

# Airport Planning at the Local and National Levels.

Presented to: ICAO Airport Planning Workshop for the SAM Region

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Date: September 11, 2018



Federal Aviation  
Administration



# Learning Objectives

- 1. Office of Airports Overview**
- 2. U.S. System of Airports**
- 3. Approach to Planning**



# 1. - Office of Airports Overview



# Office of Airports: Responsibilities

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



# 2. - U.S. System of Airports



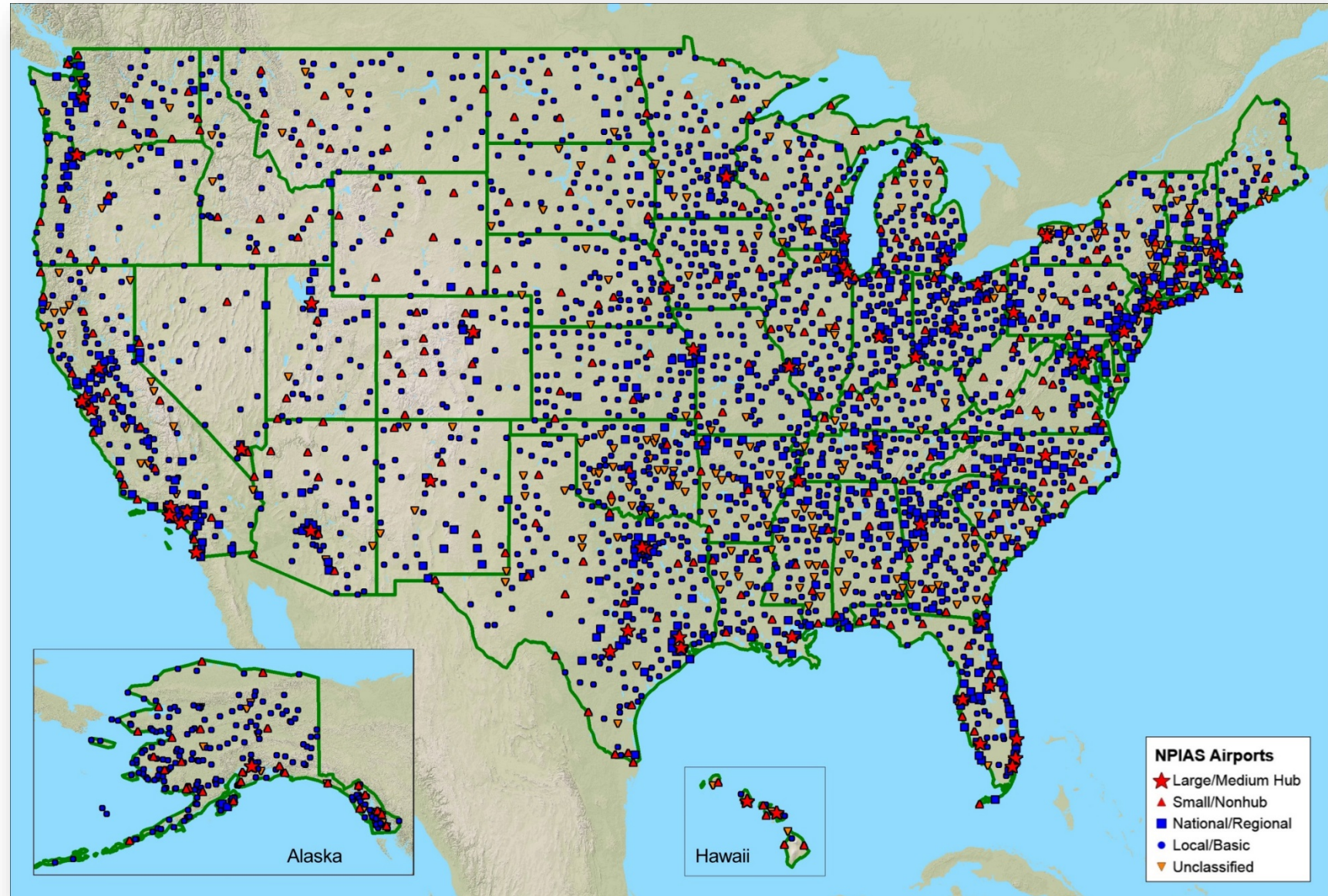
# U.S. System of airports (as of April 2018)

