

KIC 006547004

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})
006547004-01	OBS	No	528.845102	509.318804	327.4	4.075	7.8	3.3	22.73	4518	40.57	90.36

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006547004-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_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.

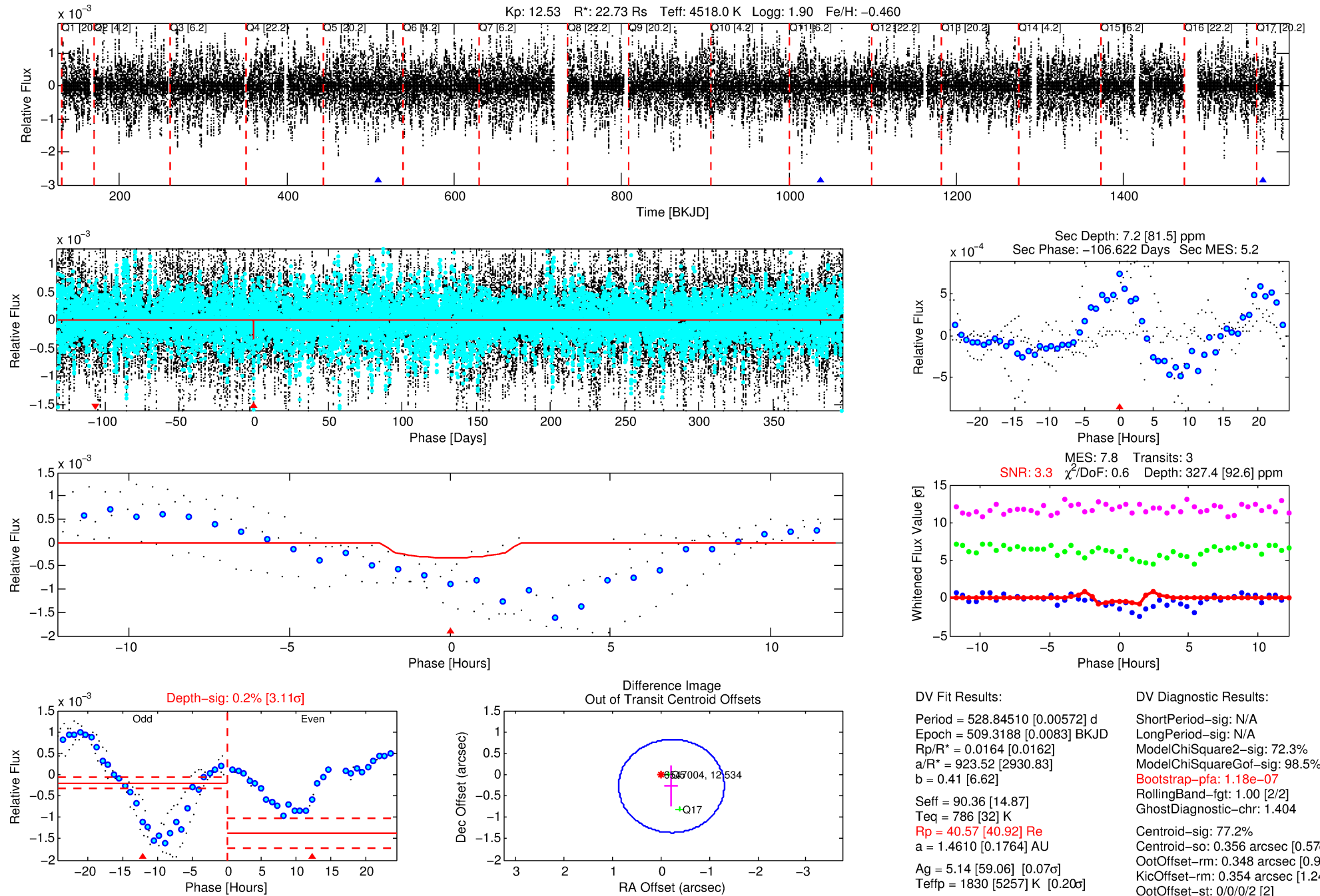
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006547004-01

No Significant Match Found

DV One-Page Summary

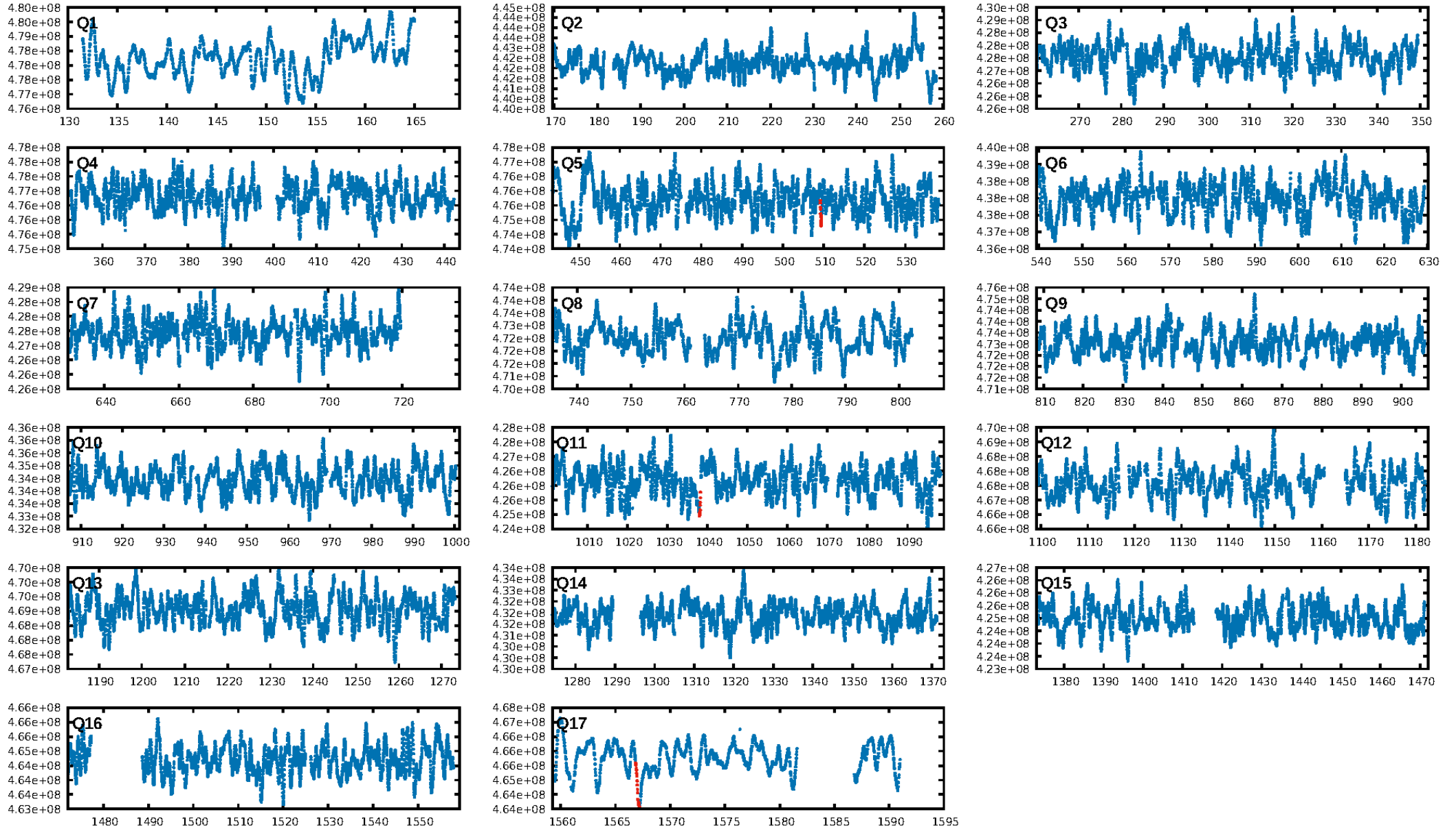
KIC: 6547004 Candidate: 1 of 1 Period: 528.845 d



