

KIC 003633889

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})
003633889-01	OBS	No	4.267135	133.227387	4.5	13.418	10.6	4.4	1.30	6421	0.31	878.07

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003633889-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED

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

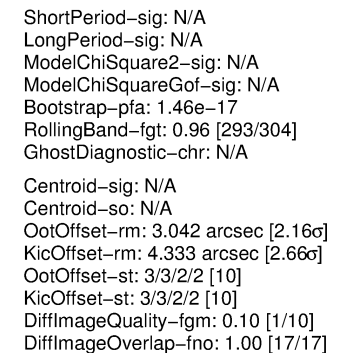
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

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

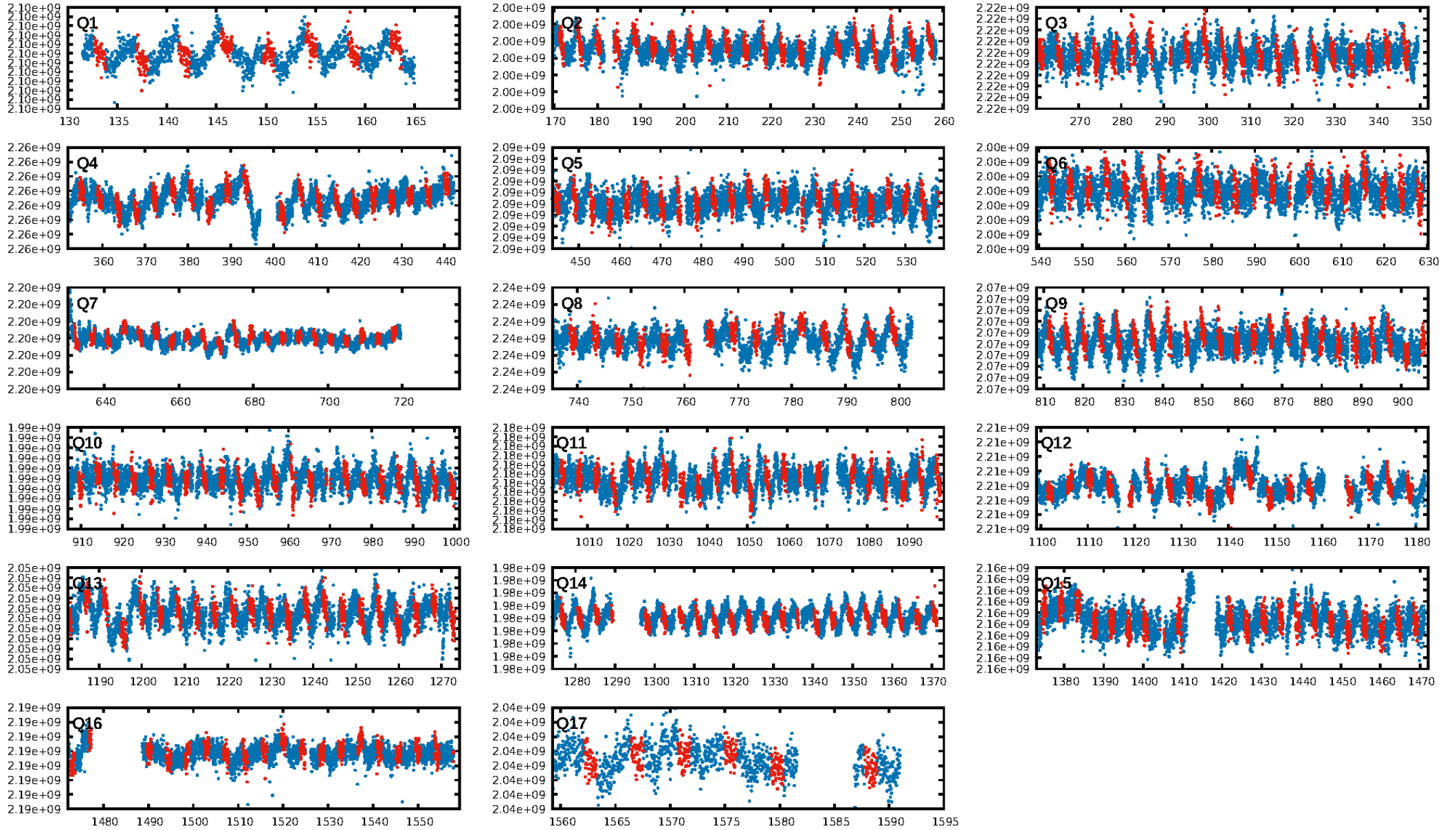
Ephemeris Match Information For 003633889-01

No Significant Match Found

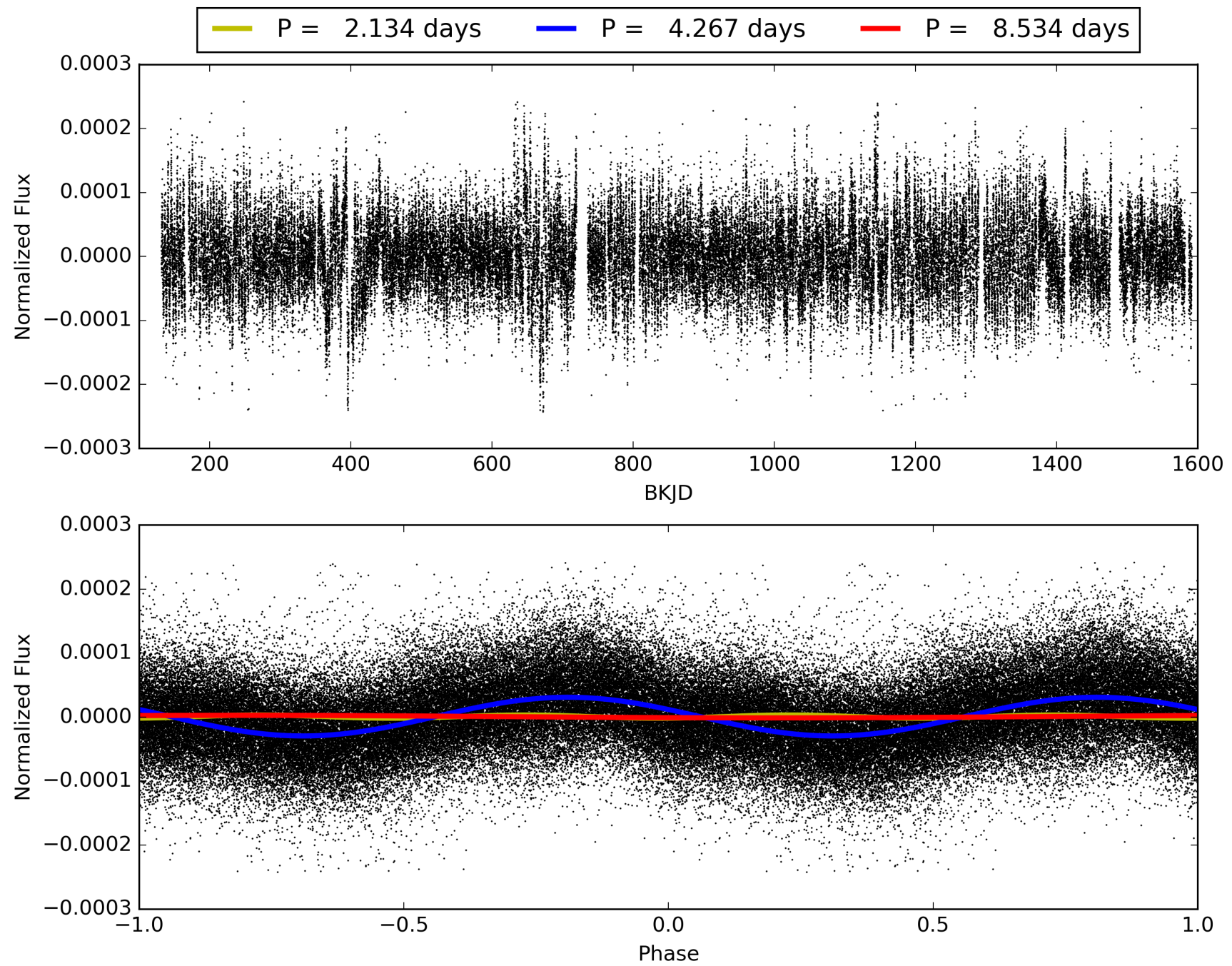
KIC: 3633889 Candidate: 1 of 1 Period: 4.267 d



