***ISS National Laboratory-Alpha Space MISSE-FF***

***Preliminary Experiment Requirements Document and Step-1 Feasibility Form***

**Principle Investigator Information**

*Please provide the name, organization, and location of the principle investigator*

Click here to enter text.

**Additional Team Members Information**

*Please provide the name(s), organization(s), and location(s) of all additional investigative team members*

Click here to enter text.

**Project Summary and Operations Concept**

*Provide project summary to include aims of the research or technology and include earth bound application and/or benefit.* *Include any known investigation and/or project operations concepts that would be helpful to the Alpha Space and CASIS operational feasibility review. Please include as many science and/or technology requirements that may be known at this stage of the proposal development phase.*

Click here to enter text.

**Preliminary Experiment Requirement and Facility Options**

*Please review the following standard facility capabilities and select those which will most suitably address your experiment requirements.*

**MISSE Viewing Directions and Environmental Exposure**

* Ram provides Atomic Oxygen, Horizon UV, Particle Impact, Radiation, Thermal Cycling and Vacuum
* Zenith provides Direct UV, Radiation Thermal Cycling and Vacuum
* Wake provides Horizon UV, Radiation, Thermal Cycling and Vacuum
* Nadir provides Radiation, Thermal Cycling and Vacuum, and some earth viewing capabilities

**Test Sample(s) or Component/Payload Information**

*Include any known investigation*

Do you require a “wake” side access to serve as a “control sample” for atomic oxygen exposure?

Choose an item.

Is your sample/component/payload active or passive?

Choose an item.

**Experiment Accommodation**

How long would you like your experiment to be in orbit?

Choose an item.

Will your experiment require the following optional services (check all that apply):

[ ]  Data Connection

[ ]  Power Connection

[ ]  IF you choose power and data, do you need ability to retrieve data near real time or command (e.g. power on/off)

[ ]  Gas Purge (on ground), only for those gases other than Nitrogen

[ ]  Special Storage during ground processing, for samples needing to be stored outside typical office humidity (45-75% relative humidity) and temperature environment (65-75 deg F)

[ ]  Radiation Sensor

[ ]  Atomic Oxygen Sensor

[ ] UV Sensor \*\*note that UV Sensor will become a standard service after flight certification anticipated with MISSE-9

[ ] Additional photographs (in addition to monthly HD photographs)

Specify below the area required as square inches and give the exact dimensions,

*e.g. 6” X 4”. For planning purposes, the outer dimensions of each MSC deck are 7.84” wide by 14” long with a folding lower portion (Swing Deck) and a fixed upper portion (Mounting Deck) – both decks have similar dimensions. To account for mounting space and gaskets, the useful area of the Mounting Deck is 7.0” wide by 12.7” long with a depth that varies from .125-2”. The useful area of the Swing Deck is 7.0” wide by 13.0” long with a depth of 3.5 inches. NOTE: Final surface area to be approved by CASIS/Alpha Space.*

RAM FACING (in square or cubed inches) Click here to enter text.

ZENITH FACING (in square or cubed inches) Click here to enter text.

WAKE FACING (in square or cubed inches) Click here to enter text.

NADIR FACING (in square or cubed inches) Click here to enter text.

Deck Interface Types Required: (Check all that apply)

[ ]  Standard Sample (must be 1” circle, 1” square or 2” square, and less than .275” thick)

[ ]  Non-Standard Simple Sample (e.g. 0.5” circle, 2”x4” rectangle, etc., and less than .275” thick)

[ ]  Complex Sample (e.g. ASTM tensile sample, ovoid, triangle, parallelogram, greater than .275” thick, etc.)

[ ]  Custom Holder (e.g. odd tensile sample, unique holder for sample, moving parts, electronics)

[ ]  Technical Component and approximate dimensions Click here to enter text.

Use the space below for any additional information about your experiment that you want to mention.

Click here to enter text.

**Failure to provide sufficient experiment requirement detail may result in the proposal being viewed as not feasible and/or pending additional work and will be resubmitted to the proposer for completion as required.**