

KIC 004846926

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})
004846926-01	OBS	No	0.763114	131.713735	16.7	5.026	7.7	2.9	1.15	6549	0.48	7304.63

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004846926-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV

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

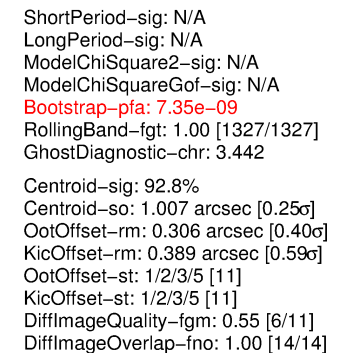
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

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

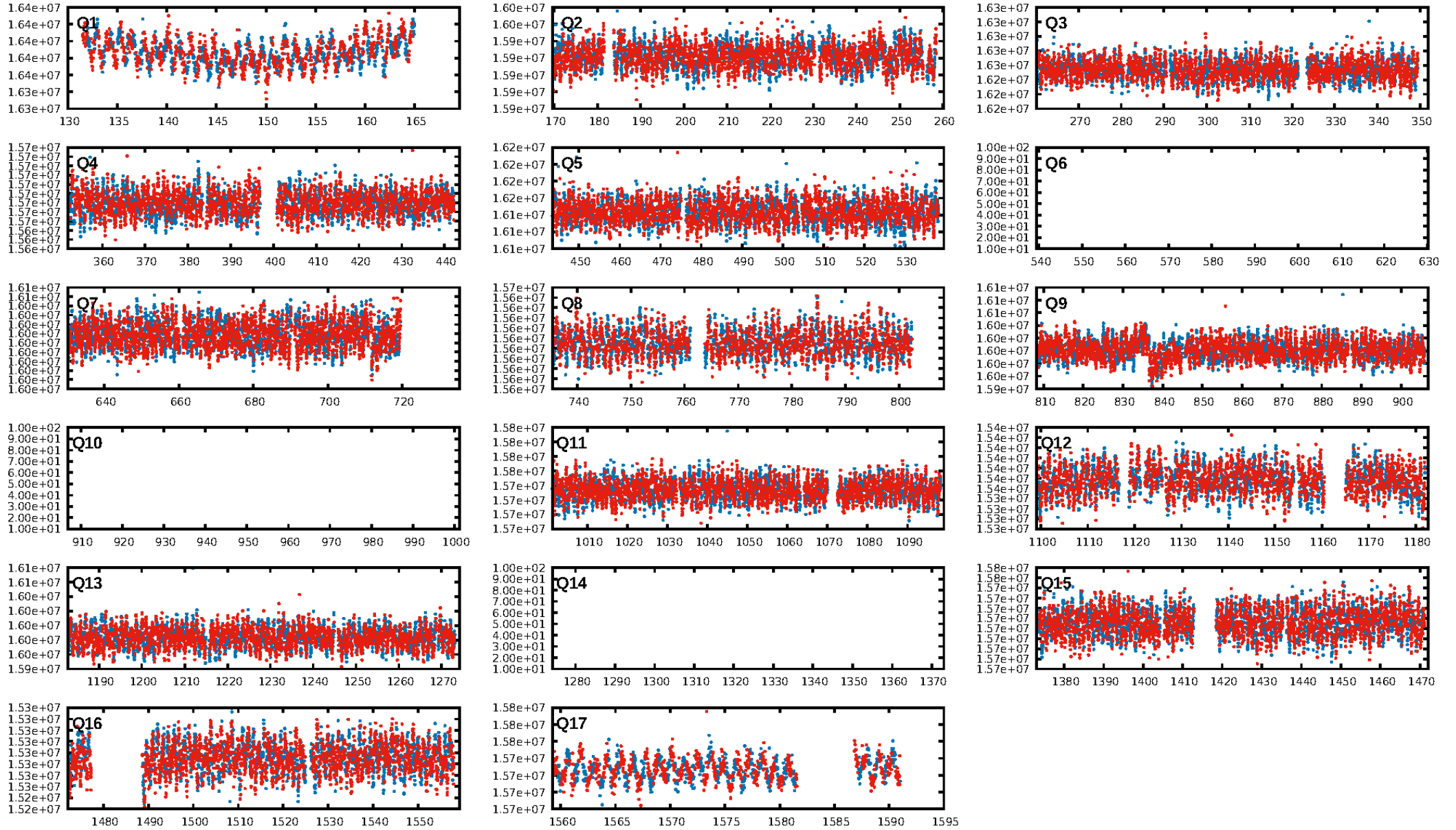
Ephemeris Match Information For 004846926-01

No Significant Match Found

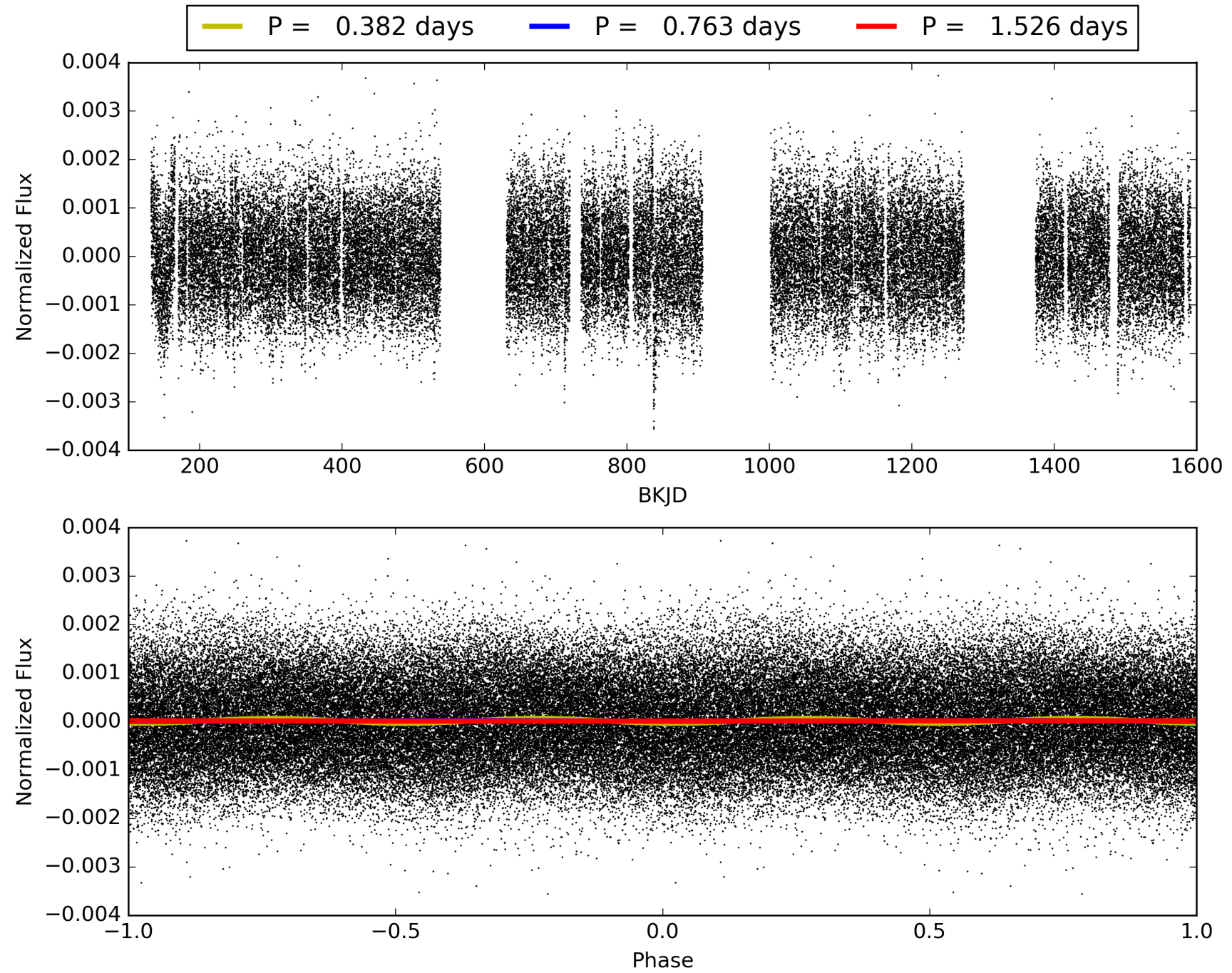
KIC: 4846926 Candidate: 1 of 1 Period: 0.763 d



