

KIC 003750536

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})
003750536-01	OBS	No	308.023828	439.118845	354.5	3.026	16.5	2.8	2.32	5771	4.30	5.40

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003750536-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

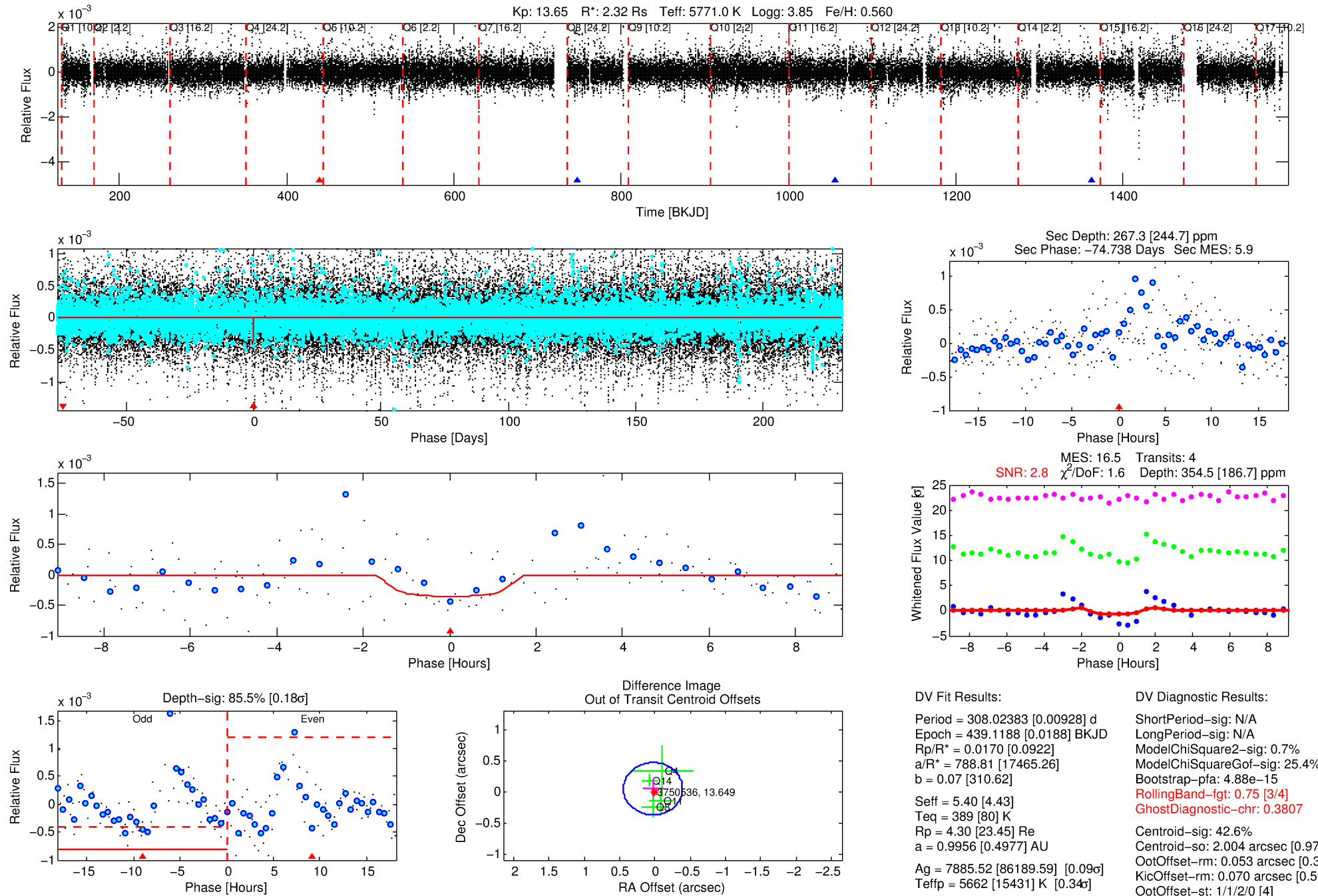
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003750536-01

No Significant Match Found

DV One-Page Summary

KIC: 3750536 Candidate: 1 of 1 Period: 308.024 d



DV Fit Results:

Period = 308.02383 [0.00928] d
Epoch = 439.1188 [0.0188] BKJD
Rp/R* = 0.0170 [0.0922]
a/R* = 788.81 [17465.26]
b = 0.07 [310.62]
Seff = 5.40 [4.43]
Teq = 389 [80] K
Rp = 4.30 [23.45] Re
a = 0.9956 [0.4977] AU
Ag = 7885.52 [86189.59] [0.09 σ]
Teff = 5662 [15431] K [0.34 σ]

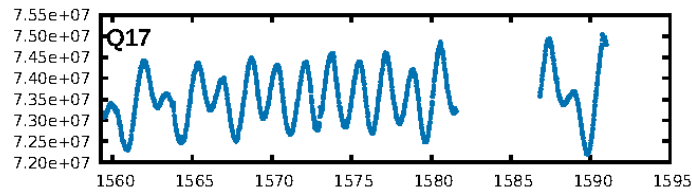
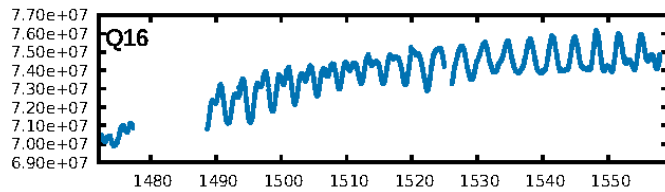
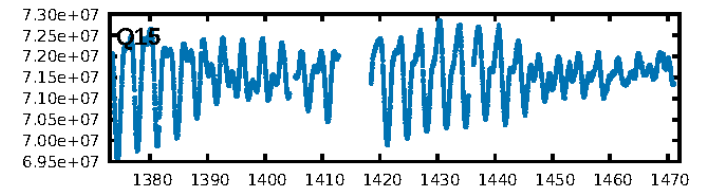
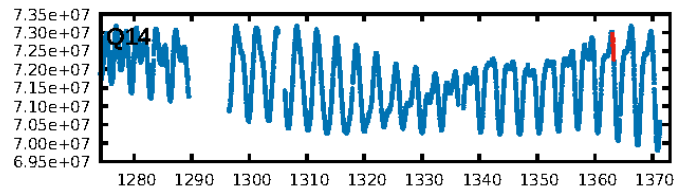
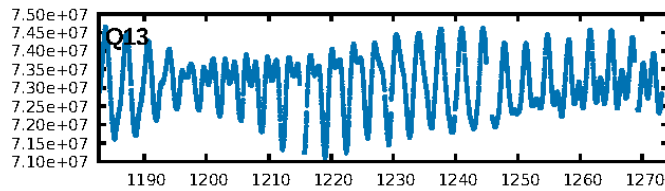
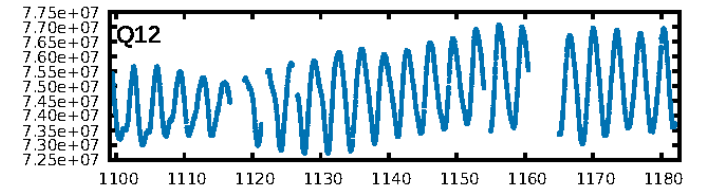
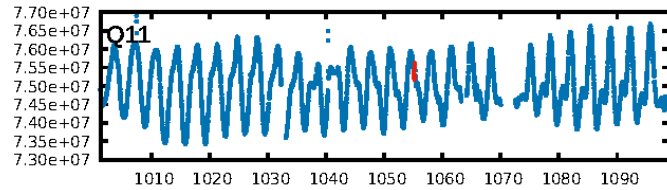
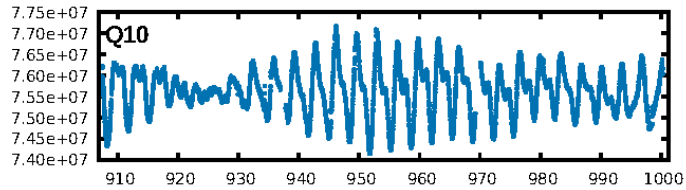
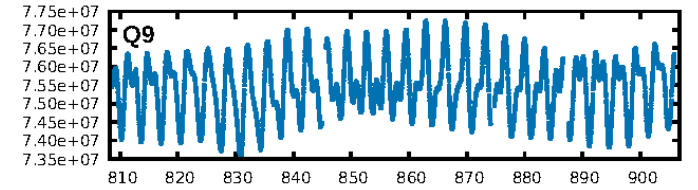
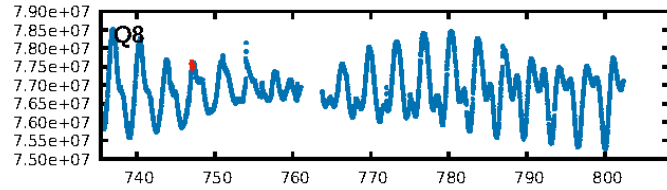
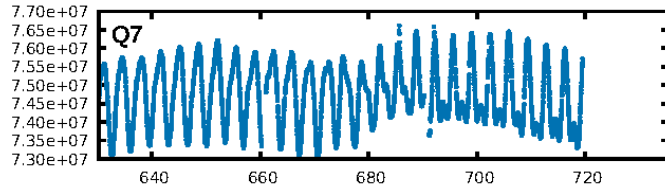
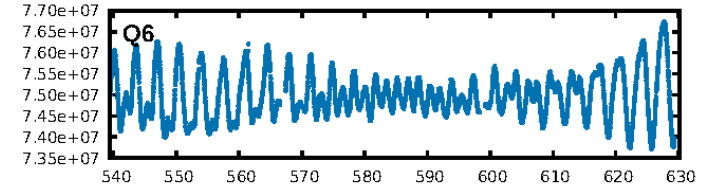
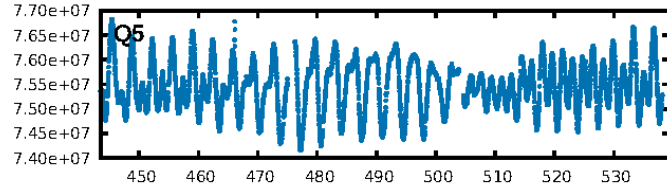
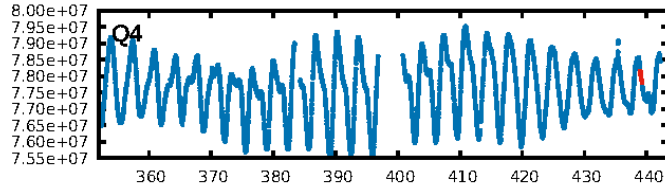
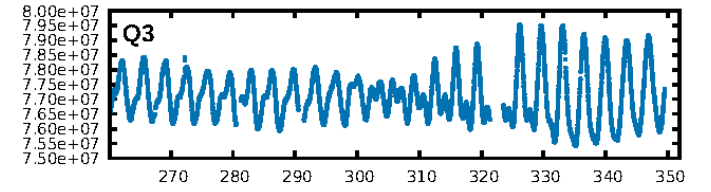
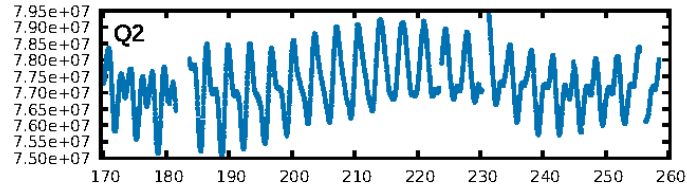
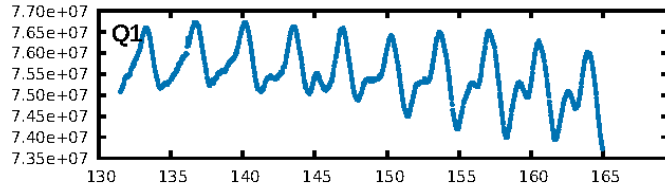
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.7%
ModelChiSquareGof-sig: 25.4%
Bootstrap-pfa: 4.88e-15
RollingBand-fgt: 0.75 [3/4]
GhostDiagnostic-chr: 0.3807
Centroid-sig: 42.6%
Centroid-so: 2.004 arcsec [0.97 σ]
OotOffset-rm: 0.053 arcsec [0.38 σ]
KicOffset-rm: 0.070 arcsec [0.50 σ]
OotOffset-st: 1/1/2/0 [4]
KicOffset-st: 1/1/2/0 [4]
DiffImageQuality-fgm: 0.50 [2/4]
DiffImageOverlap-fno: 1.00 [4/4]

