

KIC 005384194

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})
005384194-01	OBS	No	1.242100	132.731001	15.2	11.426	9.1	10.1	1.63	6339	0.64	6266.53

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005384194-01	OBS	FP	0.00	1	0	0	1	LPP_DV—CENT_FEW_DIFFS—EPHEM_MATCH

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.

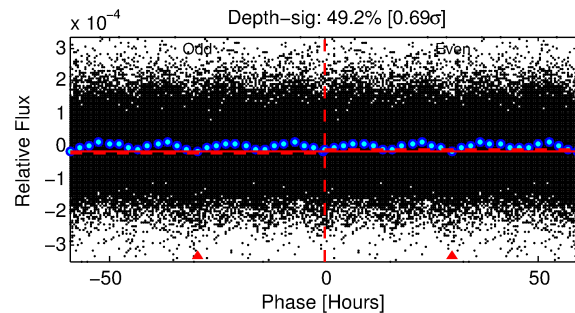
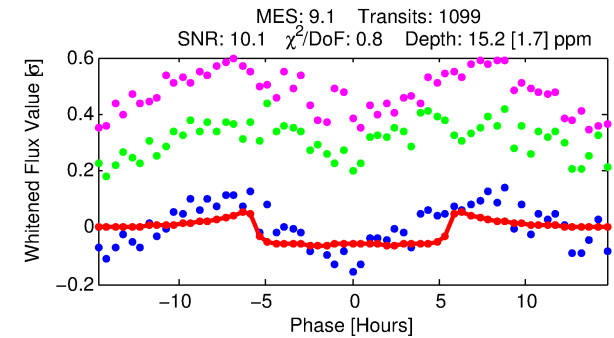
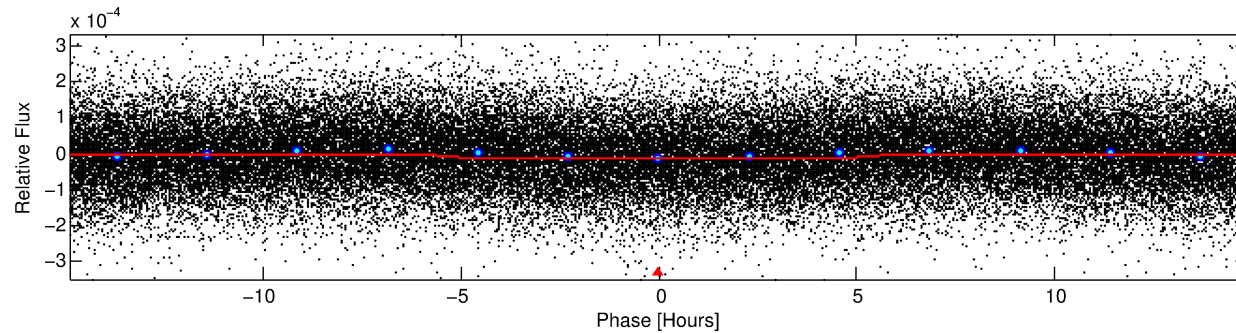
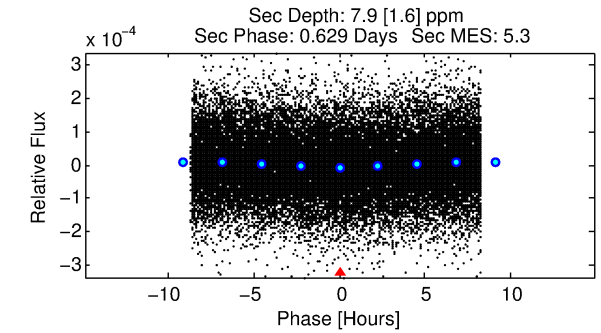
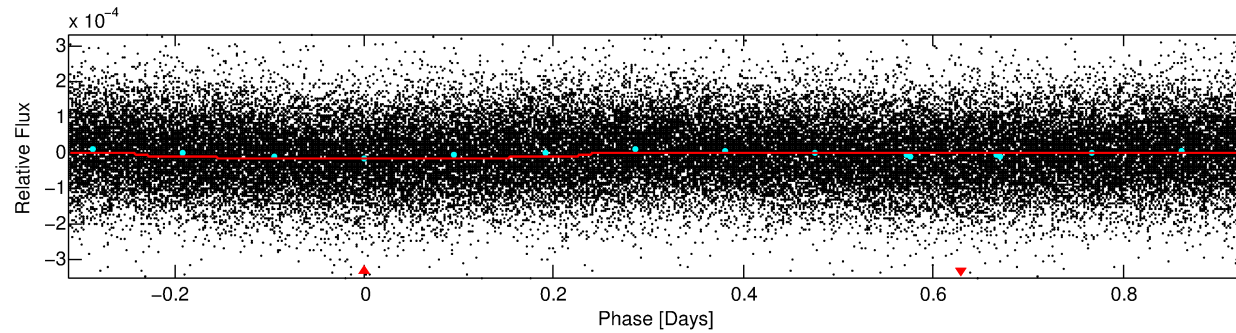
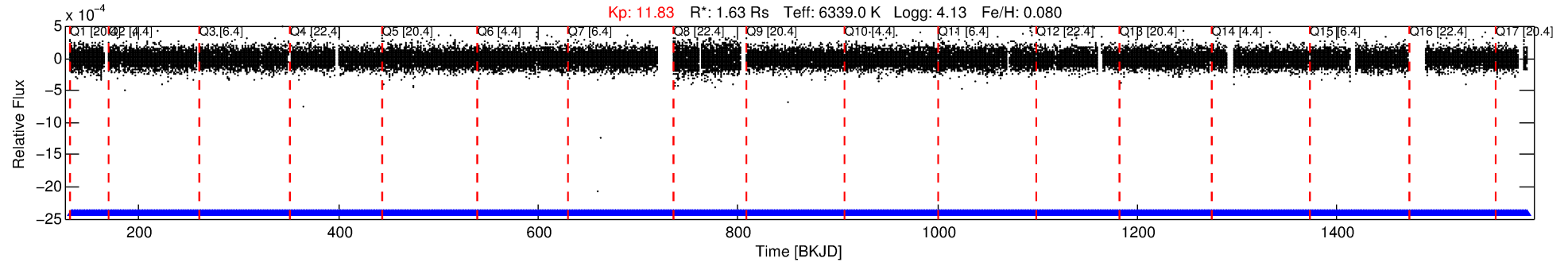
Ephemeris Match Information For 005384194-01

TCE (1)	KIC	Parent (2)	Parent KIC	P ₁ :P ₂	Dist (″)	Δ Row	Δ Col	m ₂	m ₁	D ₂ /D ₁	Mechanism	Flag	σ_P	σ_T
005384194-01	5384194	005384183-02	5384183	1:1	5.5	0	1	13.58	11.83	19.40	Direct-PRF	0	2.32	4.24

Notes: P₁:P₂ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m₂ and m₁ are the magnitudes of the parent and child. D₂/D₁ is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 5384194 Candidate: 1 of 1 Period: 1.242 d



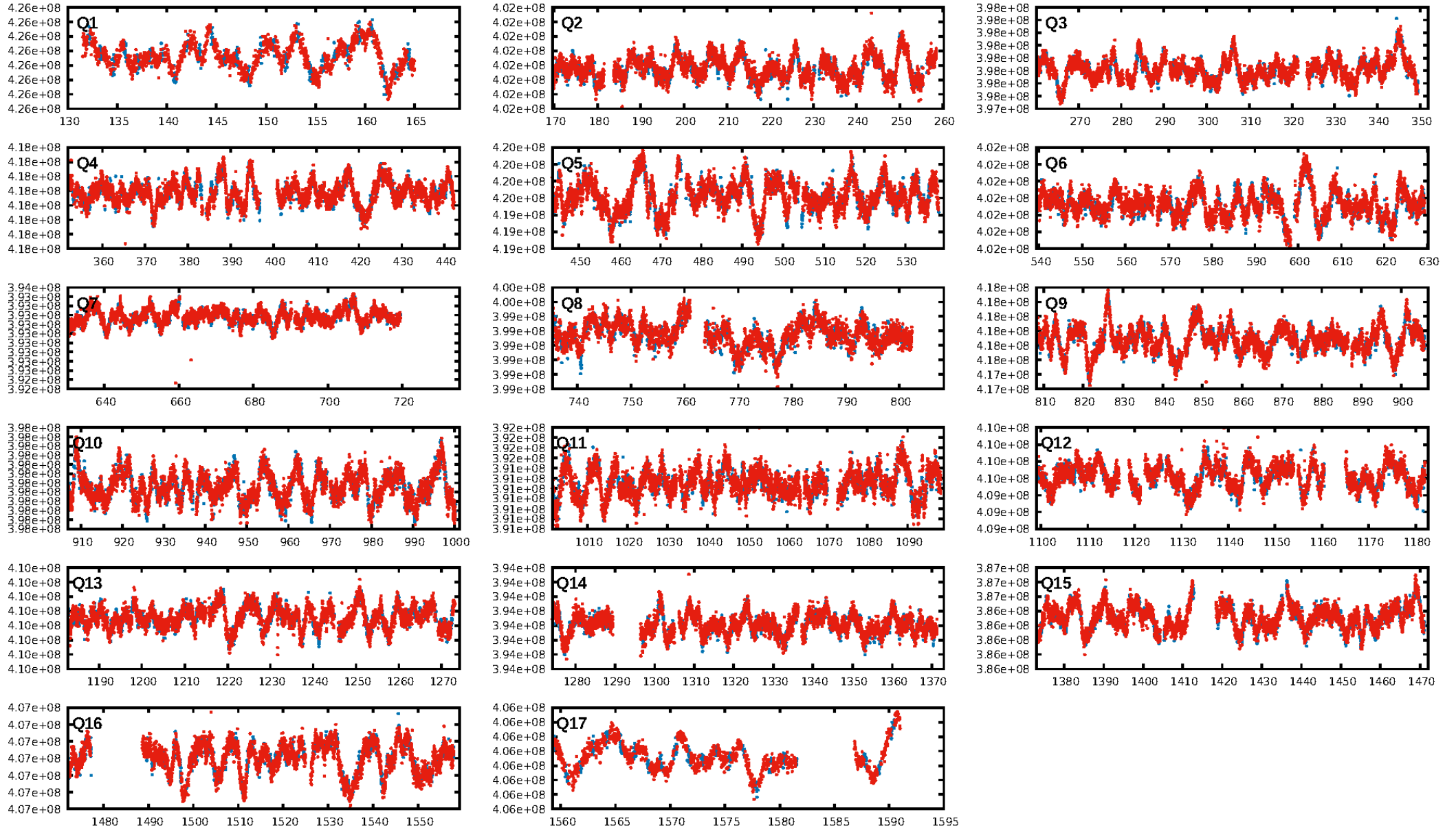
DV Fit Results:

Period = 1.24210 [0.00002] d
Epoch = 132.7310 [0.0045] BKJD
Rp/R* = 0.0036 [0.0019]
a/R* = 1.07 [0.34]
b = 0.38 [6.17]
Seff = 6266.53 [1713.88]
Teq = 2269 [155] K
Rp = 0.64 [0.36] Re
a = 0.0247 [0.0043] AU
Ag = 6.40 [7.10] [0.76σ]
Teffp = 5578 [1503] K [2.19σ]

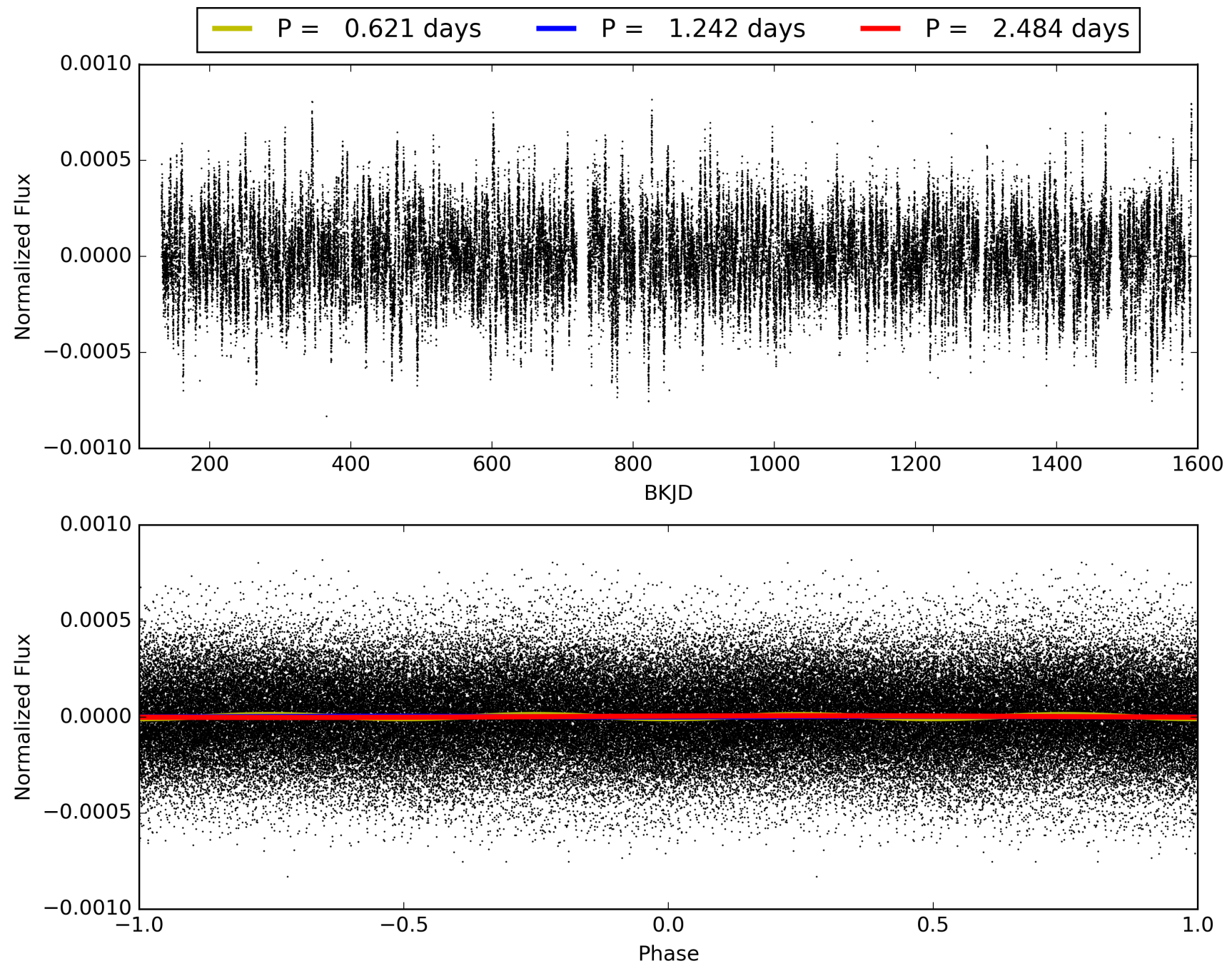
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1049/1049]
GhostDiagnostic-chr: 0.5878
Centroid-sig: 0.3%
Centroid-so: 1.257 arcsec [2.59σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [17/17]

