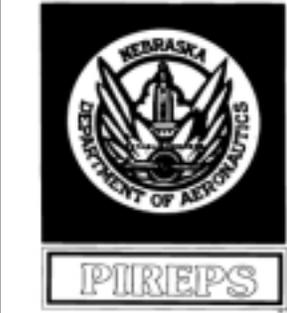


Merry Christmas and Happy New Year



Dec 2002/Jan 2003
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Director
Kent Penney

**Aeronautics
Commission
Chair**
Ken Risk

**Aeronautics
Commission
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Traci Dugan
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Editor
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Millard Airport AWOS Upgraded

Electronic Specialists Roger Fox, Mike Luff, and Roger Thompson from the Nebraska Department of Aeronautics (NDA), Kearney NavAids office recently upgraded the Millard AWOS to an AWOS III Present Weather/Thunderstorm (P/T) reporting system. Larry Stienblock (not pictured) of the Millard Field Maintenance Department was kind enough to give the photographer transportation to the AWOS site. AWOS stands for Automated Weather Observing System and provides users of aviation facilities with continuous, automated, real-time weather reports. A new report is generated every minute from sensors located near the touchdown zone of the runway. The weather reports are made available to pilots via high quality, digitized voice transmissions over a VHF transmitter or navigational aid. The information is also available by telephone for flight planning. Nebraska has 31 airports with automated weather reporting. Twelve of those have AWOS III systems and by the end of 2003, eleven of the 31 airports will be upgraded to AWOS III P/T. Those airports are Holdrege, Ainsworth, O'Neill, Fremont, Millard, Kimball, Ogallala, Lexington, Beatrice, Aurora and Nebraska City.



Roger Fox, Mike Luff (on Tower), and Roger Thompson

The AWOS III system reports altimeter setting, temperature, dew point, wind speed and direction, visibility, cloud height and sky condition. AWOS III P/T additionally reports drizzle, rain, snow, precipitation intensity, fog and haze. It also has a thunderstorm sensor which reports thunderstorm activity within a 30 mile radius of the airport. Thunderstorm sensing detects cloud-to-cloud and cloud-to-ground lightning activity. The sensor analyzes observations once per minute and maintains a 15 minute window archive. Reports to pilots detail the position of thunderstorms in three ranges: 0 to 5 nautical miles (NM) from the airport, 5 to 10 NM from the airport and 10 to 30 NM from the airport. Within the 10 to 30 NM range, direction of the thunderstorm activity is also reported to the pilot, such as "lightning northeast", or other octant direction. All of the AWOS systems being installed by NDA (except for York) are made by Vaisala Group, an international company. With an AWOS III P/T equipment cost of approximately \$55,000, factoring in engineering and site preparation, a new installation runs very close to \$100,000. There are over 500 Vaisala AWOS sites operational in the United States. For further information on the AWOS projects: contact Lead Engineer Barry Scheinost at NDA 402-471-7930 or Chief of NavAids Lyle Jacobsen at NDA Kearney 308-865-5696.

Director's Note

by Kent Penney

The Nebraska Department of Aeronautics is beginning an Economic Impact Study. This project is funded with 90% federal funding and we will be working with Wilbur Smith & Associates to carry it out. WSA is the same firm which recently completed the Nebraska Aviation System Plan for the state. The Economic Impact study will include the following tasks: 1) Inventory of activity & determination of direct economic impact, 2) Determine Indirect economic impact, 3) Determine Multiplier economic impact, 4) Determine Total economic impact, 5) Produce Report and Executive Summary for the State with individual data sheets for most airports.



