

# KIC 005955379

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
005955379-01	OBS	No	1.092328	132.391713	51.1	9.466	7.8	11.9	0.76	5332	0.54	1228.25

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005955379-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_FEW_DIFFS

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

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

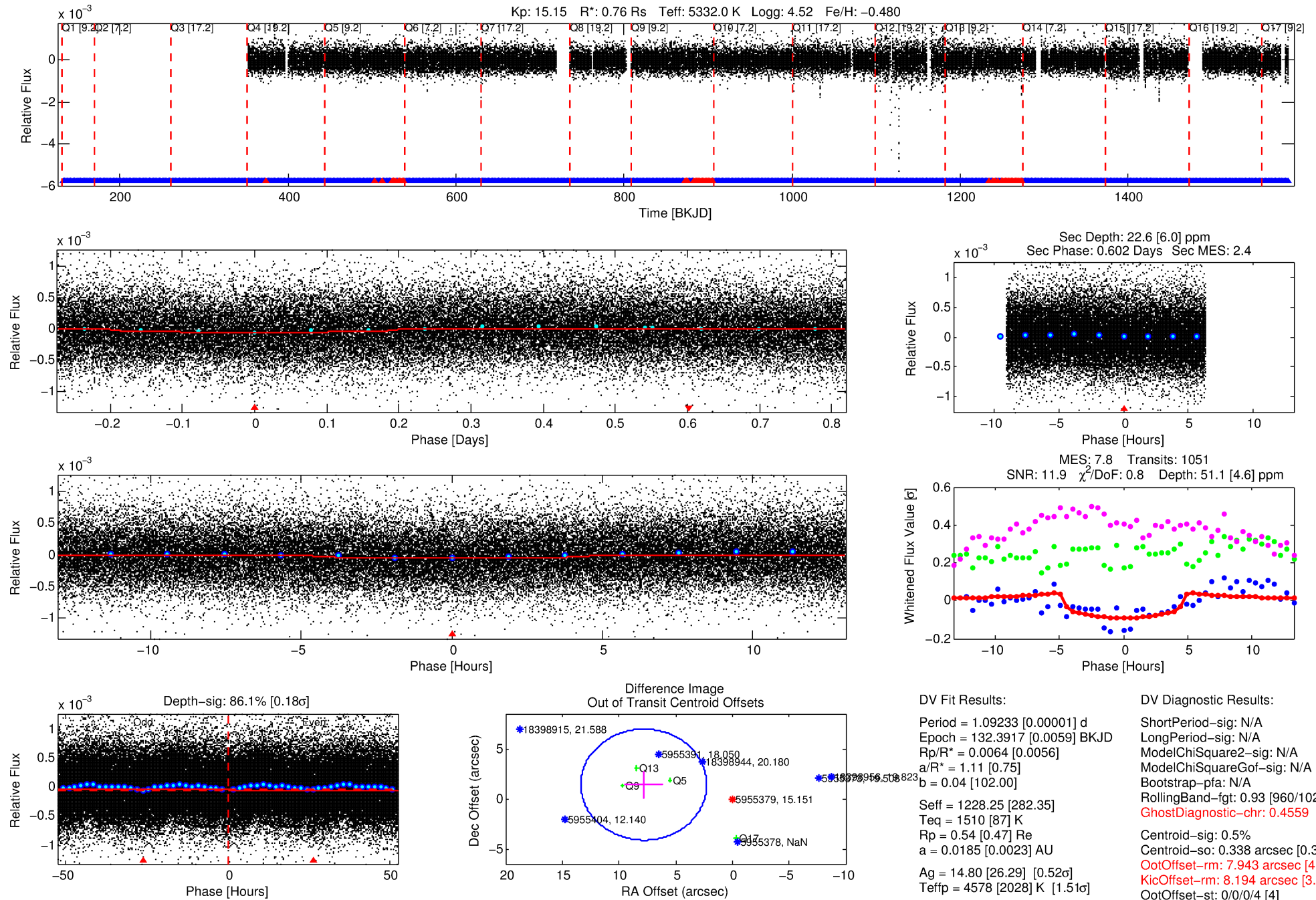
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 005955379-01

No Significant Match Found

# DV One-Page Summary

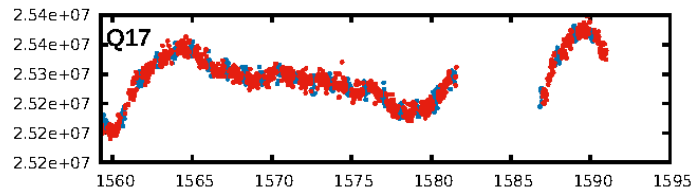
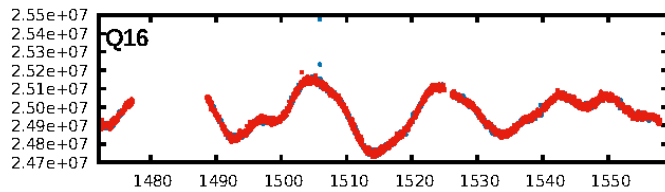
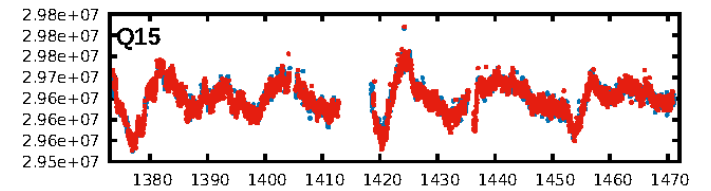
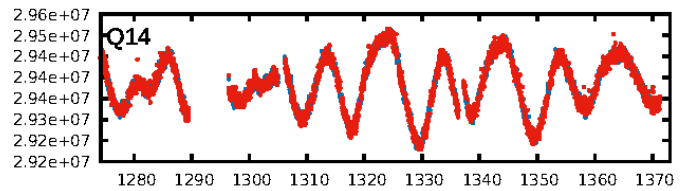
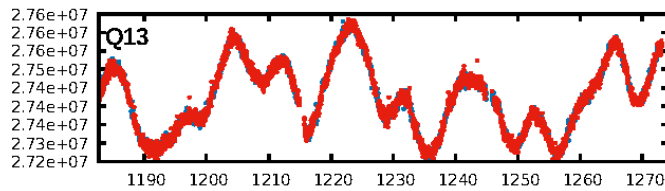
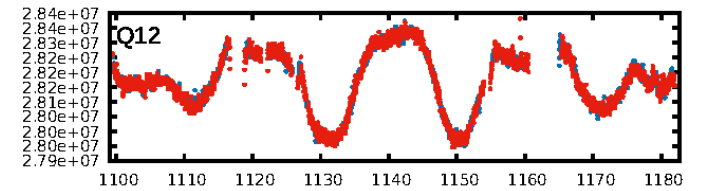
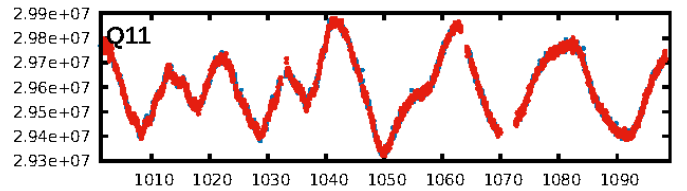
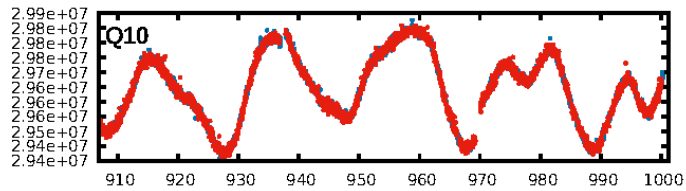
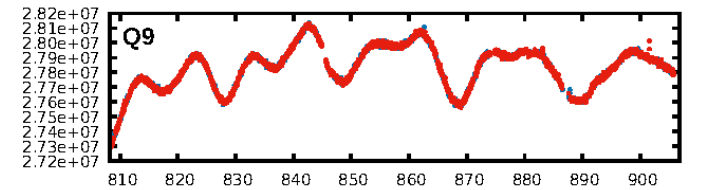
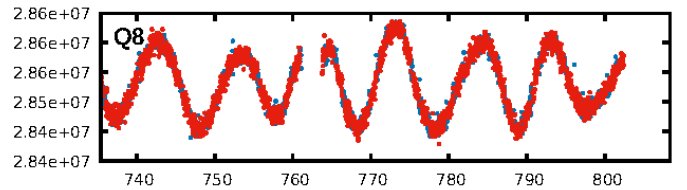
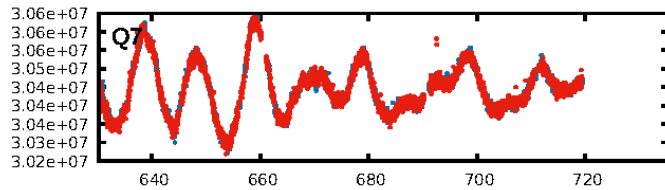
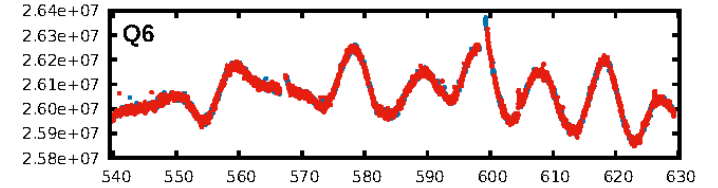
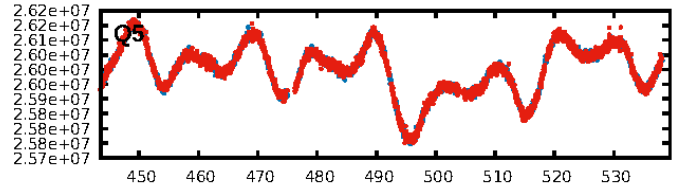
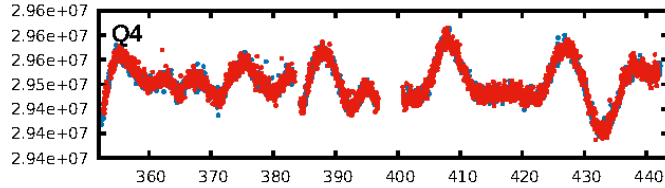
KIC: 5955379 Candidate: 1 of 1 Period: 1.092 d



