

KIC 008588982

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})
008588982-01	OBS	8158.01	116.026487	206.405131	701.8	2.482	9.4	6.2	10.79	4575	33.08	150.32

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008588982-01	OBS	FP	0.00	1	0	0	0	INCONSISTENT_TRANS

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

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

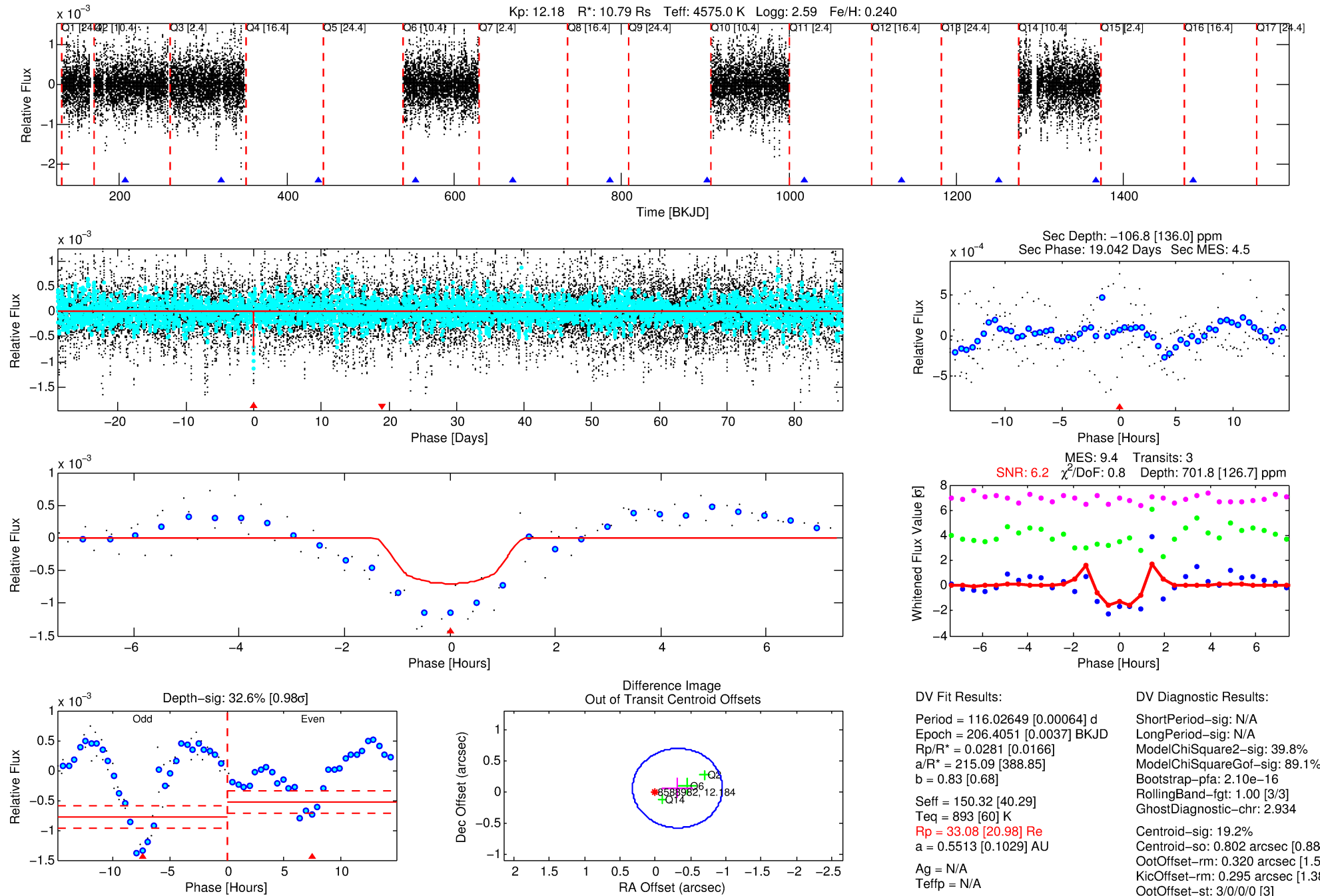
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008588982-01

No Significant Match Found

DV One-Page Summary

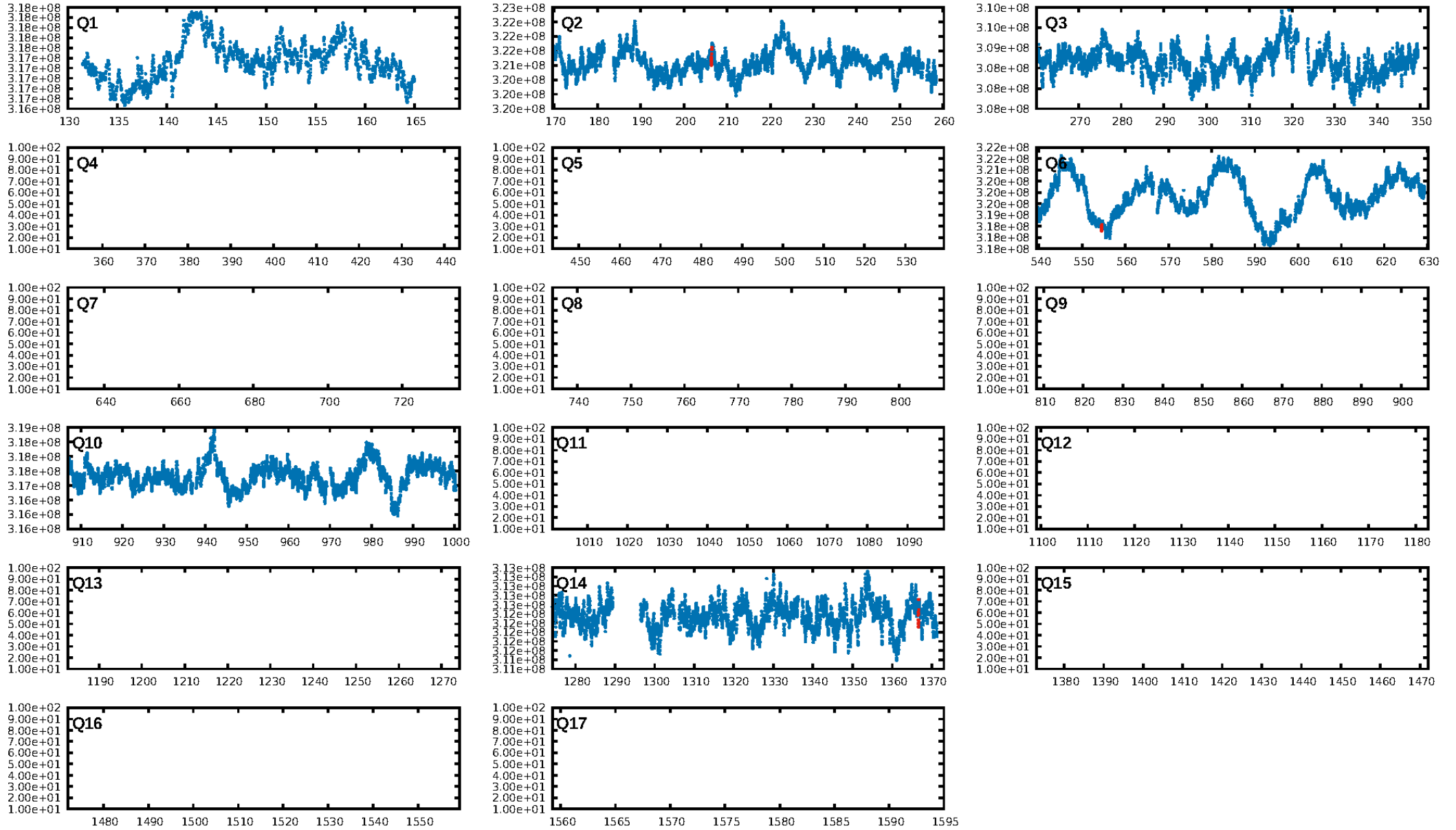
KIC: 8588982 Candidate: 1 of 1 Period: 116.026 d



