

KIC 007617352

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})
007617352-01	OBS	No	339.689314	295.534159	427.1	11.749	8.0	6.4	0.76	5586	1.74	0.63

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007617352-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—MOD_NONUNIQ_ALT—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.

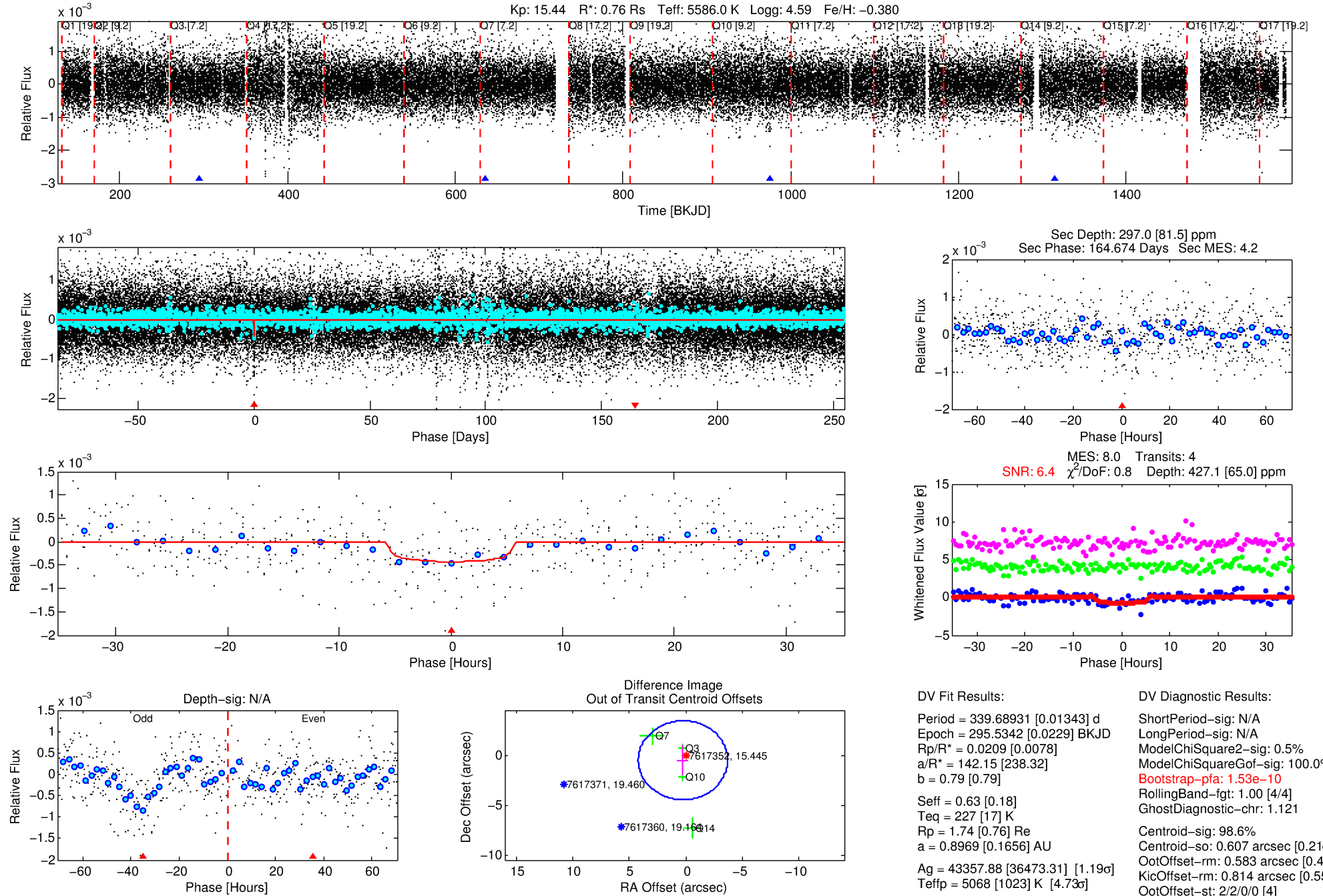
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007617352-01

No Significant Match Found

DV One-Page Summary

KIC: 7617352 Candidate: 1 of 1 Period: 339.689 d



DV Fit Results:

Period = 339.68931 [0.01343] d
 Epoch = 295.5342 [0.0229] BKJD
 Rp/R* = 0.0209 [0.0078]
 a/R* = 142.15 [238.32]
 b = 0.79 [0.79]
 Seff = 0.63 [0.18]
 Teq = 227 [17] K
 Rp = 1.74 [0.76] Re
 a = 0.8969 [0.1656] AU
 Ag = 43357.88 [36473.31] [1.19σ]
 Tefp = 5068 [1023] K [4.73σ]

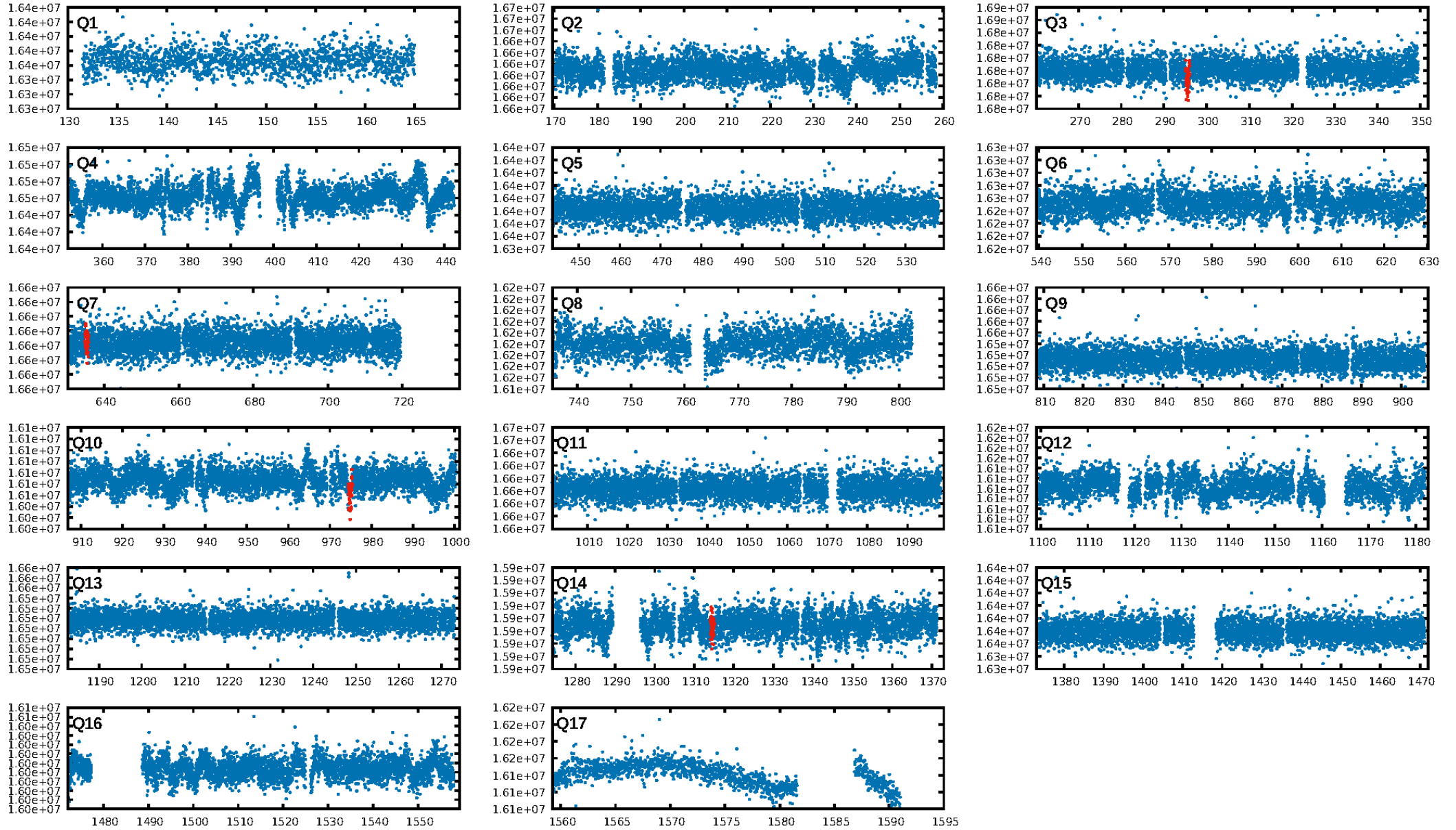
DV Diagnostic Results:

ShortPeriod-sig: N/A
 LongPeriod-sig: N/A
 ModelChiSquare2-sig: 0.5%
 ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.53e-10
 RollingBand-fgt: 1.00 [4/4]
 GhostDiagnostic-chr: 1.121
 Centroid-sig: 98.6%
 Centroid-so: 0.607 arcsec [0.21σ]
 OotOffset-rm: 0.583 arcsec [0.44σ]
 OotOffset-st: 2/2/0/0 [4]
 KicOffset-rm: 0.814 arcsec [0.55σ]
 KicOffset-st: 2/2/0/0 [4]
 DiffImageQuality-fgm: 0.25 [1/4]
 DiffImageOverlap-fno: 1.00 [4/4]

