

# KIC 007032938

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
007032938-01	OBS	No	0.566922	132.113573	0.1	1.032	8.3	0.0	0.99	6137	0.02	6692.86

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007032938-01	OBS	FP	0.00	1	0	0	1	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—EPHEM_MATCH

**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.

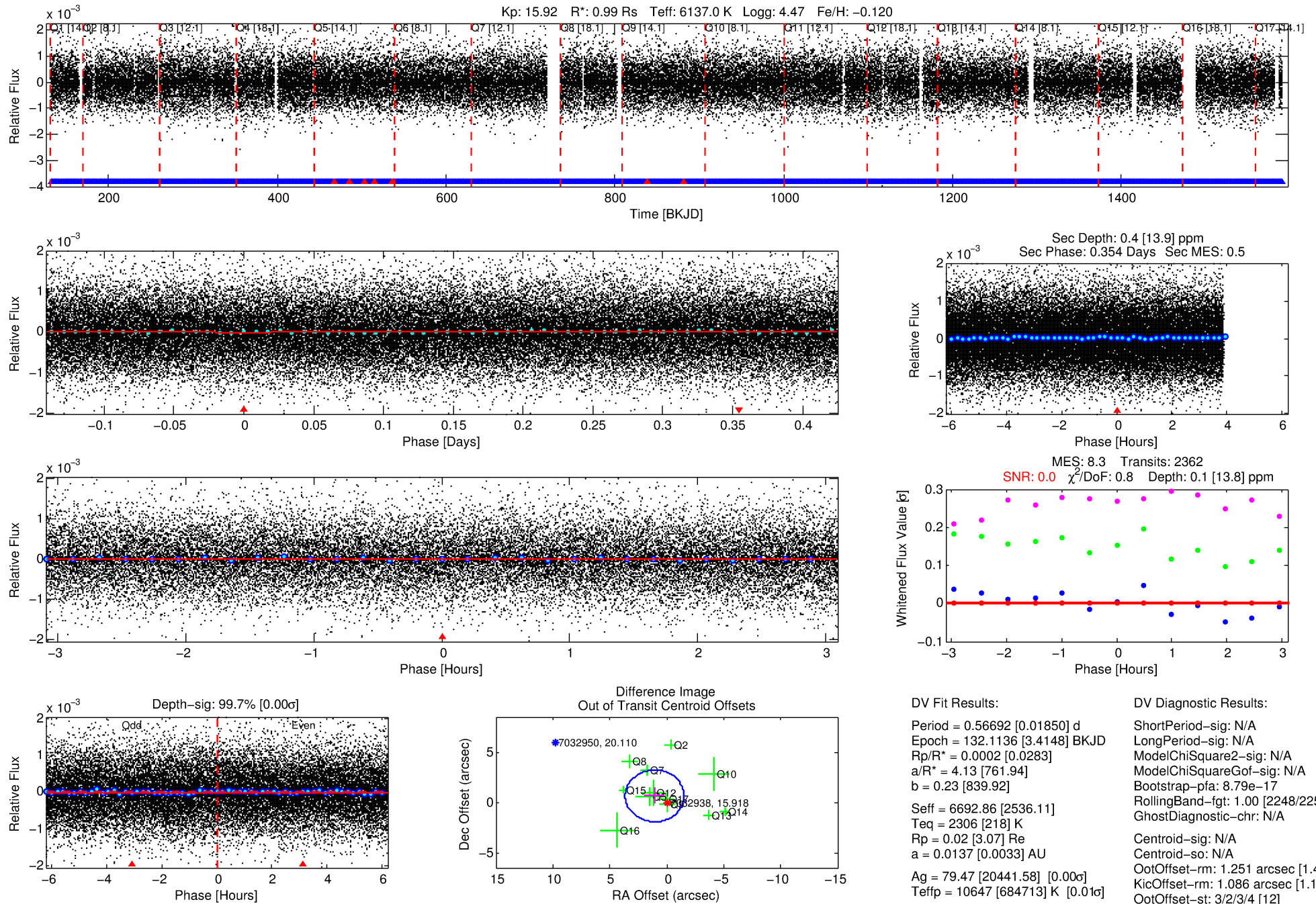
## Ephemeris Match Information For 007032938-01

TCE (1)	KIC	Parent (2)	Parent KIC	P <sub>1</sub> :P <sub>2</sub>	Dist ( $''$ )	$\Delta$ Row	$\Delta$ Col	m <sub>2</sub>	m <sub>1</sub>	D <sub>2</sub> /D <sub>1</sub>	Mechanism	Flag	$\sigma_P$	$\sigma_T$
007032938-01	7032938	RR-Lyr-pri	7198959	1:1	1135.4	285	-17	7.86	15.92	623300.00	Direct-PRF	0	3.13	5.63

**Notes:** P<sub>1</sub>:P<sub>2</sub> is the period ratio. Dist is the distance in arcseconds.  $\Delta$ Row and  $\Delta$ Col are the number of pixels apart in row and column. m<sub>2</sub> and m<sub>1</sub> are the magnitudes of the parent and child. D<sub>2</sub>/D<sub>1</sub> is the parent's transit depth divided by the child's.  $\sigma_P$  and  $\sigma_T$  are the significance of the match in period and epoch. For a match to be considered significant  $\sigma_P < 5.0$  and  $\sigma_T < 5.0$ . Matches which have  $\sigma_P$  and  $\sigma_T$  very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

# DV One-Page Summary

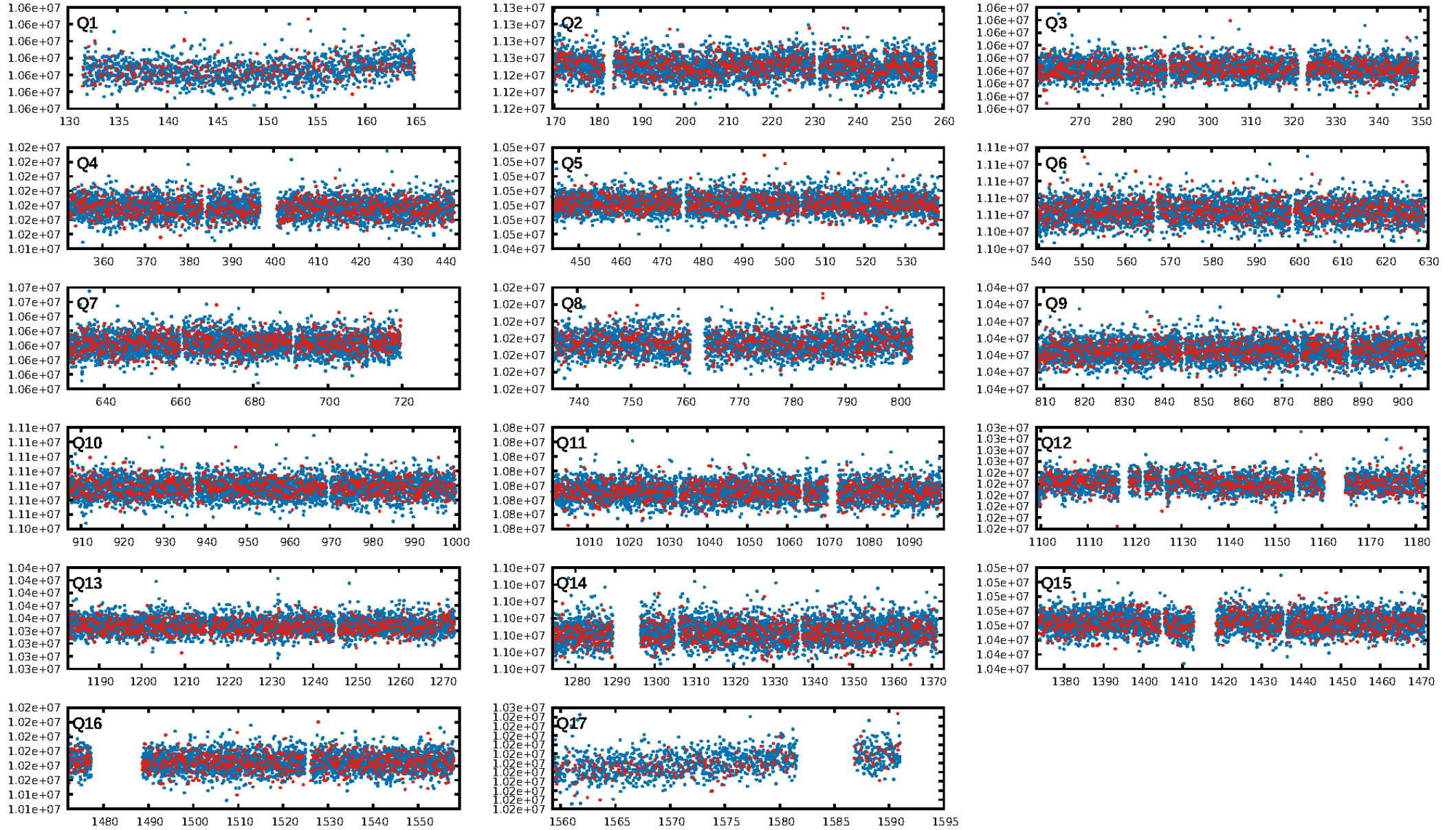
KIC: 7032938 Candidate: 1 of 1 Period: 0.567 d



Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 08:45:01 Z

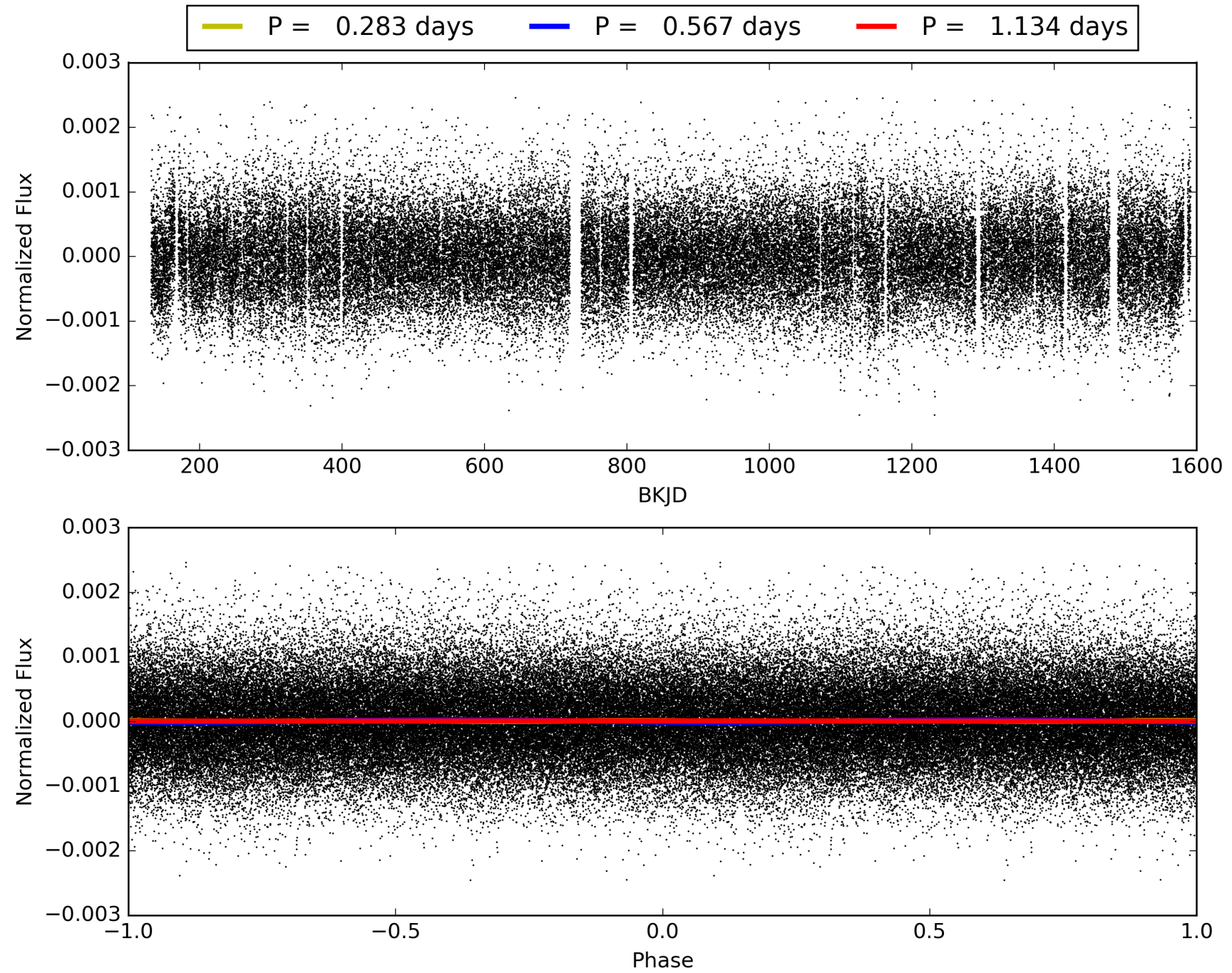
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

