

KIC 004273425

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})
004273425-01	OBS	No	1.193832	131.787501	68.4	7.389	15.3	21.0	2.50	7531	2.10	23995.89

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004273425-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT

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

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

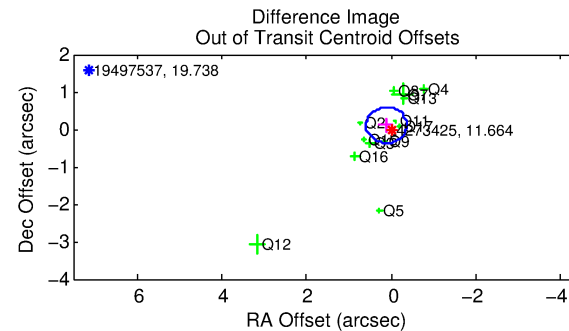
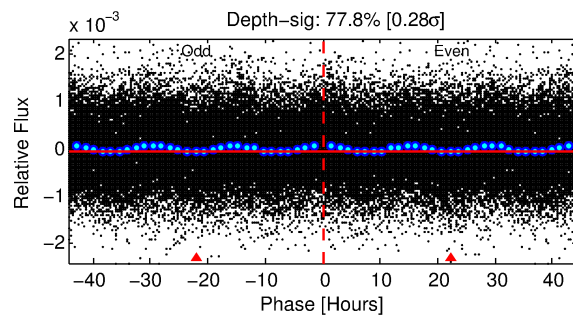
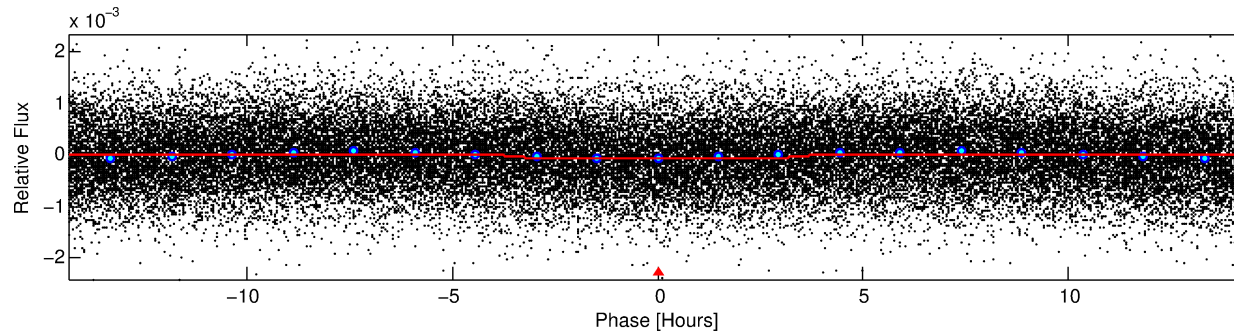
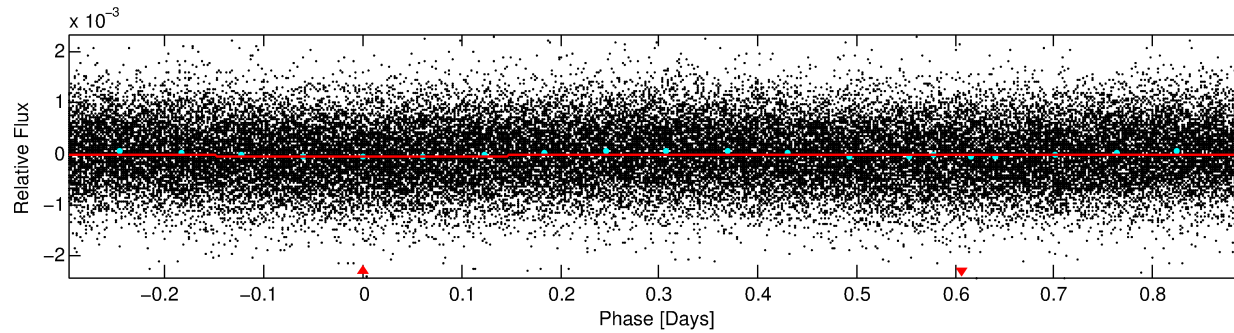
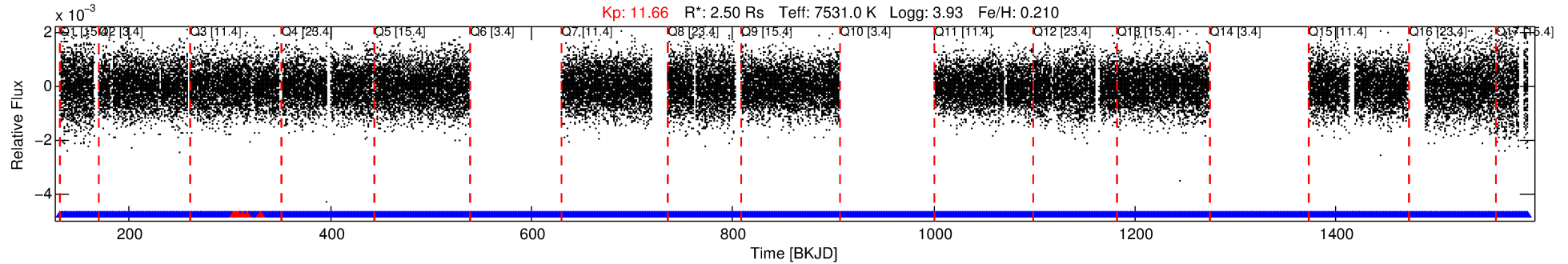
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004273425-01

