

# KIC 005565486

## Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	$R_{\star}$ ( $R_{\odot}$ )	$T_{\star}$ (K)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
005565486-01	OBS	3742.01	1.412529	131.701707	35480.5	3.500	2907.9	-1.0	1.17	6690	22.34	3622.83

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005565486-01	OBS	FP	0.00	0	1	0	0	MOD_ODDEVEN_ALT—CENT_NOFITS

**Notes:** OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

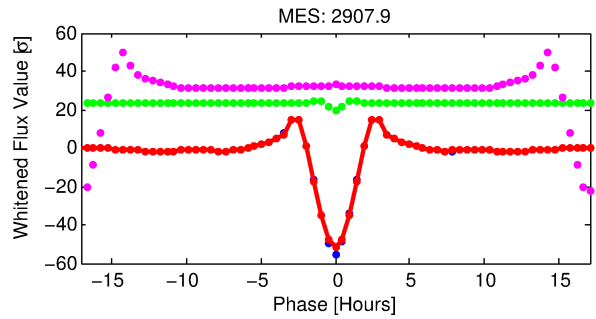
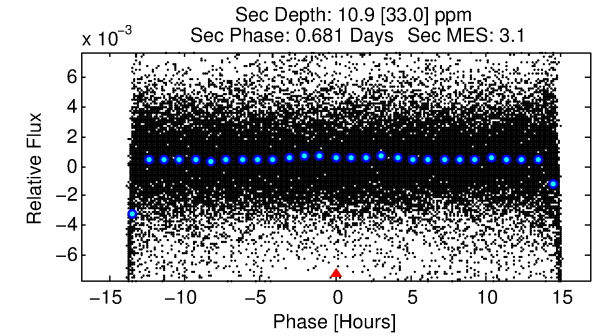
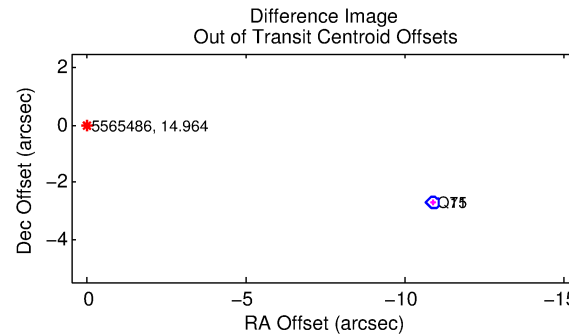
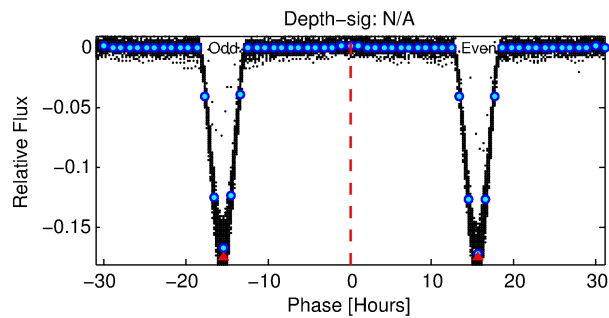
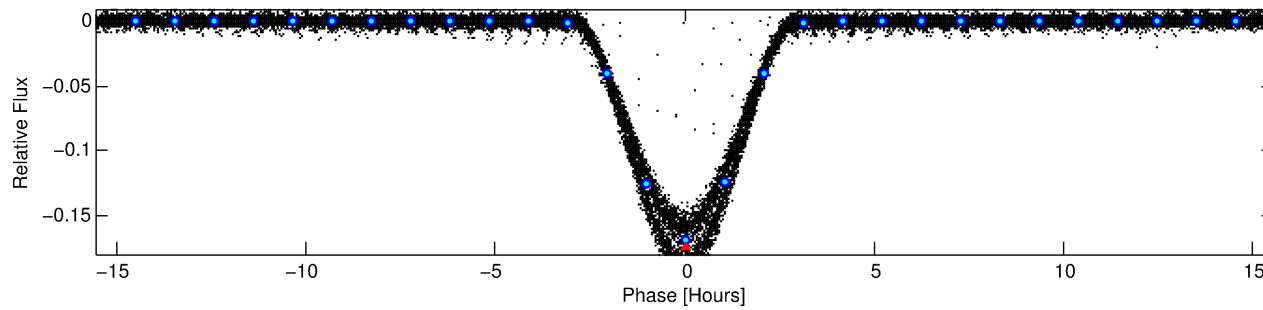
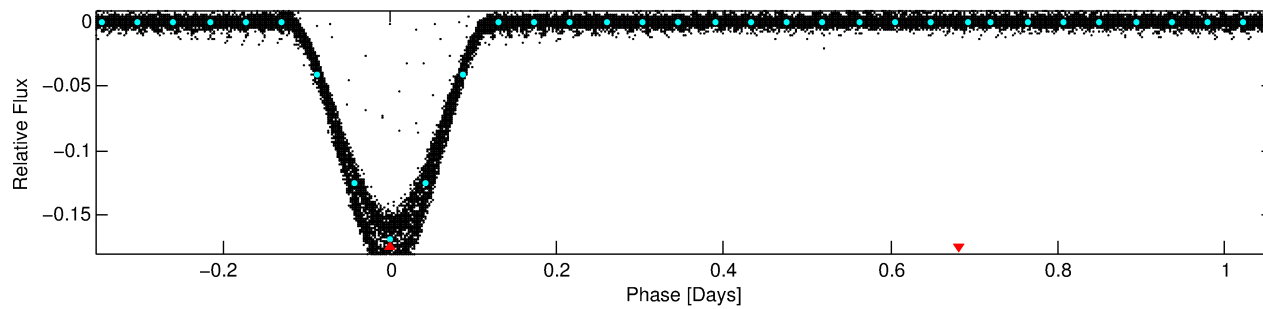
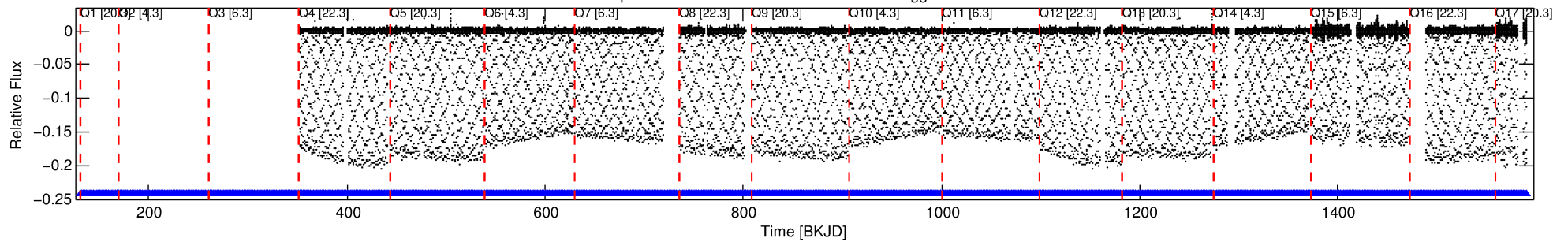
## Ephemeris Match Information For 005565486-01

No Significant Match Found

# DV One-Page Summary

KIC: 5565486 Candidate: 1 of 1 Period: 1.413 d  
KOI: K03742.01 Corr: 0.780

Kp: 14.96 R\*: 1.17 Rs Teff: 6690.0 K Logg: 4.38 Fe/H: -0.220



TPS TCE Results:

Period = 1.41253 d  
Epoch = 131.7017 BKJD

DV fit results are unavailable

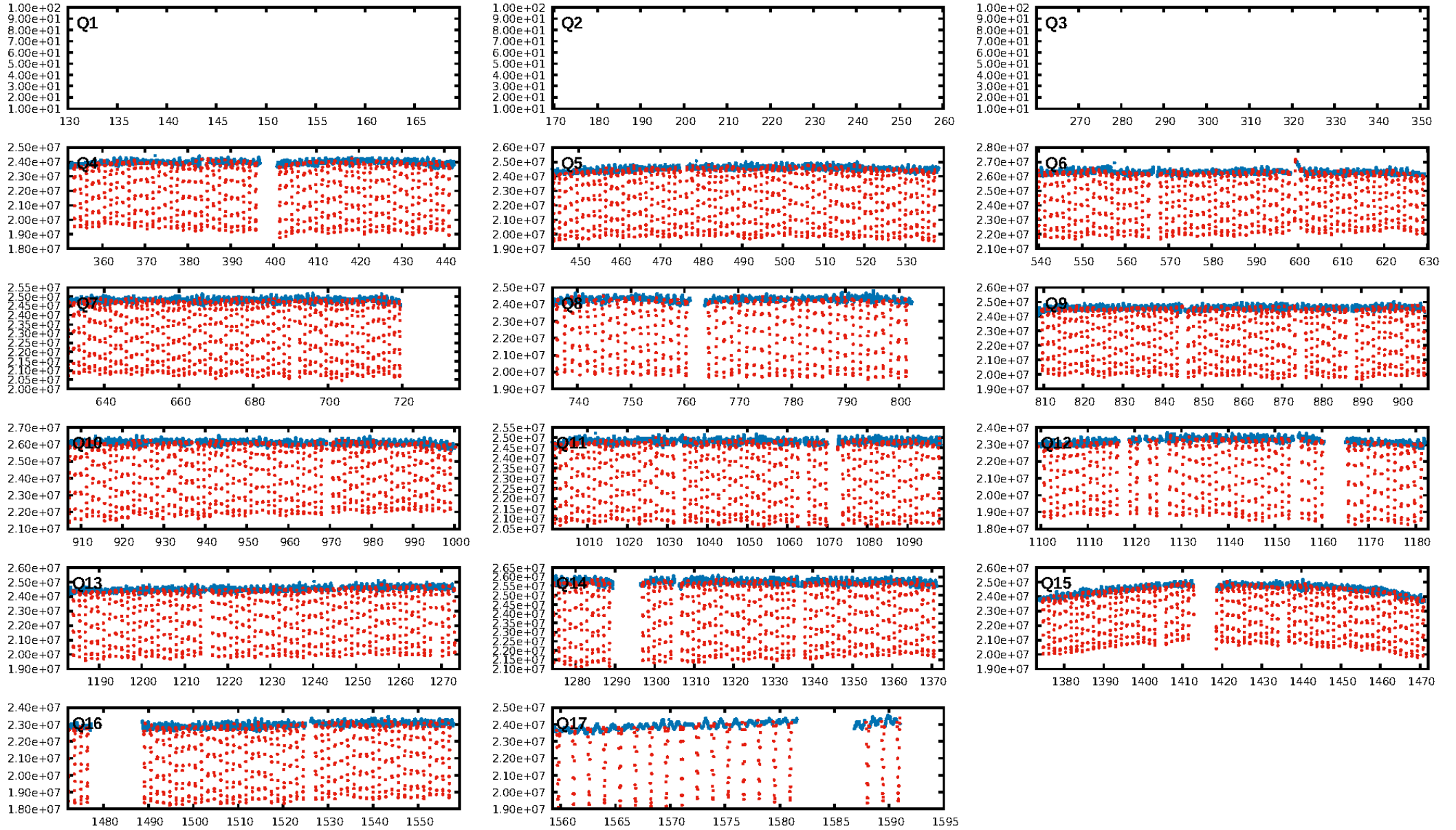
DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 1.00 [788/788]  
GhostDiagnostic-chr: 1.12  
Centroid-sig: 0.0%  
Centroid-so: 2.485 arcsec [3605.81σ]  
OotOffset-rm: 11.212 arcsec [167.65σ]  
KicOffset-rm: 0.059 arcsec [0.86σ]  
OotOffset-st: 0/3/0/0 [3]  
KicOffset-st: 3/3/4/4 [14]  
DiffImageQuality-fgm: 1.00 [14/14]  
DiffImageOverlap-fno: 1.00 [14/14]