TCE 005384194-01, PDC Light Curves

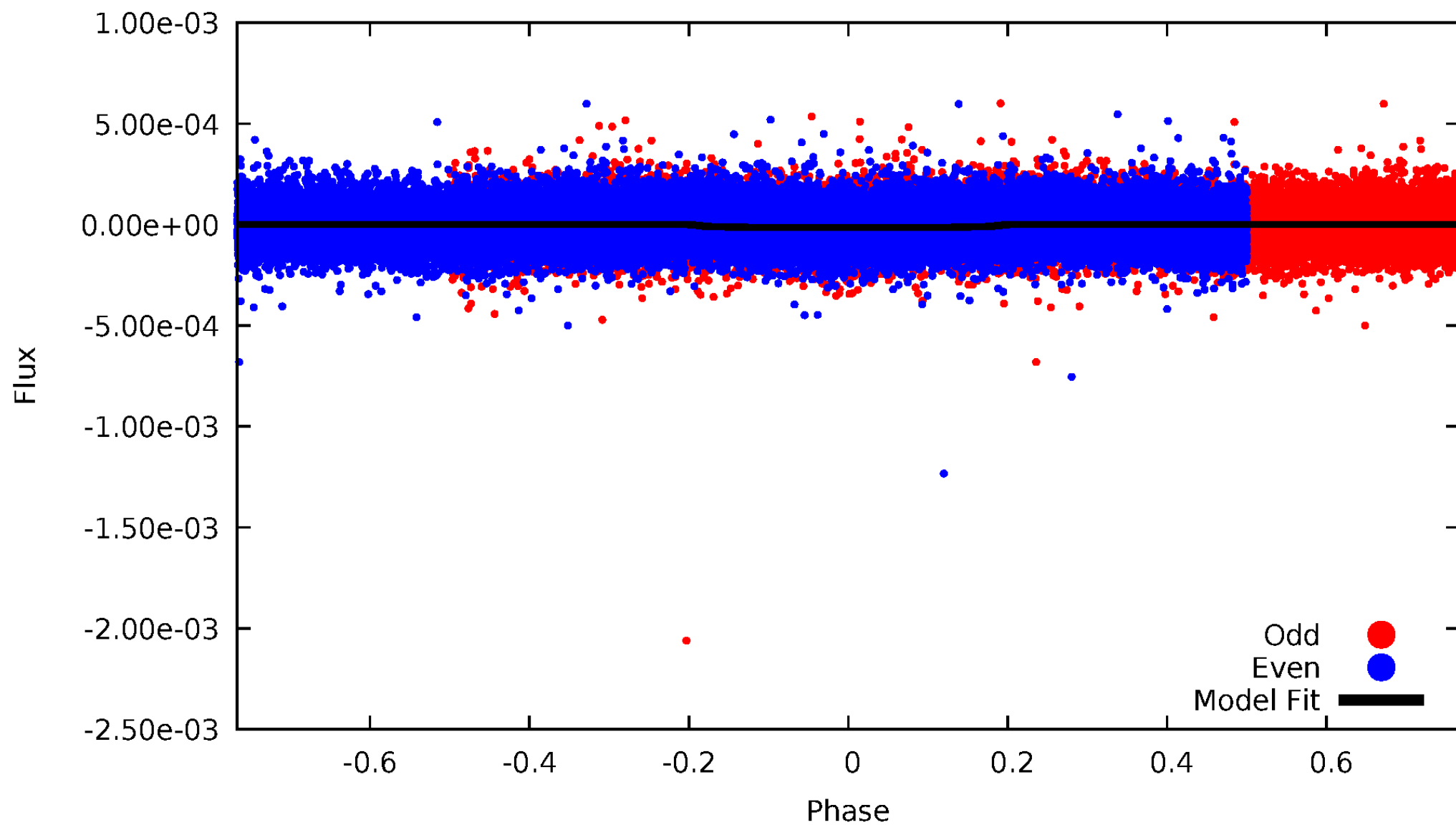


TCE 005384194-01



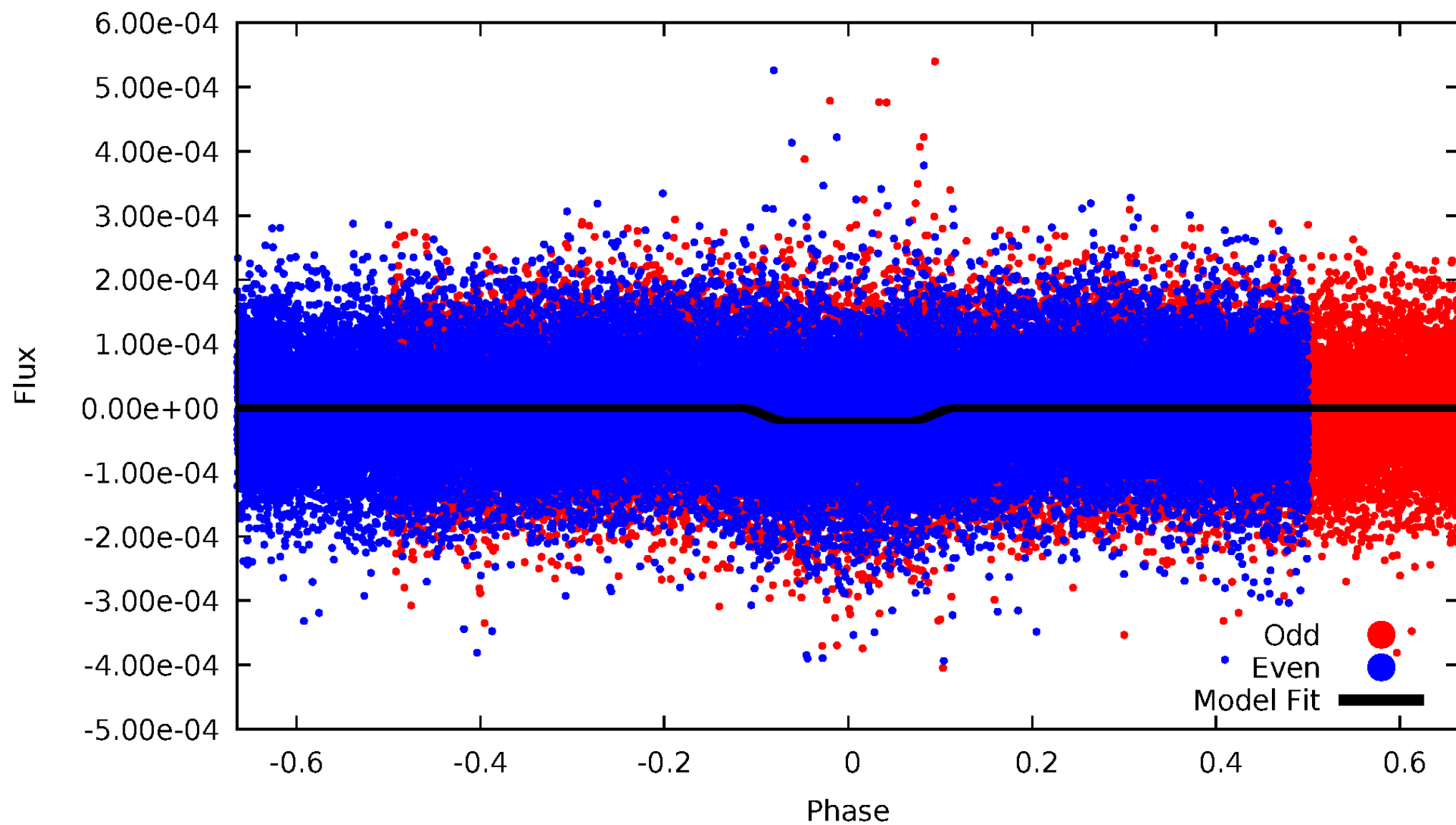
DV Odd/Even

TCE 005384194-01



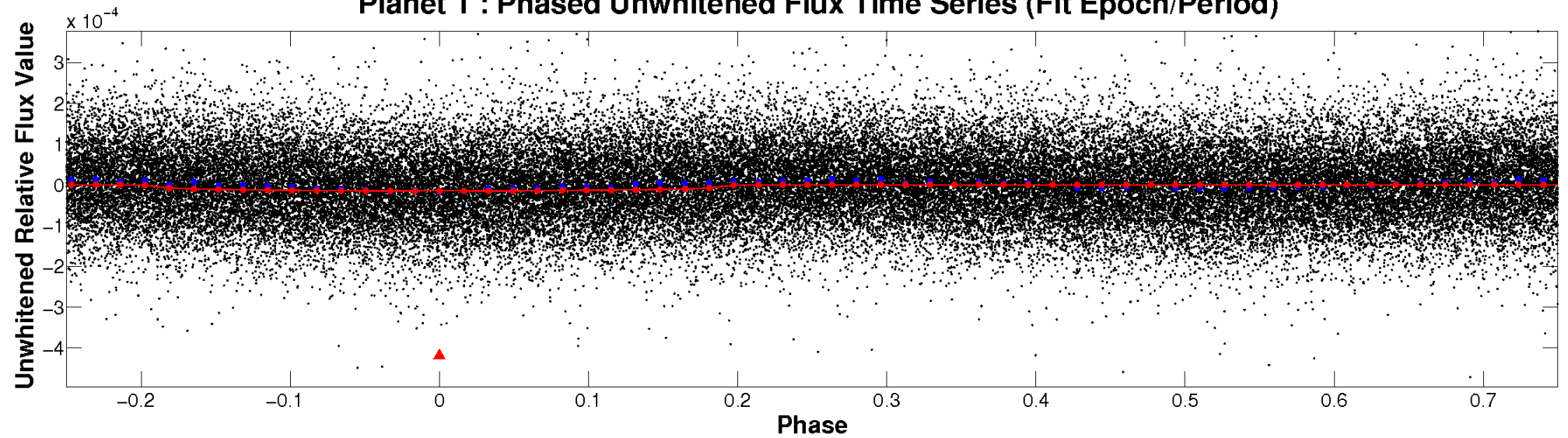
ALT Odd/Even

TCE 005384194-01

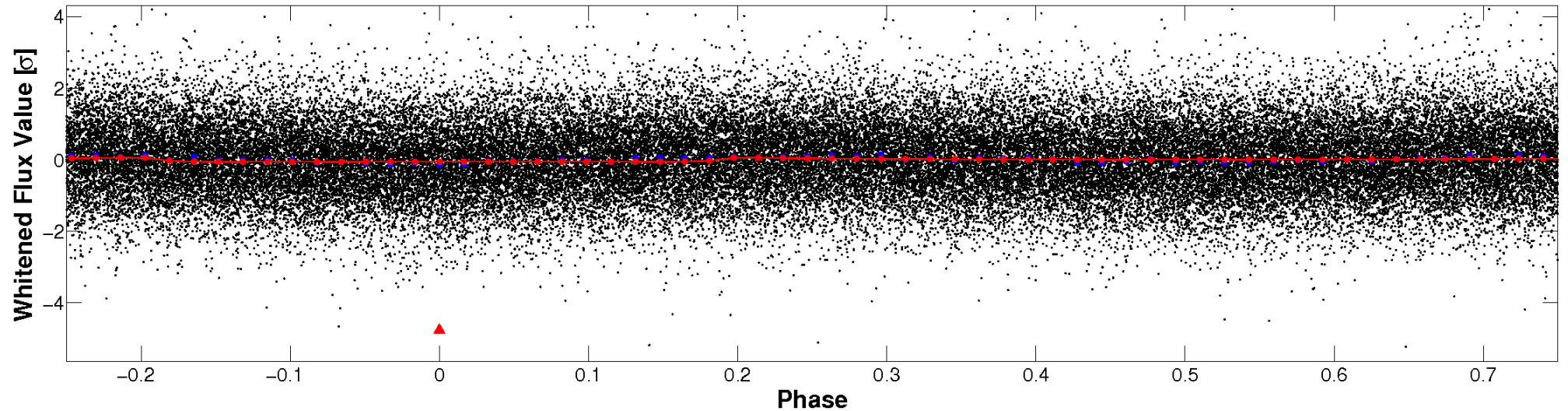


Non-Whitened Vs. Whitened Light Curve

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

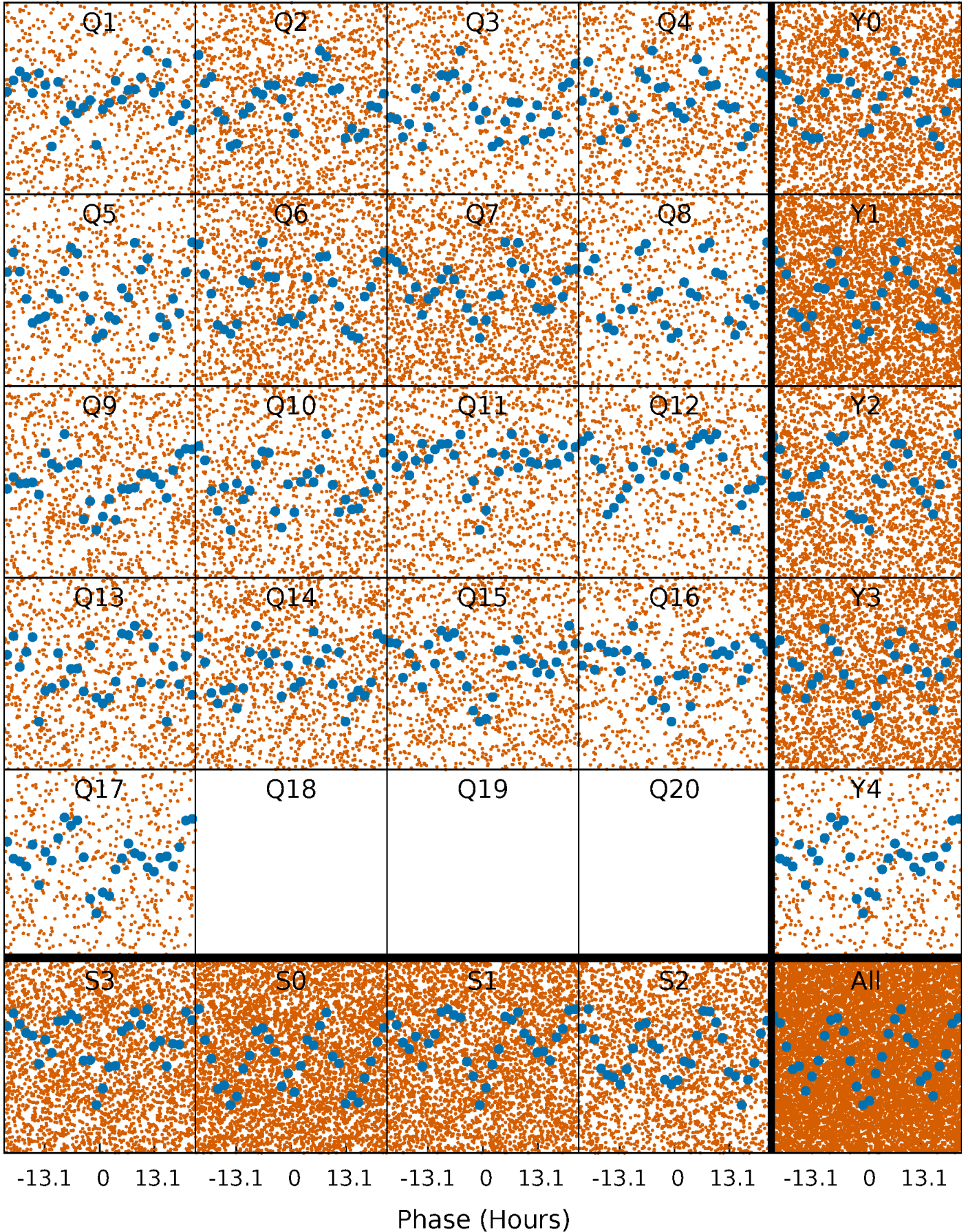


