



Technical Advisory Committee

Detroit Metropolitan Wayne County Airport Master Plan Update

Meeting #1: Project Kick-off

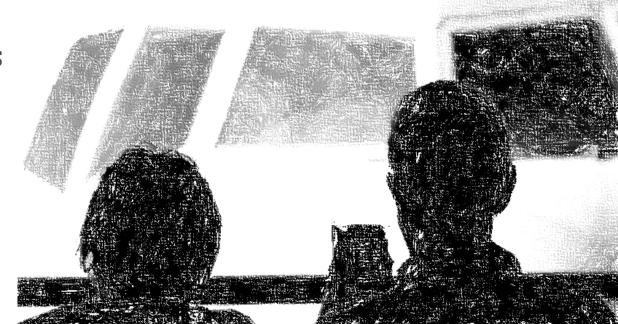
April 6, 2016



Introduction

Today's agenda and discussion topics

- 1. Introductions
- 2. What is an Airport Master Plan?
- 3. Key findings to date
- 4. Discussion with our stakeholders
- 5. Next steps
- **6.** Closing remarks

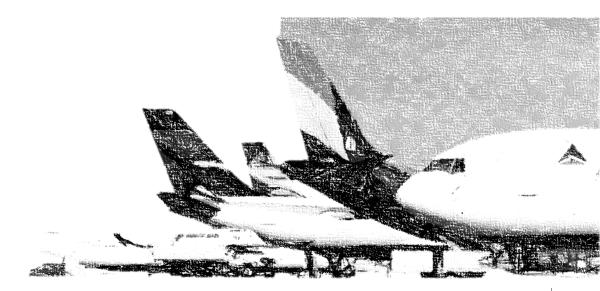




Introductions

Please provide ...

- Your name
- Which organization you represent
- What does your organization do?
- Tell us how the Airport is important to your organization







System Plan Objectives and Scope

A System Plan is being prepared in parallel with master plans for Detroit Metro and Willow Run airports

- 1. Identify the roles for each airport
- 2. Clarify the interrelationship between facilities and users at both airports
- 3. Optimize near- and long-term capital improvements























