

An aerial photograph of the Southern Illinois Airport in Macomb, Illinois. The image shows a large, paved runway and taxiway system, several hangars, and other airport buildings. The airport is surrounded by a mix of green fields, brown plowed fields, and dense green forests. A small river or stream is visible on the left side of the image.

**Southern Illinois Airport - MDH**

**SMS Presentation  
November 3, 2011**

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Illinois

# Background



- **Part 139, Class IV, GA airport**
- **6th busiest airport in Illinois**
- **90,000 annual operations**
- **1100 acres/27 buildings**
- **200 employees/600 students**
- **Airport Owned/Operated by an Airport Authority**
- **FBO Owned/Operated by Airport Authority**
- **SIU Aviation Program is the major tenant**



# Background

- ACRP Panel Member for SMS Guidebook
- SMS Pilot No 1:



**Aviation**  
Southern Illinois University Carbondale



AN AVIATION CONSULTANCY

- SMS Pilot No 3:



**Aviation**  
Southern Illinois University Carbondale



# Perceptions

- **SMS adoption – what did we expect?**
  - Formalized safety processes
  - Development of a proactive, holistic approach to safety
  - Transformation: improving our safety culture



# SMS/Safety Risk Management

- Board Acceptance/Tenant buy-in
- Developed a 5 x 5 matrix/several revisions
- Determinations:
  - Annual SMS Manual Review
  - Monthly Safety Committee Meetings
  - Annual Safety Audit
  - Continued Promotion of Hazard Reporting
  - Confidential but not a non-punitive system
  - Implementation of SRA recommendations/resolution of issues identified in reporting/feedback to submitter



Criteria	Severity Classification				
	No Safety Effect A	Minor B	Major C	Hazardous D	Catastrophic E
Effect on aircraft operations	No effect on safety	Slight reduction in safety margin or functional capabilities	Significant reduction in safety margin or functional capability	Large reduction in safety margin or functional capabilities	Hull loss
Effect on people	Inconvenience	Physical discomfort	Physical distress possibly including injuries	Serious injury	At least one fatality
Loss of confidence in airport	Slight to moderate impact on airport reputation	Moderate impact to reputation at community level	Significant impact to reputation at regional level	Significant impact to reputation at state level	Severe impact to reputation at national level
Environmental Impact	Non-Reportable	Reportable without fine	Physical damage and fine	Considerable damage to people/facilities/ equipment Significant fine and cost	Loss of people, facilities or equipment Highest fine and cost
Financial loss	Slight damage is less than \$5,000	Noticeable damage between \$5,000 and \$25,000	Large damage between \$25,000 and \$100,000	Major damage between \$100,000 and \$1,000,000	Severe damage exceeds \$1,000,000

# Likelihood Matrix

Qualitative Definition	Meaning	Value
<b>Frequent</b>	Likely to occur many times (at least once per month)	<b>1</b>
<b>Probable</b>	Likely to occur some times (more than once per year)	<b>2</b>
<b>Remote</b>	Unlikely, but possible to occur (once per year)	<b>3</b>
<b>Extremely Remote</b>	Very unlikely to occur (once every five years)	<b>4</b>
<b>Extremely Improbable</b>	Almost inconceivable that the event will occur (once every ten years)	<b>5</b>

# MDH - Risk Matrix

		Severity					
		No Safety Effect <b>A</b>	Minor <b>B</b>	Major <b>C</b>	Hazardous <b>D</b>	Catastrophic <b>E</b>	
Likelihood	Frequent <b>1</b>	Low	Medium	High	High	High	
	Probable <b>2</b>	Low	Medium	High	High	High	
	Remote <b>3</b>	Low	Low	Medium	High	High	
	Extremely Remote <b>4</b>	Low	Low	Low	Medium	High	
	Extremely Improbable <b>5</b>	Low	Low	Low	Low	Medium	High

# How were SRA topics identified?

- Hazard reports
- Accident reports
- Safety inspections
- Airport employee or user feedback/perception