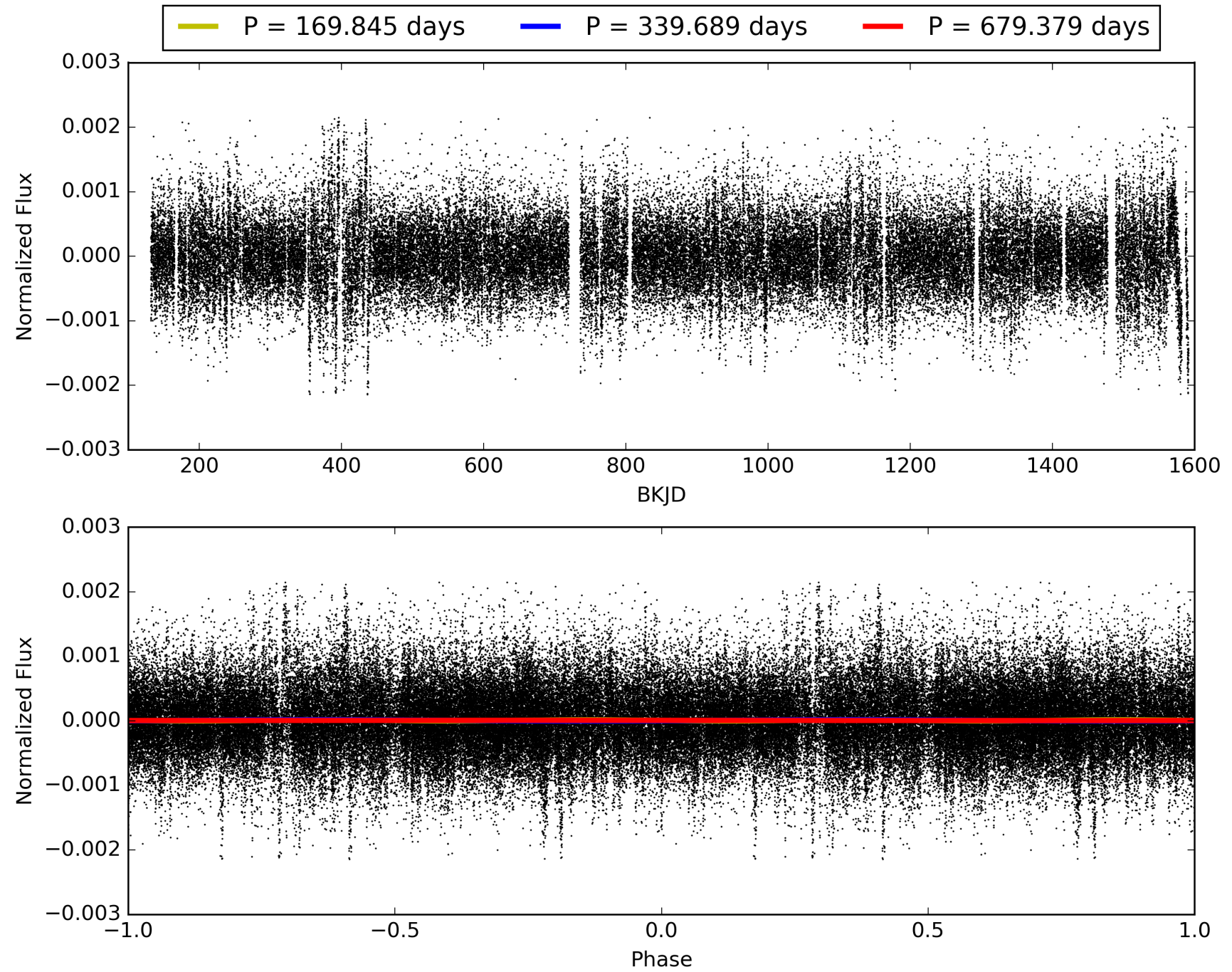
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 23:56:27 Z

