

# KIC 006936261

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
006936261-01	OBS	No	0.527346	131.730147	3.6	5.301	8.9	2.5	1.18	6175	0.22	10837.26

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006936261-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_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.

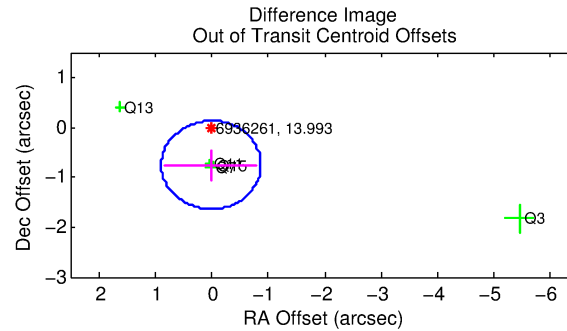
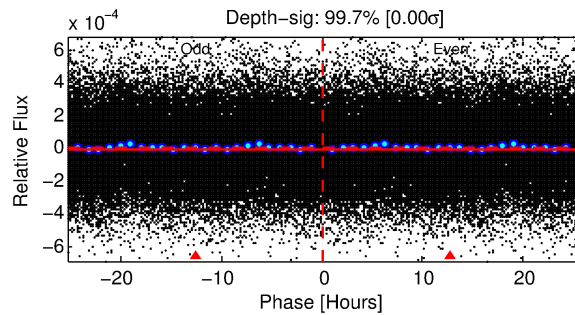
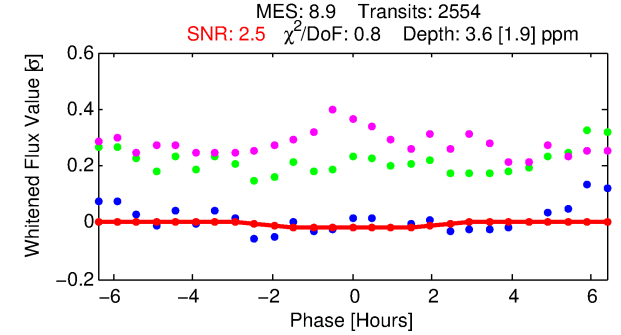
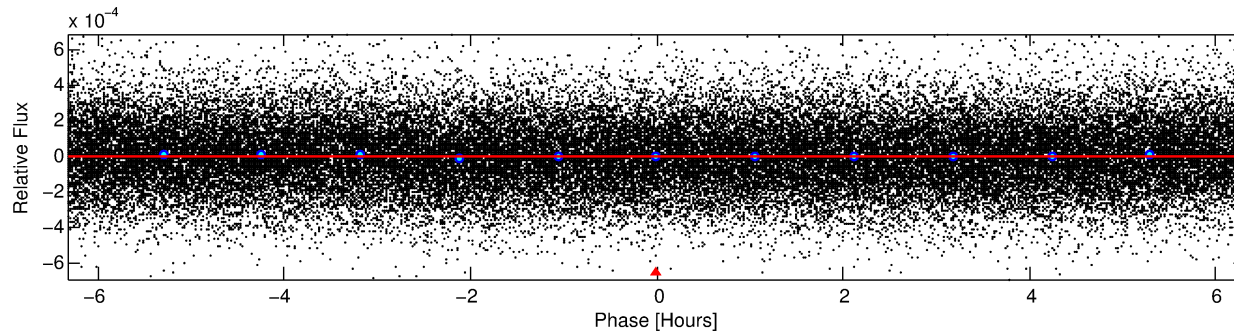
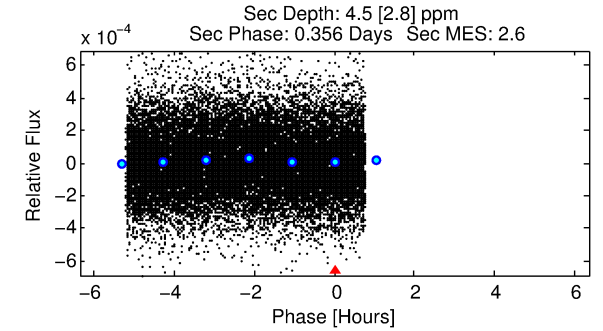
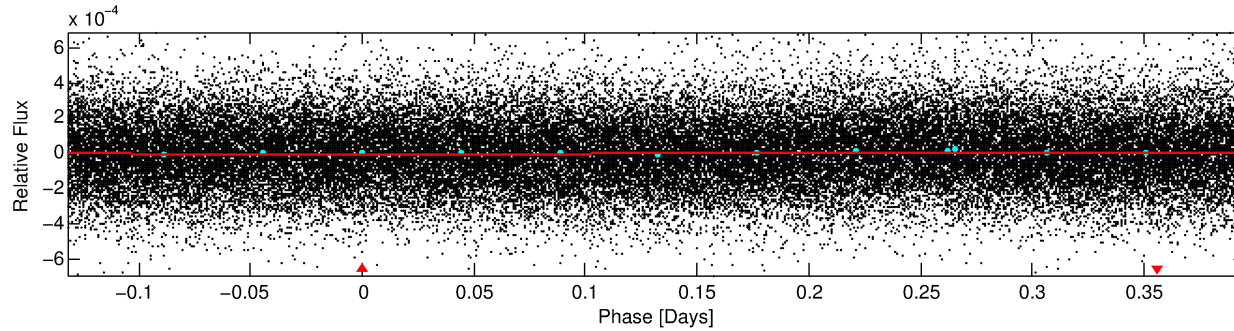
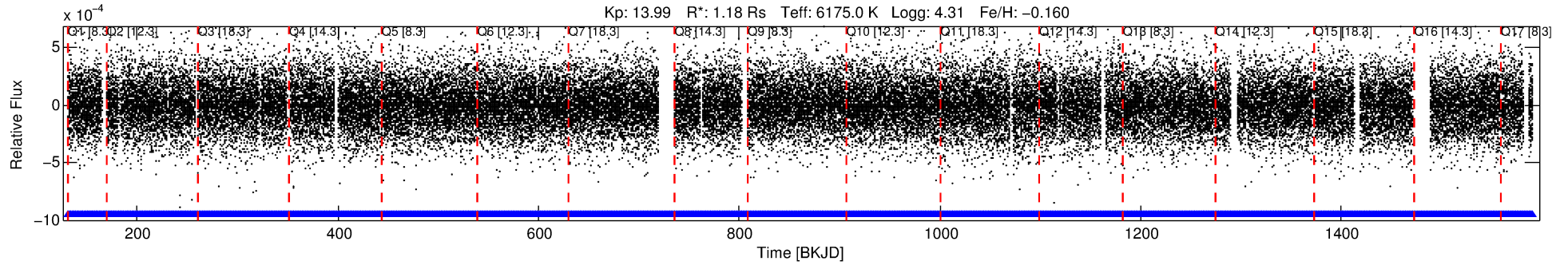
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

Ephemeris Match Information For 006936261-01

No Significant Match Found

# DV One-Page Summary

KIC: 6936261 Candidate: 1 of 1 Period: 0.527 d



## DV Fit Results:

Period = 0.52735 [0.00004] d  
Epoch = 131.7301 [0.0226] BKJD  
Rp/R\* = 0.0017 [0.0069]  
a/R\* = 1.04 [1.34]  
b = 0.00 [4444.45]  
Seff = 10837.26 [4159.53]  
Teq = 2602 [250] K  
Rp = 0.22 [0.88] Re  
a = 0.0129 [0.0032] AU  
Ag = 8.40 [66.85] [0.11σ]  
Teffp = 6847 [13616] K [0.31σ]

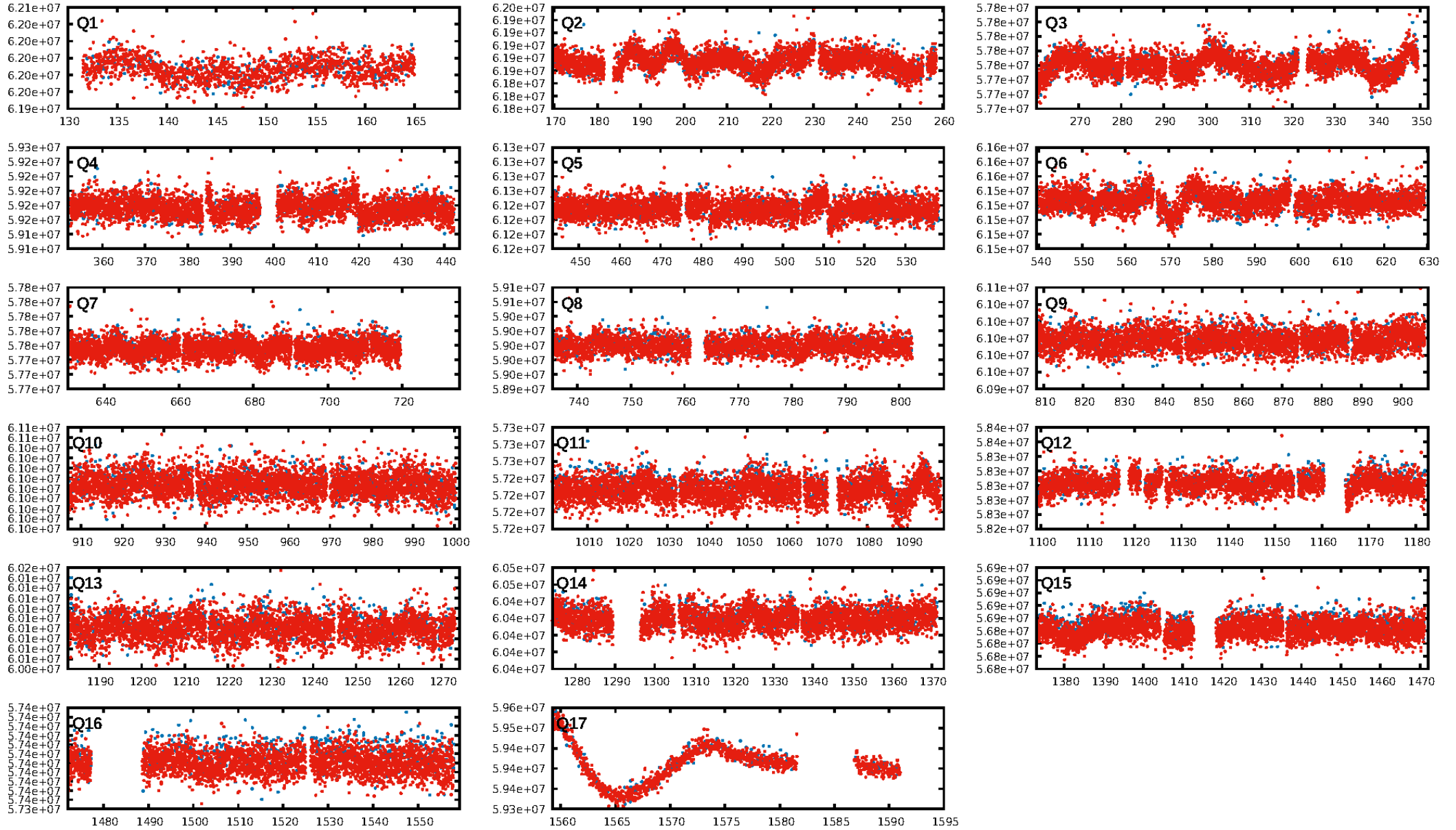
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 1.00 [2439/2439]  
GhostDiagnostic-chr: N/A  
Centroid-sig: N/A  
Centroid-so: N/A  
OotOffset-rm: 0.756 arcsec [2.57σ]  
KicOffset-rm: 0.834 arcsec [1.47σ]  
OotOffset-st: 0/4/0/1 [5]  
KicOffset-st: 0/4/0/1 [5]  
DiffImageQuality-fgm: 0.80 [4/5]  
DiffImageOverlap-fno: 1.00 [17/17]

