



Der Flügtag

Experimental
Aviation



The Success
Continues...

EAA
Chapter 958

EAA Chapter 958 New Braunfels, TX
Where every day is a good flying day!

June 2011 Issue

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06.01.11 - Endeavour made its last landing early this morning at Kennedy Space Center in Florida, concluding a successful mission to the International Space Station

Meeting Information

Time/Date:

10:00 AM, 6/18/2011

Location:

Airport Terminal Building, New Braunfels Airport

Meeting Agenda

Larry New has invited Jeff Lynch, a 30 year veteran and current member of the San Antonio Air Traffic Control System, to talk about anything and everything having to do with ATC in the San Antonio area.

Prez Sez

Thank you to Ron Vanbeek for inviting Bill Holmes to come discuss the Rotax engine at our May meeting. Although I don't have any experience with Rotax, based on the questions I heard, it sure seemed to me that Bill knew what he was talking about. I also thought he did a great job with the presentation. It's rare that you find someone who's an expert in a technical field and can talk about it in front of a group.

On a personal note, I received my RV-7A fuselage kit this week and that's

keeping me happy and busy in the garage. Paula's not thrilled about her shrinking parking spot, however. I've been at it for about two years and while waiting for the fuselage kit to arrive, I was thinking about the new things I've learned and the folks I've met with my little hobby. I realized how grateful I am for the friendship and help and comradery I've found with the people in our chapter and others I've met while building this plane. I knew I'd learn stuff about things but I didn't realize how many good people I'd find.

JUNE MEETING - We're meeting again at the New Braunfels airport terminal at 10am on Saturday, June 18th. I've invited Jeff Lynch, a 30 year veteran and current member of the San Antonio Air Traffic Control System to talk about anything and everything having to do with ATC in the San Antonio area. Jeff is a real straight forward guy and will tell it like it is so come and ask those questions you've always wanted answered. I've also invited him to Clear Springs Restaurant after the meeting so please join us if you can.

JULY MEETING - We're planning a fly/drive-in meeting at Ron Vanbeek's hanger at Elm Creek airpark. Ron tells me that he'll order pizza and will accept donations to cover the costs. We'll have more details at the June meeting. Please let Ron know at the June meeting if you're planning to attend so he can get a better idea of how much pizza to order. Spouses and significant others are invited. I hope the weather

cooperates this year as I would love to see as many of our members' aircraft as possible. I think Ron also said he will have a Great Lakes project in his hanger for show and tell.

OCTOBER MEETING - We are planning a chapter PANCAKE BREAKFAST AND FLY-IN! Our idea is to keep it as simple as possible for this first try and just serve pancakes and invite folks to fly-in. Have you helped with a pancake breakfast fly-in or been to one? Please let us know what works. Anyone know of an EAA style pancake griddle we could borrow or rent? Guy said he might be able to get a warbird or two from San Marcos with the promise of free food!


OSHKOSH 2011 - Anyone going? Guy Bowen is looking to share a ride and thought it would be a good idea to see who's going so we can carpool or flypool or at least meet up for lunch one day. I enjoyed seeing folks from our Chapter last year and got to see Ron Mudge with his newly finished Glasair on the flightline.

CHAPTER MEETINGS FOR 2011 - Below are our plans for meetings for rest of this year with the person(s) that volunteered to help or host. We still need to fill the November meeting. Any ideas?


Larry New



Now all Larry has to do to turn this:



