

DEDICATED TO HELPING BUSINESS ACHIEVE ITS HIGHEST GOALS.



Business Aviation Update

NBAA Runway Incursion Forum 2017

Sept. 20, 2017 | Washington, DC

Presented By: Alex Gertsen, C.M., Director, Airports & Ground Infrastructure, NBAA

NBAA 1947-2017



NBAA Membership

Over 11,000 Member Companies



NBAA Membership

Associate Membership



NBAA Membership

Airport Membership

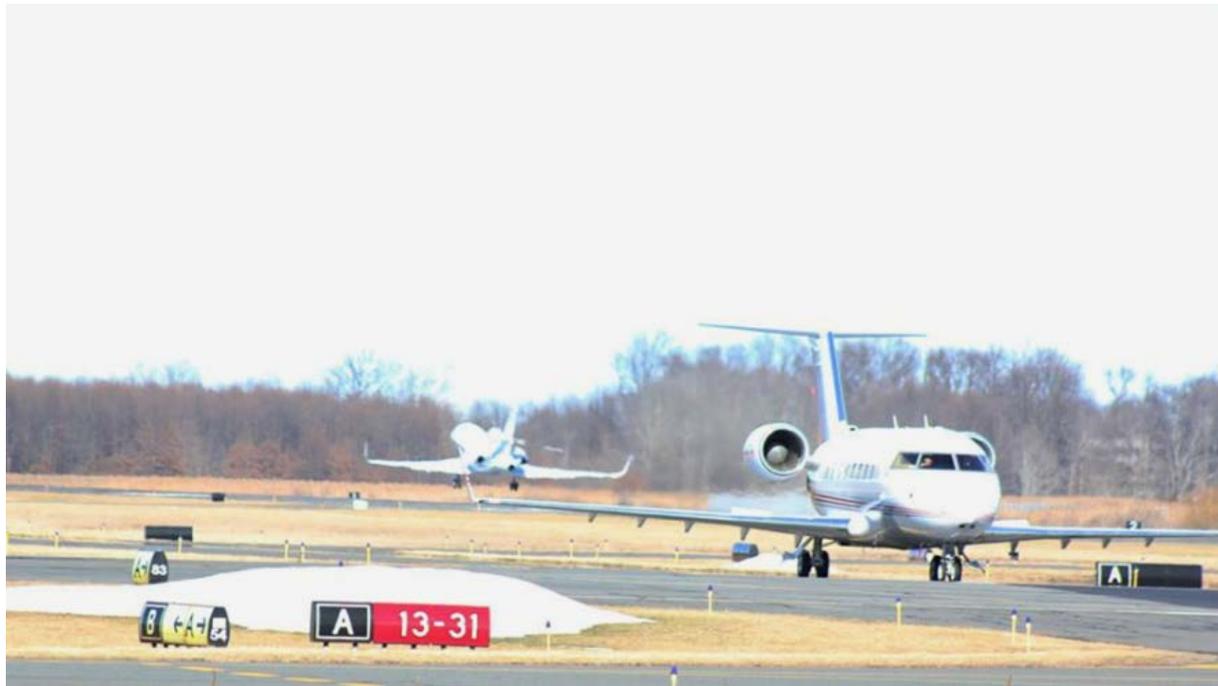


Photo Courtesy of Morristown Airport (KMMU)

