

KIC 005684162

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})
005684162-01	OBS	No	249.543027	271.906509	274.3	14.072	8.6	6.6	0.90	5386	1.62	1.17

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005684162-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

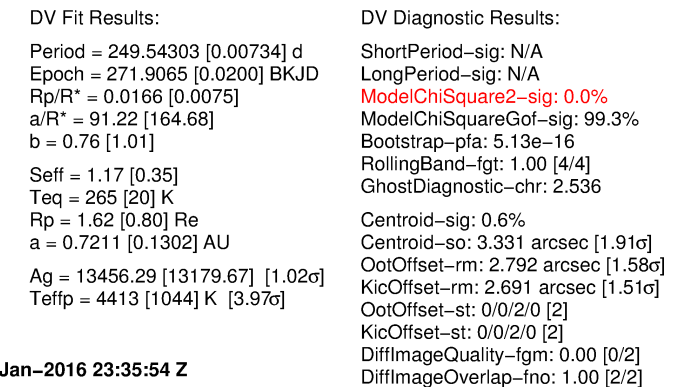
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

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

Ephemeris Match Information For 005684162-01

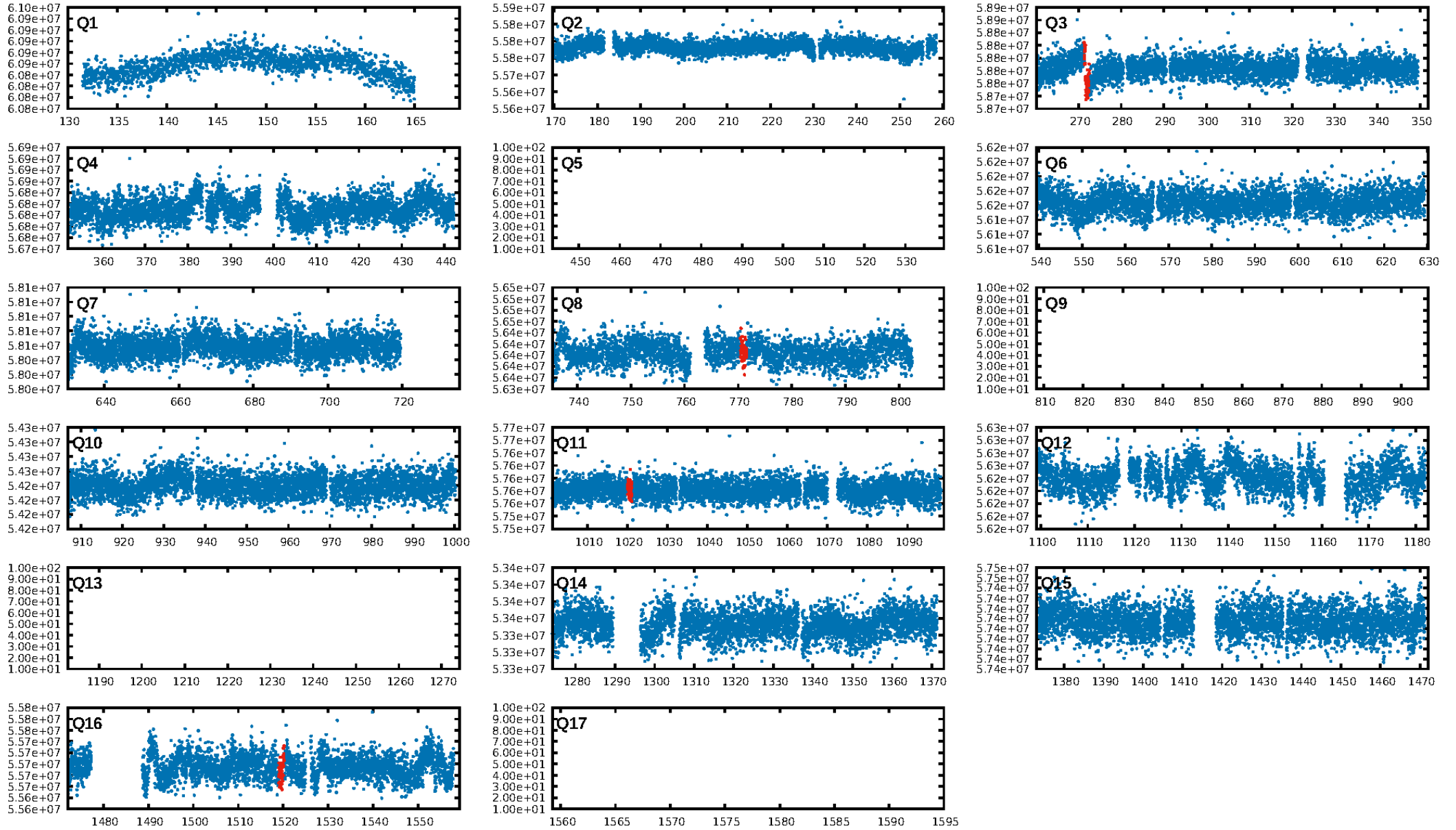
No Significant Match Found

KIC: 5684162 Candidate: 1 of 1 Period: 249.543 d

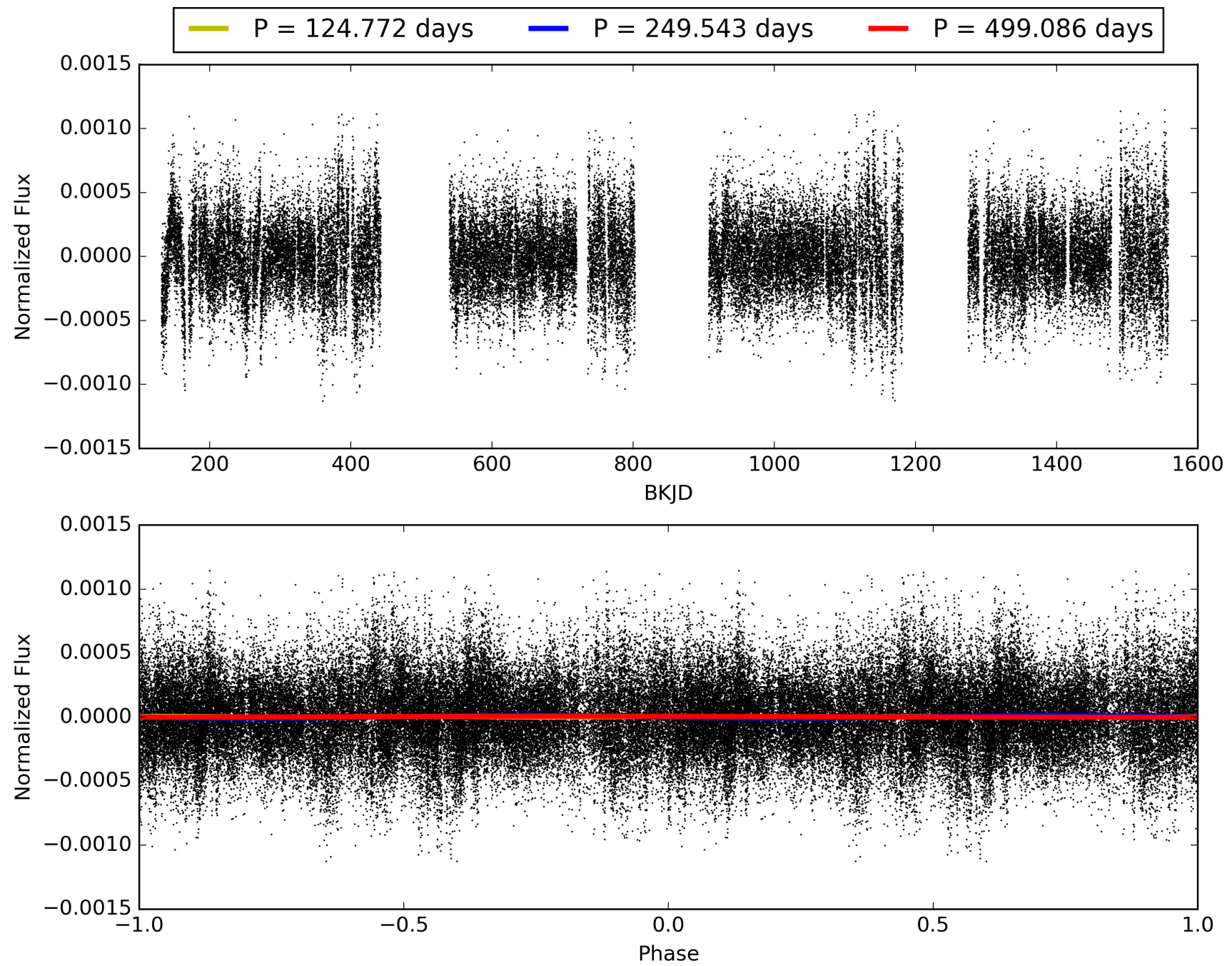


This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 005684162-01, PDC Light Curves

