

# KIC 008265194

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
008265194-01	OBS	No	3.375891	132.637362	30.4	4.868	7.8	6.4	1.09	6541	0.73	935.90

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008265194-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

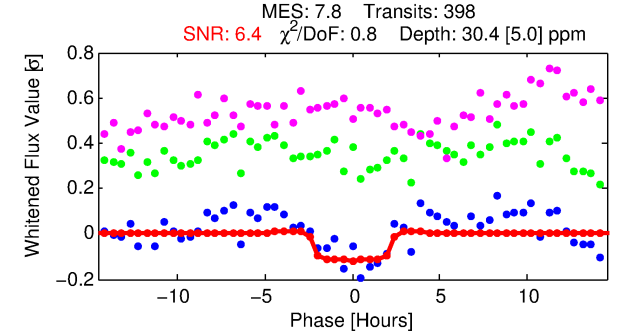
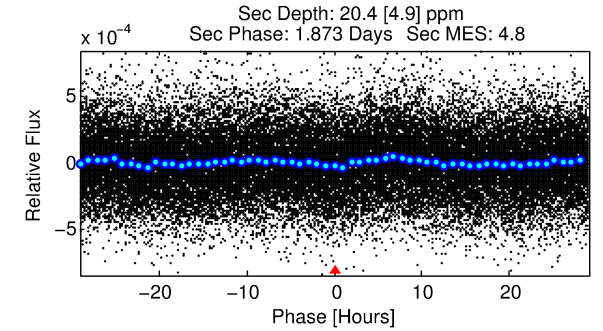
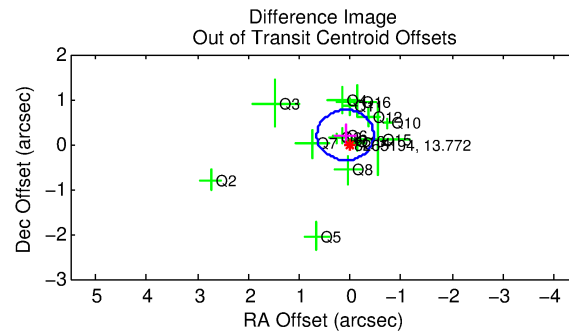
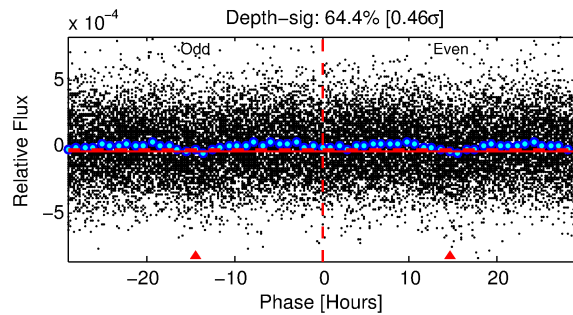
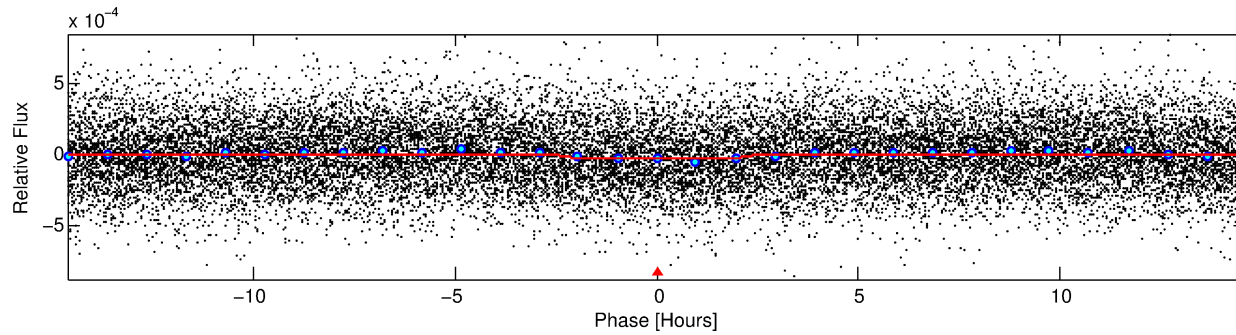
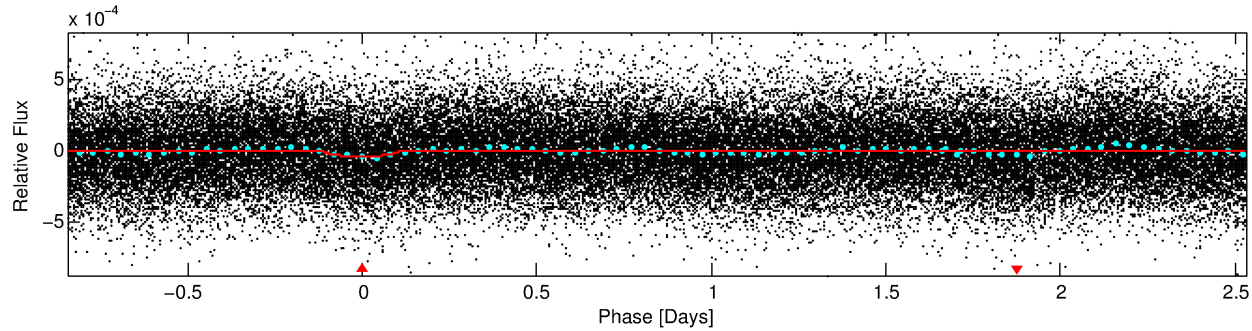
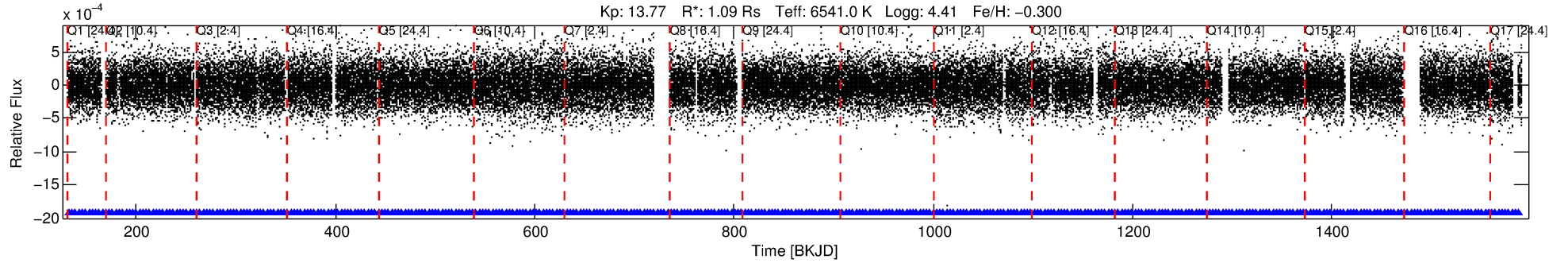
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 008265194-01

No Significant Match Found

# DV One-Page Summary

KIC: 8265194 Candidate: 1 of 1 Period: 3.376 d



## DV Fit Results:

Period = 3.37589 [0.00005] d  
Epoch = 132.6374 [0.0090] BKJD  
Rp/R\* = 0.0061 [0.0027]  
a/R\* = 2.16 [4.47]  
b = 0.94 [0.34]  
Seff = 935.90 [367.25]  
Teff = 1410 [138] K  
Rp = 0.73 [0.39] Re  
a = 0.0458 [0.0118] AU  
Ag = 44.16 [43.37] [1.00 $\sigma$ ]  
Teffp = 5621 [1292] K [3.24 $\sigma$ ]

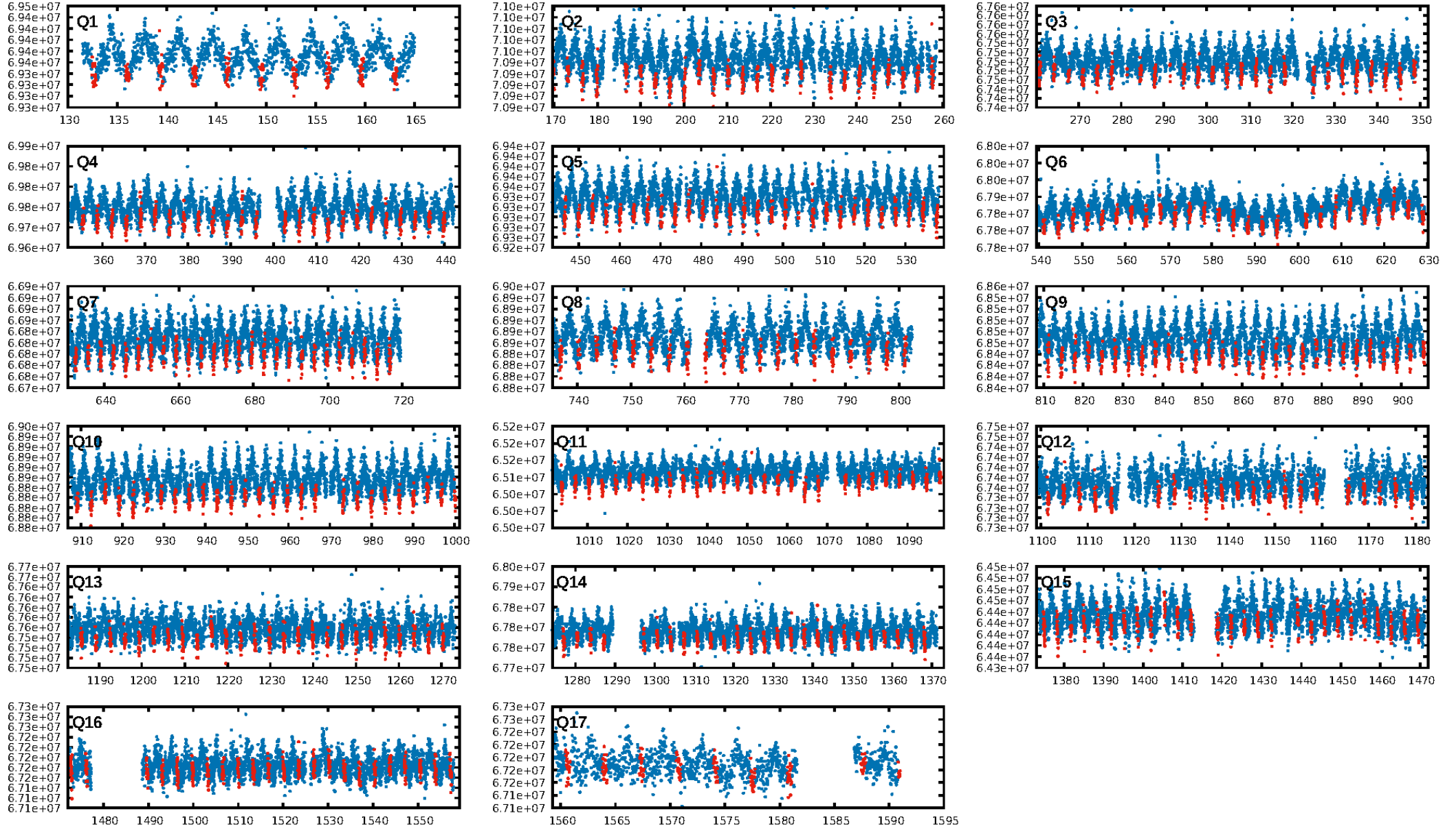
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: 3.66e-14  
RollingBand-fgt: 1.00 [379/379]  
GhostDiagnostic-chr: 0.7581  
Centroid-sig: 94.6%  
Centroid-so: 0.847 arcsec [0.44 $\sigma$ ]  
OotOffset-rm: 0.225 arcsec [1.21 $\sigma$ ]  
KicOffset-rm: 0.245 arcsec [1.26 $\sigma$ ]  
OotOffset-st: 4/4/4/3 [15]  
KicOffset-st: 4/4/4/3 [15]  
DiffImageQuality-fgm: 1.00 [15/15]  
DiffImageOverlap-fno: 1.00 [17/17]

