

KIC 008308199

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})
008308199-01	OBS	No	369.887349	232.753547	841.0	11.334	7.2	8.5	1.11	6204	3.93	1.56

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008308199-01	OBS	FP	0.00	1	0	0	1	INDIV_TRANS_CHASES_SKYE—CENT_FEW_DIFFS—EPHEM_MATCH

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.

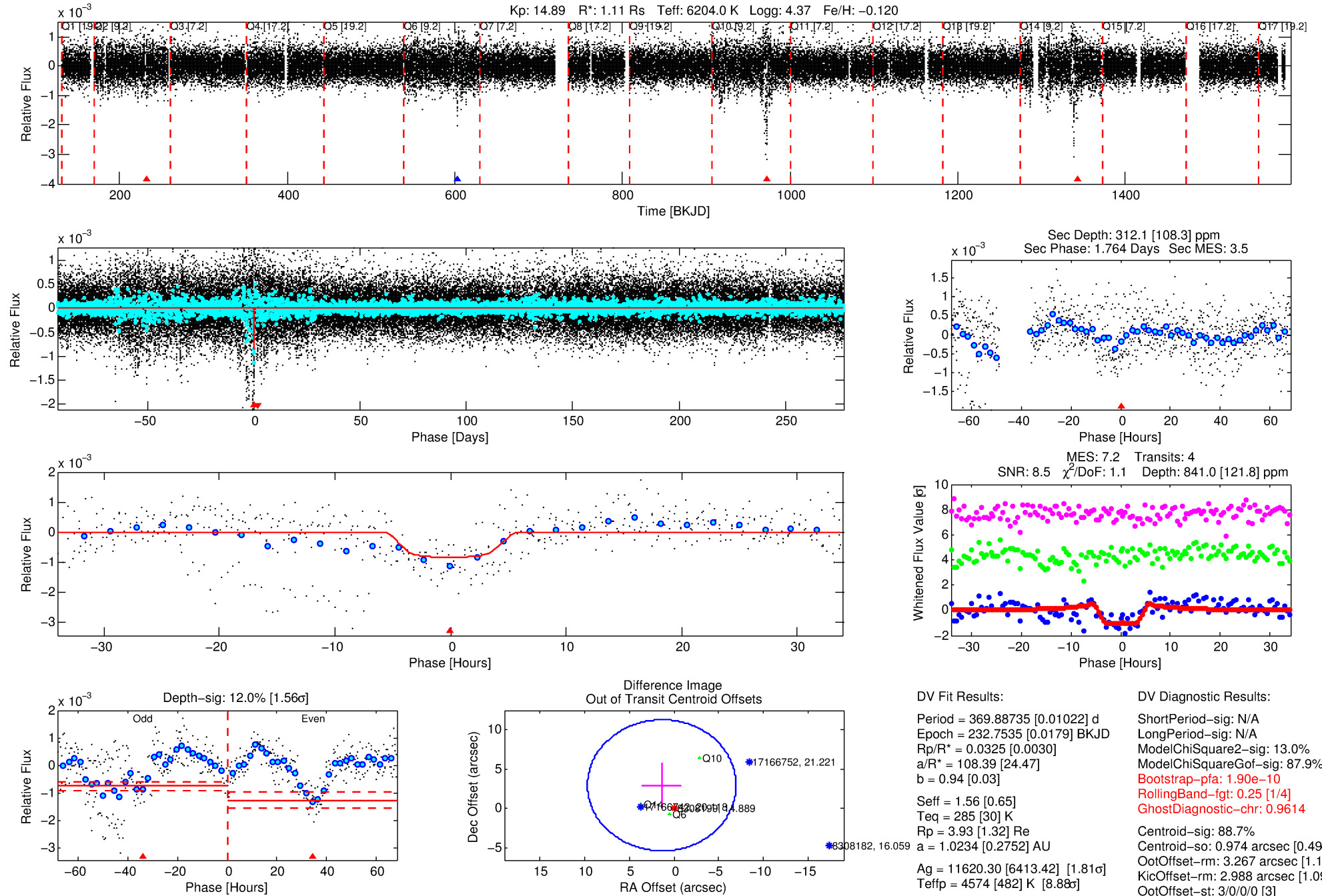
Ephemeris Match Information For 008308199-01

TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist (\prime)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
008308199-01	8308199	008308832-01	8308832	1:1	594.7	-150	0	15.97	14.89	1.51	Col-Anomaly	1	0.03	2.55

Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 8308199 Candidate: 1 of 1 Period: 369.887 d



DV Fit Results:

Period = 369.88735 [0.01022] d
Epoch = 232.7535 [0.0179] BKJD
Rp/R* = 0.0325 [0.0030]
a/R* = 108.39 [24.47]
b = 0.94 [0.03]
Seff = 1.56 [0.65]
Teff = 285 [30] K
Rp = 3.93 [1.32] Re
a = 1.0234 [0.2752] AU
Ag = 11620.30 [6413.42] [1.81 σ]
Teffp = 4574 [482] K [8.88 σ]

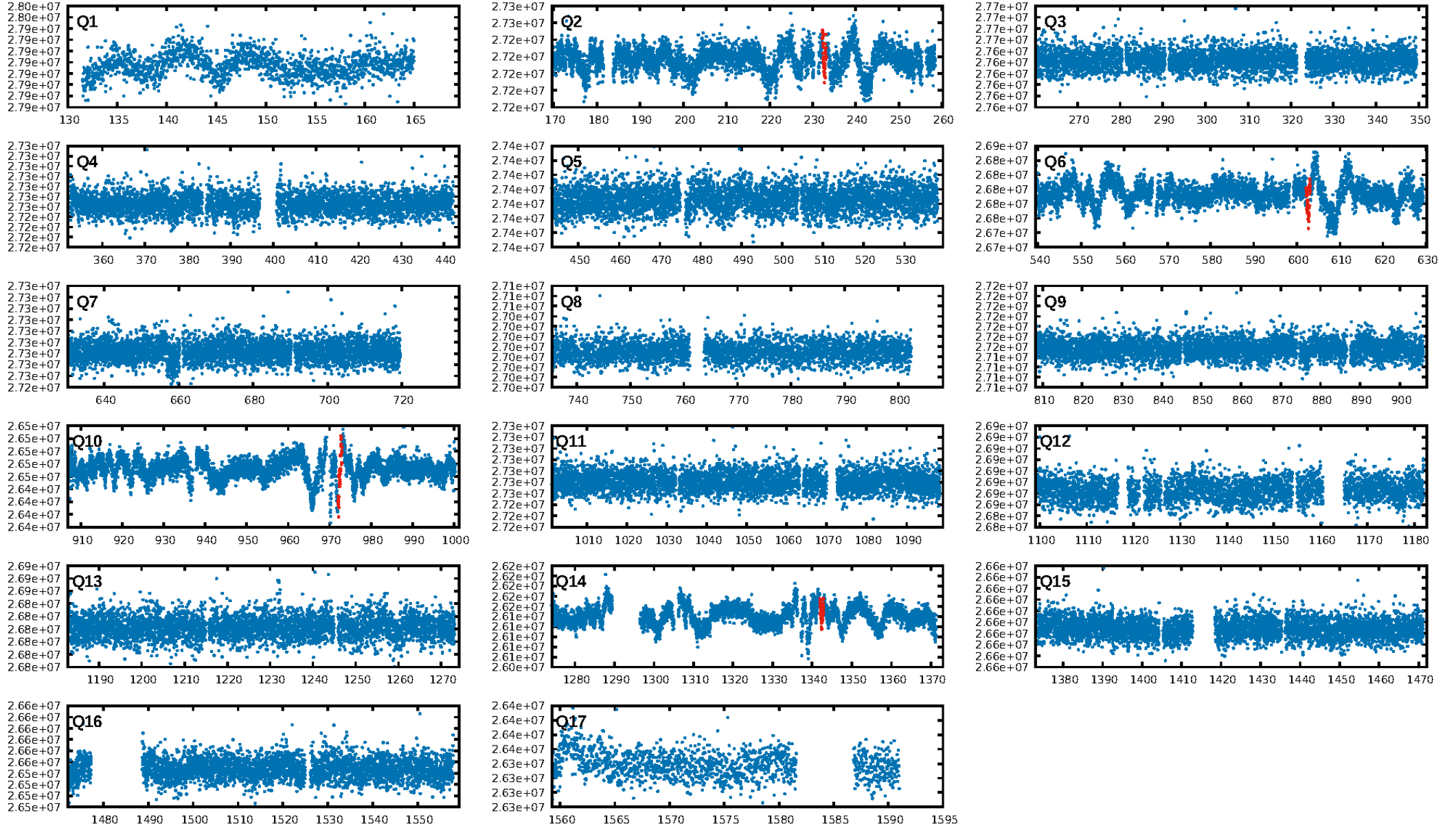
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 13.0%
ModelChiSquareGof-sig: 87.9%
Bootstrap-pfa: 1.90e-10
RollingBand-fgt: 0.25 [1/4]
GhostDiagnostic-chr: 0.9614
Centroid-sig: 88.7%
Centroid-so: 0.974 arcsec [0.49 σ]
OotOffset-rm: 3.267 arcsec [1.18 σ]
KicOffset-rm: 2.988 arcsec [1.09 σ]
OotOffset-st: 3/0/0/0 [3]
KicOffset-st: 3/0/0/0 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [3/3]