TCE 003633889-01, PDC Light Curves

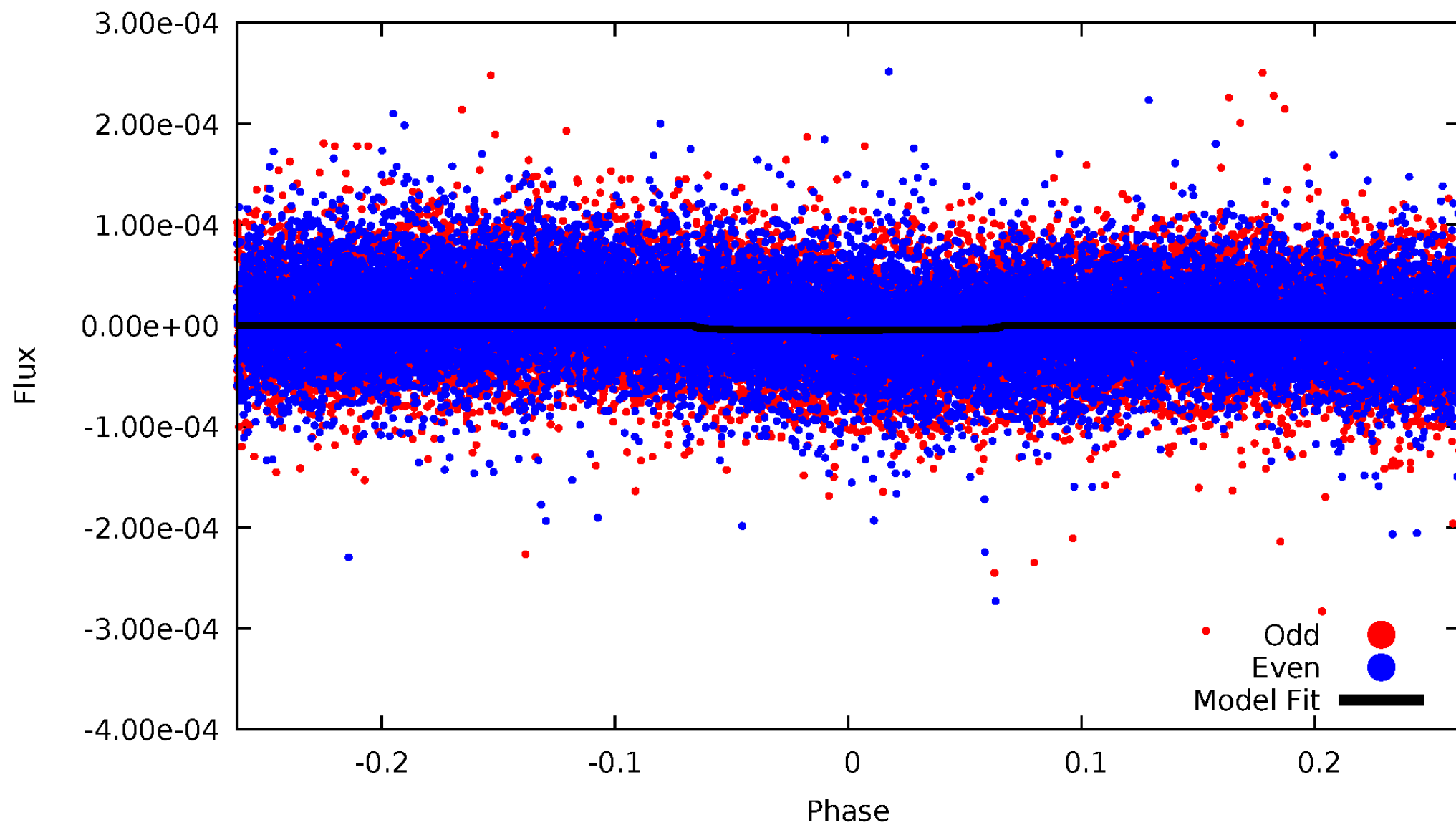


TCE 003633889-01



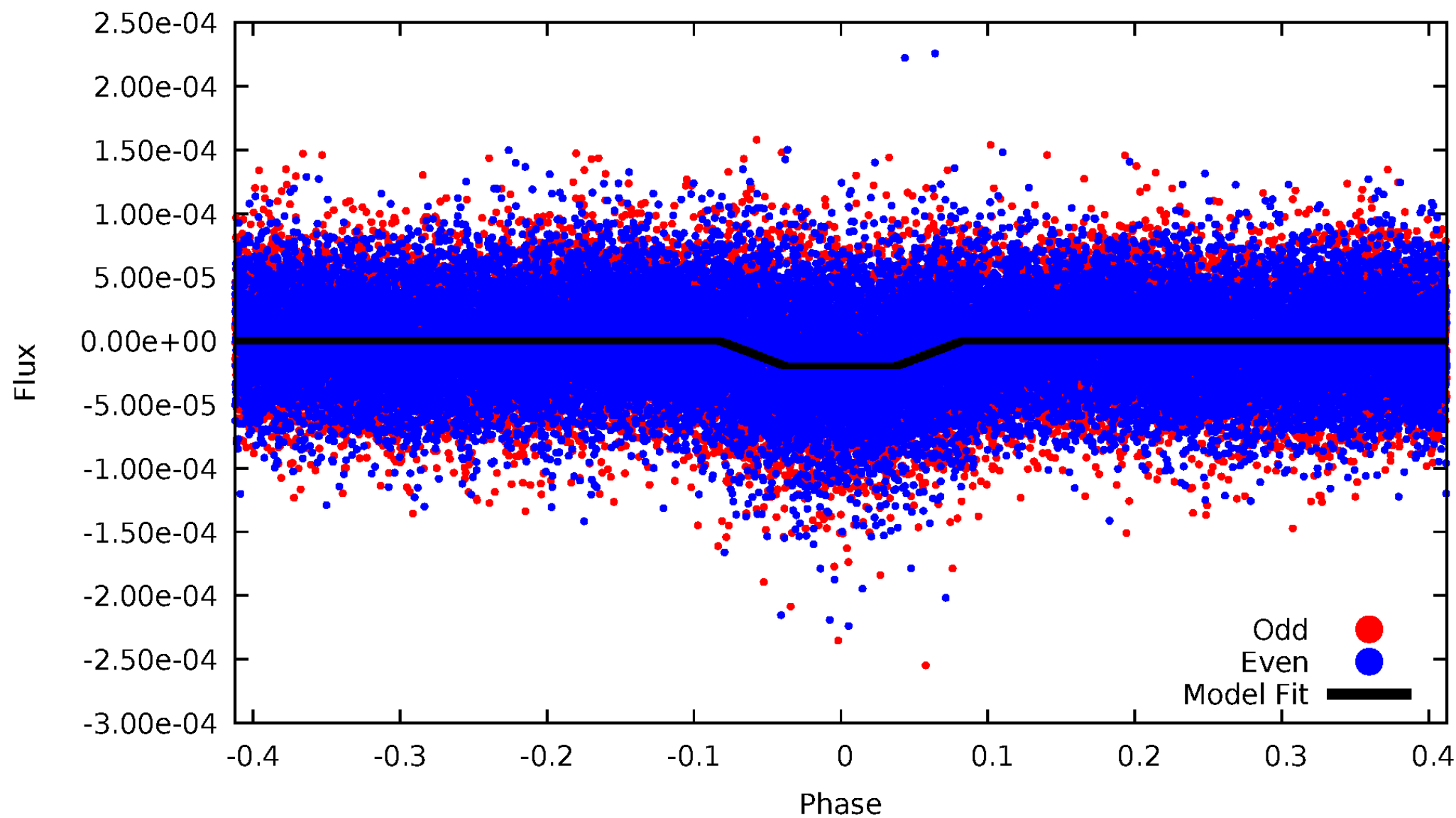
DV Odd/Even

TCE 003633889-01



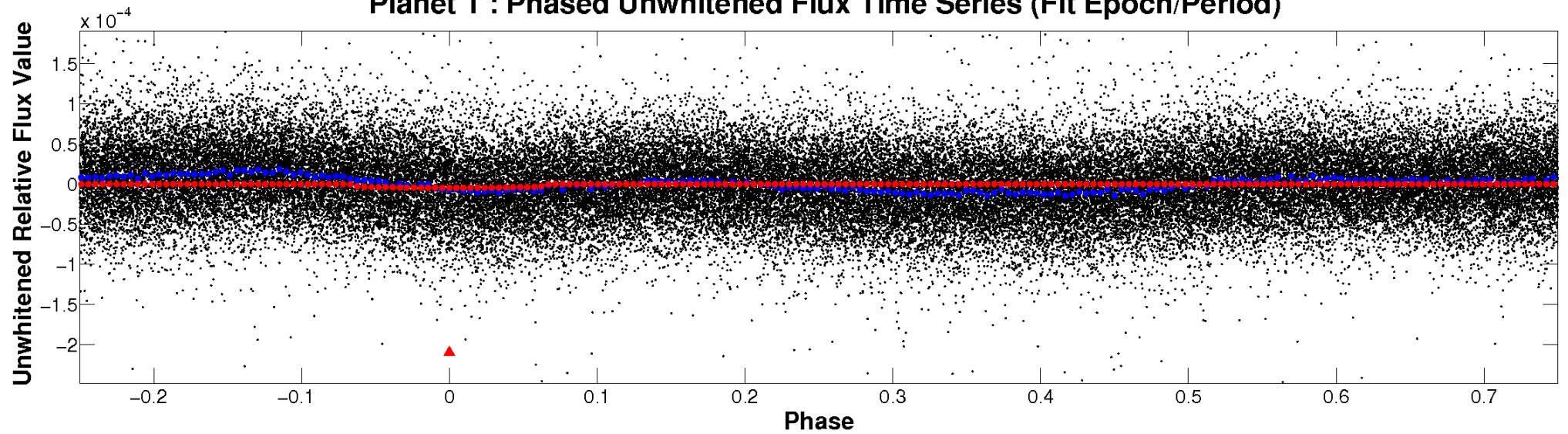
ALT Odd/Even

TCE 003633889-01

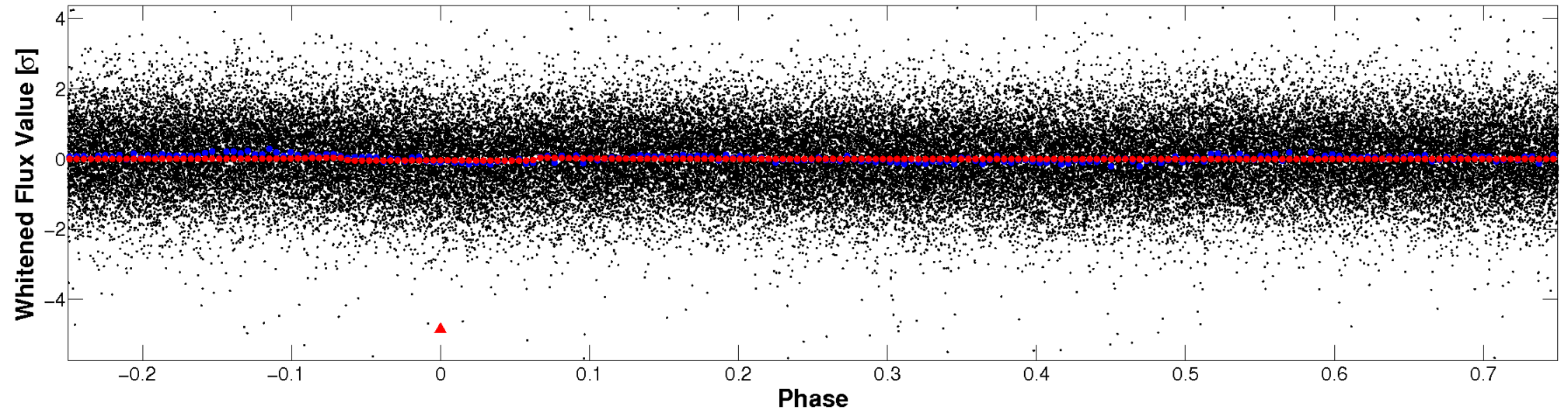


