

PLANE TALK

UPCOMING EVENTS

Saturday, March 31, 2007—CAP Safety Conference: Weather Wise & Do the Right Thing—1:15 p.m., SAC Air & Space Museum, 2820 West Park Highway, Ashland, NE

Wednesday, April 18, 2007—Nebraska Accident Review & Roger Bodtke from Columbus AFSS—7:00 p.m., Fremont Aviation, Inc., 1203 West 23rd St., Fremont, NE

Wednesday, May 9, 2007—Nebraska Accident Review & Roger Bodtke from Columbus AFSS—7:00 p.m., Southeast Community College, 8800 O St., Room S1, Lincoln, NE

Wednesday, May 16, 2007—Third Annual 2007 NeBAA Mechanics Seminar—8:00 a.m., Eppley Airfield, ConAgra Hangar, 3501 Doolittle Plaza, Omaha, NE

Wednesday, May 16, 2007—Roger Bodtke from Columbus AFSS & Bob Moser-Weather Gathering & Nebraska Accident Review—UNO Aviation Institute, 6001 Dodge St., Eppley Auditorium, Room 102, Omaha, NE

www.faasafety.gov

FAA, Flight Standards District Office
3431 Aviation Road, Suite 120,
Lincoln, NE 68524, 402 475-1738, FAX 402 458-7841

CHANGE OF ADDRESS

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FAA AVIATION NEWS

For more FAA information, you can subscribe to the **FAA AVIATION NEWS** magazine by calling the Government Printing Office (GPO) at (202) 512-1800. GPO's code for the magazine is FAN. You can also call the FSDO, (402) 475-1738, and ask for a copy of the magazine and use the subscription form included in the magazine. We only get a few extra copies of the magazine for each edition, but we will put your name on a waiting list and send you one when we get it. Cost of the magazine is \$21.00 per year.

SECURITY

Because of increased security at FAA offices, we must keep our office locked; therefore, no one will be allowed in the office without an appointment. **Also, when entering our facility, you may not have any items in your possession that are not fully exposed and easily viewed. Briefcases, purses and backpacks are not allowed. REMEMBER: PLEASE CALL FOR AN APPOINTMENT BEFORE YOU MAKE A TRIP TO OUR OFFICE.**



WINGS PROGRAM PARTICIPANTS

Congratulations to the following pilots for having successfully participated in the Pilot Proficiency Award (WINGS) Program:

PHASE I: David R. Carlson, Larry J. Courtnage, Douglas Engen, Peter A. Heidelberger, Andrew McKenzie, Kurt Rosenkrans, William B. Zastera

PHASE II: Robert Schoepfer

PHASE III: Roger Carpenter, Dennis D. Child, Jonathan E. Fuller, Andrew C. Hove

PHASE IV: Daniel L. Petersen, Charles C. Shipman

PHASE V: Jeffery A. Kubitz, Rodney D. Matlock, Gerald S. Pfeffer

PHASE VI: John M. Heida, Scott Vogler, Thomas M. White

PHASE VII: Eugene T. Martin, Marvin J. Masten, Jr., Clark Thorsen

PHASE VIII: Susan Biba, Robert D. Henrichs, Stuart McBride

PHASE IX: John E. Drap, William J. Greiner, Mark Hauptman

PHASE X: Ralph W. Anderson, Mylon R. Eisenhauer, Patsy Lee Meyer, Larry M. Smith, Chuck Stokes

PHASE XI: James C. Murphy

PHASE XIII: Hal R. Ellis, Franz J. Muller

PHASE XVII: John T. Rooney

PHASE XVIII: David J. Biba - First Person in NEBRASKA to get to this phase!*, Jacob E. Wilson

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2007 NEBRASKA AVIATION SYMPOSIUM

The 2007 calendar year started off with the 15th Annual Nebraska Aviation Conference and the 35th Annual Nebraska Aviation Maintenance Seminar. The conference and seminar were held January 24 – 27, 2007 at the Holiday Inn, Kearney, Nebraska.