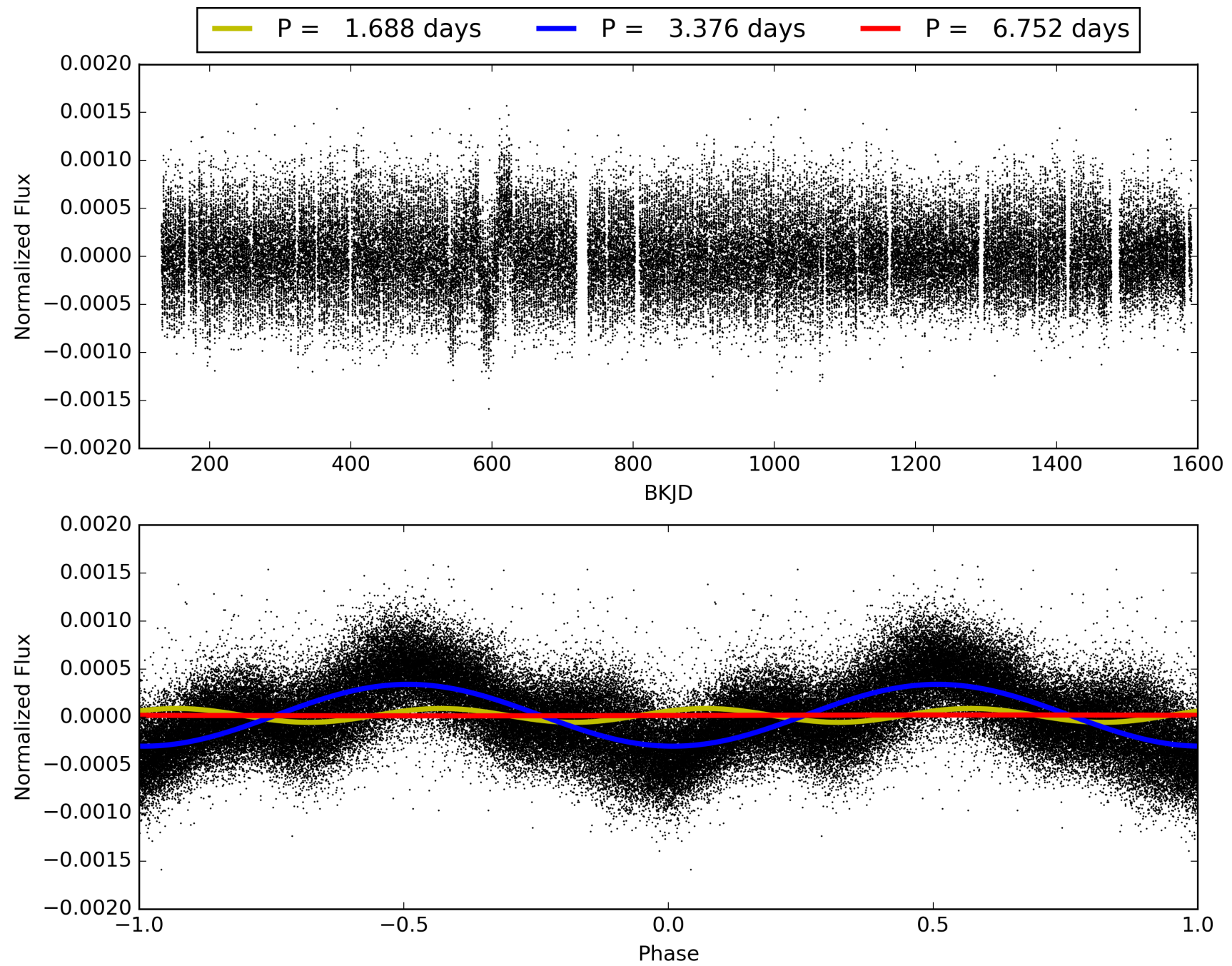
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 22:24:34 Z

