

*Global Information
Management*

**FAA
NOTAM
Experience**

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FAA*

Date: August 26, 2015



Federal Aviation
Administration



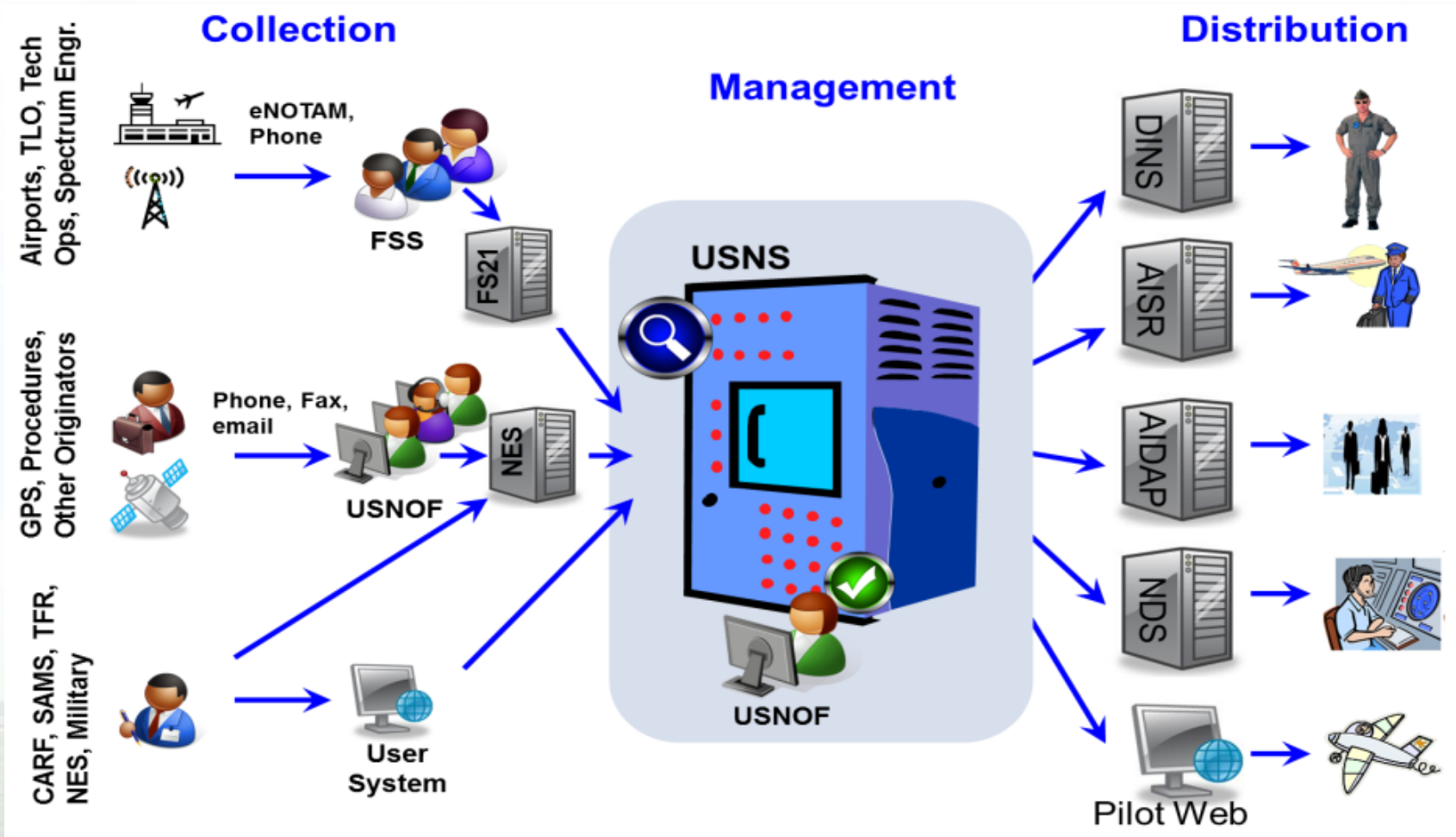
**AIR TRANSPORTATION
INFORMATION EXCHANGE
CONFERENCE**

Global Information Management

August 25-27, 2015

NOAA Auditorium and Science Center • Silver Spring, MD

Legacy NOTAMs



