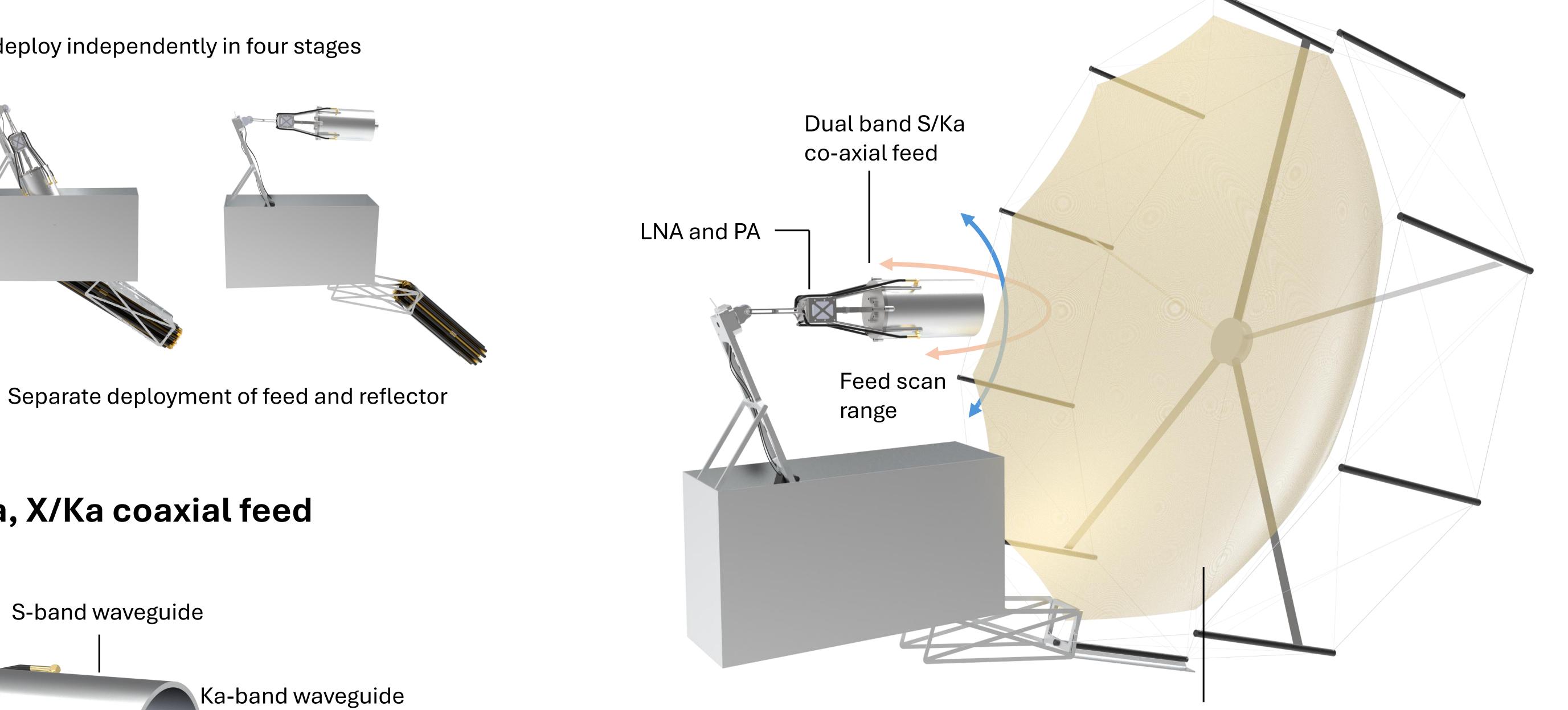


Multi-band Spherical Mesh Reflectors for cis-Lunar communication relay networks

Aman Chandra, Terrance Pat, Harlie Rios

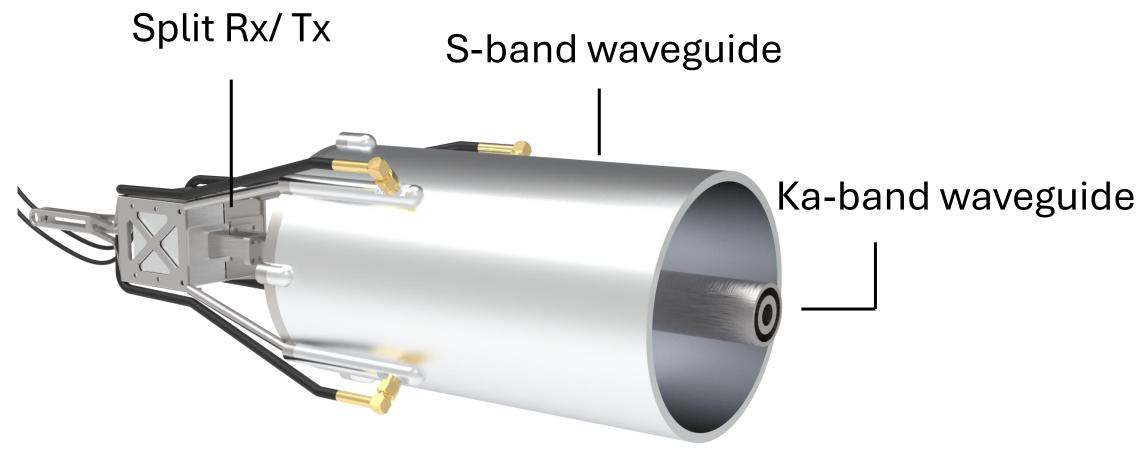
Modular deployment, small satellite compatible