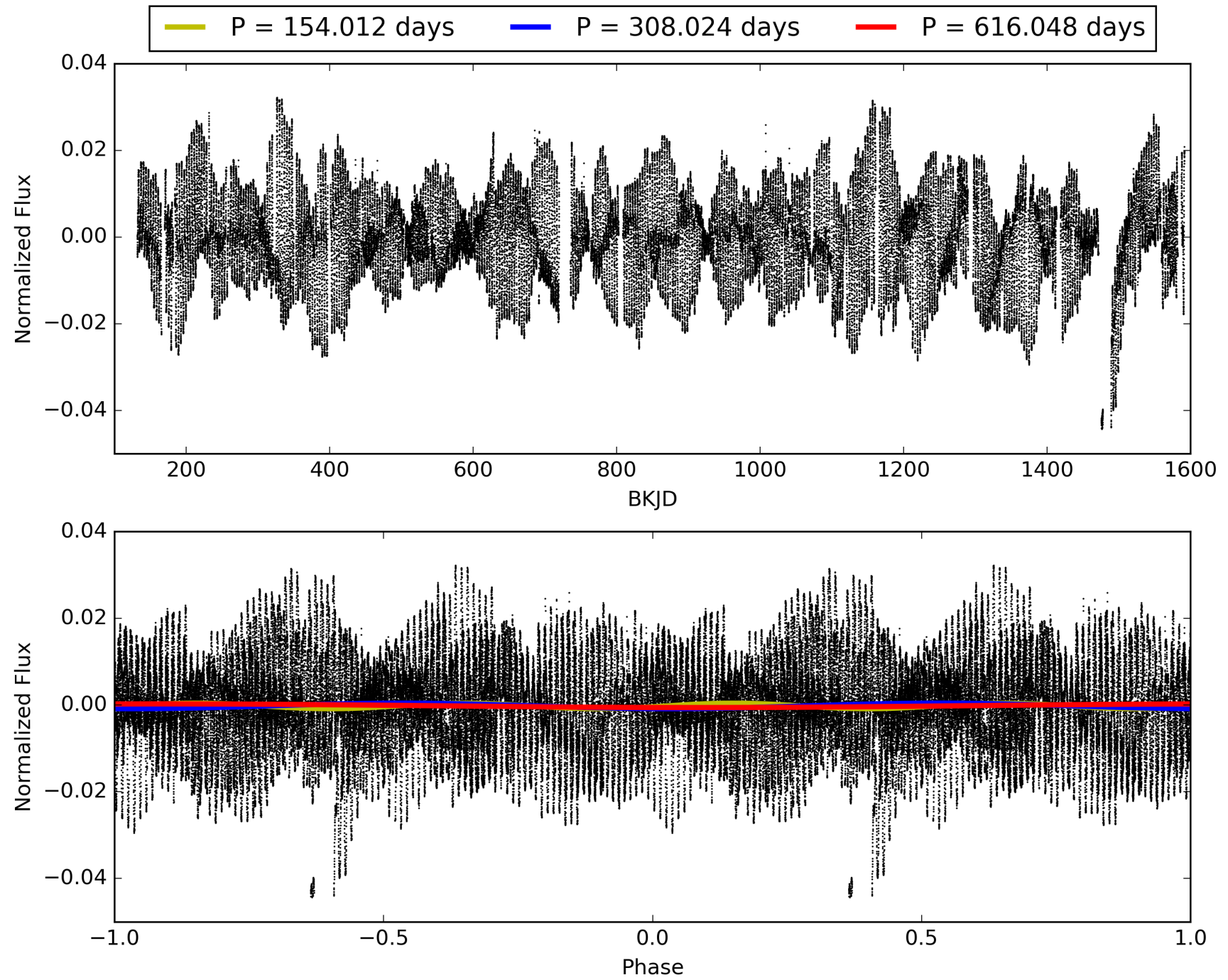
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 09:52:50 Z

