

KIC 004756725

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})
004756725-01	OBS	No	11.255355	133.396769	56.6	26.445	11.5	10.8	2.50	6362	1.98	762.84

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004756725-01	OBS	FP	0.00	1	0	0	0	LPP_DV

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

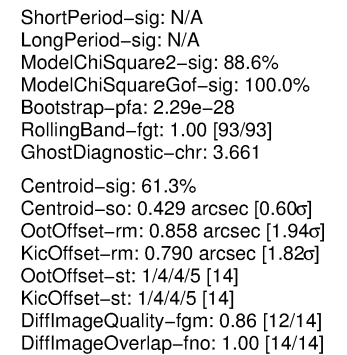
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

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

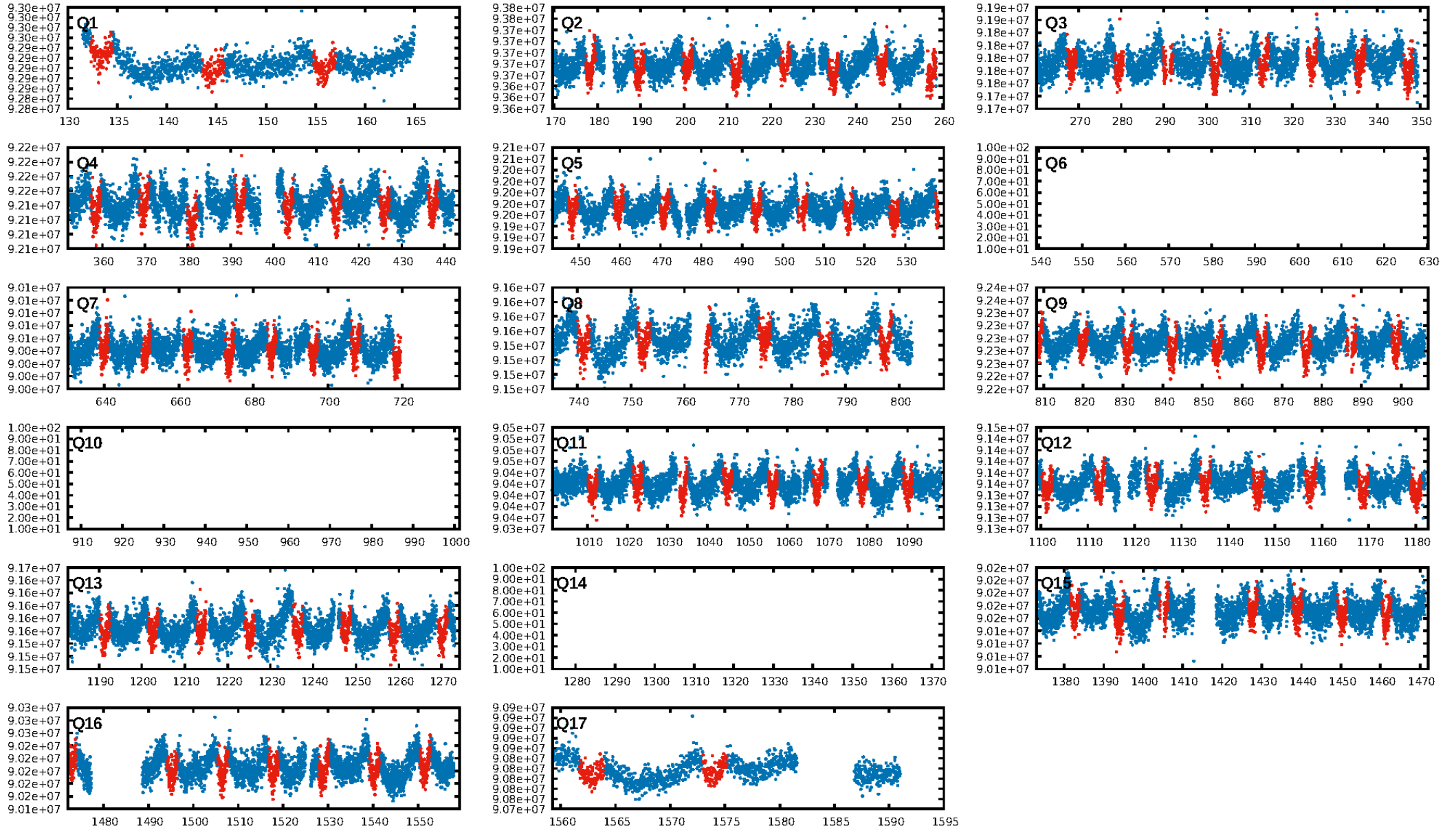
Ephemeris Match Information For 004756725-01

No Significant Match Found

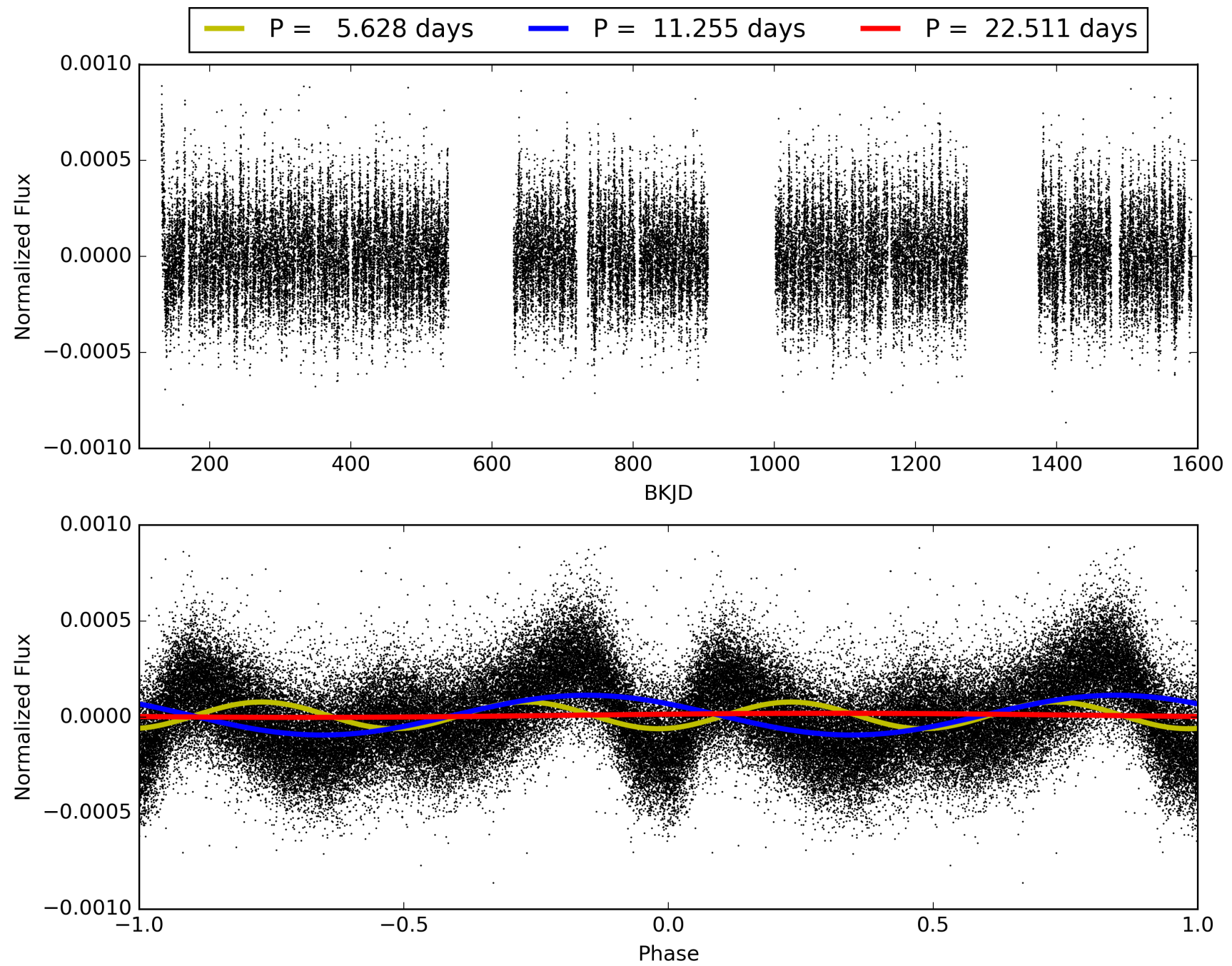
KIC: 4756725 Candidate: 1 of 1 Period: 11.255 d



