

KIC 006200307

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})
006200307-01	OBS	No	591.284496	372.529002	376.9	17.196	8.7	7.9	1.08	6278	2.37	0.79

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006200307-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—ALL_TRANS_CHASES—MOD_TER_DV—MOD_POS_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.

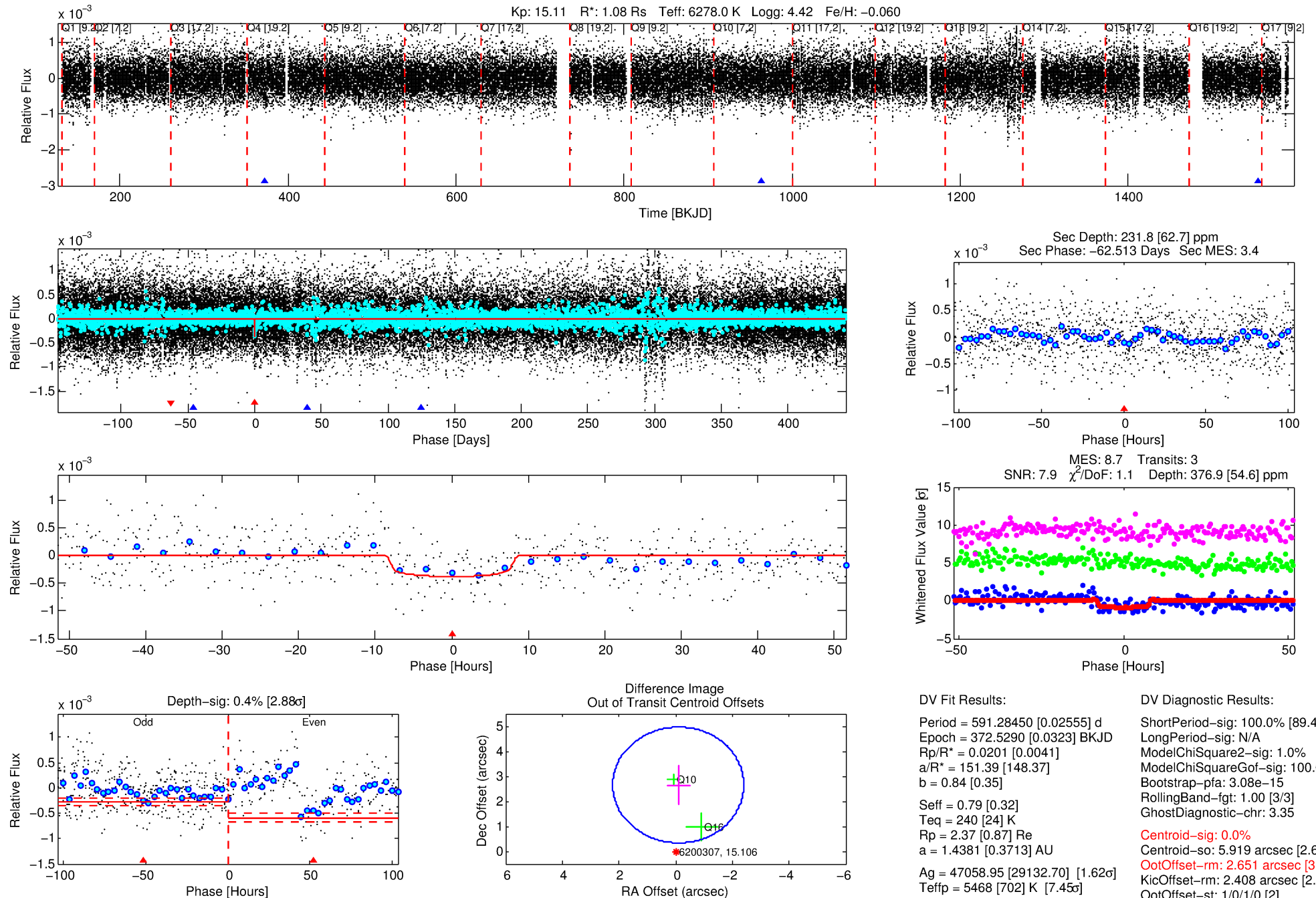
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006200307-01

No Significant Match Found

DV One-Page Summary

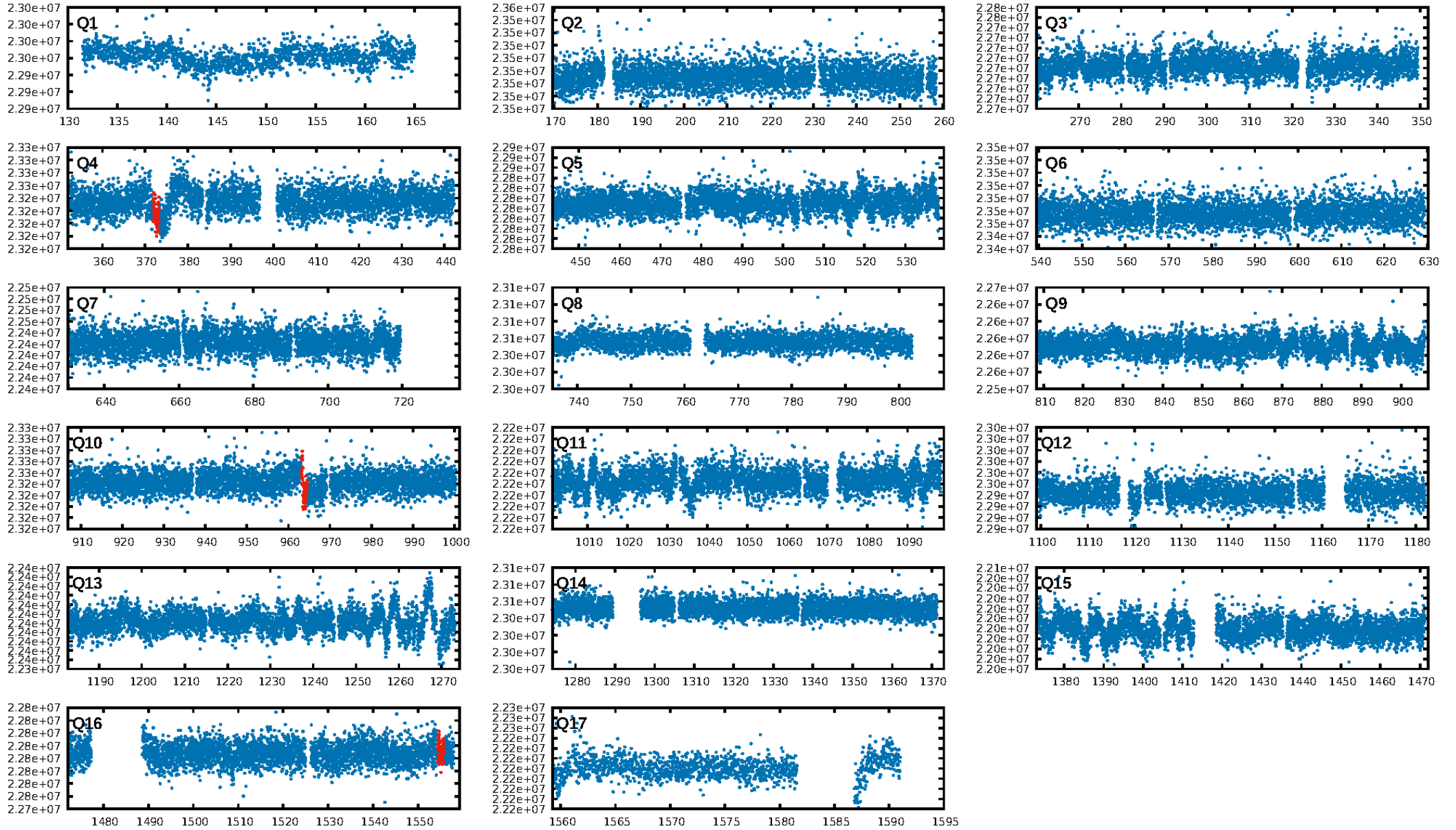
KIC: 6200307 Candidate: 1 of 2 Period: 591.284 d