Wednesday evening, AOPA presented a safety seminar for pilots to kick off the symposium followed by the Nebraska Aviation Conference on Thursday. The conference consisted of general and breakout sessions with guest speakers involving avionics issues, environmental issues, airspace and towers, airport officials, and Designated Pilot Examiners. A group of exhibitors representing the various aspects of airport engineering and maintenance were in attendance.

During the Nebraska Association of Airport Officials (NAAO) breakout meeting, Federal Aviation Administration (FAA) In-

spectors Ronk and Becherer conducted a presentation on safety and actions of First Responder personnel who respond to an aircraft accident.

A noon luncheon presentation "Secrets of the Black Box" was conducted by Mr. Greg Feith, retired NTSB accident investigator and aviation consultant.

Thursday evening a dinner-banquet was held followed by presentation of the FAA Wright Brothers "Master Pilot" Award to Mr. Alfred Glaser and Mr. Harry Barr, induction in the 2006 Nebraska Aviation Hall of Fame of Mr. Alfred Glaser, Mr. Lester Glaze and Mr. Henry Wulf, presentation of the Nebraska Airport of the Year Award (Central Nebraska Regional Airport), and an entertaining presentation by Mr. Sean Tucker, a seasoned airshow performer.

2007 NEBRASKA AVIATION MAINTENANCE SEMINAR

The 35th annual Nebraska Aviation Maintenance Seminar kicked off at 8:00 am on Friday.

The seminar program was made up of speakers from various segments of the aviation industry and Federal Aviation Administration personnel who made technical presentations in their field of expertise.

The sessions included Ballistic Recovery Systems, Introduction to Data Bus, Turbine Fan Trim Balancing, Human Factors, Aging Aircraft issues, Fuel Cell Maintenance, Cessna "Mustang" Hydraulics and Landing Gear, Rolls Royce 250 Field Maintenance and FAA regulatory issues. The maintenance seminar also included various exhibitors associated with the aircraft maintenance industry.

An evening banquet consisted of dinner followed by presentation of "Certificates of Excellence" to Union Pacific Railroad, Elliott Aviation of Omaha and Con Agra Foods in recognition of company support of the Aviation Maintenance Technicians (AMT) Awards Program.

The evening entertainment "Lessons Learned In Accident Investigation", was provided by Mr. Greg Feith, retired NTSB accident investigator and aviation consultant.

The Saturday sessions completed the remaining speakers for a successful conclusion to the annual event.

FSDO NEWS

Dan Underwood retired January 3 after 27 years, 6 months of service. Dan is enjoying retirement.

Dan Petersen has been promoted the Supervisory Aviation Safety Inspector. He has taken over the duties vacated by Dan Underwood. He has a new telephone number which is (402) 458-7804.

Diana Frohn, Manager, will be transferring to the Orlando, Florida, FSDO effective April 1. A new Manager will be selected in the very near future.

NEW WINGS PROGRAM

The new program will require airmen to perform more specific tasks that are related to accident causes we are seeing in the accident statistics. They will also have to perform to PTS standards to complete the tasks. The bottom line is that pilots that complete the "Wings" program in the future will have achieved a verifiable level of proficiency in areas where they are most likely to have problems.

The program will also be automated on-line which will allow the airman to print out their own completion certificate. An airman can attain any of three different levels of Wings, Basic, Advanced or Master. They reach the higher levels by doing more training not by staying in the program longer.

The FAAS Team is designing 3 new Wings pins for these new levels. Their current plan is to have a vendor offer the pins for sale to those that have earned them. Airmen would deal directly with the vendor to obtain their Wings if they choose to do so.

