

KIC 001717528

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})
001717528-01	OBS	No	552.789499	360.341809	470.1	9.624	7.2	7.3	1.03	6099	2.38	0.71

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
001717528-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

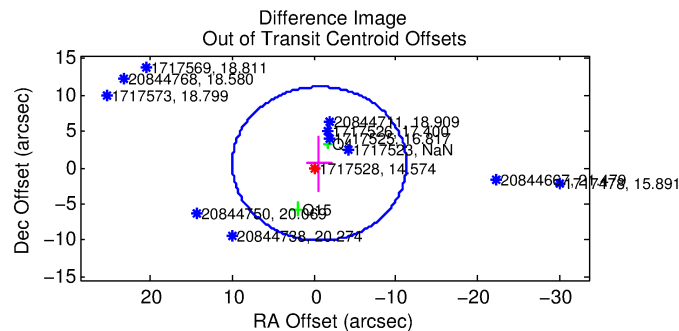
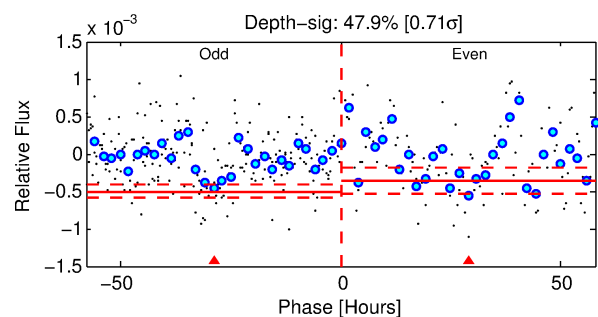
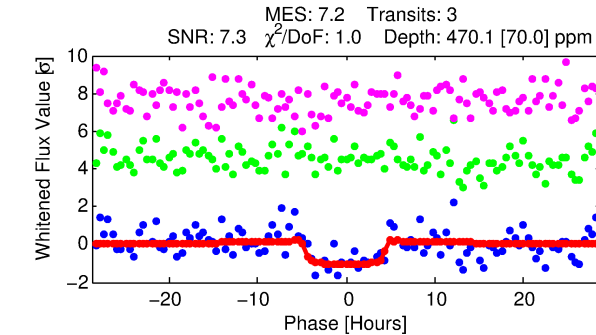
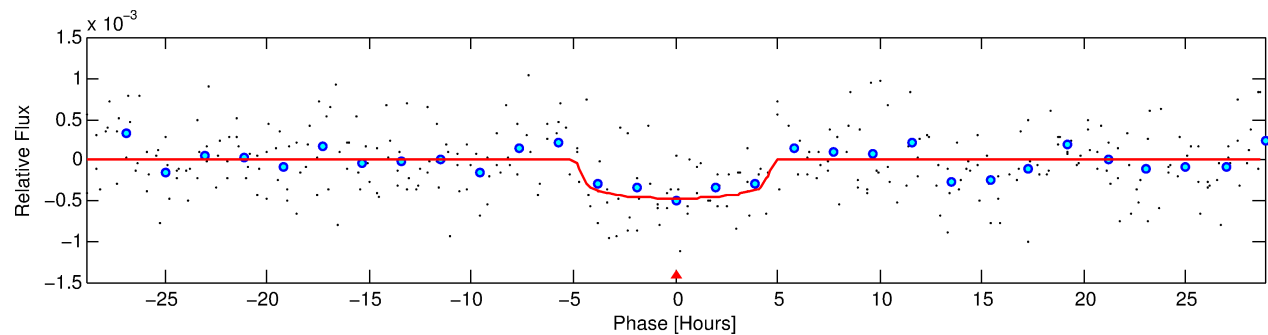
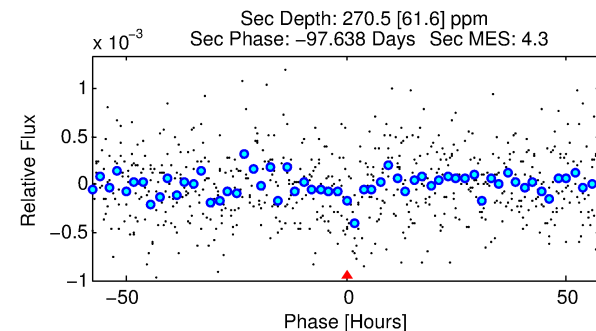
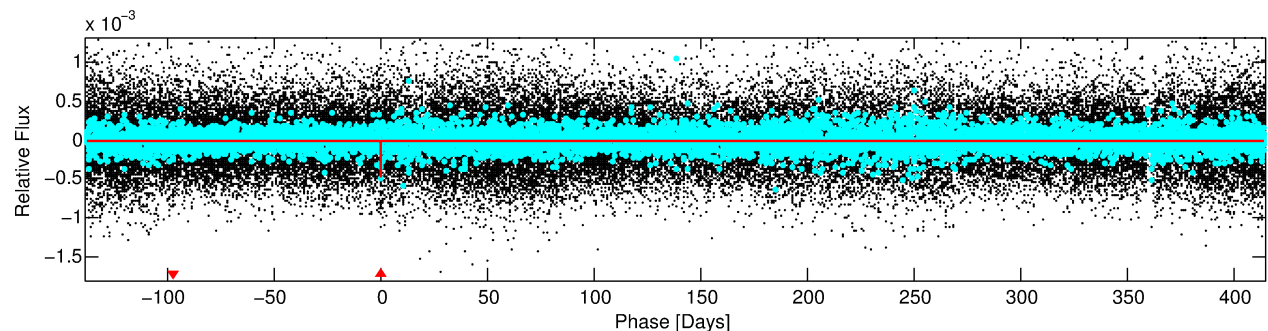
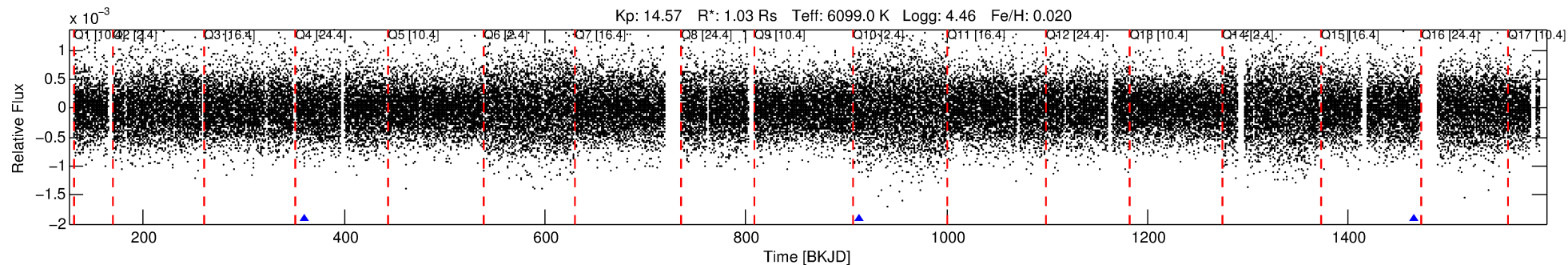
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 001717528-01

No Significant Match Found

DV One-Page Summary

KIC: 1717528 Candidate: 1 of 1 Period: 552.789 d
KOI: K06255 Corr: No Ephemeris Match



