

KIC 008105506

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})
008105506-01	OBS	No	369.327001	233.432554	1093.0	17.640	8.1	7.8	0.78	5542	2.78	0.57

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008105506-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_MARSHALL_SKYE—CENT_FEW_DIFFS—HALO_GHOST

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

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

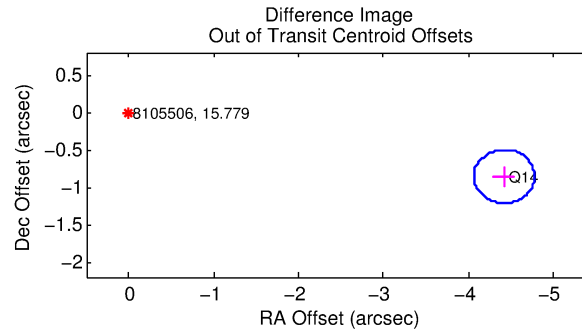
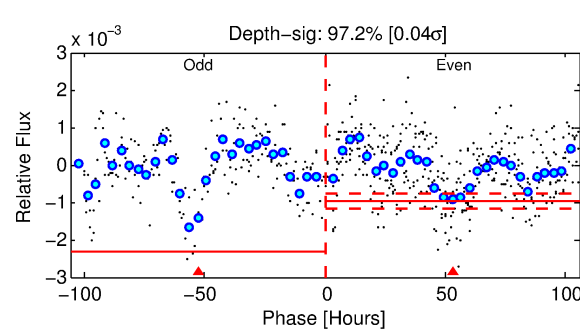
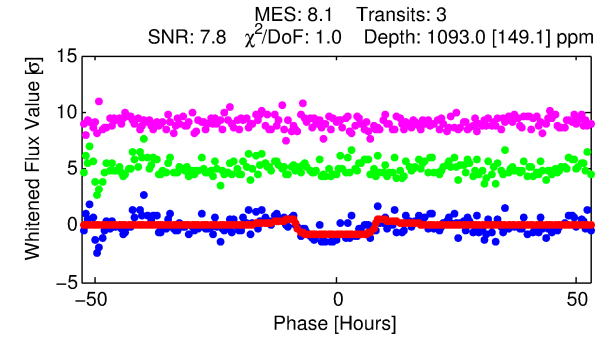
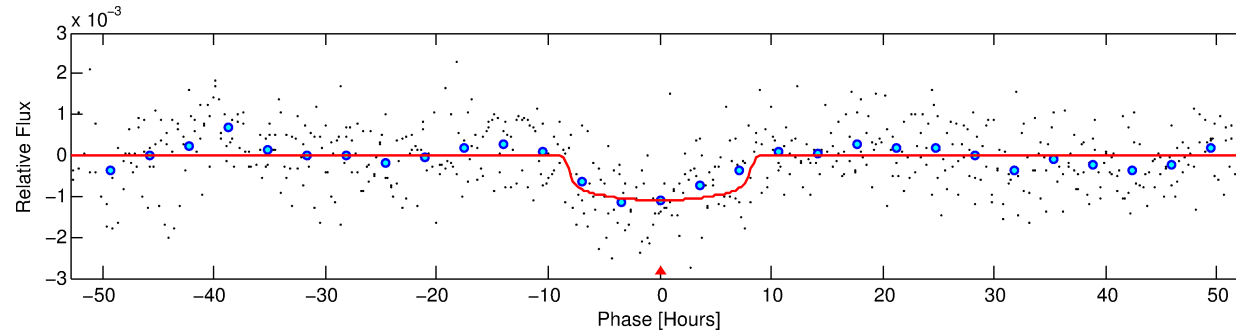
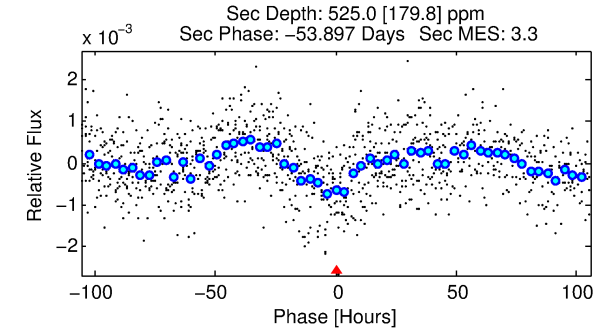
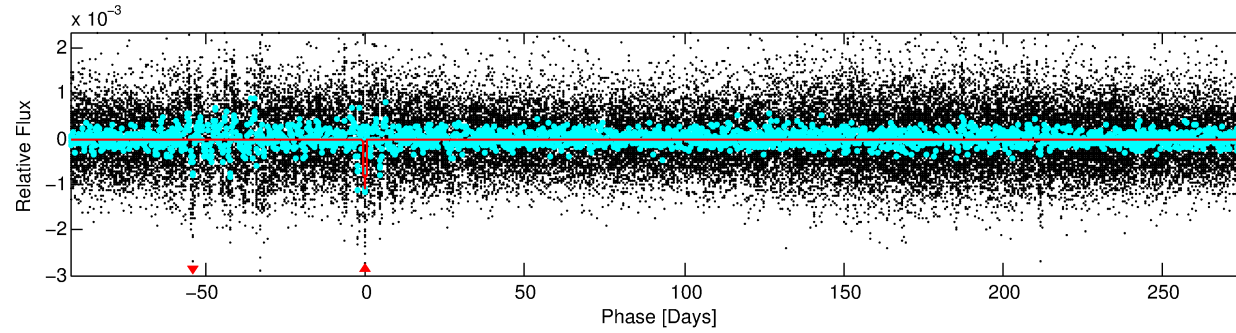
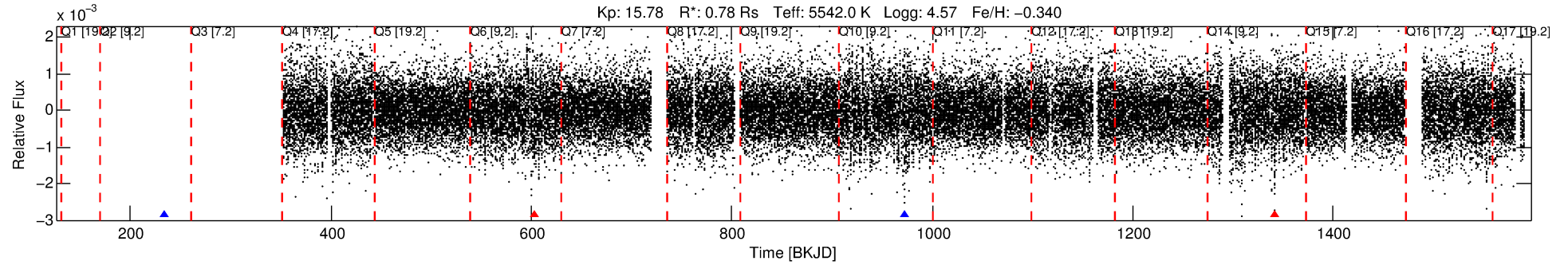
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008105506-01

No Significant Match Found

DV One-Page Summary

KIC: 8105506 Candidate: 1 of 1 Period: 369.327 d



DV Fit Results:

Period = 369.32700 [0.01475] d
Epoch = 233.4326 [0.0325] BKJD
Rp/R* = 0.0327 [0.0058]
a/R* = 116.16 [79.12]
b = 0.73 [0.43]
Seff = 0.57 [0.16]
Teq = 222 [16] K
Rp = 2.78 [0.78] Re
a = 0.9440 [0.1681] AU
Ag = 33379.11 [18536.87] [1.80σ]
Teff = 4639 [594] K [7.43σ]

