FLIGHT SAFETY FOUNDATION
independent • impartial • international

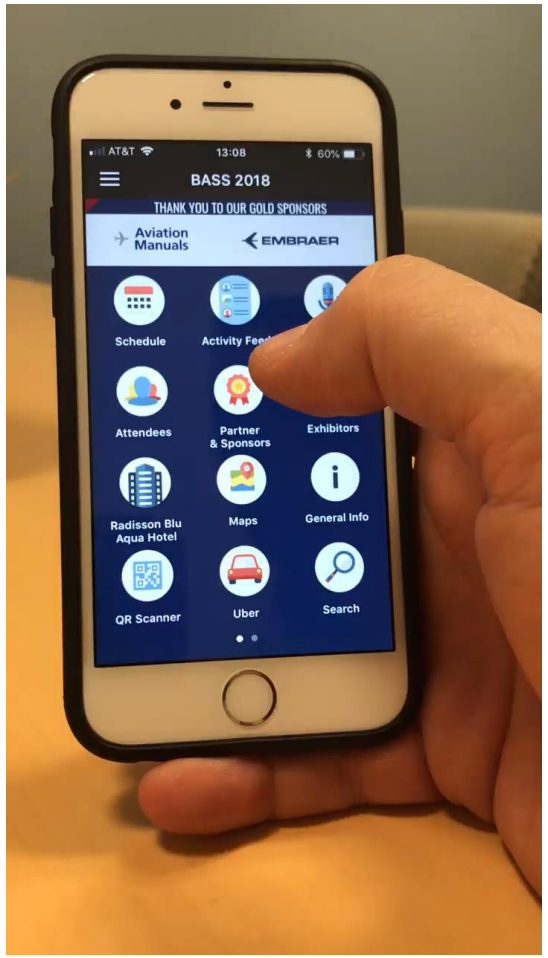
The Year in Safety – and current trends

BASS – May 2018

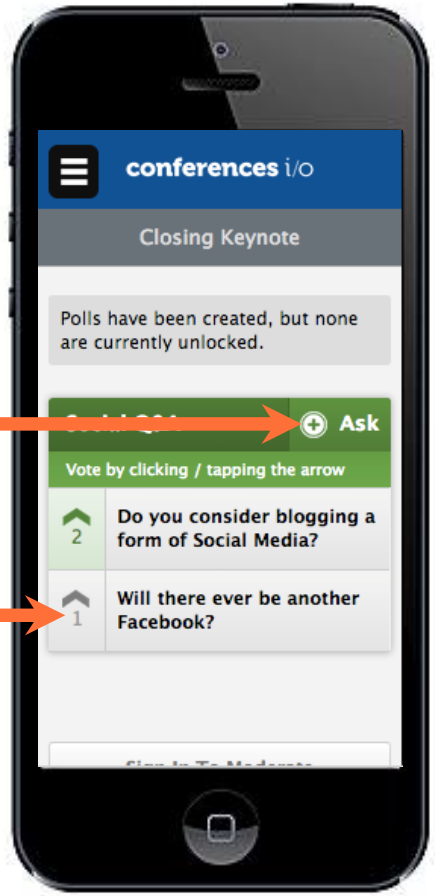
Using the BASS 2018 app

FLIGHT SAFETY FOUNDATION
independent • impartial • international

Starting from the app's main menu

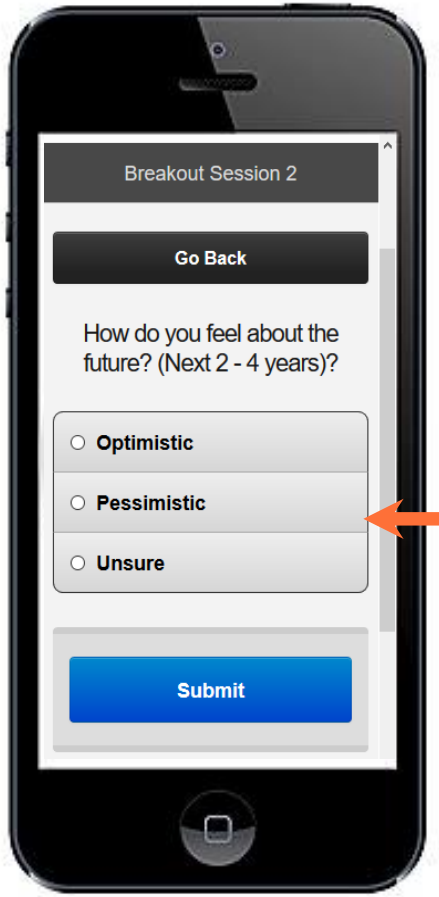


To Participate, look for the link to Polling/Q&A in Session Details, or visit **fsf.cnf.io** in your browser