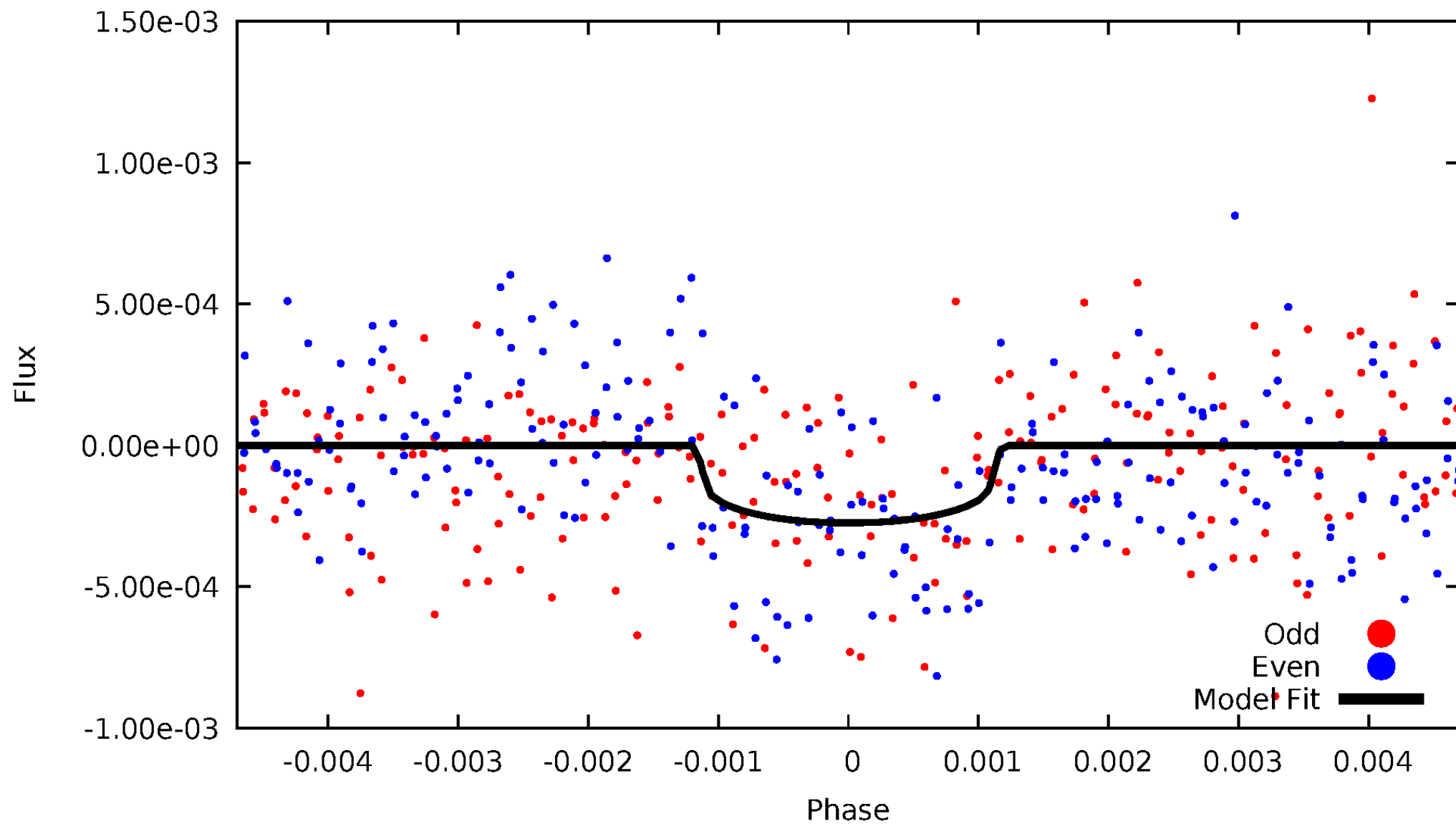


TCE 005684162-01



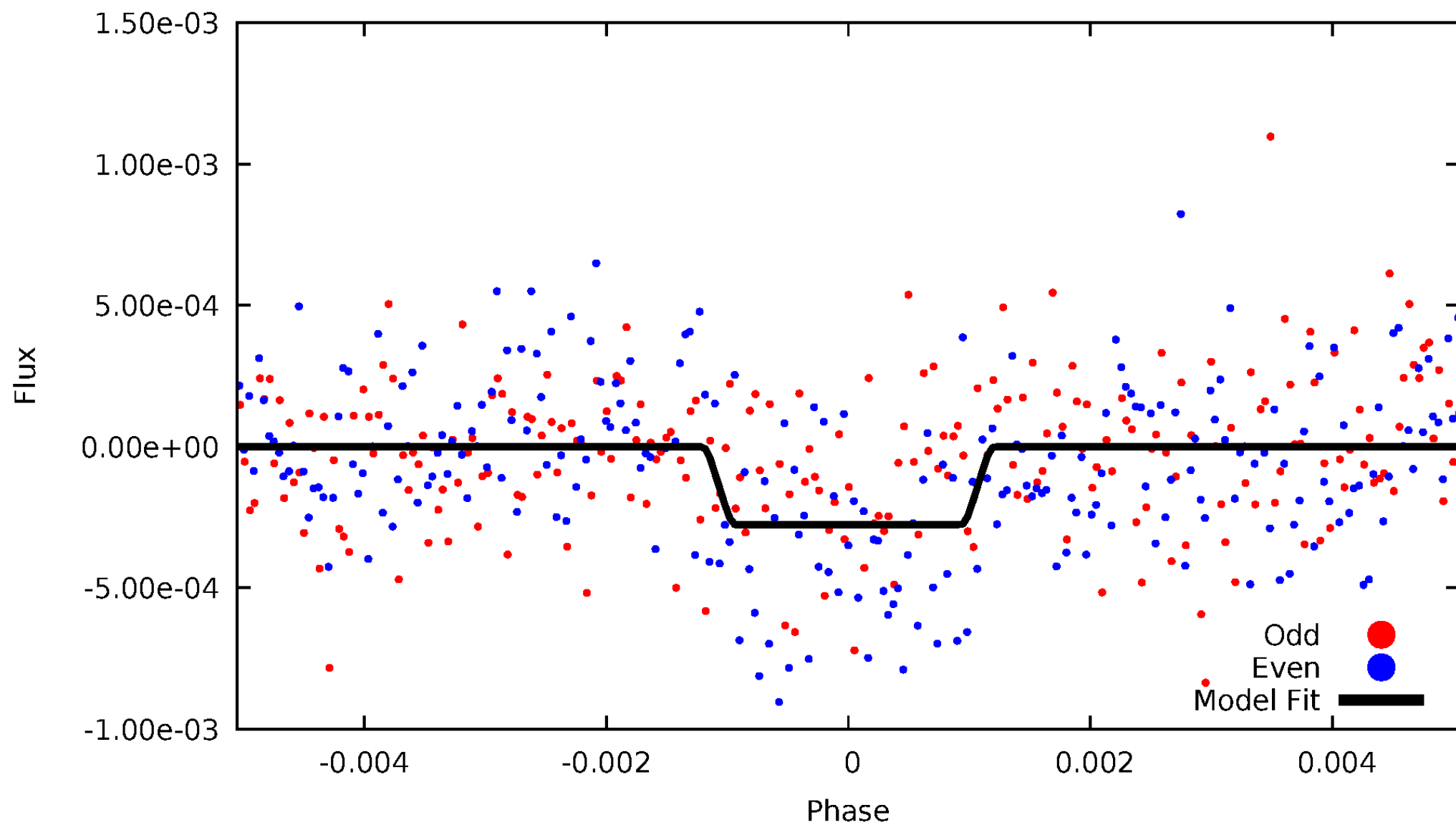
DV Odd/Even

TCE 005684162-01



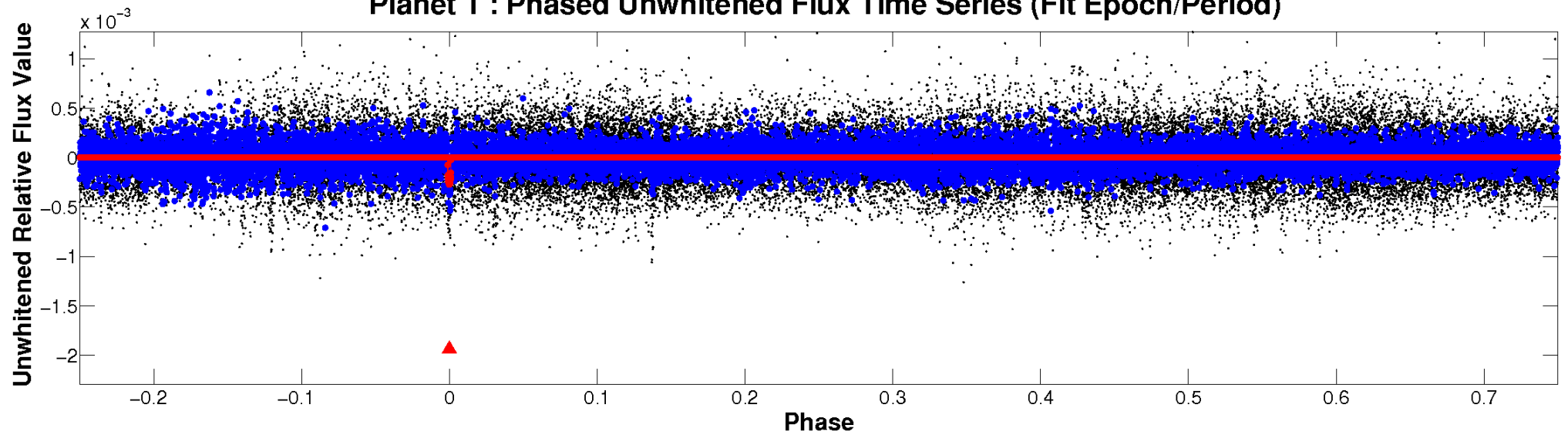
ALT Odd/Even

