

KIC 008547328

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})
008547328-01	OBS	No	367.176223	237.160490	881.9	14.406	7.9	9.1	0.81	5452	2.48	0.56

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008547328-01	OBS	FP	0.00	1	0	0	1	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—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.

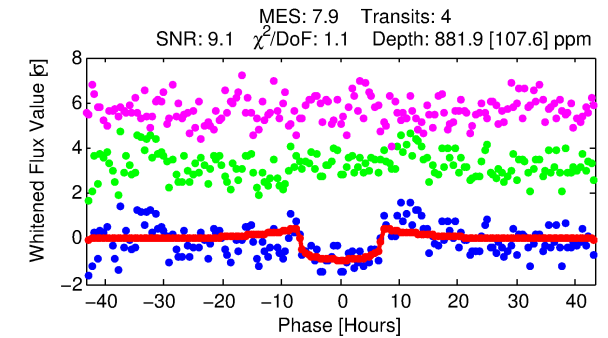
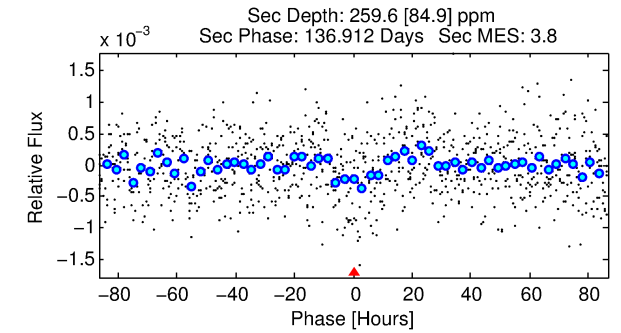
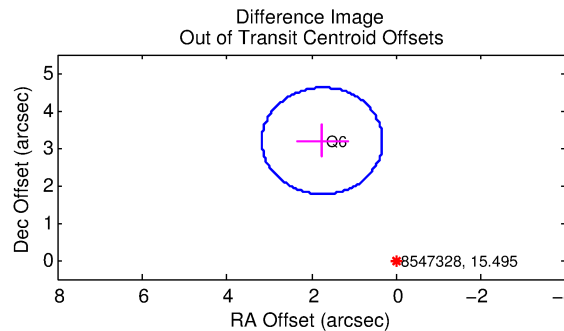
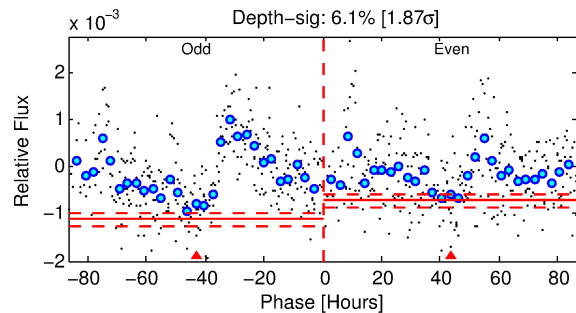
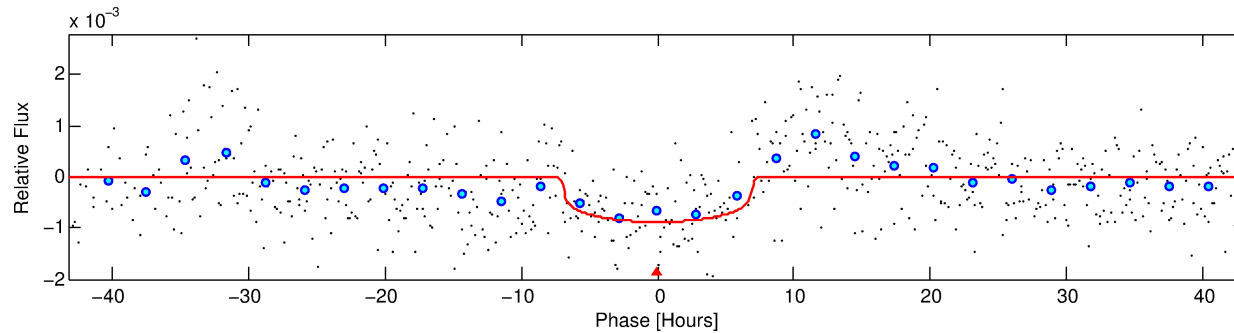
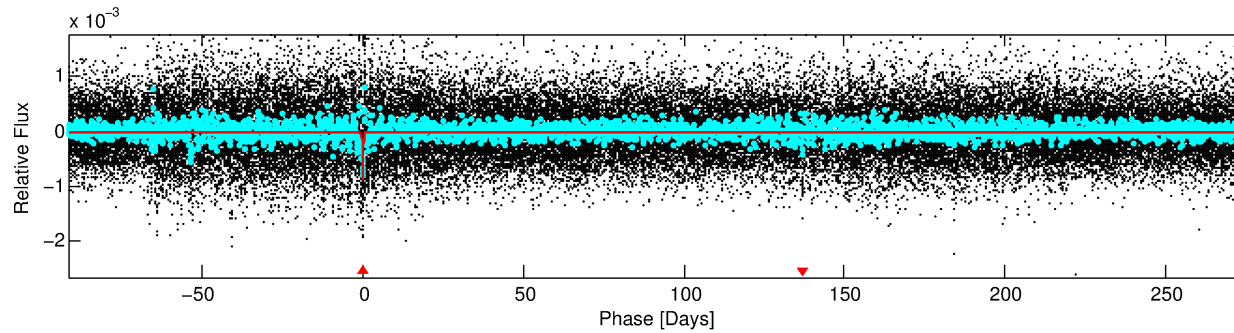
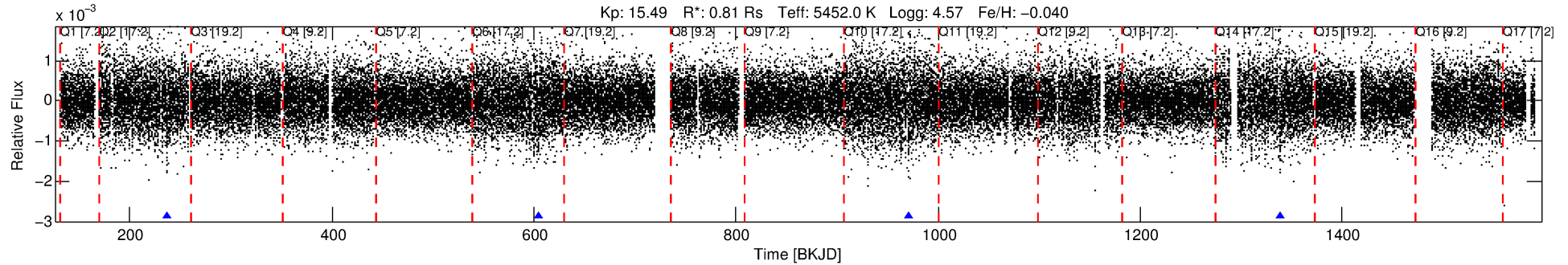
Ephemeris Match Information For 008547328-01

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
008547328-01	8547328	008547525-01	8547525	1:1	327.0	82	3	15.86	15.50	1.62	Col-Anomaly	1	4.54	4.07

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: 8547328 Candidate: 1 of 1 Period: 367.176 d



DV Fit Results:

Period = 367.17622 [0.00882] d
Epoch = 237.1605 [0.0170] BKJD
Rp/R* = 0.0279 [0.0119]
a/R* = 169.04 [279.10]
b = 0.55 [2.11]
Seff = 0.56 [0.15]
Teq = 220 [14] K
Rp = 2.48 [1.15] Re
a = 0.9706 [0.1532] AU
Ag = 21834.46 [20518.54] [1.06 σ]
Teff = 4142 [951] K [4.12 σ]