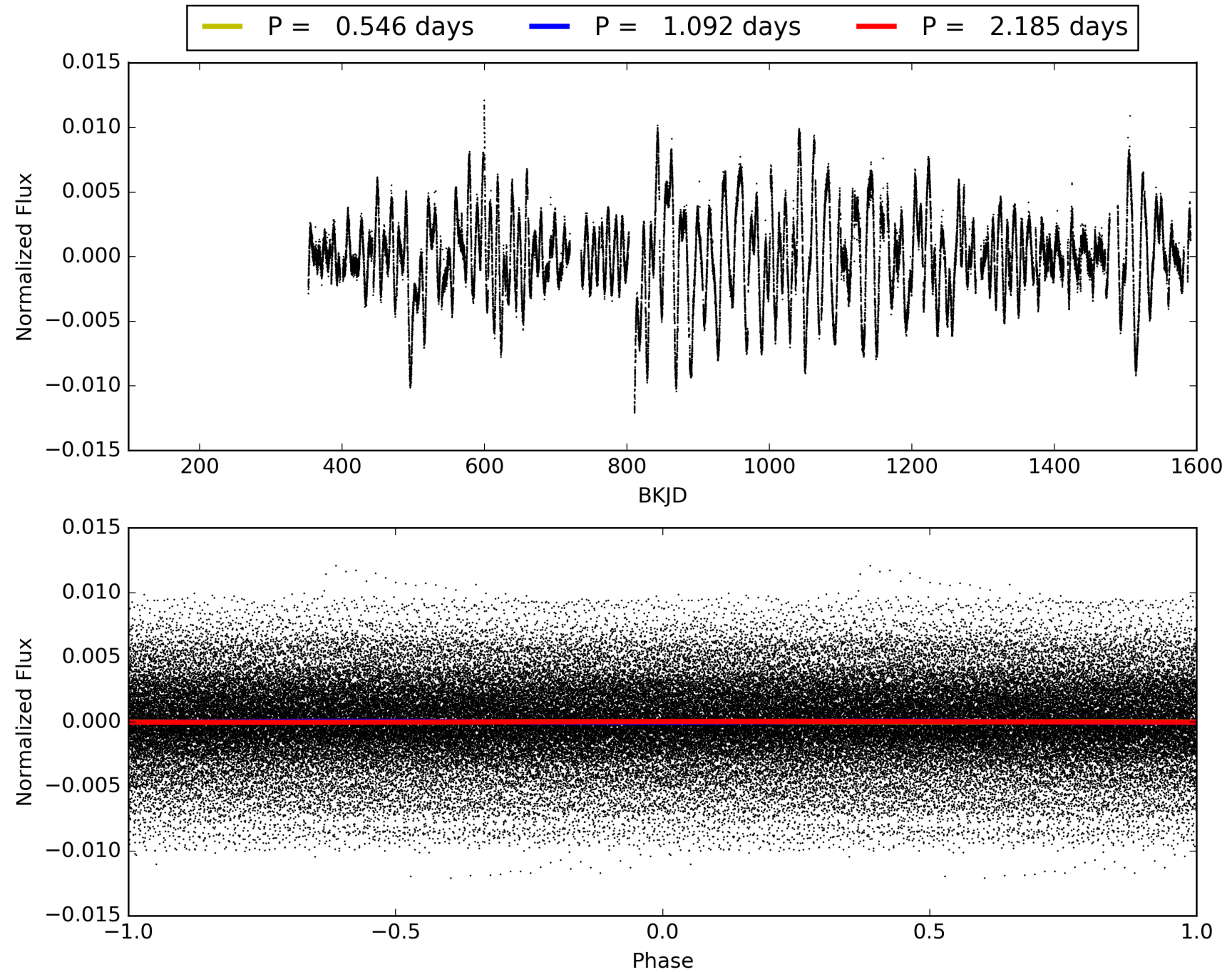
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 19:54:56 Z

