

# Risk Model for Dynamic Aviation Security

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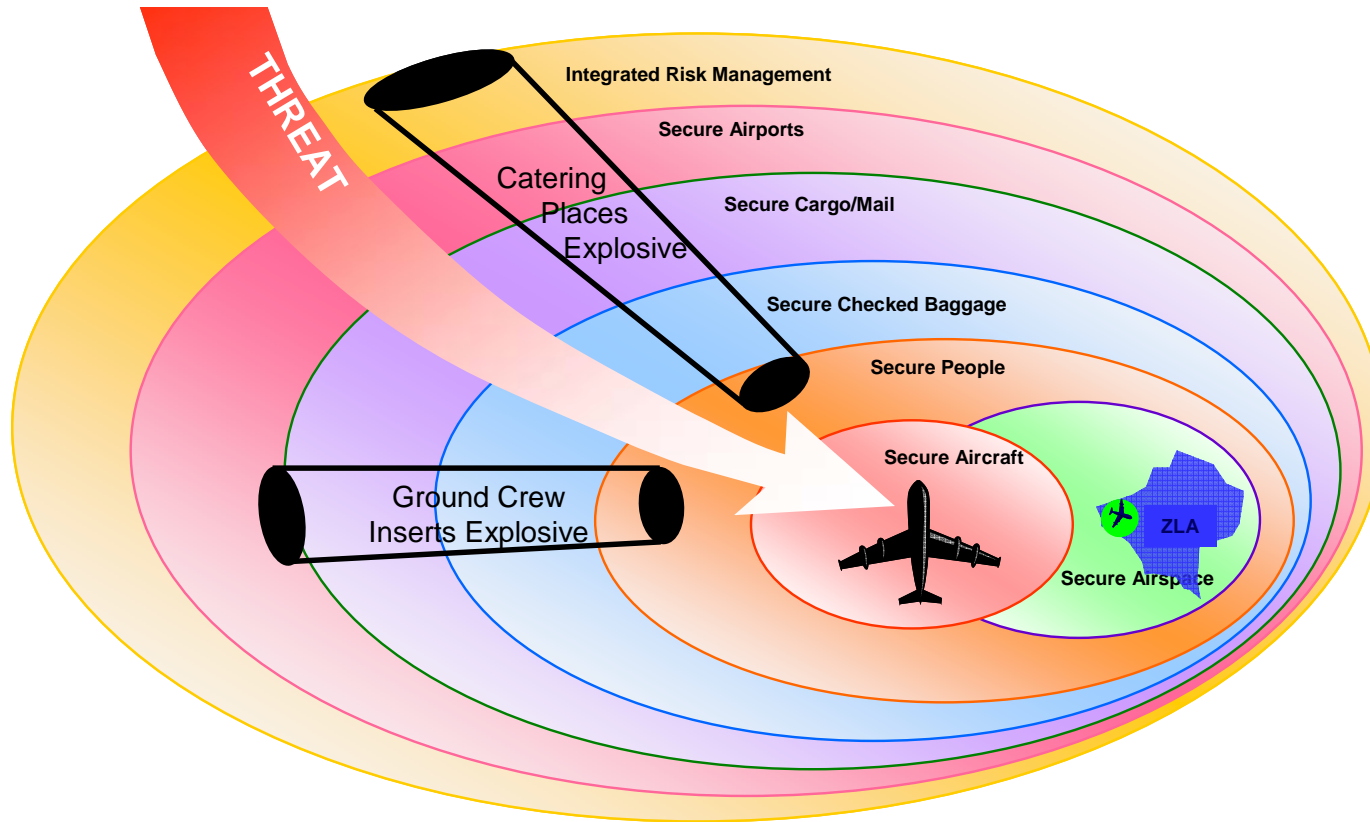
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# Problem

- **The aviation community lacks tools to design and adapt security prevention measures and allocate resources**
  - **A means to evaluate layered, adaptive defense effectiveness**
  - **A measure of deterrence accounting for adversarial reasoning**