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

TCE 007617352-01, PDC Light Curves

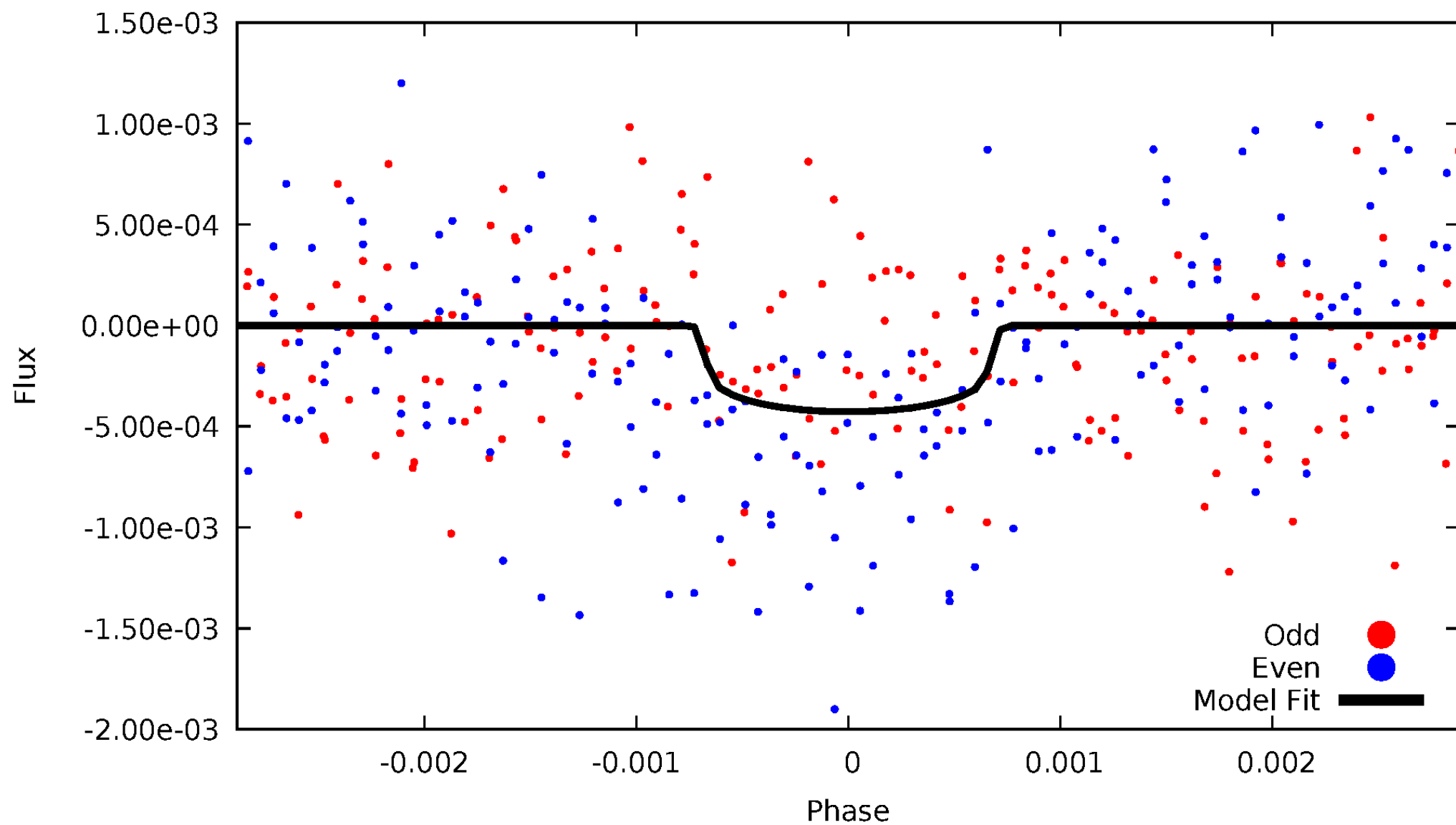


TCE 007617352-01



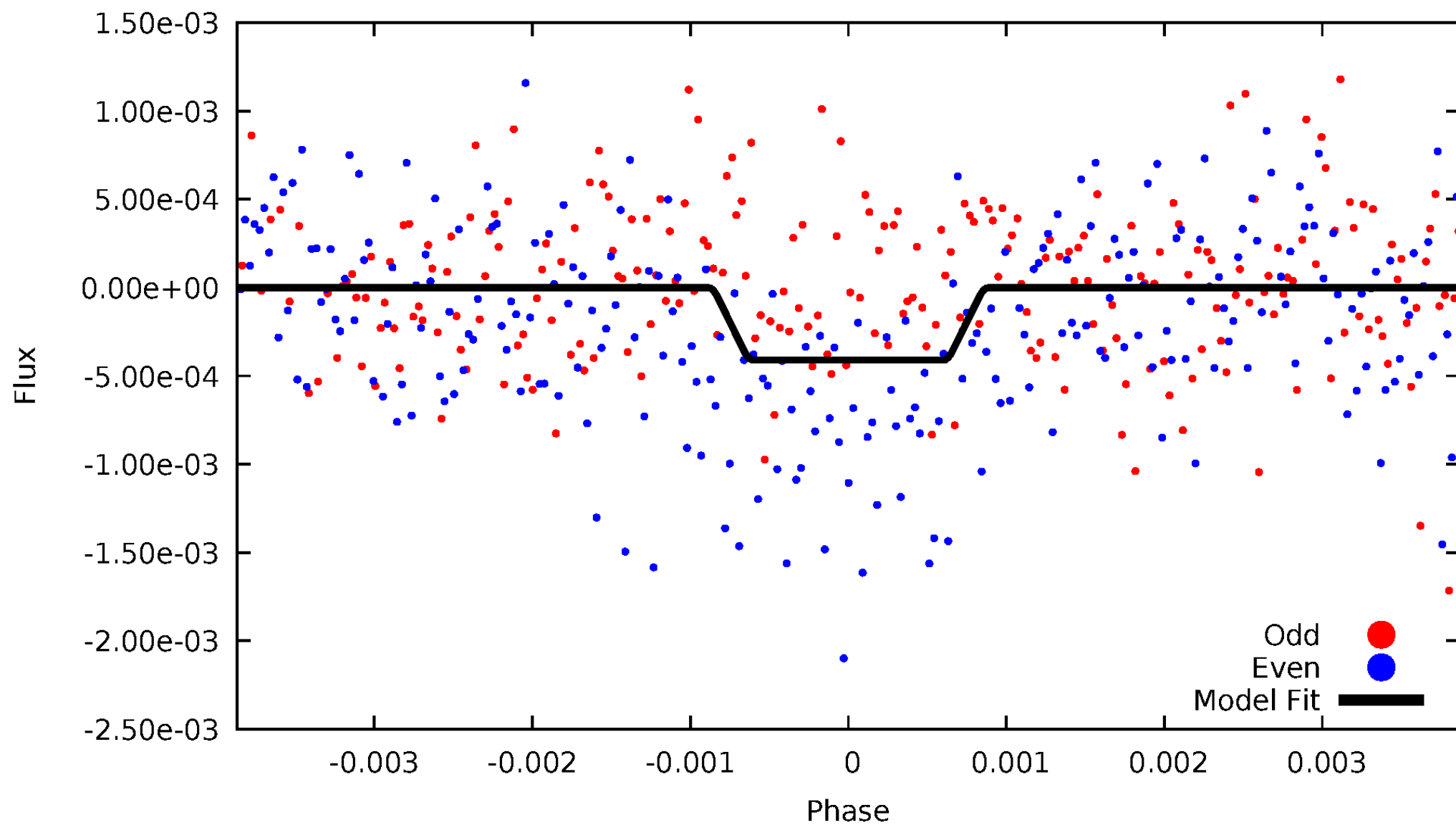
DV Odd/Even

TCE 007617352-01

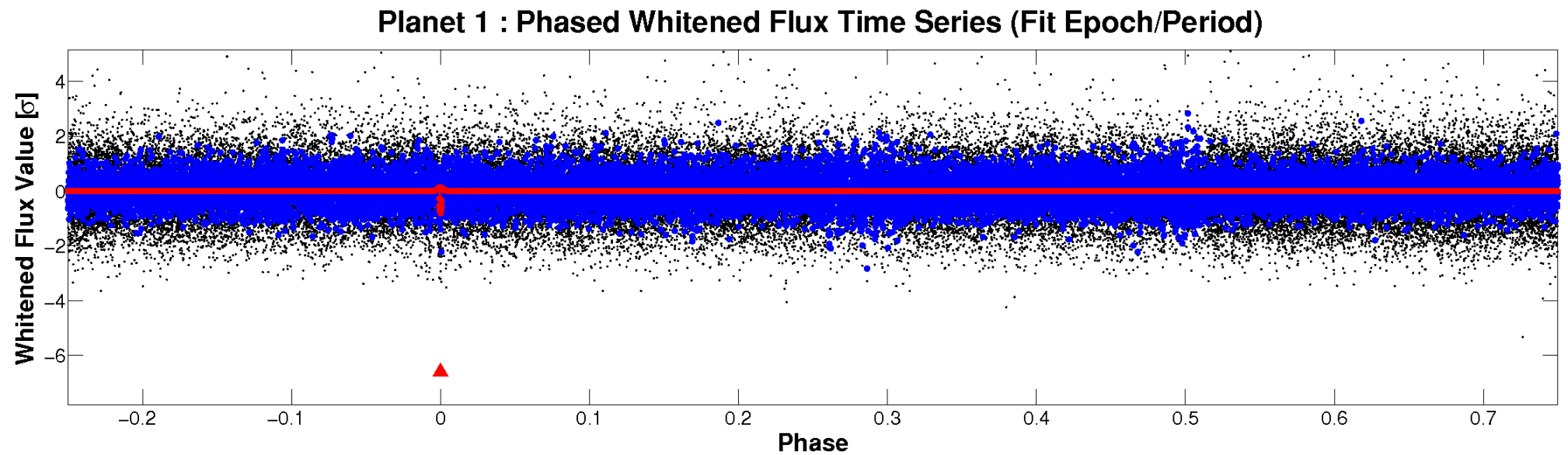
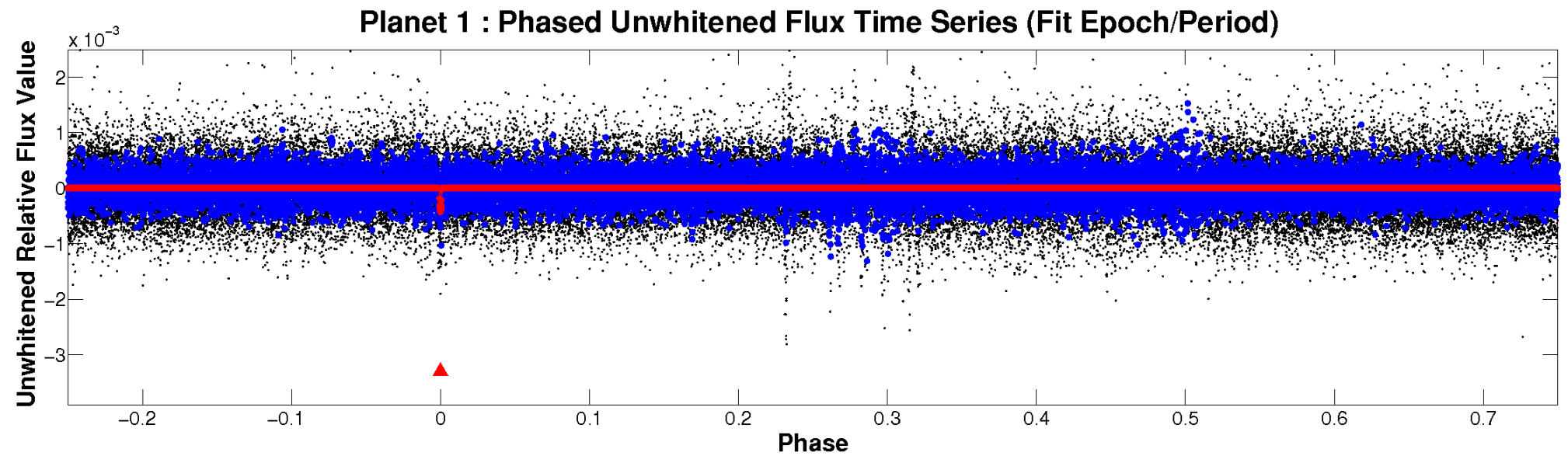