# SRA Solutions



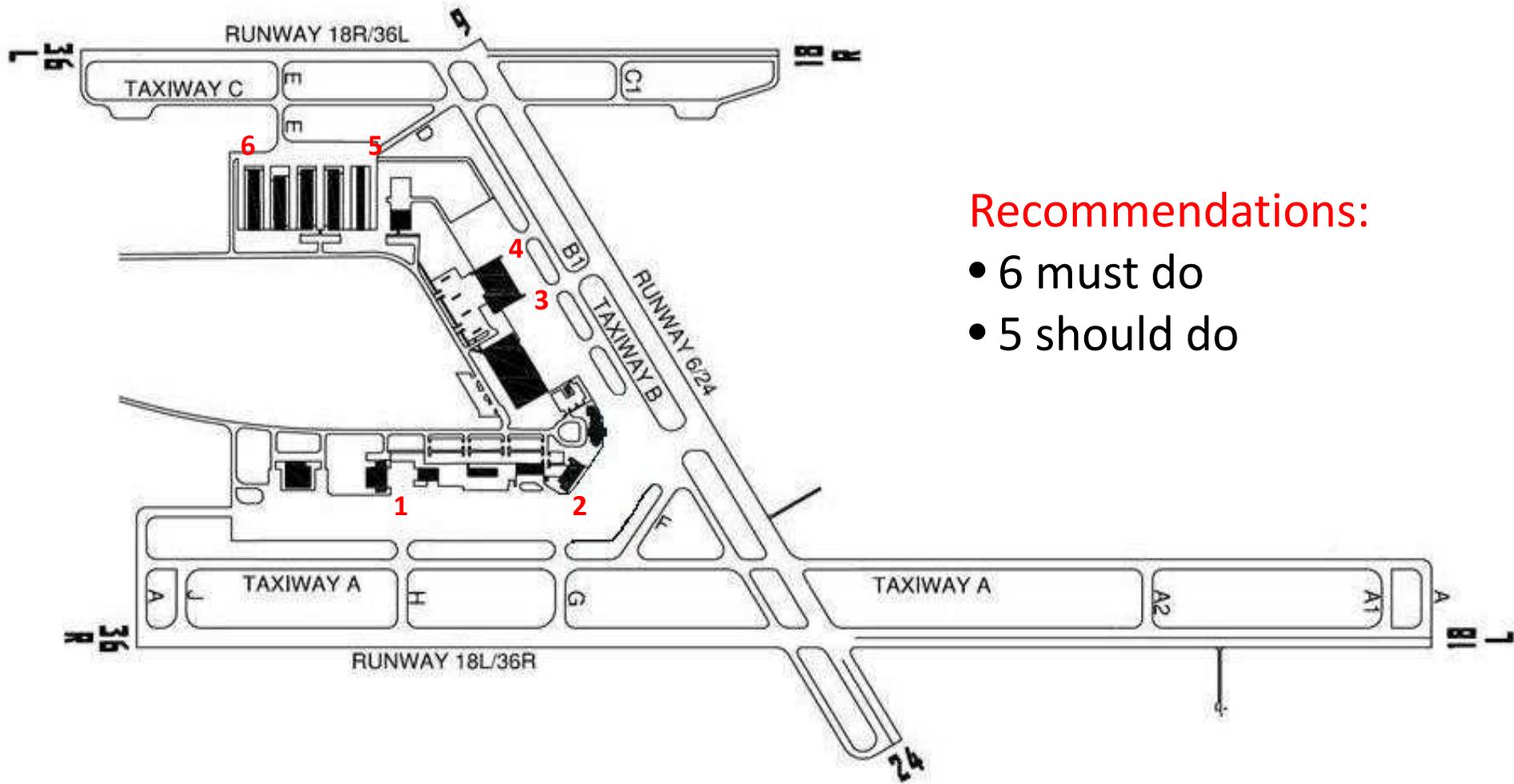
- **How were our SRA's conducted?**
  - We held a brainstorming session
  - SRA team leader organized and led the session
  - Participants: Tenants, ATC Manager, SMS team members, Airport Staff, and aviation students
  - Another team member appointed to take notes
  - SRA team leader drafted SRA report

# SIA's SRA's

1. Blind Spots on the Non-movement Area
  - Vehicle to vehicle
  - Vehicle to aircraft
  - Aircraft to aircraft
  - Vehicle/aircraft to pedestrian
2. SIU's TEC Development/Landside Issues
3. Airport Wildlife Issues

