

KIC 007131760

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})
007131760-01	OBS	3407.01	92.436308	163.586072	782.5	5.909	13.0	14.4	0.74	5595	2.59	3.47

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007131760-01	OBS	PC	0.94	0	0	0	0	NO_COMMENT

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.

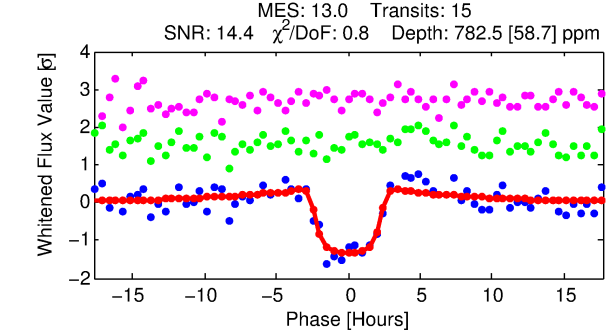
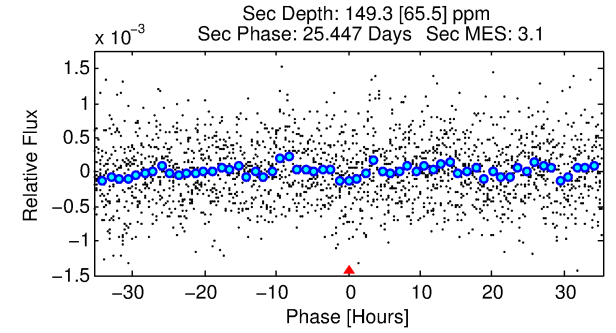
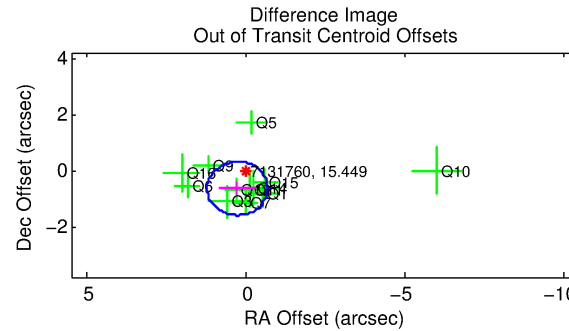
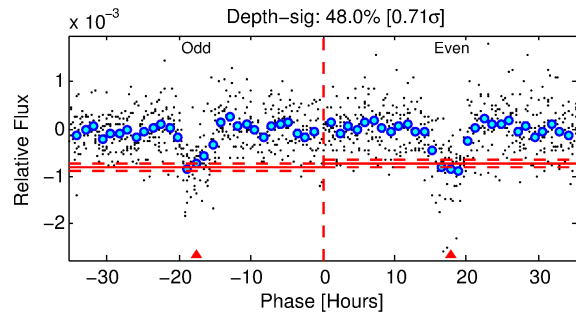
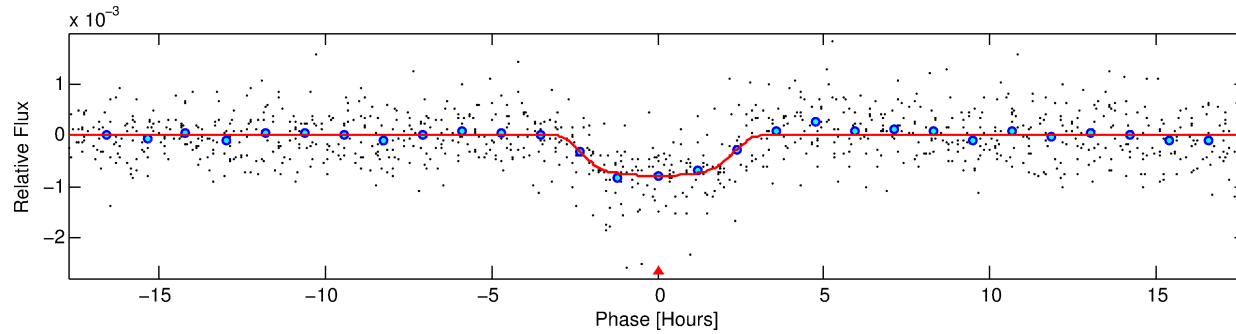
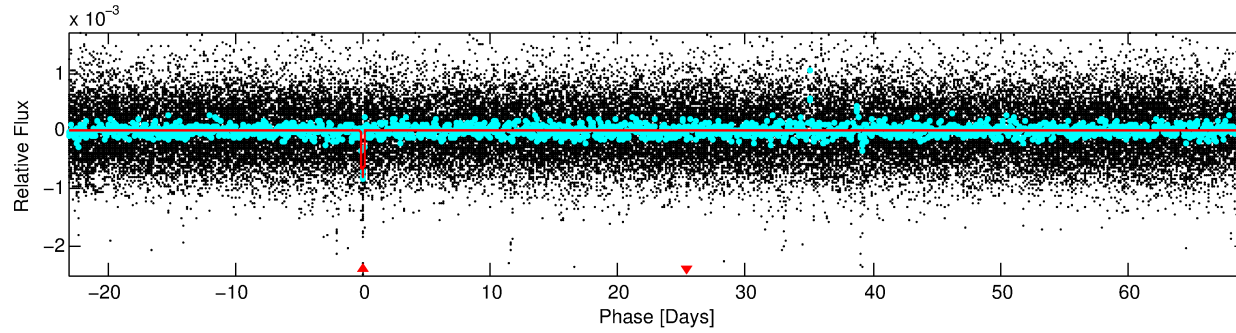
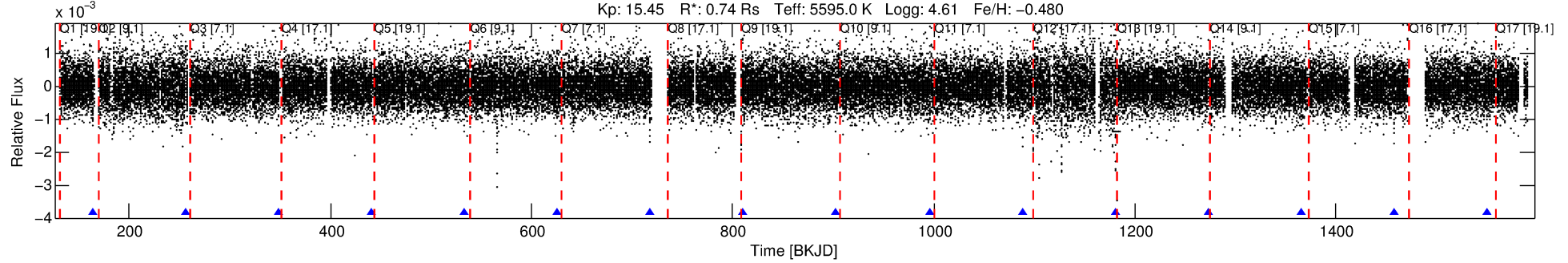
Ephemeris Match Information For 007131760-01

No Significant Match Found

DV One-Page Summary

KIC: 7131760 Candidate: 1 of 1 Period: 92.436 d
KOI: K03407.01 Corr: 0.986

Kp: 15.45 R*: 0.74 Rs Teff: 5595.0 K Logg: 4.61 Fe/H: -0.480



DV Fit Results:

Period = 92.43631 [0.00087] d
Epoch = 163.5861 [0.0077] BKJD
Rp/R* = 0.0321 [0.0020]
a/R* = 50.55 [9.60]
b = 0.94 [0.02]
Seff = 3.47 [0.92]
Teq = 348 [23] K
Rp = 2.59 [0.55] Re
a = 0.3728 [0.0618] AU
Ag = 1698.57 [872.79] [1.94σ]
Teffp = 3454 [407] K [7.62σ]

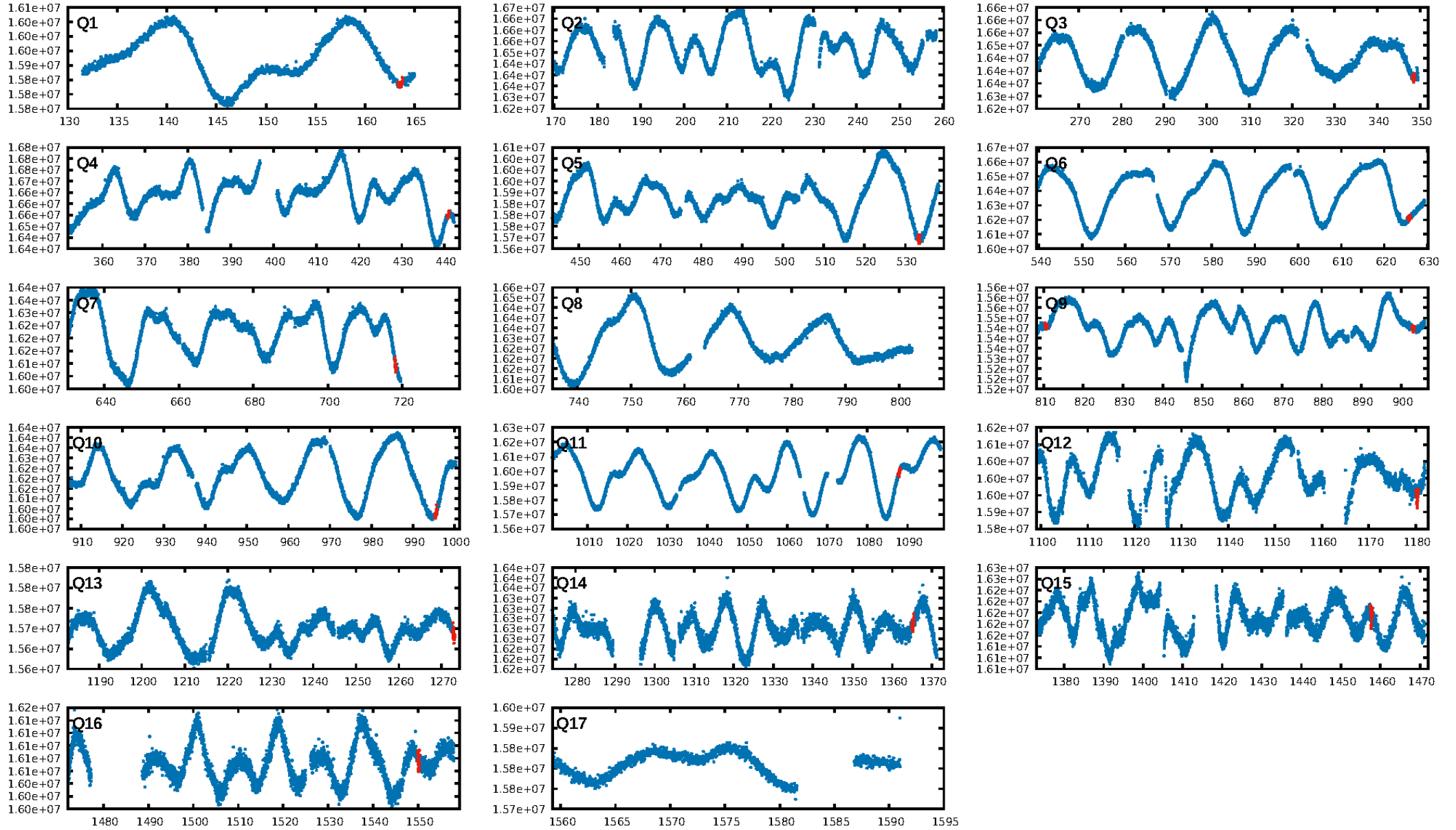
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 26.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 6.08e-35
RollingBand-fgt: 1.00 [14/14]
GhostDiagnostic-chr: 3.328
Centroid-sig: 2.8%
Centroid-so: 1.549 arcsec [1.94σ]
OotOffset-rm: 0.659 arcsec [2.08σ]
OotOffset-st: 3/4/2/3 [12]
KicOffset-rm: 0.841 arcsec [3.29σ]
KicOffset-st: 3/4/2/3 [12]
DiffImageQuality-fgm: 0.92 [11/12]
DiffImageOverlap-fno: 1.00 [13/13]

