VOLUME 3, Issue 7 JULY 1993

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NEWS

NEWS BITS

Eurocopter is scheduled to receive FAA certification for its new BO-105 twin turbine before year end. Order yours now.

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GPS is up and running (mostly). The Global Positioning System is operational on an "interim" basis according to the FAA. Full status is expected in 1995. For info call the Coast Guard at (703) 313-5900 or 313-5907.

The FAA is now accepting nominations for Flight Instructor and Maintenance Technician of the Year. Get in your vote before July 2, at any FSDO.

The President's Tax proposal could have imposed as much as an additional \$100 million dollars in taxes on general aviation. On the other hand, our government is considering eliminating the current "luxury" sales tax on aircraft.

A recent FAA decision has held that the FAA can require that you turn over your pilot's and maintenance logs within 10 days of their request so long as the request is in writing.

The FAA reports that it has received 22 reports of cracked tail rotor blade bearings on Bell 206L1s.

Our Government has determined that the microfiche records at Oklahoma City need to be replaced by video disks. This change will supposedly result in researchers having to lease monitoring equipment, contract for work stations within the facility (there will be 35 of them) and a general computer upgrade costing 23 million dollars. Remember those \$5.00 registration fees?

1993 OFFICERS

Greg Harville - President Tom Grassia - 1st Vice President Carl Svenson - 2nd Vice President Holly Sawyers - Treasurer Penny Bowman - Secretary

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ATTENDANCE + EFFORT = ?

Slow economic times, a decreasing number of helicopter businesses and operations has produced a feeling of discouragement among industry and association members alike. A consequence of this feeling has been a significant decrease in attendance at Association meetings and a slow response to membership renewals and Association projects. This year's speakers have drawn sustained applause and the efforts of the Association in virtually all of its ventures (fly neighborly policies, ATC work, education, safety, etc.) have met with both success and appreciation. We have a lot to be proud of and a great deal to support. We urge you to renew your memberships, attend the Association meetings and rekindle the comradery which comes from such a commitment.

QUINCY TOWER UPDATE

The FAA Region's determination of "No Hazard" for the newly erected Quincy tower is currently under review in Washington. While there are many technical reasons why the tower might be found wanting under the Regulations, NEHPA's position has consistently been that while we agree that the tower represents a hazard, being placed close to an aviation corridor, we know where it is and do not anticipate any difficulty with helicopter operations in the

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area. We have serious concerns with the process by which the tower was permitted and allowed to be constructed. We feel that the erection of the tower near a designated air corridor and without the participation of user groups such as the New England Helicopter Pilot's Association should be subject of serious concern.

CITY HELIPORT NEWS

NEHPA's Brian MacGillivary, manager of Boston City Helipad is happy to report that the facility now offers 100 Low Lead AVGAS for piston powered machines. The facility also provides Jet Fuel, a pilot lounge, hanger facilities and is convenient by cab or limo to downtown Boston.

PUBLICATION NOTE

A nifty pocket size publication entitled "Helicopter Notes" is available at volume rates through the Association. The book, which covers dozens of issues specific to the operation of the helicopter, retails for \$7.95, but can be obtained for as little as \$5.00 if sufficient numbers are interested. Please give your name to any officer before our next scheduled meeting (Safety Seminar) and we'll do the rest.

CALENDAR

July 1 - Directors Meeting

@ 5 Commonwealth Rd., Natick, MA

July 1 thru 5 - Vietnam Helicopter Pilots Assoc. Reunion

@ Phoenix (513) 721-8472

July 17 - NEHPA Summer Picnic

@ Joe Brigham's

August 5 - Directors Meeting

@ 5 Commonwealth Rd., Natick, MA

September 2 - Directors Meeting

@ 5 Commonwealth Rd., Natick, MA

September 16 - New Airspace Classifications

September 17 - NEHPA Safety Seminar

(a) NH Technical College Nashua, New Hampshire

October 7 - Directors Meeting

@ 5 Commonwealth Rd., Natick, MA

November 4 - Directors Meeting

@ Westford Regency, Westford, MA

November 4 - Membership Meeting

@ Westford Regency, Westford, MA (Cockpit Resource Management)

December 2 - Directors Meeting

@ 5 Commonwealth Rd., Natick, MA

December 30 - TCA Mode C Veil in effect

NEWSLETTER INFO

Publication deadlines for the NEHPA Newsletter are as follows. We are always looking for helicopter related stories and information. Submit your newsletter material to:

> "Newsletter" NEHPA P.O. Box 88 Bedford, MA 01730

Issue	Month	Submission Date
8	August	8/5/93
10	October	10/7/93
12	December	12/9/93

