

The image features a stylized blue logo for 'Avionics for NextGen' overlaid on a semi-transparent view of an aircraft cockpit. The cockpit background shows various instruments, screens, and control panels. The logo consists of the word 'Avionics' in a large, bold, blue, italicized sans-serif font. Below it, the word 'FOR' is written in a smaller, blue, all-caps sans-serif font, centered between two horizontal lines. At the bottom of the logo, the words 'NEXTGEN' are written in a large, blue, all-caps sans-serif font.

Avionics

FOR

NEXTGEN

www.AvionicsForNextGen.com

ADS-B Update

November 15, 2017

James Marks
ADS-B Focus Team Lead
FAA Flight Standards Service

Agenda

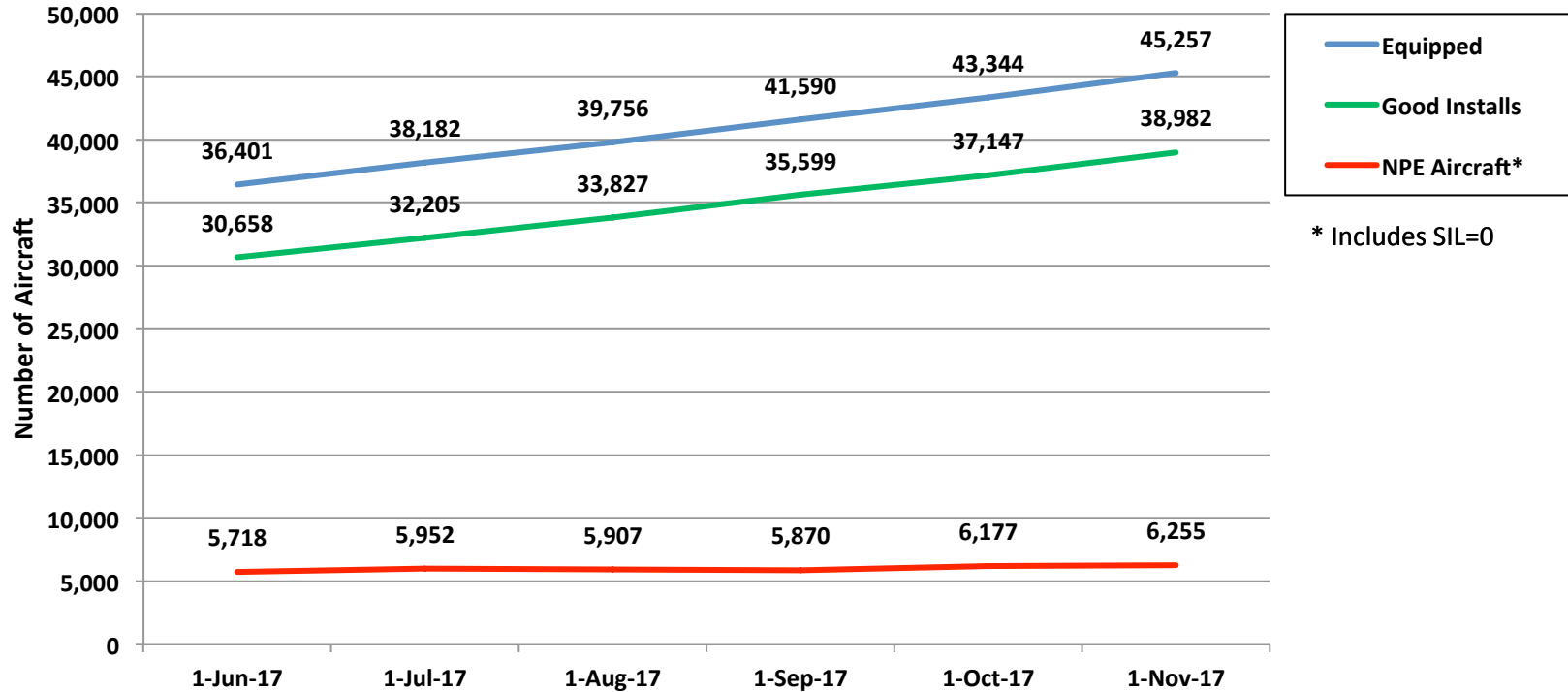
- **ADS-B Out Mandate**
- **Equipage Update**
- **Equipage Decision Resources**
- **Equipage Enablers**
- **Rule Performance Monitoring**

