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McMahon-Wrinkle Airport & Industrial Park

In This Issue:

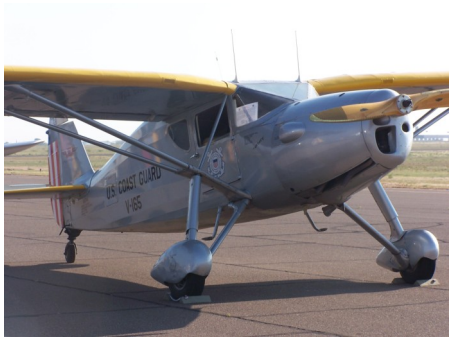
Recent Airport Activity

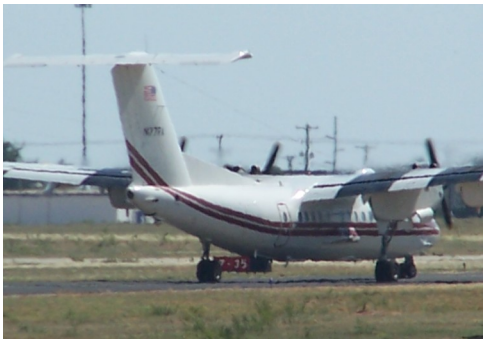
Summer fun in Big Spring!

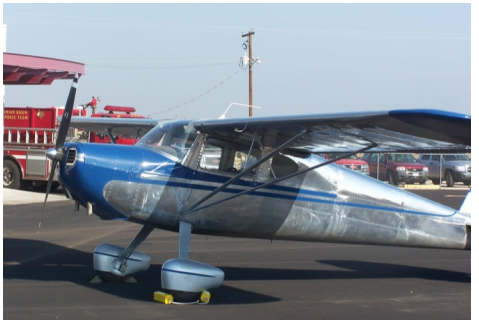
The past few months have been busy here at the Big Spring Airport! We hosted our 7th Annual Prairie Dog Fly-In Breakfast in June, and had a blast as usual. There were many planes here from all over West Texas, including several beautiful vintage planes from the Commemorative Air Force. We would like to thank everyone that came out for the event and we hope to see you all here again next year! July was also a busy month, with the 2012 U.S. Nationals Hang Gliding Competitions being moved up from their normal August timeframe. The hang gliding events this year brought in over 40 pilots, many of whom have flown and competed in Big Spring several years in a row. The group continues to come back year after year because of the warm welcome they receive and of course the exceptional flying conditions here. While the weather was not too cooperative for a couple of days, they did have several days of great flying. If you've never been out for the hang gliding events, you don't know what you're missing! They are a great bunch of folks and their launches are very exciting to watch. The hangars here are still at capacity, with folks calling in and requesting additional aircraft hangar space on a regular basis.

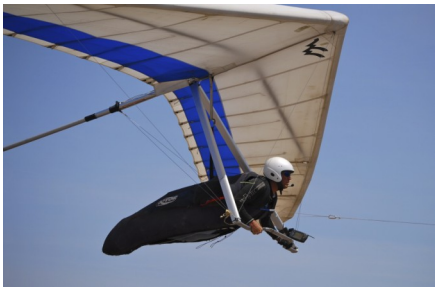
Be looking for our new, improved Terminal Apron project to be underway soon, as well as the 06/24 crack seal project!

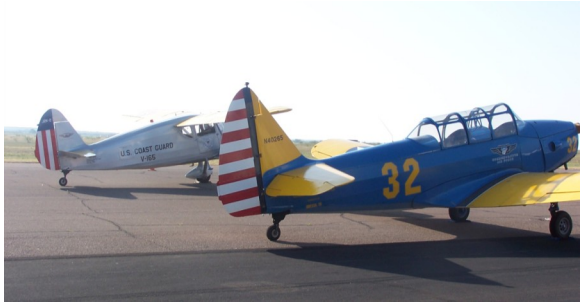
Recent Landings & Aircraft Photos

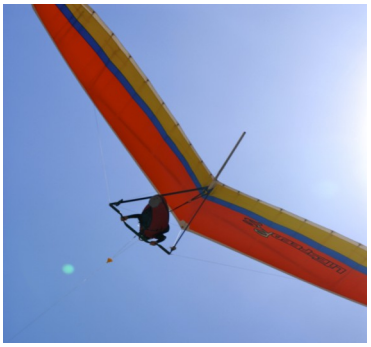












Instructor's Corner

Takeoffs & Landings, Rectangular Course and Traffic Pattern. *By Jarle Boe*

What is traffic pattern? Let's look at the history of traffic pattern:

We all know that in transitioning from flight to landing we are guided by established procedures in order to land our airplane on a designated landing area such as a runway, where we will want to land and takeoff into the wind in order to increase the efficiency of our wings, allowing us to land shorter and lift off earlier.

In the early days of flight the landing area is typically a square section of turf surface and the pilot is always landing and taking off into the wind regardless where the wind is originating from.

In today's designated landing areas which typically consist of one or more runways laid out to be aligned with the prevailing winds in the area, and called airports, we have a more restricted landing area and must stay within a rectangular confined area, including landing and taking off on the runway centerline. Most airports will be lighted with a beacon and automated weather service and open for both day and night operations.

Due to sometime intense traffic within this confined landing and takeoff area, particularly at busy hubs where not only the immediate airspace surrounding the landing area is highly congested, but the landing surface itself is very congested, the pilot must make him or herself very familiar with local procedures and airport diagram, including runway markings and taxiways.

Most accidents happen on or in the vicinity of an airport in bright daylight, and the traffic pattern segment of the flight is the most critical part of any flight, and requires use of all tools available to the pilot in piloting his airplane.

The established standard traffic pattern procedure is a square and tight rectangular pattern where upwind is the takeoff path aligned with and is an extension of the runway centerline. As the pilot lifts off, the horizon or earth is the main reference, where pitch and direction is established with the horizon or earth as a reference to maintain Vy and runway centerline. Right rudder to counteract the airplanes left turning tendencies and drifts correction to maintain runway centerline as the airplane climbs to at least 400 feet AGL is established before a left turn is initiated to get established on the crosswind leg. Left rudder is typically not required in initiating a climbing left turn due to the airplane's left turning tendencies, and release of the right rudder is typically enough to initiate and maintain a coordinated climbing left turn. It is very imperative for the pilot to clear the area in both directions before any turn is initiated and this is of particular value in traffic pattern operations. There is no place in the air for a stiff neck, and vigilance is of outmost importance.

When rolling out perpendicular to the runway in a climbing attitude right rudder is again applied, and we are established on left crosswind leg. Drift correction is established to remain perpendicular to the runway, and pitch is adjusted to maintain Vy. After clearing the area another left turn is initiated by applying aileron and releasing right rudder. Pitch is adjusted to maintain Vy and a turn to downwind leg is accomplished.

When rolling out parallel to the runway typically in a climbing attitude we are established on left downwind, and correction is made to establish drift correction in order to remain parallel to the landing runway with about 1/2 mile distance from the runway. In a typical high wing airplane this is when the runway appears about halfway down the wing strut. When reaching traffic pattern altitude the nose is lowered as airspeed is increasing, to maintain this altitude. As cruise speed is reached, cruise power is set. The main objectives in flying a downwind leg are to maintain altitude and paralleling the landing runway. Before becoming abeam the point of touch down landing checklist is initiated and accomplished where ten degrees of flaps is lowered and altitude and distance from the runway is maintained until reaching the key point. Lowering of ten degrees of flaps will allow the airplane to be more stable at slower speeds, such as in the landing configuration. The landing checklist can be accomplished as a "sweep check" in order to create a sequenced flow in checking and verifying each item. The key point is a point when the airplane is forty-five degrees relative to the point of touchdown, and is found when the point of touchdown is between the wing and fuselage of the airplane, as seen by the pilot. When reaching the key point the pilot will do the T-N-T; throttle to 1800 rpm - Nose down to a descending attitude - Turn unto base leg with coordinated use of left aileron and left rudder. Typically a careful scan to the outside of the descending turn is now accomplished to insure no conflicting traffic.

