



Leidos Flight Service: Weather & Briefing Tools

Bridgewater State University

April 19, 2022

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Topics

- Aviation Accidents Due to Weather & Stats
- Pop Quiz – Weather Briefing Myths
- Why do pilots call Flight Service?
- AC 91-92: Pilot's Guide to a Preflight Briefing
 - Added Value Briefings
- Mobile Devices
- Online & Phone (IVR) Capabilities
- Useful Online Resources

Live Online Demonstration

- Graphical Checklist & Priority Services
- Interactive Map/Local Area Knowledge
- Retrieve saved favorite flight plan
- Evaluate Departure Time
- Optimize Altitude
- File Flight Plan
- Plan a Route
- Request Route Brief
- EasyActivate©, EasyAmend & EasyClose©
- Voice & Text Services
- ACAS
- Leidos Preflight Activity Summary

Aviation Accidents due to Weather

“Weather is often cited as a cause or contributing factor, accounting for roughly 25% of the accidents occurring in general aviation operations.”

Part 91 Weather-Related Accidents 2008-2020

Part 91	Weather-Related	<u>Non Weather-Related</u>	Total Events	Weather-Related Percentage
Accidents	3,637	12,108	15,745	23%
Fatal Accidents	823	2,027	2,850	29%

D.Eick/E.Emery NTSB 2022

- Average 1,310 accidents annually
 - Weather-related average ~300 accidents – account for 23% total
 - Fatal weather-related average 68 accidents – account for 29% of fatal

- ▶ Andrew J. Fultz & Walker S. Ashley (2016): Fatal weather-related general aviation accidents in the United States, Physical Geography, DOI: 10.1080/02723646.2016.1211854

Aviation Accidents due to Weather

General Aviation Accidents: 2012-2021

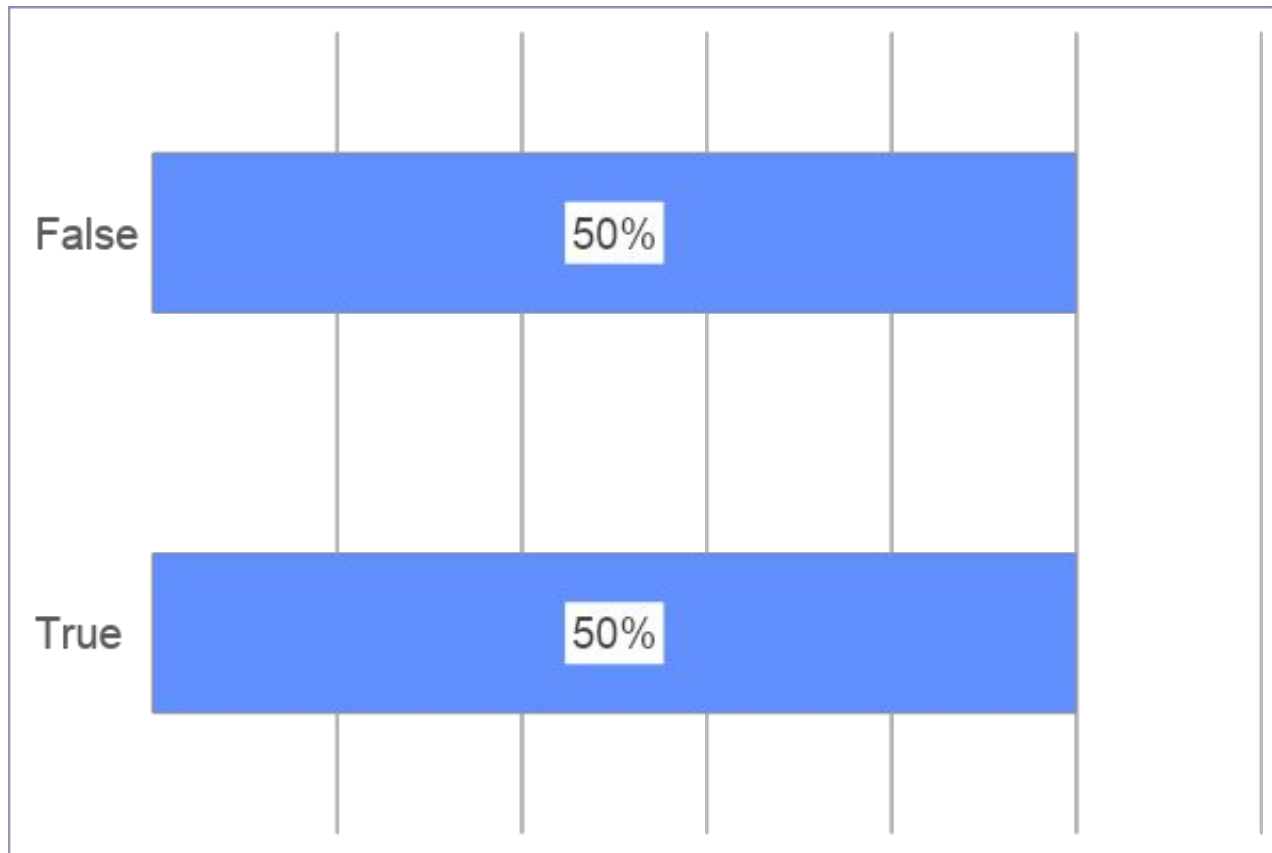


- ▶ Primarily in the General Aviation, Personal Flight category
- ▶ VFR into IMC conditions continues to be the #1 cause of WX related fatalities