- **19,655** total U.S. landing facilities
- **3,321** existing airports in the National Plan of Integrated Airport Systems (“NPIAS”)
- **506** airports with scheduled commercial service
- **380** primary airports  
(scheduled commercial service with at least 10,000 annual enplanements)



# NPIAS Airports

- **3,321 NPIAS Airports**



# NPIAS—Airports with Federal Interest

	Airport Type	Number of Airports	% of U.S. Enplanements	Examples
Primary	<b>Large Hub</b> (>1.0% of all enplanements)	30	72%	Atlanta, Boston, Chicago, DFW, Houston, Miami, etc.
	<b>Medium Hub</b> (0.25 - 1.0% of all enplanements)	31	16%	Anchorage, Burbank, Columbus, Fort Myers, etc.
	<b>Small Hub</b> (0.05 - 0.25% of all enplanements)	72	8%	Asheville, Birmingham, Charleston, Huntsville, etc.
	<b>Non-Hub</b> (>10,000 enplanements, but less than 0.05% of all enplanements)	247	3%	Augusta, Daytona Beach, Aspen, Baton Rouge, etc.
	<b>Subtotal—Primary airports</b>	<b>380</b>		
NonPrimary	<b>General Aviation—National</b>	93		FXE, APA, SDM, EFD, etc.
	<b>General Aviation—Regional</b>	527		Cecil, Dayton, Leesburg, etc.
	<b>General Aviation—Local</b>	1,262		Homestead, Rexburg, etc.
	<b>General Aviation—Basic</b>	815		Arcadia, Ocean City, etc.
	<b>General Aviation—Unclassified</b>	244		
	<b>Subtotal—Nonprimary airports</b>	<b>2,941</b>	<b>0.1%</b>	
	<b>Total—existing NPIAS airports</b>	<b>3,321</b>	<b>100%</b>	

**\*Appx. 90% of enplanements**

# U.S. Airport Ownership Model

- **Ownership and control**
  - States (very few—e.g., Hawaii, Rhode Island, Maryland)
  - Counties
  - City departments
  - Airport authorities
- **Operation and management**
  - Direct employment of management and staff
  - Contract services (extensive)
  - Management services (less frequent)
- **Major influences**
  - Federal influence on safety and environmental sustainability (as well as significant capacity and efficiency projects)
  - Airline influence on investment and capacity
  - Financial market influence on availability of capital funds

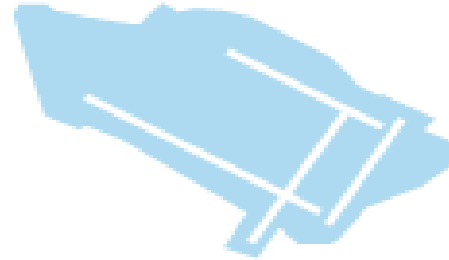


# 3. – Approach to Planning



# Airport Planning

- Airports of any size/activity level benefit from the planning process (e.g., an Airport Master Plan)
- Calculated approach instead of reactionary.
- Cost savings, improved phasing, design compliance...etc.



General Aviation



Large Commercial Service Facilities



# Levels of Planning

- **Local (Airport) Level**
- **Regional / Metropolitan Aviation System Planning**
- **State Aviation System Planning**
- **National Level Planning (e.g., NPIAS)**