Need for Modernization

No common languages/standards used

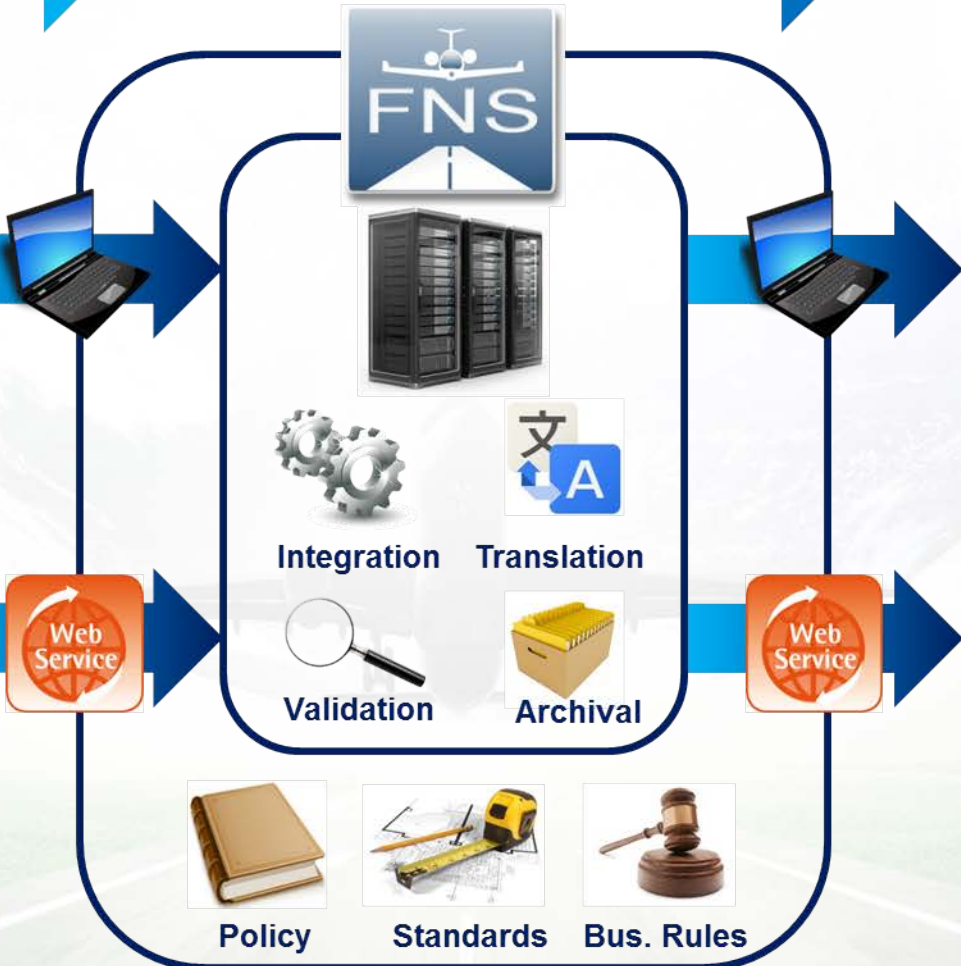
Stove pipe databases

External consumers don't necessarily have access

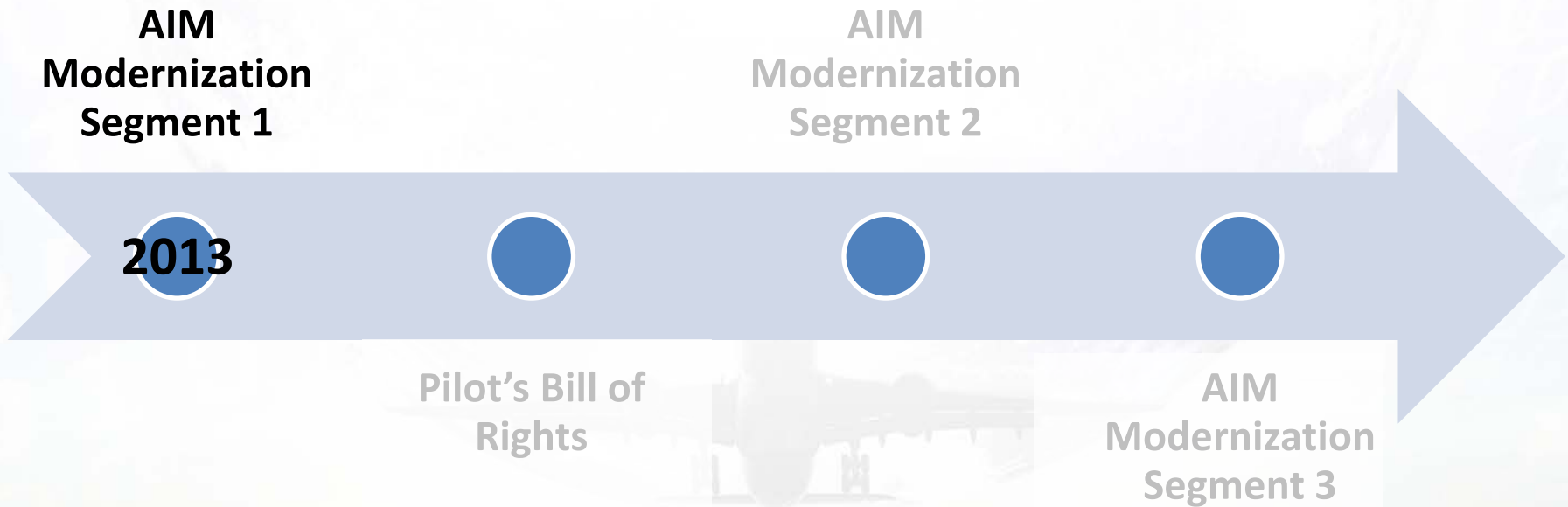
Product centric

Multiple FAA offices involved—conflicting priorities

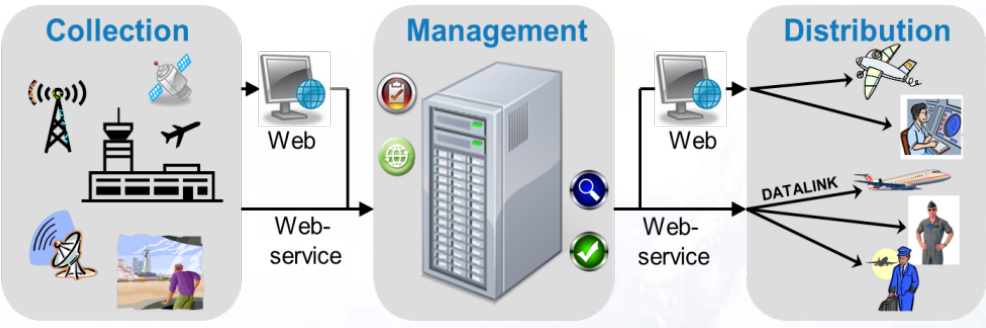
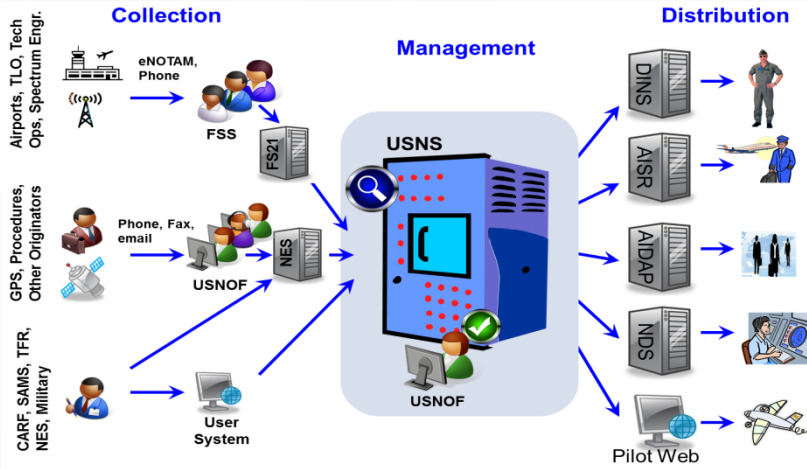
NOTAM Modernization



