

KIC 007700500

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})
007700500-01	OBS	6907.01	4.606911	133.872213	249.8	2.564	8.2	9.2	0.71	5110	1.36	132.82

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007700500-01	OBS	PC	0.91	0	0	0	0	CENT_KIC_POS

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 007700500-01

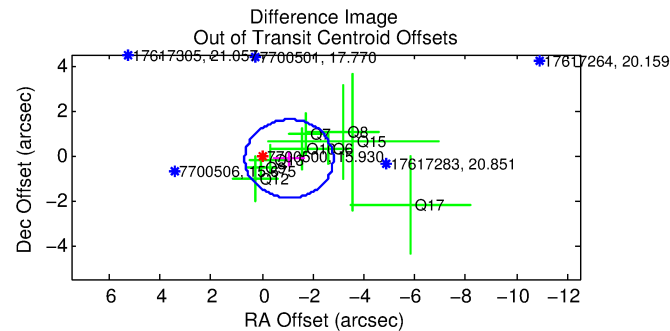
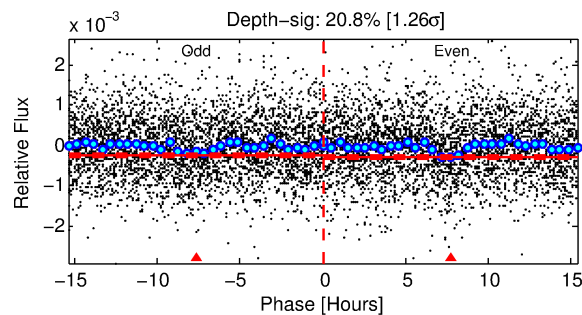
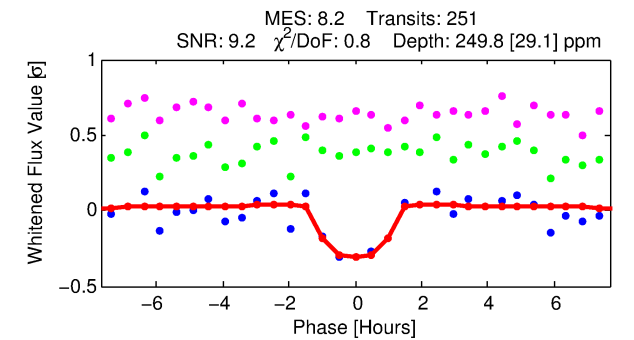
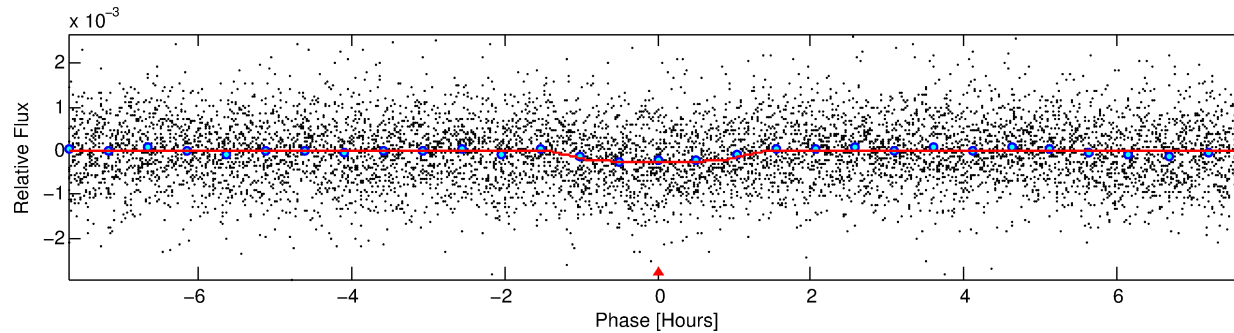
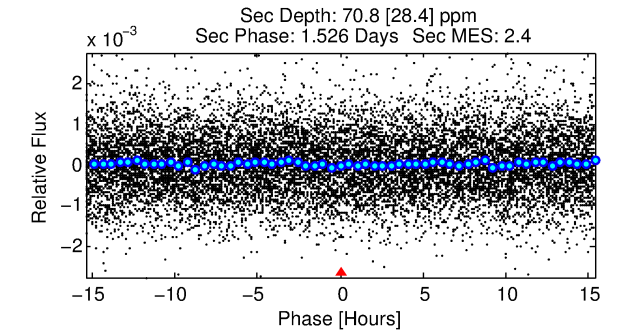
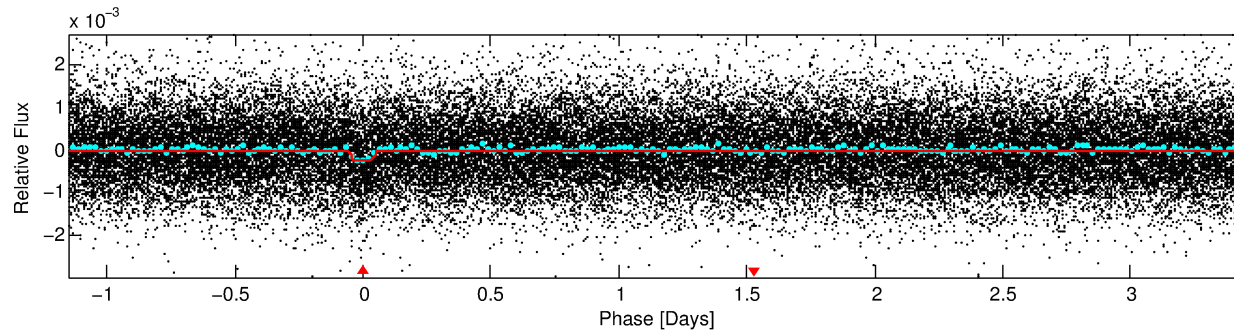
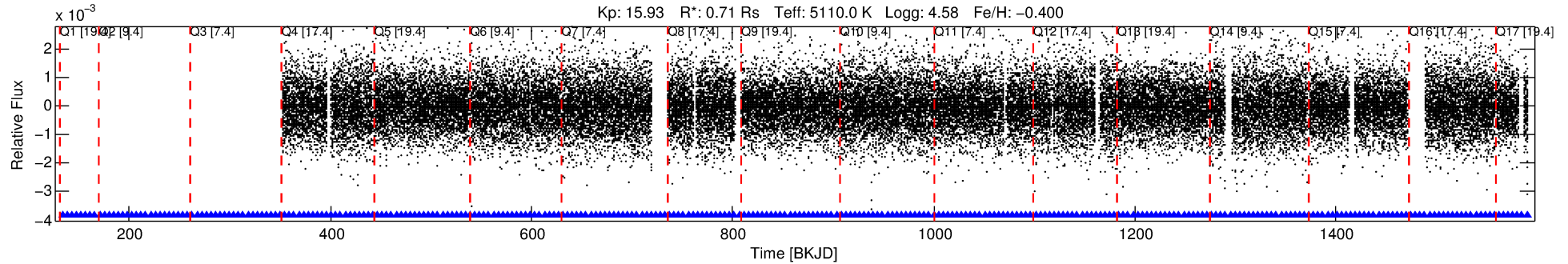
No Significant Match Found

DV One-Page Summary

KIC: 7700500 Candidate: 1 of 1 Period: 4.607 d

KOI: K06907.01 Corr: 0.921

Kp: 15.93 R*: 0.71 Rs Teff: 5110.0 K Logg: 4.58 Fe/H: -0.400



DV Fit Results:

Period = 4.60691 [0.00003] d
Epoch = 133.8722 [0.0051] BKJD
Rp/R* = 0.0175 [0.0119]
a/R* = 6.61 [18.42]
b = 0.90 [0.63]
Seff = 132.82 [25.66]
Teq = 866 [42] K
Rp = 1.36 [0.94] Re
a = 0.0482 [0.0042] AU
Ag = 49.25 [70.27] [0.69σ]
Teffp = 3546 [1267] K [2.11σ]

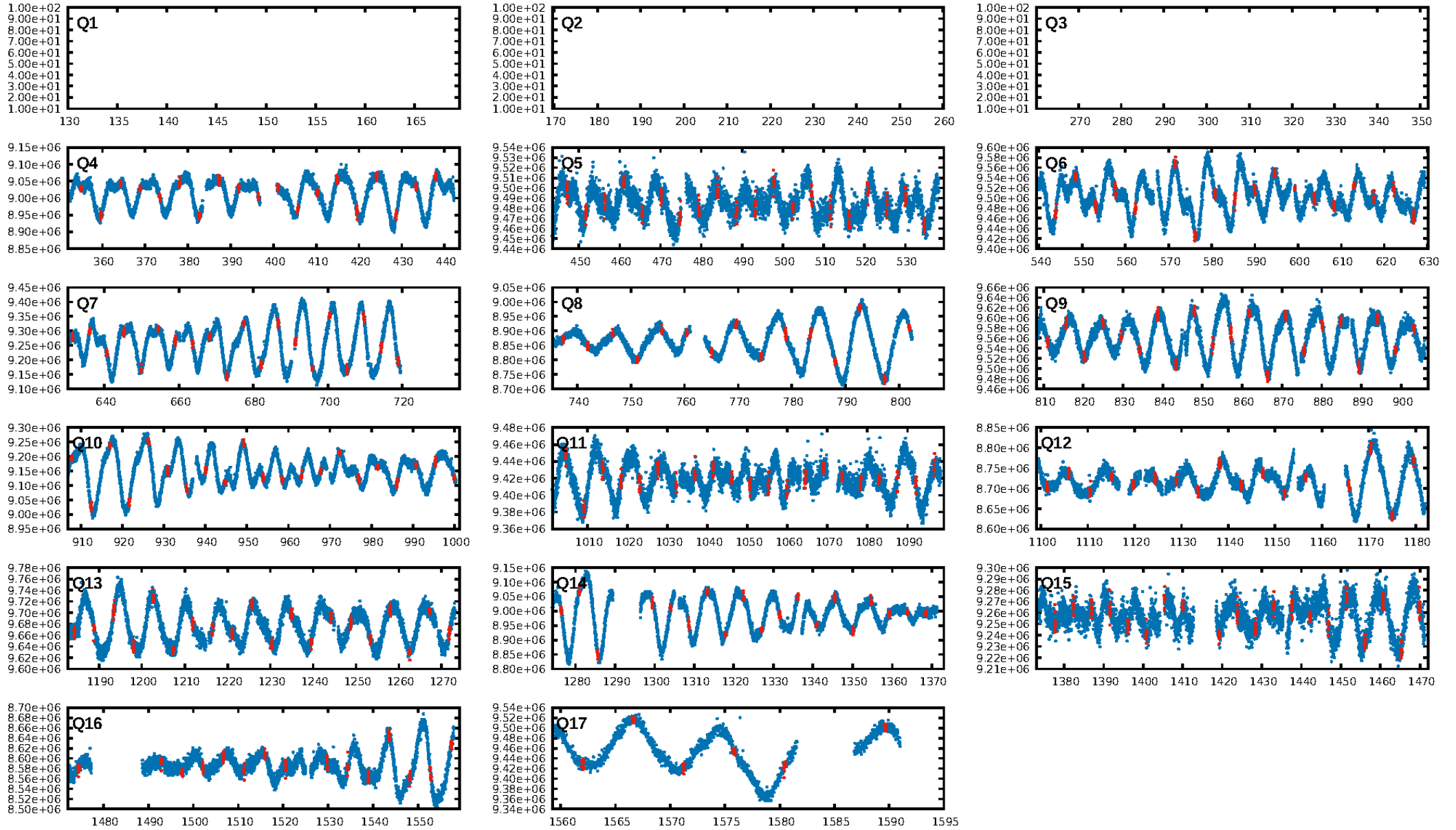
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.40e-16
RollingBand-fgt: 1.00 [245/245]
GhostDiagnostic-chr: 1.121
Centroid-sig: 68.4%
Centroid-so: 1.879 arcsec [2.67σ]
OotOffset-rm: 1.077 arcsec [1.86σ]
KicOffset-rm: 1.280 arcsec [2.16σ]
OotOffset-st: 2/2/2/3 [9]
KicOffset-st: 2/2/2/3 [9]
DiffImageQuality-fgm: 0.78 [7/9]
DiffImageOverlap-fno: 1.00 [14/14]