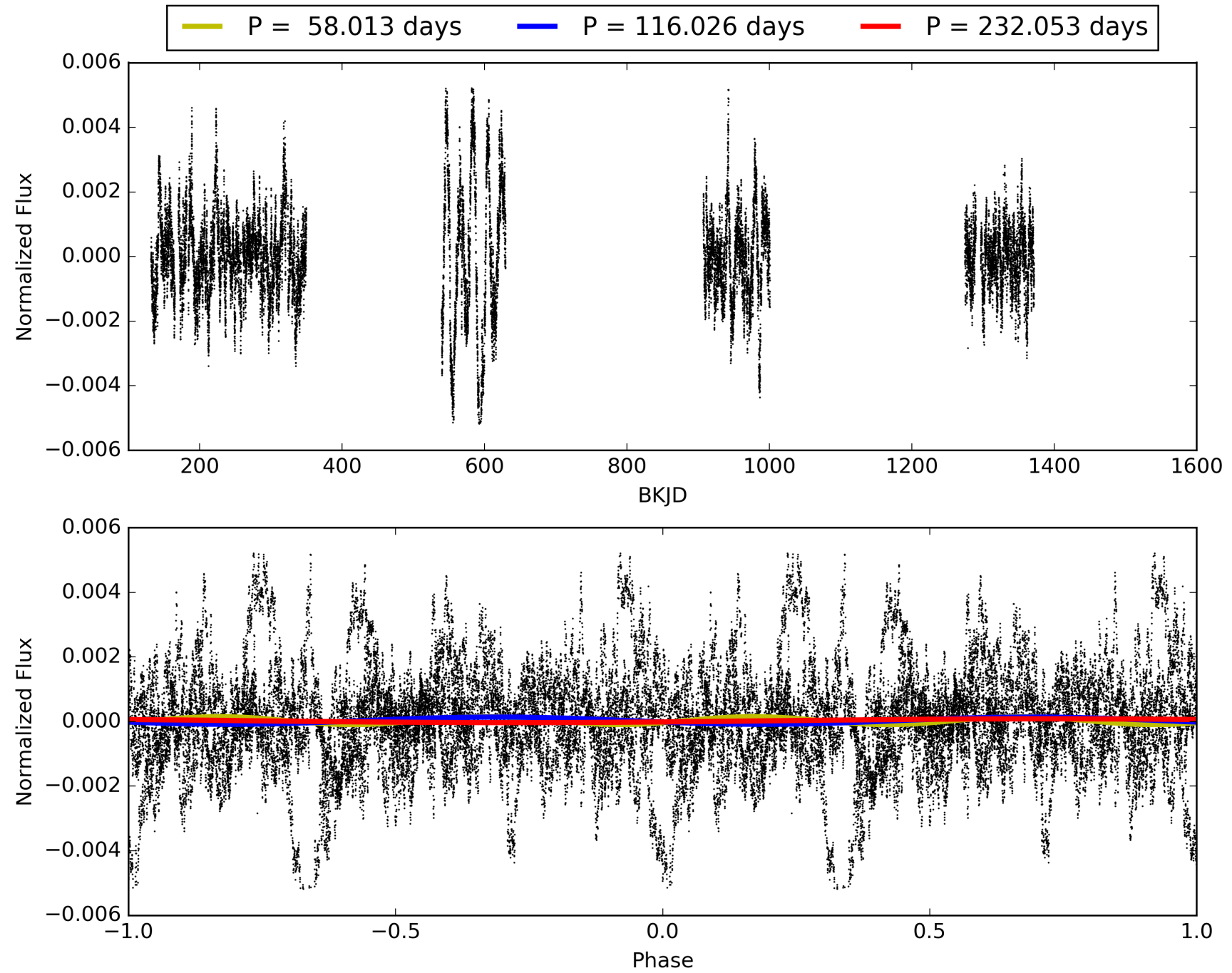
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 22:13:56 Z