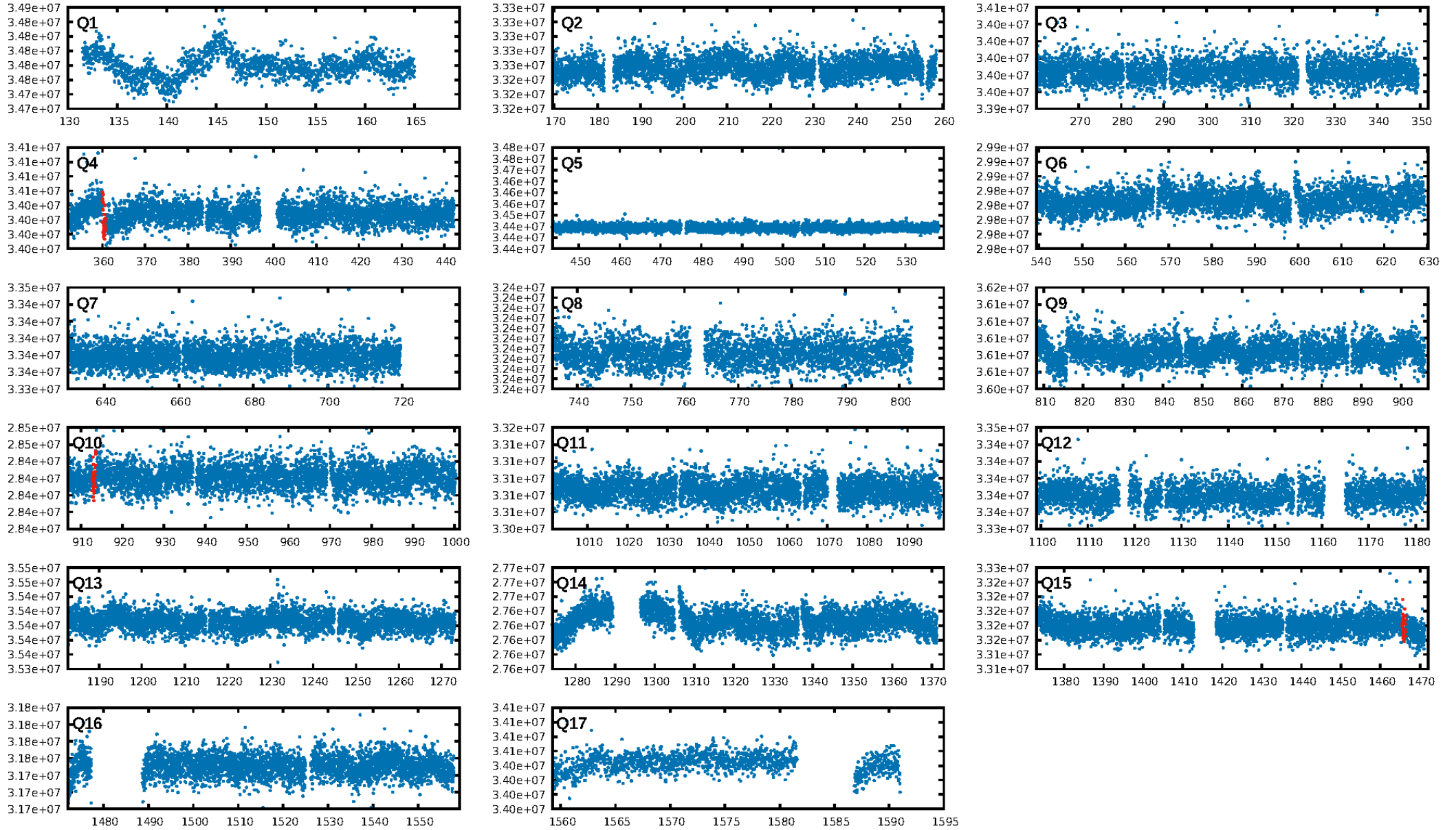
DV Fit Results:

Period = 552.78950 [0.01222] d
Epoch = 360.3418 [0.0173] BKJD
Rp/R* = 0.0212 [0.0143]
a/R* = 326.94 [1053.21]
b = 0.70 [2.38]
Seff = 0.71 [0.14]
Teff = 234 [11] K
Rp = 2.38 [1.64] Re
a = 1.3617 [0.1659] AU
Ag = 48701.63 [67213.20] [0.72 σ]
Teffp = 5370 [1838] K [2.79 σ]

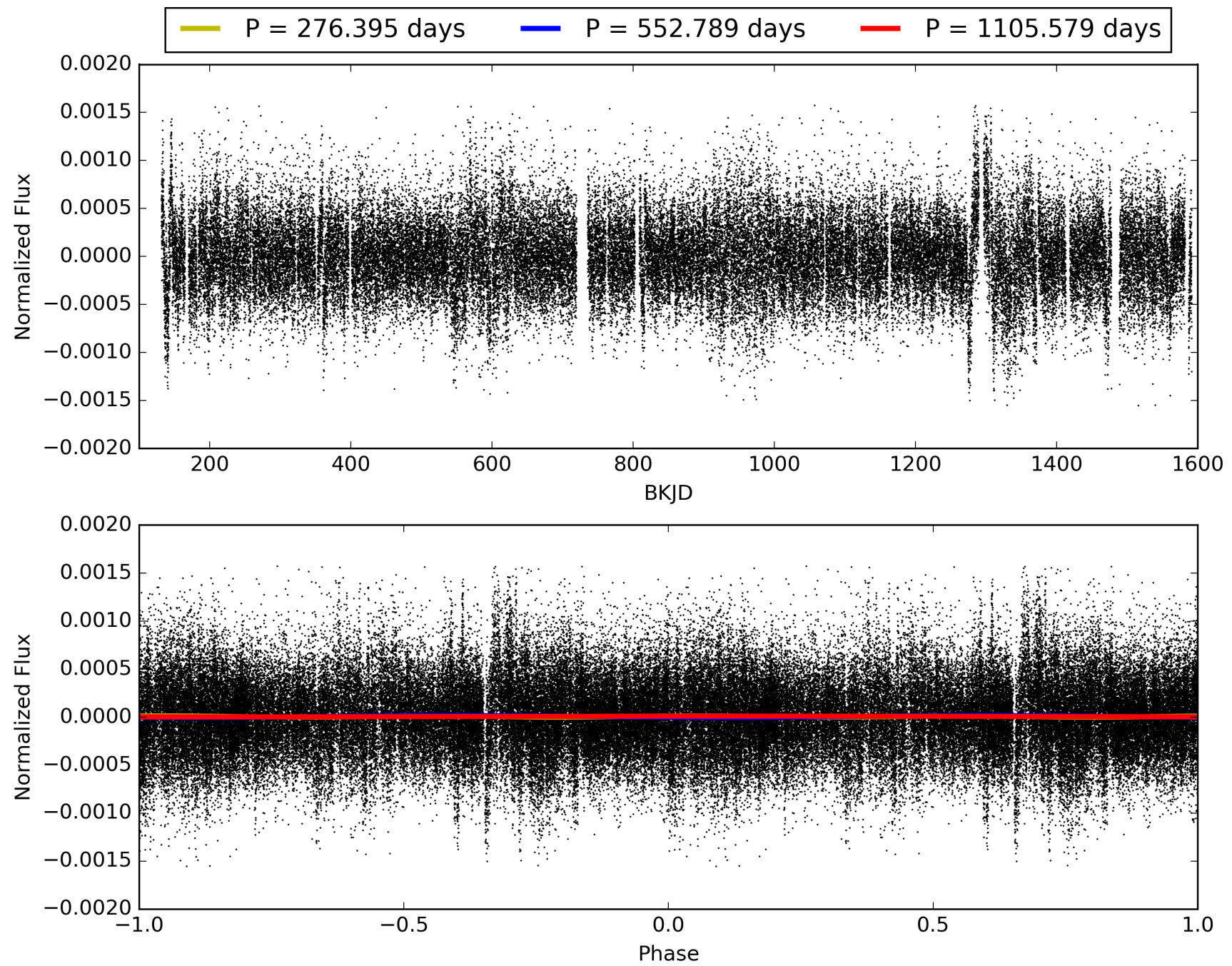
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 14.3%
ModelChiSquareGof-sig: 99.6%
Bootstrap-pfa: 4.58e-14
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -1.631
Centroid-sig: 0.8%
Centroid-so: 3.781 arcsec [2.27 σ]
OotOffset-rm: 0.858 arcsec [0.24 σ]
KicOffset-rm: 1.206 arcsec [0.38 σ]
OotOffset-st: 0/1/1/0 [2]
KicOffset-st: 0/1/1/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [3/3]

