

# KIC 011179654

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
011179654-01	OBS	No	3.255707	133.268613	13.3	29.498	7.3	5.5	1.38	6594	0.53	1450.43

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011179654-01	OBS	FP	0.00	1	0	0	0	<del>SWEET_NTL</del> — <del>LPP_DV</del> — <del>CENT_FEW_MEAS</del>

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

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

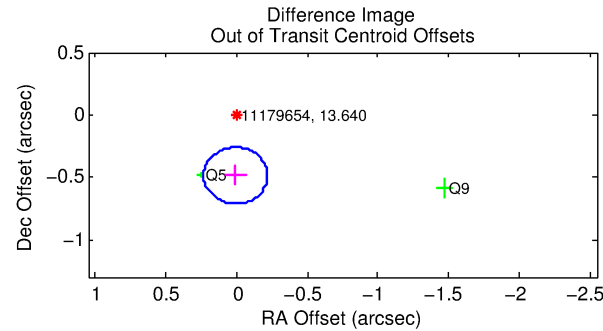
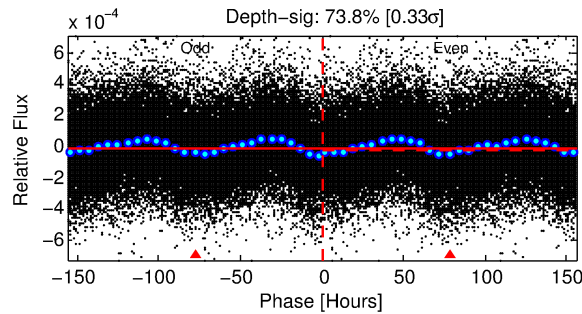
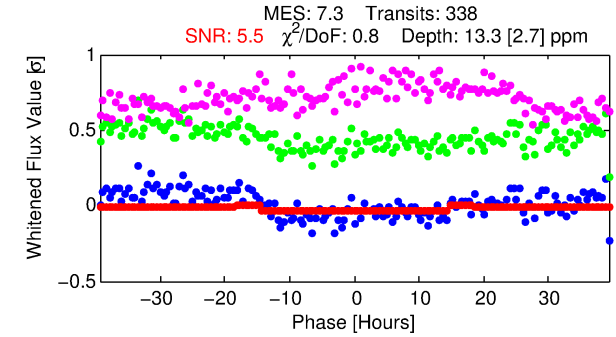
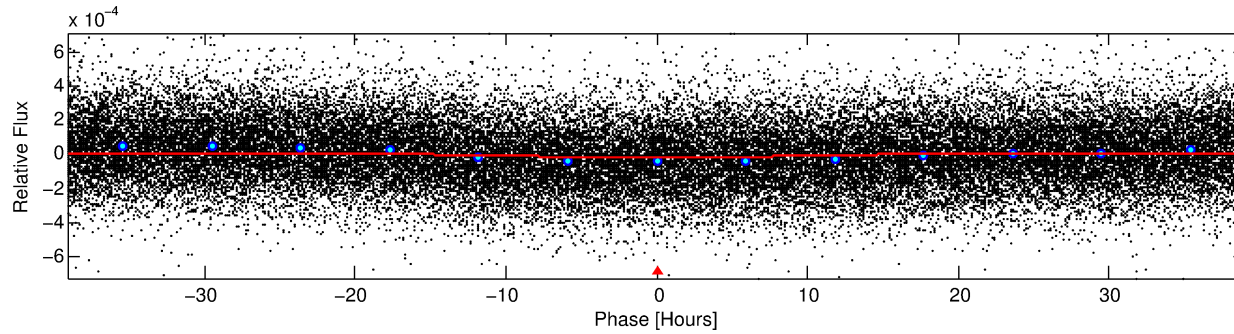
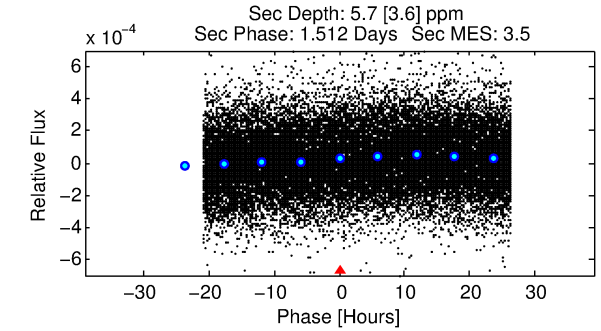
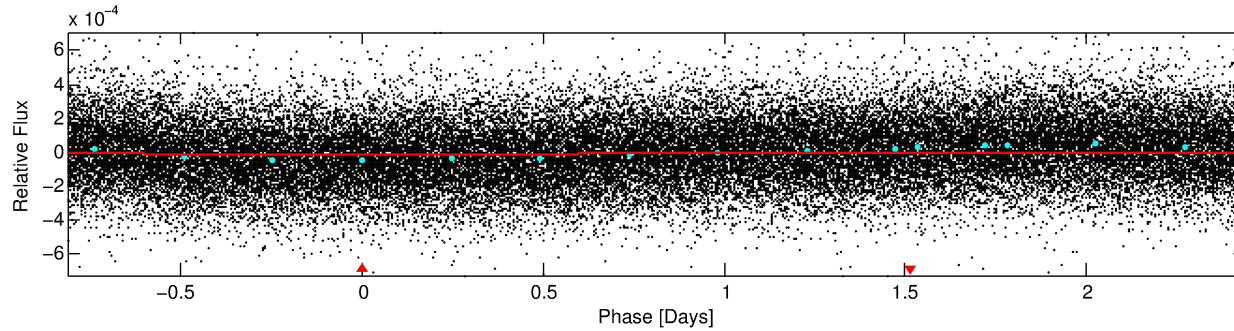
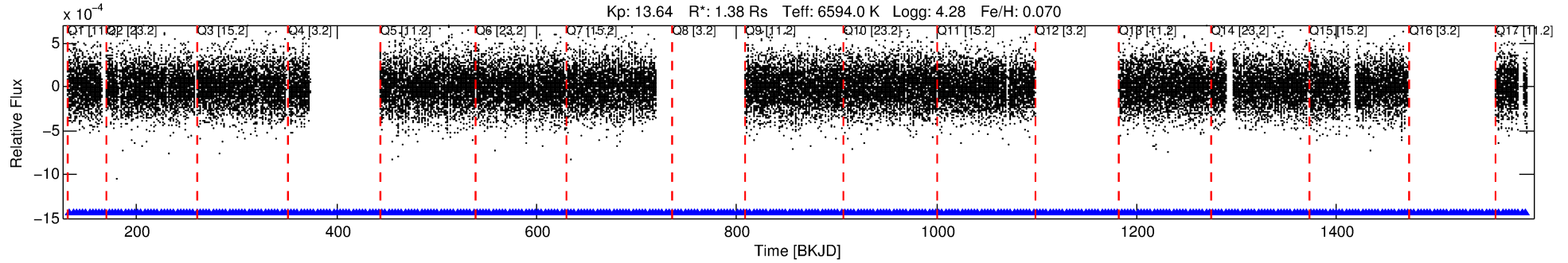
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

Ephemeris Match Information For 011179654-01

No Significant Match Found

# DV One-Page Summary

KIC: 11179654 Candidate: 1 of 1 Period: 3.256 d



## DV Fit Results:

Period = 3.25571 [0.00014] d  
Epoch = 133.2686 [0.0268] BKJD  
Rp/R\* = 0.0035 [0.0039]  
a/R\* = 1.06 [0.67]  
b = 0.59 [6.86]  
Seff = 1450.43 [614.72]  
Teff = 1574 [167] K  
Rp = 0.53 [0.61] Re  
a = 0.0470 [0.0131] AU  
Ag = 25.16 [58.68] [0.41σ]  
Teffp = 5449 [3138] K [1.23σ]

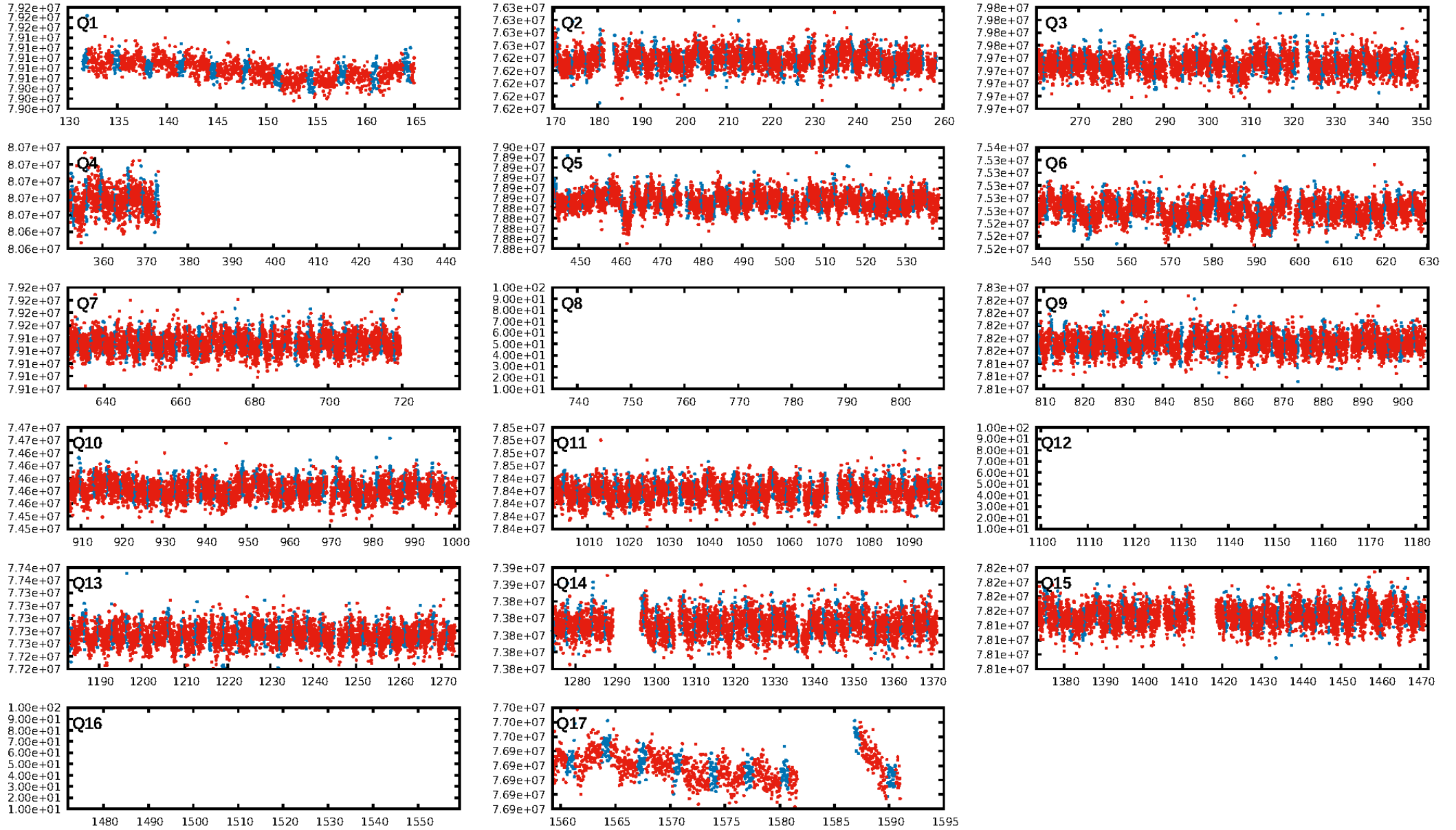
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 1.00 [313/313]  
GhostDiagnostic-chr: 3.679  
Centroid-sig: 6.6%  
Centroid-so: 2.695 arcsec [1.68σ]  
OotOffset-rm: 0.488 arcsec [6.45σ]  
KicOffset-rm: 0.722 arcsec [5.71σ]  
OotOffset-st: 0/0/0/2 [2]  
KicOffset-st: 0/0/0/2 [2]  
DiffImageQuality-fgm: 1.00 [2/2]  
DiffImageOverlap-fno: 1.00 [14/14]

