

KIC 005647514

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})
005647514-01	OBS	No	0.583104	131.724666	83.6	2.108	12.4	15.8	1.79	7411	1.90	34326.70

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005647514-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

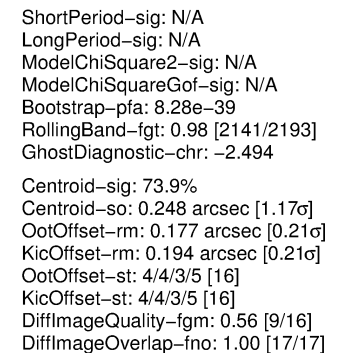
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

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

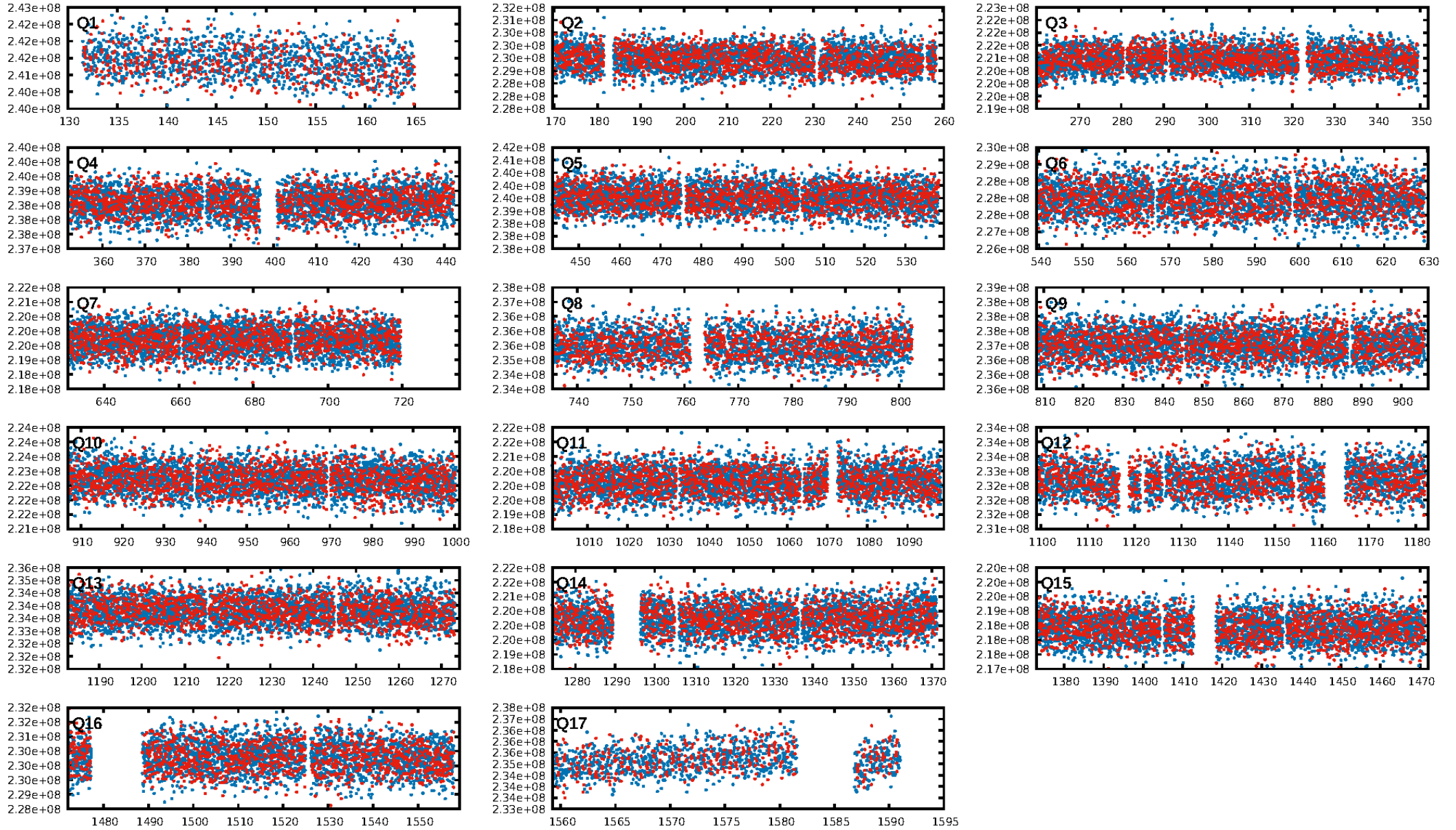
Ephemeris Match Information For 005647514-01

No Significant Match Found

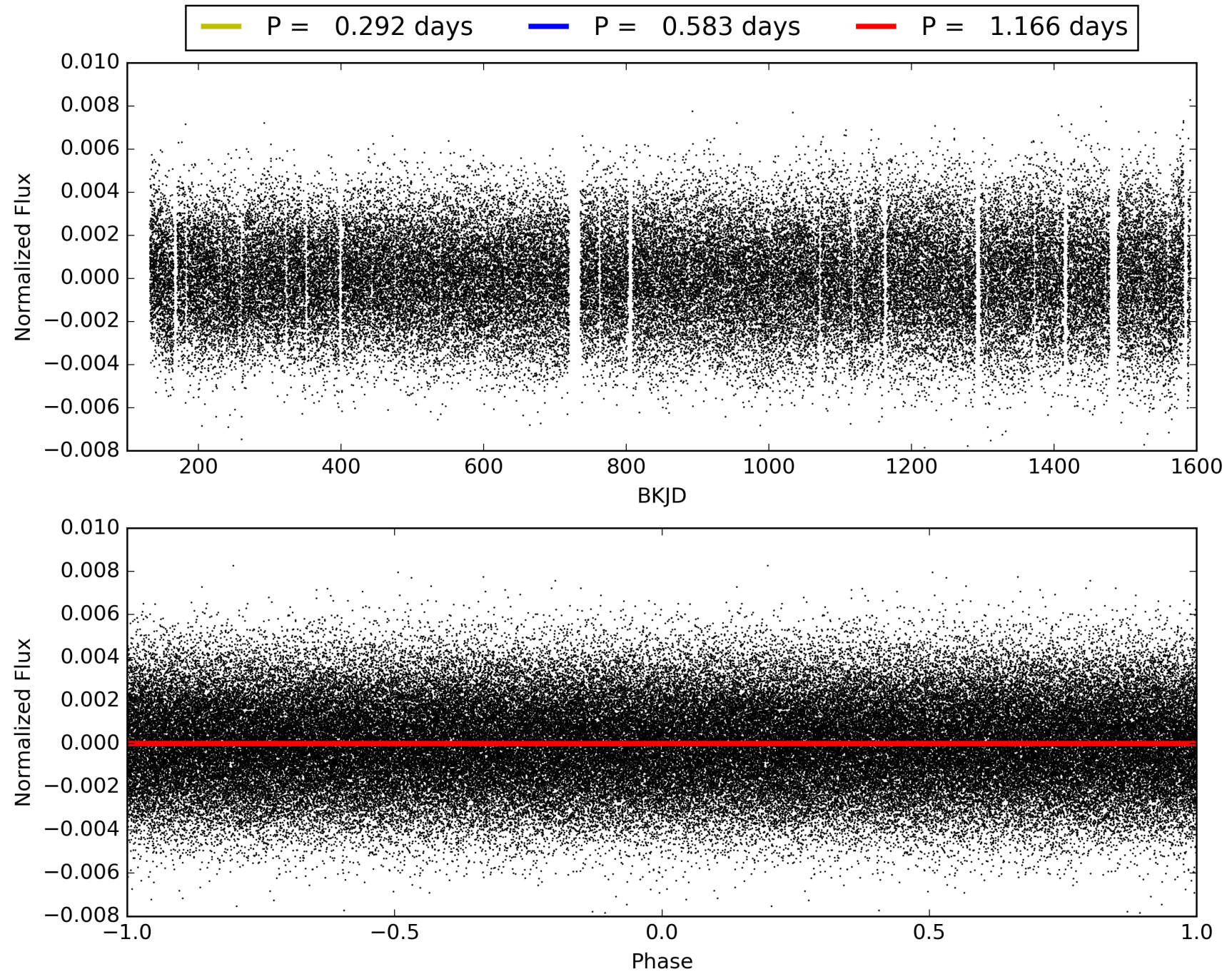
KIC: 5647514 Candidate: 1 of 1 Period: 0.583 d



