

KIC 008716954

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})
008716954-01	OBS	No	0.595633	131.505285	5.2	5.224	7.4	7.7	1.59	8369	0.39	43908.45

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008716954-01	OBS	FP	0.00	1	0	0	0	LPP_DV—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.

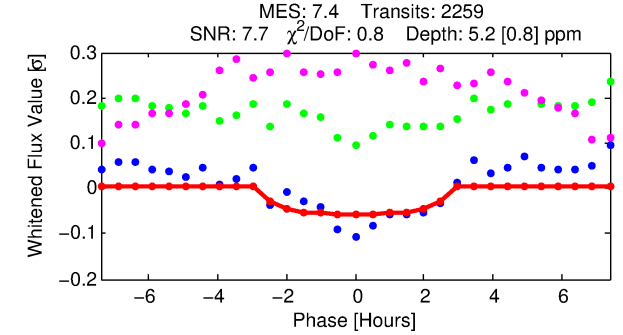
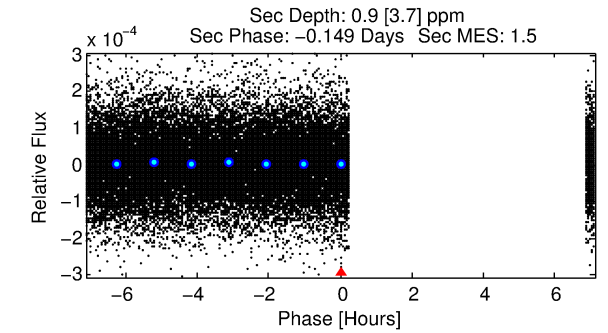
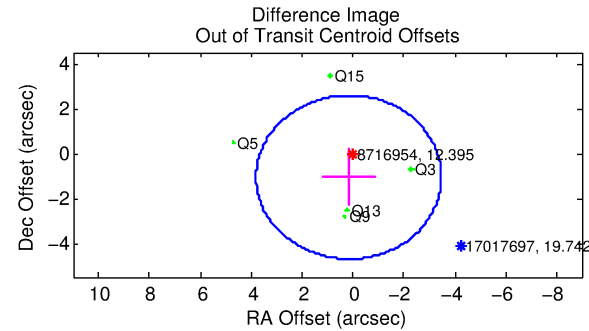
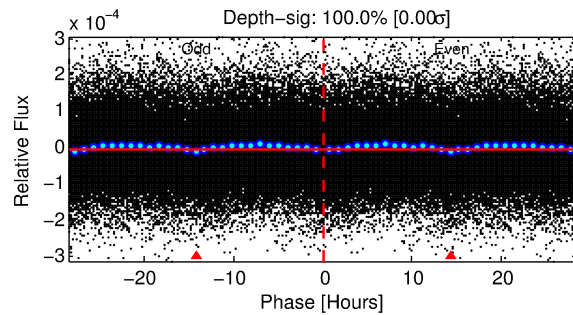
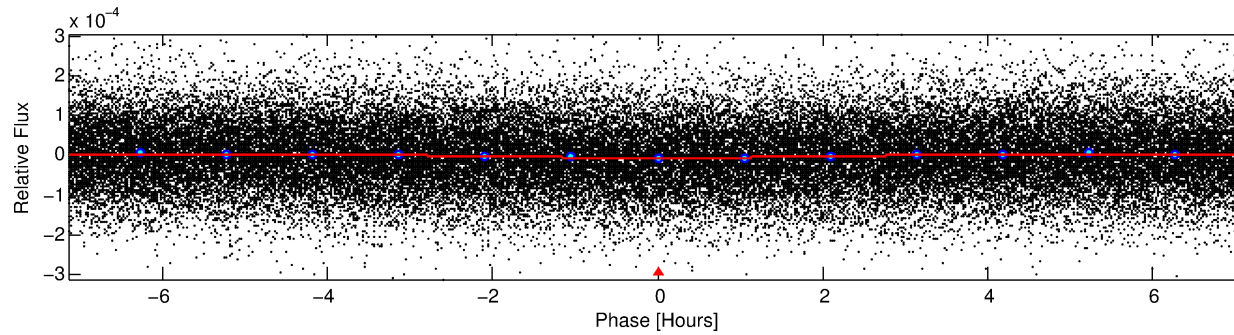
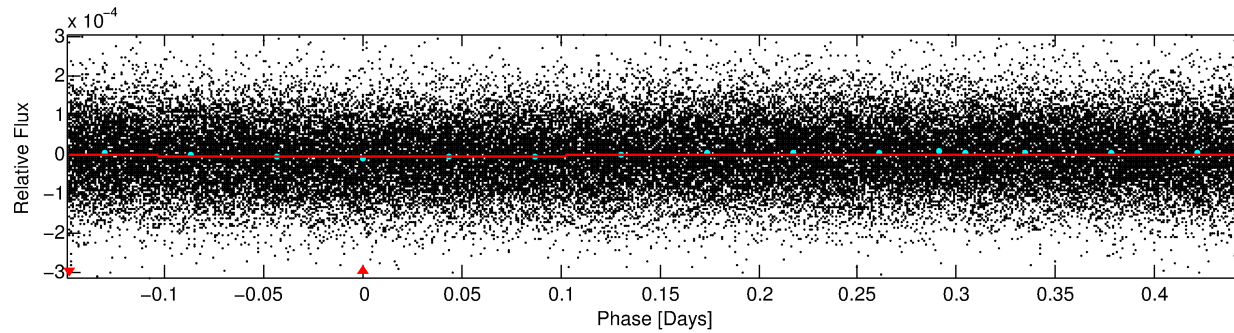
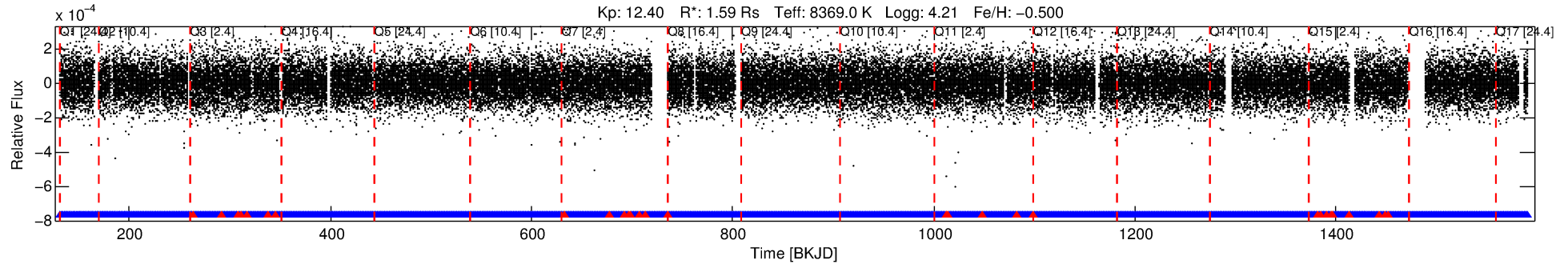
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008716954-01

No Significant Match Found

DV One-Page Summary

KIC: 8716954 Candidate: 1 of 1 Period: 0.596 d



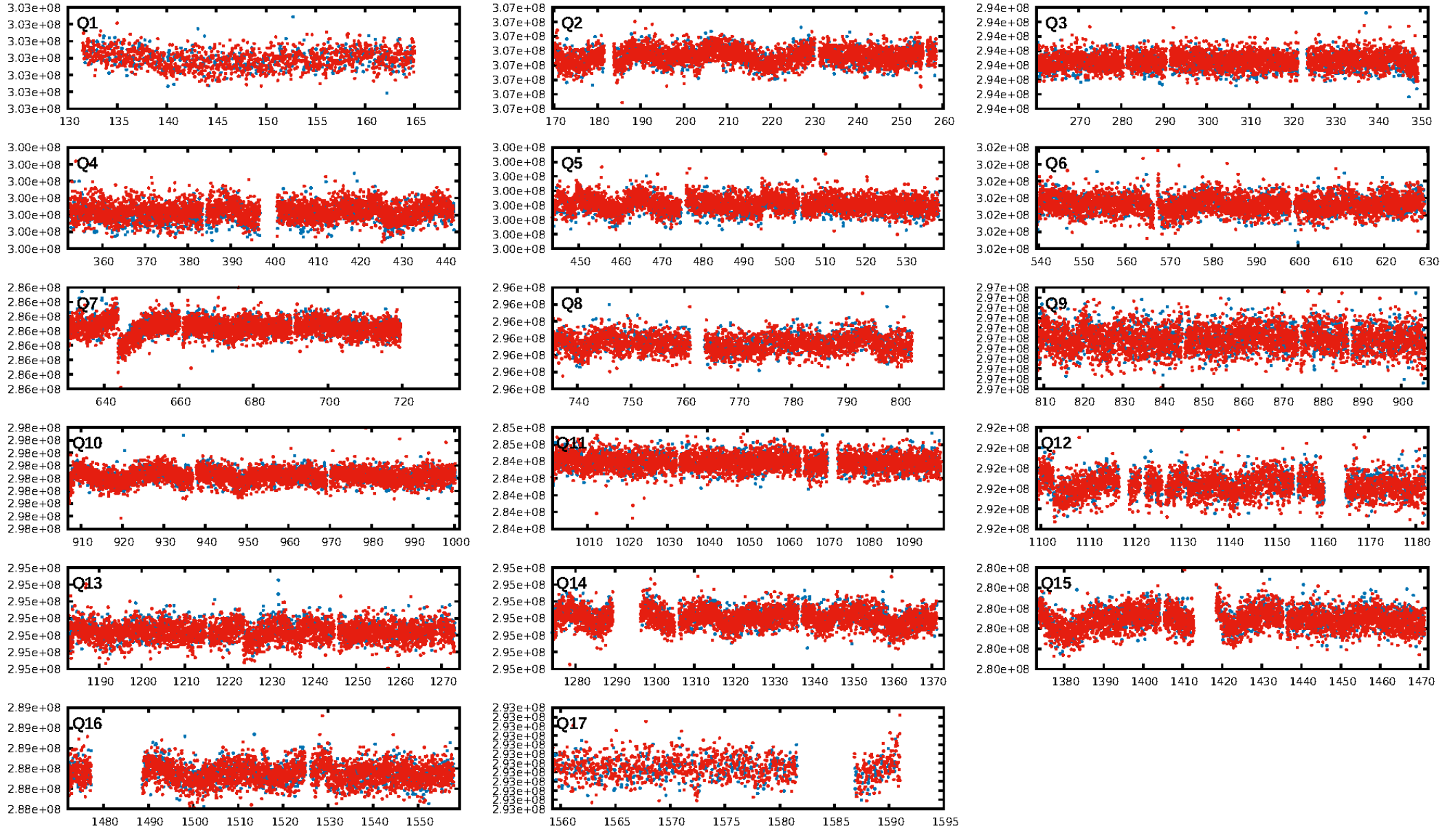
DV Fit Results:

Period = 0.59563 [0.00001] d
Epoch = 131.5053 [0.0065] BKJD
Rp/R* = 0.0023 [0.0016]
a/R* = 1.05 [0.45]
b = 0.70 [3.26]
Seff = 43908.45 [16036.43]
Teq = 3691 [337] K
Rp = 0.39 [0.30] Re
a = 0.0159 [0.0036] AU
Ag = 0.82 [3.59] [-0.05 σ]
Teffp = 5434 [5920] K [0.29 σ]

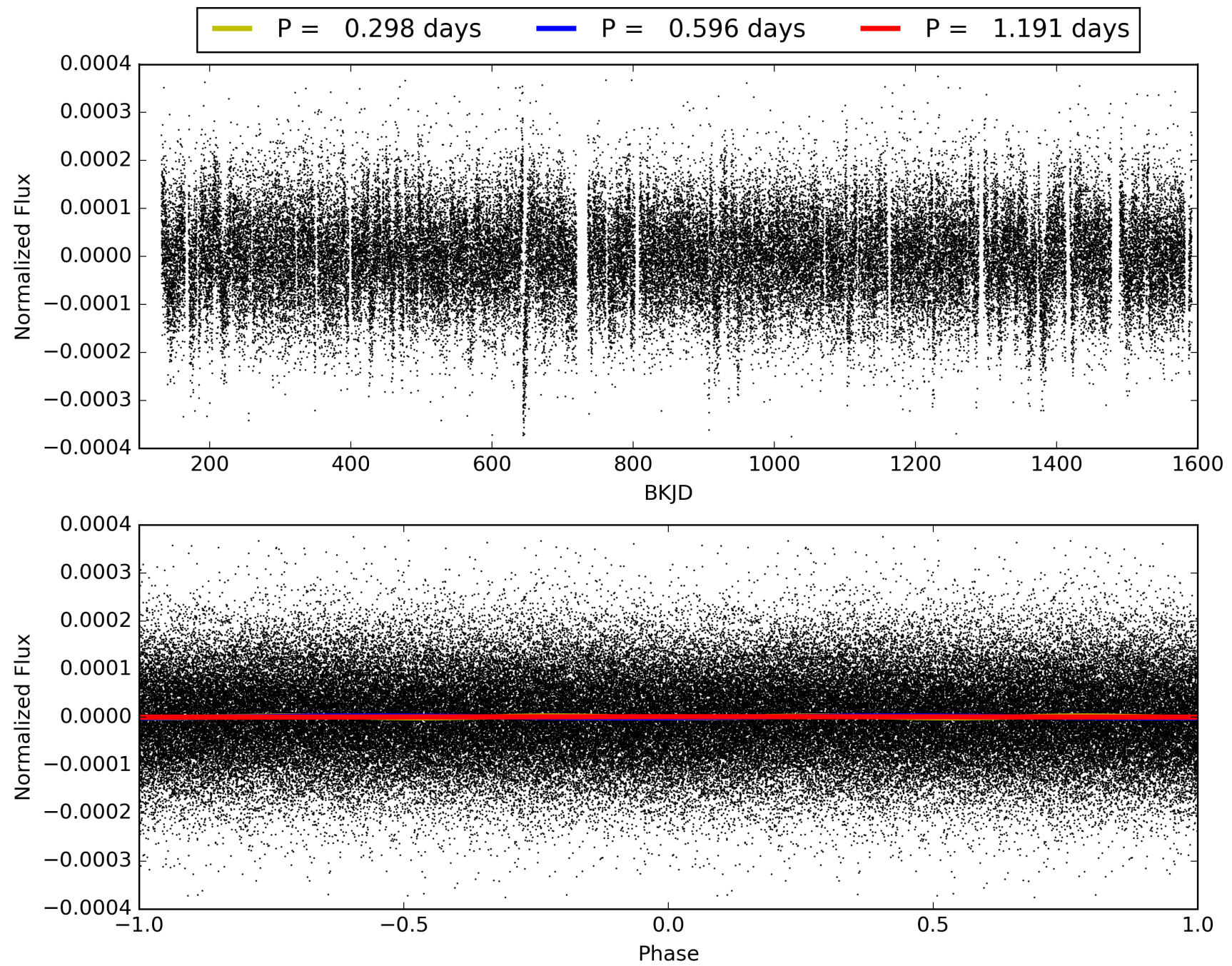
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.99 [2125/2157]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 1.072 arcsec [0.88 σ]
Centroid-so: N/A
KicOffset-rm: 1.123 arcsec [1.09 σ]
OotOffset-st: 0/2/0/3 [5]
KicOffset-st: 0/2/0/3 [5]
DiffImageQuality-fgm: 0.00 [0/5]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 008716954-01, PDC Light Curves

