Draft Figures and Tables

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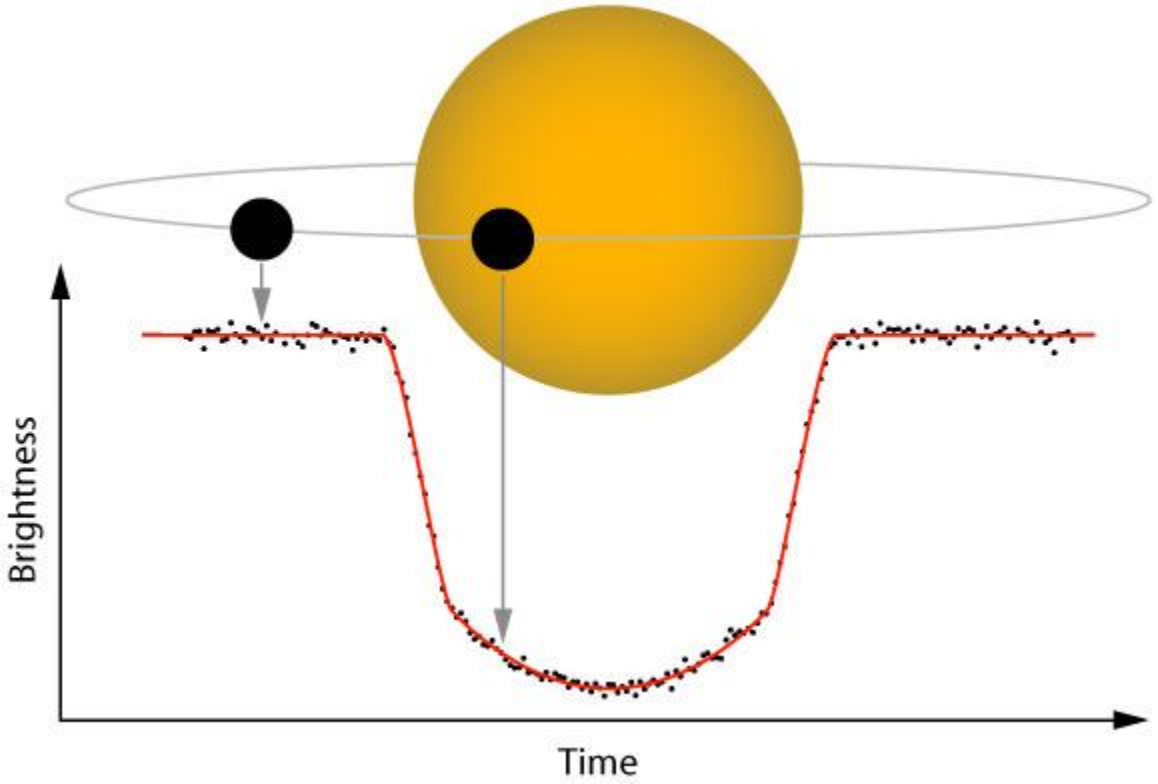


Figure #: The transit method of detecting and imaging exoplanets[1]

Table #: Observational Circumstances for Observed Exoplanet Transits at Wallace Astrophysical Observatory in September and October[1]

Date (EDT)	Transit	Apparent Magnitude (R)	Delta Magnitude (milimags)	Elevation (start, mid, end)	Time (EDT) (start, mid, end)	Right Ascension (J2000)	Declination (J2000)
9/14/2015	Tres-3 b	12.1	29.3	37°, 30°, 24°	22:44— 23:24 —00:04	17 52 07.02	+37 32 46.2
10/5/2015	Tres-1 b	11.2	19.8	53°, 39°, 26°	22:01— 23:16 —00:31	19 04 09.84	+36 37 57.5
10/16/2015	Kepler-6 b	Unknown	10.4	72°, 52°, 34°	20:25— 22:23 —00:21	19 47 20.94	48 14 23.8
10/23/2015	Kepler-45 b	15.7	34.2	77°, 71°, 65°	20:53— 21:25 —21:57	19 31 29.50	+41 03 51.3

Table #: Comparison Star Specification for Transit Star Fields (see appendix for finder charts)[1]

Transit	Right Ascension (J2000)	Declination (J2000)	Magnitude (R)
Kepler-45 b	19 31 15.435	+41 02 59.71	10.4
TrES-1 b	19 04 00.881	+36 39 55.96	7.5
TrES-3 b	17 52 25.027	+37 34 22.38	11.7
Kepler-6 b	19 01 04.887	+48 34 26.97	12

Table #: Specifications for Ealing 16” Telescope[1]

