

PIREPS

Elevation changes as you fly across Nebraska

By Mark Langrud

Years ago, as a new commercial pilot, I used to sit in the right seat while an older pilot, who no longer had a FAA pilot medical, would fly his V-Tail Bonanza from Lincoln to Fort Collins. The trips were valuable for me: I could build time as acting PIC and would listen to his stories from when he was a B-25 Marauder instructor during World War II. He preferred lower altitudes, so out of Lincoln he would set his autopilot to hold 4,500 ft. and point the airplane to the west. Leaving Lincoln, we were well above any terrain and obstacles, so 4,500 feet seems like a great choice. However, about an hour into the flight, somewhere near North Platte, the obstacles (towers!!) started getting a little closer to our altitude for comfort and we would have to climb

up to 6,500 feet. Looking at the VFR sectional, our original altitude would meet the terrain somewhere near Willard, Colorado which is about 70 miles short of our destination.

I related this story to a fellow pilot earlier this summer, and he mentioned he made similar trips to Colorado and, as a rule, the elevation rose about 10 ft. for every mile west of Lincoln he went. I decided to pull up the airports that defined the historic "River Run" which was a commuter flight route from Omaha/Lincoln to Scottsbluff loosely following the Platte River, with stops in Grand Island and North Platte. Omaha to Lincoln is 5 feet per NM, but after that, the 3 legs defined by Lincoln, Grand Island, North Platte, to Scottsbluff are each about 9 feet per NM. The smaller airports along this route also adhered to this "rule of thumb".

The VFR sectional supports this approximation. Traveling east to west, the first 100 miles of Nebraska is mostly dark green (1000-2000 feet). The next 100 miles is mostly light yellow (2000-3000 feet) and the remaining 200 miles is mostly colored dark yellow (3000-5000 feet). As always, "rule of thumbs" do not replace accurate and updated information from official sources. The River Run example here is only a narrow route across Nebraska. In fact, Kimball's elevation is 4926 feet while Scottsbluff's elevation is 3967 feet and both airports are about the same distance west from Omaha and Lincoln. Always refer to current FAA navigation data and charts for terrain and obstacle heights along your flight route and elevations at your destination airport. ■

PIREPS

June 2026

Vol 79, Issue 7

Published monthly by
Nebraska Dept. of Transportation
Aeronautics Division
1600 Nebraska Parkway
Lincoln NE 68502
402-471-2371

dot.nebraska.gov/aeronautics

Governor Jim Pillen
NDOT Director Vicki Kramer

Aeronautics Commission

Scott Tarry, PhD, Chair
Michael Cook Edward Dunn
Jon Large Tom Trumble

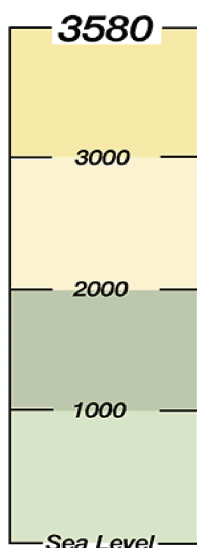
Administration

Director..... Jeremy Borrell
Deputy Director..... Joshua Meyers

Comments/Questions:

mark.langrud@nebraska.gov

Circulation: 3320



Lowest Usable Flight Level

By David Morris

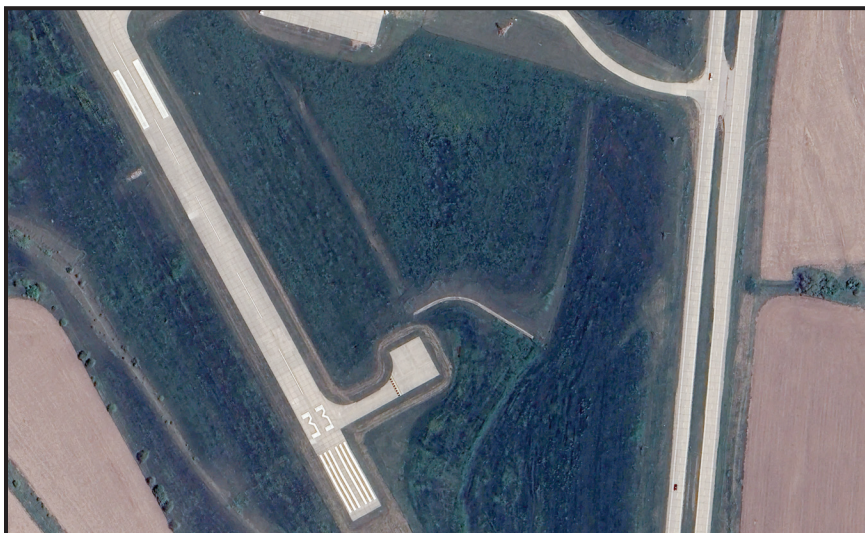
When the barometric pressure is 31.00 inches of mercury or less and pilots are flying below 18,000 feet Mean Sea Level (MSL), we use the current reported altimeter setting for approximately a 100 nautical mile (NM) radius. This is important because the true altitude of an aircraft is lower than indicated when sea level pressure is lower than standard.

