

KIC 010296029

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})
010296029-01	OBS	No	7.190775	134.904996	100.9	28.645	7.7	11.5	0.94	5893	1.10	176.03

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010296029-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT

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

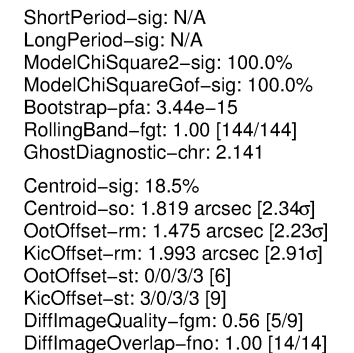
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

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

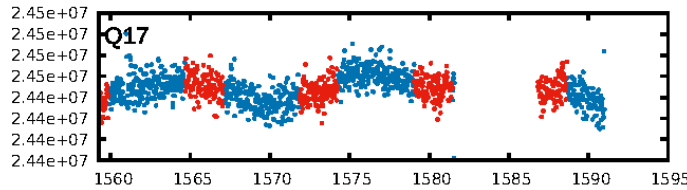
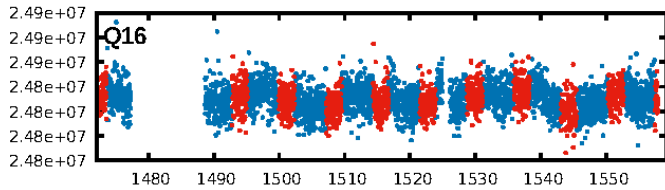
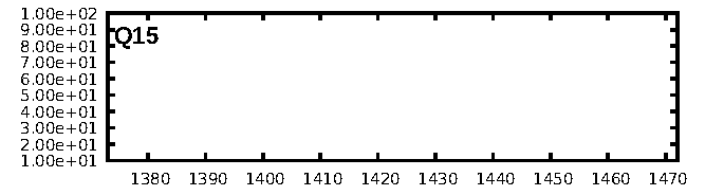
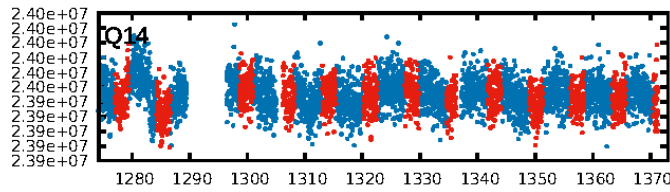
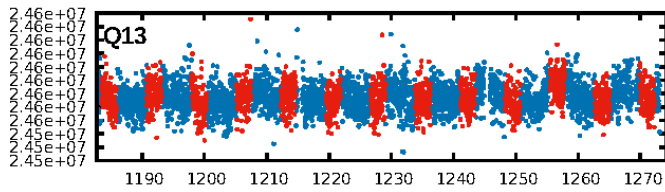
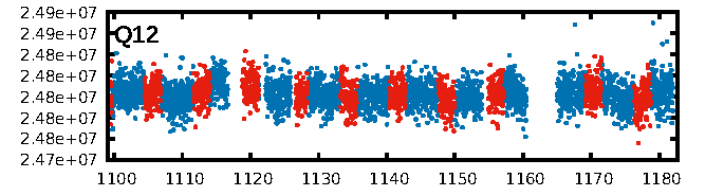
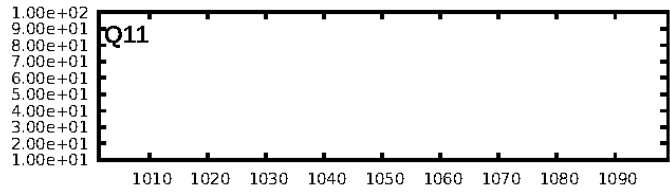
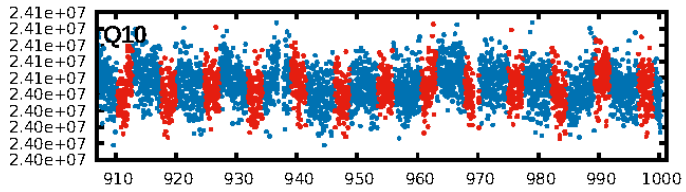
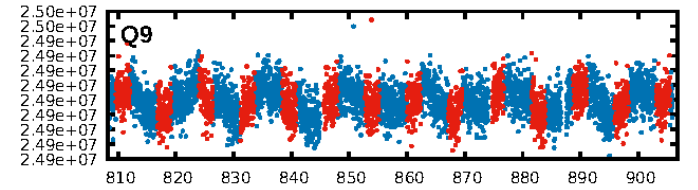
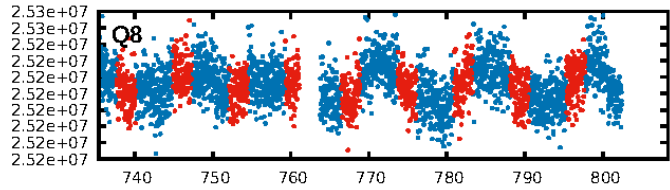
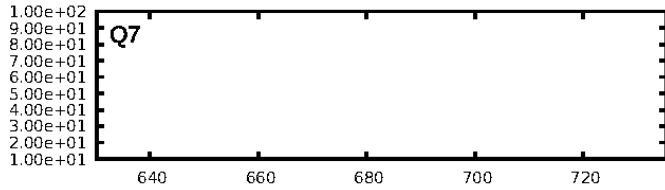
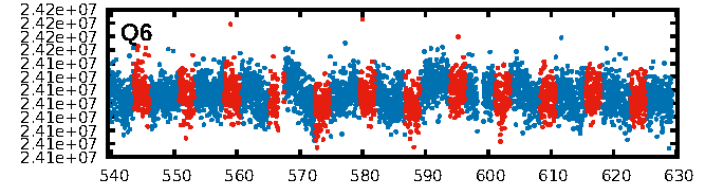
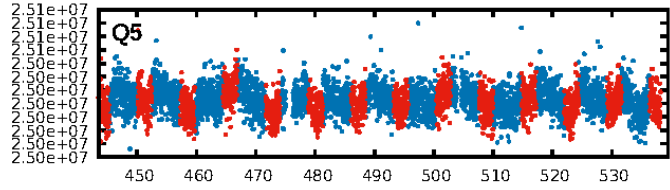
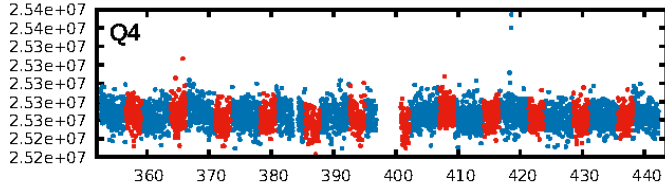
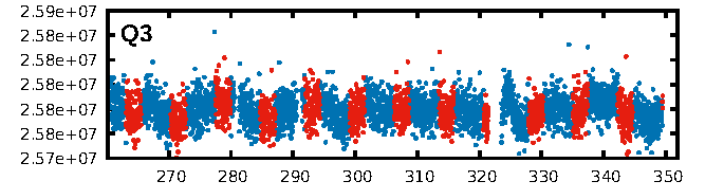
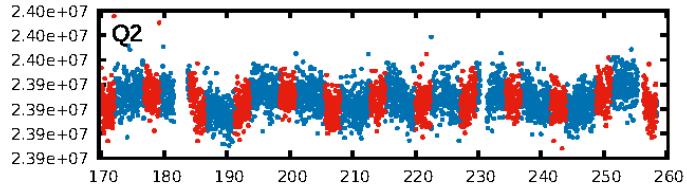
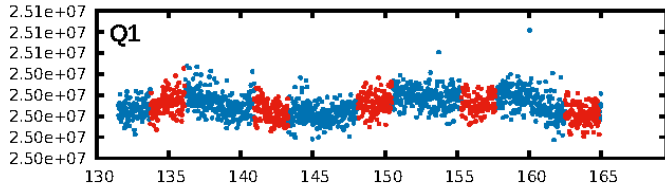
Ephemeris Match Information For 010296029-01

No Significant Match Found

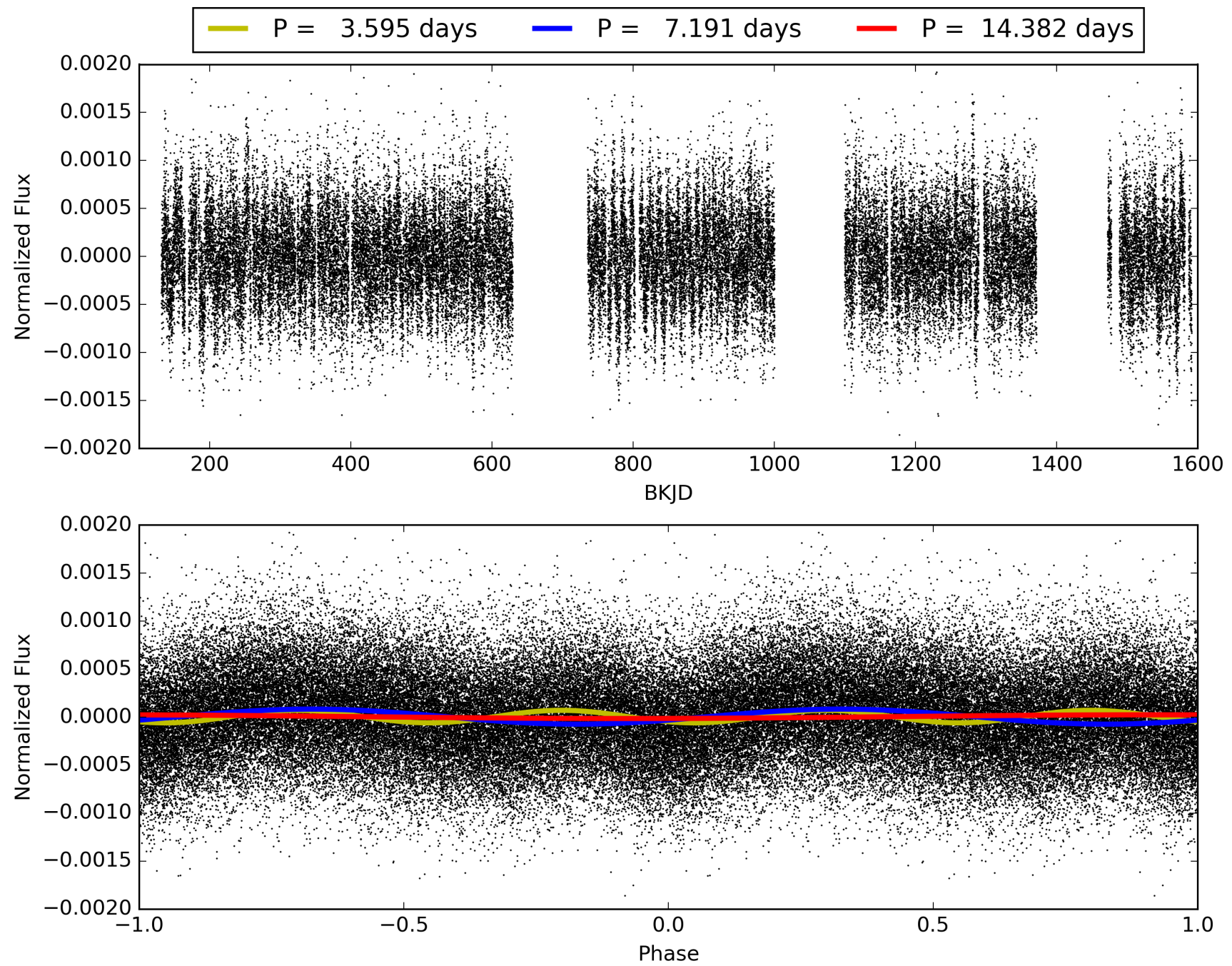
KIC: 10296029 Candidate: 1 of 1 Period: 7.191 d