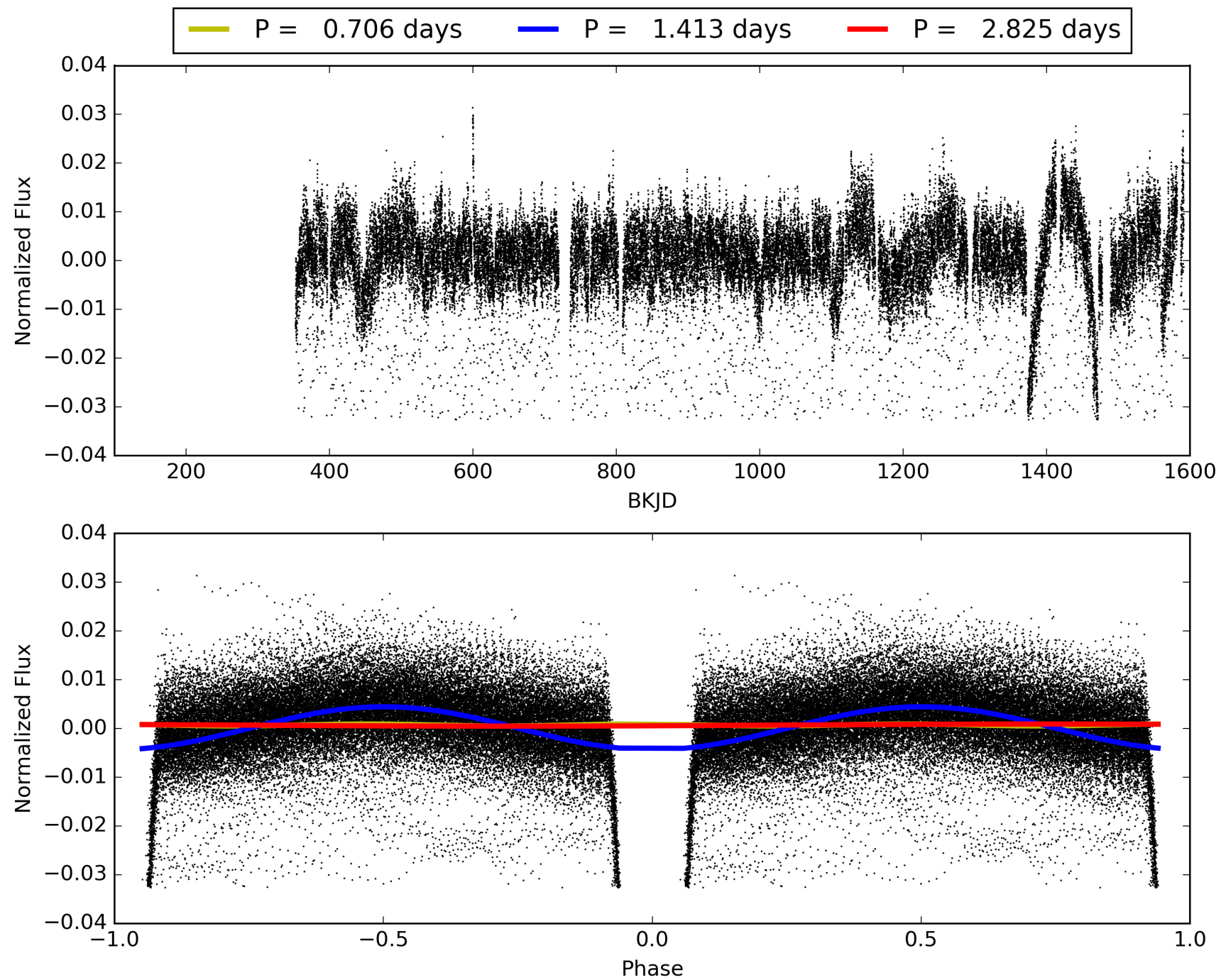
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 16:41:26 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