ADS-B Out Mandate

- **Rule info**
 - Published rule in May 2010, with mandate set for January 1, 2020
 - Requires ADS-B equipment in specified airspace (§91.225)
 - Equipment must meet specified performance requirements (§91.227)
- **FAA has ground infrastructure in place**
 - 634+ ground radio stations
 - Integrated ADS-B data into 5 ATC automation platforms
 - FAA is ready
- **Mandate won't slip**

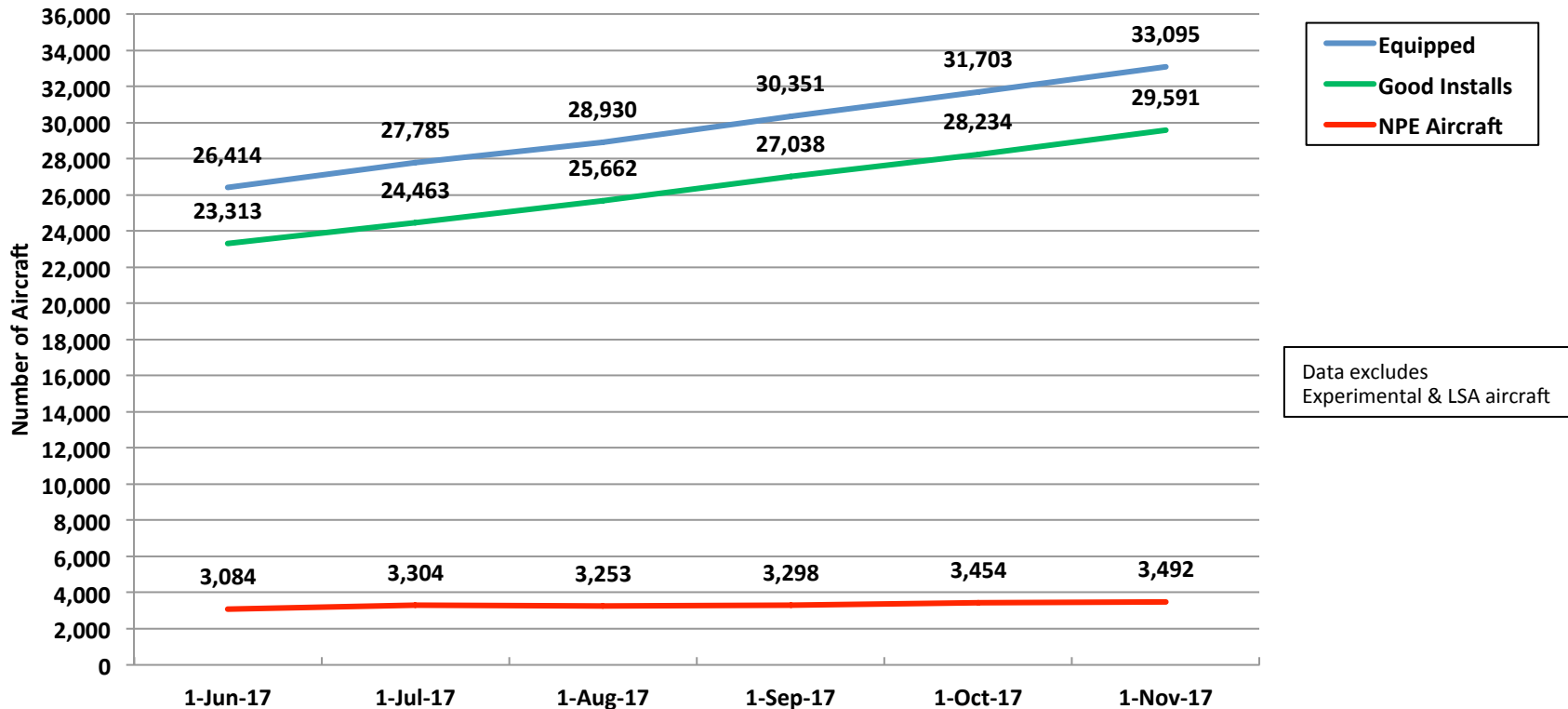
ADS-B Out Mandate (Equipage)

