

KIC 007428469

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})
007428469-01	OBS	No	377.831978	257.040609	729.1	8.915	7.8	7.5	0.96	6029	2.77	1.01

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007428469-01	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.

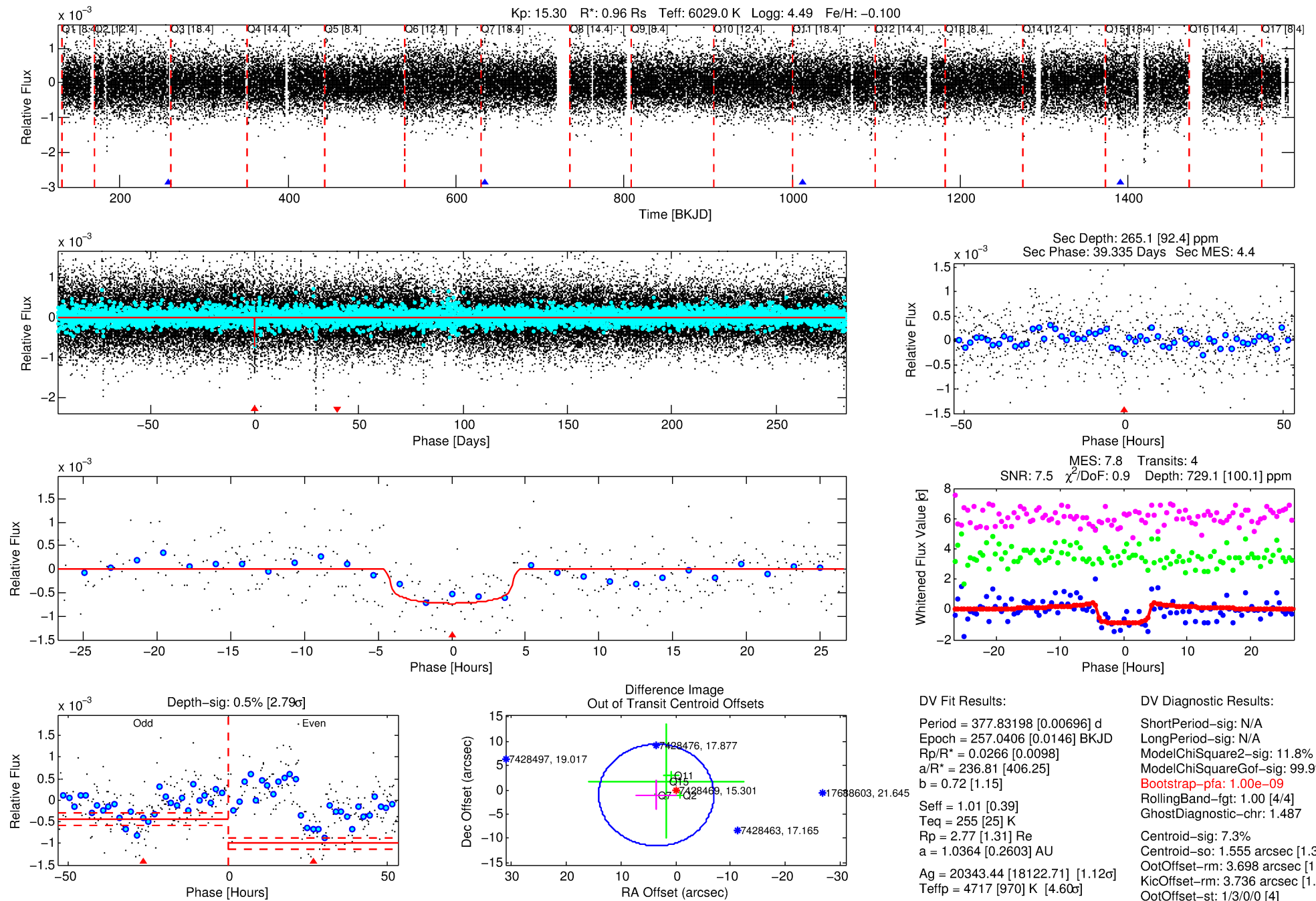
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007428469-01

No Significant Match Found

DV One-Page Summary

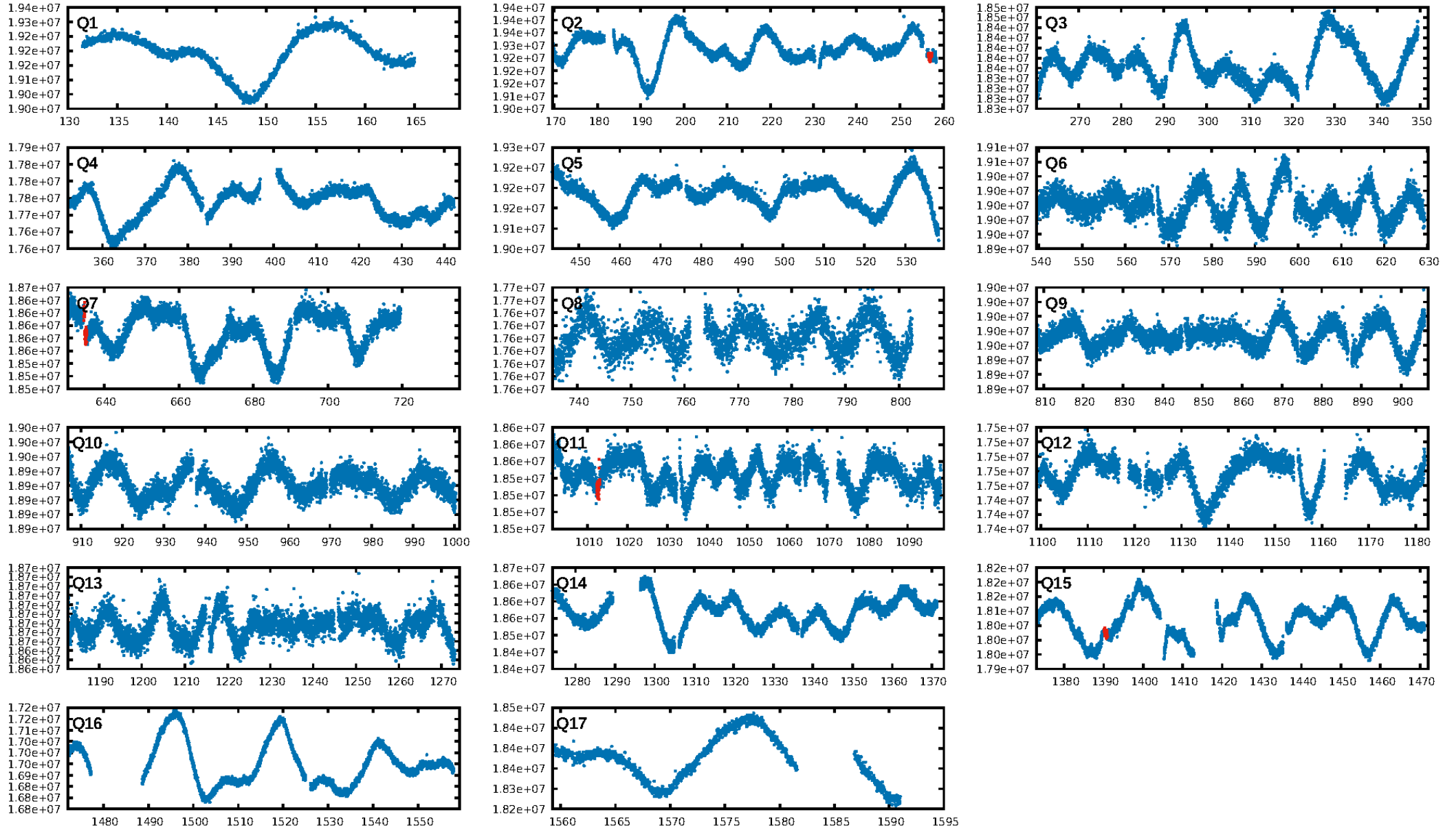
KIC: 7428469 Candidate: 1 of 1 Period: 377.832 d