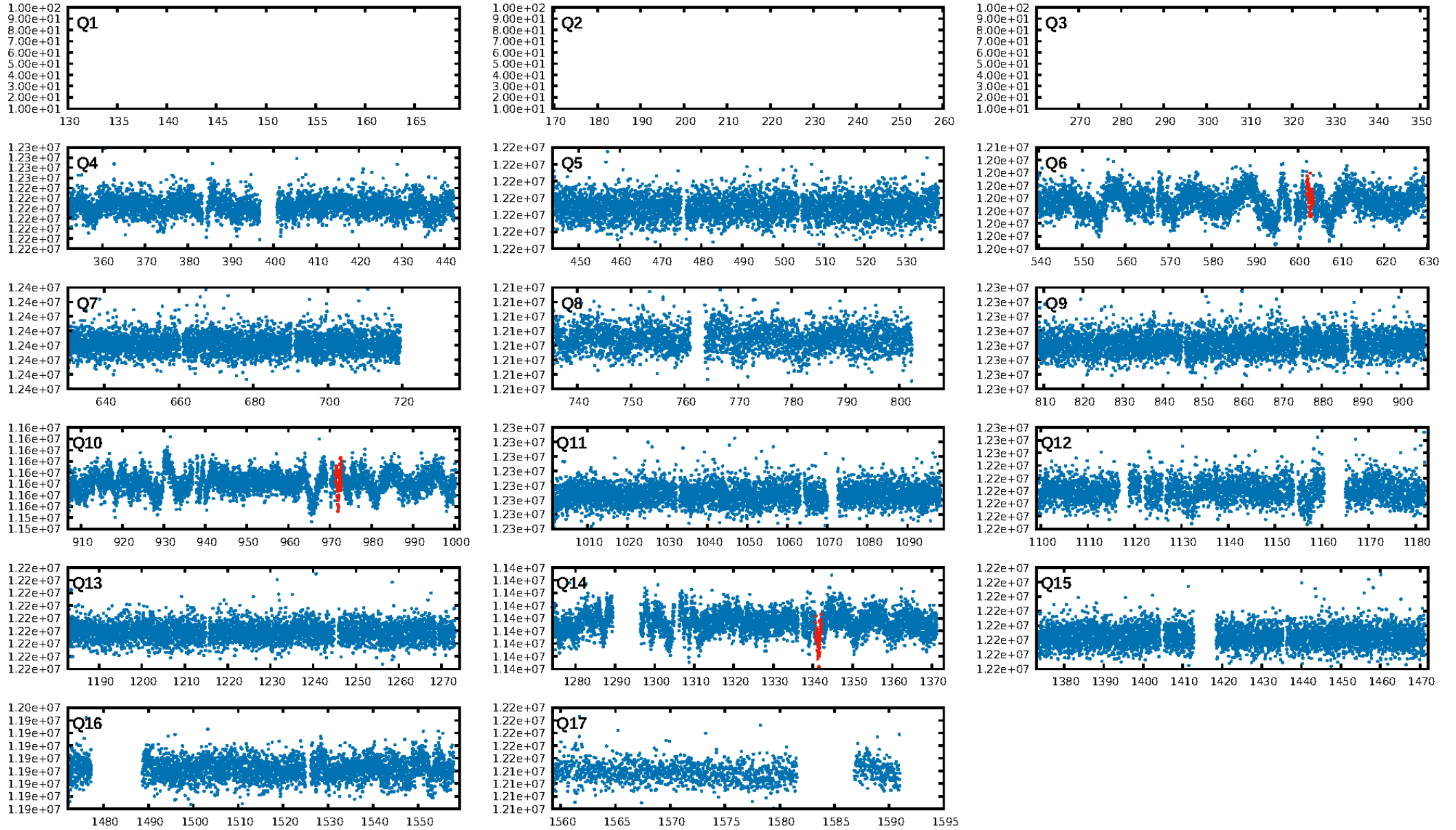
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 25.5%
ModelChiSquareGof-sig: 99.7%
Bootstrap-pfa: 1.35e-10
RollingBand-fgt: 0.33 [1/3]
GhostDiagnostic-chr: 0.08857
Centroid-sig: 98.1%
Centroid-so: 0.284 arcsec [0.12σ]
OotOffset-rm: 4.507 arcsec [37.87σ]
KicOffset-rm: 4.234 arcsec [35.61σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [2/2]

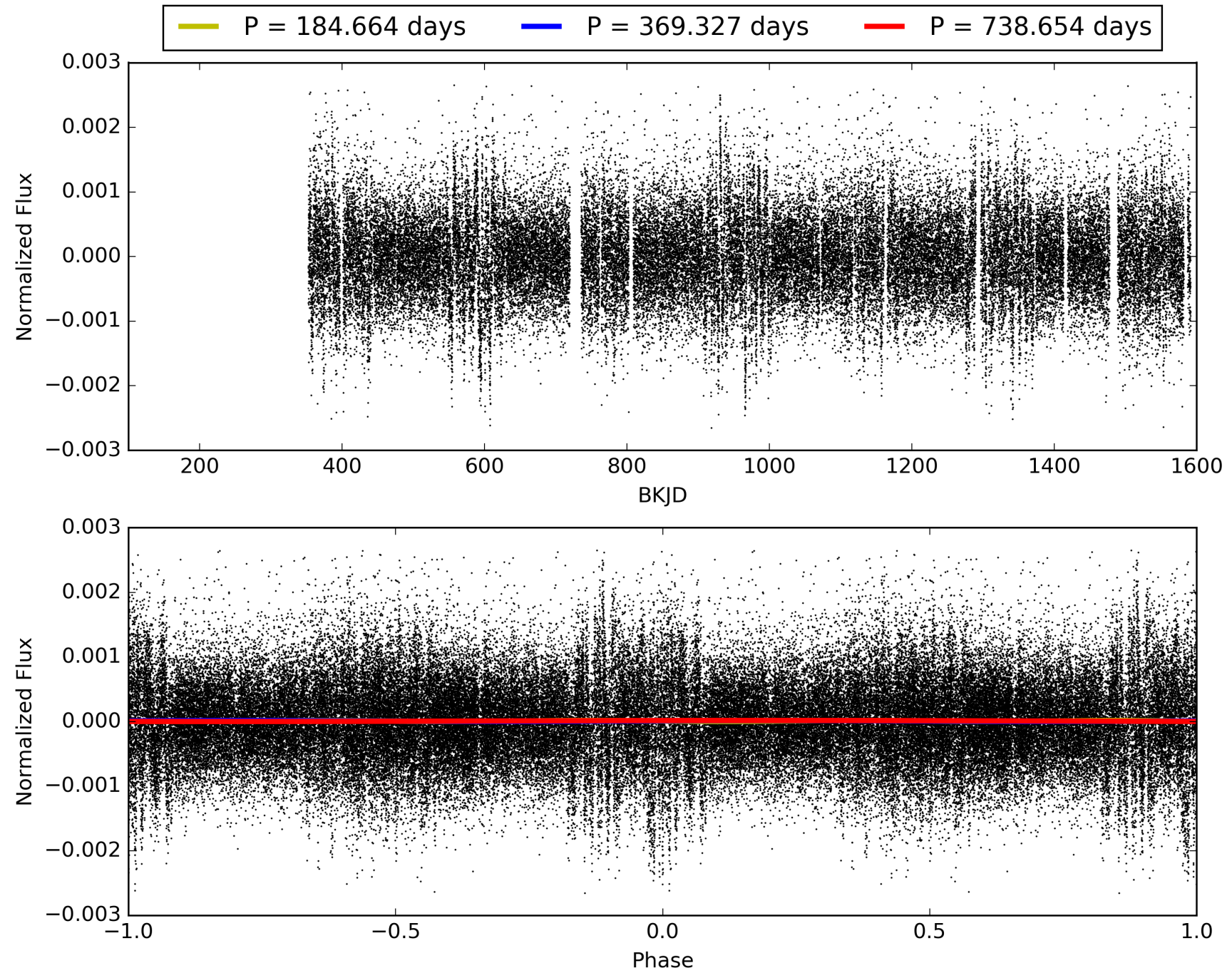
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 00:21:38 Z