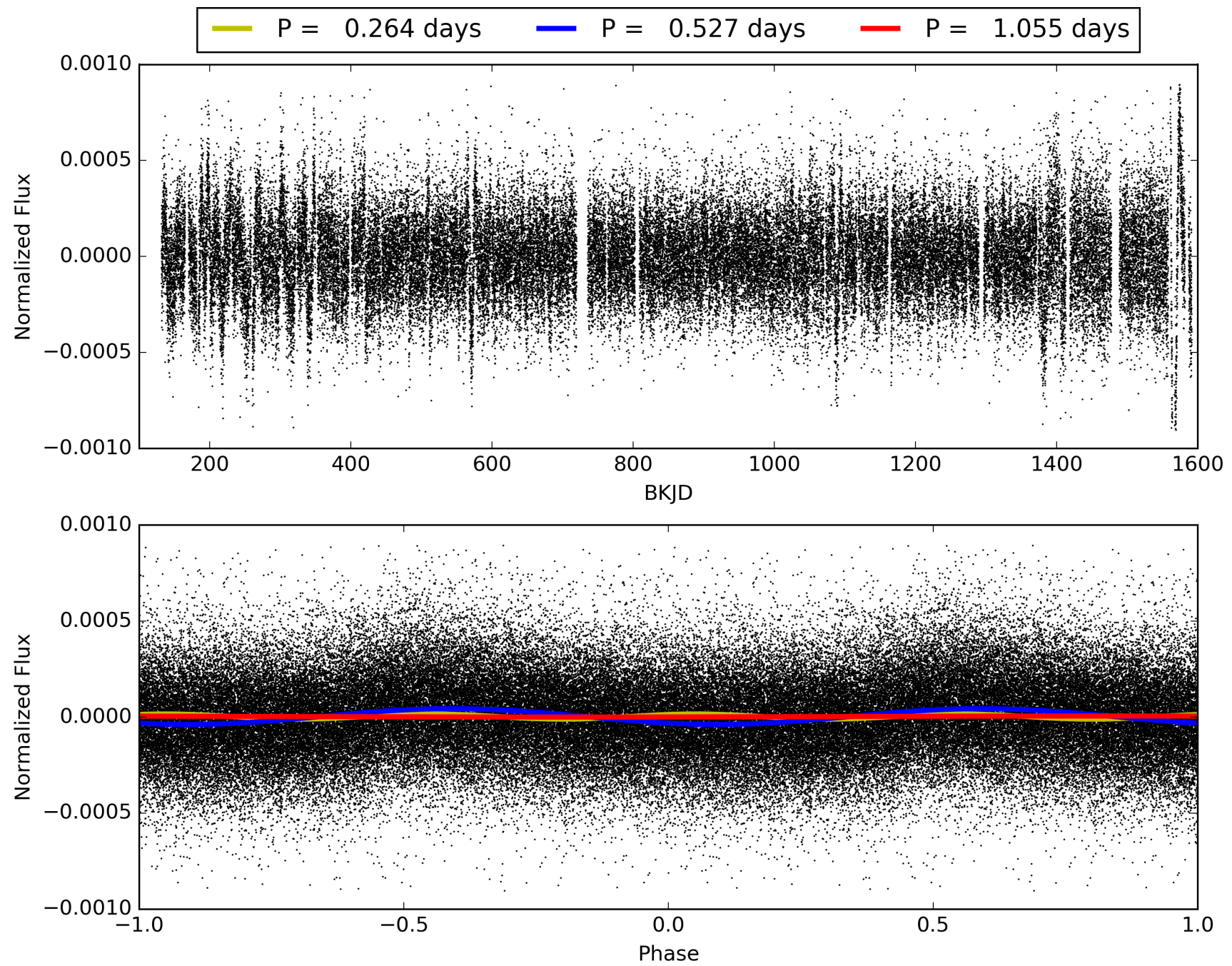
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 19:12:41 Z