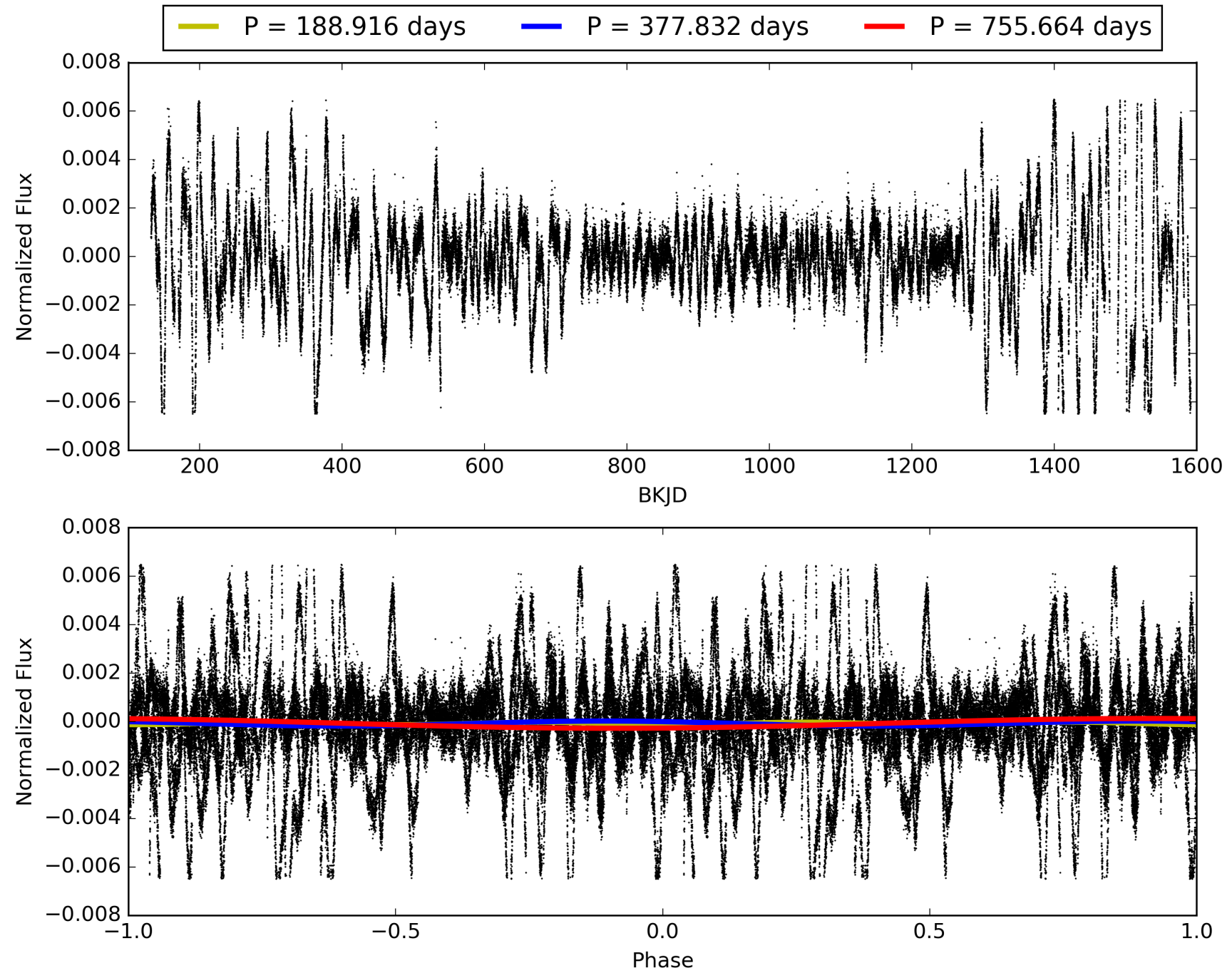
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:02:18 Z