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

# TCE 005955379-01, PDC Light Curves

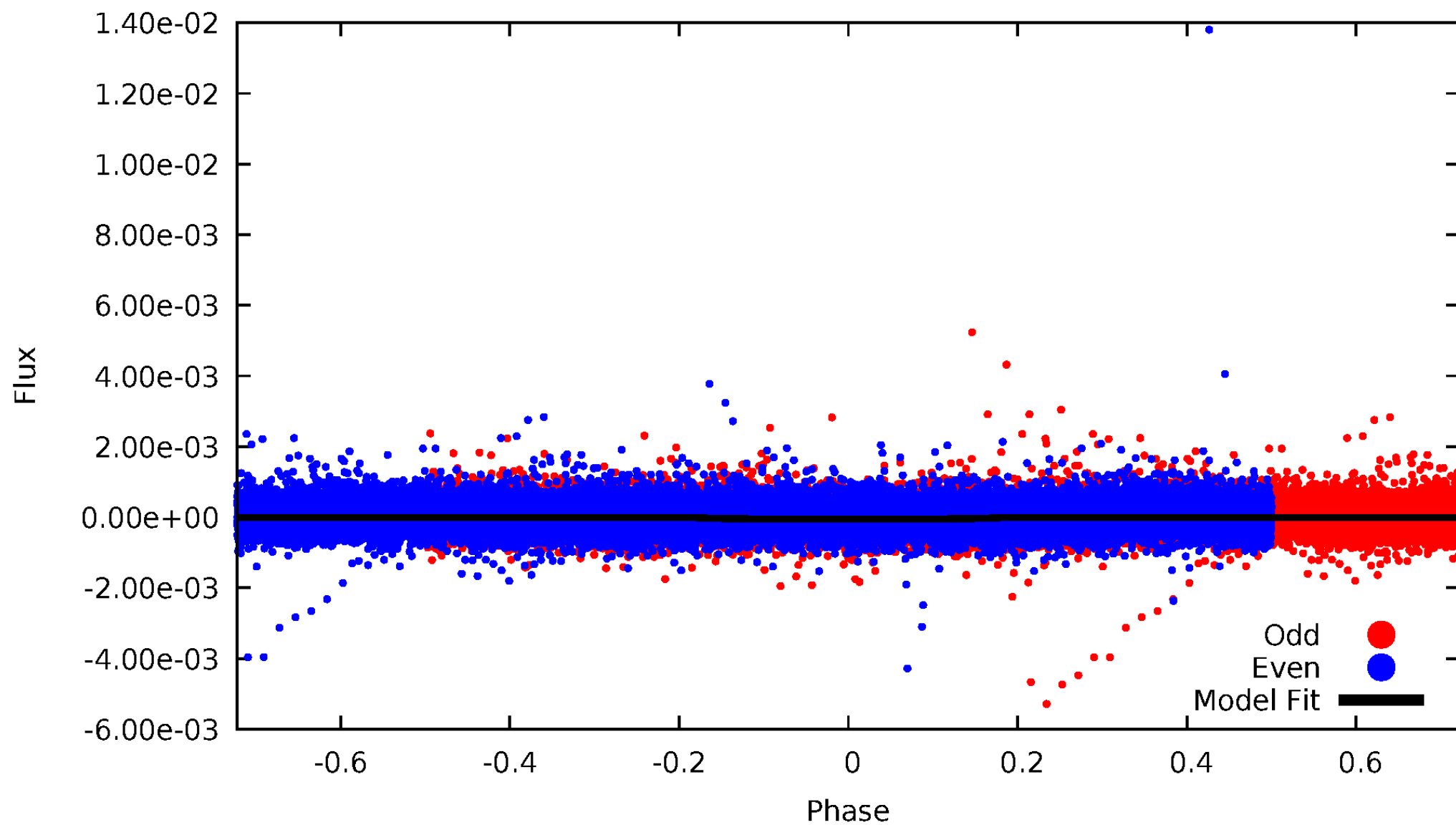


TCE 005955379-01



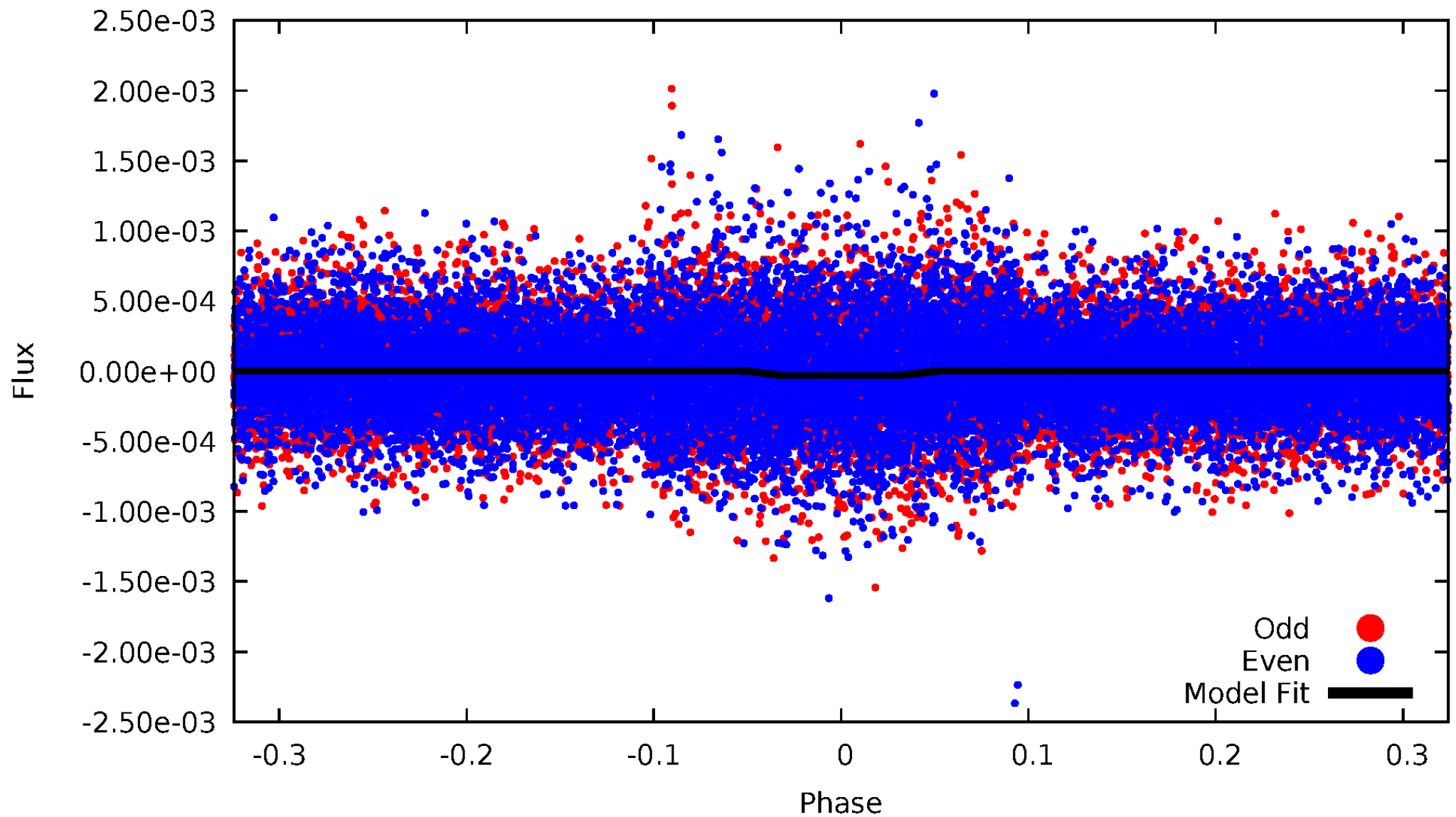
# DV Odd/Even

TCE 005955379-01



# ALT Odd/Even

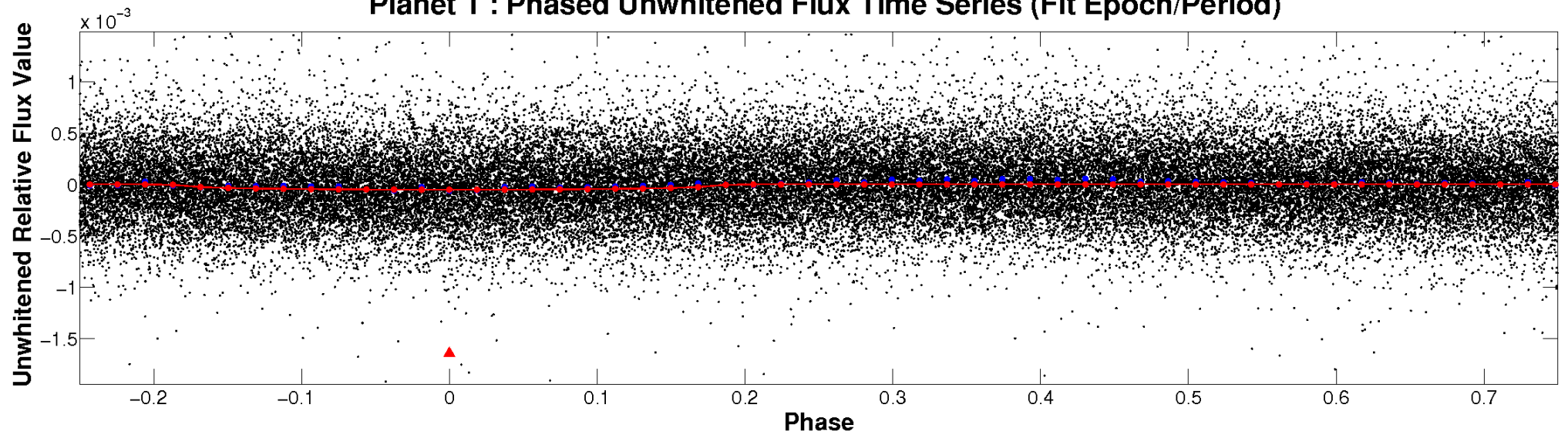
TCE 005955379-01



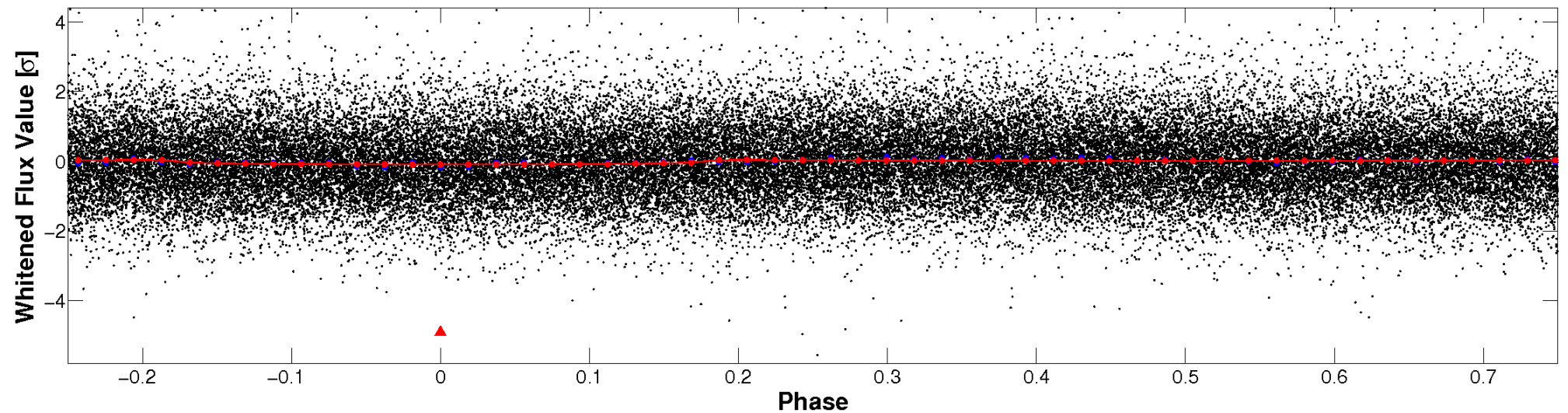


# Non-Whitened Vs. Whitened Light Curve

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

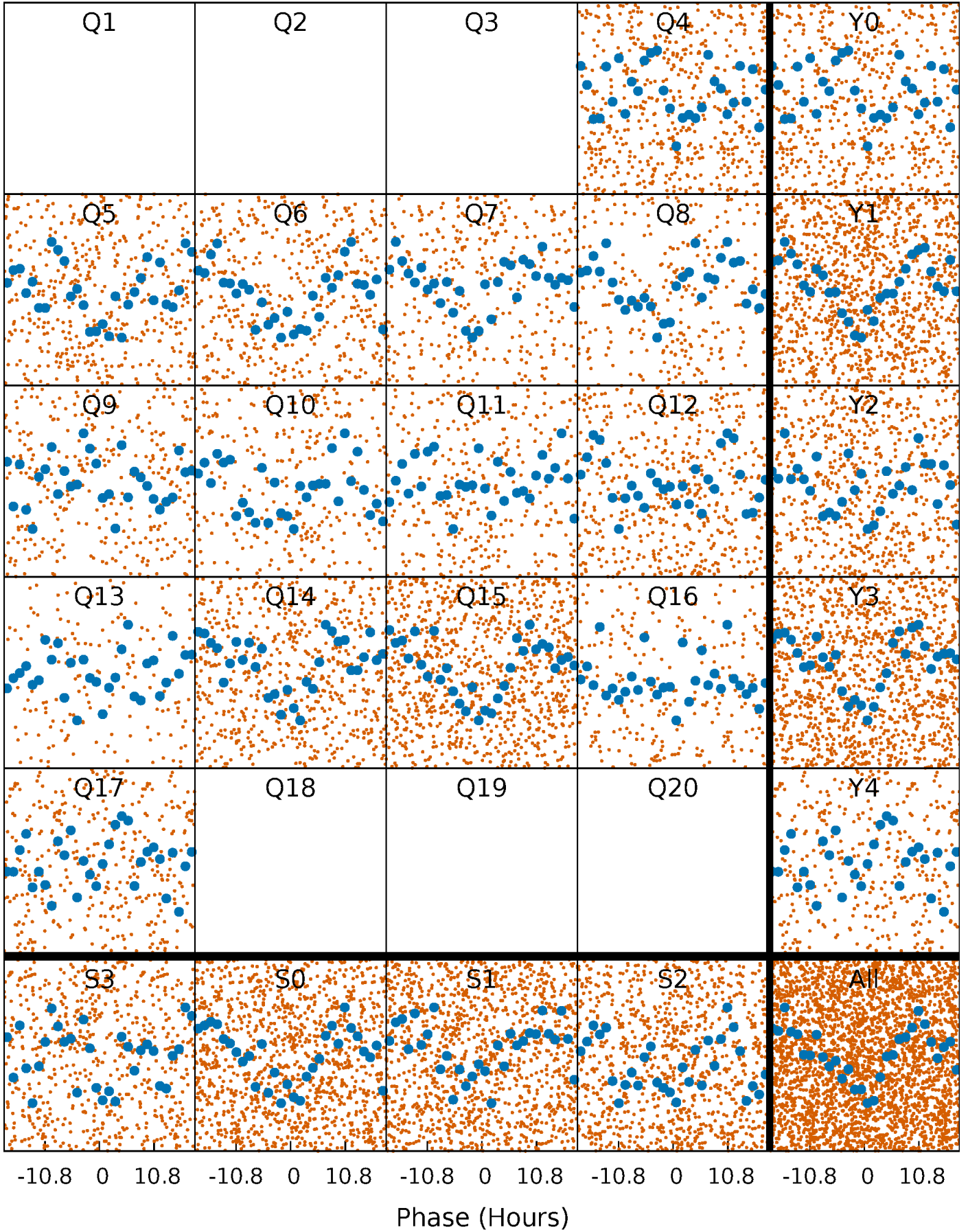


**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**



# PDC Quarter-Phased Transit Curves

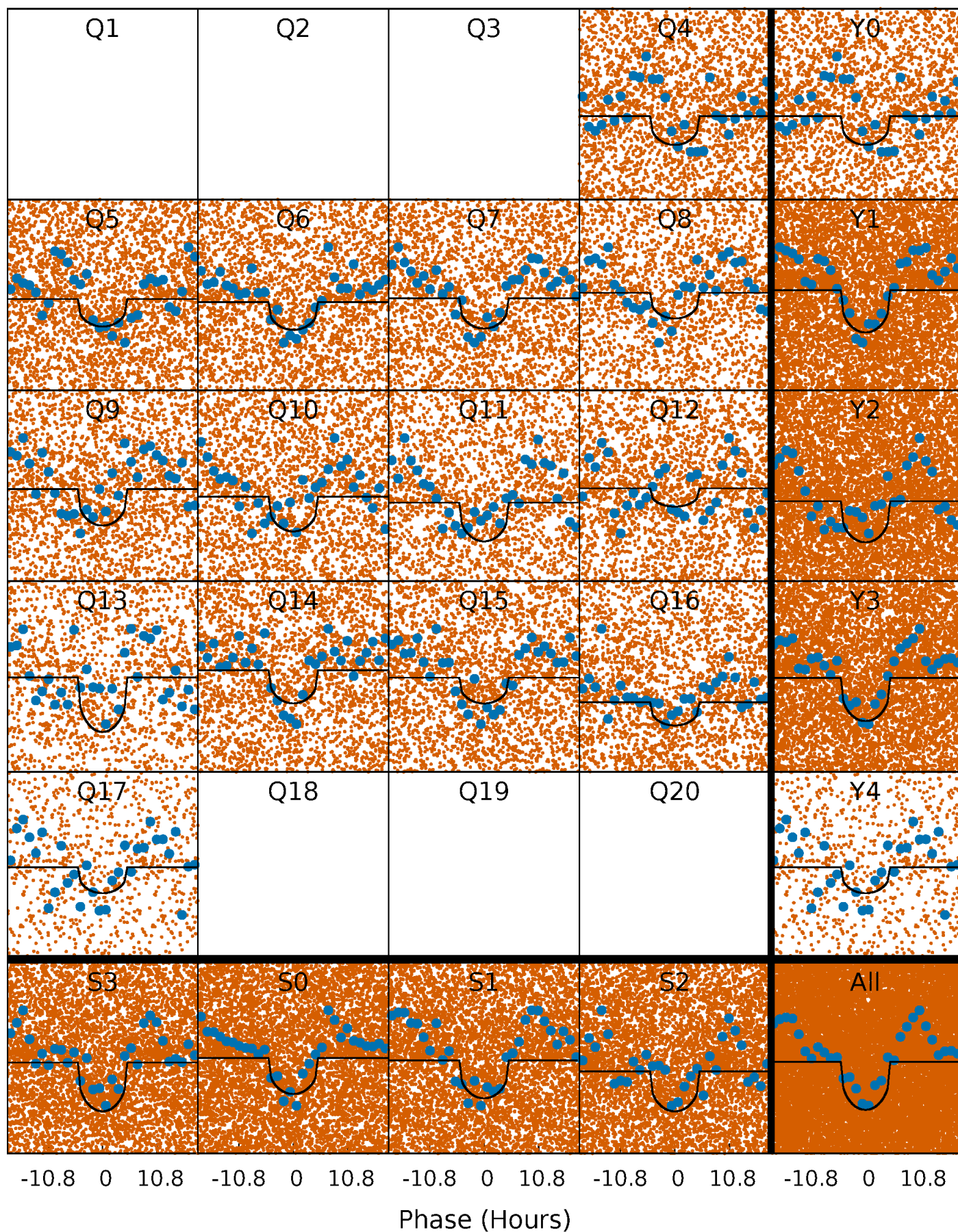
TCE 005955379-01   P= 1.092328 Days    $T_0=132.391713$  (BKJD)





