

KIC 007836762

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})
007836762-01	OBS	No	0.810893	131.928786	4.0	6.468	8.4	1.9	0.59	4137	0.13	458.01

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007836762-01	OBS	FP	0.00	1	0	0	0	LPP_DV

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

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

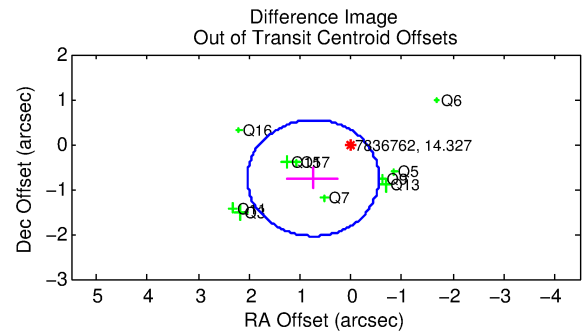
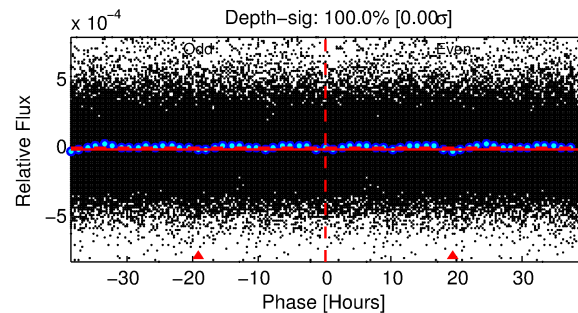
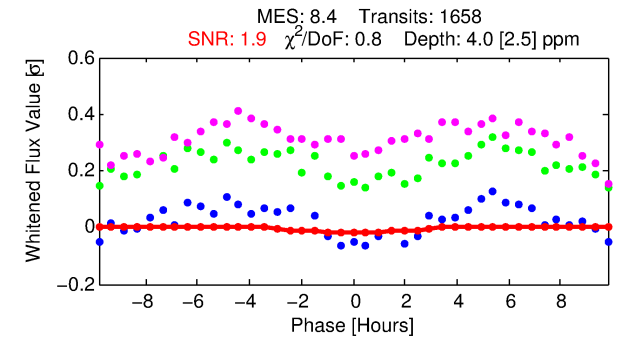
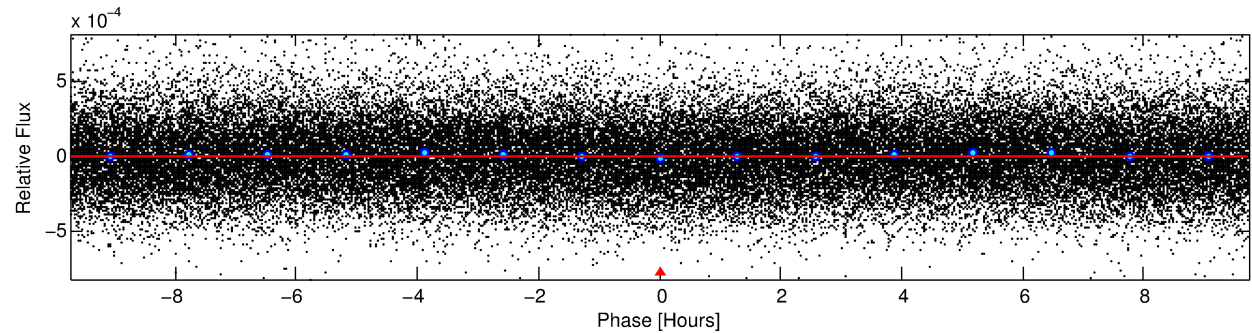
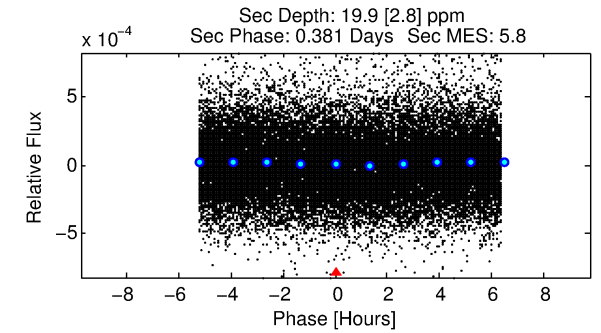
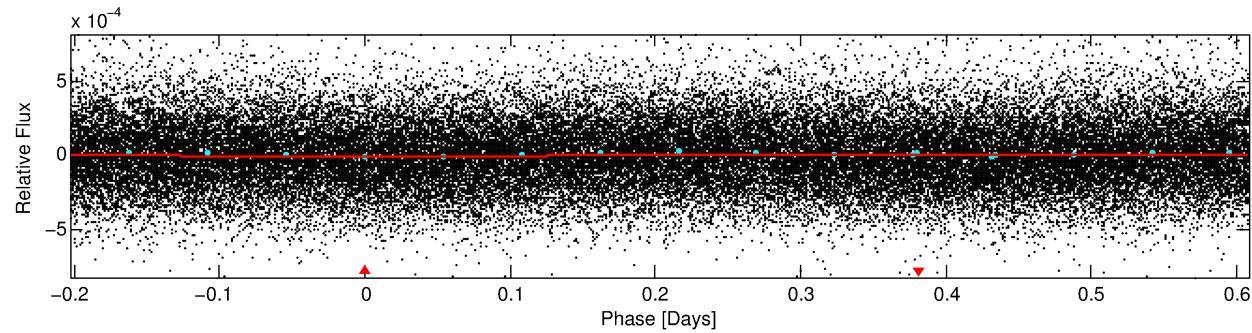
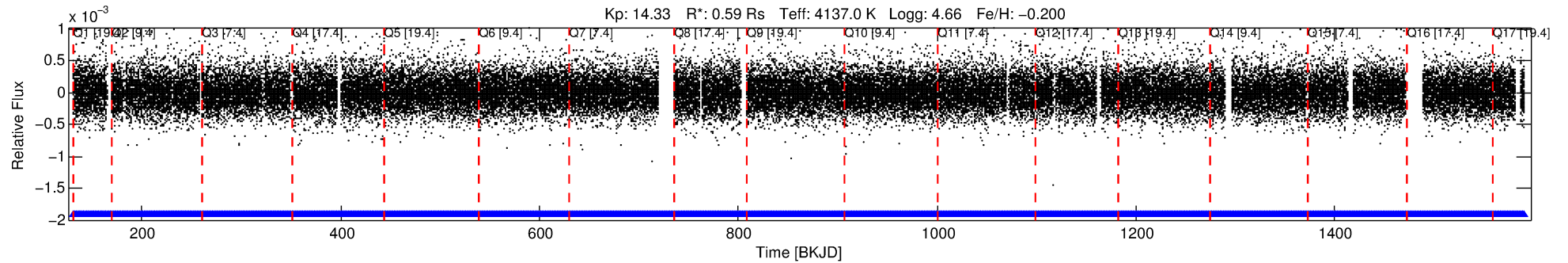
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007836762-01

No Significant Match Found

DV One-Page Summary

KIC: 7836762 Candidate: 1 of 1 Period: 0.811 d



DV Fit Results:

Period = 0.81089 [0.00007] d
Epoch = 131.9288 [0.0348] BKJD
Rp/R* = 0.0020 [0.0056]
a/R* = 1.09 [1.79]
b = 0.70 [8.22]
Seff = 458.01 [79.67]
Teff = 1180 [51] K
Rp = 0.13 [0.36] Re
a = 0.0142 [0.0012] AU
Ag = 137.78 [794.29] [0.17σ]
Teffp = 6249 [9006] K [0.56σ]

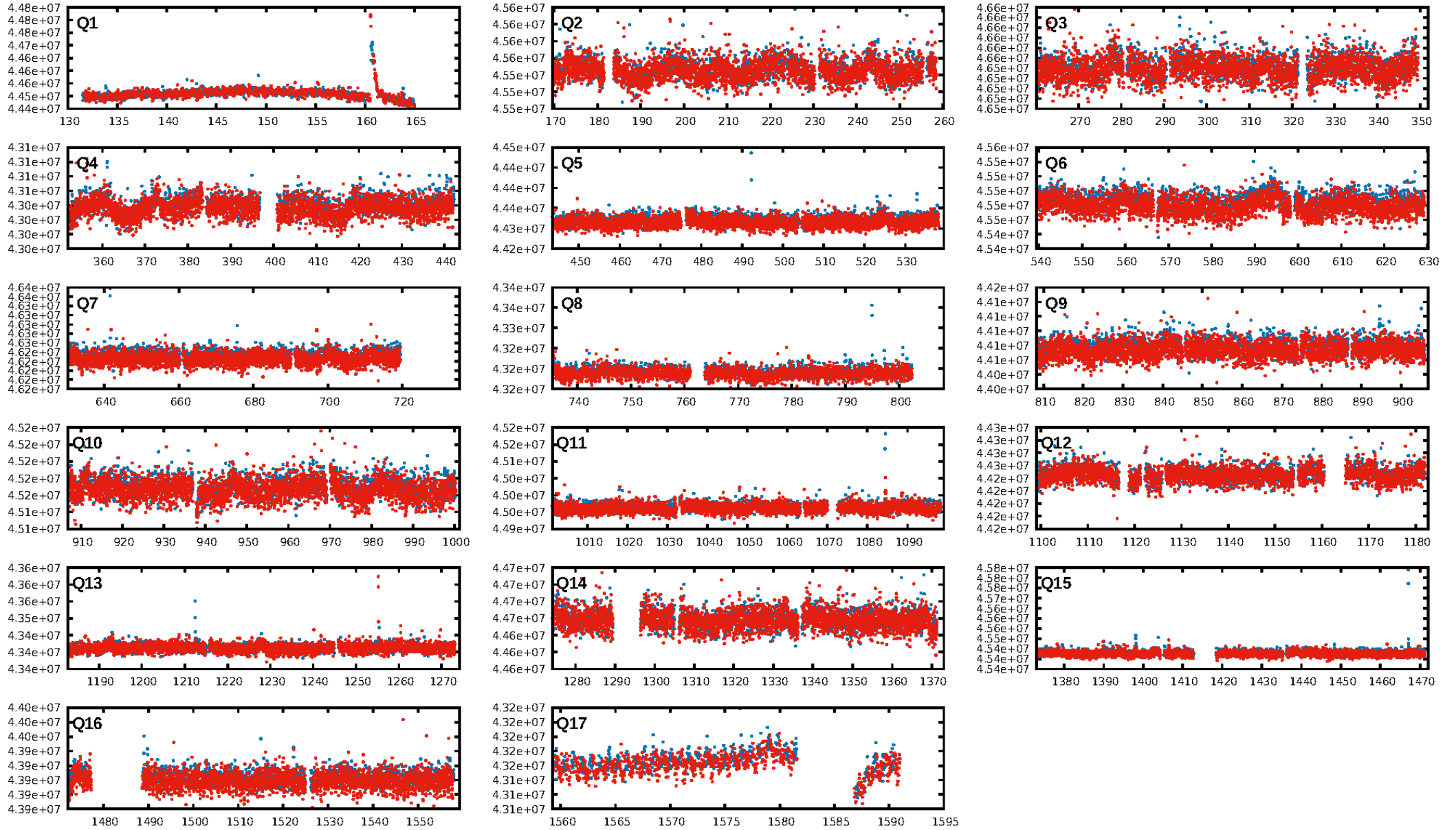
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1585/1585]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 1.058 arcsec [2.45σ]
KicOffset-rm: 1.239 arcsec [2.98σ]
OotOffset-st: 1/4/1/4 [10]
KicOffset-st: 1/4/1/4 [10]
DiffImageQuality-fgm: 1.00 [10/10]
DiffImageOverlap-fno: 1.00 [17/17]