Ask a Question

Up-Vote a Question



Respond to Polls when they appear

Vote / Ask Questions / Respond to Polls

Status of Safety in the Industry Today

- 2017 – The commercial world
  - Trends Long Term
  - The last full Calendar year
- 2017 – Business Aviation
  - Trends Long Term
  - The last full Calendar year
- Status of Safety - According to whom?
  - Accident Data ASN Data, ICAO Data, IATA Data, Boeing, Airbus,
  - Risk Data FSF, FAA, EASA, NBAA
- What is left to work on? – Plenty

The long history on fatal accidents

Steady Worldwide Progress on reducing fatal accident events

AviationSafetyNetwork

Statistics are based on all worldwide commercial (cargo and passenger) fatal accidents involving civil aircraft with a minimum capacity of 14 passengers from the ASN safety database https://aviation-safety.net

The last 40 years on all fatal accidents

2017 concluded with approximately .23 accidents per million flights

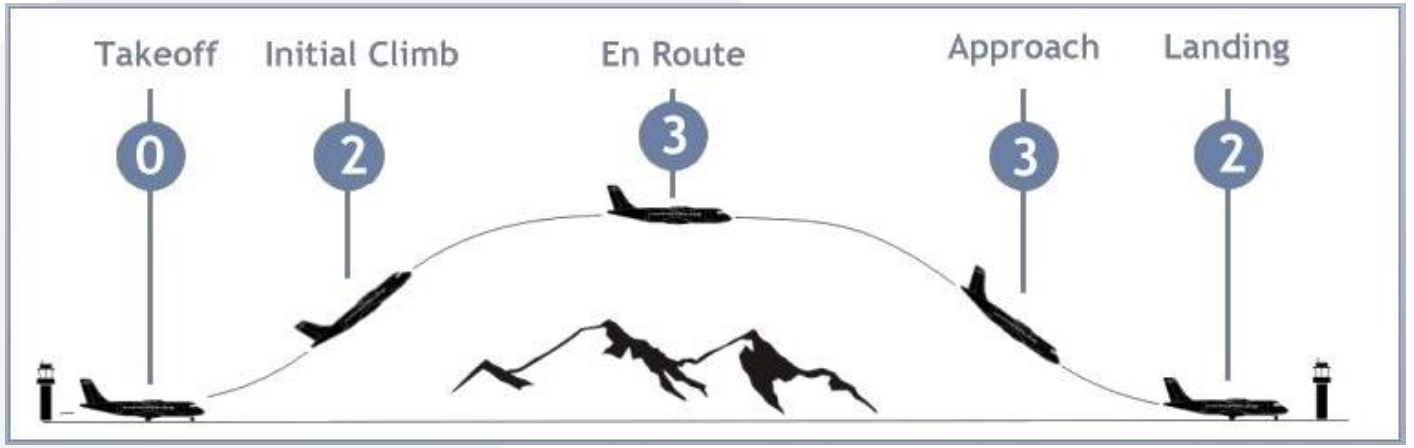
AviationSafetyNetwork

Statistics are based on all worldwide commercial (cargo and passenger) fatal accidents involving civil aircraft with a minimum capacity of 14 passengers from the ASN safety database https: //aviation-safety.net

