

KIC 006068170

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})
006068170-01	OBS	No	1.066899	131.740090	20.6	2.441	8.5	8.8	3.62	6820	1.92	42993.84

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006068170-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

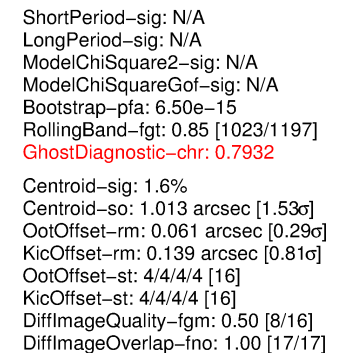
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

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

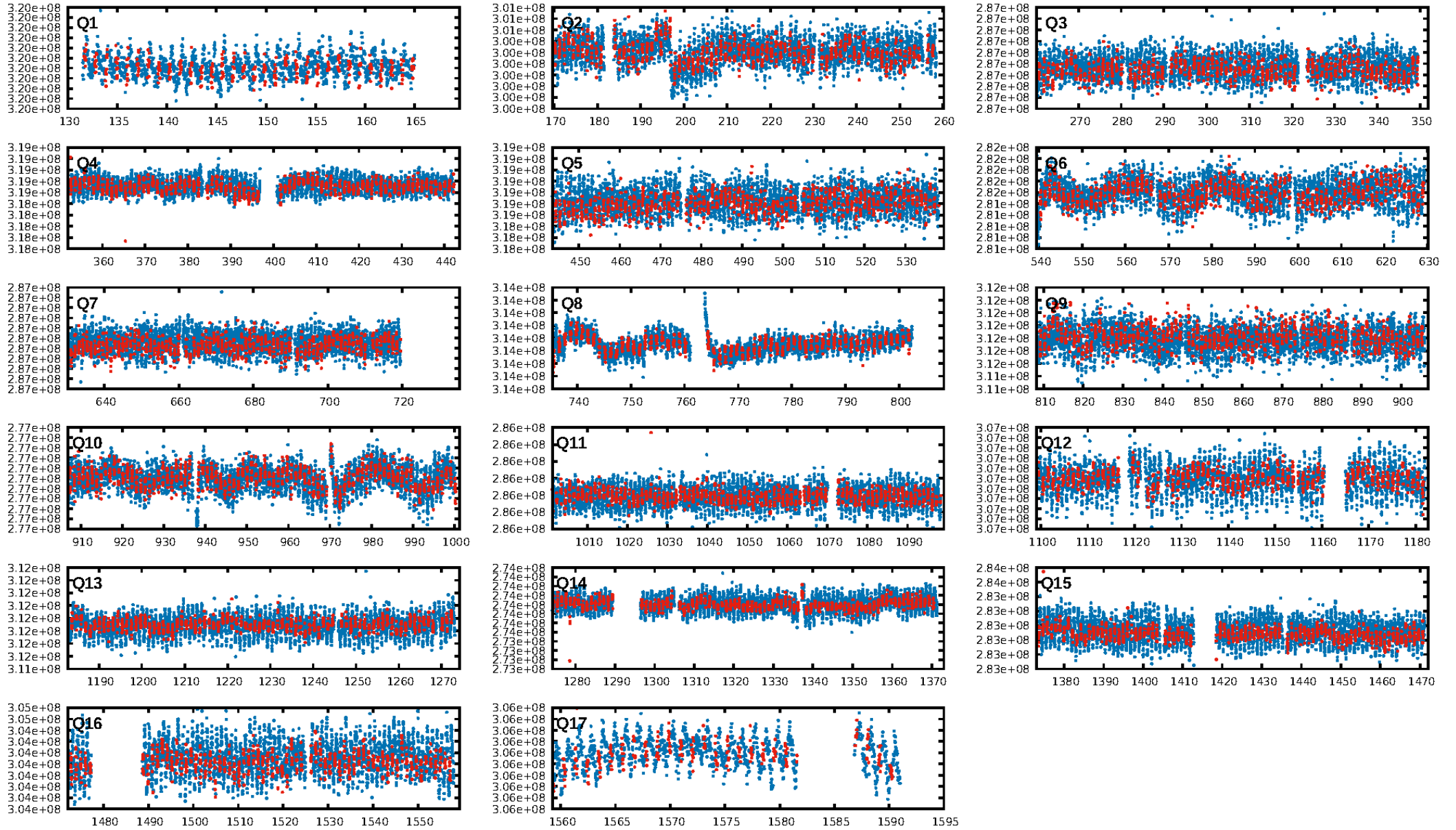
Ephemeris Match Information For 006068170-01

No Significant Match Found

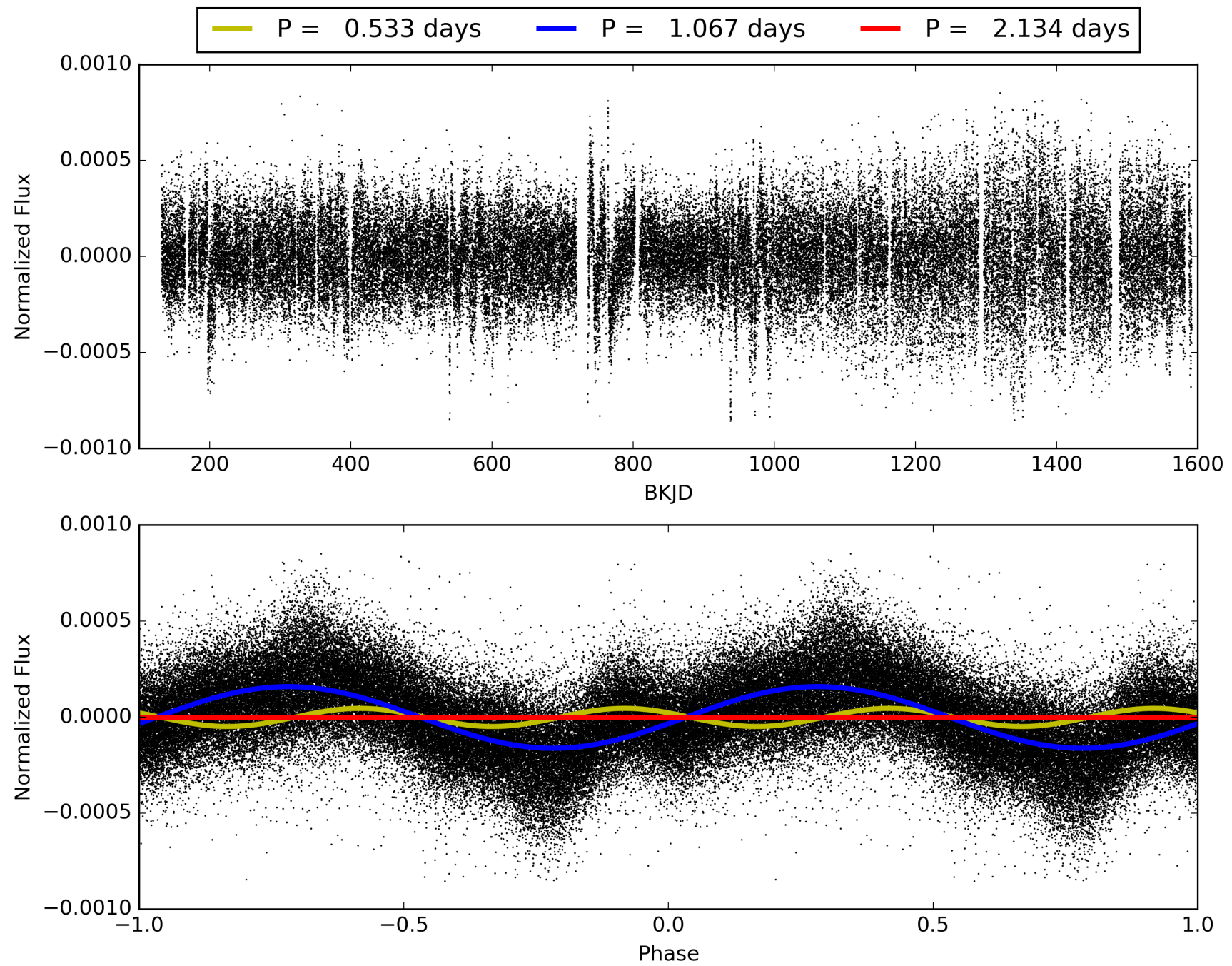
KIC: 6068170 Candidate: 1 of 1 Period: 1.067 d



