

FAA Office of Airports Airport Planning Overview



Federal Aviation
Administration

ICAO - ACI Aerodrome Seminar on Airport Master Planning



Presented to: ICAO - ACI Aerodrome Seminar

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Learning Objectives

1. Provide an overview of Office of Airports Responsibilities
2. Provide an overview Airport Planning
3. Explain typical Airport Master Plan elements and outcomes



FAA Office of Airports: Responsibilities

- Airport Planning
- Airport Noise Compatibility and Environmental Review
- Airport Financial Assistance Programs
- Safety oversight and Certification (Part 139)
- Safety and Design Standards
- Airport Compliance



Airport Planning Overview



National Airport Plan

- A national airport plan has been prepared at regular intervals since the mid-1940s when the U.S. civil airport system was in its infancy
- Today, this plan is called the National Plan of Integrated Airport Systems (NPIAS)
- The NPIAS identifies airports that are significant to national air transportation and thus eligible to receive Federal grants under the Airport Improvement Program (AIP)



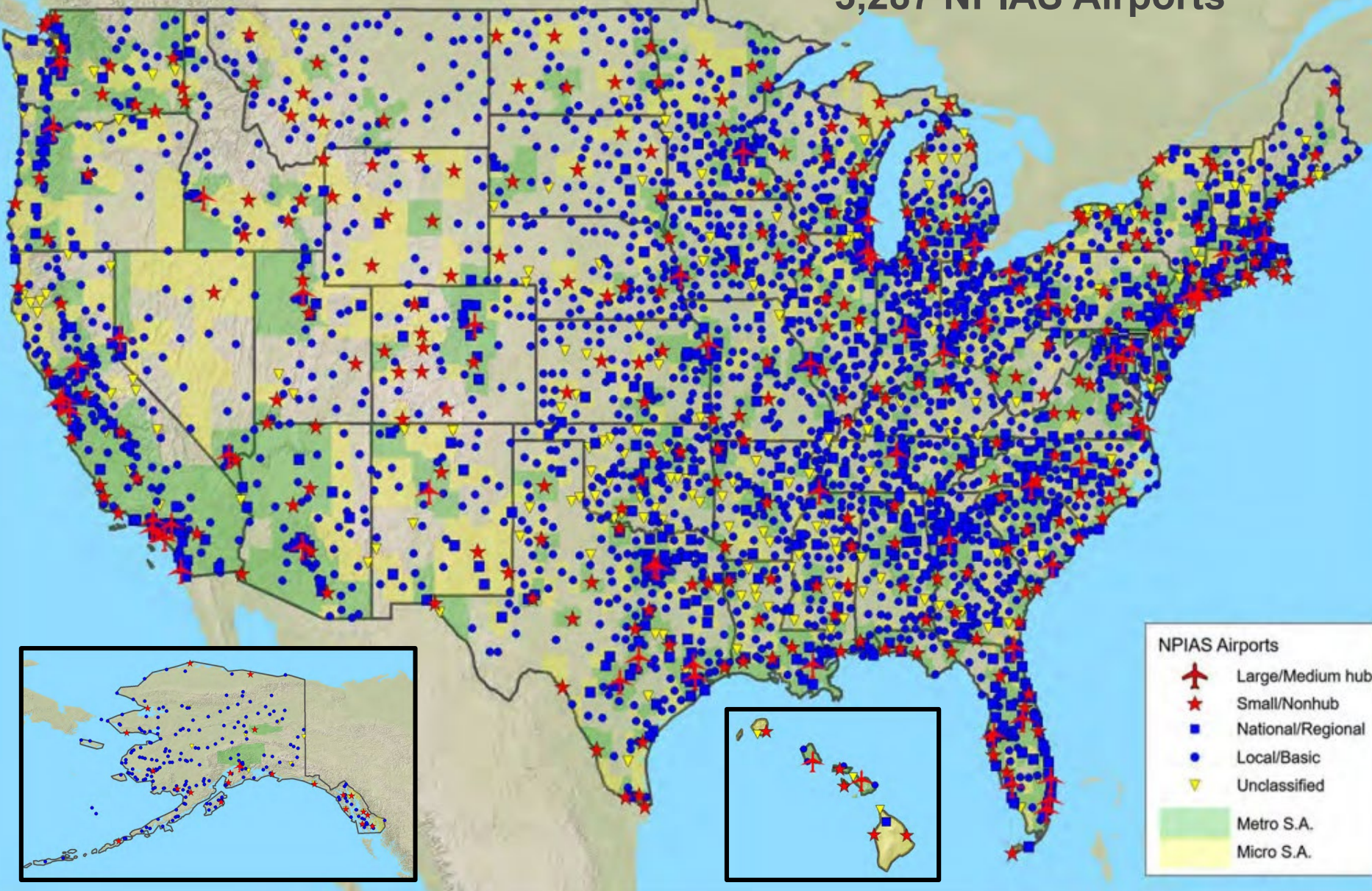
U.S. system of airports by the numbers

as of September 2022

- **19,853** airports overall
- **3,287** existing airports in the National Plan of Integrated Airport Systems (“NPIAS”)
- **517** airports certificated under Part 139
commercial service by aircraft with 9 or more seats
- **383** primary airports
scheduled commercial service with at least 10,000 annual enplanements

