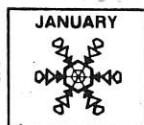


# NEWS LETTER



VOLUME 8 NUMBER 1



1986

Interim Editor: Marcia Sullivan Production Editor: Wally Tuttle Distribution Editor:  
Ray Coker

\*\*\*\*\*  
MEETING: Sunday, January 12th, 2 PM Montgomery County FSS  
Conference Room.

First FlyIn Planning Session Immediately following.  
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## CHAPTER NOTAMS

Another year has been ushered out by Chapter 302 Members. Good food and camaraderie was enjoyed at the Steak and Ale Christmas Party, where 302 was joined by members of the Houston North 99's. Here's looking forward to a GREAT 1986 for Chapter 302!



....The Starlite project continues to blossom in the Tuttle workshop as Orville (Robert) and Wilbur plan a trip to San Antonio for the wing kit, and any moment now you can expect to hear "Clear Prop" emanate for the Mathews' garage (although Byrdell might argue with that statement.).

....One of the star attractions at a recent Christmas party at the lovely home of Dick and Ginger Criss was the Glasair project in the garage. Tread gently if you stop by for a look, because it's guarded by three (3) Dobermans!

....All systems are go for the upcoming safety meeting on January 23rd at the Cypress Creek Community Center, 6823 Cypresswood Drive, off Steubner-Airline.

# Death adds to empty chill at location of DC-8 crash

ne Mexicans have a custom of placing small, white crosses at the spot where a person is killed in an accident, believing it is important to mark the place where the soul supposedly left the body.

I thought about that as I looked at the wreckage. I wondered how 256 small white crosses would look scattered among the charred trees.

Earlier in the day, a Canadian official had told us that an official inquiry would be held here to determine the cause of the crash. But mainly, she explained, it would remind people of the importance of airline safety.

I thought of that and I wondered, what better reminder than 256 crosses? Then, every careless air traffic controller and pilot, every aircraft manufacturer who had sought a shortcut, every inspector who looked the other way, every public official who failed to insist on strict compliance with safety standards — they could all be brought here and forced to spend time looking at the crosses.

(Excerpt from Houston Post)

....As pilots it would be difficult for most of us to deny the feelings stirred by this tragic event which occurred at Christmas time. And I remind you of this now because it will be far too easy three months, six months from now to chew the fat at a local airport and secretly congratulate ourselves over not being a part of an accident statistic. Along with that little blue piece of paper in our wallets, with whatever rating in has on it, comes an unwritten responsibility that no amount of complacency can erase. So let me reword the last paragraph in that excerpt to fit our local General Aviation pilot.

"....every pilot who takes up passengers after a cursory pre-flight check (or no pre-flight), every pilot who can't be bothered with flight plans before a long cross-country, every pilot who loads his family and friends into an already over-loaded aircraft on a hot day, every VFR pilot suffering from "go-it-is" in marginal weather, every pilot who thinks that proper aircraft maintenance is too much trouble, and that all those accidents can't happen to this skilled and wonderful pilot...they should be brought here and forced to spend time looking at all those crosses.

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Next time you feel like kicking your dog/cat, remember this!

(I don't know about flying!)

A man of kindness, to his beast is kind.

Brutal actions show a brutal mind.

Remember: He who made the

brute,

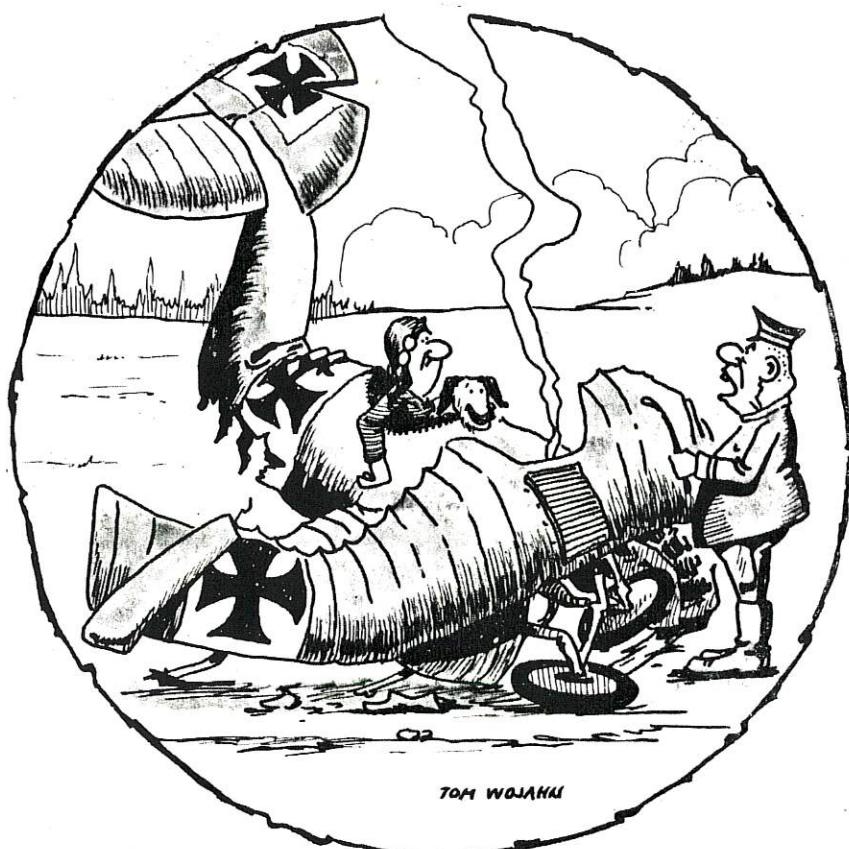
Who gave thee speech and reason, formed him mute;

He can't complain; but God's omniscient eye

Beholds thy cruelty. He hears his cry.