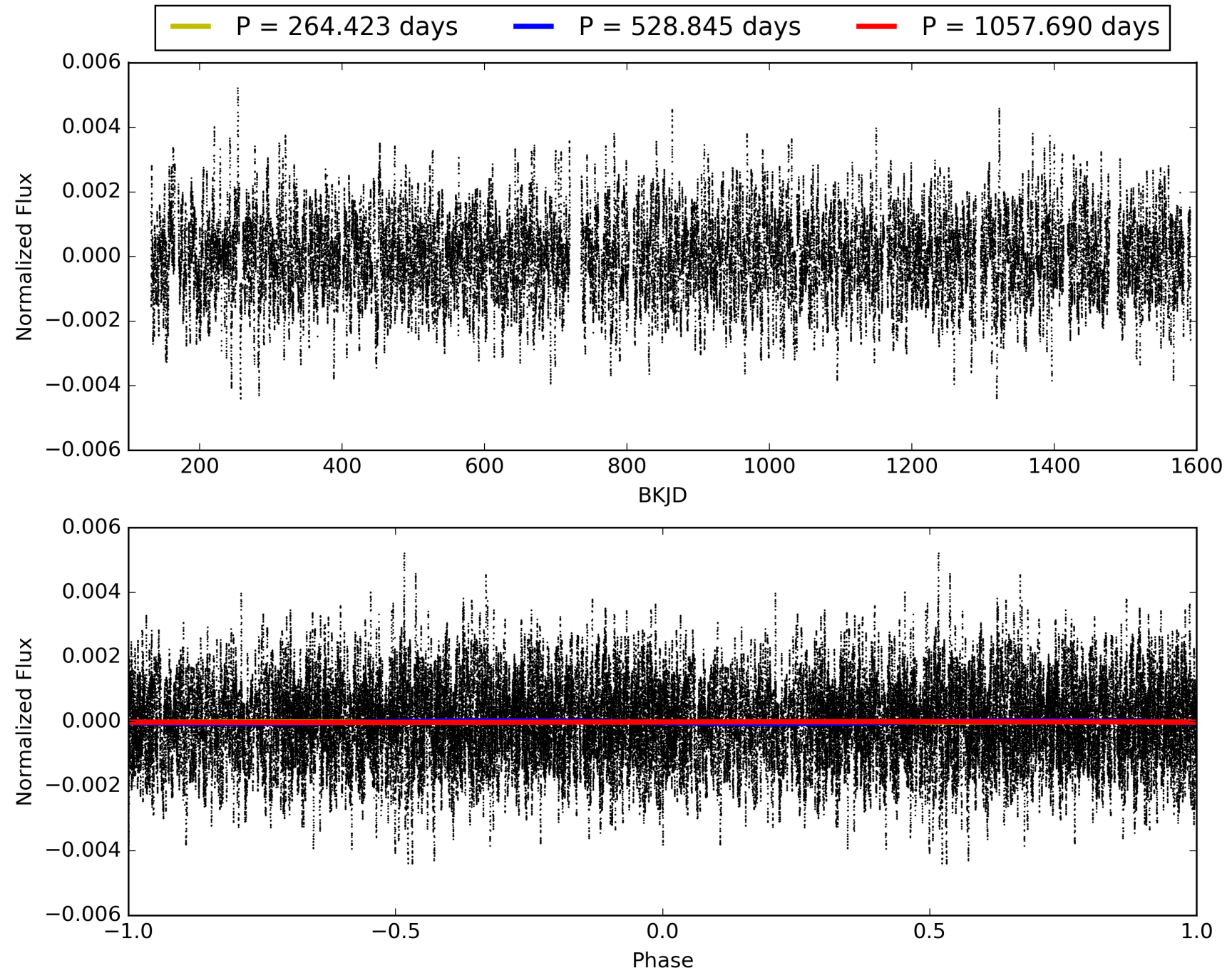
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 03:16:43 Z

