



ODM Plan Checklist – Streamlined Small Space Station Applications

Last Updated: February 2024

Applicants applying for authorization through the streamlined small space station process under [§ 25.122](#) 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 total number of space stations requested in the application is ten or fewer.** If the space stations in the satellite system will be technically identical, the applicant may submit an application for blanket-licensed space stations. Where the space stations in the satellite system are not technically identical, applicant must certify that each space station satisfies the following rules and submit technical information for each type of space station. [§ 25.122\(b\)-\(b\)\(2\)](#)
- The space station(s) will operate **only in non-geostationary orbit (NGSO).** [§ 25.122\(c\)\(1\)](#)
- The **total in-orbit lifetime** for any individual space station is **six years or less.** [§ 25.122\(c\)\(2\)](#)
- The space station(s) will be deployed at an orbital altitude of 600 km or below **OR** will maintain a propulsion system and have the ability to make collision avoidance and deorbit maneuvers using propulsion. [§ 25.122\(c\)\(3\)\(i\)-\(ii\)](#)
- Each space station will **be identifiable by a unique signal-based telemetry marker** distinguishing it from other space stations or space objects. [§ 25.122\(c\)\(4\)](#)
- The space station(s) **will release no operational debris.** [§ 25.122\(c\)\(5\)](#)
- The space station operator has assessed and limited the probability of accidental explosions, including those resulting from the conversion of energy sources on board the space station(s) into energy that fragments the spacecraft. Energy sources include chemical, pressure, and kinetic energy. [§ 25.122\(c\)\(6\)](#)
- The probability of a collision between each space station and any other large object (10 centimeters or larger) during the orbital lifetime of the space station is **0.001 or less** as calculated 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. [§ 25.122\(c\)\(7\)](#)
- The space station(s) **will be disposed of post-mission through atmospheric re-entry.** [§ 25.122\(c\)\(8\)](#)

- The **probability of human casualty** from portions of the spacecraft surviving re-entry and reaching the surface of the Earth is **zero** as calculated using NASA’s DAS or a higher fidelity assessment tool. [§ 25.122\(c\)\(8\)](#)
- Operation of the space station(s) will be compatible with existing operations** in the authorized frequency band(s) **and will not materially constrain future space station entrants** from using the authorized frequency band(s). [§ 25.122\(c\)\(9\)](#)
- The space station(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. [§ 25.122\(c\)\(10\)](#)
- Each space station is **10 cm or larger in its smallest dimension**. [§ 25.122\(c\)\(11\)](#)
- Each space station will have **a mass of 180 kg or less**, including any propellant. [§ 25.122\(c\)\(12\)](#)

Applicants must also provide information specified in § 25.122(d) by including the following information in narrative form:

- An overall description of system facilities operations, and services and an explanation of how uplink frequency bands will be connected to downlink frequency bands. [§ 25.122\(d\)\(1\)](#)
- Public interest considerations in support of grant. [§ 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). [§ 25.122\(d\)\(3\)](#)
- 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). [§ 25.122\(d\)\(4\)](#)
- In any instances where spacecraft capable of having crew aboard will be located at or below the deployment orbital altitude of the space station seeking a license, the applicant will provide a description of the design and operational strategies that will be used to avoid in-orbit collision with such crewed spacecraft. This narrative requirement will not apply to space stations that will operate beyond Earth’s orbit. [§ 25.122\(d\)\(5\)](#)
- 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. [§ 25.122\(d\)\(6\)](#)