



# FLIGHTLINES

## Newsletter of the Texins Flying Club

October 2002

### CALENDAR OF EVENTS

**2 Oct (Wednesday):** TFC Board Meeting, 6:30 PM, TKI Conference Room. All members welcome.

**12 Oct (Saturday):** General Membership Meeting, Donuts 8:30 AM, Meeting 9:30 AM, TKI Conference Room.

**6 Nov (Wednesday):** TFC Board Meeting, 6:30 PM, TKI Conference Room. All members welcome.

**9 Nov (Saturday):** General Membership Meeting, Donuts 8:30 AM, Meeting 9:30 AM, TKI Conference Room.

### *Congratulations on these Member Achievements!*

Member	Event	Date	Instructor
John Thornell	1st SOLO	08/18/02	Richard Klein
John Pindarl	1st SOLO	09/21/02	Calvin Coffey

### Future of Nav aids

Editorial from Avionics Magazine

What a difference a Volpe National Transportation Systems Center study makes. When this U.S. government organization submitted its study of GPS vulnerabilities to the Department of Transportation (DoT) in early September 2001—followed immediately by the 9/11 disaster—it initiated an industry-wide reality check regarding satnav's role. Recent proof of that fact

was evident at the Navigation Architecture Industry Day, held May 7 and sponsored by Mitre Corp.'s Center for Advanced Aviation System Development (CAASD). The event's primary purpose was to determine what mix of terrestrial nav aids the Federal Aviation Administration (FAA) should maintain to serve as a backup, should GPS service become disrupted. The industry day, which was to provide a thorough overview of nav aid alternatives and seek input from National Airspace (NAS) users, represents part of a process launched by DoT Secretary Norman Mineta. He announced on March 7, 2002, that DoT will implement an action plan to maintain adequate nav aid backup.

The action plan's purpose is to "develop a navigation infrastructure roadmap for the future," proclaims a DoT release. It is to "ensure that GPS fulfills its potential as a key element of the nation's transportation infrastructure [and] that the vulnerabilities identified in the [Volpe Center] report do not affect the safety and security of our transportation system." The plan's recommendations, which are due to Secretary Mineta in December 2002,

will be integrated into future editions of the Federal Radionavigation Plan.

A prime consideration in FAA is to assess nav aid technology alternatives in the context of costs to both the agency and aircraft operators. "We're conducting studies and simulations to determine the best mix [of nav aids]," says Michael Harrison, program director for FAA's Architecture and Systems Engineering. These activities will help in preparing an initial draft of recommendations, scheduled to be complete in August. Modeling of coverage for backup options have been completed and results were presented at the industry day. Simulations are scheduled at FAA's Technical Center near Atlantic City, N.J., to determine the effect of GPS outages, both while an aircraft is en route and in the terminal area.

Many of you no doubt remember when FAA's intent was to establish GPS as the "sole means" of air navigation in the United States. It made sense at the time because using and maintaining a single nav aid certainly would be efficient. But sole means GPS "is no longer a part of our vocabulary," says an FAA official. And the nav aid mix the agency is getting ready to propose certainly is not as efficient as sole means GPS, though it almost certainly will improve safety. Generally, here is what FAA is proposing:

All DMEs would be retained, to the advantage of aircraft equipped with flight management systems (FMS). Some additional low-altitude coverage near airports may be recommended.

A minimum operating network of VORs would be maintained, in which an aircraft flying over the continental U.S. would be no more than 75 miles from a VOR. All VORs would be retained in the mountainous, western U.S. to assure that pilots won't have to climb into icing conditions for an uninterrupted signal. Should the GPS signal be disrupted, according to Harrison, the pilots who rely on VOR for navigation would not be able use area navigation (RNAV) but would be able to "fly VOR to VOR." Designated VORs would support landing, should there be a loss of the GPS signal.

Airports would retain at least one ILS, and all runways with Cat II and III ILS would keep their systems. This provides a precision backup in the event of interference to GPS and provides transition as the GPS-based Local Area Augmentation System (LAAS) is delivered. "We may install some ILS systems, but probably not many," says Harrison. Future needs for precision approaches

could be provided by either GPS/WAAS, GPS/LAAS or ILS, depending on the timing. For Department of Defense air operations, TACAN and ILS must be maintained, he adds.

In special areas, such as Alaska and Gulf of Mexico, long-range, non-directional radio beacons (NDBs) would be kept. These provide pilots a means to navigate until they are within range of a VOR.