NBAA Safety Committee 2017 Top Safety Focus Areas



Loss of Control - Inflight

Runway Excursions

Single Pilot Accident Rate

Ground Handling Incidents

Distractions

Scenario / Risk Based Training

Airspace Complexities

Procedural Non-Compliance

Runway Excursions

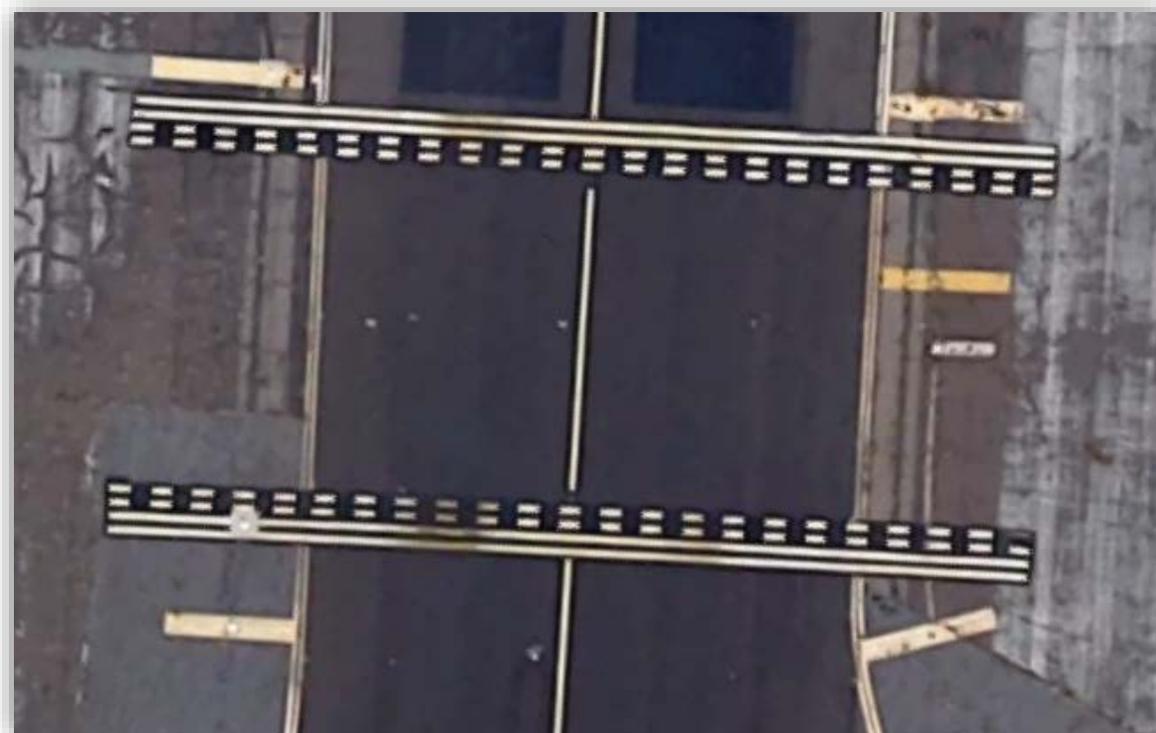
- Most common type of accident in business aviation
- One of the 2017 Top Safety Focus Areas
- NBAA Safety Committee Guide 2016 “Reducing Business Aviation Runway Excursions”
- Takeoff and Landing Performance Assessment (TALPA)



Runway Incursions

Industry Collaborative Effort

- Runway Safety Council
- Airport Construction Advisory Council (ACAC)
- General Aviation Joint Steering Committee (GAJSC)
- Participation
 - Root Cause Analysis Team (RCAT)
 - Runway Safety Risk Management Panels (SRM)
- Continuous outreach and advocacy



Runway Status Lights (RWSL)

Runway Entrance Lights (RELs)

RELs mean **STOP!** The runway is unsafe to enter or cross.



Takeoff Hold Lights (THLs)

THLs mean **STOP!** The runway is unsafe for takeoff.



NBAA Flight Plan Podcast - Aug. 22, 2016

<https://www.nbaa.org/news/flight-plan/nbaa-flight-plan-20160822.mp3>

NBAA News Article - Apr. 4, 2017

<https://www.nbaa.org/ops/safety/in-flight-safety/runway/20170404-bwi-sfo-the-latest-airports-to-implement-runway-status-lights.php>



Runway Safety Outreach



CAPITAL VIEW



JAMES FEE is the manager of the FAA's Air Traffic Organization's Safety and Technical Training Runway Safety Group. He holds an airline transport pilot certificate with numerous type ratings and his unique background includes various pilot roles – a Part 141 flight instructor, Part 135 charter captain and Part 121 airline captain. For the past decade at the FAA, Fee has been focusing on safety issues. In his current position, he directs and oversees development of policies to improve runway safety by decreasing the number and severity of runway incursions and other surface incidents.

On Twitter
@FAANews

Working Collaboratively to Improve Runway Safety

Q: What is the most critical component of runway safety?

Collaboration. Often, solving runway safety problems requires action by the airport operator, pilots and ATC, or even development of new technology. Collaboration takes place with key industry stakeholders – airport managers, aircraft operators and controllers, as well as within the FAA. That kind of collaboration ensures that any changes we make to the physical layout of an airport, a procedure or technology are fully vetted with and embraced by the stakeholders. Because the solution can involve so many pieces, runway safety also requires collaboration within the three business lines at the FAA – Office of Airports, Flight Standards and Air Traffic. All three are separately funded and tasked, but the runway safety program is common to all three.