TCE 004846926-01, PDC Light Curves

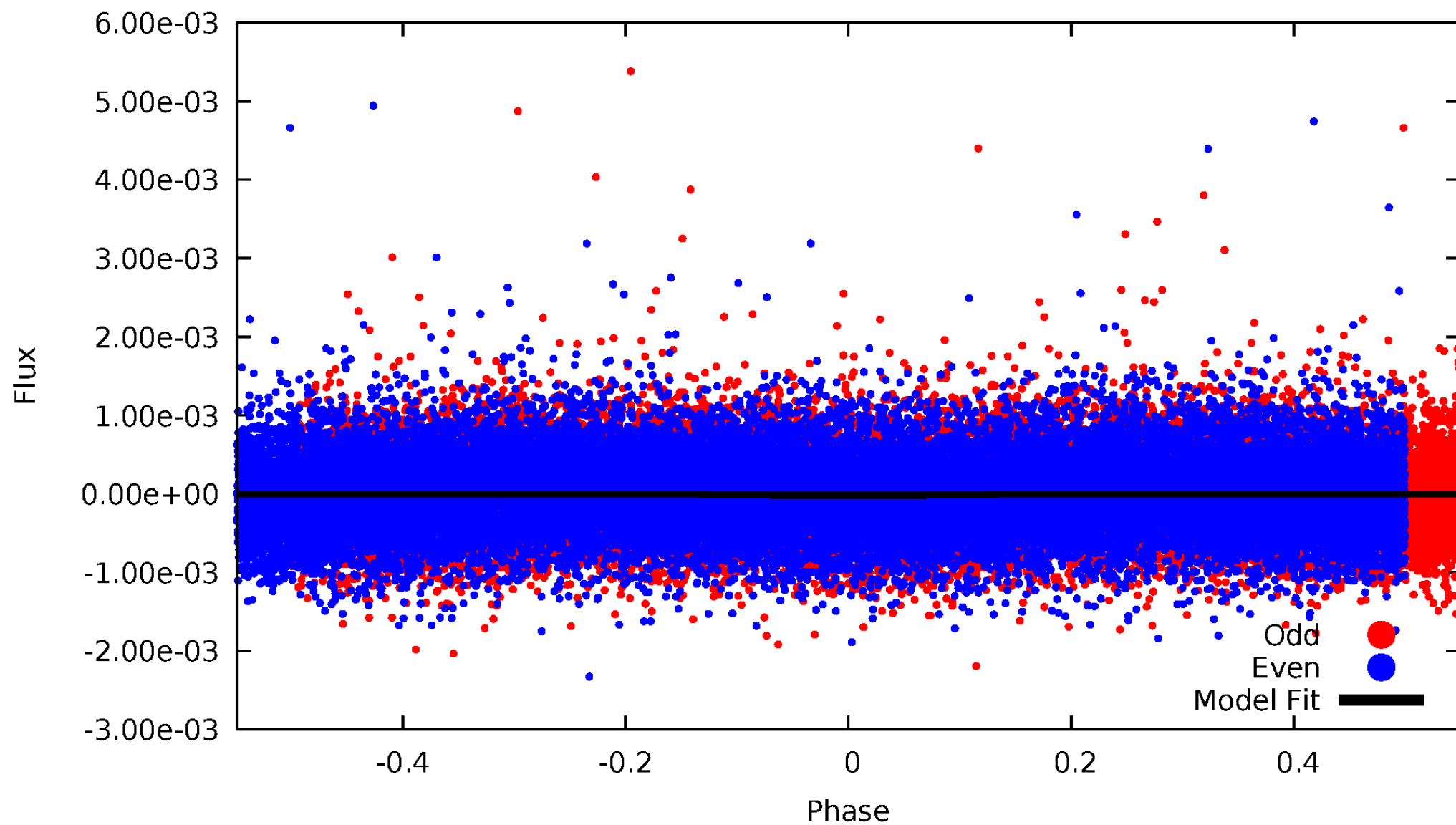


TCE 004846926-01



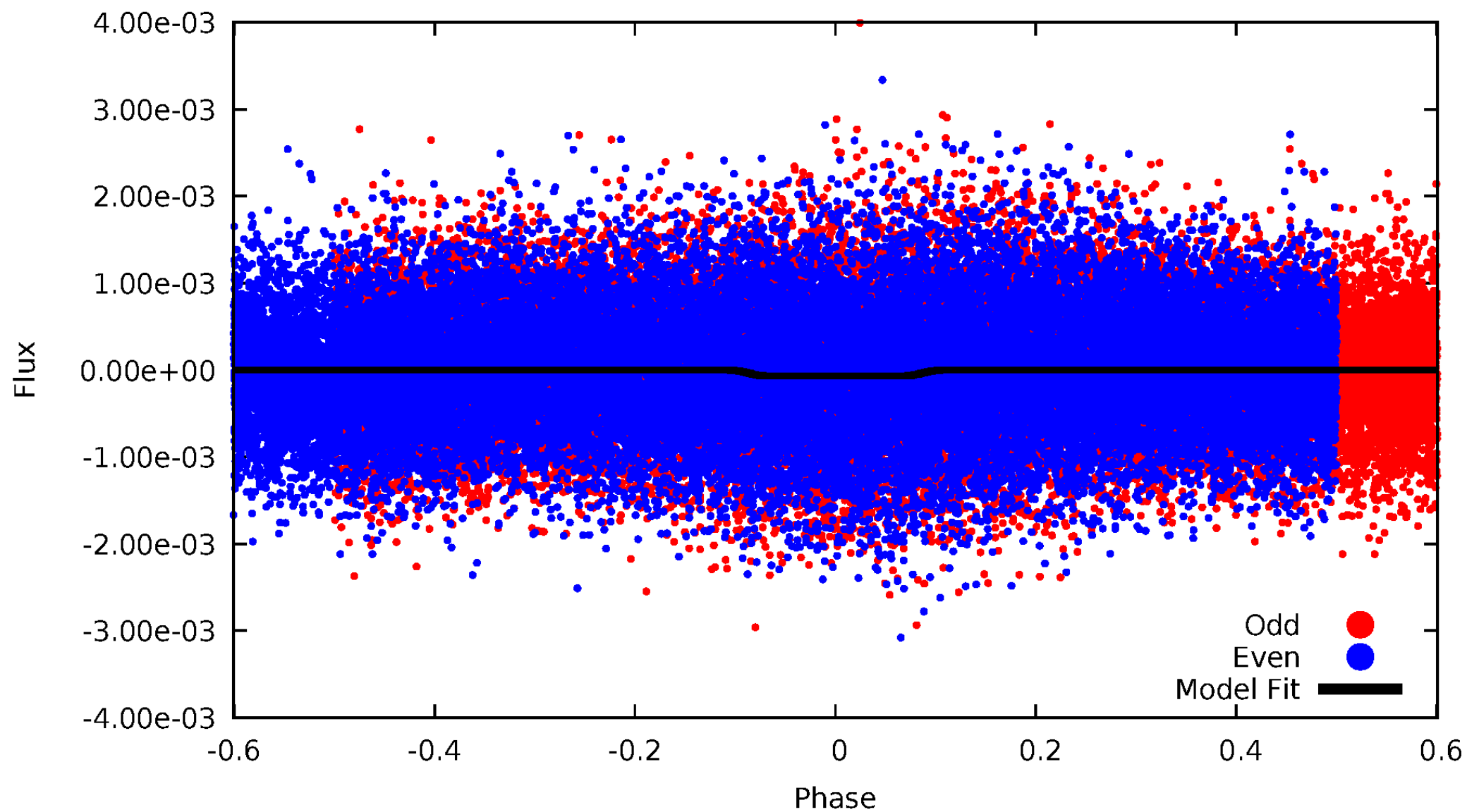
DV Odd/Even

TCE 004846926-01



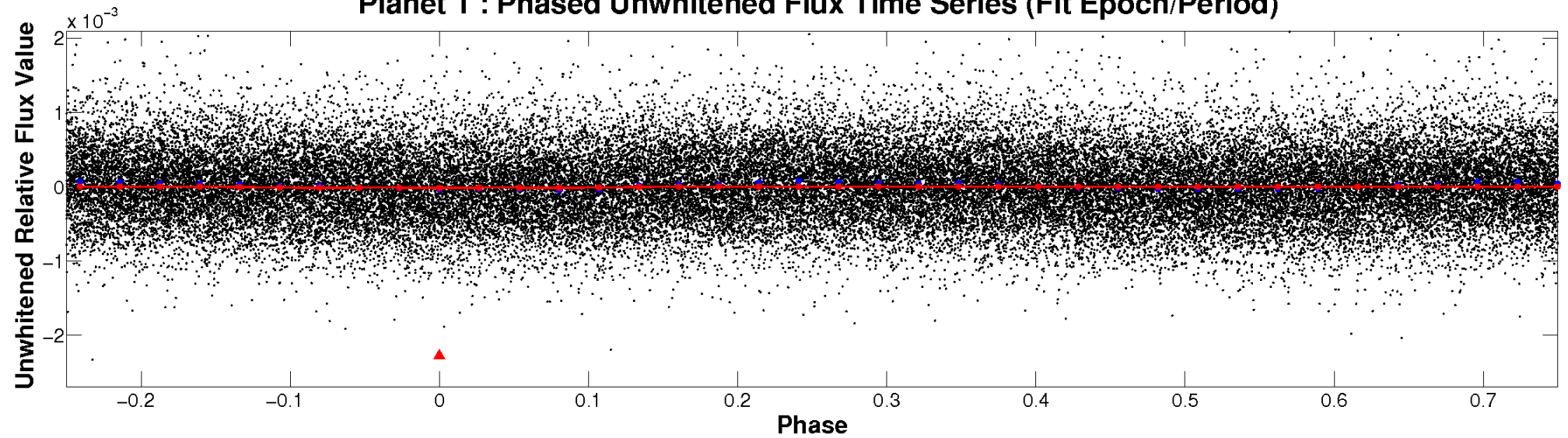
ALT Odd/Even

TCE 004846926-01

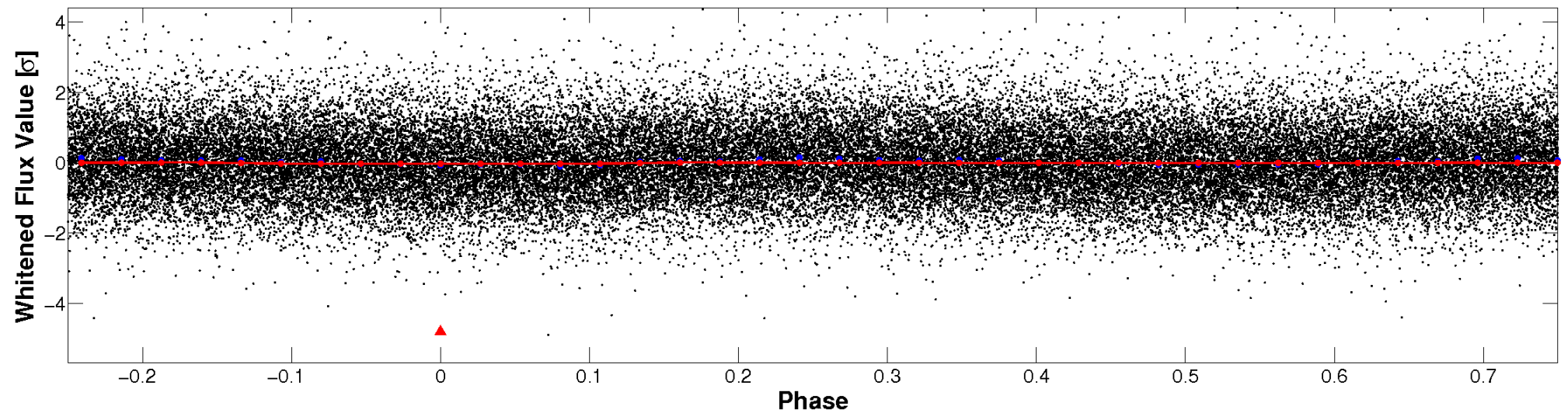


Non-Whitened Vs. Whitened Light Curve