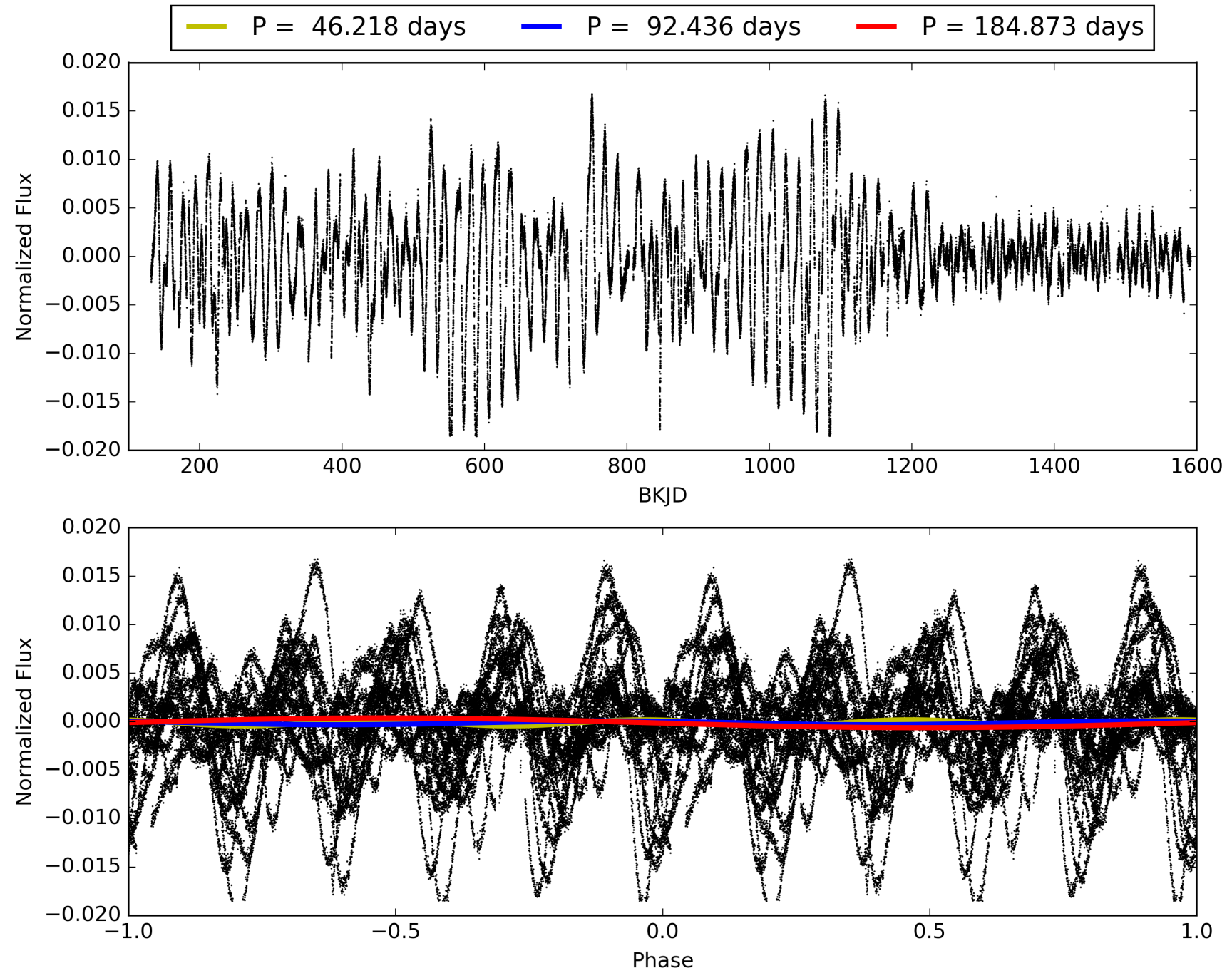
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 13:32:40 Z