He was destined thy servant and thy drudge,

But know this, his creator is thy judge.



"I said your dog could ride in your airplane, Hauptman... I did not say he could FLY it!"

# 108 WAYS TO USE ELECTRONICS IN DESIGN



Hijacked from EAA Chapter  
73, Nutley, New Jersey.

## 50. Pilots benefit from sensing system

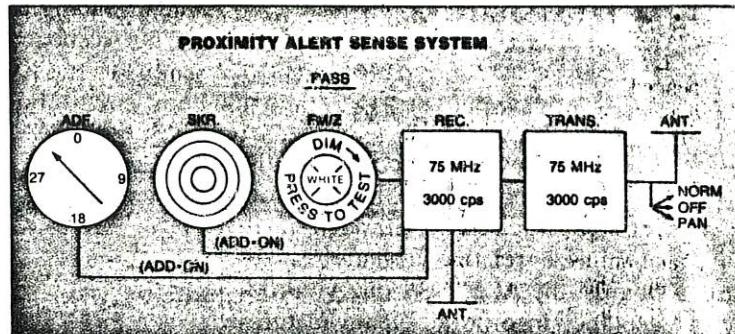
Everyone is aware that no two masses may occupy the same space at any one given time. Thus, airspace users must employ some form of Proximity Warning Indicator (PWI) or Collision Avoidance System (CAS).

Airspace users recognize the decreasing odds against mid-air collision each year; yet a margin of safety is still required.

Designer Thomas McAfee has devised a Proximity Alert Sense System (PASS) to warn pilots of other aircraft within a five nautical mile (NM) radius enroute, outside the terminal area.

Nearly every registered aircraft is equipped with half of an operational alert system. McAfee makes use of the panel-mounted, three-light Marker Beacon receiver with the addition of a small, low power transmitter and antenna in the PASS design.

The Marker Beacon operates on 75MHz either as three lights, audio tone or both. The middle marker light is amber and receives 75 MHz at 400 cps; the outer marker is blue and receives 75 MHz at 1200 cps. Both lights are part of the ILS system. The third light, FM/Z, is white and also receives 75 MHz, but at 3000 cps. This FM/Z marker was previously used as fan markers, outer compass locators, bone markers, and cone of silence on



the four-legged LF range stations which have been decommissioned.

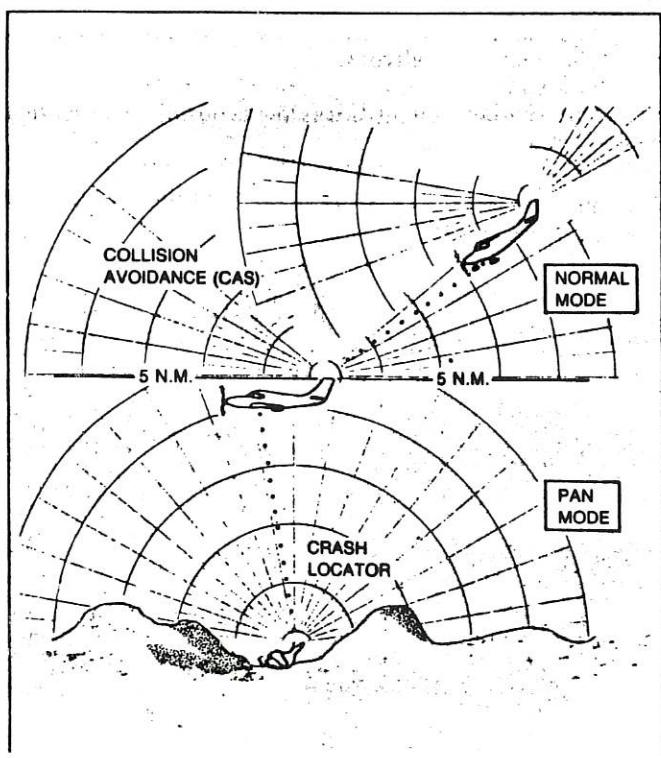
Although there are three light markers, the FM/Z is rarely activated aside from "press-to-test." Yet the three markers exist because not all ground stations have been decommissioned. This system still exists in foreign countries and VOR visual approach markers. However, this gives an aircraft the receiver portion of the PASS; an airborne transmitter is required to complete the system.

