

Pilot Deviations: Aircraft Interceptions

Why Are They Rocking Their Wings?

What To Do: During and After the Interception

Presented to: FAA Safety Seminar Attendees

By: Bill Doyle, CFI A&I, PHL FFAST Team

Date: 03/01/2011 – 08/31/2011



Federal Aviation
Administration



So What Does It Sound Like to Be Intercepted?

- *“Cessna November-1-2-3-4-5. Sir if you look outside your left window, you’ll see an F-16. That would be me. Please waggle your wings to acknowledge, then follow me, sir.”*
 - *Overheard on 121.5 on 09-13-2002 by CAP 2972 enroute to ELT mission at Statue of Liberty*
 - *PIC: Maj (then Capt) Bill Doyle*
 - *Observer: LtCol Rich Olszewski*

Aircrew Names Released with Permission



So What Might Intercept You?



U. S. Air Force F-16 Fighting Falcon Fighters

So What Might Intercept You?



U. S. Coast Guard HH65-C Dolphin Helicopter

So What Might Intercept You?



Homeland Security UH60 Blackhawk Helicopter

Pilot Deviations: Airborne Interceptions – Handling and Avoiding
03/01/2011 – 08/31/2011



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So What Does An Interception Look Like?



Fighters Intercepting an Airliner

Presentation Agenda

- *The Airborne Intercept – What is it?*
- *What to Do If You Are Intercepted*
- *How Can You Protect Against Being Intercepted?*
- *An Interception Scenario and what you should learn from it*
- *How to use ASRS*



The Airborne Interception

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What Is It?



North American Air Defense Command (NORAD) Intercept Mission

- What pilots should know
 - Military intercept is possible at any threat level
 - There are two intercept profiles:
 - Mission ID
 - Mission Shadow
 - There are ICAO Standard Interception Signals
 - The actions by which an intercepting aircraft can direct an aircraft to divert

North American Air Defense Command (NORAD) Intercept Mission Profiles

- **Mission ID**
 - Fighter intercept places the fighter close enough to the aircraft for identification by type or other characteristics as directed by the controlling agency.
 - Although the intent is to remain covert passengers onboard the aircraft may see the military fighter aircraft.
- **Mission Shadow**
 - Fighter intercept places the military aircraft in a covert position behind the aircraft.
 - Passengers onboard will not see the military fighter aircraft.

North American Air Defense Command (NORAD) Intercept Mission

- During an intercept mission military pilots may be directed to divert the intercepted aircraft by one of the following actions:
 - Verbal / Radio Communications
 - Verbal instructions by radio after establishing contact with the aircraft on assigned frequencies to include 121.5 MHz
 - Military aircraft not VHF radio capable will attempt contact through the controlling agency
 - ICAO Intercept Signals
 - Flying in front of and slightly below the intercepted aircraft
 - Dispensing warning flares

Intercepting Aircraft Reactions to Response from Intercepted Aircraft

- APPROPRIATE RESPONSE
 - If the aircraft responds appropriately to diversion attempts,
 - military fighters will escort the aircraft through a safe landing.
- INAPPROPRIATE RESPONSE
 - If the aircraft ignores diversion attempts and is deemed a threat to protected people or infrastructure by the National Command Authorities
 - the military pilots may be ordered to shoot down the aircraft

North American Air Defense Command (NORAD) Rules of Engagement

- During a threat level the FAA can initiate a request for military assistance
- NORAD fighter jets are prepared to shoot down aerial threats or TOI (targets of interest)
- While a military intercept aircraft may receive a valid and authenticated order to shoot down an aircraft, the fighter pilot never has autonomous authority to do so
- The primary decision making authority to shoot down a TOI resides with the President or the Secretary of Defense

The Airborne Interception

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What To Do If You Are Intercepted



What To Do If You Are Intercepted

- **An aircraft which is intercepted by another aircraft shall immediately**
 - Follow instructions given by the intercepting aircraft, interpreting and responding to visual signals
 - Notify ATC if possible
 - Attempt radio contact with the intercepting aircraft on 121.5 MHz
 - give the identity of the intercepted (your) aircraft and nature of your flight
 - Squawk code 7700 unless otherwise instructed by ATC

What To Do If You Are Intercepted

- If any instructions received by radio from any sources conflict with those given by the intercepting aircraft by visual or radio signals the intercepted aircraft shall
 - Request immediate clarification
 - Continue to comply with the instructions given by the intercepting aircraft
- **Always obey the guy with the gun**



Intercept Procedures: Signal from Intercepting Aircraft/Response from Intercepted Aircraft

IN-FLIGHT INTERCEPT PROCEDURES

If you are intercepted by a U.S. Military or law enforcement aircraft, immediately:

1. Follow the instructions given by the intercepting aircraft. *(See chart at right.)*
2. Notify ATC, if possible.
3. Attempt to communicate with ATC on the emergency frequency **121.5 MHz**, giving the identity and position of your aircraft and the nature of the flight.
4. If equipped with a transponder, squawk 7700, unless otherwise instructed by ATC. If any instructions received by radio from any sources conflict with those given by the intercepting aircraft by visual or radio signals, request clarification while continuing to comply with the instructions given by the intercepting aircraft.

Intercepting aircraft signal

Rocks wings. After acknowledgement initiates a slow level turn, normally to the left, into the desired heading. (Also, at night flash the navigational lights.)

Meaning

You have been intercepted.

Intercepted aircraft response

Rocks wings and follows. (Also, at night flash navigational lights.)

Meaning

I understand and will comply.

Performs an abrupt breakaway maneuver consisting of a climbing 90 degree turn, or more, without crossing the intercepted aircraft's flight path.

You may proceed.

Rocks wings.

I understand and will comply.

Circles airport, lowers landing gear, and overflies runway in the direction of landing. (Also, at night turn the landing lights on.)

Land at this airport.

Lowers landing gear, follows the intercepting aircraft and lands if the runway is considered safe (Also, at night turn the landing lights on.)

I understand and will comply.

<http://www.aopa.org/asf/publications/intercept.pdf>

Intercept Procedures: Signal from Intercepted Aircraft/Response from Intercepting Aircraft

Compliments of the AOPA Air Safety Foundation • 800-638-3101 • www.aopa.org/asf



Intercepted aircraft signal	Meaning	Intercepting aircraft response	Meaning
Raises landing gear while flying over runway between 1,000' and 2,000', and continues to circle the airport.	This airport is inadequate.	If the intercepted aircraft is requested to go to an alternate airport, the intercepting aircraft raises its landing gear and uses the intercept procedures.	Understood, follow me.
(At night, the pilot of the intercepted aircraft will also flash landing lights while passing over the runway.)		To release the intercepted aircraft, the intercepting aircraft will perform the breakaway maneuver.	Understood, you may proceed.
The pilot switches on and off all available lights at regular intervals.	Cannot comply.	Performs the breakaway maneuver.	Understood.
The pilot switches on and off all available lights at irregular intervals.	In distress.	Performs the breakaway maneuver.	Understood.

