

ILLINOIS ADVANCED AIR MOBILITY SYSTEM PLAN

Project Advisory Committee Meeting #2
September 26, 2024

INTRODUCTIONS

IDOT

PAC MEMBERS

CONSULTANT TEAM

Kimley-Horn

The Aviation Planning Group (APG)



AGENDA

Role of PAC

Project Purpose

Project Recap

Ongoing Tasks

Breakout Activity 1

Lunch

Breakout Activity 2

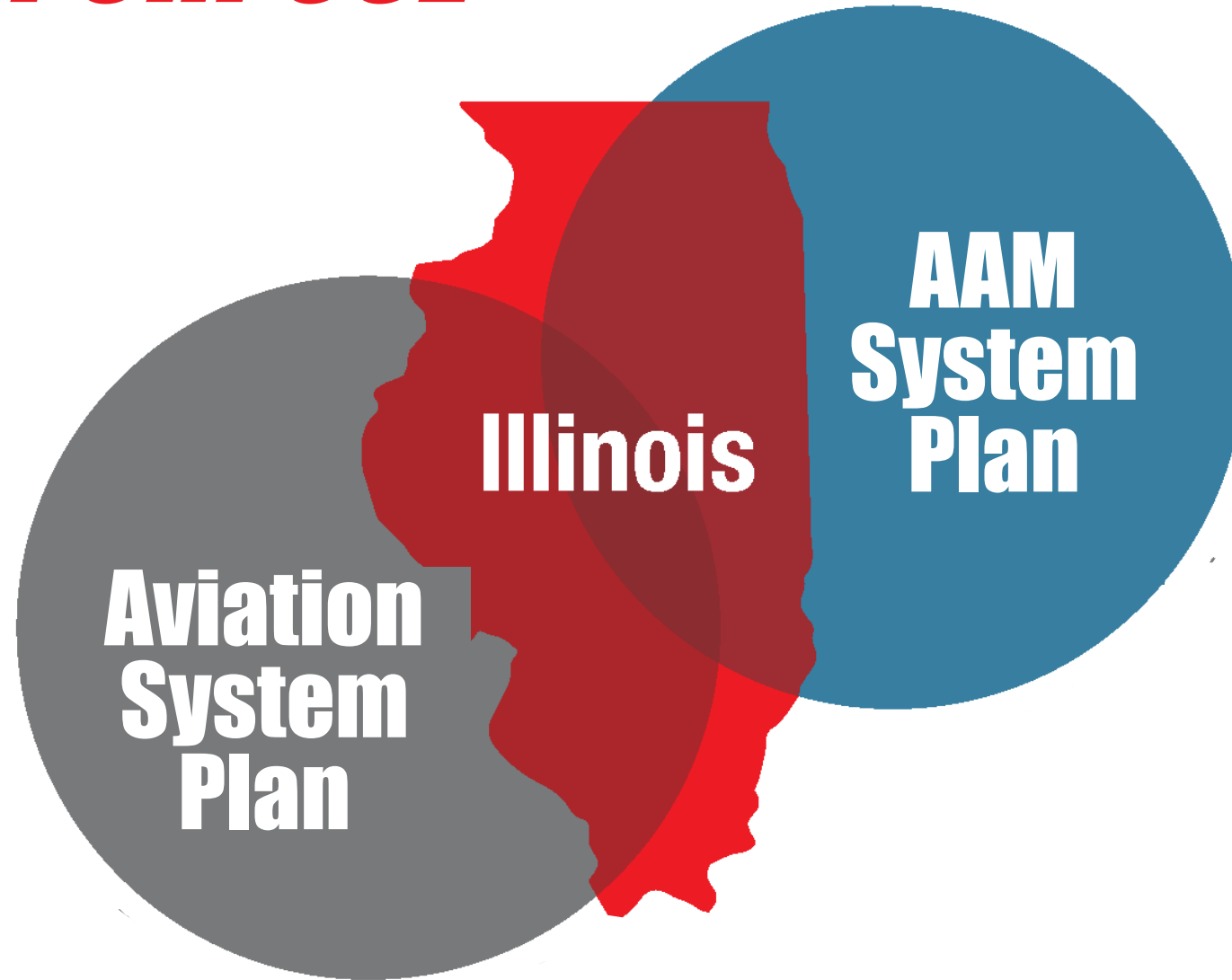
What's Next?



ROLE OF PAC



PROJECT PURPOSE



Progress Recap

Since our last meeting in March....