All US Aircraft Equipage & Avionics Performance

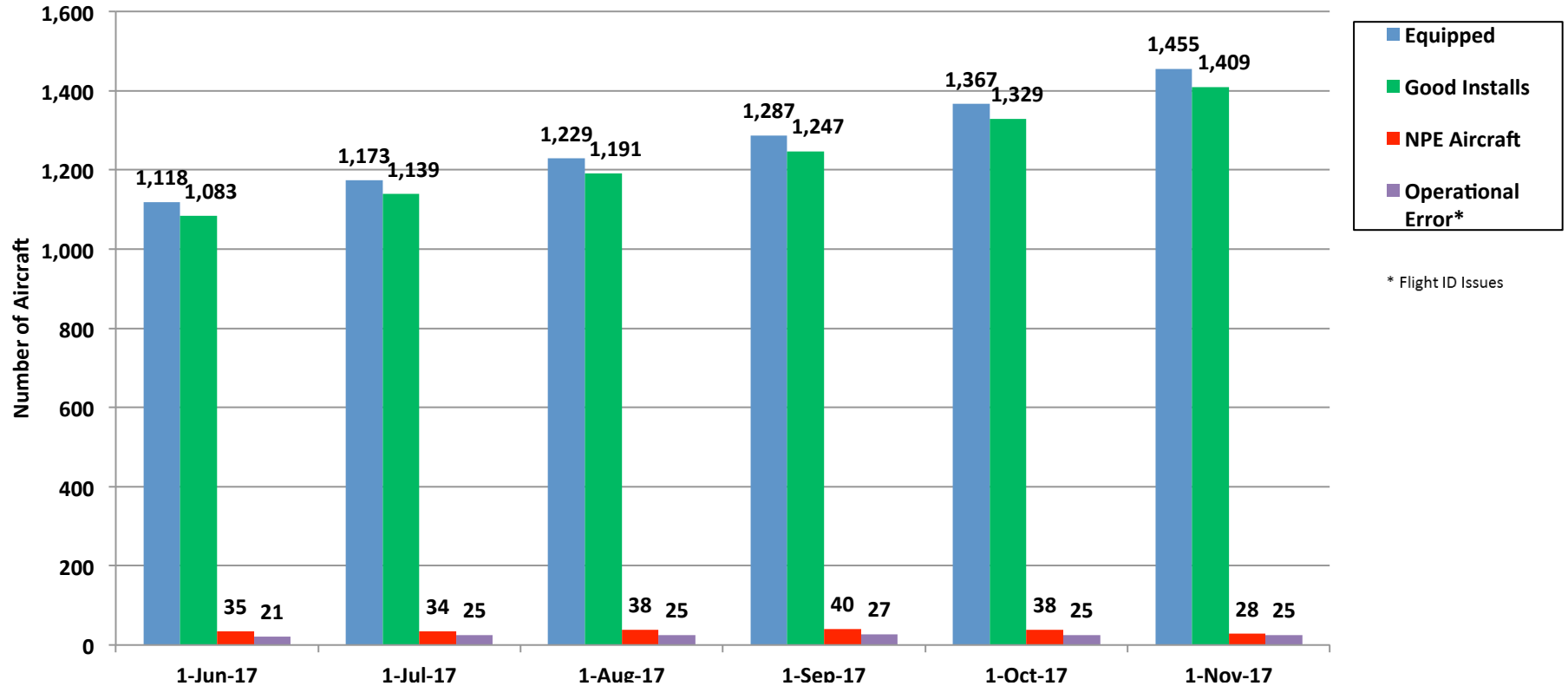


ADS-B Out Mandate (Equipage)