2017 Fatal Accident Results

16 January	12 April	1 May	5 May	27 May
Kyrgyzstan	Indonesia	USA	USA	Nepal
4	1	1	2	2

14 October	15 November	15 November	13 December	31 December
Cote d'Ivoire	Russia	Tanzania	Canada	Costa Rica
4	6	11	1	12



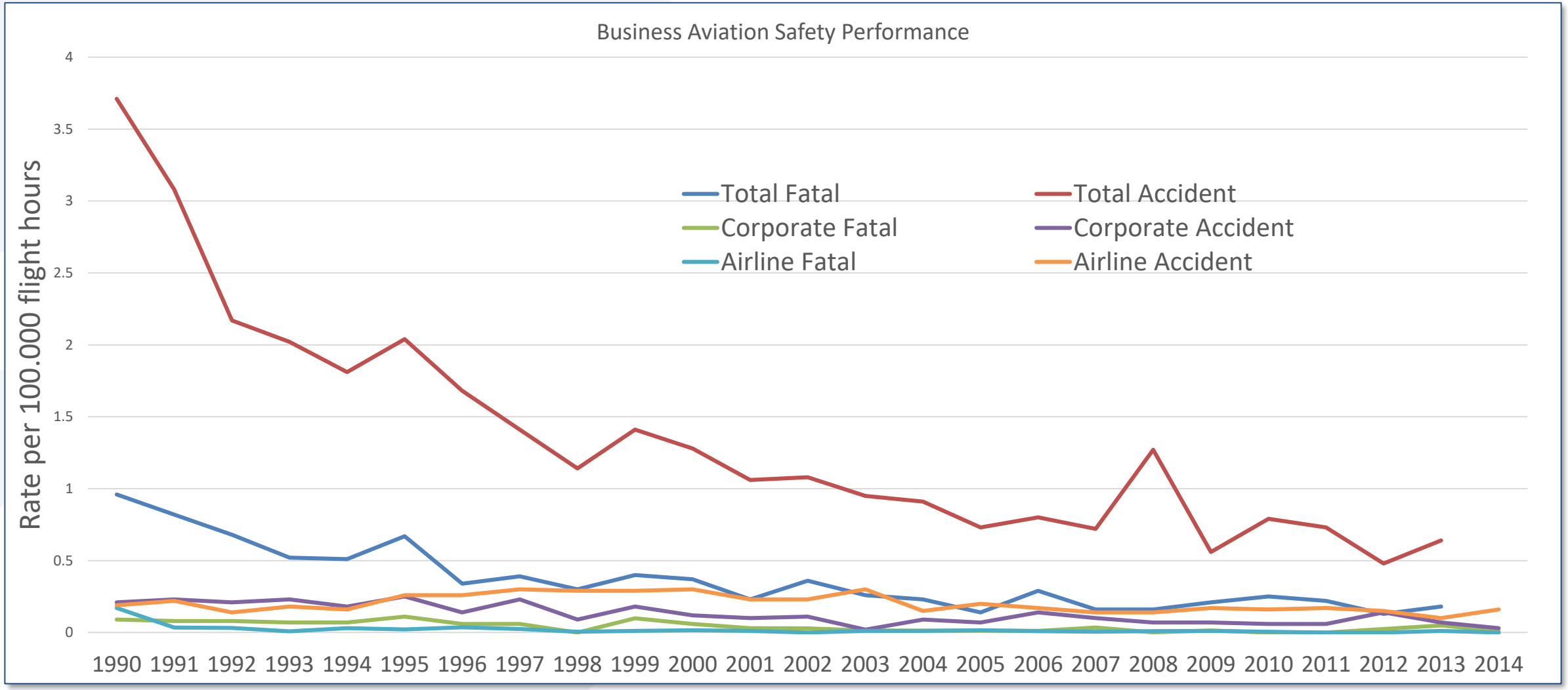
AviationSafetyNetwork

Statistics are based on all worldwide commercial (cargo and passenger) fatal accidents involving civil aircraft with a minimum capacity of 14 passengers from the ASN safety database https: //aviation-safety.net

