

Privacy Threshold Assessment (PTA)

Federal Aviation Administration (FAA)
Air Traffic Organization (ATO)
Surveillance Services Directorate/Surveillance and
Broadcast Services Group (AJM-4/AJM-42)
Automatic Dependent Surveillance (ADS-B) Broadcast
Service Availability Prediction Tool (SAPT)



Privacy Threshold Assessment (PTA)

The Privacy Threshold Assessment (PTA) is an analytical tool used to determine the scope of privacy risk management activities that must be executed to ensure that the Department's initiatives do not create undue privacy risks for individuals.

The Privacy Threshold Assessment (PTA) is a privacy risk management tool used by the Department of Transportation (DOT) Chief Privacy Officer (CPO). The PTA determines whether a Department system¹ creates privacy risk for individuals that must be further analyzed, documented, or mitigated, and determines the need for additional privacy compliance documentation. Additional documentation can include Privacy Impact Assessments (PIAs), System of Records notices (SORNs), and Privacy Act Exemption Rules (Exemption Rules).

The majority of the Department's privacy risk emanates from its direct collection, use, storage, and sharing of Personally Identifiable Information (PII),² and the IT systems used to support those processes. However, privacy risk can also be created in the Department's use of paper records or other technologies. The Department may also create privacy risk for individuals through its rulemakings and information collection requirements that require other entities to collect, use, store or share PII, or deploy technologies that create privacy risk for members of the public.

To ensure that the Department appropriately identifies those activities that may create privacy risk, a PTA is required for all IT systems, technologies, proposed rulemakings, and information collections at the Department. Additionally, the PTA is used to alert other information management stakeholders of potential risks, including information security, records management and information collection management programs. It is also used by the Department's Chief Information Officer (CIO) and Associate CIO for IT Policy and Governance (Associate CIO) to support efforts to ensure compliance with other information asset requirements including, but not limited to, the Federal Records Act (FRA), the Paperwork Reduction Act (PRA), the Federal Information Security Management Act (FISMA), the Federal Information Technology Acquisition Reform Act (FITARA) and applicable Office of Management and Budget (OMB) guidance.

Each Component establishes and follows its own processes for developing, reviewing, and verifying the PTA prior to its submission to the DOT CPO. At a minimum the PTA must be

¹ For the purposes of the PTA the term "system" is used throughout document but is not limited to traditional IT systems. It can and does refer to business activity and processes, IT systems, information collection, a project, program and/or technology, and proposed rulemaking as appropriate for the context of the assessment.

² The term "personally identifiable information" refers to information which can be used to distinguish or trace an individual's identity, such as their name, social security number, biometric records, etc. alone, or when combined with other personal or identifying information which is linked or linkable to a specific individual, such as date and place of birth, mother's maiden name, etc.

Privacy Threshold Assessment (PTA)

reviewed by the Component business owner, information system security manager, general counsel, records officers, and privacy officer. After the Component review is completed, the Component Privacy Office will forward the PTA to the DOT Privacy Office for final adjudication. Only PTAs watermarked “adjudicated” and electronically signed by the DOT CPO are considered final. Do NOT send the PTA directly to the DOT PO; PTAs received by the DOT CPO directly from program/business owners will not be reviewed.

If you have questions or require assistance to complete the PTA please contact your [Component Privacy Officer](#) or the DOT Privacy Office at privacy@dot.gov. Explanatory guidance for completing the PTA can be found in the PTA Development Guide found on the DOT Privacy Program website, www.dot.gov/privacy.

PROGRAM MANAGEMENT

SYSTEM name: Automatic Dependent Surveillance – Broadcast (ADS-B) Service Availability Prediction Tool (SAPT)

Cyber Security Assessment and Management (CSAM) ID: 1938

SYSTEM MANAGER CONTACT Information:

Name: David Gray

Email: david.e.gray@faa.gov

Phone Number: 202.267.0513

Is this a NEW system?

- ☐ **Yes** (Proceed to Section 1)
☒ **No**
 ☒ **Renewal**
 ☐ **Modification**

Is there a PREVIOUSLY ADJUDICATED PTA for this system?

- ☐ **Yes:**
 Date:
☒ **No:**

1 SUMMARY INFORMATION

1.1 *System TYPE*

- ☒ **Information Technology and/or Information System**
 Unique Investment Identifier (UII): 021-142305975
 Cyber Security Assessment and Management (CSAM) ID: 1938

☐ **Paper Based:**

☒ **Rulemaking**

Rulemaking Identification Number (RIN):

Rulemaking Stage:

- ☐ **Notice of Proposed Rulemaking (NPRM)**
☐ **Supplemental NPRM (SNPRM):**
☒ **Final Rule:** ADS-B Out Performance Requirements to Support Air Traffic Control (ATC) Service, Final Rule, 75 FR 30193 was published on May 28, 2010. Simultaneously, FAA published Federal Regulations 14 CFR § 91.225 and 14 CFR § 91.227 in May 2010. The final rule dictates that effective January 1, 2020, aircraft operating in airspace defined in 91.225 are required

Privacy Threshold Assessment (PTA)

to have an ADS-B system that includes a certified position source capable of meeting requirements defined in 91.227. The FAA adopted a provision in 14 CFR §91.225 paragraph (g), however that allows operators to request authorization from ATC to operate in ADS-B Out airspace with aircraft that do not fully meet the ADS-B Out requirements.

On April 1, 2019, the FAA published guidelines in a Federal Register Notice for how ATC will manage 14 CFR §91.225(g) and issue authorizations to operators of aircraft that have not installed ADS-B Out equipment but wish to fly in ADS-B Out airspace

<https://www.govinfo.gov/content/pkg/FR-2010-05-28/html/2010-12645.htm>

<https://www.federalregister.gov/documents/2019/07/18/2019-15248/revision-to-automatic-dependent-surveillance-broadcast-ads-b-out-equipment-and-use-requirements>

<https://www.federalregister.gov/documents/2019/04/01/2019-06184/statement-of-policy-for-authorizations-to-operators-of-aircraft-that-are-not-equipped-with-automatic>

Federal Register (FR) Notice:☒ **Information Collection Request (ICR)**³

☒ **New Collection** - In coordination – 60-day Federal Register Notice was published on August 22, 2019, under Docket No. FAA-2019-0631.