When an aircraft is enroute on an instrument flight plan, air traffic controllers furnish this information at least once while the aircraft is in the controller's area of jurisdiction. According to Part 91.144, when the barometric pressure exceeds 31.00 inches of mercury, the following procedures are placed in effect by NOTAM defining the geographic area affected. We are instructed by 91.144 to set 31.00 inches of mercury for enroute operations below 18,000 feet MSL and maintain this setting until beyond the affected area. Air traffic control issues actual altimeter settings and advises pilots to set 31.00 inches in their altimeter for enroute operations below 18,000 feet MSL

in affected areas. If an aircraft has the capability of setting the current altimeter setting and operating into airports with the capability of measuring the current altimeter setting, no additional restrictions apply. At or above 18,000 feet MSL, altimeters should be set to 29.92 inches of mercury (standard setting).

A common area where these exceptional altimeter settings might be experienced may be in an area that has just experienced a hurricane. While the lowest usable flight level is determined by the atmospheric pressure in the area of operation, here is an example of restrictions pilots may experience: When the current altimeter setting is 29.92 or higher, the lowest usable flight level is 18,000 feet MSL. When the current altimeter is between 28.41 to 27.92, the lowest usable flight level will be 20,000 feet MSL.

When we are planning a flight into/through an area that is experiencing these extreme altimeter settings, we should keep in mind these additional restrictions. ■



Can you identify the following Nebraska public airport based on the following aerial snippet? North is up.
(Answer is on the last page)

CALENDAR OF EVENTS

August

- 8/2** | Fly-In Breakfast | Red Cloud Municipal Airport (7V7) | 7-10am | PIC and Passengers eat free, Young Eagles offering rides (weather permitting)
- 8/3** | Jet Linx Aviation Institute Golf Classic – benefiting UNO Aviation Institute students | Oak Hills Country Club | All Day | Registration & information: <https://jet-linx-aviation-institute-perfectgolfevent.com/>
- 8/7** | Nebraska Aeronautics Commission Meeting | Bloomfield Municipal Airport (84Y) | 1pm | agenda will be available in the Nebraska Aeronautics Commission section of the website
- 8/8** | EAA 569 Fly-In Breakfast | Wahoo Municipal Airport (AHQ) | 8-10am | suggested donation: \$10/adults; \$5/kids
- 8/8** | Thunder over Cherry County Air Show & Fly-In | Miller Field (VTN) Valentine | 10am | Free Admission
- 8/8 - 8/9** | Defenders of Freedom Air & Space Show hosted by Offutt AFB | Offutt Air Force Base | Information: <https://offutt55fss.com/air-show/>
- 8/9** | Grant County Airport Appreciation Fly-In Breakfast | Grant County Airport (1V2) Hyannis | 10am-12pm | (free will donation)
- 8/13 - 8/15** | Old West Balloon Fest | Mitchell Air Field, Mitchell, NE | Information & tickets: <https://theoldwestballoonfest.com/>
- 8/14** | Lincoln Drive-In Movie Night featuring the movie: How to Train Your Dragon | Lincoln Airport (LNK), 3801 NW 34th St, Lincoln, NE | 7pm
- 8/15** | Civil Air Patrol Fly-In Pancake Breakfast | Sponsor: Gen Curtis E. LeMay Offutt Composite Squadron, Civil Air Patrol | Oracle Aviation, Millard Airport (KMLE), 12916 Millard Airport Plaza, Omaha, NE 68137 | 8-11am | All-you-can-eat pancake breakfast. Drive-ins welcome. Donations (\$10/adults, \$5/kids). Proceeds support local cadet programs, aerospace education, and emergency services training | Contact: charles.levinsky@offuttcap.org or 916-802-7274
- 8/19** | Third Wednesday Cookouts hosted by the Great Plains Wing of the Commemorative Air Force | Council Bluffs Municipal Airport (KCBF) | 16803 McCandless Road, Council Bluffs, IA | 5:30-7pm (free-will donation) | contact: Jeff at 402-981-4633
- 8/23** | Fly-In Breakfast | Fremont Municipal Airport (FET) | 8am-12:30pm | PIC's eat free | Contact Joe Sajevec at 402-720-2526 or sajevej01@gmail.com

