

# HUNTSVILLE INTERNATIONAL AIRPORT LANDING SITE STUDY

## PHASE 1 RESULTS OVERVIEW

In conjunction with the Huntsville International Airport and a coalition of community leadership, Teledyne Brown Engineering, Morrell Engineering, and Reynolds Smith & Hills Engineering (RS&H) have completed the first phase of a study to determine the feasibility and compatibility of landing future space vehicles - specifically the Sierra Nevada *Dream Chaser*<sup>®</sup> - at the Huntsville International Airport

Results of the initial study include:

- Significant coordination of airspace use between the Federal Aviation Administration (FAA) and the Air Traffic Control Centers (ARTCCs) in Memphis and Atlanta will be necessary, but Memphis and Atlanta believe that Dream Chaser integration into the airspace is feasible. There are no “show stoppers.” Additional flight details are required to perform a better analysis.
- Both runways are long and wide enough to support Dream Chaser. However, due to the touch down and centerline lighting on the west runway, the east runway (Runway 18L-36R) will be proposed as the primary runway for Dream Chaser.
- The quantities and types of chemicals and propellants that will exist on the Dream Chaser vehicle on landing were provided by SNC. The east runway has enough separation between the vehicle and inhabited buildings and public traffic routes to support the Dream Chaser and slightly larger quantities of propellants.
- The sonic boom will be heard over 13,000 square miles and 3 states. An Environmental Assessment is expected to be the most appropriate NEPA documentation required for the proposed operations. The assessment will determine potential constructive use impacts to parks and recreation sites, and historic properties that are protected under Department of Transportation Section 4(f) and Section 106 of the National Historic Preservation Act.

- Based on observations made during both the static and dynamic tests, minimal damage to the asphalt surface is expected under the following conditions:
  - The skid is allowed to completely cool to a temperature less than 250°F
  - The skid should initially be pulled across the asphalt surface prior to attempting to lift the skid from the surface. This will help prevent fine aggregate and asphalt cement from adhering to the skid's surface
  - The area of asphalt that may be adversely affected by the skid should be less than two (2) square feet

The project team is currently securing funding to proceed with Phase 2 of the study which will include securing the appropriate licenses and further environmental impact testing and logistics analysis.