TCE 005647514-01, PDC Light Curves

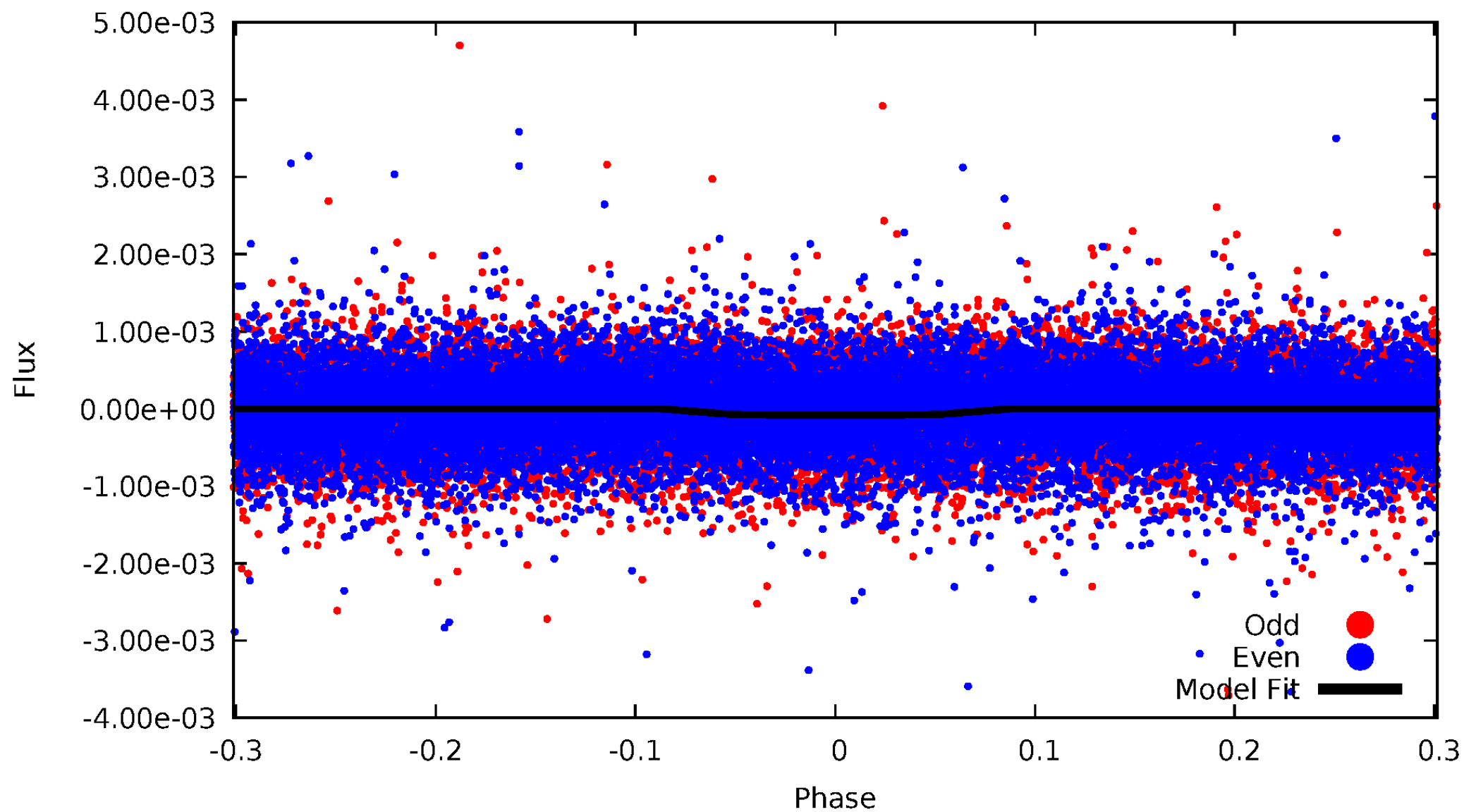


TCE 005647514-01



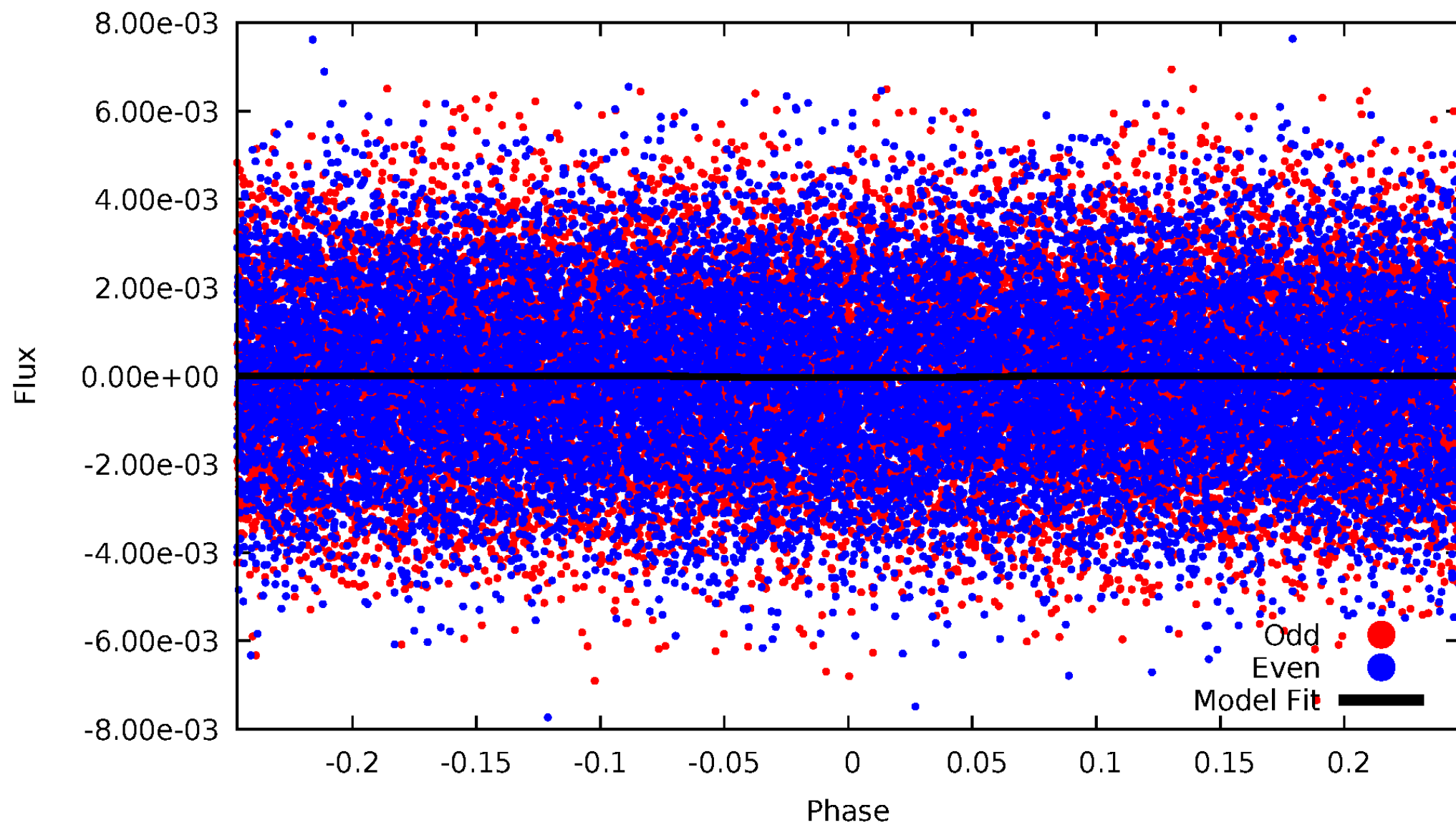
DV Odd/Even

TCE 005647514-01



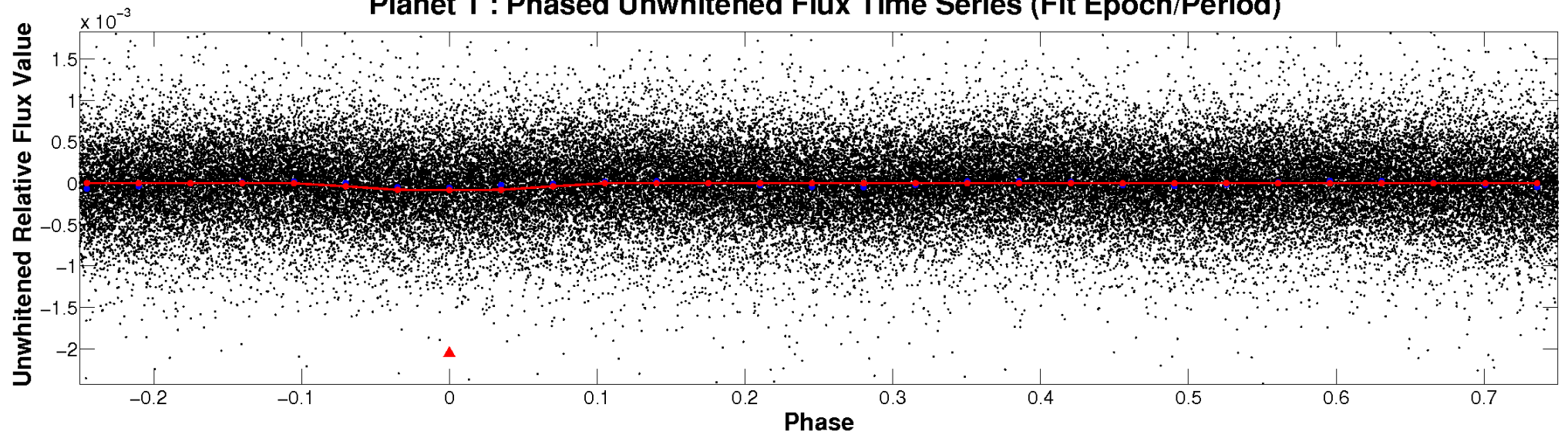
ALT Odd/Even

TCE 005647514-01

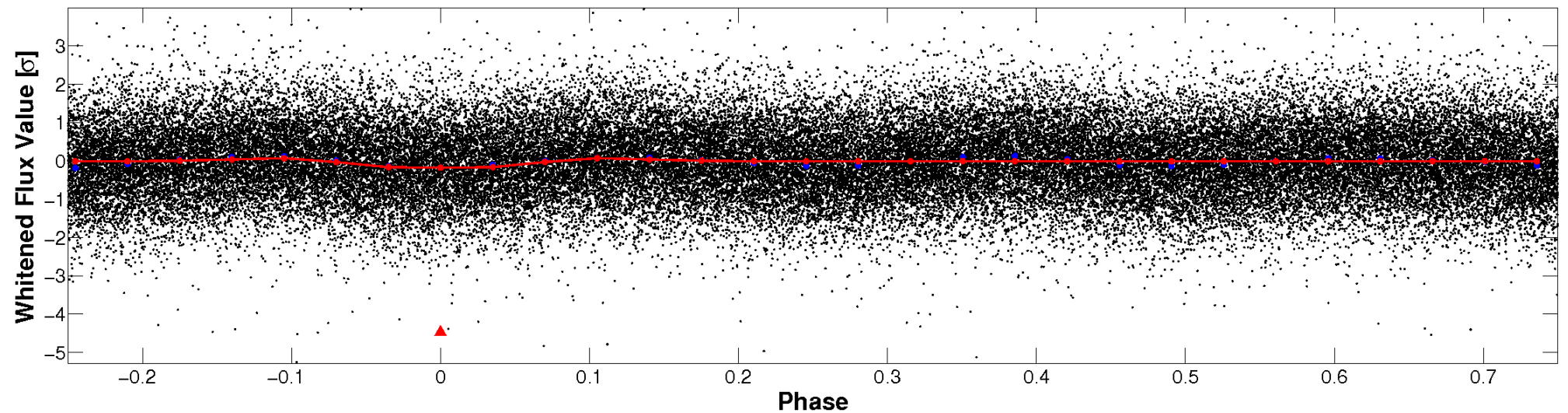