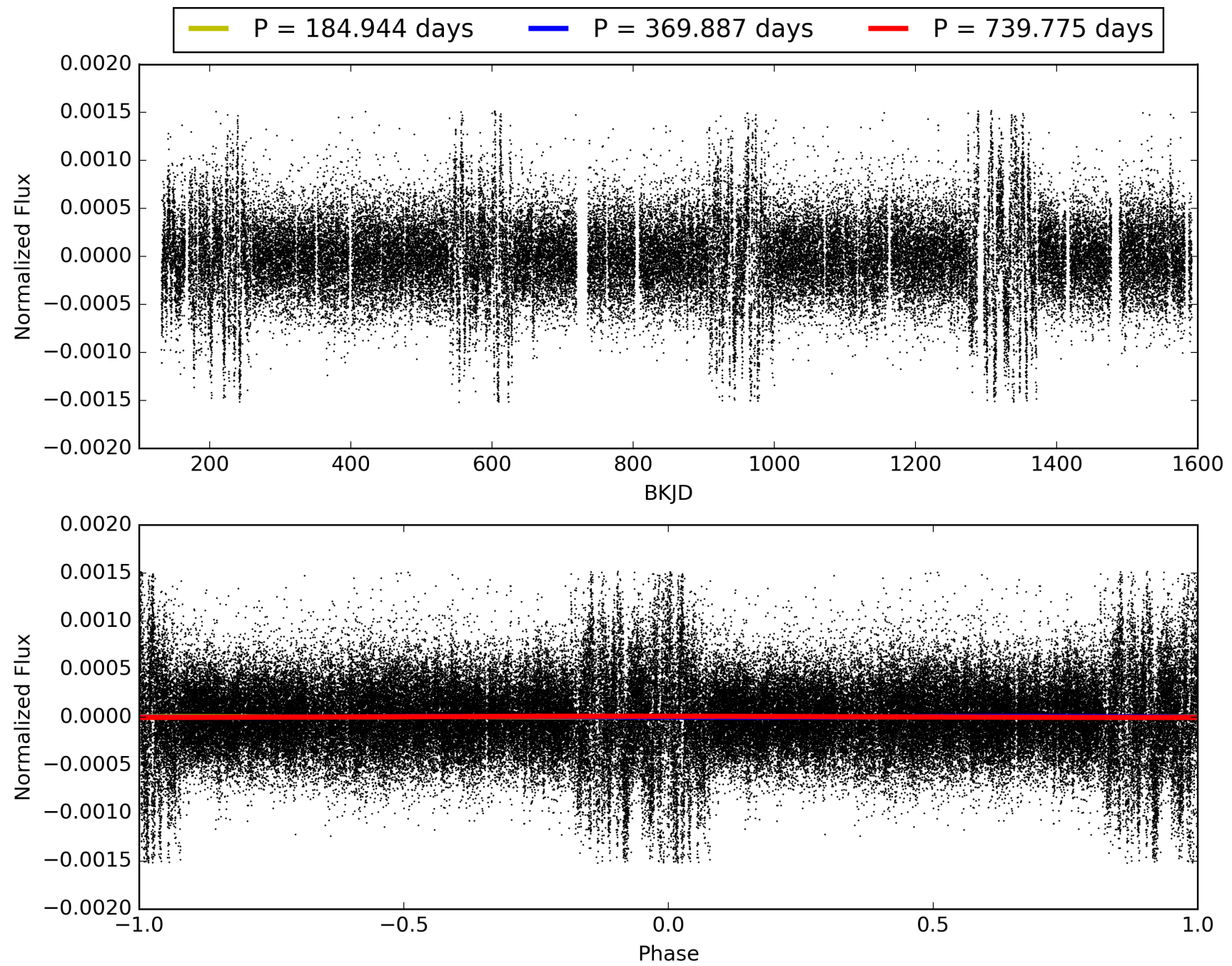
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 00:25:56 Z