TCE 010296029-01, PDC Light Curves

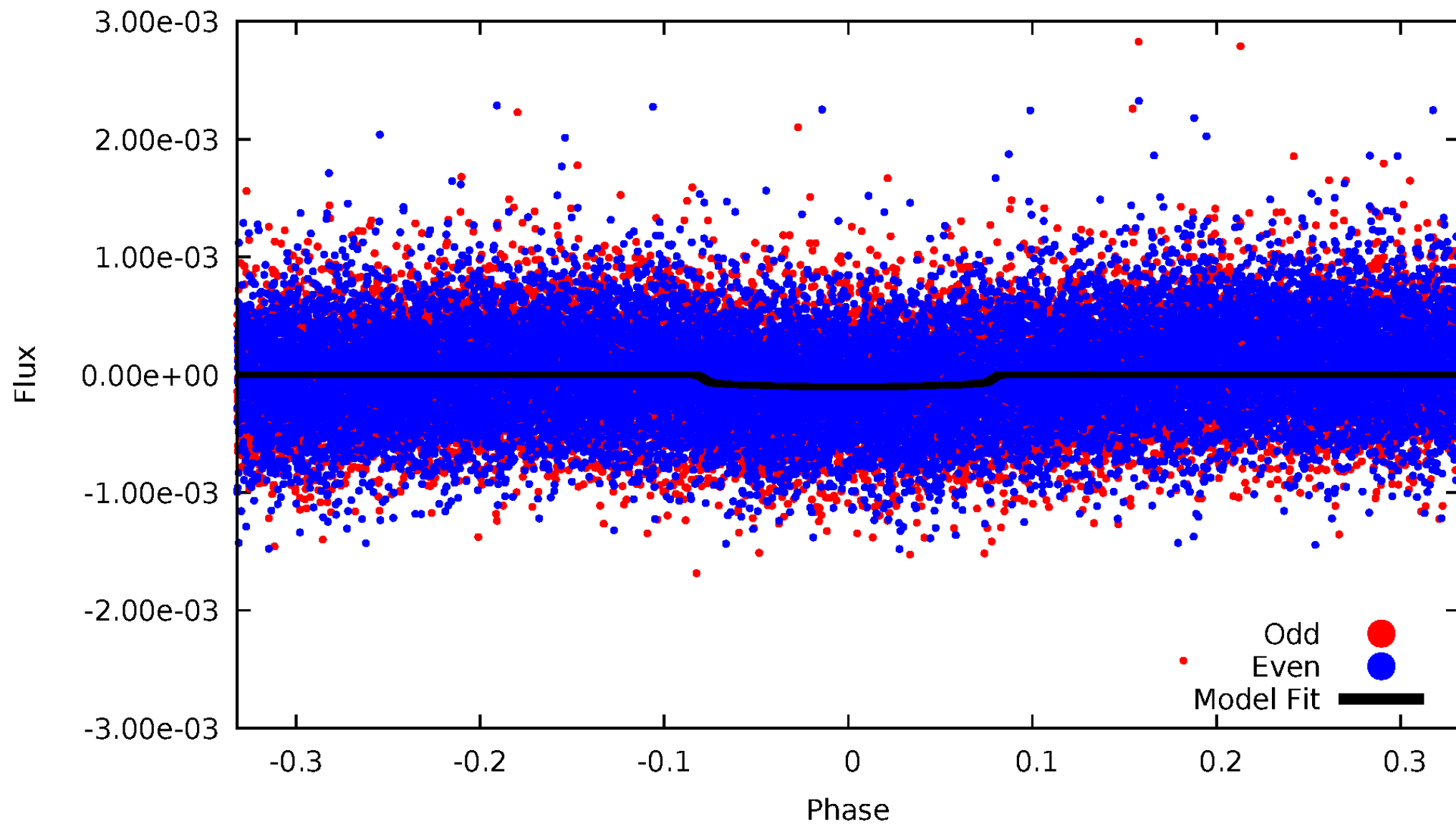


TCE 010296029-01



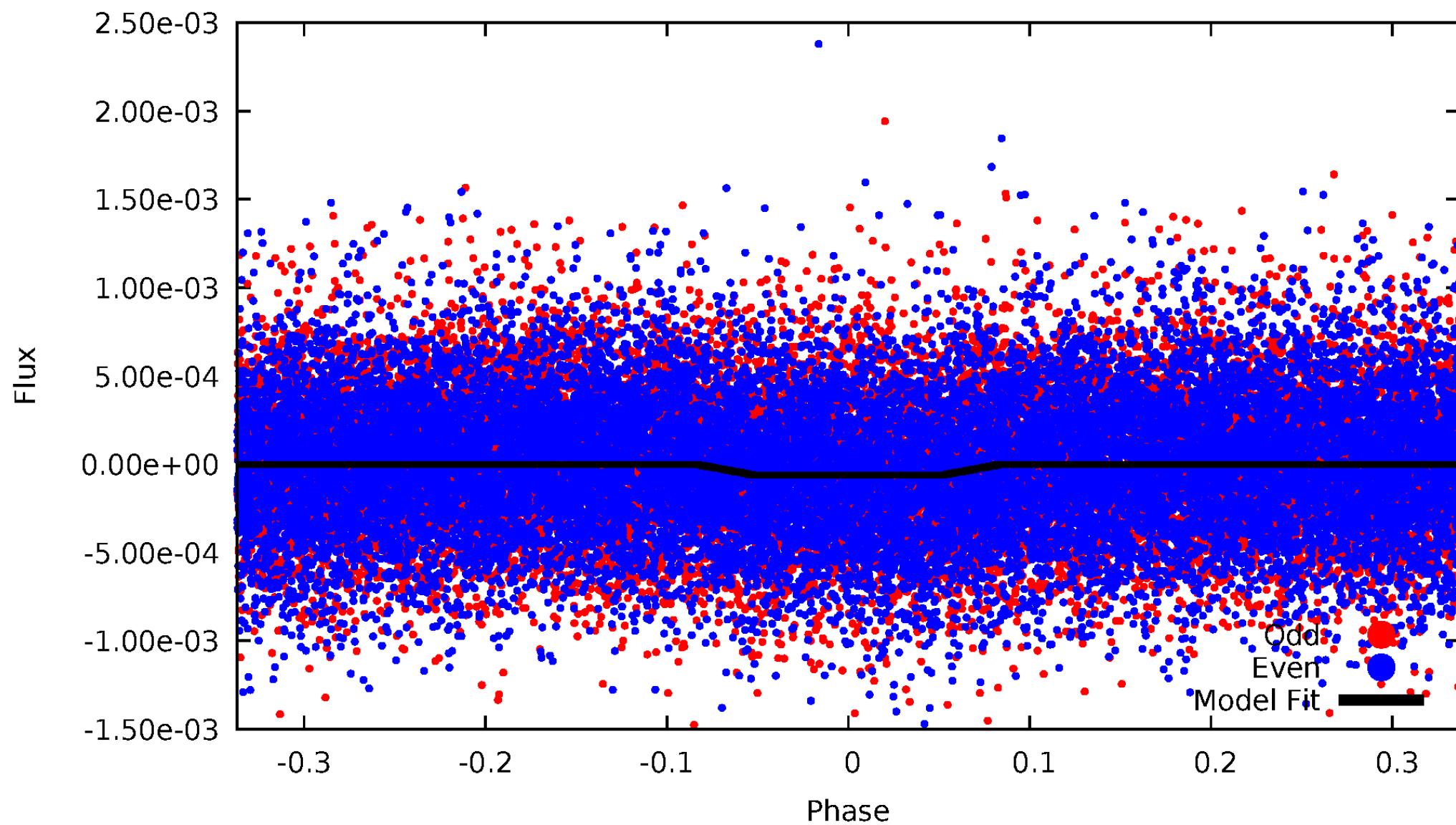
DV Odd/Even

TCE 010296029-01

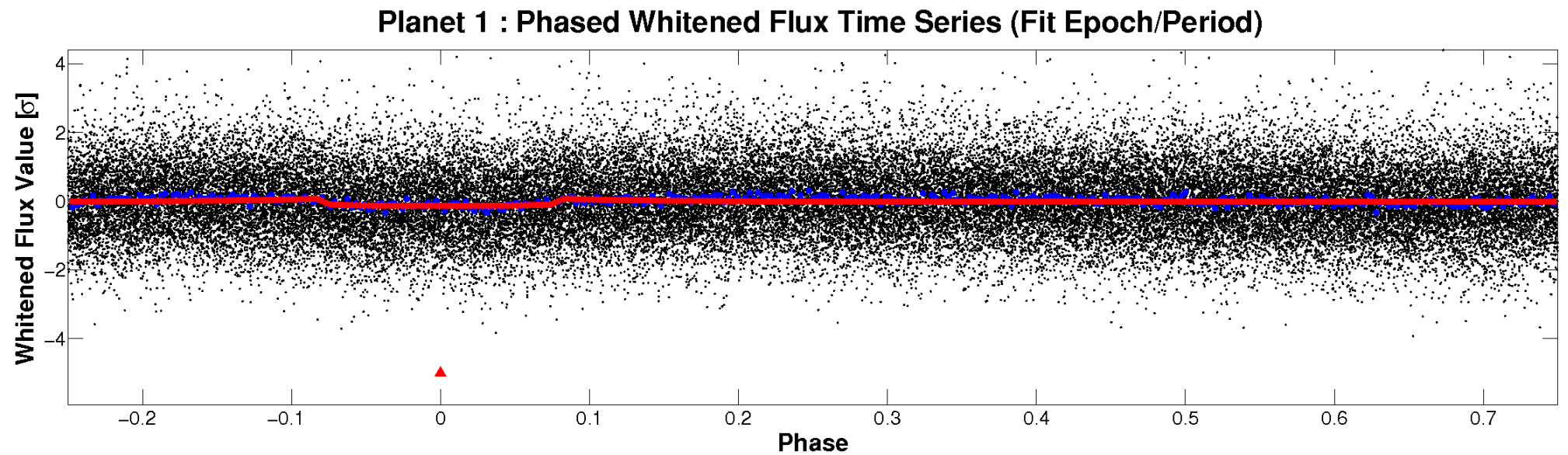
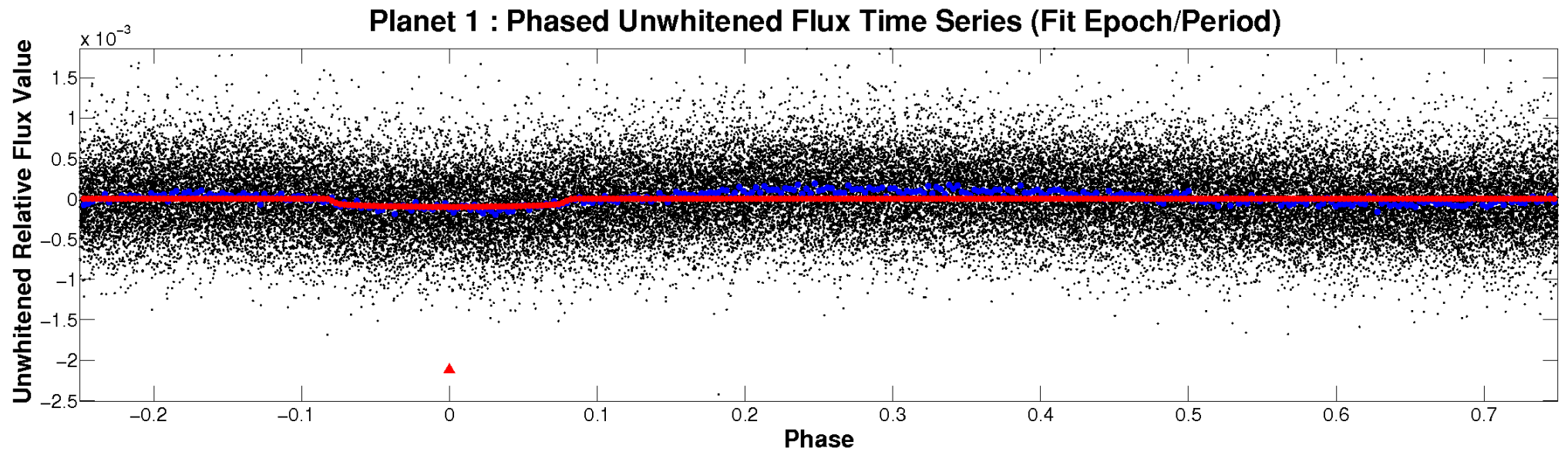