TCE 005684162-01

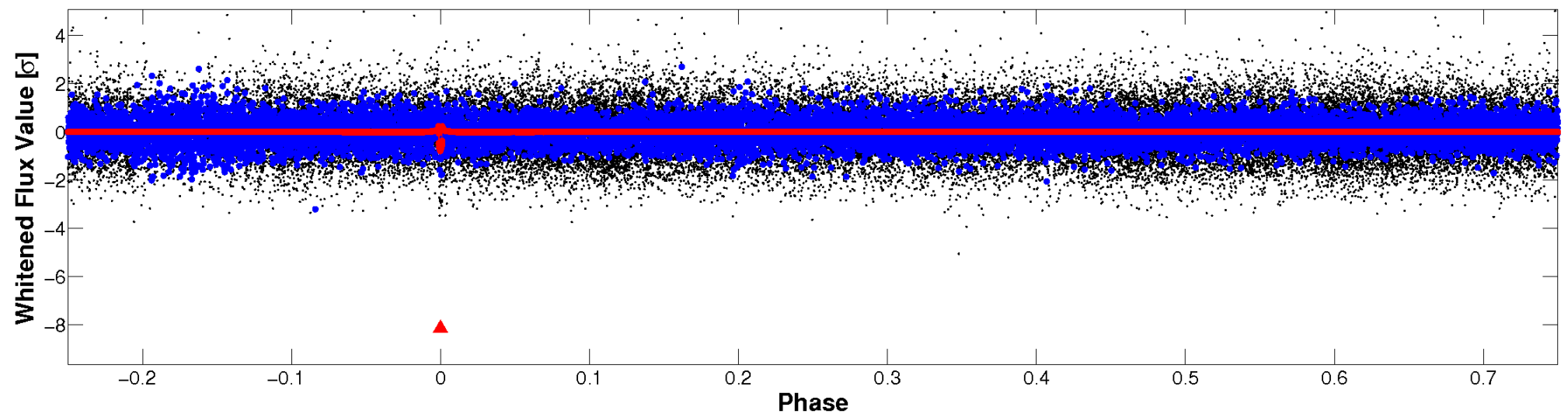


Non-Whitened Vs. Whitened Light Curve

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

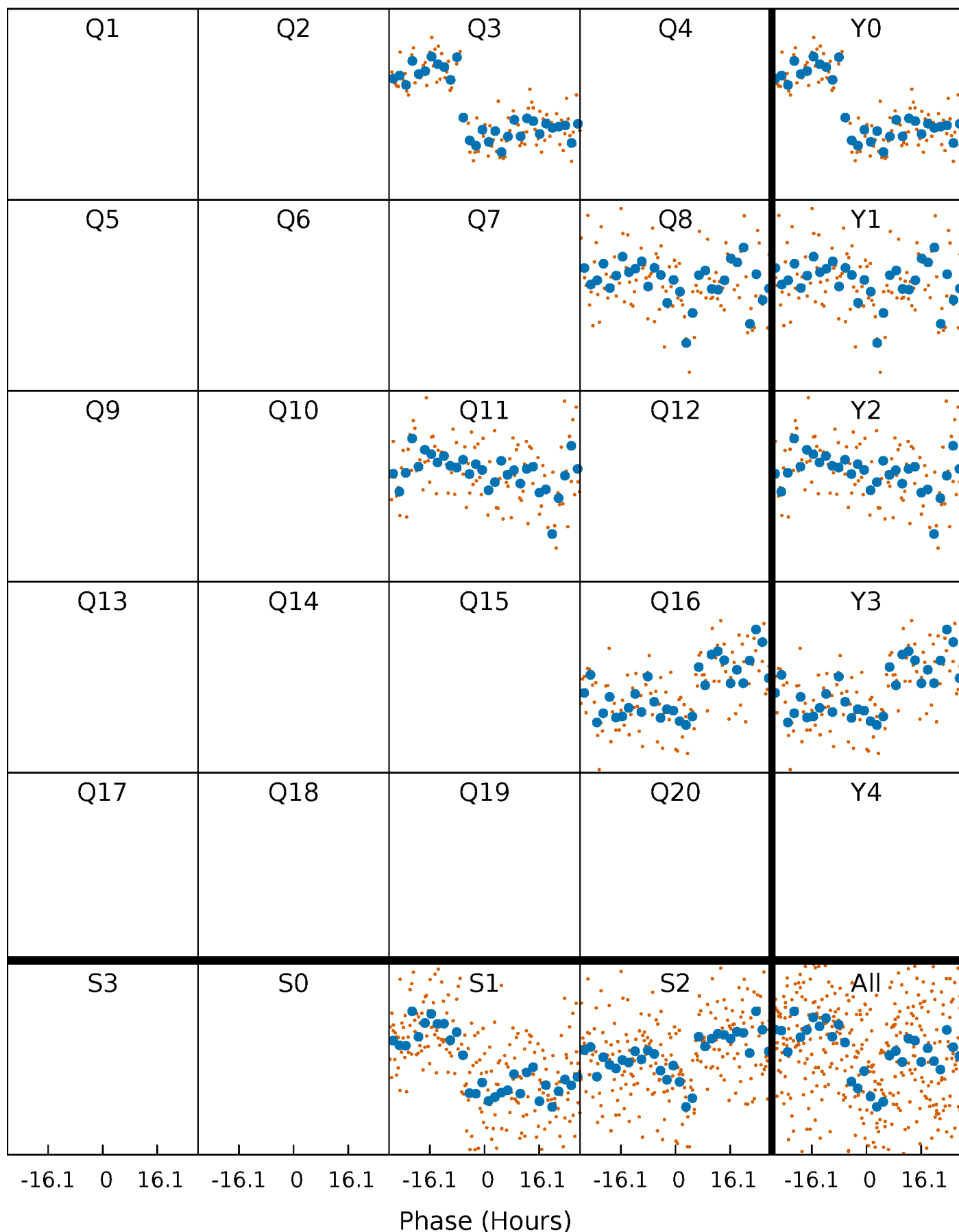


