

KIC 008684069

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})
008684069-01	OBS	No	382.479335	162.954268	802.8	24.505	9.0	12.0	1.04	6086	3.28	1.17

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008684069-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—ALL_TRANS_CHASES—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.

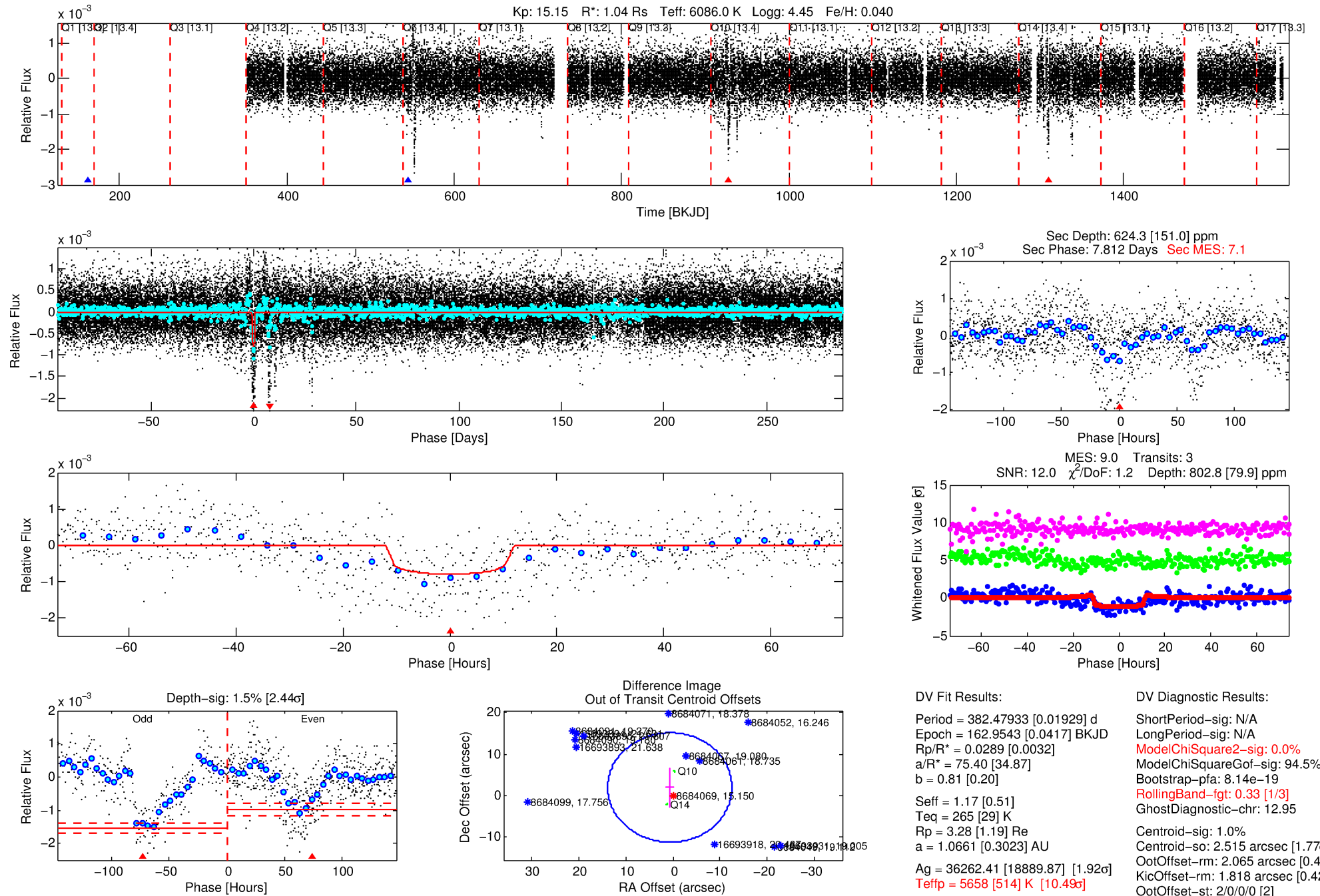
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008684069-01

No Significant Match Found

DV One-Page Summary

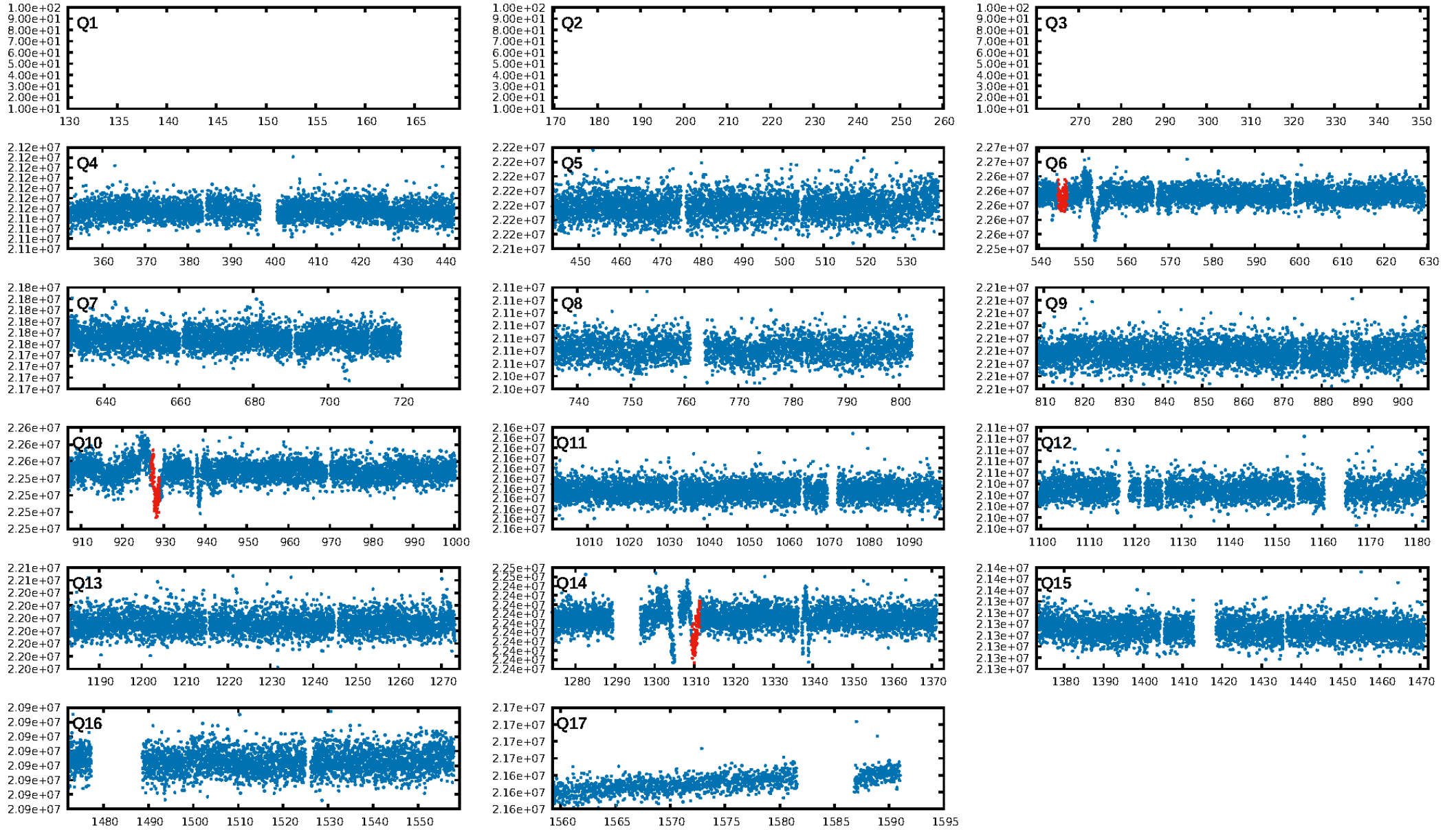
KIC: 8684069 Candidate: 1 of 1 Period: 382.479 d