ALT Odd/Even

TCE 010296029-01

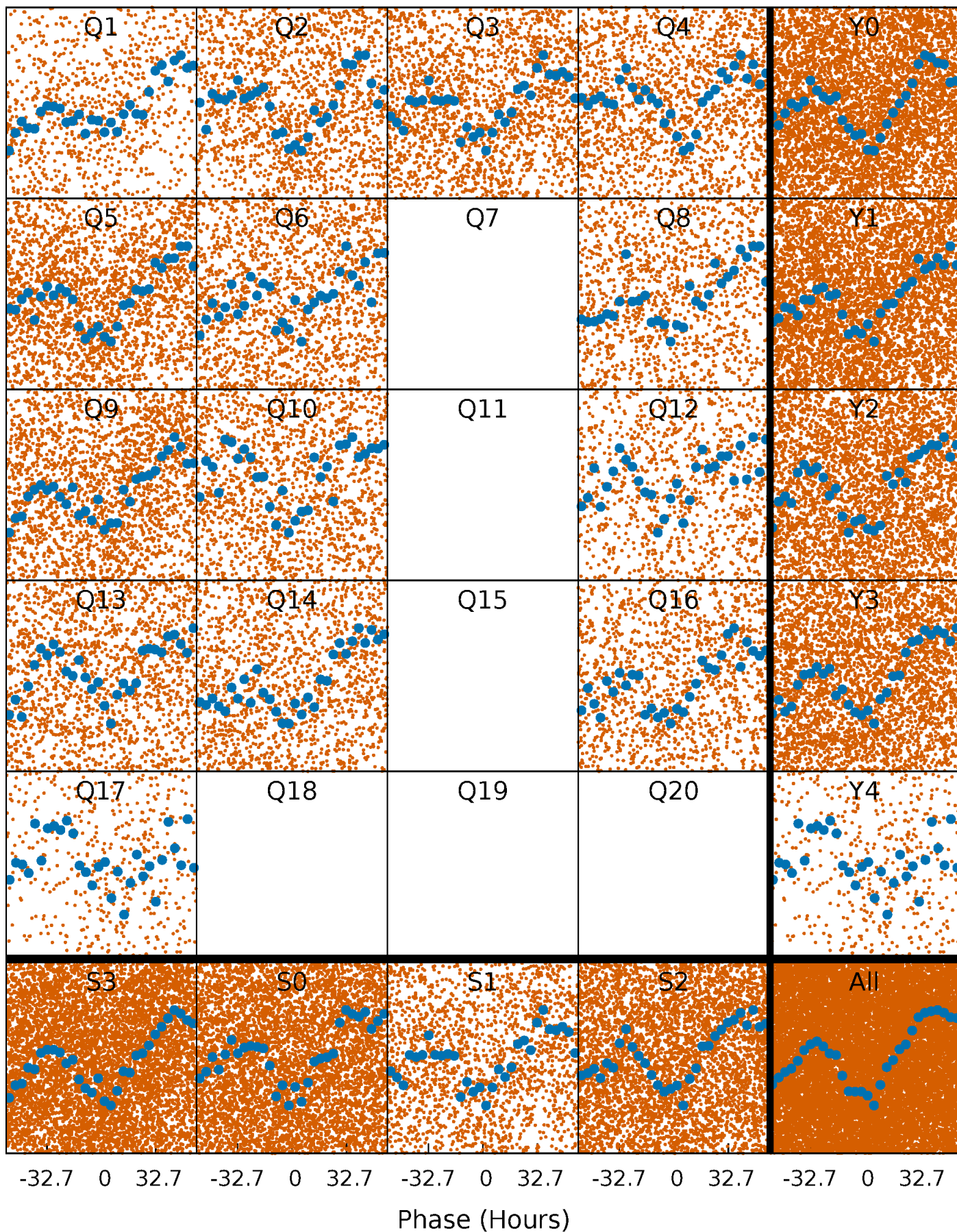


Non-Whitened Vs. Whitened Light Curve



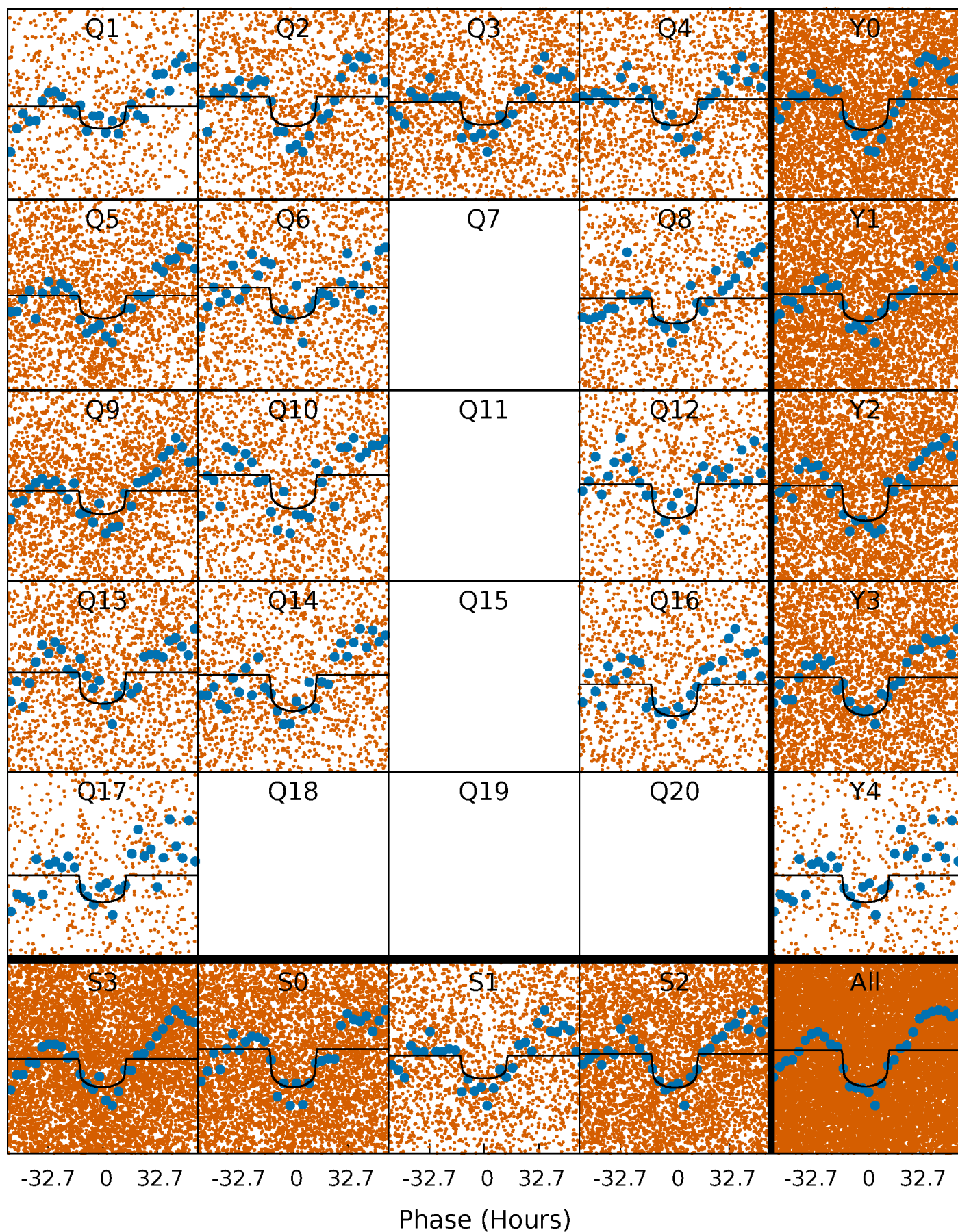
PDC Quarter-Phased Transit Curves

TCE 010296029-01 P= 7.190775 Days $T_0=134.904996$ (BKJD)