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



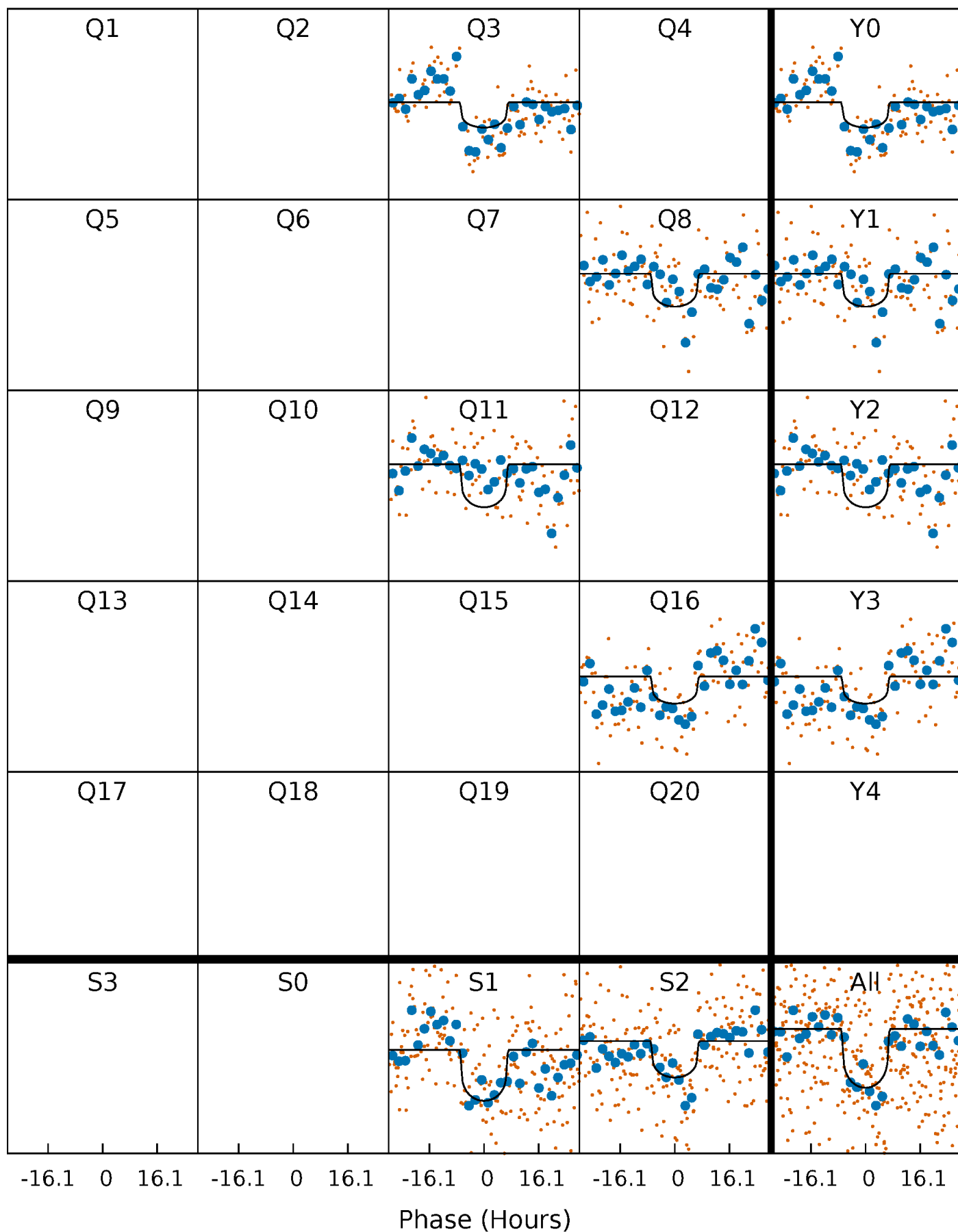
PDC Quarter-Phased Transit Curves

TCE 005684162-01 P=249.543027 Days $T_0=271.906509$ (BKJD)