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

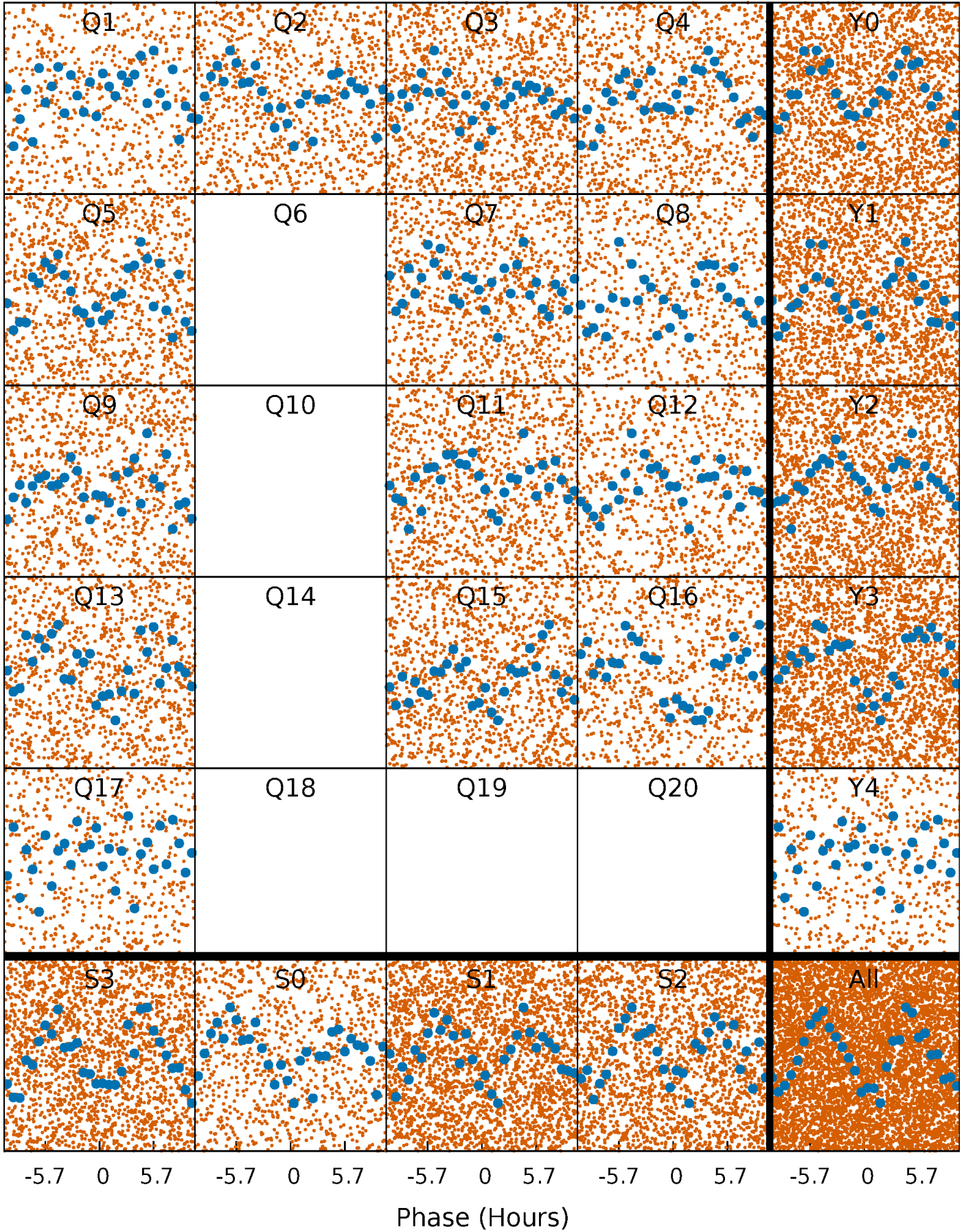


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



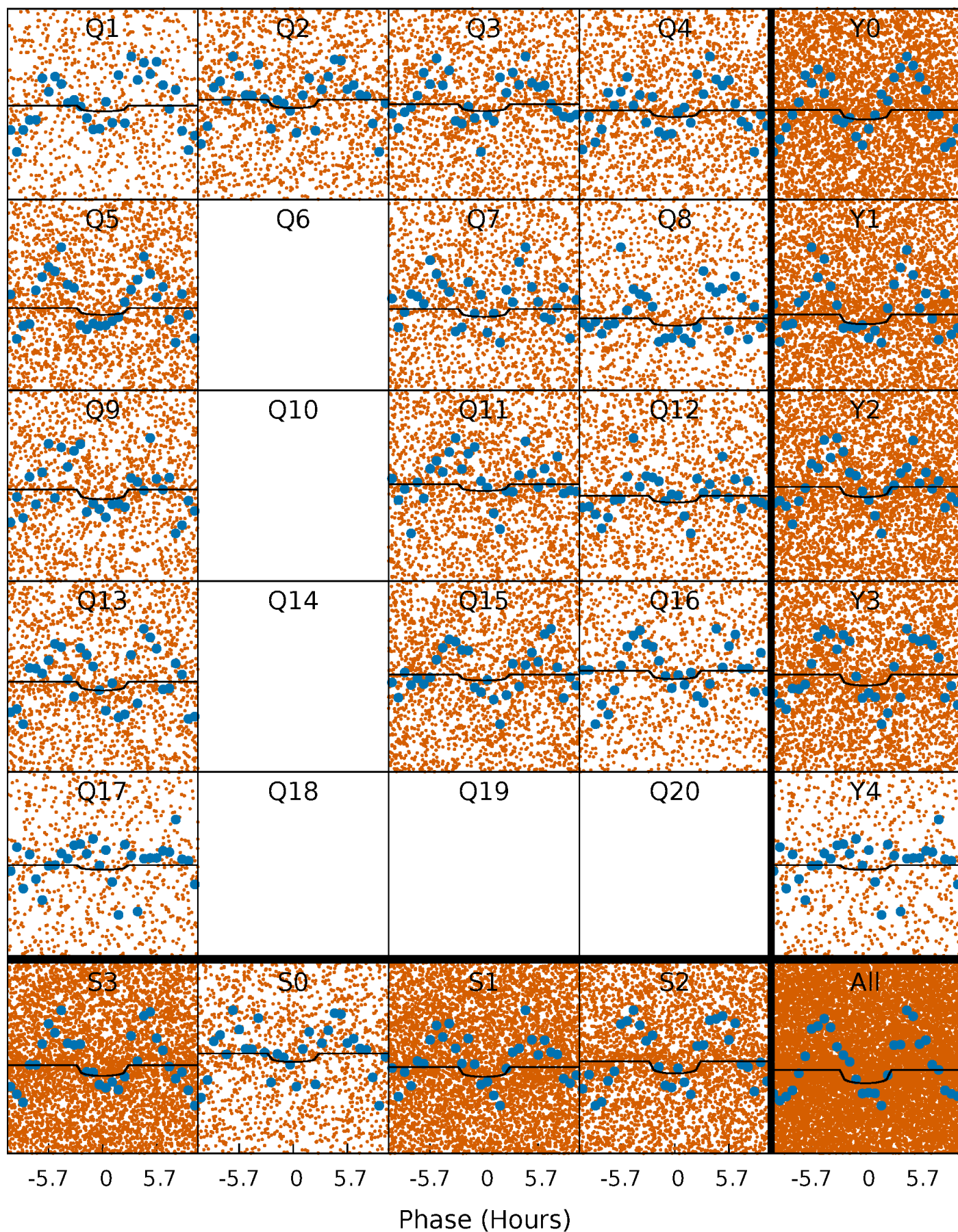
PDC Quarter-Phased Transit Curves

TCE 004846926-01 P= 0.763114 Days $T_0=131.713735$ (BKJD)



