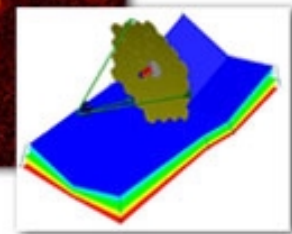
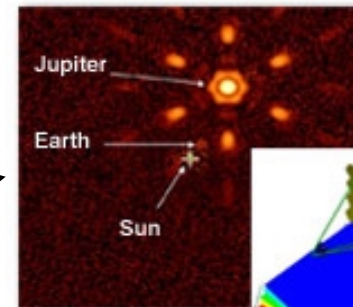
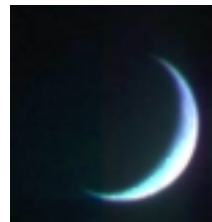
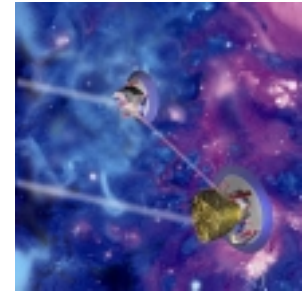
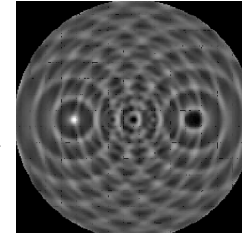
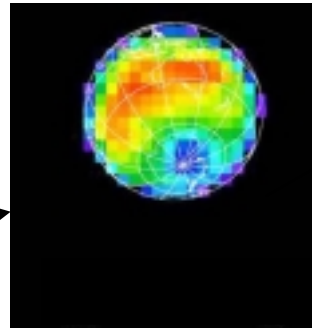


Detecting a planet around another star in the optical or infrared



Human spaceflight capability

Life Finder

- Image continents
- Find chlorophyll, other direct signs of life

?

Planet detection program

2007-2011

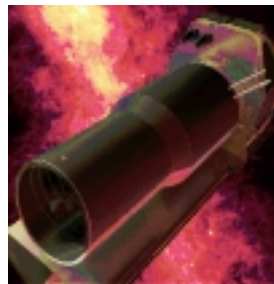
- Kepler, SIM, JWST
- Giant planets
- Large terrestrial planets



2014

TPF-C

- Earths around 30 nearby stars
- Spectra to detect atmosphere, oxygen
- Variation in color/brightness for clouds



2018

TPF-I

- Earths around 100 nearby stars
- Spectra to detect water, oxygen
- Day/night temperatures for habitability

