



SDF CDAs

Lessons Learned

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UPS Advanced Flight Systems

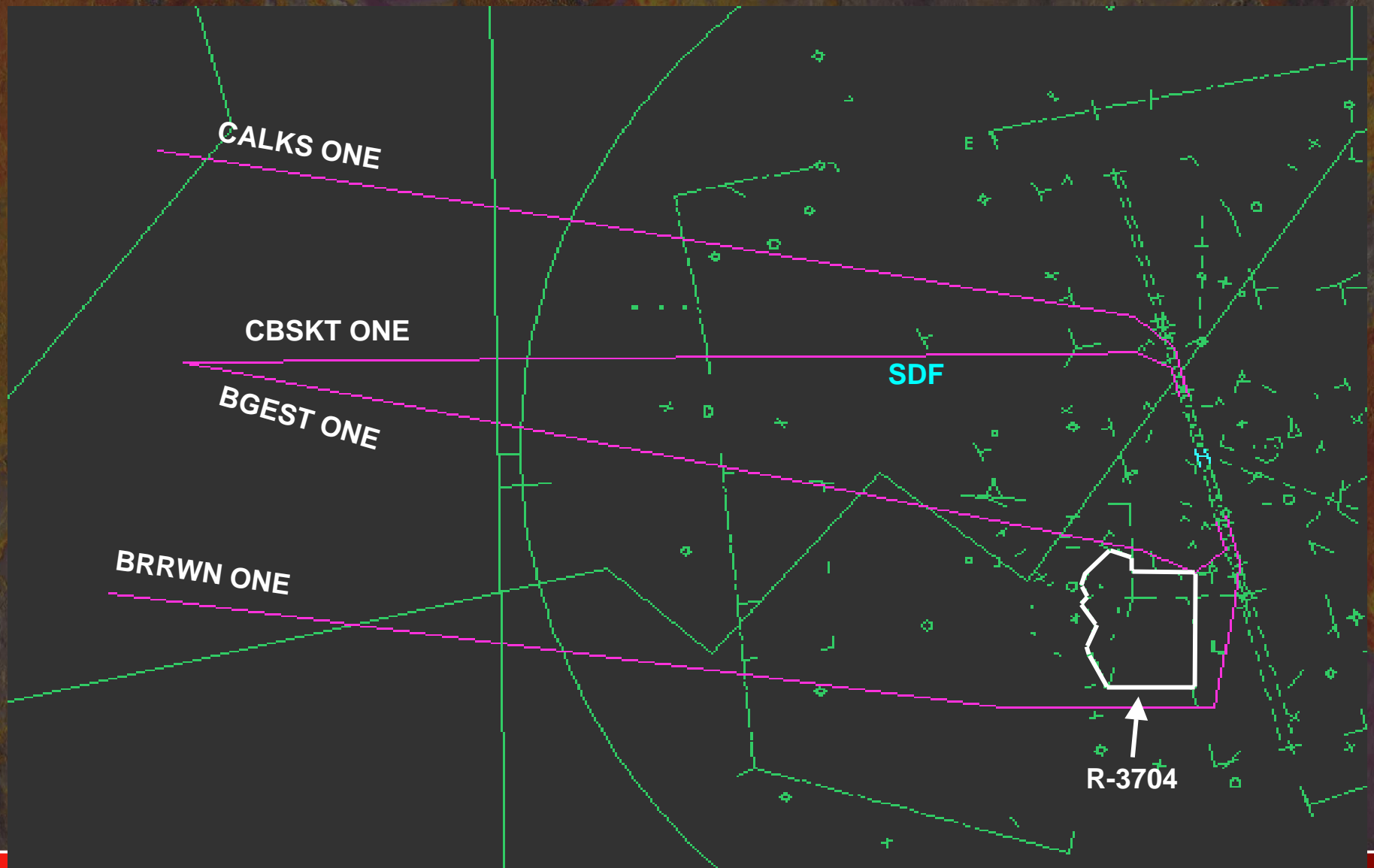
December 5, 2007



Agenda

- **Background**
- **Schedule**
- **The “T-Bone”**
- **The “Bait Ball”**
- **Solutions**
- **Environmental Challenge**

