

KIC 006114140

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})
006114140-01	OBS	8117.01	0.933740	131.519854	84.8	3.872	43.5	16.0	1.09	6367	1.08	4583.02

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006114140-01	OBS	FP	0.00	0	0	1	0	CENT_UNRESOLVED_OFFSET

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

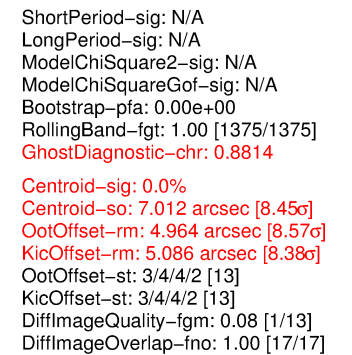
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

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

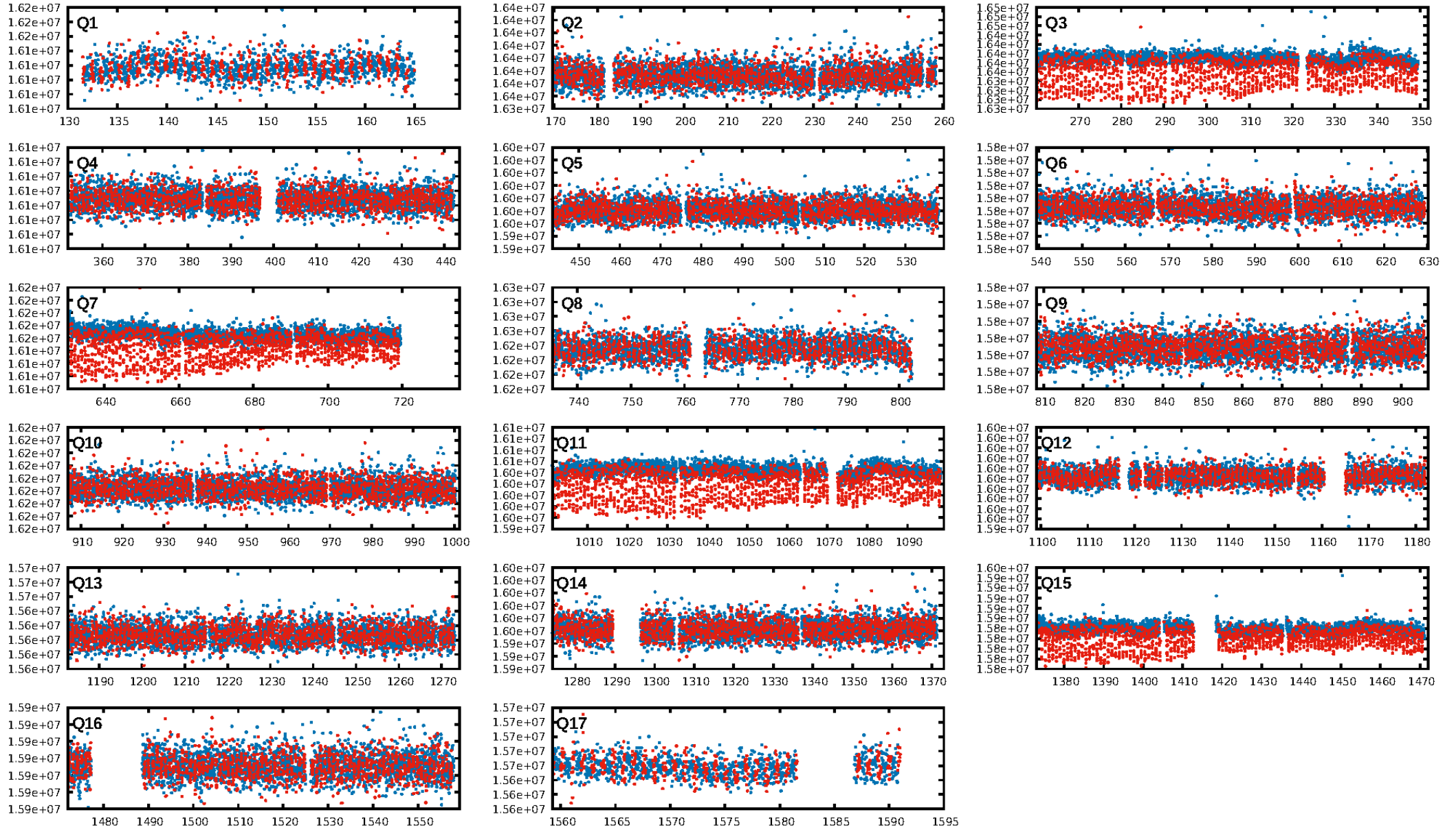
Ephemeris Match Information For 006114140-01

No Significant Match Found

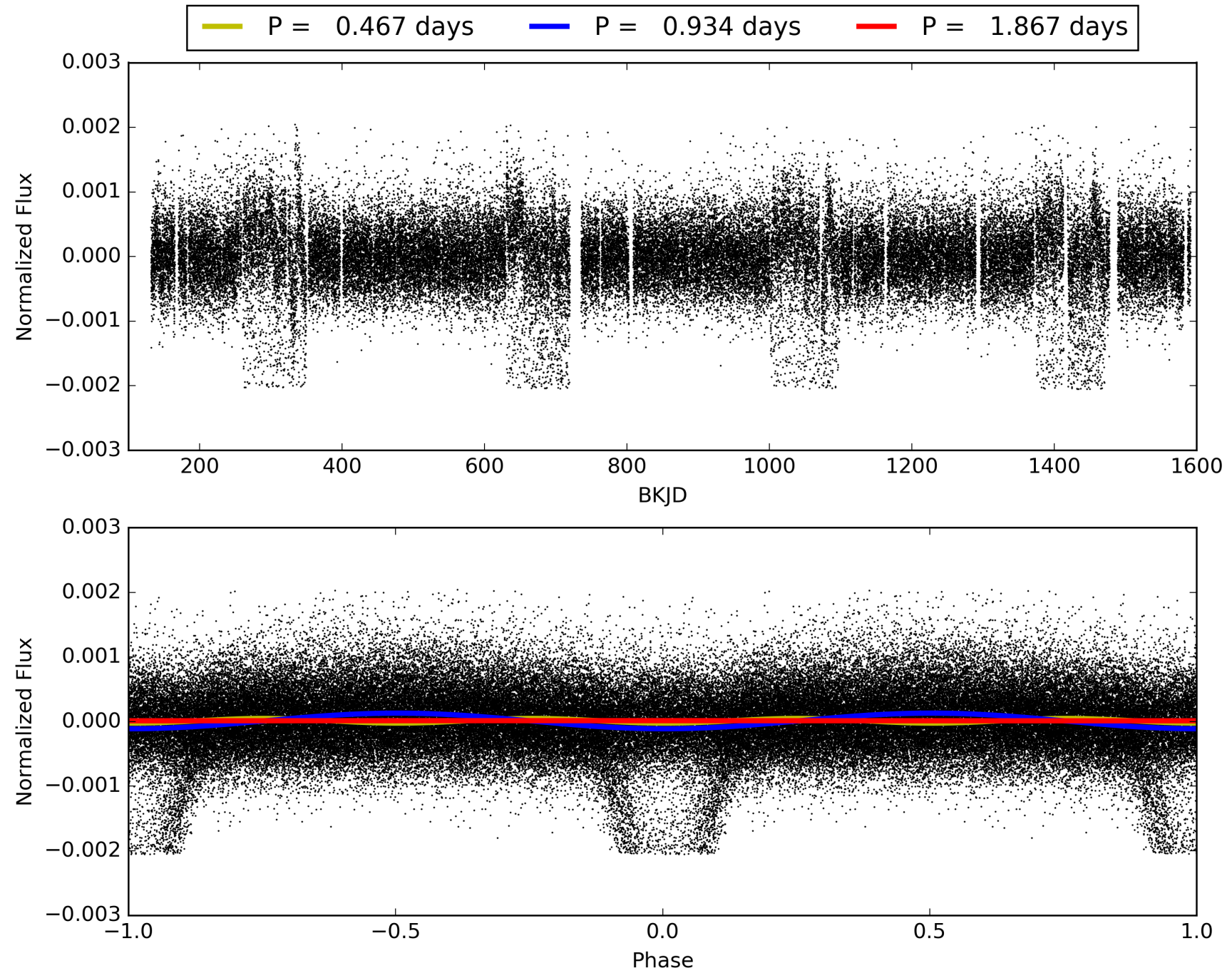
KIC: 6114140 Candidate: 1 of 1 Period: 0.934 d