PROJECT PROCESS

PUBLIC CONSULTATION

PHASE I

SYSTEM VISION AND GOALS
DEFINITION OF SYSTEM
OPPORTUNITIES AND THREATS

PHASE II

ACTIVITY FORECASTS
AIRSPACE INTEGRATION

PHASE III

IMPLEMENTATION FRAMEWORK
RECOMMENDATION FRAMEWORK

PHASE IV

TECHNICAL REPORT
EXECUTIVE SUMMARY BROCHURE
SAMPLE VERTIPORT REPORTS
3D AIRSPACE STATIC
AND DYNAMIC MODELS
PROJECT POSTER



Vision and Goals



ECONOMY

Improve Illinois' economy by providing transportation infrastructure that supports the efficient movement of people and goods.



LIVABILITY

Enhance the quality of life across the state by ensuring that transportation investments advance local goals, provide multimodal options, and preserve the environment.



MOBILITY

Support all modes of transportation to improve accessibility and safety by improving connections.



RESILIENCY

Proactively assess, plan, and invest in the state's transportation system to ensure that our infrastructure is prepared to sustain and recover from extreme events and other disruptions.



STEWARDSHIP

Safeguard existing funding and increase revenues to support system maintenance, modernization, and strategic growth of Illinois' transportation system.

“Transform Illinois into a global leader in advanced air mobility by safely integrating cutting-edge technologies with existing transportation systems and revolutionizing mobility through increased efficiency, enhanced economic growth, and improved quality of life for all residents.”

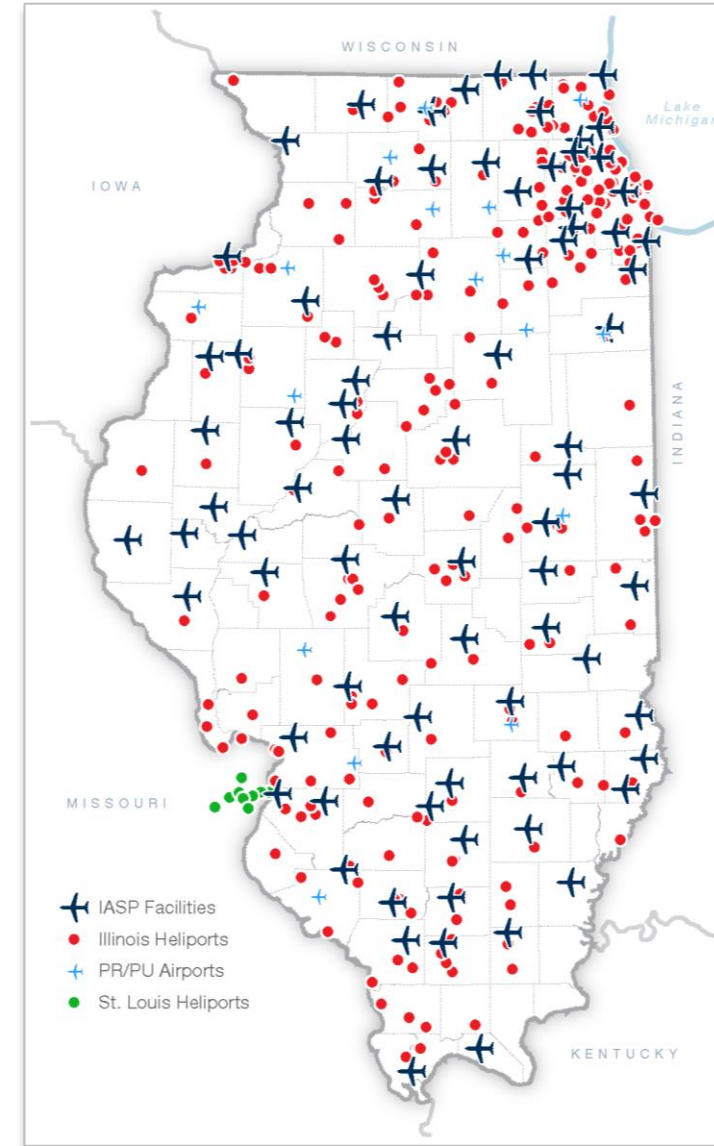


Illinois AAM System

Areas of Focus:

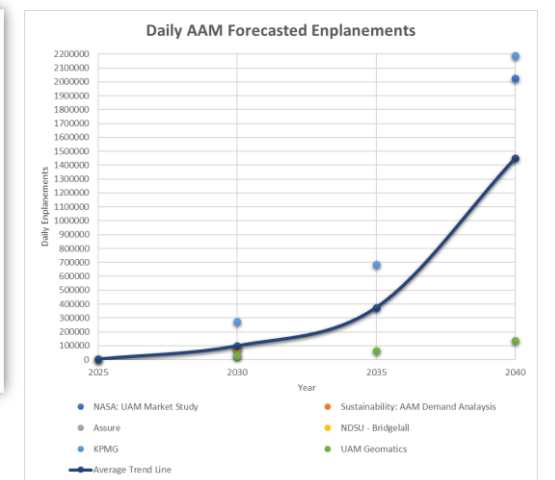
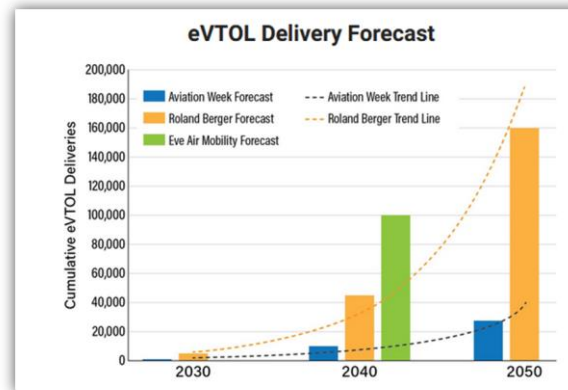
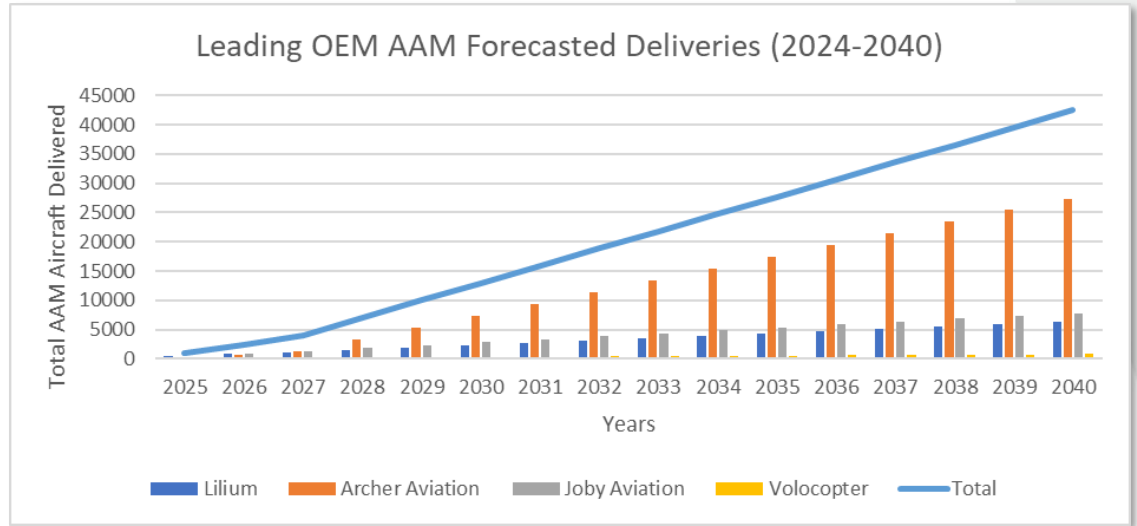
- **Chicago Metropolitan**
- **Greater St. Louis Metropolitan**
 - **Includes St. Louis heliports within Missouri**

Facility Type	Number of Facilities
IASP Facilities	85
Illinois Heliports	241
PR/PU in Illinois*	16
St. Louis Heliports	10
Total	352



AAM ACTIVITY FORECASTS

- **Use Cases**
- **Research and compile aviation industry forecasts**
 - OEM Production Forecasts
 - Aviation Week Forecasts
 - FAA Aerospace Forecasts
 - ACRP Synthesis 130
 - Others



