

# KIC 004261149

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
004261149-01	OBS	No	1.038566	131.545050	248.6	3.500	8.7	-1.0	1.34	6909	2.14	7578.37

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004261149-01	OBS	FP	0.00	1	0	0	0	<del>SWEET_NTL</del> <del>—LPP_DV</del> <del>—CENT_NOFITS</del>

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

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

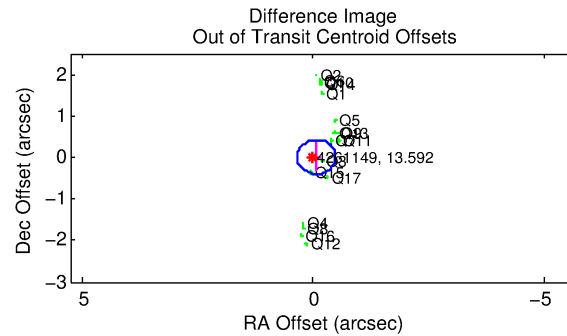
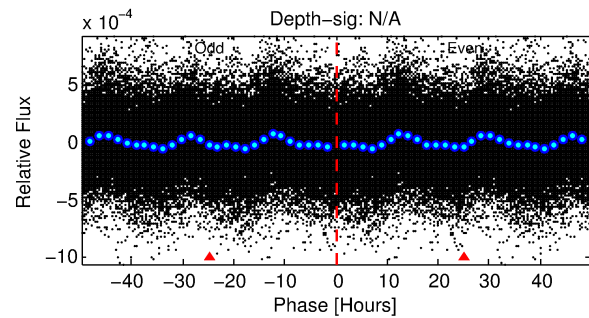
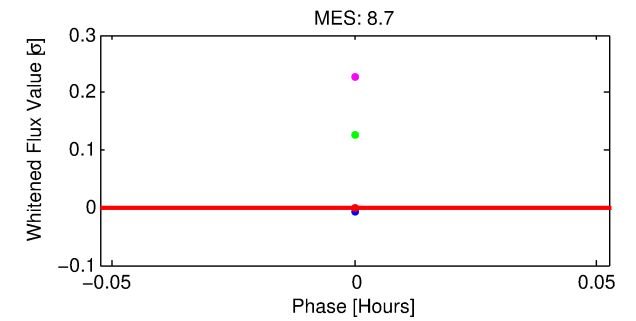
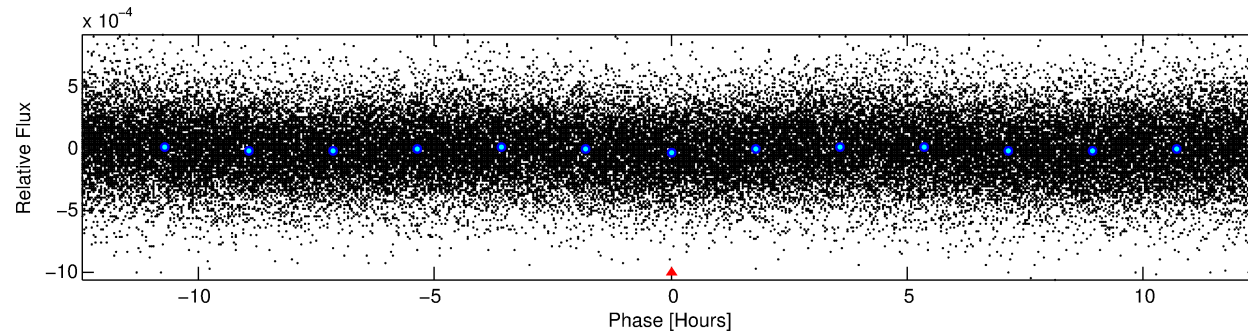
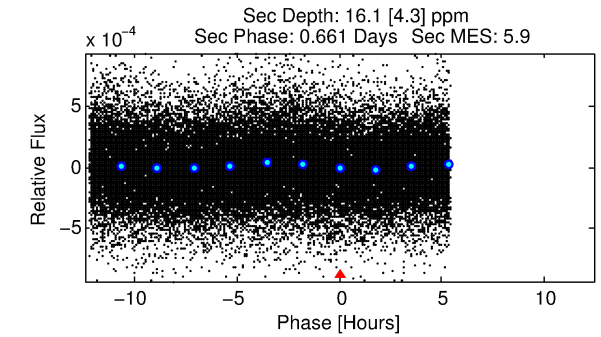
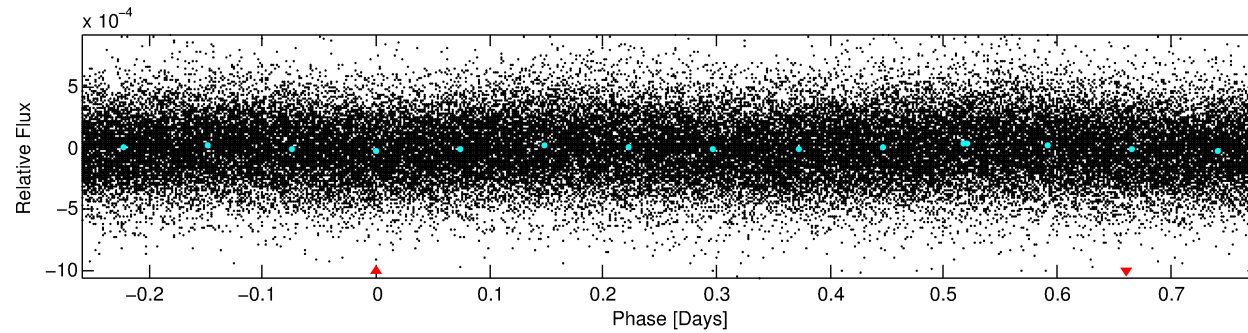
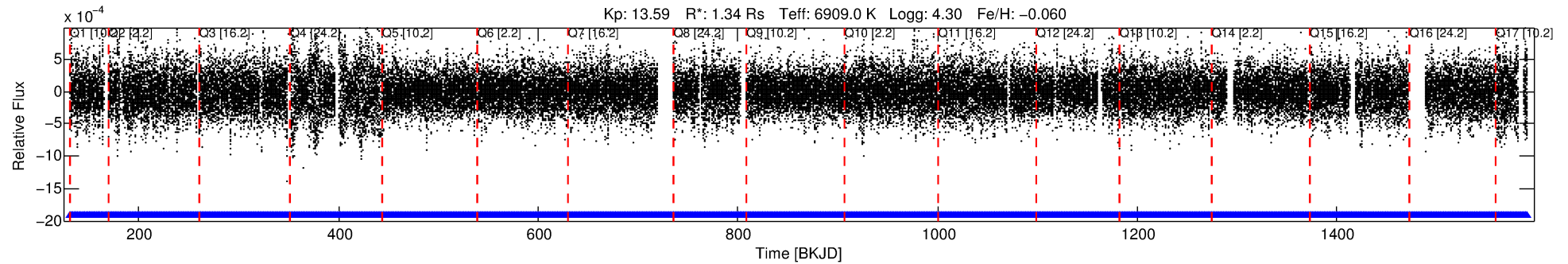
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

Ephemeris Match Information For 004261149-01

No Significant Match Found

# DV One-Page Summary

KIC: 4261149 Candidate: 1 of 1 Period: 1.039 d



## TPS TCE Results:

Period = 1.03857 d  
Epoch = 131.5450 BKJD

DV fit results are unavailable

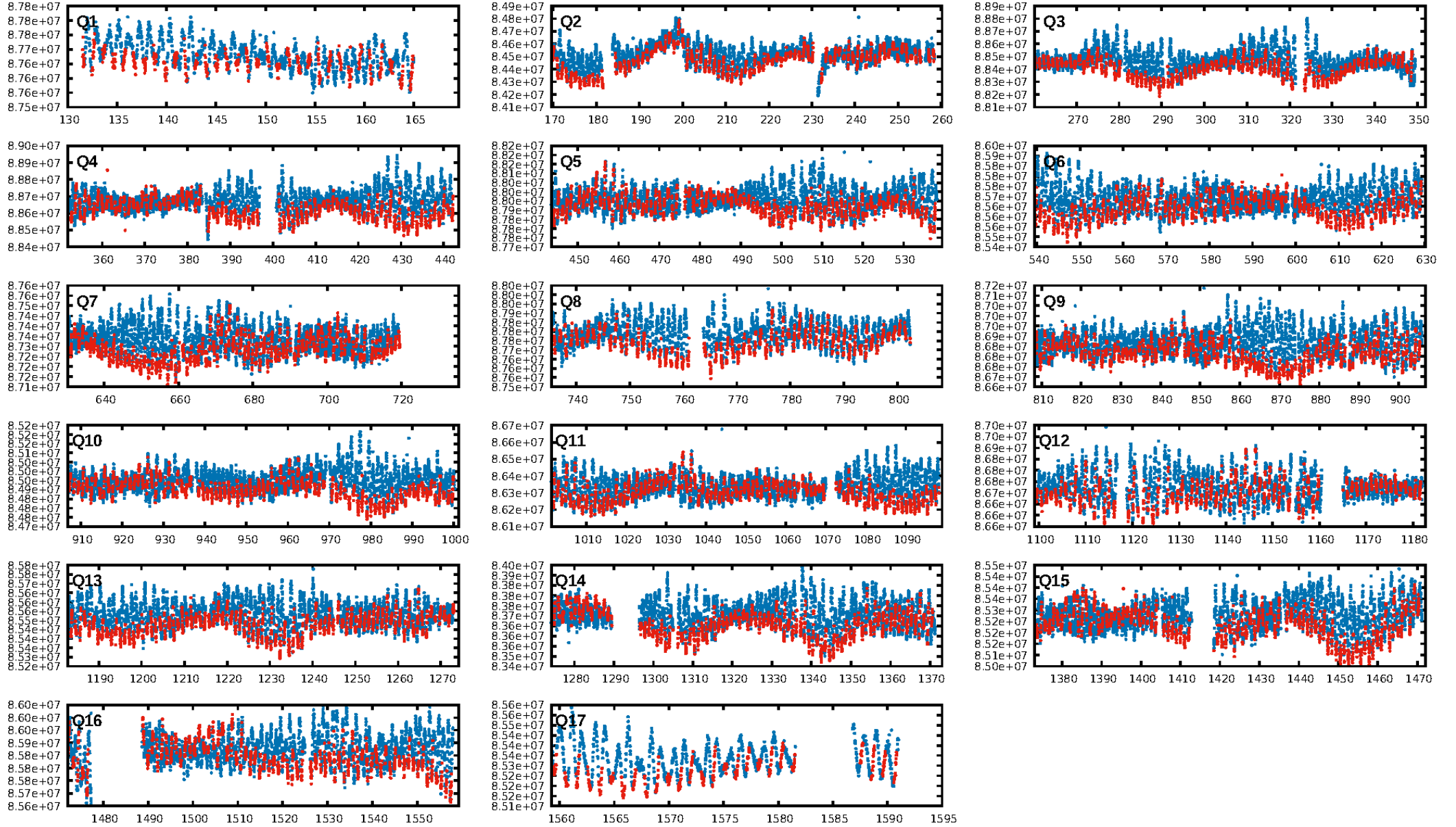
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: 1.24e-14  
RollingBand-fgt: 1.00 [1252/1252]  
GhostDiagnostic-chr: 0.4748  
Centroid-sig: 0.0%  
Centroid-so: 1.126 arcsec [5.82 $\sigma$ ]  
OotOffset-rm: 0.068 arcsec [0.49 $\sigma$ ]  
KicOffset-rm: 0.265 arcsec [1.86 $\sigma$ ]  
OotOffset-st: 4/4/4/5 [17]  
KicOffset-st: 4/4/4/5 [17]  
DiffImageQuality-fgm: 1.00 [17/17]  
DiffImageOverlap-fno: 1.00 [17/17]