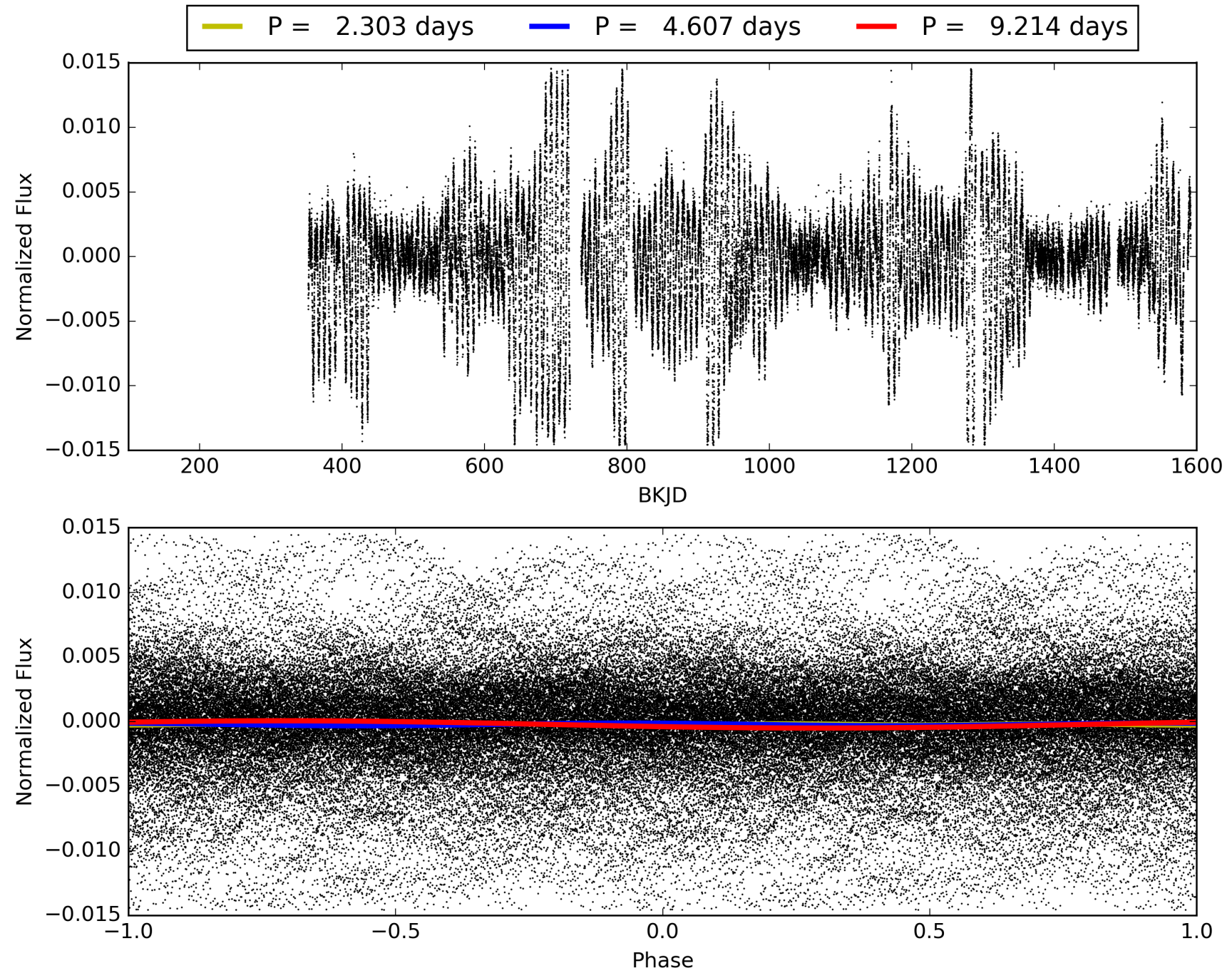
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 21:47:14 Z