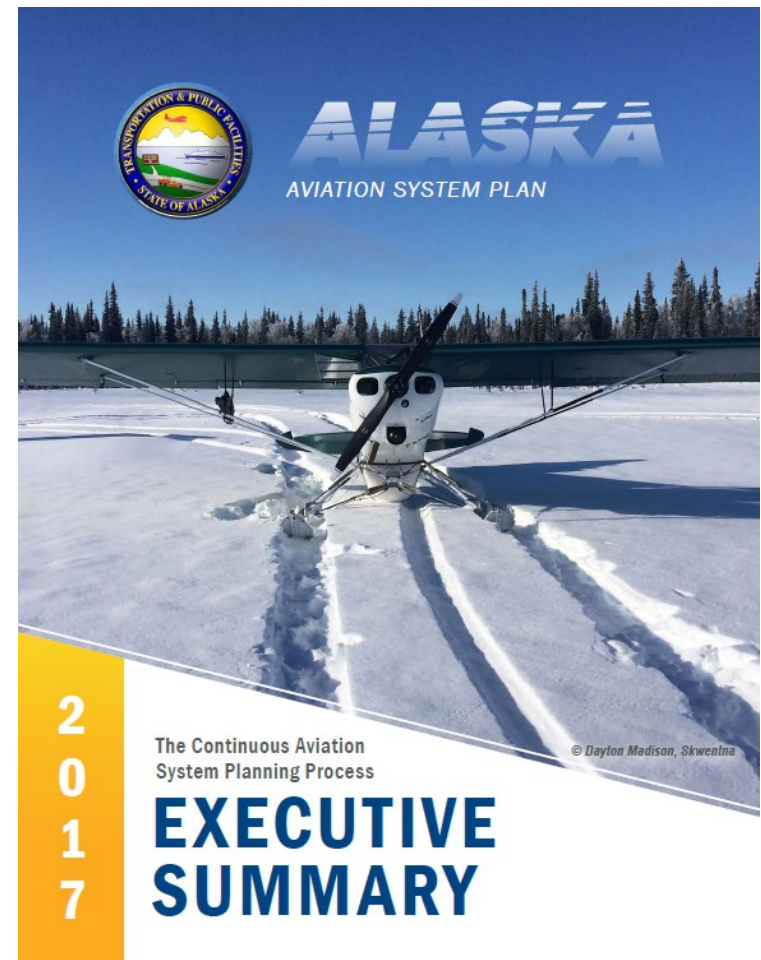


3,287 NPIAS Airports



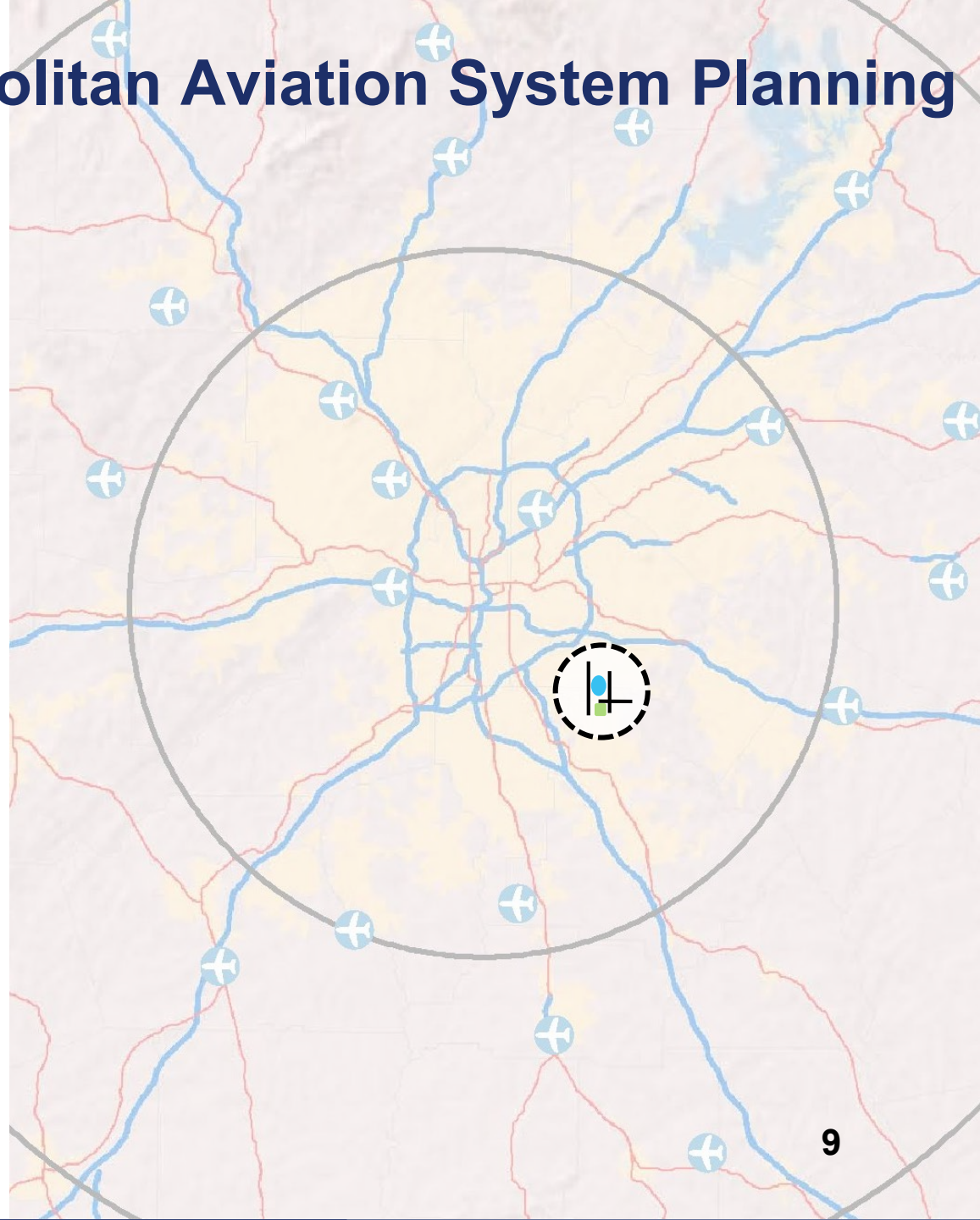
State Aviation System Planning

- **State System Context**
 - Focus on meeting state air transportation needs
 - Economic goals
 - Regional and national mobility
 - Managing infrastructure investments



Regional / Metropolitan Aviation System Planning

- **Defining airport roles within a system considering**
 - Integration with regional transportation system – roads, rail, and other transportation facilities
 - Demographic and socioeconomic trends
 - Demand growth and capacity constraints



Individual Airport Planning

Airport Master Planning:

- Provides a blueprint for short, medium and long-term development
- Opportunity for stakeholder collaboration on infrastructure needs
- Identifies a recommended development plan and key projects that will shape the airport's capital improvement plan (CIP)
- Key output is an Airport Layout Plan (ALP) drawing set, which serves as a management tool to guide development
- Typically revisited or updated every 5-10 years or as needed
- Airport must maintain a current ALP



