

KIC 005340560

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})
005340560-01	OBS	No	371.883576	263.307722	1073.7	18.768	7.8	7.2	0.75	5282	3.44	0.45

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005340560-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—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.

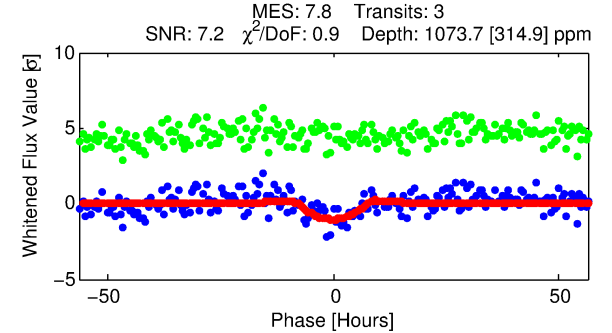
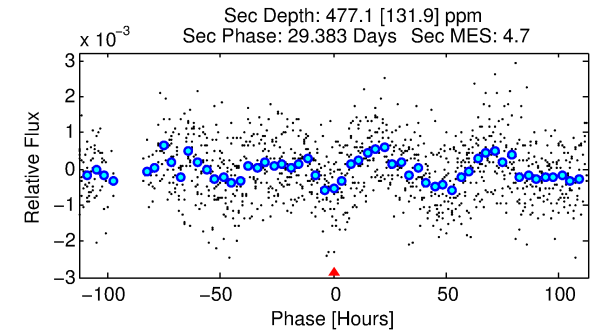
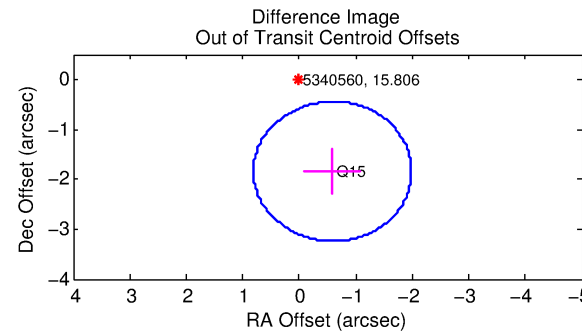
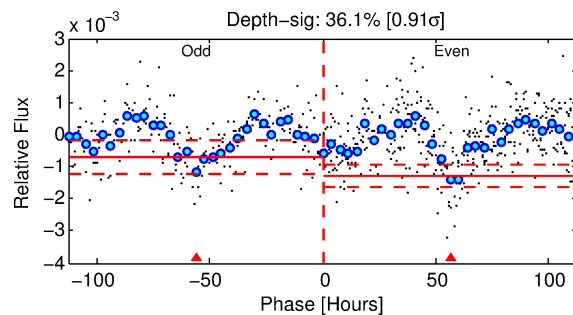
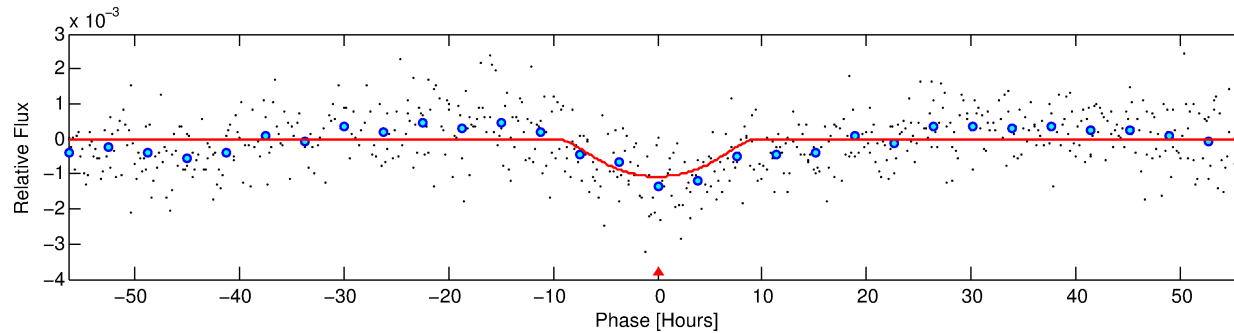
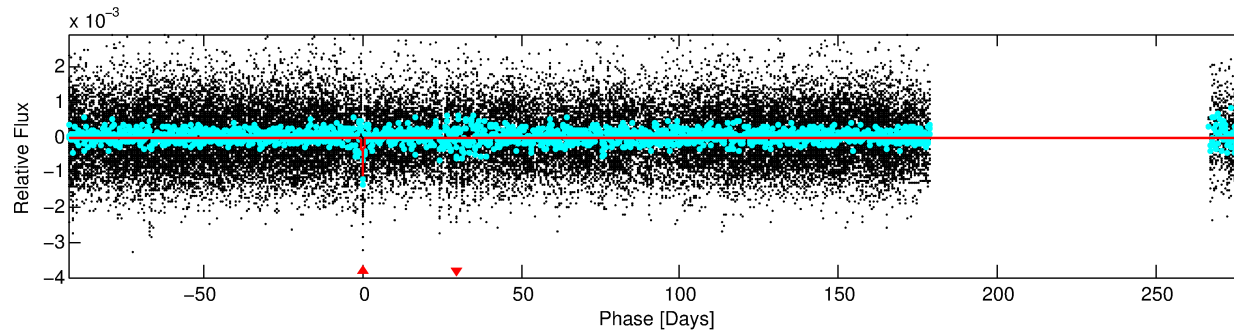
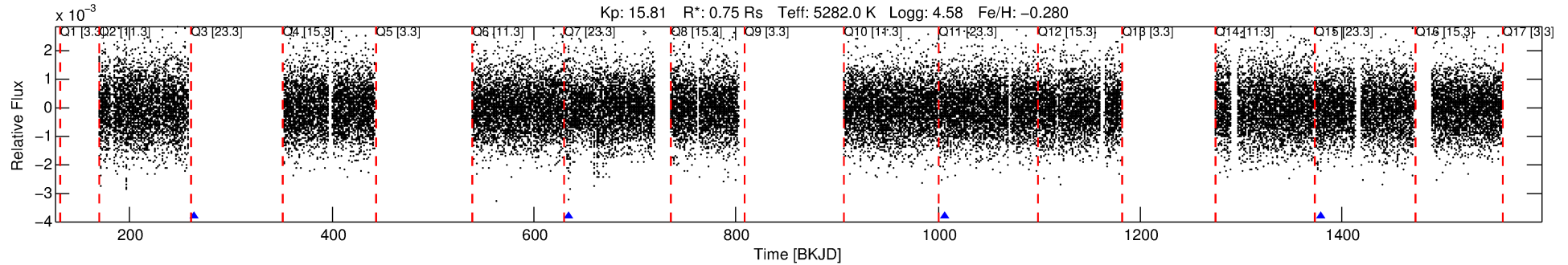
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005340560-01

No Significant Match Found

DV One-Page Summary

KIC: 5340560 Candidate: 1 of 1 Period: 371.884 d



DV Fit Results:

Period = 371.88358 [0.03202] d
Epoch = 263.3077 [0.0729] BKJD
Rp/R* = 0.0422 [0.0265]
a/R* = 58.45 [22.34]
b = 0.97 [0.07]
Seff = 0.45 [0.09]
Teq = 209 [11] K
Rp = 3.44 [2.22] Re
a = 0.9329 [0.1110] AU
Ag = 19348.22 [25115.45] [0.77 σ]
Teffp = 3802 [1229] K [2.92 σ]