Coping with the Unexpected

Once upon a time there were two neophyte boy scouts in search of a project. I was one and my friend Greg Aziz was the other. We stumbled across a book about Samuel Finley Breese Morse, the gifted inventor of the telegraph. The book included a "how to" chapter and it was just what we were looking for. A discarded Crisco can, four D batteries and a short strand of lamp wire were called for. None of these materials were readily available but we were determined, imaginative kids and before long we had a plan. A Crisco can was procured and its former contents safely and quietly disposed of behind the garage. The can was deftly cut with mom's fabric shears which she would thereafter constantly decry the quality of. Every spare extension cord in each household was secreted away, decapitated and somewhat carefully spliced and taped. The batteries were a problem. No batteries and no money. We opted for real power, simply replace the batteries with an electric light cord and plug. We were ready. The first and last tap of our homemade telegraph machine was not so much a click as it was an explosion. Before the old fuse had its opportunity to snap, we had completed our very first and quite involuntary welding job. Neither Greg nor I expected that our modified Teletype experiment would turn out to be a lesson in fusion technology. We didn't expect the wall socket to smoke and we didn't expect the lights to go out. We had also not expected to be frightened out of our wits. The unexpected is almost always a challenge and frequently perilous.

Flying adds a new dimension to this environment. Mishandling the unexpected at altitude can be more than a little hazardous.

Some things should not invlove the unexpected. Fuel, weight and balance, sobriety and to a greater or lesser degree, the weather, should all be so carefully planned for that the risks of a surprise happening should be almost nil.

It is the unplanable. The things that "just happen" that throw us, sometimes seriously so. Some years ago, I was landing out at a corporate client's facility in western Massachusetts. It was a steep approach to a paved fifty by eighty area, secured by a stockade fence. As I cleared the near fence en route approximately two-thirds of the way to the far side of the landing area, my power dropped significantly. The obvious response was to continue to a landing, but I was unable to do so to the spot that I had initially selected. I sat down next to a pile of wooden pallets over which my main rotor whistled. This presented a new problem. If I shut down, my blades would surely dip to a point of contact with the pallets and while an Enstrom blade would likely make quick work of this interference, it would obviously lack a certain elegance. It was time to exit the aircraft and have a look see. The source of the initial problem turned out to be a large plastic trash bag which I had sucked out of an open dumpster parked against the inside of the lead-in fence. It was twisted tightly around the tail rotor causing enough resistance to reduce power below hovering capacity. I removed a couple of feet of pallets from the pile, shut down, proceeded to remove what seemed like yards of plastic strips from the area of the tail rotor transmission, closed the dumpster and went to see the maintenance folks to assure a cleaner landing site for future experiences. In this instance, the unexpected required remembering one's training about "accepting a landing" and about assessing the environment once down.

Sometimes, the unexpected requires less from the training manual or the instructor's notes and more from your own wits. Like most machines, helicopters have their own personalities, some, like mine, with a distinct sense of humor. About twenty minutes after taking off from Rangeley, Maine, one evening, my fuel tank indicators dropped to the big "E", for empty. If you have flown over Northern Maine at night, you know that there are no lights below you and what is below you is uniformly unfriendly. Rocks, gizillions of trees and thousand pound bears.

The first questions one asks under these circumstances are (a) "Why is this happening?" or the persecuted variation, "Why is this happening to me?"; (b) "Is it important?", or the factual variation, "Does it really mean I have no fuel?" and (c) "Should I share this

tidbit of information with my passenger?" or the practical variation "Will a disclosure be received with intelligent appreciation or will it induce an upchuck or panic?".

"Think" is the operative protocol in this circumstance. I was still in the air, the engine was still roaring. It was twenty minutes back to Rangeley and twenty minutes to the remote edge of civilization and the nearest airport.

I reviewed my pre-flight. I had fully fueled, checked each tank visually and with my finger. They had been full. I had turned on and then off, the fuel drain valves and the sump drain. My memory of these things and the continuing roar of the engine told me that I did in fact have fuel and that the helicopter was merely testing me. The lesson here, I think, was don't panic. Attempting to

set down before getting to the next available field would be a far greater challenge than I was probably up to and "they" would probably still be looking for us long after the bears had already found us.

We all have stories to tell and I urge you to share them. Often times, learning of another's experience assists in dealing with our own.

DIGITAL HELPS SPREAD GOOD WILL Holly E. Sawyers

A note of thanks to Digital Equipment Corporation (NEHPA Corporate Member) for helping to make "Career Day" at Potter Road Elementary School, Framingham such an unusual and exciting event. It is nice for students to see that there are adults who are caring enough to give of themselves in order to enrich the children's school experience.

The appearance of NEHPA's LaRay Todd (pictured) and his faithful sidekick Captain Coyote captured the attention of the children, teachers and parents. It was a learning event that will be remembered by all who were fortunate to witness it.



VISION AND JUDGMENT

It was a beautiful spring day. The kind of day when we all look forward to the joy of flying. I was scheduled for nights and really looking forward to this one. Not only was the weather perfect, but I had just left the Optometrist's office with a new pair of glasses. I was motivated to fly. These new glasses were not ordinary bifocals, they were gradient lenses. The promotional literature promised that "reading, focusing at arms length and seeing at a distance all become clear, and above all, enjoyable again". I was ready.