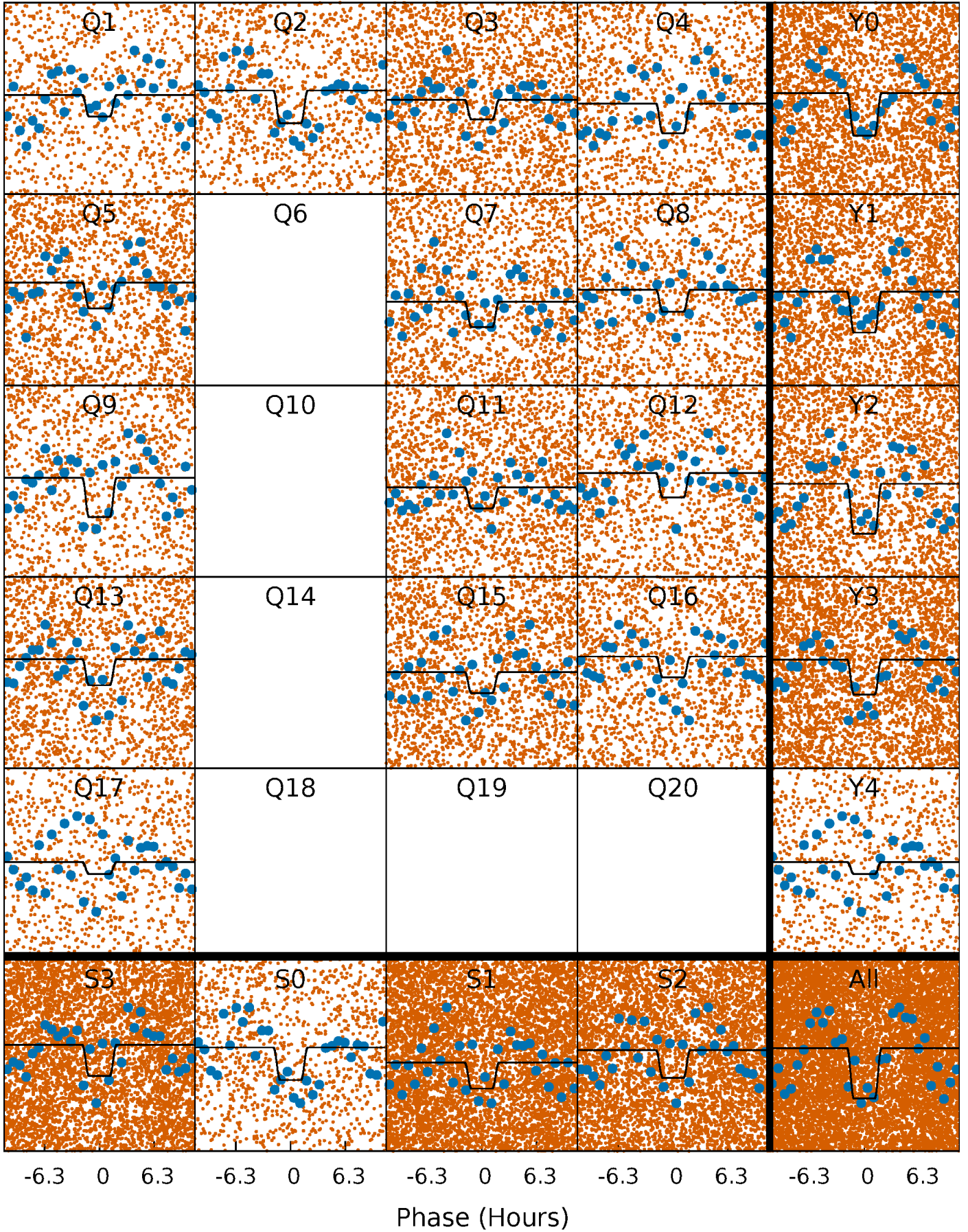
DV Quarter-Phased Transit Curves

TCE 004846926-01 P= 0.763114 Days $T_0=131.713735$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

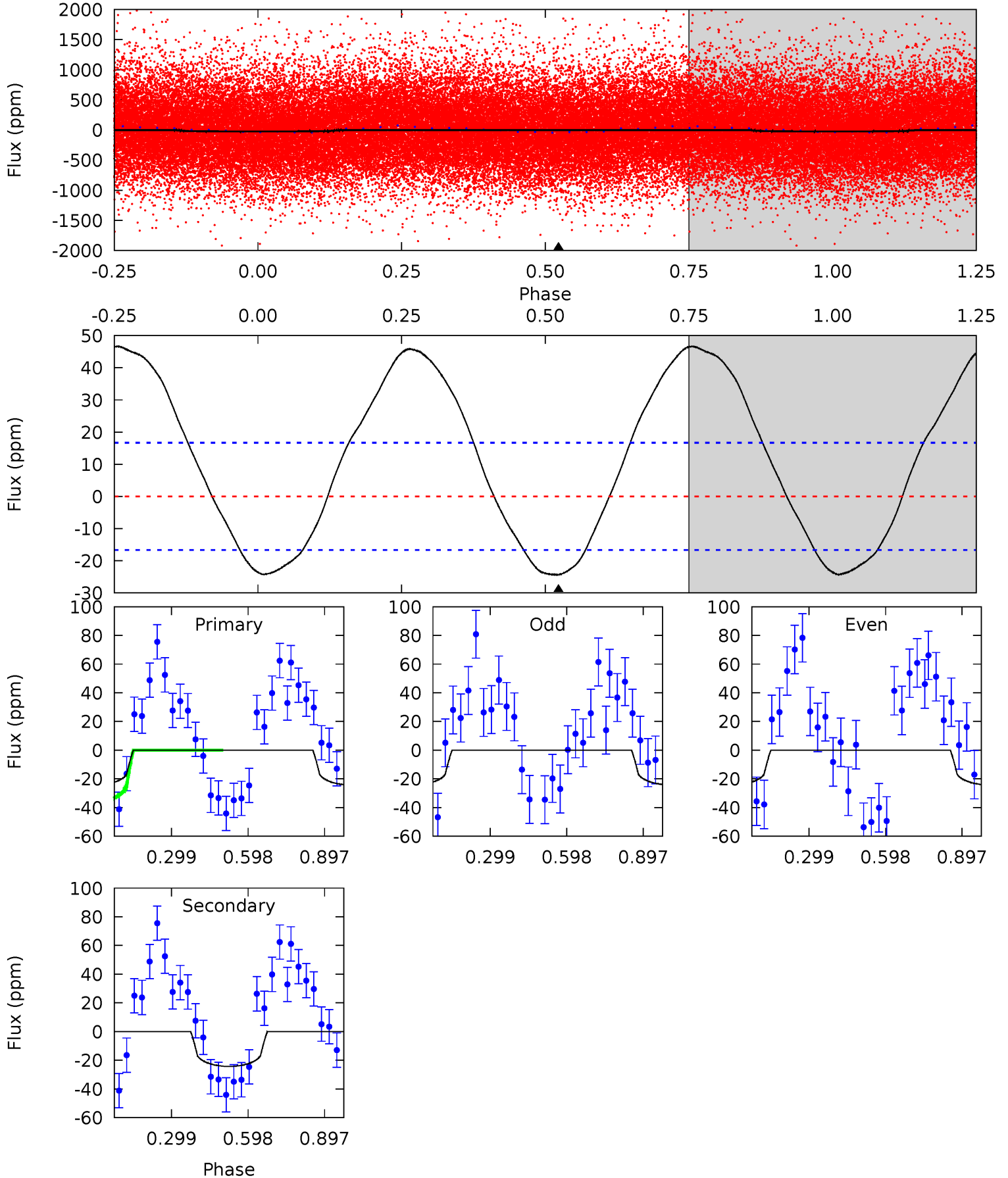
TCE 004846926-01 P= 0.763168 Days $T_0=131.683138$ (BKJD)