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

TCE 008105506-01, PDC Light Curves

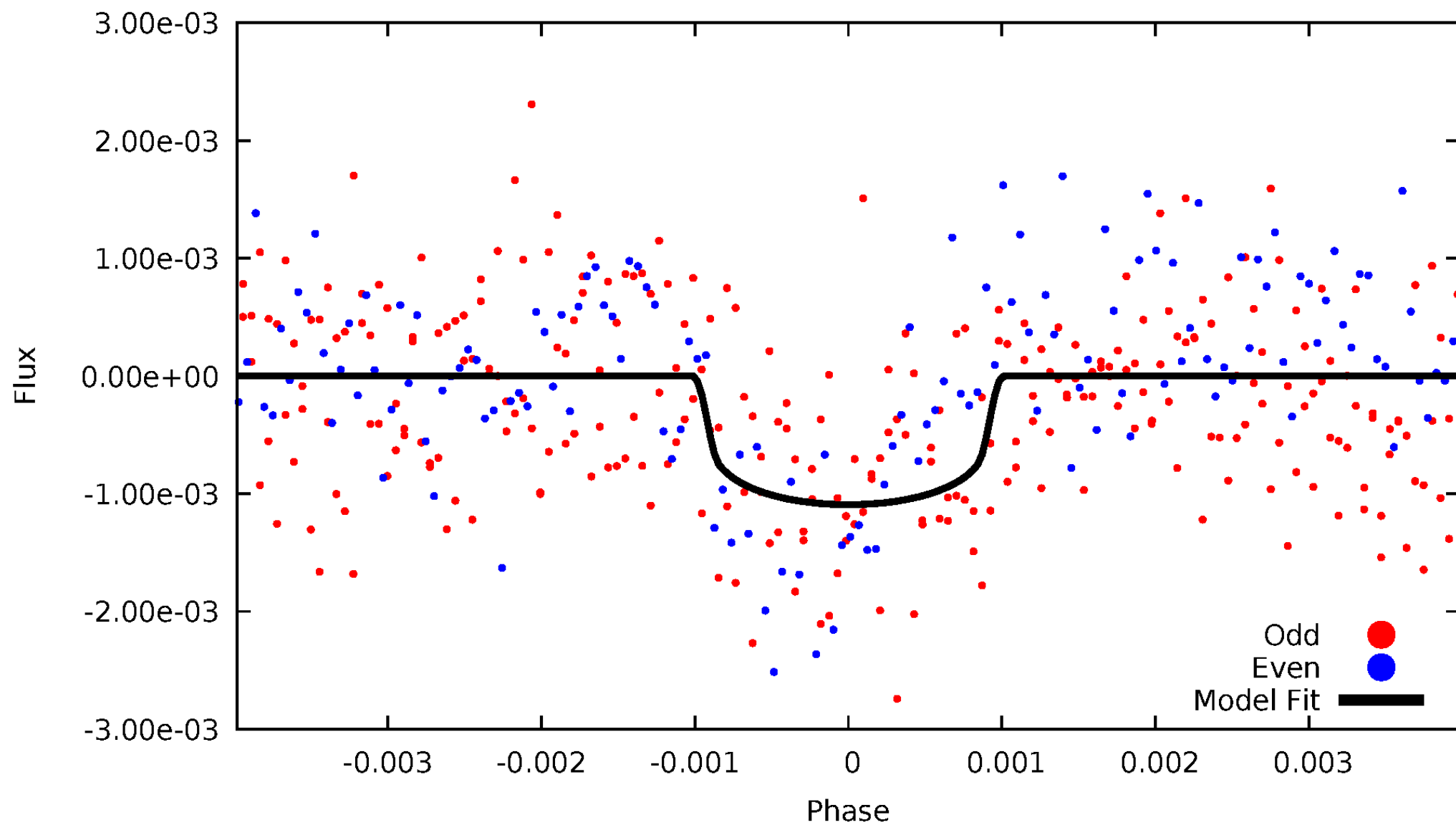


TCE 008105506-01



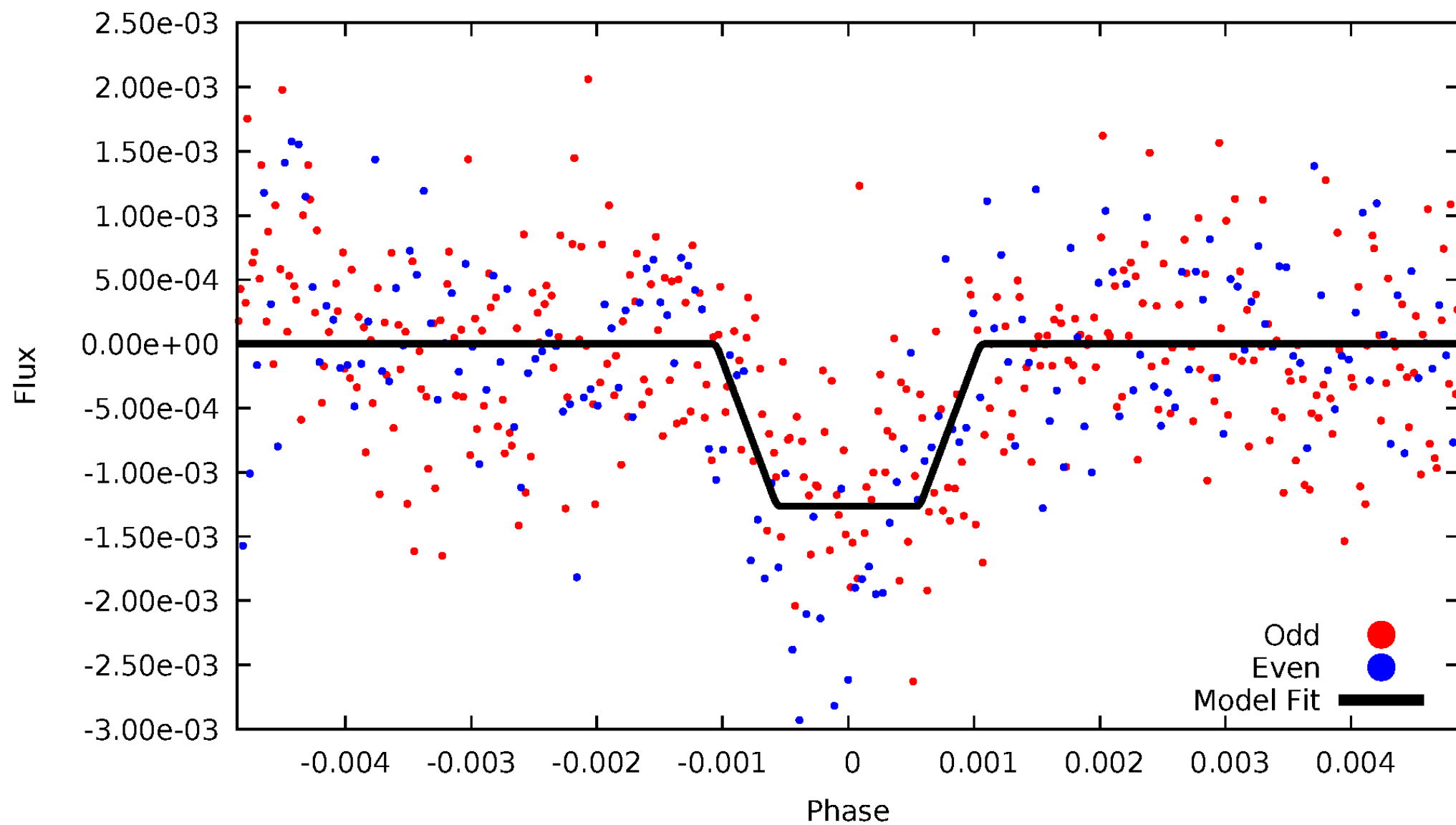
DV Odd/Even

TCE 008105506-01

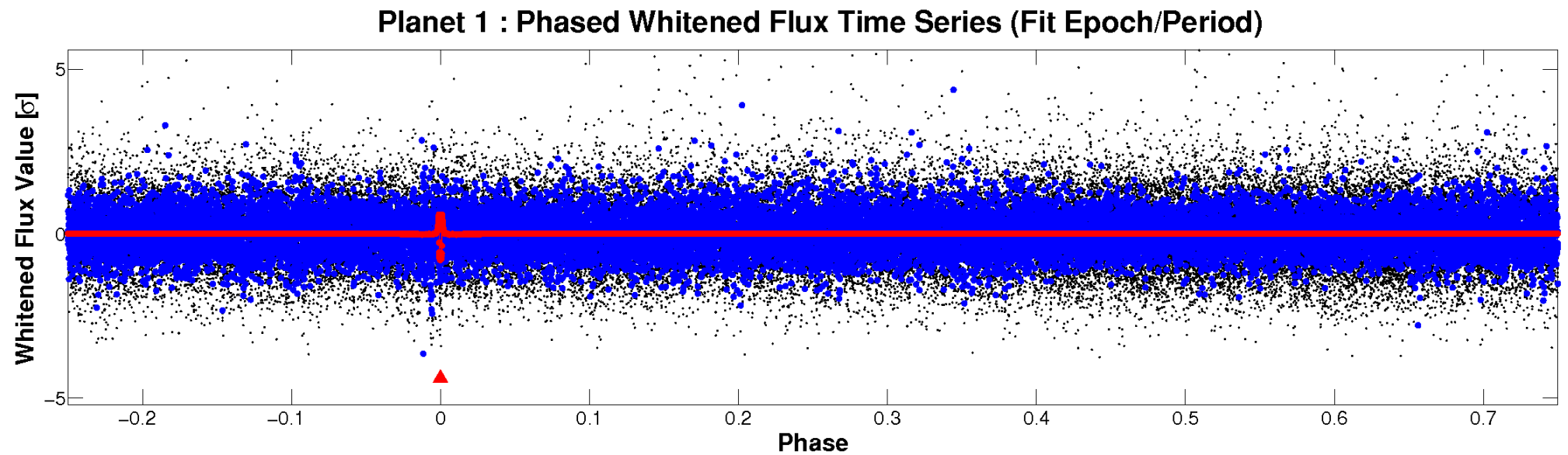
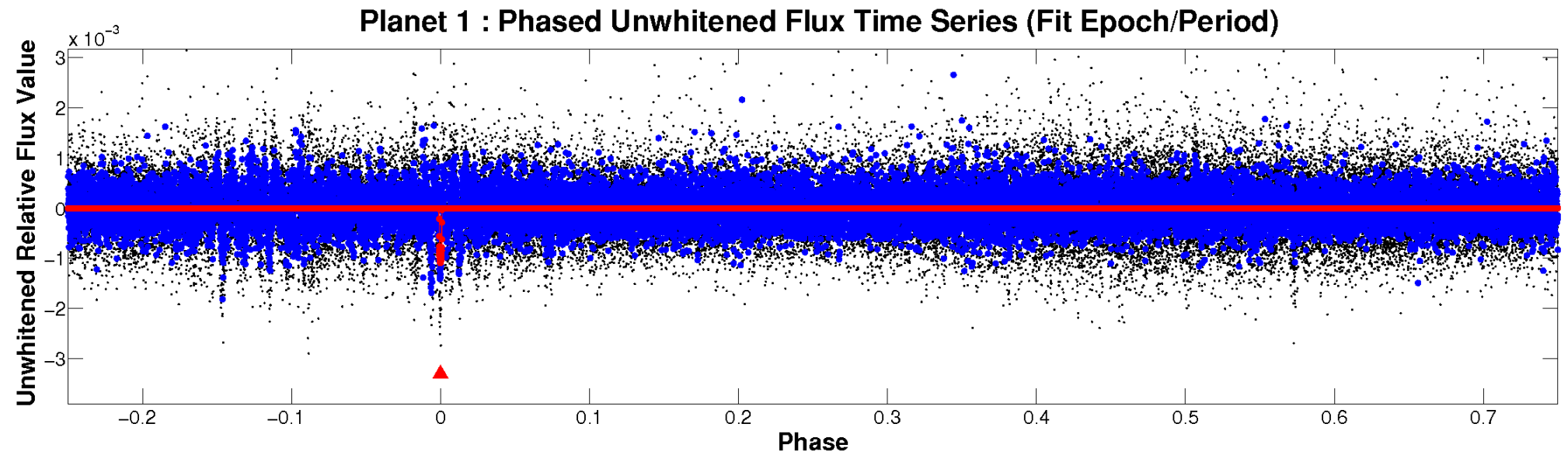