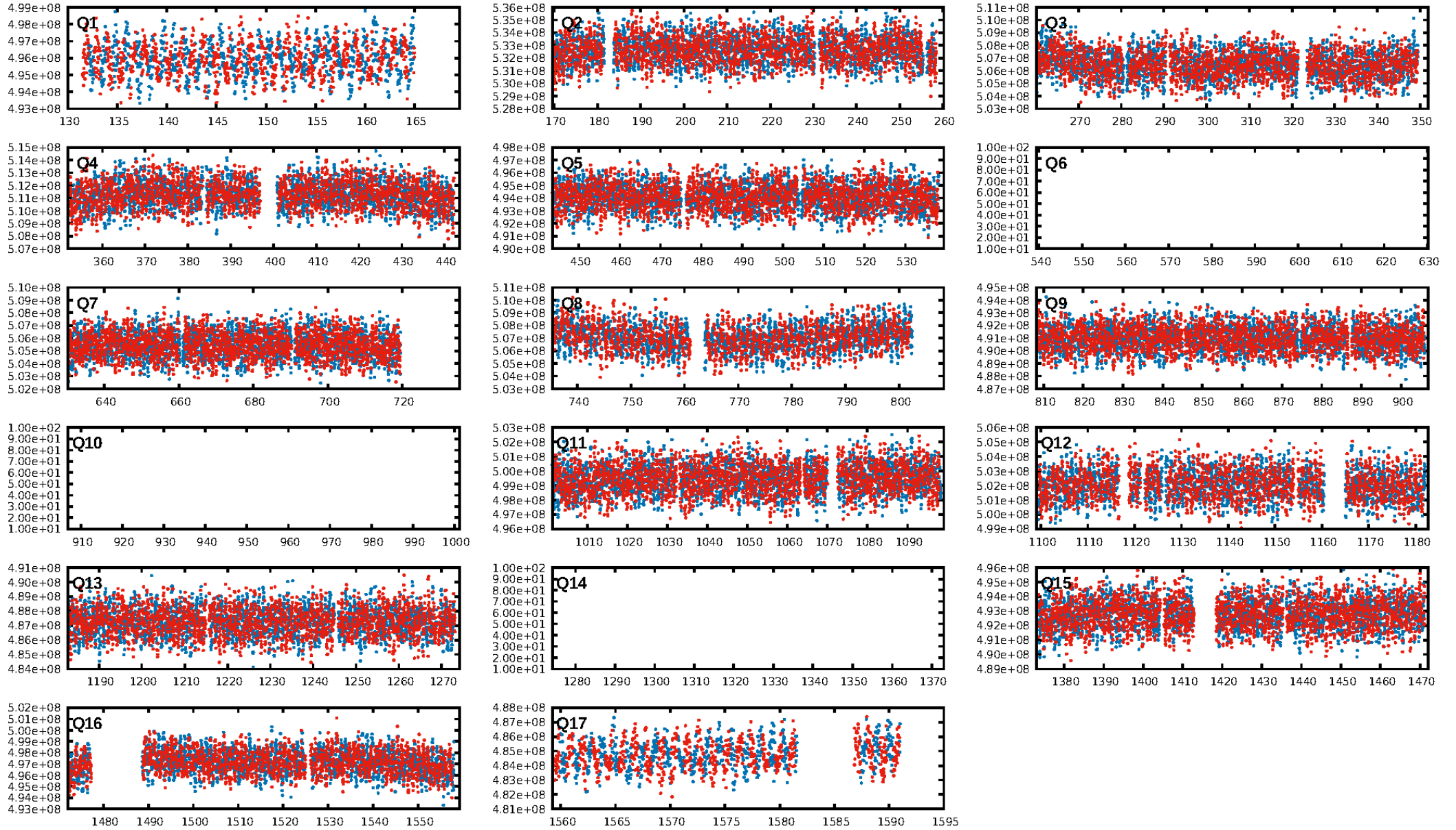
No Significant Match Found

DV One-Page Summary

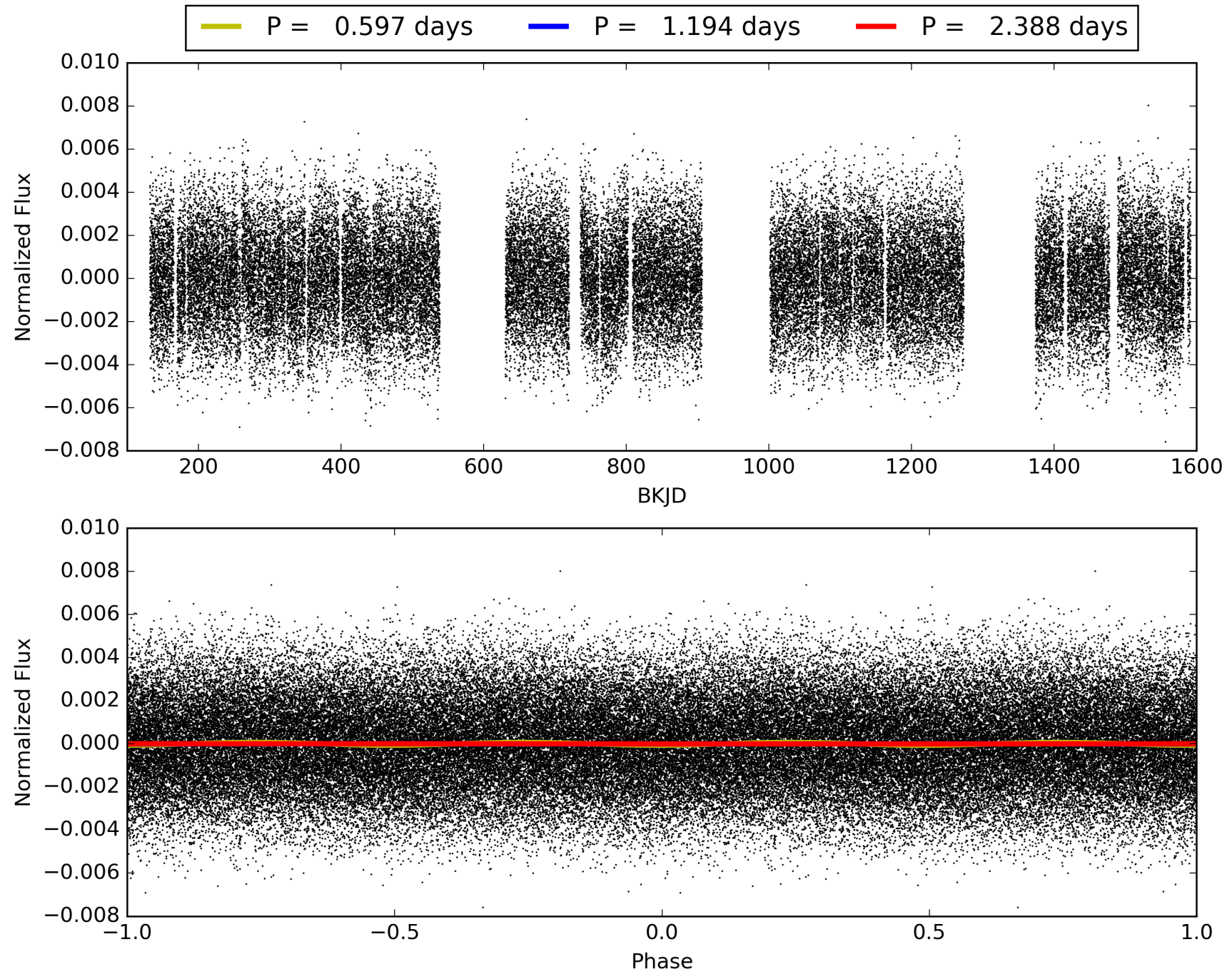
KIC: 4273425 Candidate: 1 of 1 Period: 1.194 d