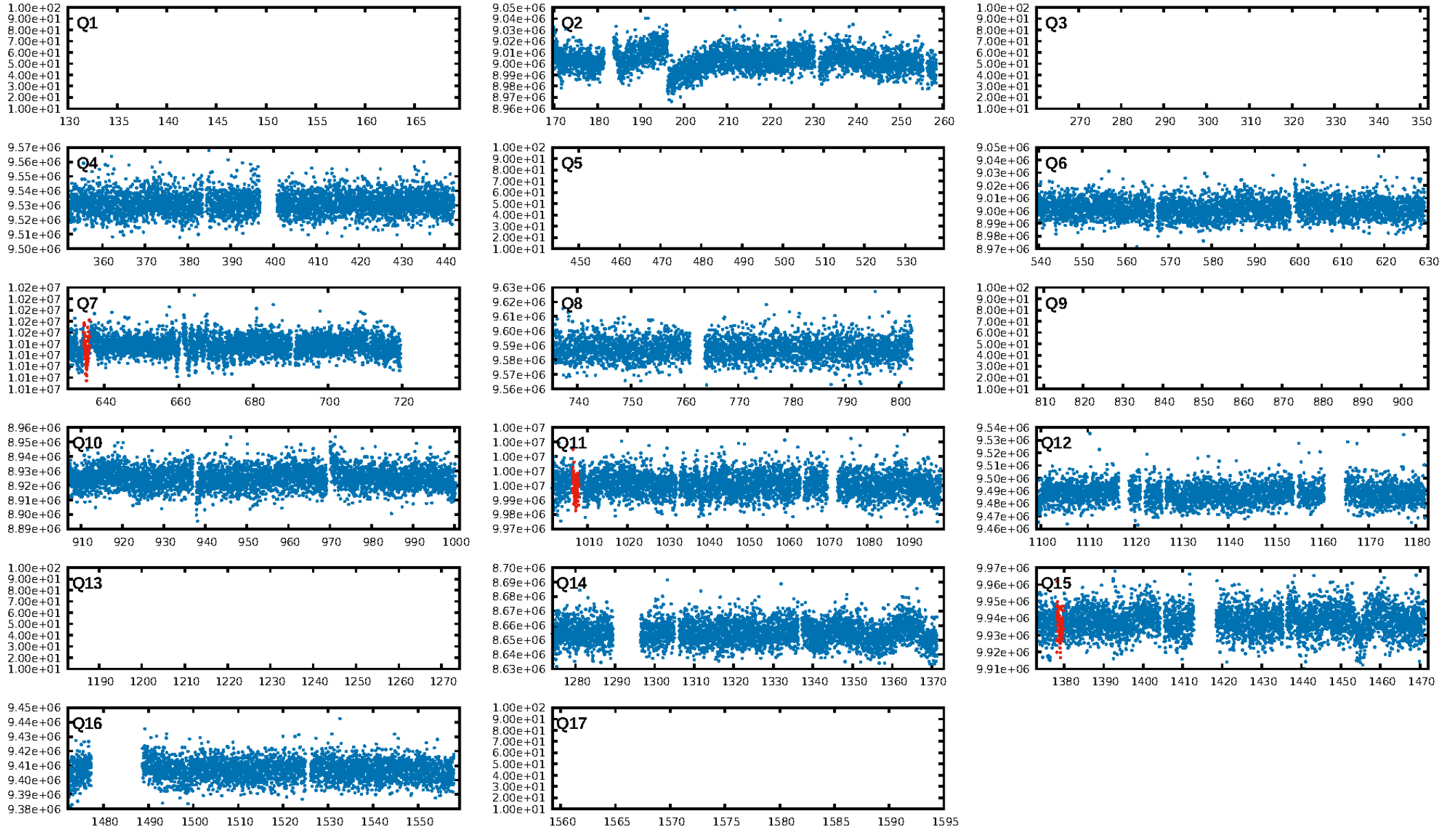
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 11.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.56e-09
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.83
Centroid-sig: 99.5%
Centroid-so: 0.542 arcsec [0.23 σ]
OotOffset-rm: 1.937 arcsec [4.16 σ]
KicOffset-rm: 2.500 arcsec [5.37 σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [1/1]

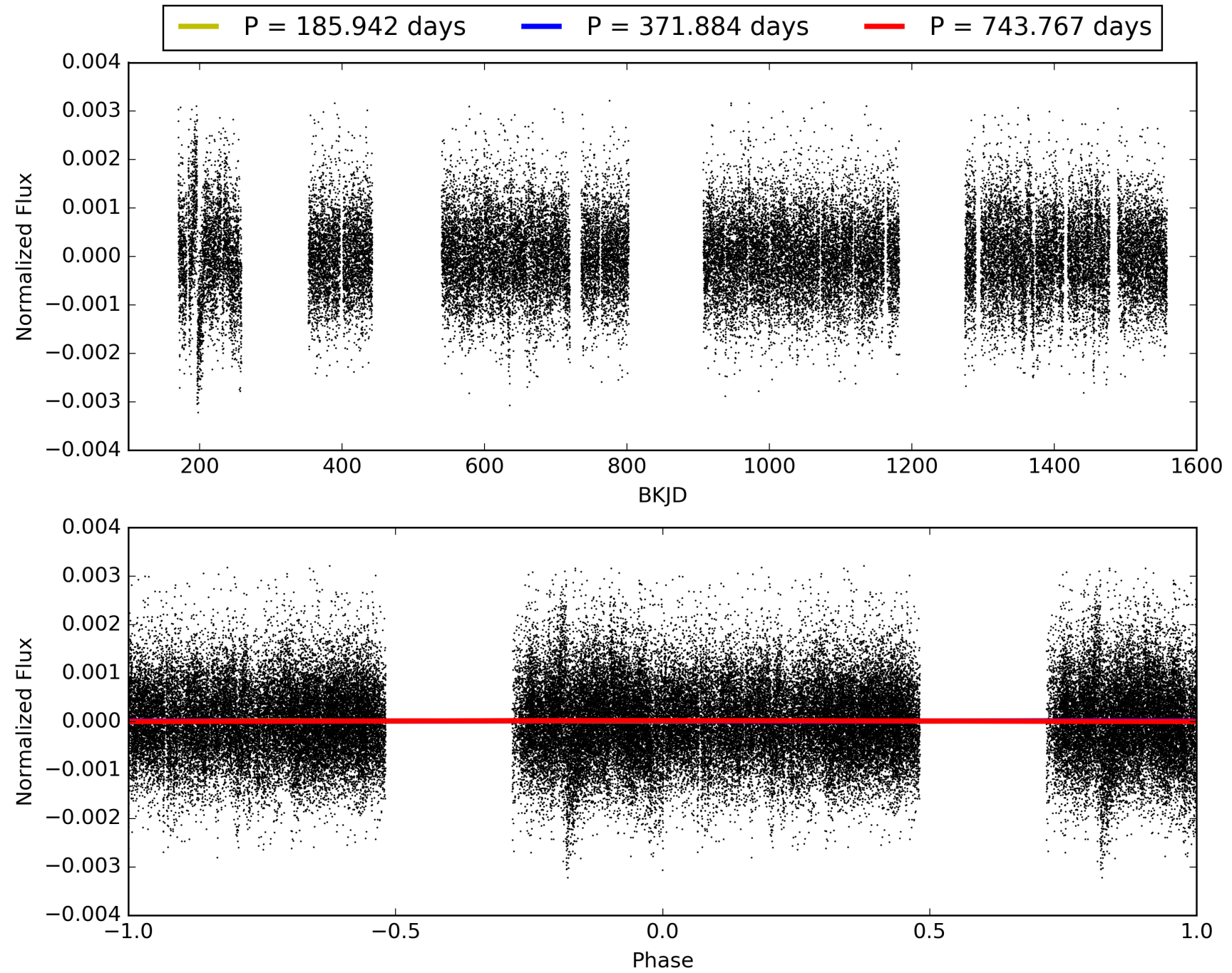
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 21:26:43 Z