# Background



**How effective is a particular layered defense?  
How does adaptation help close avenues of attack?**

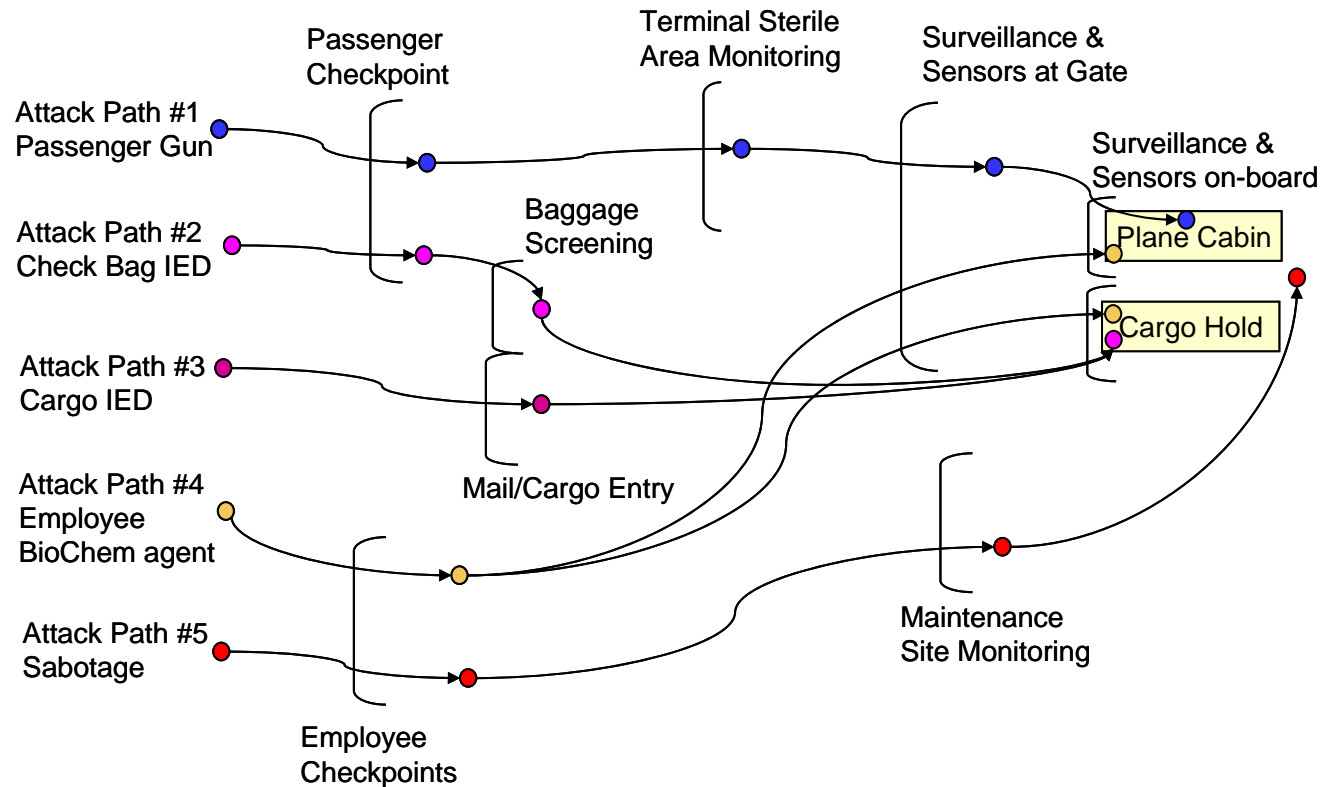
# Objective

- **This year's prototype of layered security leads to a decision support tool next year for adapting security design and resources**

# Activities

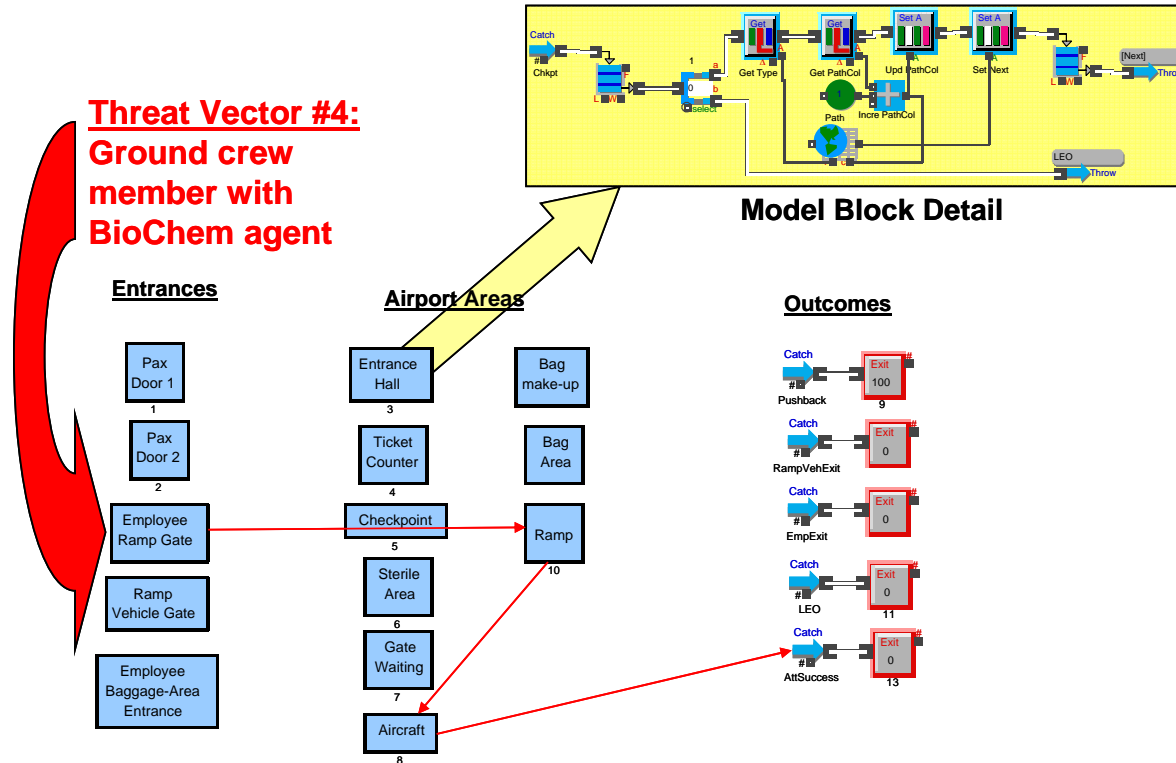
- **Create a model of layered, adaptive security**
  - Define effectiveness for a security design
  - Define adaptable rules of engagement
- **Create a representation of attacker actions**
  - Method for valuing threat vectors
  - Method for developing plans

# Highlight



**Model five threat vectors as a proof of concept to evaluate layered, adaptive security effectiveness and efficiency**

# Demonstration



This year's prototype provides the basis for designing and adapting security layers based on adversarial planning

# Impacts

- **Aviation Security and Emergency Management Task Force – concept was presented as part of inaugural meeting**
- **Interest from airport police planners who currently only use red team techniques**
- **Target airport security director community through professional associates once the prototype is complete**