Proposed Airport Roles

Willow Run

Detroit Metro

Role

Users

Reliever Airport

Primary Commercial Service Airport



On-demand air cargo that supports the region's automotive industry



General aviation flight training



Corporate and recreational general aviation



MRO service providers that service general aviation



Commercial airlines that accommodate regional demand and hub operations



Integrated logistics carriers



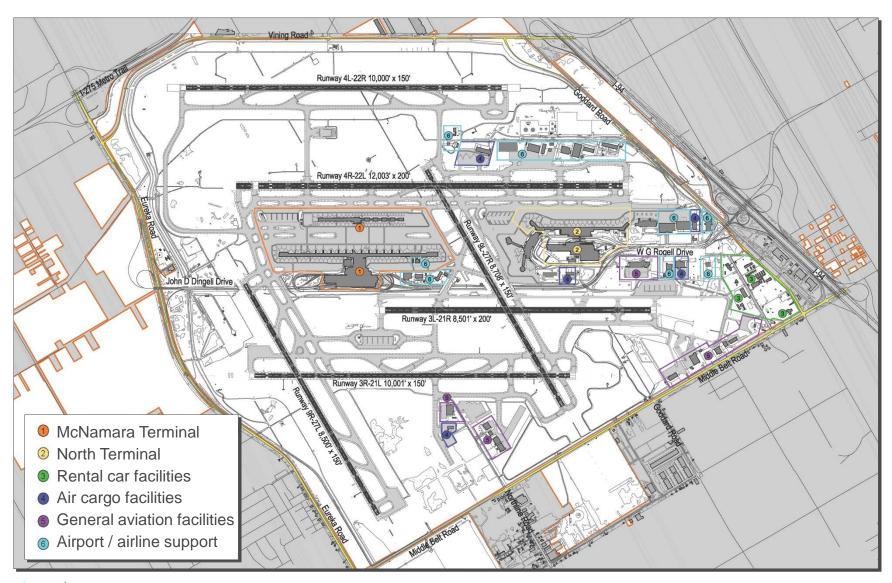
High-end corporate general aviation



MRO service providers that service air carrier aircraft and existing users



Detroit Metropolitan Wayne County Airport





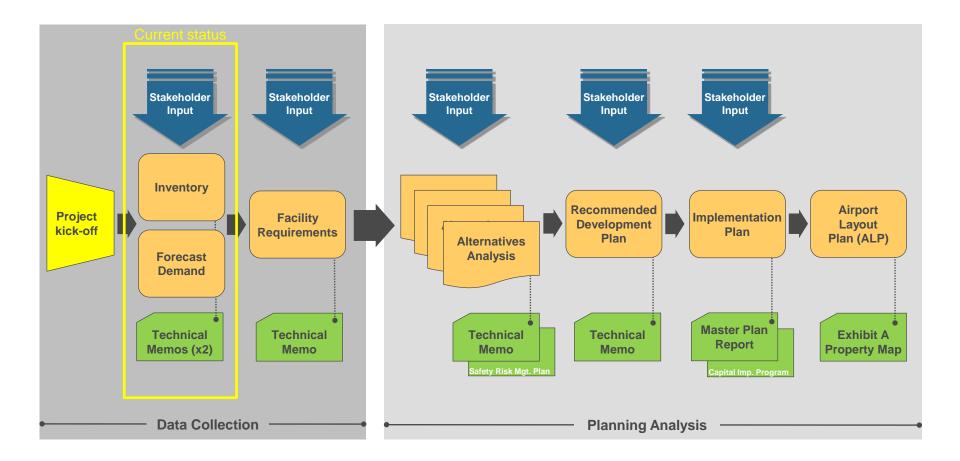
Airport Master Plan

A study to identify long range improvement plans for an Airport



The Master Planning Process

The master planning process includes a series of technical analyses and summary documents, as well as opportunities for stakeholder and community input





Numerous Factors Influence the Master Plan





Why Prepare an Airport Master Plan

There are strategic and technical reasons...

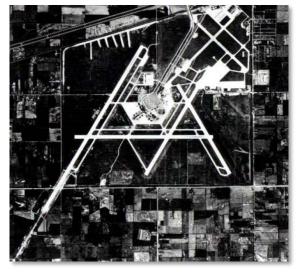
- FAA requirement to regularly update tied to the Authority's ability to receive federal funding for Airport development
- An organized way to determine:
 - —What facilities will be needed in the future
 - What are the development options
 - How will facilities be implemented (timeline, funding sources, etc.)
- Airport Layout Plan the FAA's official document of the Airport Authority's plans
- Master Plan Document provides the technical backup to projects depicted on the ALP



Prior Airport Development

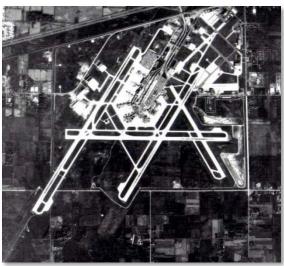
Significant changes have occurred at the Airport over the past 50 years

1950's - 1960's



Runway 4R-22L
New control tower
L.C. Smith Terminal
Davey Terminal
Airlines move from
Willow Run

1970's



L.C. Smith Terminal expansion

New Berry Int'l Terminal Republic Airlines hub

3rd parallel runway

(1976)

1980's



Republic merges with Northwest Airlines International traffic Master Plan (1986)



Major Changes Since the 1990's



Northwest Airlines expansion and international service

Additional airfield capcity

South access roadway

McNamara Terminal (opened 2002)