LPV, which uses the GPS Wide Area Augmentation System (WAAS) to improve lateral and vertical navigation (LNAV/VNAV), would be advanced in 2003 to affirm the near-term instrument approach benefits of WAAS. LPV is a refinement of LNAV/VNAV that takes advantage of GPS/WAAS precision and reduces the size of the approach surfaces, opening up more runways to 250-foot ceiling and three-quarter mile visibility minimums, according to Harrison.

FAA still is investigating Loran-C's role in the NAS and will submit its findings to DoT later this year. A lot was discussed during the Navigation Architecture Industry Day, in which more than a dozen presentations were delivered by about an equal number of speakers. I suggest everyone involved in air operations in the United States—pilots, air traffic controllers, manufacturers and aircraft owners—keep posted on the DoT action plan's progress. You can start by reading the industry day presentations on the Mitre/CAASD Web site:

[www.caasd.org/comm/conferences.html](http://www.caasd.org/comm/conferences.html)

## **An Interactive Training Tool That's Actually Useful as Well as Fun!**

By Keith Gutierrez

During my instrument training, I was always on the lookout for items that would help me practice navigation procedures and instrument interpretation without spending lots of money. I was delighted to find an extremely useful tool that may be used from the listed website or copied to any PC. It's invaluable and I still use it to keep my skills fresh. Best of all, it was free!

Created and hosted by developer Roy Epperson, the "trainer" provides interactive training in the use of VORs, ADF, HIS and holding procedures. Here's a summary of the capabilities.

The ADF trainer window allows you to:

- drag the plane to see the ADF indication
- change the DG heading and see the effect on the ADF indication

The HSI trainer window allows you to:

- adjust the OBS to see the CDI indication for the plane's radial position
- adjust the plane's location by dragging the plane within the window
- adjust the plane's direction by setting the Directional Gyro

The "show HSI areas" checkbox will display the various areas of the HSI where:

- the CDI shows the radial within +/- 10 degrees of the OBS heading
- the CDI is "OFF" when approximately 90 +/- 12 degrees of the OBS heading
- the CDI shows where you're between the above

The VOR trainer window allows you to:

- adjust the OBS to see the CDI indication for the plane's radial position
- adjust the plane's location by dragging the plane within the window
- adjust the plane's direction by setting the Directional Gyro

The "show VOR areas" checkbox will display the various areas of the VOR where:

- the CDI shows the radial within +/- 10 degrees of the OBS heading
- the CDI is "OFF" when approximately 90 +/- 12 degrees of the OBS heading
- the CDI shows where you're between the above

The Dual VOR trainer window allows you to:

- adjust the OBSs to see the CDI indication for the plane's radial position
- adjust the plane's location by dragging the plane within the window
- adjust the plane's direction by setting the Directional Gyro
- drag the VOR(s) to other positions within their window

The "show VOR areas" checkbox will display the various areas of the VOR where:

- the CDI shows the radial within +/- 10 degrees of the OBS heading
- the CDI is "OFF" when approximately 90 +/- 12 degrees of the OBS heading
- the CDI shows where you're between the above

The Holding Pattern VOR Trainer allows you to:

- select the radial on which to hold
- select right or left turns
- drag the plane to different locations to see the type of entry
- clicking/releasing the mouse on the plane will display the correct entry

The Holding Pattern Intersection Trainer allows you to:

- create a new random intersection
- randomly locate the plane on one of the intersection's radials
- randomly create a new hold on one of the intersection's radials
- clicking the mouse over the plane will display the correct entry

Even if you think you are proficient, a few minutes with any of the trainers, configured for quiz mode, might just surprise you and refresh your memory.

<http://roye.home.netcom.com/flighttraining/index.htm>

## What Time Is It ?

By Calvin Coffey

On some air bases, the military is on one side of the field and civilian aircraft use the other side of the field, with the control tower in the middle. One day, on just such a field, the tower received a call from an aircraft asking, "What time is it?"

The tower responded, "Who is calling?"

The aircraft replied, "What difference does it make?"

The tower replied, "It makes a lot of difference:

If you are a commercial airlines flight, it is 3 o'clock.

If you are an Air Force aircraft, it is 1500 hours.

If you are a Navy aircraft, it is 6 bells.

If you are an Army aircraft, the big hand is on the 12 and the little hand is on the 3.

If you are a Marine Corps aircraft, it's Thursday afternoon.

If you are in the National Guard, it's still a couple of hours until quitting time."

## Highlights from September Board Meeting

Highlights of Board Meeting -- 09/04/2002

TFC Board Members and club members present were: Roger Nordmeyer, Art Jones, Fred Carvajal, Rick Still, Dick Sandlin, Bob Moran, Keith Gutierrez, Doug Darlington, and Hank Eilts.