Non-Whitened Vs. Whitened Light Curve

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

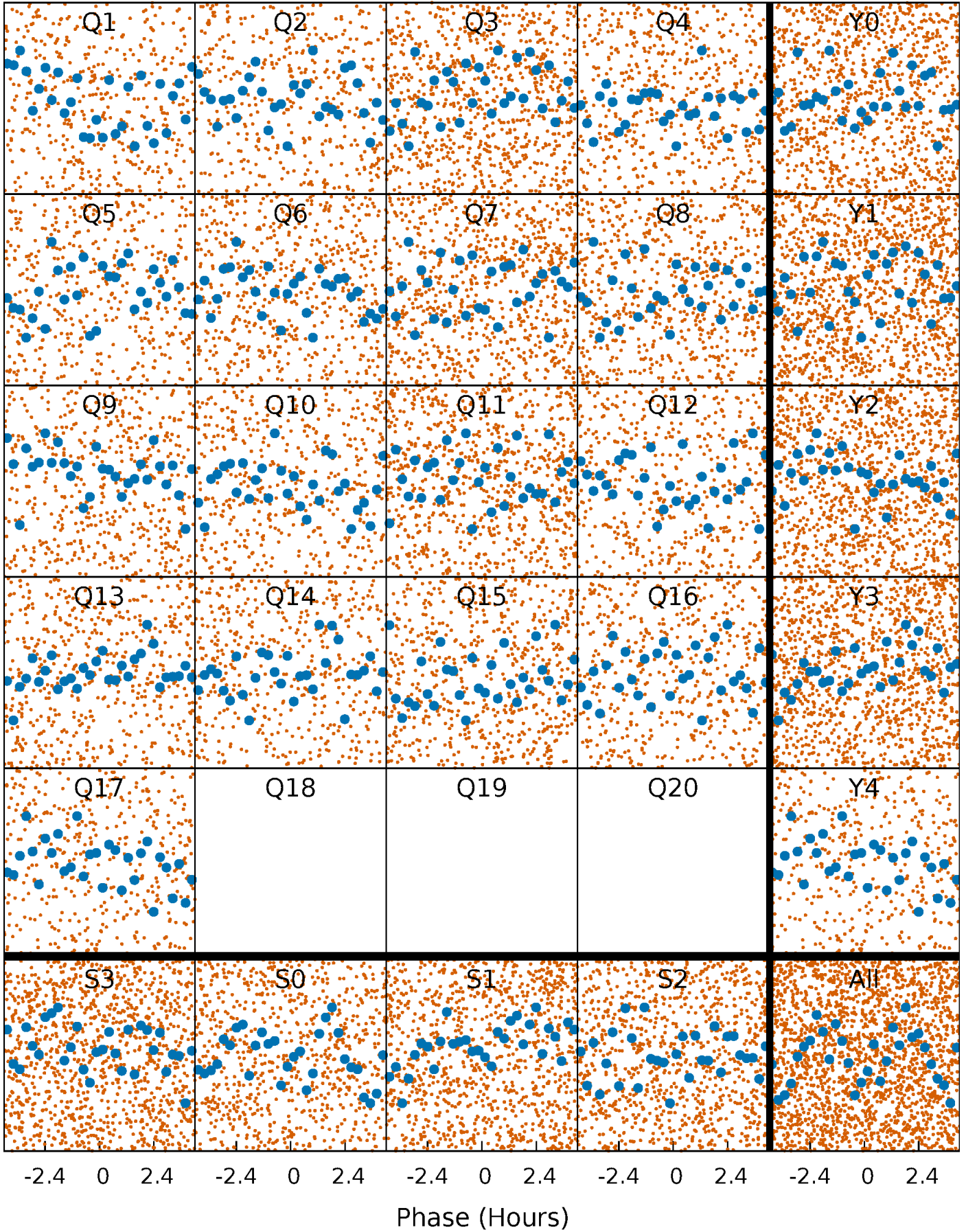


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



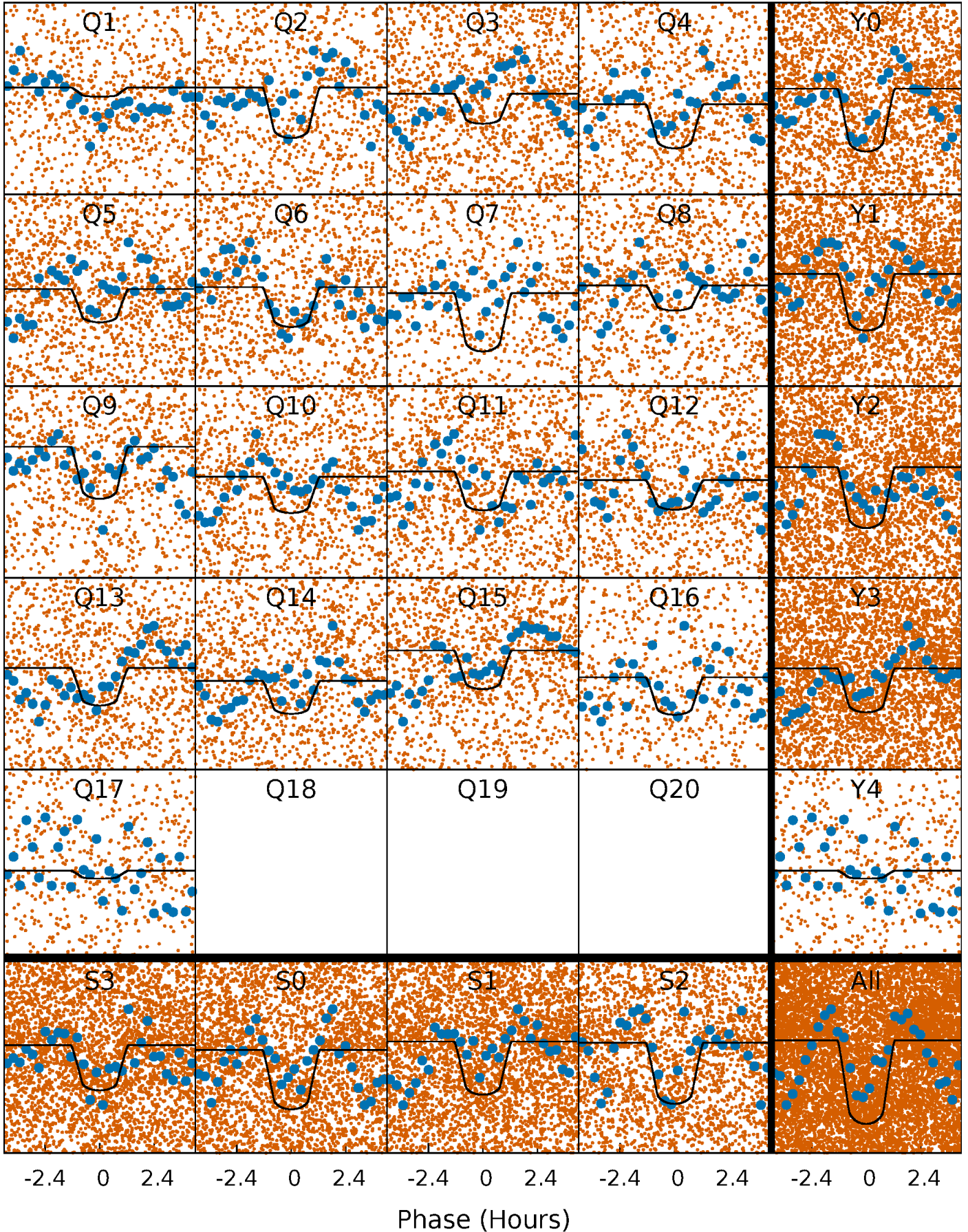
PDC Quarter-Phased Transit Curves

TCE 005647514-01 P= 0.583104 Days $T_0=131.724666$ (BKJD)