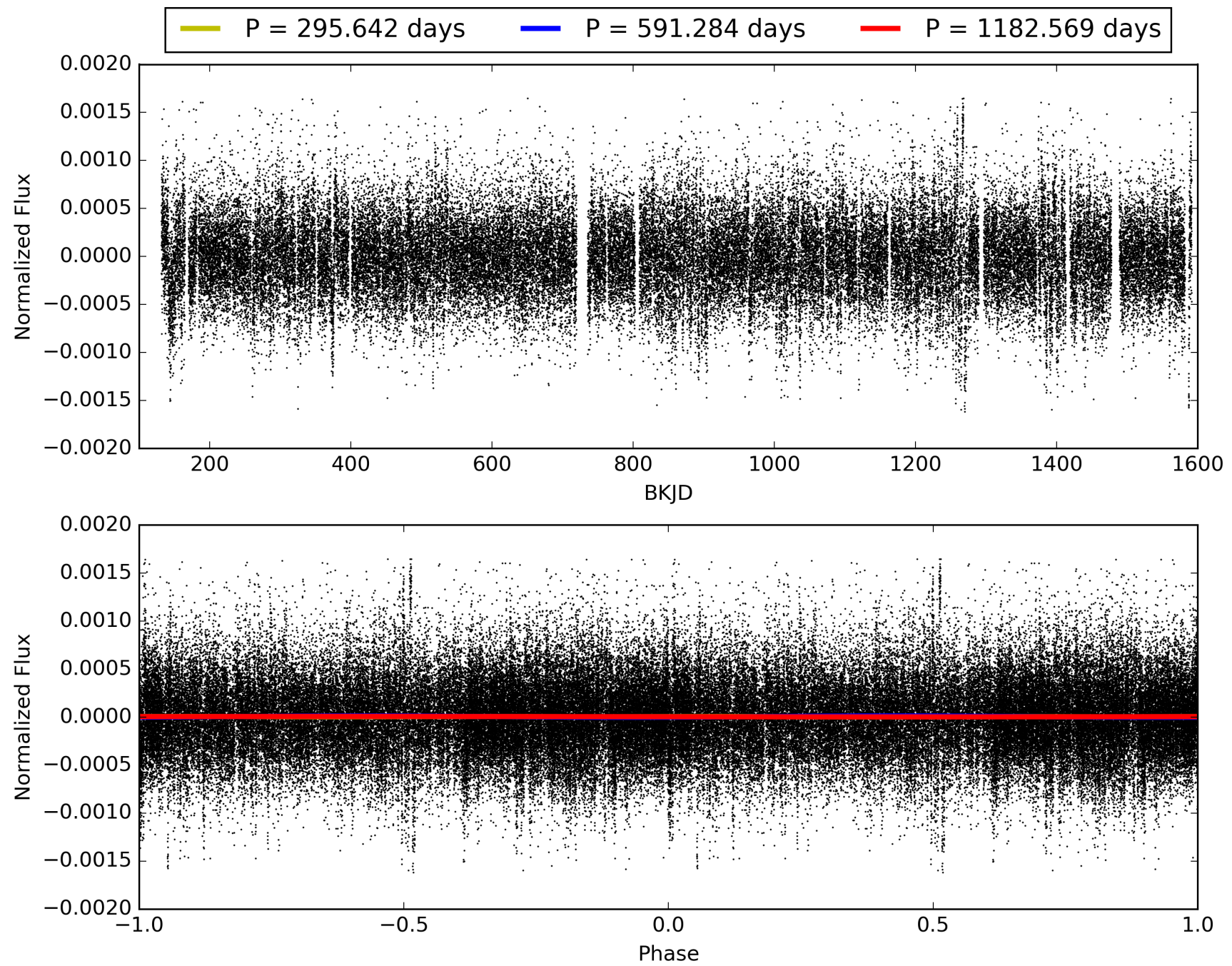
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 18:04:17 Z