# TCE 007032938-01, PDC Light Curves



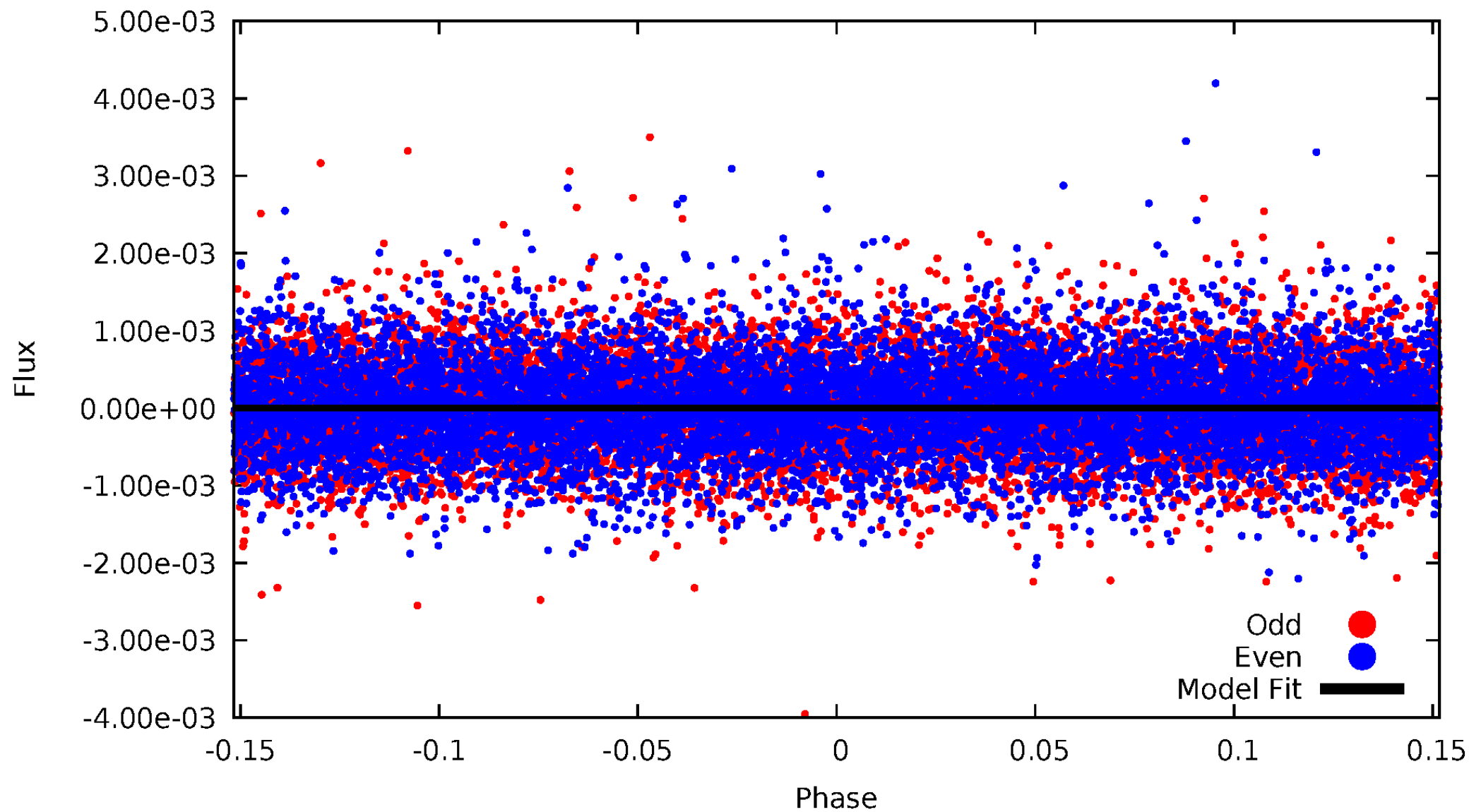


TCE 007032938-01



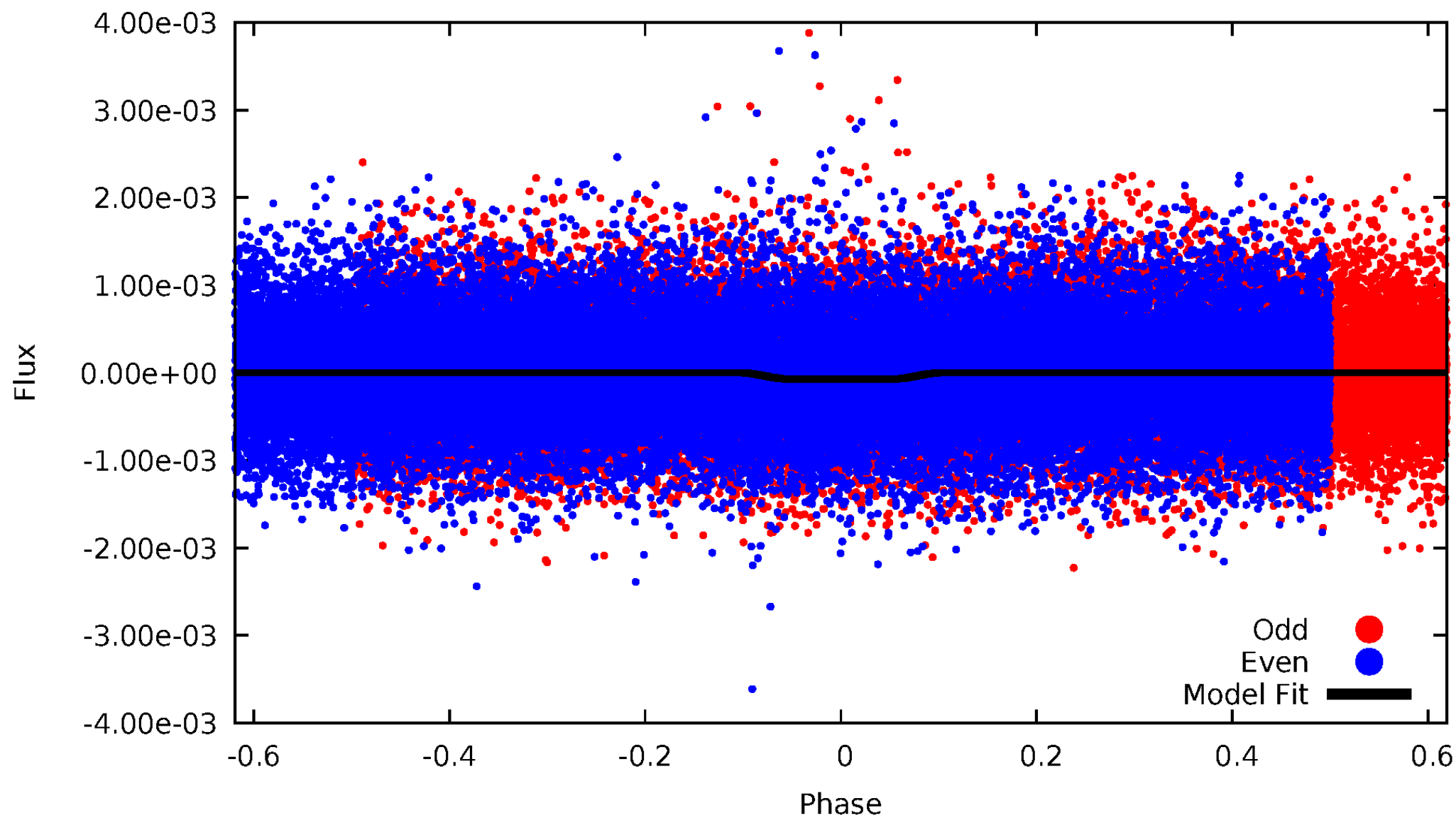
# DV Odd/Even

TCE 007032938-01

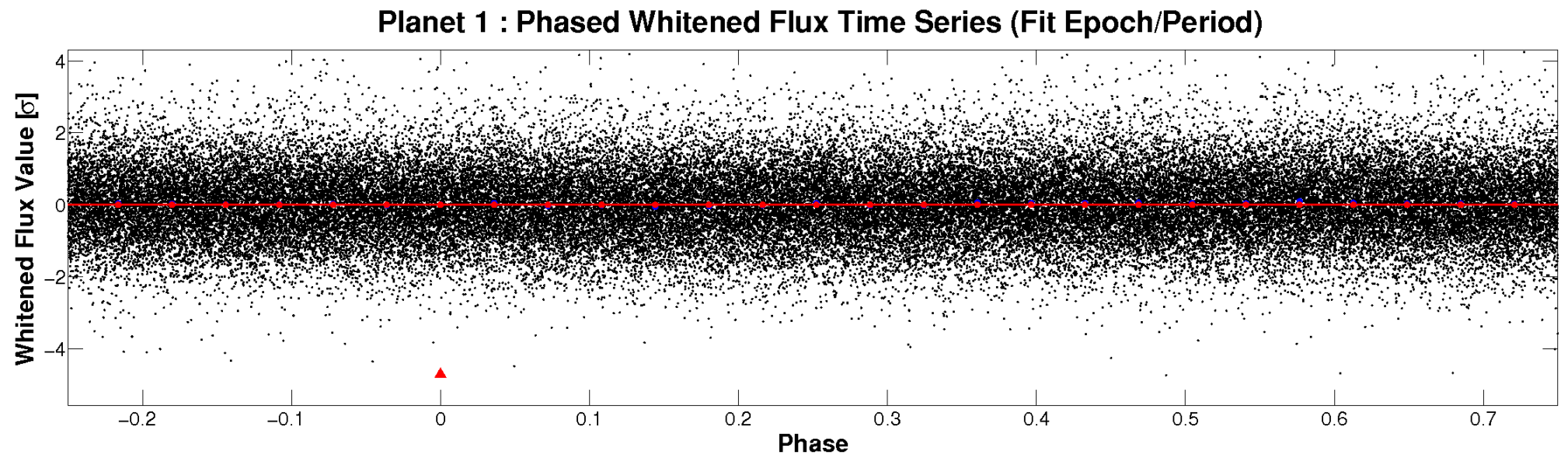
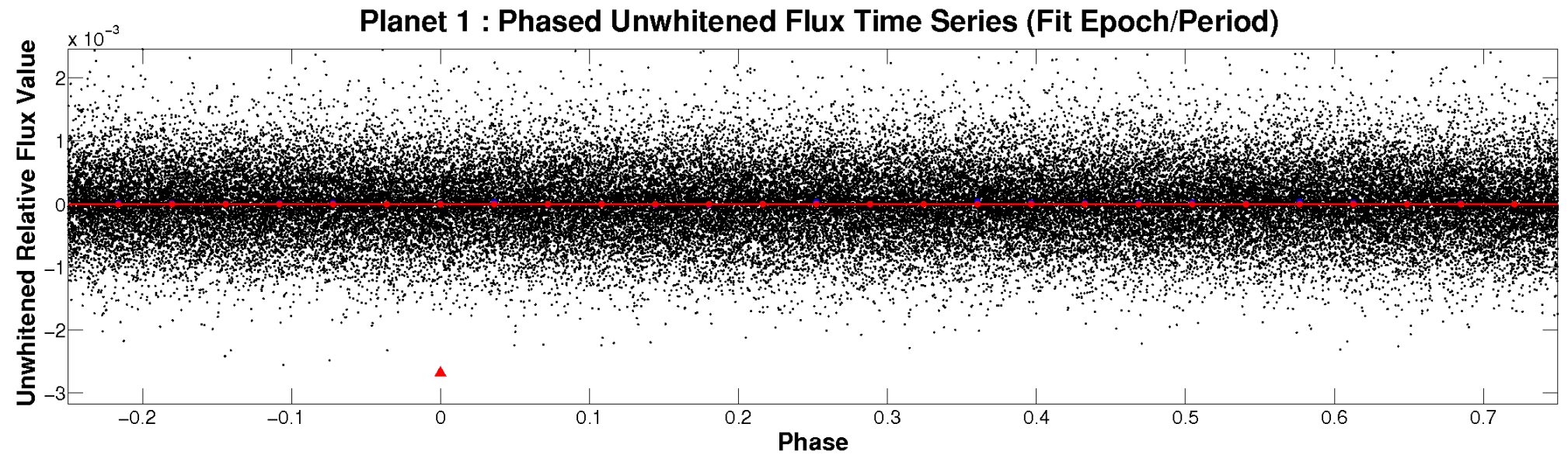


# ALT Odd/Even

TCE 007032938-01



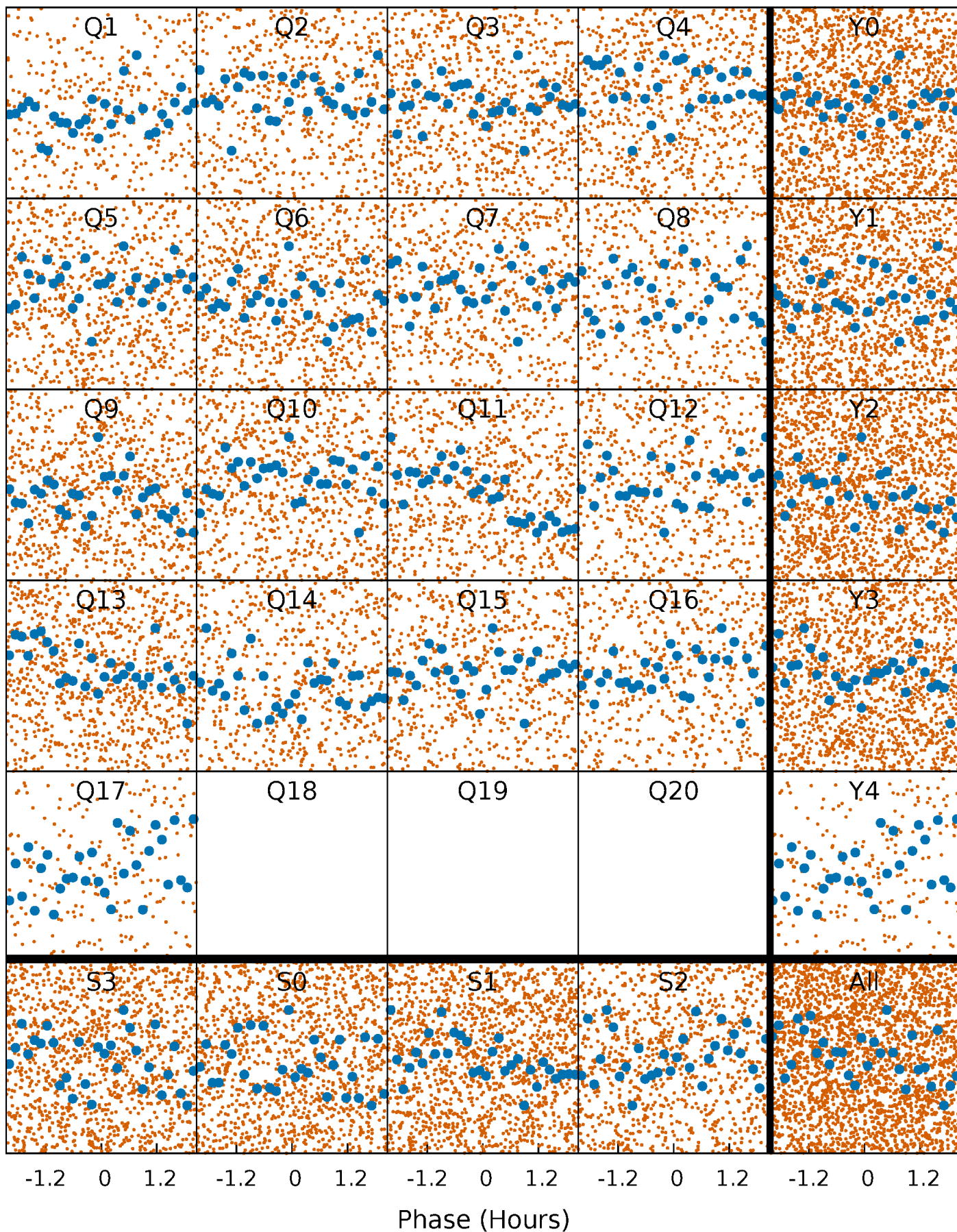
# Non-Whitened Vs. Whitened Light Curve





# PDC Quarter-Phased Transit Curves

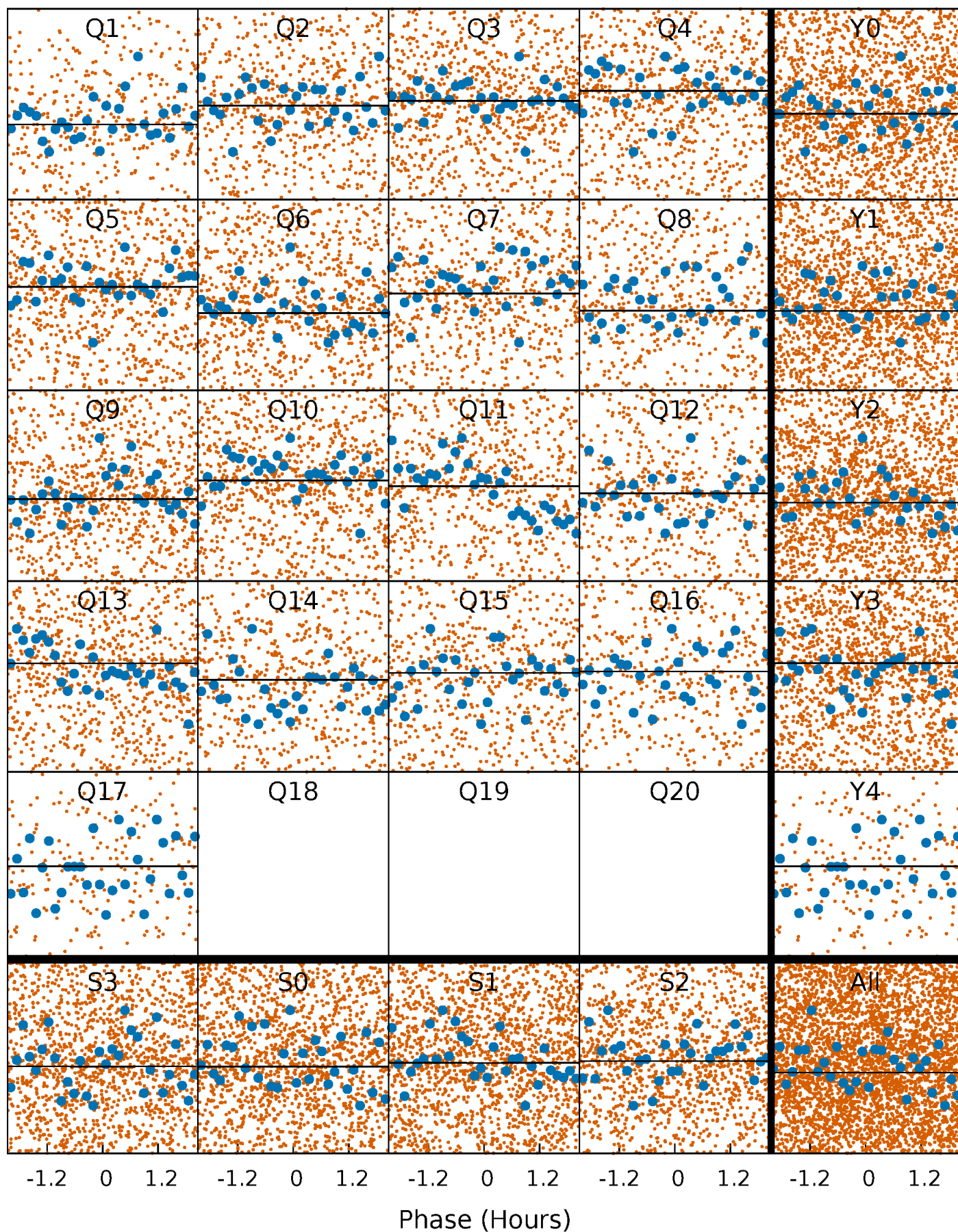
TCE 007032938-01 P= 0.566922 Days  $T_0=132.113573$  (BKJD)