TCE 004756725-01, PDC Light Curves

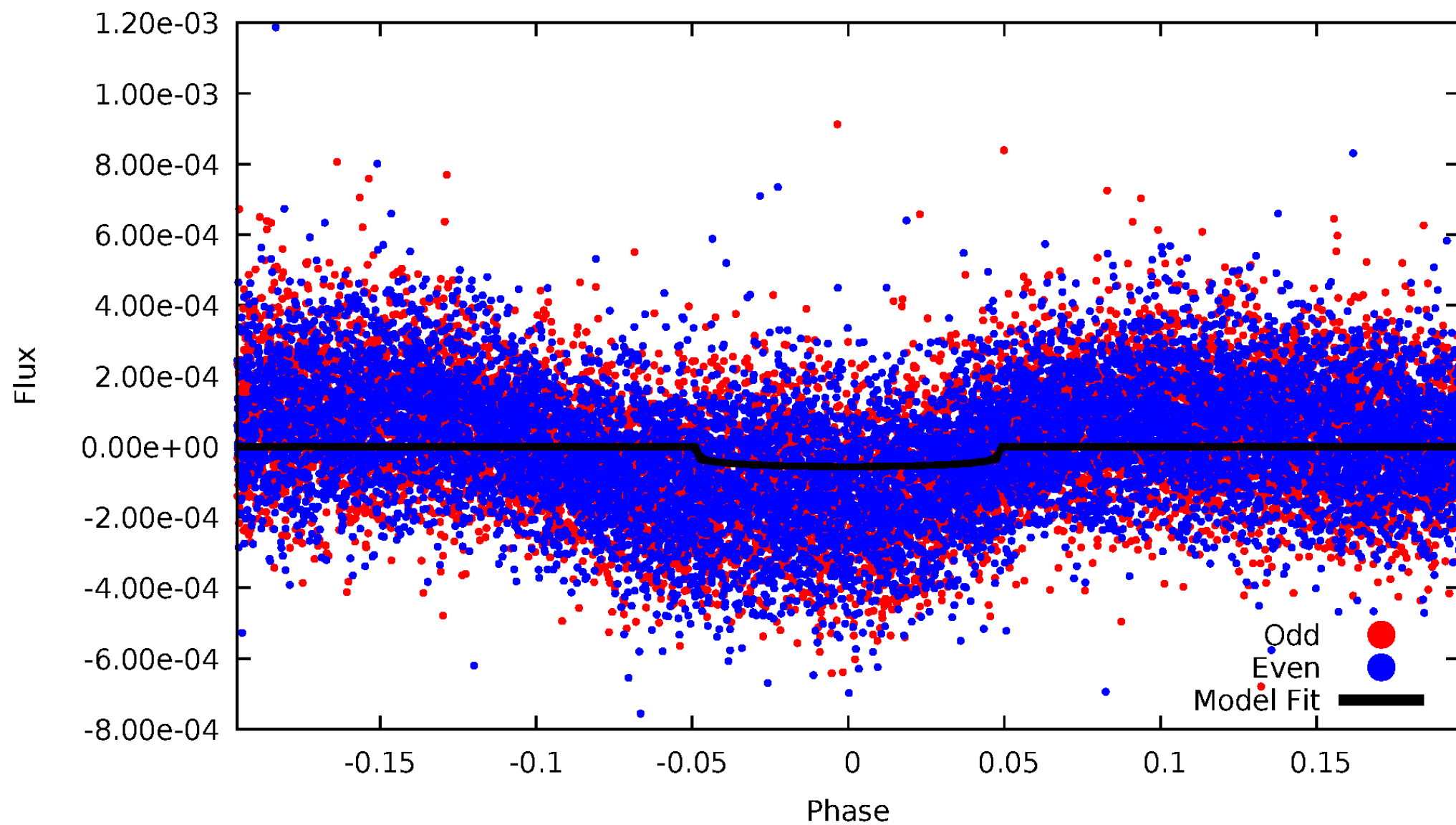


TCE 004756725-01



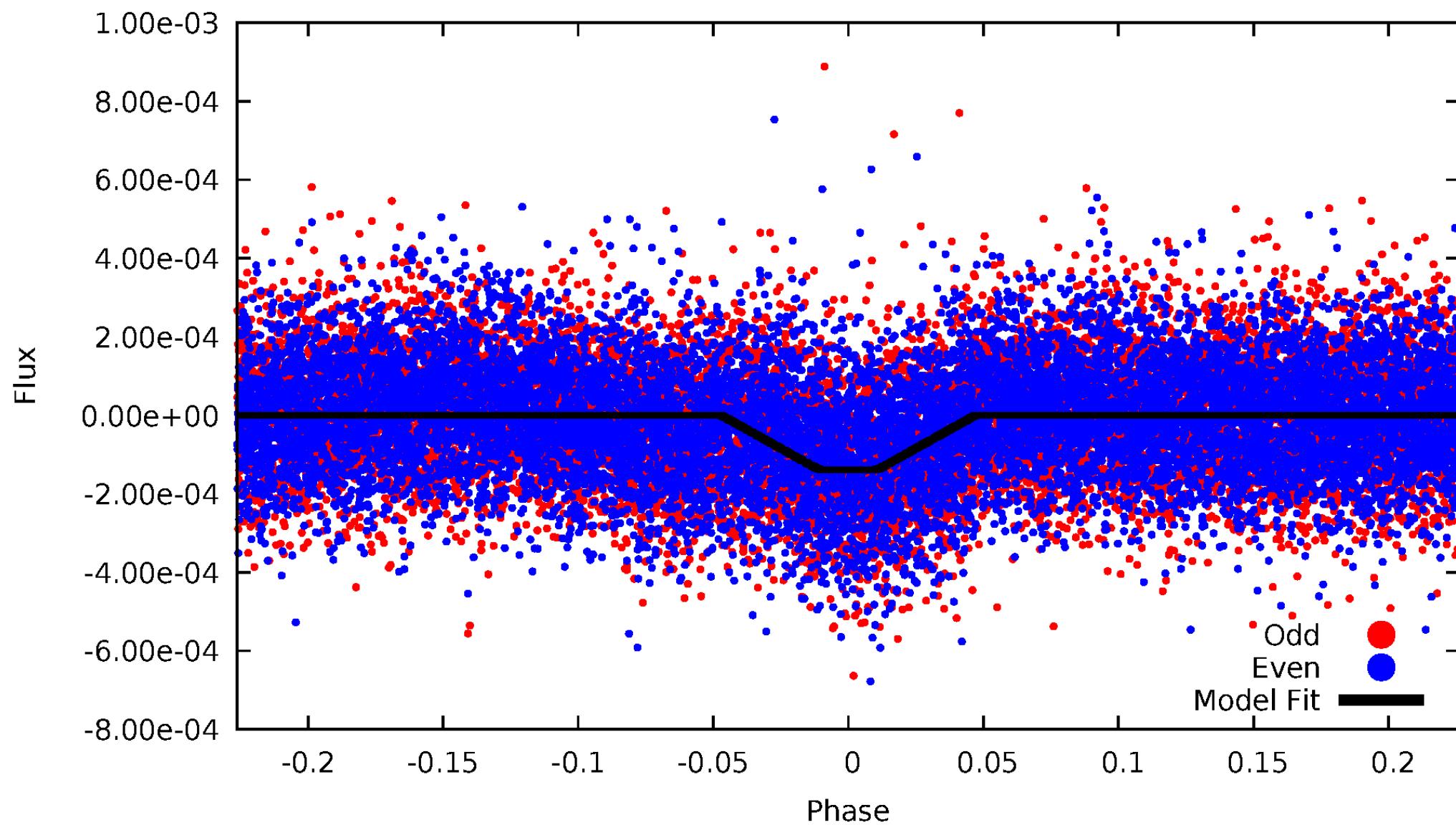
DV Odd/Even

TCE 004756725-01



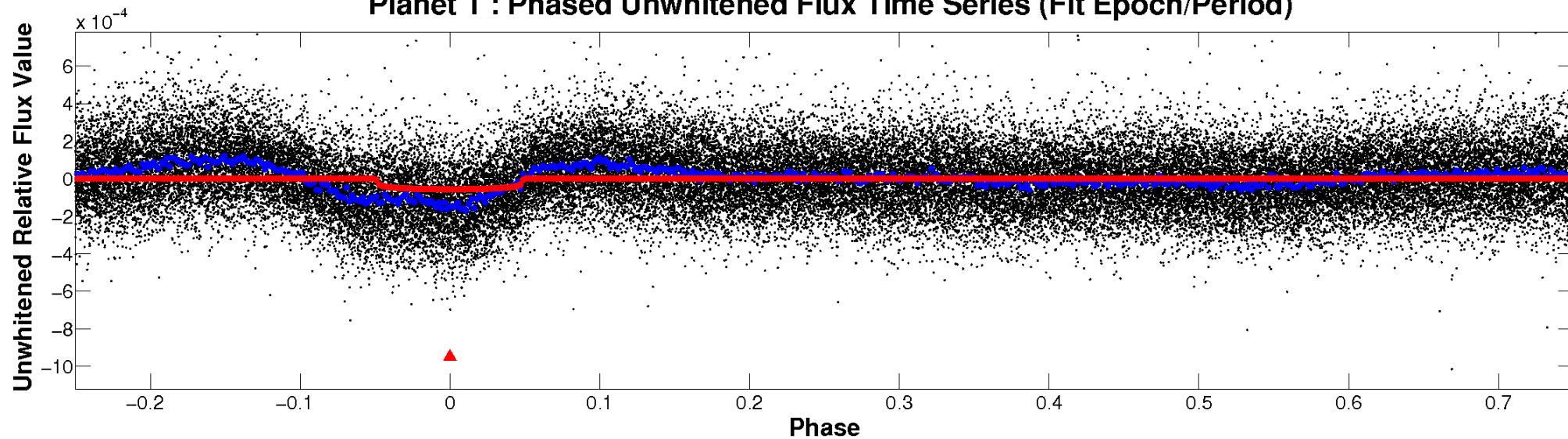
ALT Odd/Even

TCE 004756725-01

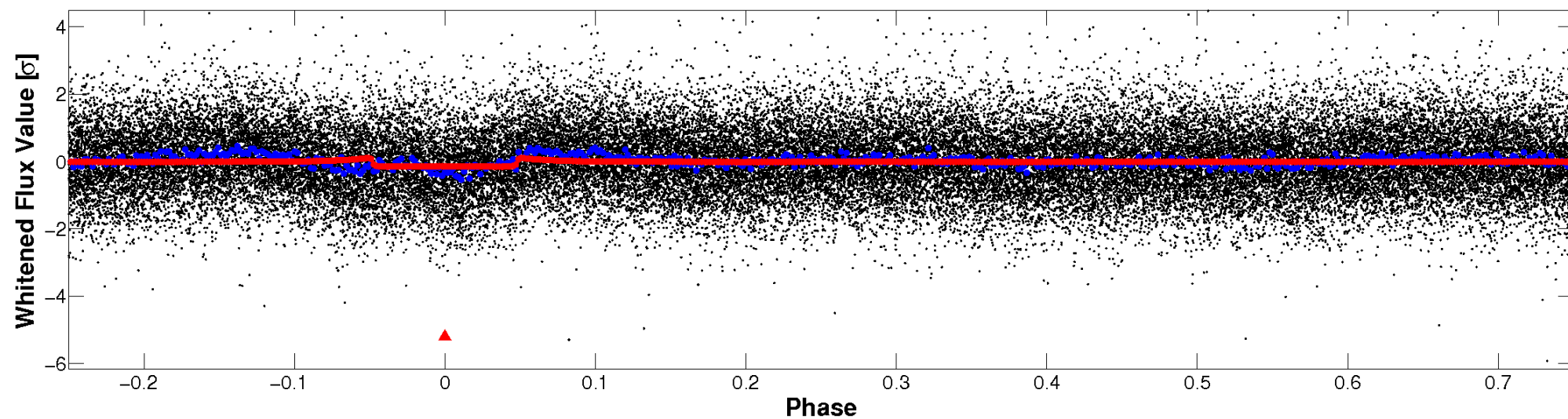


Non-Whitened Vs. Whitened Light Curve