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

TCE 003750536-01, PDC Light Curves

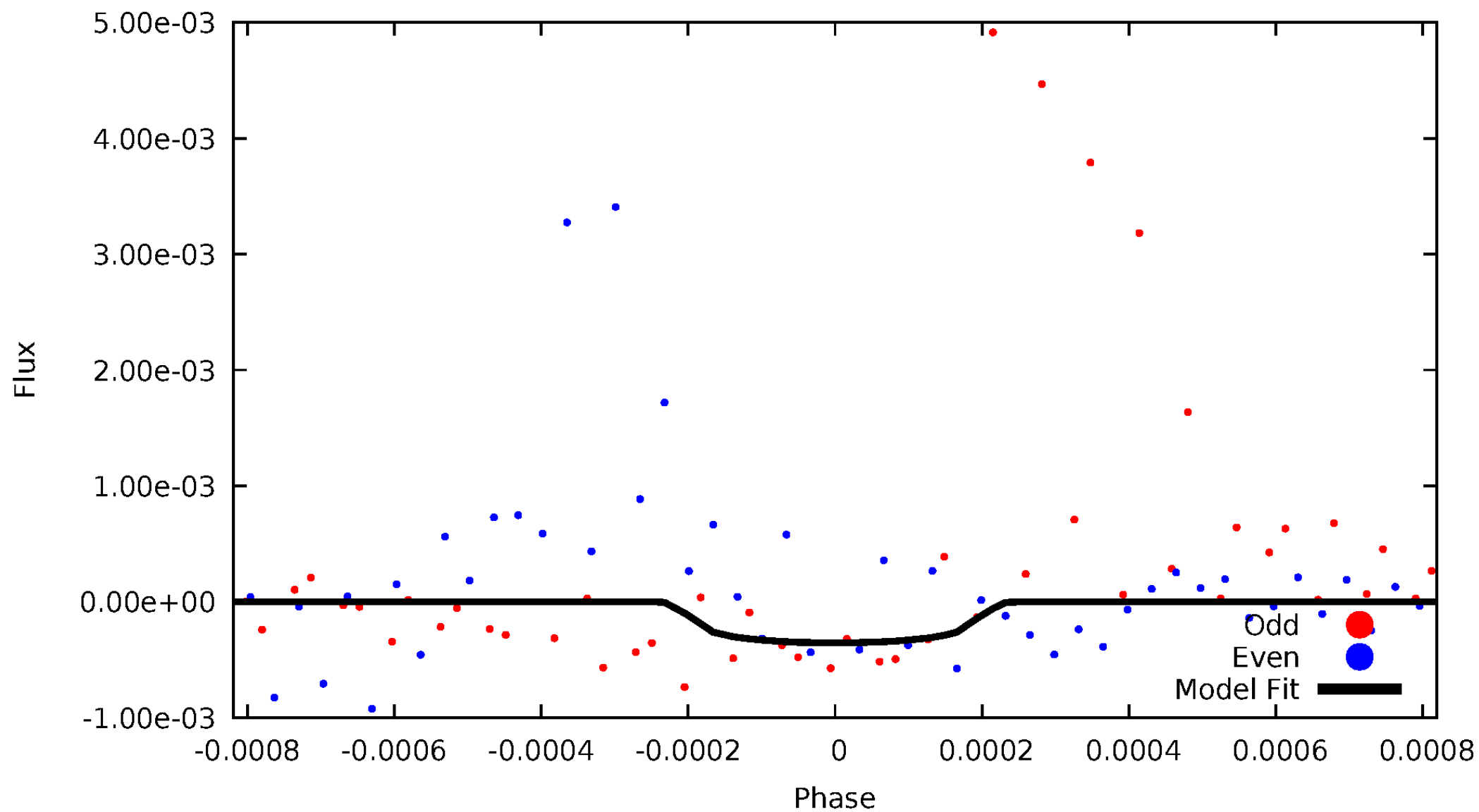


TCE 003750536-01



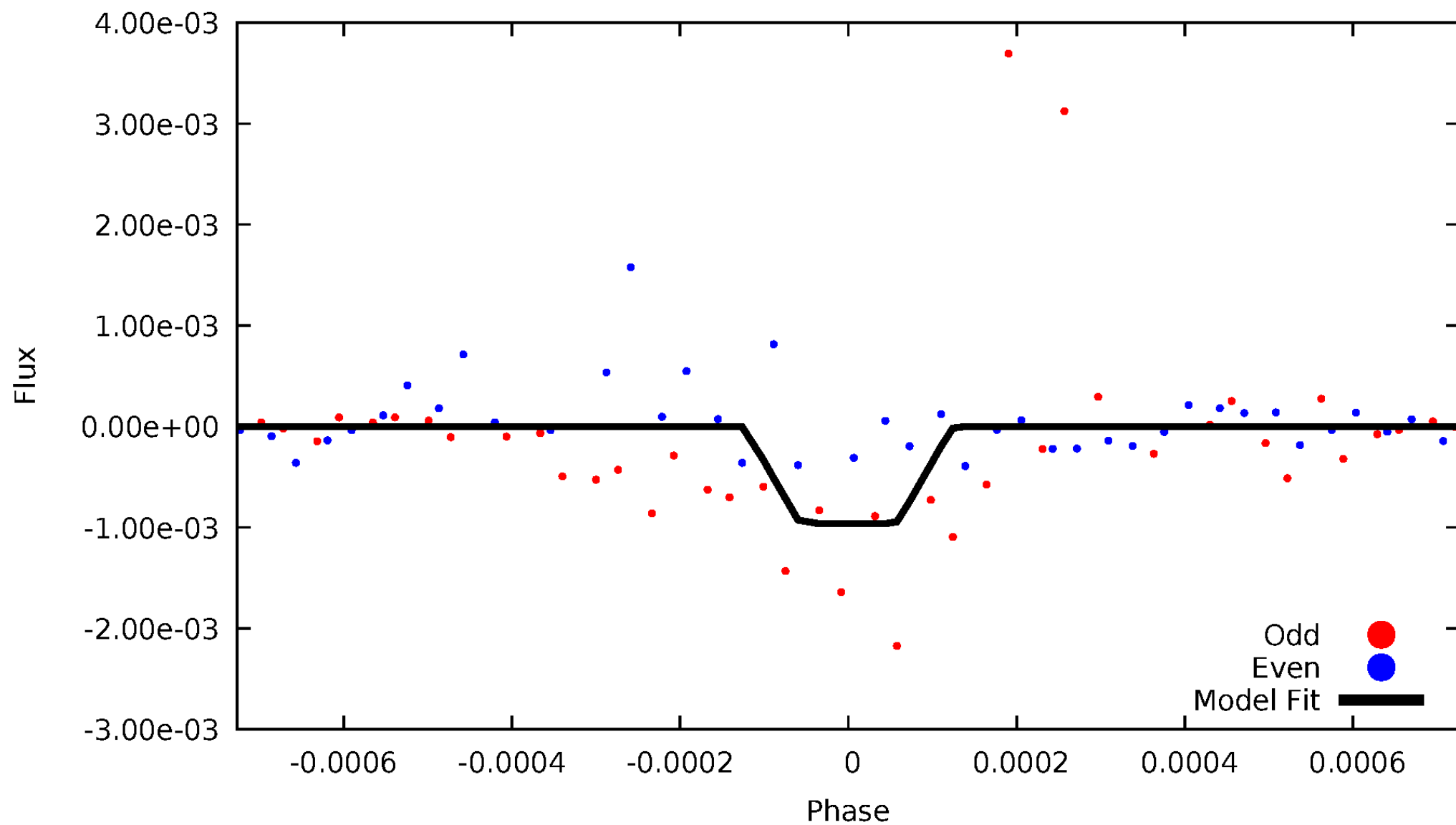
DV Odd/Even

TCE 003750536-01



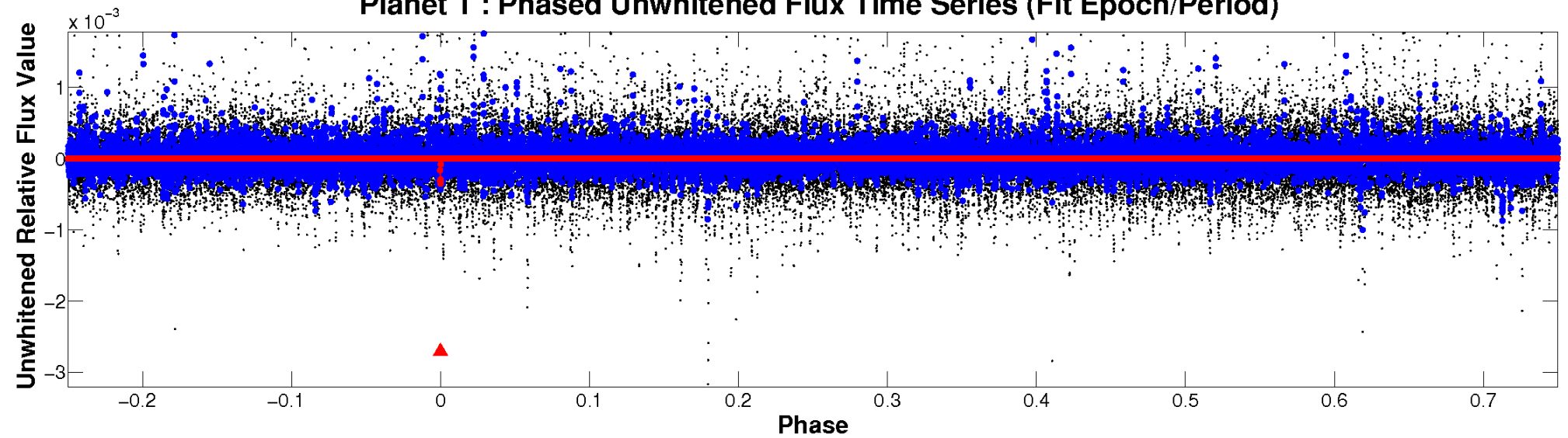
ALT Odd/Even

TCE 003750536-01