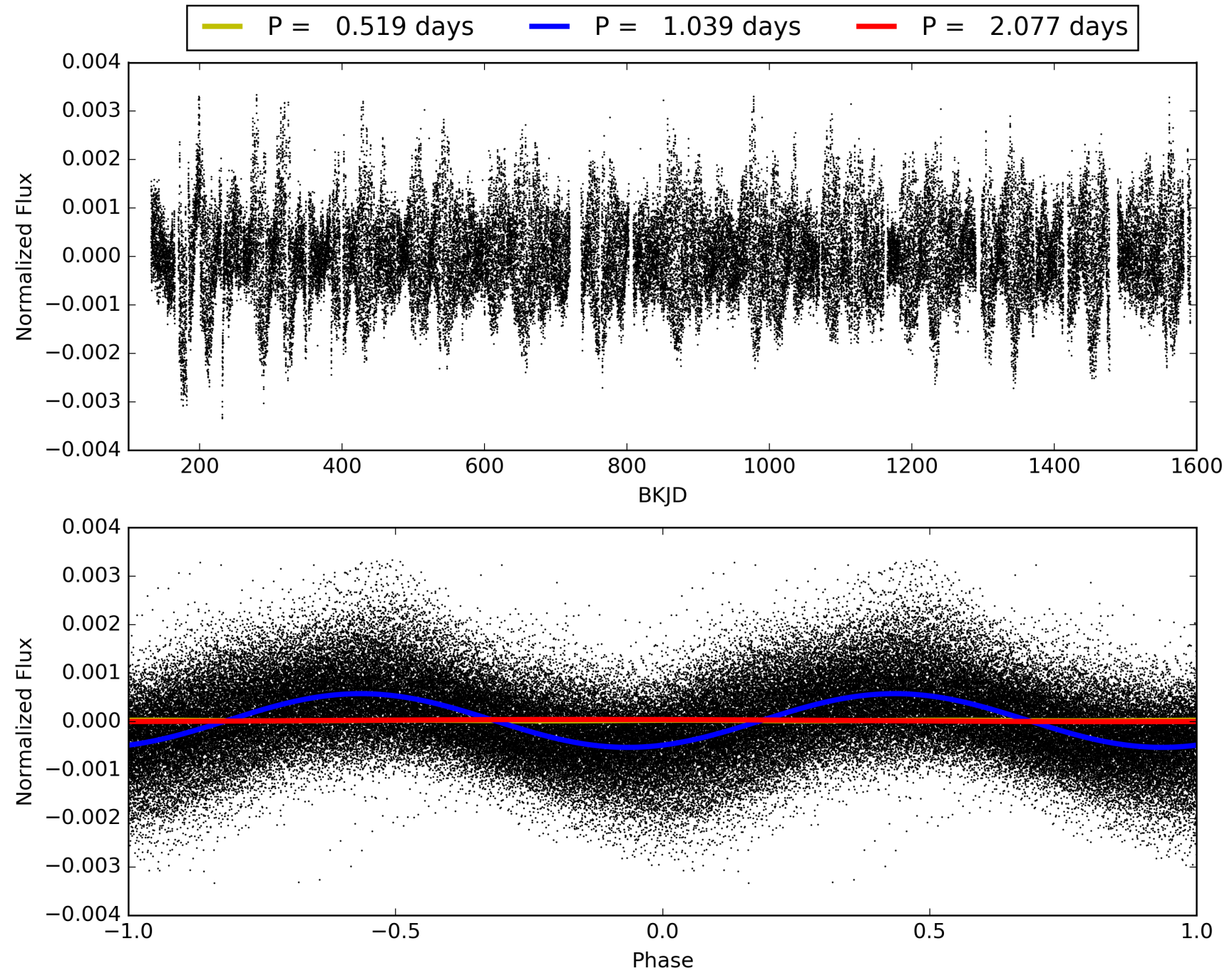
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 04:05:11 Z