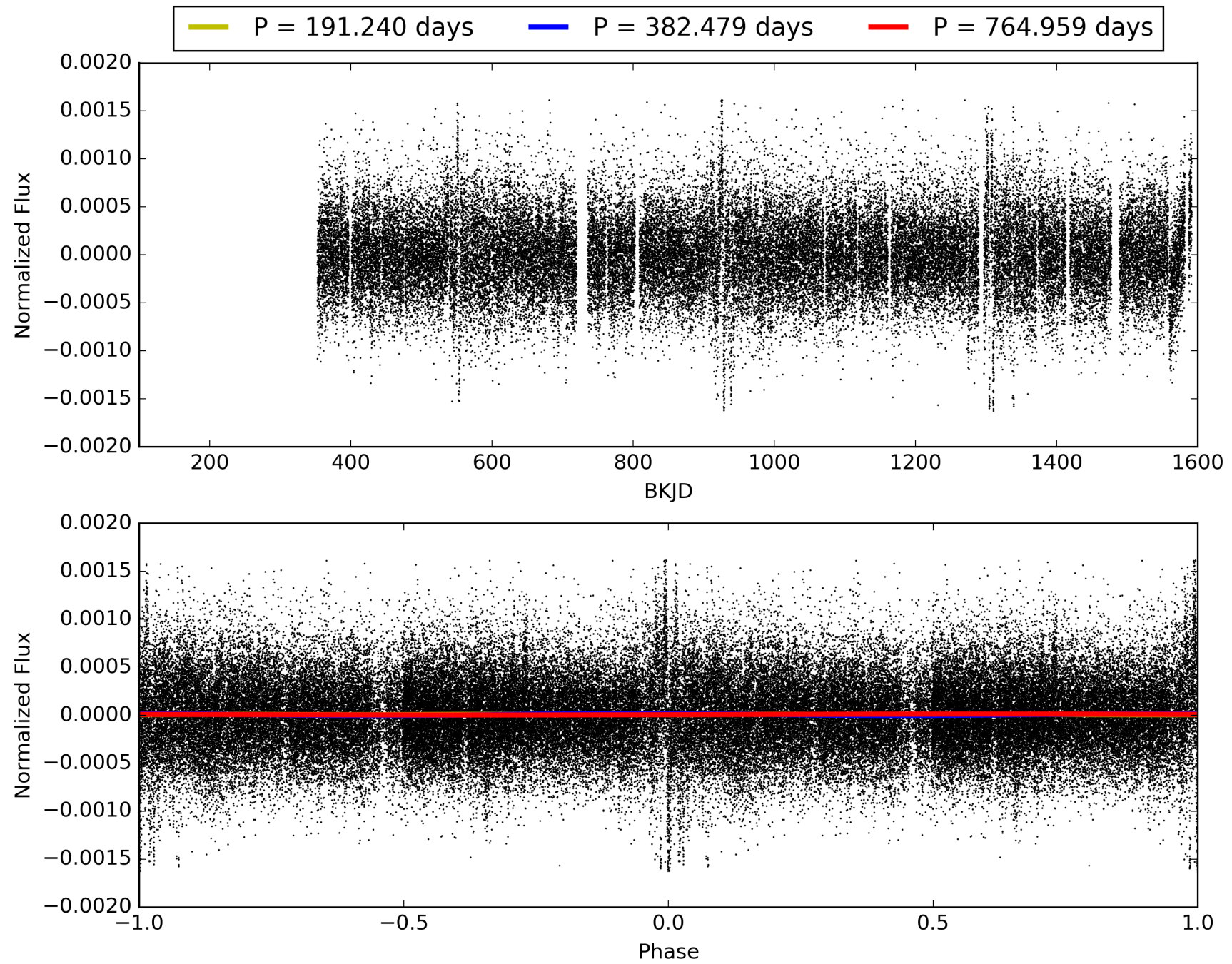
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:33:23 Z

