

# Commercial Space Transportation

Environmental Review  
Process for the Proposed  
Gulf Coast Regional  
Spaceport

Public Information Meeting

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**Federal Aviation  
Administration**



# AGENDA

- Information Session 6:00 – 6:30 pm
- Presentation 6:30 – 7:00 pm
- Break 7:00 – 7:05 pm
- Public Statements 7:05 – ? pm
- Information Session After public statements



# OUTLINE

- Purpose of tonight's meeting is for the FAA to present information and obtain comments from the public
- FAA will discuss
  - FAA licensing process
  - National Environmental Policy Act (NEPA)
  - Proposed action
  - Public participation opportunities and how to submit comments
  - How to obtain more information



# FAA Licensing Authority and Process

## 49 U. S. C. Subtitle IX, ch. 701

- Authorizes the FAA to license commercial launch and reentry activities and the operation of launch and reentry sites as carried out by U.S. citizens or within the United States
- Directs the FAA to:
  - Exercise this responsibility consistent with public health and safety, safety of property, and the national security and foreign policy interests of the United States, and
  - Encourage, facilitate and promote commercial space launches and reentries by the private sector



# FAA Licensing Authority and Process

- AST issues licenses for:
  - Launch (orbital and suborbital)
  - Reentry (purposeful)
  - Operation of a launch site
  - Operation of a reentry site
- AST issues experimental permits for:
  - Developmental reusable suborbital rockets
- AST does not license a launch, reentry, operation of a launch site, operation of a reentry site, or other space activity carried out by the Government



# FAA Licensing Authority and Process

## LAUNCH SITE OPERATOR LICENSE

- Authorizes a licensee to operate a launch site in accordance with the representations contained in the application
- Remains in effect for 5 years
- May be surrendered, suspended, or revoked
- Renewable upon application
- Subject to Compliance Monitoring and Safety Inspections



# Safety Evaluation Criteria

Primary evaluation criteria contained in:

- 14 CFR Parts 401, 417, and 420 - Licensing and Safety Requirements for Operation of a Launch Site; Final Rule; October 19, 2000
- Advisory Circular, Expected Casualty Calculations for Commercial Space Launch and Reentry Missions, AC 431.35-1, August 30, 2000



## Launch Site Location Review

- Launch site boundary - Maximum distance from a launch point that debris could travel given a worst-case launch vehicle failure in the launch area
- Flight corridor - Area that contains nearly all of the hazardous debris from a nominal and non-nominal flight of the launch vehicle
- Risk analysis - Demonstrate that the collective risk to populations within flight corridor does not exceed  $E_c \leq 30 \times 10^{-6}$
- Unproven vehicles - Requires a clear and convincing demonstration of an equivalent level of safety for unproven vehicles



## Responsibilities of a Licensee

- Control of Public Access
- Explosive Siting
- Agreements with Air Traffic and US Coast Guard
- Scheduling Hazardous Operations of its Customers



## Hazardous Materials

- A scaled map that shows the location of all proposed explosive hazard facilities
- A listing of the maximum quantities of liquid and solid propellants and other explosives to be located at each explosive hazard facility
- A description of each activity to be conducted in each explosive hazard facility
- Assurance that the public is not exposed to hazards due to the initiation of explosives by lightning



# Accident Investigation Plan

The launch site accident investigation plan must provides for:

- Procedures for reporting, responding to, and investigating accidents
- Immediate notification to the Federal Aviation Administration (FAA) Washington Operations Center
- A written report to the FAA within five days of any accident
- A Response Plan that ensures the consequences of a launch site accident are contained and minimized
- Cooperation with FAA or National Transportation Safety Board (NTSB) investigations
- Identification of preventive measures for avoiding recurrence



## Policy Review

- A Policy Review is conducted to determine if there are any aspects that could affect the national security, foreign policy, and international obligations of the United States
- An interagency review group was established implementing Executive Order 12465. The group consists of the Department of State, the Department of Defense, and the National Aeronautics and Space Administration
- The Department of Commerce (DOC) and the Federal Communications Commission (FCC) are sent relevant portions of the application for information purposes



