NAS Enterprise Architecture

Infrastructure Roadmaps v19.0

BASELINE

February 2025
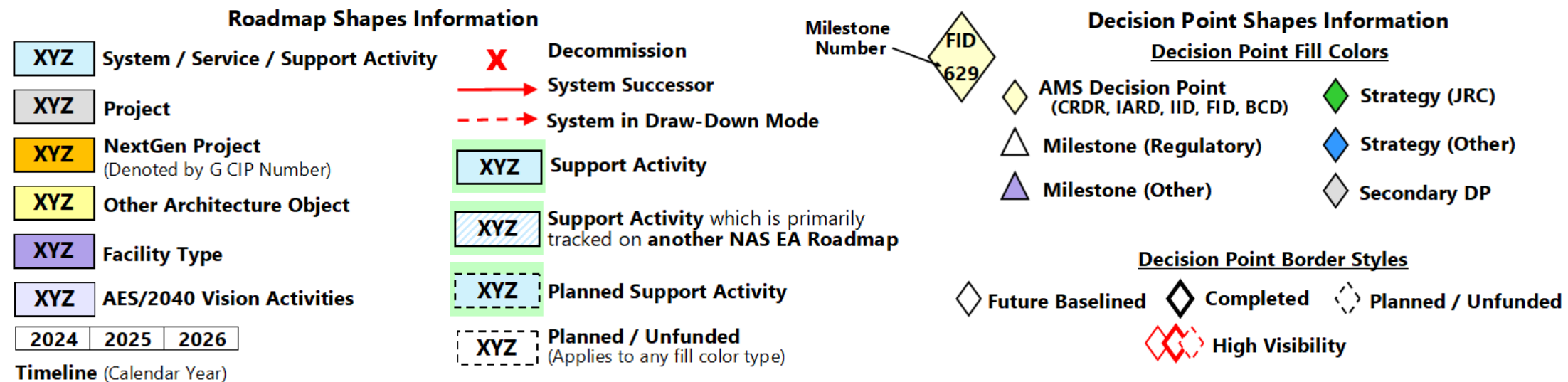
Infrastructure Roadmap Overview

What are the Infrastructure Roadmaps?

- The FAA Infrastructure Roadmaps show the progression of system deployments, investments, and key decision points for major NAS acquisitions. They depict the acquisition strategy to evolve the NAS from the As-Is to the To-Be environment.

- The Infrastructure Roadmaps show all Capital Investment Plan (CIP) investment projects and systems identified in the NSIP that will deliver the necessary functionality to enable OIs and BTIs.

Guidelines for Understanding the Roadmaps

- The Infrastructure Roadmaps are organized by Domain (Automation, Communication, etc.) and depict projects, systems, services, decision points, and support activities.

- The timeline is in calendar years and shows a 17-year outlook.

- The roadmaps have swim lanes for Infrastructure (white), Support Activities (green), and Platform/Compute (purple).

- The DP diamonds represent the quarter in which a decision will occur.

- The Support Activity bars represent the dates that work is being performed on the activity.

- The Project bars represent the dates that CIP funding is allocated to a project.

- The System and Service bars represent the dates that a system or service is operational, with red lines indicating sustainment, drawdown, or convergence

Infrastructure Roadmap Legend

Roadmap Shapes Information

- XYZ — System / Service / Support Activity
- XYZ — Project
- XYZ — NextGen Project (Denoted by G CIP Number)
- XYZ — Other Architecture Object
- XYZ — Facility Type
- XYZ — AES/2040 Vision Activities
- 2024 | 2025 | 2026 — Timeline (Calendar Year)

- X — Decommission
- → System Successor
- ⇢ System in Draw-Down Mode
- XYZ — Support Activity
- XYZ — Support Activity which is primarily tracked on another NAS EA Roadmap
- XYZ — Planned Support Activity
- XYZ — Planned / Unfunded (Applies to any fill color type)

Milestone Number — FID 629

Decision Point Shapes Information

Decision Point Fill Colors

- AMS Decision Point (CRDR, IARD, IID, FID, BCD)
- Milestone (Regulatory)
- Milestone (Other)
- Strategy (JRC)
- Strategy (Other)
- Secondary DP