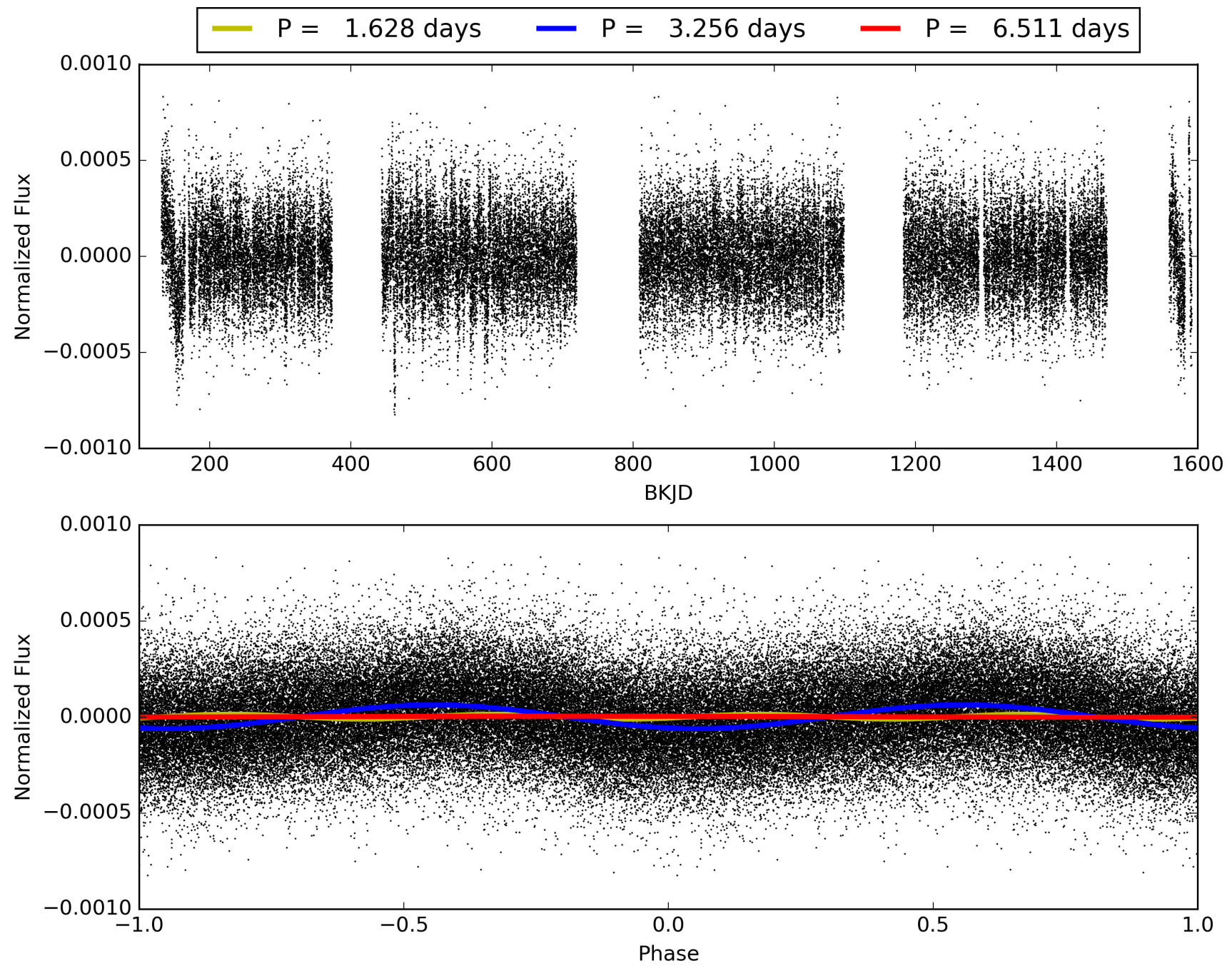
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:24:58 Z

