

KIC 002579043

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})
002579043-01	OBS	2064.01	6.312175	136.934573	387.0	5.154	28.3	30.3	1.07	6322	2.40	342.25

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002579043-01	OBS	PC	1.00	0	0	0	0	CENT_KIC_POS

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

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

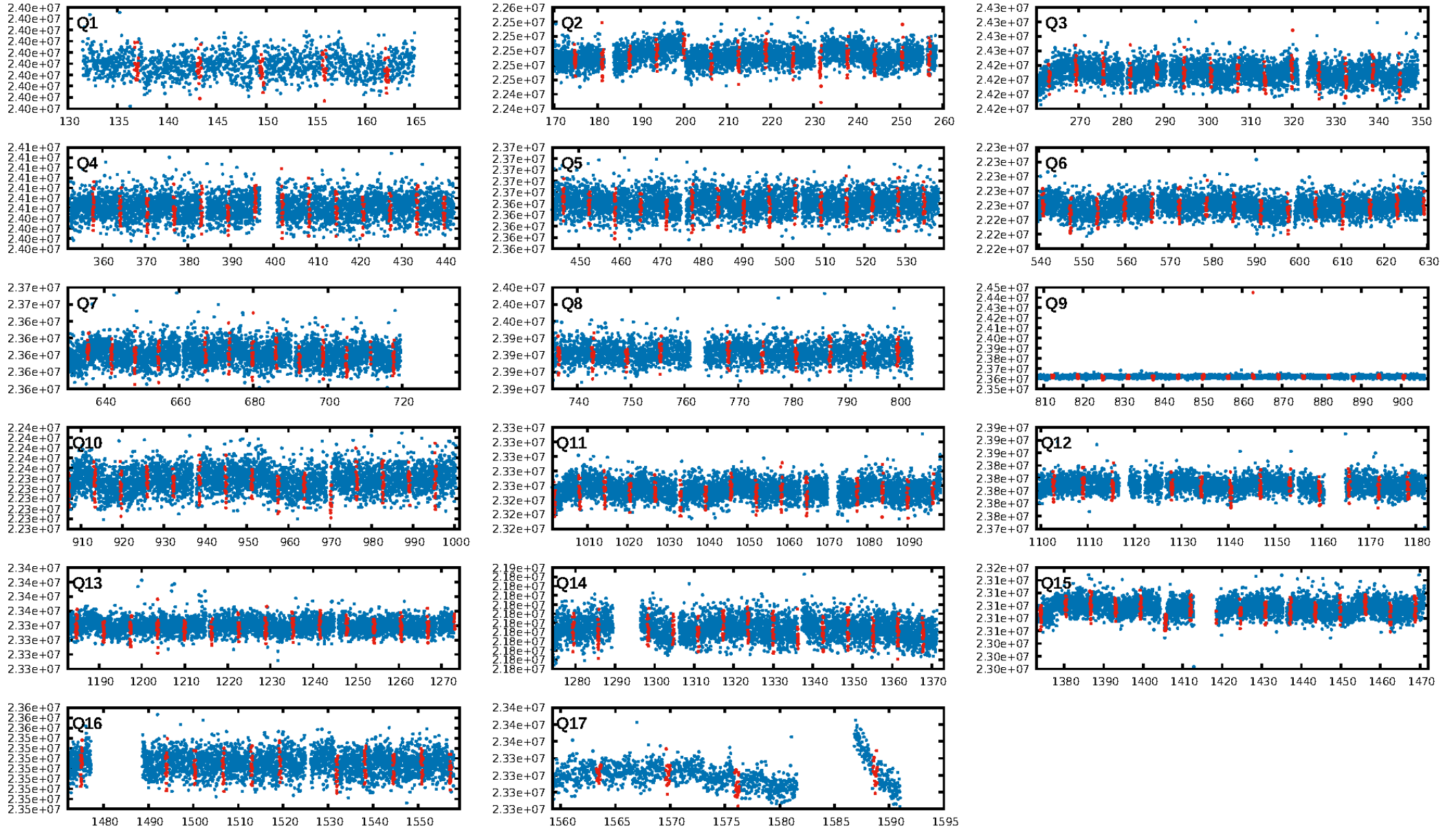
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 002579043-01

