

CFS TUESDAY

OCTOBER 23, 2018



Seating at the Archie League Medal of Safety Awards Banquet is first come first serve. Get a fast pass to pick your seats first by giving to NCF! The first 200 attendees to establish a \$10 or greater donation per pay period, OR increase existing automatic deduction donation by at least \$5 per pay period get the GOLDEN TICKET to enter the banquet first. Visit the NCF booth to give now!

Attention coffee lovers at CFS: Don't head to Starbucks for your morning fix without first buying your NATCA Charitable special edition coffee mug. Use the mug at Starbucks here at Bally's in the Grand Bazaar Shops in front of the hotel for 35 percent discount off your entire order.

Watching the live stream? Join in the discussion! Ask questions via [Sli.do](https://www.sli.do) using event code #NATCACFS.



(Above) On Monday, NATCA President Paul Rinaldi delivered the first keynote address of NATCA's CFS 2018. (Below) NATCA's National Safety Committee Chair Steve Hansen welcomed attendees to NATCA's CFS 2018.



NATCA members and guests at CFS 2018 gathered bright and early on Monday morning to gain a foundation of information about NATCA and learn how to become more involved with the organization that is working on their behalf every day. Having a basic understanding of your Union, and then building on it with personal involvement, are the first steps toward a stronger local, a more powerful national Union, and a better future for your family.



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VOLUNTARY SAFETY REPORTING PROGRAMS



The first panel of CFS 2018 kicked off a full week of incredible discussions on aviation safety. Moderators NATCA's National Safety Committee Chair Steve Hansen and FAA ATO Safety & Technical Training VP Jeffrey Vincent led panelists NATCA National Voluntary Safety Reporting Programs Representative Mike Blake, FAA ATO General Manager Safety Programs Ernesto Lasen, NATCA National Partnership for Safety Representative Chrissy Padgett, NATCA Chicago Center Local Safety Council Lead Jon Kunowski, and ALPA Safety Information Analysis Programs Mike Schilz in a discussion of the Benefits of Collaborative Safety Programs.



SURFACE SAFETY

On Monday, in a discussion about Runway Safety at CFS 2018, NATCA National Runway Safety Representative Bridget Singratanakul (Gee), FAA ATO Western Service Area Runway Safety Team Manager Emily Banuelos, and NATCA Surface Surveillance Representative Dan Hamilton discussed the role of technology and open communication between industry members, regulators, and airports in reducing runway risk.

CONTINGENCY OPS

NATCA Contingency Operations Representative Jason Grider (above, left) joined Command Center (DCC) Contingency Operations Staff Specialist Philip Madrid (above, right) for a discussion on Contingency Operations in the National Airspace System. Among the topics at hand, Grider and Madrid focused on the team working directly with each major facility to make improvements and ensure that everyone knows what is needed to restore air traffic services to airspace affected by crises.

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HUMAN FACTORS IN TRAINING

Recurrent Training Rep Richard Kennington spoke with attendees about the importance of including human factors in training to advance the safety of the National Airspace System (NAS) as NATCA and the Federal Aviation Administration (FAA) continue to collaborate on various aspects of training.

TRAJECTORY BASED OPERATIONS



FAA ATO Program Management Office VP Kris Burnham & NATCA Director of Safety & Technology Jim Ullmann led a panel about moving the NAS toward a trajectory based system, a cornerstone of #FlyNextGen. One of the new concepts within global aviation, Trajectory Based Operations (TBO) is Performance Based Navigation (PBN) plus Time Based Management (TBM). It will have an impact on how the NAS is operated in the near future.

Panelists:

- NATCA National PMO Rep Jeff Woods
- NATCA Northeast Corridor WG Co-Lead Phil Hargarten
- NATCA Safety & Technology Deputy Director Mark McKelligan
- FAA Air Traffic Services Director of Operational Integration Michele Merkle
- FAA Senior Technical Advisor to the VP of the PMO Rob Hunt
- Delta Air Lines Senior Manager Air Traffic Management Rob Goldman
- ALPA Air Traffic Services Group Chair Marc Henegar



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ONE OF NCF'S CHARITABLE PARTNERS AT CFS: SNOWBALL EXPRESS



NATCA's Charitable Foundation is at Communicating For Safety 2018 to raise support for some really worthy causes. A portion of the proceeds raised by NCF at CFS will be donated to Snowball Express, a program of the Gary Sinise Foundation. Snowball Express honors America's fallen military service members by serving the families left behind. Snowball Express provides comprehensive support programs and helps the children who have lost moms and dads during military service by creating opportunities for joy, friendship, and communal healing.