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

TCE 005340560-01, PDC Light Curves

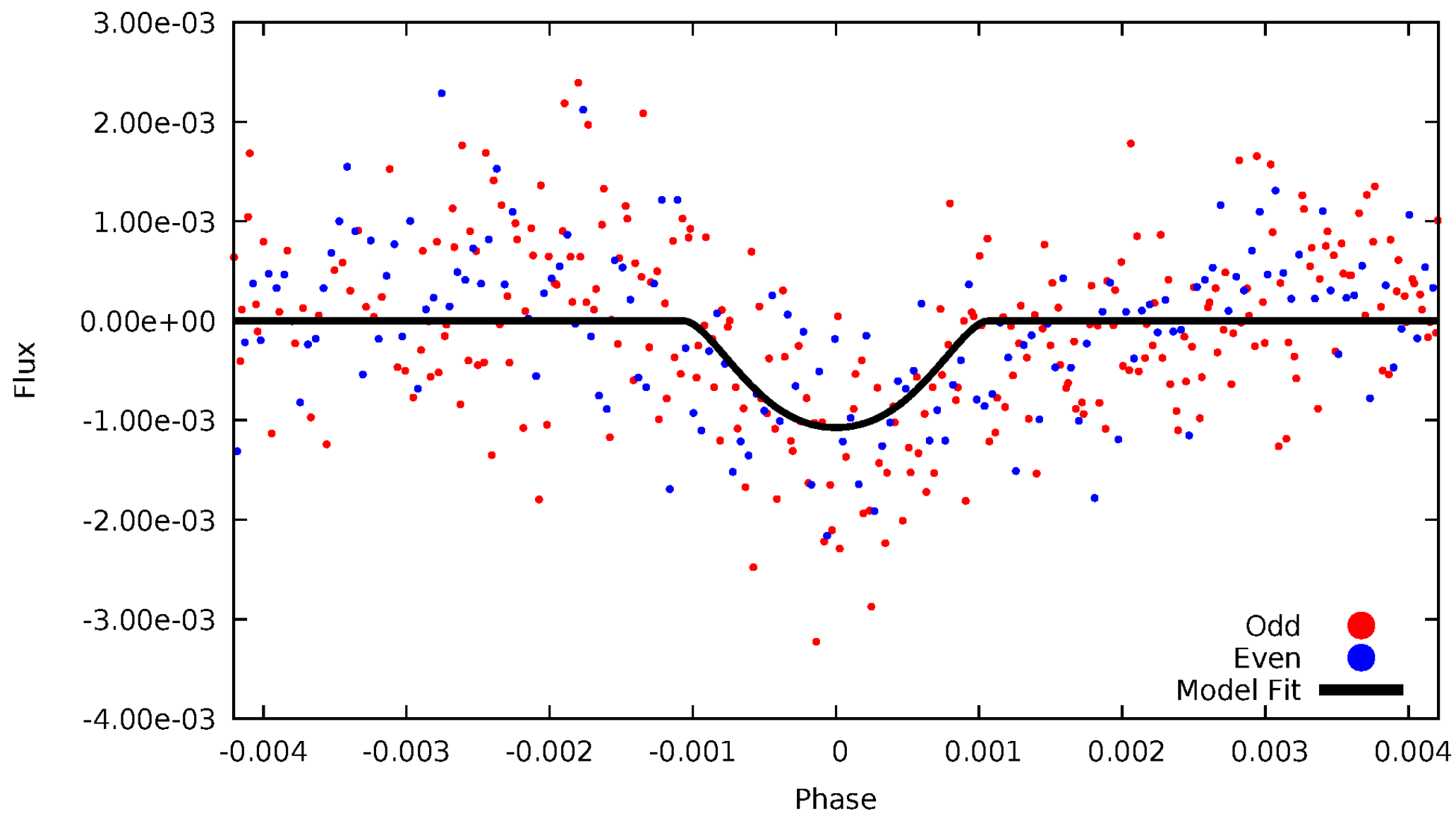


TCE 005340560-01