For information on AOPA or AOPA's Legal Service Plan, call 800-USA-AOPA (872-2672) or visit www.aopa.org/legalservices.html

<http://www.aopa.org/asf/publications/intercept.pdf>



The Airborne Interception

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How To Avoid Being Intercepted



How To Avoid Being Intercepted

- Pre-flight Planning
 - Check for TFRs just prior to departure
 - Check the FAA TFR Website <http://tfr.faa.gov>
 - Check the AOPA TFR Website <http://www.aopa.org/tfr/>
- File an IFR flight plan if instrument rated and current
 - The extra routing and flight time is cheaper than defending against an enforcement action. Very important for post-9-11 flying.
 - If not instrument current, consider getting current
 - If not instrument rated, consider getting the rating
- Use NexRad for enroute flying if your airplane has it
 - Still do pre-flight planning with NexRad
 - Consider getting NexRad

FAA TFR Website

Federal Aviation Administration

>> TFR List >> TFR Map >> Map Airports >> TFR Help >> PilotWeb >> SUA-TFR

Center GO State GO Type GO

Click drop-down menu to pick a state

Reset Filter Click "Go" Current Date

Click column headings to sort data.

Date	NOTAM	Facility	State	Type	Description	Zoom
02/25/2011	1/8686	ZDC	DE	VIP	Wilmington, DE, Sunday, February 27, 2011 Local	
01/27/2009	9/3124	ZDC	DE	VIP	Greenville/Wilimngton, DE	

Depicted TFR data may not be a complete listing. Pilots should not use the information on this website for flight planning purposes. For the latest information, call your local Flight Service Station at 1-800-WX-BRIEF.

Total Records: 2

Federal Aviation Administration | 800 Independence Avenue, SW | Washington DC, 20591

<http://tfr.faa.gov>



FAA TFR Website

XML AIRMS NOTAM

Number : FDC 1/8686 Download shapefiles
Issue Date : February 25, 2011 at 1411 UTC
Location : Wilmington, Delaware near DUPONT VORTAC (DQO)
Beginning Date and Time : February 27, 2011 at 2000 UTC
Ending Date and Time : February 27, 2011 at 2215 UTC
Reason for NOTAM : Temporary flight restrictions for VIP Movement
Type : VIP
Replaced NOTAM(s) : N/A

Jump To: [Affected Areas](#)
[Operating Restrictions and Requirements](#)
[Other Information](#)

Affected Area(s) [Top](#)

Airspace Definition:

Center: DUPONT VORTAC(DQO) (Latitude: 39°40'41"N,
Longitude: 75°36'25"W)
Radius: 3 nautical miles
Altitude: From the surface up to but not including 3000 feet
AGL

Effective Date(s):

From February 27, 2011 at 2000 UTC (February 27, 2011 at
1500 EST)
To February 27, 2011 at 2215 UTC (February 27, 2011 at 1715
EST)



[Click for Sectional](#)

[NOTAM Text](#)

<http://tfr.faa.gov>

FAA TFR Website

Operating Restrictions and Requirements

Top

No pilots may operate an aircraft in the areas covered by this NOTAM (except as described).

Except the flight operations listed below:

1. All IFR arrivals or departures to/from airports within this TFR.
2. Approved; law enforcement, fire fighting, military aircraft directly supporting the United States Secret Service (USSS) and the office of the vice president of the United States, and MEDEVAC /air ambulance flights.
3. Aircraft operations necessitated for safety or emergency reasons.
4. Aircraft that receive ATC authorization in consultation with the air traffic security coordinator (ATSC) via the domestic events network (DEN).

<http://tfr.faa.gov>



FAA TFR Website - <http://tfr.faa.gov>

NOTAM : 1/8686 Location : Wilmington, DE, Sunday, February 27, 2011 Local

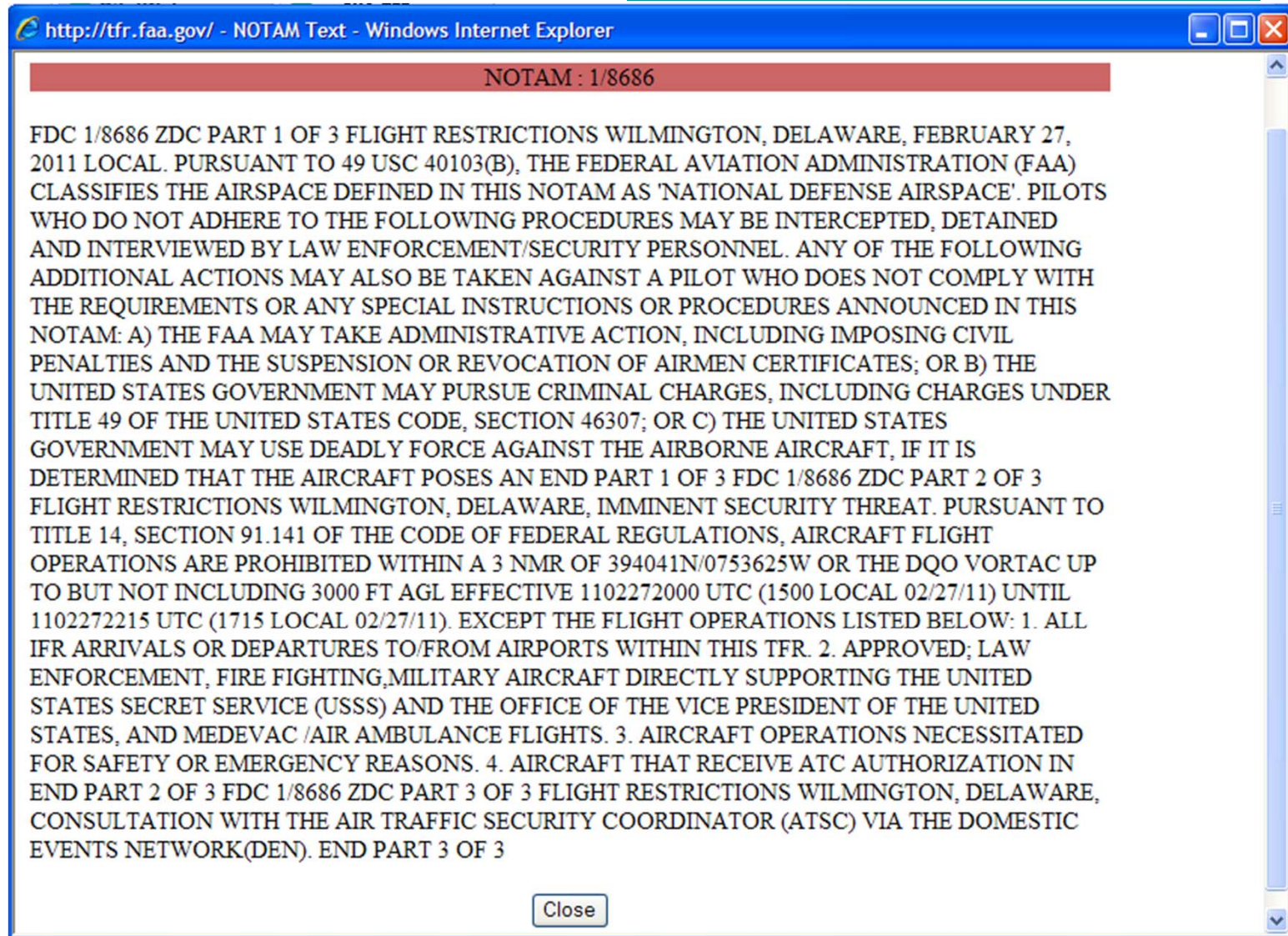


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FAA TFR Website - <http://tfr.faa.gov>