Source: NTSB 2022

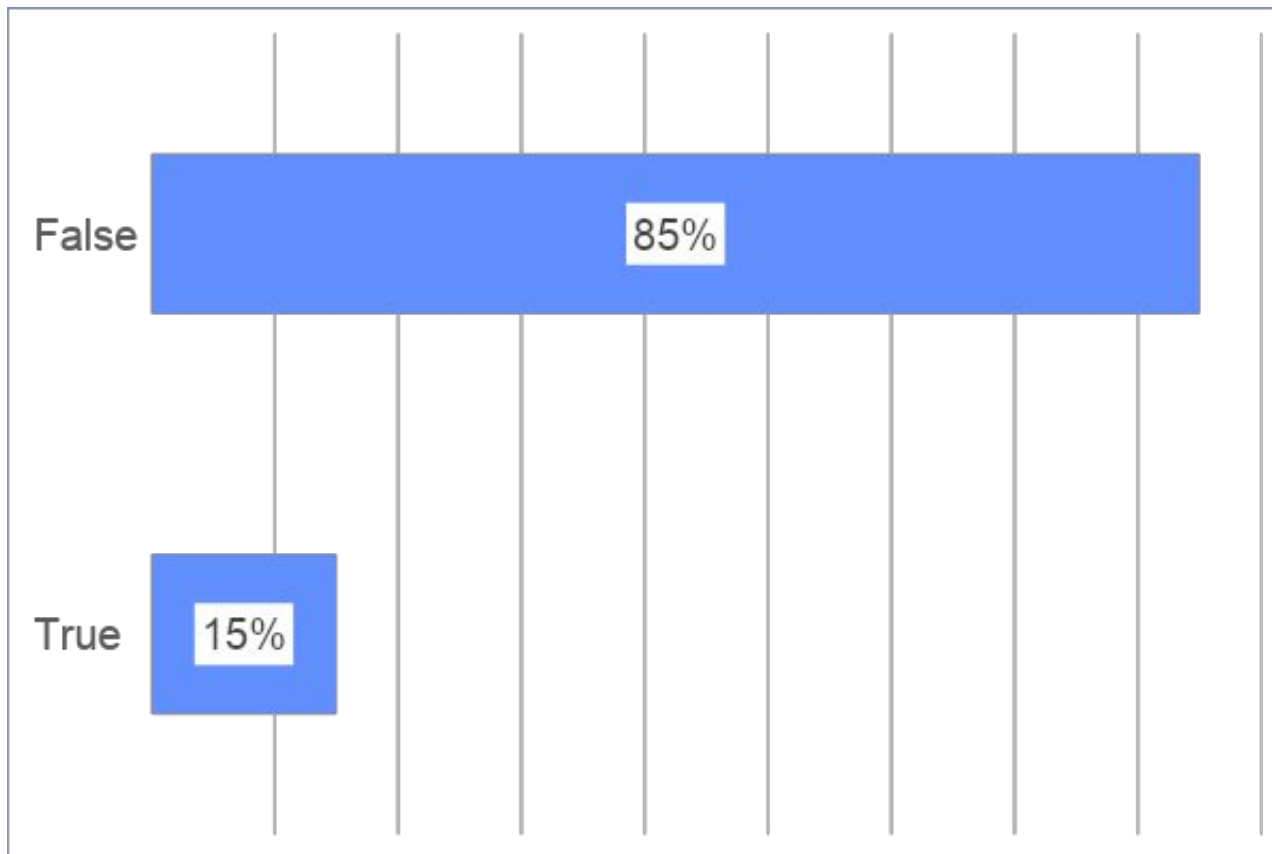
Pop Quiz

The Concept of a “legal briefing” or “certified briefing” is real and defined by the FAA.



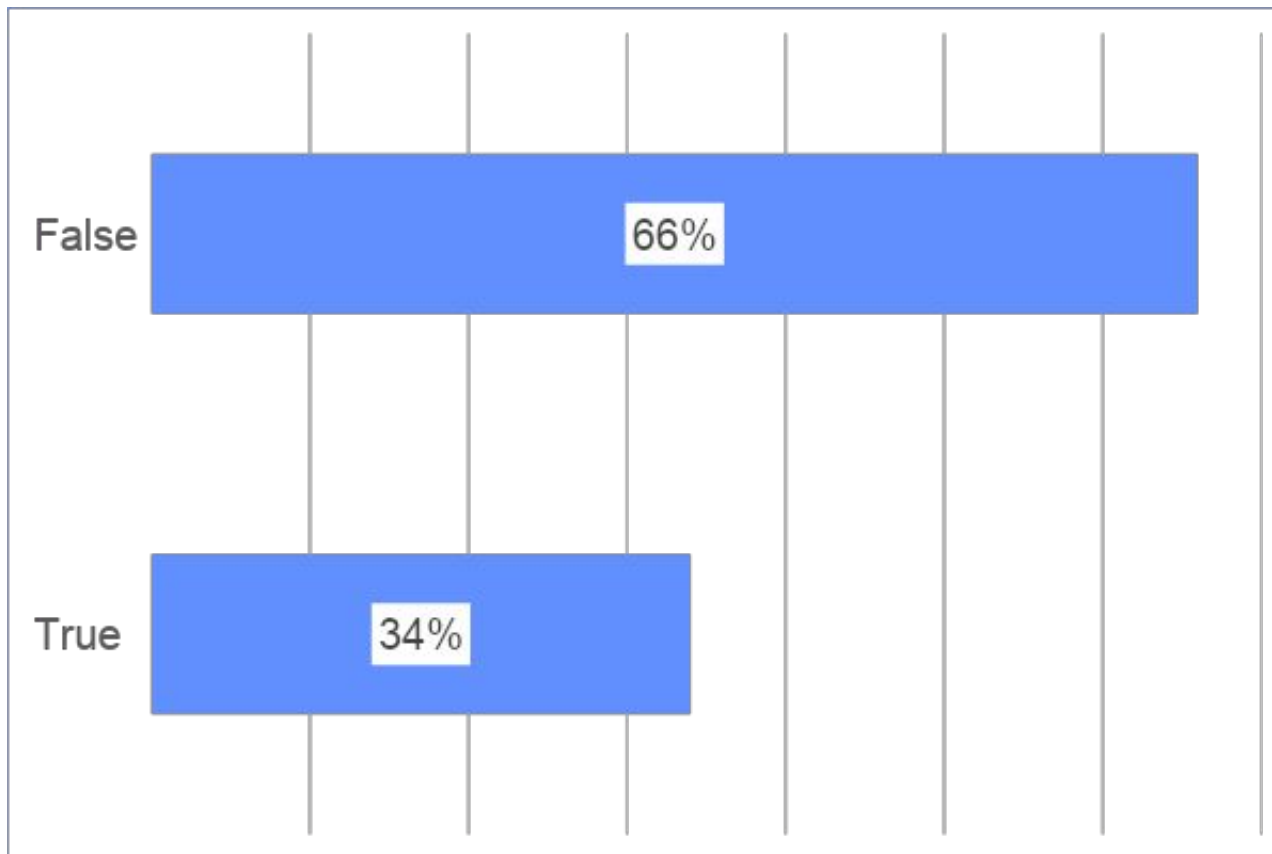
Pop Quiz

A pilot needs to call Flight Service to be compliant with FAR 91.103 for preflight planning.