TCE 006068170-01, PDC Light Curves

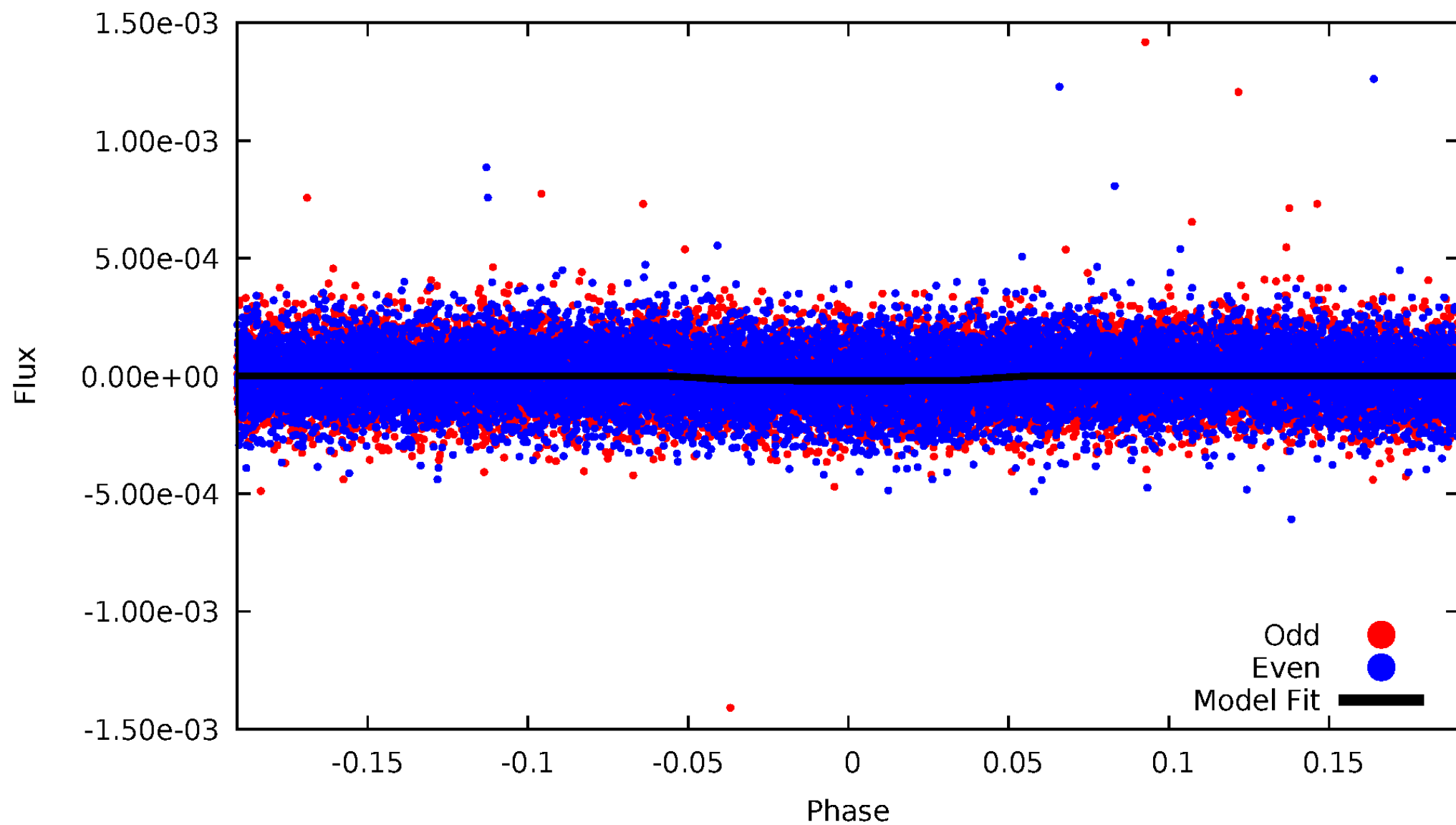


TCE 006068170-01



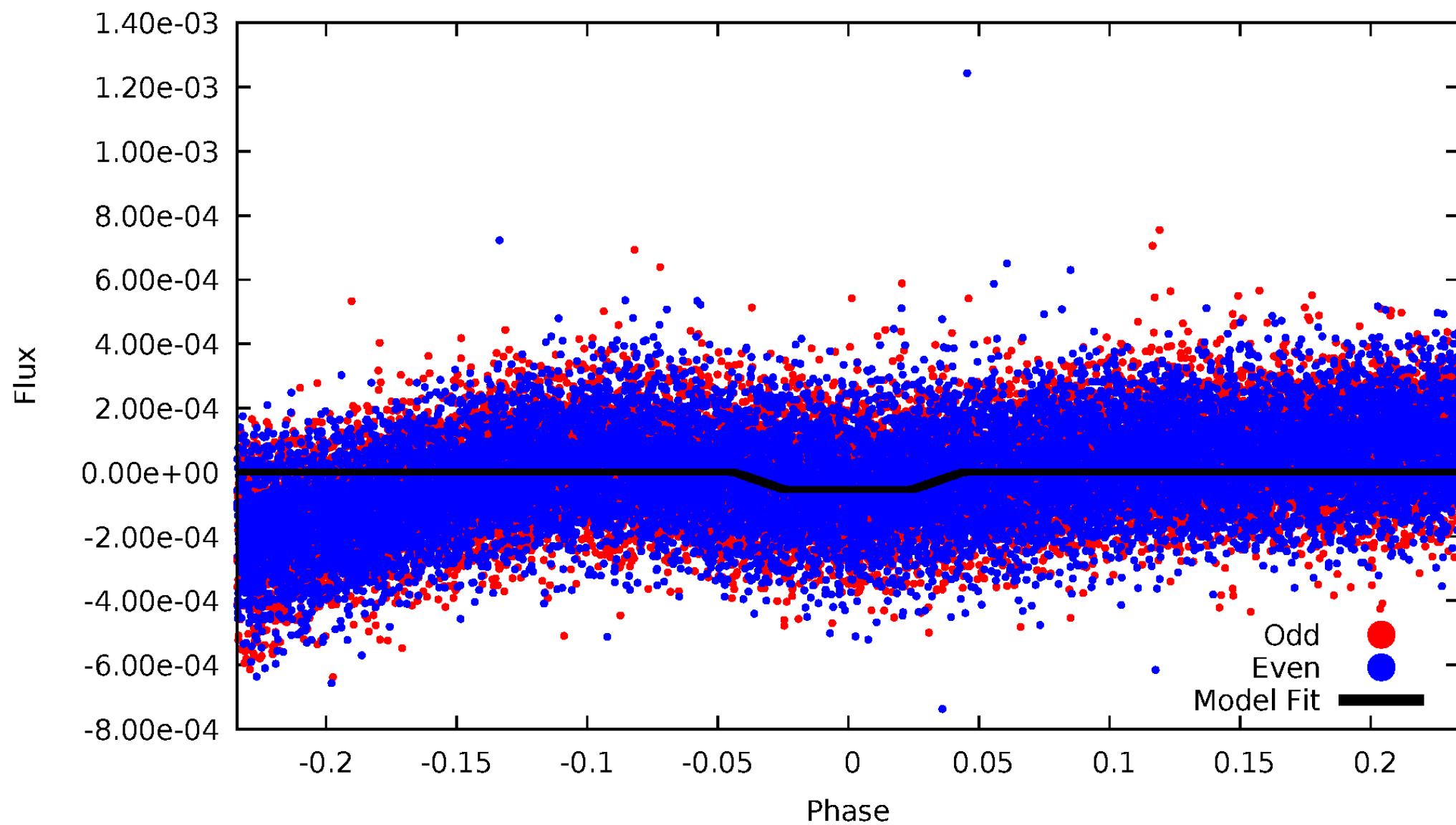
DV Odd/Even

TCE 006068170-01

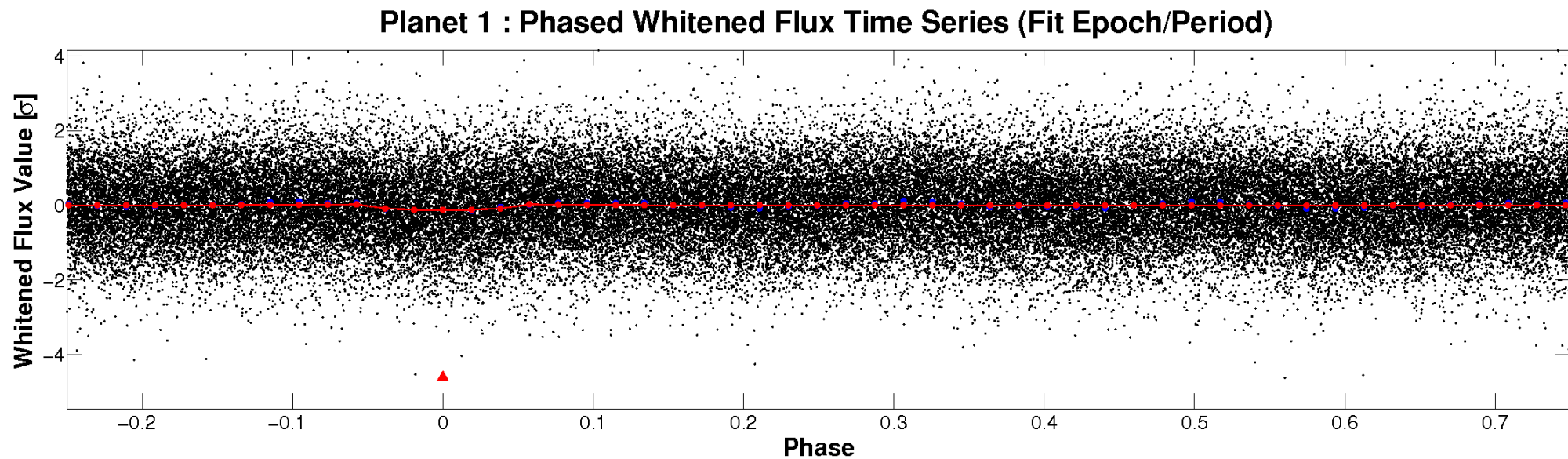
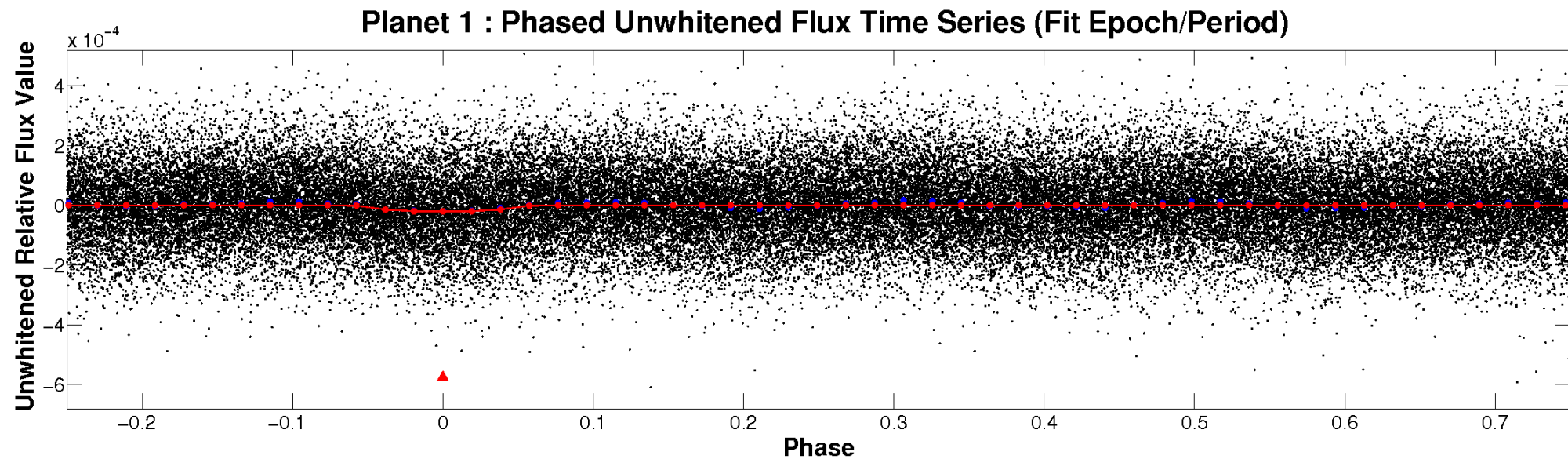