ALT Odd/Even

TCE 007617352-01

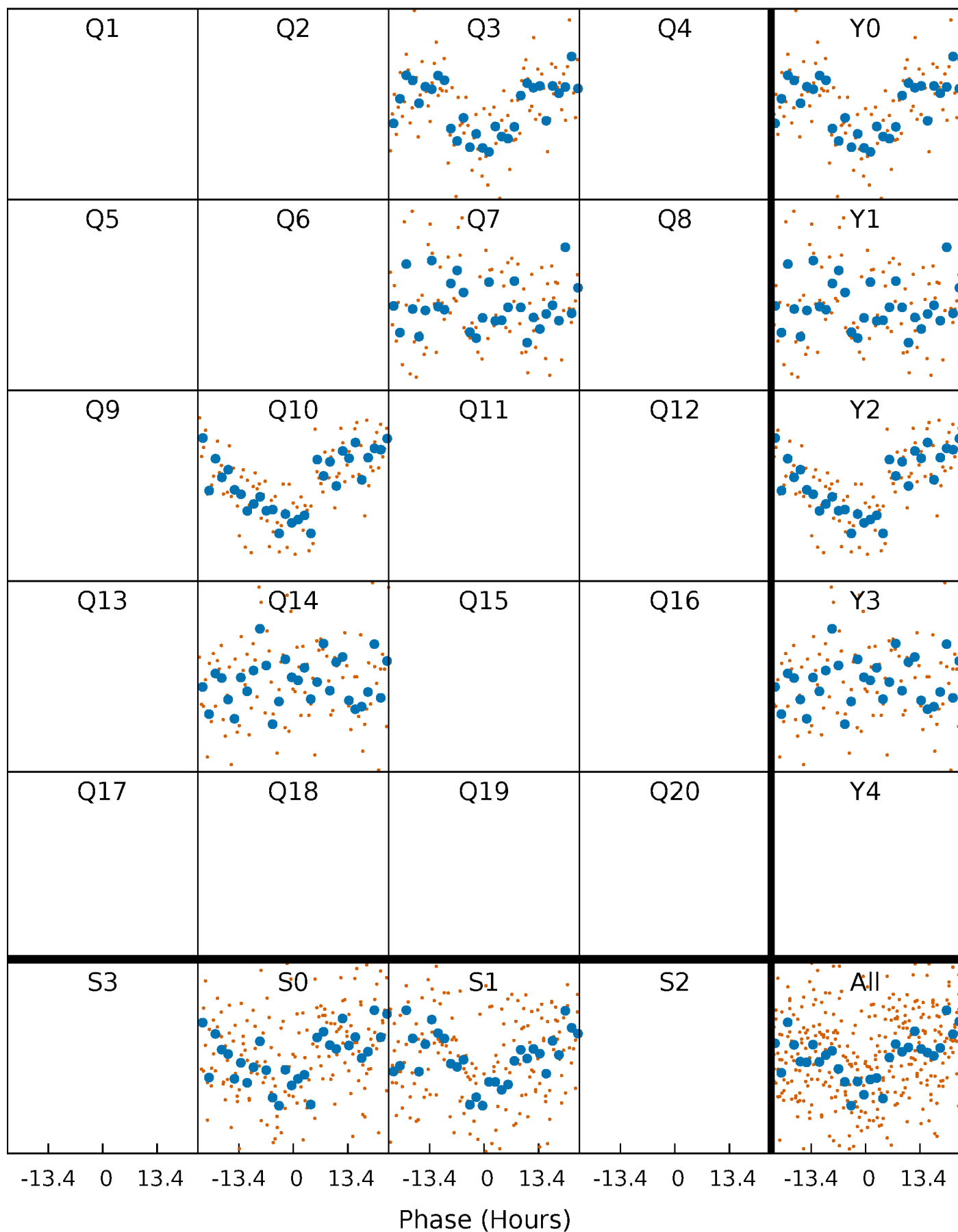


Non-Whitened Vs. Whitened Light Curve



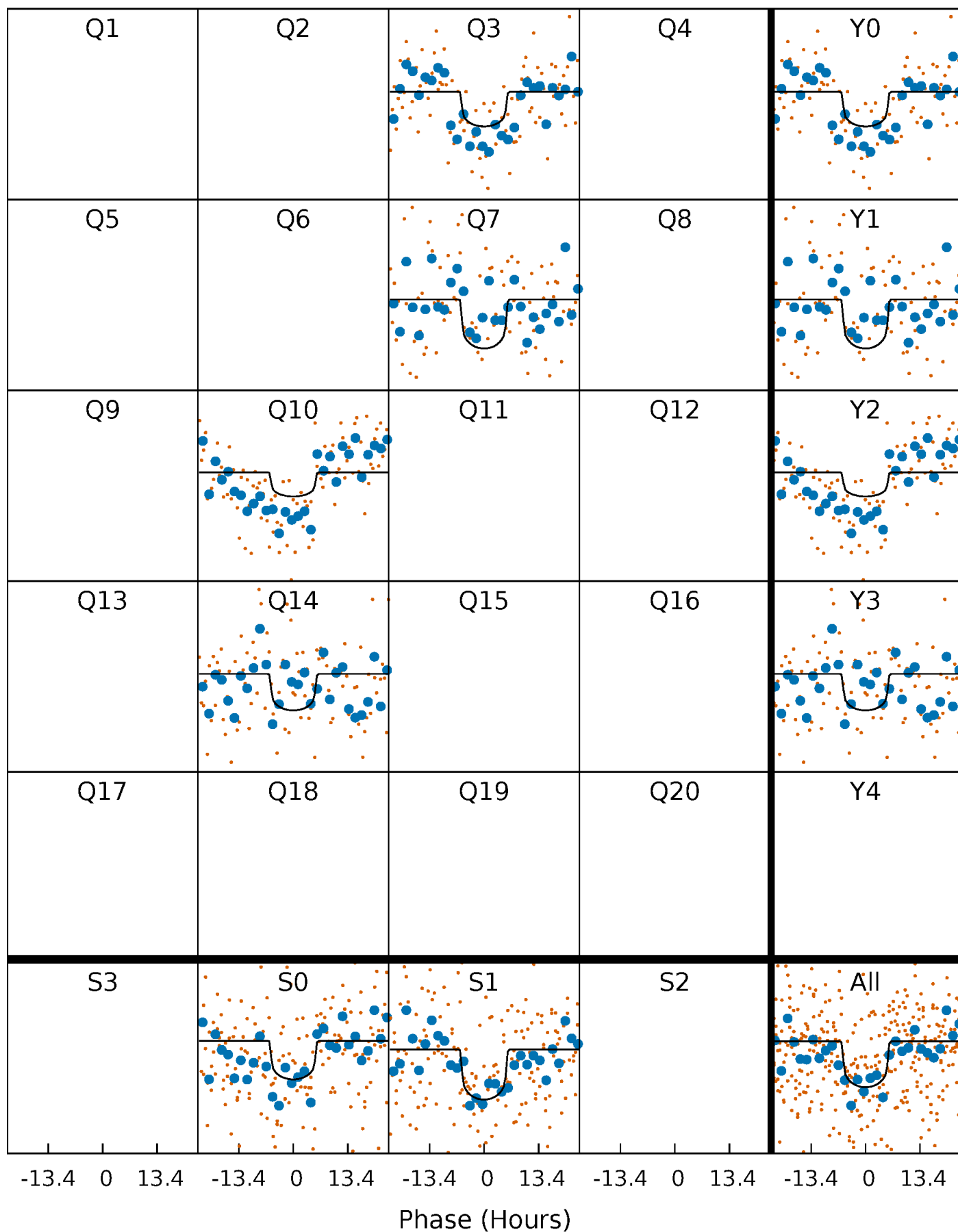
PDC Quarter-Phased Transit Curves

TCE 007617352-01 P=339.689314 Days $T_0=295.534158$ (BKJD)



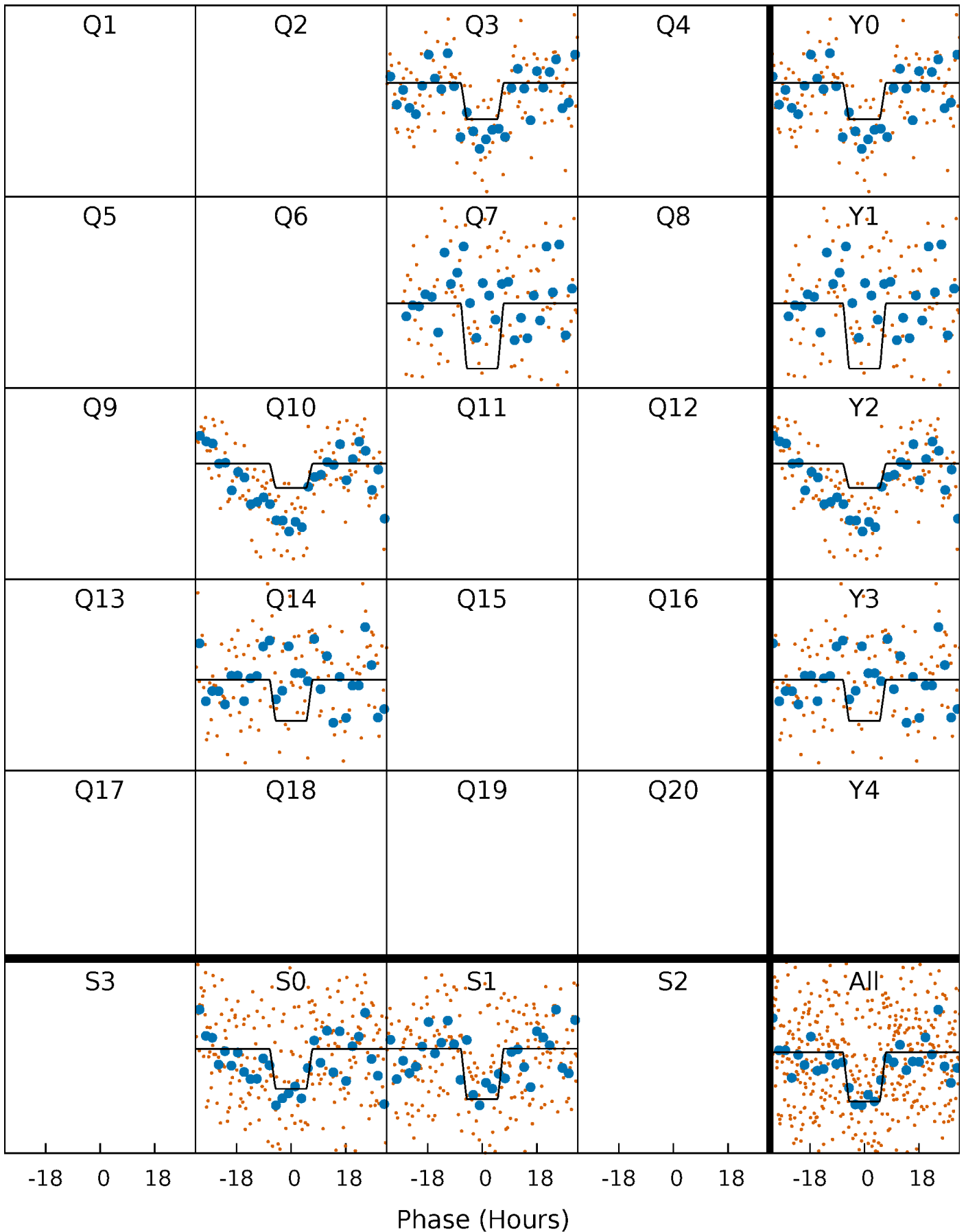
DV Quarter-Phased Transit Curves

TCE 007617352-01 P=339.689314 Days $T_0=295.534158$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