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

TCE 007700500-01, PDC Light Curves

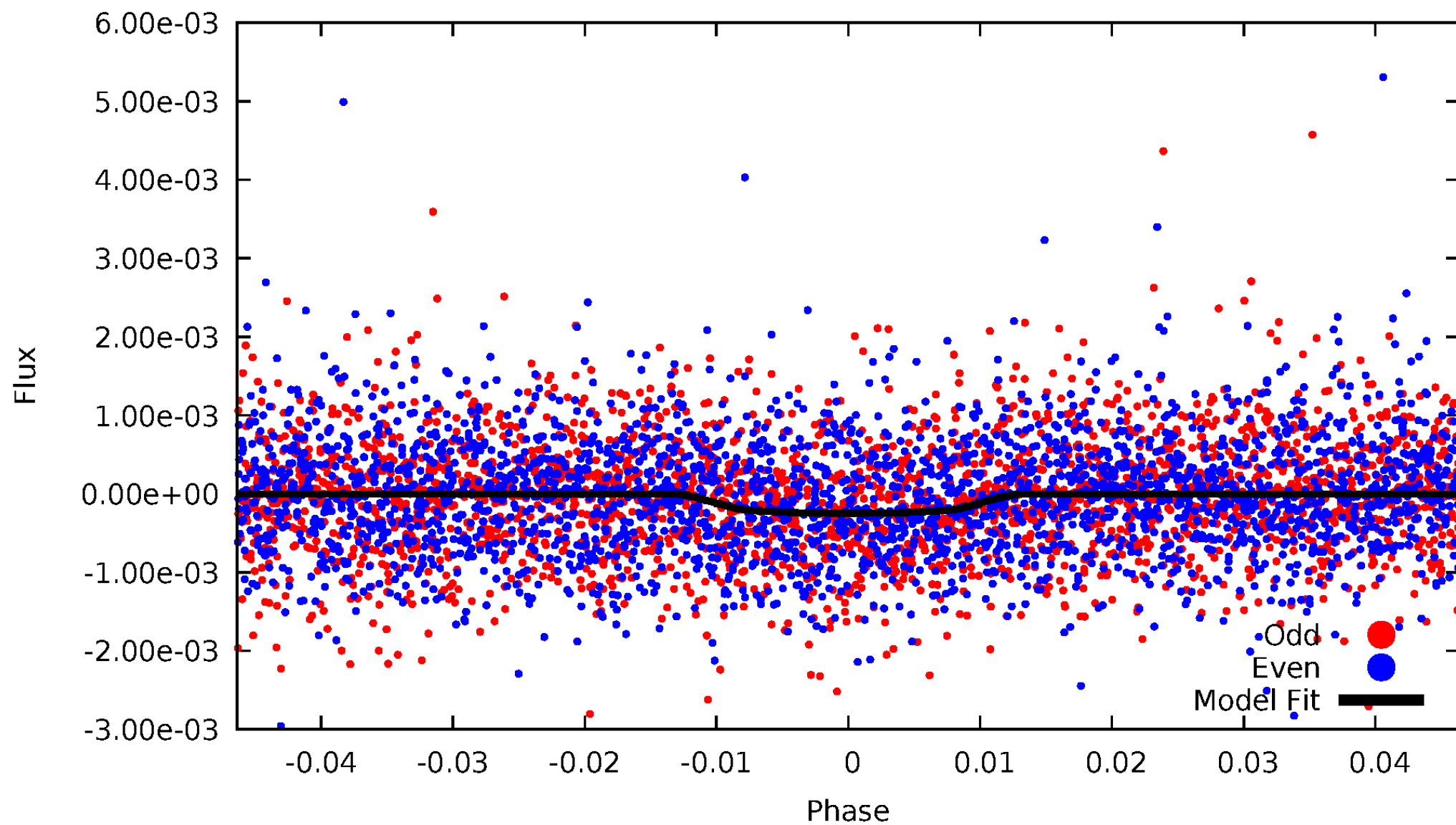


TCE 007700500-01



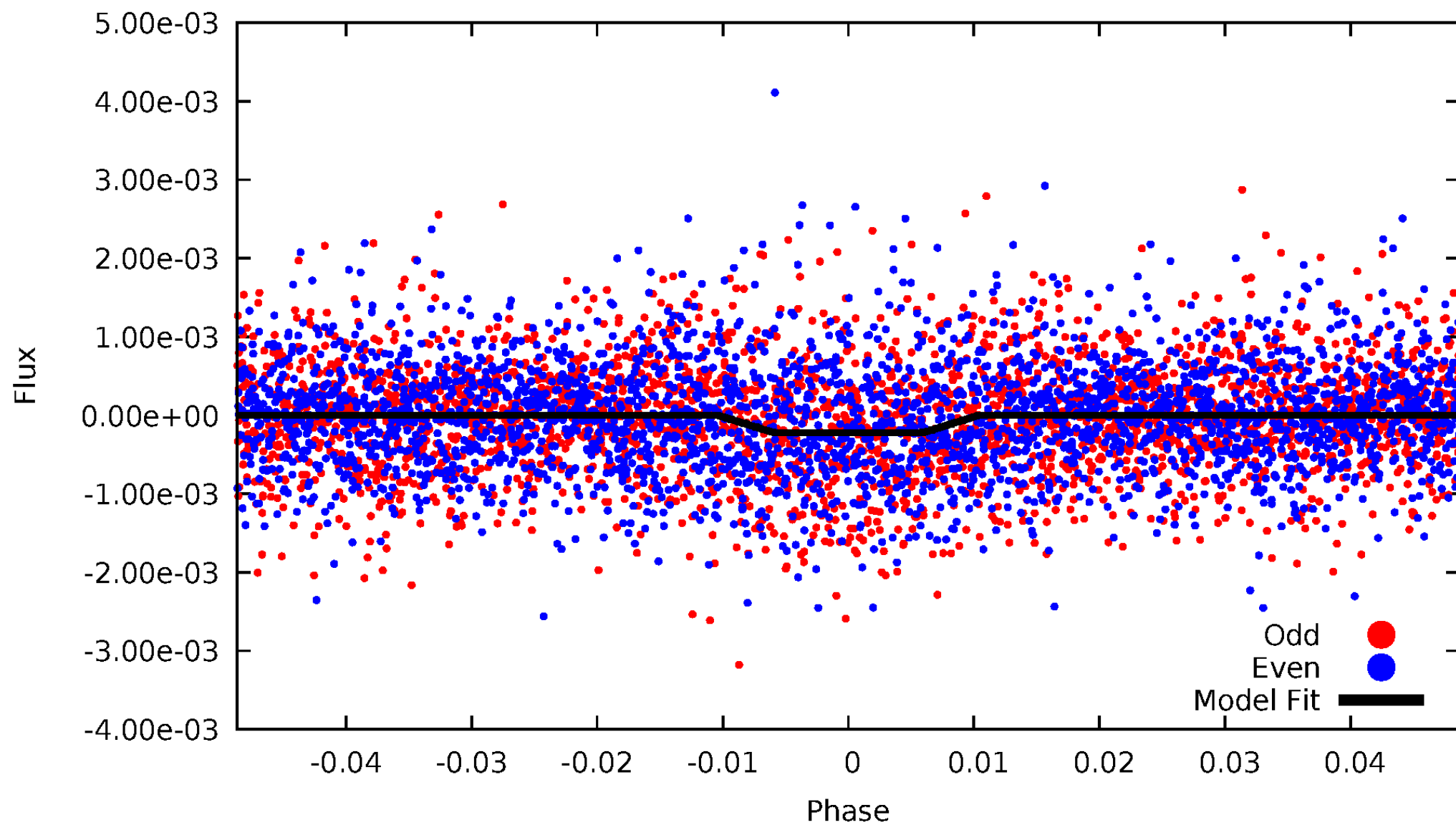
DV Odd/Even

TCE 007700500-01



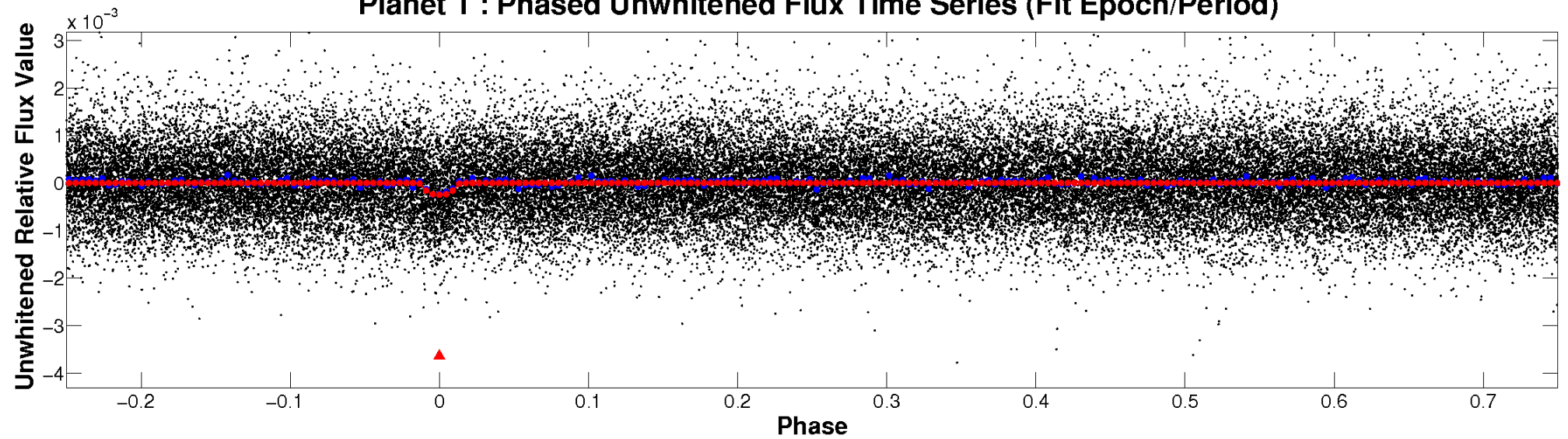
ALT Odd/Even

TCE 007700500-01

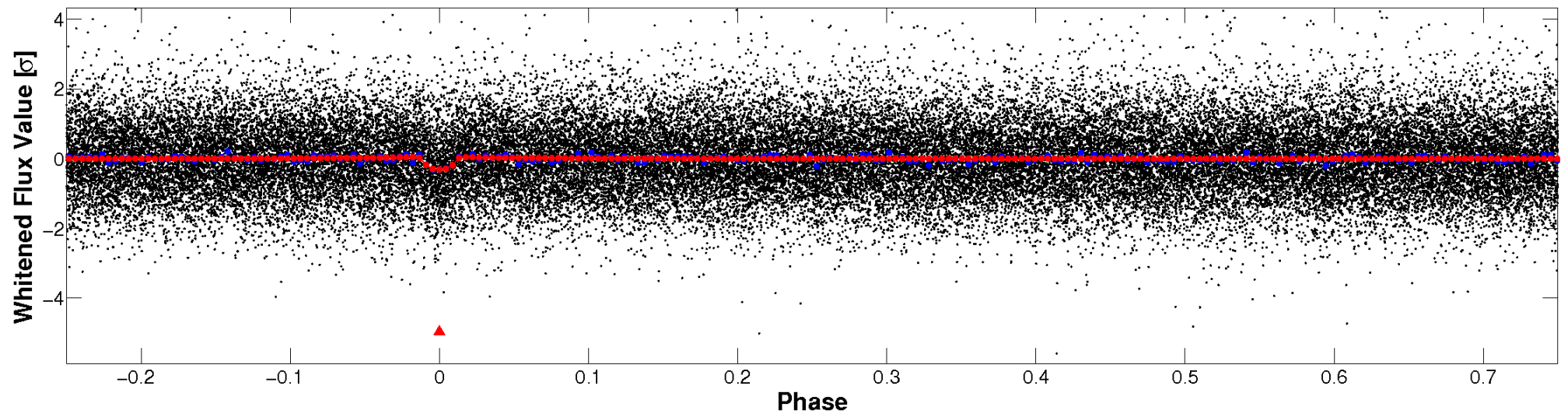


Non-Whitened Vs. Whitened Light Curve

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