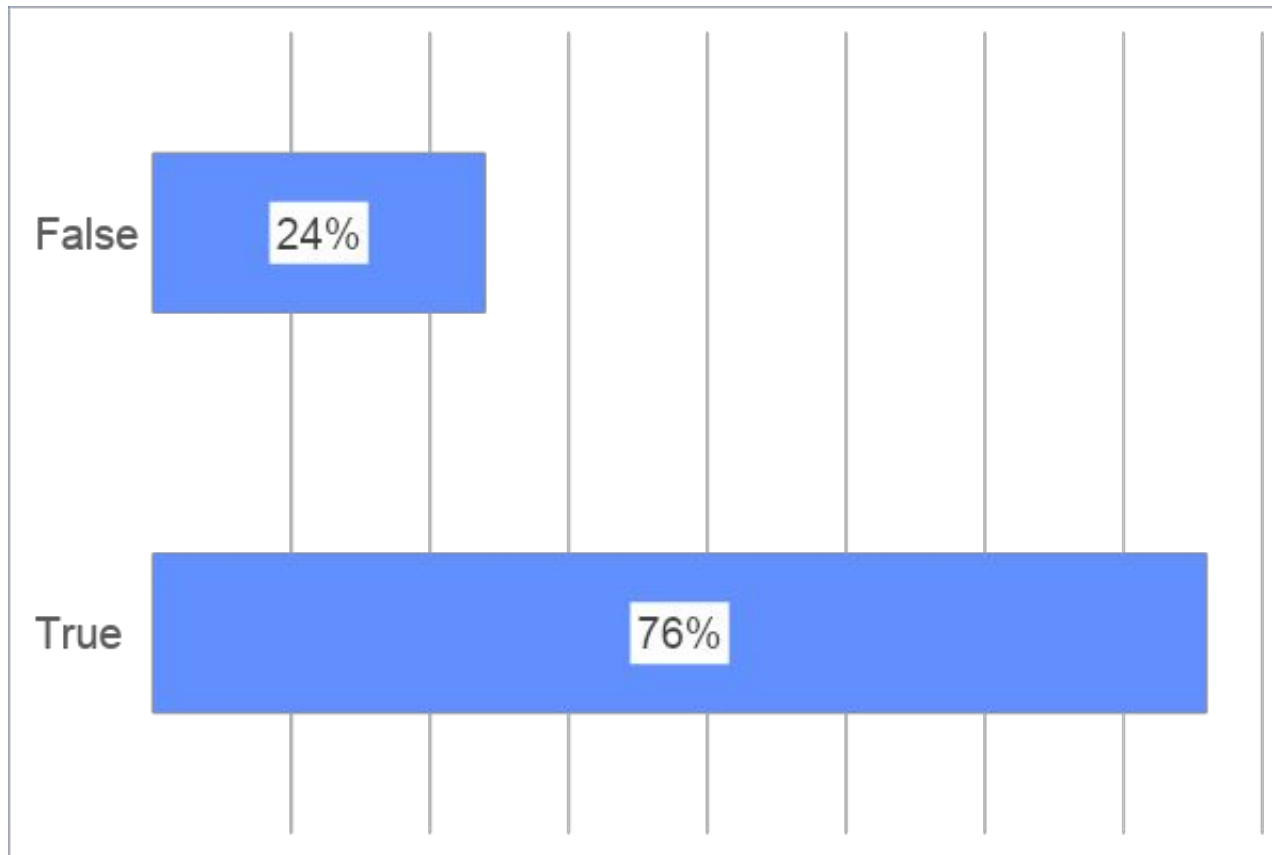
Pop Quiz

The FAA requires a self-briefing to be recorded or digitally logged as proof that the briefing was conducted.



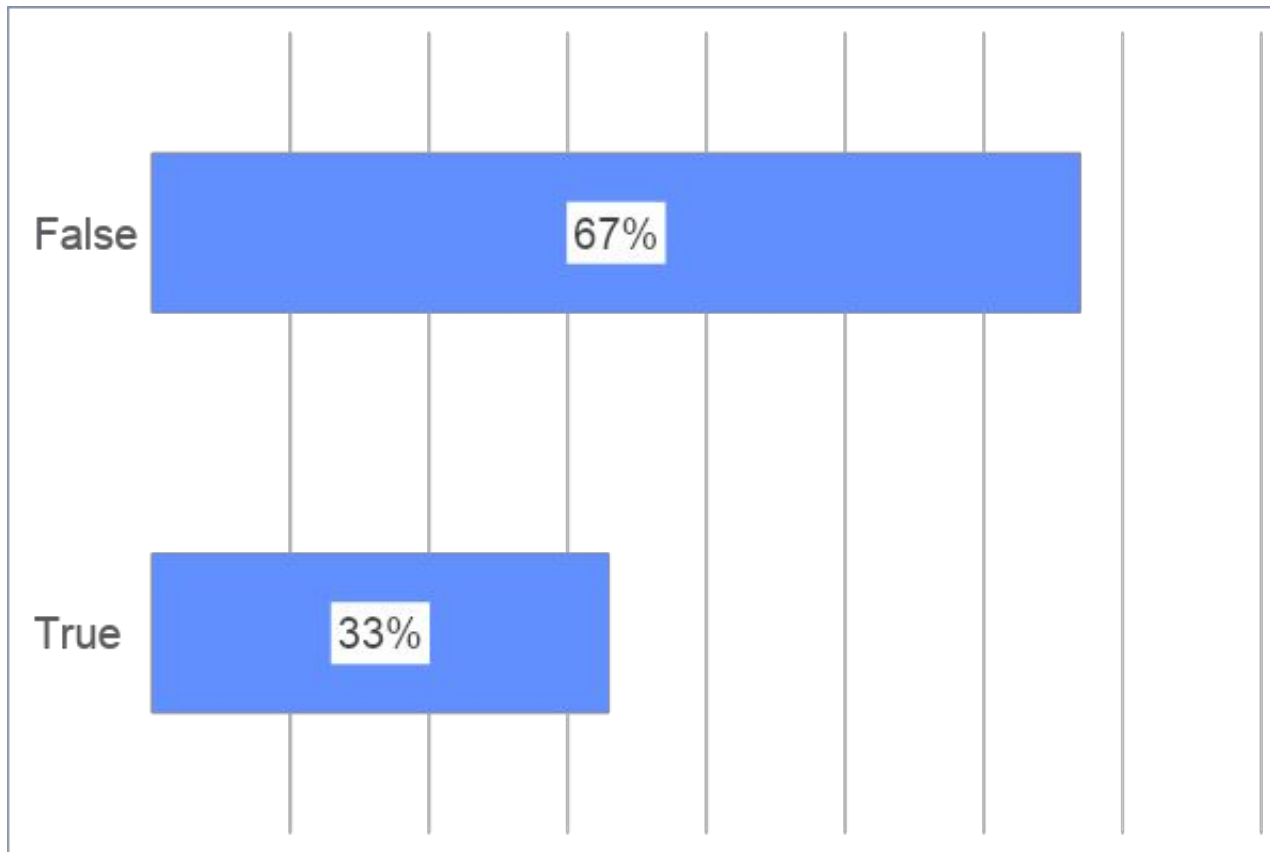
Pop Quiz

The FAA has described how a pilot may be compliant with FAR 91.103 while conducting a preflight self-briefing.



Pop Quiz

As part of its modernization, Flight Service will no longer provide phone services.



Why Do Pilots Call Leidos Flight Service?