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

# TCE 006936261-01, PDC Light Curves



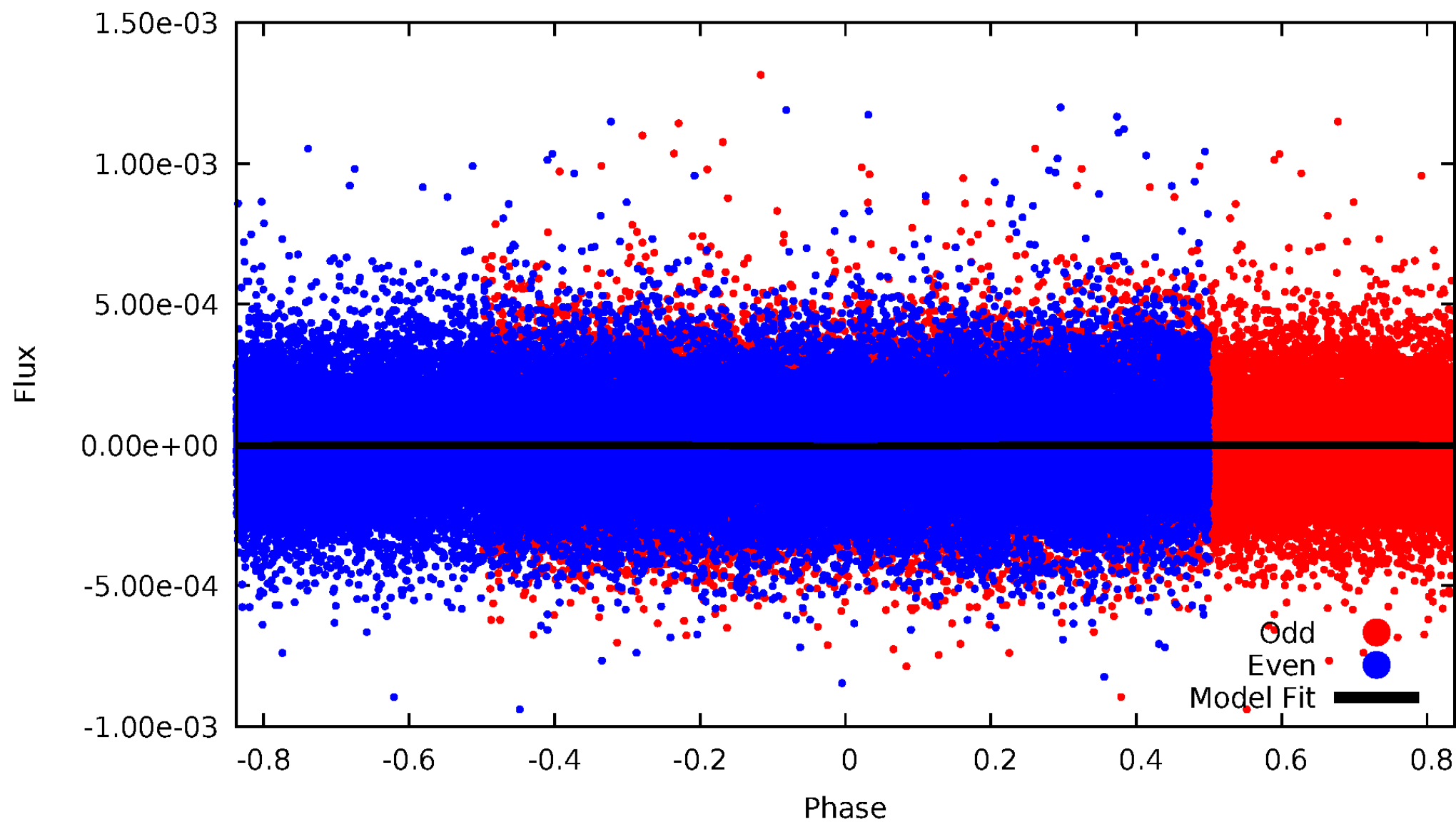
TCE 006936261-01





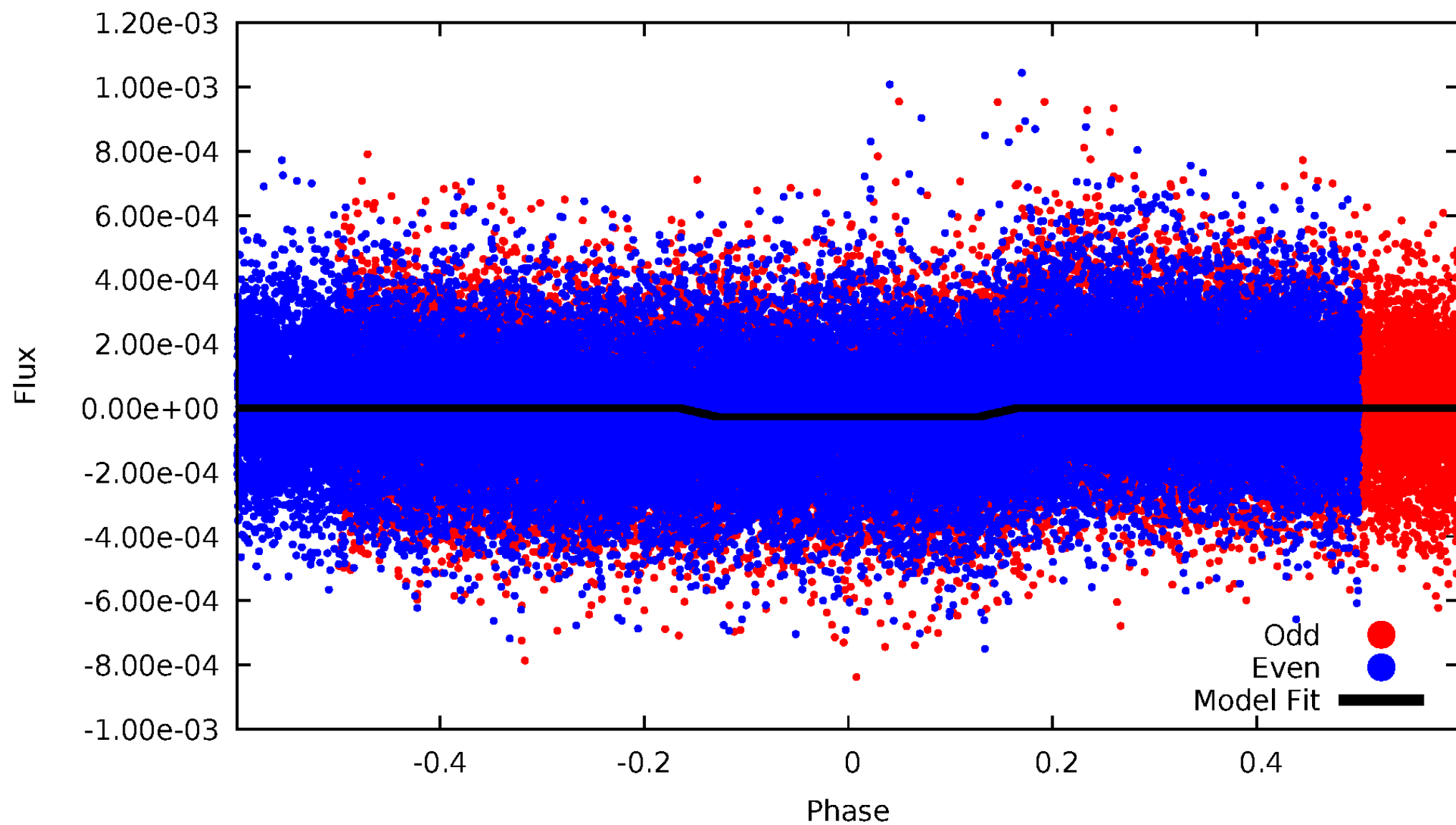
# DV Odd/Even

TCE 006936261-01



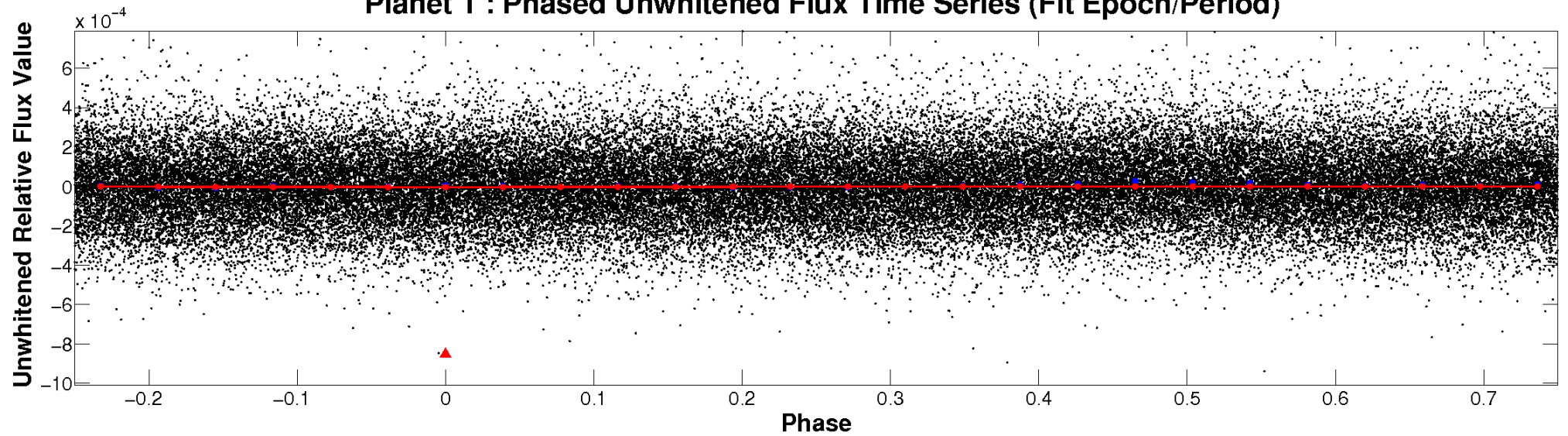
# ALT Odd/Even

TCE 006936261-01

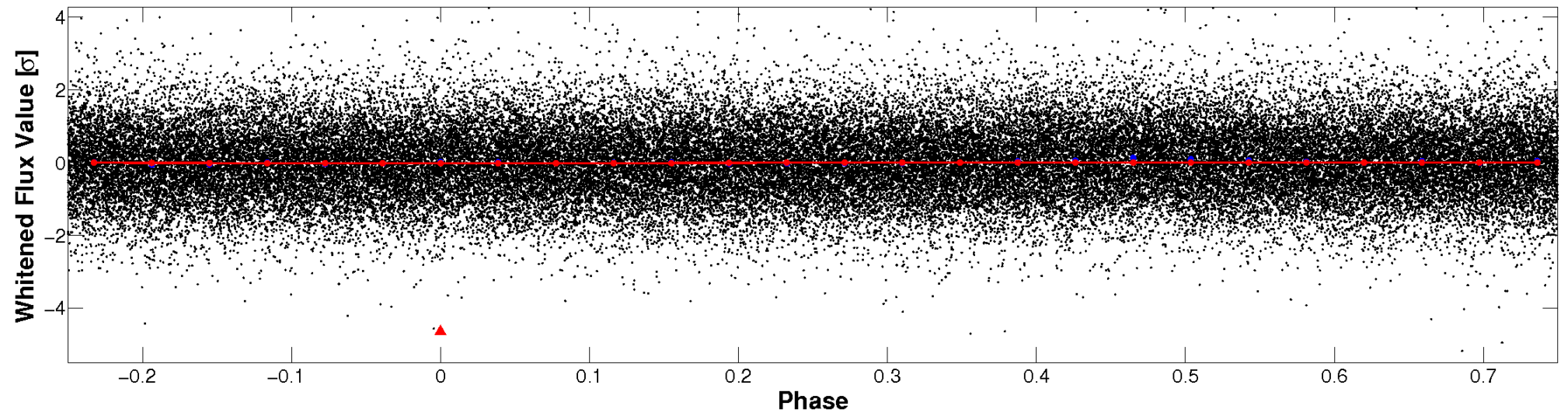


# Non-Whitened Vs. Whitened Light Curve

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

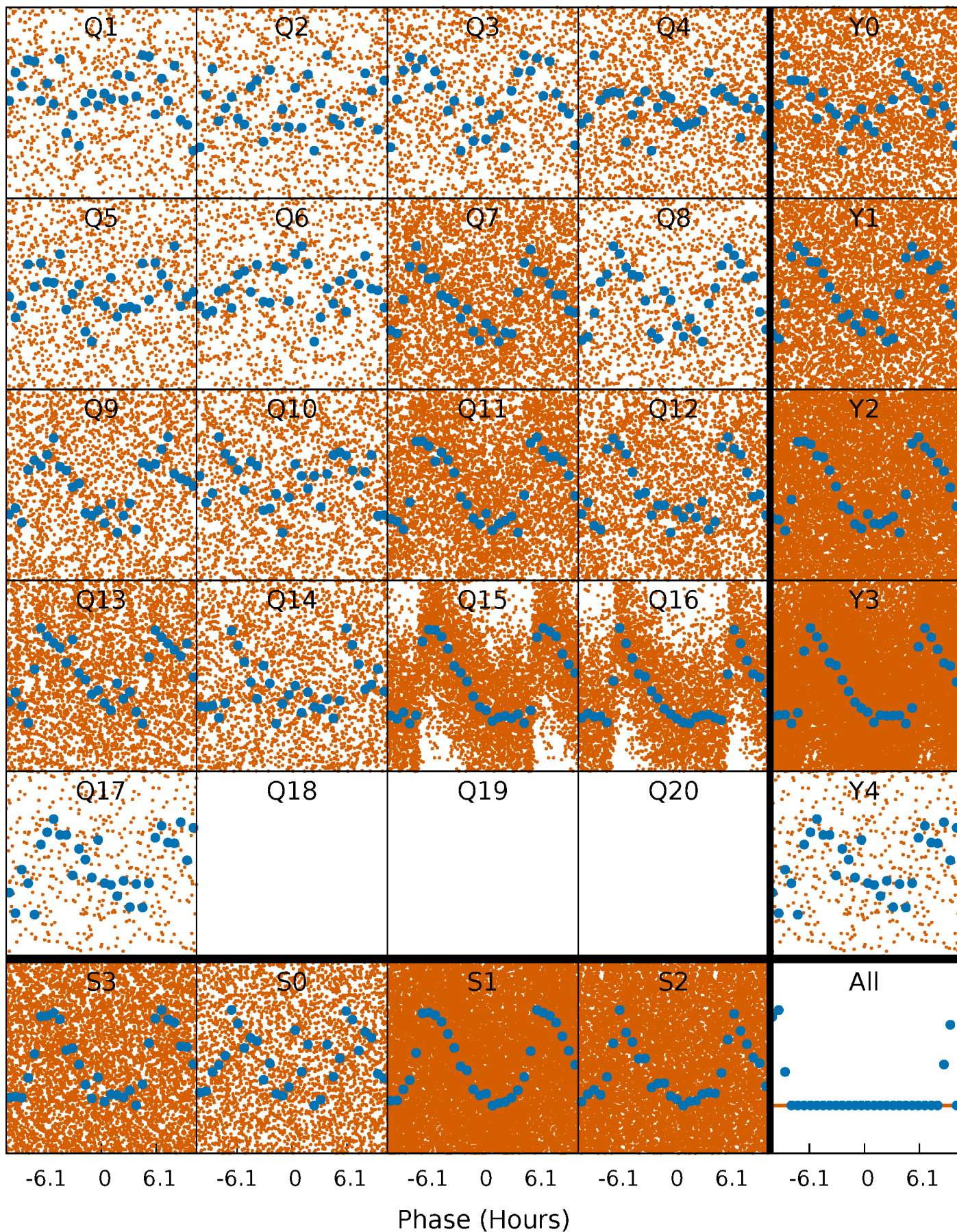