Modernization Timeline



AIMM Segment 1



Legacy NOTAM Environment

Federal NOTAM System

Analog, text-based NOTAMs

Manual processing

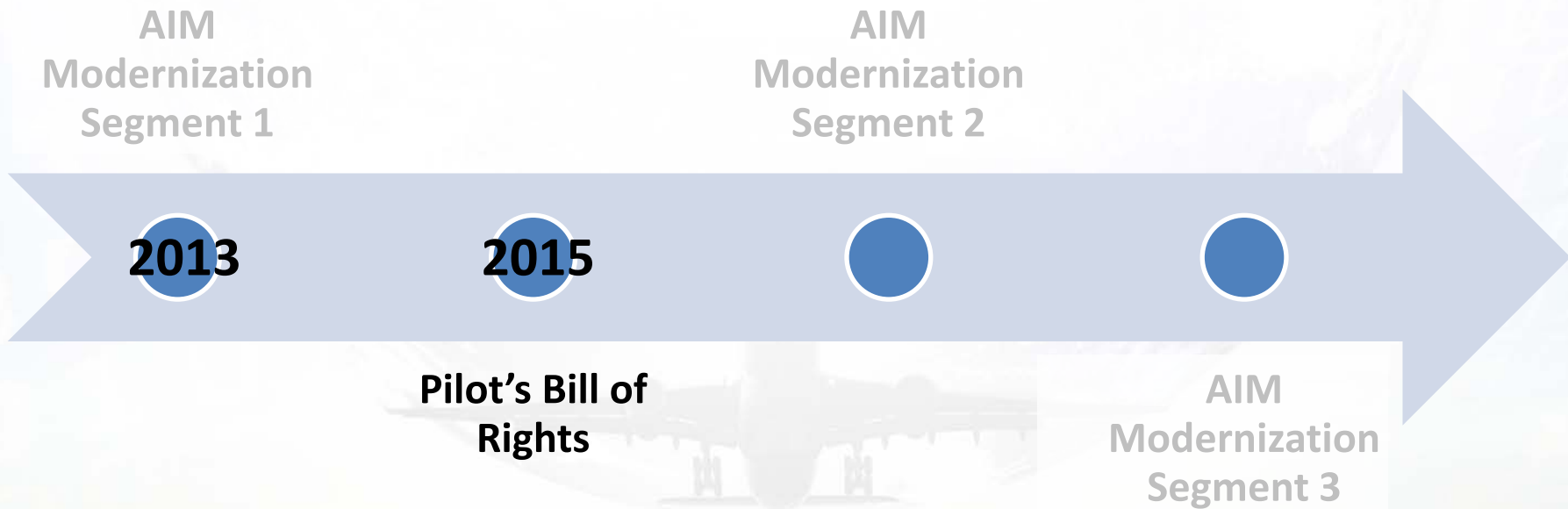
Multiple, legacy data formats

Digital NOTAMs

Automation

Standards-based data format

Modernization Timeline



Federal NOTAM System

Implementing the Pilot's Bill of Rights

Digitally at the Source:

- More Timely
- More Accurate

Originate Digital NOTAMs



Store NOTAMs Digitally

- Centrally Located
- Archived
- Available to the Public



NOTAM Distribution Service/SWIM

- Standards Based (AIXM) NOTAM Information

FNS NOTAM Search



- User-Friendly Format
- Filterable
- Timely Delivery
- Searchable
- Relevant (Route Specific)



Digital NOTAM Volume

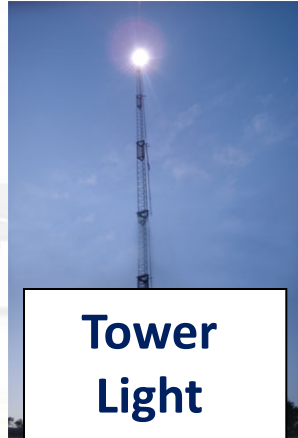
69%
Digital NOTAMs*



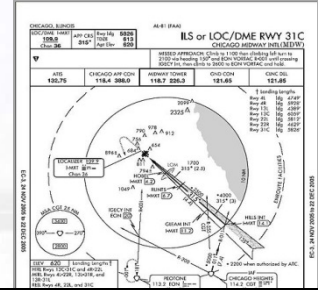
Airport NOTAMs 2010



Navaid NOTAMs 2012



Tower Light NOTAMs 2012



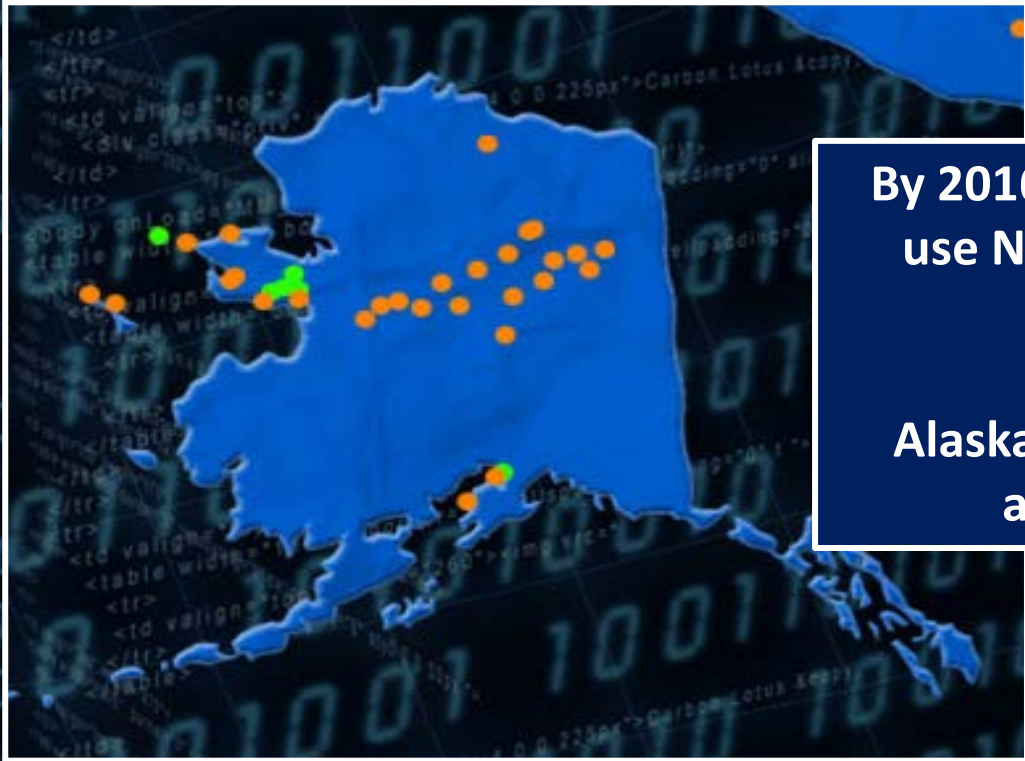
Procedure & Charting NOTAMs 2014



Military NOTAMs Onboarding Now – 2015!