# SRA 1: Non-movement area

## Blind Spots



### Recommendations:

- 6 must do
- 5 should do

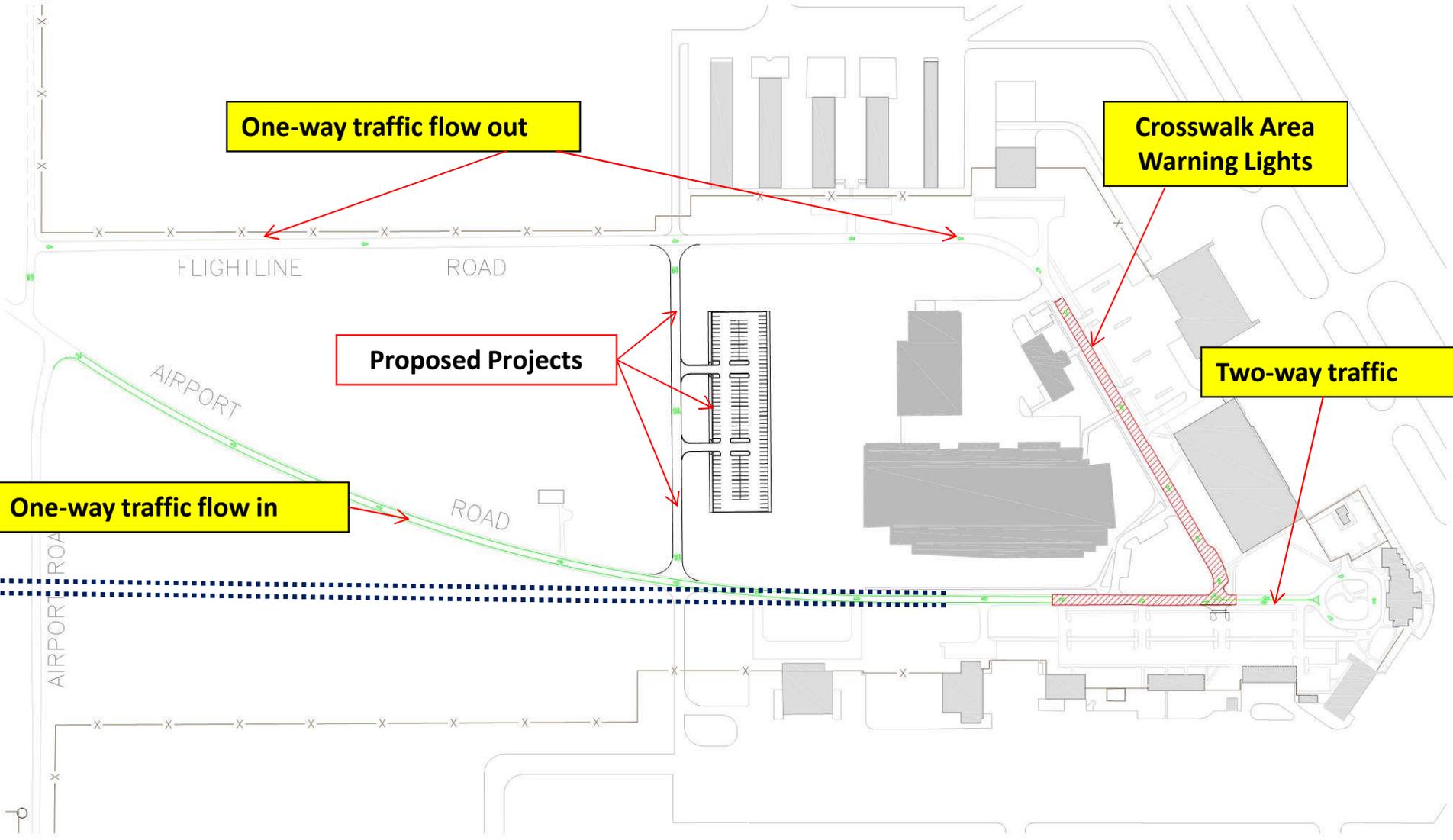


**SRA 2: TEC**

- Recommendations:**
- 5 must do's
  - 4 should do's

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# Proposed changes to the campus traffic pattern and infrastructure