Non-Whitened Vs. Whitened Light Curve

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

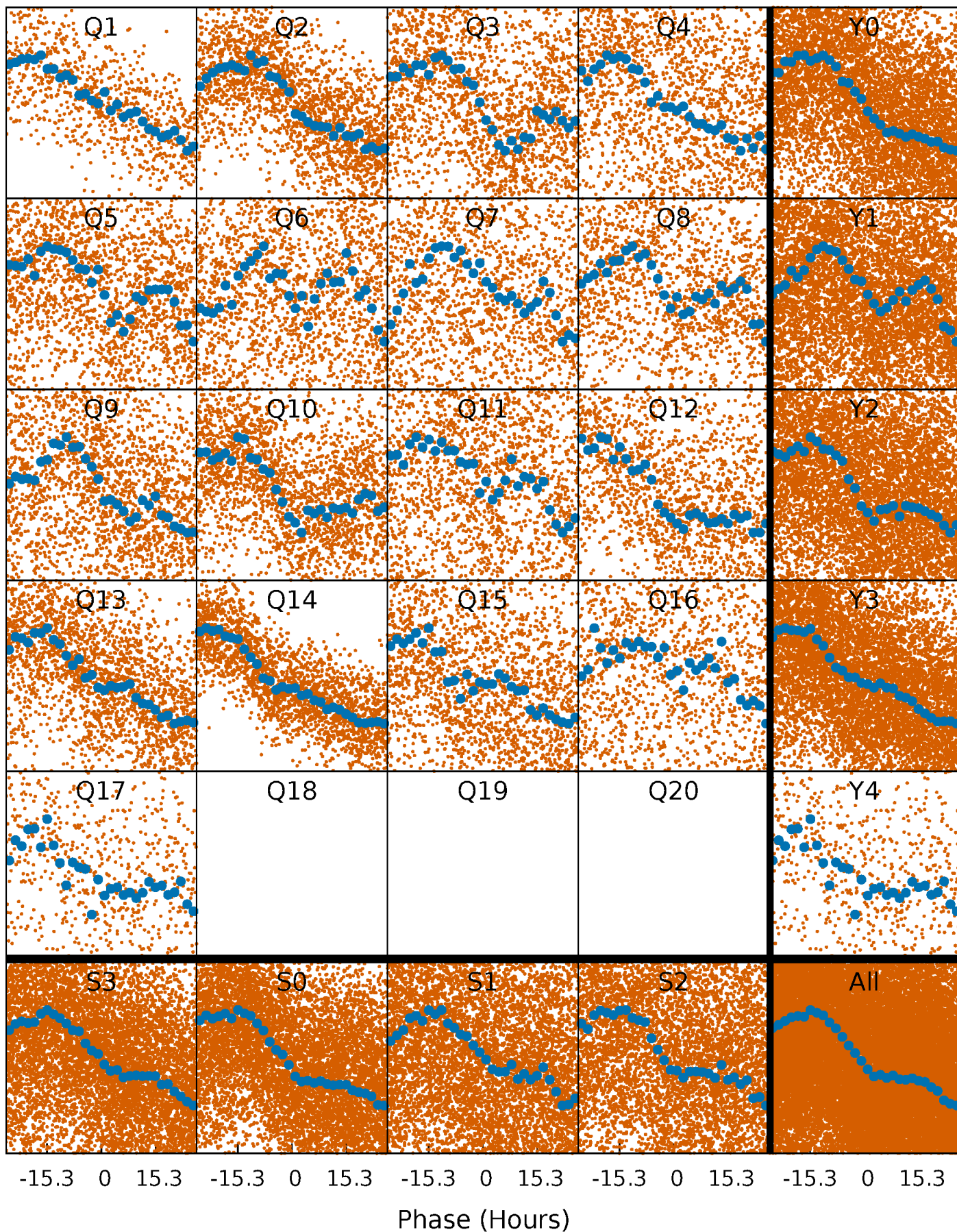


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



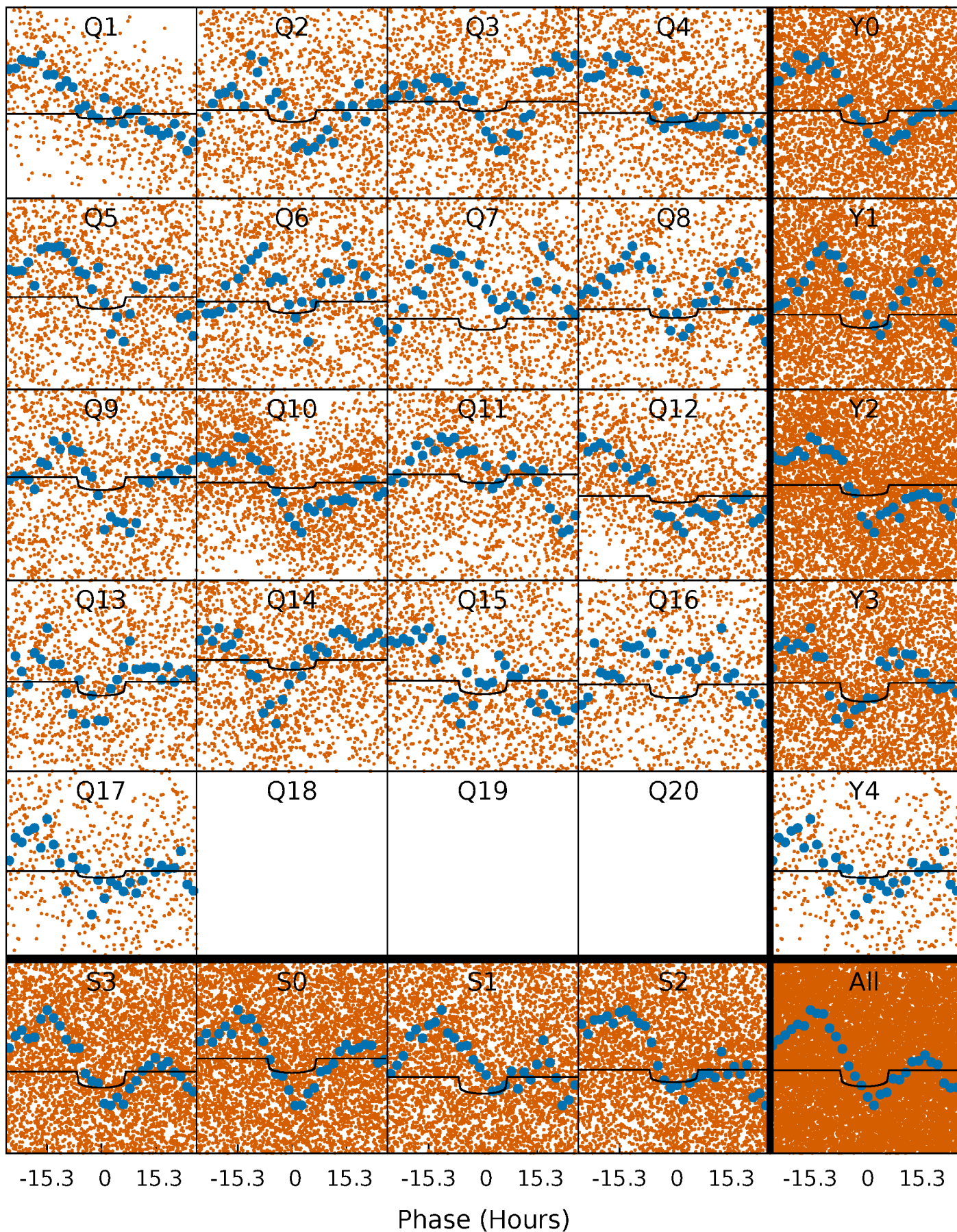
PDC Quarter-Phased Transit Curves

TCE 003633889-01 P= 4.267135 Days $T_0=133.227387$ (BKJD)