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

# TCE 011179654-01, PDC Light Curves

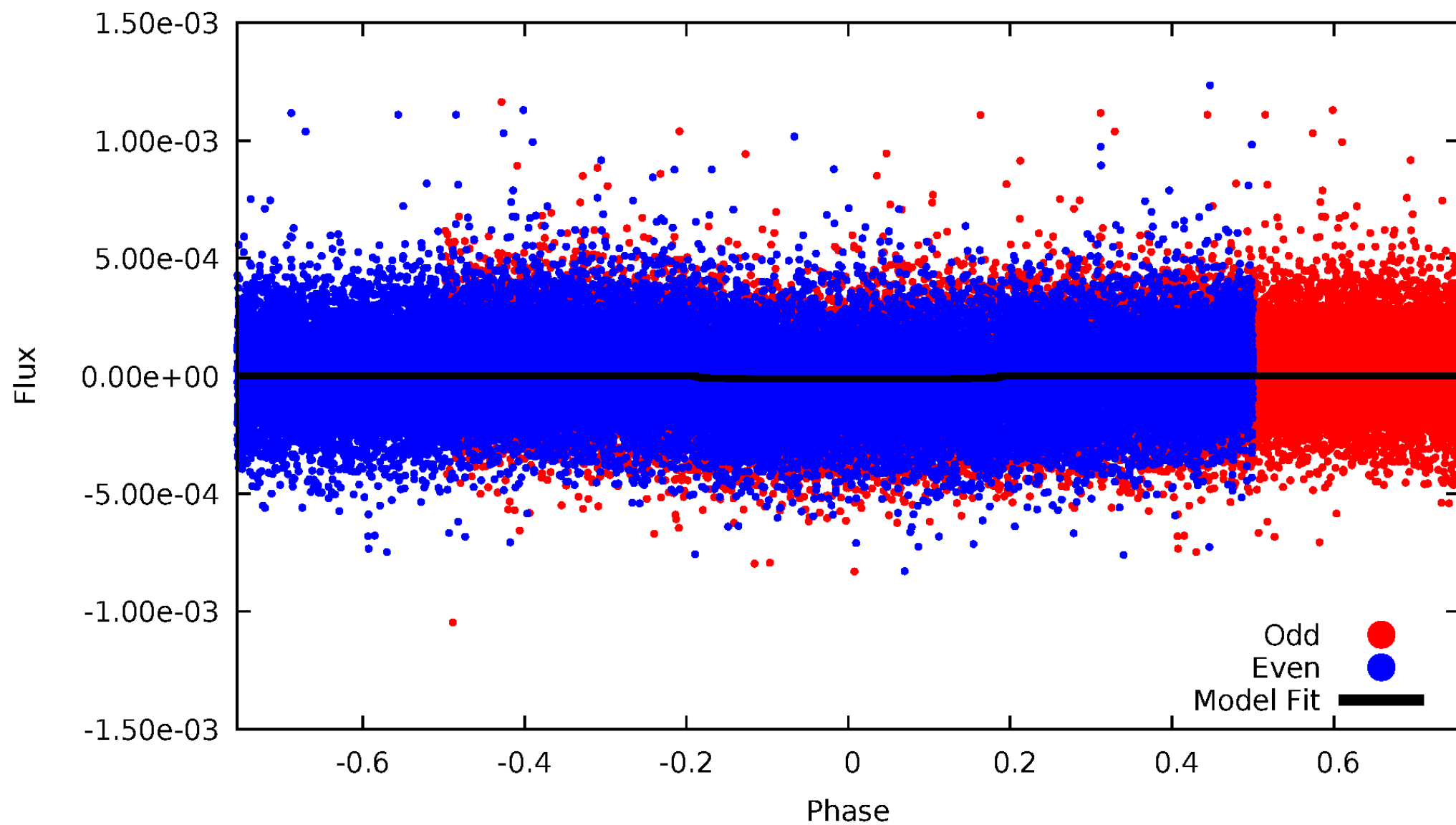


TCE 011179654-01



# DV Odd/Even

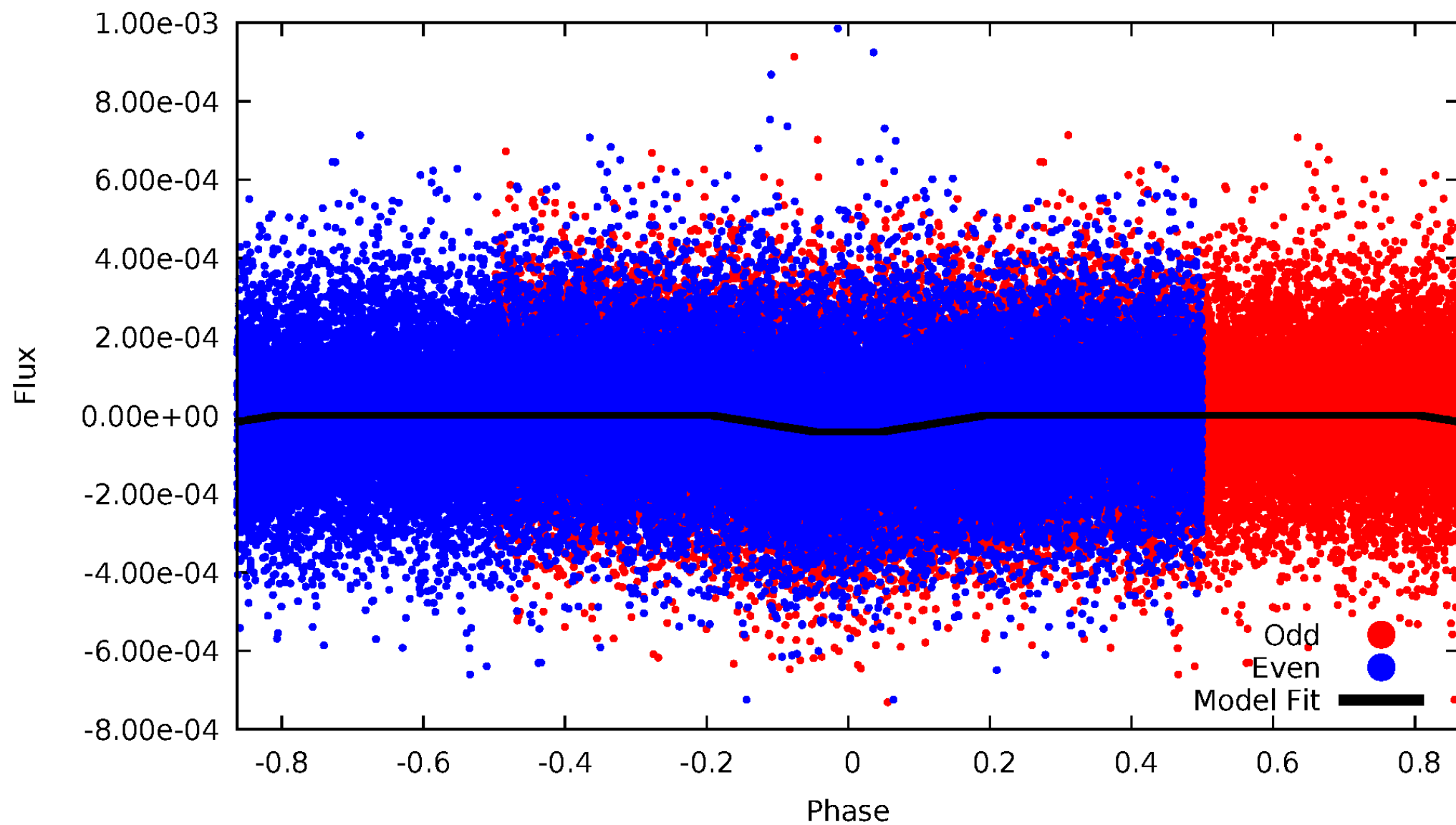
TCE 011179654-01



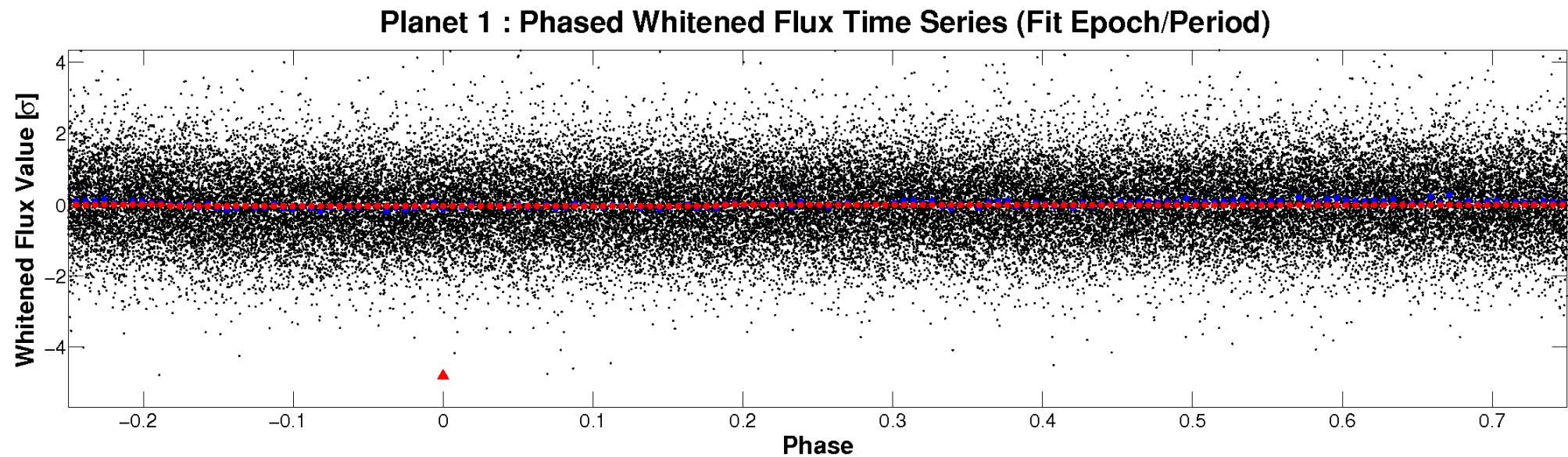
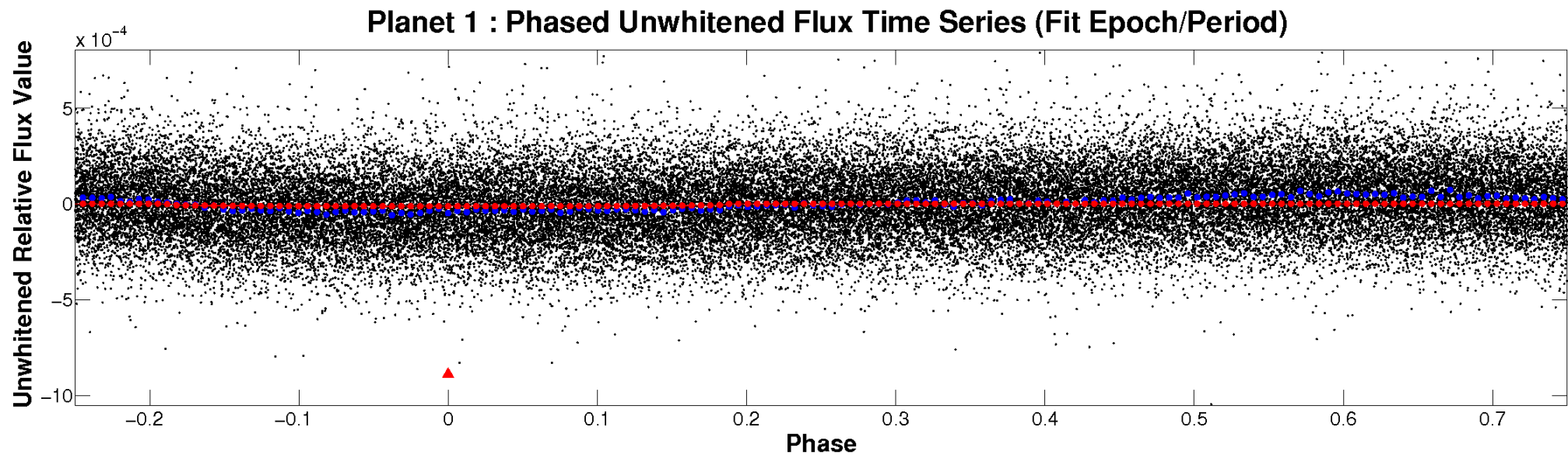


# ALT Odd/Even

TCE 011179654-01

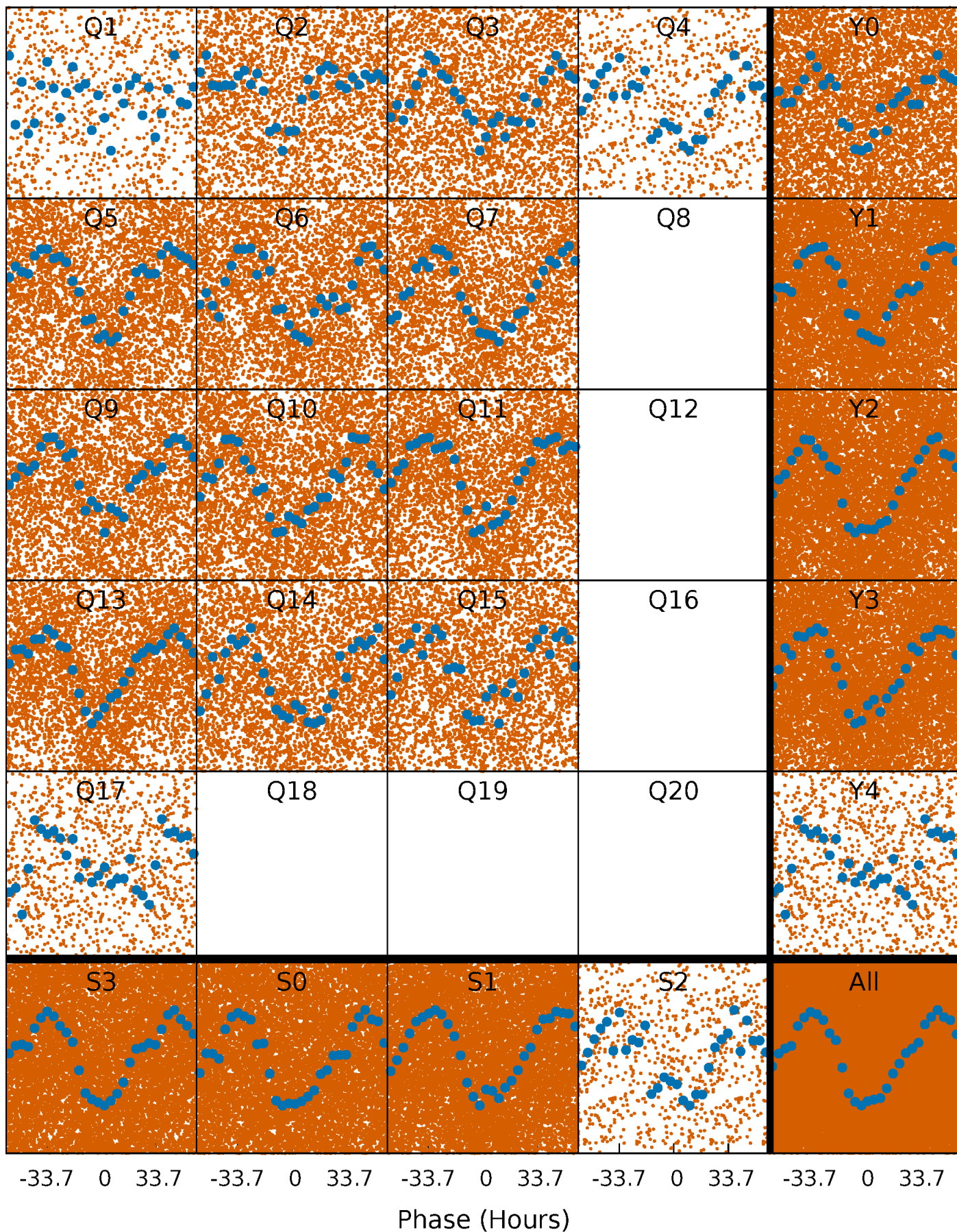


# Non-Whitened Vs. Whitened Light Curve



# PDC Quarter-Phased Transit Curves

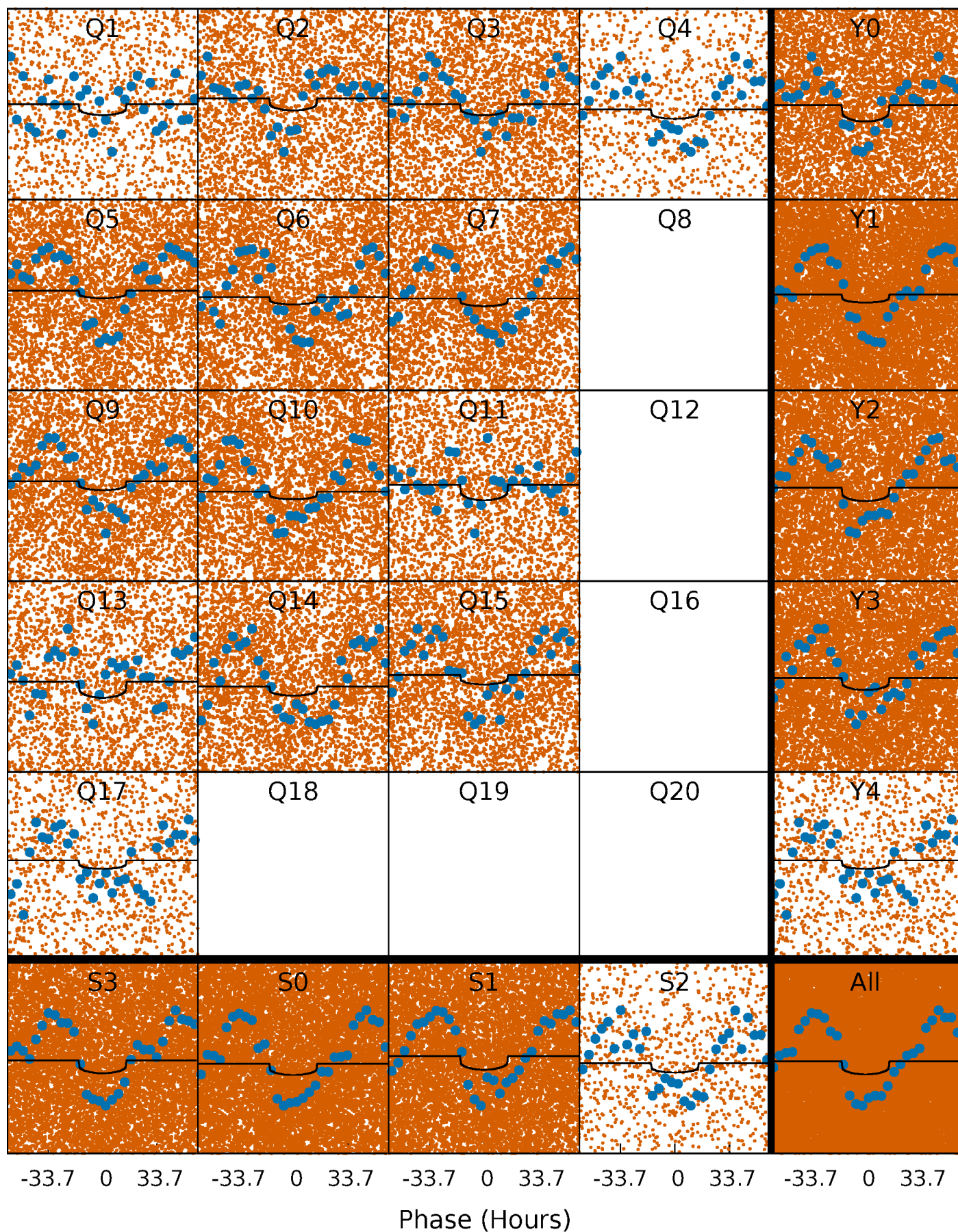
TCE 011179654-01 P= 3.255707 Days  $T_0=133.268613$  (BKJD)