*69% of FDC and Domestic NOTAMs – this number will be re-baselined to include military NOTAMs in the future

NOTAM Manager active at more than 500 airports across the NAS (65% of all airport NOTAMs)



By 2016, Alaska Flight Service Hubs will use NOTAM Manager to issue digital NOTAMs

Alaska airports account for 16% of all airport NOTAMs in the NAS

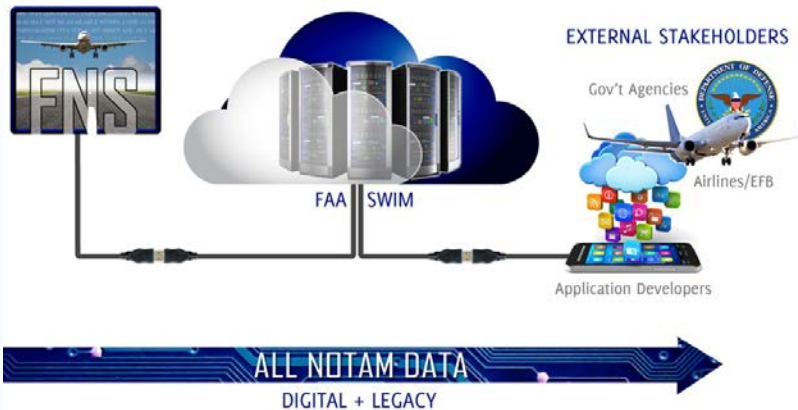


● = Self Certified
● = On-Site

NOTAM Manager reduces origination time from 10 min to 5 sec!

NOTAM Distribution

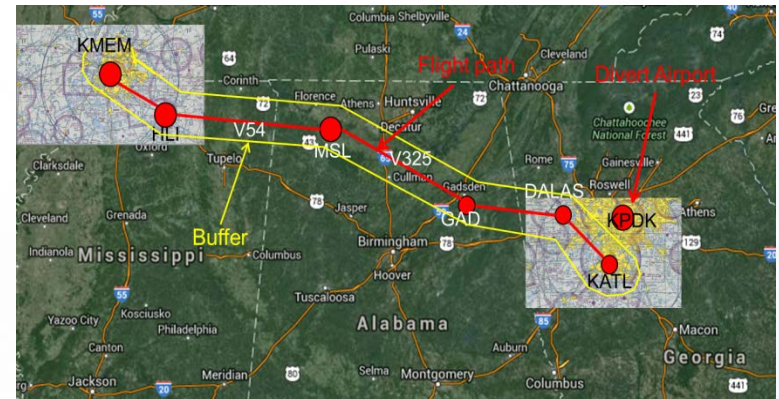
FNS NOTAM Distribution Service (FNS-NDS)



Web Service Benefits

- Deliver AIXM digital NOTAMs to customer via FAA SWIM
- Enable advanced filtering and graphical NOTAMs
- DOD was the first customer, currently onboarding 3rd party vendors