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

TCE 007428469-01, PDC Light Curves

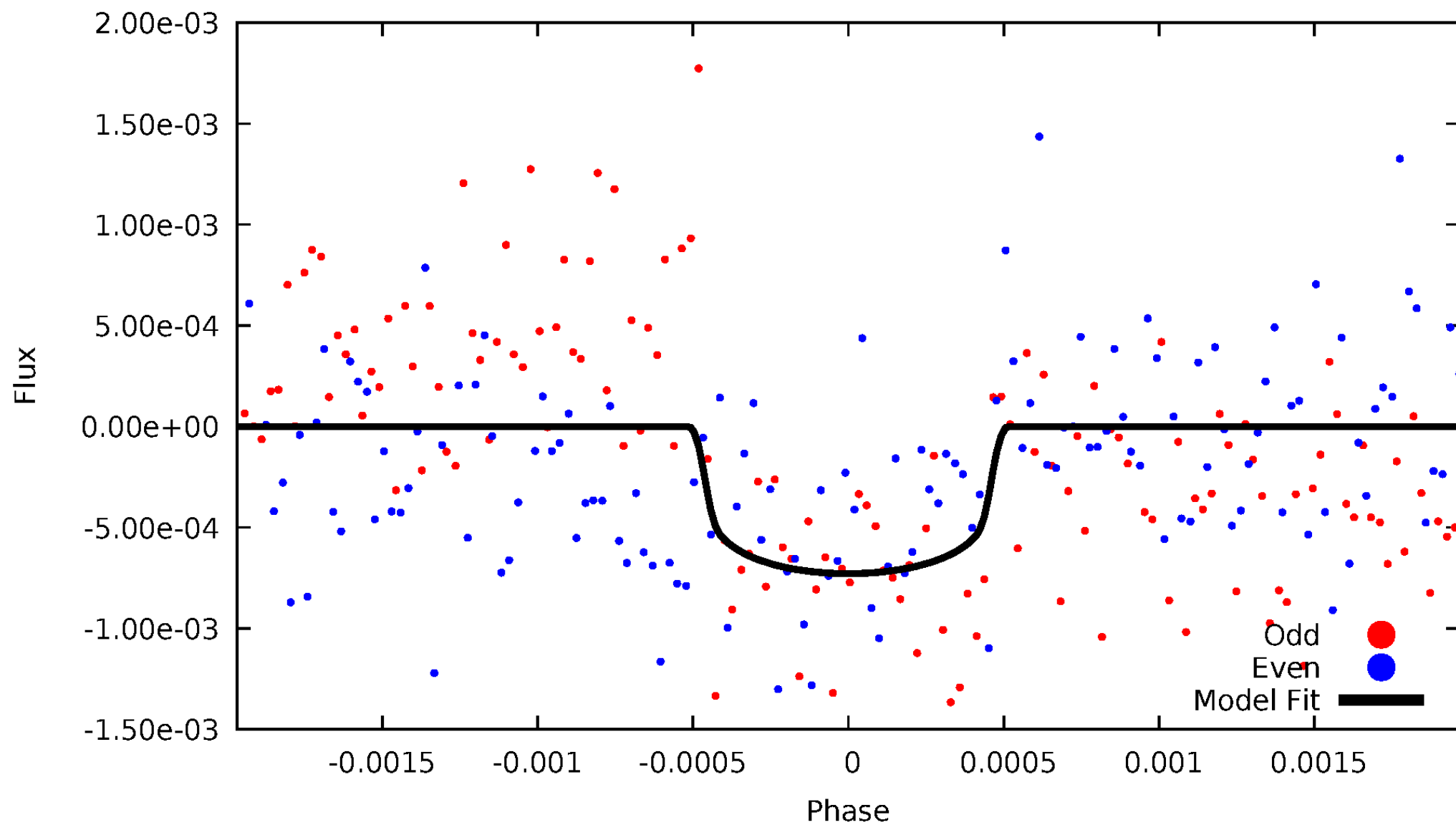


TCE 007428469-01



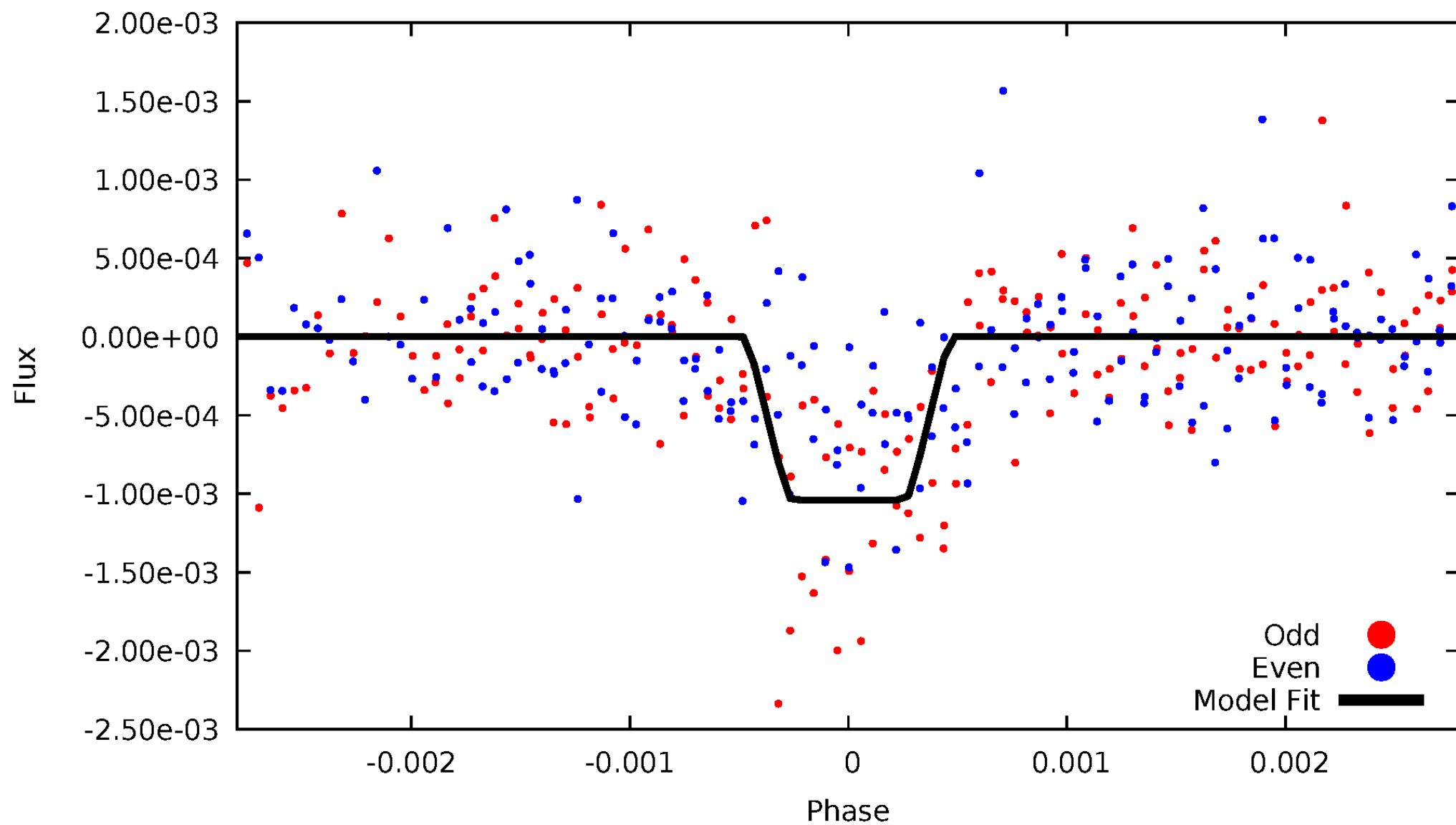
DV Odd/Even

TCE 007428469-01



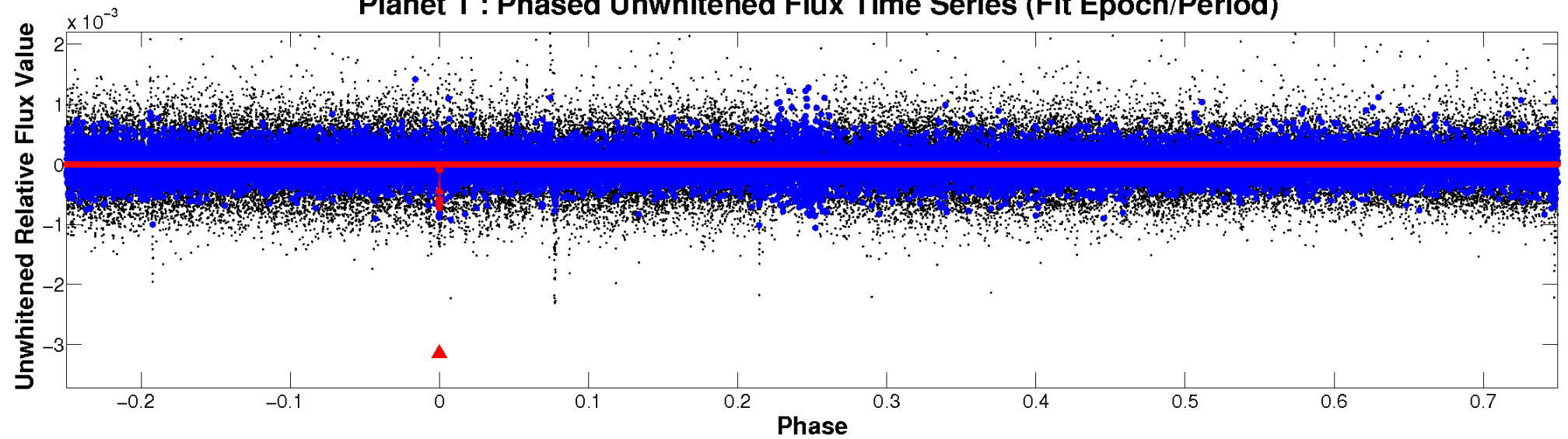
ALT Odd/Even

TCE 007428469-01

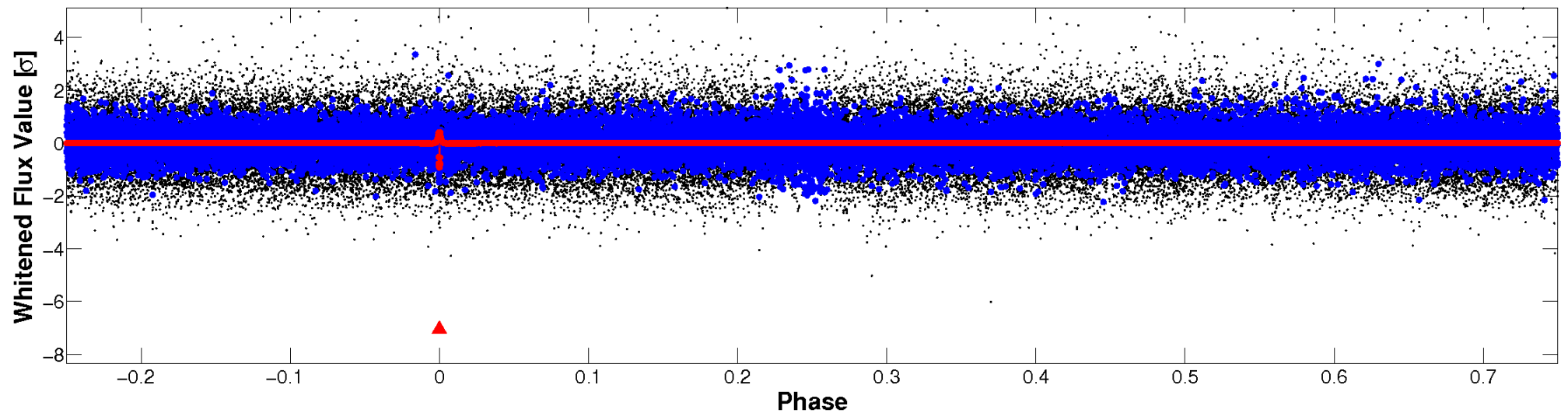