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

TCE 006200307-01, PDC Light Curves

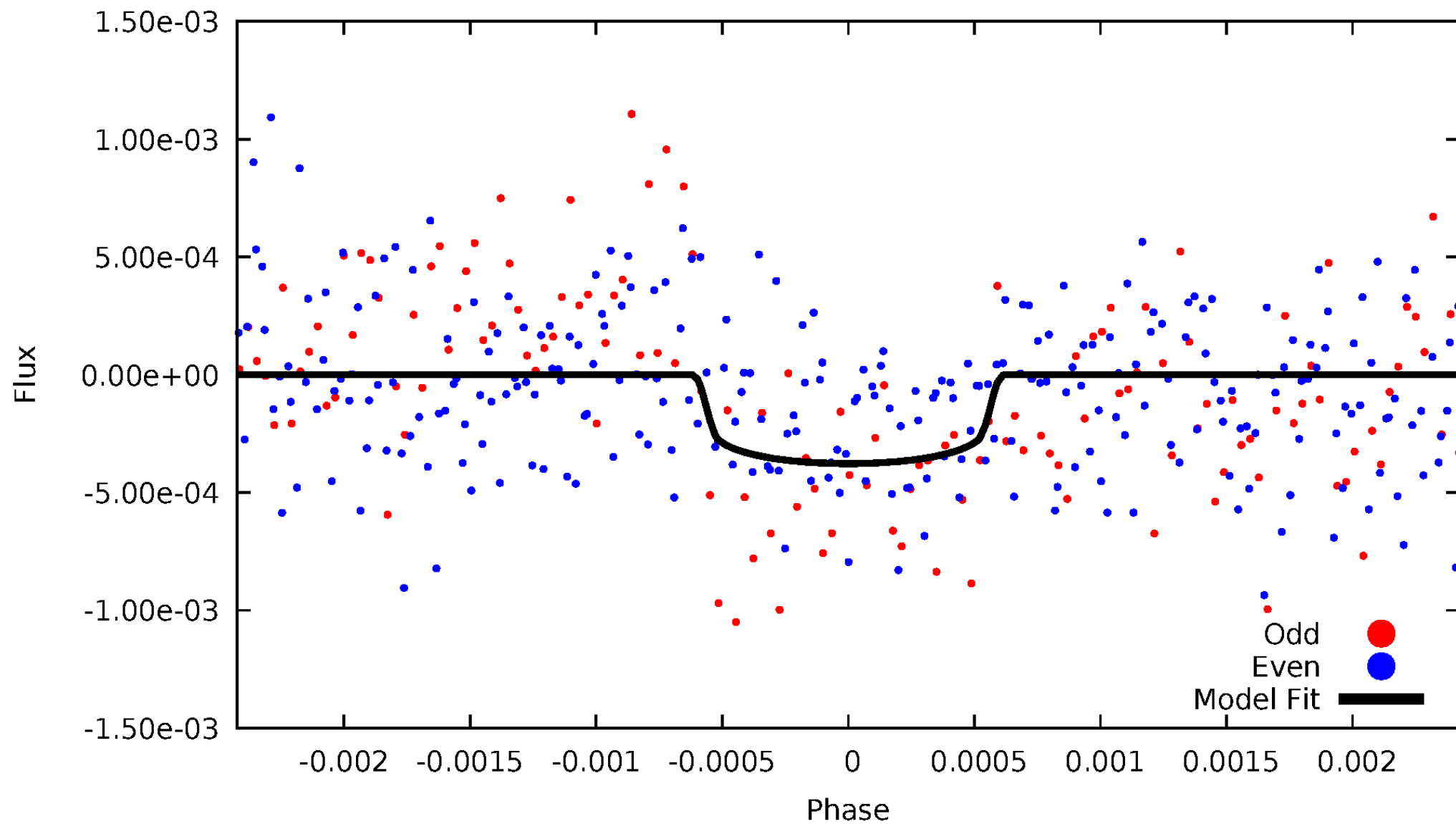


TCE 006200307-01



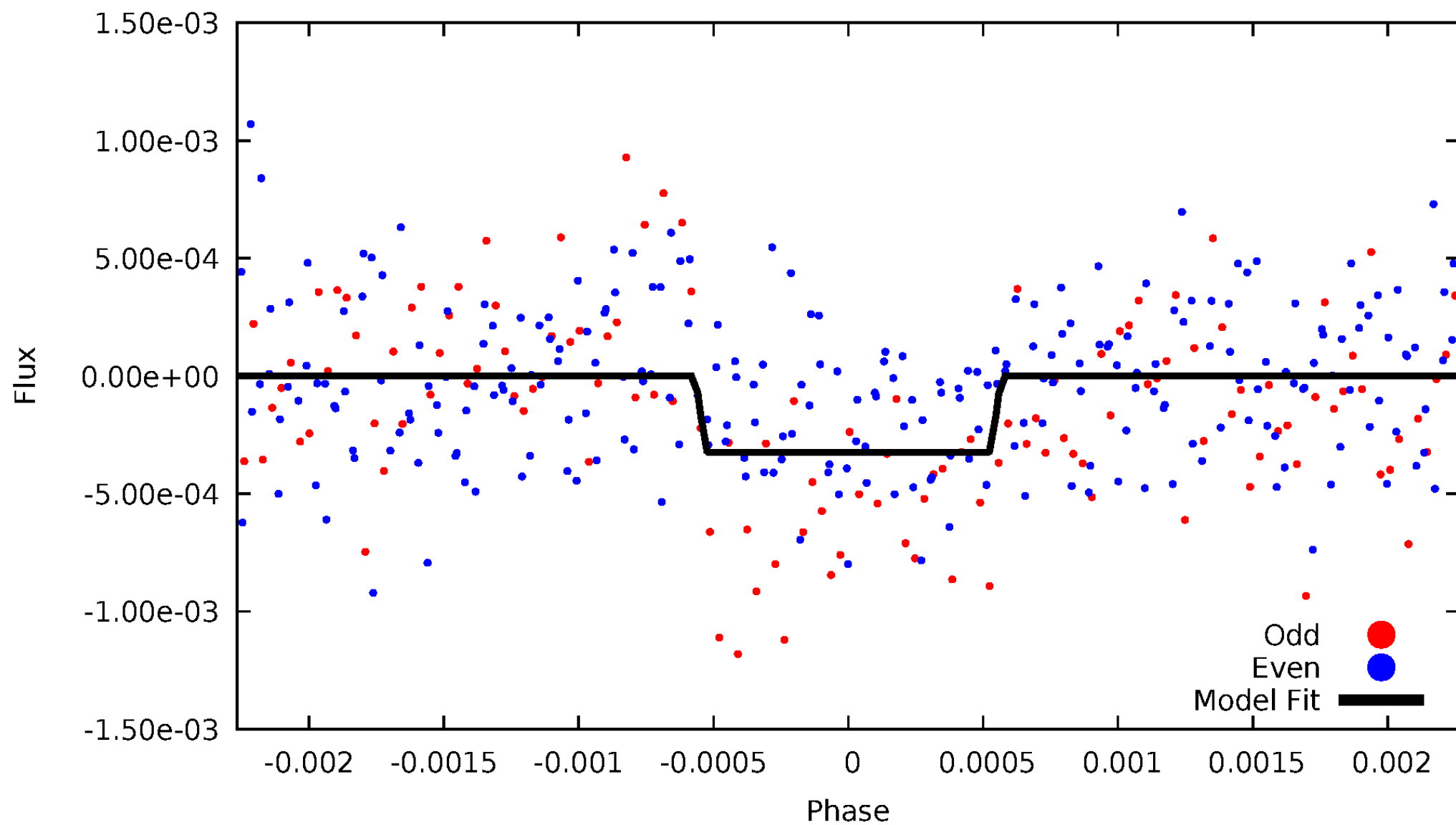
DV Odd/Even

TCE 006200307-01