# Airport Layout Plans



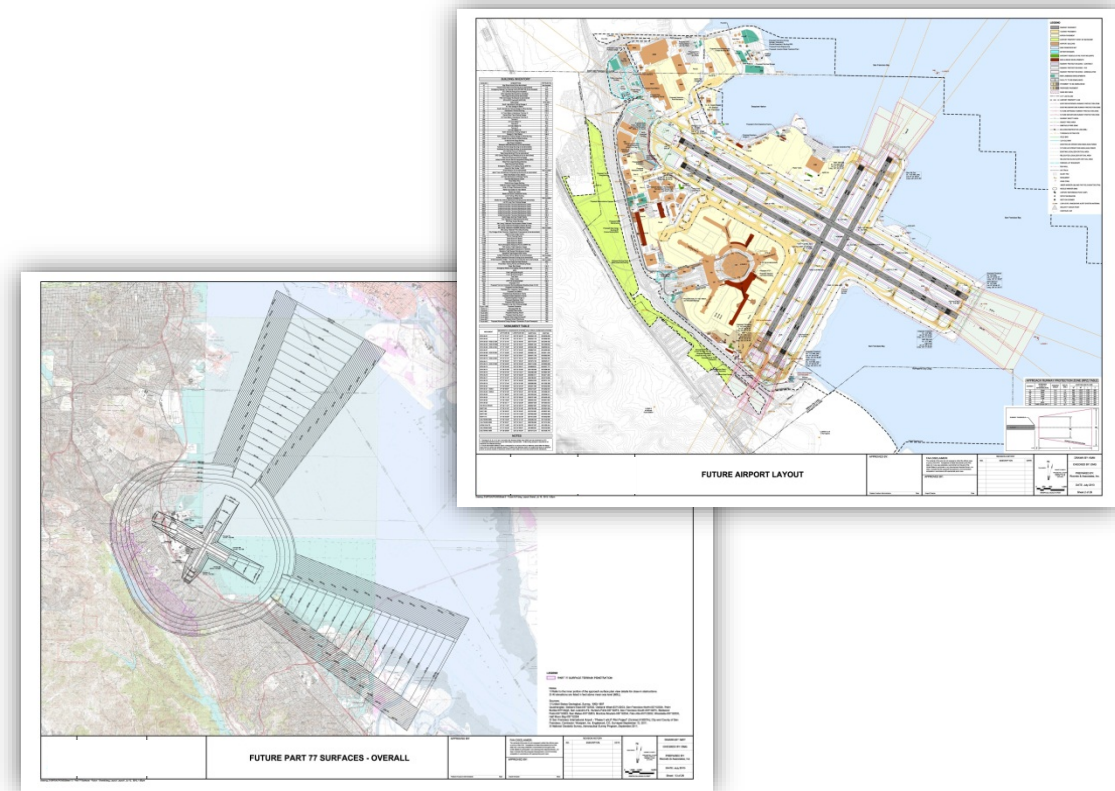
# Airport Layout Plans

- **Required for every airport in the NPIAS (Since 1946)**
- **Required to keep up-to-date at all times.**
- **An output of the planning process**
- **Depicts existing facilities**
- **Depicts future development**
  - Documents short, medium, and long term projects
  - Tool to review and approve future development
    - Airport design
    - Airspace
    - Environmental
    - Etc...



# Airport Layout Plans

- Drawing set typically includes the following sheets:
  - Title Sheet
  - Airport Data Sheet
  - Existing Airport Layout Plan
  - Future Airport Layout Plan
  - Airport Airspace Drawing
  - Inner Approach Surface Drawing
  - Runway Departure Surface Drawing(s)
  - Terminal Area Drawing
  - Land Use Drawings (on- and off-airport)
  - Airport Property Map



