

NTSB: Current NOTAM system is “just a bunch of garbage”

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27 September, 2018



You were all very supportive when we wrote the initial article on the BS Notam problem last year, and have followed our journey in fixing the problem since then.

Big news!

The NTSB called the Notam System a bunch of garbage on Tuesday this week, and assigned probable cause of the AC759 incident in SFO to the Notams that were missed.

What this means to OpsGroup is massive fuel to our fire: we are working hard to fix this problem, and having a public facing government organisation like the NTSB come down like a ton of bricks on the Notam System drives us forward in leaps and bounds.

The group members have been decisive in helping us to identify the problem and taking action to fix this. So, we want to acknowledge all of you! Great work!

THE FIVE NOTAM PROBLEMS

CHARACTER SET all caps, 1924 ITA2

CODING TOO MANY CNFSNG ABBREVS

CRAP foxes, flocks of birds and fireworks

COUNT 1.5 million a year, growing

CONTROL by the state – no trust

In solving two of the above five problems, we have been working with ICAO for several months now. You all got involved in **Norm**, and 17,000 Notams later, we happy to report that version 0.1 of Norm is now live on the ICAO website. Norm is a bot - an AI, that has learned what Notams look like, and thanks to OpsGroup rating these 17,000 Notams, is also learning which ones are critical and which ones are not.

He's still young. He doesn't get everything, but if you feed him a Notam you'll see him assign it a criticality of 1-5.

This will in turn allow us to sort Notams, putting the most important stuff first.



- What is iSTARS?
- Register to Access iSTARS
- Catalogue of Solutions
- iSTARS User Group (iUG/01) Meeting
- NOTAM Services
- Notices to Airmen
- Chat with NORM**
- Example of iSTARS Apps
- Air Transport Accessibility
- Tsunami Awareness
- Accident Statistics
- Approach Paths
- Map Builder

Chat with NORM



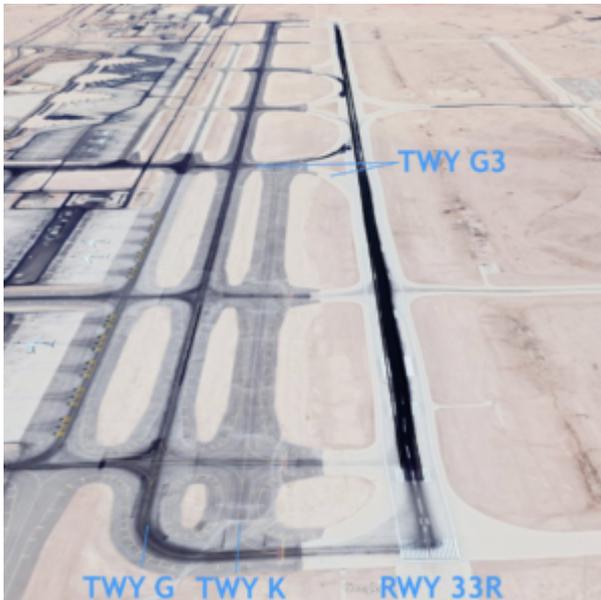
Norm in action

There are over 30,000 NOTAMS out there at any moment in time. Some are **critical**, most are not. ICAO and Flight Service Bureau have presented experts from all around the world with a random selection of NOTAMS and asked them to rate them. We have collected over 16000 responses! We then trained an artificial intelligence algorithm named "**Norm**" (NOTAM Organizational and Recognition Model) on those human classified NOTAMS. Norm had to identify critical NOTAMS and highlight them. So Norm is here! He kind of gets the criticality. You can see his evaluations of some NOTAMS. You can also provide him with a NOTAM to get his evaluation.

Runway? Who needs one when you have a taxiway!

OPSGROUP Team
27 September, 2018





It's happened again.

Around midnight on a **perfectly clear night** last week in Riyadh, a **Jet Airways 737 tried to take off on a taxiway**. The crew **mistaking a new taxiway for a runway!**

The crew, with thousands of hours experience, took off on a surface that didn't have runway markings or runway lights. Thankfully no one was seriously hurt. It's too early to exactly say why this happened, but it's clear that some sort of **"expectation bias"** was a factor. Expecting to make the first left turn onto the runway. One has to ask - was ATC monitoring the take off?