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

TCE 008684069-01, PDC Light Curves

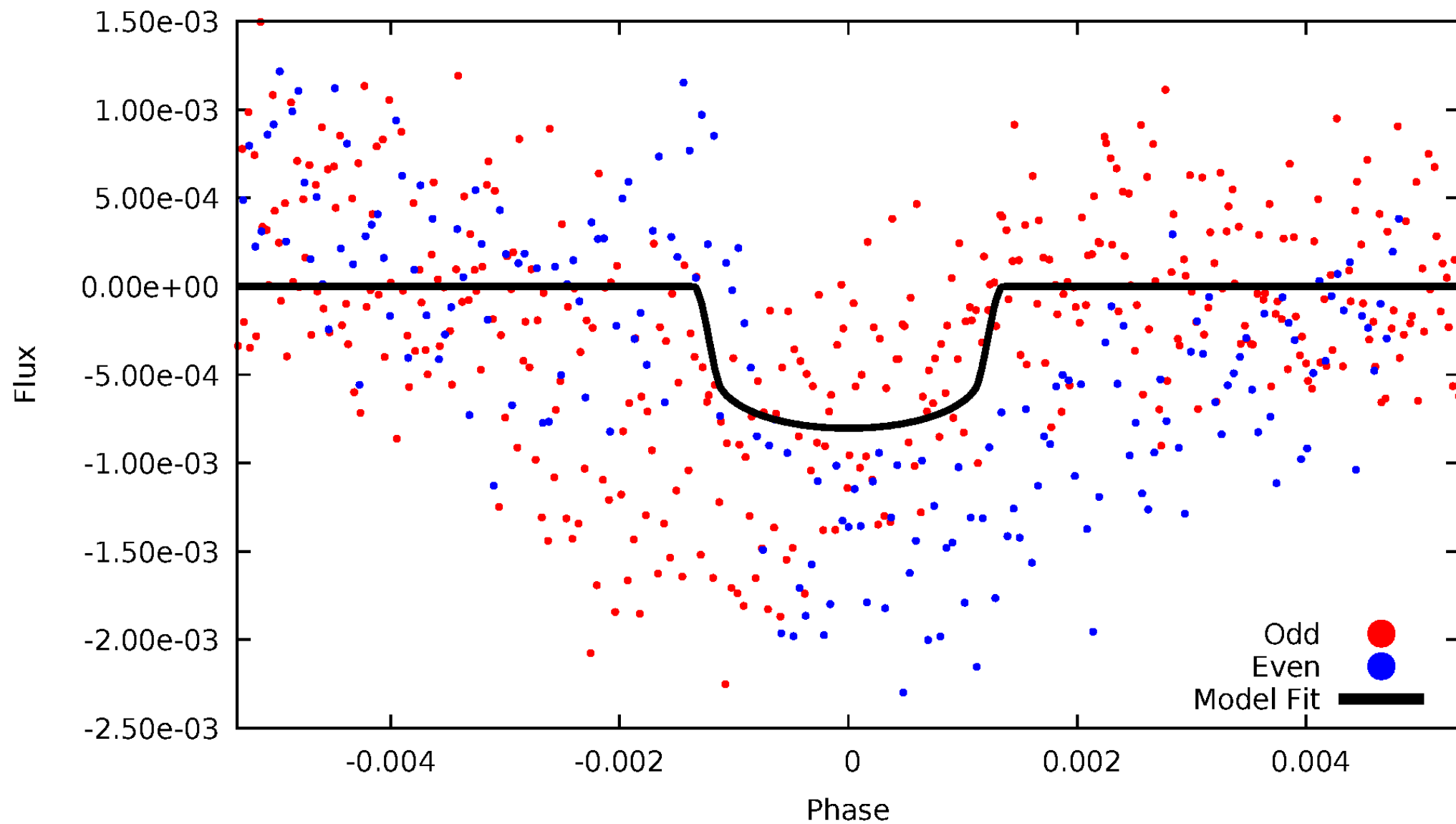


TCE 008684069-01



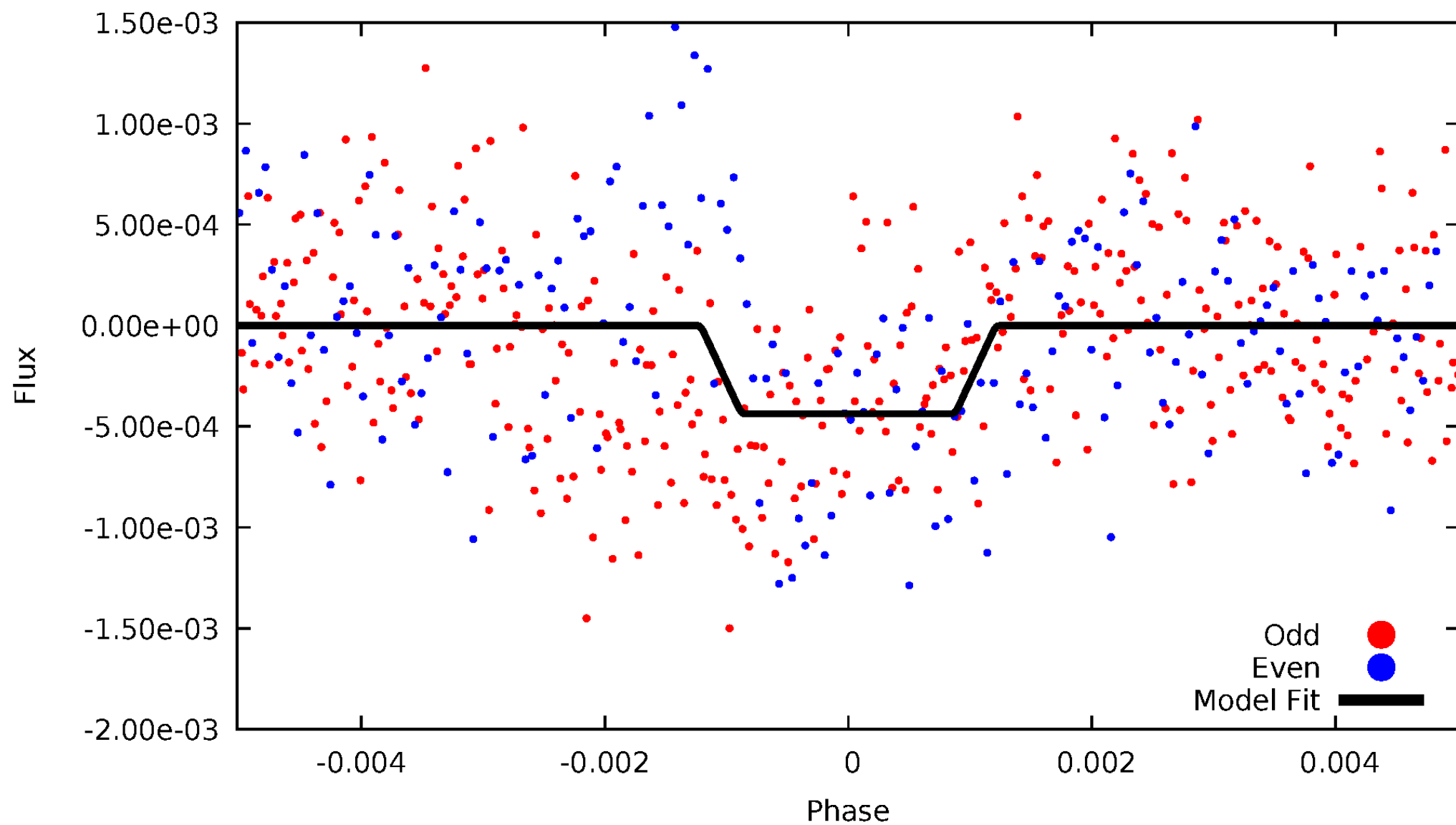
DV Odd/Even

TCE 008684069-01



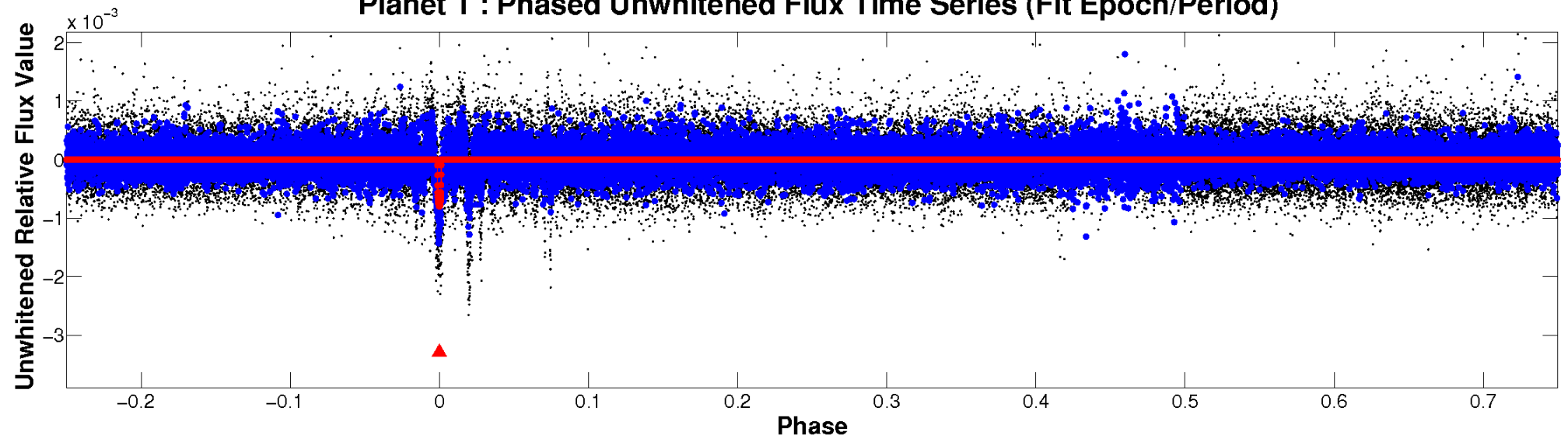
ALT Odd/Even

TCE 008684069-01

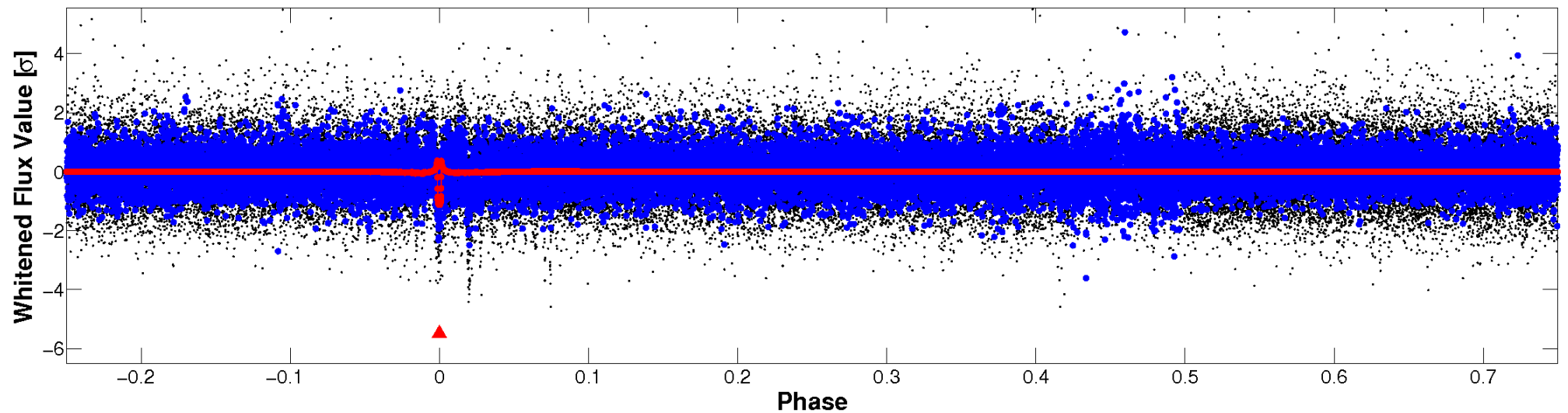