Into This



May Meeting

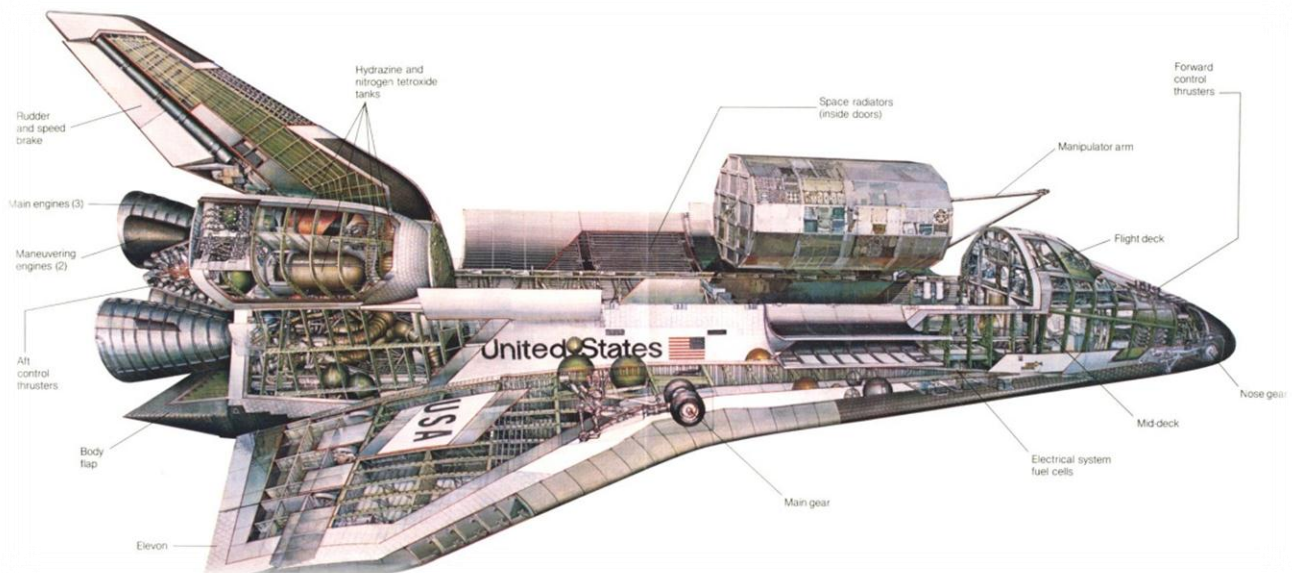
I wish I could have been there but was unable to attend. I am sure that the information shared on the **Rotex Engine** was both entertaining and enlightening. It should be mentioned that at that meeting an event was announced to be held in conjunction with **The 99's**. Reni Maczygamba of the **99's** extended an invitation to tour the New Braunfels **National Weather Service** facilities that conveniently resides at the entrance of the Air Port. On the 27th of May **Julie Weber** and **Bob Hieronymus** joined the tour and have written an interesting article about their experience. If you missed the opportunity to tour the facilities, I hope you will take the opportunity to read the article.

Not having attended either the May meeting or the tour with the 99's, it would seem appropriate to mention the last flight of the **Space Shuttle, Endeavour**. In addition to the interest in that historical event caused by the tragic shooting of Rep Gabrielle Giffords, this flight had a great deal of significance. Not only was this the last flight of the Endeavour but it was also the second to the last flight of **any manned shuttle**. In fact the last shuttle, the **Atlantis**, has already been wheeled up to the gantry. I thought it might be interesting to provide some statistics attributed to the Endeavour. The below information is attributed to www.space.com:

- **Initial Cost of the Endeavour - \$1,800,000,000** –in 1987 it was a considered a bargain by the federal

government because many of the parts used were spares already on NASA's inventory.

- **Total Miles Traveled – 123,000,000 miles** – This includes the recent space flight.
- **Number of spectators in Florida witnessing the Endeavor's FIRST Launch attempt of this flight on April 29th, 2011 – 750,000**. This included our President and family plus Representative Gabrielle Giffords.
- **Number of Spectators who turned out for the Second attempted launch on 5/16/2011 – 500,000**.
- **Number of Names Submitted for the Endeavor – 6,154**. There was a national **NAME THE SHUTTLE** contest offered to students and the name Endeavour was chosen to honor the **HMS Endeavour**, Captained by Lt. James Cook early in his career.
- **Speed needed to Stay in orbit – 17,400 mph or Mach 25**. This tops Superman's speed because the orbit speed exceeds 5 times the speed of a bullet.
- **Number of Earth Orbits – 4,423**
- **Year of First Mission – 1992** - This was the 49th shuttle flight and it carried 7 astronauts on a mission to repair a communications satellite.
- **Number of Days in Space – 299**
- **Number of Crew Members carried into space – 173**
- **Number of Flights – 26**
- **Endeavour's Final Destination – California Science Center in Los Angeles**





We've come along way from the days we "looked out the window".....



Julie Weber and Bob Hieronymus



Weather analysis and prediction these days utilizes all the technology of our creative minds, with just a touch of a weather balloon or two, and many loyal human eyes thrown in. On Friday, May 27th, we accepted the invitation of Reni Moczygemba, of the 99s, and joined her, Jo Agee-Hausler, and Jim and Becky Smith, for a tour of the New Braunfels National Weather Service facilities. We frequently pass by this office, but how many of us have had a guided tour from Mr. Paul Yura, the National Weather Service Administrator, Warning Operations Officer, and Damages Surveyor?