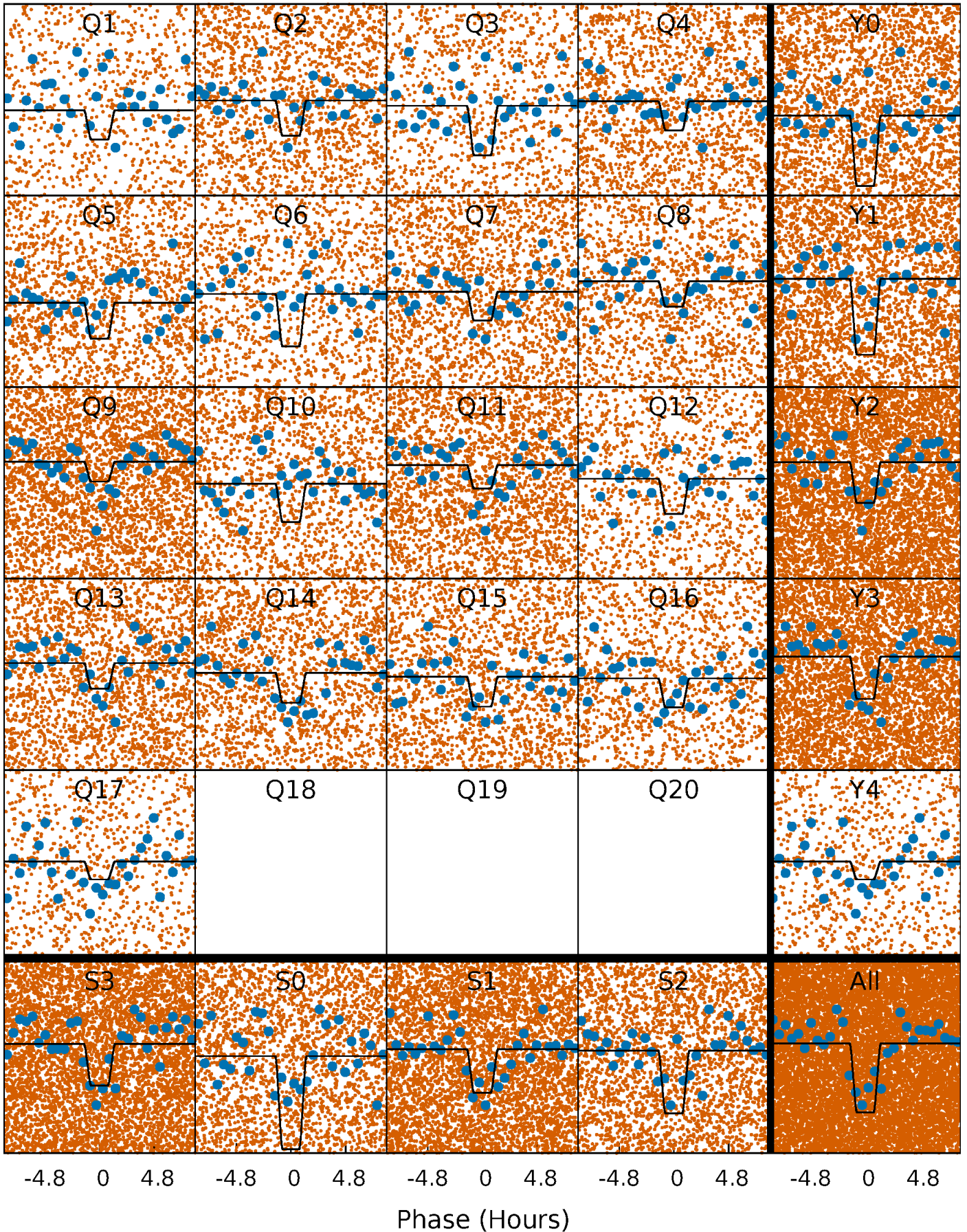
# DV Quarter-Phased Transit Curves

TCE 007032938-01 P= 0.566922 Days  $T_0=132.113573$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

TCE 007032938-01 P= 0.566795 Days  $T_0=131.815072$  (BKJD)