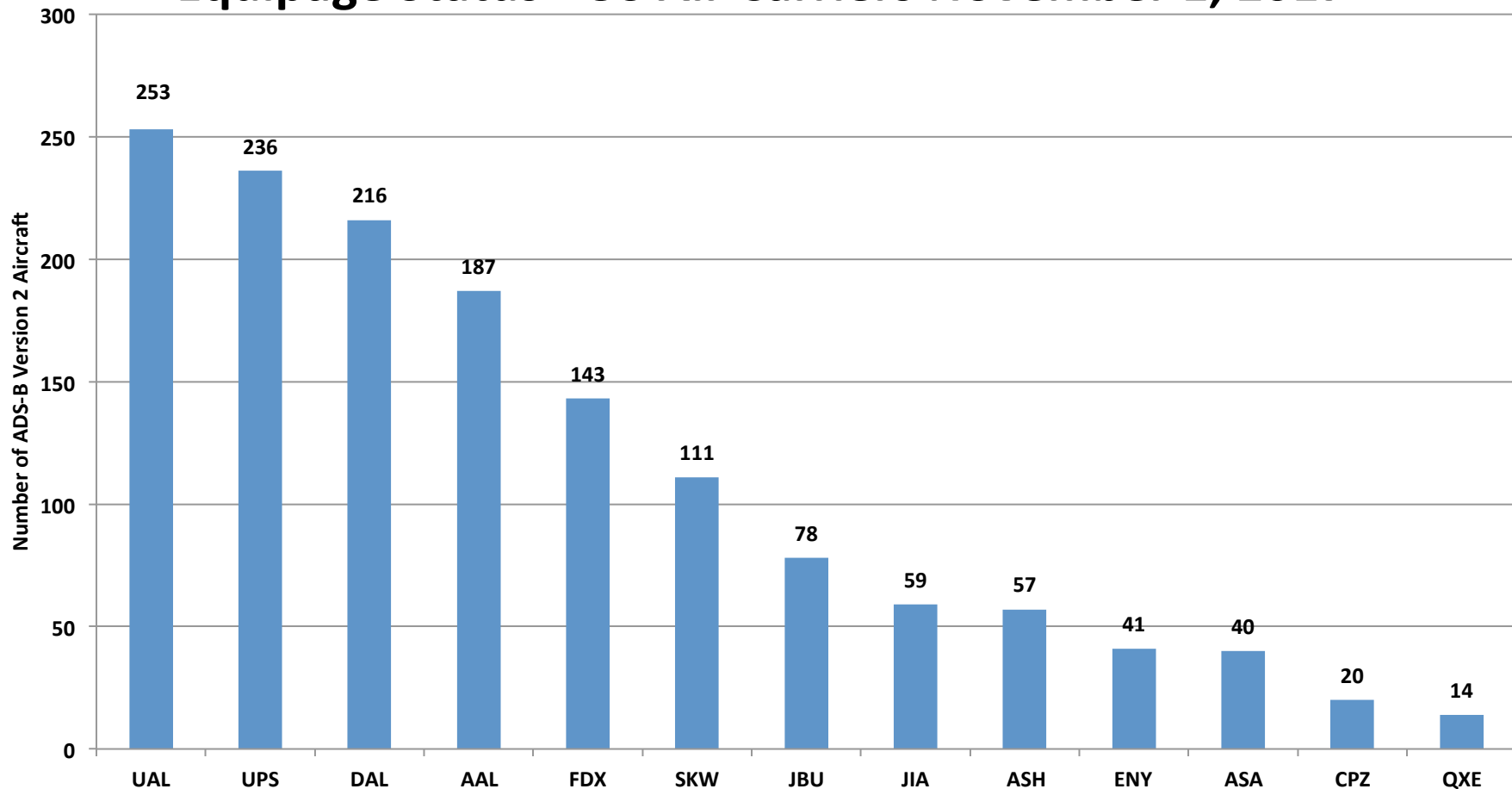
US GA Fixed-Wing Equipage and Avionics Performance



US Air Carrier Equipage & Avionics Performance



Equipage Status - US Air Carriers November 1, 2017



Equipage Decision Resources

NextGen

Delivering

Partnering

Measuring - Performance
Snapshots

NextGen Works

Phases of Flight

Equip ADS-B

Rebate

Research

Installation

Capabilities

FAQs

Resources

Resources

Community Involvement

Frequently Asked Questions

FAA Home • NextGen • Equip ADS-B

NextGEN Equip ADS-B

It's a picture not often seen on radar, dozens of aircraft taking off one right after the other in a steady stream. That's exactly what happened in early September during a [pre-dawn evacuation](#) of planes from Embry-Riddle Aeronautical University ahead of Hurricane Irma. And, Automatic Dependent Surveillance–Broadcast (ADS-B) played a key role in this seamless operation. [Read More »](#)



By January 1, 2020, you must be equipped with ADS-B Out to fly in [most controlled airspace](#). Federal Regulations [14 CFR 91.225](#) and [14 CFR 91.227](#) contain the details.



