



“Extrasolar Planet Observations & Characterization”

- In 2008 EPOCH, part of the Deep Impact Extended Mission (EPOXI), monitored 7 stars in 7 wavelength bands (3500-9500Å) to look for terrestrial planets. All 7 stars are known to host hot Jupiters. Two stars are in Kepler’s FOV).
- EPOCH also characterized Earth as a remotely sensed rotating planet using high resolution 2-5 μ spectrometry.
- Science management at Univ. of Md. (M. A’Hearn) and GSFC (D. Deming). Light curves to be constructed by D. Charbonneau (CfA).





Data Delivery to MAST follows Team publications

- Delivery of stellar image data; hosting (August, 2009).
- Delivery of Earth-as-exoplanet spectra (late summer).
 - submit papers on two EPOCH targets this month
 - additional papers on other targets late this year.*
- Deming/Charbonneau deliver light curves for first two targets after acceptance of papers, followed by papers + delivery for the remaining 5 within next year.

*See also “Alien maps of an ocean-bearing world” in [arXiv:0905.3742](https://arxiv.org/abs/0905.3742).



EPOCH: Bonus slide

Planetary systems observed			
Star	Constellation	Distance (ly)	Planet
XO-2	Lynx	486	b
Gliese 436	Leo	33.48	b
BD+36°2593	Boötes	1010	HAT-P-4b
GSC 03089-00929	Hercules	1300	TrES-3
WASP-3	Lyra	727	b
GSC 03549-02811	Draco	718	TrES-2
HAT-P-7	Cygnus	1044	b

Timespan
(days)

Number
transits

5.61	3
17.37	8
15.44	10
6.53	7
10.77	8
16.04	7
12.44	8

Source: [Wikipedia\(!\)](#)

Source: [Project \(CfA\)](#)



CHIPS: Cosmic Hot Interstellar Plasma

- Mosaicked-tile, all-sky survey of diffuse 90-260Å line emission from local ISM plasma, $T \sim 10^6$ K.
- All sky results (4 mos. exp.): marginal detection of Fe IX 171Å line (i.e., Fe-depleted ISM plasma).
- To be archived late this summer.