The National Weather Service is part of the National Oceanographic and Atmospheric Administration, and both agencies are funded by the U.S. Department of Commerce. This office is manned 24 hours a day, and its duties include:

- 1. WEATHER WARNINGS ON LAND AND WATER
- 2. PROTECTION OF LIFE AND PROPERTY
- 3. ENHANCEMENT of the NATIONAL ECONOMY

Paul, in addition to monitoring temperatures, wind speeds, and hazards, also travels to sites damaged by weather events. He tries to identify the various causes of damage, such as "wind sheer" or tornadoes. We are in the NWS Southern Region, with headquarters in Dallas-Fort Worth. There is also a River Forecast Center in Dallas. In the Hill Country, with our solid rock, and sporadic violent outbursts of rain, this information is vital to safety on lakes and rivers. The New Braunfels NWS office is responsible for 33 counties, from Val Verde to Houston to Corpus Christi.

Coverage includes Del Rio, San Antonio Int'l Airport, Stinson Field, and Austin Bergstrom. Back up facilities in the event of emergencies in these areas are covered by the Brownsville and Corpus Christi offices, with a zenith "top dog" center up in Norman, Oklahoma. You would agree that Norman Center is in the "thick of things," and deserves the high end 'top of the pyramid' equipment and facilities.

The majority of deaths in our area are due to heat and floods. Warnings issued cover:

- 1. RIVERS
- 2. AVIATION
- 3. AIR QUALITY
- 4. FIRE WEATHER



I was amazed to find that the bulk of weather information is still received from weather balloons. They carry miniature barometers, thermometers, batteries, and now even GPS receivers, in a 5 lb. package. They are carried aloft under a rubber Helium or Hydrogen filled balloon. They are launched at 1100 and 2300 Zulu daily from more than 1,000 sites around the world. When they reach about 100,000 ft., the balloons are designed to burst, and the package falls to earth by orange parachute. Included in the package is an envelope to enable return to the NWS if found on the ground. No reward, however. The closest launching sites to New Braunfels are Del Rio and Corpus Christi.



Weather balloon, parachute, and package

A second source of raw weather data is satellite observation, so familiar from our regular television news casts.

A third source, one not often recognized, is the multitude of volunteer "cooperative observers" around the country who report to the NWS, temperature, humidity, rain fall, and wind data every day. Some observer stations have been maintained by the same families for more than 50 years; in one case, for 100 years.

Domestic airlines are a fourth source of weather data, nowadays. They often report take off and landing winds and temperatures.

An additional source vital to the NWS is the Civil Air Patrol. Although Paul can get to some weather events, the CAP is a terrific source of fly over "eyes" that enable the NWS to declare emergencies with accuracy and to estimate and report the true scope.

The final and most visible tool our New Braunfels NWS office uses is The Doppler system. Every five minutes the interior disc rotates 360 degrees in an ascending circular pattern. This system adds wind velocity within radar. The range is approximately 250 miles, scanning at 1,000 feet here, increasing in altitude over the horizon. Our television weather men utilize this information for VIPER and other systems.

Paul recommended that people obtain, and keep readily available, small weather RADIOS, whether for aircraft, car, or home. Local frequencies are near the 162.4 Mhz band, and vary slightly depending on your location. Some radios receive warning BEEPS during weather emergencies. Some models have vibrators and flashing lights to aid folks with hearing and sight limitations. Major hazards in our area include LIGHTNING, FLASH FLOODING, HAIL, AND DOWNBURST, OR microburst, "wind sheer." Our tornado area is usually north, and our closest severe 4 or 5 measured tornado hit near Georgetown, TX.



The National Weather Service people act as our "guardian angels" in weather safety and prediction. Utilize their office for information and clarity, whether in the air, or on land or water.

Their public phone number is: 830/ 606-3617
You may also use: weather.gov/austin or mobile.srh.weather.gov

We offer a big "hats off" to Paul and his team. Their vigilance protects us as we fly, boat, swim, tube, drive, or are at home.

Thanks go out to the 99s as well, for their kind invitation.