ALT Odd/Even

TCE 008105506-01

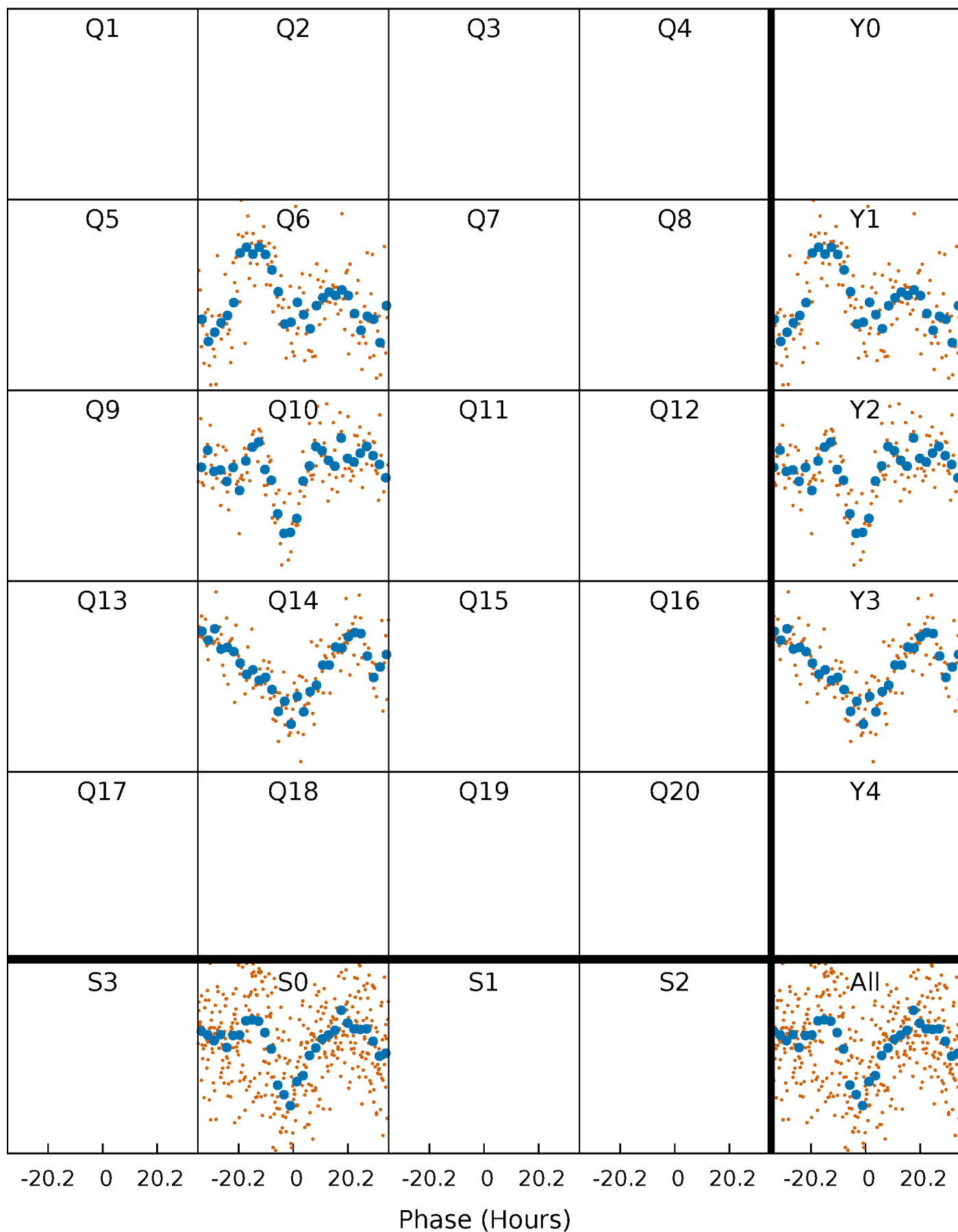


Non-Whitened Vs. Whitened Light Curve



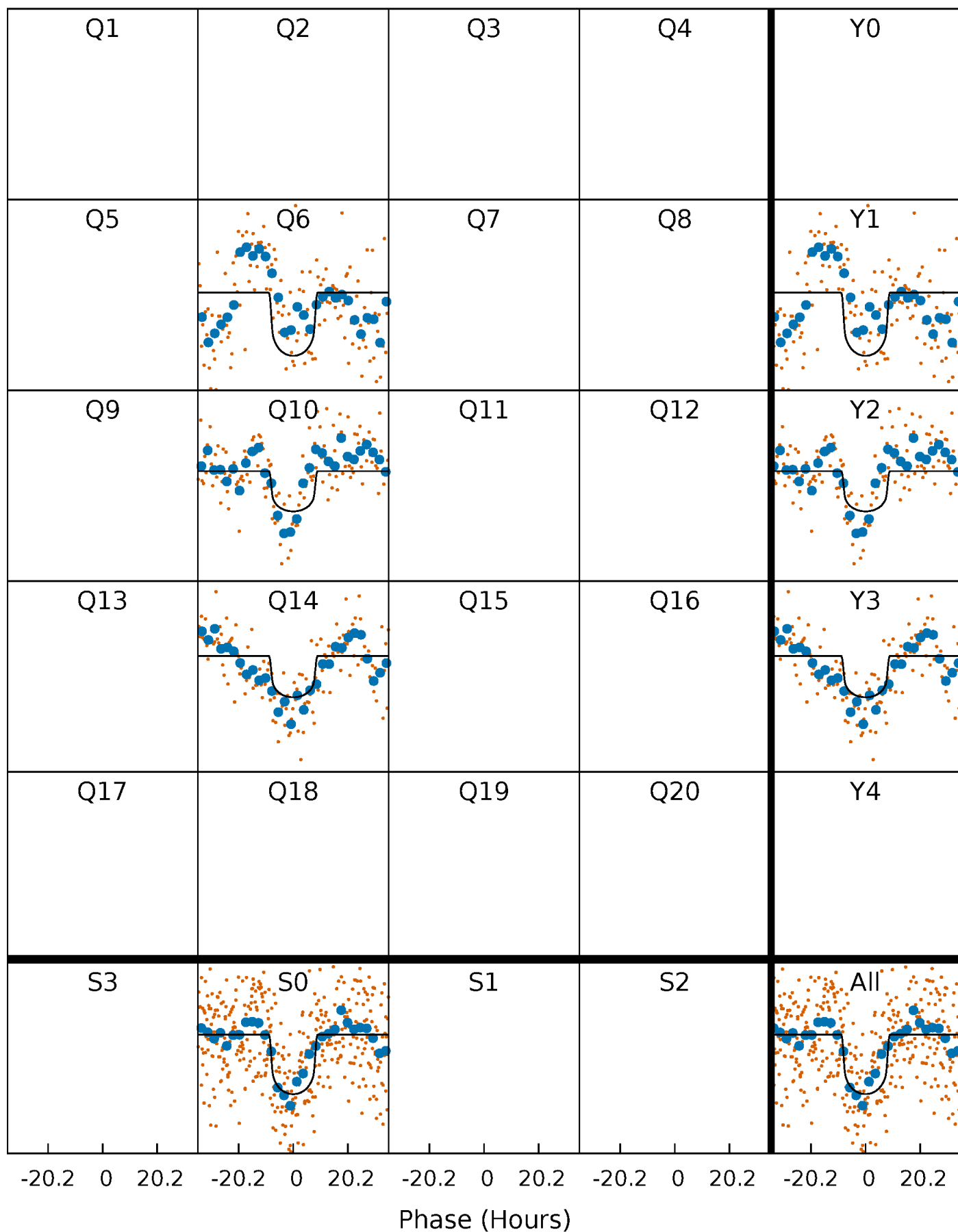
PDC Quarter-Phased Transit Curves

TCE 008105506-01 P=369.327001 Days $T_0=233.432555$ (BKJD)