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

# TCE 008265194-01, PDC Light Curves



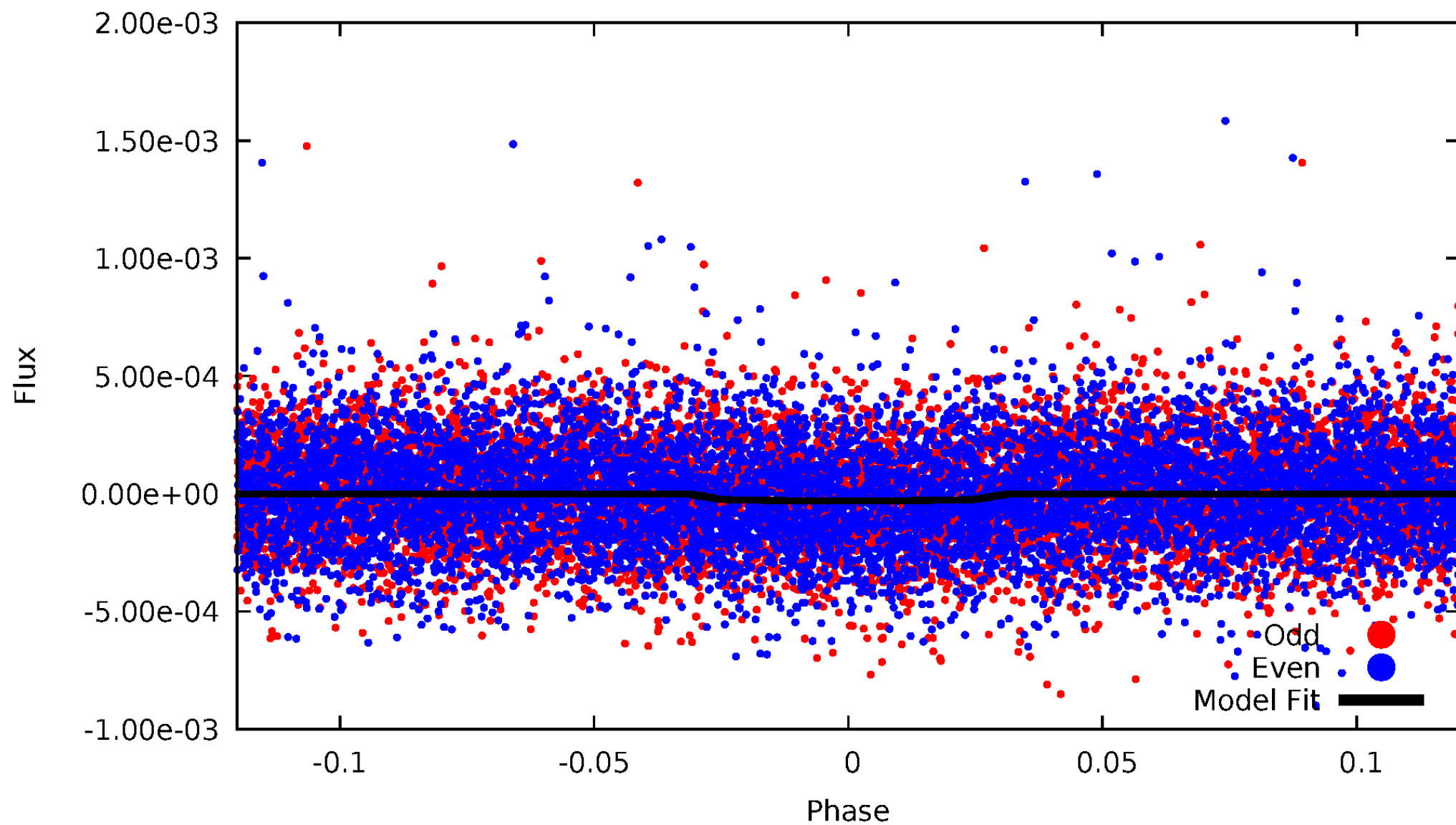
TCE 008265194-01





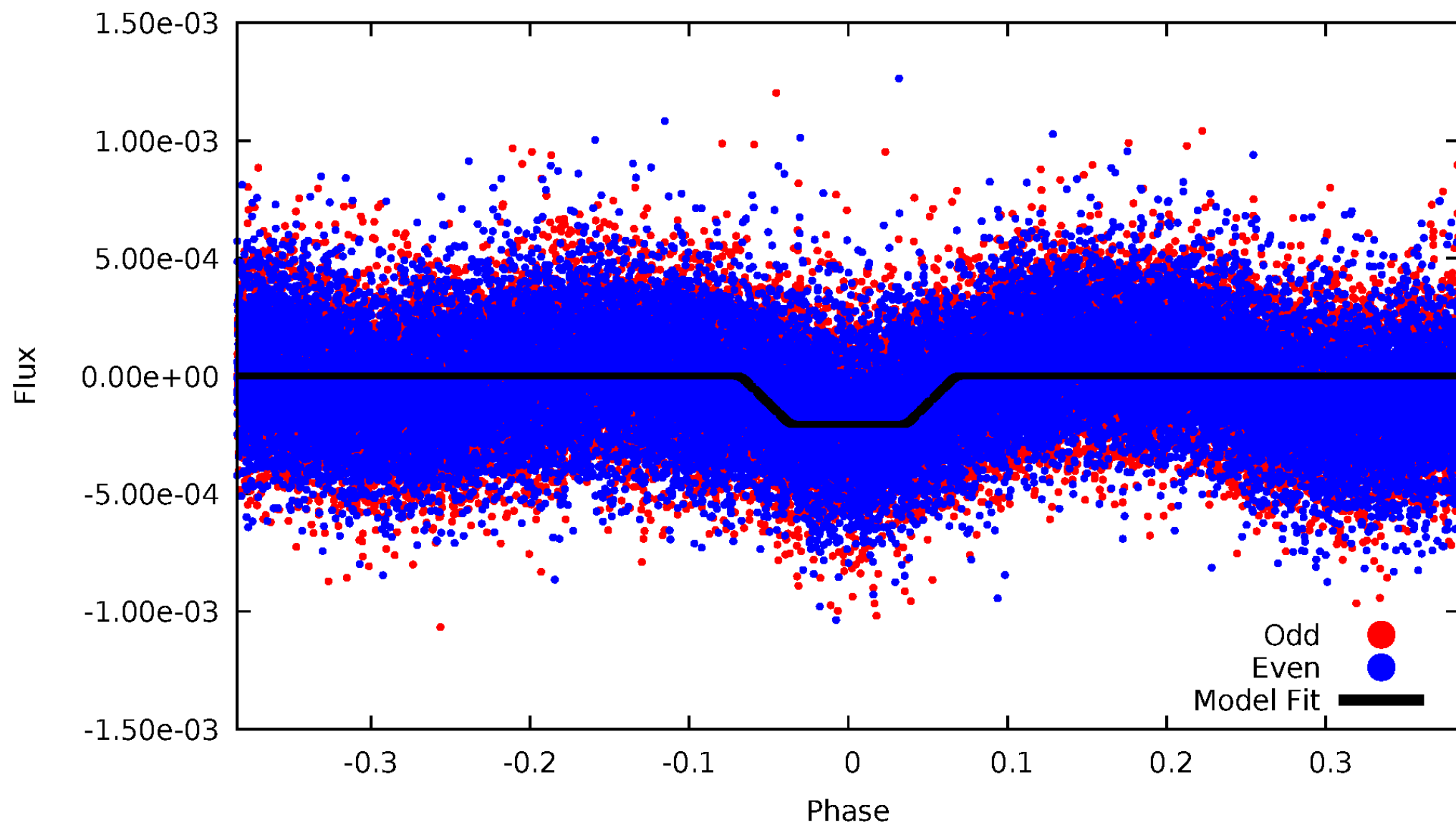
# DV Odd/Even

TCE 008265194-01

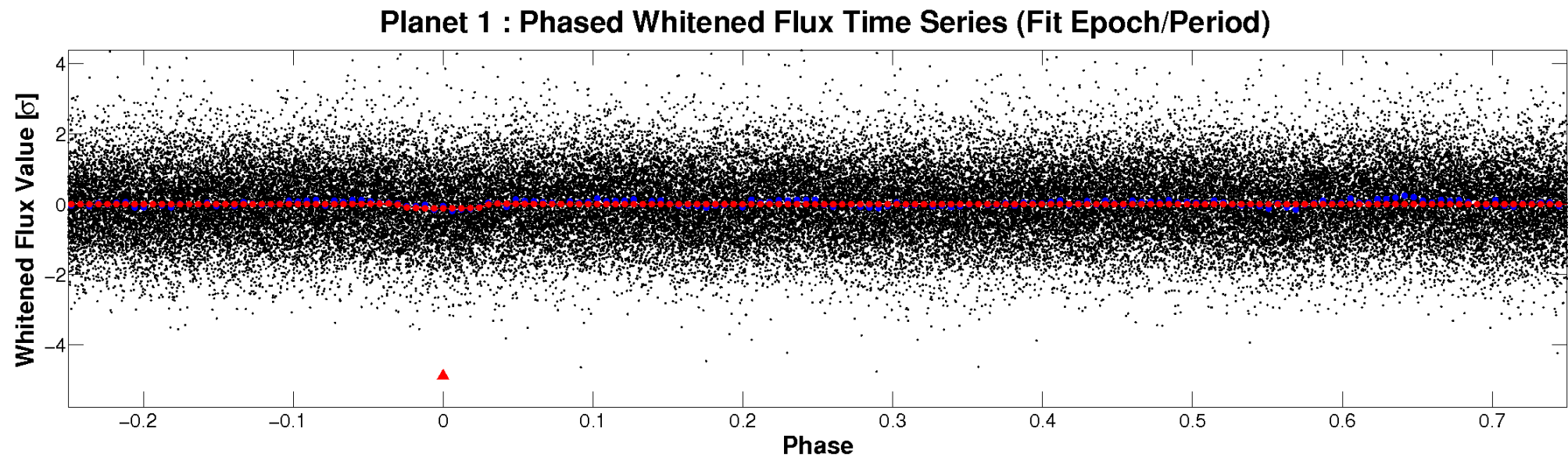
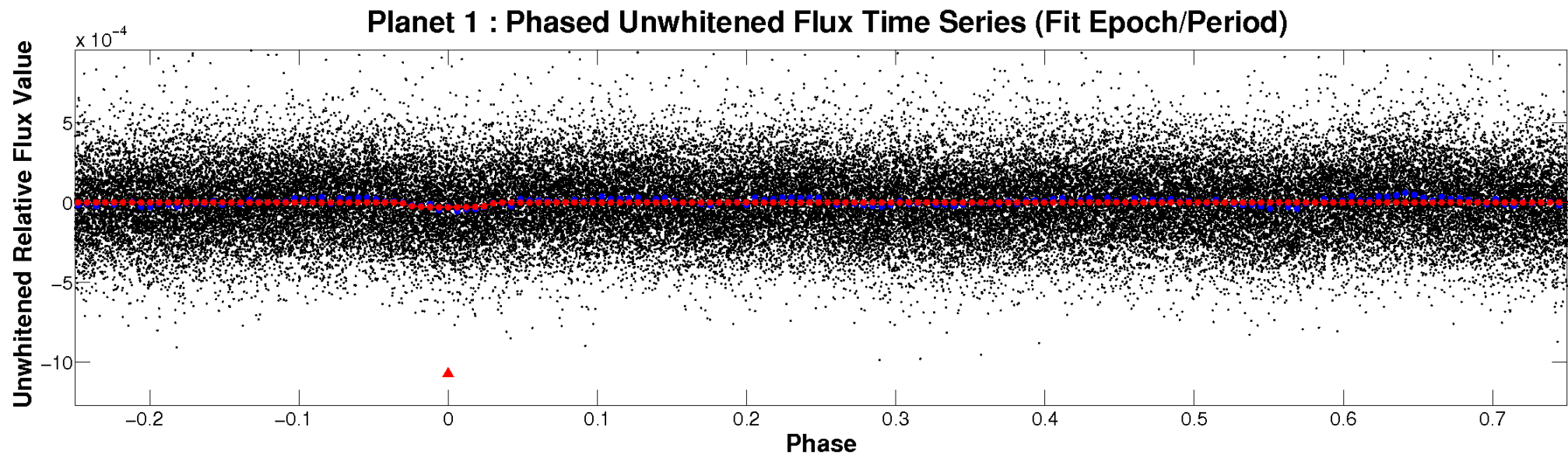


# ALT Odd/Even

TCE 008265194-01

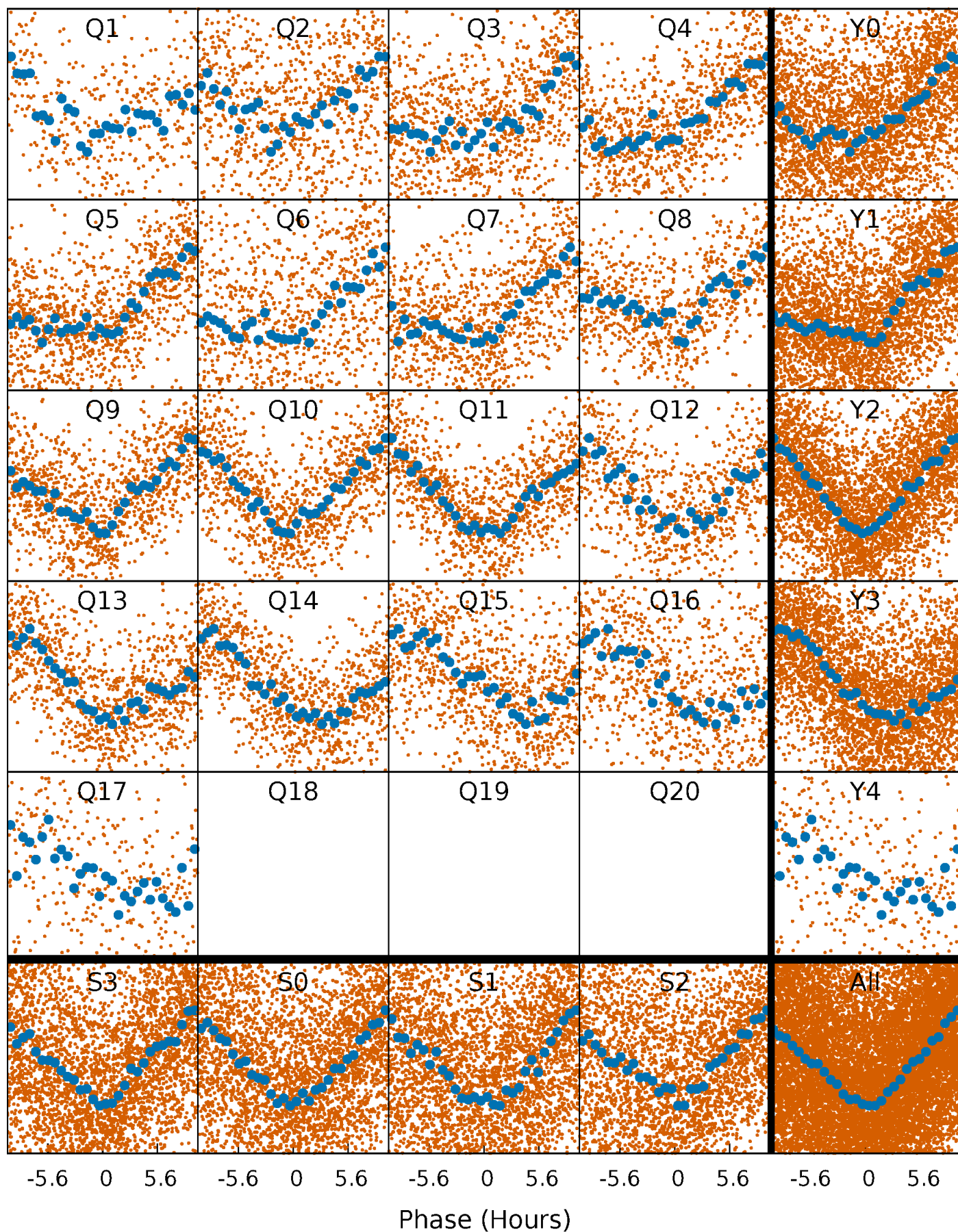


# Non-Whitened Vs. Whitened Light Curve



# PDC Quarter-Phased Transit Curves

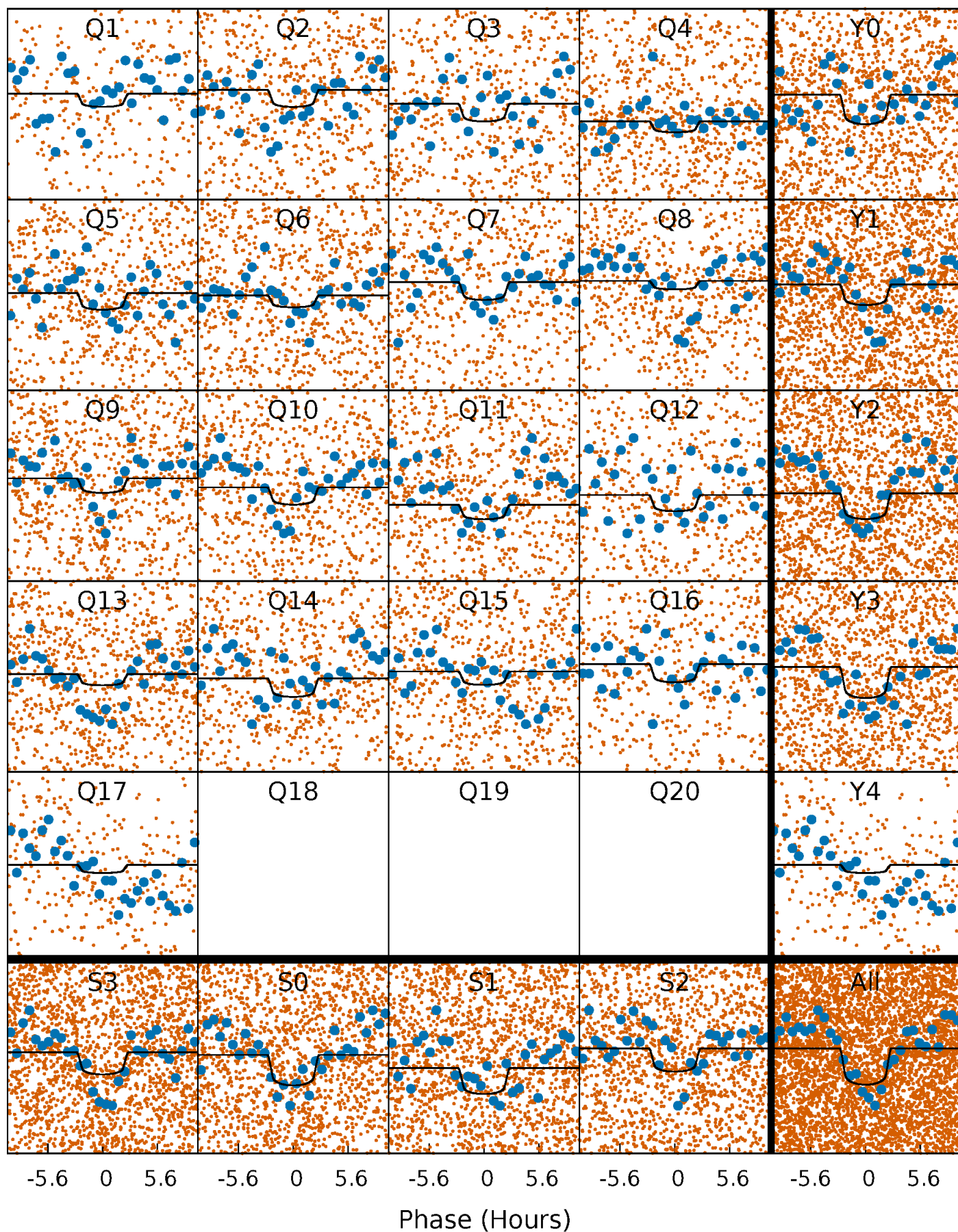
TCE 008265194-01 P= 3.375891 Days  $T_0=132.637362$  (BKJD)