Ongoing Tasks



AIRSPACE INTEGRATION



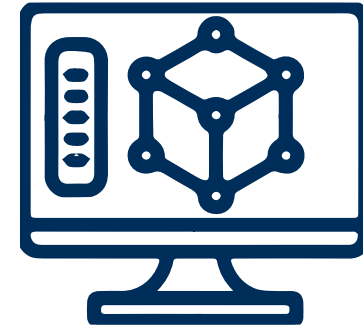
PURPOSE

Assess various airspace considerations



METHODOLOGY

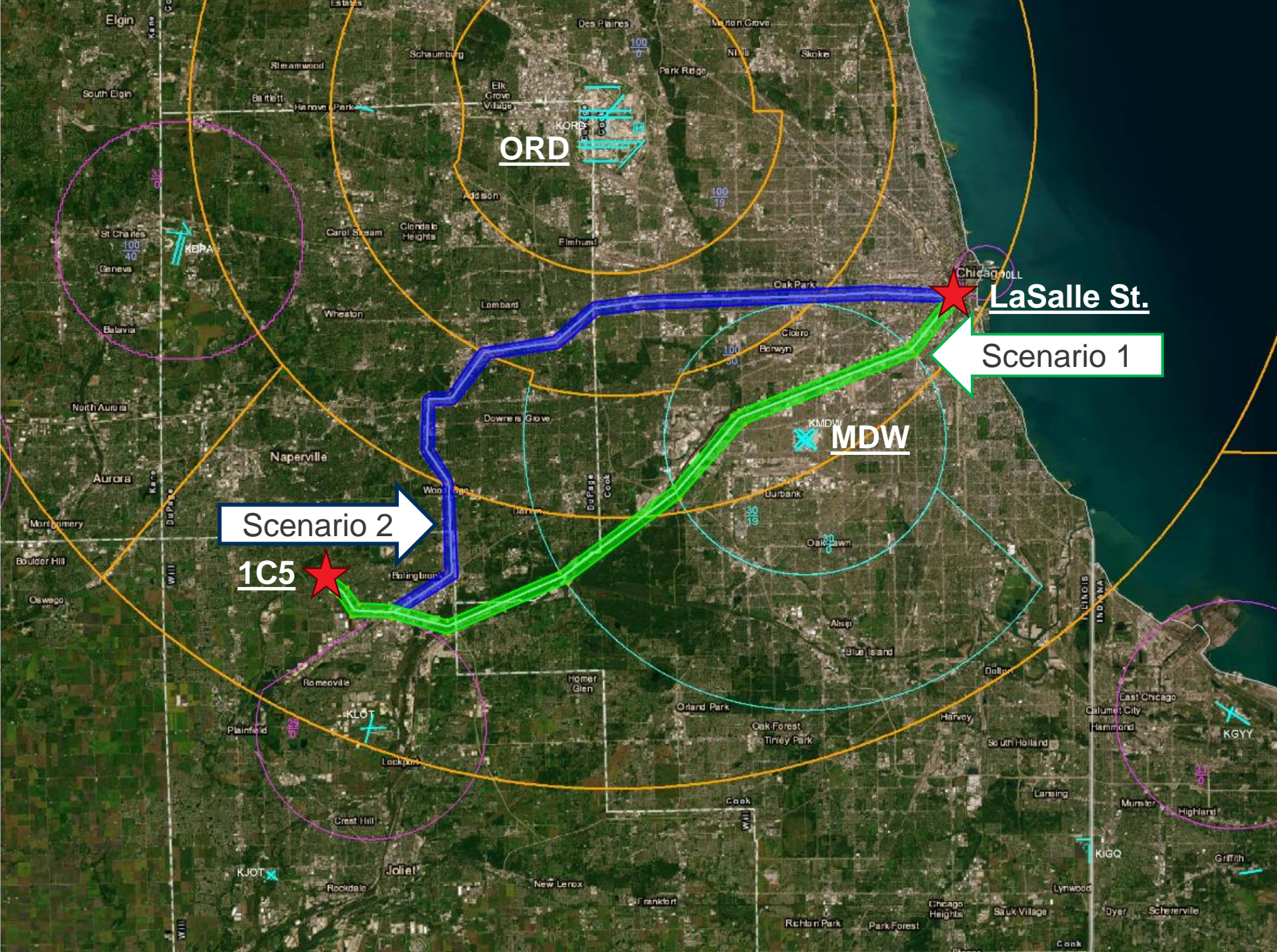
Develop two unique corridors, each with their own drawbacks and benefits