Q: How do you manage collaborating with so many entities?

Our most important forum for collaboration is the Runway Safety Council, which is a quarterly stakeholder meeting of government and industry organizations, such as NBAA. Other entities represented on the council include the FAA, the NTSB, National Air Traffic Controllers Association and airport and pilot groups. The council is

Q: Although all runway safety issues affect business aviation, what specific issues can business aircraft operators focus on?

We are working on two issues critical to business aviation. First, we are conducting industry outreach to increase awareness of runway status lights. A recent incident occurred at McCarran International Airport, where an aircraft taxied onto the runway when the lights were illuminated, and then the aircraft proceeded with a takeoff roll over the red lights. The red lights indicate another aircraft or vehicle might be on the runway. Upon taking a closer look at the incident, we think pilots could benefit from more training on the operation of runway status lights, which provide another layer of safety and operate independently of ATC. This led to development of an NBAA podcast to refresh pilots on what the lights mean and how to respond to them.

Second, we are supporting the NBAA Safety Committee's efforts to promote professionalism. Proper communication, both on the flight deck as well as between pilots and controllers, is a critical component of safe operations. Often, the simplest mitigation is to promote the use of standard and appropriate phraseology when responding to or reading back ATC instructions. For example, if a pilot receives a landing clearance and

Business Aviation Runway Incursion Mitigation

Challenges

- Airports with diverse type mix
- Airports with complex geometry
- Different levels of airport infrastructure
 - Non-towered airports
 - Quincy, IL (KUIX) - Beech 1900 and King Air Collision in 1996
 - Non-certificated airports
 - Lack of enhanced taxiway centerline markings
 - Worn-out markings
 - Lighting, signs and visual aids
- Single-pilot operations



Business Aviation Runway Incursion Mitigation Successes

- Training and professionalism
 - Two-pilot crews
- Advanced Avionics
 - Moving Map Displays and Synthetic Vision
 - Honeywell Runway Awareness and Advisory System (RAAS)
 - Portable Electronic Flight Bag (EFB) Devices
- RNAV approaches to more runways



Business Aviation Runway Incursion Mitigation

Advanced Avionics - Citation Latitude (680A)



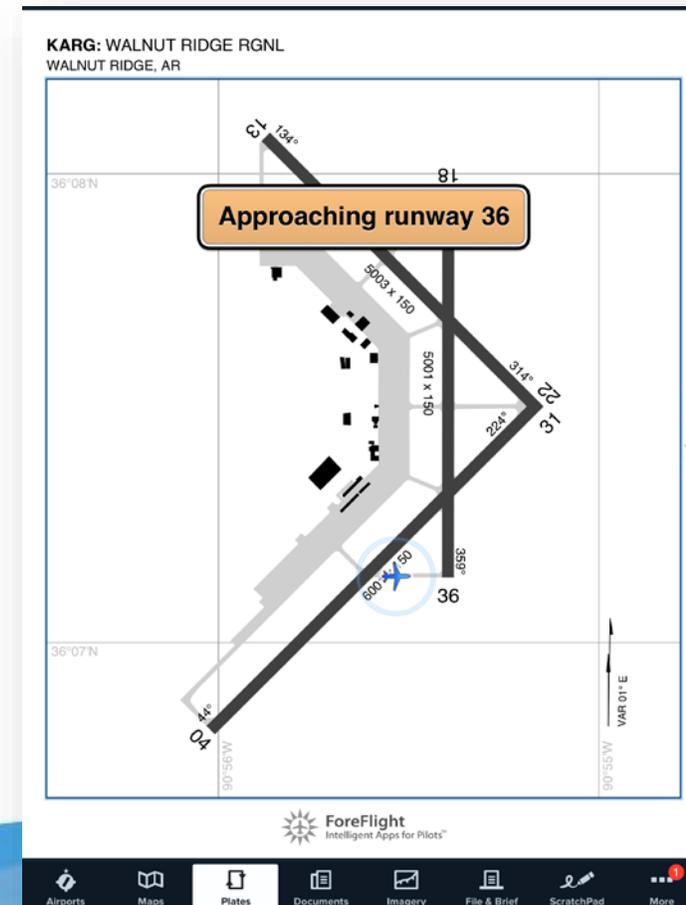
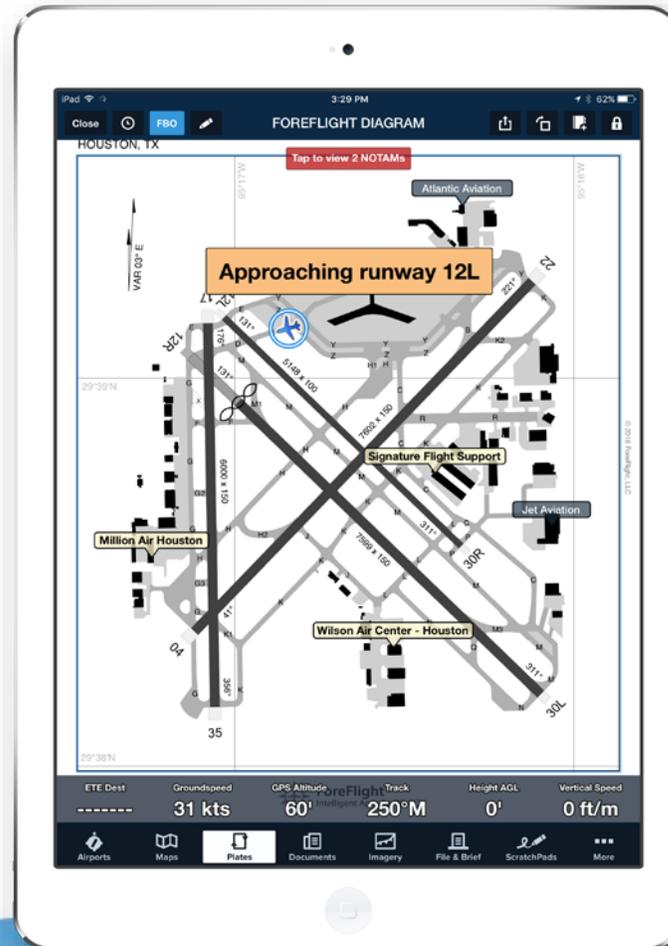
Business Aviation Runway Incursion Mitigation