The screenshot shows a browser window with the address bar containing "http://tfr.faa.gov/ - NOTAM Text - Windows Internet Explorer". The main content area displays a NOTAM titled "NOTAM : 1/8686". The text of the NOTAM is as follows:

FDC 1/8686 ZDC PART 1 OF 3 FLIGHT RESTRICTIONS WILMINGTON, DELAWARE, FEBRUARY 27, 2011 LOCAL. PURSUANT TO 49 USC 40103(B), THE FEDERAL AVIATION ADMINISTRATION (FAA) CLASSIFIES THE AIRSPACE DEFINED IN THIS NOTAM AS 'NATIONAL DEFENSE AIRSPACE'. PILOTS WHO DO NOT ADHERE TO THE FOLLOWING PROCEDURES MAY BE INTERCEPTED, DETAINED AND INTERVIEWED BY LAW ENFORCEMENT/SECURITY PERSONNEL. ANY OF THE FOLLOWING ADDITIONAL ACTIONS MAY ALSO BE TAKEN AGAINST A PILOT WHO DOES NOT COMPLY WITH THE REQUIREMENTS OR ANY SPECIAL INSTRUCTIONS OR PROCEDURES ANNOUNCED IN THIS NOTAM: A) THE FAA MAY TAKE ADMINISTRATIVE ACTION, INCLUDING IMPOSING CIVIL PENALTIES AND THE SUSPENSION OR REVOCATION OF AIRMEN CERTIFICATES; OR B) THE UNITED STATES GOVERNMENT MAY PURSUE CRIMINAL CHARGES, INCLUDING CHARGES UNDER TITLE 49 OF THE UNITED STATES CODE, SECTION 46307; OR C) THE UNITED STATES GOVERNMENT MAY USE DEADLY FORCE AGAINST THE AIRBORNE AIRCRAFT, IF IT IS DETERMINED THAT THE AIRCRAFT POSES AN END PART 1 OF 3 FDC 1/8686 ZDC PART 2 OF 3 FLIGHT RESTRICTIONS WILMINGTON, DELAWARE, IMMINENT SECURITY THREAT. PURSUANT TO TITLE 14, SECTION 91.141 OF THE CODE OF FEDERAL REGULATIONS, AIRCRAFT FLIGHT OPERATIONS ARE PROHIBITED WITHIN A 3 NMR OF 394041N/0753625W OR THE DQO VORTAC UP TO BUT NOT INCLUDING 3000 FT AGL EFFECTIVE 1102272000 UTC (1500 LOCAL 02/27/11) UNTIL 1102272215 UTC (1715 LOCAL 02/27/11). EXCEPT THE FLIGHT OPERATIONS LISTED BELOW: 1. ALL IFR ARRIVALS OR DEPARTURES TO/FROM AIRPORTS WITHIN THIS TFR. 2. APPROVED; LAW ENFORCEMENT, FIRE FIGHTING, MILITARY AIRCRAFT DIRECTLY SUPPORTING THE UNITED STATES SECRET SERVICE (USSS) AND THE OFFICE OF THE VICE PRESIDENT OF THE UNITED STATES, AND MEDEVAC /AIR AMBULANCE FLIGHTS. 3. AIRCRAFT OPERATIONS NECESSITATED FOR SAFETY OR EMERGENCY REASONS. 4. AIRCRAFT THAT RECEIVE ATC AUTHORIZATION IN END PART 2 OF 3 FDC 1/8686 ZDC PART 3 OF 3 FLIGHT RESTRICTIONS WILMINGTON, DELAWARE, CONSULTATION WITH THE AIR TRAFFIC SECURITY COORDINATOR (ATSC) VIA THE DOMESTIC EVENTS NETWORK(DEN). END PART 3 OF 3

At the bottom of the content area, there is a "Close" button.



FAA TFR Website - <http://tfr.faa.gov>

The screenshot displays the FAA TFR website interface. At the top, there are navigation tabs: TFR List, TFR Map (selected), Map Airports, TFR Help, and PilotWeb. Below the tabs is a toolbar with zoom controls (Zoom In, Zoom Out) and regional map buttons (Zoom US, Zoom AK, Zoom HI, Zoom PR, Zoom CB). The main map shows the Eastern United States with a red circle highlighting a specific area. To the right of the map is a control panel with the following sections:

- Select Center to zoom:** A dropdown menu labeled "Select a Center" and a "Go" button.
- Select State to zoom:** A dropdown menu labeled "Select a State" and a "Go" button.
- Select Scale to zoom:** A zoom slider with a magnifying glass icon on the right.
- Map Layers:** A list of map layers with checkboxes:
 - NOTAMs
 - Interstates
 - Centers
 - Rivers
 - Political Boundaries

FAA TFR Website - <http://tfr.faa.gov>



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[Home](#)

[About PilotWeb](#)

[Help](#)

[Contact Us](#)

Sun, 27 Feb 2011 21:14:00 (UTC)

NOTAM Functions

Tracks

Tools

Disclaimer

NOTAM Retrieval

Report Format Type:

Domestic

Locations:

dgo

Type in
"dgo"

Text Type:

Report

View NOTAMs

Reset

Click "View
NOTAMs" button

NOTAM Search by Number

Report Format Type:

Domestic

Accountability or
Location:

NOTAM Number:

Text Type:

Report

View NOTAMs

Reset

Aeronautical Information

- > Advisories Database
- > ATCSCC Operational Information System (OIS)
- > ATCSCC Real-time Airport Status
- > Graphic TFRs
- > National Aeronautical Charting Office - NACO
- > NOTAM Contractions JO 7340.2
- > Published NOTAMs

> Latitude/Longitude Radius Search

> Radius Search

> Flight Path Search (Enter from two to five locations below)

> ARTCC Notices, TFRs and Special Notice Page

> ICAO Search

> Global Navigation Satellite System

> Weather Sites

> Links


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FAA TFR Website - <http://tfr.faa.gov>






Federal Aviation
Federal Aviation Administration Seal

>> TFR List >> TFR Map >> Map Airports >> TFR Help >> PilotWeb >> SUA-TFR

Center GO State GO Type GO SUN, 27 FEB 2011 21:13 UTC

Reset Filter

Click column headings to sort data.