<https://www.federalregister.gov/documents/2019/08/22/2019-18120/agency-information-collection-activities-requests-for-comments-clearance-of-a-new-approval-of>

☐ **Approved Collection or Collection Renewal**

☐ **OMB Control Number:**

☐ **Control Number Expiration Date:**

☐ **Other:**

1.2 System OVERVIEW:

The Air Traffic Organization (ATO) Office of Surveillance Services Directorate, Surveillance and Broadcast Services Group (AJM-4/AJM-42) is submitting a Privacy Threshold Assessment (PTA) for the Automatic Dependent Surveillance – Broadcast (ADS-B) Service Availability Prediction Tool (SAPT) system. This is the initial PTA for an existing system.

³See 44 USC 3201-3521; 5 CFR Part 1320

High-Level Description of the System/Privacy Impacts:

The Service Availability Prediction Tool (SAPT) is an Internet-accessible web application for predicting, for a given flight plan, whether or not a flight will have adequate navigation and surveillance as defined by FAA standards, for its duration and route of flight based on (1) the time, route, and airspace of the planned flight; (2) the announced status of the Global Positioning System (GPS) satellite constellation; and (3) ADS-B-related avionics on the subject aircraft. If the GPS position is not accurate enough for ADS-B surveillance, SAPT can check for backup surveillance.

Background:

Automatic Dependent Surveillance – Broadcast (ADS-B) is a surveillance technology that allows avionics to broadcast an aircraft's identification, position, altitude, velocity, and other information to support air traffic control (ATC) services in terminal and en route airspace, and in airport surface operations. The Federal Aviation Administration's ADS-B Final Rule, published in the Federal Register, Vol. 75, No. 103, on May 28, 2010, amended Title 14 of the Code of Federal Regulations (14 CFR) Part 91 by adding equipage requirements and performance standards for ADS-B Out avionics on aircraft operating in Classes A, B, and C airspace, as well as certain other specified classes of airspace within the U.S. National Airspace System after 1 January 2020.

Under 14 CFR § 91.103, pilots and operators must use all available information in planning their flight to ensure that they will meet the performance requirements for the duration of the flight. See:

http://rgl.faa.gov/Regulatory_and_Guidance_Library%5CrgFAR.nsf/0/8FF69D2EEBA22CF9852566CF00613B69?OpenDocument

Description of System; Location:

SAPT determines whether using your GPS equipment, based on location and time, you will have any idea where you are. SAPT makes a model of the GPS satellite constellation and adjusts the model forward to the time you say you will be over a waypoint, and then measures the angles from your plane to each of the satellites at that time. Then it lets you know whether you can expect to meet the requirements for 1) Navigation or 2) Surveillance. For surveillance, it also checks if you will be covered by backup surveillance if your GPS position is not expected to be adequate. For a plane without any GPS equipment or with broken equipment, it checks for backup only.

Operators may use the FAA-provided preflight SAPT to determine predicted navigation or surveillance availability before a flight. The term 'SAPT' refers to the three main components described below, and these pre-flight tools (components) are primarily intended for pilots, dispatchers and commercial operators to use to:

- verify their predicted position quality for navigation (RAIM SAPT component)
- surveillance (ADS-B SAPT component)
- submit an ADS-B deviation authorization request (ADAPT component)

The SAPT continually collects GPS constellation status (e.g., GPS almanacs) and FAA surveillance status data [e.g., secondary surveillance radars (SSR) and wide area multilateration (WAM)⁴] in order to assess the accuracy and integrity of GPS, FAA backup surveillance availability, and other data in real time. This information is used to determine navigation or to support air traffic control services in terminal and en route airspace, and in airport surface operations. SAPT models the GPS system and matches it with certain specified GPS avionics performance characteristics to determine if there is sufficient position information throughout the flight to support the required navigation and surveillance performance.

When an operator performs a preflight availability prediction using SAPT, the SAPT retains a record of each transaction enabling the FAA to confirm that an operator took preflight action. The FAA recommends that operators using an alternate tool retain documentation that verifies the completion of the satisfactory preflight availability prediction for each intended route of flight.

The prediction tools (RAIM SAPT and ADS-B SAPT) and ADAPT all reside on an internet-accessible website infrastructure located in the William J. Hughes Technical Center; See: <https://sapt.faa.gov/default.php>. ADS-B SAPT has two interfaces (a webpage form and an automated interface accepting XML- Extensible Markup Language). RAIM SAPT requires an XML interface and ADAPT requires manual web entry. All services are freely available over the Internet. All submissions must be electronic.

Receiver Autonomous Integrity Monitoring (RAIM) SAPT Component

The use of the RAIM SAPT is voluntary and collects no personal identifiable information. RAIM SAPT is intended mainly for pilots, dispatchers, and commercial service providers using [Technical Standard Order \(TSO\)-C129](#) equipment to check GPS satellite geometry for the time and proposed route of flight.

- RAIM SAPT users can view RAIM outage predictions on-RAIM Summary Displays to graphically view RAIM outage predictions for specific equipment configurations.
- RAIM SAPT users can also use an XML-based (Extensible Markup Language) web service to enter specific route of flight information by the operator checking RAIM outage predictions.

⁴ [Wide Area Multilateration](#) is a ground-based surveillance system that can be installed in areas where radar is limited or not possible.

Privacy Threshold Assessment (PTA)

Automatic Dependent Surveillance – Broadcast (ADS-B) SAPT Component

The use of ADS-B SAPT is required in order to assist aircraft operators to operate in ADS-B Out airspace with aircraft that do not meet ADS-B equipage requirements and determines whether back-up surveillance will be available where the installed aircraft avionics are not predicted to meet the requirements.

- Operator-entered information via ADS-B SAPT, “Flight Information Entry” form, is comparable to that provided in flight plans, with additional information about the aircraft’s GPS receiver and related capabilities of the position source. ADS-B SAPT collects personal identifiable information (i.e. aircraft flight identification (Flight ID/aircraft call sign).
- ADS-B SAPT predicts the ability of an aircraft’s GPS receiver to meet FAA ADS-B performance requirements (integrity and accuracy) along a given route of flight and time, based on the predicted status of the GPS constellation and a standard model of the aircraft’s GPS receiver.