Antenna and feed deploy independently in four stages



Stowed 12U system

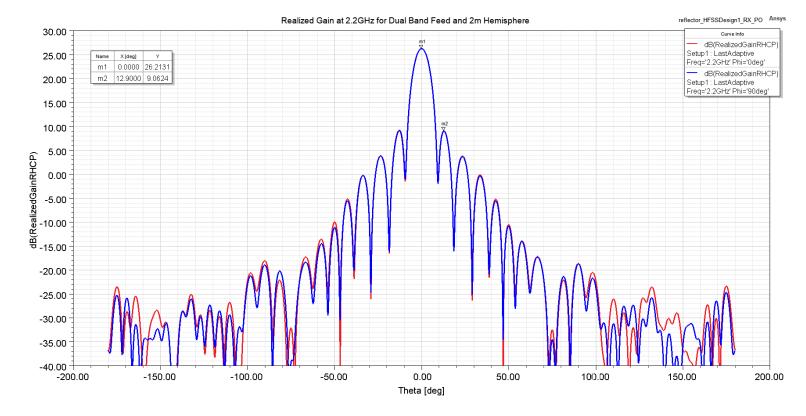
Dual band S/Ka, X/Ka coaxial feed

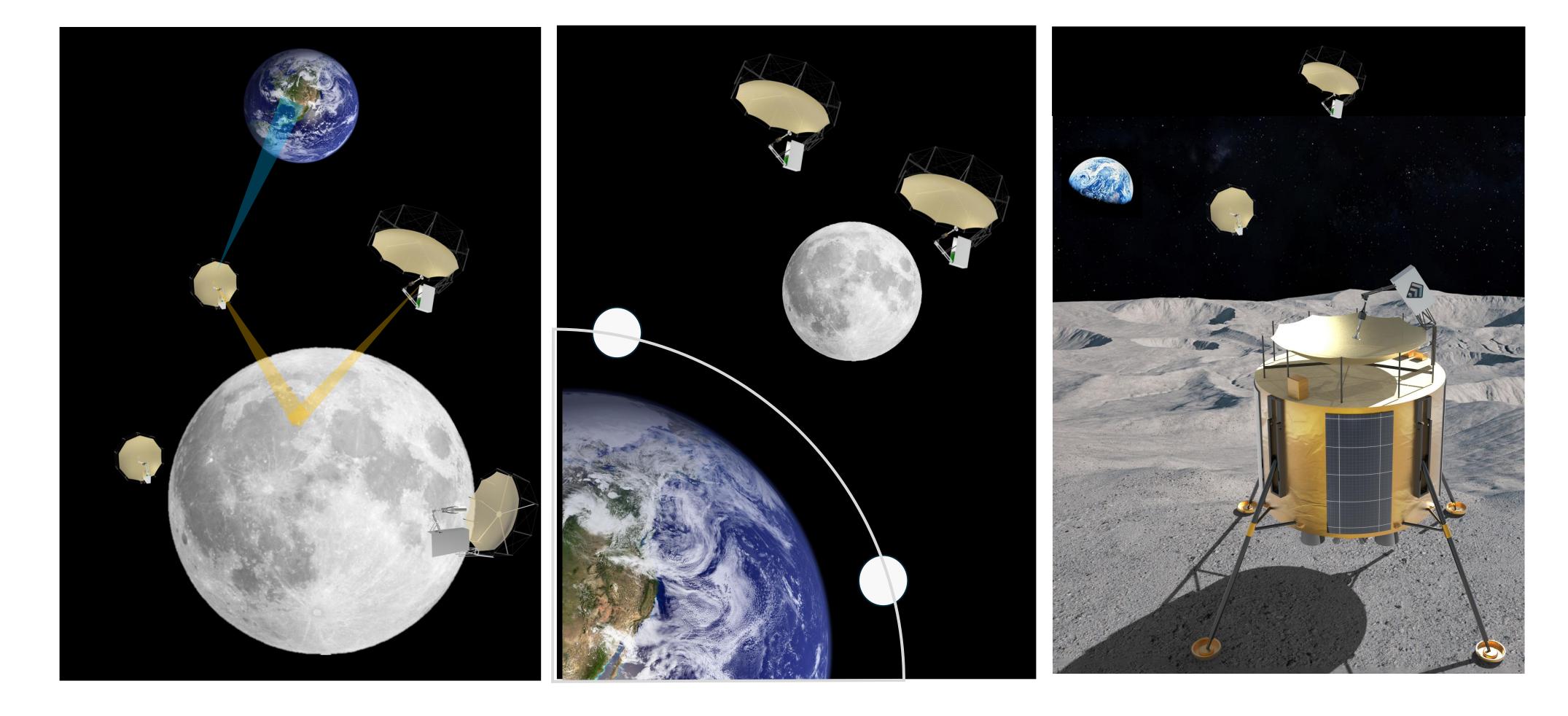


Spherical mesh reflector

Low SWAP, high gain steerable antenna

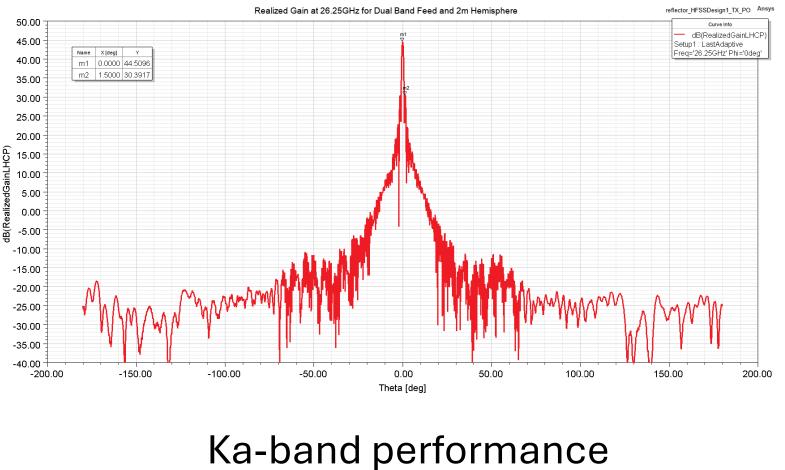
Ideally suited for cis-Lunar applications





S-band performance

simulation



simulation

Cislunar communication and relay networks

Continuous DTE links from Lunar Weak GNSS based cislunar PNT South Pole and Far Side

Small Satellite Conference 2024, Utah State University

3rd August 2024

