

# Separation Standards Analysis

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**FAA MOIE**



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# Problem

- **Current procedures for air traffic control (ATC) have evolved over years of analysis and experience**
- **Current ATC system cannot handle future traffic levels**
- **New technologies and concepts → opportunity for safely reducing aircraft separations**
- **New ATC procedures and standards must be efficient *and* safe**

# Background



Source: Joint Planning and Development Office

- **Concept for Next Generation Air Transportation System (NGATS) includes:**
  - Reduced separations
  - “Equivalent visual” operations in poor weather

# Objective

- **Develop an analytical framework for evaluating new separation standards**
  - **Consistent approach**
  - **Consistent level of safety**
  - **Flexible and expansive**

# Activities

- **Review development of current standards**
- **Develop general concept for ATC separation standards**
- **Develop framework for analysis of new standards and procedures**
  - **Apply to selected future cases**
- **Identify appropriate analytical models**

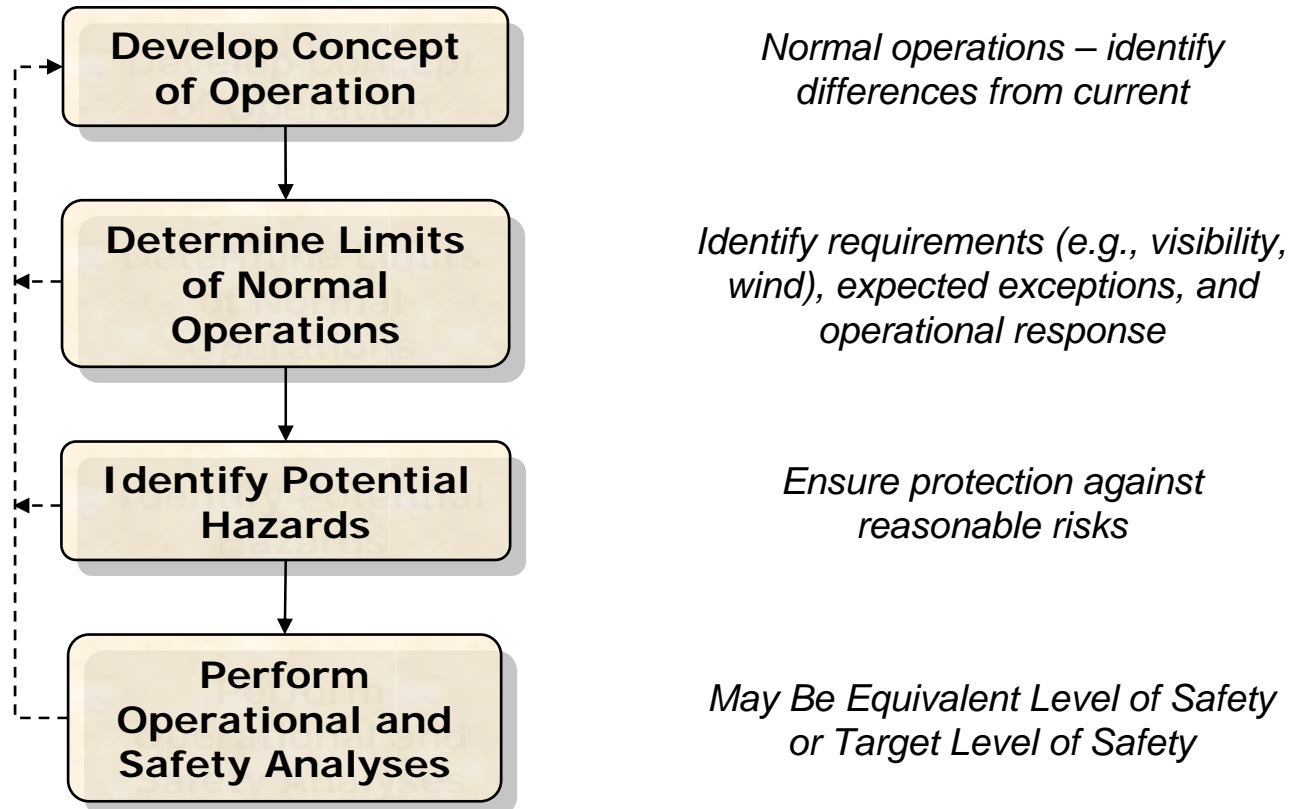
# Highlight

## Analyses of Current Standards and Procedures

Rationale	Example
Technology-driven	3 NM in-trail Dependent Converging Instrument Approaches (DCIA)
Equivalent operation	2.5 NM in-trail
New application of existing standards	Simultaneous Converging Instrument Approaches (SCIA) St. Louis (STL) sidestep approach Simultaneous Offset Instrument Approach (SOIA)
Calculated minimum miss distance	4300 ft dual simultaneous approaches (simos) Dependent parallel approaches DCIA
Target Level of Safety	Closely spaced dual simos (Precision Runway Monitor) Triple parallel simos High elevation parallels

# Highlight

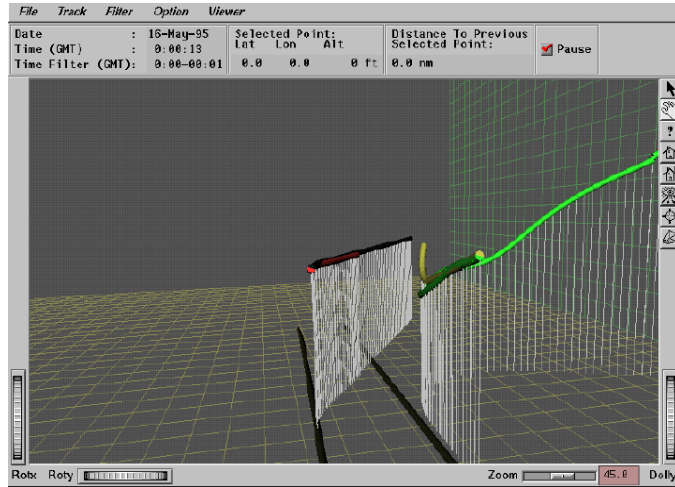
## A Concept for Review of Proposed Standards and Procedures



# Impacts

- **Coordinate with ongoing studies for FAA**
  - ***Example:* Separation “compression” on final approach**
  - ***Example:* RNP for parallel approaches**
- **Develop research recommendations for FAA**
  - **Through Separation Standards Working Group of FAA RE&D Advisory Committee**

# Future Plans



**Review Safety Models**



**Apply Framework to  
Proposed UAV Operations**

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