TCE 001717528-01, PDC Light Curves

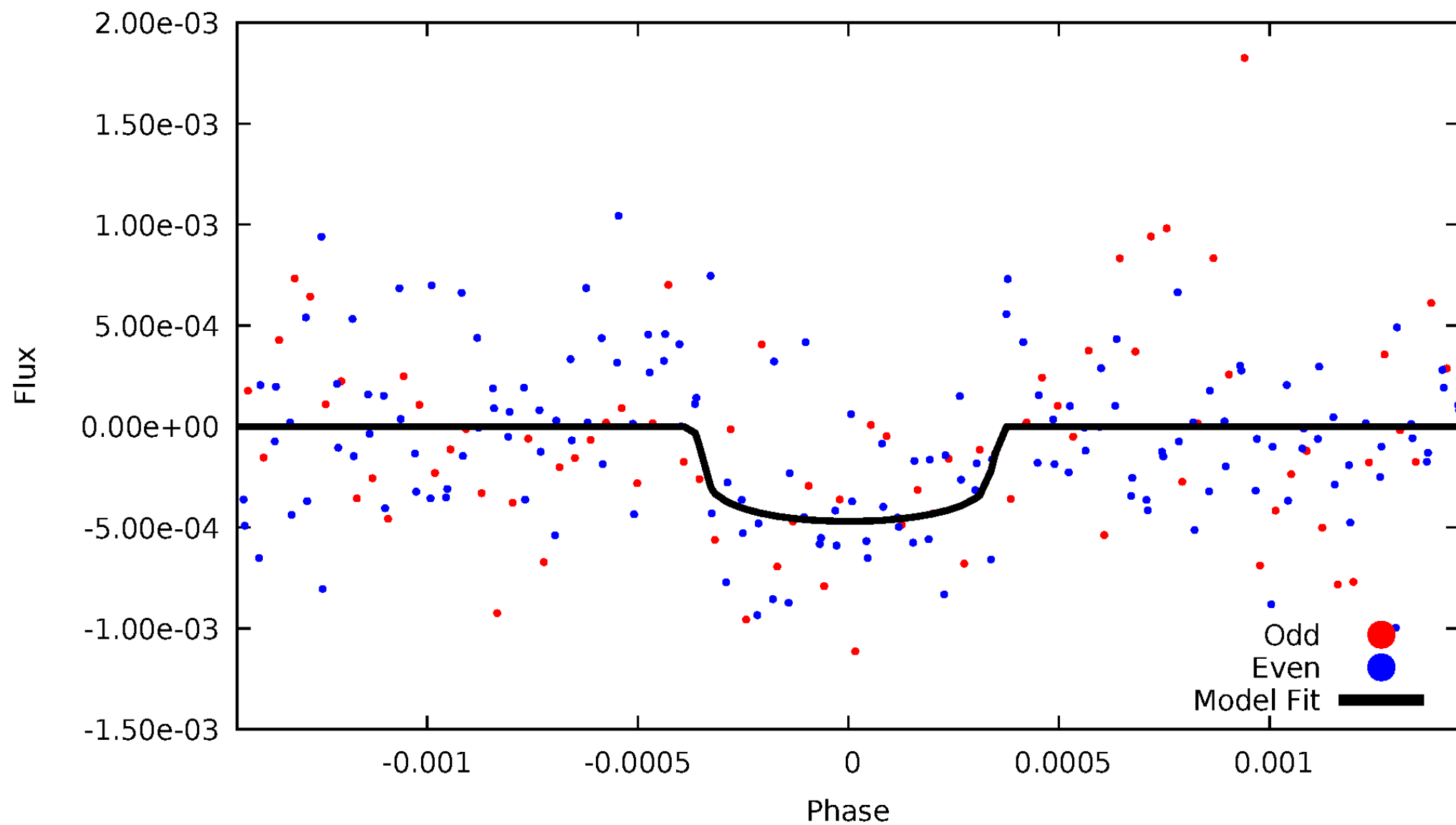


TCE 001717528-01



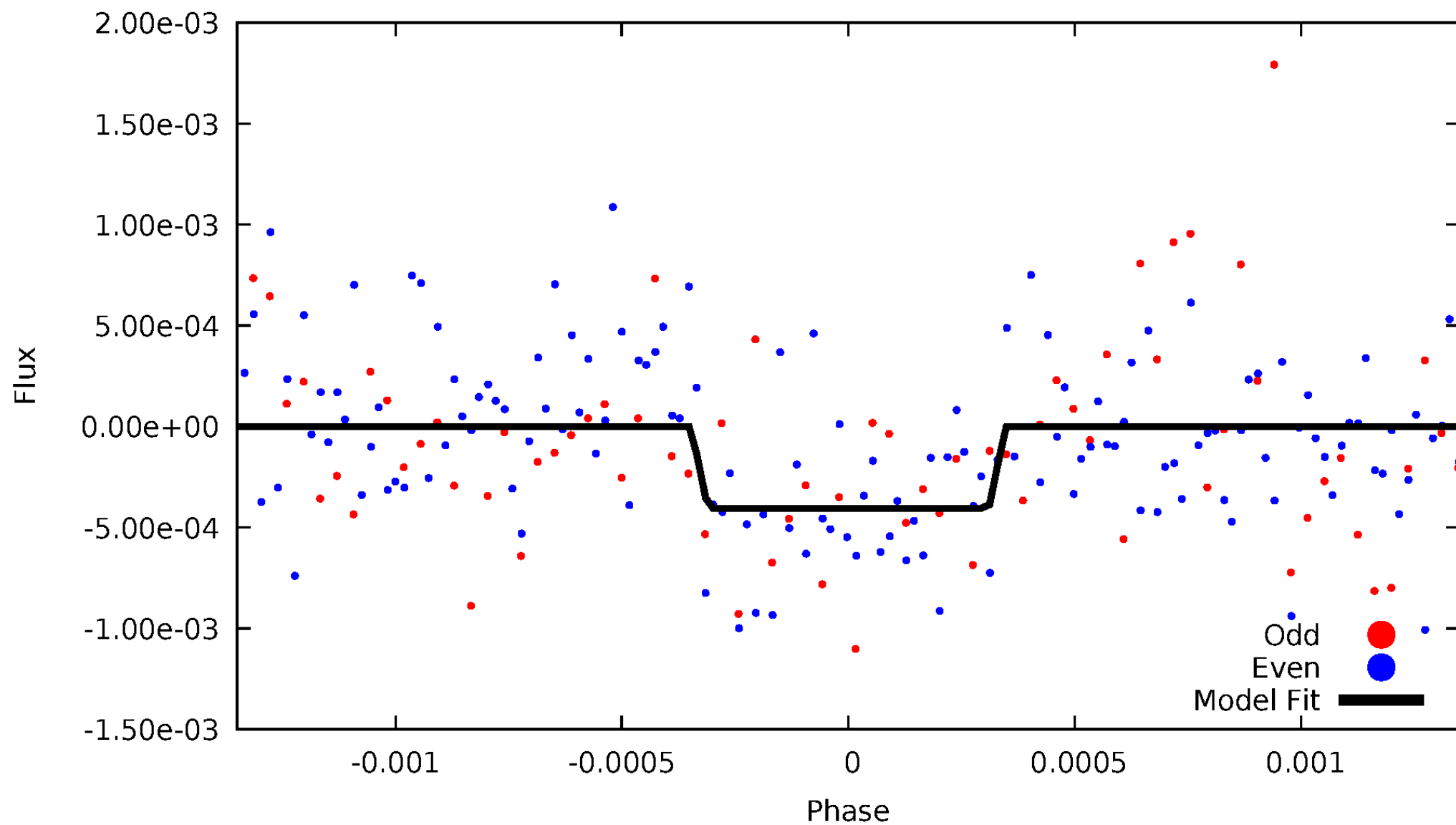
DV Odd/Even

TCE 001717528-01



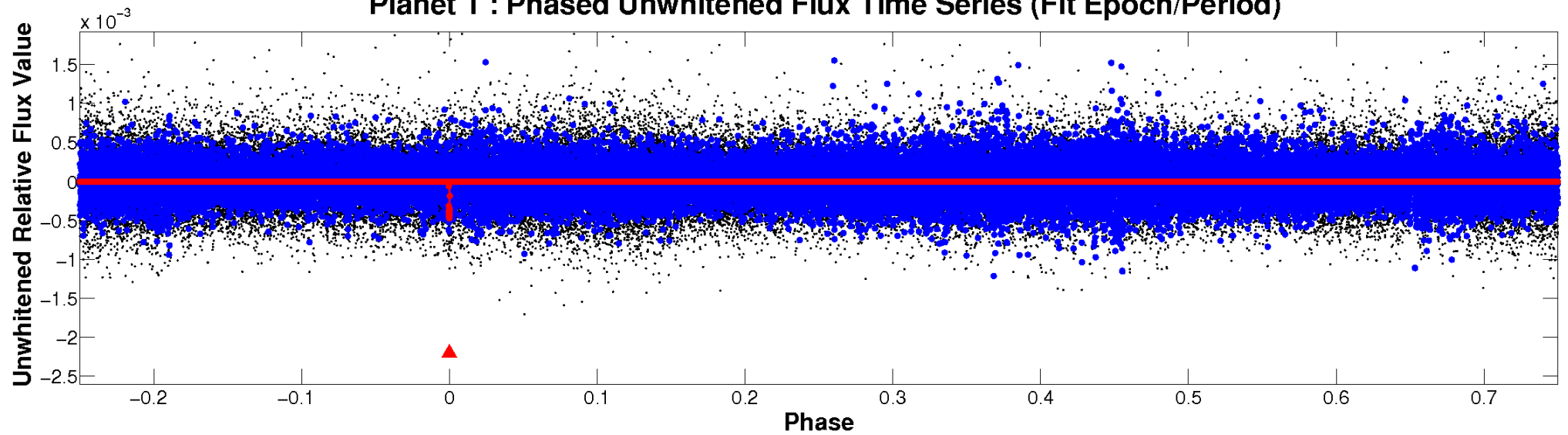
ALT Odd/Even

TCE 001717528-01

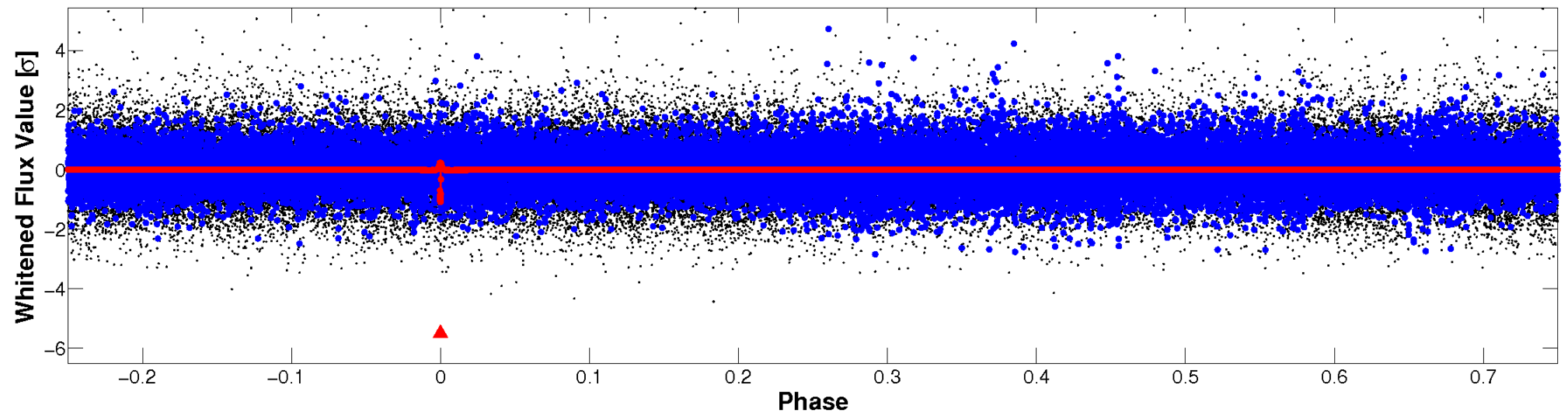


Non-Whitened Vs. Whitened Light Curve

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



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