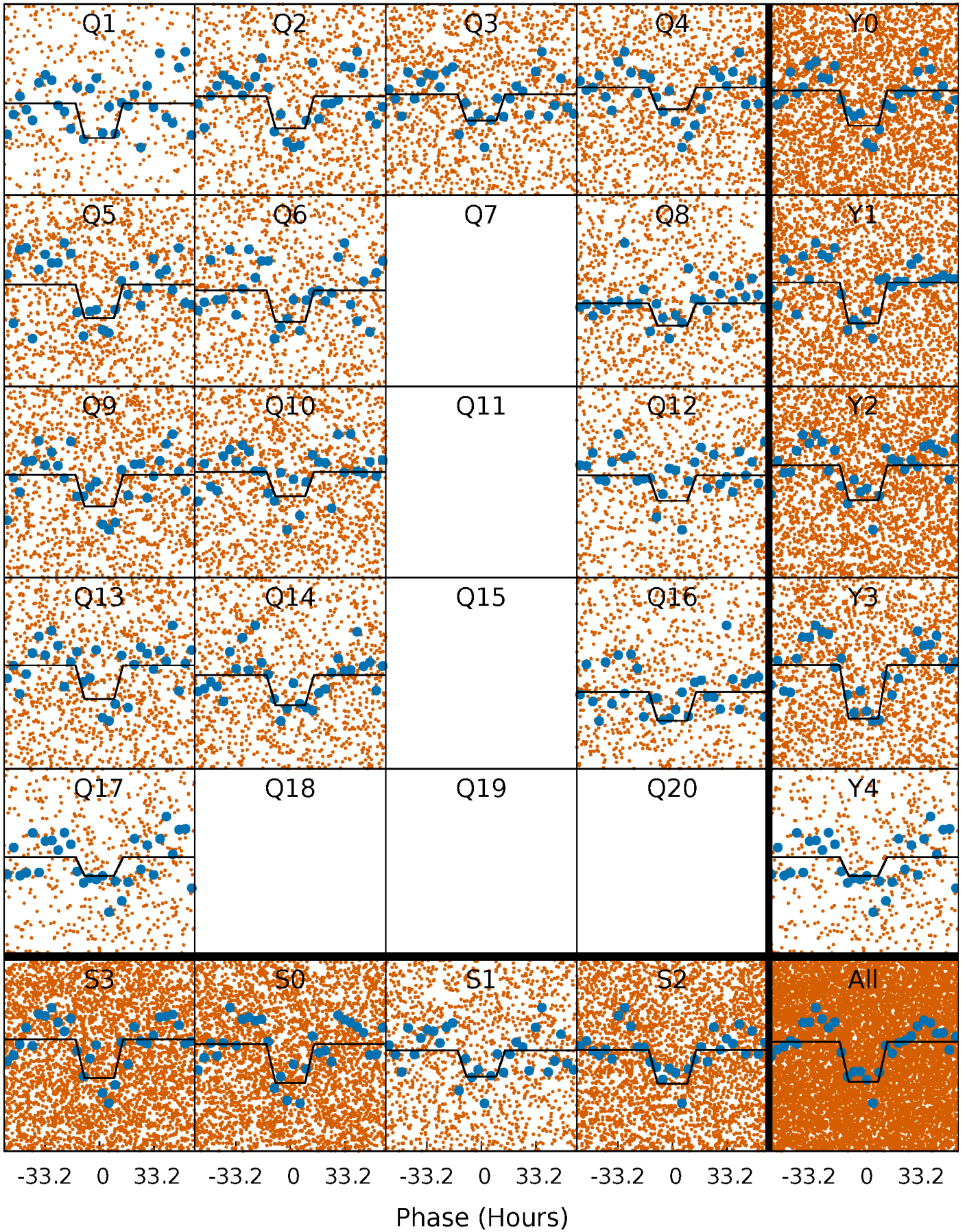
DV Quarter-Phased Transit Curves

TCE 010296029-01 P= 7.190775 Days $T_0=134.904996$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

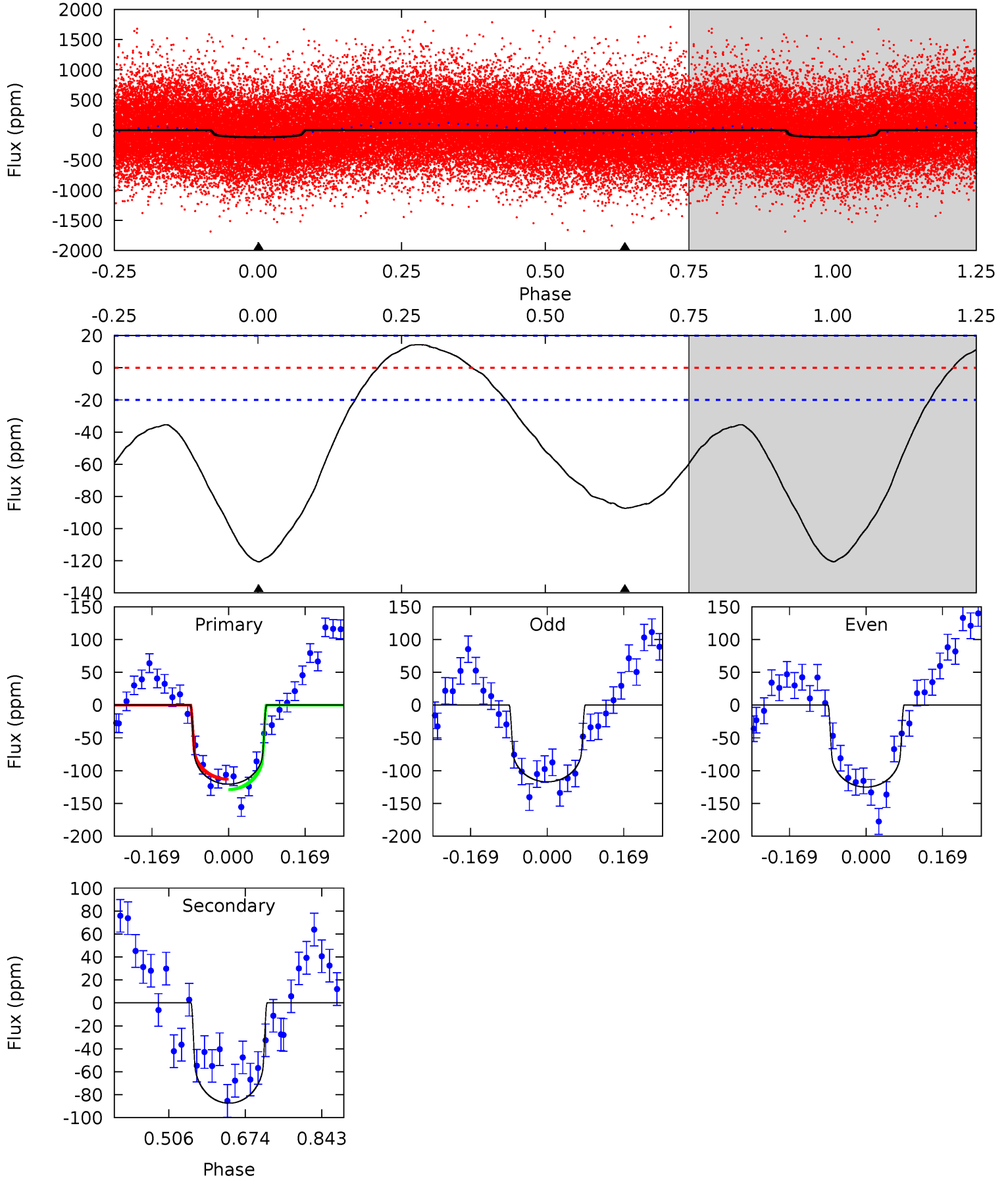
TCE 010296029-01 P= 7.190861 Days $T_0=134.911146$ (BKJD)