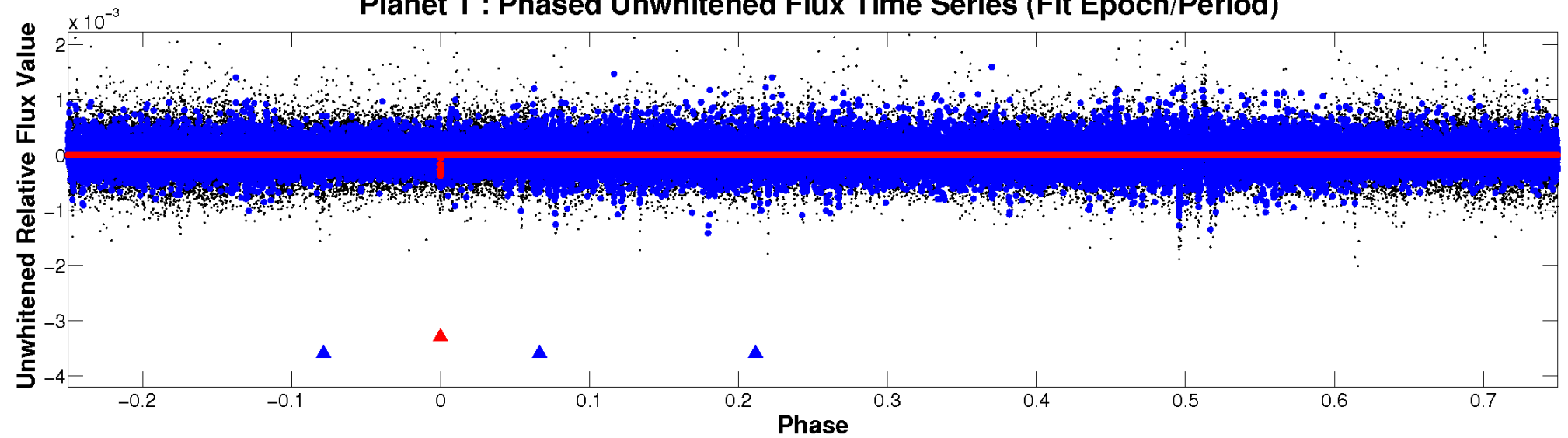
ALT Odd/Even

TCE 006200307-01

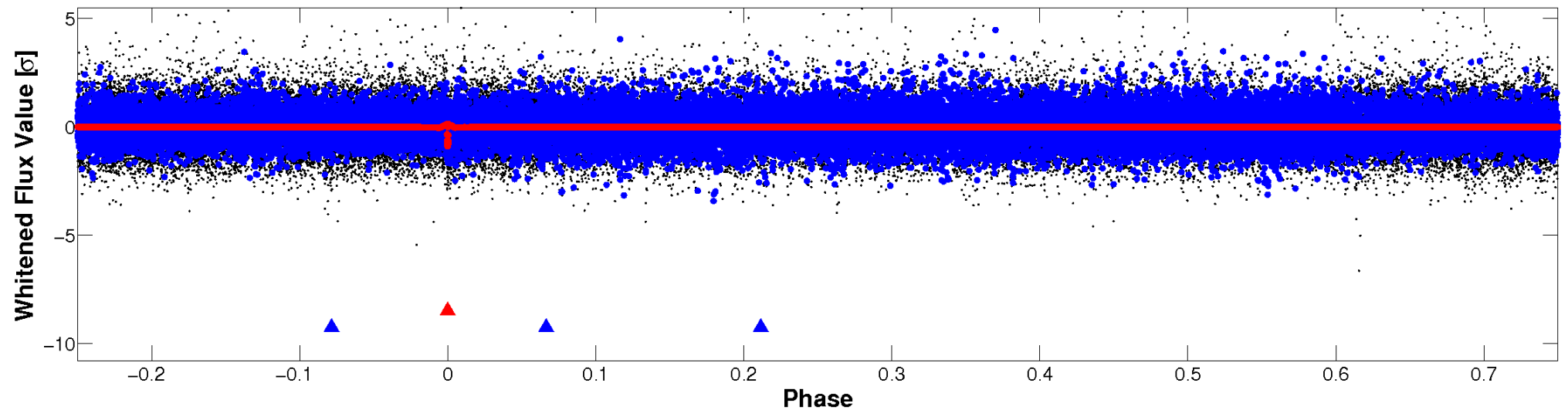


Non-Whitened Vs. Whitened Light Curve

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 006200307-01 P=591.284496 Days $T_0=372.529002$ (BKJD)



