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

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)

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 #: Instrumental Specifications for SBIG STL-1001E CCD Camera

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 #: Specifications for Ealing 16” Telescope

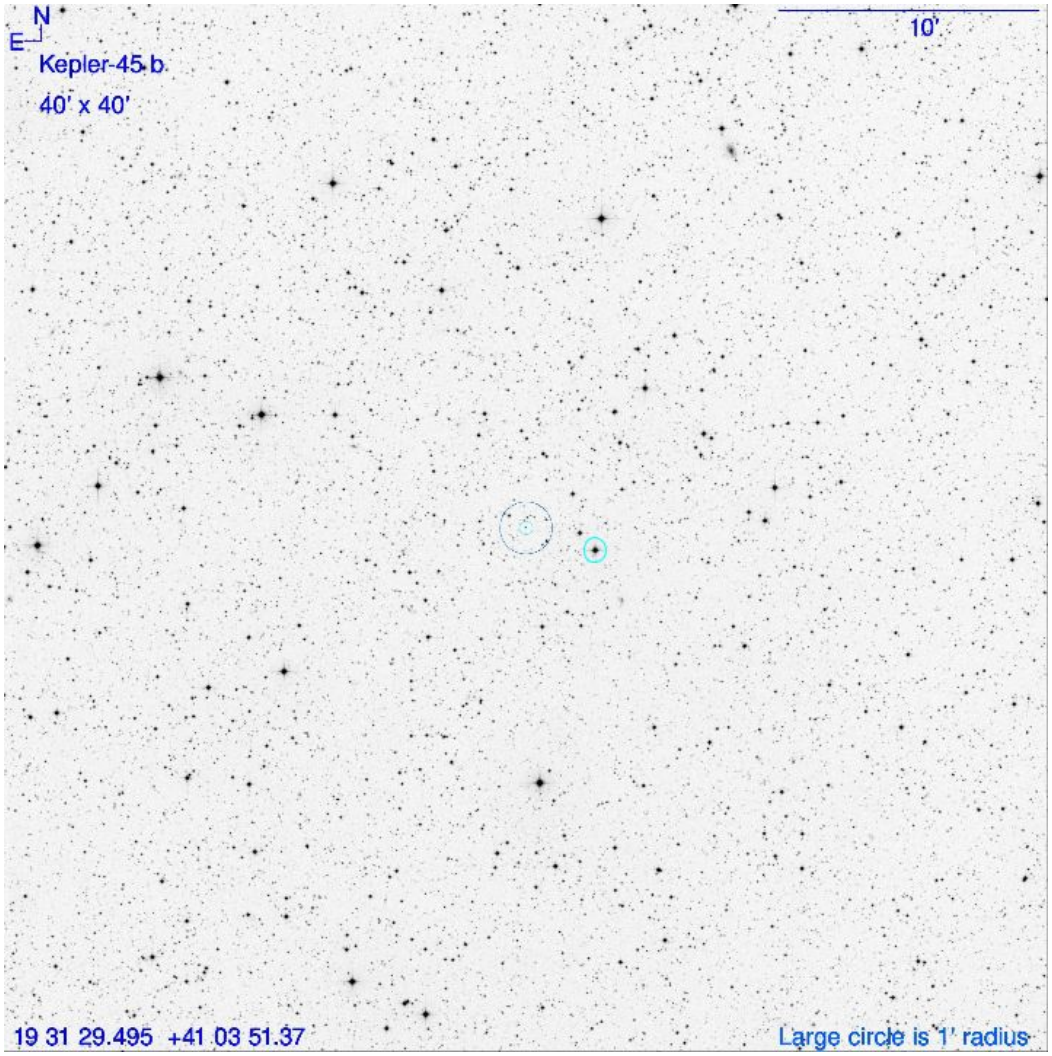
Diameter (inches)	16
Focal Length (mm)	4429.8
Primary Instrument	SBIG STL-1001e
Field of View (arcminutes)	19.07 x 19.07
Plate Scale (arcseconds/pixel)	1.11
Filters	Clear, B, V, R, I, VR

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

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 #: 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