Business Aviation

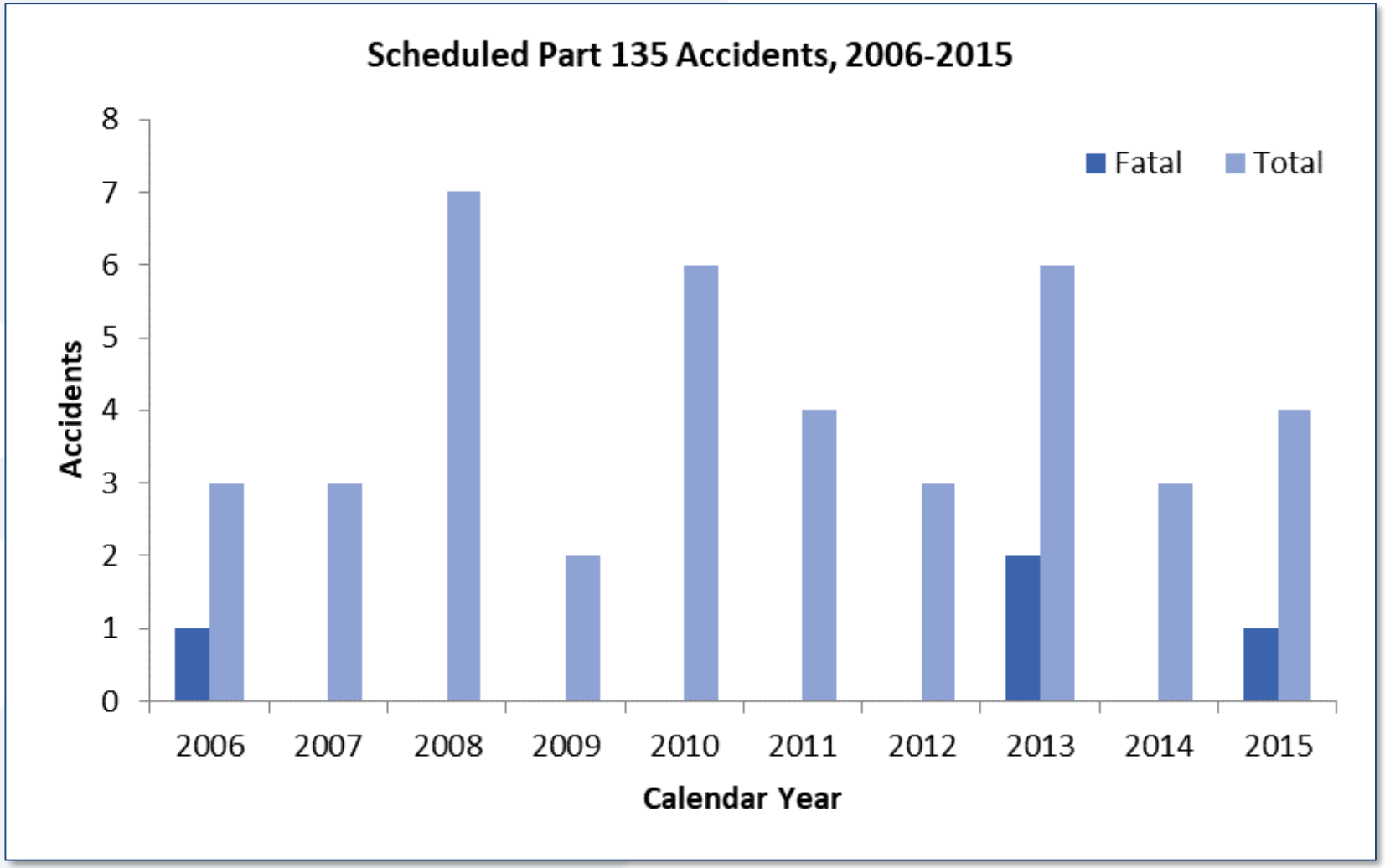
- ICAO only defines/recognises three kinds of operations, commercial air transport, general aviation and aerial work.
  - **Commercial air transport operation.** An aircraft operation involving the transport of passengers, cargo or mail for remuneration or hire.
  - **General aviation operation.** An aircraft operation other than a commercial air transport operation or an aerial work operation.
  - **Aerial work.** An aircraft operation in which an aircraft is used for specialized services such as agriculture, construction, photography, surveying, observation and patrol, search and rescue, aerial advertisement, etc.
- **Business aviation** is the use of any “general **aviation**” **aircraft** for a **business** purpose. The Federal **Aviation** Administration defines general **aviation** as all flights that are not conducted by the military or the scheduled airlines.

