

## **KuaFu Mission: The scientific payload of KuaFu-B**

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The KuaFu mission would consist an L1 satellite, KuaFu-A, and a polar satellite pair KuaFu B1/ B2. The mission is designed to explore the whole cause-and-result chain in solar-terrestrial space. The two KuaFu-Bs will have the same payload sets and fly on the same polar orbit plane but with a phase difference of half period. The preferred perigee is 1.8 Re and the apogee is 7 Re. This orbit design will support a 24×7 full-covered observation on the northern auroral oval by the onboard aurora cameras. The suggested payloads consist of a Far Ultraviolet Auroral Monitoring Camera (UVAMC), a FUV Imaging Spectrometer (FUVSI), a Wide Field Auroral Imager (WFAI), a Fluxgate Magnetometer (FGM), a High Energy Charged Particle Experiment (HECPE), an Imaging energetic electron and proton instrument (IEPS), a Neutral Atom Imager on KuaFu (NAIK), a Fast Plasma Pitch Angle Instrument(FPI), an Ion Mass Spectrometer(IMS) (FPI and IMS were suggested to merge) and a Tri-Band Beacon (TBB).