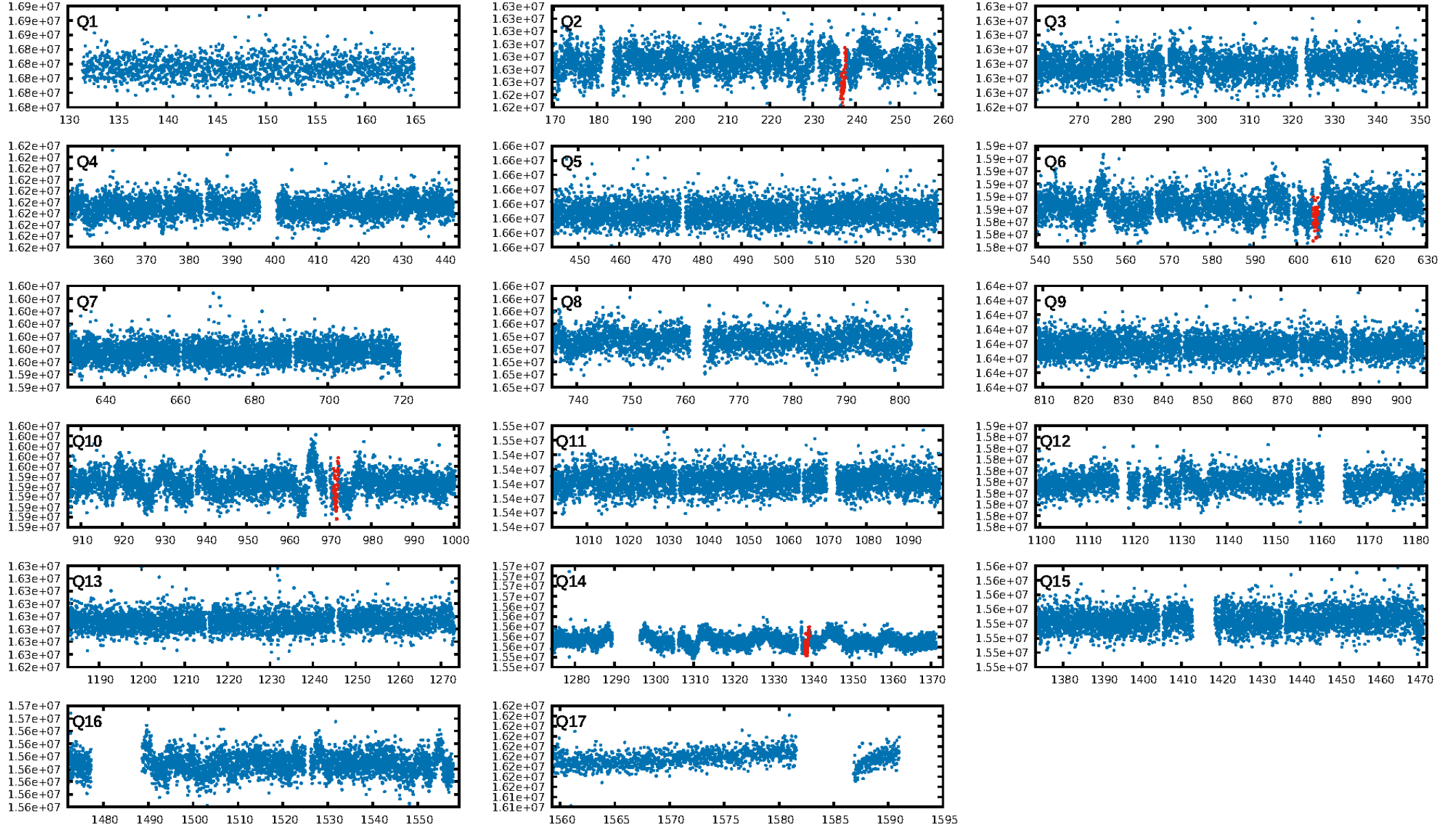
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 6.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.39e-10
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 0.6821
Centroid-sig: 0.0%
Centroid-so: 6.652 arcsec [2.73 σ]
OotOffset-rm: 3.635 arcsec [7.66 σ]
KicOffset-rm: 3.892 arcsec [8.29 σ]
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]

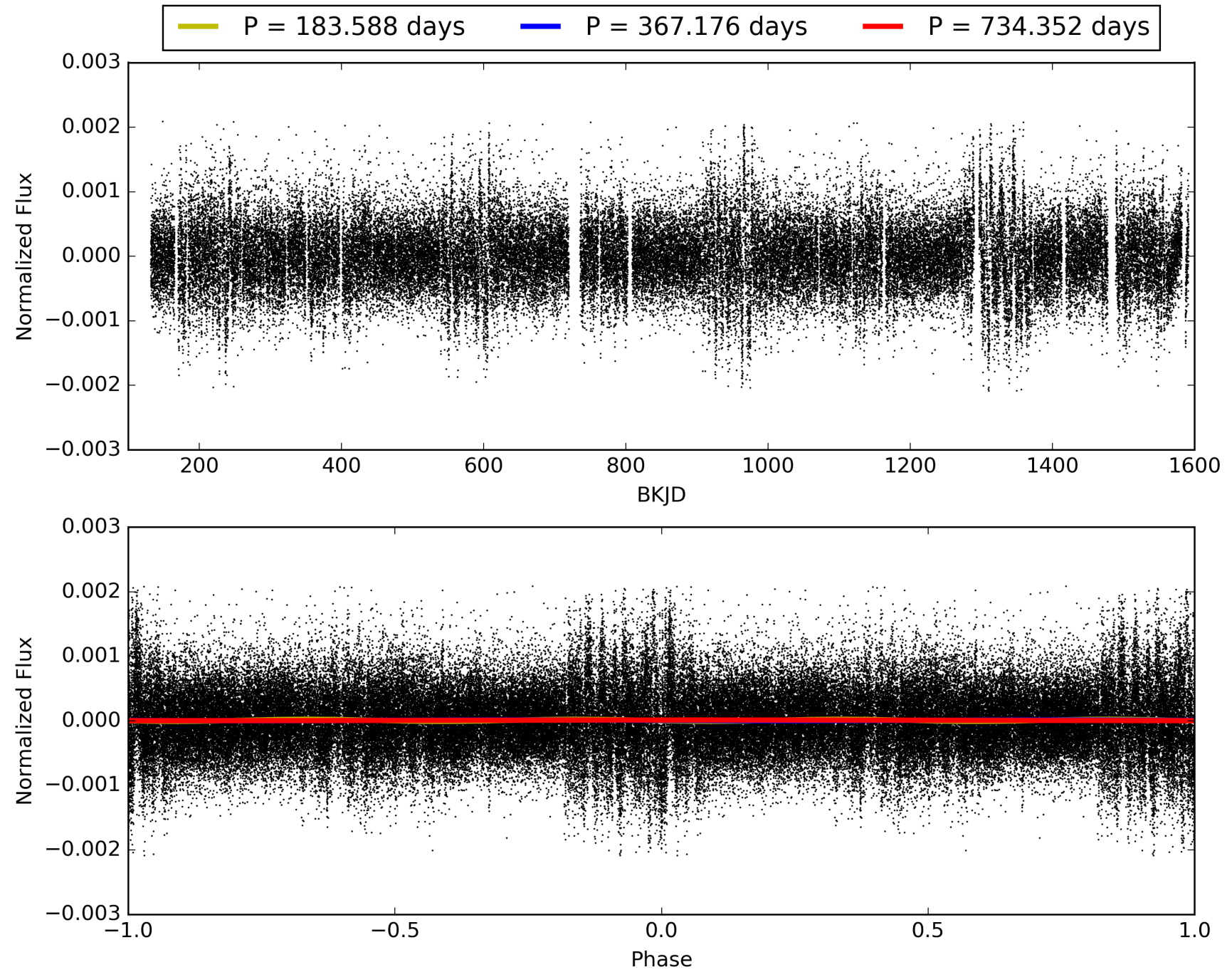
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 21:03:06 Z