DV Model-Shift Uniqueness Test

004846926-01, P = 0.763114 Days, E = 130.950621 Days

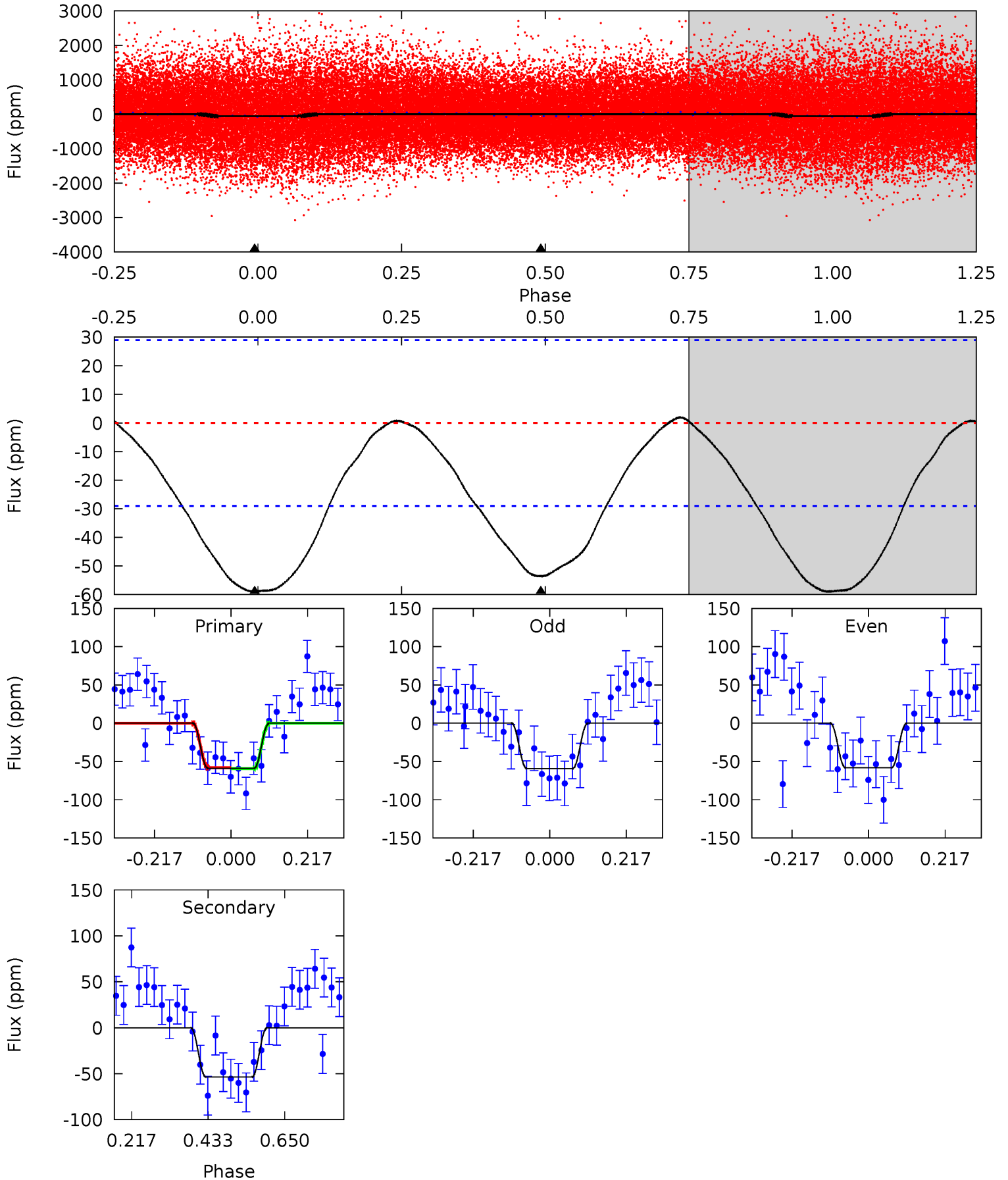
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.31	6.31	0	0	4.33	1.04	5.24	6.31	6.31	6.31	6.31	0.01	1.22	0.66	3.14



Alt Model-Shift Uniqueness Test

004846926-01, P = 0.763168 Days, E = 130.919970 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.95	8.14	0	0	4.40	1.24	0.22	8.95	8.95	8.14	8.14	0.07	0.98	0.03	0.08



Stellar Parameters For KIC 004846926

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6549^{+162}_{-255}	$4.387^{+0.067}_{-0.202}$	$-0.200^{+0.250}_{-0.300}$	$1.146^{+0.355}_{-0.152}$	$1.168^{+0.164}_{-0.164}$	$1.094^{+0.389}_{-0.556}$
	+2%/-4%	+2%/-5%	+125%/-150%	+31%/-13%	+14%/-14%	+36%/-51%
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 004846926-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-24 ± 4	$1.20^{+1.20}_{-0.81}$	3346^{+244}_{-179}	4722^{+3707}_{-1317}	$2.673^{+21.537}_{-2.002}$
Alt.	-54 ± 7	$1.46^{+1.33}_{-0.93}$	3342^{+267}_{-175}	5188^{+4040}_{-1301}	$3.930^{+25.152}_{-2.824}$

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

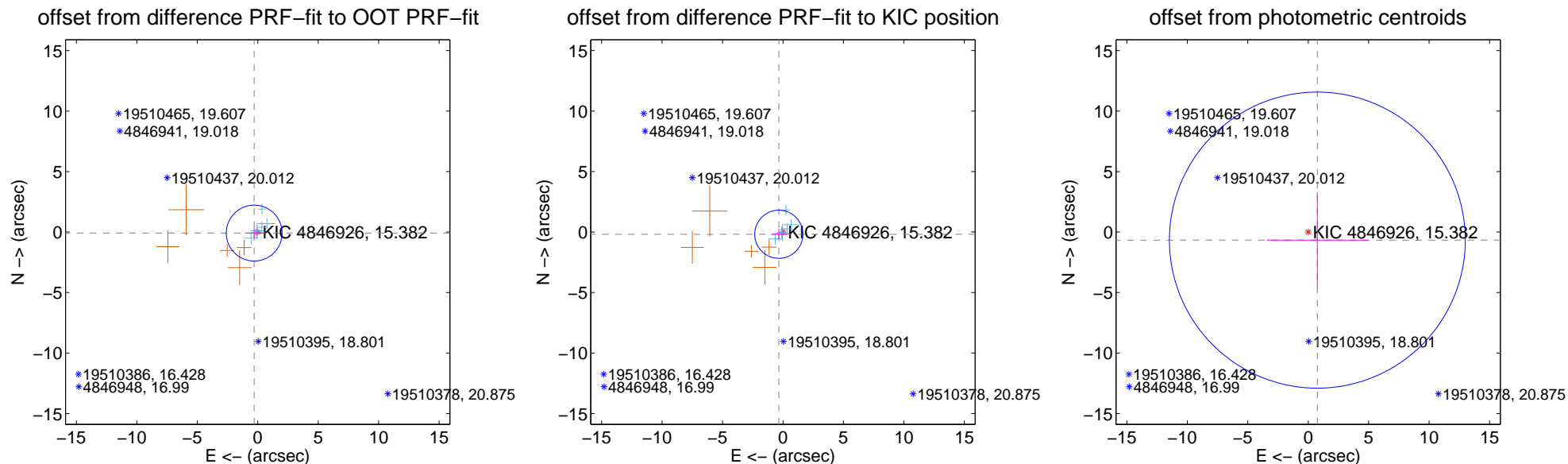
DV Centroid Data

Supplemental centroid analysis for 004846926-01. Kepler magnitude: 15.38. Transit SNR 2.90