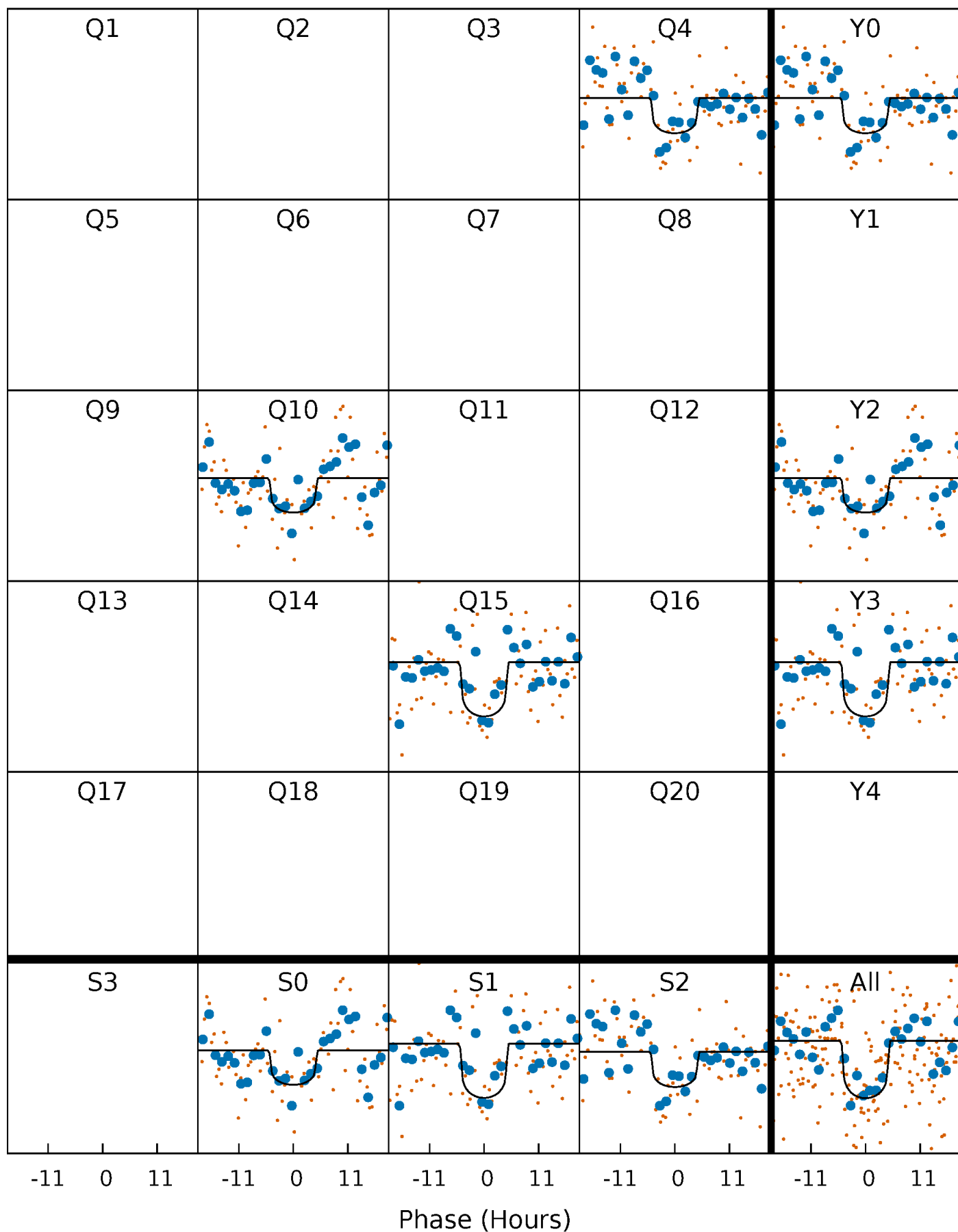
PDC Quarter-Phased Transit Curves

TCE 001717528-01 P=552.789499 Days $T_0=360.341809$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 001717528-01 P=552.789499 Days $T_0=360.341809$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

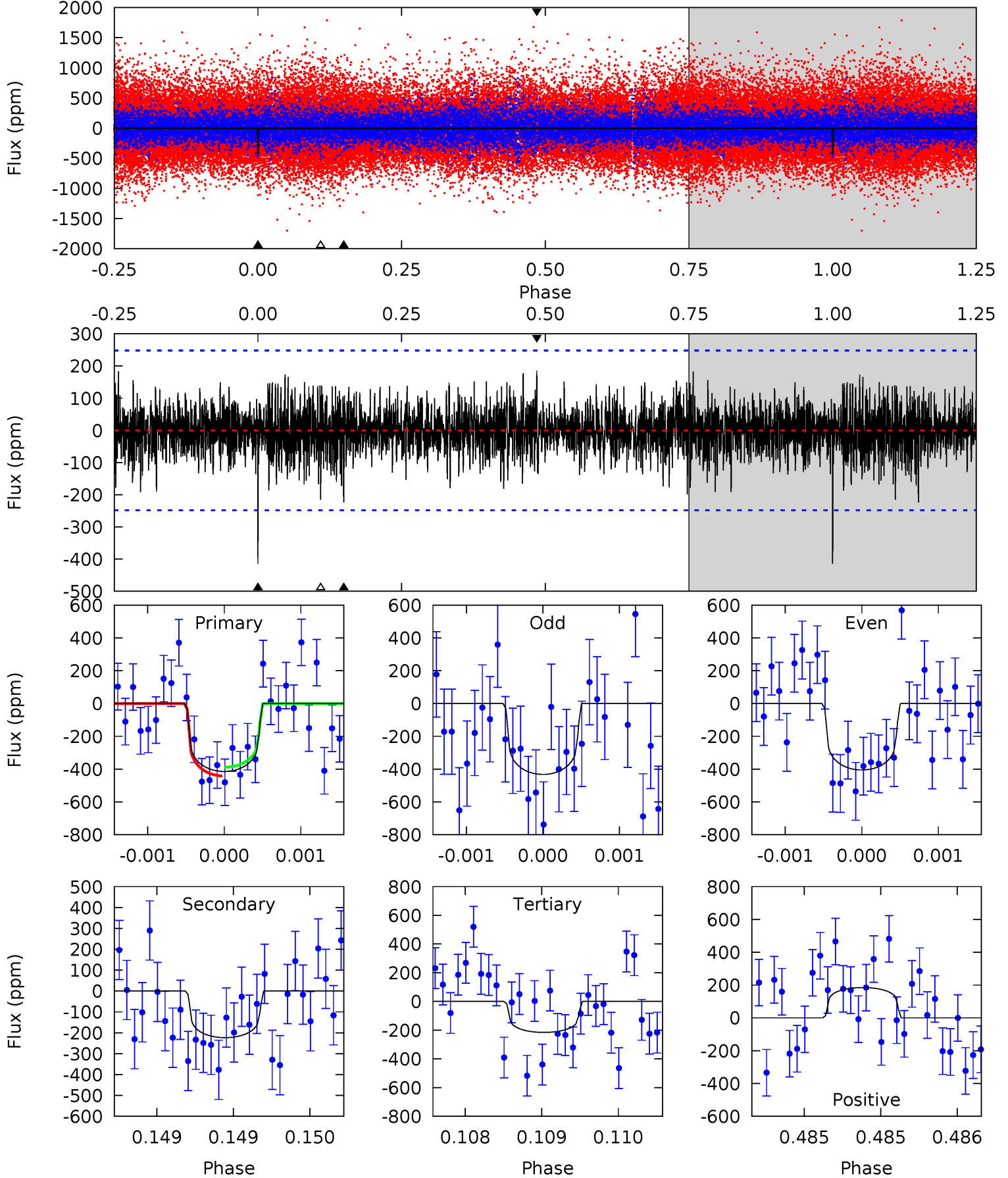
TCE 001717528-01 P=552.775476 Days $T_0=360.355824$ (BKJD)