Individual Airport Planning

Airport Master Plan Outcome:

- Answers the question: What is needed in the short, medium and long-term timeframes?
 - Blueprint for short, medium and long-term development
 - ALP Set
 - Capital Improvement Program (\$)

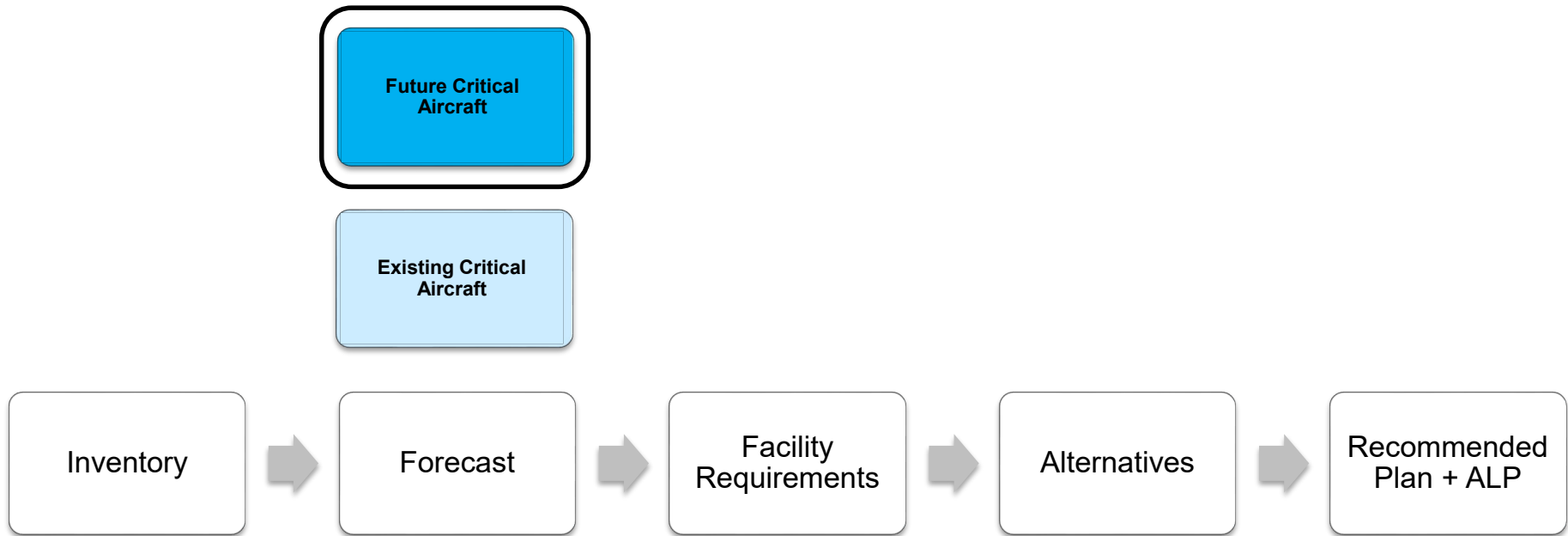
Airport Layout Plans:

- Required for every airport in the NPIAS
- Depicts existing facilities
- Depicts future development
 - Documents short, medium, and long term projects
 - Tool to review and approve future development
 - Airport design
 - Airspace
 - Environmental