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

TCE 008308199-01, PDC Light Curves

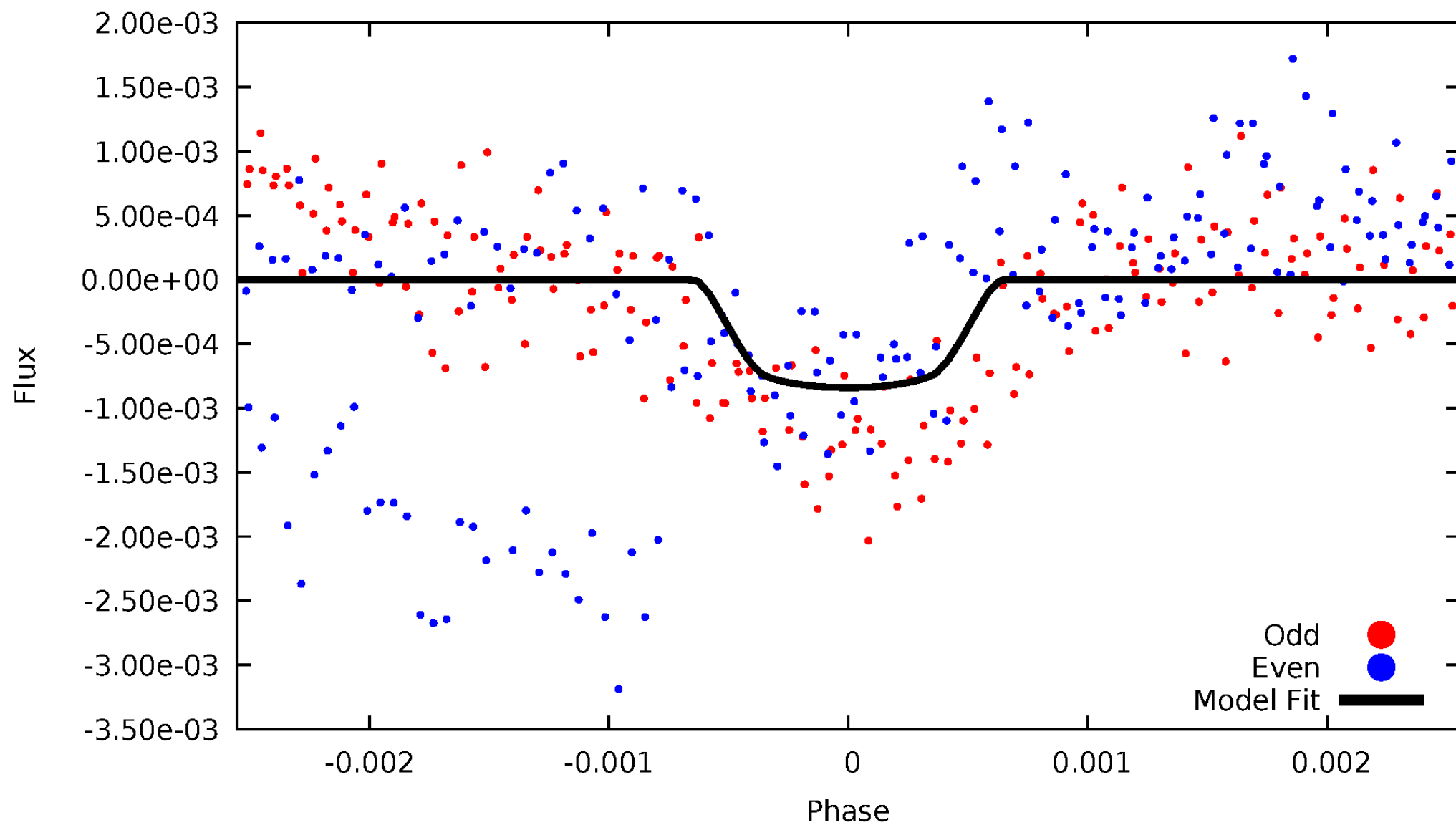


TCE 008308199-01



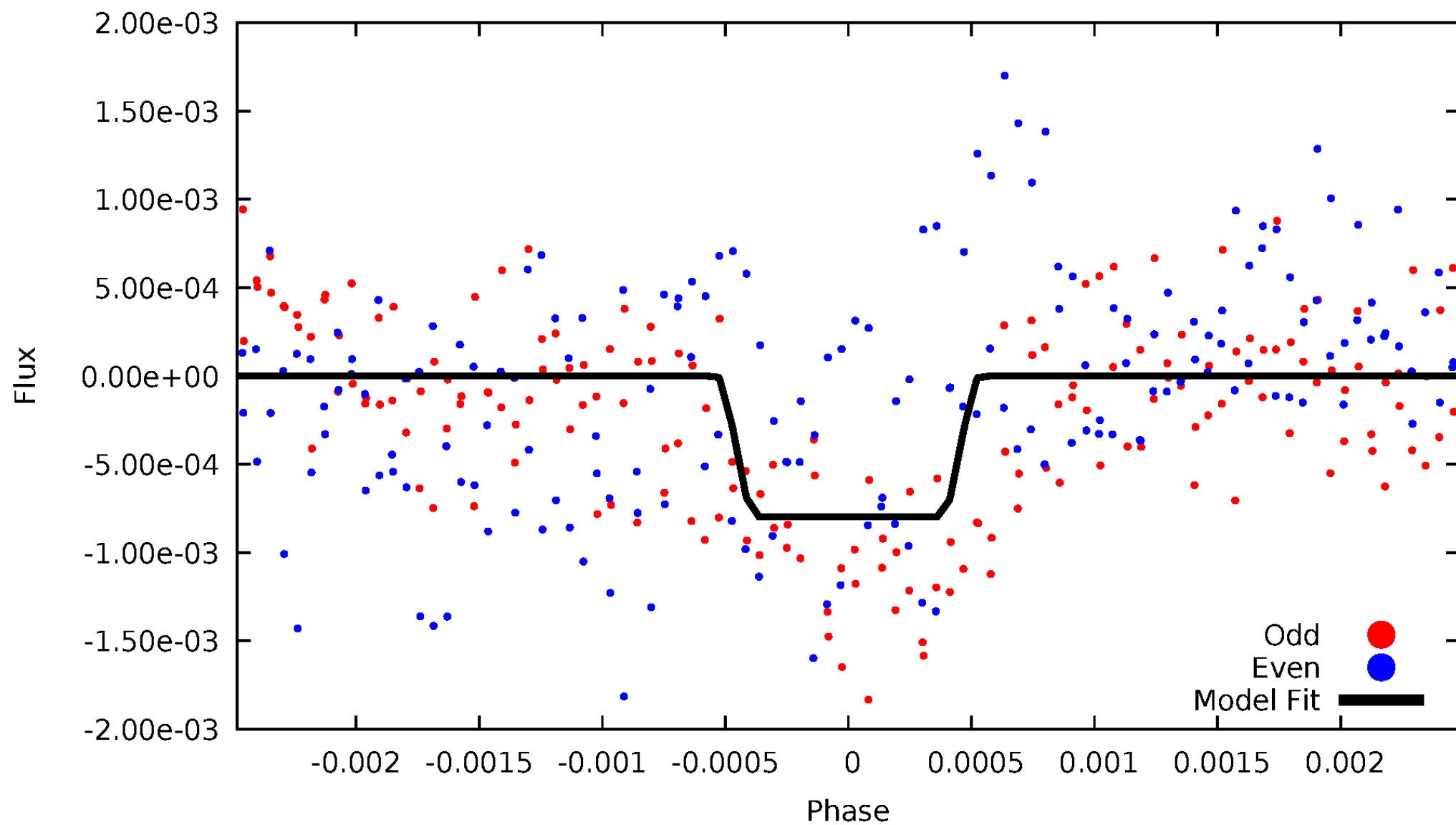
DV Odd/Even

TCE 008308199-01



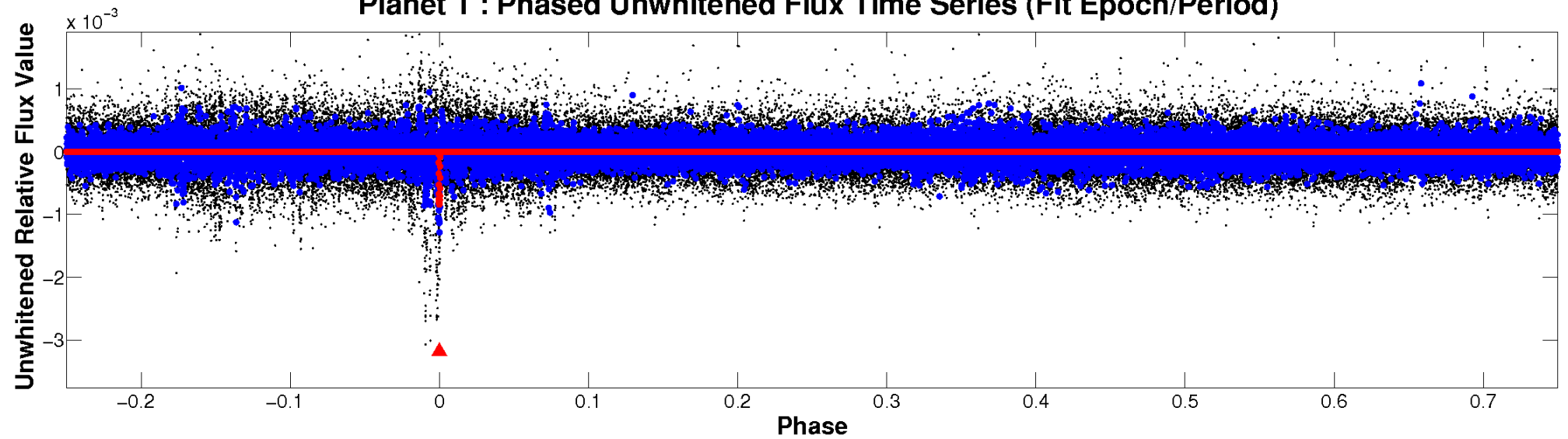
ALT Odd/Even

TCE 008308199-01

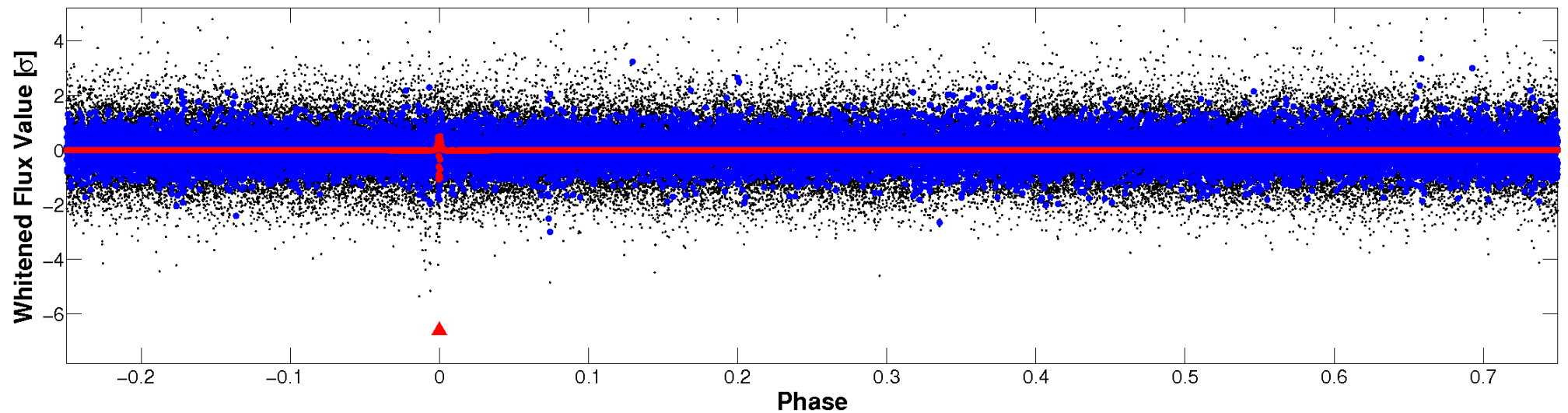