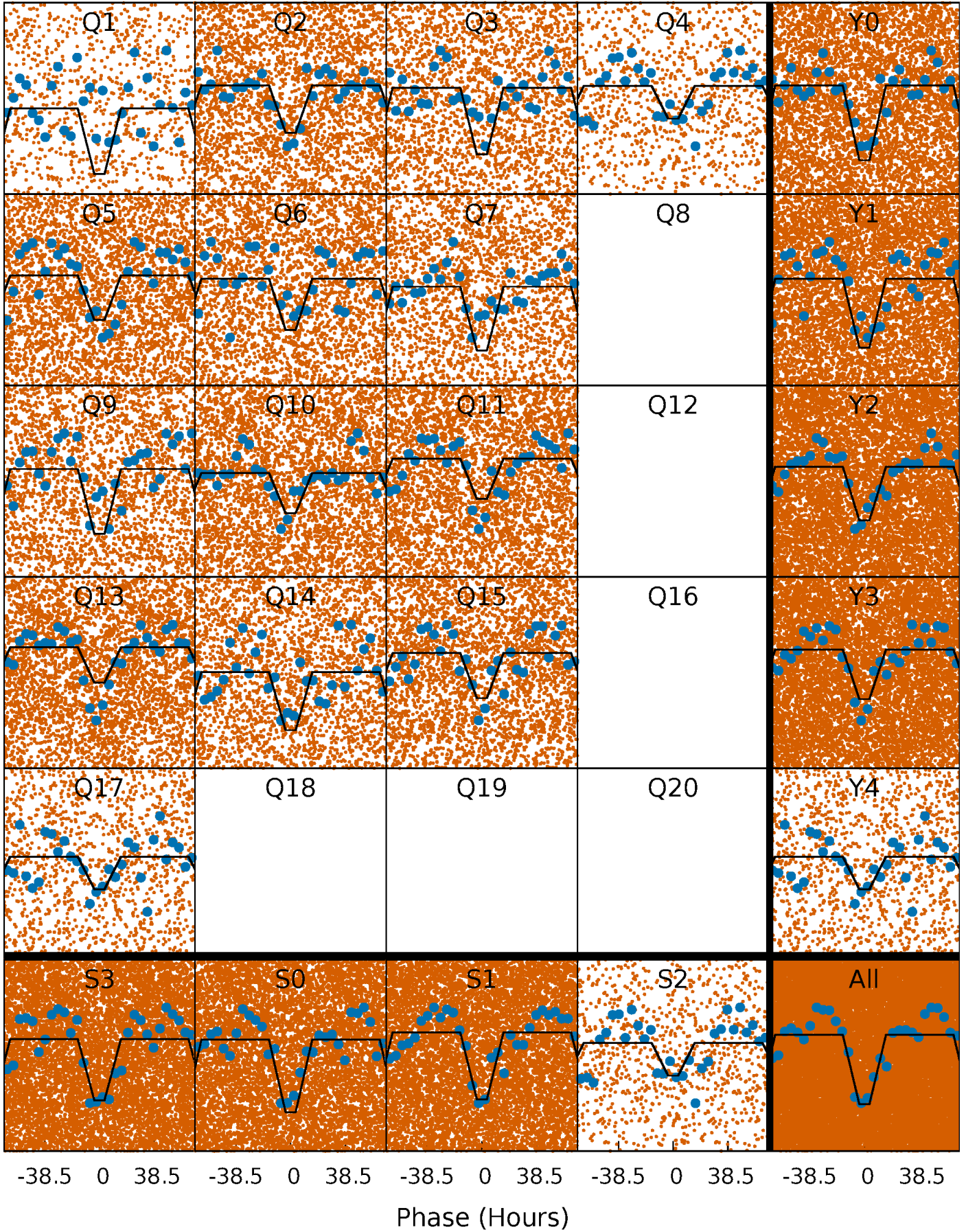
# DV Quarter-Phased Transit Curves

TCE 011179654-01 P= 3.255707 Days  $T_0=133.268613$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

TCE 011179654-01 P= 3.255550 Days  $T_0=133.127898$  (BKJD)

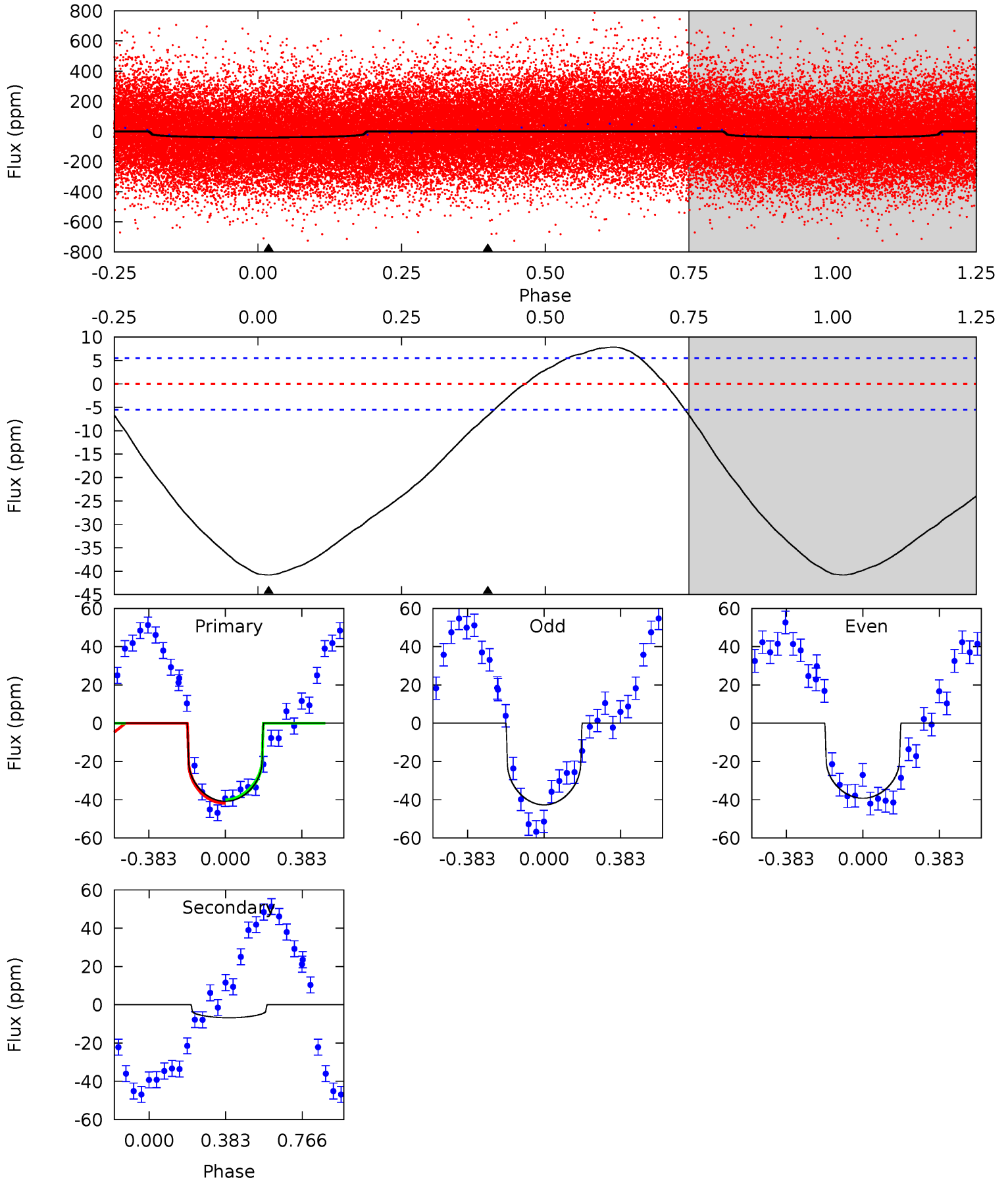




# DV Model-Shift Uniqueness Test

011179654-01, P = 3.255707 Days, E = 130.012906 Days

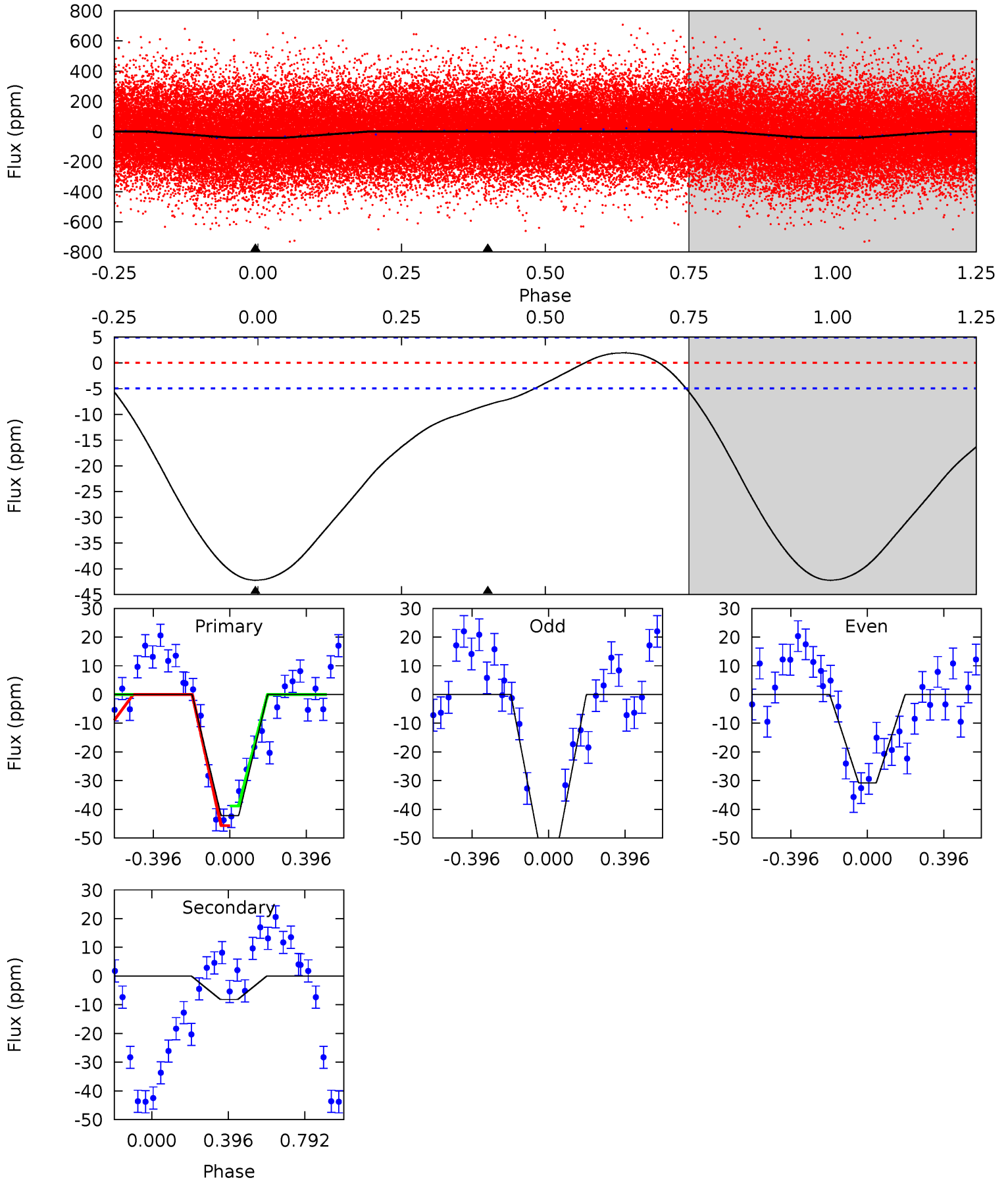
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
31.8	5.28	0	0	4.27	0.87	3.30	31.8	31.8	5.28	5.28	1.35	1.10	0.16	0.67