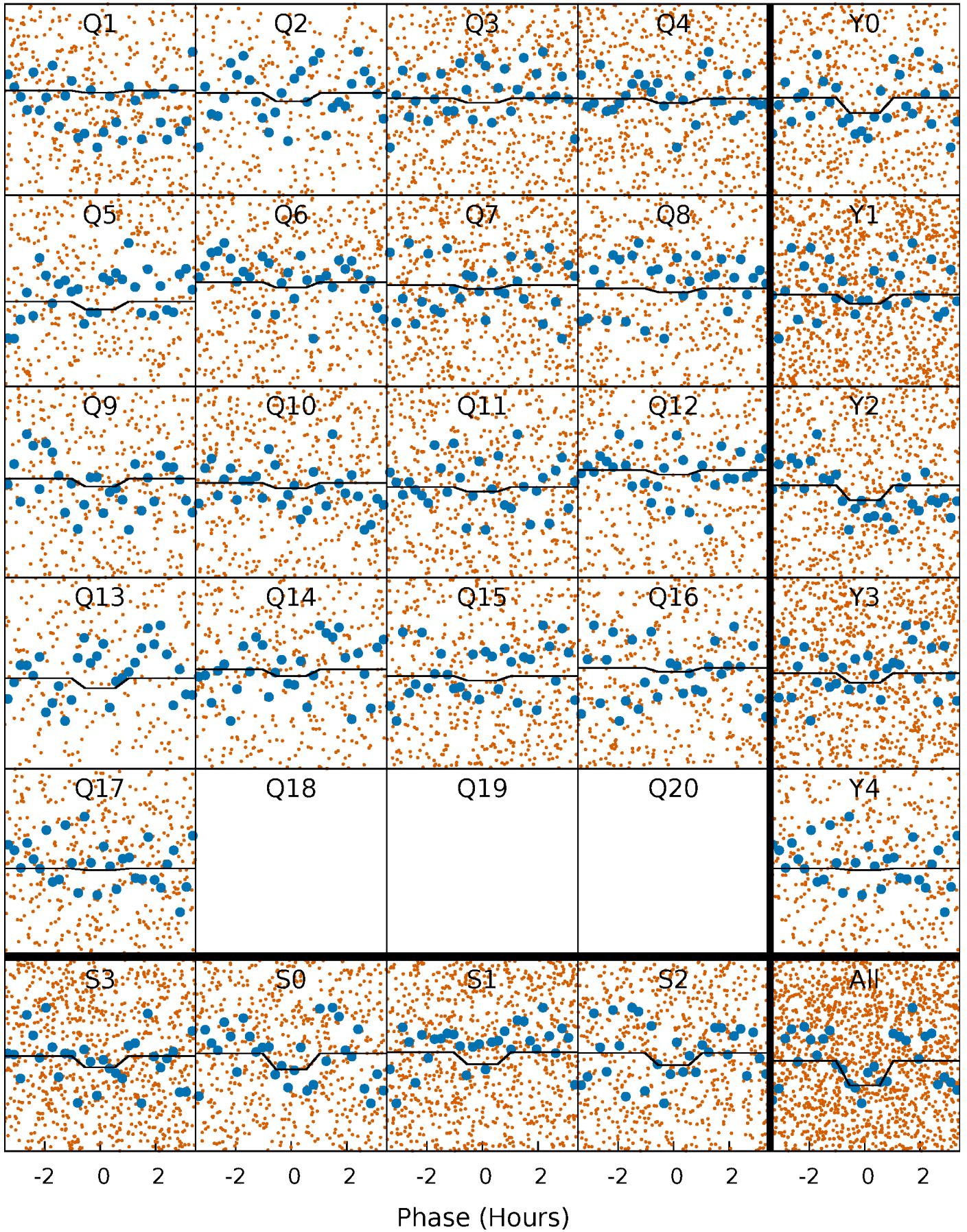
DV Quarter-Phased Transit Curves

TCE 005647514-01 P= 0.583104 Days $T_0=131.724666$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

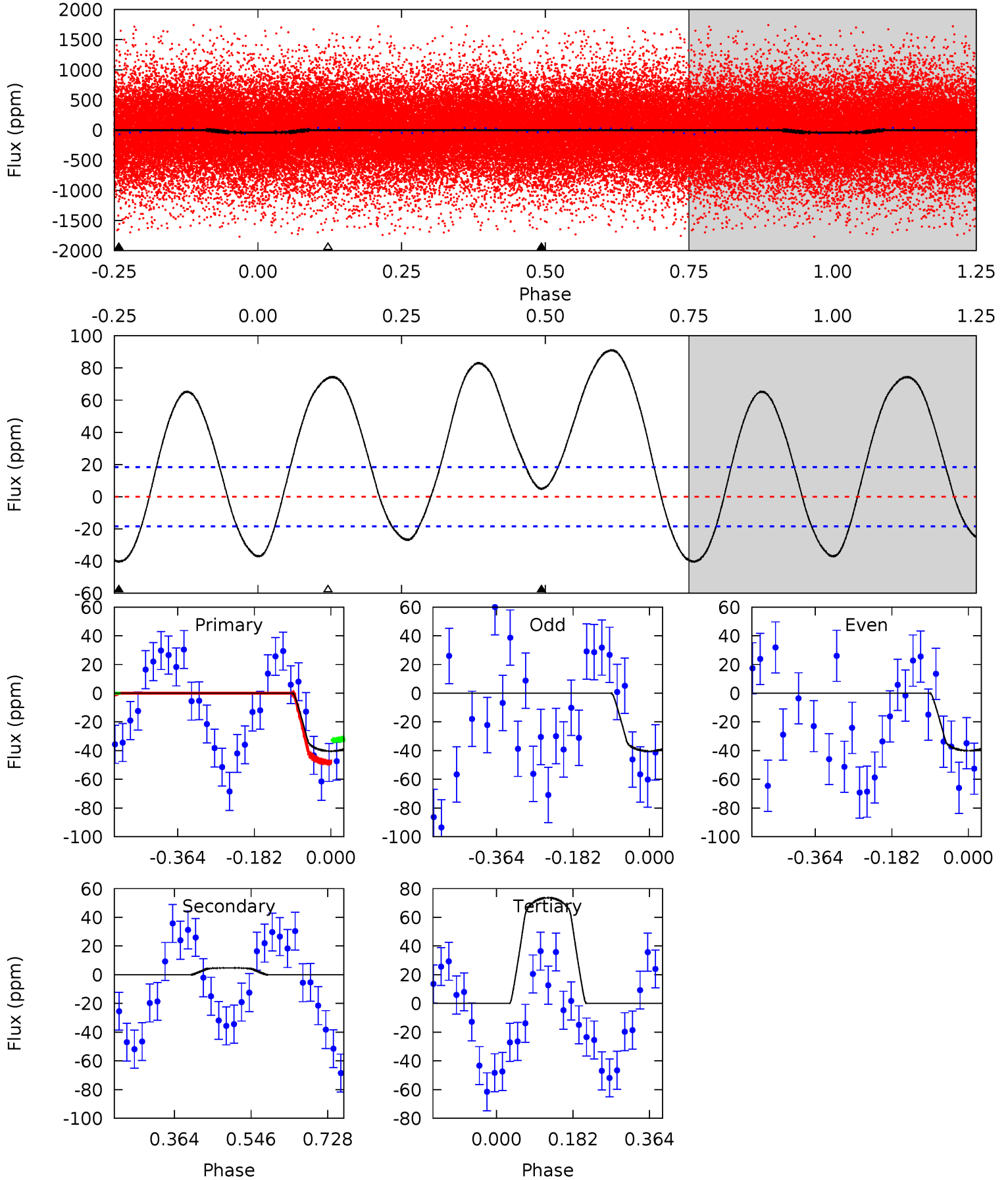
TCE 005647514-01 P= 0.583108 Days $T_0=131.726088$ (BKJD)



