

<Formation Flying Mission>

Limit 5 pages, single spaced, 11 pt font, in English. A4 or Letter paper with 2cm margins on all sides. Number all pages.

Formation Flying Mission

Title:

Primary Point of Contact (POC) :

Email:

Co-authors:

Organization:

1. Mission Objective

Describe mission objectives and its significance in terms of societal impact and/or scientific values.

2. How to realize the mission objectives

Describe how to realize the mission objectives using formation flying of several satellites, including the shape and size of the formation, number of satellites, relationships between the formation, and the direction of observation target, etc.

3. Technological aspects

Describe the technological aspects of the mission including what accuracy will be required for relative attitude and relative position of the satellites, and orbital configurations. The requirement on accuracy may come from the mission objectives and orbit configuration may depend on the relationships between the formation shape, direction of observation targets and the required period of the observation. The required delta V to keep the above formation should also be estimated.

4. How to realize the required relative attitude and position control of satellites.

Explain how to realize the required relative attitude and position control of the satellites. Especially if high control accuracy is required for the relative position and attitude of formation satellites, please specify the method to realize such high accuracy, including details of the sensors and actuators.

5. Rough image of satellites

Describe a rough image of the satellites including size, weight, power, communication speed, attitude control capability, and onboard information processing speed, etc. The schematical view of the satellites and their formation should be included.

References

List any technical references for your idea.