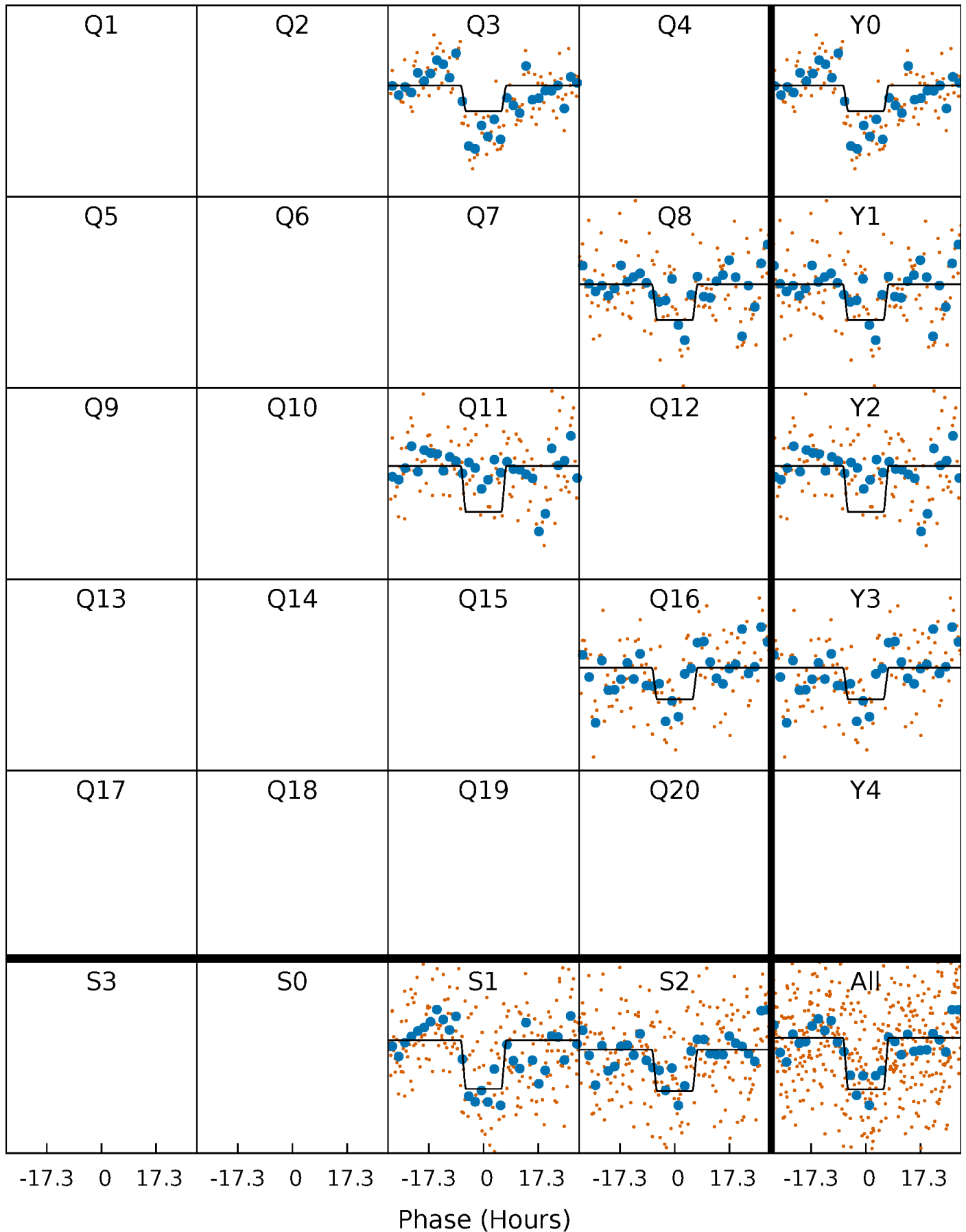
DV Quarter-Phased Transit Curves

TCE 005684162-01 P=249.543027 Days $T_0=271.906509$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

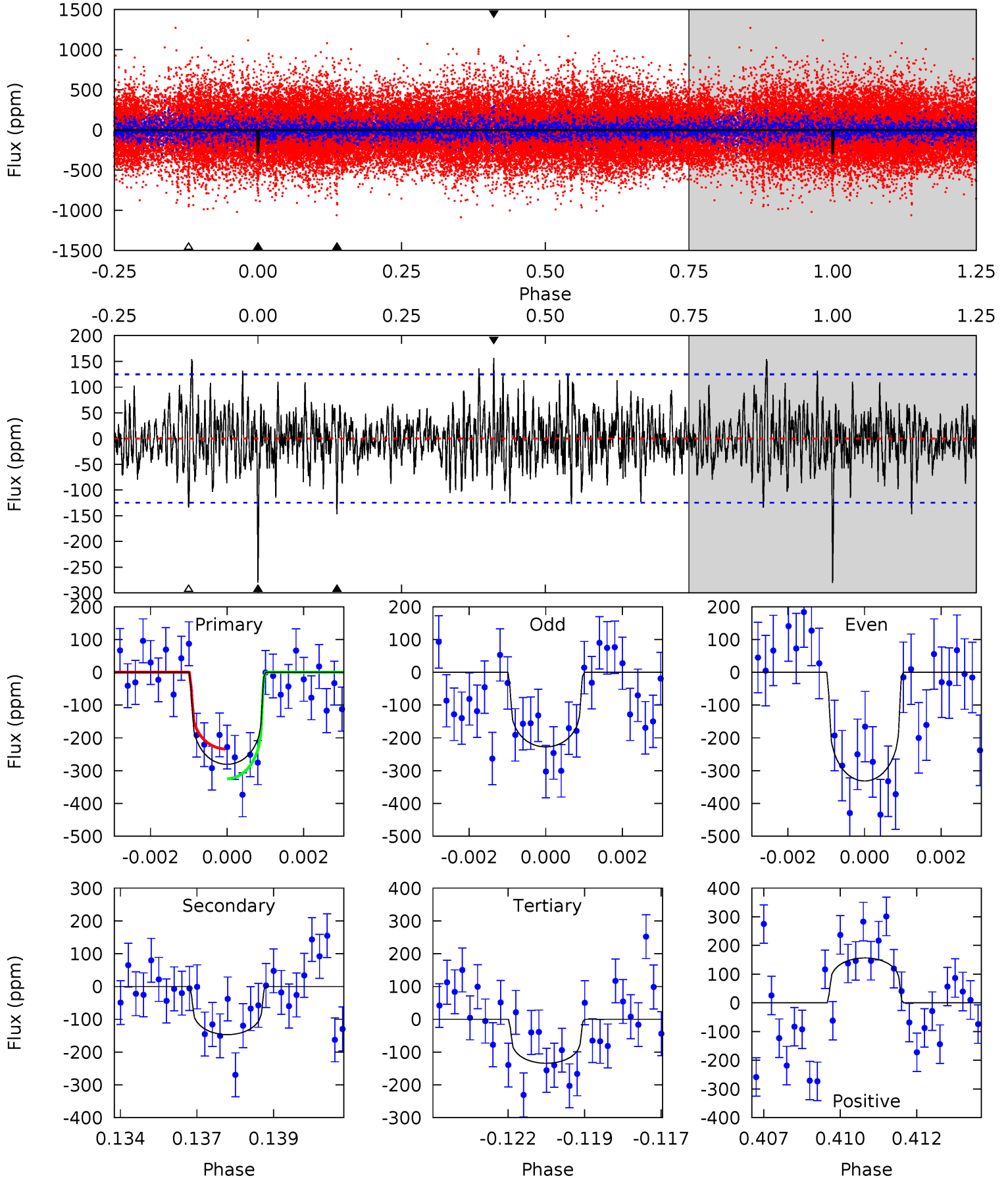
TCE 005684162-01 P=249.568691 Days $T_0=271.911936$ (BKJD)