*Kent Penney
Director, Nebraska
Dept. of Aeronautics*

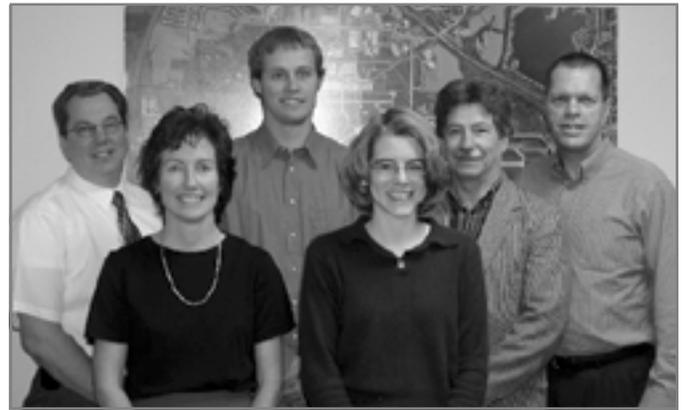
A number of different surveys will be sent out to different groups over the next several months. Those surveyed will include airports, airport businesses, aerial applicators, business users, and others. In addition, interviews will be conducted with airports and airport businesses at about 20 airports in the state.

If you are sent a survey or are interviewed by WSA for the study, please take the time to participate. Your involvement is critical to assure we can thoroughly tell the story of how aviation is used throughout the State and in your local community.

Happy Holidays

From the

NDA Engineering Staff



Russ, Diane, Justin, Anna, Bob, and Barry

Nebraska Business Aviation Association Meets

This past month your editor attended the November meeting of the Nebraska Business Aviation Association (NeBAA) held at the Strategic Air & Space Museum and hosted by John Mansfield of Elliott Aviation. The Association works to enhance and promote the livelihood and safety of its members - pilots, flight attendants, schedulers, and maintenance crews within corporate aviation departments and other aviation related businesses. The NeBAA holds these regularly scheduled meetings to promote the professional development of its members by keeping them informed about safety, regulations, new products and airport issues.

The topic for November's meeting concerned Aviation Insurance, its escalating costs and how you can get the best rate, whether you are getting it for your aircraft, a Fixed Base Operation or airport. Guest speakers were Clint White, USAIG Specialist in Aviation Insurance, and Hal Williams, Chairman NATIONAIR Insurance.

Perhaps you already know this but in case you don't here goes! There are about 10 insurance companies that insure aviation in the United States. Of those ten, only three insure high liability limits and high physical damage limits in the range of \$10-40 million. Most agents are brokers who must go to underwriters to get coverage for you. It's expensive! Hal Williams told of a recent liability policy he brokered for \$500 million, costing the insured a premium of \$175,000.

Since 9/11, premiums have escalated for airlines from 100 to 400%; for Fixed Base Operators from 50 to 100%; for airports 100%, and for corporate aircraft from 50 to 100%. For 2002, premium income has been approximately \$1.5 billion while estimates of claims paid out were \$5 billion (some estimates are even greater). In order to survive, the insurance companies have to raise rates, but this also puts an inordinate amount of stress concerning profitability on the general aviation community.

So what can you do to get the lowest rate on your aviation insurance? According to Clint White: (1) buy only what you need. Carry more of the deductible yourself, instead of having \$1,000 deductible go to a higher amount! Reduce losses and supervise your airplane! Communicate all of these things to your broker so he can get you the

Continued on Page 6

Aviation Happenings & GA News

UNO Flying Mavericks Compete

Courtesy UNO

The University of Nebraska at Omaha Aviation Institute's Flying Mavericks went south the third week of October to compete in the National Intercollegiate Flying Association's Region VI SAFECON, hosted this year by Kansas State in Salina, Kansas. This year's Regional team was able to bring home trophies and an invitation to the National SAFECON to be held in Grand Forks, North Dakota May 14-17, 2003. The Flying Mavericks placed second in flying events, sixth in ground



events, and 4th overall in the Region. Individual awards included: Robb Burbach, 5th in power on landings, 3rd in navigation, and 3rd top pilot in Region VI; Jason Hartwig, 6th in power off landings; Andrew Gonzales, 10th in message drop; Mel McClure, 2nd in navigation, 8th place top pilot; Brian Bronson, 1st in pre-flight; and Ross Lammers, 8th in preflight, 7th in simulator. Other team members included: Tony Hollingsworth, Andrew Gonzales, Matt Herrman, and team Captains Mike Haak and Austin Barnhart.