ALT Odd/Even

TCE 006068170-01

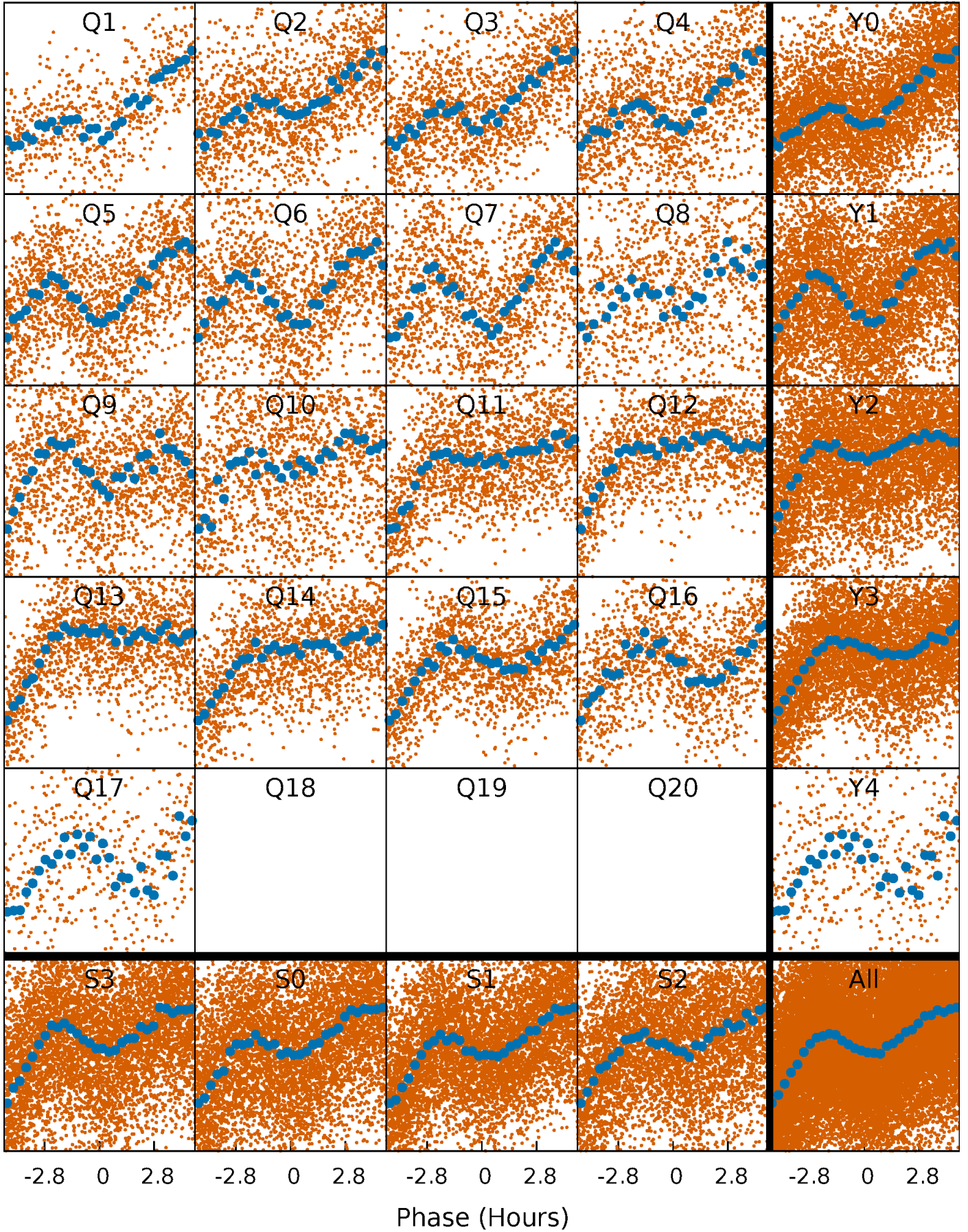


Non-Whitened Vs. Whitened Light Curve



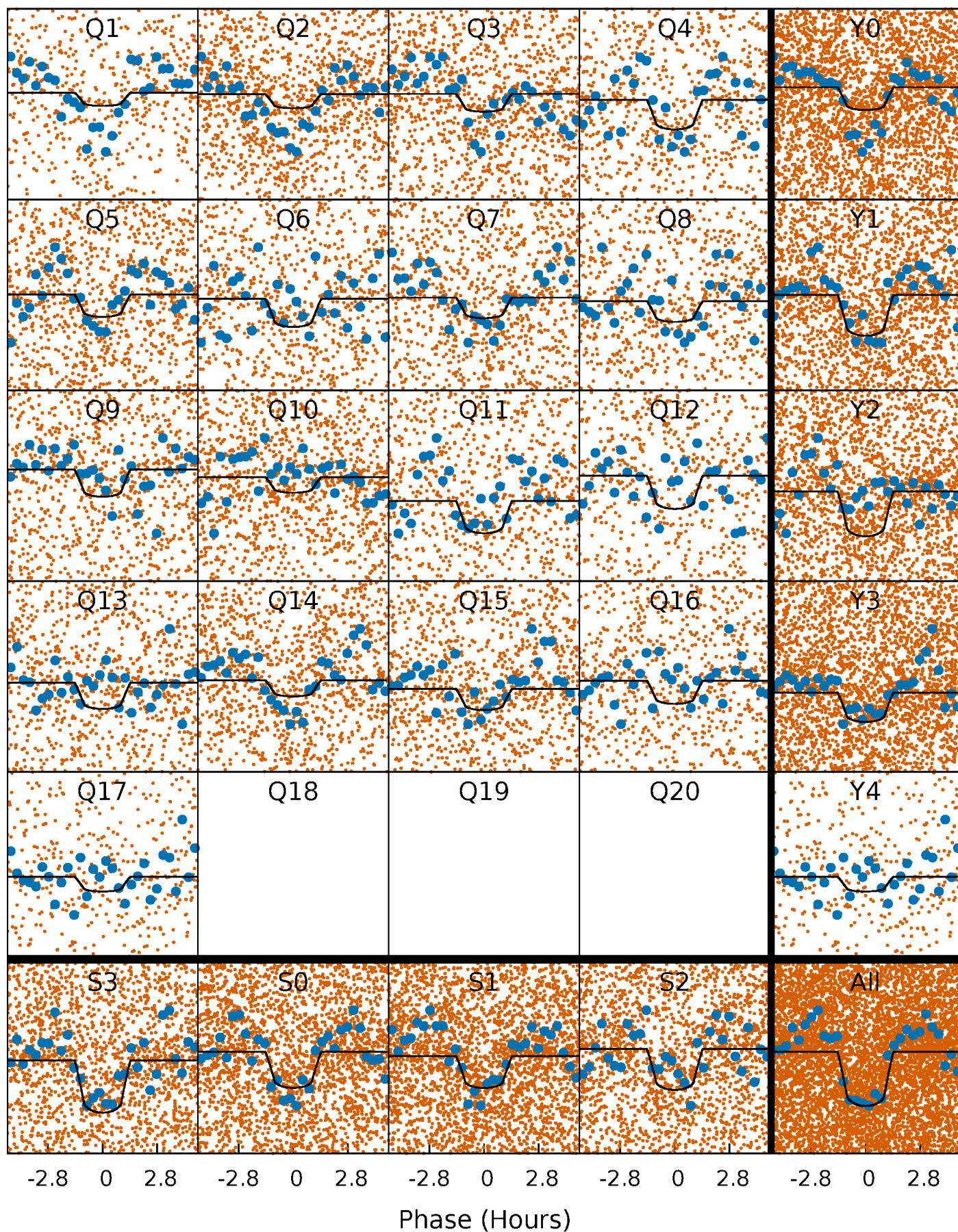
PDC Quarter-Phased Transit Curves

TCE 006068170-01 P= 1.066899 Days $T_0=131.740090$ (BKJD)