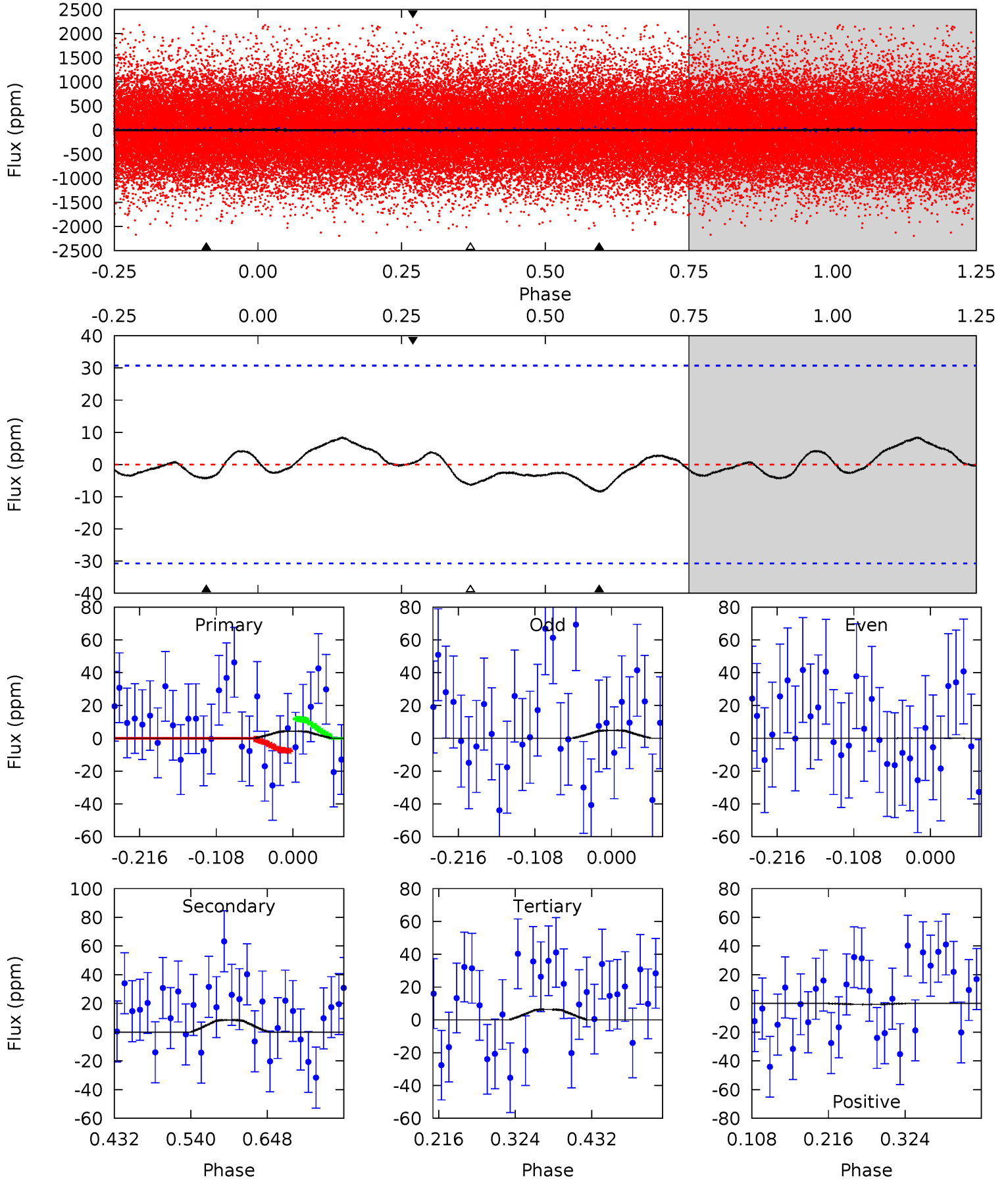




# DV Model-Shift Uniqueness Test

007032938-01, P = 0.566922 Days, E = 130.979729 Days

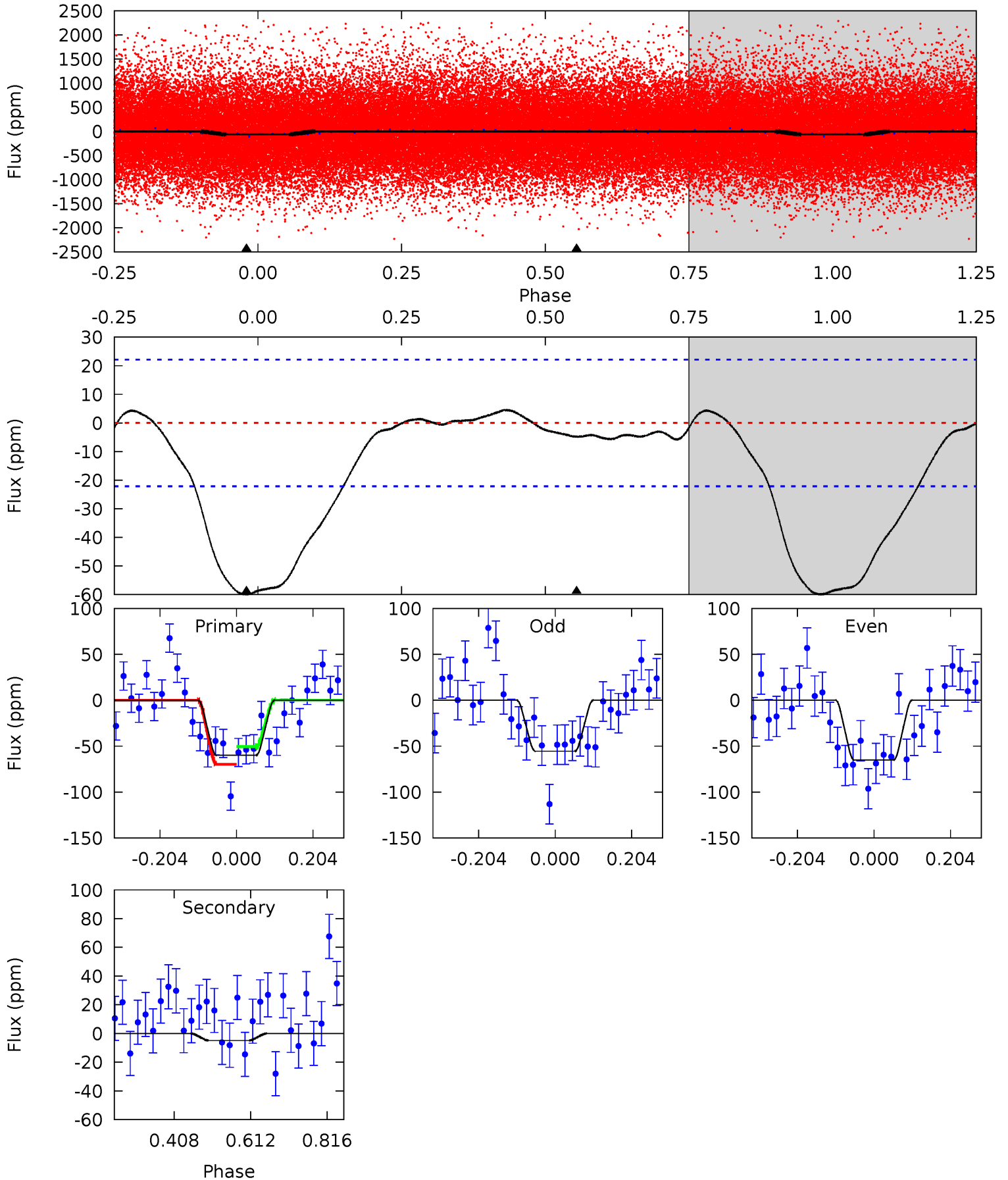
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.64	1.27	0.95	0.10	4.55	1.61	0.58	-0.30	0.55	0.32	1.17	0.35	1.78	0.50	0.32



# Alt Model-Shift Uniqueness Test

007032938-01, P = 0.566795 Days, E = 131.248277 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
12.0	0.98	0	0	4.41	1.27	0.52	12.0	12.0	0.98	0.98	0.95	0.96	0.07	1.96





### Stellar Parameters For KIC 007032938

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$6137^{+183}_{-220}$	$4.471^{+0.048}_{-0.192}$	$-0.120^{+0.250}_{-0.350}$	$0.994^{+0.276}_{-0.118}$	$1.067^{+0.133}_{-0.148}$	$1.529^{+0.390}_{-0.750}$
	+3%/-4%	+1%/-4%	+208%/-292%	+28%/-12%	+12%/-14%	+25%/-49%
Source	PHO1	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 007032938-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$-9 \pm 7$	$2.07^{+2.24}_{-1.43}$	$3299^{+217}_{-170}$	$-2920^{+7274}_{-359}$	$0.155^{+1.914}_{-0.137}$
Alt.	$-5 \pm 5$	$2.62^{+2.60}_{-1.76}$	$3297^{+211}_{-171}$	$-3139^{+6389}_{-211}$	$0.053^{+0.555}_{-0.053}$

$T_{max}$  = 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  $A_{obs} \gg 1.0$

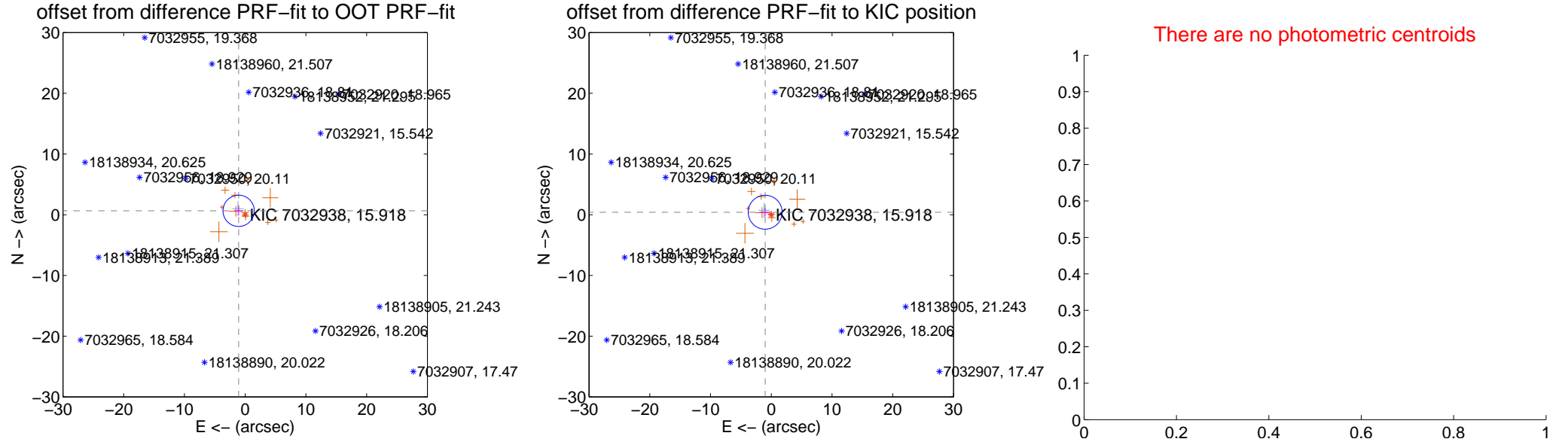
## DV Centroid Data

Supplemental centroid analysis for 007032938-01. Kepler magnitude: 15.92. Transit SNR 0.01