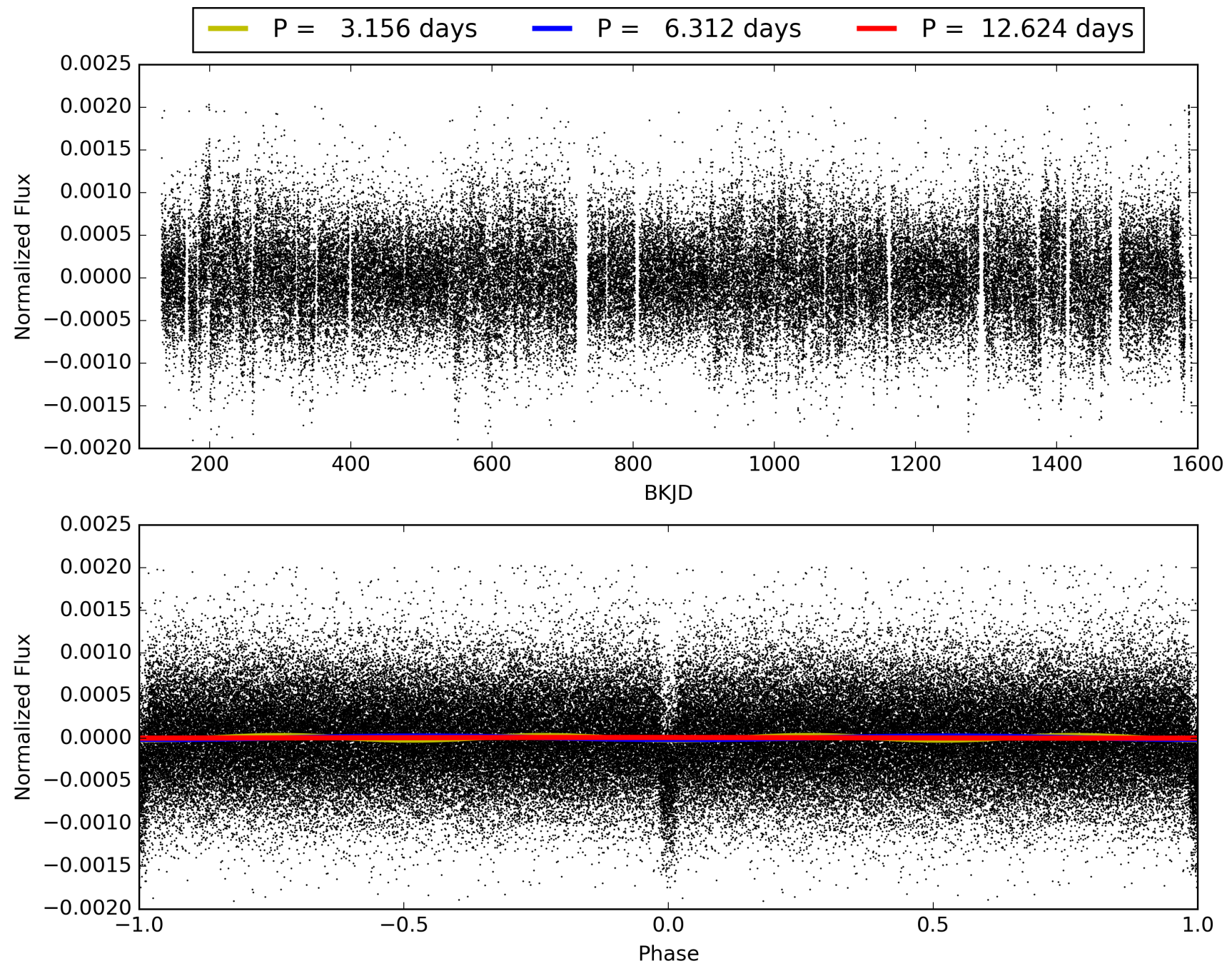
No Significant Match Found

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

TCE 002579043-01, PDC Light Curves

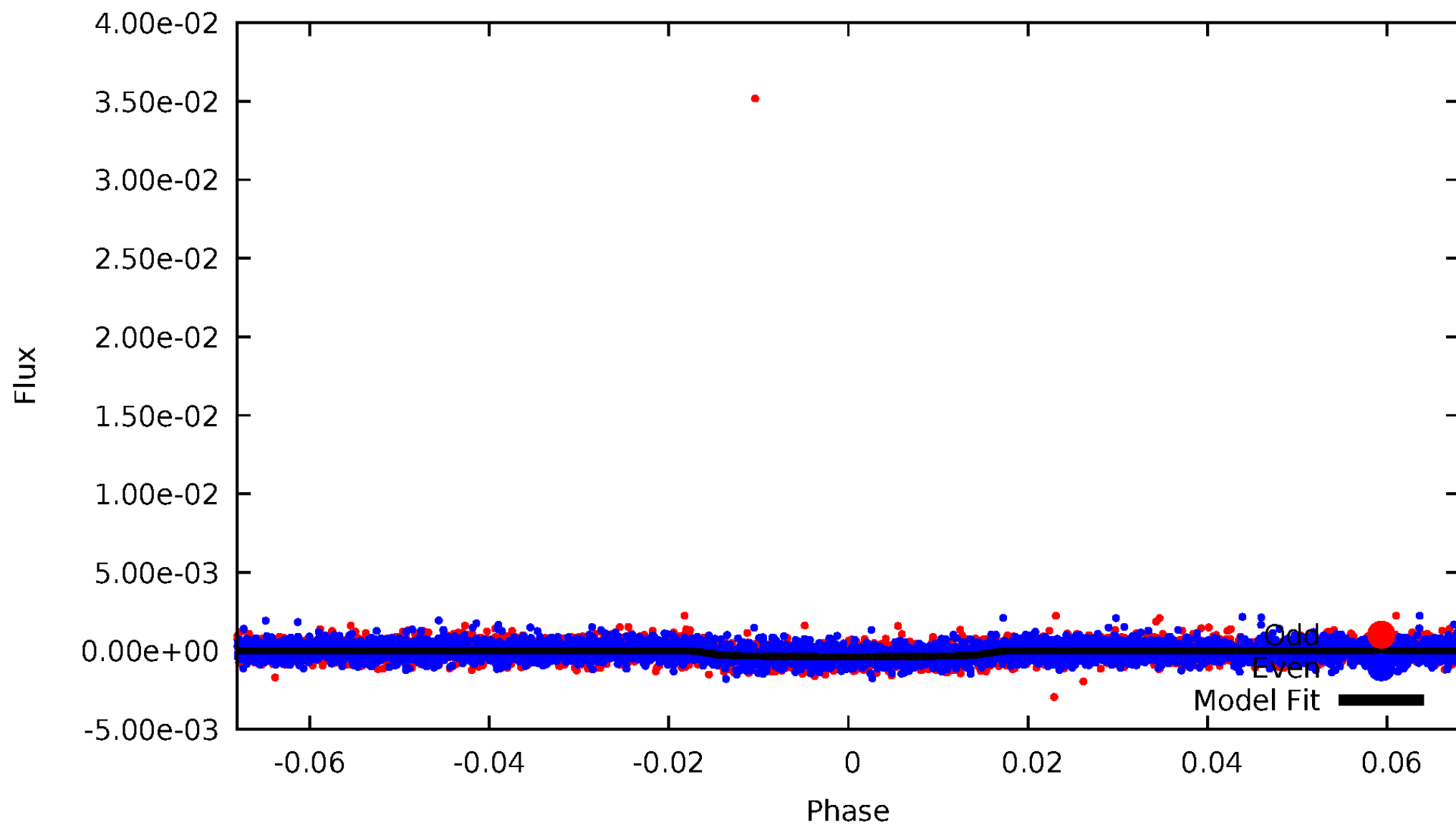


TCE 002579043-01



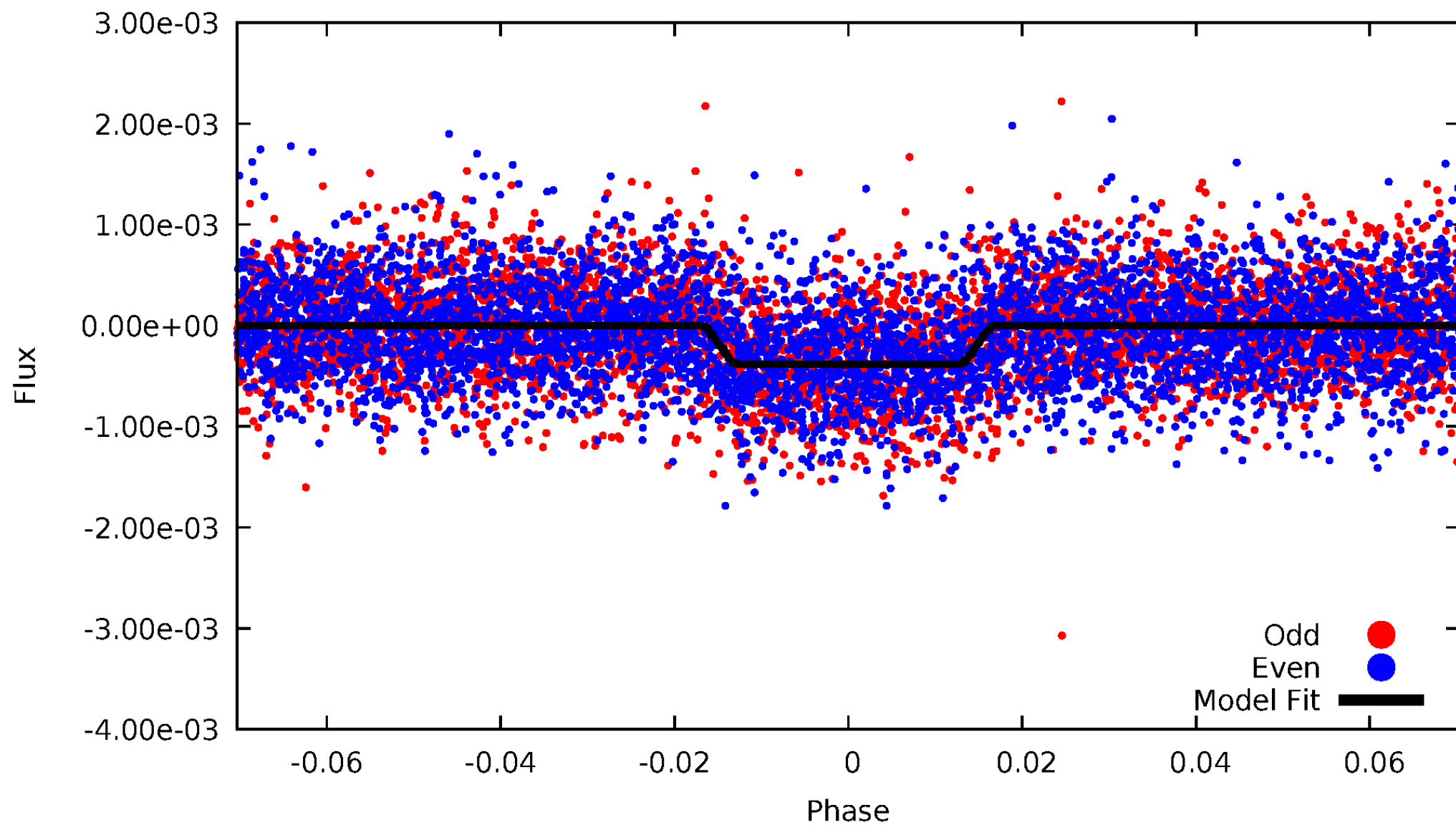
DV Odd/Even

TCE 002579043-01



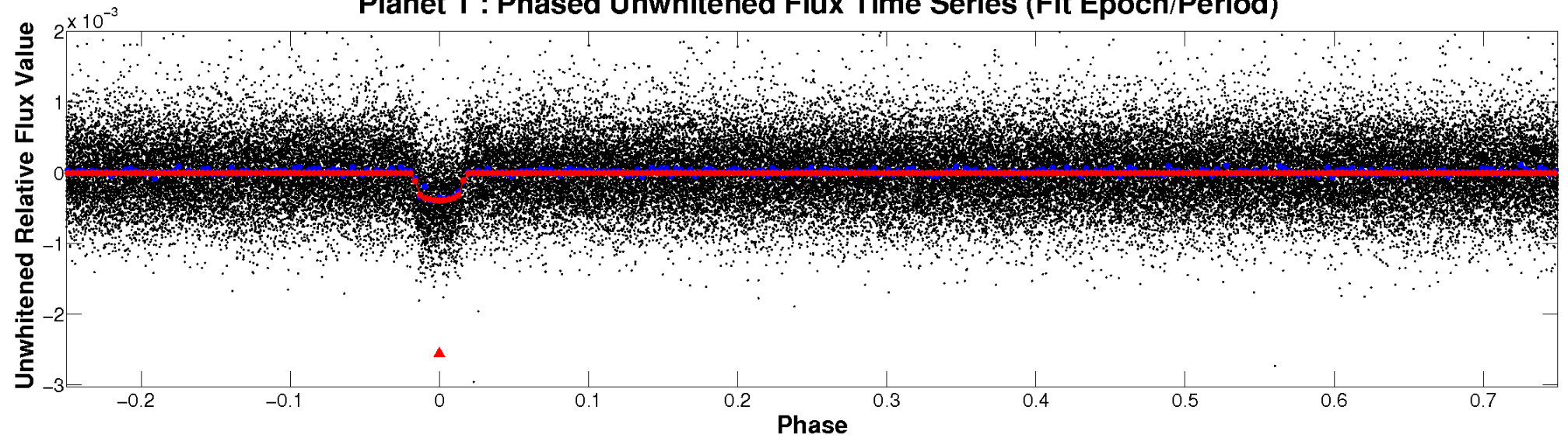
ALT Odd/Even

TCE 002579043-01