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

TCE 008588982-01, PDC Light Curves

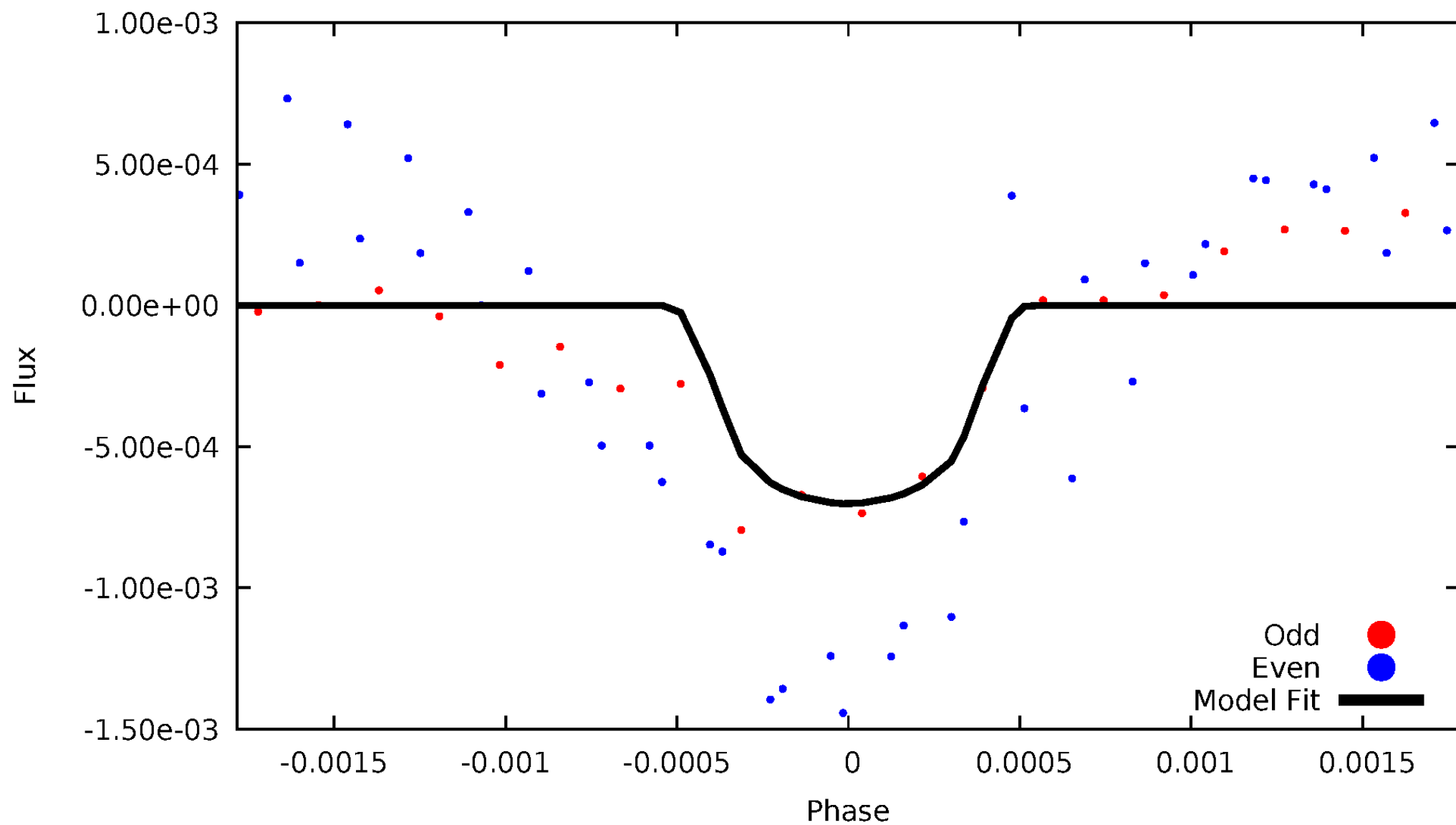


TCE 008588982-01



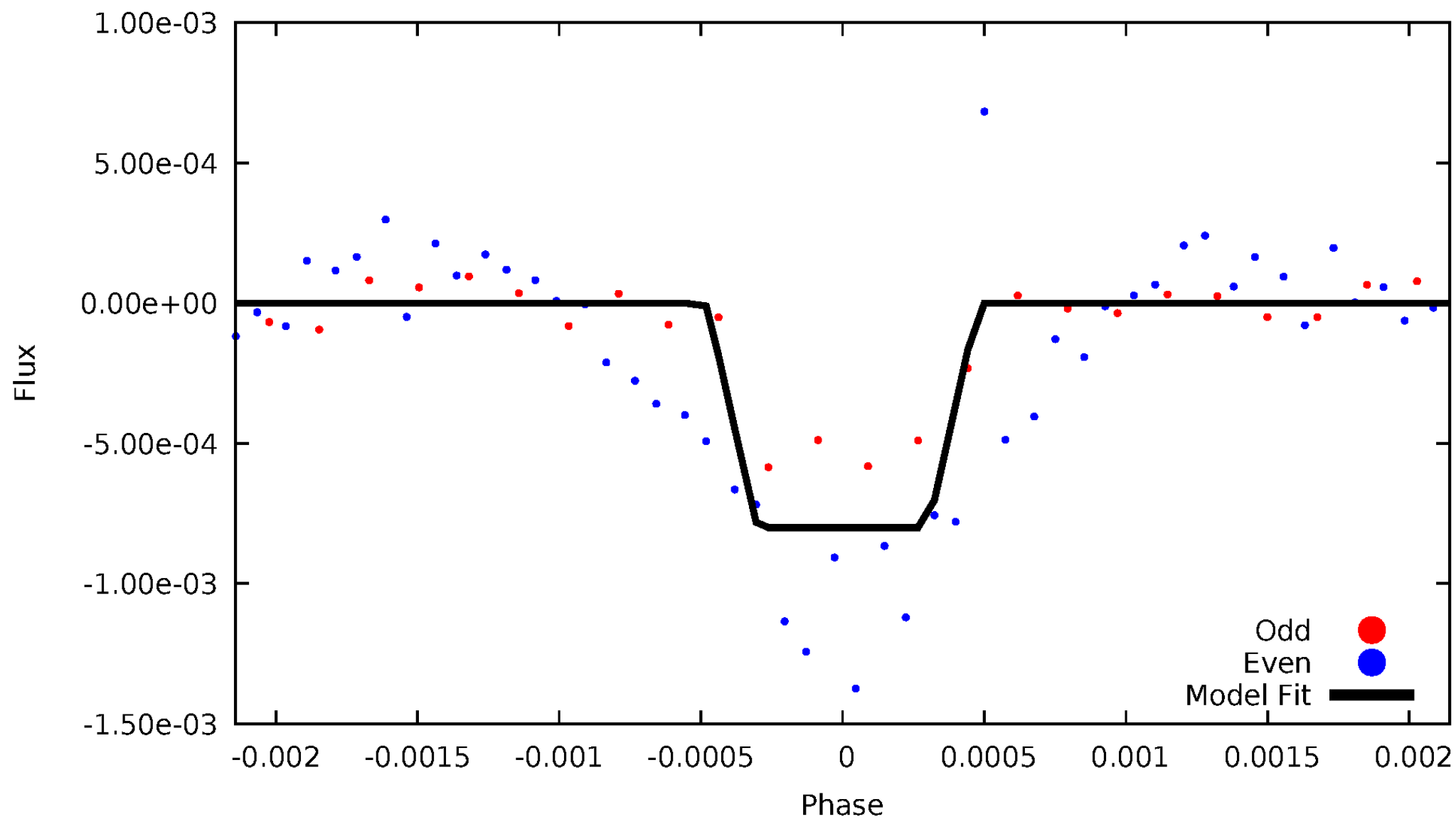
DV Odd/Even

TCE 008588982-01



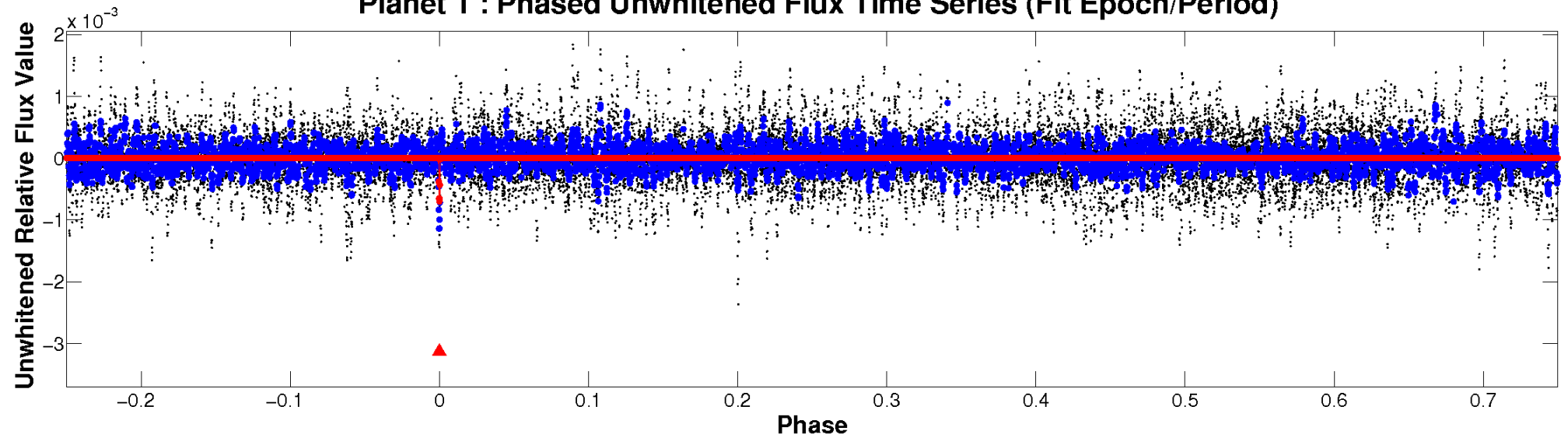
ALT Odd/Even

TCE 008588982-01

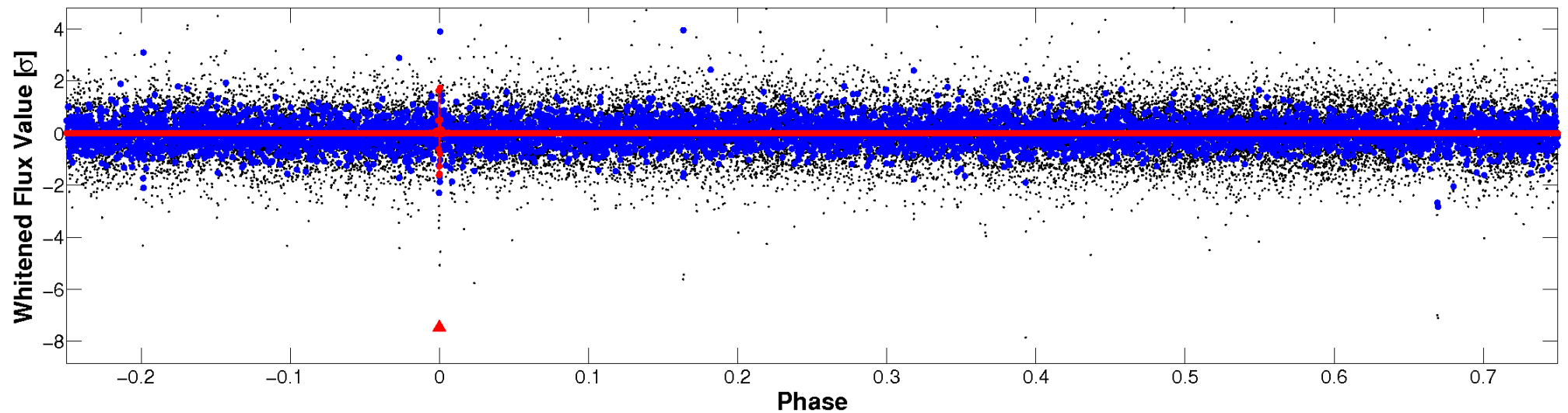