When rolling out on base leg typically in a descending attitude with coordinated use of aileron and rudder we establish pitch and drift correction with reference to the landing runway; The nose is establish on an approximate point of touchdown and drift correction is established to maintain perpendicularity to the runway. The pilot's two main references are the point of touchdown and the airspeed, and the throttle is then adjusted to maintain the desired glide path. As the final leg is approaching left aileron and rudder is applied to initiate the left turn to final leg.

As the transition from flight to landing should be as smooth as possible, applying smooth control input is a must, and when rolling out on the final approach leg nose is adjusted to get established on the point of touchdown, and coordinated use of aileron and rudder is used to line up with the runway centerline. When established on final, in this down moving attitude rudder is typically released to allow the airplane to weathervane in order to detect any possible crosswind. If crosswind is detected rudder is established to line the airplane longitudinal axis with the runway centerline, and the upwind wing is lowered with aileron to hold for the wind, in a forward slip to landing concept of flight. These control inputs are held until touchdown with small corrections relative to the crosswind felt by the airplane.

The pilot's main references are the point of touchdown and airspeed, and when certain experience is attained the pilot will have establish an "electronic glide slope" in his mind, and the pilot will know when being low or high on the glide-path and then adjust the throttle accordingly. Therefore: Establish the nose on the point of touchdown, look at the point of touchdown and airspeed, and adjust the throttle accordingly, in order to maintain the desired glide path. The nose is kept on the point of touchdown, and the pilot is pivoting around this point. If high on the glide path throttle is decreased to increase the rate of descend. If still high flaps are lowered to increase the rate of descend without increasing airspeed, relative to the height above glide path. If being low on glide path throttle is increased in order to decrease the rate of descend and maintain the desired glide path. As the airplane is approaching the point of touchdown the nose is typically lowered to maintain the point of touchdown, and throttle is adjusted to maintain the desired glide path and airspeed. When landing is secured throttle is reduced to idle and the nose is kept on the point of touchdown, with small adjustments for airspeed, until the time when it is time to level over the runway. Positive back pressure is then applied to level the airplane, and directional control is maintained with aileron and rudder. The pilot is maintaining a constant, positive back pressure in order to maintain level flight and

is typically looking down the runway with the airplane nose established on a fixed point on the horizon just above the runway. This is called the landing flare, and is what is causing the most learning plateaus in primary flight training. The throttle is readily available, and is one of the most important tools in the landing process. If the pilot realizes he flares too high he maintains the positive back pressure, and simply add throttle to not fall, and maintaining flight. The airplane is held in level, descending flight. Directional control is maintained with aileron and rudder and as the proper height is reached throttle is again reduced to idle and as our airplane start sinking we carefully apply additional back pressure in order to maintain the nose on the fixed point on the horizon. As the main wheels touches down in a nose high attitude we continue to maintain back pressure and directional control. Theoretically our airplane should stall as we touch down as the weight of the airplane is being transferred to the wheels for ground operations.

Therefore only back pressure is applied on a landing flare, and the throttle becomes a major part of a successful landing. In a landing configuration the pilot is therefore utilizing all of his primary and secondary control surfaces, including the throttle as the major tool.

Because the airplane may have been stored for a while, or recently maintained by a mechanic and where there are the most unknowns, the most critical part of the flight is the takeoff. The pilot must therefore carefully feel his airplane on takeoff, and immediately abort the takeoff at the slightest sign of any irregularities.

The landing is what requires the most skill of the pilot, and let us recap the final approach which should be a stable, gradual approach and is then usually followed by a good landing:

Put your nose on the point of touchdown and look at only the point of touchdown and the airspeed; pivot around the point of touchdown and adjust the throttle accordingly to maintain the desired glide path and airspeed.

Jarle Boe is a licensed Airline Transport Pilot, Single-, Multi-Engine and Instrument Gold Seal Flight Instructor with 9,000 flight hours logged. He is an instructor with U. S. Flight Academy and can be reached at jarle@usflightacademy.org or (432)853-3498.

Give Us The Scoop!