Non-Whitened Vs. Whitened Light Curve

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

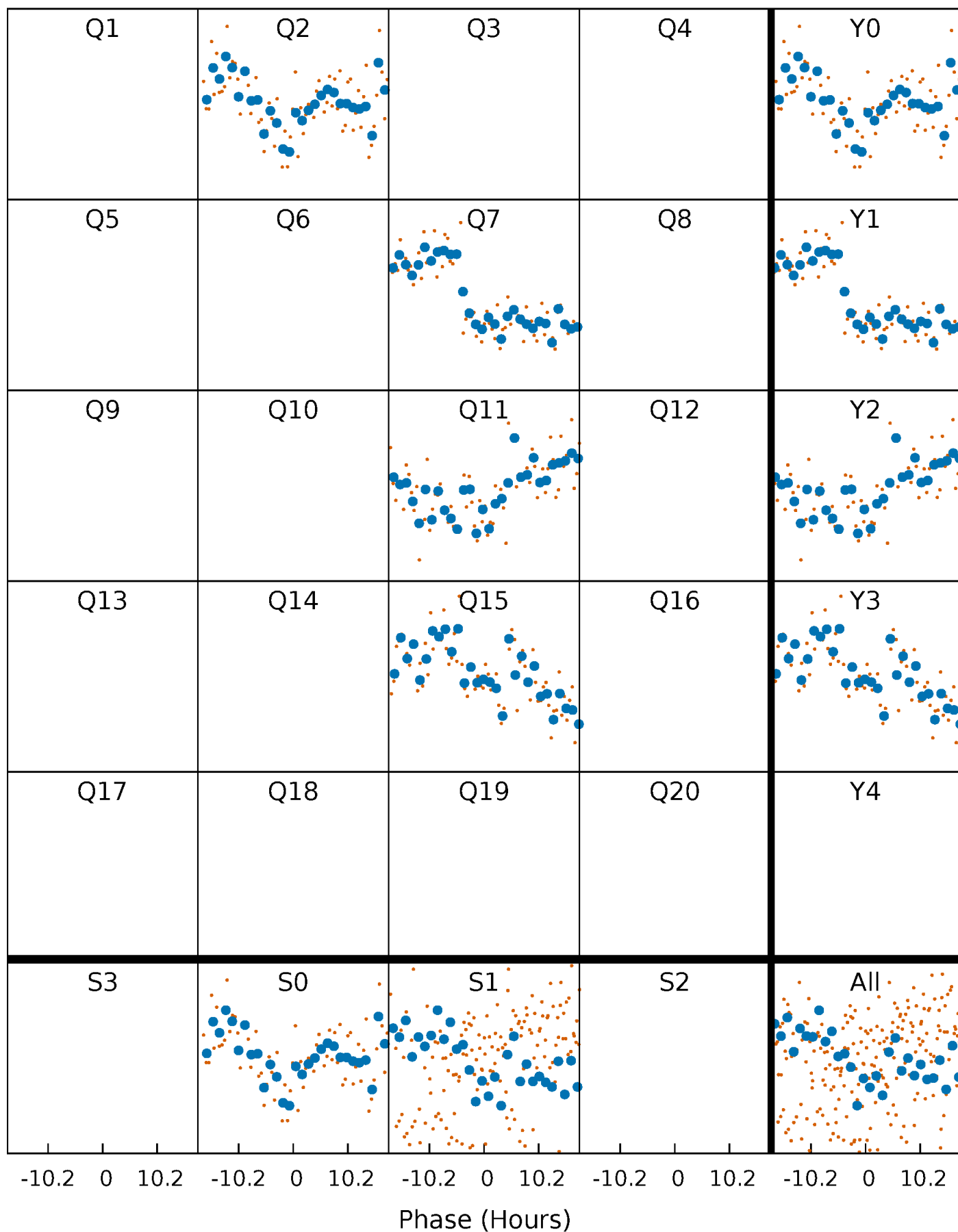


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



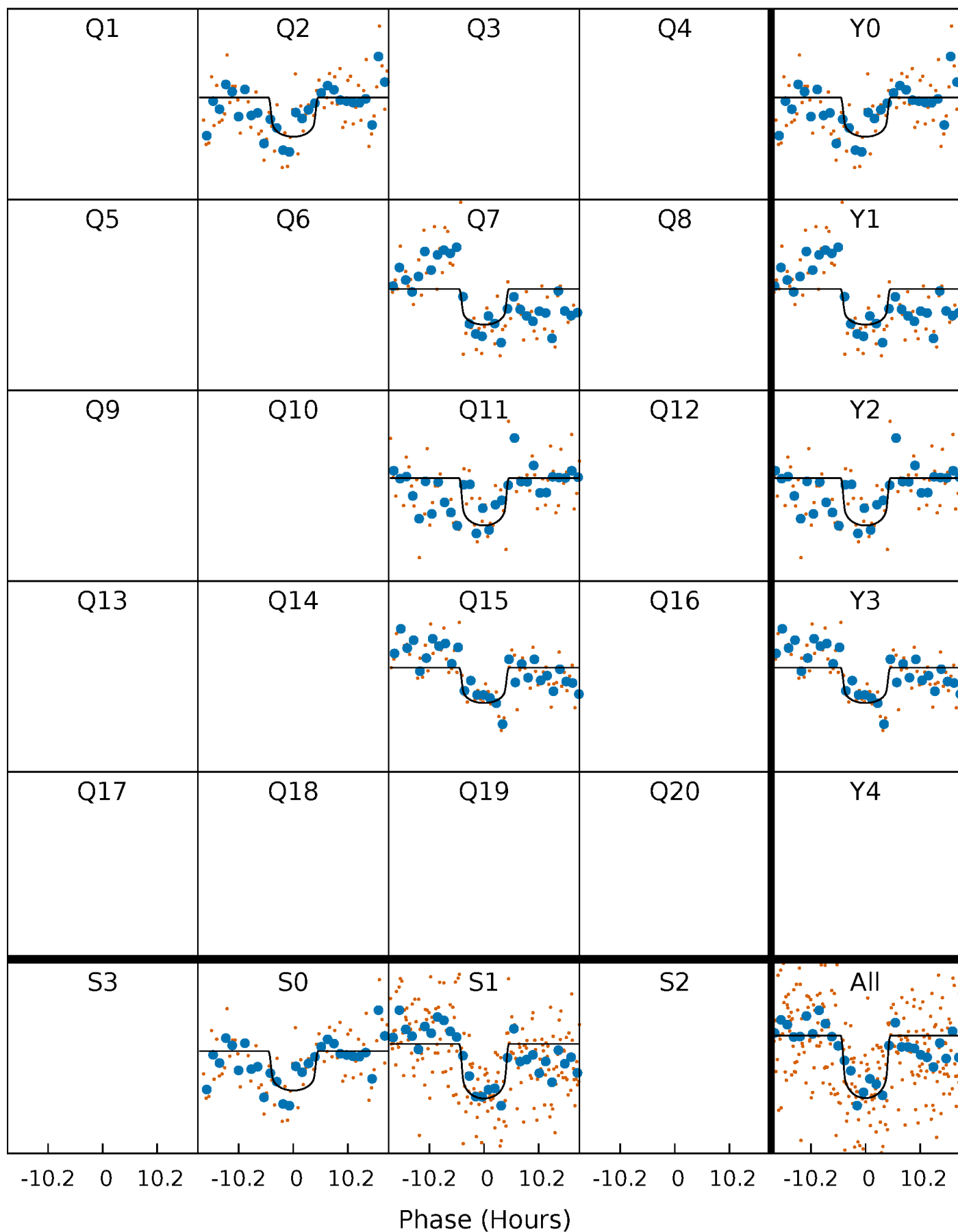
PDC Quarter-Phased Transit Curves

TCE 007428469-01 P=377.831978 Days $T_0=257.040609$ (BKJD)