# SRA 3 – Wildlife Issues

**Recommendations:**

4 must do's

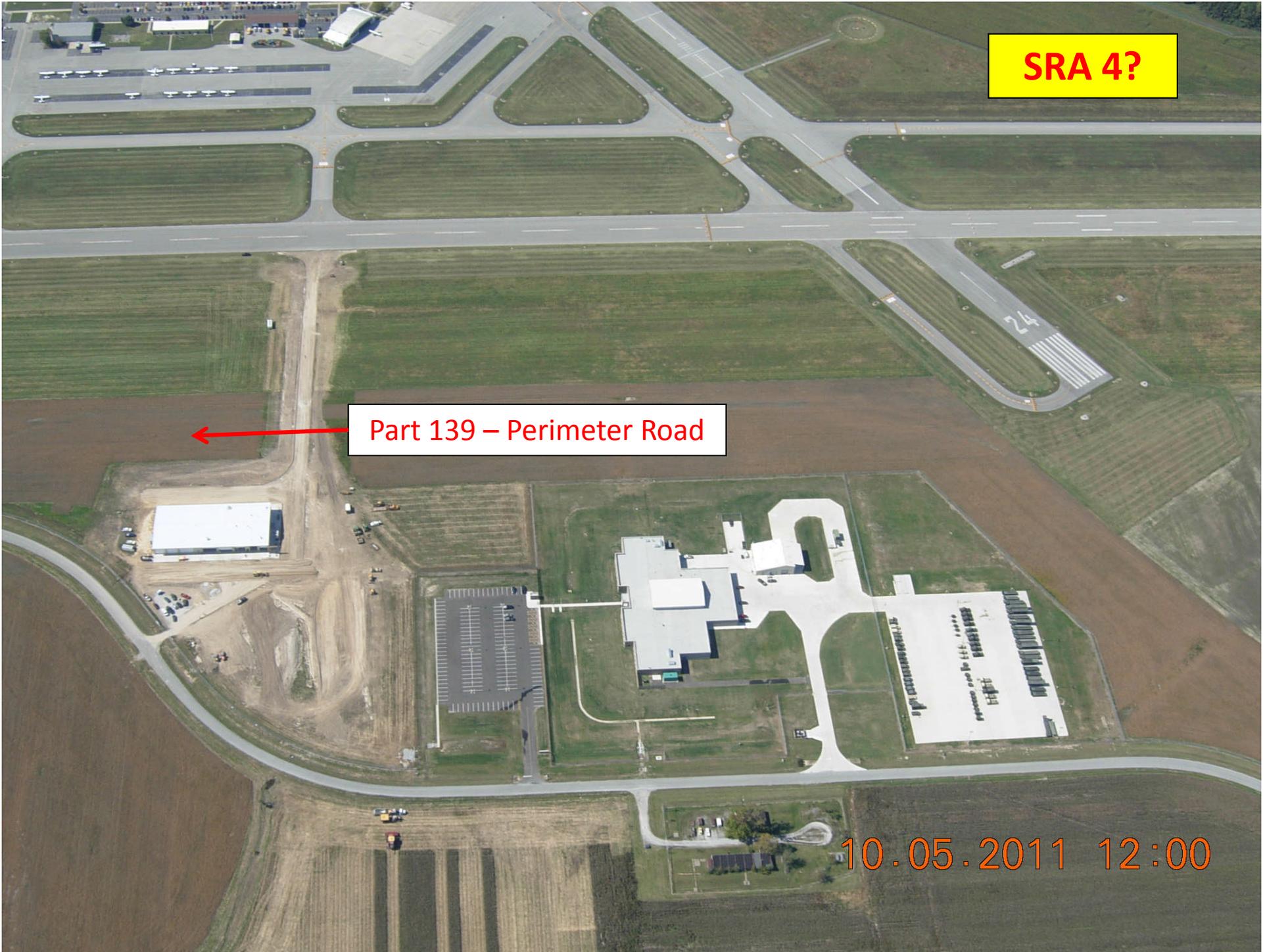
3 should do's



**SRA 4?**

**Part 139 – Perimeter Road**

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# Hazard Reporting Solutions



- Formal, confidential reporting program
- Hazard report submission encouraged
- Tenants, users, public full access
- <http://www.siaairport.com/sms>
- Hazard report collection boxes located throughout the airport





Southern Illinois Airport Serving the greater Jackson County area.mht



# Successes

- **Proactive, formalized safety program**
- **Airport Board “buy in”**
- **Airport tenant “buy in”**
- **Greater safety awareness**
- **Formalized safety committee**
- **Online hazard reporting**
- **Promotion Development: decals, posters, merchandise, safety news on website**

# SMS Promotional Solutions



1. SMS webpage/Safety News
2. SMS bulletin boards
3. SMS training for airport staff and tenants
4. SMS topics integrated into course curriculum
5. Decals, Posters, Merchandise



# Issues – Going Forward



- Many SRA Recommendations require funding
- Participating in SMS requires staffing and commitment
  - Time (me – Accountable/Reportable/Safety Manager)
    - SWPPP, SPCC, Part 139, Driver Training, etc, etc.....
- Promotion
  - Method, expense, repetitive
- Liability concerns

**Questions?**