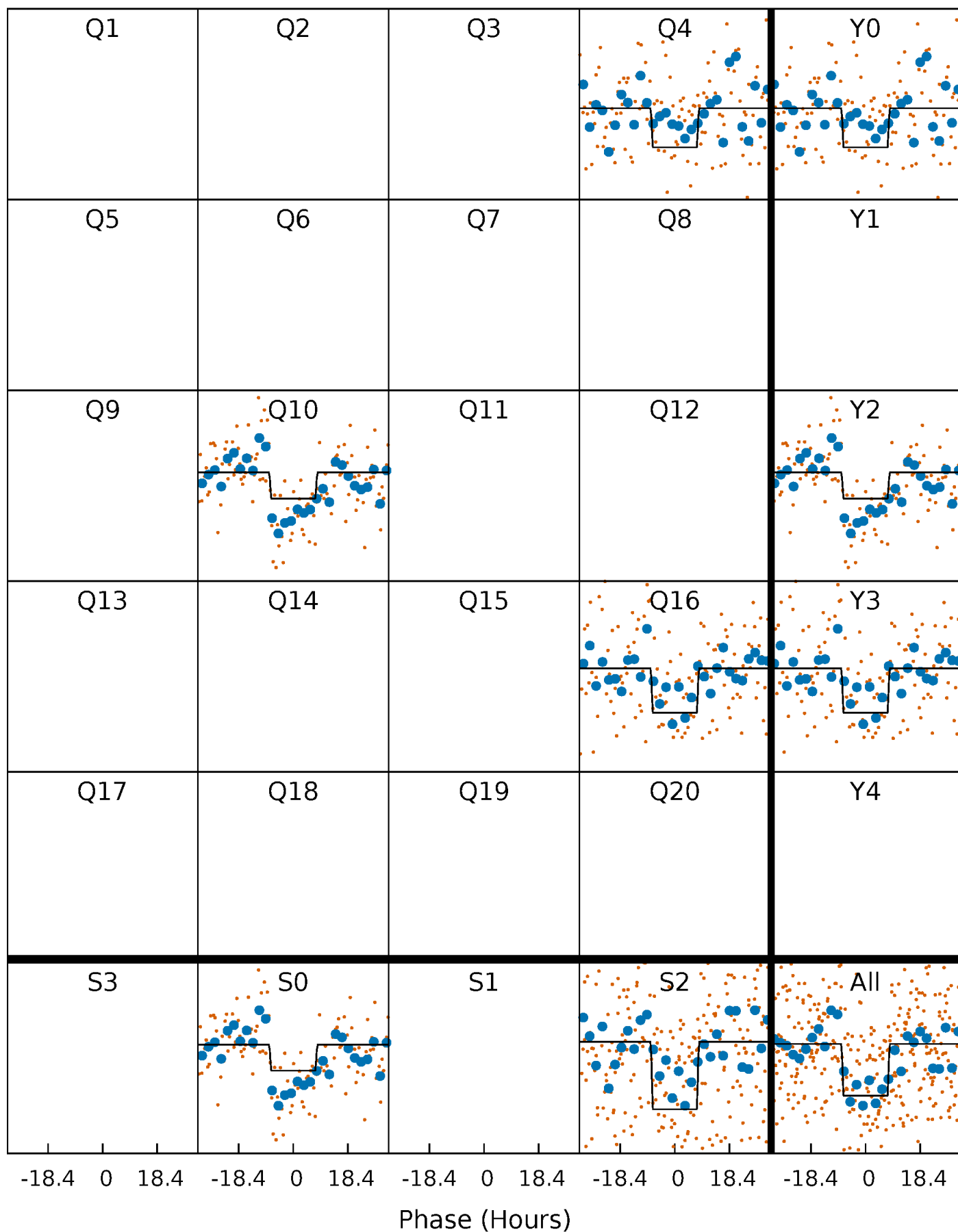
DV Quarter-Phased Transit Curves

TCE 006200307-01 P=591.284496 Days $T_0=372.529002$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

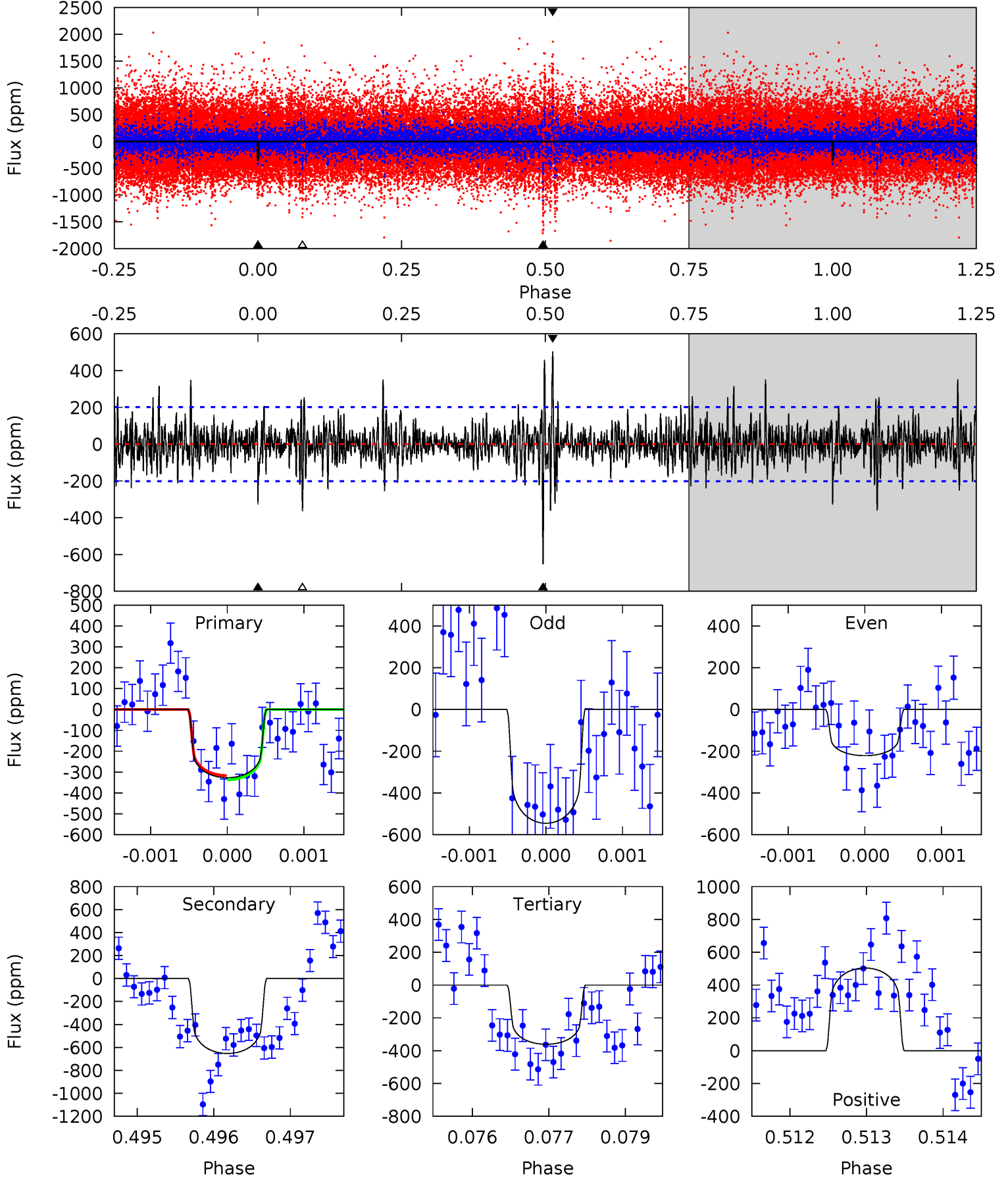
TCE 006200307-01 P=591.306359 Days $T_0=372.486055$ (BKJD)