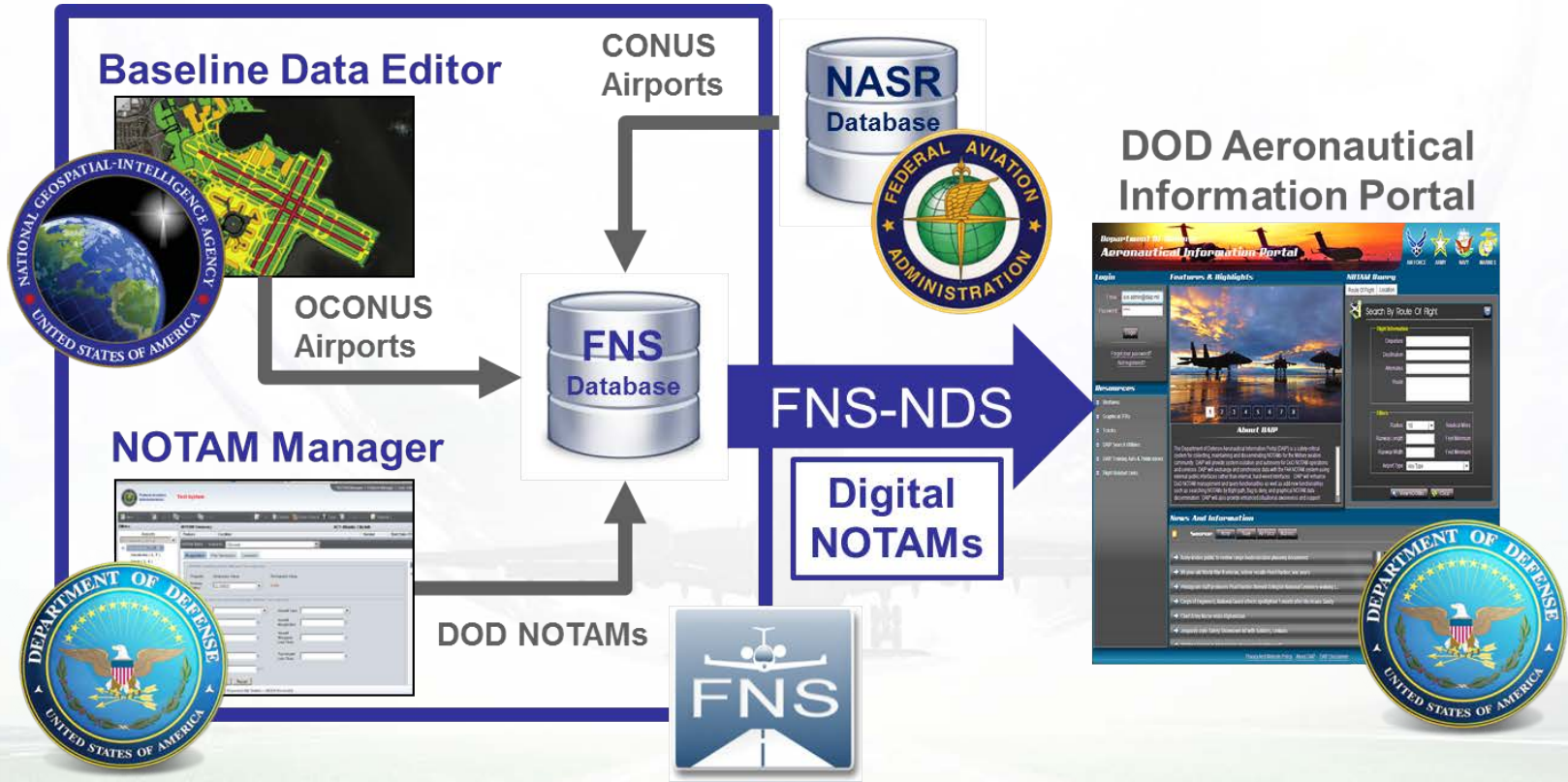
FNS NOTAM Search Website



New Capabilities for Pilots

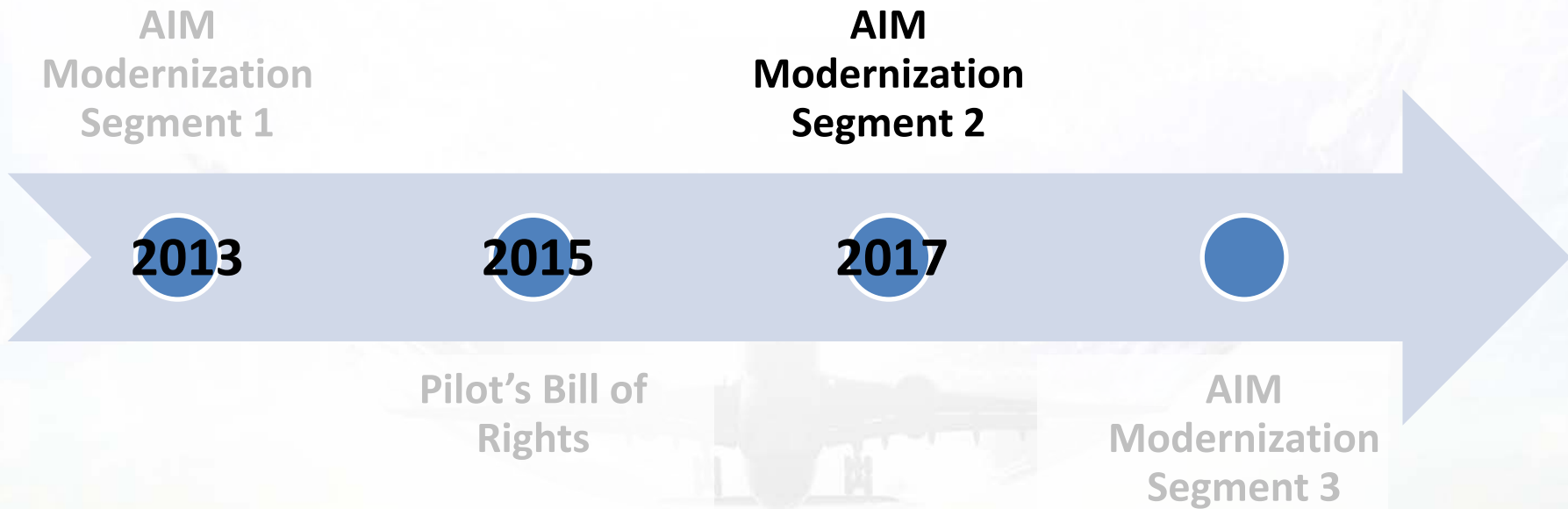
- “Route of Flight” query to provide specific, relevant NOTAMs
- User profiles to save preferences
- Improved NOTAM filters to tailor search results
- Enhanced NOTAM sorting to prioritize search results

Military NOTAM Modernization

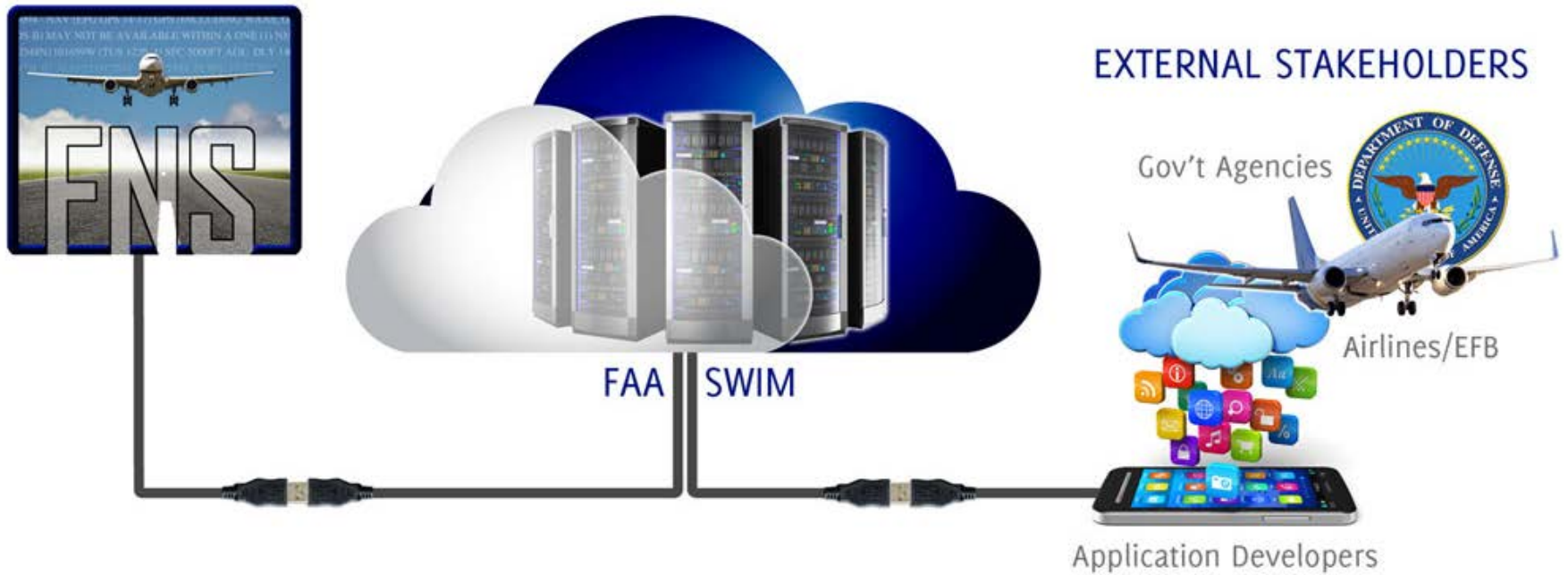


Collaboration: DOD uses FAA systems to modernize the military NOTAM process.