FAA Issues Photo ID Rule

From the AVWeb

As of Oct 30, general aviation pilots will be required to carry a government-issued photo ID when flying. It is now a regulatory fact of aviation life. FAA Administrator Marion Blakey announced the new rule Oct 24 at the AOPA Expo in Palm Springs, CA., saying, "AOPA proposed this solution and we're going right along with it. We think this is good." The FAA expects the most commonly used photo ID will be a valid driver's license issued by a U.S. state, the District of Columbia, or a U.S. territory or possession. We imagine your chances of being pulled over while aviating remain relatively slim. The FAA based its rule changes on a petition submitted by AOPA last February. Aside from a driver's license, other suitable forms of identification include a valid federal or state ID card, a U.S. Armed Forces' ID, credentials that authorize access to airport secure areas, or other identification currently accepted by the FAA. The new regulations require pilots to present that ID upon request by the FAA, Transportation Security Administration (TSA), National Transportation Safety Board or any law enforcement officer.

Lincoln Aerobatic Pilot Chosen

Chandy Clanton, a local Lincoln pilot, was recently chosen as a member of the United States Unlimited Aerobatic Team. She is one of ten pilots that will represent the United States at the World Aerobatic Championship in Lakeland, FL, next June 25 through July 4. These top pilots were selected at the national championships in Denison, TX, in September. The Unlimited category is the most difficult, featuring complex flying maneuvers that test the precision flying skill and physical endurance of the pilots. Held every other year in locations throughout the



world since 1960, the World Aerobatic Championship represents the "Olympics" of aerobatics competitions. The men's team are Steve Andelin, Robert Armstrong, Kirby Chambliss, Mike Mangold, and David Martin. Chandy is a member of the women's team with Marta Meyer, Debby Rihn-Harvey, Julie Mangold (wife of Mike Mangold), and Vicki Cruse.

The Forgotten Man - Charles Taylor

From "MyStory", By Charles Taylor as told to Robert S. Ball

Three weeks after I went to work for the Wrights, they took off for the South with another glider. I was alone in charge of their bicycle company. They trusted me to handle not only their customers but their money. When they returned that year, they decided to build a small wind tunnel to test out some of their theories on wings and control surfaces. We made a rectangular-shaped box with a fan at one end powered by the stationary gas engine they had built to drive the lathe, drill press, and band saw. I ground down some old hacksaw blades for them to use in making balances for the tunnel. Nowadays, wind tunnels run into the millions of dollars, and some are big enough to hold full-scale airplanes. That was the first work they asked me to do in connection with their flying experiments. For a long while though, I was kept busy enough repairing bicycles and waiting on customers. The Wrights did most of their experimenting upstairs where they had a small office and workroom. Part of my job was to open up at 7 am. They would get in a little later, between 8 and 9 am. We all stayed until closing time at 6pm. The boys never worked on Sunday.

Aviation Happenings & GA News Continued on Page 6

Congratulations!

FAA certificates recently issued
to Nebraska pilots:

Private

George Graham - Lincoln
James Lee - Bellevue
Aaron Schardt - Omaha
Phillip George - Bellevue
Lauren Clark - Elkhorn
Steven Overly - Omaha
Jeremy Fortier - Bellevue
Marcus Tooze - Lincoln
Nicholas Starkey - Omaha
Christopher Wardman - North Bend
Eric Pfeifer - Omaha
Stacey Egger - Hickman
William Baker - Hyannis

Instrument

Vernon Goff - Omaha
Shane Siefken - Council Bluffs, IA

Multi engine

Terrence Kenefick - Omaha

Glider

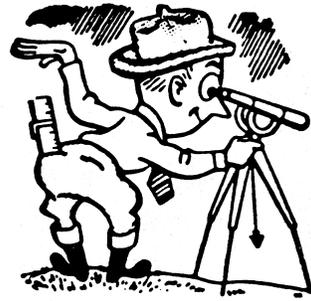
Kent Orr - Grand Island



Flight Instructor

Shane Lester - Omaha
(Instrument instructor)
John Williams - Bellevue
(Single Engine instructor)

Airport Construction News



Omaha Construction work on connecting taxiways continues to require the closure of Runway 14R/32L. Runway 14R/32L should be open during early December. Check NOTAMS.