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

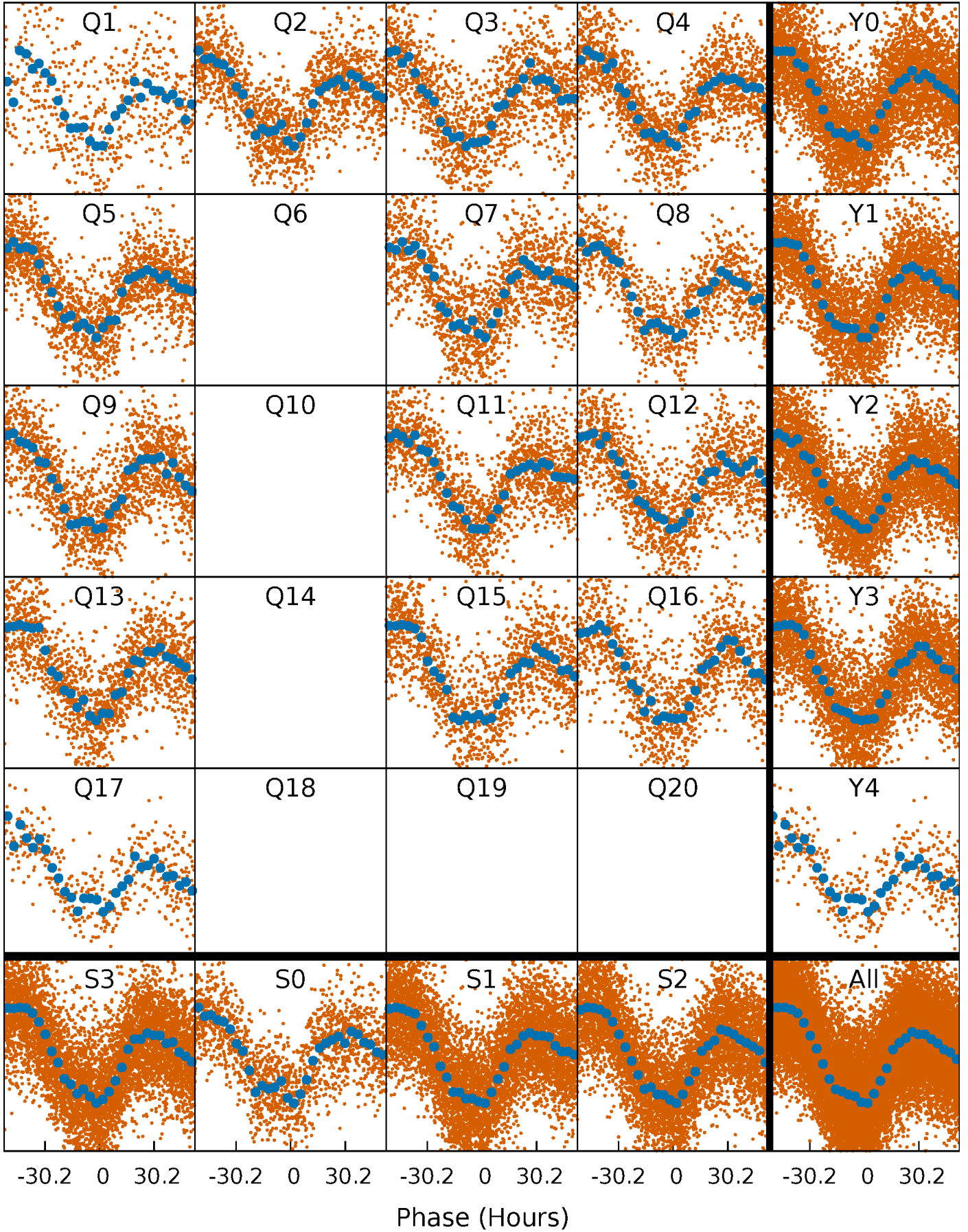


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



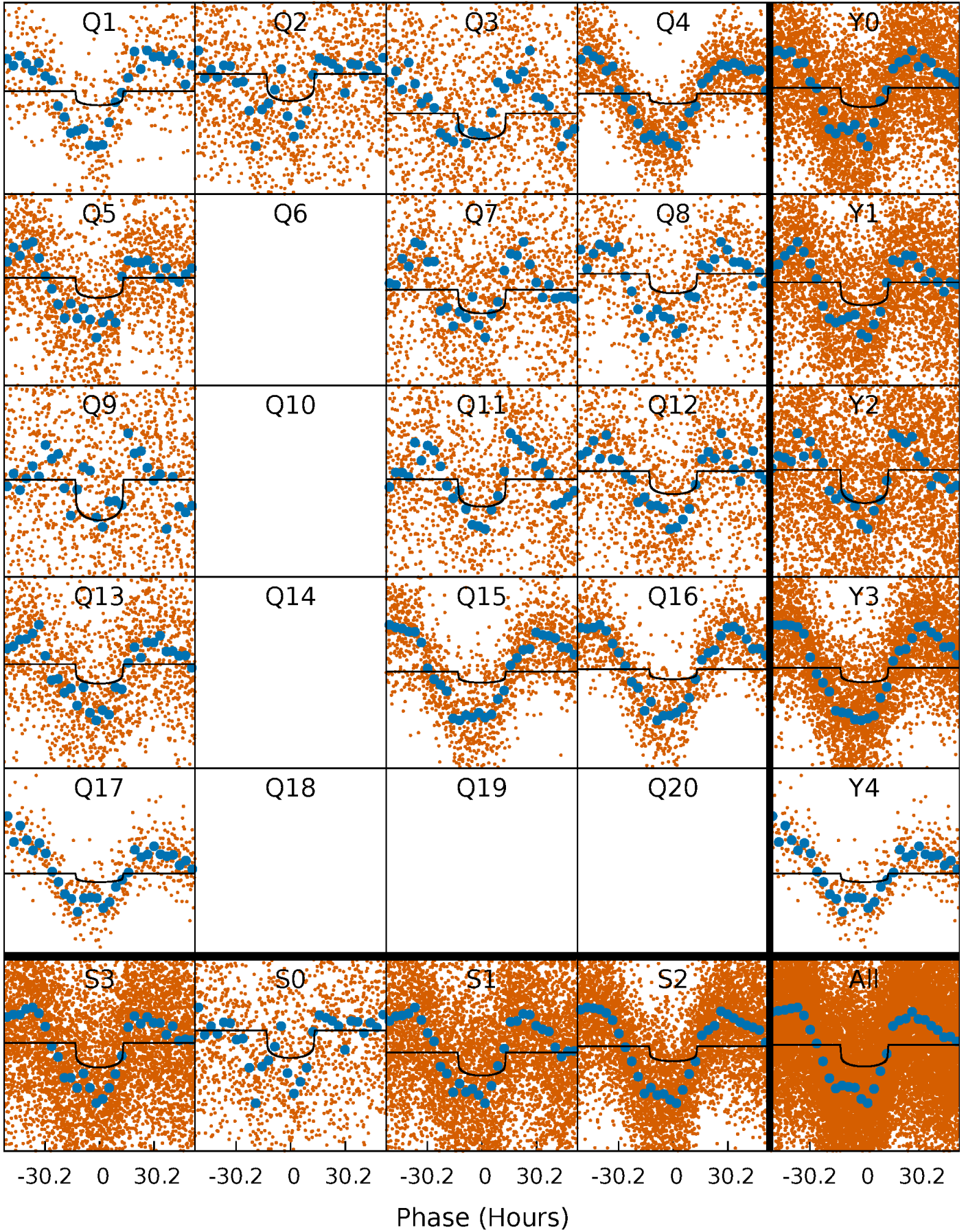
PDC Quarter-Phased Transit Curves

TCE 004756725-01 $P = 11.255355$ Days $T_0 = 133.396769$ (BKJD)