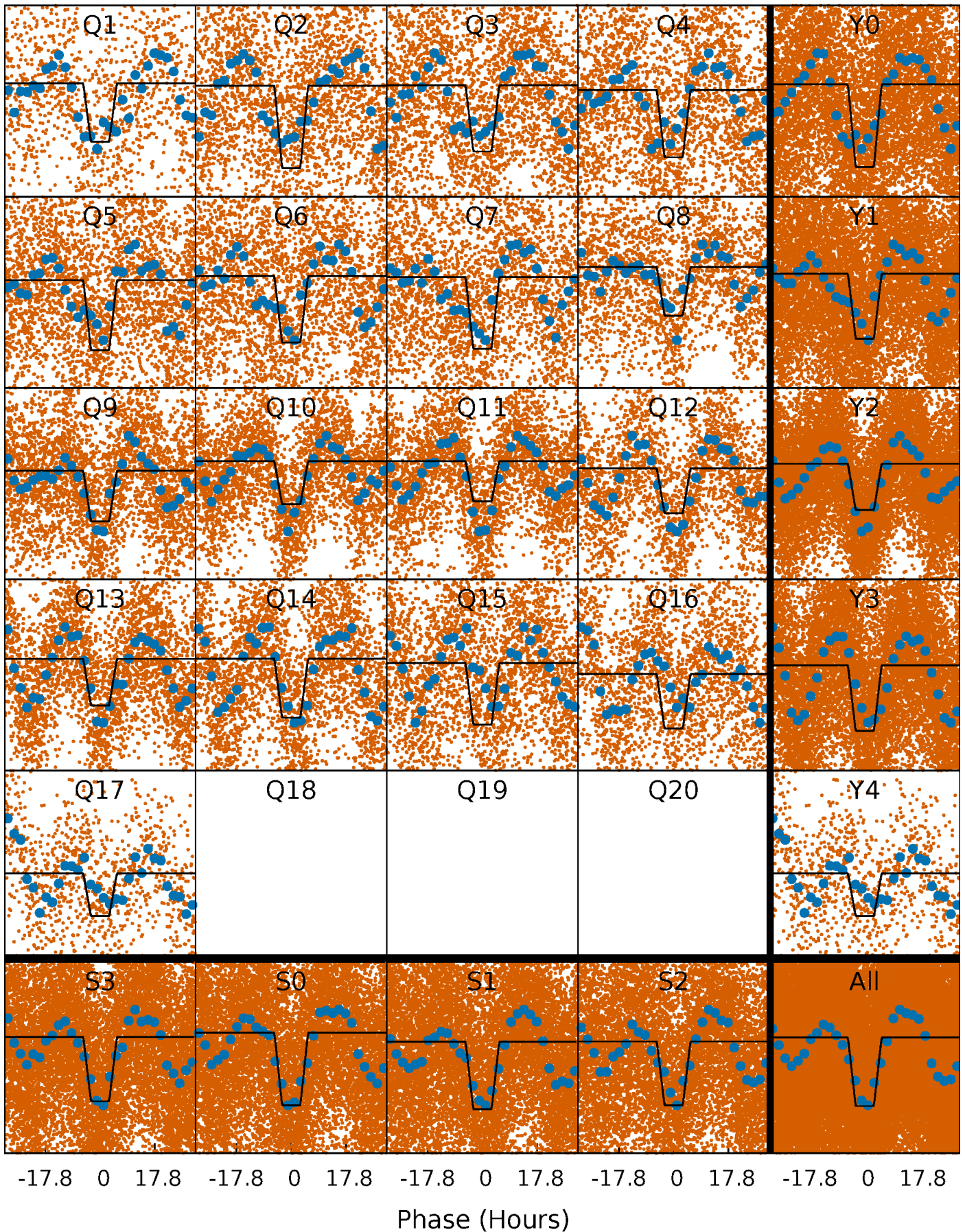
# DV Quarter-Phased Transit Curves

TCE 008265194-01   P= 3.375891 Days    $T_0=132.637362$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

TCE 008265194-01 P= 3.375841 Days  $T_0=132.652626$  (BKJD)

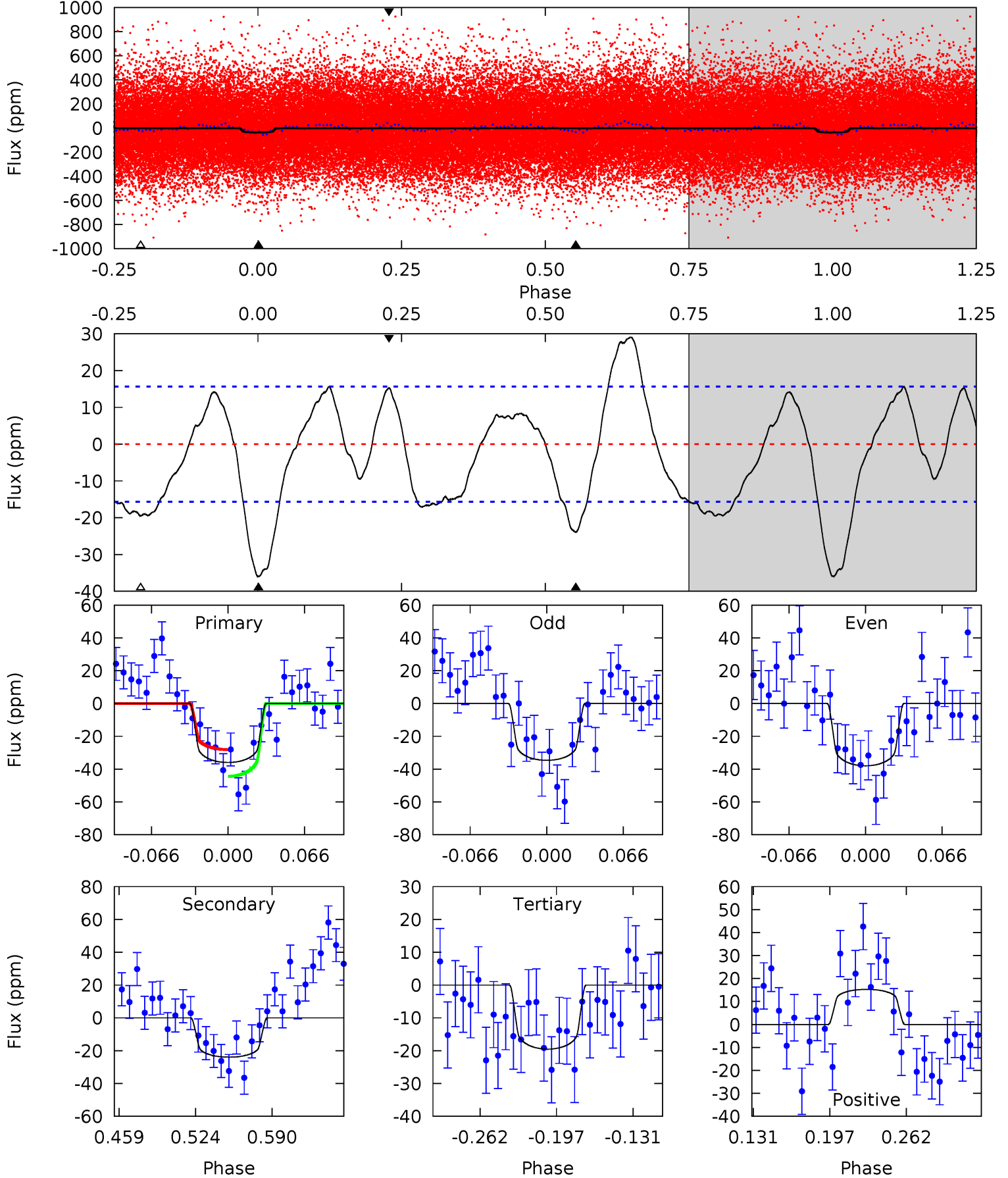




# DV Model-Shift Uniqueness Test

008265194-01, P = 3.375891 Days, E = 129.261471 Days

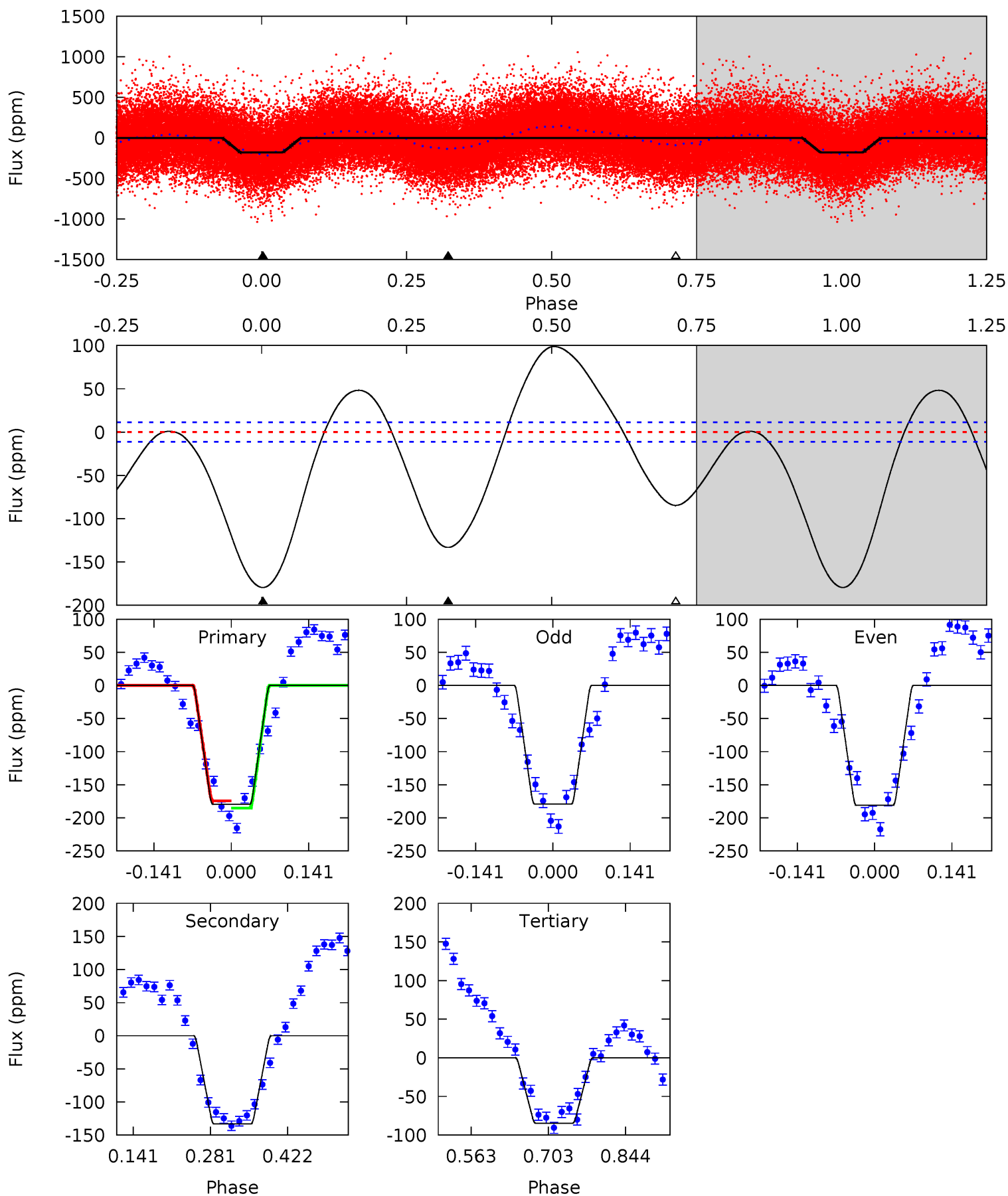
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.7	7.12	5.81	4.54	4.65	1.84	3.81	4.89	6.16	1.32	2.58	0.50	0.90	0.45	2.43



