# 123.05

# From the President

Greetings to everyone from your elected officials!

For all those who missed the March meeting I'd like to take this opportunity to highlight the events of the business meeting and to summarize our guest speakers' remarks.

Our business meeting began with reports from the Chairmen of all of our Committees. I'd like to thank our new Committee members for volunteer-

ing to help with the operation of our Association.

Since we had no unfinished business, we moved directly into discussions on several new topics. The Association has agreed to participate in the Second Annual International Helicopter & Experimental Exhibition which will be held at the Nashua Airport on July 18 and 19. We also voted to forego a formal dinner dance this year and to schedule that event for early spring next year. In lieu of this year's dinner dance, we decided to hold a family picnic later in the summer. Finally, we agreed to create an educational forum throughout New England to foster and promote rotorcraft aviation. The goal of this forum is to provide aviation training materials and helicopters for static display to middle and high school students in order that they may be exposed to the utility of helicopters in general aviation and to highlight aviation-related careers.

Our first guest speaker was Mr. Lawrence Mattiello. Larry represents the Alpha Aviation Insurance Company and he is also the Insurance Advisor to the HAI. The briefing which Larry gave us depicted a gloomy but realistic picture of the forces affecting aviation insurance. It looks like we may be in for several more years of higher insurance premiums and for more

restrictive pilot qualification requirements.

The rest of our evening was devoted to maintenance. Mr. Dave Kent from Rotor Blades, Inc., which specialized in repairing main and tail rotor blades for aircraft manufactured by Bell, McDonnell-Douglas, Enstrom, Hiuller and the Schweizer Helicopter Company, was our next speaker. Dave outlined some of his company's repair services and gave us some tips to maximize the life of our very expensive and very important rotor blades. Our next maintenance speaker was Mr. Ken M. Johnson from Lycoming. Ken's presentation centered around the reliability of Lycoming's piston engines. As you may know, these engines are used in Bell, Enstrom, Robinson and Schweizer Helicopters, as well as in numerous other general aviation applications. Mr. George Adams from Aviall then discussed general maintenance of Alison 250 series turbine engines. We invited Mr. Ray Newcomb from Joe Brigham, Inc., and Mr. Bruce Harting from New Hampshire Helicopters, Inc. to join our other maintenance guests and we concluded the evening with a round table question and answer session.

- Ricky Wickson

# <u>NEWS</u>

MAY, 1992 Volume 2 Issue 11

## MEETINGS

Be sure to mark your calendar: *Thursday, May 7, 1992* Westford Regency, Westford, MA Social Hour 6:30 to 7:30pm Meeting 7:30pm

#### AGENDA:

R. Peter Reid, Jr., Manager of Zephyr Weather Information Service, Inc., will provide us with information about weather by FAX.

Jeffrey N. Warner, Regional Marketing Manager of Bell Helicopter will speak on Heliprops!! Helicopter Professional Pilots Safety Program.

May 26 7:00pm Safety in the T.C.A. at the Boston City Heliport

June 30 3:00pm Directors Meeting, Boston City Heliport

July 18 &19 International Helicopter Show, Nashua, NH

August 18 3:00pm Directors Meeting, Boston City Heliport

September 19 17 Cour own Safety Meeting (more info. to follow)

## New Cellular Tower in Natick, Ma.

For those of you who have occasion to use either of the Cochituate Helipads (formerly Burke) located near the turnpike exit in Natick, care should be taken to locate and avoid a newly erected Cellular One tower, located approximately two hundred (200) yards southwest of the pads. The tower, which is an estimated two hundred (200) AGL, is unmarked and unlit and very near the preferred landing and departure paths (over the railroad tracks) for the helipads. For further information contact Tom Grassi at 508-650-9252.

## Summer Picnic at Joe Brigham's

Our family picnic this summer will be on Sunday, August 2 starting at 10:00 am. The Association will provide the burgers and hot dogs, chips and drinks. Feel free to bring a salad or a dessert if you so desire. If you are flying, be sure to call first (603-225-3134). If you are driving, take Route 93 to Route 9 East, Loudon Road to Route 106 South to Clough Mill Road (turn off Route 106 at Penn Hampshire Club)

## LIST OF OFFICERS

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# **NEHPA CORPORATE MEMBERS**

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On Thursday, February 27, our Association participated in the Midwinter Sport Aviation Fair which was held in the NCO Club at Hanscom Field. This event was sponsored by the Aero Club of New England. Nearly 350 general aviation enthusiasts attended to share the joys of their type of flying as well as to learn about different types of sport aviation. Representatives of the Balloon Federation of America, the Soaring Society of America, the Seaplane Pilot's Association, the International Aerobatic Club, the New England Escadrille, the Experimental Aircraft Association and the Federal Aviation Administration were also present. Each of these organizations started the evening by setting up booths to display their particular type of flying and to attract new members. During the formal presentation, a spokesperson from each organization was given the opportunity to address the entire group followed by a question and answer session. The meeting was very informative and lots of fun, too. If you weren't able to attend this year, perhaps you'll join us at the next Aero Club Sport Aviation Fair.