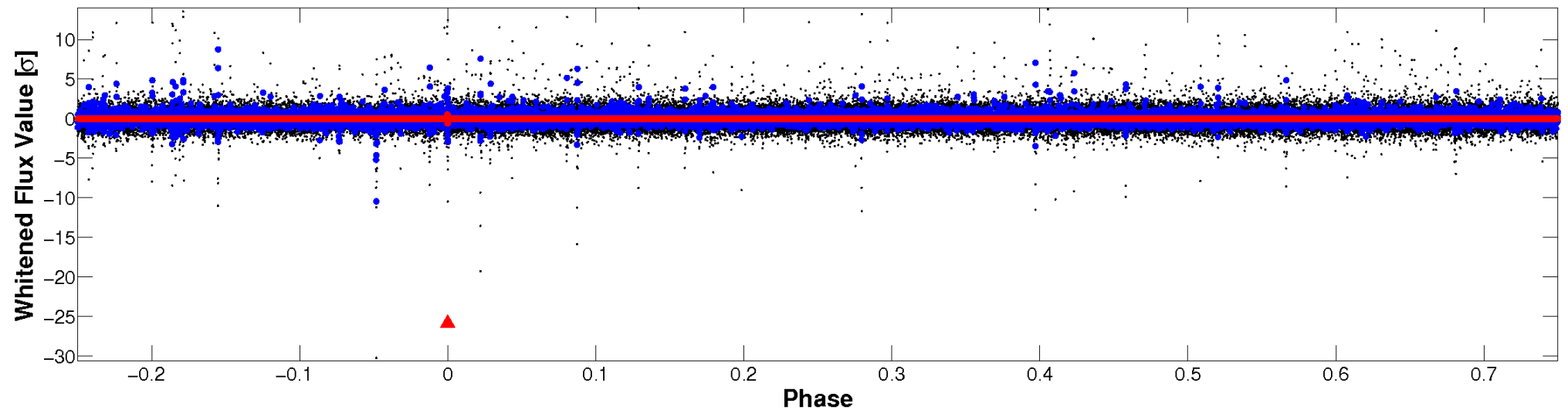


Non-Whitened Vs. Whitened Light Curve

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

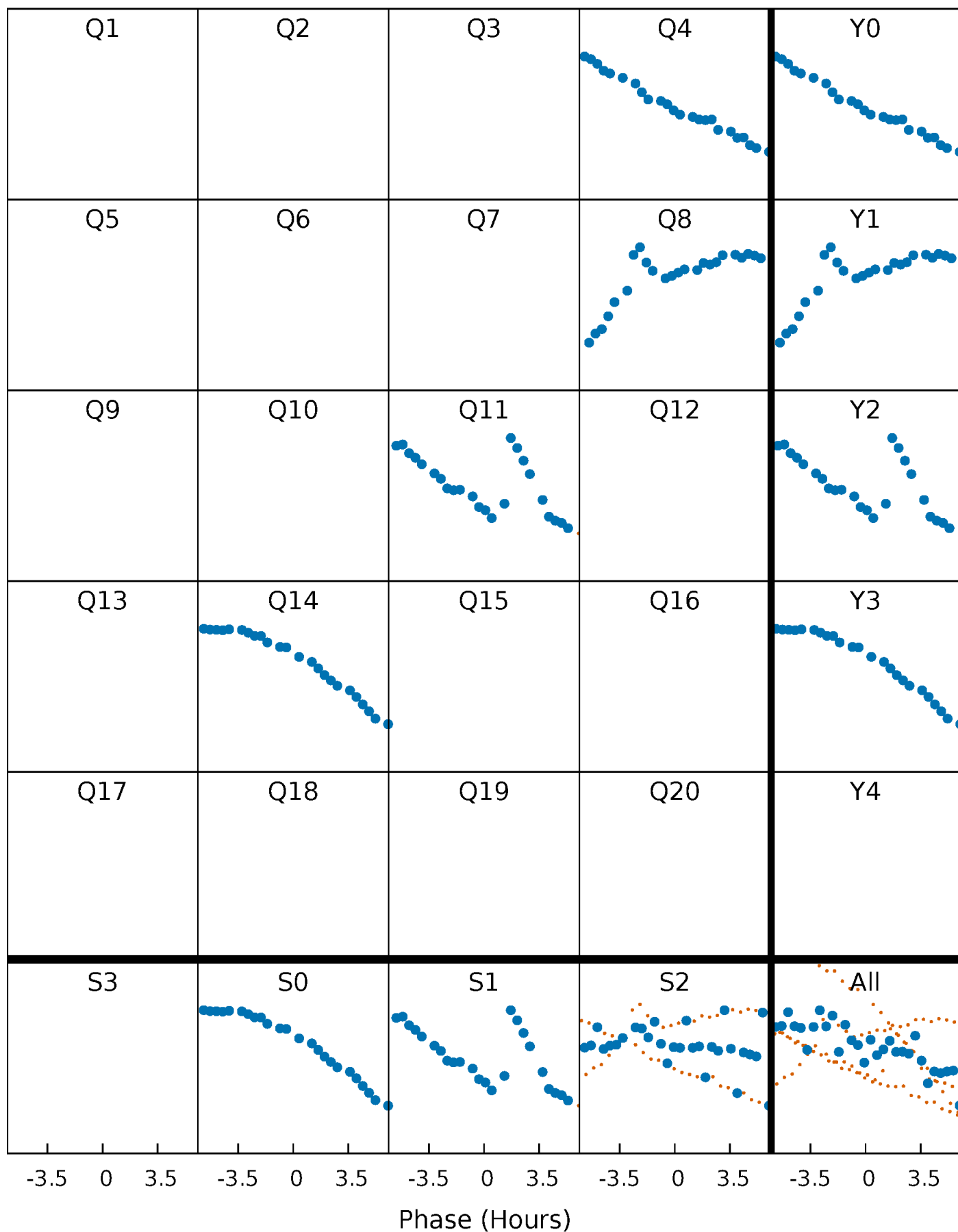


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



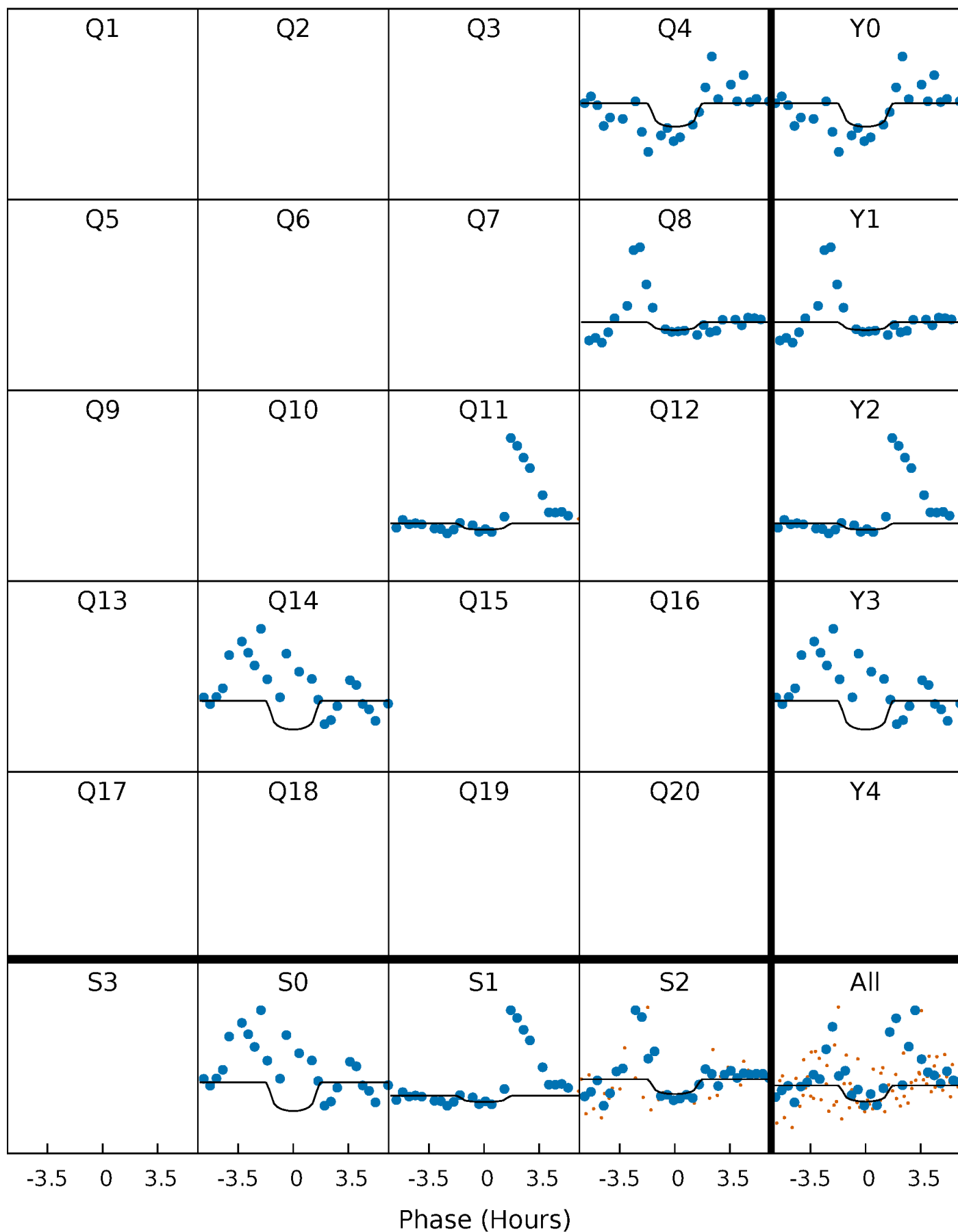
PDC Quarter-Phased Transit Curves