Modernization Timeline

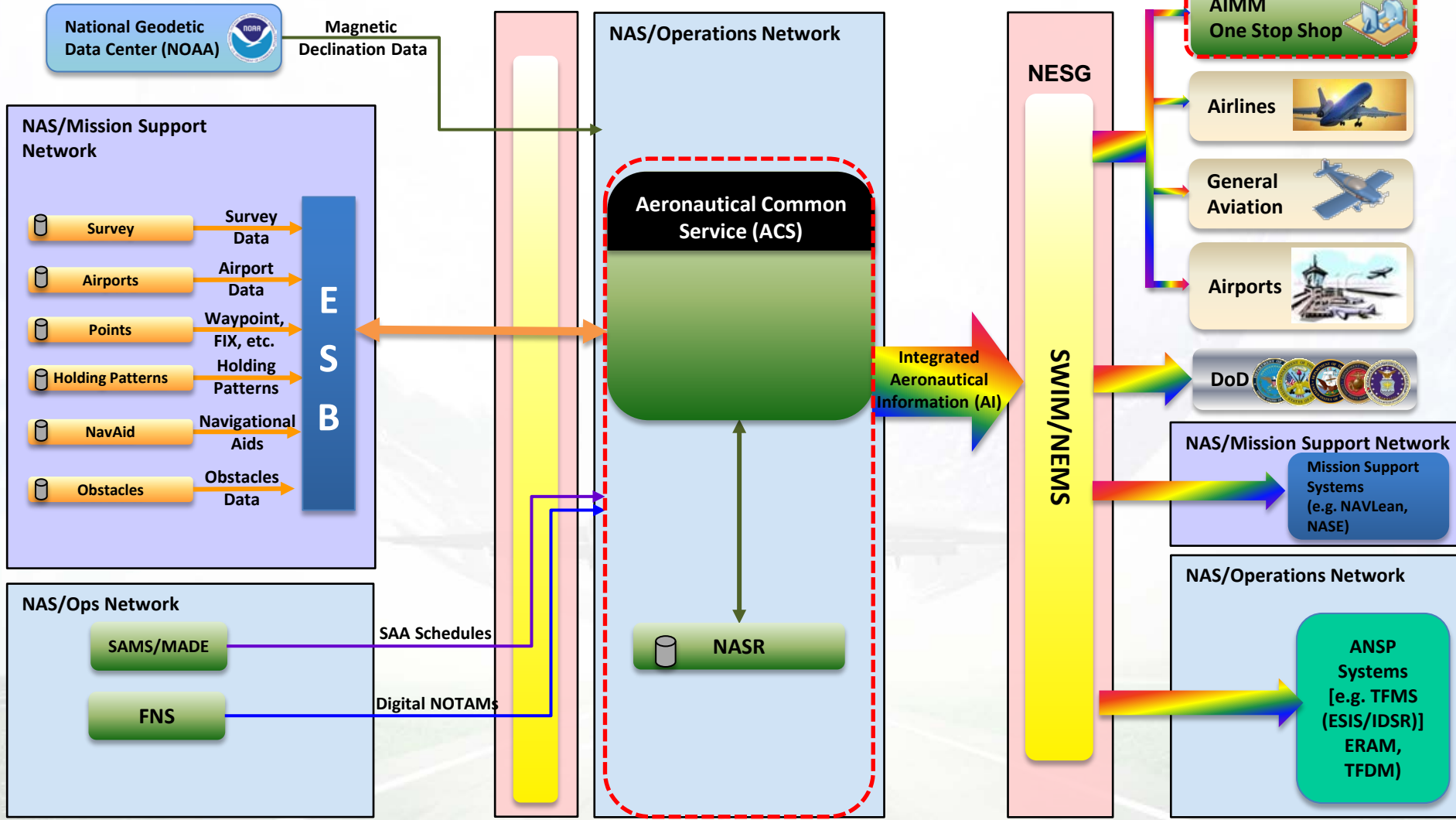


FNS Integration



ALL NOTAM DATA
DIGITAL + LEGACY

ACS Context Diagram



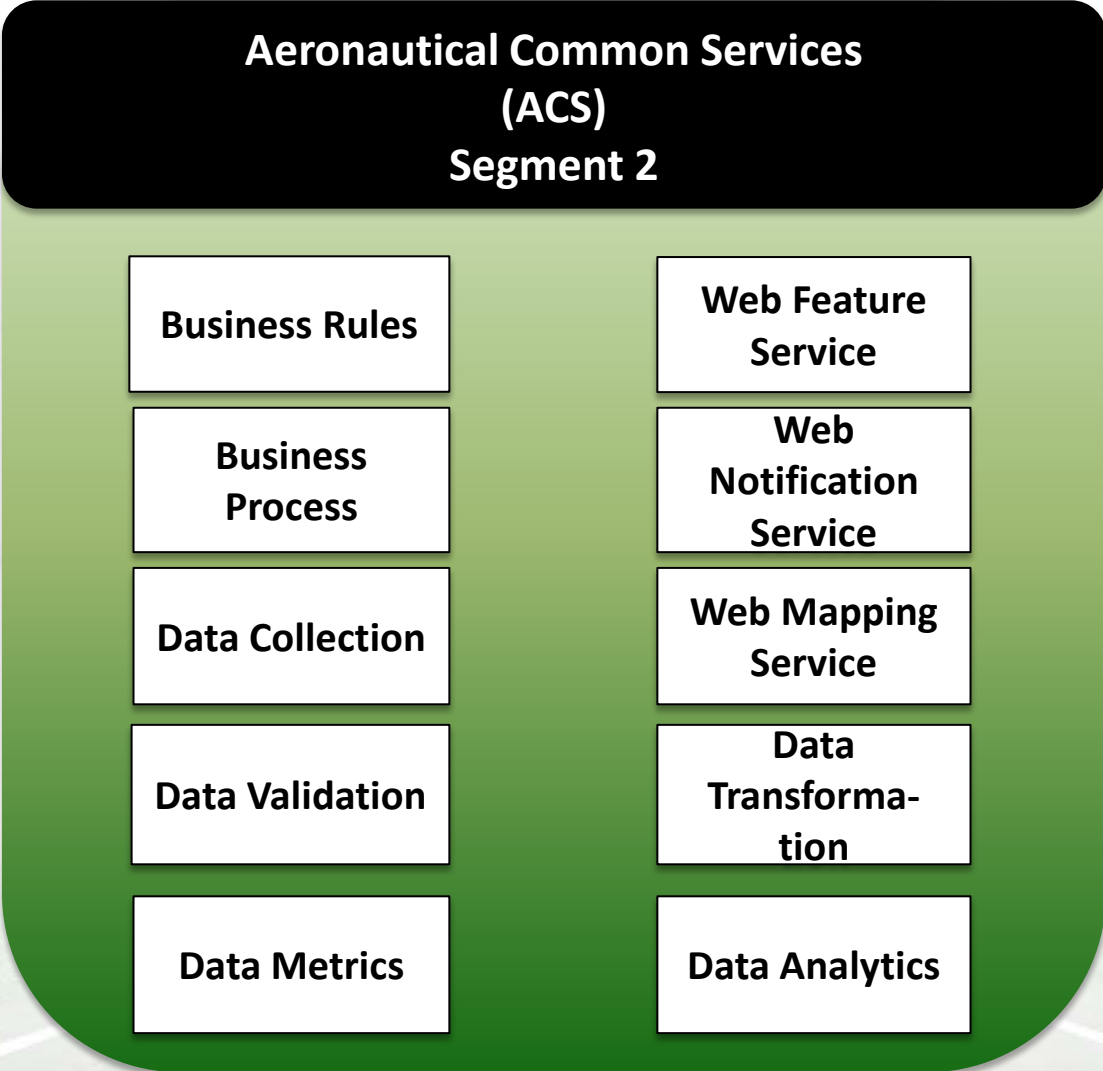
Authoritative Sources