The new Wings AC is currently in draft status and will soon be sent to the ACE FAAS Team to be developed into an articulate (voice-over) on-line, interactive training program that will instruct airmen how to participate in the new program. Currently, the plans are to have the ACE FAAS Team and ACE airmen beta test the new Wings program sometime towards the end of March/beginning of April 2007.

TESTING OF 406 MHZ ELT'S

The Lincoln FSDO has recently received requests for clarification regarding the testing and maintenance of Emergency Locator Transmitters (ELT) required by FAR Part 91.207(d). Of particular interest was the testing of ELT's that broadcast on 406 MHz. The Advisory Circular (AC), AC43.13-1B Chg-1 paragraph 12-21 and 12-22 give the basic guidance regarding when and how to test ELT's with reference to Technical Standard Order (TSO), TSO-C91a and TSO-C126 for more specific instructions. These technical standard orders specify performance standards under which ELT's are manufactured and the capabilities each unit must possess when installed. Specific test procedures for each make and model are listed in the manufacturer's approved maintenance manual, maintenance supplement or instructions for continued airworthiness issued when the ELT was installed.

Originally ELT's only emitted an omni directional beacon when activated. The radio signal was broadcast on the VHF frequency of 121.5 MHz and on the UHF frequency of 243 MHz. With this system the site of activation was located when two stations with direction finding capabilities were able to establish bearing lines from the station to the ELT and the point at which these lines crossed represented the site of the activation.

Recent advancements in direction finding equipment and airborne computer imaging have greatly advanced the effectiveness of our search and rescue operations but could not reduce the rising number of false activations. To reduce the number of inadvertent activations of 121.5 and 243 MHz transmitters that might require a response, the first five minutes after each hour has been set aside to test the ELT transmitters with the understanding that these tests should be limited to three sweeps of the audible signal. Even though more than sixteen percent of each day is dedicated to testing ELT's, false activations continue to plague our system. The sheer volume of activations, both inadvertent and actual emergencies, has stressed our civil response teams to the limit. In light of this, the 406 MHz system was developed per TSO-C126

It is recommended that turbojet-powered aircraft owner/operators who are installing an ELT install one that operates on the 406 MHz frequency even though this is a more costly option. There are two reasons for this recommendation:

1. The 406 MHz offers enhanced life saving capabilities and activation verification. The 406 MHz signal is stronger so the activation is almost instantly detected by geostatic satellites and relayed to search and rescue coordination centers. In addition the 406 MHz signal can be encoded with the owner's identification and aircraft information allowing responders to contact aircraft owners or operators to find out if the aircraft is en route or if it is sitting in the hangar. This obviously will reduce the number of false activations that are responded to. Also the 406MHz signal can be encoded with the last known position information taken from the FMS or GPS at the moment of activation. This can vastly reduce the size of the search area and help concentrate emergency response resources for a faster rescue.

2. Also, in 2009 the international COSPAS-SARSAT satellite system will no longer provide satellite-based monitoring of the 121.5/243 MHz frequency. As a result only ground based receiver stations such as the Civil Air Patrol, ATC and airport facilities will be available to detect and respond to these lower frequency signals.

For further guidance about ELT testing procedures and performance see the following:

FAR Part 91.207.

AC43.13-1B. Paragraphs 12-21 and 12-22

TSO C91a and TSO C126.

Manufacturers approved maintenance manual, maintenance supplement or the instructions for continued airworthiness for your ELT.

Richard Stone, ASI

UNDERSTANDING WEATHER INFORMATION

Perceive weather hazards that could adversely affect your flight.

Process this information to evaluate risk and identify options.

Perform by acting to mitigate or eliminate the risk.

When planning a trip in a general aviation (GA) airplane, first *perceive* the flight environment by collecting information about weather conditions. Sources:

Television: Many pilots start with The Weather Channel (TWC). Though not an FAA approved source, TWC provides a "big picture" view along with up to 10 summaries and forecasts per day. (<http://www.weather.com/maps/aviation.html>).