TCE 006114140-01, PDC Light Curves

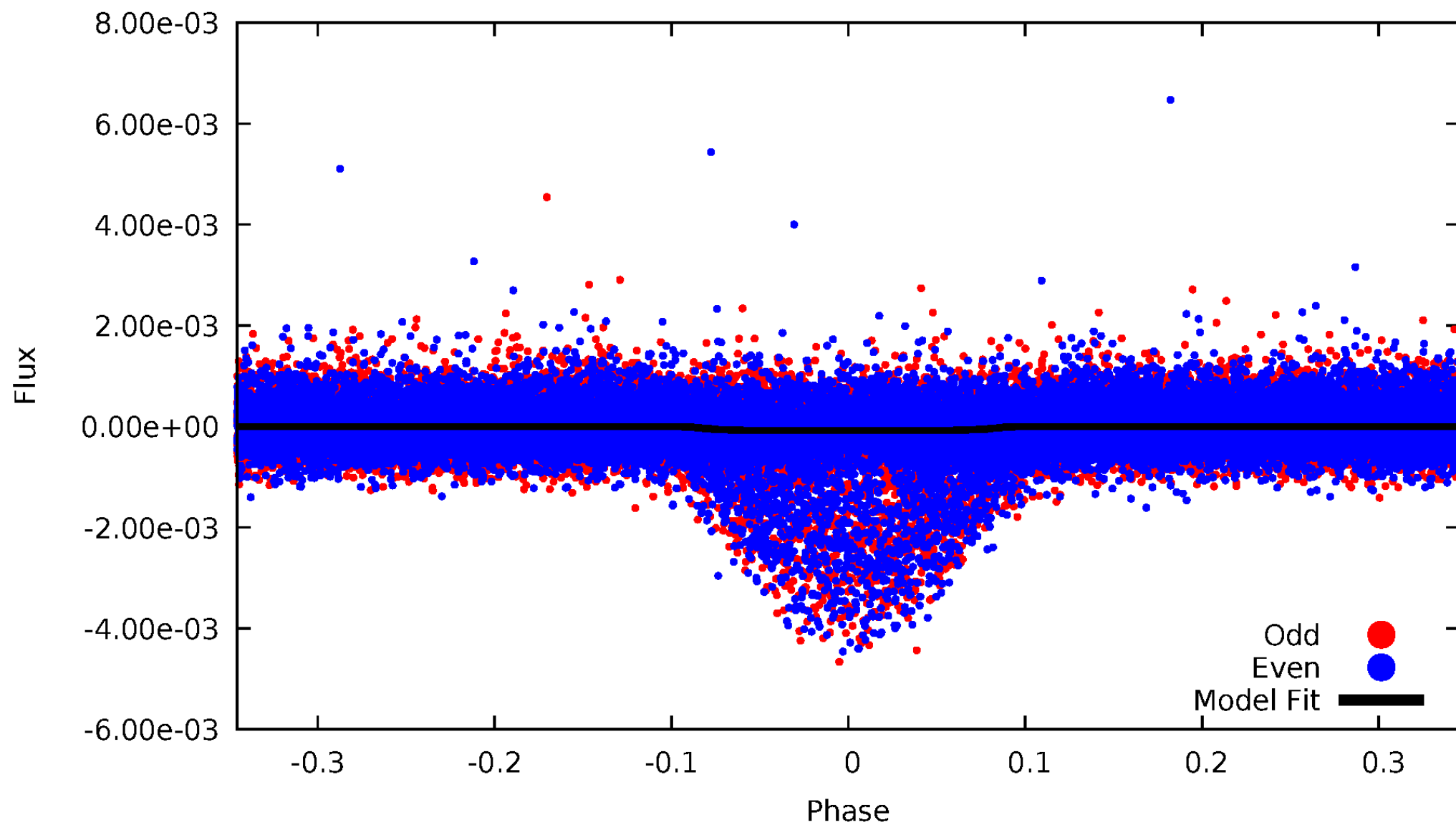


TCE 006114140-01



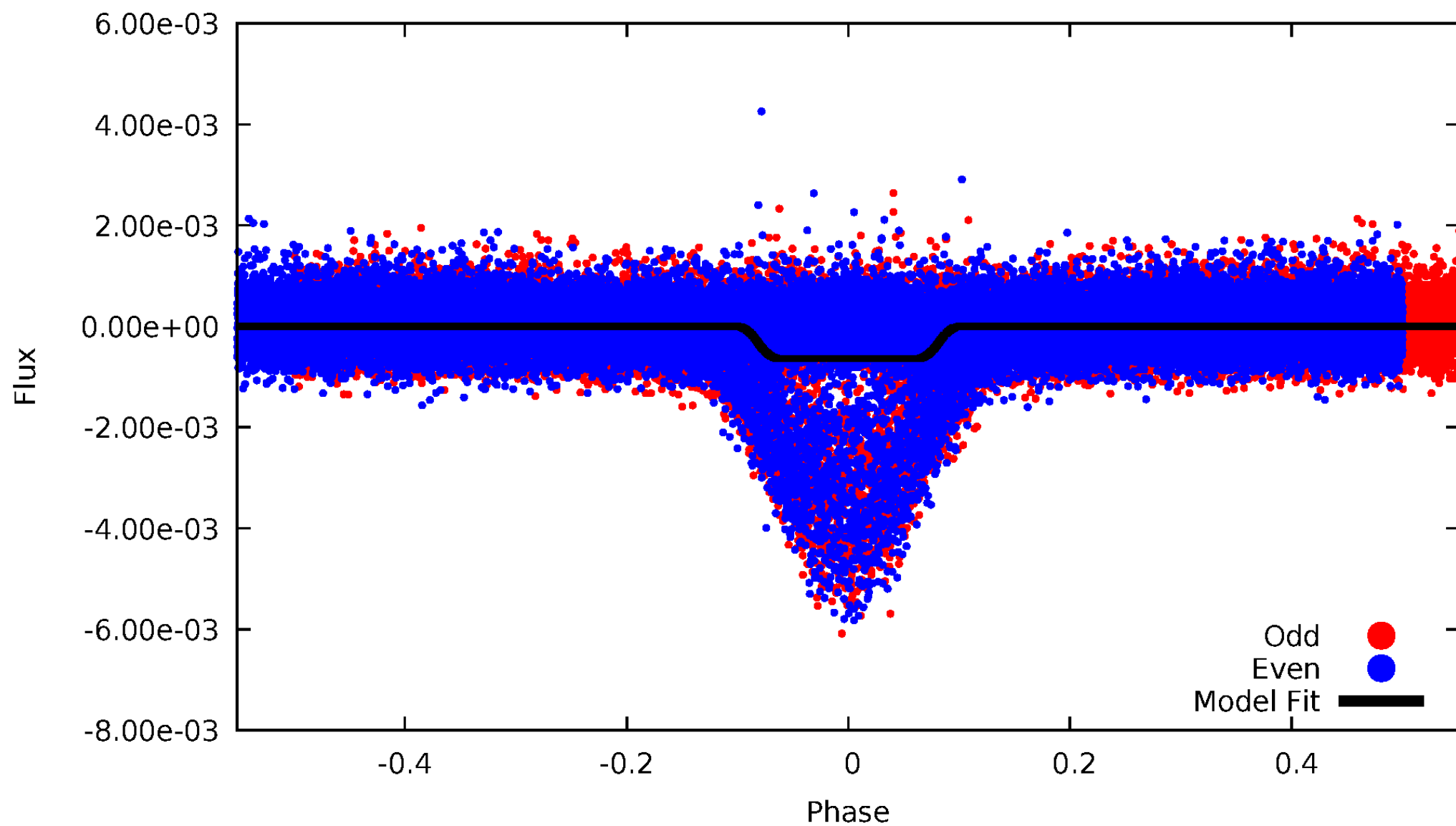
DV Odd/Even

TCE 006114140-01



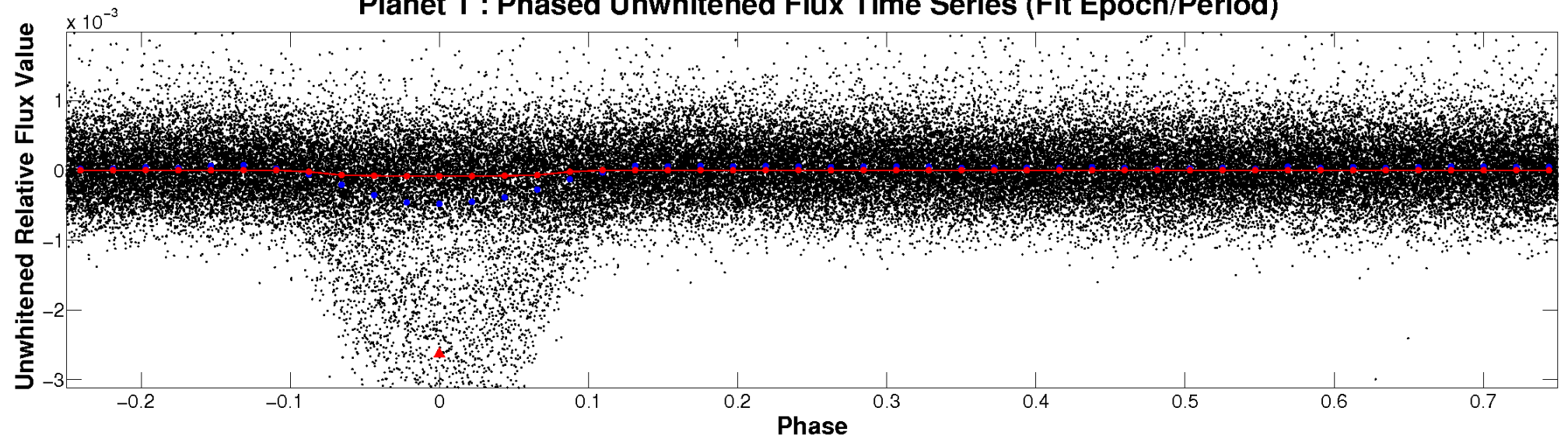
ALT Odd/Even

TCE 006114140-01

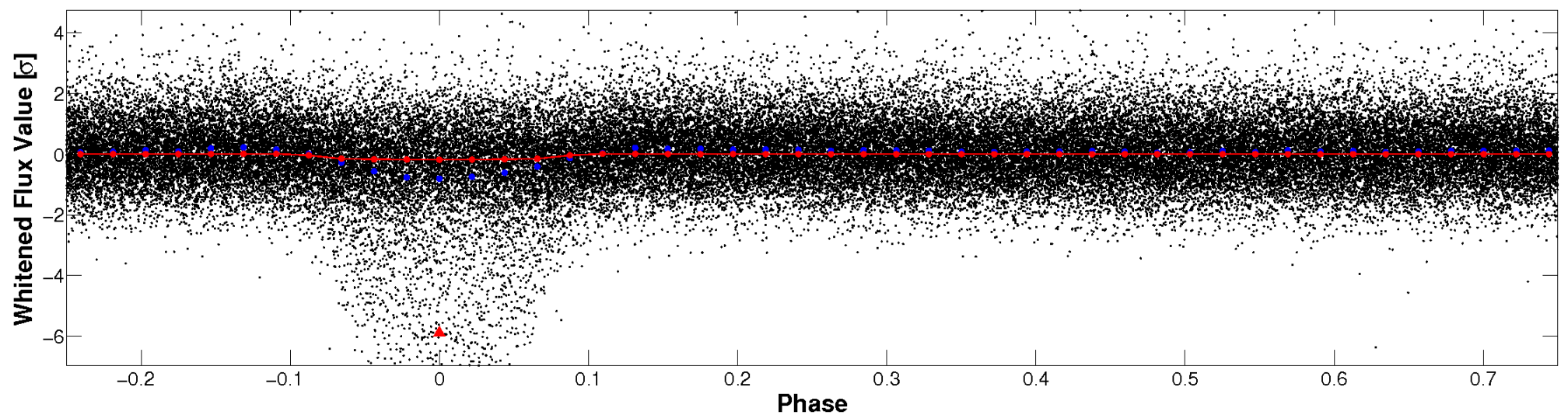


Non-Whitened Vs. Whitened Light Curve

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