Julie and Bob

The Plane of the Month

May Plane of the Month was the Russian AN-2



In this day of almost instant communication, I received two correct answers as to the identity of the **May Plane of the Month** literally minutes after the newsletter was posted. Both were winners in that **Larry New**, our esteemed President, was first to respond correctly followed within minutes by **Guy Bowen**, club VP. Guy even elaborated on the AN-2 capabilities.

The below quote was billed by telstarlogistics.typepad.com (a very interesting website) as an "Ode to the AN-2 (that they found at thingummybob.com:) It gives you an excellent overview of the AN-2:

"Used as a troop carrier, paratrooper-dropper-offer, transport, passenger air liner, air ambulance, surveyor, spotter, agricultural sprayer/duster, the list goes on...The Vietnamese even tried (without much success) to use in the war, armed to the teeth, but I think

it's so large and flew so slowly that you could probably down it with a few well-aimed rocks thrown at the engine!

But what an ugly beauty! Stall speed is not mentioned anywhere, in fact, you can put it down safely even without the engine at a very sedately 25 knots, with all the flaps and ailerons (yes, you can extend the ailerons as added flaps!!!) down, on both upper and lower wings, of course (the leading-edge slats are automatic...)!

Massive power, fantastic sound (er noise!), flies on its own in a straight line (but requires some 'extra' effort for anything other than a shallow turn) and aerodynamically as efficient as a brick shit-house underwater, you just have to love it! It will get you and all your kit into or out of anywhere on land or sea (yes, there is a floatplane and, of course, ski- version) in any temperature with no bother (below 15,000

feet), no runway and no hurry. Seats up to twelve people in the passenger configuration, they even made them in a luxury VIP version. 'Nuff said."

The AN-2 has been called "The largest Single Piston Engine Airplane ever built" but that is incorrect. Big, though it was tipping the scales at 7,300 lbs. (empty weight); it was topped by the A-1 Skyraider at 10,968 lbs. Still, the AN-2 was big and ugly. Also, they made a lot of them beginning production in 1947 and ending in 1991, over 18,000 have been made between production facilities in Russia and Poland. China and a few other countries still have licenses to go back into production but with an estimated 2,000 AN-2 still flying and relatively cheap, renewed production is not merited. Not many airplanes have been produced in the AN-2 numbers and keep in mind, the AN-2 is basically NOT a military airplane.

After WWII with all of the havoc wrought by the war, many countries, especially Russia, were in need of a workhorse airplane. One that could perform many of the tasks recently enumerated for last month's Plane of the Month, the **Twin Otter**. The An-2 was originally designed to be used for light utility transport, parachute drop aircraft, agricultural work and other jobs well suited for a slow moving STOL. Prototypes first flew in 1947 and shortly thereafter production began and held the Guinness Book of World Records as having the longest production run on record until recently being surpassed by the **Lockheed C-130 - Hercules**,

The An-2 obviously had a lot of things going for it with a partially listing provided below:

- **Pneumatic Brake System** – its brakes were much like a truck brakes and this allowed it to stop on short runways.
- **Large Batteries** – It did not need ground power.

- **Compressor** – the tire pressure could be changed in flight to suit the anticipated landing surface.
- **Internal Fuel Pump** – It could pump its own gas whether on the ground (from 55 gal drums) or inflight should the need arise.
- **Simple mechanical systems** – The crucial wing leading edge **automatically** deployed at airspeeds below 40 mph.
- **STOL** – it could, depending on its loaded weight, take off in under 500 ft.
- **Impossible to stall** – There was no stall speed listed for this airplane. The pilot's handbook stated the following instructions if you lost visibility **"If the engine quits in instrument conditions (blind flying when you can't see the ground) or at night, the pilot should pull the control column full aft (it won't stall) and keep the wings level. The leading-edge slats will snap out at about 64 km/h (40 mph), and when the airplane slows to a forward speed of about 40 km/h (25 mph), the airplane will sink at about a parachute descent rate until the aircraft hits the ground."** The plane did not stall; it simply floated to the ground at about the speed of a descending parachute.

The 1,000 hp. engine was a nine-cylinder **Shvetson Ash-62 Radial engine** that was reverse engineered from the **Wright R-1820**. In the late 1980's Antonov experimented with fitting 1,450 hp. Turboprop engines in the An-2 and called it, surprisingly, the An-2 turboprop. Only 25 of these were built.