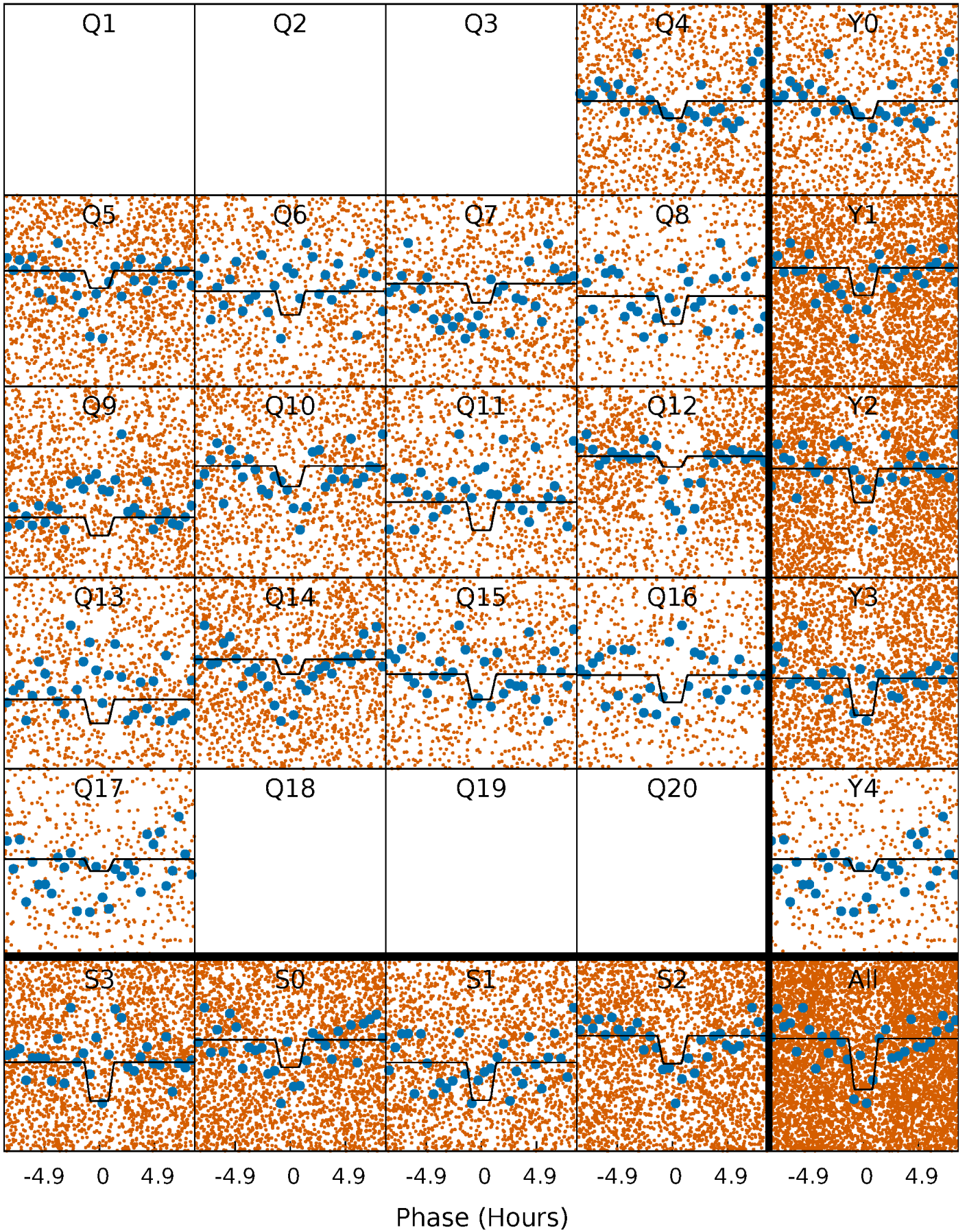
# DV Quarter-Phased Transit Curves

TCE 005955379-01 P= 1.092328 Days  $T_0=132.391713$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

TCE 005955379-01 P= 1.092339 Days  $T_0=132.375736$  (BKJD)