- Greg Harville

### ATC COMMITTEE REPORT

The Association's ATC Committee, chaired by Jack Keenan, has continued to labor long hours on a multitude of issues. Of principal focus is the need for a helipad to become a part of Massport's permanent facilities plan. Currently, Logan operations are to and from a temporary site, the location of which can move at any time. Massport maintains a certain inattention if not indifference to vertical flight utility, safety and convenience.

Noise sensitive operations within the TCA is a source of somewhat constant interaction between the committee and local groups and/or individuals. Higher Turnpike Route clearances seem to have resulted from recent discussions in Newton and subsequent contact with TCA personnel.

Inquiries, suggestions and concerns relating to operations within the area's control zones can be presented to the ATC Committee for assistance and/or resolution.

#### **AVIATION SAFETY SEMINAR**

The Aviation Safety Seminar, sponsored by Manning Helicopters and Jack Keenan is being planned for May 26, 1992 at 7:00 p.m. at the Boston Heliport. The subject will be on Communications and Helicopter operations in the Boston TCA.

The Master of Cermonies will be Dave Manning. The guest speakers will be Jack Keenan, John Hemmes, Boston Tower and Boston Center.

Fly-ins please call Brian MacGillivary at (617) 482-4501 before May 21. Hope to see you there!

- Dave Manning

### SAFETY NOTE

Instrument panel hoods, avionic panels, fuel management panels, etc., were never intended to be used as a storage area for clipboards and pens, etc. However, incidents continue to be reported of clipboards falling into tail rotor pedals, through chinbubbles or inadvertent switching from automatic to manual fuel control while retrieving an item from the fuel management panel.

This ÕSN is issued to caution operators that proper storage of items is a general cockpit management procedure. Failure to take the necessary precautions can be a costly and dangerous practice. - Rick Wickson

## **DECIDING SAFETY**

The largest selling light aircraft in the United States for the last two consecutive years has been the Robinson R22 helicopter. The introduction of this relatively inexpensive aircraft has had a major impact on general aviation and will continue doing so for years to come.

With the advent of this helicopter has come a new breed of pilot. No longer is the average helicopter pilot one who has a detailed background of military experience followed by a full-time commercial position in general aviation. Instead, the local flight school can offer a detailed training program tailored specifically to students' needs and schedules. Under the supervision of the C.F.I., the student can be taken from the level of an interested observer to the holder of a private certificate in a matter of months. Once certified, the "ex-student" is allowed a broader scope on decision making and judgement calls in general, as most flight schools allow their rated pilots to continue renting the school's helicopters. However, the school owner, or C.F.I., is still available to offer advice or directional orientation to the new pilot. Such advice could be directed towards "go" or "no go" decisions related to current or forecast weather conditions. Most flight schools have minimum visibility and cloud ceiling requirements which must be met prior to dispatching any aircraft.

Due to the comparatively low cost of the R22, some newly rated pilots may find themselves in a position to purchase one of these fine ma-

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### DON'T LET THIS HAPPEN TO YOU!

chines; a great position to be in and it's certainly a great feeling to fly your own machine! With the purchase of a new machines comes a certain independence from the flight school. This independence will exist to a lesser degree if your machine is involved in a lease back agreement with a flight school. Nevertheless, you, as the owner, will still decide whether you fly or not. If you should find yourself in the fortunate position of being the owner of a helicopter, deciding safety is your most important consideration. Set your own weather standards and adhere to them. Flight school criteria are set by experienced, knowledgeable pilots. If you are a low time pilot with a need to fly your helicopter on a day that may have less than ideal weather conditions, ask yourself a simple question. Would the flight school allow me to rent their aircraft for this flight? If the answer from the experienced pilots is no, then perhaps this should be your answer as well. A general cross section of the local flight schools suggests the following requirements for renter pilots: Cloud ceiling: At least 2,000 feet current and forecast

Visibility: At least 10 miles Wind: 10 to 15 knots. Peak gusts, 20 knots.

These requirements pertain to the low time pilot that may find him or herself flying three to four times a month at most.

The most important consideration in any kind of flying is safety. Safety starts with the pilot's decisions. Decisions that are based on safety first will afford the most pleasurable flying experience.

- Brendan Brides

On April 4, 1992, a midair collison involving a Bell 412 and Piper PA-60 occured near Philadelphia. This accident resulted in the deaths of seven people, and serious injuries to five others.

A Piper Aerostar PA-60 was inbound to Philadelphia International Aiport (PHL), when the pilot reported that he did not have a green light for the nose landing gear. He later reported that he could see the nose gear in the reflection on the spinner, and it appeared to be down.

A Bell 412 helicopter (N78S) was outbound from PHL. The flight path of the Bell 412 took it beneath the inbound PA-60 and the captain reported to PHL tower "the Aerostar that went past us, looked like the gear was down."