Operations: 733NB is down for TBO overhaul. 36Q's stub spar repaired; looks like more corrosion where stub spar meets main spar -- contacting Mooney re: repair procedure. Club flew 210 hours last month.

Flight Instructors/Operations: Incident with 0TM and 29U discussed; individual discussed procedures with both instructor and chief instructor. Matter closed unless additional damage discovered and windscreen cannot be buffed out. No logbook entry required unless maintenance required.

Controller: No attack lawyer found yet for delinquent account. Membership ad in Dallas Morning News too costly -- cancelled. Roger Nordmeyer asked that 30-60-90 day delinquent list be generated and certified letters be sent, as necessary.

Communications: September newsletter on website. Website has been cleaned up and revamped. Noted little feedback on sample on-line scheduling tool from board members; most had not reviewed it yet. There was a great deal of discussion on whether Internet-only access was adequate; it was decided to survey General Membership, both on-line and in next month's billing. Still planning on implementing on-line scheduling starting the first of January, assuming costs can be covered in next year's budget.

Treasurer: Still working crossover to new accounting system and reconciling accounts. Lots of work to be done yet. Plan on doing parallel billing next month. October is start of budgeting for next year. Rick Still presented a preliminary list of capital expenditures that should be considered for next year.

Membership report: Currently 188 active members; expecting 5-10 new members to join the club during the registration at ground school.

Fleet Team: Little progress made on selling Mooney until it is out of shop and operational; expect sale to take 2-3 months. Started looking at replacement aircraft but cannot afford to purchase one until we sell other(s).

Adjourned 1945.

## TFC Fleet Maintenance August '02

Fleet Maintenance - 08/01/02 through 08/31/02

### 6368K

08/08/02 - 100 hr inspection completed

08/17/02 - New flap switch installed.

### 7929U

08/12/02 - 50 hr oil change

08/26/02 - Repaired King 76A transponder installed and loaner returned

### 150TM

08/28/02 - New rudder bushings installed. New landing light installed.

Transponder picked up from Tomlinson and installed.

Omni is going in for repairs.

### 733NB

08/28/02 - Grounded for major engine overhaul and glide slope repair.

### 737TY

08/26/02 - New right main tire. GPS sent to factory for repair.

08/28/02 - Pilot side Door latch squawked, new handle on order.

### 7508J

8/04/02 - Aircraft on line after 100hr and prop rebuild

8/31/02 - Ammeter not indicating properly.

### 5363Q

08/31/02 Sub spar being rebuilt per instructions from the factory.

## TFC Fleet Statistics (Q3 '02)

Tail No.	Hours						YTD
	Q1	Q2	Jul	Aug	Sep	Q3	
6368K	48.2	66.3	24.8	14.8		39.6	154.1
7929U	80.2	71.9	36.9	43.1		80.0	232.1
150TM	73.7	67.2	24.2	37.5		61.7	202.6
737TY	102.7	102.5	0	41.7		41.7	246.9
733NB	76.5	104.2	74.4	54.7		129.1	309.8
7508J	53.6	65.2	11	19.1		30.1	148.9
5636Q	25.5	24.0	0	0		0	49.5

## Upcoming Regional Events

**October 4**

**Midland, TX**

Commemorative Air Force's American Combat Airman Hall of Fame Induction Ceremony. FINA-CAF Airshow Tina 915-563-1000

**October 5-6**

**Grants, NM**

Grants-Milan Fly-In and Campout. BBQ Dinner/Pancake Breakfast (GNT)

**October 11**

**Ft. Worth, TX**

Ft. Worth International Airshow 817-870-1515

**October 11**

**San Marcos, TX**

Gathering of Memories 830-964-2461

**October 18-20**

**Cedar Mills Marina (3T0), Lake Texoma, Texas.** (Near Gordonville)

Cedar Mills Splash-In and Safety Seminar. Flying, food, fun, floats, and flying! Sponsored by Cedar Mills Marina. FAA Seawings. Forums presented by seaplane instructors, equipment manufacturers, and aviation industry reps. Contact Rich Worstell by phone at 903/523-4899, by email [valiant@texoma.net](mailto:valiant@texoma.net), or visit the Cedar Mills Marina web site

<http://www.cedarmills.com/events.html>

**October 18**

**Gilmer, TX**

East Texas Yamboree Air Show & Fly-In 903-843-3811

**October 19**

**Seguin, TX**

Elm Creek Airpark Annual Fly-In (0TX6)