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

TCE 006547004-01, PDC Light Curves

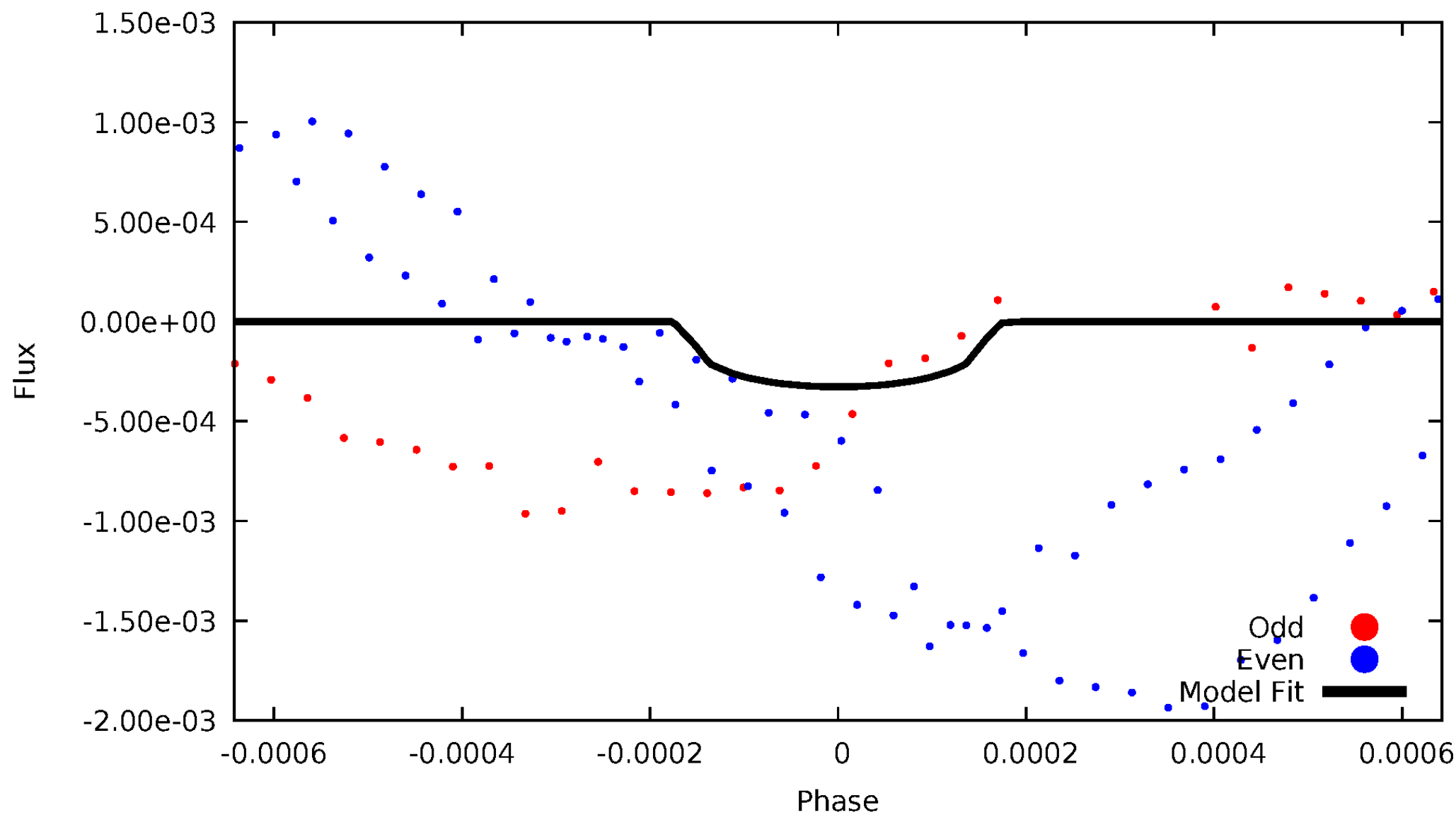


TCE 006547004-01



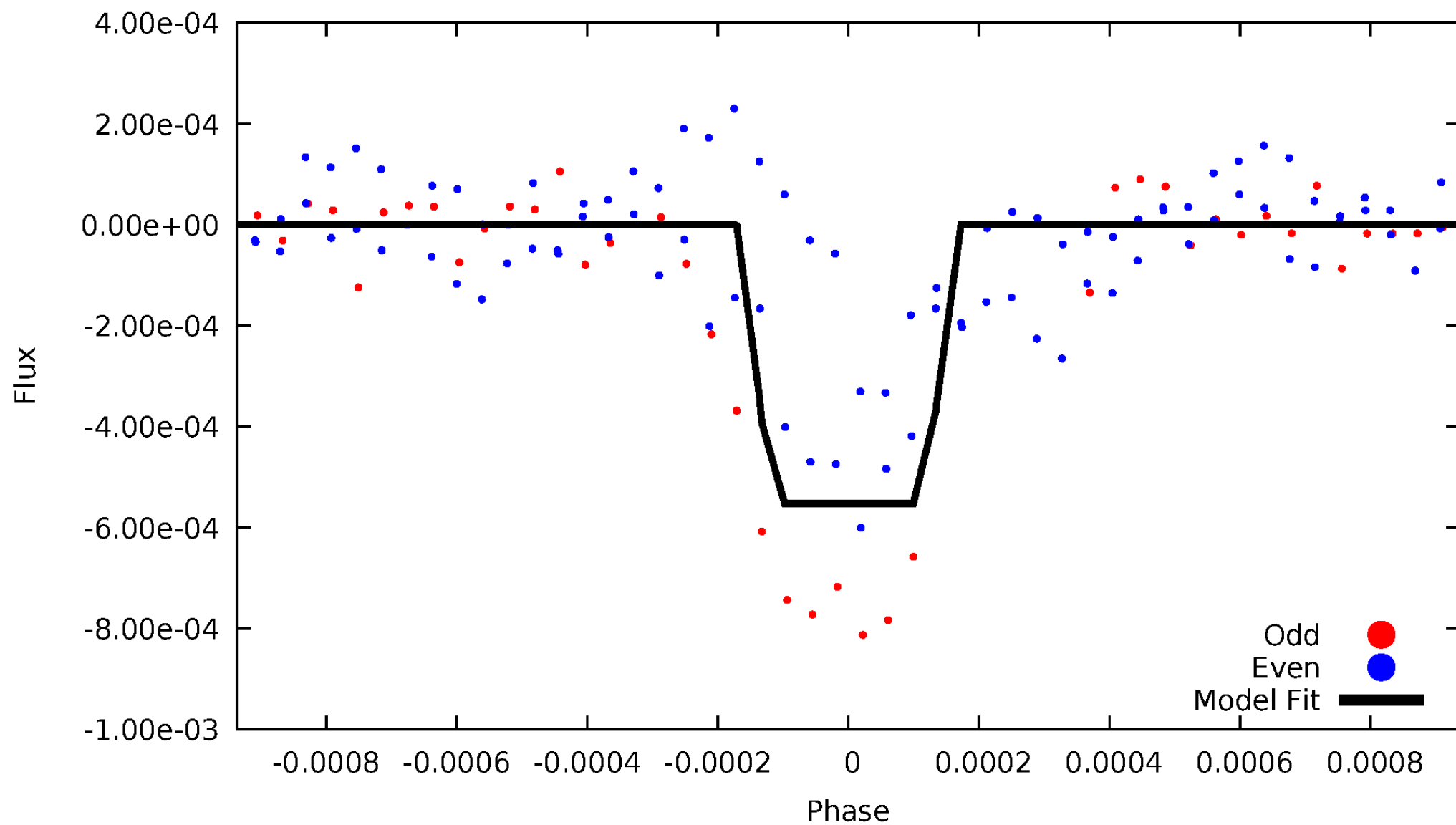
DV Odd/Even

TCE 006547004-01



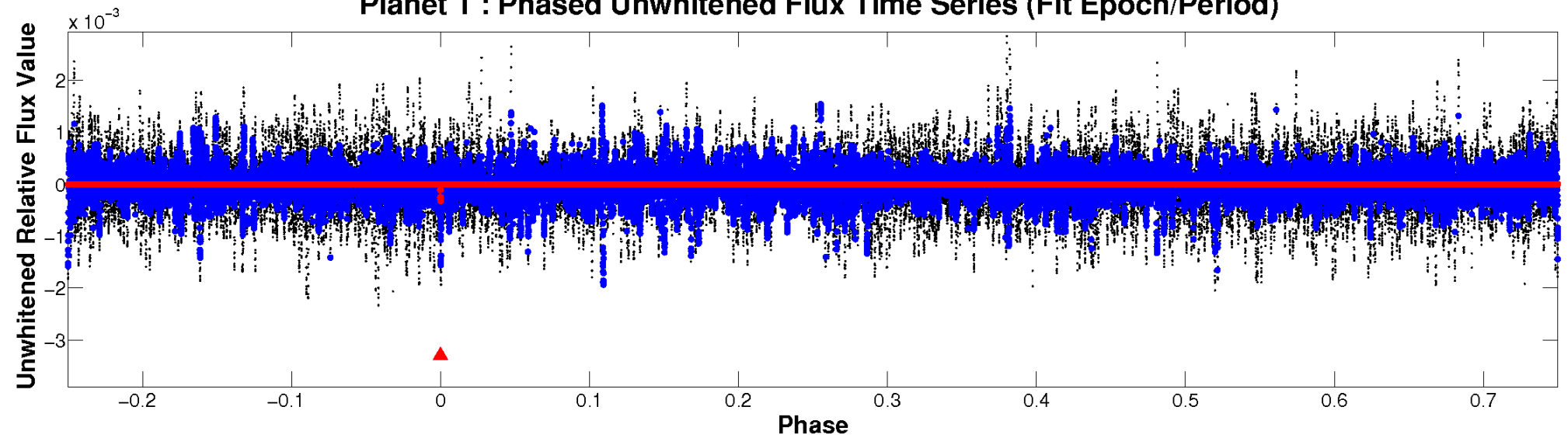
ALT Odd/Even