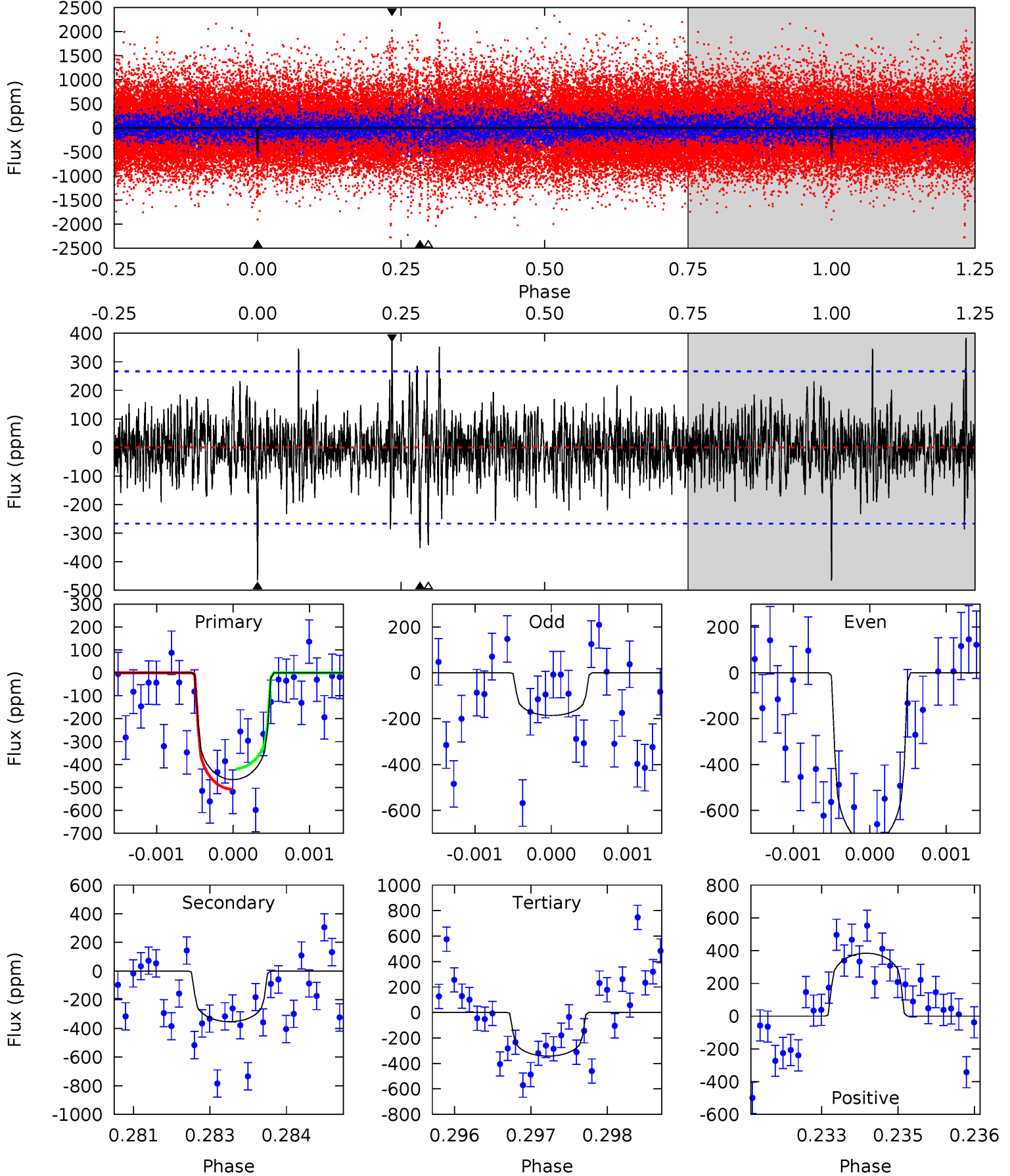
TCE 007617352-01 P=339.694313 Days $T_0=295.512066$ (BKJD)



DV Model-Shift Uniqueness Test

007617352-01, P = 339.689314 Days, E = 295.534158 Days

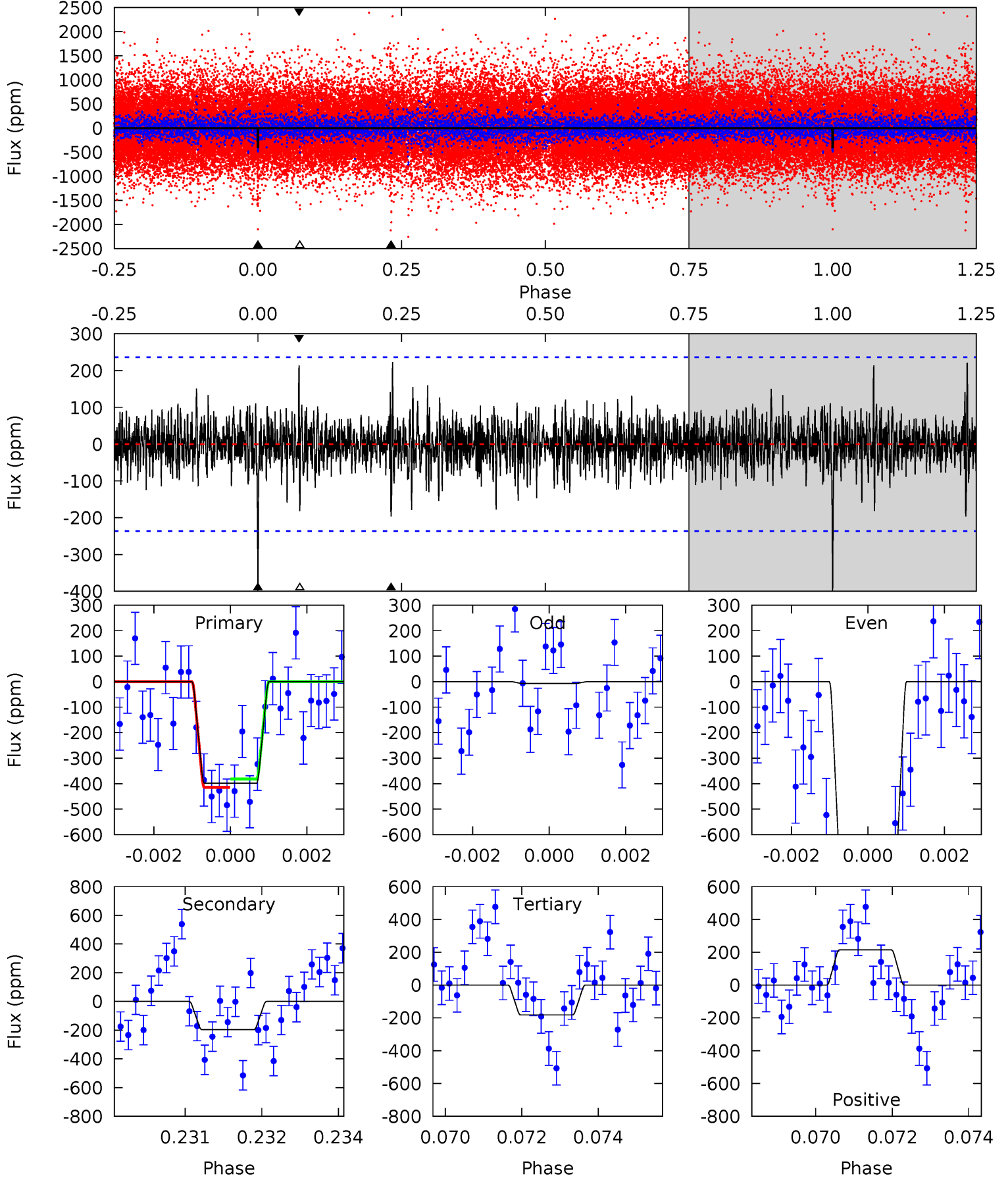
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.41	7.13	6.91	7.75	5.39	3.18	1.52	2.49	1.65	0.21	-0.63	5.66	1.10	0.45	0.90



Alt Model-Shift Uniqueness Test

007617352-01, P = 339.694313 Days, E = 295.512066 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.01	4.44	4.11	4.84	5.35	3.13	1.04	4.90	4.18	0.33	-0.40	9.08	1.31	0.36	0.37



Stellar Parameters For KIC 007617352

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5586^{+169}_{-169}	$4.595^{+0.036}_{-0.144}$	$-0.380^{+0.300}_{-0.300}$	$0.762^{+0.169}_{-0.061}$	$0.841^{+0.089}_{-0.097}$	$2.681^{+0.497}_{-1.066}$
	+3%/-3%	+1%/-3%	+79%/-79%	+22%/-8%	+11%/-12%	+19%/-40%
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 007617352-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-353 ± 50	$1.82^{+0.70}_{-0.69}$	323^{+19}_{-13}	5314^{+1362}_{-703}	47101^{+76085}_{-23714}
Alt.	-196 ± 44	$1.73^{+0.73}_{-0.68}$	324^{+17}_{-13}	4773^{+1191}_{-634}	28031^{+49331}_{-14587}

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

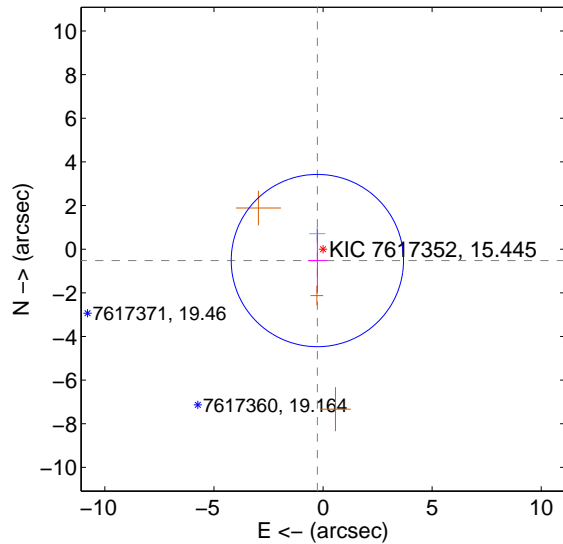
Supplemental centroid analysis for 007617352-01. Kepler magnitude: 15.45. Transit SNR 6.37