Advanced Avionics – King Air 350



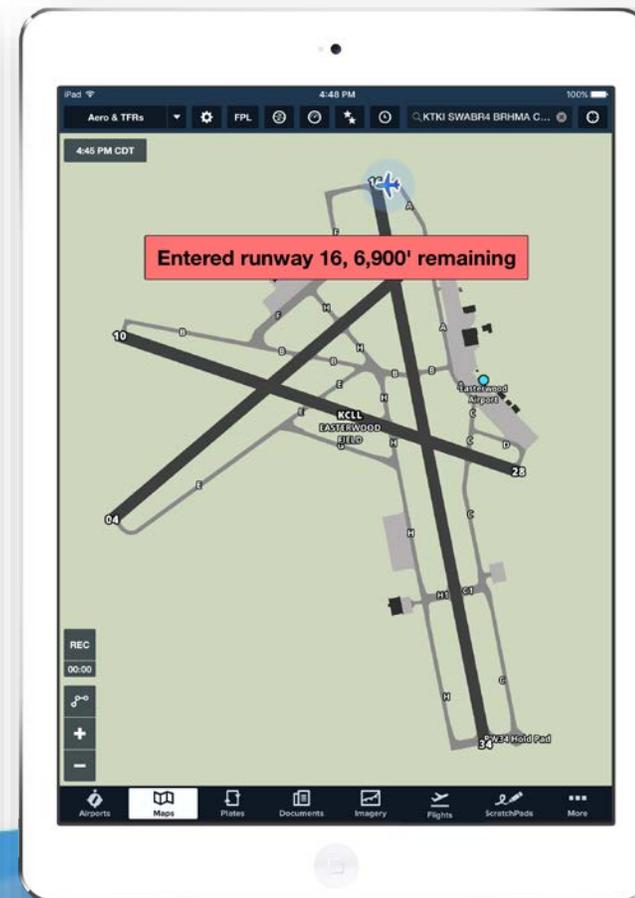
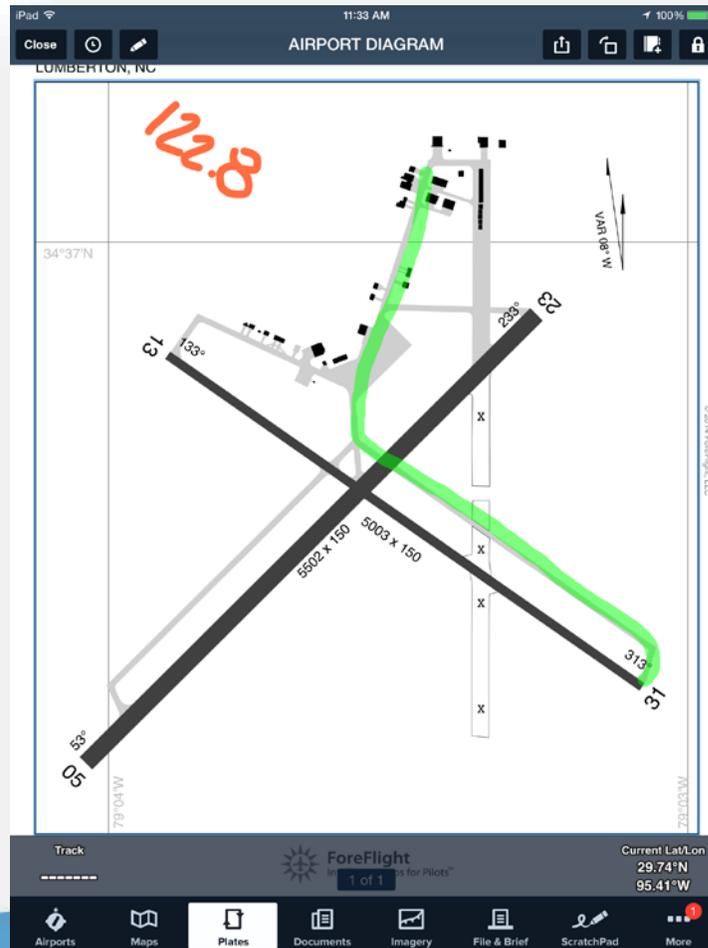
Business Aviation Runway Incursion Mitigation