Each December, Snowball Express brings children together from all over the country for a four-day experience filled



with fun activities, like sporting events, dances, amusement parks, and focuses on their happiness and gives them a break from the burden and stress of life without their hero. On Saturday, Dec. 8, flights carrying these children will take off at a number of airports across the United States. If these flights will cross your airspace, listen for the "Snowball 1 to 13" call sign, and welcome these important flights and their precious passengers, as they make their journey to Orlando. Pilots on these flights often allow the children they are transporting to hear the air traffic controllers' greetings.

At these five airports (COS, DCA, DFW, FAY, and LAS), NATCA is seeking member



volunteers to welcome the Snowball Express children, send them off, and coordinate NATCA's activities. NATCA also is looking for member volunteers to help with the main Snowball Express activities in Orlando. If interested in volunteering, email ZFW FacRep Nick Daniels or ZDV controller Jennifer Van Rooy at NATCA.SBExpress@gmail.com.

About NCF's efforts, Nick Daniels stated, "Please help us make this a special experience for these Gold Star Children. Visit the NCF Booth at CFS to learn more about Snowball Express and NCF's other charitable partners. Please donate to NCF, so they can support important charities like this and many others."

TRIBUTE FOR INDONESIAN CONTROLLER

On Monday afternoon during Communicating For Safety 2018, CFS participants observed a moment of silence to honor the memory of the Indonesian air traffic controller, who sacrificed his life to give clearance to a

passenger jet to take off while his airport was devastated by an earthquake.

On September 28, one of the deadliest earthquakes in a decade struck Indonesia. Indonesian air traffic controller Anthonius

Gunawan Agung was on duty at the airport near Palu. His colleagues had run for their lives when the tower started to sway wildly, and walls started to crack. He refused to leave the tower until a Batik Air Airbus 320 carrying hundreds of passengers was airborne. After the jet took off, Agung found the tower's stairs unpassable. In a desperate attempt to escape the crumbling tower, he made a four-story jump and ended up suffering serious internal injuries. He was taken to a nearby hospital, but he died soon after. Agung's brave decision to stay on

his post cost him his life, but the pilot of the Batik jet, credited Agung's actions with saving the lives of the passengers on his flight. The pilot posted a tribute thanking Agung for guarding him until his jet was safely airborne.

NATCA has joined other air traffic controllers from around the world in donating to Agung's family to help defray the cost of his funeral service.

At CFS, the announcement about the moment of silence stated, "NATCA extends our condolences to his family, friends, and colleagues. We hope they find some comfort in remembering his bravery. Let us all take a moment to honor the brave actions of our brother air traffic controller who demonstrated the best qualities of our profession, making the ultimate sacrifice as he guided a plane and its passengers to safety."



NEXT GENERATION OF AIR TRAFFIC CONTROL

Pioneering Remote Towers in the United States

THE AIRPORT

The Northern Colorado Regional Airport (FNL) was established in 1963 as a general aviation airport and is jointly owned and operated by the cities of Fort Collins and Loveland in Colorado. Over the past 55 years, the airport has evolved from a small general aviation facility into a commercially-certified airport capable of supporting aircraft ranging in size from single-seat recreational aircraft to 200-passenger airliners. The area that the airport serves has more than doubled in population since 1990, which has created a need for an Air Traffic Control (ATC) tower solution to accommodate the growing demands. Northern Colorado continues to experience tremendous growth, making FNL the busiest airport in the state without an ATC tower.

The airport has supported airline services in the past, and most recently, Allegiant Airlines served the region with two destinations from 2003-2012. The airline cited the lack of a tower as one of the reasons they are no longer providing air service at the airport. Since 2012, FNL has been seeking a solution that would enable the return of commercial air service, accommodate the continued growth in general aviation demand, and support regional economic development.

THE TECHNOLOGY: PREP & INSTALL

In the Summer of 2017, the Federal Aviation Administration (FAA) announced that it has entered into an agreement with Searidge Technologies to install, test and certify a Remote Tower System (RTS) at FNL.

“A Remote Air Traffic Control Tower is an innovative and cost efficient solution that will support increasing demand at the Northern Colorado Regional Airport now and into the future,” says Jason Licon, Airport Director, Northern Colorado Regional Airport.

Since the announcement, a significant amount of preparation work has taken place at the site in order to enable the non-towered airport to host Remote Tower evaluations. From drilling and boring for new power and communications infrastructure, to installation of the three airfield masts. A complete facility remodel was also completed which transformed a modular structure into a state of the art Remote Tower facility that meets all of the FAA guidelines for a Federal Contract Tower. FNL is now fully equipped for Remote Tower evaluations.

This project is one of the first in the world to integrate both

video and track-based surveillance (radar) to provide a comprehensive view of the airport surface and Class D airspace to air traffic controllers working in a remote facility. The track-based surveillance enables controllers to have awareness of aircraft close to the airport, and integration with the radar data ensures that flight data labels correlate with the aircraft on the video display.

