**Project Overview Planning Tool**

****March 2024****

This document contains the recommended information and structure for the applicant’s Project Overview Planning Tool (POPT) to facilitate planning for and development of a license application with the Office of Commercial Space Transportation (AST). This document is intended for use by applicants seeking a new license for vehicle or site operations, or adding a location to a current vehicle operator license.

The POPT is an applicant-prepared preliminary project overview and will be developed further during pre-application consultation. The information provided in the POPT corresponds to the concept of operations (CONOPs) deliverable of the Pre-Application Consultation Checklist, will support the development the Description of Proposed Action and Alternatives (DOPAA) for the environmental review process, and provide a basis for stakeholder engagement.

 

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# Vehicle Operator Information (14 CFR Part 450)

This section is applicable to vehicle operator license applicants. The items listed in this section correlate to the part 450 regulatory requirements and may assist in the development of a vehicle operator license application.

## Brief Project Description

### Narrative

Provide a short narrative overview of the overall project.

### Operations

List any past or planned operations including vehicle component testing, amateur rocketry launches (Part 101), and vehicle operations under an existing license.

### National Interests

Describe any government support or programs for future operations, for example, NASA’s Commercial Crew Program or Department of Defense involvement.

### Project Funding

Provide project funding at the milestone level (e.g., project fully funded through static fire testing, not dollar amounts). Include current and anticipated government contract funding.

### Safety Element Approvals

List any FAA approved Safety Element Approvals planned for inclusion in the application package.

## Vehicle Description

Provide summary description of vehicle including the following, as applicable:

### Orbital Capability

Launch profile summary (suborbital, orbital, other).

### Orientation of Operations

Description of vehicle launch and/or landing (vertical, horizontal, or other).

### Propulsion Method

Description of propulsion method, for each stage as applicable (rocket, kinetic, balloon, hybrid, other).

### Landing Method

Description of landing method, for each stage as applicable (land, water, parachute, horizontal, other).

### Number of Stages

List the number of stages that are expendable, recoverable, and reusable.

### Size – Overall and by Stage

Include graphic representations of the entire vehicle, and each stage, with dimensions.

### Weight

Identify the vehicle dry and wet weights.

### Propellant

Provide a list or table of the propellant types and quantities, as well as any expected residuals (*i.e.,* on upper stage for safing or after a reentry burn, or at Earth impact).

### Estimated Thrust – Per applicable stage

Provide a list or table of the thrust for all stages, inclusive of any carrier aircraft.

### Payload

Provide performance capabilities of launch vehicle.

### Preliminary Flight Path/Trajectories

Describe all anticipated vehicle trajectories and related closure areas including:

* Aircraft hazard areas and anticipated airspace closures;
* Ship hazard areas and anticipated U.S. Coast Guard closures; and
* Ground closures and additional local agency coordination required.
* Ground trace of the vehicle trajectory showing all potential overflight of land masses

## Site Information

### Location and Facilities

Identify all anticipated locations for operations under this application. Describe existing infrastructure and new construction required for operations at the launch and/or reentry site. Provide the proposed launch/reentry location and future locations under this license application, as well as intended future operation plans.

### Operating Area

Describe the operating area for all stages of operations, pre-flight through post-flight, including any potential stage/hardware jettison locations. Describe all potential contingency landing or abort sites.

### Hazardous Operation

Provide an overview of any ground-based hazardous operations.

### Support sites

Describe all additional locations that will be used for testing, manufacturing or hazardous operations (other than launch and/or reentry operations).

## Human Spaceflight

### Operations

Describe if the operation includes crew, spaceflight participants, or government astronauts.

### Contingency planning

Describe all potential contingency abort sites.

## Anticipated Operations

### Timeframes

Include anticipated start date of operations through completion of activities conducted under this license application.

### Number and Frequency

Include the total number and frequency of all launches, reentries, static fires, and test flights (including those outside of AST authority). Specify day/night for each operation type. May be provided in tabular format.

## International Implications

### Foreign Operations

Identify any foreign operations, as well as any foreign ownership or investors.

### Vehicle Flight

Identify all projected overflight trajectories and/or jettisoned hardware over foreign land/water or within foreign airspace.

## Safety Review

### System Safety Assessment

Provide vehicle system safety information as available. Topics to consider include:

* Structure of vehicle including weights and measurements
* Hazardous materials on vehicle
* Safety-critical systems
* Timeline of safety-critical events
* Risk elimination and mitigation measures
* Flight trajectory

### Flight Safety System

Identify the type of flight safety system (*e.g.,* autonomous, command destruct, equivalent level of safety, etc.) and provide baseline design schematics.