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

TCE 007131760-01, PDC Light Curves

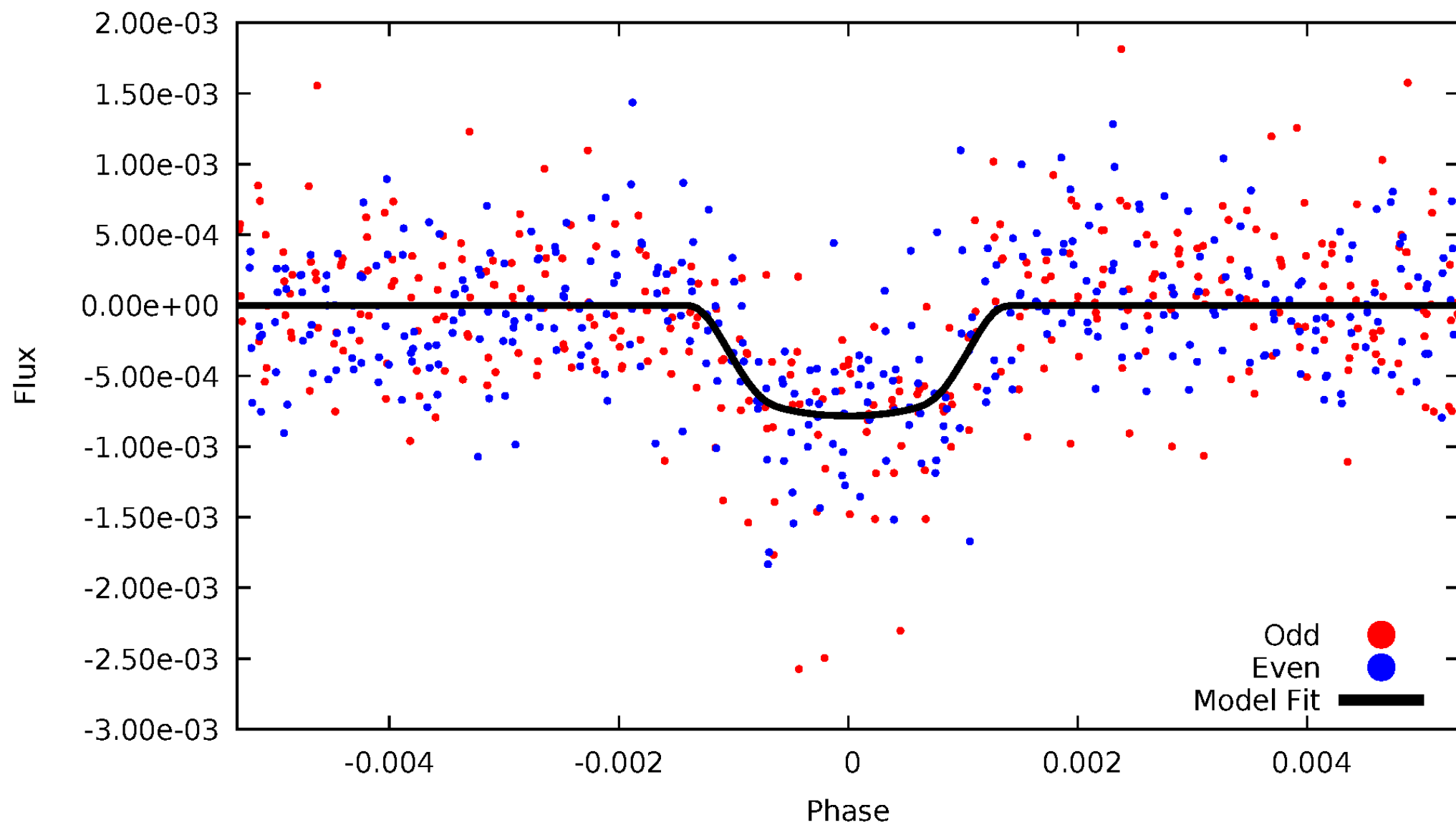


TCE 007131760-01



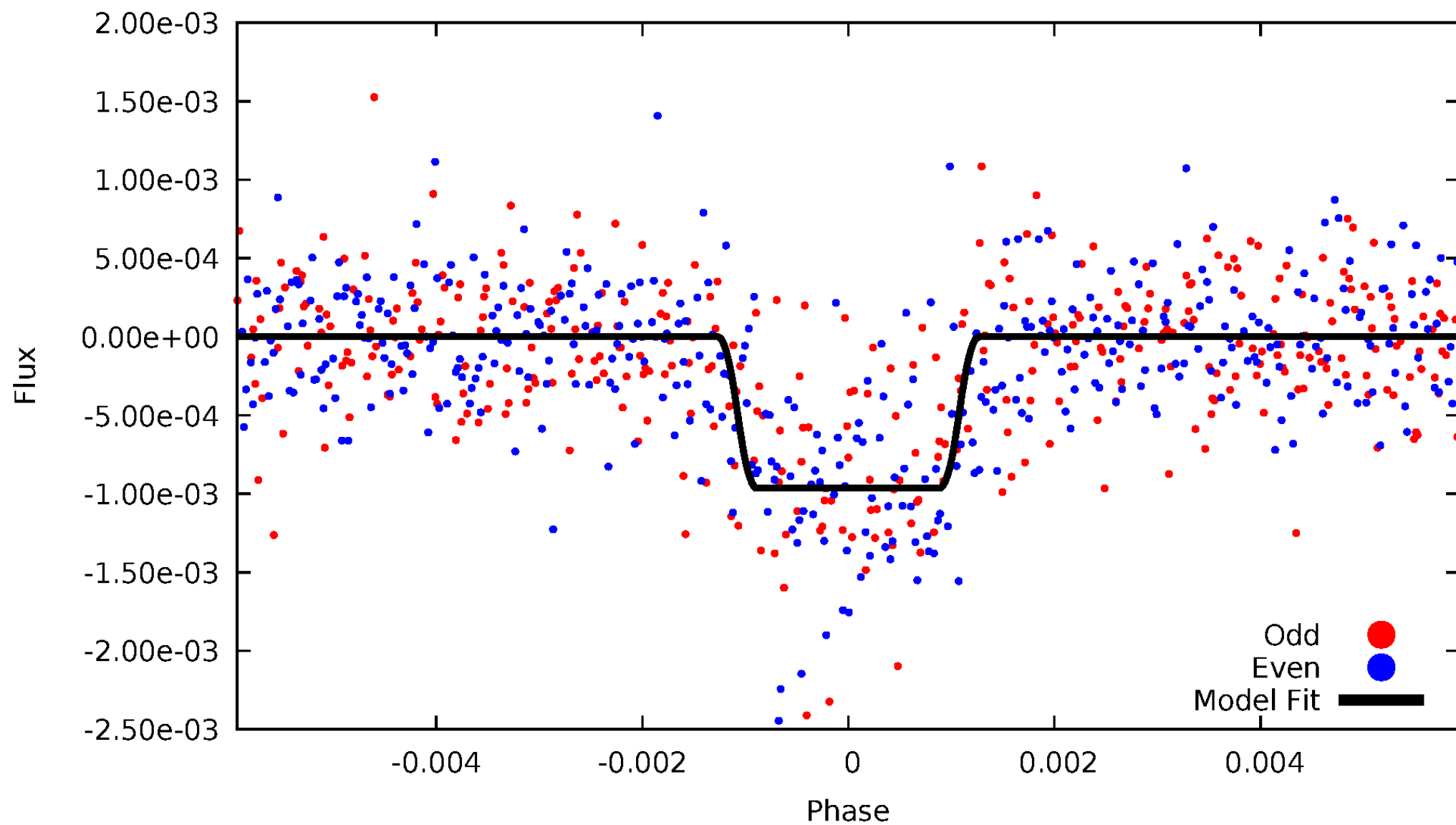
DV Odd/Even

TCE 007131760-01

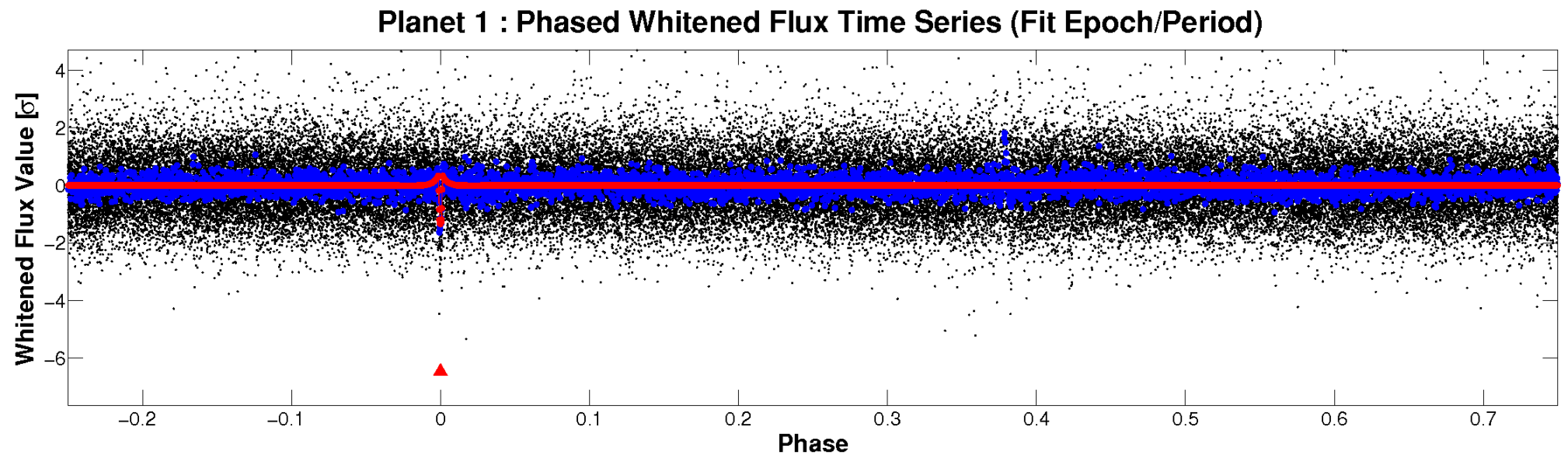
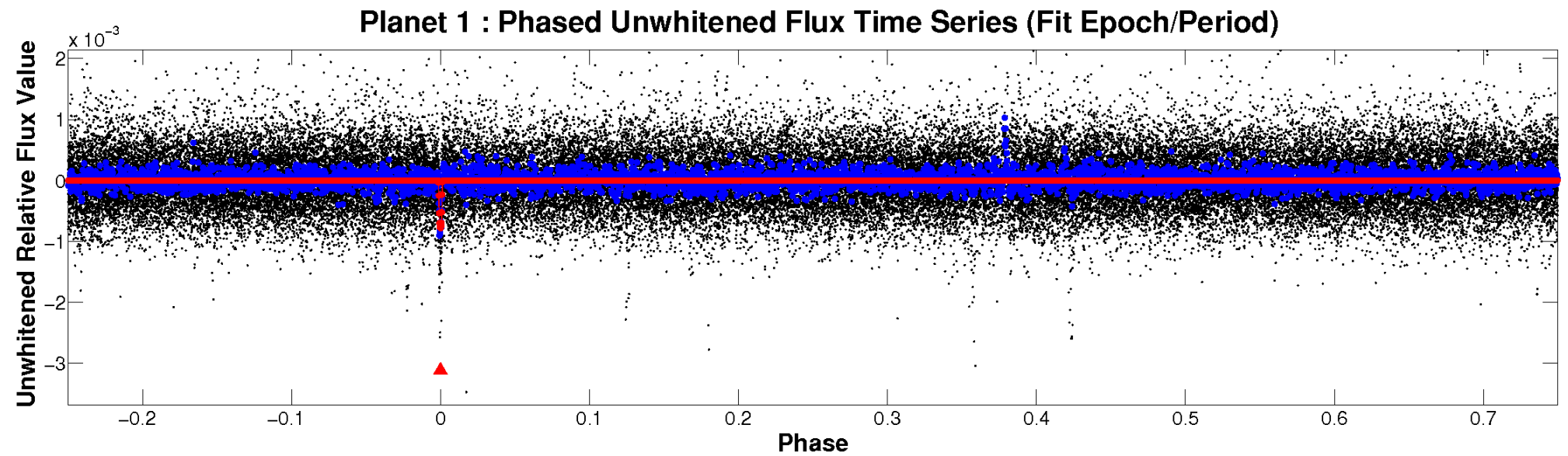