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

TCE 008547328-01, PDC Light Curves

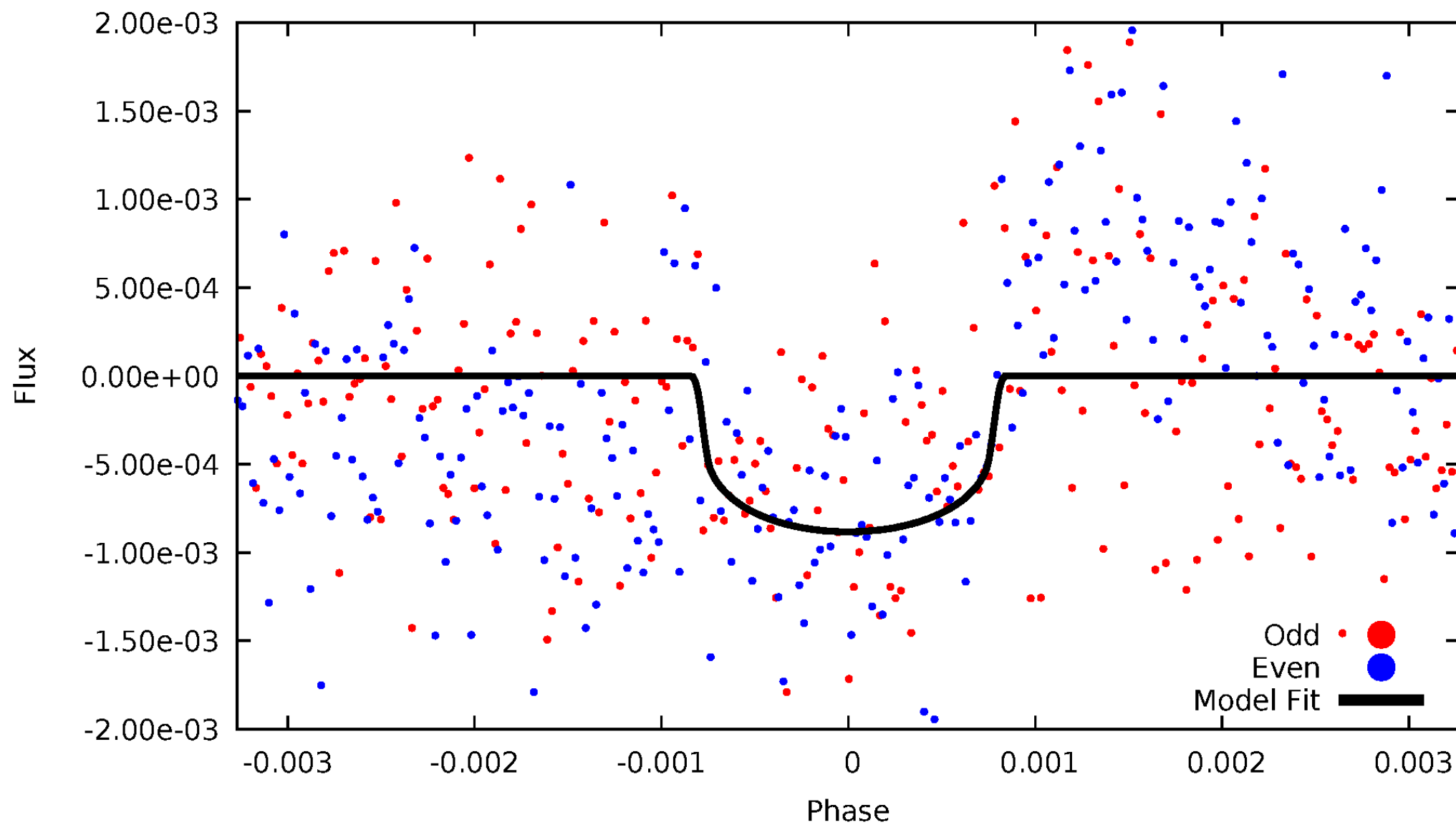


TCE 008547328-01



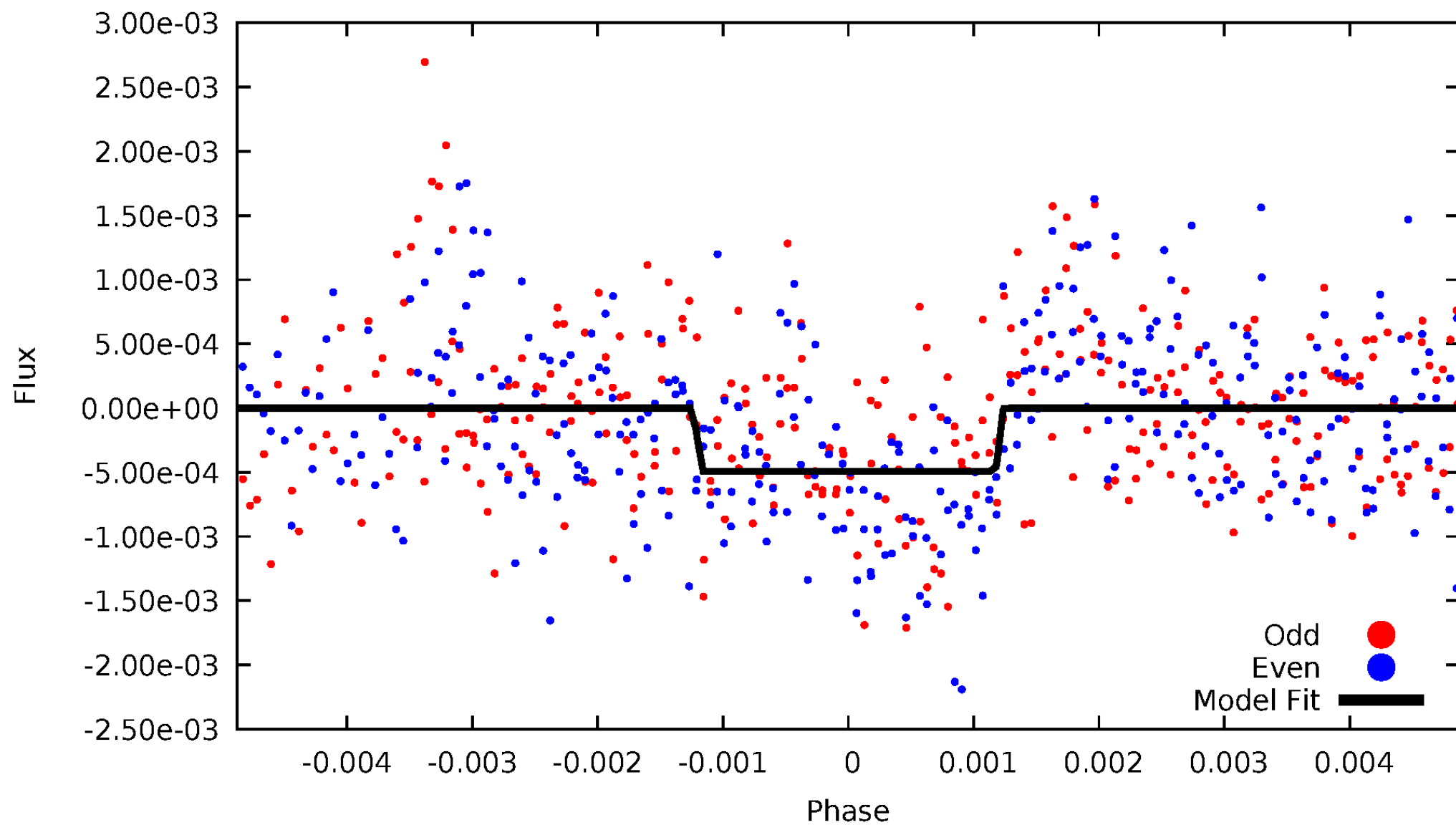
DV Odd/Even

TCE 008547328-01

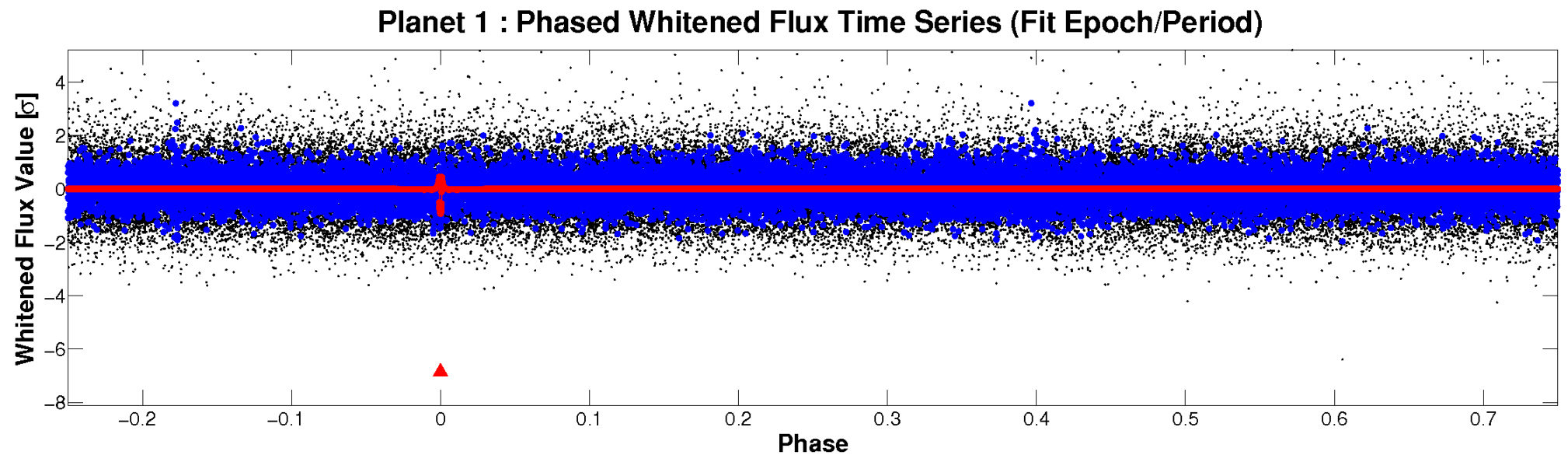
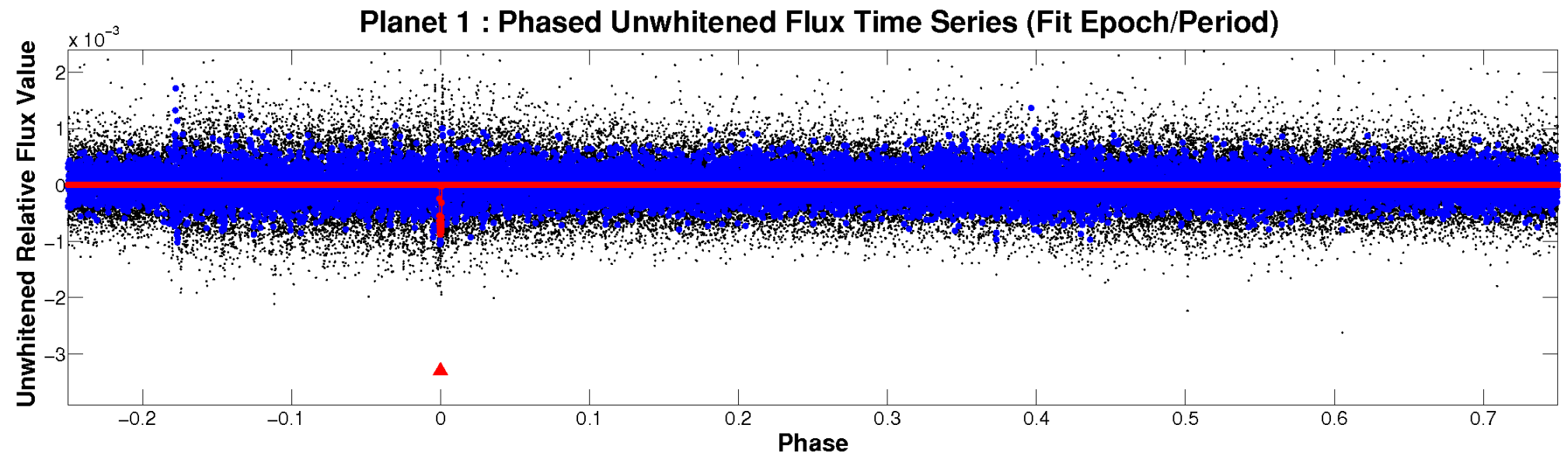