Date	NOTAM	Facility	State	Type	Description	Zoom
02/25/2011	1/8686	ZDC	DE	VIP	Wilmington, DE, Sunday, February 27, 2011 Local	
01/27/2009	9/3124	ZDC	DE	VIP	Greenville/Wilimngton, DE	
01/26/2009	9/2934	ZFW	TX	VIP	Dallas, TX	

Depicted TFR data may not be a complete listing. Pilots should not use the information on this website for flight planning purposes. For the latest information, call your local Flight Service Station at 1-800-WX-BRIEF.

Total Records: 3



AOPA TFR Website - <http://www.aopa.org/tfr>



AOPA ONLINE
AIRCRAFT OWNERS AND PILOTS ASSOCIATION

ATP → 9 Locations Nationwide
→ G1000 172s & DA40s

J M SEARCH

+ AOPA FOUNDATION + AIR SAFETY INSTITUTE + PUBLICATIONS + ABOUT

Flight Planning Aircraft & Ownership Government Advocacy Training & Safety Membership Services

TFR Map

Release Notes: v 1.0 >>

Jump to Airport: Go CONUS Alaska Hawaii

ATP
Atlanta Location Now Open at PDK

The map has two zoom levels. The first shows you TFRs across the entire continental US. **Click on a location on the chart to zoom in to that area.**

When zoomed in closer, you'll see TFR's as either yellow, red, or black shaded areas:

  Black TFR's are not yet active. Yellow and red TFR's are currently active.

Click on a TFR to see information about it.
Double-click on the chart to zoom back out and see the entire US.

AOPA TFR Website - <http://www.aopa.org/tfr>

Jump to Airport: Go CONUS Alaska Hawaii

The map has two zoom levels. The first shows you TFRs across the entire continental US. **Click on a location on the chart to zoom in to that area.** When zoomed in closer, you'll see TFR's as either yellow, red, or black shaded areas:

Black TFR's are not yet active. **Yellow and red TFR's** are currently active.