There are 6 quarters with good PRF difference image offsets

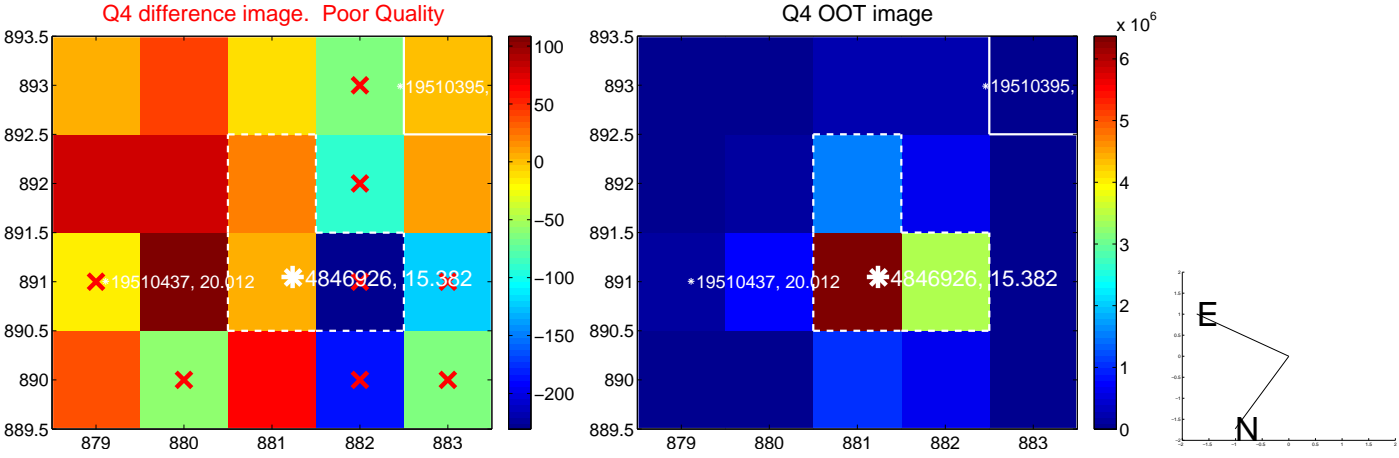
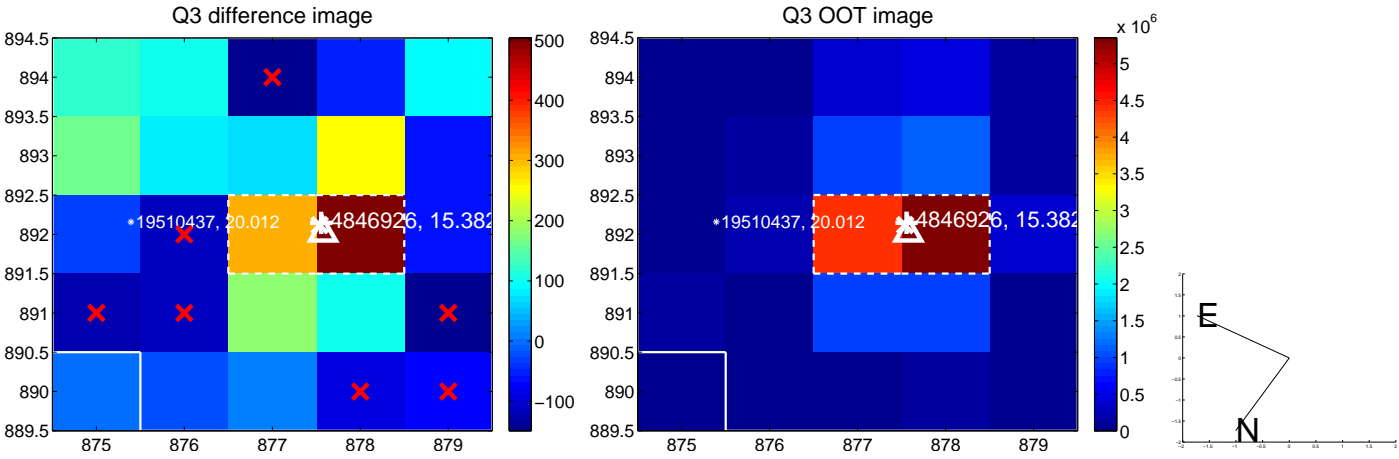
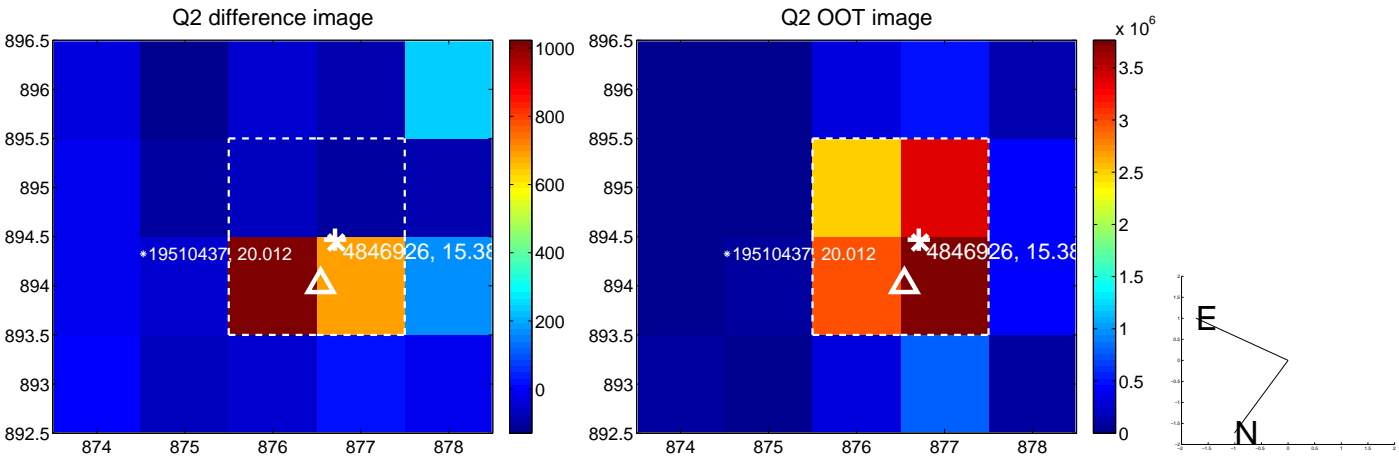
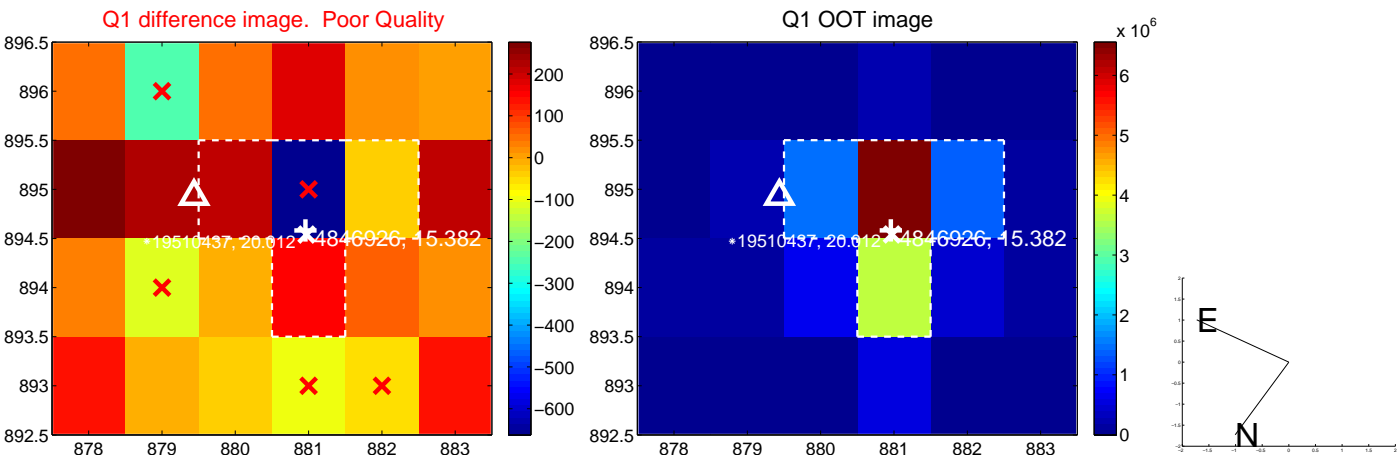
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.306 ± 0.770	0.40	0.295 ± 0.768	-0.082 ± 0.429
PRF-fit source offset from KIC position	0.389 ± 0.663	0.59	0.345 ± 0.677	-0.181 ± 0.431
photometric centroid source offset	1.01 ± 4.08	0.25	-0.76 ± 4.18	-0.66 ± 3.95