**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**



# PDC Quarter-Phased Transit Curves

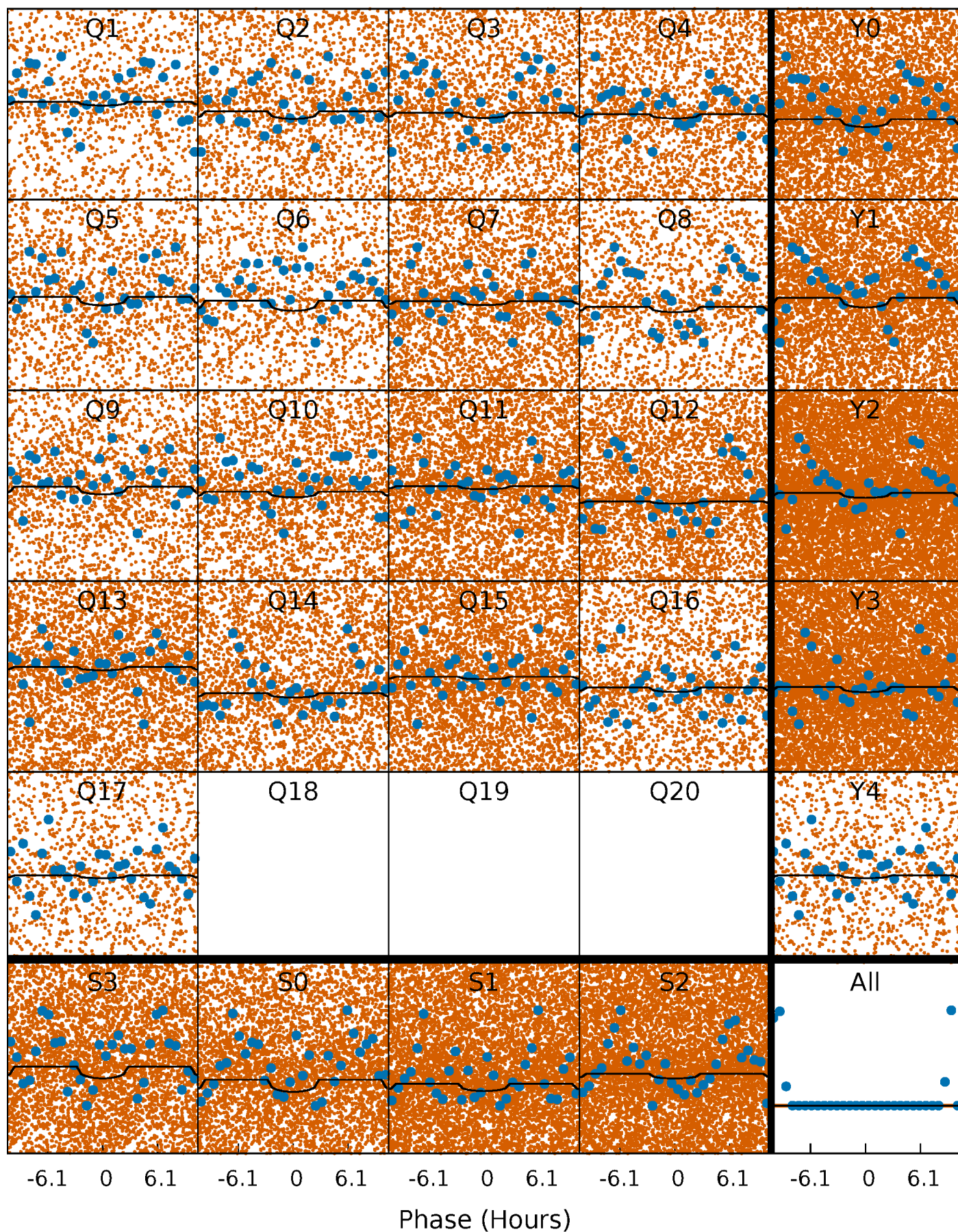
TCE 006936261-01 P= 0.527346 Days  $T_0=131.730147$  (BKJD)





# DV Quarter-Phased Transit Curves

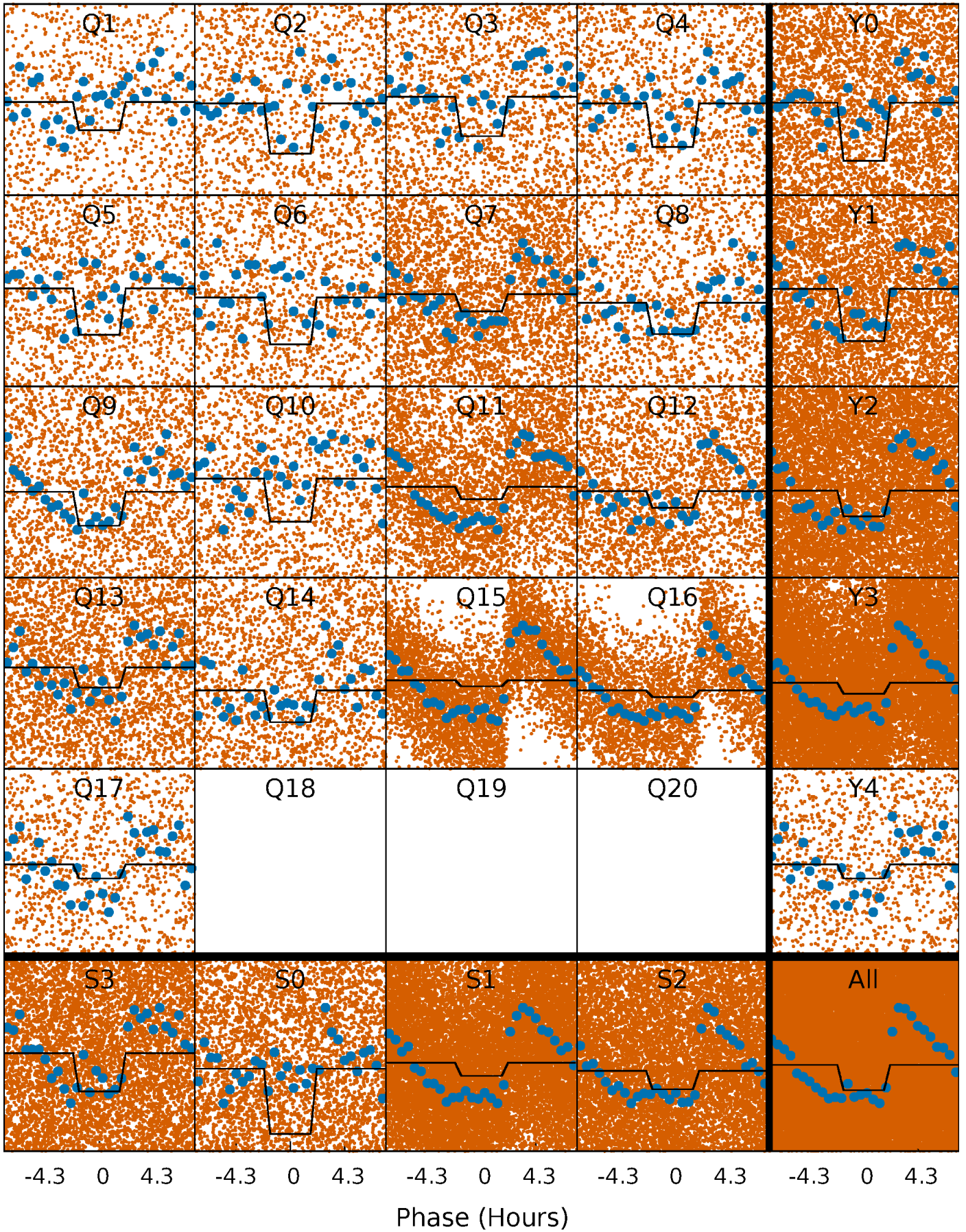
TCE 006936261-01 P= 0.527346 Days  $T_0=131.730147$  (BKJD)





# Alt. Detrend Quarter-Phased Transit Curves

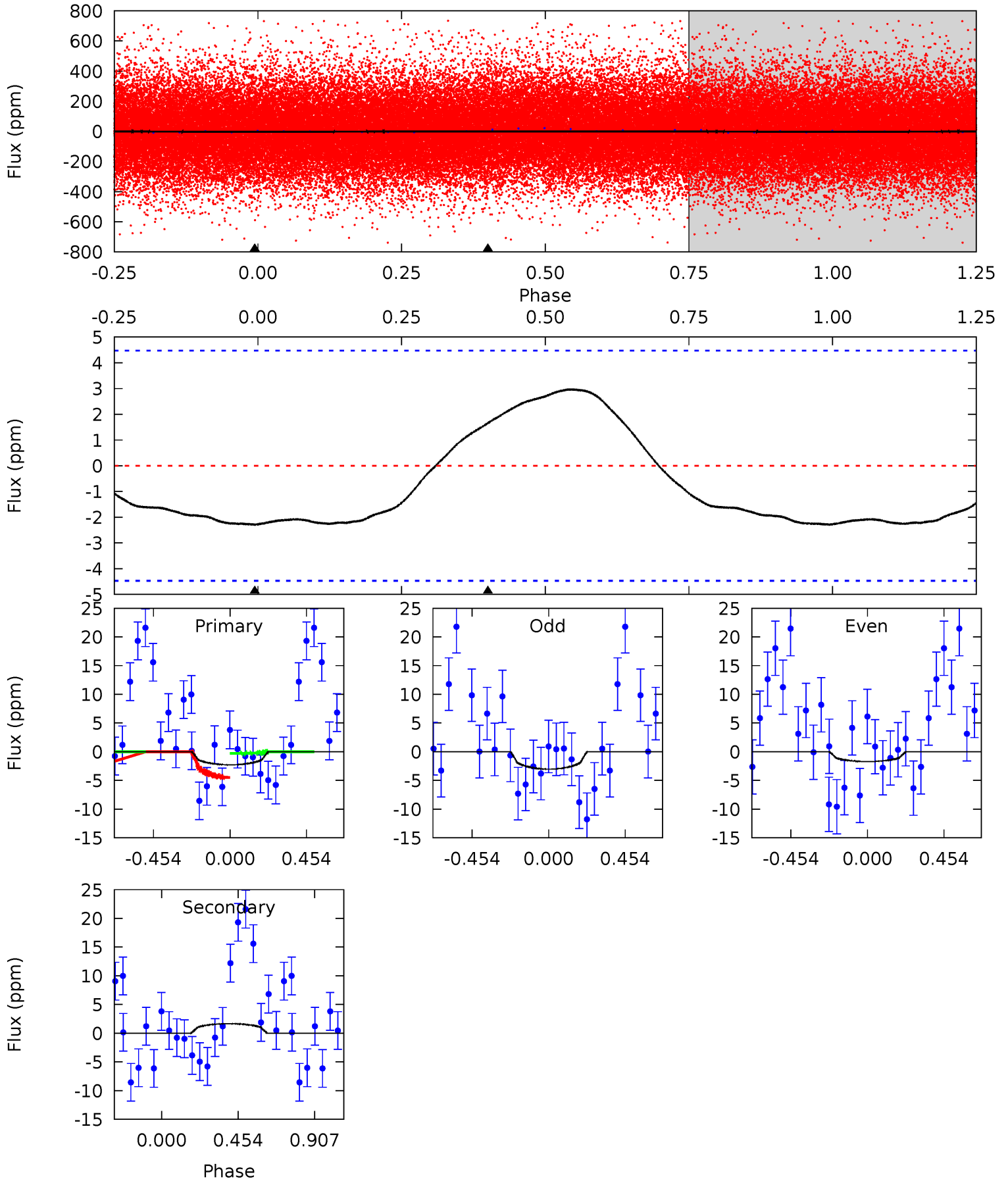
TCE 006936261-01 P= 0.527403 Days  $T_0=131.743414$  (BKJD)