# Alt Model-Shift Uniqueness Test

011179654-01, P = 3.255550 Days, E = 129.872348 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
36.4	7.03	0	0	4.27	0.85	1.87	36.4	36.4	7.03	7.03	9.71	0.97	0.04	2.88





### Stellar Parameters For KIC 011179654

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$6594^{+184}_{-253}$	$4.277^{+0.090}_{-0.210}$	$0.070^{+0.250}_{-0.350}$	$1.375^{+0.471}_{-0.236}$	$1.309^{+0.195}_{-0.195}$	$0.709^{+0.350}_{-0.372}$
	+3%/-4%	+2%/-5%	+357%/-500%	+34%/-17%	+15%/-15%	+49%/-52%
Source	PHO54	PHO54	PHO54	DSEP		

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

### Secondary Eclipse Parameters for KIC 011179654-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	$A_{\text{obs}}$
DV	$-7 \pm 1$	$0.65^{+0.56}_{-0.41}$	$2238^{+173}_{-136}$	$5212^{+3904}_{-1197}$	$19^{+125}_{-13}$
Alt.	$-8 \pm 1$	$1.11^{+0.59}_{-0.58}$	$2234^{+187}_{-138}$	$4403^{+1554}_{-700}$	$8.217^{+26.675}_{-4.941}$

$T_{\text{max}}$  = 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

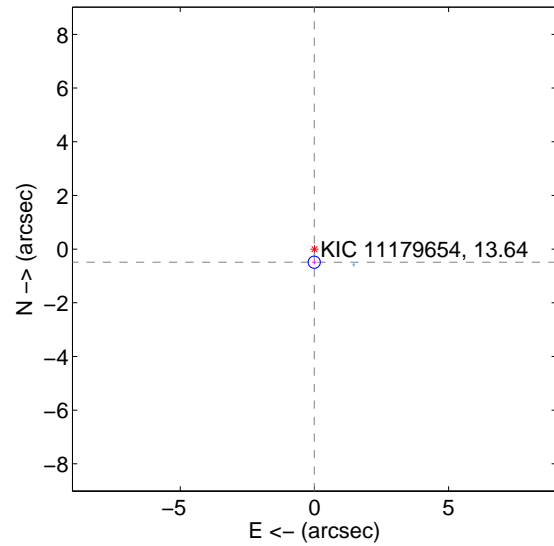
Supplemental centroid analysis for 011179654-01. Kepler magnitude: 13.64. Transit SNR 5.53

There are 2 quarters with good PRF difference image offsets

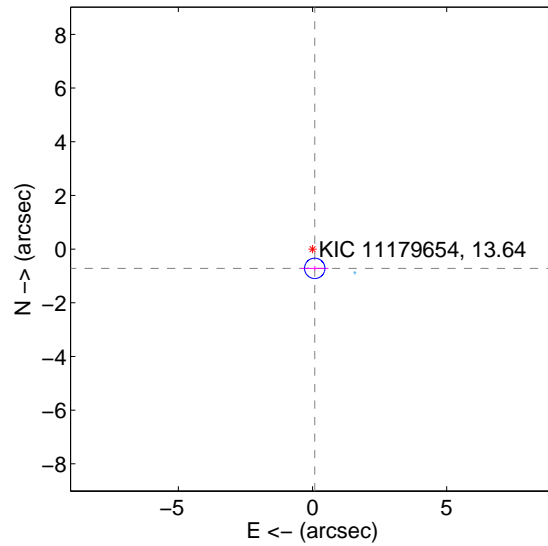
The direct PRF centroid is offset from the target star catalog position by about 0.31 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.488 \pm 0.076$	6.45	$0.008 \pm 0.073$	$-0.488 \pm 0.076$
PRF-fit source offset from KIC position	$0.722 \pm 0.126$	5.71	$-0.082 \pm 0.507$	$-0.718 \pm 0.084$
photometric centroid source offset	$2.69 \pm 1.61$	1.68	$-2.54 \pm 1.57$	$-0.89 \pm 1.87$

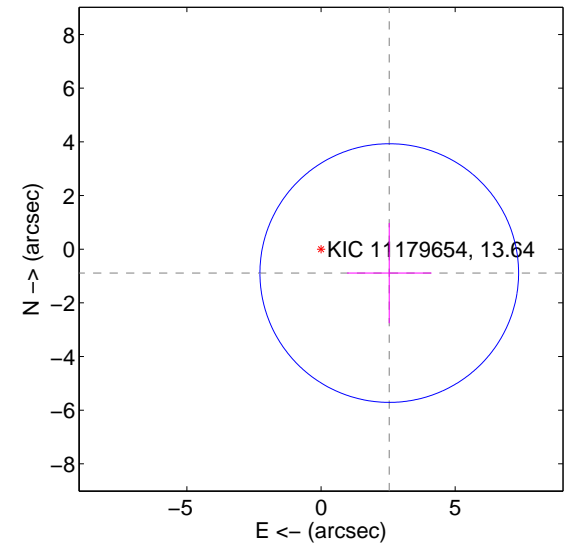
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

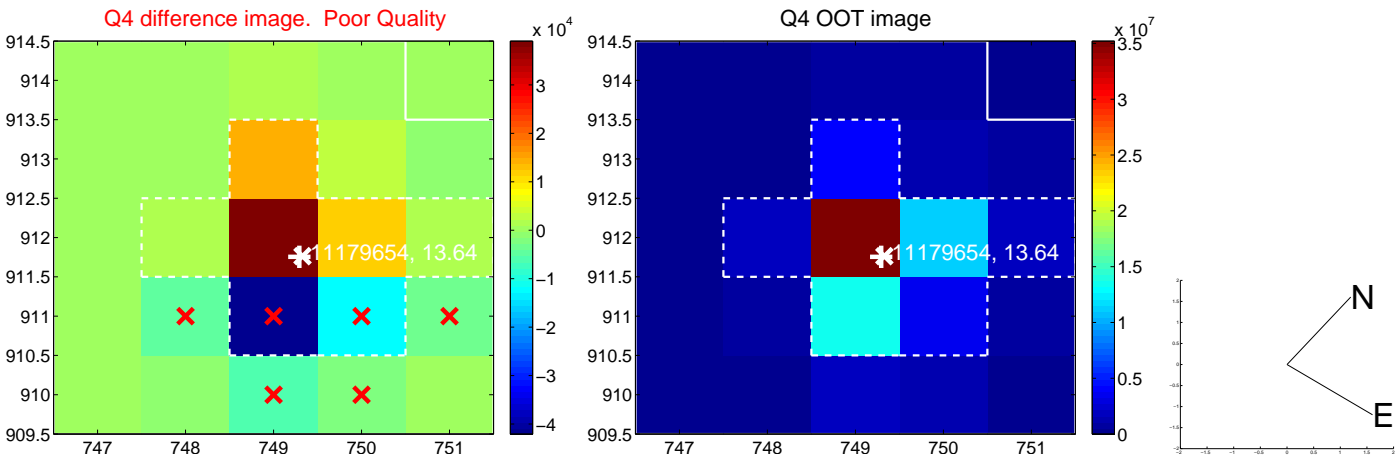
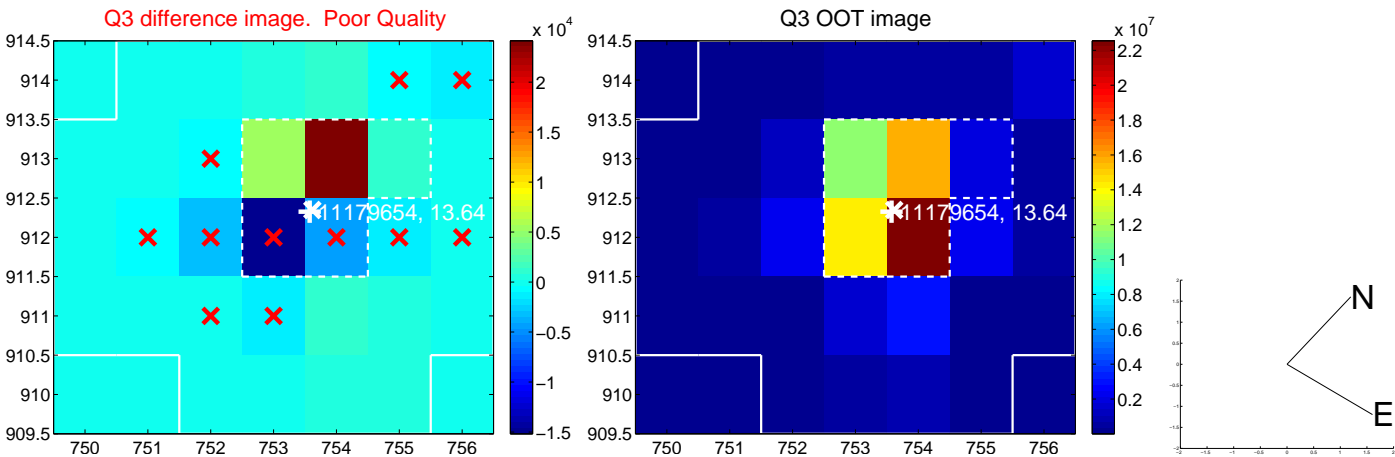
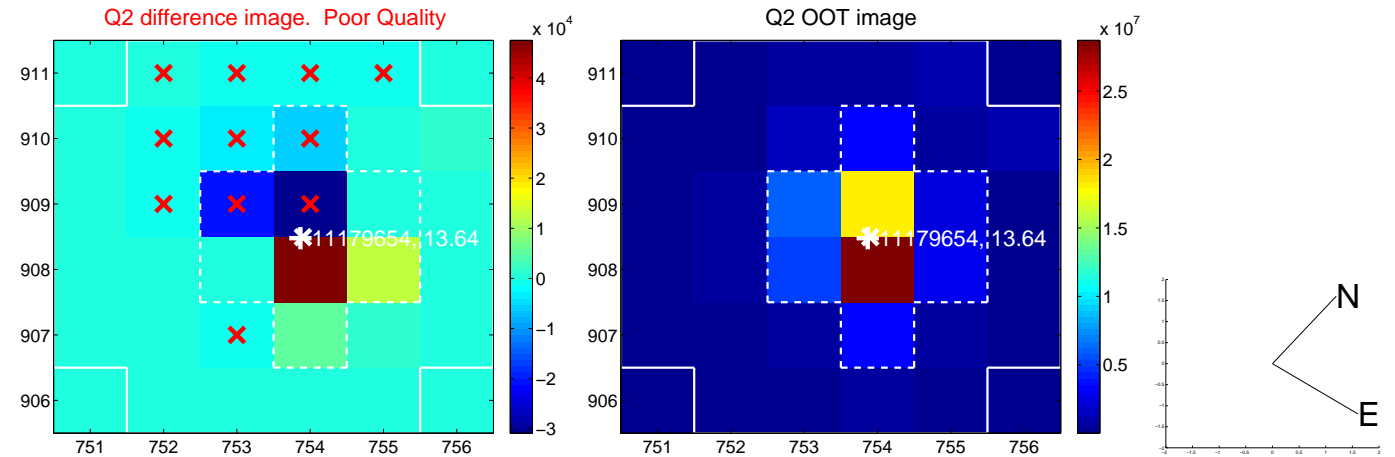
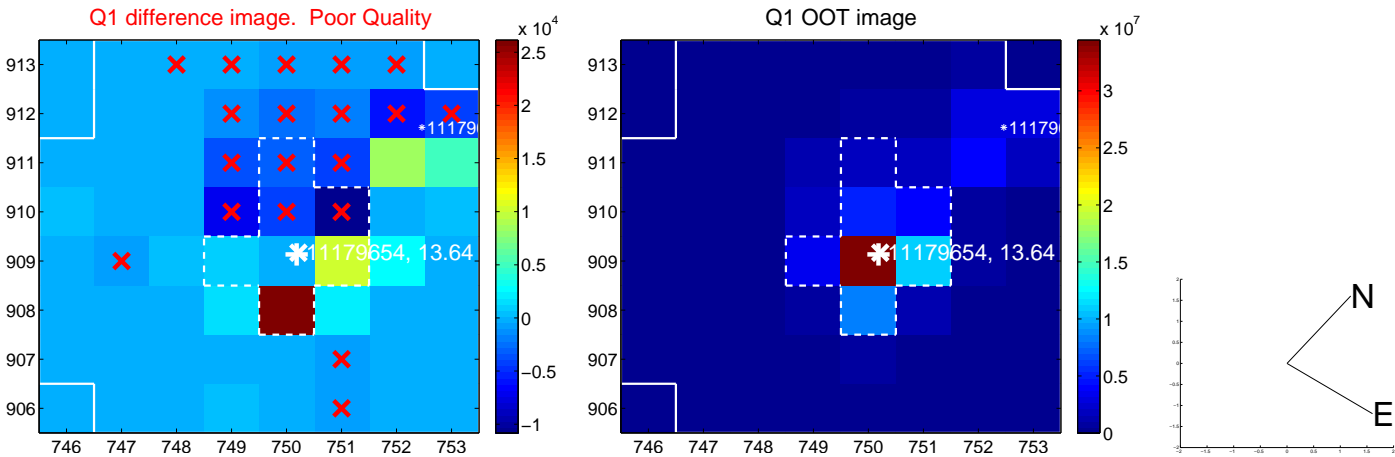