There are 1 quarters with good PRF difference image offsets

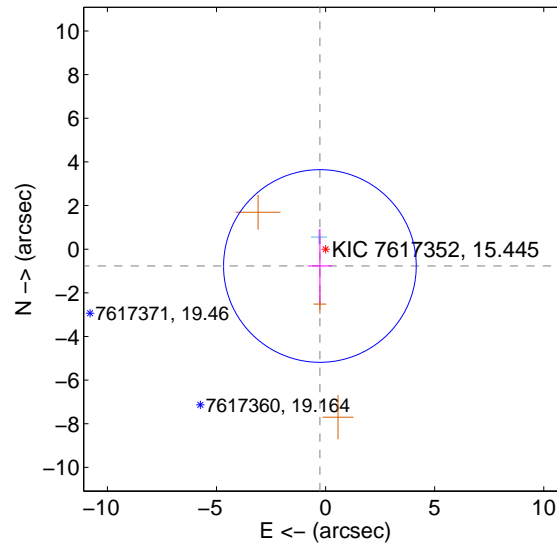
The direct PRF centroid is offset from the target star catalog position by about 0.37 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.583 ± 1.316	0.44	0.260 ± 0.434	-0.522 ± 1.454
PRF-fit source offset from KIC position	0.814 ± 1.472	0.55	0.261 ± 0.561	-0.771 ± 1.698
photometric centroid source offset	0.61 ± 2.88	0.21	0.12 ± 2.33	-0.59 ± 2.90

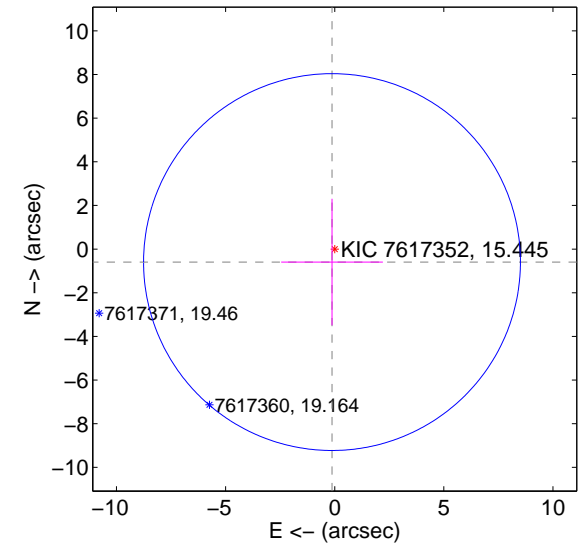
offset from difference PRF-fit to OOT PRF-fit



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.

Q1 no difference image



Q1 no OOT image



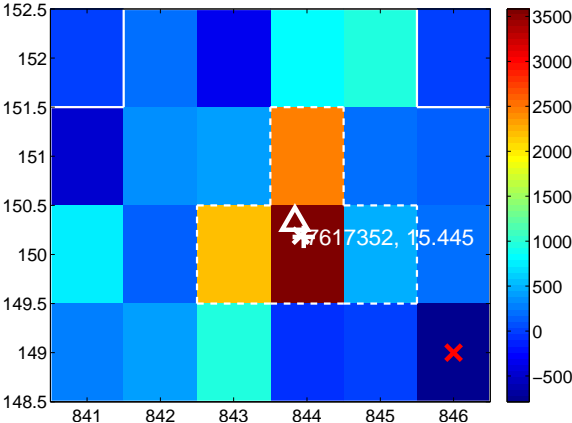
Q2 no difference image



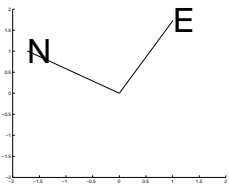
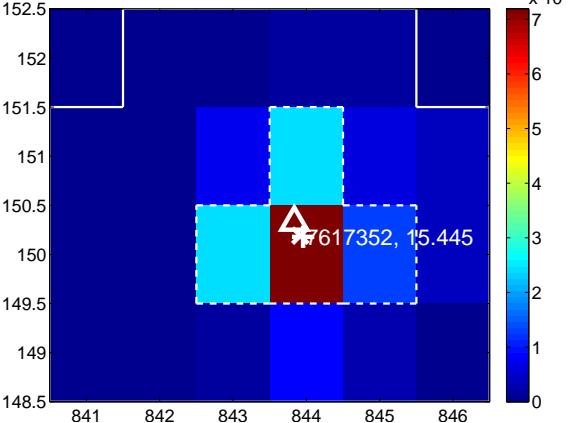
Q2 no OOT image