NBAA Website – data source Robert E. Breiling Associates Inc



visit fsf.cnf.io for Polls and Questions

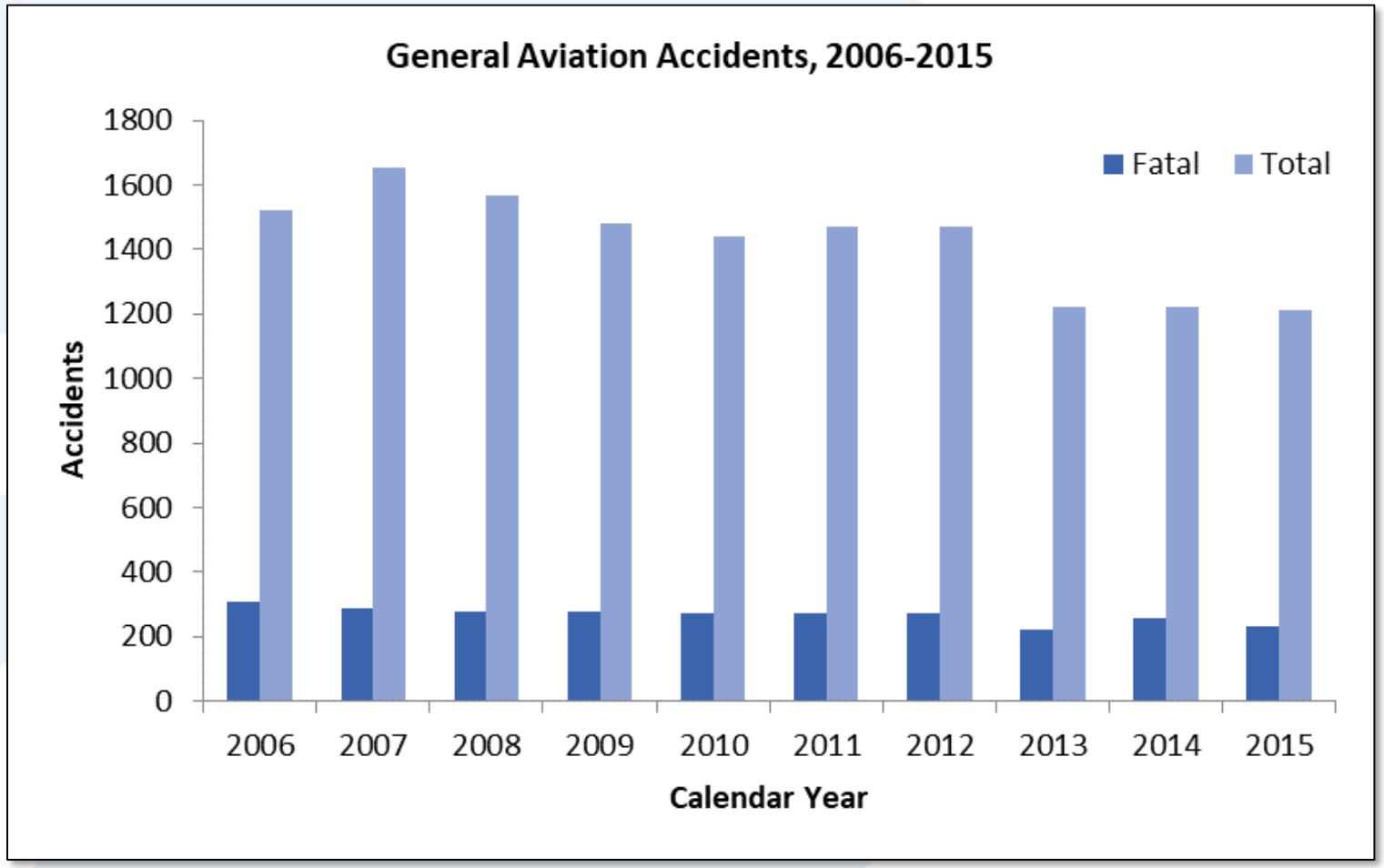
U.S. Commuter and On-Demand Operations



Source: NTSB website

visit fsf.cnf.io for Polls and Questions

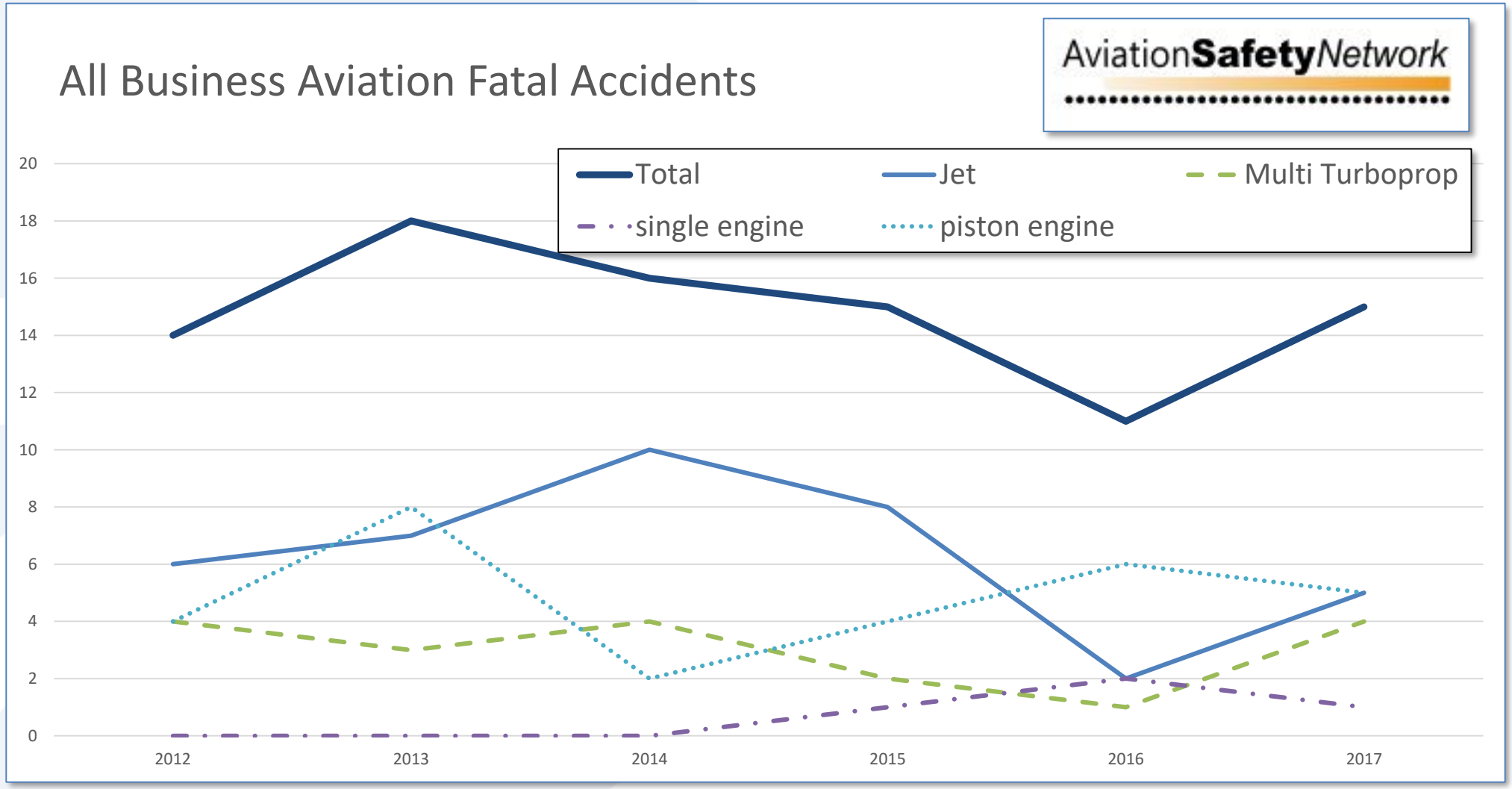
U.S. General Aviation Safety Statistics



Source: NTSB website

visit fsf.cnf.io for Polls and Questions

6 Year Performance – International Operations



visit fsf.cnf.io for Polls and Questions

2017 Business Aviation Performance

- According to **AIN** – there were two fatal crashes by N-numbered bizjets in 2017 and 2016.