Like many airplanes, the An-2 saw varying degrees of war service. It could be used to drop parachute troops. Some in Vietnam were armed with torpedoes and sent out to sink U.S. ships. This proved a hard airplane to shoot down because its flying speed was slower than the carrier landing speed of most airplanes. Also, it could fly very close to the waves making it difficult to spot either from the air or by radar.

Now can you name the June Plane of the Month?



Bits and Pieces

- **Raytheon/Beechcraft T-6 Texan II** – You may recall that **April's Plane of the Month** was an airplane designed and built by the **Pilatus Aircraft Corporation** of Switzerland and that one of their primary business' was designing and building military trainers for the world market. I was unaware at the time of writing that the United States is part of that world market. The current



version of our military trainer was first introduced as the T-6A at Moody Air Force Base and at Randolph Air Force Base in 2000-2001. The current T-6 trainer used in the United States is a result of the military, specifically the Air Force and the Navy, consolidating flight training using a common airplane. In this process the T-34 and 37 were phased out with the last T-37 B's being retired from service at Sheppard Air Force Base in September of 2009. Our current trainer, although built by Raytheon/Beechcraft, is the result of 6 companies competing for the bid with Beechcraft winning. The current version officially called the Raytheon T-6 Texan II Tandem – Seat Trainer is based on the Pilatus' design for their PC-9 Mk 2. This trainer or variations of it are also used in Greece, Canada and even in Iraq, which also has a slightly weapon zed version.

- **First All - Female Combat Mission** – Dateline March 30, 2011 four women nick named the "Strike Eagles

of 'Dudette 07" took to the air over Afghanistan. Their two plane, F-15 € flight marked the first time an all- woman crew including **Pilots, Weapon's Officer, mission planners and maintainers** had put together and flown such a mission.



Major Tracy Schmidt, Captain Leigh Larkin, Major Christine Mau & Captain Jennifer Morton

Although the mission was a first and commemorating **Women's History Month**, it was a long time in coming. Their mission was to support ground forces in the Kunar Valley near the Pakistan border. Of course, women have been flying practically since day one but to fly a fighter jet did not occur until 1993 when **Lt. Jeannie Flynn** first took to the air in an F-15€. Jeannie graduated from UT with a BS in Aerospace Engineering and wanted to fly a fighter jet. She turned in her application and was at first denied so on to her back up plan, i.e. to become a

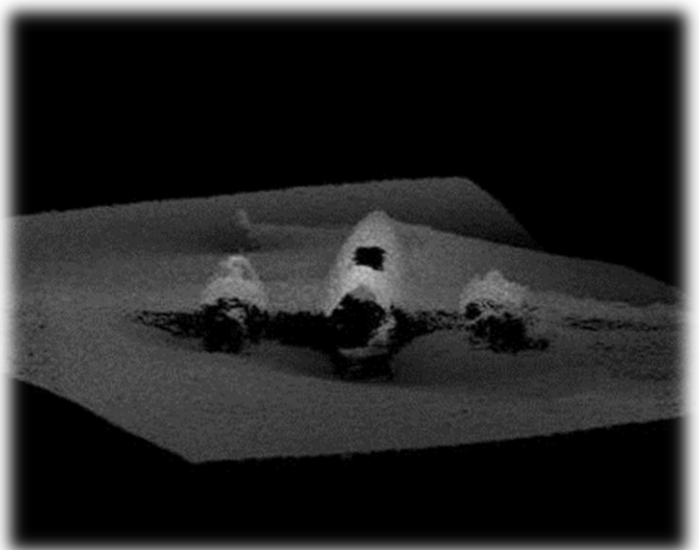


Lt. Jeannie Flynn -1st F-15 € Pilot

flight instructor. Her hopes were that things would change and change they did. The Clinton Administration authorized women in fighters and she plus six other women got the call to report to flight school. Jeannie was 27 at the time. By year 2000 she had accumulated over 2,000 hours in the F-15 and paved the way for those that followed.

- **Dornier Do17 Found off the Coast of England** –

It seems that almost every week another WWII war plane has been found off the coast of somewhere. Several have recently been located in Lake Michigan and also off the coast of California but USA was not the only country in that war nor is it the only country to find and restore these historic aircraft. A **Dornier 17** that was shot down over the English Channel was recently discovered upside down in 50 feet of water. Shifting under sea's sands and better technology resulted in this rare find. The Dornier 17 looks to be restorable and if so, may just be the only example in existence. The last known example was scrapped in Finland in 1952. The pilot and one other crewmember of this particular airplane survived the crash and were captured, spending the rest of the war in England.