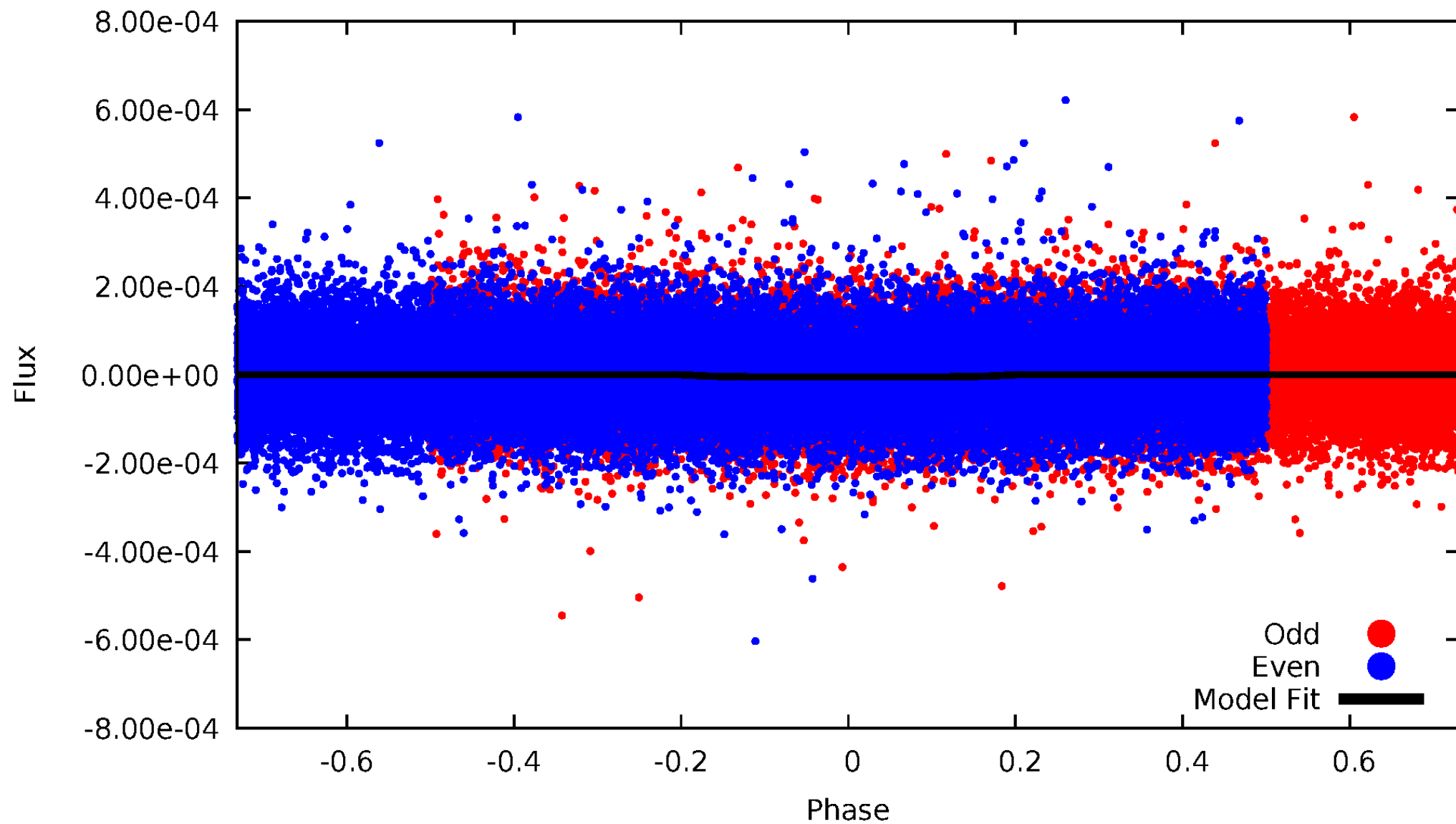


TCE 008716954-01



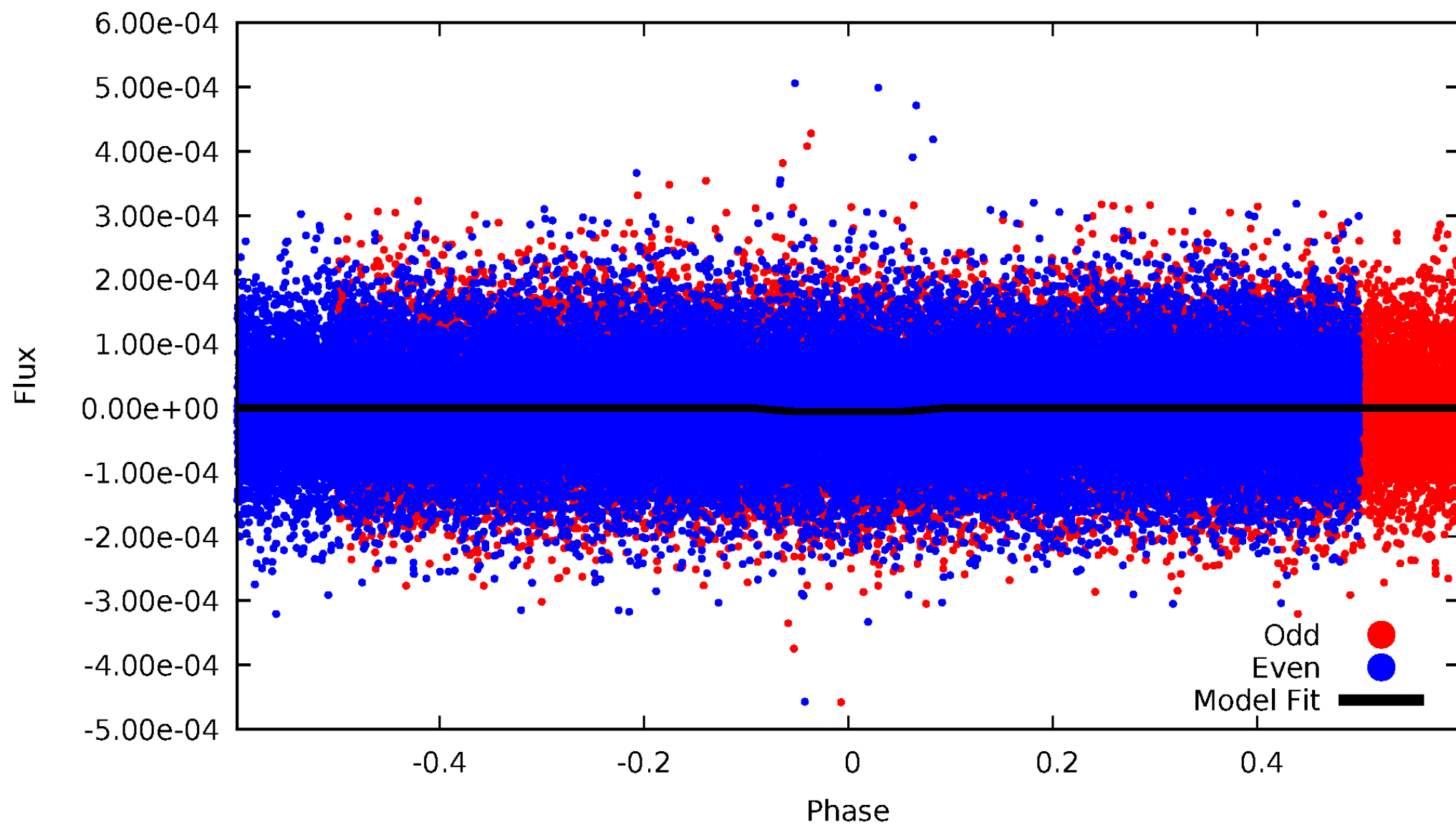
DV Odd/Even

TCE 008716954-01

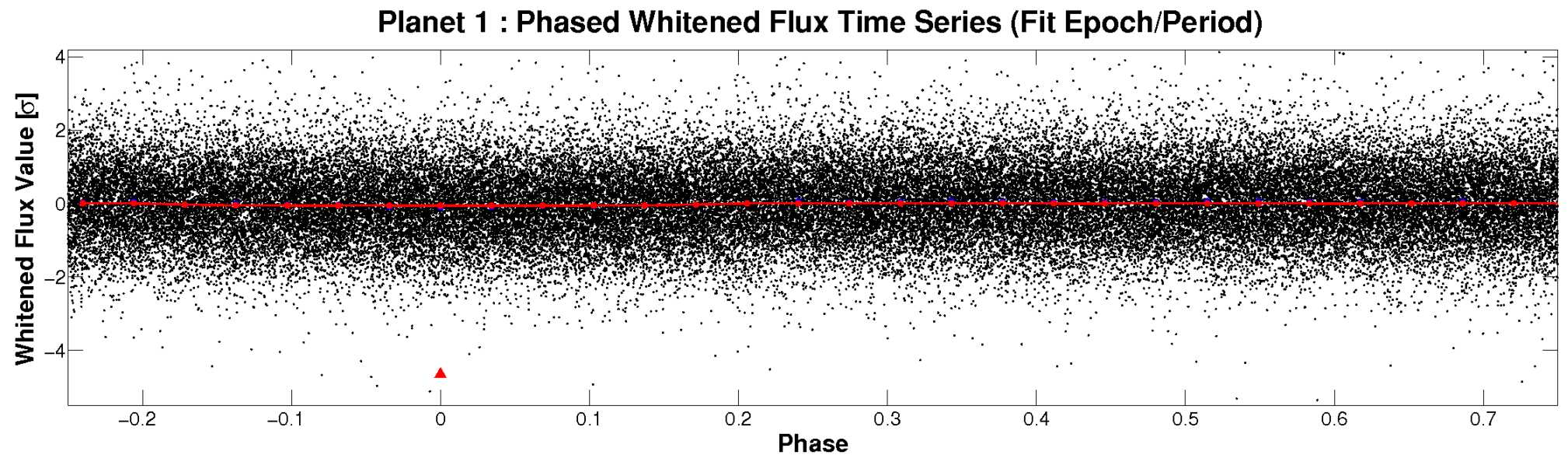
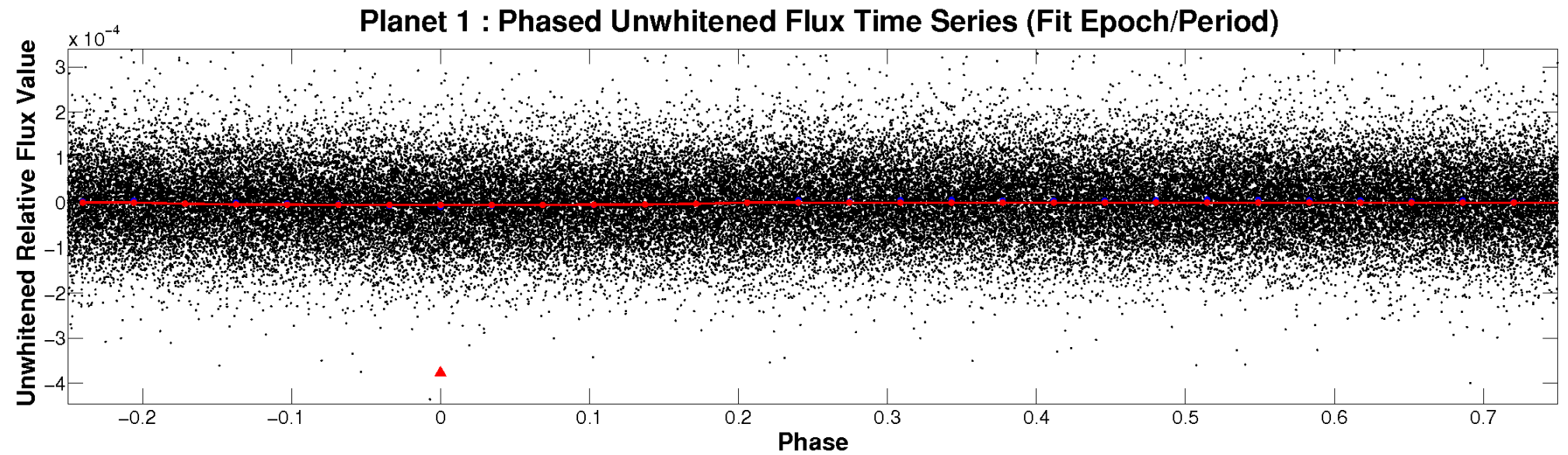