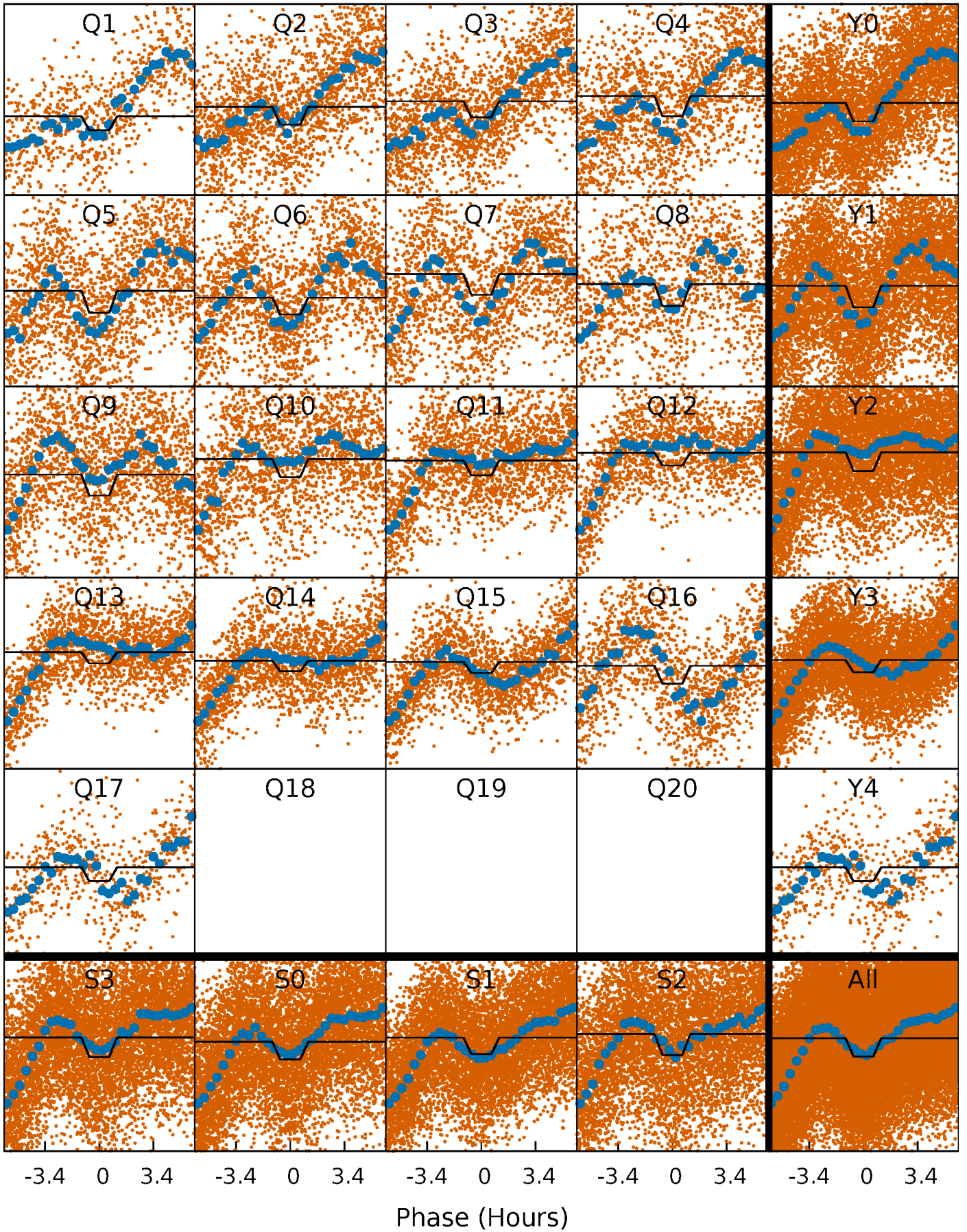
DV Quarter-Phased Transit Curves

TCE 006068170-01 P= 1.066899 Days $T_0=131.740090$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

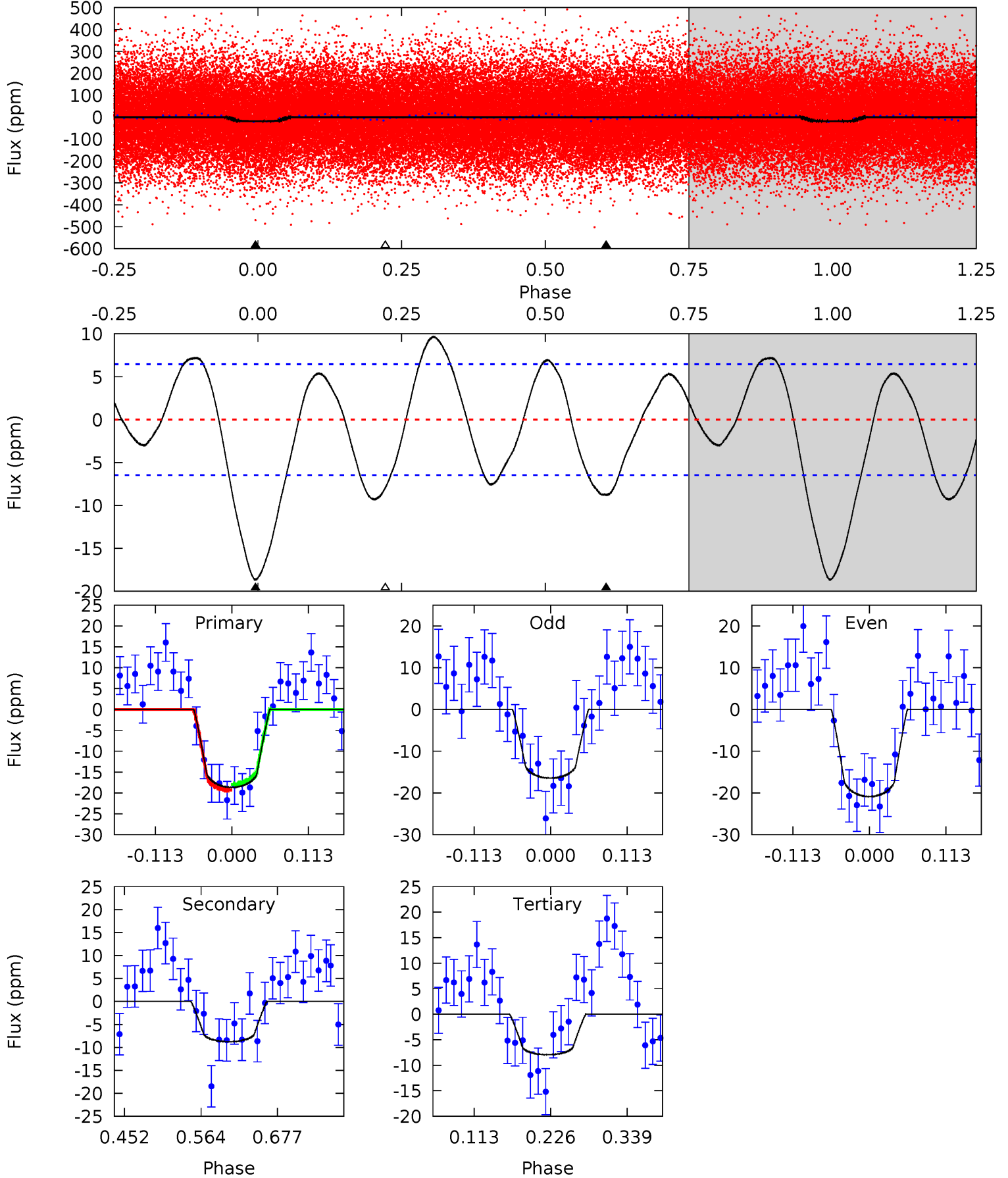
TCE 006068170-01 P= 1.066903 Days $T_0=131.758092$ (BKJD)