There are 1 quarters with good PRF difference image offsets

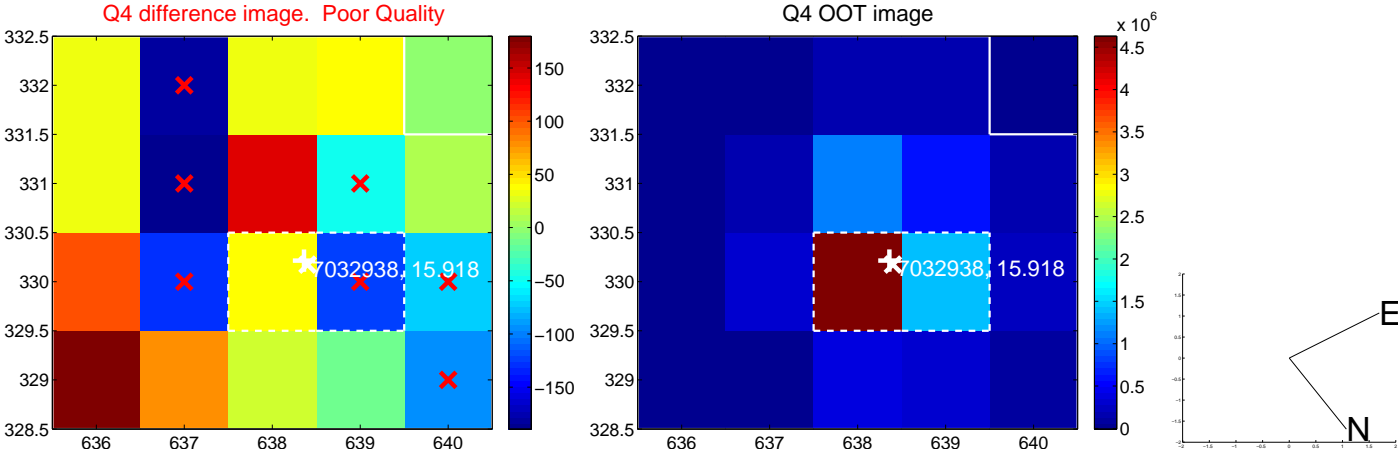
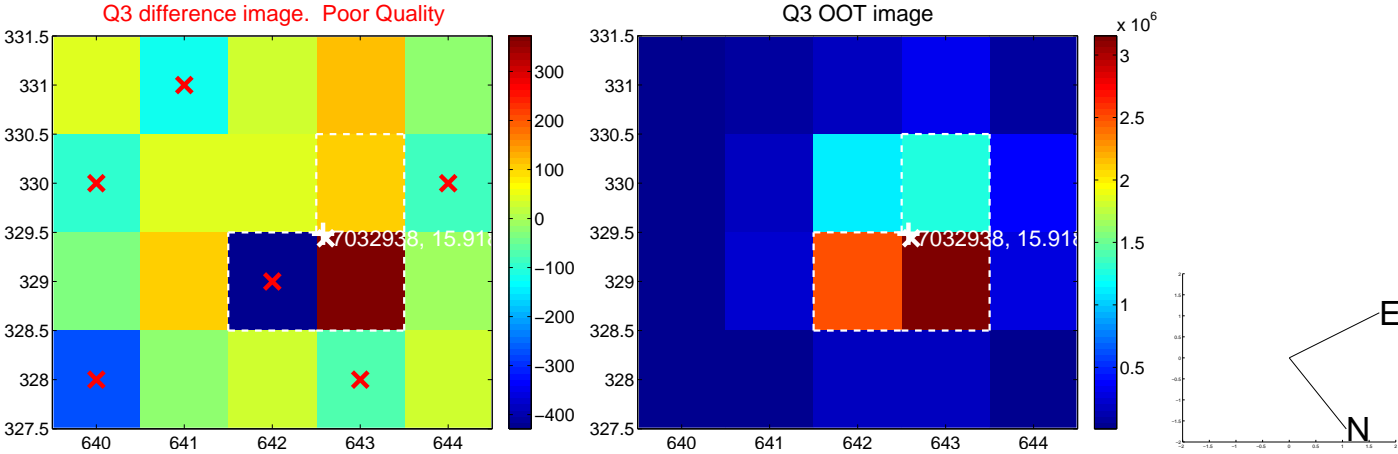
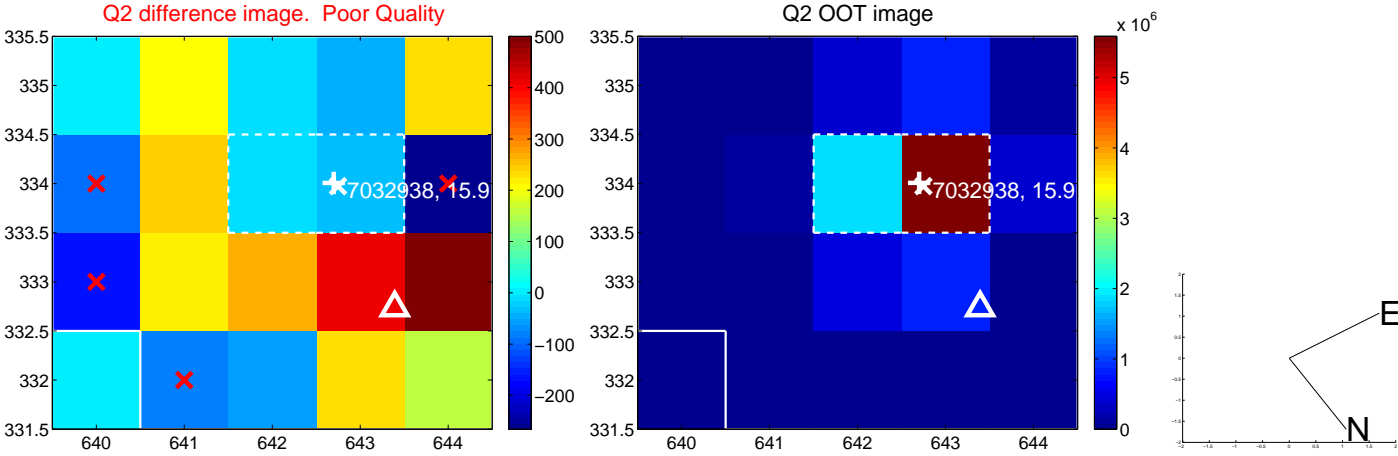
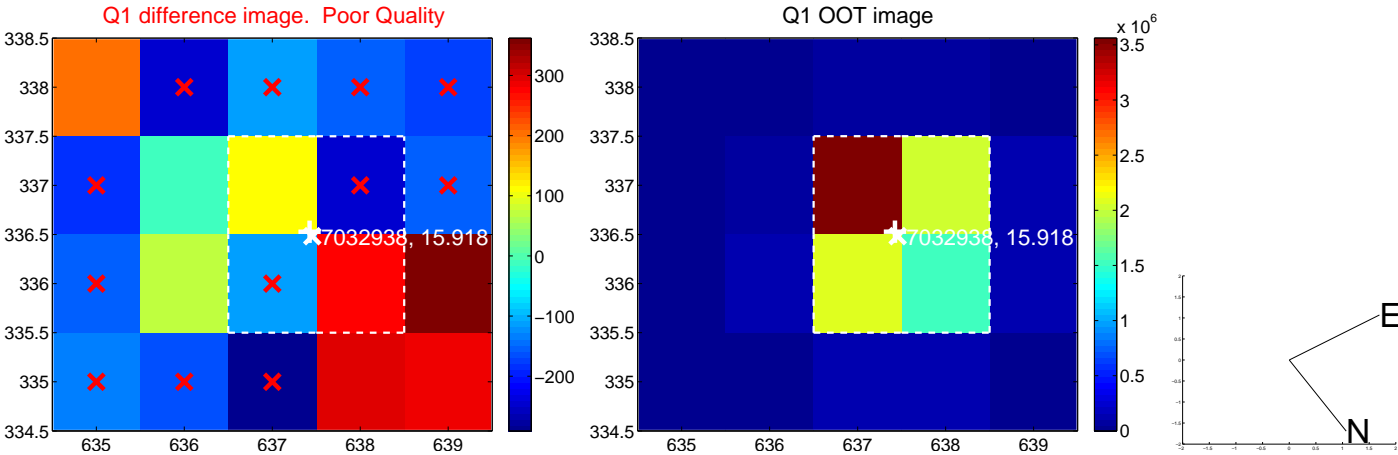
The direct PRF centroid is offset from the target star catalog position by about 0.25 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$1.251 \pm 0.858$	1.46	$1.074 \pm 0.821$	$0.642 \pm 0.749$
PRF-fit source offset from KIC position	$1.086 \pm 0.931$	1.17	$1.006 \pm 0.949$	$0.411 \pm 0.691$
photometric centroid source offset	—	—	—	—

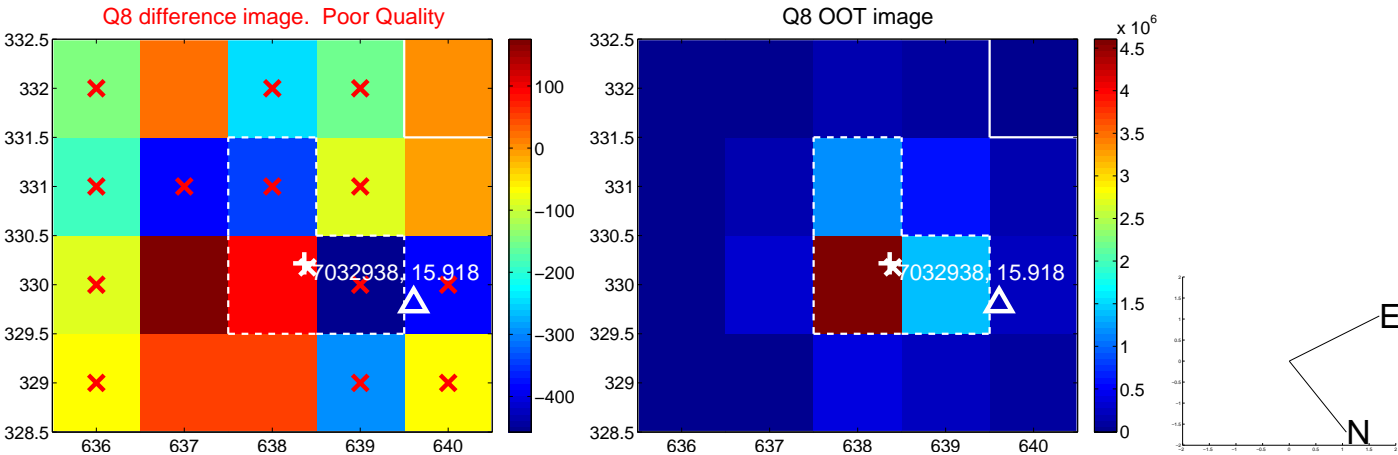
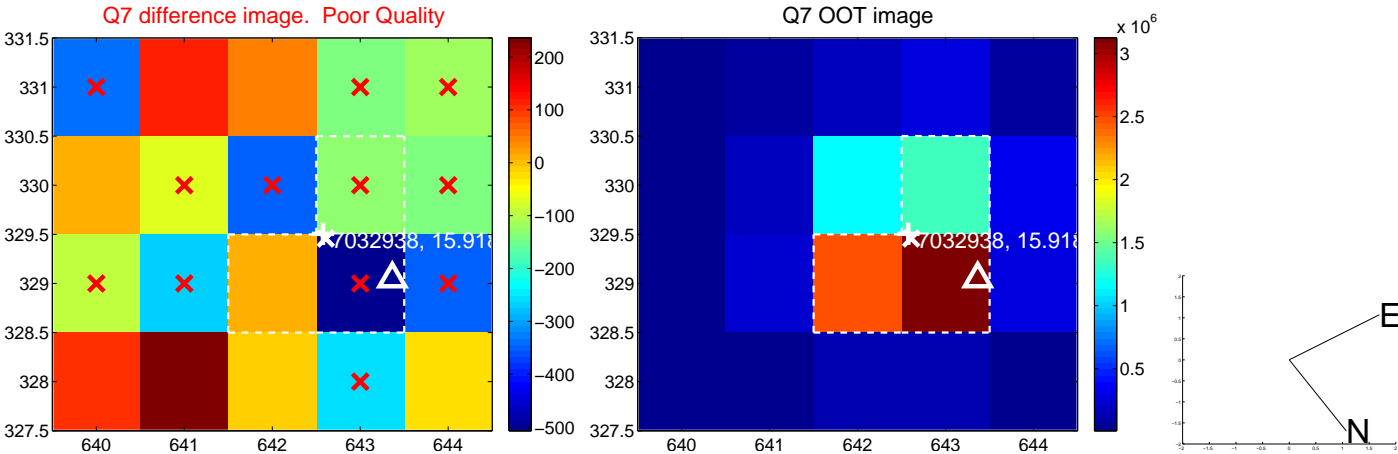
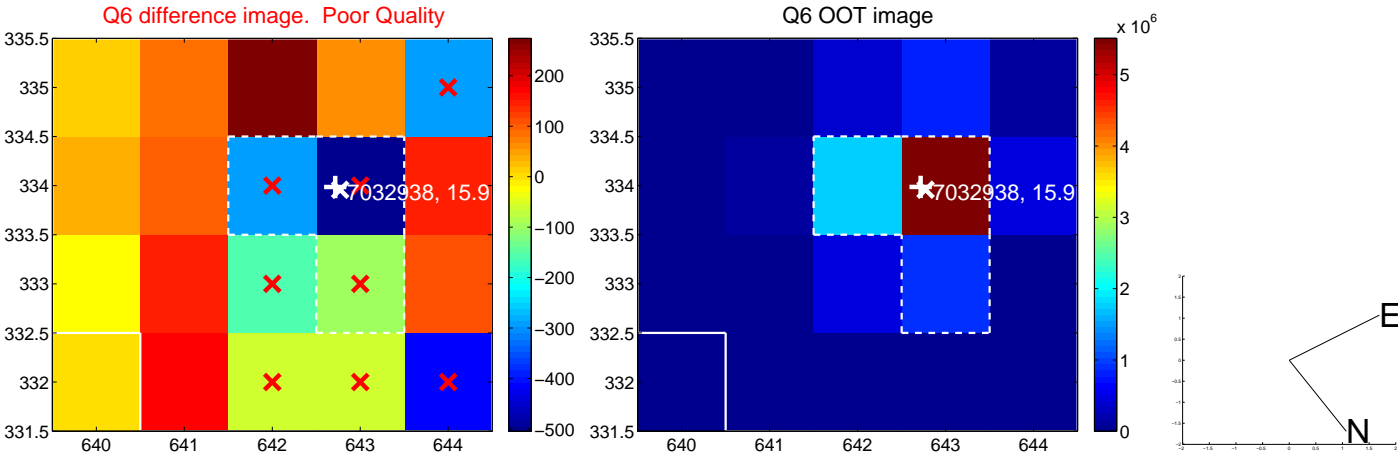
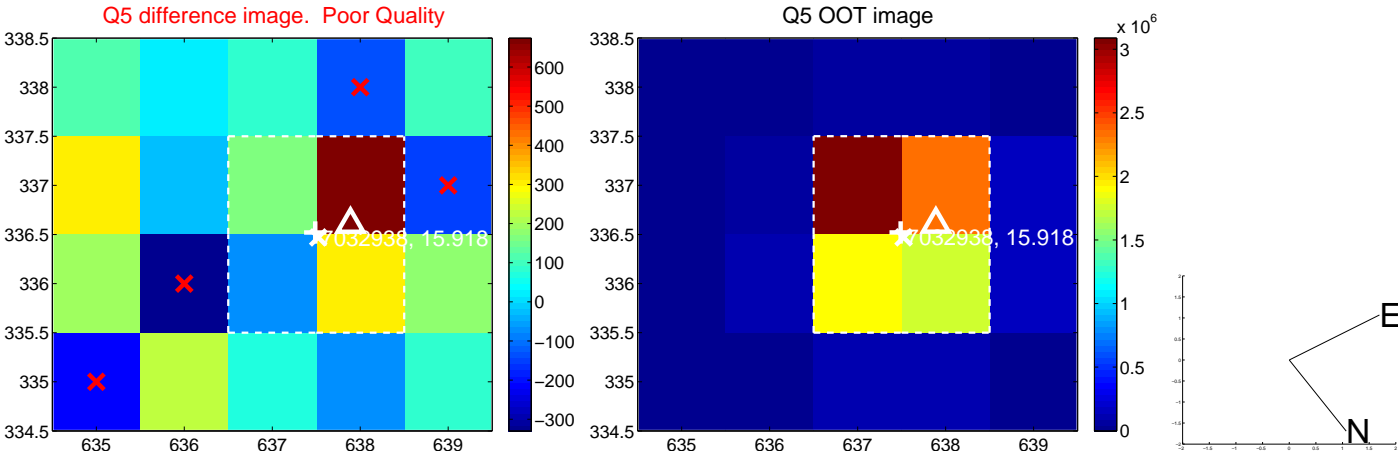


