

KIC 003837722

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})
003837722-01	OBS	No	477.642197	420.666470	725.5	3.719	7.7	8.5	0.80	5112	2.27	0.32

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003837722-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—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.

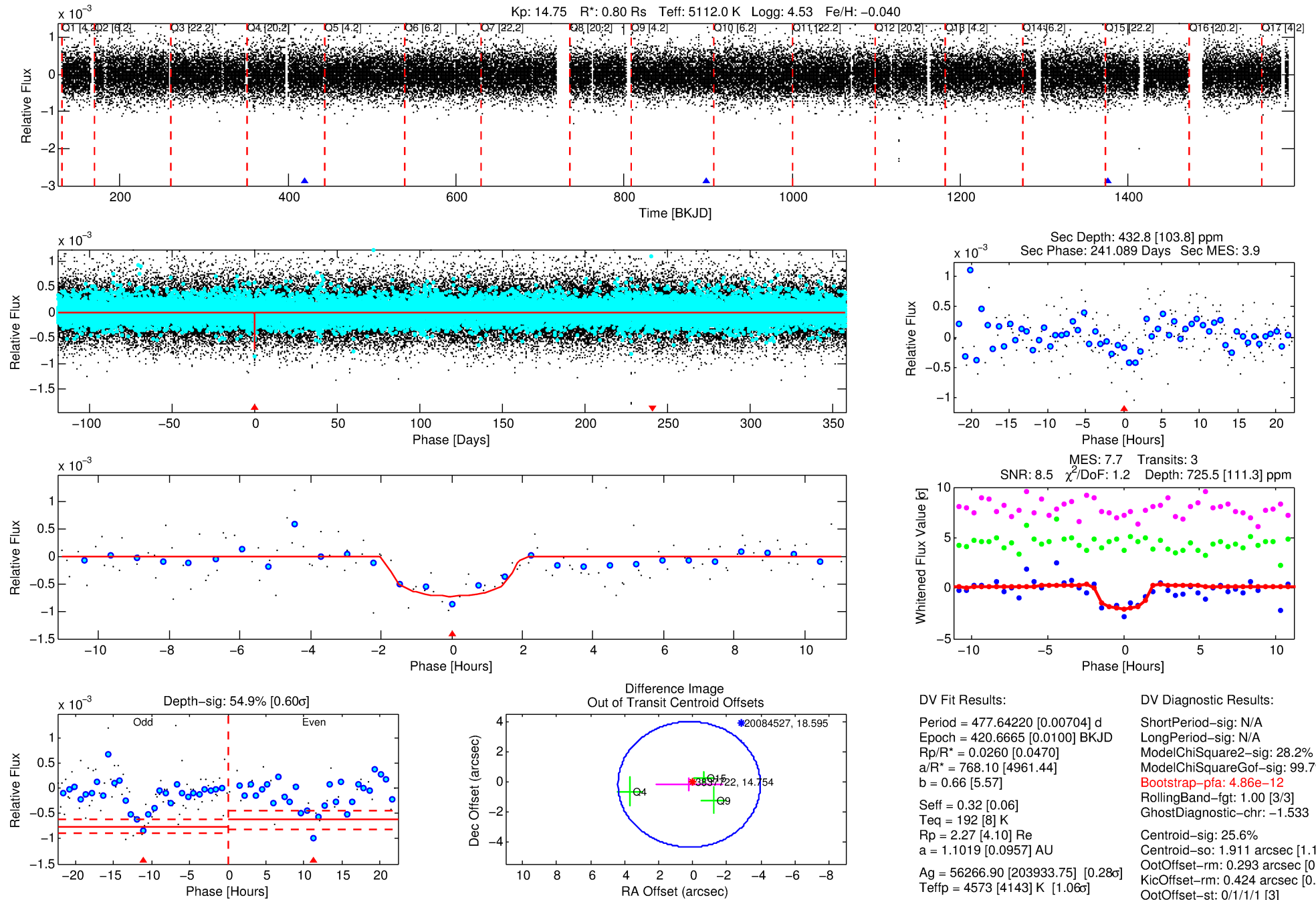
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003837722-01

No Significant Match Found

DV One-Page Summary

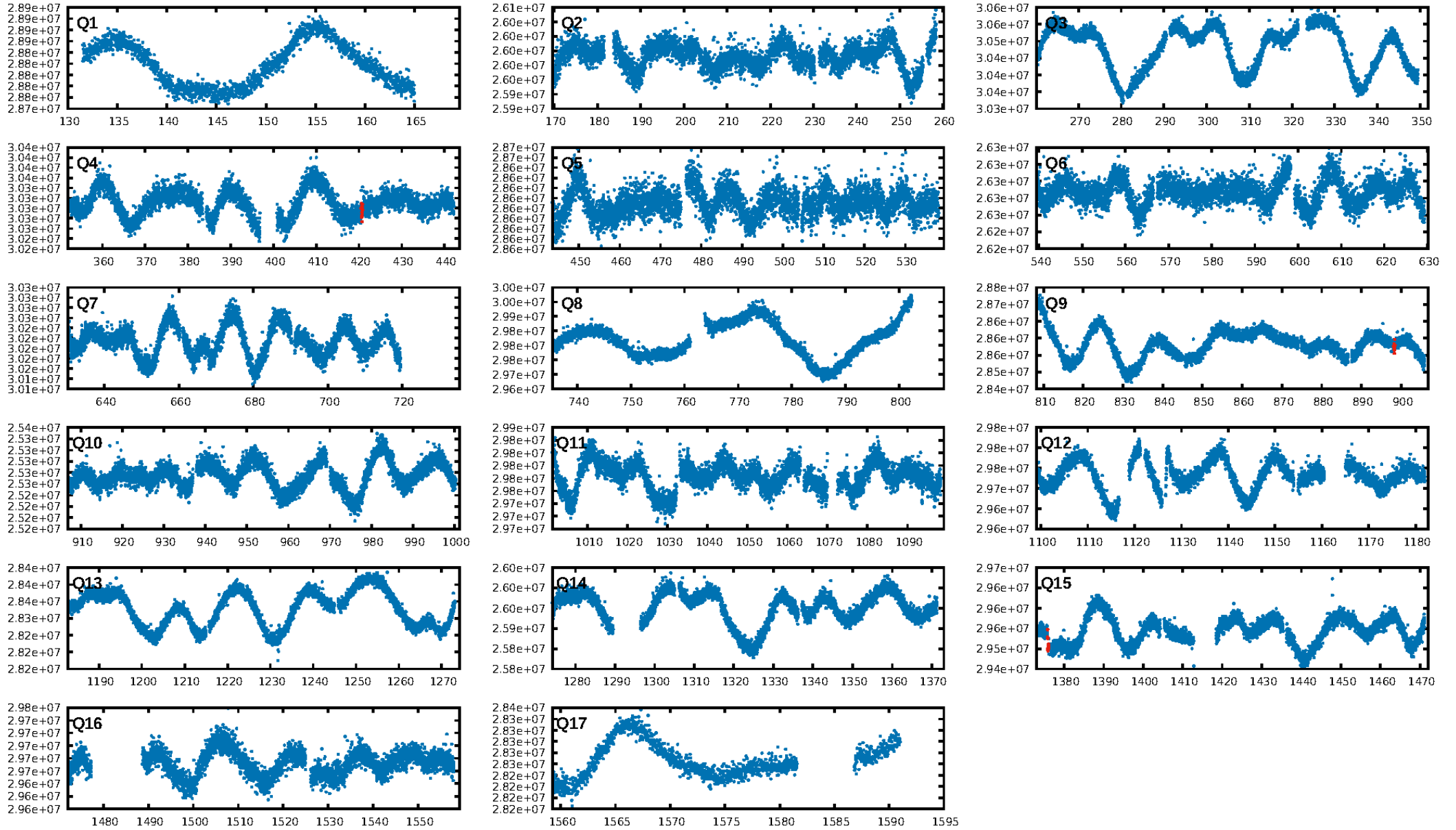
KIC: 3837722 Candidate: 1 of 1 Period: 477.642 d