TCE 004273425-01, PDC Light Curves

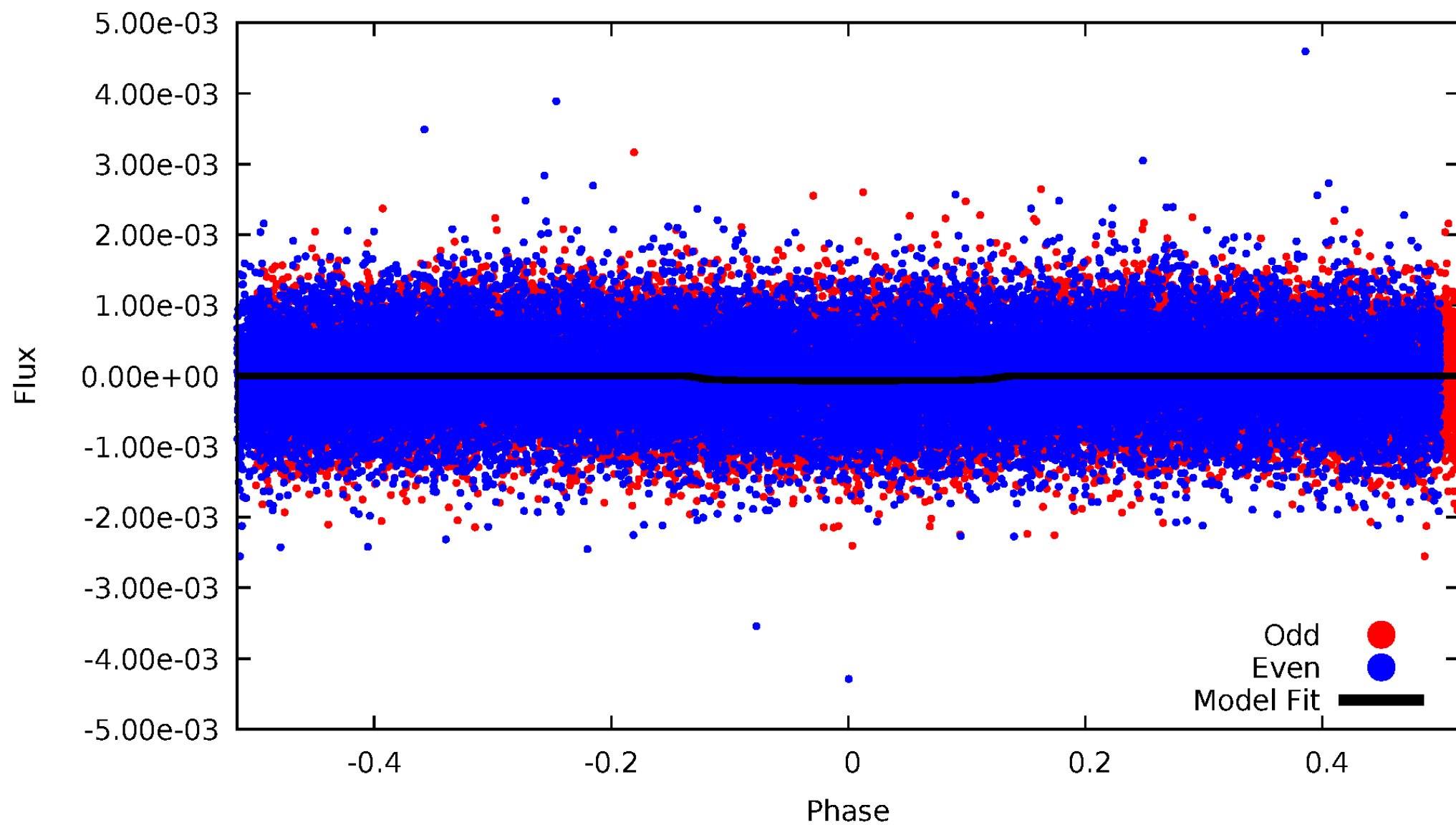


TCE 004273425-01



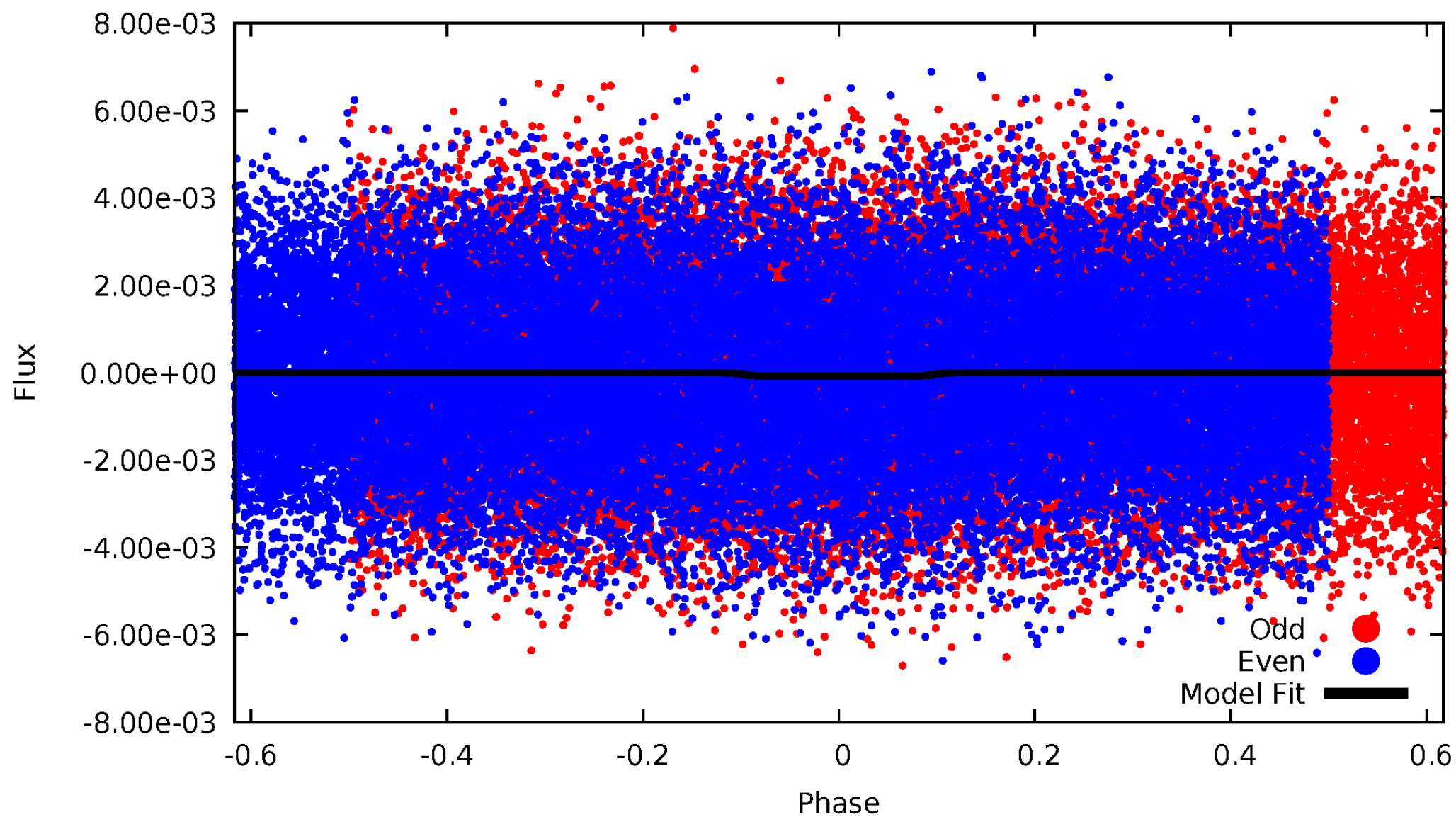
DV Odd/Even

TCE 004273425-01

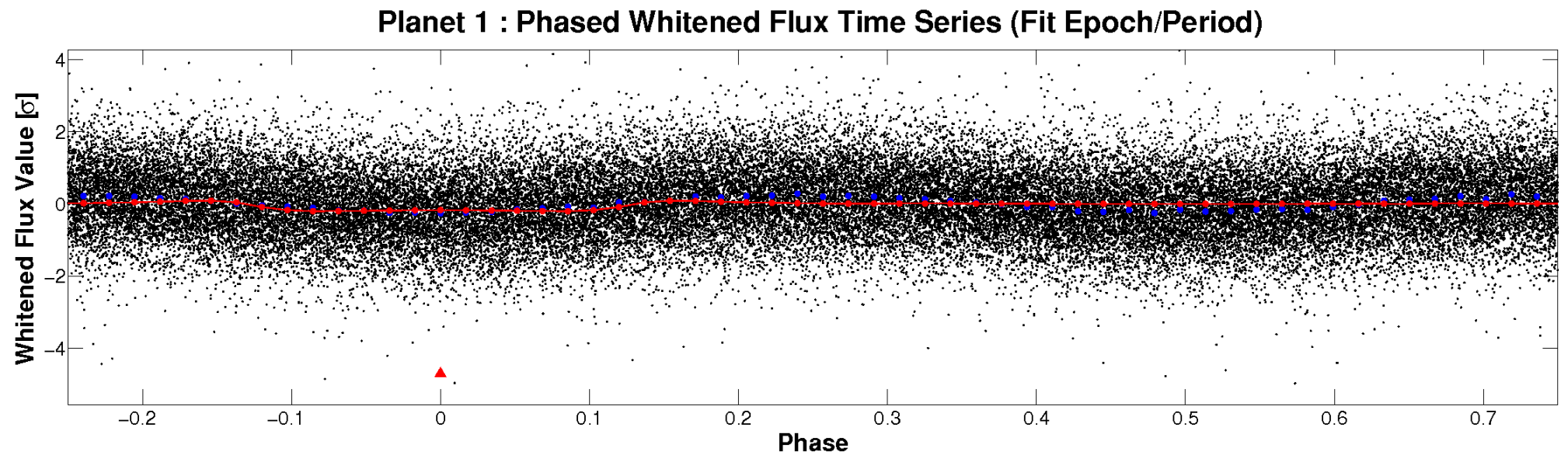
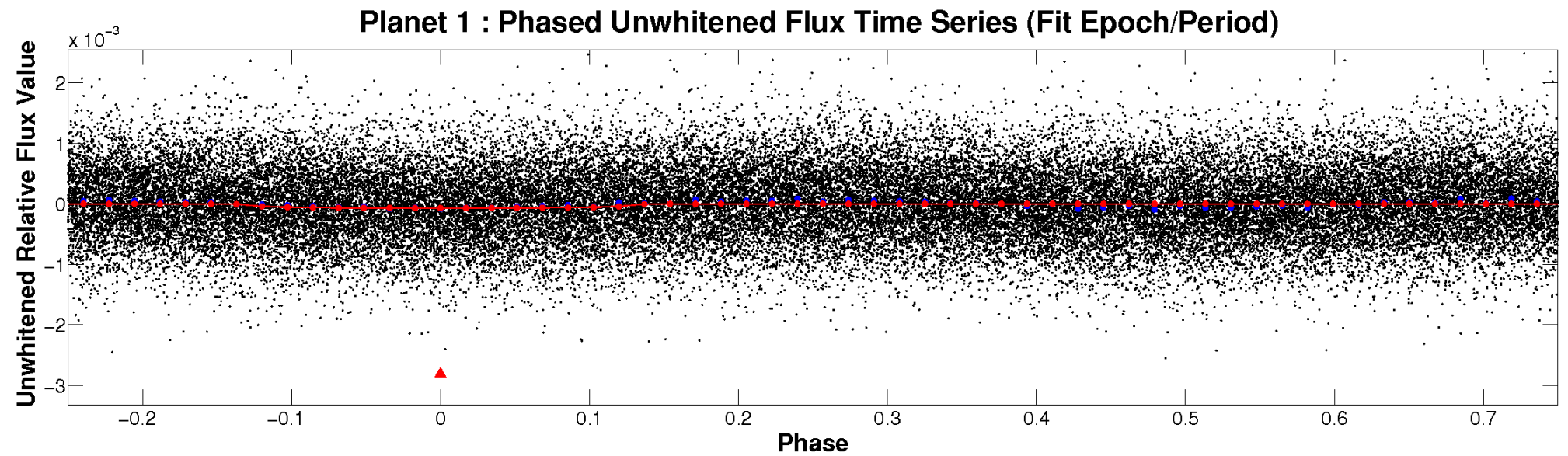