8/28 – 8/30 | Nebraska Chapter of the Antique Airplane Association's 45th Annual Fly-In | Hastings Municipal Airport (HSI)

8/29 | Nebraska Chapter of the Antique Airplane Association Hamburger Fly-In | Hastings Municipal Airport (KHSI) | 11:30am-1pm (free-will donation)

September

- 9/1 - 9/2** | Nebraska Association of Air Medical Services | Scottsbluff, NE | Time: TBD | Additional information: <https://www.neaams.org/annual-safety-symposium/>
- 9/12** | EAA 569 Fly-In Breakfast | Wahoo Municipal Airport (AHQ) | 8-10am | suggested donation: \$10/adults; \$5/kids
- 9/16** | Third Wednesday Cookouts hosted by the Great Plains Wing of the Commemorative Air Force | Council Bluffs Municipal Airport (KCBF) | 16803 McCandless Road, Council Bluffs, IA | 5:30-7pm (free-will donation) | contact: Jeff at 402-981-4633
- 9/20** | Fly-In Breakfast hosted by Albion Municipal Airport (PIC eat free) | 8-11am | Albion Municipal Airport (BVN) | Contact Tony Levander for additional information 402-741-5054
- 9/20** | AppleJack Fly-in/Drive-In Pancake Feed hosted by Blue Line Aviation | Nebraska City Airport (AFK) | 7am-12pm
- 9/20** | Girls in Aviation Day! 2026 | Event by: Women in Aviation Cornhusker Chapter and Lincoln Airport | Lincoln Airport (LNK), 1761 W Kearney Ave., Lincoln, NE | 1-3pm
- 9/21** | Nebraska Business Aviation Association Pre-Golf BBQ | 5-7:30pm | Location TBD | <https://nebaa.org/event-6404159>
- 9/22** | Nebraska Business Aviation Association Golf Tournament | 9am | Location TBD | <https://nebaa.org/golf>
- 9/26** | Nebraska Chapter of the Antique Airplane Association Hamburger Fly-In | Hastings Municipal Airport (KHSI) | 11:30am-1pm (free-will donation)

October

10/16 | Nebraska Aeronautics Commission Meeting | Kearney Regional Airport (EAR) | Time TBD | agenda will be available in the Nebraska Aeronautics Commission section of the website



CHAPTER 569

MONTHLY FLY-IN BREAKFAST

2nd Saturday of the Month (April – October)
8am – 10am

Come for Good Food, Good Fun, and Good Conversation!

Wahoo Municipal Airport **KAHQ**

Airport quiz answer: Nebraska City



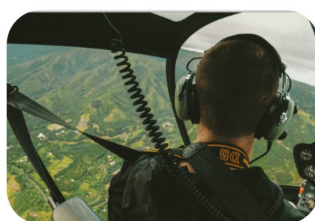
Modernization of Special Airworthiness Certification (MOSAIC) Fact Sheet

- Building upon the foundation of the 2004 final rule Certification of Aircraft and Airmen for the Operation of Light-Sport Aircraft, **MOSAIC** responds to evolving aviation and airmen needs, providing for future growth and innovation while maintaining the highest level of safety.
- **MOSAIC** increases the availability of safe, modern, and affordable aircraft for recreational aviation, flight training, and certain aerial work.
- **MOSAIC** provides broad regulatory relief to the public based on 20 years of safety data.