## FAA LICENSES AND NEPA

- FAA issuing a license or permit is considered a major Federal action
- All major Federal actions are subject to the requirements of the National Environmental Policy Act (NEPA)
- Amateur launches do not require an FAA license or permit and therefore are not considered a major Federal action per NEPA
- NEPA establishes policies and goals for the protection, maintenance, and enhancement of the environment
- No decision can be made regarding the proposed action until the NEPA process is completed



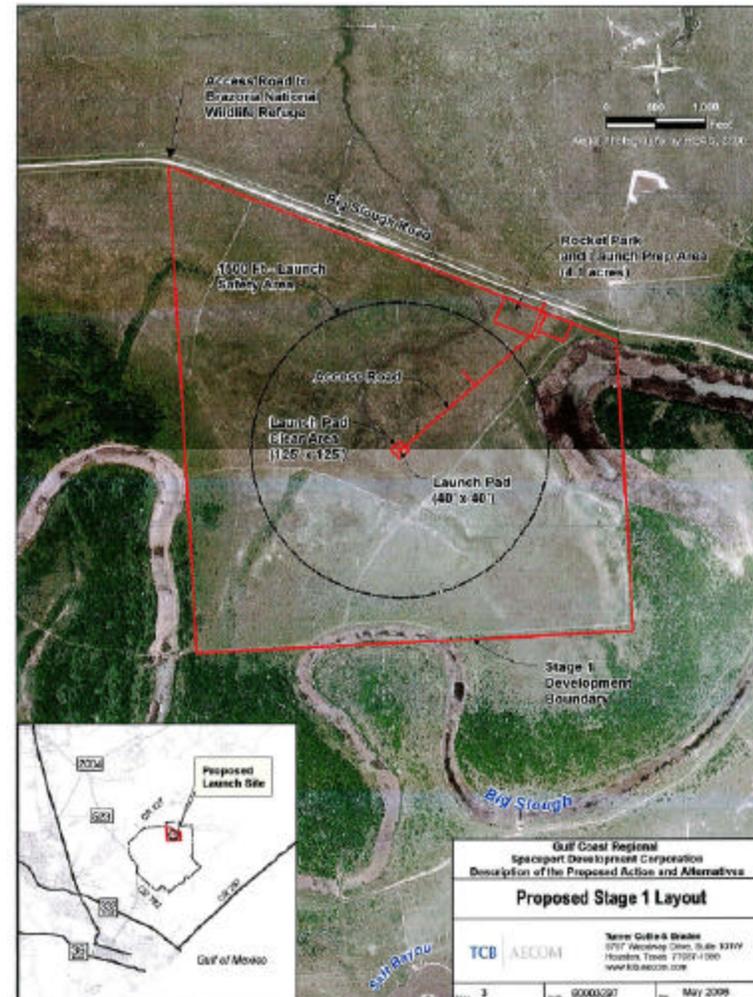
# NEPA ANALYSES

- NEPA requires that Federal agencies prepare documents that analyze the environmental impacts of a proposed action
  - Environmental Assessment (EA)
  - Environmental Impact Statement (EIS)
- The FAA makes a decision based on all components of their licensing process, including an environmental determination
  - EA results in either a Finding of No Significant Impact or a Notice of Intent to prepare an EIS
  - EIS results in a Record of Decision
  - Monitoring and mitigation requirements can be a part of the decision and/or included in the terms and conditions of the license