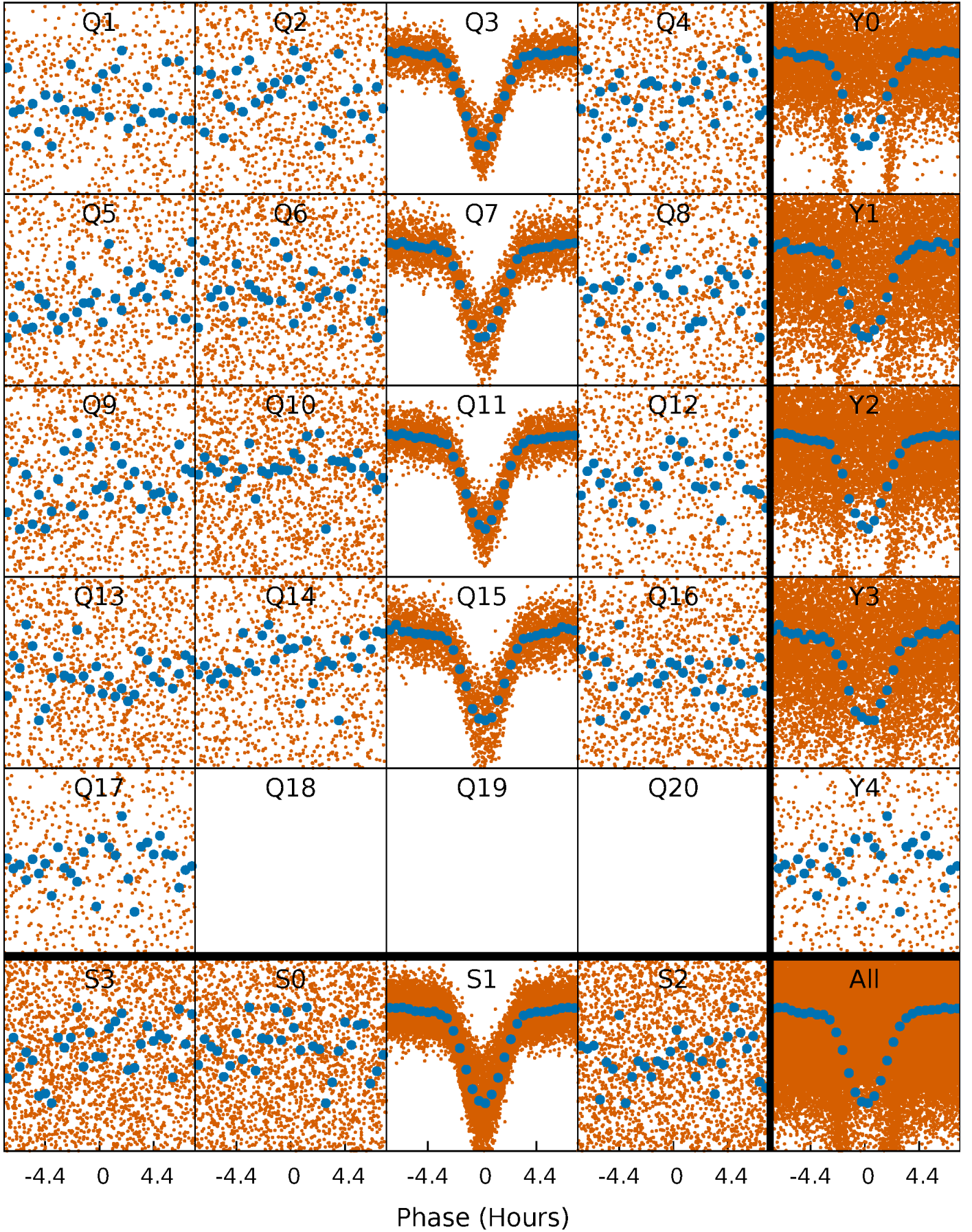


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



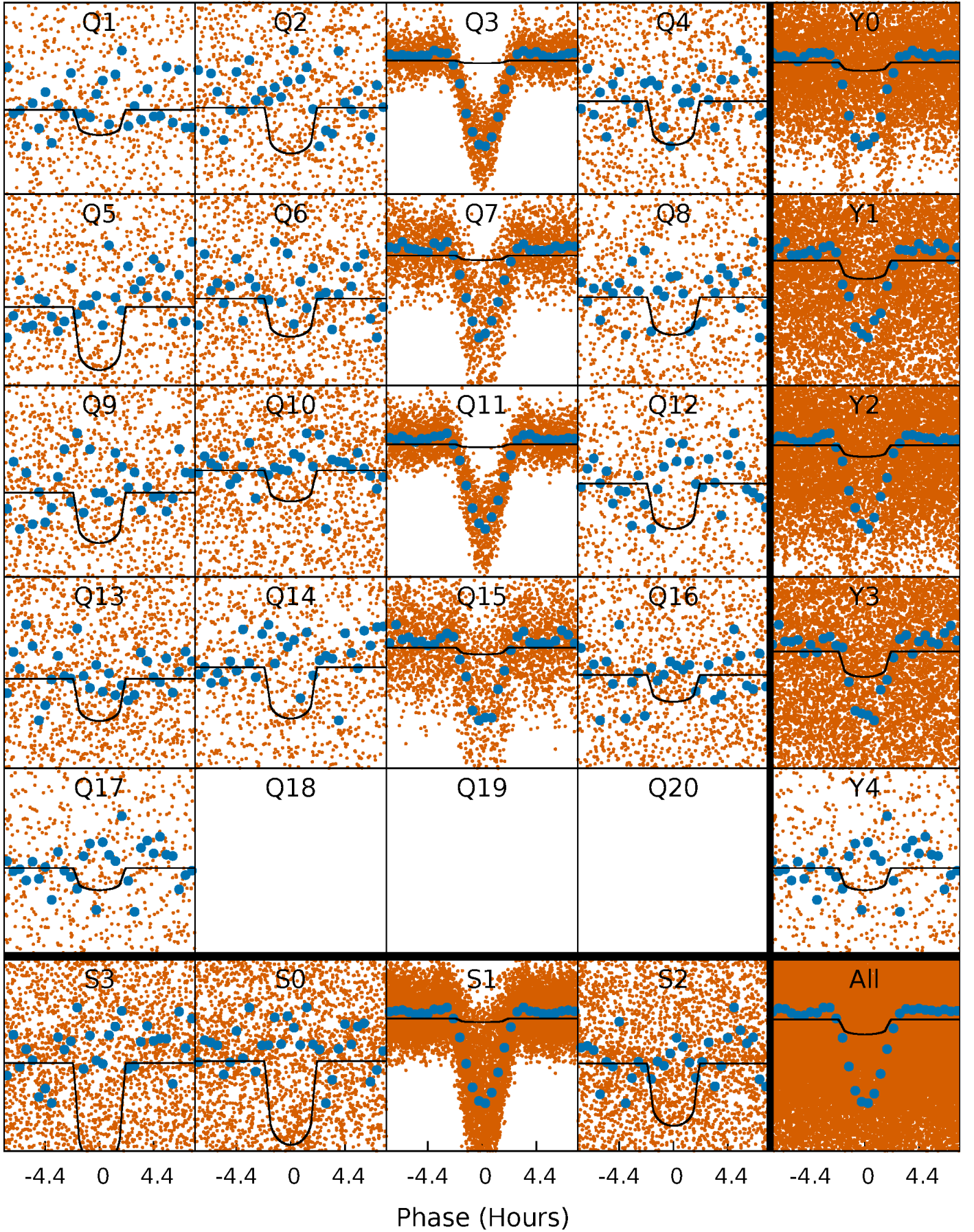
PDC Quarter-Phased Transit Curves

TCE 006114140-01 P= 0.933740 Days $T_0=131.519854$ (BKJD)



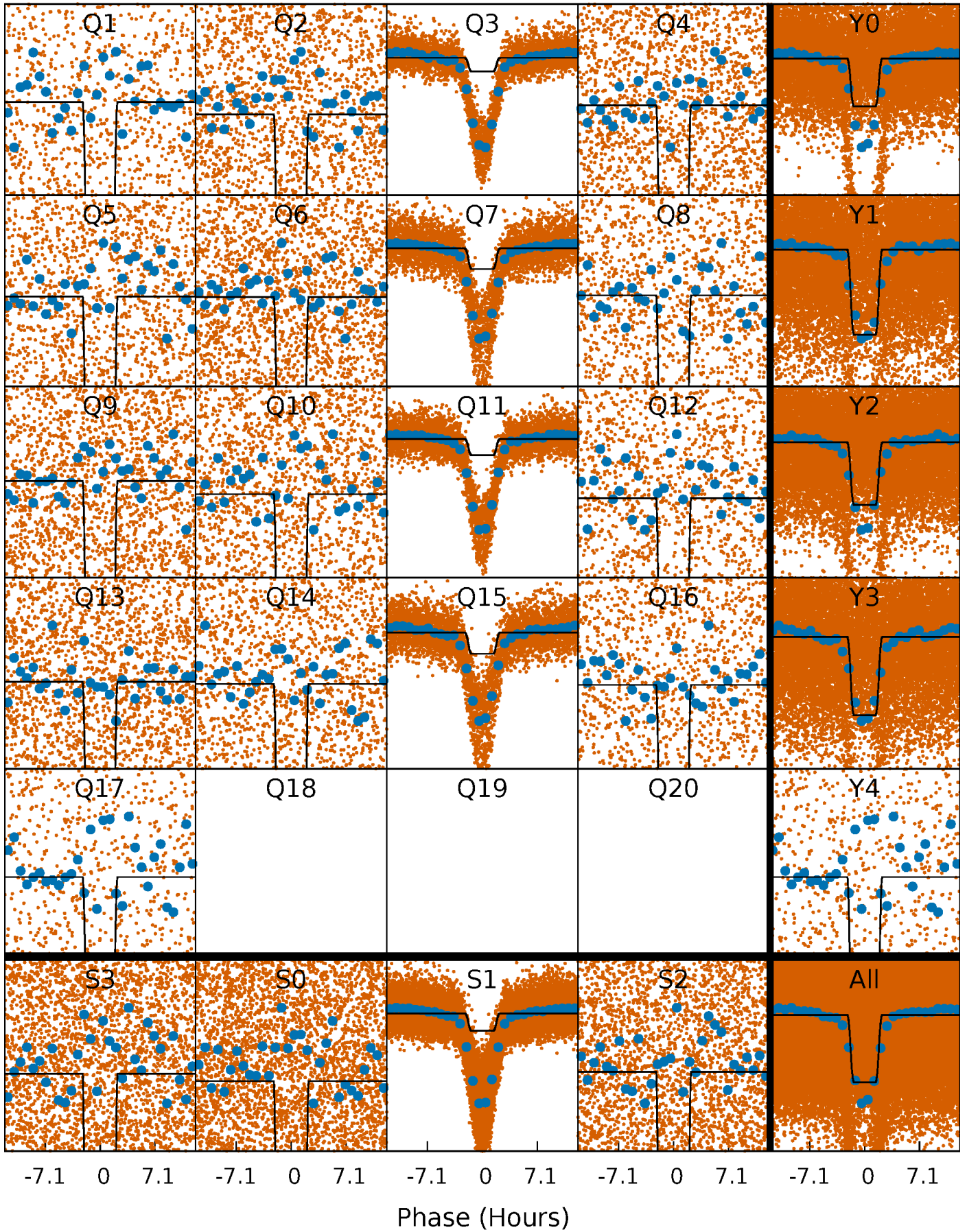
DV Quarter-Phased Transit Curves

TCE 006114140-01 P= 0.933740 Days $T_0=131.519854$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