# DV Model-Shift Uniqueness Test

006936261-01, P = 0.527346 Days, E = 131.202801 Days

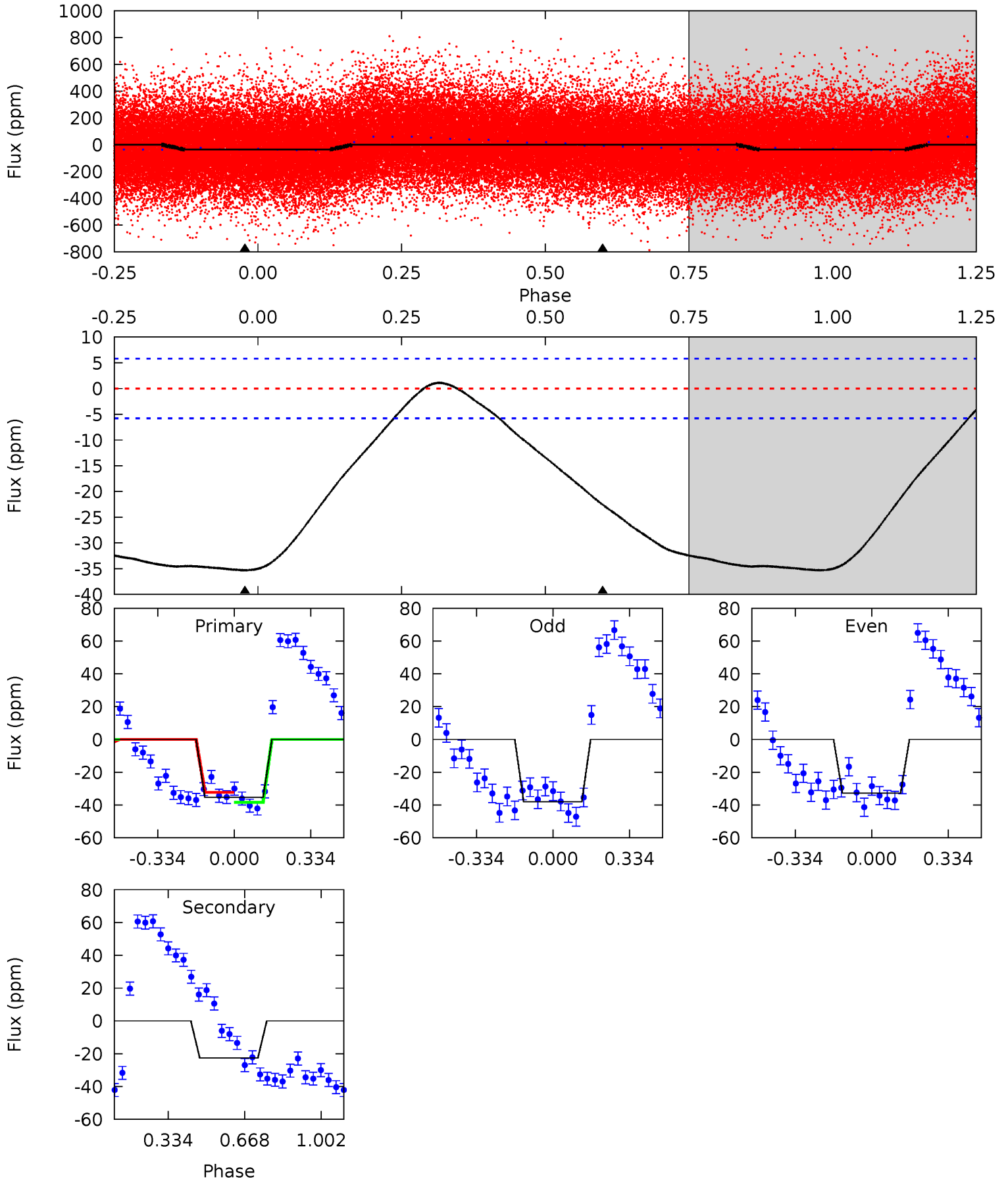
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.17	-1.57	0	0	4.24	0.75	0.70	2.17	2.17	-1.57	-1.57	0.63	2.40	0.56	1.98



# Alt Model-Shift Uniqueness Test

006936261-01, P = 0.527403 Days, E = 131.216011 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
26.2	16.8	0	0	4.30	0.97	1.55	26.2	26.2	16.8	16.8	1.94	1.04	0.03	2.37





### Stellar Parameters For KIC 006936261

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$6175^{+172}_{-194}$	$4.309^{+0.149}_{-0.198}$	$-0.160^{+0.300}_{-0.300}$	$1.176^{+0.349}_{-0.204}$	$1.026^{+0.169}_{-0.113}$	$0.888^{+0.637}_{-0.452}$
	+3%/-3%	+3%/-5%	+188%/-188%	+30%/-17%	+16%/-11%	+72%/-51%
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 006936261-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$2\pm1$	$0.72^{+0.66}_{-0.51}$	$3648^{+292}_{-223}$	$-3899^{+346}_{-1638}$	$-0.254^{+0.208}_{-2.851}$
Alt.	$-23\pm1$	$0.98^{+0.79}_{-0.61}$	$3649^{+275}_{-240}$	$4789^{+3654}_{-1208}$	$2.197^{+13.853}_{-1.535}$

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

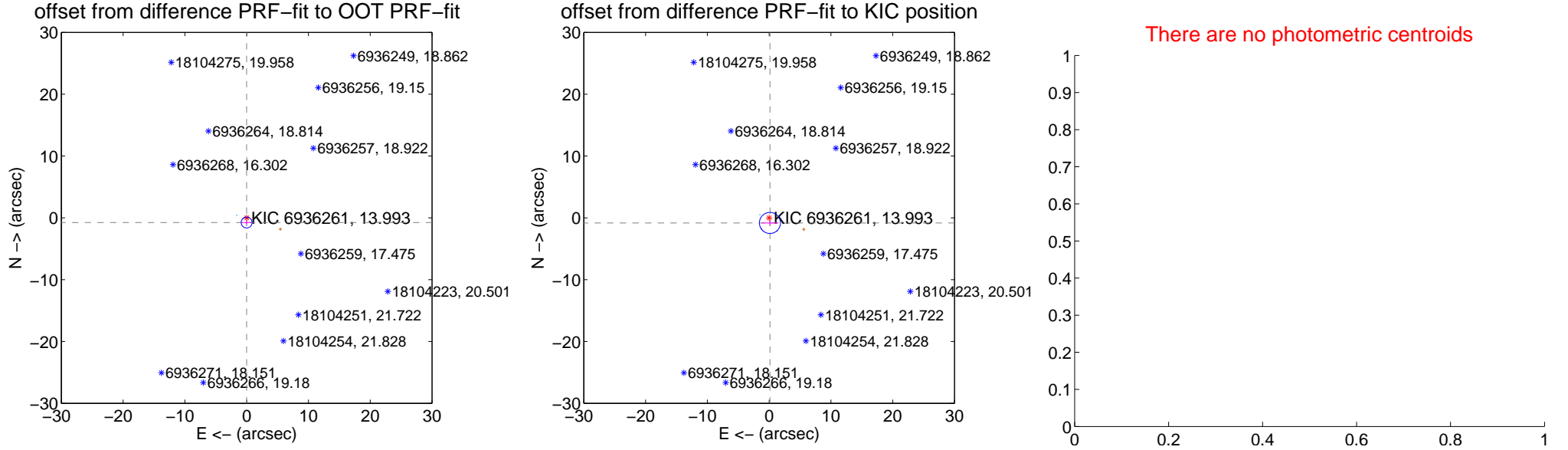
## DV Centroid Data

Supplemental centroid analysis for 006936261-01. Kepler magnitude: 13.99. Transit SNR 2.48