ALT Odd/Even

TCE 007131760-01

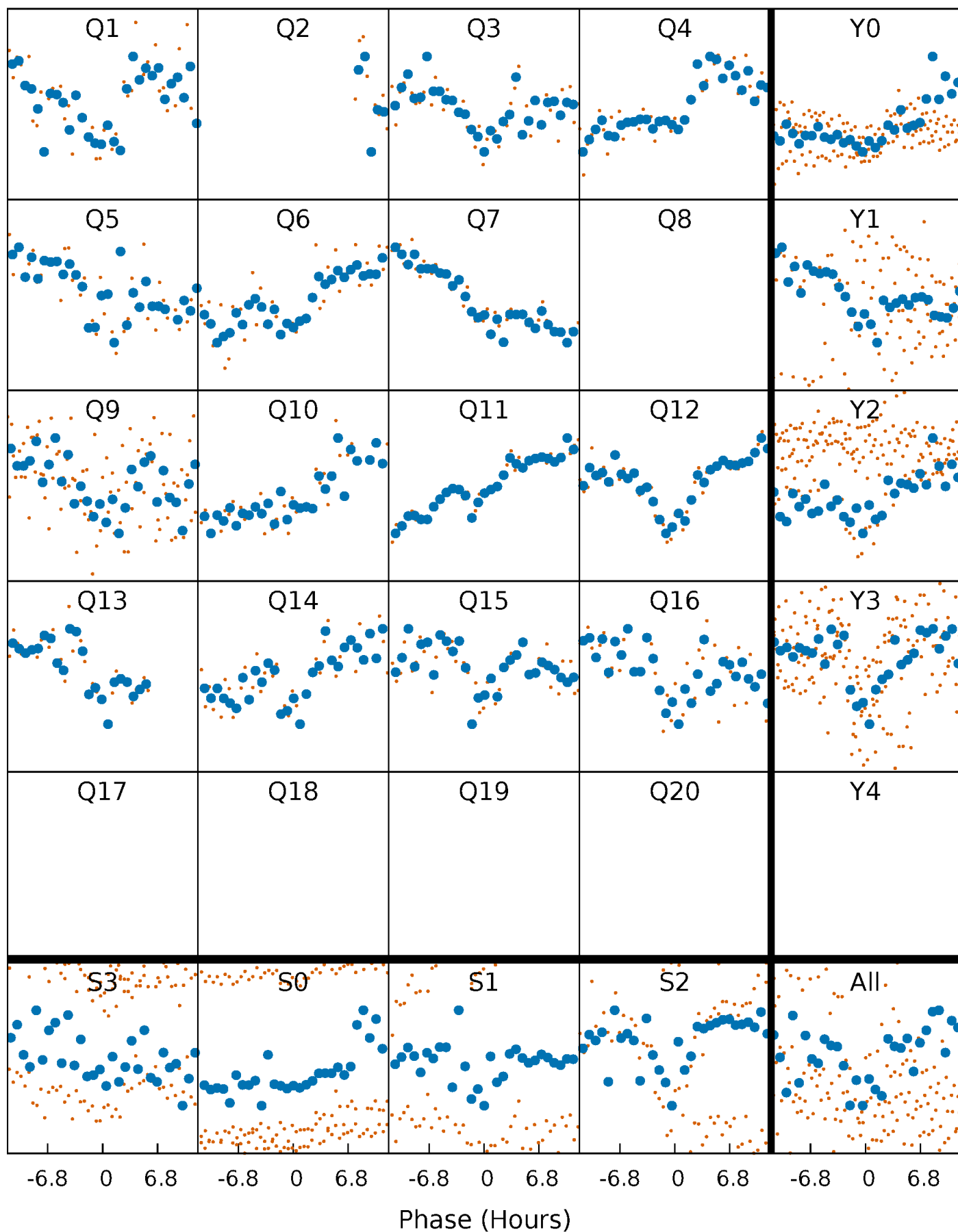


Non-Whitened Vs. Whitened Light Curve



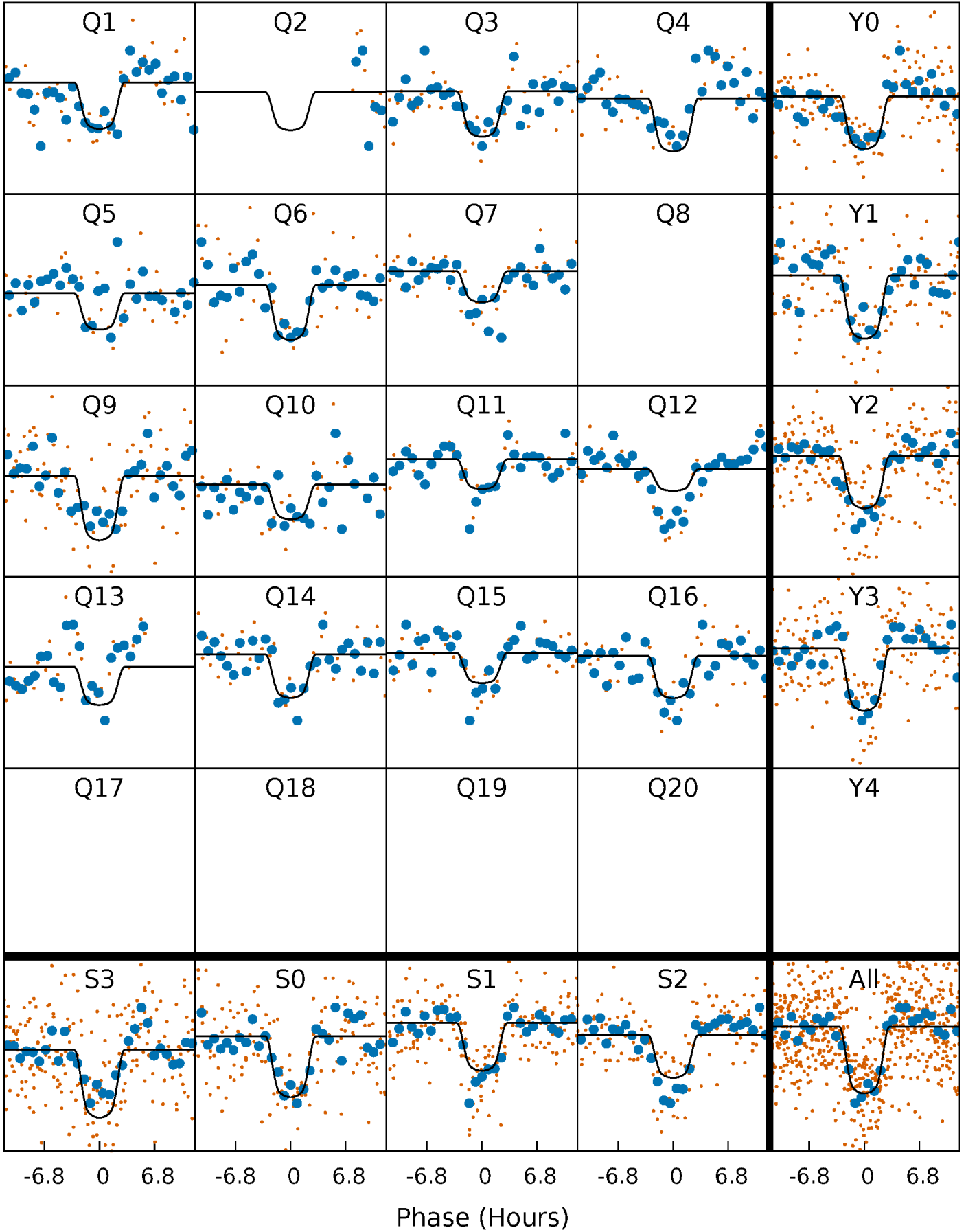
PDC Quarter-Phased Transit Curves

TCE 007131760-01 P= 92.436308 Days $T_0=163.586072$ (BKJD)



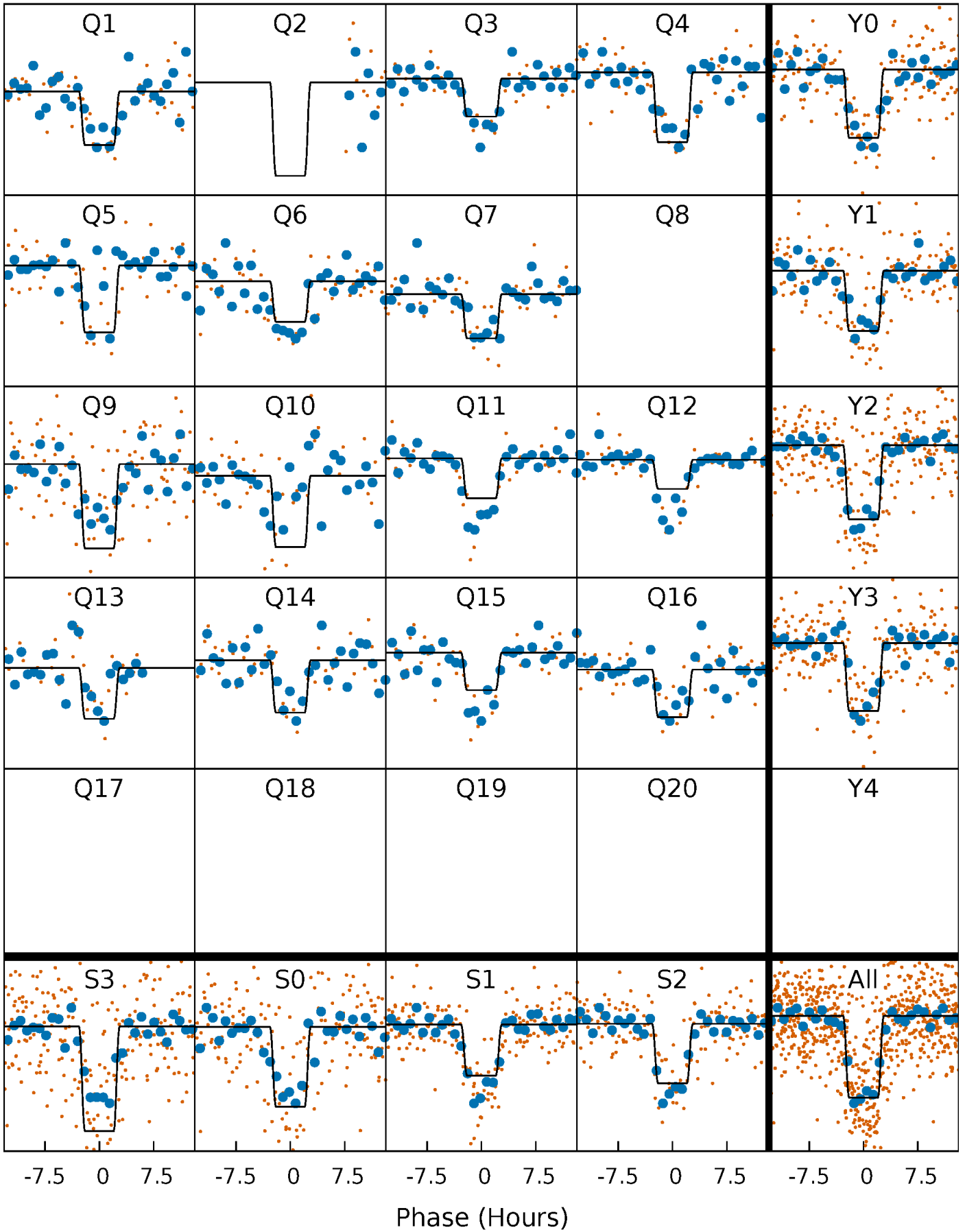
DV Quarter-Phased Transit Curves

TCE 007131760-01 P= 92.436308 Days $T_0=163.586072$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

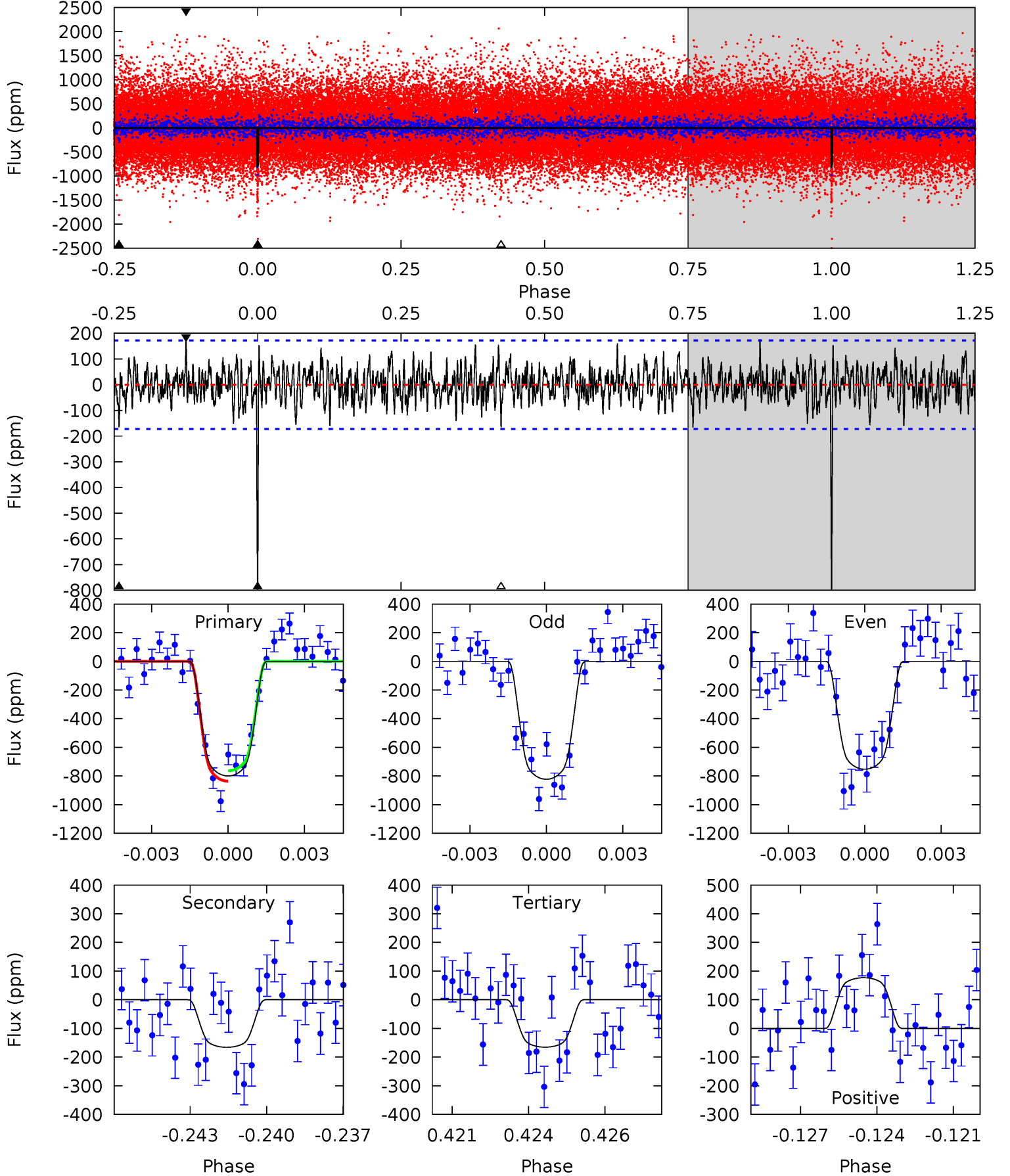
TCE 007131760-01 P= 92.436048 Days $T_0=163.586565$ (BKJD)