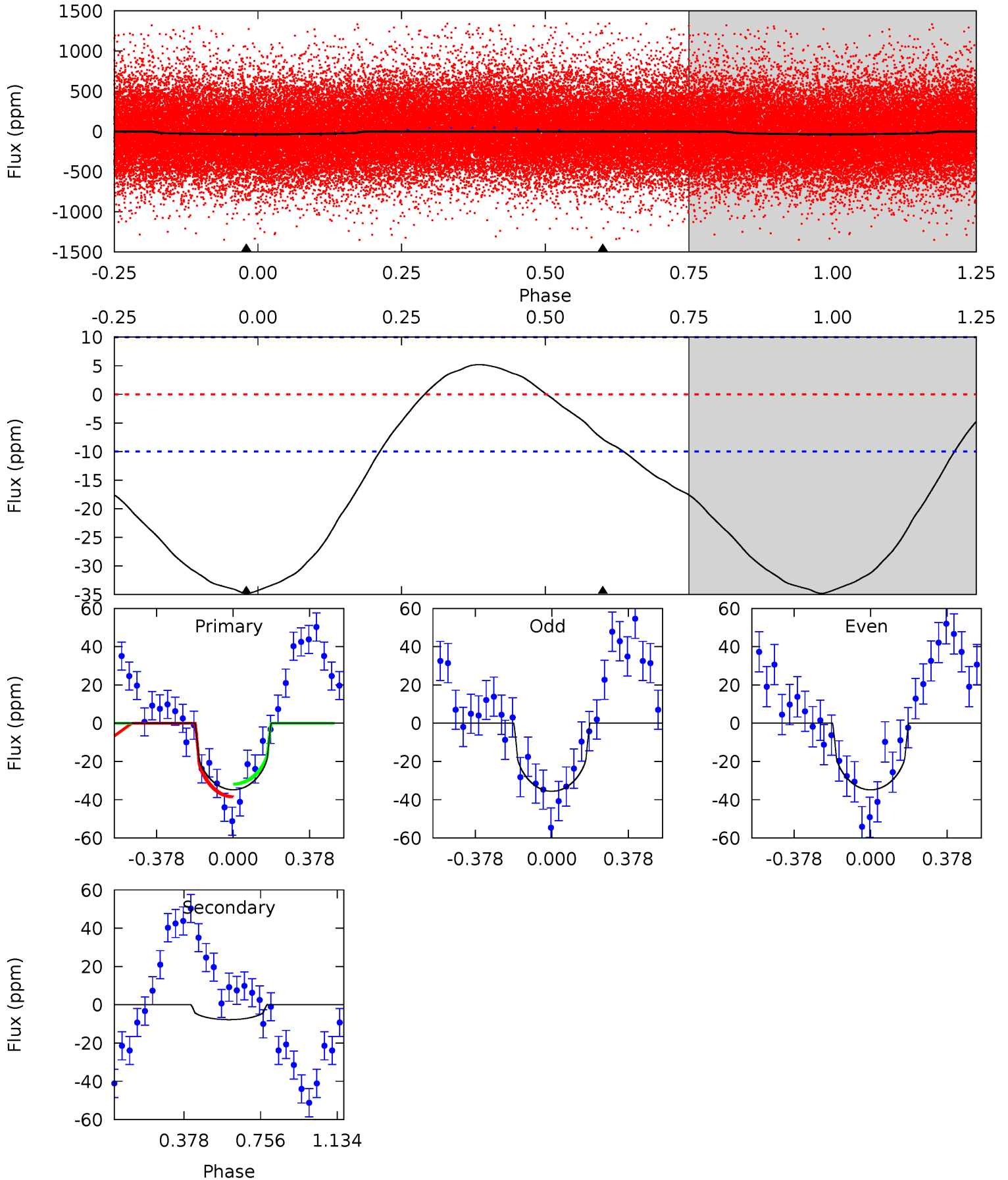




# DV Model-Shift Uniqueness Test

005955379-01, P = 1.092328 Days, E = 132.391713 Days

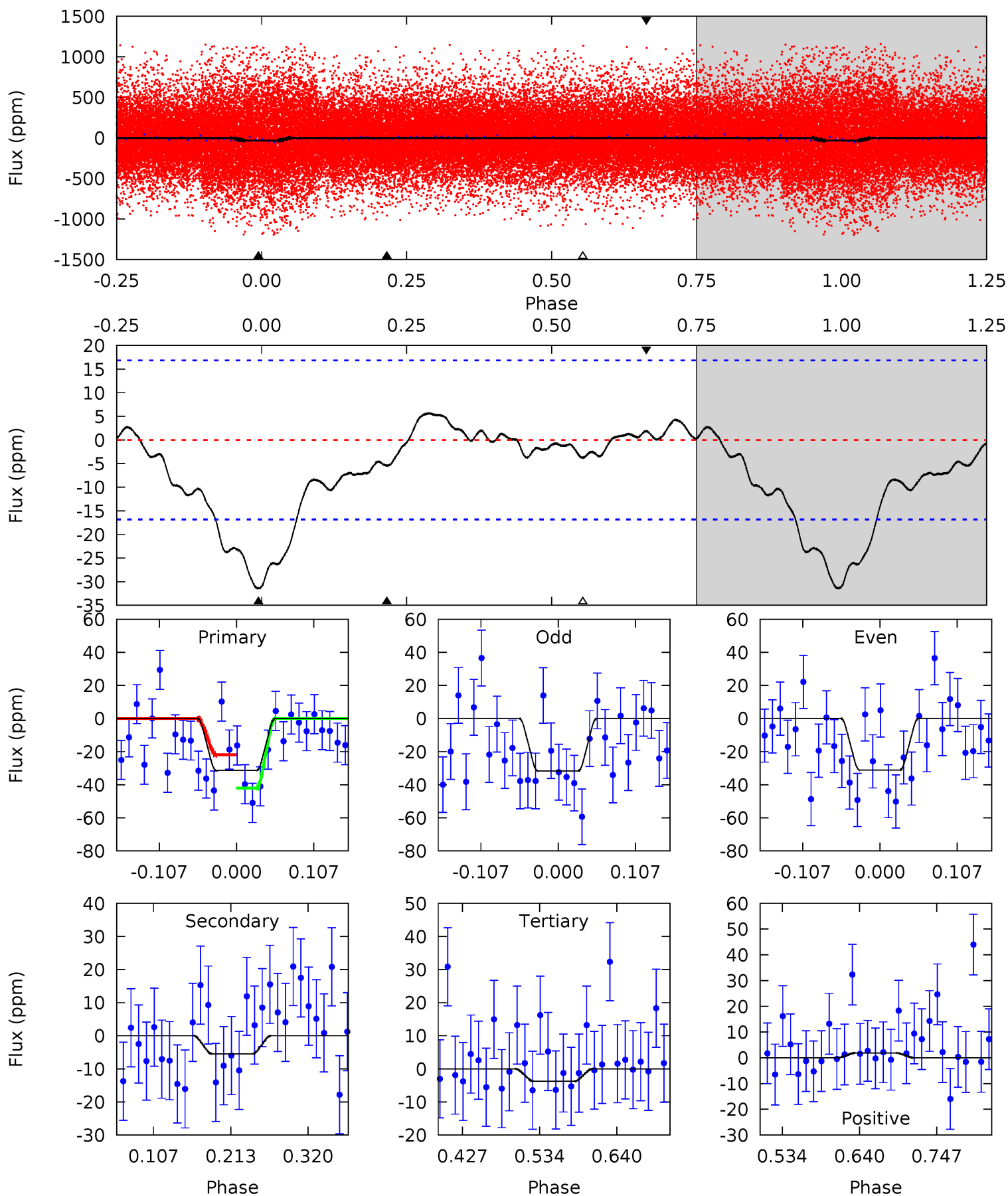
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.9	3.34	0	0	4.28	0.88	1.29	14.9	14.9	3.34	3.34	0.16	1.00	0.13	1.43



# Alt Model-Shift Uniqueness Test

005955379-01, P = 1.092339 Days, E = 132.375736 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
8.49	1.48	1.02	0.51	4.55	1.61	0.99	7.47	7.98	0.46	0.97	0.07	1.12	0.15	2.73



### Stellar Parameters For KIC 005955379

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M(M_{\odot})$	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$5332^{+187}_{-187}$	$4.524^{+0.100}_{-0.100}$	$-0.480^{+0.350}_{-0.300}$	$0.762^{+0.112}_{-0.092}$	$0.708^{+0.115}_{-0.038}$	$2.254^{+0.939}_{-0.665}$
	+4%/-4%	+2%/-2%	+73%/-62%	+15%/-12%	+16%/-5%	+42%/-30%
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 005955379-01 / KOI

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{max}$ (K)	$T_{obs}$ (K)	$A_{obs}$
DV	$-8 \pm 2$	$0.62^{+0.45}_{-0.37}$	$2111^{+122}_{-104}$	$3643^{+1557}_{-676}$	$3.747^{+19.921}_{-2.514}$
Alt.	$-5 \pm 4$	$0.58^{+0.44}_{-0.36}$	$2110^{+106}_{-105}$	$3418^{+1489}_{-947}$	$2.700^{+16.758}_{-2.154}$

$T_{max}$  = Theoretical Maximum Planetary Temperature

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

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

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



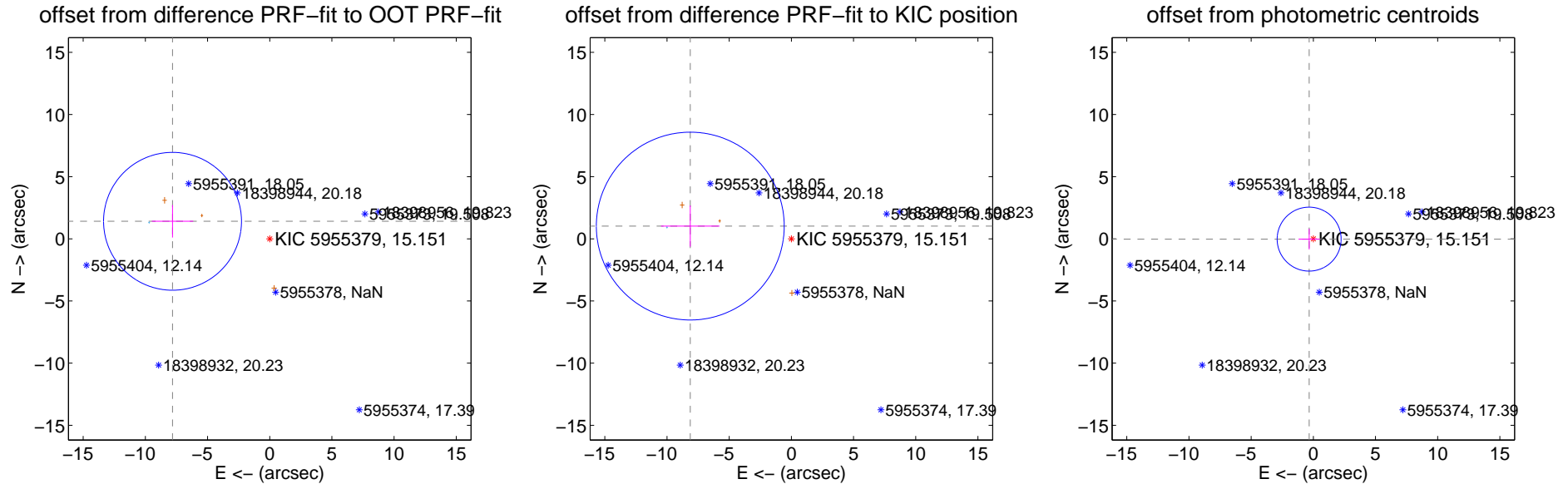
## DV Centroid Data

Supplemental centroid analysis for 005955379-01. Kepler magnitude: 15.15. Transit SNR 11.87

There are 1 quarters with good PRF difference image offsets

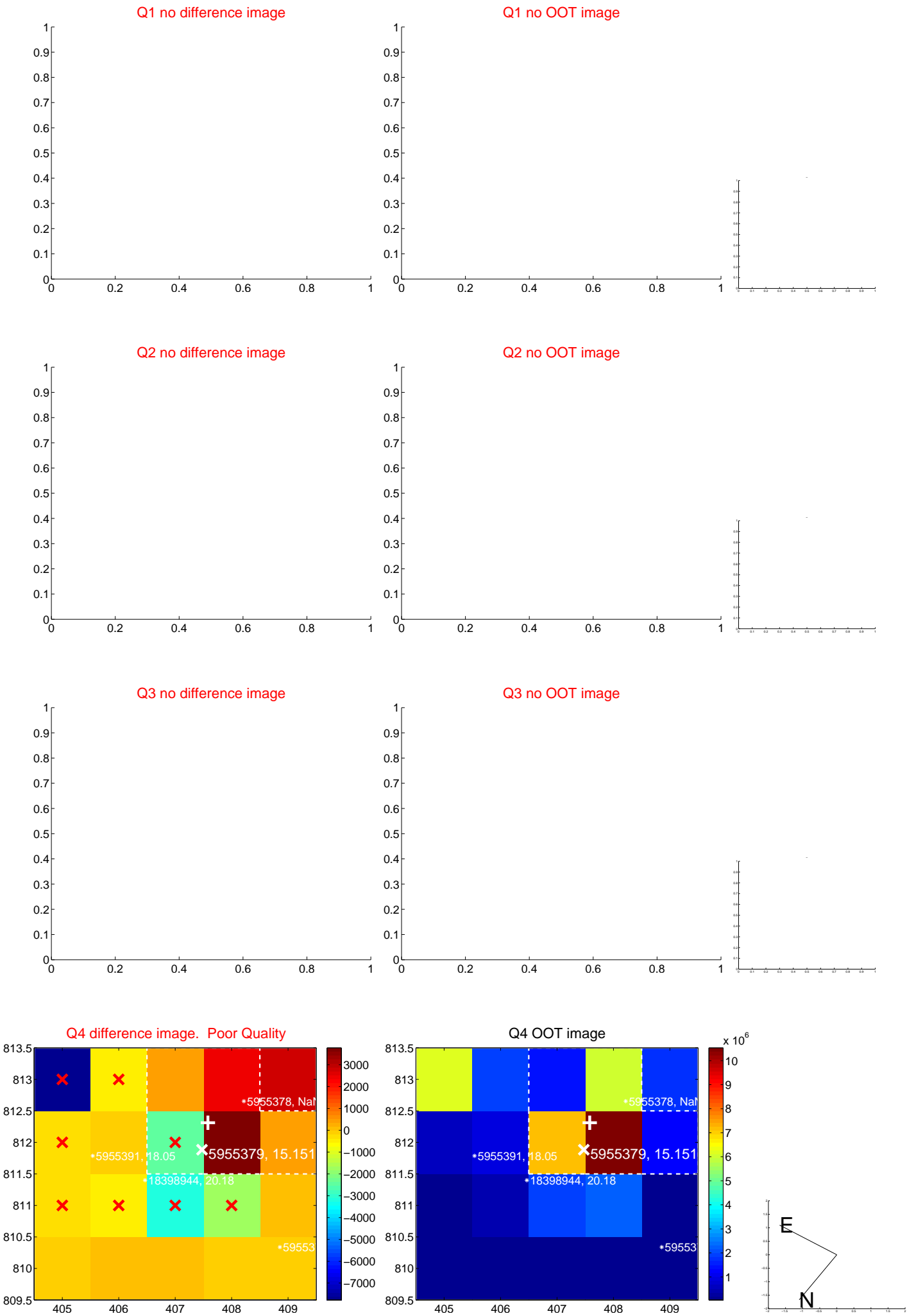
The direct PRF centroid is offset from the target star catalog position by about 0.51 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$7.943 \pm 1.848$	4.30	$7.817 \pm 1.663$	$1.409 \pm 1.308$
PRF-fit source offset from KIC position	$8.194 \pm 2.518$	3.25	$8.130 \pm 2.352$	$1.025 \pm 1.660$
photometric centroid source offset	$0.34 \pm 0.86$	0.39	$0.34 \pm 0.86$	$-0.02 \pm 0.83$