AIM Systems (Green box) AIMM S2 System (Dashed red box)

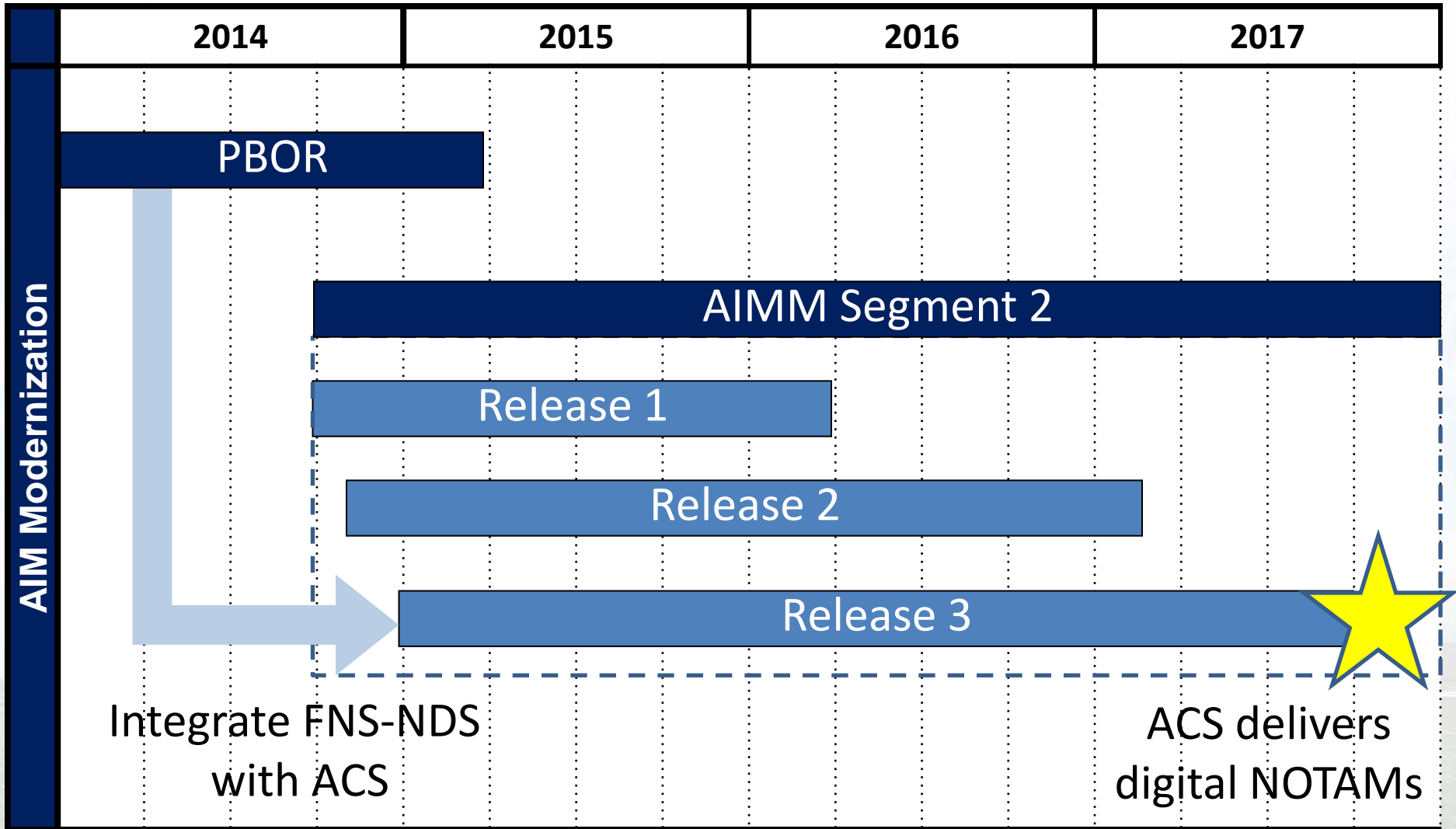
Integrated AI includes fused SAA Schedules, SAA Definitions, NOTAM, Airport Configuration, and NAVLean data (Rainbow arrow)