DV Model-Shift Uniqueness Test

001717528-01, P = 552.789499 Days, E = 360.341809 Days

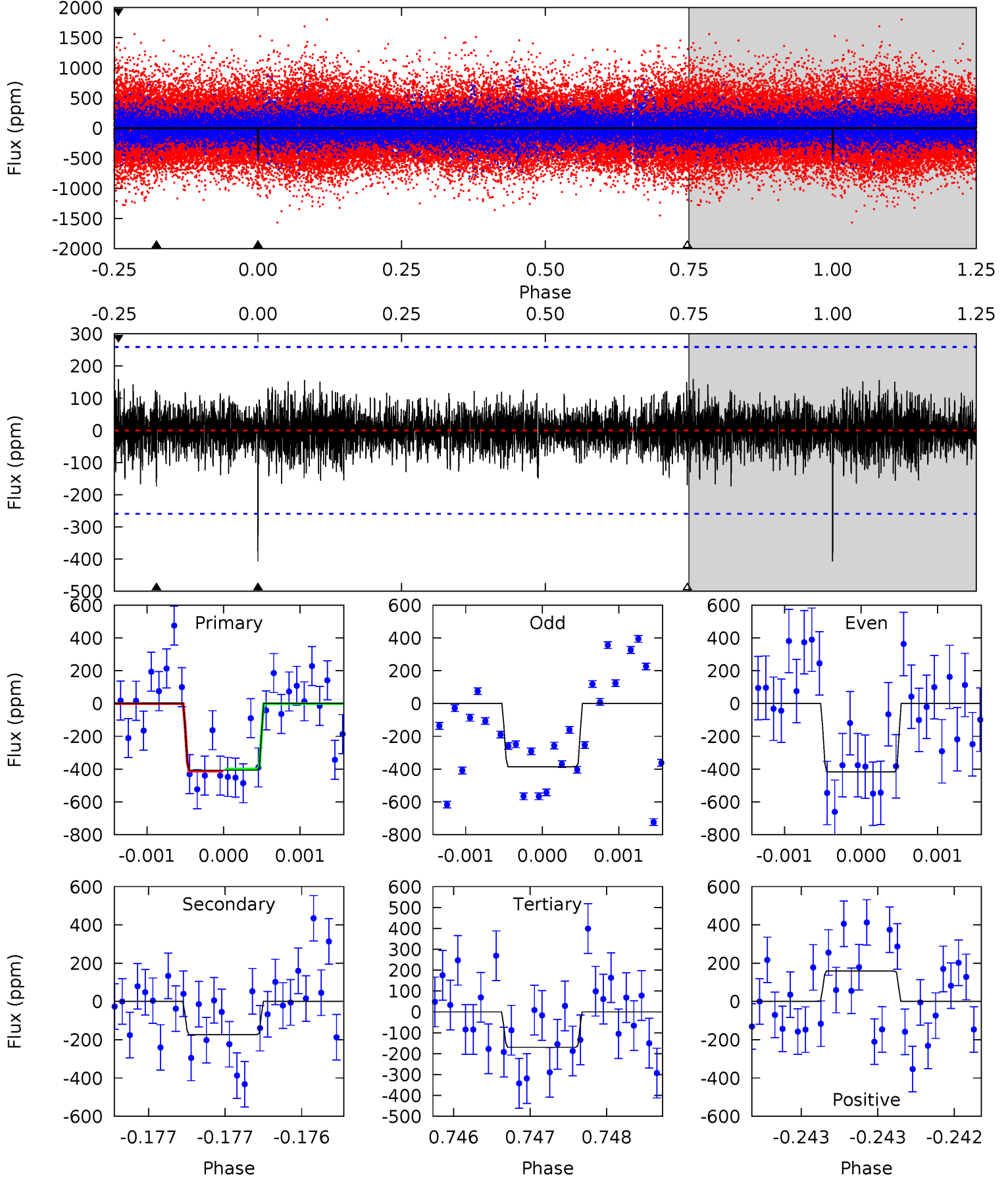
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.19	4.95	4.78	4.10	5.50	3.37	1.20	4.41	5.09	0.17	0.86	0.28	0.96	0.31	0.59



Alt Model-Shift Uniqueness Test

001717528-01, P = 552.775476 Days, E = 360.355824 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.67	3.71	3.62	3.39	5.52	3.40	0.90	5.05	5.28	0.08	0.31	0.32	1.05	0.28	0.12



Stellar Parameters For KIC 001717528

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	6099^{+79}_{-85}	$4.456^{+0.026}_{-0.104}$	$0.020^{+0.150}_{-0.150}$	$1.028^{+0.142}_{-0.055}$	$1.098^{+0.068}_{-0.075}$	$1.422^{+0.181}_{-0.428}$
	+1%/-1%	+1%/-2%	+750%/-750%	+14%/-5%	+6%/-7%	+13%/-30%
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 001717528-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-223 ± 45	$2.62^{+1.64}_{-1.47}$	330^{+11}_{-7}	5014^{+2631}_{-889}	$32298^{+149410}_{-20091}$
Alt.	-174 ± 47	$2.57^{+1.52}_{-1.46}$	330^{+10}_{-7}	4850^{+2205}_{-866}	$27120^{+110457}_{-17537}$

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

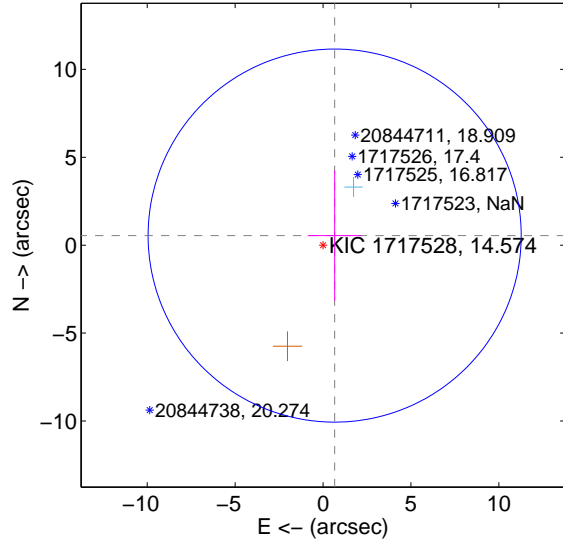
Supplemental centroid analysis for 001717528-01. Kepler magnitude: 14.57. Transit SNR 7.26

There are 1 quarters with good PRF difference image offsets

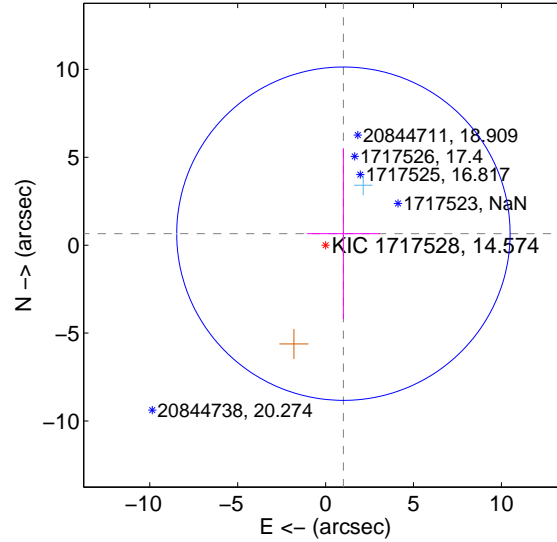
The direct PRF centroid is offset from the target star catalog position by about 0.26 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.858 ± 3.536	0.24	-0.661 ± 1.535	0.546 ± 3.697
PRF-fit source offset from KIC position	1.206 ± 3.160	0.38	-1.014 ± 2.082	0.653 ± 4.857
photometric centroid source offset	3.78 ± 1.66	2.27	-0.83 ± 1.59	-3.69 ± 1.67