DV Model-Shift Uniqueness Test

007131760-01, P = 92.436308 Days, E = 71.149764 Days

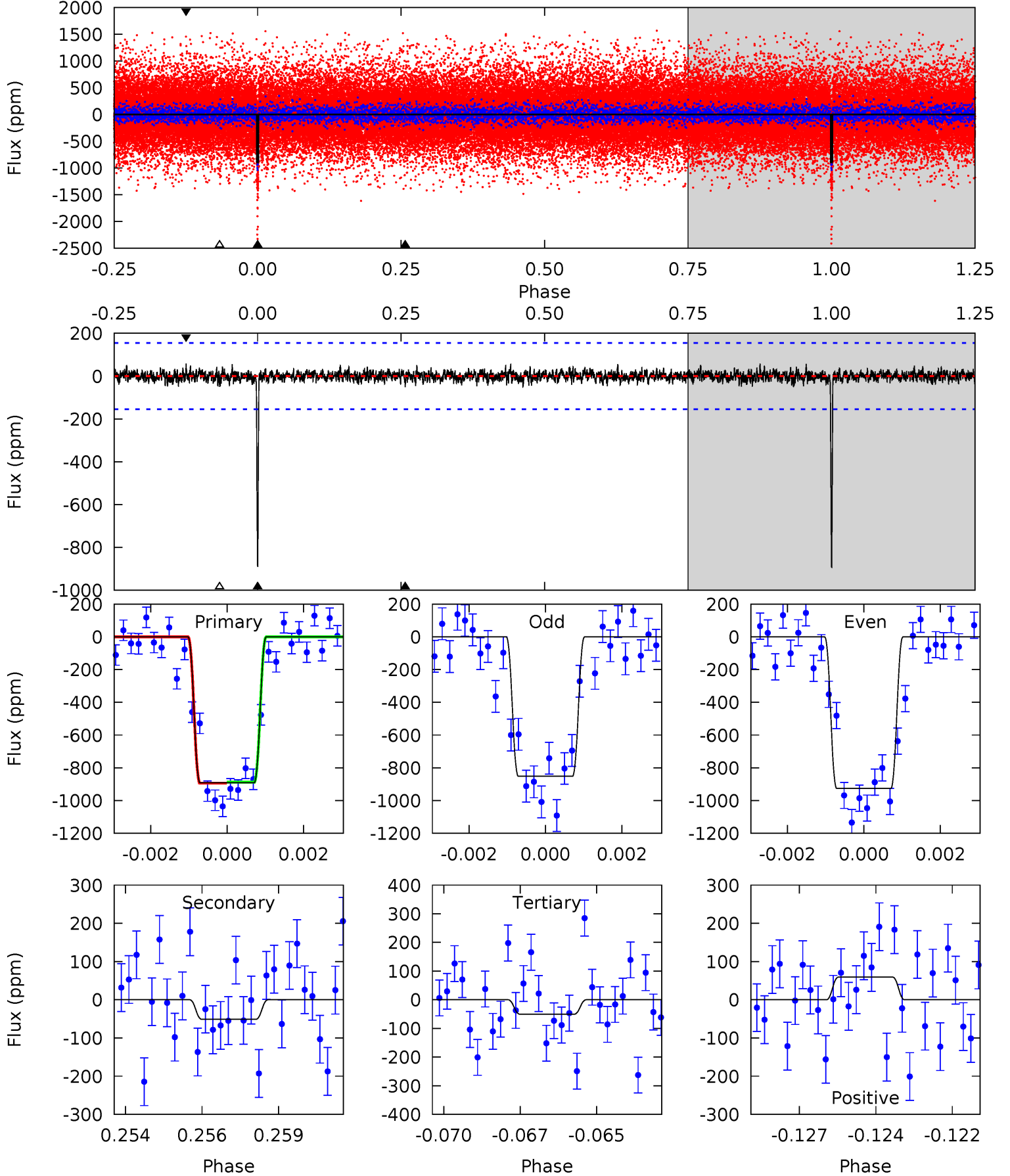
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.5	5.07	5.06	5.41	5.26	2.99	1.62	19.4	19.1	0.01	-0.34	1.07	1.08	0.18	1.12



Alt Model-Shift Uniqueness Test

007131760-01, P = 92.436048 Days, E = 71.150517 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
30.4	1.74	1.72	2.02	5.29	3.02	0.53	28.7	28.4	0.02	-0.28	1.27	1.14	0.06	0.12



Stellar Parameters For KIC 007131760

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5595^{+167}_{-167}	$4.606^{+0.034}_{-0.127}$	$-0.480^{+0.300}_{-0.300}$	$0.741^{+0.149}_{-0.064}$	$0.808^{+0.087}_{-0.078}$	$2.800^{+0.486}_{-1.067}$
	+3%/-3%	+1%/-3%	+62%/-62%	+20%/-9%	+11%/-10%	+17%/-38%
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 007131760-01 / KOI 3407.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-166 ± 33	$2.65^{+0.33}_{-0.22}$	495^{+25}_{-21}	3889^{+193}_{-182}	1769^{+522}_{-449}
Alt.	-51 ± 29	$2.55^{+0.30}_{-0.23}$	493^{+24}_{-19}	3216^{+301}_{-420}	537^{+423}_{-329}

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 $A_{obs} \gg 1.0$

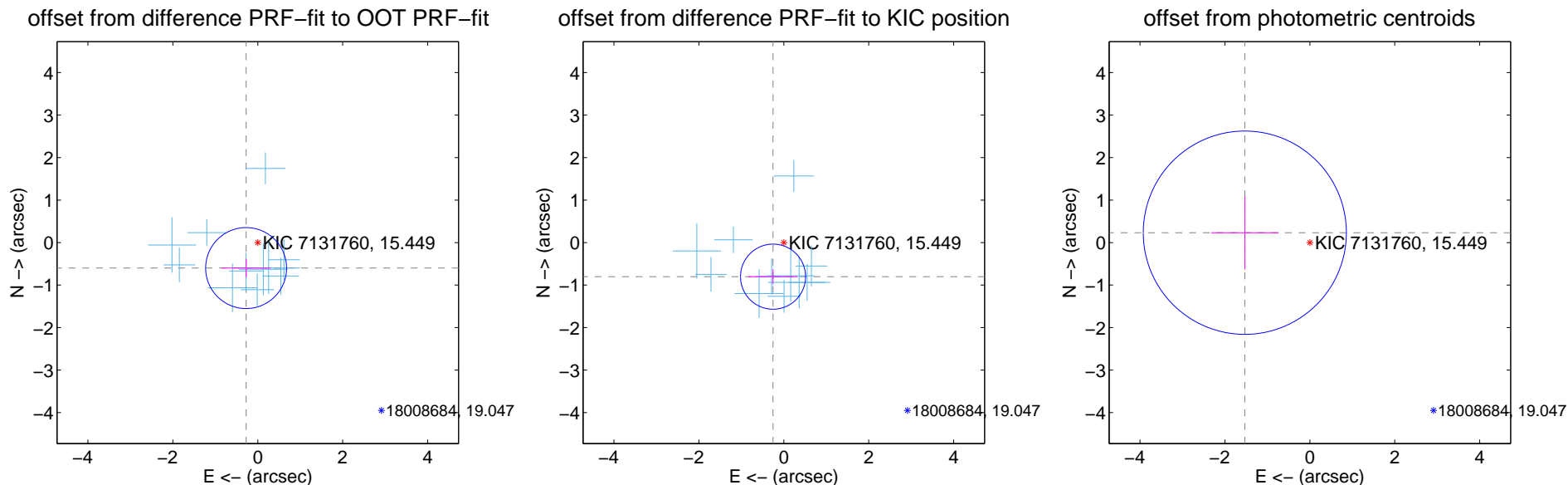
DV Centroid Data

Supplemental centroid analysis for 007131760-01. Kepler magnitude: 15.45. Transit SNR 14.36

