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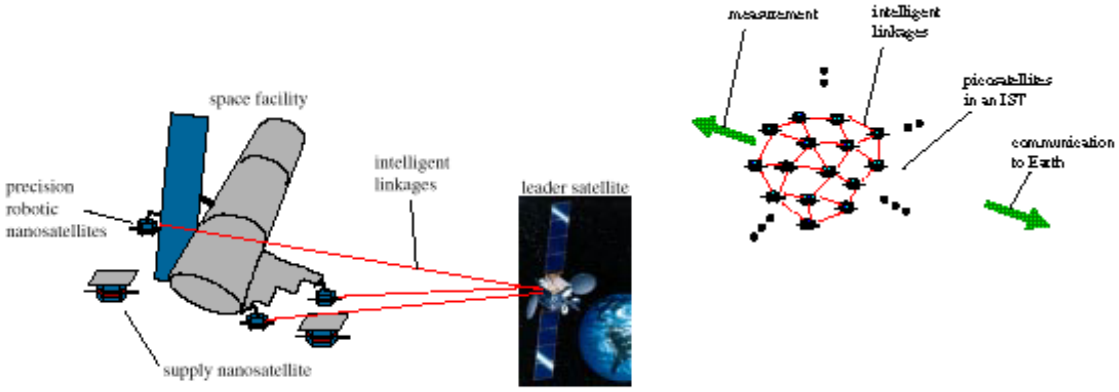
"Intelligent Satellite Teams for Space Systems"

The proposed study will examine the far-reaching plan of developing Intelligent Satellite Teams (ISTs) for complex space missions. An IST is an organized system of many nano/picosatellites enabled by (envisioned) revolutionary advances in microtechnology and intelligent control. Candidate missions for ISTs include construction or servicing of space facilities such as space laboratories or telescopes, and the measurement of an asteroid's gravitational field, followed by reconfiguration of the IST for communication back to Earth. IST development is a synergy of many technologies, including mission analysis, intelligent control, and microtechnology.



Currently, strides are being made in each of these areas such that a visionary, system-level study of ISTs and potential applications can be accomplished. The proposed study is clearly in line with NIAC's goals of fostering revolutionary ideas in systems and architectures that potentially have a major impact on how future NASA missions are accomplished.