Installation of a solid-state 200mW transmitter of 75 MHz at 3000 cps would radiate a signal of approximately five miles. Restricting the radiation pattern in a vertical stabilizer mounted antenna to 360 deg horizontal (OMNI Directional) and 45 deg vertical, the transmitting aircraft will not receive its own signal. Now there is a five mile radius fan surrounding each aircraft: the top half transmits and the bottom half receives.

The greatest advantage of this system is its use as a Crash Position Locator by switching radiation pattern to 180 deg vertical. PASS also lends itself to future refinement through the use of the Doppler effect to determine convergence or divergence or adapting an ADF sense needle to determine direction. With merely a blinking white light, proximity is determined and the pilot alerted.

Despite disadvantages, the system performs the desired task at an affordable price. Consider the pilot's greatest fear: mid-air collision. Now consider the alternatives to avoid a collision: dependence upon a ground station or a black box nearly equal in expense to an aircraft or a blinking white light incorporated into the airplane.

Thomas McAfee  
4120 Winchester Rd.  
Winston Salem, NC 27106  
919-722-8294



Ed: We would like to update our info on members, as this has not been done for a long time, and we have several new members. Please fill in and mail or carry to Pres, Hank Aldrich.

EAA CHAPTER 302 Membership Information Survey.

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

EAA NATIONAL # \_\_\_\_\_

(If National Member) \_\_\_\_\_

TELEPHONE: WORK \_\_\_\_\_

HOME \_\_\_\_\_

AIRCRAFT OWNED: NOW \_\_\_\_\_

ONCE UPON A TIME \_\_\_\_\_

WISH YOU DID \_\_\_\_\_

SPECIAL SKILLS (Photography, welding, drafting, woodworking, electronics, etc.)  
\_\_\_\_\_

CURRENT PROJECT: \_\_\_\_\_

PAST PROJECT COMPLETED \_\_\_\_\_

WOULD YOU BE WILLING TO BE CONTACTED REGARDING YOUR PROJECT(S) FOR INFORMATION?

YES \_\_\_\_\_ NO \_\_\_\_\_

PROJECT YOU WISH YOU WERE WORKING ON? \_\_\_\_\_

WOULD YOU BE WILLING TO SERVE AS CHAPTER OFFICER IF ASKED TO DO SO? YES \_\_\_\_\_ NO \_\_\_\_\_

WHEN THE CHAPTER FLYIN IS ON, IS THERE A PARTICULAR CAPACITY IN WHICH YOU ARE WILLING TO WORK? \_\_\_\_\_

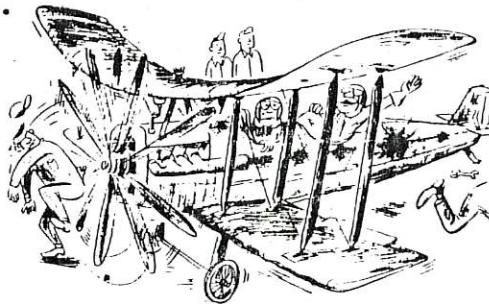
ADDITIONAL INFORMATION OR COMMENTS, IDEAS, ETC. \_\_\_\_\_

Inspection: It is best not to inspect the aeroplane. If you do, you will never get in it.

Getting into the cockpit: Do not climb into the cockpit in the usual manner. If you put your weight on the lower wing panel it will fall off, and besides your foot will go through the wing probably spraining the ankle. The best way to get into the cockpit is to climb over the tail surfaces and crawl up the turtle deck. Be sure to brush the squirrel and gopher nests out of the seat. Be sure not to cut your hand on the remnants of the windshield.

Instruments; After having carefully lowered yourself into the seat, and having groped in vain for a safety belt, take a good look at the instruments, both of them. The one on the right is a Tachometer. It doesn't work. The other is the Altimeter and it functioned perfectly up until 1918, when the hand came off. Look at them now, for after the engine starts you can't see them.

Starting the motor: The switch is on the right. It isn't connected, but it does give a sense of security to the mechanic who is pulling the prop over to hear the switch click, when you say, "switch off". If for some reason the motor does start, don't get out to pick up the unconscious and bleeding mechanic as he really did deserve it.



Warming up: Don't warm up the motor. It will only run a few minutes anyway and the longer you run it on the ground, the less flying time time you will have in the air. After the throttle is open, do not expose any portion of your body beyond the edge of the cowling. It is no fun to have your face slapped by a flying rocker arm, or to be peppered by small bits of piston rings, valves, etc. that are continually coming out of what was once the exhaust stacks.

The take off: The take off is in direct defiance of all the laws of gravity. If you have a passenger, do not attempt it.

The flight: After you have dodged through the trees, windmills and chimneys, until you are over the lake, you will notice a large hole in the left side of the fuselage. This hole is to allow the stick to be moved far enough to the left to get sufficient bank to allow a left turn. Never try a right turn.

The landing: The landing is made in accordance with the law of gravity. If the landing gear doesn't collapse on the first bounce, don't worry, it will on the second. After you have extracted yourself from the wreckage and helped the spectators put out the fire, light a cigarette and with a nonchalant shrug, walk, don't run away.

CHAPTER OFFICERS 1986

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