DV Model-Shift Uniqueness Test

006068170-01, P = 1.066899 Days, E = 130.673191 Days

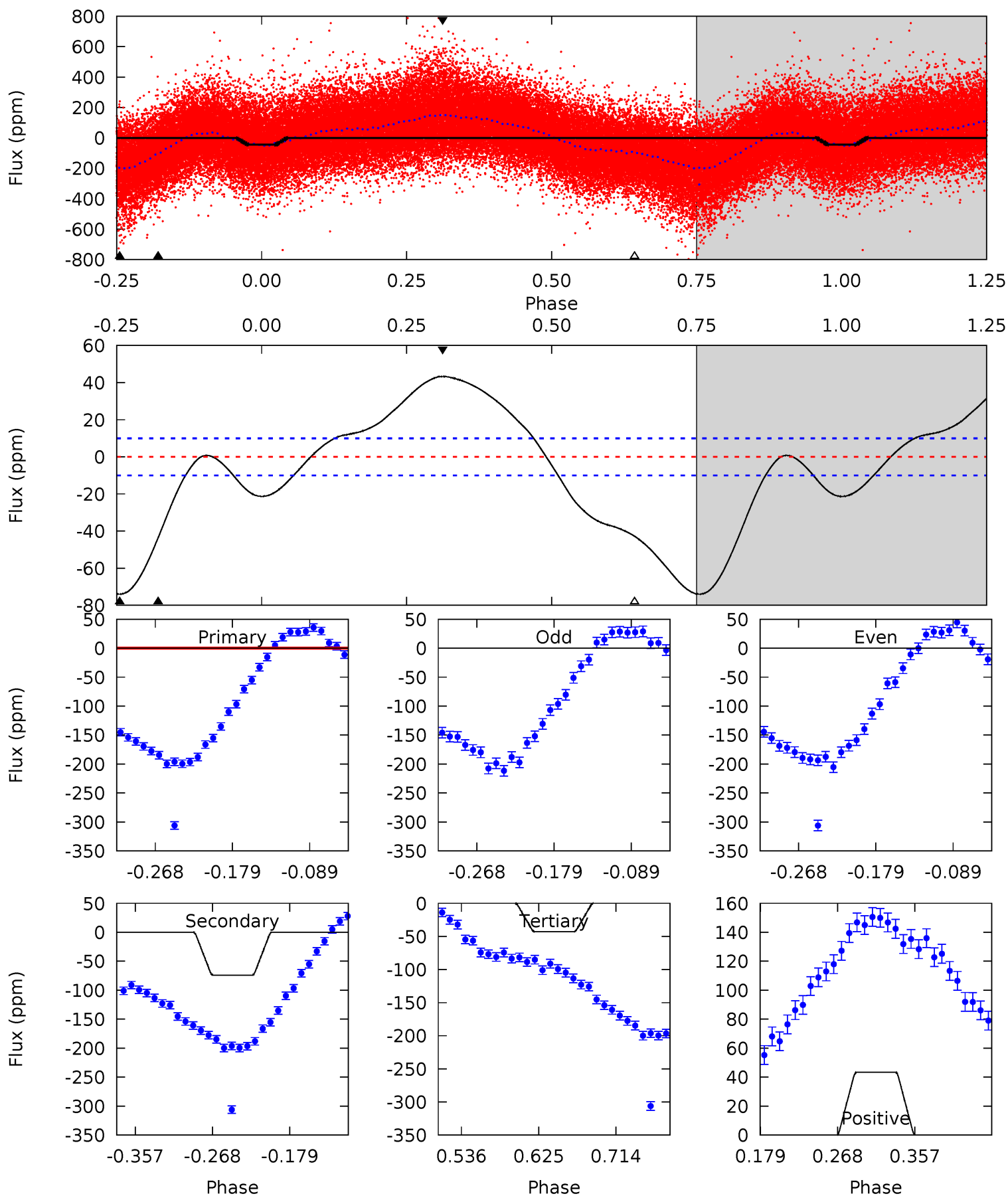
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.1	6.16	5.57	0	4.54	1.59	3.66	7.52	13.1	0.58	6.16	1.55	0.96	0.34	0.47



Alt Model-Shift Uniqueness Test

006068170-01, P = 1.066903 Days, E = 130.691189 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.0	33.9	19.6	19.8	4.59	1.70	14.0	0.42	0.16	14.3	14.1	0.34	1.03	0.37	0.72



Stellar Parameters For KIC 006068170

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6820^{+188}_{-205}	$3.547^{+0.344}_{-0.086}$	$-0.360^{+0.350}_{-0.250}$	$3.625^{+0.362}_{-1.358}$	$1.691^{+0.197}_{-0.394}$	$0.050^{+0.138}_{-0.013}$
	+3%/-3%	+10%/-2%	+97%/-69%	+10%/-37%	+12%/-23%	+275%/-26%
Source	PHO1	FLK73	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 006068170-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-9 ± 1	$1.81^{+0.67}_{-0.63}$	5059^{+259}_{-484}	4851^{+1236}_{-989}	$0.895^{+1.160}_{-0.436}$
Alt.	-74 ± 2	$2.79^{+0.69}_{-0.79}$	5055^{+273}_{-419}	7242^{+1303}_{-793}	$3.138^{+2.749}_{-1.104}$

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 $A_{obs} \gg 1.0$

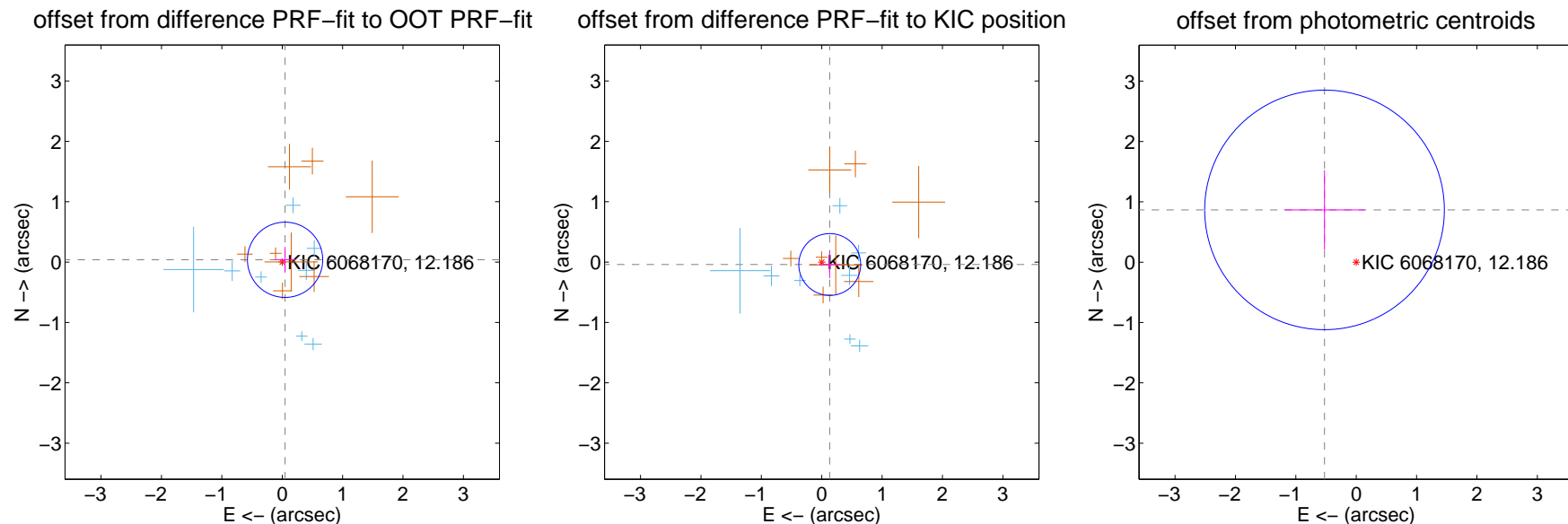
DV Centroid Data

Supplemental centroid analysis for 006068170-01. Kepler magnitude: 12.19. Transit SNR 8.79

There are 8 quarters with good PRF difference image offsets

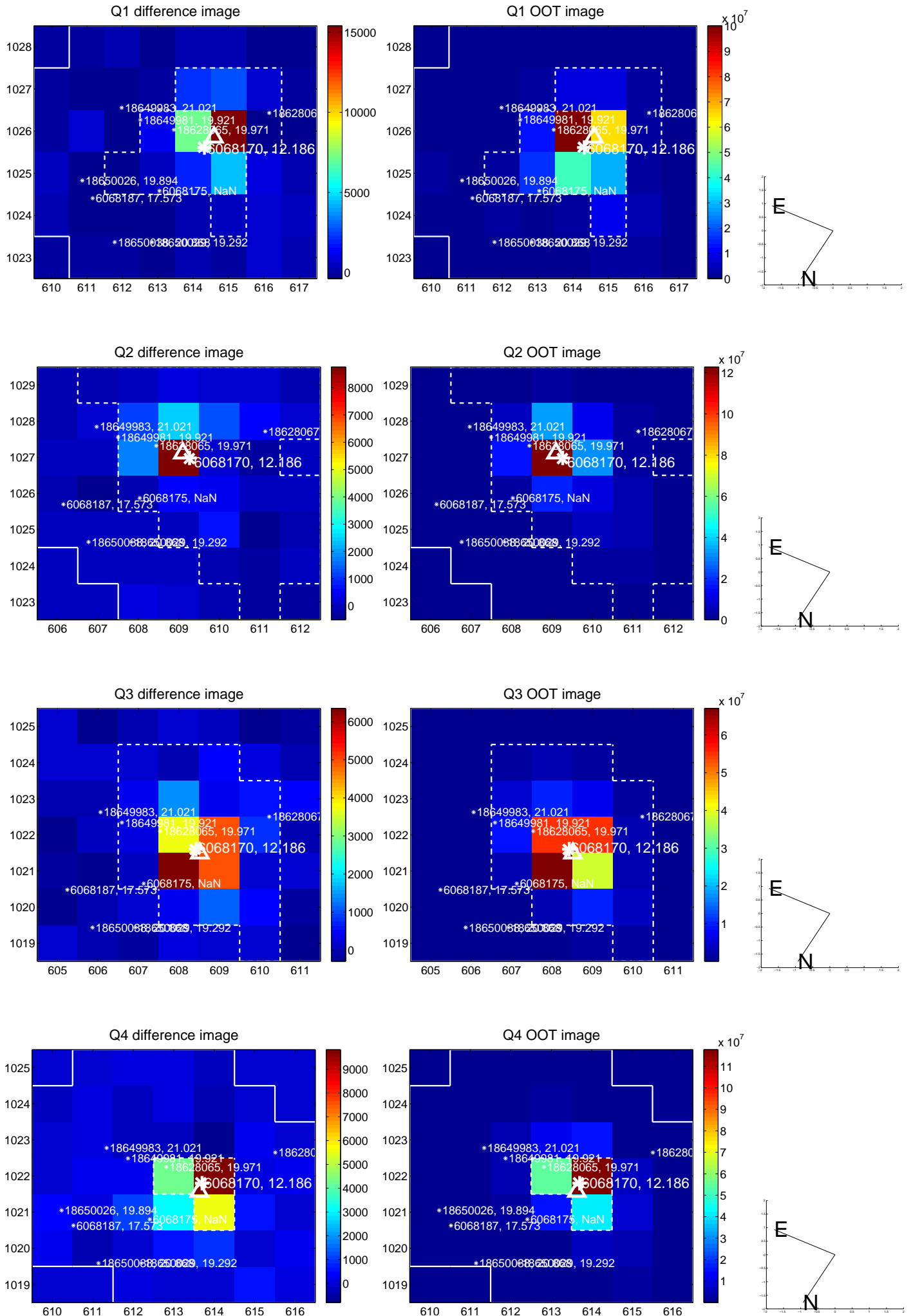
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.061 ± 0.208	0.29	-0.047 ± 0.174	0.038 ± 0.212
PRF-fit source offset from KIC position	0.139 ± 0.171	0.81	-0.133 ± 0.173	-0.040 ± 0.225
photometric centroid source offset	1.01 ± 0.66	1.53	0.52 ± 0.67	0.87 ± 0.66