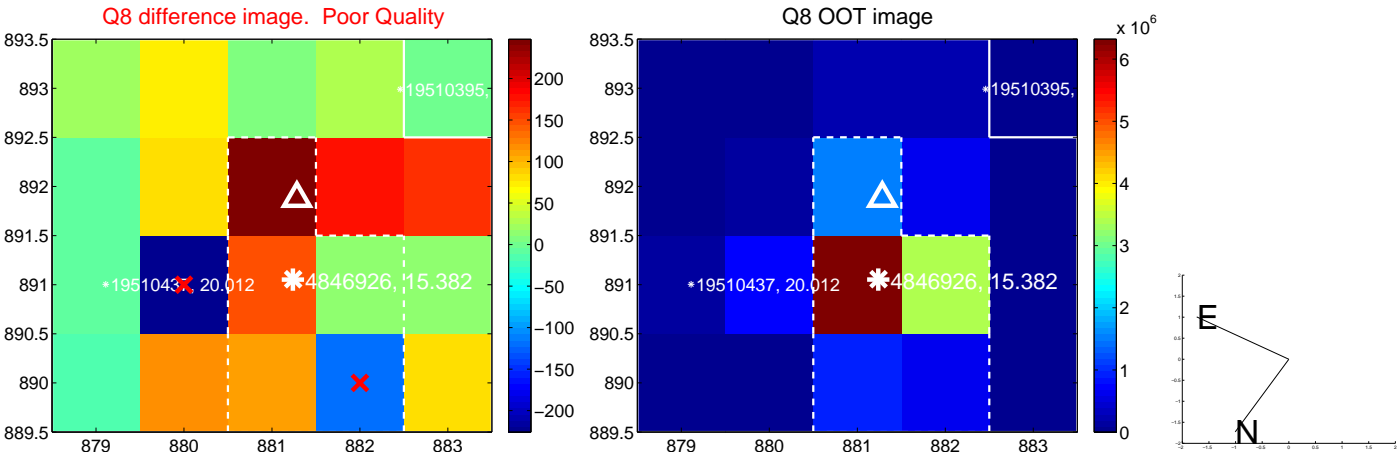
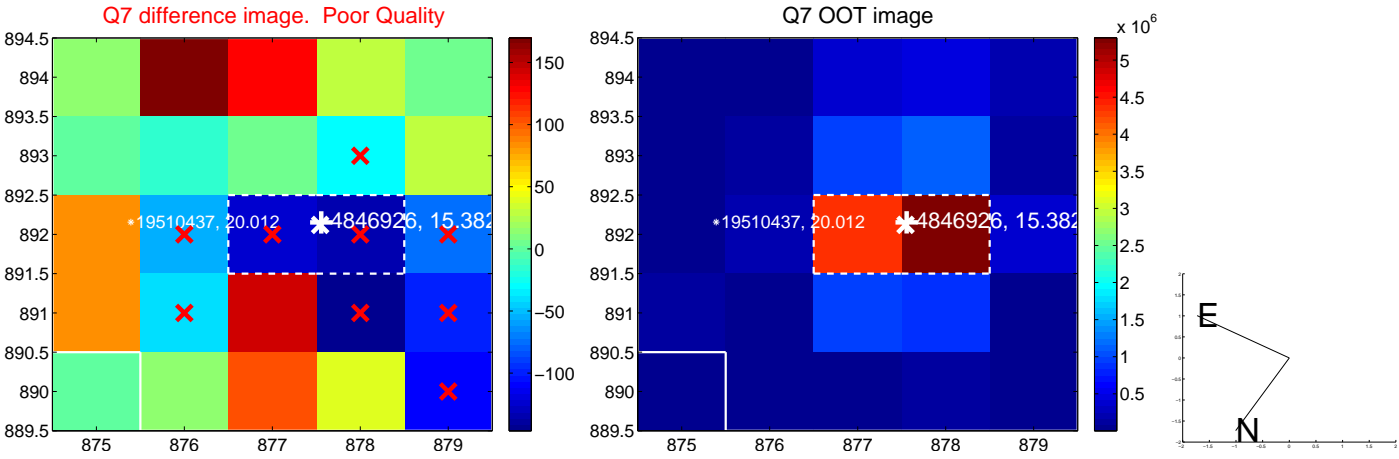
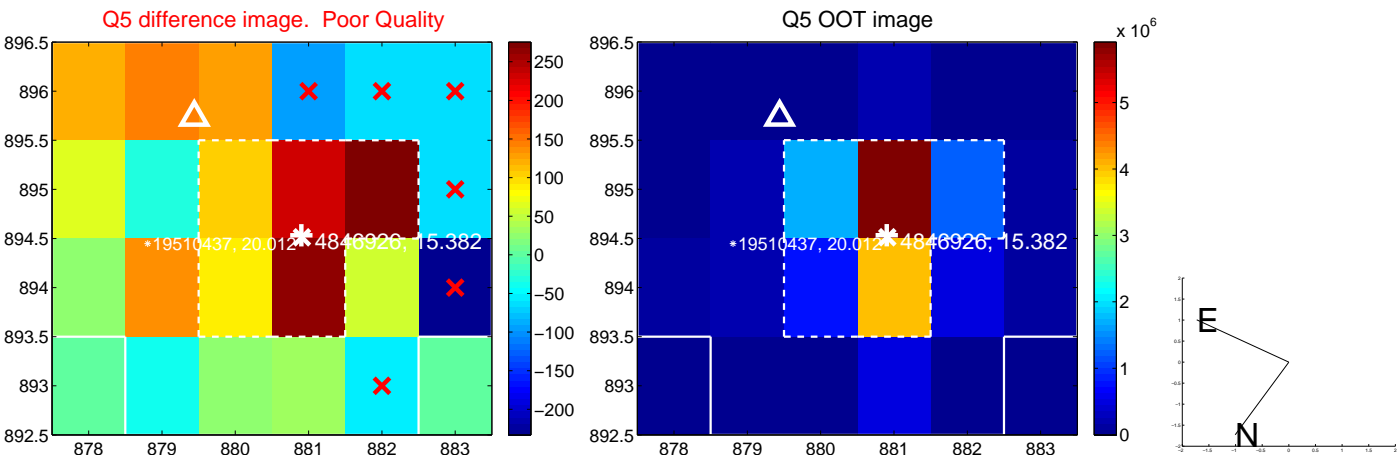


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

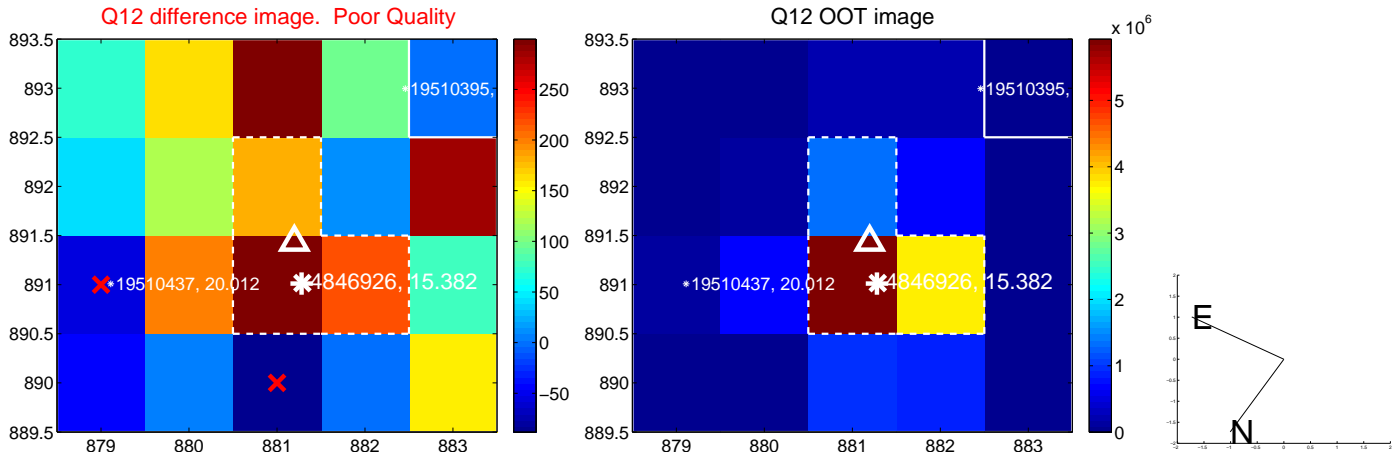
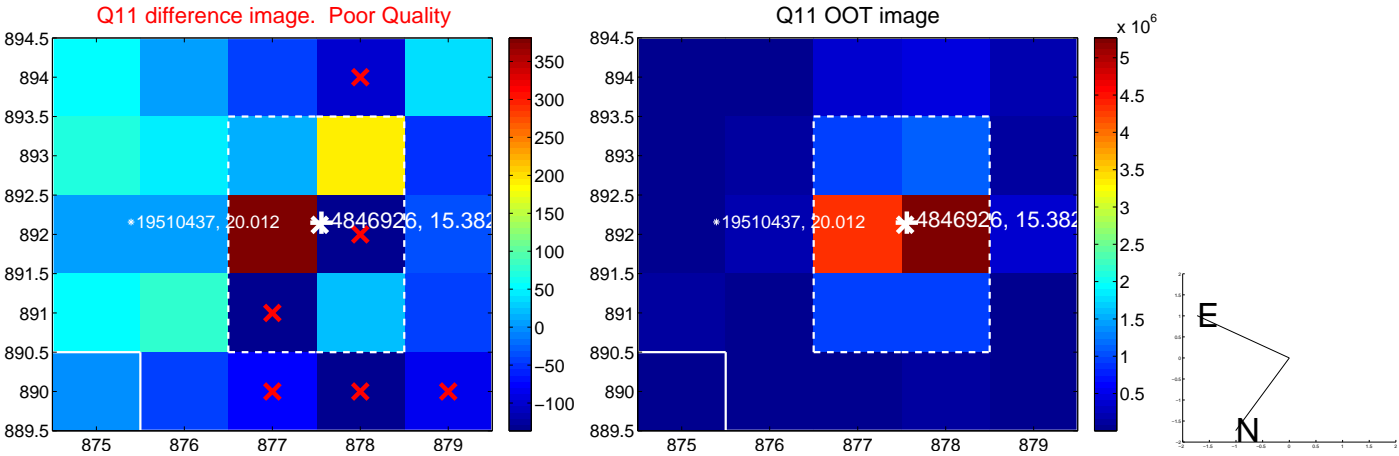
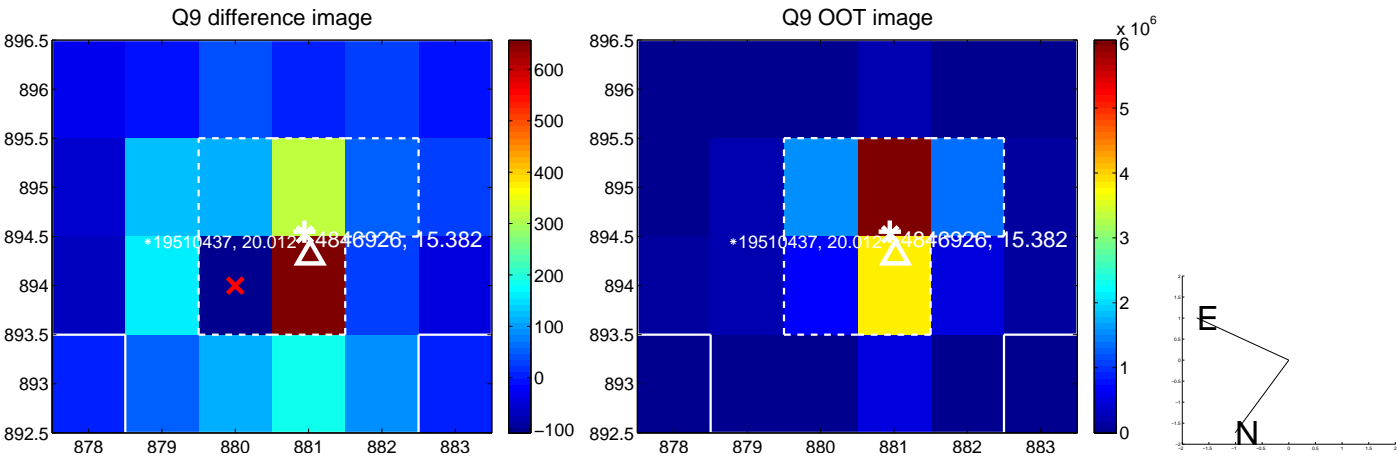
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