- 14 CFR part 91, § 91.103 – Preflight Action
 - Each pilot in command shall, before beginning a flight, become familiar with all available information concerning that flight.
- AIM, AC 00-45, AC 90-100/108 References
 - Receive a preflight briefing: phone, A/G radio, previously able to visit FSS.
 - FSS primary source for obtaining preflight briefings.
 - You were encouraged to obtain your preflight briefing by telephone or in person before departure.
 - Pilots should call FSS if there are any questions about weather that is different than forecasted.
- Last minute check for TFRs and NOTAMs

AC 91-92: Pilot's Guide to a Preflight Briefing

- Educational roadmap for the development and implementation of preflight self-briefings
 - Flight Planning
 - Weather Interpretation
 - Risk Identification/Mitigation Skills
- Adhering to the guidelines will better prepare pilots to interpret and use real-time weather information
 - Before departure
 - En-route (in the cockpit using ADS-B)
- Provides guidance for required preflight actions under Title 14 of the Code of Federal Regulations (14 CFR) part 91, § 91.103
- Encourages pilots to use Flight Service in a consultative capacity, when needed

Mobile Devices

- Use the same desktop/laptop web address
 - www.1800wxbrief.com
 - Auto-redirect to the smart phone, tablet, etc.
- Automatically determines your device screen size and display
- Designed for use on:
 - iPhone
 - iPad
 - Samsung Galaxy
 - LG Nexus
 - Google Pixel
 - Android

Online Capabilities

- ICAO Flight Planning
- Route/Area Briefings and NavLog
- Interactive Map
- Easy access to TAFs, METARs, and NOTAMs
- Weather Charts – CONUS, Hawaii, Alaska
- Favorite/Recent Flight Plans and Saved Aircraft
- Account and Aircraft Management
- Advanced Services
 - ACAS, EasyActivate[®], EasyClose[®], Close Reminder, SE SAR, Preflight Summaries, ATC Notices, EasyAmend, Alexa & Google Assistant, Priority Services
- Pilot History

IVR System Upgrade

Pilot must have unique PilotWeb Account linked to a primary phone number.

The call to 1-800-WX-BRIEF must come from the primary phone number on file to receive IVR services.

IVR System Upgrade

- **Activate VFR Flight plans via automated phone system**
 - “Press 3 to activate your VFR Flight plan for TTTAW departing at 1300z from KADS”
 - How many minutes from now would you like to activate your flight plan?
 - Enter a number between 0-30, followed by #.
 - “Your flight plan has been activated with a departure time of 1310z”
- **Close VFR Flight plans via automated phone system**
 - “Press “2” to close your VFR Flight Plan from KADS to KOKC”
- **System Nuances – Activations**
 - System will not offer Activation Services if more than one Flight plan is detected for the same departure time.
- **System Nuances – Closures**
 - System will not offer Closure Services if the flight plan is in SAR/Overdue status.

Useful Online Resources

VFR WINGS Course – How to Conduct Preflight Self-Briefings for Student and VFR Pilots

AC 91-92 - Pilot's Guide to a Preflight Briefing

IFR WINGS Course – Coming Spring 2022

Thank you from all of us at
Leidos Flight Service

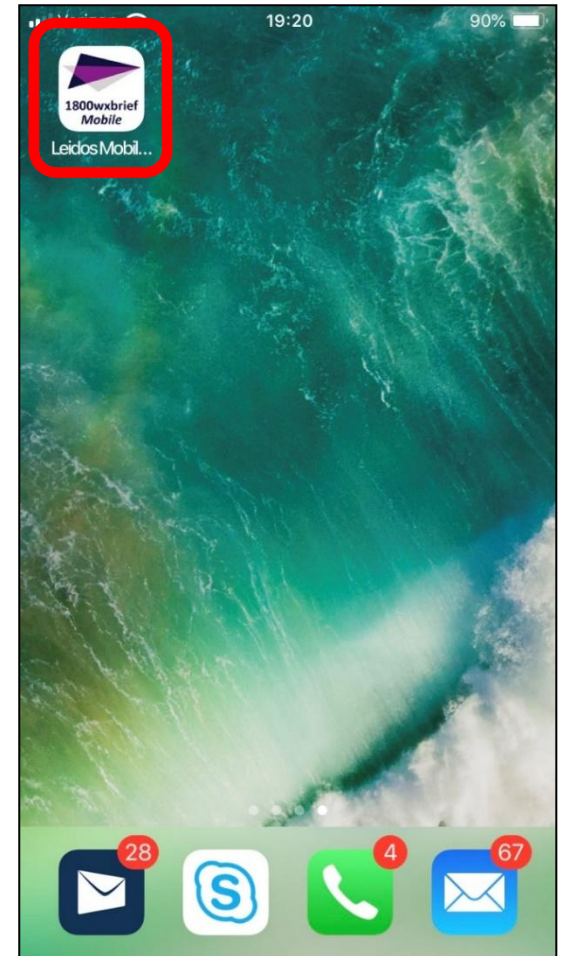
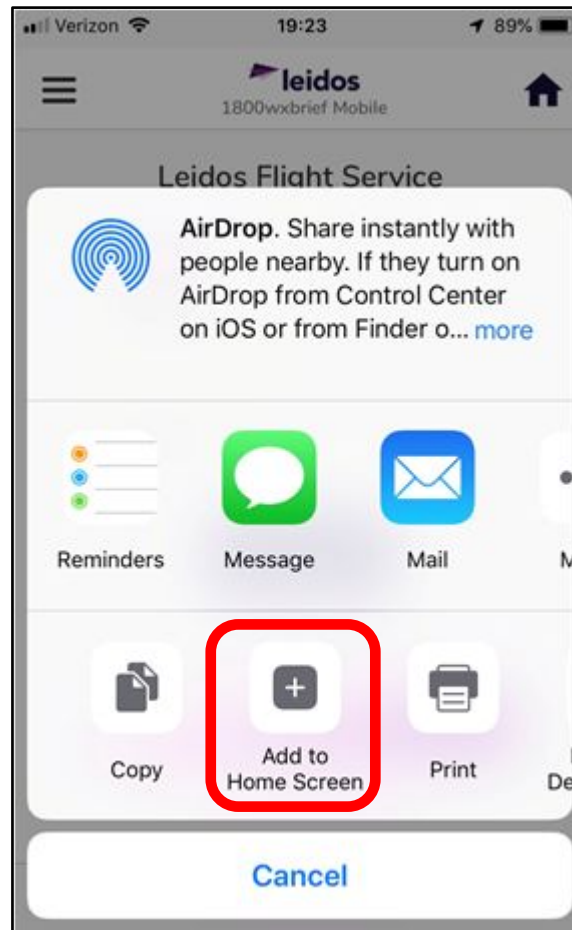
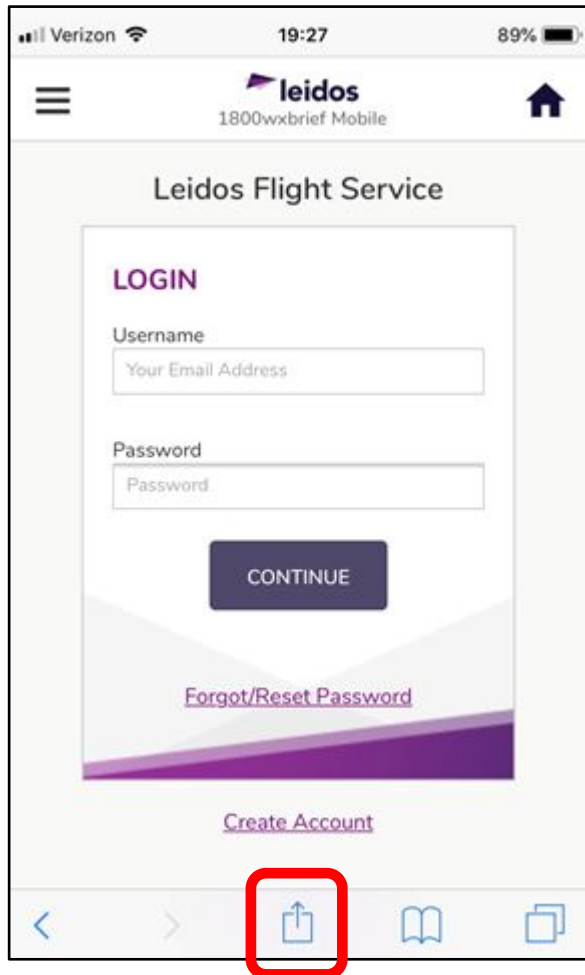
www.1800WxBrief.com