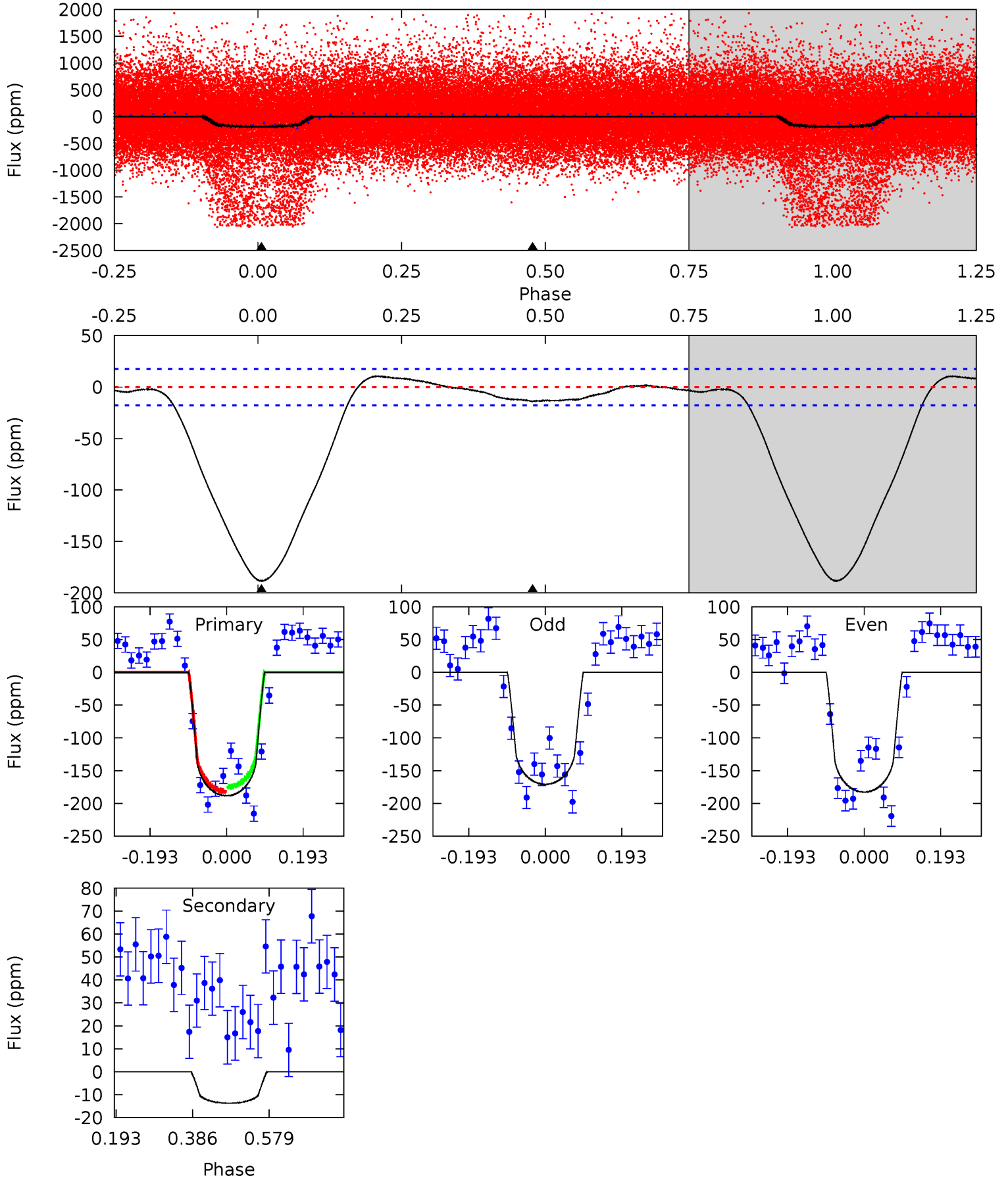
TCE 006114140-01 P= 0.933748 Days $T_0=131.519170$ (BKJD)



DV Model-Shift Uniqueness Test

006114140-01, P = 0.933740 Days, E = 130.586114 Days

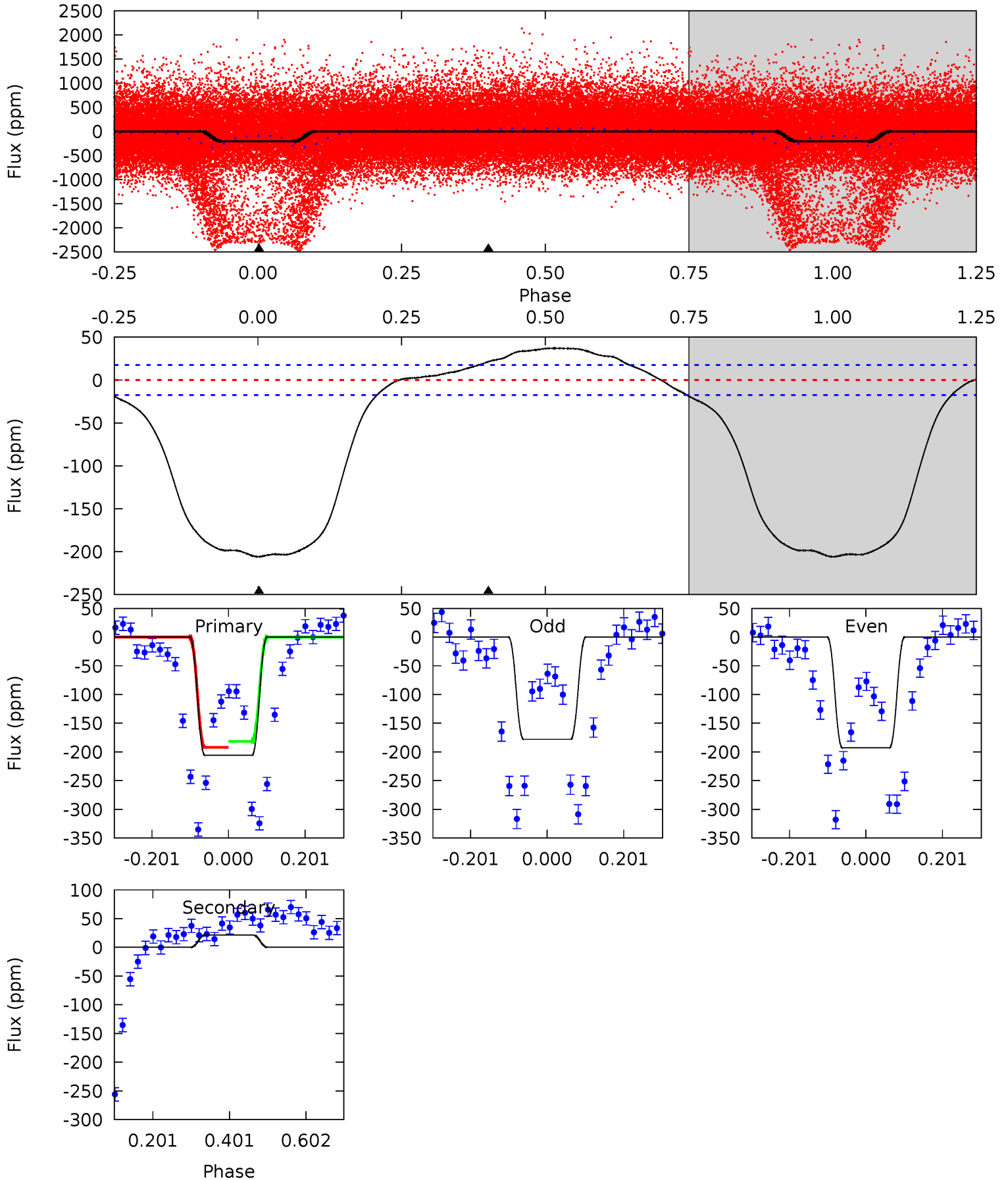
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
47.1	3.43	0	0	4.42	1.30	1.34	47.1	47.1	3.43	3.43	1.49	8.01	0.05	0.80



Alt Model-Shift Uniqueness Test

006114140-01, P = 0.933748 Days, E = 130.585422 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
51.8	-5.37	0	0	4.42	1.28	5.07	51.8	51.8	-5.37	-5.37	1.85	14.1	0.15	1.31



Stellar Parameters For KIC 006114140

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6367^{+172}_{-211}	$4.419^{+0.065}_{-0.195}$	$-0.140^{+0.250}_{-0.300}$	$1.087^{+0.336}_{-0.134}$	$1.131^{+0.162}_{-0.146}$	$1.241^{+0.344}_{-0.612}$
	+3%/-3%	+1%/-4%	+179%/-214%	+31%/-12%	+14%/-13%	+28%/-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 006114140-01 / KOI 8117.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-14 ± 4	$1.10^{+0.57}_{-0.49}$	2984^{+225}_{-144}	4192^{+1258}_{-763}	$2.257^{+4.902}_{-1.349}$
Alt.	21 ± 4	$3.12^{+0.70}_{-0.55}$	2988^{+193}_{-163}	-3554^{+135}_{-177}	$-0.441^{+0.160}_{-0.237}$