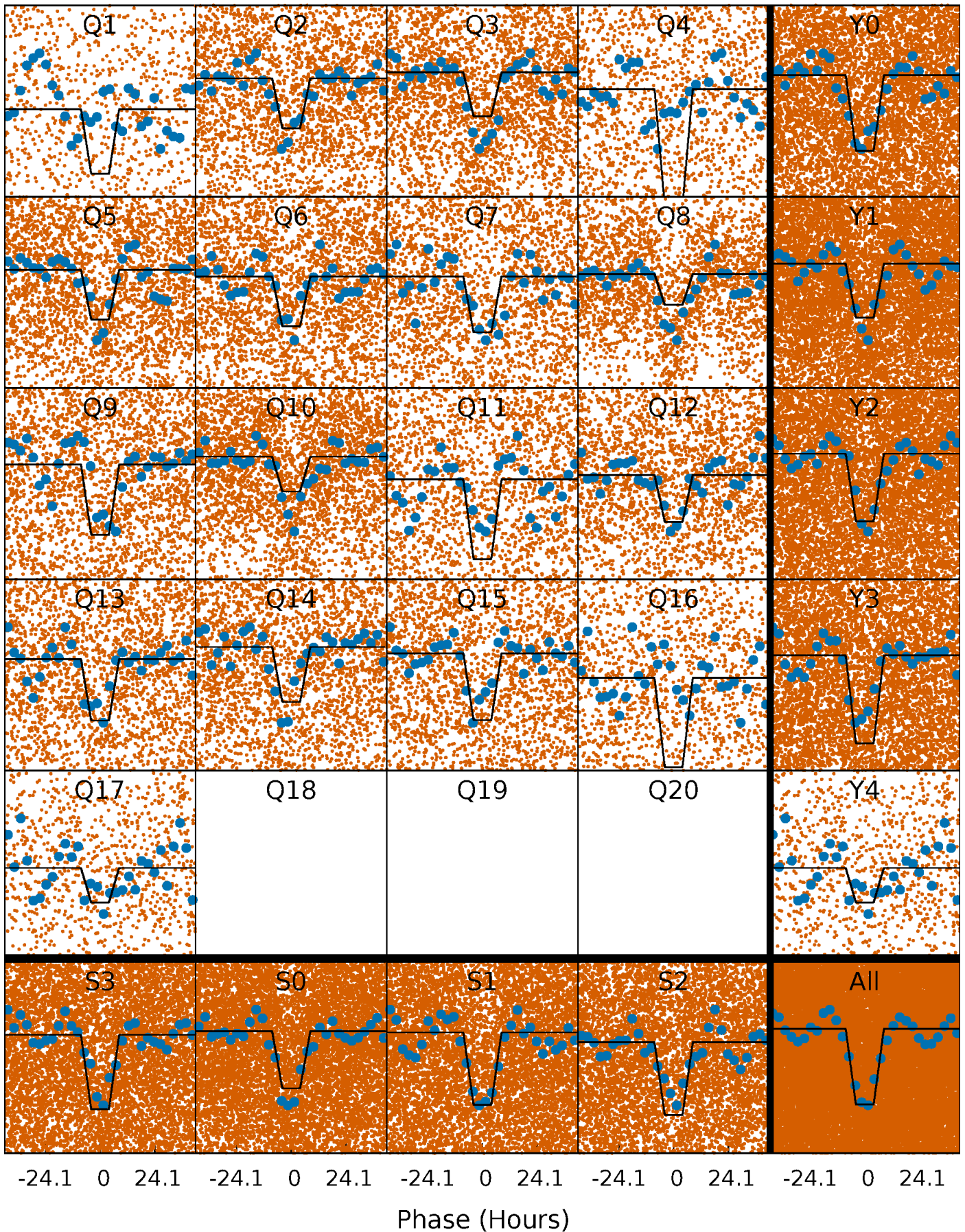
DV Quarter-Phased Transit Curves

TCE 003633889-01 P= 4.267135 Days $T_0=133.227387$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

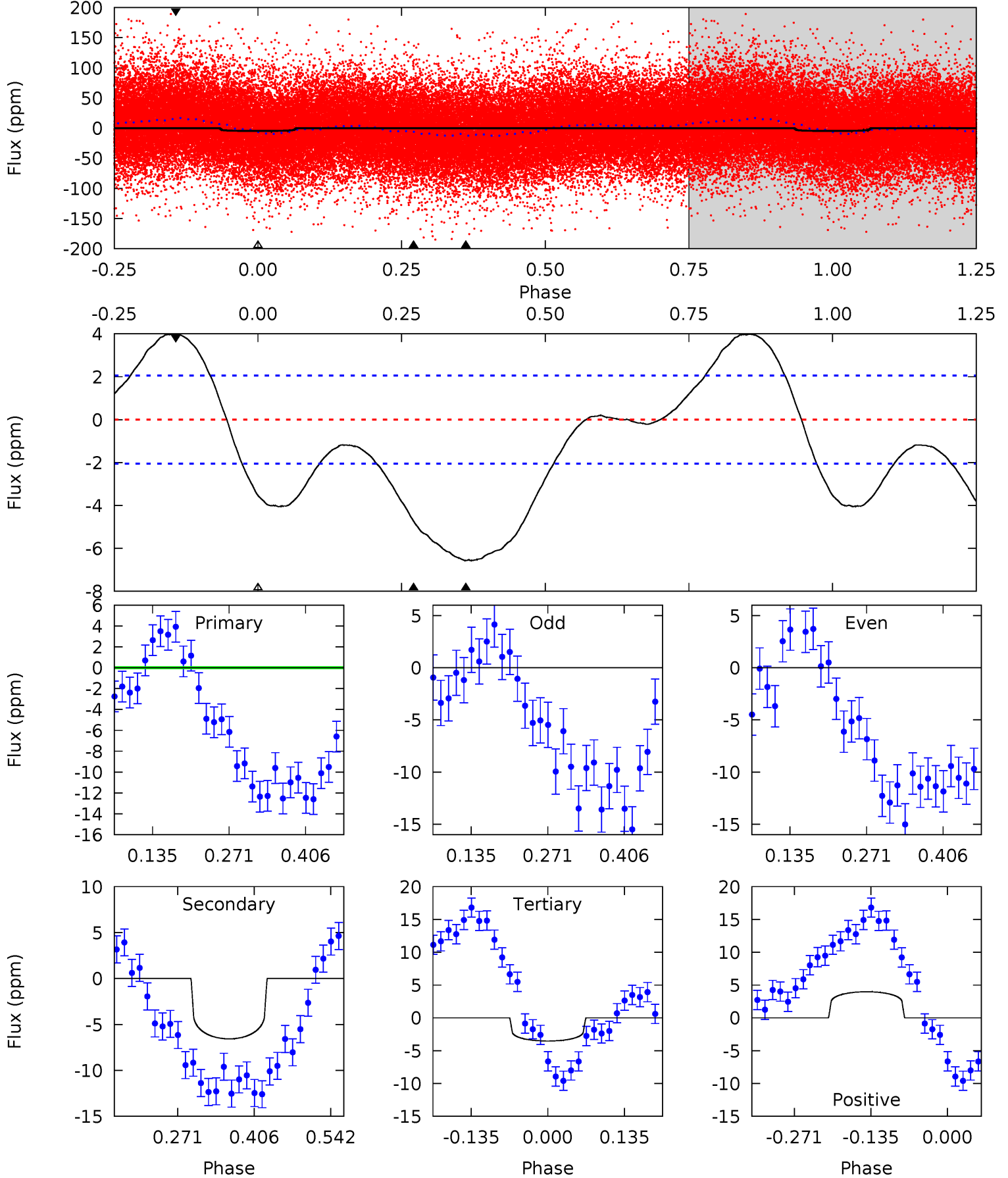
TCE 003633889-01 P= 4.265720 Days $T_0=133.526456$ (BKJD)