Last Remaining Dornier Do 17 on the Bottom of the English Channel

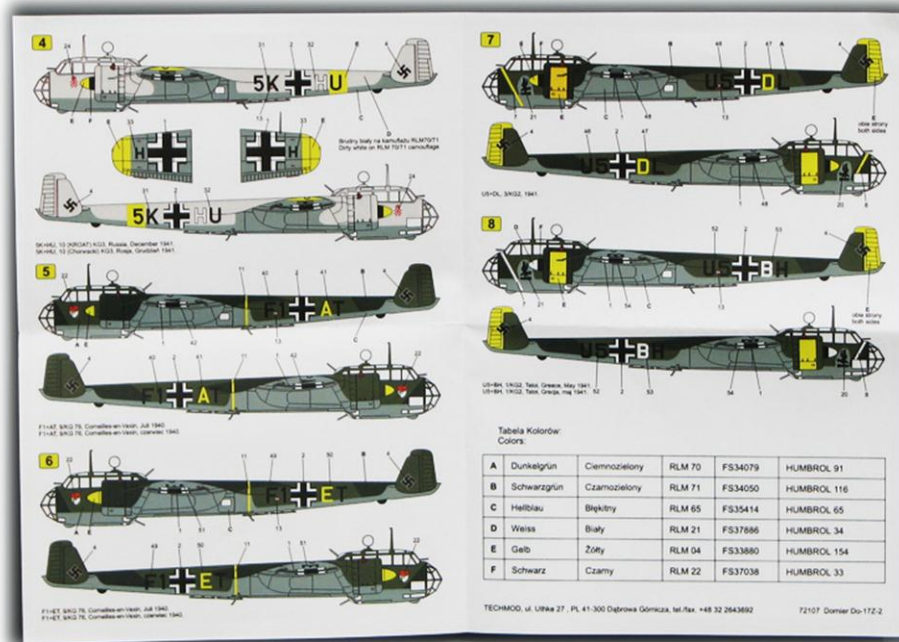
The Dornier 17 got the nickname of the "flying Pencil." Its design was began in 1933 when Lufthansa released specifications for a 6 passenger mail plane. Some nine prototypes later the production version of the Dornier 17 evolved and it no longer functioned as a mail plane but as a bomber. Its slim profile made it a difficult target and equipped with two 1,000 hp engines, it

could outrun many fighters of its day. It was capable of speeds up to 265 mph. Also, its design made it extremely maneuverable, a feature well-liked by its crew. All told some 2,139 were produced and served in various roles, bomber, glider puller, reconnaissance, and small troop transport. It had the distinction of being the first German airplane shot down over Spain and it saw service on all fronts until 1941 when it was replaced with newer designs.

- **This is a test of your age** - May from 1900 on was a month rich in aviation history. The following are just some of those historic events. See how many you remember FIRST HAND.

5/1/1960- U.S. Air Force Col. Francis Gary Powers is shot down in his U-2 by a SAM surface to air missile over the Soviet Union. He remained in a Soviet prison until 2/2/1962 when he was exchanged for a Soviet prisoner held by the USA. After his return he worked for a while as a test pilot for Lockheed until 1970 and later as a news copter pilot. He crashed 8/1/1977 while covering a fire. Believe it or not, this experienced pilot crashed because he ran out of fuel.

5/5/1961 – Commander Alan B. Shepard, Jr. became the 2nd man to explore space when he rode his Mercury 7 capsule launched atop a Redstone missile. H reached 115 miles above the earth and followed Yuri Gargarin's first manned flight.



Dornier 17, in Various Configurations

to exceed the speed of sound. She was flying a Canadian built North American F-86 Sabre . On that same day she set a world speed record for women at 652 mph.

5/19/1934 – was the first flight of the Russian Tupolev Ant-20 Maxim Gorkii . For a while, it was the world's largest airplane sporting 8 engines and capable of carrying 80 people.

5/24/1976 – Two Concorde Supersonic airliners landed at Washington's Dulles International Airport. One was French and one British and it commorated the beginning of Europe/USA supersonic travel.

5/29/1934 – the Hamilton Standard Propeller Company received the Collier trophy for the year's outstanding aviation achievement. Their achievement was the development of the controllable-pitch propeller.