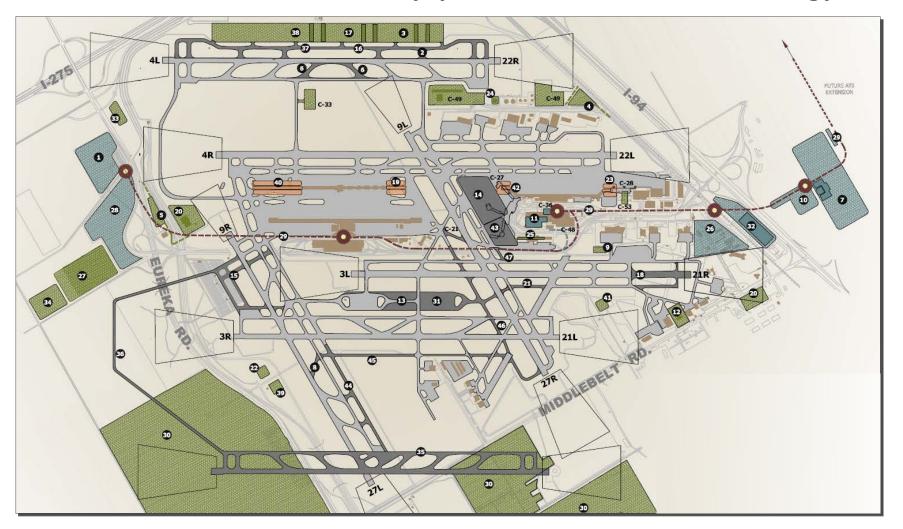
North Terminal (opened 2008)

Northwest Airlines acquired by Delta Air Lines



2009 Ultimate Master Plan

Included aggressive growth projections and numerous large capital projects; many of which were not realized in the ensuing years





Master Plan Goals and Objectives

Aligned with the Authority's strategic focus – customers satisfaction, financial competitiveness & stability, operational excellence, people, and regional development & growth

- 1. Ensure safety and compliance with regulations
- 2. Establish a long-term strategy while maintaining competitive costs
- 3. Enhance the Airport's operation and facilities
- 4. Address known deficiencies with regard to certain facilities
- 5. Ensure high levels of service
- 6. Position the Airport and region to capitalize on future opportunities
- 7. Provide flexibility to adapt to changing circumstances

And we are seeking your input . . .



Technical Advisory Committee

Airport's stakeholders with technical competency in airport operations or planning

Passenger Airlines	Delta Air Lines, Air France, Virgin Atlantic, Air Canada, Alaska Airlines, American Airlines, Jet Blue Airways, Lufthansa, Southwest Airlines, Spirit Airlines, United Airlines
Air Cargo Operators	FedEx, United Parcel Services
Regulators / Agencies	FAA Detroit Airports District Office, FAA Airport Traffic Control Tower, FAA TRACON, FAA Facilities, MDOT Aeronautics, TSA, U.S. Custom Border Protection
Other	Air Cargo General Aviation, SEMCOG



TAC - Subcommittees

Provide input and insight on technical issues, vet technical material with experts, and help build consensus on findings

Airfield	WCAA staff (planning, design, operations, and maintenance), FAA ADO; FAA Air Traffic Control; Delta Air Lines; other airline representative(s) Review assumptions, findings and recommendations related to the airfield
Ground Transportation	WCAA staff (planning, design, operations, and maintenance); SEMCOG; rental car and parking operators Review assumptions, findings, and recommendations related to GT facilities
McNamara Terminal	WCAA staff (planning, design, real estate, operations); McNamara tenants Review assumptions, findings, and recommendations related to the McNamara terminal
North Terminal	WCAA staff (planning, design, real estate, operations); North Terminal tenants Review assumptions, findings, and recommendations related to the North terminal
Environmental	WCAA staff (environmental, planning, operations, and maintenance); FAA; MDOT; and Delta Air Lines Review findings and recommendations related to environmental issues