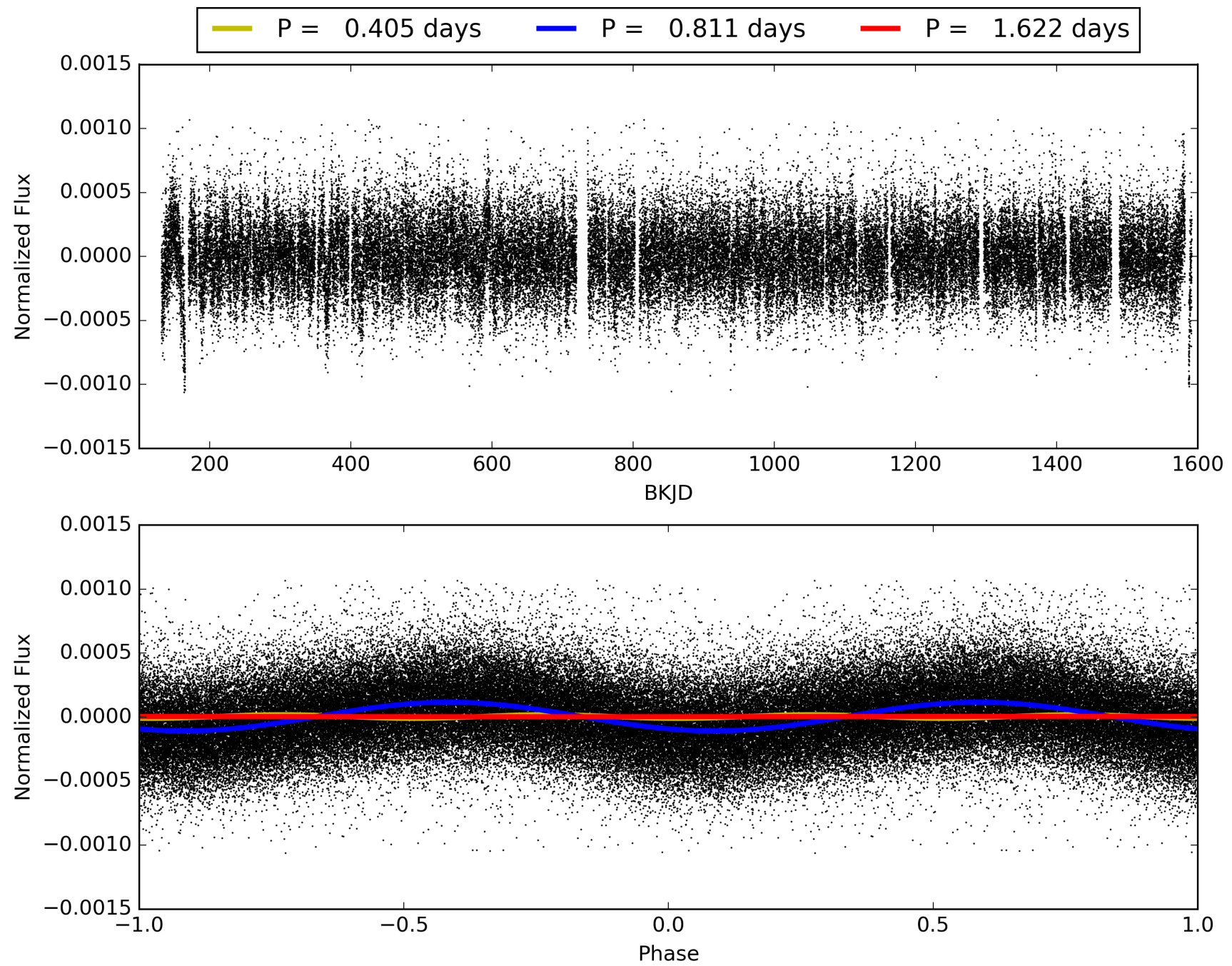
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 00:37:35 Z