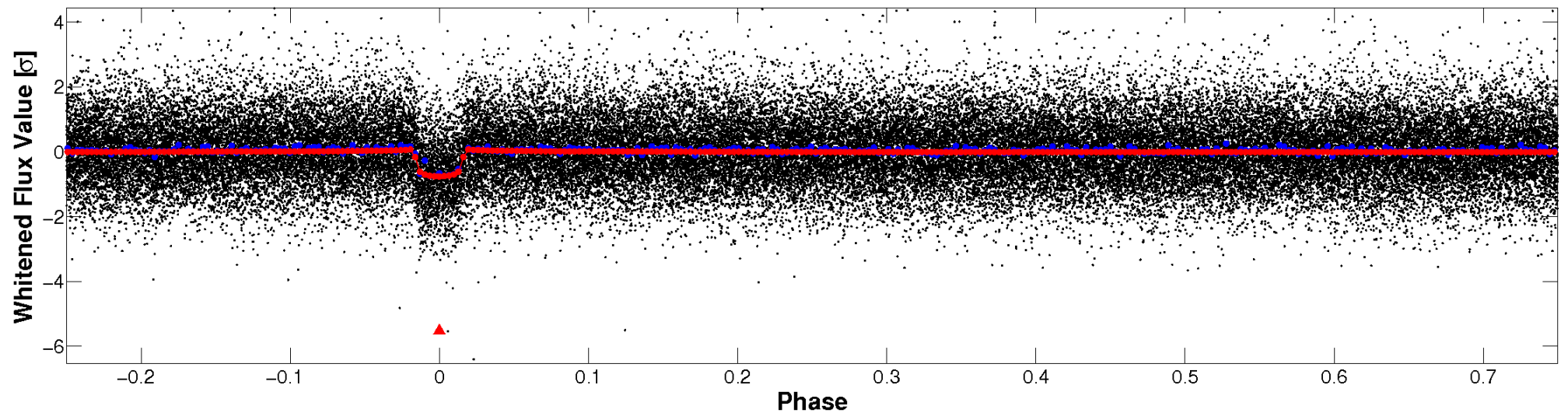


Non-Whitened Vs. Whitened Light Curve

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

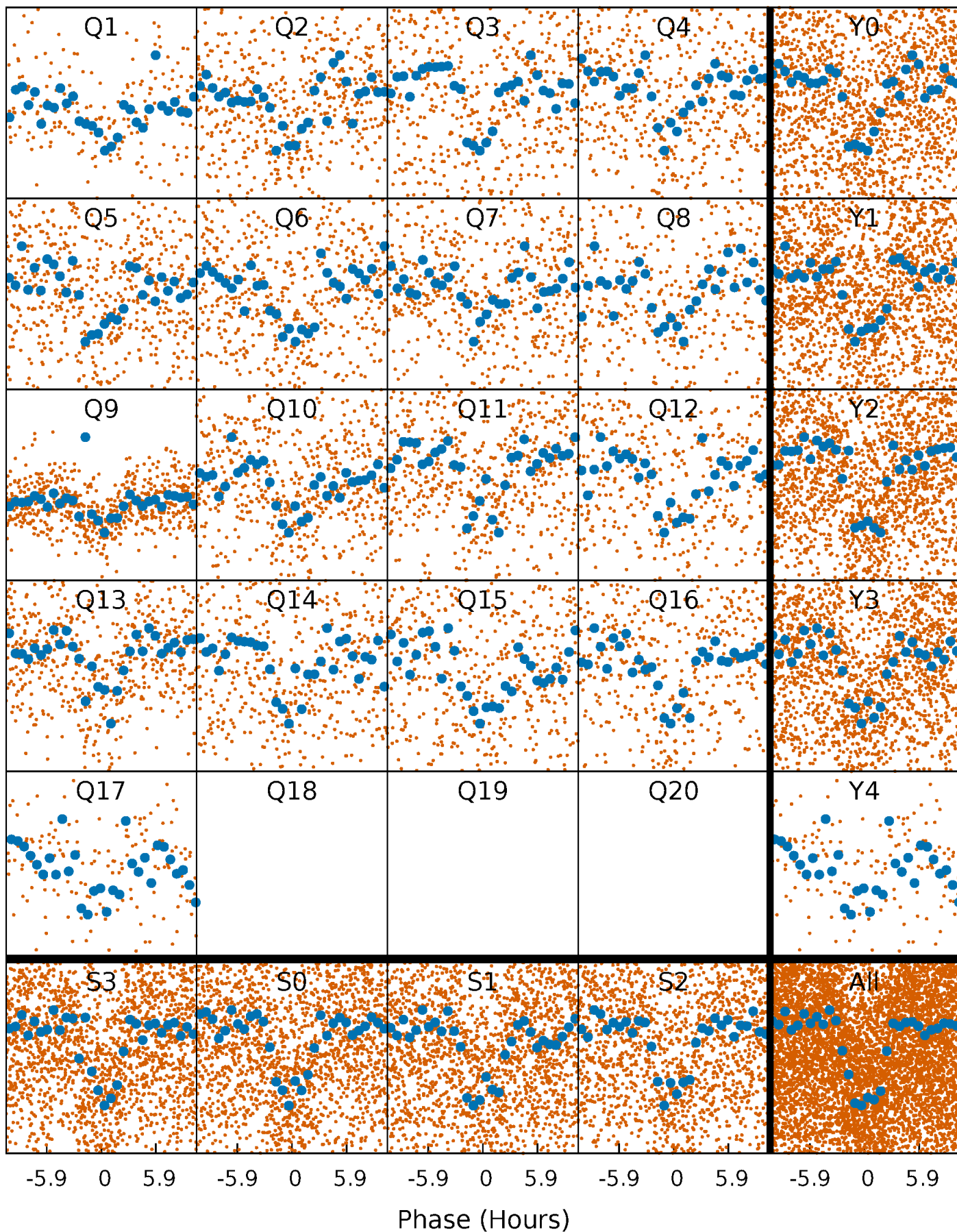


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



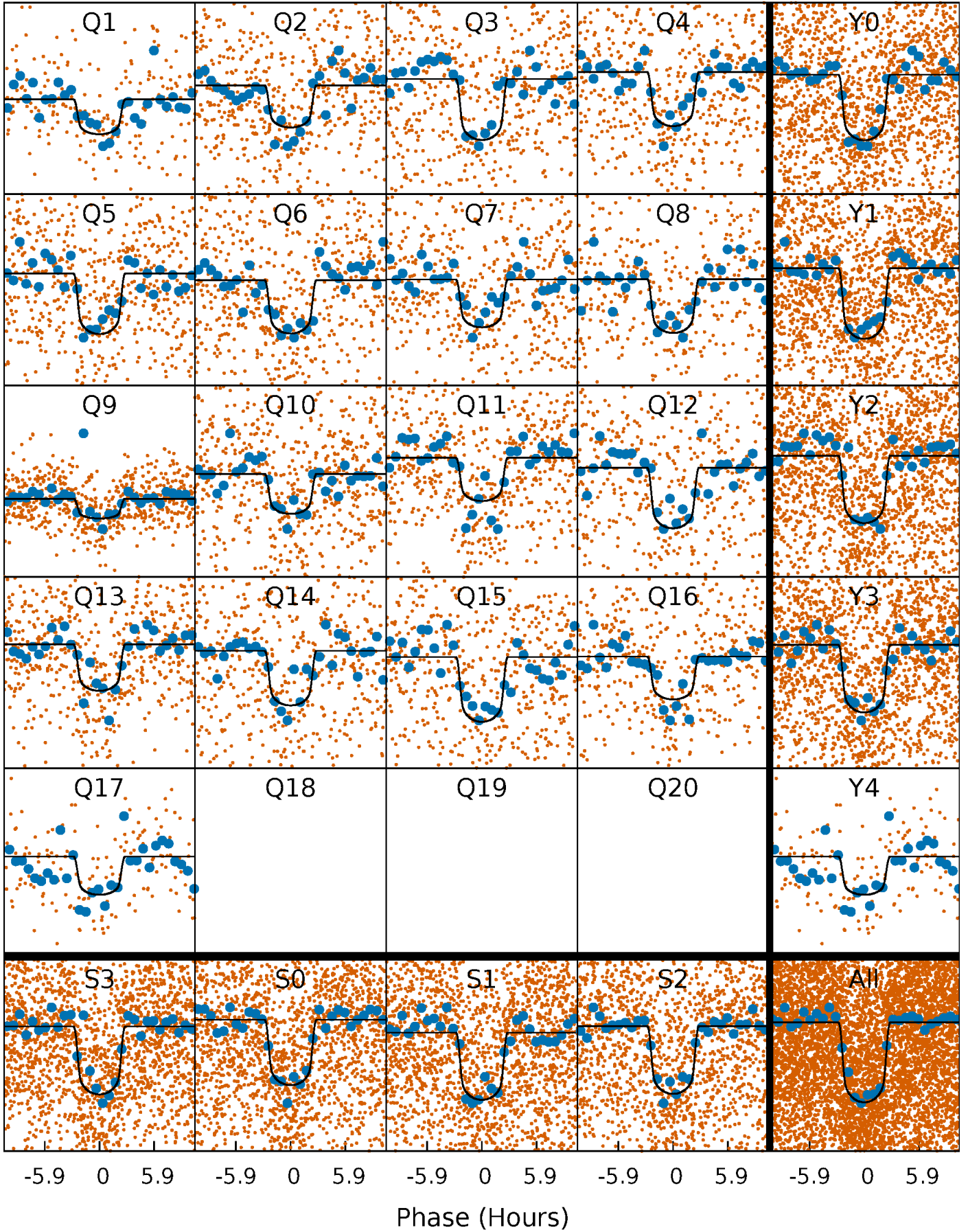
PDC Quarter-Phased Transit Curves

TCE 002579043-01 P= 6.312175 Days $T_0=136.934573$ (BKJD)