Internet: Check out the National Weather Service's Aviation Weather Center (<http://aviationweather.gov/>), as well as the information and resources available via the Aviation Digital Data Service (ADDS), (<http://adds.aviationweather.noaa.gov>). ADDS combines information from NWS aviation observations and forecasts and makes them available along with visualization tools to help pilots with practical flight planning.

Direct User Access Terminal System (DUATS): Get a printed version of the FSS briefing package by obtaining a standard briefing on DUATS (www.duat.com (DTC) or www.duats.com (CSC)). DUATS provides weather information in an FAA-approved format and records the transaction as an official weather briefing.

Flight Service Station Briefing: Once you have a basic mental picture of weather conditions, call FSS. This basic mental picture makes it much easier to absorb information from the briefer – and to know what questions you should ask. Keep in mind a simple rule-of-thumb: the more doubtful the weather, the more information you need to obtain.

(Continued on Page 6)

YOUR 2007 IA RENEWAL

As you probably know, the FAA has extended the Inspection Authorization (IA) renewal interval to two years. Since we have received several calls regarding the renewal requirements, we will try to explain the process as simply as possible.

For the purposes of IA activity, the year begins on April 1st and extends through March 31st. During this 12 month period, holders of an FAA Inspection Authorization must meet one of the renewal requirements set forth in 14 CFR 65.93(a). Those requirements are:

65.93(a)(1): Has performed at least one annual inspection for each 90 days that the applicant held the current authority. These four annual inspections could be performed at any time during the year. Some individuals incorrectly assume that at least one annual inspection must be completed during each 90 day period.

OR

65.93(a)(2): Has performed inspections of at least two major repairs or major alterations for each 90 days that the applicant has held the current authority. Likewise, the completion of these activities need not occur during each 90 day period. Also, please be aware that our guidance does not allow mixing of the requirements of 65.93(a)(1) and (a)(2). You may renew on either annual inspections OR major repairs /alterations – not a combination of both.

OR

65.93(a)(3): Has performed or supervised and approved at least one progressive inspection in accordance with the standards prescribed by the Administrator. For the record, there are NO aircraft in the State of Nebraska currently operating under a progressive inspection program defined by 14 CFR 91.409(d).

OR

65.93(a)(4): Has attended and successfully completed a refresher course acceptable to the Administrator, of not less than 8 hours of instruction during the 12 month period preceding the application for renewal. Many of you renew your Inspection Authorization through attending the classes provided at the annual Nebraska Aviation Maintenance Seminar. You may not be aware that many of the manufacturer's training courses have also been approved as a basis for IA renewal. Generally these courses will display an FAA approved course number on the certificate of completion. There are also a number of approved computer based instruction courses

available on the internet.

OR

65.93(a)(5): Has passed an oral test by an FAA inspector to determine that the applicant's knowledge of the applicable regulations and standards is current. This may not be your first choice in renewal options!

65.93(b): The holder of an inspection authorization that has been in effect for less than 90 days before the expiration date need not comply with paragraphs (a)(1) through (5) of this section.

NOTE: The mixing of annual inspections, major repairs, and major alterations is not permitted. You may renew your IA certificate based on the completion of four annual inspections OR eight major repairs/alterations – not a combination of both activities.

Since we are on the subject of annual inspections, be advised that the inspection programs for large airplanes, turbine powered multi-engine airplanes, turbopropeller powered multi-engine airplanes and rotorcraft defined under 14 CFR 91.409(e) are NOT an acceptable substitution for annual inspections. Examples include: Continuous Airworthiness Inspection Programs, Approved Aircraft Inspection Programs (AAIP), manufacturer's recommended programs, and owner/operator developed inspection programs.