DV Model-Shift Uniqueness Test

006200307-01, P = 591.284496 Days, E = 372.529002 Days

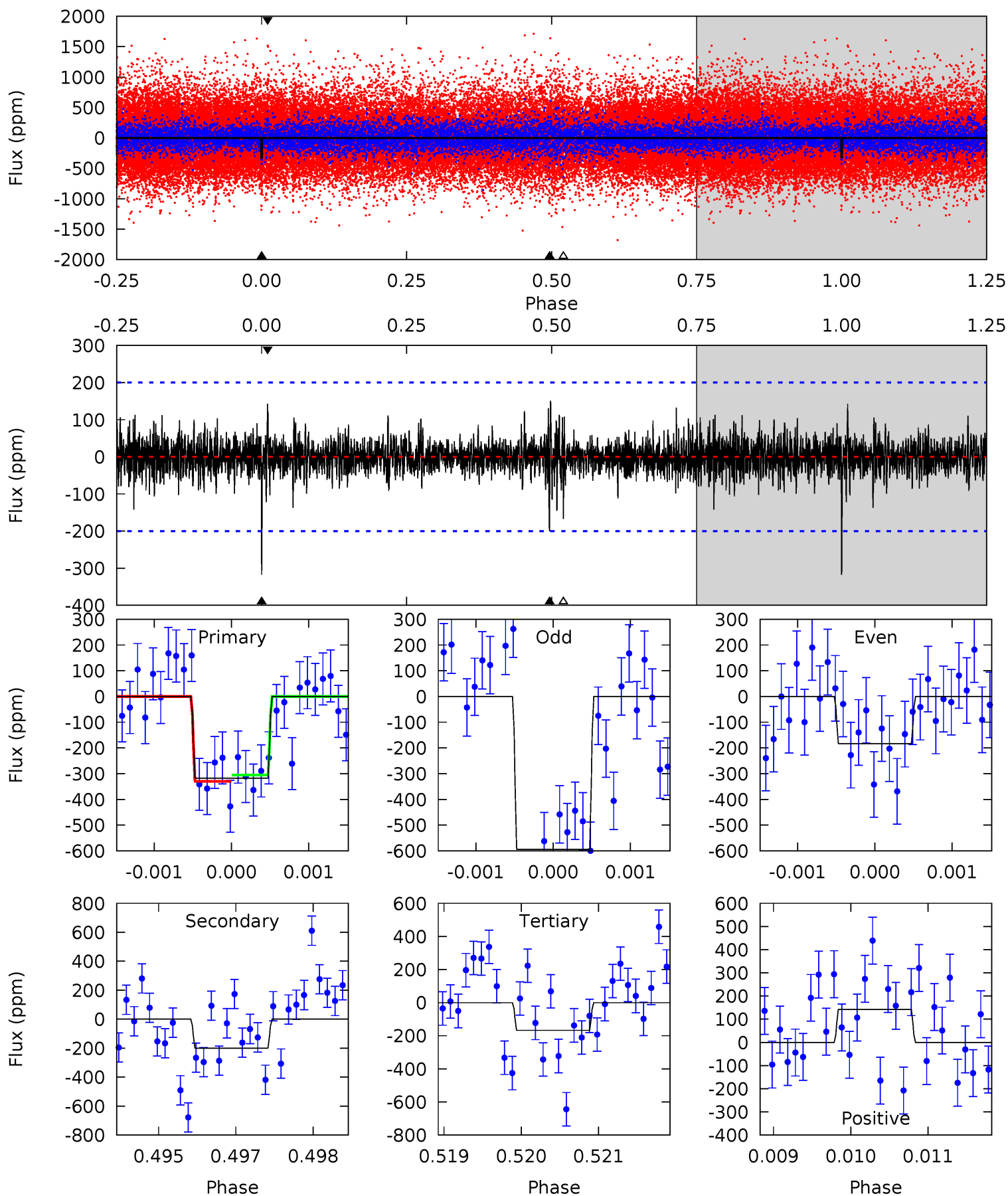
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.80	17.6	9.71	13.6	5.42	3.24	2.12	-0.91	-4.76	7.86	4.01	4.10	1.34	0.44	0.27



Alt Model-Shift Uniqueness Test

006200307-01, P = 591.306359 Days, E = 372.486055 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.63	5.43	4.55	3.87	5.43	3.26	0.89	4.08	4.76	0.88	1.56	5.20	1.40	0.32	0.33



Stellar Parameters For KIC 006200307

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6278^{+174}_{-239}	$4.425^{+0.065}_{-0.208}$	$-0.060^{+0.250}_{-0.300}$	$1.081^{+0.329}_{-0.141}$	$1.132^{+0.157}_{-0.157}$	$1.264^{+0.357}_{-0.628}$
	+3%/-4%	+1%/-5%	+417%/-500%	+30%/-13%	+14%/-14%	+28%/-50%
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 006200307-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-653 ± 37	$2.47^{+0.60}_{-0.55}$	343^{+24}_{-19}	7167^{+1057}_{-793}	118809^{+76665}_{-42327}
Alt.	-200 ± 37	$2.17^{+0.54}_{-0.51}$	340^{+24}_{-17}	5581^{+762}_{-544}	46775^{+34101}_{-17999}

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

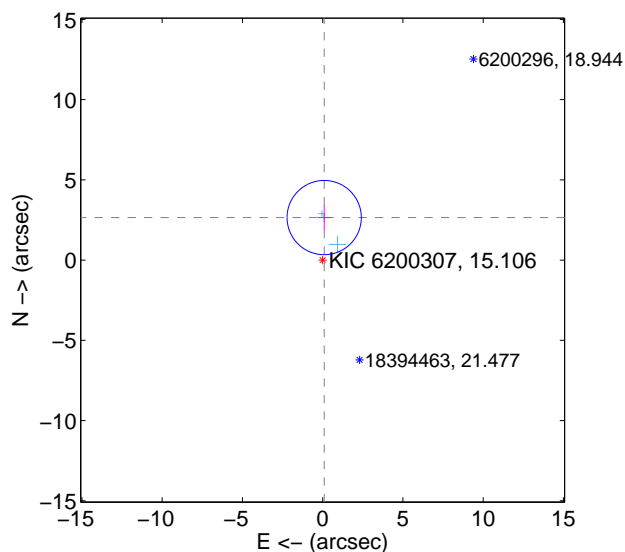
Supplemental centroid analysis for 006200307-01. Kepler magnitude: 15.11. Transit SNR 7.85

There are 2 quarters with good PRF difference image offsets

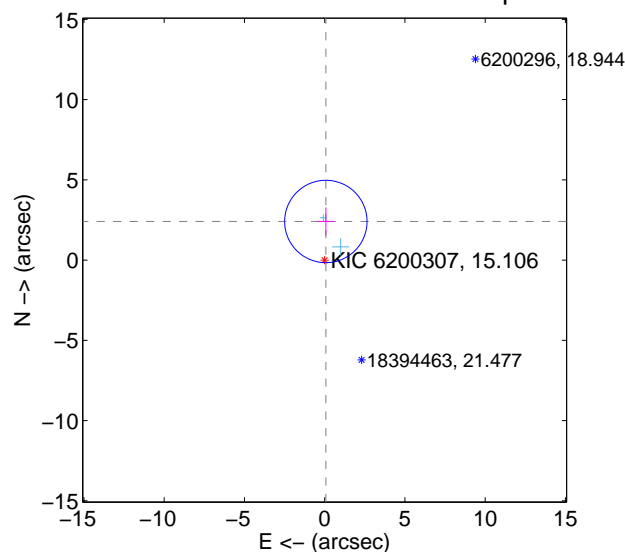
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.651 ± 0.771	3.44	-0.094 ± 0.401	2.649 ± 0.786
PRF-fit source offset from KIC position	2.408 ± 0.856	2.81	-0.073 ± 0.519	2.407 ± 0.872
photometric centroid source offset	5.92 ± 2.22	2.67	-0.78 ± 2.10	5.87 ± 2.22

