



PLANE TALK

A publication of

Statewide Aviation

THE FUTURE AT FAIRBANKS



UAF MAKES ALASKA'S FIRST LARGE DRONE FLIGHT FROM INTERNATIONAL AIRPORT

By Rod Boyce
University of Alaska Fairbanks

An unmanned aircraft owned and operated by the University of Alaska Fairbanks (UAF) flew from the general aviation area of Fairbanks International Airport (FAI) on Sunday May 22nd, a historic feat in the effort to safely incorporate such aircraft into controlled airspace.

The flight was the first civilian large drone operation from an international airport in Alaska...
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ALASKA DOT&PF DIVISION
OF STATEWIDE AVIATION

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A MESSAGE FROM D.C. BINDER

This spring has been productive for Aviation in Alaska – the international airports are already seeing record amounts of cargo. With the return of tourism to Alaska, we are beginning to see passenger numbers return to normal levels. We are excited to welcome back some familiar international carriers as the summer approaches, and a brand new one!

The cargo and passengers our airports bring in are a vital part of our economy. It takes the coordinated effort of hundreds of hard-working DOT&PF employees to make it happen. This spring we were happy to honor some of those employees at our Maintenance and Operations conference. Where operators who worked around the clock all winter to keep the runways safe were able to enjoy training, see colleagues, and learn about innovations taking place throughout all the regions. In Statewide Aviation we look forward to events like this, as training and professional development for our employees are an opportunity for a safer and happier DOT&PF.

Another great event this spring was the annual Great Alaskan Aviation Gathering held at the Palmer Fairgrounds. I want to thank the Alaskan Airmen's association for hosting such a wonderful event and hope some of you were able to visit our booth! Every year it is a fantastic reminder of how much aviation impacts the daily lives of so many Alaskans and how quickly this industry innovates.

Speaking of which, a big congratulations to Fairbanks International, Alaska Center for UAS Integration (ACUASI), and our partners at the FAA. Aviation history was made with the takeoff and landing of a large (400 pound, 13 foot wingspan) Unmanned Aerial System (UAS) within the FAI traffic pattern. This concept flight is a large step towards proving that UAS can integrate within our existing airspace safely and efficiently. It is fantastic to see Alaskan airspace embrace the pioneering spirit, I look forward to the future it brings to our skies.

I want to wish you all a happy summer! We've got lots of construction taking place (Check the NOTAMS!) and we continue to assess how Alaska can most effectively utilize the Infrastructure Investment and Jobs Act (IIJA) funding in the coming years. Please don't hesitate to contact us* if you're seeing a critical need we may be missing in our planning.

Hope you had a great spring, and as always fly safe!



A handwritten signature in blue ink, which reads "Dylan Blankenship". The signature is stylized and cursive.

*dylan.blankenship@alaska.gov

WHY IT'S CRITICALLY IMPORTANT TO REGISTER YOUR 406 ELT

By Tech. Sgt. Jake Inman

Alaska Rescue Coordination Center controller

Hello Alaskans! I would like to talk to you all about the importance of registering your 406 Emergency Locator Transmitters (ELT). Here at the Alaska Rescue Coordination Center (AKRCC), our primary mission is 24-hour rescue coordination capability in support of civil search and rescue needs in the Alaska (Elmendorf) Search and Rescue Region. Let's get into how we are notified of an emergency involving an aircraft and how registering your beacon may lead to a speedier response time by search and rescue forces in a distress situation.

First, we need to understand how we are notified of an aeronautical emergency. There are many ways the AKRCC can receive an alert about a distressed aircraft: A good Samaritan can call us; Anchorage Center can contact us after a pilot reports they heard an ELT on "Guard" frequency 121.5; or, we can be notified of a 406-MHz beacon via a network of satellites called COSPAS-SARSAT. Fun fact its actual name is Cosmicheskaya Sistyema Poiska Avariynich Sudov-Search and Rescue Satellite-Aided Tracking system! Without getting too nitty-gritty, COSPAS-SARSAT is essentially an international network of satellites that orbit the earth and listen specifically for distress beacons like ELT, Personal Locator Beacons (PLB), and Emergency Position Indicating Radio Beacons (EPIRBs). The AKRCC receives a majority of our alerts via the COSPAS-SARSAT network. More info on COSPAS-SARSAT can be found at <http://www.cospas-sarsat.int/en/>.

