

THE SENTINEL



OFFICIAL SAFETY NEWSLETTER OF CIVIL AIR PATROL

Watch Your Glass!

Technology is a great thing but learning how to use any product of a technical advancement correctly is very important. It is not only to know what that product is capable of doing but also how it can be effective in the application that product is being used. For example, the airplane itself was a wonderful technical advancement but it didn't come through all these years without trials and tribulations. Learning how to operate the airplane effectively and smartly made its use safer and more productive over the years.

The same can be said for the new generation of technically advanced aircraft and the commonly known "Glass Cockpit".

The "Glass Cockpit" and how we use it and learn all of the capabilities afforded by the glass cockpit technology will determine how safe we are as pilots. There are reviews going on within the aviation industry and the FAA to determine what really is a glass cockpit, but for our discussion in this issue we will focus on the new breed of aircraft entering the Civil Air Patrol fleet and how we can understand the methods of training and operating this new equipment.

According to studies by the AOPA Safety Foundation, the additional learning curve of new avionics adds to

the initial workload but the advantages of this technology are many. With this new "Glass" technology the pilot moves from the physical airplane or stick and rudder skills, to a more mental approach. Pilots who successfully adapt will enjoy these aircraft while gaining situational awareness and those who don't will find challenge, complexity, and possibly some unsafe situations. It is also very important to note that when training and gaining experience in these new advanced aircraft we should not forget or lose our stick and rudder skills should the equipment fail you can still fly the plane and land it safely. This is a challenge for new pilots who are being trained today in the new technically advanced aircraft and do not learn the stick and rudder skills which is fundamental to safe flying. So what is the real secret to learning this new technology, use it safe and maximize its full potential? When airline pilots went through this process as did corporate pilots, they will tell you, as I, that good initial training in the equipment and then a series of "consistent" recurrent training, especially more often in the beginning, to learn the equipment properly and effectively. As you learn this equipment you will process so much information it will cause you to go on mental overload; and trying to integrate this new experience with your "stick and



CAP Safety Team

Col Lyle Letteer, CAP/SE
w4ke@mindspring.com

Maj Karen DeMars, GLR/SE
Karen@smith-ross.com

Maj Charles Cranford, MER/SE
ccranford@mer.cap.gov

Lt Col Bruce Brown, NER/SE
bbrown@ner.cap.gov

Capt Michael Hartell, NCR/SE
mike@aswusa.com

Lt Col Mike Howell, PCR/SE
mhowell@charter.net

LtCol Donald Johanson, RMR/SE
johansondon@earthlink.net

Maj Ernest C. Manzano, SER/SE
ermanzano@ser.cap.gov

Maj Larry Mattiello, SWR/SE
lmattiello@airsure.com

Larry Mattiello Maj CAP, Editor
Phone: 917-969-1812 Fax: 972-991-5855
lmattiello@airsure.com

HQ Civil Air Patrol/SE
105 South Hansell Street
Maxwell AFB AL 36112-6332

rudder” skills, that only practice and time will help you to become more effective and safe when using the new glass cockpit. After the initial training you would receive in the CAP glass cockpit aircraft, you should continue your training and use an experienced instructor until you feel comfortable with at least the basics. There are a few companies that provide CD-ROMs that can be used on a computer to continue that training and answer questions that will come up later as you use the equipment and find new challenges to how it works and why. The U.S. government has adopted CD-ROM training programs and the U.S. Navy has committed to such education for its fleet of Garmin 530 units installed in their E-2’s. What it comes down to is that the initial training and an annual form 5 will not make you proficient enough to use this equipment as intended. Continued training and other sources of learning devices such as CD-ROMS should be utilized. According to the AOPA Air Safety Foundation system training and basic avionics should be done online as their study finds most pilots do not find the print media particularly helpful for the advanced avionics systems. Too much interactivity is required to learn the systems effectively. The safety culture at the CAP is to develop a more professional safety management process and one way to achieve that is by the professional approach to safe flying in our new generation of Technically Advanced Aircraft. For more information on this important safety matter, go to the AOPA site at www.aopa.org/asf/publications/topics.

LM

It’s Hot All Over!

Temperatures around the country have been hitting 100 degree and it is important to recognize that the heat and sun require respect. Heatstroke occurs when the body fails to regulate its own temperature and the body temps continue to rise often to 105 degrees or higher. Symptoms of progressing heatstroke include unconsciousness for longer than a few seconds, convulsion or seizure, signs of moderate to severe difficulty in breathing, confusion, anxiety or severe restlessness and a fast heart rate. Also, hot dry, flushed skin with no sweating or with excessive sweating, severe vomiting and diarrhea. Heatstroke is a medical emergency and after calling a 911 follow these first aid steps:

Move the person into a cool place out of the sun.

Remove unnecessary clothing and place the person on their side to expose as much skin as possible to the air.

Cool the person’s body by sponging or spraying “cool” water and fan the person.

Apply ice packs to the groin, neck, and armpits.

Do not put the person in an ice bath!

Check their temperature frequently and try to reduce to 102 degrees or lower.

Some prevention of heat/sunstroke is to drink plenty of water, cover exposed skin and reduce exposure to the sun. Minimize or cancel out door activity. Rest often and did I mention drink plenty of water. **LM**

Safety is an educational process.