



AVIATION'S FUTURE IN MICHIGAN

Mike Trout
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MDOT Office of Aeronautics

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MICHIGAN'S AVIATION BEGINNING

- Michigan Aeronautics Commission established in 1939 to provide “supervision of all aeronautics within the state.”
- Empowered by State Law to make rules and regulations governing all airports, flight schools, and other aeronautical activities



Aeronautics Commission Members

APPOINTED MEMBERS



Roger Salo,
Chairman,
Plymouth



Rick Fiddler,
Commissioner,
Grand Rapids



Russ Kavalhuna,
Commissioner,
Dearborn



Kelly Burris,
Commissioner,
Pleasant Ridge



Dr. Brian R. Smith,
Commissioner,
Detroit

STATUTORY MEMBERS



F/LT. Brian
Bahlau,
Commissioner



Kevin Jacobs,
Commissioner



Laura J. Mester,
C.P.A.,
Commissioner



Brigadier General
Bryan J. Teff,
Commissioner



Mike Trout,
Commission
Director



AVIATION AT A GLANCE

- 235 Licensed Public Use Airports
- 18 Air Carrier Airports
- 9 Essential Air Service Airports
- 39 Million Passengers
- 601 Million Pounds of Air Cargo
- 13,000 Active Pilots
- 6,569 Registered Aircraft
- 127 Aircraft Dealers
- 69 Licensed Flight Schools
- 19 Aviation-related degree programs
- 4th in Aerospace Attractiveness



MDOT OFFICE OF AERONAUTICS

Full time staff of approximately 43 employees across three sections

Planning and Aviation Services Section provides a wide variety of services including airport zoning support, airport planning and design services, airspace reviews and tall structure permitting, environmental analysis, and system planning

Airport Development Section provides engineering support and oversight of a \$120 million annual airport development program

Air Transport and Safety Section provides aeronautical facility inspection and licensing, state passenger transportation, electronic facilities oversight, and leads MDOT's Unmanned Aerial Systems (UAS) unit.





MICHIGAN'S SUPPORT FOR AVIATION TODAY

MDOT Aeronautics provides support for Michigan's aviation system totaling nearly \$100 million of federal, state, and local funds for airport development annually.

These grant funds are used to support capital development projects including:

- Runway and taxiway pavement rehabilitation and reconstruction
- Land and easement acquisition
- Terminals, hangars, and support facilities

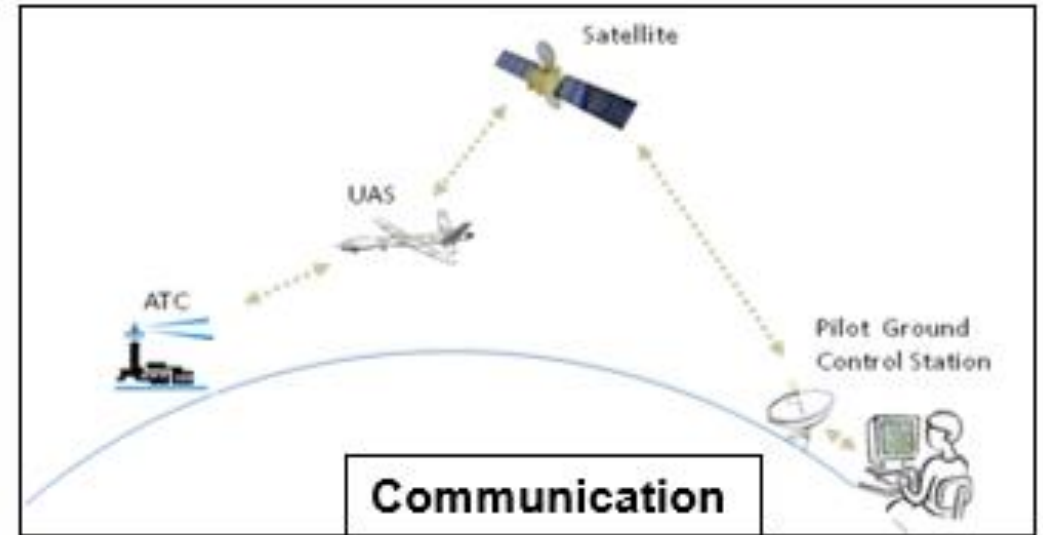
LOOKING TO THE FUTURE

- Michigan's current aviation system supports an economic impact in Michigan over more than \$20 billion annually.
- Aviation and the aerospace community are in the midst of transition as technology and mobility needs advance.
 - ❖ Small Unmanned Aircraft
 - ❖ Unmanned Aerial Mobility
 - ❖ Commercial Space Travel



SMALL UNMANNED AIRCRAFT

- Small UAS have largely been adopted across the country for operational need including media production, surveying, infrastructure monitoring, and others.
 - Federal rules beginning to mature, but still impact full deployment.
 - Beyond visual line of site
 - Flight over people
 - Complex airspace
 - Safety and security concerns
 - Association for Unmanned Vehicles International believe UAS will have a \$1.1 billion economic impact in Michigan.
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MICHIGAN UNMANNED AIRCRAFT SYSTEMS TASK FORCE

- Created in April 2017
- 27 members from across Michigan industry
- Chaired by Mike Trout, MDOT Aeronautics
- Provide ongoing policy recommendations, on operation, use, and regulation of UAS in Michigan
- Final report completed in 2018 – multiple legislative recommendations enacted
- Task Force continues to focus on economic development opportunity to realize full economic impact of UAS in Michigan



ADVANCED AERIAL MOBILITY

- MDOT partnering with Ohio Department of Transportation and other partners to explore feasibility of several connected corridor use cases.
 - MDOT also exploring “fieldable” scenarios to employ advanced aerial mobility while ensuring the safety and regulatory approvals needed for deployment.
 - Future planning also underway with current ground based autonomous vehicle deployments to create a unique holistic autonomous ecosystem leveraging existing Michigan investment.
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COMMERCIAL SPACE DEVELOPMENTS

- Commercialization of space travel moving swiftly across United States with industry seeking suitable launch, recovery, and command and control facilities.
- State of Michigan supported a feasibility analysis for locations in Michigan.
 - Marquette potential vertical launch site
 - Oscoda potential horizontal launch site
 - SE Michigan potential support facility
- Feasibility analysis continues with goal of applying for state and federal commercial launch licenses.
- Commercial space industry generated \$385 billion in 2017. Expected \$1 trillion industry in 2040.





QUESTIONS?