# Airport Master Planning

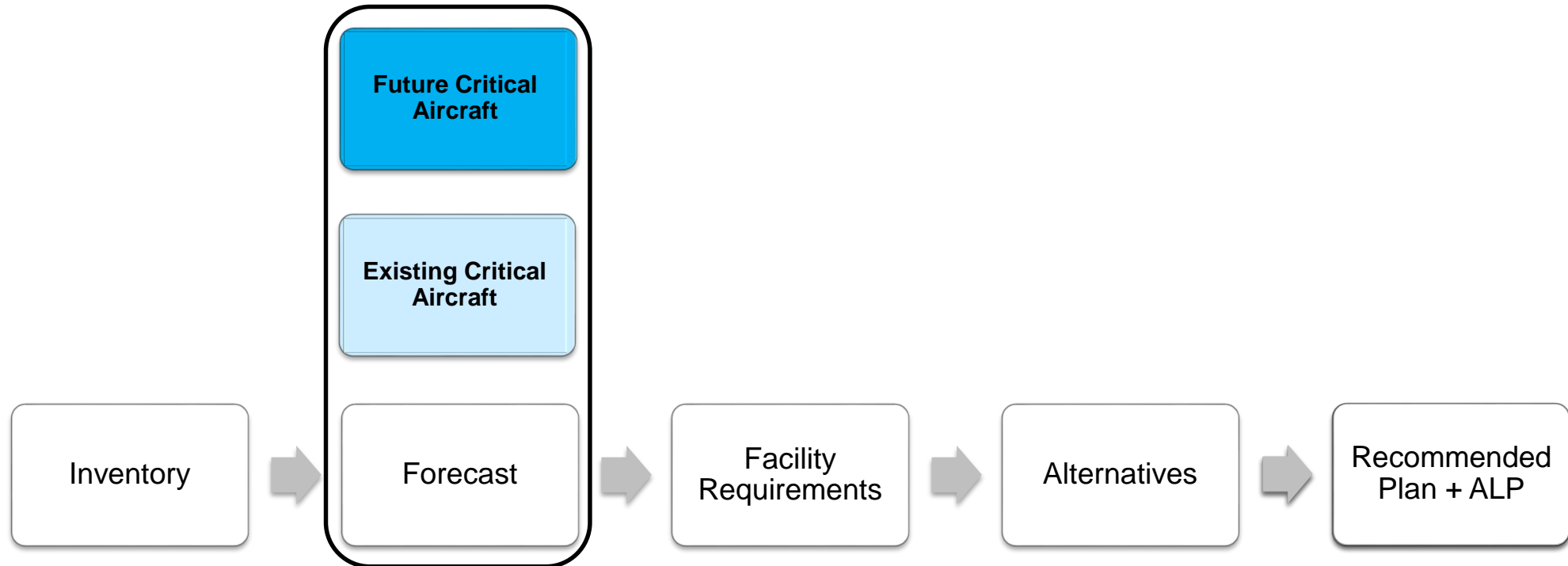


# Airport Master Plans

- Provides a blueprint for short, medium and long-term development
- Includes a capital improvement plan (CIP) which programs future projects
- Includes Airport Layout Plan (ALP) drawing set, which serves as a management tool and guide development (required by the FAA for obligated airports)



# Airport Master Plans - Process

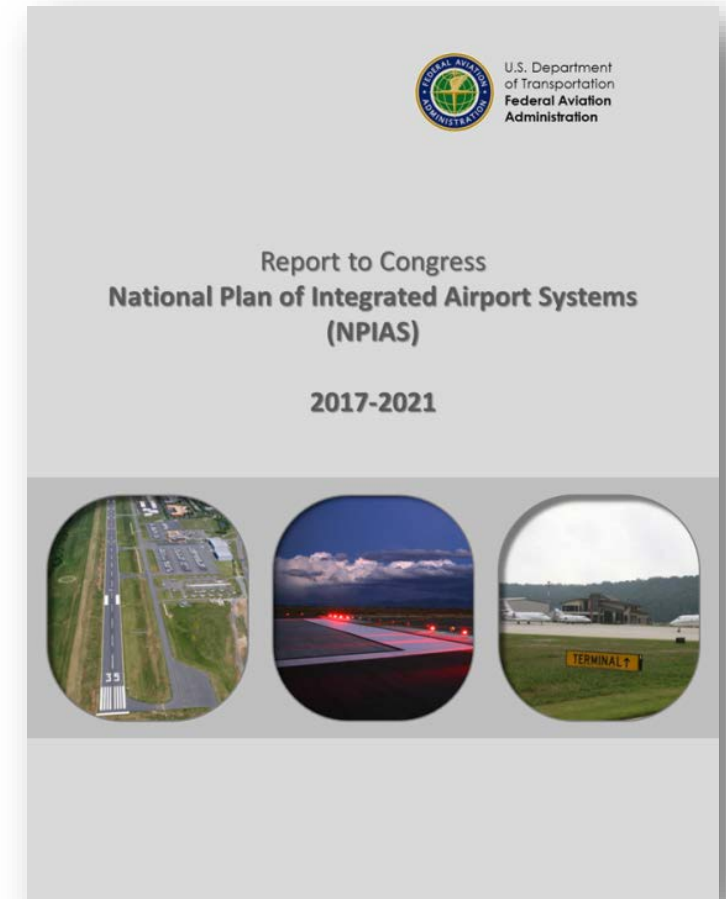


# Planning at the National Level



# National Plan of Integrated Airport Systems (NPIAS)

- Identifies airports included in the national system
- Airport roles
- Airport development needs over the next 5 years
  - Estimates total costs
  - Types of projects (airfield, terminal, reconstruction, standards, etc.)