Deliverable

Delivering a 3D Rendered video of local airspace to identify issues





★ *Vertiport*

Bolingbrook to Downtown

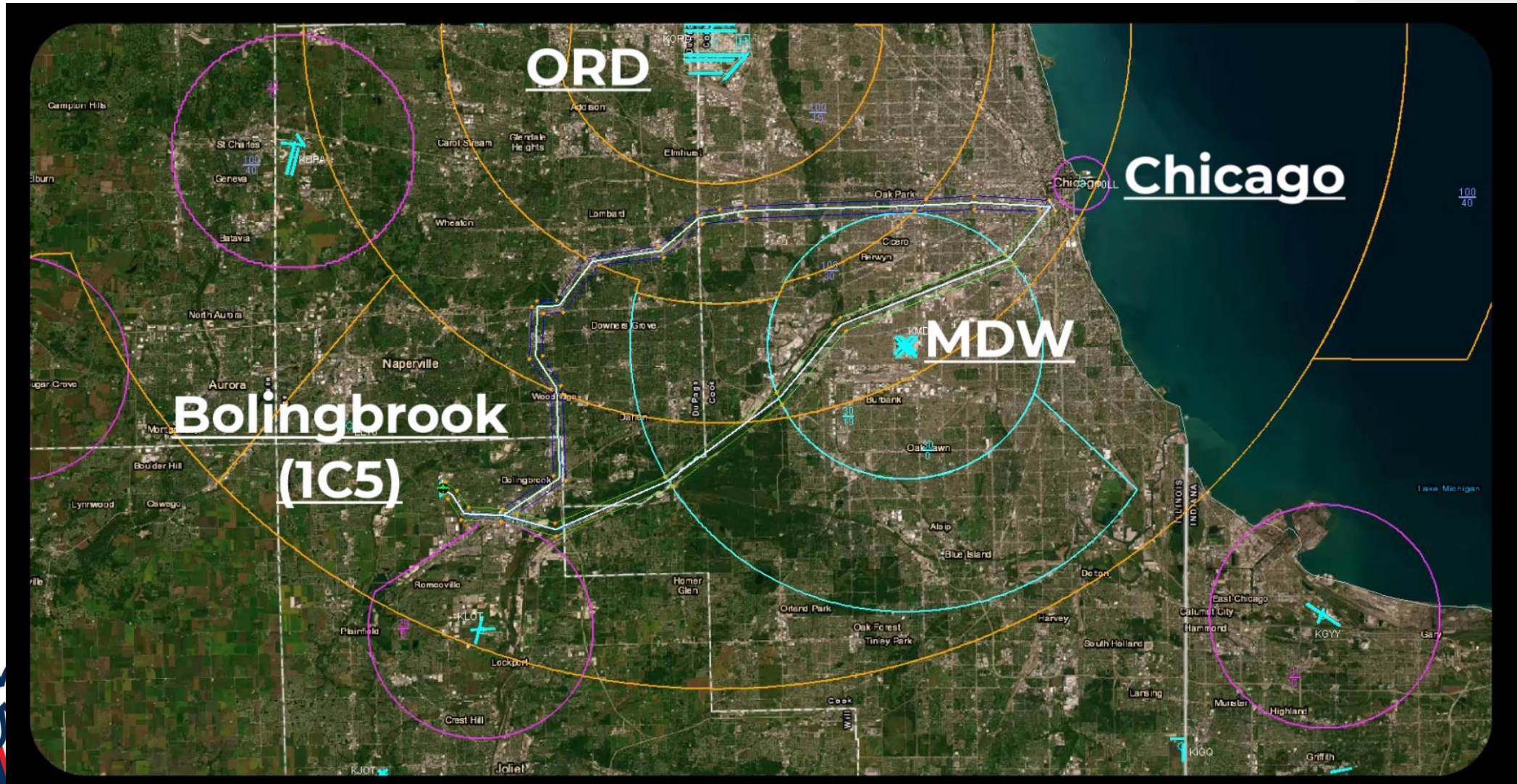
Scenario 1 (27 NM)