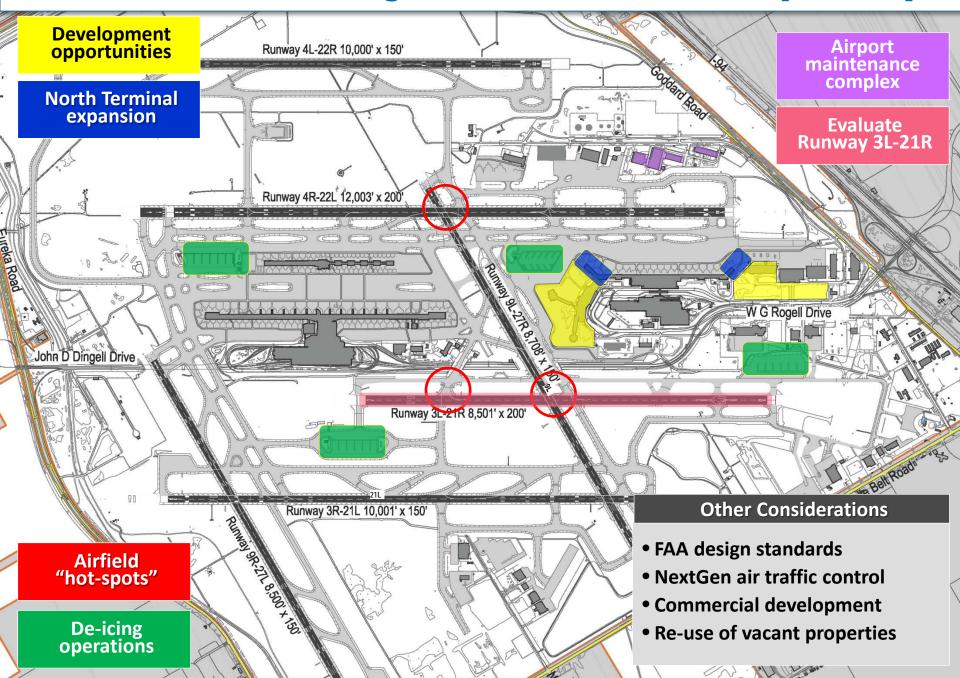
Committee Role and Expectations

- Provide input and guidance on technical analyses
- Review and comment on technical work products
- Provide ideas for consideration in the Master Plan
- Stay engaged in the planning process (i.e. attend all meetings or send a substitute in your place)
- Help build the Airport's future by sharing what you learn from Committee participation

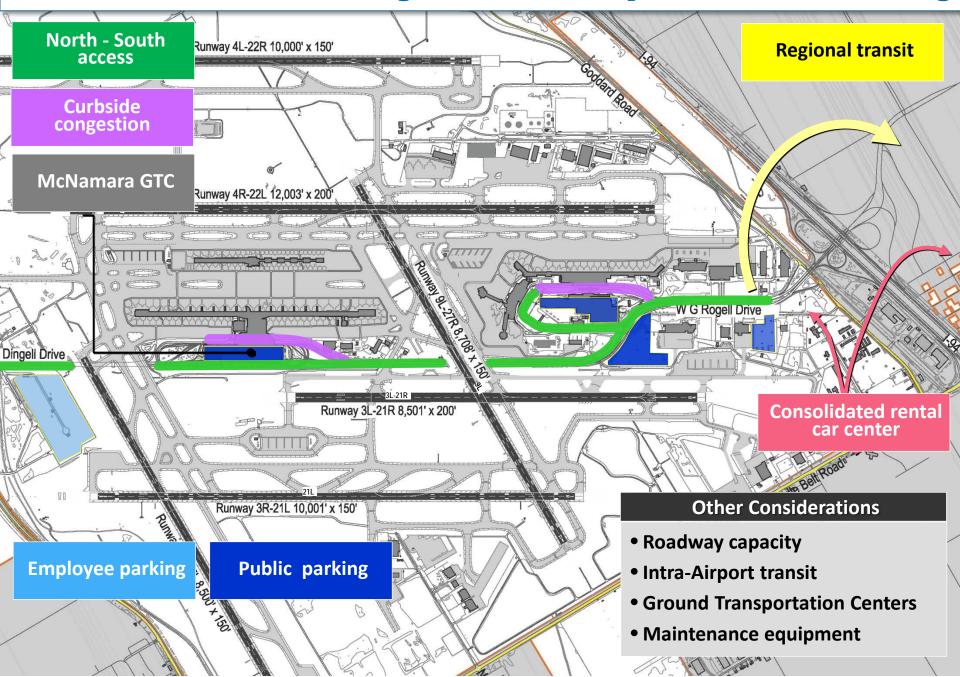




Assessment of Existing Conditions: Airfield and Airport Campus



Assessment of Existing Conditions: Airport Access and Parking



Forecast Methodology and Approach

The forecast approach incorporated a multi-tiered methodology to evaluate passenger and air cargo traffic in the Detroit Region