ALT Odd/Even

TCE 008547328-01

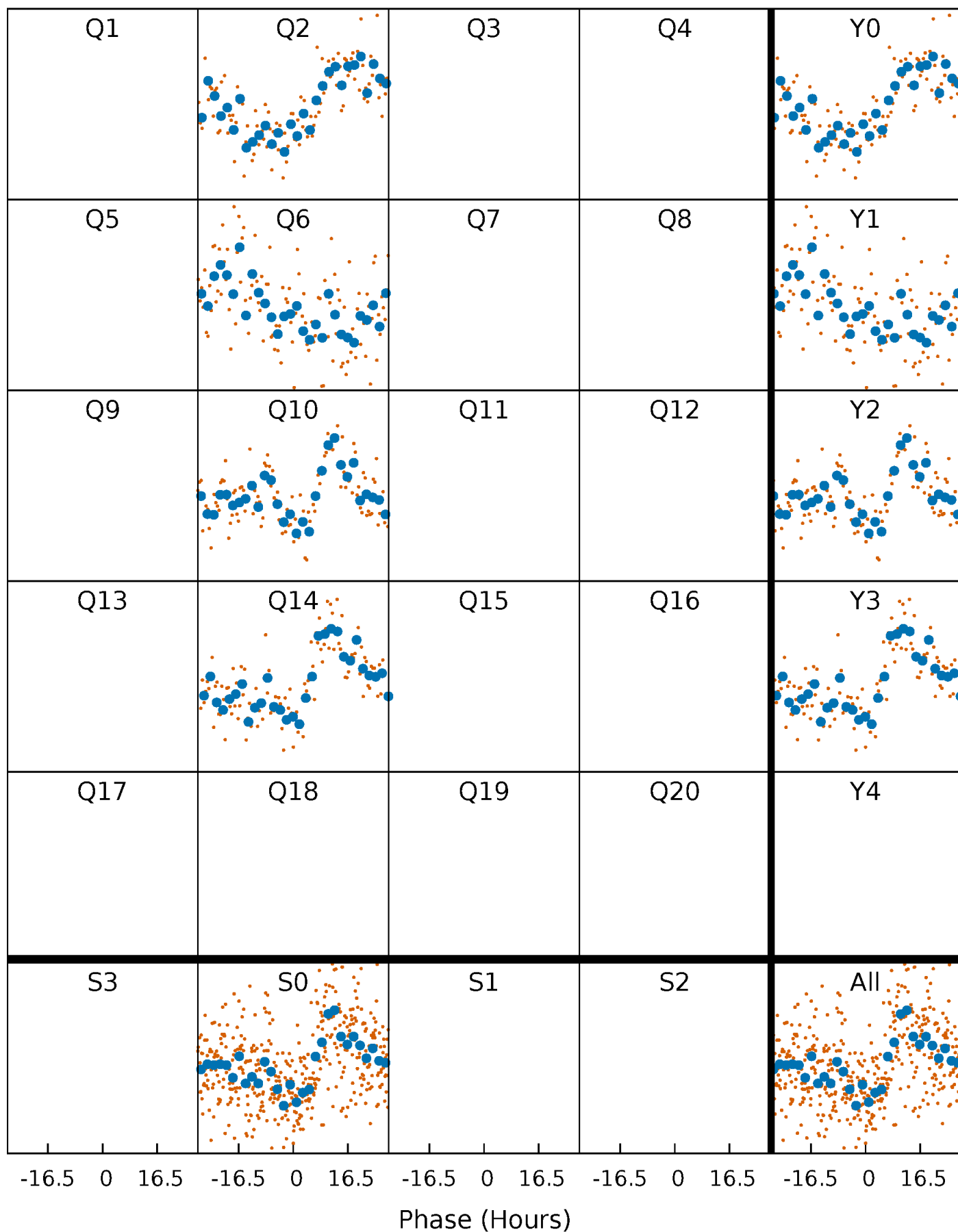


Non-Whitened Vs. Whitened Light Curve



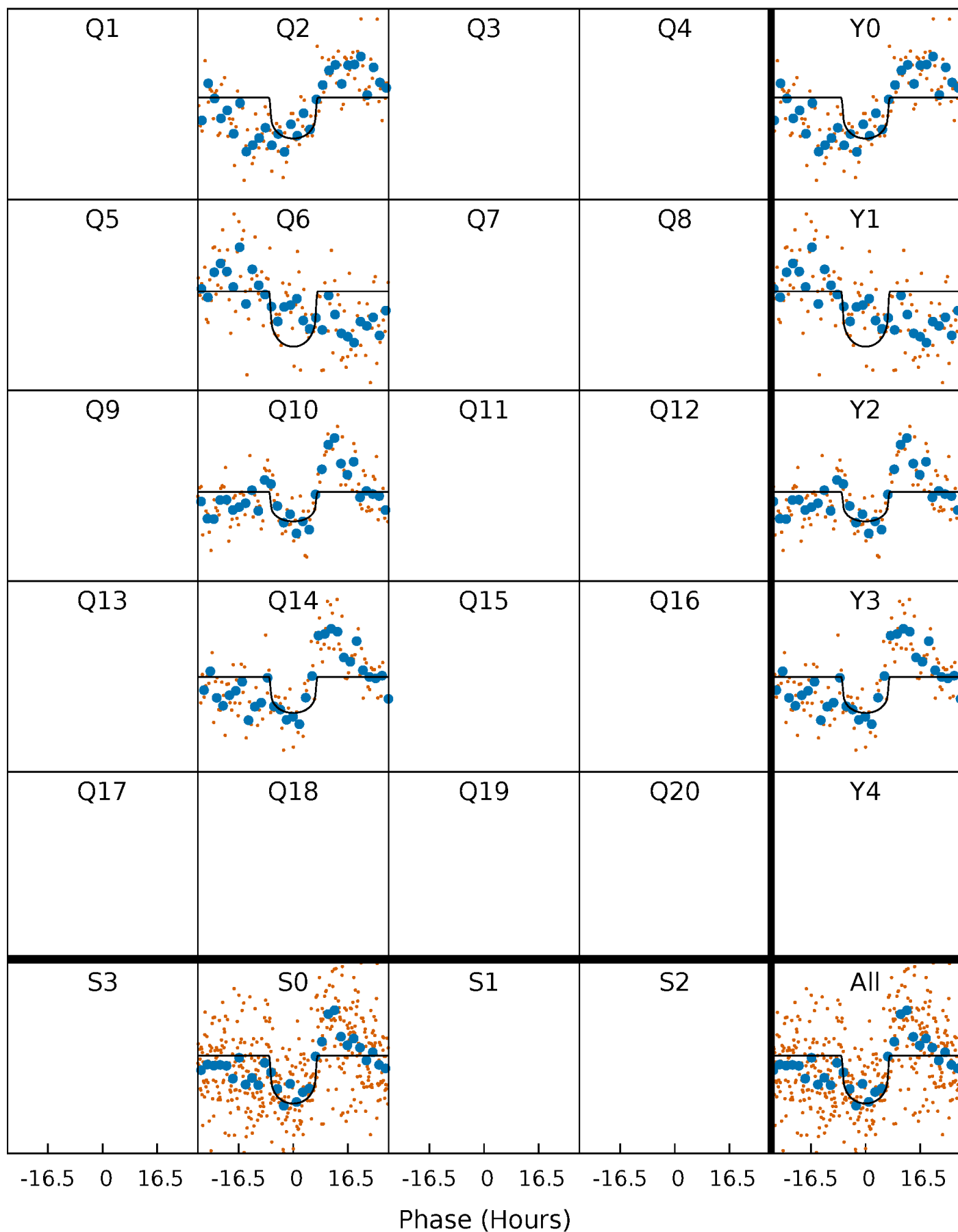
PDC Quarter-Phased Transit Curves

TCE 008547328-01 P=367.176222 Days $T_0=237.160490$ (BKJD)