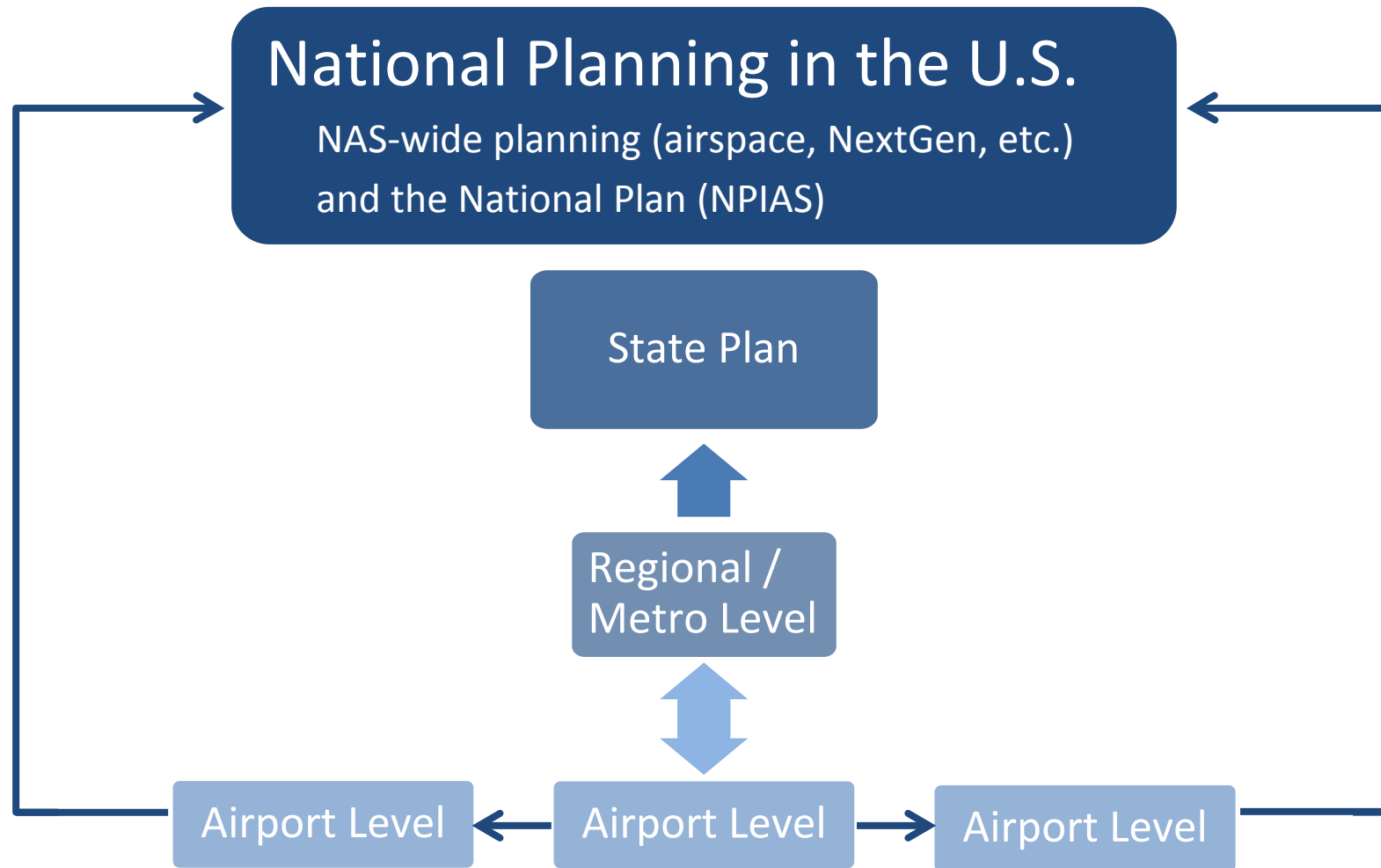


# NPIAS Report

- **Required by law to publish a report every other year and provide it to Congress**
  - Defines national airport system & individual airport's role to Congress, public, and international representatives
  - Identifies development needed at these airports to meet their role as shown in our Plan
- **Utilized by Congress in discussions of total airport development needs**



# Planning Outcome



# 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).



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# Thank You