TCE 006547004-01

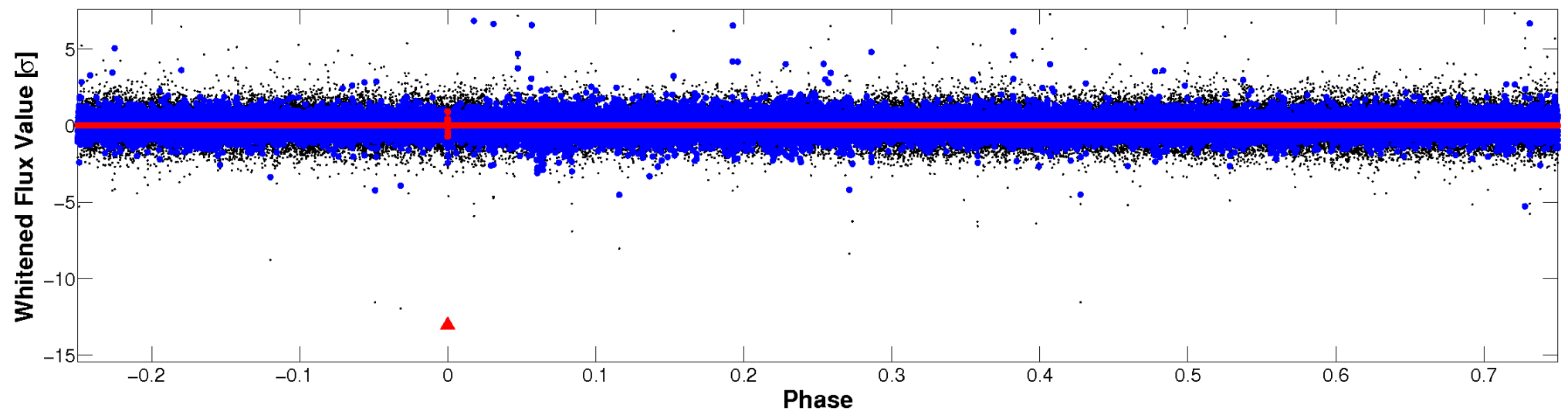


Non-Whitened Vs. Whitened Light Curve

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

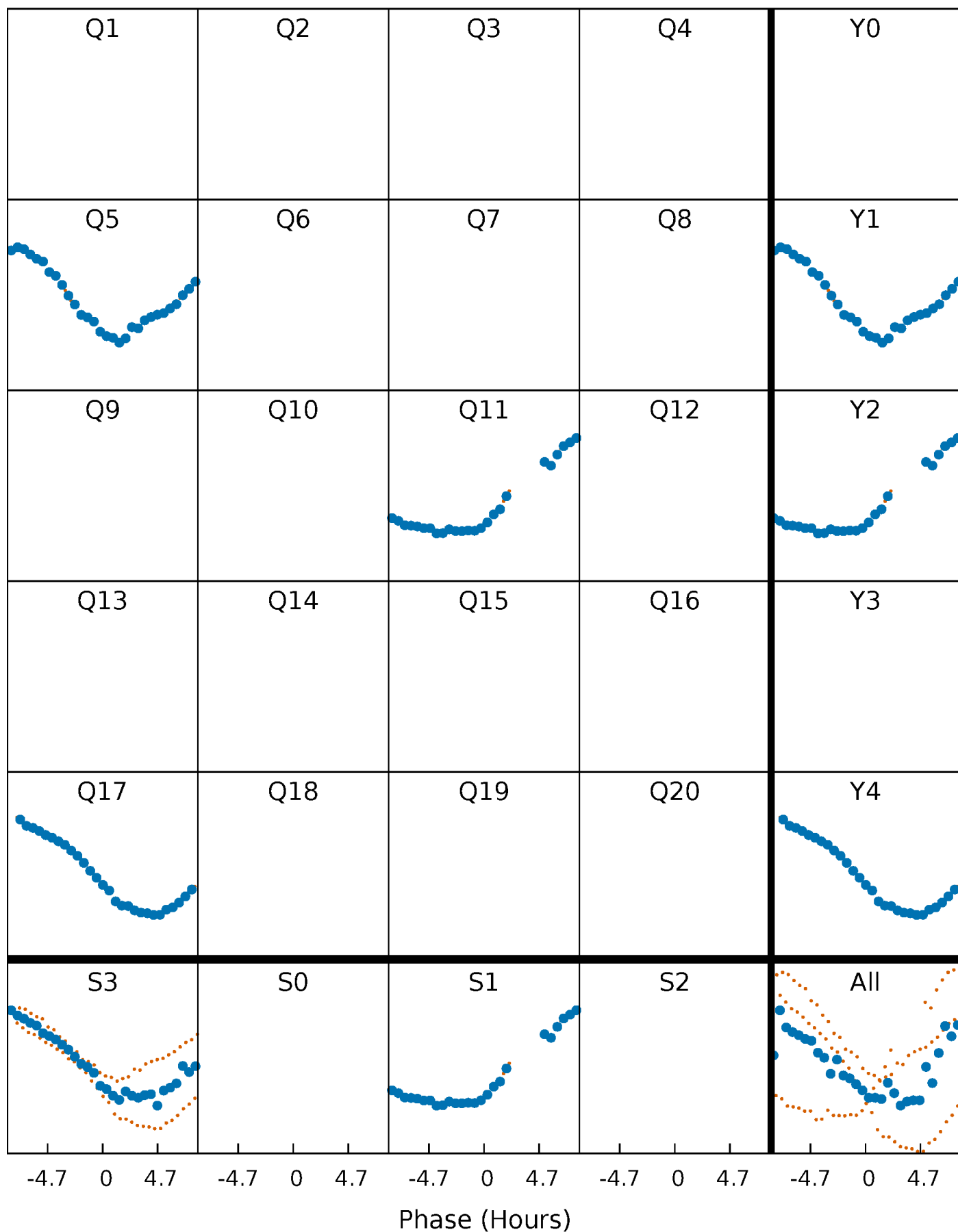


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



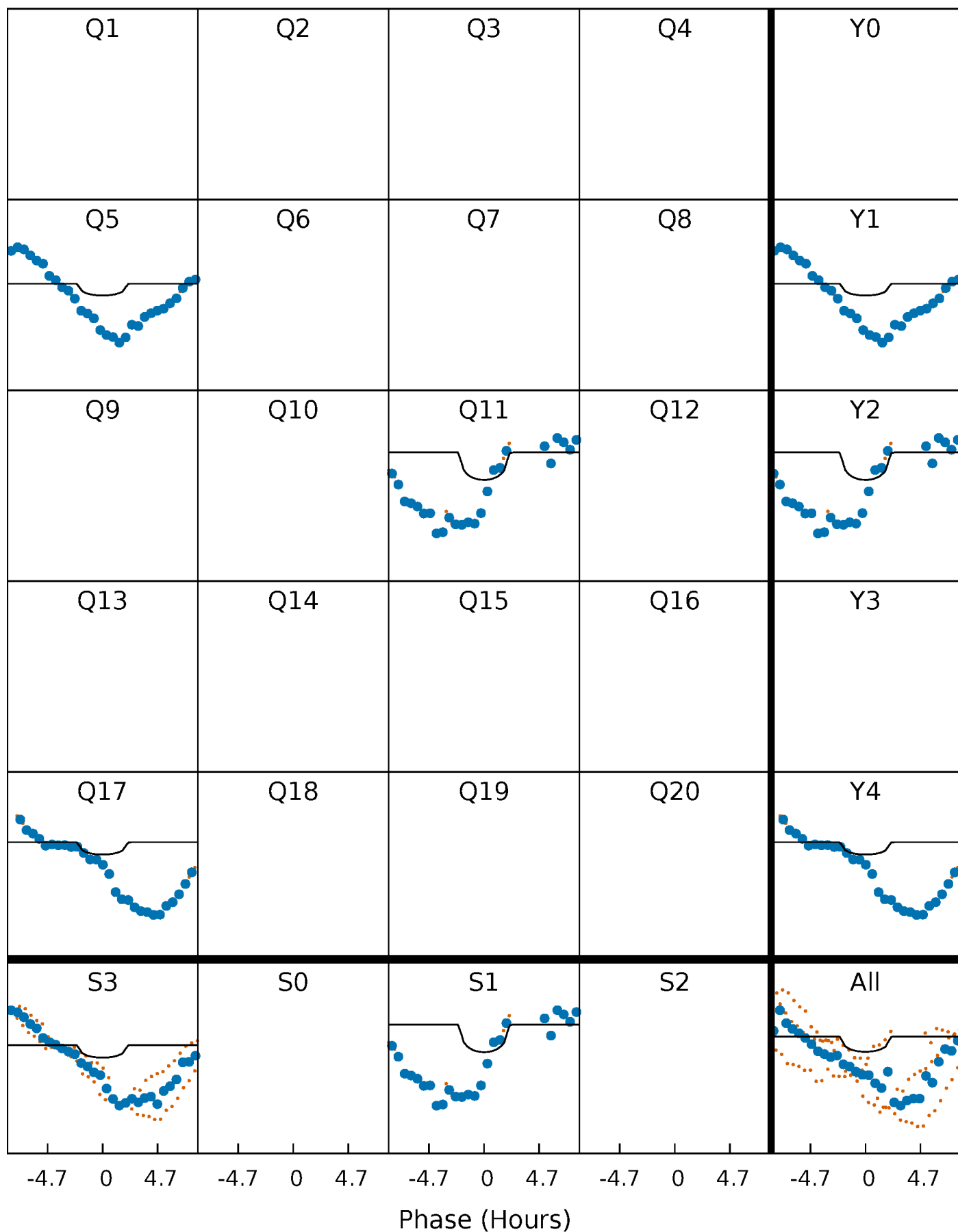