# TCE 005565486-01, PDC Light Curves

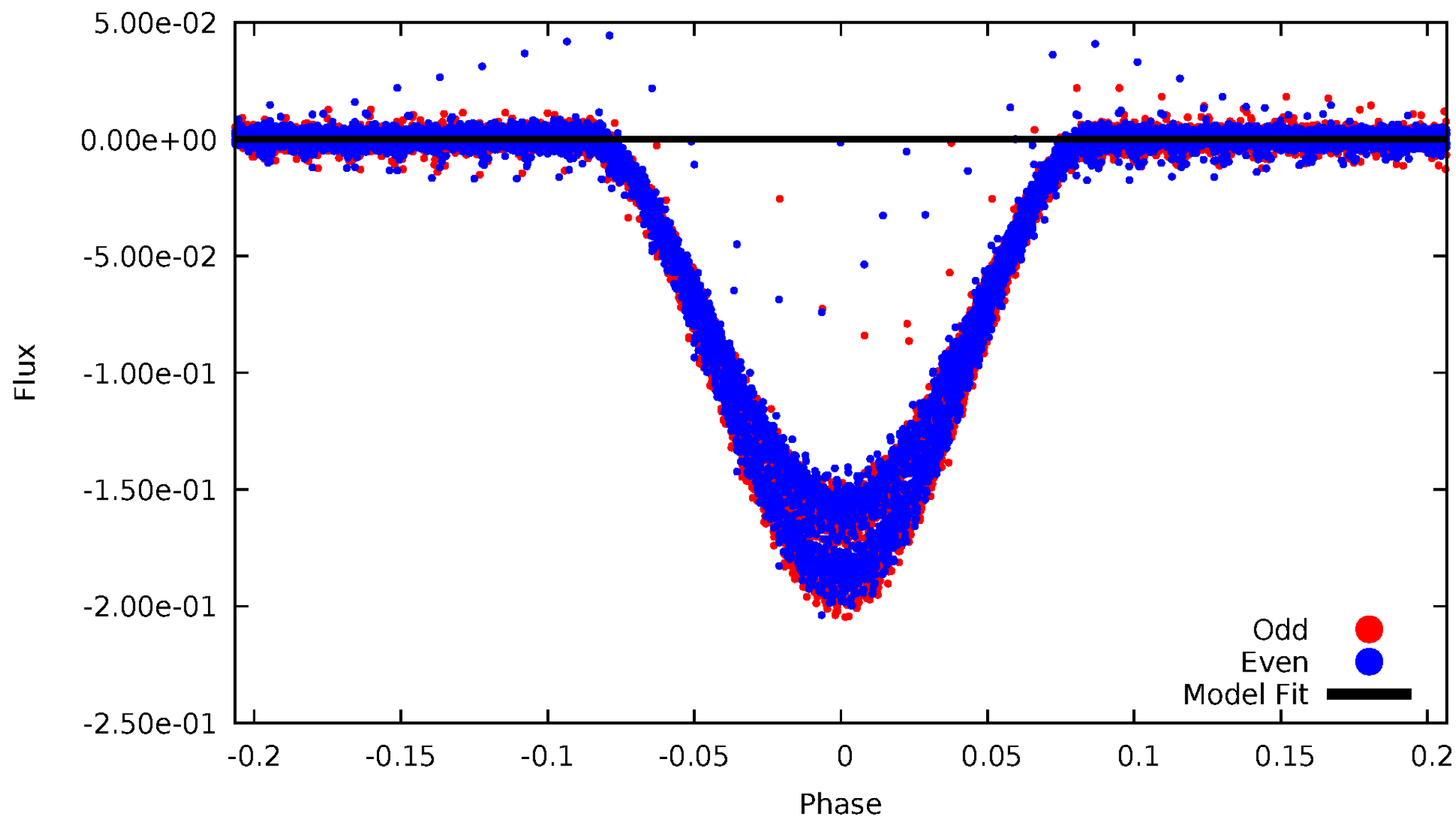


TCE 005565486-01



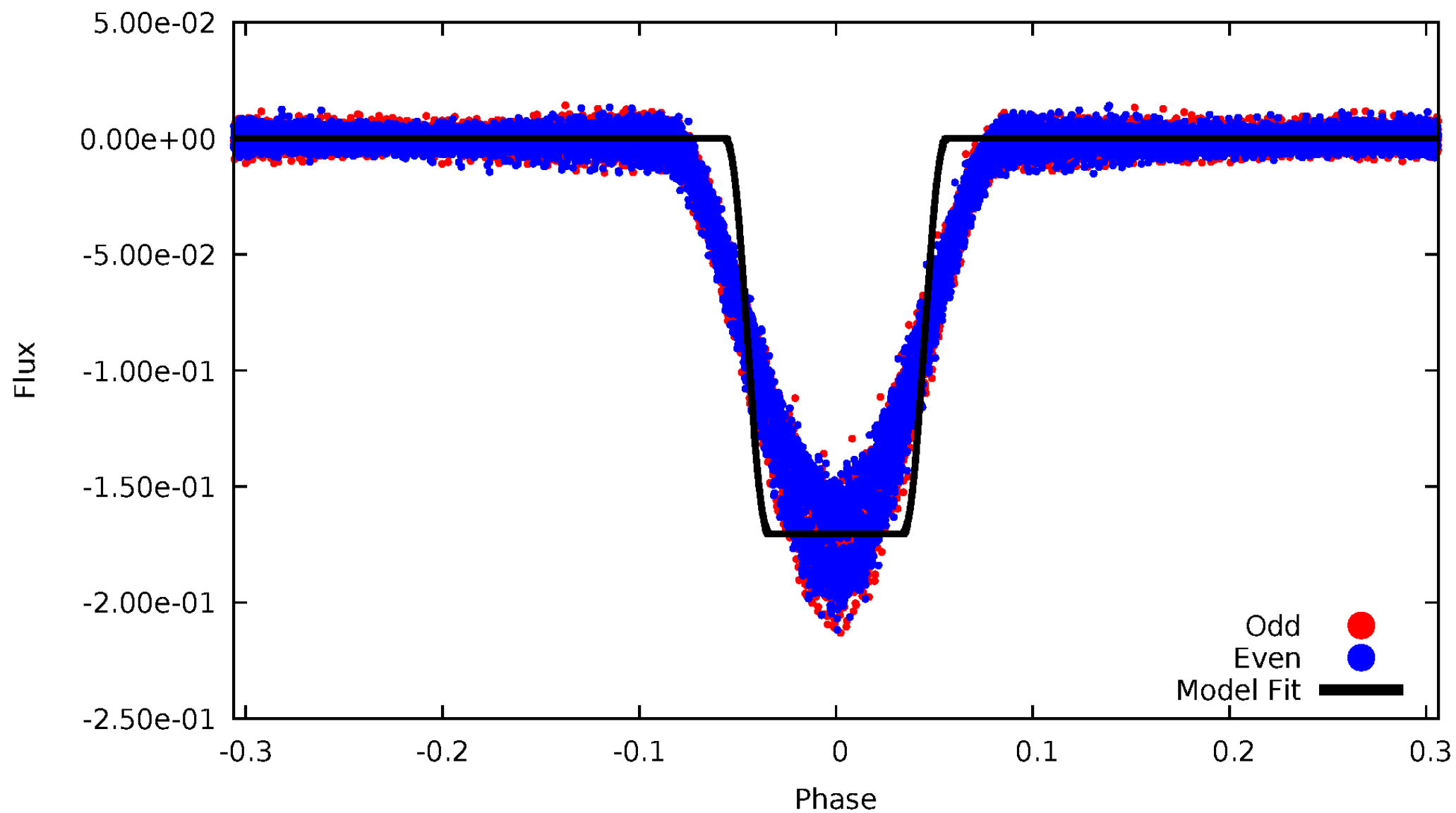
# DV Odd/Even

TCE 005565486-01



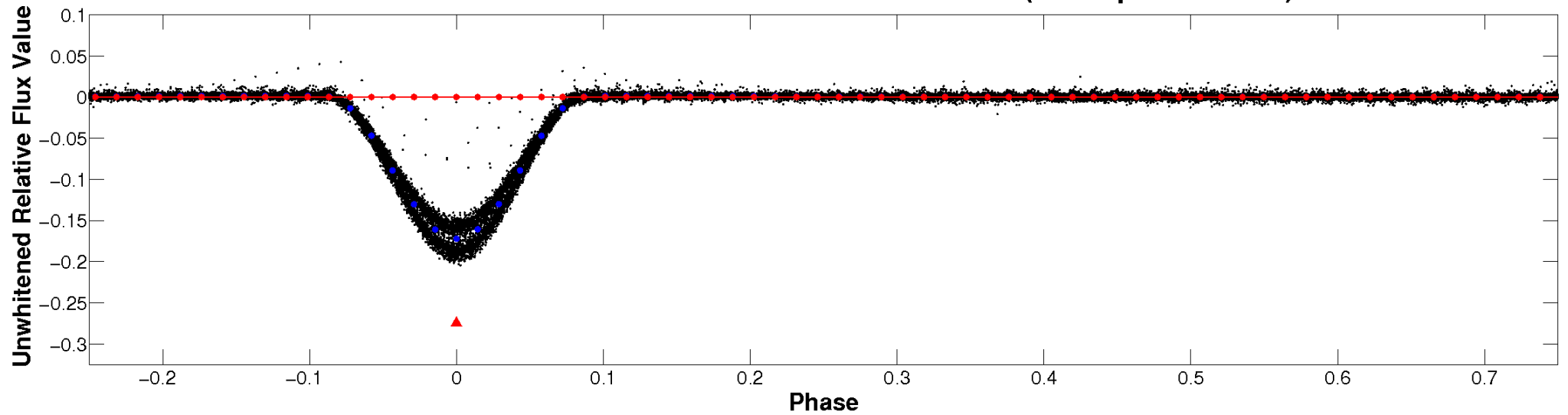
# ALT Odd/Even

TCE 005565486-01



# Non-Whitened Vs. Whitened Light Curve

**Planet 1 : Phased Unwhitened Flux Time Series (TPS Epoch/Period)**

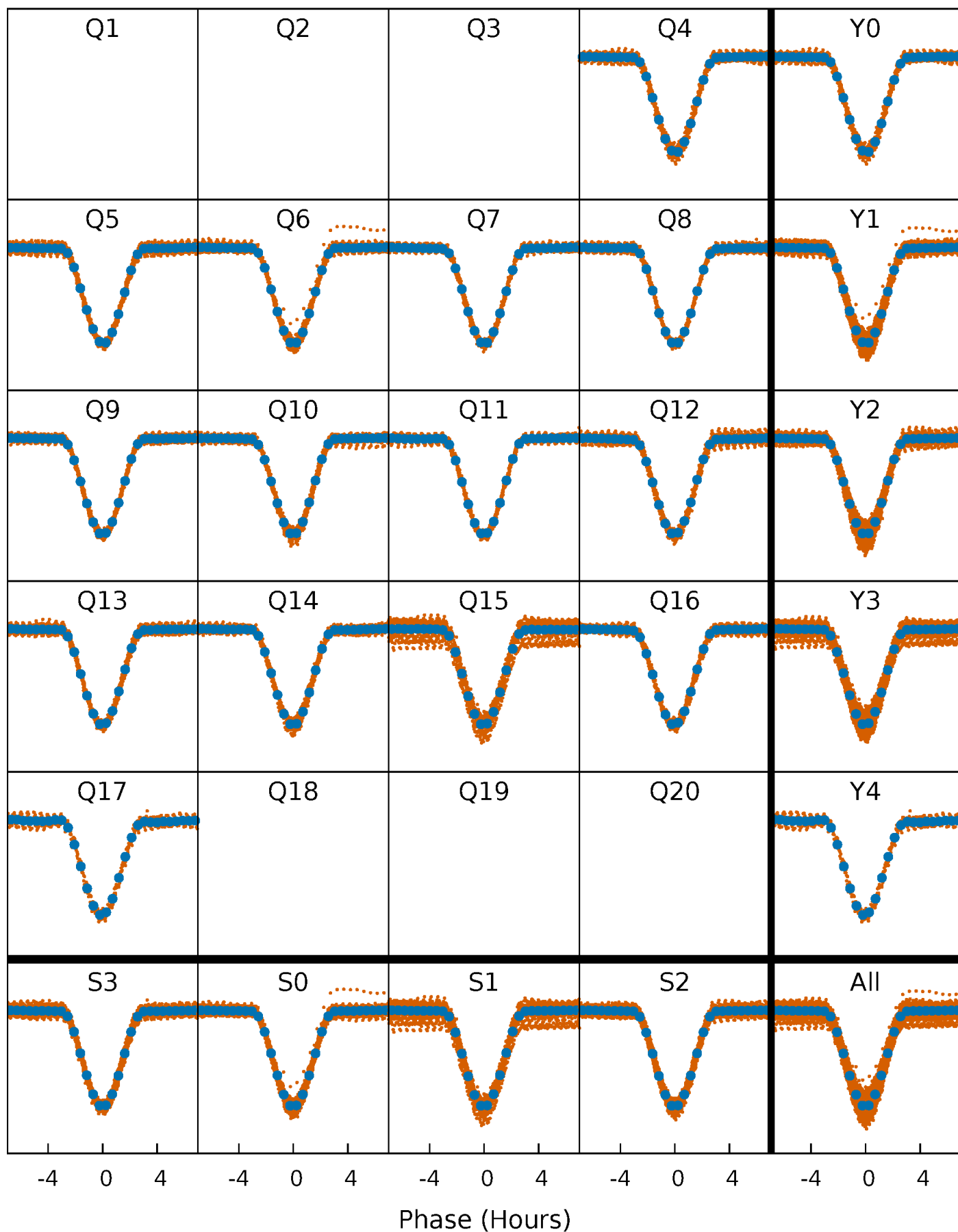


**Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)**



# PDC Quarter-Phased Transit Curves

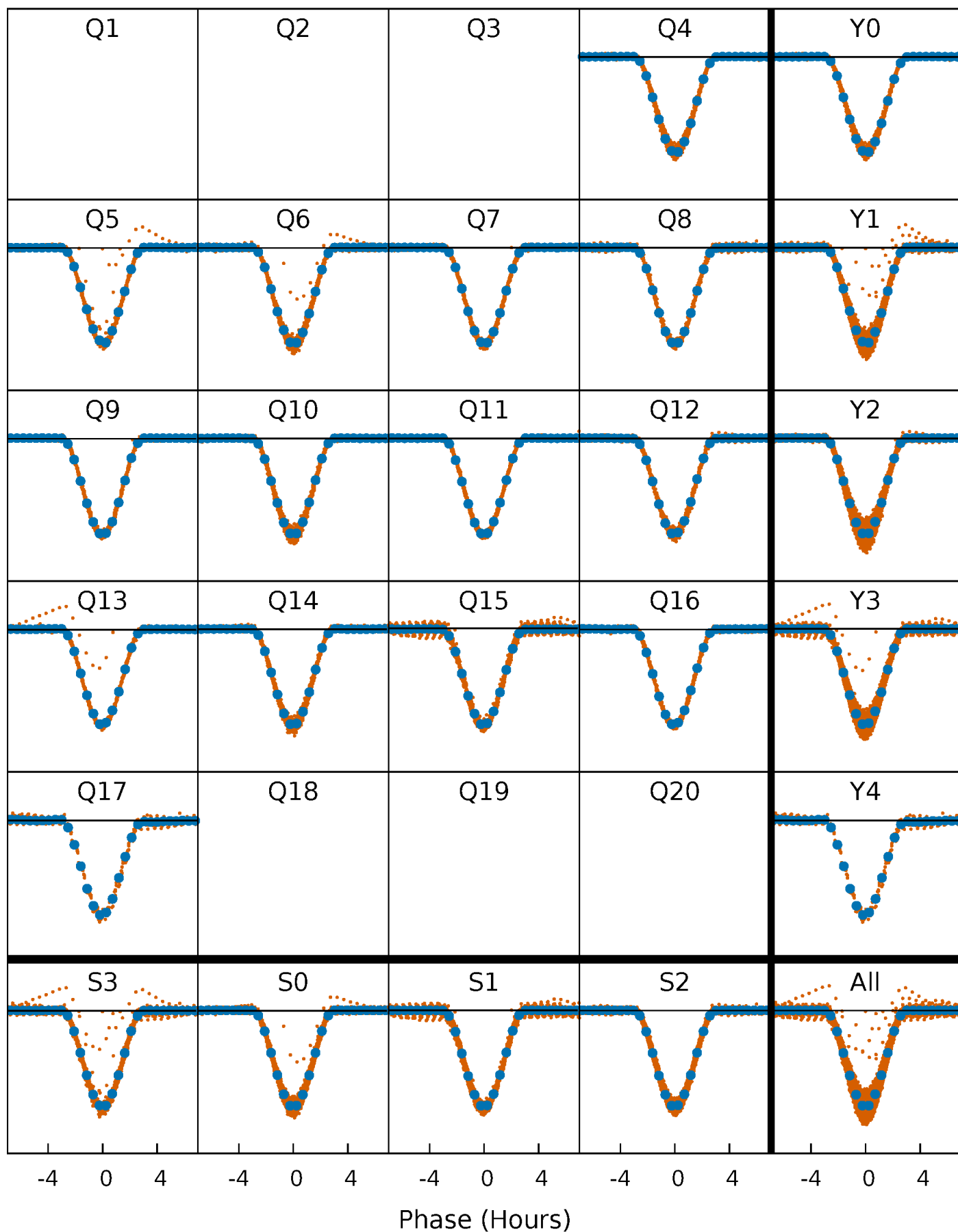
TCE 005565486-01 P= 1.412529 Days  $T_0=131.701707$  (BKJD)