ADS-B Deviation Authorization Preflight Tool (ADAPT) Component

The use of ADAPT is mandatory for aircraft operators seeking to operate aircraft that are not equipped with ADS-B Out equipment in ADS-B airspace after January 1, 2020⁵. It allows operators to file a request for an ATC authorization to operate on the proposed route of flight at the specified time without ADS-B due to:

- The aircraft is not equipped with ADS-B equipment.
- The aircraft’s ADS-B equipment is inoperative.
- The aircraft’s avionics are not expected to meet ADS-B performance requirements at some point along the proposed route of flight.

Operators must manually enter their contact information, including name, telephone number, and email address, to enable the ADAPT system to reply with either an approval, rejection or pending decision.

Subsystems: The SAPT system includes the following subsystems:

- Web Service - supports the Flight Planning Form, Form Support Web services, and the two Transaction Managers, which handle all user requests.
- Prediction Service - calculates, for a given future time, a three-dimensional aircraft location (latitude, longitude, and altitude), the expected status of the GPS, satellite constellations, and the level of service that can be expected.
- Data Service - includes the back-end processing on the application servers to provide data necessary for SAPT core functions.

⁵ Aircraft, without functional ADS-B Out equipment or aircraft not qualifying under [FAA Exemption 12555](#) with ADS-B Out equipment that is predicted to fall below ADS-B performance requirements for their route and time of flight, are required to use the ADS-B ADAPT to obtain an ATC authorization for flight in ADS-B Out airspace.

RAIM SAPT Typical Transaction:

A typical transaction on for the RAIM SAPT begins when a user accesses the [ADS-B/SAPT website](#). RAIM SAPT can be used to graphically view RAIM GPS outage predictions for En Route, Terminal or Non-Precision Approaches⁶ (NPA) flight phases. RAIM SAPT is intended mainly for situation awareness for pilots, dispatchers, and commercial operators to check their predicted navigation horizontal protection level. If the RAIM Summary map is colored red, the user is advised to employ the RAIM SAPT to obtain a more detailed forecast, using either the Grid Display or the XML interface. The user parameters are displayed at the top of the screen, along with the timeframe for which outages have been predicted. Red blocks indicate outages.

The following image illustrates the summary for NPA airspace with SA ON and no barometric aiding (refer to Figure 10-3, RAIM Summary — NPA Airspace, with SA On and No Baro-aiding).

Displaying TSO-C129, no barometric aiding, RAIM NPA airspace,
Selective Availability ON, mask angle: 5.0°

Outage Summaries available for 2018/05/03 22:42 - 2018/05/06 21:42
UTC

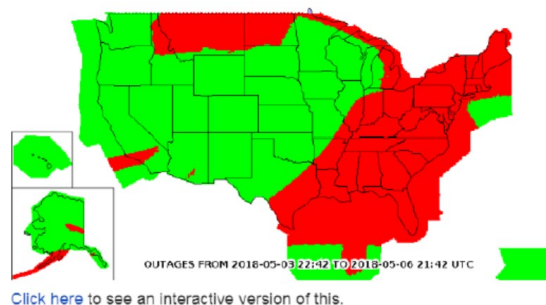


Figure 1: RAIM Summary Depicting Outages

No user information or personal identifiable identification is collected by RAIM, although a user may enter a Flight ID in an XML transaction.

ADS-B SAPT Typical Transaction:

An ADS-B SAPT transaction can be performed via the ADS-B [SAPT “Flight Information Entry” form](#) on the public facing website or the [XML service](#). The ADS-B SAPT “Flight Information Entry” form, like the physical flight form that is familiar to the pilots, allows resubmission and supports multiple save/load options. Information items requested by ADS-B SAPT:

- Aircraft Call Sign
- Aircraft Type

⁶ Non-precision approach (NPA)—an instrument approach based on a navigation system that provides course deviation information but no glidepath deviation information. See: https://www.faa.gov/regulations_policies/handbooks_manuals/aviation/instrument_procedures_handbook/media/faa-h-8083-16b_chapter_4.pdf.

Privacy Threshold Assessment (PTA)

- Navigation Source - TSO or unequipped
- ADS-B TSO or unequipped
- Planned Altitude
- Departure Airport
- Destination Airport
- Route of Flight

The ADS-B SAPT “Flight Information Entry” form contents can be saved to the browser, as a text file or as a shareable link/Uniform Resource Locator (URL). Once all fields are completed, the user submits the flight information entry form; SAPT provides a prediction of the level of service that can be expected for a given time and the expected status of the GPS satellite constellation, which includes the position of each available GPS satellite for the next 72 hours.

- Users must interpret the flight information that is returned in order to determine if the route and time will be adequate to support ADS-B surveillance. The user can save this flight data in their web browser “Favorites” tab or as a Text File on their computer.
- ADS-B SAPT provides a Transaction Number, which is a unique identifier as a reference and to provide proof that a prediction was run for that flight. It does not link to an individual or aircraft call sign, but does include the IP address. Operators may put a Flight ID in the transaction that can be looked up in the database using the Transaction Number.

ADAPT Typical Transaction:

ADAPT user selects the “[Flight Information Entry](#)” form link and enters information about a proposed flight. In addition to the general information about the route of flight, the user enters the type of aircraft and the specific aircraft avionics/equipment to meet ADS-B performance requirements along the given route of flight. Supplemental Applicant Data for ADAPT includes:

- Pilot in Command (PIC) Name, Telephone Number and Email Address
- U.S. Civil Aircraft Registry Number or ICAO Address (hex, octal or decimal)
- ADS-B Equipment Status (unequipped, inoperative, insufficient)
- Working Transponder with altitude reporting? Yes/No
- Affected ATC Facilities
- Flight Classification: Part 91, 121, 129, 135
- Reason for Request
- Certification of Truthfulness

Note that SAPT does not retrieve records by a unique identifier linked to an individual (rather, records are retrieved using information relating to the aircraft). Additionally, records maintained by SAPT are associated with the aircraft and not an individual.