There are 11 quarters with good PRF difference image offsets

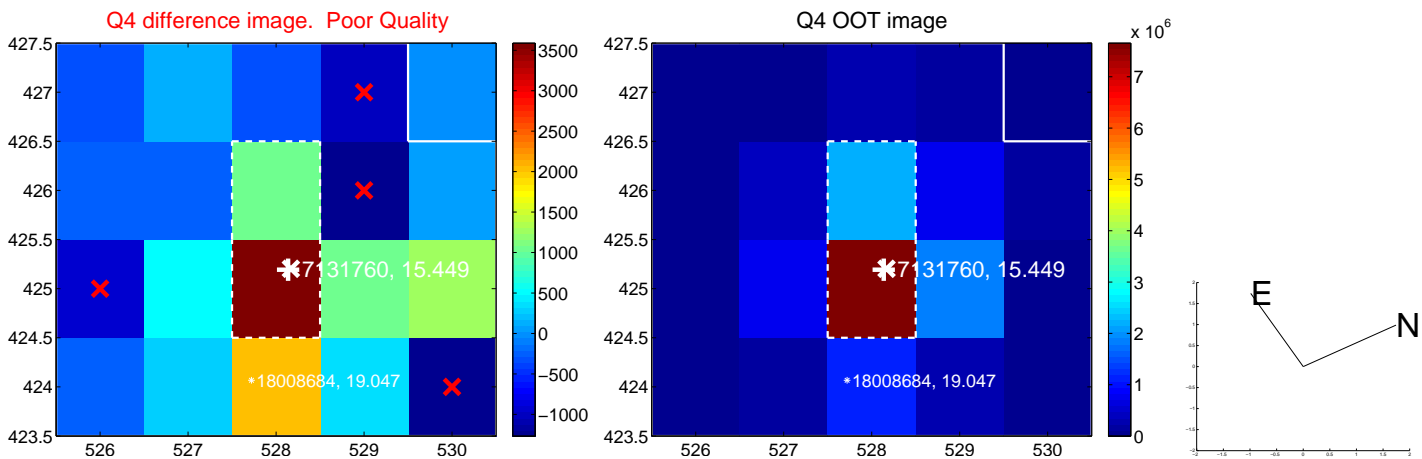
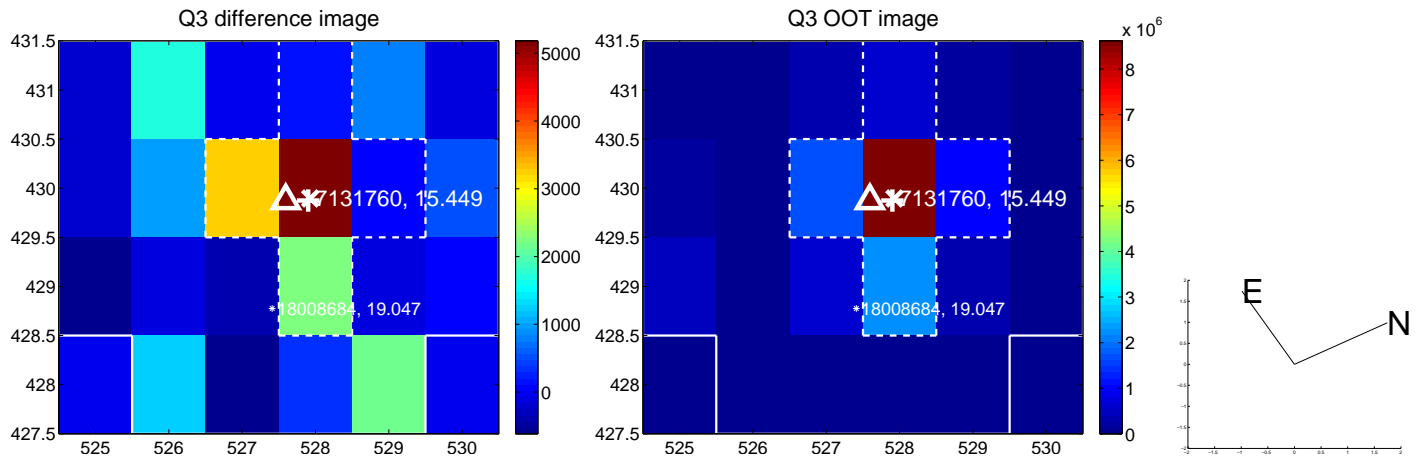
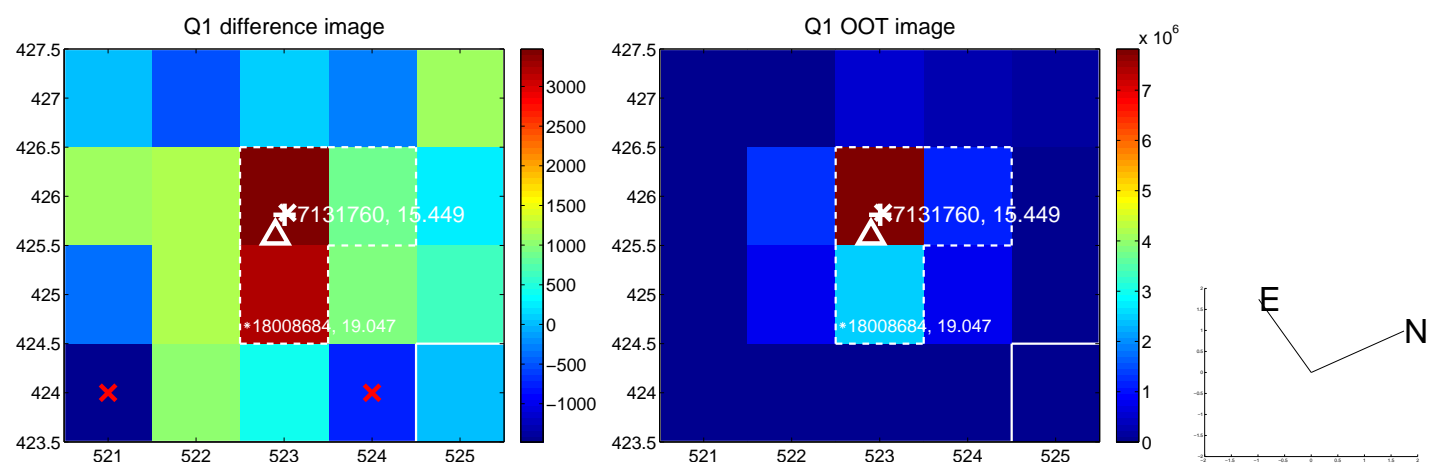
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.659 ± 0.318	2.08	0.274 ± 0.575	-0.600 ± 0.215
PRF-fit source offset from KIC position	0.841 ± 0.255	3.29	0.254 ± 0.579	-0.802 ± 0.177
photometric centroid source offset	1.55 ± 0.80	1.94	1.53 ± 0.80	0.23 ± 0.87

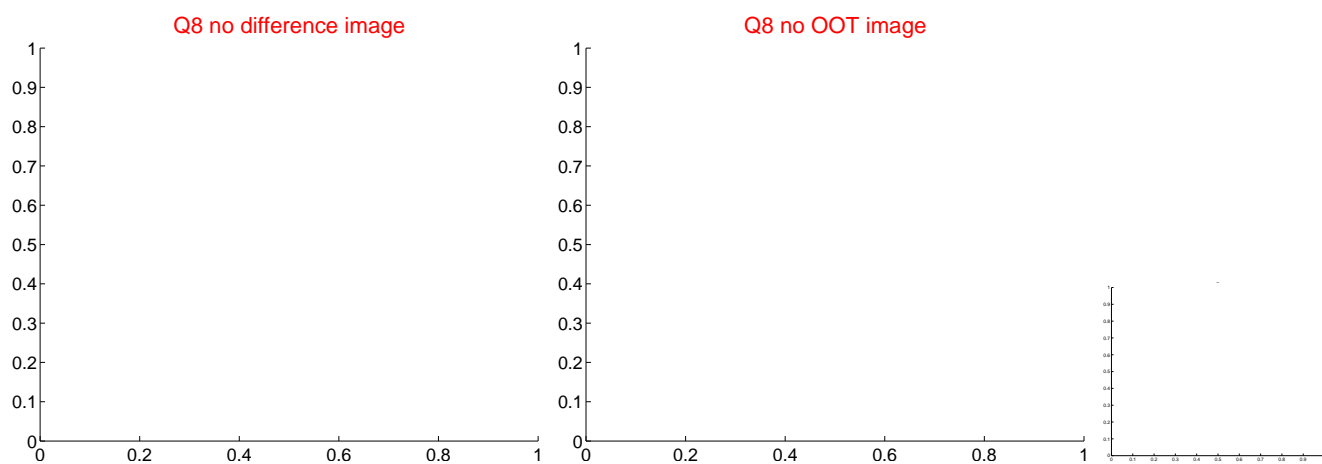
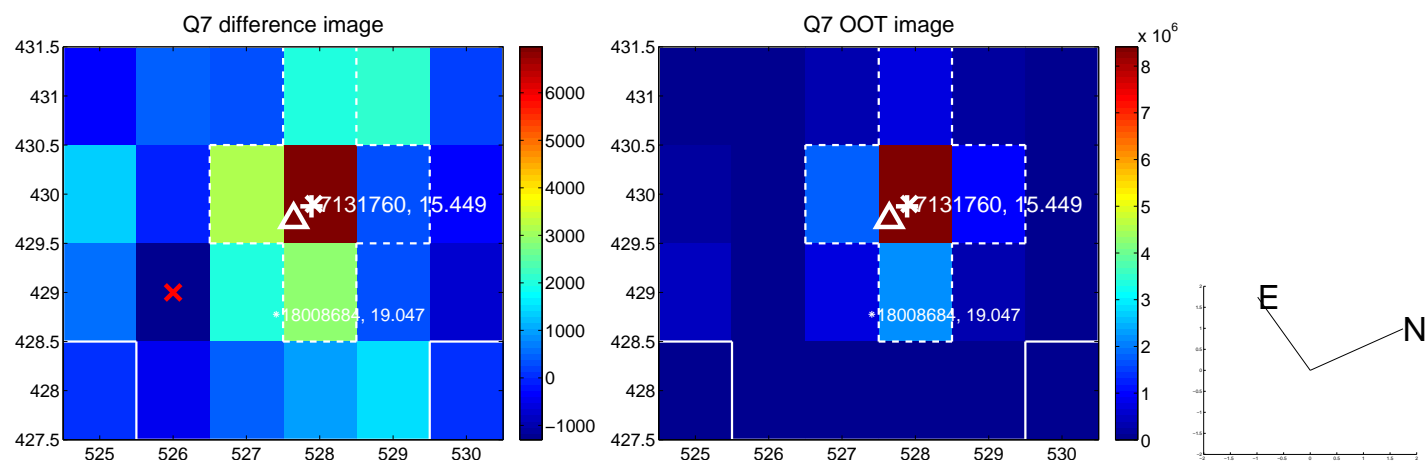
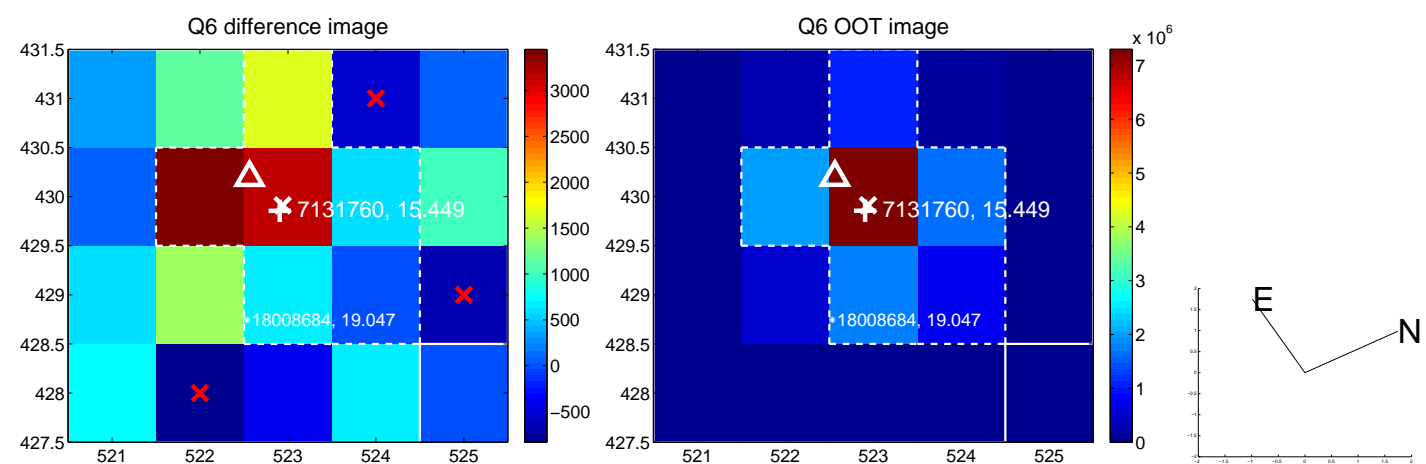
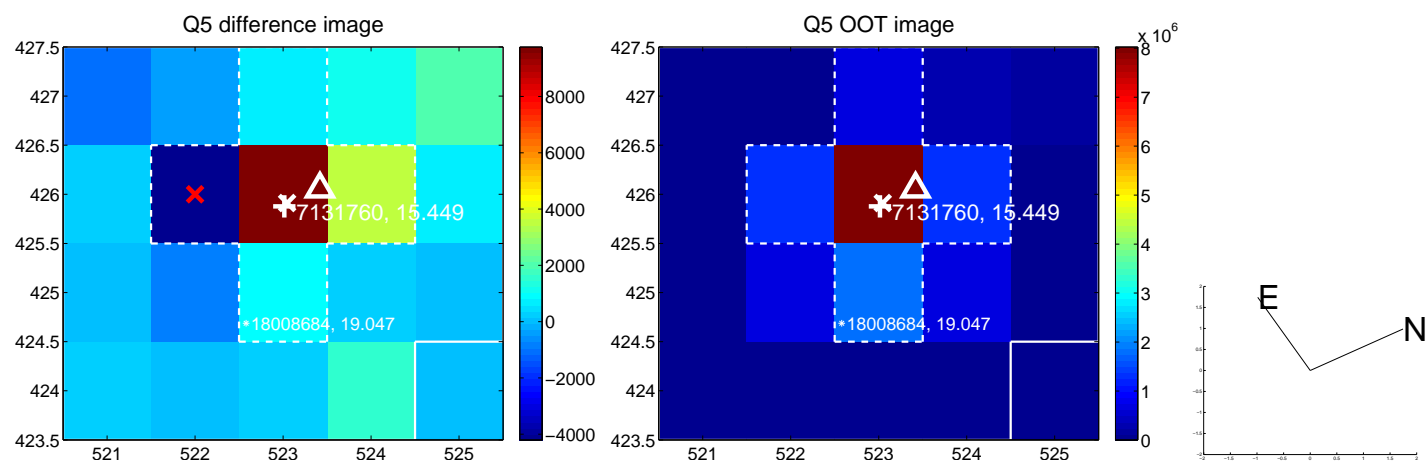