DV Model-Shift Uniqueness Test

005647514-01, P = 0.583104 Days, E = 131.141562 Days

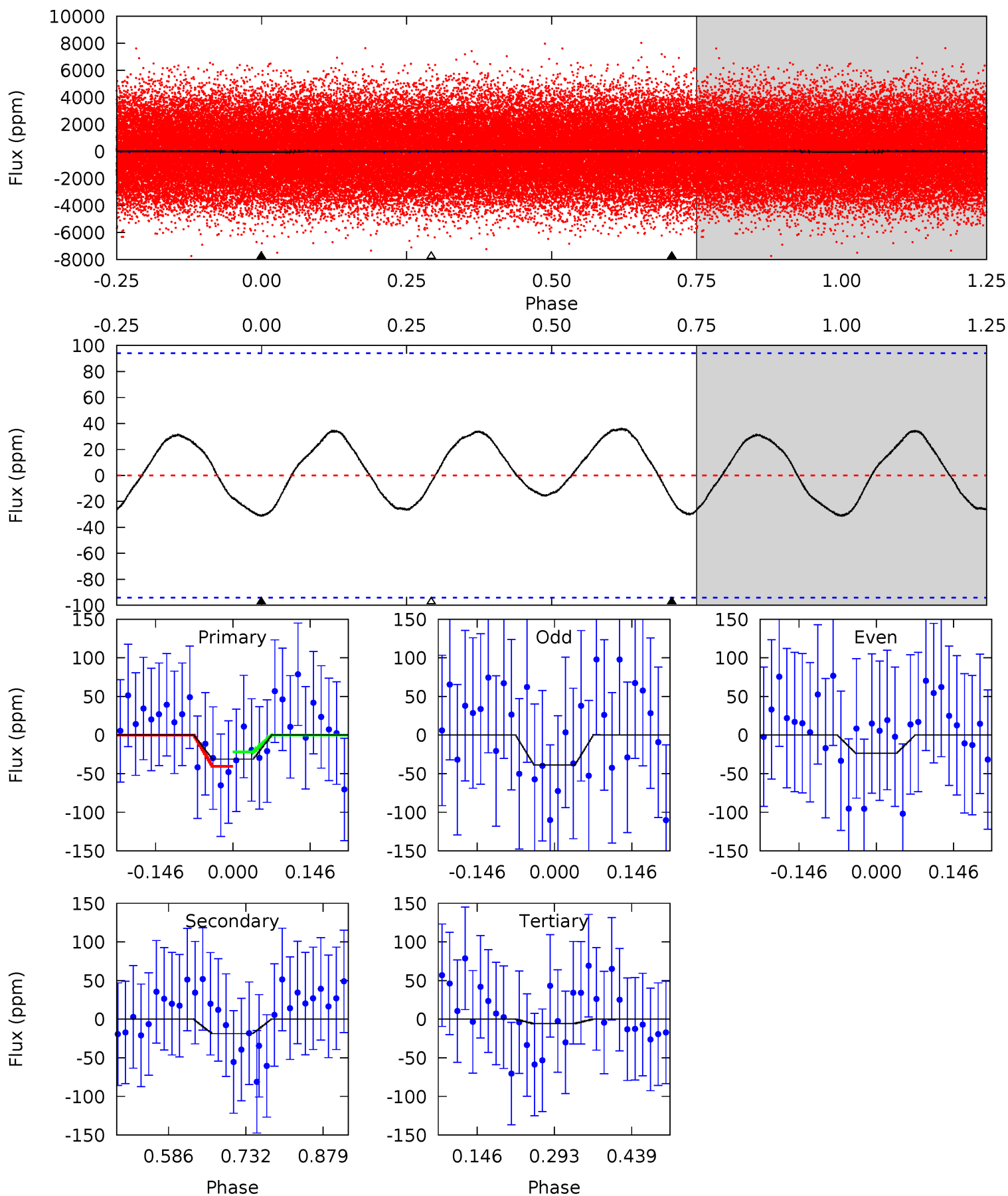
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.75	-1.15	-17.8	0	4.44	1.33	9.06	27.5	9.75	16.6	-1.15	0.03	1.37	0.69	1.87



Alt Model-Shift Uniqueness Test

005647514-01, P = 0.583108 Days, E = 131.142980 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.49	0.89	0.27	0	4.48	1.45	0.87	1.21	1.49	0.61	0.89	0.36	1.73	0.54	0.44



Stellar Parameters For KIC 005647514

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7411^{+207}_{-337}	$4.129^{+0.128}_{-0.192}$	$-0.040^{+0.200}_{-0.350}$	$1.792^{+0.548}_{-0.365}$	$1.573^{+0.222}_{-0.244}$	$0.385^{+0.277}_{-0.185}$
	+3%/-5%	+3%/-5%	+500%/-875%	+31%/-20%	+14%/-16%	+72%/-48%
Source	KIC0	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 005647514-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	5 ± 4	$1.93^{+0.63}_{-0.56}$	4895^{+353}_{-348}	-4624^{+404}_{-454}	$-0.163^{+0.144}_{-0.283}$
Alt.	-19 ± 21	$1.12^{+0.54}_{-0.49}$	4885^{+365}_{-341}	5915^{+3189}_{-10540}	$1.790^{+5.098}_{-1.975}$

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 $A_{obs} \gg 1.0$

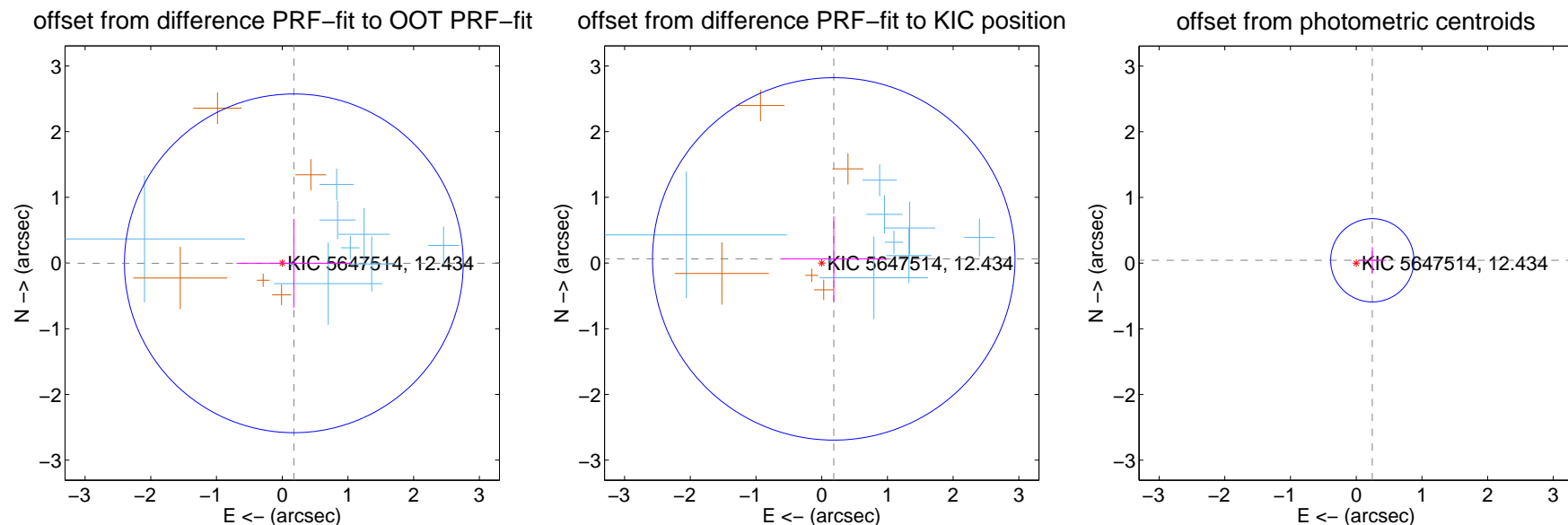
DV Centroid Data

Supplemental centroid analysis for 005647514-01. Kepler magnitude: 12.43. Transit SNR 15.77