During March or early April of 2007 IA Certificate holders will receive their IA certificates with an expiration date of March 31, 2009. As such, IA Certificate holders will not be required to submit an application for renewal or a record of activity in March of 2008. However, if you do not meet one of the renewal requirements of 65.93(a)(1-5) on March 31, 2008, you may not continue to exercise your IA privileges. There is currently no requirement to surrender your certificate - you are now on the honor system. Should you elect to resume exercising your IA certificate, you must first pass an oral test administered by an FAA Inspector. Please be aware that FAA Inspectors may wish to verify your continued compliance with 65.93(a)(1-5) as they perform routine inspections throughout the year

In March 2009, IA Certificate holders will be required to submit a Mechanic's Application for Inspection Authorization, FAA Form 8610-1, in duplicate, with the documentation establishing your compliance with 14 CFR 65.93(a) during the previous two year period.

We hope this explanation proves beneficial. Should any questions arise, feel free to contact the Lincoln Flight Standards District Office for further guidance.

Richard E. Johnson, ASI

AMT AWARDS

Bronze	Silver	Gold	Ruby	Ruby (Continued)
Kim Wallace	Ted Fritsch	David Hagglund	Craig Elvers	Jon E. Grubka
Dennis Clark	Tim Shrum	Stanley Denman	Richard Konyek	Mikeal D. Gutsue, II
Anthony Bobbett	Robert Hanson	Curtis Lubker	Drew Oetjen	David S. Helka
Brian Jackson	Albert Williamson	Christopher Painter	Frank Borsh	Kevin Howden
Adam Reasoner	Gregory Aspaugh	James Simonitch	Joel Heiserman	Douglas Hudson
George Smith III	Andrew Bajc	Michael Lucht	Mark Whitney	Christopher E. Karinen
Thomas Kortisses	James Bauer	Jeff Davis	Berkeley Greenwood	David Lillie
Bobby White	Brad Corso	Adam Shelburg	Richard Viek	Marco C. Marzigliano
Rodney Williams	Jim Covert	Mark Adams	Brent Wilken	Justin Merklng
Clay Woodka	Steven Craig	Monty Allen	Scott Shefke	Scott T. Mehlhose
Michael Zimbelman	Vincent Cruickshank	Richard Conner	David Schiver	Eric Lee Morehouse
Wade Johnson	Tony Curtis	Mark Conner	Owen Grimm	Roger Palmiter
Frank Veitenheimer	Sean Davenport	Steven Becker	Craig Anderson	Scott Pengra
Michael James	Les Delka	Thomas Bennett	Barry Burkey	Eric Powers
Brian Pierce	Robert Block	Jason Burhoop	William Prier	Jeff Reiger
Joseph Moritz	David Bogart	Craig Caskey	Steven Joe	Scott C. Sandy
Jeffrey King	Ron Bohling	Jerrald Chesser	Robert Cline	David Seddon
Bryan Kinnaman	Mike Chick	Harry Dipple	Scott Howell	Mark R. Smith
Eric Kinsley	Brian Dinoso	Donna Reis	Alexander Julian	Francis Tabbert
Eric Larue	Chad Doehring	Dudley Reis	Ryan Jones	Kenneth Vander Pol
Gregory Loubert	Mark Earnest	Larry Ridley	Anthony Welch	Eric VanEenaenam
Mark Lyon	Tina Fincher	Tim Garity	Jay Sorrell	Cha Vue
John Lund	Robert Finke	Darwin Godemann	Jonathan Strunk	Frederick Wilkins
Daniel Malone	Derek Ford	Larry Gray	Allen Sward	William H. Mittlestat
Mike Mertens	Rodney Gall	McCarthy Groth	George Pannullo	Matthew B. Popp
Monte Miller	Michael Graewe	Keith Kobza	Douglas Patocka	Dale Taylor
Matthew Nelson	Scott Hamilton	Scott Lau	James Peterson	Glenn Thompson
Wayne Sand	James Heinemann	Leslie Lynd	Michael Mortensen	Skip Thorp
Jeffrey Sikes	Steve Krings	David Marte	Michael Morrow	Karoly Kiss
Scott Sorenson	Russell Kromberg	Daniel Moody	Michael Nelson	
Jerome Sveeggen	Richard Kastl	Donavan Mosher	Timothy O'Brien	
Scott Thomason	Talbert Lierman	Kenneth Nitzel	Mark Rumsey	
Trent Tran	Robbie Lierman	David Shipperbottom	James HcHugh	
Gordon Patterson	Frank Logsdon	Gregory Spevak	Eric Mikkelson	
Steve Rosenow	Steve McDunn	Jerry Tindle	Timothy McClellan	
Thomas Findley	Kevin Meisbach	Andrew Trumble	Brian Lee	
Brent Fischer	Galen Miller	Robert Tooker	Nathan Masten	
Roger Gadeken	Terry Morrow	Zane Parks	Matt Knutson	
Shawn Goudlin	Troy Mail	James Prater	Mark Lewis	
Michael Griffiths	Nhat Nguyen	Lanny Renshaw	Michael Junker	
Ron Grose	Michael Noel	Timothy Woolard	Jim Hazzard	
Charles Hanner	Kenneth Norseen	Ed Johnson	Boyd Hardy	
Kasey Harwick	Philip Ozenbaugh	Alex Jozsa	Andrew Carter	
Robert Hazy	Bryan Rothchild	Chris Vadenboncoeur	John Rabe	
Justin Kragenbrink	Jeremy Rutherford	William Walker	Todd Fauver	
Lloyd Kasten	Sam Schluckebier	Scott Henning	Greg Fenster	
Andrew Allmann	Stanley Schwarzkopf	Scott Samulson	Jonathan Freeman	
Robert Anderson	Thomas Seidl	James Kuhl	Mark Goertzen	
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		Jeffrey Woodard	David Fox	