DV Model-Shift Uniqueness Test

003633889-01, P = 4.267135 Days, E = 128.960252 Days

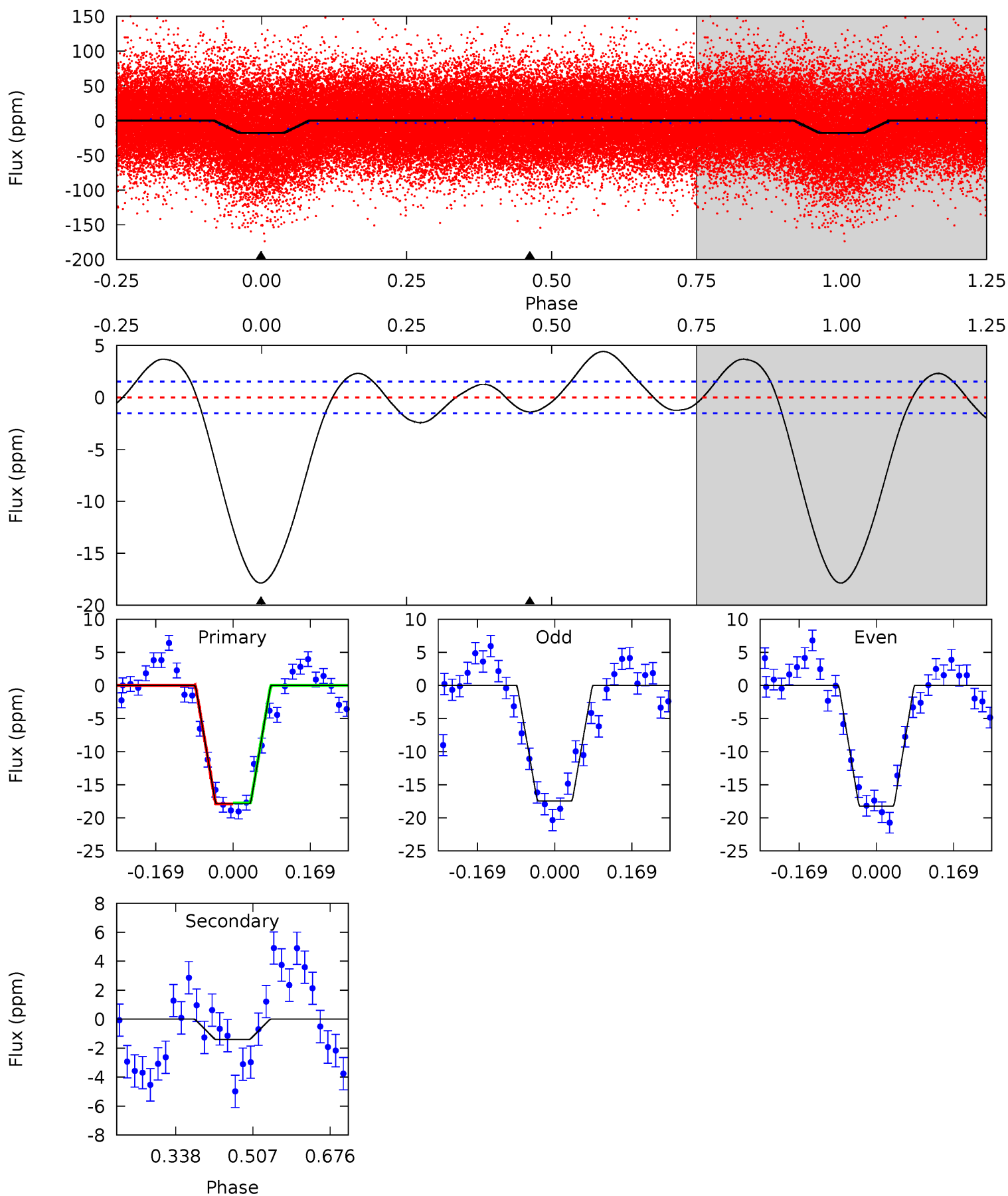
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.4	14.4	7.73	8.72	4.50	1.49	5.22	2.63	1.64	6.66	5.68	0.38	0.70	0.38	8.68



Alt Model-Shift Uniqueness Test

003633889-01, P = 4.265720 Days, E = 129.260736 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
52.2	4.08	0	0	4.45	1.38	5.10	52.2	52.2	4.08	4.08	1.11	1.07	0.20	0.20



Stellar Parameters For KIC 003633889

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6421^{+77}_{-77}	$4.277^{+0.012}_{-0.010}$	$-0.080^{+0.150}_{-0.150}$	$1.305^{+0.043}_{-0.048}$	$1.175^{+0.073}_{-0.080}$	$0.744^{+0.044}_{-0.029}$
	+1%/-1%	+0%/-0%	+188%/-188%	+3%/-4%	+6%/-7%	+6%/-4%
Source	SPE72	AST10	SPE72	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 003633889-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-7 ± 0	$0.31^{+0.07}_{-0.06}$	1938^{+26}_{-25}	7004^{+926}_{-680}	111^{+62}_{-35}
Alt.	-1 ± 0	$0.64^{+0.06}_{-0.07}$	1939^{+26}_{-25}	3681^{+205}_{-206}	$5.610^{+2.104}_{-1.584}$

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

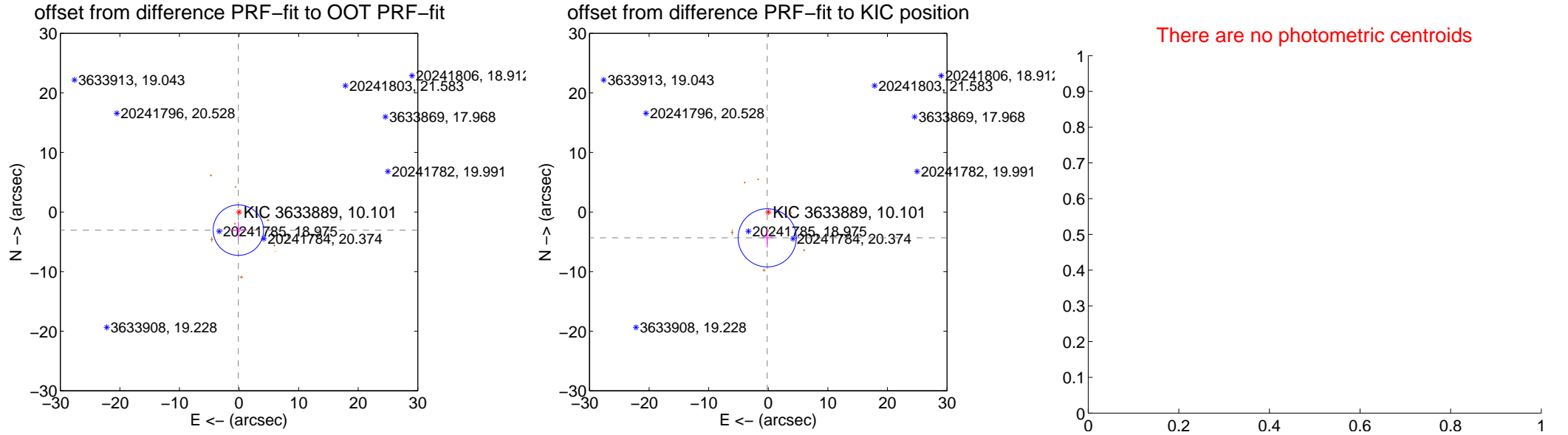
DV Centroid Data

Supplemental centroid analysis for 003633889-01. **Kepler magnitude: 10.10.** Transit SNR 4.41