SDF CDAs From the West



Schedule

- Start: 6 Aug 2007
 - SDF/ZID/ZKC/UPS Letter of Agreement
 - Crew “Must Read Bulletin”
 - Dispatcher and Gateway Coordination
 - 2:00 PM Telecon

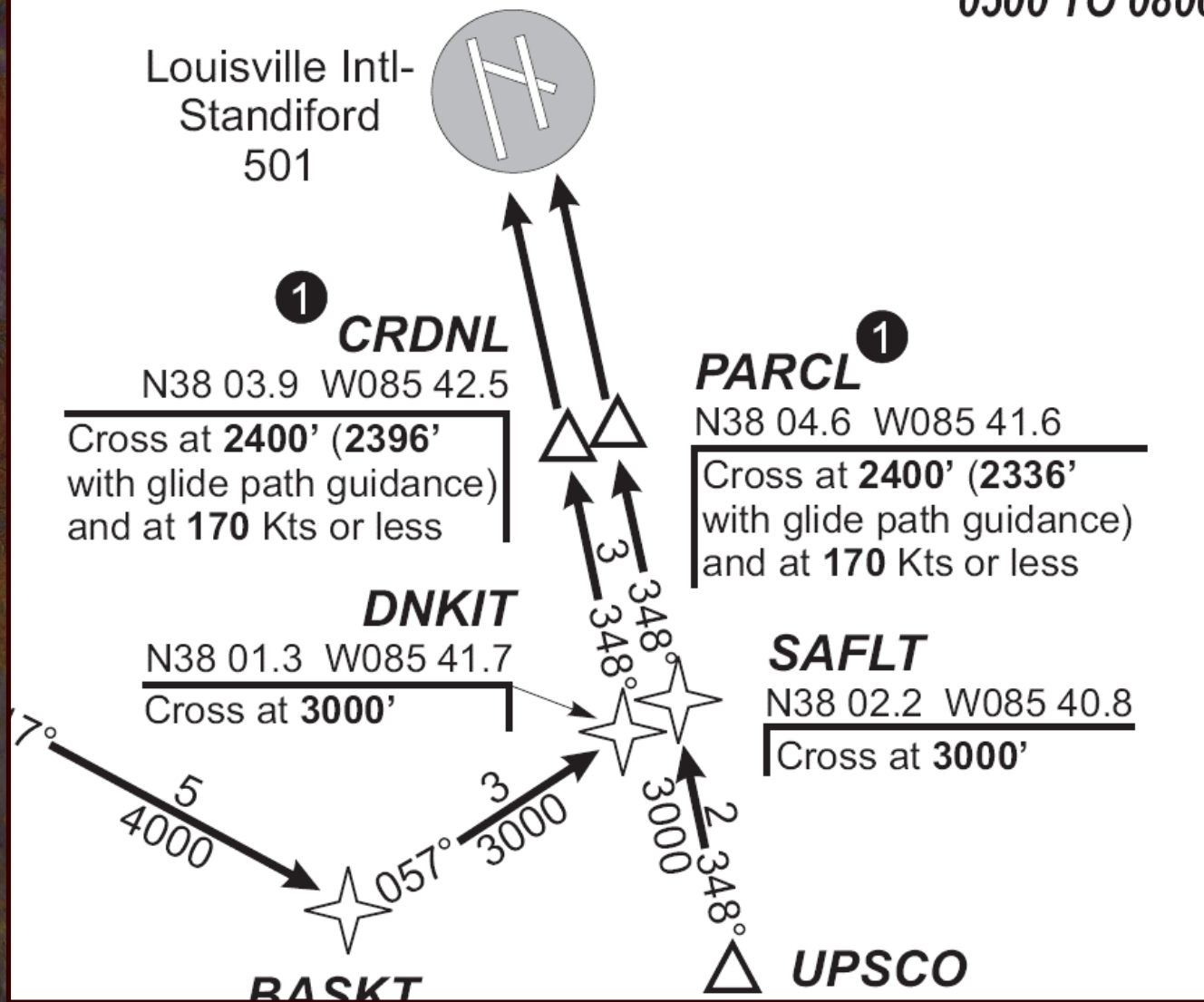
Schedule

- On Hold: 20 Sep 2007
- 180-day CatEx on hold

CHANGES: Text. Procedure name. Crossing restrictions

The T-Bone.....