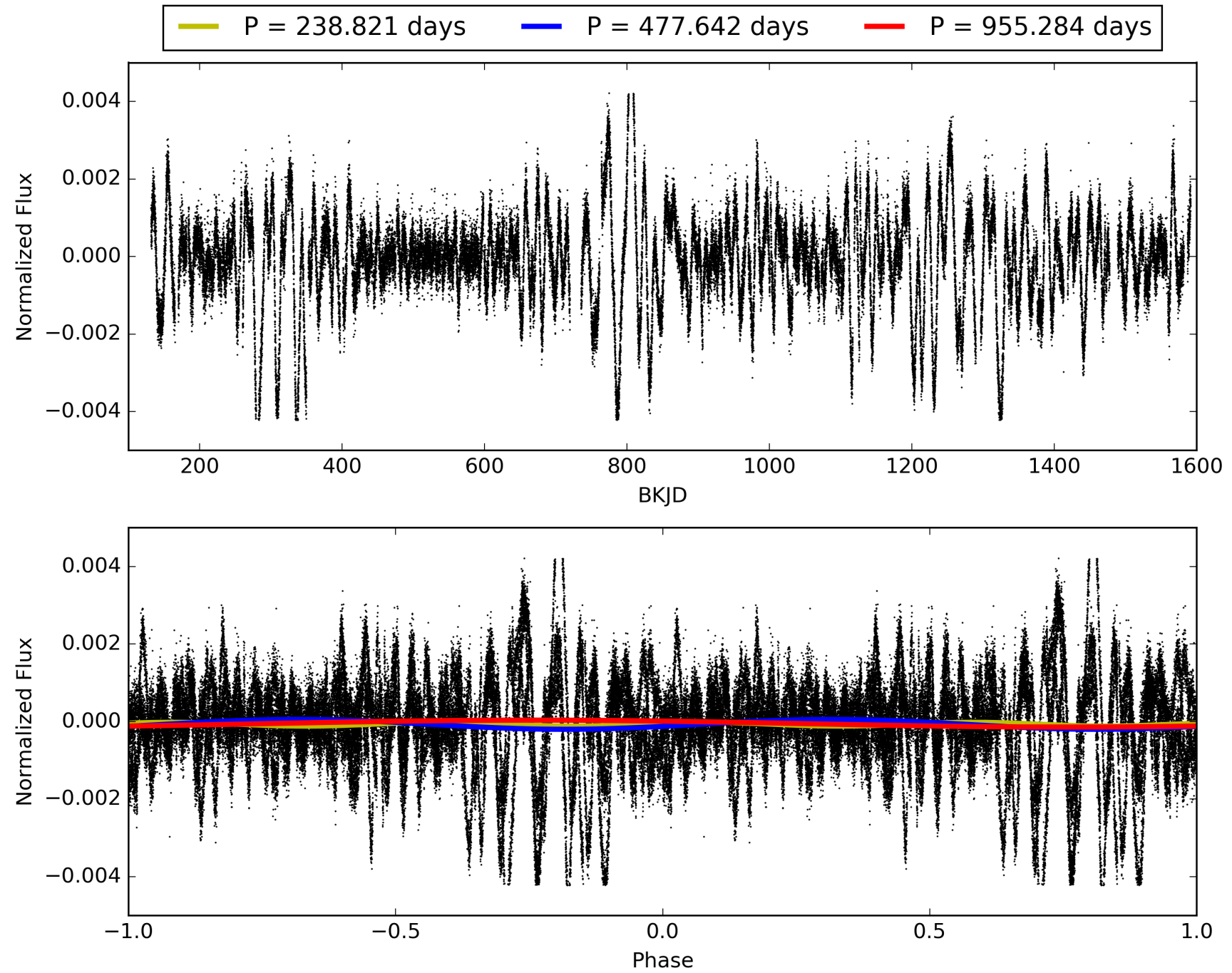
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 14:51:11 Z