Once a 406 MHz beacon begins transmitting in Alaska, usually within a matter of minutes, the signal will travel from the aircraft to a satellite orbiting overhead, sending the signal quickly to the United States Mission Control Center (USMCC). The USMCC (also staffed 24/7/365) will see that the signal is originating in the state of Alaska and immediately forward a message to us via a system called Aeronautical Information System Replacement (AISR). Our controllers here will be alerted to the 406-MHz message in AISR and begin trying to determine if a distress situation exists or not.



WHY IT'S CRITICALLY IMPORTANT TO REGISTER YOUR 406 ELT

Okay, I've thrown a lot of acronyms at you already, but hang with me. This is where we get into registered versus unregistered 406-MHz Beacons. When we receive the alert of a 406-MHz Beacon in AISR, we click on the first message it gives us. Inside of that message will be critical information for our controllers.

A registered beacon will look something like this (not all info included):

Beacon ID: 1AK76 AK907 FFBFF - (This is a unique 15-digit code of your ELT.)

Detection Time: 20 May 2022 0600 - (The date and time the satellite detects the signal.)

Lat Long: 61 14.00 N 149 48.00 W - (The coordinates it was detected at. Not all messages have a location associated with them, and due to a variety of factors like terrain and aircraft position, the location may update and refine itself from the initial position.)

Country: USA Beacon Type: ELT Serial (standard) - (Country of beacon registration, type of beacon that is emitting.)

***** Beacon Registration Database Information *****

Owner: John Doe Tel 1(Cell): 907-555-5555 Tel 2(Work): 907-555-5555 - (This information is input by the owner during the registration process and provides us with a number(s) to contact them at to determine if they are in distress or not)

Contacts: Jane Doe Tel 1 (Cell): 907-555-5555 Tel 2(Home): 907-555-5555 - (any additional emergency contacts the owner decides to list)

Note: There is much more info inside the AISR message, such as Aircraft type and Tail number, etc

Generally speaking, the first thing we will do is call John Doe and ask them if they are okay. Ninety percent of the time we make these calls, they are non-distress situations. **There is no penalty for an inadvertent activation of a 406-MHz beacon!** As search and rescue controllers and Alaskans, we genuinely care about you as aviators and want to help. If John Doe doesn't answer, we will work down the list until we get to someone who can confirm whether John is okay or not. Remember, if this is a distress situation, the clock is ticking, and we want to find out if search and rescue assets are needed as quickly as possible.

When we receive an unregistered 406-MHz message in AISR, all of the same information is there until the Beacon Registration Database Line, but then it looks like this:

***** Beacon Registration Database Information *****

REGISTRATION DATA IS NOT AVAILABLE IN THE USMCC DATABASE

You can see that there are no listed owners or emergency contacts for us to start calling. We now have to begin our investigation with minimal info, and this can prolong the process of getting to a critical decision point: Are you okay or not? Given the frequency of non-distress alerts we receive, we cannot immediately launch a search and rescue asset without conducting an investigation first. By not registering your beacon, it is only slowing that investigation process down. We as Alaskans understand that minutes may be the difference between life and death when taking our vast geographical area into account.

I encourage you and your friends to visit <https://www.sarsat.noaa.gov/register-your-beacon/> today if you do not have a current registered 406 ELT/PLB/EPIRB or call us at the Alaska Rescue Coordination Center at 907-551-7230 and one of our controllers will gladly help you through the process. Have a safe summer everyone!

OASIS TWO-WAY TEXTING

LEADING THE WAY IN NEXT GENERATION ATC



WELCOME TO THE F.A.A. FLIGHT SERVICES TWO-WAY TEXTING PROGRAM.

*By Lawrence Trottini
Federal Aviation Administration*

Have you heard of the new FAA Alaska Flight Services program? Did you ever wish you could just text an Air Traffic Controller your needed communications? Are you enrolled in the FAA Flight Service Two-Way Texting (2WT) Service?

Your Master Flight Plan needs to be filed/updated with the appropriate Satellite Device ID/Cellular Number.

This will allow you to communicate with Flight Service Station (FSS) Controllers via text messaging. YES, THIS IS FOR REAL!! Let's take a minute and find out what all this excitement is about.

PERMITTED SERVICES

- SOS/Emergency/Search & Rescue
- Activating a Flight Plan already on file with FSS
- Amending a Flight Plan already on file with FSS
- Closing a Flight plan Already on file with FSS

DEVICES THAT WORK TODAY

- Apple iPhone
- Android Phones
- SPOTX GPS Tracking Devices

At the present time Alaska Flight Services are working to deliver the following:

FUTURE SERVICES

- NOTAMs
- Weather-related information
- Images

*Does not apply during Emergency Services

DEVICES TO BE ADDED IN THE FUTURE

- DeLorme / Garmin inReach
- SpiderTracks
- RockAir / TracPlus

How Does It Work?