Non-Whitened Vs. Whitened Light Curve

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

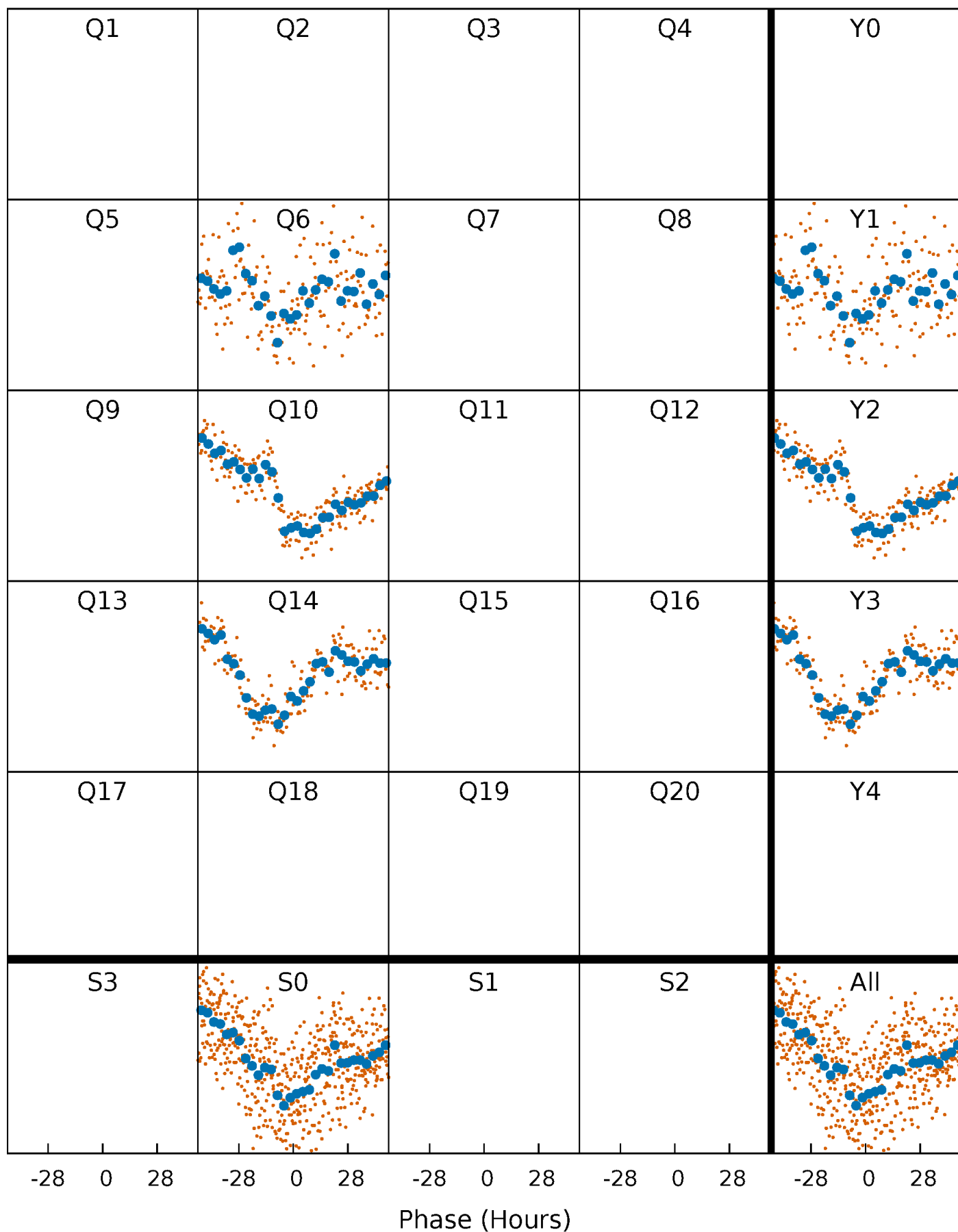


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



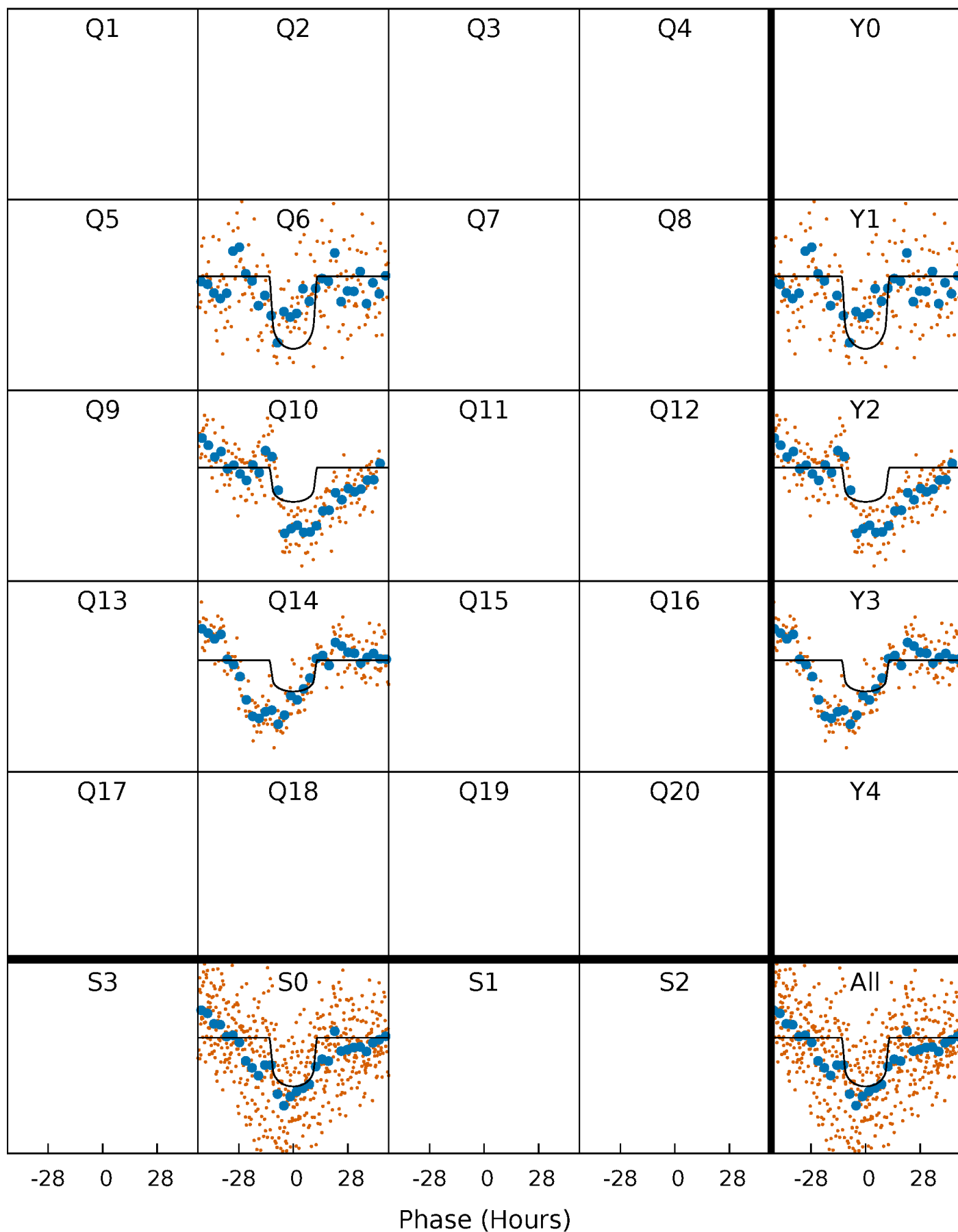
PDC Quarter-Phased Transit Curves

TCE 008684069-01 P=382.479334 Days $T_0=162.954268$ (BKJD)