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

TCE 003837722-01, PDC Light Curves

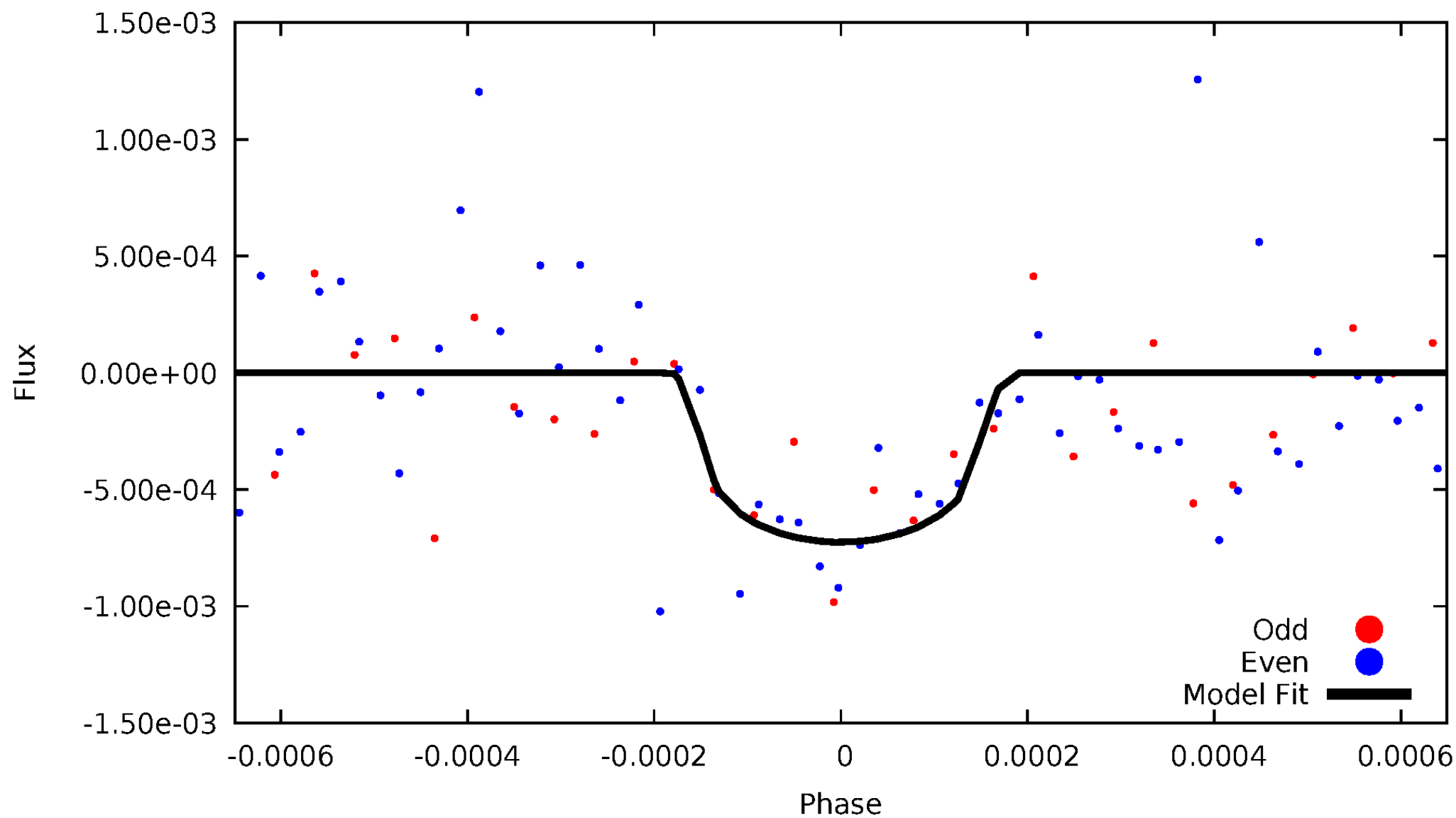


TCE 003837722-01



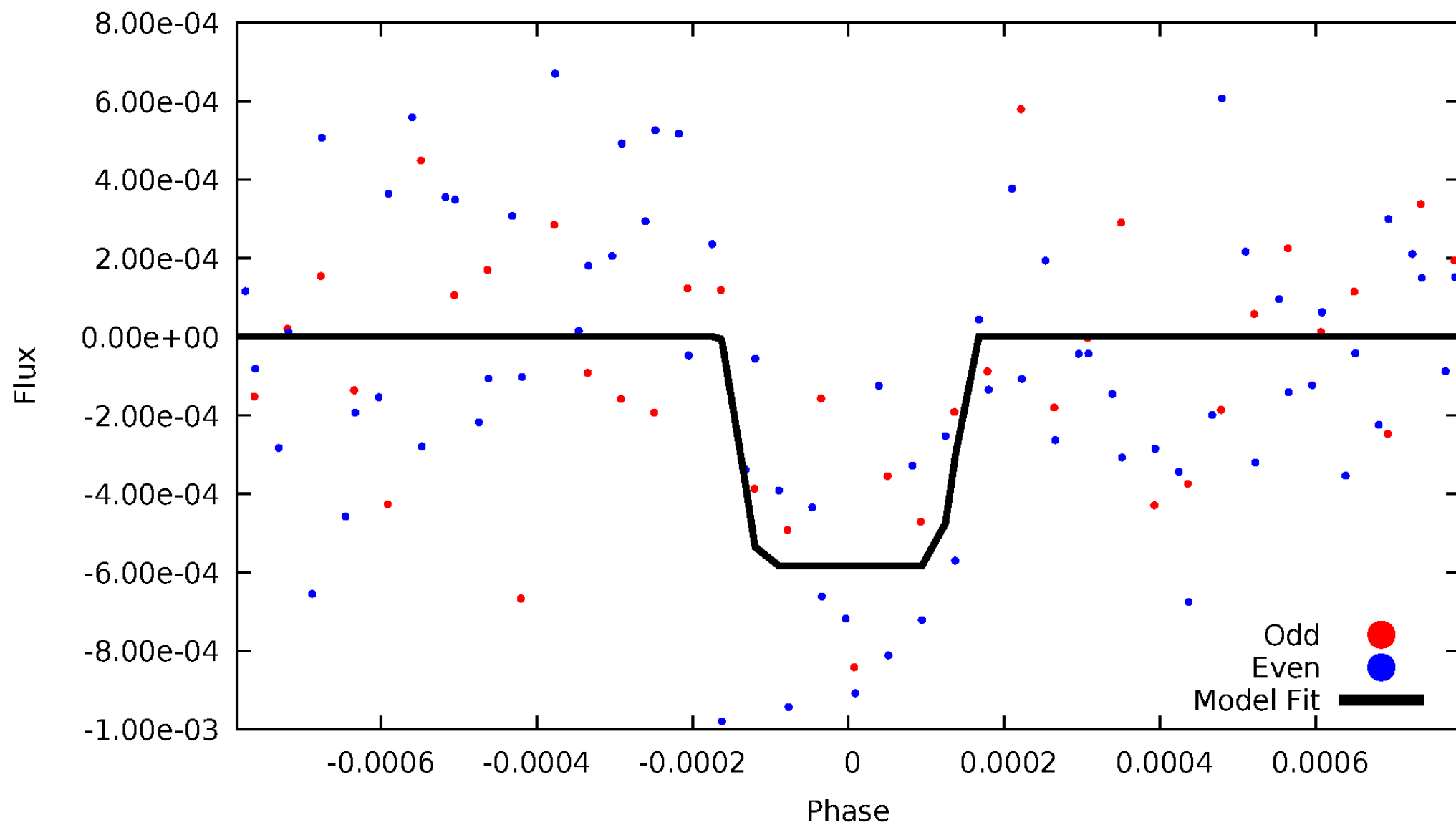
DV Odd/Even

TCE 003837722-01



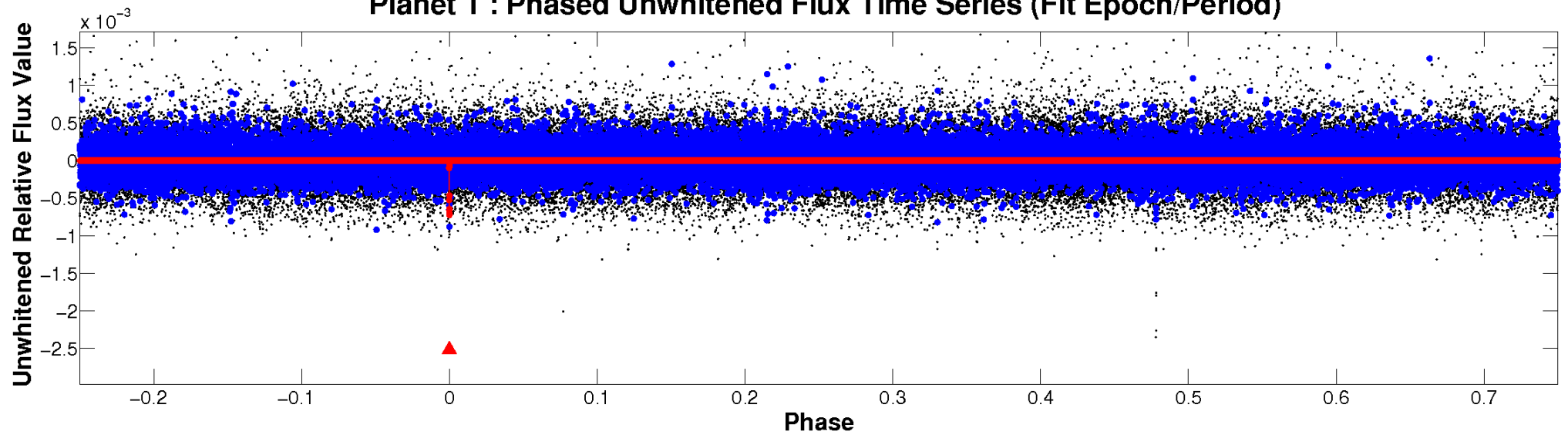
ALT Odd/Even

TCE 003837722-01

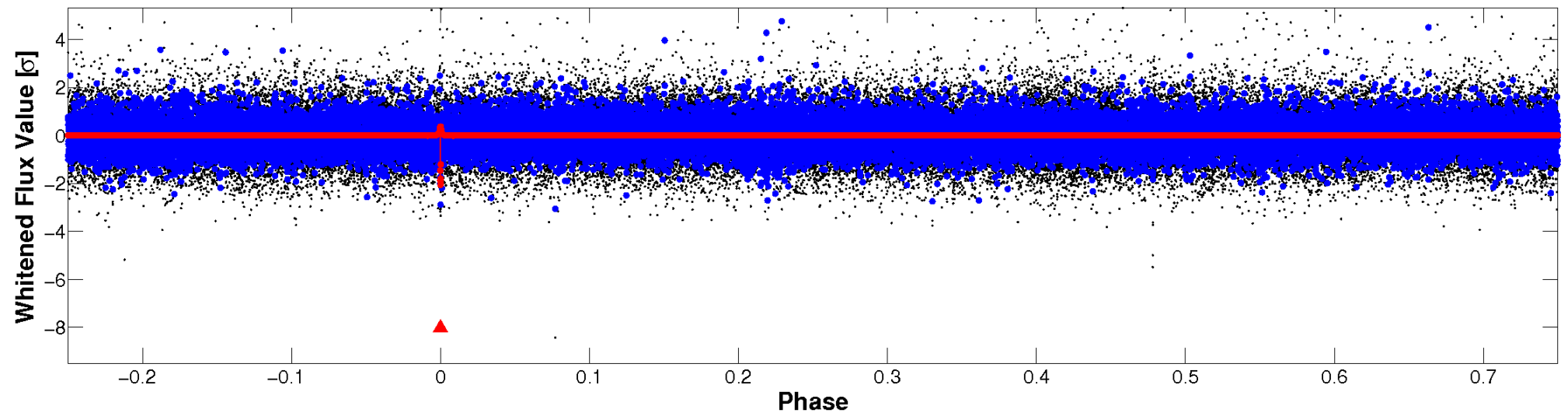


Non-Whitened Vs. Whitened Light Curve