Non-Whitened Vs. Whitened Light Curve

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

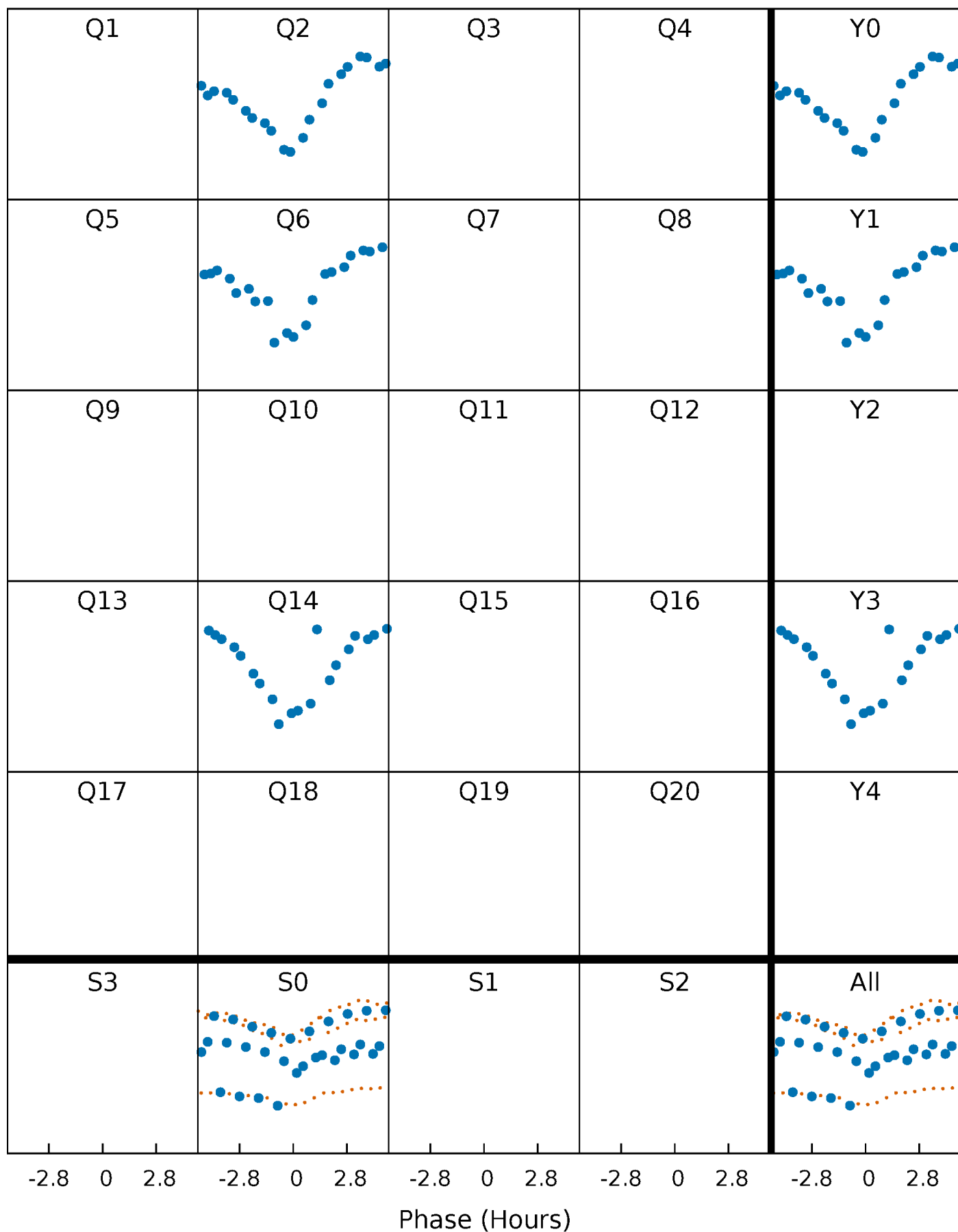


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



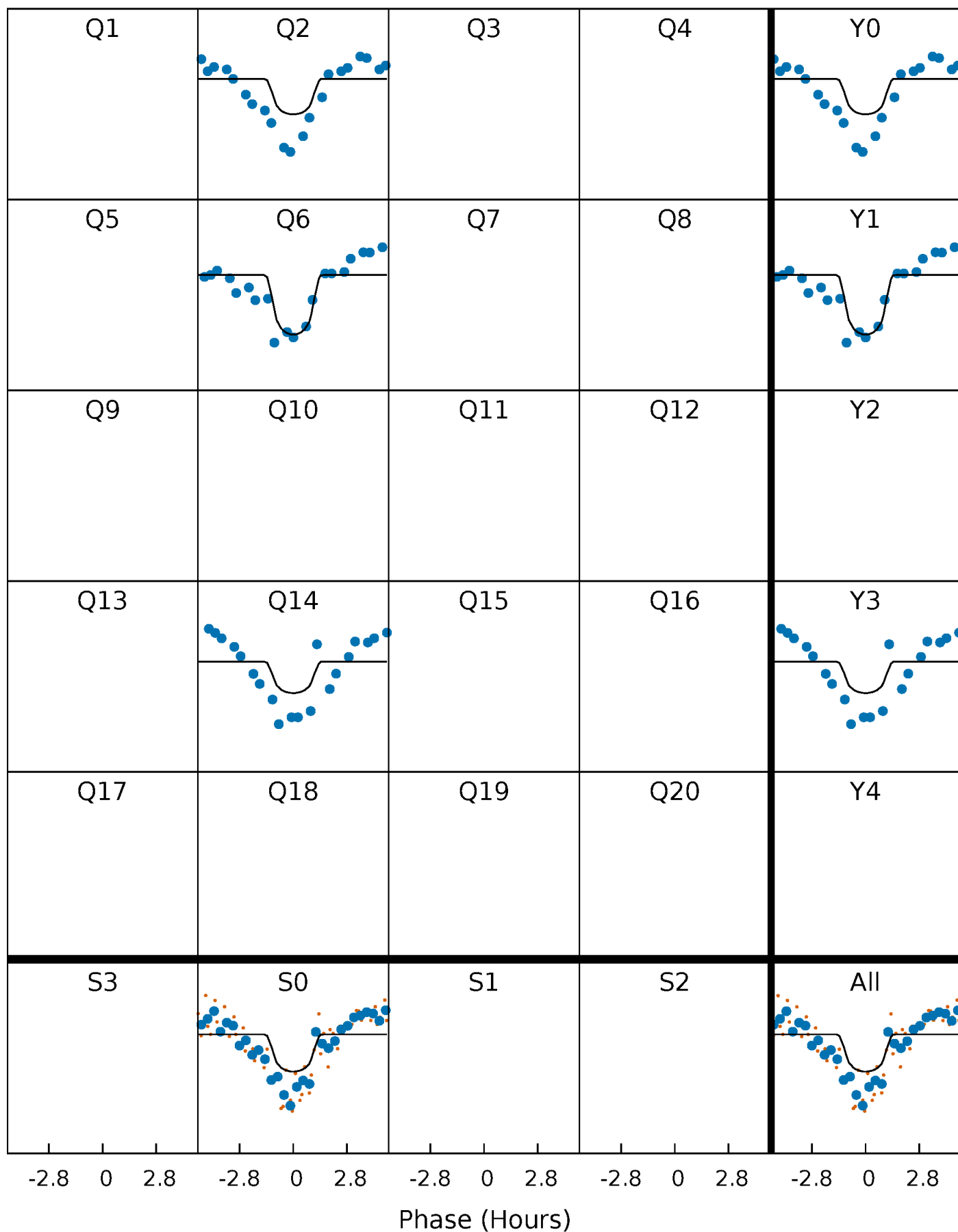
PDC Quarter-Phased Transit Curves

TCE 008588982-01 P=116.026487 Days $T_0=206.405131$ (BKJD)