- MDW Proximity
- Follows Water
- Adjacent to Industrial and Commercial

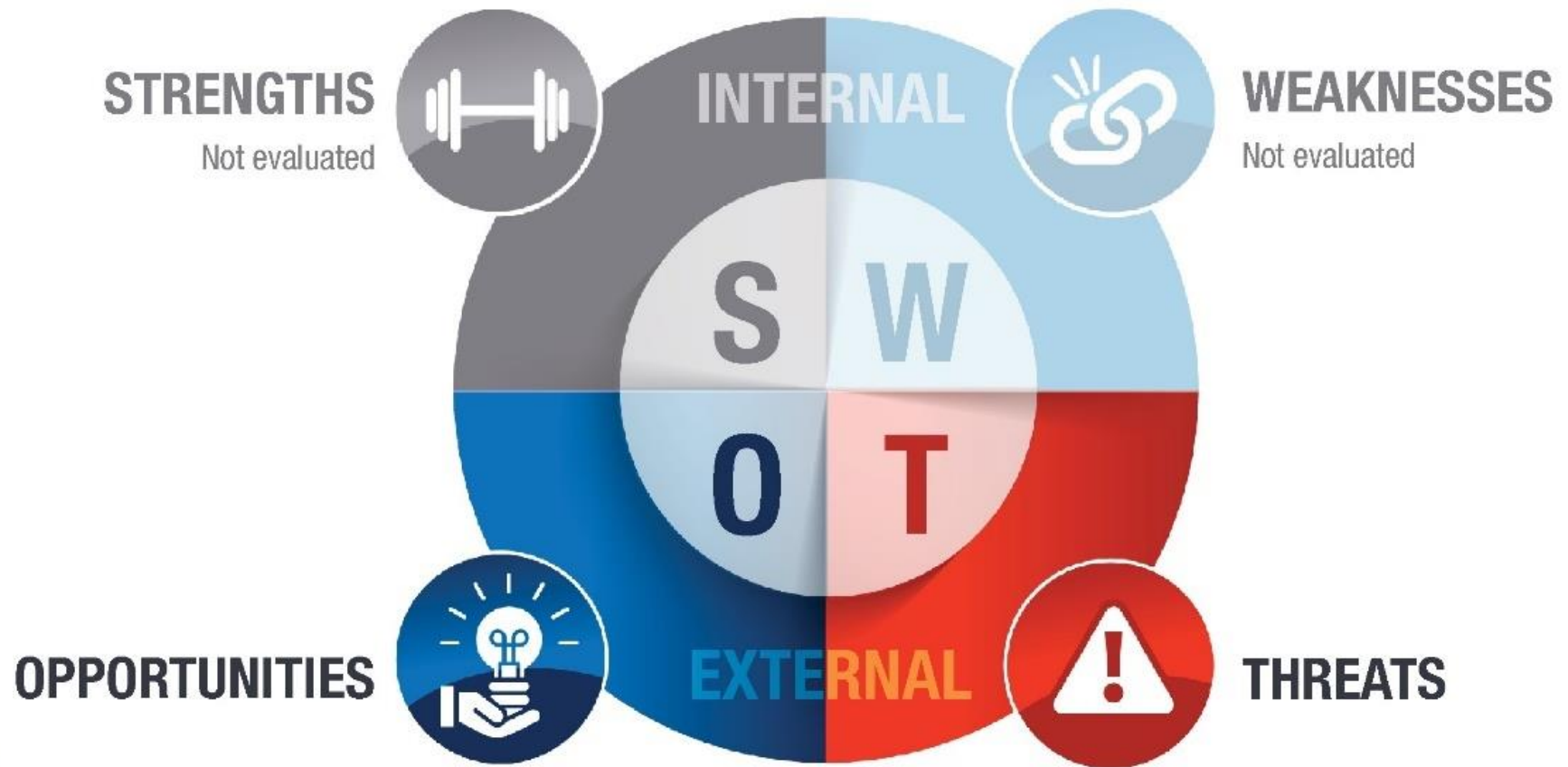
Scenario 2 (32 NM)

- Outside MDW & ORD Airspace
- Follows Highway
- Adjacent to Residential

AIRSPACE INTEGRATION



Opportunities and Threats



Opportunities and Threats



OPPORTUNITIES

Existing Aviation Infrastructure

Workforce Development

Partnerships with Academia

De-carbonization and Sustainability Initiatives

Funding and Incentive Programs



THREATS

Incompatible Land Use

Airspace Use

Technological Limitations

Battery Waste

Equitable Access

Reduced Aviation Funding

Lack of Regulatory Guidance

Electrification and Energy Capacity/Scaling

Public Acceptance and Expectations



Illinois AAM Opportunity Example

Existing Aviation Infrastructure

- **Established regulatory Framework**
- **Cost Effectiveness**
- **Reduced Environmental Impact**



Illinois AAM Threat Example

Incompatible Land Use

- **Zoning and Land Availability**
- **Noise Impacts**
- **Visual Impacts**
- **Privacy Infringement**
- **Traffic and Transportation Infrastructure**