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

TCE 007836762-01, PDC Light Curves

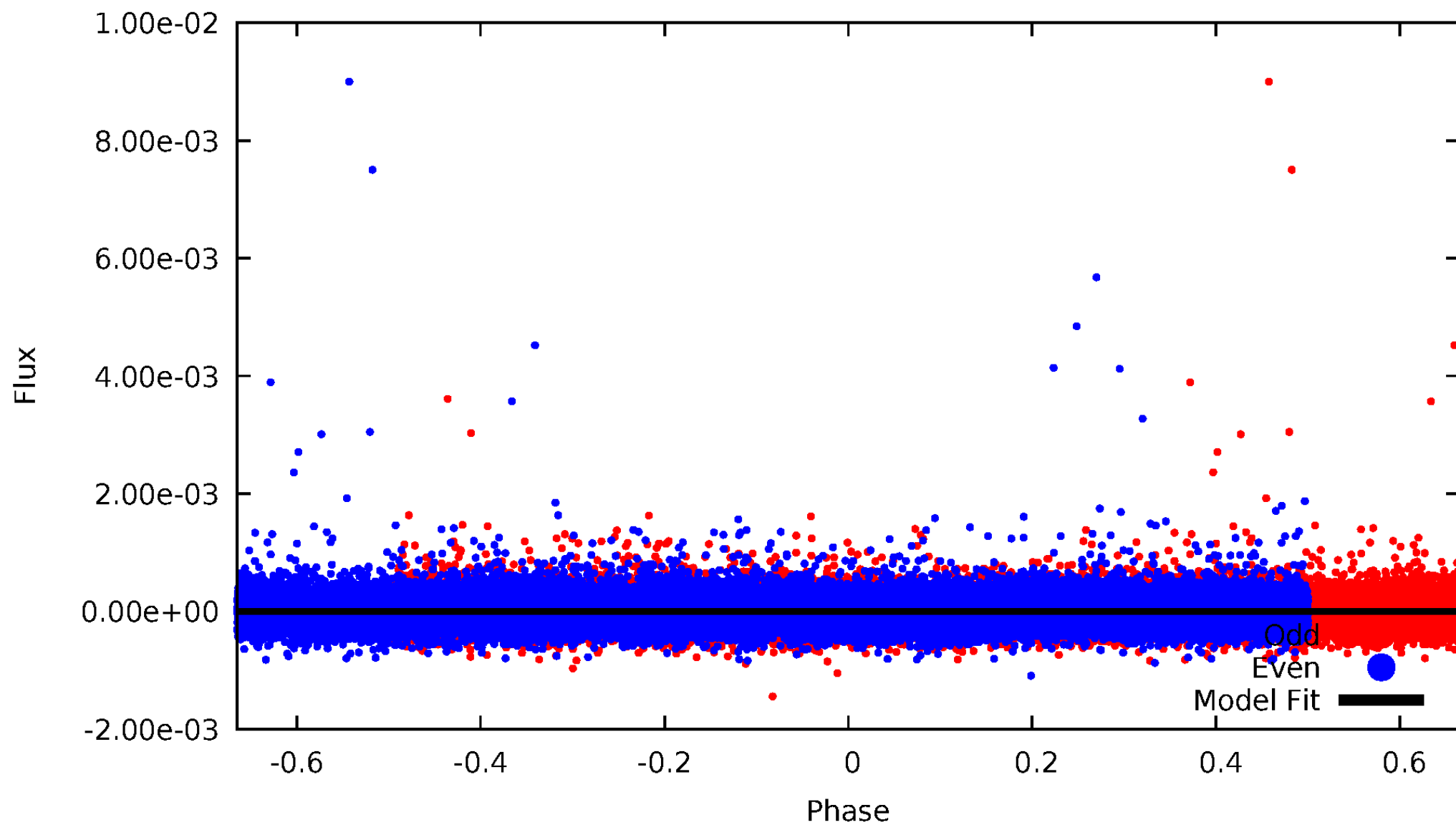


TCE 007836762-01



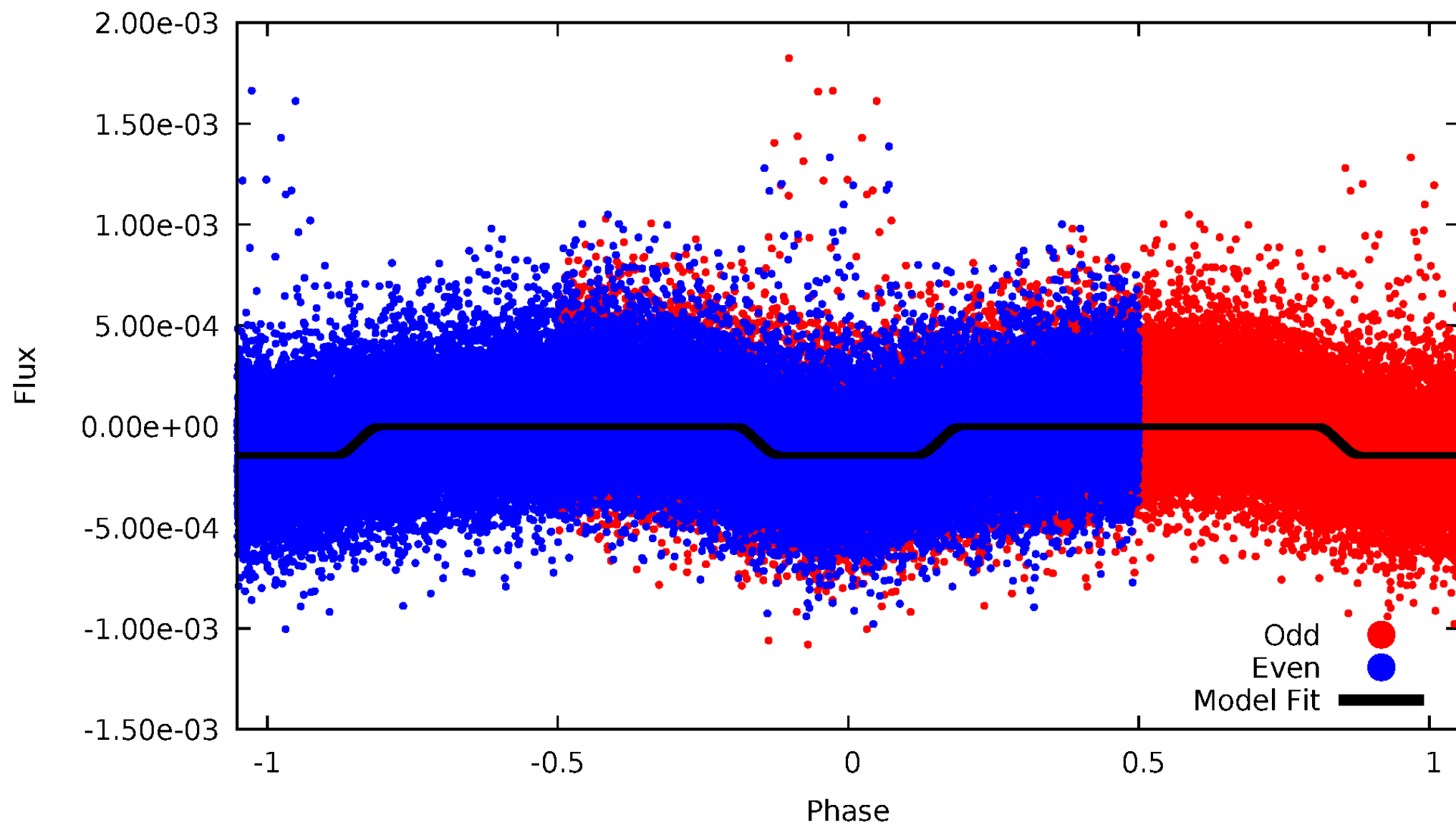
DV Odd/Even

TCE 007836762-01



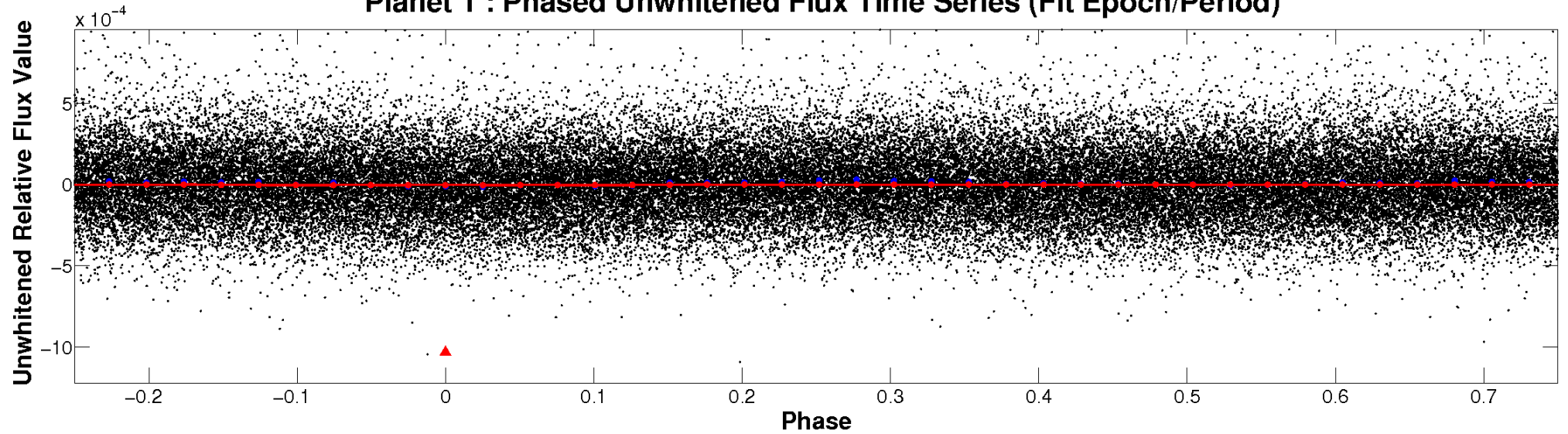
ALT Odd/Even

TCE 007836762-01

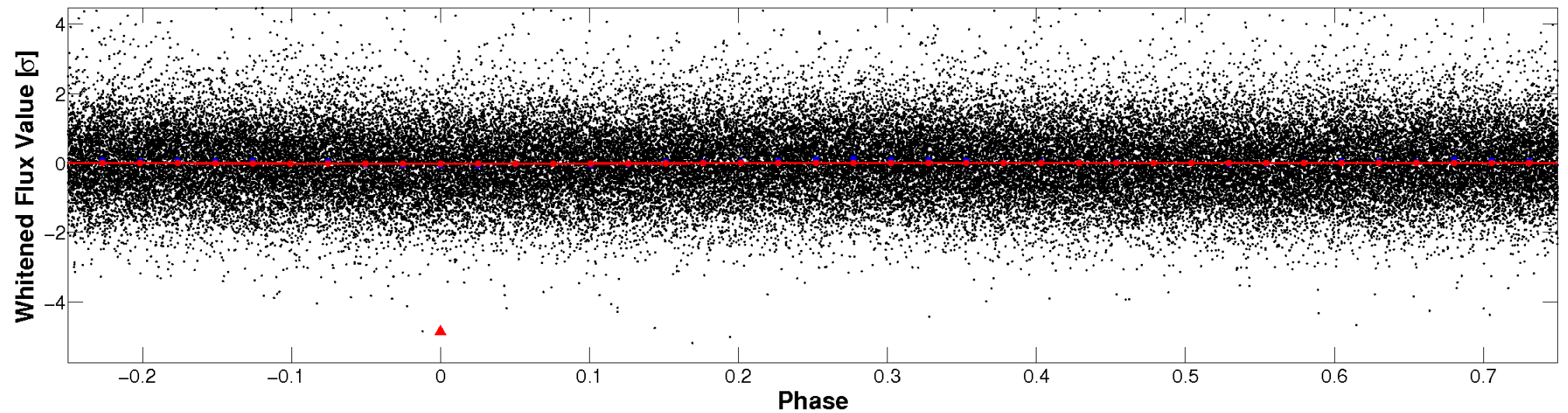


Non-Whitened Vs. Whitened Light Curve

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

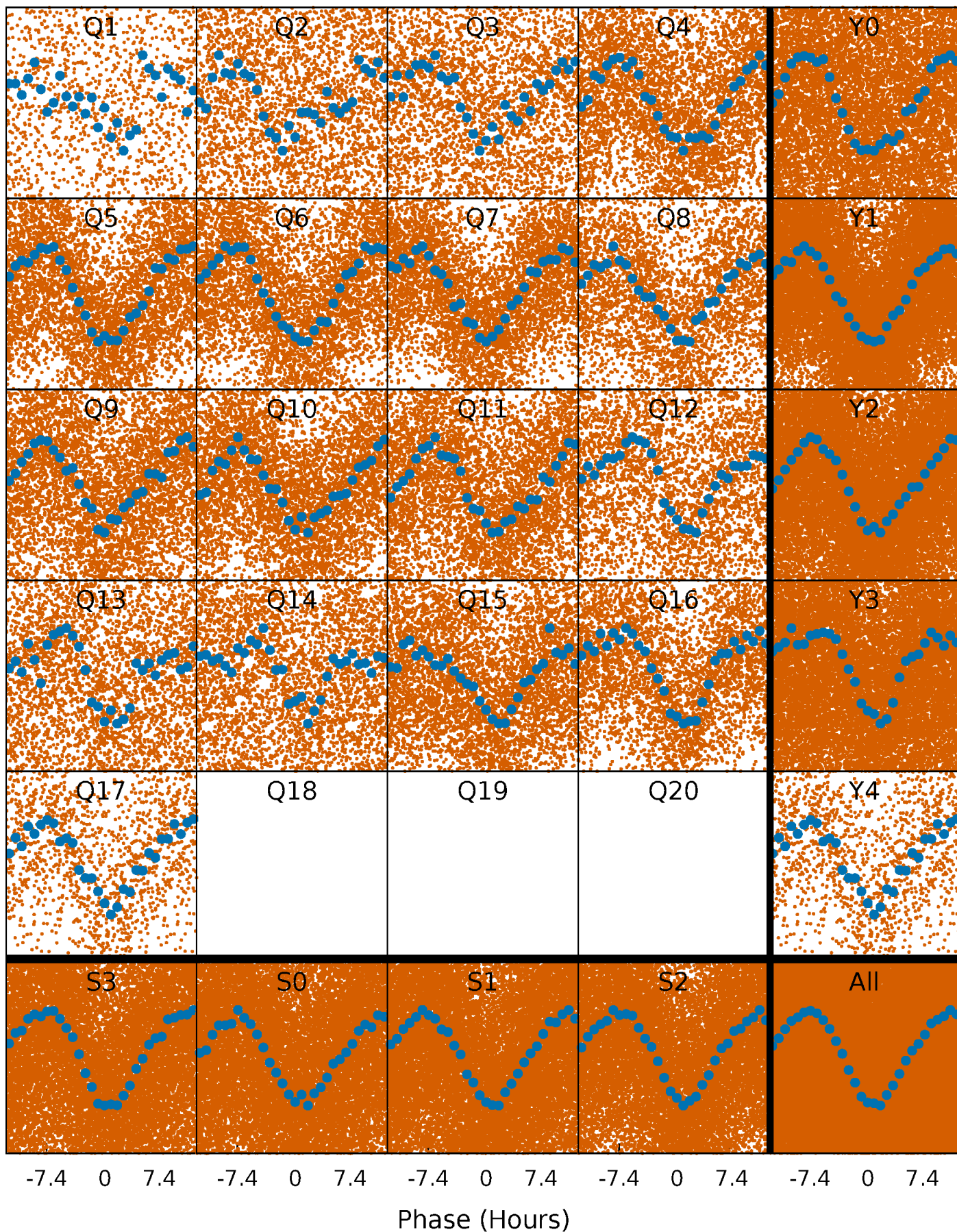


