

KIC 006364294

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})
006364294-01	OBS	6694.01	5.243041	132.846966	63.9	13.552	9.1	9.0	1.15	6598	1.00	575.84

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006364294-01	OBS	FP	0.01	0	0	1	0	HALO_GHOST

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

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

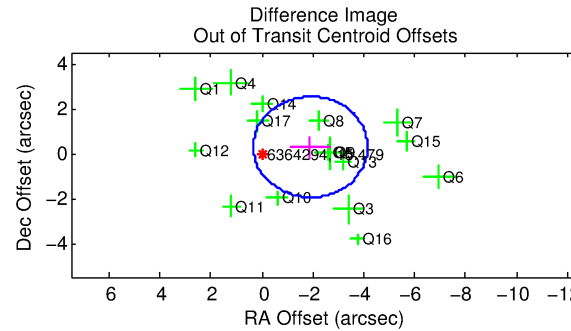
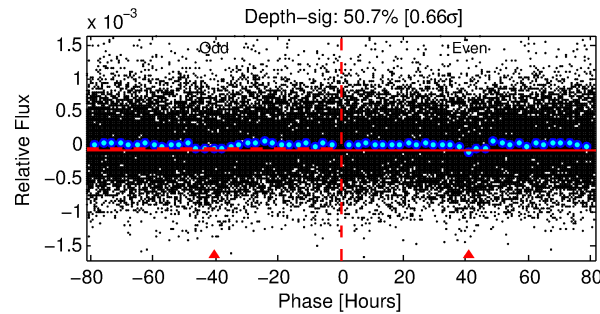
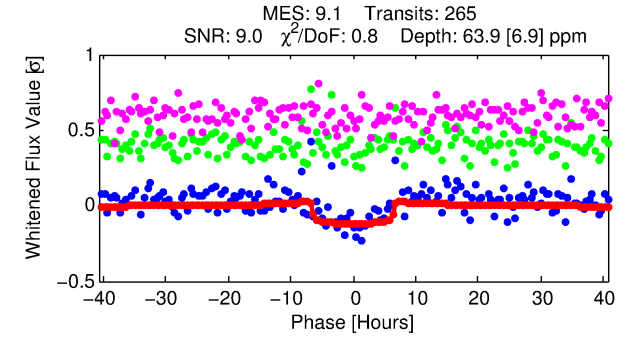
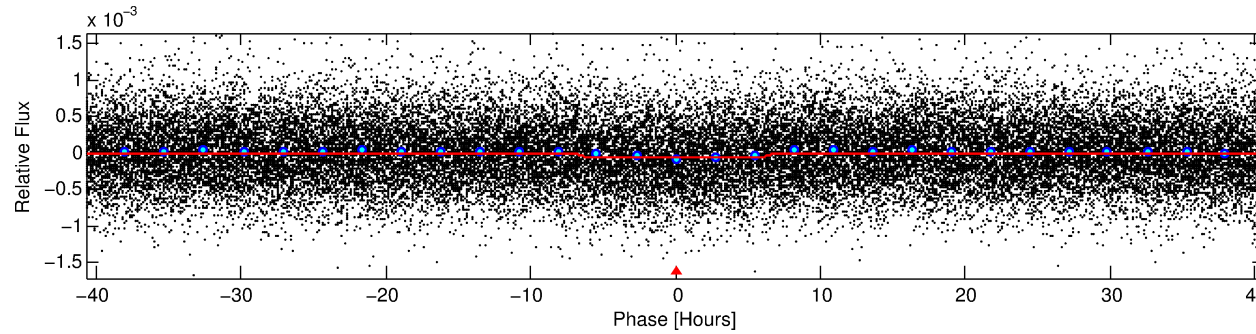
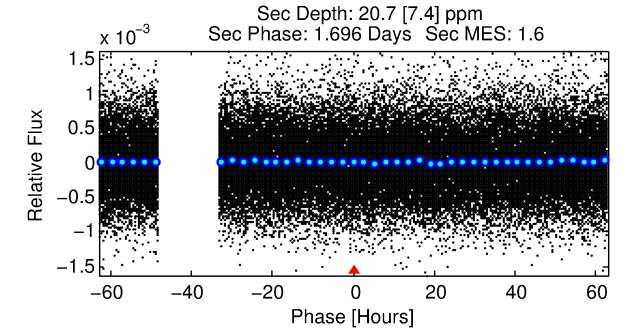
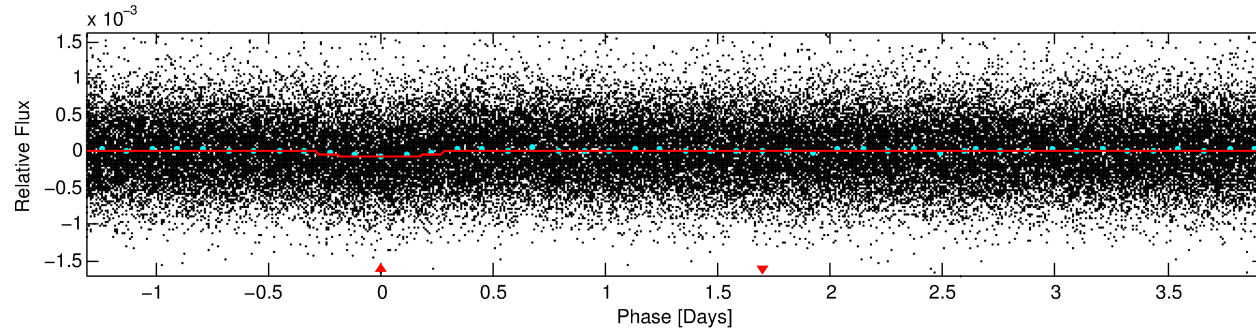
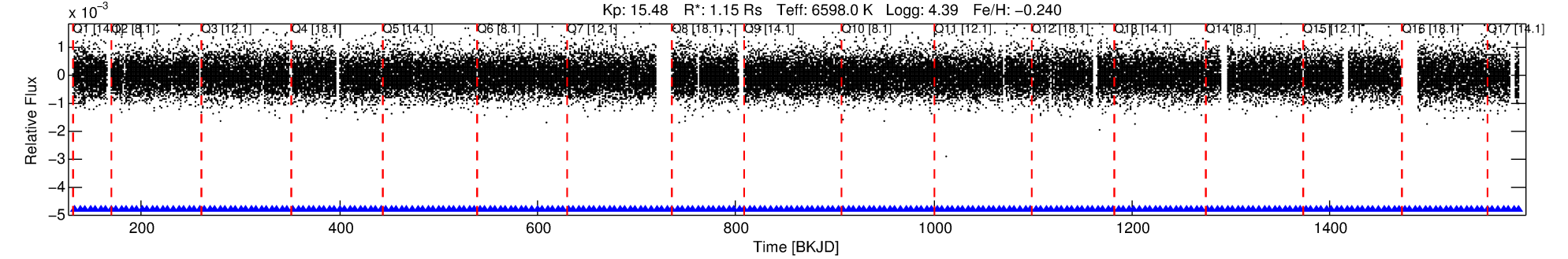
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006364294-01

No Significant Match Found

DV One-Page Summary

KIC: 6364294 Candidate: 1 of 1 Period: 5.243 d
KOI: K06694.01 Corr: 0.904



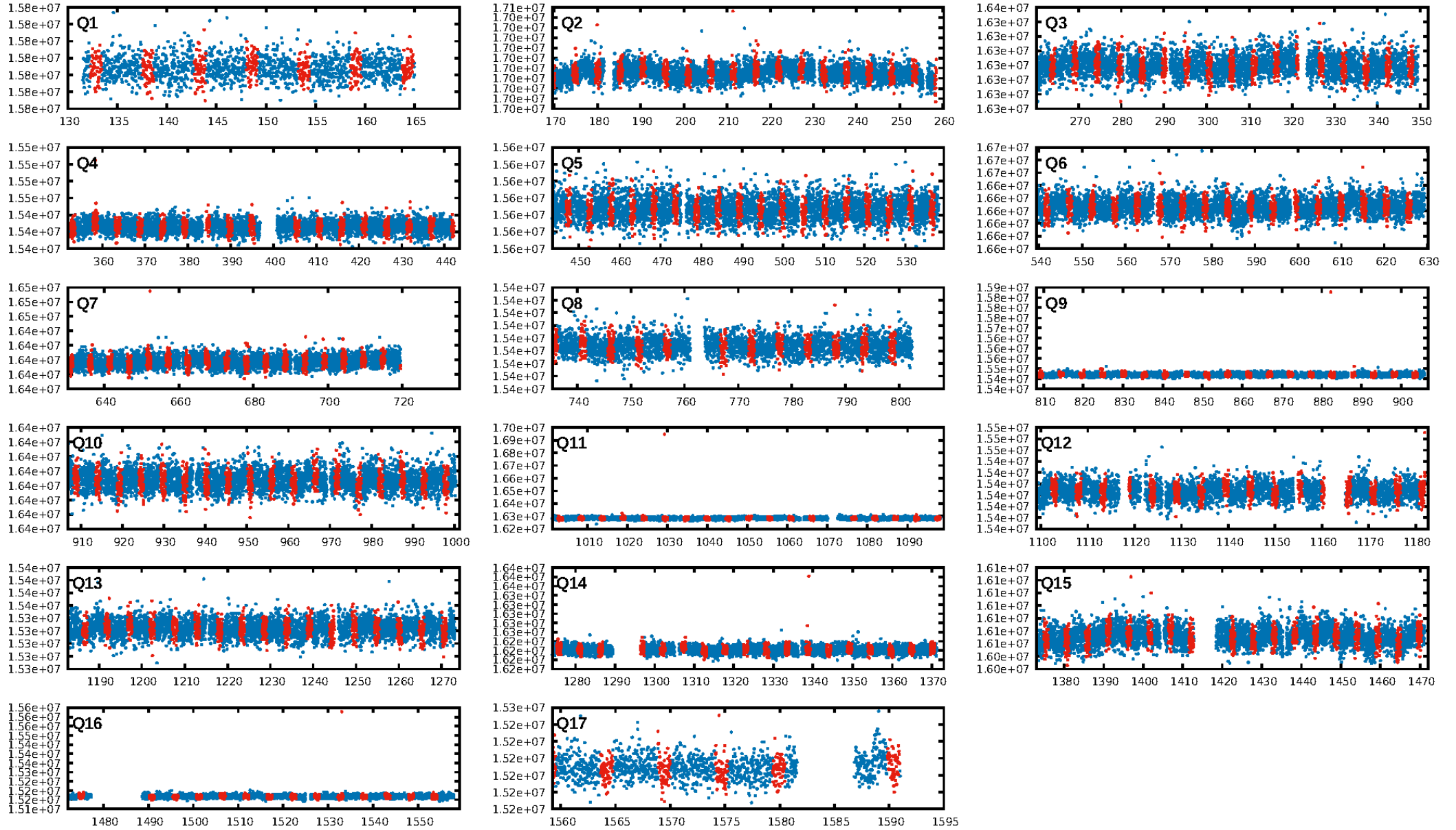
DV Fit Results:

Period = 5.24304 [0.00010] d
Epoch = 132.8470 [0.0144] BKJD
Rp/R* = 0.0080 [0.0029]
a/R* = 2.10 [3.28]
b = 0.77 [1.07]
Seff = 575.84 [223.57]
Teff = 1249 [121] K
Rp = 1.00 [0.47] Re
a = 0.0622 [0.0157] AU
Ag = 44.08 [38.67] [1.11σ]
Teffp = 4976 [1009] K [3.67σ]