TCE 003750536-01 P=308.023828 Days $T_0=439.118845$ (BKJD)



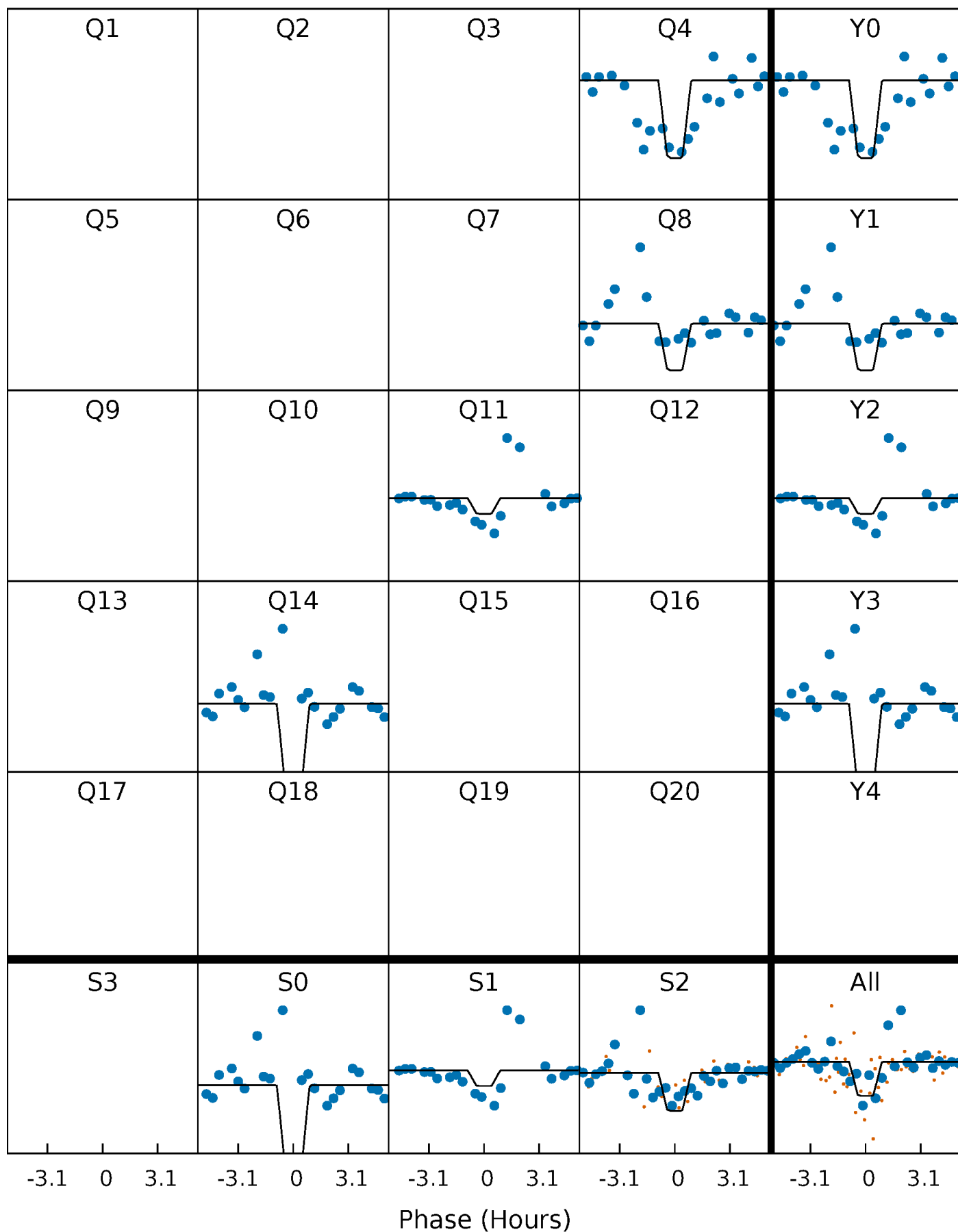
DV Quarter-Phased Transit Curves

TCE 003750536-01 P=308.023828 Days $T_0=439.118845$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

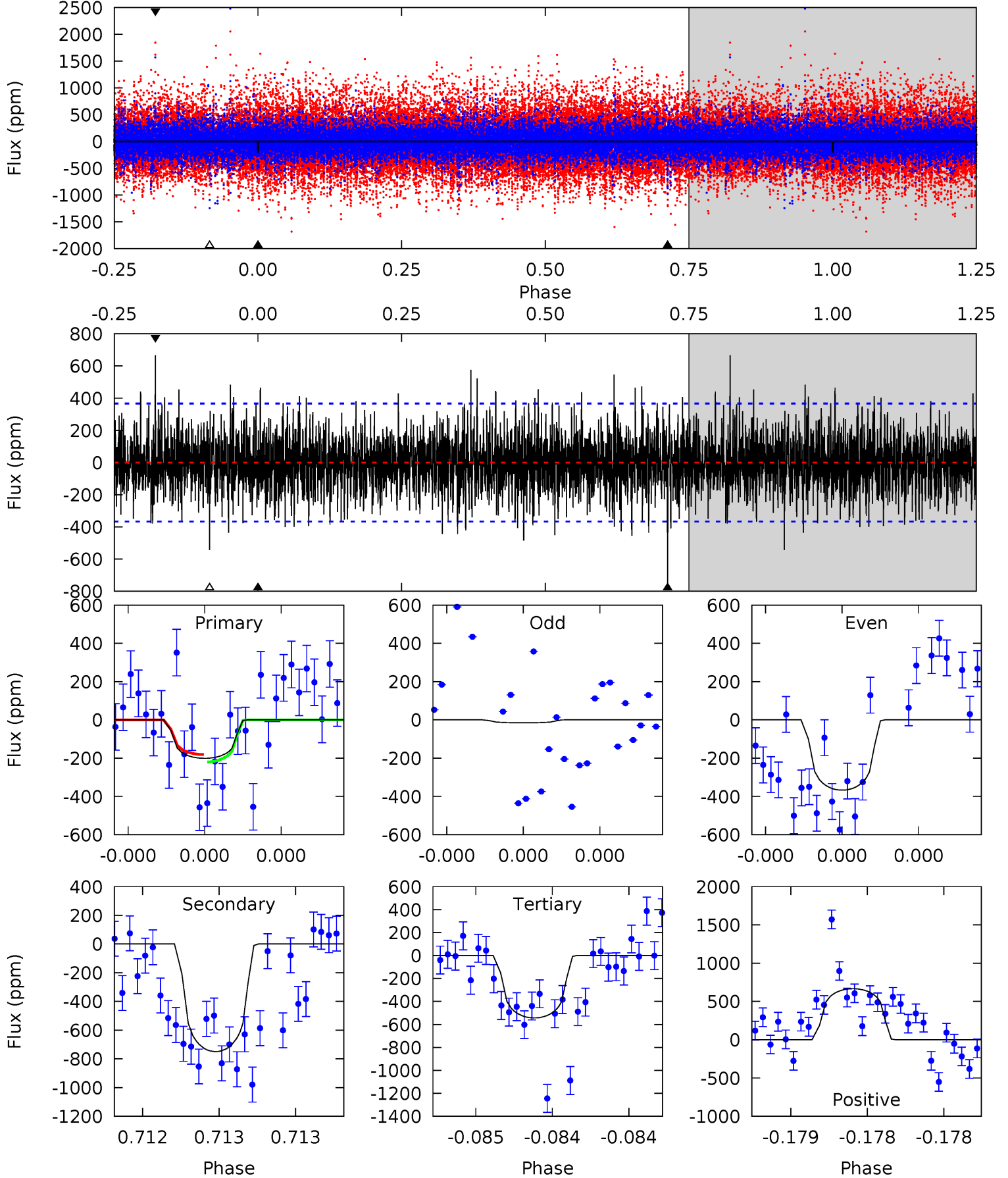
TCE 003750536-01 P=308.023173 Days $T_0=439.127707$ (BKJD)