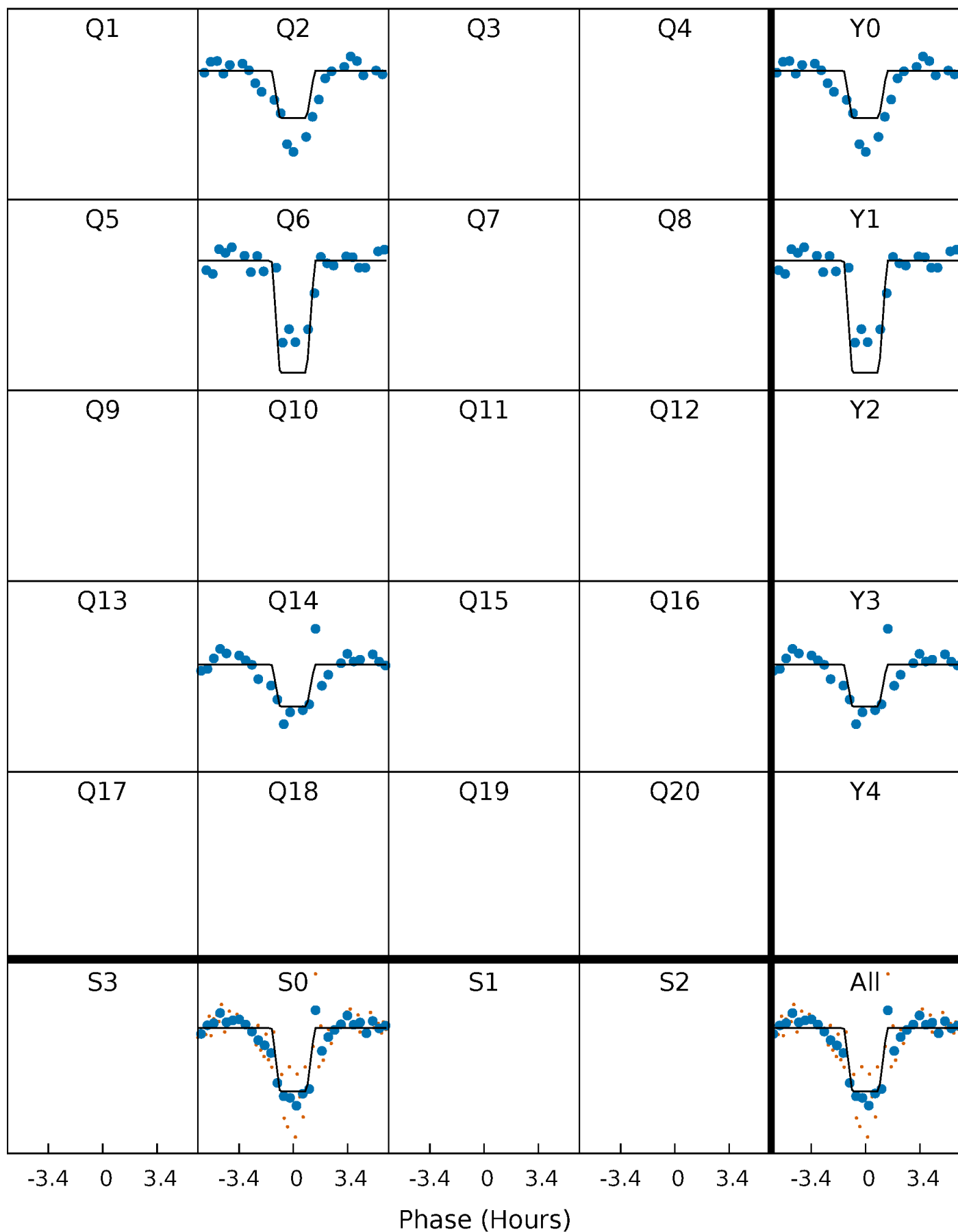
DV Quarter-Phased Transit Curves

TCE 008588982-01 P=116.026487 Days $T_0=206.405131$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

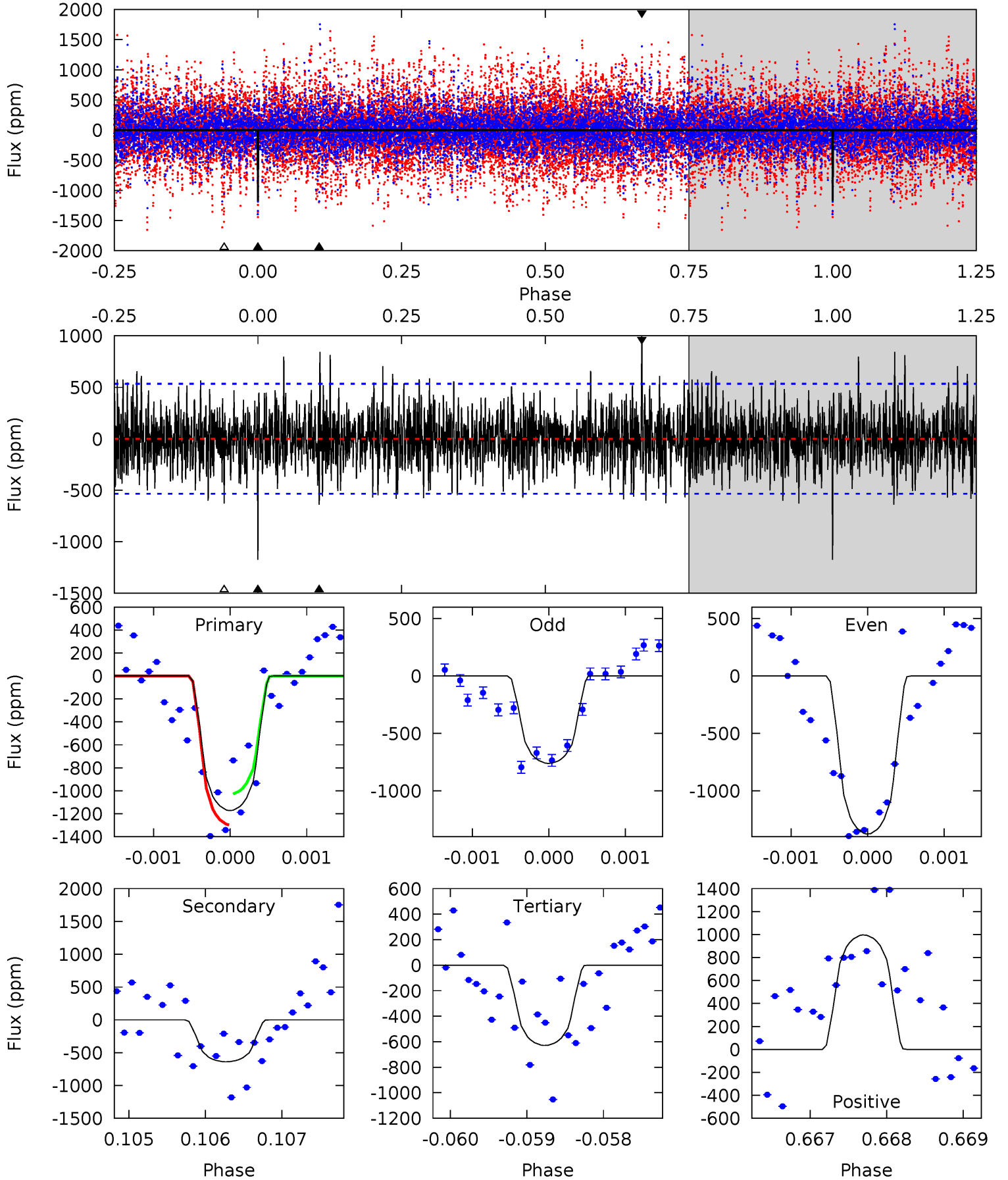
TCE 008588982-01 P=116.026932 Days $T_0=206.397945$ (BKJD)



DV Model-Shift Uniqueness Test

008588982-01, P = 116.026487 Days, E = 90.378644 Days

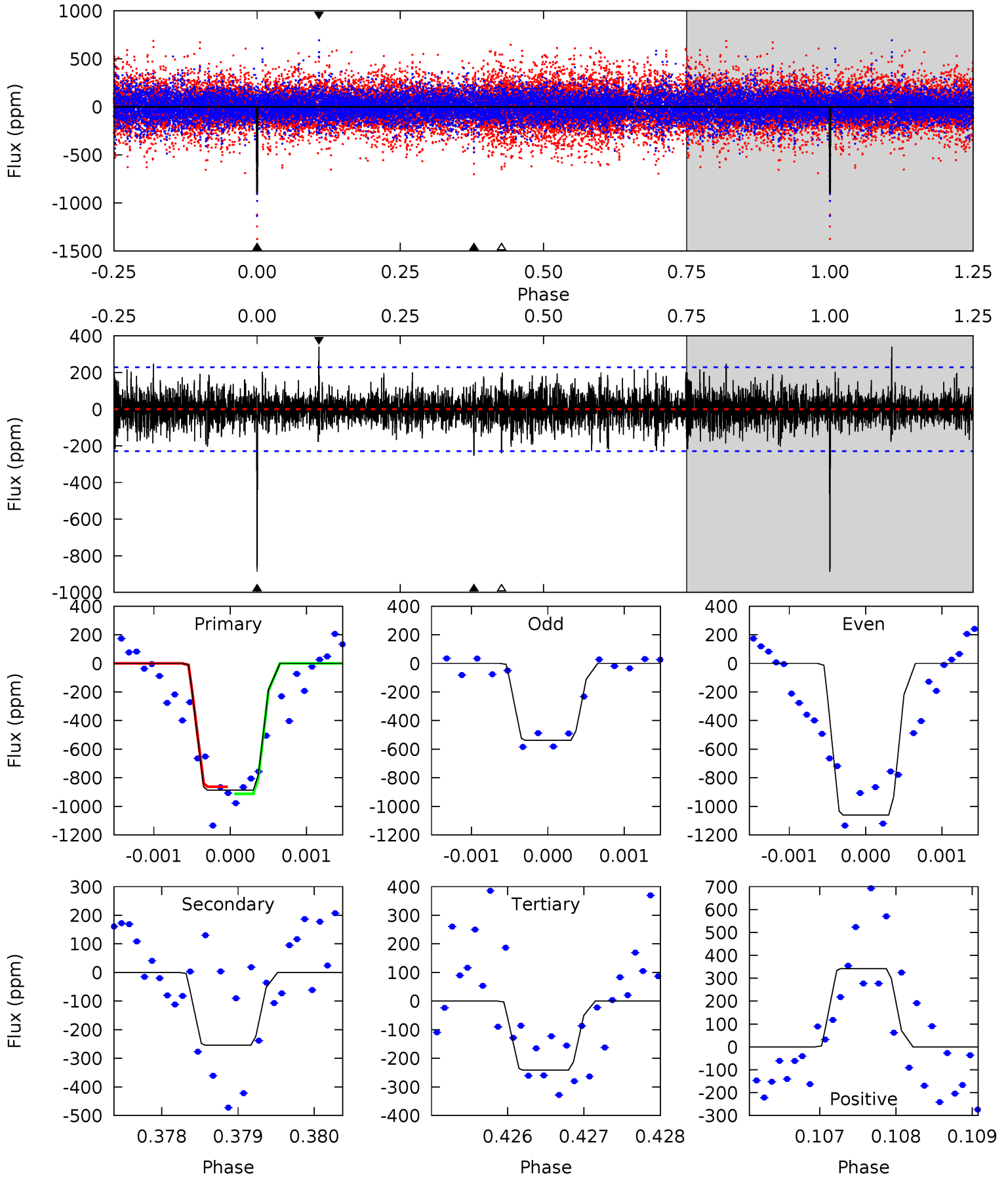
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.0	6.53	6.43	10.2	5.45	3.29	2.14	5.55	1.79	0.11	-3.65	2.88	0.86	0.46	1.38