There are 9 quarters with good PRF difference image offsets

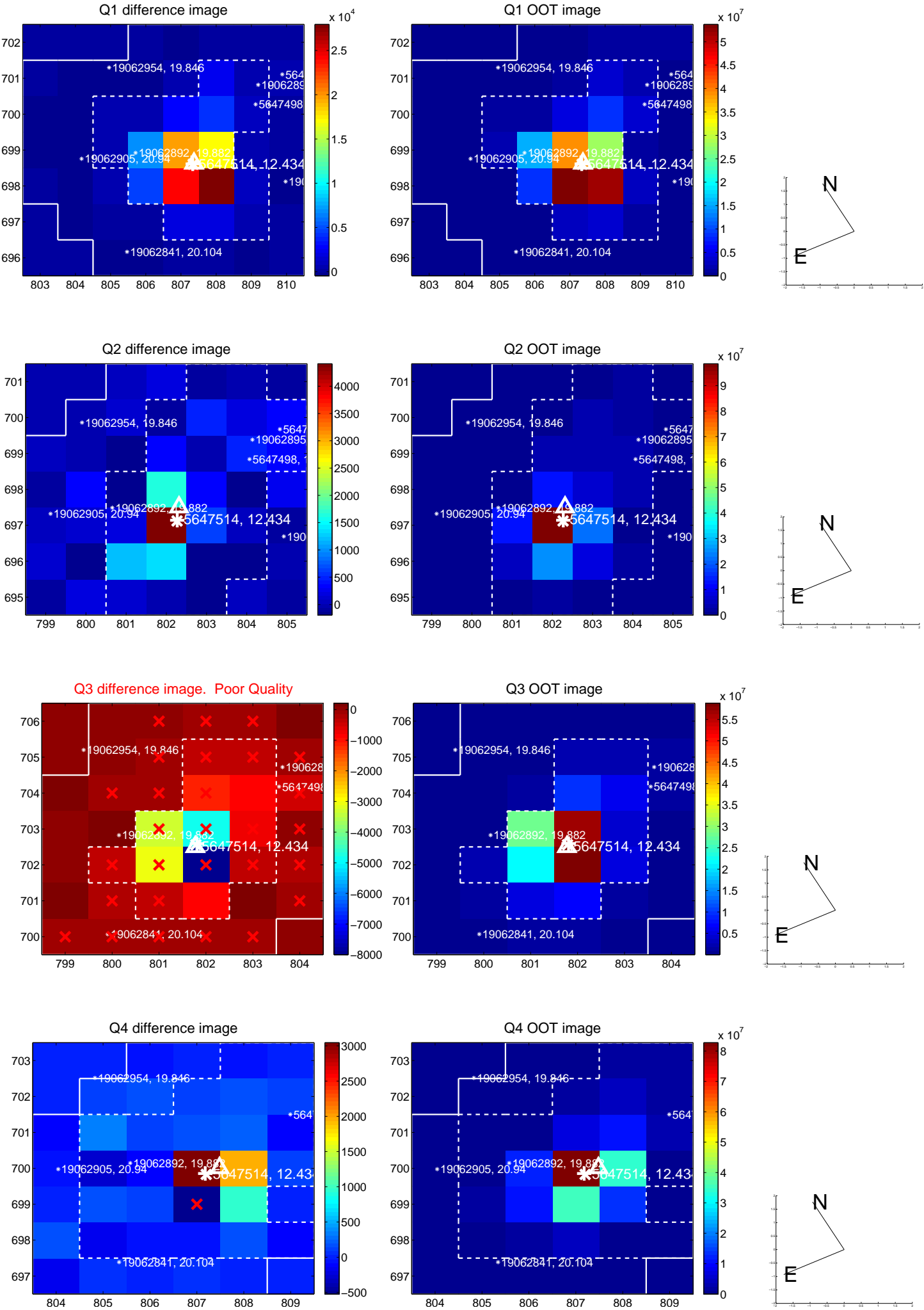
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.177 ± 0.859	0.21	-0.177 ± 0.872	-0.004 ± 0.676
PRF-fit source offset from KIC position	0.194 ± 0.919	0.21	-0.183 ± 0.797	0.063 ± 0.646
photometric centroid source offset	0.25 ± 0.21	1.17	-0.24 ± 0.21	0.04 ± 0.20

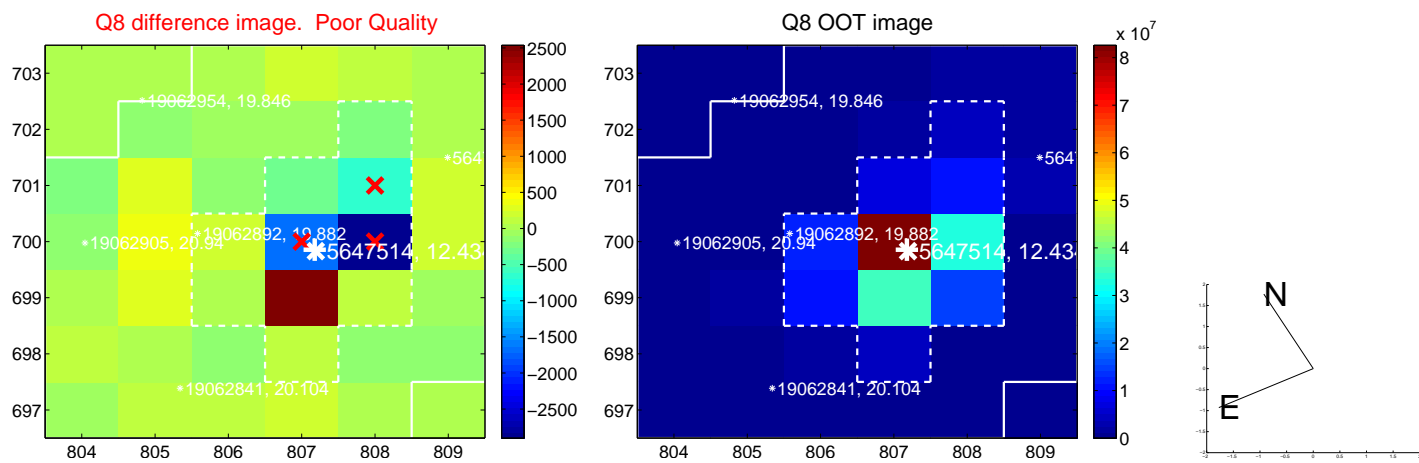
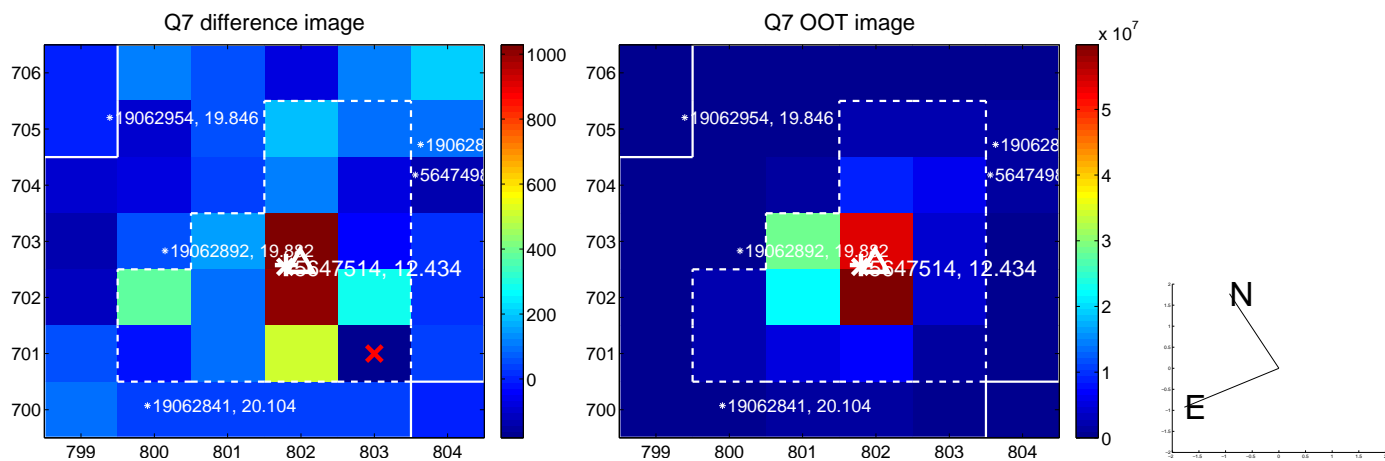
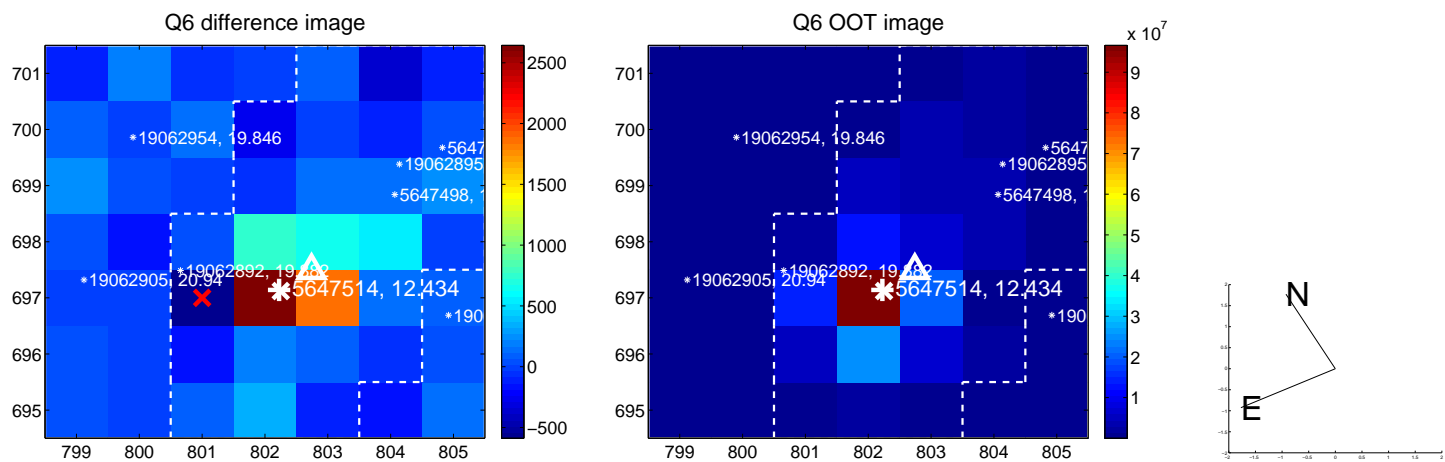
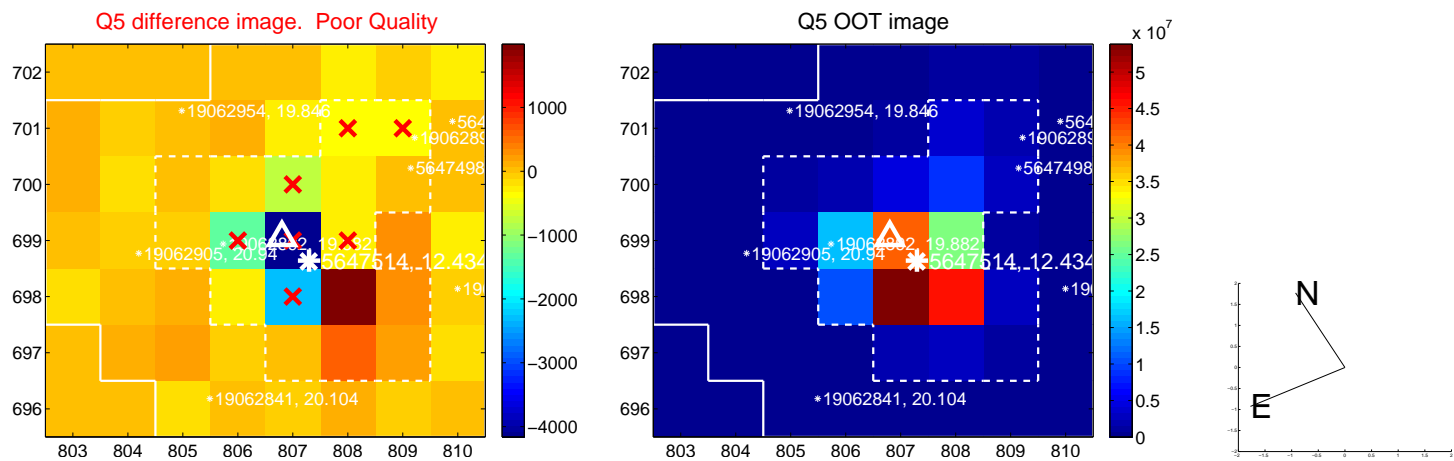