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

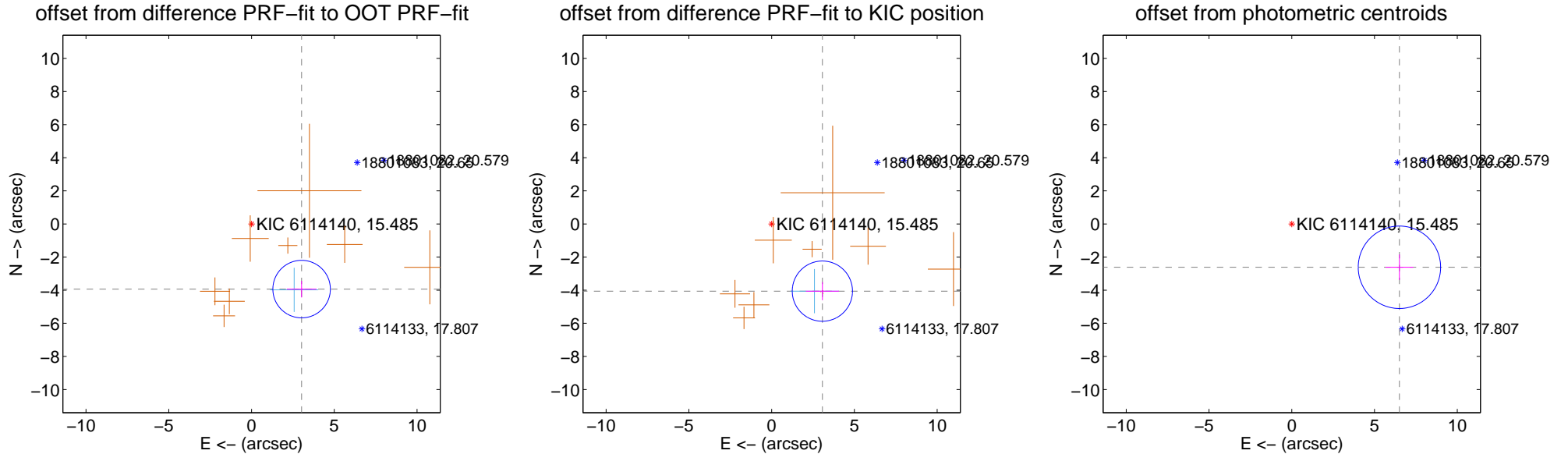
DV Centroid Data

Supplemental centroid analysis for 006114140-01. Kepler magnitude: 15.48. Transit SNR 16.01

There are 1 quarters with good PRF difference image offsets

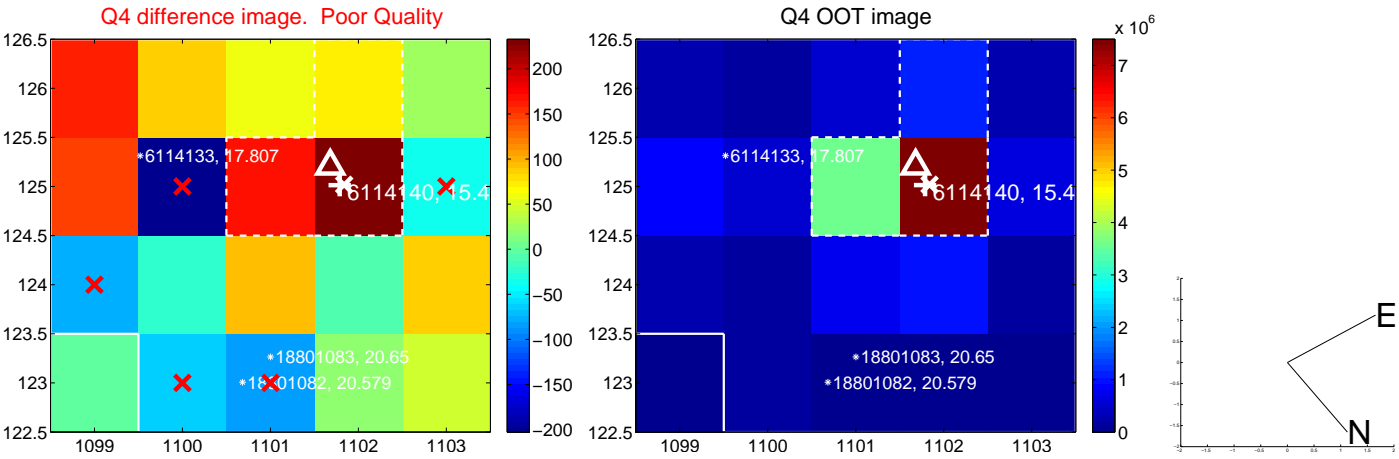
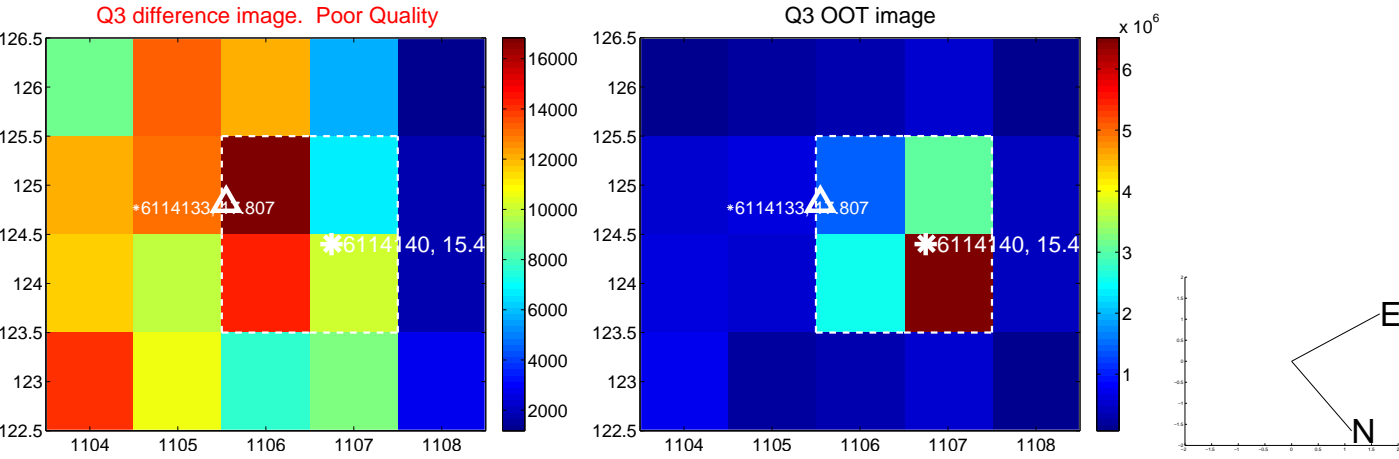
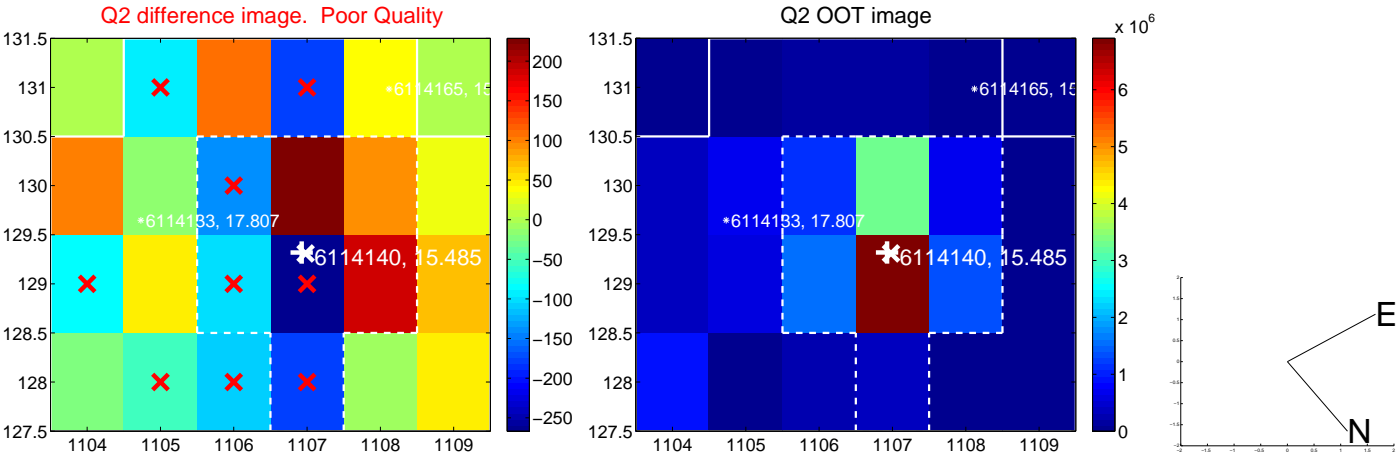
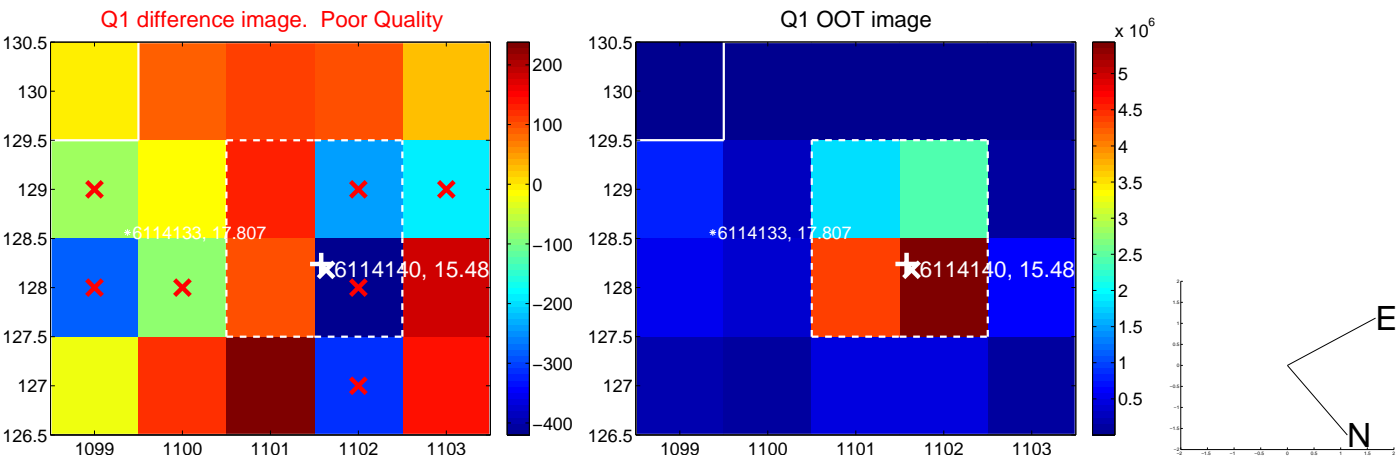
The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.964 ± 0.579	8.57	-3.026 ± 0.898	-3.934 ± 0.502
PRF-fit source offset from KIC position	5.086 ± 0.607	8.38	-3.065 ± 0.998	-4.058 ± 0.550
photometric centroid source offset	7.01 ± 0.83	8.45	-6.51 ± 0.84	-2.62 ± 0.77