ALT Odd/Even

TCE 004273425-01

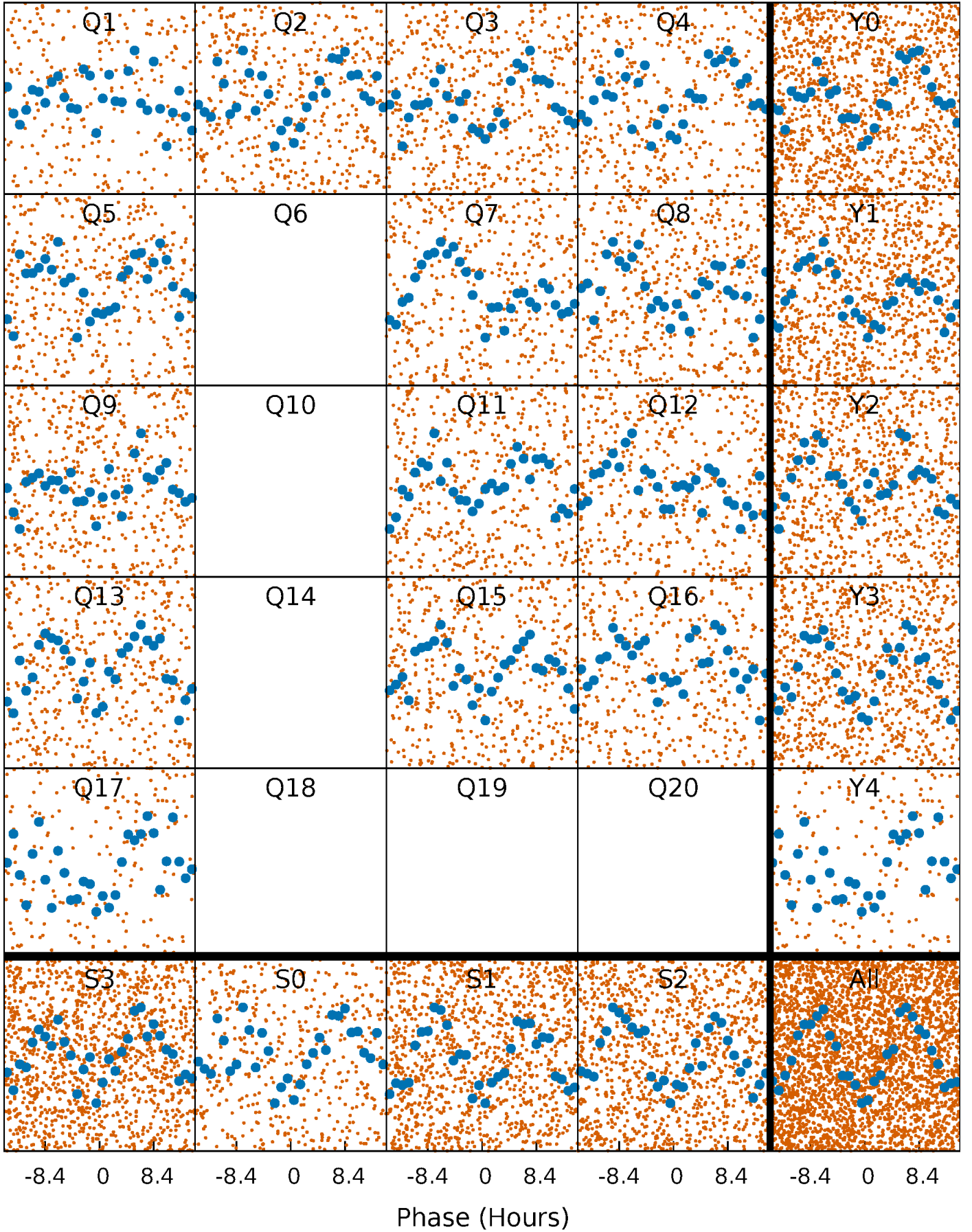


Non-Whitened Vs. Whitened Light Curve



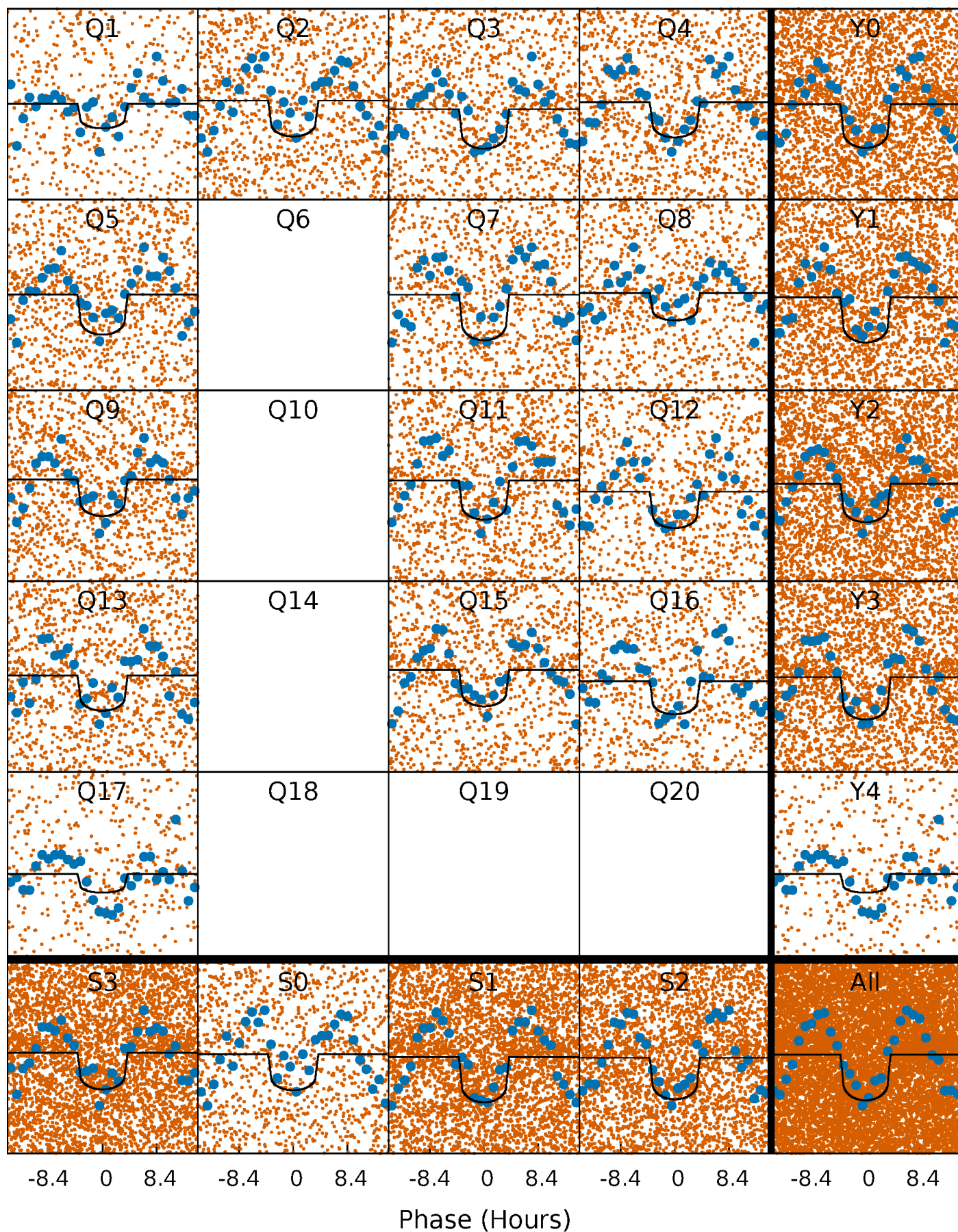
PDC Quarter-Phased Transit Curves

TCE 004273425-01 P= 1.193832 Days $T_0=131.787501$ (BKJD)



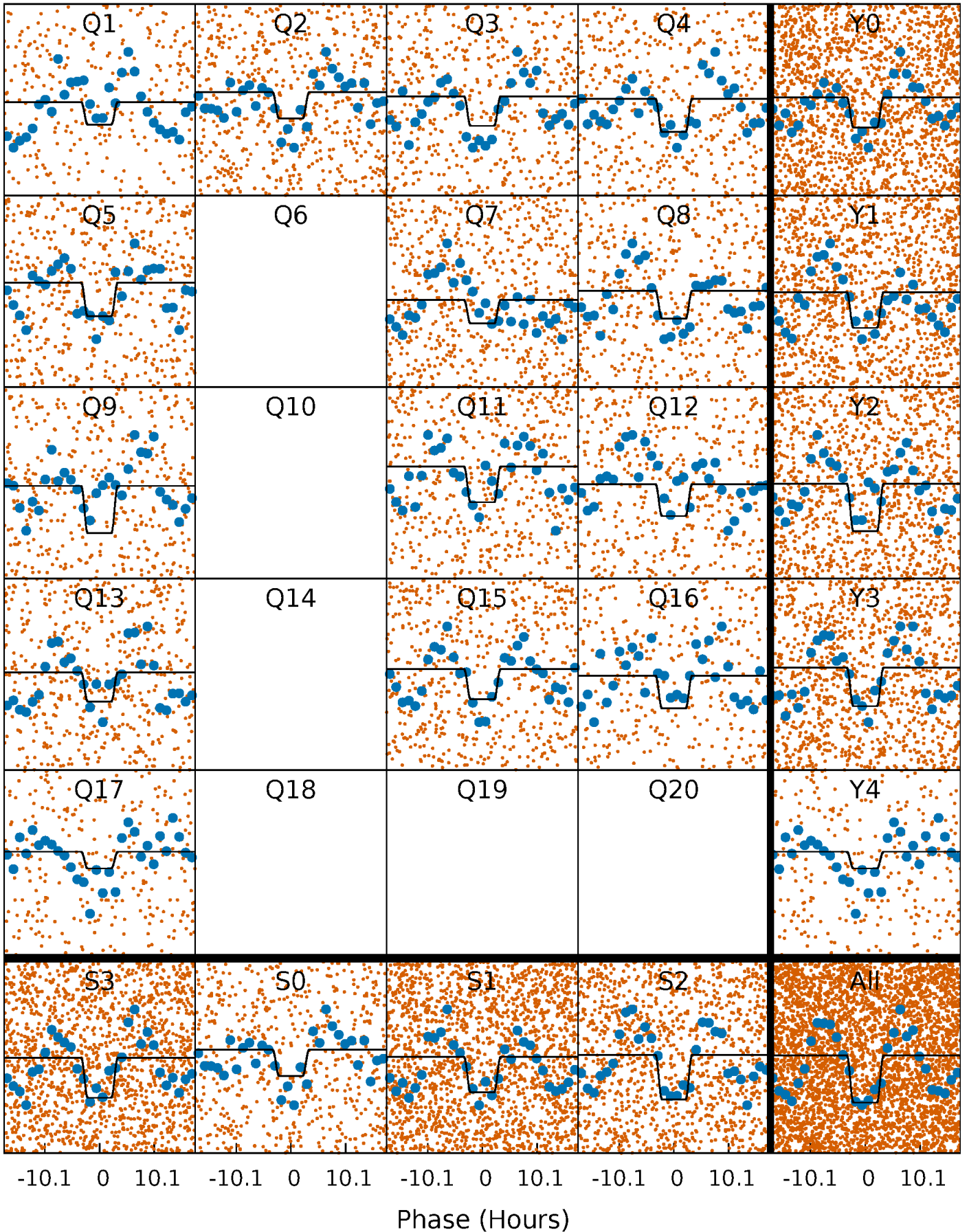
DV Quarter-Phased Transit Curves

TCE 004273425-01 P= 1.193832 Days $T_0=131.787501$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

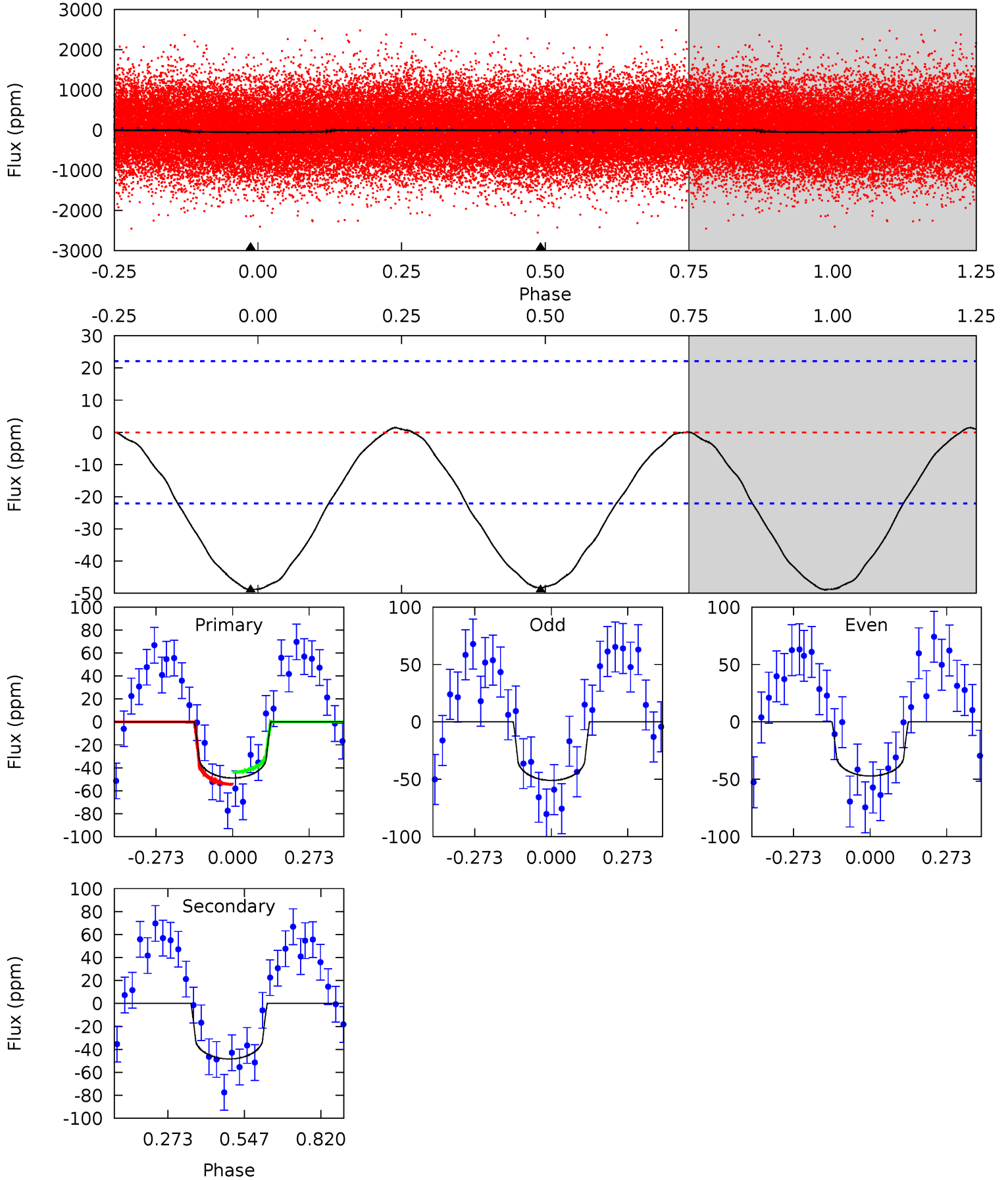
TCE 004273425-01 P= 1.193808 Days $T_0=131.791126$ (BKJD)



