Airport Master Plan

Planning Advisory Committee (PAC) Meeting #3

Ogden-Hinckley Airport (OGD)

April 30, 2019

Agenda

- Welcome
- Introductions
- Recap Forecasts
- Facility Requirements
- Preliminary Discussion of Development Concepts
- UDOT Aeronautics Remarks (System Plan Update)
- The Next Steps…

Introductions

- City of Ogden
  - Bryant Garrett, Airport Manager
  - Jon Greiner, City Consultant
- Airport Development Group Team
  - Dana Hartshorn, Chuck Kellerman, Derek Johnson (ADG)
  - Wendy Renier, Sara Funk (Subconsultant Aviation Planners)
- Utah Division of Aeronautics
  - Jared Esselman, Clint Harper
- FAA
  - John Sweeney
- Local Planning Advisory Committee (PAC) Members
- Guest Attendees

Recap Forecasts

	Base Year 2017/2018	Short-Term 2023	Intermediate Term 2028	Long-Term 2038
Enplaned Passenger Forecast	20,324	81,448	103,950	126,715
Air Cargo	63,856	70,502	79,008	94,439
Based Aircraft Forecast	241	244	252	272
Aircraft Operations Forecast	89,222	84,338	87,540	94,956

Airport Reference Code

Derived from most demanding aircraft or family of aircraft that flies 500 or more annual itinerant operations

Airport Reference Code (ARC) determines FAA airport design standards and consists of:

- **Letter** denoting Aircraft Approach Category (1.3 x stall speed)
- **Roman numeral** denoting Airplane Design Group (usually wingspan, can be tail height)

ARC for Ogden = C-III

- Airbus A319 & A320, MRO Aircraft, Business Jets

Sample Aircraft by Design Group

Personal Aircraft

Group I

Representative Aircraft

Beechcraft Bonanza 35, 36
Cessna 150, 172, 402, 414
Beechcraft Baron
Beechcraft King Air 90, 200
Cessna 182, 206, 401, 421
Cessna Citation I, CJI
Piper Navajo-34, Cheyenne-42

Business Aircraft

Group II

Representative Aircraft

DHC Twin Otter
Beechcraft 1900
Cessna Citation II, III, V
Dassault Falcon 50, 200
Embraer 145 RJ; ATR 42, 72
Rockwell Aero Commander 560, 680
DeHavilland Dash-7, 8

Corporate Aircraft

Group II

Representative Aircraft

Gates Lear 24, 25
IAI Westwind 1124
Bombardier 600, 601
Gulfstream III
Starship 1
Cessna Citation X
Gates Lear 35

Commercial Aircraft

Group III

Representative Aircraft

Airbus 318-321
Boeing 727, 737
McDonnell Douglas DC-9
MD-82; MD-83
Gulfstream II, IV, V

Transport Aircraft

Group IV, V, VI

Representative Aircraft

Airbus 300, 310
Boeing 757, 767
Lockheed Hercules C-130
Airbus 330, 340, 380
Boeing 747; Boeing 777
Antonov 124, 225
Lockheed Galaxy C-5

AIRCRAFT APPROACH CATEGORY (AAC)		
AAC	Approach Speed	
A	Less than 91 knots	
B	91 knots to 120 knots	
C	121 knots to 140 knots	
D	141 knots to 165 knots	
E	Approach speed 166 knots or more	
AIRPLANE DESIGN GROUP (ADG)		
ADG #	Tail Height (ft)	Wingspan (ft)
I	< 20'	< 49'
II	20' to < 30'	49' to < 79'
III	30' to < 45'	79' to < 118'
IV	45' to < 60'	118' to < 171'
V	60' to < 66'	171' to < 214'
VI	66' to < 80'	214' to < 262'
APPROACH VISIBILITY MINIMUMS		
RVR (ft)	Flight Visibility Category (statue mile)	
4000	Lower than 1 mile but not lower than ¾ mile (APV ¾ but< 1 mile)	
2400	Lower than ¾ mile but not lower than ½ mile (CAT-I PA)	
1600	Lower than ½ mile but not lower than ¼ mile (CAT-II PA)	
1200	Lower than ¼ mile (CAT-III PA)	

Runway Design Code

Runway 3-21

- C-III-4000*
- Commercial Aircraft
- Large GA Aircraft

Runway 17-35

- B-II-5000*
- GA Aircraft

*based on visibility minimums

Facility Requirements

Quantitative Assessment

- Airside Facilities
- Landside Facilities

Driven by

- Forecasts
- FAA Design Standards
- City Vision and Goals
- User Input
- Consideration of UCASP Recommendations