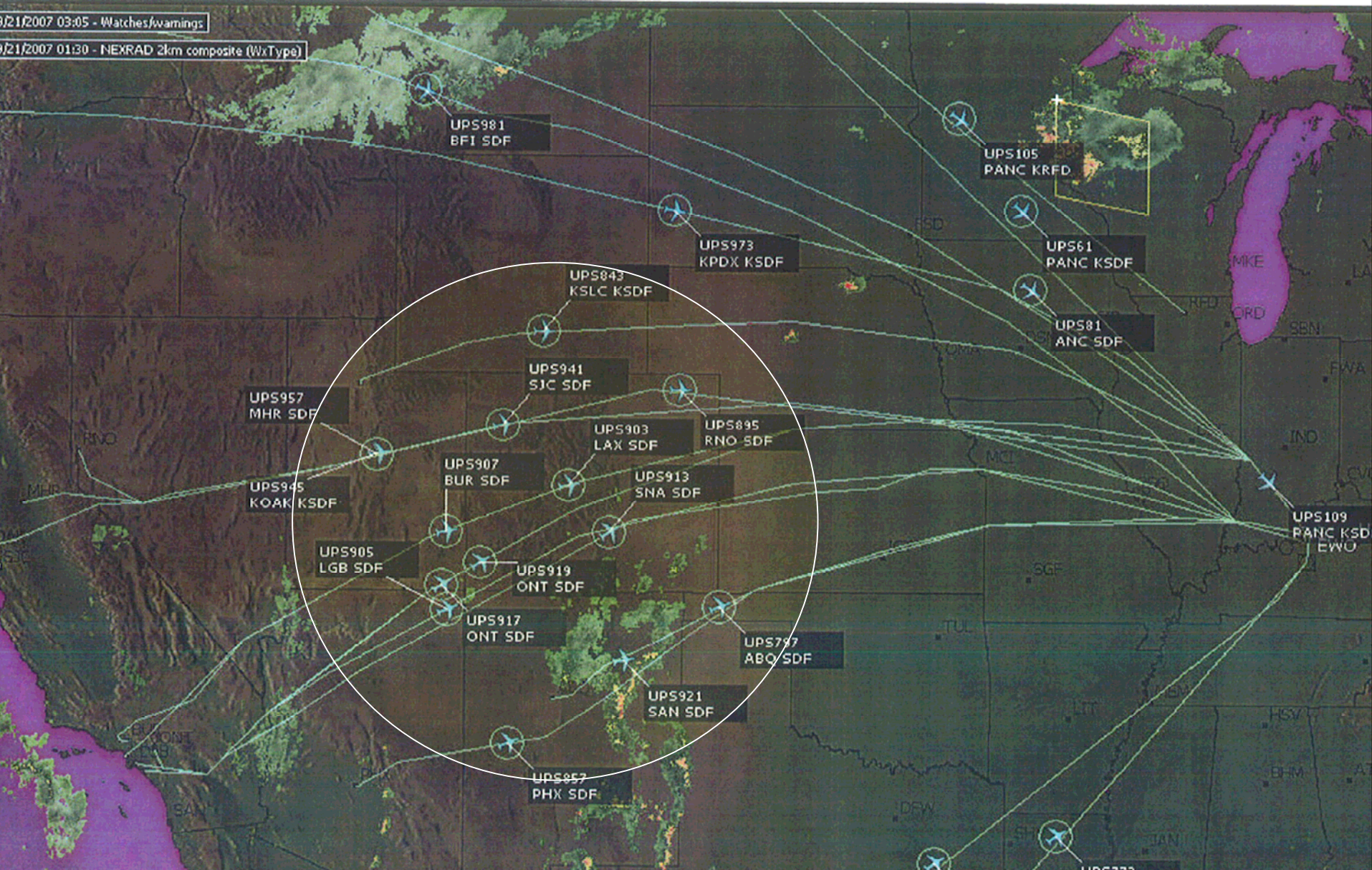
0500 TO 0800