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



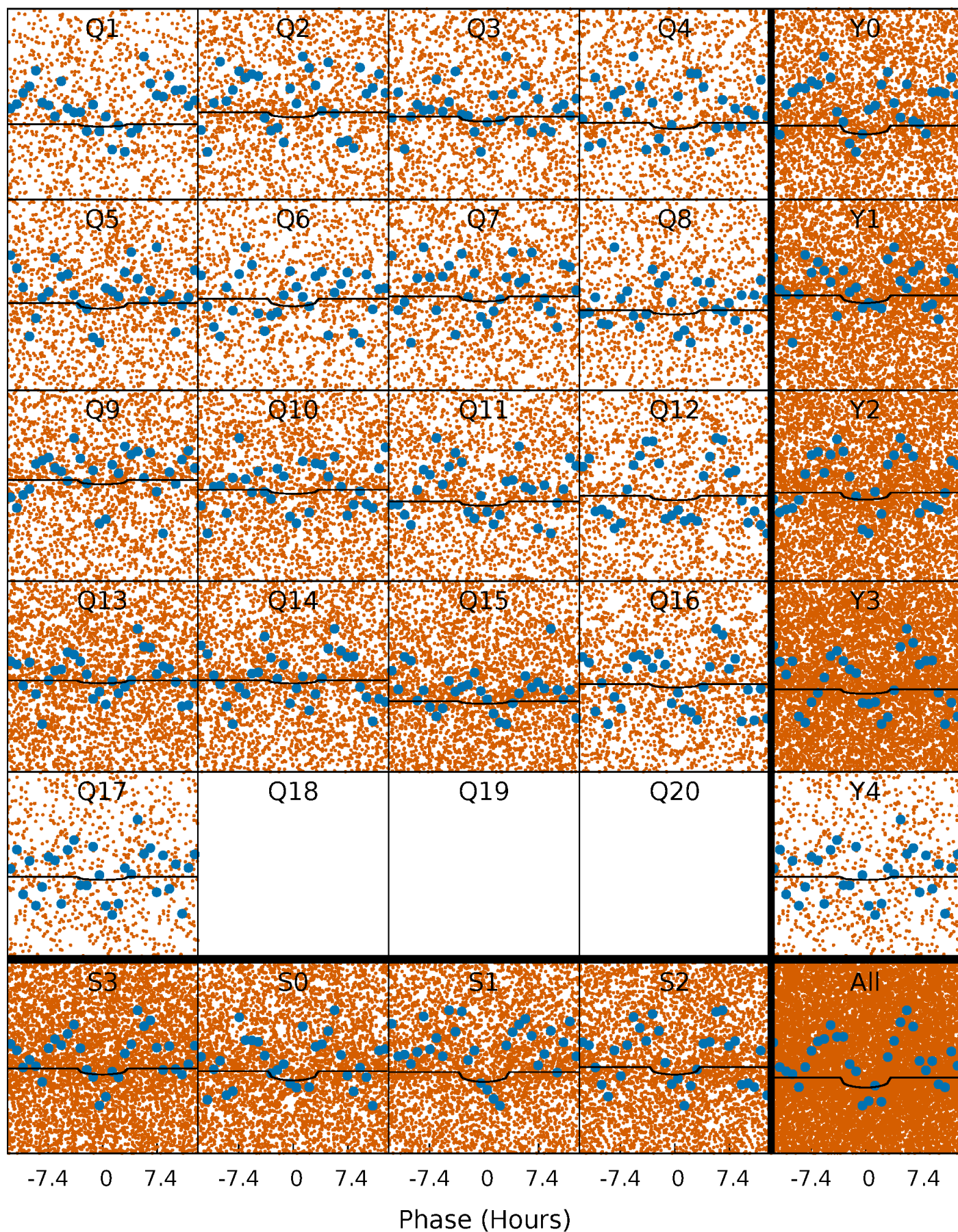
PDC Quarter-Phased Transit Curves

TCE 007836762-01 P= 0.810893 Days $T_0=131.928786$ (BKJD)



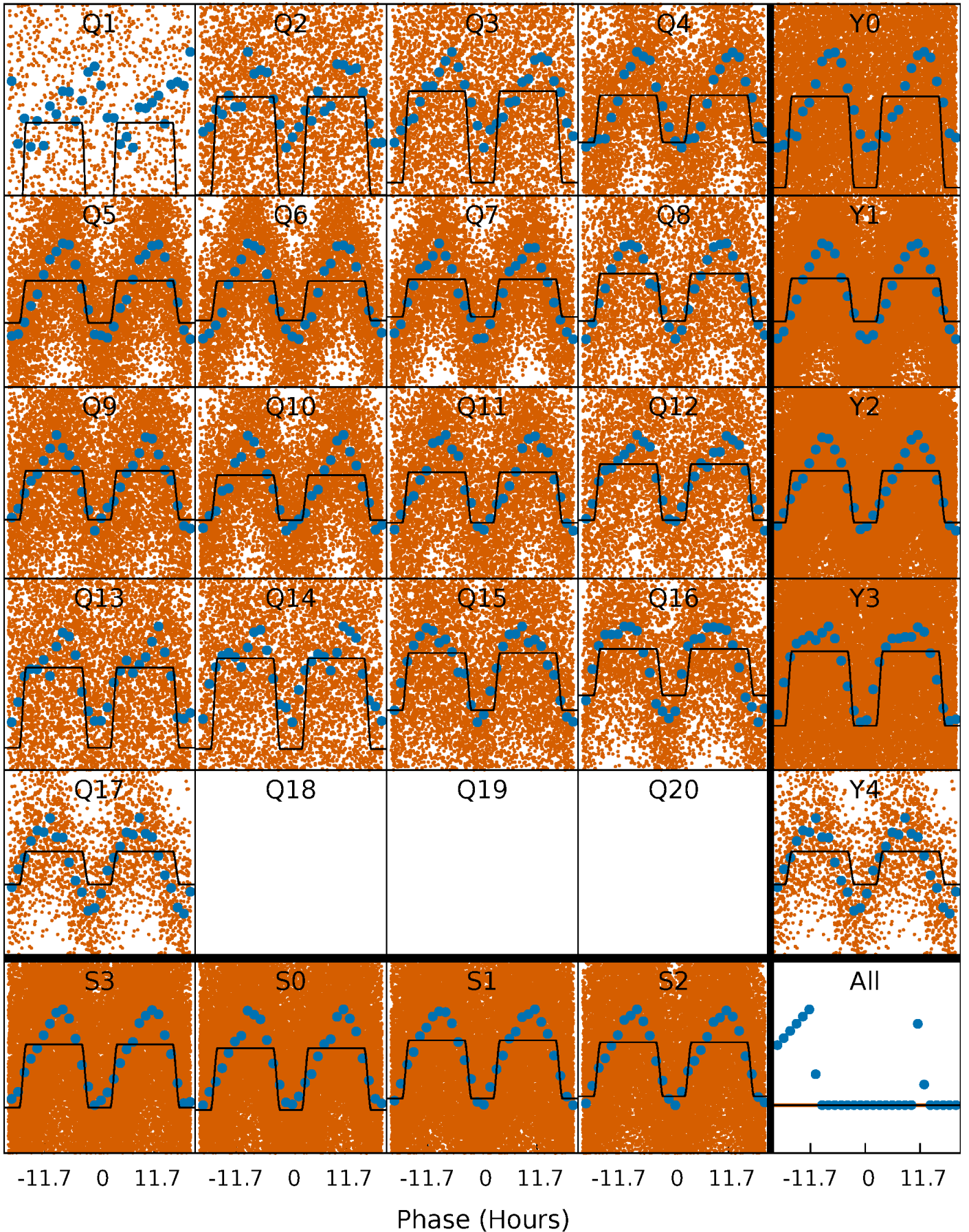
DV Quarter-Phased Transit Curves

TCE 007836762-01 P= 0.810893 Days $T_0=131.928786$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

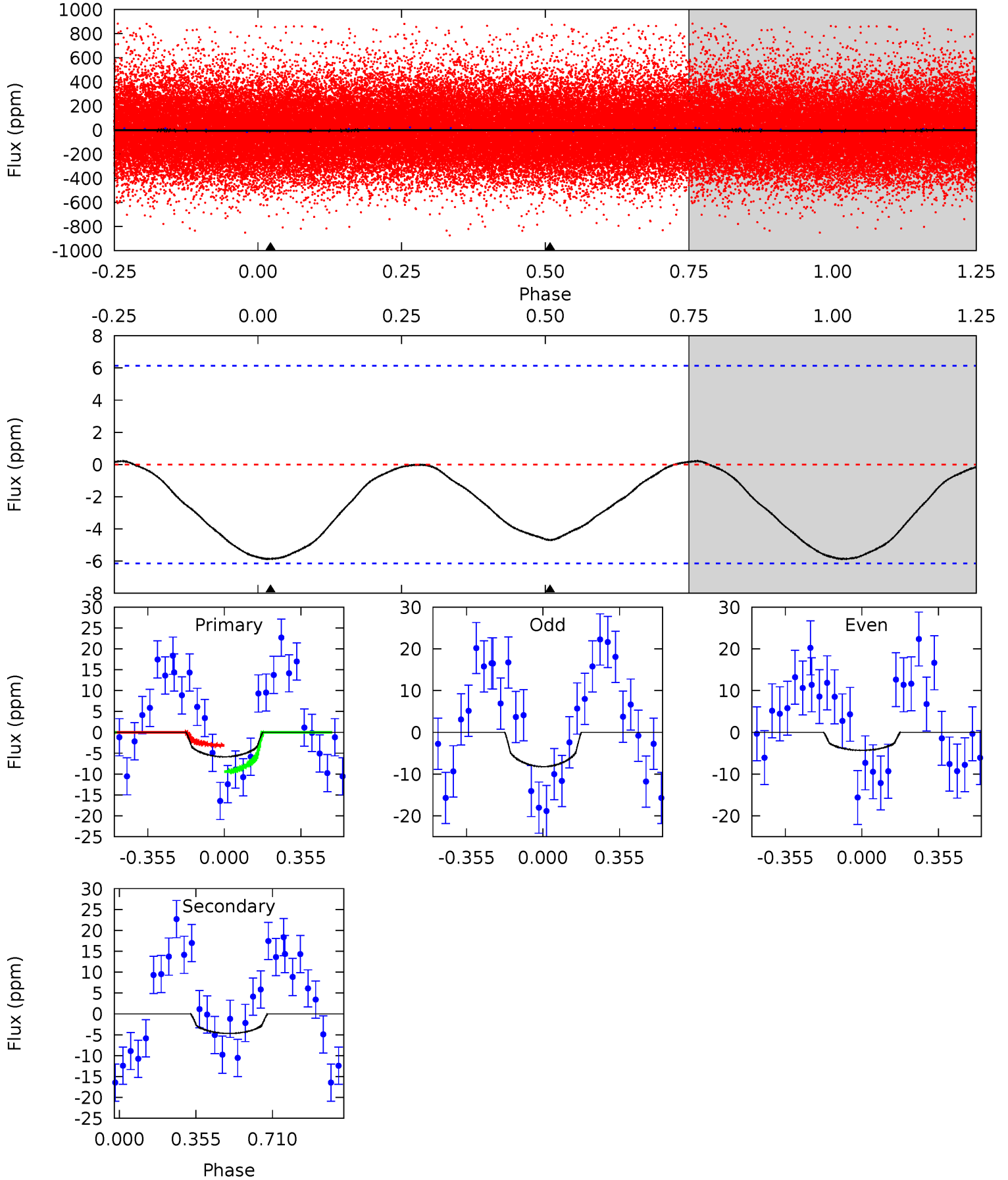
TCE 007836762-01 P= 0.810994 Days $T_0=131.886127$ (BKJD)