Privacy Threshold Assessment (PTA)

Only one ADAPT request can be created and submitted per ADS-B SAPT flight information entry form. Upon receiving a completed ATC authorization request, ADAPT sends an email to the applicant indicating the status of the request: Approved, Denied, or Pending.

- An ADAPT request can be initiated after an operator has run a flight prediction utilizing the ADS-B SAPT for the intended route of flight and time; ADAPT requests cannot be made without using ADS-B SAPT.
- Pending requests will be forwarded to FAA's ADS-B Authorization Authority (AAA) for manual adjudication.
 - AAA personnel use the FAA's ADS-B Performance Monitor (APM) system to review and update the status of pending requests to Approved or Denied.
 - Operators making ATC authorization requests via ADAPT will be notified of the AAA review (Approval or Denial) via another email message triggered by the AAA review.
- The APM tool will track ADAPT outputs and enable FAA regulatory oversight of all ADS-B Out operations for ADS-B rule compliance.
- Aircraft owner data and flight information on operations associated with an operator will be stored in the SAPT database, to which APM has appropriate access.

Users and How They Access the System:

- Members of the public, including pilots, dispatchers, commercial operators, and members of the general aviation (GA) community – Members of the public access the SAPT and subsequent modules using the <https://sapt.faa.gov> public facing website, which provides a link to RAIM SAPT, ADS-B SAPT, and ADAPT modules
 - The use of Personal Identity Verification (PIV) is not applicable for website users. No authentication is required, and no accounts are created for public access to the site
- SAPT web server is the primary interface between SAPT and two types of users: interactive and automated.
 - Interactive: The interactive user utilizes a web browser to interface with a Hypertext Markup Language (HTML) form on the SAPT web server over the Internet
 - Automated: The automated user accesses SAPT over the Internet by sending XML-formatted requests; this interface allows certain operators to perform transactions in bulk by sending a sequence of one or more XML transactions to be processed at one time. This is primarily use by airline automation software, commercial aircraft operators and third-party flight planning service providers.
- FAA Employees and Contractors - Authorized FAA personnel access information through a web-based application. All accounts for authorized

Privacy Threshold Assessment (PTA)

SAPT backend developers and maintenance personnel (VOLPE) are authenticated using their credentials consisting of a Username and Password.⁷

Data Collected/Processed by System:

The ADS-B SAPT and ADAPT flight information entry forms look like the physical flight plan form that is familiar to the pilots ADAPT includes data elements of the Pilots Name, Address, Telephone Number and Aircraft Home Base, Destination Contact and Telephone Number. These are required in case the pilot must be contacted.

The screenshot shows the SAPT Modified Flight Plan Form. At the top, there is a navigation bar with links: SAPT Home, ADS-B, RAIM, Save & Load, and Help. Below this, the form is divided into several sections. On the left, there is a sidebar with links for 'Getting Started', 'Save & Load', and 'XML Service'. The main form area is titled 'U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION FLIGHT PLAN' and includes fields for '1. TYPE', '2. AIRCRAFT IDENTIFICATION', '3. AIRCRAFT TYPE / SPECIAL EQUIPMENT', '4. TRUE AIRSPEED', '5. DEPARTURE POINT', '6. DEPARTURE TIME', '7. CRUISING ALTITUDE', '8. ROUTE OF FLIGHT', '9. DESTINATION POINT', '10. EST. TIME ENROUTE', '11. REMARKS', '12. FUEL ON BOARD', '13. ALTERNATE ROUTES', '14. PILOT'S NAME, ADDRESS & TELEPHONE NUMBER & AIRCRAFT HOME BASE', '15. NUMBER ABOARD', '16. COLOR OF AIRCRAFT', and '17. DESTINATION CONTACT/TELEPHONE (OPTIONAL)'. There are also checkboxes for 'Navigation Source TSO', 'ADS-B Link TSO', and 'Baro-Aiding equipment installed'. At the bottom right, there are buttons for 'Clear All' and 'Check Availability'.

Figure 2: SAPT Modified Flight Plan Form

When the user submits the flight plan, a text box appears below the form indicating that the request is being processed. Once the request has been processed and the results have been returned, the user is presented with the results of the updated prediction. See Figures 3 for an example of the type of information entered and received.

⁷ VOLPE employees use PIV but it does not allow them access to the FAA network. They must use Username and Passwords for access to the FAA network.

Privacy Threshold Assessment (PTA)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
FLIGHT INFORMATION ENTRY (FAA USE ONLY)

1. TYPE: ☐ VFR ☐ IFR ☐ DVFR
2. AIRCRAFT IDENTIFICATION: **ZZVCOS**
3. AIRCRAFT TYPE: **GLF4**
4. TRUE AIRSPEED: **392** KTS
5. DEPARTURE POINT: **KCOS**
6. DEPARTURE TIME: PROPOSED (Z): **0600** ACTUAL (Z):
7. CRUISING ALTITUDE: **120**

8. ROUTE OF FLIGHT: **ELLZA...MASHD...TRAIN...**

9. DESTINATION POINT: **KDEN**
10. EST. TIME ENROUTE: HOURS: **00** MINUTES: **21**
11. REMARKS: **C129** ADS-B Position Source TSO ☐ Baro-Aiding equipment installed
2600 (1000ES) ADS-B Link TSO
5.0 Mask Angle

12. FUEL ON BOARD: HOURS: MINUTES:
13. ALTERNATE ROUTES:
14. PILOT'S NAME, ADDRESS & TELEPHONE NUMBER & AIRCRAFT HOME BASE:
15. NUMBER ABOARD:
16. COLOR OF AIRCRAFT:
17. DESTINATION CONTACT/TELEPHONE (OPTIONAL):

Transaction #: **6ETWM089UPWFG**
Prediction Time: **2019-10-30 17:31:01 (Z)**
Departure Time: **2019-10-31 06:00 (Z)**

Name	Latitude	Longitude	ETO(Z)	NIC	NAC _p	Airspace	Sufficient?
KCOS	38.8058	-104.7008	06:00	7	8	Terminal	<input checked="" type="radio"/> Yes *
ELLZA	39.1146	-104.6160	06:06	8	8	Terminal	<input checked="" type="radio"/> Yes *
MASHD	39.2155	-104.5637	06:08	8	8	Terminal	<input checked="" type="radio"/> Yes *
TRAIN	39.3050	-104.5577	06:10	8	8	Terminal	<input checked="" type="radio"/> Yes *
DIRECT@16.92NM	39.5833	-104.6152	06:15	8	8	Terminal	<input checked="" type="radio"/> Yes *
KDEN	39.8617	-104.6732	06:21	7	8	Terminal	<input checked="" type="radio"/> Yes *

* GPS Interference testing may be present

View in Interactive Map

Notes: No outages predicted along route

Figure 3- SAPT Prediction – Green – Meets Requirements

Interconnections/MOUs: Please refer to PTA Section 2.10 for information regarding the system's interconnections and Memorandum of Understanding requirements.