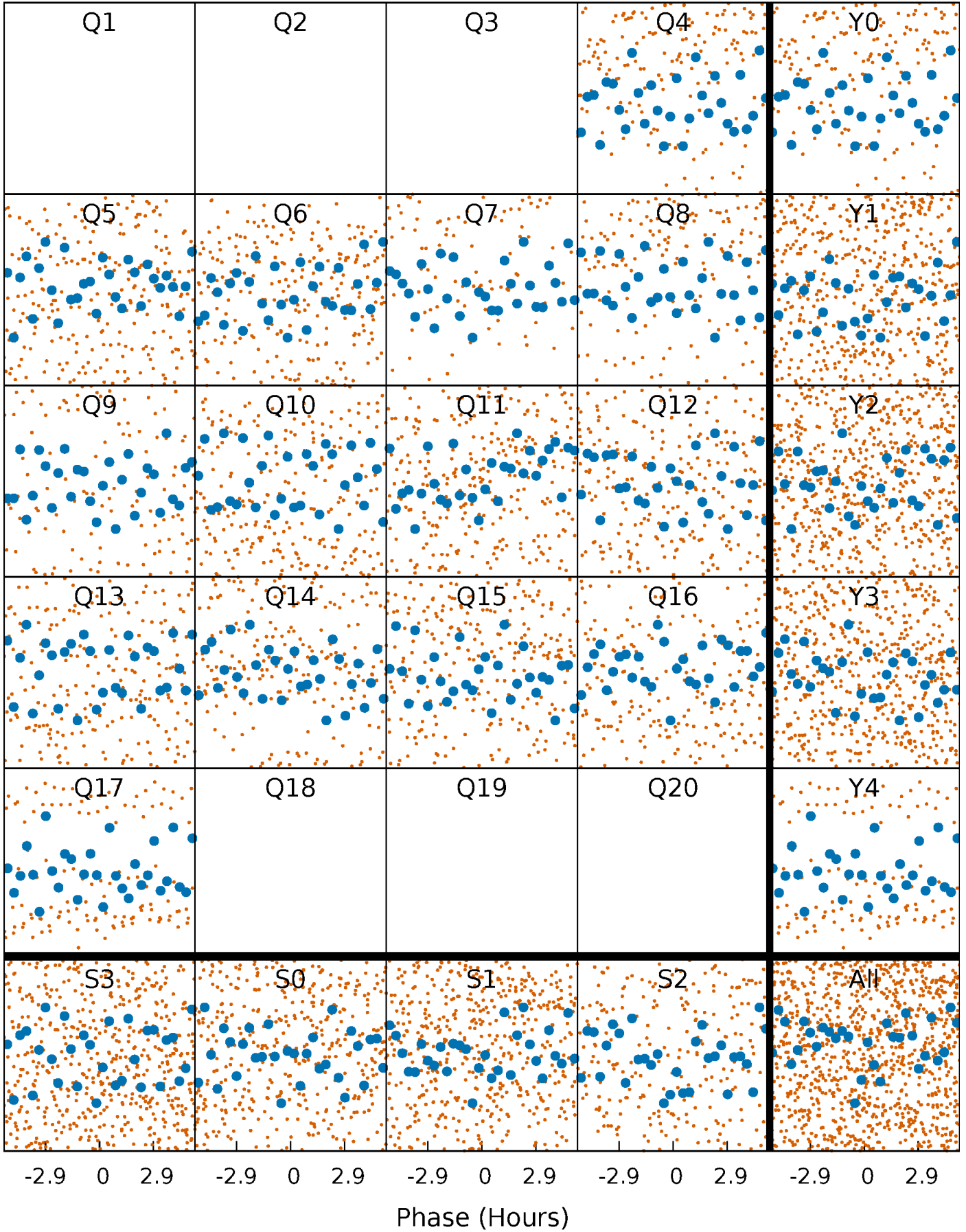


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



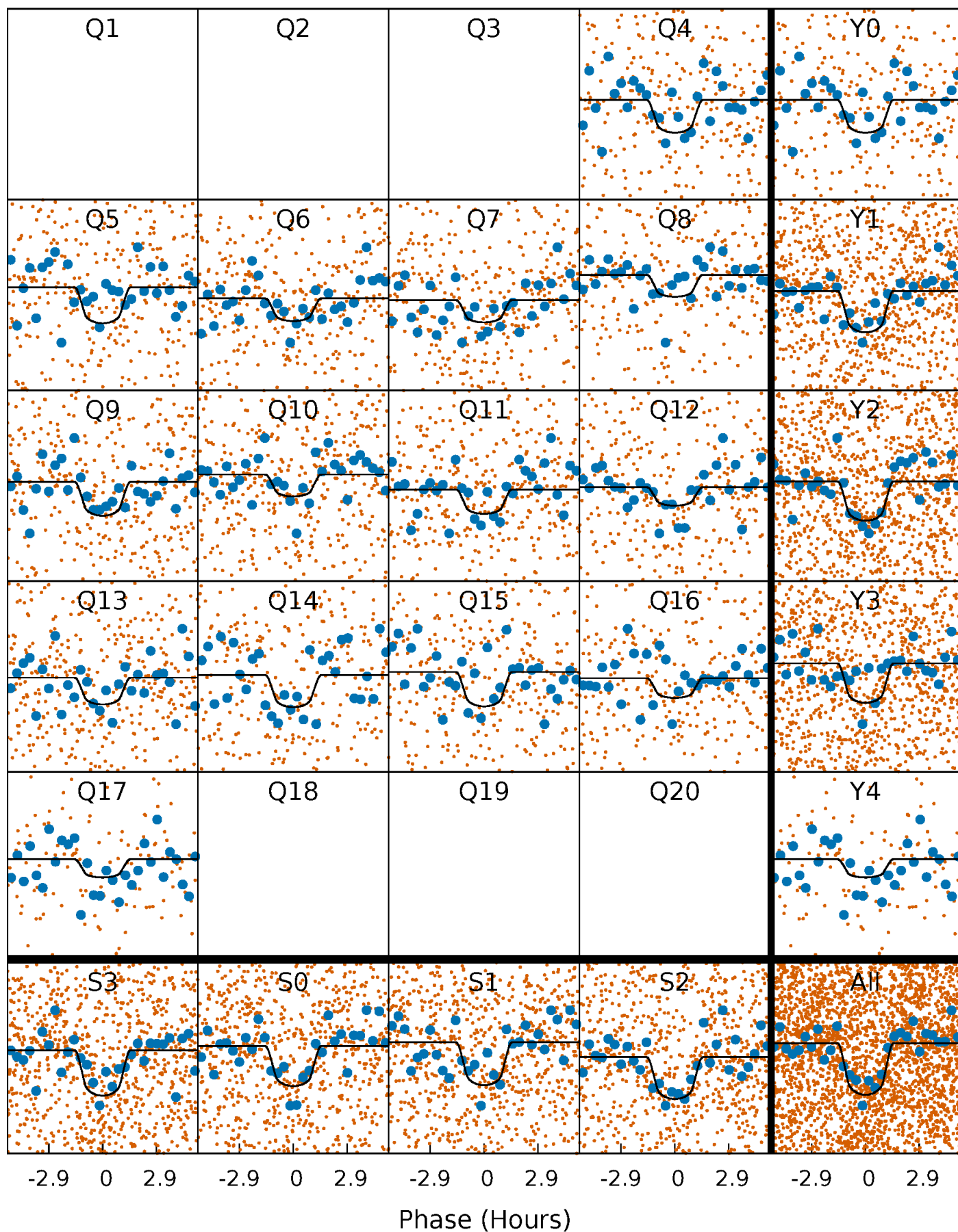
PDC Quarter-Phased Transit Curves

TCE 007700500-01 P= 4.606911 Days $T_0=133.872213$ (BKJD)



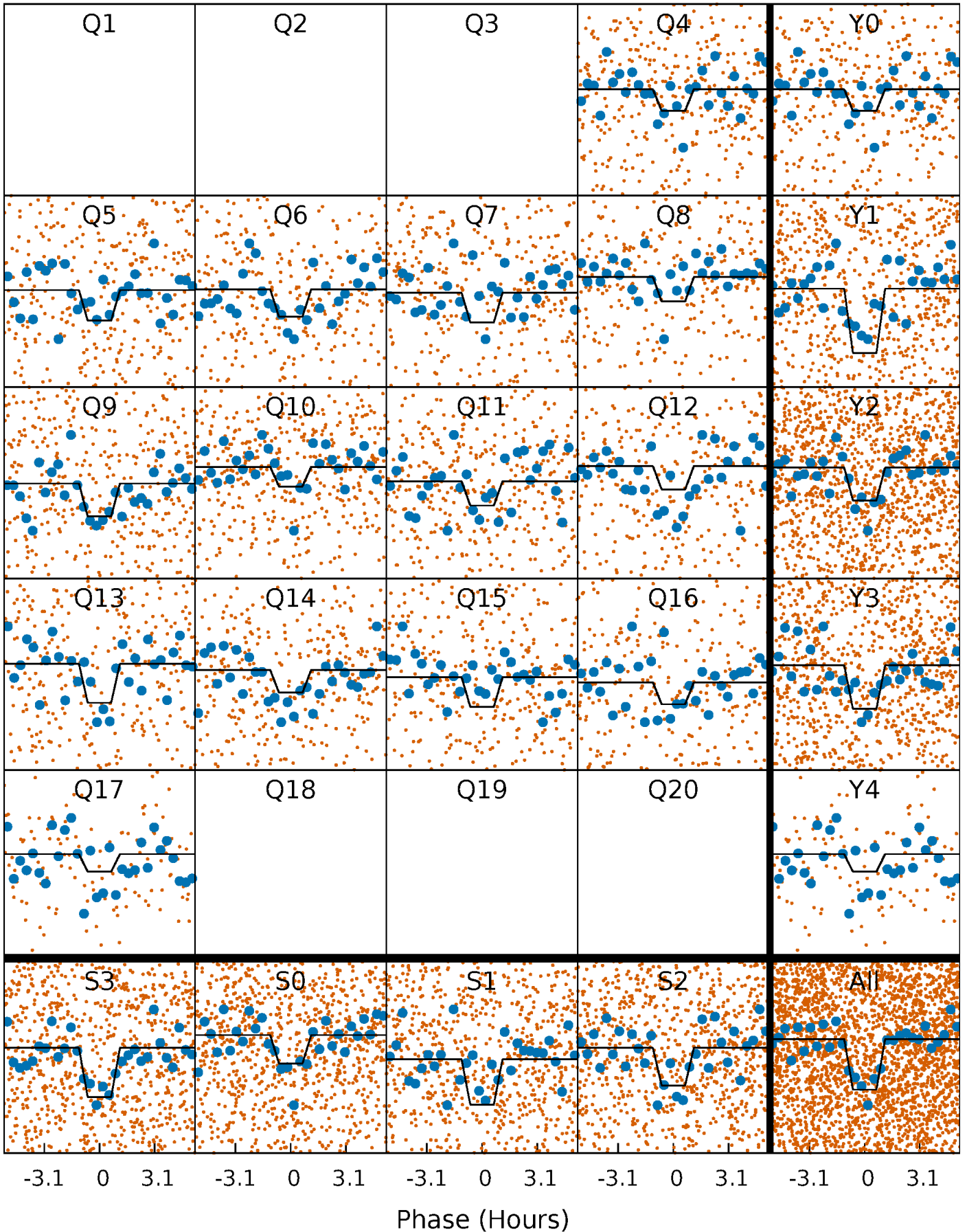
DV Quarter-Phased Transit Curves

TCE 007700500-01 P= 4.606911 Days $T_0=133.872213$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