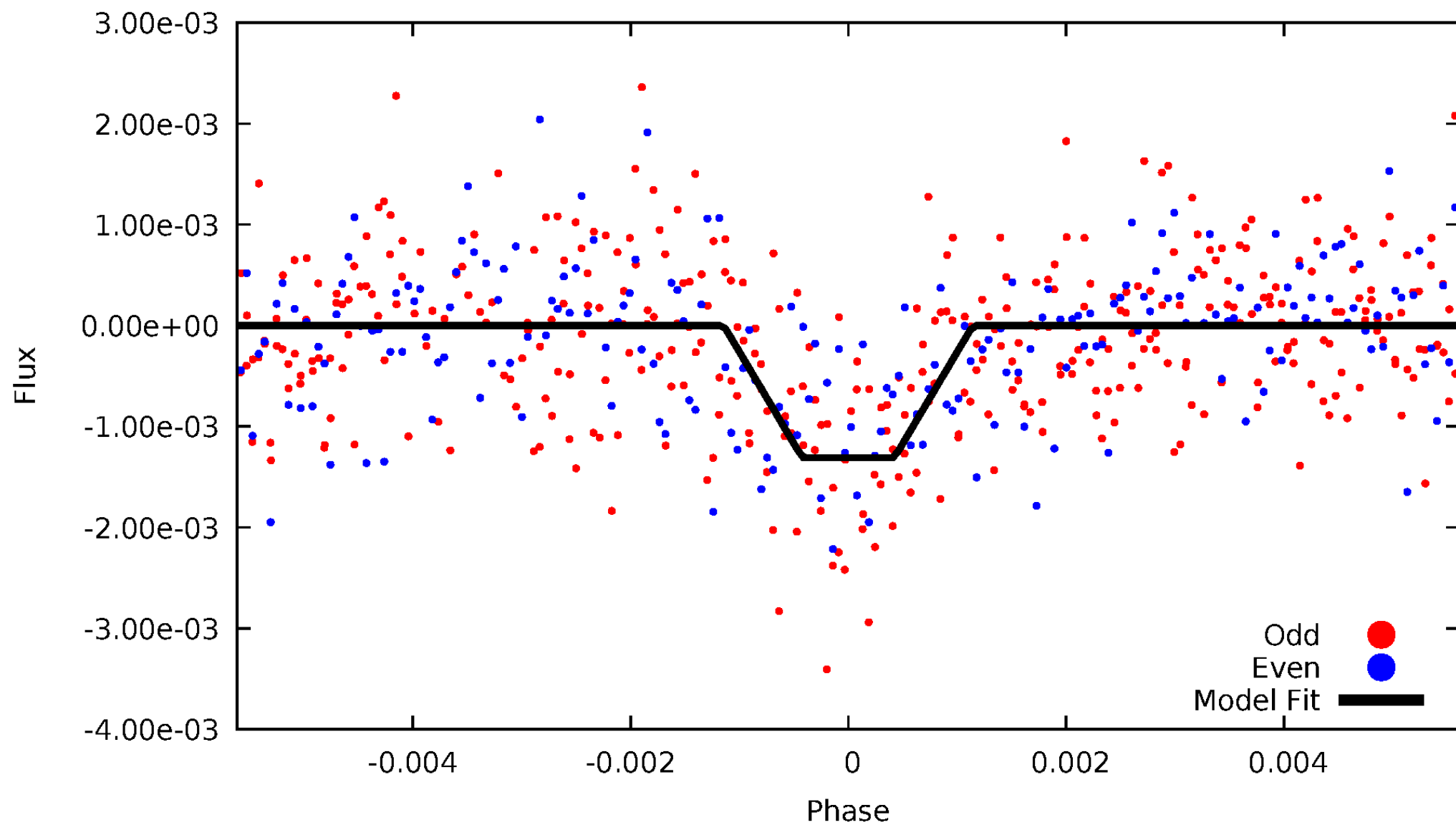
DV Odd/Even

TCE 005340560-01

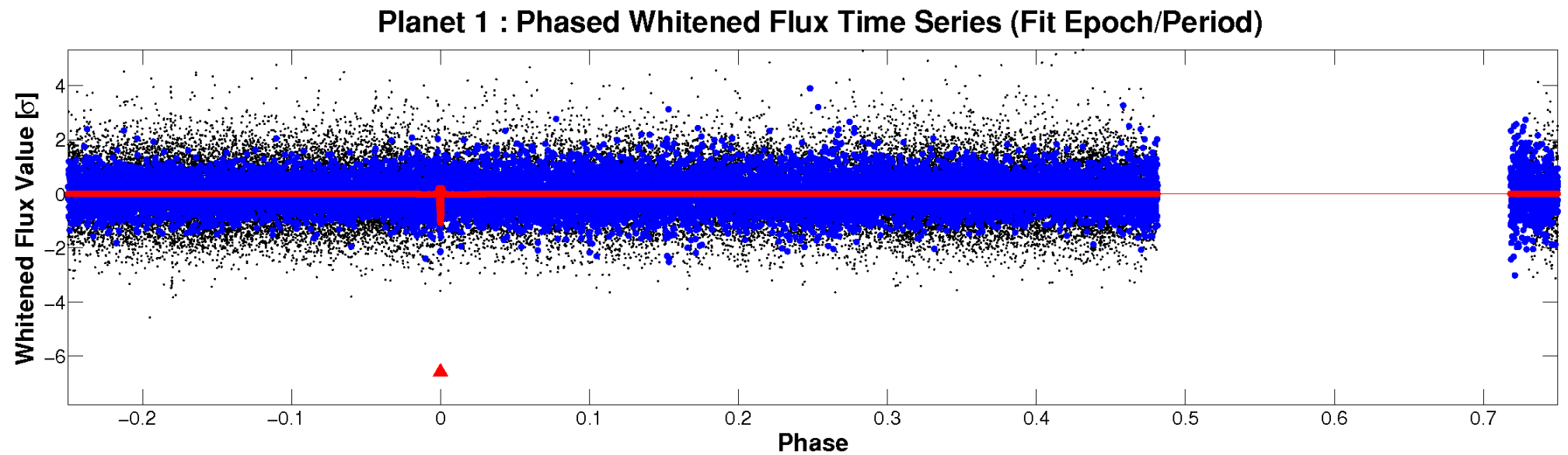
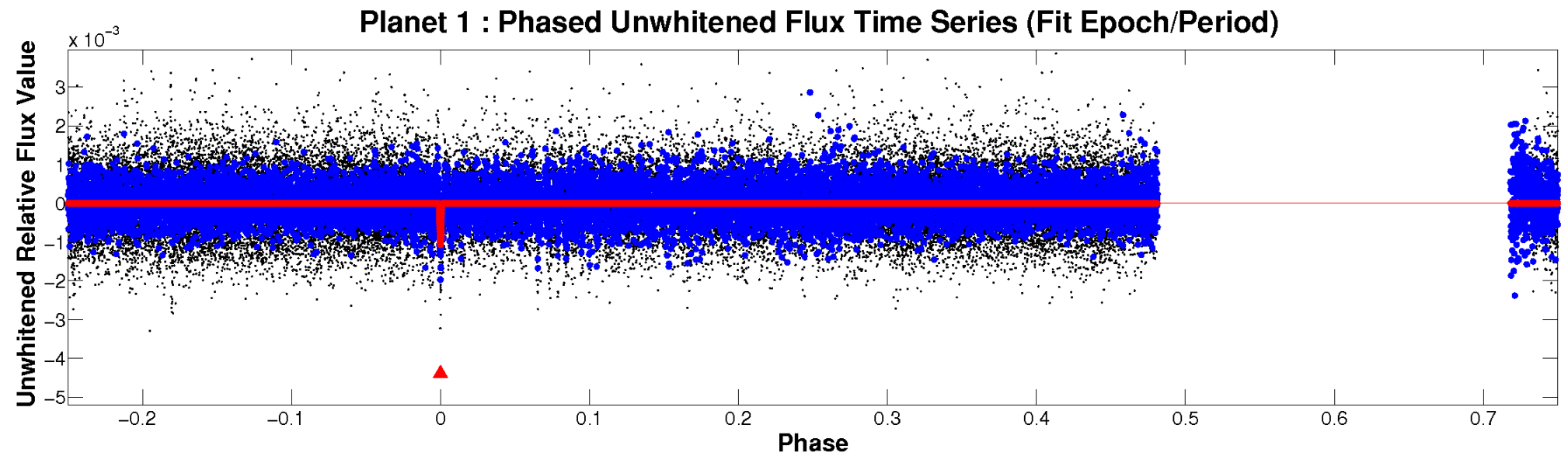