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



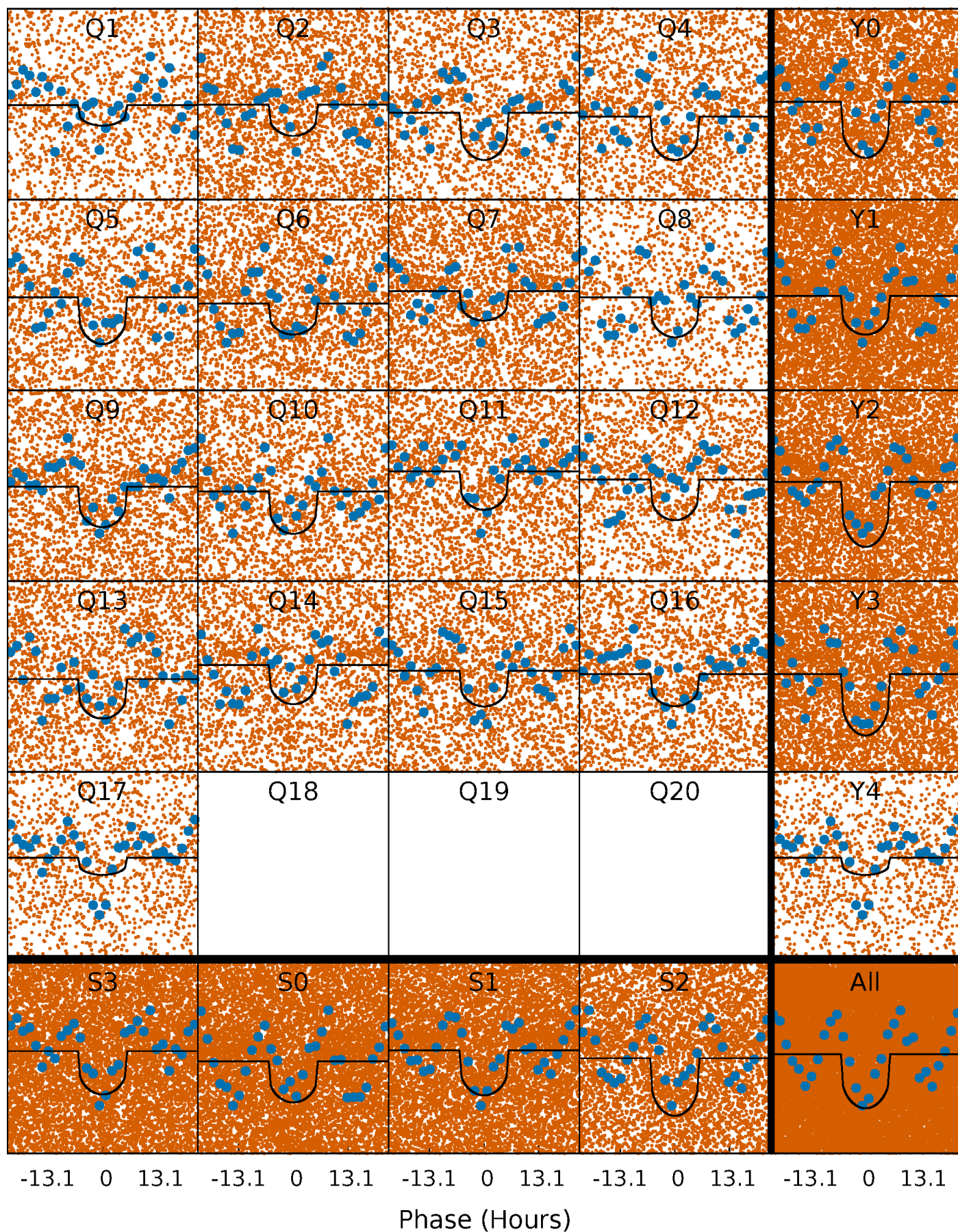
PDC Quarter-Phased Transit Curves

TCE 005384194-01 P= 1.242100 Days $T_0=132.731001$ (BKJD)



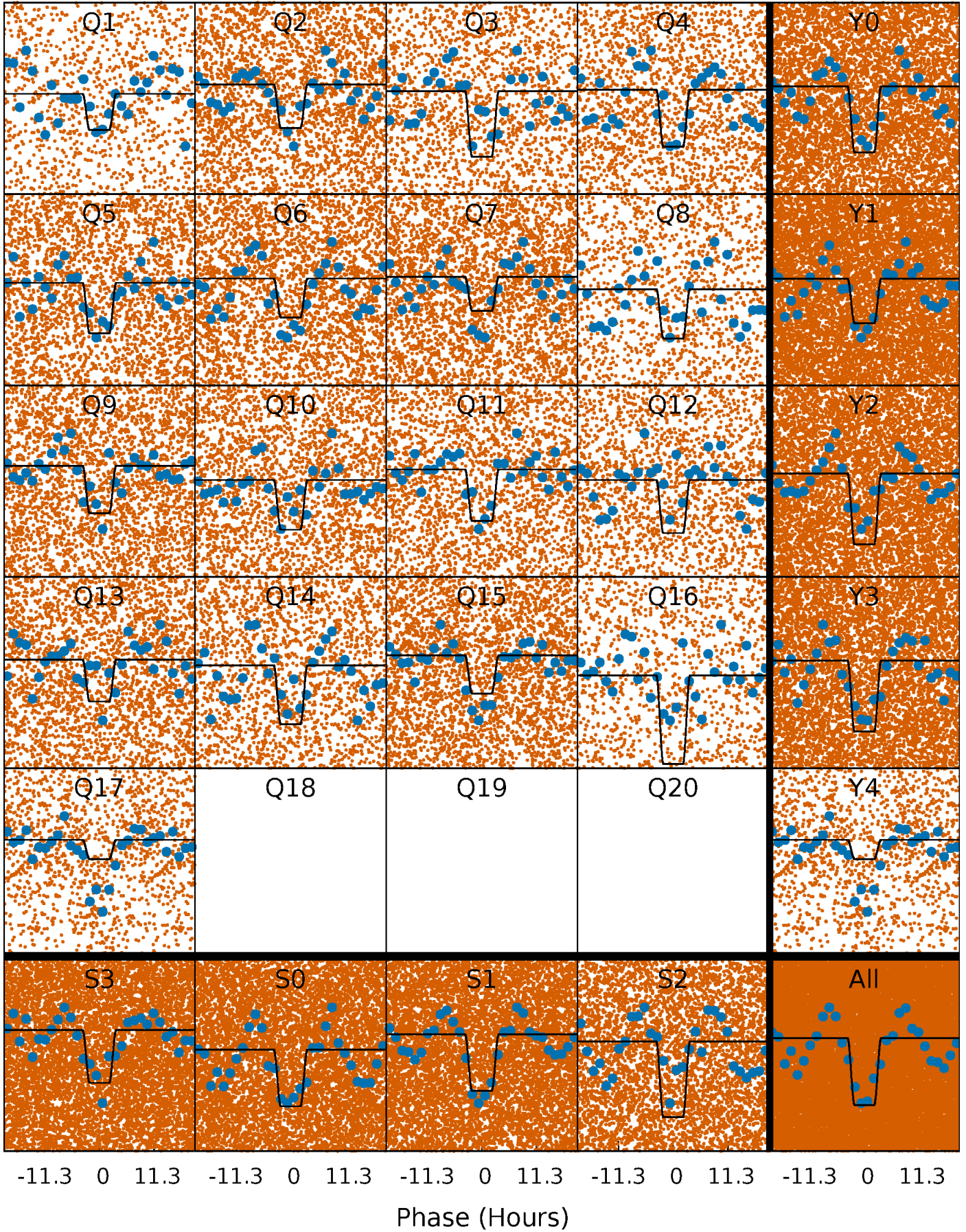
DV Quarter-Phased Transit Curves

TCE 005384194-01 P= 1.242100 Days $T_0=132.731001$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

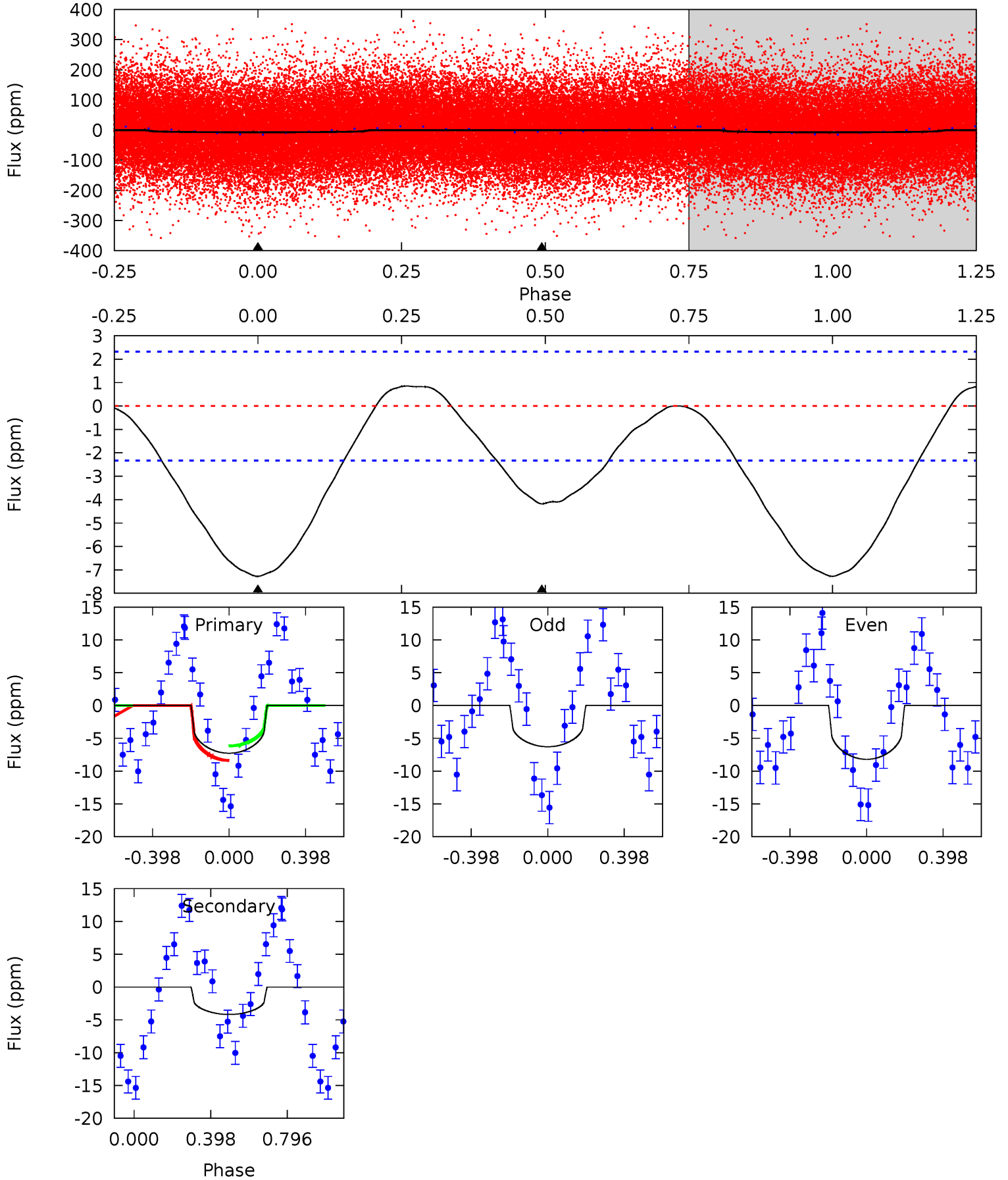
TCE 005384194-01 P= 1.242066 Days $T_0=132.735503$ (BKJD)