DV Model-Shift Uniqueness Test

005684162-01, $P = 249.543027$ Days, $E = 22.363482$ Days

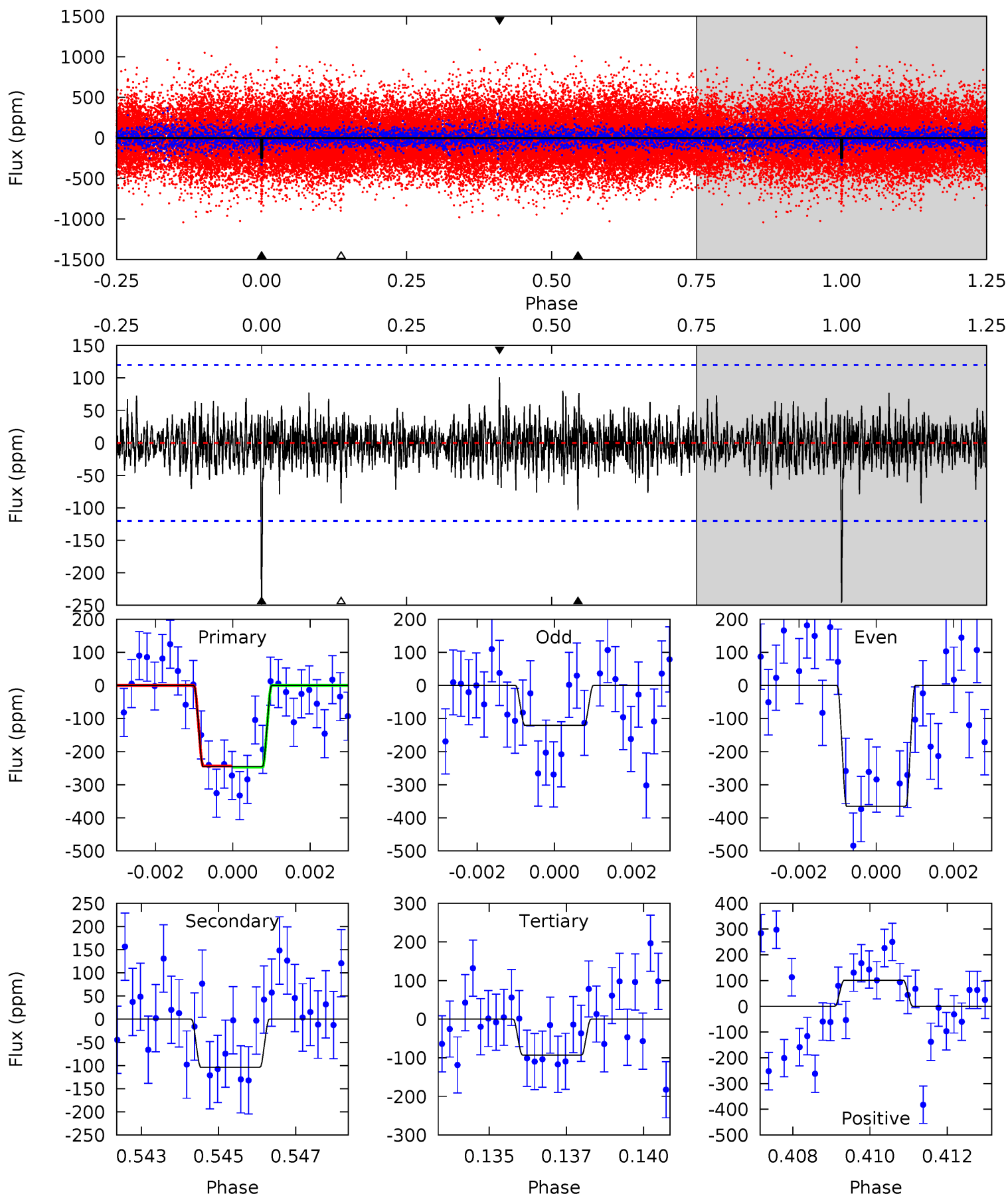
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.9	6.24	5.70	6.64	5.29	3.03	1.72	6.22	5.27	0.54	-0.41	2.21	0.92	0.36	1.92



Alt Model-Shift Uniqueness Test

005684162-01, P = 249.568691 Days, E = 22.343245 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.8	4.57	4.09	4.45	5.29	3.03	1.03	6.73	6.37	0.48	0.12	5.41	1.27	0.29	0.09



Stellar Parameters For KIC 005684162

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5386^{+159}_{-143}	$4.437^{+0.130}_{-0.159}$	$-0.120^{+0.300}_{-0.300}$	$0.897^{+0.179}_{-0.119}$	$0.804^{+0.115}_{-0.067}$	$1.568^{+0.867}_{-0.648}$
	+3%/-3%	+3%/-4%	+250%/-250%	+20%/-13%	+14%/-8%	+55%/-41%
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 005684162-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-147 ± 24	$1.64^{+0.75}_{-0.70}$	372^{+22}_{-20}	4713^{+1347}_{-635}	15852^{+31093}_{-8803}
Alt.	-104 ± 23	$1.68^{+0.80}_{-0.74}$	372^{+26}_{-19}	4393^{+1219}_{-606}	10439^{+24995}_{-5928}

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

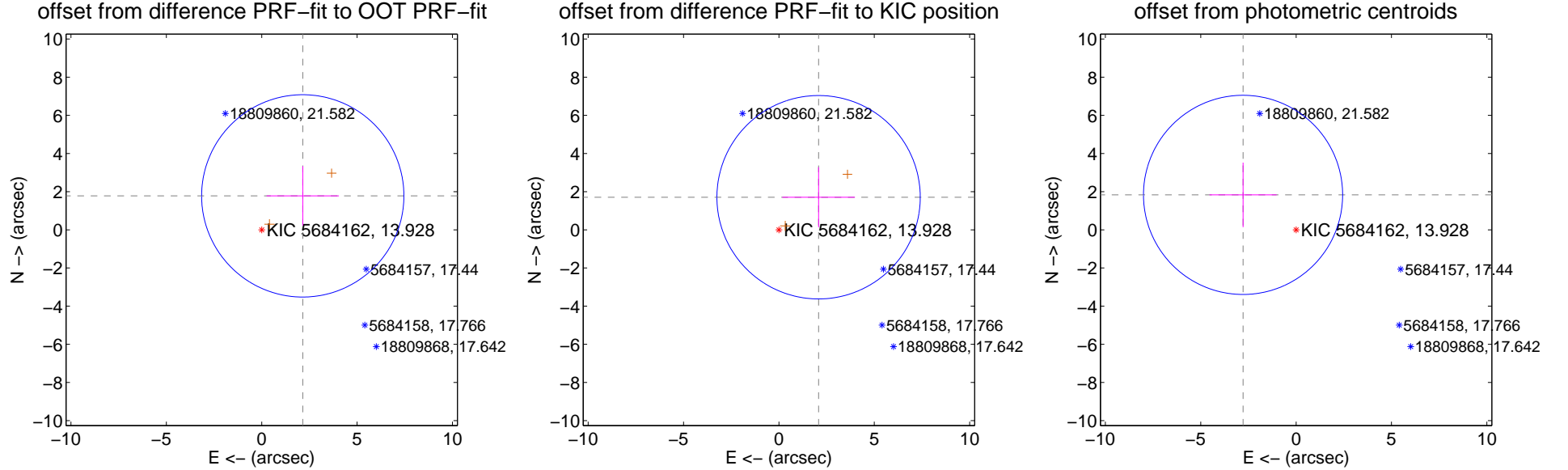
DV Centroid Data

Supplemental centroid analysis for 005684162-01. Kepler magnitude: 13.93. Transit SNR 6.60

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.792 ± 1.768	1.58	-2.152 ± 1.898	1.779 ± 1.557
PRF-fit source offset from KIC position	2.691 ± 1.777	1.51	-2.080 ± 1.903	1.708 ± 1.572
photometric centroid source offset	3.33 ± 1.74	1.91	2.78 ± 1.76	1.83 ± 1.69