### Preliminary Flight Data Package

Identify flight safety analysis provider (*i.e.,* range, contractor, in house), planned analysis methodology, and inputs as available.

## Environmental Considerations

### Preliminary Environmental Screening

Provide available environmental screening materials for site selection(s) and/or vehicle operation(s).

### Existing Environmental Documentation

Identify any existing National Environmental Protection Act (NEPA) documents that may support the proposed activities.



# Site Operator Information (14 CFR Parts 420 and 433)

This section is applicable to launch and/or reentry site operator license applicants and vehicle operator license applicants at an exclusive use site. The items listed in this section correlate to the part 420 and part 433 regulatory requirements and may assist in the development of a site operator license application.

## Brief Project Description

### Narrative

Provide a short narrative overview of the overall project.

### Operations

List any past or planned operations at the proposed site including vehicle component testing and amateur rocketry launches (Part 101).

### National Interests

Describe any government support or programs for future operations, for example, NASA’s Commercial Crew Program or Department of Defense involvement.

### Project Funding

Provide project funding at the milestone level (e.g., project fully funded through launch site location review, not dollar amounts).

### Safety Element Approvals

List any FAA approved Safety Element Approvals planned for inclusion in the application package.

## Site Overview

### Narrative Description

Describe the site including its proposed layout, boundary, and the surrounding area.

### Graphical Representation

Provide a graphic representation of the site and vicinity, boundary, and a notional site layout.

## Location and Facilities

Describe existing infrastructure and new construction required for operations at the launch and/or reentry site. Provide the proposed launch/reentry point(s) at the site.

## Explosive Site Plan

Provide a list of propellant types and quantities anticipated to be stored at the facility. Provide a graphic representation of the preliminary explosive site plan.

## Vehicle Information

Provide summary description of the vehicle(s) proposed to operate at this site, including the following:

### Vehicle Operator

Identify any vehicle operators with a letter of intent to operate at the site or that will provide application support. Additionally, describe any conceptual vehicles for proposed operations at the site under this license application, or future intended modifications.

### Vehicle Orientation

Provide the type of vehicle operations anticipated (*i.e., v*ertical, horizontal, other).

### Vehicle Propellants

Provide a list or table of the propellant types and quantities for each vehicle with anticipated operations at the site. Include any expected residuals onboard for reentry vehicles landing at the site.

### Preliminary Flight Path / Trajectories

Describe all anticipated vehicle trajectories and related closure areas including:

* Aircraft hazard areas and anticipated airspace closures
* Ship hazard areas and anticipated U.S. Coast Guard closures
* Ground closures and additional local agency coordination required
* Ground trace of the vehicle trajectory showing all potential overflight of land masses

## Anticipated Operations

### Timeframes

Include anticipated start date of operations through completion of activities conducted under this license application.

### Number and Frequency

Include the total number and frequency of all launches, reentries, static fires, and test flights (including those outside of AST authority). Specify day/night for each operation type. May be provided in tabular format.

## Site Usage Agreements

### Legal Right to Use Site

Identify legal right of applicant to control public access to and operate the site.

### Agreements or Permits

Describe the agreements and/or permits in place to lease, operate, construct, or otherwise modify the site.

### Airport (at or near)

Describe any previous/current coordination with the airport sponsor/owner and operator, nearby airports, and FAA Office of Airports. If required, identify if an Airport Layout Plan (ALP) update was initiated.

## International Implications

### Foreign Ownership

Identify any foreign ownership or investors.

### Vehicle Overflight

Identify all projected overflight trajectories of foreign land/water or within foreign airspace.

## Environmental Considerations

### Preliminary Environmental Screening

Provide any available environmental screening materials for site selection or vehicle operations

### Existing Environmental Documentation

Identify any existing National Environmental Protection Act (NEPA) documents that may support the proposed activities.

## Stakeholder Identification

### Local or State Governments

Identify any local or state government coordination (*e.g.,* rezoning of a proposed site, state coastal consistency approval, etc.) needed to facilitate the proposed project.

### Other Federal Agencies

Identify any other Federal agencies (*e.g.,* United States Coast Guard, United States Army Corps of Engineers, United States Fish and Wildlife Service, National Marine Fisheries Service, etc.) whose approval/involvement may be needed to facilitate the proposed project.

### Economic Development Entities

If applicable, identify any local, state, or regional economic development entities who are involved in planning and/or funding the proposed project.