Bloomfield Construction is complete on Runway 14/32 and connecting taxiway.

The runway is open with temporary/non-standard marking. Permanent standard marking will be installed after December 13. Check NOTAMS.

Check Airman's Corner

By: Lee Svoboda, Designated Check Airman

You or me was the question I asked the pilot in the left seat as the RPMs were decreasing on the takeoff roll in a Cessna 172! What I meant was, "Which one of us is going to pull the throttle back and abort this takeoff"?

During practical examinations, the applicant is required to exhibit knowledge of the elements related to airworthiness requirements. What this literally means is that the applicant is required to show the examiner that the aircraft to be used for the flight portion of the examination is airworthy. The applicant normally accomplishes this task by showing the examiner that all required inspections have been accomplished as noted in the aircraft and engines logbooks. Also, that all airworthiness directives have been accomplished and properly noted. The applicant then performs a pre-flight inspection of the aircraft, pointing out to the examiner which items must be inspected, the reasons for checking each item, and how to detect possible defects. After engine start, the applicant is required to exhibit knowledge of the elements related to the before takeoff check. This shall include the reasons for checking each item and how to detect malfunctions. The applicant accomplishes this task by performing the before takeoff checklist and ensuring that the airplane is in safe operating condition.

Normally after the before takeoff check is accomplished, I ask the question, "When do you determine that the airplane is airworthy"? From that question I get various answers, like "After checking the logbooks; After the preflight; and After the runup".

Those answers are correct in that each answer is a step in determining that the airplane is airworthy. However, it is my contention that the applicant, as well as all of us, makes the final decision concerning airworthiness when we move the yoke/stick rearward to rotate the airplane for takeoff. **"You or Me"?**

Calendar

Dec 7 Nebraska Flying Farmers & Ranchers Christmas party. Contact Lea Van Boening, (308) 387-4615 for more information.

Dec 11 EAA Chapter 80 meeting 7p.m. Hangar One, Millard Airport.

Dec 13 Aeronautics Commission Meeting, Lincoln, 1 p.m. Meeting Agenda: hear requests for fuel tank loans and elect a new chairman.

Jan 13 EAA Chapter 80 meeting 7p.m. Hangar One, Millard Airport.

Jan 22-25 Nebraska Aviation Symposium and Aircraft Mechanics Seminar at the Holiday Inn, Kearney. Contact Diane Hofer at NDA 402-471-7925 or Larry Becherer at FAA 402-458-7817 for more information.

Thy Neighbor's Keeper

Here's a number to put in your little black book. It's 866-GA-SECURE (866-437-3287) and it will be a direct line to the National Response Center where pilots can report any suspicious activity. Transportation Security Administration Director, Adm. James Loy, announced the toll-free number in taped remarks, at AOPA Expo 2002. The number will be activated in December. The line, funded by the federal government, becomes the linchpin of AOPA's AirportWatch program, which was developed earlier this year.

NDA And Pavement Maintenance

Airport personnel are often questioned as to why maintenance is being done to a runway that appears to be in good shape and the pavement is only a few years old. Hopefully, the answer is **not** because I was told to, **but** because pavement maintenance is part of a pro-active plan that is performed prior to the occurrence of deficiencies, such as extensive cracking, severe rutting and raveling. In addition, timing is very important for maximizing the benefits of preventative maintenance.