The typical “out the window” view from a control tower is replicated by an array of cameras which provide a 360° view of the manoeuvring area and airspace close to the airport. This is augmented by two further masts located close to each of the main runway thresholds. These masts provide panoramic views of the thresholds as well as zoomed views of the final approach paths, enabling the controllers to have enhanced observation of these critical areas. Pan Tilt Zoom (PTZ) cameras are also installed to replicate the binocular function required in a tower and as well as manual controls; the PTZ cameras have automated zoomed views of defined areas, such as runway sweep to check the runway is clear. The high-tech array will provide an enhanced view and situational awareness of the airport environment and Class D airspace that will be superior to that of a traditional airport traffic control tower, with construction, operational, and staffing costs dramatically lower than necessary with a traditional control tower.

“Searidge is fortunate to have the support of the Colorado Division of Aeronautics, the FAA, FNL, our industry partners, and local contractors; they have helped us reshape FNL into what is already one of the most technologically advanced airport facilities in the United States,” explains Rick Koller, Program Manager, Searidge Technologies.

The Remote Tower System Project is a strong collaboration between the FAA, Northern Colorado Regional Airport, and the Colorado Department of Transportation’s Division of Aeronautics, which provided the funding for the project.

FNL REMOTE TOWER PROJECT SCHEDULE

Execute OTA: Complete	System Optimization (Phase 0): Nov. 2018
Site Survey: Complete	Passive Testing (Phase 1): Spring 2019
Site Preparations: Complete	Active Testing (Phase 2): Summer 2019 –
Install Equipment: Complete	Winter 2019
Site Acceptance Test: Complete	Initial Operating Capability: Spring 2020



FNL CAMERA MAST



FNL REMOTE CONTROL ROOM

ASHEVILLE FUSION ROCKS

By John Croft, Federal Aviation Administration

NextGen radar and ADS-B technology is helping to remove blind spots in the mountains near Asheville, North Carolina, easing the workload for controllers and boosting efficiency and safety for the airline, military, and general aviation pilots who use the airport and airspace.

The very ingredient that makes Asheville a magnet for vacationers and retirees — mountains — can also make the western North Carolina city more challenging for those arriving by aircraft. Mountains have a bad habit of blocking radar, creating surveillance blind spots for controllers and forcing instrument flight rules (IFR) aircraft to take inefficient flight paths.

NextGen radar and ADS-B technology is helping to remove blind spots, easing the workload for controllers and boosting efficiency and safety for airline, military, and general aviation pilots who use the airport and airspace.

The action started in June 2018 when the FAA installed the Fusion upgrade to the Standard Terminal Automation Replacement System (STARS) in the terminal radar approach control facility (TRACON) at the Asheville Regional Airport.

Before Fusion, STARS relied on only one airport surveillance radar at the airport. Fusion blends multiple radar feeds from other locations as well as input from seven ADS-B radio stations distributed throughout the Asheville area. The ADS-B radios receive surveillance data from ADS-B Out-equipped aircraft and transmit that data to the TRACON. Fusion combines all the surveillance inputs and displays the most accurate information to controllers. Benefits will increase as more aircraft equip with ADS-B Out ahead of the 2020 deadline.

“What we do has always been safe,” said Asheville Air Traffic Manager Michael Silvius, “but this upgrade improves efficiency in addition to giving us a safety boost.”

For controllers, Fusion provides aircraft position information at lower altitudes and farther from the airport. In many cases, controllers can see aircraft equipped with ADS-B Out all the way down to the ground, even at some distant airports.

Bill Curcie Jr., the NATCA FacRep at Asheville TRACON, said before Fusion, IFR aircraft arriving into Asheville’s airspace at 6,000 feet altitude from the east would not show up on controllers’ screens until 5-8 miles into Asheville airspace. Similar issues at higher altitudes occur for aircraft arriving from the north and west.



ASHEVILLE RADAR DISPLAY

When controllers do not have surveillance data on a flight, they have to block relatively large tracts of airspace around its expected path.

“Now when they’re at 6,000 feet, we see them about 5-8 miles outside of our airspace,” said Curcie. With surveillance, he and the other 14 controllers at the facility are able to better use the airspace by reducing separation between aircraft to as close as 3 miles to either side of the course. He said the upgrade eliminates the workload of remembering aircraft that they can’t see on the display. “It makes us far more comfortable,” he said.

For the many general aviation and military aircraft flying in the Asheville area, the enhanced surveillance in the TRACON means they can receive more effective flight following, which means controllers can point out more traffic. Along with military and Civil Air Patrol aircraft that train in the mountains, Gulfstream Aerospace also tests some of its new business jets in the area. “We can now see aircraft that are out there playing at low level, and we can provide them with advisories on traffic,” said Silvius.