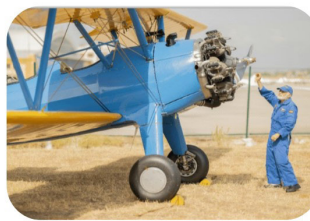
Key Components of MOSAIC:



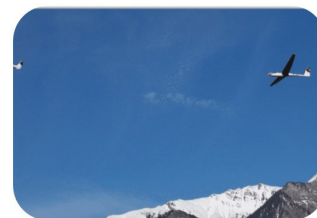
1. Light-Sport
Category Aircraft
Certification



2. Sport Pilot
Certification



3. Maintenance and
Repairman
(Light-Sport)



4. Operations

Publication and Effective Dates

MOSAIC final rule was published on July 24, 2025, with two effective dates:

October 22, 2025 (90 days after publication)

- Pilot training and certification rules and privileges
- Repairman certification, maintenance rules, and tow-hitch installation
- Class G airspace and right-of-way rules

July 24, 2026 (365 days after publication)

- Removal of “light-sport aircraft” definition from 14 CFR § 1.1
- Airworthiness certification requirements
- Changes in operations, including operating limitations

1 Light-Sport Category Aircraft Certification

MOSAIC amends 14 CFR part 21 and adds part 22 to:

- Adopt more performance-based rules to expand and enable innovation in the classes of aircraft that may be certificated as light-sport category aircraft using consensus standards. This includes emerging aircraft types.
- Allow manufacturers of light-sport category aircraft to design and manufacture a broader array of aircraft, including rotorcraft and powered-lift.
- Remove prescriptive weight limits that hinder incorporation of safety-enhancing designs and equipment.
- Increase the maximum stalling speed for light-sport category airplanes (61 knots V_{SO}) and gliders (45 knots V_{SO}).
- Allow faster, higher-performing aircraft for personal travel.
- Enable more capable and robust aircraft for pilot training.
- Allow for increased capacities for passengers, fuel, and cargo.
- Allow new types of propulsion systems (like electric), any number of engines, new propeller types, and retractable landing gear.
- Allow aircraft with simplified flight controls, enabling reduced flight hours for pilot certification.



2 Sport Pilot Certification



MOSAIC 14 CFR part 61 Subpart J § 61.316 changes performance and design limitations, expanding what aircraft sport pilots can operate.

- Removes aircraft weight and airspeed limitation.
- Permits use of any powerplant type except turbo-jet powered.
- New V_{S1} maximum stalling speed (flaps retracted) of 59 knots CAS.
- Allows operating aircraft with retractable landing gear.
- Allows operating airplanes with manual controllable pitch propeller.
- Allows use of 4-seat airplanes but retains 2 occupant limitation.
- Night operation privileges.

NOTE: the aircraft must meet the above requirements at the time of original certification.



2 Sport Pilot Certification Cont.

New Simplified Flight Controls Designation and Required Training

- The FAA created a new type of aircraft with simplified flight controls which can be operated by any pilot at any certification level. This aircraft will have the automated ability to control the flight path using the available power and prevent loss of control under likely circumstances, regardless of pilot input. (§ 22.180)
- Model specific training and endorsement is required for pilots seeking to act as pilot-in-command of aircraft with the simplified flight controls designation. Pilots must possess the appropriate category and class rating or privilege.
- Simplified flight controls endorsement is available to all pilot certificate levels. (§ 61.31(l))
- Both part 61 subpart H and subpart K flight instructors are required to obtain the make and model endorsement prior to conducting flight instruction in that make and model of aircraft with simplified flight controls designation. (§ 61.195(m) and § 61.415(m))
- Sport pilot certification experience requirements are found under part 61 (subpart J) and flight instructor certificate with sport pilot rating experience requirements are found under part 61 (subpart K).

New Sport Pilot Practical Tests

The FAA published new sport pilot testing standards in § 61.14 titled:

- **Sport Pilot Rotorcraft Category Helicopter — Simplified Flight Controls Privileges** Airman Certification Standards.
- **Flight Instructor with a Sport Pilot Rating for Rotorcraft Category Helicopter — Simplified Flight Controls Privileges** Airman Certification Standards.