Studies have indicated that a preventive maintenance program is six to ten times more cost-effective than a "do nothing" strategy. These programs are intended to extend the useful life of pavement by repairing deterioration early, delaying failures and reducing the need for corrective maintenance. The Nebraska Department of Roads (NDOR) has indicated that \$1.00 spent in preventive maintenance will provide the same pavement condition that costs \$4.00-5.00 if rehabilitation is needed. The most common preventive maintenance plans include: crack and joint sealing, and seal coats.

The Nebraska Department of Aeronautics (NDA) has a crack and joint sealing program available to non-primary public use airports. NDA charges a fixed rate that is less than the actual costs. NDA supplies part of the labor (i.e., two men) and all materials and equipment. The airport sponsor supplies one to two people.

Crack and joint sealing is probably the most important and cost effective preventive maintenance strategy. Sealing prevents moisture and debris from entering the crack or joint and accelerating the deterioration of the crack. An open asphalt crack can grow to over an inch wide in just a few years. Generally, joint and crack sealing should be done within 2 to 4 years after new asphalt construction and 5 to 6 years after new concrete construction. Joints and cracks should be resealed approximately every 3 to 5 years thereafter. Studies have indicated that crack and joint sealing will most likely increase a pavement life by 3 to 5 years.

NDA also has a Seal Coat Fund as part of the Pavement Preservation Program. The fund is available for surface treatments and is intended to preserve, restore and protect asphalt pavements on existing public use airports. The surface treatments may be a seal coat, slurry seal, micro-surfacing, rejuvenator or other similar product. Bob Richter, NDA Engineer, is the project engineer and NDA pays 75% of the costs. A surface treatment is recommended every 7 years.

Pavement Condition Index (PCI) inspections are done by NDA every three years. These inspections identify visual distresses. The summary report includes the recommended pavement maintenance at your airport.

In 2002, the NDA crew, Pat Leichleiter and Dave Chaney, will have sealed approximately 800,000 linear feet of pavement cracks and joints at 29 airports in Nebraska. Based on program participation, it appears that Nebraska Airports have a very good understanding of pavement maintenance programs. For more information on the above programs visit the NDA web site at www.aero.state.ne.us.

NE Aviation Symposium & Aircraft Maintenance Seminar

The Nebraska Aviation Symposium and Aircraft Maintenance Seminar will be at the Holiday Inn, Kearney, NE., January 22-25, and is open to the public. The registration fee will be \$50 for two days up to \$100 for the entire four day event. Registration will begin on the 22nd with a reception and FAA Pilot Safety Clinic. Guest speakers for the event will be Captain Brian Udell (Thursday banquet speaker). He holds the record for surviving the highest speed ejection from a US fighter at nearly 800mph. He survived four hours, 65 miles off the Atlantic Coast in 60 degree water, 5 foot seas, and 15 mph winds at night. His story of survival, recovery, and return to operational readiness is an inspiration to everyone. Other speakers throughout the symposium include Sally Wallace, daughter of Pioneer Test Pilot John A. Macready, who will speak about the many contributions her three time Mackay Trophy winner father made to early aviation. Among those achievements were: first non-stop flight across the United States, first to fly above 35,000 feet in an open cockpit biplane, first night parachute jump, world's first crop duster, first tests in a pressurized cockpit, and took the first aerial photographs of a solar eclipse. Bob Warner, VP EAA from Washington, DC on Sport Aircraft/Airman - FAA proposed rule changes; Don Seidholz, VP NetJets, Omaha - Fractional Ownership and its Future Impact on Airports and Aviation; Chris Blum - FAA Regional Administrator; Betty Geiger-Darst, Impersonation of Katherine Wright, Orville & Wilber's Sister.

Schedule of events follow:

Wednesday: 1-5pm, Registration and Engineer's Roundtable. 5:30-7:30pm Reception with Exhibitors. 7-9pm FAA Pilot Safety Clinic

Thursday: 8am, Exhibit Hall and Registration. 8:30-4pm Various speakers and workshops. 4:30pm, Nebraska Pilot's Associations annual meeting. 5:30-9:00pm, Social hour, Banquet, Airport of the Year Award, Aviation Hall of Fame Awards, guest speaker, Capt Brian Udell.