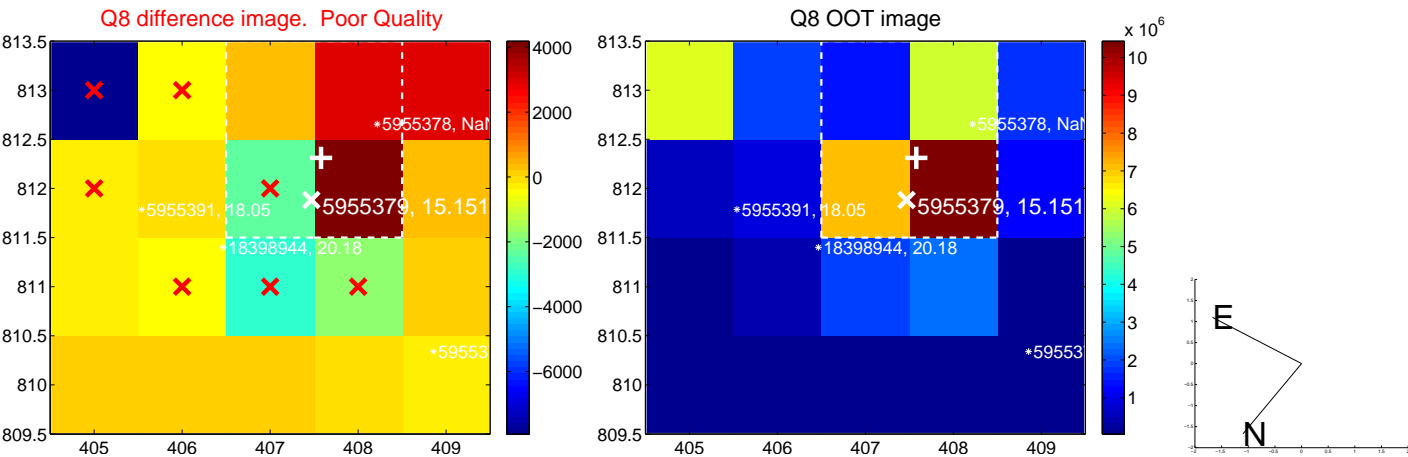
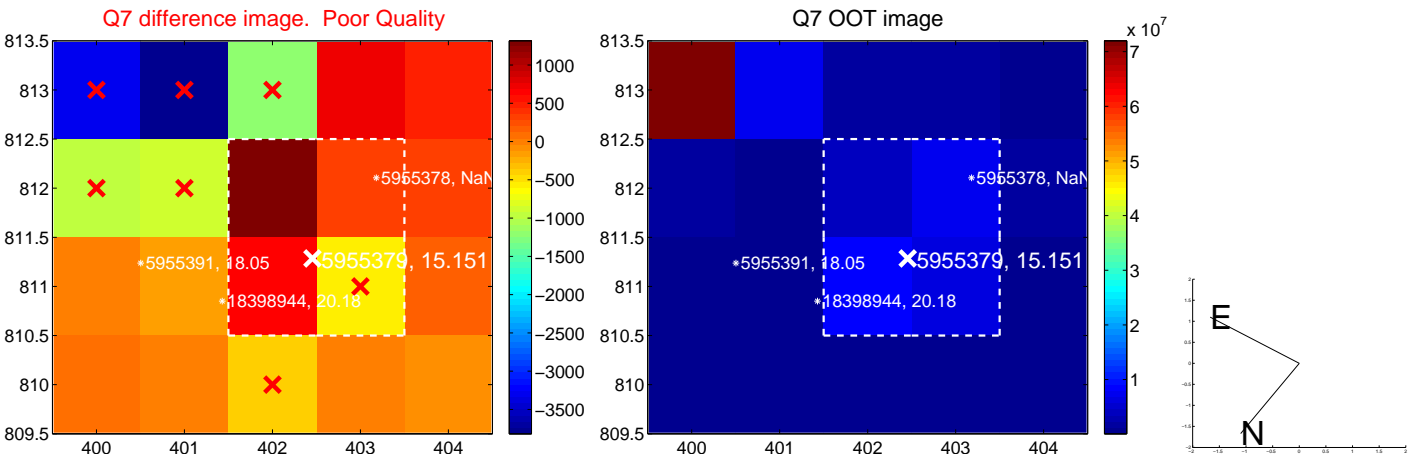
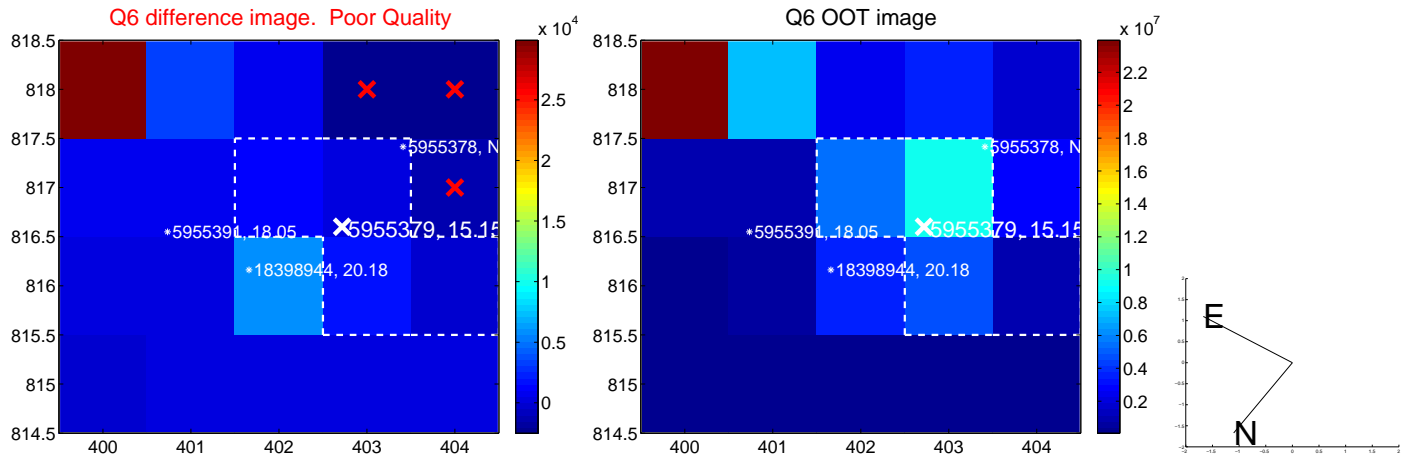
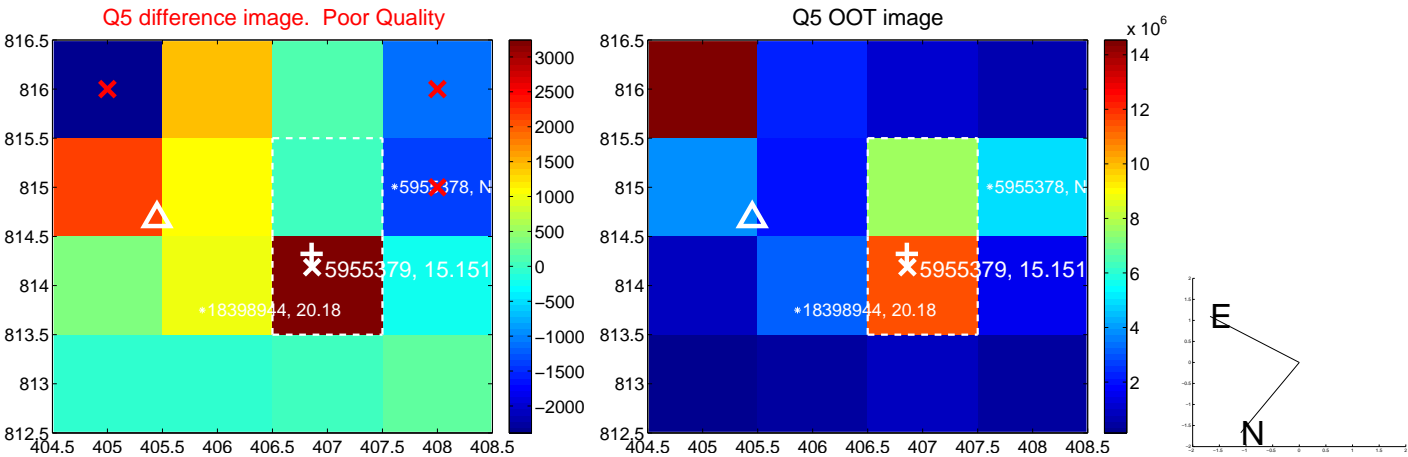


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three- $\sigma$ . 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.