There are 4 quarters with good PRF difference image offsets

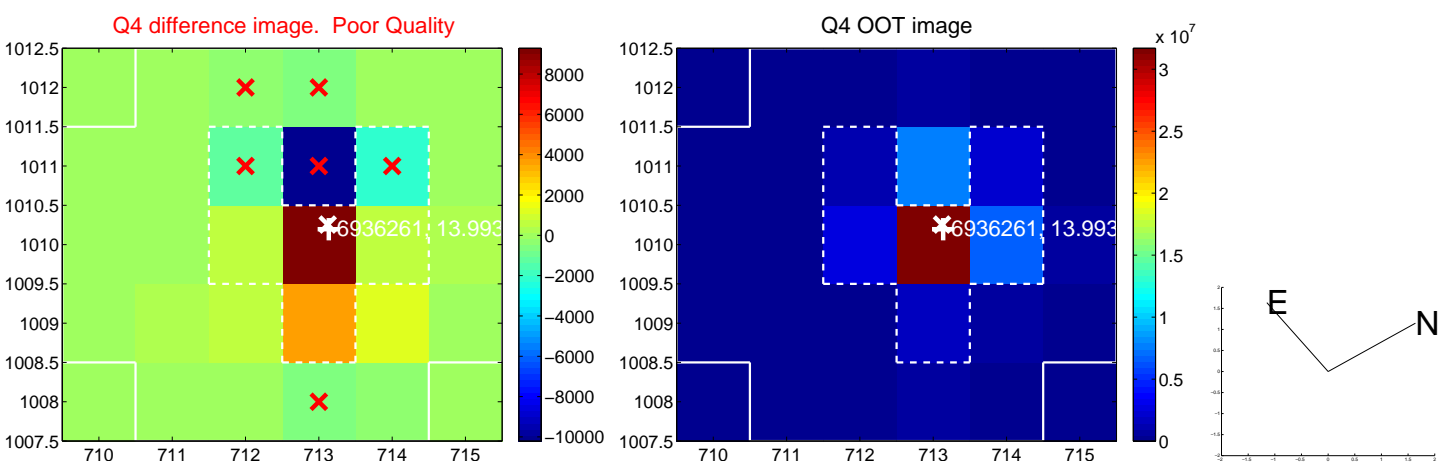
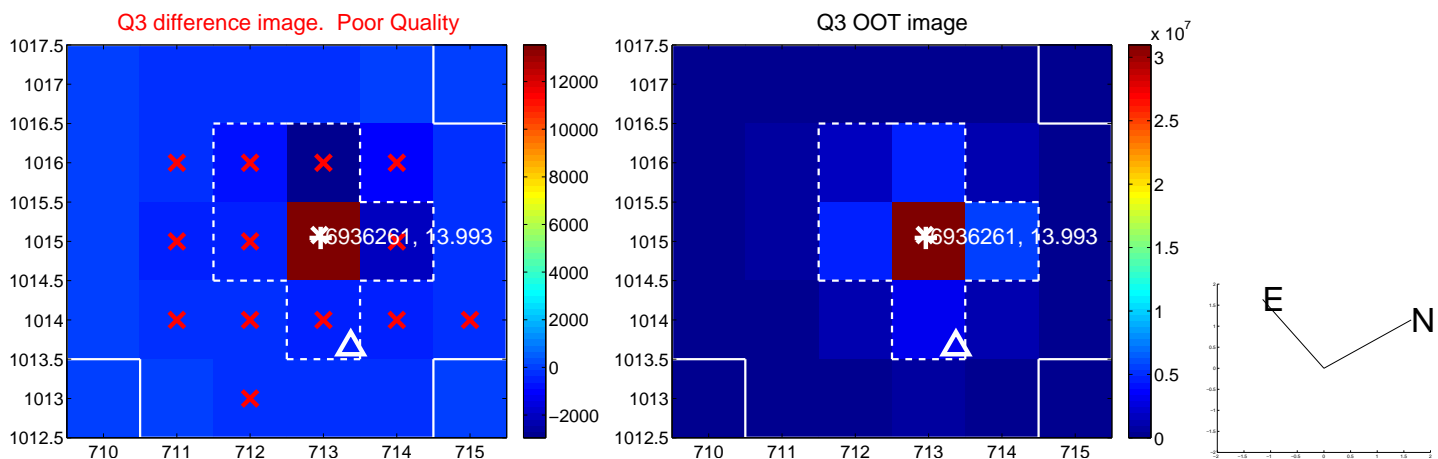
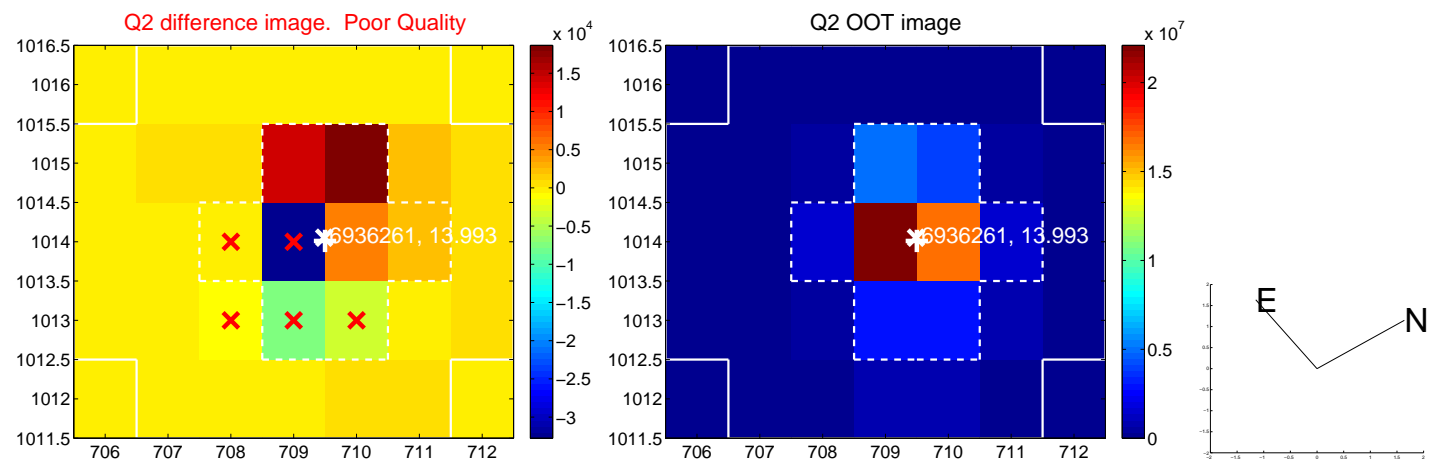
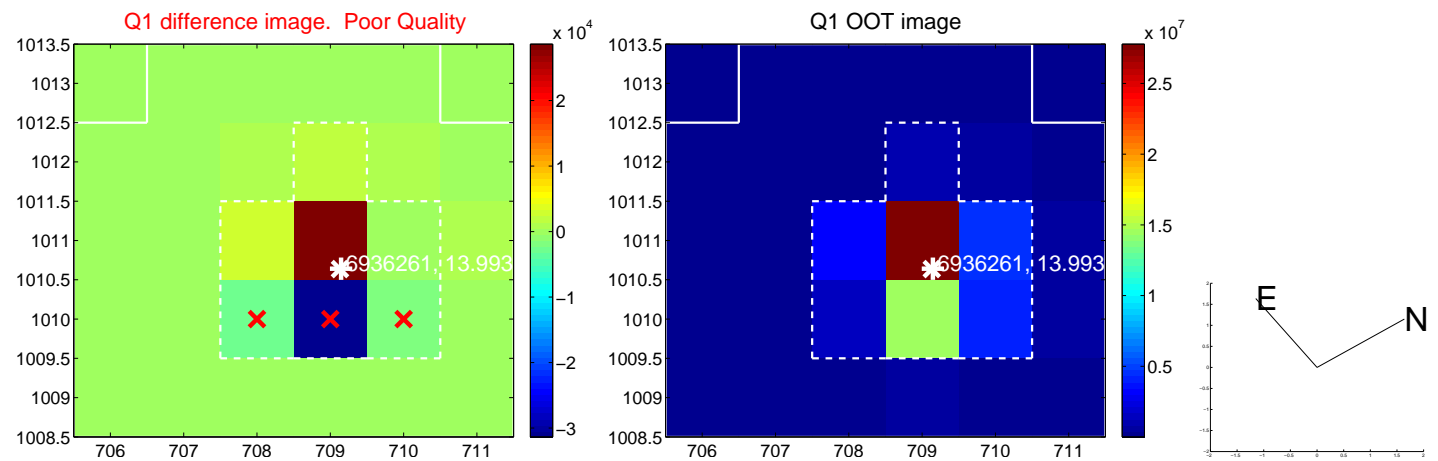
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.756 \pm 0.294$	2.57	$0.008 \pm 0.804$	$-0.756 \pm 0.302$
PRF-fit source offset from KIC position	$0.834 \pm 0.567$	1.47	$-0.128 \pm 1.343$	$-0.824 \pm 0.376$
photometric centroid source offset	—	—	—	—

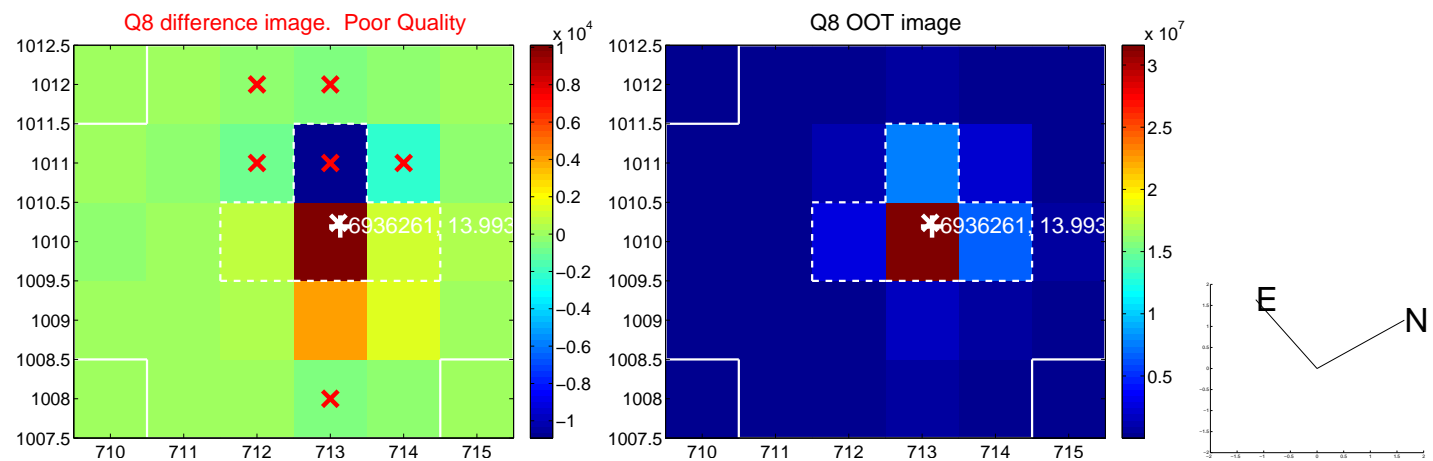
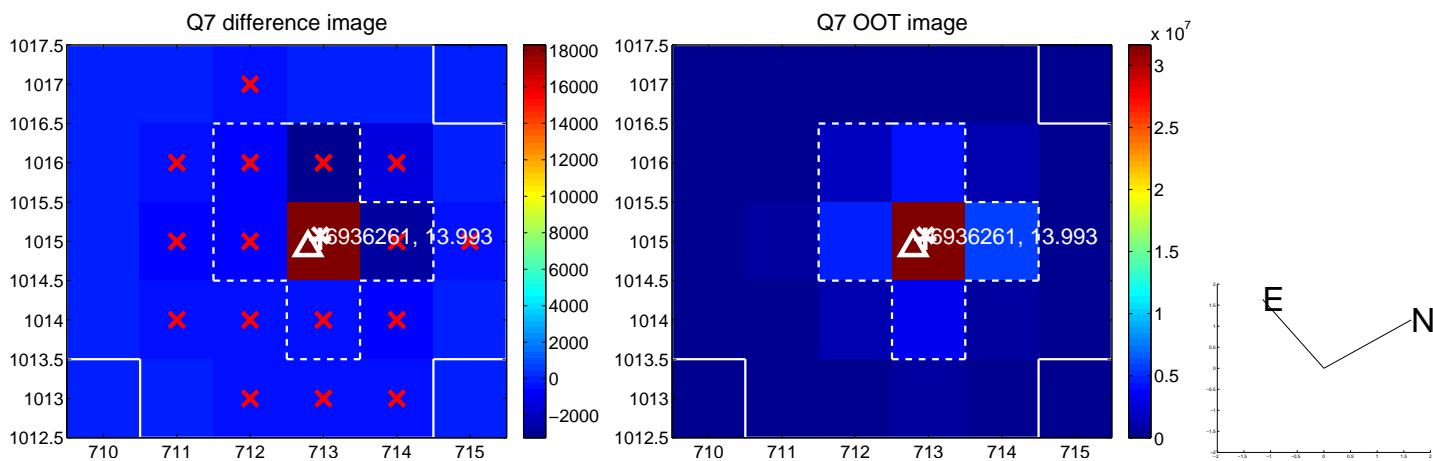
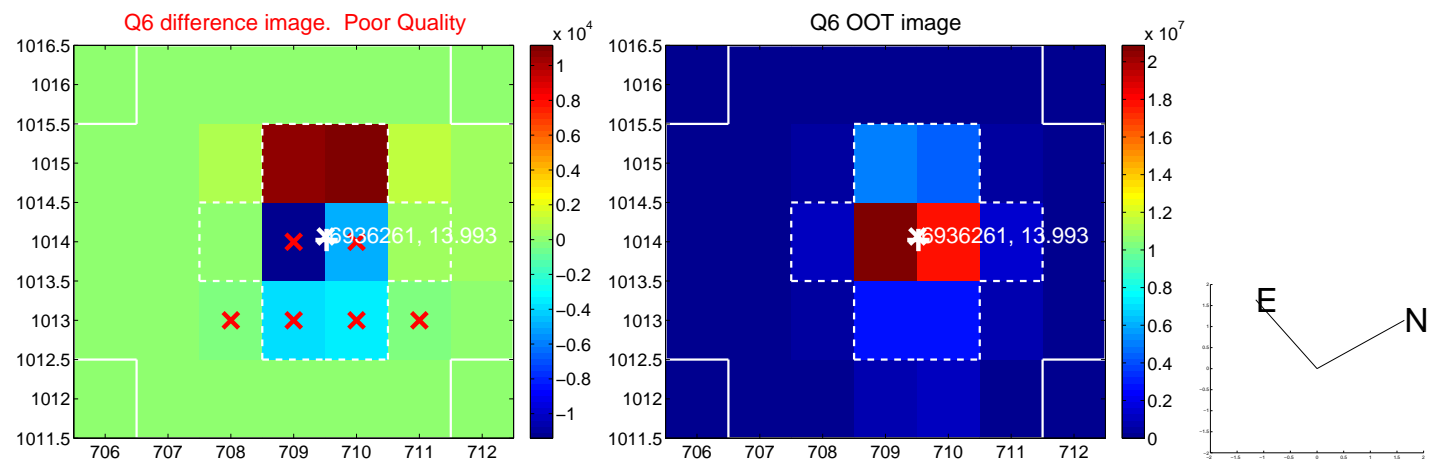
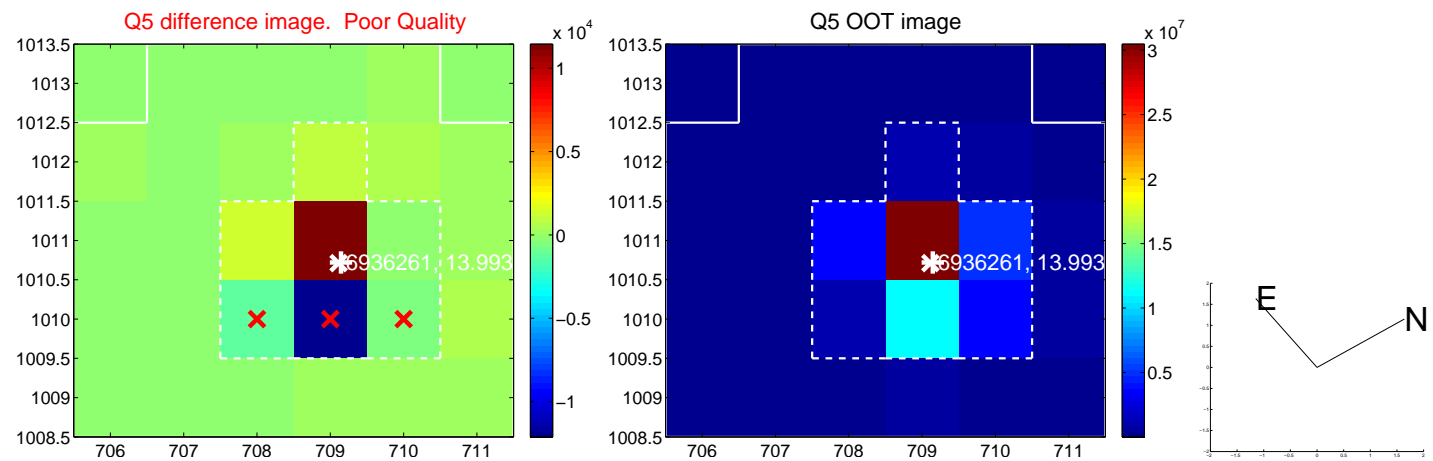