# Alt Model-Shift Uniqueness Test

008265194-01, P = 3.375841 Days, E = 129.276785 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
71.4	53.0	33.7	0	4.49	1.47	23.8	37.7	71.4	19.3	53.0	0.35	0.99	0.35	2.21





### Stellar Parameters For KIC 008265194

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M$ ( $M_{\odot}$ )	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$6541^{+148}_{-214}$	$4.411^{+0.062}_{-0.200}$	$-0.300^{+0.250}_{-0.300}$	$1.095^{+0.339}_{-0.136}$	$1.125^{+0.165}_{-0.150}$	$1.208^{+0.335}_{-0.631}$
	+2%/-3%	+1%/-5%	+83%/-100%	+31%/-12%	+15%/-13%	+28%/-52%
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 008265194-01 / KOI

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{max}$ (K)	$T_{obs}$ (K)	$A_{obs}$
DV	$-24 \pm 3$	$0.79^{+0.35}_{-0.34}$	$2007^{+140}_{-99}$	$5768^{+1909}_{-863}$	$45^{+86}_{-24}$
Alt.	$-133 \pm 3$	$1.81^{+0.37}_{-0.40}$	$2007^{+148}_{-101}$	$5826^{+715}_{-433}$	$47^{+28}_{-15}$

$T_{max}$  = 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

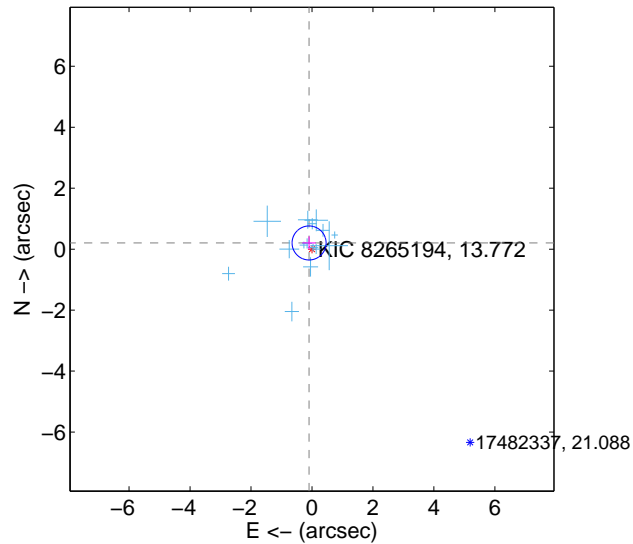
Supplemental centroid analysis for 008265194-01. Kepler magnitude: 13.77. Transit SNR 6.38

There are 15 quarters with good PRF difference image offsets

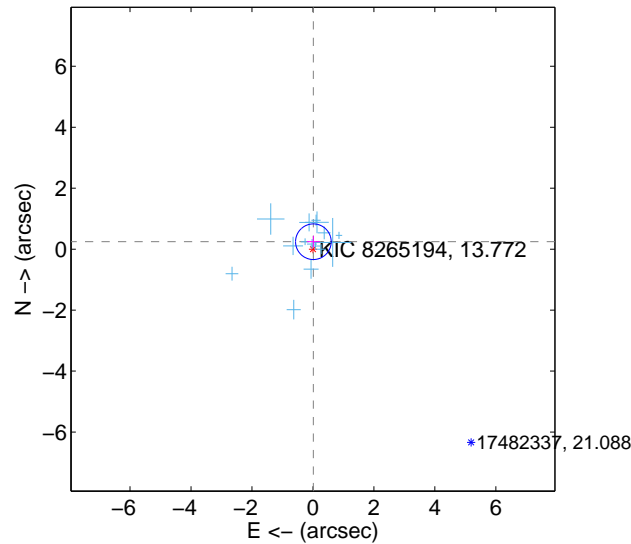
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.225 \pm 0.186$	1.21	$0.095 \pm 0.217$	$0.204 \pm 0.217$
PRF-fit source offset from KIC position	$0.245 \pm 0.195$	1.26	$-0.015 \pm 0.211$	$0.245 \pm 0.193$
photometric centroid source offset	$0.85 \pm 1.92$	0.44	$0.85 \pm 1.92$	$0.05 \pm 1.95$

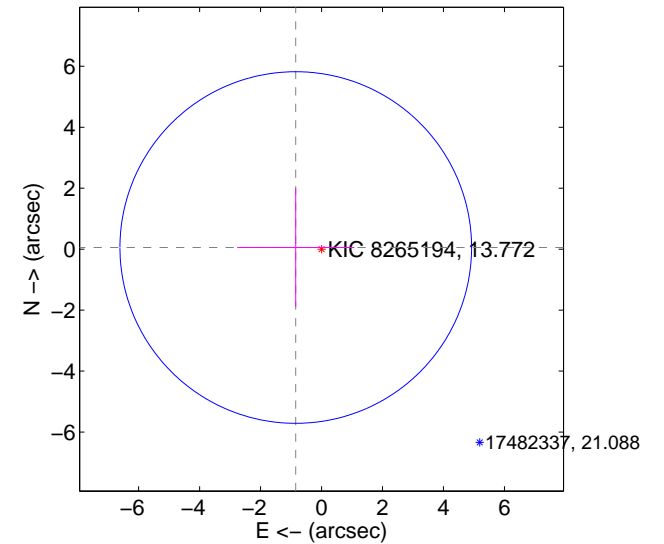
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

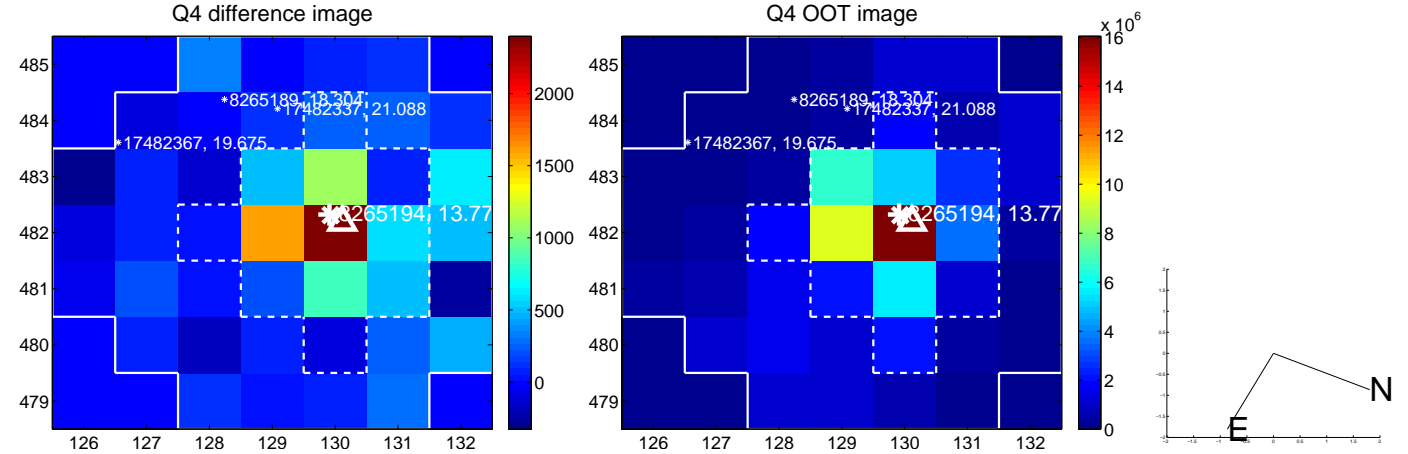
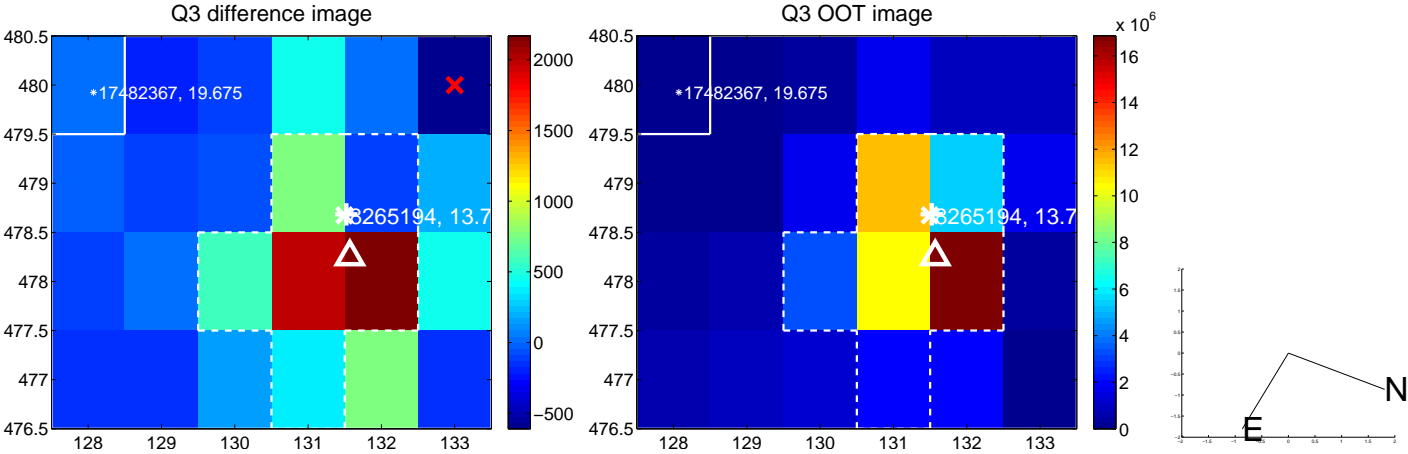
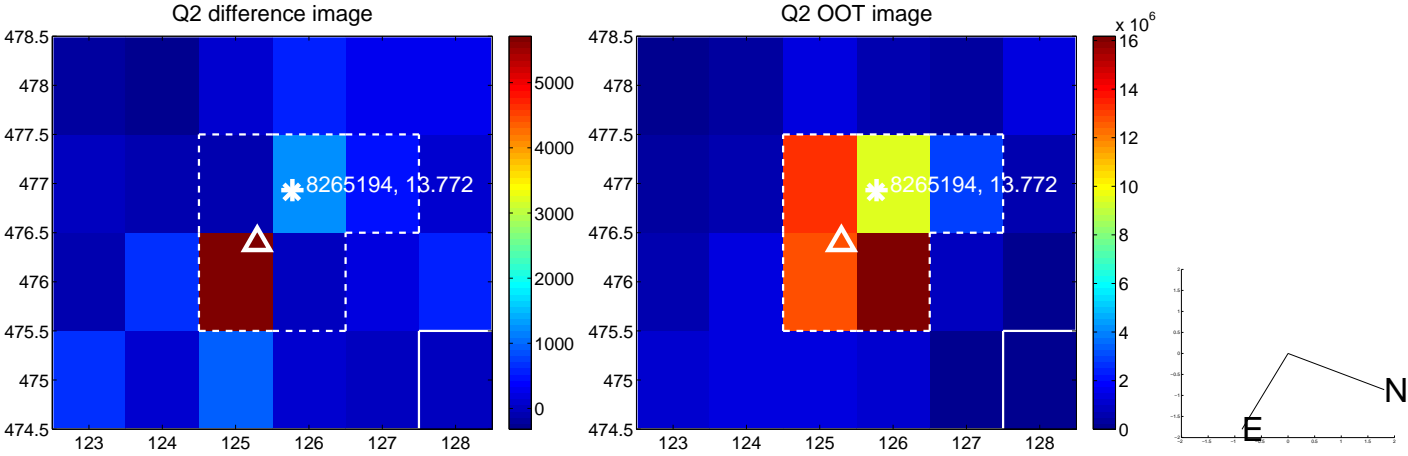
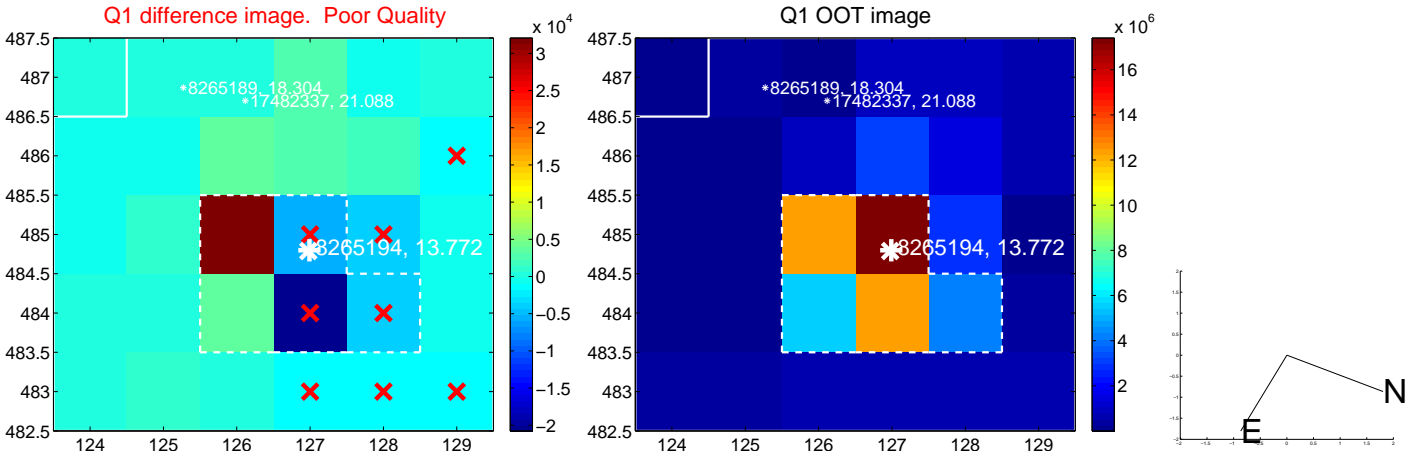