1. Select analytical tools

2. Identify key drivers of Detroit passenger and cargo demand

3. Evaluate DTW unconstrained demand

4. Translate annual demand forecasts into aircraft operations

Trend analysis

Regional population and economic factors

O&D and connecting passengers

Passenger load factor

Regression analysis

Cost of travel

Air freight and mail

Average seats per operation

Industry analysis

Global and national economic factors

Domestic and international sectors

Cargo tons per operation

City-pair analysis

Airline service by city-pair

Aircraft fleet mix



Key Findings - Passenger Forecasts

DTW's O&D passengers accounted for 53% of total traffic in 2015; connecting passengers accounted for the remaining 47%

Factors Influencing Passenger Traffic Growth

Domestic Origin-Destination (0&D)

Economic conditions (per capita personal income and unemployment rates) the cost of travel (DTW domestic airfares)

Domestic Connecting (Airline Hub)

The role of DTW as one of four primary connecting hubs in Delta's system

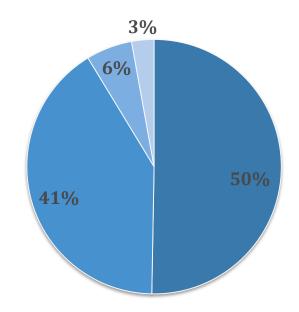
International O&D

Economic conditions, the location of global companies, the cost of travel, and the level of international service at DTW

International Connecting (Gateway)

The development of DTW as an international gateway by Delta and foreign-flag airlines

Key Passenger Traffic Components in 2015



- Domestic O&D
- Domestic connecting (airline hub)
- International connecting (gateway)
- International O&D



Key Findings - Air Cargo Forecasts

DTW is one of seven airports providing air cargo service in the Detroit Region and accounted for 64% of total air cargo in 2015

Factors Influencing Air Cargo Growth

Domestic Air Freight

Economic conditions, the cost of fuel, and the availability of less expensive alternative shipping modes

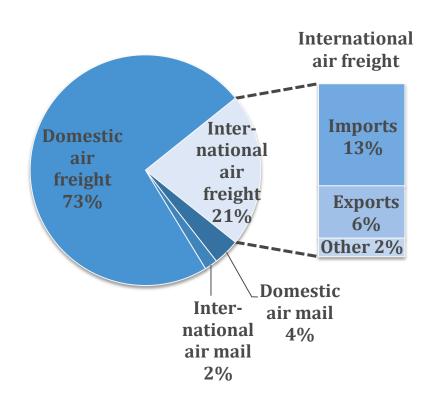
International Air Freight

U.S. economic growth, as measured by U.S. GDP, the strength of the U.S. dollar, global demand for products from the Detroit Region, and the continued growth in international airline service

Domestic and International Air Mail

Advances in technology and the increased use of email have reduced air mail demand in recent years and are expected to limit future demand

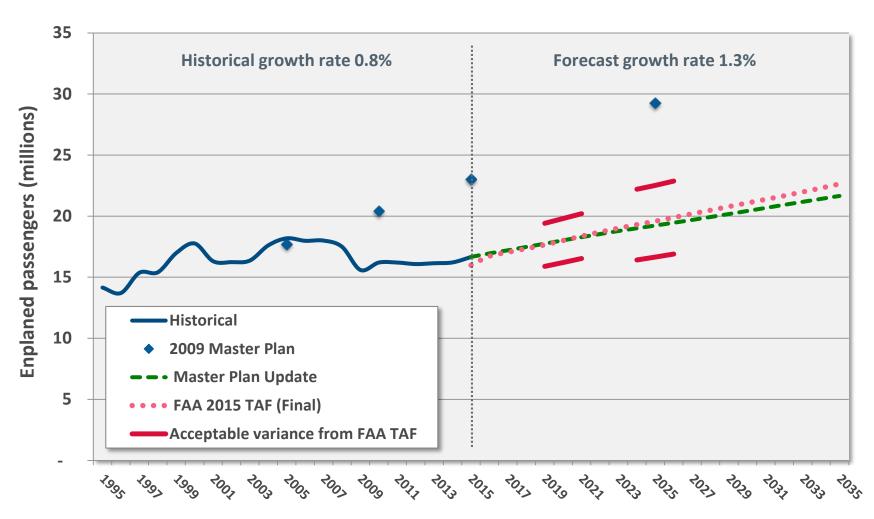
Key Air Cargo Traffic Components in 2015