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

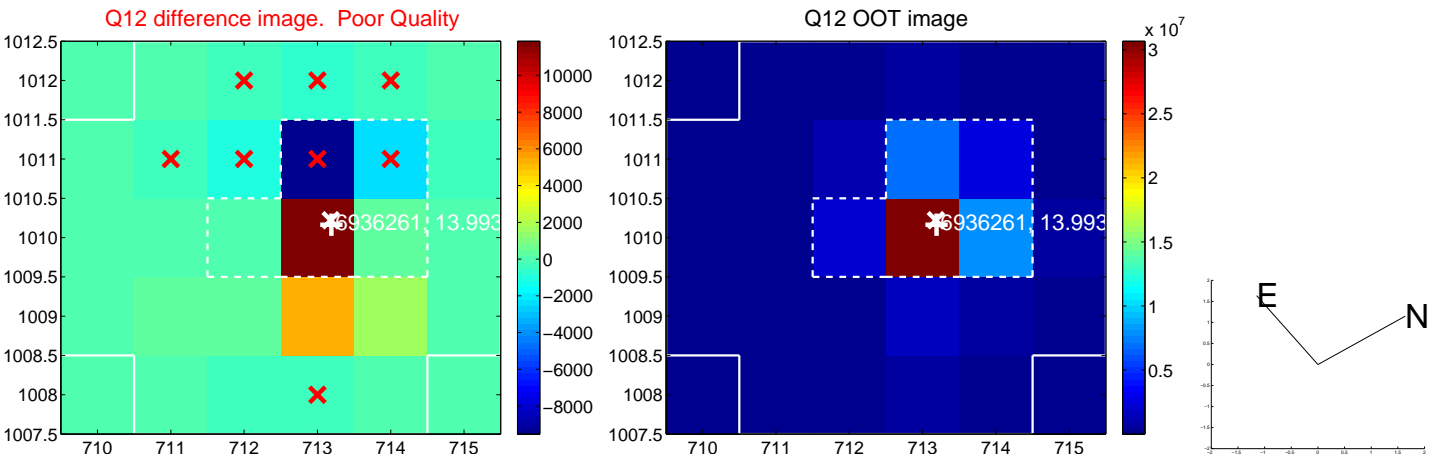
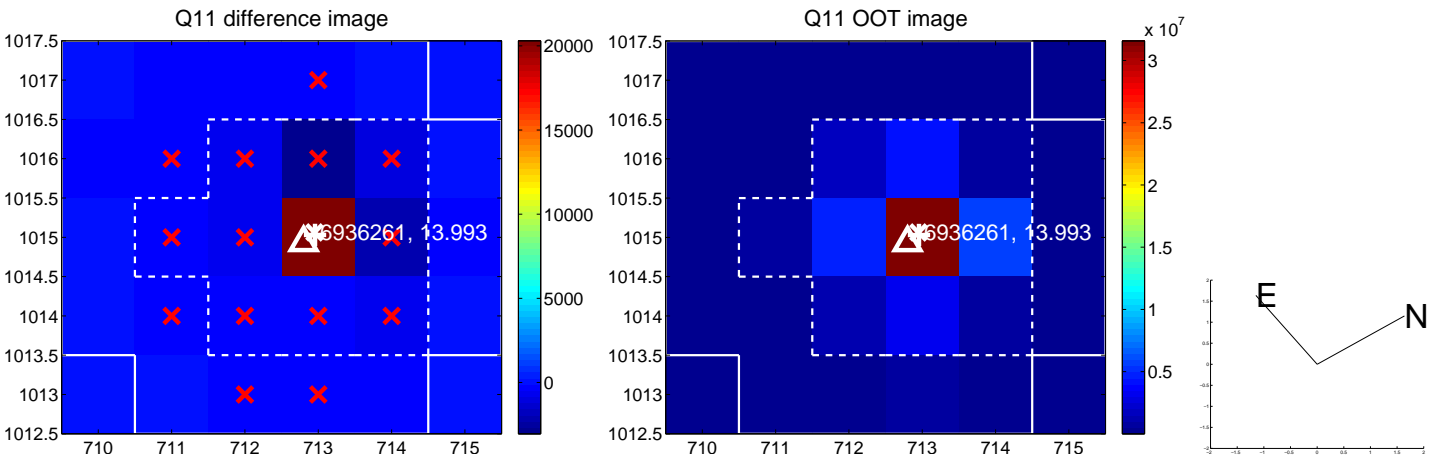
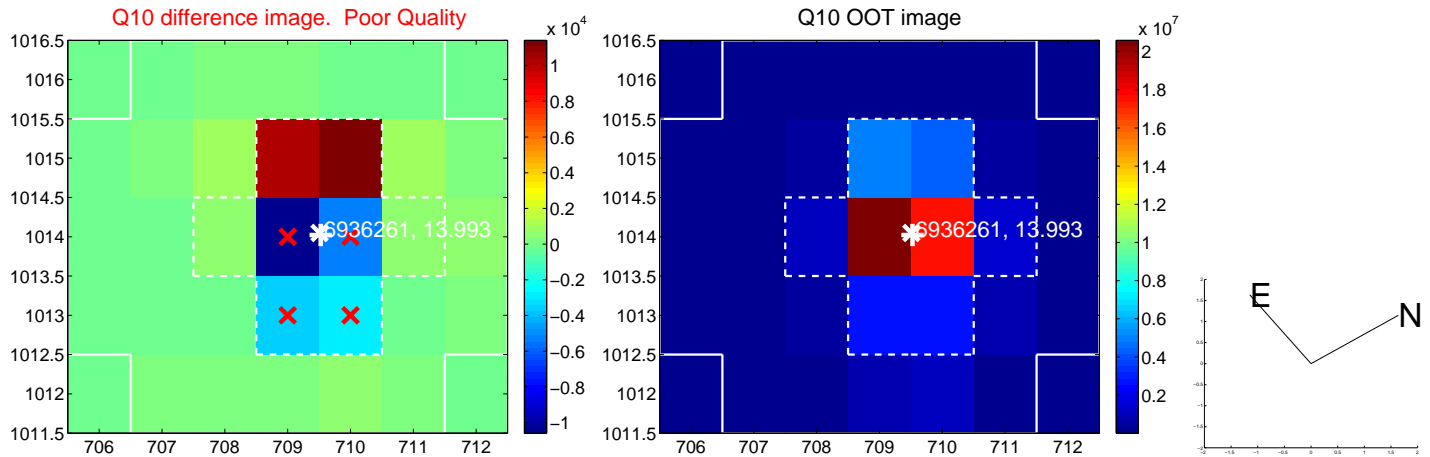
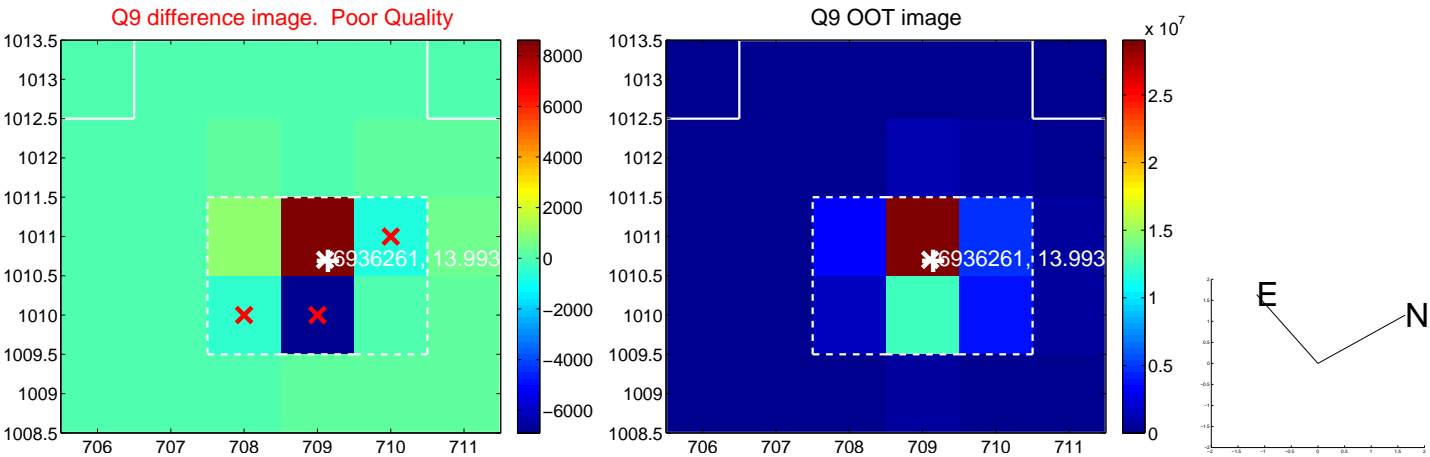