ALT Odd/Even

TCE 008716954-01

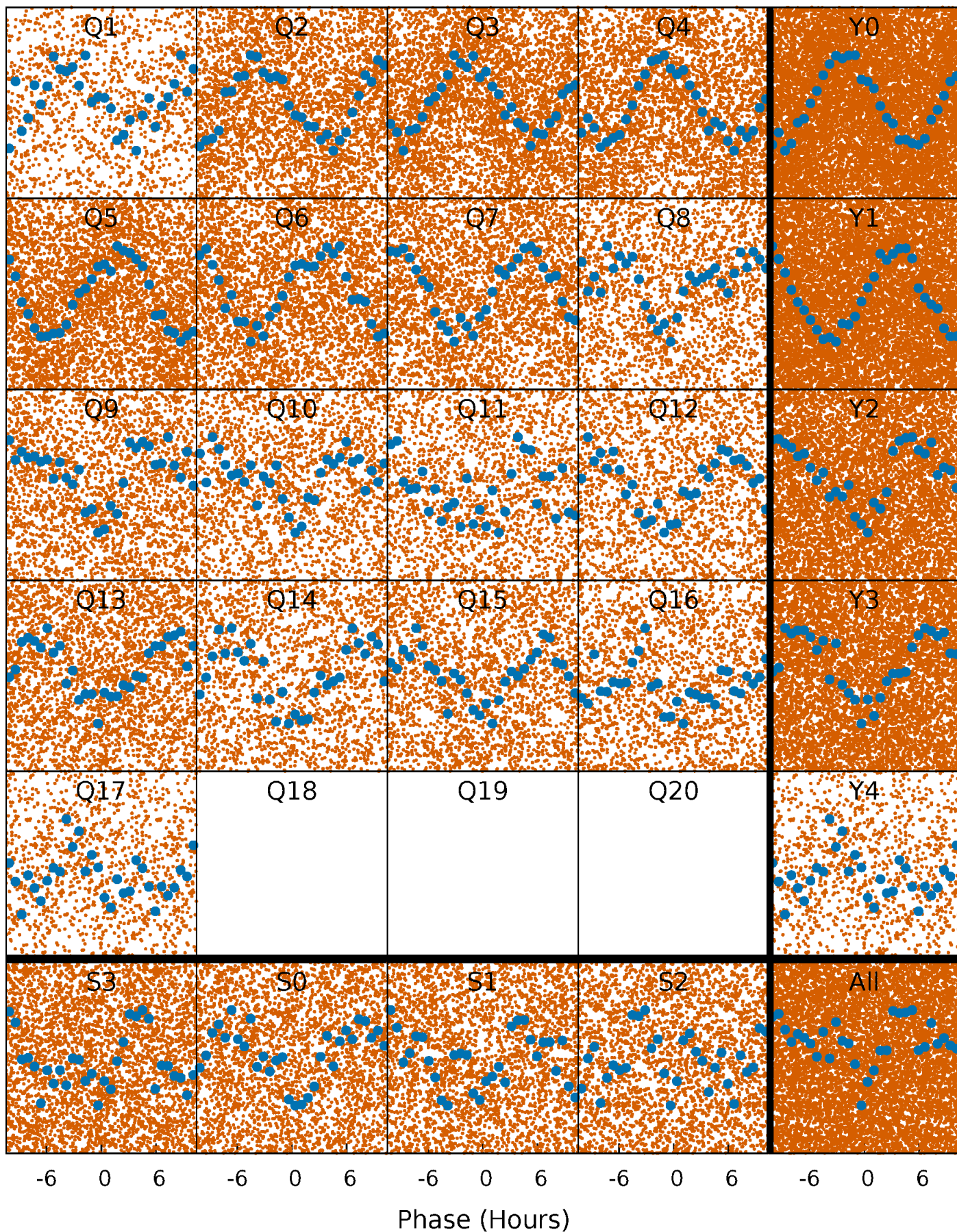


Non-Whitened Vs. Whitened Light Curve



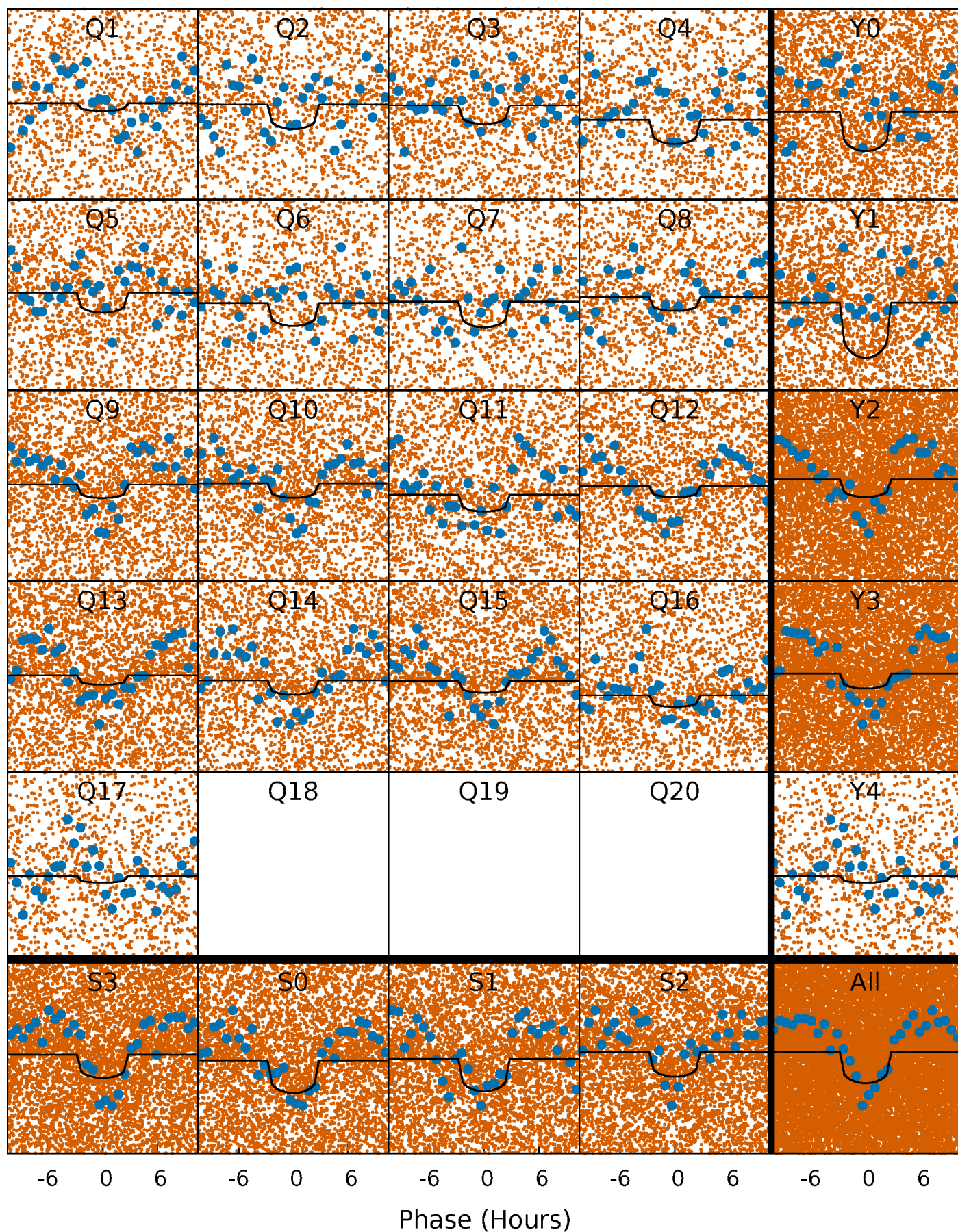
PDC Quarter-Phased Transit Curves

TCE 008716954-01 P= 0.595633 Days $T_0=131.505285$ (BKJD)



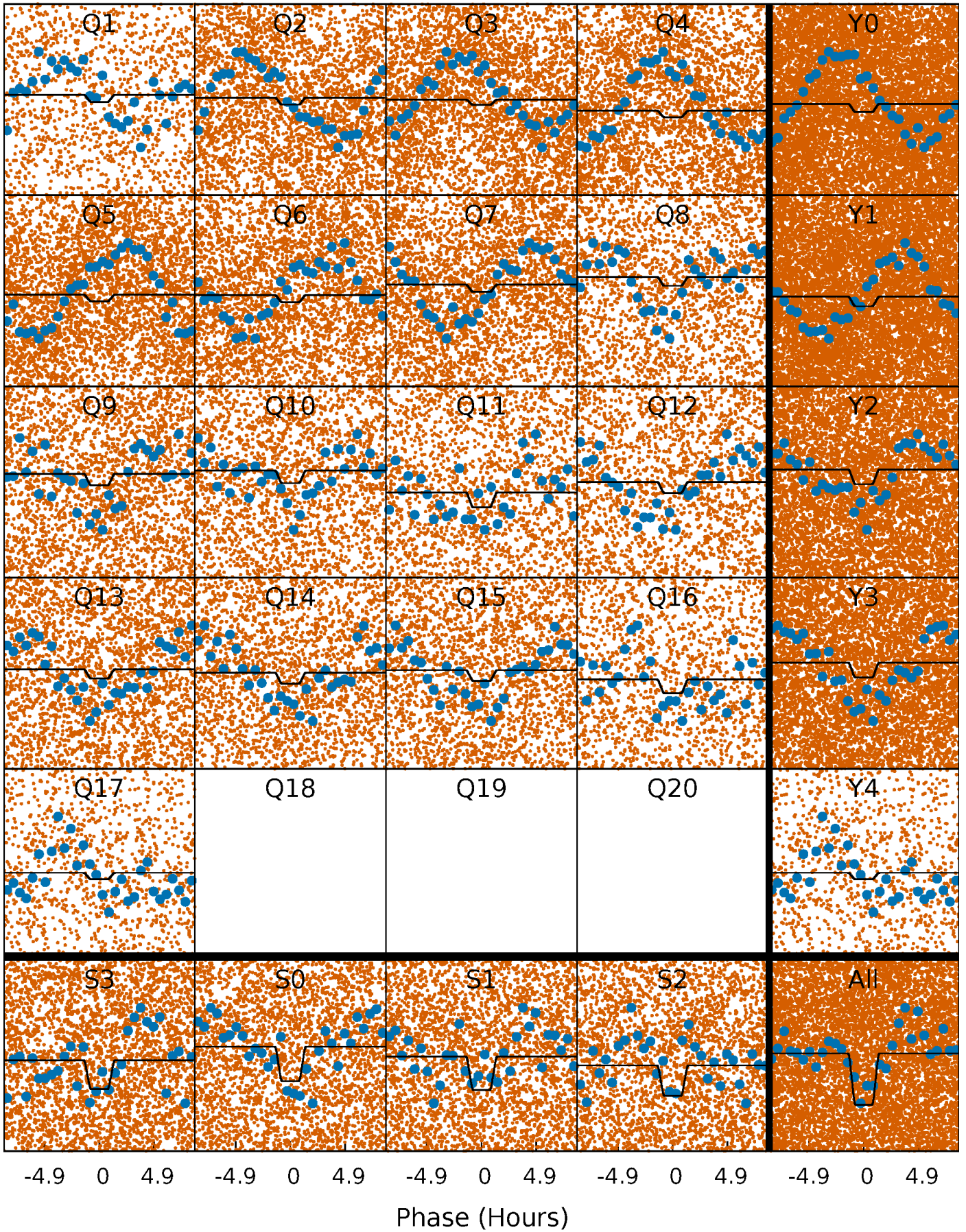
DV Quarter-Phased Transit Curves

TCE 008716954-01 P= 0.595633 Days $T_0=131.505285$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