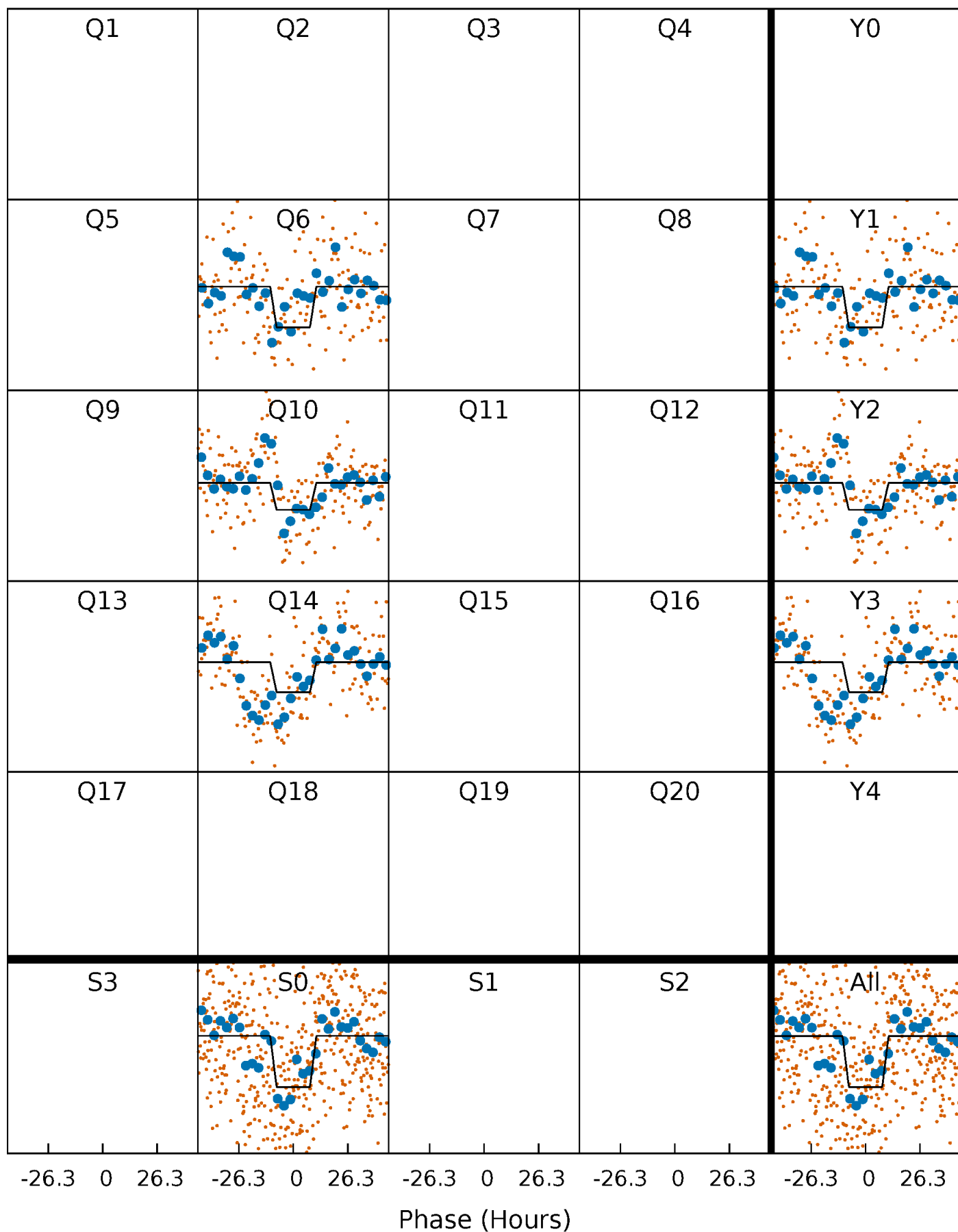
DV Quarter-Phased Transit Curves

TCE 008684069-01 P=382.479334 Days $T_0=162.954268$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

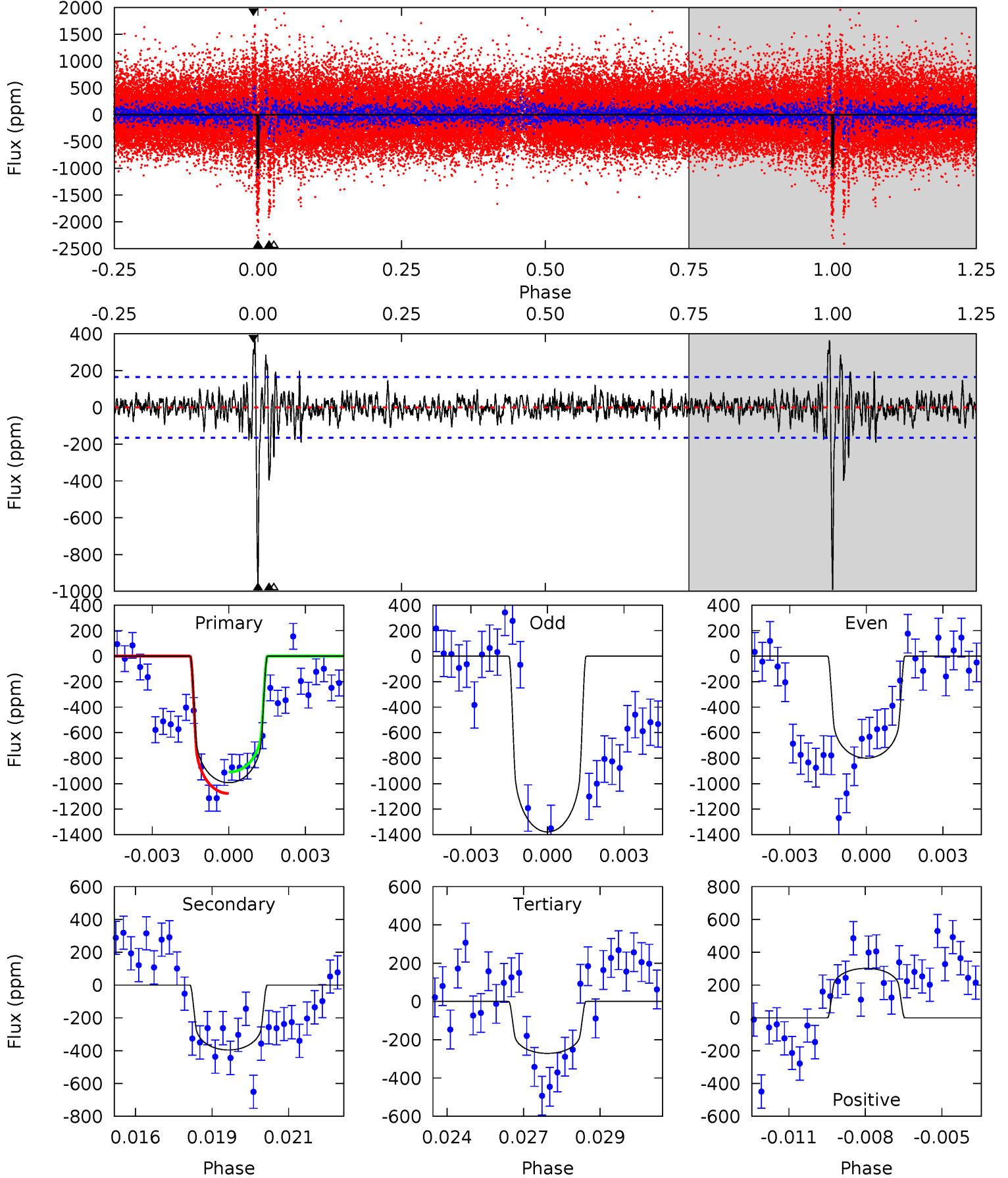
TCE 008684069-01 P=382.448131 Days $T_0=163.009648$ (BKJD)