Non-Whitened Vs. Whitened Light Curve

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

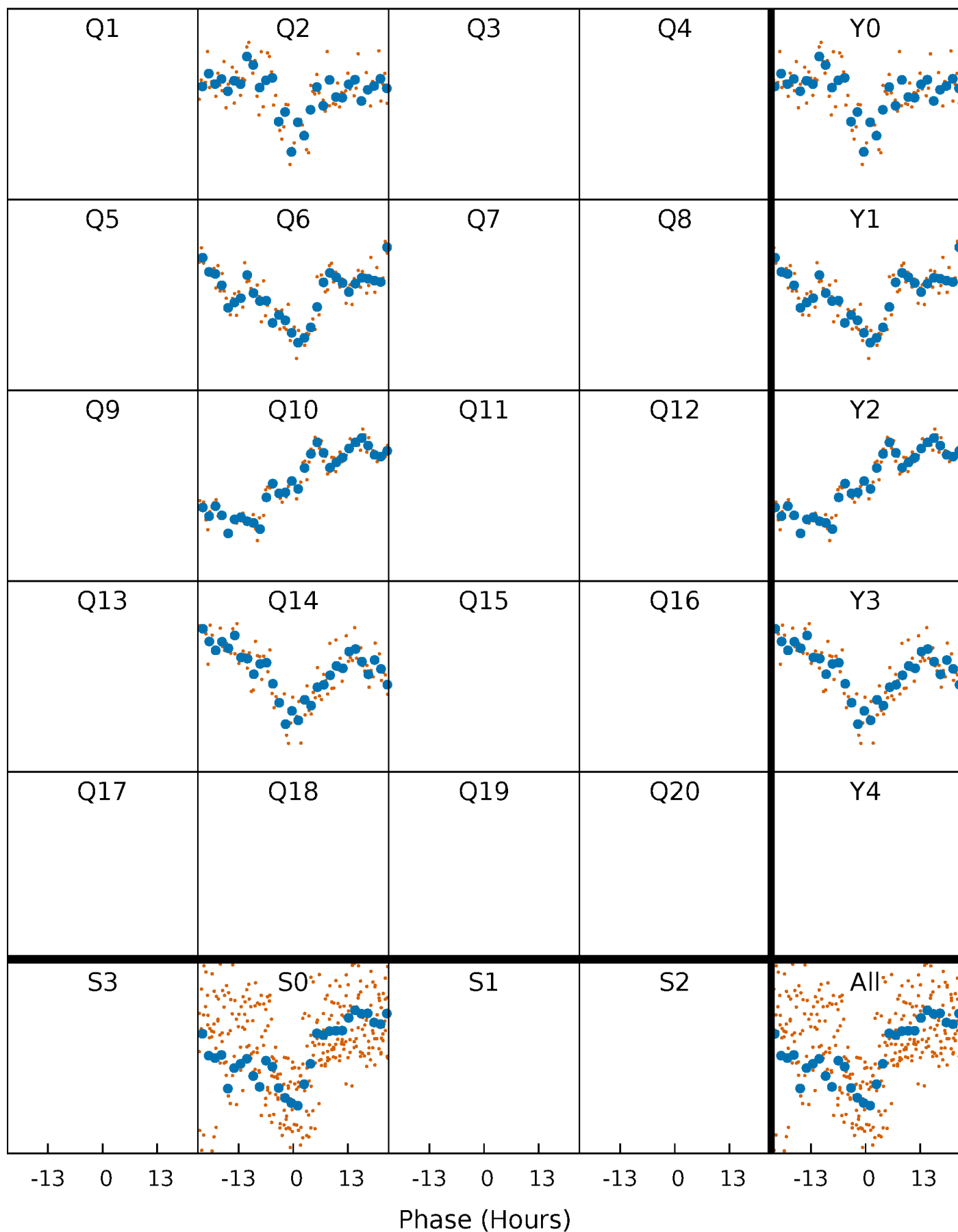


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



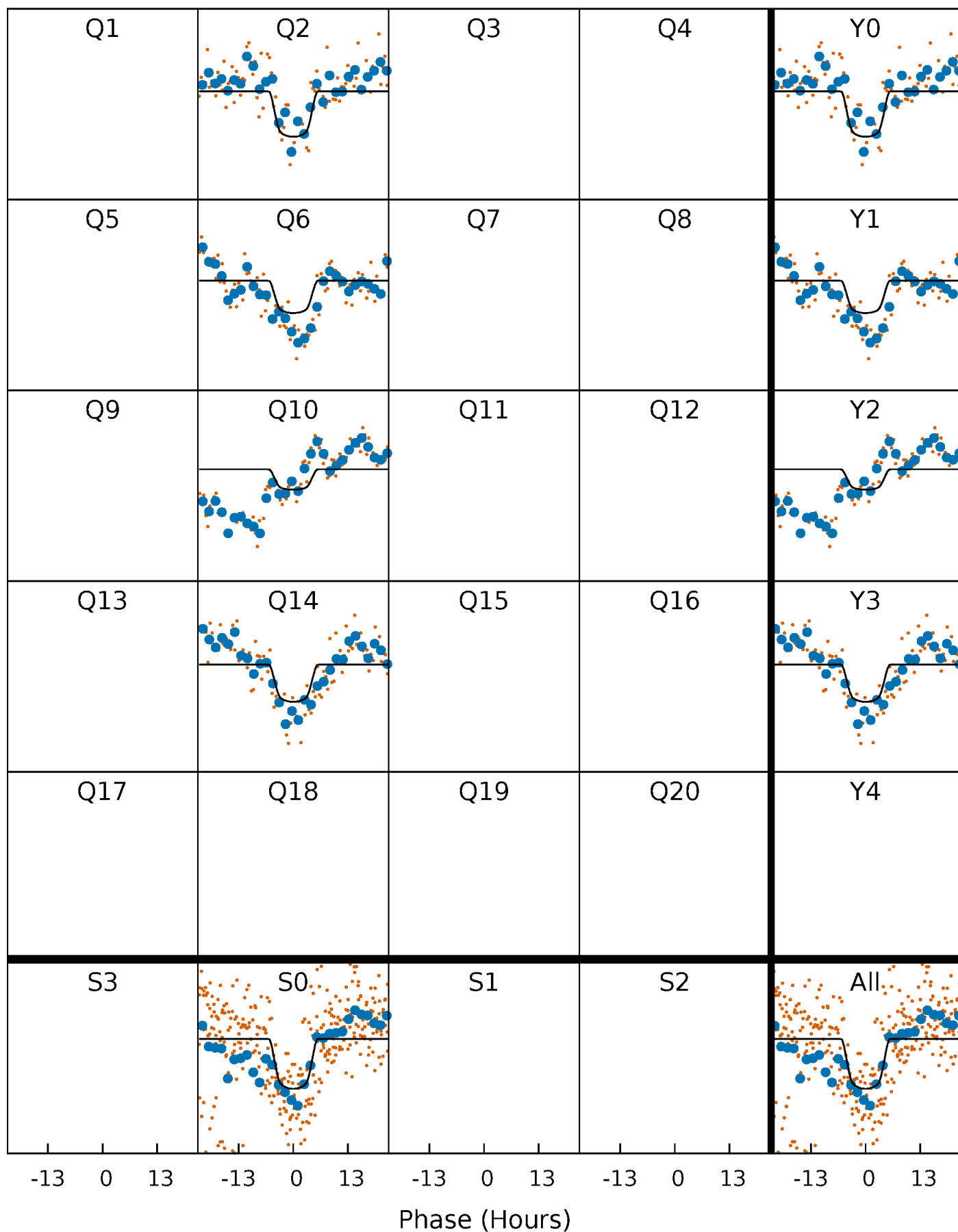
PDC Quarter-Phased Transit Curves

TCE 008308199-01 P=369.887349 Days $T_0=232.753547$ (BKJD)