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

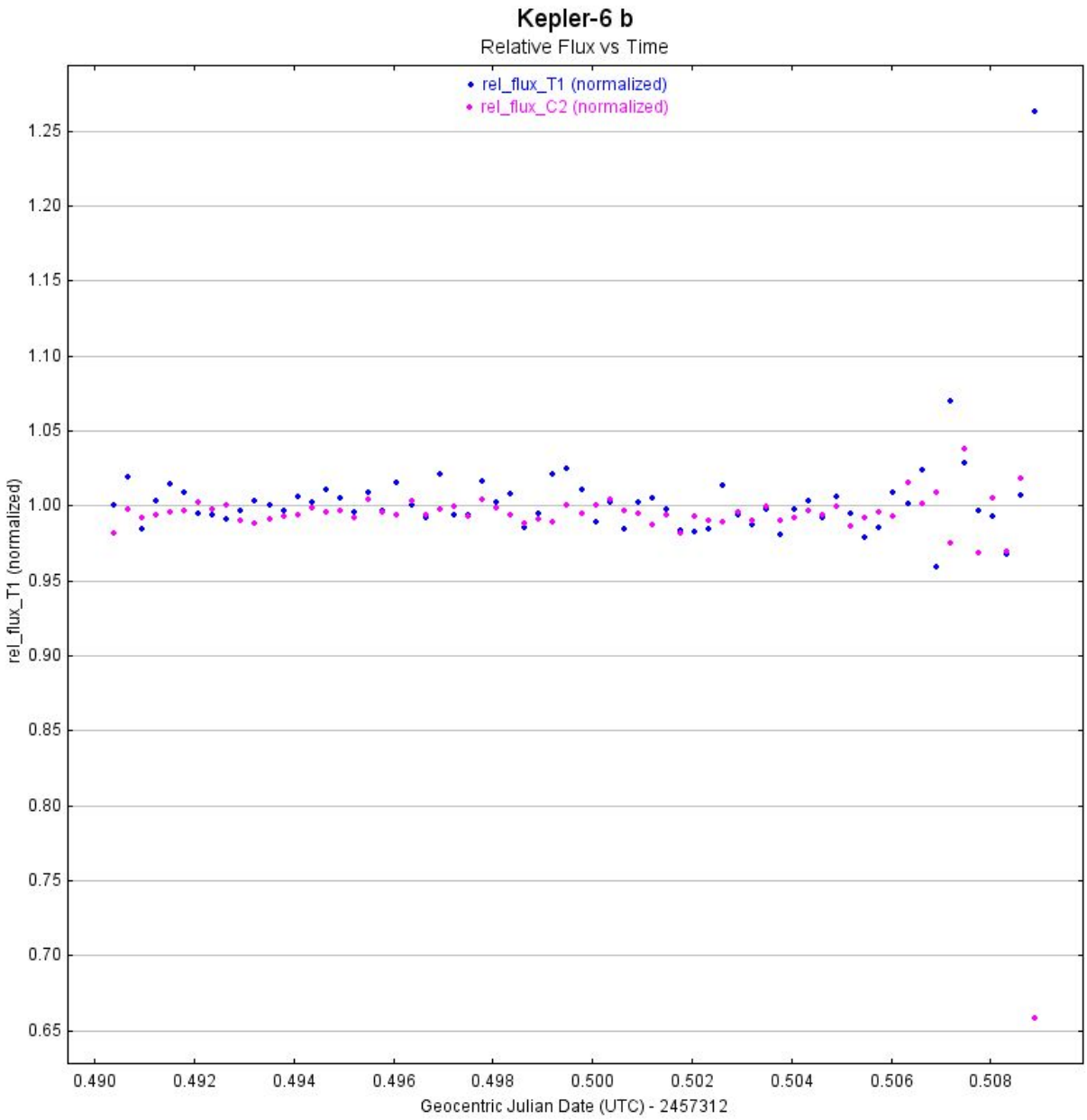


Figure #: Relative Flux of Kepler-6 b Over Time

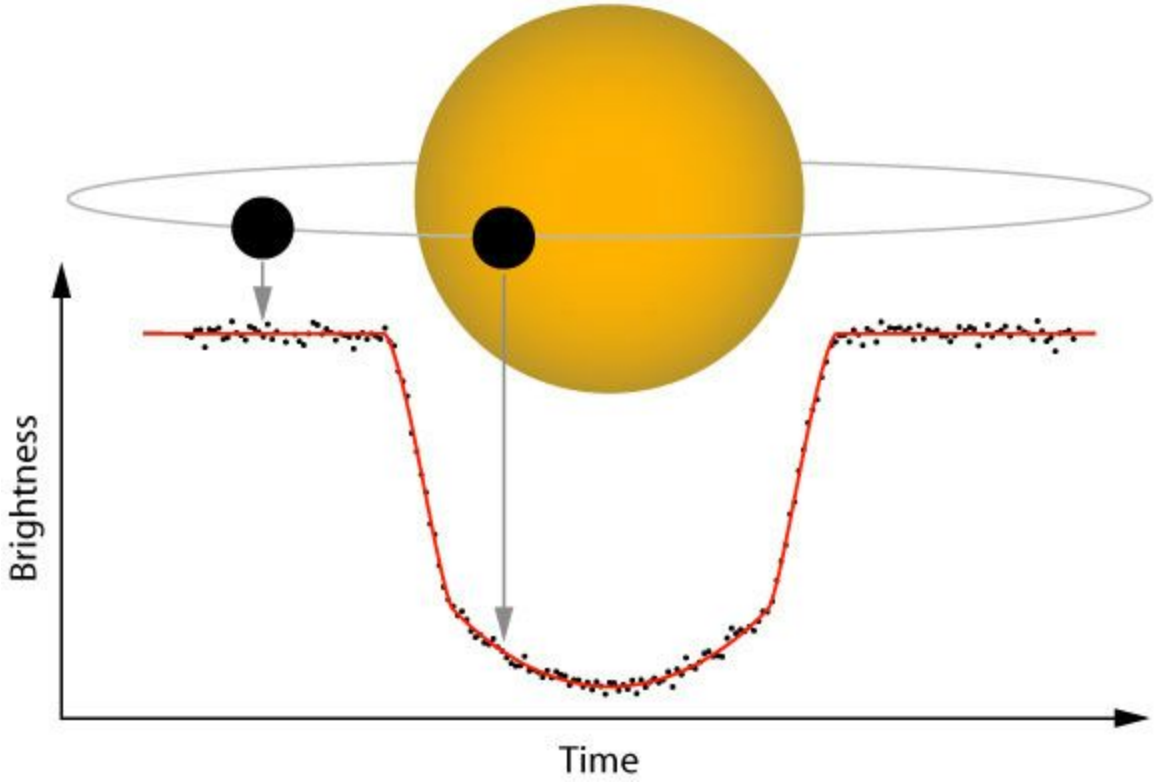


Figure #: The transit method of detecting and imaging exoplanets

I plan on making plots of all of the nights of data I have, I've only included one here. The plots will be annotated with baseline measurements and the transit dip will be marked.

Similarly, I plan on annotating and including all of the finder charts I used but I've only included one here.