DV Model-Shift Uniqueness Test

003750536-01, P = 308.023828 Days, E = 131.095017 Days

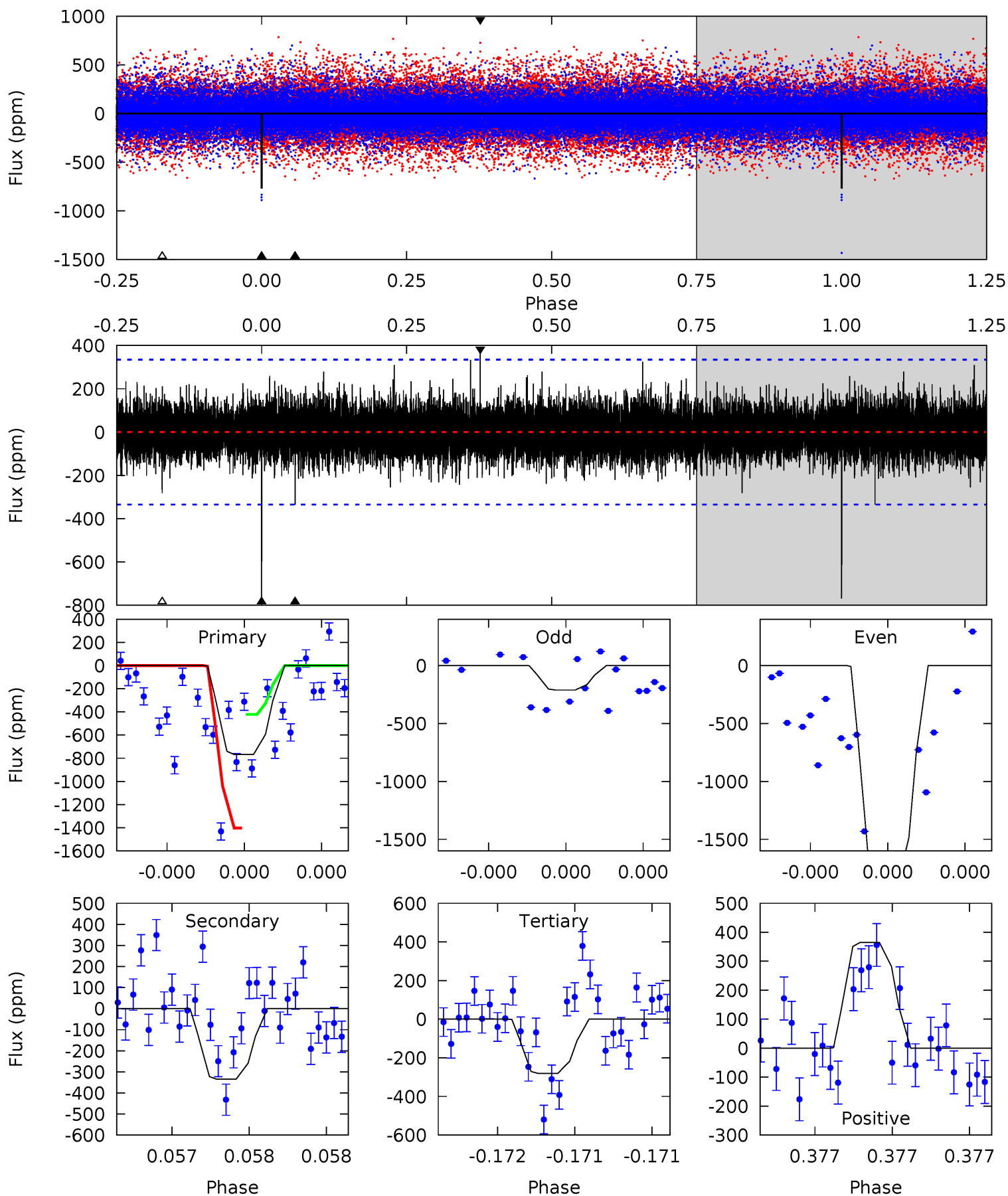
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.06	11.4	8.28	10.1	5.59	3.50	2.03	-5.22	-7.09	3.14	1.26	2.55	0.75	0.47	0.30



Alt Model-Shift Uniqueness Test

003750536-01, P = 308.023173 Days, E = 131.104534 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.0	5.69	4.78	6.20	5.68	3.65	1.10	8.27	6.85	0.91	-0.51	16.9	1.09	0.32	8.84



Stellar Parameters For KIC 003750536

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5771^{+175}_{-193}	$3.849^{+0.480}_{-0.120}$	$0.560^{+0.050}_{-0.300}$	$2.320^{+0.470}_{-1.176}$	$1.385^{+0.140}_{-0.326}$	$0.156^{+0.804}_{-0.058}$
	+3%/-3%	+12%/-3%	+9%/-54%	+20%/-51%	+10%/-24%	+514%/-37%
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 003750536-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-750 ± 66	$15.77^{+17.04}_{-10.99}$	528^{+44}_{-69}	3912^{+2440}_{-767}	1651^{+15376}_{-1272}
Alt.	-335 ± 59	$16.12^{+19.03}_{-11.29}$	531^{+42}_{-67}	3409^{+1812}_{-658}	701^{+6965}_{-561}

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 $A_{obs} \gg 1.0$

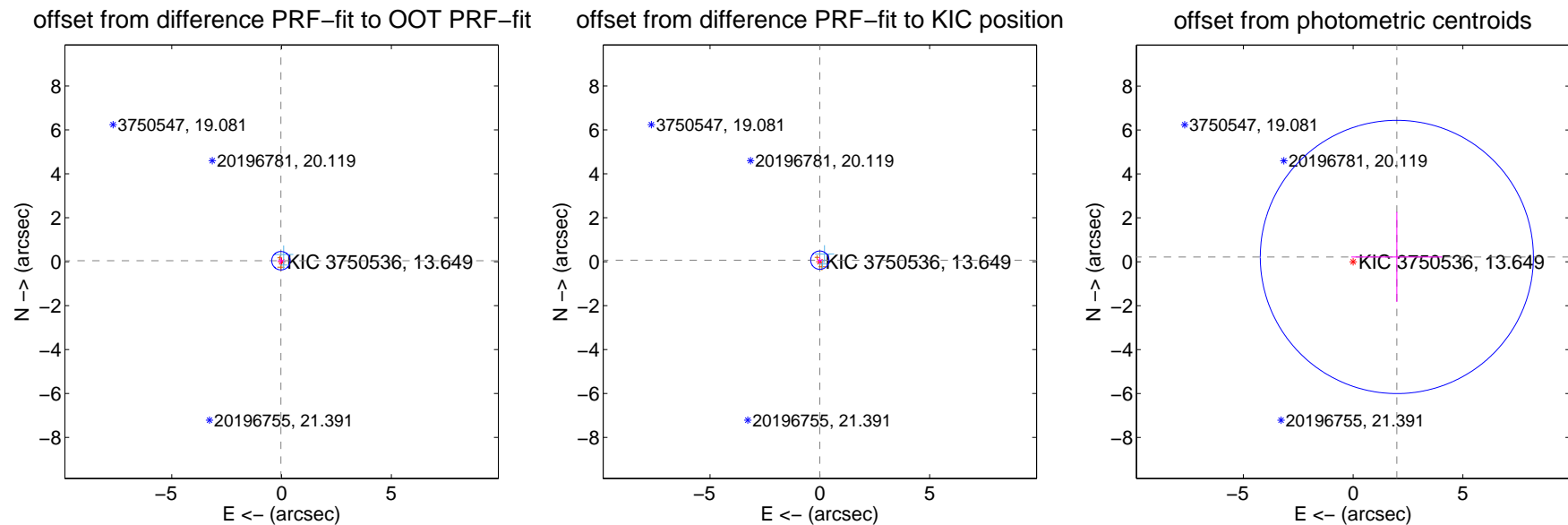
DV Centroid Data

Supplemental centroid analysis for 003750536-01. Kepler magnitude: 13.65. Transit SNR 2.83