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

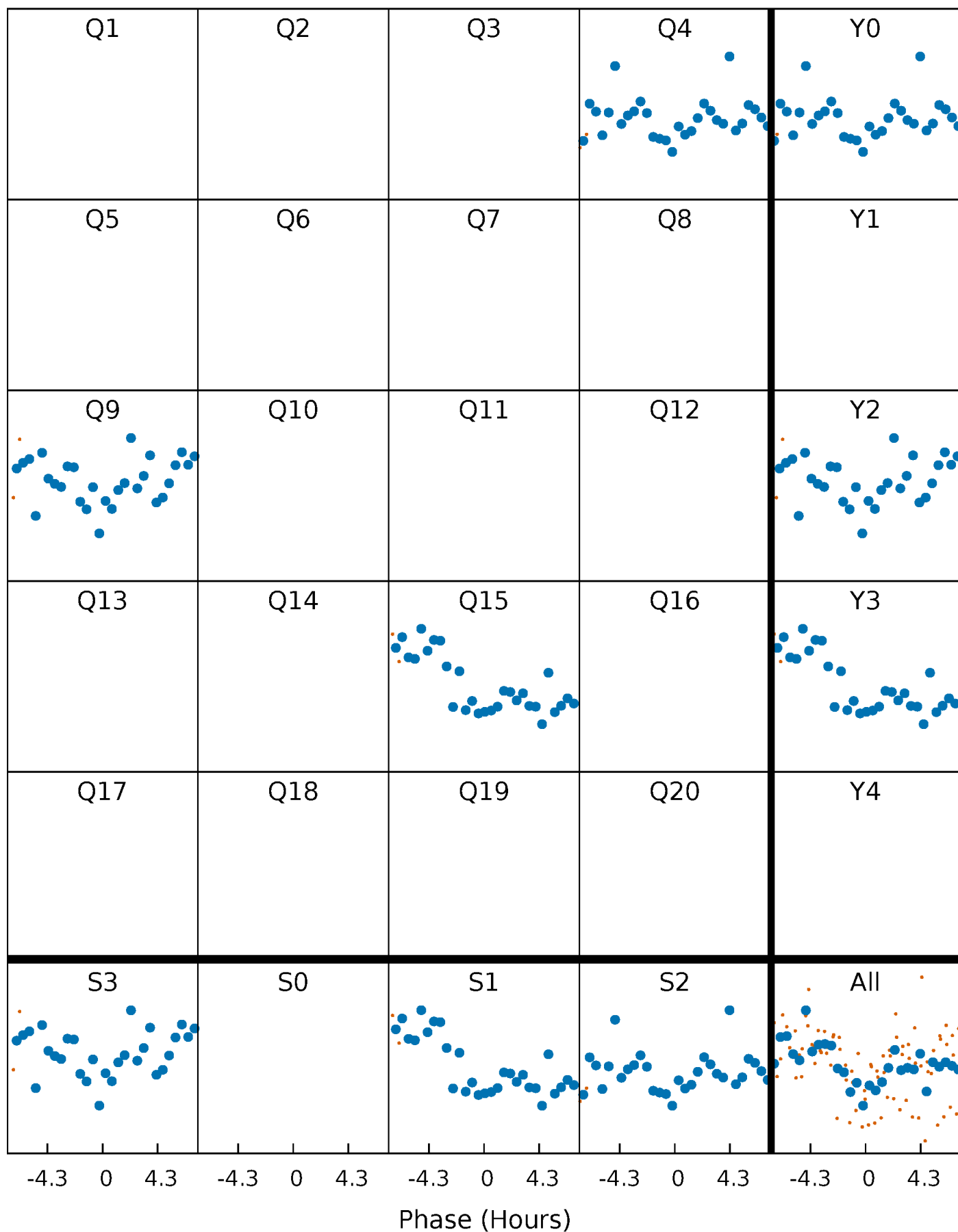


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 003837722-01 P=477.642197 Days $T_0=420.666471$ (BKJD)



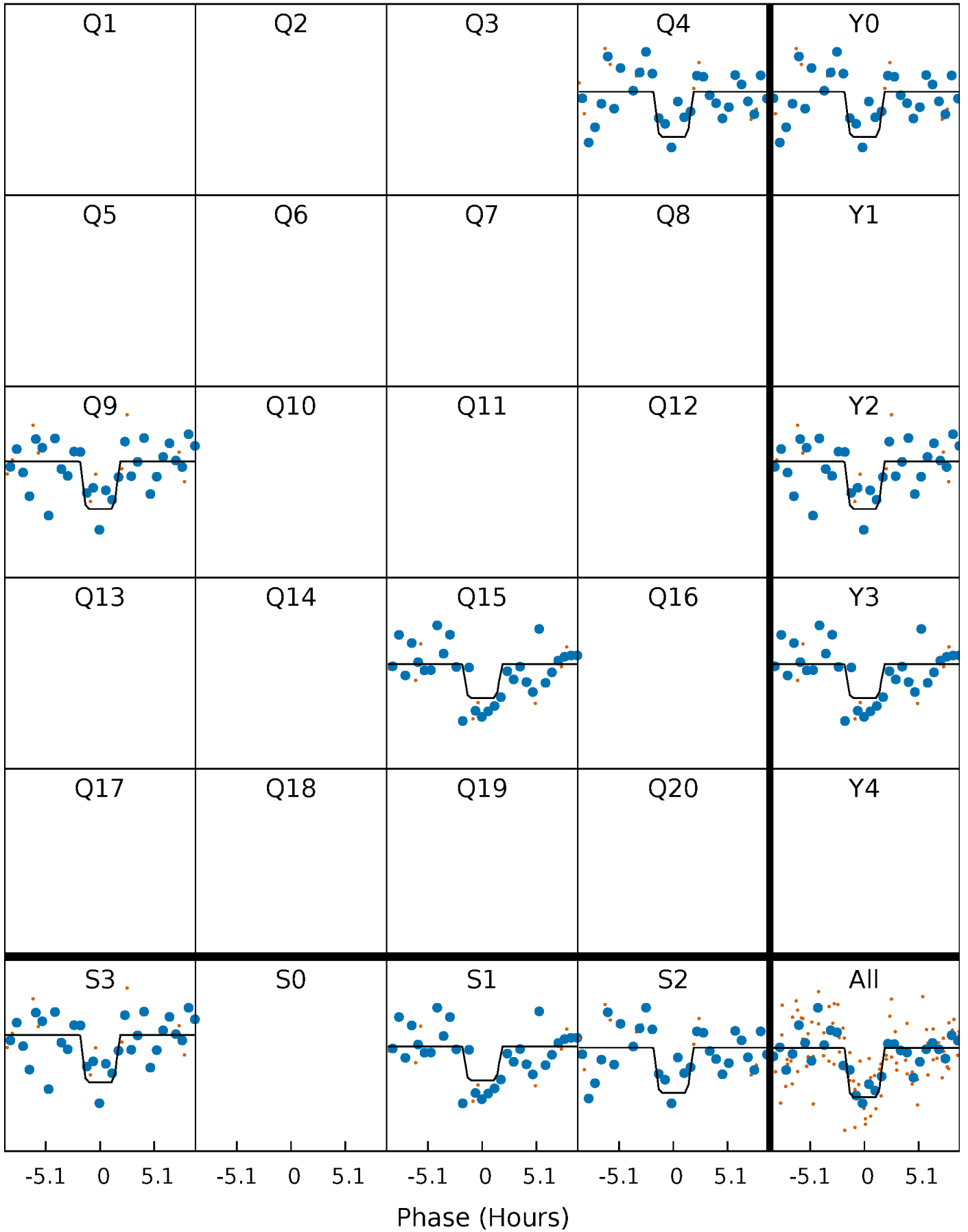
DV Quarter-Phased Transit Curves

TCE 003837722-01 P=477.642197 Days $T_0=420.666471$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