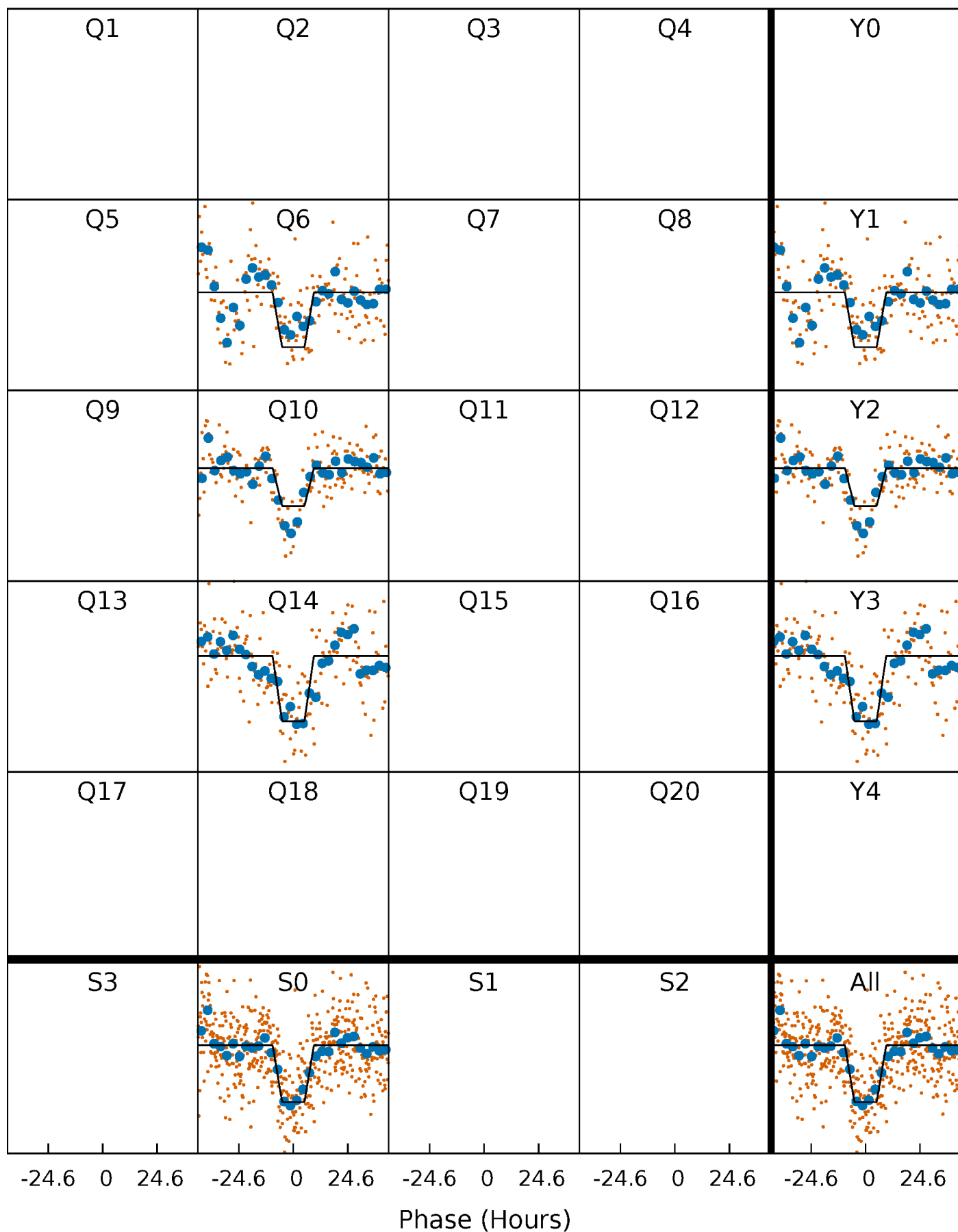
DV Quarter-Phased Transit Curves

TCE 008105506-01 P=369.327001 Days $T_0=233.432555$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

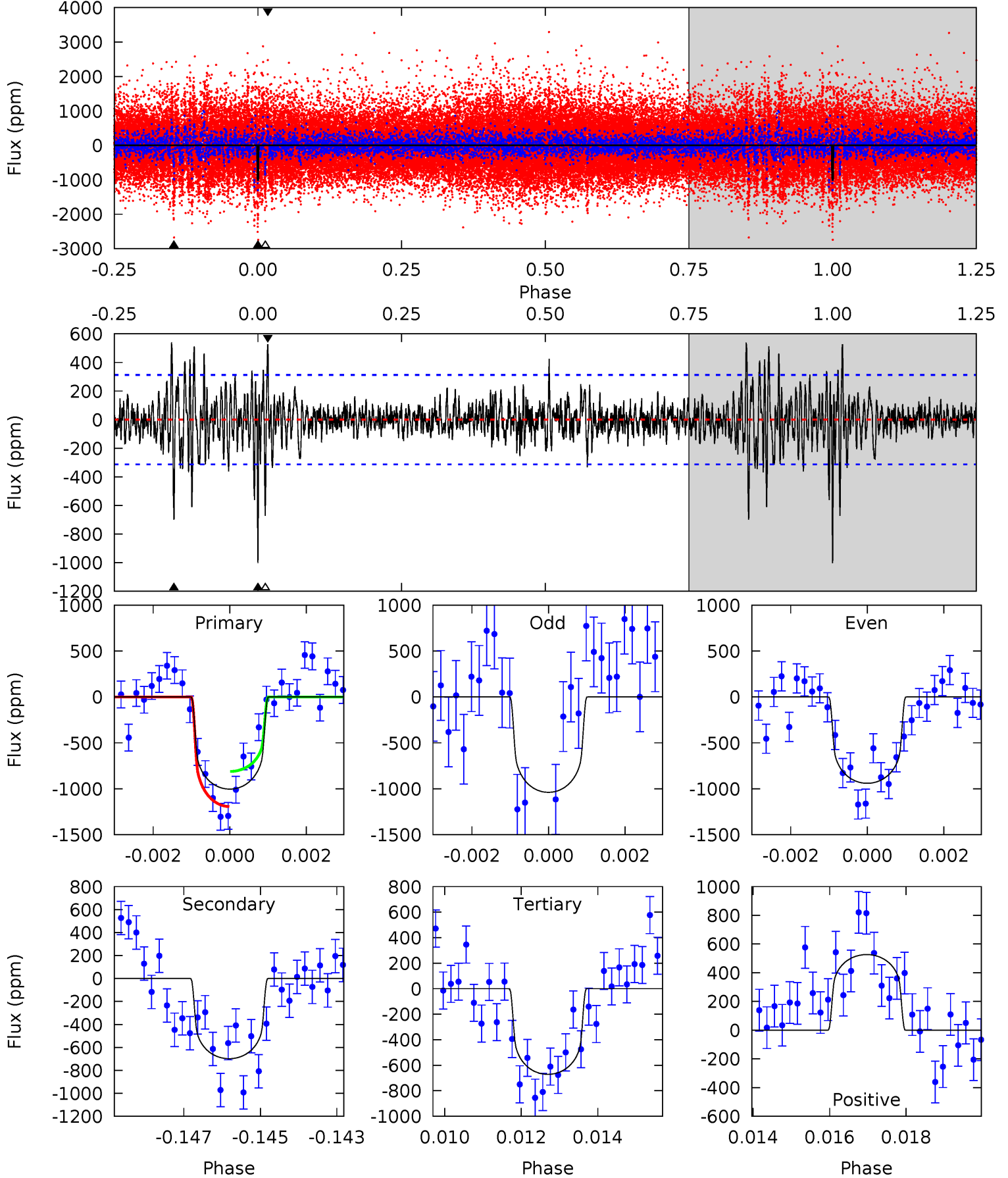
TCE 008105506-01 P=369.288919 Days $T_0=233.473258$ (BKJD)