DV Model-Shift Uniqueness Test

010296029-01, P = 7.190775 Days, E = 127.714221 Days

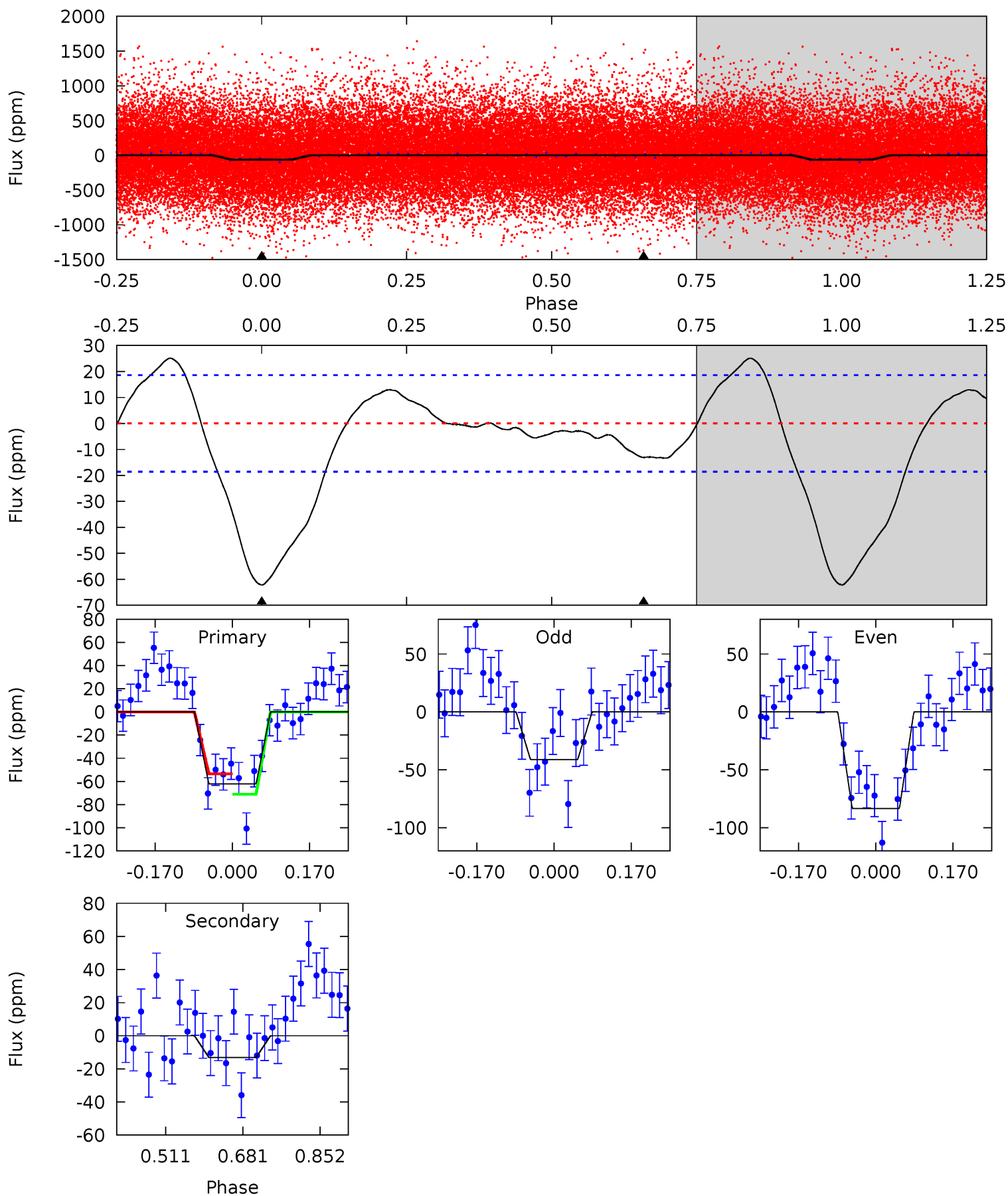
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.9	19.5	0	0	4.45	1.38	3.75	26.9	26.9	19.5	19.5	0.90	0.92	0.11	1.77



Alt Model-Shift Uniqueness Test

010296029-01, P = 7.190861 Days, E = 127.720285 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.9	3.14	0	0	4.45	1.37	1.42	14.9	14.9	3.14	3.14	5.06	1.36	0.29	2.11



Stellar Parameters For KIC 010296029

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5893^{+158}_{-193}	$4.505^{+0.050}_{-0.200}$	$0.000^{+0.250}_{-0.350}$	$0.941^{+0.264}_{-0.094}$	$1.033^{+0.115}_{-0.140}$	$1.748^{+0.445}_{-0.856}$
	+3%/-3%	+1%/-4%	+inf%/-inf%	+28%/-10%	+11%/-14%	+25%/-49%
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 010296029-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-87 ± 4	$1.15^{+0.19}_{-0.15}$	1325^{+87}_{-66}	5483^{+362}_{-255}	193^{+59}_{-50}
Alt.	-13 ± 4	$0.83^{+0.15}_{-0.13}$	1321^{+95}_{-64}	4267^{+326}_{-351}	56^{+28}_{-22}

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 $A_{obs} \gg 1.0$

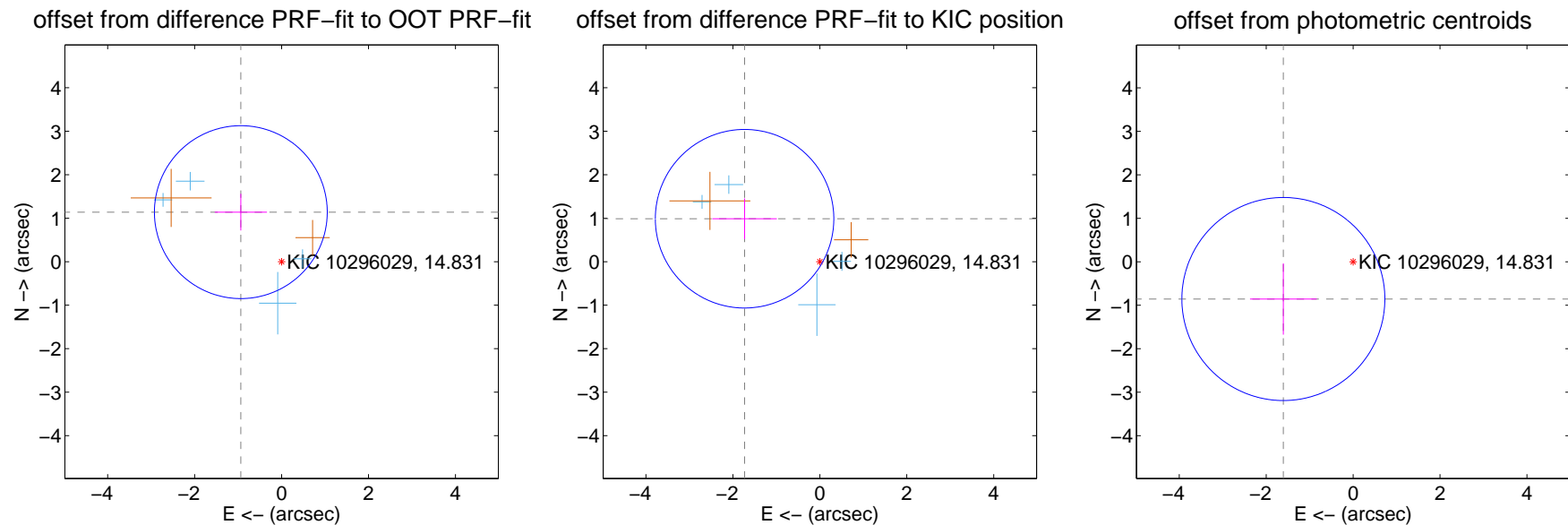
DV Centroid Data

Supplemental centroid analysis for 010296029-01. Kepler magnitude: 14.83. Transit SNR 11.50

There are 5 quarters with good PRF difference image offsets

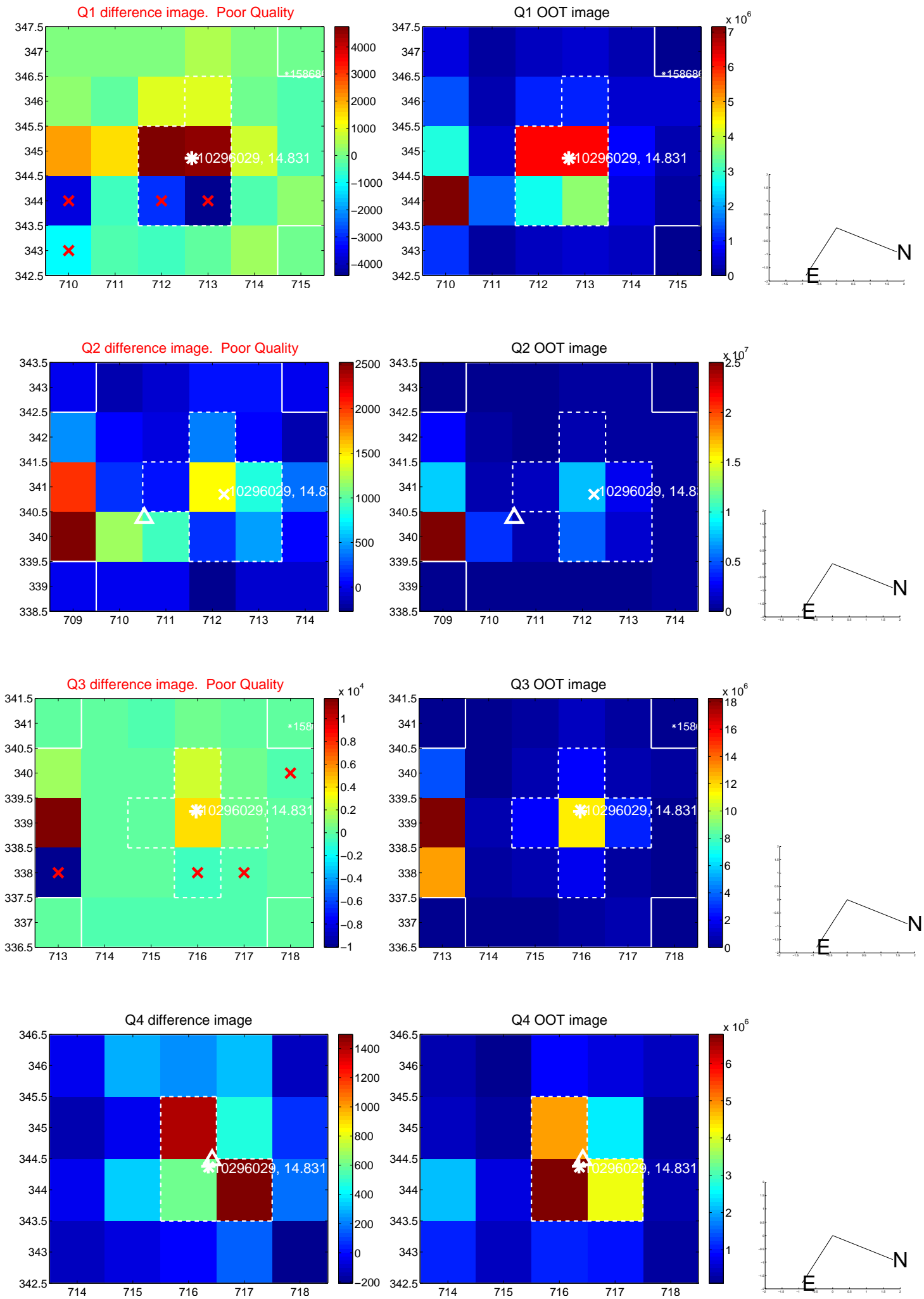
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.475 ± 0.662	2.23	0.937 ± 0.601	1.139 ± 0.420
PRF-fit source offset from KIC position	1.993 ± 0.684	2.91	1.731 ± 0.741	0.988 ± 0.467
photometric centroid source offset	1.82 ± 0.78	2.34	1.60 ± 0.77	-0.86 ± 0.82