ACCIDENTS



The pilot of an amateur-built helicopter stated that while in a hover approximately two feet above the ground, he heard a loud bang and the helicopter began to drift to the left. The pilot attempted to apply right cyclic but the helicopter would not respond. The tail pitched upward causing the skid to contact the ground. The helicopter then rolled over allowing the rotor to contact the ground. The helicopter sustained substantial damage during a post accident fire. The pilot and passenger received minor injuries.

The pilot of a Cessna 340 was performing a VOR approach at an altitude of 3000 feet. The aircraft was cleared for landing and was told to switch communication over to advisory. Several minutes later the controller received a low altitude warning but was unable to contact the aircraft. The aircraft was destroyed and the pilot and three passengers were fatally injured.

The pilot of a Cessna 208B was conducting a non-precision approach when the aircraft struck a farm building and impacted a power pole. The aircraft received substantial damage and the pilot received serious injuries.

ENFORCEMENTS



The pilot of an experimental aircraft entered Class C Airspace without contacting Airport Traffic Control. A 90-day certificate suspension was recommended.

A private pilot acting as pilot in command of a Cessna 182 flew sport parachute jumpers/passengers for compensation or hire. The pilot could not produce his pilot certificate or medical certificate and could not prove that he had met the recent flight experience requirement and could not prove he had a current flight review. A 180-day certificate suspension has been recommended.

A private pilot landed on the taxiway instead of the runway, A Warning Notice was issued.

The pilot of an amateur-built aircraft was involved in an accident. During investigation, it was determined the engine Airworthiness Directives were not complied with. A Warning Notice was issued.

The pilot of a Mustang II landed short of the runway in a bean field. The pilot did not hold a current and valid medical certificate and did not have a current flight review. A 120-day suspension of his certificate has been recommended.

INCIDENTS



The pilot of a Piper PA-28-180 was practicing full stop landings with exit from the runway, taxiing back for another take off. He had completed two landings. The pilot stated that on the third landing the airplane leaned to the right and he over-corrected the input to the rudder control.

