



## ODM Plan Checklist – Streamlined Small Spacecraft Applications

Last Updated: February 2024

Applicants applying for authorization through the streamlined small spacecraft process under [§ 25.123](#) must submit a comprehensive proposal for Commission evaluation for each space station in the proposed system on FCC Form 312, Main Form, and Schedule S, as described in [§ 25.114\(a\)-\(c\)](#) and certify that they meet the following criteria:

- The space station(s) will operate and be disposed of **beyond Earth's orbit**. [§ 25.123\(b\)\(1\)](#) Spacecraft disposed of in and around the moon, or on the surface of the moon or other celestial body, are considered to be beyond Earth's orbit.
- The total lifetime from deployment to spacecraft end-of-life for any individual spacecraft will be **six years or less**. [§ 25.123\(b\)\(2\)](#)
- Each spacecraft will be **identifiable by a unique signal-based telemetry marker** distinguishing it from other space stations or space objects. [§ 25.123\(b\)\(3\)](#)
- The spacecraft(s) will release **no** operational debris. [§ 25.123\(b\)\(4\)](#)
- No debris will be generated in an accidental explosion resulting from the conversion of energy sources** on board the spacecraft(s) into energy that fragments the spacecraft. Energy sources include chemical, pressure, and kinetic energy. [§ 25.123\(b\)\(5\)](#)
- The probability of a collision between each spacecraft and any other large object (10 centimeters or larger) during the lifetime of the spacecraft is **0.001 or less** as calculated using NASA's Debris Assessment Software (DAS) or a higher fidelity assessment tool. The collision risk may be assumed zero for a space station during the period of time when the satellite or space station is able to effectively conduct avoidance maneuvers. Satellites are considered able to effectively conduct avoidance maneuvers if they are able to pursue a mitigation action that will reduce the probability of collision ( $P_c$ ) by at least 1.5 orders of magnitude from the mitigation threshold (recommended to be  $1E-4$ ) while not creating any additional conjunctions with a  $P_c$  value above the mitigation threshold. In individual cases where there is evidence that a particular system or operator is unable to effectively conduct avoidance maneuvers or is only maneuvering at a risk threshold that raises reasonable questions about its ability to meet the 0.001 collision risk threshold, this assumption will not be applied, and further analysis would be necessary. To obtain DAS, one must [request](#) NASA's Debris Assessment Software. This process can take weeks. Please ensure you are using the latest version of DAS. [§ 25.123\(b\)\(6\)](#)
- Operation of the spacecraft(s) **will be compatible with existing operations** in the authorized frequency band(s) **and operations will not materially constrain future space station entrants** from using the authorized frequency band(s). [§ 25.123\(b\)\(7\)](#)
- The spacecraft(s) **can be commanded by command originating from the ground to immediately cease transmissions and the licensee will have the capability to eliminate harmful interference** when required under the terms of the license or other applicable regulations. [§ 25.123\(b\)\(8\)](#)
- Each spacecraft is **10 cm or larger in its smallest dimension**. [§ 25.123\(b\)\(9\)](#)

- Each spacecraft will **have a mass of 500 kg or less**, including any propellant. [§ 25.123\(b\)\(10\)](#)

**Applicants must also provide information specified in [§ 25.122\(d\)](#) by including the following information in narrative form:**

- Overall description of system facilities operations, and services and an explanation of how uplink frequency bands will be connected to downlink frequency bands. [§ 25.123\(c\)](#), [§ 25.122\(d\)\(1\)](#)
- Public interest considerations in support of grant. [§ 25.123\(c\)](#), [§ 25.122\(d\)\(2\)](#)
- A description of means by which requested spectrum could be shared with both current and future operators, e.g. how ephemeris data will be shared, antenna design, earth station geographic locations, thereby not materially constraining other operations in the requested frequency band(s). [§ 25.123\(c\)](#), [§ 25.122\(d\)\(3\)](#)
- For space stations with any means of maneuverability (including both active and passive means), a description of the design and operation of maneuverability and deorbit systems and a description of the anticipated evolution over time of the orbit of the proposed satellite(s). [§ 25.123\(c\)](#), [§ 25.122\(d\)\(4\)](#)
- A list of the FCC file numbers or call signs for any known applications or Commission grants related to the proposed operations, *e.g.* experimental license grants, other space station or earth station grants. [§ 25.123\(c\)](#), [§ 25.122\(d\)\(6\)](#)