

Surveillance Broadcast Services

Privacy ICAO Addresses (PIA)

Presented to Helicopter Safety Advisory
Conference

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Federal Aviation
Administration



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ADS-B Background

- **The FAA completed the final program milestone with the last two (2) airports receiving ADS-B in Sep 2019—brings to total to 155 airports**
- **ADS-B is now operational at ATC facilities across the USA**
- **Effective Jan 1, 2020, aircraft operating in rule airspace are required to be equipped with v2 avionics for ADS-B ‘Out’ only (1090 or 978 MHz)**
- **There is a mechanism for pilots / operators without ADS-B ‘Out’ equipment to request ATC authorization to deviate from the rule to access ADS-B ‘Out’ rule airspace**



Privacy Concerns

- **ADS-B ‘Out’ includes aircraft information linked to Civil Aircraft Registry (CAR)**
- **Commercially available software defined radios (SDR) can be used to capture ATC wireless communications**
- **Flight-tracking websites, such as Flightradar24, publicly disseminate aircraft movements**
- **Aircraft owners and operators have cited concerns due to the lack of privacy to prevent:**
 - Corporate espionage
 - Tracking of politicians, government officials, and classified government operations
 - Loss of anonymity

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- **Background**

- FAA NextGen Advisory Committee and Equip 2020 identified anonymity as a barrier to ADS-B equipage

- **Status: Two-phase solution in the works**

- Interim solution

- System owned, operated and maintained by the FAA
- Operational from Jan 1st until long term solution is ready
- Manual process

- Long-term solution

- System owned, operated and maintained by one or more third party service providers
- Expected to be operational after the New Year
- Automated process

PIA Interim Solution

- **Replicate the ADS-B rebate website to serve as the interim Privacy ICAO Address (PIA) service portal**
 - Use same website structure, data fields as ADS-B Rebate site
 - Establish FAA back-up staff to support surge in requests
- **Process**
 - Human in the loop accepts PIA request via website
 - Public ADS-B Performance Reports (PAPR) are obtained for the aircraft to check for conformance
 - PIA is assigned to the operator
 - PIA is validated for operational use via PAPR

PIA Long Term Solution

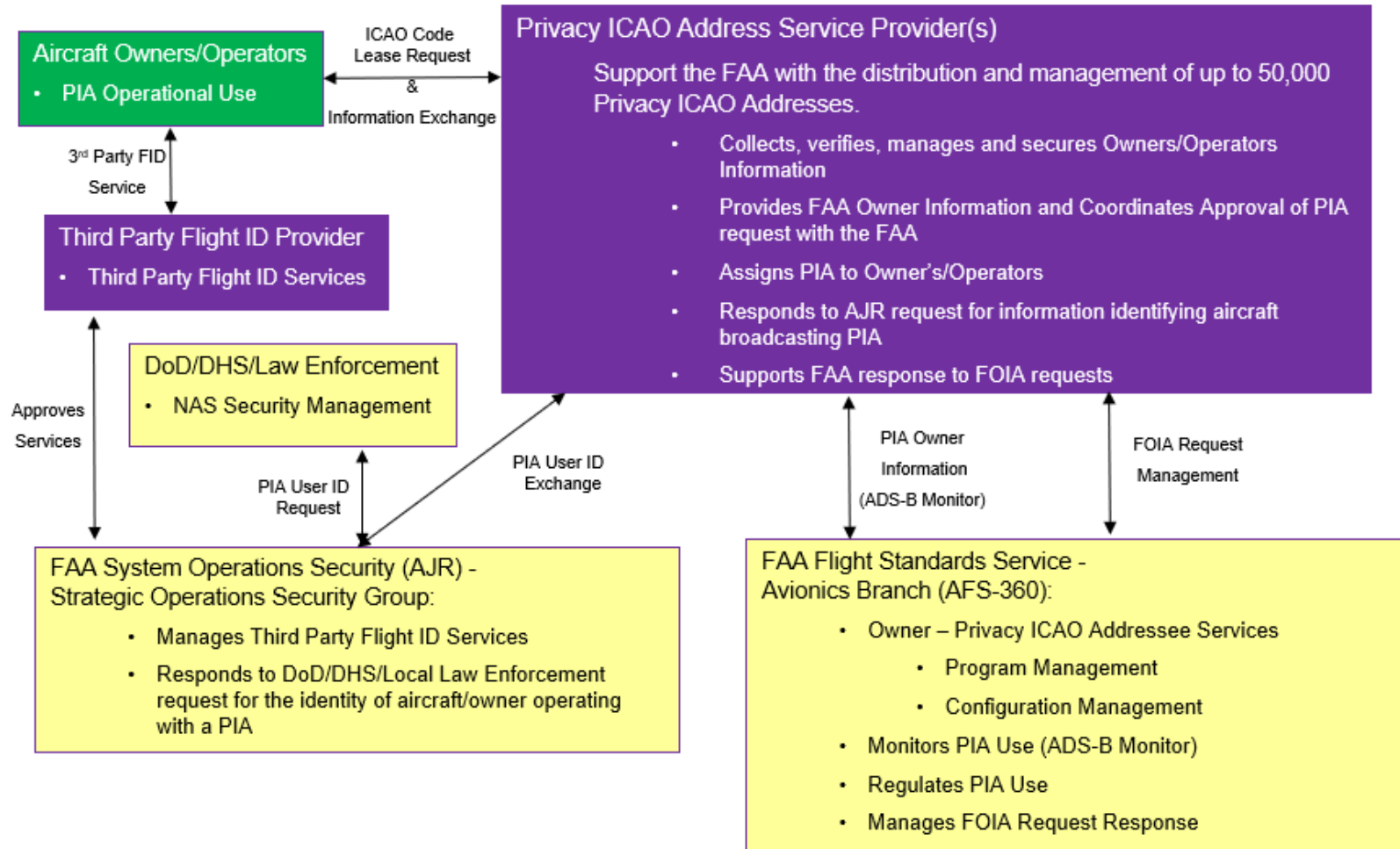
- **A block of 50,000 ICAO codes will be allocated for this effort**
- **A third-party service provider will be responsible for leasing ICAO codes from the reserved block**
- **Aircraft operators will submit lease requests to the third-party service provider, who will approve / deny requests**
- **External entities vetted by the FAA (e.g. law enforcement) will be able to reverse look-up the true identity of an aircraft**
- **FAA will have the ability to obtain details about the operators and the respective leases**

PIA Long Term Solution (cont'd)

- **Final revisions received from FAA General Counsel on solicitation to implement long term solution**
- **Market Survey expected to be published by FAA once all final comments have been processed**
- **PIA service expected to be operated by one or more third party service providers in 2020**



PIA Long Term Solution (cont'd)



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