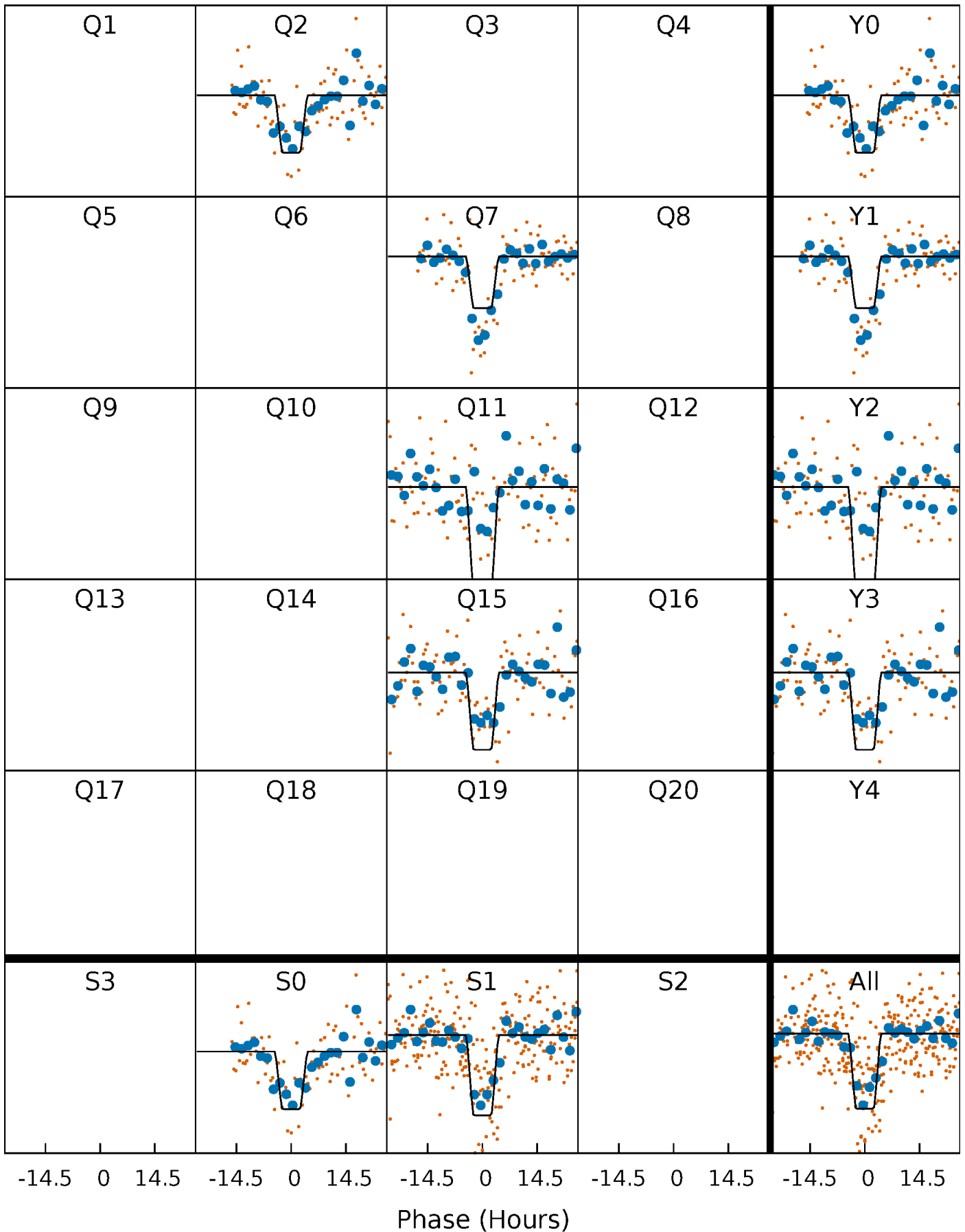
DV Quarter-Phased Transit Curves

TCE 007428469-01 P=377.831978 Days $T_0=257.040609$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

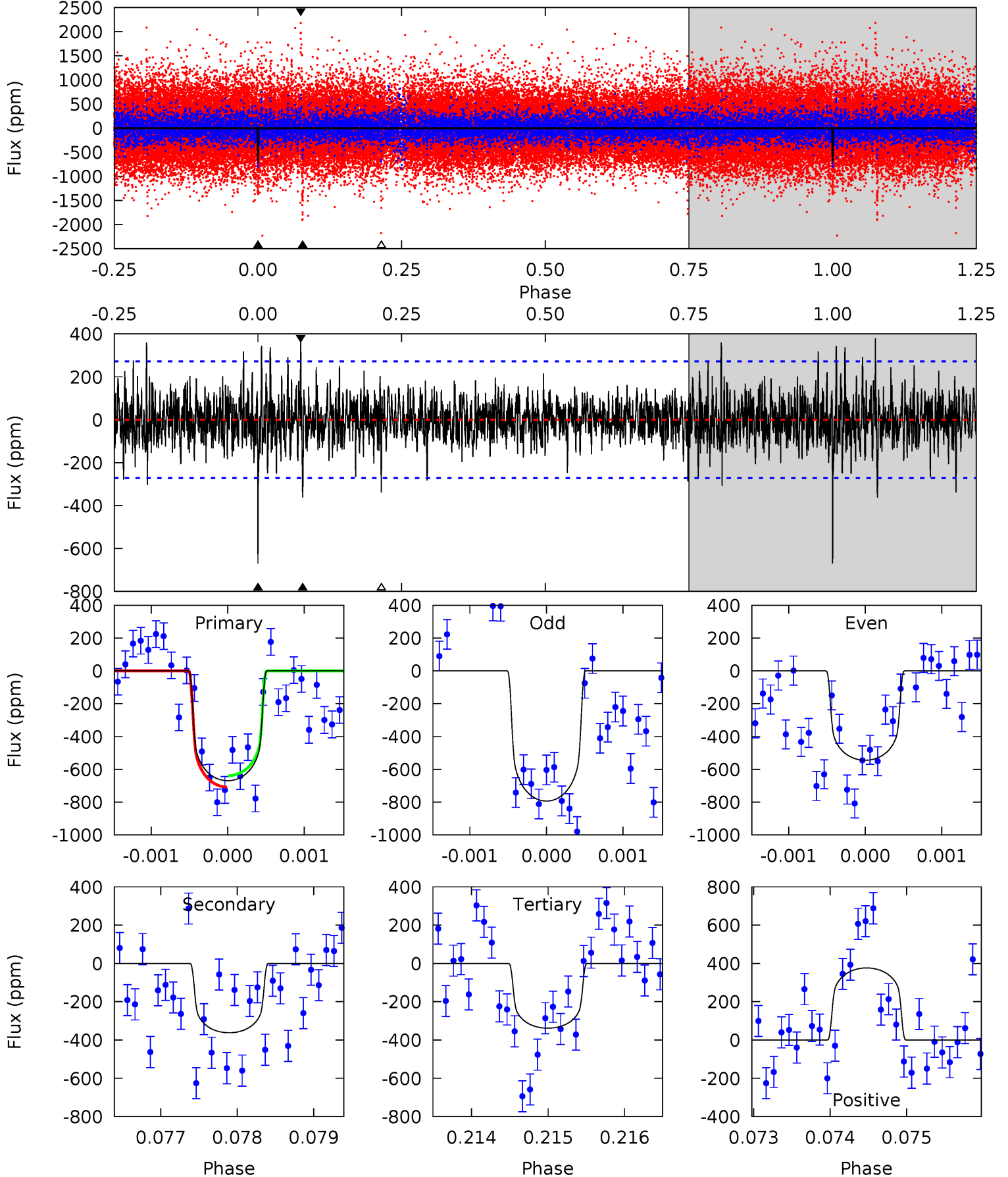
TCE 007428469-01 P=377.836958 Days $T_0=256.995180$ (BKJD)