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

# TCE 004261149-01, PDC Light Curves



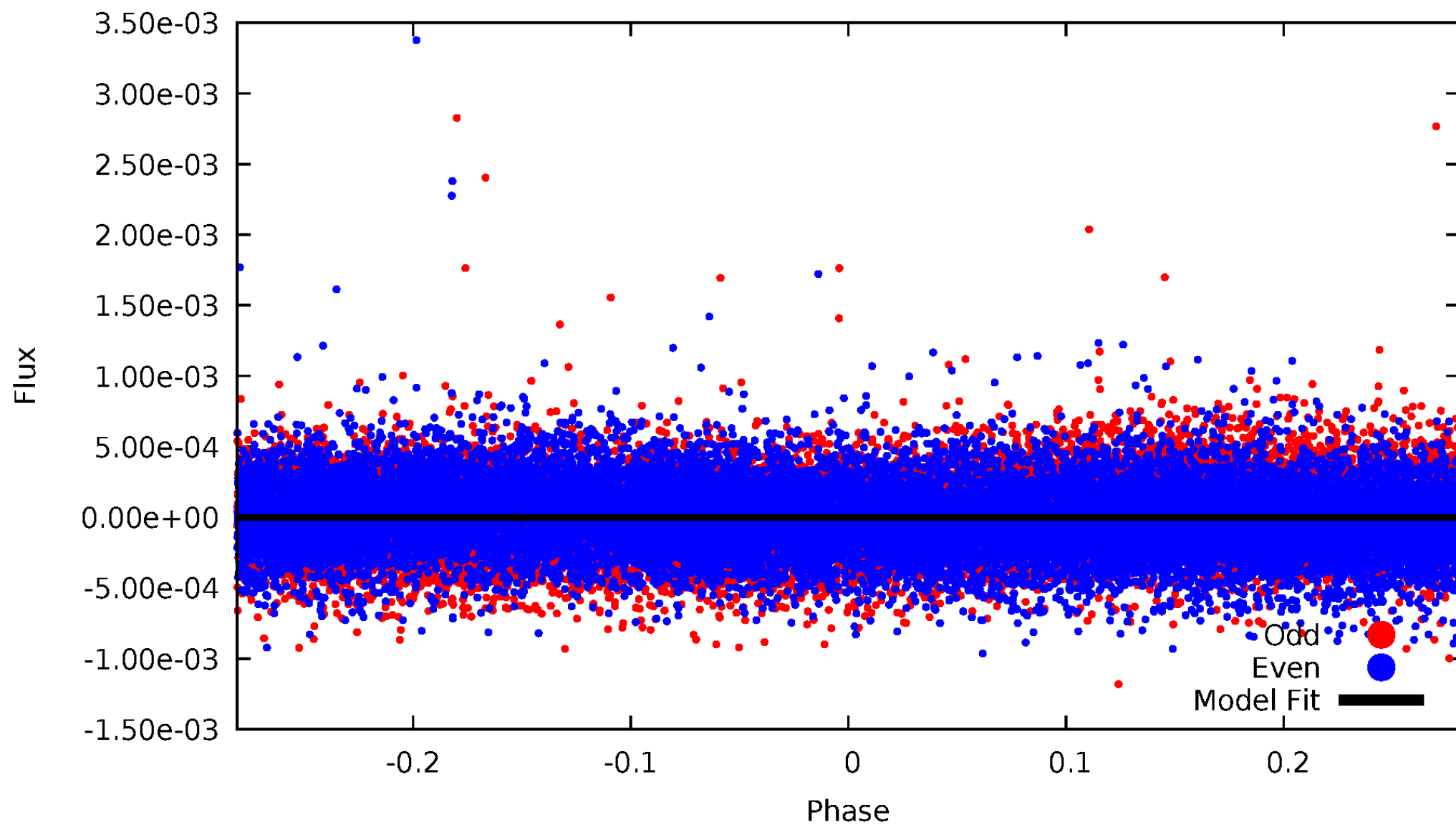
TCE 004261149-01





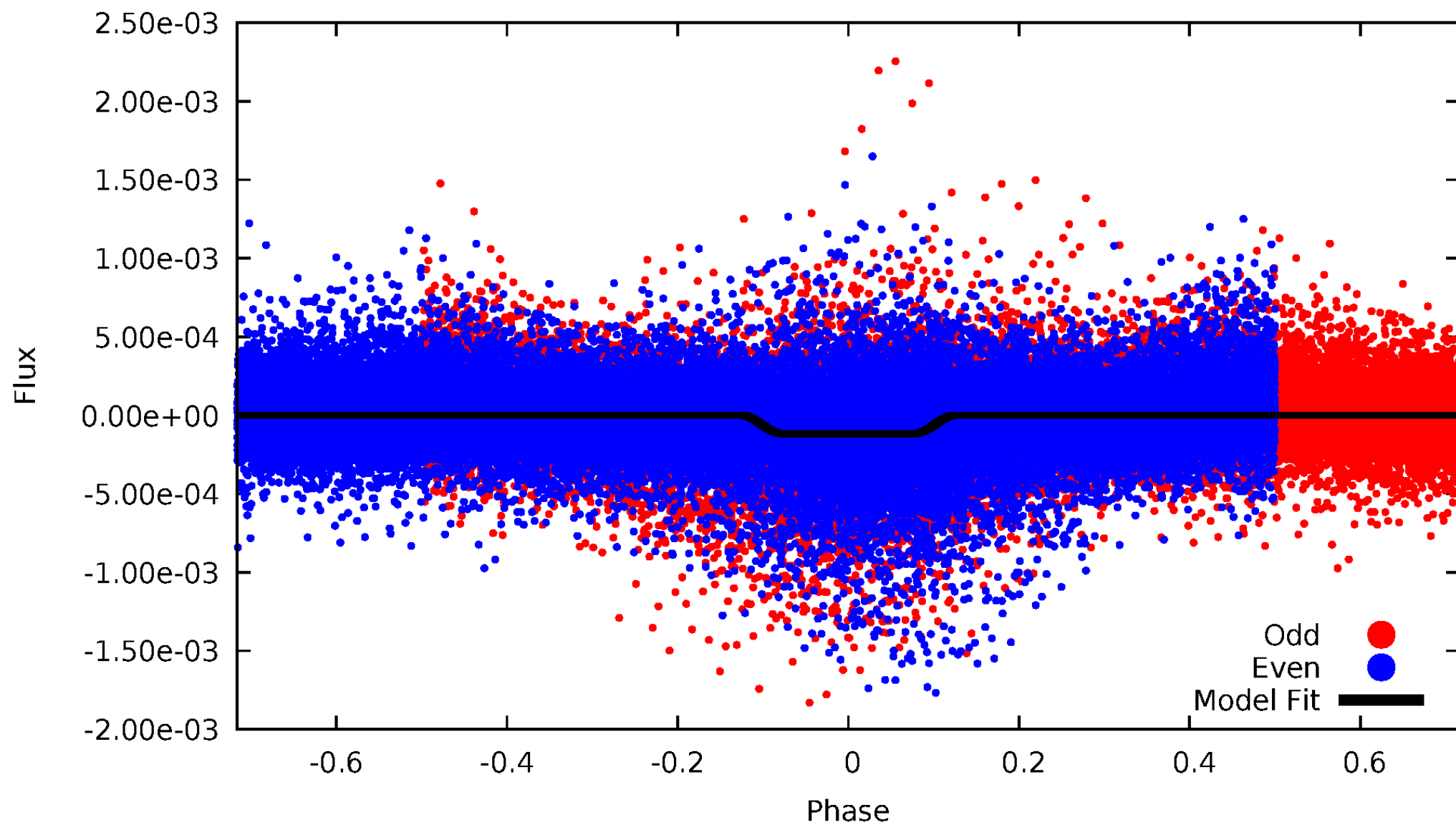
# DV Odd/Even

TCE 004261149-01

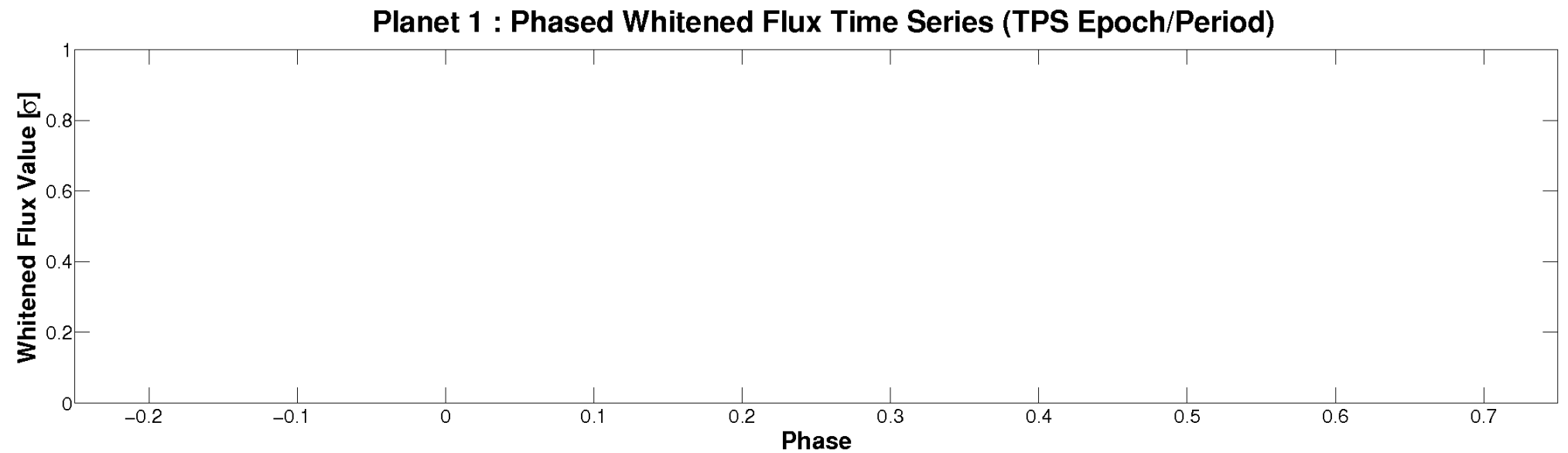
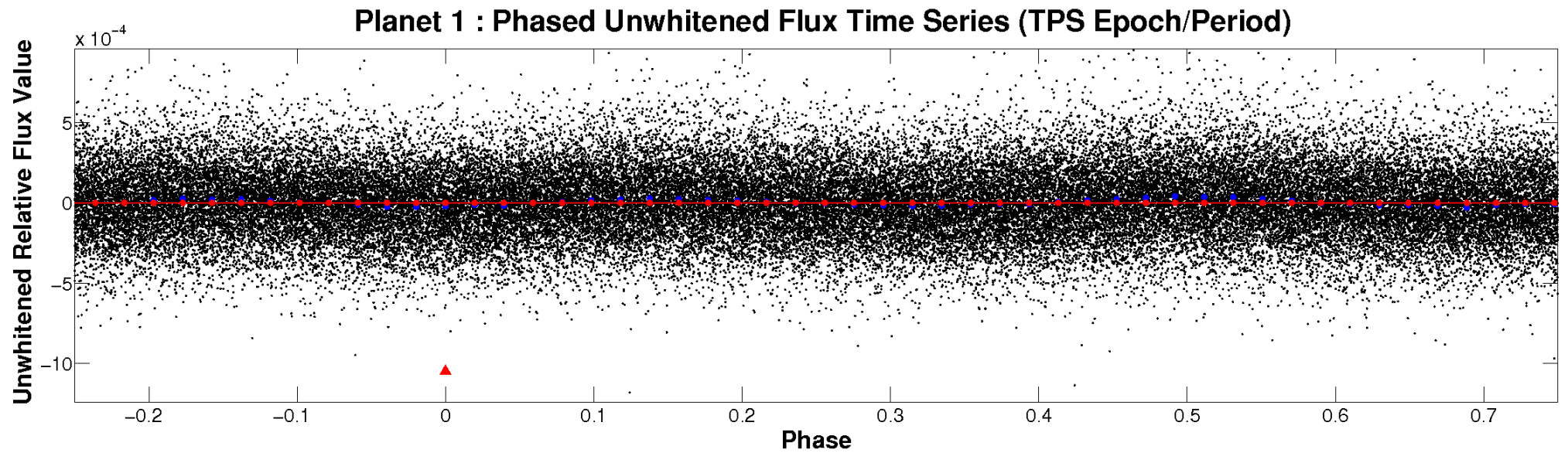