**Wilmington, DE
VIP NOTAM**

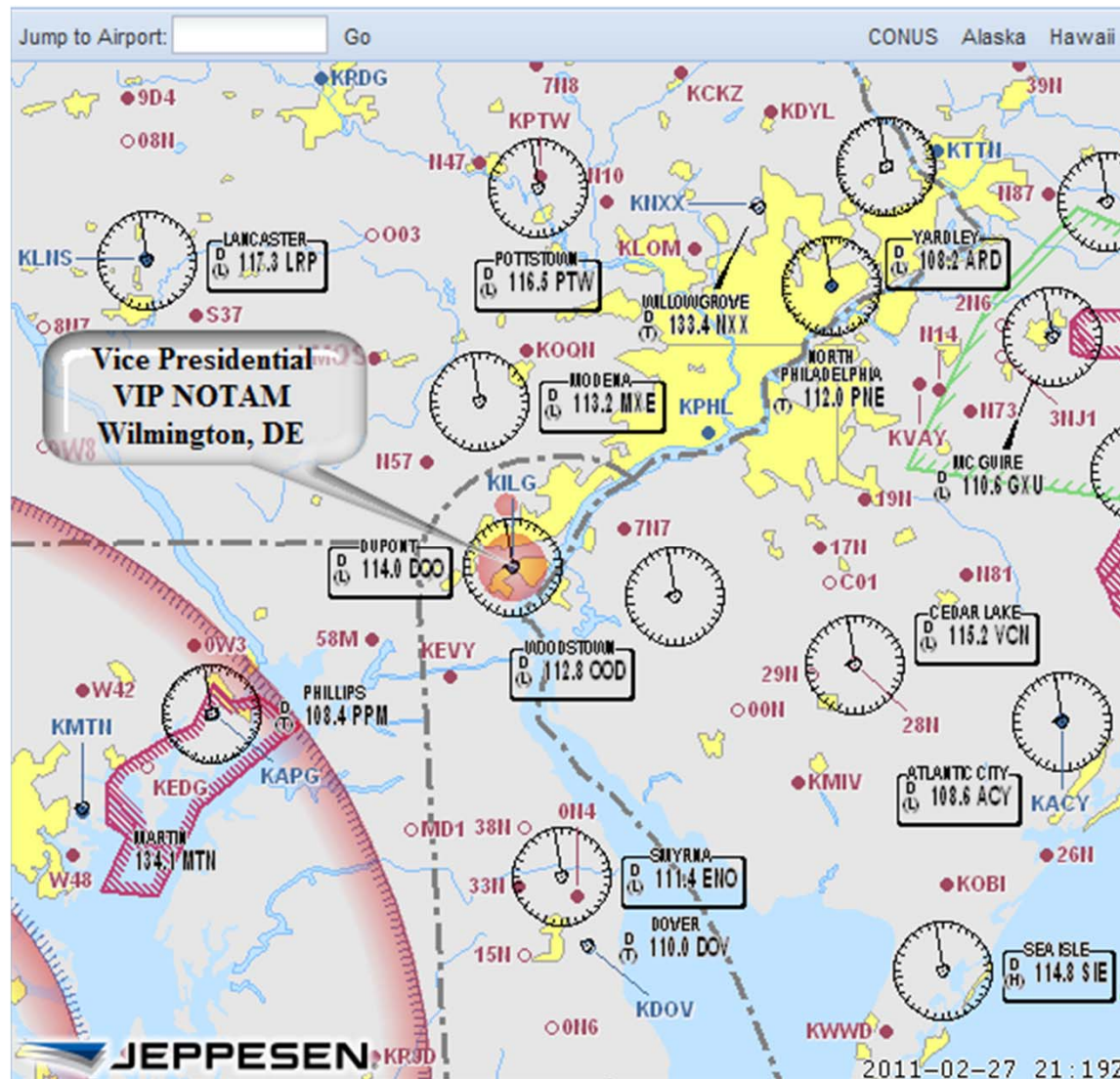
**Washington, DC
SFRA**

KBCT
KFXE

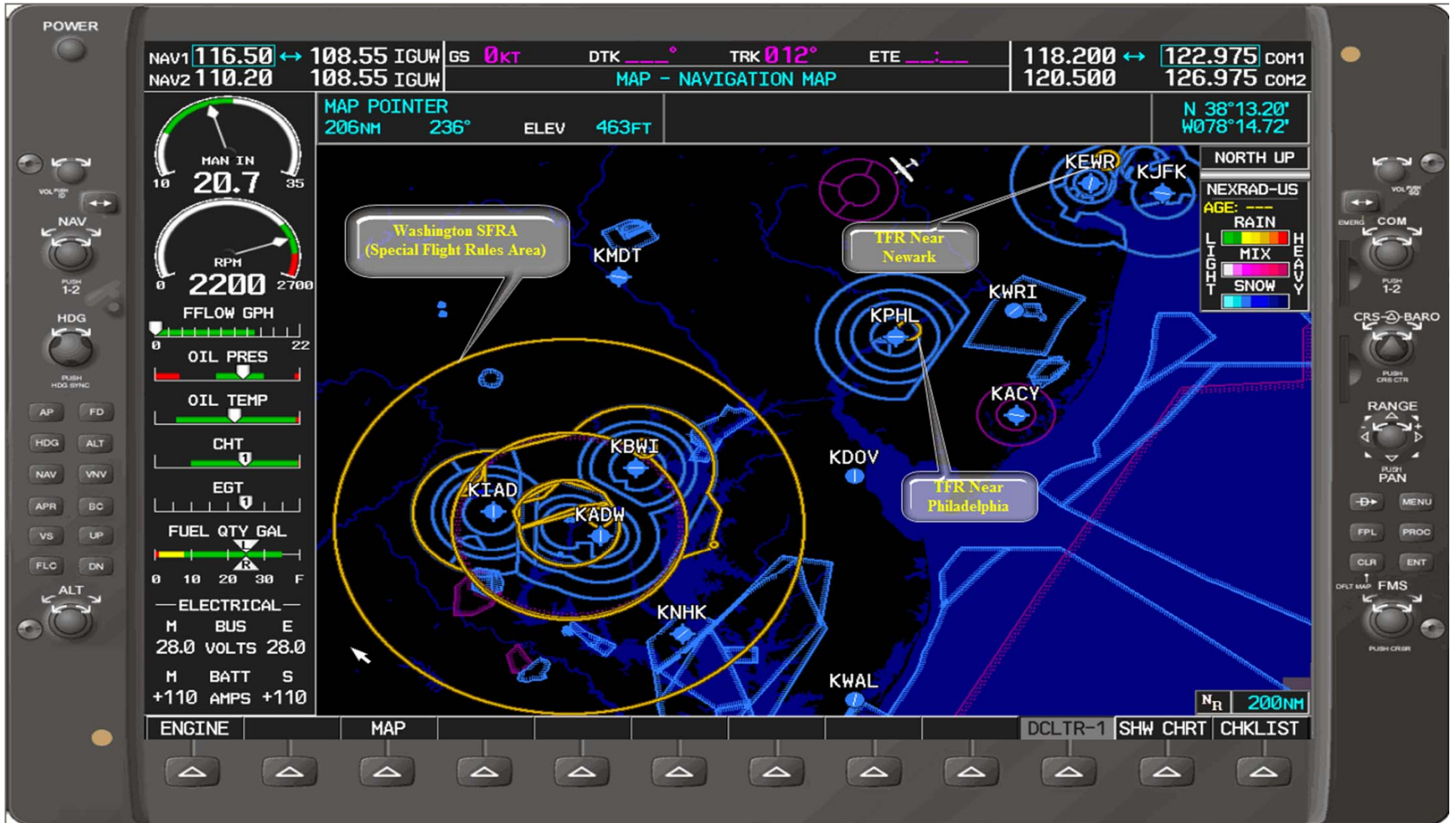
JEPPESEN

2011-02-27 21:21Z

AOPA TFR Website - <http://www.aopa.org/tfr>



NexRad on Garmin G1000



An Interception Scenario

The Event

The Aftermath

The Consequence

- **As you go through this scenario, think in terms of what the FAA calls “The Accident Chain”**