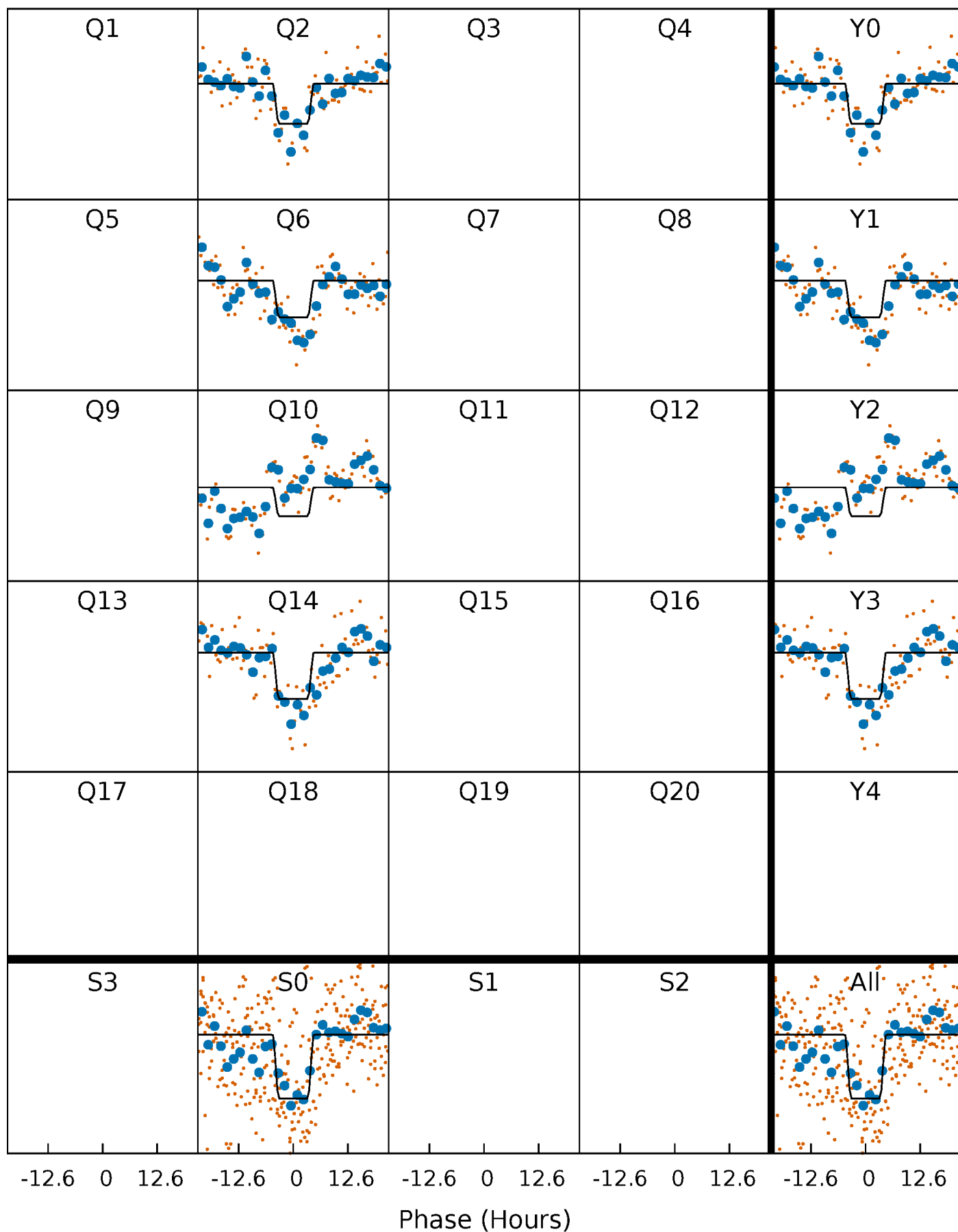
DV Quarter-Phased Transit Curves

TCE 008308199-01 P=369.887349 Days $T_0=232.753547$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

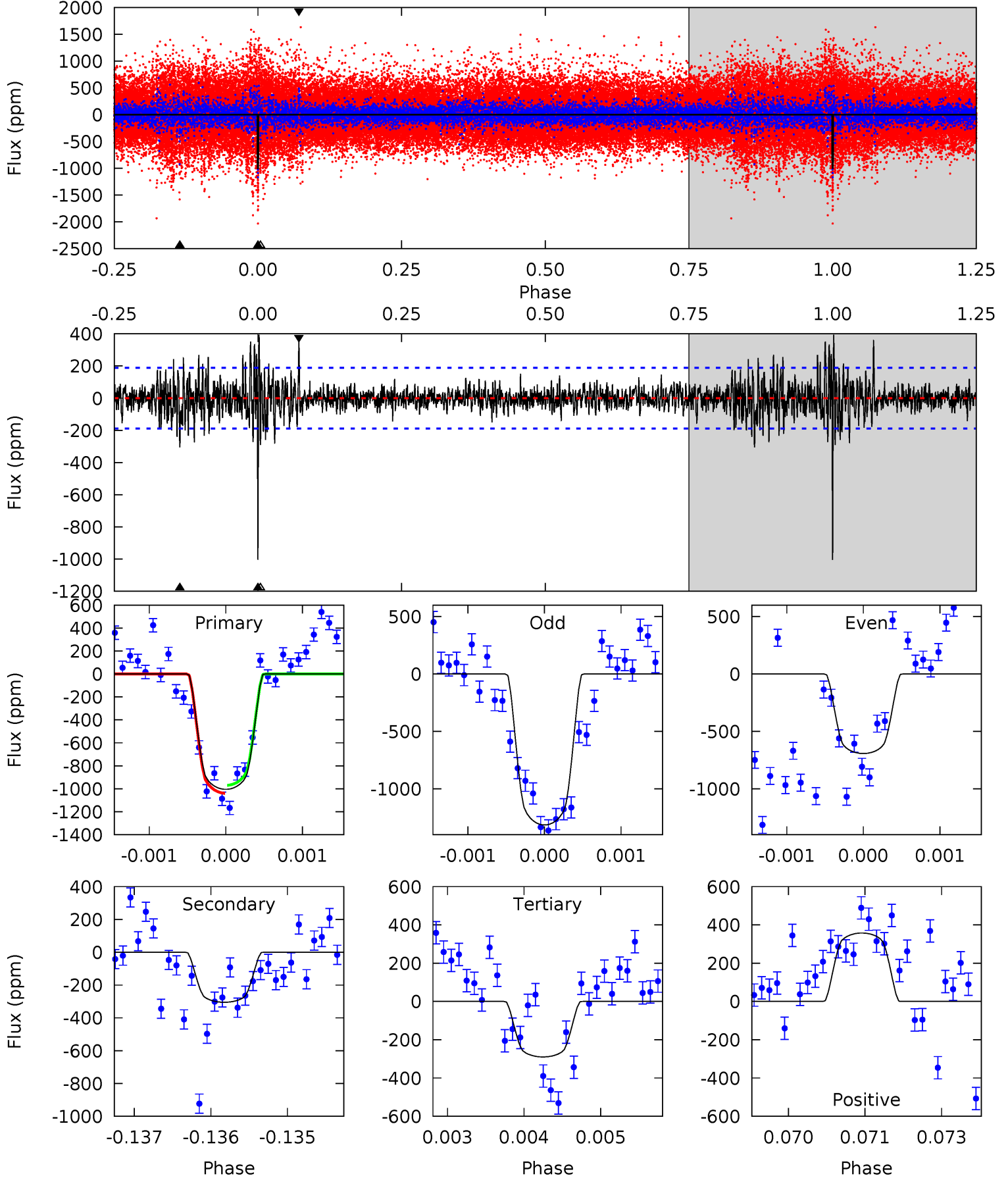
TCE 008308199-01 $P=369.867869$ Days $T_0=232.774368$ (BKJD)