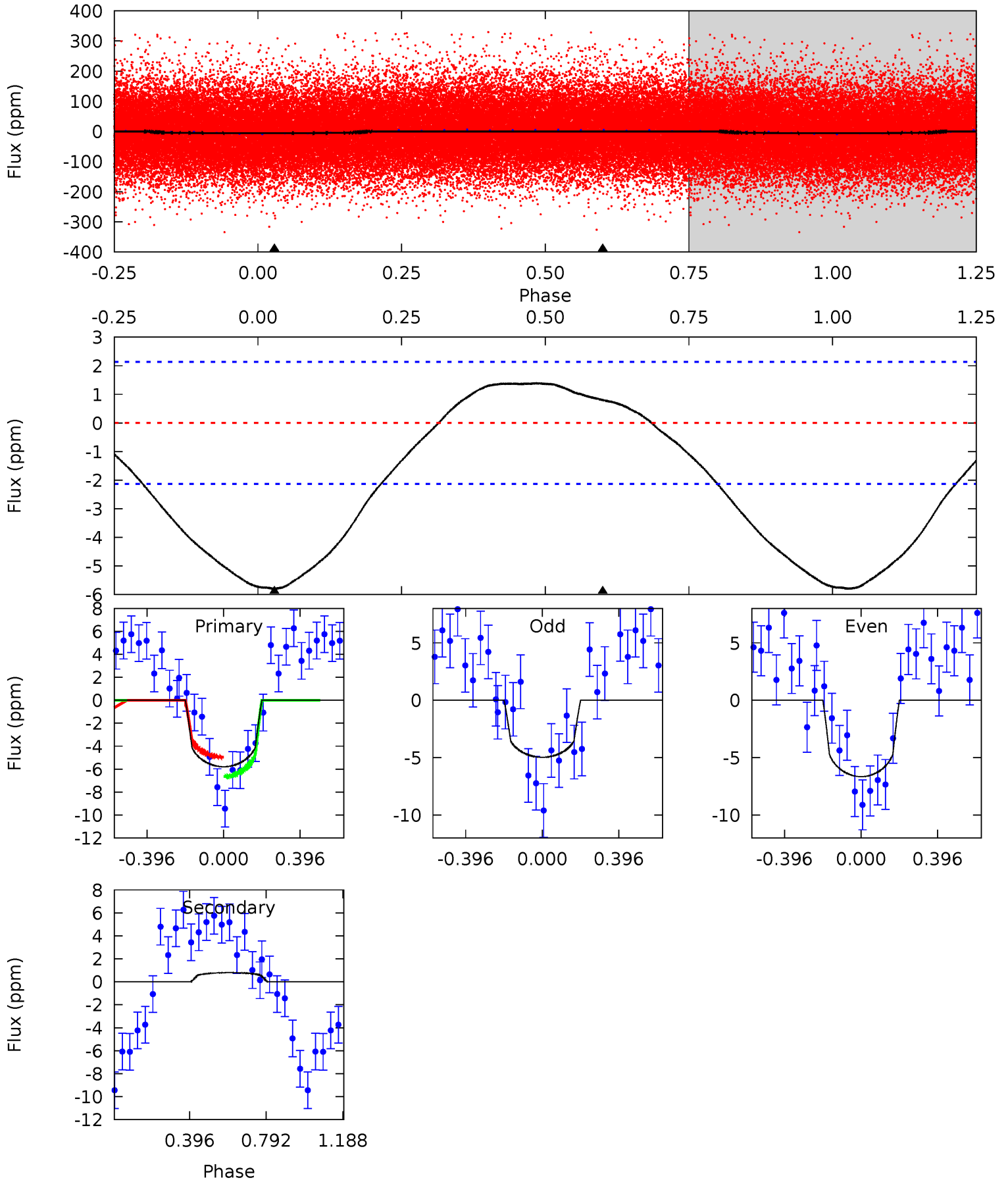
TCE 008716954-01 P= 0.595633 Days $T_0=131.505285$ (BKJD)



DV Model-Shift Uniqueness Test

008716954-01, P = 0.595633 Days, E = 131.505285 Days

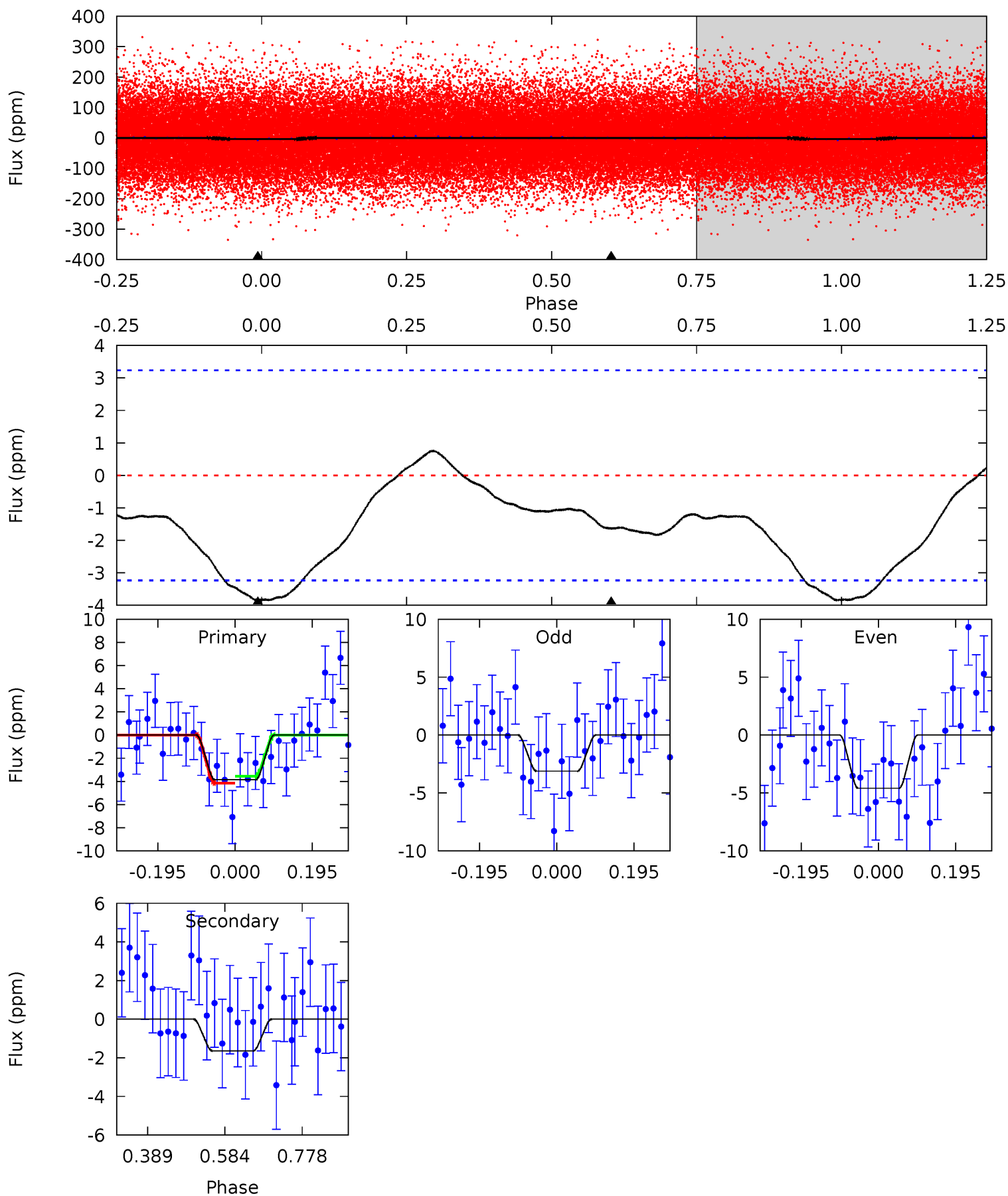
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.6	-1.60	0	0	4.27	0.85	1.17	11.6	11.6	-1.60	-1.60	1.69	0.98	0.19	1.67



Alt Model-Shift Uniqueness Test

008716954-01, P = 0.595633 Days, E = 131.505285 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.27	2.24	0	0	4.42	1.30	0.62	5.27	5.27	2.24	2.24	1.01	0.97	0.16	0.40



Stellar Parameters For KIC 008716954

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8369^{+236}_{-354}	$4.215^{+0.116}_{-0.174}$	$-0.500^{+0.200}_{-0.350}$	$1.590^{+0.436}_{-0.291}$	$1.513^{+0.174}_{-0.192}$	$0.530^{+0.302}_{-0.263}$
	+3%/-4%	+3%/-4%	+40%/-70%	+27%/-18%	+12%/-13%	+57%/-50%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 008716954-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	1 ± 0	$0.43^{+0.29}_{-0.23}$	5189^{+343}_{-337}	-5357^{+679}_{-1925}	$-0.521^{+0.389}_{-1.889}$
Alt.	-2 ± 1	$0.41^{+0.29}_{-0.22}$	5171^{+362}_{-301}	5455^{+3562}_{-2030}	$1.229^{+4.727}_{-0.858}$