Friday: 7am, Registration. 8-5pm, Aircraft Maintenance Seminar & Exhibitors. 9am, Nebraska Association of Aviation Officials (NAAO) meeting. 5-6pm Social Hour, 6-9pm, Maintenance Seminar Banquet and guest speaker.

Saturday: 8am-2pm, Aircraft Maintenance Seminar & Exhibit Hall continues. AI Mechanics attending 8 hours of this seminar will be eligible for renewal of their certification. For more info, contact Diane Hofer at NDA 402-471-2371 or Larry Becherer at FAA 402-458-1738.

NeBAA Meets *Continued from page 2*

best possible rate.

If you would like to join NeBAA, contact John Mansfield at jmansfield@elliottaviation.com or call 402-422-6789. Regular memberships run \$25, Corporate \$200, Retired persons \$25, and Affiliate \$25.

Production Release of FADEC

From the AVweb

FAA production approval for the Aerosance/Teledyne Continental Motors FADEC engine-control system has finally arrived. **Full Authority Digital Engine Controls** allow single lever, electronic fuel injection for piston powered general aviation aircraft. A Digital Electronic Closed Loop Engine Control System provides individual cylinder control, peak torque ignition timing, sequential fuel injection, cylinder temperature control, automatic self-calibration, annunciation of health status and serial engine performance data. Aside from the crank-speed and crank-position sensors, the only moving parts are a single diaphragm in each injector, the company is offering an initial warranty of five years. Initially, FADEC will be available on the Adam A500, the Cirrus SR22, the Diamond C1 Katana and the Liberty XL2 — all powered by Continental engines. Retrofit kits coming available through STC will provide owners with the option of adapting FADEC on the Beech Bonanza and Baron and older Cessna 206s and 210s. Other adaptations will become available as demand warrants, said Aerosance president Steve Smith. Already, the company offers a retrofit kit for the A36 Bonanza at a price of \$9,999. And for pilots of experimental aircraft, the Lancair IV and IVP, the Lancair Legacy and the Van's Aircraft's RV series — all powered by four-cylinder Lycomings — are also eligible. Aerosance FADEC hardware will soon be available to fulfill the dream of single-lever power control through options to control the prop and turbocharging systems. Availability remains about six months out.

Work is continuing to provide on-board digital trend monitoring and troubleshooting capabilities.

Fuel Cell to Power Aircraft

From Popular Mechanics

The Pentagon plans to develop a long-range unmanned aerial vehicle (UAV) powered by a fuel cell. Boeing Integrated Defense Systems in St. Louis will build the aircraft for the Defense Advanced Research Projects Agency. The company says that the UAV will make extensive use of the fuel cell technology now being introduced in cars. It could fly as early as 2004.

The Controller's Corner

An Air Traffic Controller's report to NASA's Aviation Safety Reporting System (ASRS) shows how pilots' use of vague terminology can cause concern in an atmosphere of increased security. We recently experienced two incidents in which pilots have used vague terms when describing conditions affecting their aircraft. In one case, the pilot was on the ground and reported that he had "issues" before leaving the frequency for an extended period of time while on a taxiway. In the second instance, the pilot made reference to "a situation" while airborne. The pilot wanted to circle the airport for an unspecified period of time, but was not specific regarding why he needed to circle. In both cases, the controllers and supervisors-in-charge had concerns about the safety of the flight crew and passengers. Fortunately, neither case involved unlawful interference. However, the words used by the pilots certainly raised suspicions and concerns among ATC personnel. Pilots should be aware that vague references might be misinterpreted as a pilot attempting to covertly alert ATC to an instance of unlawful interference. Now, more than ever...communication is key to ensuring that ATC does not overreact to a minor problem or, even worse, under-react to a life threatening condition.