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three- $\sigma$ . 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  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

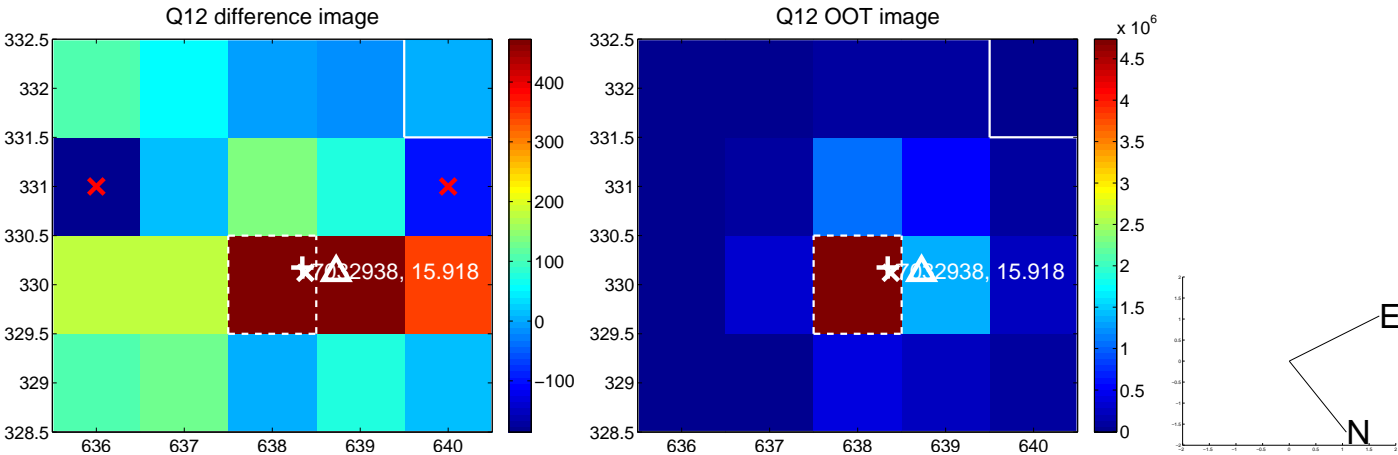
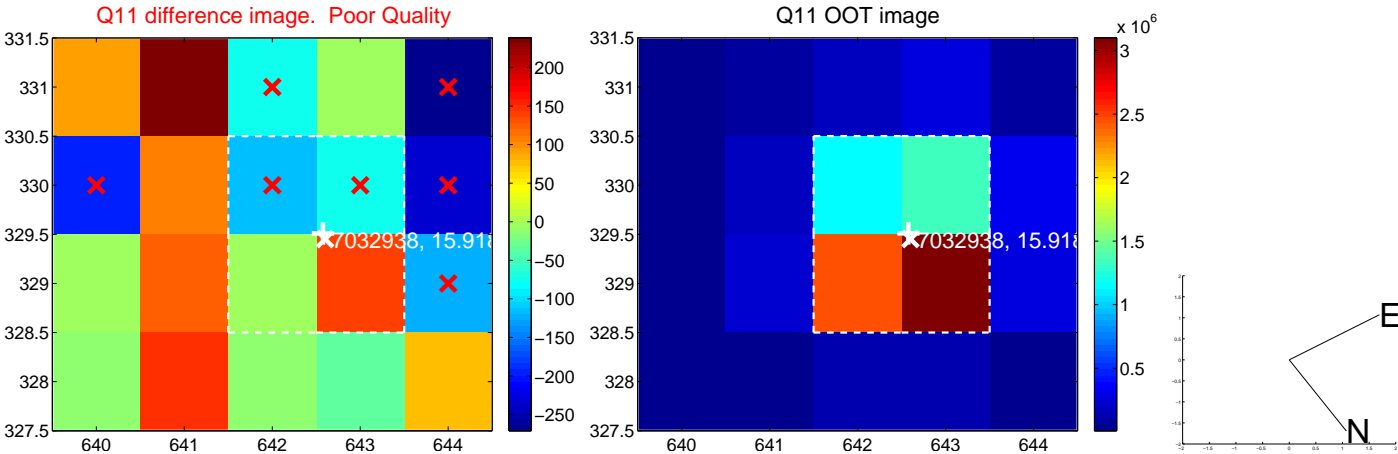
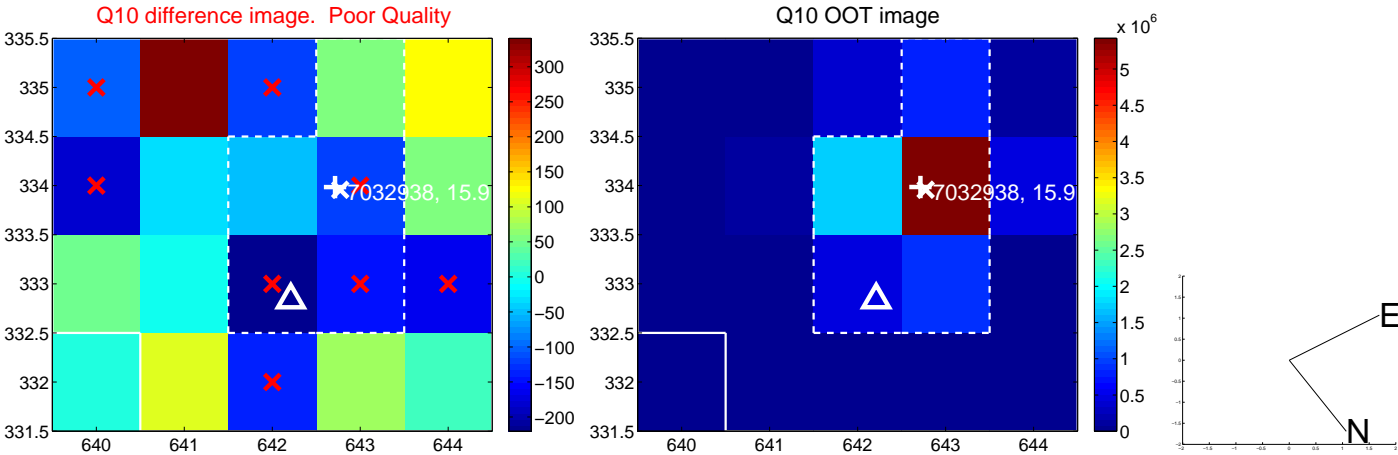
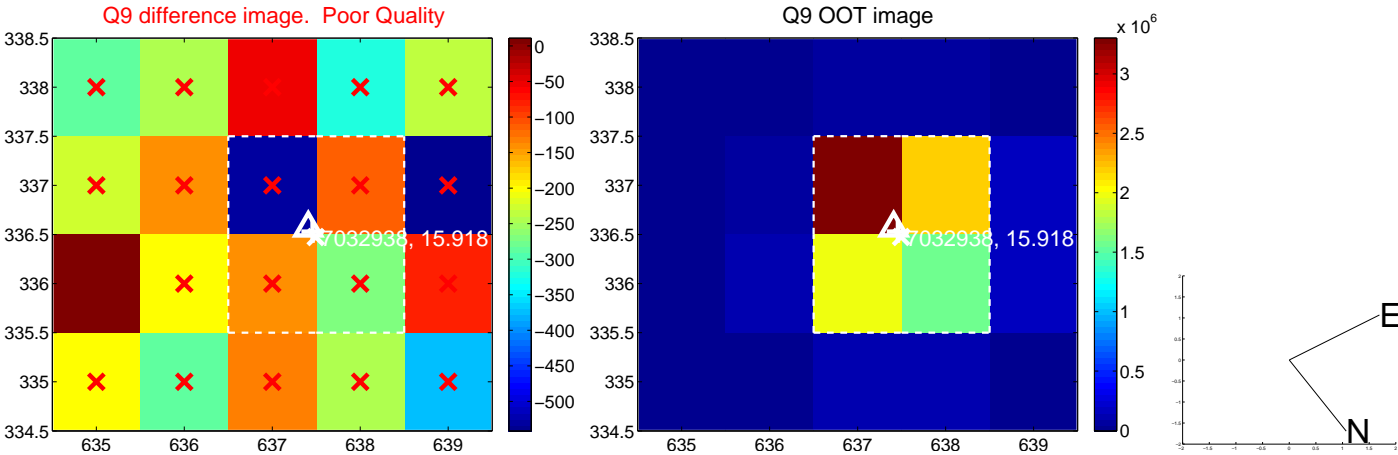