offset from photometric centroids

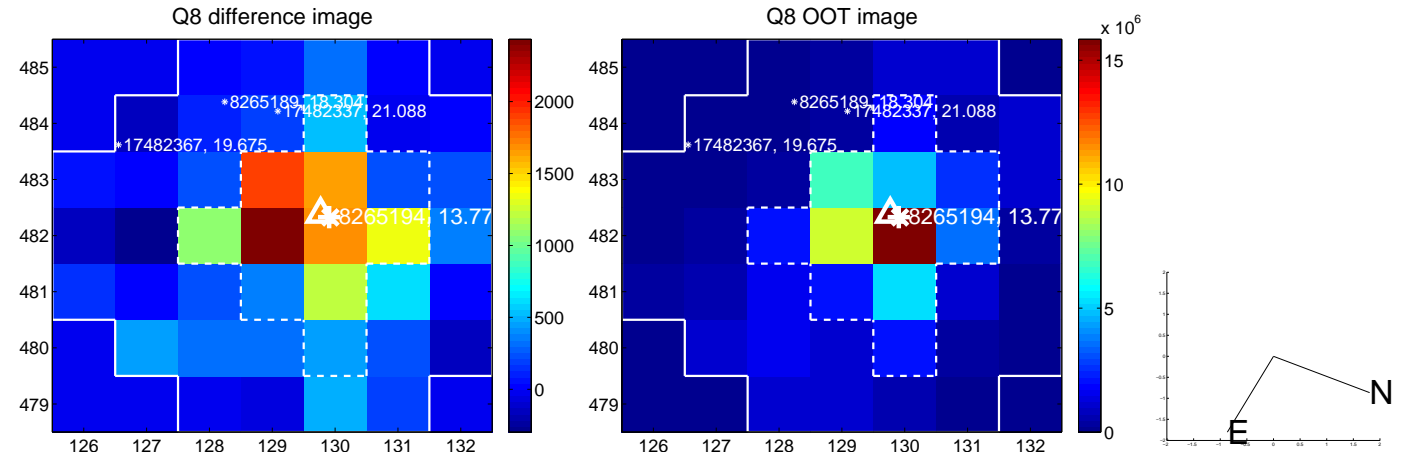
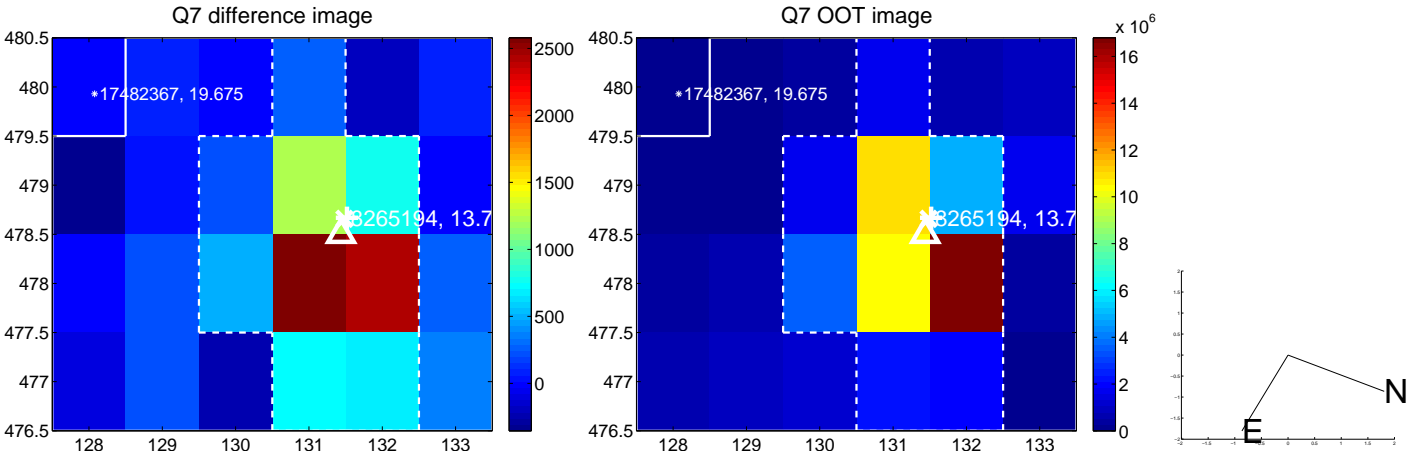
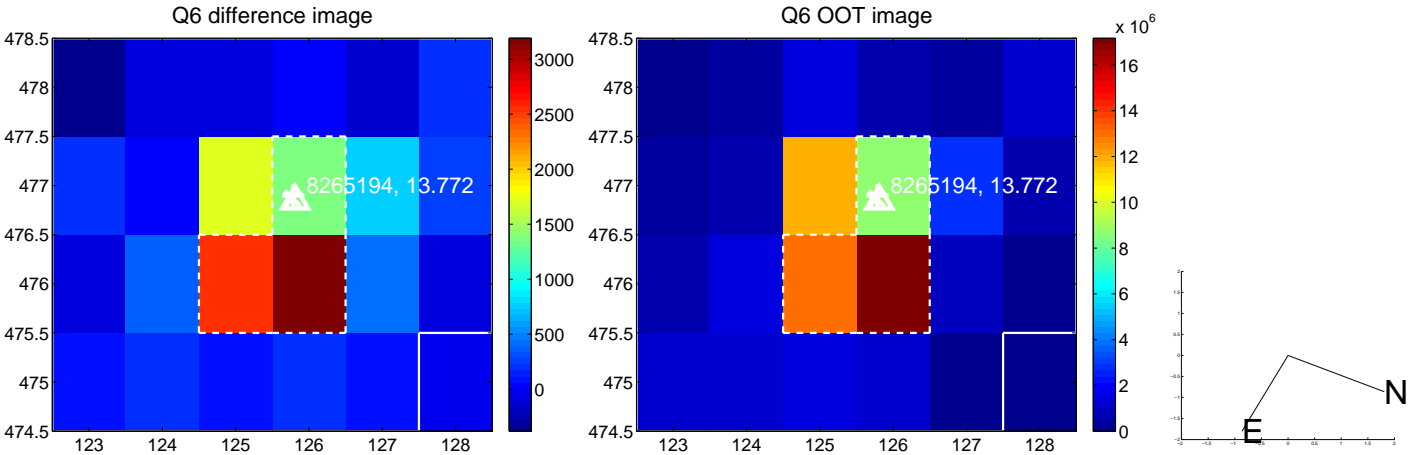
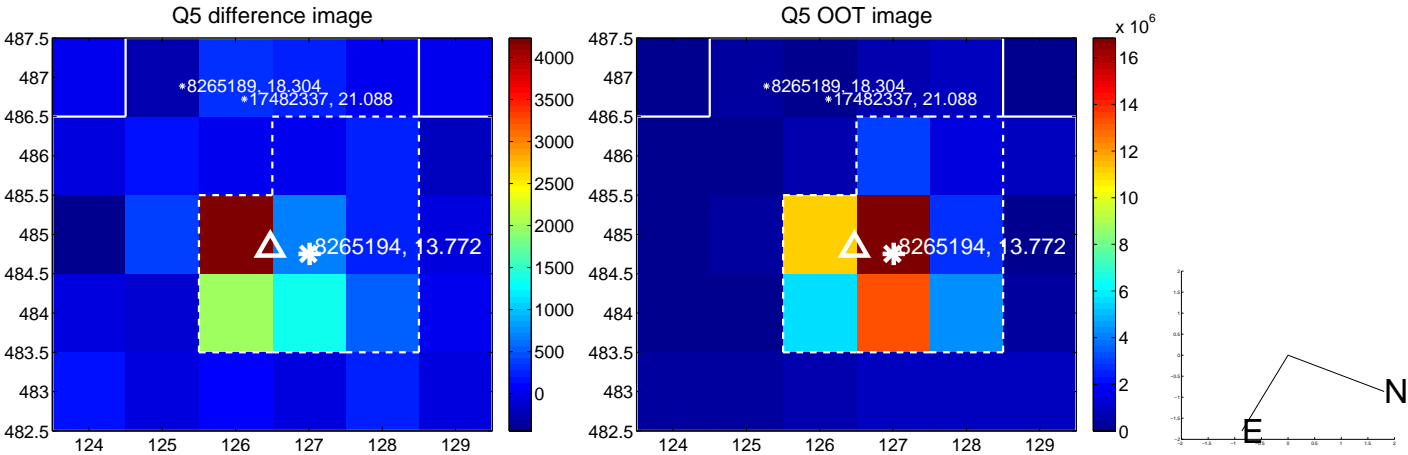