Leidos On-Line Live Demonstration

Support Slides


Creating a Home Screen Shortcut



Access the Mobile Web using www.1800wxbrief.com





Pilot Services


METARs, TAFs, and NOTAMs



1800wxbrief Mobile





DASHBOARD


 MAP

 WX CHARTS

 NEW FLIGHT PLAN

 FAV/RECENT PLANS

 STANDARD BRIEF

 METAR-TAF-NOTAM

CURRENT FLIGHT PLANS

KMCO > KRDU 0221 1126 *Active* 

EST


KRDU > KHWY 0221 1600 *Filed* 



EST


KHWY > KRDU 0222 1000 *Draft*

EST

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METAR-TAF-NOTAM
Updated At 01:17Z

FAVORITES

SEARCH


[Manage Favorite Airports](#)



☒ METAR ☒ TAF ☐ NOTAM ☐ Plain Text


KORL
VFR KORL 150053Z 11008KT 10SM CLR 21/16 A3012 RMK AO2 SLP204 T02110156
No TAFs exist for this location.

KFLL
VFR SPECI KFLL 150110Z 11013KT 10SM FEW022 SCT032 SCT055 24/19 A3010 RMK AO2 T02440189
VFR TAF KFLL 142320Z 1500/1606 09012KT P6SM SCT025 SCT035 BKN060
VFR FM150100 10008KT P6SM FEW025 SCT060
VFR FM151400 12013KT P6SM SCT035 SCT060
VFR FM160100 12008KT P6SM FEW025 SCT060 =

KMLB
VFR KMLB 150053Z 11007KT 10SM CLR 22/17 A3013 RMK AO2 SLP202 T02220167
VFR TAF KMLB 142320Z 1500/1524 13009KT P6SM FEW250
VFR FM150600 13005KT P6SM SCT250


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METAR-TAF-NOTAM
Updated At 12:34Z

FAVORITES

SEARCH

LAL PHK MIA

GO

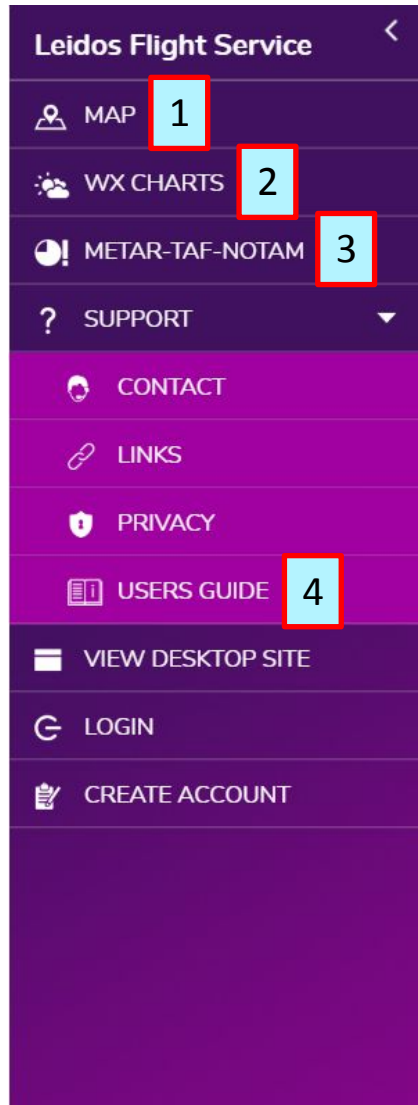
☒ METAR ☐ TAF ☐ NOTAM ☒ Plain Text

LAL
MVFR Lakeland Linder International, Lakeland, FL (KLAL). Apr 7, 1150Z. Mist, Wind from 090° at 5 knots, 5 statute miles visibility, Scattered Clouds at 1,000 feet, Temperature 20°C, Dewpoint 19°C, Altimeter is 30.19.

PHK
No METARs exist for this location.

MIA
VFR Miami International, Miami, FL (KMIA). Apr 7, 1153Z, Corrected. Wind from 100° at 8 knots, 10 statute miles visibility, Few clouds at 2,500 feet, Ceiling is Broken at 25,000 feet, Temperature 24°C, Dewpoint 22°C, Altimeter is 30.15. Remarks: automated station with precipitation discriminator sea level pressure 1020.9 hectopascals hourly temp 24.4°C dewpoint 21.7°C 6-hour max temp 24.4°C 6-hour min temp 23.9°C 3-hour atmospheric

Features Accessible without Logging In



1. Interactive Map

- Route Display
- Current/forecast Wx products
- Adverse conditions & Aeronautical information
- Variety of background maps

2. Weather Charts

- Static weather charts

3. METAR-TAF-NOTAM Viewer

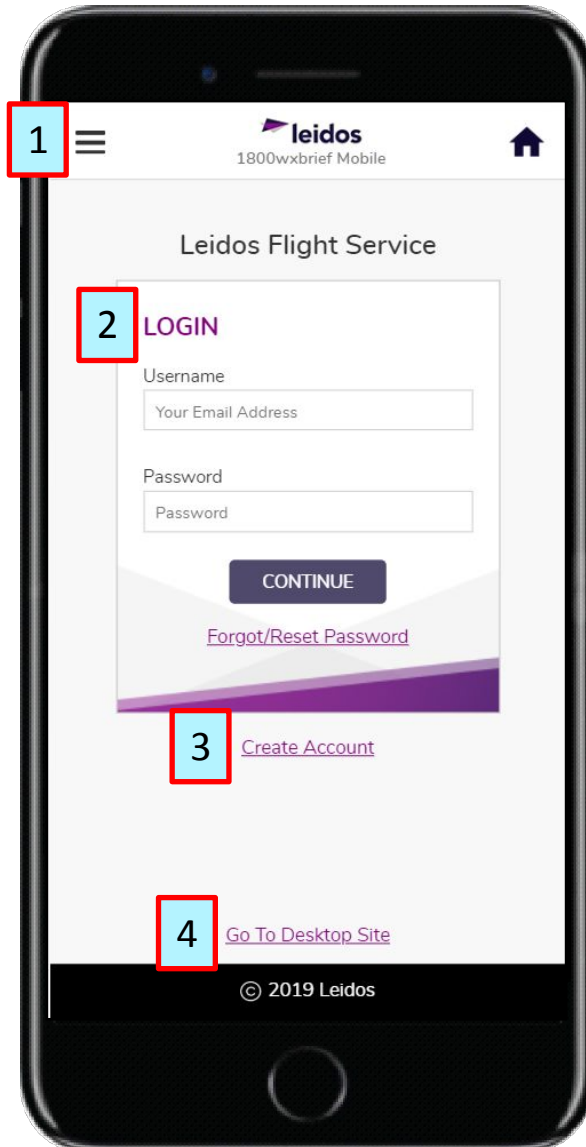
- On demand for an airport or several airports
- Display encoded (raw text)
- Display decoded (plain text)