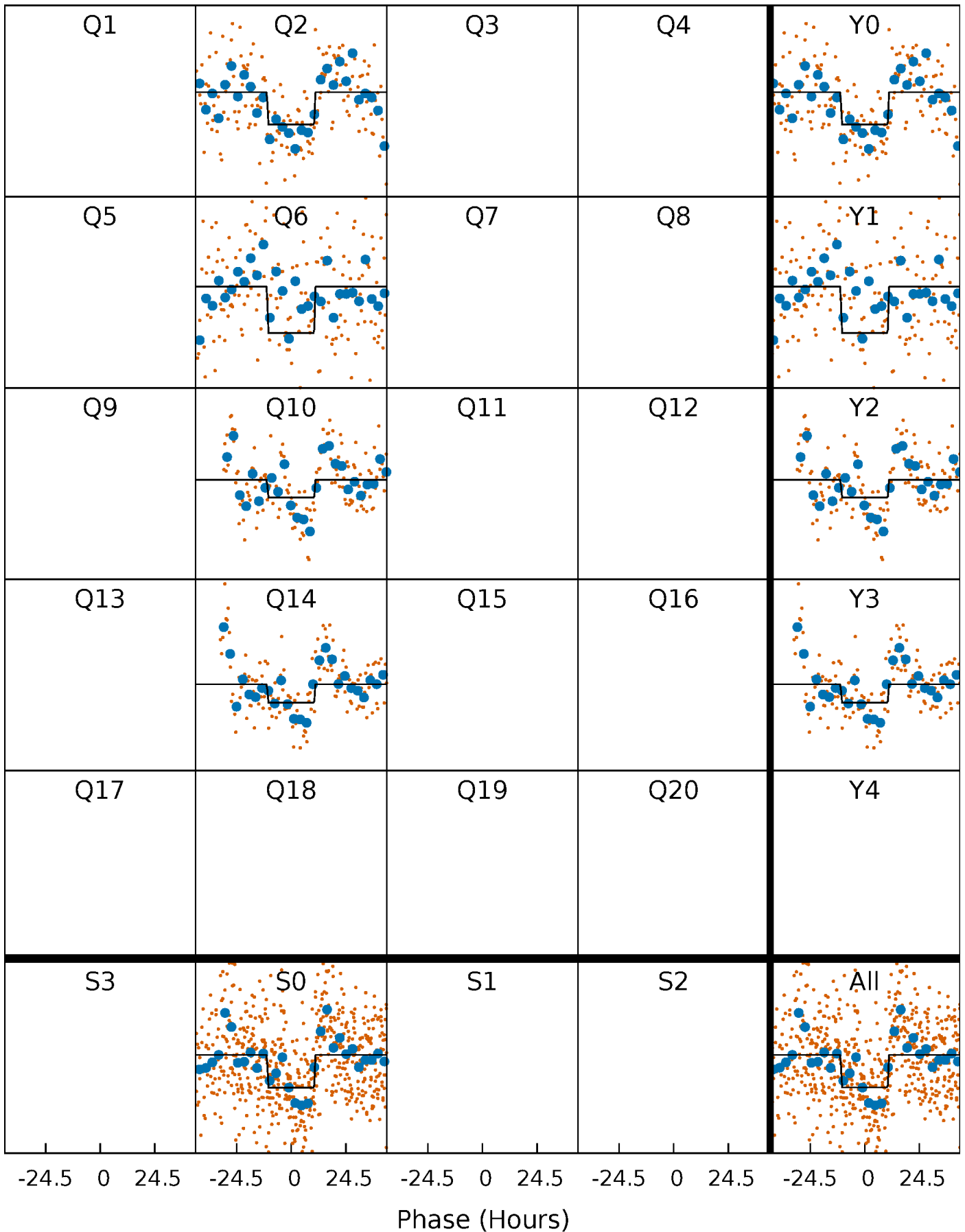
DV Quarter-Phased Transit Curves

TCE 008547328-01 P=367.176222 Days $T_0=237.160490$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

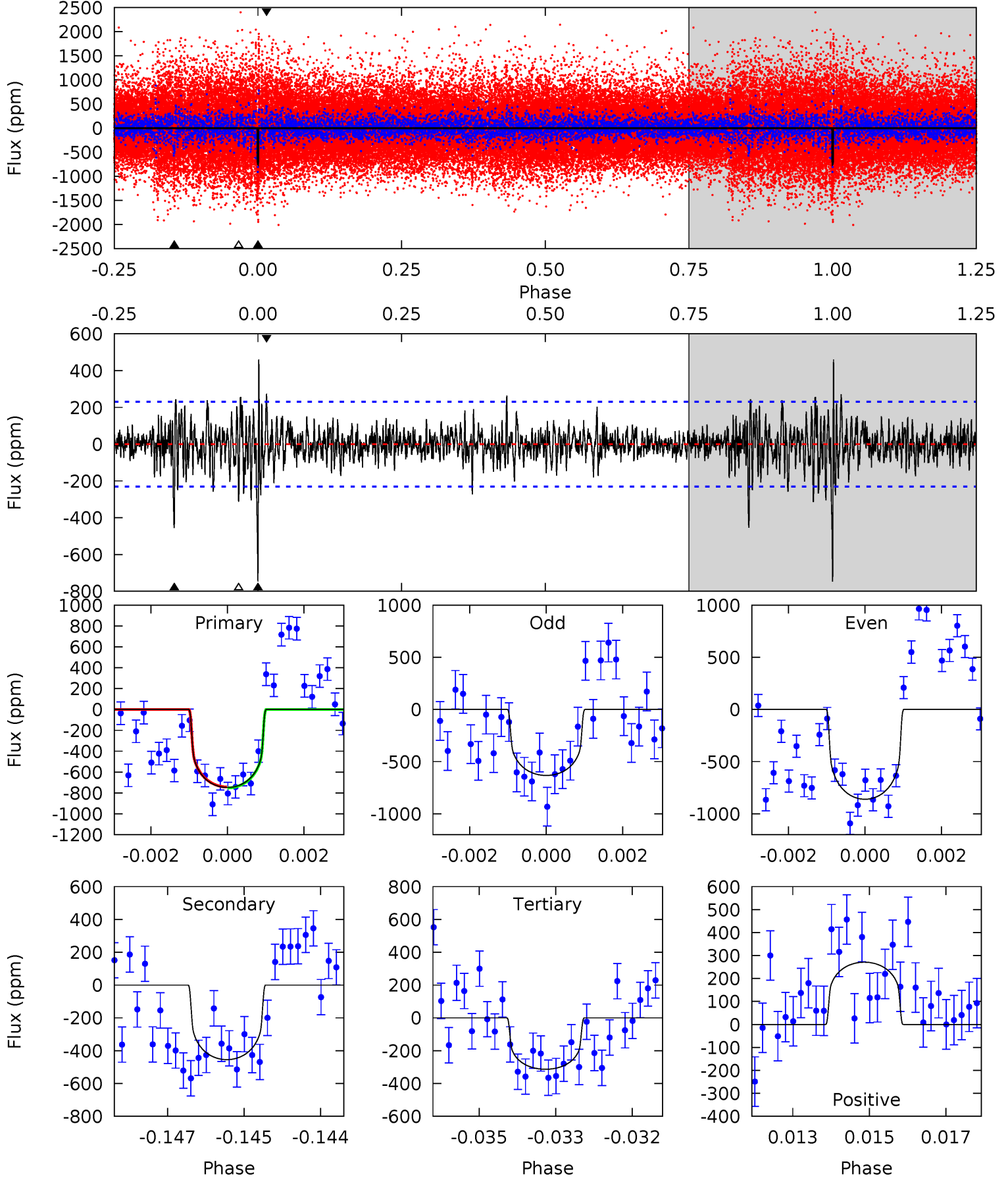
TCE 008547328-01 P=367.170640 Days $T_0=237.008673$ (BKJD)