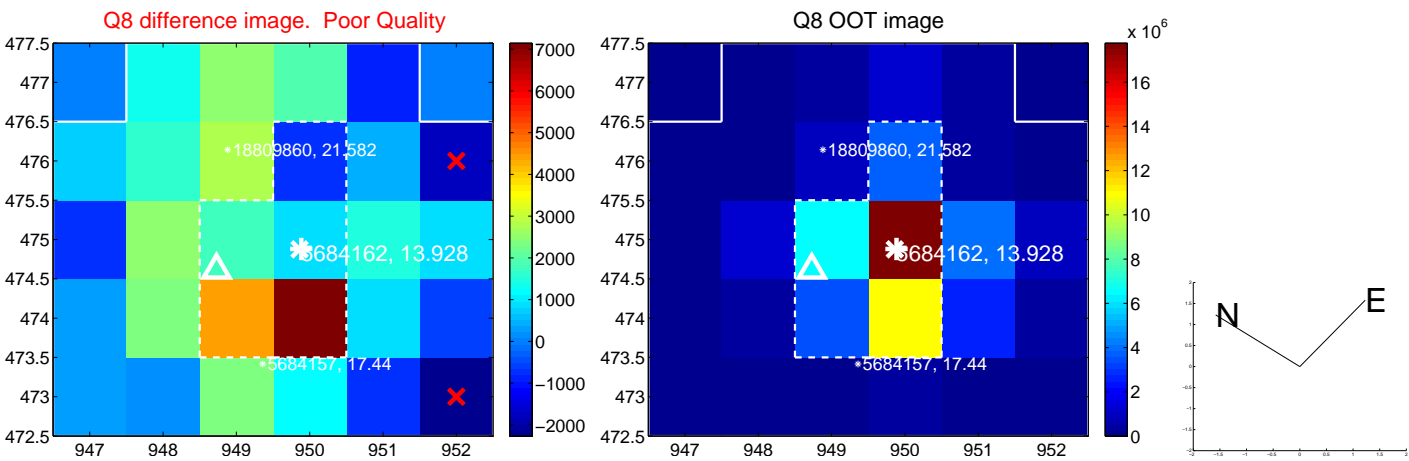
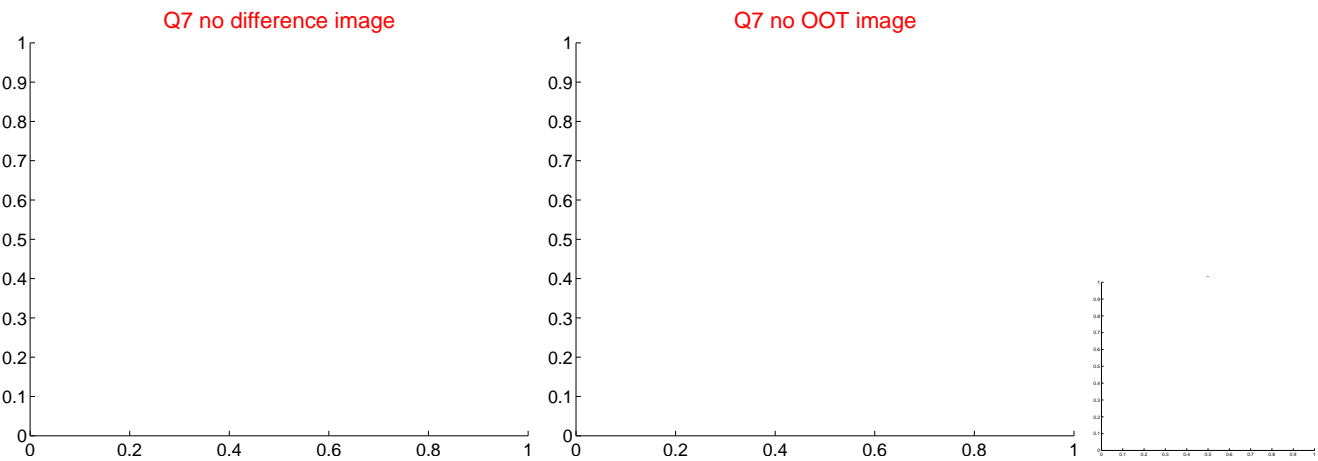
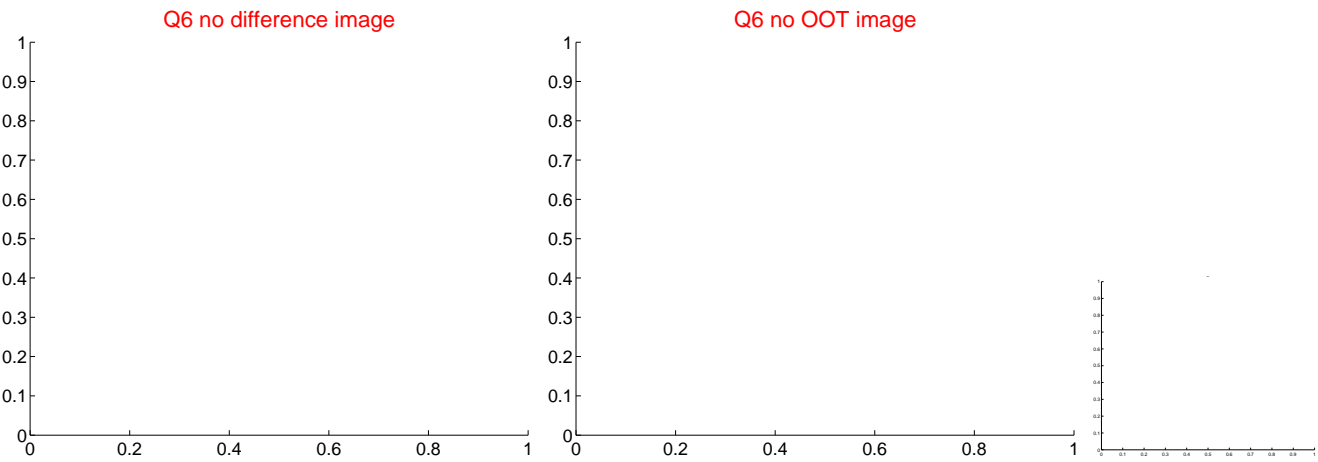
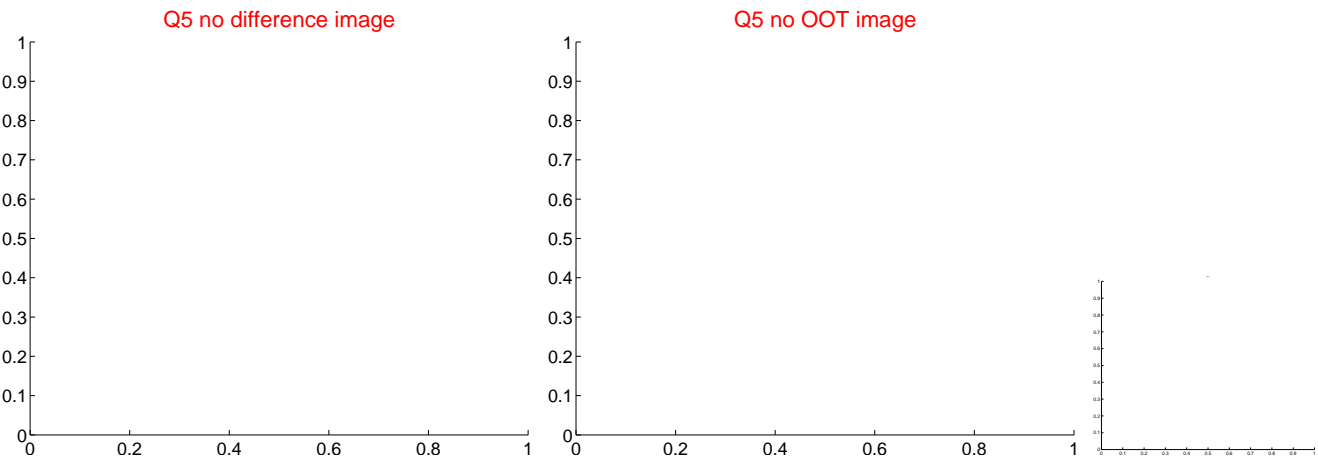