4. Mobile Web Users Guide

- Provides a detailed description of all features


Mobile Web Home Screen



Access the Mobile Web using your existing www.1800wxbrief.com account




1. Navigation Menu
 - Access all features when logged in
2. Login Dialog
 - Use existing 1800wxbrief.com credentials
3. Create New Account
 - For pilots that do not have an existing 1800wxbrief.com account
4. Go To Desktop Site
 - Full desktop capability
 - Access to domestic flight plan form


Weather



1800wxbrief Mobile





DASHBOARD


1  MAP

2  WX CHARTS



 NEW FLIGHT PLAN

 FAV/RECENT PLANS

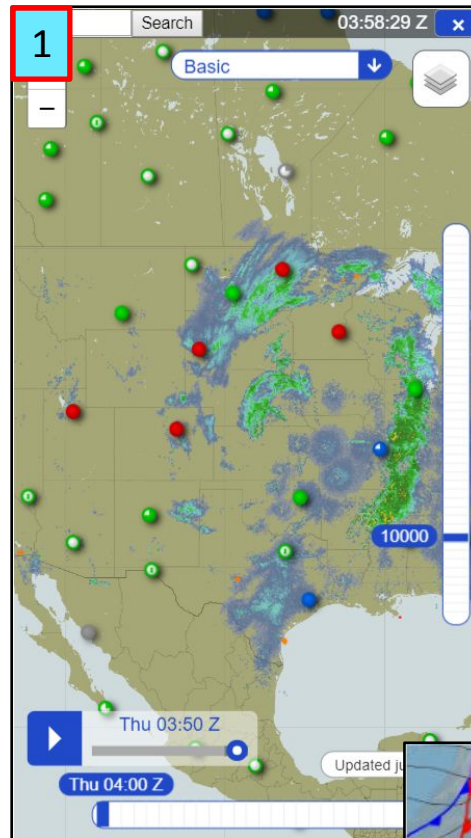
 STANDARD BRIEF

 METAR-TAF-NOTAM


CURRENT FLIGHT PLANS



KMCO > KRDU 0221 1126	Active	
EST		
KRDU > KHWY 0221 1600	Filed	
EST		
KHWY > KRDU 0222 1000	Draft	
EST		

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2


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WEATHER CHARTS

Region

CONUS

Current Weather

[Surface Analysis](#)

[Weather Depiction](#)

Surface Progs

[12 Hr](#)

[24 Hr](#)

[36 Hr](#)

[48 Hr](#)

Millibar Charts

[FL050/850MB](#)

[FL100/700MB](#)

[FL180/500MB](#)

[FL300/300MB](#)

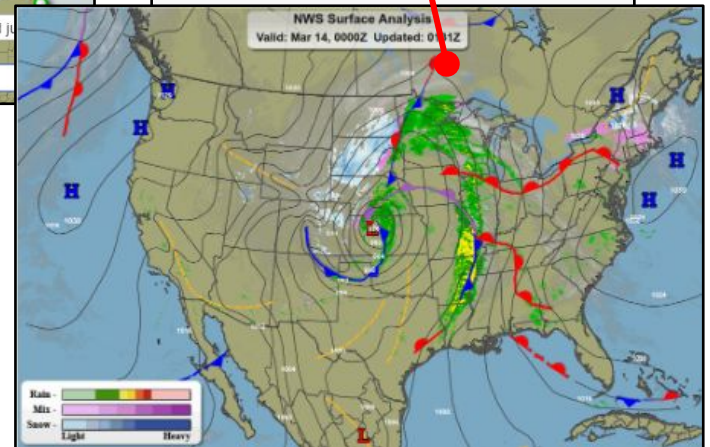
[FL340/250MB](#)

[FL390/200MB](#)

Lo-Level Sig Progs

[12 Hr](#)

[24 Hr](#)



New, Favorite, and Recent Flight Plans

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DASHBOARD

MAP WX CHARTS

1 NEW FLIGHT PLAN 2 FAV/RECENT PLANS

STANDARD BRIEF METAR-TAF-NOTAM

CURRENT FLIGHT PLANS

KAOO > KMIA 0321 2030 EDT *Active* 3 !

KMIA > KAOO 0320 1200 EDT *Filed* !

KCLT > KBCB 0321 EDT *Draft*

Indicates Adverse Conditions are present

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FLIGHT PLAN *Draft*

MAP STD BRIEF NAVLOG

FILE DELETE

RETURN FP NEXT LEG SAVE AS FAV

Aircraft ID: N12345 Flight Rule: VFR

Flight Type: G No. of Aircraft: 1

Aircraft Type: P28R Wake Turbulence: L

Aircraft Equipment: S Surveillance Equipment: C

Departure: KORL Departure Date: 03/14/2019

Departure Time: 16:15 Departure Time Zone: EDT

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FAVORITES (8) **RECENT (2)**

Select row to FILE or BRIEF

KBCB-KCLT

MYAB TO MYAN

CWB TO CYU

KBCB TO KCLT

KAOO

KORL TO K...

Touch to File/Brief Favorite FP

Touch to Edit Favorite FP

ADVERSE CONDITIONS
KMIA > KAOO 0320 1200 EDT

ALERT 1 OF 2




WAUS42 KKCI 200154 AAB MIAT WA 200154 AMD AIRMET TANGO UPDT 6 FOR TURB AND STG SFC WINDS VALID UNTIL 200300. AIRMET TURB...FL AND C STL WTRS FROM 220ENE TRV TO 180E PBI TO 70ENE PBI TO 150SE MIA TO 80WSW EYW TO 90WSW PIE TO SRQ TO 220ENE TRV MOD TURB BTN


ACKNOWLEDGE


Map showing flight path from KAOO to KMIA.


1 OF 2


Standard Briefings



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DASHBOARD


 MAP

 WX CHARTS

 NEW FLIGHT PLAN

 FAV/RECENT PLANS


 STANDARD BRIEF

 METAR-TAF-NOTAM

CURRENT FLIGHT PLANS


KMCO > KRDU 0221 1126
EST

Active



KRDU > KHWY 0221 1600
EST

Filed



KHWY > KRDU 0222 1000
EST

Draft



BRIEF

N12345 KORL > KMIA 14 22:00 EDT

KORL (Departure) Closest Terminal Weather

☐ Plain Text

KORL (Departure) Closest Terminal Weather

METAR KORL 150053Z 11008KT 10SM CLR 21/16 A3012
RMK AO2 SLP204 T02110156

METAR KORL 142353Z 11009KT 10SM CLR 23/15 A3012
RMK AO2 SLP201 T02280150 10289 20228 53008

METAR KORL 142253Z 12012KT 10SM CLR 25/15 A3010
RMK AO2 SLP195 T02500150

TAF for KORL is not available. For additional forecast
information, please refer to other forecast sections in this
briefing

KORL (Departure) NOTAMs

All published NOTAMs are available in the Notices to Airmen
Publication (NTAP).