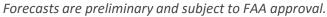




Forecast Passengers

Total passengers are forecast to increase an average of 1.3% per year between 2015 and 2035

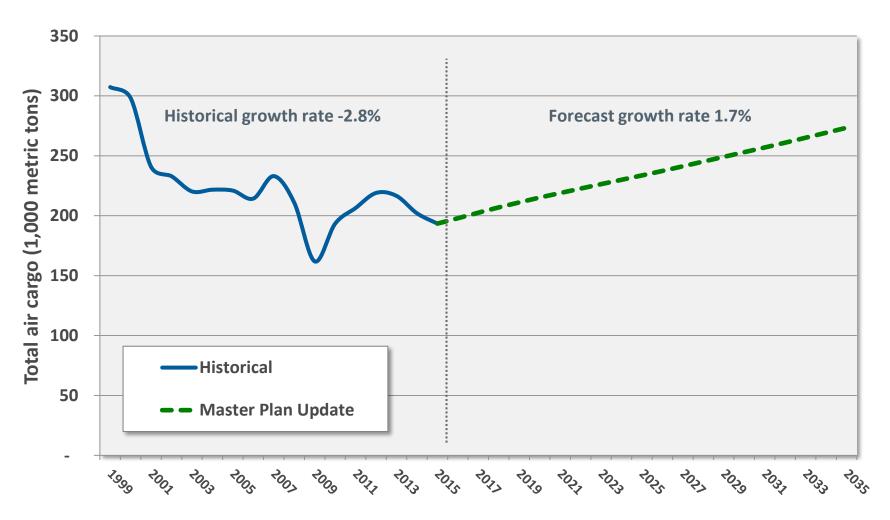


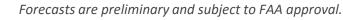




Forecast Air Cargo

Air cargo is forecast to increase an average of 1.7% per year between 2015 and 2035

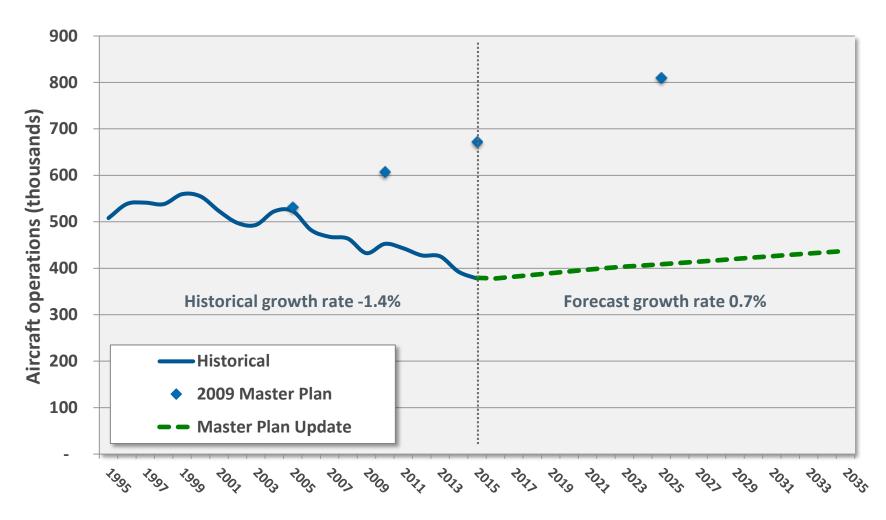


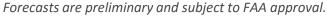




Forecast Aircraft Operations

Total aircraft operations are forecast to increase an average of 0.7% per year between 2015 and 2035







- 1. The airport is in good condition, well maintained, and well positioned to accommodate future activity
- 2. Different from the prior master plan, a new runway will not be needed in the 20 year planning horizon
- 3. The passenger terminals provide sufficient capacity, although changes will be identified to enhance levels of service and the customer experience

4. The Master Plan will provide opportunities to review commercial development





Open Discussion

Please Provide Your Input

- Why is your input important?
- How will your input be used?