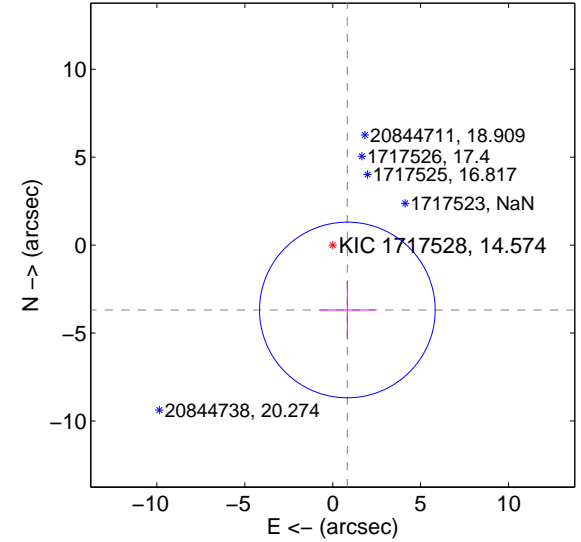
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

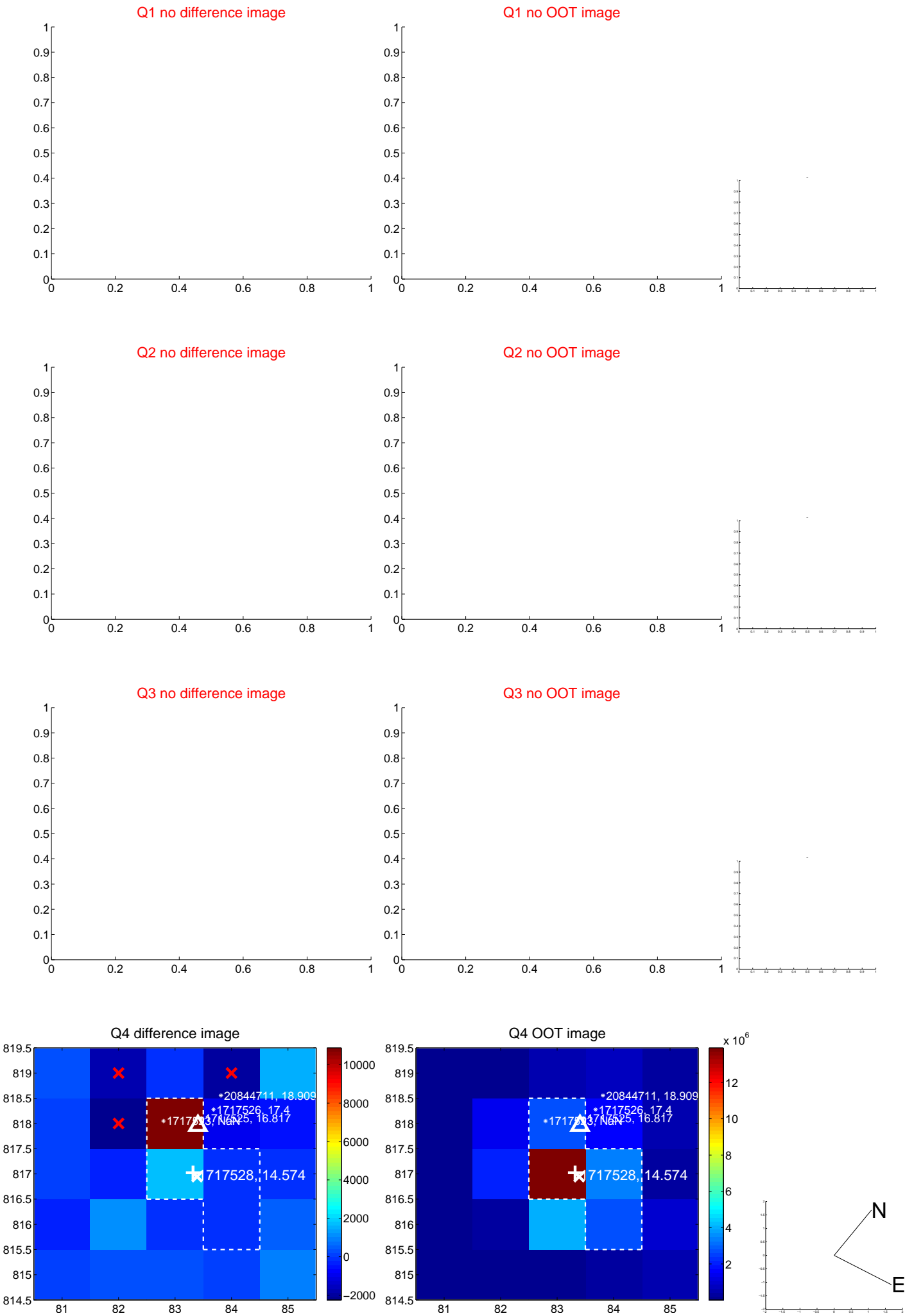


offset from photometric centroids



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.