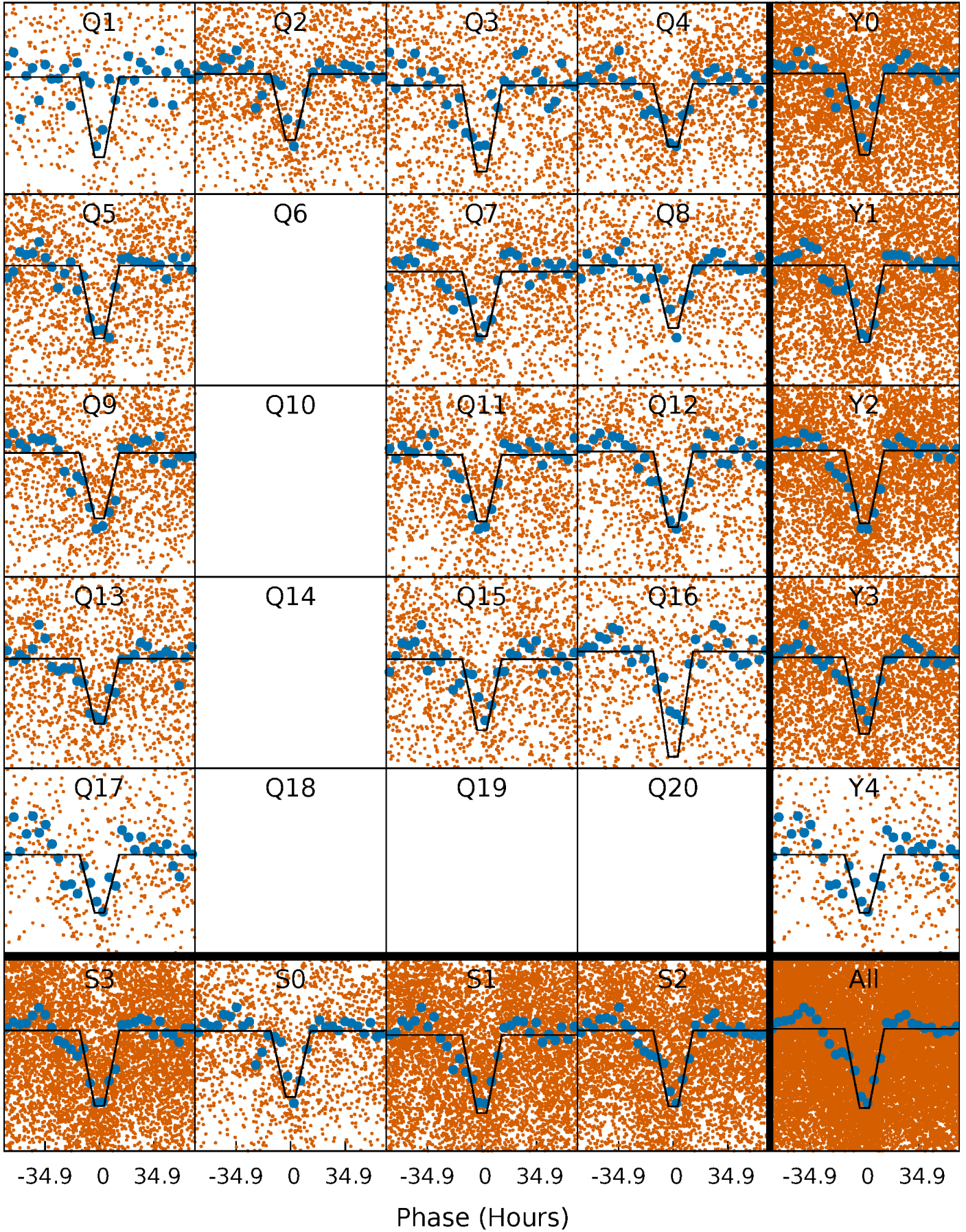
DV Quarter-Phased Transit Curves

TCE 004756725-01 P= 11.255355 Days $T_0=133.396769$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

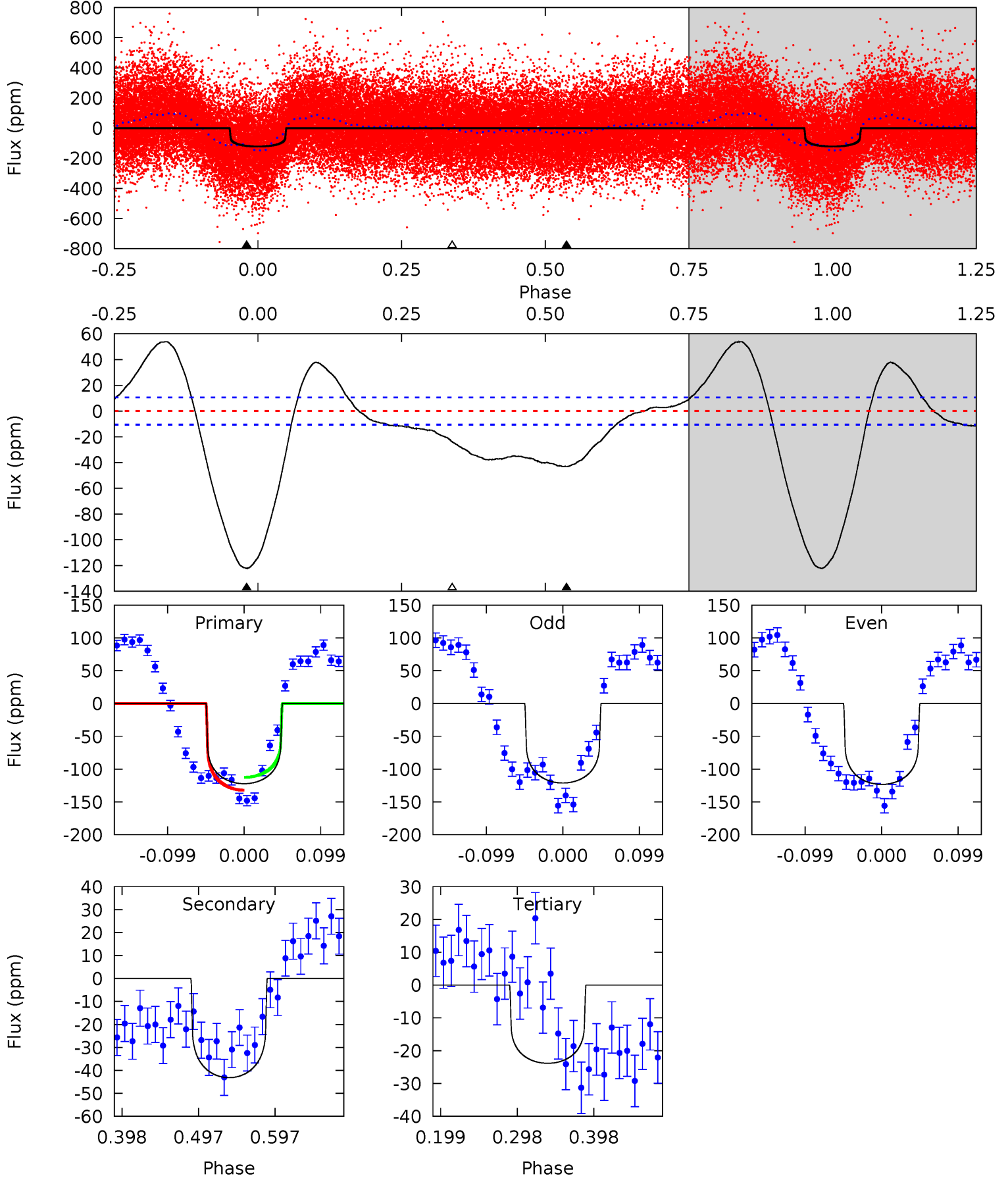
TCE 004756725-01 P= 11.256052 Days $T_0=133.448459$ (BKJD)



DV Model-Shift Uniqueness Test

004756725-01, P = 11.255355 Days, E = 122.141414 Days

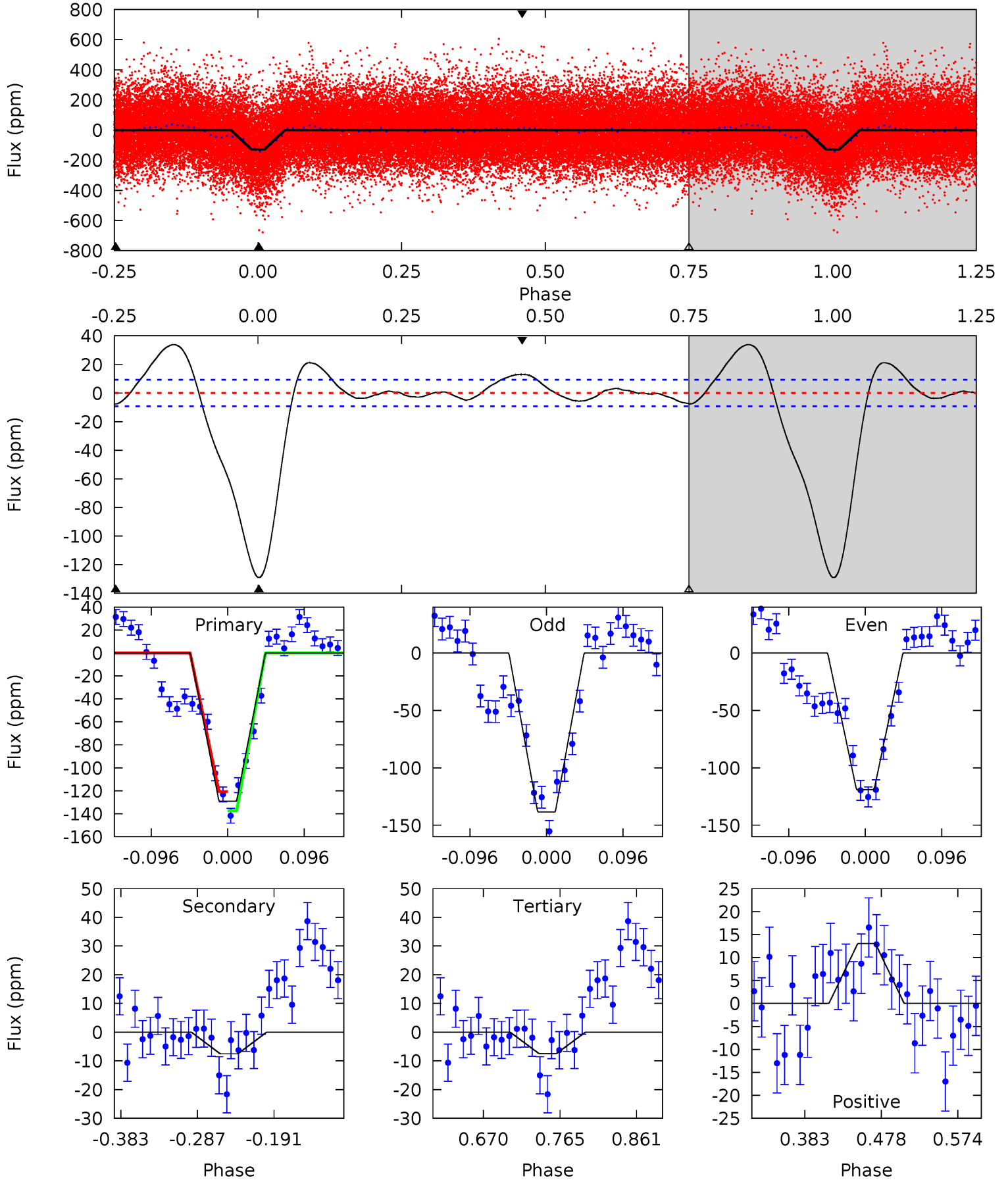
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
52.8	18.7	10.3	0	4.57	1.65	11.1	42.5	52.8	8.35	18.7	0.46	1.10	0.31	4.26