After the tragic Singapore 747 accident in Taipei, technology was developed to audibly notify crew if they were about to depart **"ON TAXIWAY"**. This is known as the Runway Awareness and Advisory System (RAAS).

Sadly the Riyadh incident is not isolated. There have been a plethora of near misses in the past few years (more details in Extra Reading below).



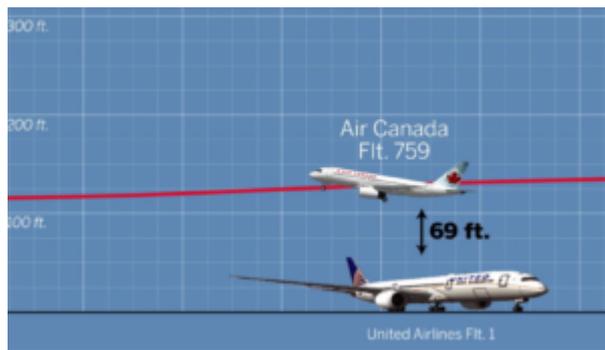
There have also been more than a few "incidents" of aircraft from C17's to 747s **landing** at the **wrong** airports! The most notable near miss recently was that of an Air Canada A320 nearly landing on a taxiway full of aircraft at **KSFO/San Francisco**. But it's happened to Delta and Alaskan Air recently too.

It is an even bigger issue at a General Aviation level (and not just because Harrison Ford did it!). The FAA safety team recently noted;

*The FAA Air Traffic Organization (ATO) has advised of an increase in, **"Wrong Surface Landing***

Incidents” in the National Airspace System (NAS).

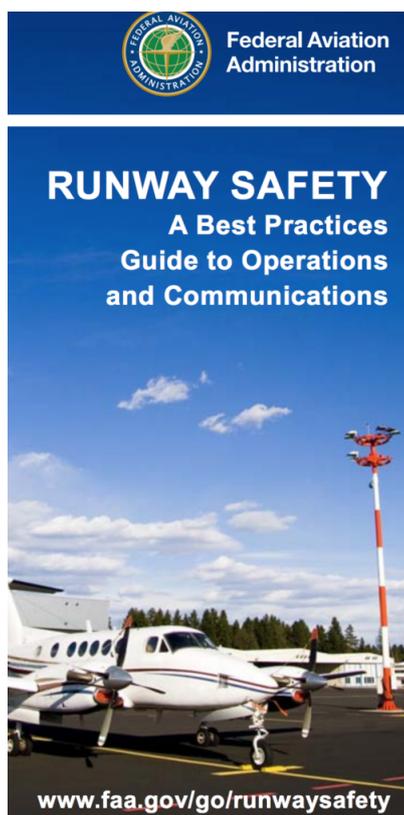
Incidents include:



- Landing on a runway other than the one specified in the ATC clearance (frequently after the pilot provides a correct read back)
- Landing on a Taxiway
- Lining up with the wrong runway or with a taxiway during approach
- Landing at the wrong airport

The FAA published some **shocking statistics**:

- **557 “wrong surface landing/approach events”** between 2016-2018. **That’s one every other day!**
- **89% occurred during daylight hours**
- **91% occurred with a visibility of 3 statute miles or greater**



So what to do?

There are numerous '*best operating practices*' pilots can use to help avoid such incidents.

- Be **prepared!** Preflight planning should include familiarization with destination and alternate airports to include airport location, runway layout, NOTAMs, weather conditions (to include anticipated landing runway)
- **Reduce cockpit distractions** during approach and landing phase of flight.
- **Use visual cues** such as verifying right versus left runways; runway magnetic orientation; known landmarks versus the location of the airport or runway
- Be on the lookout for "**Expectation Bias**" If approaching a familiar airport, ATC might clear you for a different approach or landing runway. Be careful not to fall back on your past experiences. Verify!
- **Always include** the assigned **landing runway and** your **call sign** in the **read back** to a landing clearance
- **Utilize navigation equipment** such as Localizer/GPS (if available) **to verify proper runway alignment**

It's worth spending a few minutes watching this.

Extra Reading

- Finnair A340 taxiway rejected take off Hong Kong
- Portugal ERJ-190 taxiway rejected take off Nice
- KLM B733 taxiway take off Amsterdam
- Schaheen Air B734 taxiway take off Sharjah
- Eva Air MD11 taxiway take off Anchorage
- Etihad A330 lined up on runway edge Abu Dhabi - rejected take off