

Why formation satellite

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- Multiple spacecraft can be separated to large baselines, thereby improving angular resolution for imaging, astrometry, planet detection, and characterization.
- Each spacecraft in the formation can be smaller than a single spacecraft designed to perform the same mission and, thereby, provide easier packaging, launch, and deployment.
- Interspacecraft interfaces are soft, for example, communications, optics, control, metrology, if a spacecraft fails, it can easily be removed from the formation and replaced with a functioning spacecraft. Fourth, as technology improves, replacement spacecraft can be launched and integrated into the array thereby evolving the formation's capabilities without the costly block changes typical of past programs.
- Surveillance, exploration and rescue in disasters, and military operations