Alt Model-Shift Uniqueness Test

004756725-01, P = 11.256052 Days, E = 122.192407 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
63.7	3.72	3.67	6.44	4.57	1.67	4.16	60.0	57.2	0.05	-2.71	4.80	1.15	0.21	4.17



Stellar Parameters For KIC 004756725

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6362^{+173}_{-173}	$3.785^{+0.312}_{-0.078}$	$-0.140^{+0.300}_{-0.250}$	$2.503^{+0.470}_{-0.872}$	$1.394^{+0.227}_{-0.277}$	$0.125^{+0.266}_{-0.040}$
	+3%/-3%	+8%/-2%	+214%/-179%	+19%/-35%	+16%/-20%	+212%/-32%
Source	PHO1	FLK73	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 004756725-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-43 ± 2	$1.85^{+0.45}_{-0.43}$	1814^{+124}_{-163}	6049^{+685}_{-483}	84^{+57}_{-28}
Alt.	-8 ± 2	$3.02^{+0.58}_{-0.66}$	1823^{+111}_{-171}	3511^{+216}_{-220}	$5.561^{+3.674}_{-2.048}$

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

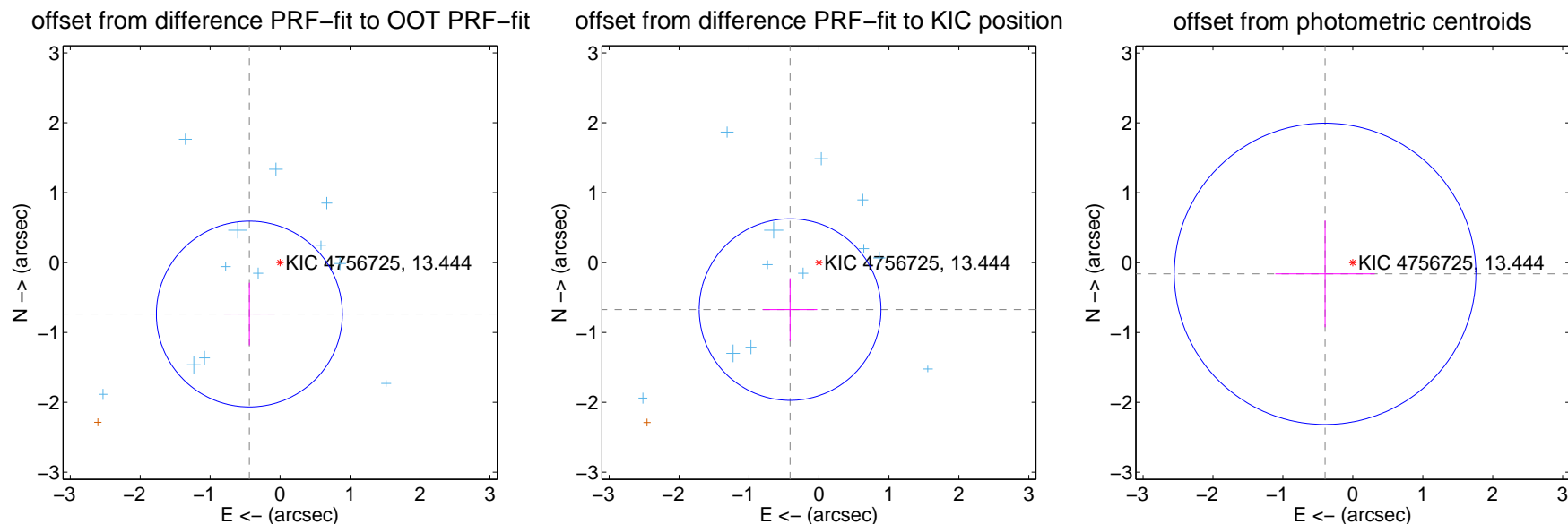
DV Centroid Data

Supplemental centroid analysis for 004756725-01. Kepler magnitude: 13.44. Transit SNR 10.83

There are 12 quarters with good PRF difference image offsets

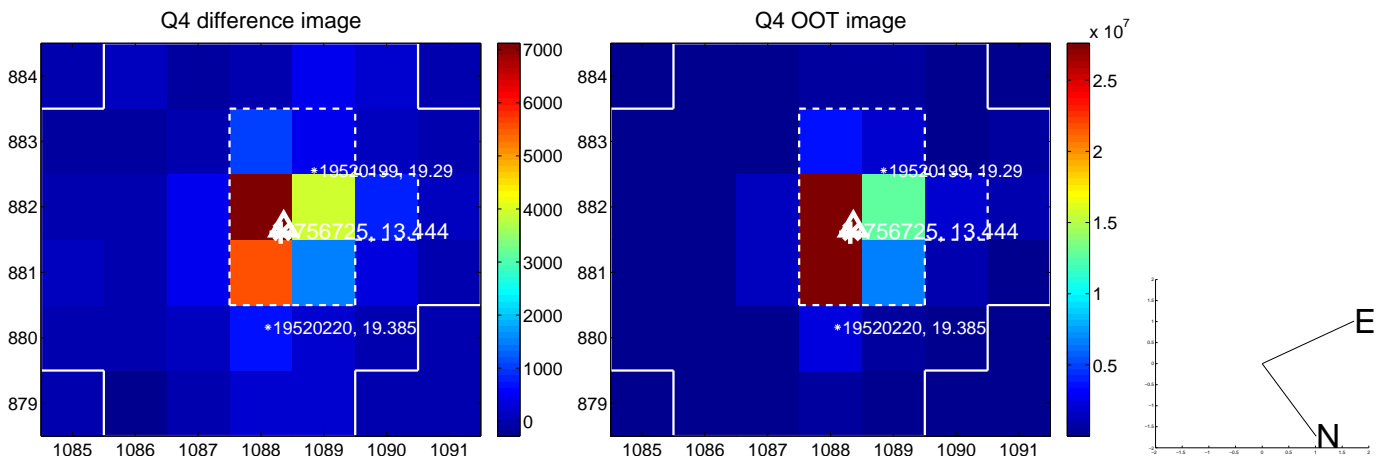
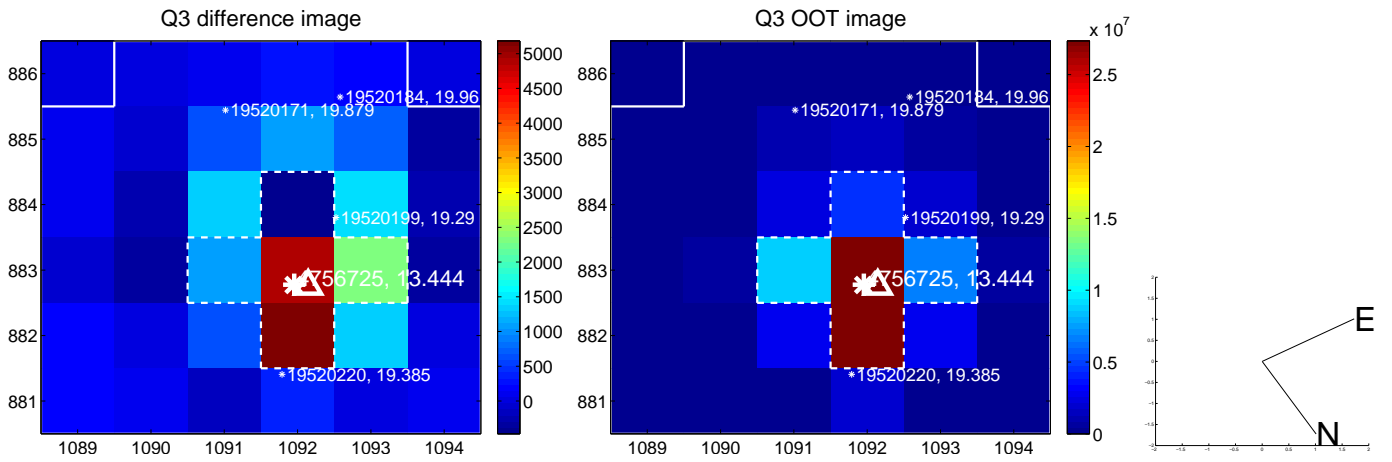
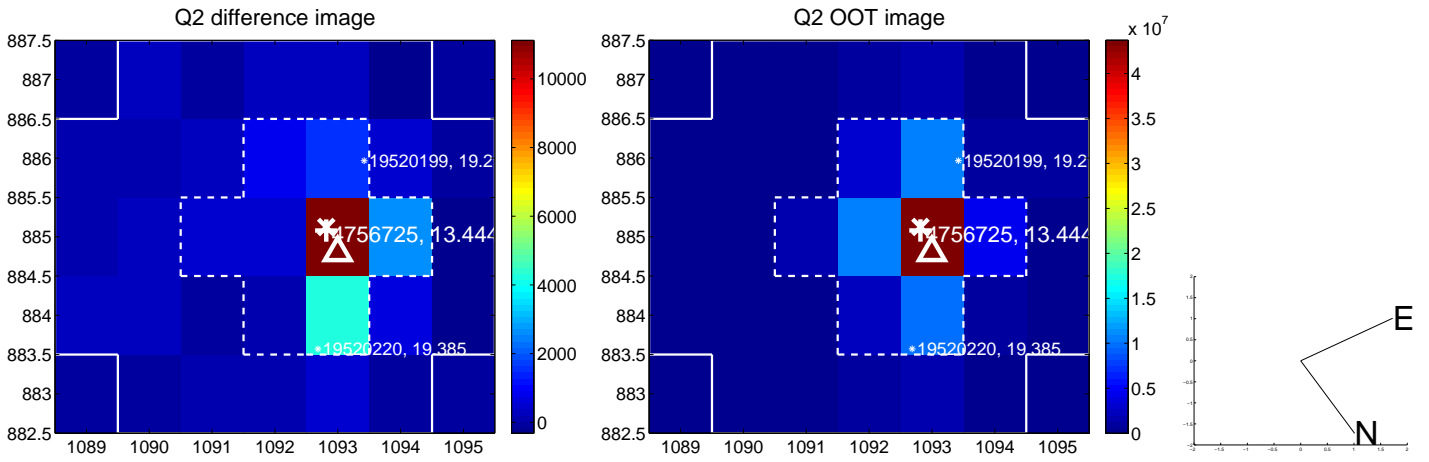
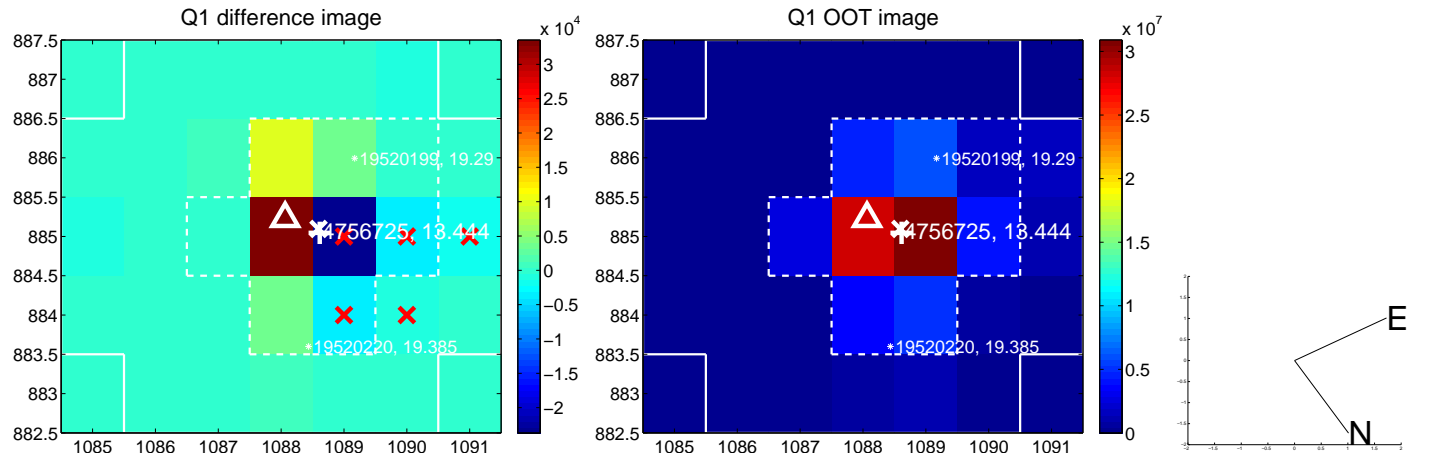
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.858 ± 0.443	1.94	0.439 ± 0.360	-0.737 ± 0.448
PRF-fit source offset from KIC position	0.790 ± 0.433	1.82	0.413 ± 0.387	-0.673 ± 0.449
photometric centroid source offset	0.43 ± 0.72	0.60	0.40 ± 0.71	-0.16 ± 0.76