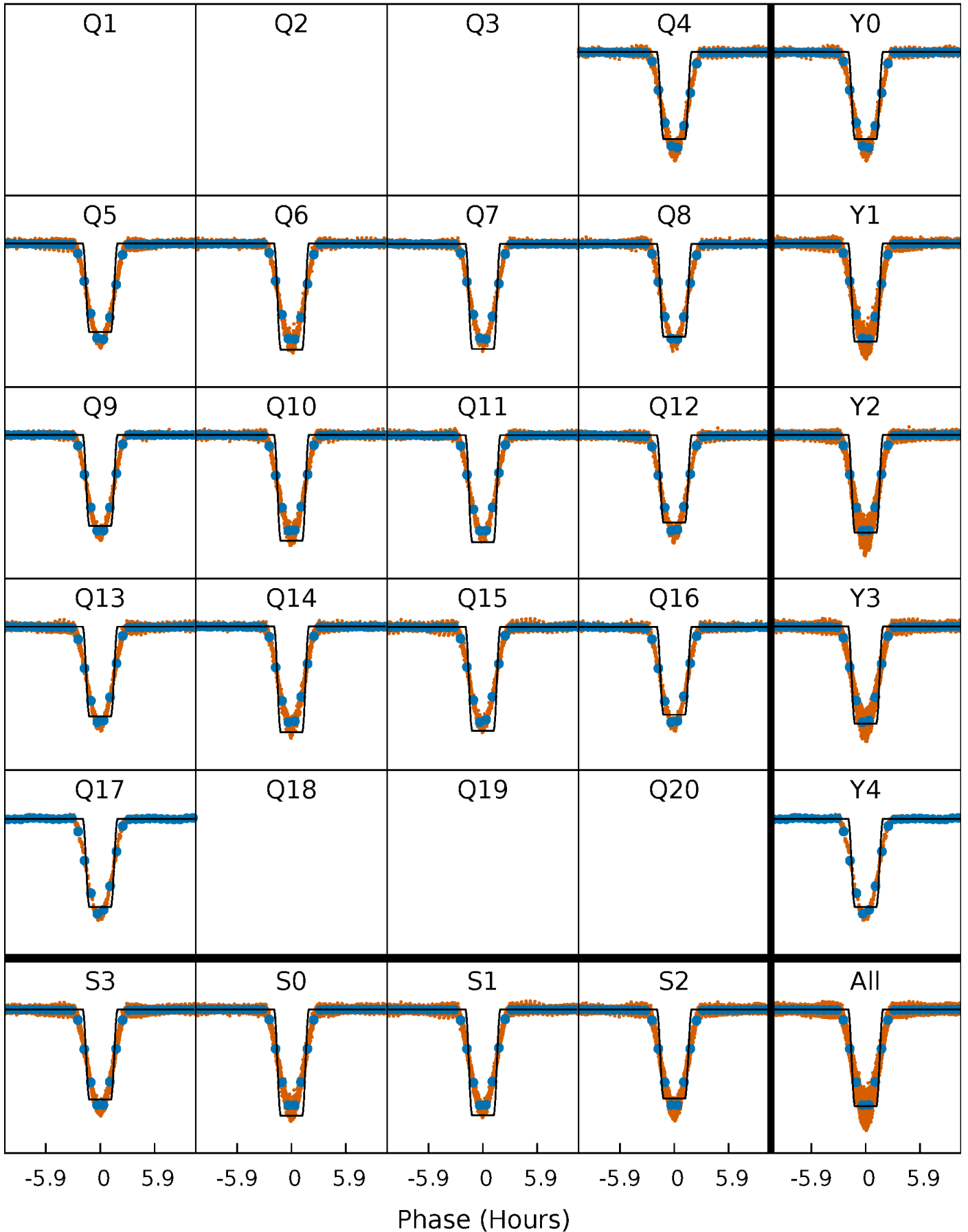
# DV Quarter-Phased Transit Curves

TCE 005565486-01 P= 1.412529 Days  $T_0=131.701707$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

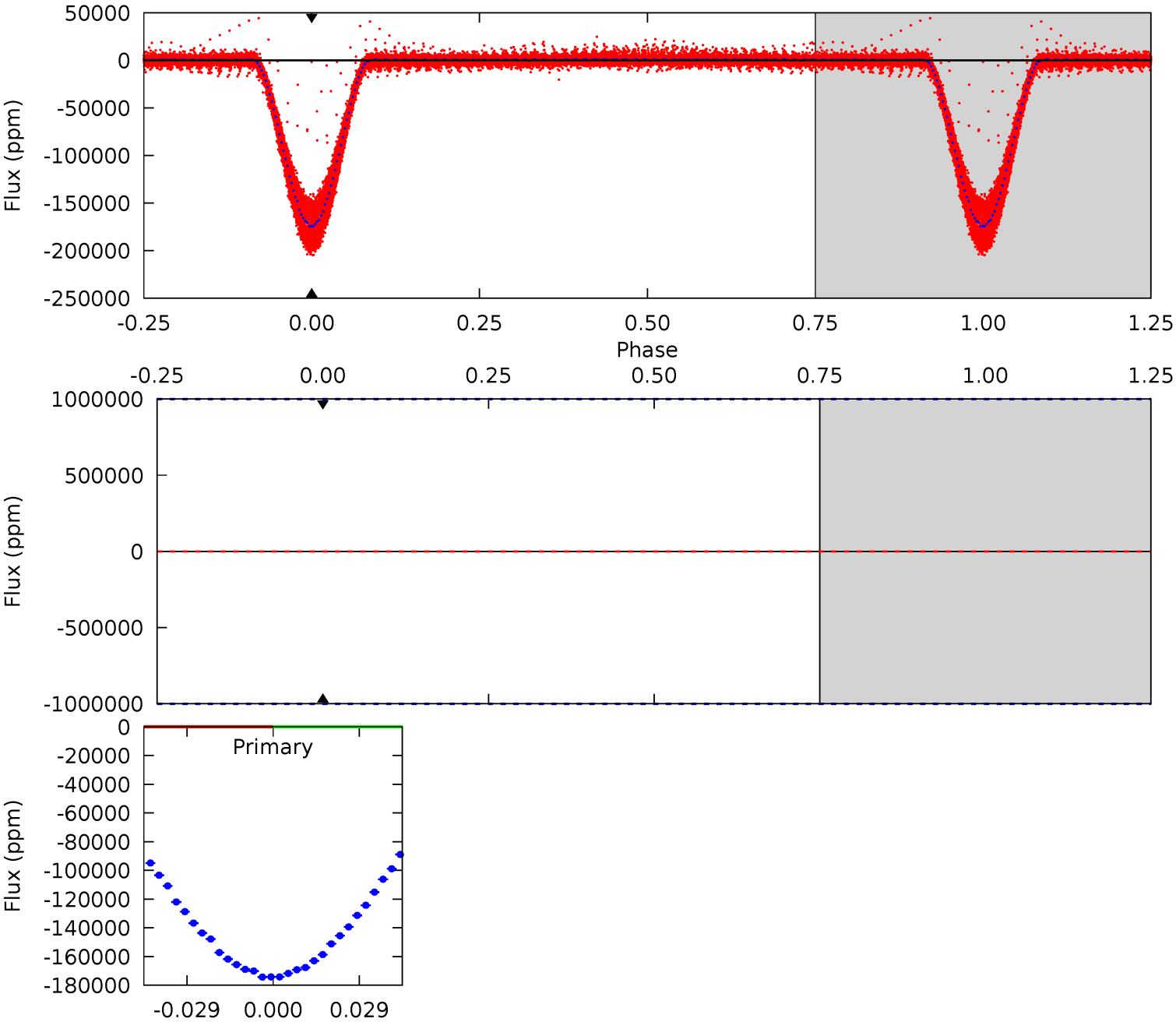
TCE 005565486-01 P= 1.412529 Days  $T_0=131.701649$  (BKJD)