DV Model-Shift Uniqueness Test

005384194-01, P = 1.242100 Days, E = 131.488901 Days

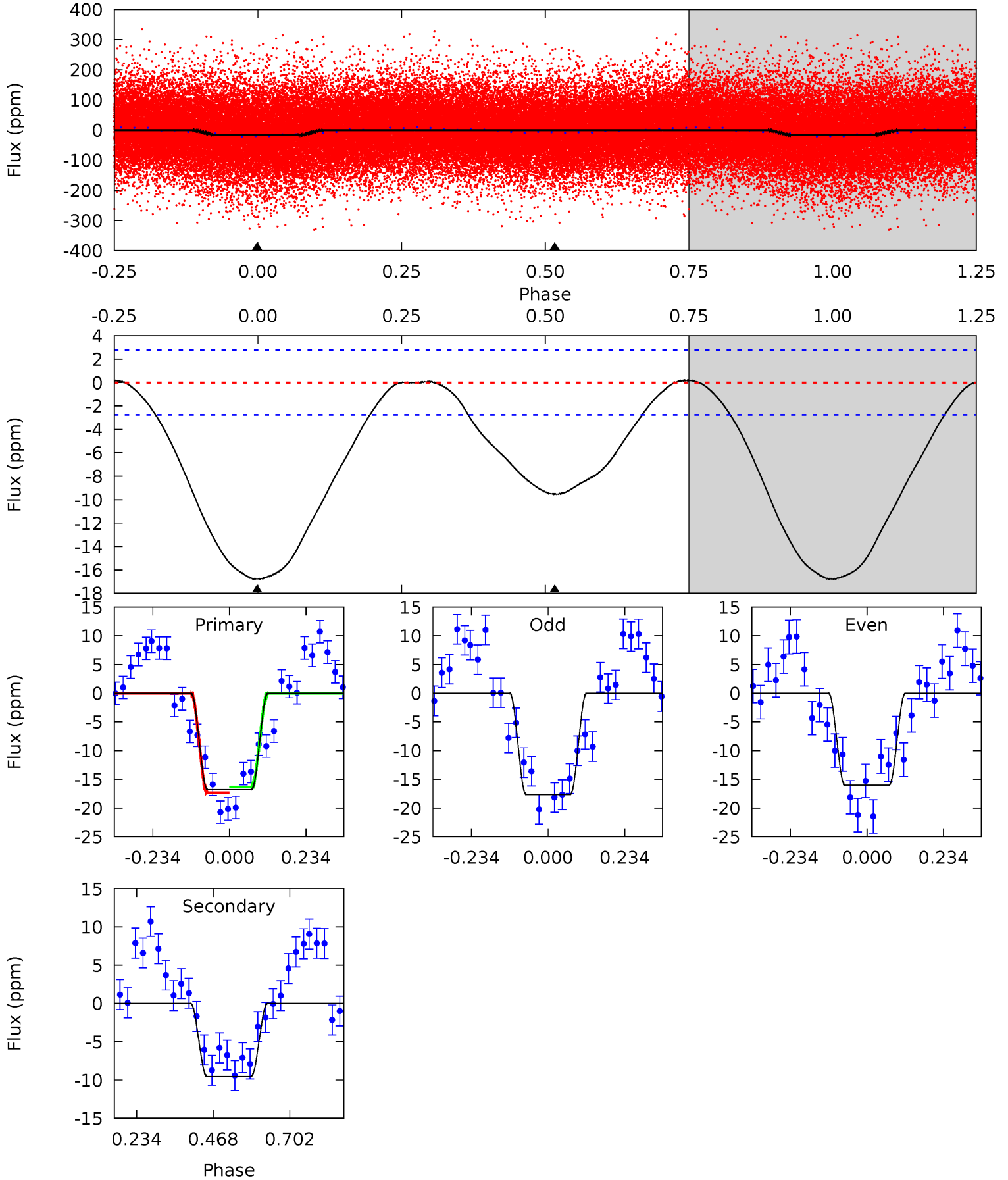
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.3	7.66	0	0	4.27	0.84	0.85	13.3	13.3	7.66	7.66	1.76	1.14	0.11	2.02



Alt Model-Shift Uniqueness Test

005384194-01, P = 1.242066 Days, E = 131.493437 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.7	15.1	0	0	4.38	1.19	0.33	26.7	26.7	15.1	15.1	1.30	1.04	0.01	0.78



Stellar Parameters For KIC 005384194

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6339^{+82}_{-82}	$4.131^{+0.154}_{-0.112}$	$0.080^{+0.150}_{-0.150}$	$1.627^{+0.311}_{-0.311}$	$1.307^{+0.102}_{-0.136}$	$0.427^{+0.321}_{-0.158}$
	+1%/-1%	+4%/-3%	+188%/-188%	+19%/-19%	+8%/-10%	+75%/-37%
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 005384194-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-4 ± 1	$0.65^{+0.38}_{-0.31}$	3170^{+153}_{-167}	4696^{+1778}_{-789}	$3.268^{+8.915}_{-1.933}$
Alt.	-10 ± 1	$0.75^{+0.35}_{-0.31}$	3146^{+154}_{-147}	5306^{+1737}_{-821}	$5.581^{+11.193}_{-3.006}$

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

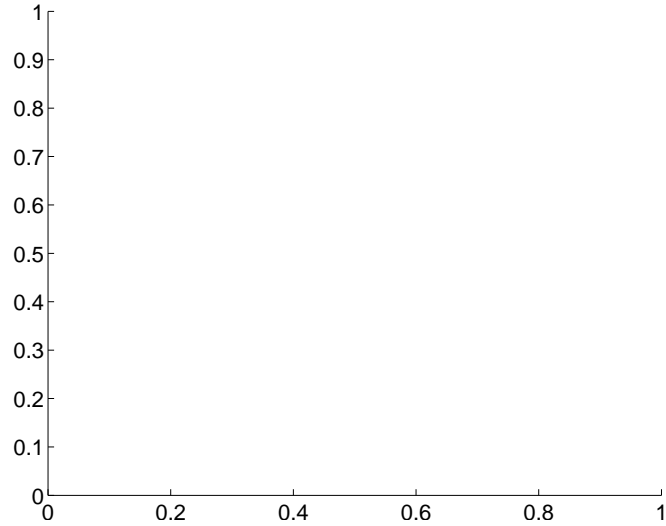
Supplemental centroid analysis for 005384194-01. **Kepler magnitude: 11.83.** Transit SNR 10.06

There are 0 quarters with good PRF difference image offsets

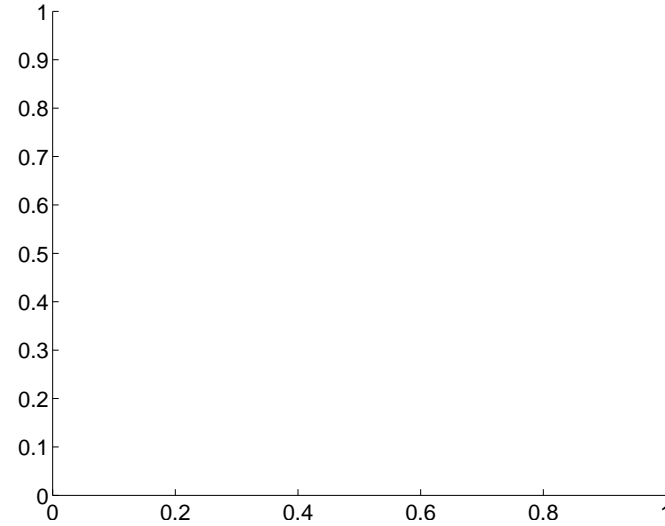
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	1.26 ± 0.49	2.59	-0.38 ± 0.54	-1.20 ± 0.48