Diameter (inches)	16
Focal Length (mm)	4429.8
Primary Instrument	SBIG STL-1001e
Field of View (arcminutes)	19.07 x 19.07
Plate Scale (arcseconds/pixel)	1.11
Filters	Clear, B, V, R, I, VR

Table #: Specifications for 14” Celestron C14 Schmidt-Cassegrain Telescope[1]

Diameter (inches)	14
Focal Length (mm)	3910
Primary Instrument	SBIG STL-1001e
Field of View (arcminutes)	20.65 x 20.65
Plate Scale (arcseconds/pixel)	1.21
Filters	Clear, B, V, R, I, VR

Table #: Instrumental Specifications for SBIG STL-1001E CCD Camera[1]

Min / Max Exposure Times (sec)	0.01 / 3600
Max Counts Unbinned	~64000
Gain (electrons)	2.0
Pixel array	1024 x 1024 active element
Pixel dimensions (square microns)	24
Optimal fan load	80%
Possible Temperature Range (deg C)	-40 to +45
Working Temperature Range (deg C)	-15 to -25

Table #: Data Taken at Wallace Astrophysical Observatory in September and October 2015

Transit	Date (EDT)	Data Amount (Images)	Weather	Telescope
Tres-3 b	Sep. 14	382	Clear	Ealing 16in
Tres-1 b	Oct. 5	354	Clear	Ealing 16in
Kepler-6 b	Oct. 16	716	Clear	14in Celestron
Kepler-45 b	Oct. 23	173	Cloudy	14in Celestron