DV Model-Shift Uniqueness Test

004273425-01, P = 1.193832 Days, E = 130.593669 Days

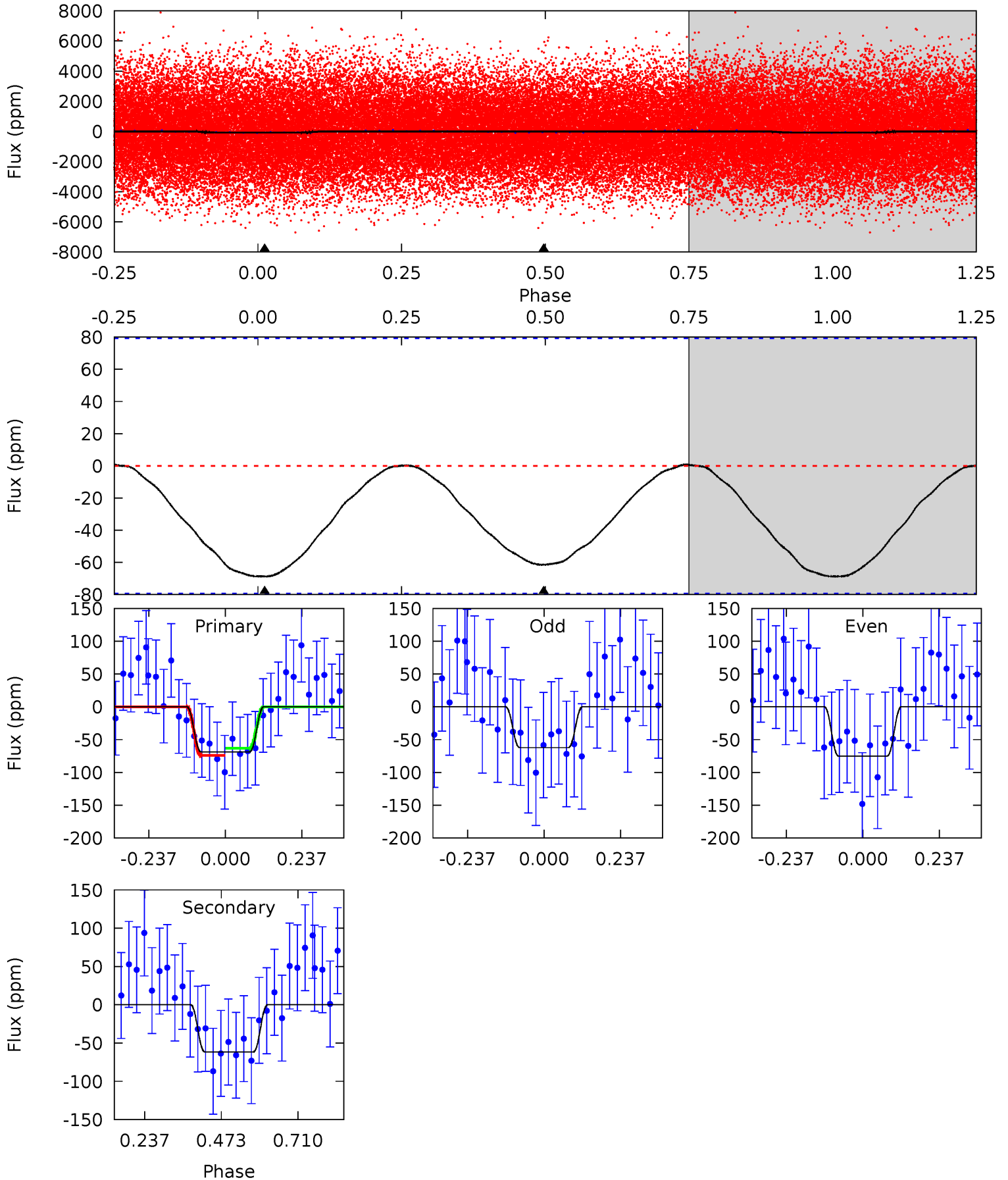
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.62	9.51	0	0	4.35	1.10	0.15	9.62	9.62	9.51	9.51	0.38	1.08	0.03	1.05



Alt Model-Shift Uniqueness Test

004273425-01, P = 1.193808 Days, E = 130.597318 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.79	3.40	0	0	4.38	1.18	0.04	3.79	3.79	3.40	3.40	0.36	0.94	0.01	0.29



Stellar Parameters For KIC 004273425

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7531^{+67}_{-90}	$3.927^{+0.132}_{-0.088}$	$0.210^{+0.150}_{-0.150}$	$2.504^{+0.317}_{-0.476}$	$1.935^{+0.052}_{-0.196}$	$0.173^{+0.124}_{-0.044}$
	+1%/-1%	+3%/-2%	+71%/-71%	+13%/-19%	+3%/-10%	+71%/-25%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 004273425-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-48 ± 5	$2.15^{+0.83}_{-0.85}$	4420^{+166}_{-200}	6770^{+2593}_{-1097}	$4.187^{+7.513}_{-1.972}$
Alt.	-62 ± 18	$2.35^{+0.95}_{-0.87}$	4428^{+154}_{-221}	6886^{+2252}_{-1236}	$4.506^{+6.976}_{-2.342}$

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 $A_{obs} \gg 1.0$

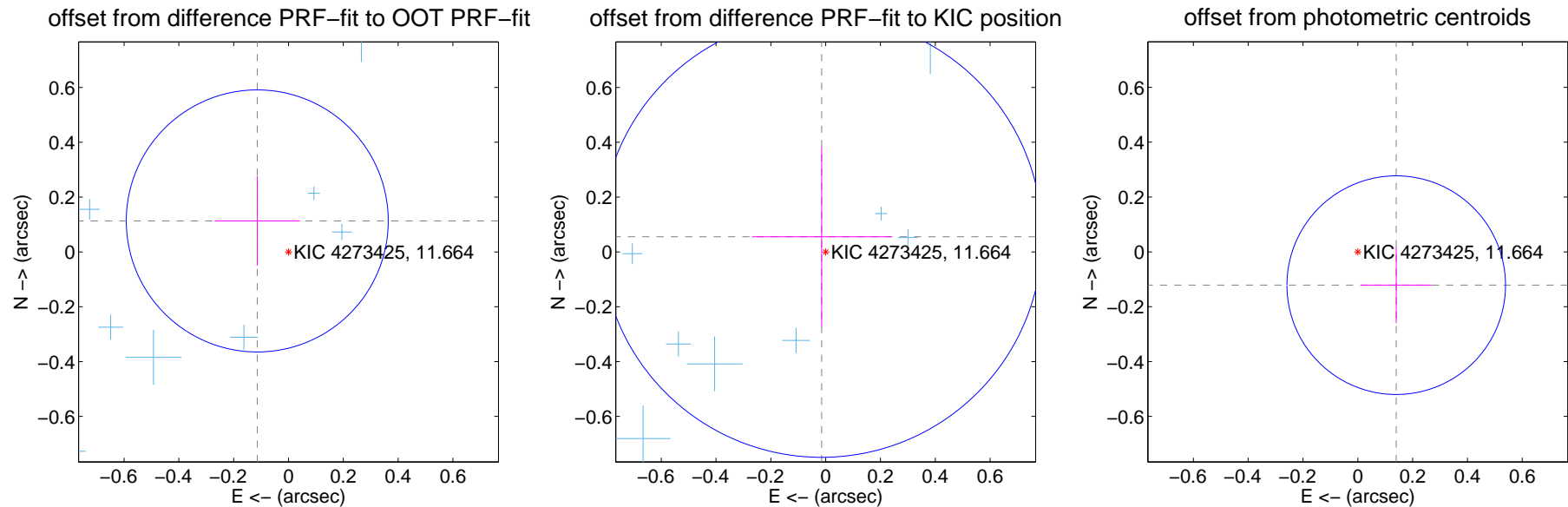
DV Centroid Data

Supplemental centroid analysis for 004273425-01. **Kepler magnitude: 11.66.** Transit SNR 21.03