offset from photometric centroids

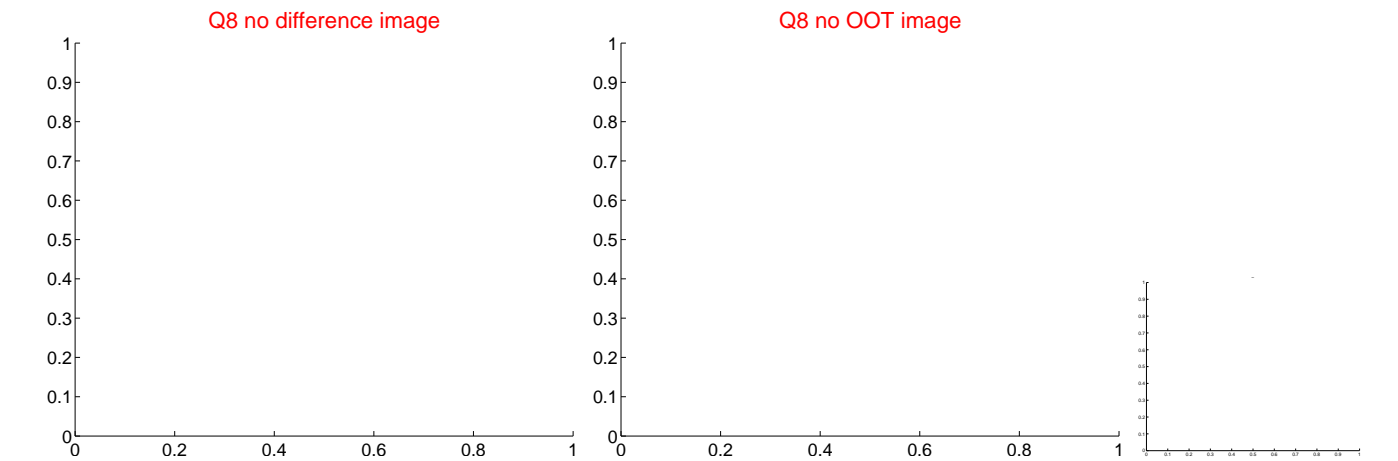
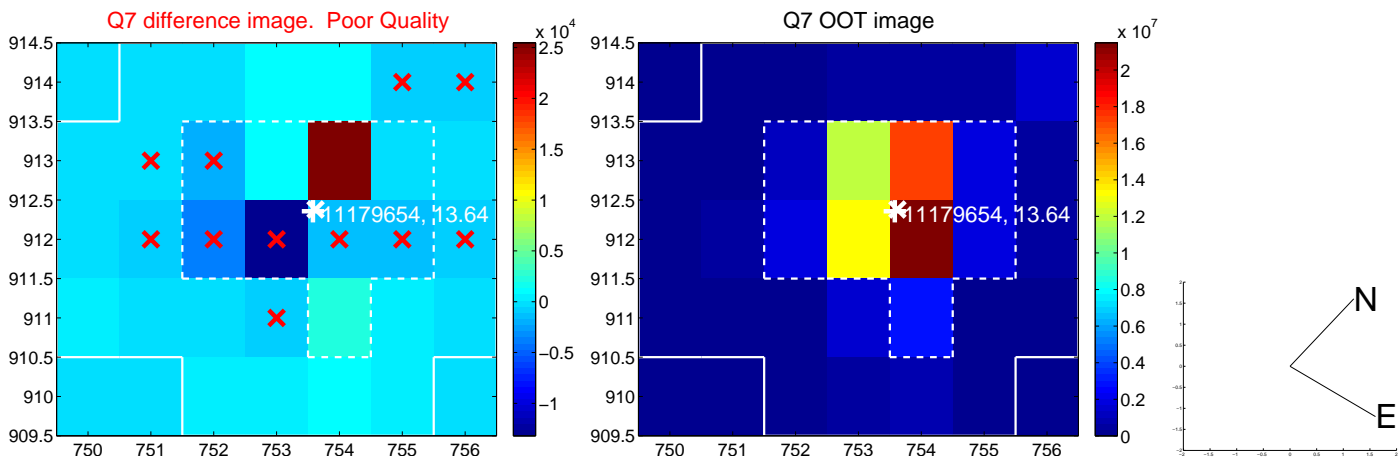
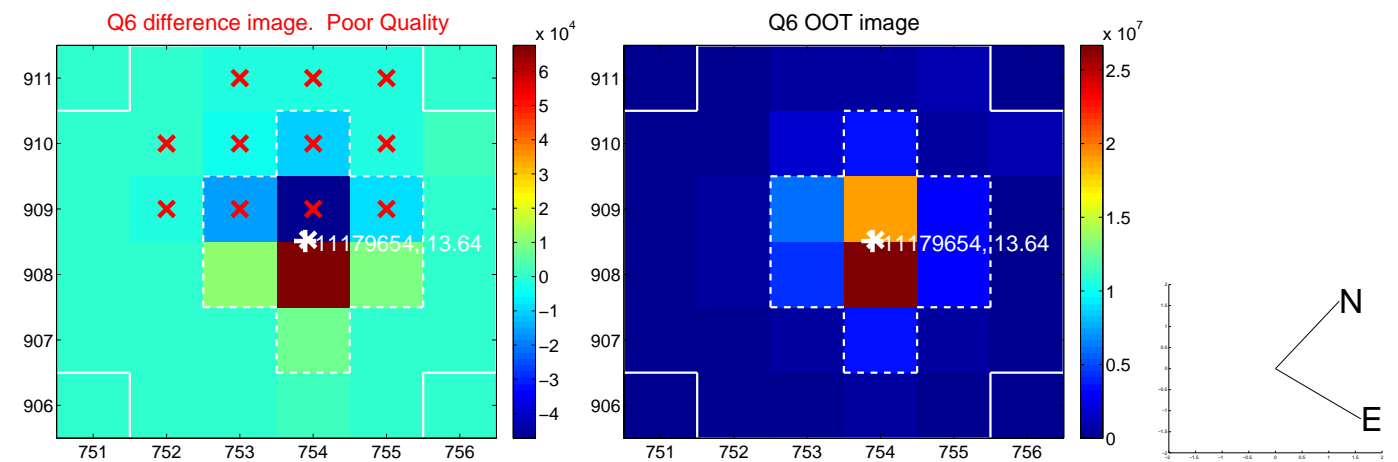
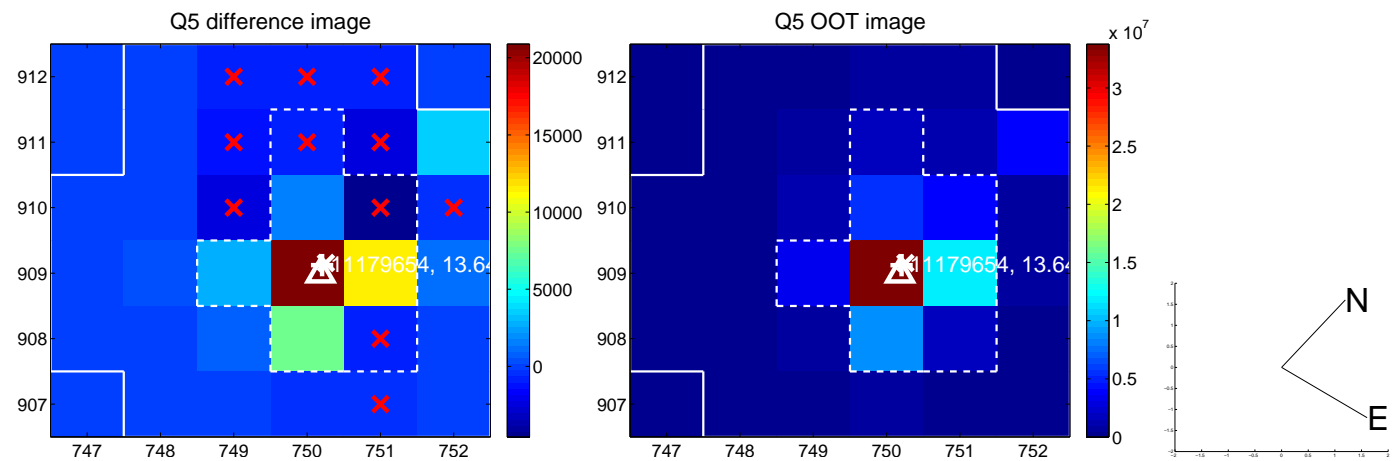