DV Model-Shift Uniqueness Test

008547328-01, P = 367.176222 Days, E = 237.160490 Days

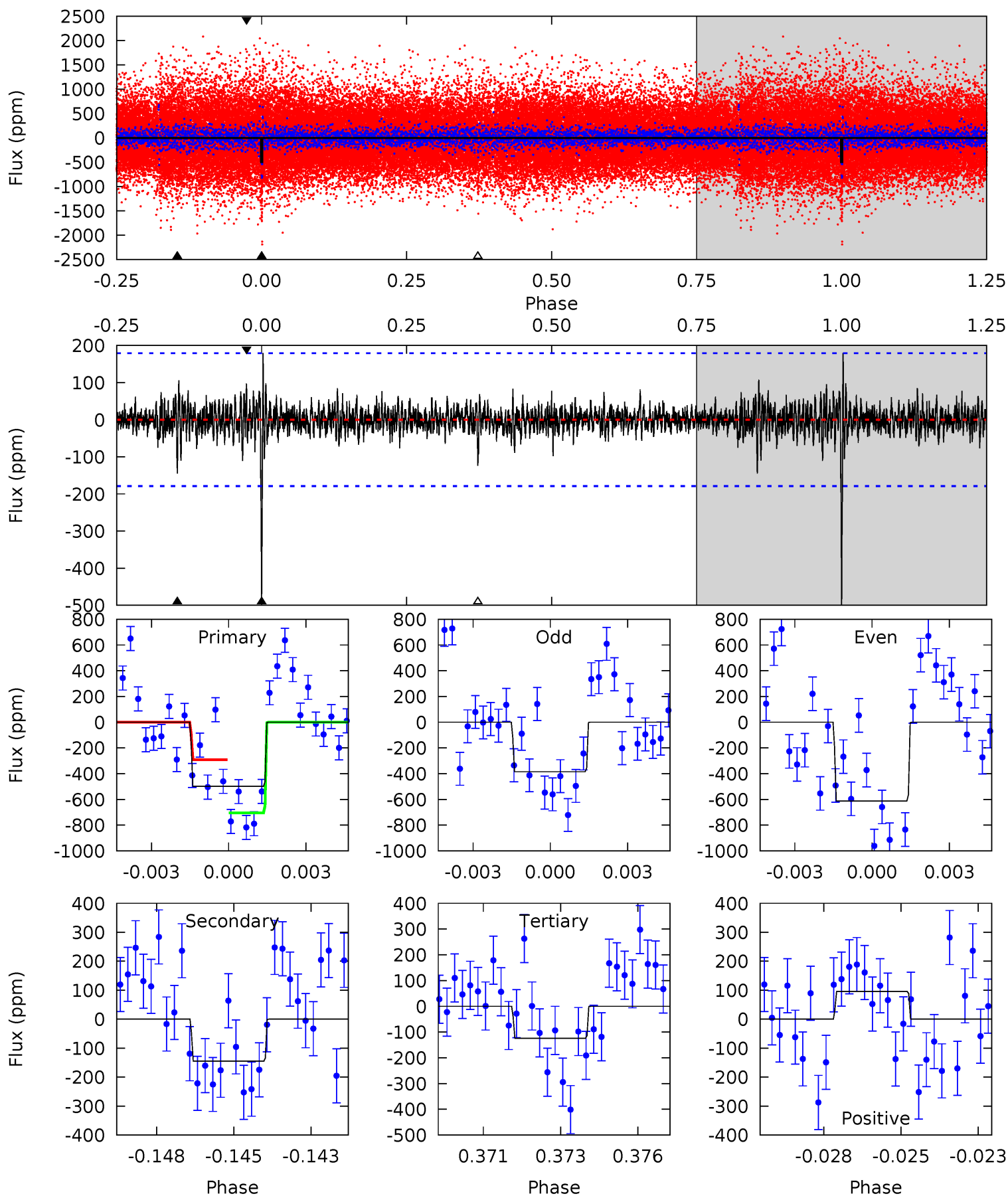
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.4	10.6	7.28	6.30	5.36	3.14	1.68	10.1	11.1	3.28	4.27	2.66	0.89	0.38	0.10



Alt Model-Shift Uniqueness Test

008547328-01, P = 367.170640 Days, E = 237.008673 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.7	4.28	3.65	2.82	5.29	3.02	0.76	11.1	11.9	0.63	1.46	3.37	0.85	0.26	6.10



Stellar Parameters For KIC 008547328

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5452^{+163}_{-163}	$4.572^{+0.032}_{-0.128}$	$-0.040^{+0.300}_{-0.300}$	$0.815^{+0.151}_{-0.070}$	$0.910^{+0.074}_{-0.111}$	$2.366^{+0.419}_{-0.919}$
	+3%/-3%	+1%/-3%	+750%/-750%	+19%/-9%	+8%/-12%	+18%/-39%
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 008547328-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-455 ± 43	$2.51^{+1.17}_{-0.96}$	313^{+15}_{-13}	4884^{+1215}_{-670}	35971^{+60496}_{-19199}
Alt.	-145 ± 34	$1.99^{+1.18}_{-0.99}$	314^{+16}_{-13}	4257^{+1458}_{-642}	18388^{+55359}_{-11263}

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

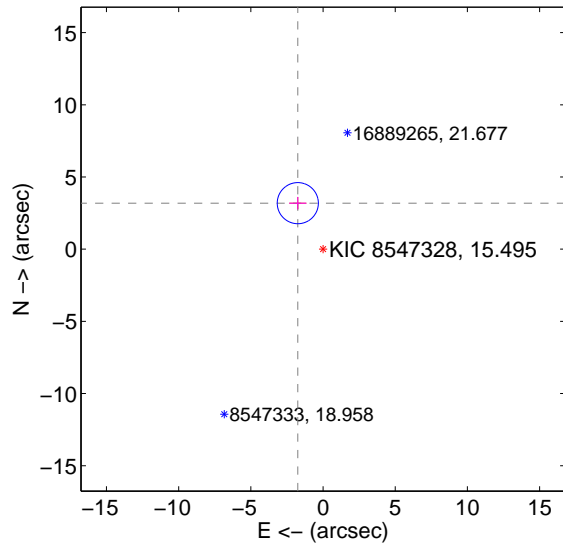
Supplemental centroid analysis for 008547328-01. Kepler magnitude: 15.49. Transit SNR 9.13

There are 0 quarters with good PRF difference image offsets

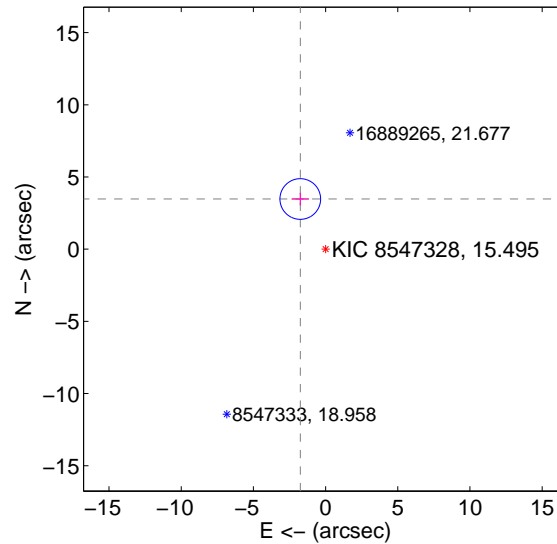
The direct PRF centroid is offset from the target star catalog position by about 0.29 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.635 ± 0.475	7.66	1.748 ± 0.597	3.188 ± 0.431
PRF-fit source offset from KIC position	3.892 ± 0.470	8.29	1.752 ± 0.597	3.476 ± 0.431
photometric centroid source offset	6.65 ± 2.44	2.73	-1.75 ± 1.88	6.42 ± 2.48