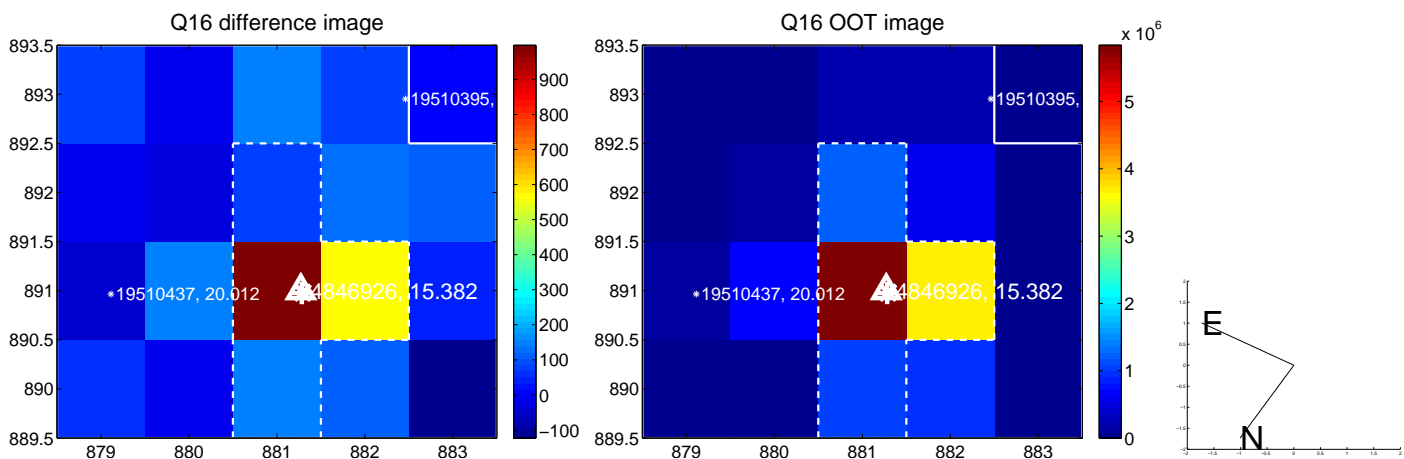
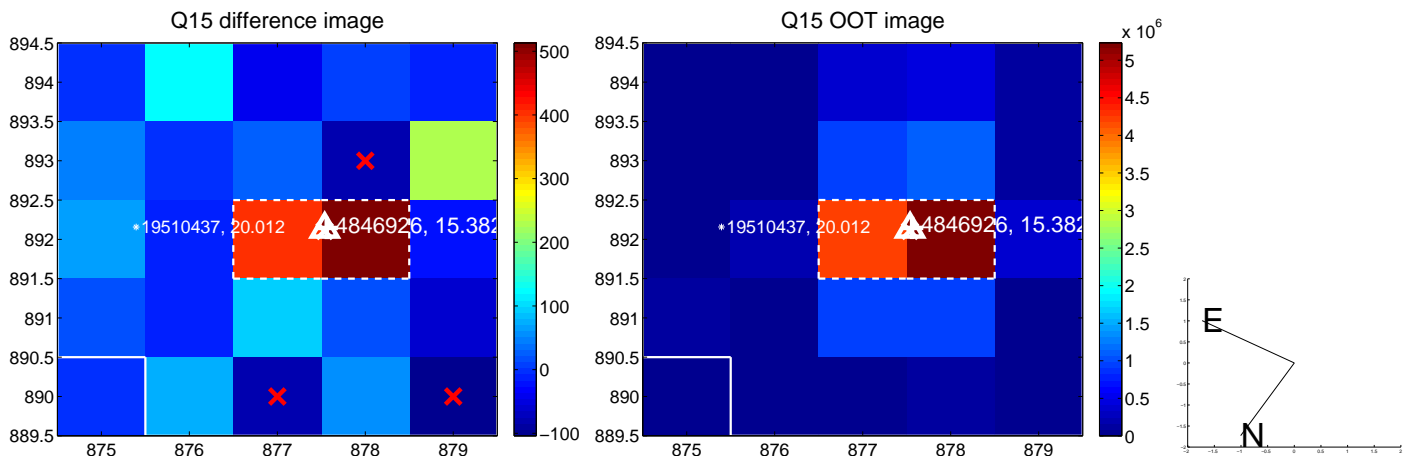
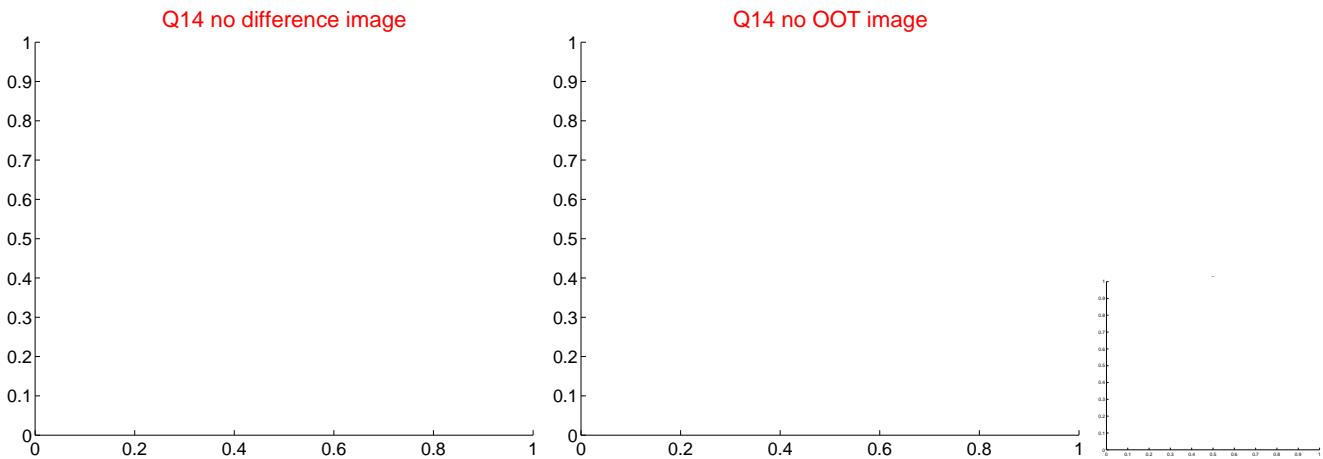
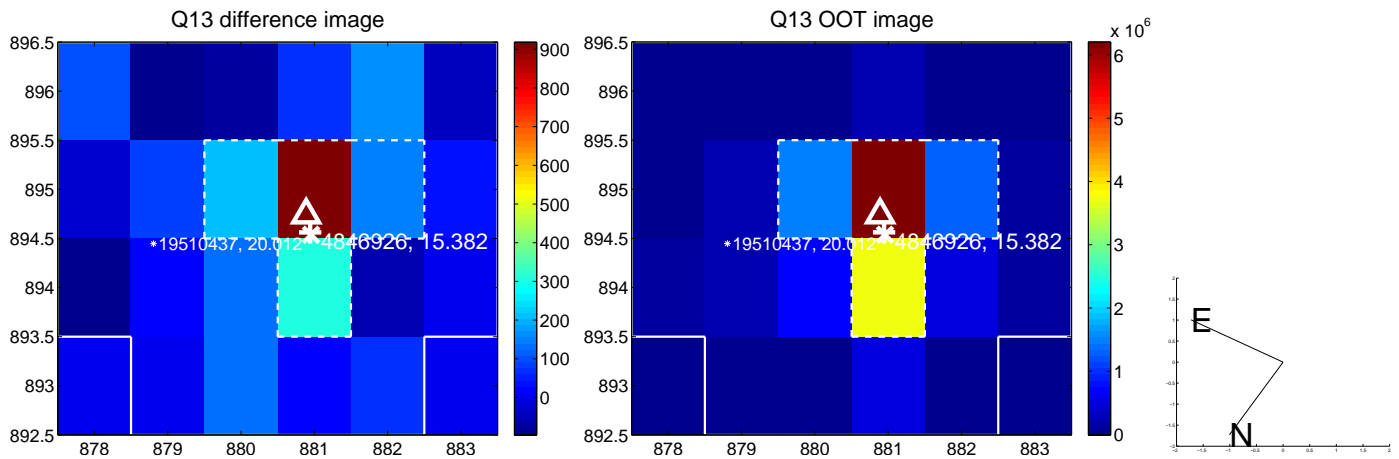
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