# DV Model-Shift Uniqueness Test

005565486-01, P = 1.412529 Days, E = 131.701707 Days

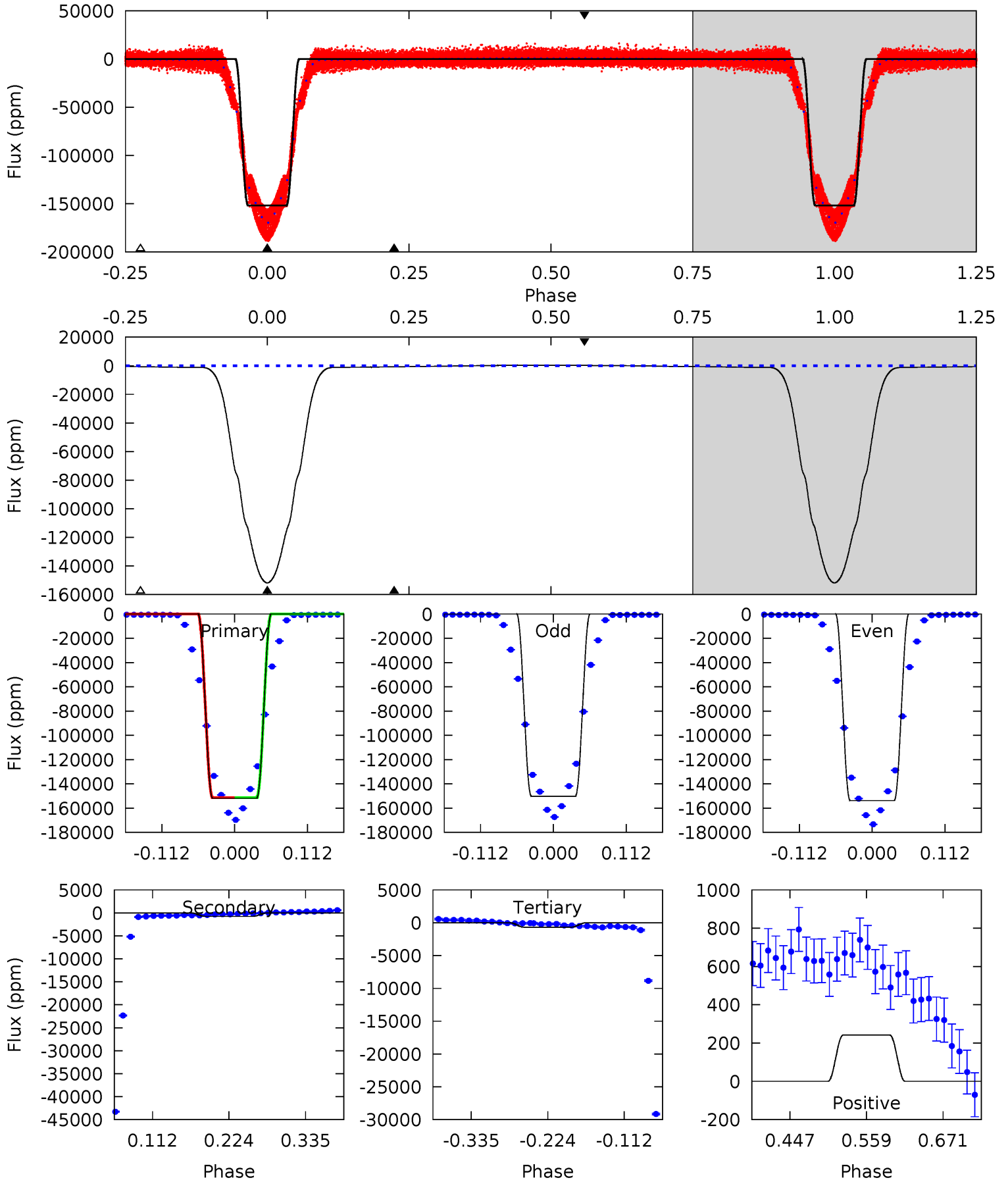
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



# Alt Model-Shift Uniqueness Test

005565486-01, P = 1.412529 Days, E = 131.701649 Days

Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2851	14.3	12.8	4.55	4.54	1.59	8.91	2838	2847	1.52	9.76	33.9	0.99	0.00	0.52



### Stellar Parameters For KIC 005565486

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$6690^{+185}_{-278}$	$4.375^{+0.062}_{-0.175}$	$-0.220^{+0.250}_{-0.300}$	$1.174^{+0.344}_{-0.147}$	$1.198^{+0.165}_{-0.165}$	$1.044^{+0.346}_{-0.511}$
	+3%/-4%	+1%/-4%	+114%/-136%	+29%/-13%	+14%/-14%	+33%/-49%
Source	KIC0	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology  
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

### Secondary Eclipse Parameters for KIC 005565486-01 / KOI 3742.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	$A_{\text{obs}}$
DV	$0 \pm 1000000$	$24.47^{+13.07}_{-11.98}$	$2806^{+176}_{-142}$	$3862^{+7429}_{-13242}$	$1.817^{+105.119}_{-63.903}$
Alt.	$-762 \pm 53$	$55.05^{+15.28}_{-13.92}$	$2808^{+185}_{-158}$	$-2806^{+183}_{-147}$	$0.093^{+0.076}_{-0.035}$

$T_{\text{max}}$  = Theoretical Maximum Planetary Temperature

$T_{\text{obs}}$  = Observed Planetary Temperature (Assuming  $A=0.3$ )

$A_{\text{obs}}$  = Observed Albedo (Assuming  $T=0$ )

If a secondary eclipse is present, the system is likely an EB if  $T_{\text{obs}} \gg T_{\text{max}}$  AND  $A_{\text{obs}} \gg 1.0$

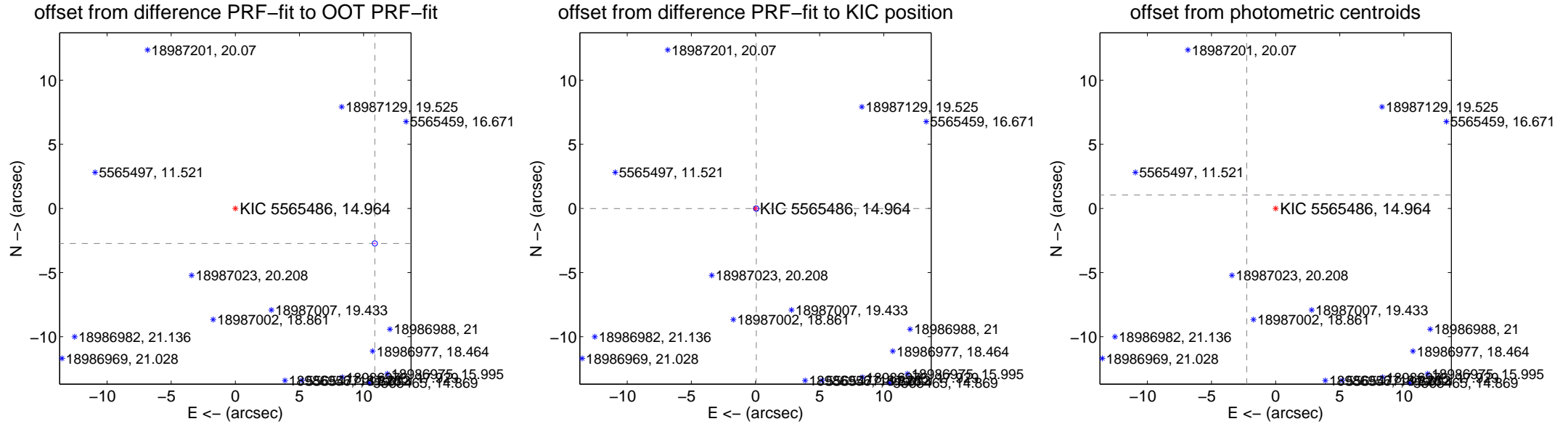
## DV Centroid Data

Supplemental centroid analysis for 005565486-01. Kepler magnitude: 14.96. Transit SNR -1.00

There are 14 quarters with good PRF difference image offsets

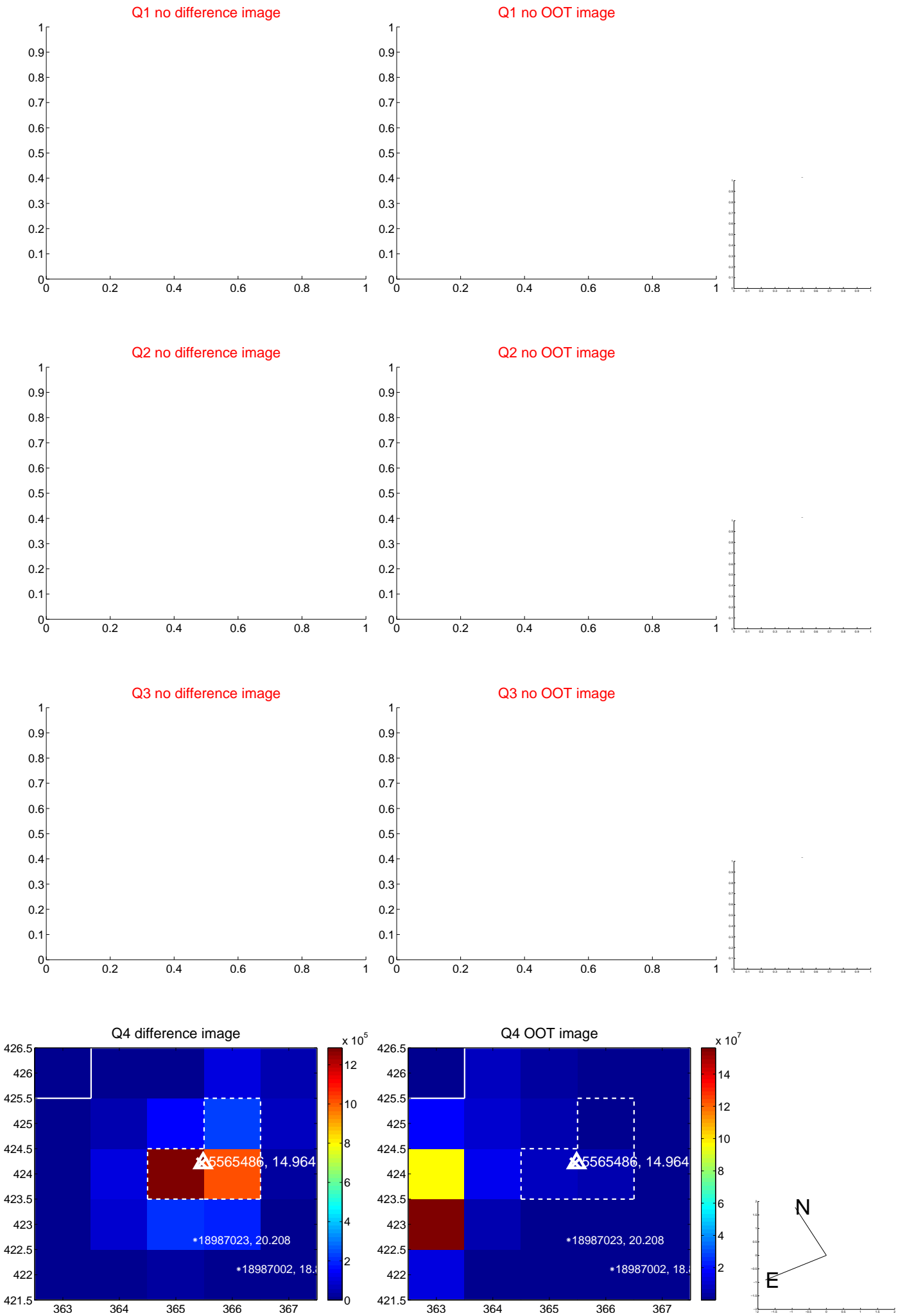
The OOT PRF centroid is offset from the target star catalog position by about 11.10 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	<b>11.212 <math>\pm</math> 0.067</b>	<b>167.65</b>	-10.875 $\pm$ 0.067	-2.731 $\pm$ 0.067
PRF-fit source offset from KIC position	0.059 $\pm$ 0.069	0.86	-0.059 $\pm$ 0.069	-0.007 $\pm$ 0.068
photometric centroid source offset	<b>2.48 <math>\pm</math> 0.00</b>	<b>3605.81</b>	2.25 $\pm$ 0.00	1.05 $\pm$ 0.00