DV Model-Shift Uniqueness Test

007428469-01, P = 377.831978 Days, E = 257.040609 Days

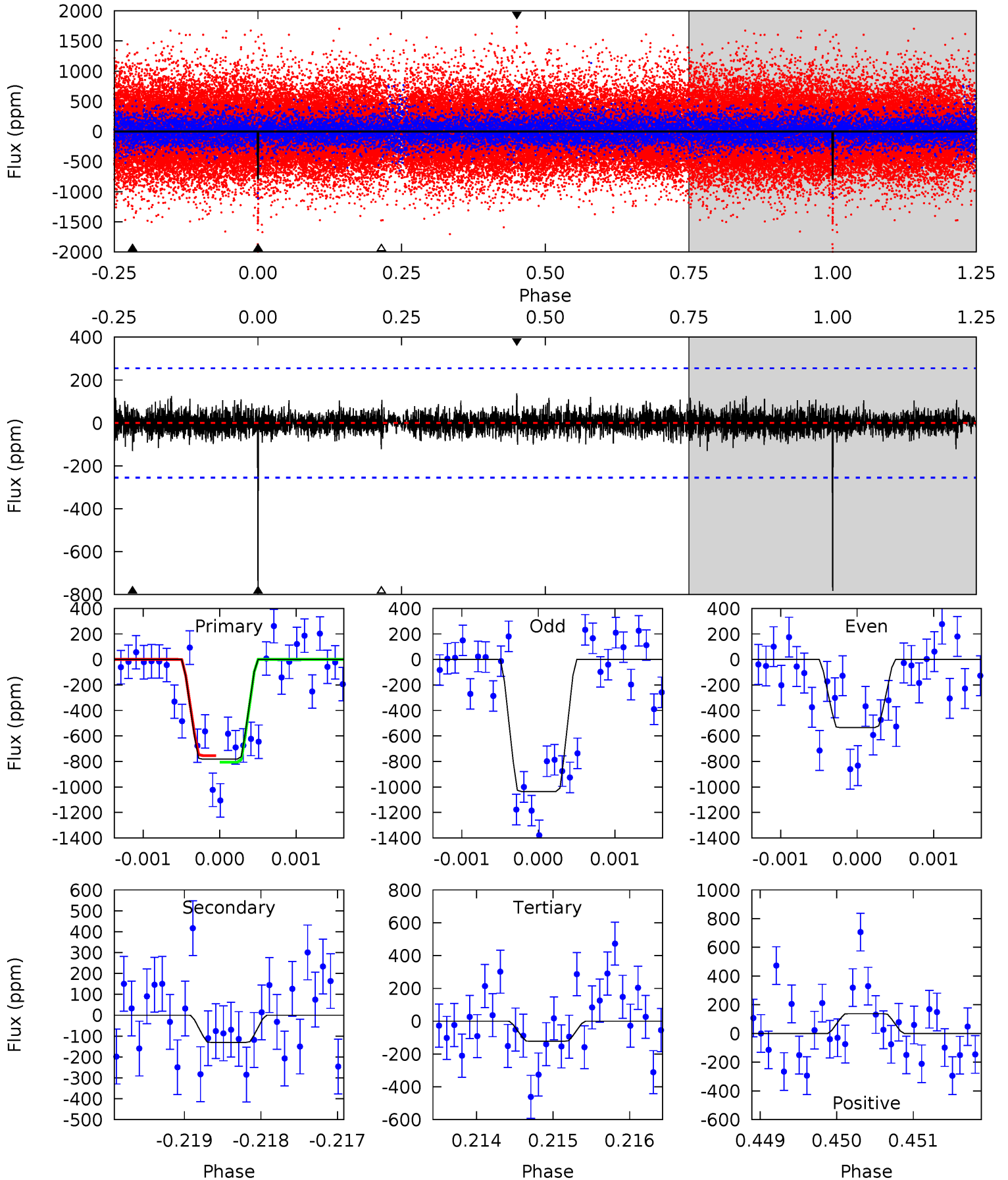
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.4	7.25	6.77	7.54	5.45	3.29	1.61	6.63	5.86	0.48	-0.29	2.49	1.07	0.36	0.69



Alt Model-Shift Uniqueness Test

007428469-01, $P = 377.836958$ Days, $E = 256.995180$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.7	2.78	2.61	2.94	5.46	3.30	0.71	14.1	13.8	0.17	-0.16	5.36	1.09	0.15	0.56



Stellar Parameters For KIC 007428469

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6029^{+180}_{-198}	$4.494^{+0.050}_{-0.200}$	$-0.100^{+0.250}_{-0.350}$	$0.956^{+0.285}_{-0.095}$	$1.040^{+0.126}_{-0.139}$	$1.675^{+0.434}_{-0.874}$
	+3%/-3%	+1%/-4%	+250%/-350%	+30%/-10%	+12%/-13%	+26%/-52%
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 007428469-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-362 ± 50	$2.88^{+1.17}_{-1.00}$	364^{+26}_{-17}	5199^{+1037}_{-699}	25089^{+33286}_{-12698}
Alt.	-130 ± 47	$3.51^{+1.08}_{-1.10}$	364^{+23}_{-18}	3914^{+593}_{-439}	6061^{+7029}_{-3169}

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

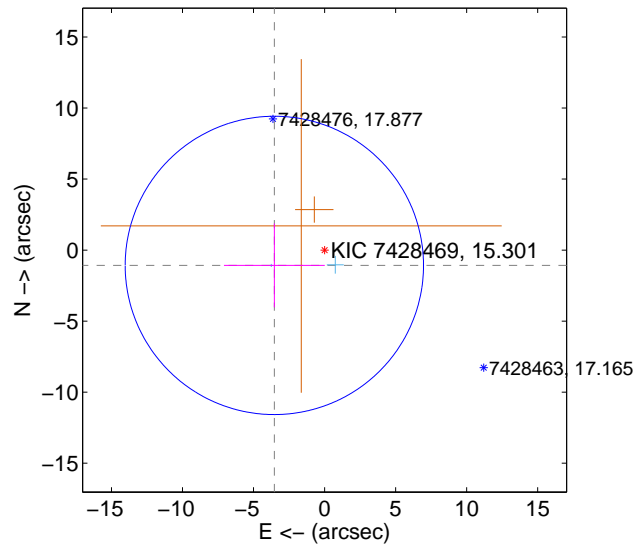
Supplemental centroid analysis for 007428469-01. Kepler magnitude: 15.30. Transit SNR 7.51

There are 2 quarters with good PRF difference image offsets

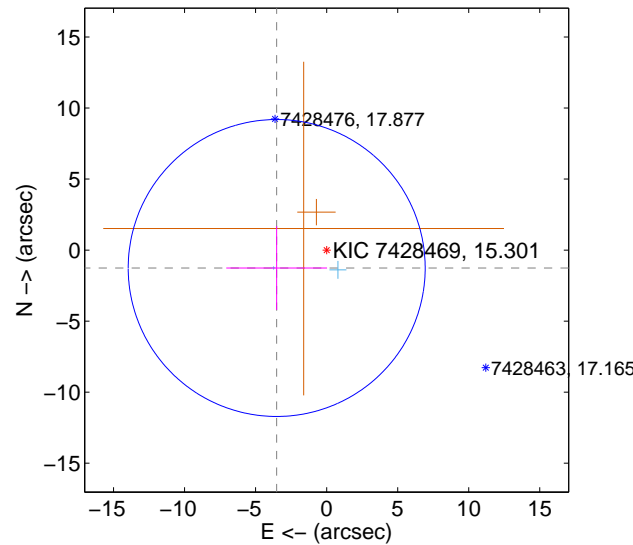
The direct PRF centroid is offset from the target star catalog position by about 0.19 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.698 ± 3.501	1.06	3.537 ± 3.547	-1.078 ± 2.951
PRF-fit source offset from KIC position	3.736 ± 3.485	1.07	3.517 ± 3.547	-1.260 ± 2.951
photometric centroid source offset	1.55 ± 1.18	1.32	1.01 ± 1.14	-1.18 ± 1.21

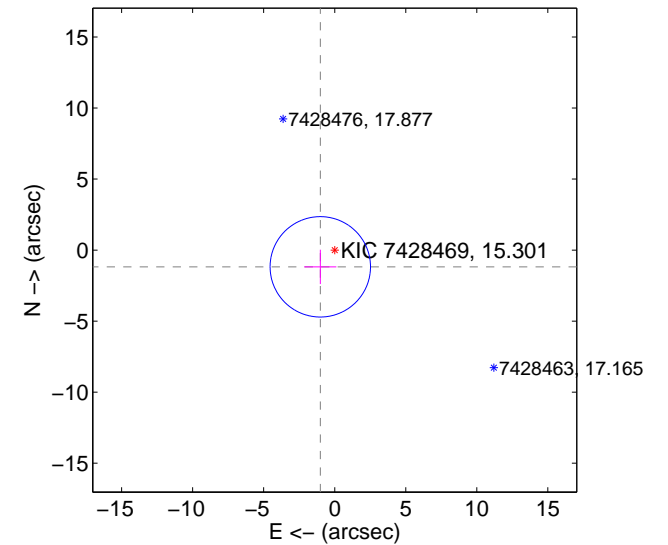
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