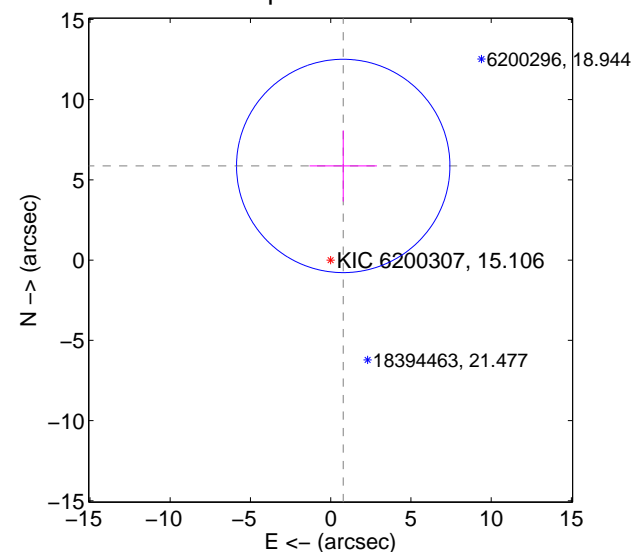
offset from difference PRF-fit to OOT PRF-fit



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.

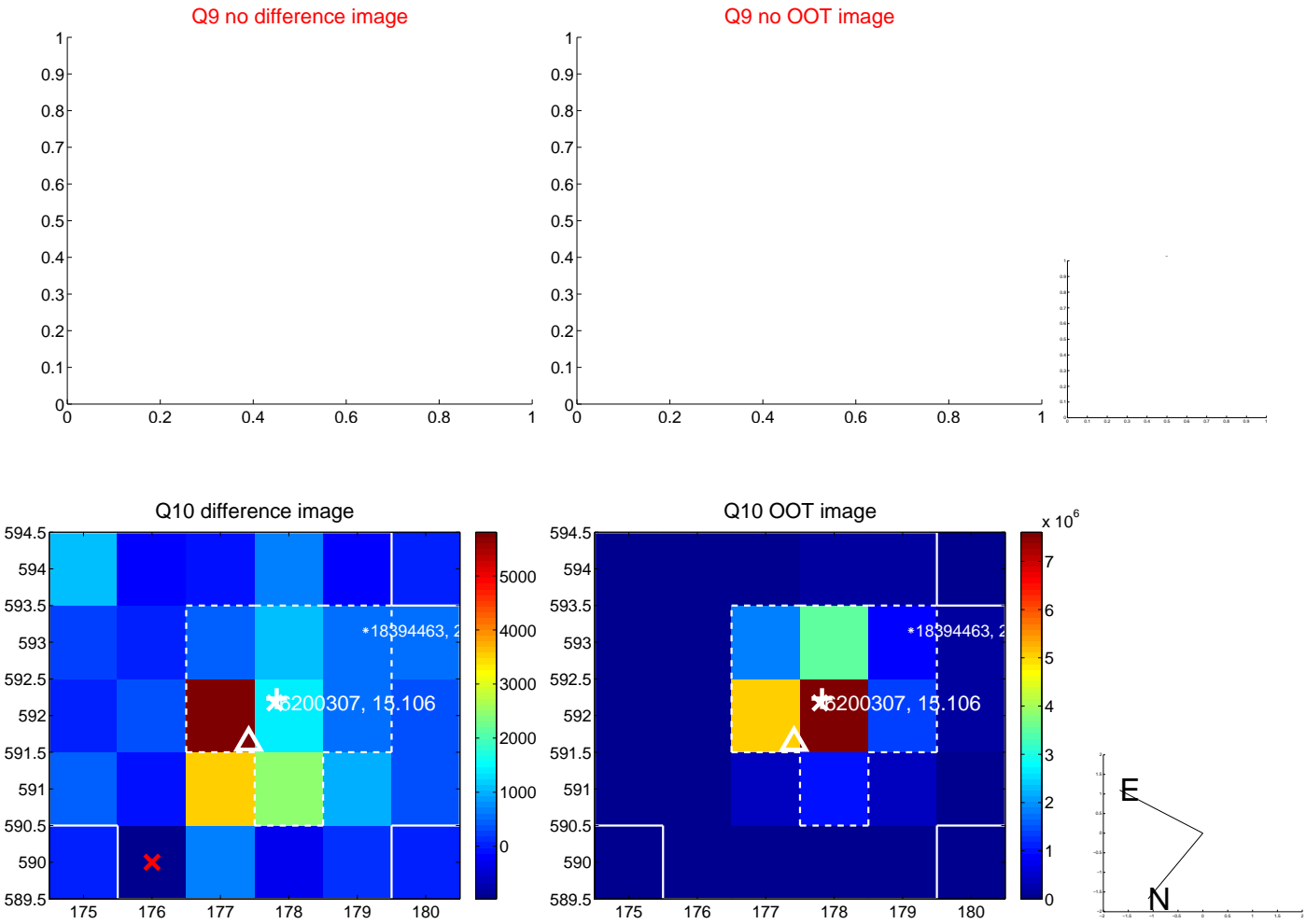
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