DV Model-Shift Uniqueness Test

007836762-01, P = 0.810893 Days, E = 131.117893 Days

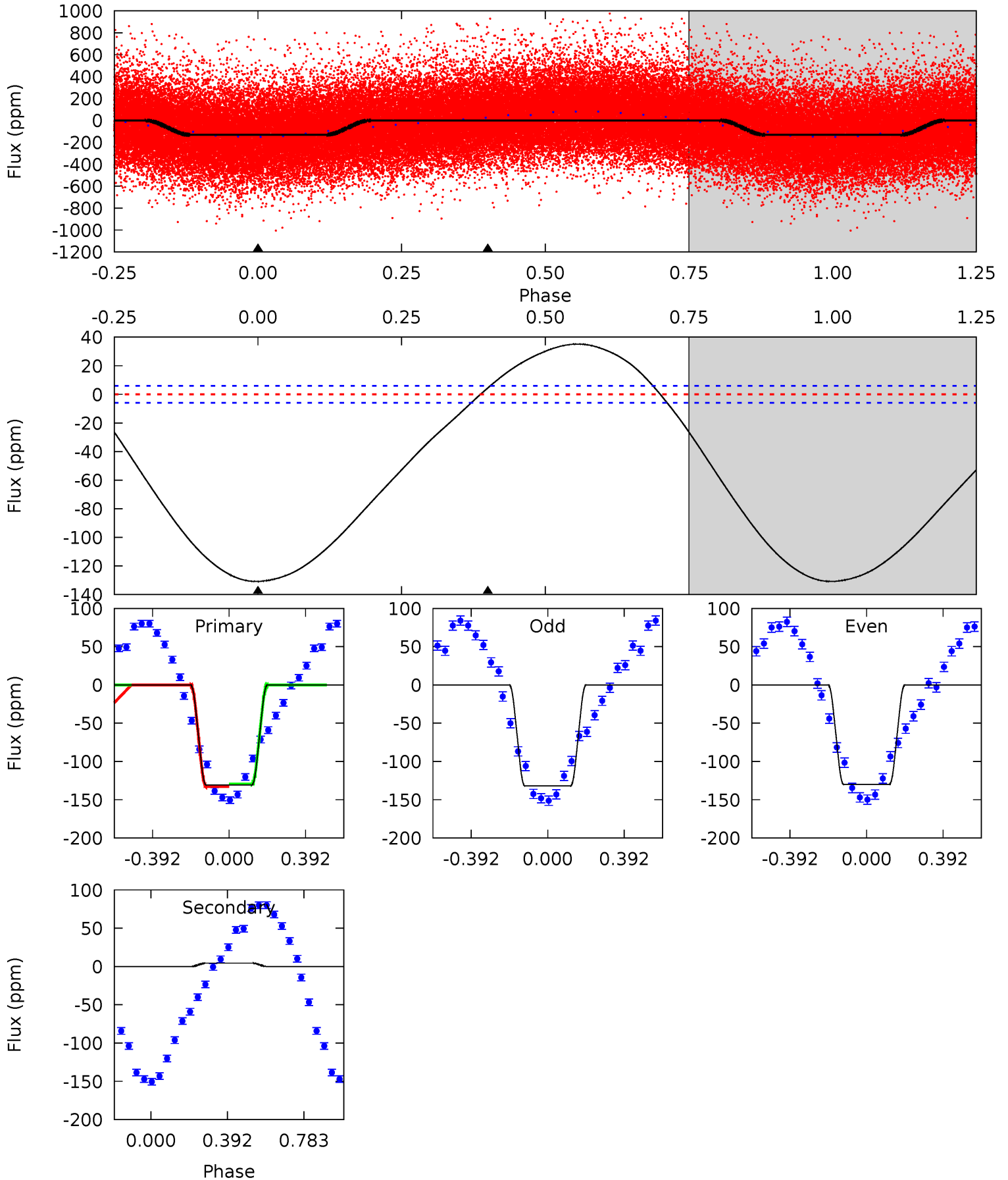
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.10	3.28	0	0	4.29	0.93	0.09	4.10	4.10	3.28	3.28	1.37	0.63	0.04	2.26



Alt Model-Shift Uniqueness Test

007836762-01, P = 0.810994 Days, E = 131.075133 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
93.9	-3.22	0	0	4.27	0.86	10.1	93.9	93.9	-3.22	-3.22	0.75	0.96	0.21	1.32



Stellar Parameters For KIC 007836762

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4137^{+112}_{-137}	$4.656^{+0.056}_{-0.024}$	$-0.200^{+0.300}_{-0.300}$	$0.594^{+0.043}_{-0.065}$	$0.584^{+0.059}_{-0.059}$	$3.922^{+1.147}_{-0.408}$
	+3%/-3%	+1%/-1%	+150%/-150%	+7%/-11%	+10%/-10%	+29%/-10%
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 007836762-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-5 ± 1	$0.30^{+0.29}_{-0.20}$	1637^{+54}_{-63}	3178^{+1675}_{-593}	$5.879^{+54.889}_{-4.417}$
Alt.	4 ± 1	$0.78^{+0.35}_{-0.35}$	1638^{+54}_{-58}	-2565^{+175}_{-368}	$-0.801^{+0.468}_{-1.790}$

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 $A_{obs} \gg 1.0$

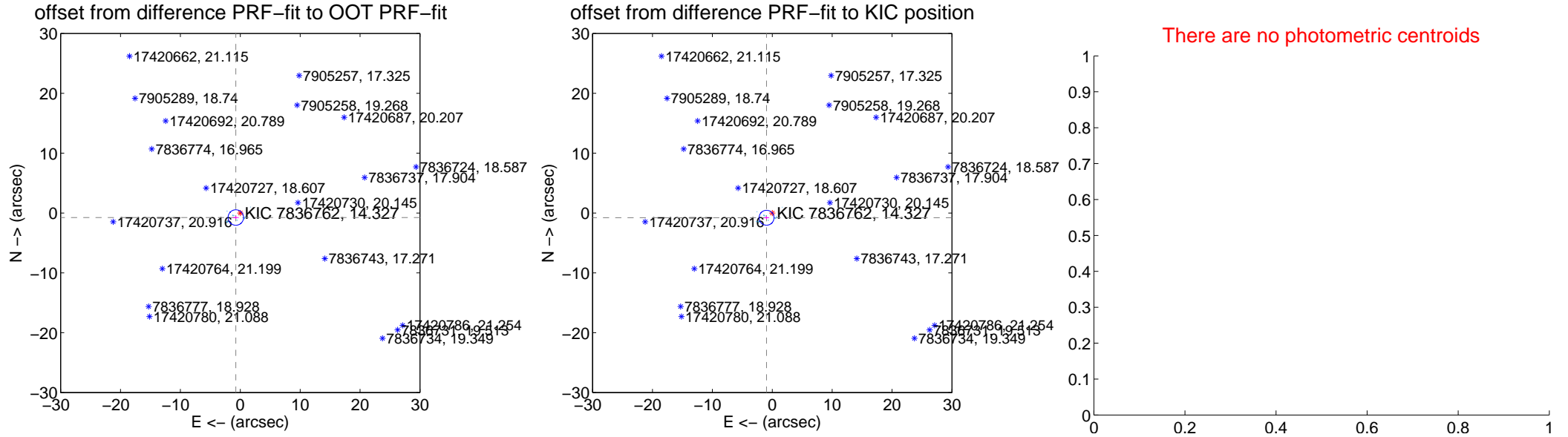
DV Centroid Data

Supplemental centroid analysis for 007836762-01. Kepler magnitude: 14.33. Transit SNR 1.95