# ALT Odd/Even

TCE 004261149-01

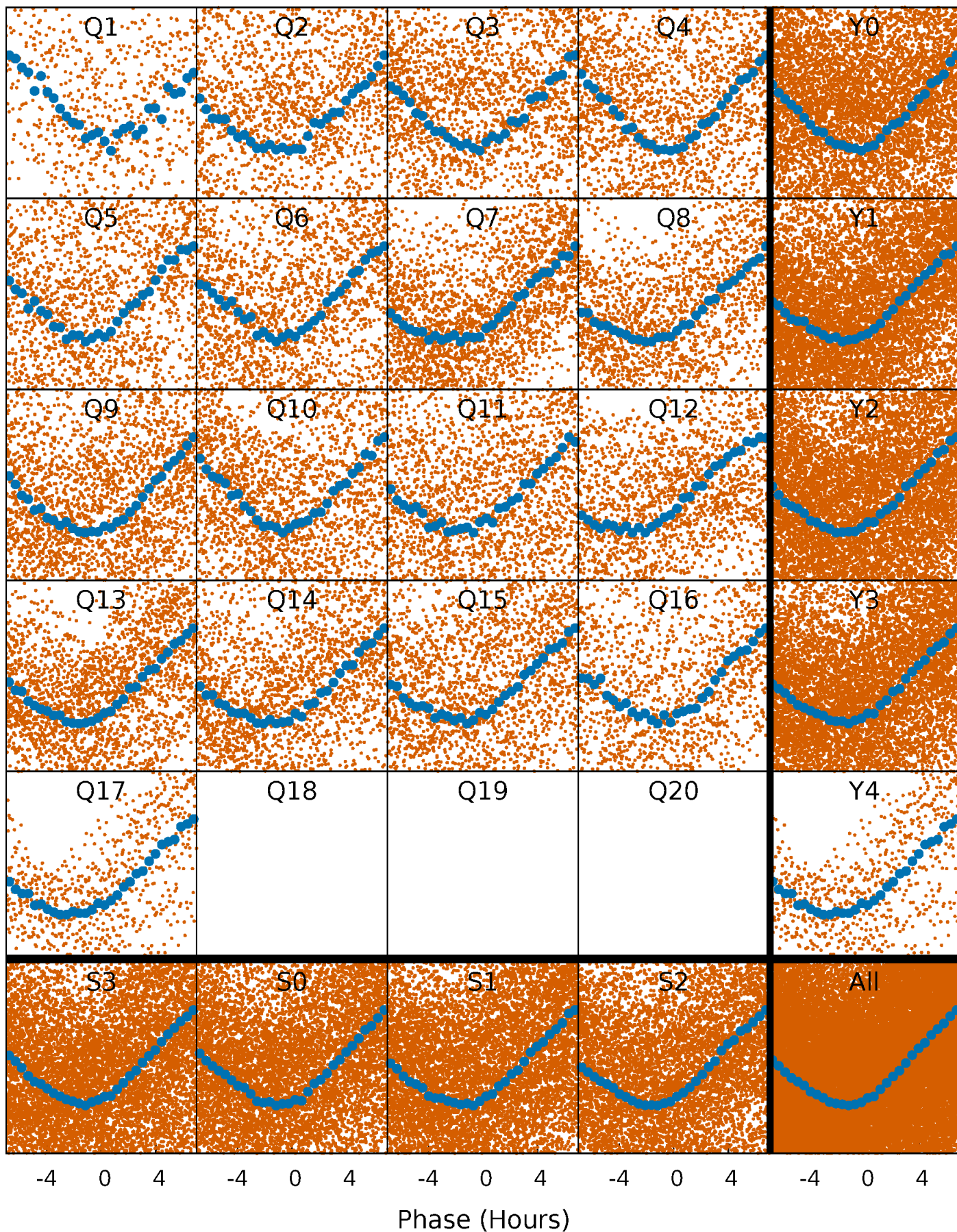


# Non-Whitened Vs. Whitened Light Curve



# PDC Quarter-Phased Transit Curves

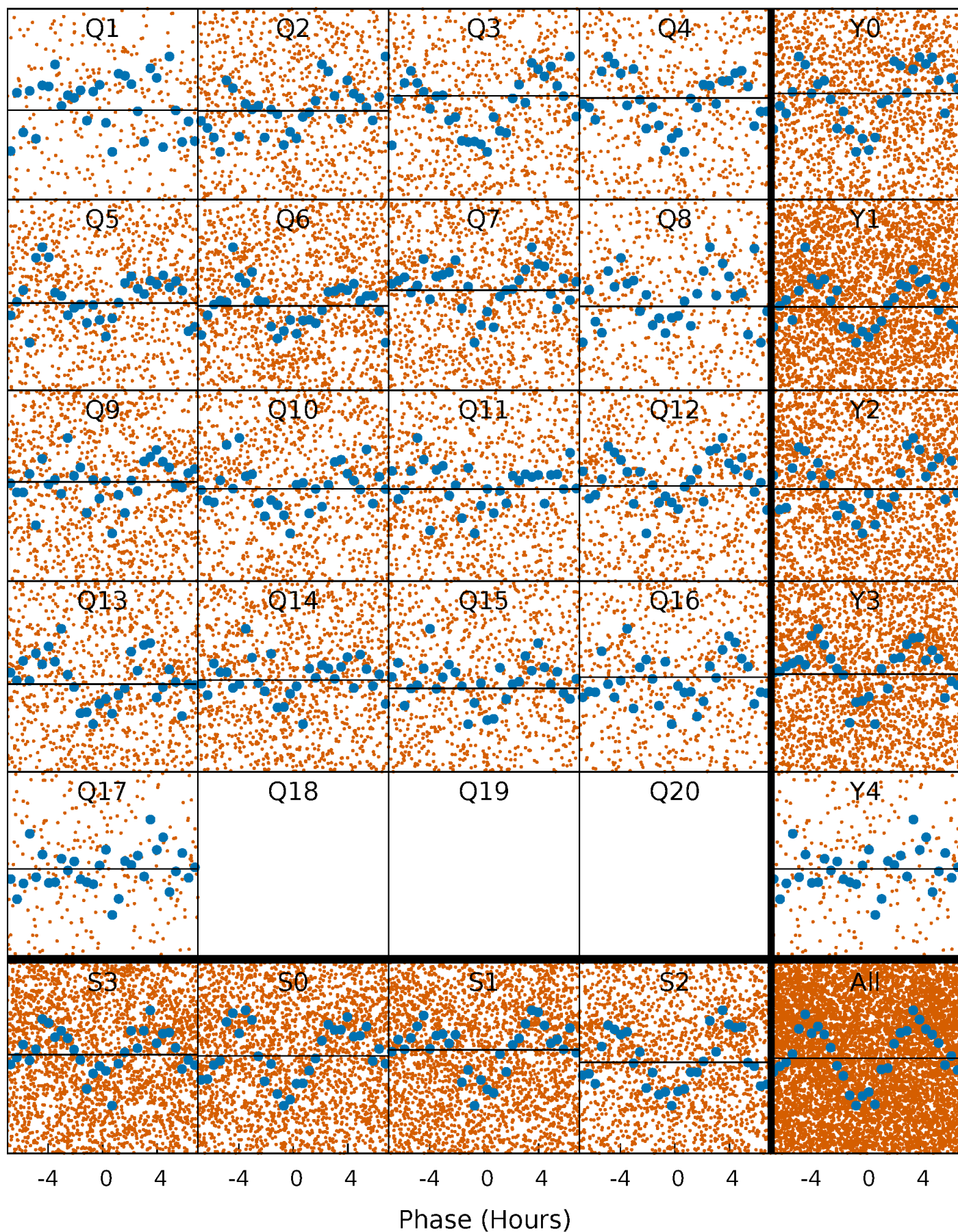
TCE 004261149-01 P= 1.038566 Days  $T_0=131.545050$  (BKJD)





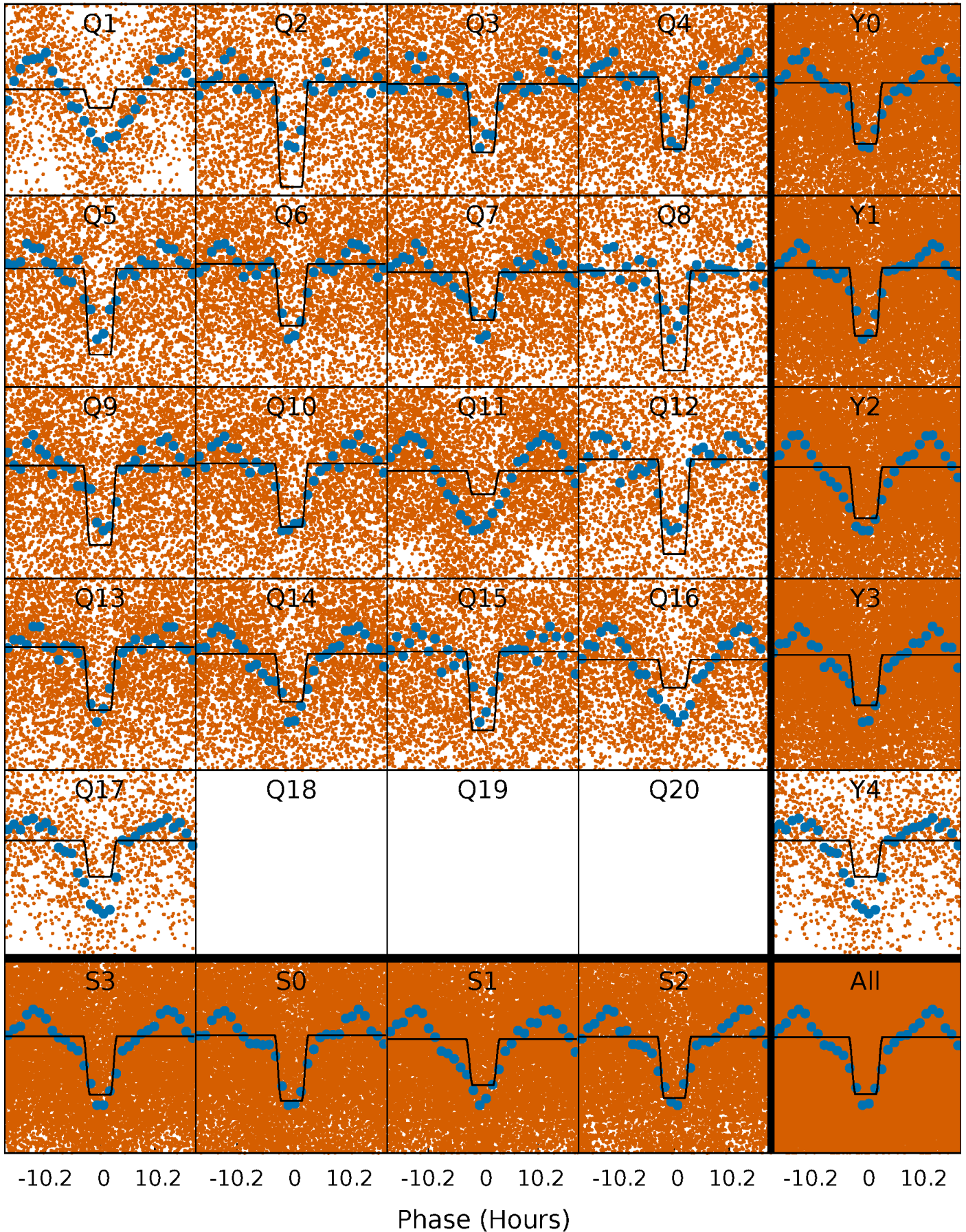
# DV Quarter-Phased Transit Curves

TCE 004261149-01 P= 1.038566 Days  $T_0=131.545050$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

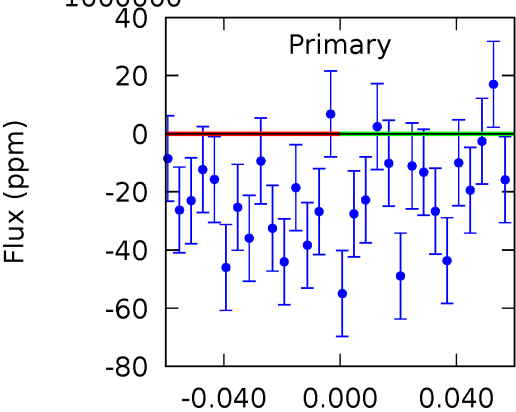
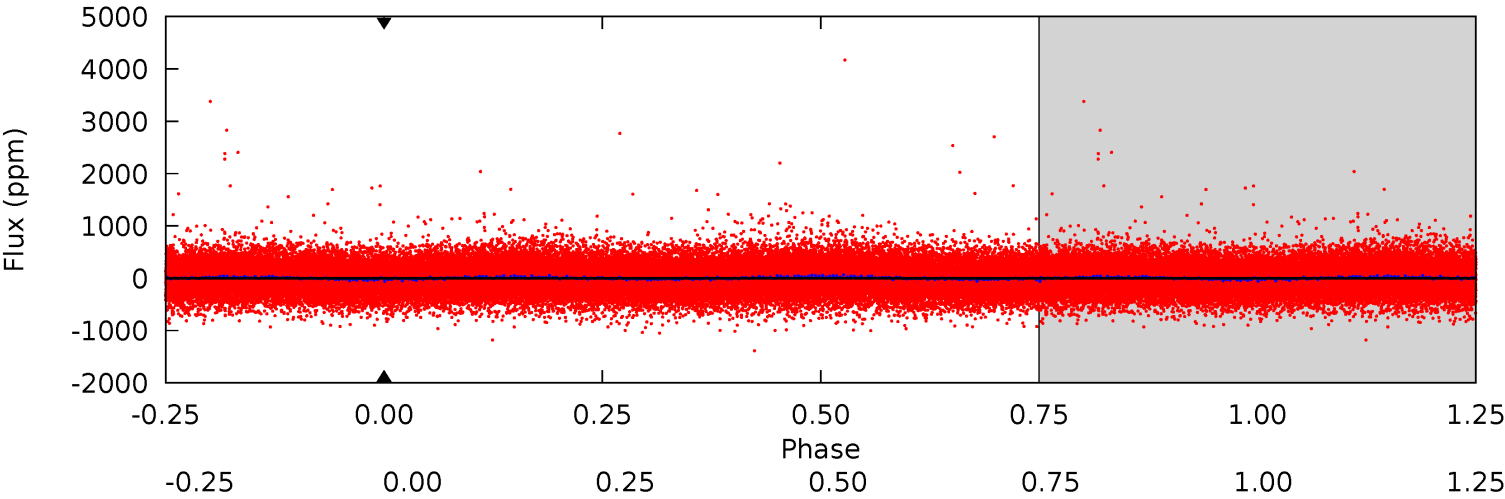
TCE 004261149-01 P= 1.038566 Days  $T_0=131.534483$  (BKJD)