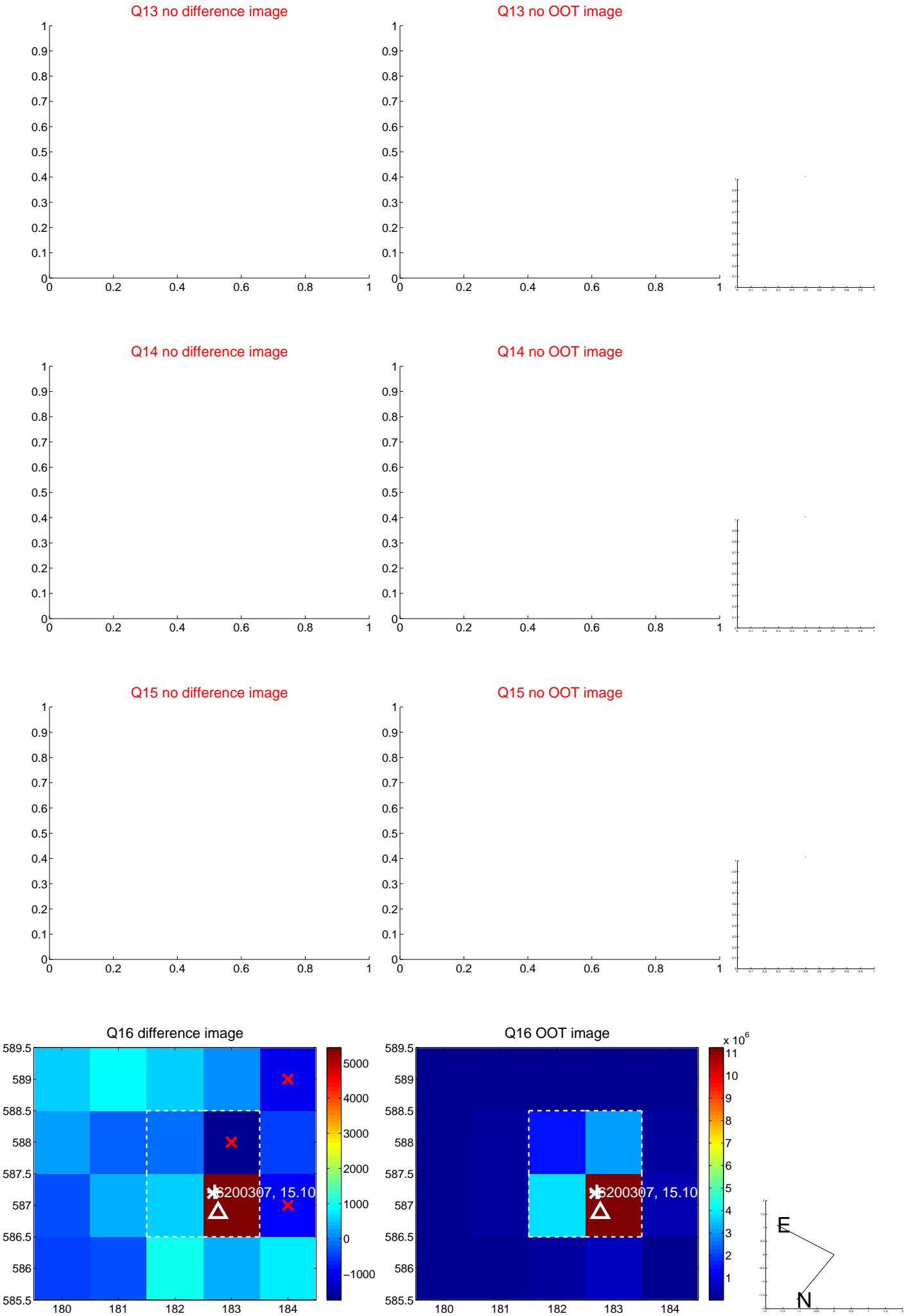
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



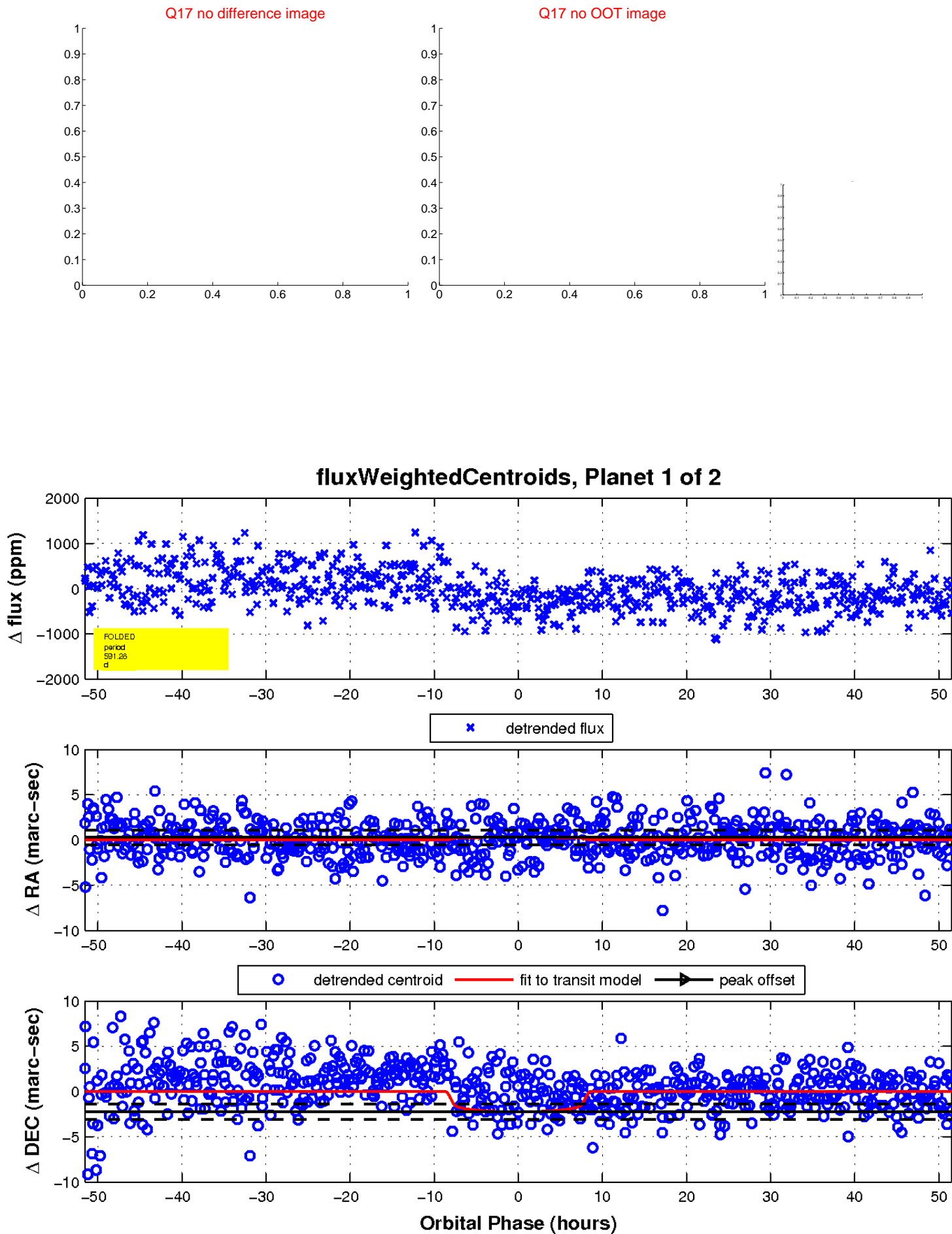
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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.



UKIRT Image

Declination