Alt Model-Shift Uniqueness Test

008588982-01, P = 116.026932 Days, E = 90.371013 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.2	6.07	5.77	8.17	5.47	3.33	1.54	15.4	13.0	0.30	-2.10	5.69	0.92	0.28	0.61



Stellar Parameters For KIC 008588982

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4575^{+54}_{-75}	$2.592^{+0.136}_{-0.084}$	$0.240^{+0.100}_{-0.150}$	$10.788^{+1.878}_{-2.504}$	$1.660^{+0.254}_{-0.508}$	$0.002^{+0.001}_{-0.001}$
	+1%/-2%	+5%/-3%	+42%/-62%	+17%/-23%	+15%/-31%	+63%/-28%
Source	SPE74	SPE74	SPE74	DSEP		

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

Secondary Eclipse Parameters for KIC 008588982-01 / KOI 8158.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-640 ± 98	$32.35^{+21.73}_{-17.00}$	1240^{+51}_{-60}	4362^{+1687}_{-698}	99^{+344}_{-63}
Alt.	-254 ± 42	$31.86^{+20.28}_{-17.34}$	1235^{+52}_{-58}	3709^{+1255}_{-502}	41^{+156}_{-25}

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

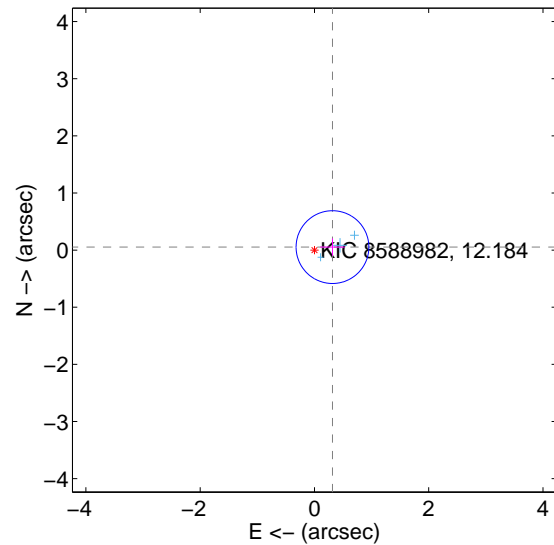
Supplemental centroid analysis for 008588982-01. Kepler magnitude: 12.18. Transit SNR 6.19

There are 3 quarters with good PRF difference image offsets

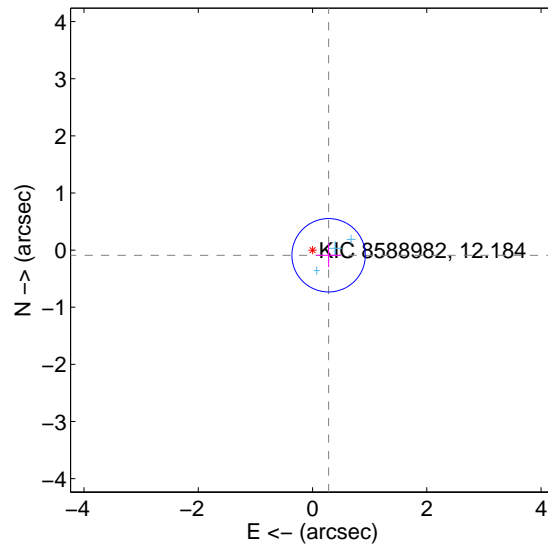
The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.320 ± 0.212	1.51	-0.316 ± 0.214	0.052 ± 0.151
PRF-fit source offset from KIC position	0.295 ± 0.214	1.38	-0.281 ± 0.215	-0.090 ± 0.209
photometric centroid source offset	0.80 ± 0.91	0.88	-0.76 ± 0.94	0.25 ± 0.56

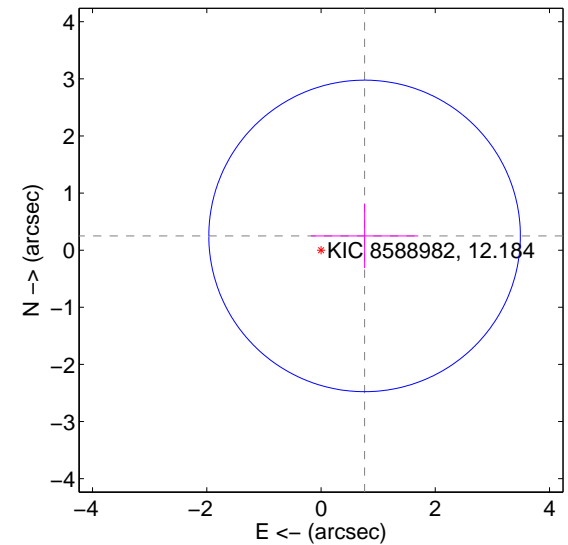
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