DV Model-Shift Uniqueness Test

008684069-01, P = 382.479334 Days, E = 162.954268 Days

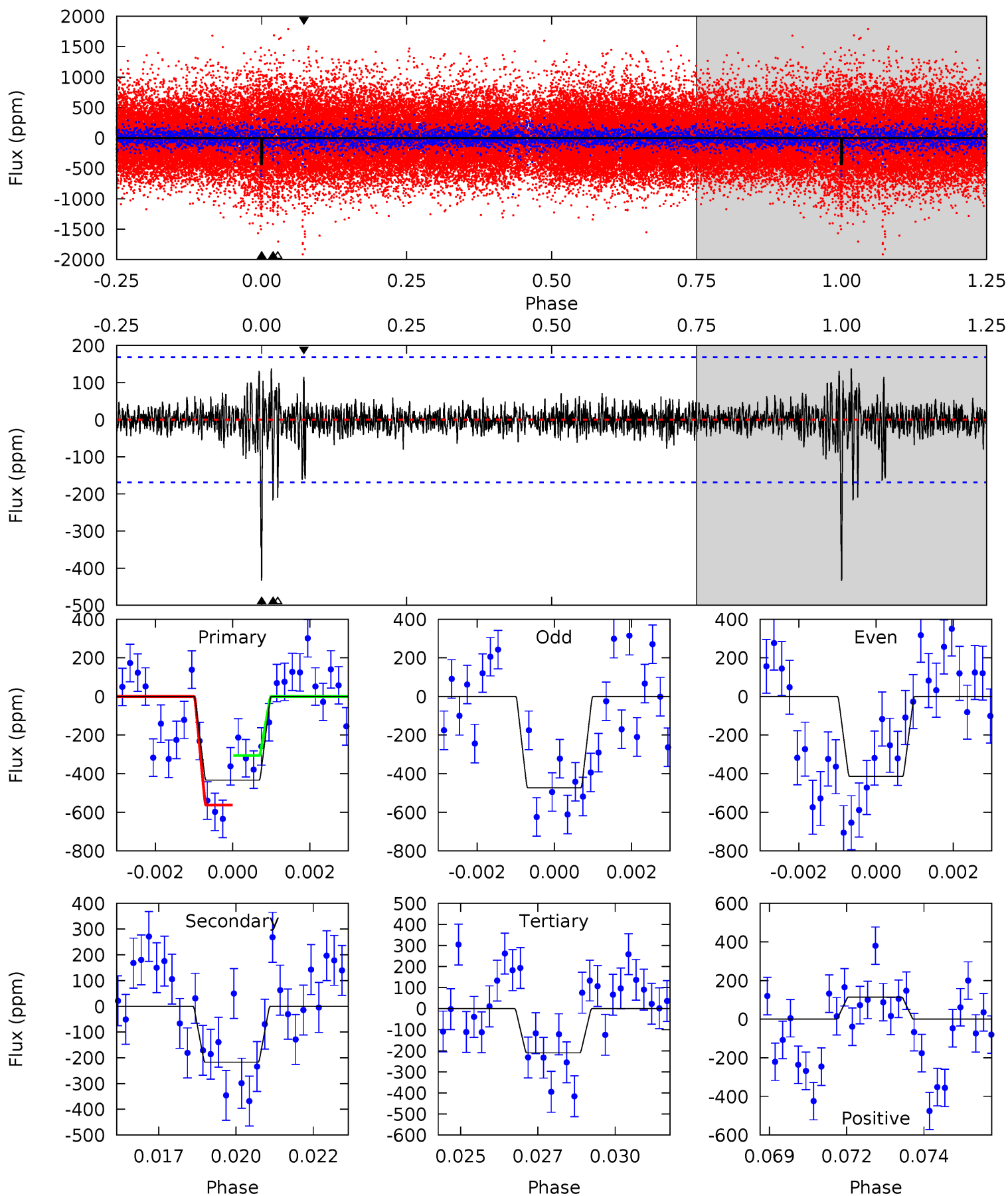
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
31.7	12.6	8.66	9.63	5.27	3.00	1.68	23.0	22.0	3.98	3.00	8.74	0.86	0.27	2.65



Alt Model-Shift Uniqueness Test

008684069-01, P = 382.448131 Days, E = 163.009648 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.6	6.80	6.58	3.59	5.29	3.03	0.88	7.02	10.0	0.22	3.21	0.88	0.92	0.24	4.00



Stellar Parameters For KIC 008684069

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6086^{+193}_{-236}	$4.447^{+0.058}_{-0.217}$	$0.040^{+0.250}_{-0.300}$	$1.040^{+0.358}_{-0.119}$	$1.101^{+0.146}_{-0.146}$	$1.378^{+0.419}_{-0.757}$
	+3%/-4%	+1%/-5%	+625%/-750%	+34%/-11%	+13%/-13%	+30%/-55%
Source	KIC0	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 008684069-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-396 ± 31	$3.41^{+0.61}_{-0.47}$	379^{+29}_{-21}	5113^{+327}_{-286}	20521^{+7336}_{-5184}
Alt.	-217 ± 32	$2.45^{+0.58}_{-0.39}$	378^{+29}_{-20}	5168^{+466}_{-415}	22081^{+10073}_{-8052}

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 $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

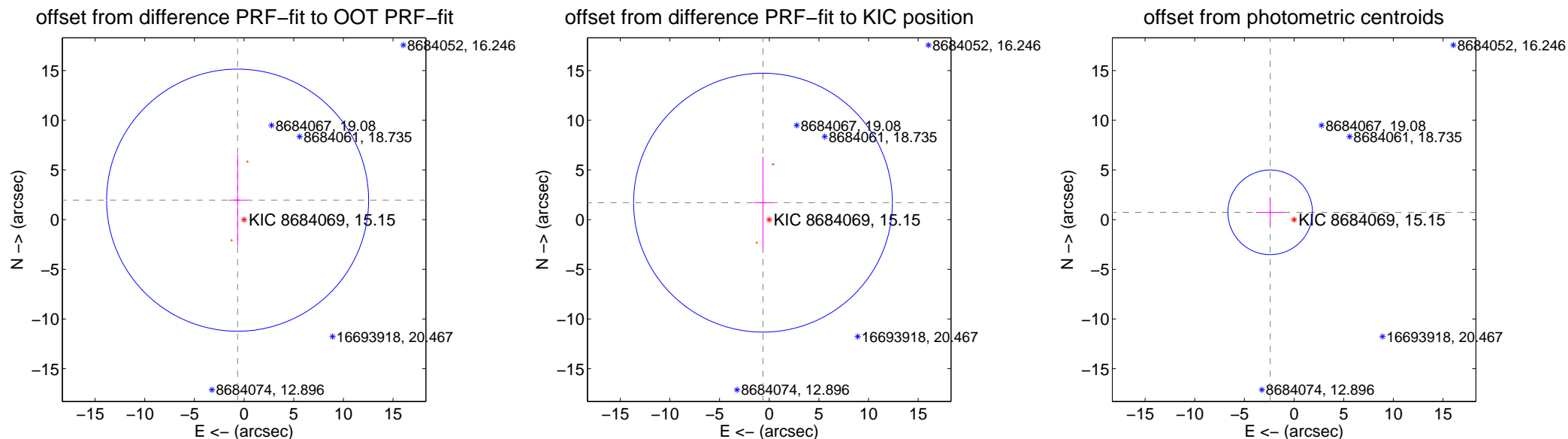
DV Centroid Data

Supplemental centroid analysis for 008684069-01. Kepler magnitude: 15.15. Transit SNR 12.01

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.24 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.065 ± 4.397	0.47	0.653 ± 0.909	1.959 ± 4.625
PRF-fit source offset from KIC position	1.818 ± 4.343	0.42	0.627 ± 0.933	1.707 ± 4.614
photometric centroid source offset	2.52 ± 1.42	1.77	2.41 ± 1.42	0.74 ± 1.42