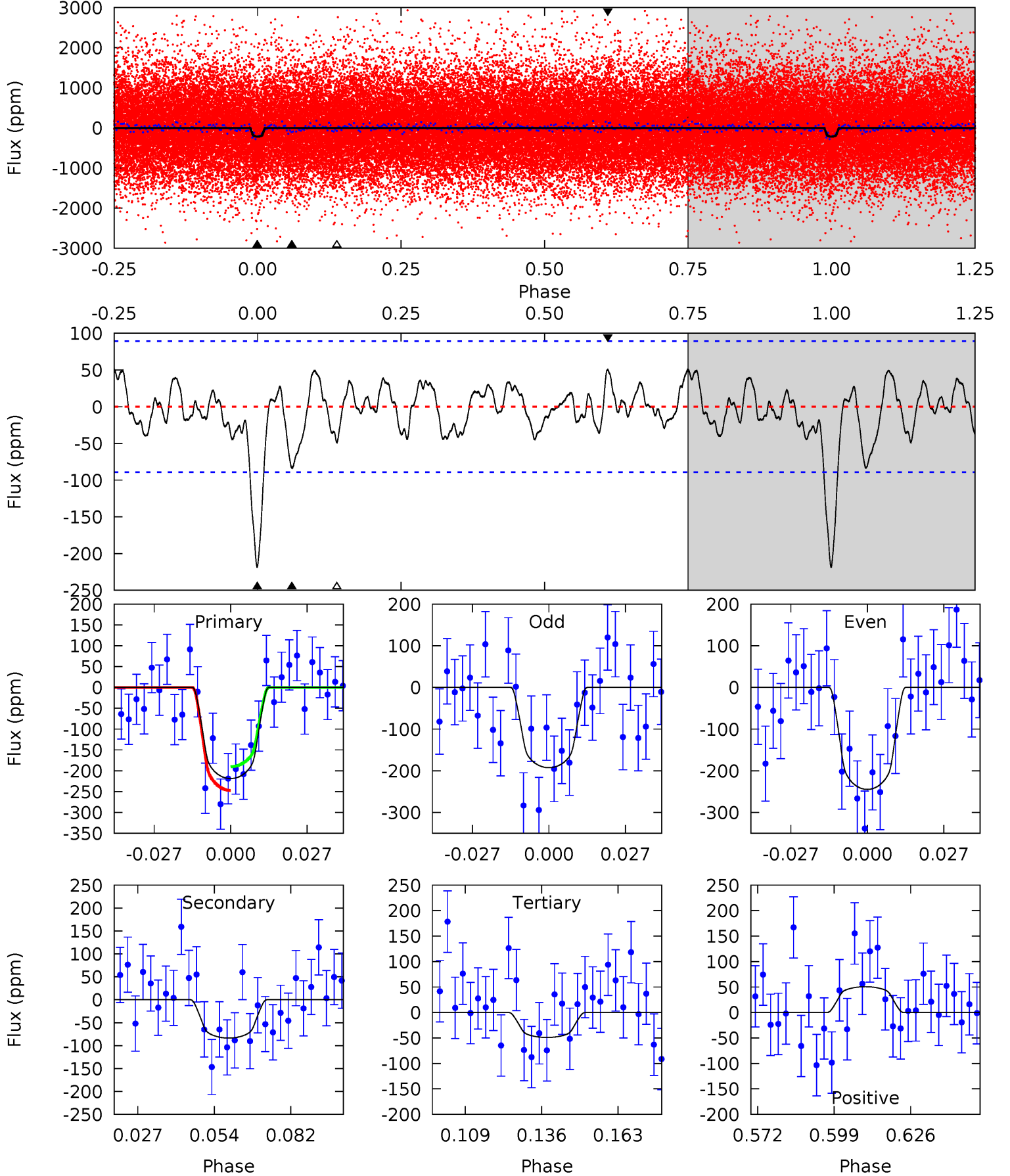
TCE 007700500-01 P= 4.606849 Days $T_0=133.881838$ (BKJD)



DV Model-Shift Uniqueness Test

007700500-01, P = 4.606911 Days, E = 133.872213 Days

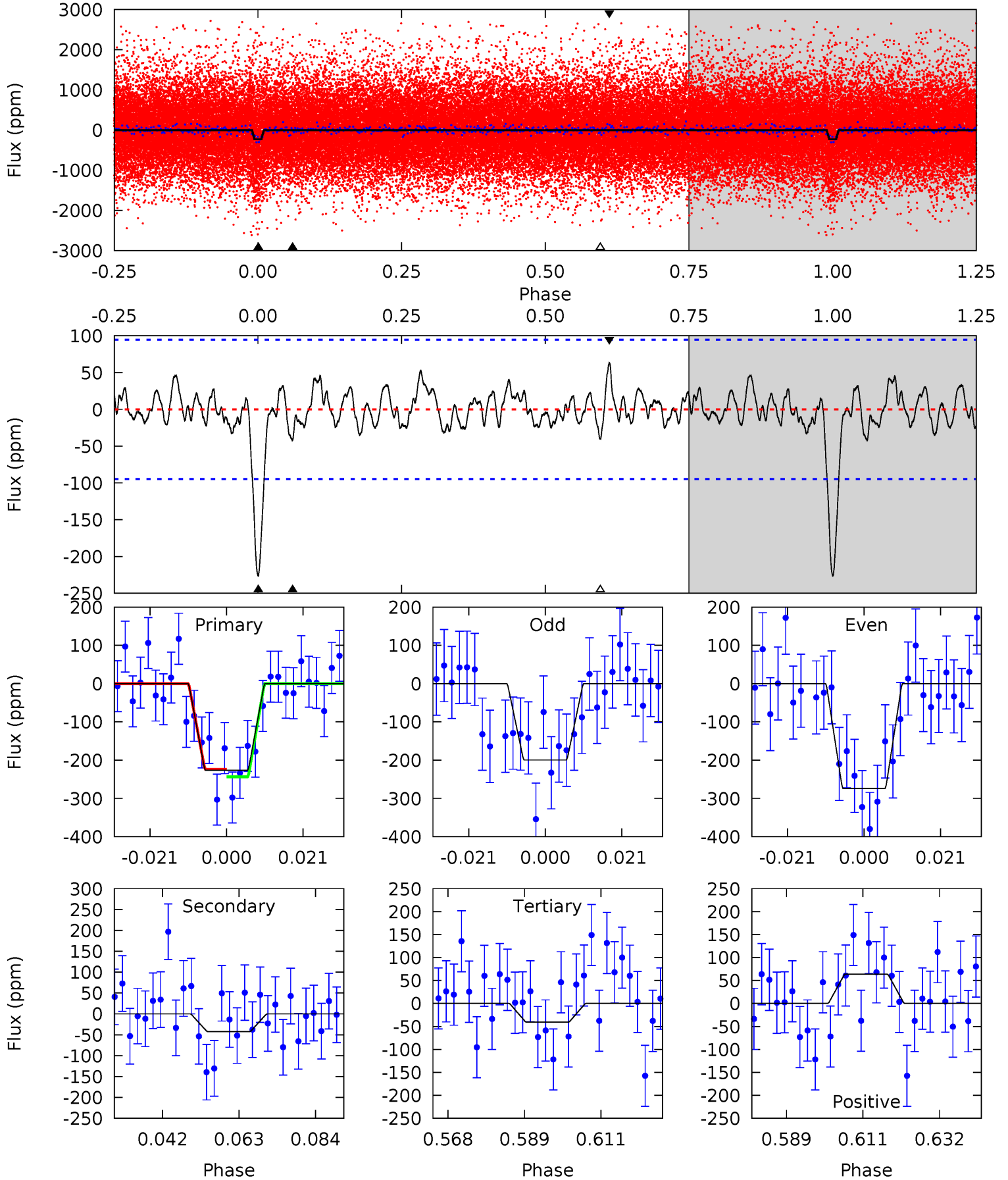
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.8	4.52	2.65	2.74	4.83	2.21	1.29	9.19	9.11	1.87	1.79	1.41	0.90	0.19	1.55



Alt Model-Shift Uniqueness Test

007700500-01, P = 4.606849 Days, E = 133.881838 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.7	2.18	2.10	3.28	4.88	2.31	0.97	9.59	8.40	0.09	-1.10	1.91	0.78	0.22	0.51



Stellar Parameters For KIC 007700500

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5110^{+194}_{-176}	$4.582^{+0.061}_{-0.055}$	$-0.400^{+0.300}_{-0.300}$	$0.711^{+0.079}_{-0.071}$	$0.704^{+0.093}_{-0.050}$	$2.763^{+0.751}_{-0.537}$
	+4%/-3%	+1%/-1%	+75%/-75%	+11%/-10%	+13%/-7%	+27%/-19%
Source	KIC0	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 007700500-01 / KOI 6907.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-84 ± 18	$1.46^{+0.96}_{-0.84}$	1208^{+51}_{-49}	3849^{+1653}_{-570}	49^{+231}_{-30}
Alt.	-42 ± 19	$1.25^{+0.90}_{-0.74}$	1210^{+56}_{-50}	3599^{+1459}_{-632}	32^{+159}_{-23}

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 $A_{obs} \gg 1.0$

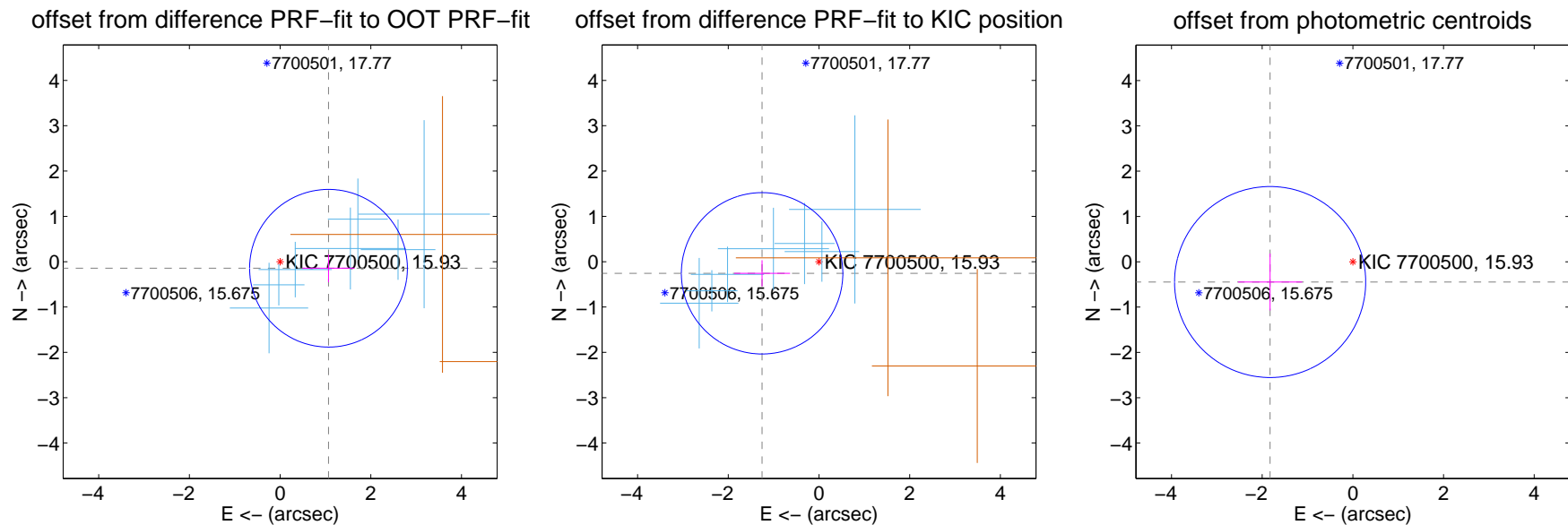
DV Centroid Data

Supplemental centroid analysis for 007700500-01. Kepler magnitude: 15.93. Transit SNR 9.17