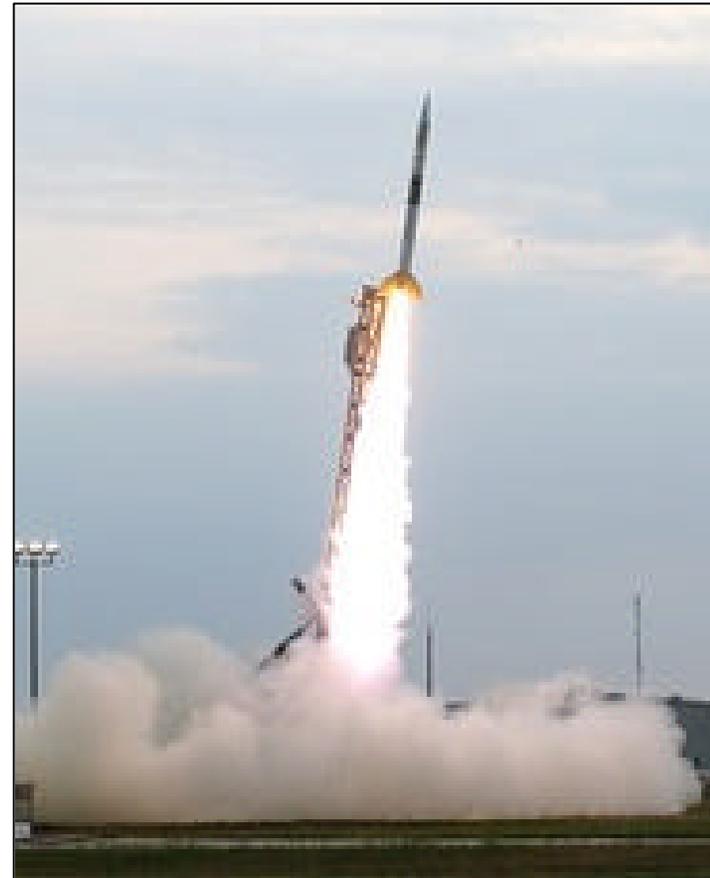
# PROPOSED GULF COAST REGIONAL SPACEPORT

- The proposed action is for the FAA to issue a launch site operator license to the Gulf Coast Regional Spaceport Development Corporation (GCRSDC) to support the launches of suborbital rockets in Brazoria County
- As part of the proposed action the GCRSDC would construct a ½ mile access road and a 40 foot by 40 foot launch pad
- Other amateur (non-licensed) launches could also occur at the site



# PROPOSED GULF COAST REGIONAL SPACEPORT

- The launch site would support up to a total of 8 launches per year of suborbital rockets (*see right*)
- Duration of the proposed launches would be 15 minutes or less
- GCRSDC has notified the FAA that they are preparing an EA to analyze the environmental impacts of the proposed action