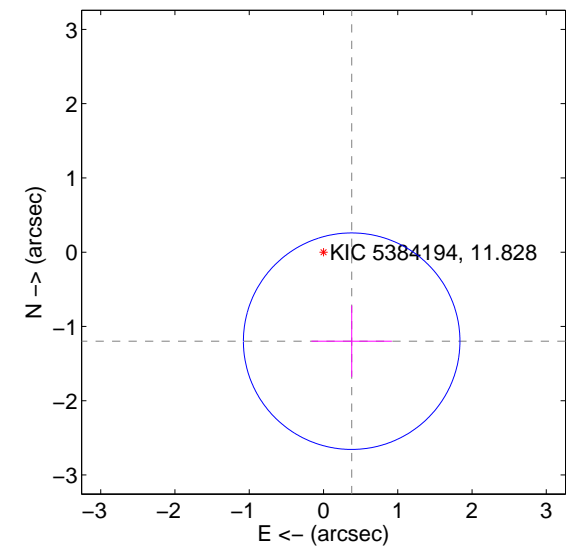
There is no PRF-fit offset from OOT-fit



There is no PRF-fit offset from KIC

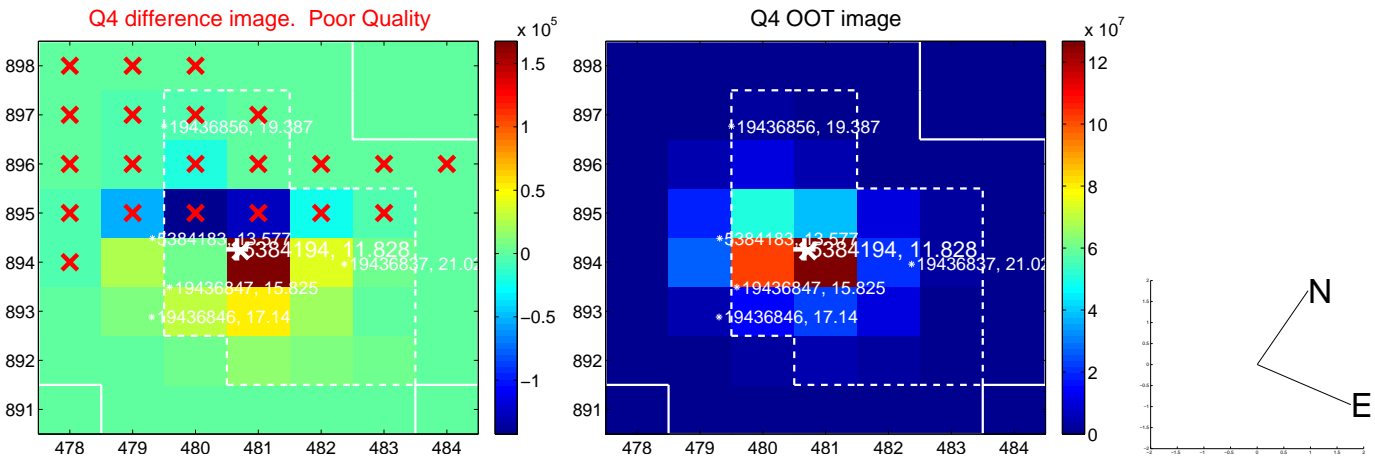
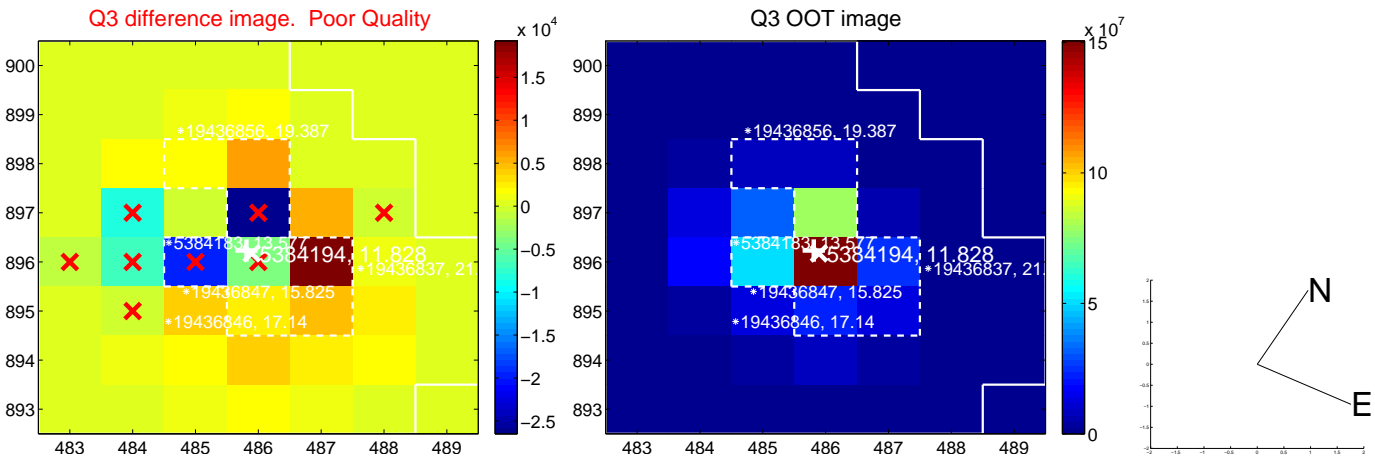
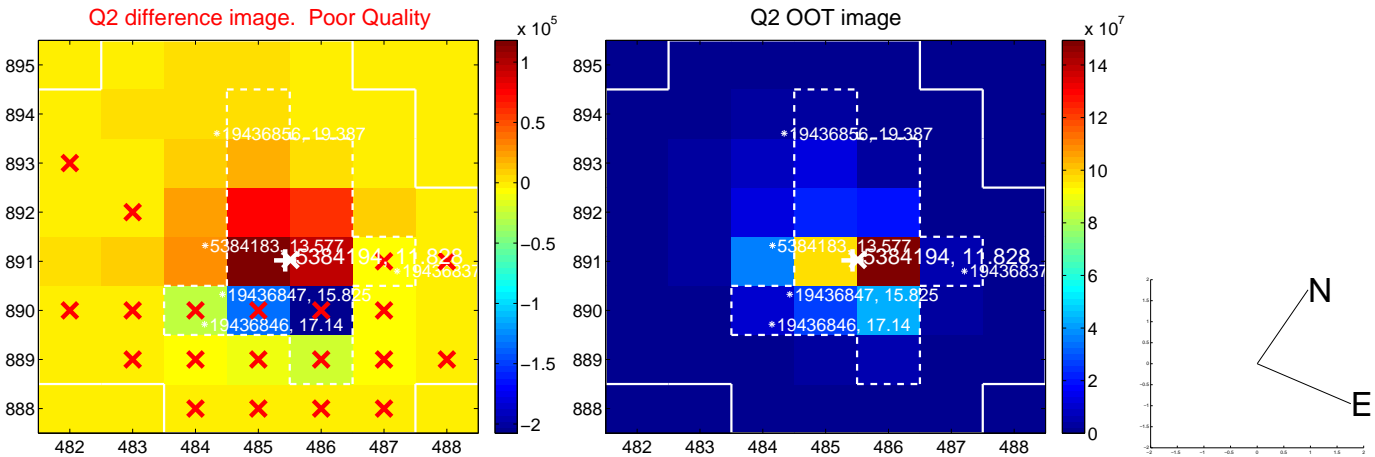
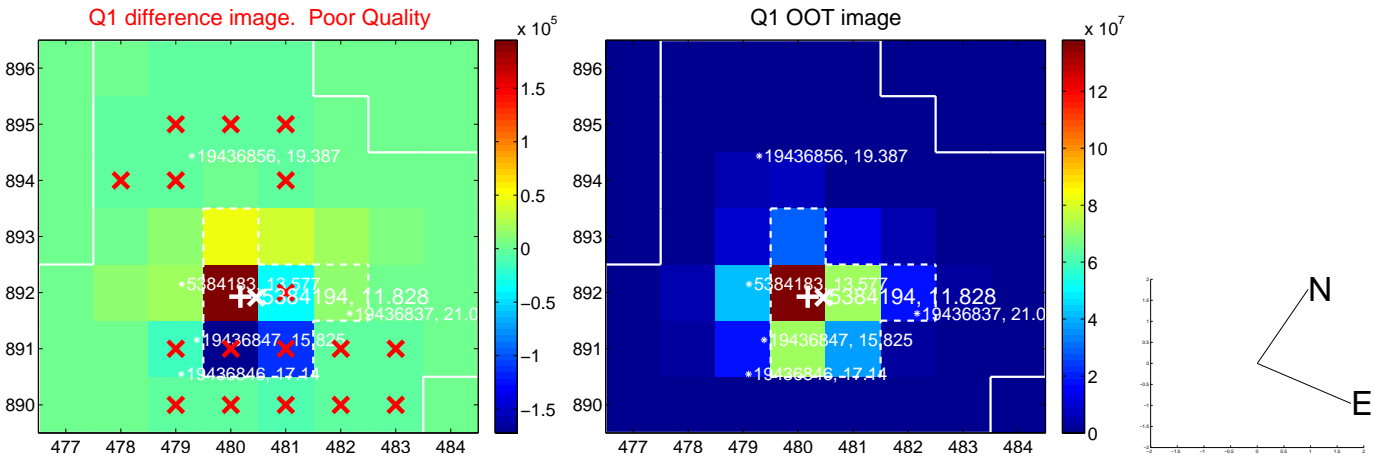