PDC Quarter-Phased Transit Curves

TCE 006547004-01 P=528.845102 Days $T_0=509.318804$ (BKJD)



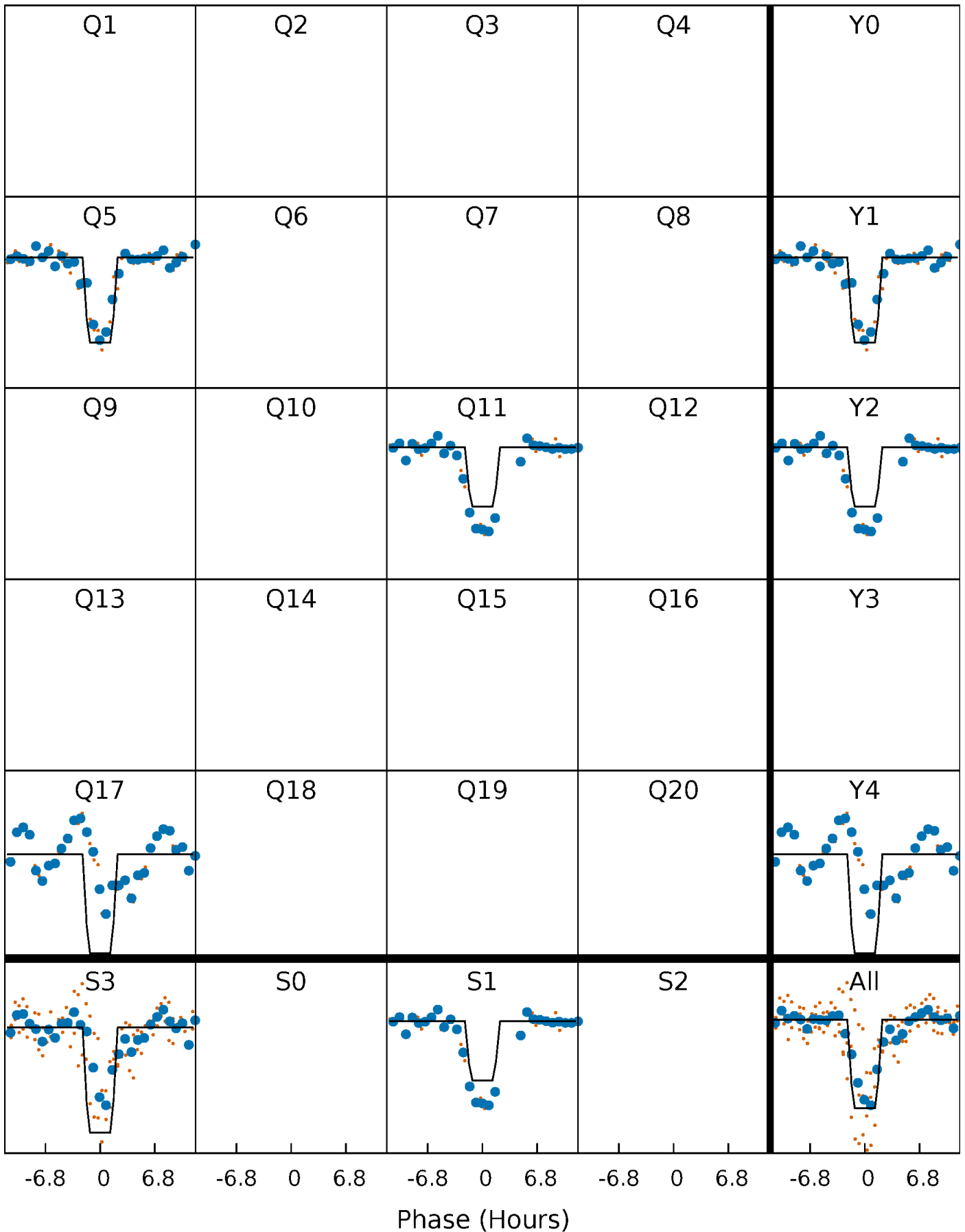
DV Quarter-Phased Transit Curves

TCE 006547004-01 P=528.845102 Days $T_0=509.318804$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