There are 2 quarters with good PRF difference image offsets

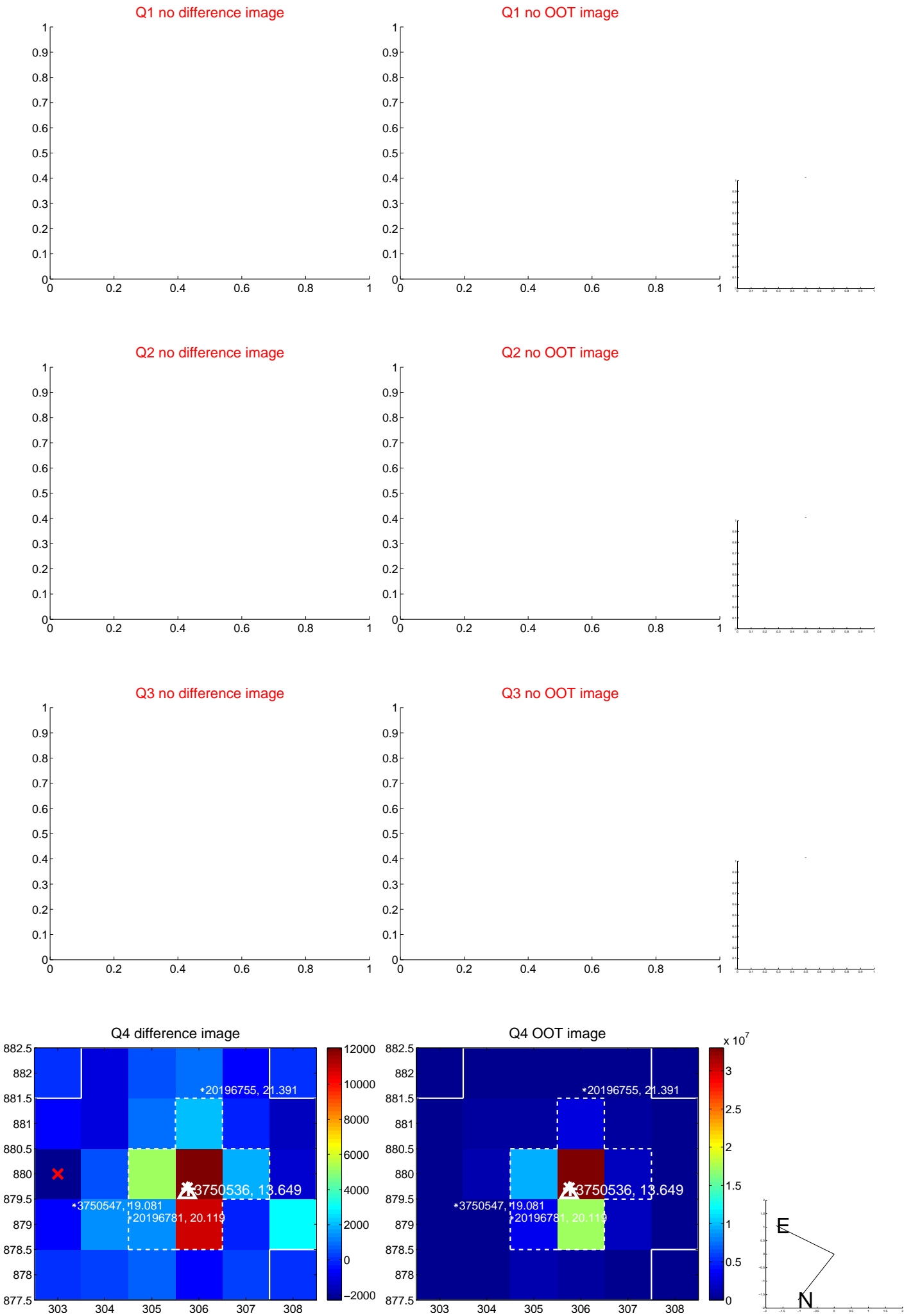
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.053 ± 0.140	0.38	0.029 ± 0.144	0.045 ± 0.138
PRF-fit source offset from KIC position	0.070 ± 0.139	0.50	0.000 ± 0.109	0.070 ± 0.139
photometric centroid source offset	2.00 ± 2.07	0.97	-1.99 ± 2.07	0.22 ± 2.05

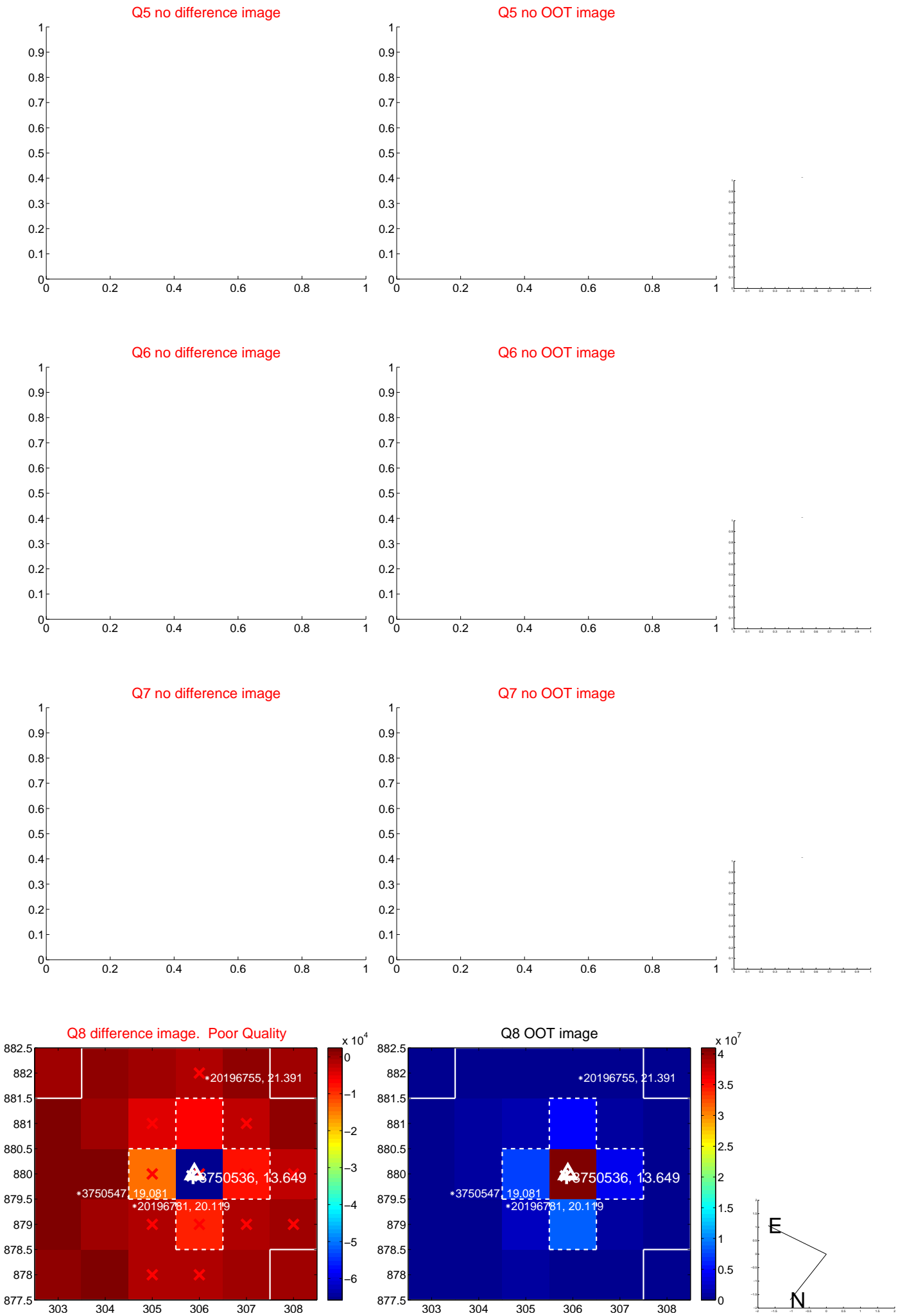


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

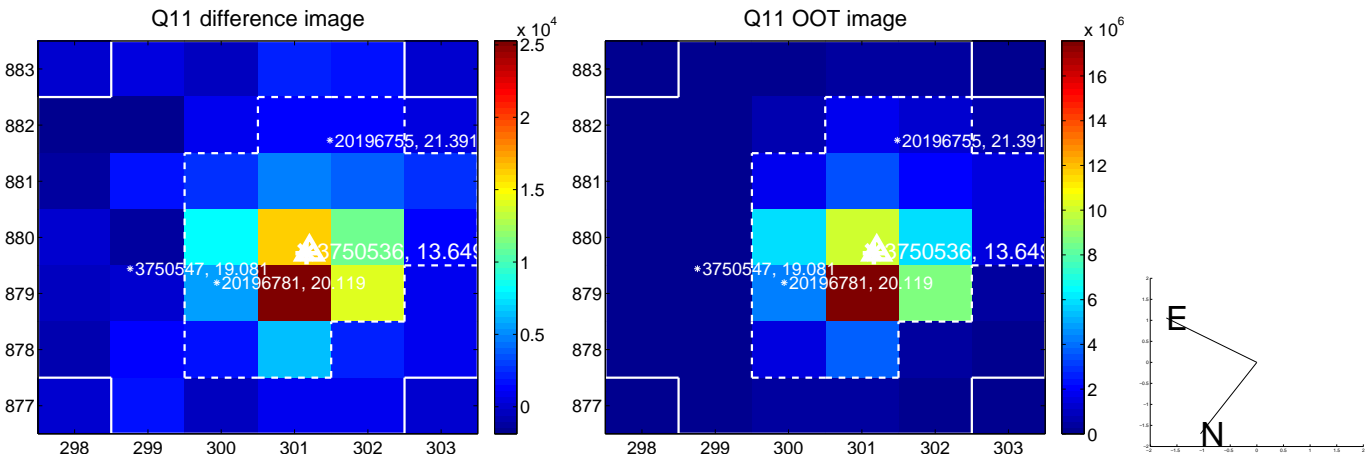
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