- Nonfatal accidents of Part 91 decreased by about 50 percent, Part 135 jets remained unchanged year-over-year, and the one Part 91K nonfatal mishap in 2017

2017 Business Aviation Fatal Accidents Worldwide

FLIGHT SAFETY FOUNDATION
independent • impartial • international

Date	Type	MTOGW	Engine Type	Reg #	Operator	Fat.	Location	Country
23-Jan-			2 turboprop engines	N385KA	KAA			USA
21-Feb-			2 turboprop engines	VH-ZCR	Cor		...	Australia
			2 jet engines	N8DX	She			USA
27-Mar-			2 piston engines	C9-AOV	EU I		..	Zimbabwe
15-May-			2 jet engines	N452DA	A&C Trar			USA
17-May-			2 jet engines	XA-VMC	Aer			Mexico
25-Jul-			2 piston engines	8R-GRA	Rora		.	Guyana
19-Aug-			2 jet engines	YV3191	Unk			Venezuela
3-Oct-			2 turboprop engines	UP-A2807	East		..	Kazakhstan
12-Oct-			2 turboprop engines	D2-FDO	Gui			Angola
17-Oct-			1 turboprop engine	PR-MPE	Gre			Brazil
7-Nov-			1 piston engine	RA-02305	Dal			Russia
14-Dec-			2 jet engines	OE-FWD	Sky			Germany
19-Dec-			1 piston engine	RA-01460	Nar			Russia
23-Dec-			1 piston engine	P2-ISM	Nor			Papua New Guinea

Aircraft Engine

15 Events

5 jet engine
4 multi turboprop
1 single turboprop
5 piston engines

Countries where accident occurred

3 USA
2 Russia
1 Australia, Zimbabwe, Mexico, Guyana, Venezuela, Kazakhstan, Angola, Brazil, Germany, Papa New Guinea

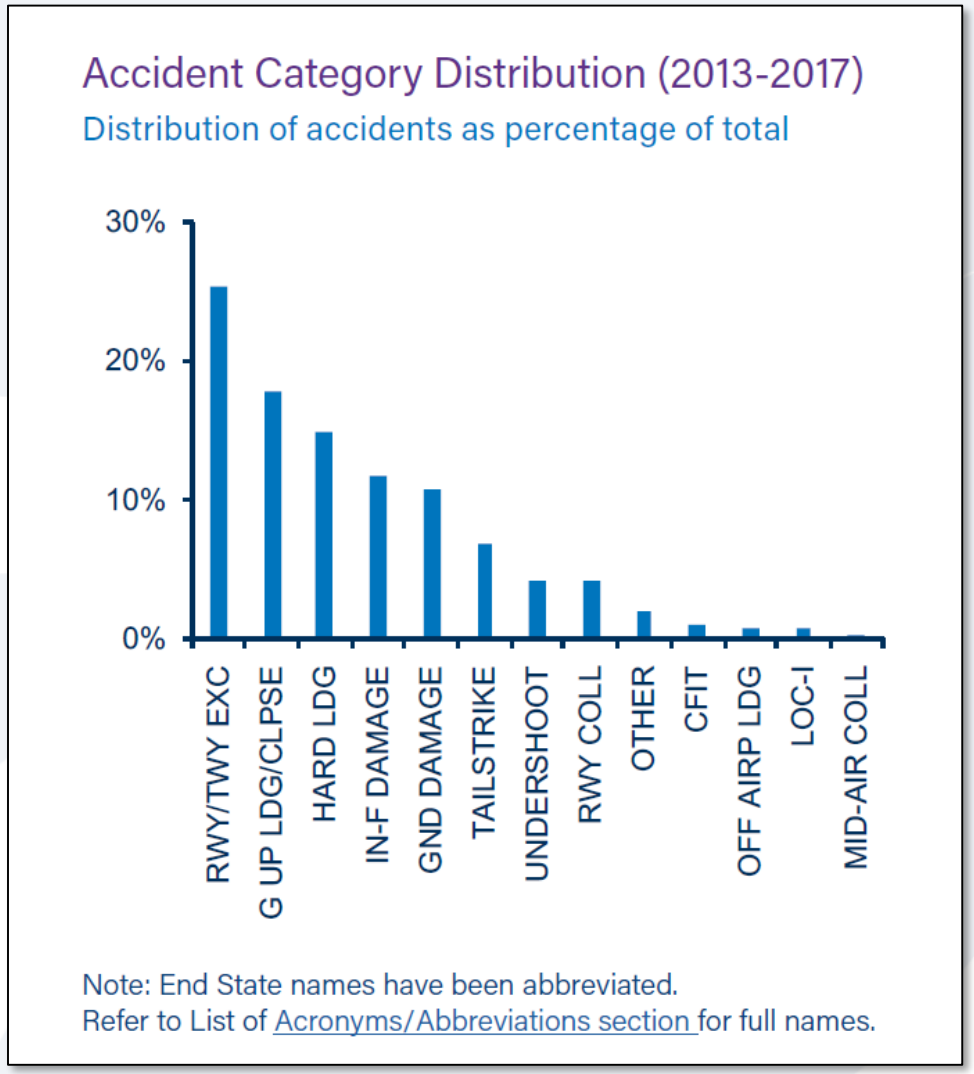
visit fsf.cnf.io for Polls and Questions