DV Model-Shift Uniqueness Test

004261149-01, P = 1.038566 Days, E = 130.506484 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

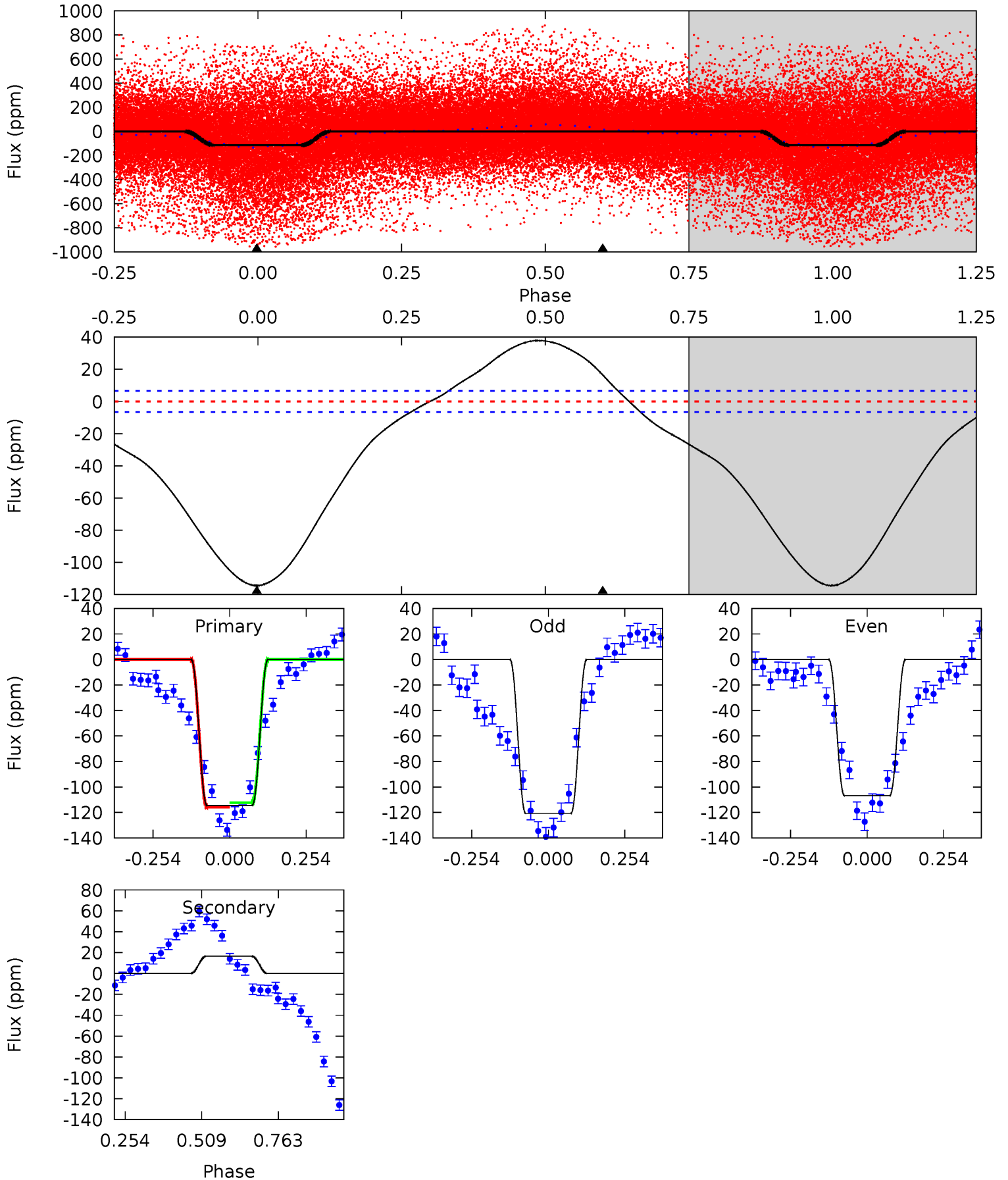




# Alt Model-Shift Uniqueness Test

004261149-01, P = 1.038566 Days, E = 130.495917 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
76.5	-11.0	0	0	4.36	1.14	3.95	76.5	76.5	-11.0	-11.0	4.66	1.26	0.25	1.09





### Stellar Parameters For KIC 004261149

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$6909^{+193}_{-265}$	$4.304^{+0.072}_{-0.217}$	$-0.060^{+0.250}_{-0.350}$	$1.344^{+0.500}_{-0.167}$	$1.337^{+0.219}_{-0.179}$	$0.776^{+0.242}_{-0.429}$
	+3%/-4%	+2%/-5%	+417%/-583%	+37%/-12%	+16%/-13%	+31%/-55%
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 004261149-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	$A_{\text{obs}}$
DV	$0 \pm 1000000$	$11.28^{+12.65}_{-7.93}$	$3388^{+241}_{-190}$	$-5744^{+41956}_{-26170}$	$-5.737^{+429.332}_{-356.581}$
Alt.	$16 \pm 1$	$10.72^{+11.18}_{-7.33}$	$3390^{+279}_{-183}$	$-3449^{+165}_{-452}$	$-0.036^{+0.027}_{-0.351}$

$T_{\text{max}}$  = 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

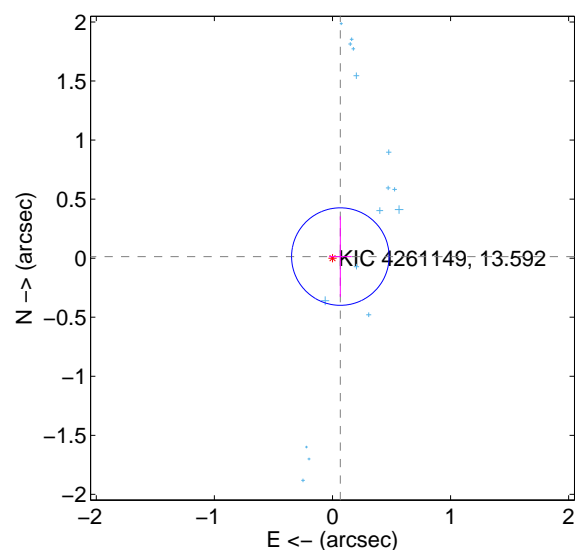
Supplemental centroid analysis for 004261149-01. Kepler magnitude: 13.59. Transit SNR -1.00

There are 17 quarters with good PRF difference image offsets

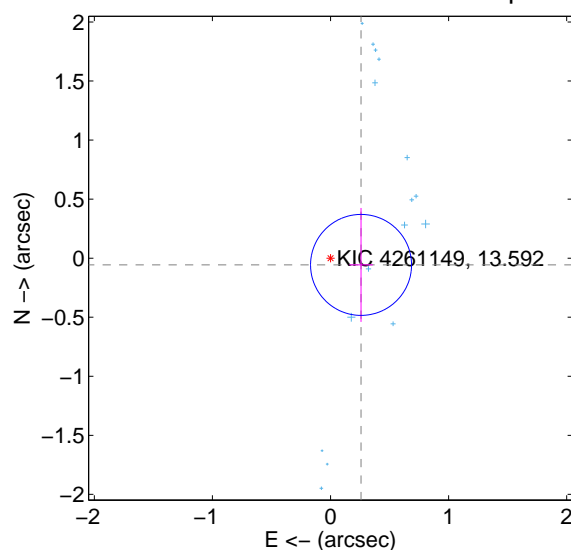
The direct PRF centroid is offset from the target star catalog position by about 0.24 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.068 \pm 0.138$	0.49	$-0.066 \pm 0.096$	$0.013 \pm 0.341$
PRF-fit source offset from KIC position	$0.265 \pm 0.143$	1.86	$-0.259 \pm 0.100$	$-0.057 \pm 0.483$
photometric centroid source offset	$1.13 \pm 0.19$	5.82	$-0.76 \pm 0.19$	$0.83 \pm 0.19$

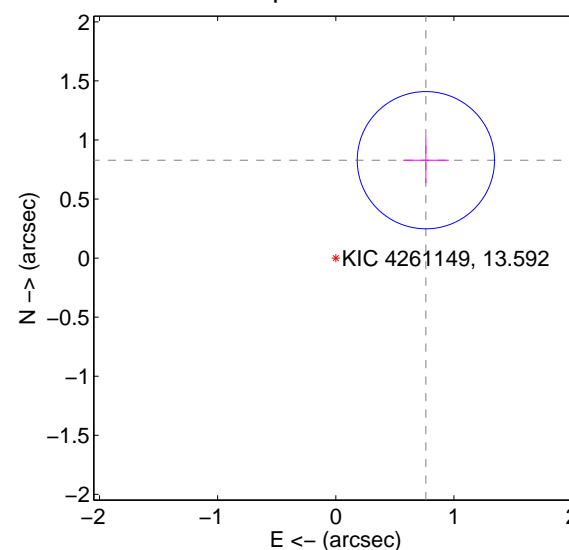
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