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

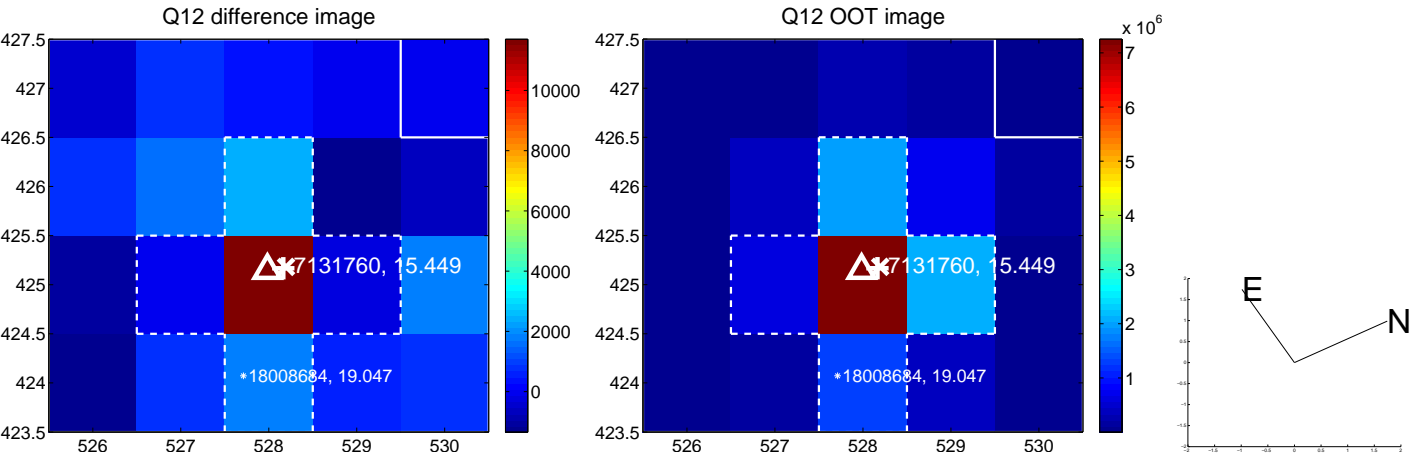
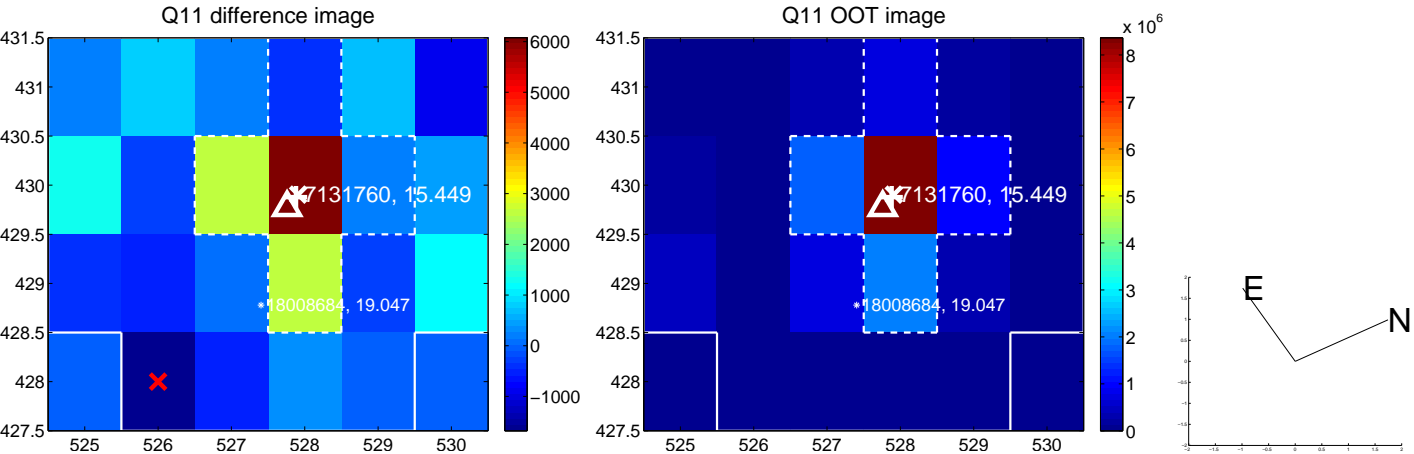
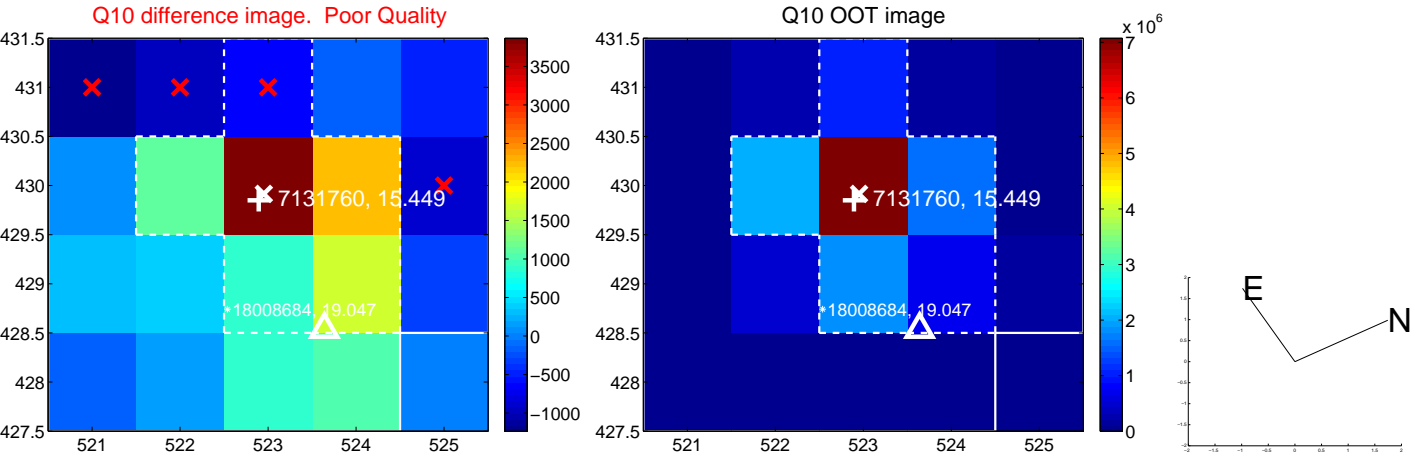
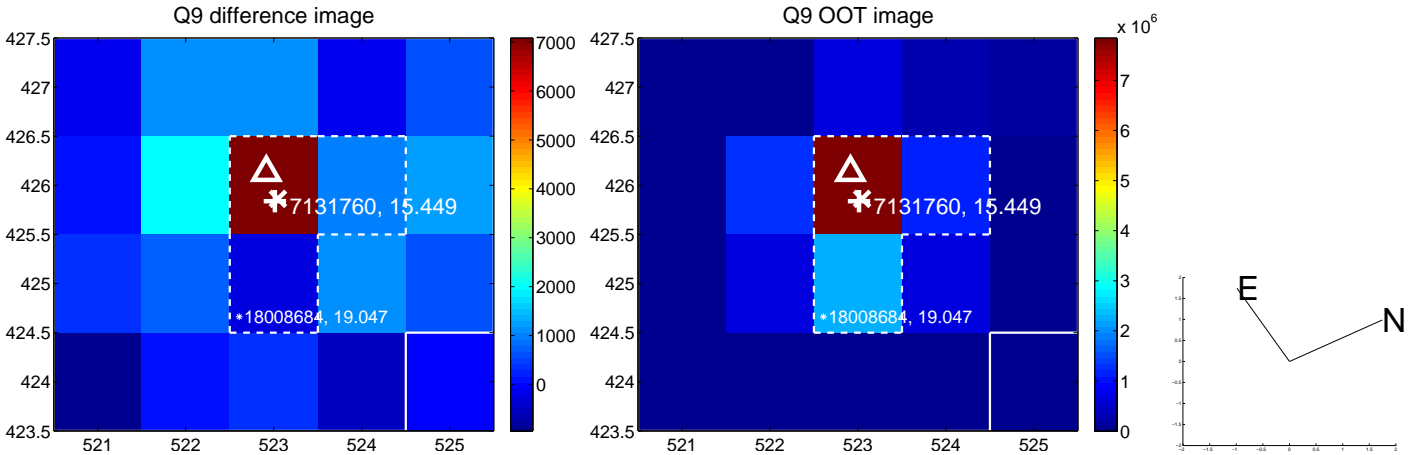
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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.