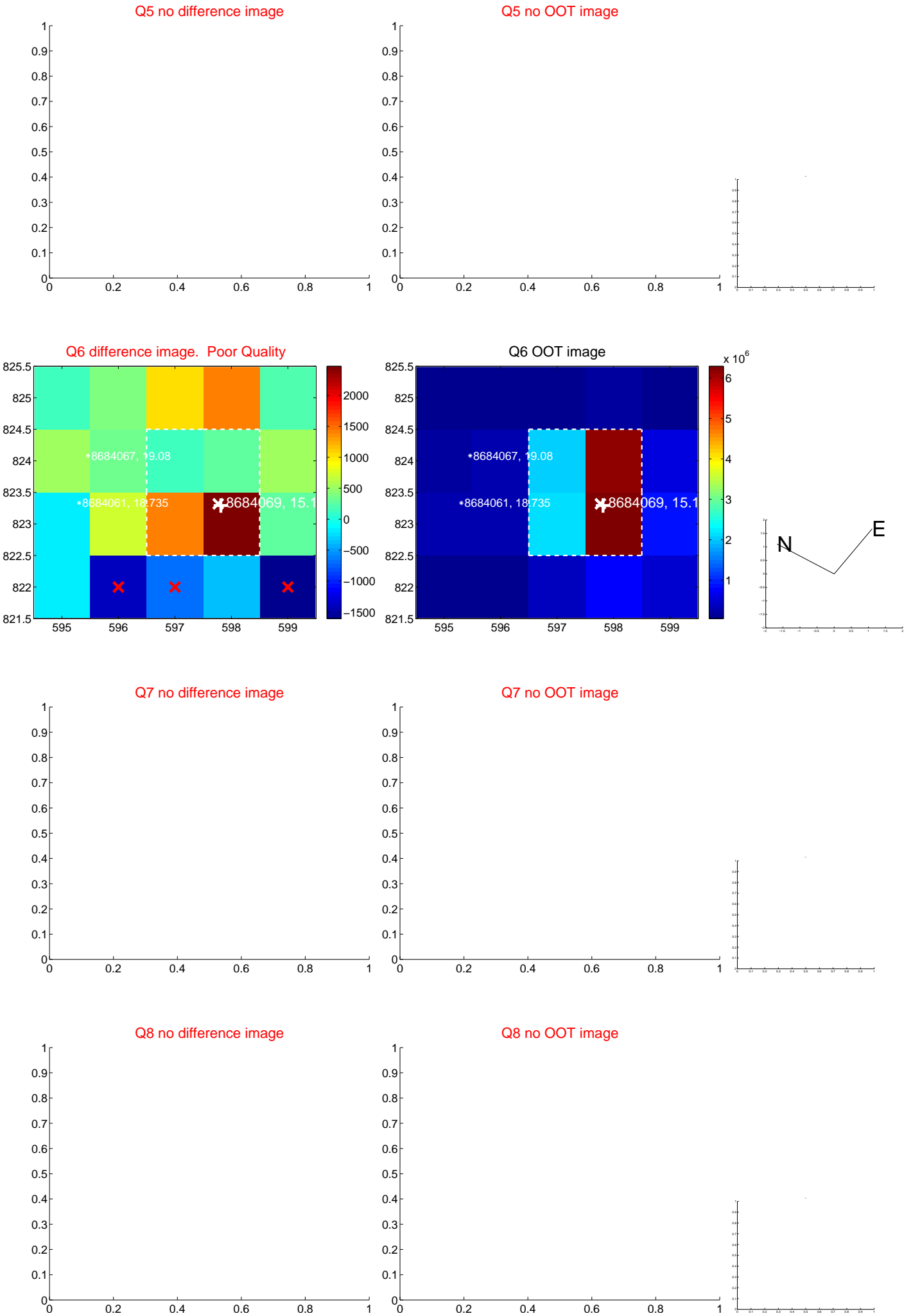


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

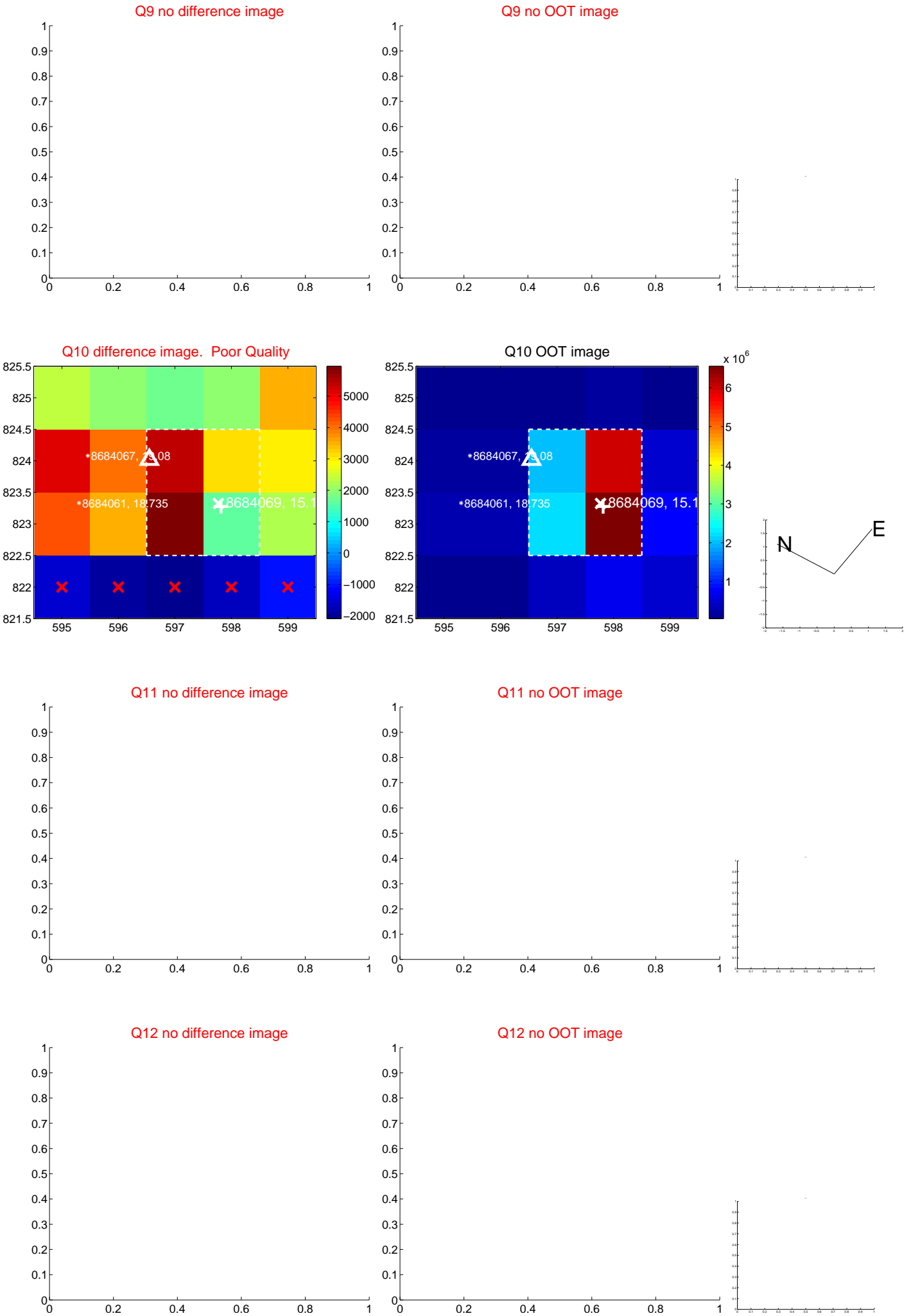
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