There are 12 quarters with good PRF difference image offsets

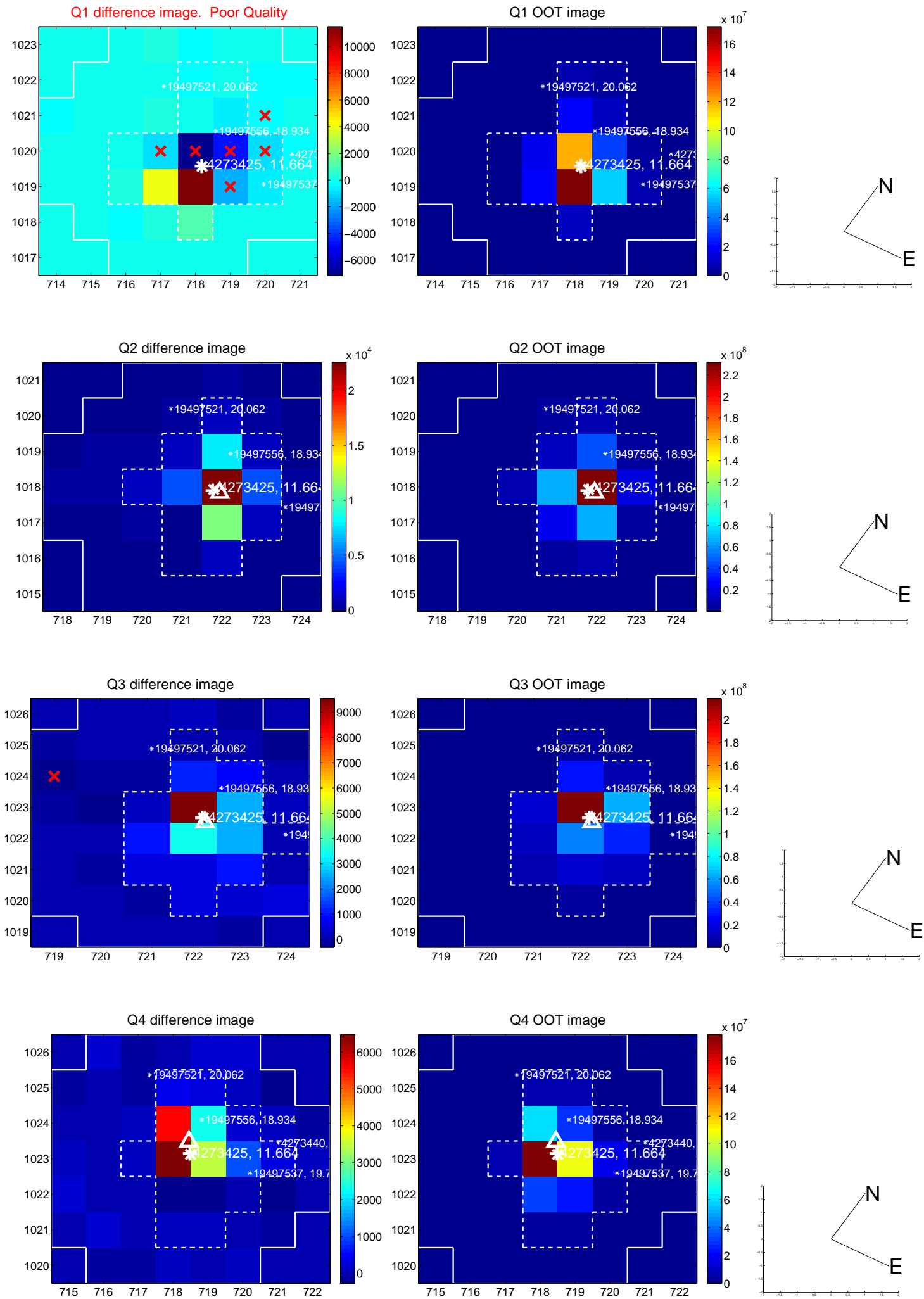
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.160 ± 0.159	1.01	0.114 ± 0.156	0.113 ± 0.163
PRF-fit source offset from KIC position	0.057 ± 0.268	0.21	0.015 ± 0.254	0.055 ± 0.328
photometric centroid source offset	0.19 ± 0.13	1.40	-0.14 ± 0.13	-0.12 ± 0.14

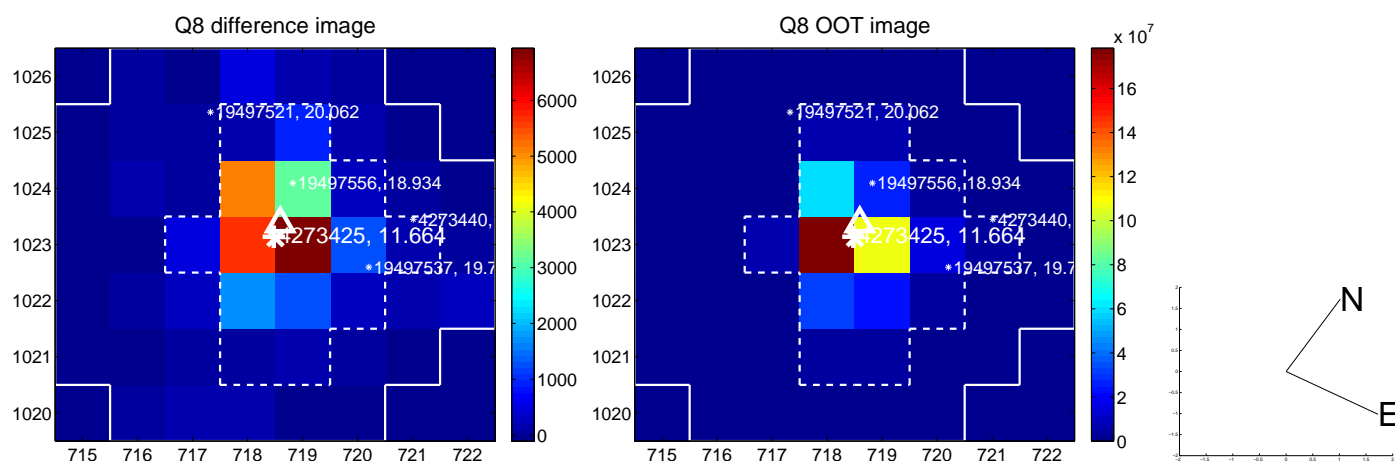
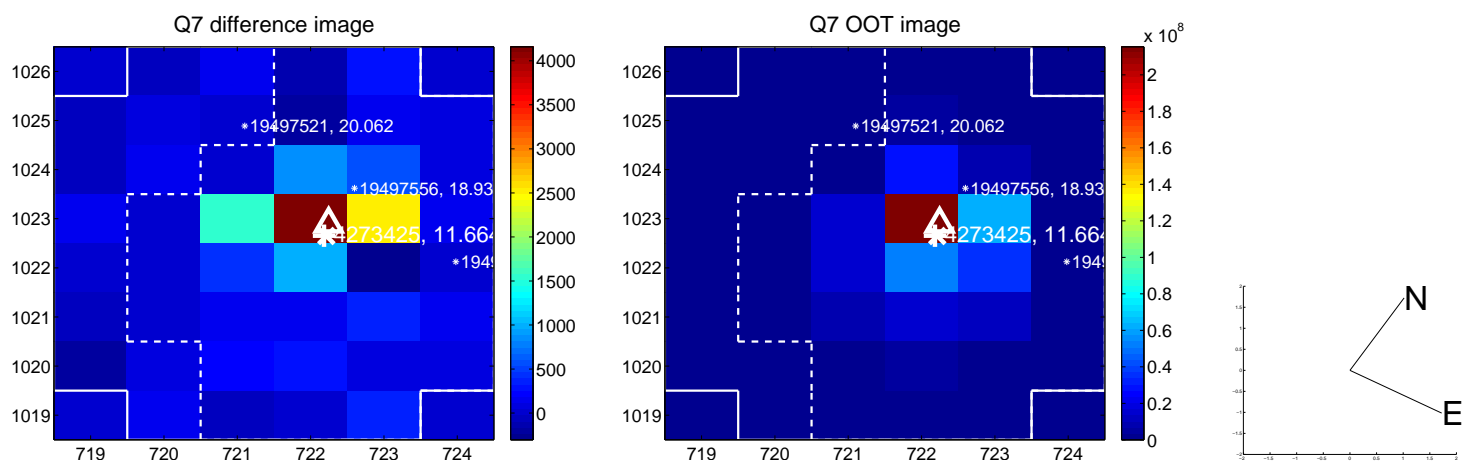
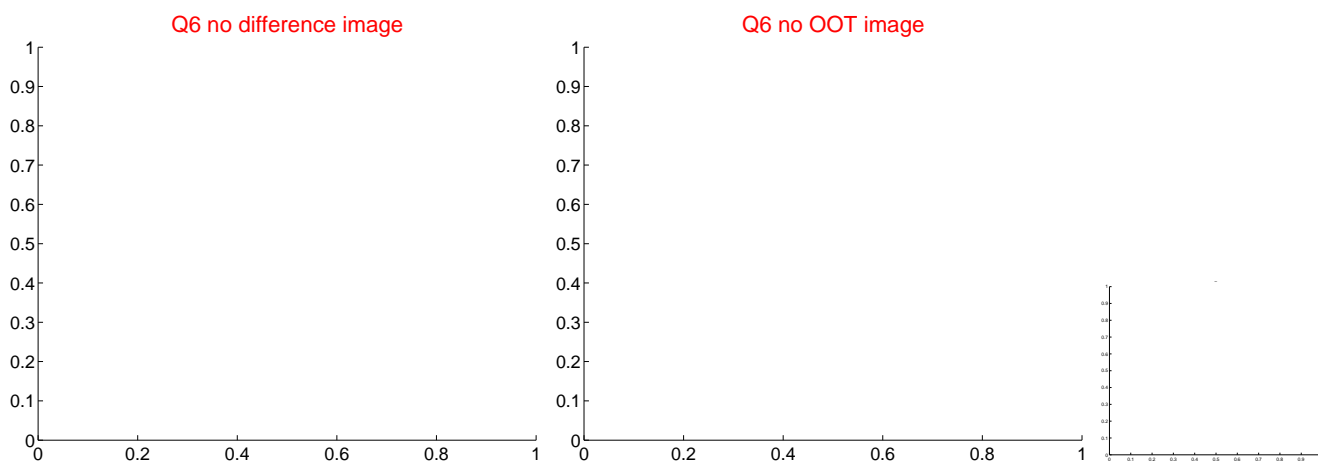
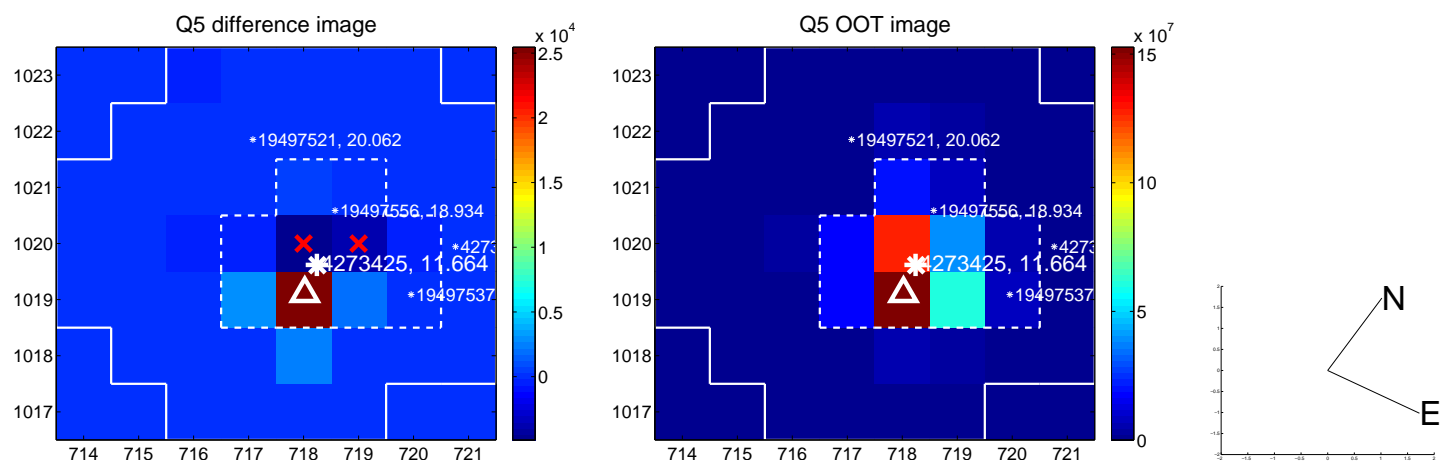