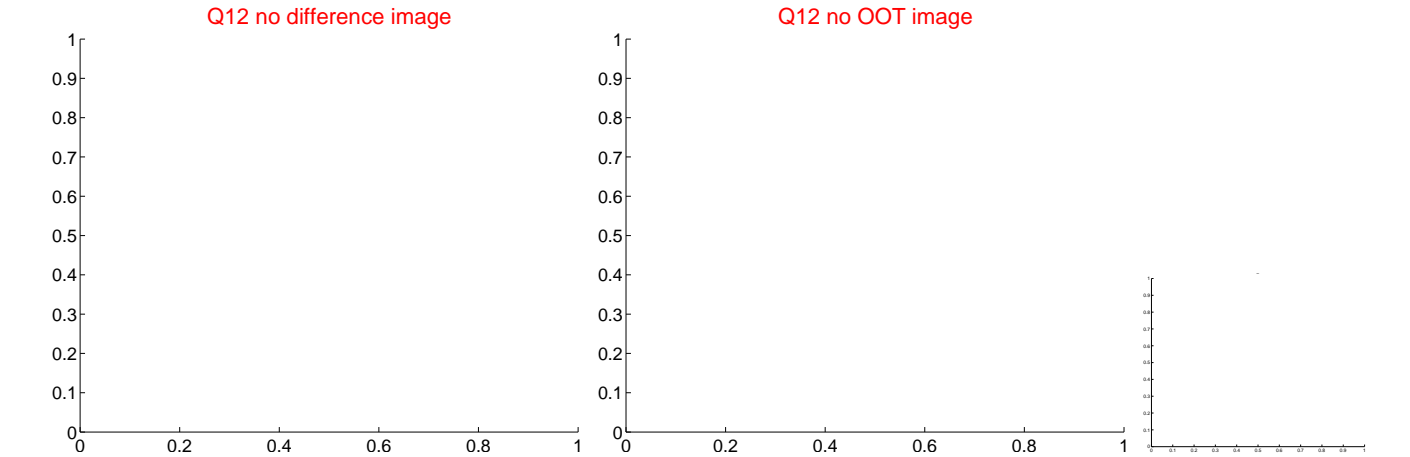
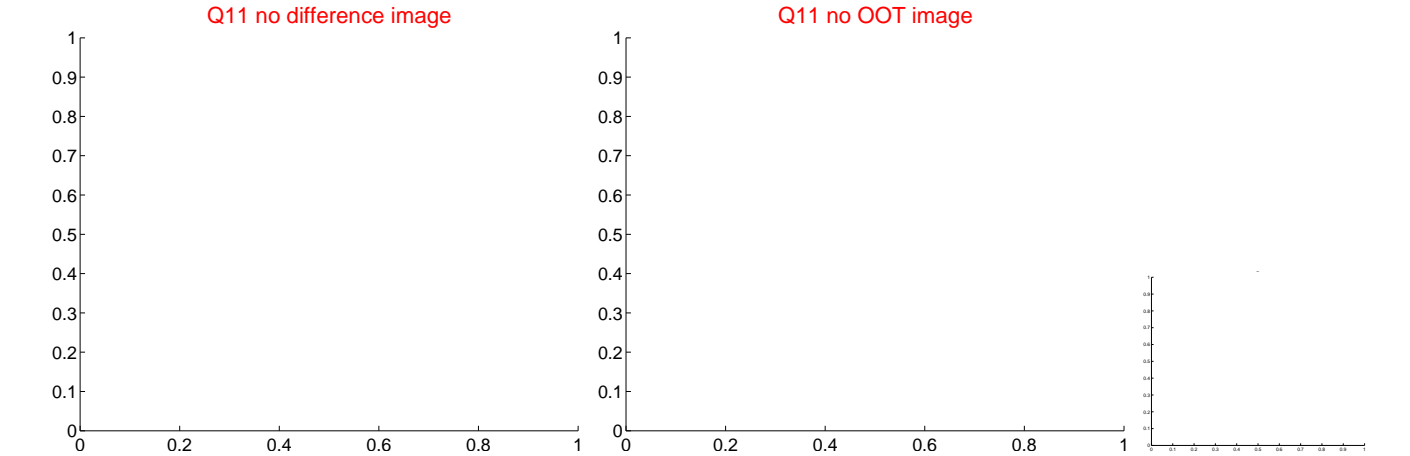
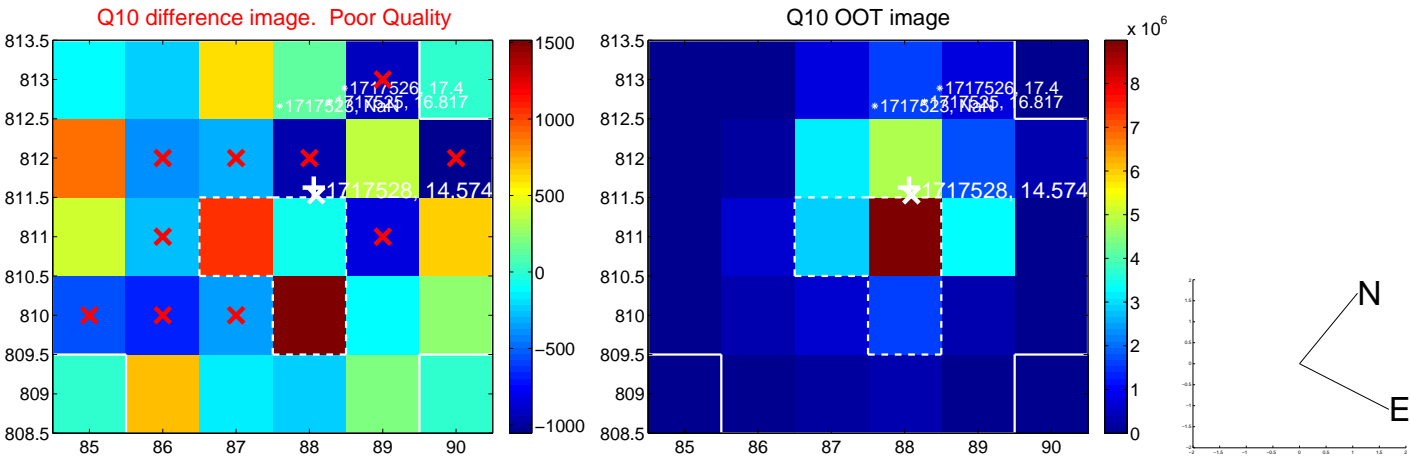
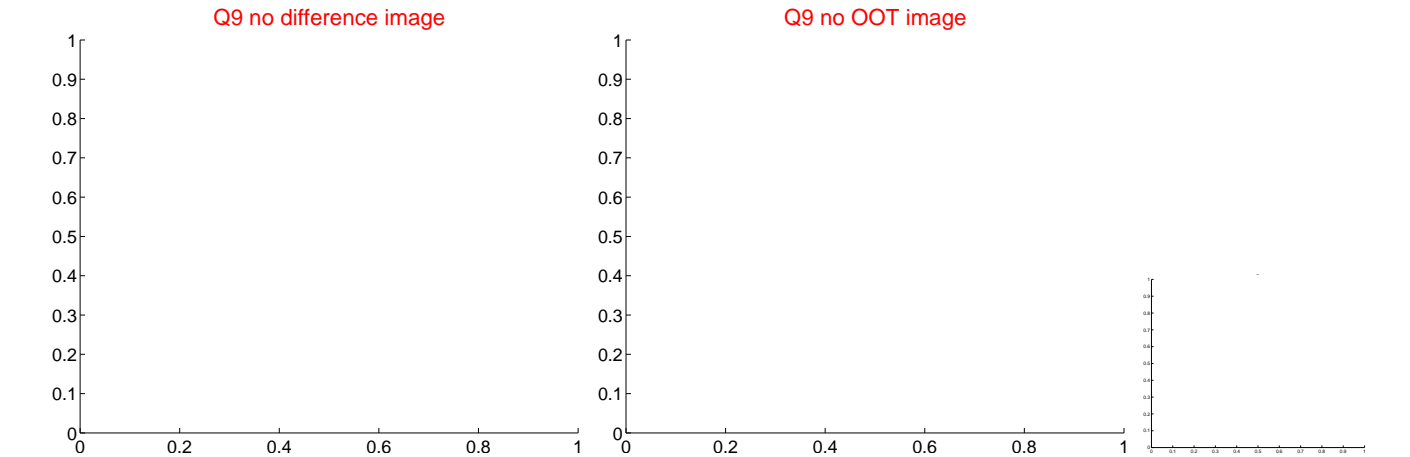
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