ALT Odd/Even

TCE 005340560-01

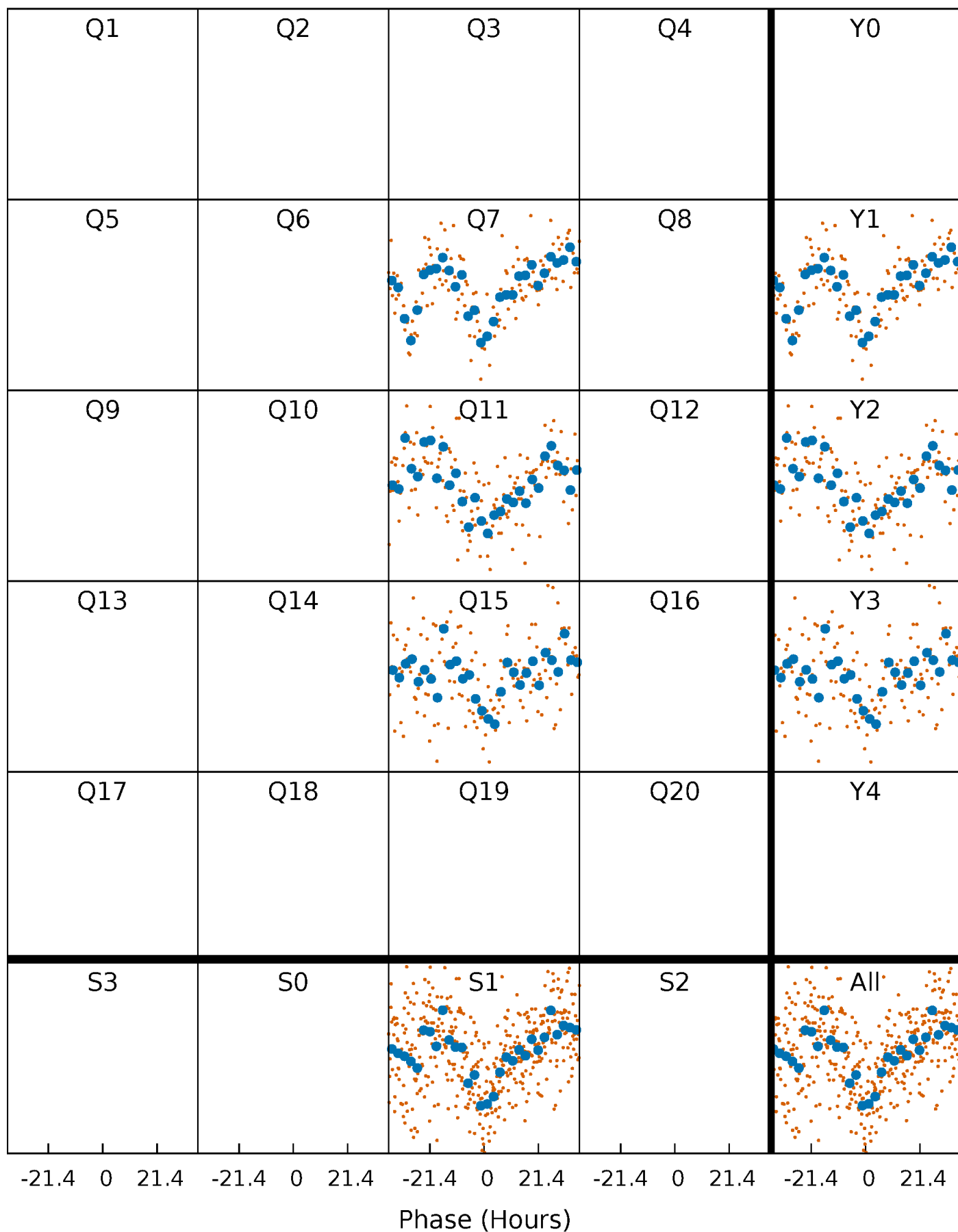


Non-Whitened Vs. Whitened Light Curve



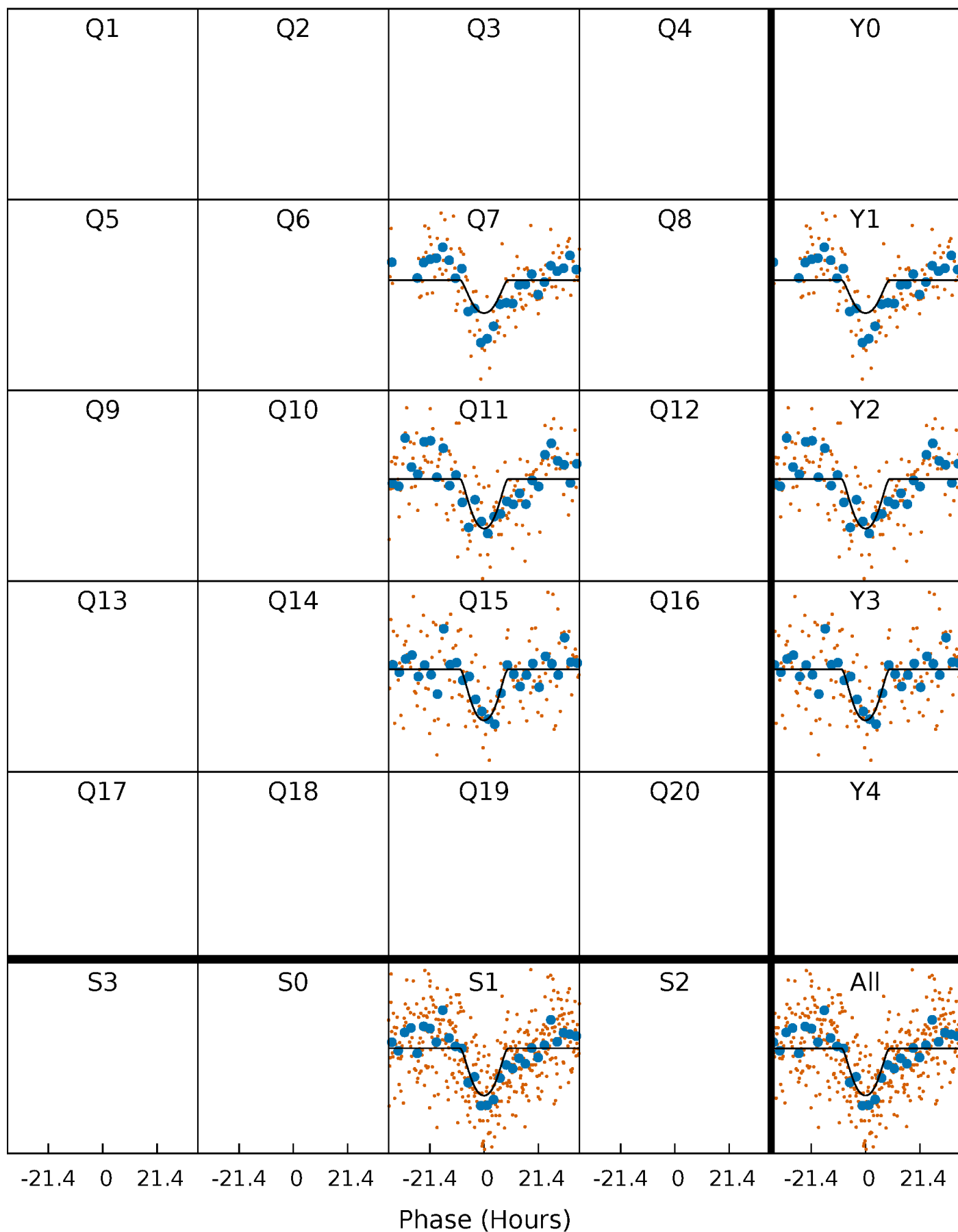
PDC Quarter-Phased Transit Curves

TCE 005340560-01 P=371.883576 Days $T_0=263.307722$ (BKJD)



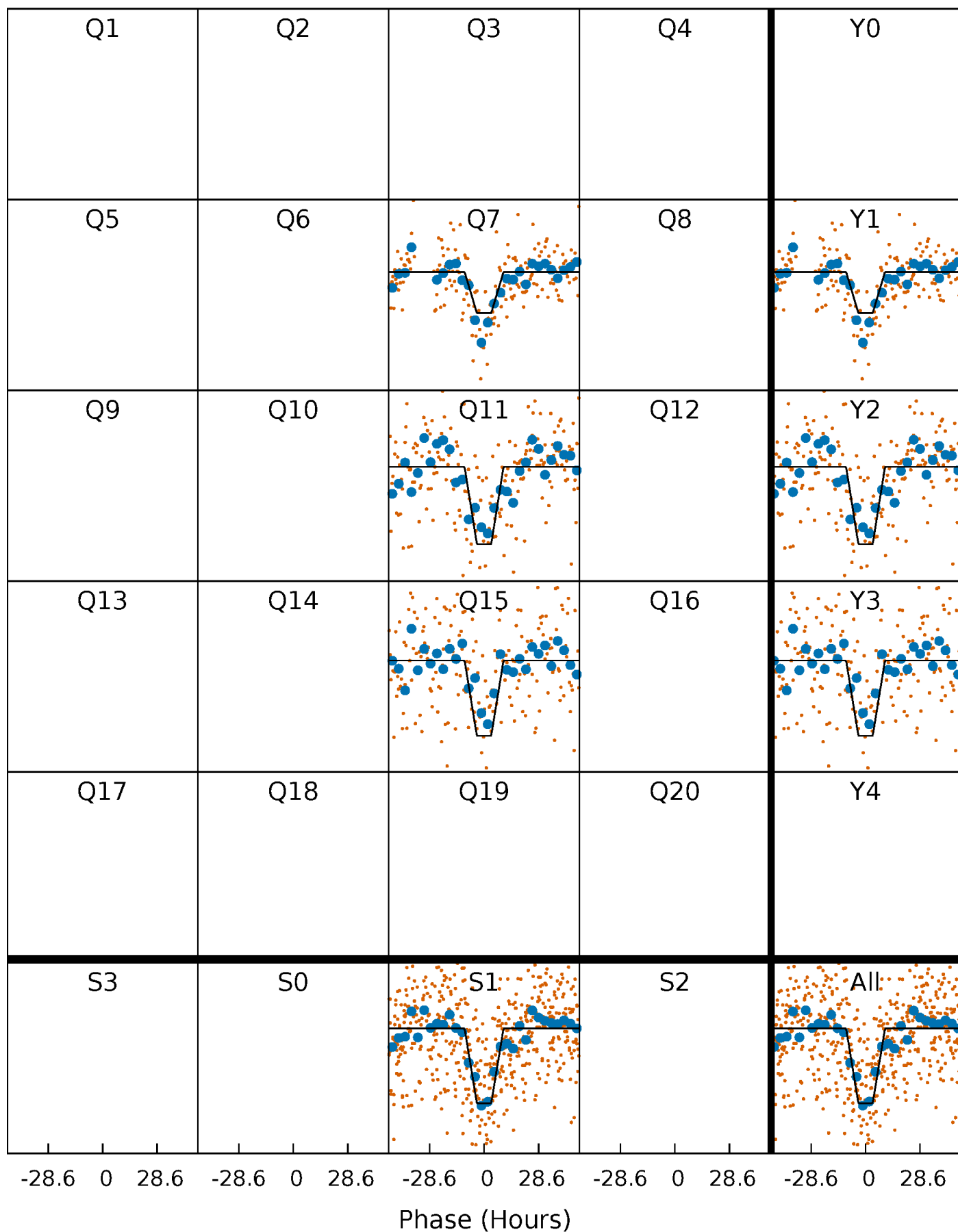
DV Quarter-Phased Transit Curves

TCE 005340560-01 P=371.883576 Days $T_0=263.307722$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