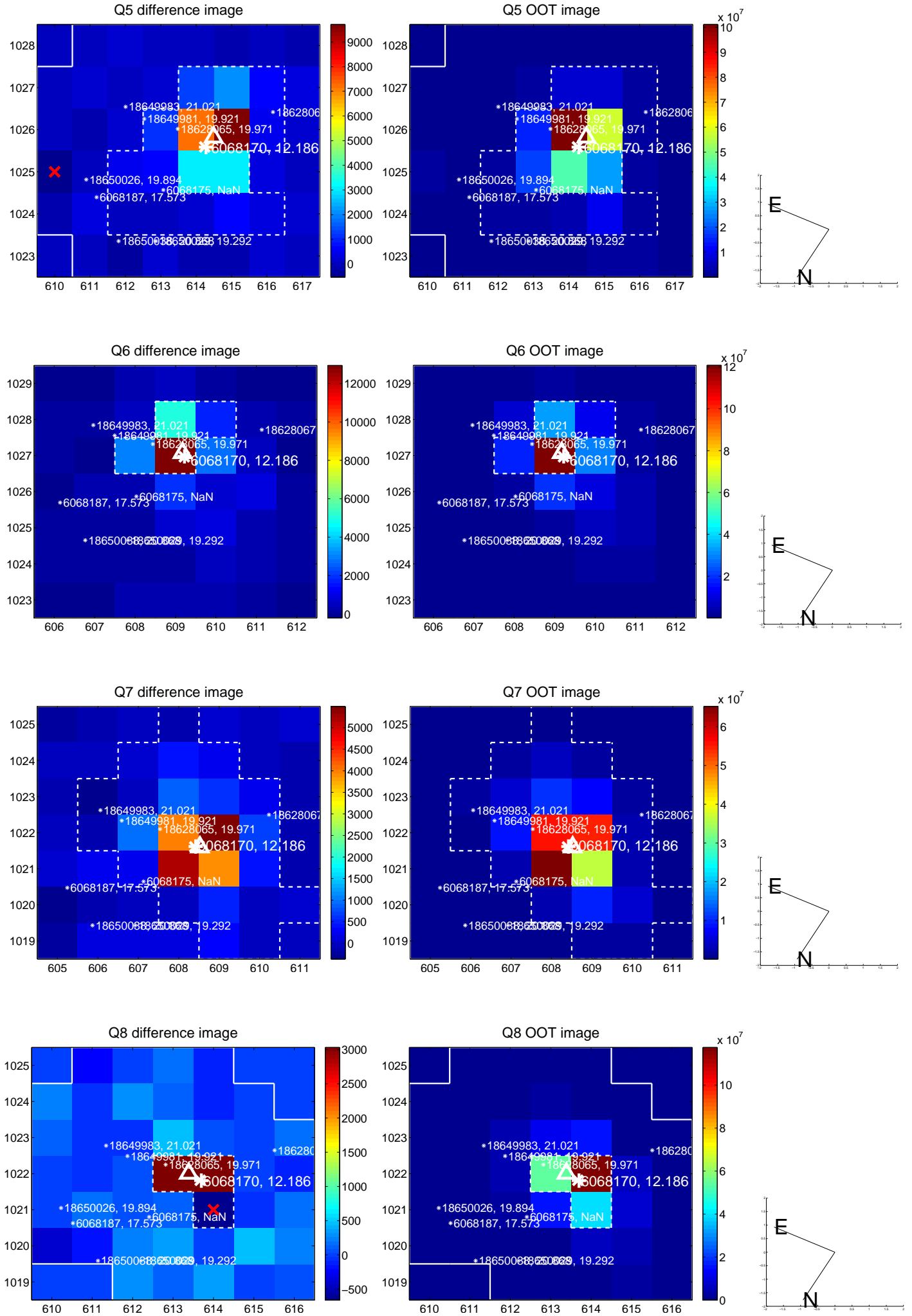


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

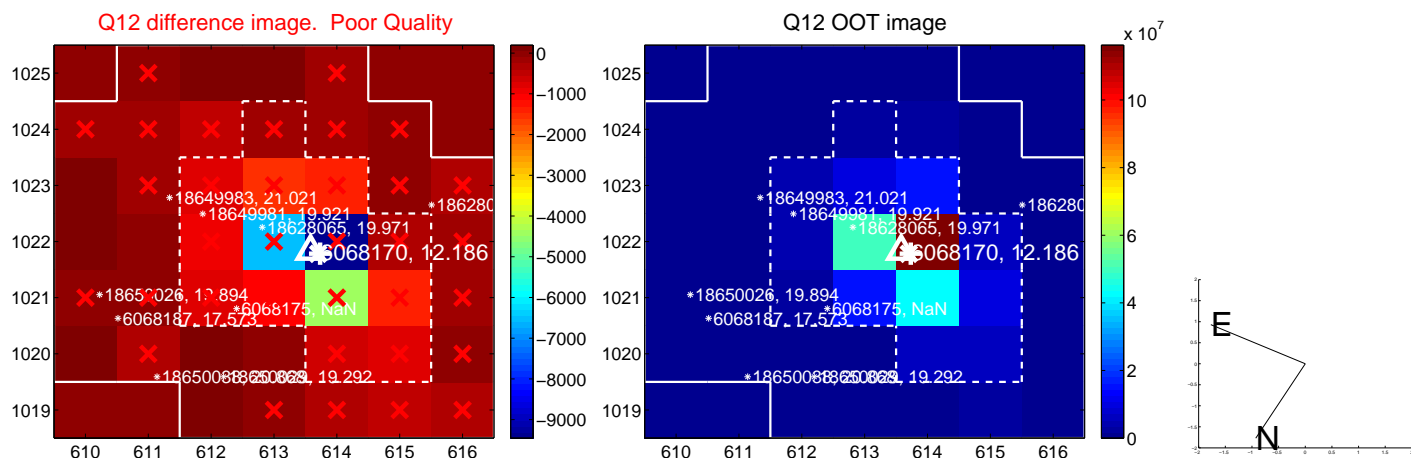
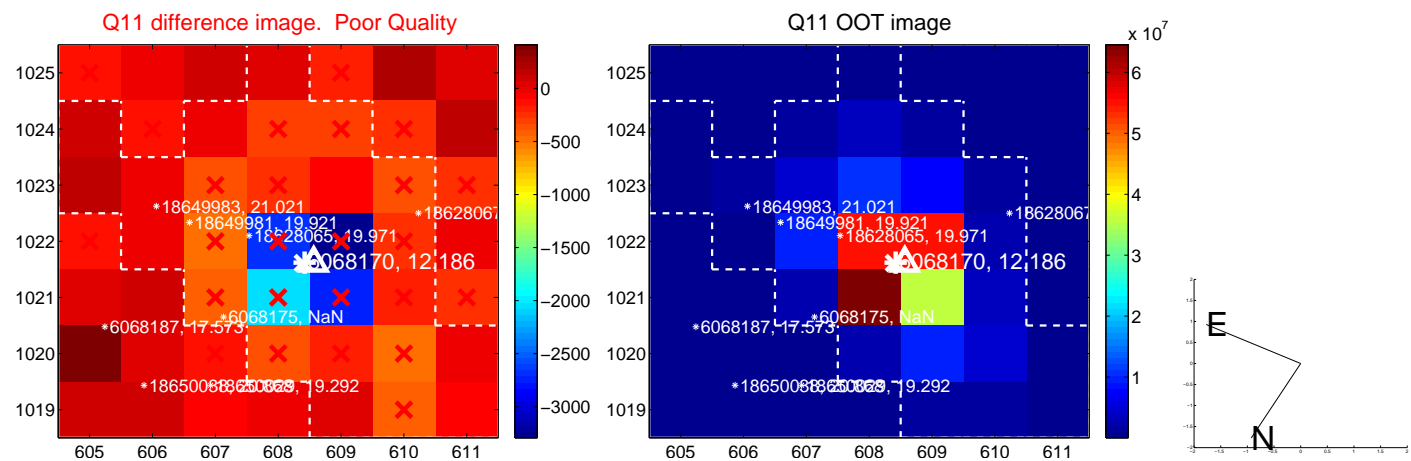
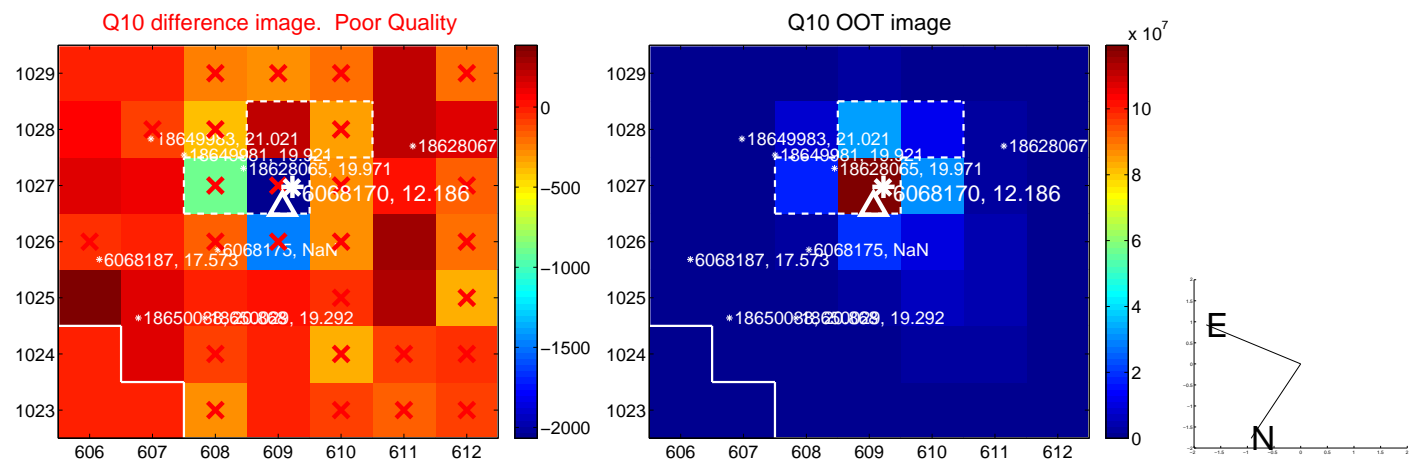
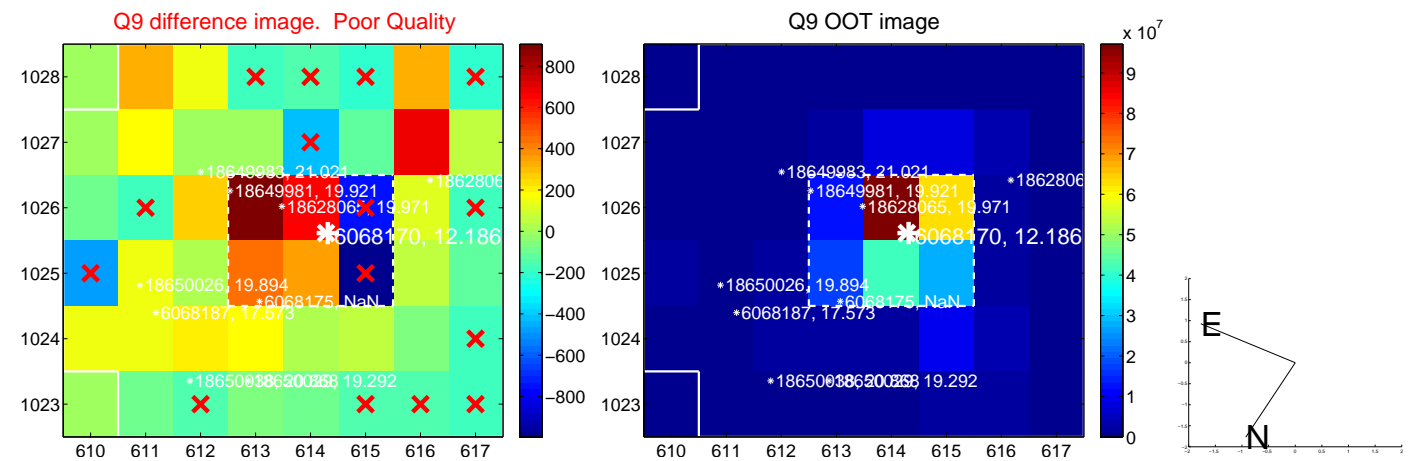
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