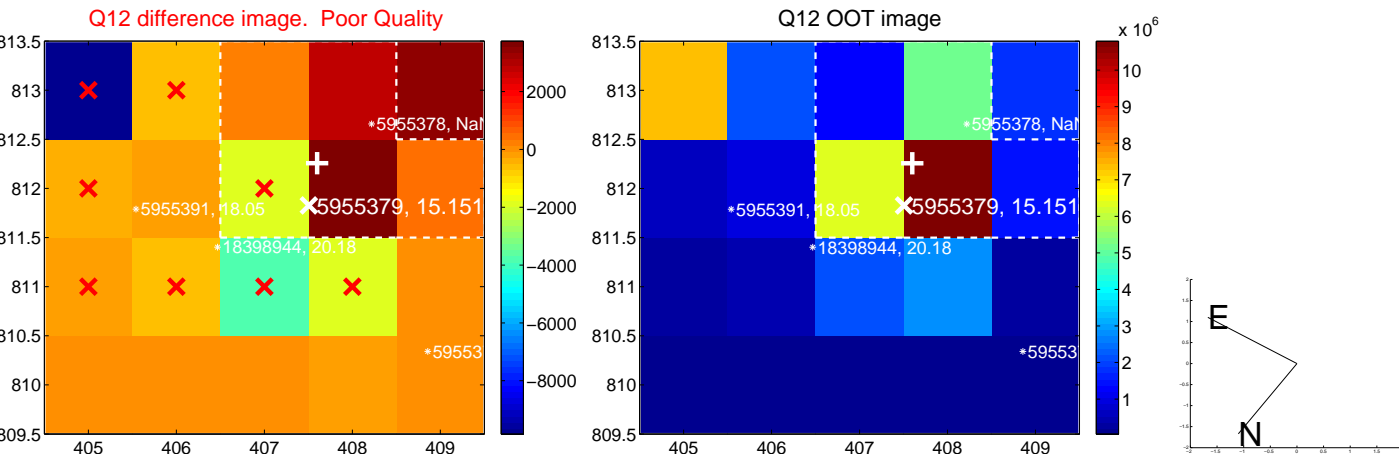
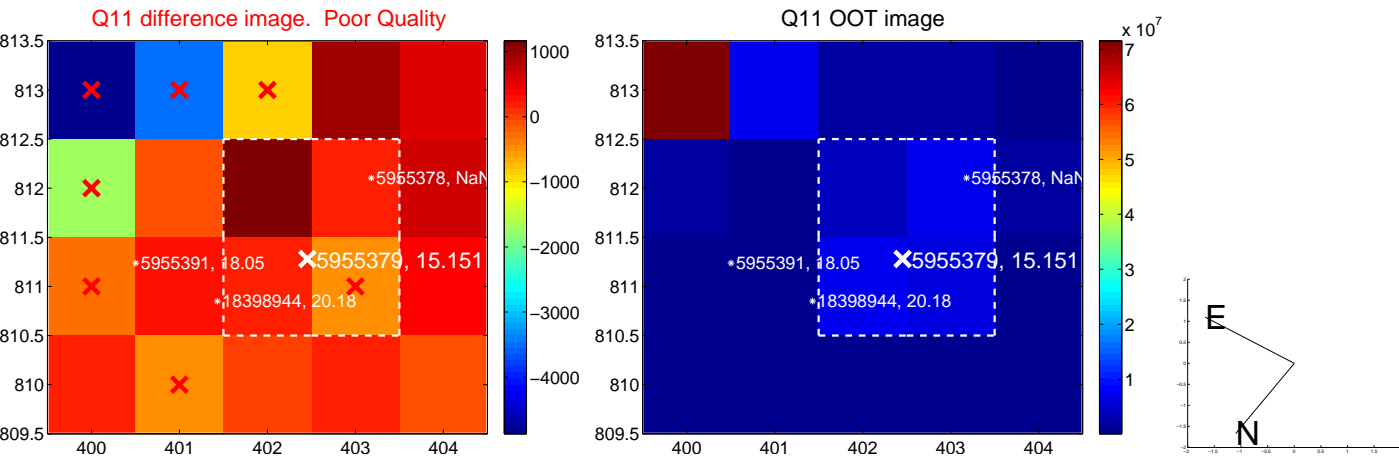
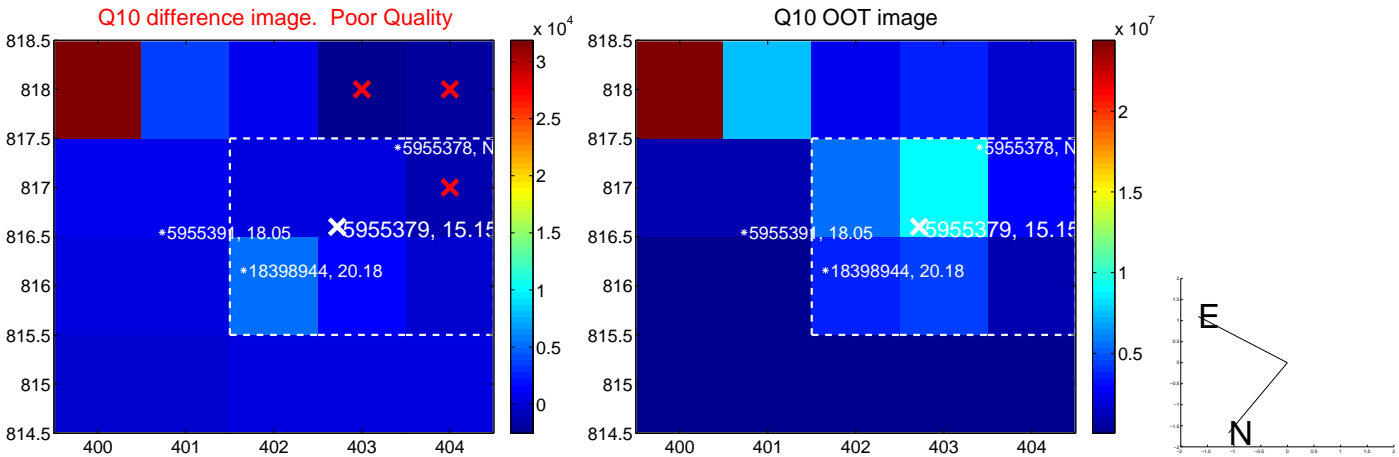
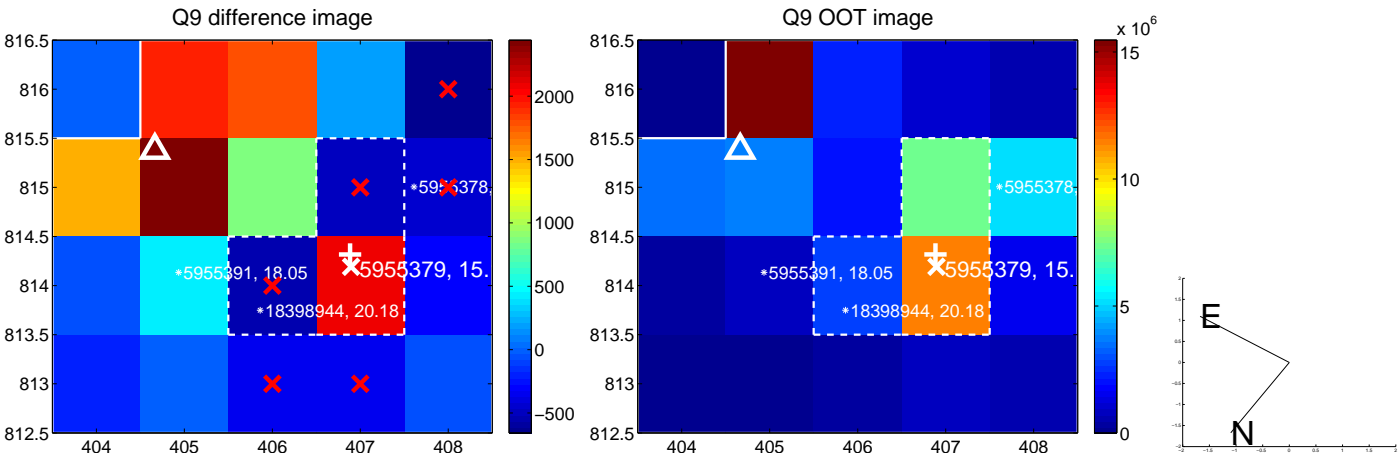
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