Alaska Flight Service Facilities (AKFSS) Parent Facilities of Juneau (JNU), Kenai (ENA), and Fairbanks (FAI) are responsible for, and respond to chats.

- Chat Messages responsibilities are tied to the pilots flight plans.
- The Parent Facility responsible for the Flight Plan Area of the Flight Plans will service the pilot
- Otherwise the AKFSS Hub responsible for the Master Flight Plan will service the pilot

What Does It Look Like?



Instructions For Pilots

1. When contacting FSS please type your Aircraft Identification (ACID) as the first item of the chat message.
2. Flight plan actions (Activate, Amend, Close) should be typed in plain language, with abbreviations allowed thereafter.
 - a. [Example: {N12345} CLOSE FLIGHT PLAN FAI TO BTT. OG BTT NOW TY.]
 - b. [Example: {N12345} AMEND FLIGHT PLAN ETA TO 2300Z VIA NEW ROUTE LAKE CLARK PASS]
 - c. [Example: {N12345} ACVITATE FLIGHT PLAN ILI TO ANC DEPARTING NOW.]
3. FSS controllers will respond accordingly to confirm receipt of your message including Aircraft Identification as the first item of chat, followed by the acknowledgement of the action taken.
4. If a service outside of those listed above is requested you will receive a message such as "N12345 UNABLE YOUR REQUEST. CTC FSS VIA RADIO OR PHONE FOR WX NOTAMS AND OTHER SVCS."
5. Consider a requested action taken, only upon receipt of a confirmation message from Flight Service. Ex: "N12345 FLIGHT PLAN FAI-BTT CLOSED. CTC FSS VIA RADIO OR PHONE FOR WX AND NOTAMS"
6. Remember, all messaging is considered ATC communication and is recorded and retained according to FAA regulations.



Setting Up Your Device

As mentioned earlier, a Master Flight Plan must be on file with Alaska Flight Services.

Cellular Setup:

Setting up Two-Way Texting (2WT) for cellular use is as simple as adding "AK FSS 2WT" to your contacts list. Follow the normal process for your cellular device in adding a contact. Open your contacts, select add (+) enter a name (AK FSS 2WT, or something familiar to you), and add the number that will be supplied to you upon joining.

Keep in mind, this will only work if your cellular device is on file as a 2WT device on your Master Flight Plan. Even if you have the number listed as a contact on your Master Flight Plan, it **must** also be listed as a 2WT device; otherwise, the call filtering will not allow your messages to reach a controller.

Satellite Based Text Device Setup:

(Spot X is currently the only participant)

SPOT X can hold up to 70 contacts and/or contact groups. Contacts can be manually added through the SPOT X device or through SPOT MY ACCOUNT. If added through SPOT MY ACCOUNT, syncing is required using the SPOT X Firmware Updater in order for the contacts to display on the SPOT X. This will only work if your SPOT X device is on file as a 2WT device on your Master Flight Plan. Even if you have the number listed as a contact on your Master Flight Plan it **must** also be listed as a 2WT device; otherwise, the call filtering will not allow your messages to reach a controller.

SUMMARY

2 WAY TEXTING



Hand deliver to FSS/ Mail/ or Fax 907-479-5649
Master Flight Plans. Fairbanks FSS:
3811 University S Fairbanks AK, 99709



Please use QR Code to obtain Master Flight Plan or
email/call Lawrence Trottini at 907-455-1606

Lawrence.Trottini@faa.gov.



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It's new! It's exciting! The expansion of this Leading Edge Air Traffic Service is boundless! My contact information appears above, and just as a reminder that your Master Flight Plans can be handed in at any Alaska Flight Service Hub Facility (Kenai, Fairbanks, and Juneau). Please feel free to reach out to us at any time for your Air Traffic needs. Thank you for your time and Let Your Fingers Do The Talking!



THE FUTURE AT FAIRBANKS

(Continued from cover)

Taking off from the airport's general aviation runway, the Sentry aircraft flew in a designated flight pattern used for departures, arrivals, and runway approach practice. It was controlled remotely by UAF Alaska Center for Unmanned Aircraft Systems Integration personnel, inside the ground control station near the far end of the airport's East Ramp.