==== Obstruction NOTAMs ====

IORL 02/025 KORL OBST CRANE (ASN 2017-ASO-25781-
OE) 283219.42N0812251.97W (2.58NM W OF ORL) 501FT
(3925T AGL) CTD FL ACCEP 1802161200 1808092100

CLOSE

BRIEF

N12345 KORL > KMIA 14 22:00 EDT

KORL (Departure) Closest Terminal Weather

☒ Plain Text

KORL (Departure) Closest Terminal Weather

METAR KORL 150053Z Executive, Orlando, FL (KORL). Mar
15, 0053Z. Wind from 110° at 8 knots, 10 statute miles
visibility, Clear Skies, Temperature 21°C, Dewpoint 16°C,
Altimeter is 30.12. Remarks: automated station with
precipitation discriminator sea level pressure 1020.4
hectopascals hourly temp 21.1°C dewpoint 15.6°C

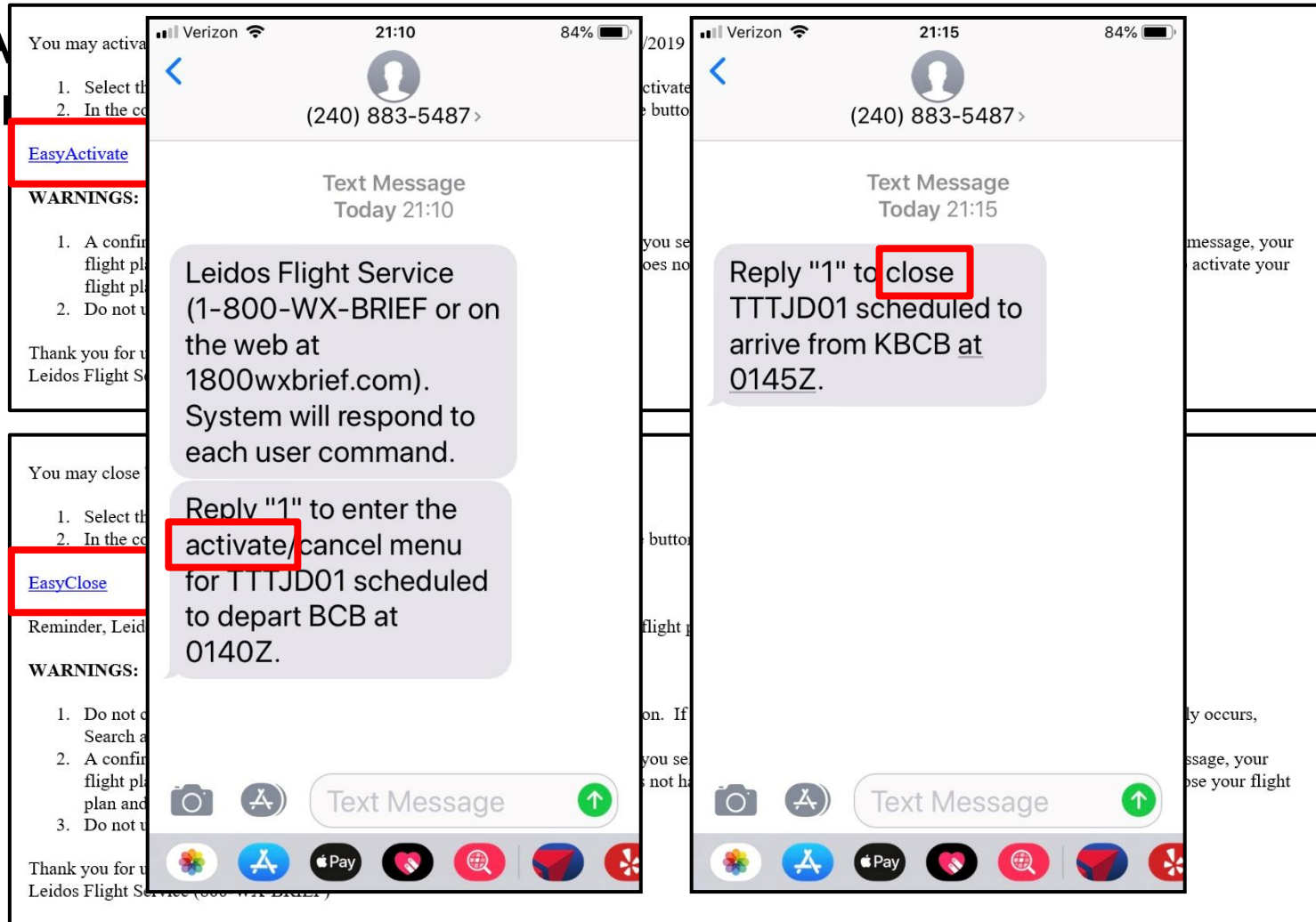
METAR KORL 142353Z Executive, Orlando, FL (KORL). Mar
14, 2353Z. Wind from 110° at 9 knots, 10 statute miles
visibility, Clear Skies, Temperature 23°C, Dewpoint 15°C,
Altimeter is 30.12. Remarks: automated station with
precipitation discriminator sea level pressure 1020.1
hectopascals hourly temp 22.8°C dewpoint 15.0°C 6-hour
max temp 28.9°C 6-hour min temp 22.8°C 3-hour
atmospheric pressure decreasing or steady, then increasing;
or increasing then increasing more rapidly by 0.8
hectopascals

METAR KORL 142253Z Executive, Orlando, FL (KORL). Mar
14, 2253Z. Wind from 120° at 12 knots, 10 statute miles
visibility, Clear Skies, Temperature 25°C, Dewpoint 15°C,
Altimeter is 30.10. Remarks: automated station with
precipitation discriminator sea level pressure 1019.5
hectopascals hourly temp 25.0°C dewpoint 15.0°C

CLOSE

EasyActivate™ and EasyClose™

- A list



Interactive Map and NavLog

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FLIGHT PLAN *Draft*

1

MAP

STD BRIEF

2

NAVLOG

FILE

DELETE

RETURN FP

NEXT LEG

SAVE AS FAV

Aircraft ID

N12345

Flight Rule

VFR

Flight Type

G

No. of Aircraft

1

Aircraft Type

P28R

Wake Turbulence

L

Aircraft Equipment

S

Surveillance Equipment

C

Departure

KORL

Departure Date

03/14/2019

Departure Time

16:15

Departure Time Zone

EDT

1

Search

01:48:55 Z

Basic

10000

Fri 01:40 Z

Fri 02:00 Z

Updated just now.