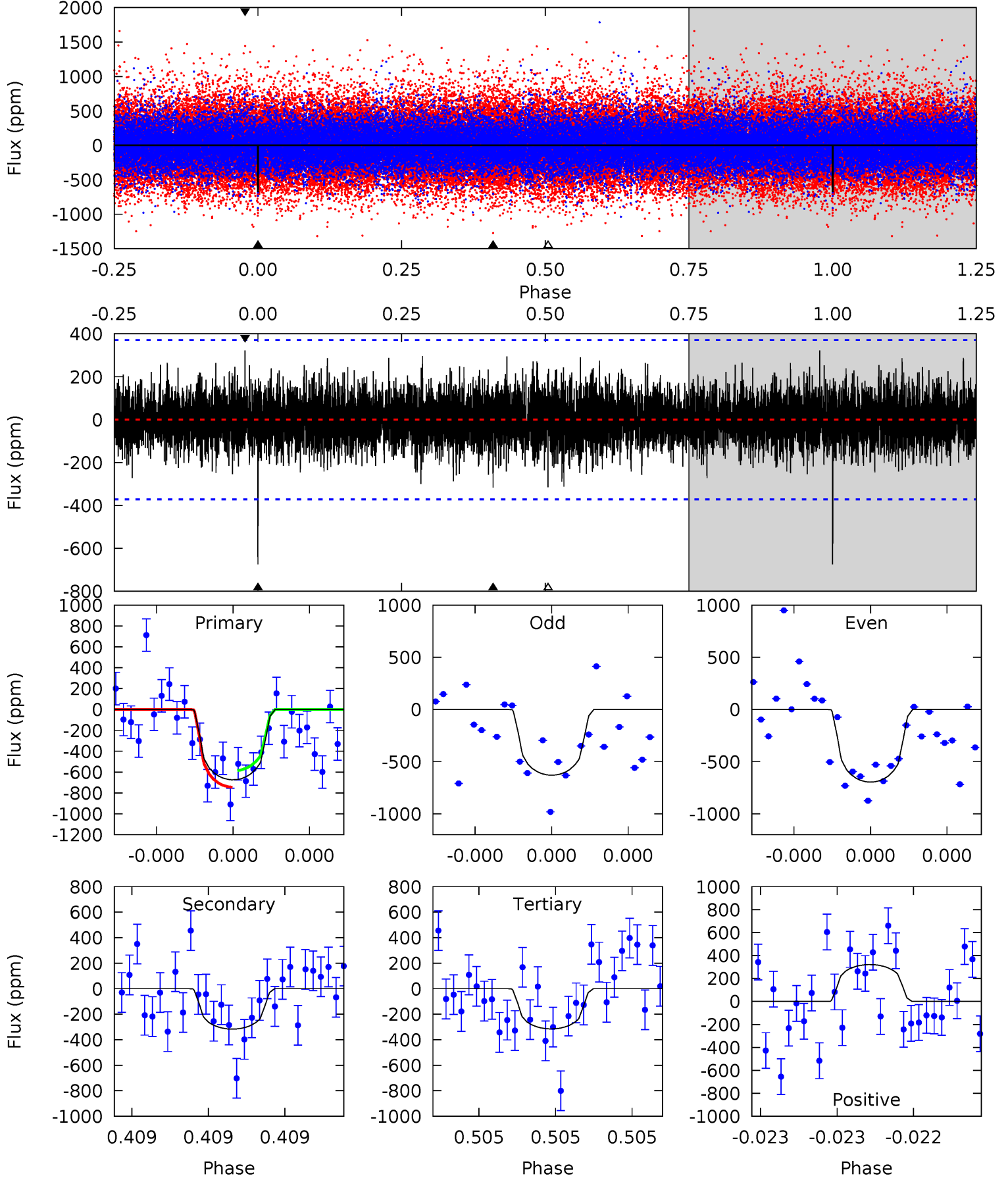
TCE 003837722-01 P=477.634465 Days $T_0=420.666958$ (BKJD)



DV Model-Shift Uniqueness Test

003837722-01, P = 477.642197 Days, E = 420.666471 Days

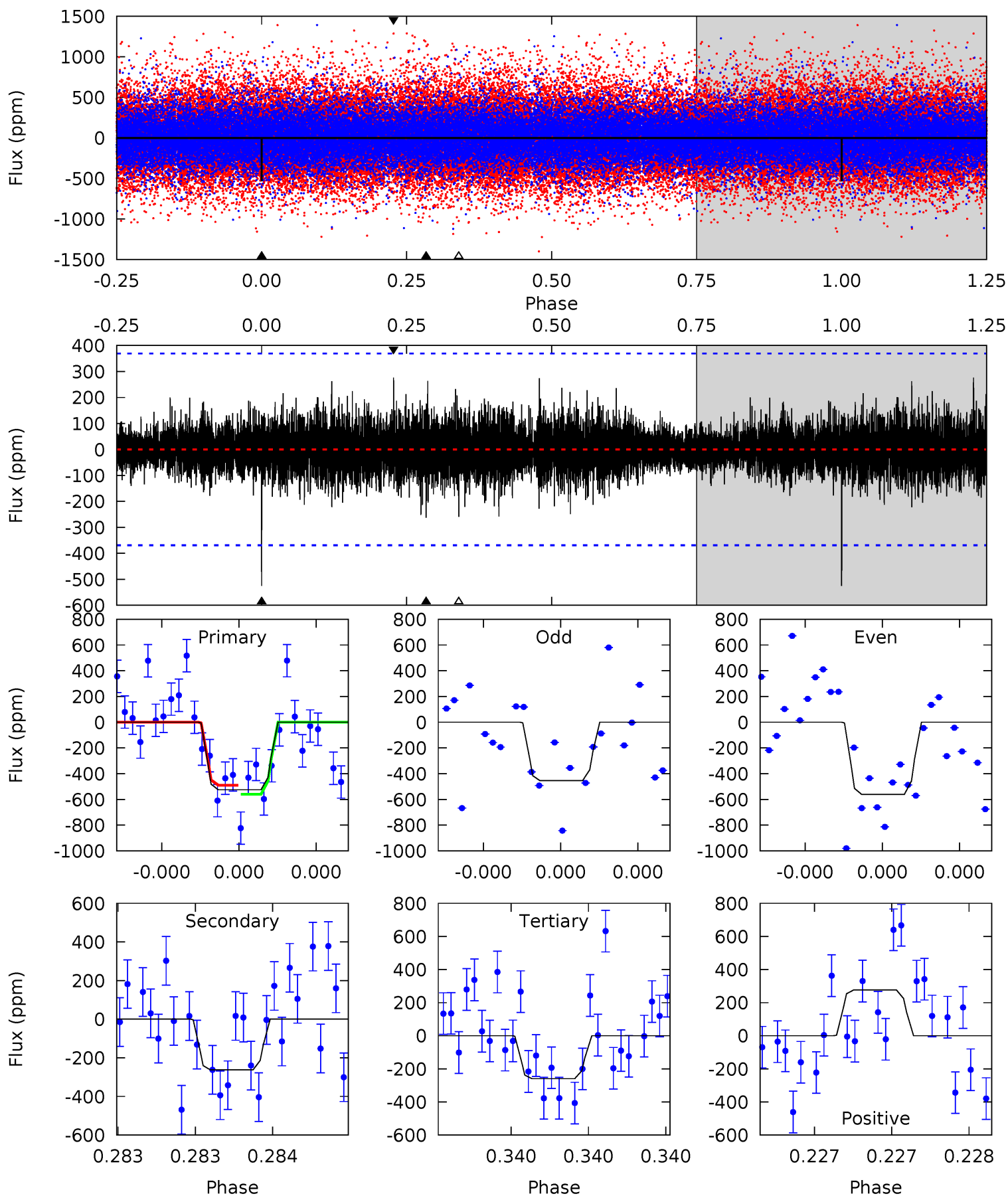
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.2	4.81	4.79	4.88	5.64	3.58	1.26	5.44	5.35	0.02	-0.07	0.48	1.06	0.32	1.20