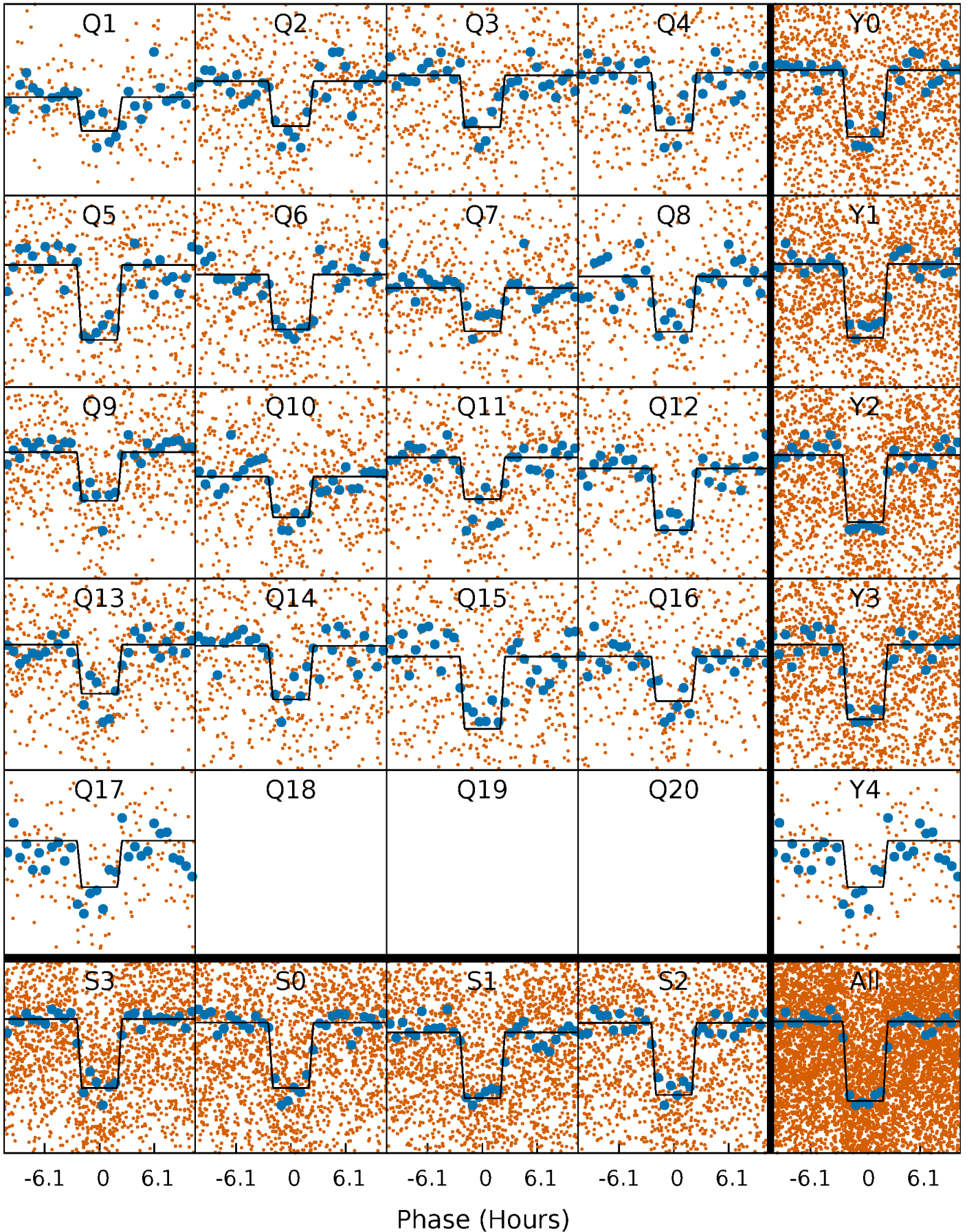
DV Quarter-Phased Transit Curves

TCE 002579043-01 P= 6.312175 Days $T_0=136.934573$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

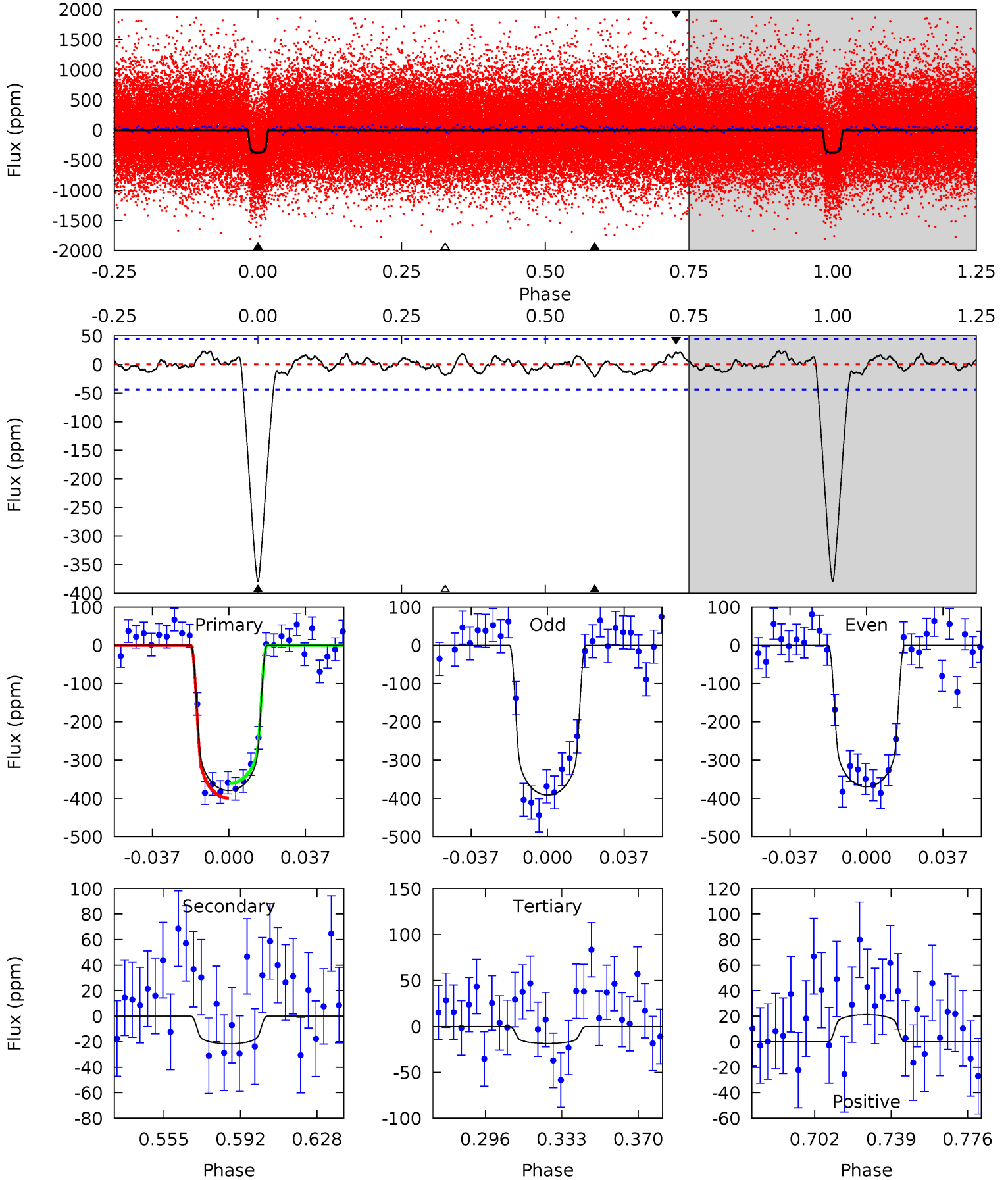
TCE 002579043-01 P= 6.312277 Days $T_0=136.922607$ (BKJD)