There are 1 quarters with good PRF difference image offsets

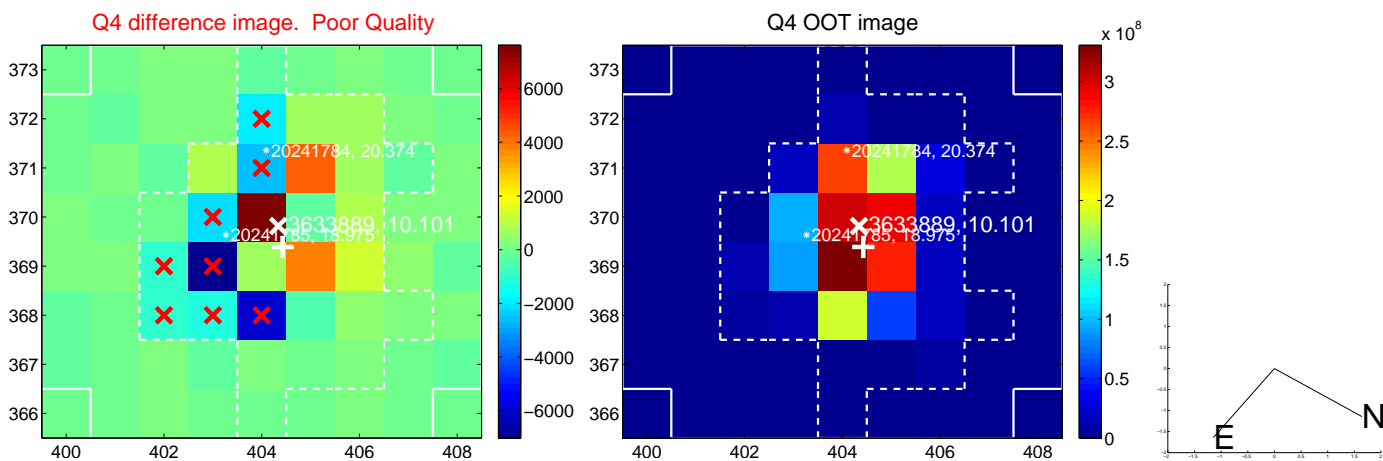
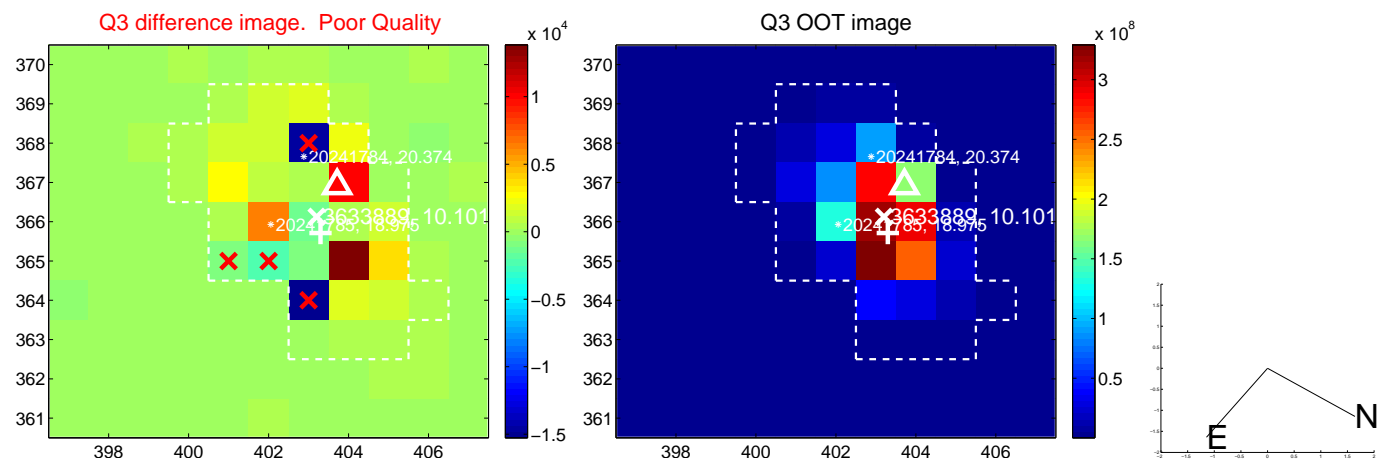
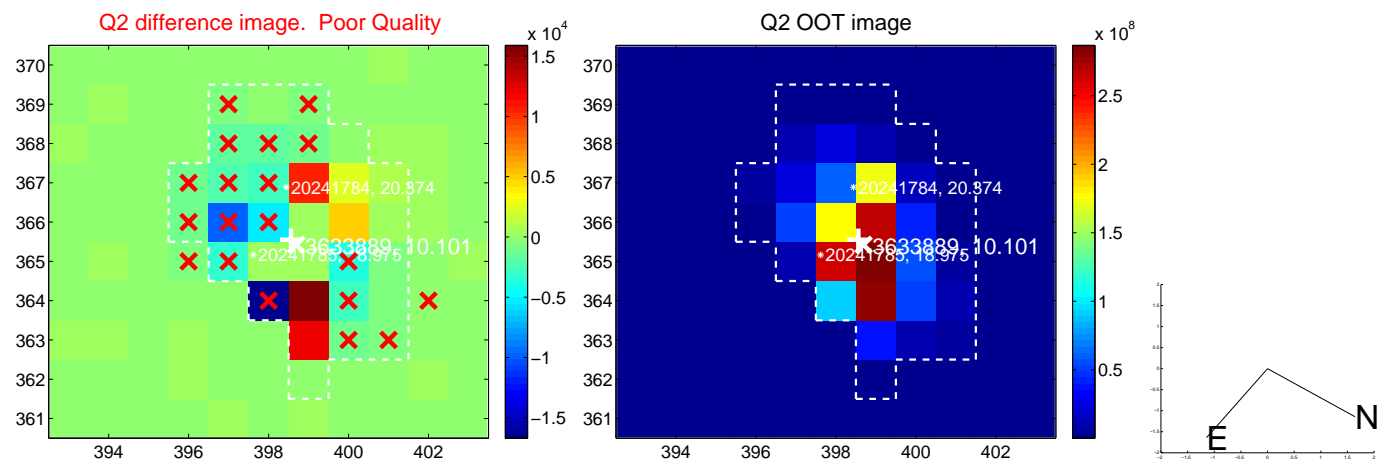
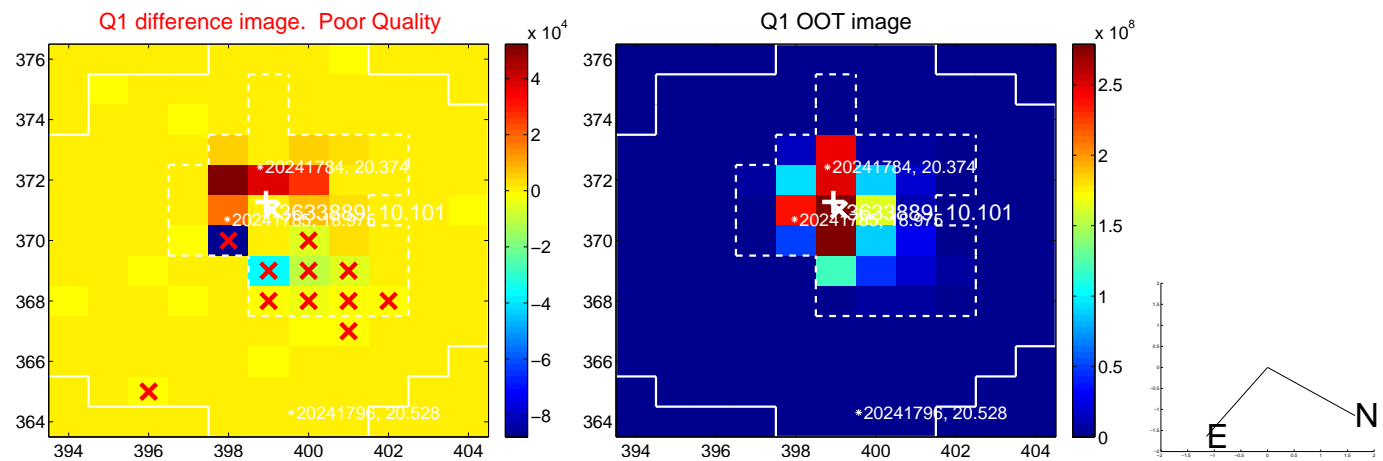
The direct PRF centroid is offset from the target star catalog position by about 1.37 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.042 ± 1.411	2.16	0.116 ± 1.257	-3.040 ± 1.433
PRF-fit source offset from KIC position	4.333 ± 1.628	2.66	0.175 ± 0.929	-4.330 ± 1.638
photometric centroid source offset	—	—	—	—

