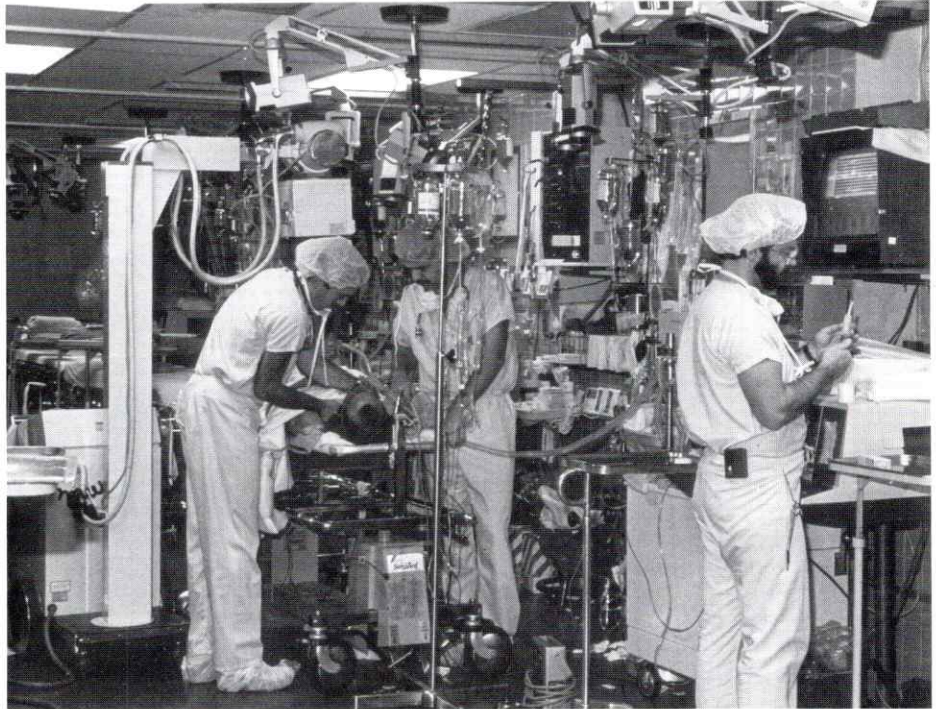
task at hand is to keep him from dying.

Because of the undeniable success of the MIEMSS program, a new addition will be built to house a dedicated shocktrauma facility, where the wing will rise eight stories into the sky, with the heliport on its own roof rather than on that of a nearby hospital garage.

The helicopter has proven itself in Maryland. Since 1971, the Center has had autonomous status within the University of Maryland. Additionally, there exists no doubt that the hospital heliport is the fastest growing segment of helicopter operations in the U.S. today, and one of the most successful. Hospital heliports in the U.S. now number more than 900, compared to 699 in 1977, and 34 in 1964. At least 26 states have active helicopter ambulance services. These agencies understand that no other mode of transportation can respond so effectively to an emergency as a helicopter.

About the Pilots

The helicopter pilots have had 240 hours of standard first aid and paramedic training, with one-half of that time



Immediately after the helicopter's arrival, patients are rushed to the Shocktrauma Admitting Area, where there will be as many as six intravenous lines connected; blood gas and other laboratory data will be coming back from the lab via teleprinter and intercom; and surgeons may be working simultaneously on the patient's brain, abdomen and fractures.

spent in clinical training at the Institute, where they learn by observation what types of patients should be brought there. They also return to work at the Institute one week each year and take additional upgrading courses.

About 60 percent of the patients the pilots transport come directly from a highway crash. Most of the others are interhospital transfers, including some non-trauma patients with severe post-operative peritonitis or septicemia.

With the increasing effectiveness of the helicopter program in the past few years, patients in worse and worse condition are being brought in, yet the survival rate continues to rise. Even patients declared dead by a physician at the roadside have been brought in and saved.

Without the streamlined organization and pre-existing plan involving multidisciplinary teams of surgeons, the survival rate would undoubtedly be much lower.

The Helicopter's Arrival . . . and Admission

Within minutes after a patient's arrival in the admitting area, there will be as many as six intravenous lines connected; blood gas and other labora-

tory data will be coming back from the lab via teleprinter and intercom; and surgeons may be working simultaneously on the patient's brain, abdomen and fractures.

Doctors, nurses and lab personnel are on hand around the clock. Equipment is set up and ready in advance, so nurses need not chase around for special surgical equipment, because it's all right there, neatly wrapped and classified. Fast-moving, aggressive treatment is performed almost by rote, and the resemblance to activity in an average room is minimal.

The Neglected Disease

Shocktrauma is the account of today's neglected disease that all of us face everyday. Roaming in our cities and country unchecked, it has grown from endemic to epidemic proportions because of our rapid tempo of living, Cowley notes.

Because there is a vehicle—the helicopter—capable of safely and rapidly transporting those in danger to specialized trauma centers, this disease will ultimately diminish. Vehicular accidents, and trauma-causing incidents, will no longer claim so many precious lives. 🚁

Conference

(From page 9)

Who Should Attend

The National Medevac Helicopter Conference has been specially structured for hospital administrators, EMS directors, trauma center personnel, emergency physicians and nurses, helicopter operators, manufacturers, equipment suppliers and medical flight personnel.

What Will I Learn?