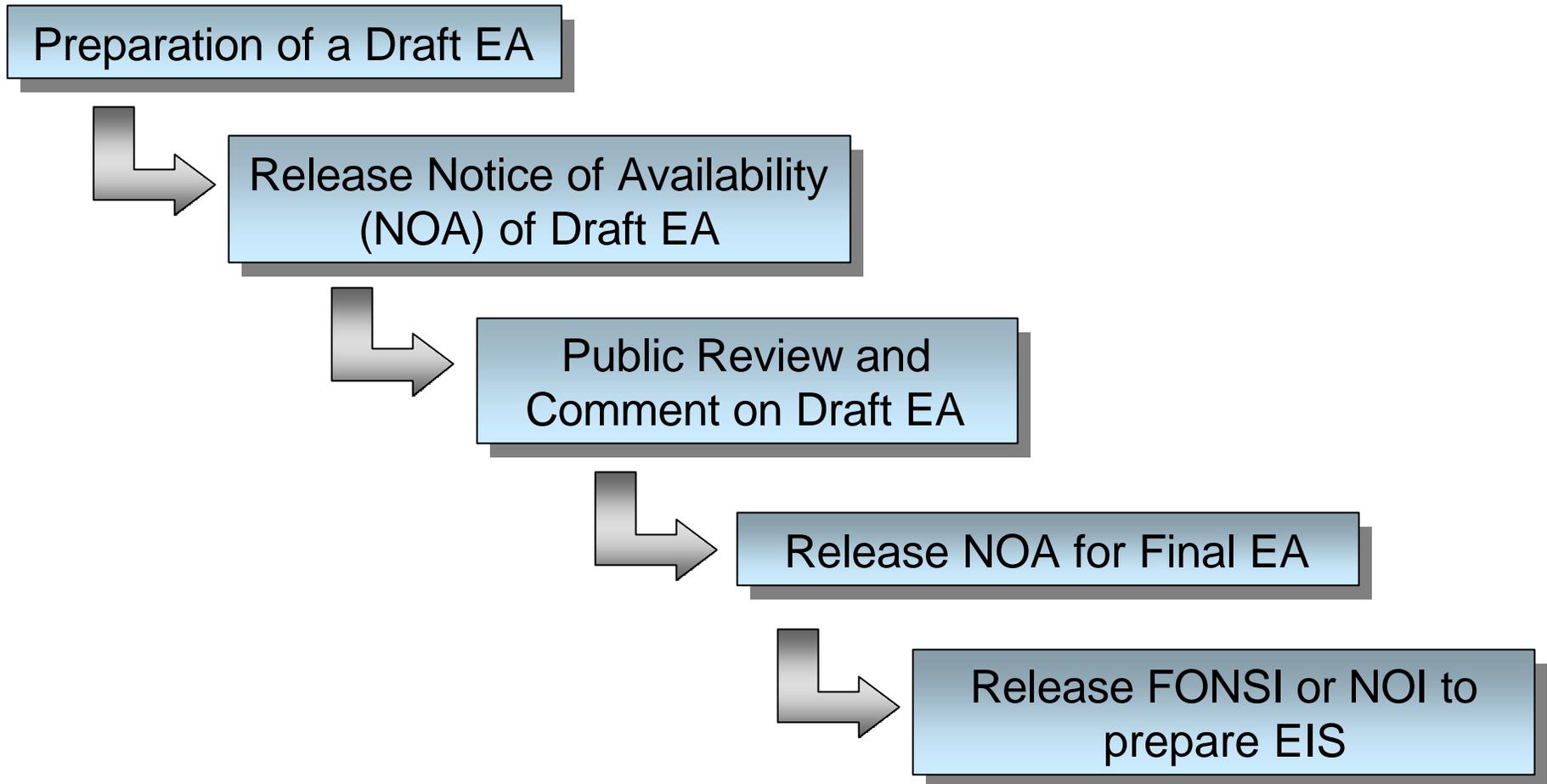
Source: [www.wff.nasa.gov](http://www.wff.nasa.gov)

# PROPOSED GULF COAST REGIONAL SPACEPORT

- A launch site operator license would allow the GCRSDC to offer the GCRS as a site to conduct launches
- Private launch operators of suborbital rockets would be required to obtain a launch license before conducting any launches from the GCRS
- No licensed launches can occur until the NEPA process has been completed and the proper FAA licenses have been issued



# NEPA PROCESS FOR ENVIRONMENTAL ASSESSMENTS



## FAA ORDER 1050.1E: ISSUES REQUIRING ANALYSIS

- Air Quality
- Coastal Resources
- Compatible Land Use
- Construction Impacts
- Department of Transportation Section 4(f) Resources
- Farmlands
- Fish, Wildlife, and Plants
- Floodplains
- Hazardous Materials, Pollution Prevention, and Solid Waste
- Historical, Architectural, Archeological, and Cultural Resources
- Natural Resources, Energy Supply, and Sustainable Design
- Noise
- Secondary (Induced) Impacts
- Socioeconomics, Environmental Justice, and Children's Health and Safety
- Visual Impacts
- Water Quality
- Wetlands
- Wild and Scenic Rivers



# HOW TO SUBMIT COMMENTS

- Provide oral or written comments tonight
- Submit comments via e-mail, fax, or mail
  - E-mail: GCRSpaceportEA@icfi.com
  - Fax: 703-934-3951
  - Mail: Ms. Stacey M. Zee, FAA Environmental Specialist, Gulf Coast Regional Spaceport EA, c/o ICF International, 9300 Lee Highway, Fairfax, VA 22031
- For more information
  - Visit website at: <http://ast.faa.gov/>
  - View posters and pick up handouts at the registration tables



# FIVE MINUTE BREAK