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

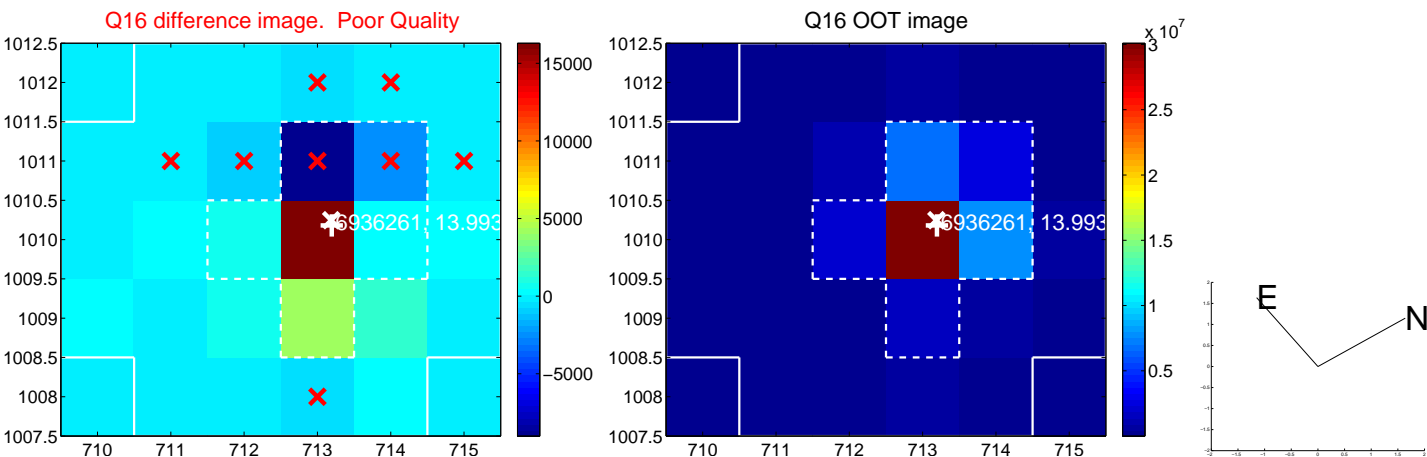
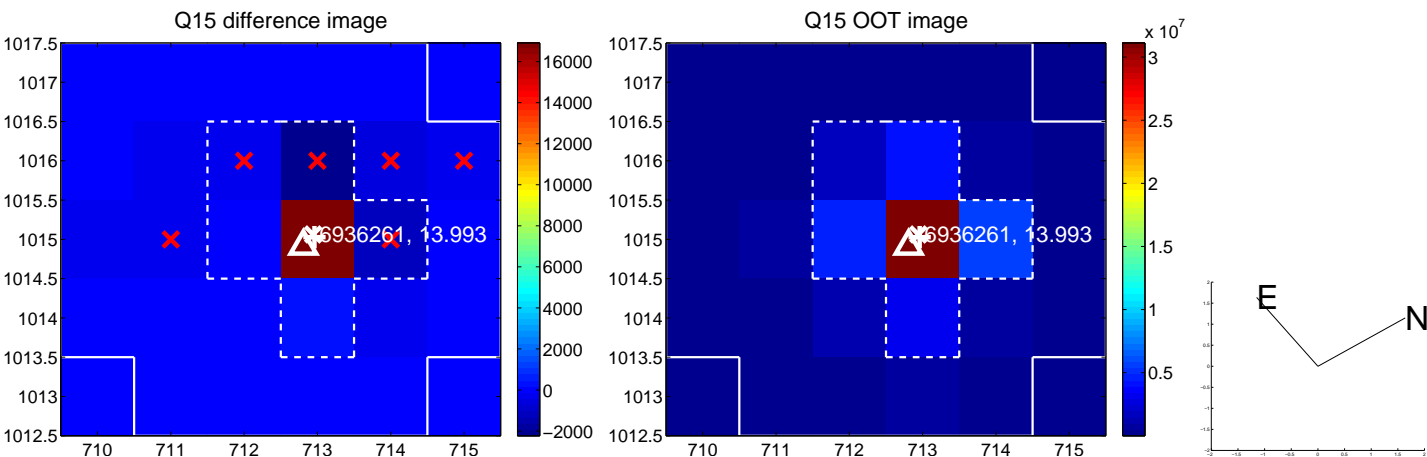
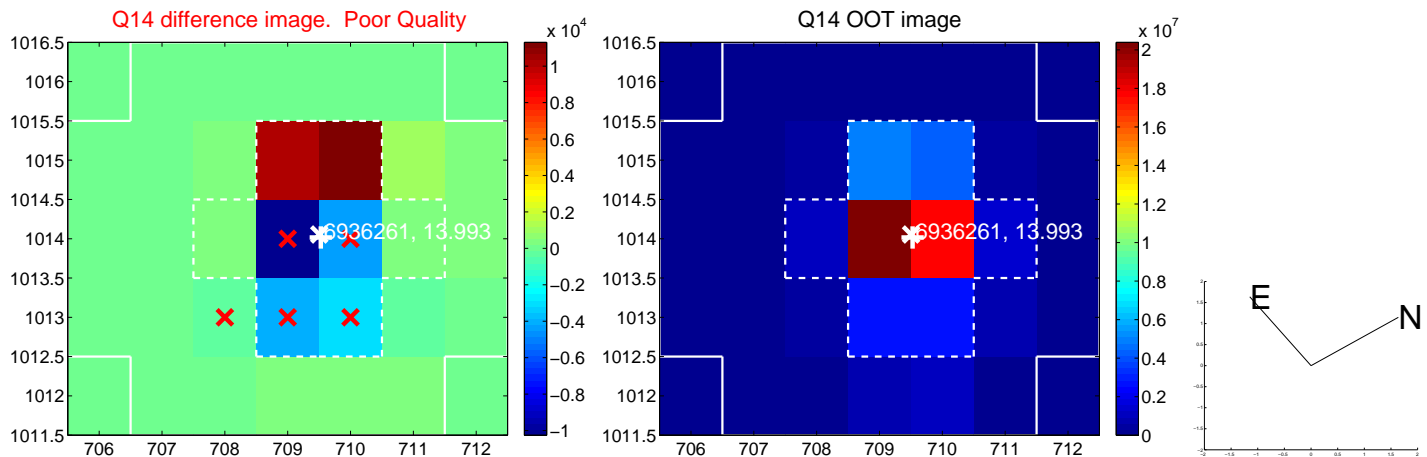
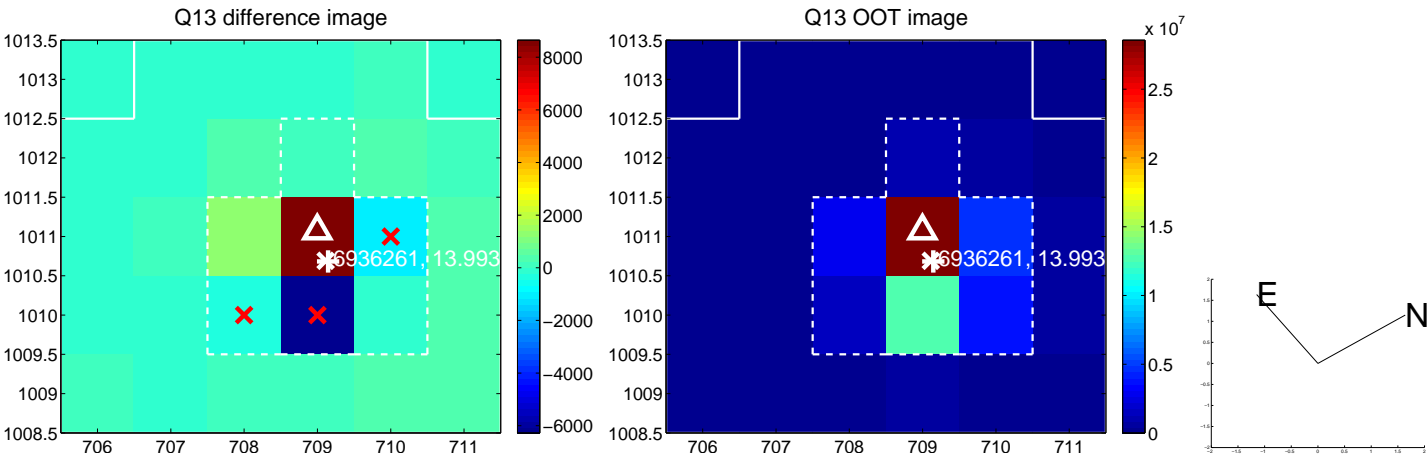




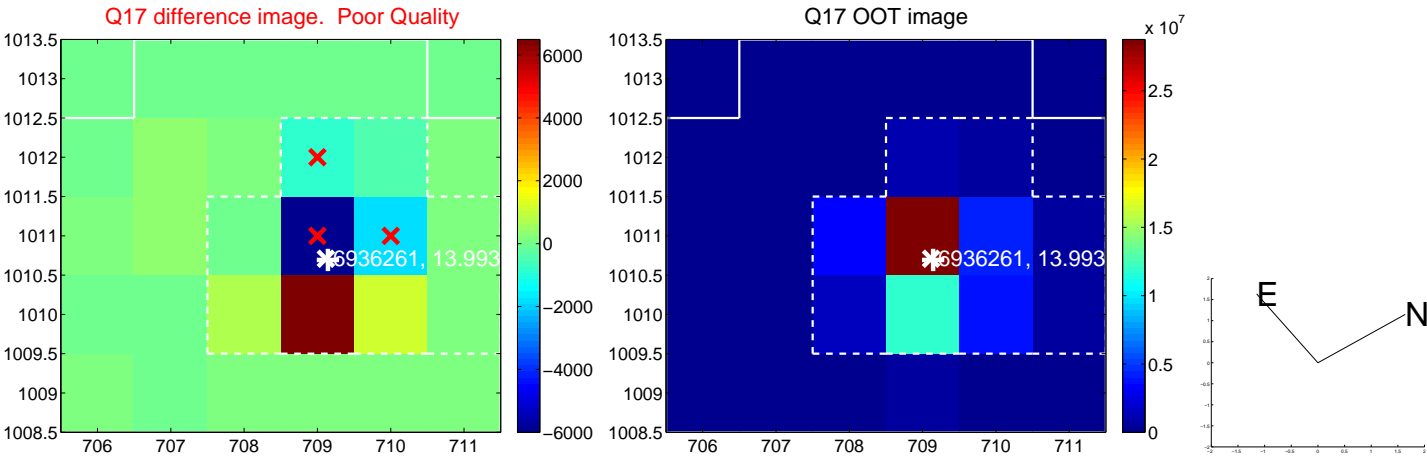
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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



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



folded centroid time series figure for this object.

UKIRT Image

Declination