DV Model-Shift Uniqueness Test

008308199-01, P = 369.887349 Days, E = 232.753547 Days

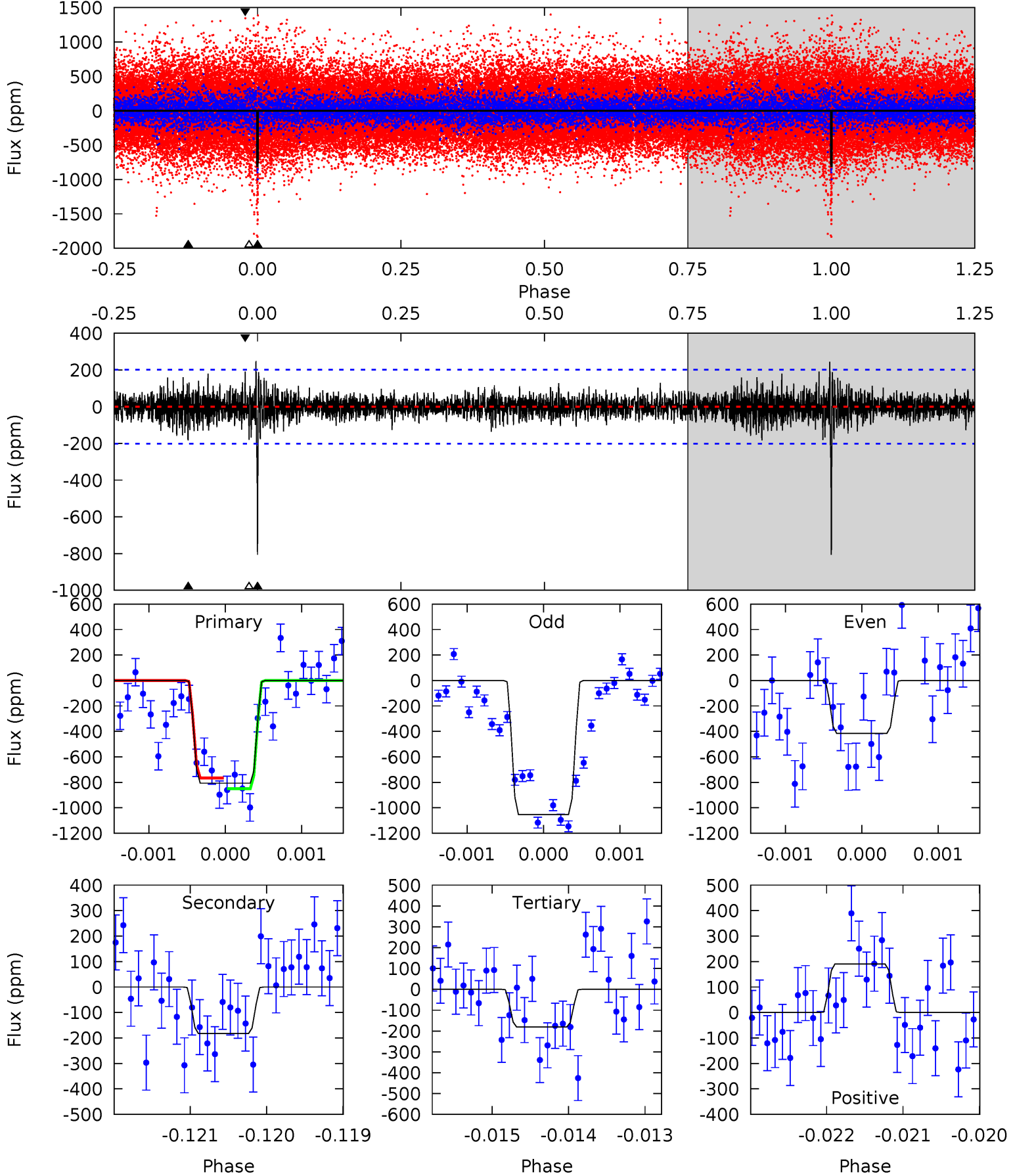
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
28.7	8.72	8.29	10.2	5.40	3.21	1.90	20.5	18.5	0.43	-1.51	8.89	1.02	0.28	0.98



Alt Model-Shift Uniqueness Test

008308199-01, P = 369.867869 Days, E = 232.774368 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.7	4.92	4.86	5.13	5.43	3.26	1.14	16.9	16.6	0.06	-0.21	8.76	0.76	0.23	1.11



Stellar Parameters For KIC 008308199

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6204^{+172}_{-237}	$4.367^{+0.090}_{-0.210}$	$-0.120^{+0.250}_{-0.300}$	$1.109^{+0.358}_{-0.154}$	$1.041^{+0.169}_{-0.127}$	$1.074^{+0.499}_{-0.542}$
	+3%/-4%	+2%/-5%	+208%/-250%	+32%/-14%	+16%/-12%	+46%/-50%
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 008308199-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-305 ± 35	$4.08^{+0.75}_{-0.57}$	403^{+32}_{-22}	4682^{+220}_{-222}	10500^{+3546}_{-2985}
Alt.	-183 ± 37	$3.49^{+0.77}_{-0.50}$	404^{+31}_{-22}	4478^{+267}_{-264}	8307^{+3588}_{-2651}

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 $A_{\text{obs}} \gg 1.0$

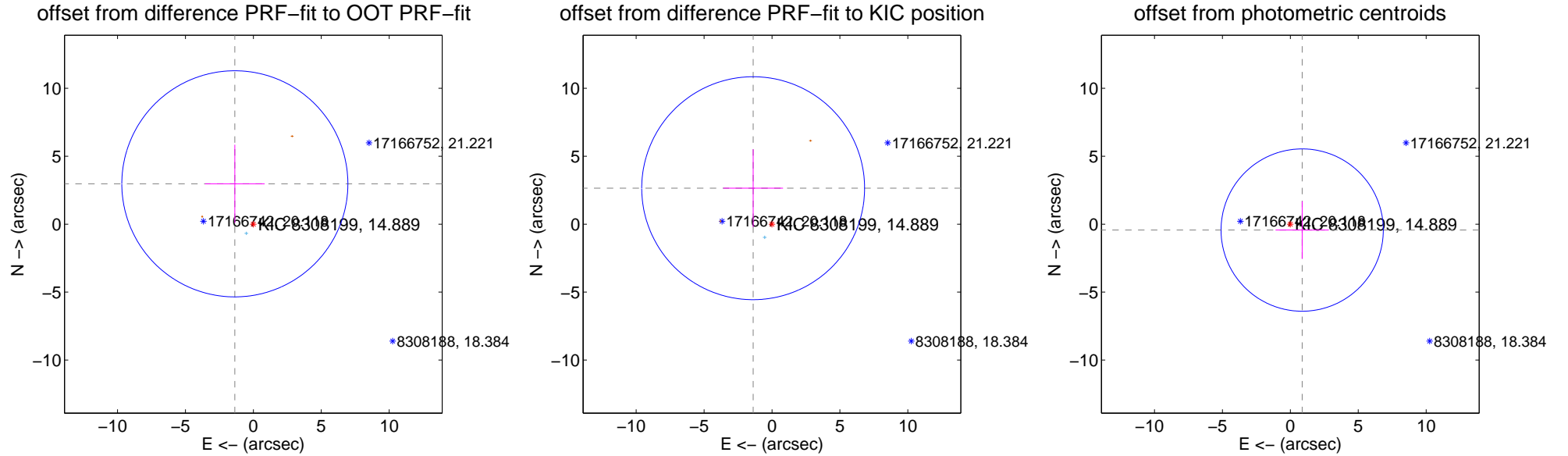
DV Centroid Data

Supplemental centroid analysis for 008308199-01. Kepler magnitude: 14.89. Transit SNR 8.48

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.34 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.267 ± 2.773	1.18	1.363 ± 2.198	2.969 ± 2.880
PRF-fit source offset from KIC position	2.988 ± 2.734	1.09	1.387 ± 2.200	2.647 ± 2.863
photometric centroid source offset	0.97 ± 1.99	0.49	-0.87 ± 1.96	-0.43 ± 2.12