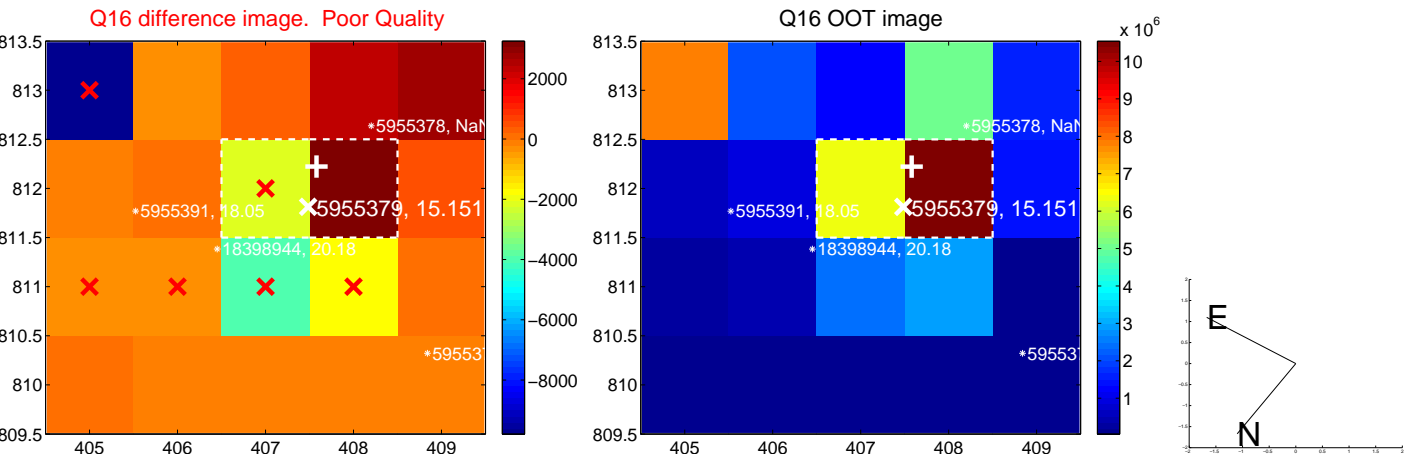
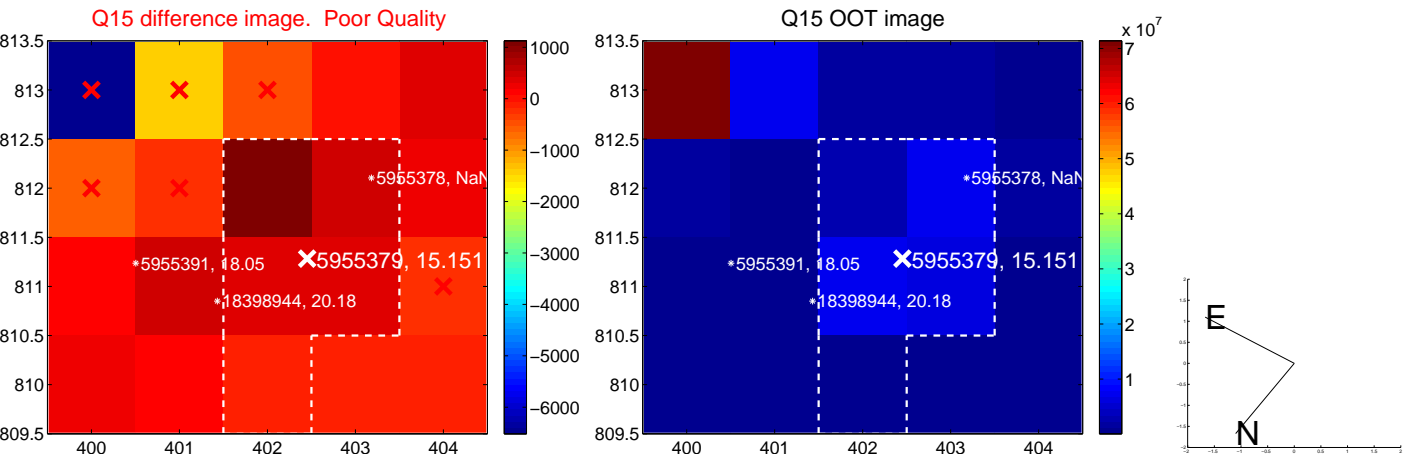
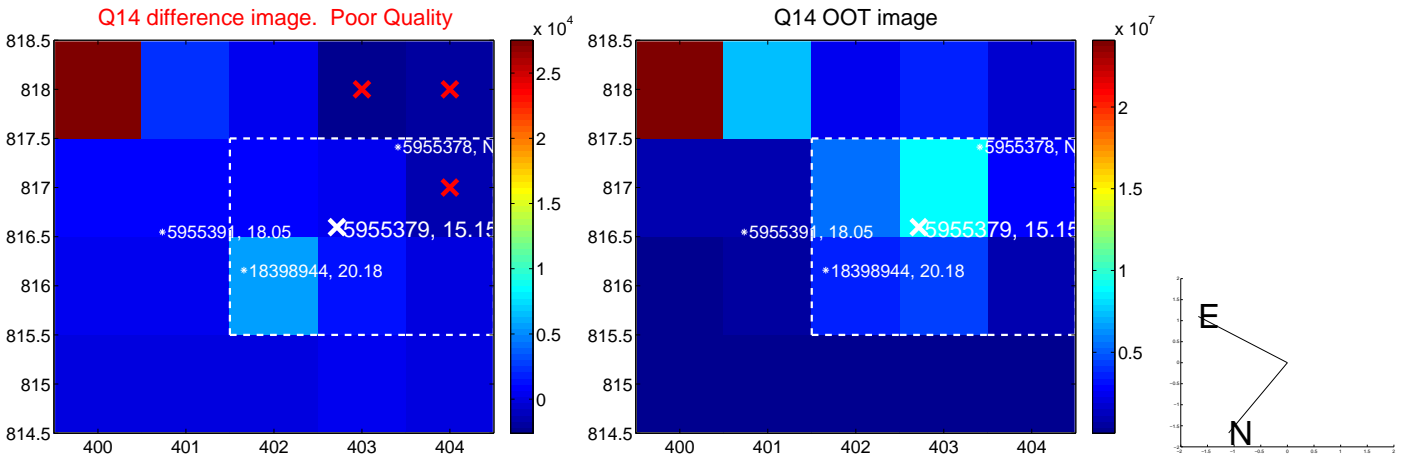
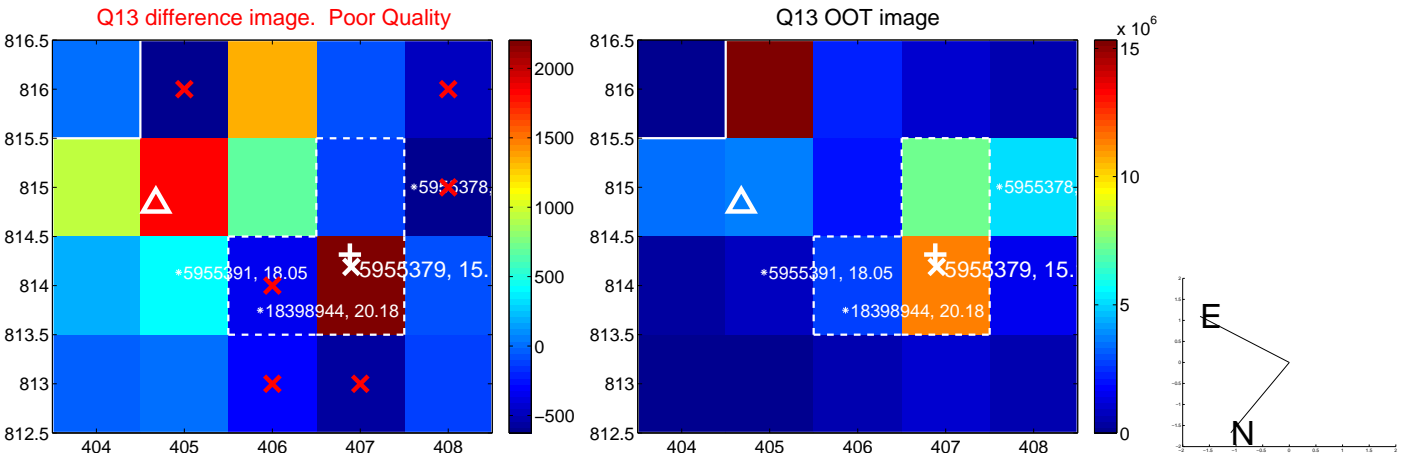
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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

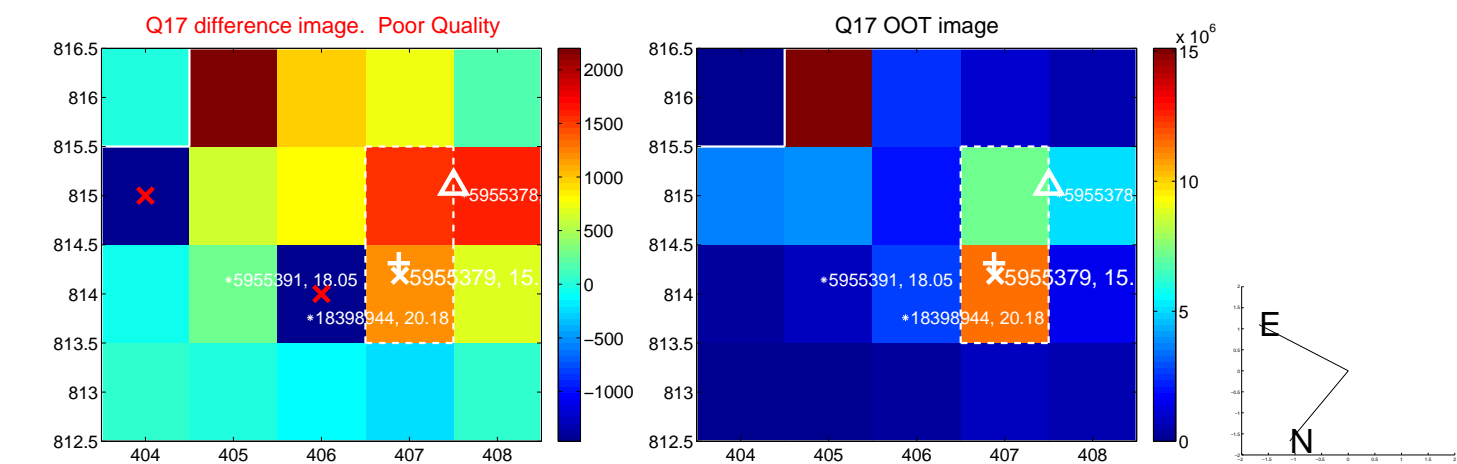


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

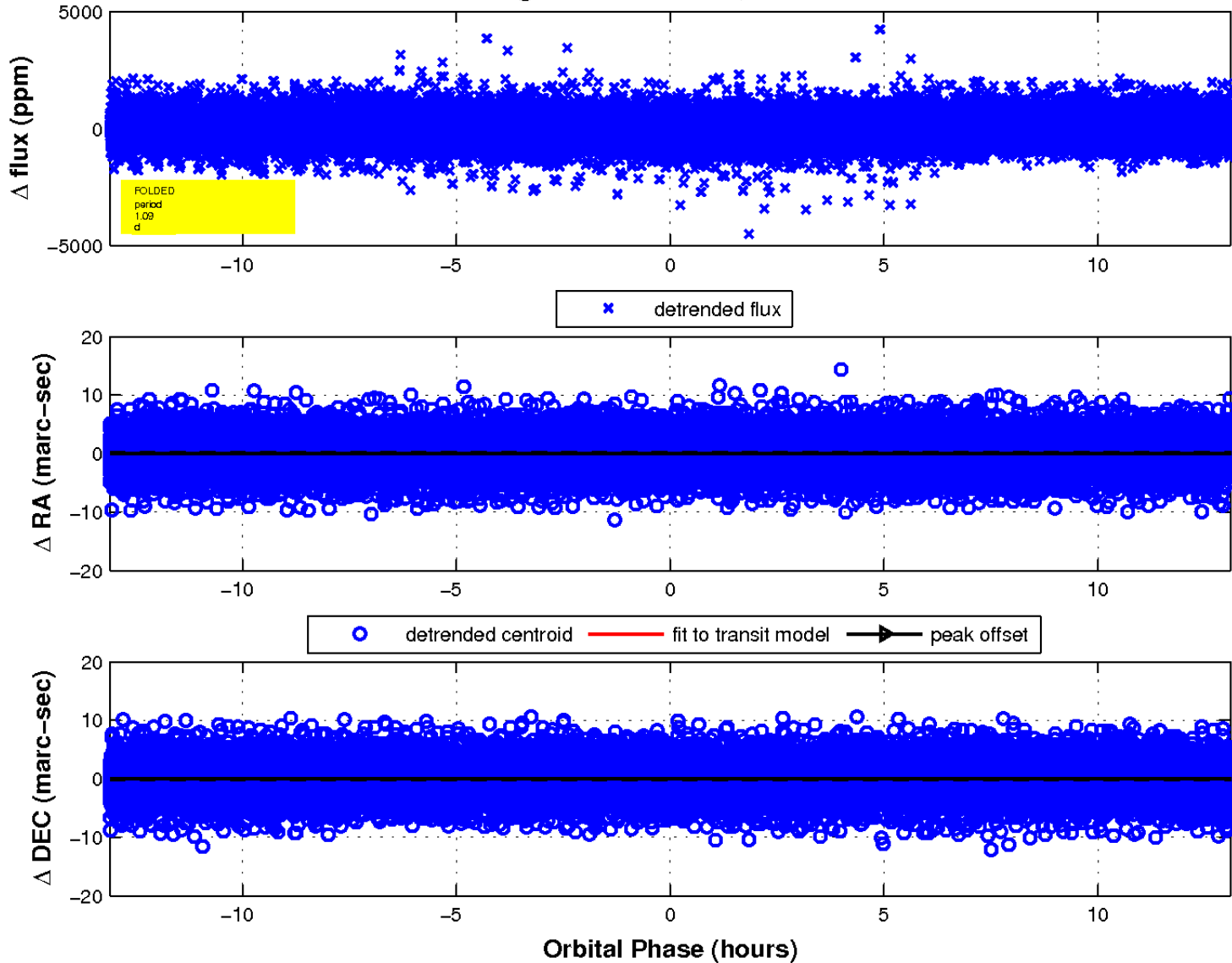




white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