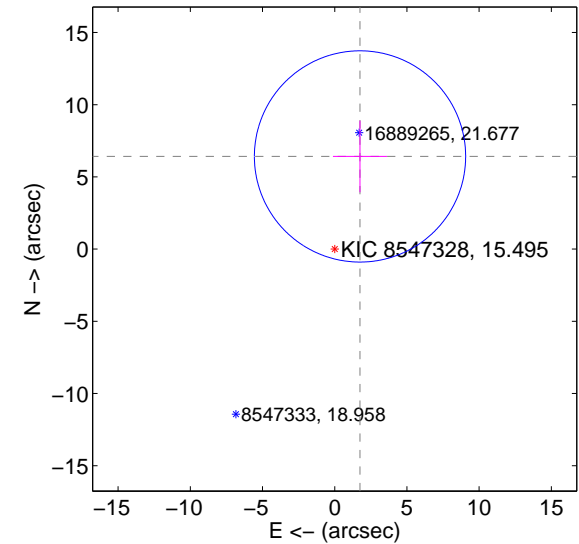
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

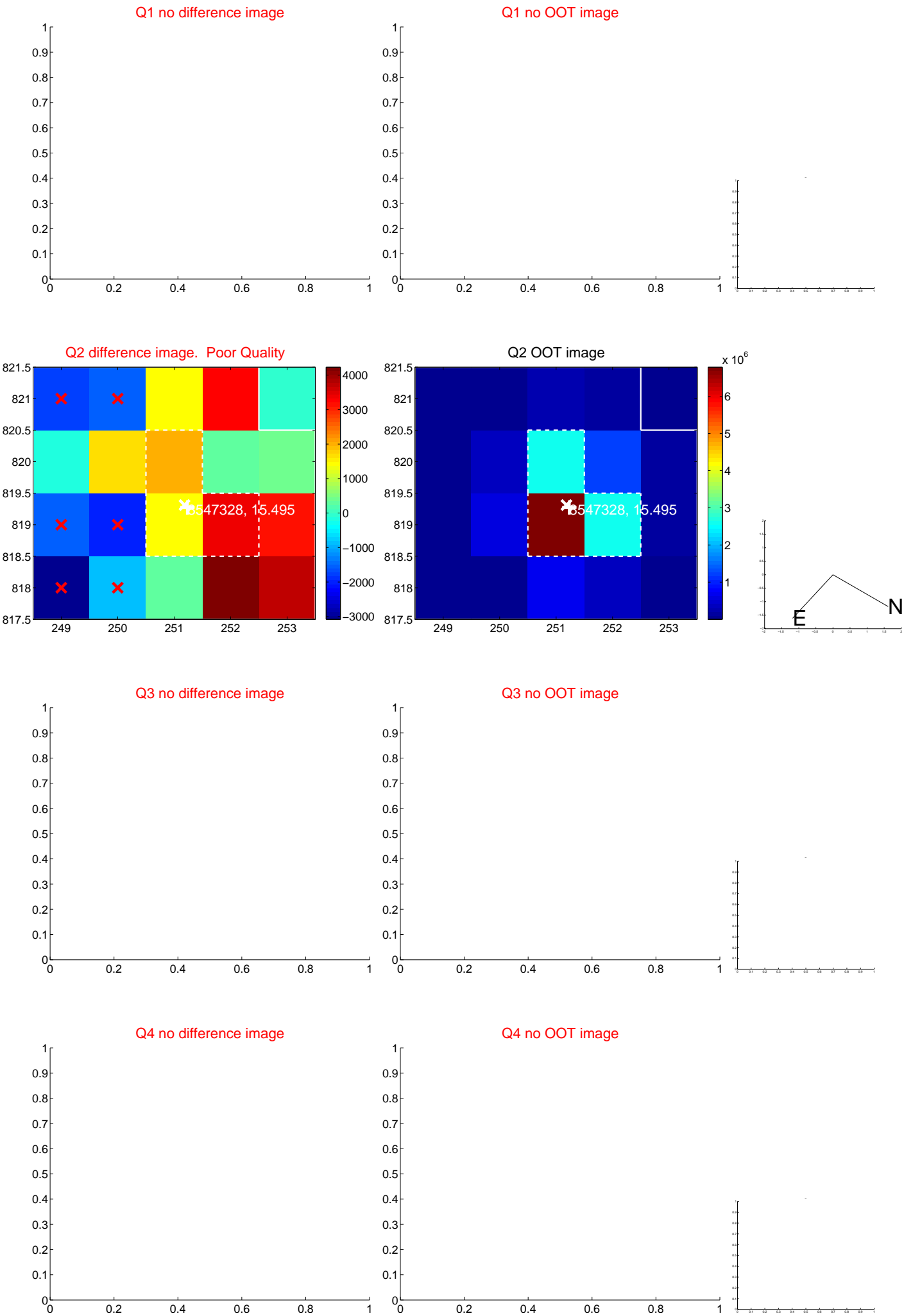


offset from photometric centroids

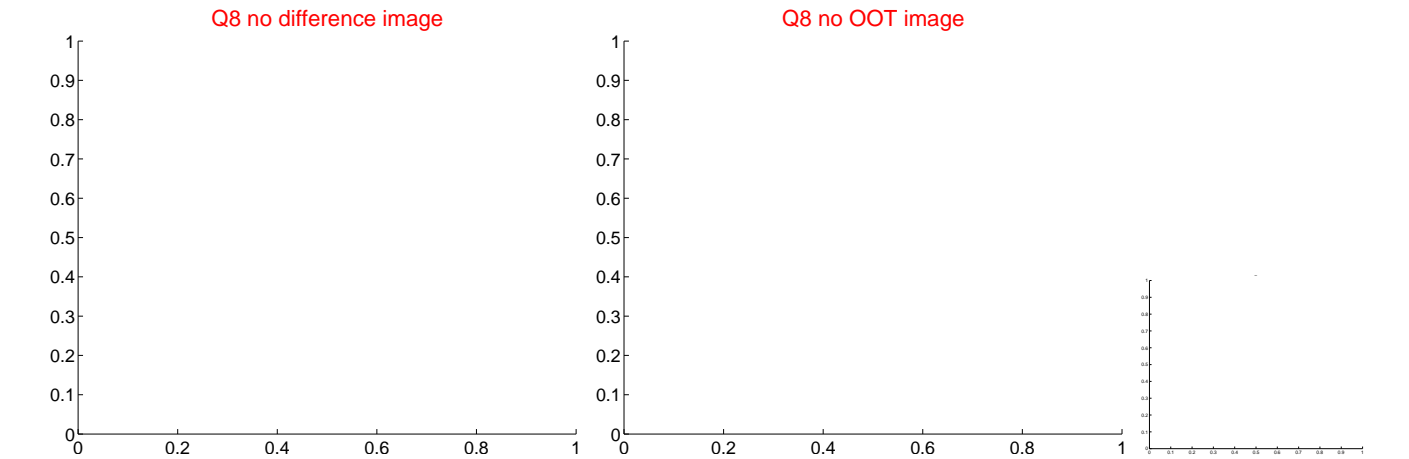
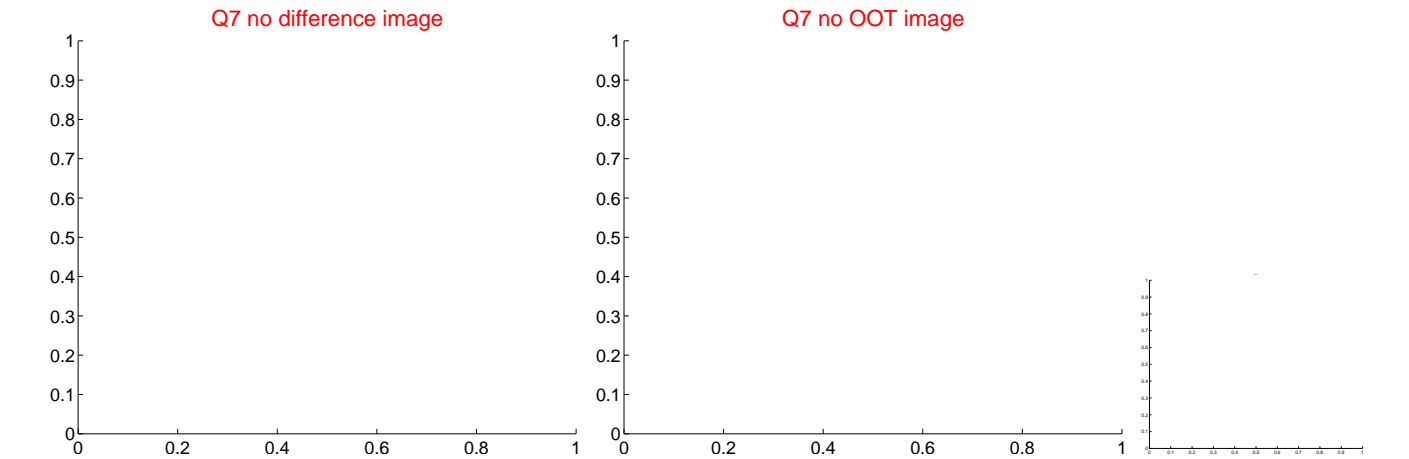
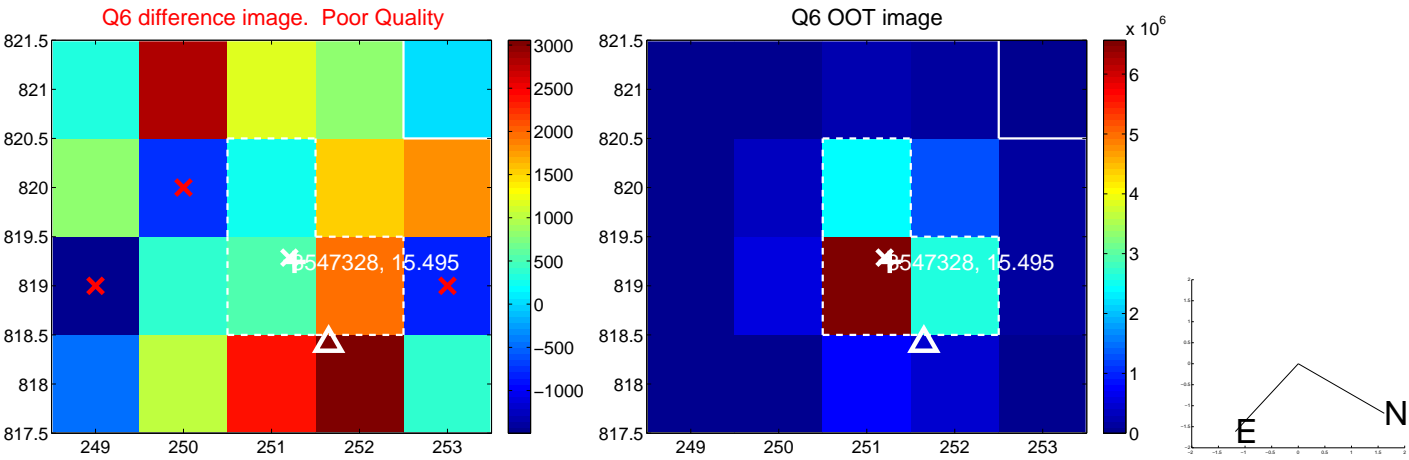