Decision Point Border Styles

- Future Baselined
- Completed
- Planned / Unfunded
- High Visibility

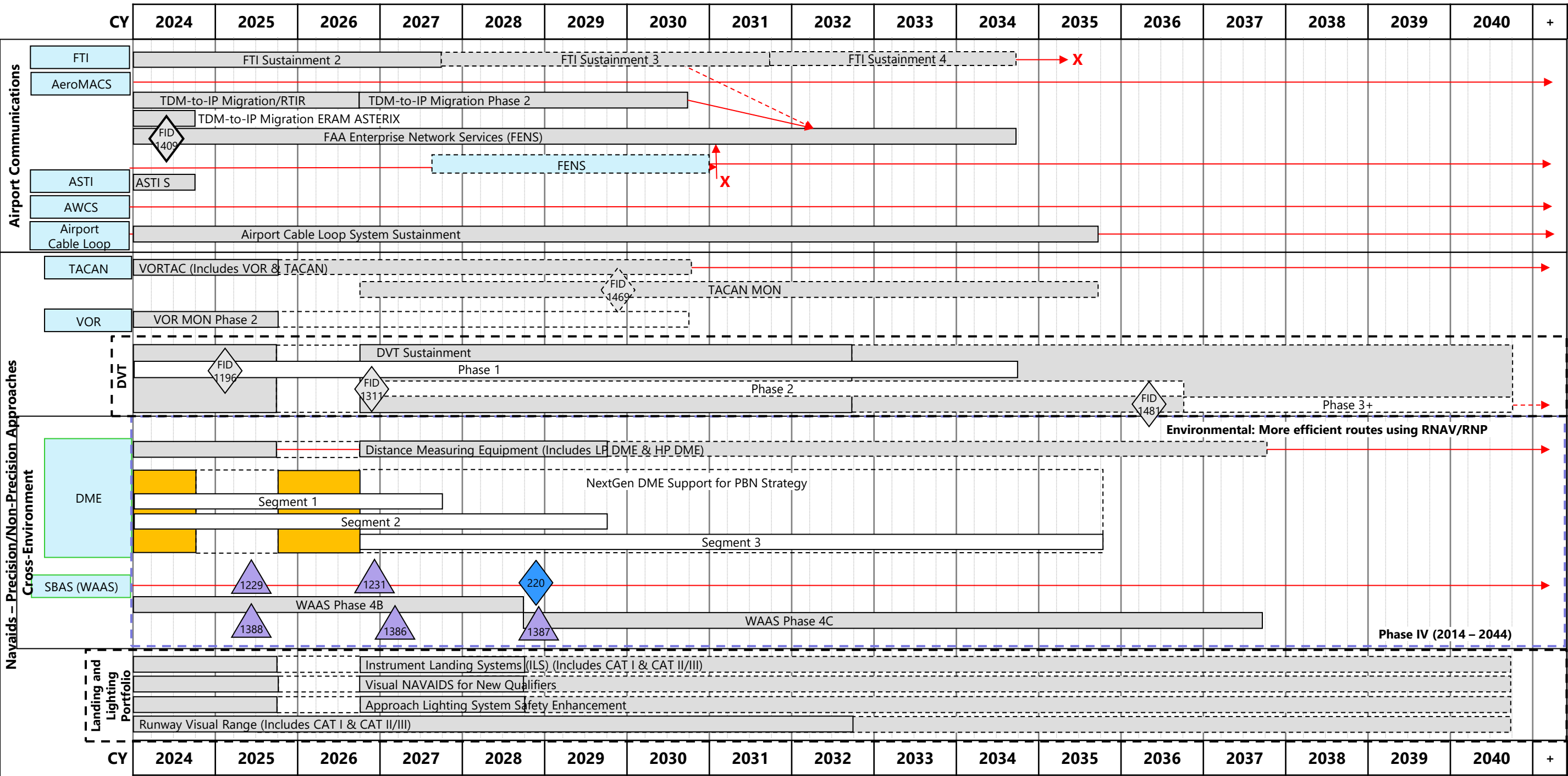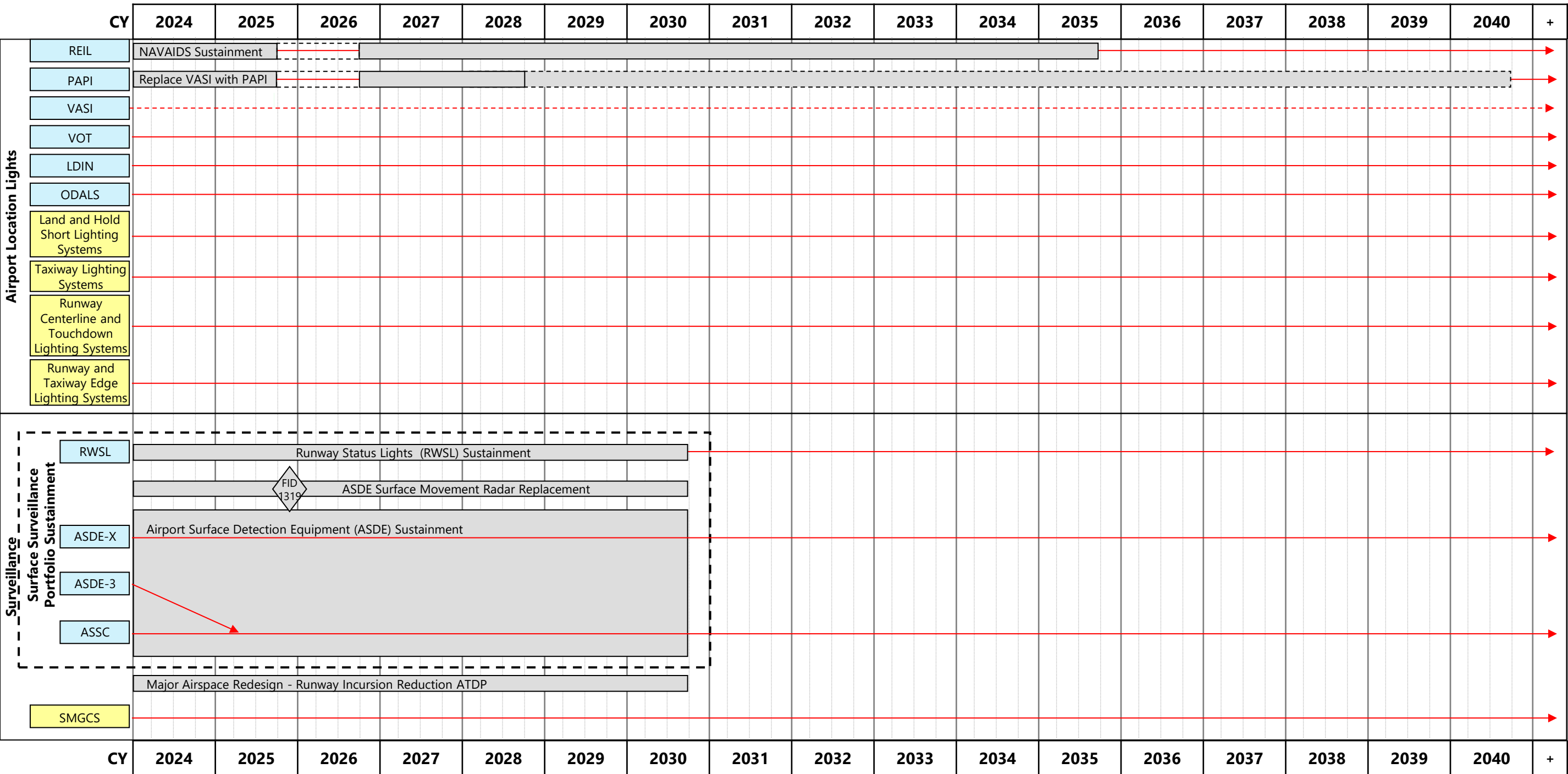**BASELINE**