Alt Model-Shift Uniqueness Test

003837722-01, P = 477.634465 Days, E = 420.666958 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.03	4.01	3.97	4.23	5.64	3.59	0.92	4.06	3.80	0.04	-0.22	0.77	1.16	0.34	0.54



Stellar Parameters For KIC 003837722

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5112^{+153}_{-138}	$4.526^{+0.071}_{-0.065}$	$-0.040^{+0.300}_{-0.300}$	$0.799^{+0.081}_{-0.081}$	$0.782^{+0.088}_{-0.066}$	$2.157^{+0.652}_{-0.459}$
	+3%/-3%	+2%/-1%	+750%/-750%	+10%/-10%	+11%/-8%	+30%/-21%
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 003837722-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-317 ± 66	$3.55^{+3.35}_{-2.33}$	268^{+11}_{-10}	3730^{+1974}_{-701}	$16842^{+131244}_{-12500}$
Alt.	-262 ± 65	$3.69^{+3.56}_{-2.36}$	268^{+12}_{-10}	3586^{+1679}_{-659}	13236^{+82264}_{-9993}

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 $A_{obs} \gg 1.0$

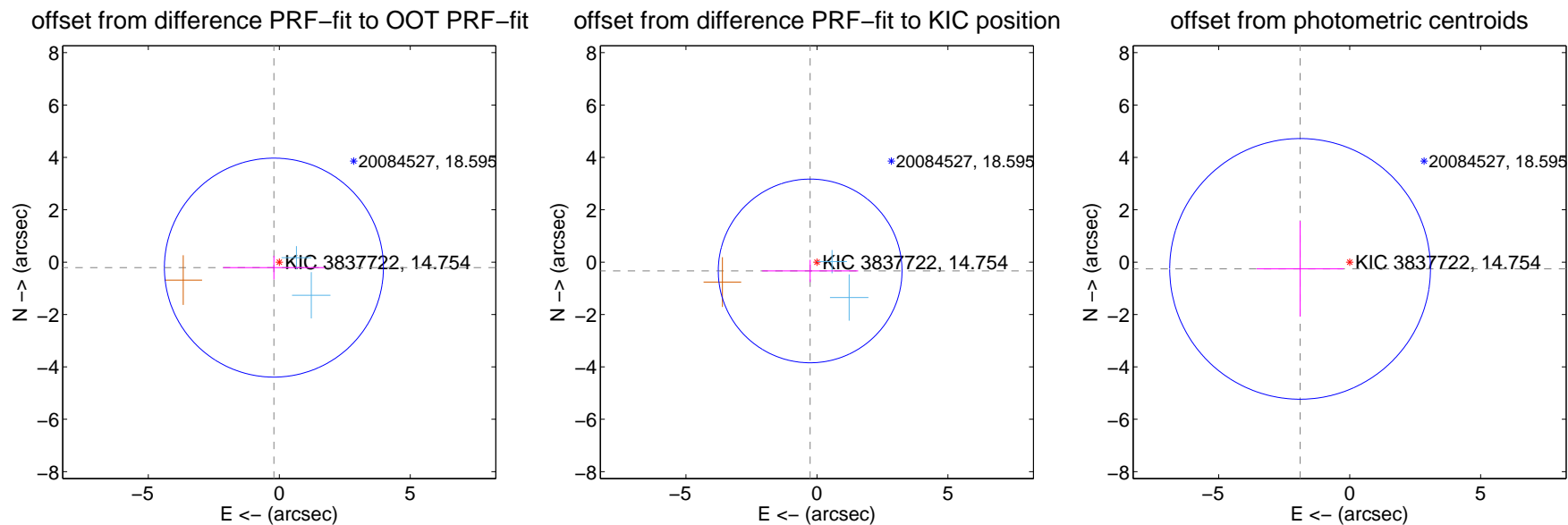
DV Centroid Data

Supplemental centroid analysis for 003837722-01. Kepler magnitude: 14.75. Transit SNR 8.46

There are 2 quarters with good PRF difference image offsets

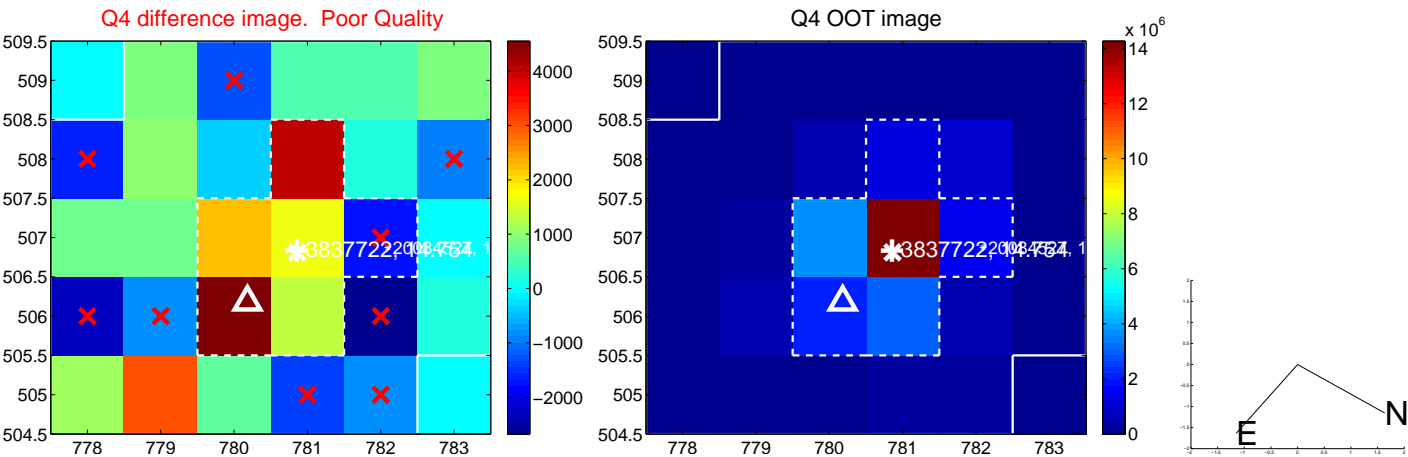
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.293 ± 1.394	0.21	0.205 ± 1.936	-0.209 ± 0.449
PRF-fit source offset from KIC position	0.424 ± 1.169	0.36	0.259 ± 1.833	-0.336 ± 0.426
photometric centroid source offset	1.91 ± 1.66	1.15	1.89 ± 1.66	-0.26 ± 1.82



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.