DV Model-Shift Uniqueness Test

002579043-01, P = 6.312175 Days, E = 130.622398 Days

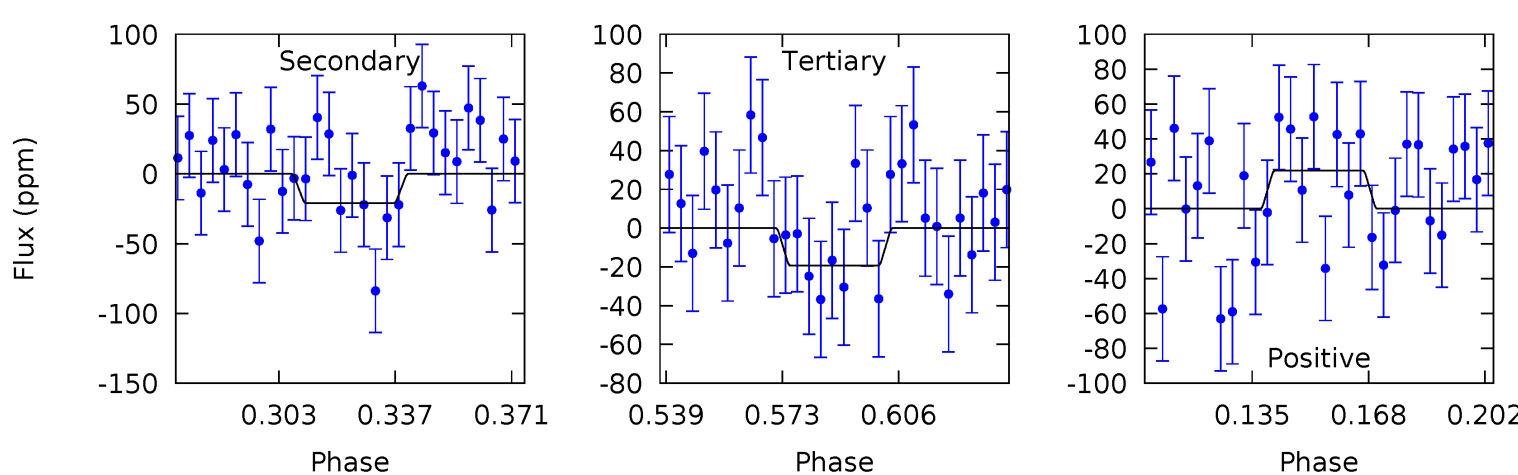
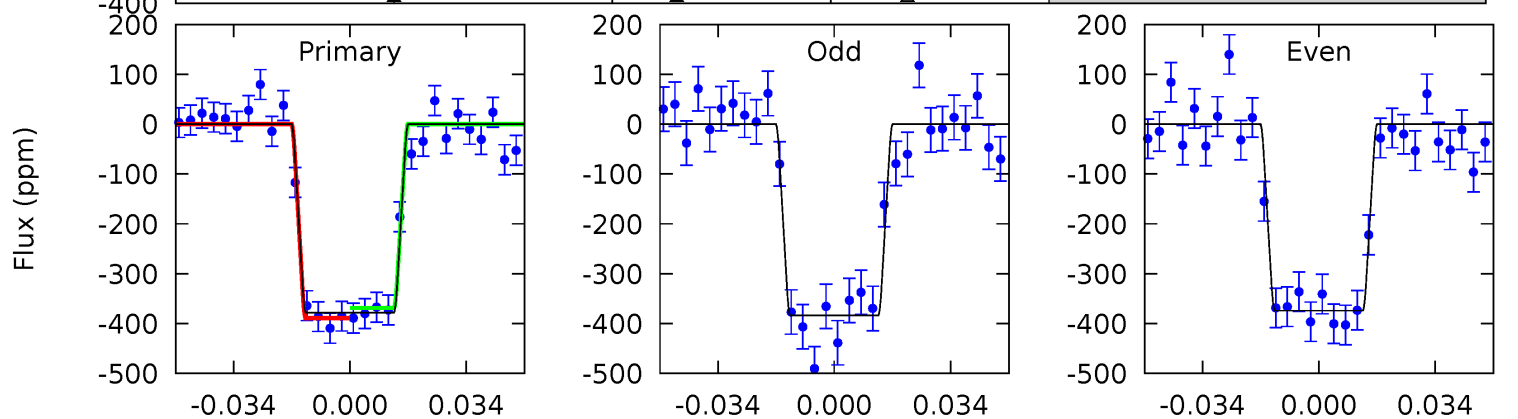
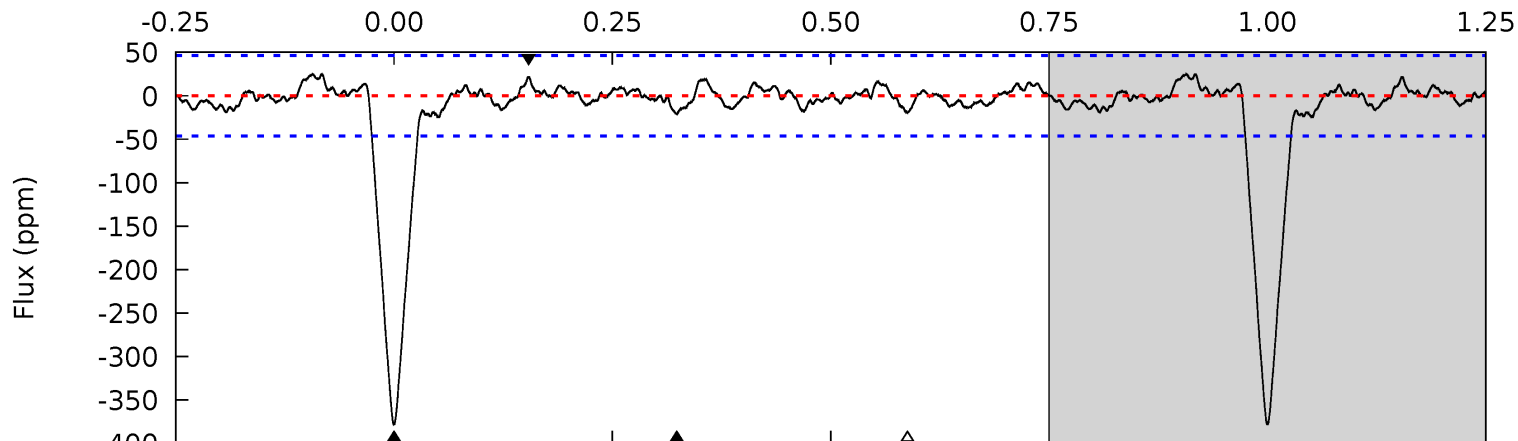
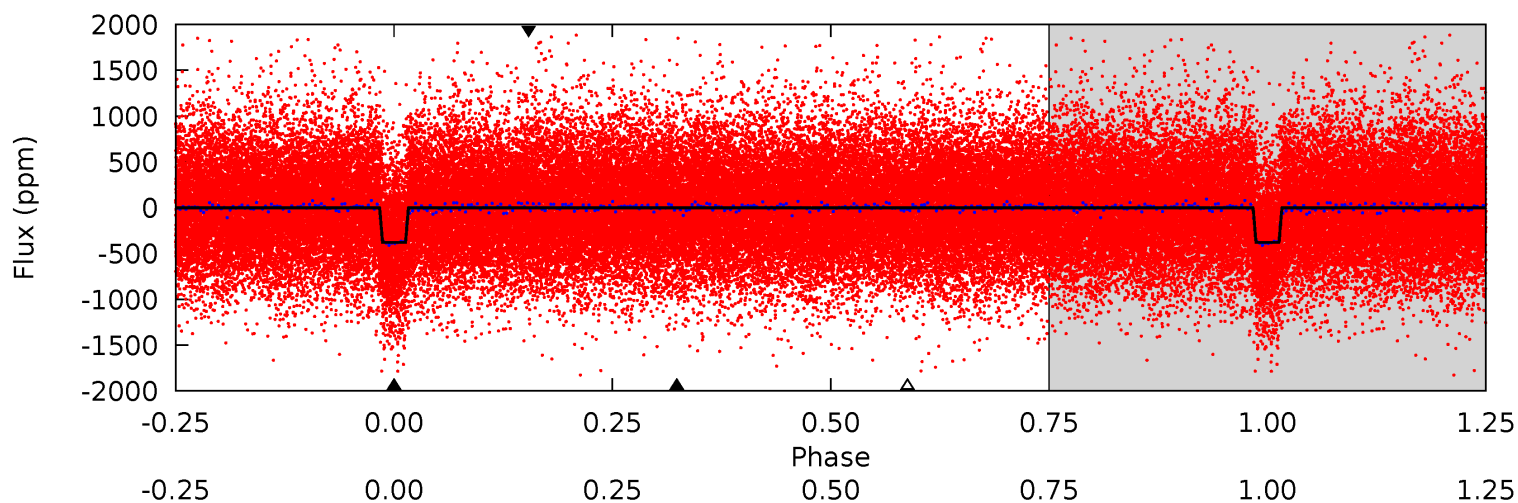
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
40.8	2.32	1.99	2.28	4.77	2.09	1.02	38.8	38.5	0.34	0.05	1.18	0.91	0.06	2.05



Alt Model-Shift Uniqueness Test

002579043-01, P = 6.312277 Days, E = 130.610330 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
39.1	2.17	2.00	2.26	4.79	2.12	0.97	37.1	36.8	0.17	-0.09	0.49	0.99	0.06	1.08



Stellar Parameters For KIC 002579043

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6322^{+169}_{-225}	$4.426^{+0.054}_{-0.216}$	$-0.120^{+0.250}_{-0.300}$	$1.075^{+0.349}_{-0.116}$	$1.124^{+0.154}_{-0.154}$	$1.274^{+0.368}_{-0.679}$
	+3%/-4%	+1%/-5%	+208%/-250%	+32%/-11%	+14%/-14%	+29%/-53%
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 002579043-01 / KOI 2064.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-22 ± 9	$2.52^{+0.42}_{-0.36}$	1566^{+106}_{-74}	3458^{+273}_{-295}	$8.577^{+5.650}_{-3.854}$
Alt.	-21 ± 10	$2.41^{+0.46}_{-0.35}$	1569^{+116}_{-83}	3480^{+329}_{-337}	$9.014^{+5.870}_{-4.616}$

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 $A_{\text{obs}} \gg 1.0$

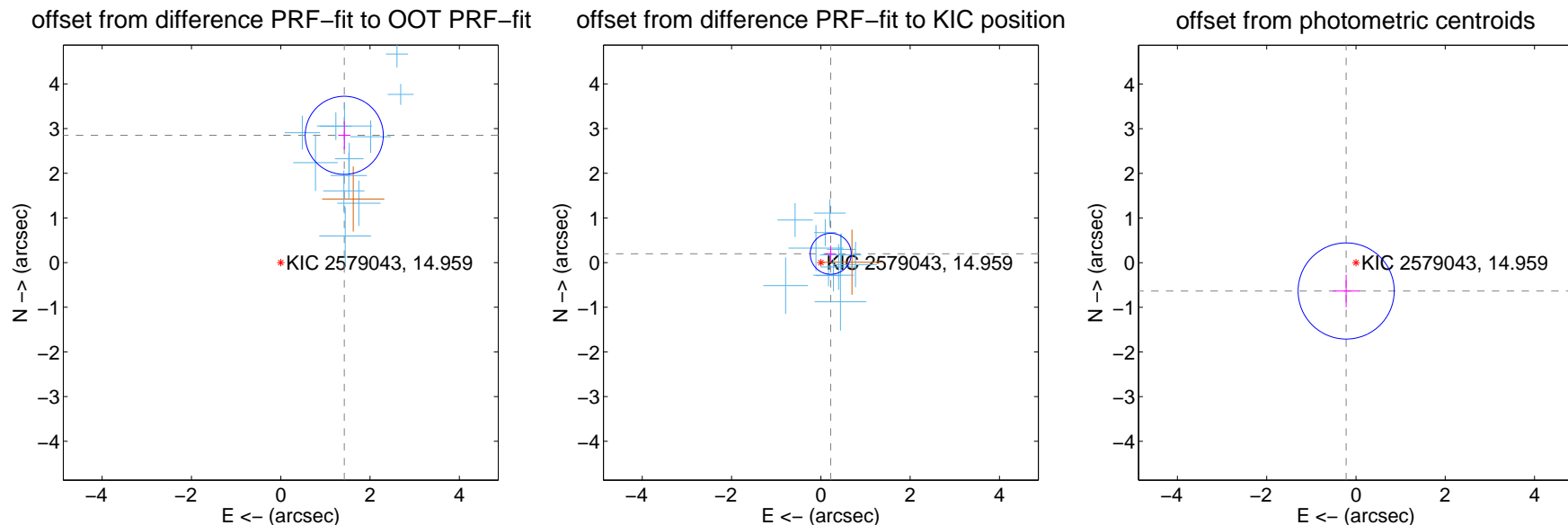
DV Centroid Data

Supplemental centroid analysis for 002579043-01. Kepler magnitude: 14.96. Transit SNR 30.32