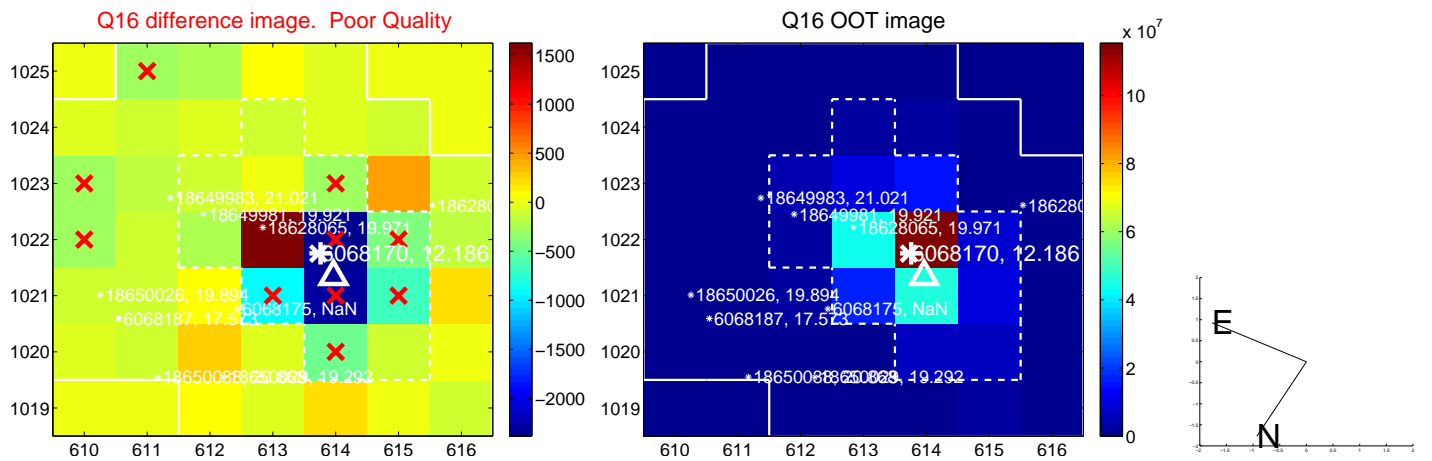
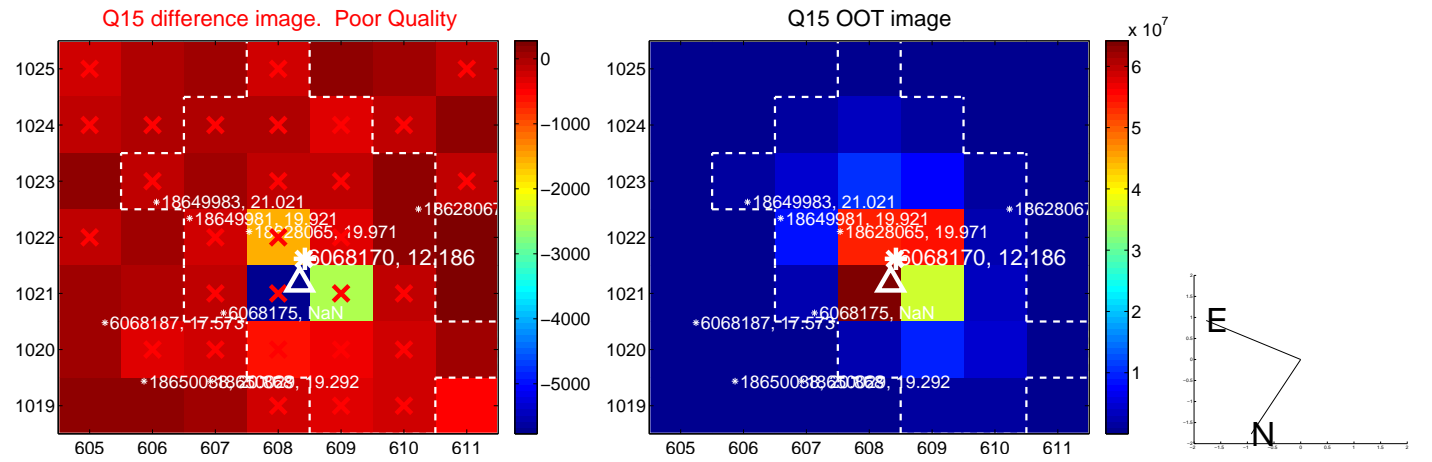
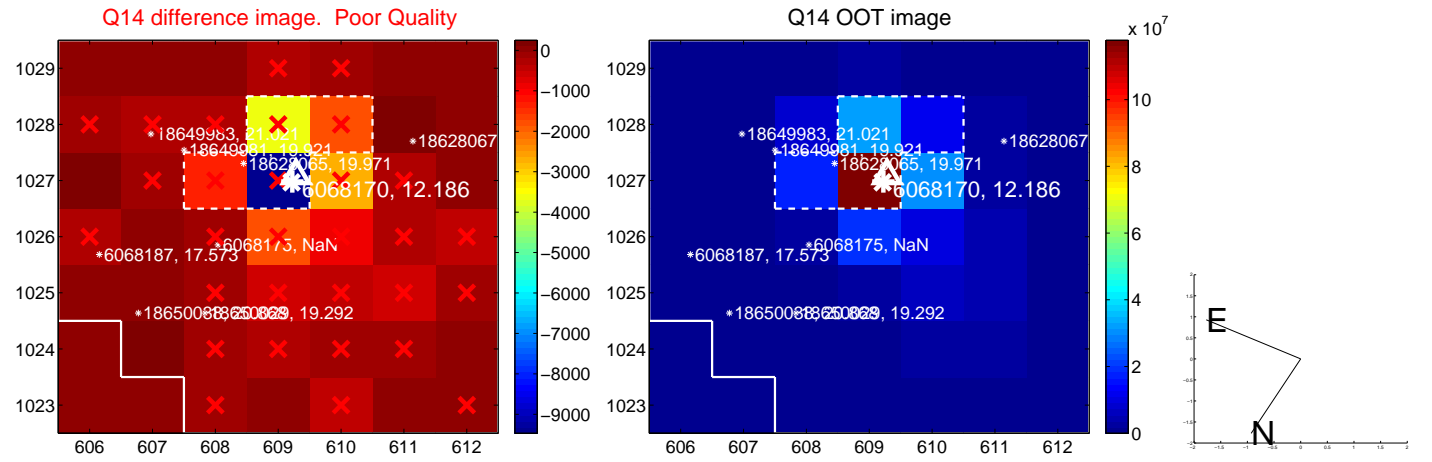
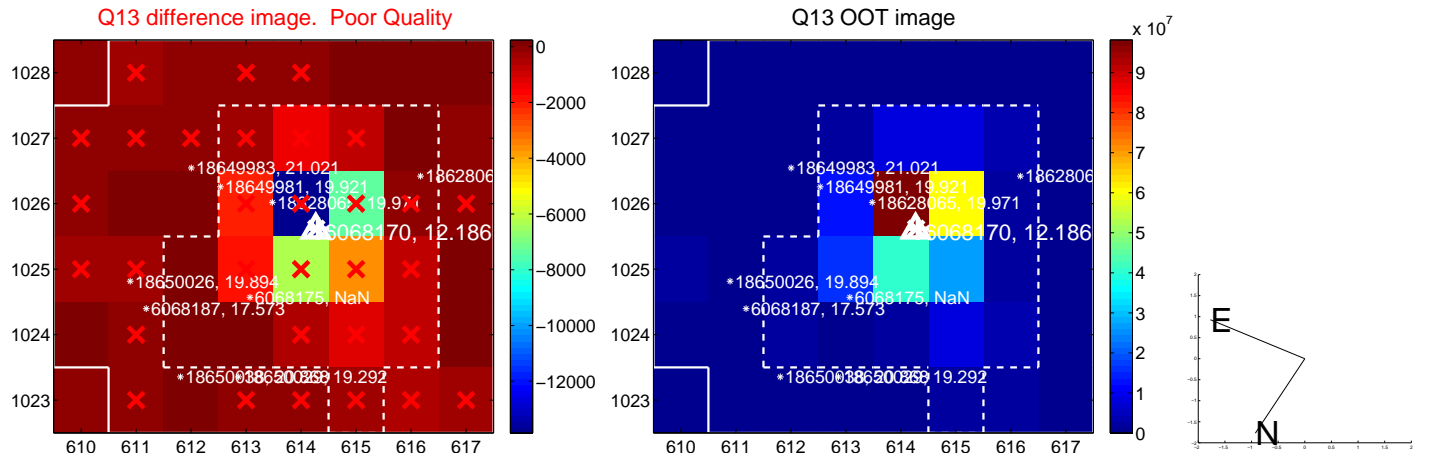
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