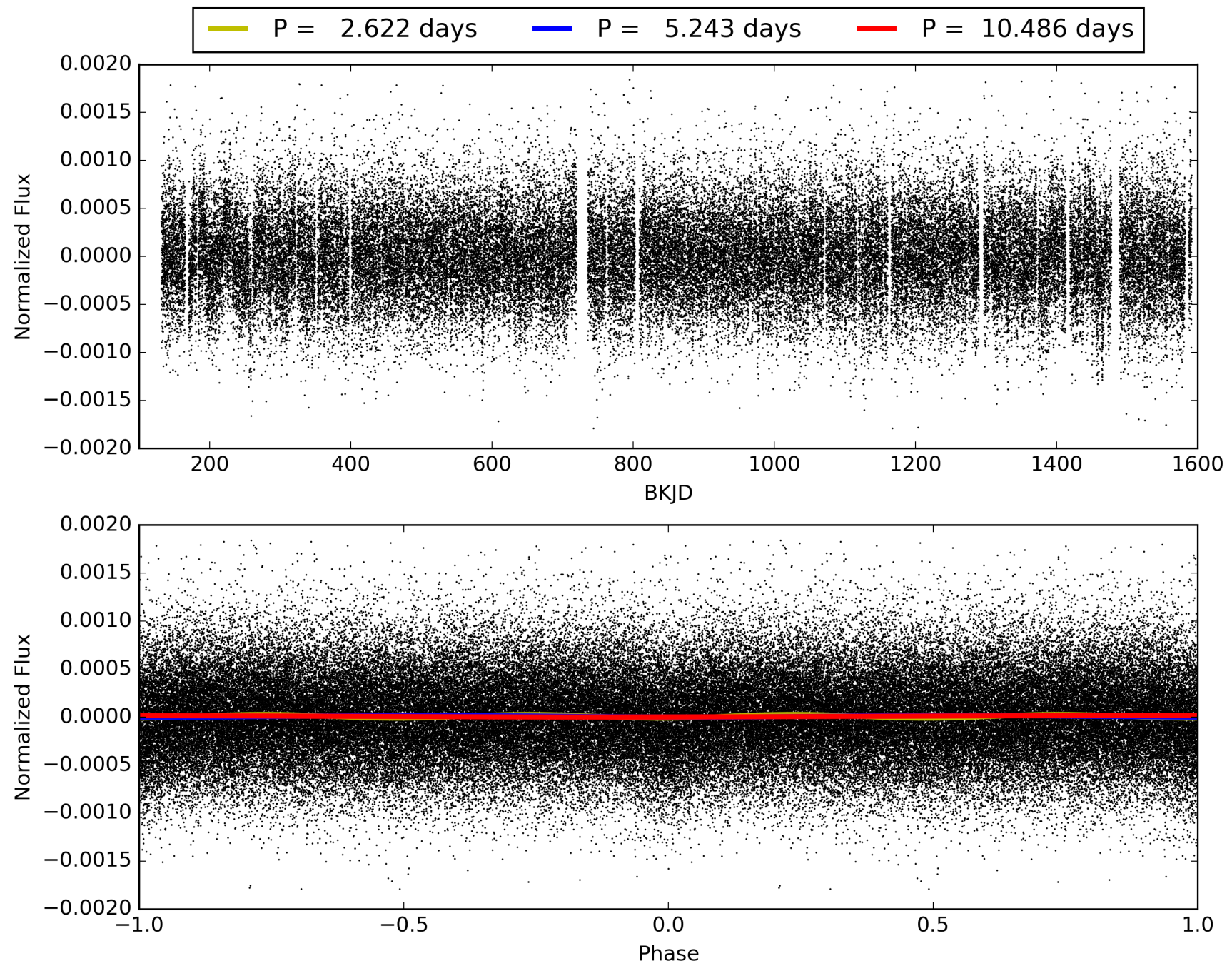
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 4.74e-17
RollingBand-fgt: 1.00 [252/252]
GhostDiagnostic-chr: 0.2163
Centroid-sig: 0.0%
Centroid-so: 3.850 arcsec [2.99σ]
OotOffset-rm: 1.930 arcsec [2.58σ]
KicOffset-rm: 1.941 arcsec [2.57σ]
OotOffset-st: 3/4/4/5 [16]
KicOffset-st: 3/4/4/5 [16]
DiffImageQuality-fgm: 0.12 [2/16]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 006364294-01, PDC Light Curves