Airfield

Passenger Terminals

Roads / Parking

Commercial Development

Environmental



Next Steps

There are Numerous Opportunities for Input

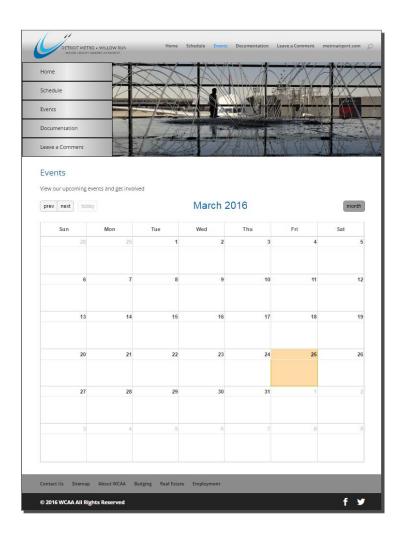




Project Website and Mobile App

Detroit Metropolitan Wayne County Airport Master Plan Update Welcome An airport Master Plan is a comprehensive study that identifies near-, medium-, and long-term plans for airport development. This Master Plan Update will provide the Wayne County Airport Authority and its stakeholders with a comprehensive, organized, and rational plan for developing airport facilities over the next 20-years. This Plan will allow the Authority to efficiently related needs. Development of the Master Plan Update will include input from stakeholders who have an interest in the Airport's future, such as: Airport users, community groups, local businesses, government agencies, and the View the Schedule Attend an Event Leave a Comment Documentation View the Master Plan Update View upcoming opportunities Ask a question or provide a Download and review project schedule, progress, and other for involvement materials comment Go! Go! Go! Go! News and Updates Subscribe for Updates Receive news and updates from this web site Garage B Complete We are happy to announce that Garage B is now complete. We are Email * moving along through these... Read More Subscribe

www.detroitmetroairportmasterplan.org





Master Plan Project Schedule

2015 2017 **TASKS** M M Α S 0 D M **Strategic Vision and Approach WCAA Airport System Plan Aviation Demand Forecast Assessment of Existing Conditions Facility Requirements Alternative Analysis Facilities Implementation Plan Financial Feasibility Analysis** Airport Layout Plan (ALP / eALP) Stakeholder Outreach **Public Outreach Final Deliverables**

- Project Steering Committee (PSC) meeting
- Technical Advisory Committee (TAC) meeting
- Community Advisory Committee (CAC) meeting
- Public Meeting

- ▲ Draft Technical Memorandum
- ▲ FAA review and approval

Note: Not all Scope of Work tasks are depicted; some tasks assumed to occur within the primary tasks shown above.



Upcoming Meetings and Topics for Discussion

Dates are tentative and subject to change

Target dates	Discussion topics
April 6	Project kick off; Airport Master Plan introduction; project progress and initial findings
June 8	Facilities needed to accommodate future demand; initial alternatives
August 3	Final alternatives
October 5	Recommended development plan and implementation strategies
April 28 September 8 December 8	Public meetings to present master plan findings
Subcommittees	To be scheduled



Pending Subcommittee Meetings

Meetings are being scheduled for the week of April 25

Subcommittee	Agendas
Airfield	Deicing pad congestion; taxi routes (taxi in/out times); remain over night aprons / penalty boxes; potential extension to Runway 3L-21R; potential effects of Metroplex airspace redesign; SIMMOD review
Ground Transportation	Access roadways / re-circulation routes; curbside and GTC congestion; accessibility; consolidated rental car facility; public and employee parking capacity and pricing; regional transit connections
McNamara Terminal	Aircraft gate and remote parking positions; check-in and baggage drops; passenger processing trends and new (technology) initiatives; passenger security screening checkpoints; customs passenger processing; terminal accessibility evaluation; links to GTC and garage
North Terminal	Similar to the above
Environmental	Meeting pending identification of development actions



Questions and Closing Remarks