Reports: SAPT does not disseminate the information from SAPT applications publicly; however, there may be FAA-internal reports of aggregated use statistics.

Forms:

- Modified version of [FAA Form 7233-1 \(8-82\)](#), SAPT Modified Flight Plan Form, as discussed earlier in the PTA Overview.
- The Deviation Request form is depicted in Figure 4 - ADAPT Deviation Request Form:

Privacy Threshold Assessment (PTA)

Figure 4 - ADAPT Deviation Request Form

- SAPT users may provide an email address to subscribe to the SAPT Email Announcement List to receive notification regarding changes and improvements to the SAPT web site and web service.

Subscribe to the SAPT e-mail Announcement List

To subscribe to the SAPT e-mail announcement list please fill-in the following form and then press the Subscribe button.

Figure 5- SAPT Email Announcement Subscription Form

- Users may also provide comments or ask questions by completing a Feedback Form. This form automatically submits a helpdesk ticket to the En-Route helpdesk. The name, organization and email address are optional fields, but the user must supply an email to receive a response.

Figure 6 - SAPT Feedback Form

2 INFORMATION MANGEMENT

2.1 *SUBJECTS of Collection*

Identify the subject population(s) for whom the system collects, maintains, or disseminates PII. (Check all that apply)

☒ **Members of the public:**

☒ **Citizens or Legal Permanent Residents (LPR)**

☒ **Visitors**

☒ **Members of the DOT Federal workforce**

☒ **Members of the DOT Contract workforce**

☐ **System Does Not Collect PII.** If the system does not collect PII, proceed directly to question 2.3.

2.2 *What INFORMATION ABOUT INDIVIDUALS will be collected, used, retained, or generated?*

Members of the Public:

- Flight Plan Data, including the aircraft Call Sign/N-Number⁸
- Aircraft Type
- Departure Airport
- Destination Airport
- Route of Flight
- Pilot in Command (PIC) Name
- PIC Telephone Number
- PIC Email Address
- Aircraft Home Base
- Destination Contact and Telephone Number
- U.S. Civil Aircraft Registry Number or ICAO Address (hex, octal or decimal)
- Reason for Request
- Certification of Truthfulness, which requires the submitter to check a box that indicates the information is correct; it is required to submit the request.
- Name
- Organization
- Email Address
- Transaction Number (generates), which does not link to an individual or aircraft call sign, but does include the IP address

⁸ In some cases, entering an aircraft call sign in the N-Number (Call Sign) Lookup feature in the FAA Aircraft Registry website (<https://registry.faa.gov/aircraftinquiry/>) may identify and provide PII about the aircraft owner. The aircraft owner information is not collected, processed or searchable within the SAPT system.

- IP Addresses collected in system audit and web logs
- Free-Form Text Field, in which the sender may elect to provide optional PII at their discretion

Members of the DOT/FAA and Contract Workforce:

- Employee Name
- Employee Email Address
- MyAccess Username (Email Address)
- Username and Passwords (Volpe Users)
- IP Addresses collected in system audit logs

2.3 Does the system *RELATE* to or provide information about individuals?

☒ **Yes:**

- ADAPT is mandatory for operators desiring to fly in ADS-B Out rule airspace without complying with the ADS-B mandate; Operators must enter their personal contact information so that FAA ATC Authorization Authority (AAA) can reply with either an approval, rejection, or pending decision.
- Accounts for System Administrators are requested through email. PII includes their name and email address.
- Usernames and passwords are used to authenticate Volpe administrative users; the system audit logs may contain MyAccess Username (Email Address) and IP addresses that can be used to identify an individual user

☐ **No:**



If the answer to 2.1 is "System Does Not Collect PII" **and** the answer to 2.3 is "No", you may proceed to question 2.10.

If the system collects PII or relate to individual in any way, proceed to question 2.4.

2.4 Does the system use or collect *SOCIAL SECURITY NUMBERS (SSNs)*? (This includes truncated SSNs)

☐ **Yes:**

Authority:

Purpose:

- ☒ **No:** The system does not use or collect SSNs, including truncated SSNs. Proceed to 2.6.

2.5 Has an SSN REDUCTION plan been established for the system?

☐ **Yes:**

☐ **No:**

2.6 Does the system collect PSEUDO-SSNs?

☐ **Yes:**

☒ **No:** The system does not collect pseudo-SSNs, including truncated SSNs.

2.7 Will information about individuals be retrieved or accessed by a UNIQUE IDENTIFIER associated with or assigned to an individual?

☒ **Yes**

Is there an existing Privacy Act System of Records notice (SORN) for the records retrieved or accessed by a unique identifier?

☒ **Yes:**

SORN: DOT/ALL 13, [Internet/Intranet Activity and Access Records](#), 67 FR 30757 May 7, 2002

☐ **No:**

Explanation:

Expected Publication:

☐ **Not Applicable:** Proceed to question 2.9

2.8 Has a Privacy Act EXEMPTION RULE been published in support of any Exemptions claimed in the SORN?

☐ **Yes**

Exemption Rule:

☐ **No**

Explanation:

Expected Publication:

☒ **Not Applicable:** SORN does not claim Privacy Act exemptions.

2.9 Has a PRIVACY IMPACT ASSESSMENT (PIA) been published for this system?

☐ **Yes:**

☒ **No:** This is the initial PTA for the SAPT system.