There was one minor problem. When I put the glasses on in the Doctor's office I was mildly concerned about some apparent distortion and blurred vision in the portion of the lenses that were not focused on whatever I was looking at. The Doctor however, reassured me that this was a normal reaction, and that I would very quickly adapt to it. He said that I just needed to retrain my eyes to stay in one spot. Although this sounded easy, I could not for the life of me remember the last time that I

had done anything, short of sleeping, without moving my eyes. The Doctor gave me a few quick pointers. 1. Point your nose at the object you want to see. 2. Adjust your chin until the object glides into focus. He then handed me a pamphlet entitled WEARERS GUIDE advising me to read it, and sent me on my way.

Walking to my car, I practiced holding my eyes still and moving my head up and down. Down so I could see where my feet were, and not trip over them, and up so I wouldn't walk into anything. This was done both cautiously and successfully, I might add. When I got to the car I opened the WEARERS GUIDE and read the following, "As with any new pair of glasses, you may have a break-in period while your eyes adjust to them. This is perfectly normal and may take a little time. IF YOU HAVE OTHER GLASSES PUT THEM AWAY SO YOU WON'T BE TEMPTED TO USE THEM AGAIN. Your (Brand Name) glasses have been designed to minimize this breaking-in period, so rely on them alone right from the start."

Undaunted, I drove to work happily looking

off in the distance enjoying the slightly sharper edges on distant features. I did notice some minor difficulty with focusing on objects inside the car, but readily dismissed the whole thing knowing that my eyes were adjusting as I went through the "break-in period".

That night I found that things inside the cockpit were not as pleasant as I had expected them to be. I turned on the power and realized that I could only focus on 1 or 2 instruments at a time. My focused field of view was extremely limited, both vertically and horizontally. Everything outside the small focused field of view was just a blur. I began to move my head up and down and left to right and back again. As I sat with my head bouncing up and down like a toy dog in the back window of a 60 Chevy, I noticed that every time my head moved to find and focus on an instrument, everything that was out of focus appeared to move left and right, to move up and down, and to move in and out while at the same time appearing to twist from distortion. All of this was happening in all quadrants of my vision. This was not a pretty sight. Meanwhile my focused field of view was approximately just 3 inches high by 6 inches wide at the distance to the panel.

None the less, I was determined to learn, and to teach myself how to function in the cockpit while wearing these new lenses. I was going to modify my previous behavior pattern via knowledge that I would acquire on my own. Problem with this however was my "basics for knowledge". I had almost no knowledge of these gradient lenses or the problems they create with sensory perception. But, I thought that I could learn or acquire that knowledge very quickly. I would gain "instant experience", analyze it, make the necessary behavior modifications, and learn from it.

I felt that I had to learn to fly with these new lenses. I wanted to master them. I just needed to get used to them, to get through the break-in period. By this time though my normal rhythm and flow pattern for doing things was nonexistent. I was functioning with a real handicap and wouldn't recognize it's severity. I knew that I had interrupted the checklist several times, but I did not realize that I had missed checklist items.

Trying to concentrate on what appeared normal I chose to completely ignore everything out of focus and concentrate only on that which was in focus. An area approximately 3 inches high by 6 inches wide at the

distance of the instrument panel. I would concentrate on those things not appearing to move due to distortion. It was really difficult but I did it. I managed to ignore all of the panel lights which were out of focus and appearing to move around. I managed to completely ignore anything which could become distracting or cause false perceptions while I was concentrating on learning. I did it so well in fact that I actually ignored ALL of the lights inside the cockpit which were not in focus.

I ignored EVERYTHING not in focus while I picked the aircraft up to a hover. I was learning very quickly. When I reached a stabilized 3 foot hover I did the standard cross check of instruments and lights. It was only then that I realized I had picked up to a hover with a few caution lights on. Not all systems were in "fly" position. I had allowed myself to get so caught up with the new lenses, and become so "focused", pardon the pun, on overcoming the apparent problems of gradient lenses in the cockpit, that I had interrupted normal routines which we almost take for granted. I had become complacent in regard to those things which I felt comfortable about. I broke away from my established routine. My timing was off. I had interrupted the check list numerous times in order to locate objects and information normally located and assimilated in just a quick eye scan.

Obviously the cockpit is NOT the place for unsupervised training. But for some reason I thought it would be OK to both teach and learn necessary behavioral changes required to function with the new lenses. What I was trying to gain was knowledge to function normally with dysfunctional perceptive apparatus. Altered perceptions which adversely affect acuteness of vision or hearing or touch will undoubtedly affect correct performance as a pilot. My mistakes in performance as a pilot which I made that night are overshadowed by the mistakes I made in judgment. I had been looking forward to flying with my new glasses all day. We all know that when we really want to do something we can generally make ourselves believe that it's all right to do it. We can rationalize almost anything until it looks justifiable. That's exactly what I did that night. I rationalized several things, each of them a potential link in the chain of events which could have led to an accident.

I was fortunate. There was no accident. What did I learn from this experience? I learned that bifocals aren't so bad after all. I learned that learning in the cockpit should be done with an instructor other than oneself, and that a good learning environment is not rushed. The most important thing that I learned once again is that in accident prevention it is far more important to develop good decision making skills and judgment than it is to develop good flying skills.

New England Helicopter Pilots Association

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