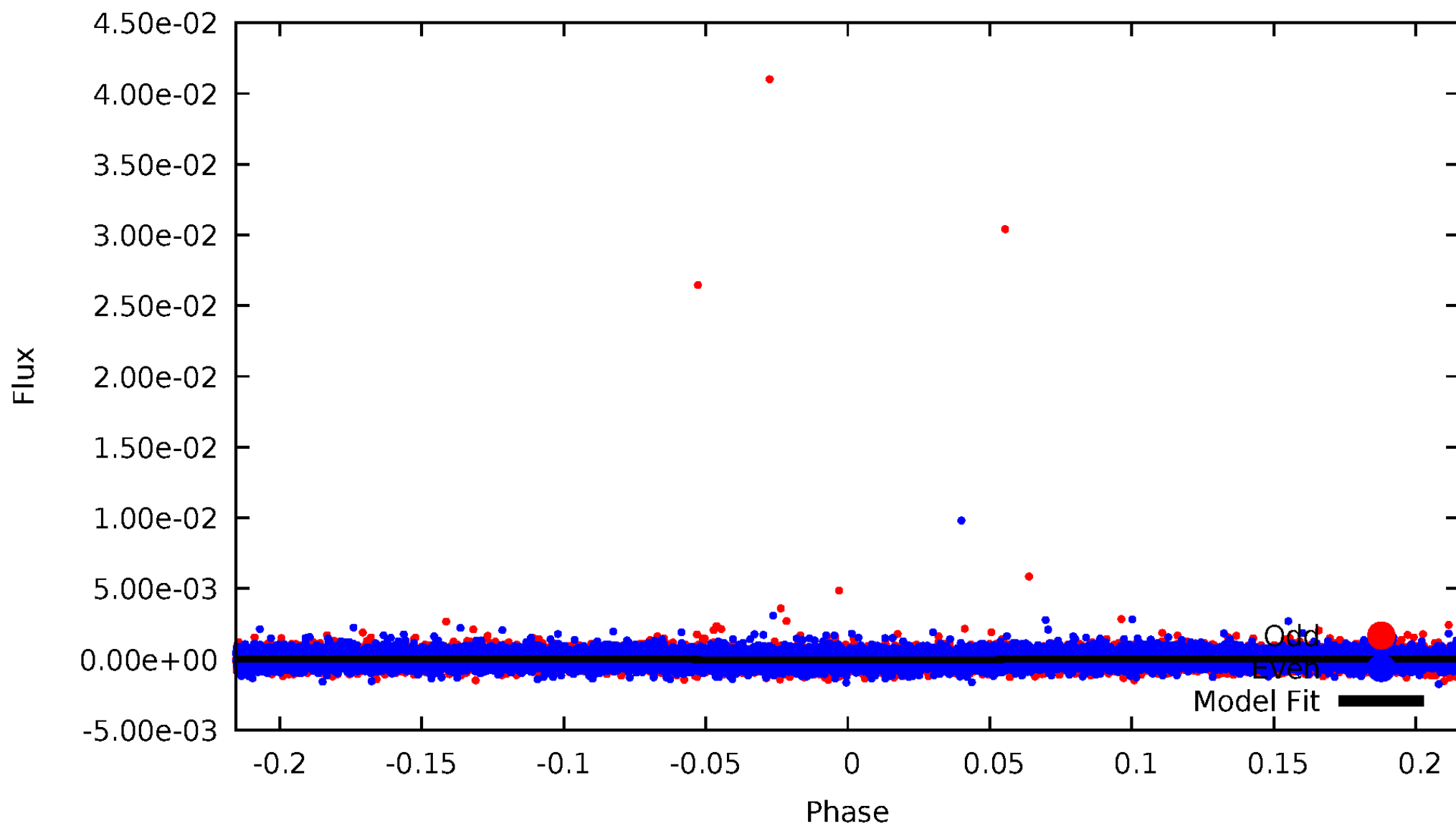


TCE 006364294-01



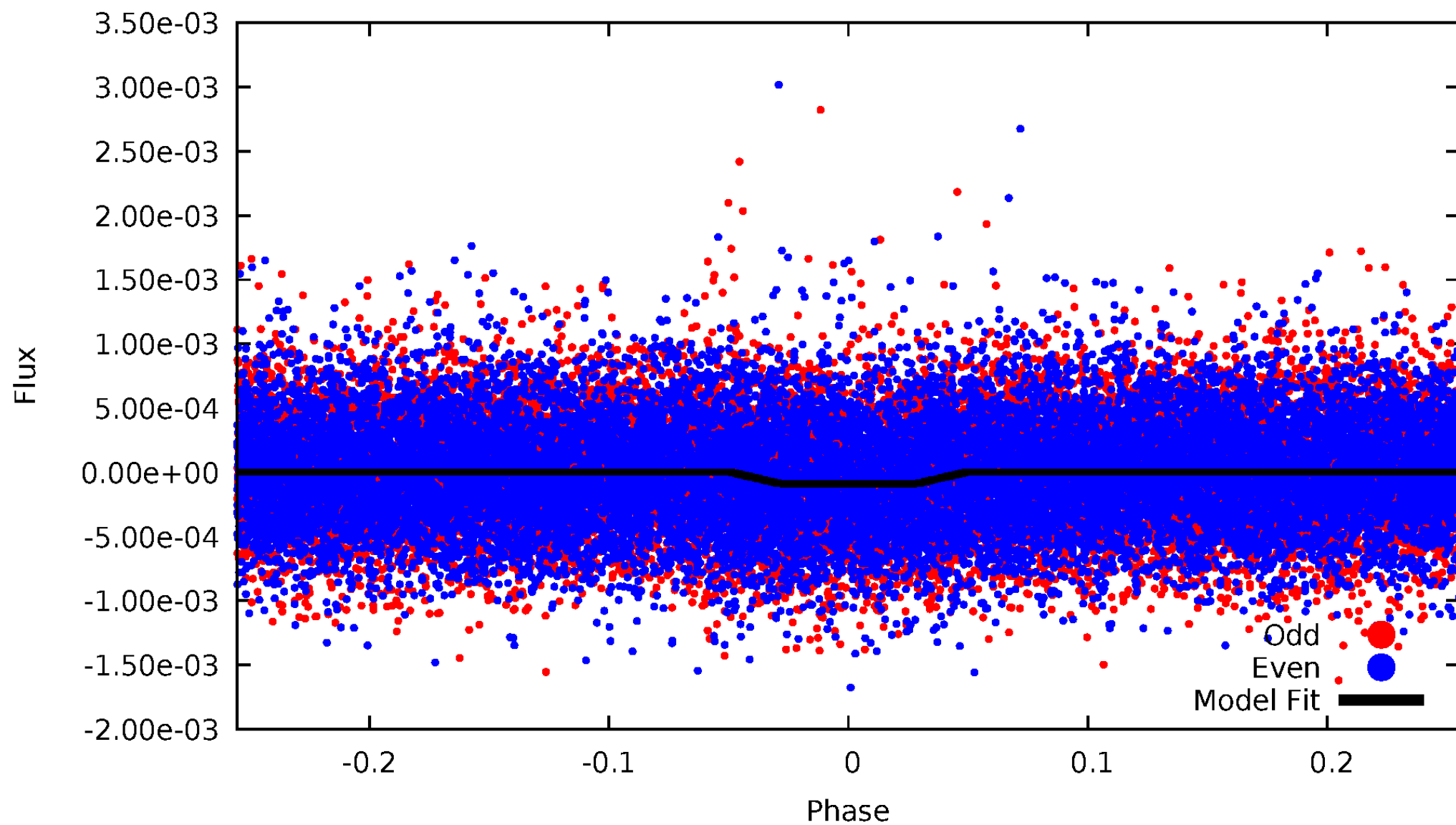
DV Odd/Even

TCE 006364294-01



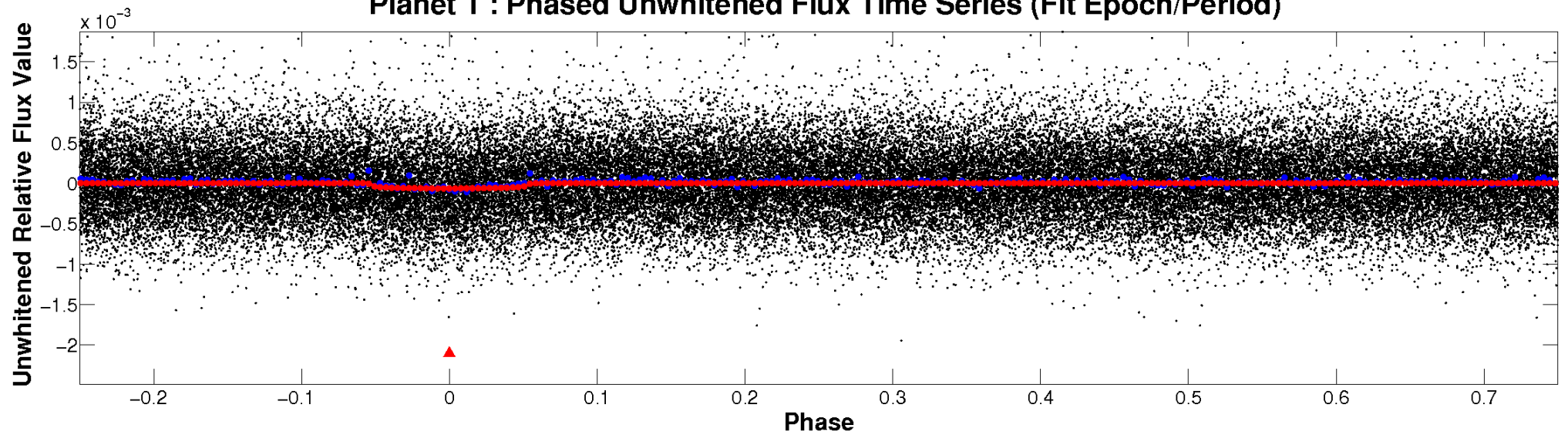
ALT Odd/Even

TCE 006364294-01

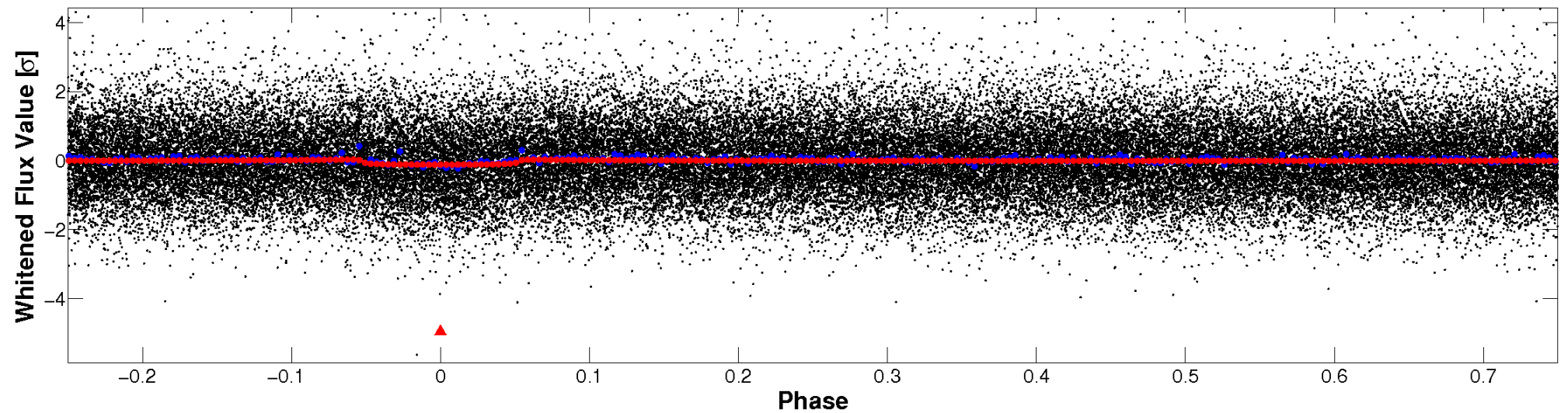


Non-Whitened Vs. Whitened Light Curve

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

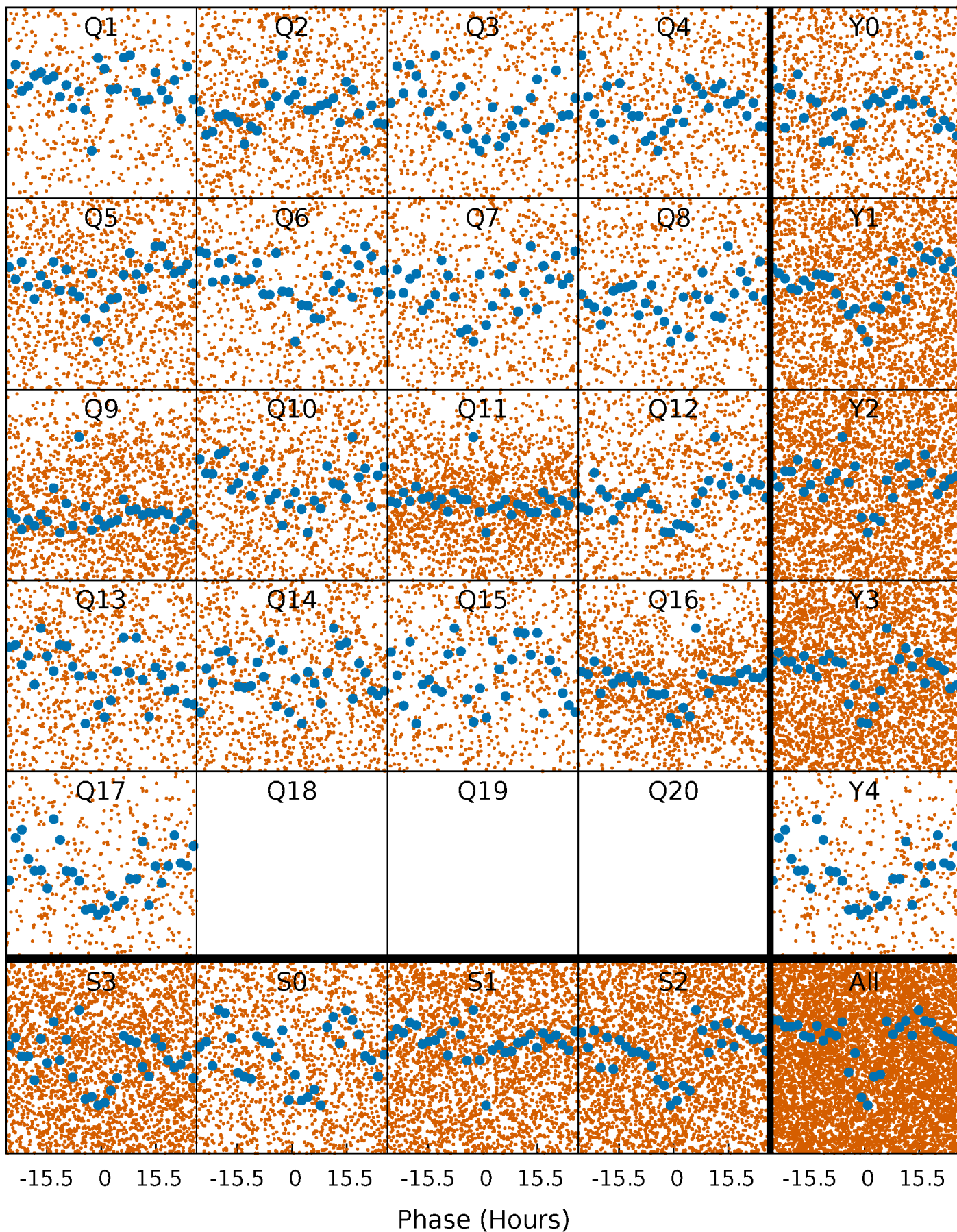


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



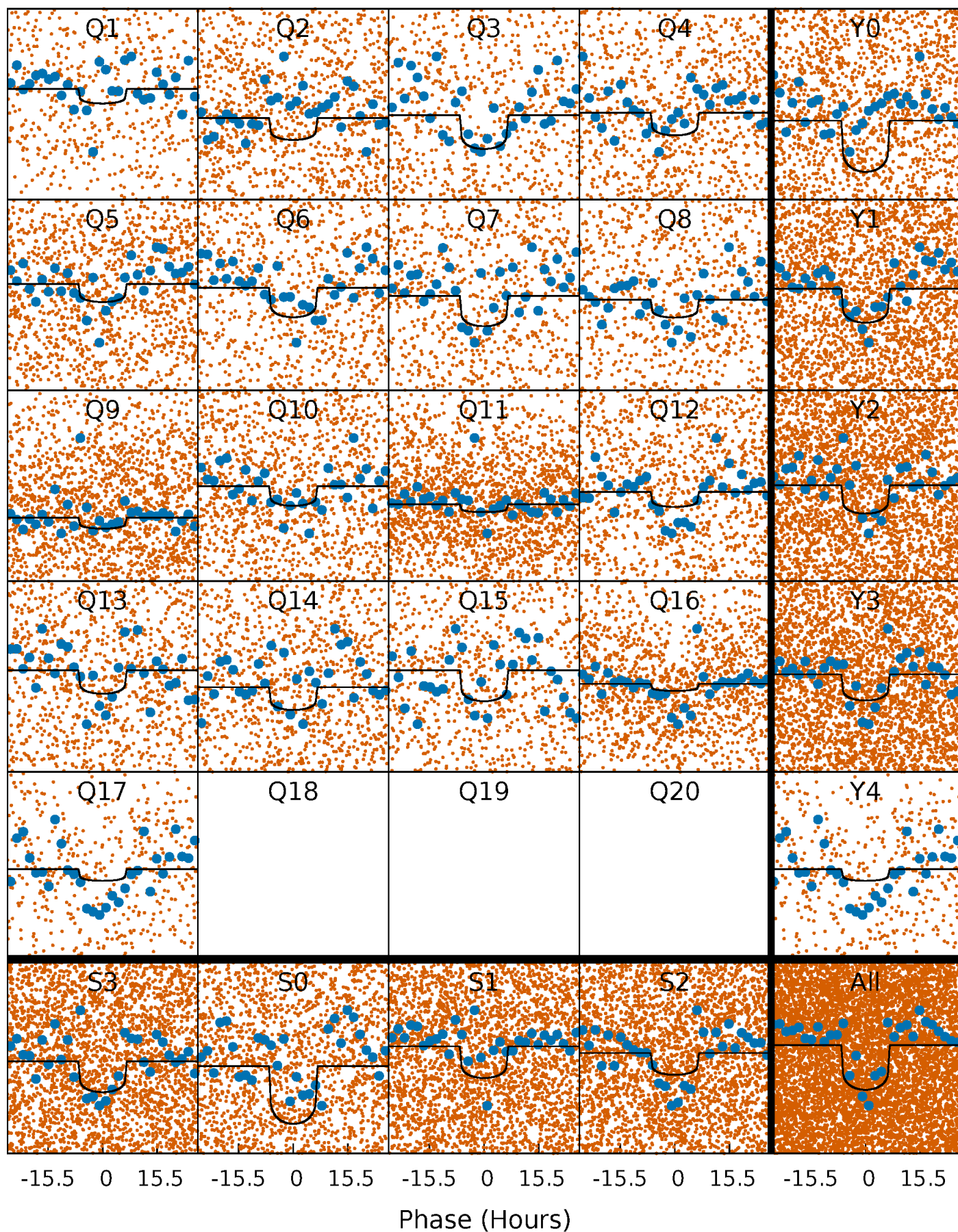
PDC Quarter-Phased Transit Curves

TCE 006364294-01 P= 5.243041 Days $T_0=132.846966$ (BKJD)