There are 12 quarters with good PRF difference image offsets

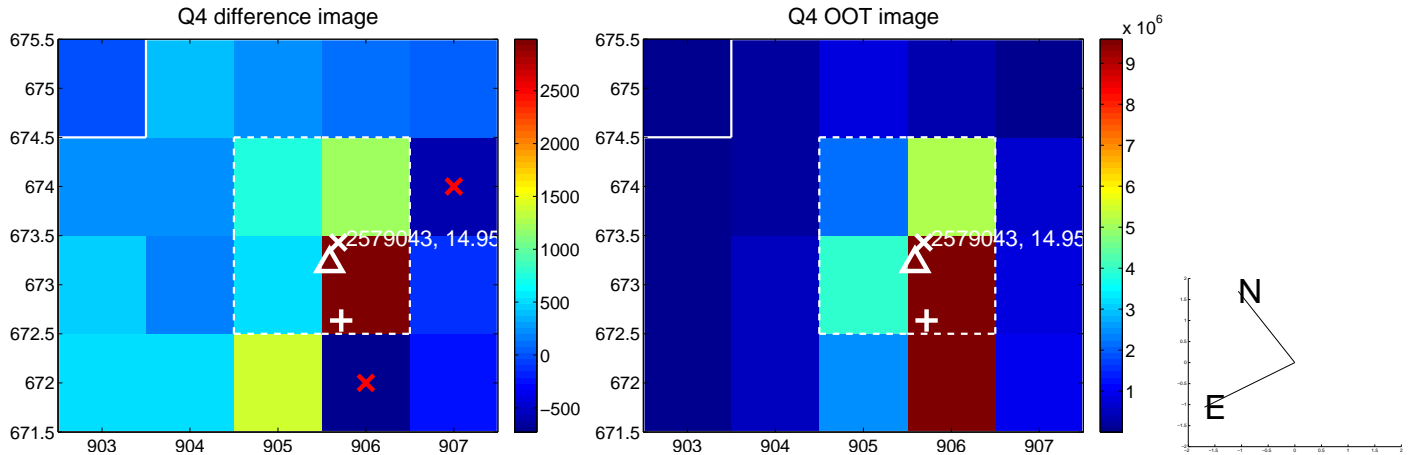
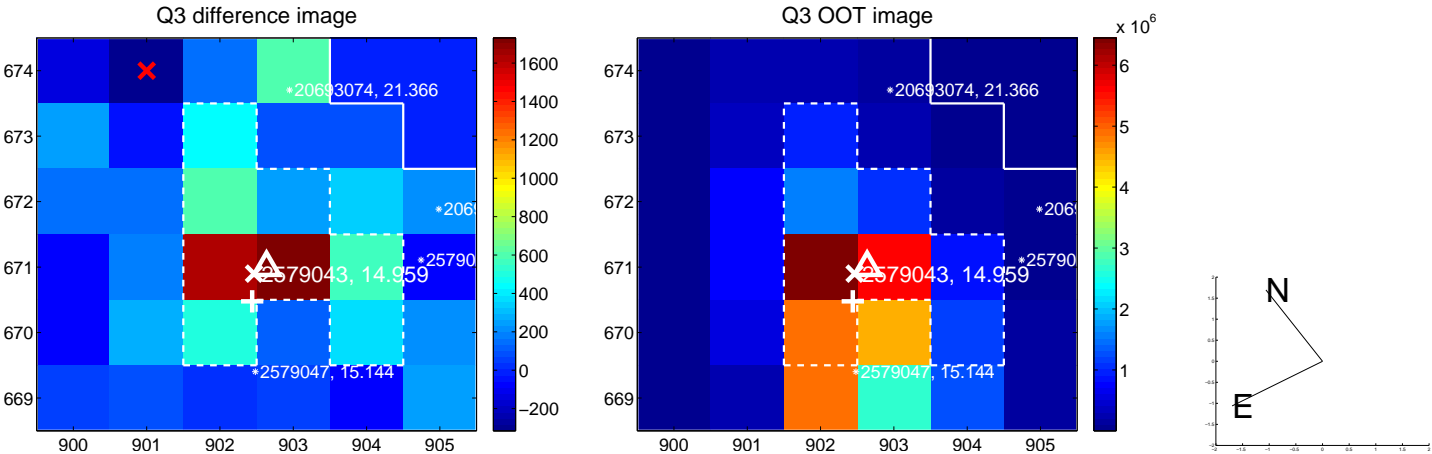
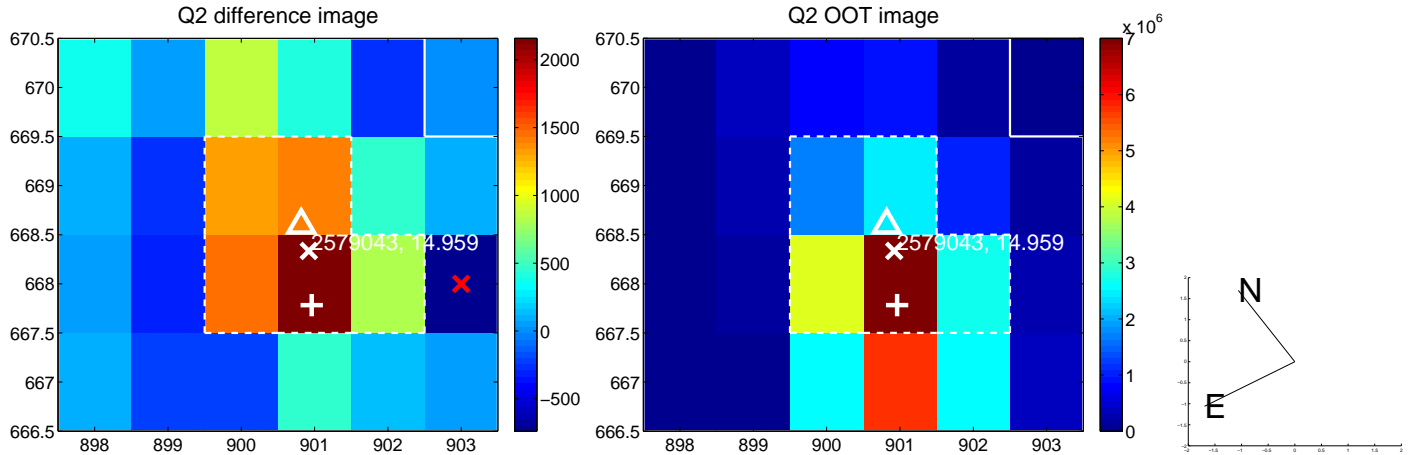
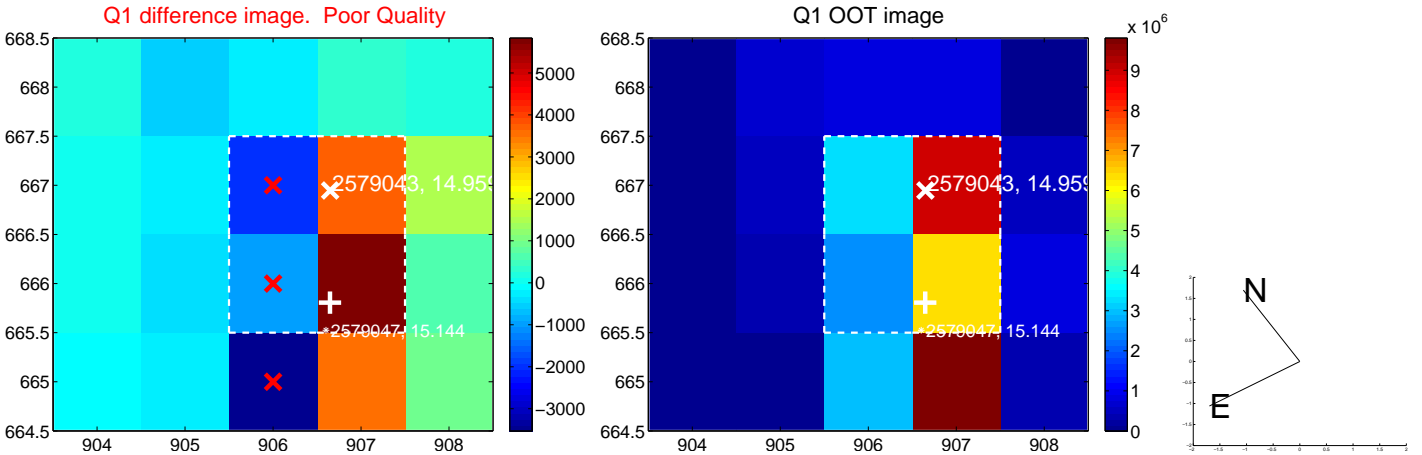
The OOT PRF centroid is offset from the target star catalog position by about 3.55 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.184 ± 0.291	10.93	-1.422 ± 0.134	2.849 ± 0.319
PRF-fit source offset from KIC position	0.296 ± 0.153	1.93	-0.221 ± 0.125	0.197 ± 0.183
photometric centroid source offset	0.67 ± 0.36	1.87	0.22 ± 0.30	-0.63 ± 0.37