1

2

NAVLOG

KORL > KMIA

Aircraft	N12345	Est Date/Time	03/14/2019 22:00EDT	Departure	KORL
Destination	KMIA	Route	PHK	Altitude	9500 ft
Distance	174 nm	Time	01:11:05	Fuel	

COLLAPSE LEG DETAILS

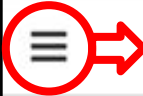
KORL		Wind: 109/008	
28°32.7' / -81°20.0'		Temp: 019	
MH 164	Leg 111 nm	ETE 046 min	
MC 169	Rem 63 nm	GS 144 kt	

PHK		Wind: 034/002	
26°47.0' / -80°41.5'		Temp: 010	
MH 166	Leg 63 nm	ETE 025 min	
MC 167	Rem 0 nm	GS 151 kt	

KMIA		Wind: 098/017	
25°47.7' / -80°17.4'		Temp: 025	

CLOSE

Pilot History



Joe Pilot
joe.pilot@internet.com

DASHBOARD

NEW FLIGHT PLAN

STANDARD BRIEF

MAP

WX CHARTS

METAR-TAF-NOTAM

ACCOUNT

UPDATE AIRCRAFT




UPDATE ACCOUNT

PILOT HISTORY

SUPPORT

VIEW DESKTOP SITE

LOGOUT

	 1800wxbrief Mobile	
Mar 15, 0112Z	N12345 KORL > KMIA	
Route Standard Briefing		
Mar 15, 0110Z	N12345 KORL > KMIA	
Route Standard Briefing		
Mar 12, 1734Z	TTTJD01 BCB > ROA	
Route Standard Briefing		
Mar 12, 0150Z	N12345 KAOO > KMCN	
Route Standard Briefing		
Mar 11, 0023Z	N12345 KMCO > KRDU	
Route Standard Briefing		
Mar 11, 0020Z	TTTJD01 KMCO > KRDU	
Route Standard Briefing		
Mar 8, 1637Z	TTTJD01 W42 > MCN	
Route Standard Briefing		
Mar 8, 1629Z	DEMO11 KAOO > KMCN	
Cancel Flight Plan		
Mar 8, 1628Z	DEMO11 KAOO > KMCN	VIEW DETAILS
File Flight Plan		
Mar 8, 1614Z	DEMO11 KAOO > KMCN	VIEW DETAILS
File Flight Plan		
Mar 6, 0332Z	DEMO11 KAOO > KMCN	
Cancel Flight Plan		

MAR 8, 1628Z

DEMO11 KAOO > KMCN

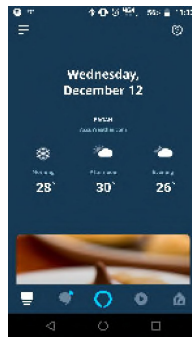
<

Devices and Apps

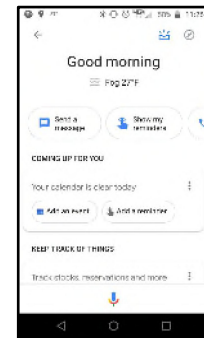
- Smart speaker device
- Alexa or Google Assistant App
- iPhone or Android



Amazon Echo Alexa App



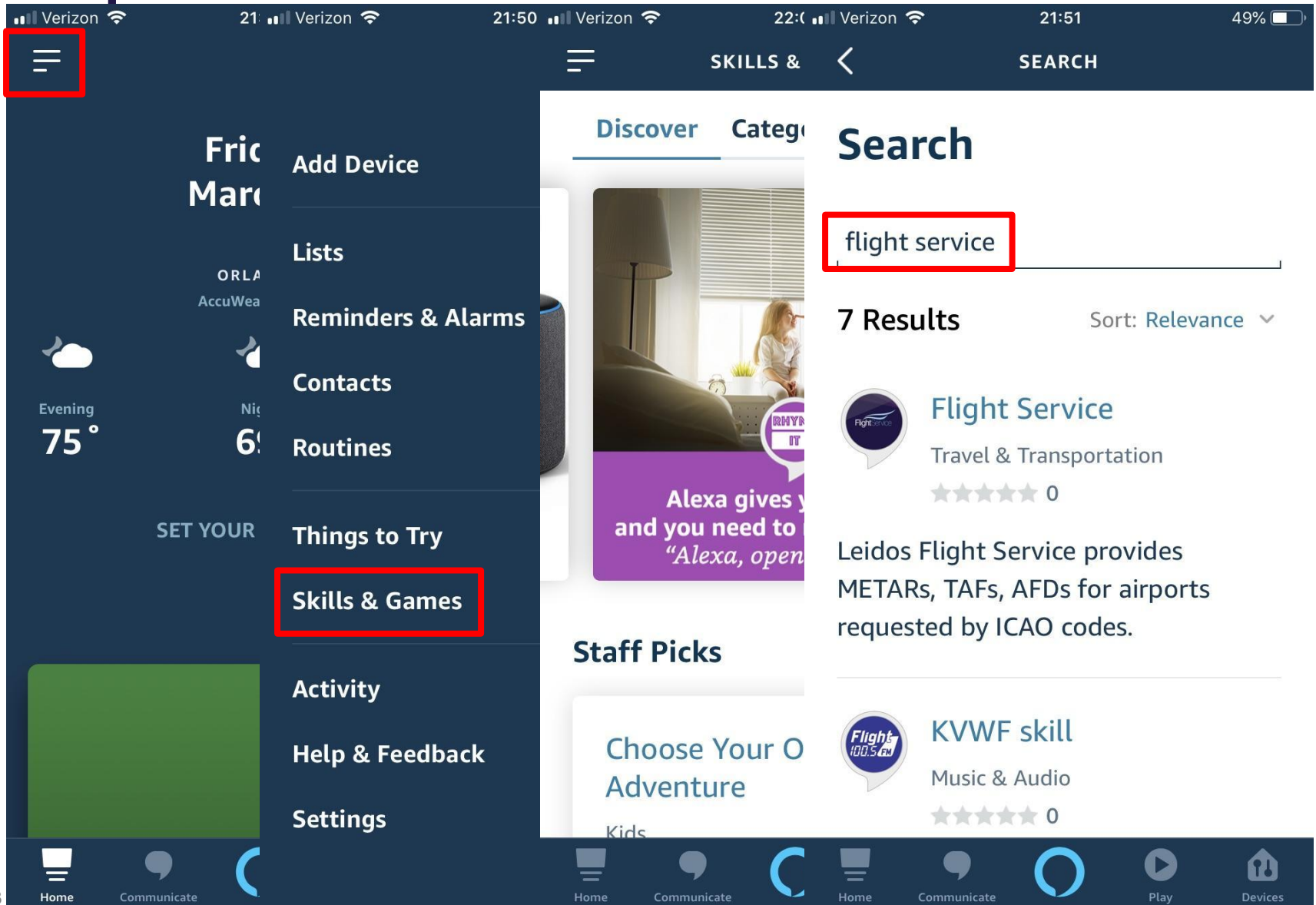
Google Home Google Assistant App



Voice Commands

- METAR
 - Give me the METAR for Hotel Echo Foxtrot
- TAF
 - What is the TAF for Hotel Echo Foxtrot
- Adverse Conditions Update
 - Give me my Adverse Conditions Update
 - I need an Adverse Conditions Update
- Aviation Forecast Discussion
 - I would like an aviation forecast discussion for Hotel Echo Foxtrot
- Help
 - What services do you provide
 - How do I get started
 - How do I use flight service on Alexa

Setup for Alexa on iPhone



Setup for Alexa on iPhone