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

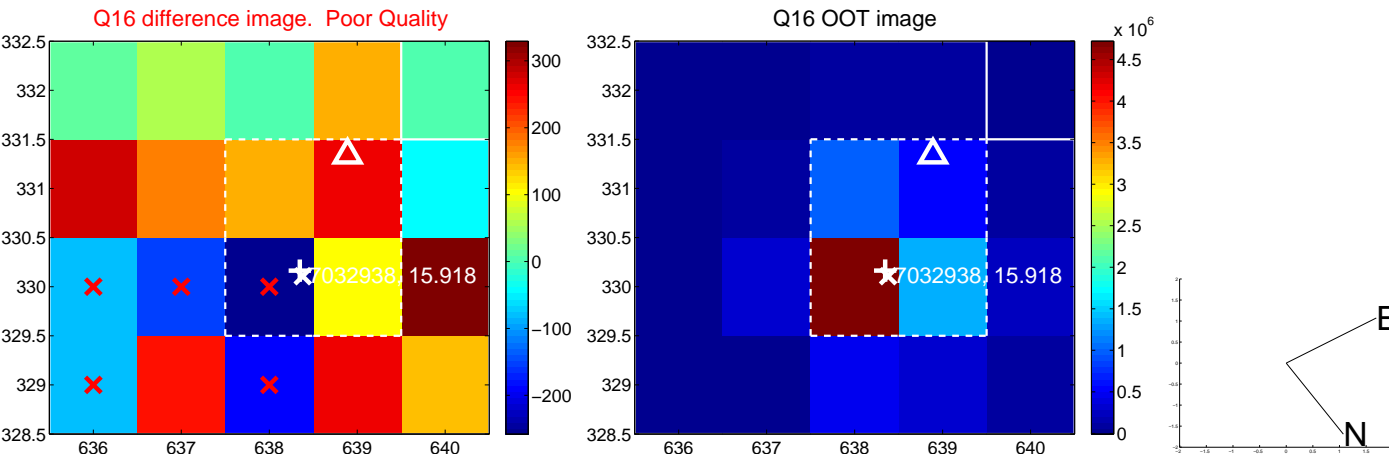
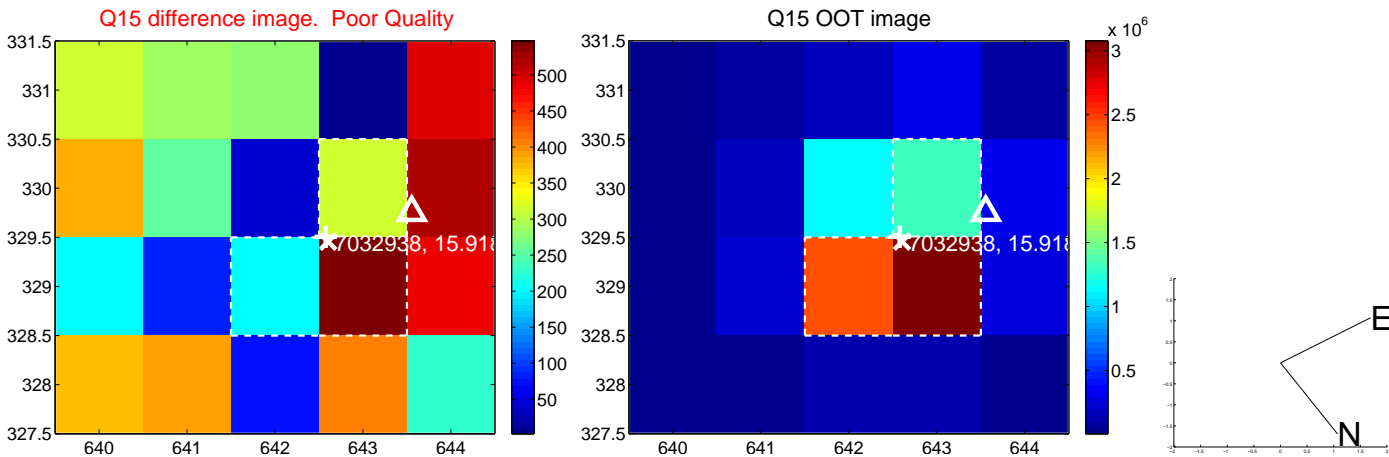
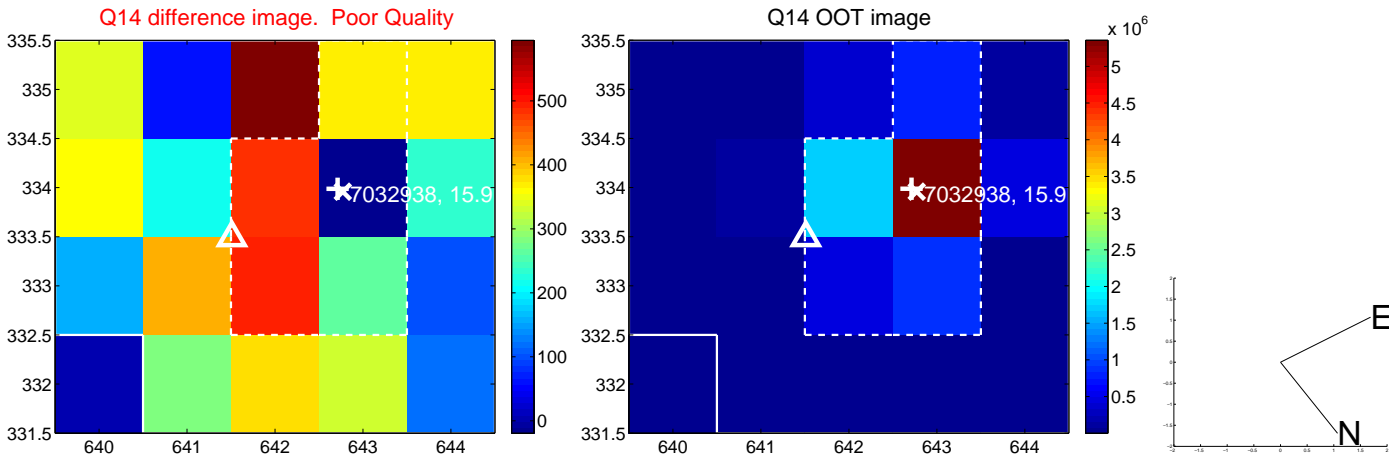
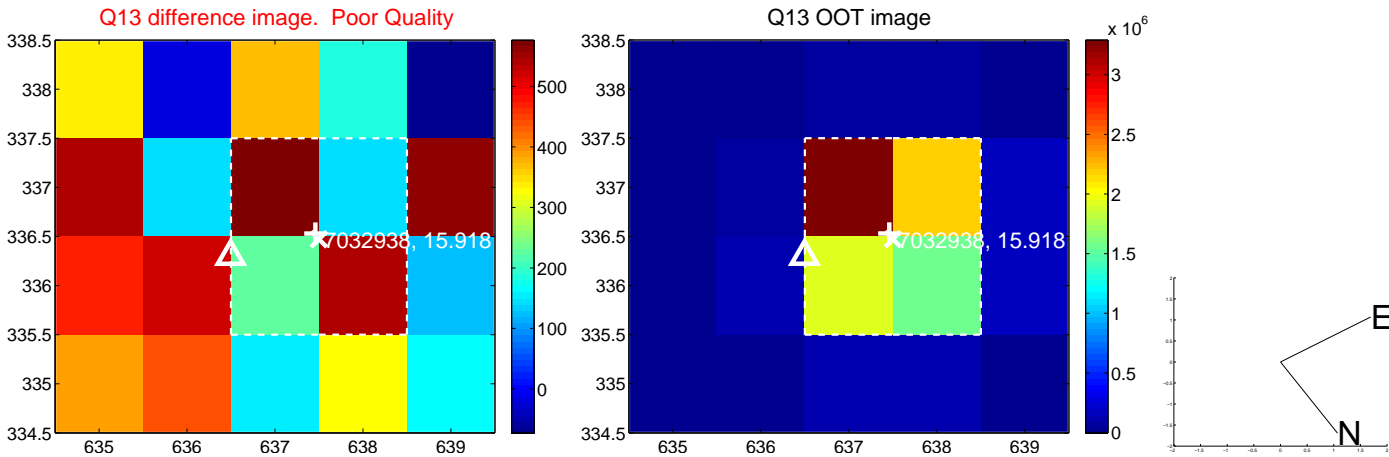




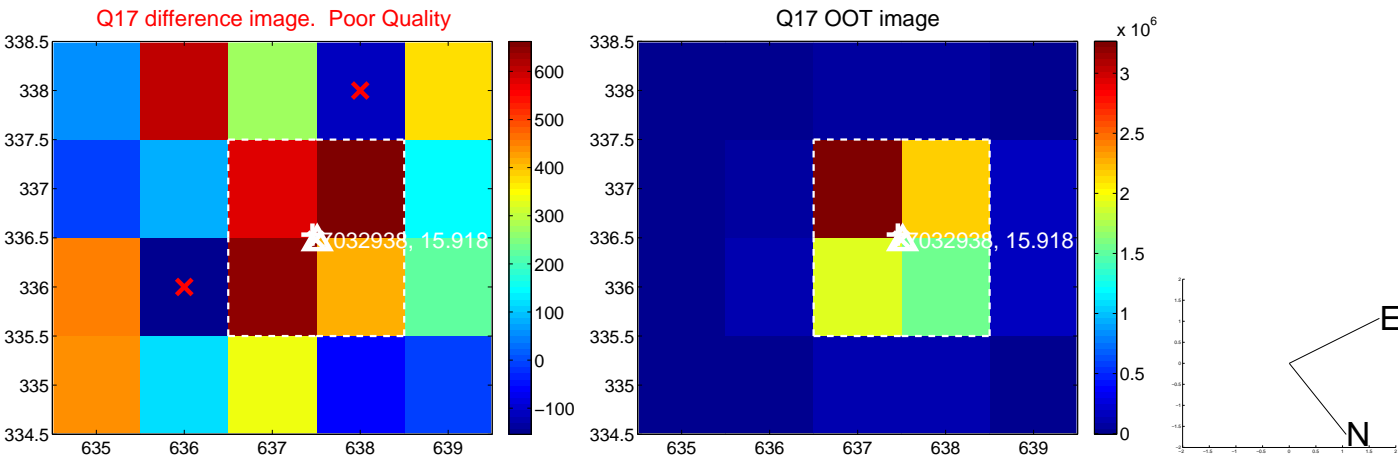
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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



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



folded centroid time series figure for this object.

UKIRT Image

Declination