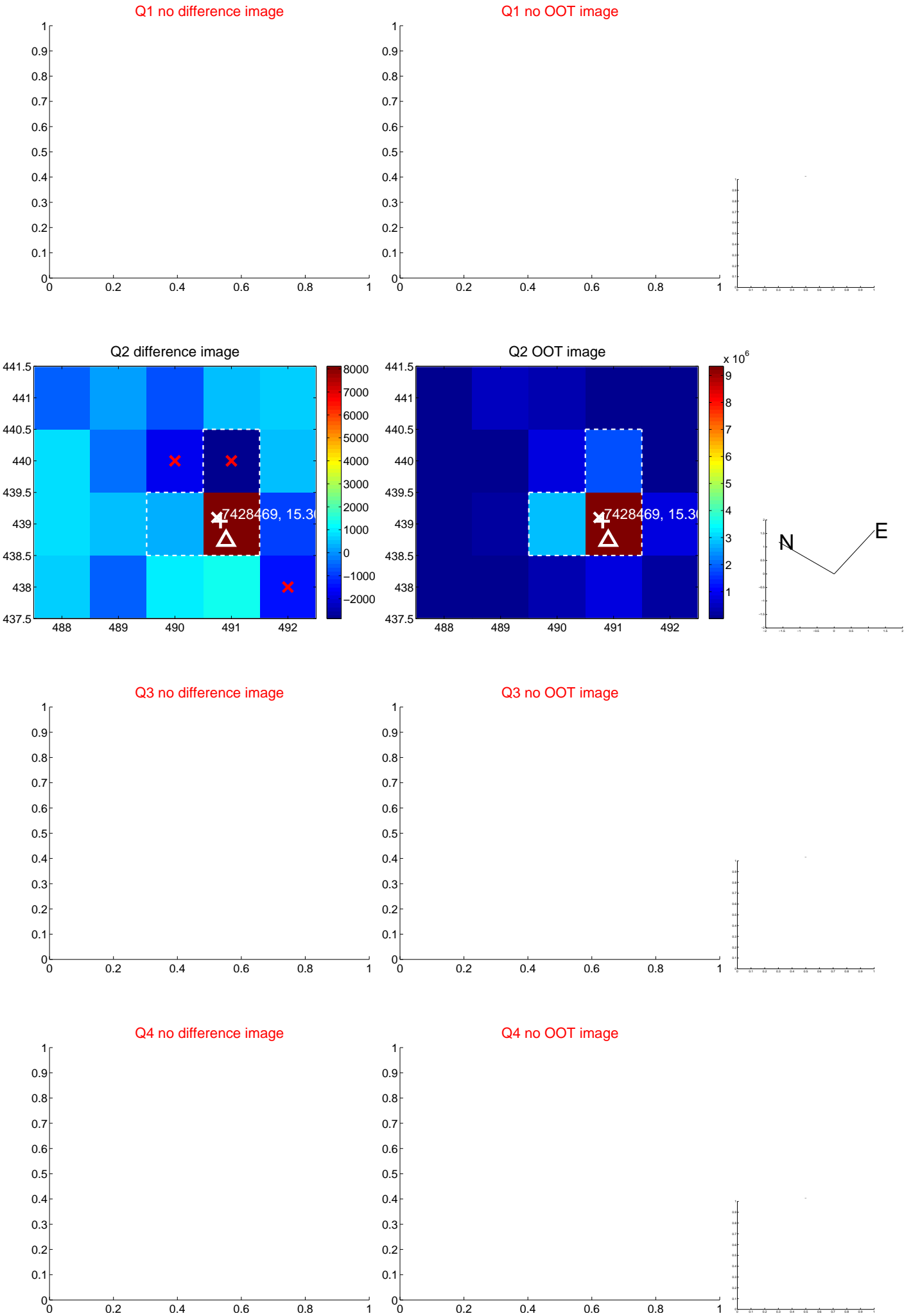


offset from photometric centroids

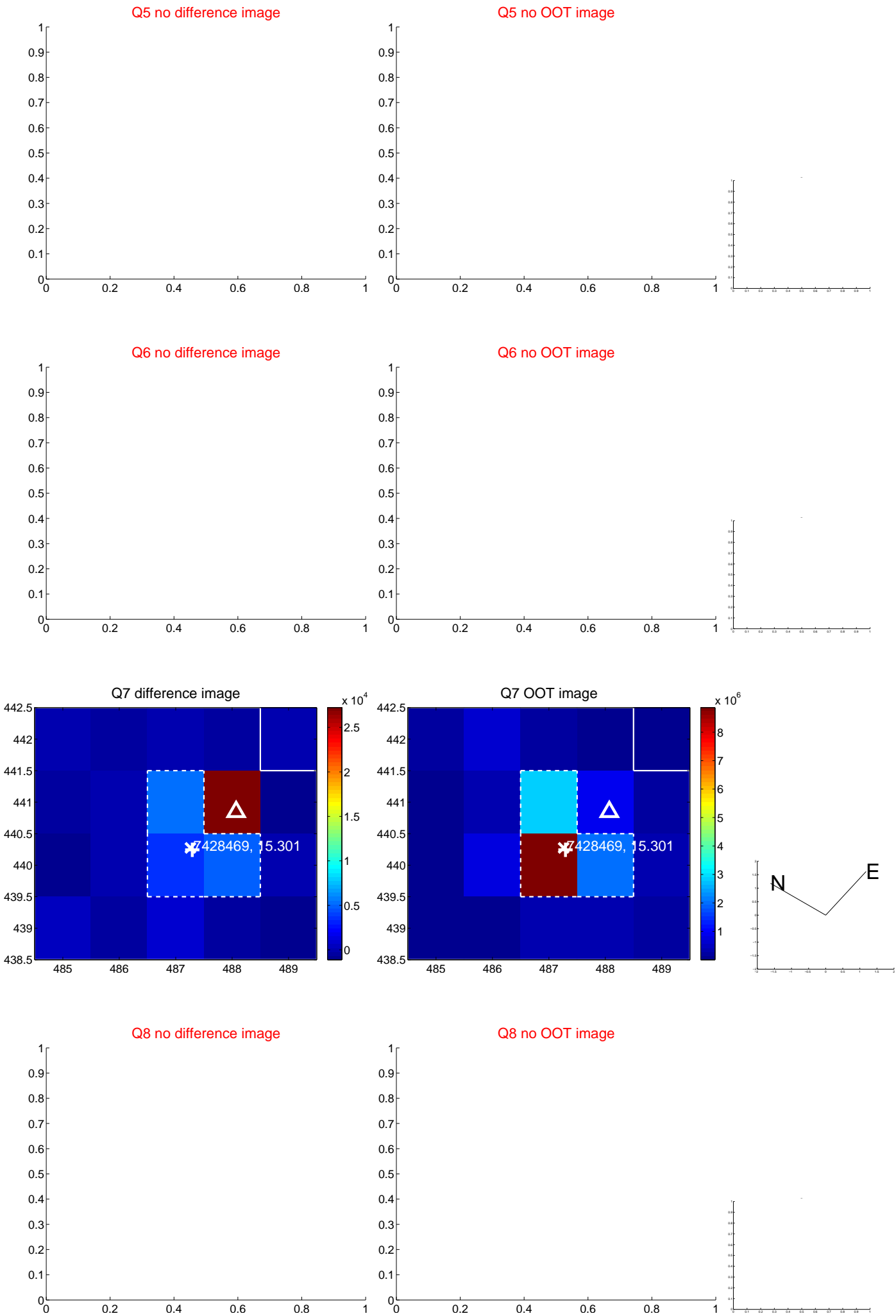


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

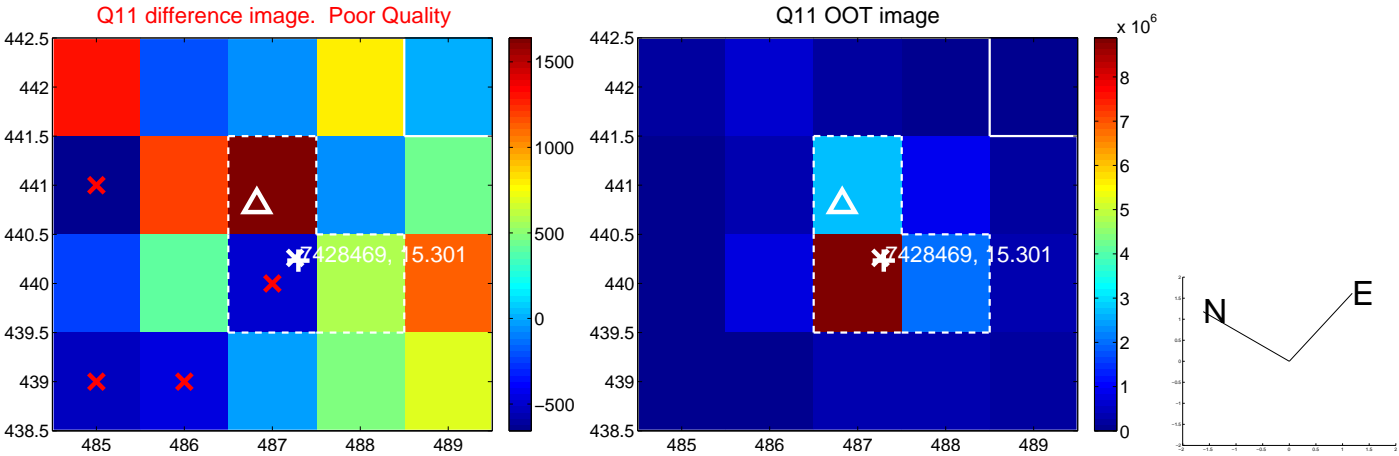
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