Medevac Operations

- ... Shared Resources: The Government-Funded Non-Hospital-Base Helicopter
- ... Clinical Effectiveness of Hospital-Based Helicopter Services
- ... The Military Assistance to Safety and Traffic (MAST) Program

Protocols for Helicopter Response

- ... Echelons of Trauma Care
- ... Helicopter vs. Fixed Wing: Guidelines and Criteria for Use
- ... Organ Retrieval: Use of the Airways

Rotorcraft Technology

- ... Heliport Design and Construction
- ... Vehicular Configurations
- ... FAA Regulations
- ... Communications and Specialized Medical Equipment

The MBB Golden Hour Award

A special honor—the MBB Golden Hour Award—will be bestowed for the first time by the HAI* to an emergency medical services (EMS) helicopter pilot who has most distinguished himself by performing above and beyond the already high EMS standards, and who has made an outstanding contribution to a specific emergency, thereby advancing the helicopter in medevac operations.

The first annual MBB Golden Hour Award will be presented April 19 at the Manufacturers Reception by R Adams Cowley, M.D., professor of Thoracic and Cardiovascular Surgery, and director of MIEMSS.

Why the Golden Hour? Dr. Cowley proved in the mid-'70s that the mortality rate is directly related to the degree of shock experienced by a trauma victim. The solution: transport the victim within the *Golden Hour* to a medical facility with specially trained physicians and nurses. The vehicle: the helicopter.

To nominate a deserving pilot,

simply call or write HAI Headquarters and request a Registration and Reservation Kit for the National Medevac Helicopter Conference. You will find a nomination form inside the kit, which should be returned to HAI Headquarters before March 15.

For more information on the conference, please contact Richard Saker or Susan Danker at HAI Headquarters. Telephone: 202/466-2420 Telex: 89-615

*pending HAI Board of Directors' approval.

Helicopter History

(From page 2)

in upstate New York. Also, magnetometer work in the Ontario ore basin; transportation of oil company geophysicists and equipment around the Louisiana marshes; mail delivery contracts in the Swedish archipelago, Chicago and Brussels; motion picture support and firefighting on the West Coast; powerline patrol in Oregon and Ontario; bush flying in Alaska; water sampling on Lake Erie; and U.S. Coast Guard rescue work and icebreaker scout ship duties on the Great Lakes and Canadian coastline. Construction support included the lifting of steeples onto church tops and other light lift operations.

Training and Improvements

Before all of this, however, the first Model 47 spent many hours tethered to the ground, where Pilot Carlson had learned to fly it by hovering and lifting against the pull of the tethering cable, gradually mastering the art of staying motionless with slack in the cable.

The Model 47D helicopter, introduced in 1947, was the improved, production-preferred version of the earlier Bell-built helicopters. By 1948, Model 47 helicopters could be found operating in Canada, England, the U.S. and several Scandinavian countries as well as in Central and South America. Operations were successfully performed under varied operating and climatic conditions, with temperatures ranging from as high as 120°F to as low as -62°F.

Utility was the keynote of the Model 47D helicopter. A quick conversion from wheel-type gear to float-type gear, or from closed cabin configuration to open cabin configuration, was one of its many features.

The New York City Police Department's Aviation Bureau also pioneered the use of helicopter by law enforcement and civil government agencies in 1948.

Training of helicopter pilots and mechanics was an important factor in

the mushrooming success of the commercial industry. Bell opened its school in 1946, and training also became an important revenue-producing item for many helicopter operators.

Visible Machines

Scores of others, who became fascinated with helicopters after a demonstration ride or two, began figuring out ways of getting into the business or at least using the machines as adjuncts to their ongoing endeavors.

The Korean conflict saw history's first large-scale use of helicopters. These advanced Model 47s evacuated more than 18,000 from line casualties, performed other support duties and attracted the attention of the world to the helicopter's remarkable and unique capabilities.

Recognizing the need for coordinated industry action and safety, the California Helicopter Association, which later became the Helicopter Association of America, and today the Helicopter Association International, was formed by seven spirited operators in California in 1948. The scope of the commercial helicopter industry is today reflected by the size of the Association—1025 member companies operating in more than 37 countries.

AgRotors

Dr. Carrol M. Voss, entomologist and president of AgRotors, Inc. of Gettysburg, Pennsylvania, has been involved with agricultural helicopters since 1949. He flew a Bell 47B3, N140B in California from 1950-52 which was the sister ship to N150B on display in Anaheim. He purchased N150B Serial Number 70, built in June 1947, from Arthur Newman of Kelseyville, California, in 1981 and restored it to its present antique flying condition.

NC5H Serial Number 3 built in 1946 was the first helicopter purchased by

The National Medevac Helicopter Conference

April 18-20

Crystal City, Virginia

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AgRotors in January 1958. Although it was modified to a 47D1 for agricultural use, Dr. Voss has had it restored to its original B model flying configuration.

Dr. Voss specializes in entomology and agronomy, and now operates 11 Model 47s, one 206B and two UH12-Es.

We thank him for retaining so much fascinating and vital historical material on the start of the commercial helicopter industry, and for displaying these two venerable helicopters at the HAI's 35th Annual Meeting and Industry Exposition, February 13-16 in Anaheim, California. ✈

Notes from the European Office

From nation to nation, the industrial world is mired in its worst economic slump since the 1930's. There is heavy unemployment, and, in many countries, rapid inflation.

It is in the interest of the European operators and manufacturers, but also of those working in the international arena, to improve working-interface in close cooperation with others so that the means available will be used efficiently.

I hope and expect that the HAI's European office, now that it is off the ground, will be a real contribution to full industry cooperation within Europe and worldwide.

Members of the European Regional Council and all other organizations seeking cooperation: *The European office is here to serve you. It is there for your benefit, please be wise and use it.*

By Rob Vinckx
Director, European Office ✈



Tow ability of Columbia Helicopters' Boeing Vertol 107 was clearly demonstrated twice this year in dramatic tests, one done on Puget Sound and the other on Alaska's North Slope. The Vertol provides the power to tow the barge which is riding on a cushion of air. The nose attitude of the helicopter was as much as 35 degrees with the aircraft approximately 20-30 feet above the water.



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