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

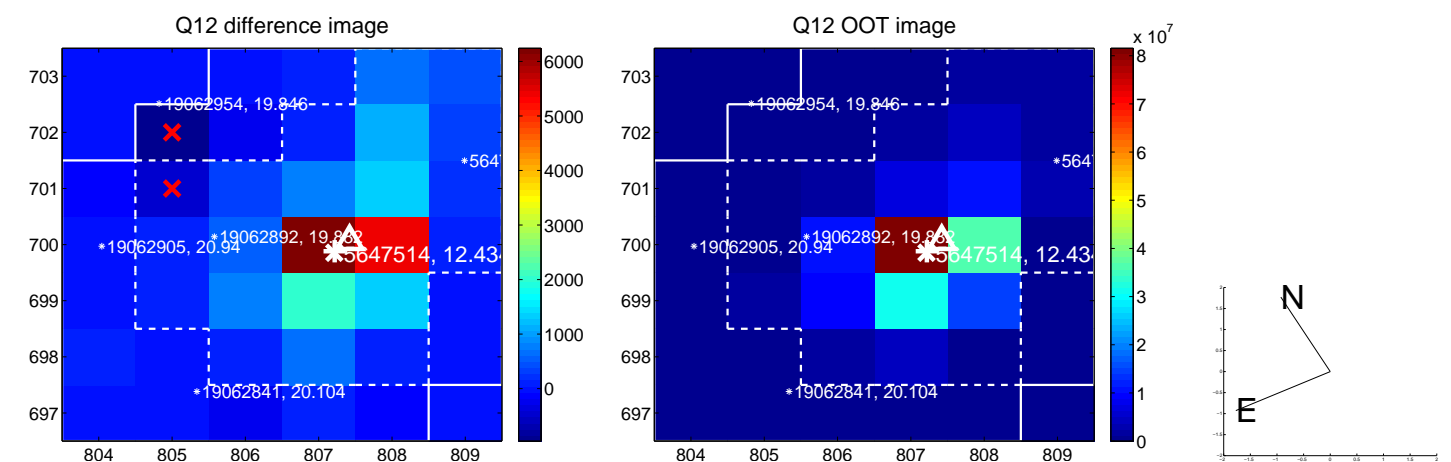
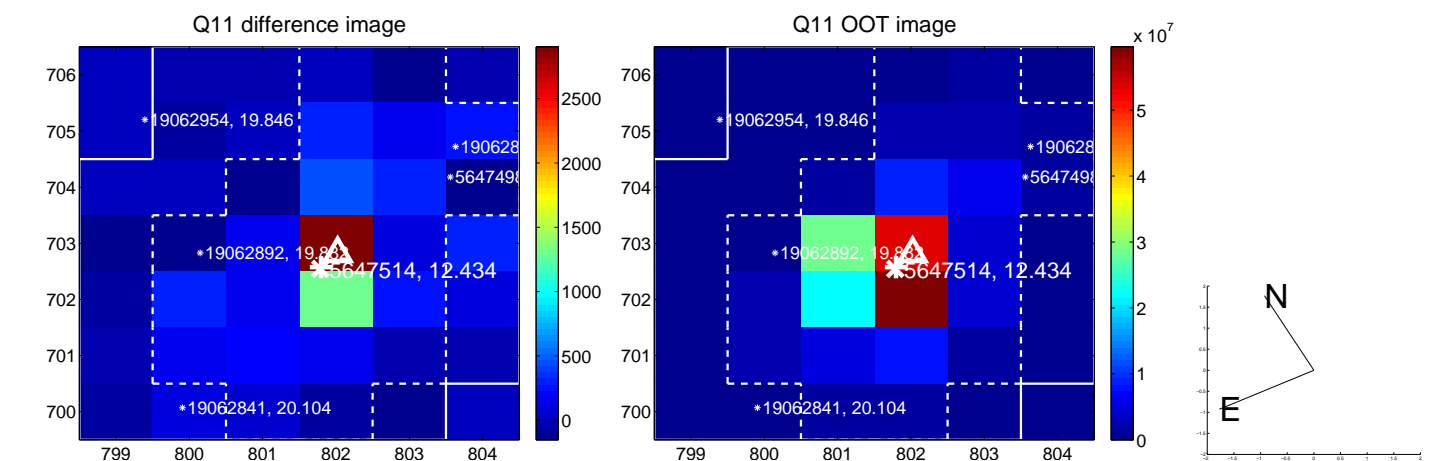
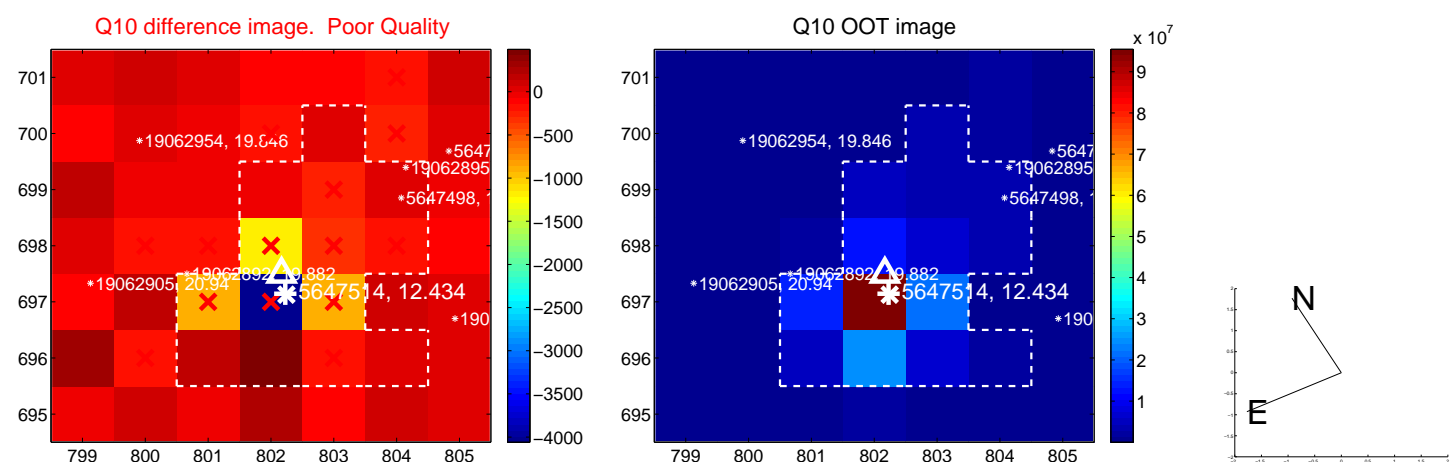
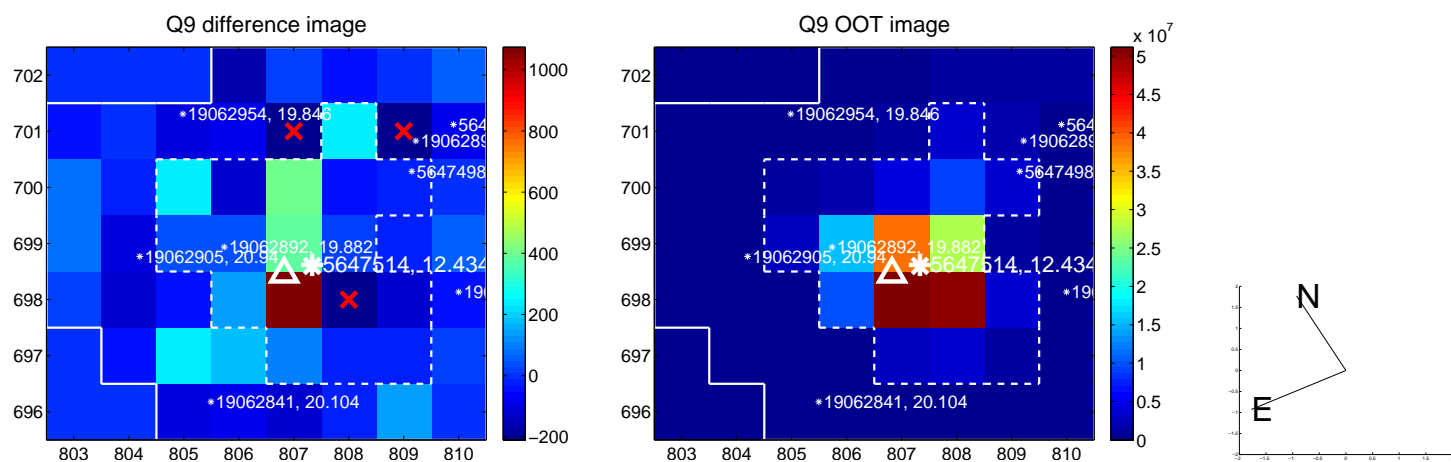
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