There are 10 quarters with good PRF difference image offsets

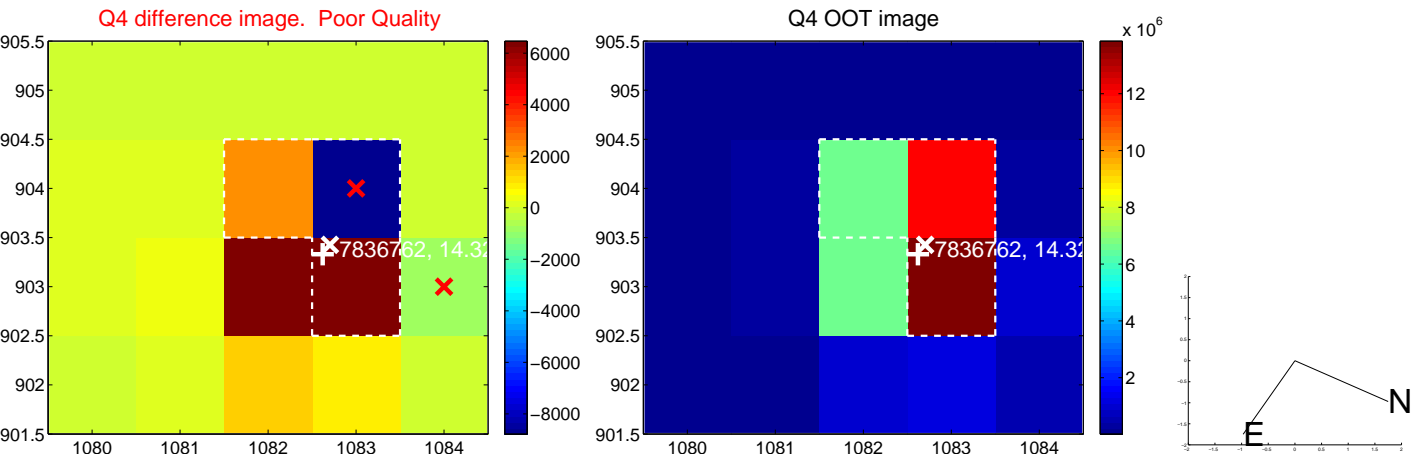
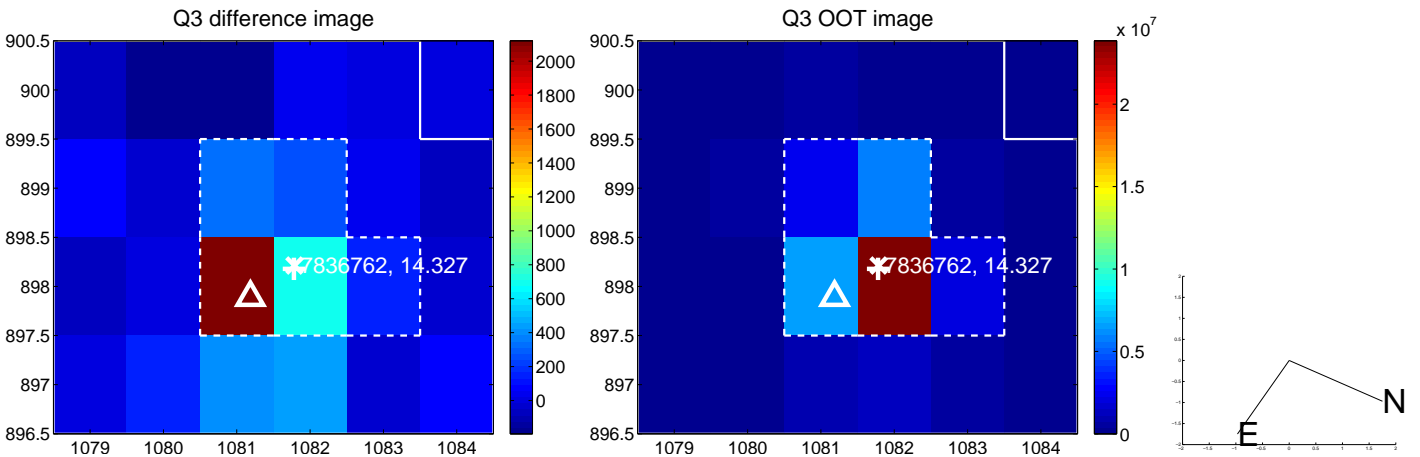
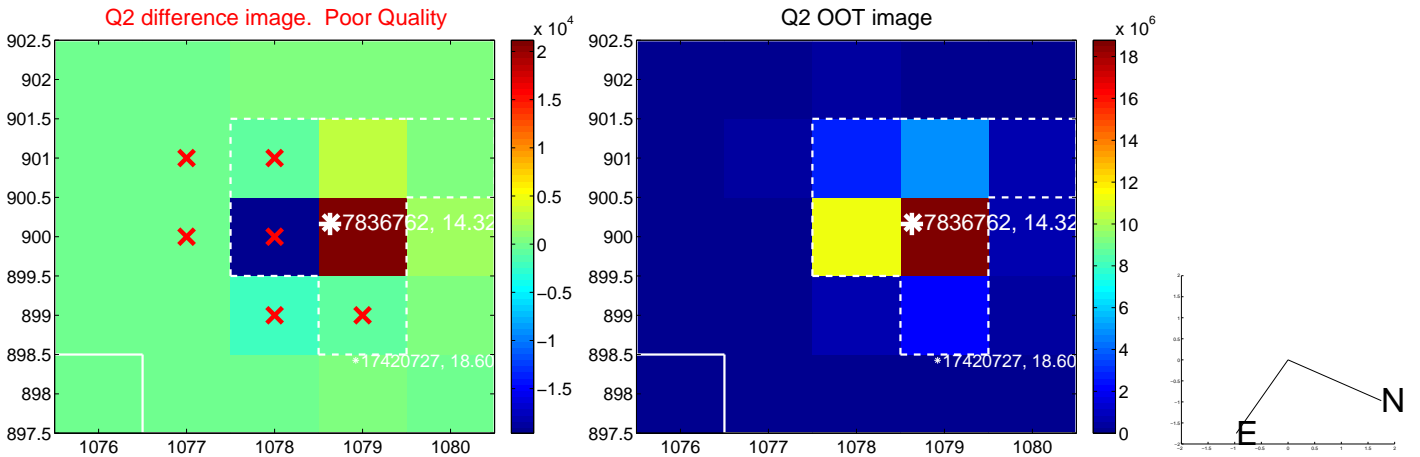
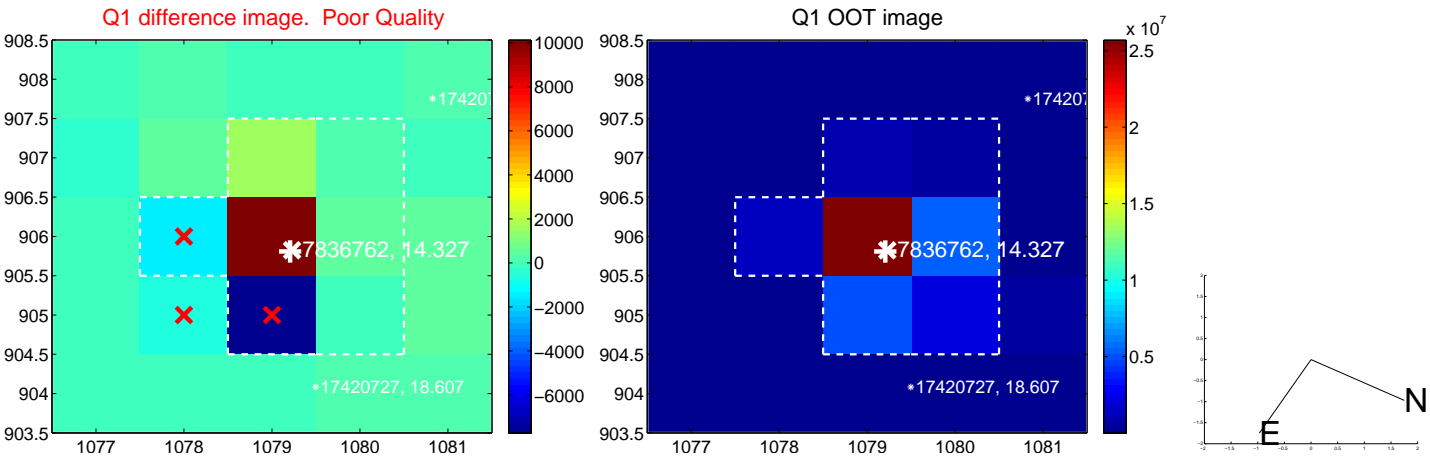
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.058 ± 0.431	2.45	0.744 ± 0.500	-0.753 ± 0.227
PRF-fit source offset from KIC position	1.239 ± 0.415	2.98	0.953 ± 0.429	-0.792 ± 0.239
photometric centroid source offset	—	—	—	—

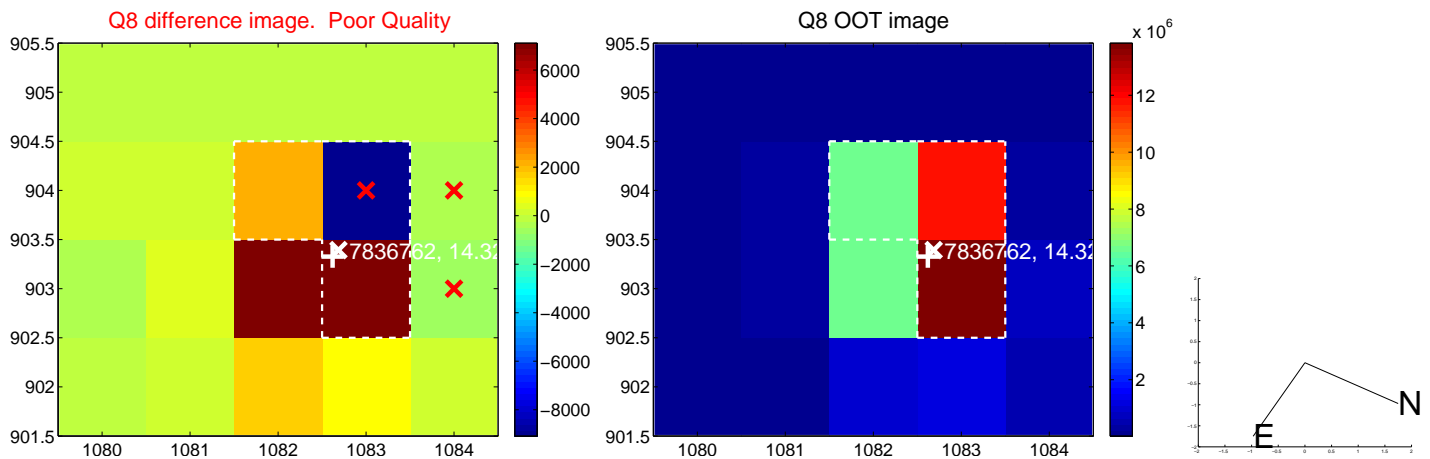
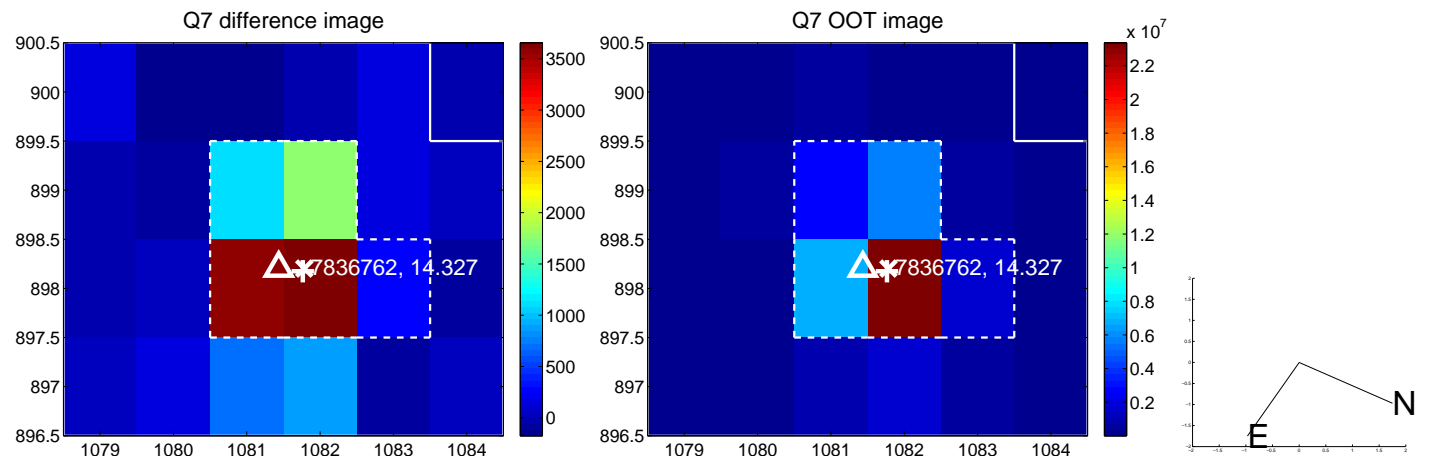
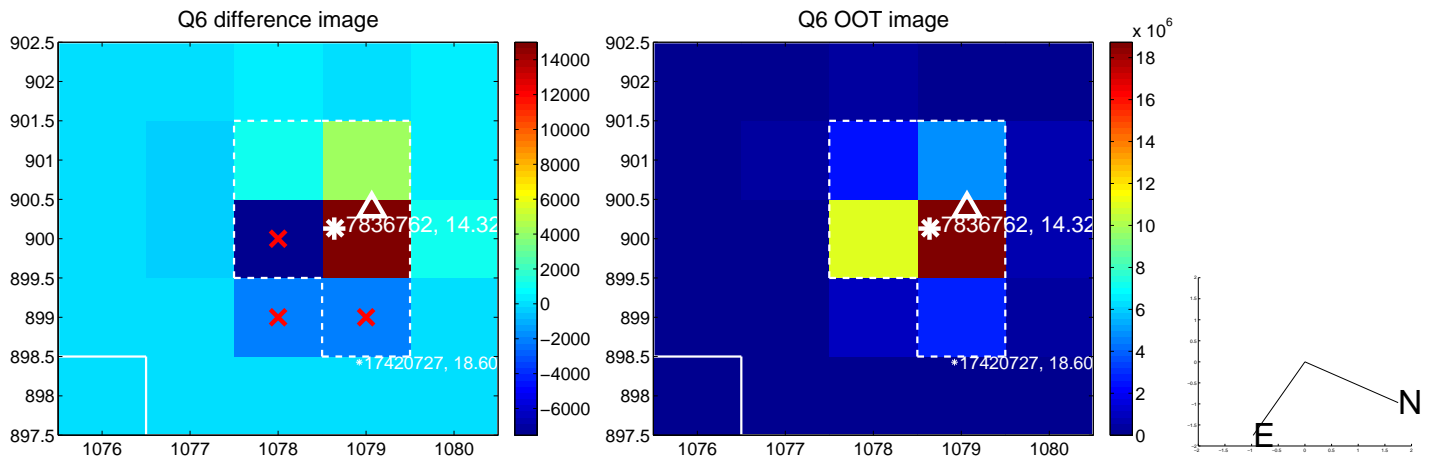
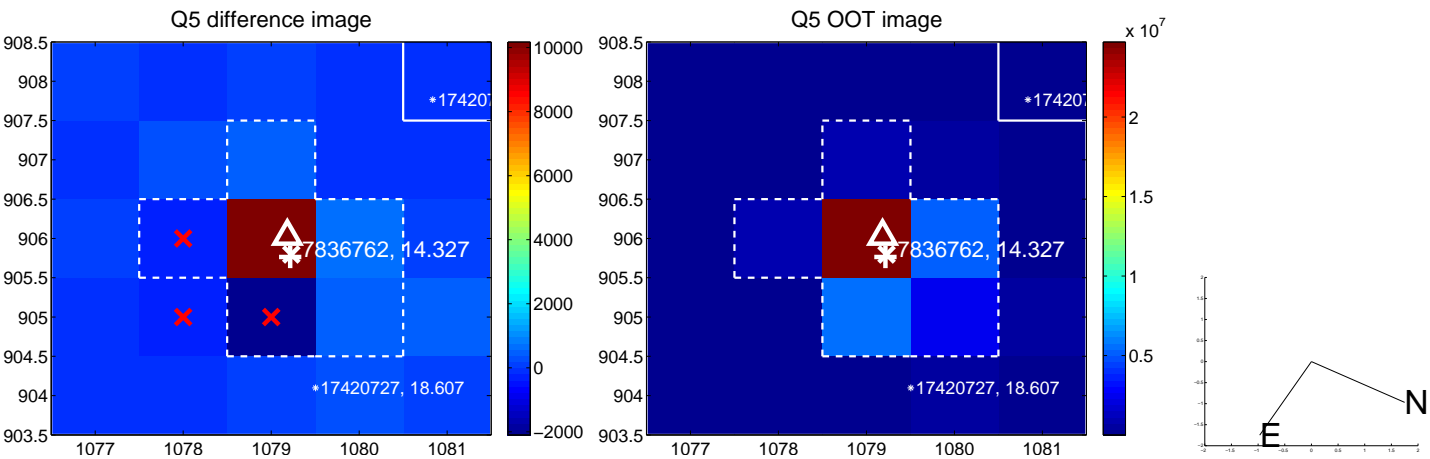