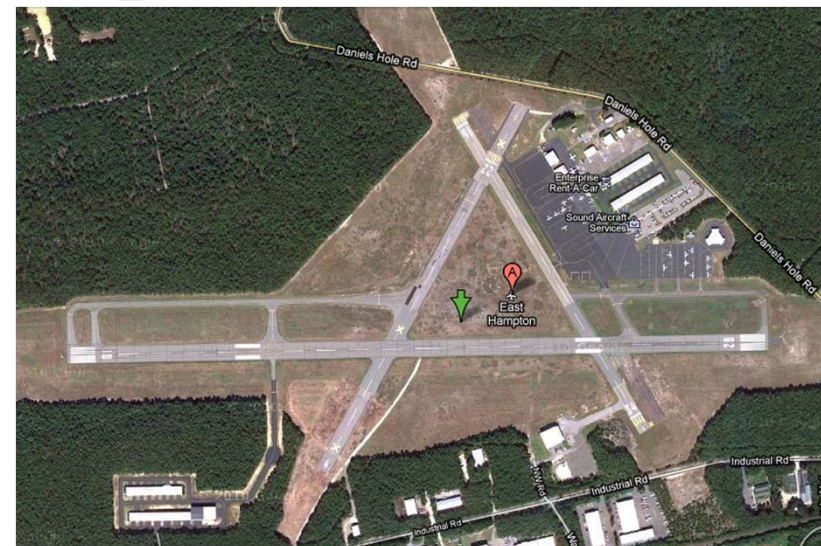


TFR Bust

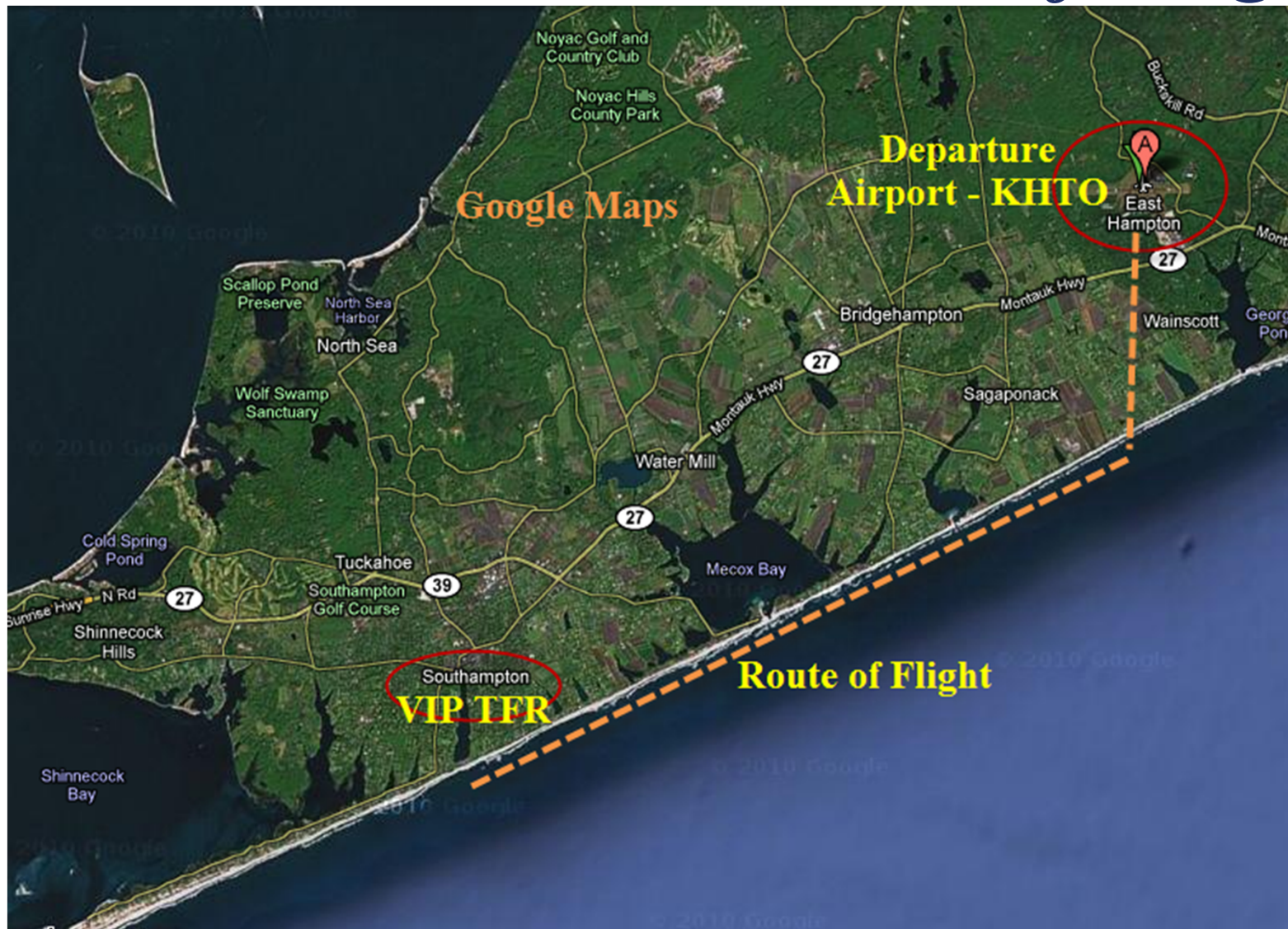
- TFR Type: VIP (Vice President of U.S.)
- Place: Long Island, New York
- Date: Memorial Day Weekend 2010
 - Date for this scenario: 5/30/2010 (Sunday)
- Total Busts of This TFR: 11
- Scenario Approach
 - What the pilot did/didn't do
 - What would you do?

What The Pilot Did

- Departure Airport: East Hampton (KHTO)
- Purpose of Flight:
 - Check for beach erosion down to Southampton
 - Pleasure
- Pre-departure briefing
 - Quick weather check on the computer
- Aircraft: Aviat A1 Husky



What The Pilot Did – Route of Flight



What The Pilot Did Not Do

- **Did not** get a thorough pre-flight briefing from Flight Service
 - Missed the TFR that had been posted on Friday, 5/28/2010
 - Deleted the FAAST Team email notice about the TFR
 - Mistakenly thought it was one he had already seen
- **Did not** take his Garmin 696 with XM Weather
 - Left it at home
- **Did not** have a current medical certificate
 - Forgot his expiration date when his BFR date changed

What Happened Next – TRACON

- FBO met the Husky as soon as it landed
 - Told the pilot to call New York TRACON (Terminal Radar Approach Control)
- Pilot called New York TRACON
 - Gave TRACON his contact information
 - Admitted “busting” the TFR
 - TRACON records **all** communications
- TRACON told pilot he would be contacted by Farmingdale FSDO

What Happened Next – FSDO

- Farmingdale FSDO called pilot in for interview
 - Pilot admitted everything verbally
 - Pilot admitted everything in written/signed statement
- Pilot called lawyer friend for advice
 - No, he did not file a NASA report
 - Friend recommended lawyer specializing in enforcement actions
- FAA filed Notice of Proposed Certificate Action
 - Recklessness under FAR 91.13(a)
 - 120-day suspension of pilot's commercial certificate

What Happened Next – Outcome

- Negotiation resulted in the following
 - Dismissal of recklessness charge under FAR 91.13(a)
 - 120-day suspension of pilot's commercial certificate reduced to 90 days
- Impacts on pilot
 - Enforcement action on pilot's record
 - Aviation insurance
 - Rates may increase
 - Policy could be cancelled

What We Can Learn From This

- FAA prefers an education philosophy for most cases
 - Most mistakes are unintentional
 - Pilots would benefit from counseling and training as opposed to certificate suspensions
- In a post 9-11 world National Security is driving the FAA response to TFR violations
 - USSS (United States Secret Service) has requested that the FAA impose a certificate suspension for all TFR violations, even for first-time offenders
 - Pilots do not help their cause with continuing TFR violations

What We Can Learn From This

- Three things you can do to stay out of trouble
 - Know your route of flight
 - Though there are “pop-ups” many TFRs are not new
 - Get a good pre-flight briefing
 - Monitor the radio and use flight following for VFR
 - If instrument-rated, file an instrument flight plan
 - Use all navigation systems at your disposal
 - Don’t leave anything home

What To Do If Something Happens

- If told to call the tower or TRACON
 - Provide only the requested contact information
 - Do not make admissions, calls are recorded
- Subscribe to and use AOPA Legal Services
- File a NASA Report
 - ASRS – Aviation Safety Reporting System provides immunity from enforcement (FAR 91.25)
 - For General Aviation you can file online at <http://asrs.arc.nasa.gov/report/caveat.html?formType=general>
 - Conditions for use
 - Must not be a deliberate or criminal act
 - Must not be an accident
 - File as many as needed **but** can only use in FAA action once every five years



FAA Enforcement Actions

- FAA Enforcement Actions for TFR Violations will typically include one or both of the following
 - FAR 91.103 – Preflight Action
 - FAR 91.13 – Careless or Reckless Operation
- The above scenario only included FAR 91.13 but could just as easily include FAR 91.103

FAR 91.103 – Preflight Action

- Each pilot in command shall, before beginning a flight, **become familiar with all available information concerning that flight.** This information **must include** –
 - a) For a flight under IFR or a flight not in the vicinity of an airport, **weather reports and forecasts, fuel requirements, alternatives** available if the planned flight cannot be completed, and **any known traffic delays** of which the pilot in command has been advised by ATC;
 - b) For any flight, **runway lengths at airports of intended use**, and the following takeoff and landing distance information:
 - 1) For civil aircraft for which an approved Airplane or Rotorcraft Flight Manual containing takeoff and landing distance data is required, the **takeoff and landing distance data** contained therein; and
 - 2) For civil aircraft other than those specified in paragraph (b)(1) of this section, other reliable information appropriate to the aircraft, relating to aircraft performance under expected values of airport elevation and runway slope, aircraft gross weight, and wind and temperature.

FAR 91.13 – Careless or Reckless Operation

a) Aircraft operations for the purpose of air navigation.

No person may operate an aircraft in a careless or reckless manner so as to endanger the life or property of another. *[In the air]*

b) Aircraft operations other than for the purpose of air navigation.