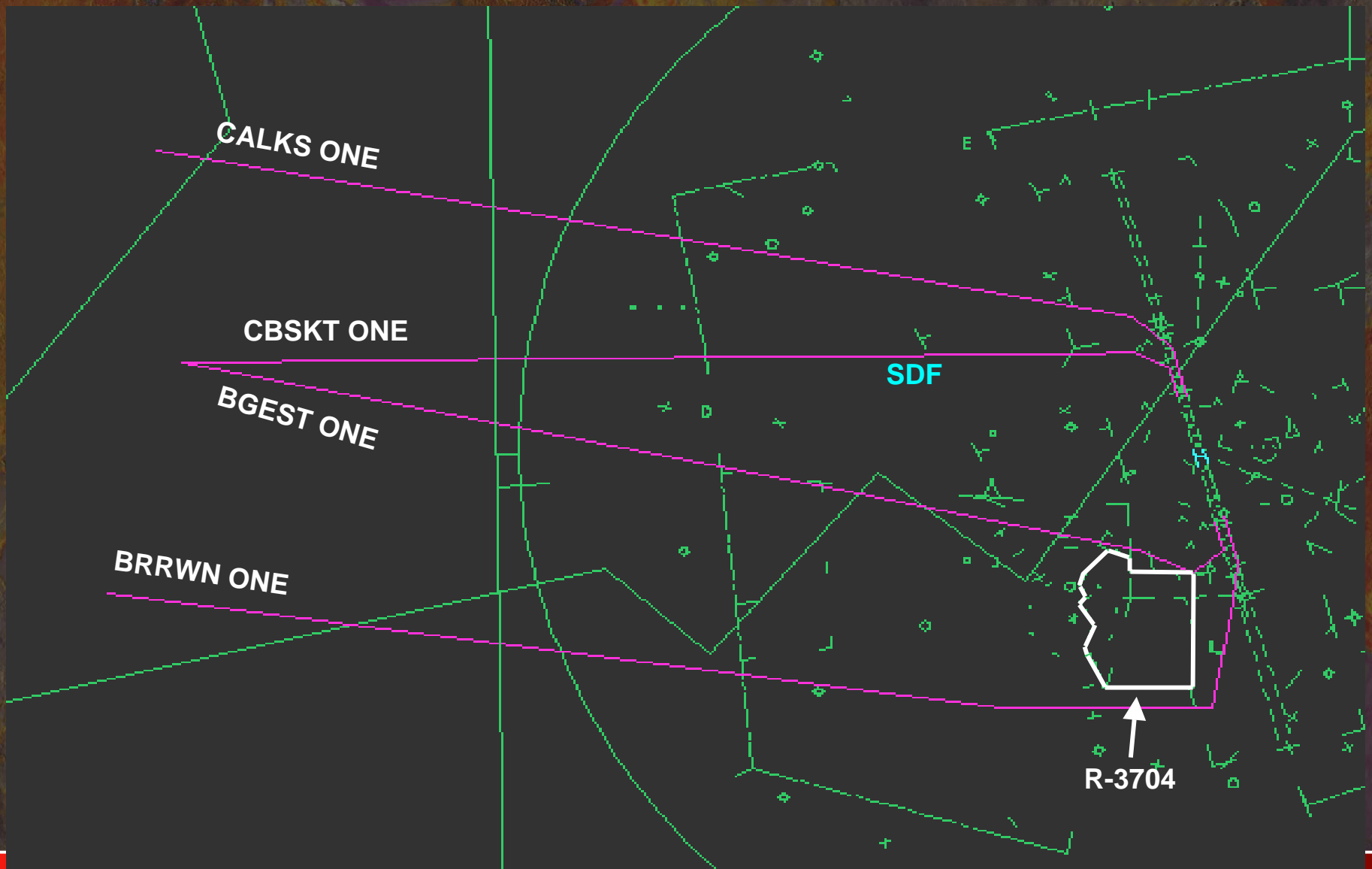
The “Bait Ball”.....