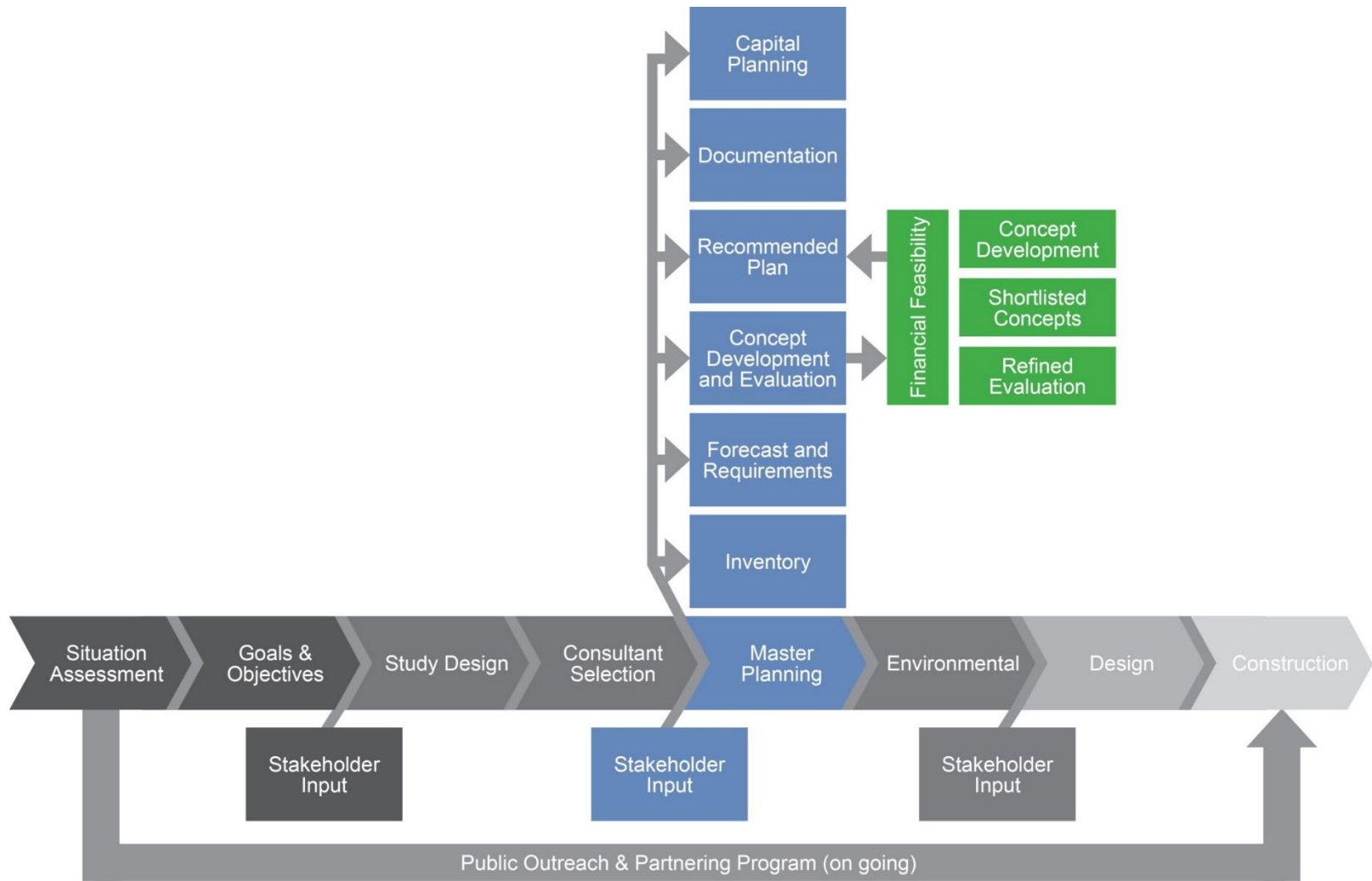
Role of Airport Planning and Environmental Reviews

- Provide airport planning, environmental, and land use and compatibility guidance to U.S. airports, and FAA field offices
- Develop the U.S. airport system's biennial plan (NPIAS)
- Evaluate:
 - Capacity analyses (typically at busiest airports)
 - Requests for new airports
 - Controversial development projects
 - Approve airport activity forecasts (prepared by airport sponsors and used to determine scope and timing of airport development)
- Provide direction on environmental impact analyses for airport development
- Oversee grant programs for various airport environmental and sustainability topics (noise, emissions, energy, etc.)
- Oversee airport land disposal, acquisition, and relocation assistance programs