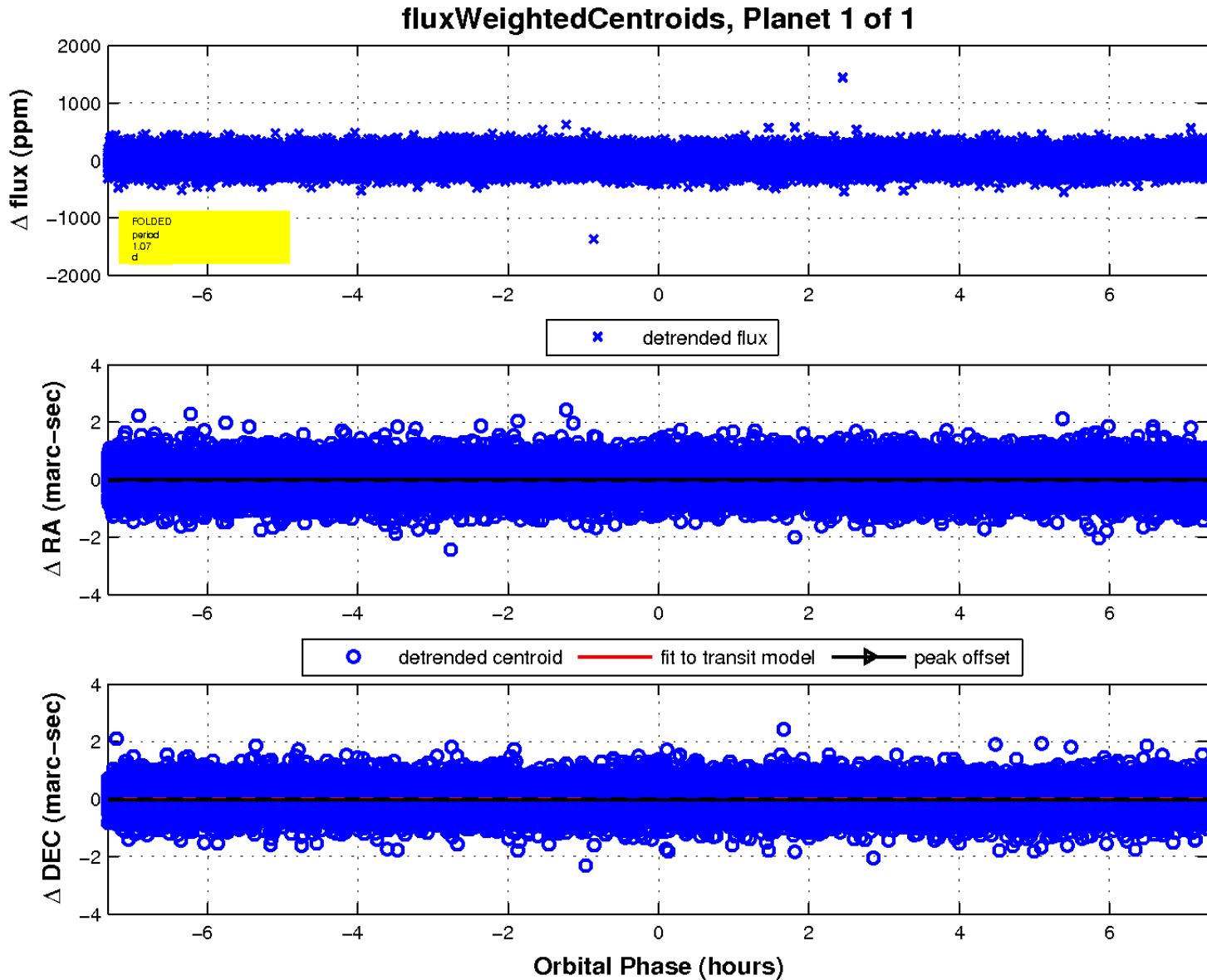
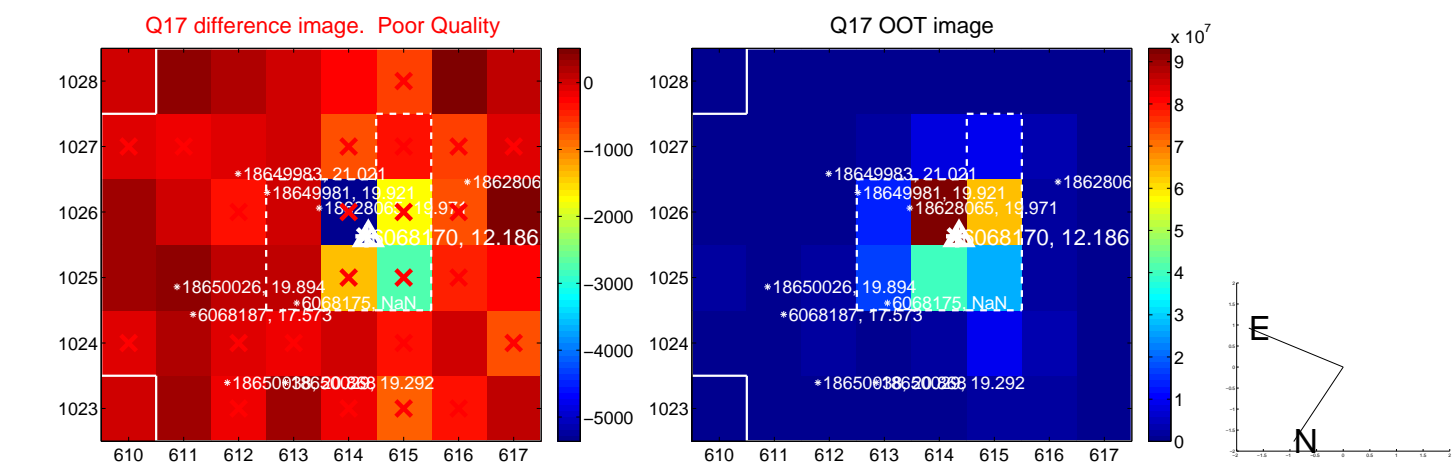
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