3/21/2007 03:05 - Watches/warnings

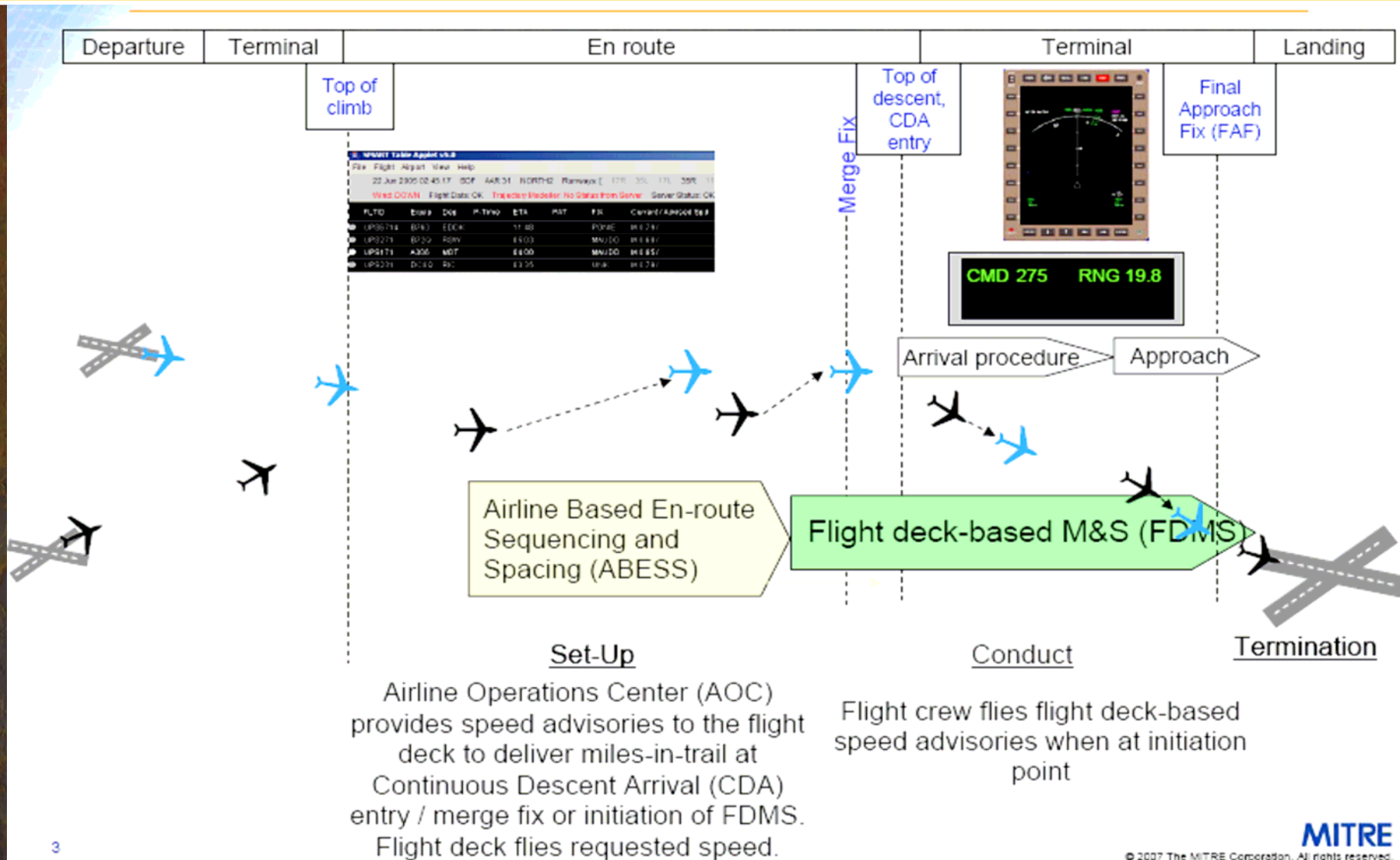
3/21/2007 01:30 - NEXRAD 2km composite (WxType)