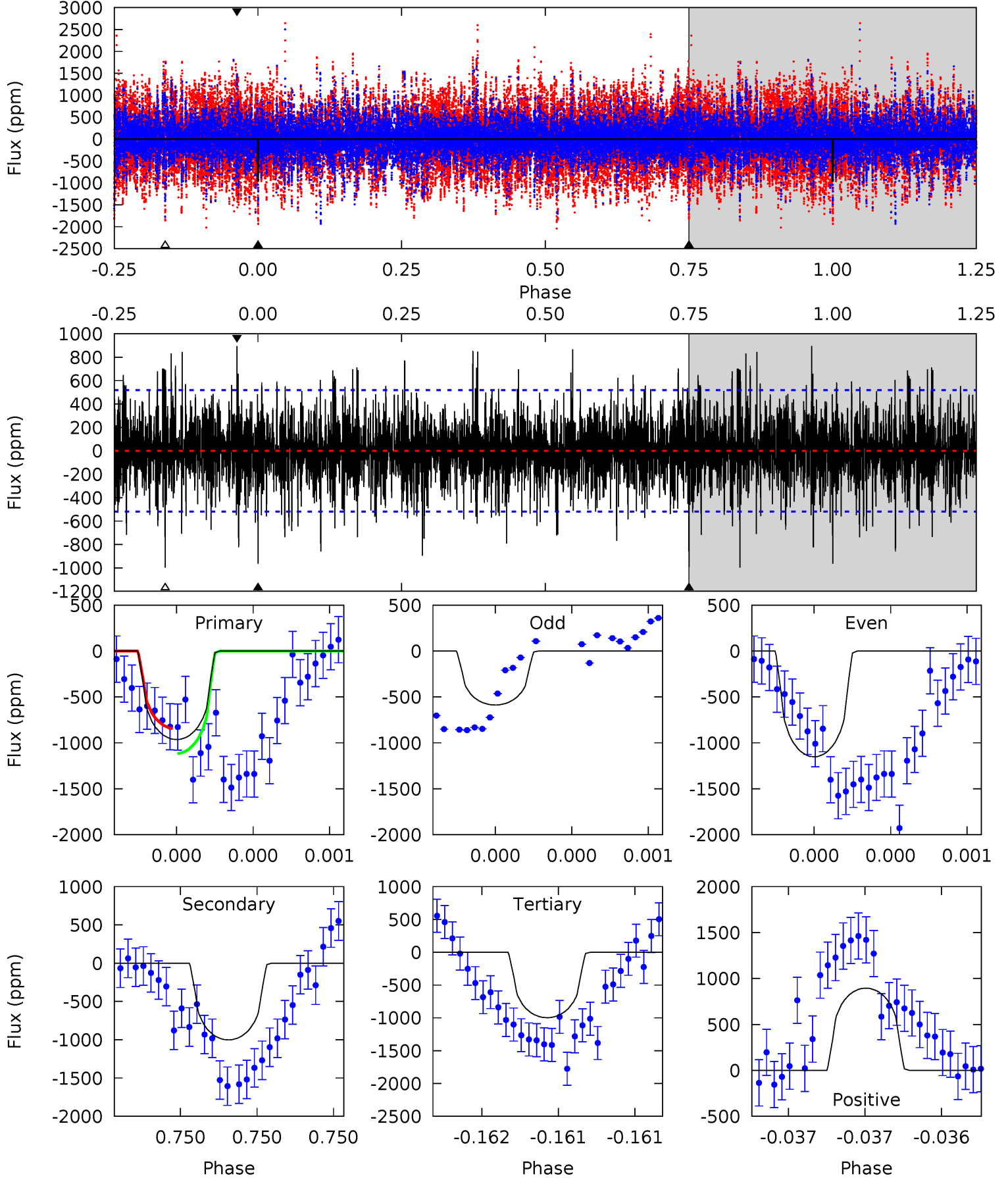
TCE 006547004-01 P=528.840966 Days $T_0=509.360194$ (BKJD)



DV Model-Shift Uniqueness Test

006547004-01, P = 528.845102 Days, E = 509.318804 Days

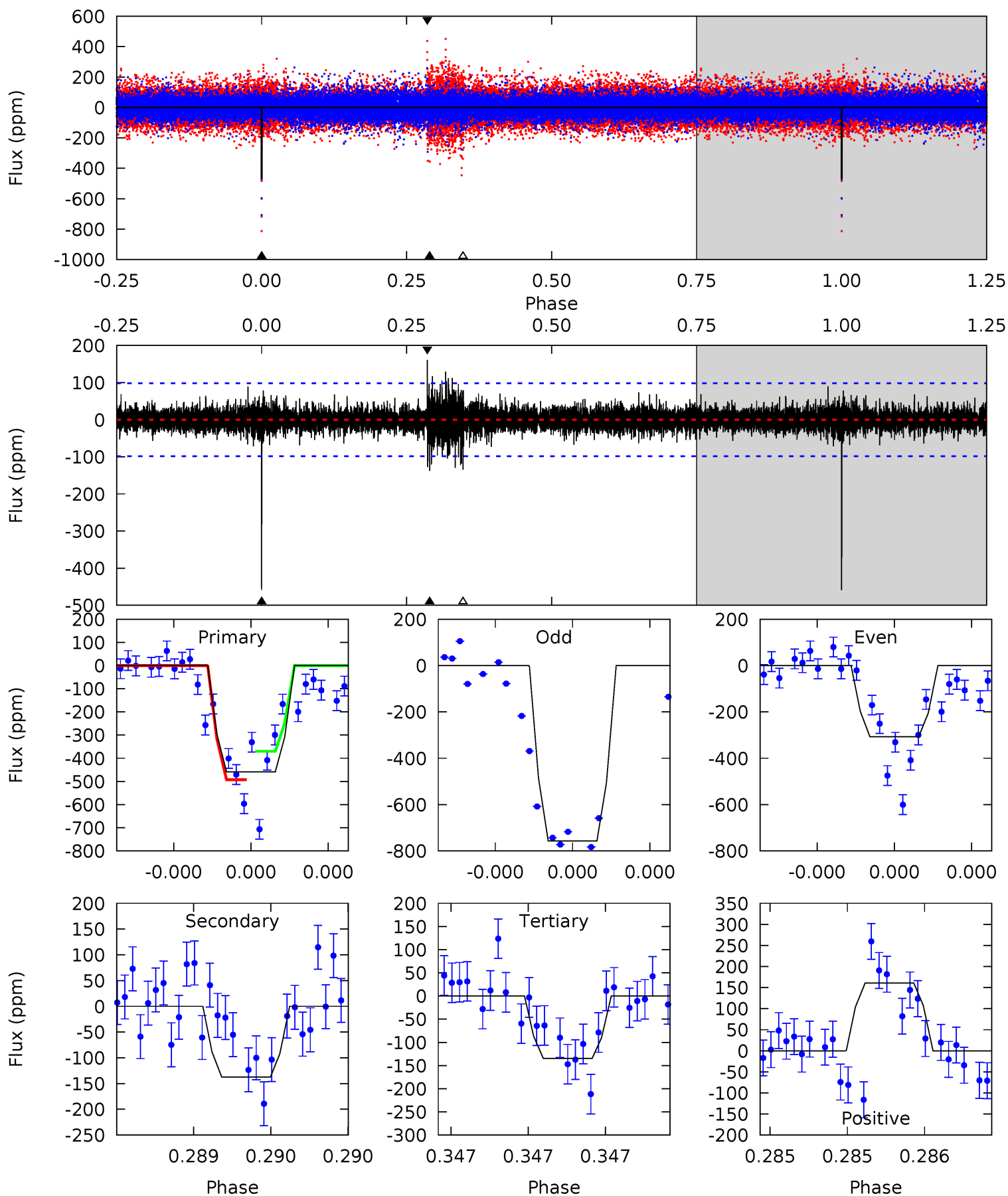
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.5	10.9	10.8	9.72	5.64	3.58	2.34	-0.37	0.75	0.05	1.16	2.84	1.08	0.47	1.45