Airport

The Airport Roadmap identifies NextGen progression of services, procedures and systems in the airport environment.
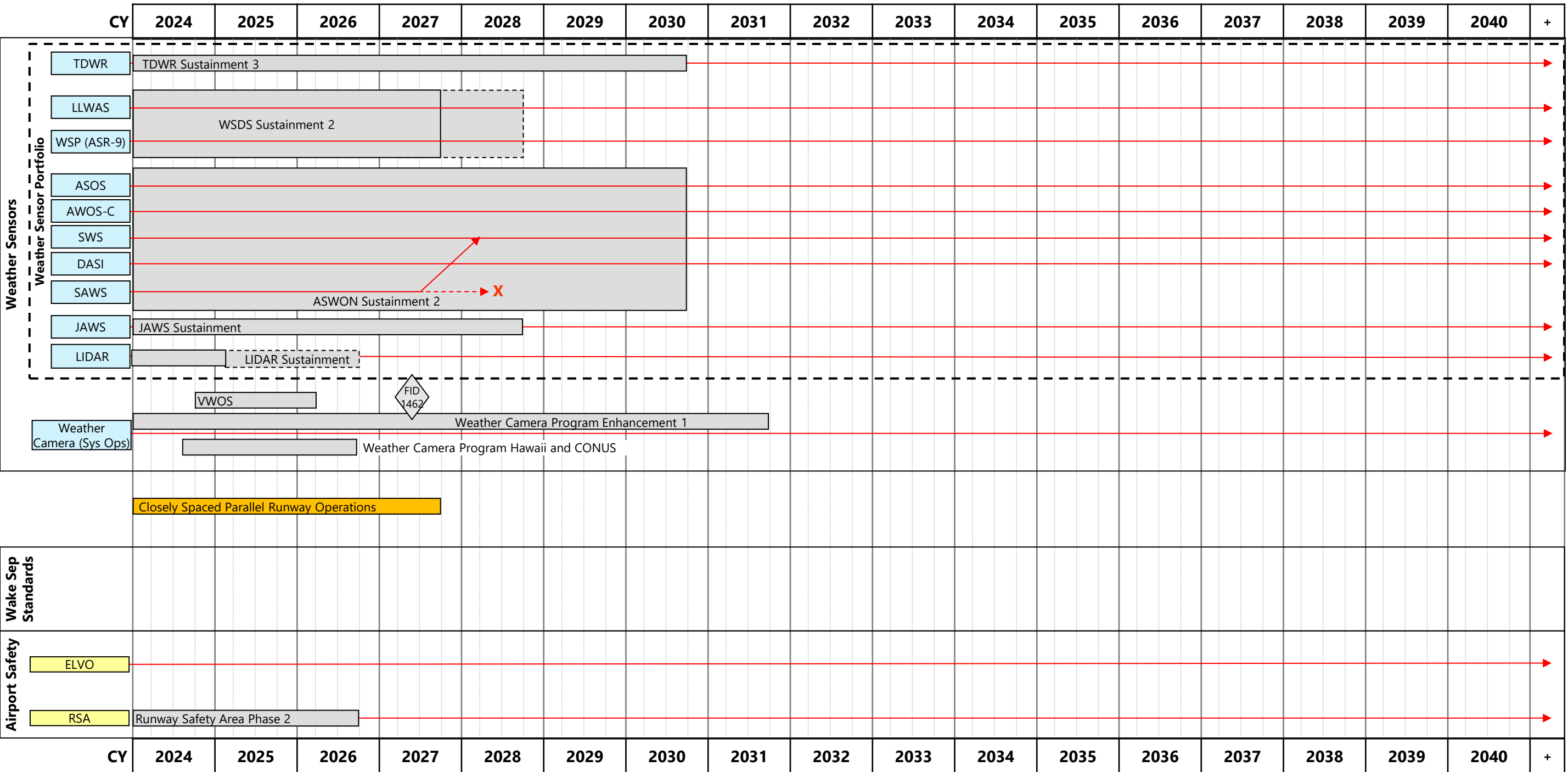
Airport Roadmap (1 of 5)