<http://elmcreekap.org>

**October 25**

**New Orleans, LA**

N'awlins Air Show 504-678-3710

**October 25-27**

**Las Cruces, NM**

2<sup>nd</sup> Annual Land of Enchantment RV Fly-In at (LRU), hosted by Adventure Aviation 877-525-0500

**October 26-27**

**Houston, TX**

18<sup>th</sup> Annual Wings Over Houston Airshow Festival. 713-266-4492 [www.wingsoverhouston.com](http://www.wingsoverhouston.com)

**November 9**

**Midland, TX**

"The Berlin Airlift" A Remembrance of War Seminar Series at the American Airpower Heritage Museum, 2PM Tami 915-563-1000

**December 7**

**Midland, Texas**

"Subchasers" A Remembrance of War Seminar Series at the American Airpower Heritage Museum. 2pm. Tami 915-563-1000.

## **Short Final...**

Flying to Los Angeles from San Francisco, a passenger noticed that, although the flight was a particularly smooth one, the "Fasten Seat Belts" sign stayed illuminated throughout the entire trip. Just before landing, he asked the flight attendant about it...

"Well," she explained, "up front there are 17 University of California girls going to Los Angeles for the weekend."

"In back, there are 25 Coast Guard enlistees. What would you have us do?"

## TEXINS FLYING CLUB OFFICERS

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Dick Stephens	*		*				(972) 517-1647	(972) 517-1647	stephens6@ont.com

**CFII** - Certificated Flight Instructor, Instruments; **MEI** - Multi-Engine Instructor; **Conv** - Conventional Gear (Taildragger) Instructor; **SES** - Single Engine Sea; **CFIG** - Certificated Flight Instructor, Glider; **ATP** - Airline Transport Pilot-rated. **Note:** All instructors are assigned by TFC's Chief Flight Instructor (Art Jones).

**ABOUT THIS NEWSLETTER:** Inputs are encouraged! Of particular interest are flying experiences that others can learn from. Forward inputs to Rick Still, email [r-still@raytheon.com](mailto:r-still@raytheon.com)

## TFC AIRCRAFT AND RATES

Tail No.	Make	Model	Rate/Hr
Simulator	ATC	610J	\$ 0.00
150TM	Cessna	150M Commuter	\$47.00
6368K	Cessna	150M Commuter	\$47.00
7929U	Cessna	150M Commuter	\$47.00
733NB	Cessna	172N(180) Superhawk	\$70.00
737TY	Cessna	172N Skyhawk	\$66.00
7508J	Piper	PA-28R-180 Arrow	\$80.00
5636Q	Mooney	M20E	\$80.00

- Detailed aircraft features are listed in Club Handbook
- Monthly Dues: \$28.00 for regular members
- Instruction: Primary: \$19.00 / Hr  
Advanced: \$21.00 / Hr  
(\$0.50 of each goes to TFC for billing admin -- rest to Instructor)
- TFC measures aircraft rental rate using tachometer hour.
- Rate includes cost of fuel
- Instruction flights are tax exempt; others require additional 8.25% tax.

## KEY TELEPHONE NUMBERS

### McKinney & TFC

Aircraft status Recorder	(972) 562-7213
Aircraft & Sim Scheduling	(972) 562-8359 (562-TFLY)
TKI ASOS Land Line	(972) 542-9659
Airport Manager	(972) 562-6080 ext 4053
WingsPoint @ TKI	(972) 562-5555
Monarch Air @ TKI	(972) 562-0717

### General

DUAT	(800) 345-3828 <a href="http://www.duat.com">www.duat.com</a> <a href="http://www.duats.com">www.duats.com</a>
Dallas FSS/FSDO	(214) 902-1800
Ft. Worth Center	(817) 858-7300 (ZFW ARTCC)
FlightCom, Inc.	(800) 432-4342 (Josh Pruzek)
Southwest Soaring	(972) 251-5079 Metro
Monarch @ ADS	(972) 931-0345
DE: TM Smith	(972) 661-8086
DE: Richard Caldwell	(972) 885-4911
DE: Kendall Haley	(940) 321-2849
DE: Carol Walker	(214) 948-0440
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FAA Medical: Gabriel Fried	(972) 361-0155

## TFC COMMUNICATIONS & INFO

www	<a href="http://www.texins.org/flyingclub">http://www.texins.org/flyingclub</a>
FlightCom Prices	<a href="http://www.texins.org/flyingclub/flightcom.html">http://www.texins.org/flyingclub/flightcom.html</a>
Email List	<a href="mailto:tfly@list.ti.com">tfly@list.ti.com</a>
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