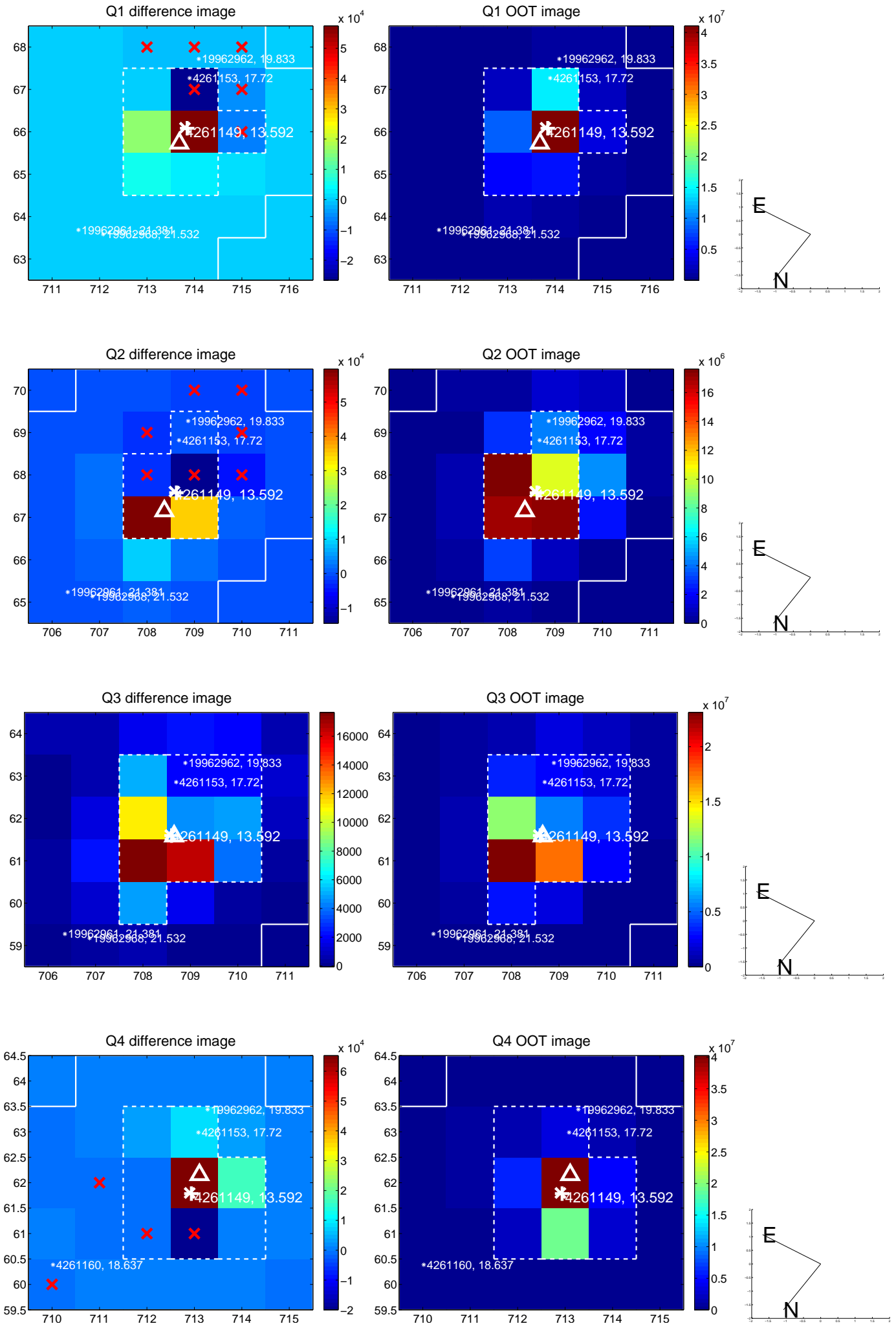


offset from photometric centroids

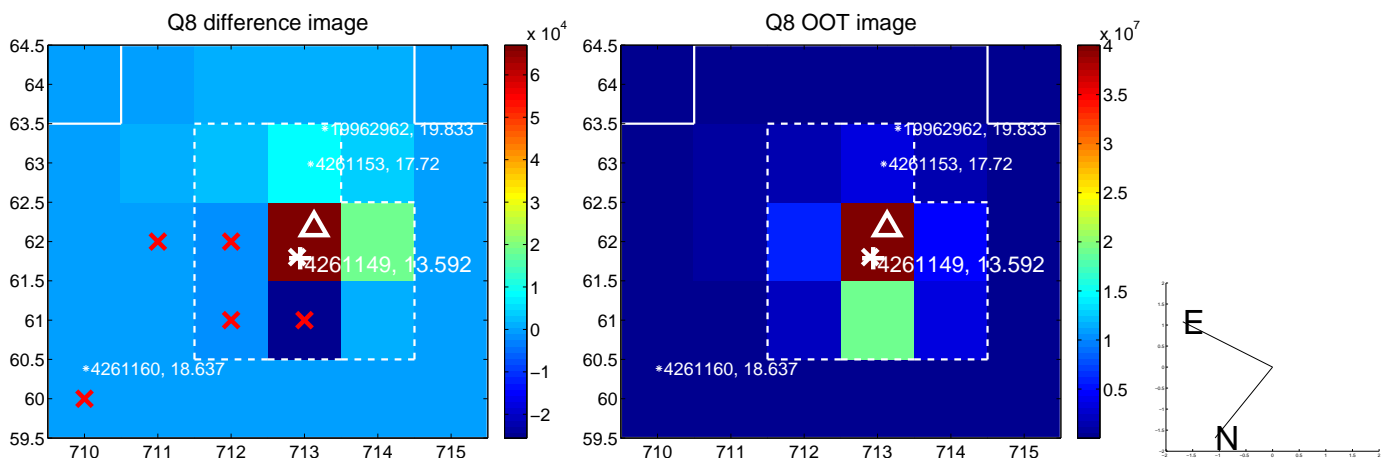
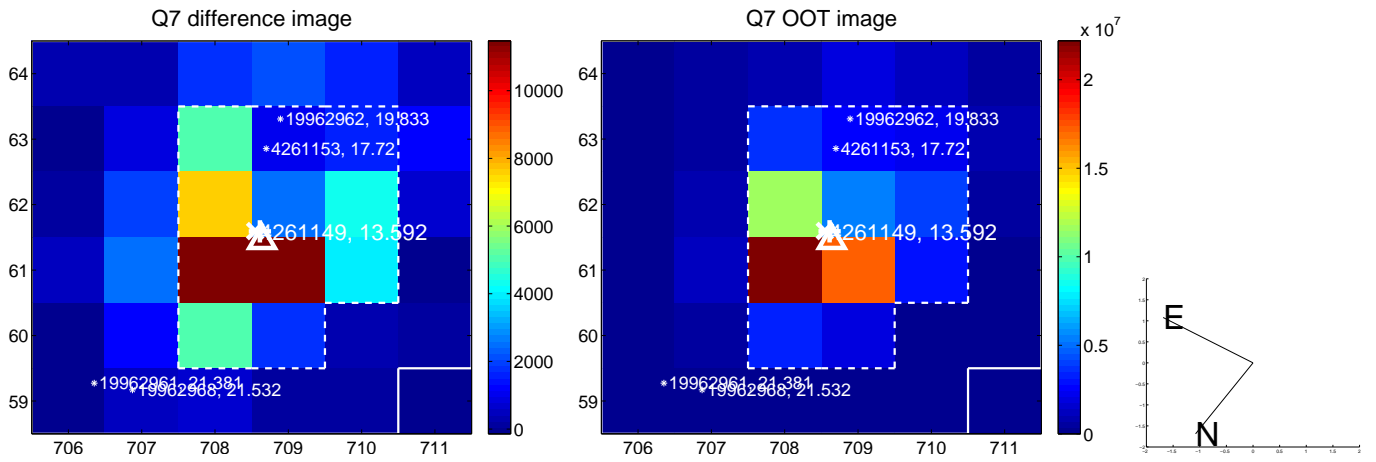
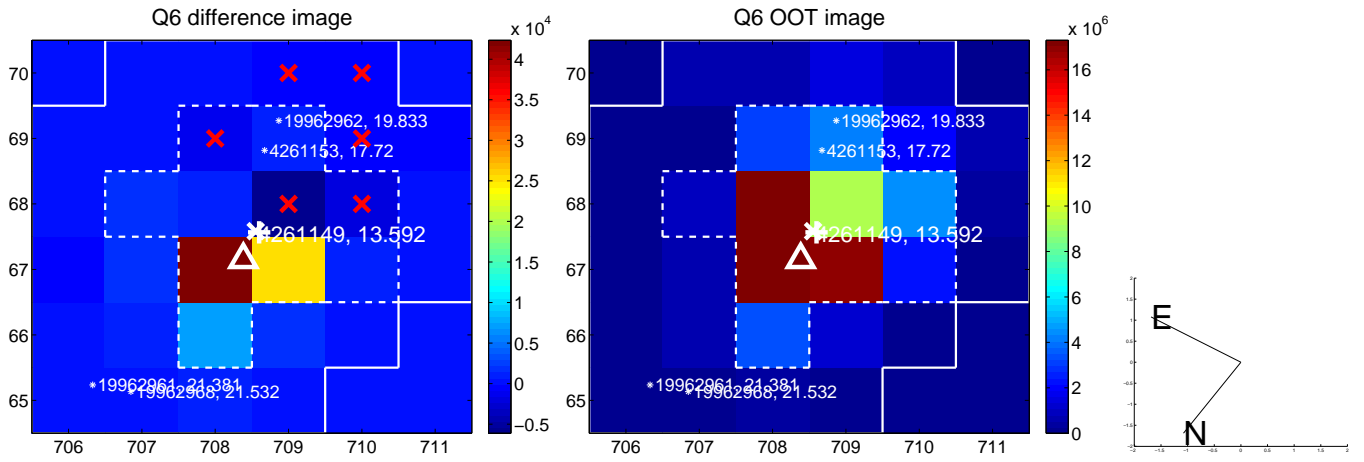
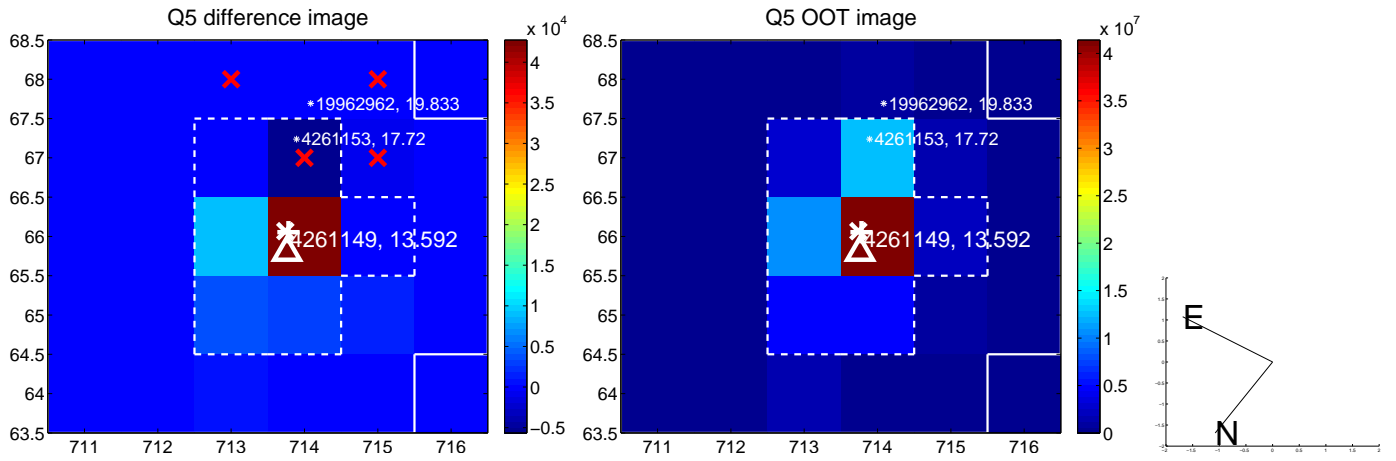