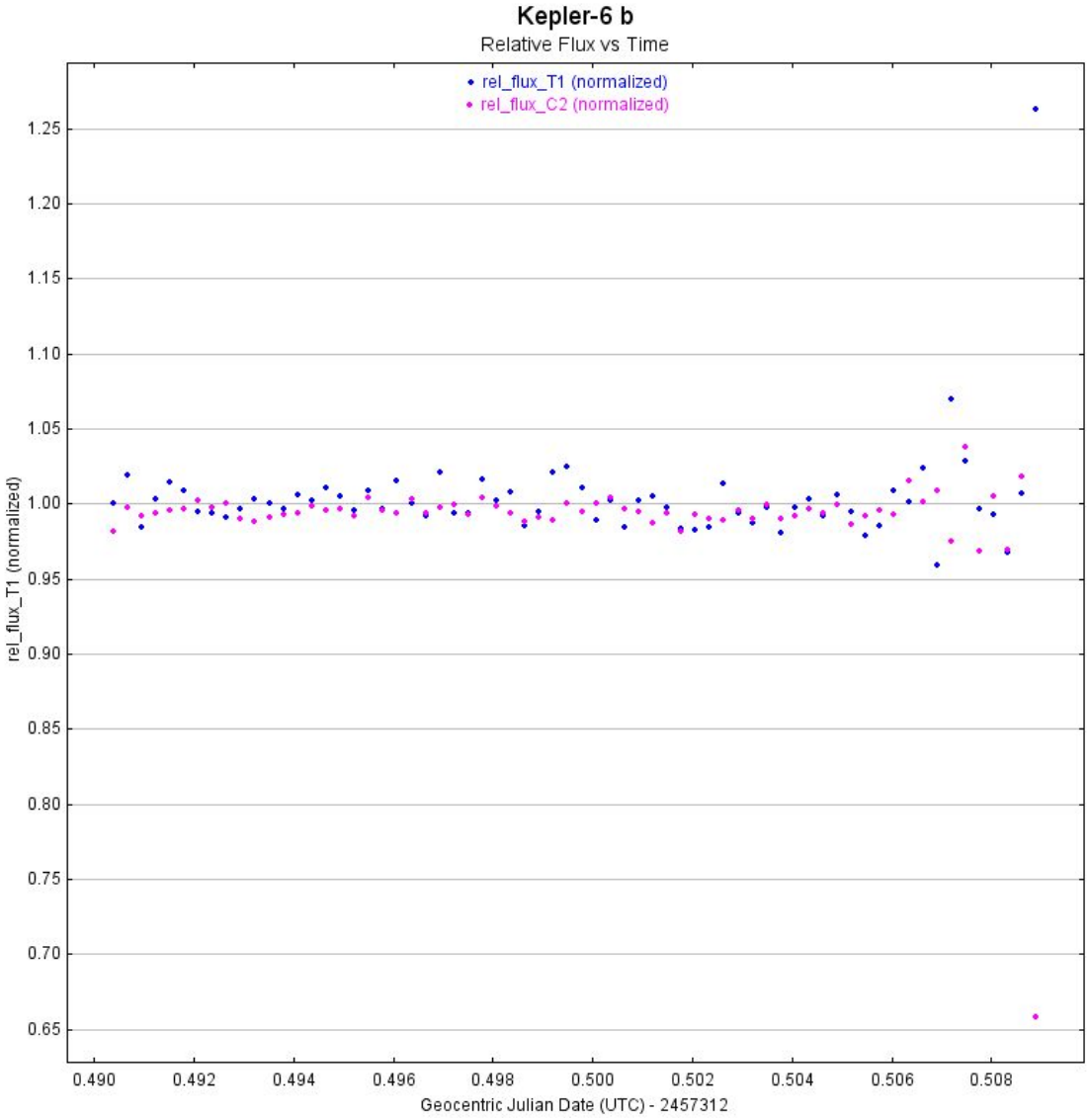
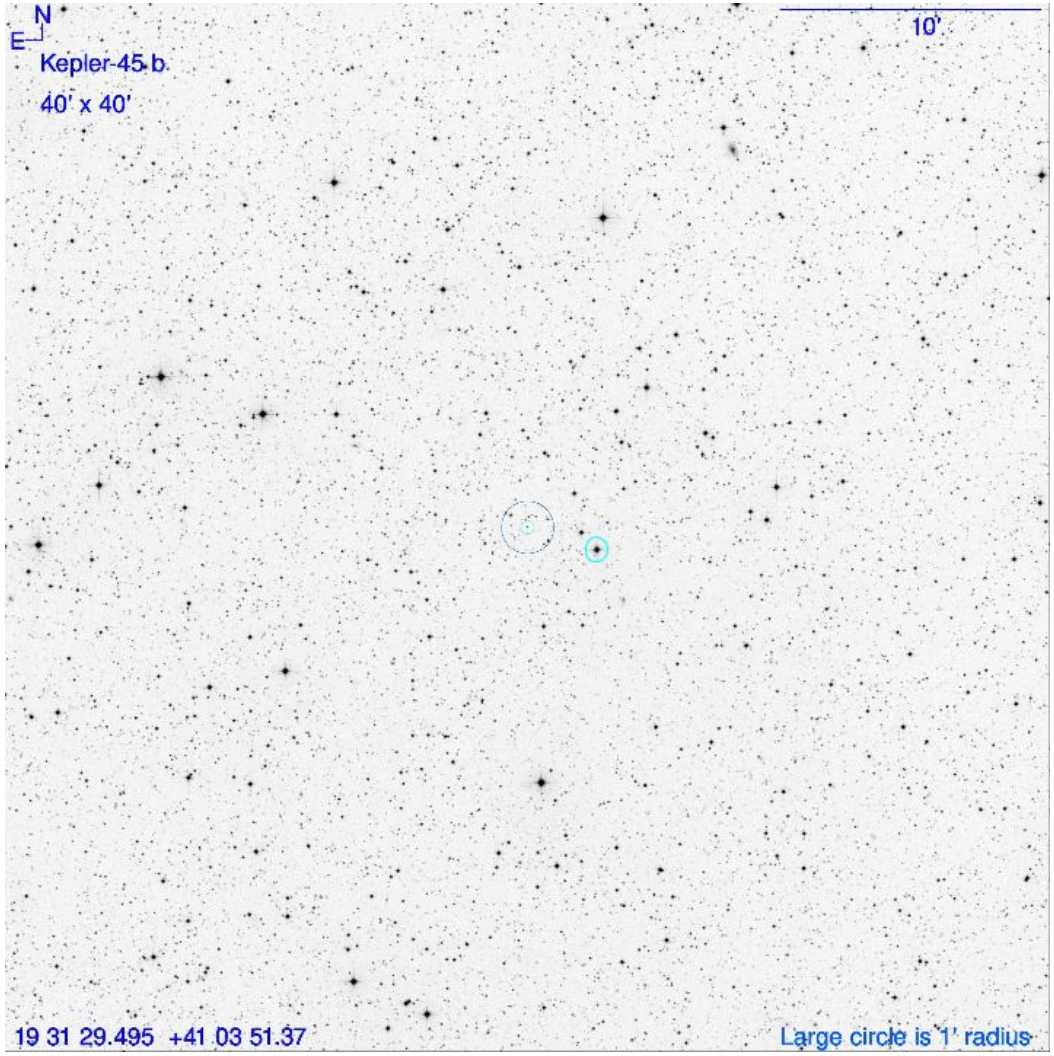


Figure #: Relative Flux of Kepler-6 b Over Time



Appendix #: Kepler-45 b (target circled in center and comparison star circled in blue)[1]

Things I Know I Need

- Citations
- Proof of quality for comparison stars
- Aperture table
- “Typical” science image
- Data reduction process images
- Complete annotated flux plots

...Anything else?