PHL tower offered to observe the gear as the pilot made a low pass. The pilot accepted and the tower advised that the nose gear appeared to be down.

The captain of the Bell 412 offered to return and "take a real close look". This transmission was acknowleged by PHL tower, who advised the captain of the PA-60 that the Bell 412 was inbound and could take a look at the nose gear. PHL tower provided directional information until the pilots of both aircraft reported each other in sight. A visual inspection was conducted and the captain of the Bell 412 stated "everything looks good from here." The captain of the PA-60 replied, "okay, appreciate that, we'll start to turn in." No further communication was made, and the accident ensued.

The NTSB investigation found that none of the four pilots had received any formal training in formation flight. The NTSB report cited the inexperience of the captain of the PA-60 as significant in that he apparently did not know that the locking mechanism of the nose gear is covered by the gear doors and is not visible no matter how close the observer is. The captain of the PA-60 had received two independent confirmations of his own observations that the nose gear was down and, as NTSB noted, there was no benefit to be gained by further observation of the gear.

The NTSB report continues, "A more experienced pilot...would have landed the airplane accepting the possibility of nose gear collapse...and should have rejected the offer for the close inspection by N78S (Bell 412). The PA-60 captain was also faulted for relinquishing the responsibility for ensuring the safety of his aircraft by not insisting on setting a safe separation distance with the other pilot.

The NTSB also writes, "The captain of N78S should have known that he was undertaking a futile and ultimately unsafe task when he offered to take a 'real close look' at the nose gear of N3645D (PA-60)."

The Safety Board's conclusion lists poor judgement and poor decision-making by the pilots of both aircraft as the cause of this accident. In recent years, some very useful guides, e.g., Aeronautical Decision-Making for Helicopter Pilots, available from the Helicopter Association International have been published on the subject of aeronautical decision-making and have been shown to have significant accident prevention benefits.

I must remind you that this was a case where somebody was trying to help. Unfortunately, the result was the death of seven people. If you haven't been properly trained, you must say "NO", and let the people who are trained for these situations do their jobs.

-Ricky Wickson

In response to a grade school assignment, nine year old Joey Grassia submitted the following. It is nice to know that helicopters can rate double "A's" from those outside the industry. Joey is the son of NEHPA Vice President Tom Grassia and has logged frequent flyer miles in an Enstrom, MD500, Jet Ranger, A-Star and Twin Star. He is currently angling for an offer to try out the Apache or Blackhawk.

#### **HELICOPTERS**

Helicopter comes from two Greek words meaning spiral and wing. These are some of the crazy nicknames that people have given helicopters: chopper, whirly bird and eggbeater. All these words describe helicopters very well.

A helicopter works by spinning rotors at the top and the back of the aircraft. These can have as many as four rotor blades but there can be no less than two. This is because the helicopter could not fly with one rotor. The back rotor keeps the helicopter from spinning around.

When the rotors spin fast enough, they create lift because the top of the blade is shaped like the back of a spoon and the bottom is flat. When air flows over the blades, it takes longer than the air flowing under it, so more pressure goes under the rotor blade and pushes up against the blade and creates lift.

Helicopters can do a lot of things that airplanes can't do. They can hover, fly left and right, forward or backward. They can take off without a runway, and land without a runway, too.

The pilot controls them with three major controls. One is the collective pitch level that changes the angle of the rotor blades to the wind. This causes the helicopter to climb, hover or descend. The cyclic pitch control, or control column, allows the helicopter to fly forward, backward or sideways. Rudder pedals control the tail rotor and make the helicopter tails turn

right or left.

Some helicopters have little jets at the end of the blades that make them spin very fast. This is one of the many things that have been tried but haven't worked well.

There are many different types of helicopters and many different uses for them. There are single-rotor helicopters which really have two blades, and there are twin-rotor helicopters which have at least two main rotors. The two big rotors move in two different directions which eliminates the need for a tail rotor.

Some of the twin-rotor helicopters have rotors on each end of the aircraft. These are called tandem-rotor helicopters.

Another twin rotor helicopter is called the coaxial-rotor helicopter. It has two large blades, one on top of the other. Twin rotor helicopters can generally carry bigger loads than single-rotor helicopters, so they are often used in industry and by the military.

An early helicopter design was invented by Leonardo DaVinci in 1483. No one has any proof that he actually made his invention, but his notes say that he did.

In the 1700's and 1800's, some Frenchmen experimented with helicopter designs.

In 1907, the first manned helicopter actually flew. It flew two feet off the ground for one minute! Later in 1907, a man flew a helicopter six feet off the ground for twenty seconds.

The first really successful helicopter was designed and flown in the United States in 1939 by a man named Igor I. Sikorsky. He started a very important industry in the United States.

I think helicopters are some of the most helpful aircraft in the world. They are used for lots of different purposes by the military, by farmers, foresters, and by industry. Some lucky people even get to use them for recreation.

-Joey Grassia

# **New England Helicopter Pilots Association**

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