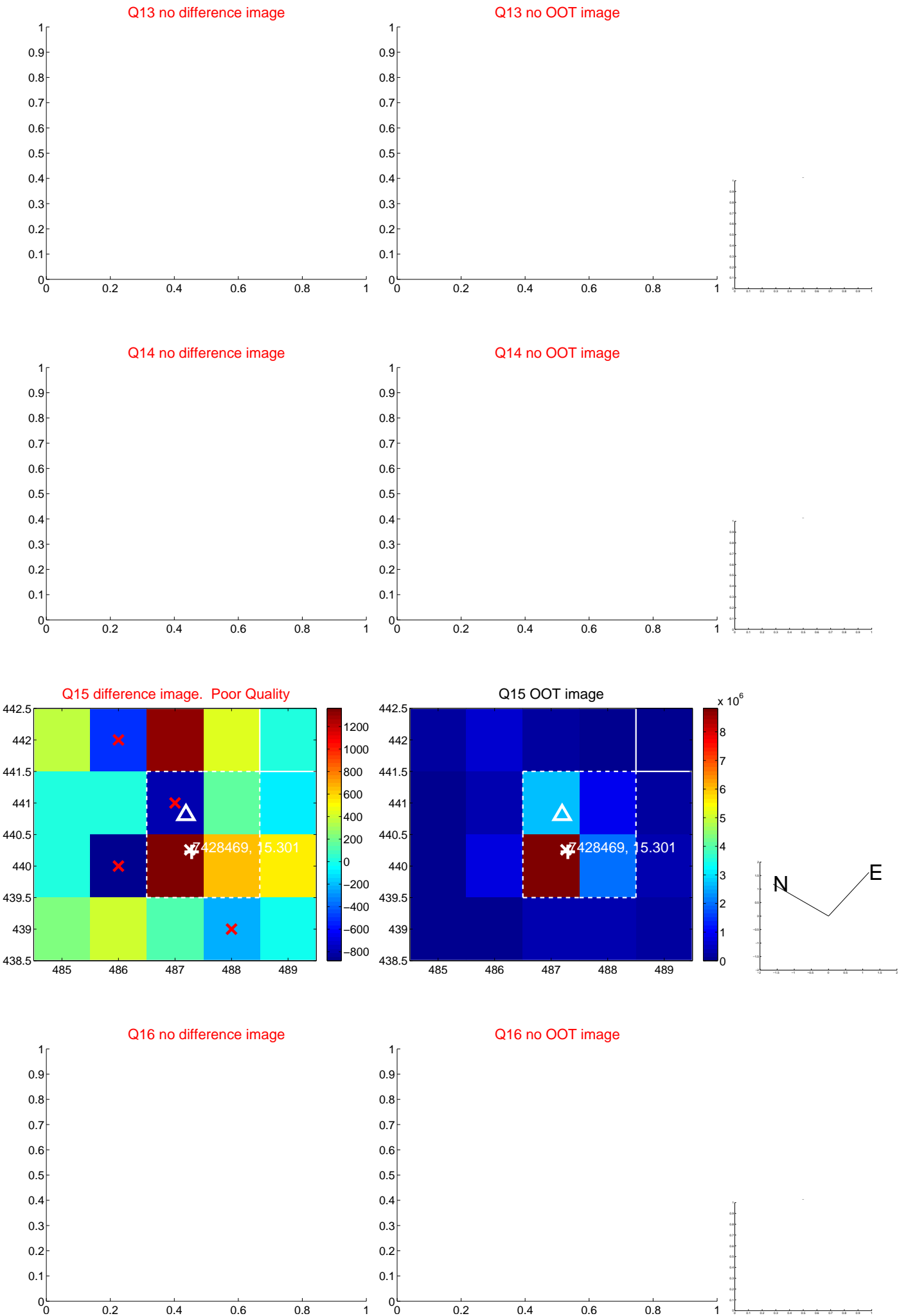
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



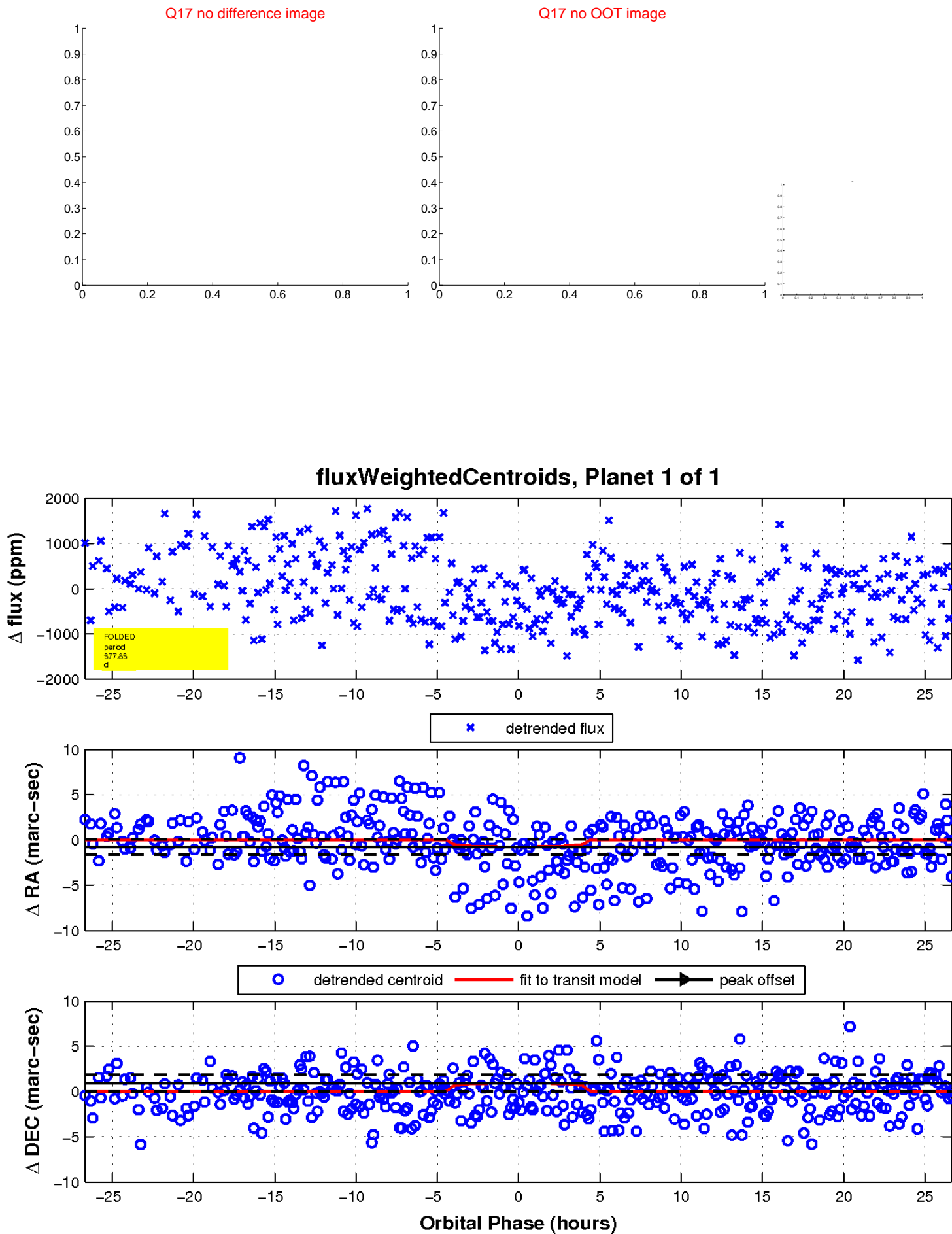
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