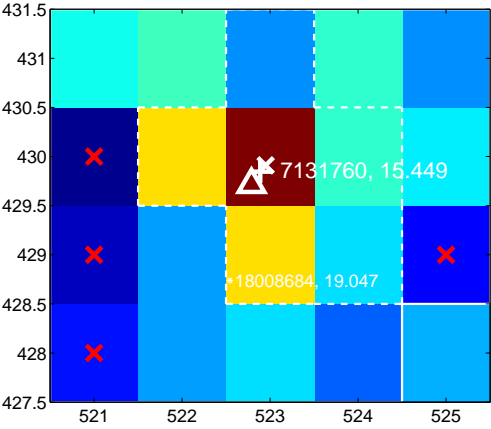
Q13 no difference image



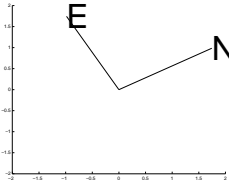
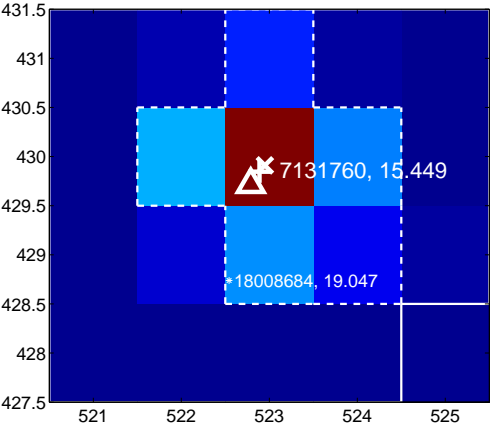
Q13 no OOT image



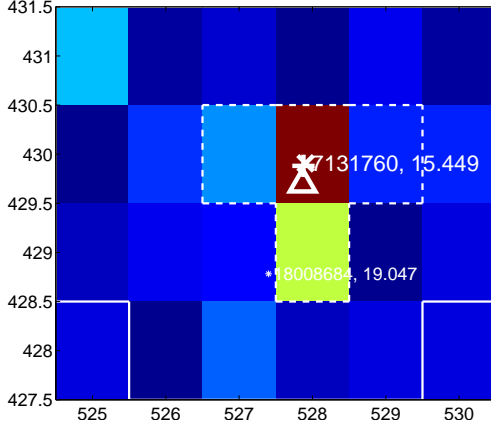
Q14 difference image



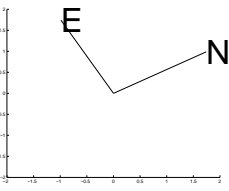
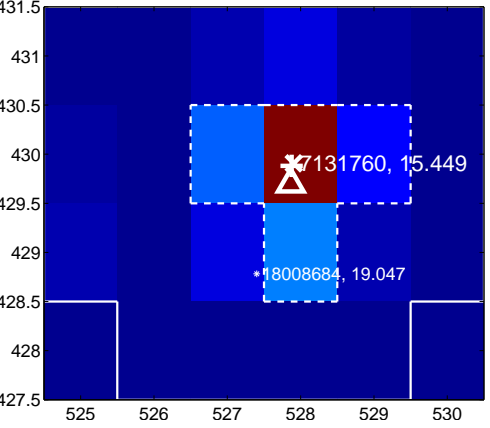
Q14 OOT image



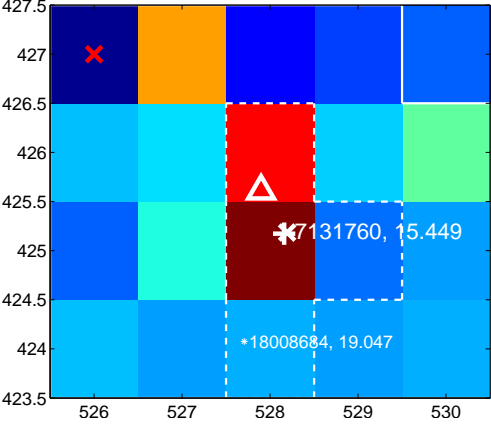
Q15 difference image



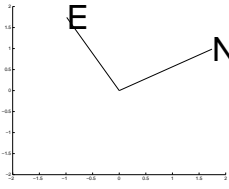
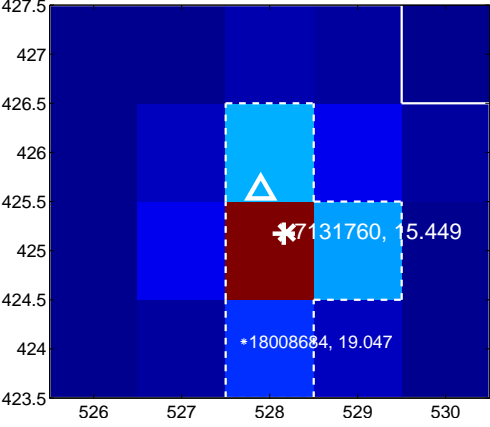
Q15 OOT image



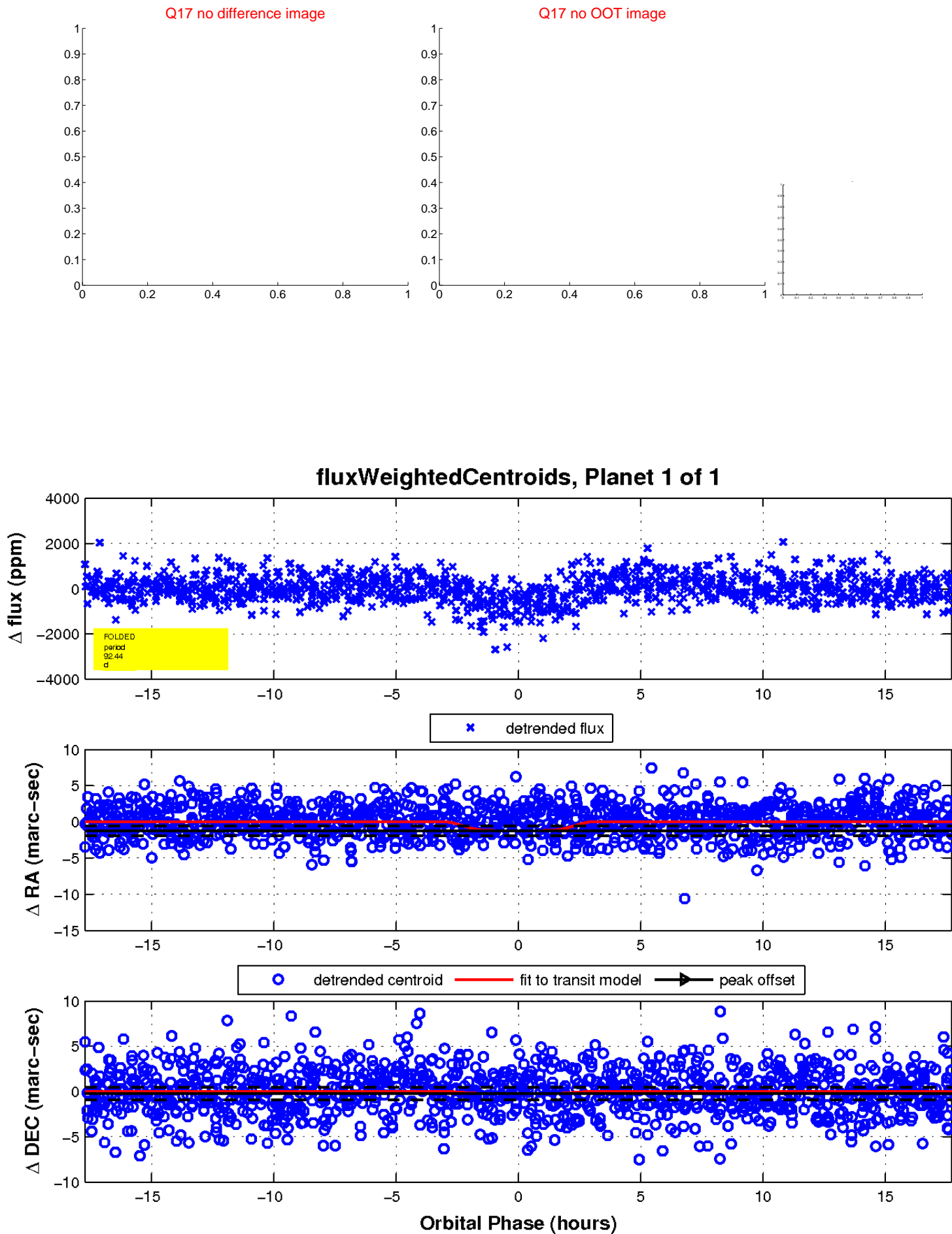
Q16 difference image



Q16 OOT image



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



UKIRT Image

Declination