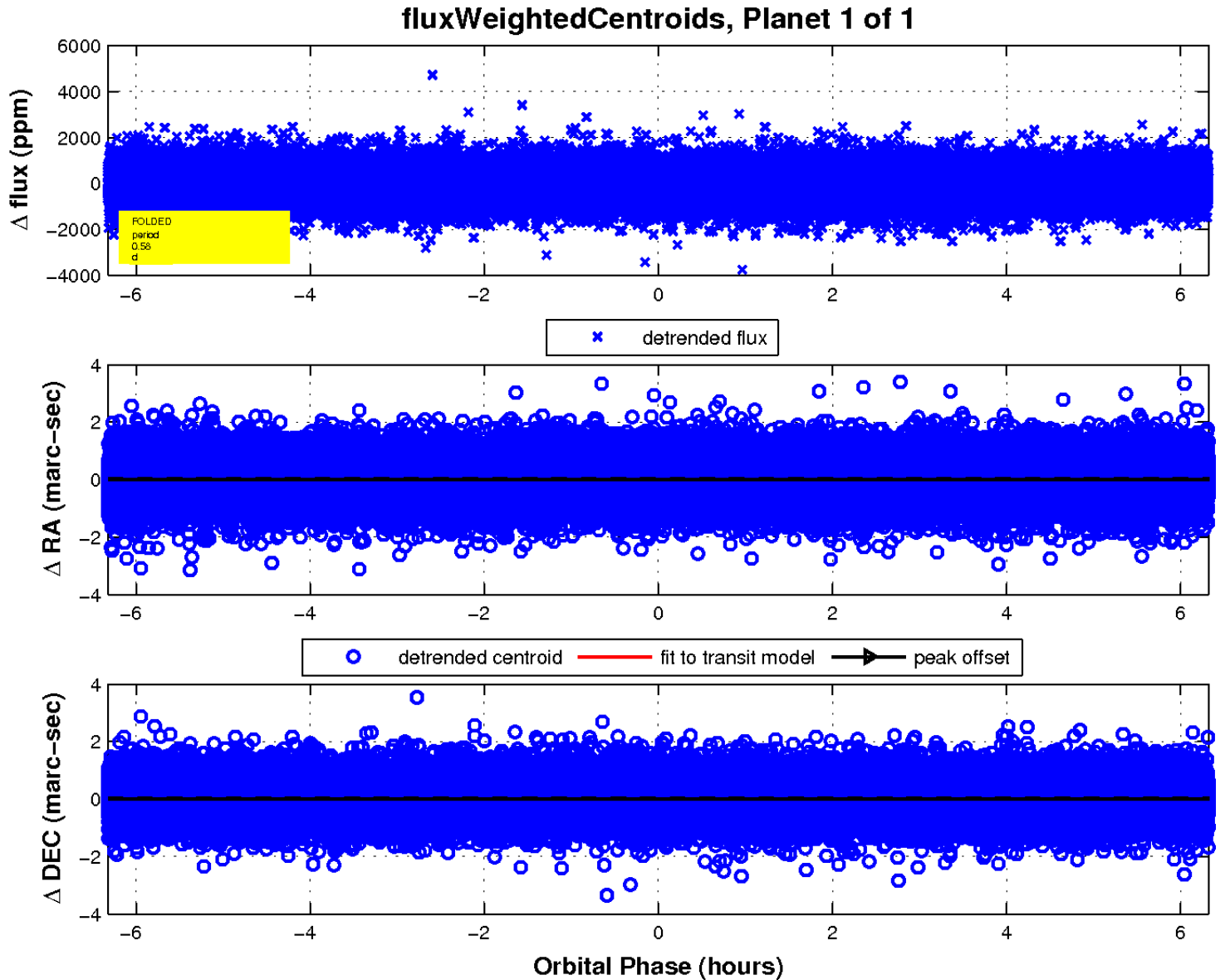
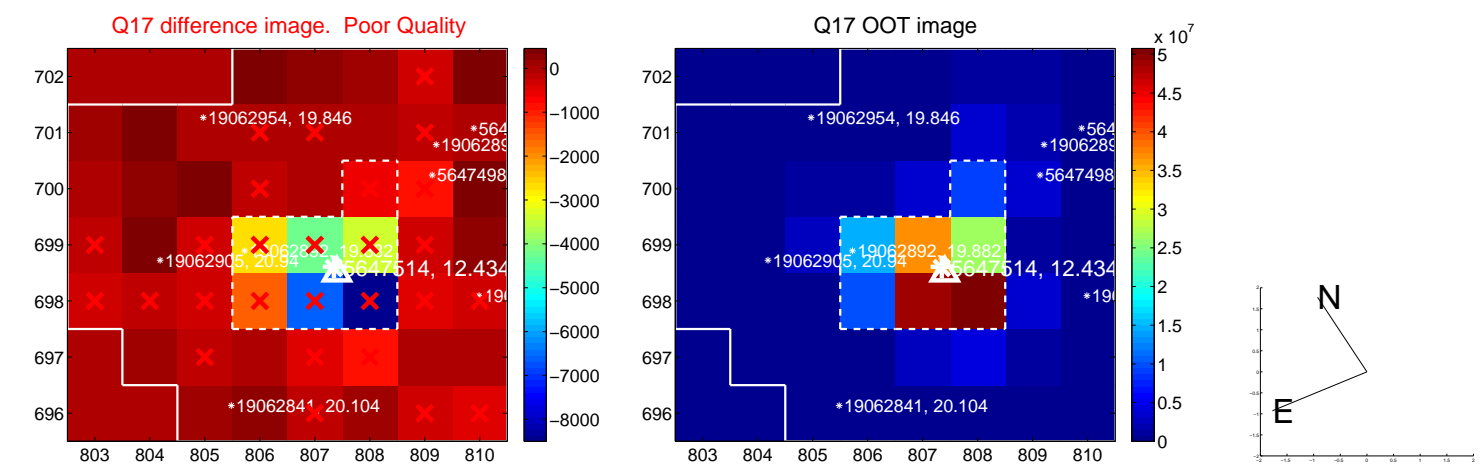
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