If you would like to make comments or suggestions regarding this newsletter, please call 432-264-2362 or send an email to: kgrant@mybigspring.com

We'd love to hear from you!

Pilot's Safety Meeting!

Mark your calendar, and plan to attend!!
The Next Pilot Safety Meeting is at 7:00 pm, immediately following the 5:30 pm Airport Board Meeting on August 16th. Don't miss it! **Guest Speaker: Cynthia Foster, Head of Planning and Preparedness for the Texas Forest Service. Topic will be:*"TFS Fire Operations and TFR's"*** Please RSVP! Call Kelly at 432-264-2362 or email: kgrant@mybigspring.com

Pilot's Briefing

FLIGHT REVIEW By Wayne Dawson

To act as pilot in command every pilot is required to take a Flight Review every 24 months. The purpose of this rule, which was put in place in 1974, is to reduce the number of pilot error related accidents. Knowing what to expect will make your next Flight Review easier and beneficial. The Flight Review consists of one hour of ground instruction and one hour of flight instruction. As such the Flight Review is intended to be a learning experience not a check ride. The Flight Review can be conducted by any CFI, and evidence of your compliance only requires a log book endorsement by the CFI. Great latitude is provided the CFI on the conduct of the Flight Review however; he will be assessing your knowledge of 14CFR Part 91 and the flight maneuvers and procedures necessary for you to safely exercise the privileges of your pilot certificate. There are a couple ways to prepare for the ground instruction requirement. Aviation Supplies and Academics (ASA) offers their Guide to the Flight Review by Jackie Spanitz or, the FAA's on line flight review course, ALC-25 Flight Review Prep Guide at www.faasafety.gov. Both are excellent. Once in the airplane your CFI will be assessing your proficiency in three areas. First, Physical Airplane skills; can you fly the airplane to the Practical Test Standards for the Private or Commercial Certificate. Second, Mental Airplane skills; do you understand and use the aircraft systems effectively. For example do you set up and utilize the aircraft's navigation and communications systems with the autopilot in an integrated way to reduce your work load. Third, Aeronautical Decision Making skills; this evaluates higher-order thinking. If you're given an unexpected mechanical, weather, or routing problem is your response timely, safe and effective. Look forward to your next Flight Review it can make you a better pilot.

Wayne Dawson holds a Commercial Pilot license with Single and Multiengine Land; Instrument Airplane; Glider ratings as well as a Ground Instructor, Advanced Instrument license. He currently flies an RV7A which he completed building in 2007 and hangars here at Big Spring Mc Mahon-Wrinkle Airport.

Words of Wisdom

In our dreams we are able to fly... and that is a remembering of how we were meant to be.

~ Madeleine L'Engle

McMahon-Wrinkle Airport & Industrial Park

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We're on the web!

www.mybigspring.com/pages/airport

Pilot Safety Meeting: Thursday, August 16th — 7:00 pm

Featured Guest Speaker: Cynthia Foster, Texas Forest Service Department Head of Planning & Preparedness

Topic: *Texas Forest Service Fire Operations and TFR's*

Terminal Hours of Operation
Monday through Friday
8 a.m. to 5 p.m.

Fixed Base Operator:
Lone Star Aviation
Phone: (432) 264-7124
Fax: (432) 264-7406
Call Out: (432) 935-1238

The Big Spring McMahon-Wrinkle Airport, owned and operated by the City of Big Spring, is a general aviation airport. The airport, which occupies approximately 2,200 acres of land, operates two runways: Runway 17/35, which measures 8,802 feet in length and 100 feet in width; and Runway 06/24, measuring 4,601 feet in length and 75 feet in width. Aviation activities that occur at the airport on a regular basis include agricultural spraying, corporate use, flight instruction, and recreational flying. The airport has hosted annual fly-ins and air shows, and maintains the Hangar 25 Air Museum. In 2007, the airport hosted the Hang Gliding World Championships. The Big Spring Air Terminal is over 4,000 sq. ft. with a conference room, passenger waiting area, courtesy car and airpark office. The Pilot's Lounge includes weather monitoring and flight planning capability, wireless internet connection and concessions.