Privacy Threshold Assessment (PTA)

☐ **Not Applicable:** The most recently adjudicated PTA indicated no PIA was required for this system.

2.10 Does the system EXCHANGE (receive and/or send) DATA from another INTERNAL (DOT) or EXTERNAL (non-DOT) system or business activity?

☒ **Yes:**

System Name (Acronym)	External to FAA	Data Flow / Direction? Protocol	What Data is Exchanged?	ISA/MOU Required?	Adjudicated PTA?
Surveillance and Broadcasting Services (SBS) (Data Type 1)	No	Transmission Control Protocol (TCP) Data copied to SAPT database from the ADS-B Performance Monitor Tool (APM)	Secondary Surveillance Radar (SRR) Status; Required Airspace; Performance Values; Service Volume Description Document (SVDD) No PII	No	Yes, 11/13/2012
Technology Service Corporation (TSC) (Data Type 2)	Yes	TSC physically provides the theoretical coverage documentation of all the radars in the SVDD, which SAPT uses to predict backup surveillance availability. This information is stable and does not change very often.	SRR WAM Availability Time No PII	Via contract between FAA/TSC	Not Applicable
ADS-B Performance Monitor Tool (APM) (Data Type 2)	No	Structured Query Language (SQL), Incoming	SRR WAM Availability Time No PII	No	Yes, 8/28/2012
Aviation Environmental Design Tool (AEDT), (DOT VOLPE) https://www.faa.gov/about/office_org/head	No	Secure File Transfer Program (SFTP), One-way incoming; Uploaded by	Aircraft Performance File No PII	No	Not Applicable

Privacy Threshold Assessment (PTA)

System Name (Acronym)	External to FAA	Data Flow / Direction? Protocol	What Data is Exchanged?	ISA/MOU Required?	Adjudicated PTA?
quarters_offices/apl/research/models/aedt/ (Data Type 3)		SAPT Admin level user			
Coded Instrument Flight Procedures (CIFP), https://www.faa.gov/air_traffic/flight_info/aeronav/digital_products/cifp/ , which is part of the Aeronautical Information Services https://www.faa.gov/air_traffic/flight_info/aeronav/ (Data Type 4)	No	SFTP; one-way incoming - Uploaded by SAPT Admin level user via File Transfer Protocol (FTP)	CIFP ATO waypoint data; Airports, Waypoints, Routes, Nav aids No PII	No	Not Applicable
Pilotweb https://pilotweb.nas.faa.gov/PilotWeb/ , which is part of the NAS Aeronautical Information Management Enterprise System (NAIMES) Program. (Data Type 5)	No	SFTP, One-way download from Pilotweb	Position and duration information for NOTAMs; jamming and interference	No, publicly available information.	Yes, 3/14/2012
Defense Internet NOTAM Service (DINS) - https://www.notams.faa.gov/dinsQueryWeb/ ; https://gps.afspc.af.mil/gps/Current/current.alm (Data Type 5)	Yes	SFTP, One-way download from DINS; Note this is backup source for the data received from PilotWeb	Notice to Airmen (NOTAM)s; jamming and interference	No, publicly available information	Not Applicable
US Coastguard Navigation Center (NAVCEN); https://www.navcen.uscg.gov/ (Data Type 6)	Yes	Hypertext Transfer Protocol Secure (HTTPS); One-way secure download from Coastguard	GPS Almanac; Satellite Outages	No, publicly available information	Not Applicable
Schriever Air Force Base; https://gps.afspc.af.mil/gps/Current/current.alm (Data Type 6)	Yes	Hyper Text Transfer Protocol Secure (HTTPS); One-way secure download; is used as a backup source	GPS Almanac; Satellite Outages	No, publicly available information	Not Applicable

Privacy Threshold Assessment (PTA)

System Name (Acronym)	External to FAA	Data Flow / Direction? Protocol	What Data is Exchanged?	ISA/MOU Required?	Adjudicated PTA?
		for the NAVCEN site			

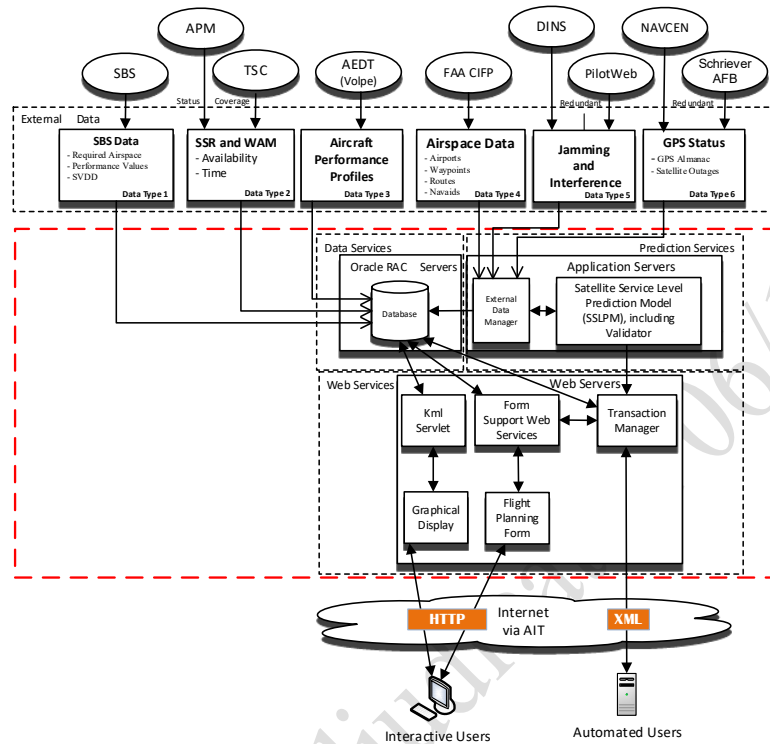


Figure 7 - SAPT Architecture and Interfaces

☐ No:

2.11 Does the system have a National Archives and Records Administration (NARA)-approved RECORDS DISPOSITION schedule for system records?

☒ Yes:

Schedule Identifier: GENERAL RECORDS SCHEDULE 3.2: Information Systems Security Records, DAA-GRS2013-00

Schedule Summary: Item 20: Computer security incident handling, reporting and follow-up records.