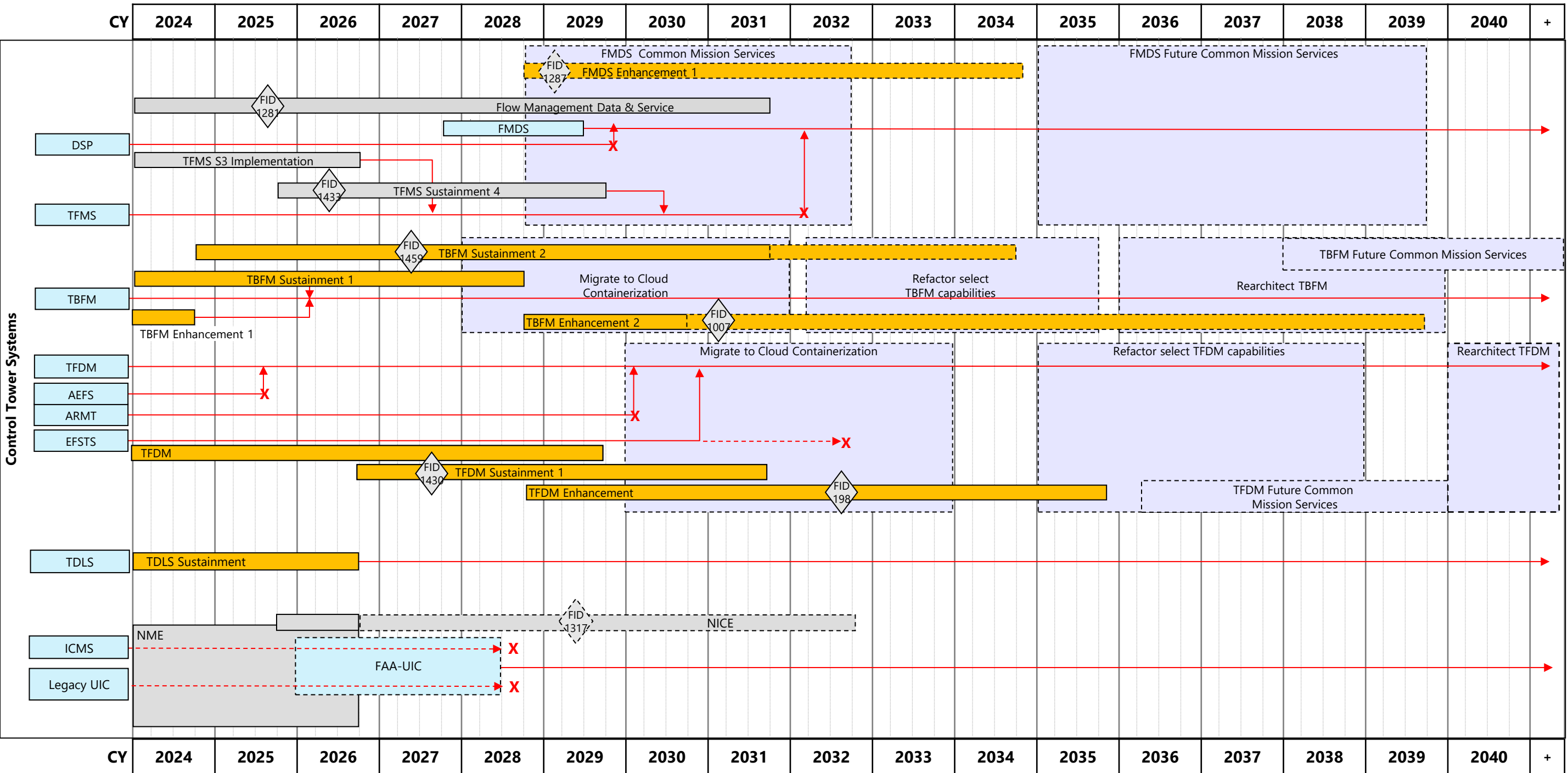| CY	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	+

Airport Location Lights

- **REIL** — NAVAIDS Sustainment
- **PAPI** — Replace VASI with PAPI
- **VASI**
- **VOT**
- **LDIN**
- **ODALS**
- **Land and Hold Short Lighting Systems**
- **Taxiway Lighting Systems**
- **Runway Centerline and Touchdown Lighting Systems**
- **Runway and Taxiway Edge Lighting Systems**

Surveillance — Surface Surveillance Portfolio Sustainment

- **RWSL** — Runway Status Lights (RWSL) Sustainment
- ASDE Surface Movement Radar Replacement — FID 1319
- **ASDE-X** — Airport Surface Detection Equipment (ASDE) Sustainment
- **ASDE-3**
- **ASSC**
- Major Airspace Redesign - Runway Incursion Reduction ATDP
- **SMGCS**

CY	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	+

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CY	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	+

Weather Sensors

Weather Sensor Portfolio

- TDWR — TDWR Sustainment 3
- LLWAS / WSP (ASR-9) — WSDS Sustainment 2
- ASOS / AWOS-C / SWS / DASI / SAWS — ASWON Sustainment 2 → X
- JAWS — JAWS Sustainment
- LIDAR — LIDAR Sustainment

Weather Camera (Sys Ops)

- VWOS
- FID 1462
- Weather Camera Program Enhancement 1
- Weather Camera Program Hawaii and CONUS
- Closely Spaced Parallel Runway Operations