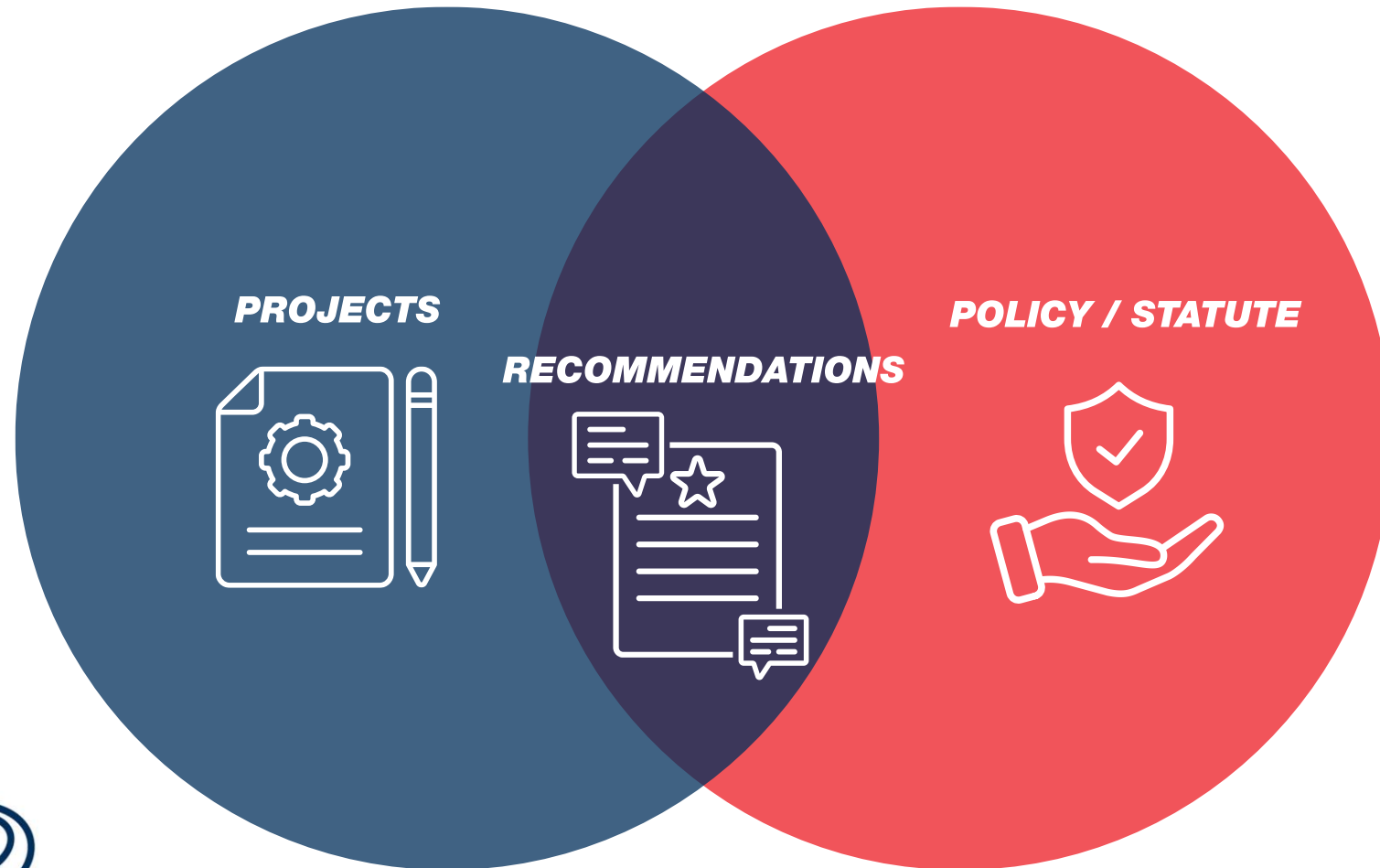


BREAKOUT ACTIVITY

Recommendations



RECOMMENDATIONS FRAMEWORK



RECOMMENDATIONS FRAMEWORK

Workforce Development

Engage with the Department of Education and other youth organizations to proactively bring AAM, STEM, and aerospace careers to classrooms and increase the exposure of aviation and AAM.

Establish partnerships with academic institutions to develop educational programs focused on developing AAM professionals.

Encourage partnerships between academic institutions and AAM businesses to research, develop, and implement AAM advancements.

Establish equity goals by evaluating the AAM specific workforce needs in Illinois and investigating training requirements for new employment opportunities.

Evaluate the equity, social, and workforce impacts of AAM on Illinois communities.