No person may operate an aircraft, other than for the purpose of air navigation, on any part of the surface of an airport used by aircraft for air commerce (including areas used by those aircraft for receiving or discharging persons or cargo), in a careless or reckless manner so as to endanger the life or property of another. *[On the ground]*

Filling Out NASA ASRS Report Online

<http://asrs.arc.nasa.gov/report/caveat.html?formType=general>

- **The example used is based on the TFR Violation in the above scenario**



Online ASRS Report

The screenshot shows the ASRS website with a navigation bar at the top containing 'Home' and 'Contact Us'. Below the navigation bar is a menu with 'Program Information', 'Report to ASRS', 'Search ASRS Database', 'Safety Publications', 'International', and 'Online Resources'. The main content area is titled 'ELECTRONIC REPORT SUBMISSION (ERS)' and includes a paragraph about secure reporting, a section for 'Prior to Reporting Electronically' with a 'REVIEW THE ERS FREQUENTLY ASKED QUESTIONS (FAQ)' link, and a warning that 'ASRS cannot accept reports through e-mail due to security issues!'. A callout box points to the 'General' link in the 'Submit Reporting Form (ERS)' list, with the text 'Click "General"'. The 'Submit Reporting Form (ERS)' list includes 'General (Pilots, Dispatchers, & Others)', 'Air Traffic Control (Air Traffic Controllers)', 'Maintenance (Mechanics)', and 'Cabin (Cabin Crew)'.

ELECTRONIC REPORT SUBMISSION (ERS)

You may securely send any of the four Aviation Safety reports to ASRS via the internet. For information on reporter confidentiality, immunity policy, and other program information please refer to the pages found under [Program Information](#).

Prior to Reporting Electronically

REVIEW THE ERS FREQUENTLY ASKED QUESTIONS (FAQ). Browser settings are in the ERS [FAQ](#) and are important to the success of your report submission.

NASA has worked to ensure your report is handled securely. Security features include: encryption of your report form during data transmission and storage, and multiple layers of firewalls and security devices. While NASA takes every effort to ensure security, there is potential for vulnerability on the user's end (e.g., spyware, adware, or viruses). For tips on securing your computer prior to report submission please see our [Online Security Tips](#). **The NASA ASRS team suggests that you do not save your completed report to a shared (e.g., company) computer.**

ASRS cannot accept reports through e-mail due to security issues! If electronic report submission is unavailable and there is a time issue, you may want to download, print and mail the reporting form assuring a timely post mark date.

How to Report Electronically

1. Click on the link to the right for the appropriate ASRS form – read the ASRS policy and then click on "Continue to Report." Fill out the form on the computer and click the Submit button at the bottom of the page. If you want to keep a copy of your report for your own records, and you are able to securely print a copy of your report, you must print it **BEFORE** clicking **SUBMIT**, and keep the copy in a secure location. For your security, the ERS system will attempt to clear report information from the form after submission.

Quick Links

- ▶ [Electronic Report Submission \(ERS\)](#)
- ▶ [Download & Print for US Mail](#)

ERS Resources

- ▶ [Frequently Asked Questions \(FAQ\)](#)
- ▶ [Online Security Tips](#)
- ▶ [Contact ERS](#)

Submit Reporting Form (ERS)

- [General](#)
Pilots, Dispatchers, & Others
- [Air Traffic Control](#)
Air Traffic Controllers
- [Maintenance](#)
Mechanics
- [Cabin](#)
Cabin Crew

Click "General"

Online ASRS Report



THE NASA AVIATION SAFETY REPORTING SYSTEM



PLEASE READ THE FOLLOWING

NASA has established an Aviation Safety Reporting System (ASRS) to identify issues in the aviation system which need to be addressed. The program of which this system is a part is described in detail in FAA Advisory Circular 00-46D. Your assistance in informing us about such issues is essential to the success of the program. Please fill out this form as completely as possible.

The information you provide on the identity strip will be used only if NASA determines that it is necessary to contact you for further information. **THIS IDENTITY STRIP WILL BE RETURNED DIRECTLY TO YOU.** The return of the identity strip assures your anonymity.

Section 91.25 of the Federal Aviation Regulations (14 CFR 91.25) prohibits reports filed with NASA from being used for FAA enforcement purposes. This report will not be made available to the FAA for civil penalty or certificate actions for violations of the Federal Air Regulations. Your identity strip, stamped by NASA, is proof that you have submitted a report to the Aviation Safety Reporting System. We can only return the strip to you, however, if you have provided a mailing address. Equally important, we can often obtain additional useful information if our safety analysts can talk with you directly by telephone. For this reason, we have requested telephone numbers where we may reach you.

NOTE: Aircraft accidents should not be reported on this form. Such events should be filed with the National Transportation Safety Board as required by NTSB Regulation 830.5 (49CFR830.5).

Thank you for your contribution to aviation safety.

Click to Continue

Back

Continue to Report



Online ASRS Report

GENERAL FORM

DO NOT REPORT AIRCRAFT ACCIDENTS AND CRIMINAL ACTIVITIES ON THIS FORM.
ACCIDENTS AND CRIMINAL ACTIVITIES ARE NOT INCLUDED IN THE ASRS PROGRAM AND SHOULD NOT BE SUBMITTED TO NASA.
ALL IDENTITIES CONTAINED IN THIS REPORT WILL BE REMOVED TO ASSURE COMPLETE REPORTER ANONYMITY.

IDENTIFICATION STRIP: Please fill in all blanks to ensure return of strip.
NO RECORD WILL BE KEPT OF YOUR IDENTITY. This section will be returned to you.

TELEPHONE NUMBERS where we may reach you for further details of this occurrence.

HOME	<input type="text" value="215-555-1212"/>	HOURS	<input type="text" value="1700-0730"/>
OTHER	<input type="text" value="856-555-1212"/>	HOURS	<input type="text" value="0800-1630"/>

NAME	<input type="text" value="John Doe"/>		
ADDRESS/PO BOX	<input type="text" value="1234 Main Street"/>		
ADDRESS LINE 2	<input type="text"/>		
CITY	<input type="text" value="Mytown"/>	STATE	<input type="text" value="PA"/>
		ZIP	<input type="text" value="19044"/>



Fill in as appropriate for your circumstances

TYPE OF EVENT/SITUATION
<input type="text" value="Possible TFR penetration"/>
DATE OF OCCURRENCE (MM/DD/YYYY)
<input type="text" value="05/30/2010"/>
LOCAL TIME (24 HR. CLOCK) [HH:MM]
<input type="text" value="11:00"/>

PLEASE FILL IN APPROPRIATE SPACES AND CHECK ALL ITEMS WHICH APPLY TO THIS EVENT OR SITUATION.