offset from photometric centroids

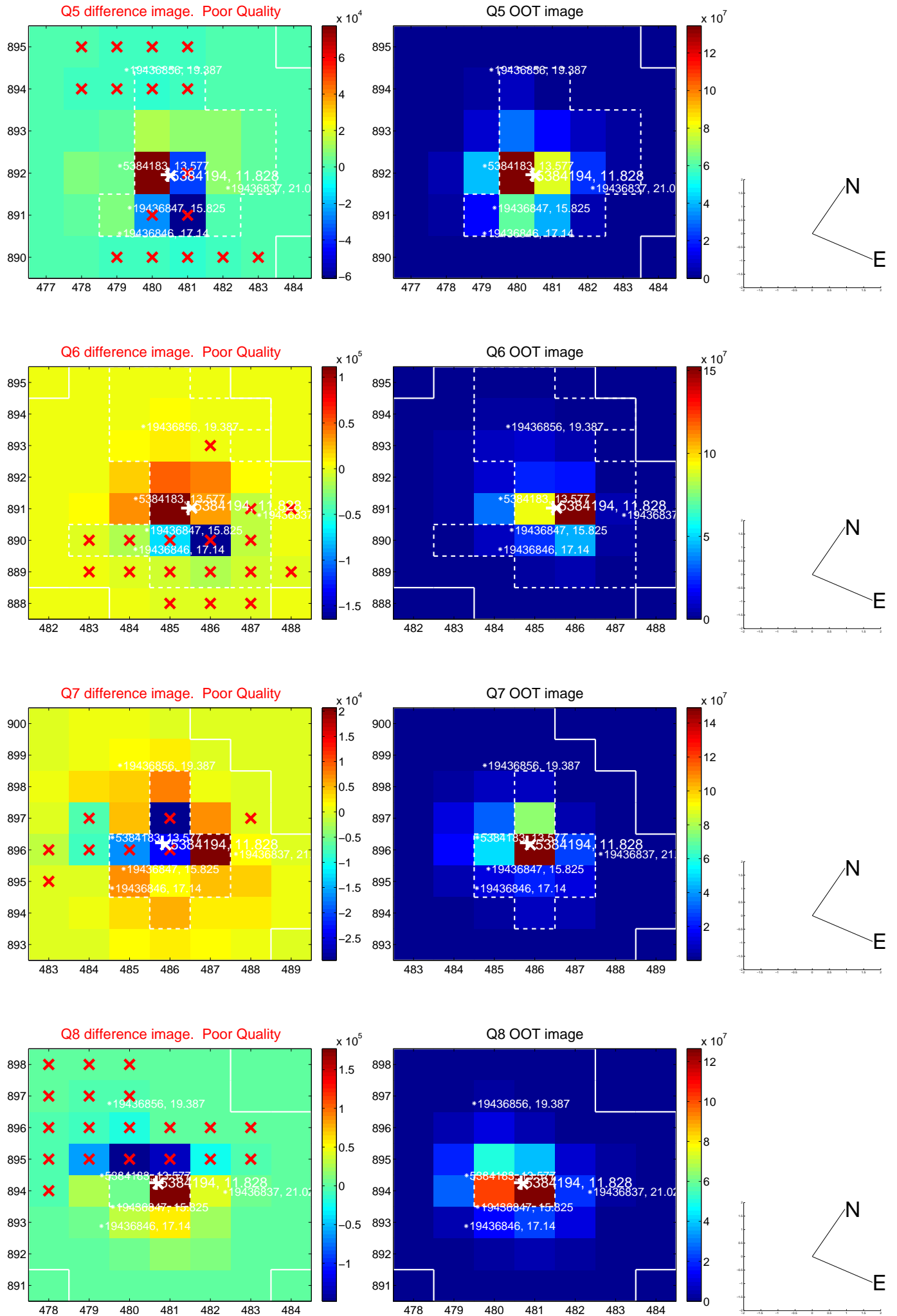


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

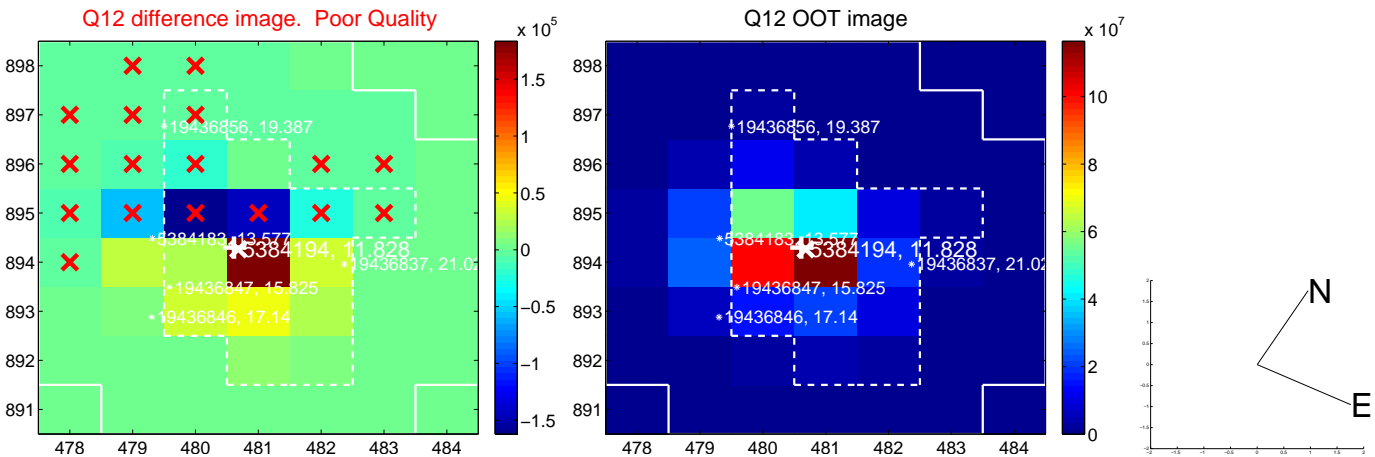
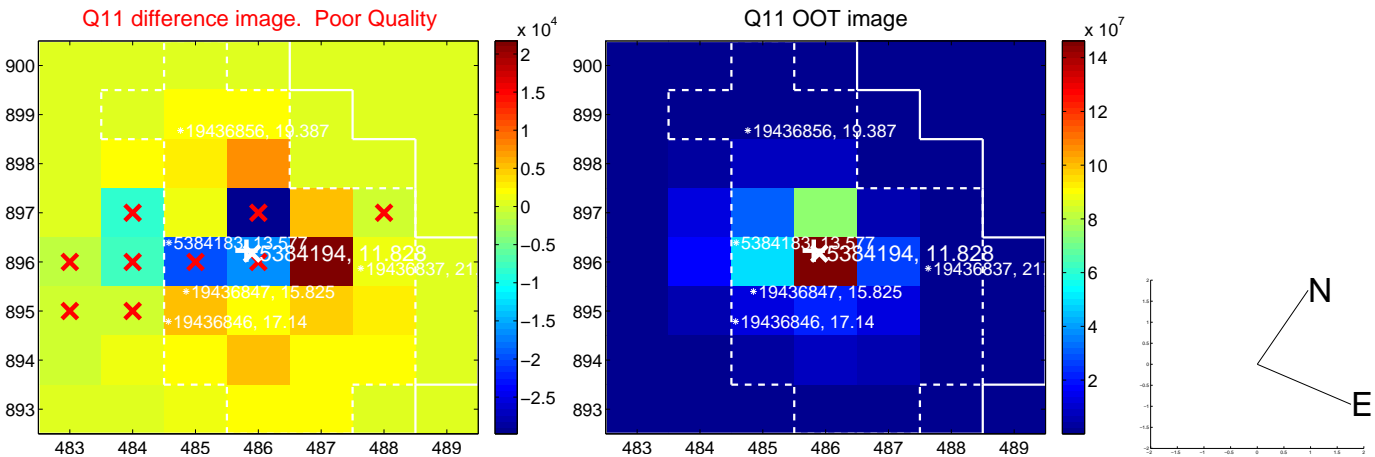
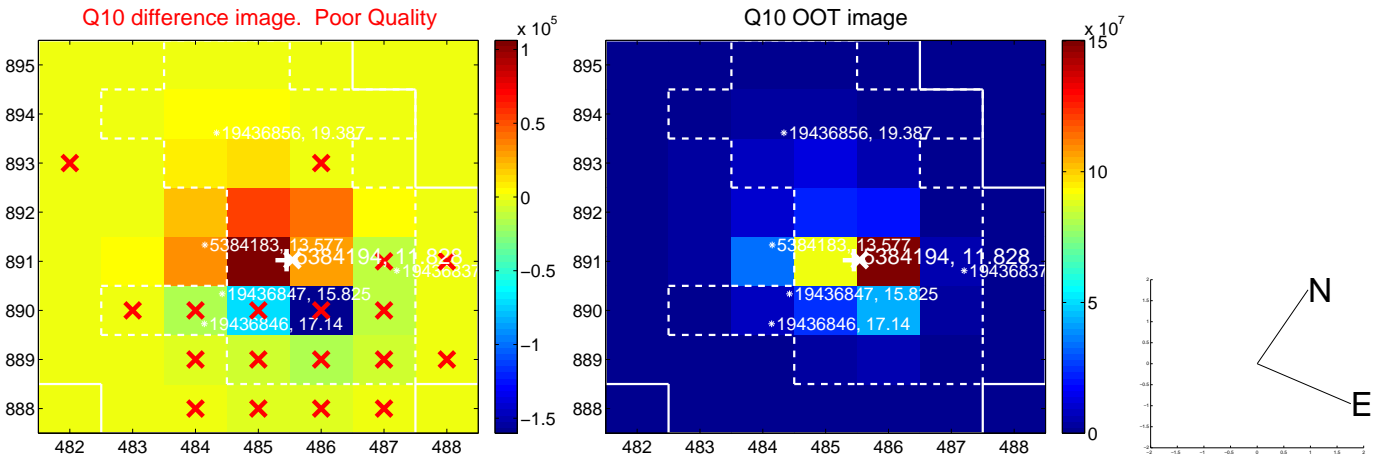
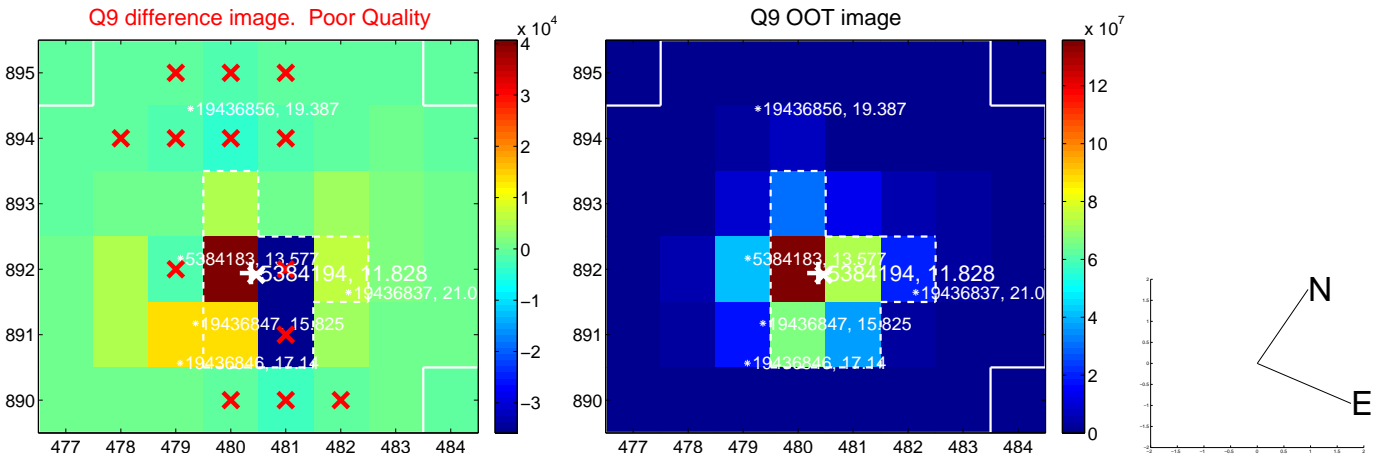
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