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

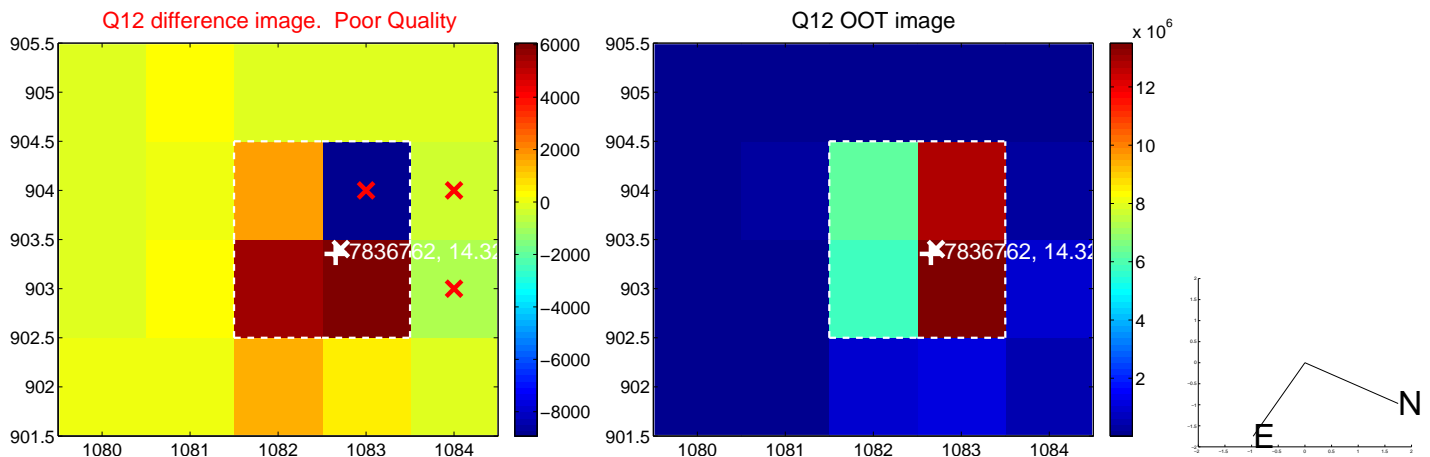
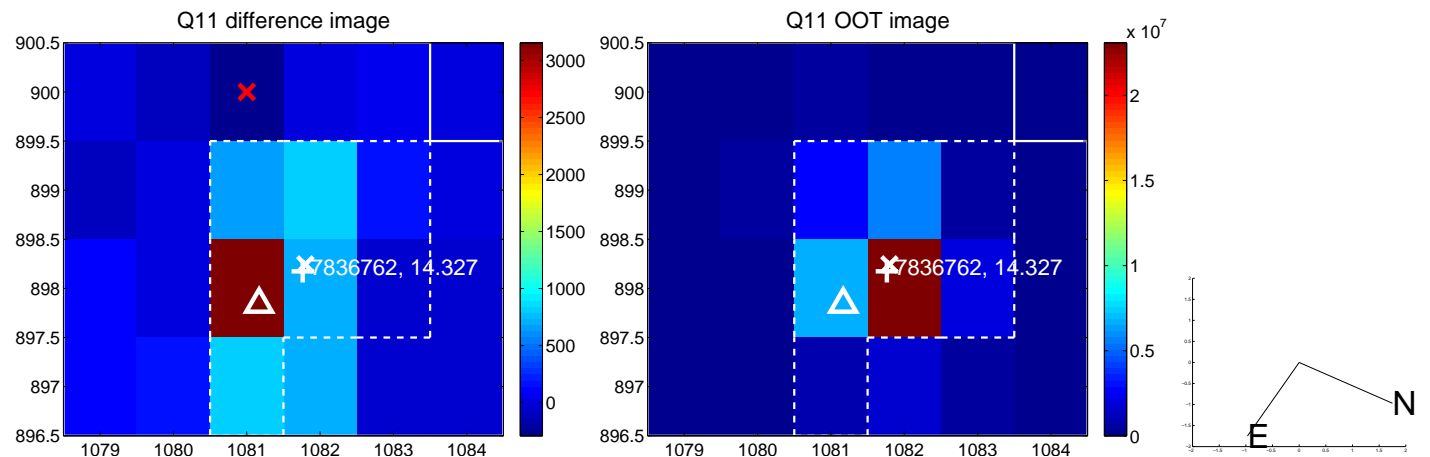
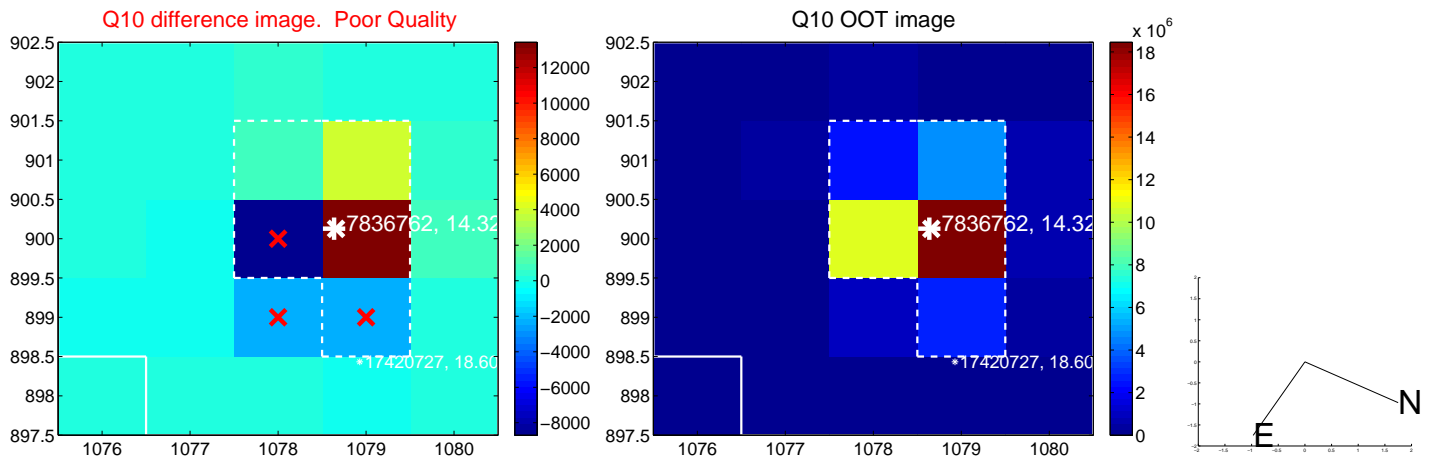
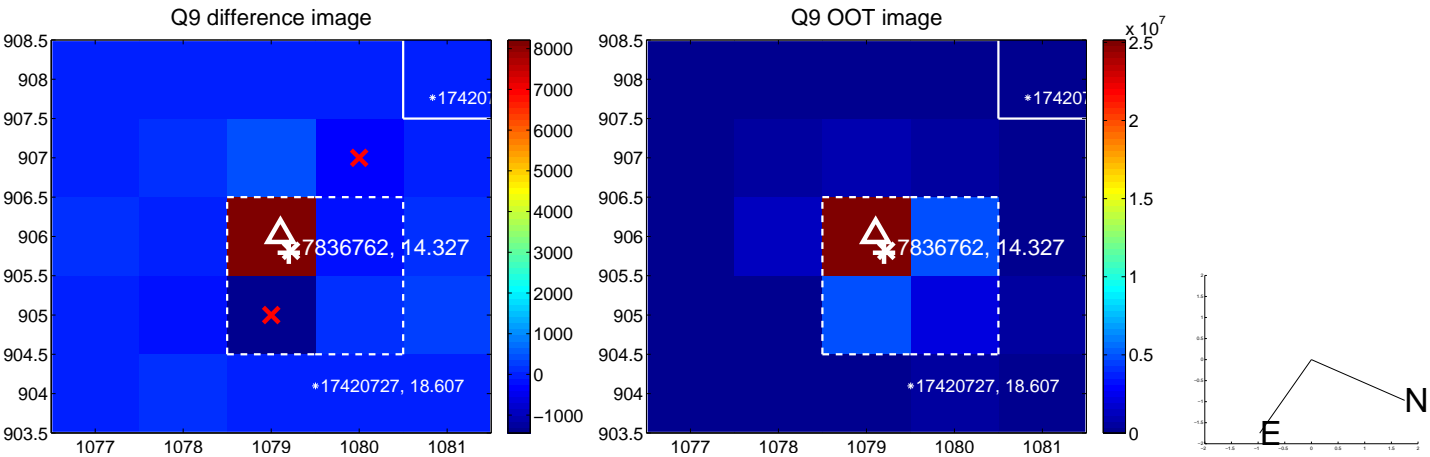
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