The aircraft exited the runway on the left side and continued into the median between the runway and taxiway and came to rest facing 180 degrees from the beginning. The aircraft received minor damage and there were no injuries.

The student pilot of a Piper PA-28-140 was practicing takeoffs and landings with the wind being light and variable. Upon land-

ing, the student porpoised, bounced the aircraft twice causing the nose gear to collapse. The propeller stuck the runway. The aircraft received minor damage and there were no injuries.

The pilot of a Beech BE-33-S35 landed gear up. The pilot stated he had a new Garmin 430 installed and was observing it while on approach and failed to lower the landing gear.

The pilot of a Grumman AA-1A landed hard on a closed runway. The aircraft received minor damage and the pilot and passenger were not injured.

UNDERSTANDING WEATHER INFORMATION (Continued)

A few guidelines for getting weather data from FSS:

DO call the right FSS. 1-800-WX-BRIEF goes to the FSS associated with your area code, so check the *Airport/Facility Directory* if outside your home area code.

DO request the right briefing "package" (outlook, standard, or abbreviated).

DO use the flight plan form to help the briefer obtain the information you need.

DO be honest about any limitations in pilot skill or aircraft capability.

DO let the briefer know if you are unfamiliar with the area's typical weather patterns.

DON'T hesitate to speak up if you don't understand something. Smart pilots ask questions to resolve ambiguities in the weather briefing.

DON'T end the briefing without knowing which direction (north, south, east, west) to turn to fly toward better weather, and how far you would have to fly to reach it.

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UNDERSTANDING WEATHER INFORMATION (Continued)

Analyzing Weather Information

Obtaining weather information is only the first step. Next, you need to *process* (evaluate) the information to understand what it means for your flight. Practical weather analysis requires understanding the three basic elements of weather: *Temperature* (warm or cold); *Wind* (a vector with speed and direction); and *Moisture* (or humidity). Temperature differences support development of low pressure systems, which usually have associated “fronts” -- zones between two air masses that contain different combinations of temperature, wind, and moisture. These elements combine to create conditions that affect pilots. The range of possible combinations is nearly infinite, but weather really affects pilots in just three ways. Specifically, the three elements can:

Reduce visibility *Create turbulence* *Reduce aircraft performance*

The [VFR Analysis Worksheet](http://www2.hf.faa.gov/weatherdecisionguide/downloads/vfr_worksheet.pdf) (http://www2.hf.faa.gov/weatherdecisionguide/downloads/vfr_worksheet.pdf) can help you process briefing data in terms of visibility, turbulence, and aircraft performance. For example:

- 1. Ceiling & Visibility:** First, look at the weather data elements that report ceiling and visibility. If conditions are marginal, and/or if there is a small temperature/dew point spread, you will need to consider whether the trip is possible under VFR, and include terrain avoidance considerations in your planning.
- 2. Aircraft Performance:** If temperatures are high, you need to know and plan for the effects of high density altitude, especially on takeoff, climb, and landing. If temperatures are low and you plan on flying in the clouds, you should pay special attention to known or forecast icing and freezing levels.
- 3. Turbulence:** Review wind conditions for departure, enroute, and destination, as well as information about windshear or convective activity (thunderstorms).

Making a Weather Plan

The third step is to *perform* an honest evaluation of whether the “pilot-aircraft team” is up to the task, and develop a preflight weather plan. Think of the preflight weather plan as a strategic, “big picture” exercise. The goal is to ensure that you have identified all the weather-related hazards for this particular flight, and planned for ways to eliminate or mitigate each one. Items to include:

Escape Options: Know where you can find good weather within your aircraft’s range and endurance capability. Where is it? Which direction do you turn to get there? How long will it take to get there? When the weather is IMC (ceiling 1,000 or less and visibility 3 nm or less), identify an alternate airport for each 25-30 nm segment of your route.

Reserve Fuel: Flight planning for only a legal fuel reserve could significantly limit your options if the weather deteriorates. More fuel means access to more alternatives.