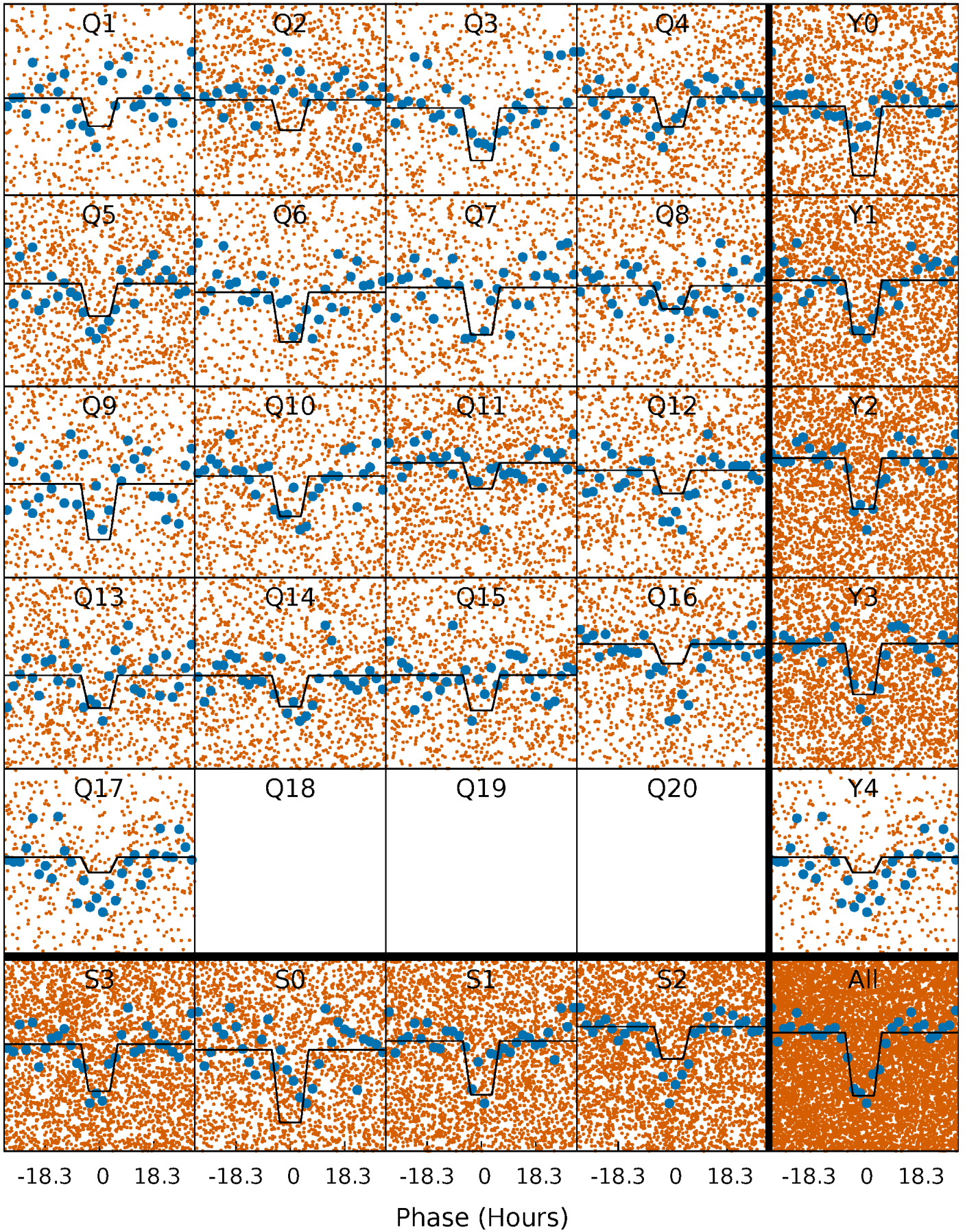
DV Quarter-Phased Transit Curves

TCE 006364294-01 P= 5.243041 Days $T_0=132.846966$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

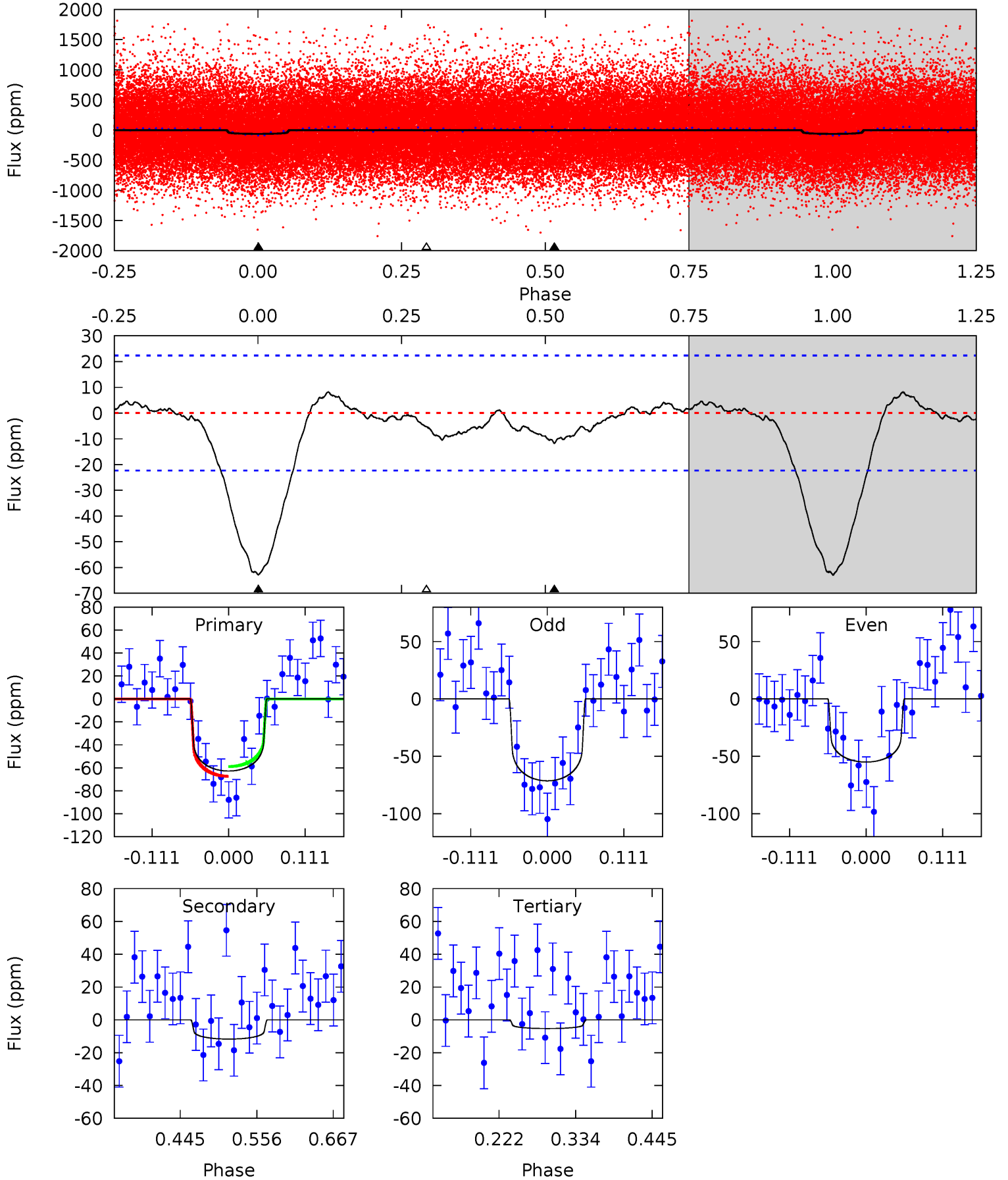
TCE 006364294-01 P= 5.243346 Days $T_0=132.791832$ (BKJD)



DV Model-Shift Uniqueness Test

006364294-01, P = 5.243041 Days, E = 127.603925 Days

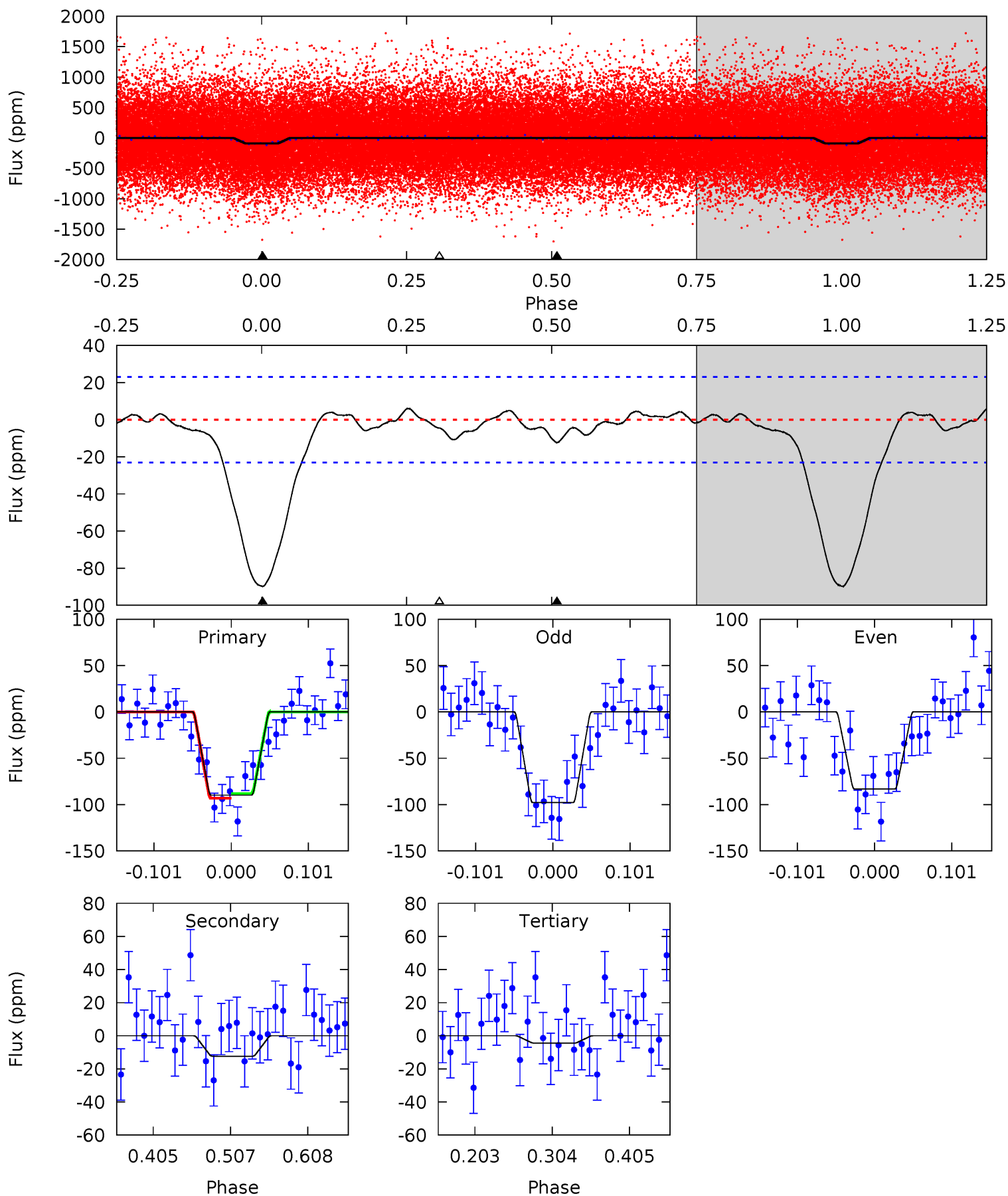
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.8	2.38	1.08	0	4.54	1.59	0.83	11.7	12.8	1.30	2.38	1.67	0.93	0.11	0.86