Disposition: Temporary. Destroy 3 year(s) after all necessary follow-up actions have been completed, but longer retention is authorized if required for business use.

Schedule Summary: Item 30: System Access Records.

Disposition: Temporary. Destroy when business use ceases.



grs03-2.pdf

☑ In Progress:**Schedule Identifier:** DAA-0237-2020-0002**Schedule Summary:****Input:** DAA-0237-2020-0002-0001, SVDD, Aircraft Performance File, GPS Almanac, ADS-B Performance Monitor, User Input, Navcen**Disposition: Temporary.** 90 days after superseded. Destroy 1 year(s) after cutoff.**Masterfile:** DAA-0237-2020-0002-0002, Enroute and Terminal Airspaces, Aircraft Altitude Profile, NAVCEN_NOTAMS, Sensor Status, NOTAMS, Route of flight avionic TSOs for navigation, State File.**Disposition: Temporary.** Overwrite when superseded. Destroy when no longer needed**Output:** DAA-0237-2020-0002-0003. Short Term Outages.**Disposition: Temporary.** Overwrite when superseded. Last set to be destroyed when application shut down.**Output:** DAA-0237-2020-0002-0004: RAIM Short Term Outage Information**Disposition: Temporary.** Overwrite when superseded. Destroy when no longer needed.**Output:** DAA-0237-2020-0002-0005, Internal reports of aggregated use statistics**Disposition: Temporary.** 90 days after superseded. Destroy 1 year(s) after cutoff.**Output:** DAA-0237-2020-0002-0006, Predictions of routes of flight**Disposition: Temporary.** 90 days after superseded. Destroy 1 year(s) after cutoff.**Output:** DAA-0237-2020-0002-0007, Predictions for routes of flight (short-term)**Disposition: Temporary.** Cutoff 7 days after creation. Destroy 30 days after cutoff.**Output:** DAA-0237-2020-0002-0008, Output-State File**Disposition: Temporary.** 90 days after superseded. Destroy 1 year(s) after cutoff.

Privacy Threshold Assessment (PTA)

DAA-0237-2020-000
2.pdf

NOTE: Any unscheduled records, and records with schedules pending NARA's approval, must be kept indefinitely until NARA has approved the applicable schedule.

☐ **No:**

3 SYSTEM LIFECYCLE

The systems development life cycle (SDLC) is a process for planning, creating, testing, and deploying an information system. Privacy risk can change depending on where a system is in its lifecycle.

3.1 Was this system *IN PLACE* in an *ELECTRONIC FORMAT* prior to 2002?

[The E-Government Act of 2002](#) (EGov) establishes criteria for the types of systems that require additional privacy considerations. It applies to systems established in 2002 or later, or existing systems that were modified after 2002.

☐ **Yes:**

☒ **No:** SAPT started development in 2010. ADAPT started development in 2019.

☐ **Not Applicable:** System is not currently an electronic system. Proceed to Section 4.

3.2 Has the system been *MODIFIED* in any way since 2002?

☒ **Yes:** The system has been modified since 2002.

☒ **Maintenance.**

☒ **Security.**

☐ **Changes Creating Privacy Risk:**

☐ **Other:**

☐ **No:** The system has not been modified in any way since 2002.

3.3 Is the system a *CONTRACTOR-owned* or *-managed* system?

☐ **Yes:** The system is owned or managed under contract.

Contract Number:

Contractor:

☒ **No:** The system is owned and managed by Federal employees.

3.4 Has a system Security Risk CATEGORIZATION been completed?

The DOT Privacy Risk Management policy requires that all PII be protected using controls consistent with Federal Information Processing Standard Publication 199 (FIPS 199) moderate confidentiality standards. The OA Privacy Officer should be engaged in the risk determination process and take data types into account.

☒ **Yes:** A risk categorization has been completed.

Based on the risk level definitions and classifications provided above, indicate the information categorization determinations for each of the following:

Confidentiality: ☒ Low ☐ Moderate ☐ High ☐ Undefined

Integrity: ☒ Low ☐ Moderate ☐ High ☐ Undefined

Availability: ☒ Low ☐ Moderate ☐ High ☐ Undefined

Based on the risk level definitions and classifications provided above, indicate the information system categorization determinations for each of the following:

Confidentiality: ☒ Low ☐ Moderate ☐ High ☐ Undefined

Integrity: ☒ Low ☐ Moderate ☐ High ☐ Undefined

Availability: ☒ Low ☐ Moderate ☐ High ☐ Undefined

☐ **No:** A risk categorization has not been completed. Provide date of anticipated completion.

3.5 Has the system been issued an AUTHORITY TO OPERATE?

☒ **Yes:**

Date of Initial Authority to Operate (ATO): 9/10/2018

Anticipated Date of Updated ATO: 9/10/2021

☐ **No:**

☐ **Not Applicable:** System is not covered by the Federal Information Security Act (FISMA).

4 COMPONENT PRIVACY OFFICER ANALYSIS

The Component Privacy Officer (PO) is responsible for ensuring that the PTA is as complete and accurate as possible before submitting to the DOT Privacy Office for review and adjudication.

COMPONENT PRIVACY OFFICER CONTACT Information

Name: Bud Gordon

Email: Bud.Gordon@FAA.Gov

Phone Number: 571 209-3078

COMPONENT PRIVACY OFFICER Analysis

The Service Availability Prediction Tool (SAPT) is an Internet-accessible web application for predicting, for a given flight plan, whether or not a flight will have adequate navigation and surveillance as defined by FAA standards, for its duration and route of flight based on (1) the time, route, and airspace of the planned flight; and (2) the announced status of the Global Positioning System (GPS) satellite constellation. System Administrators access the system using their email address and password. In addition, the system collects the IP address of the pilot and System Administration. These records are covered by DOT/ALL 13, Internet/Intranet Activity and Access Records, 67 FR 30757 May 7, 2002. The following privacy concerns are associated with SAPT:

AR 2- Privacy Impact and Risk Assessment - A PIA was published on the DOT Privacy [website](#).

TR-1 Privacy Notice There is a Privacy Act Notice in draft but not final. A PAS is required and must be posted on the comment/feedback and subscribe to website prior to the collection of information by SAPT.