Advanced Avionics – Portable Devices



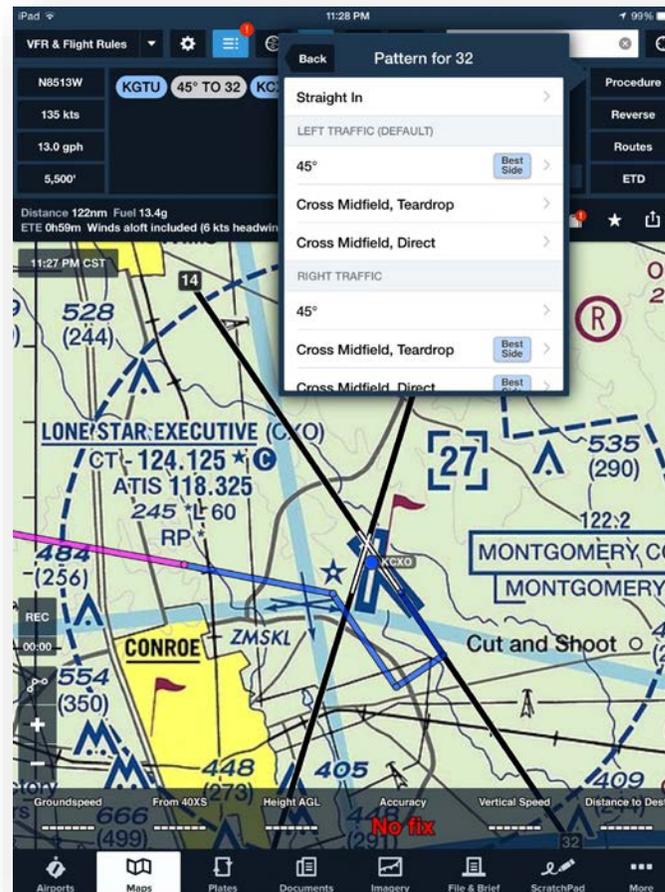
Business Aviation Runway Incursion Mitigation

Advanced Avionics – Portable Devices



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Advanced Avionics – Portable Devices



Business Aviation Runway Incursion Mitigation

More to be Done

- Continue collaboration and information exchange
 - FAA, NTSB, NATCA, ALPA, AOPA, AAAE, ACI-NA and others
- Enhance scenario based airfield familiarization training
- Fine tune the details
 - Procedures
 - Communication
 - Situational awareness
- Continue to learn and be vigilant



Contact

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