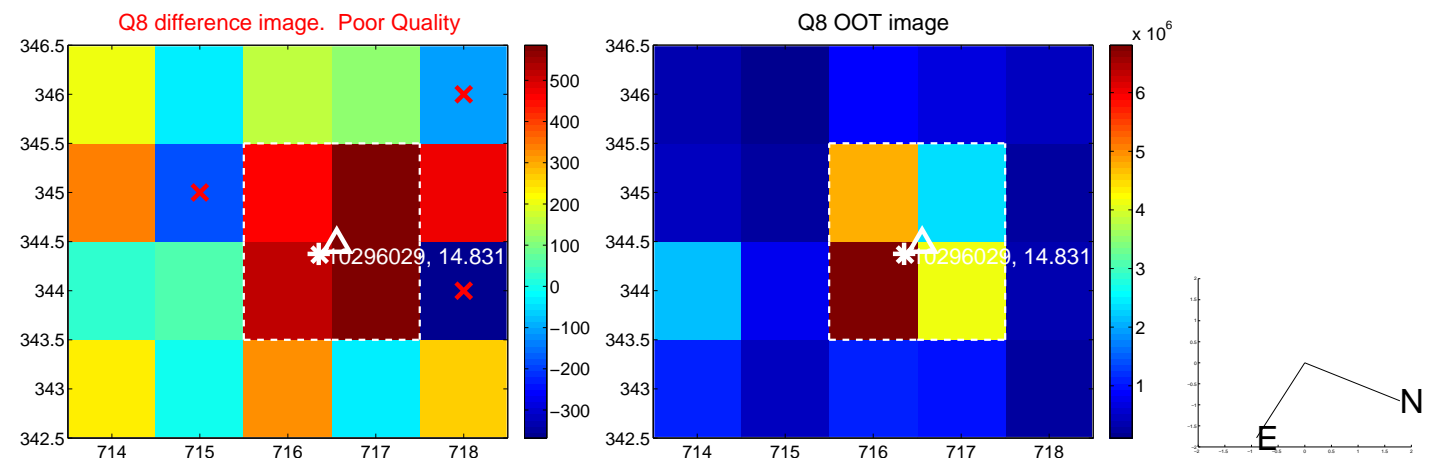
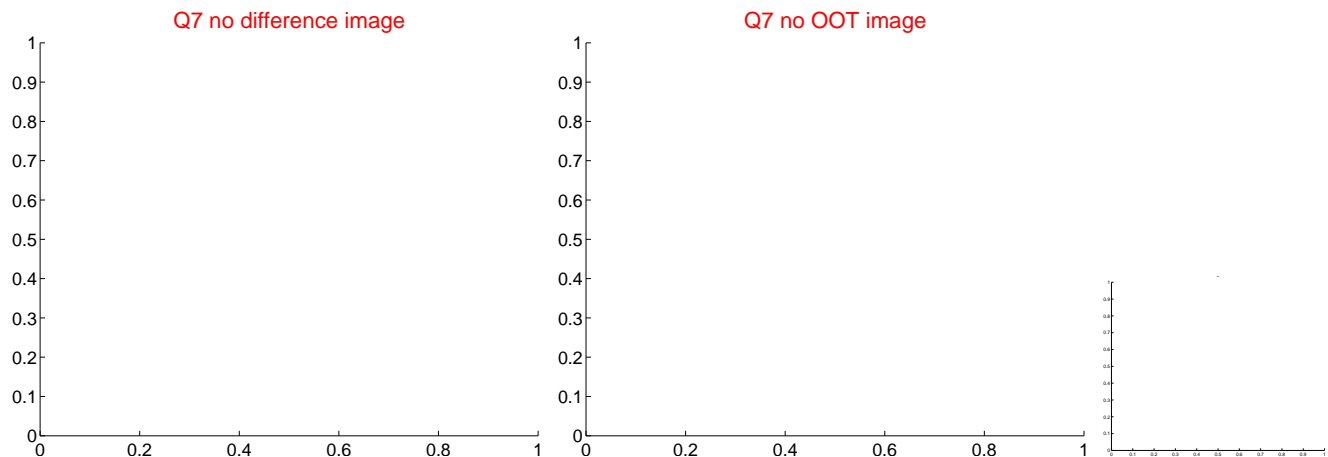
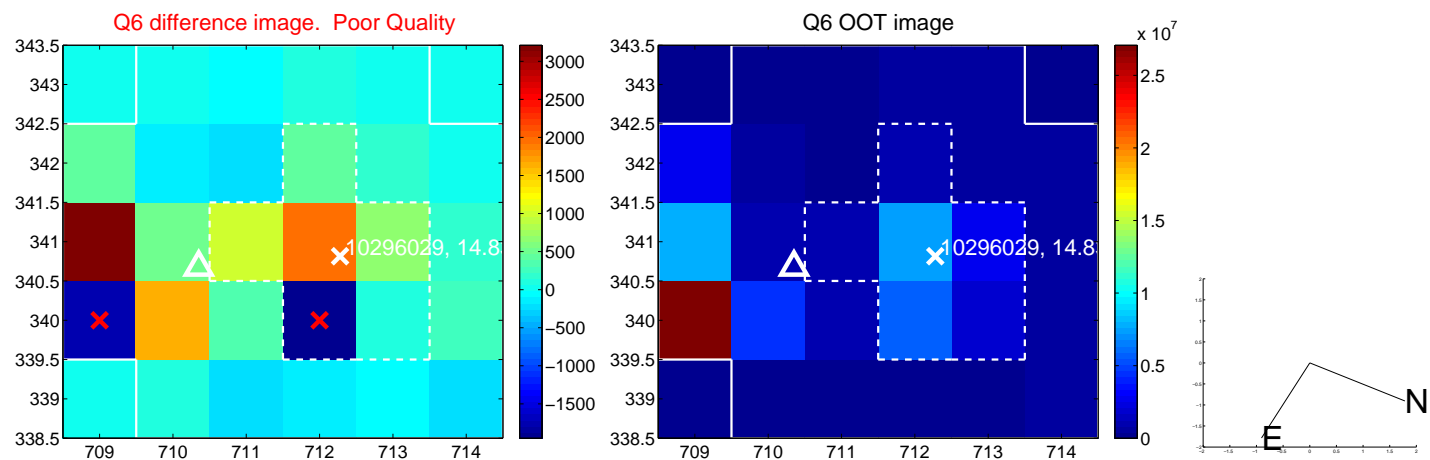
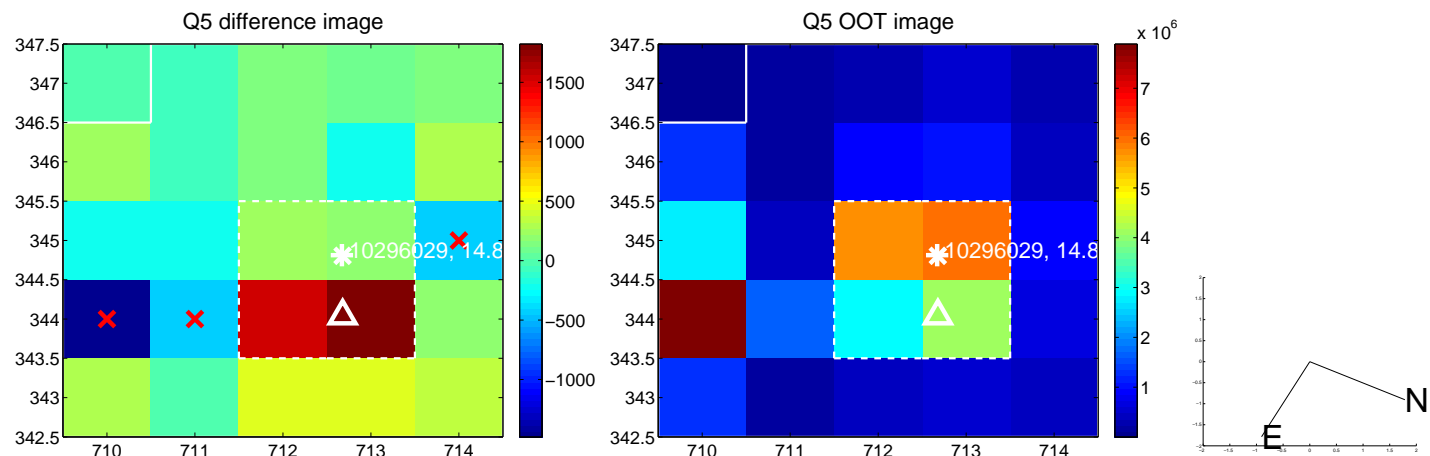