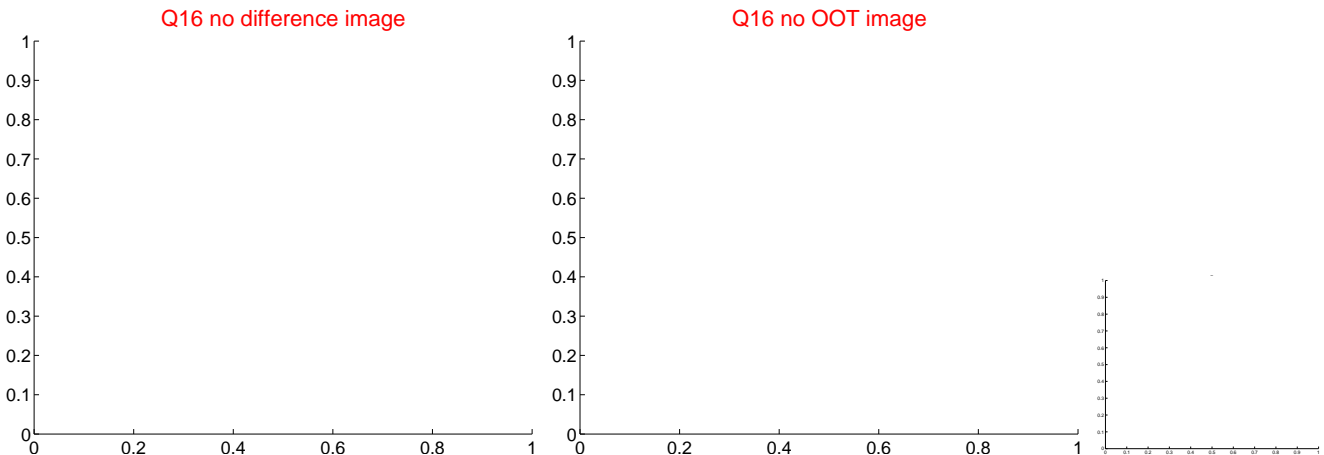
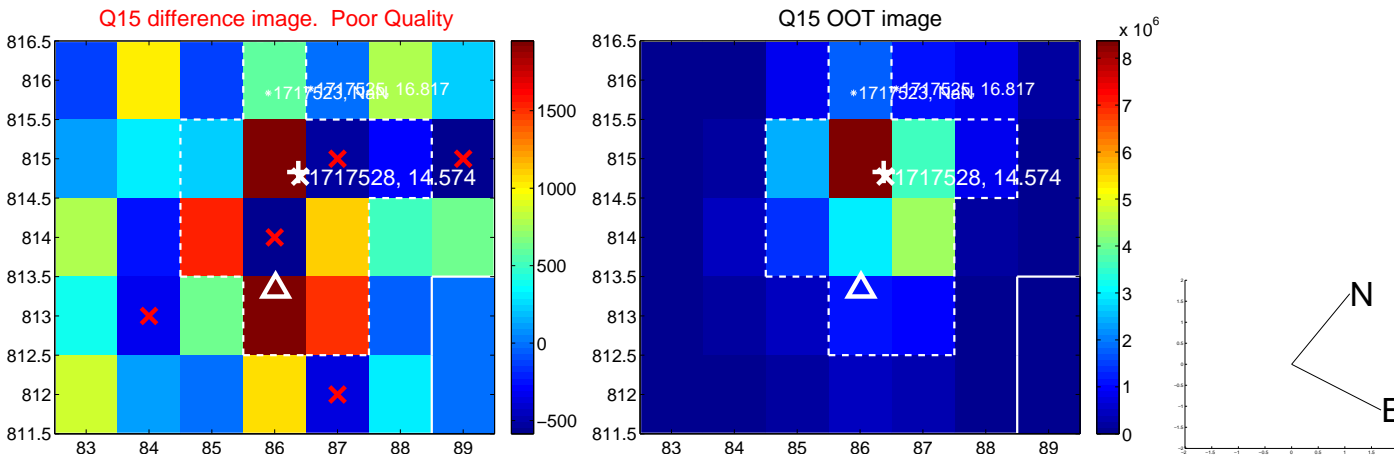
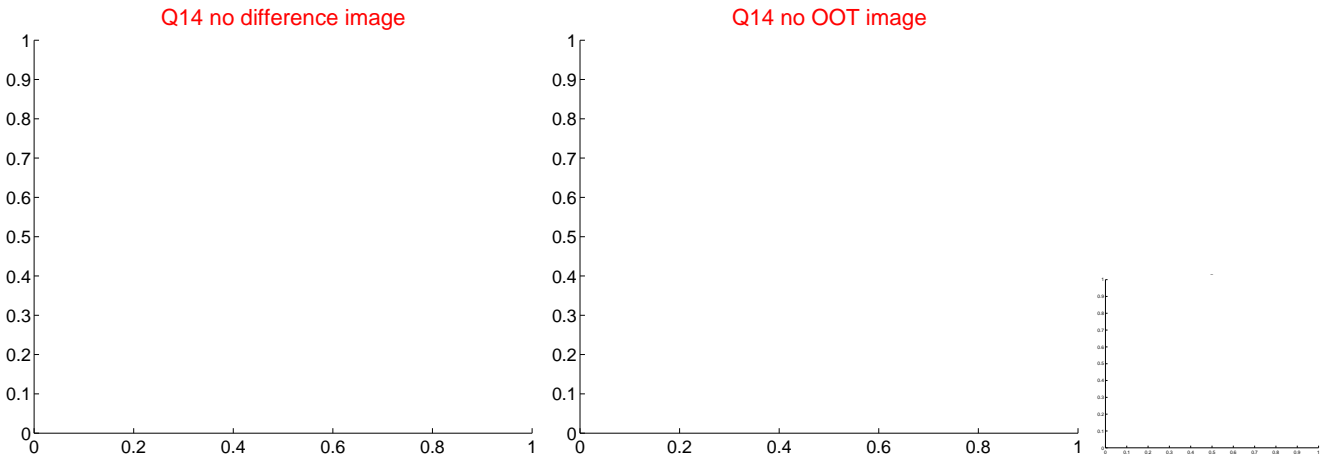
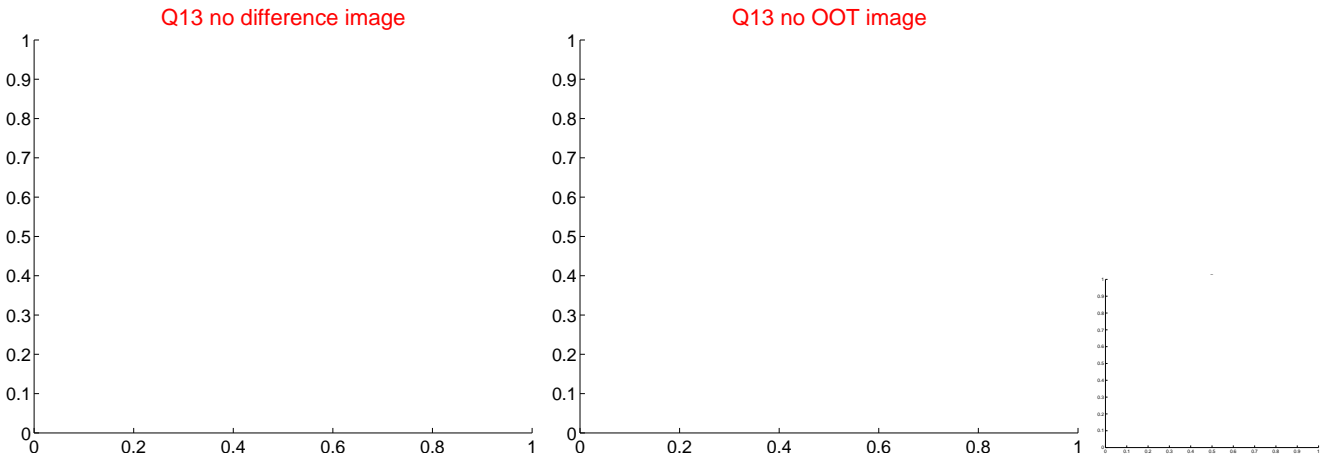
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



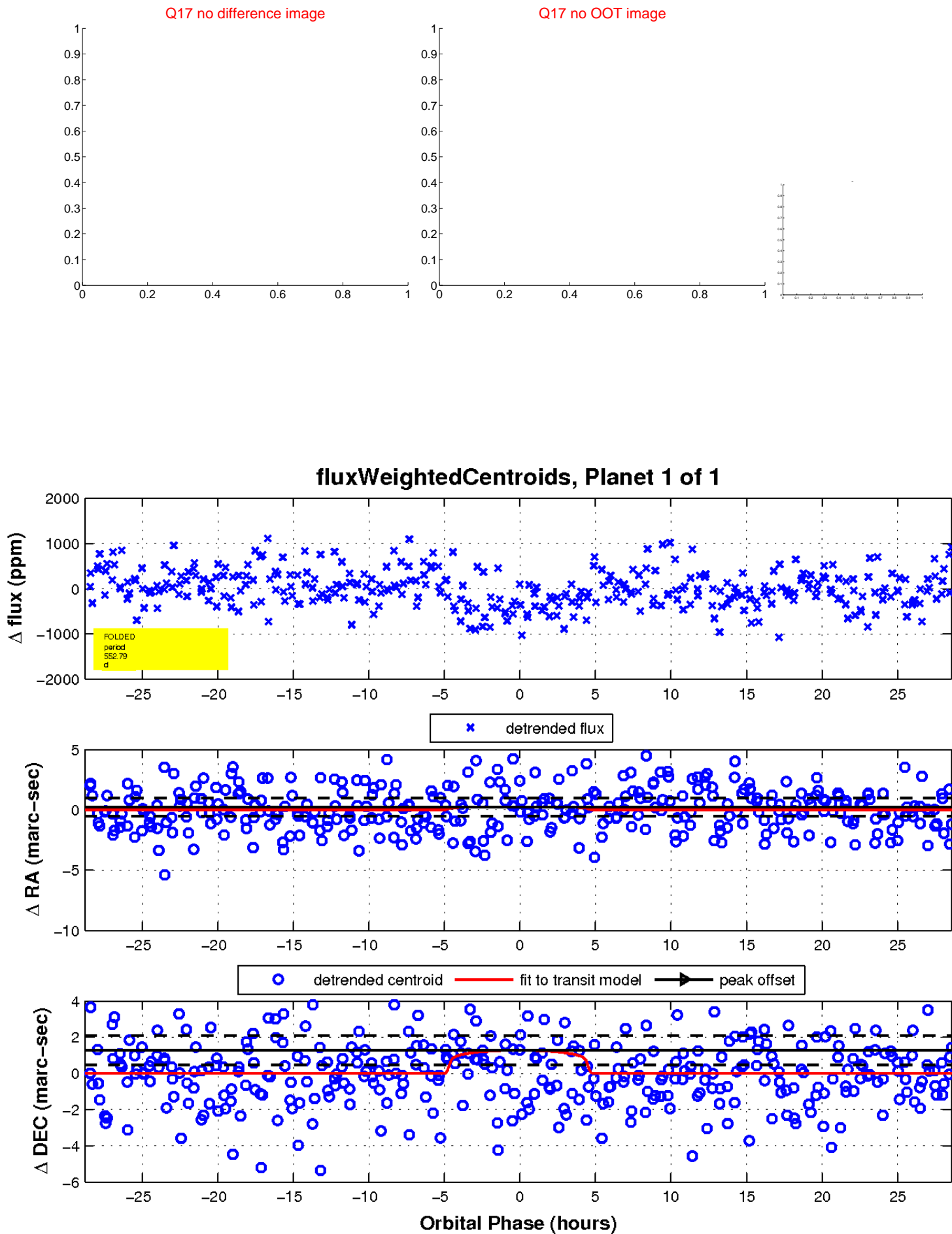
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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.



UKIRT Image

Declination