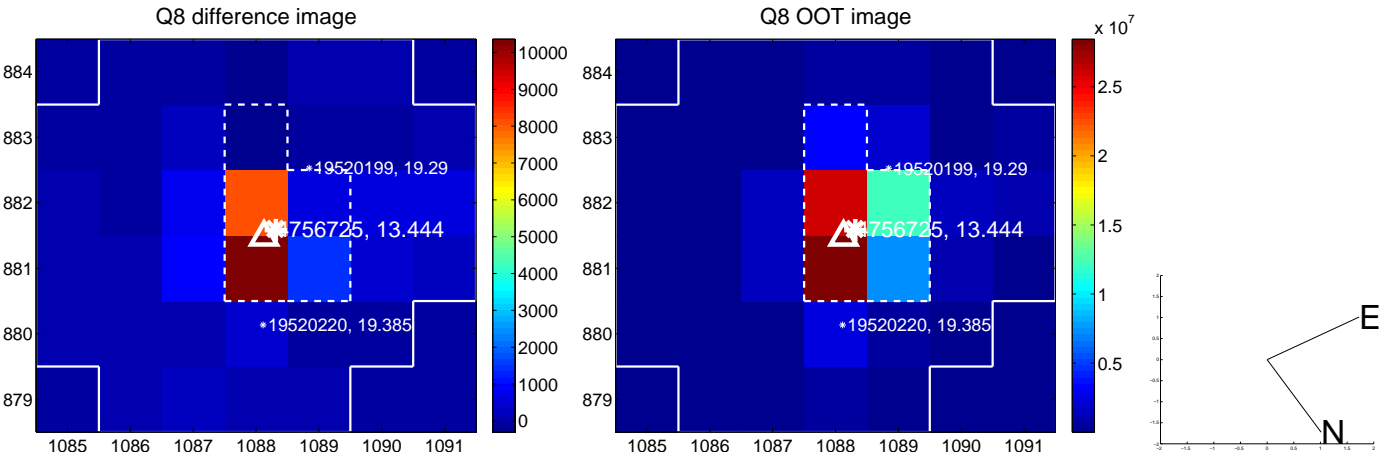
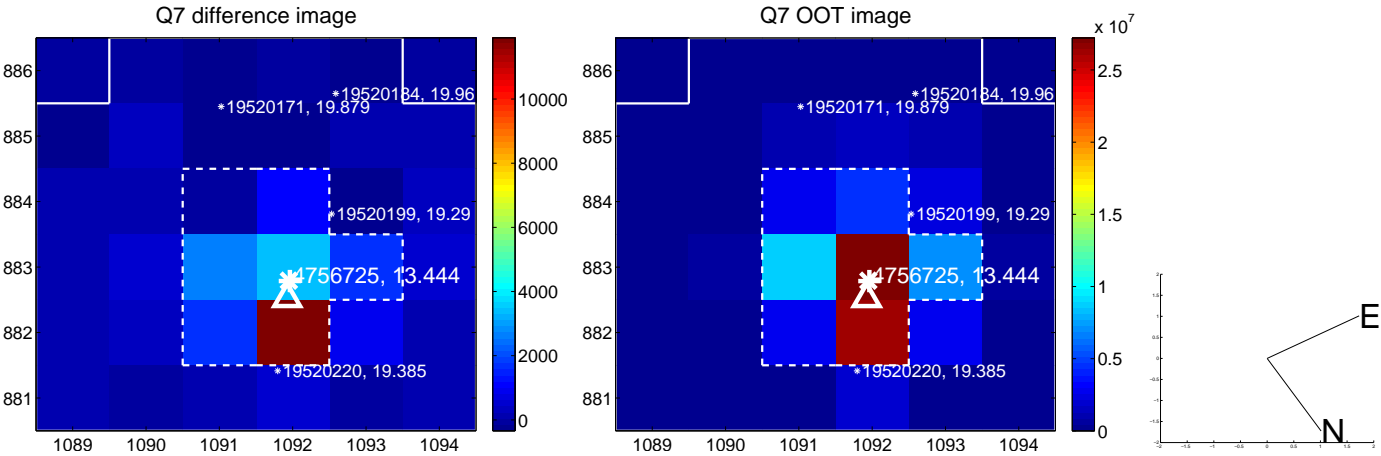
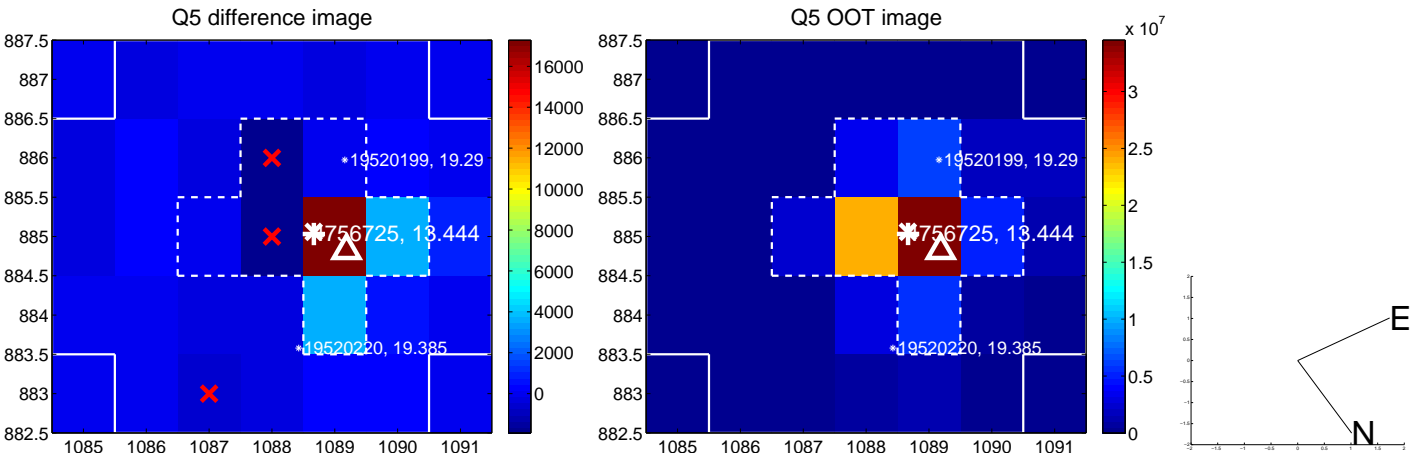