Sport pilots or flight instructors with a sport pilot rating seeking to **add** an airplane privilege or helicopter simplified flight controls privilege to an existing pilot certificate or flight instructor certificate must take a practical test with a pilot examiner.

3 Maintenance and Repairman (Light-Sport)

Changes to Maintenance of Light-Sport Category Aircraft

- Airworthiness Directive (AD) compliance is mandatory, while compliance with manufacturer-issued safety directives (SDs) is recommended.
- Major repairs and major alterations must be authorized by either the manufacturer or a person acceptable to the FAA.
- Authorization for minor repairs and minor alterations is not required.
- Major alterations and major repairs must be performed and inspected in accordance with maintenance and inspection procedures developed by the manufacturer or a person acceptable to the FAA.

Changes to Light-Sport Repairman Certificate Eligibility and Privileges

(Reference 14 CFR §§ 65.107 and 65.109)

- U.S. citizenship not required.
- Certificate privileges are defined by aircraft category: Airplane, Glider, Rotorcraft, Powered-lift, Weight-Shift-Control, Powered Parachute, and Lighter-Than-Air (LTA).
- Certificate limitations, based on training, are issued by aircraft class: Rotorcraft-gyroplane, Rotorcraft-helicopter, LTA-airship, and LTA-balloon.
- Certificate privileges for experimental aircraft now also include:
 - **Amateur-built aircraft (EAB)** – § 21.191(g)
 - Kit-built light sport – § 21.191(k)
 - Former light-sport category – § 21.191(l)
- Inspection-rated repairmen may only work on aircraft they own; N-Number and serial number are no longer listed on the certificate.

NOTE: EAB aircraft with operating limitations issued prior to Oct. 22, 2025 must obtain revised operating limitations that permit a light-sport repairman to perform the annual condition inspection.

NOTE: EAB Repairman Certificates issued under 14 CFR § 65.104 were not addressed in the MOSAIC rulemaking. Eligibility, privileges, and limitations for these certificates are found in 14 CFR § 65.104 and have not changed.

Changes to Light-Sport Repairman Training Course Acceptance

- Codified requirements for training course providers:
 - Administer a course test
 - 70% passing test score per § 65.17
 - Issue a certificate of completion
 - Have appropriate facilities, equipment, & materials
 - Have appropriately qualified instructors
- Training course acceptance issued based on aircraft category, and class when applicable (e.g., Airplane, Rotorcraft-Gyroplane).
- Maintenance rating training courses must include applicable content from the mechanic Airman Certification Standards (ACS). FAA-acceptance is based on course content instead of specified course hours.
- Course content that was FAA-accepted and being taught before the MOSAIC final rule continues to be “appropriate” content.

4 Operations

MOSAIC Changes: Part 91 Flight Operations

New Experimental Aircraft Operations

- Allows the FAA to issue operating limitations for certain aircraft with experimental airworthiness certificates to conduct operations over densely populated areas, in congested airways, or both, for all phases of flight.
- Allows former military aircraft that have an experimental airworthiness certificate to operate under certain new purposes, like repositioning the aircraft for operation as a public aircraft.

New Flight Operations

- Restricted category aircraft
 - Allows relocation to exhibitions, trade shows, and other events.
- Light-sport category aircraft
 - Allows aerial work operations for certain light-sport category aircraft.
 - Specifies additional requirements to tow a glider or an unpowered ultralight vehicle IAW § 91.309 and § 21.190 for compensation or hire.
 - Allows a maximum limit of 4 occupants for airplanes and 2 occupants for other aircraft (sport pilots are still limited to 2 occupants).
- Experimental aircraft space support vehicle flights
 - Codifies space support vehicle flight operations for certain experimental aircraft to conduct space support flights.
 - Allows for carriage of persons or property for compensation or hire without an air carrier certificate or exemption.

New Operating Rules

- Towing: gliders & unpowered ultralights
 - Clarifies allowable process to attach a tow hitch to eligible light-sport category aircraft.
- Right-of-way rules
 - Clarifies and revises operating rules to include more aircraft, including those with non-traditional forms of propulsion.
- Operations in Class G airspace
 - Includes more aircraft and improves aircraft separation by considering operational needs, aircraft configurations, and speeds to enhance avoiding dissimilar aircraft.