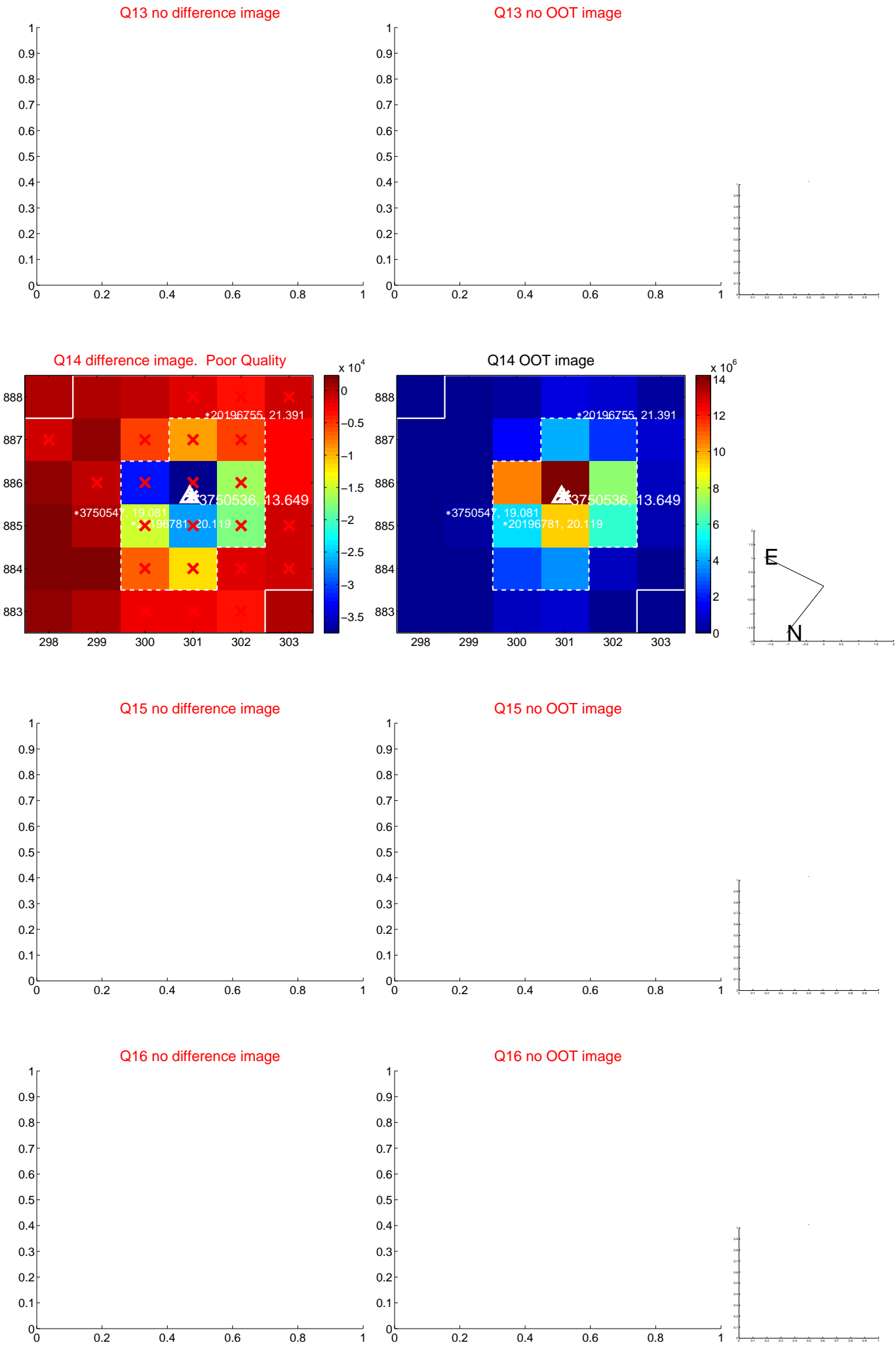
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



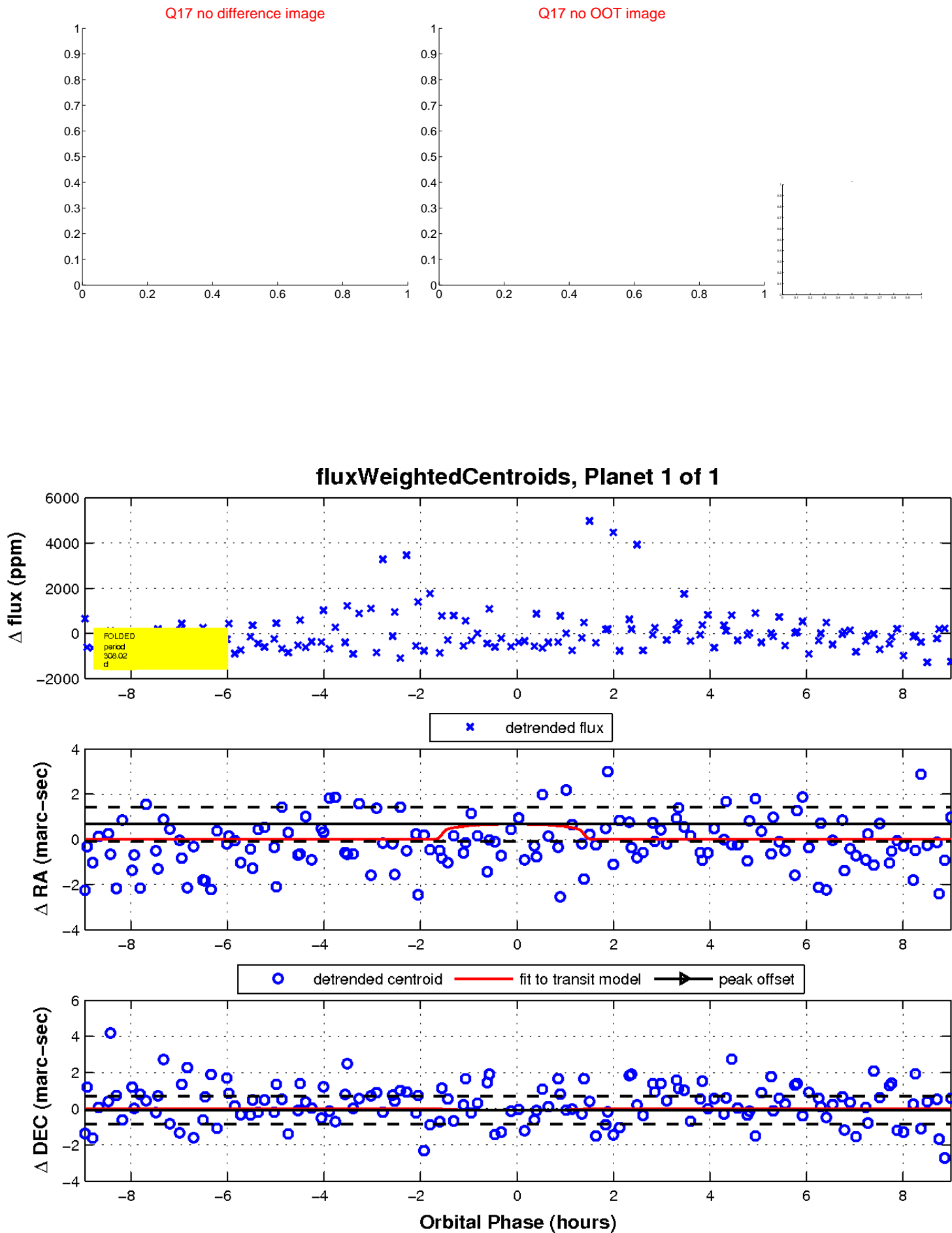
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: 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.



UKIRT Image

Declination