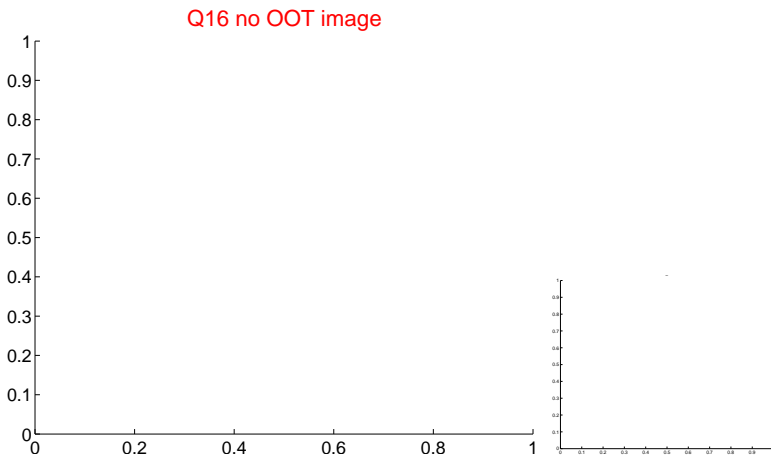
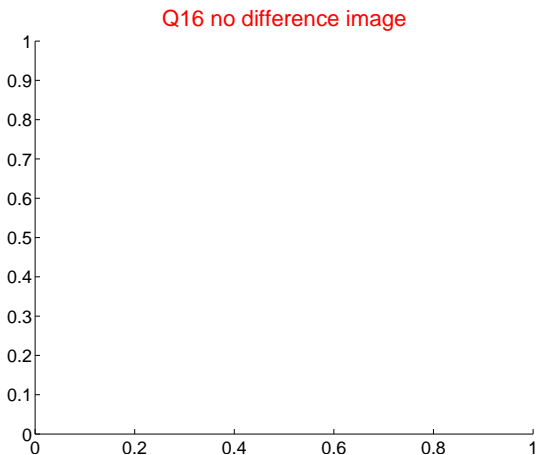
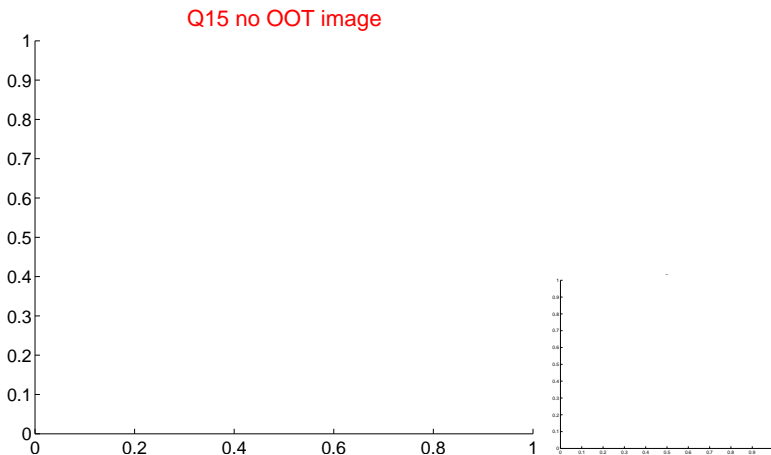
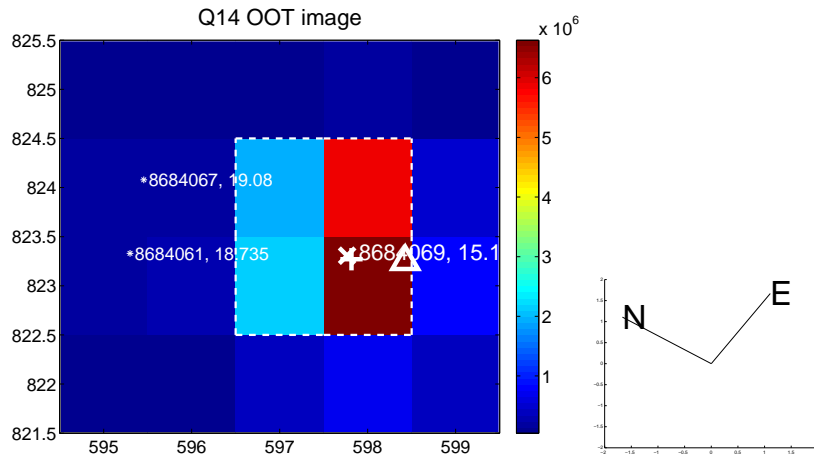
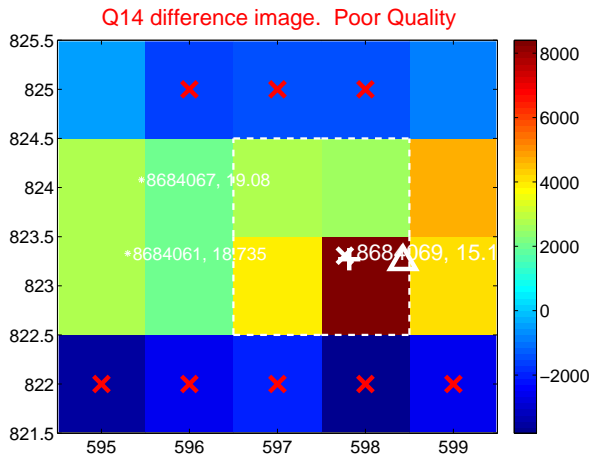
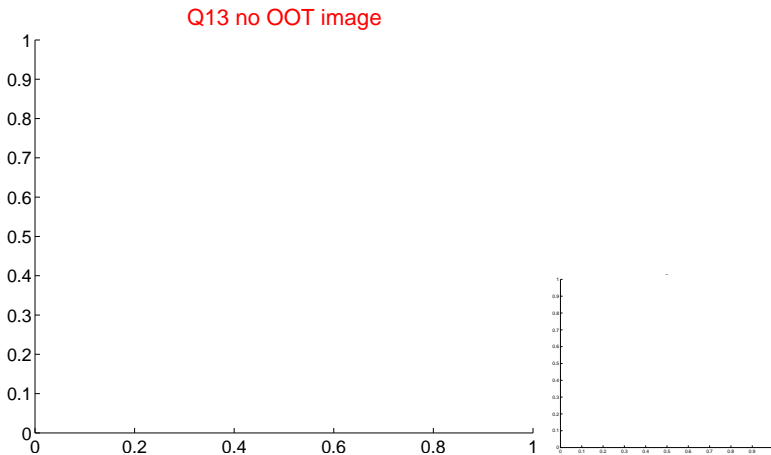
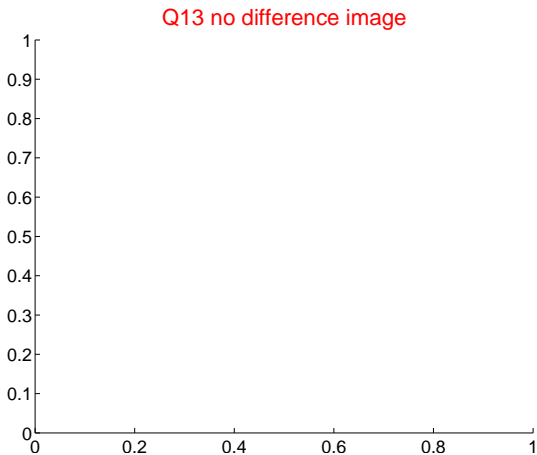
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



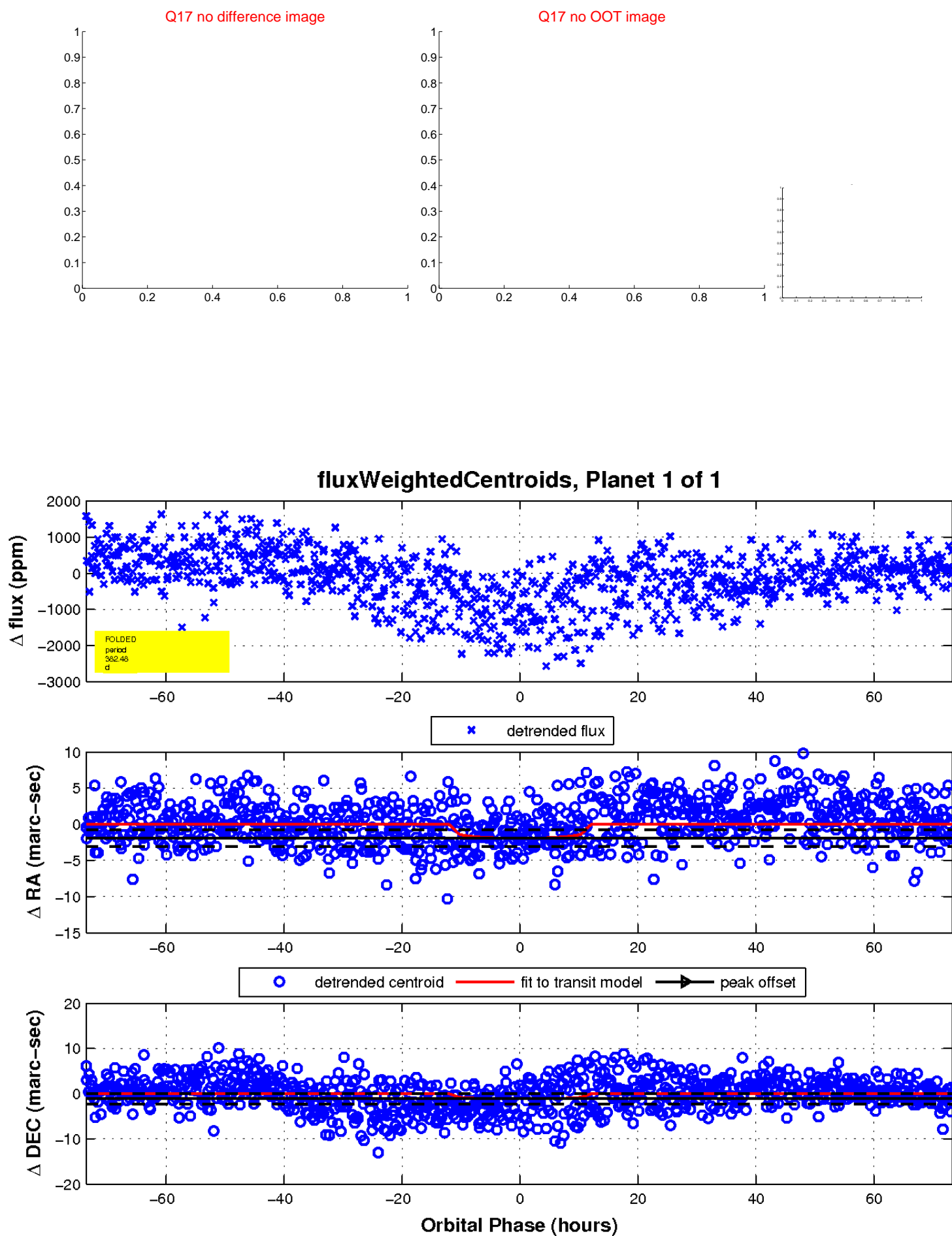
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