Facility Requirements

UCASP MINIMUM FACILITY AND SERVICE OBJECTIVES				
	National Airports	General Aviation Regional Airports	General Aviation Community Airports	General Aviation Local Airports
Airport Reference Code (ARC)	C-III or Design Aircraft	C-II or Greater	B-II or Greater	A-I
Runway Length:	Accommodate 75% of large aircraft at 90% useful load	Accommodate 75% of large aircraft at 60% useful load	Accommodate 75% of small airplanes	Maintain Existing
Runway Width:	To Meet ARC	To Meet ARC	Minimum 75'	Maintain Existing
Runway Strength:	Single-wheel gear – 60,000 lbs. or equivalent for dual wheel	Single-wheel gear – 30,000 lbs. or equivalent for dual wheel	Single-wheel gear – 12,500 lbs.	Single-wheel gear – 12,500 lbs.
Taxiway:	Full Parallel	Partial Parallel	Turnarounds & Connectors	Connector and/or Turnarounds
Navigational Aids:	Precision Approach	Non-Precision Straight-In Approach	Non-Precision Approach	N\A
Visual Aids:	MALSR, GVGIs	GVGIs, REILs	GVGIs, REILs	N\A
Lighting:	MIRL, Beacon, Windsock	MIRL, Beacon, Windsock	MIRL, Beacon, Windsock	Reflectors or LIRL, Beacon, Windsock
Weather:	Automated Weather	Automated Weather	Automated Weather	N\A

Facility Requirements

UCASP MINIMUM FACILITY AND SERVICE OBJECTIVES				
	National Airports	General Aviation Regional Airports	General Aviation Community Airports	General Aviation Local Airports
Services:	• Phone • Restrooms • FBO – Full service • Maintenance facilities & hangar 5,000 sq. ft • On-site rental car • Perimeter fencing, controlled access	• Phone • Restrooms • FBO – Limited service • Maintenance facilities – Limited service • On-site courtesy car • Perimeter fencing	• Phone • Restrooms • FBO – Limited service • On-site courtesy car • Perimeter fencing	• Phone • Restrooms • Perimeter fencing
Facilities:	• Modern terminal • Hangars – 75% of based fleet & 25% of overnight aircraft • Apron – 25% of based fleet & 75% for transient • Auto Parking – Per master plan	• Terminal with appropriate facilities • Hangars – 60% of based fleet & 25% of overnight aircraft • Apron – 40% of based fleet & 50% for transient • Auto Parking – Equal to 33% of based aircraft	• Pilots lounge • Hangars – 50% of based fleet & 25% of overnight aircraft • Apron – 50% of based fleet & 25% for transient • Auto Parking – Equal to number of based aircraft	• Pilots lounge • Auto Parking – Equal to number of based aircraft

Facility Requirements

- Runway 3-21 length, declared distances, OFA
- Implications of revised circling approach standard
- Runway Protection Zones (RPZs)
- Helicopter facilities
- Terminal area
- Airport Traffic Control Tower (ATCT)
- Aircraft Rescue and Firefighting (ARFF)
- GA apron expansion, tiedowns
- Hangar development
- Maintenance Repair Overhaul (MRO)

Airfield Requirements

- Runway 3-21 length, declared distances, OFA
  - Maximize length, consider options
  - FAA changed stance on declared distances and requests for modification to standards
- Runway 17-35 impact
  - New FAA requirement in designating instrument approach runways, requiring greater surface protection

- Notes:
- Combined runways >95% wind coverage
- No additional airfield capacity needed

Airfield Requirements

- Runway Protection Zones (RPZs)
  - FAA Interim RPZ Land Use Guidance (Sep 2012)
  - Roadways not permitted
  - Many airports have roadways in RPZs like OGD
  - Runway or roadway improvements trigger FAA review
  - Implications – often impacts runway length
- Helicopter Facilities
  - Accommodate growing activity, reduce rotor wash impact