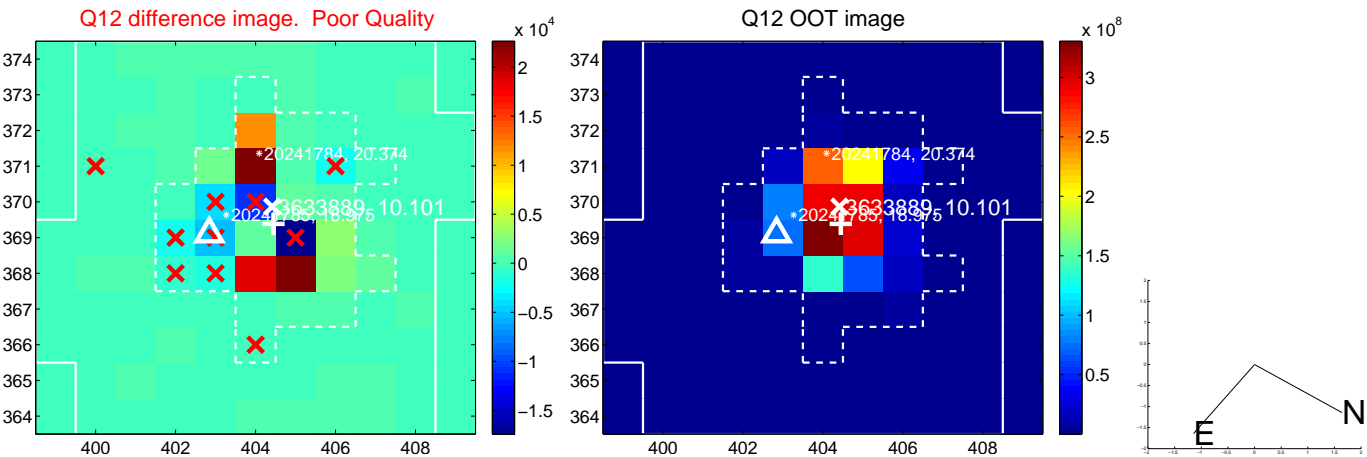
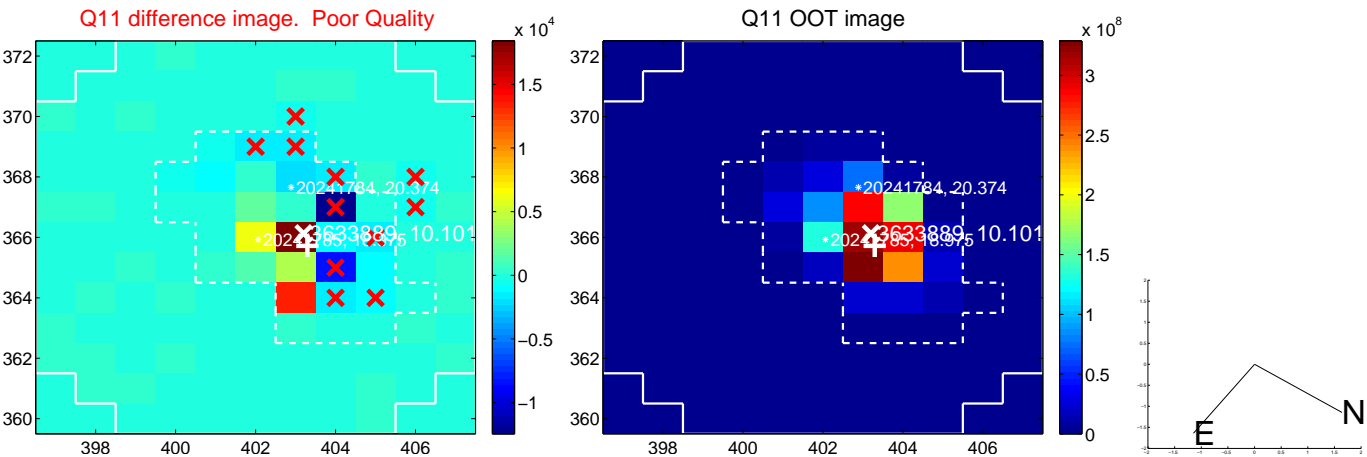
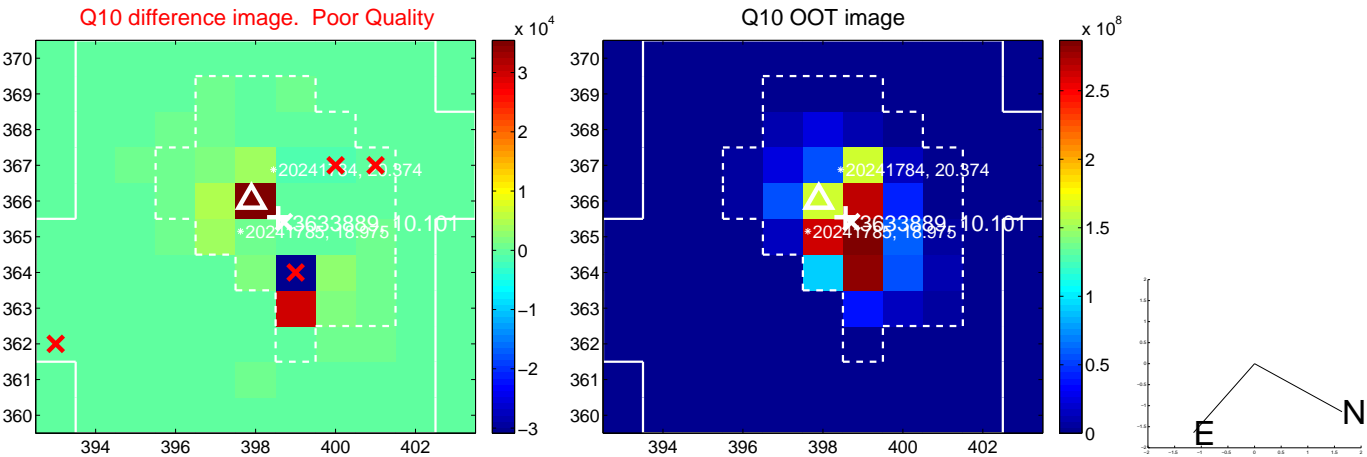
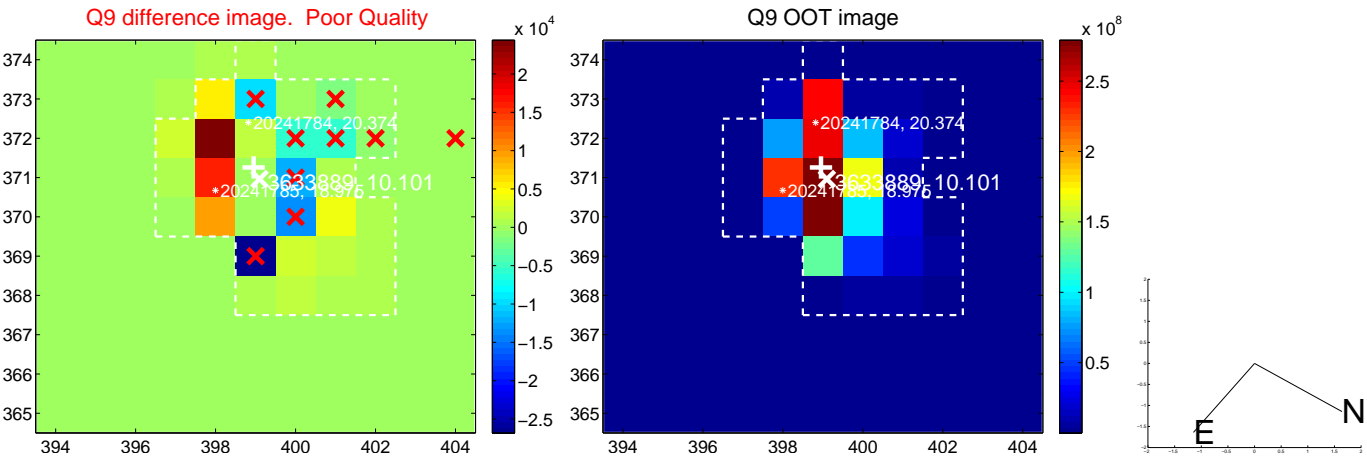