DV Model-Shift Uniqueness Test

008105506-01, P = 369.327001 Days, E = 233.432555 Days

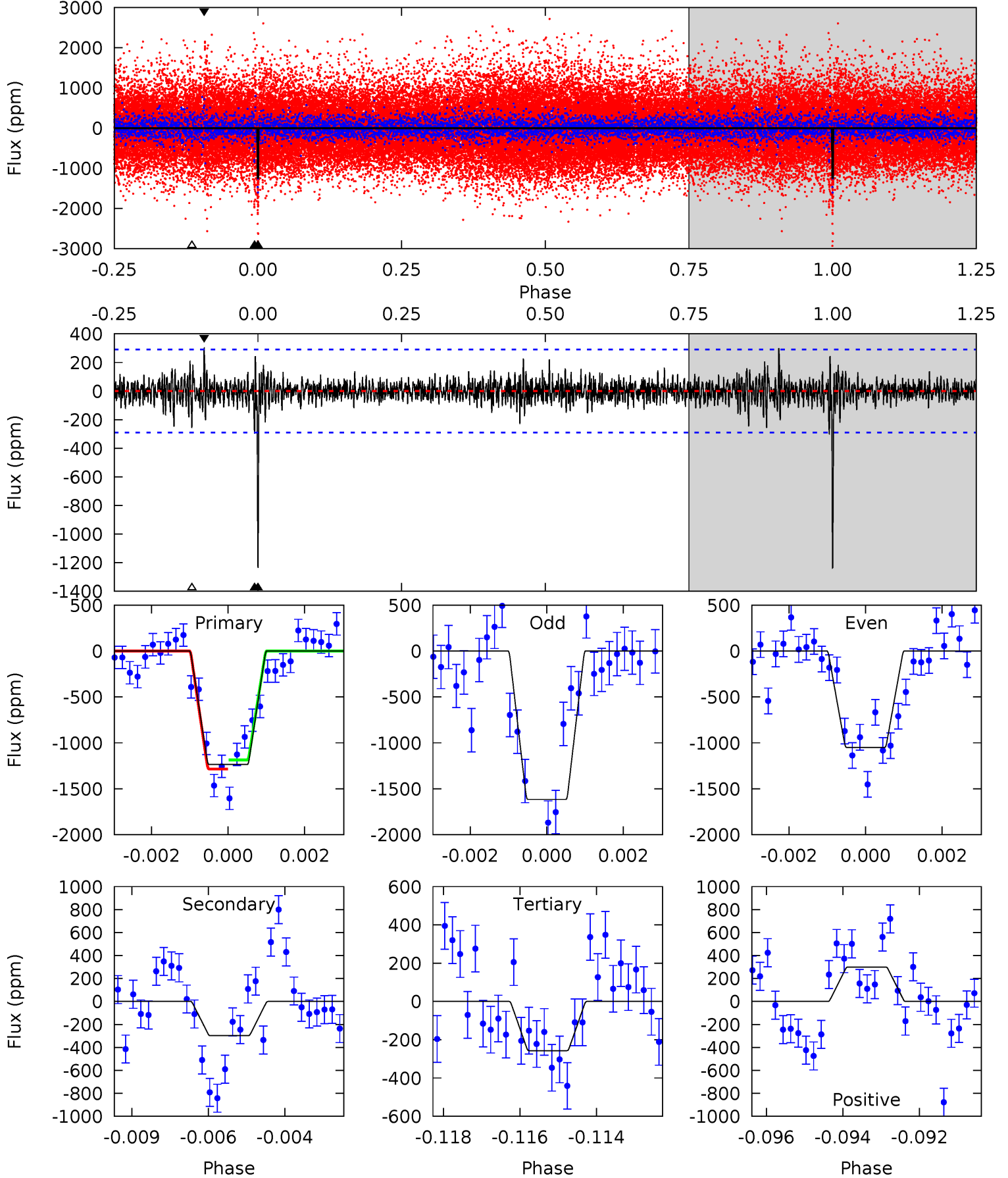
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.1	11.9	11.4	8.96	5.32	3.09	1.95	5.66	8.12	0.46	2.92	0.78	0.94	0.35	3.26



Alt Model-Shift Uniqueness Test

008105506-01, P = 369.288919 Days, E = 233.473258 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.6	5.45	4.70	5.47	5.31	3.07	1.07	17.9	17.1	0.75	-0.02	4.89	0.99	0.19	0.90



Stellar Parameters For KIC 008105506

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5542^{+186}_{-186}	$4.571^{+0.045}_{-0.135}$	$-0.340^{+0.300}_{-0.300}$	$0.778^{+0.169}_{-0.073}$	$0.823^{+0.097}_{-0.080}$	$2.458^{+0.581}_{-0.957}$
	+3%/-3%	+1%/-3%	+88%/-88%	+22%/-9%	+12%/-10%	+24%/-39%
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 008105506-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-698 ± 59	$2.86^{+0.58}_{-0.55}$	315^{+16}_{-15}	5049^{+506}_{-375}	41972^{+21959}_{-12966}
Alt.	-298 ± 55	$3.11^{+0.56}_{-0.53}$	315^{+17}_{-14}	4114^{+350}_{-247}	14632^{+8055}_{-4498}

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

DV Centroid Data

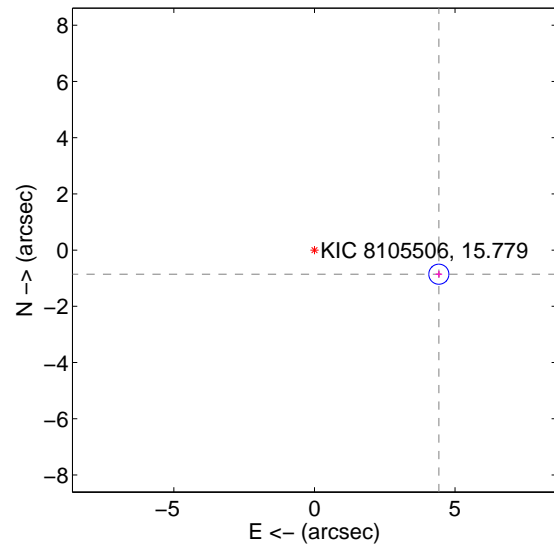
Supplemental centroid analysis for 008105506-01. Kepler magnitude: 15.78. Transit SNR 7.79

There are 0 quarters with good PRF difference image offsets

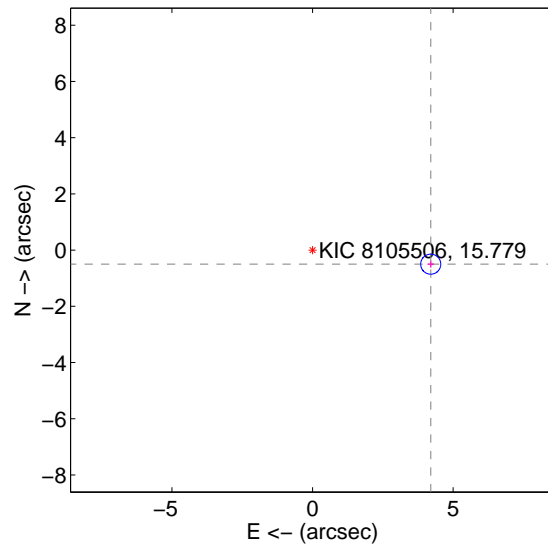
The direct PRF centroid is offset from the target star catalog position by about 0.42 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.507 ± 0.119	37.87	-4.425 ± 0.119	-0.857 ± 0.124
PRF-fit source offset from KIC position	4.234 ± 0.119	35.61	-4.204 ± 0.119	-0.501 ± 0.124
photometric centroid source offset	0.28 ± 2.30	0.12	0.11 ± 2.47	0.26 ± 2.27

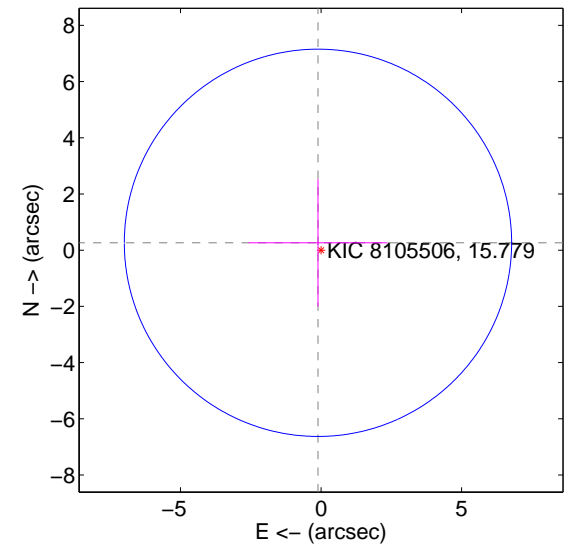
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