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

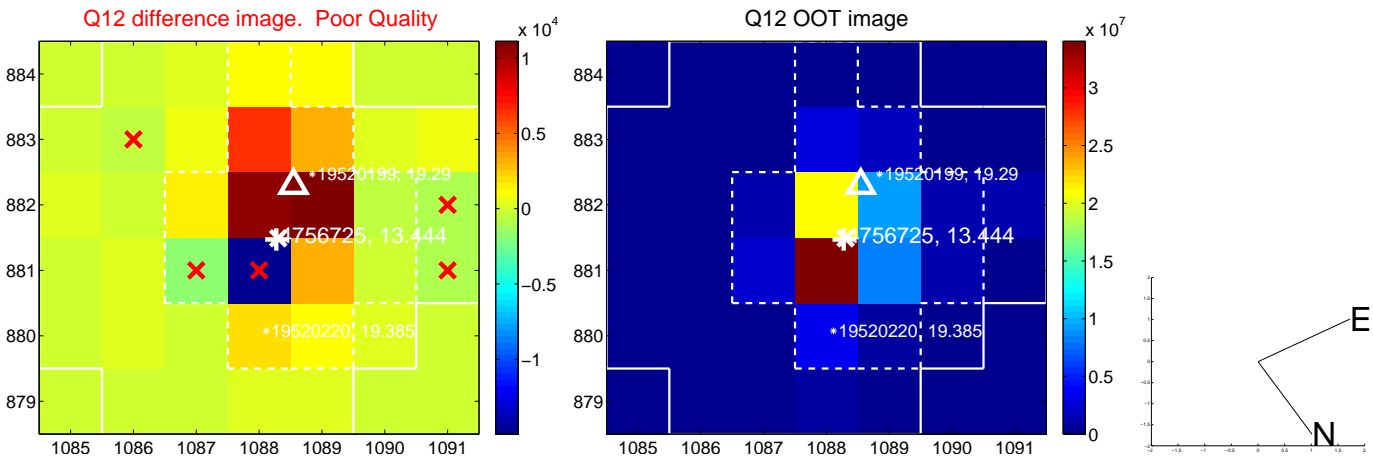
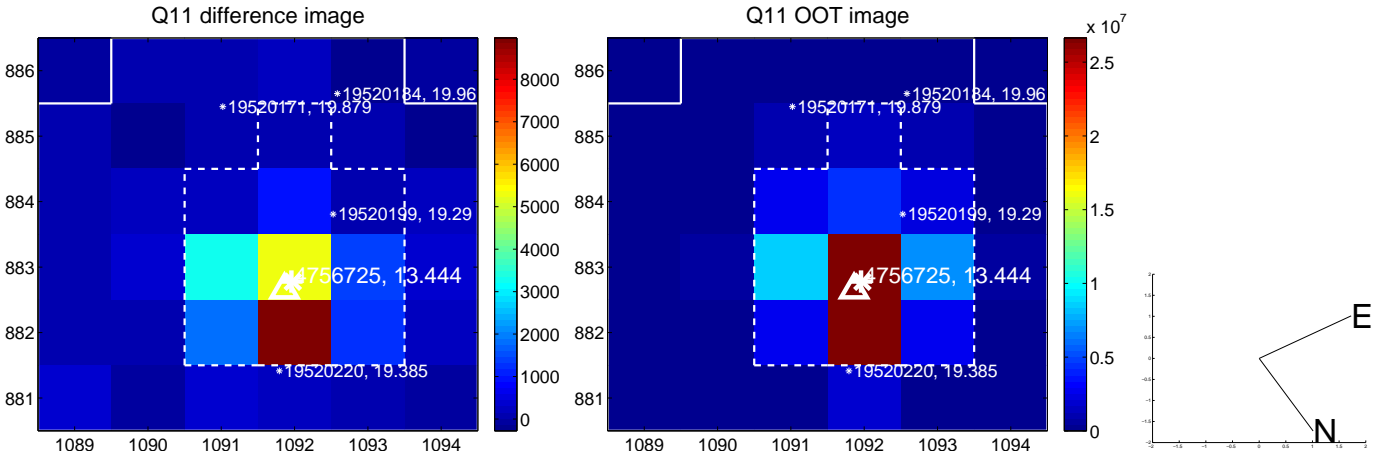
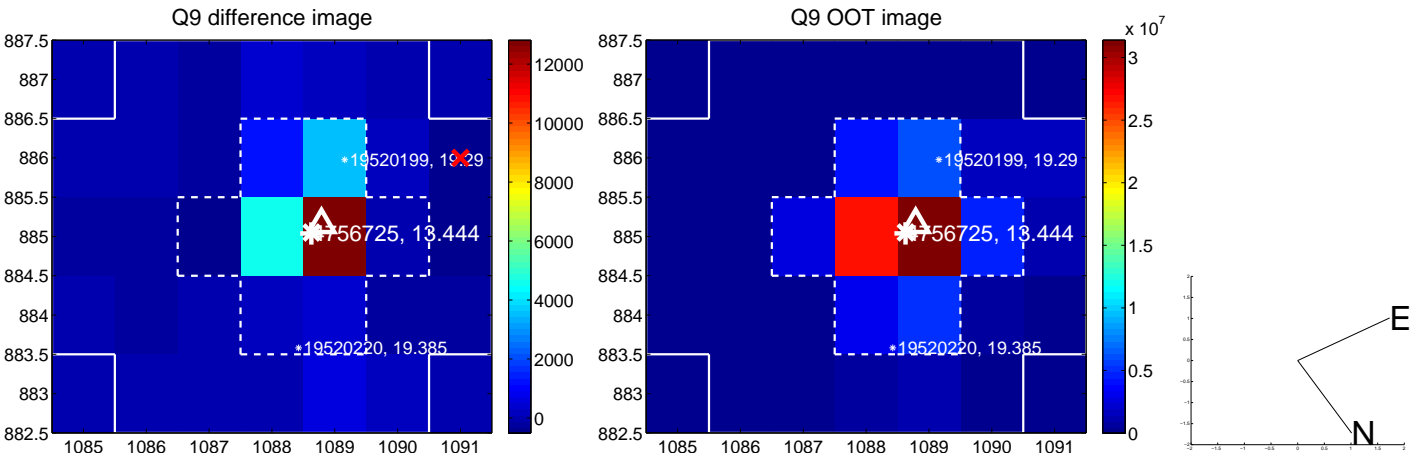
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