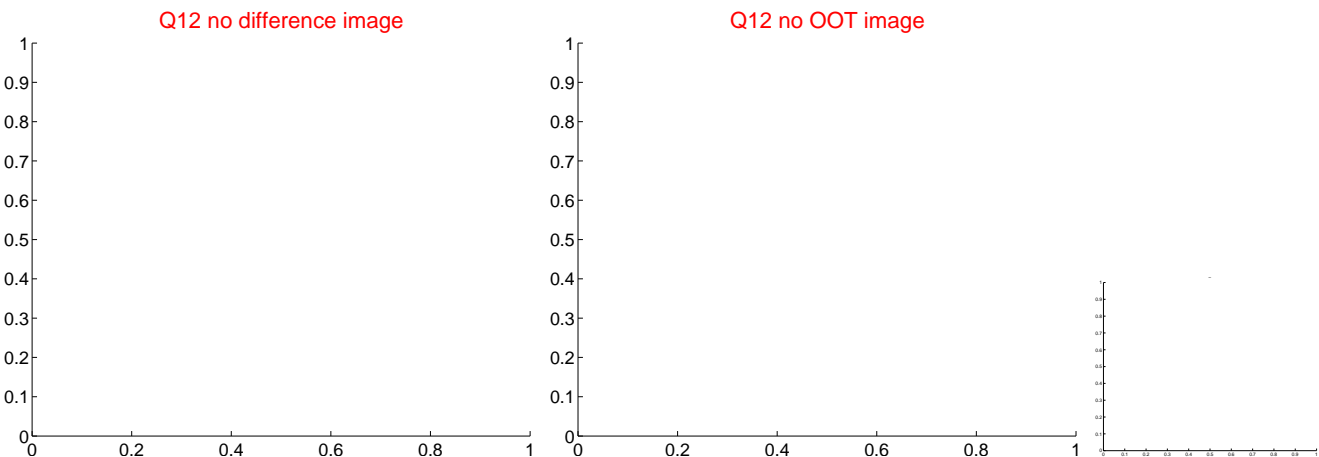
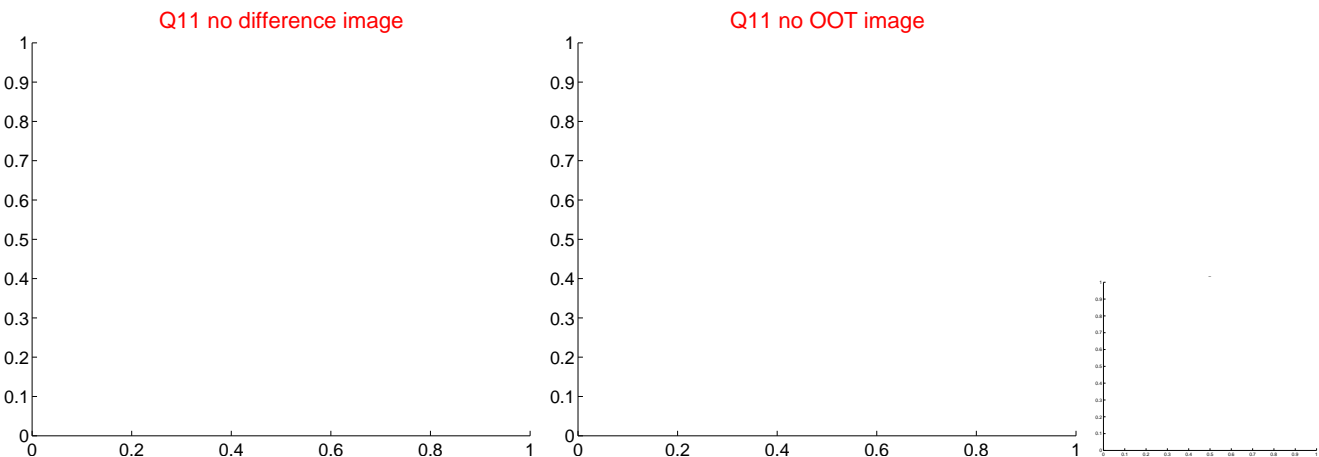
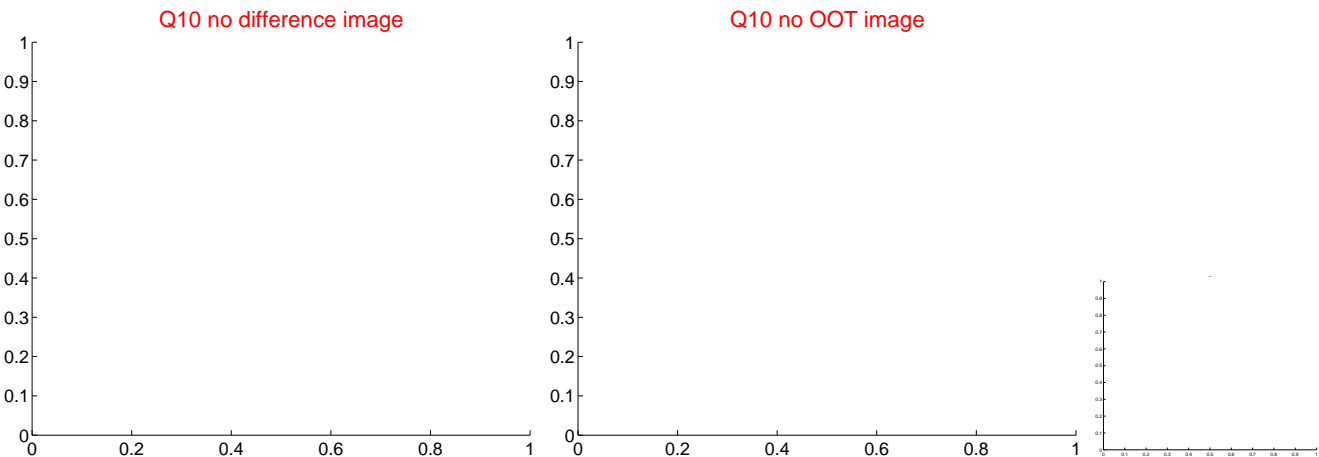
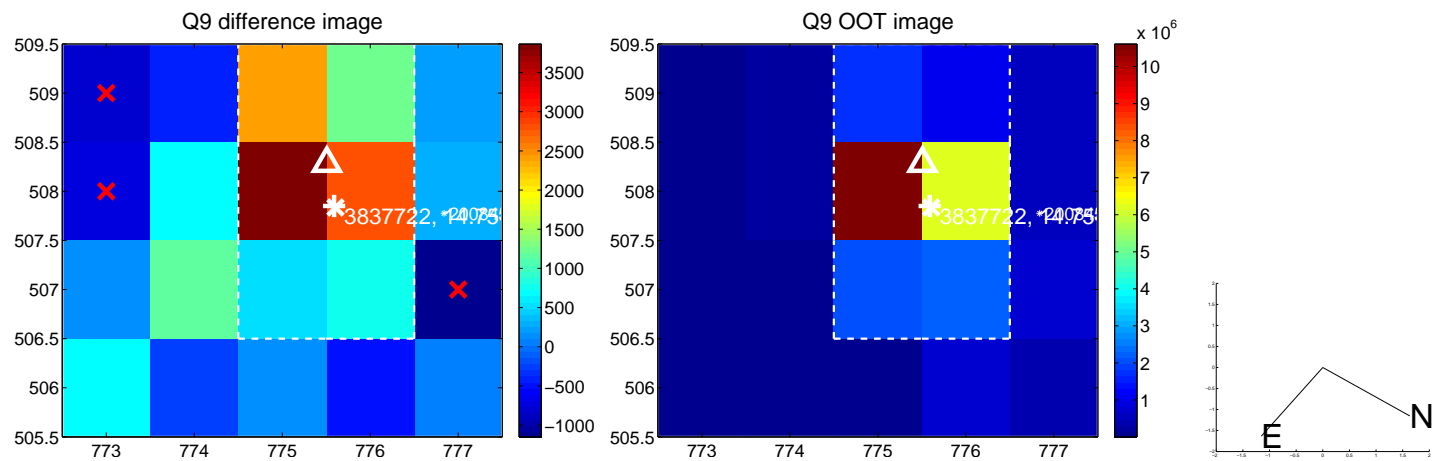
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