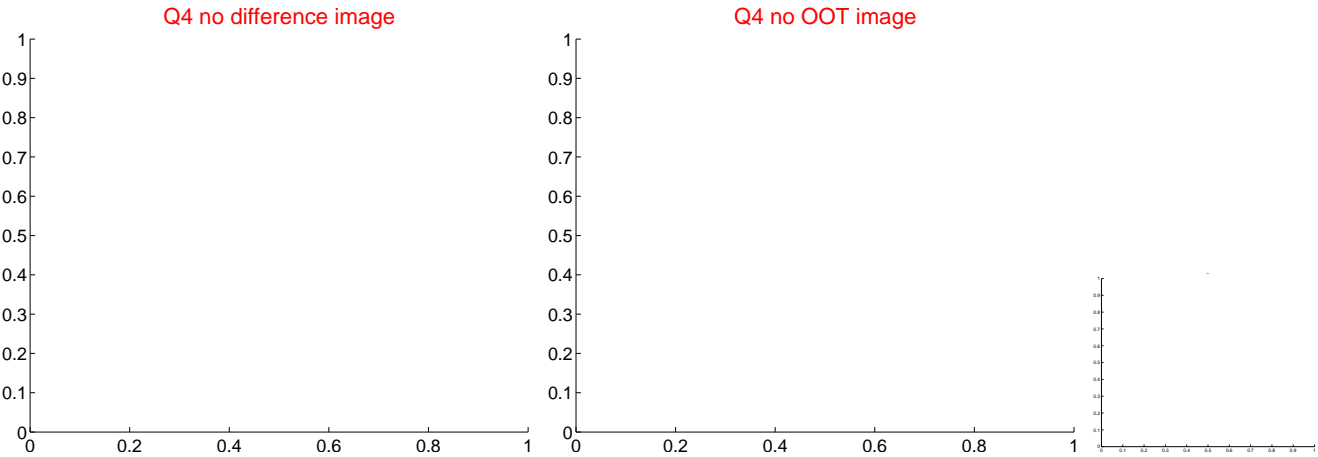
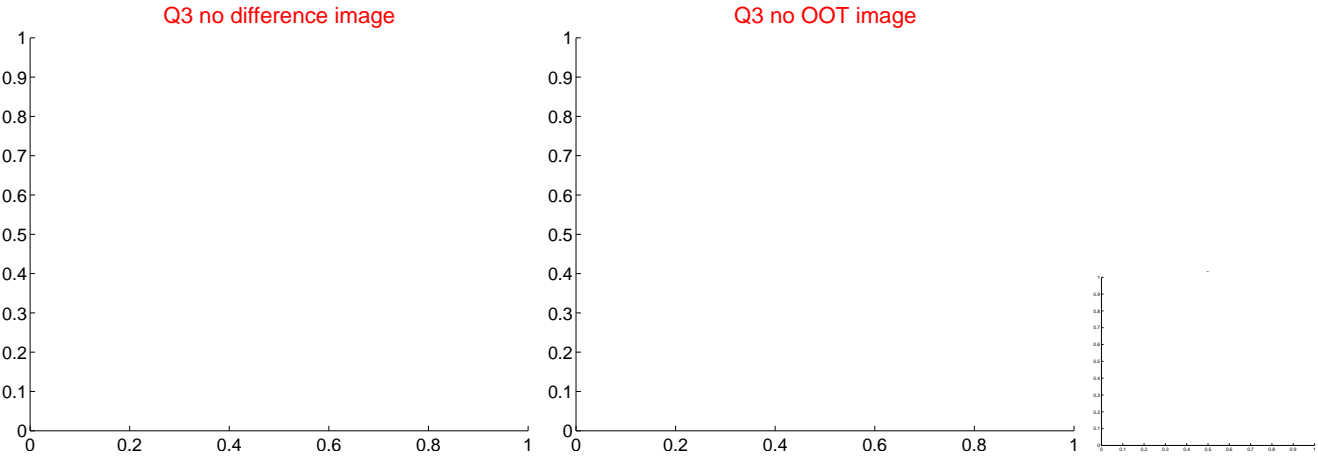
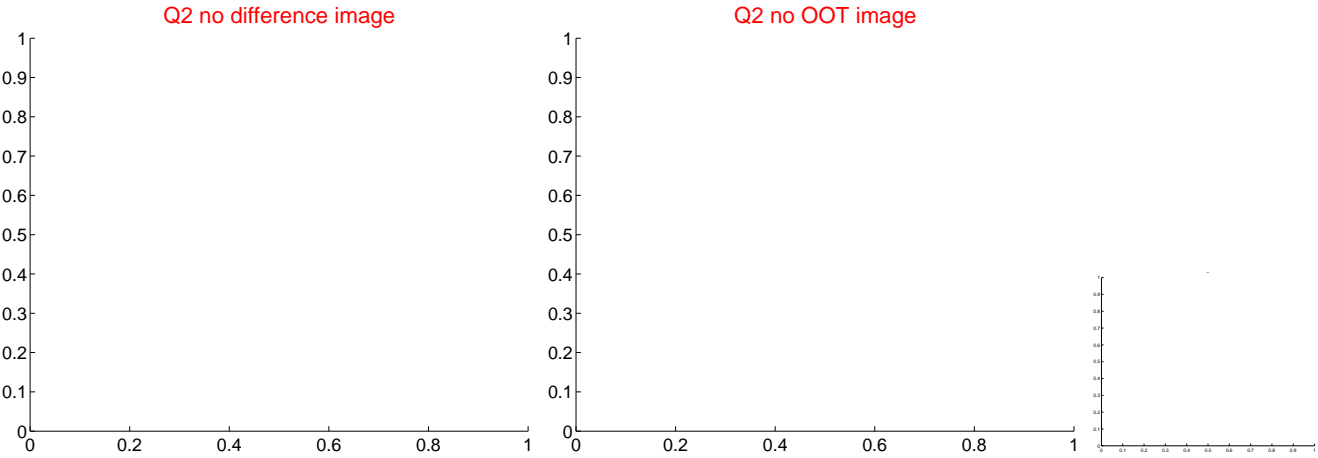
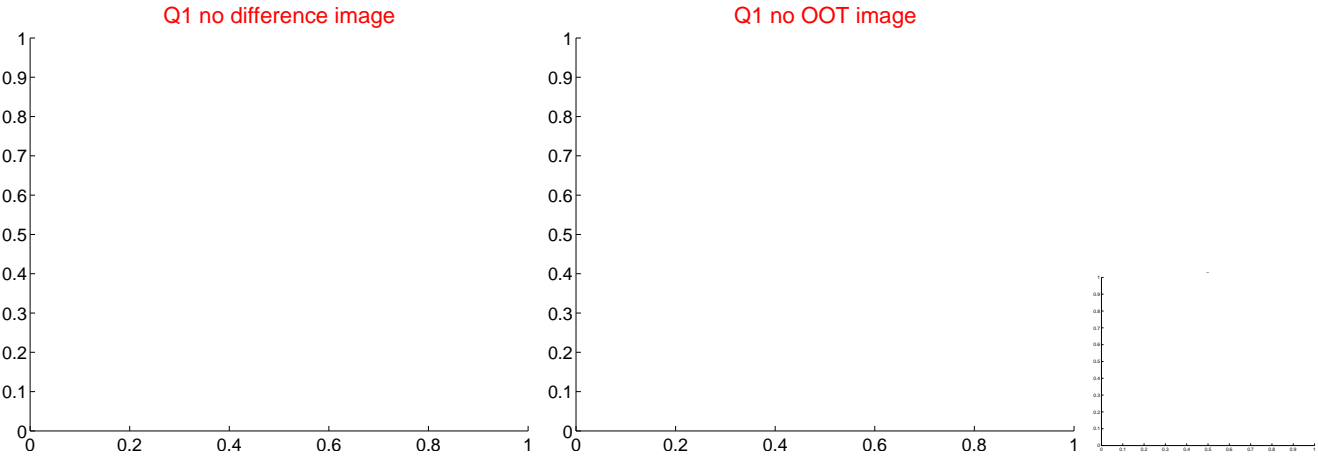