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 $A_{obs} \gg 1.0$

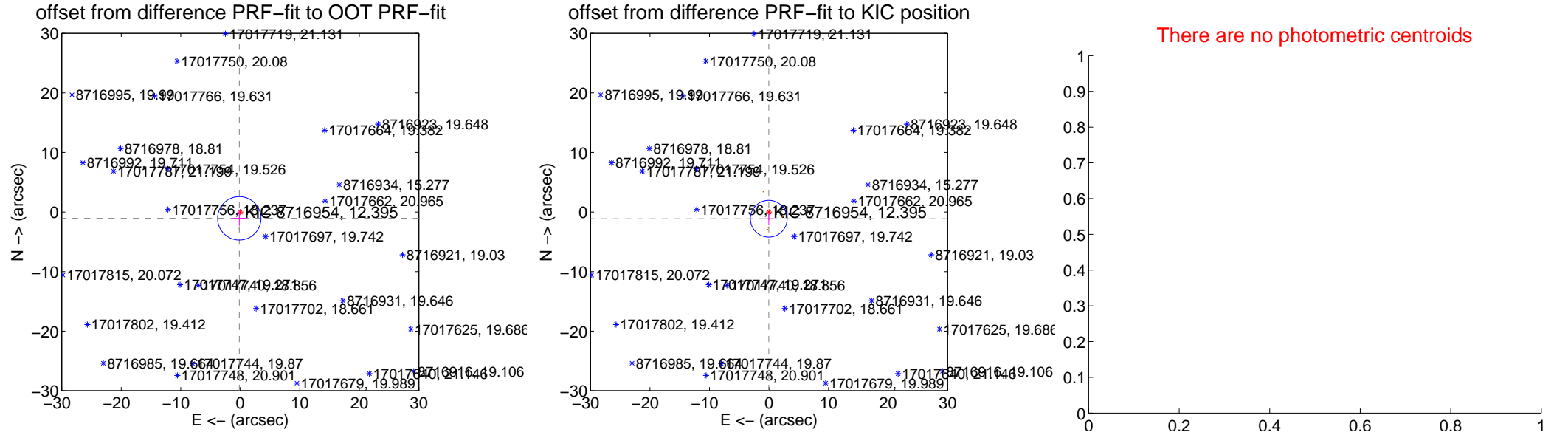
DV Centroid Data

Supplemental centroid analysis for 008716954-01. Kepler magnitude: 12.39. Transit SNR 7.69

There are 0 quarters with good PRF difference image offsets

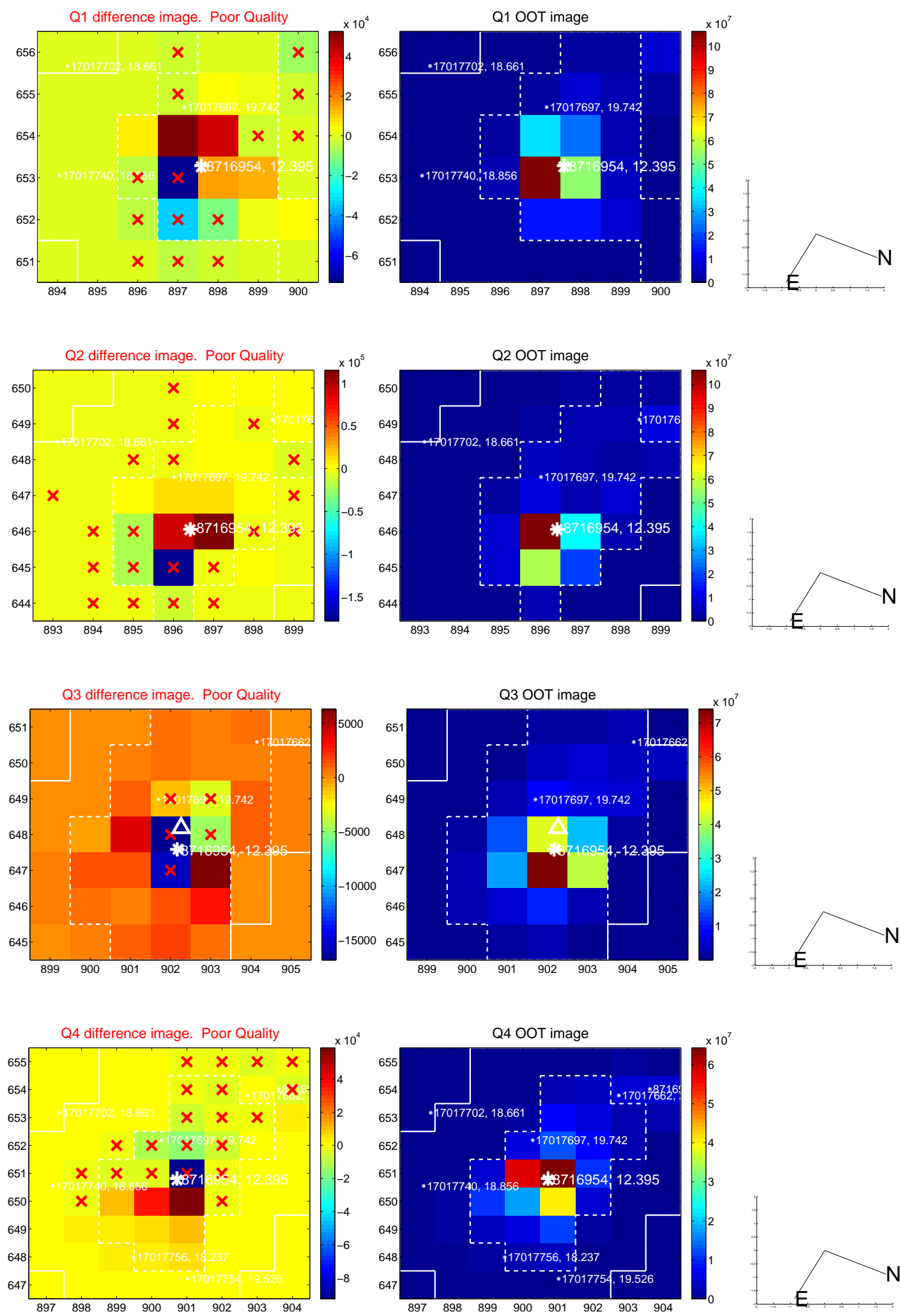
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.072 ± 1.214	0.88	0.166 ± 1.006	-1.059 ± 1.251
PRF-fit source offset from KIC position	1.123 ± 1.029	1.09	0.041 ± 0.645	-1.122 ± 1.030
photometric centroid source offset	—	—	—	—