Alt Model-Shift Uniqueness Test

006364294-01, P = 5.243346 Days, E = 127.548486 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.7	2.45	0.88	0	4.56	1.64	0.75	16.9	17.7	1.57	2.45	1.45	0.93	0.06	0.48



Stellar Parameters For KIC 006364294

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6598^{+185}_{-231}	$4.387^{+0.065}_{-0.195}$	$-0.240^{+0.250}_{-0.300}$	$1.145^{+0.350}_{-0.150}$	$1.166^{+0.162}_{-0.162}$	$1.095^{+0.371}_{-0.569}$
	+3%/-4%	+1%/-4%	+104%/-125%	+31%/-13%	+14%/-14%	+34%/-52%
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 006364294-01 / KOI 6694.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-12 ± 5	$1.05^{+0.43}_{-0.37}$	1774^{+122}_{-93}	4396^{+971}_{-608}	21^{+35}_{-12}
Alt.	-12 ± 5	$1.23^{+0.43}_{-0.39}$	1784^{+127}_{-96}	4227^{+729}_{-554}	16^{+21}_{-9}

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

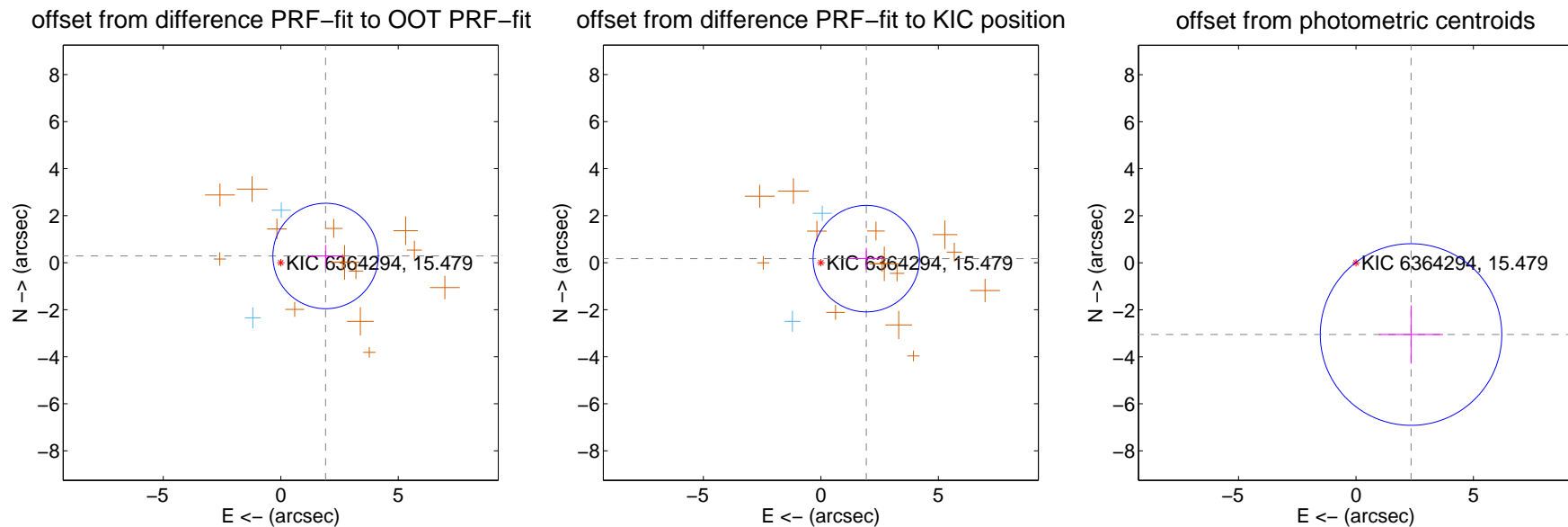
DV Centroid Data

Supplemental centroid analysis for 006364294-01. Kepler magnitude: 15.48. Transit SNR 8.98

There are 2 quarters with good PRF difference image offsets

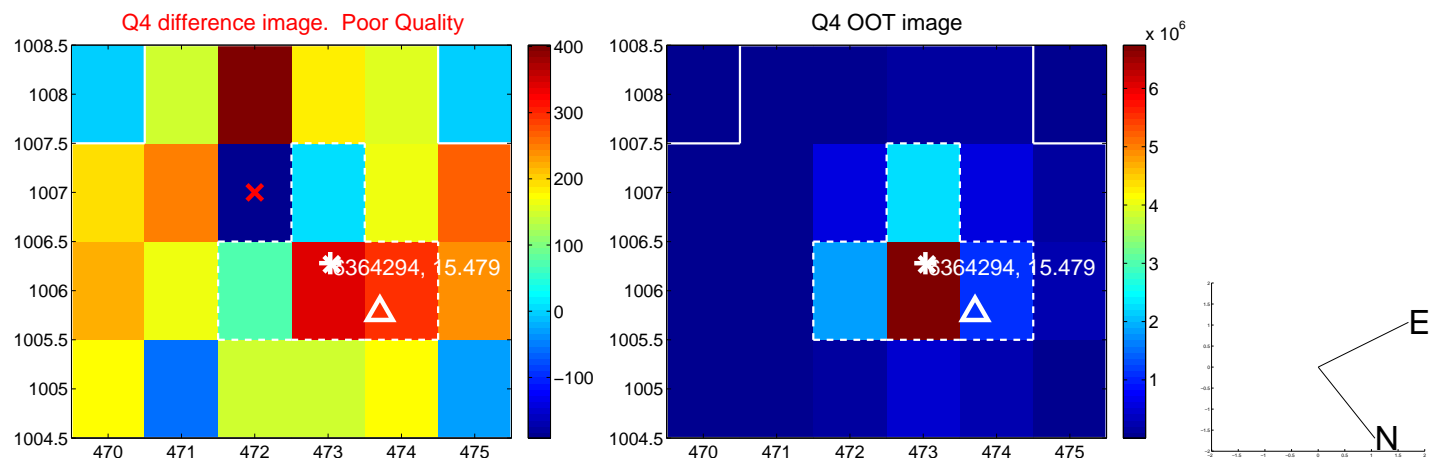
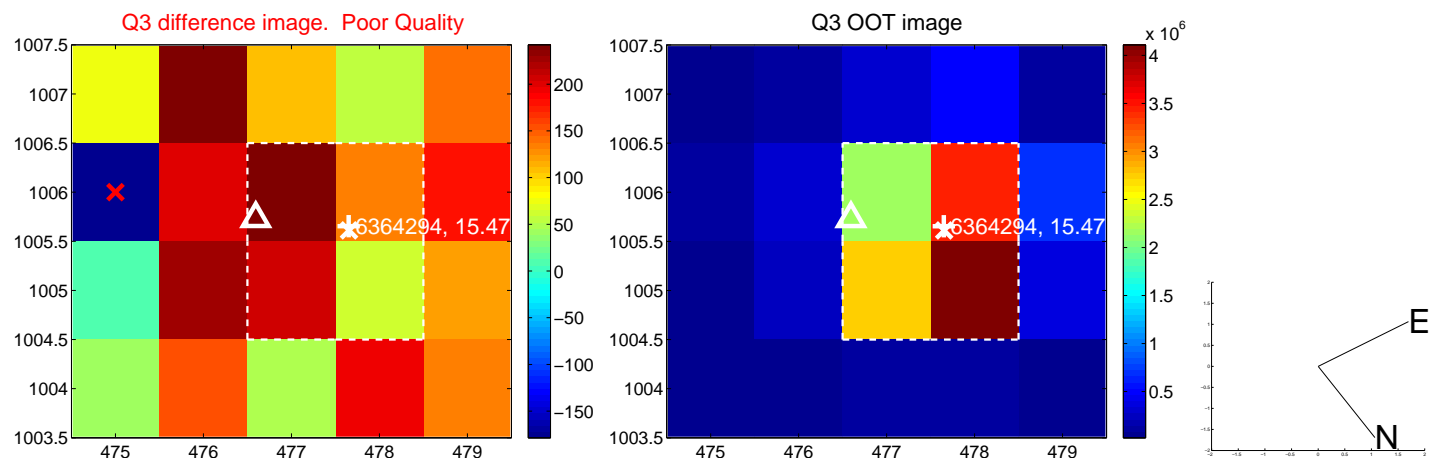
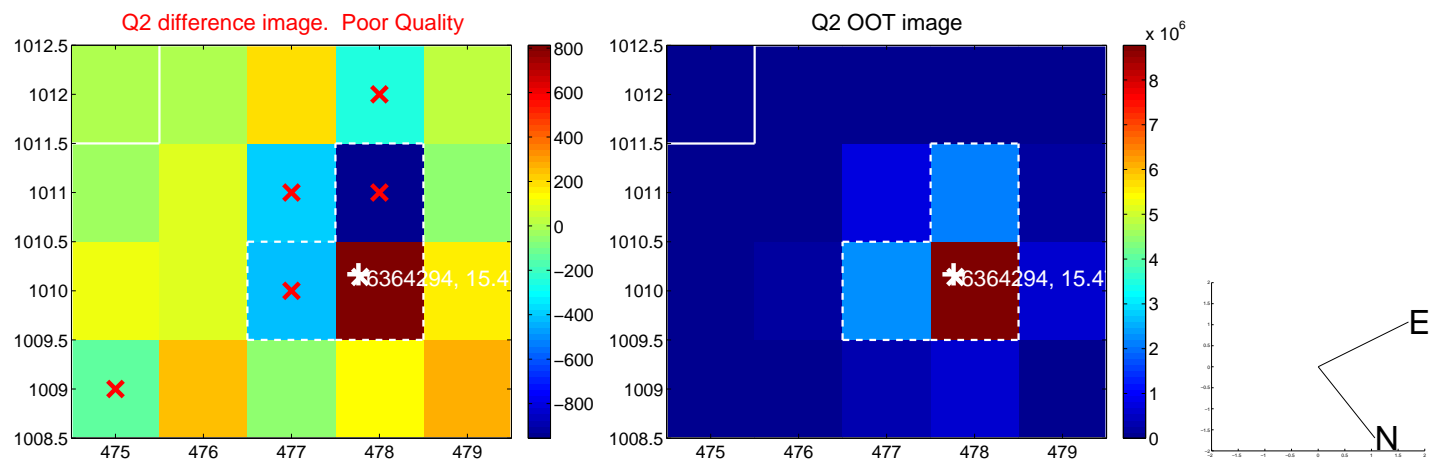
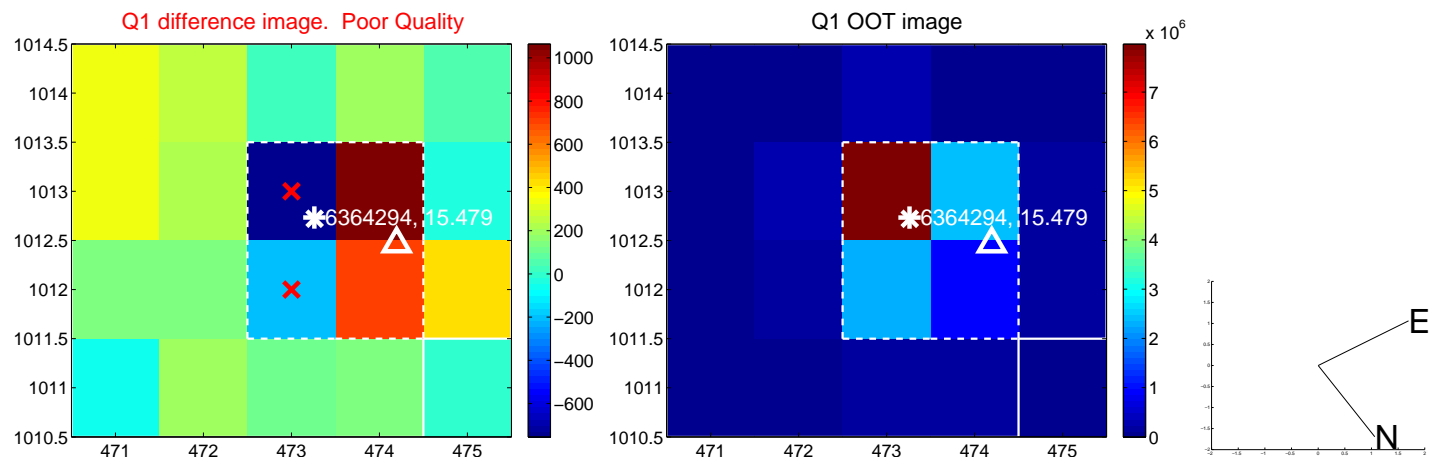
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.930 ± 0.748	2.58	-1.909 ± 0.753	0.286 ± 0.460
PRF-fit source offset from KIC position	1.941 ± 0.755	2.57	-1.933 ± 0.757	0.173 ± 0.462
photometric centroid source offset	3.85 ± 1.29	2.99	-2.34 ± 1.36	-3.05 ± 1.24