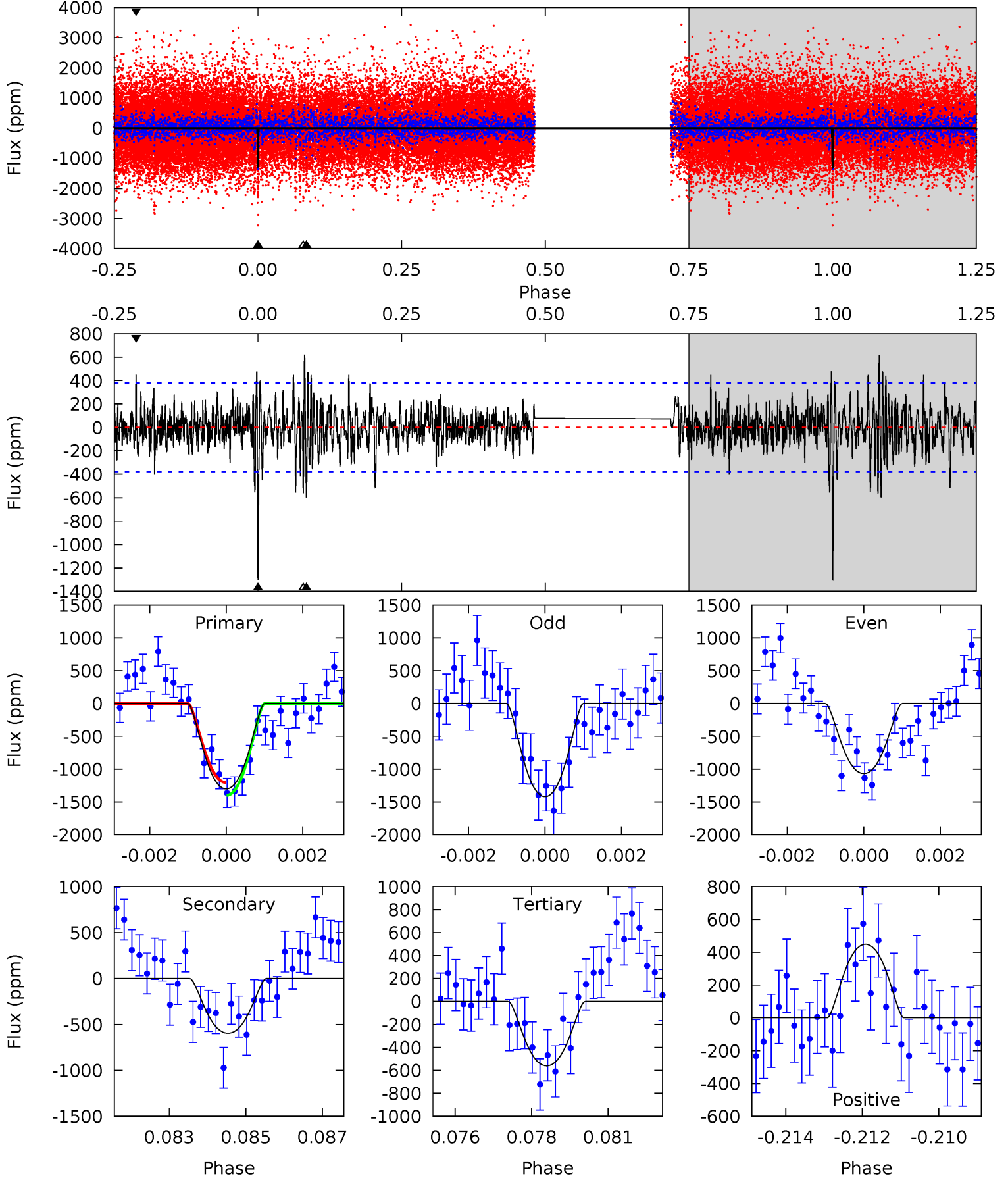
TCE 005340560-01 P=371.890792 Days $T_0=263.322734$ (BKJD)



DV Model-Shift Uniqueness Test

005340560-01, P = 371.883576 Days, E = 263.307722 Days

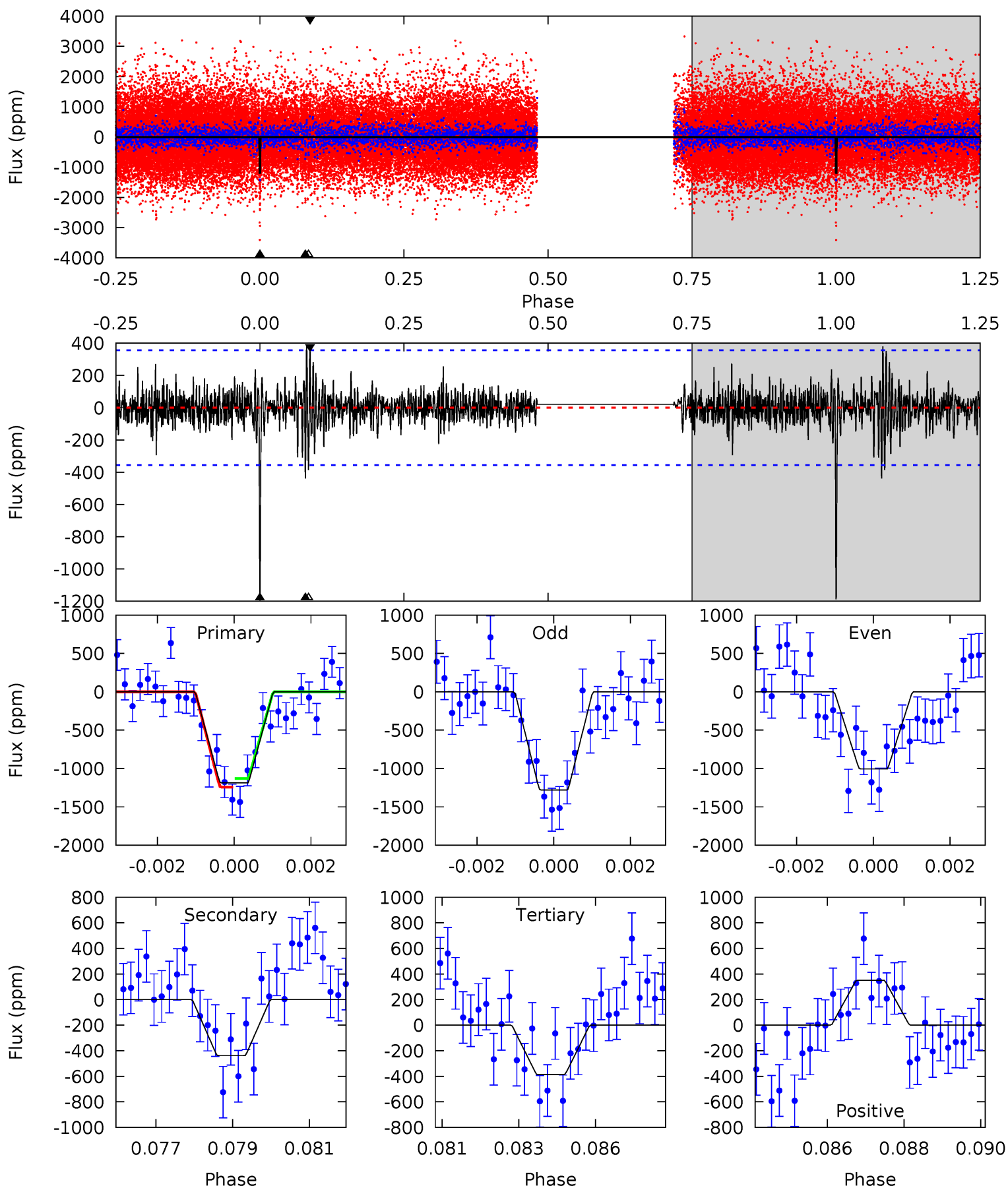
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.4	8.41	7.91	6.33	5.32	3.07	1.86	10.4	12.0	0.50	2.08	2.34	1.23	0.32	1.37