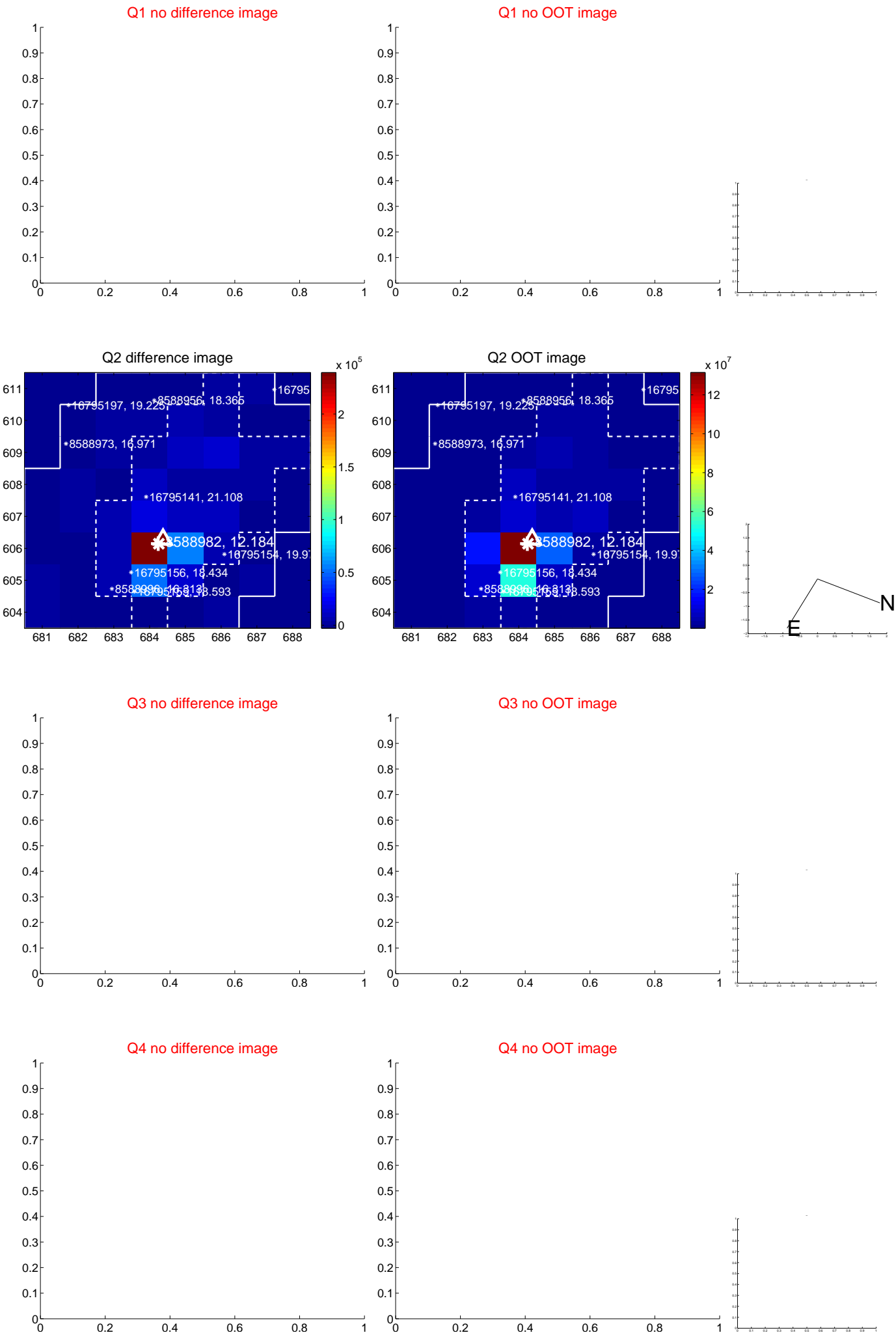


offset from photometric centroids

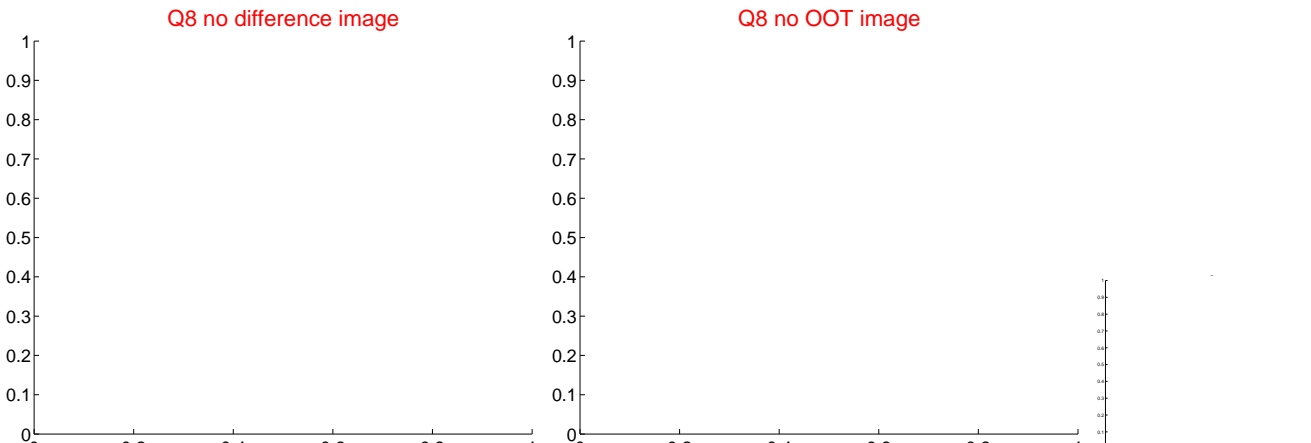
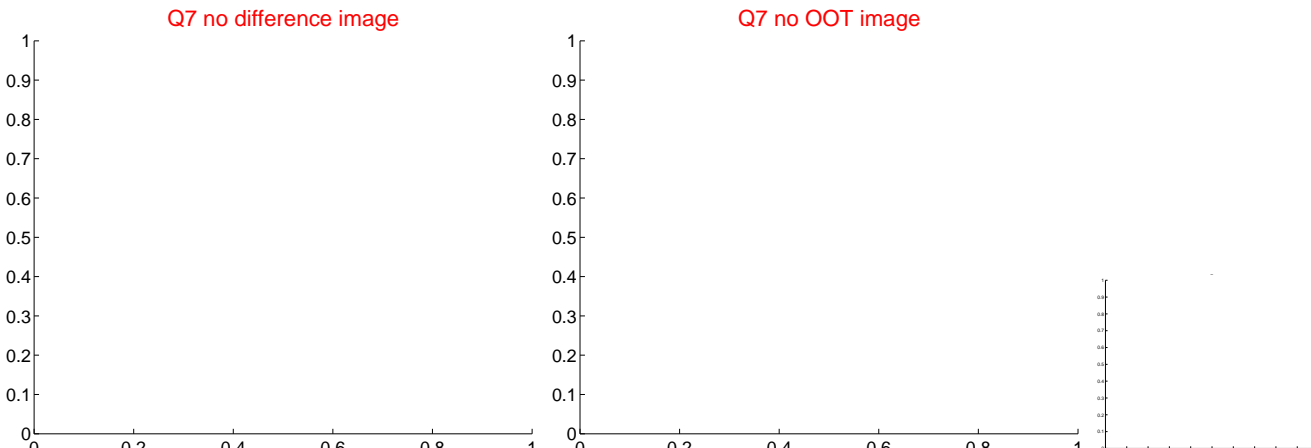
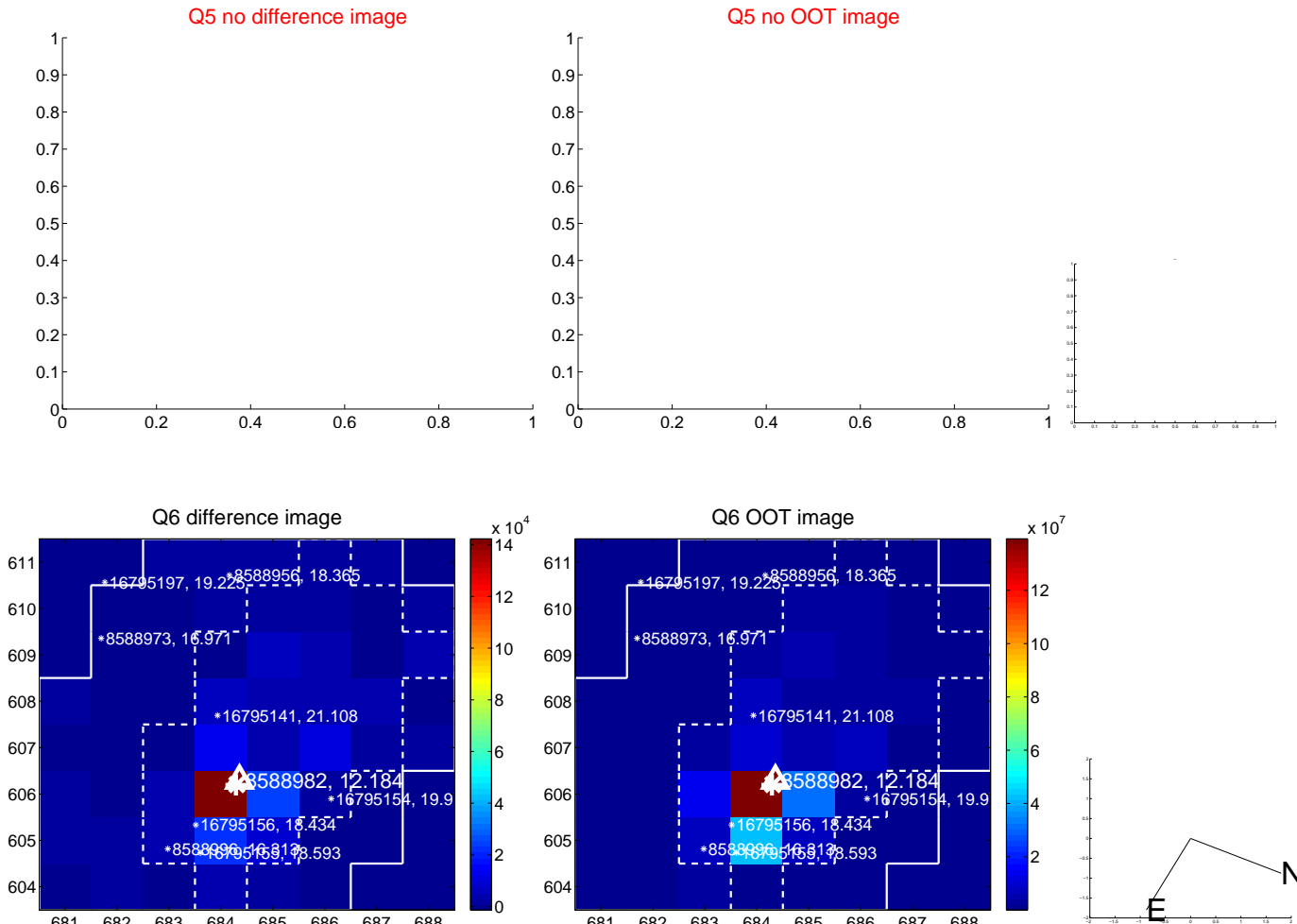