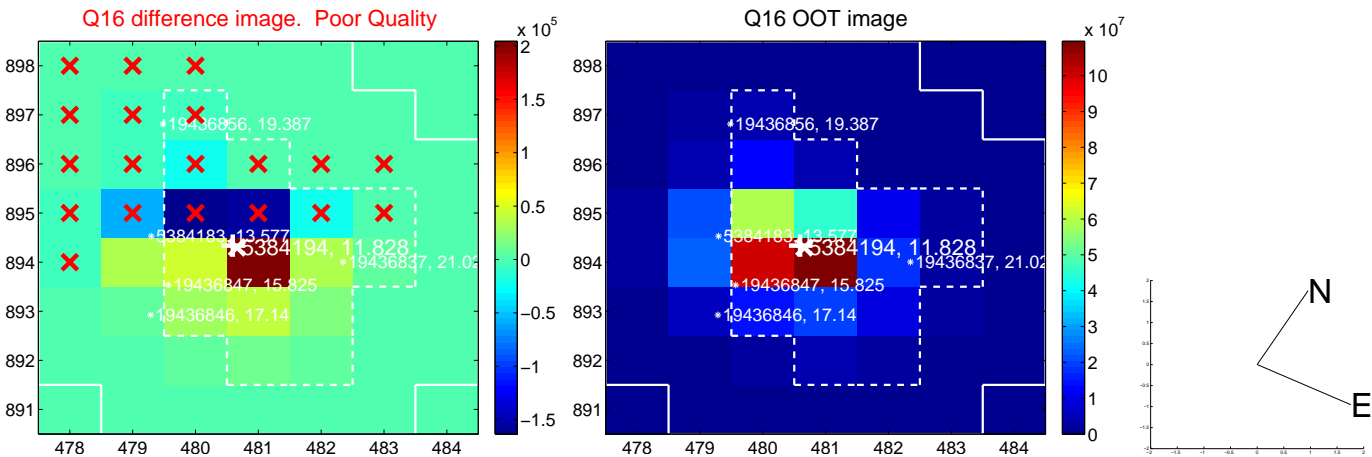
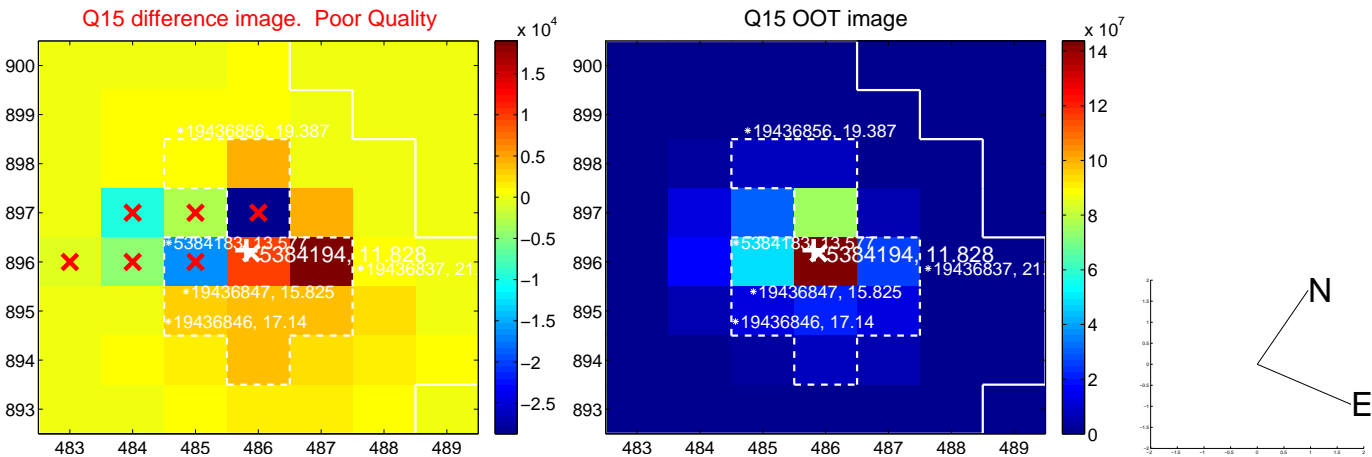
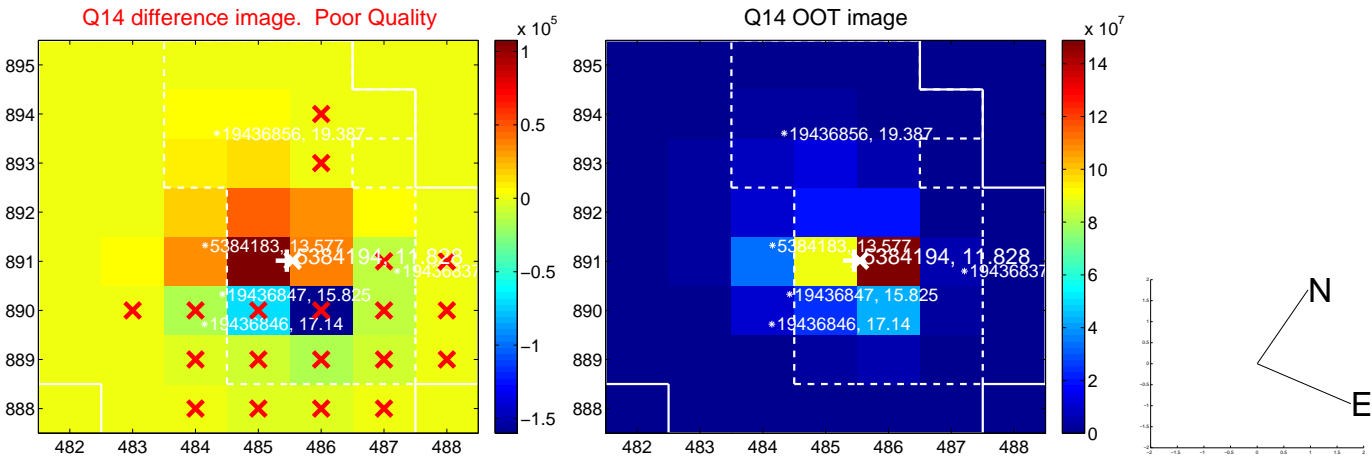
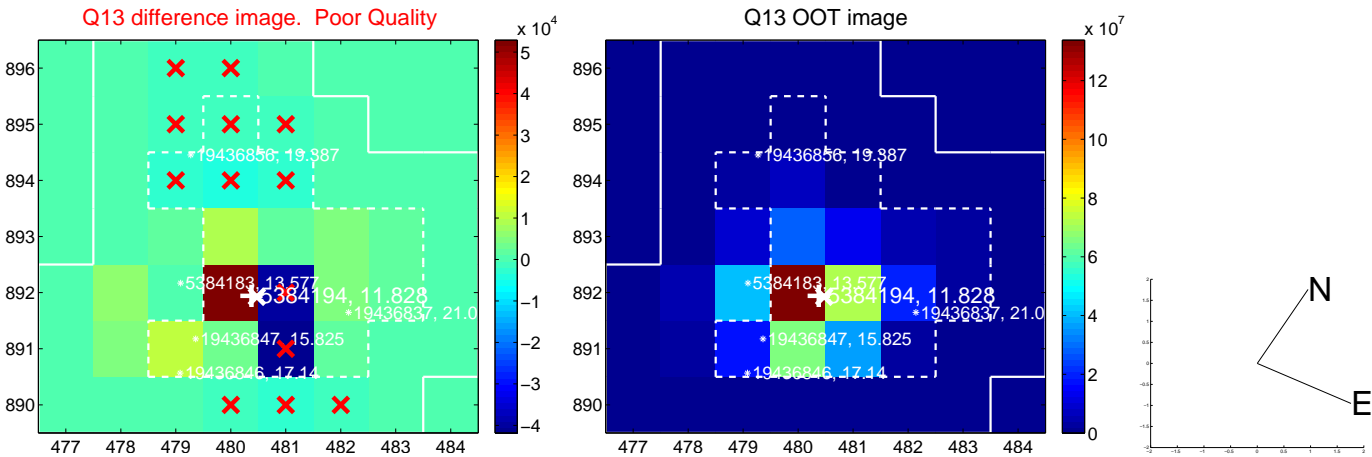
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



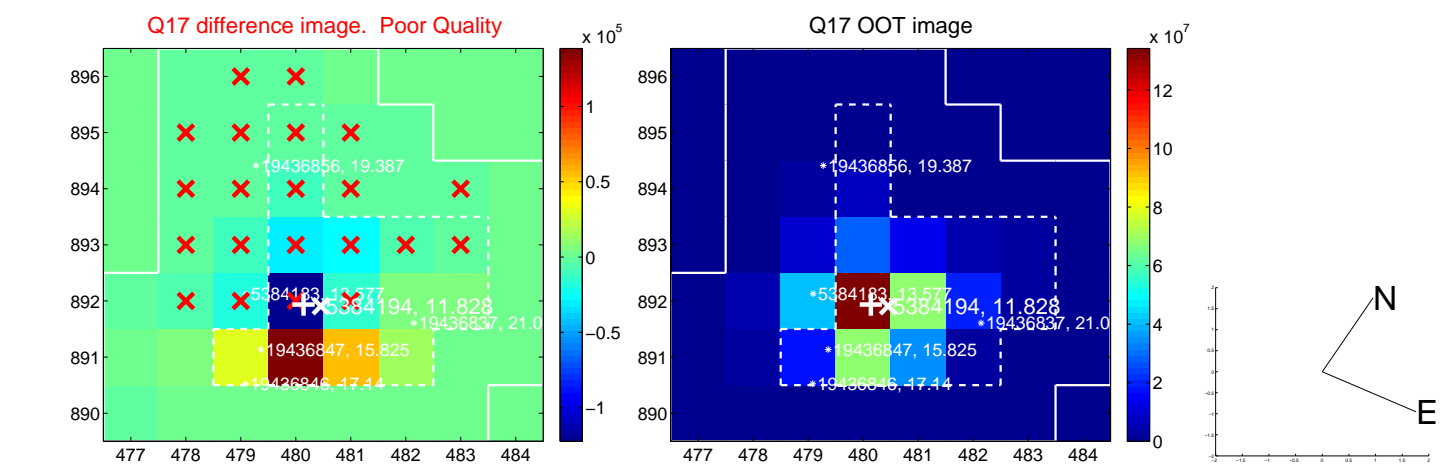
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



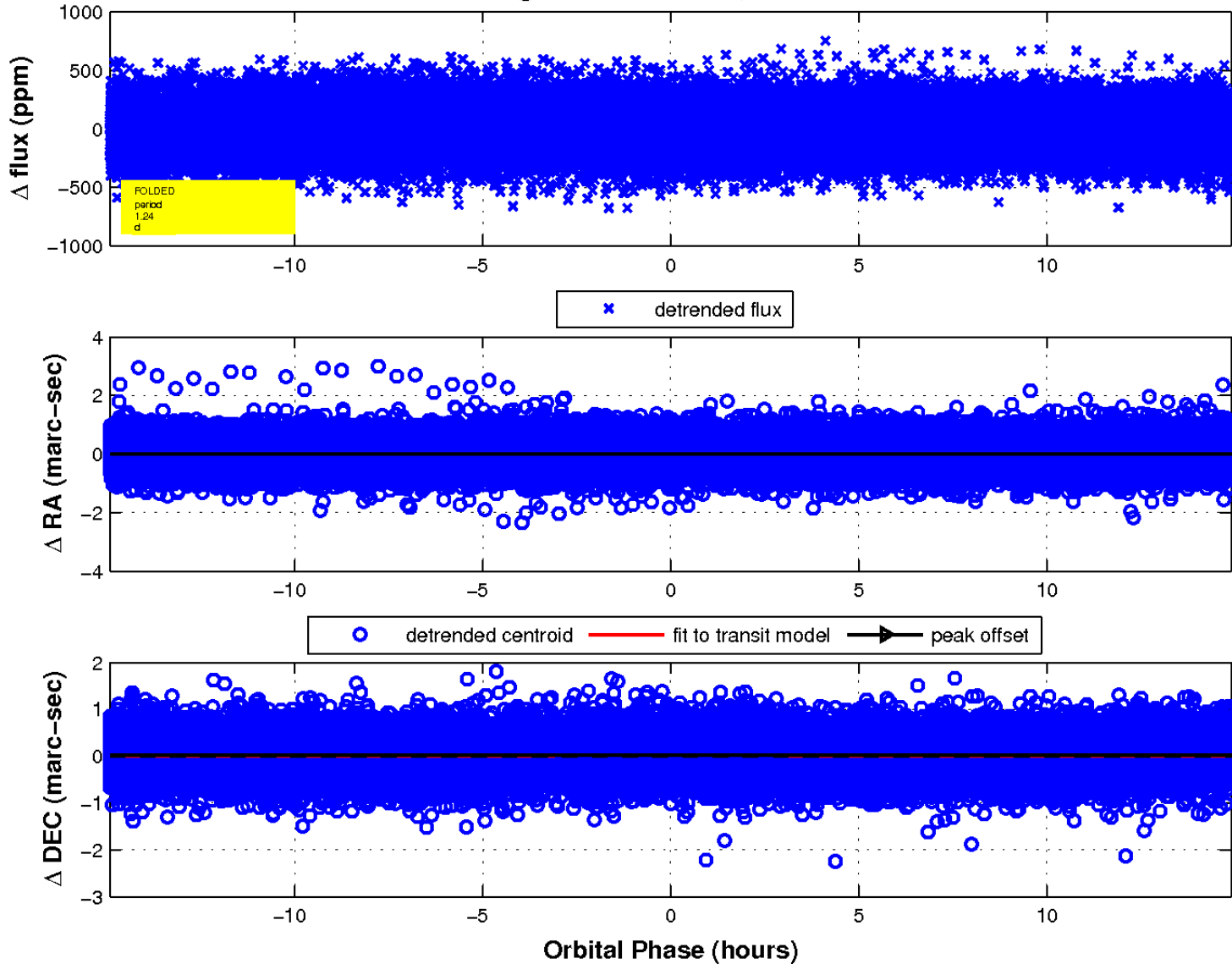
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