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

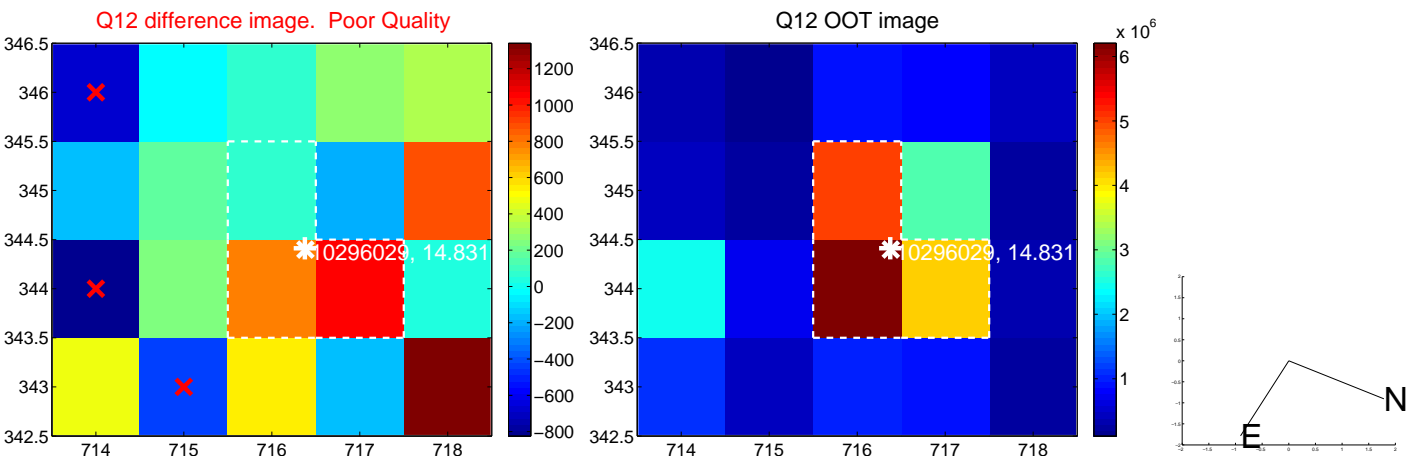
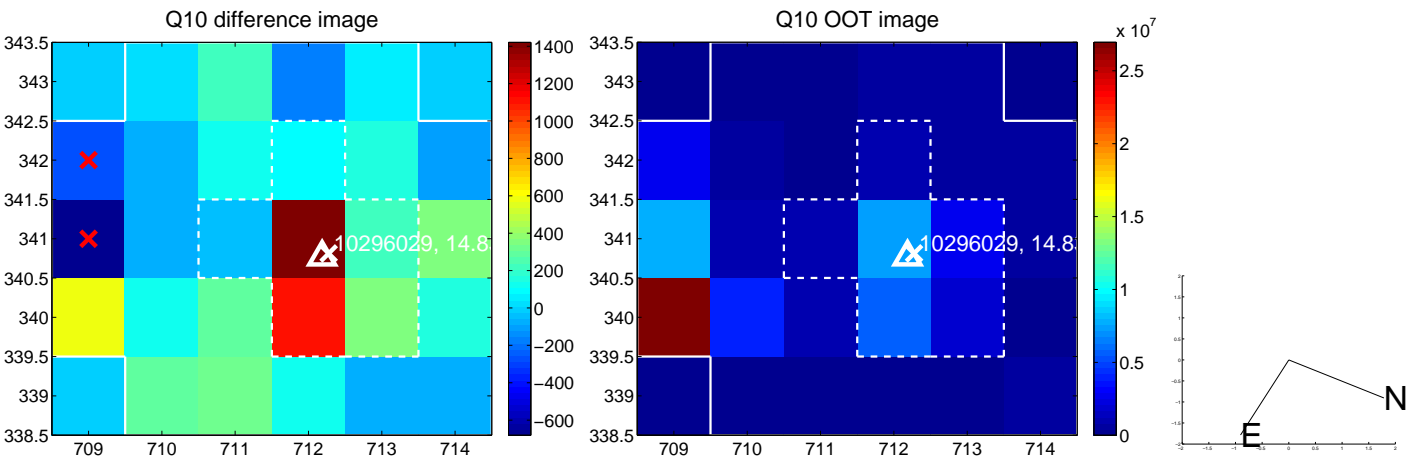
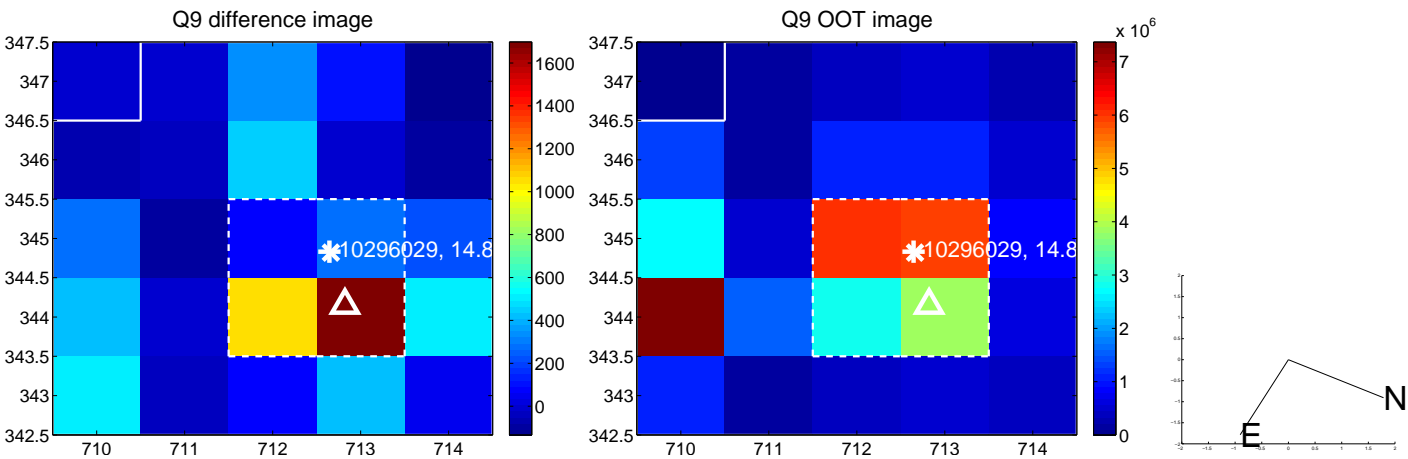
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



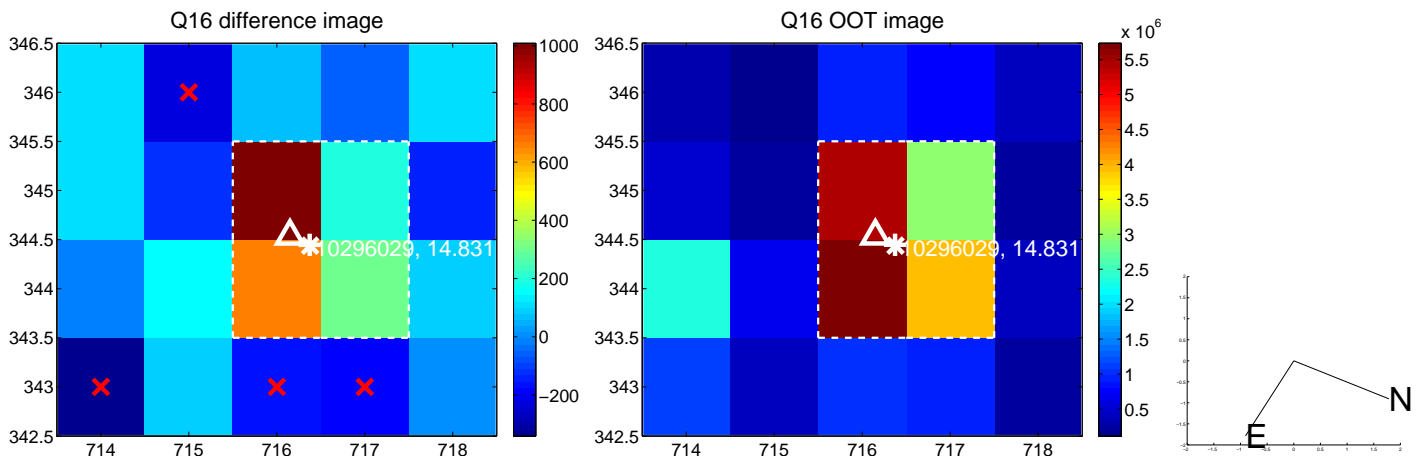
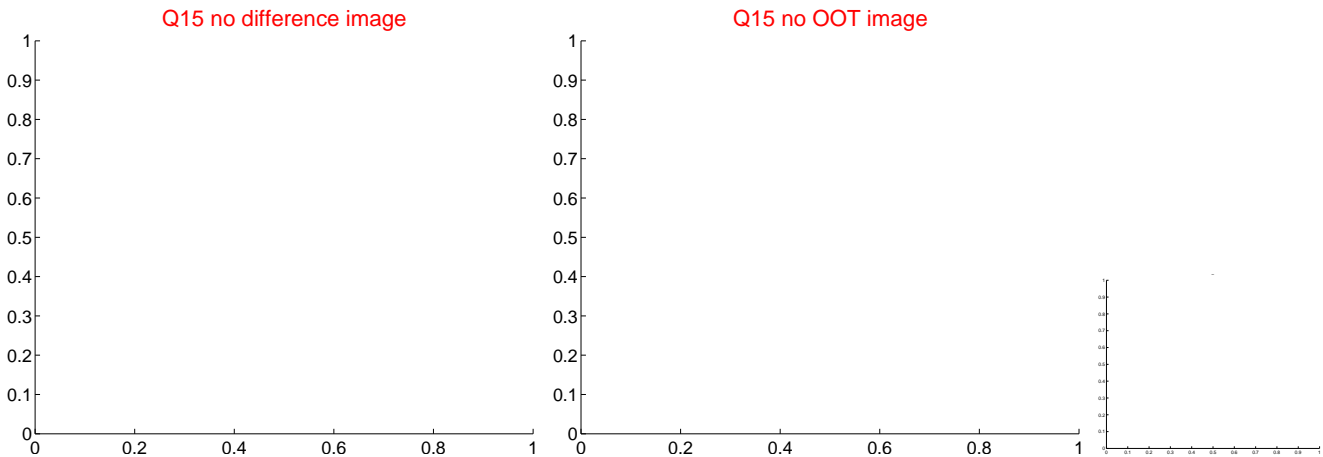
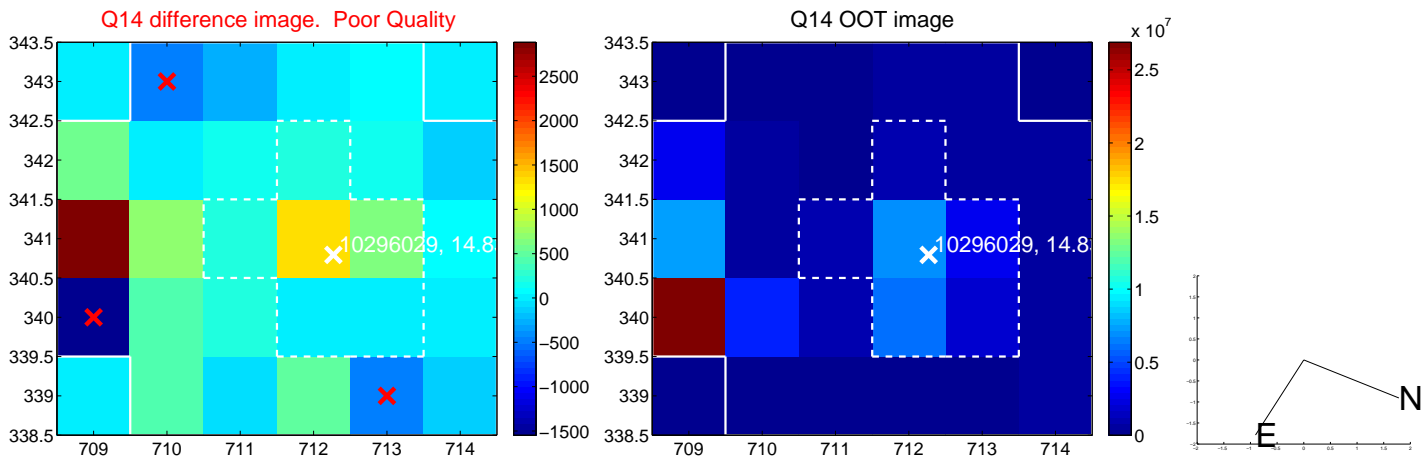
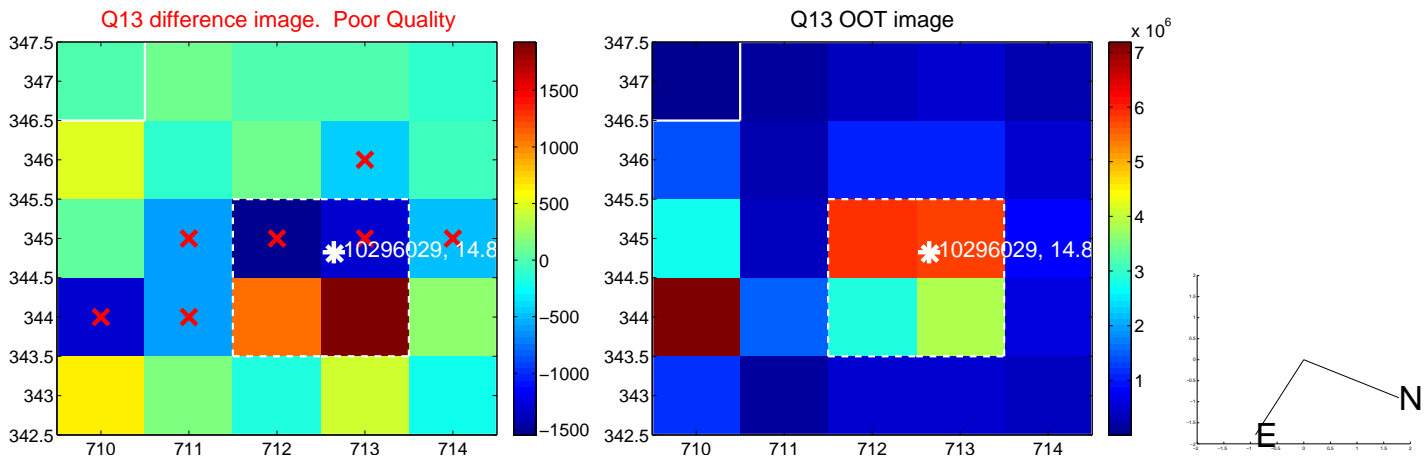
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