There are 7 quarters with good PRF difference image offsets

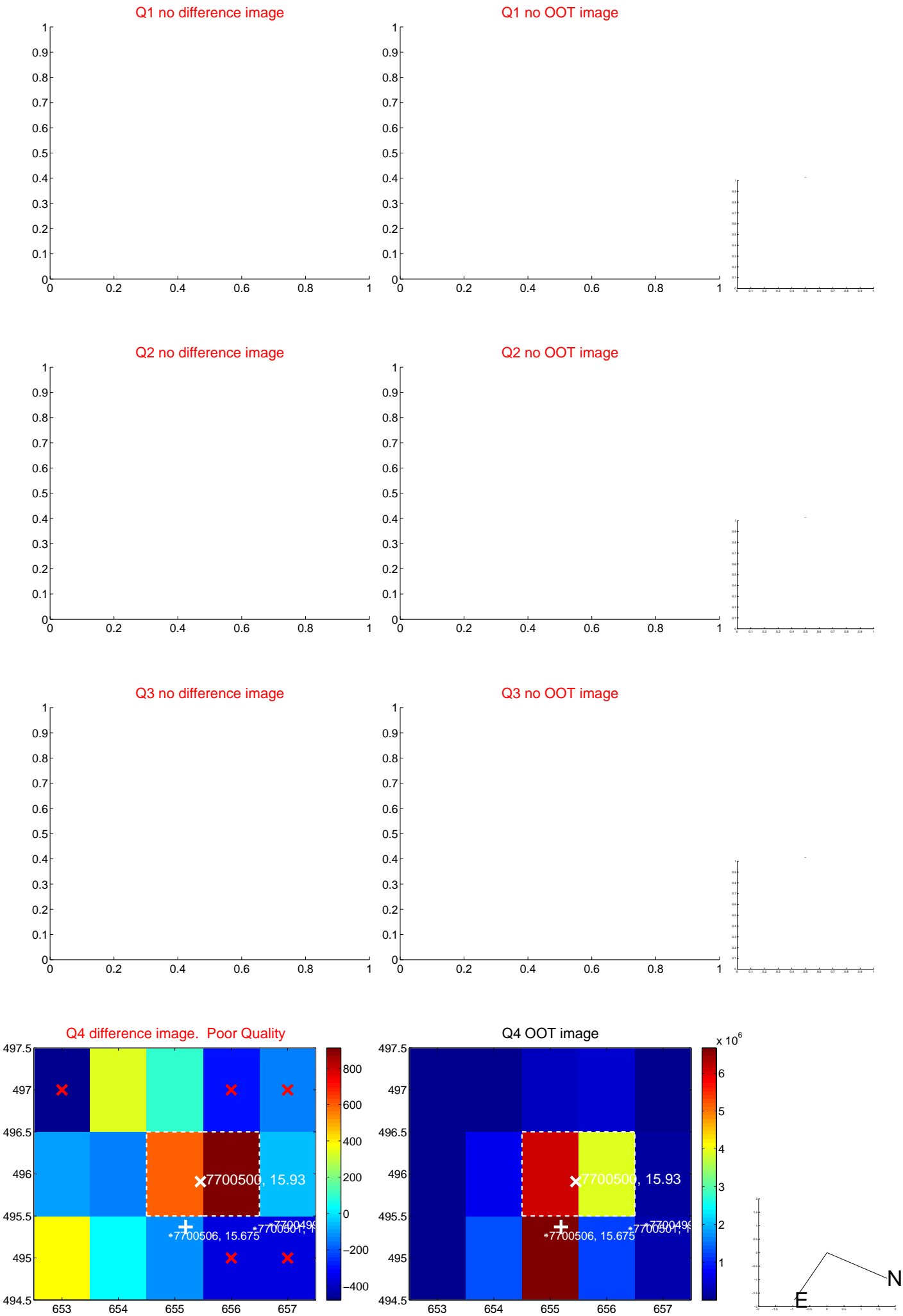
The OOT PRF centroid is offset from the target star catalog position by about 2.35 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.077 ± 0.580	1.86	-1.067 ± 0.574	-0.145 ± 0.308
PRF-fit source offset from KIC position	1.280 ± 0.593	2.16	1.254 ± 0.617	-0.256 ± 0.289
photometric centroid source offset	1.88 ± 0.70	2.67	1.82 ± 0.71	-0.45 ± 0.63

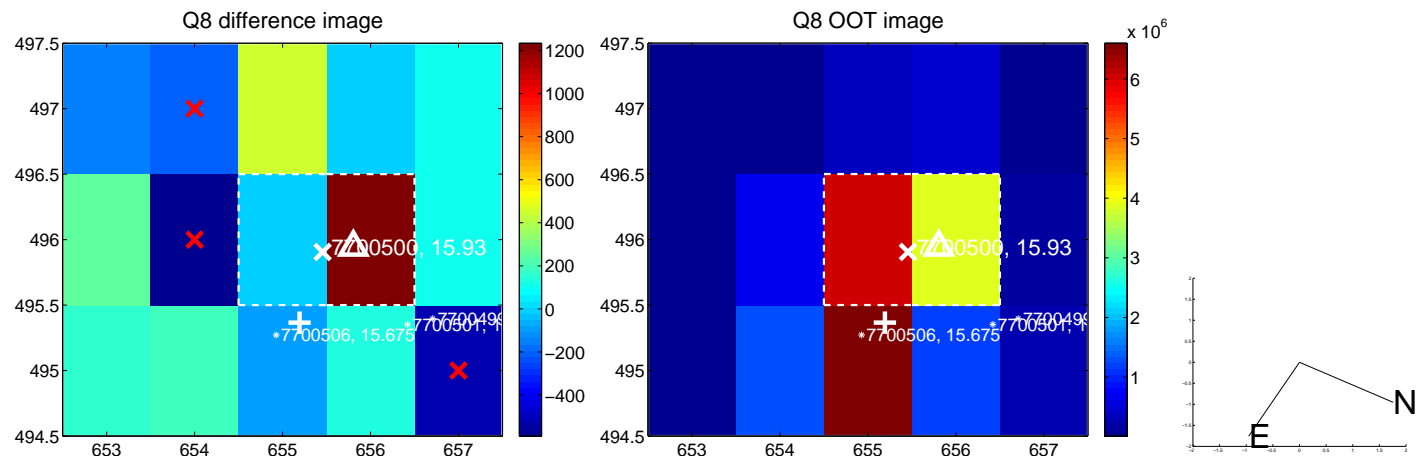
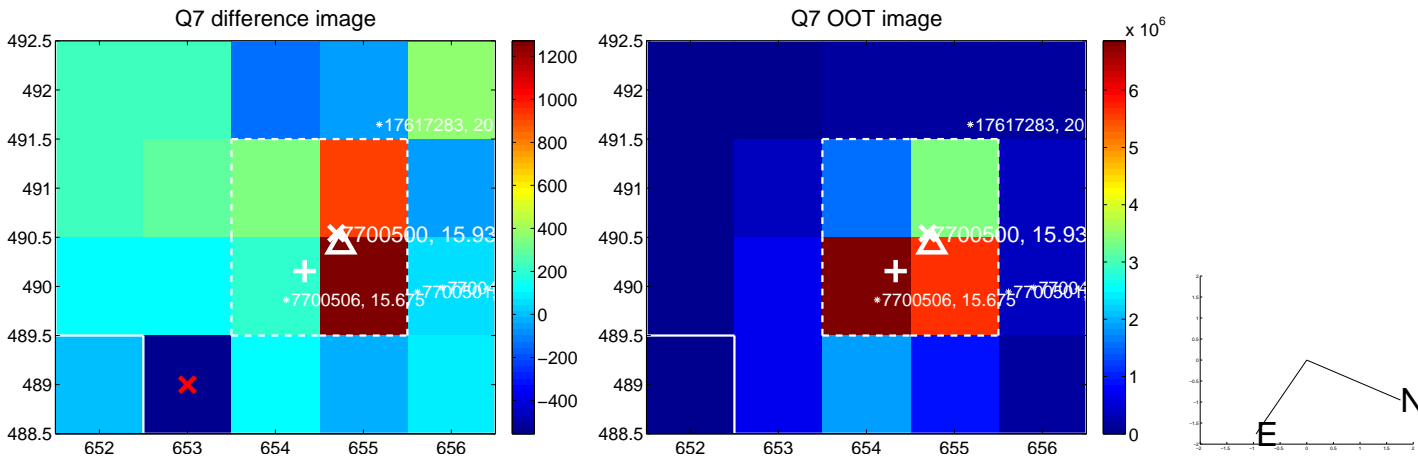
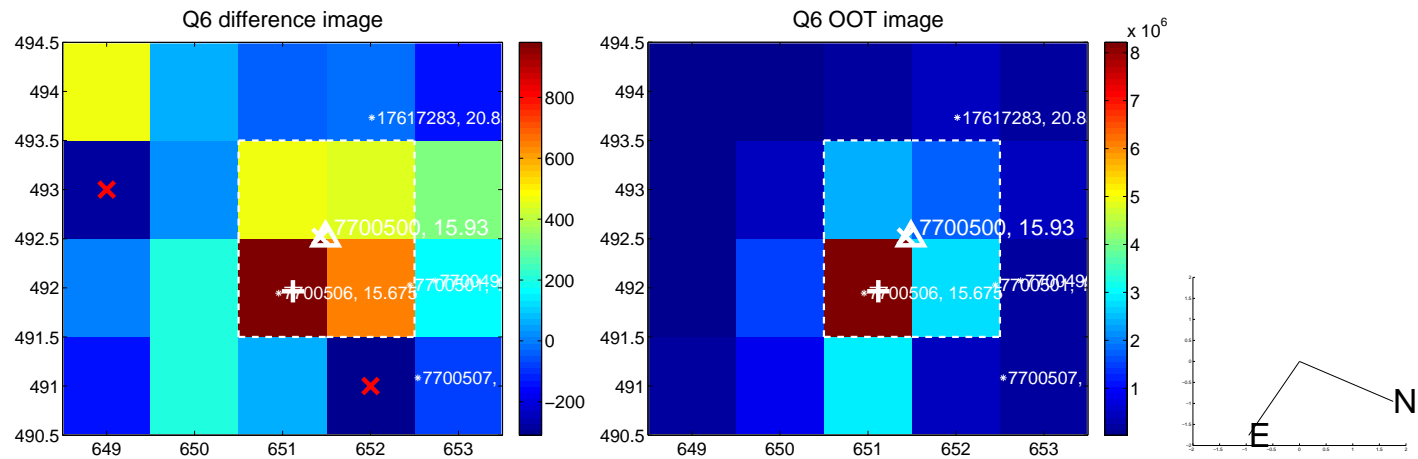
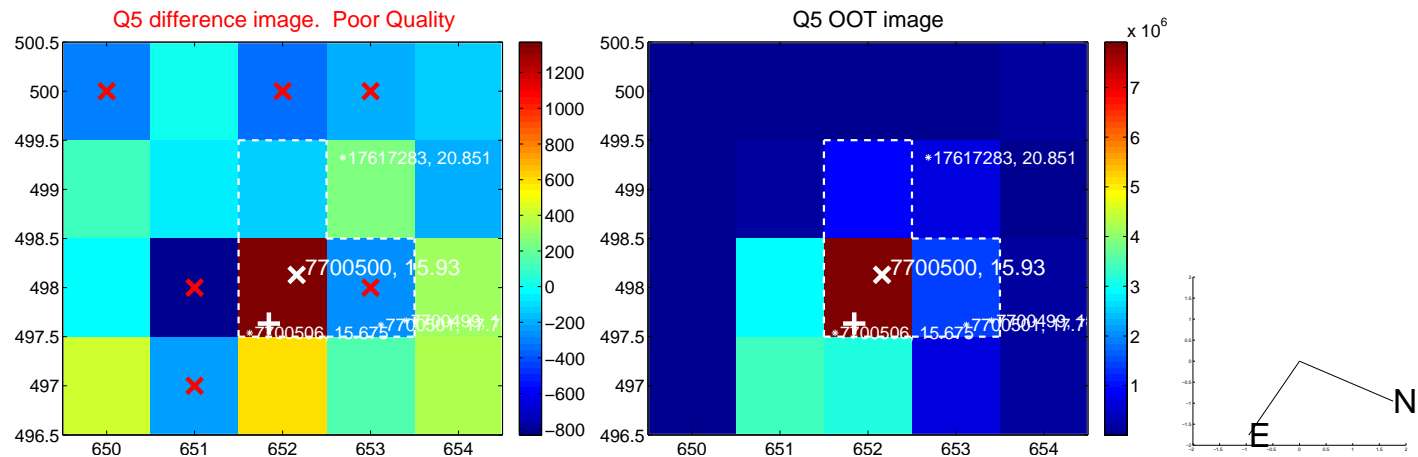