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

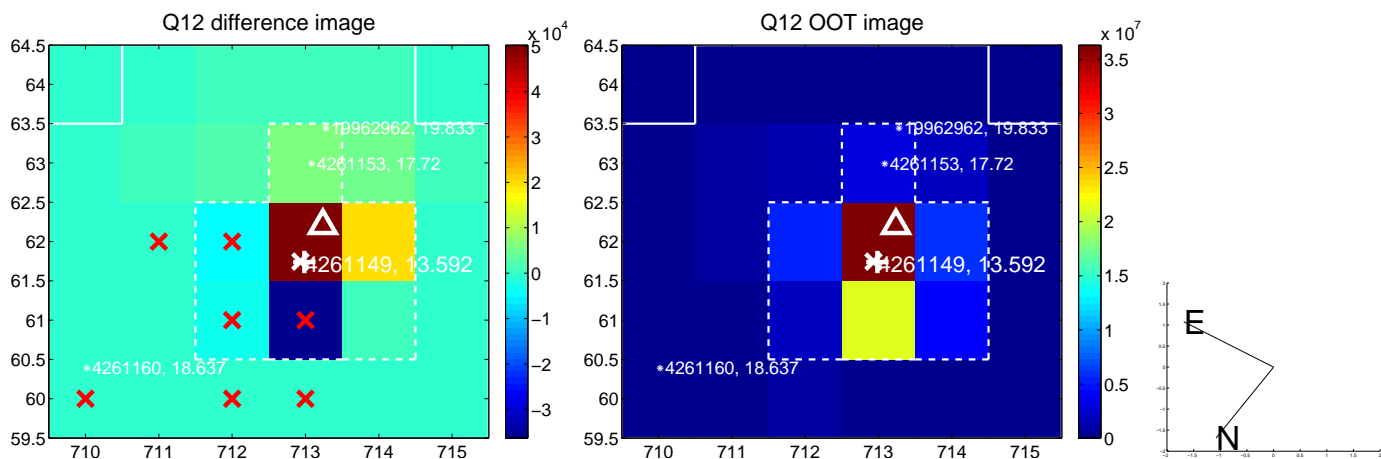
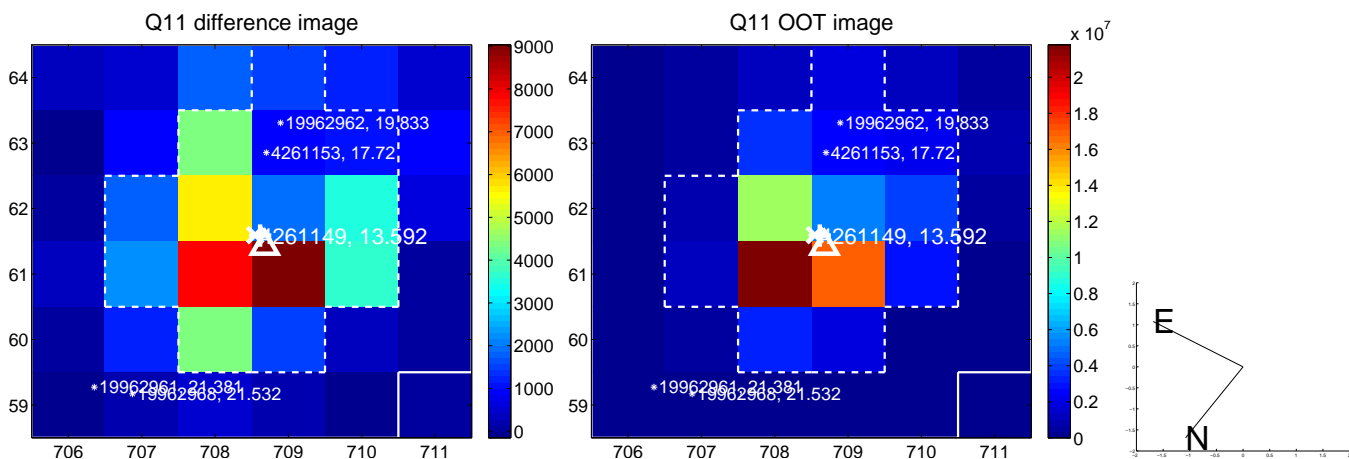
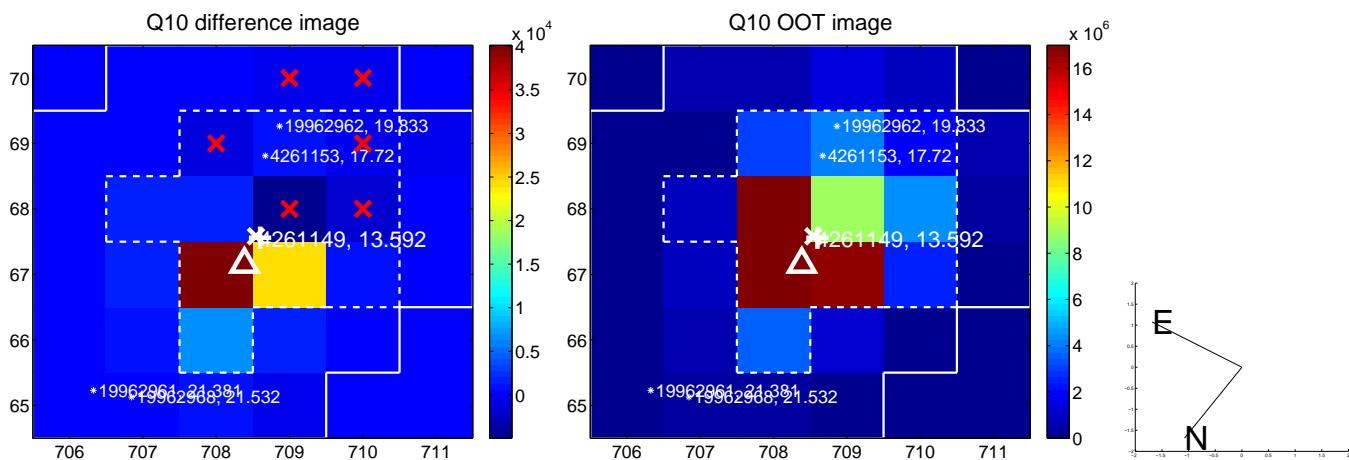
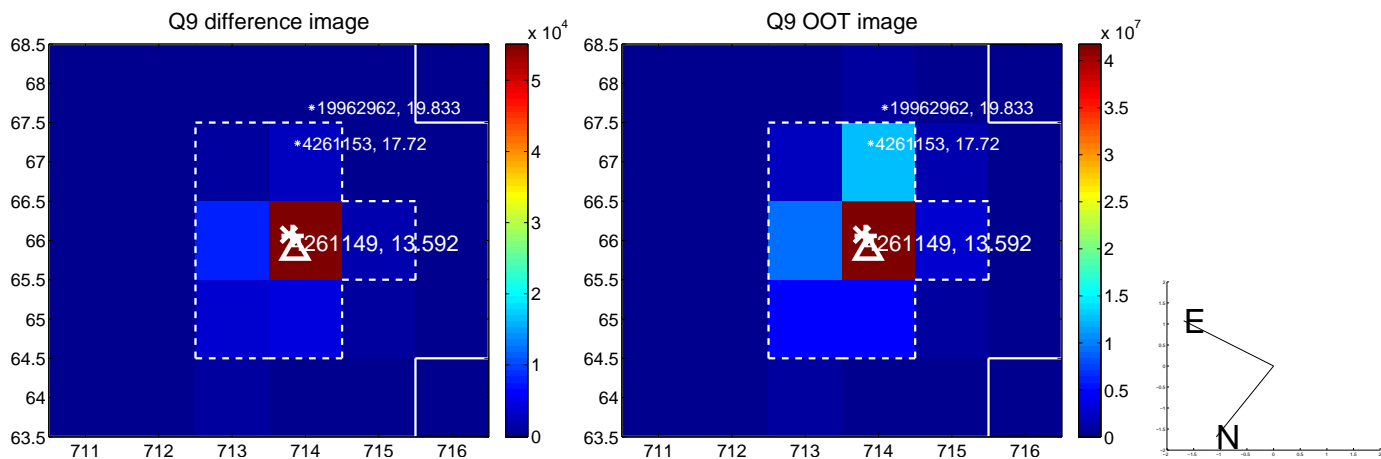