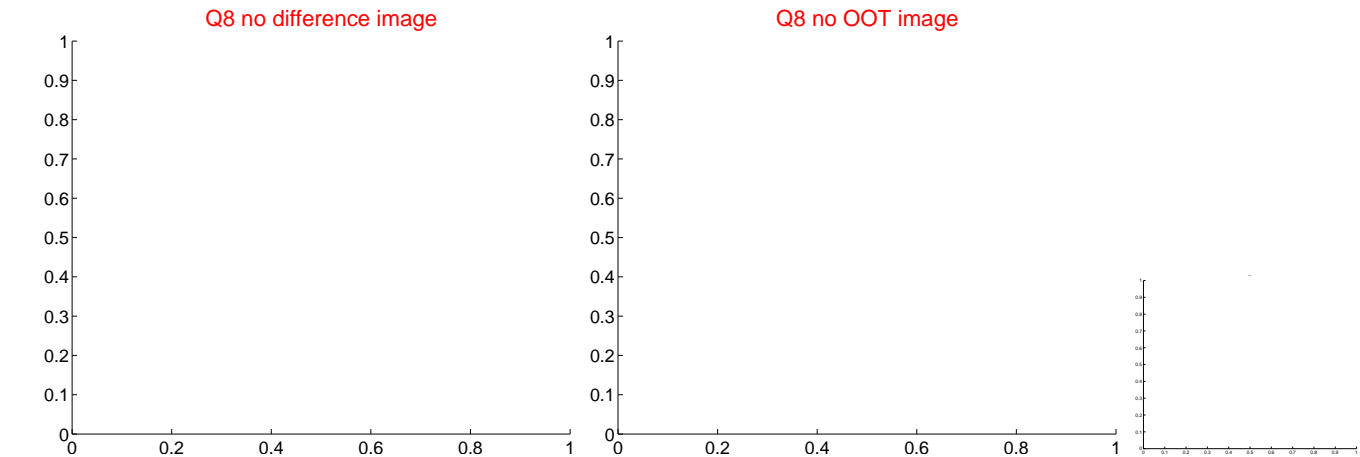
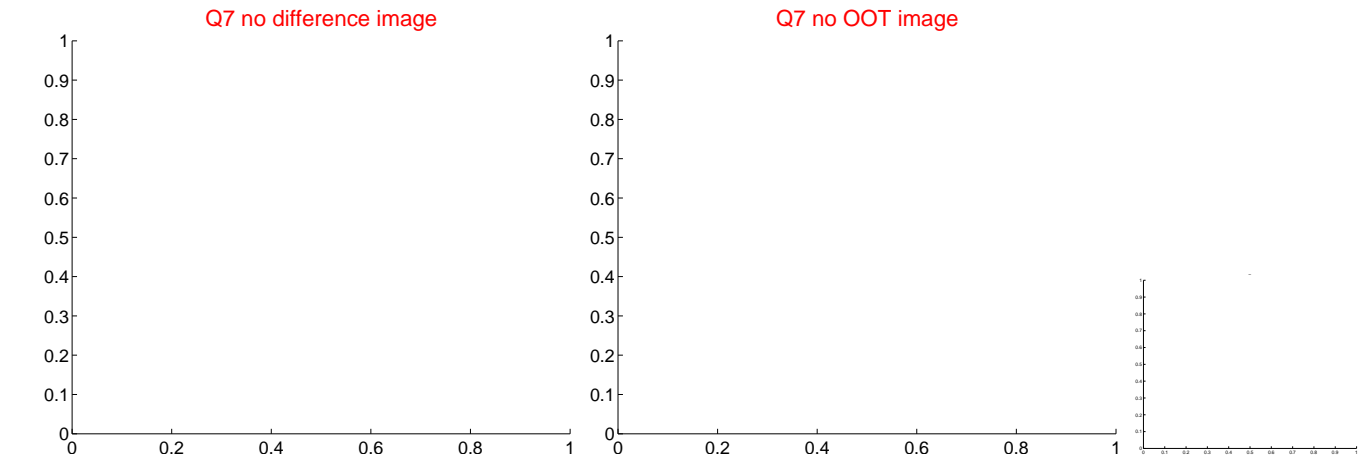
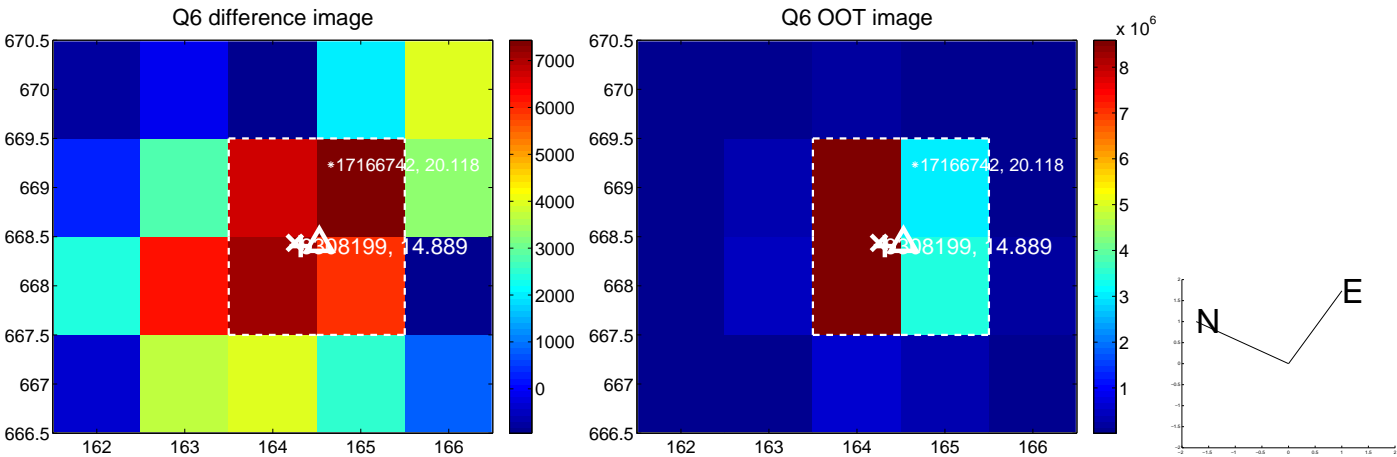
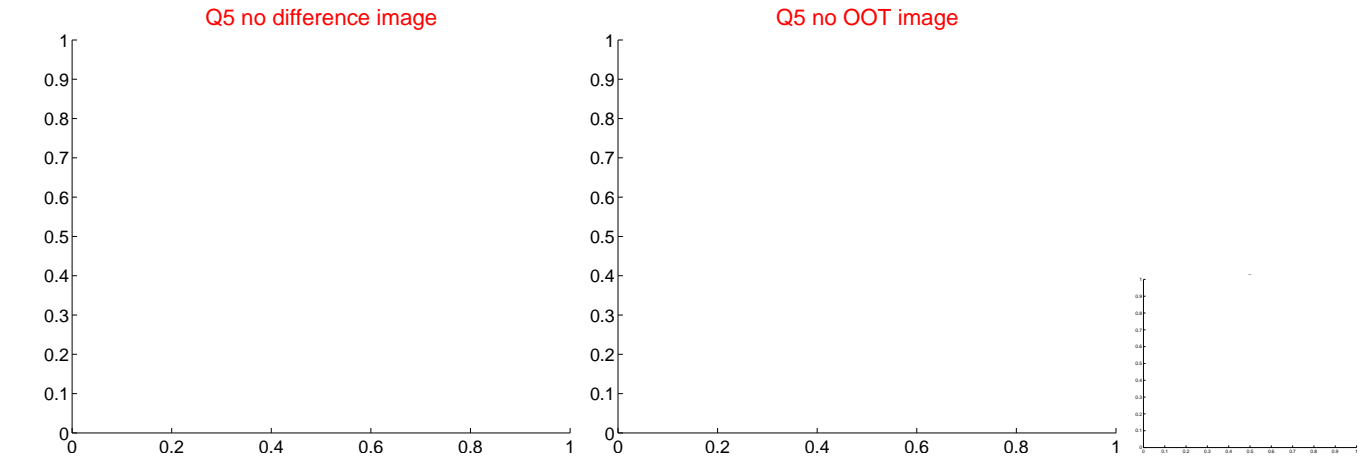


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

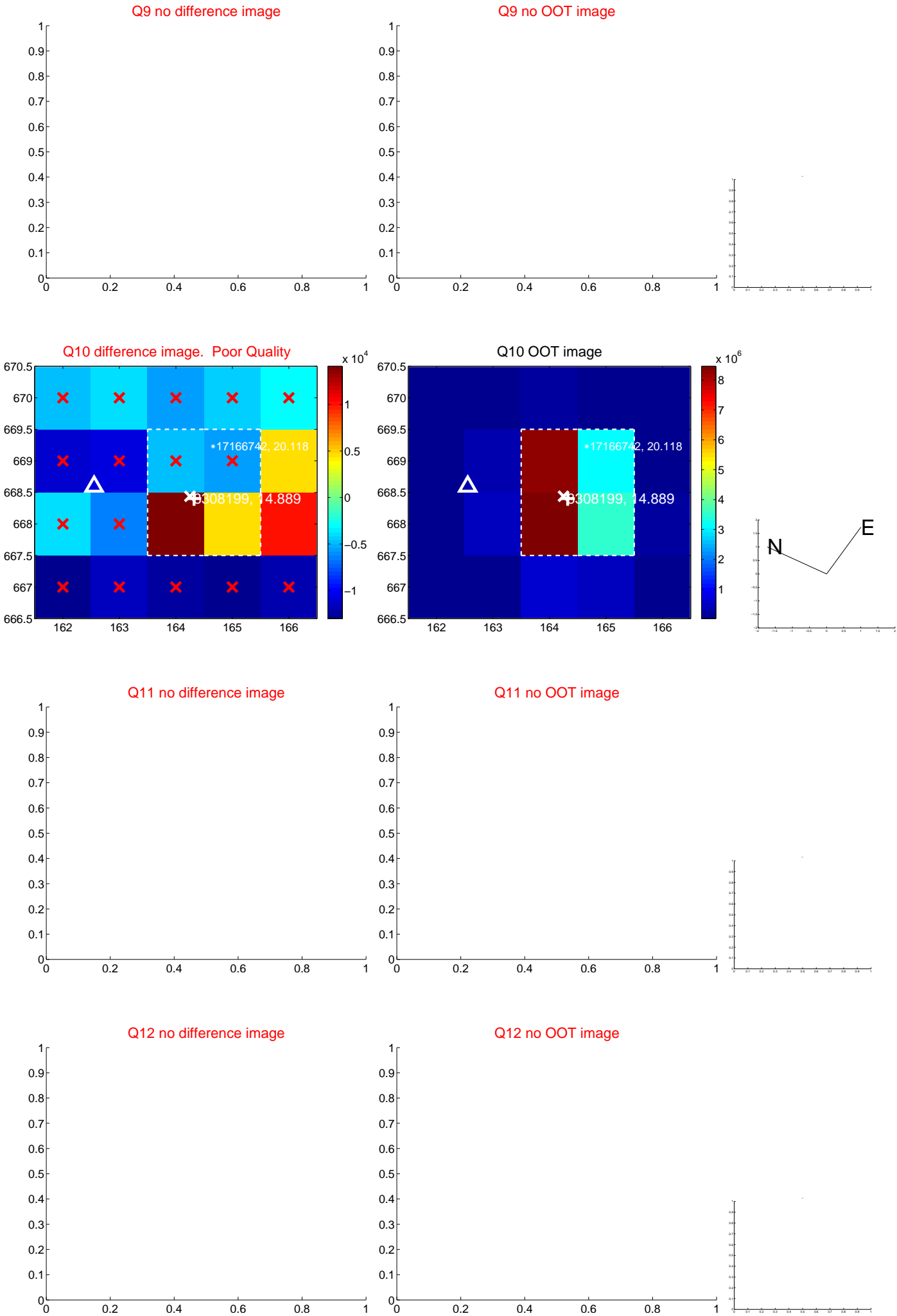
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