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

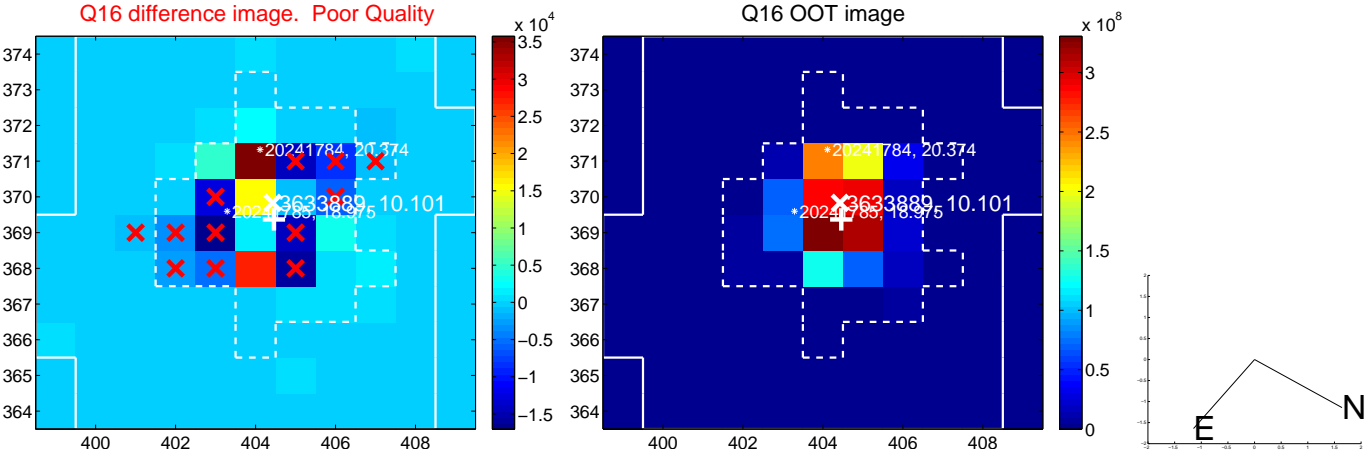
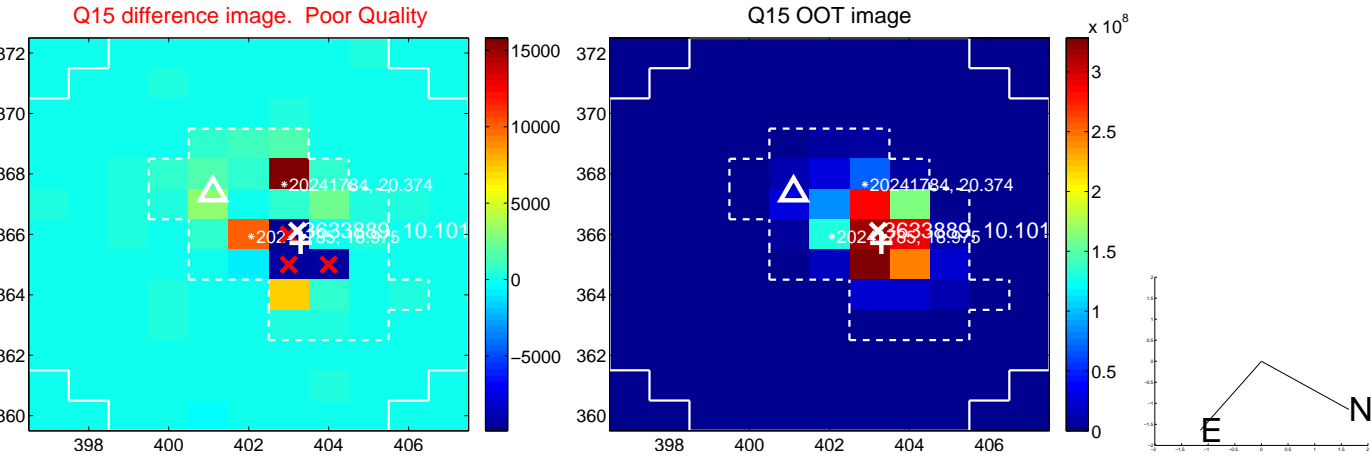
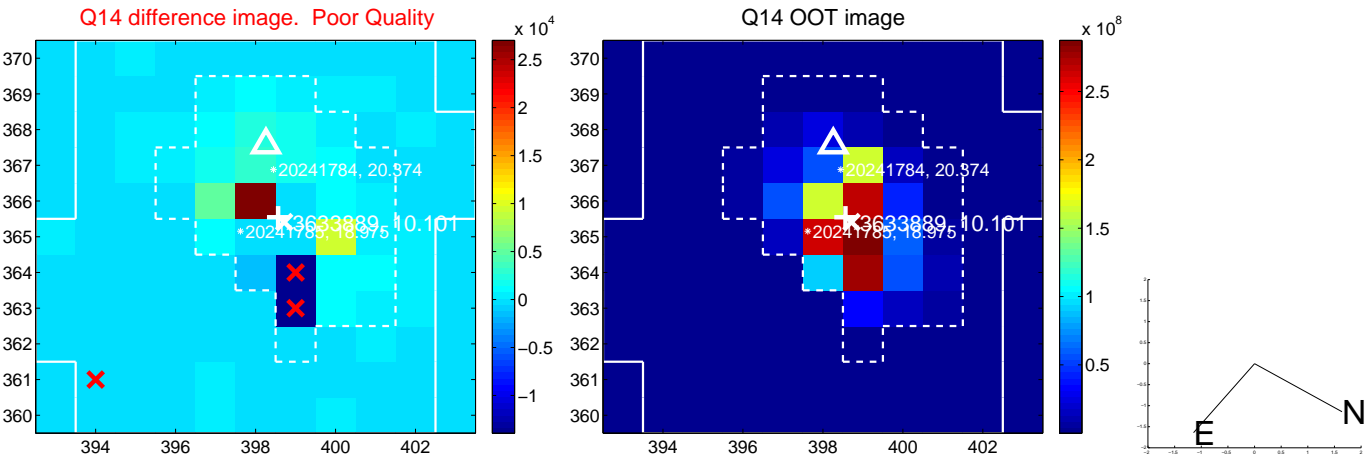
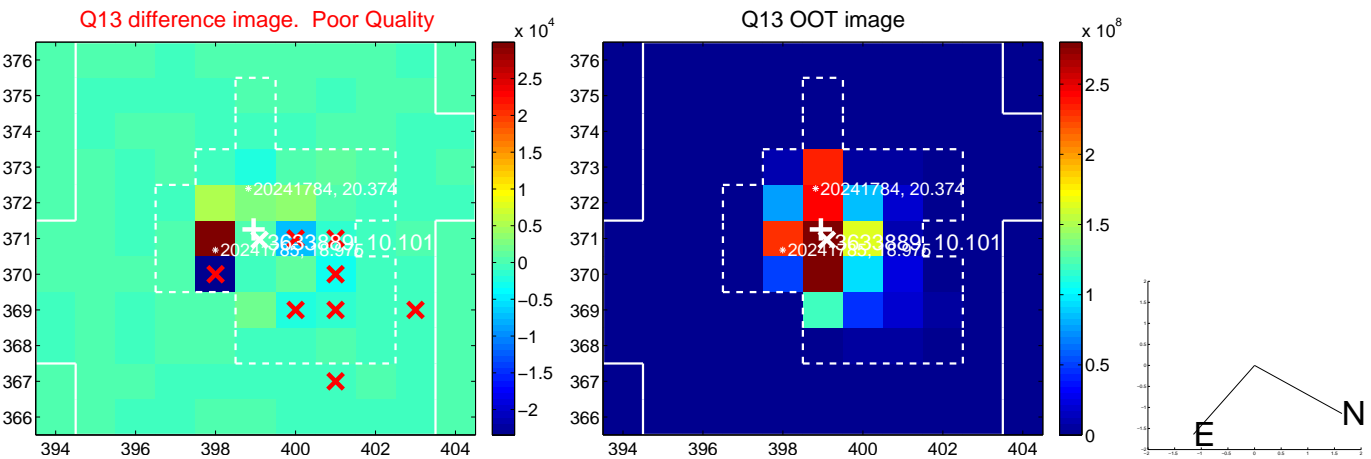
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



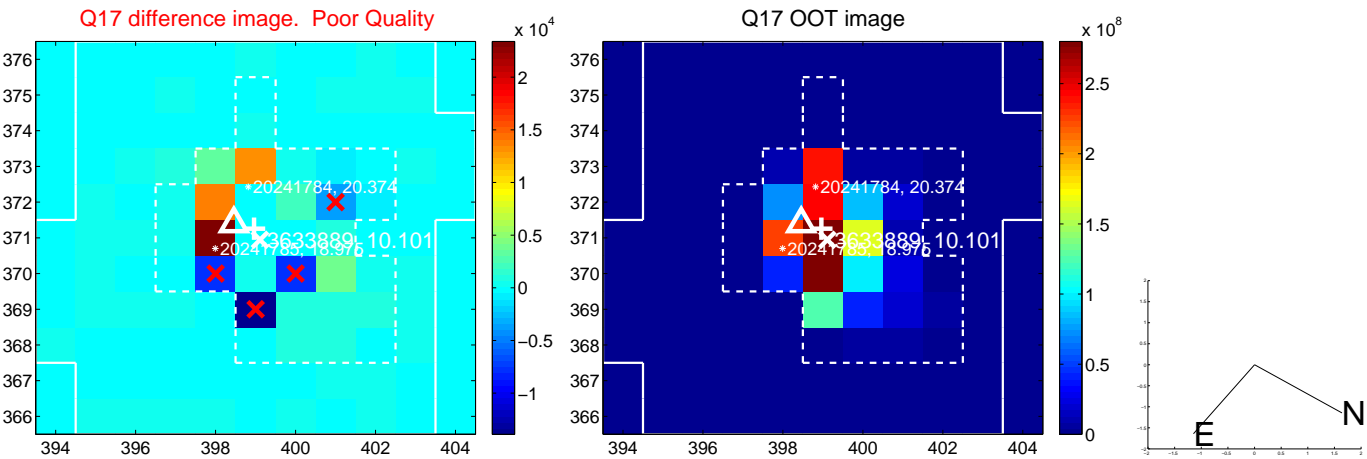
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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folded centroid time series figure for this object.

UKIRT Image

Declination