Alt Model-Shift Uniqueness Test

006547004-01, P = 528.840966 Days, E = 509.360194 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.4	7.90	7.75	9.25	5.66	3.61	1.14	18.7	17.2	0.15	-1.35	15.0	1.00	0.26	3.35



Stellar Parameters For KIC 006547004

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4518^{+100}_{-118}	$1.897^{+0.030}_{-0.030}$	$-0.460^{+0.200}_{-0.250}$	$22.730^{+2.488}_{-4.042}$	$1.485^{+0.272}_{-0.466}$	$0.000^{+0.000}_{-0.000}$
	+2%/-3%	+2%/-2%	+43%/-54%	+11%/-18%	+18%/-31%	+23%/-13%
Source	PHO54	AST54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 006547004-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1002 ± 92	$47.96^{+37.27}_{-30.61}$	1099^{+36}_{-36}	5575^{+4540}_{-1173}	519^{+3429}_{-358}
Alt.	-137 ± 17	$62.59^{+36.71}_{-37.38}$	1101^{+31}_{-37}	3479^{+1263}_{-486}	43^{+208}_{-26}

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

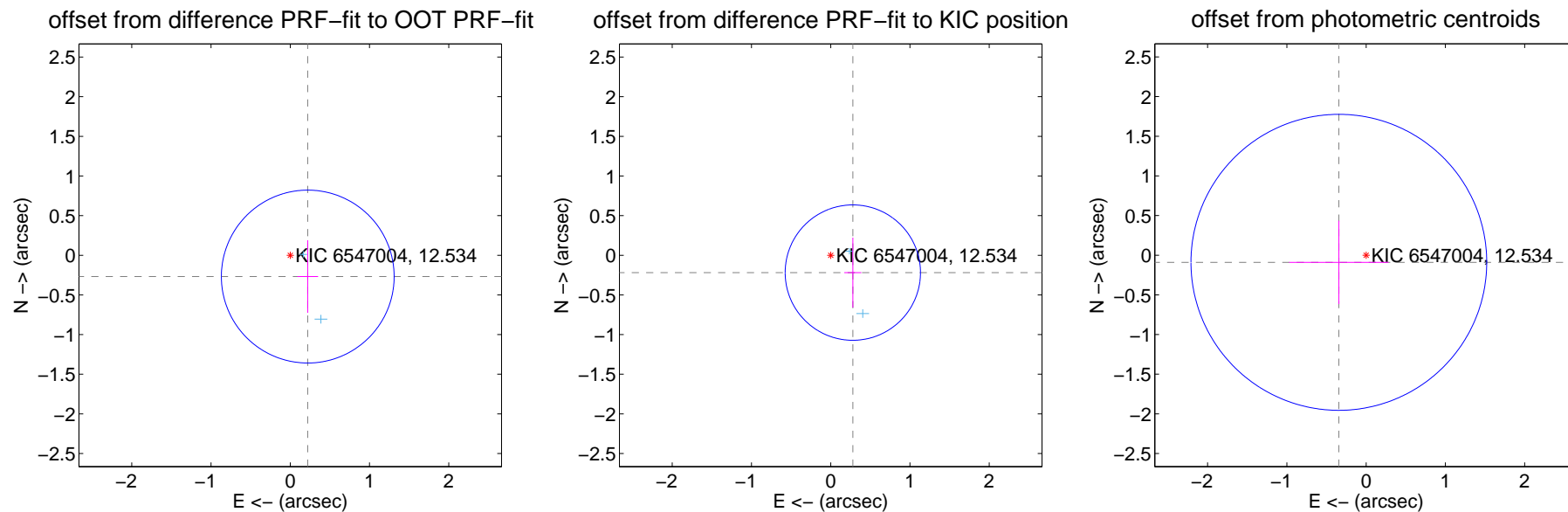
DV Centroid Data

Supplemental centroid analysis for 006547004-01. Kepler magnitude: 12.53. Transit SNR 3.31

There are 2 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.348 ± 0.363	0.96	-0.221 ± 0.131	-0.269 ± 0.458
PRF-fit source offset from KIC position	0.354 ± 0.285	1.24	-0.279 ± 0.108	-0.218 ± 0.441
photometric centroid source offset	0.36 ± 0.62	0.57	0.34 ± 0.63	-0.09 ± 0.52

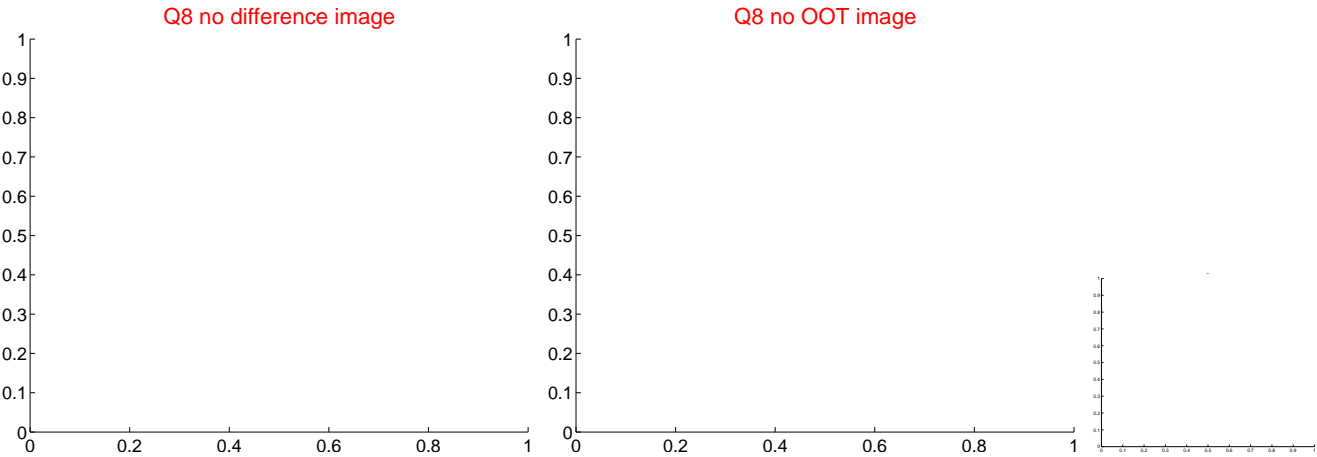
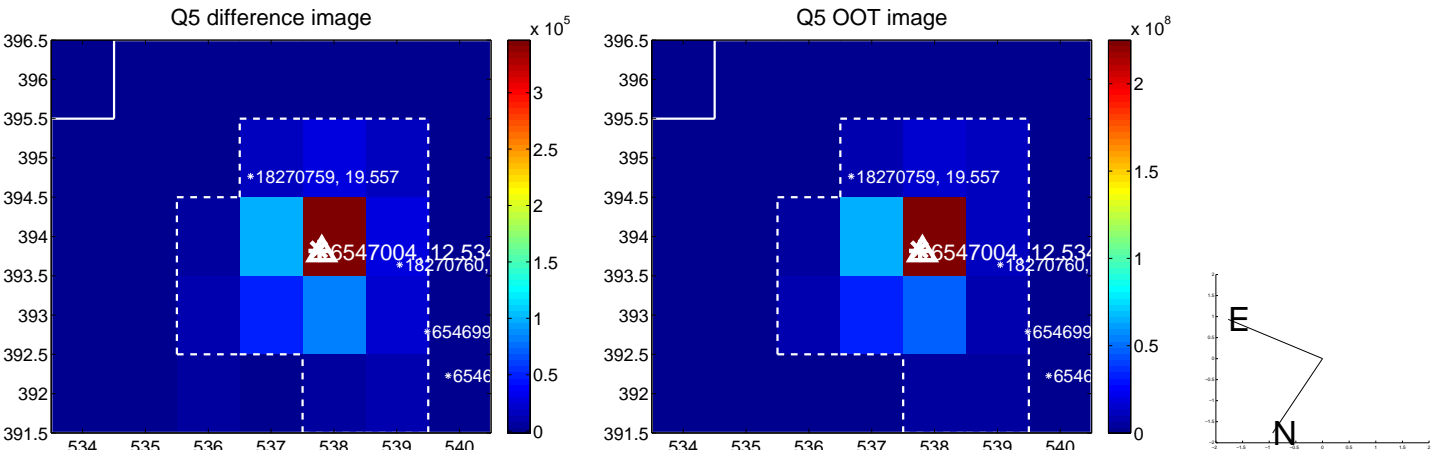