5/29/1951 – Captain Charles Blair landed his F-51 Mustang after completing a 3,375 mile flight lasting 10 ½ hours. His flight plan took him over the North Pole. Perhaps an even greater achievement was his marriage to **Actress Maureen O'Hare**.

See the following Pictures of people, planes and historical events that happened in May.

5/10/1961 – a Convair B-58A – achieved a speed of 2,095 kmh. and won the Bleriot Trophy. The trophy was established 30 years earlier for the first airplane to exceed 2,000 kmh.
5/18/1953 – American Jacqueline Cochran became the first woman



Alan Shepard



Air France Concorde



Hamilton Sunstrand



Francis Gary Powers



Gen Charles Blair & Wife
Maureen O'Hare



Tupolev Ant-20 Maxim Gorkii



General Blair's North Pole Plane



B-58 Huster

Texas Aviation Calendar

JUNE 11-19, 2011

Fort Worth, TX. Vintage Father's Day Flights in B-25 Bomber or DC-3. Meacham Intl Airport. (KFTW). We're offering Father's Day flights this year, June 11-19th. If you sign-up/pay before June 1, the flights are 85 on the DC-3, 600 on the B-25. On June 1, flight prices increase to 100/DC-3, 650/B-25. Package includes landing in Stephenville, TX for an amazing bbq lunch, t-shirt, commemorative coin and approx. one hour flight experience. Anyone who wants to book a flight, ask a question, etc., can call Dana at 817-659-9249 or email greatestgeneration@yahoo.com.

JUNE 18, 2011

West Texas 100 Air Race

The annual West Texas 100 Air Race is scheduled for Saturday, June 18, 2011 at the Plainview/Hale County Airport! www.airnav.com/airport/kpvw. Rocket Aviation, LP will be the host FBO for the event. ([Website](#)) We are looking forward to an exciting day of flying and racing!

SEPTEMBER 10, 2011

Pecan Plantation Airpark & VAF Fly-In. OTX1. Granbury, TX

NOTE: UNICOM FREQ NOW 122.975; Now West Traffic Pattern ALL runways

Time: 9:30 – 16:00; Rain date if needed is 17 Sept. Free Admission. Sponsored by EAA Chapter 983 & Vans Air Force. Everyone is invited and there is something for all ages. Raffle for Apple Ipad with Fore-Flight App. Lunch served for a small fee. "Showcase Of Airplanes"

100 +Static aircraft display & lots of aircraft operations. Patches the Clown (balloons tricks for young kids). Young Eagles Program, Free plane rides kids 8-17 yrs. Adult Orientation Rides

Flight times 1:00-2:30, First Come, first Scheduled & flown. Must Sign Up- PARENTAL SIGNATURE REQUIRED. POC: DOUG CRUMRINE, trflyboy@charter.net, 817 559-4665

SEPTEMBER 16-18, 2011

Flights of Our Fathers Fly-In, Terrell, TX

This year the theme will include a salute to veterans of all branches of the services, recognizing the honor and valor of our fallen service men and women, and including the ultimate sacrifice of five young men from the City of Terrell. The weekend events include a reunion of those men who were trained at the British Flying Training School during WWII.

September 16, 2011: HANGAR DINNER/DANCE: Catered meal; adult beverages; The Heritage Brass Band (1940's music & the "Andrews Sisters"); art and garden display. Reception from 6:30 to 7:00 pm. Dinner at 7:00; Dancing from 7:30 to 10:30 pm.

September 17, 2011: FLY-IN: Flag Raising Ceremony 7:15 am; Pancake Breakfast from 7:30 – 10:30 am; vintage planes begin arriving at 9:00 am; Formal Opening Ceremonies at 12:00 noon with local and State Dignitaries and Marine Color Guard. All-day happenings include: Talks by Tom Killebrew, author of "The RAF in Texas" and Dr. Calvin Spann, WWII Tuskegee Airman; static plane demonstrations; plane rides. Adults - \$5.00; Car - \$10.00

September 18, 2011: MEMORIAL SERVICE: 3:00 pm at Terrell's Oakland Memorial Cemetery for the 20 BFTS cadets (killed while in training) who are buried there.

For more information you can visit www.bftsmuseum.org or contact Beverly Mardis at 972-524-1714, bmardis@bftsmuseum.org