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

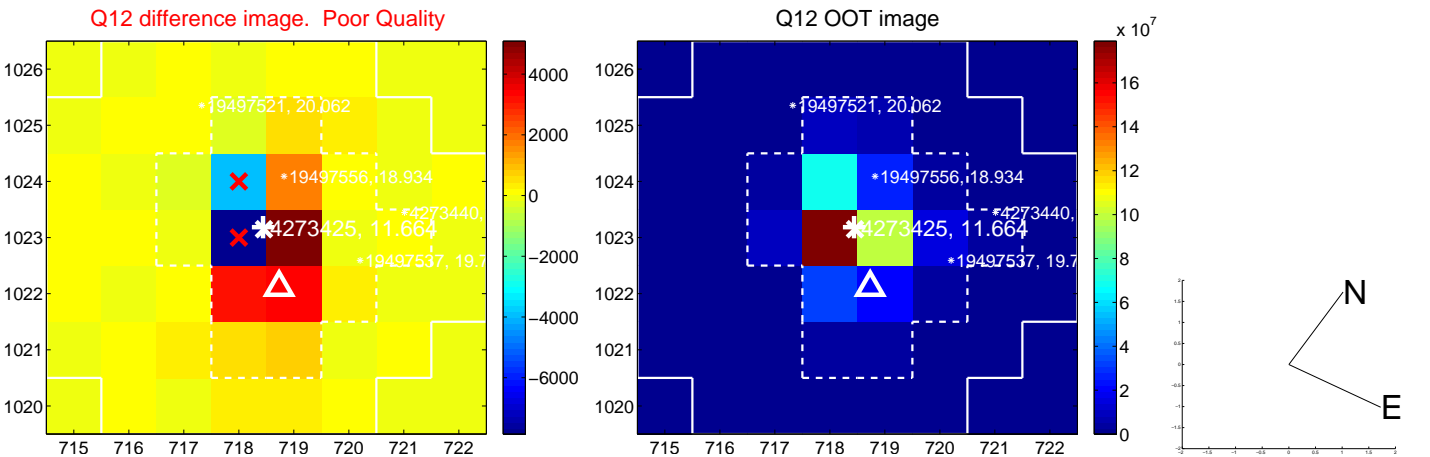
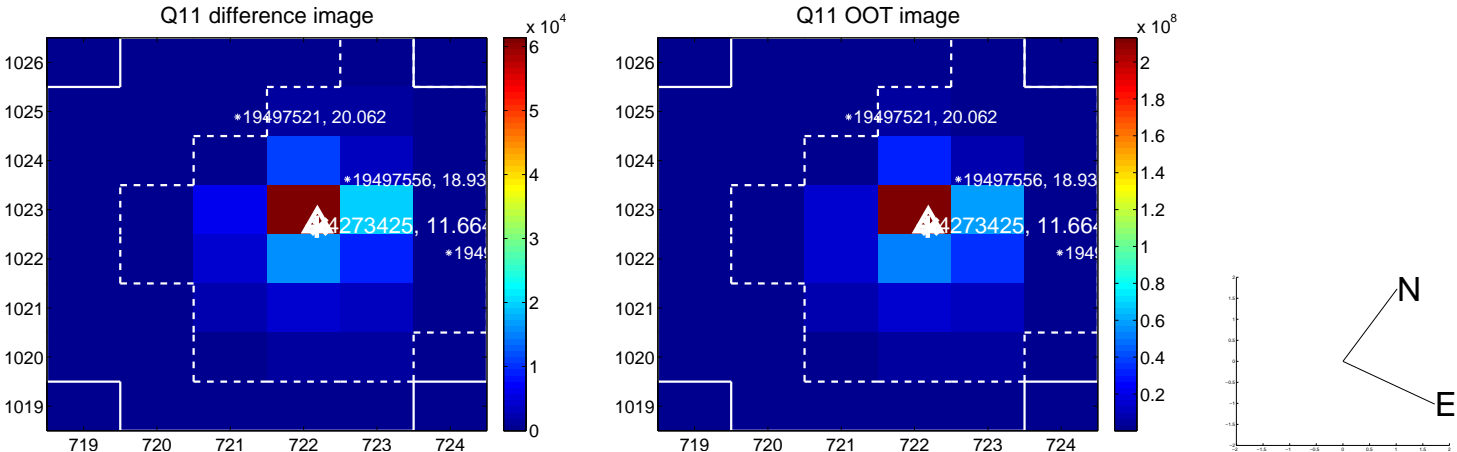
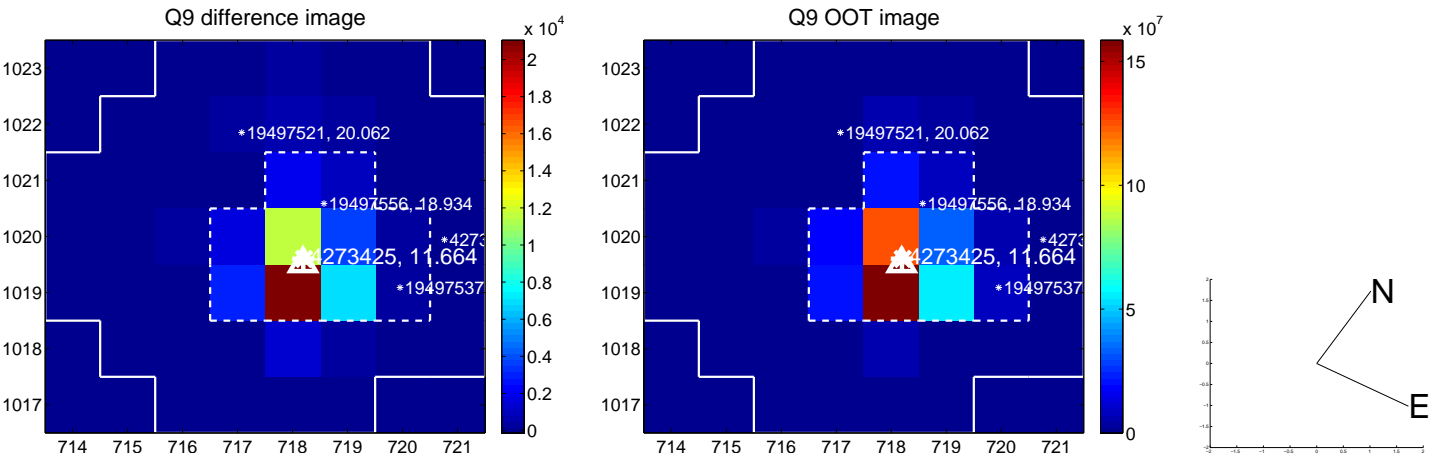
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