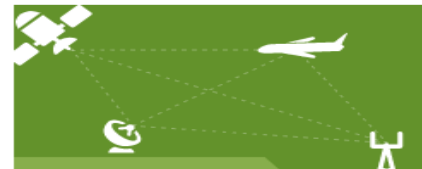
Research

What you need based on where you fly



Installation

Things to consider before, during, and after



Capabilities

What you can do with ADS-B technology

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Do I Need to Equip?



ADS-B transmitter you need.

This [decision tree](#) will help you figure out if you need to equip. Remember, ADS-B Out will be required to fly in most controlled airspace on January 1, 2020. And [find out more](#) about what kind of

Find Equipment

FAA Certified Equipment



A list of FAA-certified equipment installations that meet the performance requirements of the ADS-B equipage rule, 14 CFR 91.225 and 91.227

A list of FAA-certified equipment installations that meet

Equipment Search Tool



Search by aircraft make and model in this database of equipment designed to meet the requirements of 14 CFR 91.225 and 91.227, either as separate components or complete installation solutions. The [database](#) includes both FAA-certified equipment and equipment in process.

Search by aircraft make and model in this database of equipment designed to meet

ADS-B Out Equipage Levels



How many aircraft are [already equipped](#)? More than 100,000 aircraft in the National Airspace System will need to equip with ADS-B Out before the January 1, 2020 mandate.



Resources



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Equip ADS-B Installation



Installing ADS-B



Learn what you need to put on your aircraft to comply with the ADS-B rule, read field approval guidance and make sure you prevent common installation errors. The [Installation Approval for ADS-B OUT Systems](#) memo explains the FAA's policy regarding installation of ADS-B Out systems into civil aircraft.

For additional information, please read the [technical paper](#) (PDF) explaining the FAA's policy regarding alterations to aircraft for the installation of ADS-B equipment.

ADS-B Out Equipped?



[Click here](#) to find out if your equipment is working properly.

ADS-B / TIS-B / FIS-B Problem Report



Have a TIS-B, FIS-B, or ADS-B problem to report? [Email us](#) and we'll get back to you as soon as possible.



Resources



FAQs

ADS-B Out Mandate Equipage Enablers

- March 2, 2016 AVS [Policy Memo](#) allows broader use of approved ADS-B Out transmitter/GPS pairing data on non-AML aircraft
- Revised process to streamline avionics certification projects (No PNL)
- [Policy Memo](#) to address impact of ADS-B Out equipage on RVSM & TCAS II certifications

ADS-B Out Mandate Equipage Enablers

- **Tech Paper published with additional guidance on key areas of the ADS-B Out Policy Memo & other installation considerations**
 - Modification/approval of AFMS/RFMS
 - ADS-B IN approval guidance
 - Available on [AFS-300 Job Aid](#)
- **AFS-300 Major Repair/Alteration Job Aid revisions to clarify ADS-B field approval authority**

ADS-B Out Rule Performance Monitoring

- Rule performance monitoring via ADS-B Performance Monitor (APM)
- APM enables rule compliance verification for all ADS-B Out operations in US airspace
- Web-based [Public ADS-B Performance Report \(PAPR\)](#) service established to support avionics performance verification by public

APM Functions & Capabilities

- **AFT APM Functions & Capabilities:**
 - **Collects performance data on all ADS-B Out operations in US airspace**
 - **Mandate equipage & avionics performance tracking**
 - **Avionics & Repair Station (RS) Registry**
 - Associates ADS-B avionics equipage (transmitter/GPS make/model) to each aircraft
 - Associates installer (RS ID or A&P #) to each aircraft
 - **ADS-B Trend Analysis Tool (ATAT):**
 - Summary of avionics performance for up to last 10 flights for each ADS-B equipped aircraft monitored
 - Supports trending analysis for aircraft M/M, avionics M/M, installer, etc

APM Functions & Capabilities

- **Generates ADS-B Out Performance Reports to support various requirements:**
 - Internal FAA ADS-B equipage & performance reporting
 - Public ADS-B performance reports (PAPR, GAIRP)
- **Performance reports support post-installation performance & rule compliance verification**
 - Web-based PAPR: <https://adsbperformance.faa.gov/PAPRRequest.aspx>
 - Email: 9-AWA-AFS-300-ADSB-AvionicsCheck@faa.gov
- **Certification reports support ADS-B certification flight tests per AC 20-165()**
 - Email: 9-avs-air-130flttest@FAA.gov