REPORTER	Reset	FLYING TIME (IN HOURS)
<input type="radio"/> Captain	<input checked="" type="radio"/> Single Pilot	Total Time: <input type="text" value="2900"/> hrs
<input type="radio"/> First Officer	<input type="radio"/> Instructor	Last 90 Days: <input type="text" value="30"/> hrs
<input checked="" type="radio"/> Pilot Flying	<input type="radio"/> Dispatcher: <input type="text"/> yrs.	Time in Type: <input type="text" value="1400"/> hrs
<input type="radio"/> Pilot Not Flying	<input type="radio"/> Other: <input type="text"/>	
<input type="radio"/> Relief Pilot		
<input type="radio"/> Check Airman		



Online ASRS Report

CERTIFICATES & RATINGS		ATC EXPERIENCE Reset	
<input type="text" value="Commercial"/>	Click drop-down button to select	<input type="radio"/> FPL	<input type="radio"/> Developmental
<input checked="" type="checkbox"/> Flight Instructor	<input checked="" type="checkbox"/> Instrument	Radar <input type="text"/>	Supervisory <input type="text"/>
<input checked="" type="checkbox"/> Multiengine	<input type="checkbox"/> Flight Engineer	Non-Radar <input type="text"/>	Military <input type="text"/>
<input type="checkbox"/> Other: <input type="text"/>			
AIRSPACE	CONDITIONS / WEATHER ELEMENTS	LIGHT / VISIBILITY	ATC / ADVISORY SVC.
<input type="checkbox"/> Class A	<input type="text" value="VMC"/>	<input type="text" value="Daylight"/>	<input type="text" value="TRACON"/>
<input type="checkbox"/> Class B	<input type="checkbox"/> Fog	Ceiling: <input type="text" value="12000"/>	ATC Facility Name:
<input type="checkbox"/> Class C	<input type="checkbox"/> Hail	feet	<input type="text" value="NY TRACON"/>
<input type="checkbox"/> Class D	<input type="checkbox"/> Snow	Visibility: <input type="text" value="25"/>	
<input checked="" type="checkbox"/> Class E	<input type="checkbox"/> Thunderstorm	miles	
<input type="checkbox"/> Class G	<input type="checkbox"/> Haze/Smoke		
<input type="checkbox"/> Special Use	<input type="checkbox"/> Turbulence	RVR: <input type="text"/>	
<input checked="" type="checkbox"/> TFR	<input type="checkbox"/> Icing	feet	
	<input type="checkbox"/> Rain		
	<input type="checkbox"/> Windshear		
	Other: <input type="text"/>		

Online ASRS Report

AIRCRAFT 1

Your Aircraft Type: (Make / Model, e.g. B737, NOT N #, Fit #, etc)

Operator FAR Part: Other:

Operator: Other:

Mission: Other:

Flight Plan:

Flight Phase: Other:

Route in Use: Direct Visual Approach Airway (ID):
 Oceanic None STAR (ID):
 Vectors Other: SID (ID):

IF MORE THAN ONE AIRCRAFT WAS INVOLVED, PLEASE ADD AN ADDITIONAL AIRCRAFT.

LOCATION **CONFLICTS**

Altitude: (single value) MSL AGL

Distance: and/or Radial: (bearing) from:
 Airport ATC Fac
 Intersection NAVAID

Estimated miss distance in feet:
Horizontal Vertical

Was evasive action taken? Yes No
Was TCAS a factor? TA RA No
Did terrain warning system activate? Yes No



Online ASRS Report

DESCRIBE EVENT/SITUATION

Keeping in mind the topics shown below, discuss those which you feel are relevant and anything else you think is important. Include what you believe really caused the problem, and what can be done to prevent a recurrence, or correct the situation.

Departed East Hampton (KHTO) and flew along coast to Southampton to inspect beach erosion. When landed back at KHTO, FBO told me to call NY TRACON about TFR violation

**Type in a description in your own words of what happened.
Consider the guidelines listed below.**

CHAIN OF EVENTS	HUMAN PERFORMANCE CONSIDERATIONS
<ul style="list-style-type: none">- How the problem arose- Contributing factors	<ul style="list-style-type: none">- How it was discovered- Corrective actions- Perceptions, judgements, decisions- Factors affecting the quality of human performance- Actions or inactions

NASA ARC 277B (May 2009) GENERAL FORM **Click to submit** v0.2.7

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Parting Thoughts



The Three Most Useless Things to a Pilot

- **The runway behind you**
 - **Moral:** know your aircraft's take-off minimums and cross-wind component, your airport's runway length, density altitude, any obstacles to be cleared
- **The altitude above you**
 - **Moral:** know your aircraft's power settings for climb, cruise, and descent
- **The fuel on the ground below you**
 - **Moral:** know your aircraft's fuel capacity, fuel system, GPH burn rate, and winds aloft for the route of flight.
- **Utilize superior judgment to avoid needing to use superior skill**

Just a Real Nice Picture



Credits and Information



References and Information

- **North America Air Defense Command (NORAD) on Intercepts, ICAO Signals, and Rules of Engagement**
- **Electronic Code of Federal Regulations – Title 14 Aeronautics and Space**
 - http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?sid=fd0d4ed9821626f95caf8cad8372ce03&c=ecfr&tpl=/ecfrbrowse/Titl e14/14tab_02.tpl
- **Electronic Code of Federal Regulations – Title 14 Chapter I-- Federal Aviation Administration, Department of Transportation, Subchapter D – Airmen**
 - http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?sid=fd0d4ed9821626f95caf8cad8372ce03&c=ecfr&tpl=/ecfrbrowse/Titl e14/14cfrv2_02.tpl



References and Information

- **FAA Alaskan Advisories, ICAO Intercept Signals Standard**
 - http://www.faa.gov/about/office_org/headquarters_offices/ato/service_units/systemops/fs/alaskan/advisories/adiz/media/AKSupp-1-15-09-InterceptProcedures.pdf
- **FAA TFR Website**
 - <http://tfr.faa.gov>
- **AOPA TFR Website**
 - <http://www.aopa.org/tfr>
- **Garmin G1000 Multi-Function Display (MFD)**
 - Illustration of NexRad and TFRs
- **Flying Magazine, Russell Munson, “TFR Trouble: How An Experienced Pilot with A Clean Record Flying Along the Beach Got Nailed,” February 2011, pp 62-66**



References and Information

- **Author of Presentation**

- William J. Doyle, Jr., CFI A&I, AGI, IGI, Cessna CFAI
 - FAA FFAST Team Representative, PHL FSDO

- **Downloading This Presentation**

- <http://williamjdoylejr.net/FAAST/Intercepts.ppt>
 - Uses PowerPoint 2003 and later
 - Password-protected, so click on the “Read Only” button
- <http://williamjdoylejr.net/FAAST/Intercepts.pdf>
 - Uses Adobe Acrobat Reader version
 - Recommended for use with iPads
- <http://williamjdoylejr.net/FAAST>
 - Entire collection of FFAST presentations by W. J. Doyle, CFI A&I

Just a Real Nice Picture



FAASTeam
on
Pilot Deviations: Airborne Intercepts –
Handling and Avoiding

Questions?

Comments?

Ideas?



This Completes

Pilot Deviations: Aircraft Interceptions – What To Do During and After the Interception

Be sure to have your attendance record validated!