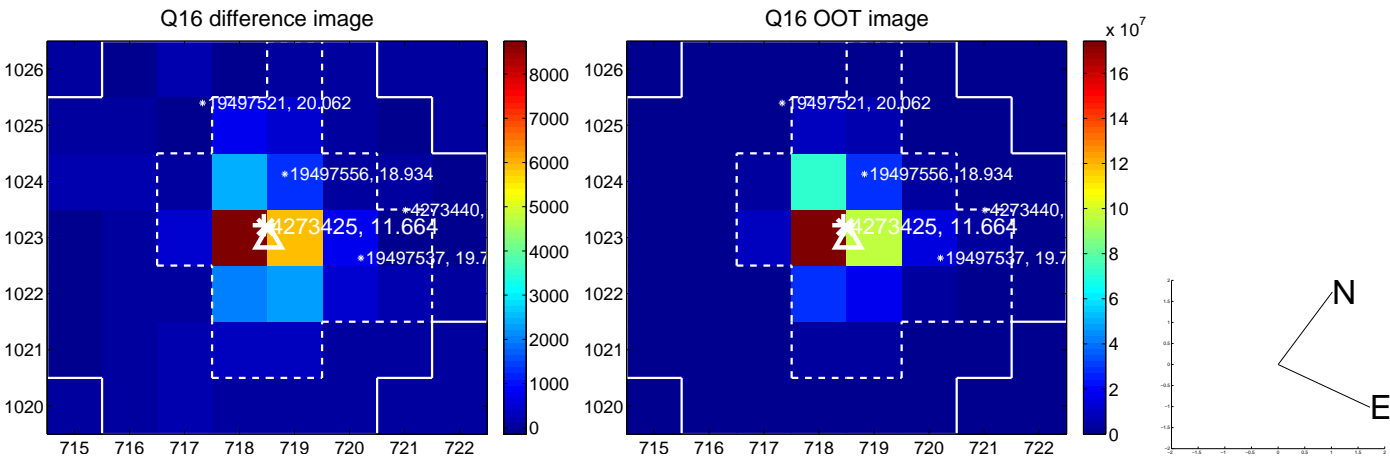
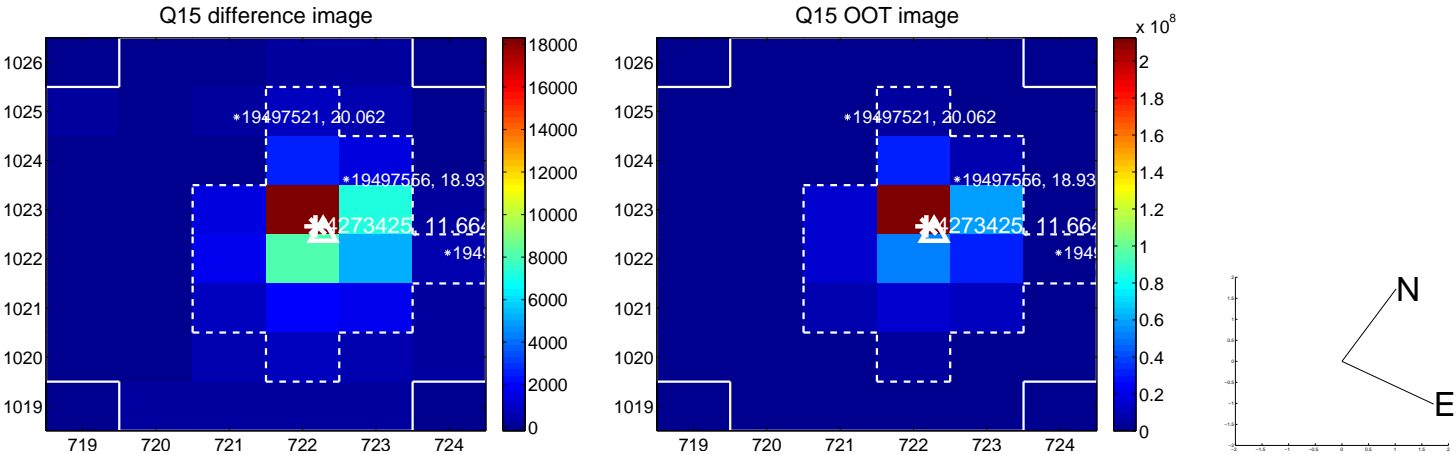
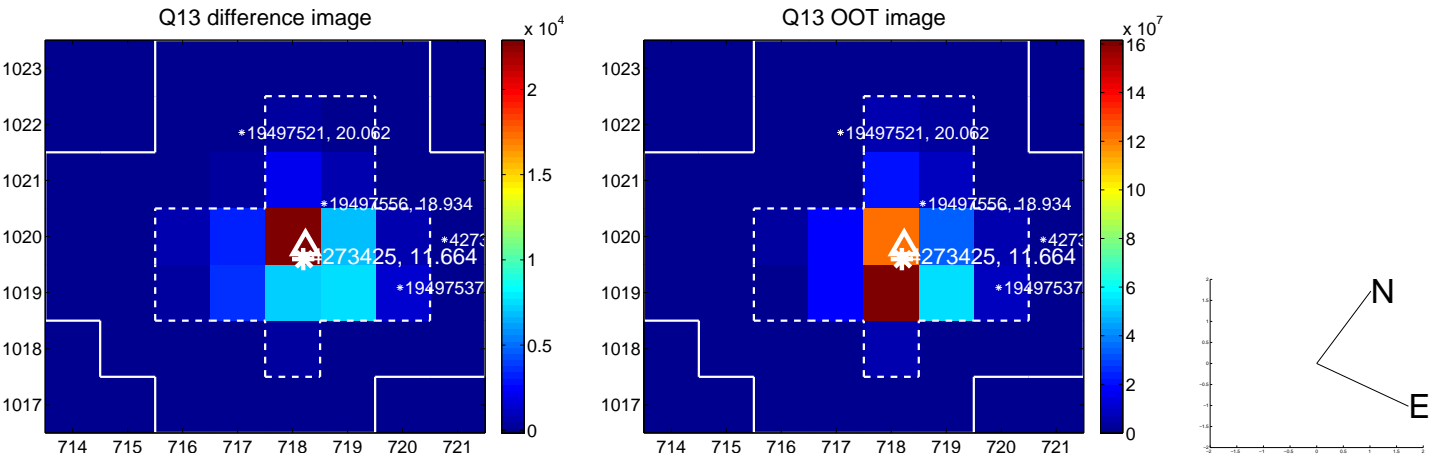
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



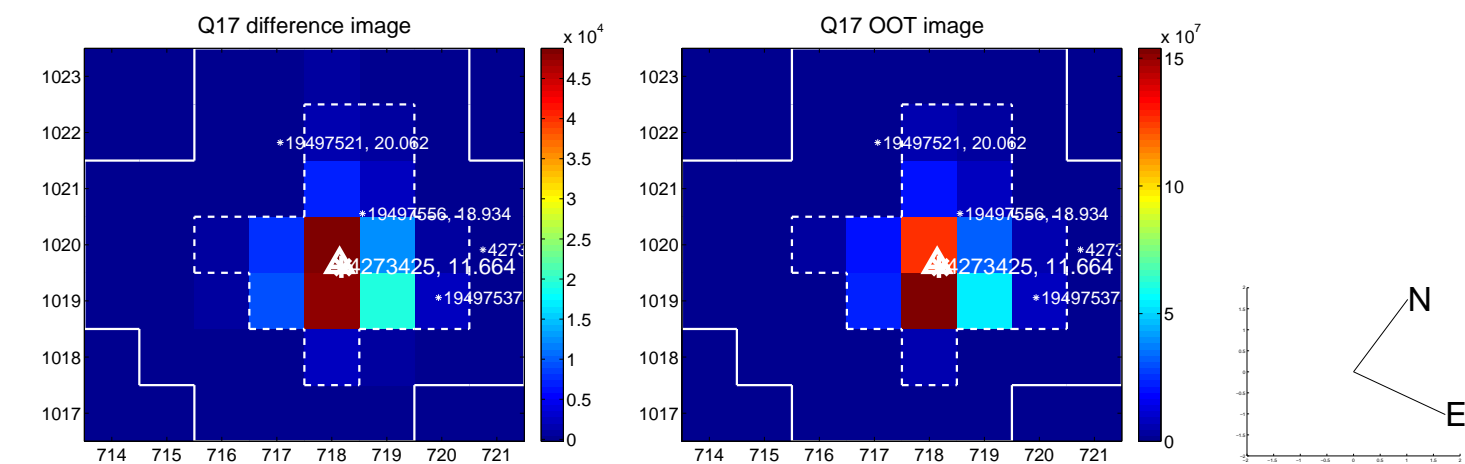
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



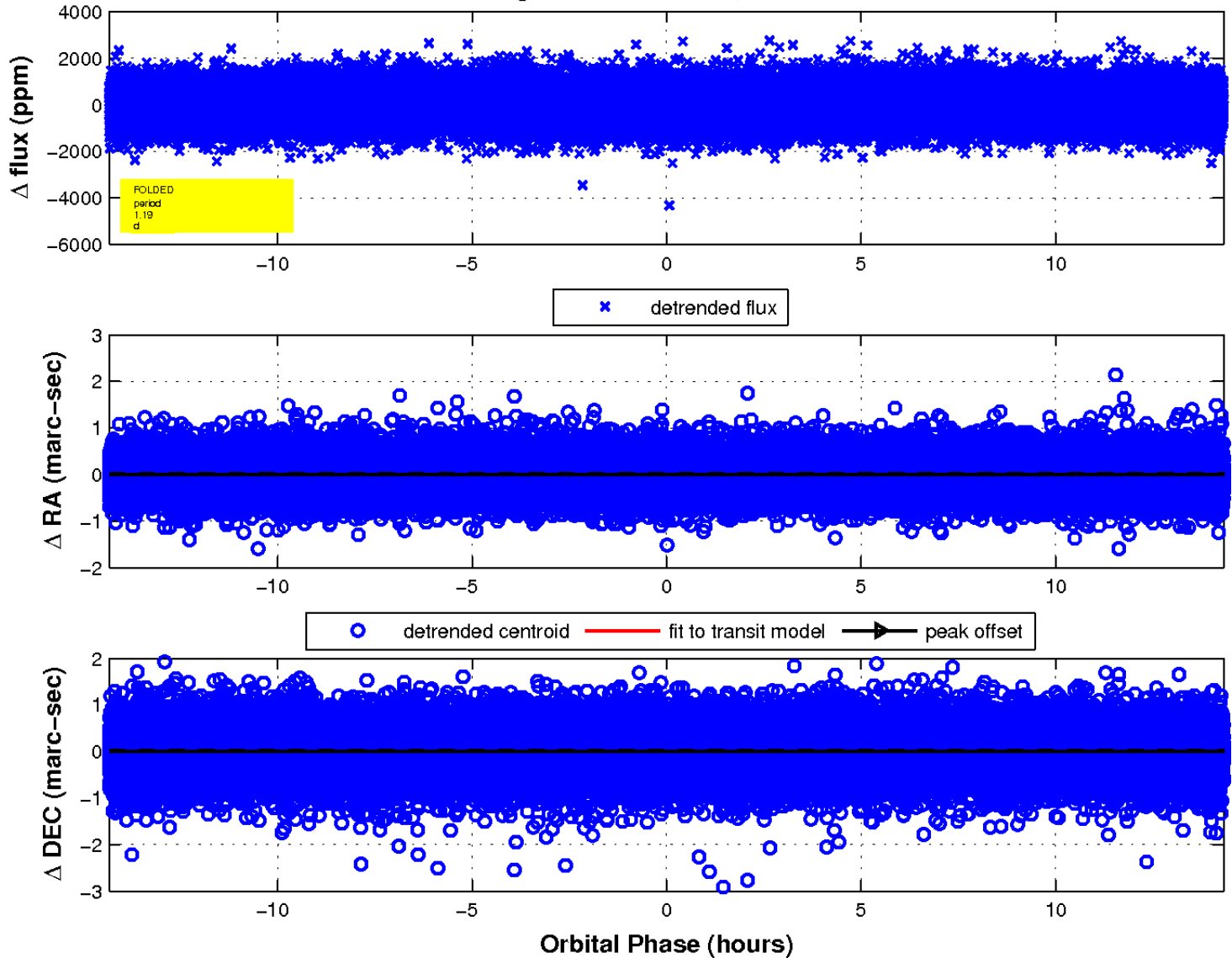
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