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three-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

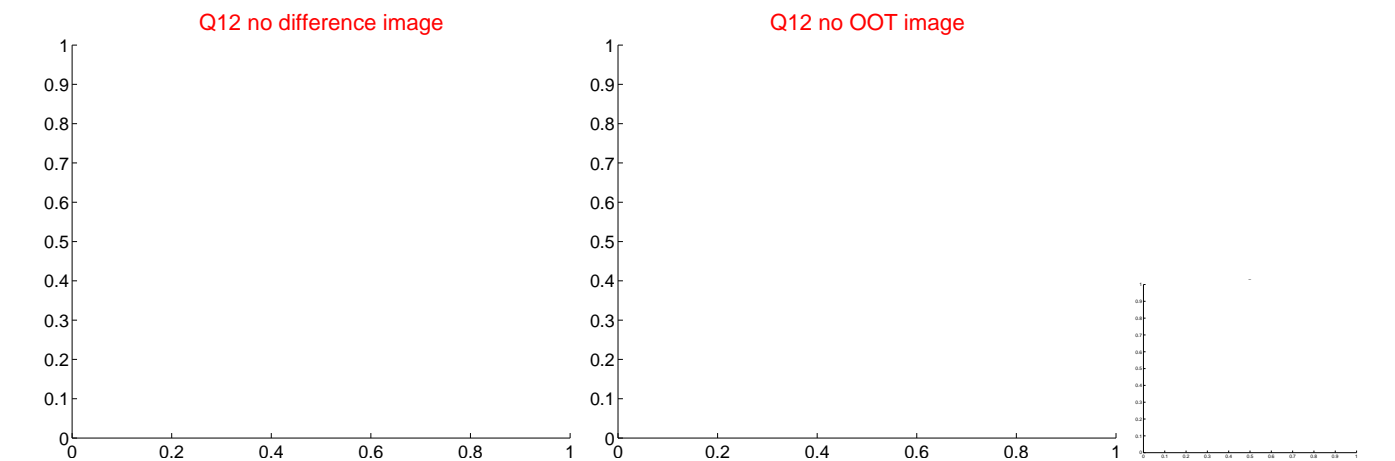
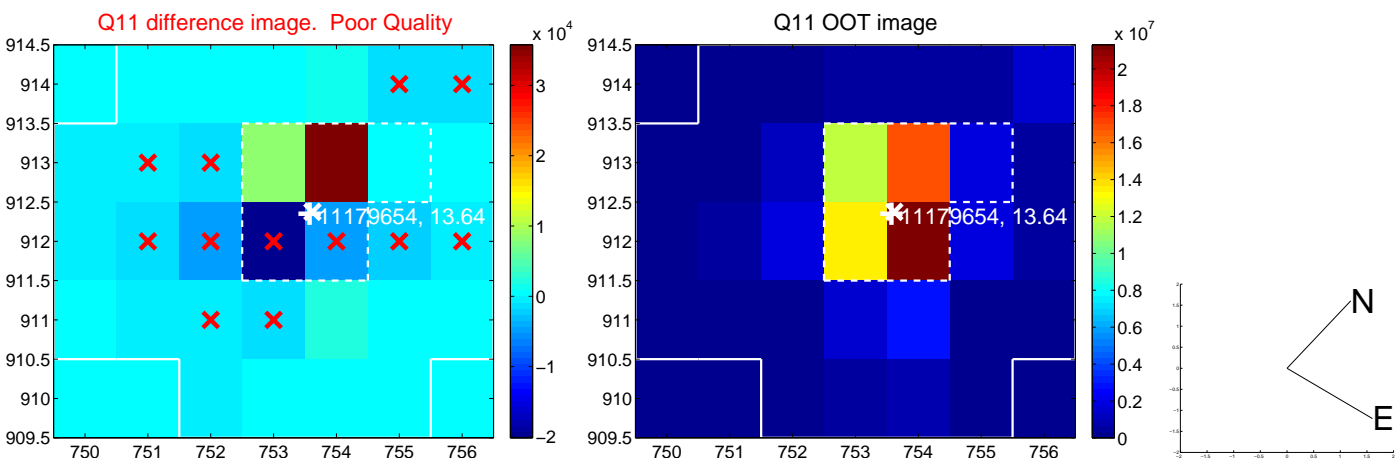
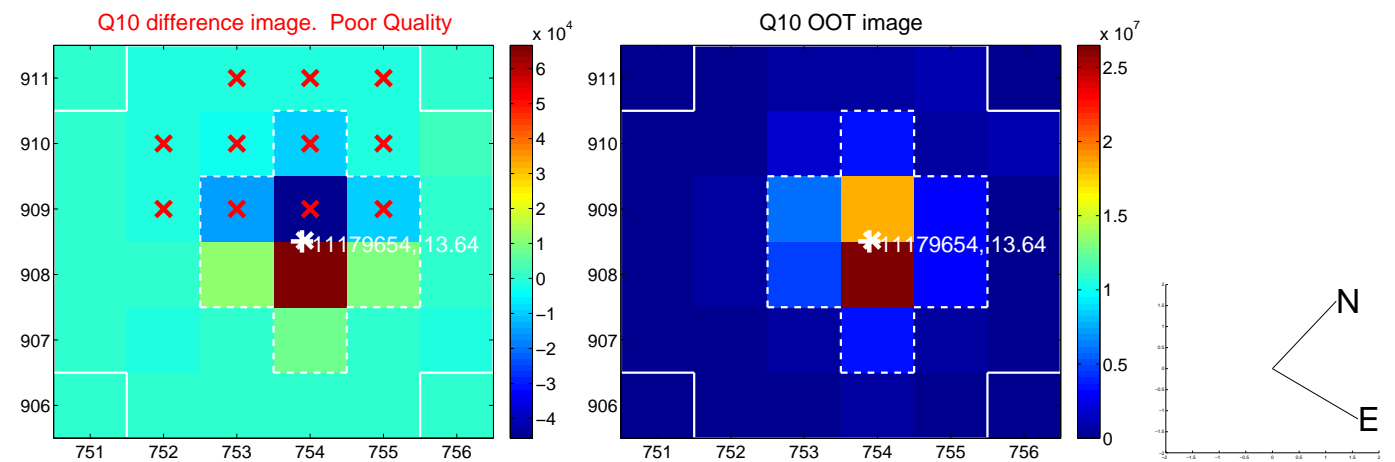
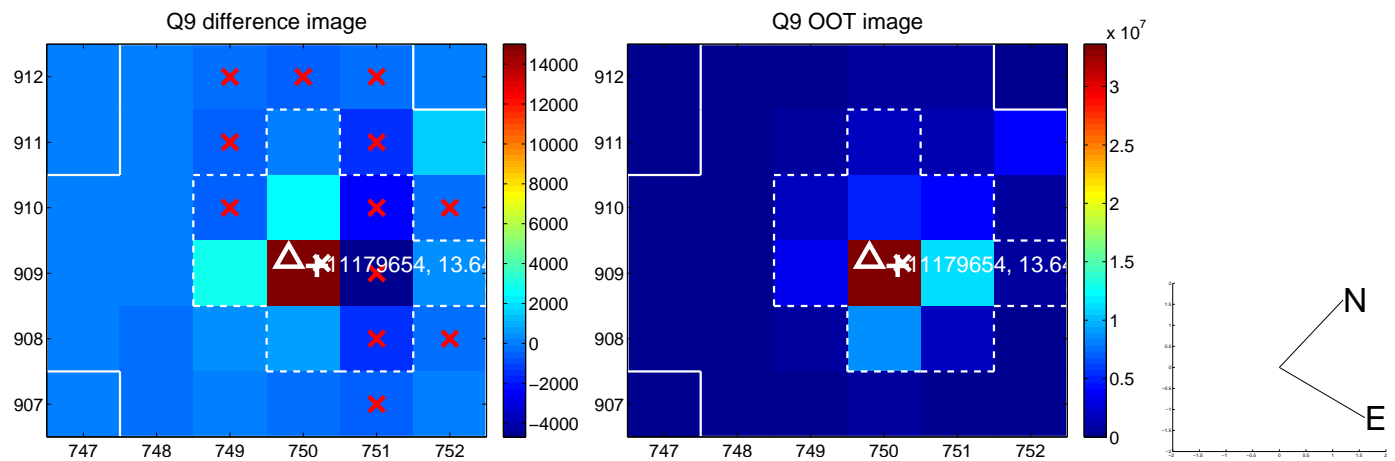