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



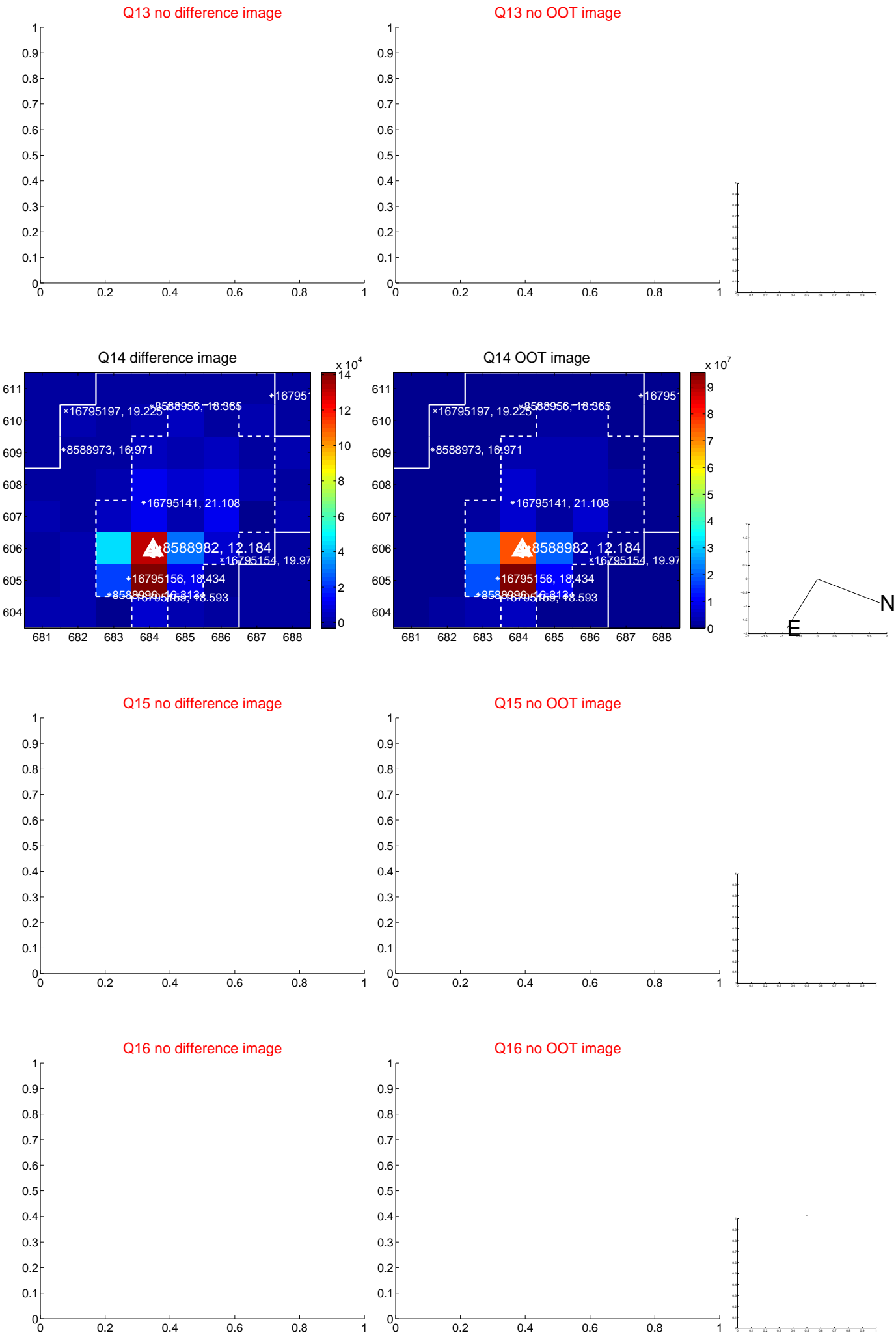
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



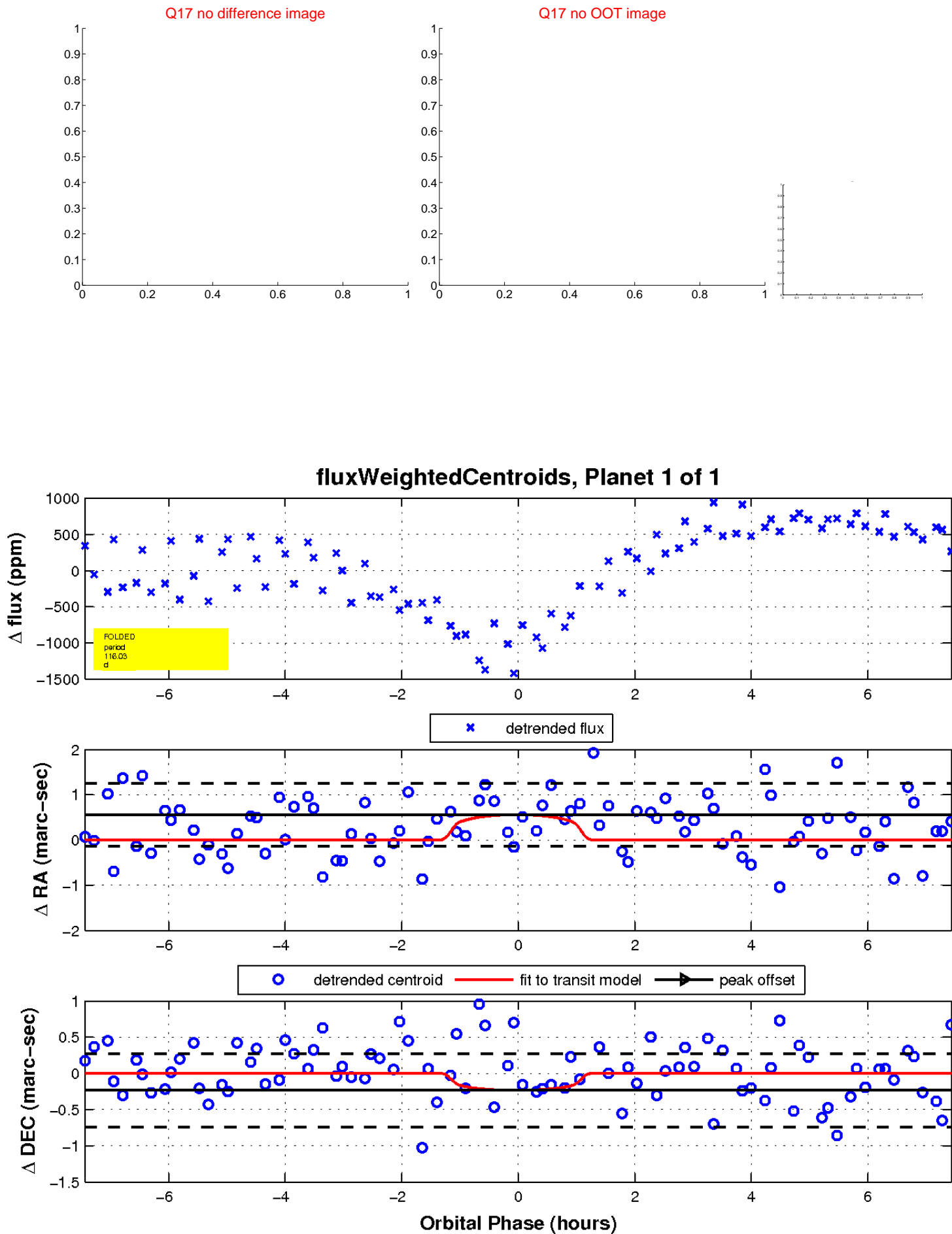
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