Establish or encourage programs to educate members of the existing aviation workforce on AAM.

NOTES

Public Education and Community Engagement

Develop an Illinois Community Education Guidebook to promote the education, benefits, and community acceptance of AAM.

Develop an Illinois Elected Officials Guidebook to promote the education, benefits, and community acceptance of AAM.

Develop an Illinois Airport Guidebook to promote the education, benefits, and community acceptance of AAM.

Include BIR 585889 in the proposed Illinois Elected Officials Guidebook to promote the education, benefits, and community acceptance of AAM.

Establish best practices for public engagement and consultation to allow airports and AAM users to gather public input.

Develop government agency briefings to introduce AAM concepts.

Emphasize use cases of AAM beyond air taxi to display the community value of new cargo, medical, and other services.

Synthesize all statewide efforts for FAA.

Establish public education programs to increase AAM awareness and boost positive public perception.

NOTES

Airspace and Safety

Coordinate with local governments and associated emergency services to ensure that procedures related to fire safety account for electric aircraft.

Increase Illinois' aviation funding revenue sources to ensure adequate funding from IDOT to support AAM.

Identify critical areas in need of update in Illinois Title 92 related to Aeronautics Part 14 Aviation Safety to accommodate and support AAM development.

Coordinate with FAA to ensure top-down alignment on AAM policy.

Update state funding revenues to include utility tax.

Increase revenue from AAM should be dedicated to AAM safety and infrastructure needs.

NOTES

System Planning and Access

Conduct an Illinois statewide review of non-aviation public assets which could be used to support AAM, including park-and-ride facilities, transit stations, and other state-owned assets.

Incorporate AAM into Illinois' Long Range Transportation Plan.

Develop IDOT standard operating procedures that indicate a process for designing and developing new vertiports.

Explore alternate funding mechanisms to supplement existing revenue and funding strategies that may see change as AAM emerges.

Coordinate with airports and stakeholders to determine eligibility and prioritization of AAM infrastructure for state funding.

Ensure IDOT standard operating procedures for the design and development of AAM infrastructure address facilities of all size and commercial activity from small to large.

Encourage, or participate in, public-private partnerships (P3) to promote AAM growth and allow the State to influence its development.

Assist municipal planners, operators, and developers of AAM in evaluating current transportation and transit options for first- and last-mile access and seek to combat congestion.

Promote AAM use cases that provide equitable AAM access to all demographics.

Engage historically underprivileged populations when planning for, designing, and implementing AAM facilities and operations.

Communicate needs of stakeholders (AAM operators, municipalities, airports, and the public) to federal agencies to promote development of fair, balanced AAM regulations.

NOTES

AAM Infrastructure and Zoning

Identify funding mechanisms to support 3-phase electrical power and broadband connectivity to airports.

Identify and develop a dedicated funding source for AAM.

Update the Illinois Aviation System Plan (IASP) to address critical AAM infrastructure needs within the system.

Work with Illinois municipal agencies to integrate AAM within their land use and permitting policies.

Establish a pilot program for early entrants which could involve IDOT partnerships with municipalities, airports, eVTOL operators, and vertiport developers.

Publish guidance and best practices, including a sample ordinance, for local governments to consider with respect to zoning and infrastructure for vertiports, including definitions and flexibility to consider the unique characteristics a site may have.

Prioritize funding of existing airport infrastructure modifications to accommodate AAM.

Partner with state and local agencies to establish regulations and practices that mitigate the environmental impact of battery disposal.

Educate and engage with utility providers to ensure the infrastructure needs of AAM can be satisfied.

Advise on the potential of on-site electrical sources to create an airport microgrid that supports AAM.

Publish guidance on electrification and grid capacity to give local governments the information needed to make informed decisions.

Encourage coordination between local municipalities and federal agencies to build a compatible and integrated land use system.

Promote alternate energy sourcing for airport electrification and AAM charging to help fulfill the State's carbon emission goals.

NOTES



BREAKOUT ACTIVITY 1

Recommendations



Lunch



BREAKOUT ACTIVITY 2

Recommendations



WHAT'S NEXT?

- **Document feedback obtained from PAC meeting 2**
- **Send Chapter 4 – Airspace Integration to PAC for review**
- **Send Chapter 5 – Recommendations to PAC for review**
- **Develop Executive Summary Brochure**
- **Develop Sample Vertiport Reports**
- **Schedule PAC Meeting #3 (Virtual)**



THANK YOU!



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