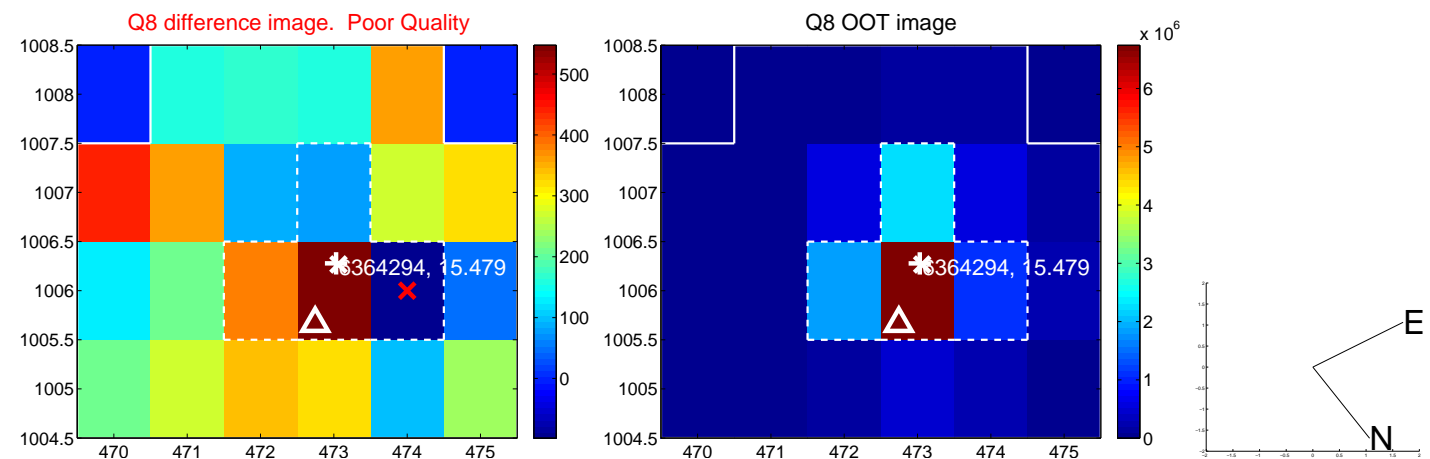
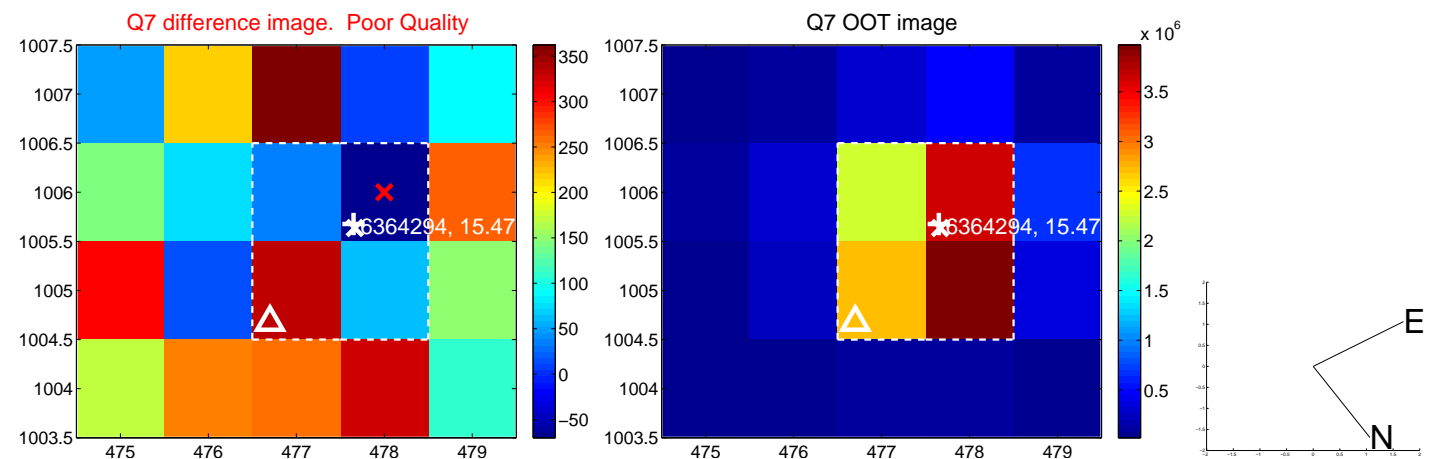
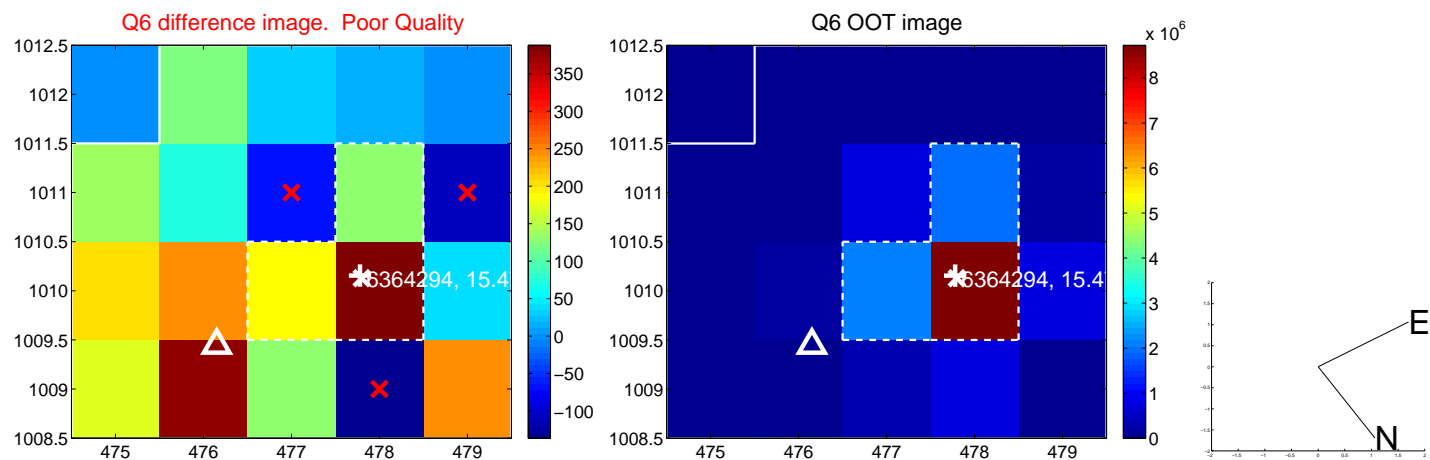
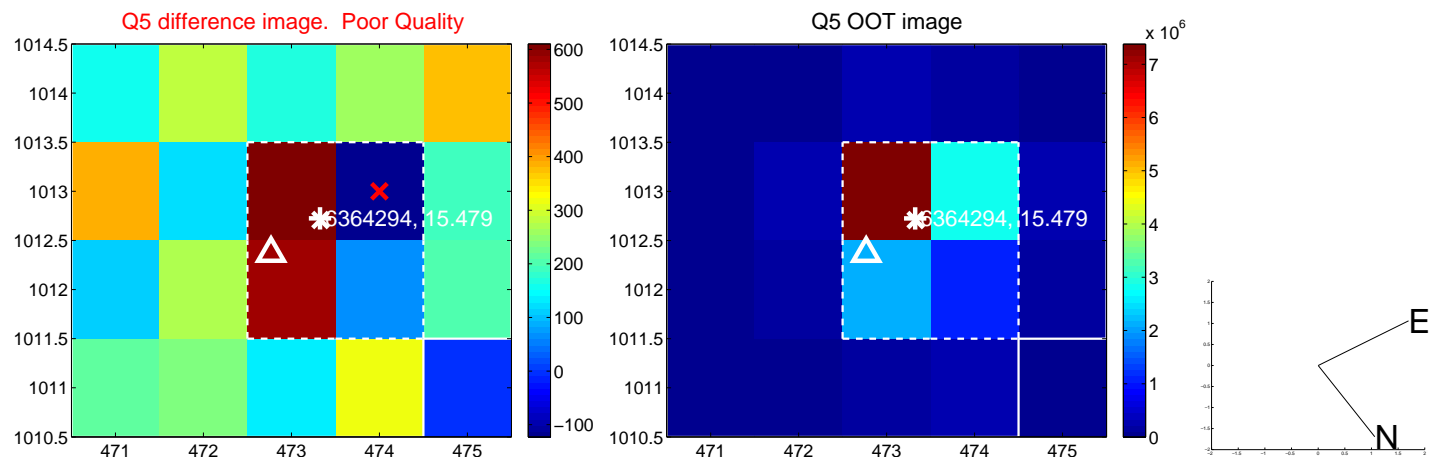