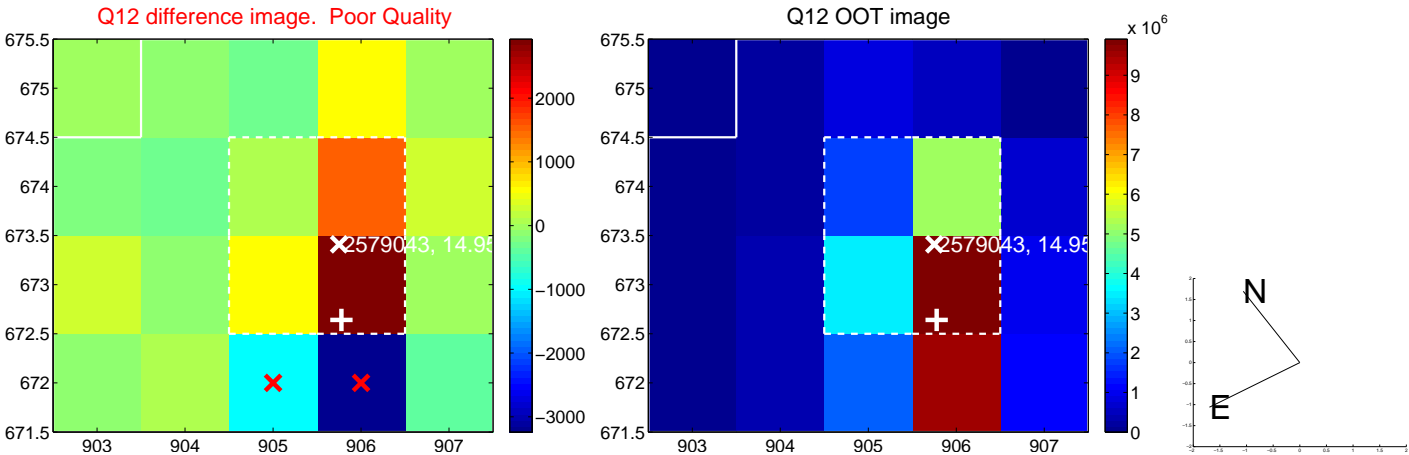
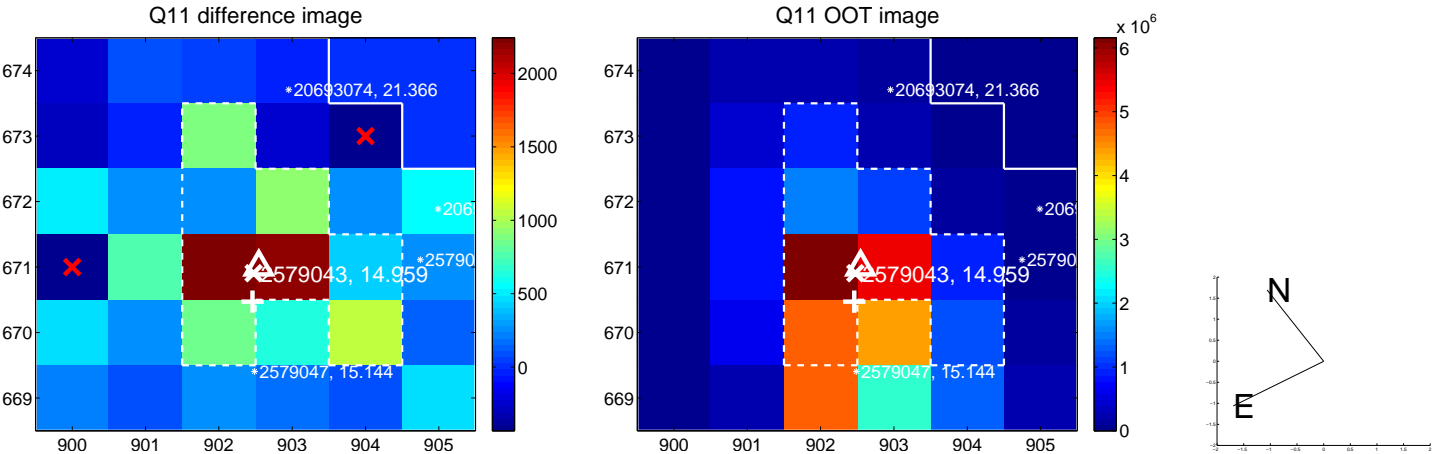
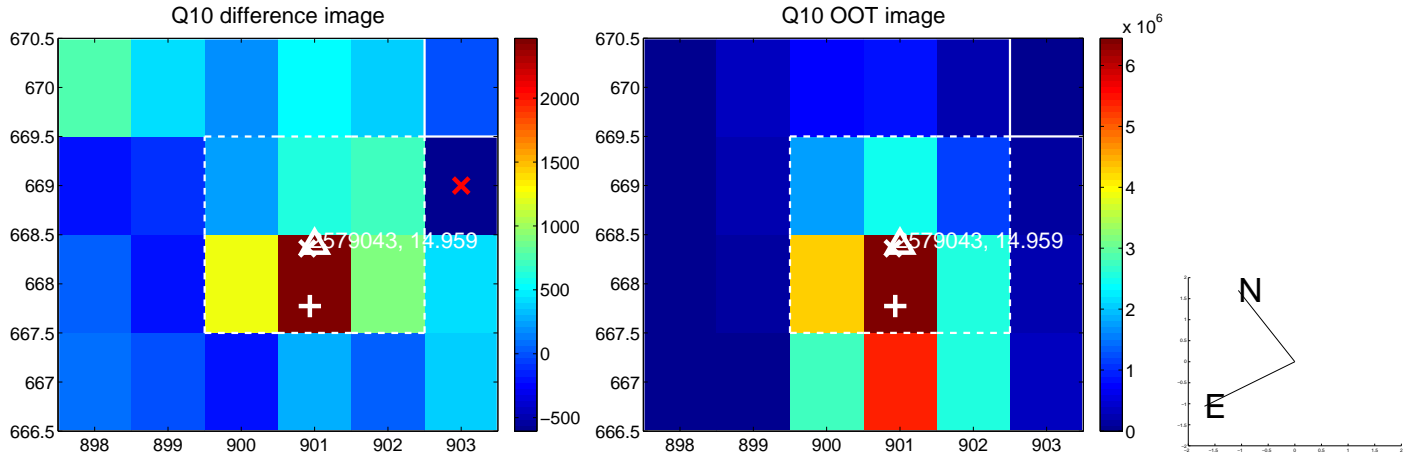
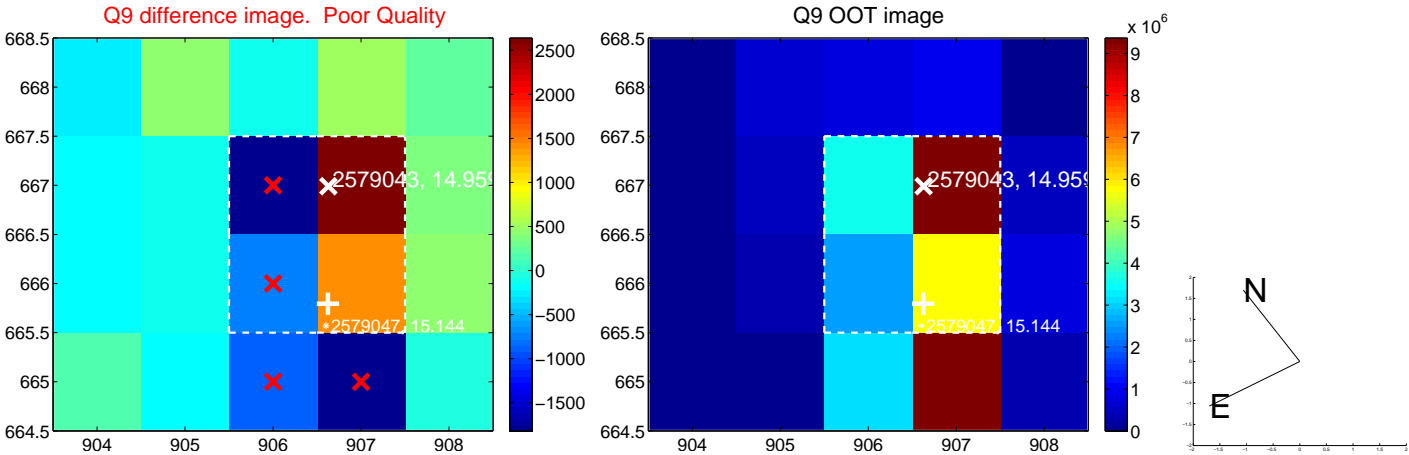