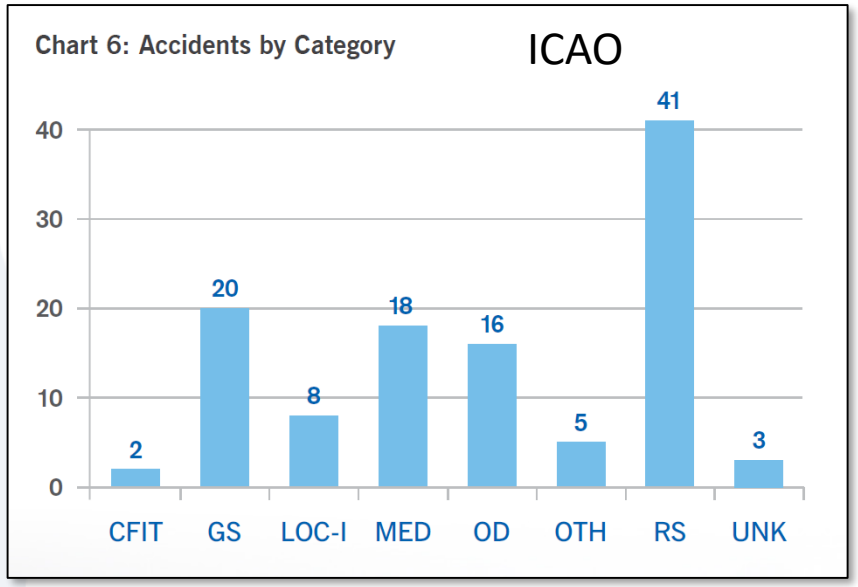
2018 Performance Business Aviation

- Only 1 Fatal Accident has occurred in 2018 so far

- A Turkish Challenger 604 corporate jet impacted a mountain near Shahr-e Kurd in Iran, killing all 11 on board. The aircraft operated on a flight from Sharjah, UAE to Istanbul, Turkey.

Accident Categories – 2016 Results All Accidents





Accident Categories	
CFIT	Controlled Flight into Terrain
GS	Ground Safety
LOC-I	Loss of Control in-Flight
MED	Injuries to and/or Incapacitation of Persons
OD	Operational Damage
OTH	Other
RS	Runway Safety
UNK	Unknown

visit fsf.cnf.io for Polls and Questions

NBAA 2018 Top Safety Issues

- **Loss of Control Inflight (LOC-I)**
- **Runway Excursions**
- **Single-Pilot Operation**
- **Procedural Compliance**
- **Ground Handling and Taxi Incidents**
- **Distraction Management**
- **Scenario- and Risk-Based Training and Checking**
- **Positive Safety Culture Promotion**
- **Inflight Aircraft Collision Risk**
- **Workforce Competency and Staffing**
- **Safety Data Sharing and Utilization**

Flight Safety Foundation – Key Safety Issues

FLIGHT SAFETY FOUNDATION
independent • impartial • international

- CFIT Events
- LOC
- Mechanical Issues
- Runway Safety (Excursion)
- Sabotage / Intentional Acts
- Mid Air Collision
- Runway Safety (Collision)
- Wildlife Issues
- Cabin Safety
- Fatigue

Emerging External Threats
- Lithium Batteries
- RPAS/UAS
- Infrastructure and Capacity
- Lasers
- Cyber Security

visit fsf.cnf.io for Polls and Questions

Accident History is getting smaller

How do we know the proportion of visible threats to latent threats remains the same?