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

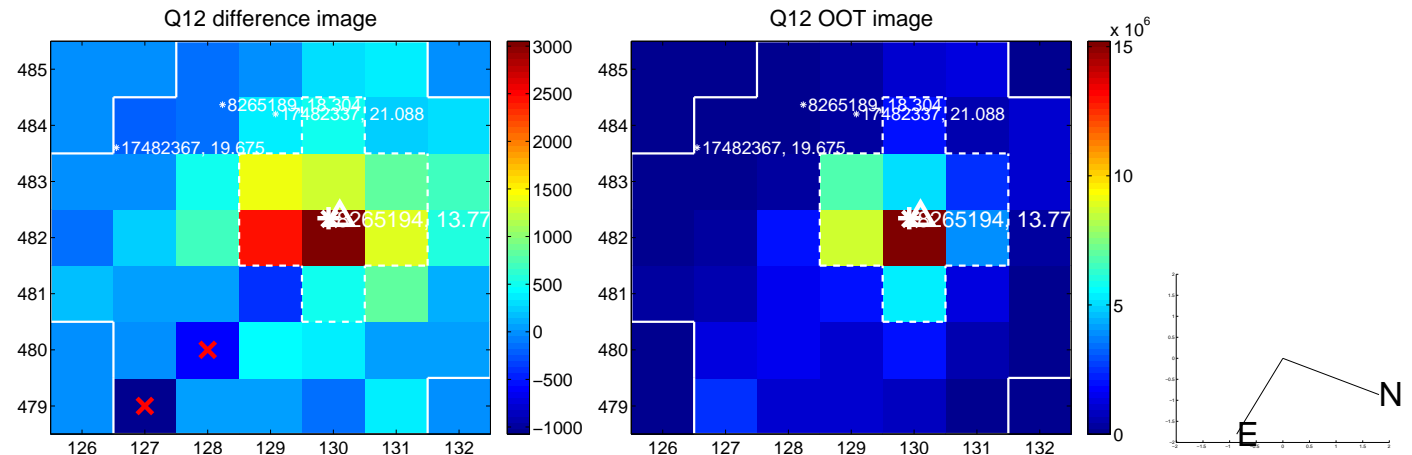
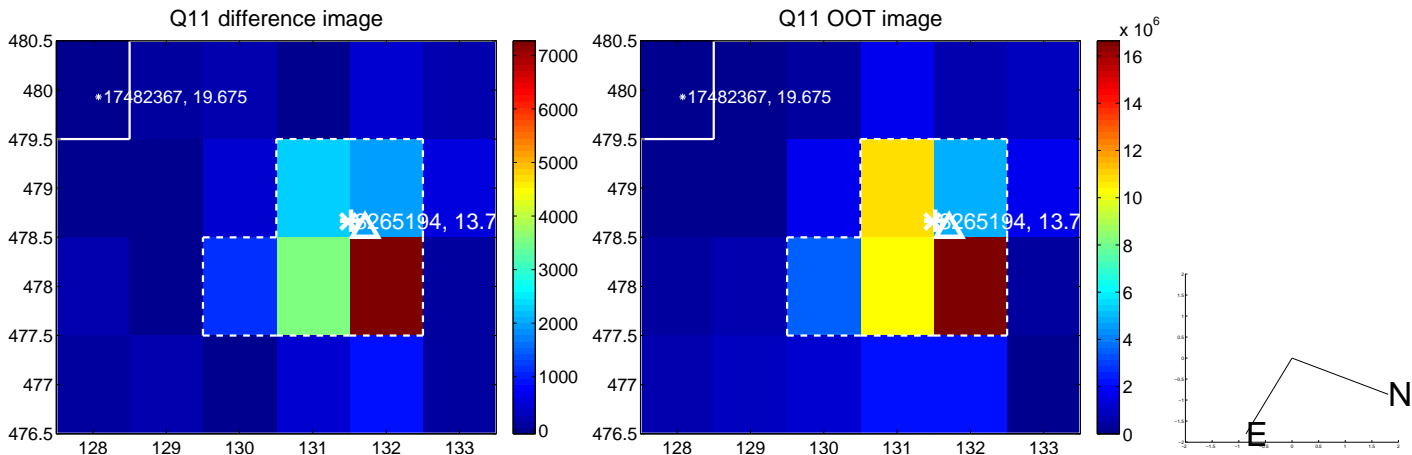
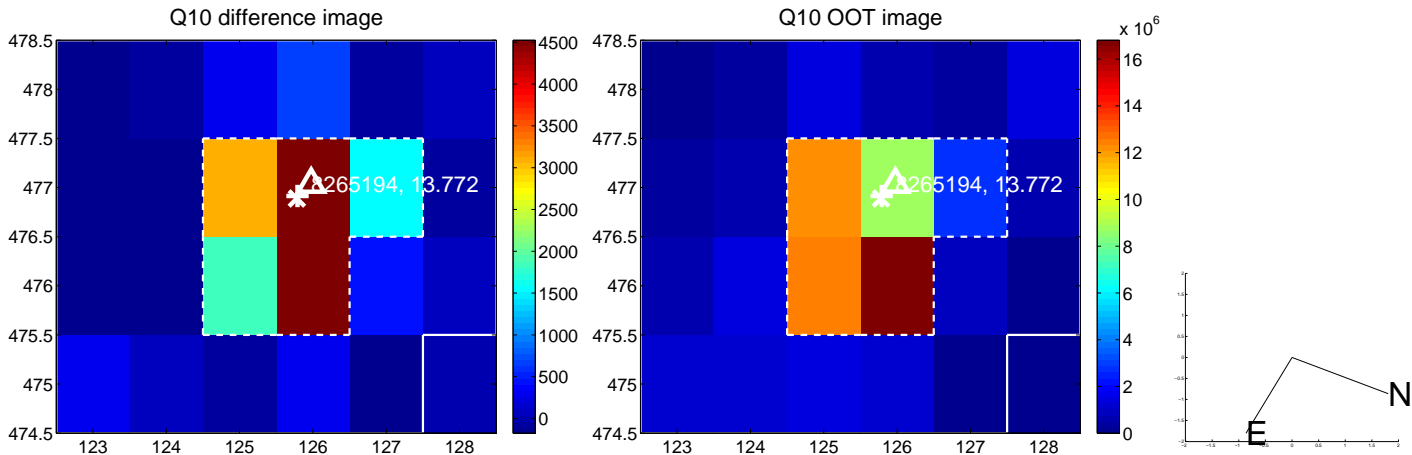
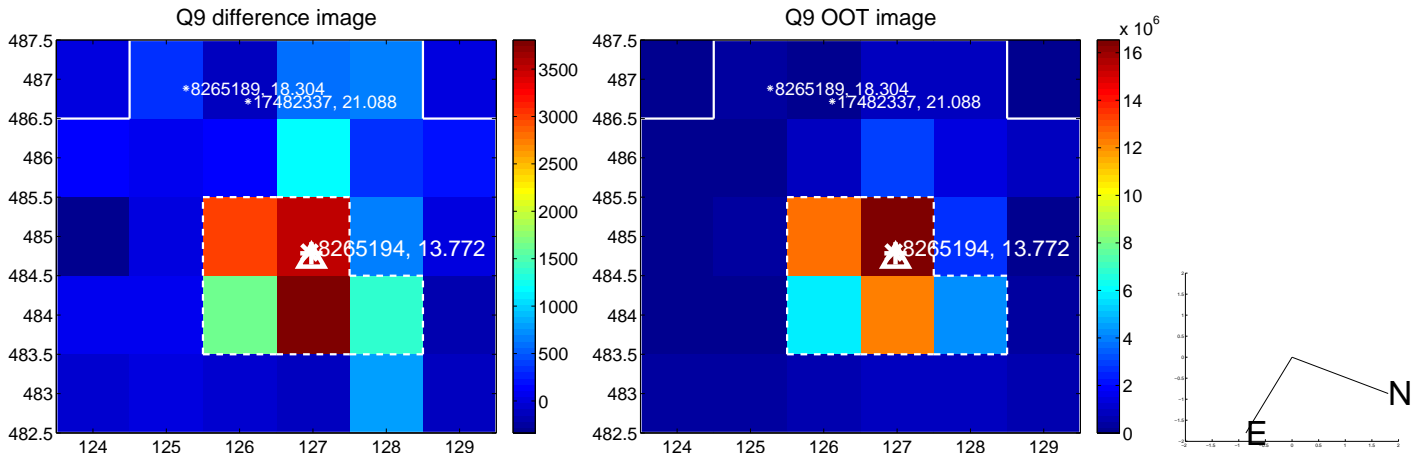