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

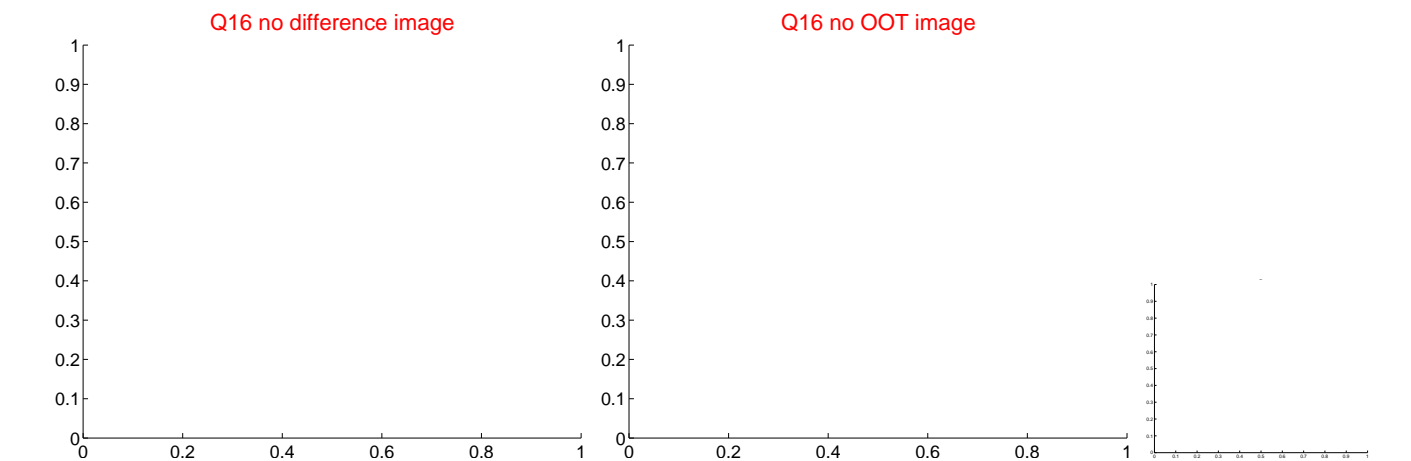
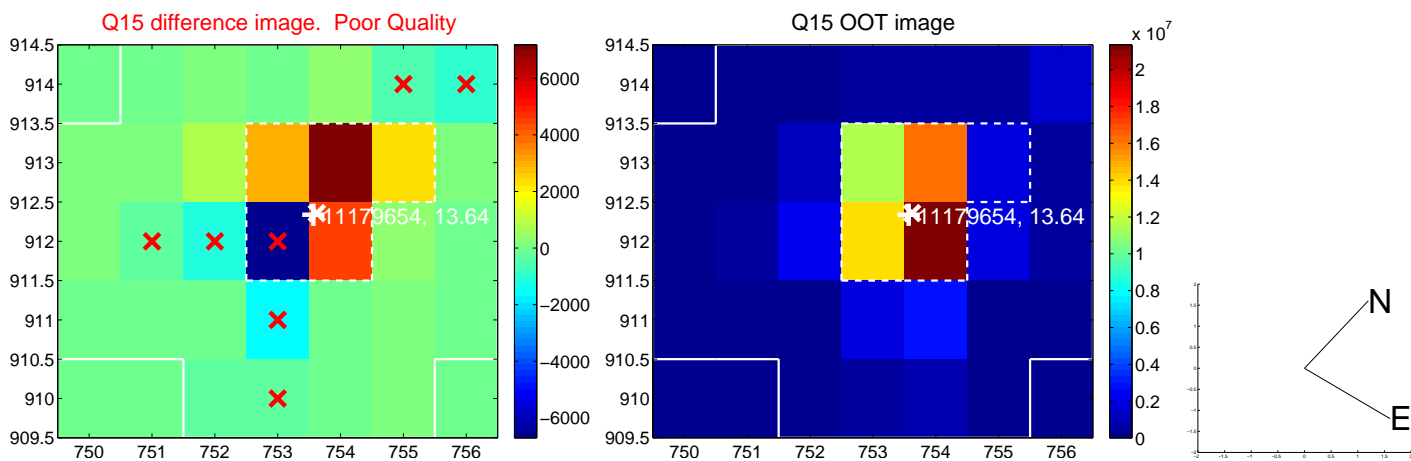
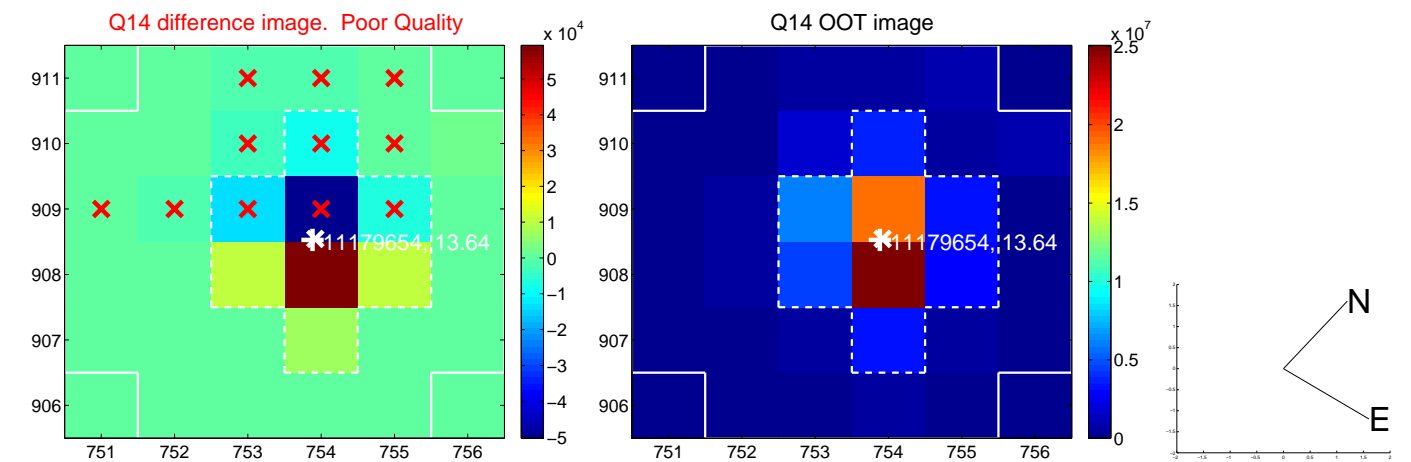
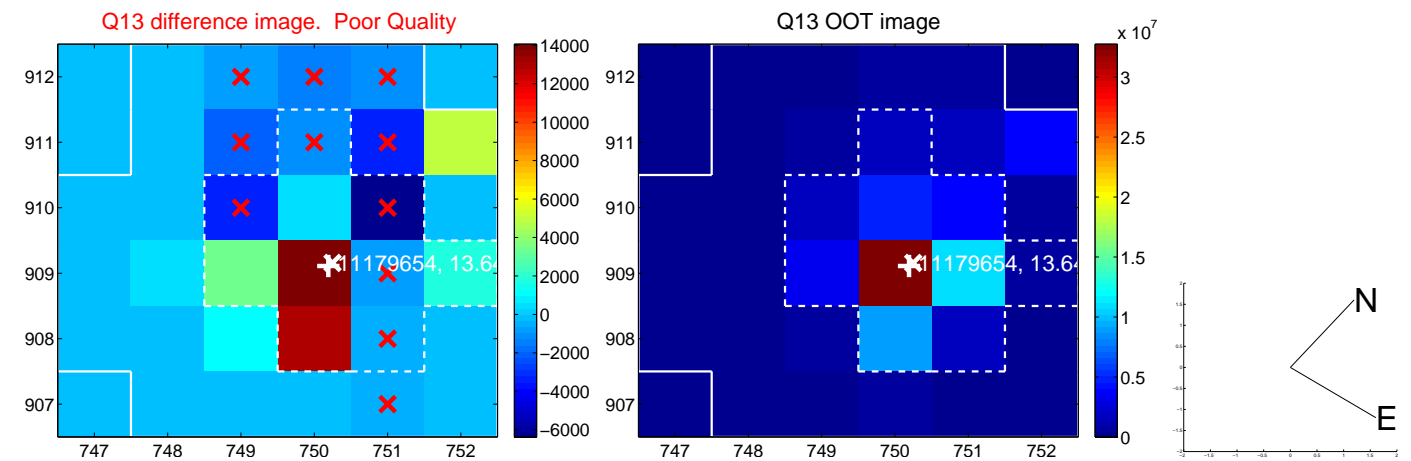




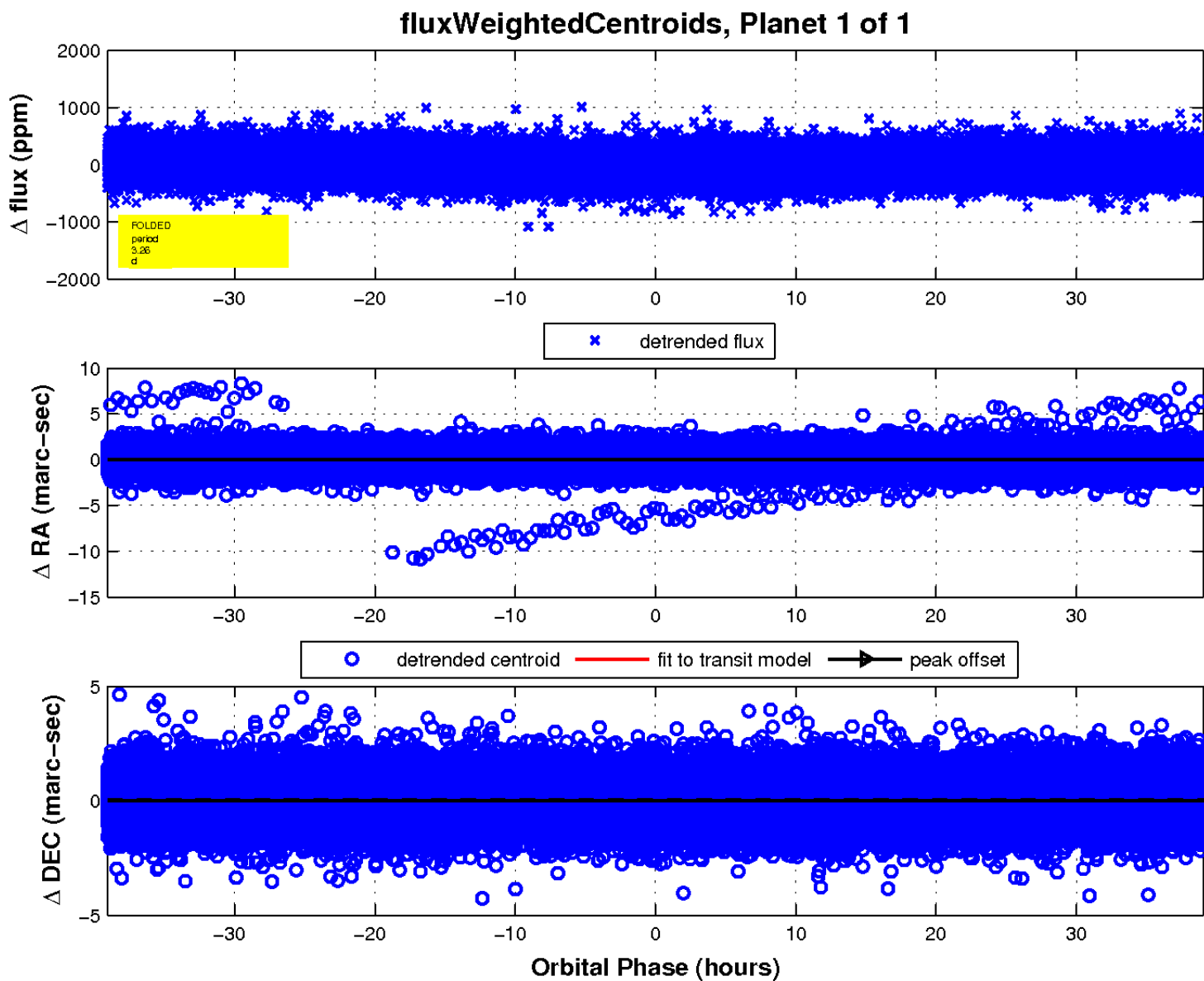
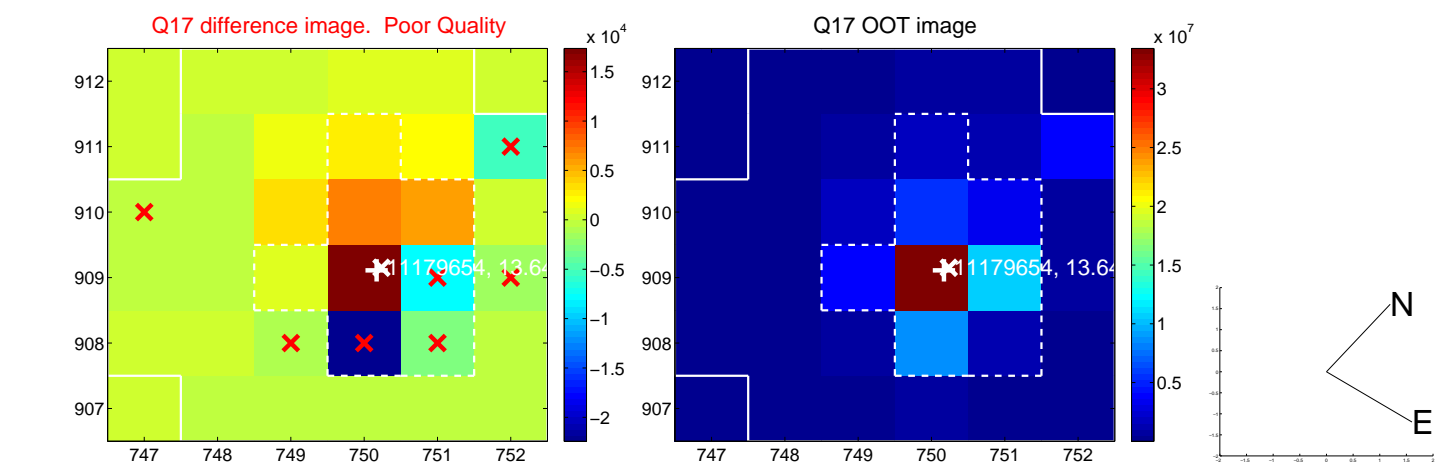
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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