Airport Master Plans – Simplified Process



Master Planning vs. Overall Development Process



Typical Planning Responsibilities

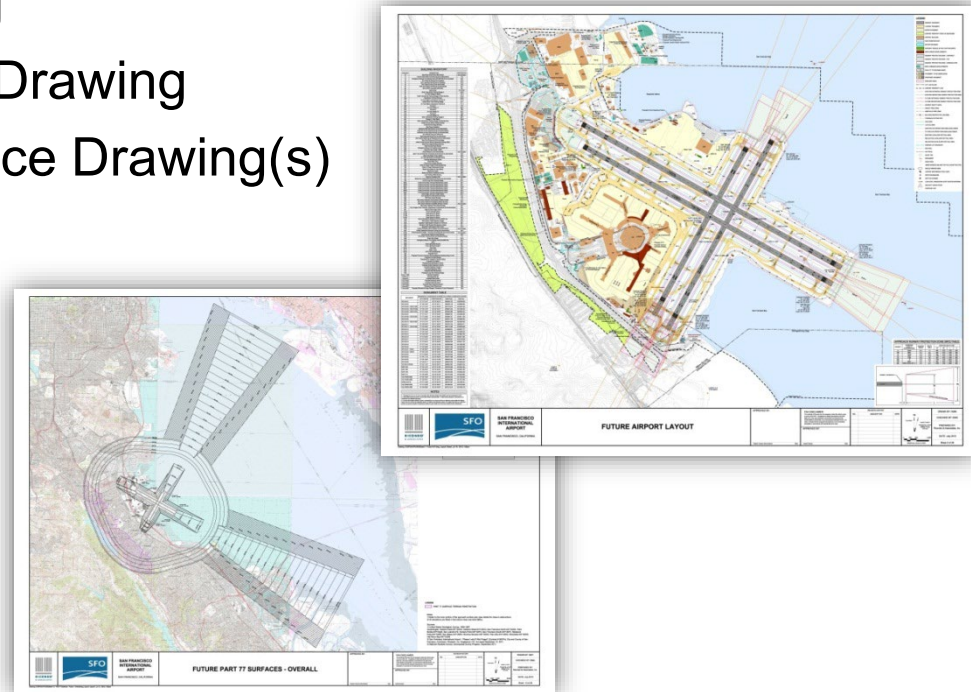
| PROCESS STEPS | | SPONSOR | FAA REVIEW | FAA APPROVAL |
|--------------------------|--|---------|------------|--------------|
| INITIAL CONSIDERATIONS | Situation Assessment | ● | | |
| | Goals and Objectives | ● | | |
| | Project Team Assembly | ● | | |
| | Study Design and Scope of Work Development | ● | ● | ● |
| | Consultant Selection | ● | | |
| TYPICAL PLANNING PROCESS | Existing Conditions | ● | ● | |
| | Forecast of Aviation Activity (Includes Critical Aircraft Determination) | ● | ● | ● |
| | Facility Requirements | ● | ● | |
| | Concept Development and Selection | ● | ● | |
| | Preferred Concept Evaluation | ● | ● | |
| | Recommended Plan | ● | ● | |
| | Funding/CIP Review | ● | ● | |
| | Update ALP (Including Airspace Review) | ● | ● | ● |
| POST PLANNING | Environmental Review | ● | ● | ● |
| | Procurement Strategy | ● | ● | |
| | Pre-Design | ● | | |
| | Design | ● | ● | |
| | Construction Safety Plan | ● | ● | ● |
| | Construction | ● | | |



Airport Layout Plans (ALPs)

Drawing set typically includes the following sheets:

1. Title Sheet
2. Airport Data Sheet
3. Airport Layout Plan Drawing(s) – Existing and Future
4. Airport Airspace Drawing
5. Inner Approach Surface Drawing
6. Runway Departure Surface Drawing(s)
7. Terminal Area Drawing
8. Land Use Drawings (on- and off-airport)
9. Airport Property Map / Exhibit A



Resources

- [AC 150/5070-6, Airport Master Plans](#)
- [AC 150/5000-17, Critical Aircraft and Regular Use Determination](#)
- [AC 150/5360-13A, Airport Terminal Planning](#)
- [AC 150/5050-4, Citizen Participation in Airport Planning](#)
- [AC 150/5300-13, Airport Design](#)
- [NPIAS Report](#)
- [Airport Cooperative Research Program](#) (See research reports and synthesis documents).



Questions?

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