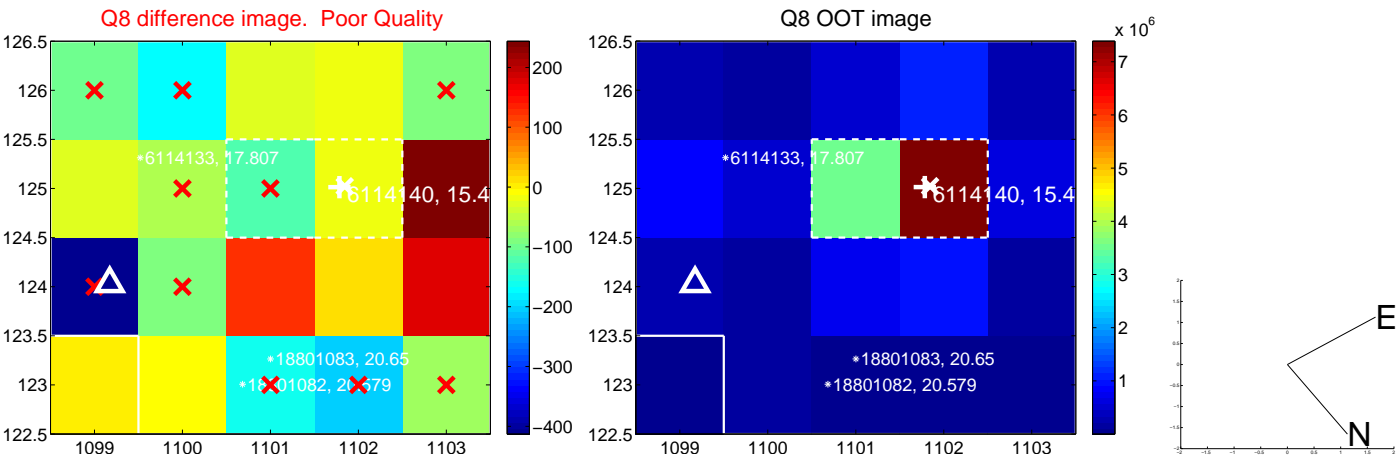
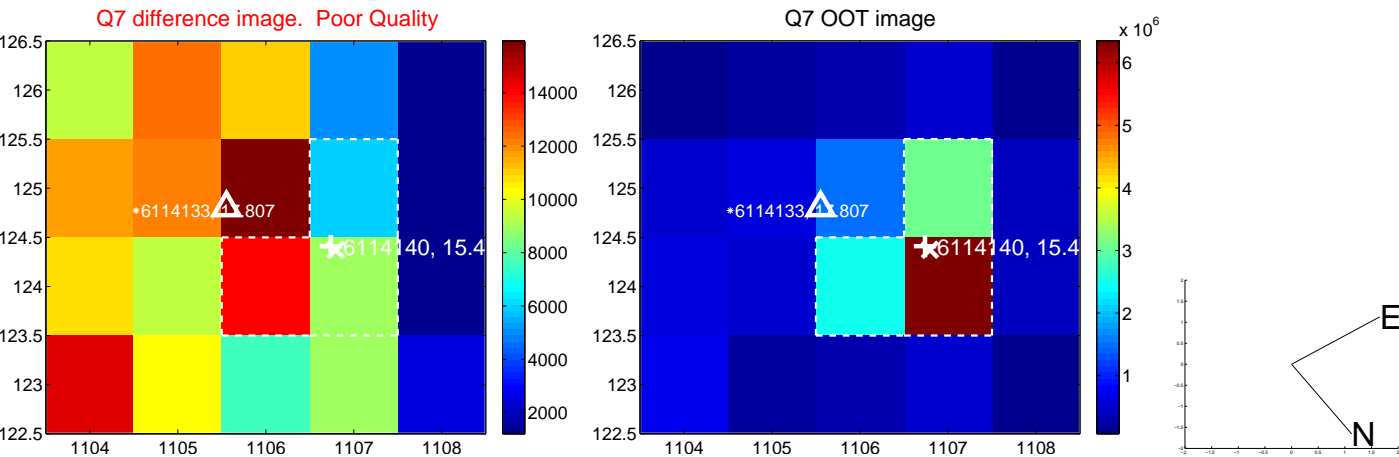
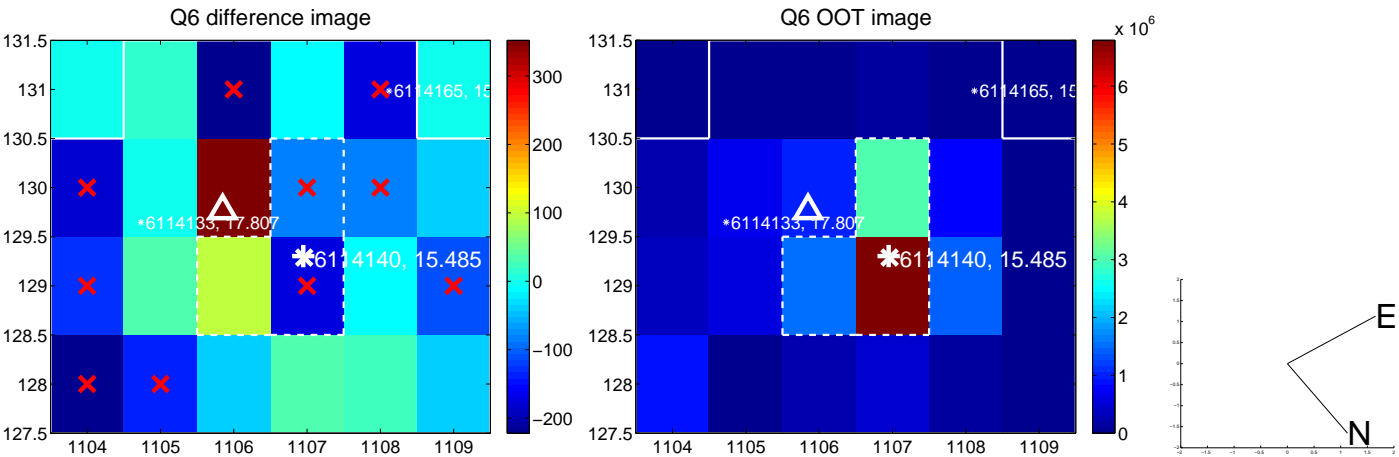
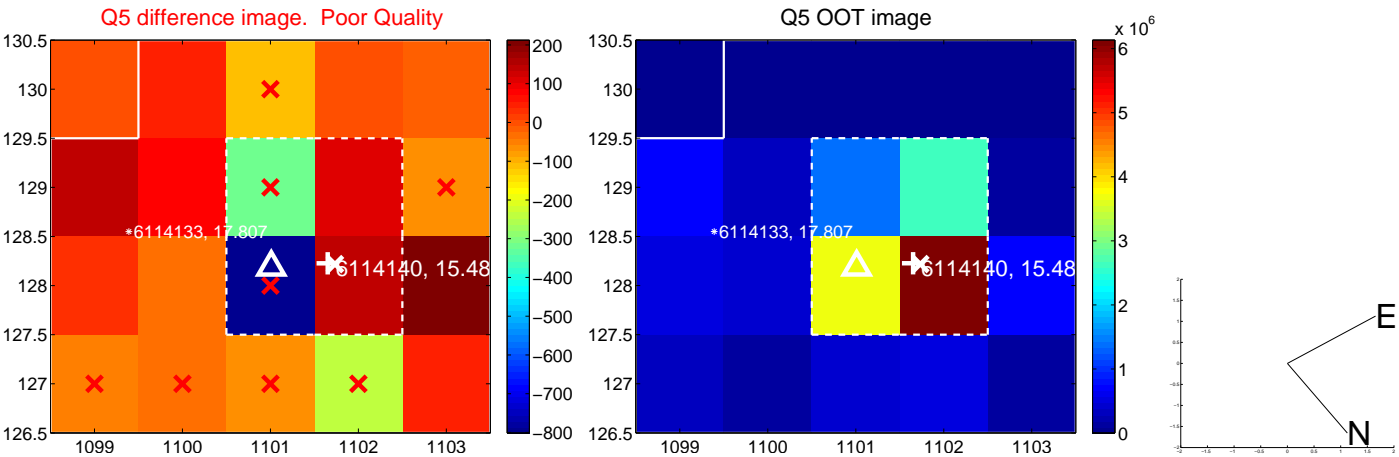