The light gray Sentry, with a wingspan of nearly 13 feet and weighing 280 pounds when empty, landed safely and came to its intended stop at a taxiway.

"This historic flight for Alaska is the result of the dedication of the ACUASI team and our great partners at Fairbanks International Airport, the State of Alaska's Department of Transportation and Public Facilities and the Federal Aviation Administration," ACUASI Director Cathy Cahill said. "This flight is an important first step in developing a drone economy in Alaska and improved freight and mail transport to rural Alaskans."



"Strong support from the University of Alaska, the Alaska Legislature, Gov. Mike Dunleavy and Alaska's congressional delegation made the achievement possible," Cahill said. Director Cahill also said the Federal Aviation Administration's Beyond Program was key to obtaining the permissions needed to fly this, and future, large drone missions for cargo delivery and other essential Alaska missions.





“Drones have such potential in environments like Alaska. They have huge economic potential for our businesses and industries,” **Governor Dunleavy** said. “But perhaps more importantly, they have the potential to help Alaskans when we need it the most: during disasters and emergencies, such as surveilling a wildfire or dropping emergency supplies during search and rescues.”

The Sentry was treated like any other aircraft – and that’s the idea behind integrating unmanned aircraft into the airspace.



The Sentry’s crew, all of which are certified pilots, communicated with the Fairbanks airport’s air traffic controllers in the same required manner as other general aviation pilots. The Sentry only moves at the airport as authorized by air traffic controllers.

The Sentry, like other aircraft operating in the controlled airspace, carries a transponder that allows air traffic controllers to know its location and altitude.

The flight was the culmination of years of preparation and coordination with airport and FAA staff.

“Alaska is leading the way in drone research with a level of professionalism that our entire aviation community is known for,” said Commissioner Ryan Anderson, Alaska Department of Transportation and Public Facilities. “This is a professional pilot safely operating an aircraft in controlled airspace at an international airport.” The Alaska Center for Unmanned Aircraft Systems Integration (ACUASI) is a national leader in unmanned aircraft systems innovation and research and works with state and federal authorities to integrate unmanned aircraft systems into the national airspace. The University of Alaska Fairbanks, through ACUASI, is one of seven FAA-approved test sites in the nation and the only one in Alaska. ACUASI owns a variety of unmanned aircraft, as well as ground control stations, antennae, generators, and accessories. It has the ability to deploy anywhere in the world.



TED STEVENS ANCHORAGE INTERNATIONAL

CONSTRUCTION UPDATE

By Megan Peters

ANC Communications Coordinator

Construction at Ted Stevens International Airport kicked off earlier than usual this year to beat the summertime tourist rush. The Terminal Loop Road rehabilitation and upgrades began in late March with the goal of finishing the first major phase of construction the Friday before Memorial Day to reopen the regular lanes of traffic. Lanes reopened on schedule! The upgrade provides new pavement and drainage systems, curbside pedestrian access complying with FAA/ADA terminal requirements, and new lighting and paint. Construction will continue for the rest of summer while crews finish up the aspects of the project that won't greatly disrupt traffic. However; there will still occasionally be intermittent lane closures until the odds and ends are tied up.

An important note for motorists captaining RVs or pulling campers: the clearance height under the bridge reduced from 11 feet down to 10 feet 6 inches. To be on the safe side, all RVs should use either the commercial lanes or the upper ramp to pick up their passengers. Even prior to the reduced clearance, RVs had a knack for losing their air conditioning units. (Multiple RVs have not heeded our advice and have been damaged along with signage).

Even with the bulk of the Terminal Loop Road construction complete, ANC's lovely, FREE cell phone parking lot overlooking Lake Hood should be used instead of circling or attempting to idle when picking up a traveler. The cellphone lot is conjoined with the DOT&PF Central Region Headquarters (the Upside-Down building) parking lot - minutes away from ANC (did we mention it is FREE?). Additionally, parking in the garage is free for the first 30 minutes. Relax while waiting to get the call that your traveler is all set with their luggage and which door they staged at for pick-up. Parked or idling vehicles at the curb present safety issues and traffic congestion. Only vehicles conducting active loading/unloading should be at the curb. ANC staff appreciates the patience and courtesy of the public and its help in reducing frustrations by keeping traffic flowing. When the initial phase of construction occurred, Taxis and shuttles operated off of the upper level. They also have returned to their usual place at the commercial curb on the lower level.



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