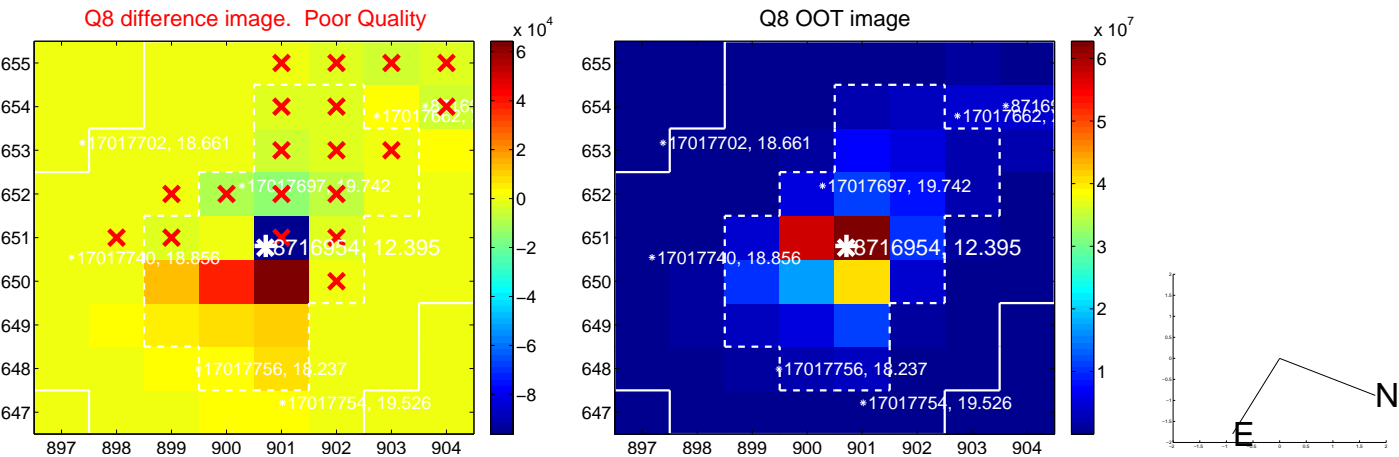
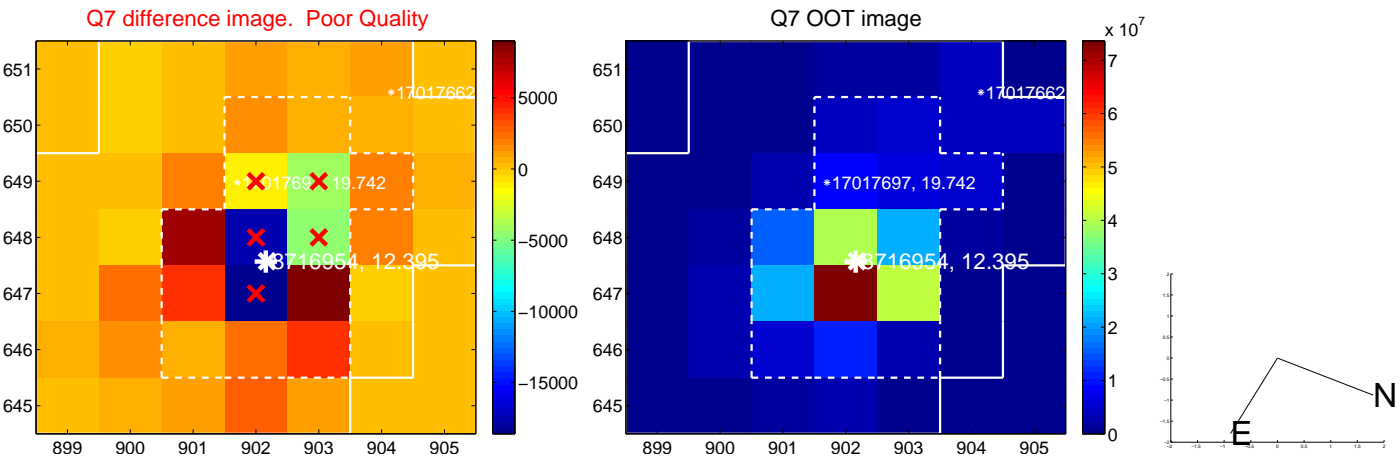
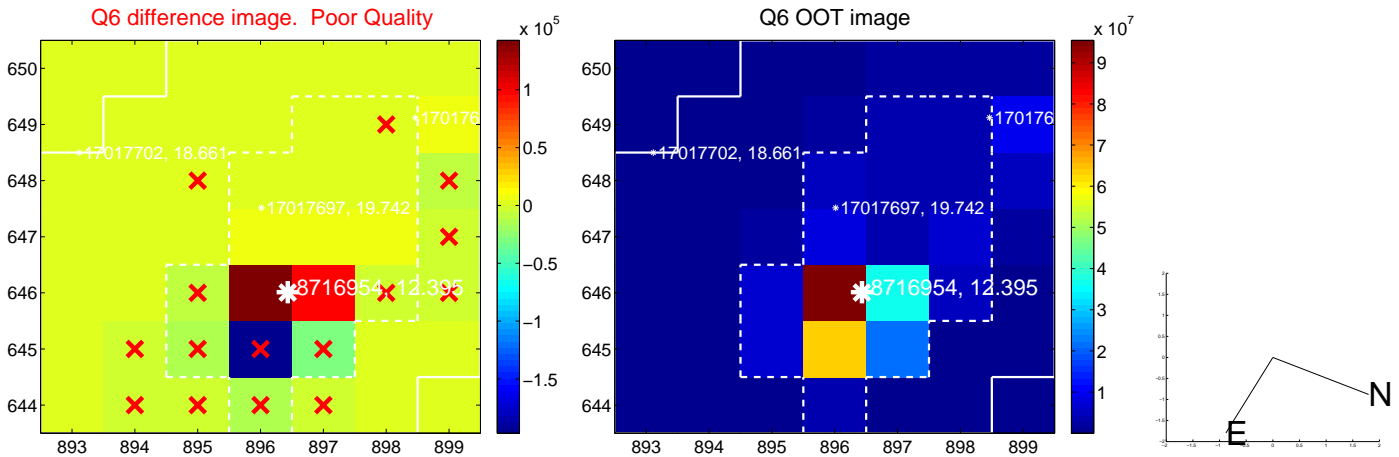
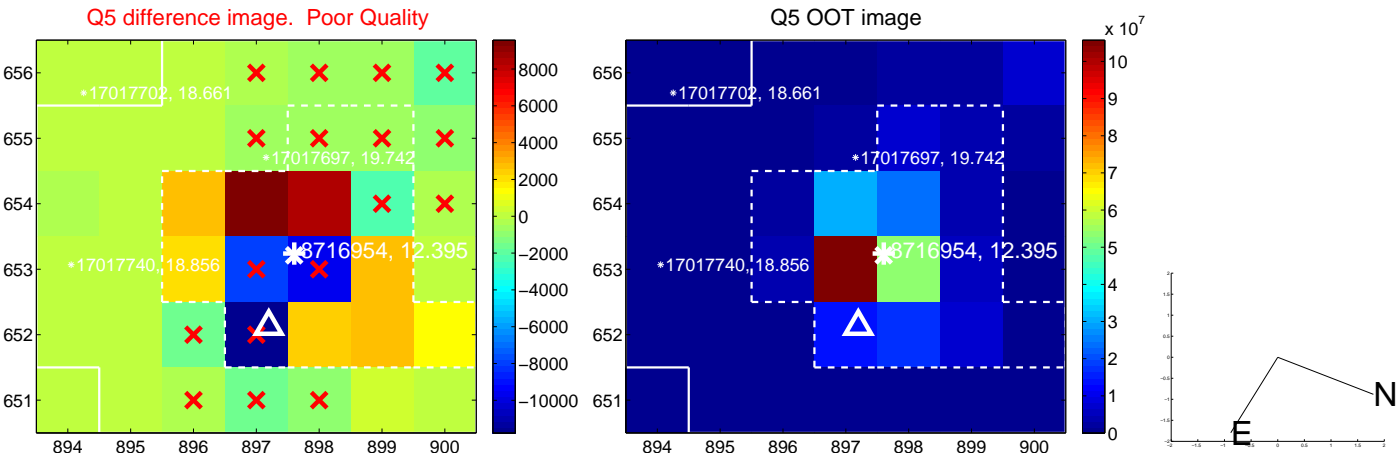


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

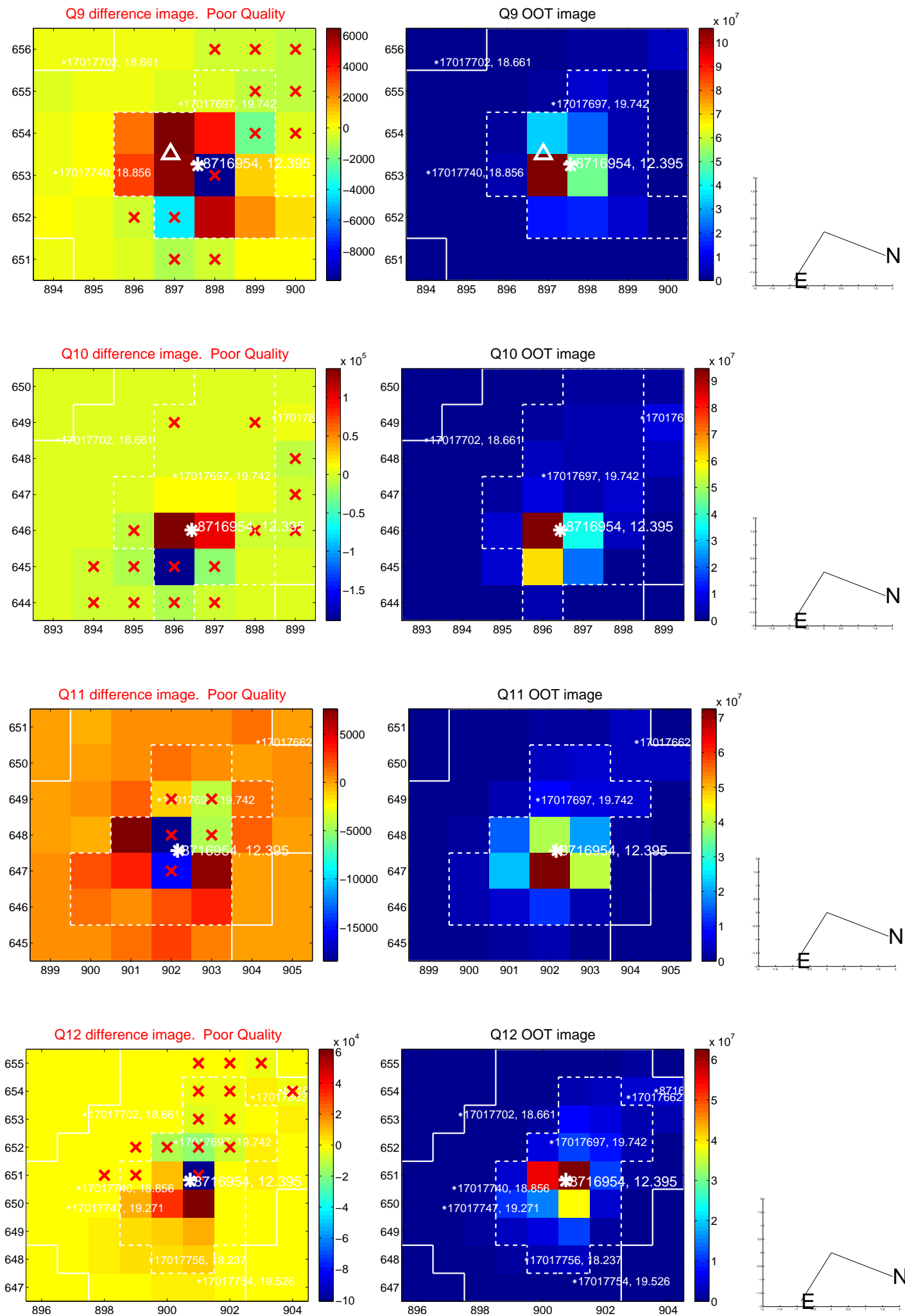
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