Q3 difference image



Q3 OOT image



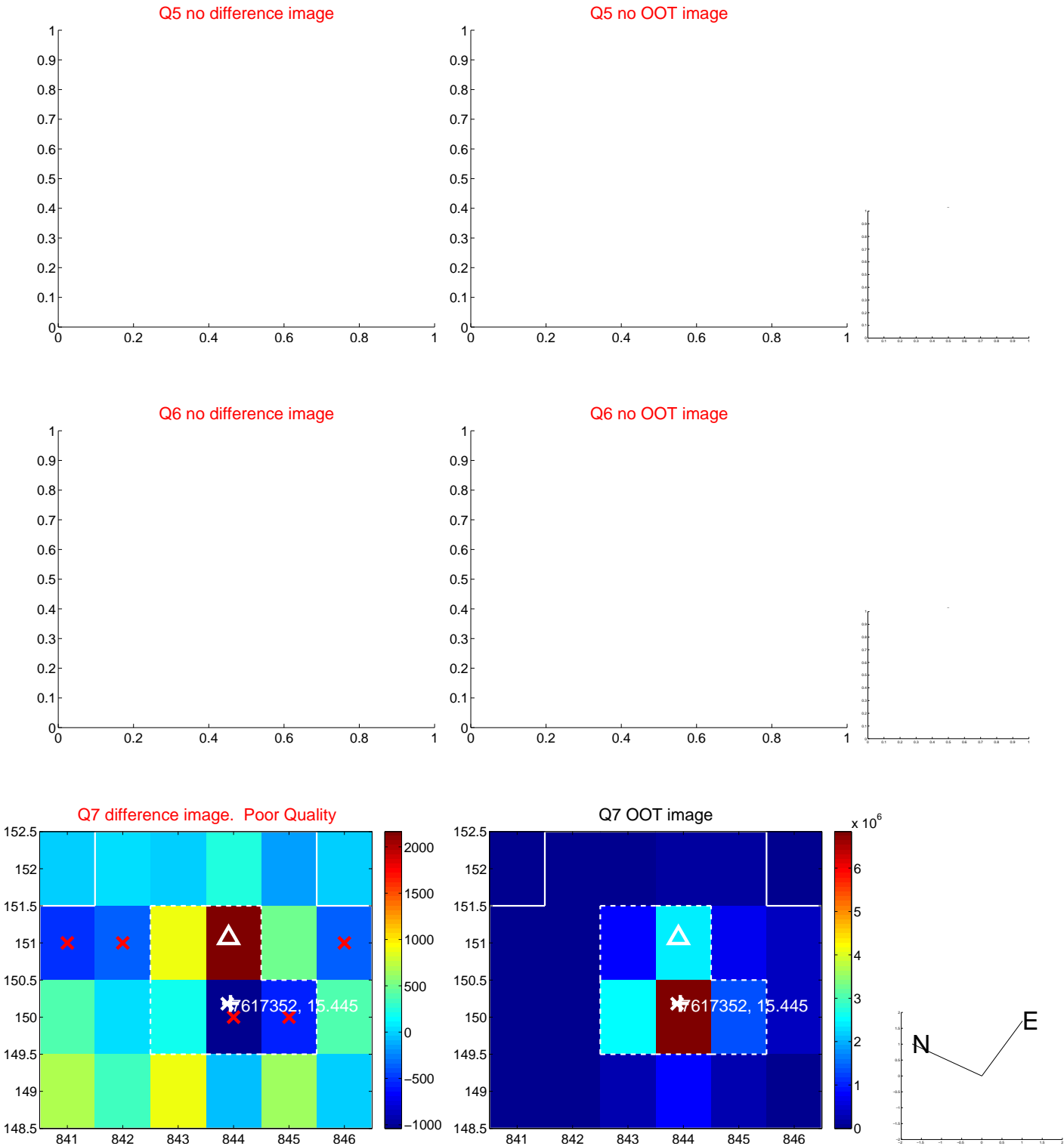
Q4 no difference image



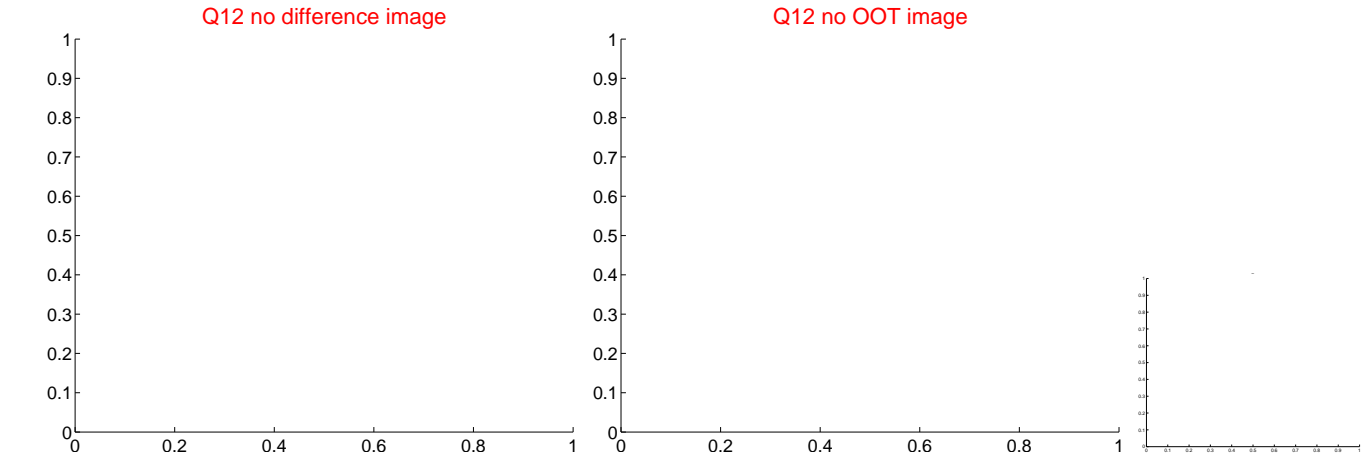
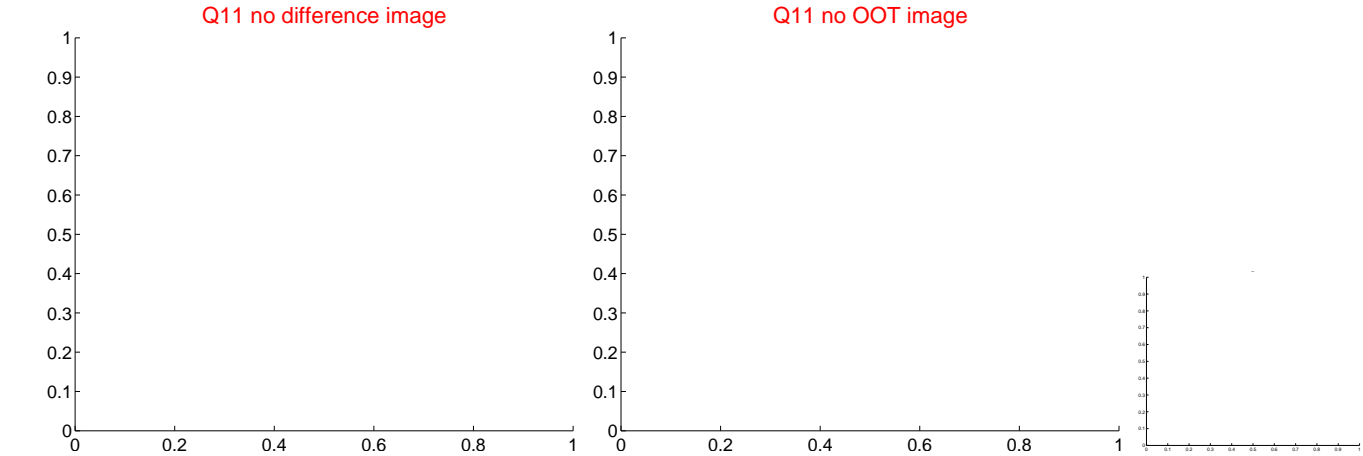
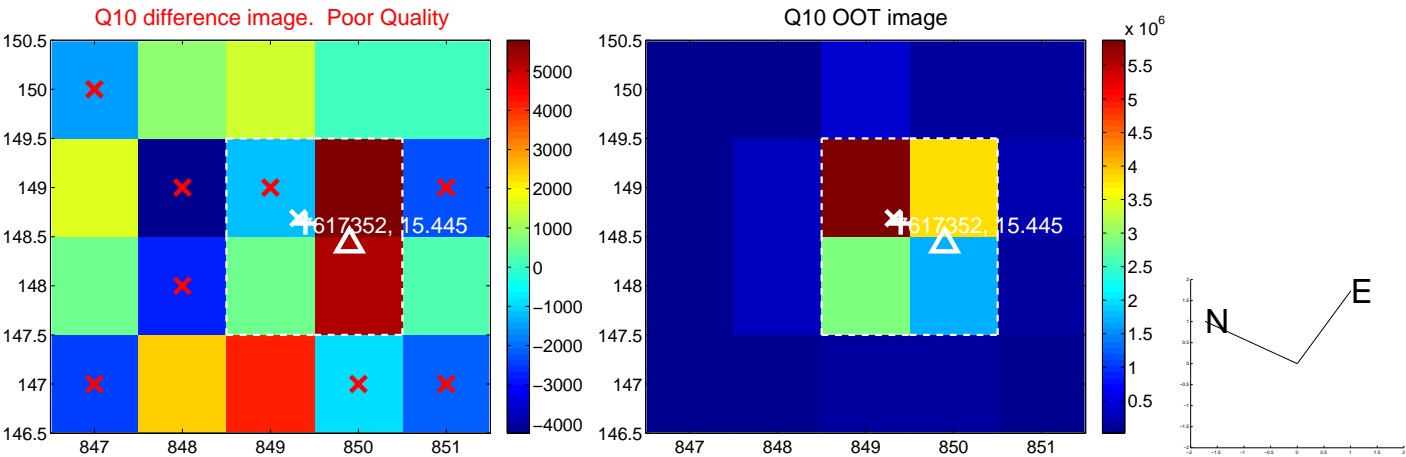
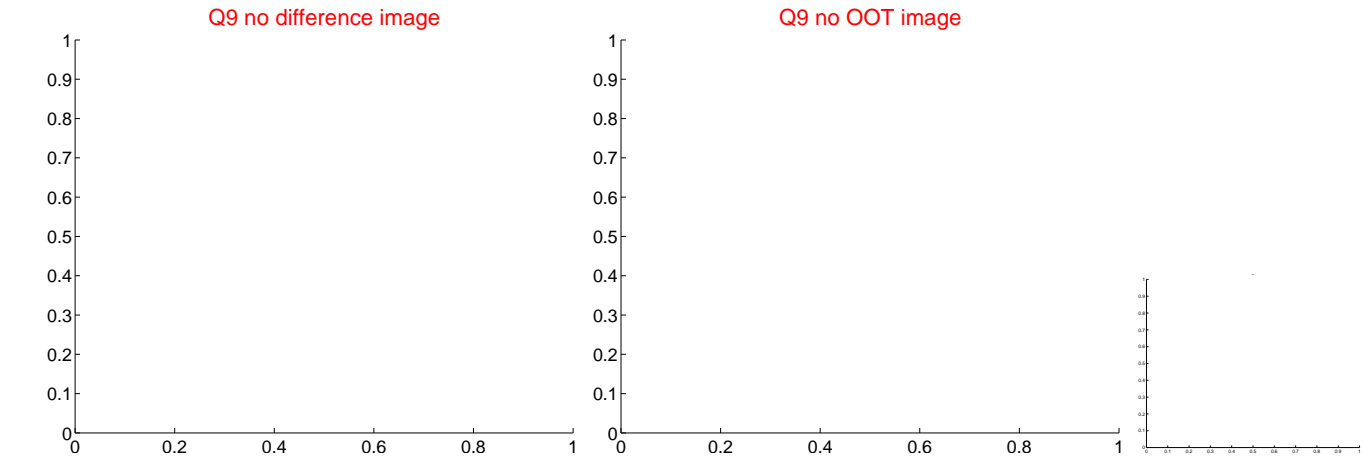
Q4 no OOT image