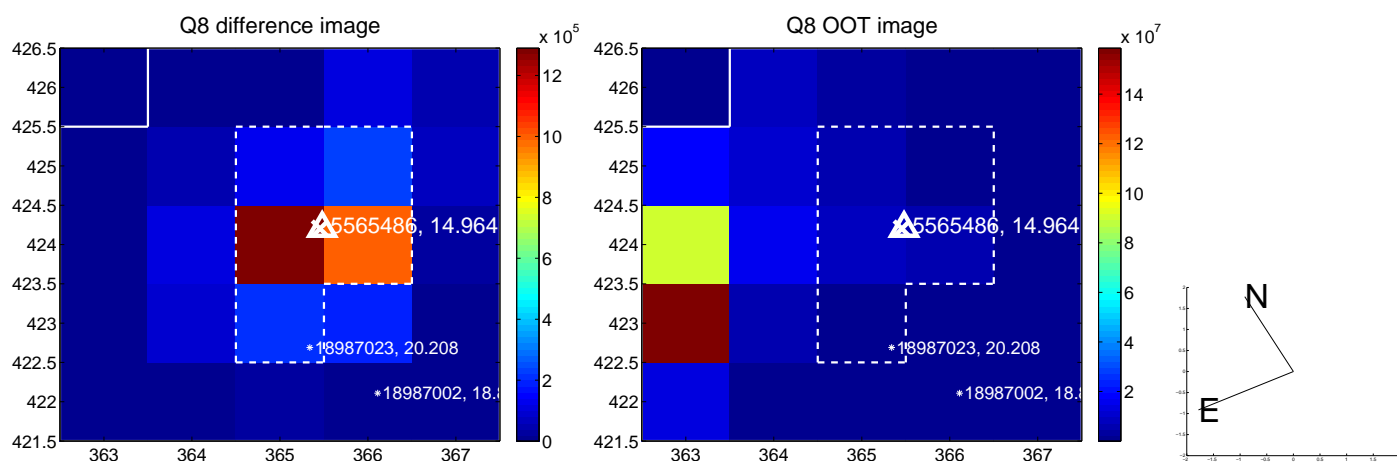
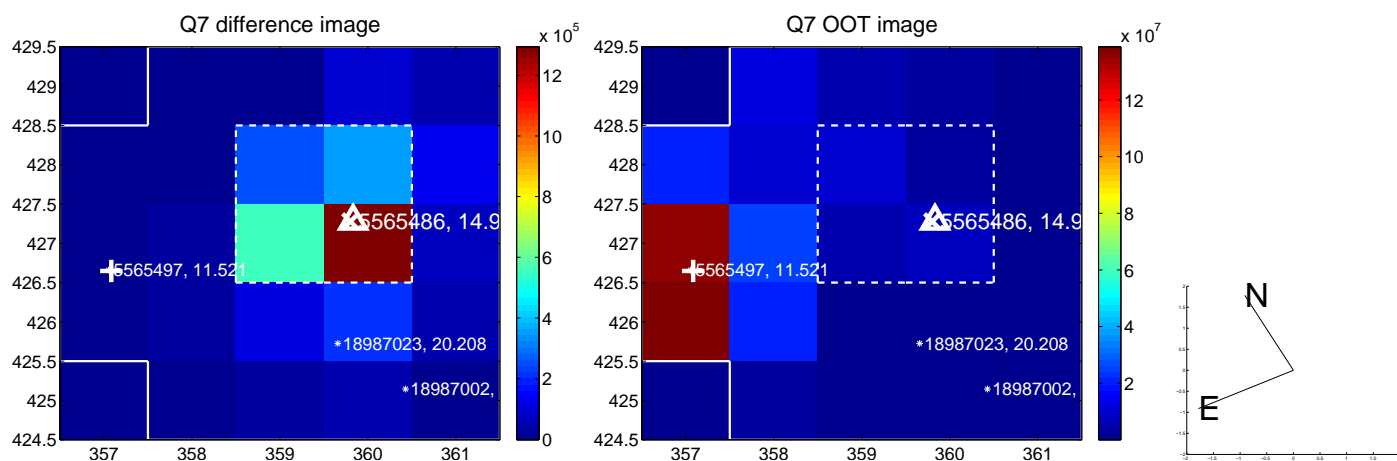
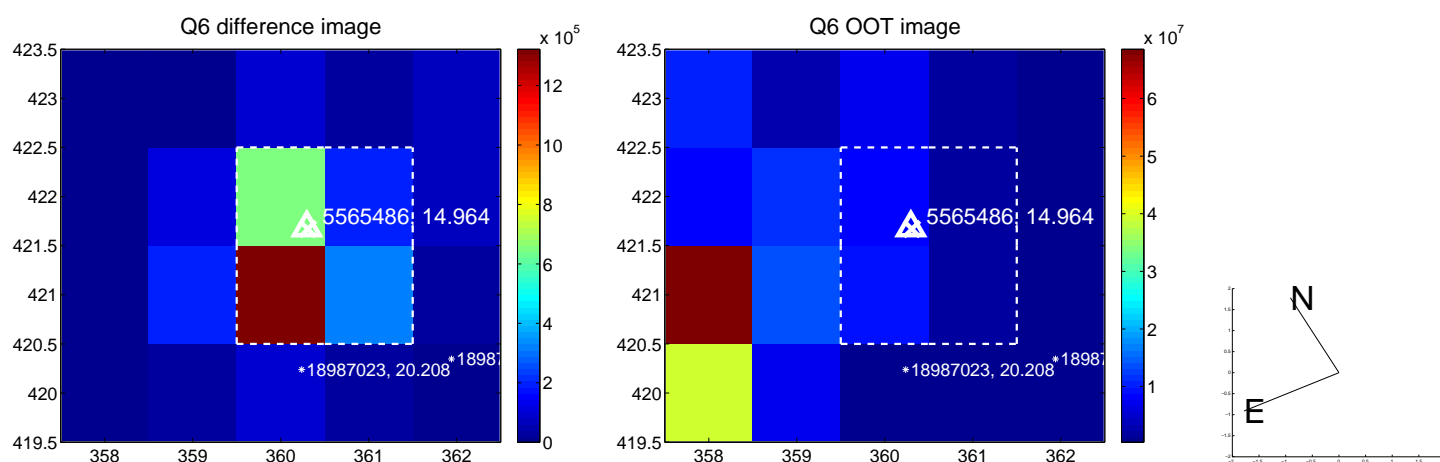
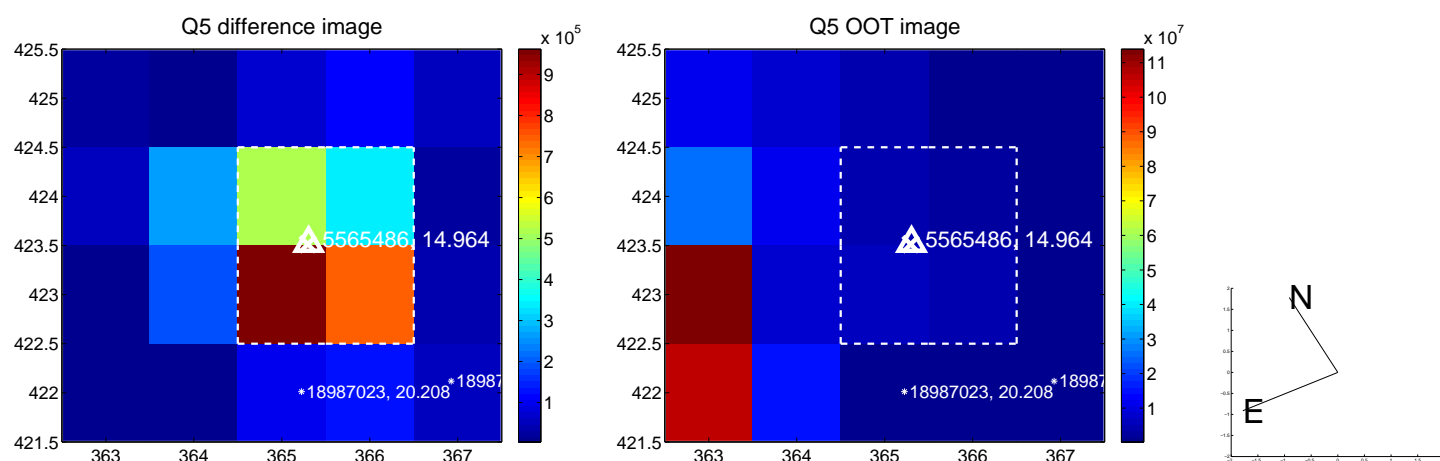


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three- $\sigma$ . Red \*: target star. Blue \*: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