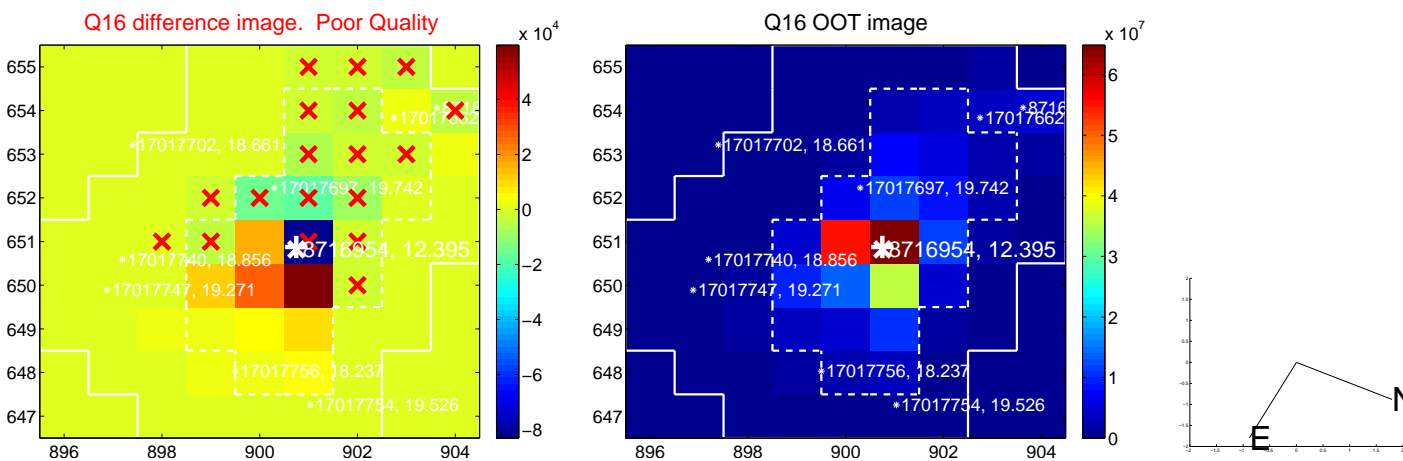
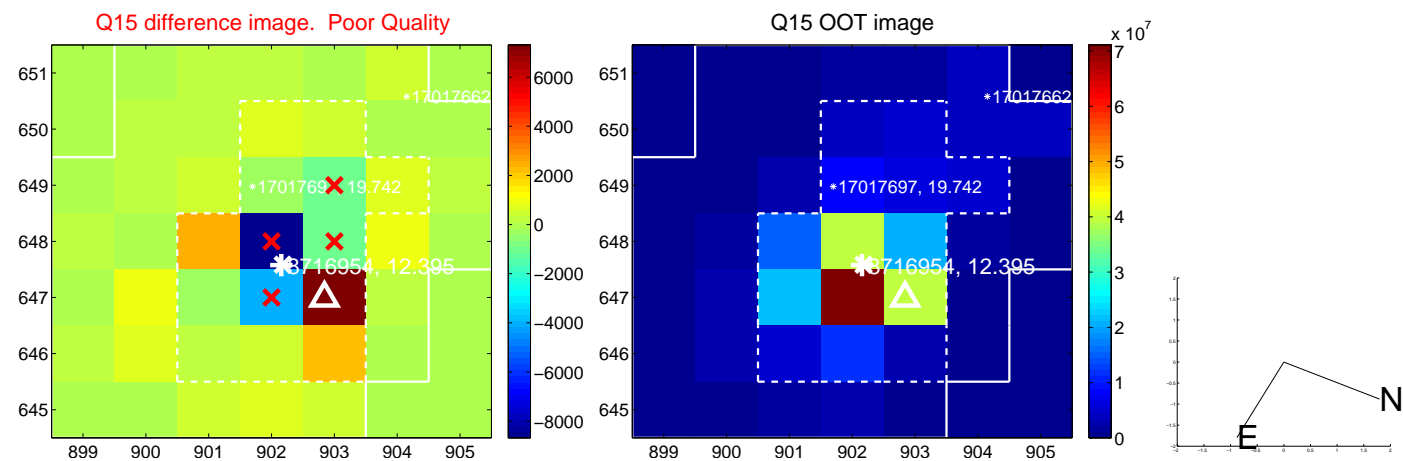
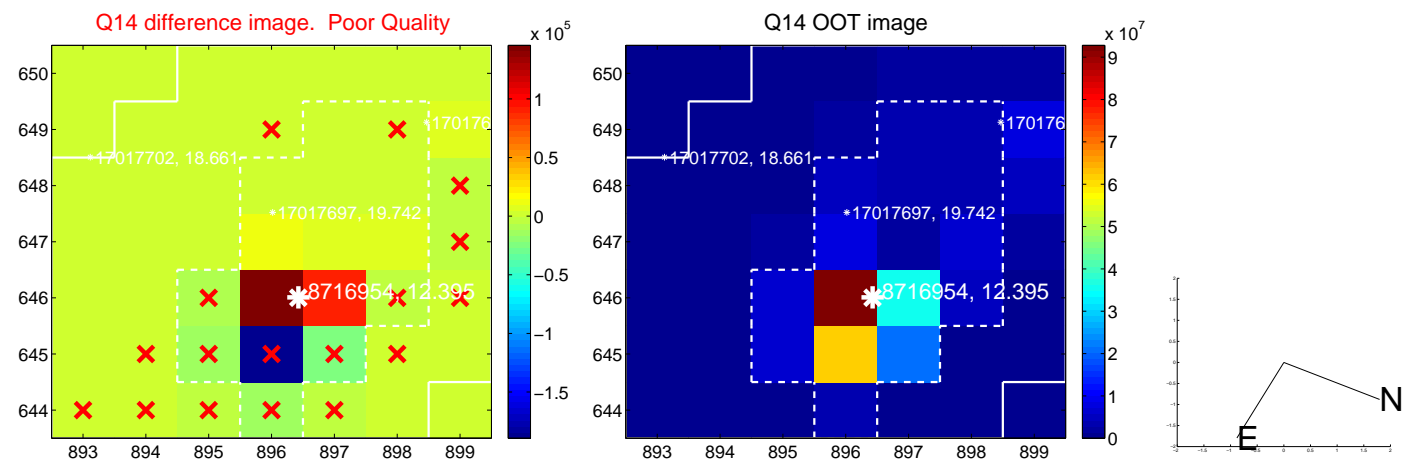
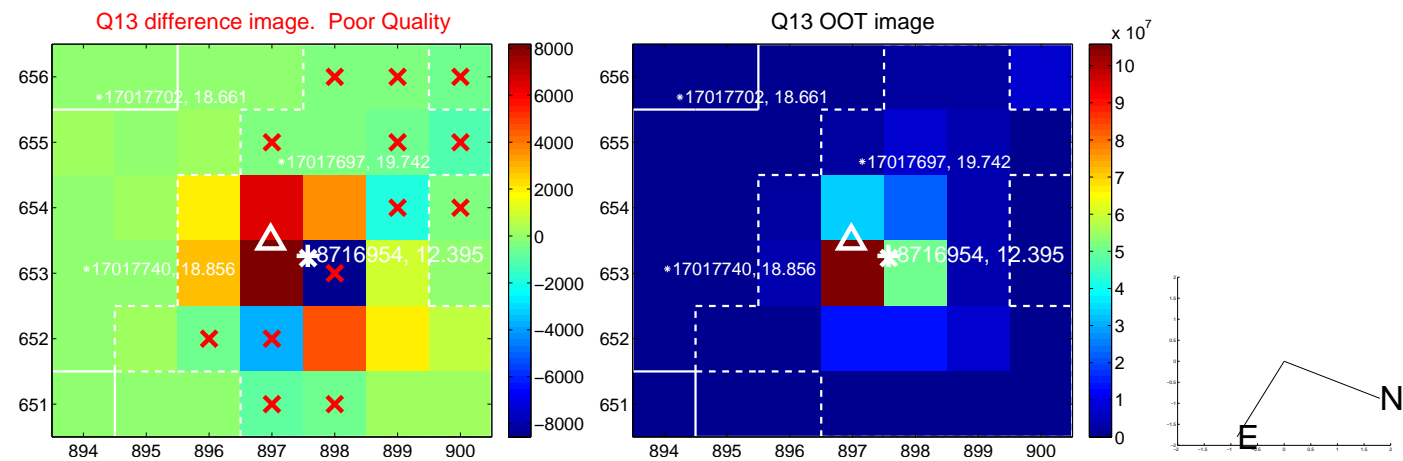
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



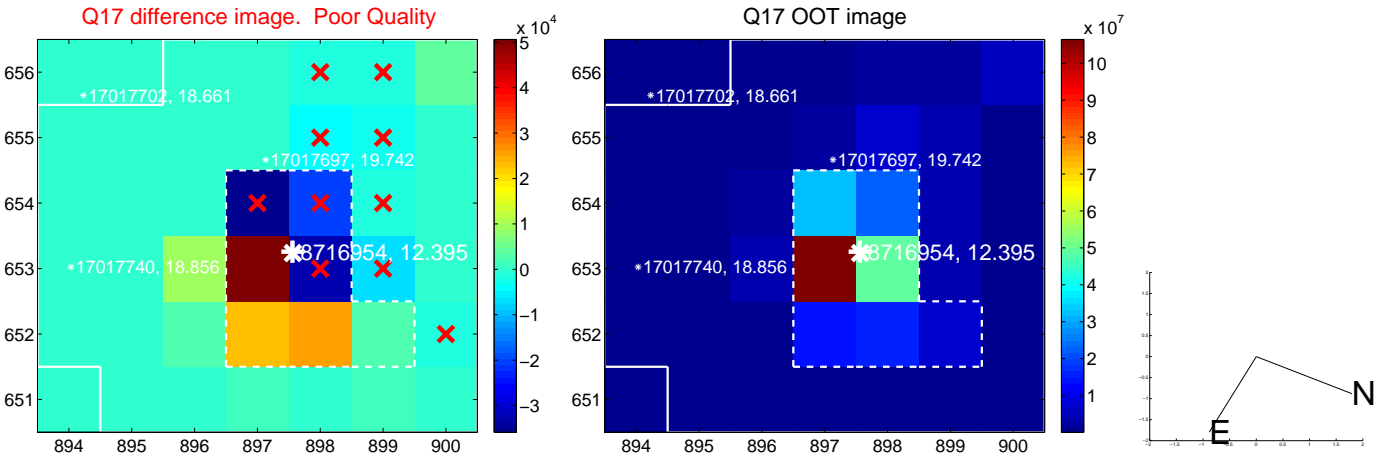
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



folded centroid time series figure for this object.

UKIRT Image