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

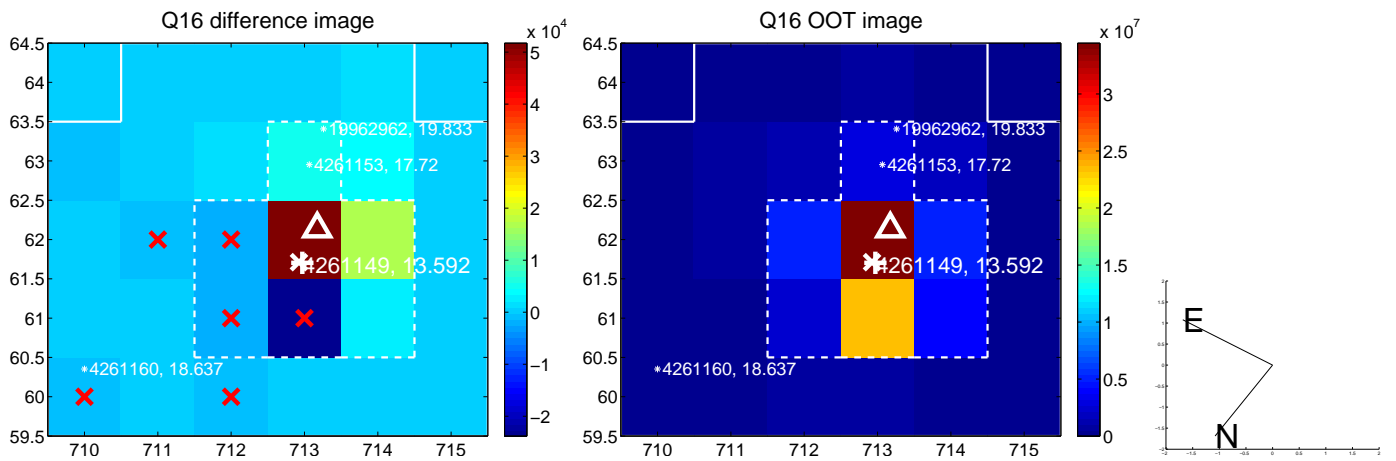
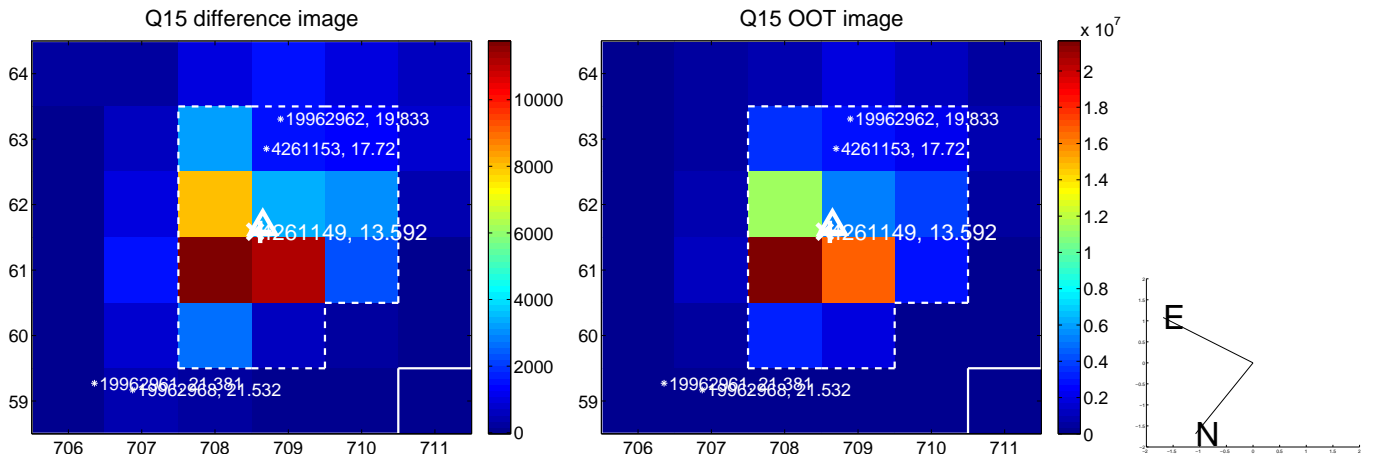
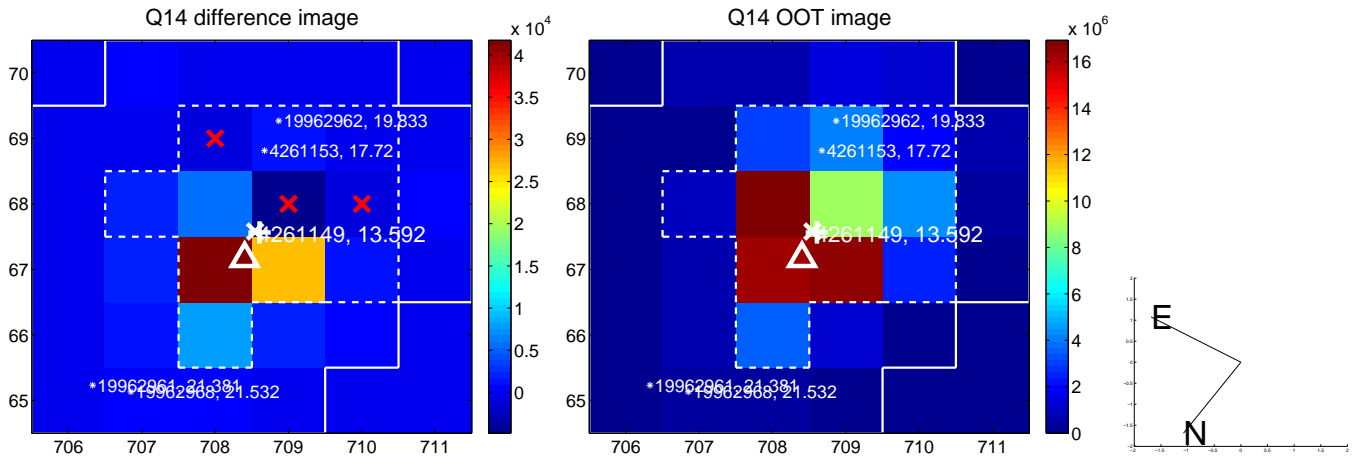
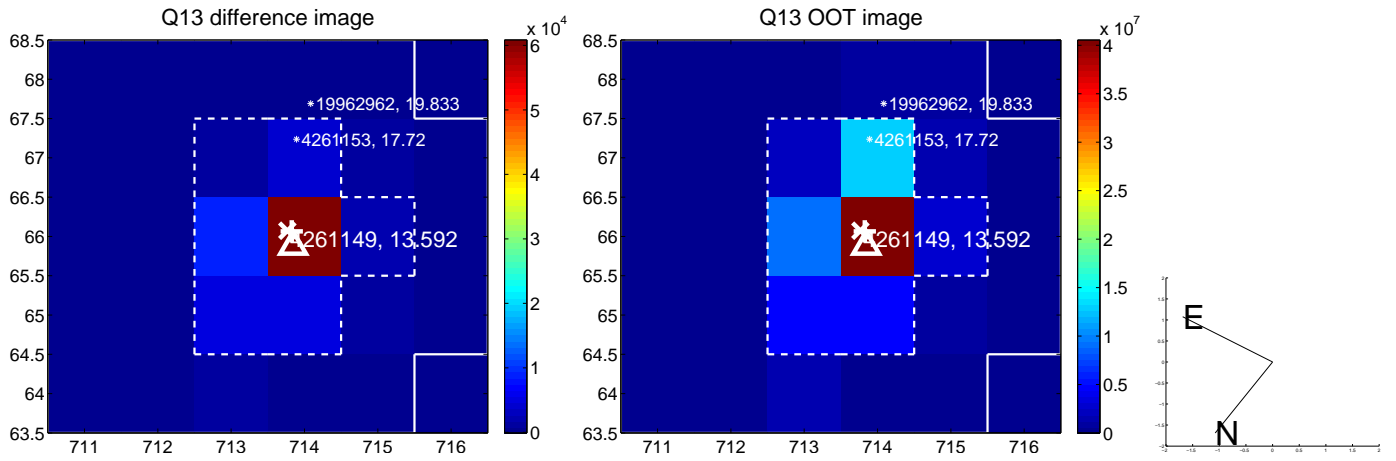




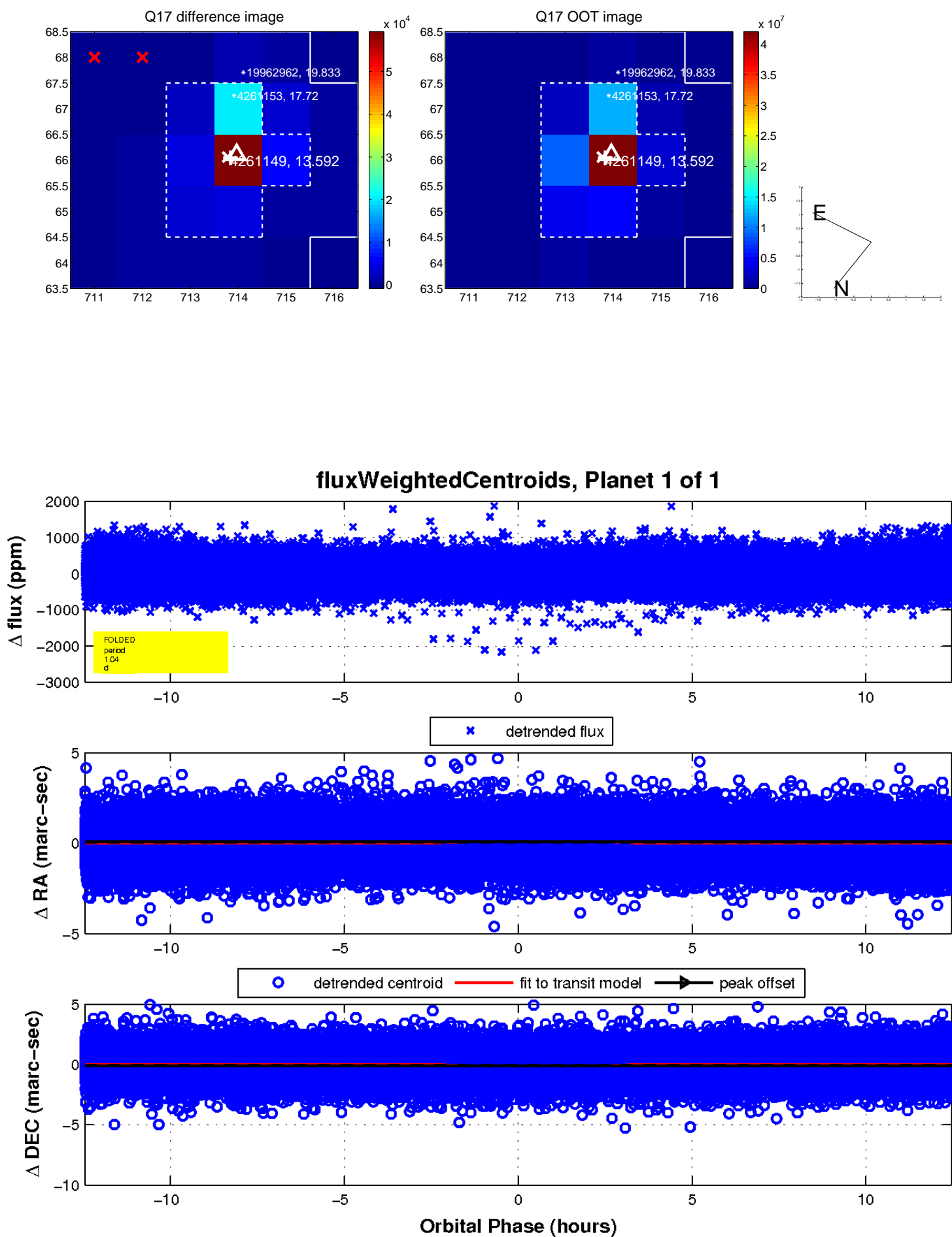
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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



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



UKIRT Image

Declination