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

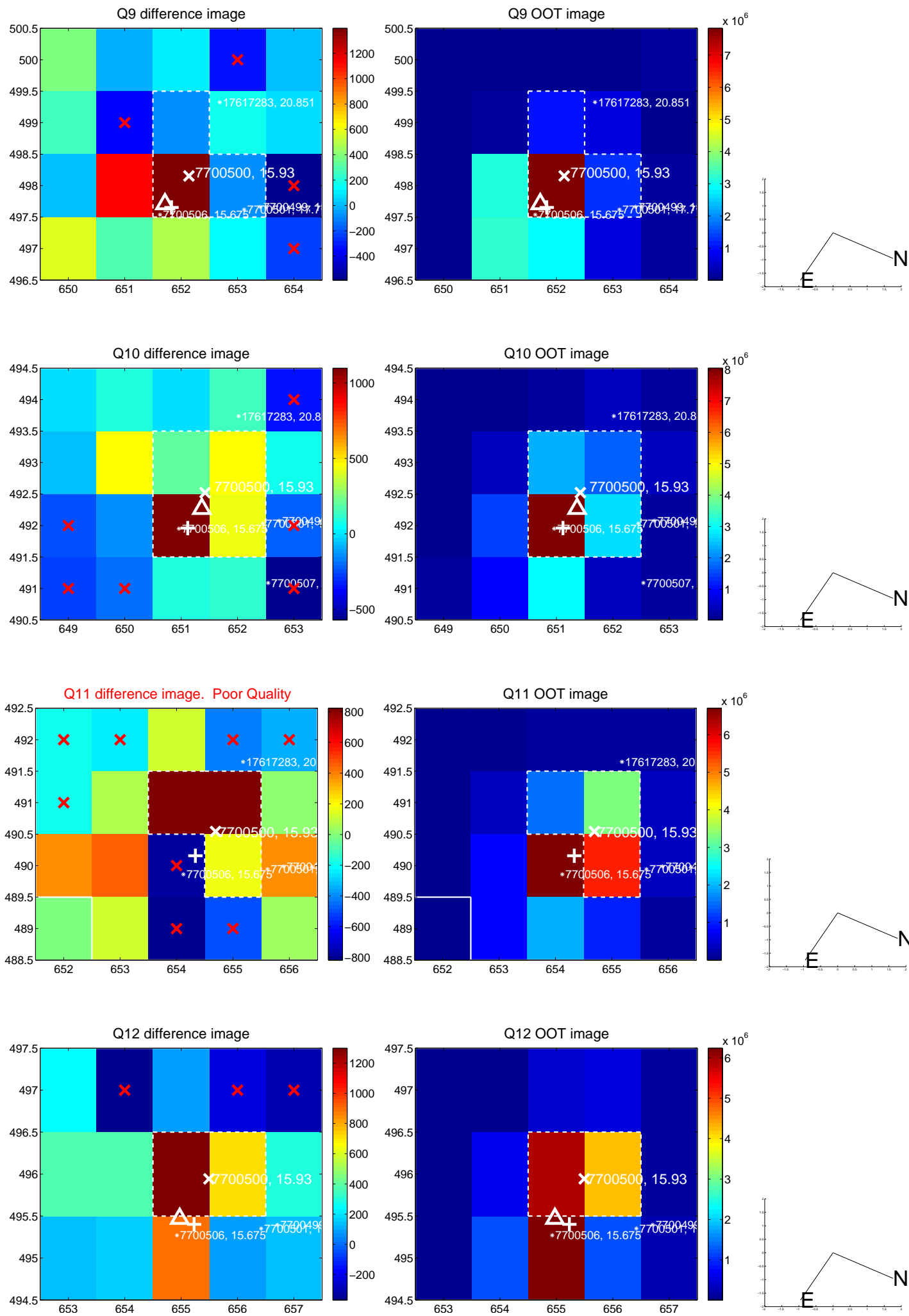
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