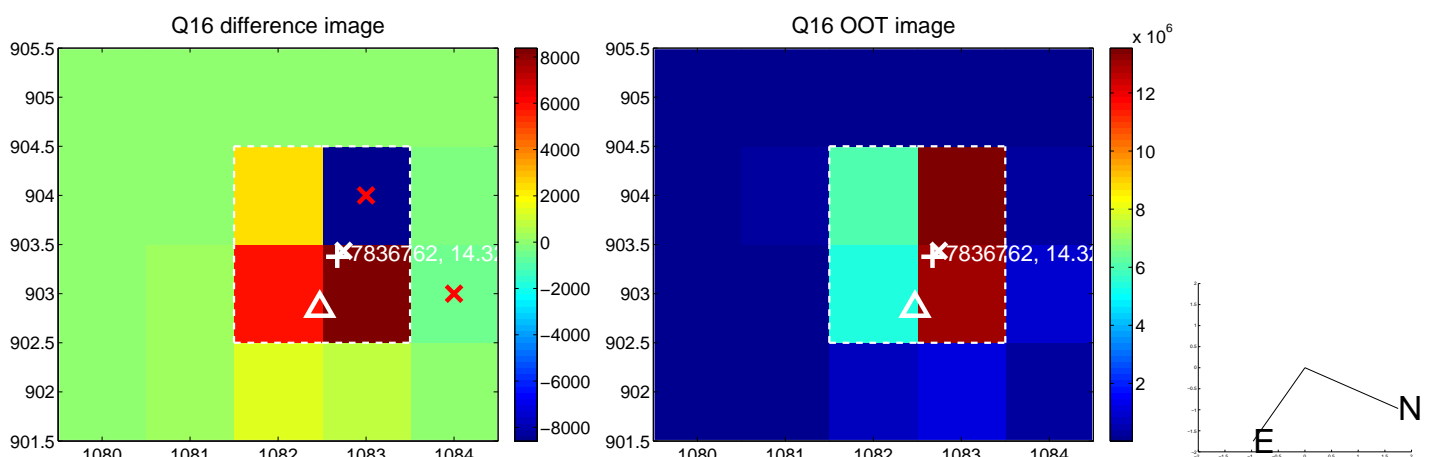
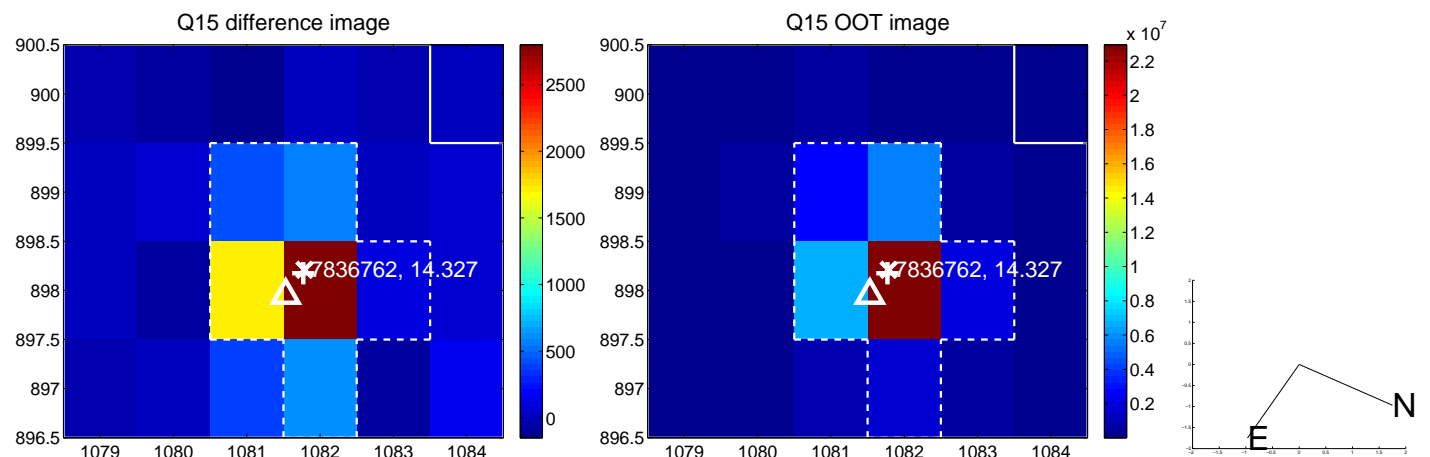
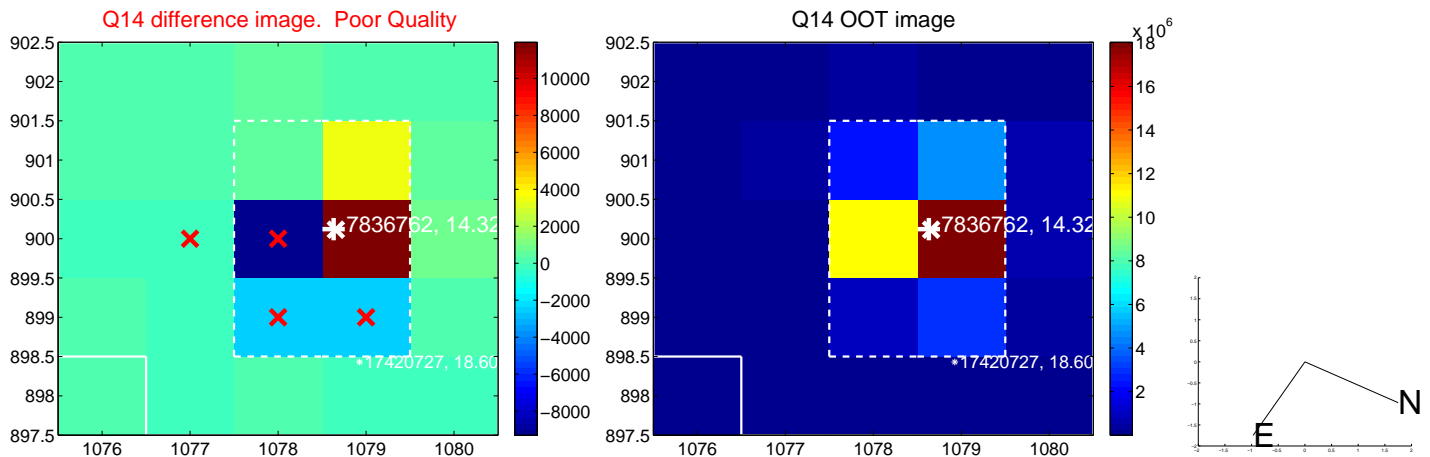
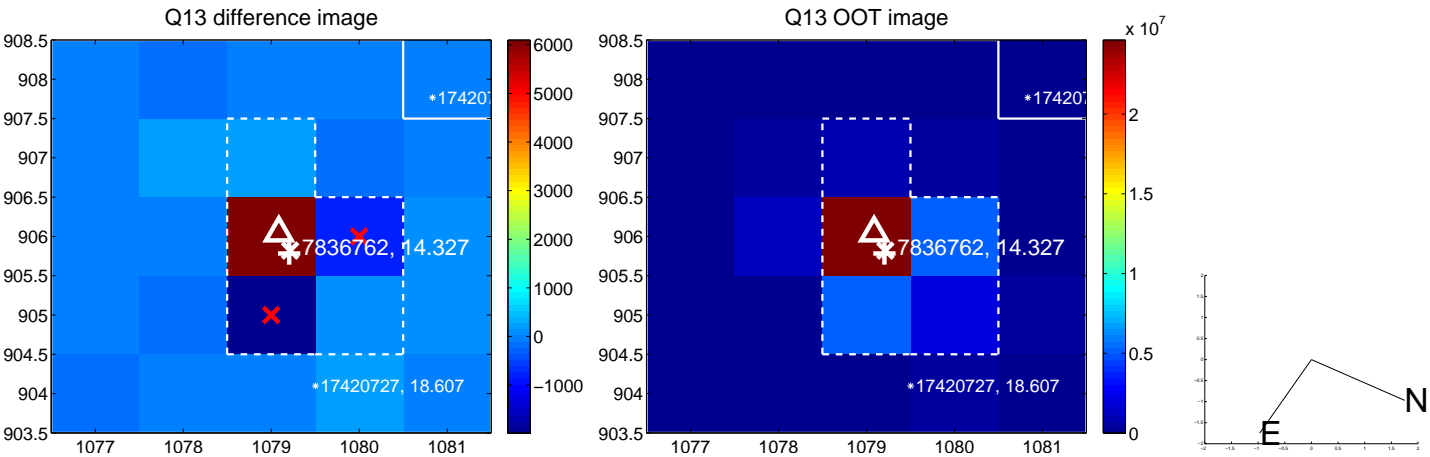
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



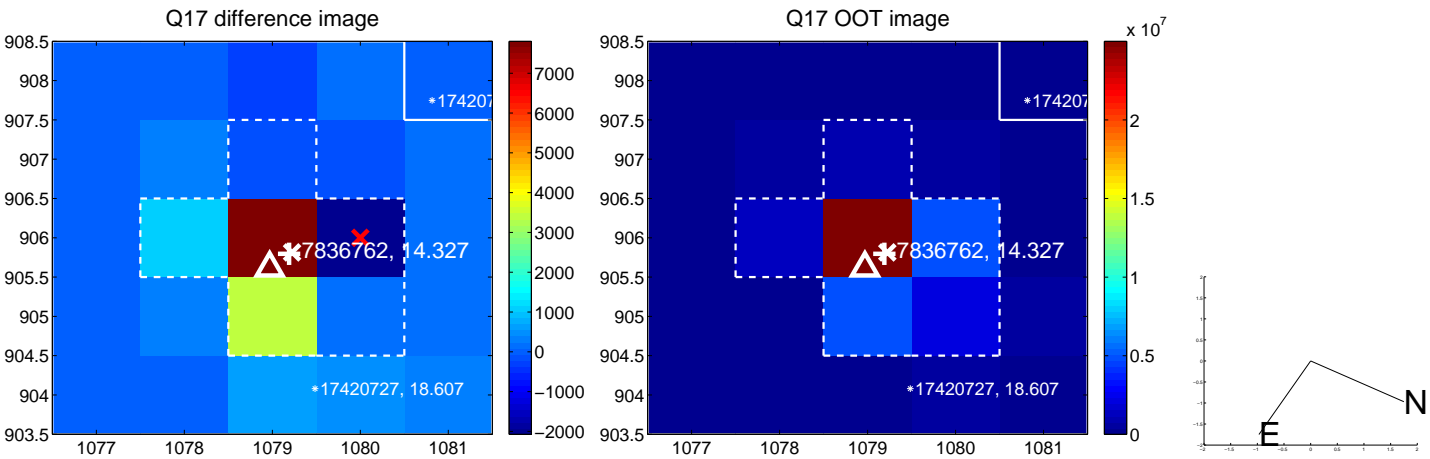
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