Aircraft equipped with ADS-B Out get an additional surveillance advantage — coverage that in many cases extends to the runway. Thirty miles north of Asheville is a private airport called Mountain Air, located within a golf course in the shadow of mile-high Mount Mitchell. “A lot of aircraft fly in and out of Mountain Air,” said controller Ryan Chase. “We see them and can point out traffic. We couldn’t do that before.”

The efficiency boost should also be a boon for airlines serving Asheville, including Allegiant, American, Spirit, and United. It’s too soon for quantitative data, but Silvius has seen a qualitative bonus.

“Playing Monday morning quarterback, we can see that controllers are able to better utilize the airspace, which is a benefit to airlines,” said Silvius. “If we see the aircraft sooner, we can turn them sooner and get them a more direct path to the airport, saving time and fuel.”



ASHEVILLE TOWER/
TRACON

COMMERCIAL SPACEPORTS ROUNDTABLE

Tuesday's agenda at CFS includes a Commercial Space panel beginning at 1:30 p.m. PDT. There is also a Commercial Space booth in the exhibit hall. As a primer for visiting the booth, below is a Commercial Spaceports Roundtable discussion, featuring Kevin McLaughlin, NATCA Commercial Space Representative, Mark Prestrude, NATCA En Route Technology Coordinator and JSpOG observer, Harry Bergmann, Space Operations Specialist and JSpOG member, and Garrett Carmen, Airspace Engineer, Office of Commercial Space Transportation (AST) and JSpOG member.

McLAUGHLIN: Why do we need all these spaceports and will they all be used?

CARMEN: Different spaceports are able to accommodate different categories of space vehicles. The type of vehicle to be operated is frequently captured during the spaceport licensing process since most spaceports are collaborative efforts between spaceport operators and space vehicle operators.

BERGMANN: Spaceports provide the facilities and infrastructure for conducting commercial space operations. Most spaceports will see space activity since they are operator funded. However, opening a spaceport is a complex financial and technological endeavor that requires overcoming multiple hurdles before becoming active and sometimes everything doesn't lineup.

PRESTRUDE: Obtaining a spaceport license and a space vehicle license are two different processes with two different pathways requiring two different FAA LOAs. Some spaceports have been purposely built by vehicle manufacturers while others have attempted to get ahead by obtaining licenses in anticipation of finding a viable operator.

McLAUGHLIN: If the spaceport gets approved, does that guarantee rockets will fly? How many more spaceports are in process?

CARMEN: The spaceport license grants the approval to conduct operations but a vehicle operator must still obtain an independent launch free entry license for each vehicle platform.

BERGMANN: The Office of Commercial Space (AST) is always interacting with a variety of potential operators proposing to obtain licensing. Currently, there are three highly viable contenders plus an additional license being granted to an existing operator which is SpaceFlorida at Cape Canaveral. The new applicants are proposing operations in Titusville, Florida, Camden, Georgia, and Huntsville, Alabama.

McLAUGHLIN: After a spaceport is approved, what happens next in the process?

CARMEN: A space vehicle operator must propose operations from that spaceport and successfully complete a launch reentry license associated with that vehicle platform with AST. A space vehicle operator in the early stages of vehicle development could apply for an experimental mission permit, allowing them to conduct missions while maturing their technology and verifying their business case.

PRESTRUDE: There are different concepts being employed to achieve orbital and sub-orbital missions. Among these are traditional vertically-launched rockets, "captive carry" missions using a fixed wing mothership, fixed-wing re-entry vehicles, and manned capsule re-entries such the Boeing Starliner.

McLAUGHLIN: We know the big companies that have been in business for a while like SpaceX, Virgin, and Blue Origin. Are there other entities on the rise that have a viable plan? What are other uses besides watching people and big satellite into orbit?

CARMEN: The Commercial Spaceflight Federation is composed of dozens of entities that have business models that will impact commercial space. Some are vehicle operators, some are brokers for rocket payload, and some are working on entirely different business models like a cube satellites aimed at distributing worldwide global Internet.

BERGMANN: Multiple companies are specializing in providing access to orbital flight for smaller players like universities, college and public school STEM programs. RideShare is an industry collaborative effort to provide access to the smaller entities that would otherwise be shut out of launch access due to limited financial resources.

I90 PRESENTS CHECK FOR NATCA DISASTER RELIEF



Houston TRACON (I90) FacRep Anthony Silver (left) and I90 Treasurer Ryan McCain (right) on Monday at CFS presented a check for \$6,170.35 to the NATCA Disaster Relief Fund. I90 members went through the hardships brought by Hurricane Harvey in 2017. They collected the money in support of our brothers and sisters affected by recent Hurricanes Florence and Michael and the overall efforts of the NATCA Disaster Response Committee to use the Disaster Relief Fund to assist members in any future storms and events. Thank you, I90, for demonstrating such amazing solidarity! For ways to donate to the Disaster Relief Fund, please go to <http://www.natca.org/disasterrelief>.

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