5 COMPONENT REVIEW

Prior to submitting the PTA for adjudication, it is critical that the oversight offices within the Component have reviewed the PTA for completeness, comprehension and accuracy.

Component Reviewer	Name	Review Date
Business Owner	David E. Gray	11/12/2019
General Counsel	Sarah Leavitt	4/23/2020
Information System Security Officer	Maryanne Chappell	11/08/2019
Privacy Officer	Bud Gordon	03/05/20
Records Officer	Takisha Brown	11/12/2019

Table 1 - Individuals who have reviewed the PTA and attest to its completeness, comprehension and accuracy.

Privacy Threshold Assessment (PTA) Template v2.0

Control #	Control Name	Primary PTA Question	Satisfied	Other than Satisfied	N/A	DOT CPO Notes
AP-1	Authority to Collect	1.2 - Overview	X			14 CFR §91.225 paragraph (g) Non-substantive records created for purposes of system login, audit, and other security management functions are covered under DOT/ALL 13 - Internet/Intranet Activity and Access Records - 67 FR 30757 - May 7, 2002
AP-2	Purpose Specification	1.2 - Overview	X			Purpose is consistent with authority.
AR-1	Governance and Privacy Program	Common Control	X			Addressed by DOT CPO.
AR-2	Privacy Impact and Risk Assessment	Program Management	X			PIA published to DOT privacy site: https://www.transportation.gov/individuals/privacy/service-availability-prediction-tool-sapt Note: PCM needs to be completed annually in line with ATO renewal. PIA must be reviewed to ensure accuracy of published document and updated if necessary.
AR-3	Privacy Requirements for Contractors and Service Providers	3.3 - Contractor System			X	System is owned and managed by Federal employees.
AR-4	Privacy Monitoring and Auditing	Common Control	X			Addressed by DOT CPO.
AR-5	Privacy Awareness and Training	Common Control	X			Addressed by DOT CPO.

Privacy Threshold Assessment (PTA)

AR-6	Privacy Reporting	Common Control	X			Addressed by DOT CPO.
AR-7	Privacy-Enhanced System Design and Development	2.5 - SSN Reduction			X	System does not collect SSN. System does collect PII which is protected by appropriate technical, physical and administrative controls.
AR-8	Accounting of Disclosures	2.7 - SORN			X	PII maintained in the system not protected under the Privacy Act.
DI-1	Data Quality	1.2 - System Overview			X	PII maintained in the system not protected under the Privacy Act.
DI-2	Data Integrity and Data Integrity Board	3.4 - Security Risk Categorization			X	System does not conduct activities covered by CMA.
DM-1	Minimization of PII	2.2 – Information About Individuals	X			FAA collects the minimum amount of information necessary (only the name, phone number, and email addresses of aircraft operators) support the aircraft operators using pre-flight availability predictions for navigation and surveillance, and for submitting a request for an authorization as required by 14 CFR § 91.225 paragraph (g) from ATC. The name, phone number and email address is used by the FAA to communicate the approval, rejection or pending decision with aircraft operators.
DM-2	Data Retention and Disposal	2.11 - Records Disposition Schedule		X		Note: System has pending records schedules. Any unscheduled records, and records with schedules pending NARA's approval, must be kept indefinitely until NARA has approved the applicable schedule. PIA must be updated to reflect schedules once approved.
DM-3	Minimization of PII Used in Testing, Training, and Research	2.2 – Information About Individuals				System not used for testing, training, research.

Privacy Threshold Assessment (PTA)

IP-1	Consent	2.7 - SORN	X			System does not include records protected by the Privacy Act.
IP-2	Individual Access	2.8 – Exemption Rule	X			System does not include records protected by the Privacy Act.
IP-3	Redress	2.7 - SORN	X			System does not include records protected by the Privacy Act.
IP-4	Complaint Management	Common Control	X			Addressed by DOT CPO
SE-1	Inventory of PII	Common Control	X			<p>System is privacy sensitive.</p> <p>POA&M Issue: DOT CPO does not concur with system categorization. System is categorized as “low”. DOT Order 1351.18 requires that all PII be protected using controls consistent with FIPS 199 moderate confidentiality standards. Requirement: Although FIPS 199 recognizes the “high water mark” standard for system categorization, FAA must follow DOT policy and re-categorize the confidentiality risk for the system as “moderate”. Timeline: Prior to next ATO being granted. NOTE: Tailored low/moderate, as appropriate, to ensure moderate confidentiality controls are in place is supported. See RA-2, Security Categorization.</p> <p>The Adjudicated PTA or copy of controls/POA&Ms should be included in the risk acceptance package for the system.</p> <p>The Adjudicated PTA should be uploaded into CSAM as evidence that the required privacy analysis for this system has been completed.</p> <p>The PTA should be updated not later than the next security assessment cycle and must be approved by the DOT CPO prior to the authorization decision. Component policy or</p>

Privacy Threshold Assessment (PTA)

						substantive changes to the system may require that the PTA be updated prior to the next security assessment cycle.
SE-2	Privacy Incident Response	Common Control	X			Addressed by DOT CPO.
TR-1	Privacy Notice	2.7 - SORN			X	Records created for the purposes of account creation, logging, auditing, etc. are covered by DOT/ALL-13. Note: Privacy Act Notice is required and must be posted on the comment/feedback and subscribe to website prior to the collection of information by SAPT. Requirement: Finalize Privacy Act Notice. Timeline: Prior to the collection of information by SAPT.
TR-2	System of Records Notices and Privacy Act Statements	2.7 - SORN			X	Records created for the purposes of account creation, logging, auditing, etc. are covered by DOT/ALL-13.
TR-3	Dissemination of Privacy Program Information	Common Control	X			Addressed by DOT CPO.
UL-1	Internal Use	2.10 - Internal and External Use	X			Addressed in PTA. Records created for the purposes of account creation, logging, auditing, etc. are covered by DOT/ALL-13.
UL-2	Information Sharing with Third Parties	2.10 - Internal and External Use	X			Addressed in PTA. Records created for the purposes of account creation, logging, auditing, etc. are covered by DOT/ALL-13.