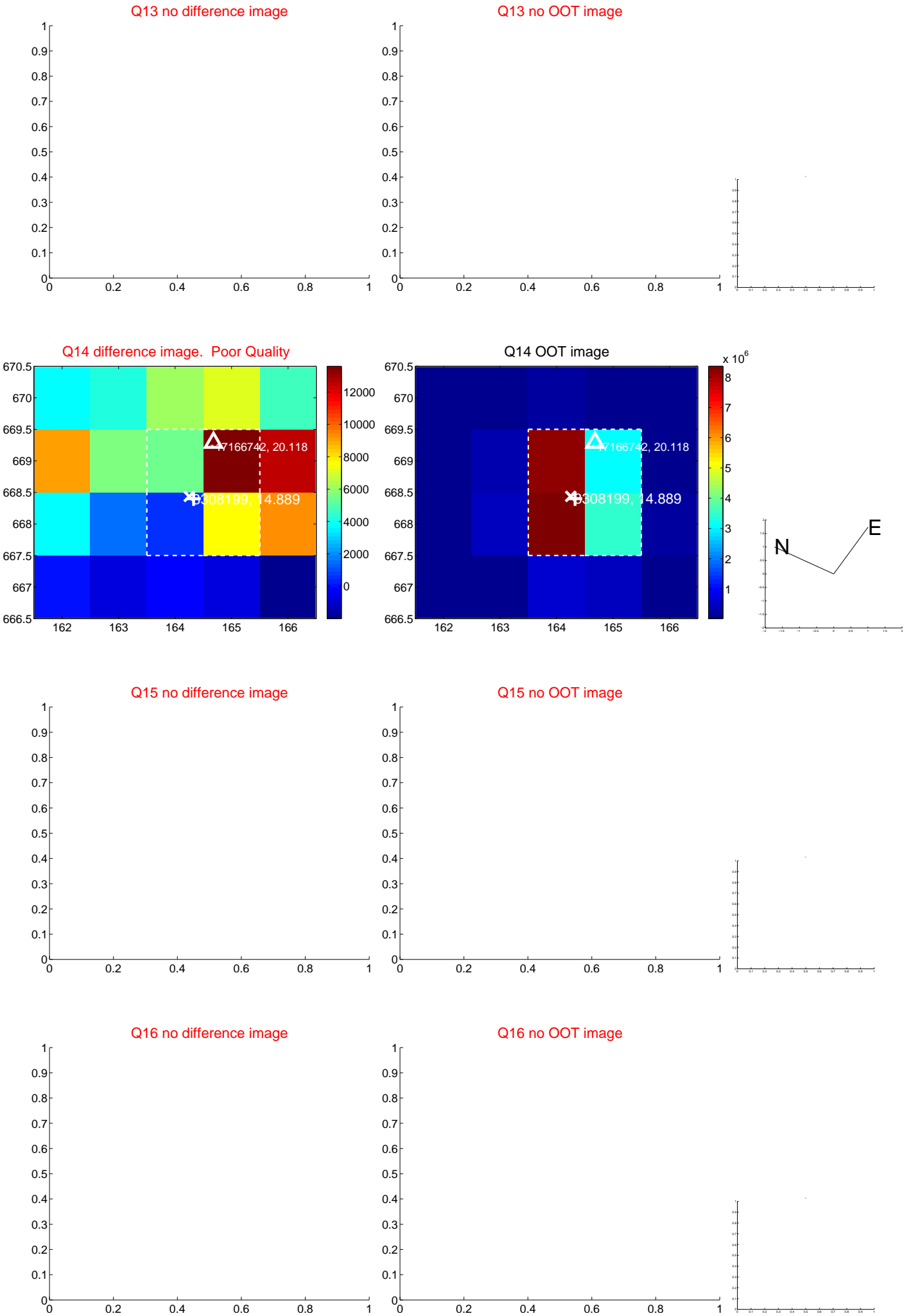
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



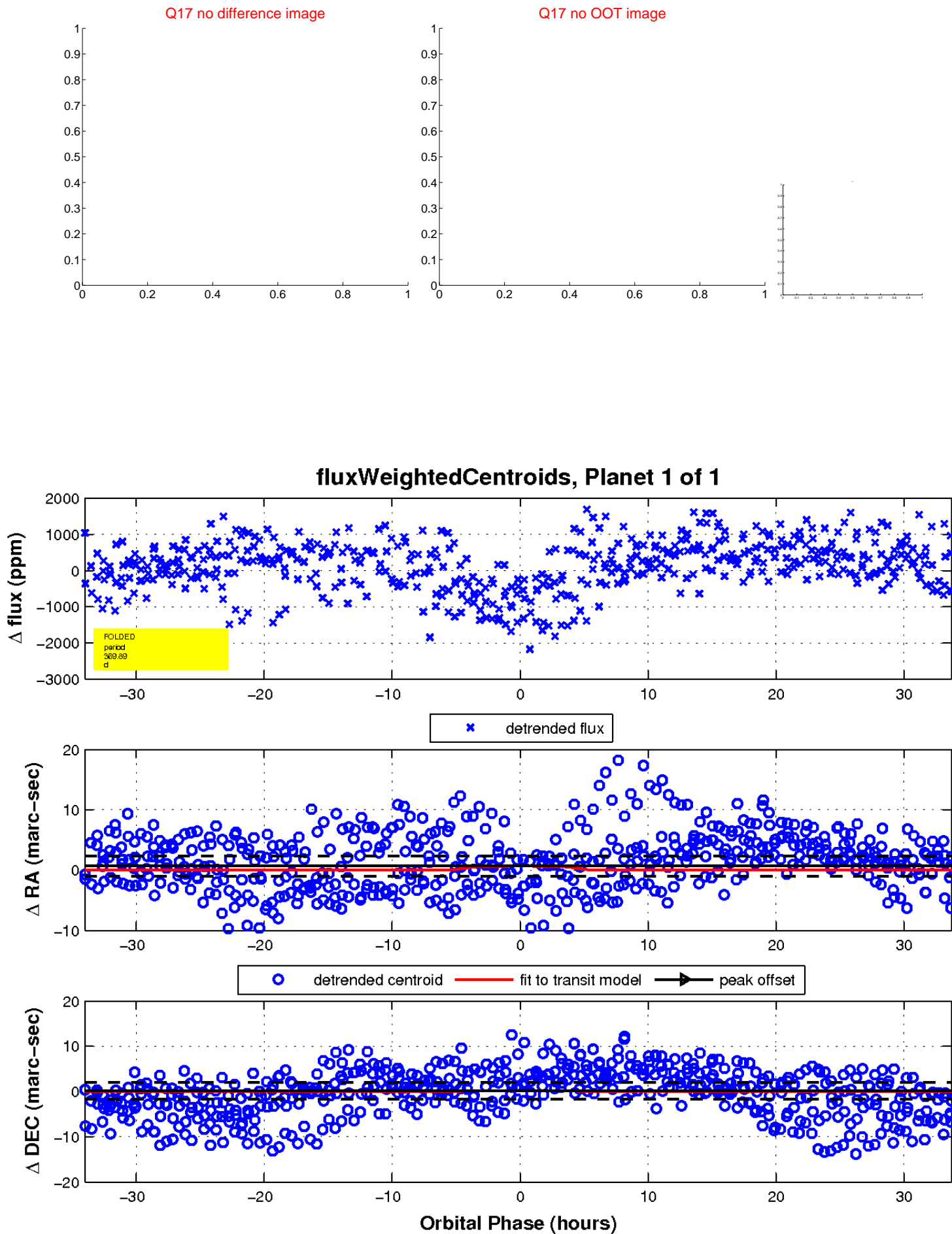
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