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

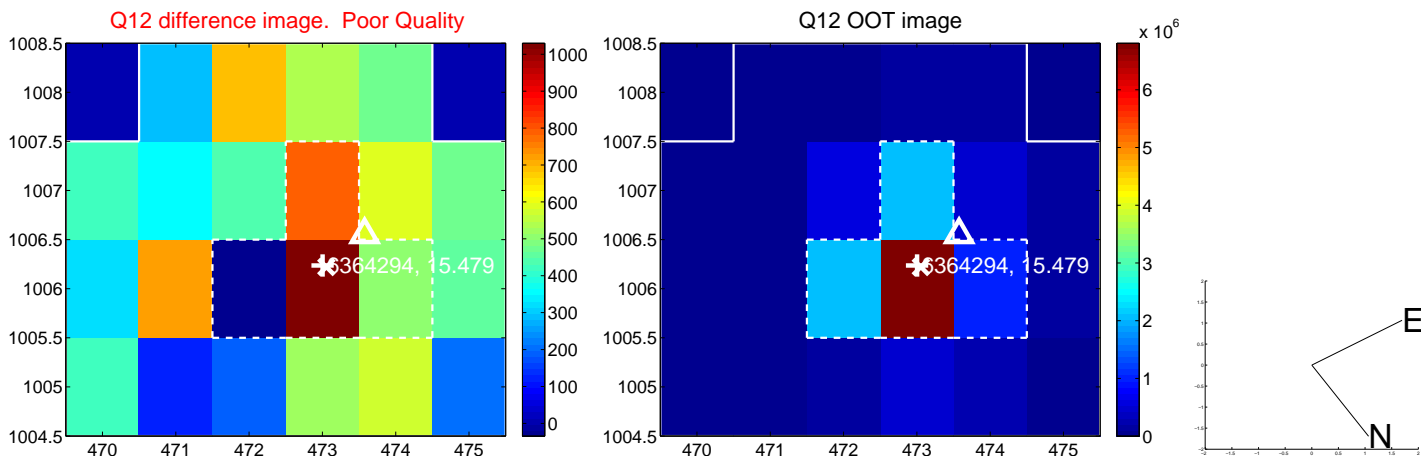
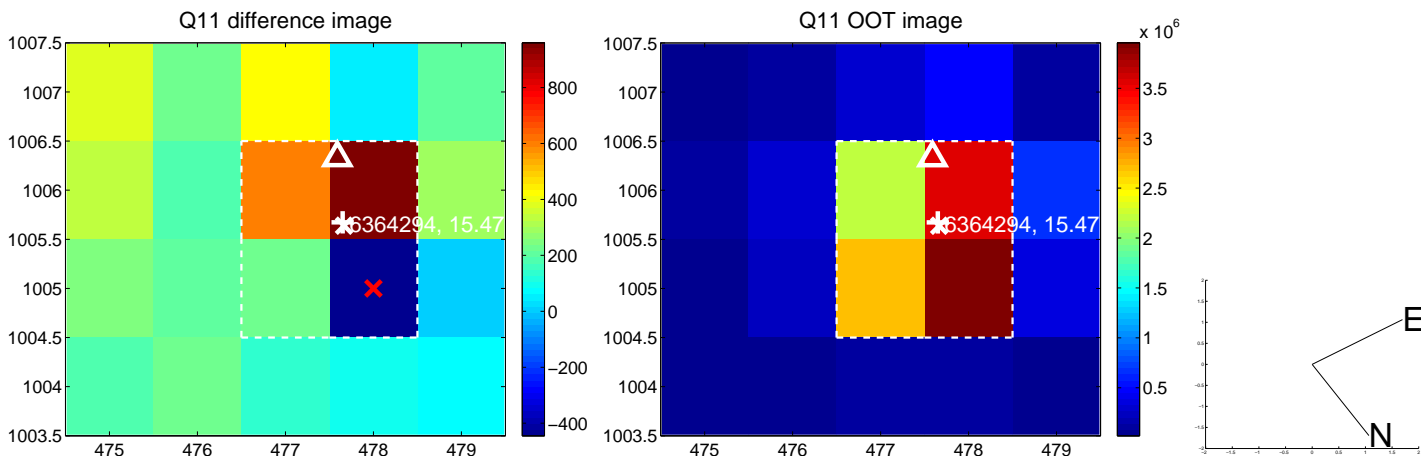
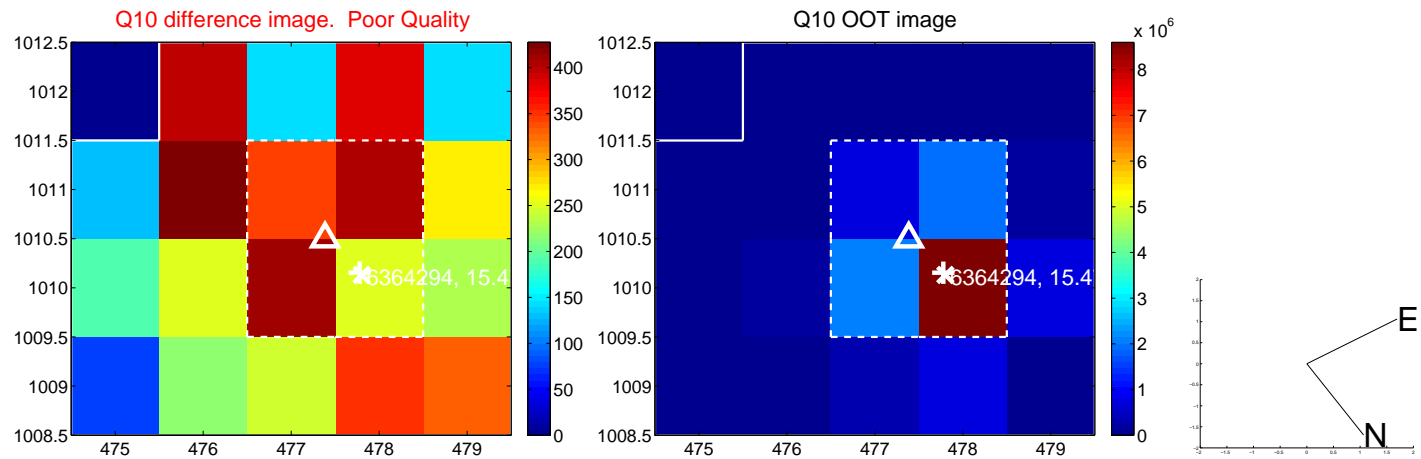
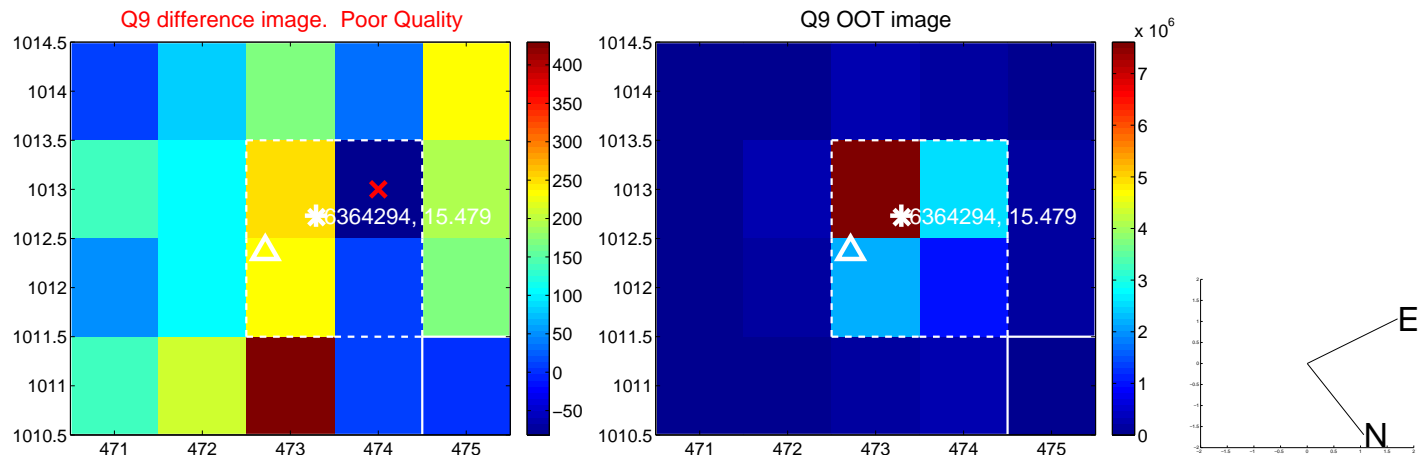
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