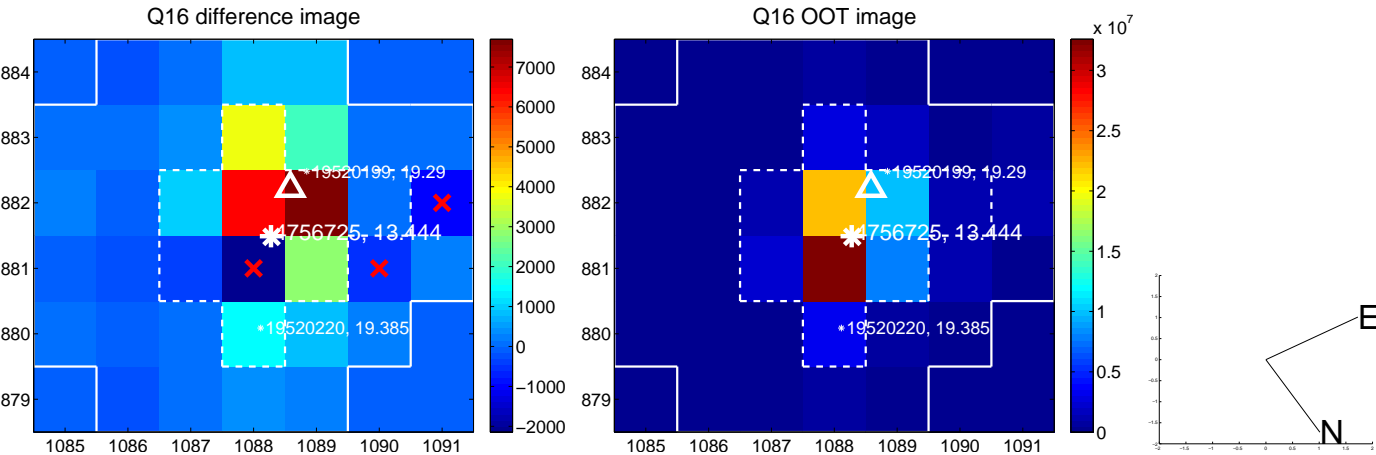
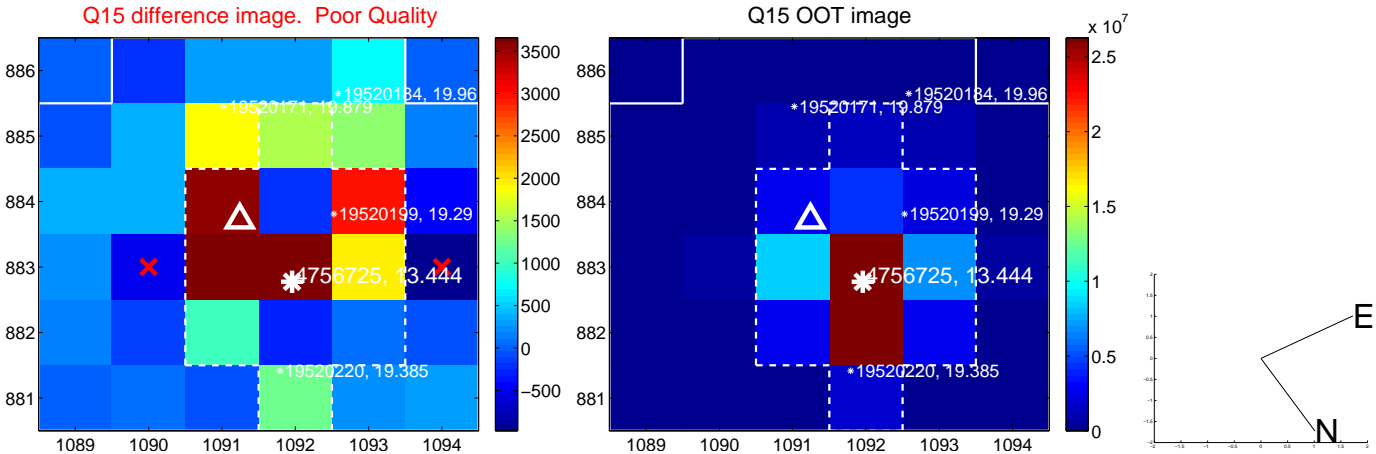
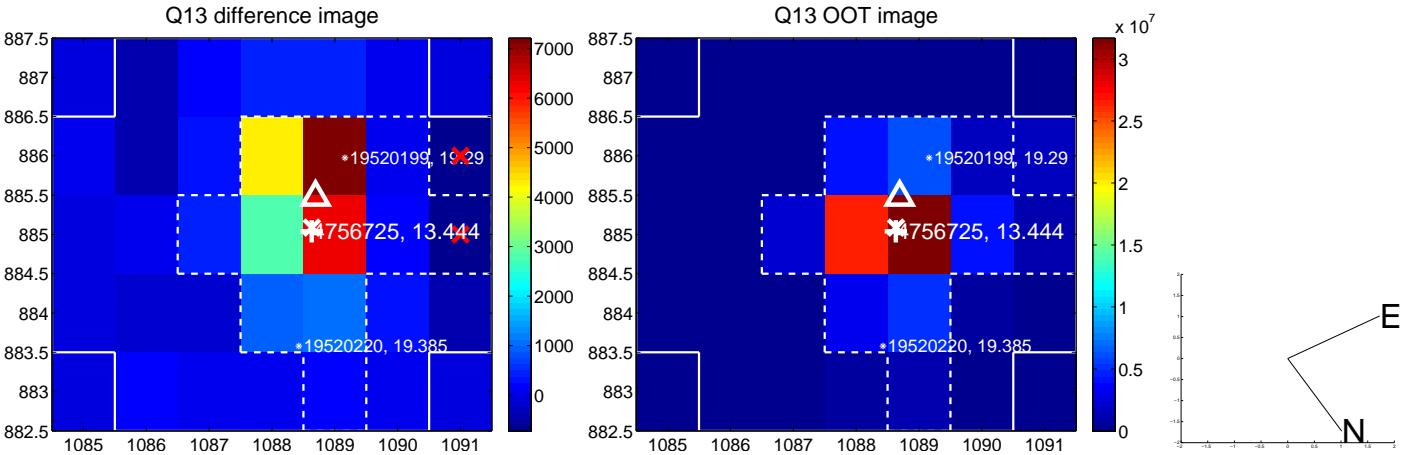
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



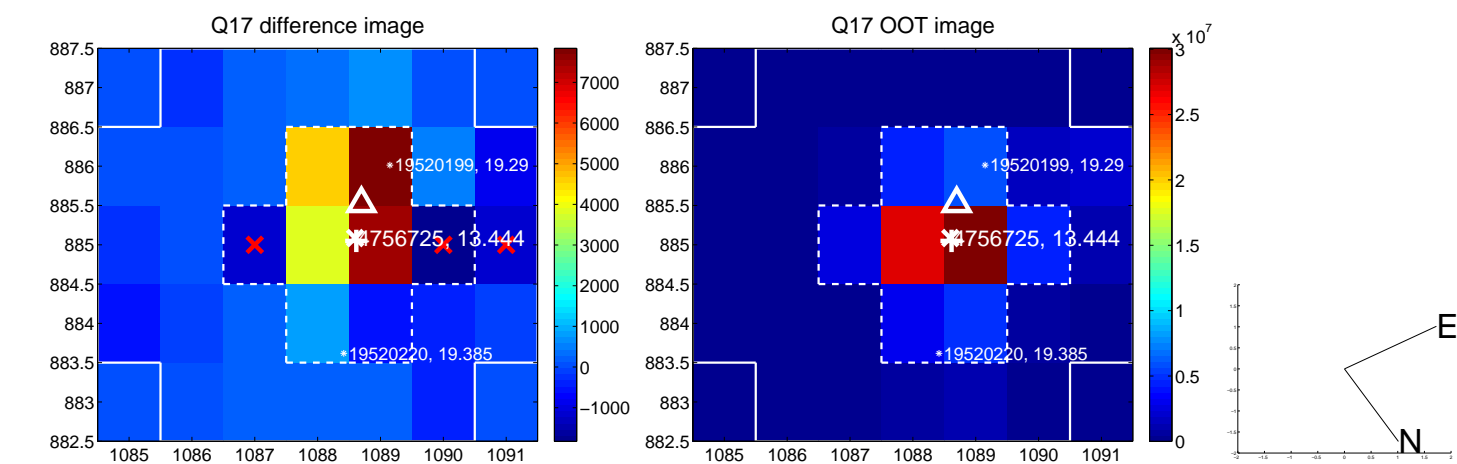
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



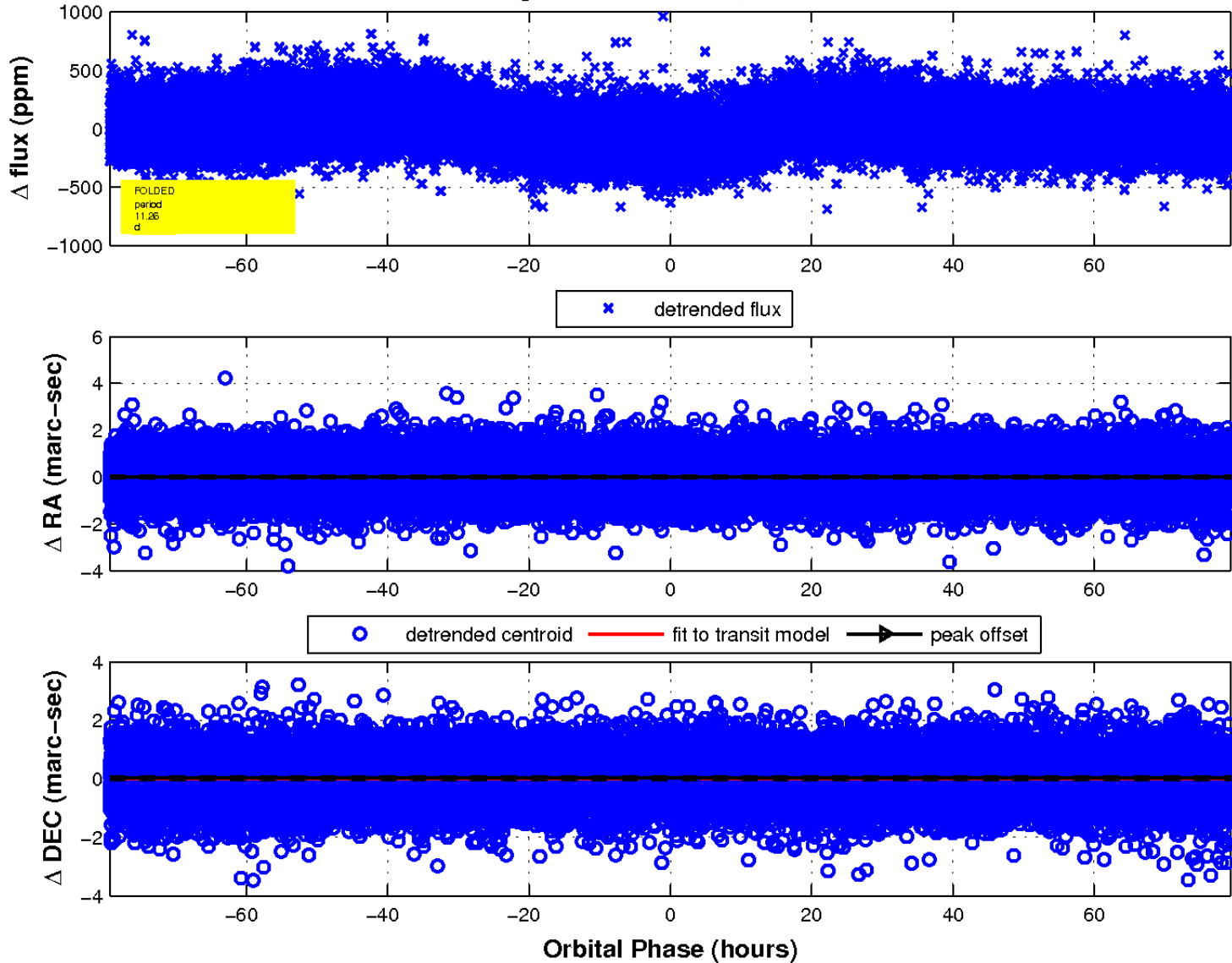
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