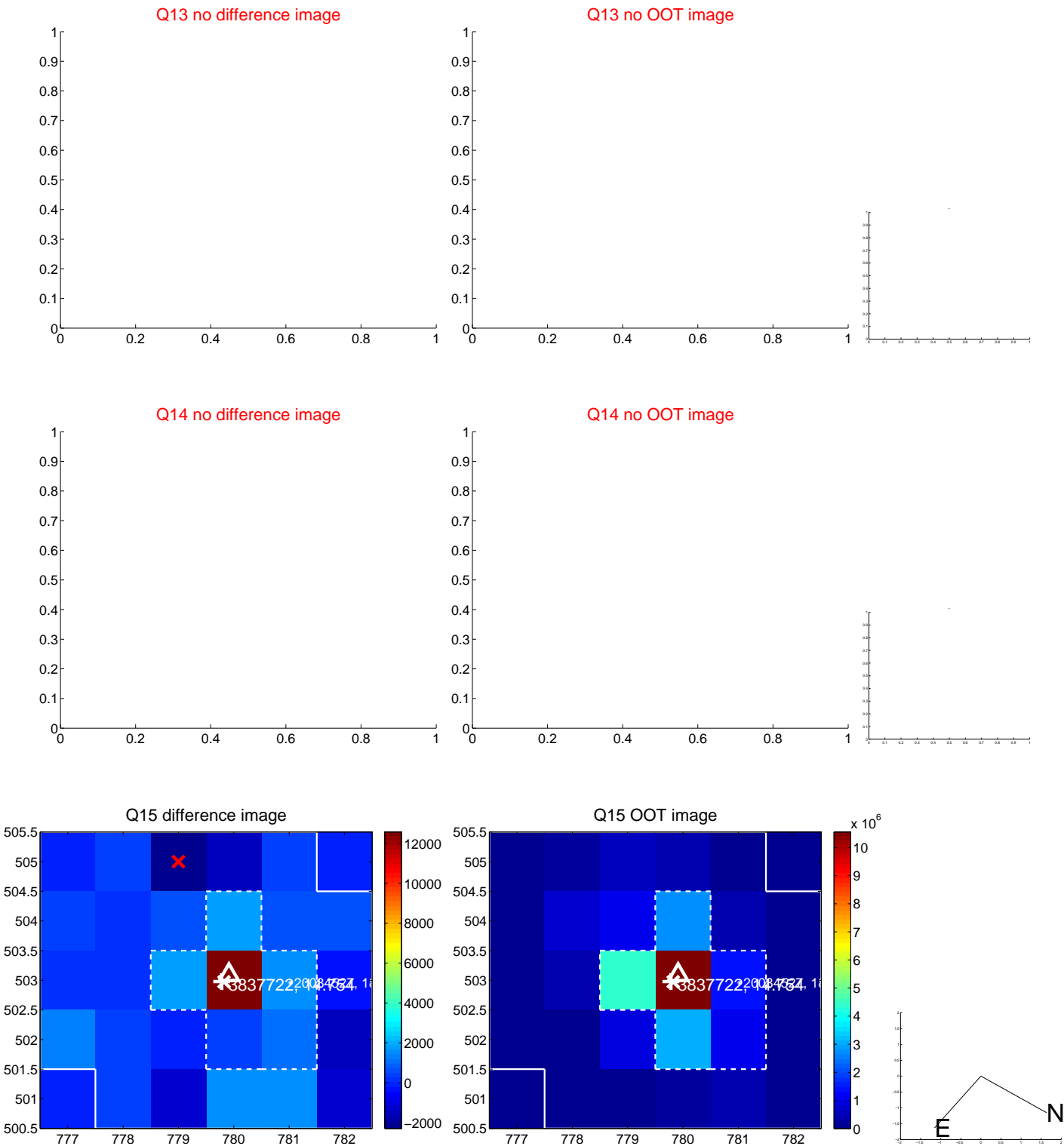
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



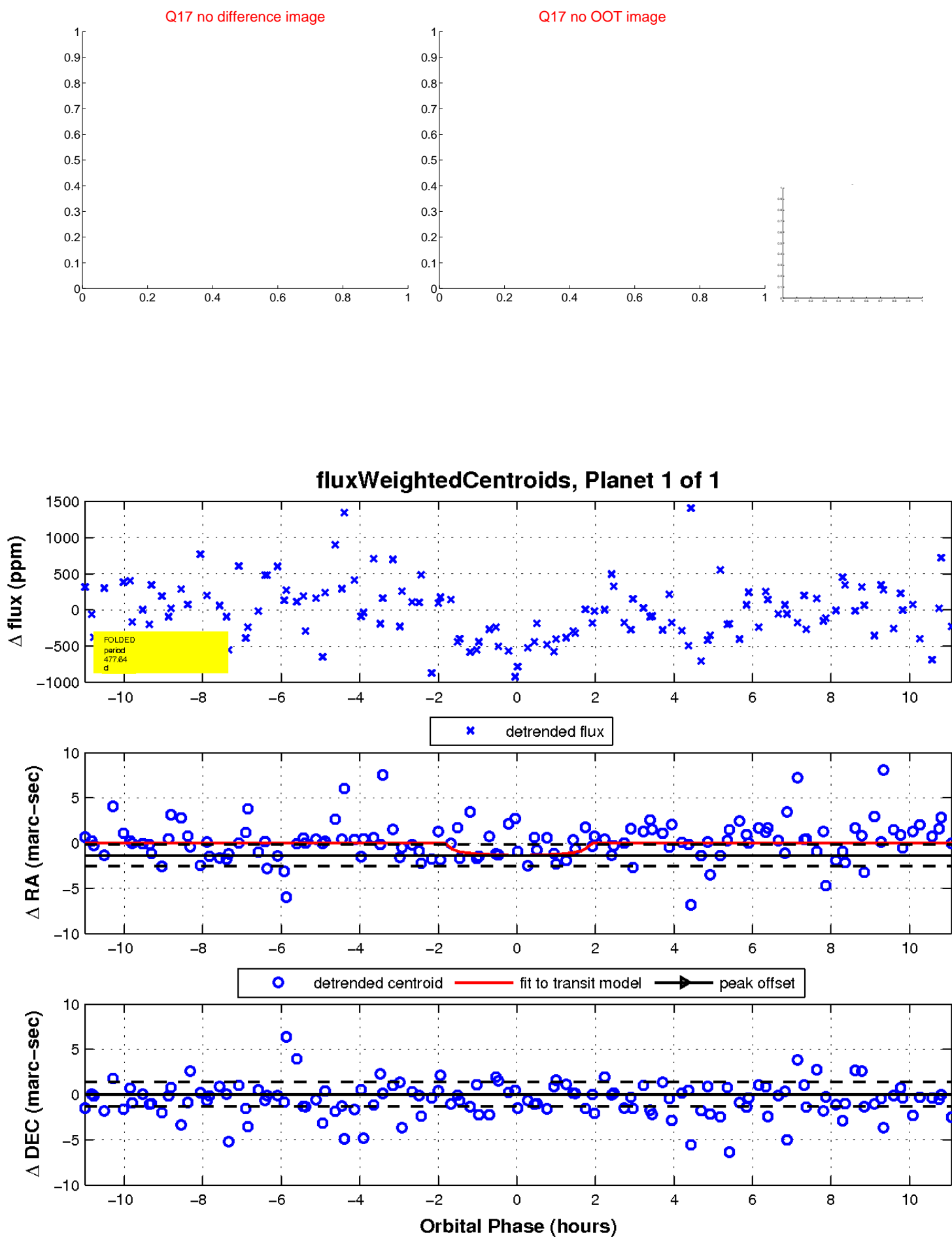
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