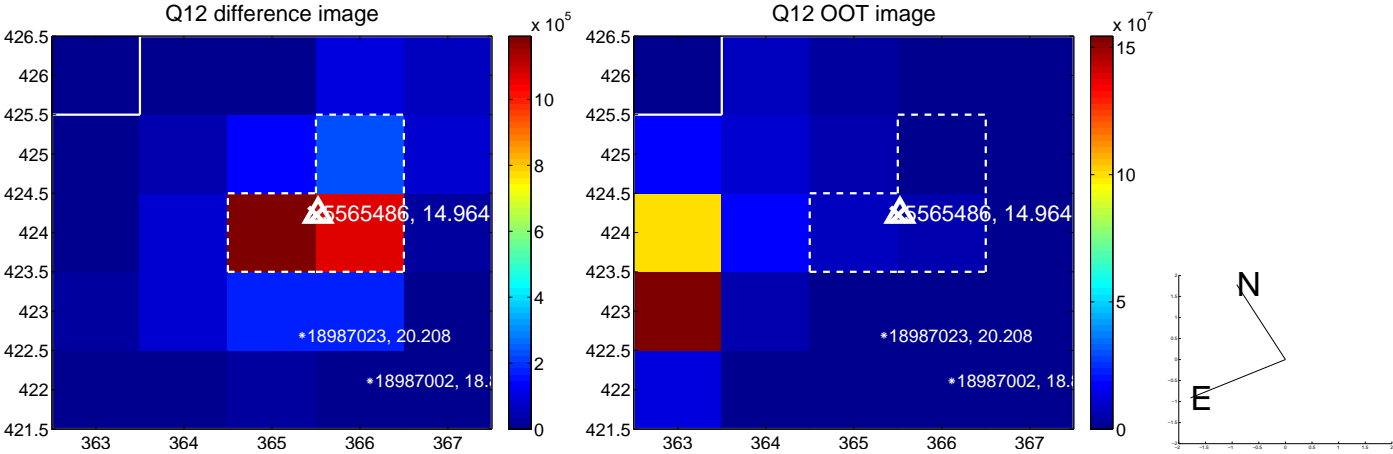
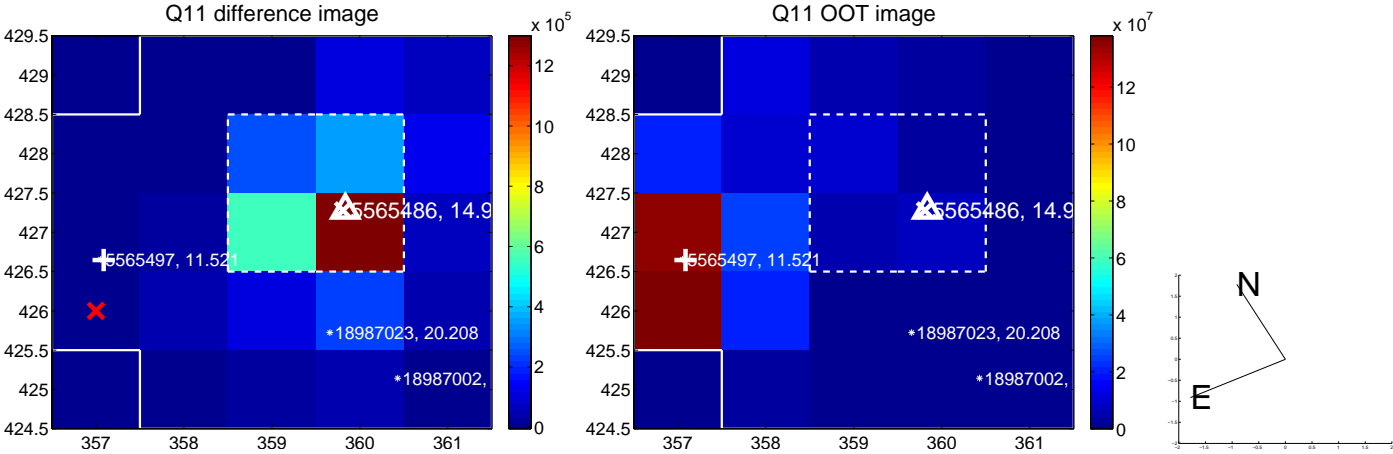
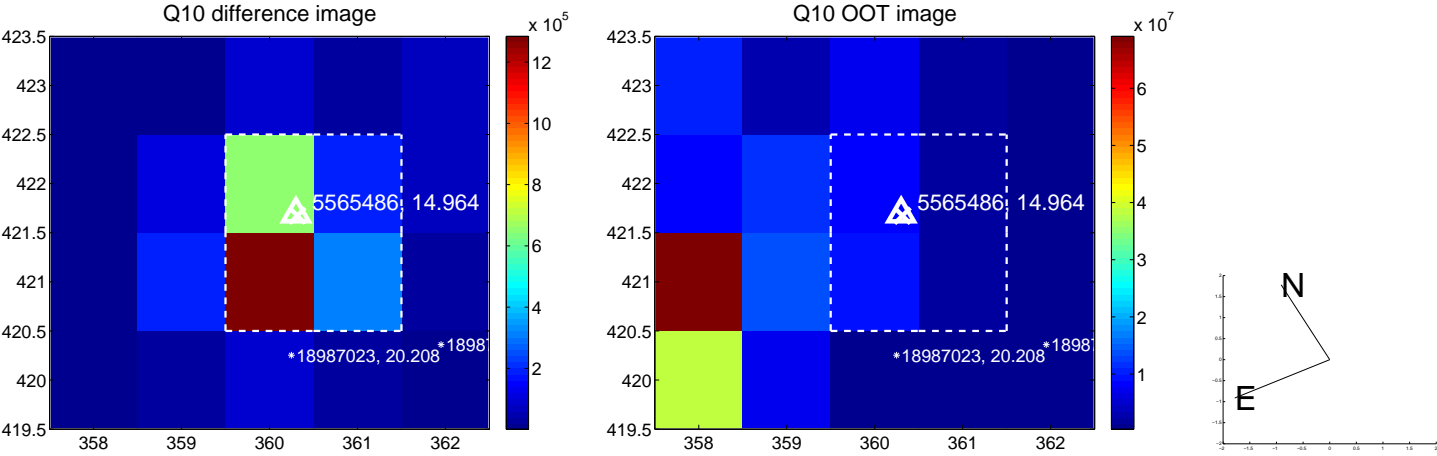
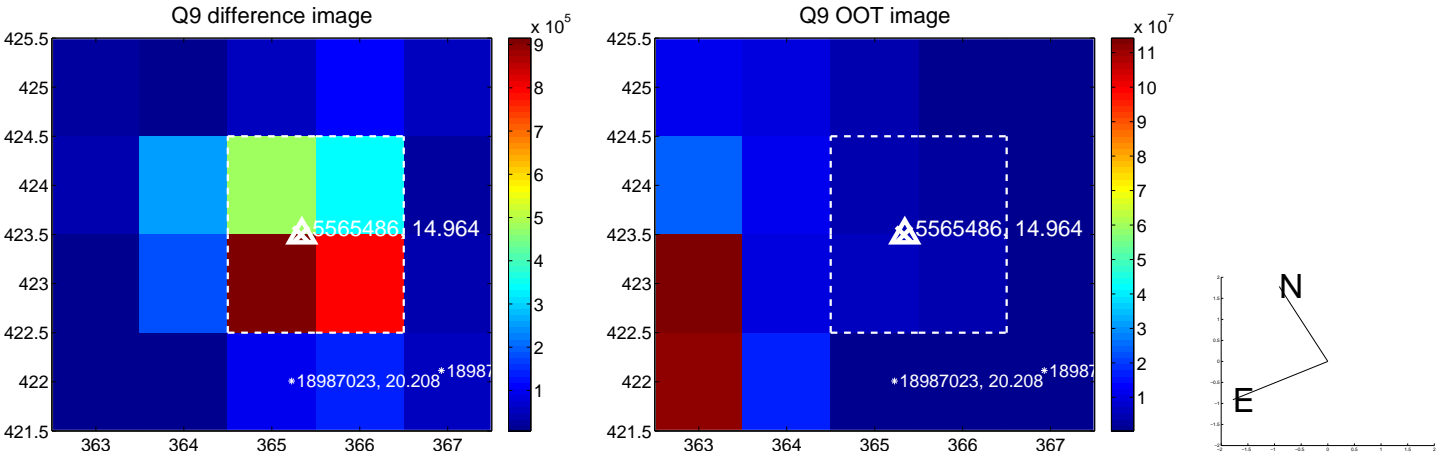