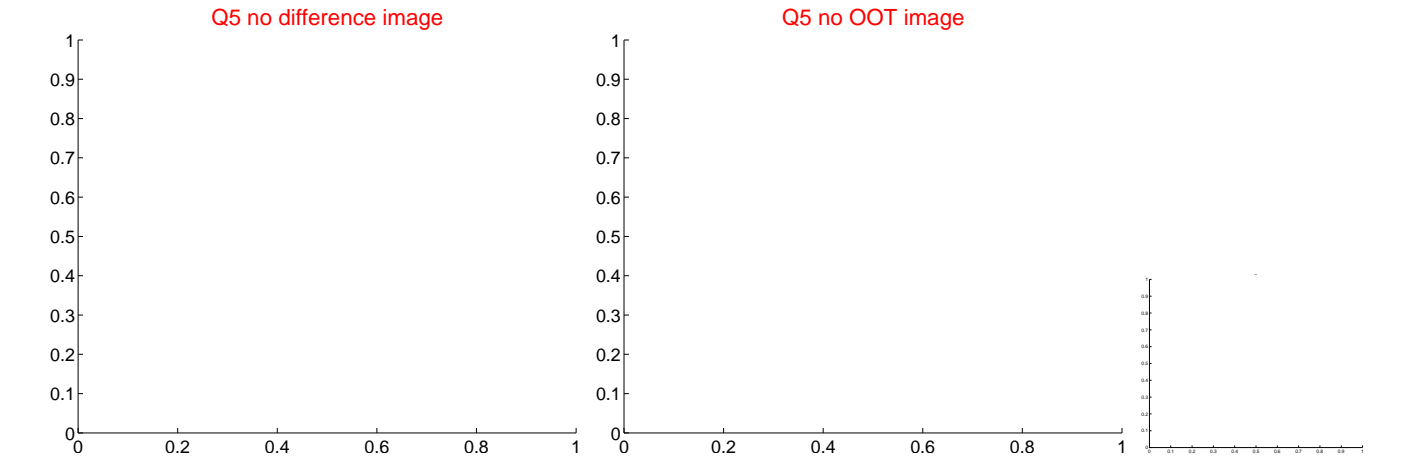


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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 \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



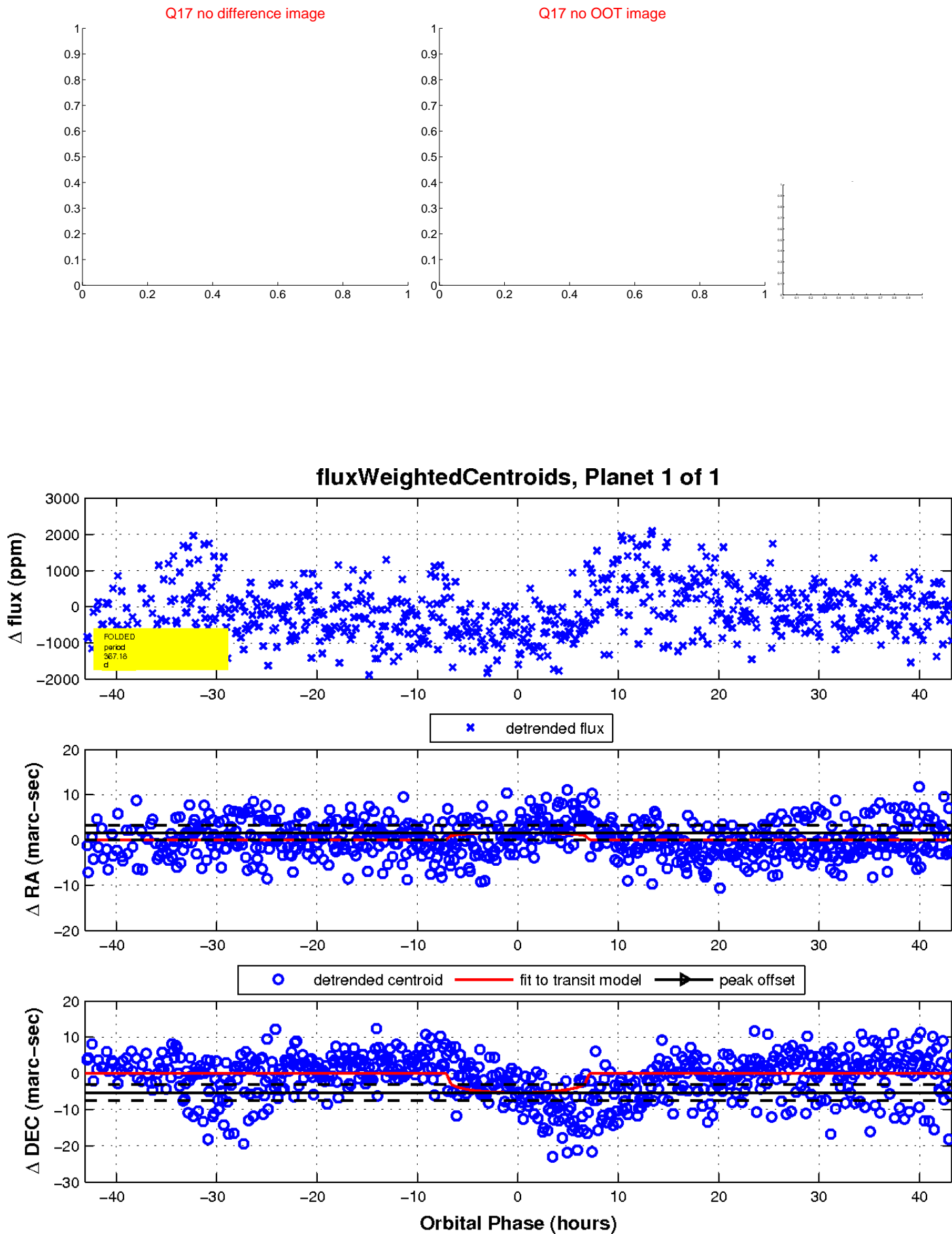
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