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



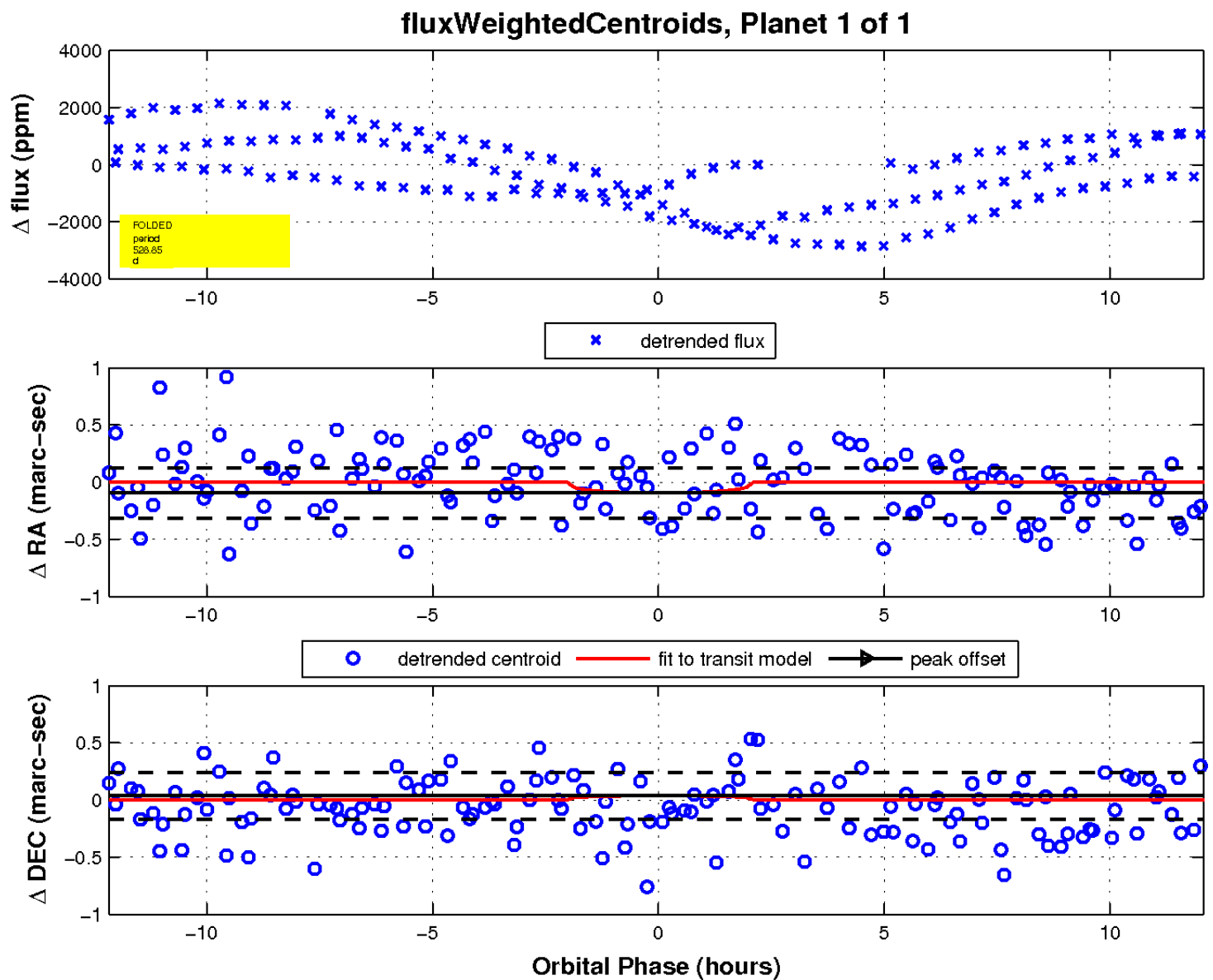
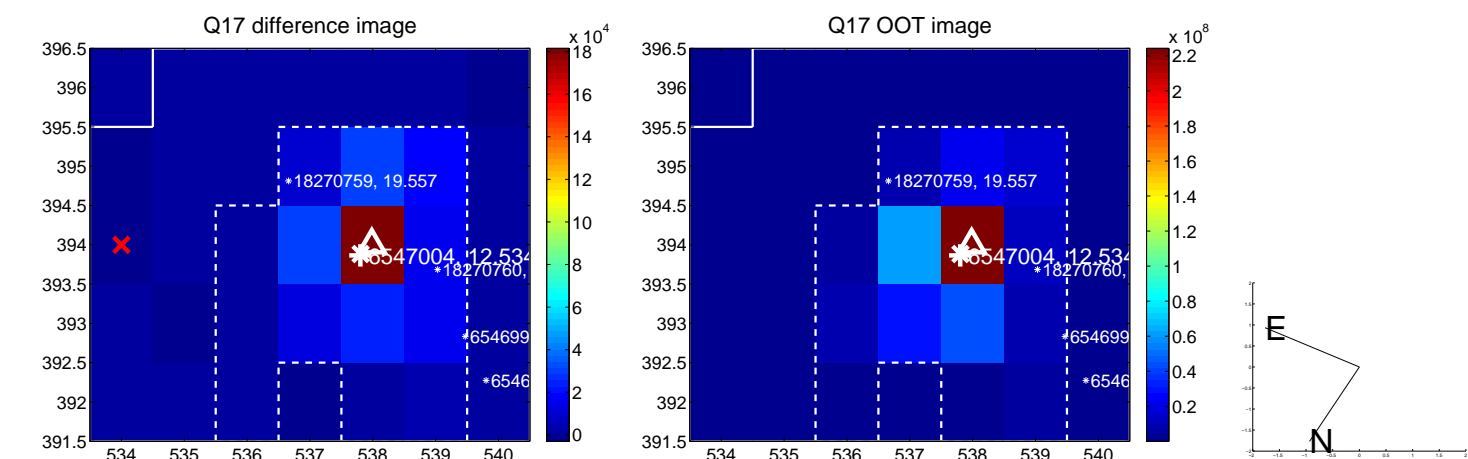
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