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

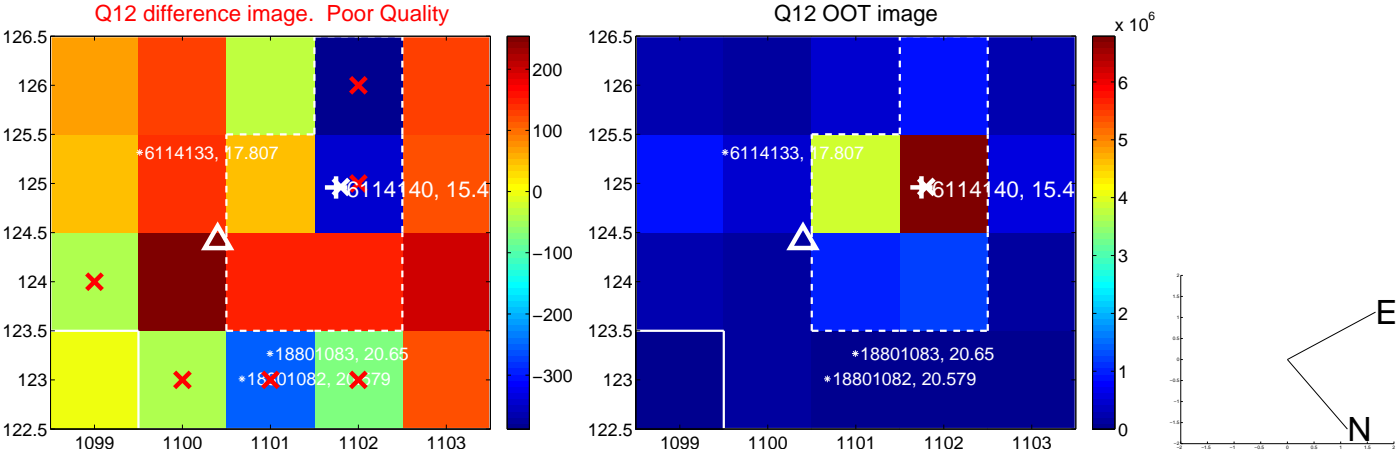
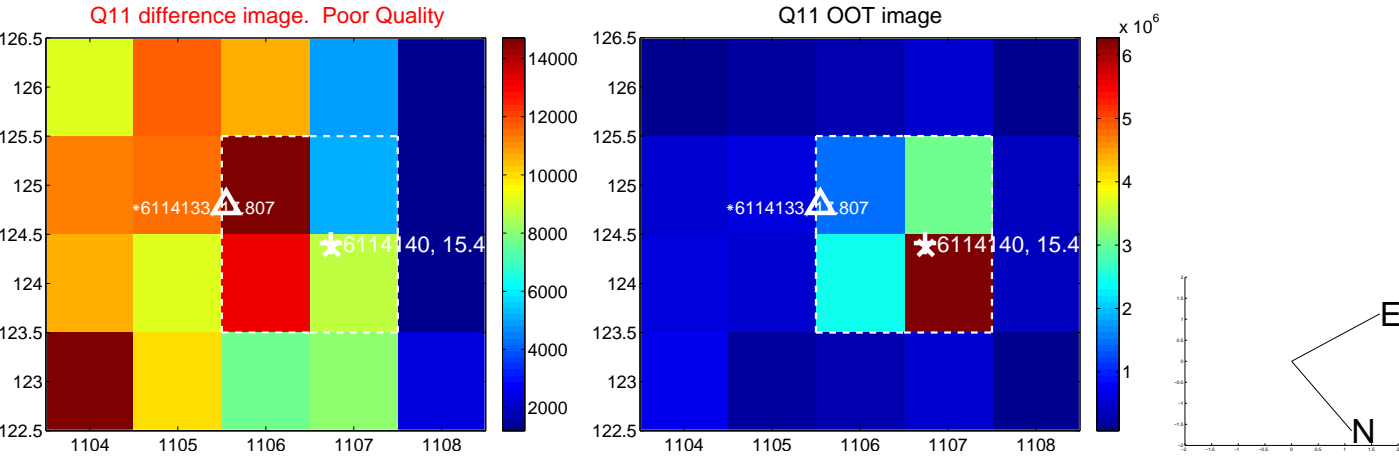
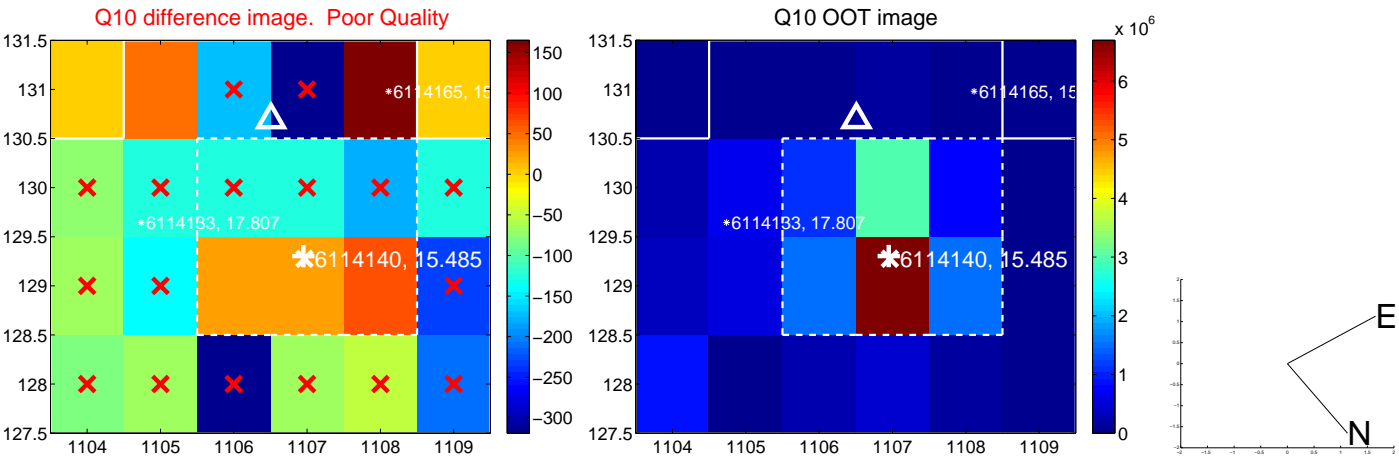
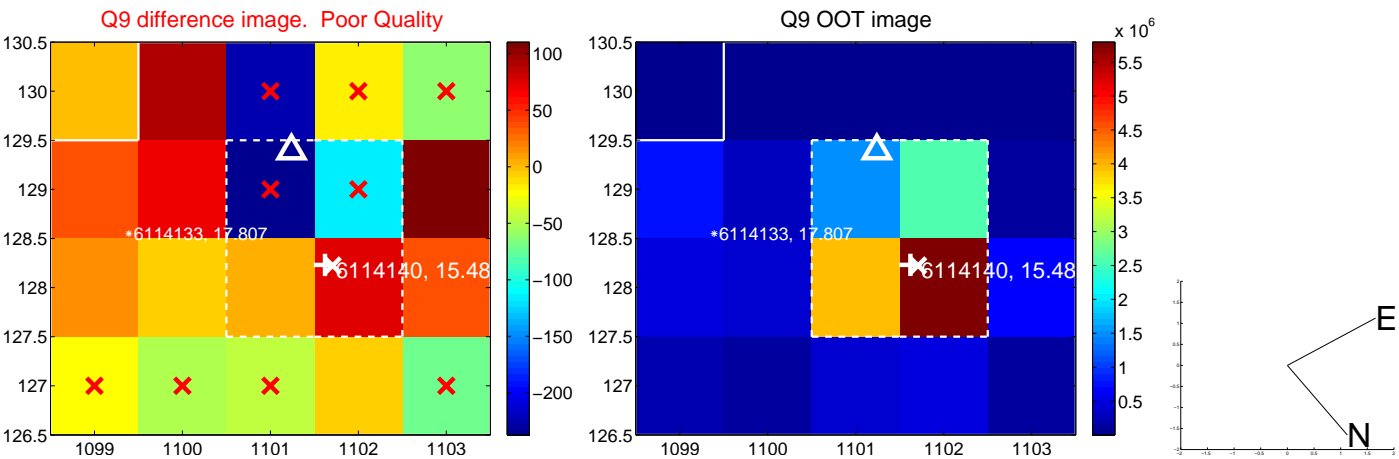
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