T-Bone Solution: Redesign

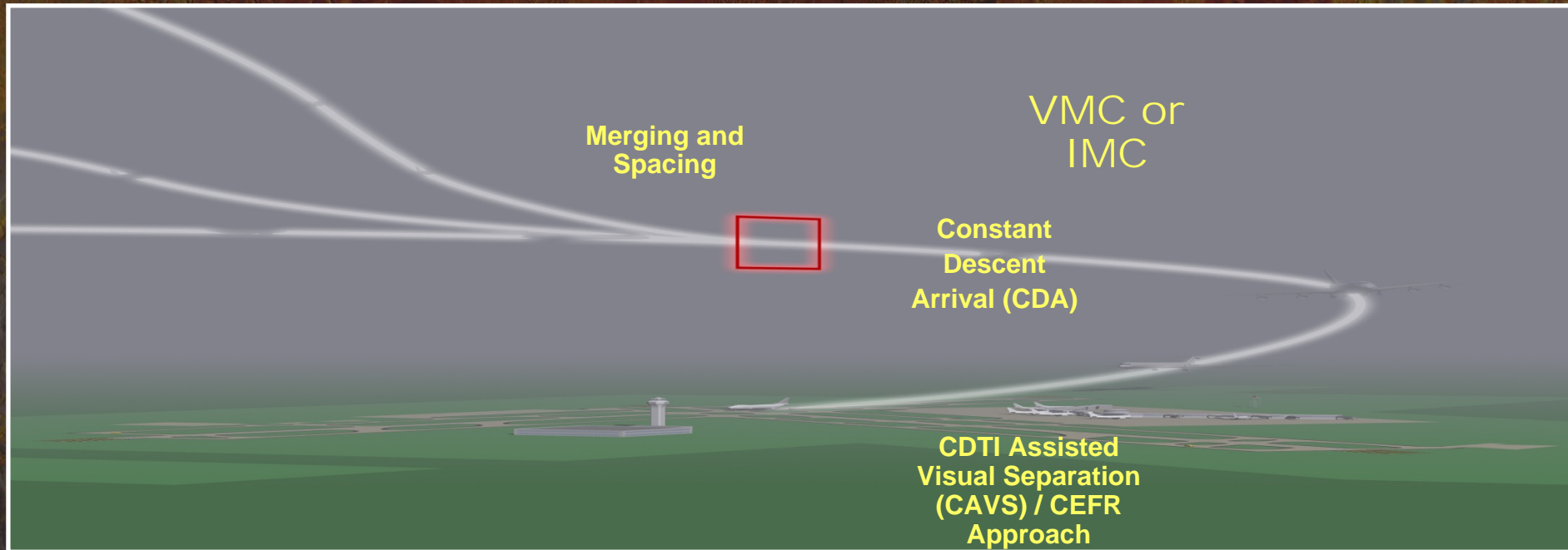


“Bait Ball” Solution -- ABESS



Solution: CDTI Assisted Visual Separation (CAVS)

- Maintain “Visual Approach” arrival rates in Wx conditions which require Instrument Approaches
- Initially allows loss of “*in-sight visual*” during Visual Approaches
- Relieve controller of wake turbulence separation responsibility



Environmental Challenge

Cat Ex with supporting documentation:

1) Noise Impacts

The Integrated Noise Model (INM) will be used to determine changes in sound levels under each CDA flight track.

These analyses will extend along each track from the tie-in point with the existing SDF arrival tracks out to the 45 DNL (sound-level) point.

The output will be a table showing the changes in sound levels at grid points under each flight track with and without the CDA's .

The grids will extend three nautical miles on either side of the center-line of the tracks.

Distance between grid points will be one-half mile.

Basis input for the INM model will include all current SDF arrival aircraft operations and aircraft types on all currently - used arrival tracks.

Because of the nonstandard, reduced-thrust, descent profile, this "use" of the INM model for this project will require approval by FAA's Office of Energy and Environment.

Environmental Challenge

2) Land Use:

An inventory and/or map of the land-use under each flight track needs to be prepared to include all noise-sensitive sites such as residential areas, schools, hospitals, historic/cultural properties and state/federal public-use areas such as parks, wildlife reserves and other natural areas. The sound level change at each receptor site (nearest grid point) needs to be recorded. If especially important sites are found, sound level changes specific to those sites may be needed.

3) Air Quality:

Aircraft using the CDA's are described as having lower emission levels than aircraft using standard arrival profiles. The emissions levels specific to this project need to be described, and the technical data used to derive these levels needs to be provided to the FAA.



Questions