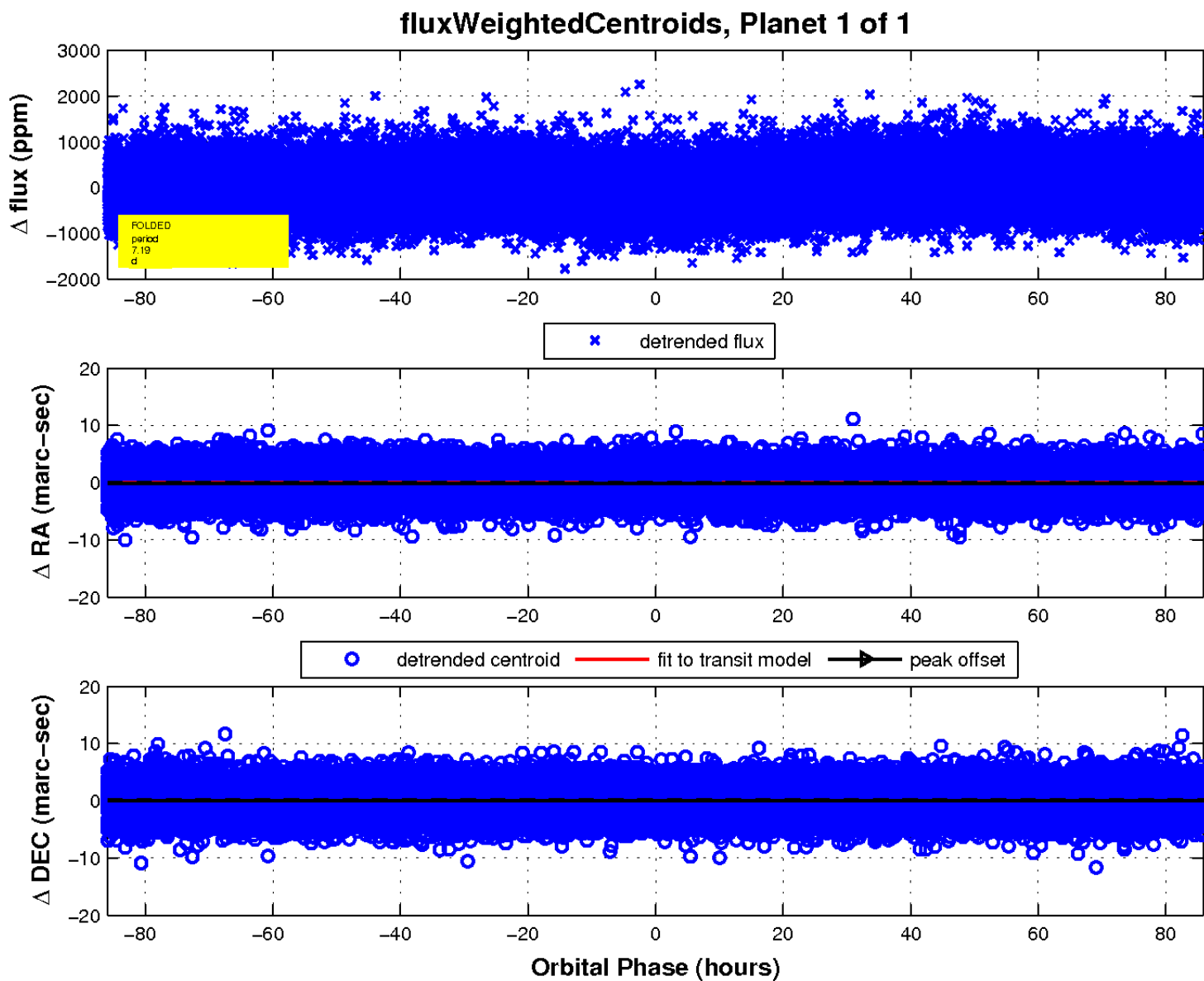
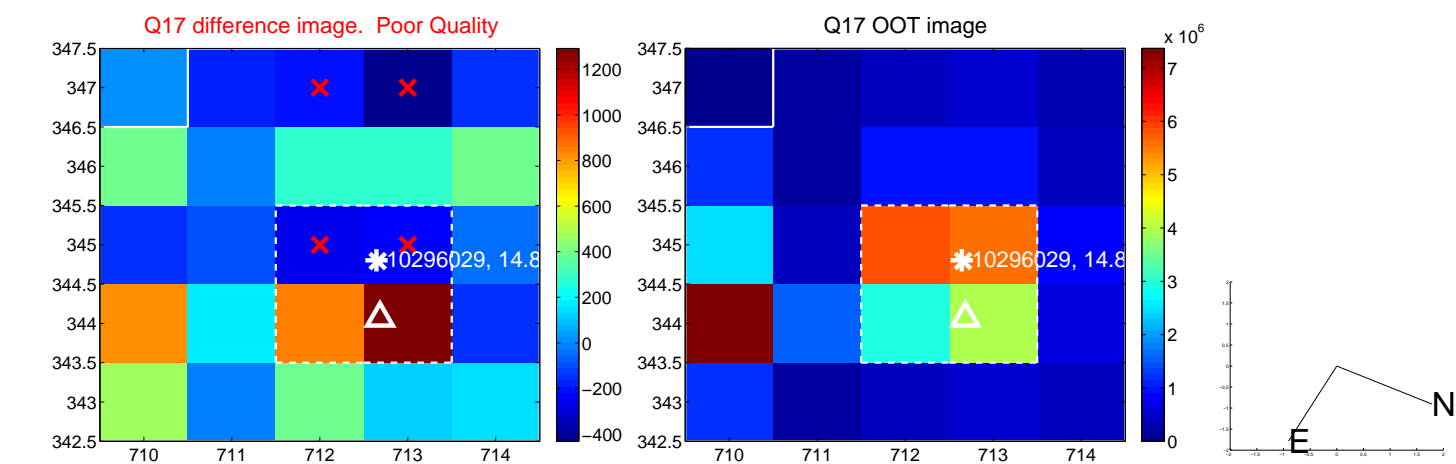
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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



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



UKIRT Image