Wake Sep Standards

Airport Safety

- ELVO
- RSA — Runway Safety Area Phase 2

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Airport Roadmap (5 of 5)

| CY | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 | 2040 | + |

Control Tower Systems

- E-IDS Phase 1
- E-IDS Phase 2 — FID 1186
- E-IDS Phase 3 — FID 1185
- E-IDS
- IDS4
- NIDS
- ACE-IDS
- ERIDS
- E-IDS Sustainment
- STARS Sustainment 5 — FID 1273
- Migrate to Cloud Containerization
- Refactor select STARS capabilities
- STARS Sustainment 6
- STARS Sustainment 3
- STARS Sustainment 7
- FID 1269 — STARS Sustainment 4
- STARS Sustainment 8
- STARS
- STARS Evolution
- STARS – Pre-Production
- STARS – ME Containerization
- STARS – MC Containerization

Support Activities

- ATN-IP A/G Communication Standards Development (SC-223, ICAO, AEEC)
- Climate Change/Coastal Airports Assessment

| CY | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 | 2040 | + |

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Airport Roadmap: Assumptions

Identifier	Description
APT-01	The Airports roadmap will focus on systems and services operating and being performed airside at medium/large Airports and does not include functions/infrastructure internal to the Airport (i.e., security, ground transportation, or baggage handling, etc.).
APT-02	This roadmap is used to provide an evolutionary overview of medium to large Airports and does not convey infrastructure or service implementation specific to an Airport.
APT-04	Majority of this roadmap's content has been pulled from other roadmaps (i.e., Comm, Surveillance, Weather, etc.) if it is in support of Airport Airside Operations.
APT-07	Although there are Non-Fed Navigational Aids (NAVAIDS) and facilities located as some Airports, they may not be depicted fully on the Airports Infrastructure Roadmap.
APT-08	All FTI sub-systems will be assumed by FENS once the TDM-to-IP migration is complete.

Airport Roadmap: Decision Points (1 of 1)

DP #	Target Date CY	Primary Domain	Type	Name
198	2032 Q3	Automation	FID	Final Investment Decision (FID) for TFDM Enhancement
220	2028 Q4	Navigation	Strategy (Other)	Decision to cut over to Dual Frequency IOC Operations
1007	2031 Q1	Automation	FID	Final Investment Decision (FID) for TBFM Enhancement 2
1185	2030 Q2	Automation	FID	Final Investment Decision (FID) for E-IDS Phase 3
1186	2026 Q4	Automation	FID	Final Investment Decision (FID) for E-IDS Phase 2
1196	2025 Q1	Navigation	FID	Final Investment Decision (FID) for DVT Sustainment Program Phase 1
1229	2025 Q2	Navigation	Other Milestone	SBAS L1/L5 MOPS Part 2
1231	2026 Q4	Navigation	Other Milestone	SBAS L1/L5 SARPS Part 2
1269	2024 Q3	Automation	FID	Final Investment Decision (FID) for STARS Sustainment 4
1273	2028 Q3	Automation	FID	Final Investment Decision (FID) for STARS Sustainment 5
1281	2025 Q3	Automation	FID	Final Investment Decision (FID) for Flow Management Data and Services
1287	2029 Q1	Automation	FID	Final Investment Decision (FID) for Flow Management Data and Service (FMDS) Enhancement 1
1311	2026 Q4	Navigation	FID	Final Investment Decision (FID) for DVT Sustainment Program Phase 2
1317	2029 Q2	Navigation	FID	Final Investment Decision (FID) for Navaids Interface-Connect Equipment (NICE)
1319	2025 Q4	Surveillance	FID	Final Investment Decision (FID) for ASDE-3 Surface Movement Radar (SMR) Replacement
1347	2028 Q1	Automation	FID	Final Investment Decision (FID) for Offshore Automation #2
1386	2027 Q1	Navigation	Other Milestone	H-ARAIM IOC
1387	2028 Q4	Navigation	Other Milestone	H-ARAIM FOC
1388	2025 Q2	Navigation	Other Milestone	DFMC H-ARAIM MOPS
1409	2024 Q2	Communication	FID	Final Investment Decision (FID) for FAA Enterprise Network Services (FENS) #2
1430	2027 Q3	Automation	FID	Final Investment Decision (FID) for Terminal Flight Data Management (TFDM) Sustainment 1
1459	2027 Q2	Automation	FID	Final Investment Decision (FID) for TBFM S2