Alt Model-Shift Uniqueness Test

005340560-01, $P = 371.890792$ Days, $E = 263.322734$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.7	6.53	5.76	5.23	5.30	3.05	1.14	11.9	12.5	0.77	1.30	1.95	1.19	0.24	0.82



Stellar Parameters For KIC 005340560

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5282^{+158}_{-158}	$4.585^{+0.048}_{-0.084}$	$-0.280^{+0.300}_{-0.300}$	$0.747^{+0.112}_{-0.069}$	$0.782^{+0.085}_{-0.070}$	$2.643^{+0.622}_{-0.717}$
	+3%/-3%	+1%/-2%	+107%/-107%	+15%/-9%	+11%/-9%	+24%/-27%
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 005340560-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-596 ± 71	$3.45^{+2.19}_{-1.82}$	294^{+12}_{-11}	4220^{+1684}_{-630}	23436^{+83024}_{-14596}
Alt.	-438 ± 67	$3.19^{+2.30}_{-1.92}$	294^{+13}_{-12}	4157^{+1931}_{-717}	$21051^{+107345}_{-14220}$

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

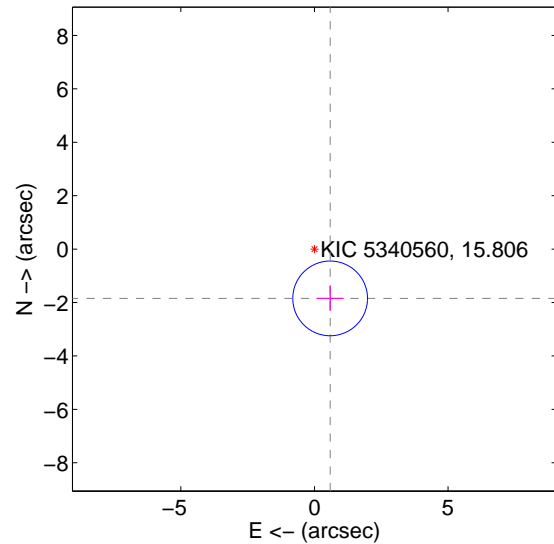
Supplemental centroid analysis for 005340560-01. Kepler magnitude: 15.81. Transit SNR 7.22

There are 0 quarters with good PRF difference image offsets

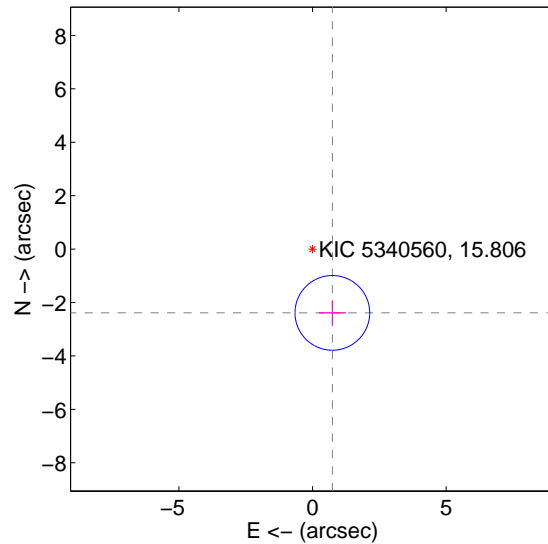
The direct PRF centroid is offset from the target star catalog position by about 0.56 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.937 ± 0.466	4.16	-0.588 ± 0.503	-1.846 ± 0.462
PRF-fit source offset from KIC position	2.500 ± 0.466	5.37	-0.742 ± 0.503	-2.387 ± 0.462
photometric centroid source offset	0.54 ± 2.34	0.23	-0.29 ± 2.52	-0.46 ± 2.26

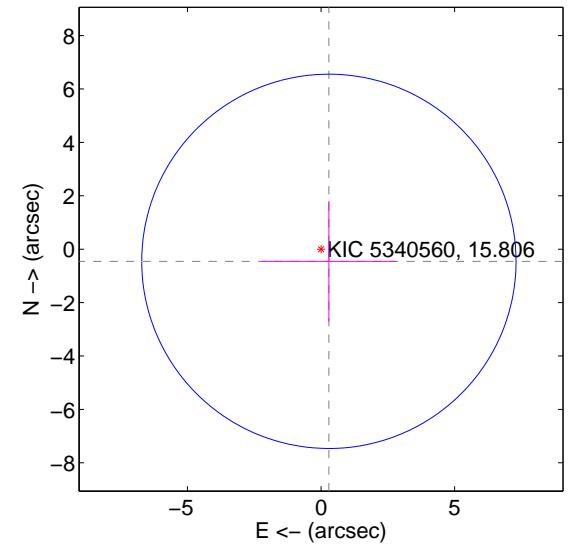
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