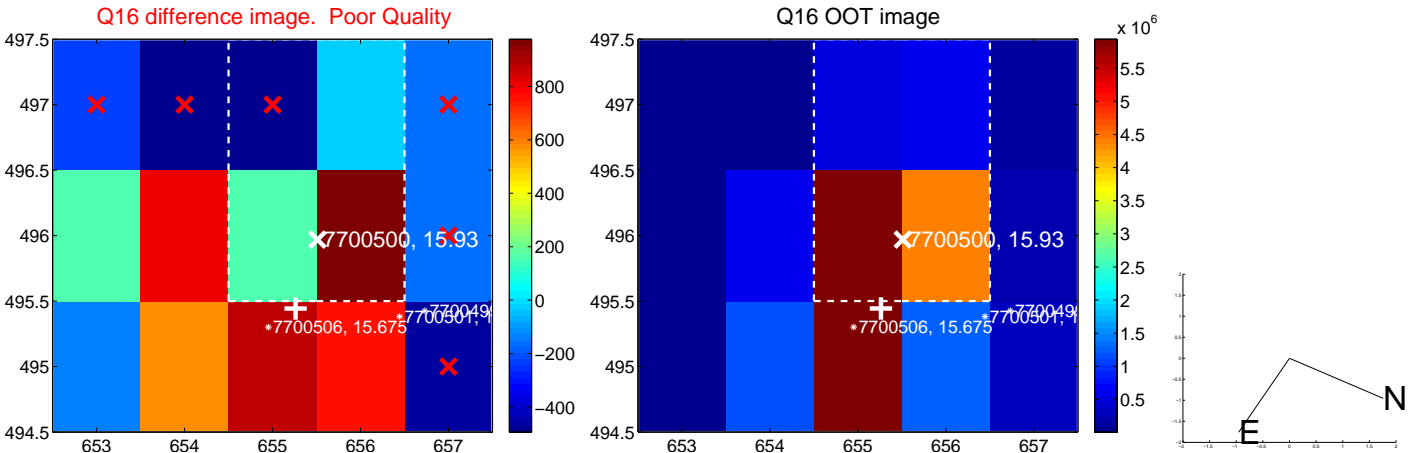
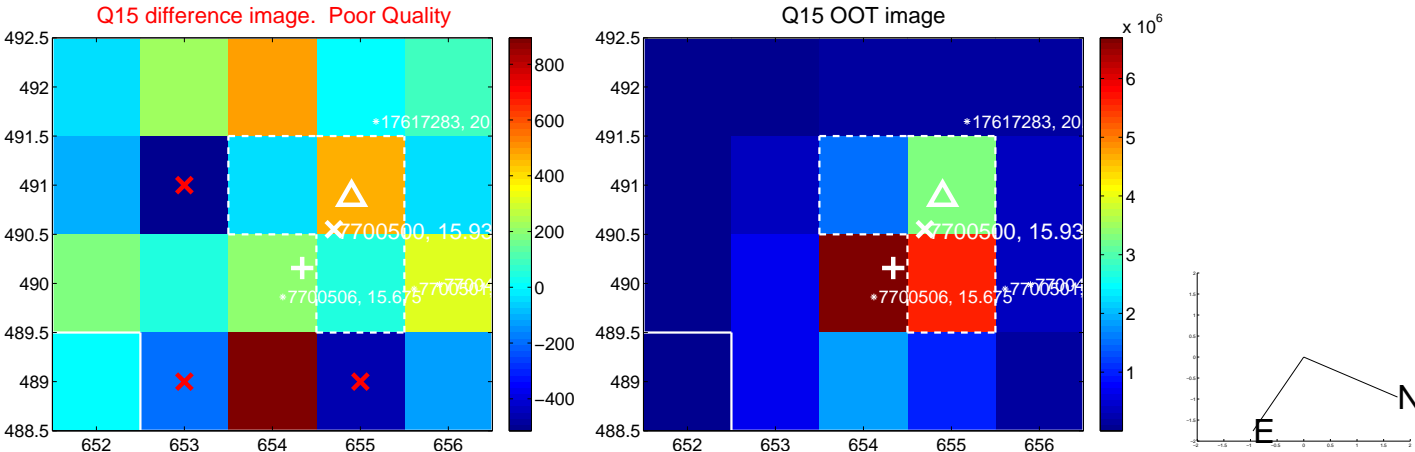
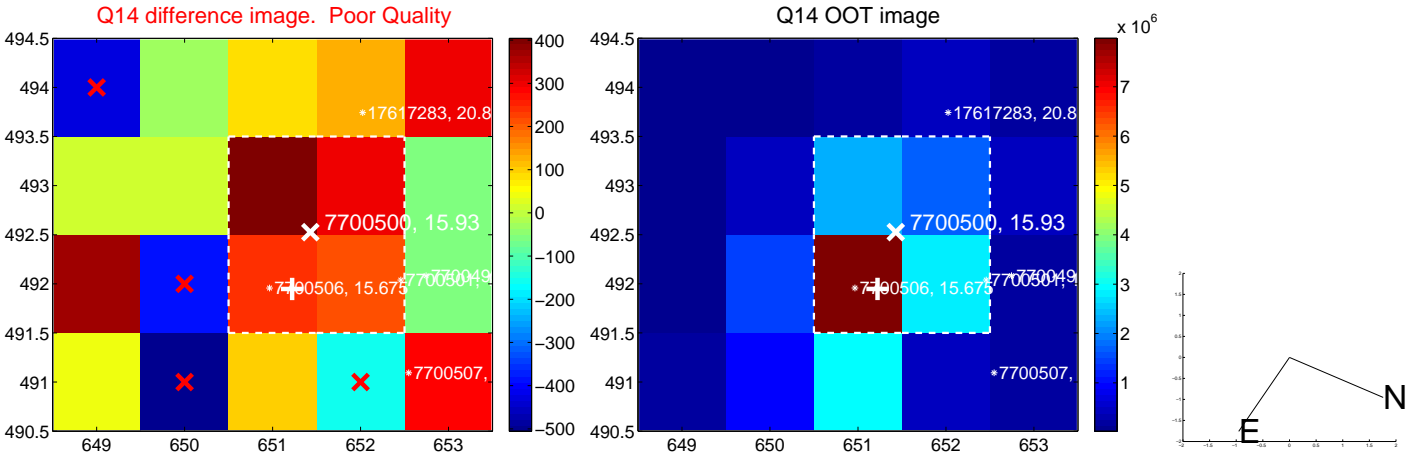
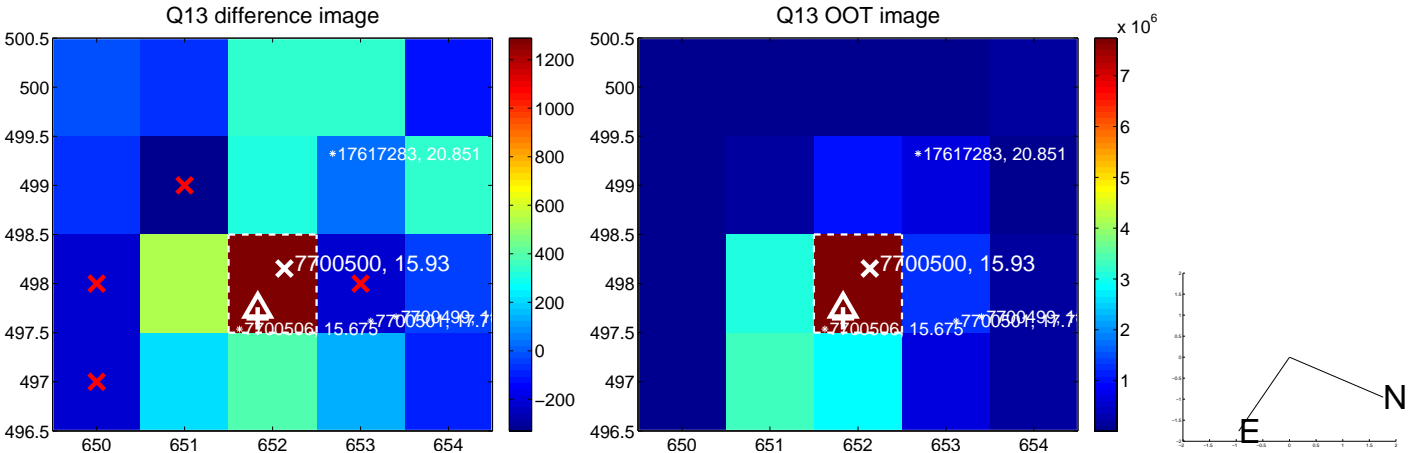
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



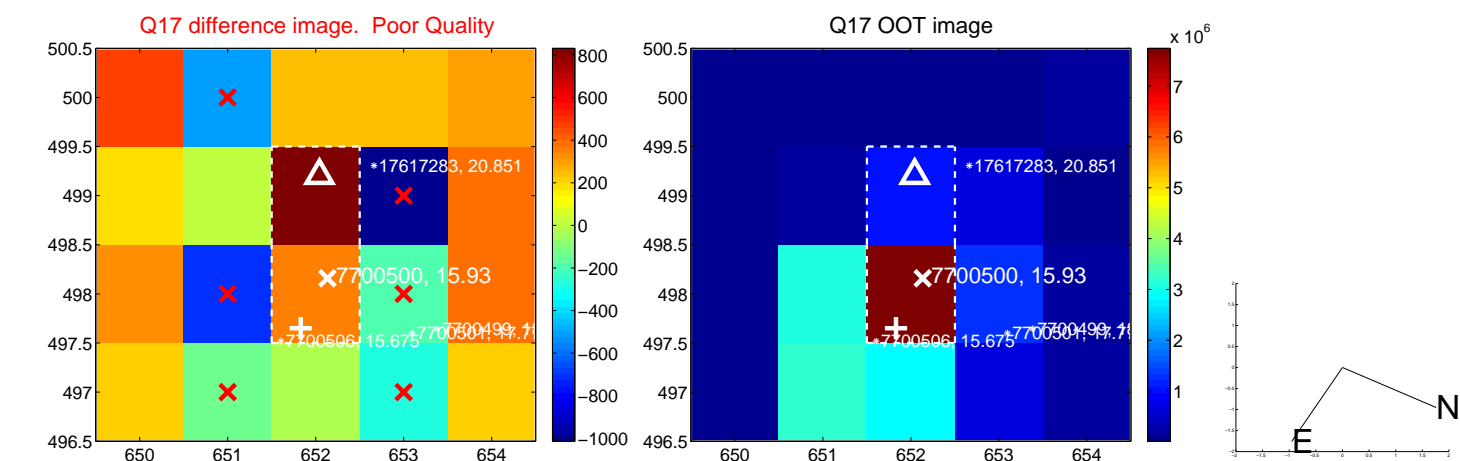
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



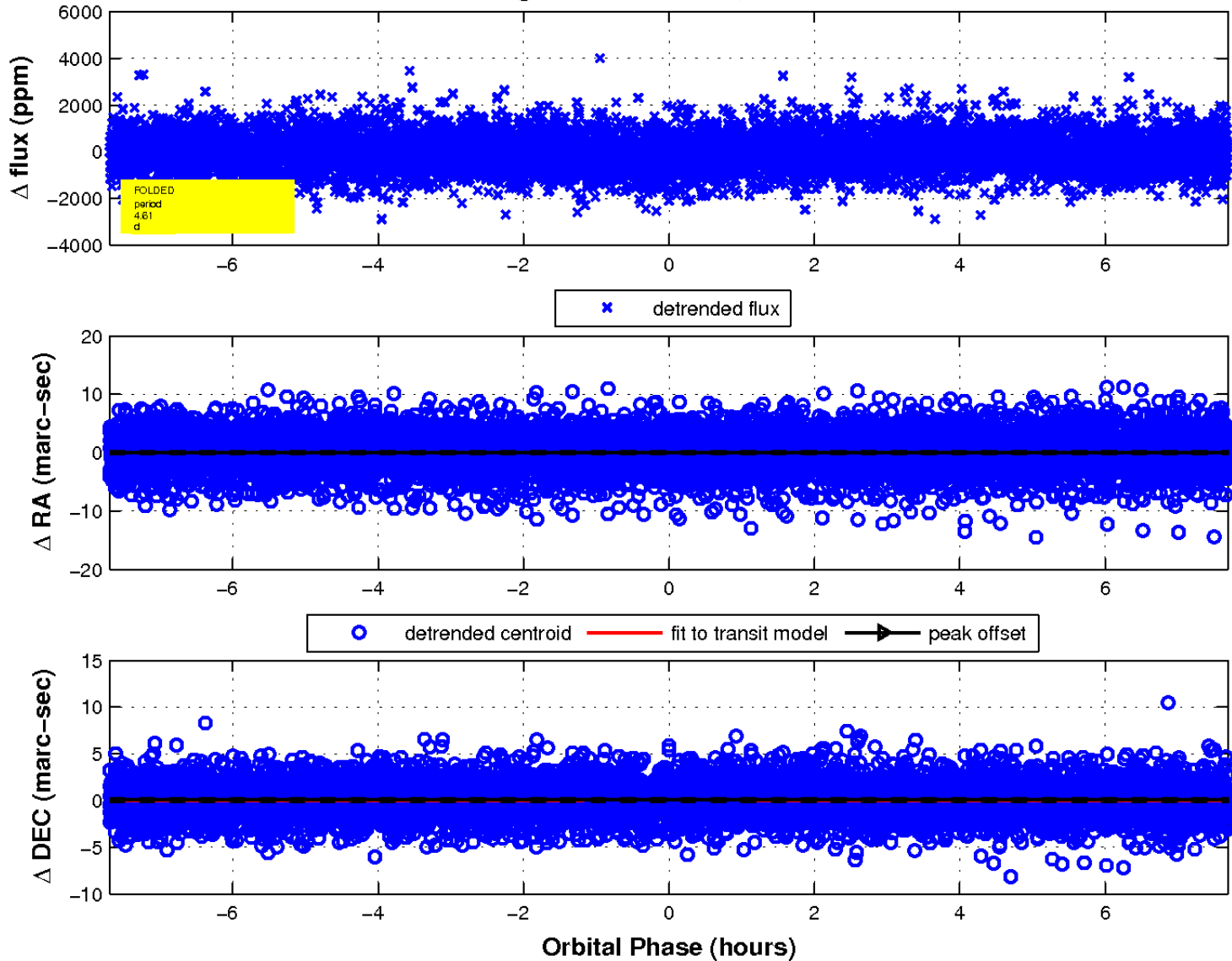
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