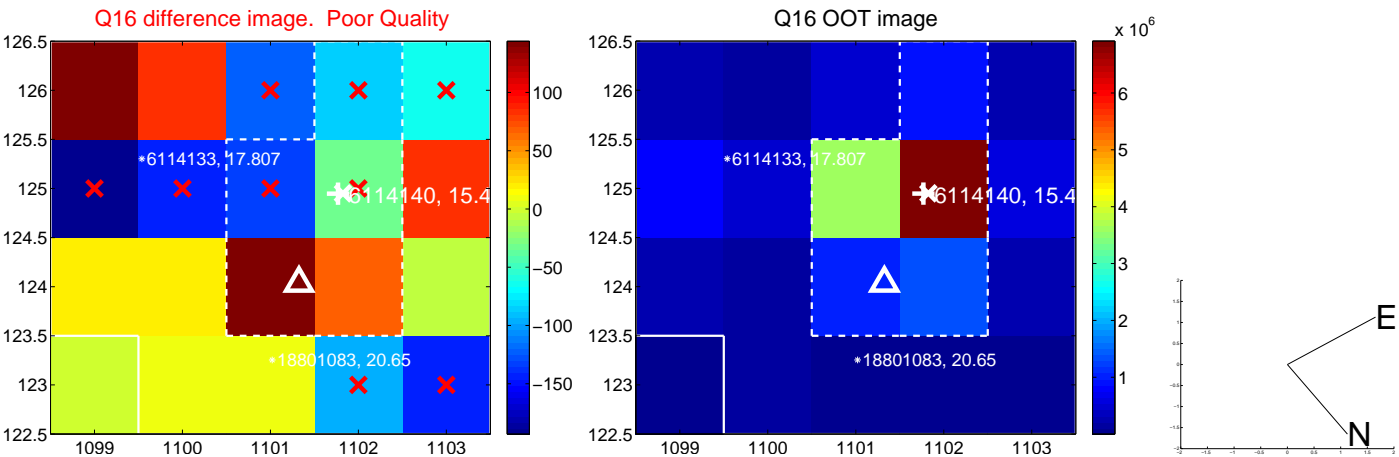
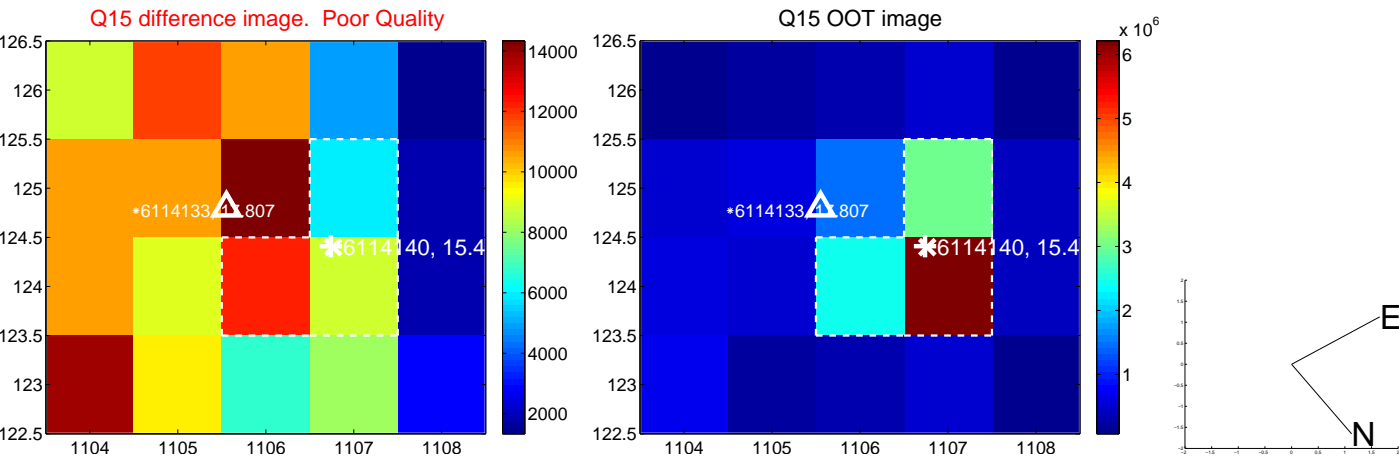
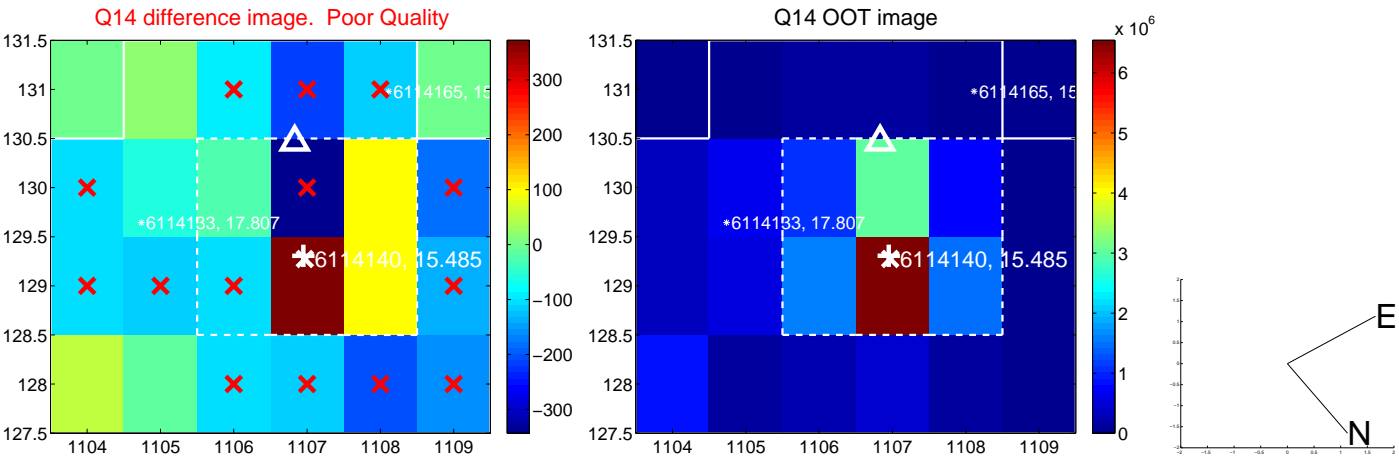
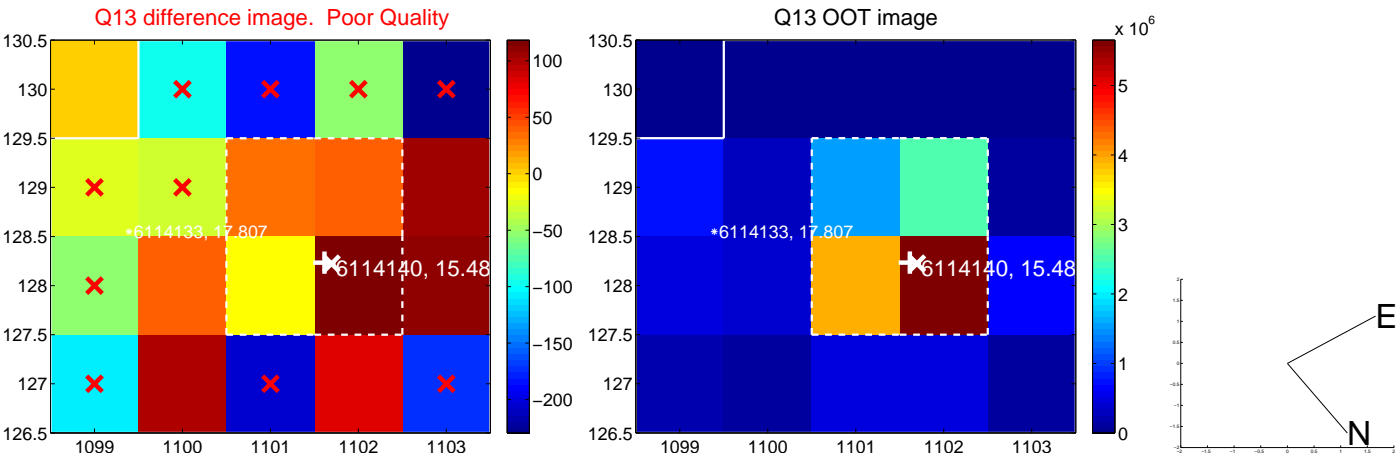
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



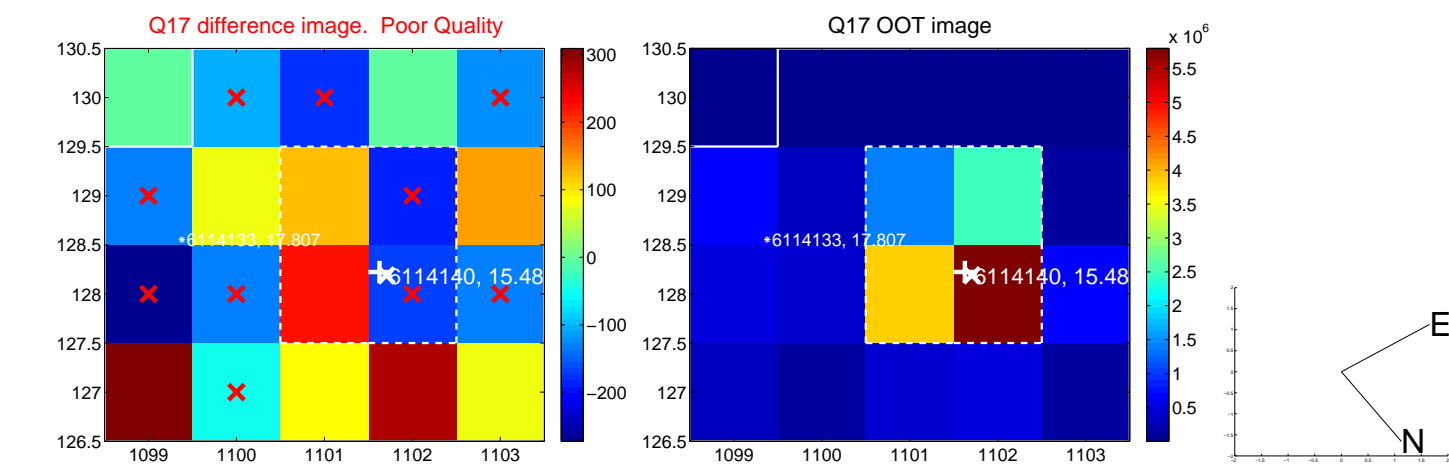
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



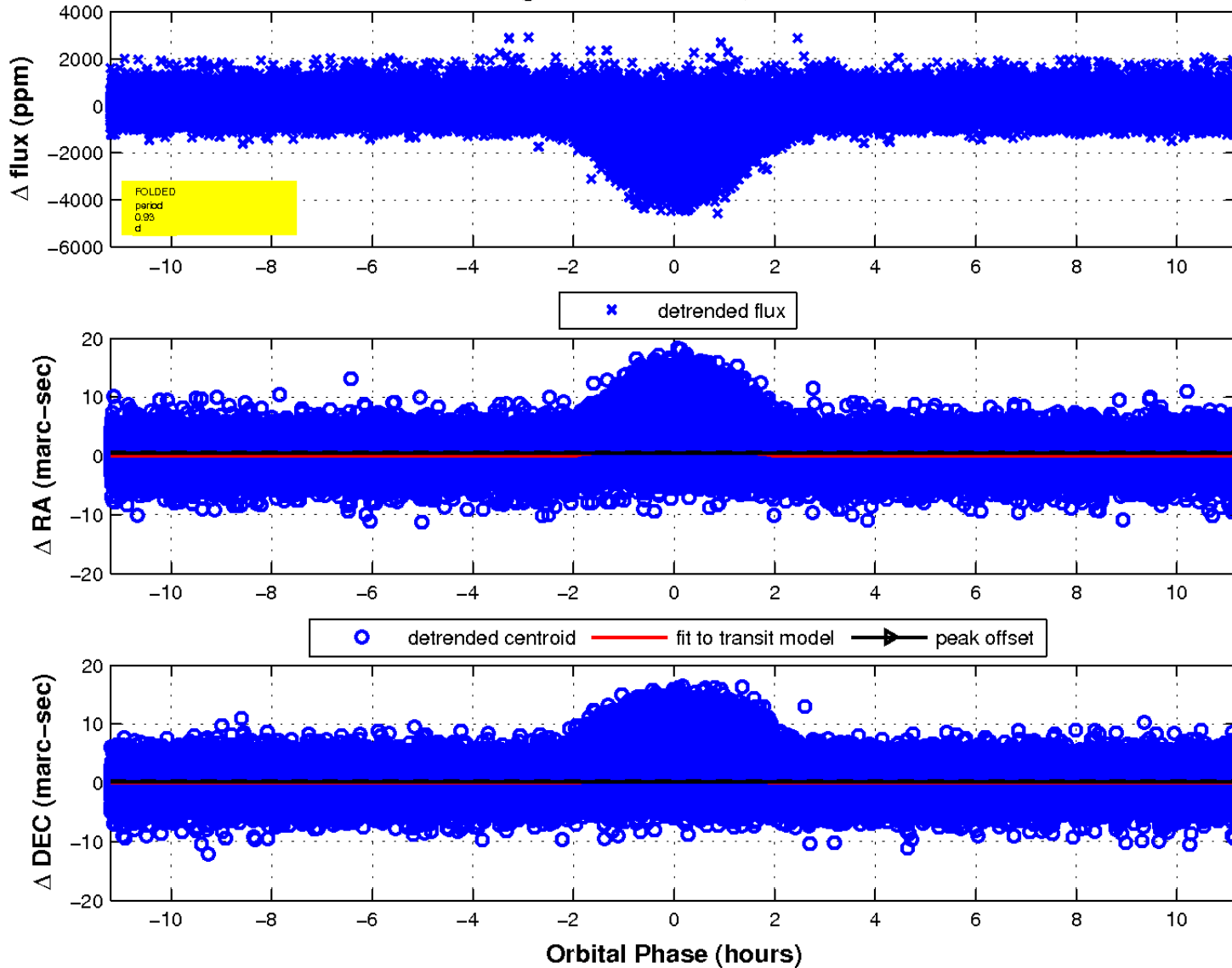
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