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value

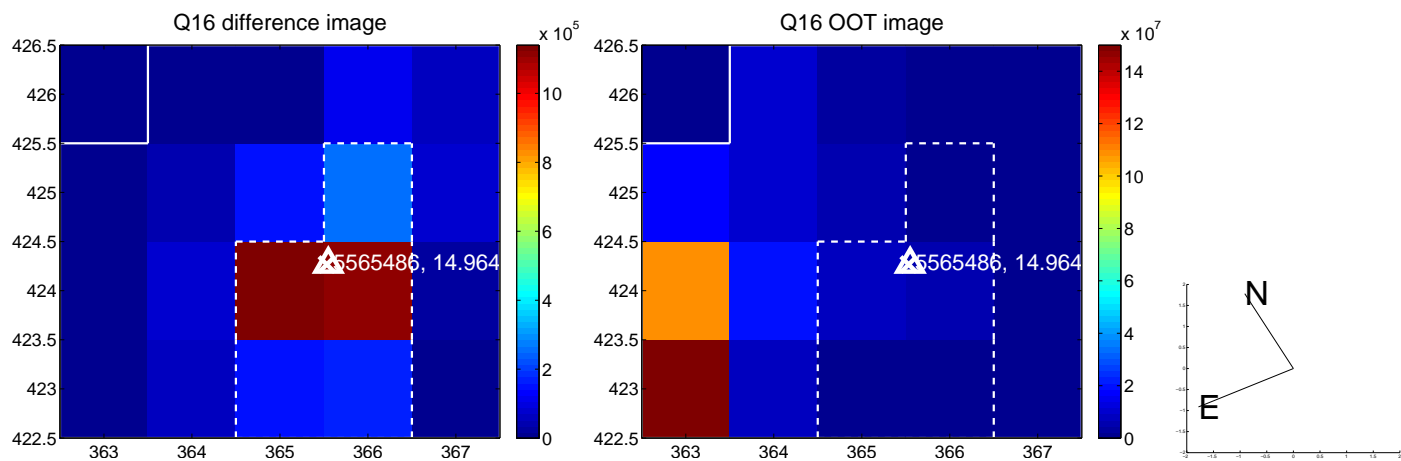
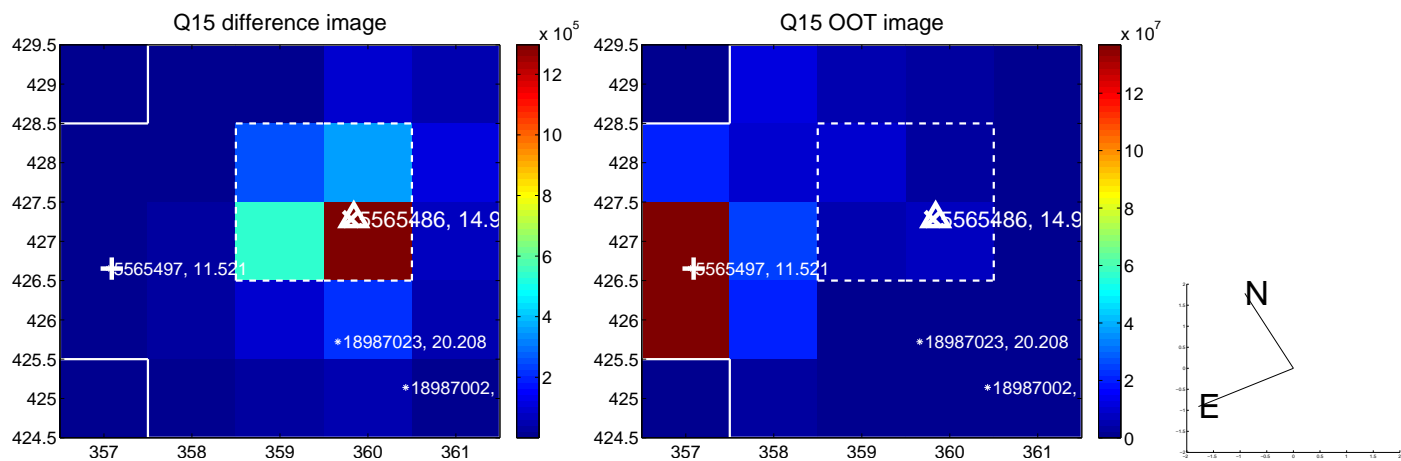
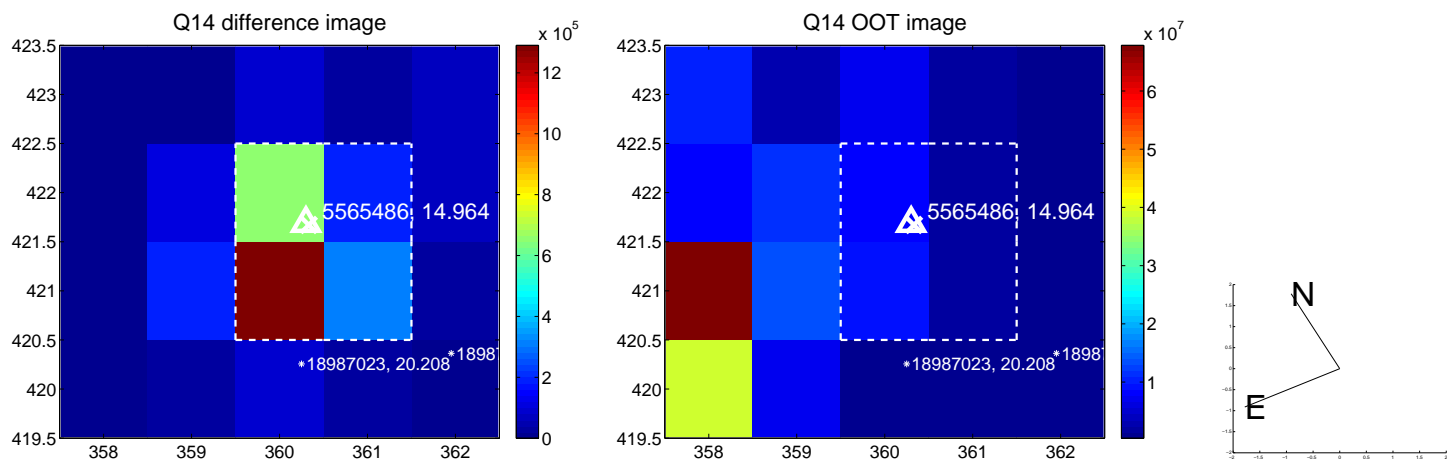
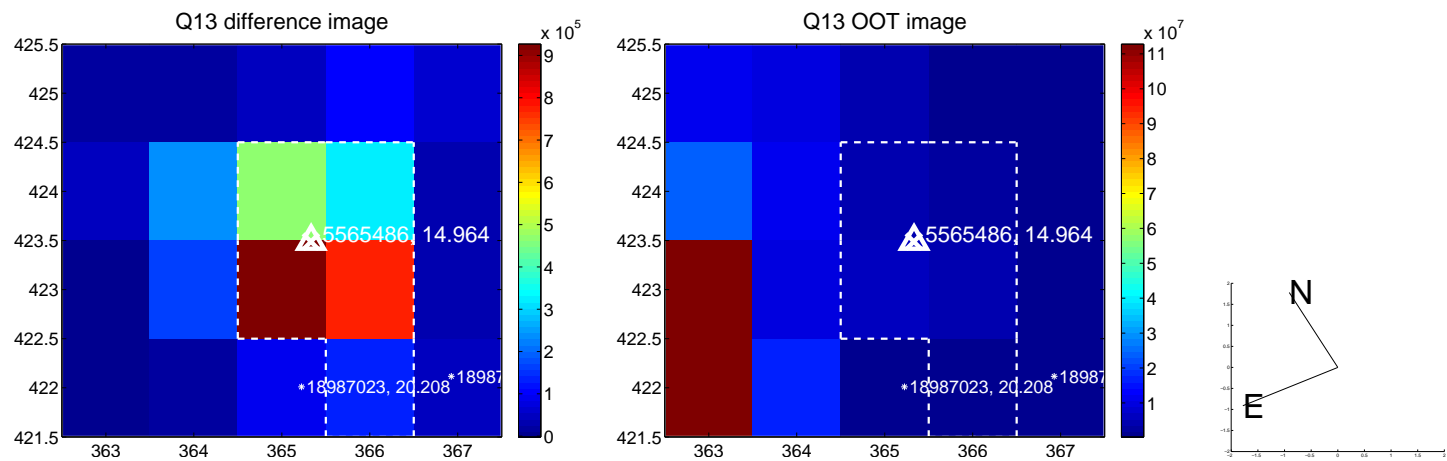




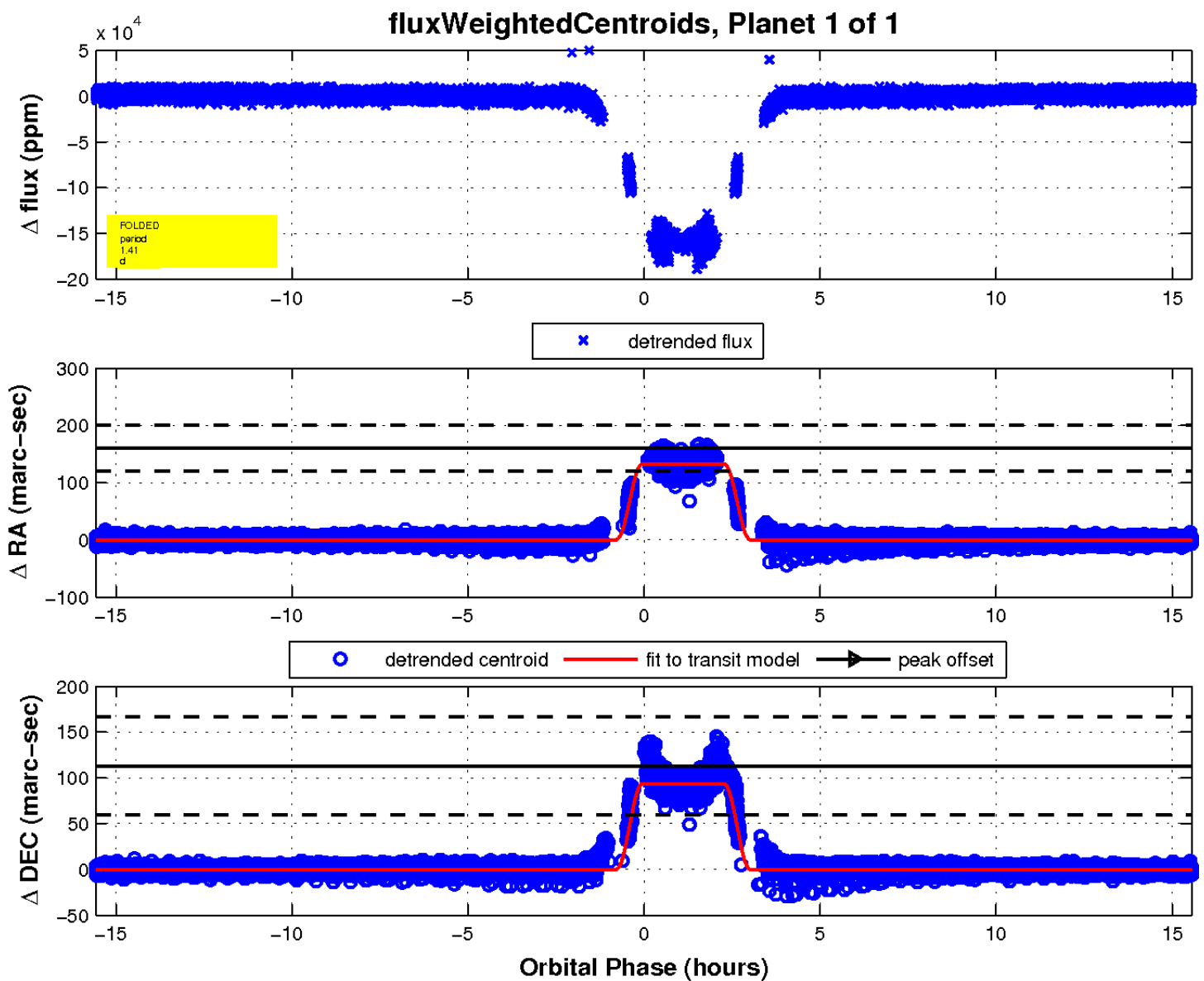
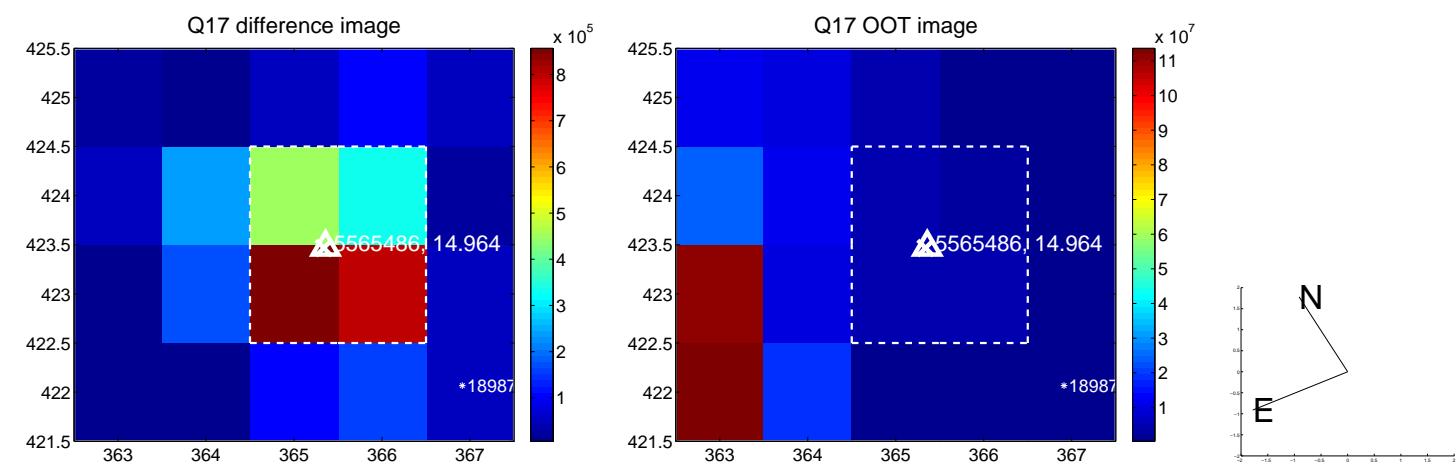
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



UKIRT Image

Declination