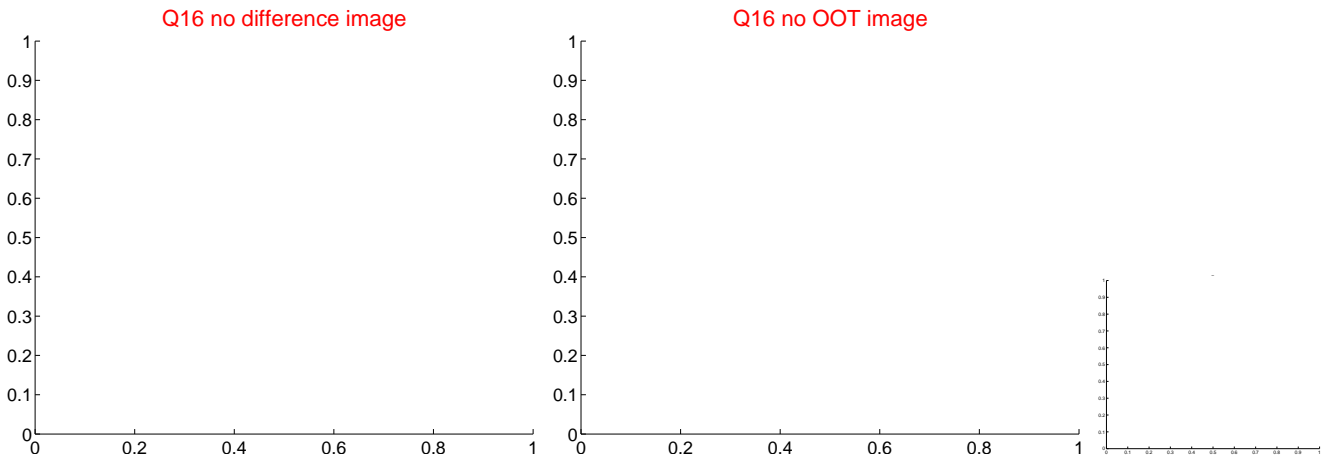
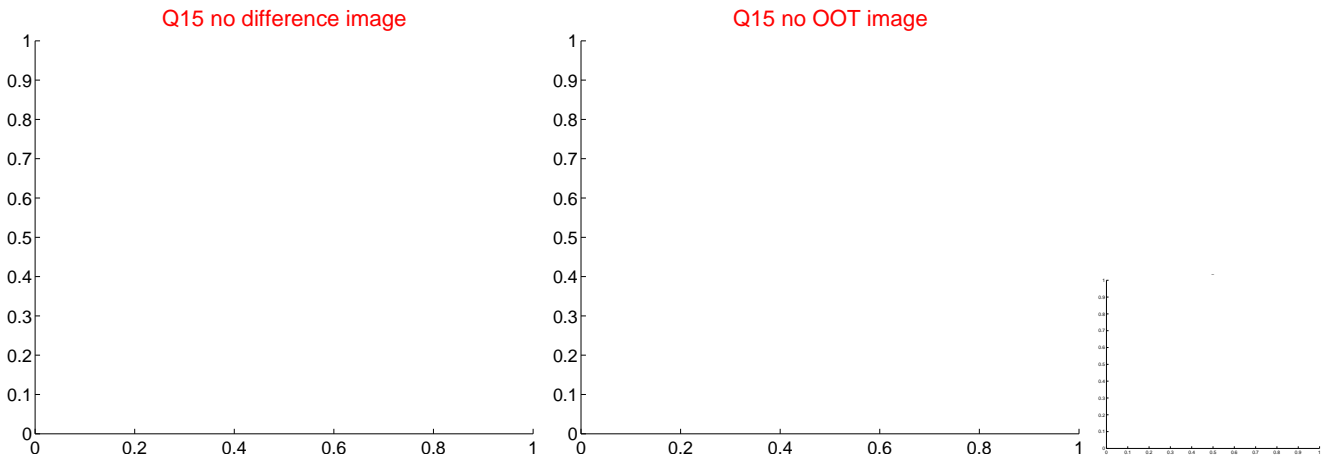
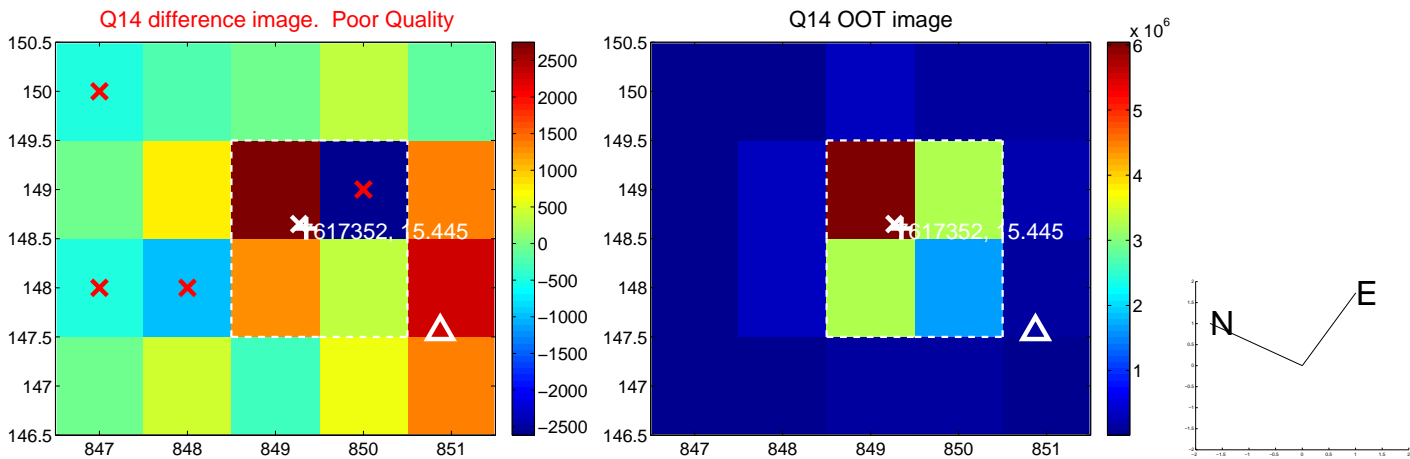
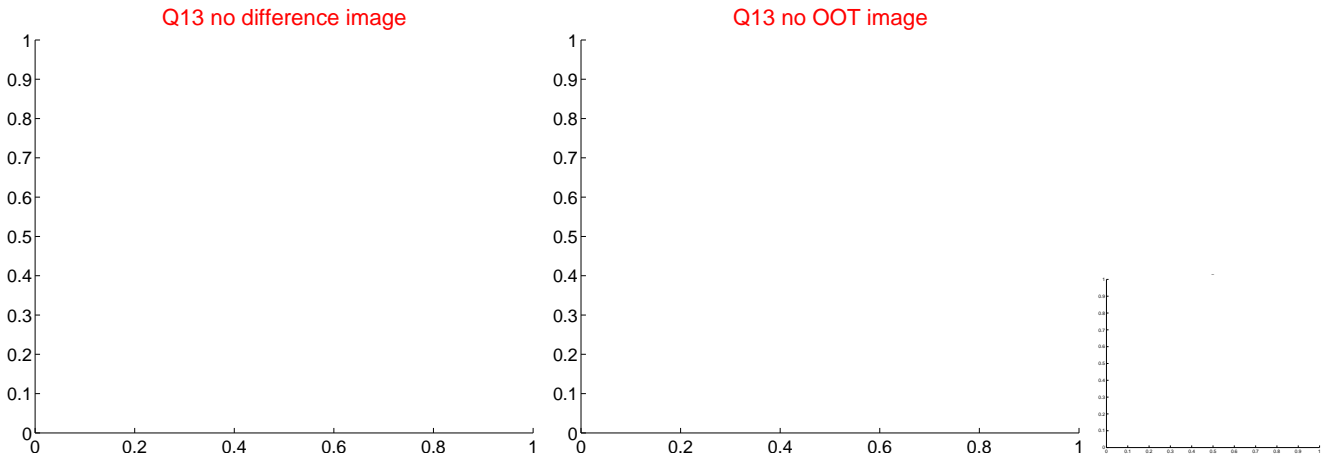
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



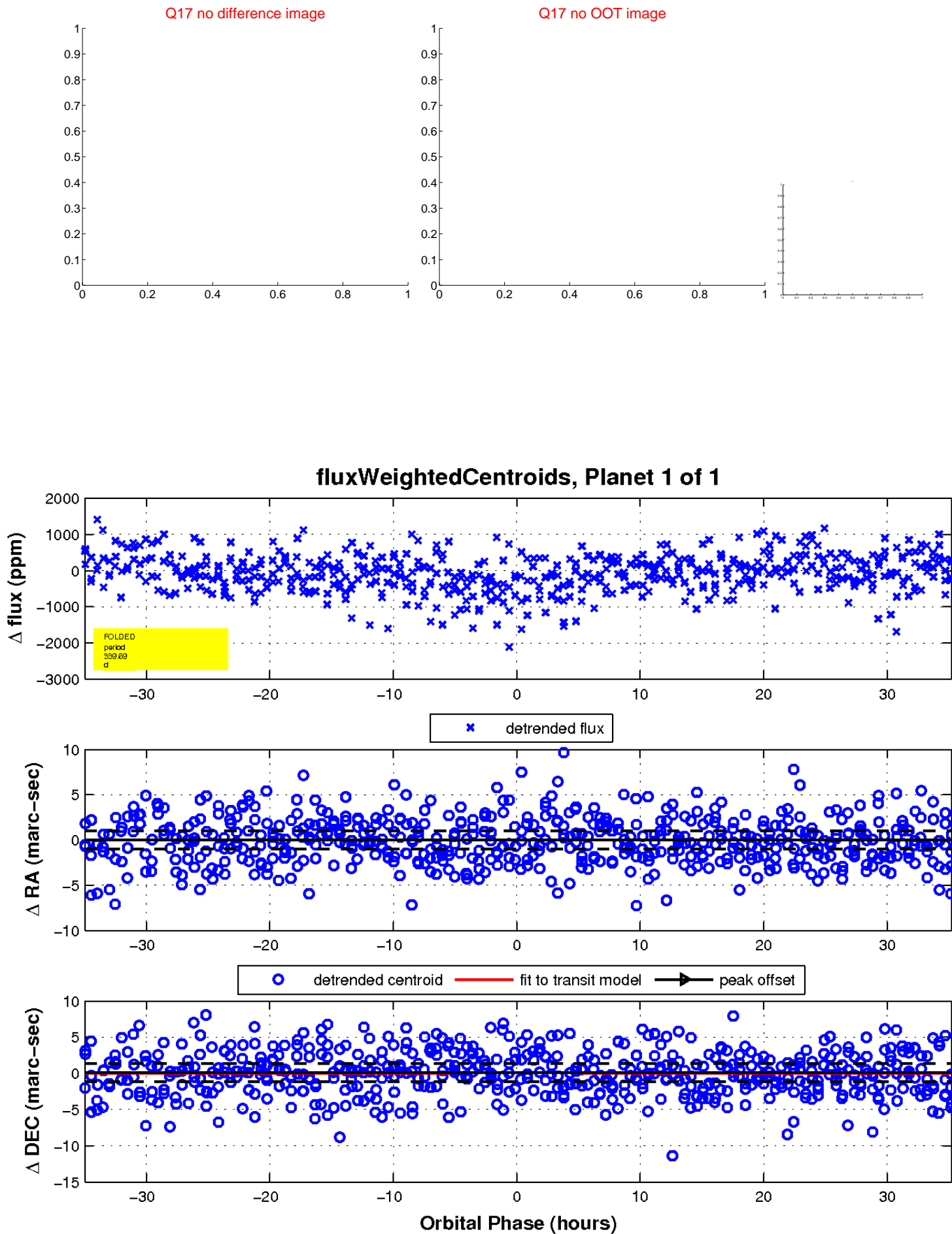
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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.



UKIRT Image

Declination