Terrain Avoidance: Know how low you can go without encountering terrain and/or obstacles. Know the minimum safe altitude for each segment of your flight. All VFR sectional charts include a maximum elevation figure (MEF) in each quadrangle. Charts for IFR navigation include a Minimum Enroute Altitude (MEA) and a Minimum Obstruction Clearance Altitude (MOCA). Many GPS navigators include information on Minimum Safe Altitude (MSA), Enroute Safe Altitude (ESA), or Minimum Enroute Altitude (MEA) relative to the aircraft’s position.

Passenger Plan: A number of GA weather accidents have been associated with external or social pressures, such as the pilot’s reluctance to appear “cowardly” or to disappoint passengers eager to make or continue a trip. Your weather planning should include preflighting your passengers (and anyone waiting at your destination) as well as your aircraft. If you jointly plan for weather contingencies and brief your passengers before you board the aircraft, you as the pilot will be less vulnerable later on to the pressure to continue in deteriorating weather conditions.

Passenger Preflight Checklist

DO develop personal minimums that will help you make the toughest go / no-go and continue / divert decisions well in advance of any specific flight.

DO be aware that the presence of others can influence your decision-making and your willingness to take risks, and let your passengers know up front that safety is your top priority. Share your personal minimums with your passengers and anyone who might be waiting for you at the destination.

DO establish “weather check” checkpoints every 25-30 nm along the route, at which you will reevaluate conditions. If possible, have your passengers assist by tracking progress and conditions at each weather checkpoint.

DO use your pre-established personal minimums to determine exactly what conditions will trigger a diversion at any given weather checkpoint. Let your passengers know what these conditions are.

DO decide specifically what you will do if you have to divert at any particular point, and inform your passengers of these plans. Preflight is the time to make alternative arrangements (e.g., hotel and rental car reservations) in the event that weather conditions worsen. You can always put passengers (or yourself) on an airliner if you absolutely have to return on time.

DO advise anyone meeting you at your destination that your plans are flexible and that you will call them when you arrive. Be sure that they too understand that safety is your top priority, and that you will delay or divert if weather becomes a problem.

DO remember that one of the most effective safety tools you have is waiting out bad weather. Bad weather (especially involving weather fronts) normally does not last long, and waiting just a day can often make the difference between a flight with high weather risk and a flight that you can make safely.

IF YOU THINK SAFETY IS TOO COSTLY, TRY AN ACCIDENT!



FEDERAL AVIATION ADMINISTRATION
Flight Standards District Office
3431 Aviation Road
Suite 120
Lincoln, NE 68524

EXTRA

WE'RE ON THE WEB

<http://www.faa.gov/fsdo/lmk/>

DESIGNATED EXAMINERS

Designated Pilot Examiners

Bertil W. Aagesen
Omaha, NE
(402) 884-7796
(402) 215-4150
Private/Comm/Inst/ATP
Airplane/Glider
Multiengine: BE-55/58/95 Series
FI—Airplane/Glider (Except Initial)

Terry L. Gibbs
Kearney, NE
(308) 237-4397
(308) 865-8309
Private/Comm/Instrument
Airplane
Multiengine: PA-23
FI—Airplane (Except Initial)

LeRoy E. Svoboda
Elkhorn, NE
(402) 895-4974
Private/Comm/Instrument/ATP
Multiengine: PA-34
FI—Airplane (Except Initial)

Frederic B. Meier
Lincoln, NE
(402) 475-1302
Private/Comm/Instrument
Airplane

Chester Edwards
Forest City, MO
(816) 387-7736
(816) 233-3444
Private/Comm/Instrument
Airplane
FI—Airplane (Except Initial)

Designated Mechanic Examiners

Jon H. Leever
Sidney, NE
(308) 254-7743

Keith H. Miller
Sidney, NE
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Greg Whisler
Seward, NE
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Michael R. Mertens
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