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

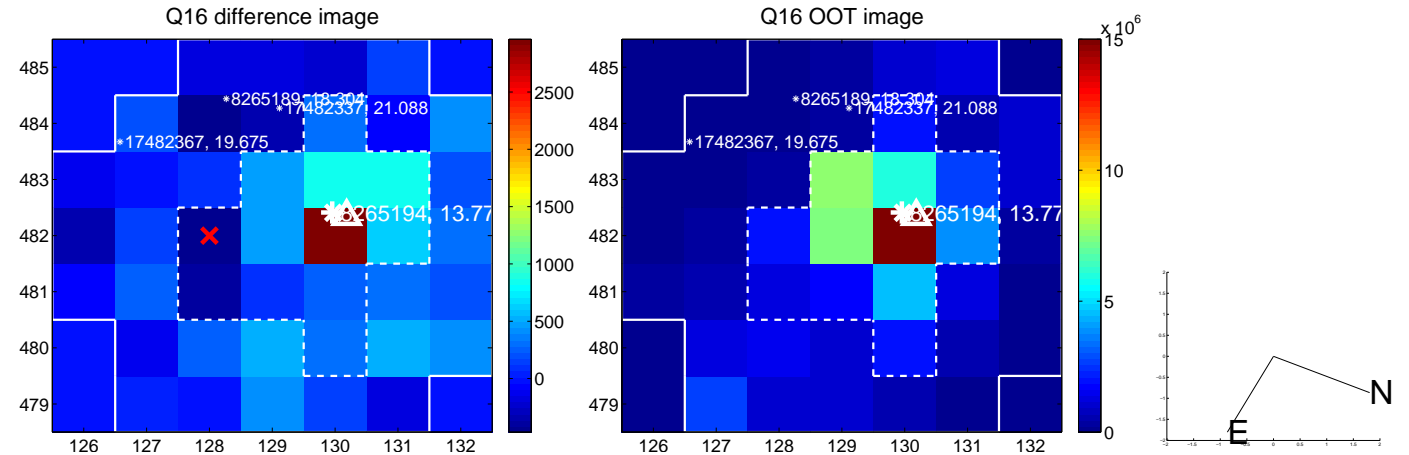
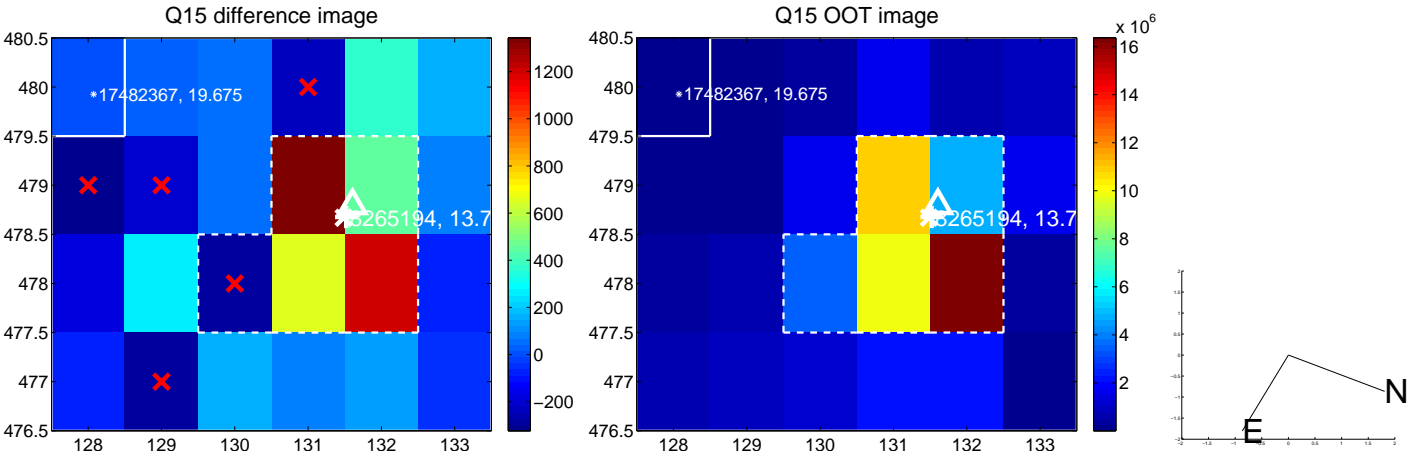
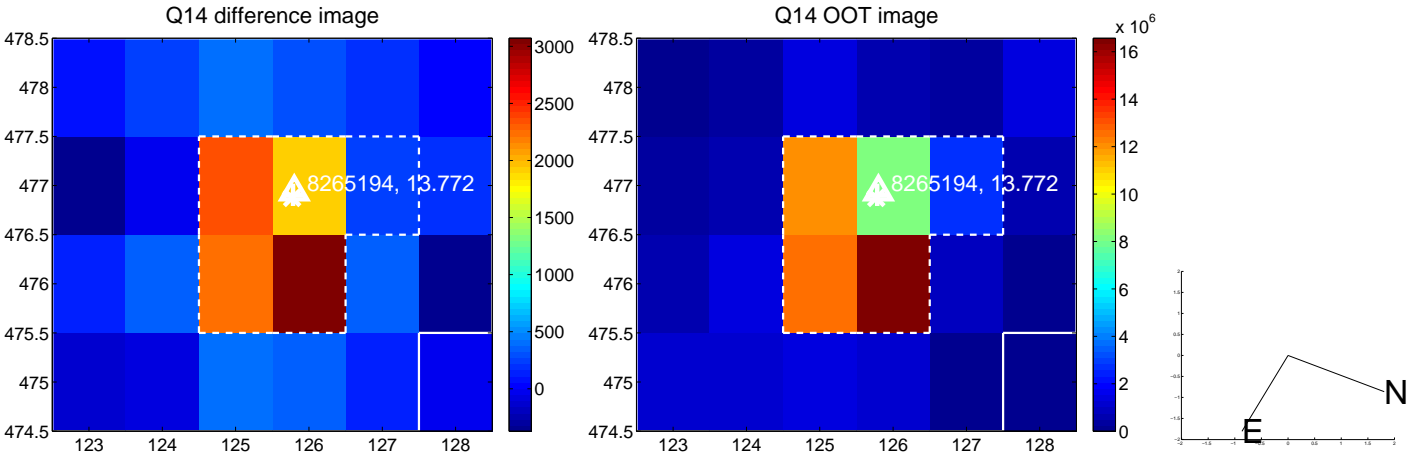
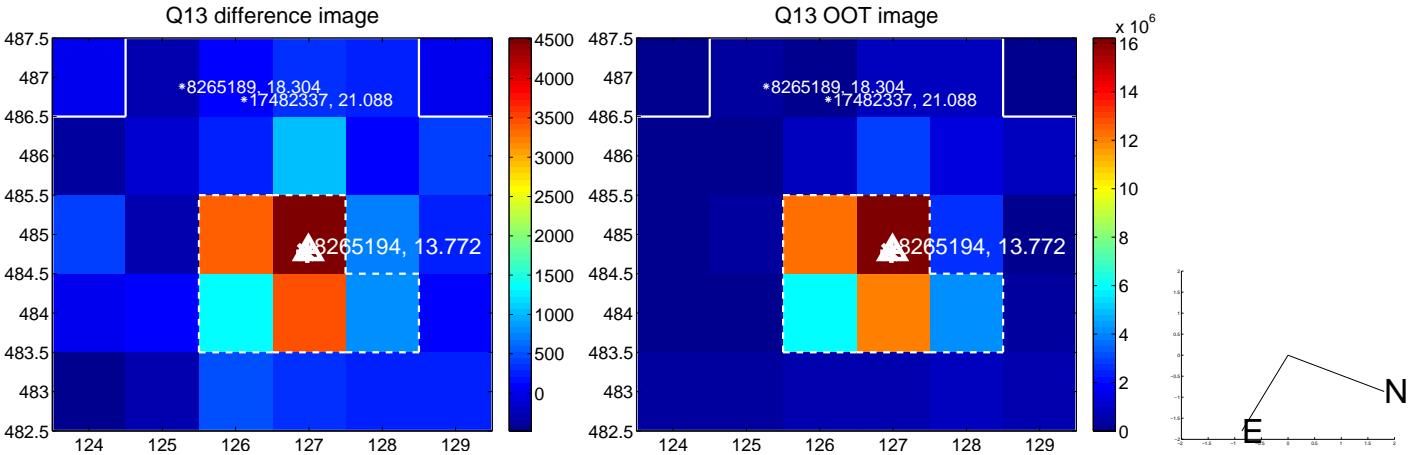




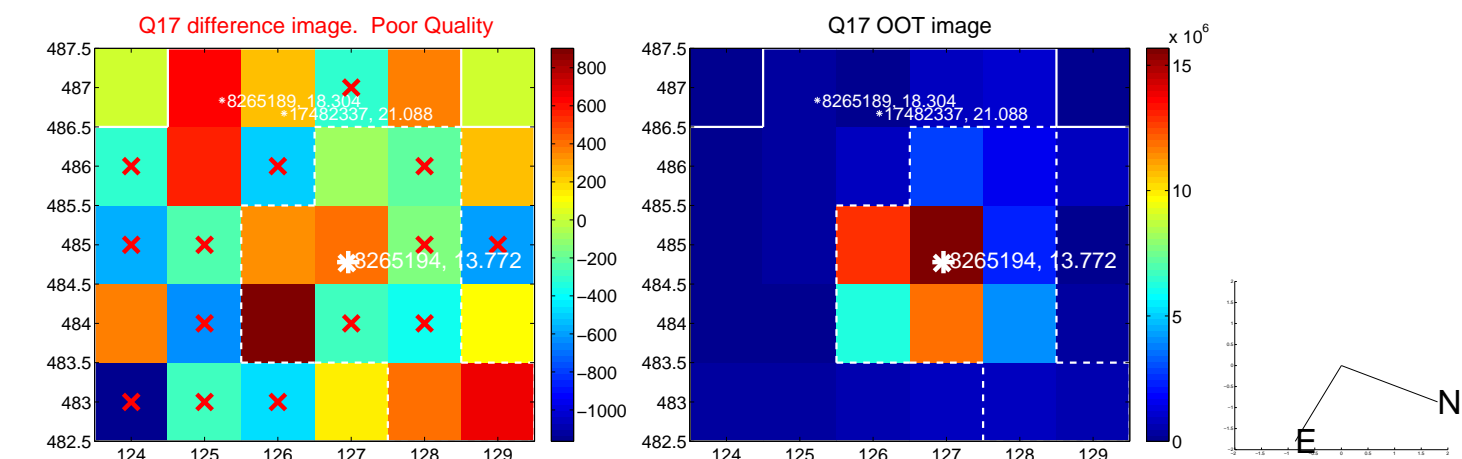
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



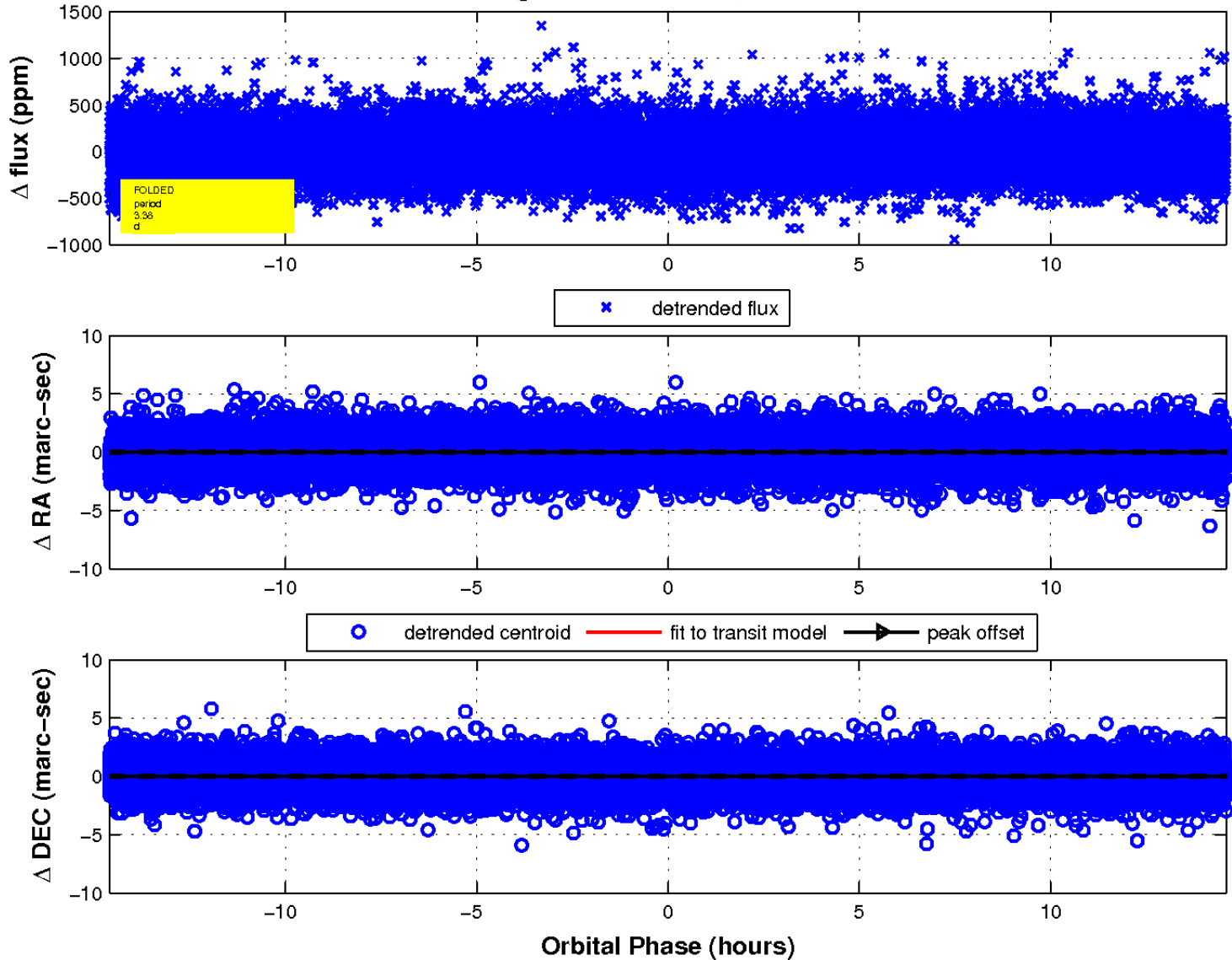
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