AI Consumers

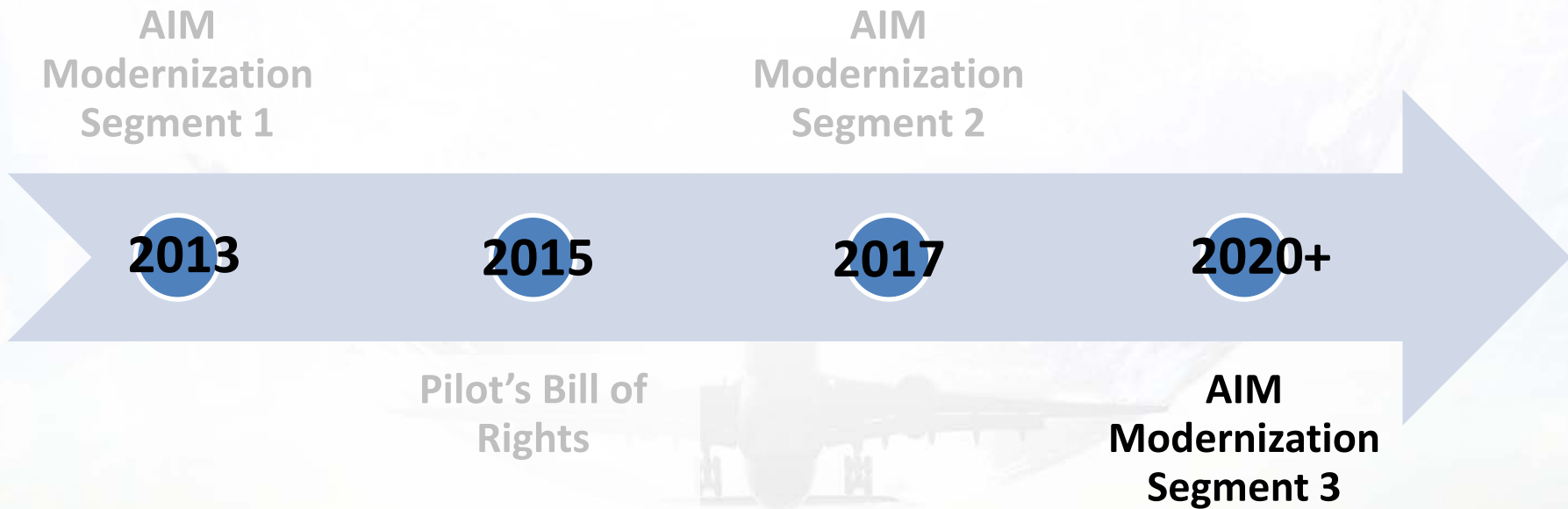
ACS Functions



AIMM Segment 2 Timeline



Modernization Timeline



AIMM Segment 3



Federal Aviation Administration

Integrated Flight Planning

Operators and traffic managers have immediate access to identical weather information through one data source.

Streamlined Departure Management

RNAV and RNP precision allows multiple departure paths from each runway. Departure capacity increased.

Efficient Cruise

RNAV, RNP and RVSM utilize reduced separation requirements increasing airspace capacity. Aircraft fly most optimal path using trajectory-based operations considering wind, destination, weather and traffic. Re-routes determined with weather fused into decision-making tools are tailored to each aircraft. Data Communications reduce frequency congestion and errors. ADS-B supported routes available for equipped aircraft.

Streamlined Arrival Management

Arrival sequence is planned hundreds of miles in advance. RNAV and RNP allows multiple precision paths to runway. Equipped aircraft fly precise horizontal and vertical paths at reduced power from descent point to final approach in almost all types of weather. Time and fuel are saved. Emissions and holding are reduced.

Integrate SAA and NOTAMs



Surface Traffic Management

Automation optimizes taxi routes for controllers and pilots all equipped aircraft positions on airport. Full picture visible to airlines, controllers and operators. Surface movement to departure and arrival sequence. ASDE-X contribute to this further reduced and safety enhanced.



NAS Automation Systems:

- ERAM
- TFMS
- TFDM
- STARS



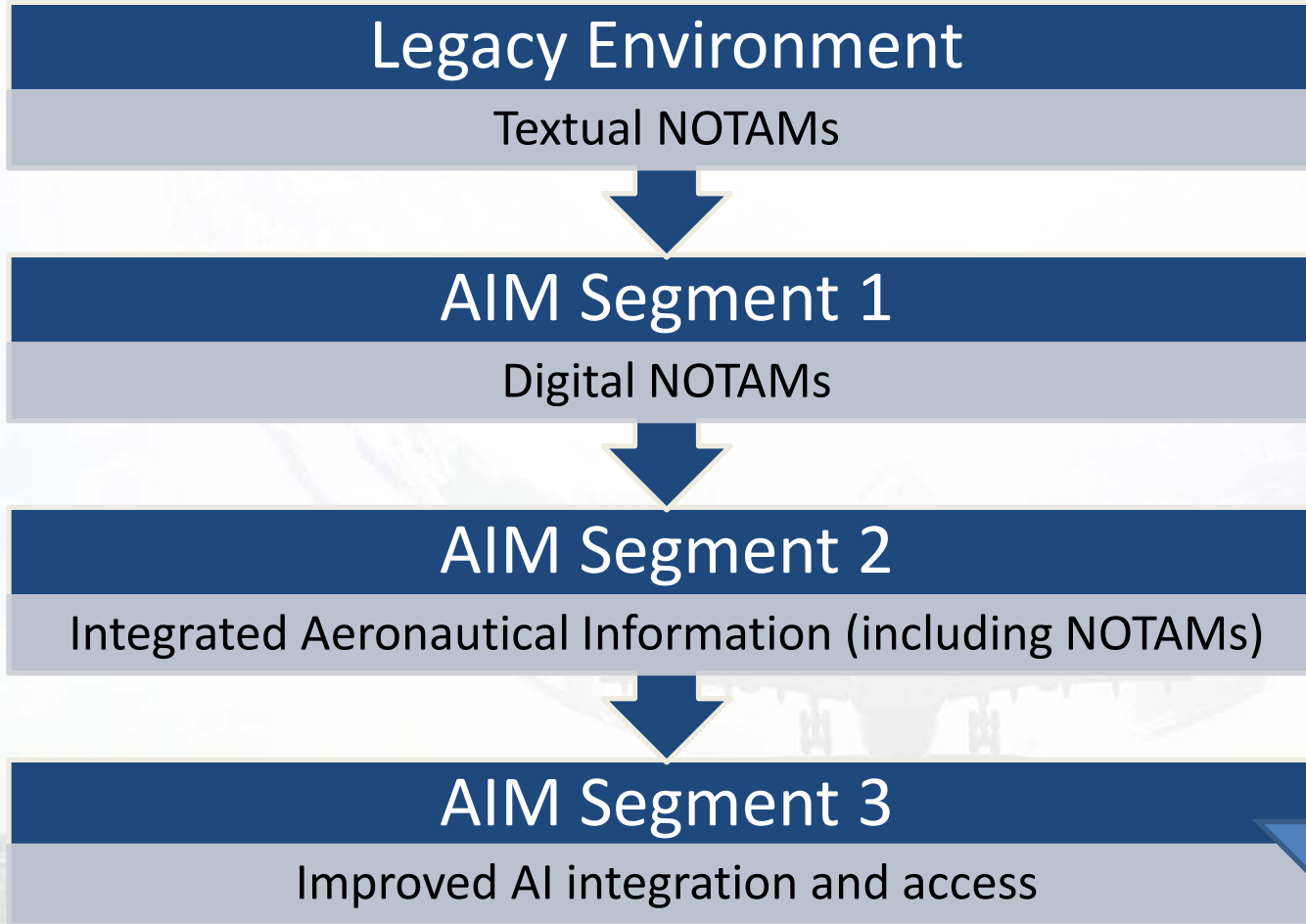
taxiways to controller

NextGen PHASES OF FLIGHT

www.faa.gov/nextgen



Summary



Product-Centric



Information-Centric

Questions