Terminal Area

Terminal

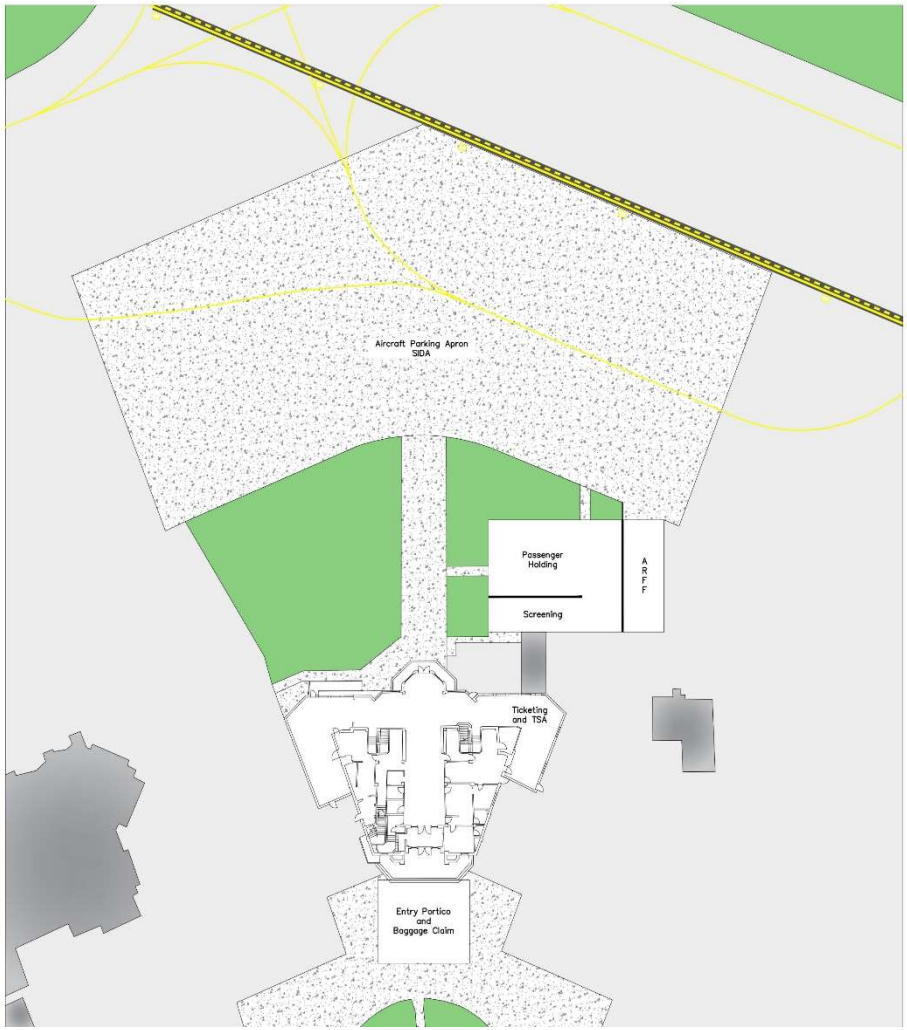
Existing Approx. 10,000 sq. ft.

Require 15,000 to 20,000 sq. ft. for one gate if:

- passenger loading indoors
- baggage sorting and concessions provided

Holdroom adequate for one plane load

Near-term expansion could use ARFF bay



Terminal Requirements

	Design Hour Passengers	Minimum Terminal Size (sq. ft.)	Maximum Terminal Size (sq. ft.)	Gates*
Existing	150	10,000 (existing)		1
Near-Term (2023)	212	12,000**	50,000	1-2
Intermediate-Term (2028)	270	30,000**	80,000	2-4
Long-Term (2038)	329	40,000	90,000	2-6

*While a gate can easily handle five or more departures per day, additional gates may be needed for different airlines and for differences in airplane size (ground level vs loading bridge boarding)
**It is assumed that the existing facility with slight expansion could suffice for the near-term, but a new facility would be built for the intermediate-term.

ATCT Requirements

- Current ATCT has line-of-sight issues
- Current and future development could increase line-of-sight problems
- Consider tower heightening or relocation to improve line-of-sight

- Note: FAA funding for contract tower relocation is a very low priority

ARFF Requirements

- Required by Part 139 Certification, contains safety and other requirements for passenger service
- OGD requires Index B ARFF capability (equipment and trained personnel) during the air carrier operations
  - Passenger service consists of fewer than five daily departures in aircraft shorter than 126 feet
  - Projected to remain through 2038
- Joint City/Airport Fire Station possible (up to 6 bays)

GA Apron and Hangars

- GA apron expansion, tiedowns
  - Primarily training activity need
  - Tiedowns often reach 95% capacity
- Hangar Development
  - New and redeveloped areas
  - T-hangars and conventional hangars, including box hangars with common walls
  - Large aircraft needs – Gulfstream V, Global Express

Hangar Requirements

	Short-Term (2023)	Intermediate Term (2028)	Long-Term (2038)
Single-Engine/Other	193	197	204
sq. ft.	231,600	275,800	306,000
Multiengine	27	28	32
sq. ft.	54,000	56,000	64,000
Jet	10	13	14
sq. ft.	40,000	57,200	70,000
Helicopter	15	15	22
sq. ft.	22,500	22,500	33,000
Total	245	253	272
sq. ft.	348,100	411,500	473,000
Existing/Projected Existing	318,000	348,100	411,500
Need (sq. ft.)	30,100	63,400	61,500

MRO Development

- How much and where?