offset from photometric centroids

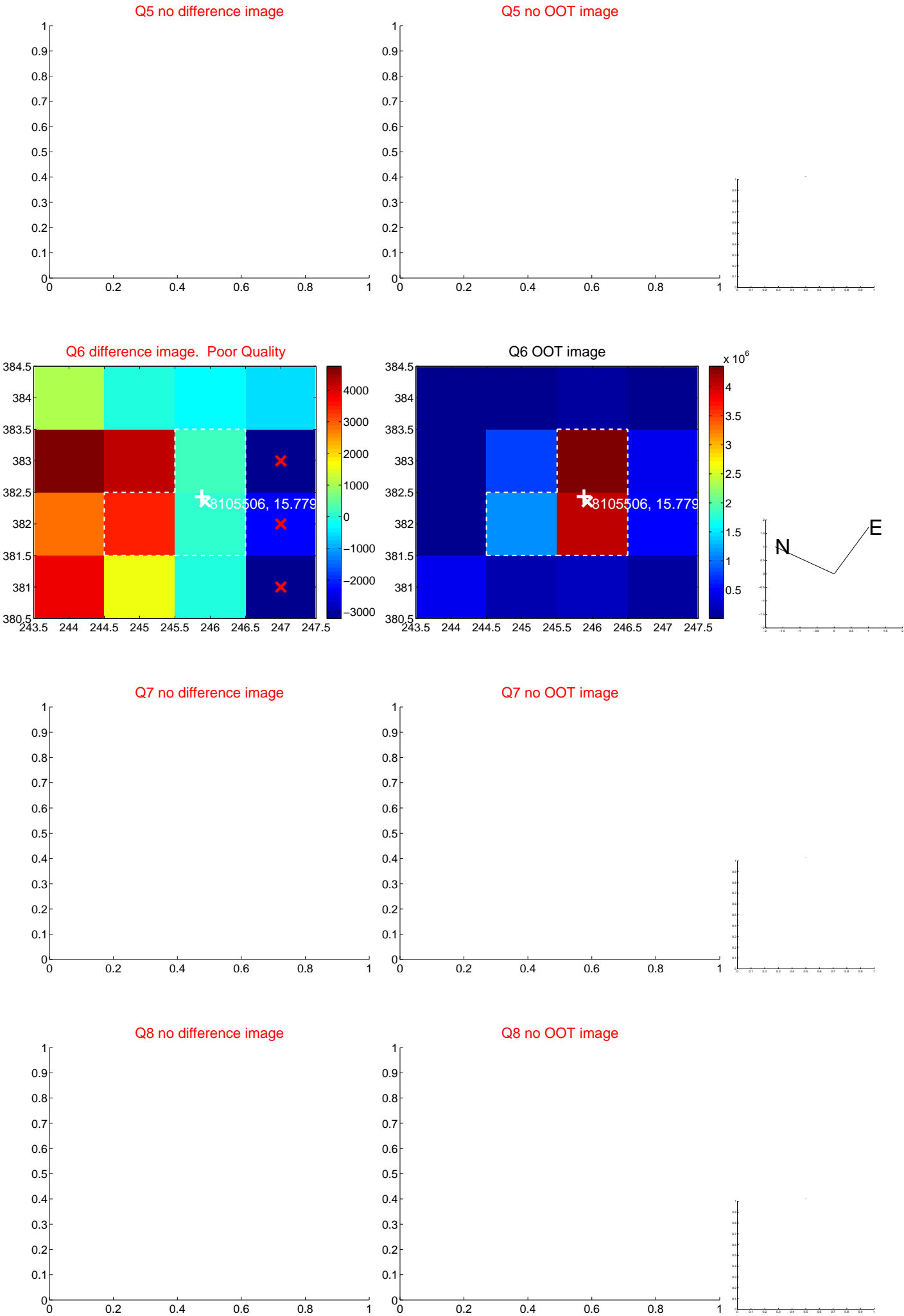


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



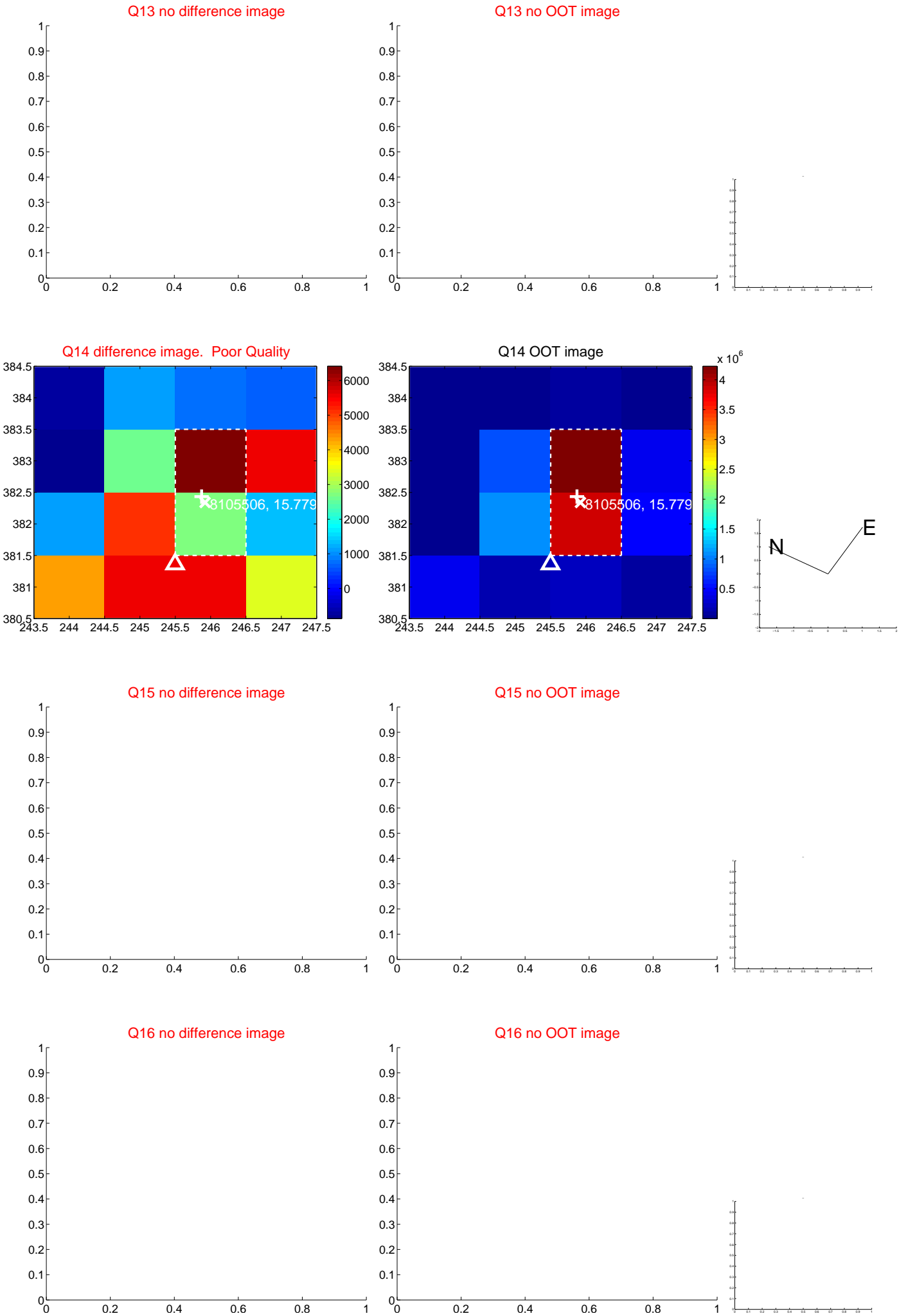
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



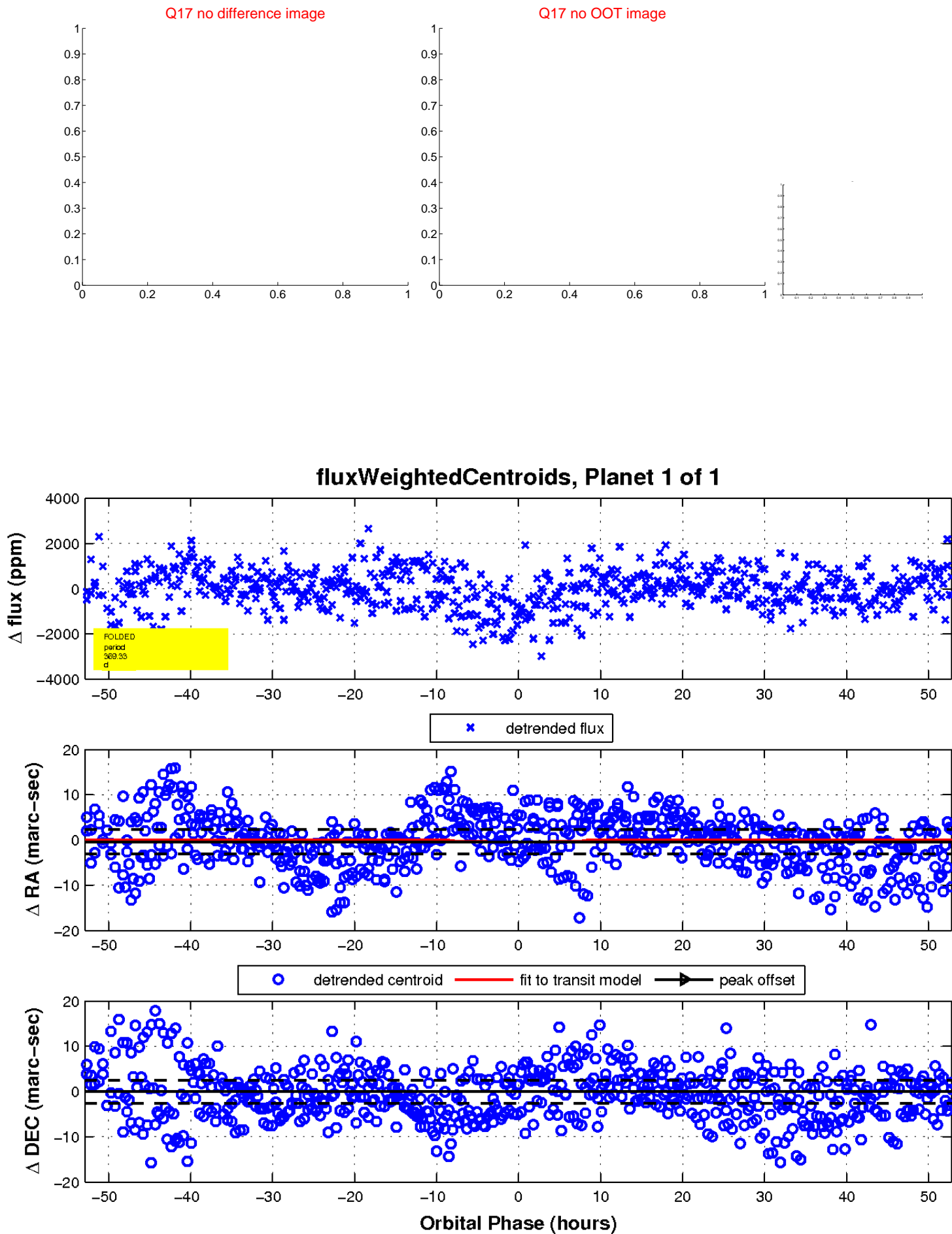
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