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

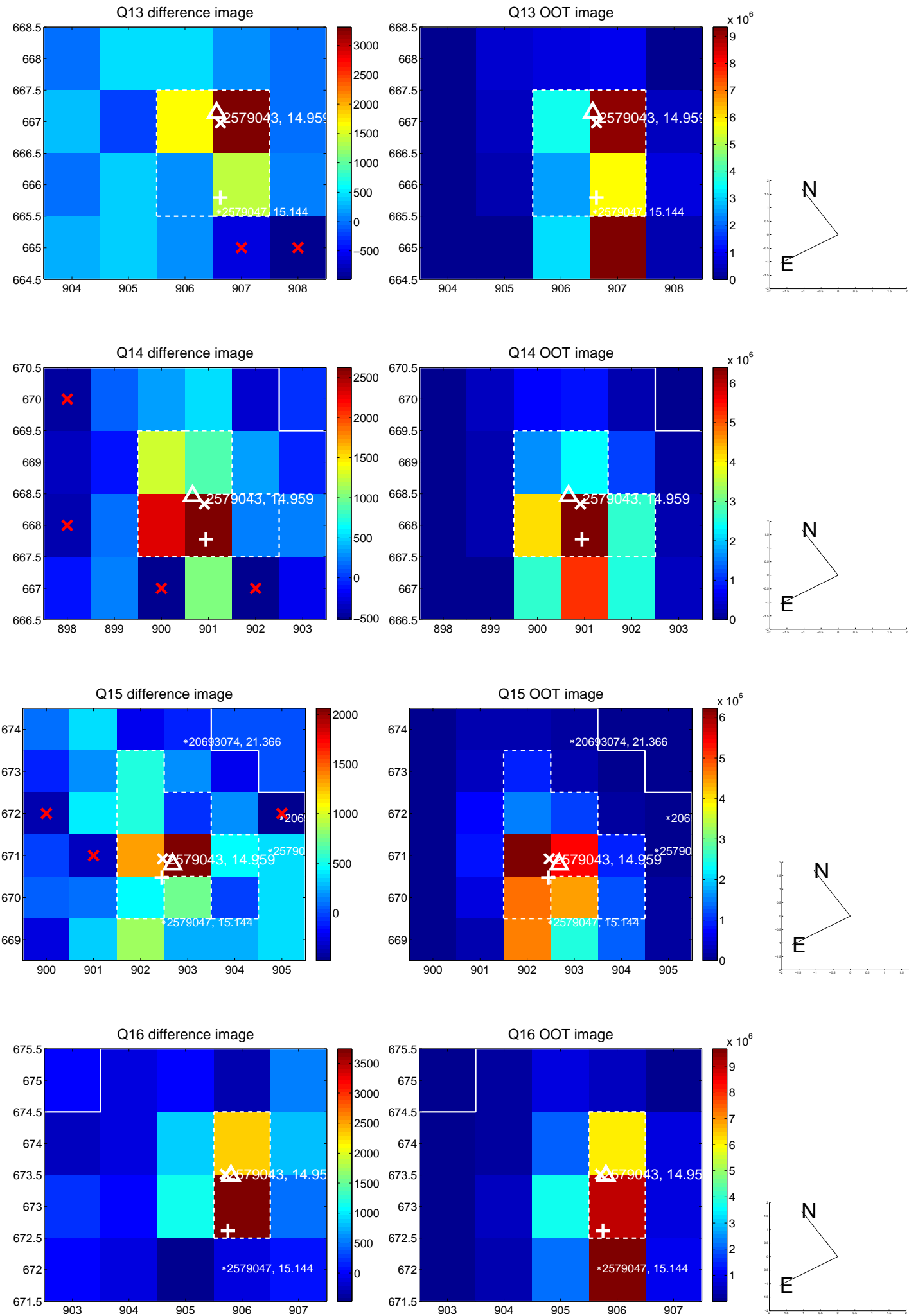
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



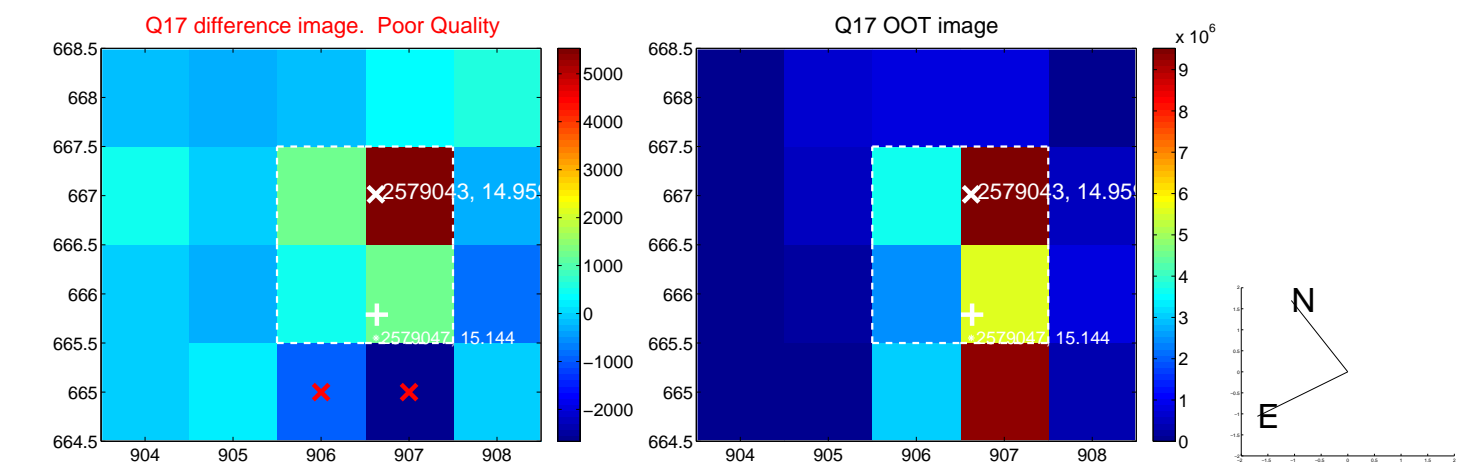
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



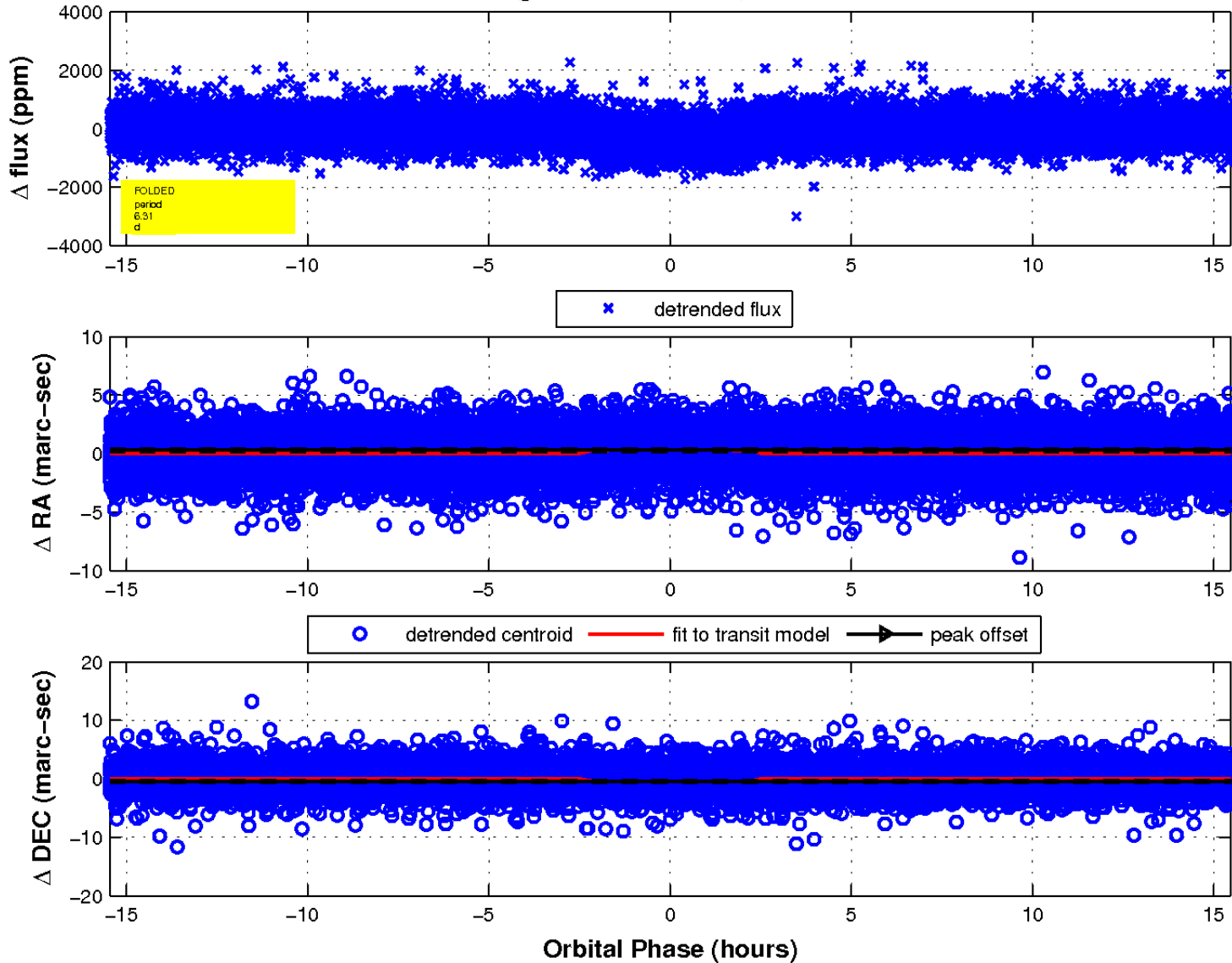
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