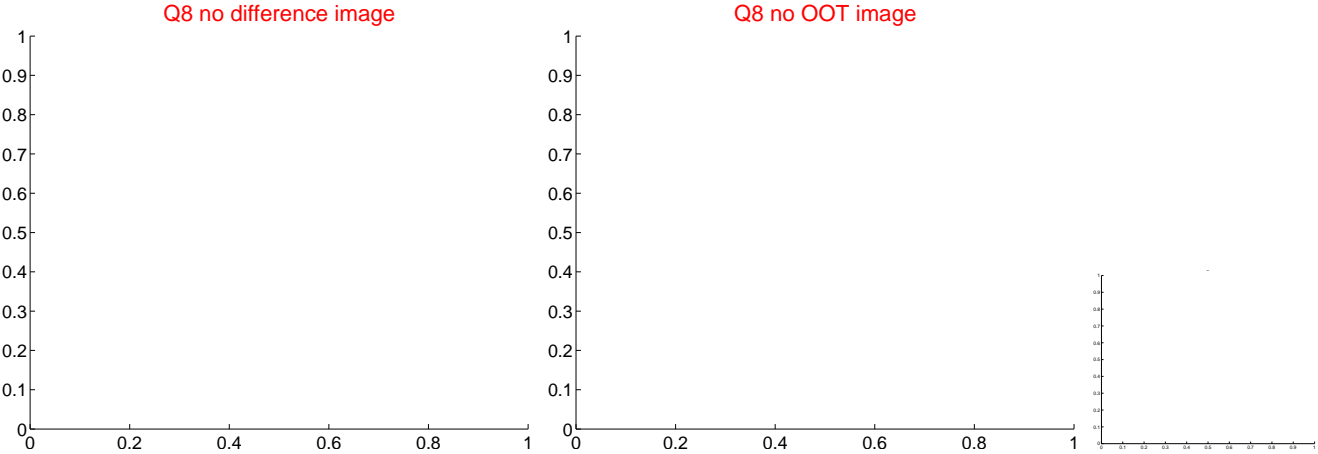


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



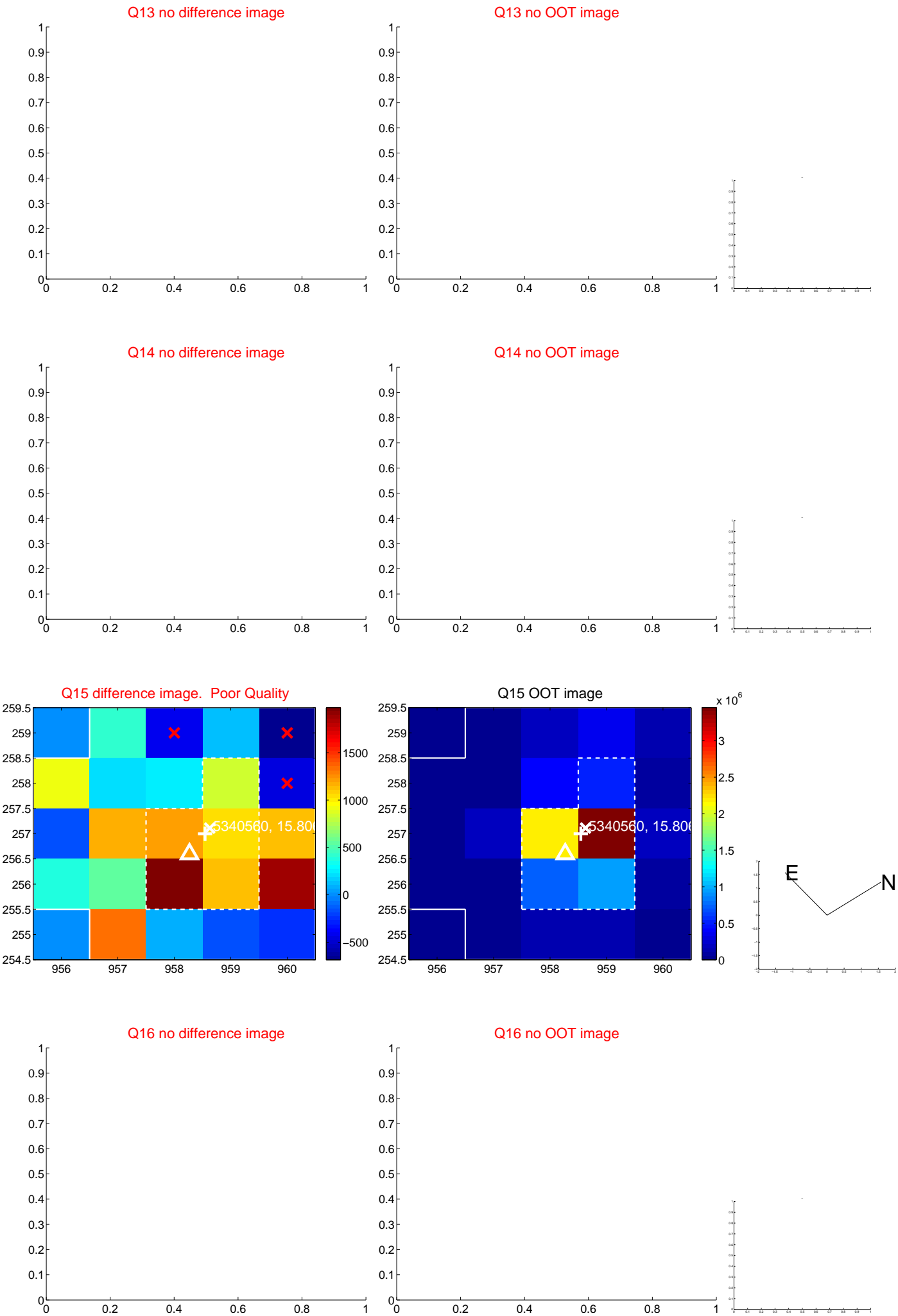
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



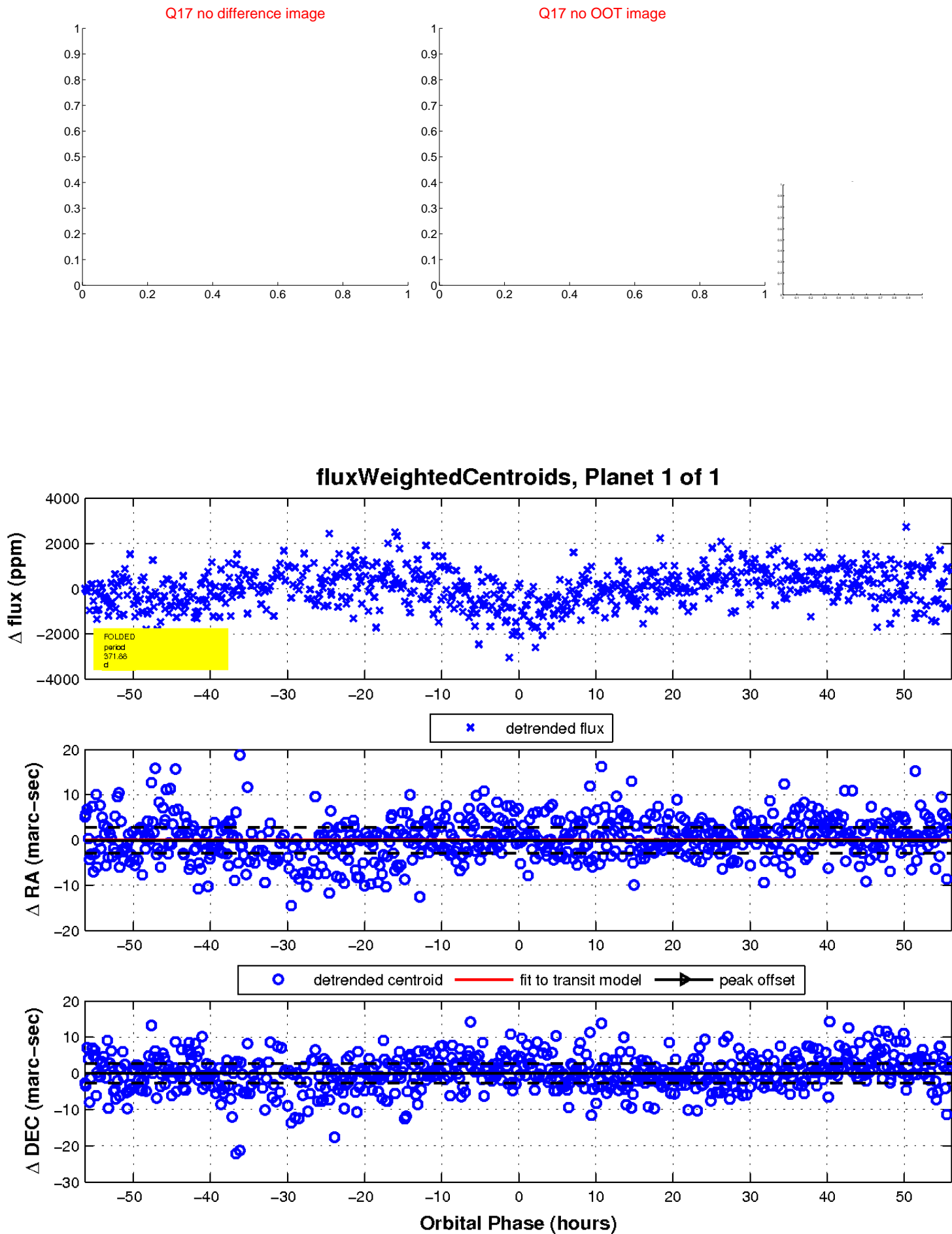
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