Preliminary Discussion of Development Concepts

Planning Considerations

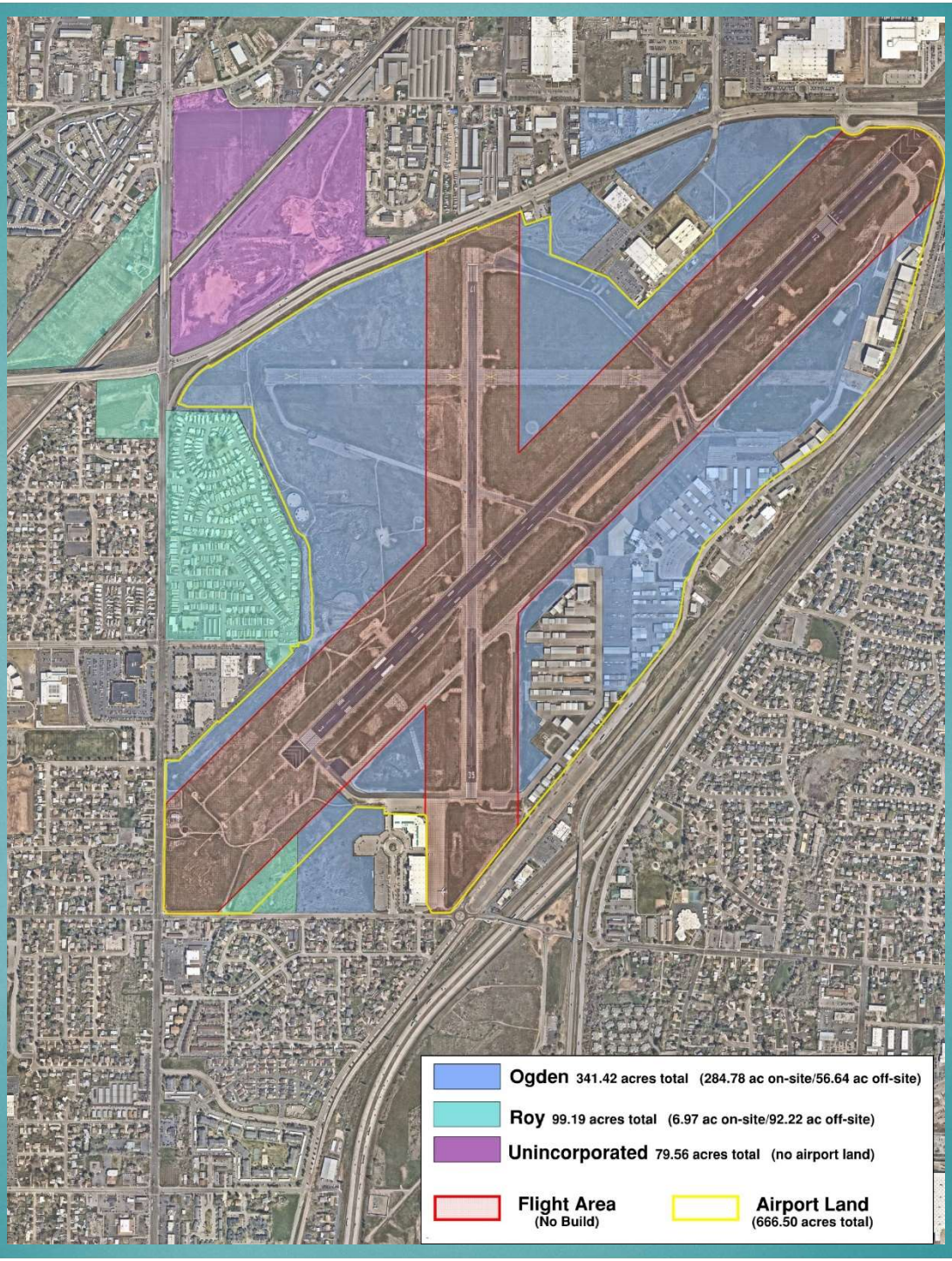
GENERAL DEVELOPMENT OBJECTIVES

DEVELOPMENT OPPORTUNITIES AND CHALLENGES

KEY DEVELOPMENT CRITERIA

COMPONENTS FOR DEVELOPMENT


OGDEN AIRPORT
FLYOGDEN.COM
0 200 400 Feet
1 Inch = 200 feet


Ogden 341.42 acres total (284.78 ac on-site/56.64 ac off-site)
Roy 99.19 acres total (6.97 ac on-site/92.22 ac off-site)
Unincorporated 79.56 acres total (no airport land)
Flight Area
(No Build)
Airport Land
(666.50 acres total)

The Next Steps

May:

Publish Inventory, Forecasts and Requirements (internal revisions under way)

June:

Prepare Development Alternatives (in coordination with airport management)

July:

Publish Alternatives

July/August:

PAC Meeting and Public Open House

PAC recommends Preferred Alternative to City for review and decision