



Kepler

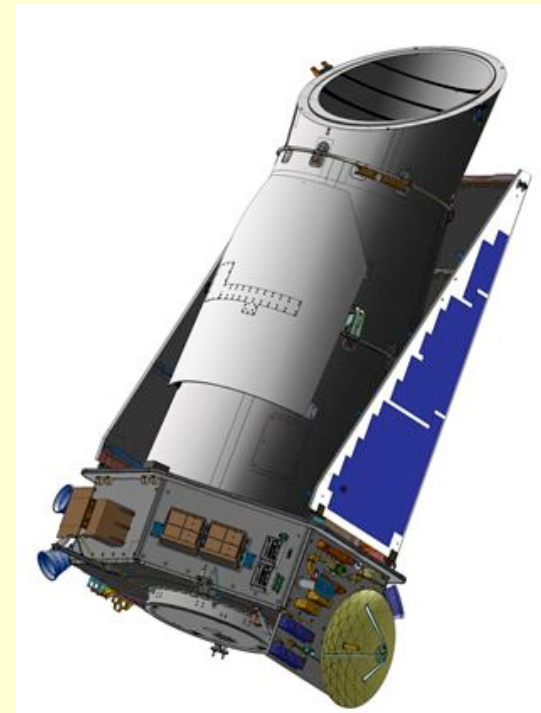
Mission to search for Earth-like and larger planets around solar-type stars.

Science Team driven mission, with astroseismology and small GO components

Expendables and drift of spacecraft away from Earth limit mission to 4-6 years

Fixed field of view in Cygnus with ~14 million objects

Launch is February 16, 2009.





Kepler

Output products are light curves (SOC) and target pixel data (DMC) for each target.

Data receipt, reformatting, production of target pixel data, archiving done by DMC

Calibration, light curve production done by SOC

Proprietary rights, data access control managed by DMC using existing HST system



Kepler DMC/MAST Activities

MAST hosts the Kepler catalogs – KIC, CT, KTC, KRC, more (being defined by the team)

Provide an interface for searching KIC for target selection and for data retrieval

Provide an Archive Handbook for Kepler
- deliverable, due January 23, 2009.

Archive Status **KIC Search Form** (Help)

[Standard Form](#) [File Upload Form](#)

Target Name Resolver Radius (arcmin)
Right Ascension Declination Equinox

Kepler ID FOV Flag
Total PM Teff Radius
E(B-V) Log G Metallicity

User-specified field 1 Field Descriptions User-specified field 2 Field Descriptions

Output Columns
Kepler ID up
RA (J2000) down
Dec (J2000) remove
Kepler Mag
Star/Gal ID
FOV Flag

add

Sort By:
Kepler ID Reverse
RA (J2000) Reverse
Dec (J2000) Reverse

Output Coordinates: Sexagesimal Decimal

Output Format

Show Query Make Rows Distinct

Maximum Records:

Records per Page:



Plans:GO Cycle 1 and Beyond

Cycle 1 GOs will select targets from a modified KIC hosted at NASA/AMES – no MAST involvement

Future cycle GOs will select targets from the MAST hosted KIC – working on improving response time

Viewing Kepler data

- adapt GalexView, spectral plotter, others

Thinking about tools for generating periodograms





Deep Impact's Extrasolar Planet Observations (EPOCH)

- EPOCH, part of the Deep Impact Extended Mission (EPOXI), will observe 4-7 stars with known hot Jupiters to search for other terrestrial planets (e.g. [unstable orbit of planet to Gliese 436](#)). EPOCH will also characterize Earth as a remotely sensed planet.
- Data to be obtained from the CCD and high-resolution IR imaging spectrometer using astrometry, photometry, and transit times.
- Observations conducted in January-August 2008. Science management at Univ. of Md. Data, pipelines at Cornell and U. Md.
- ~100 GB of spectra/light curve data to be delivered to MAST by GSFC's Planetary Data System late 2008/2009. **Non proprietary!**