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



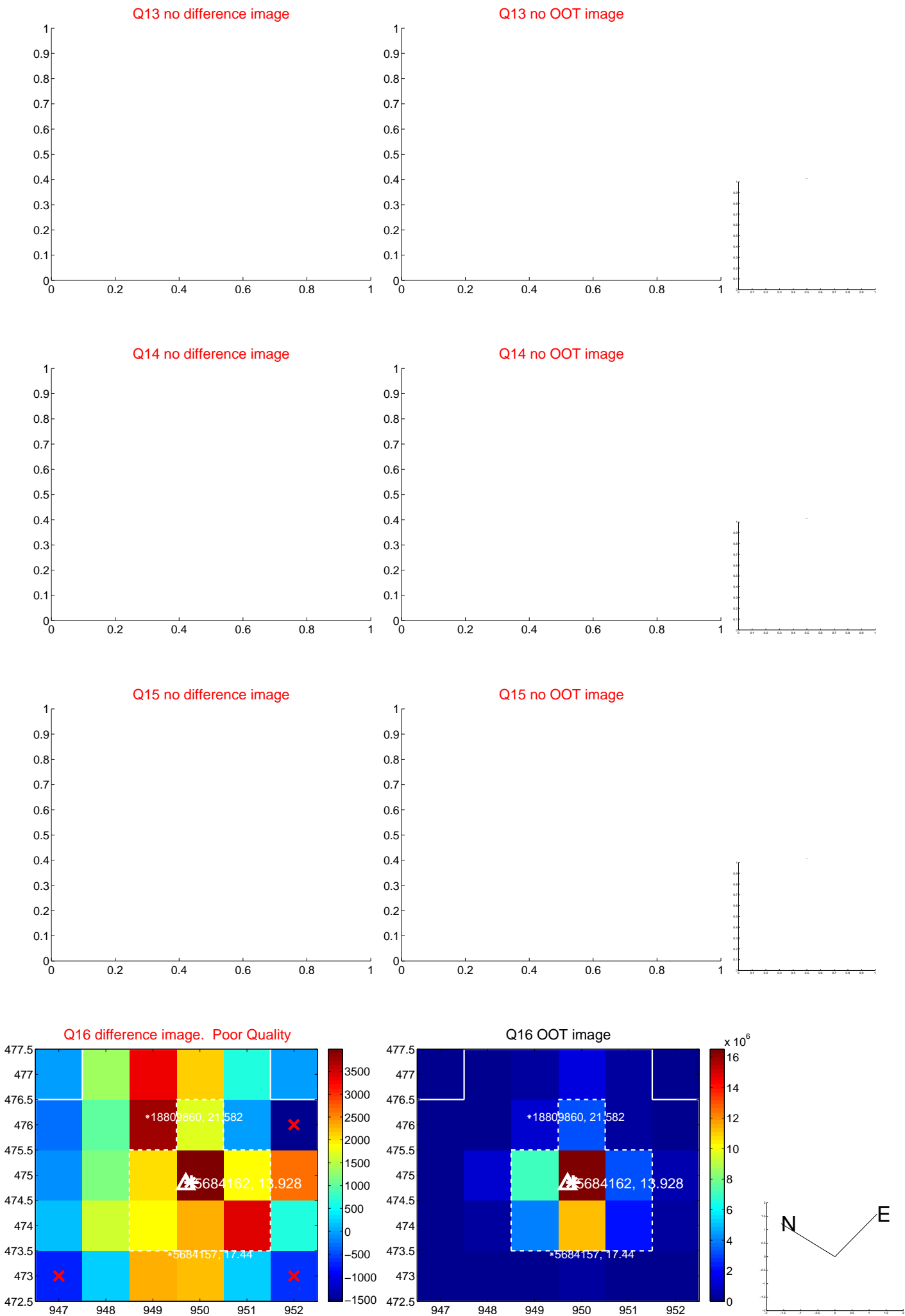
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



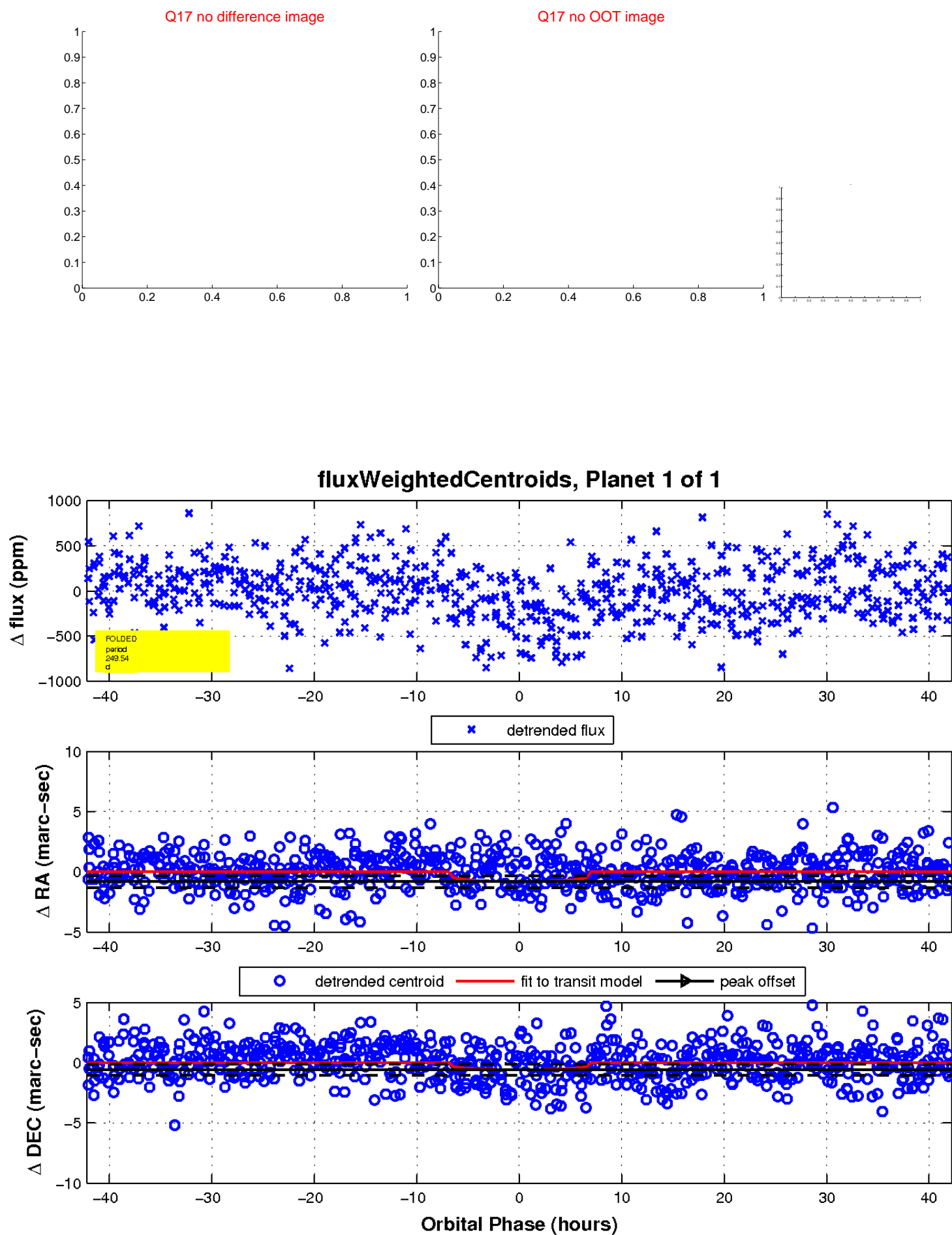
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