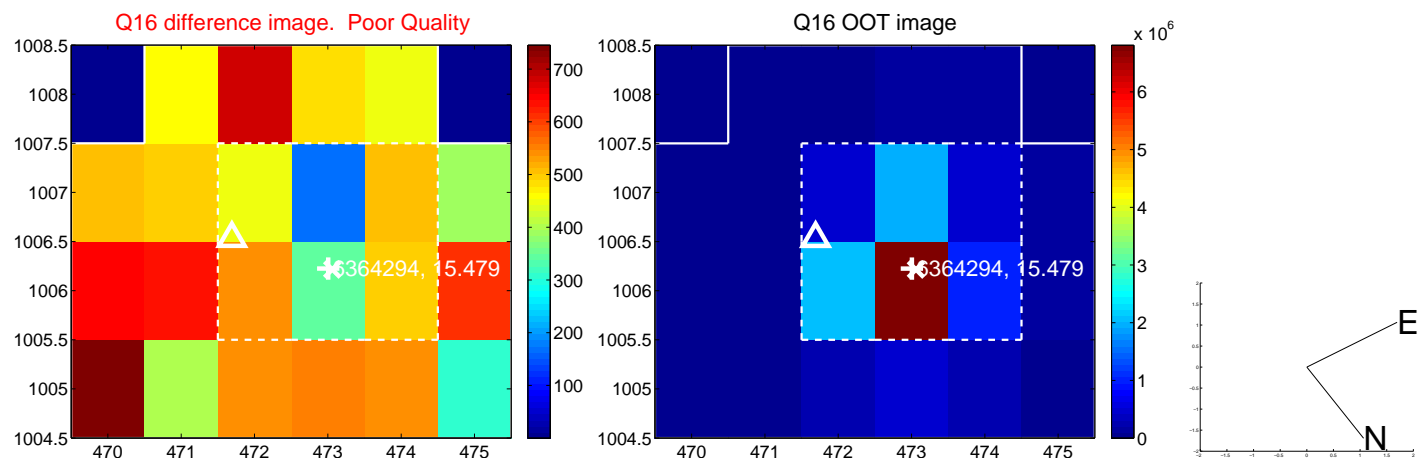
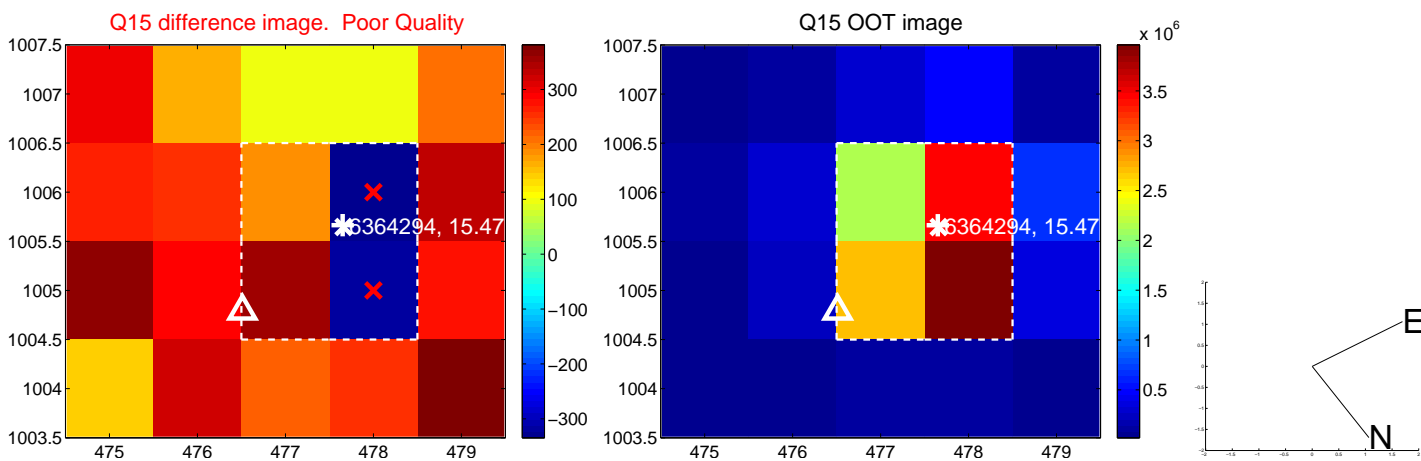
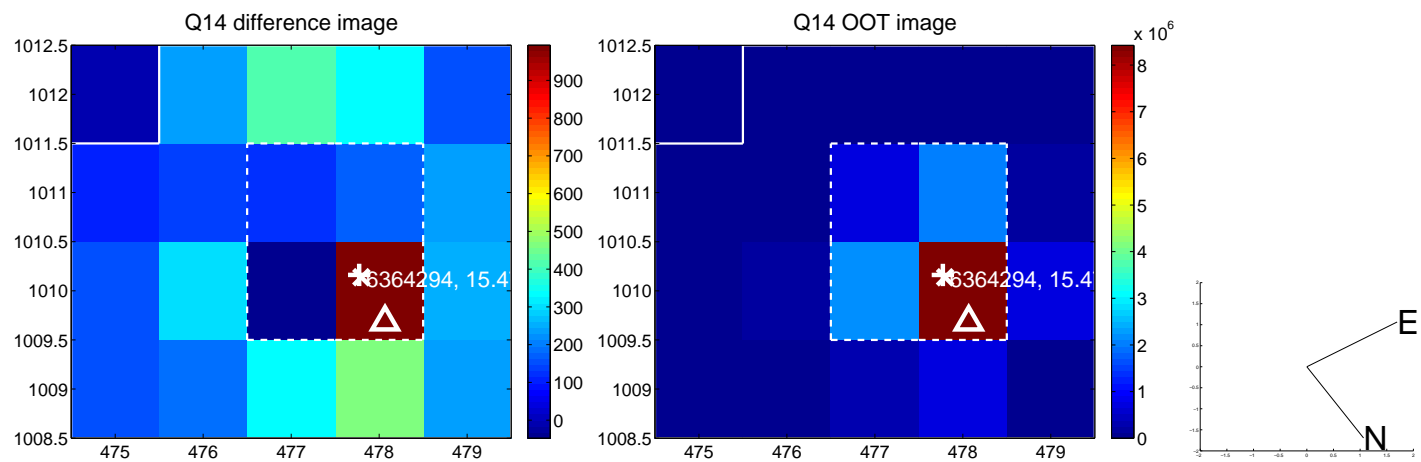
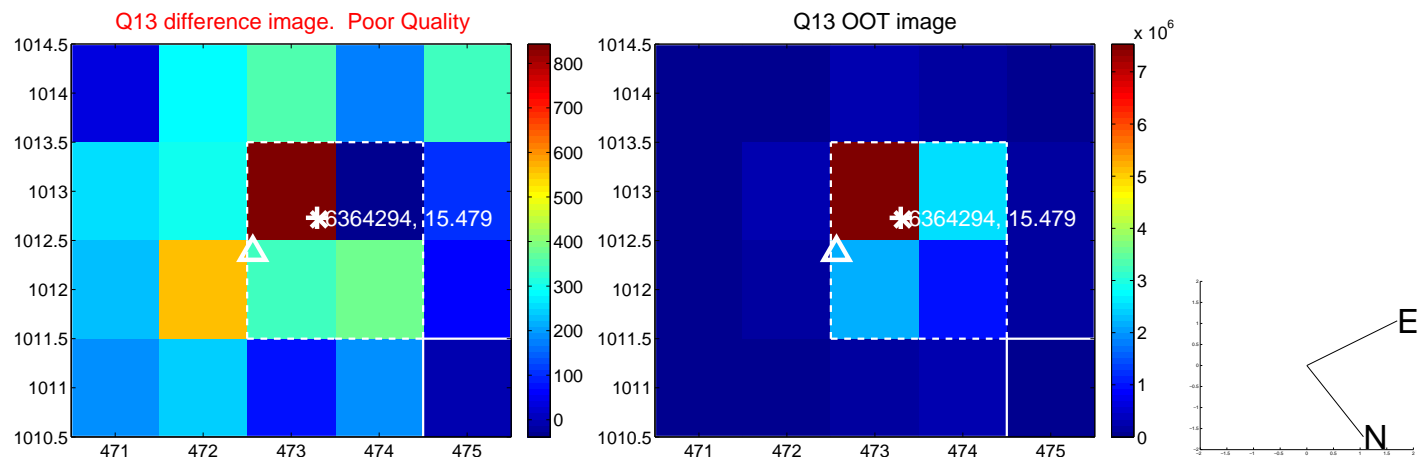
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



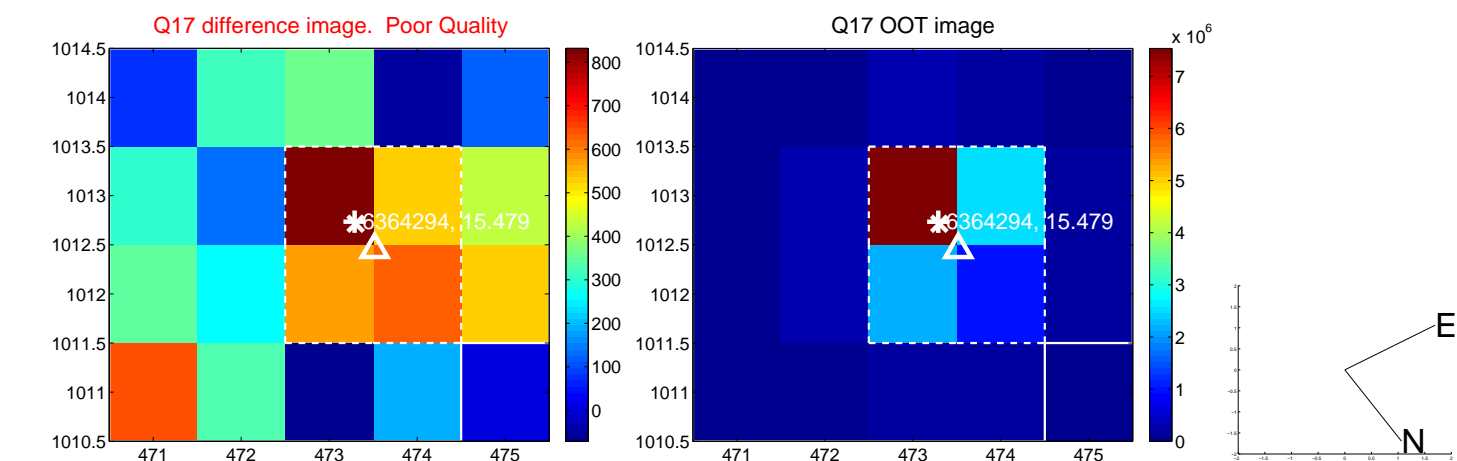
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



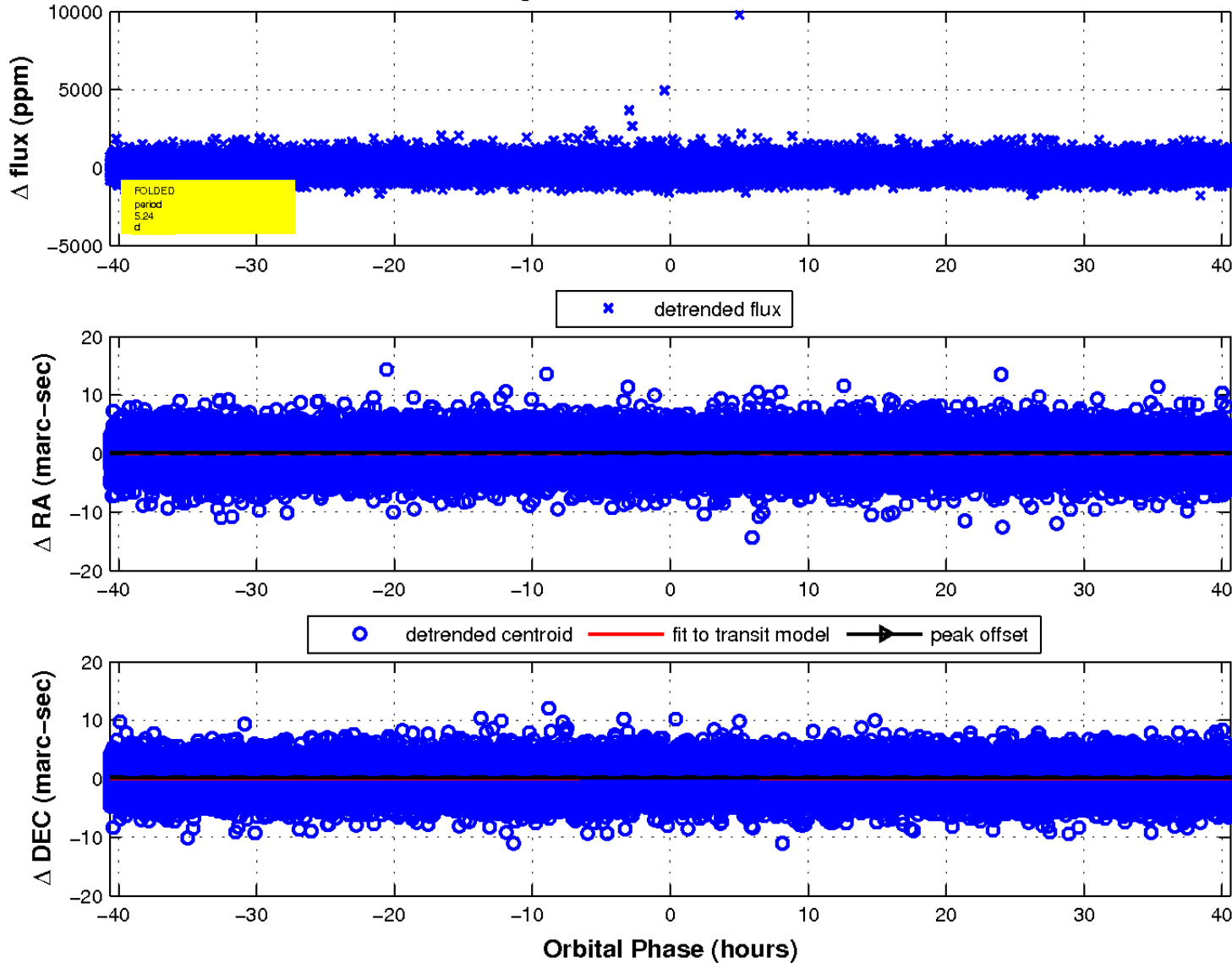
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

