

KIC 008054719

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})
008054719-01	OBS	4776.01	7.586133	132.802771	120.2	4.298	10.0	10.7	0.87	5934	1.09	175.77

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008054719-01	OBS	PC	0.97	0	0	0	0	NO_COMMENT

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.

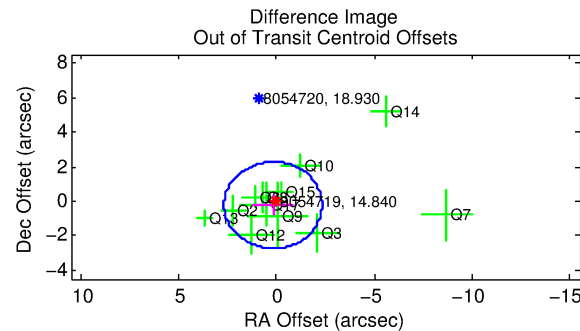
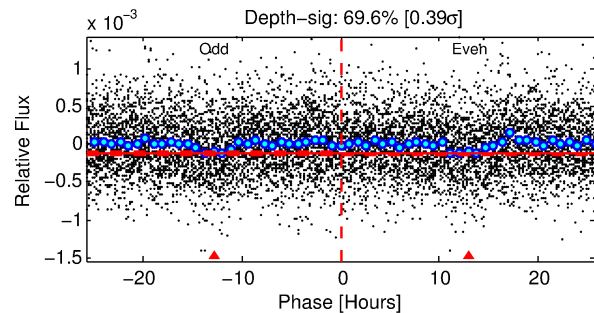
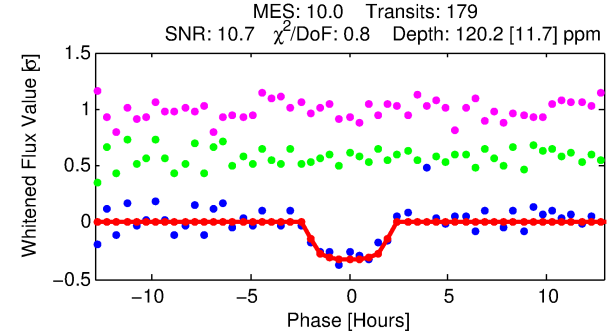
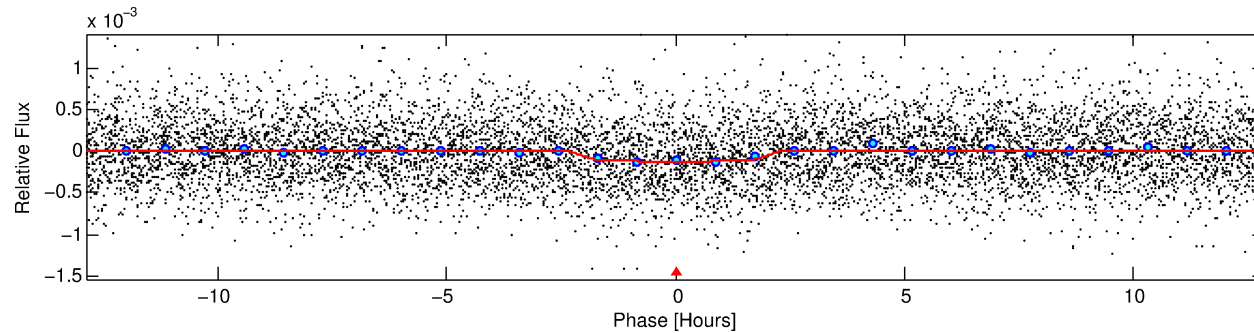
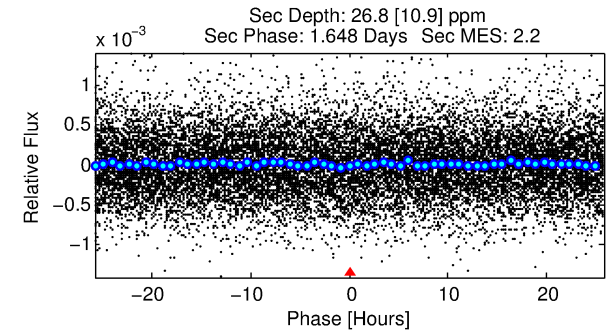
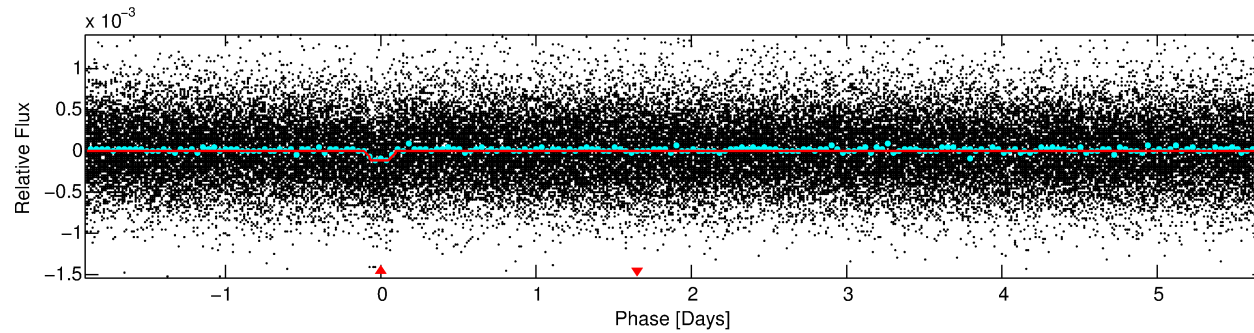
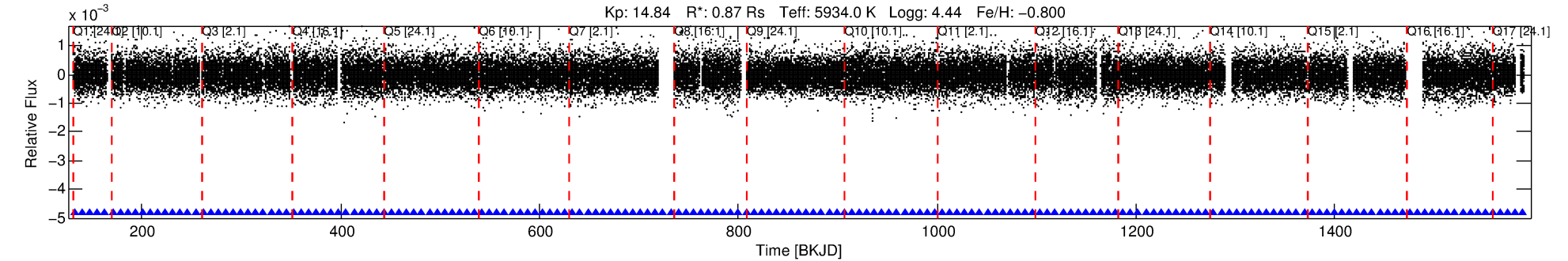
Ephemeris Match Information For 008054719-01

No Significant Match Found

DV One-Page Summary

KIC: 8054719 Candidate: 1 of 1 Period: 7.586 d

KOI: K04776.01 Corr: 0.984



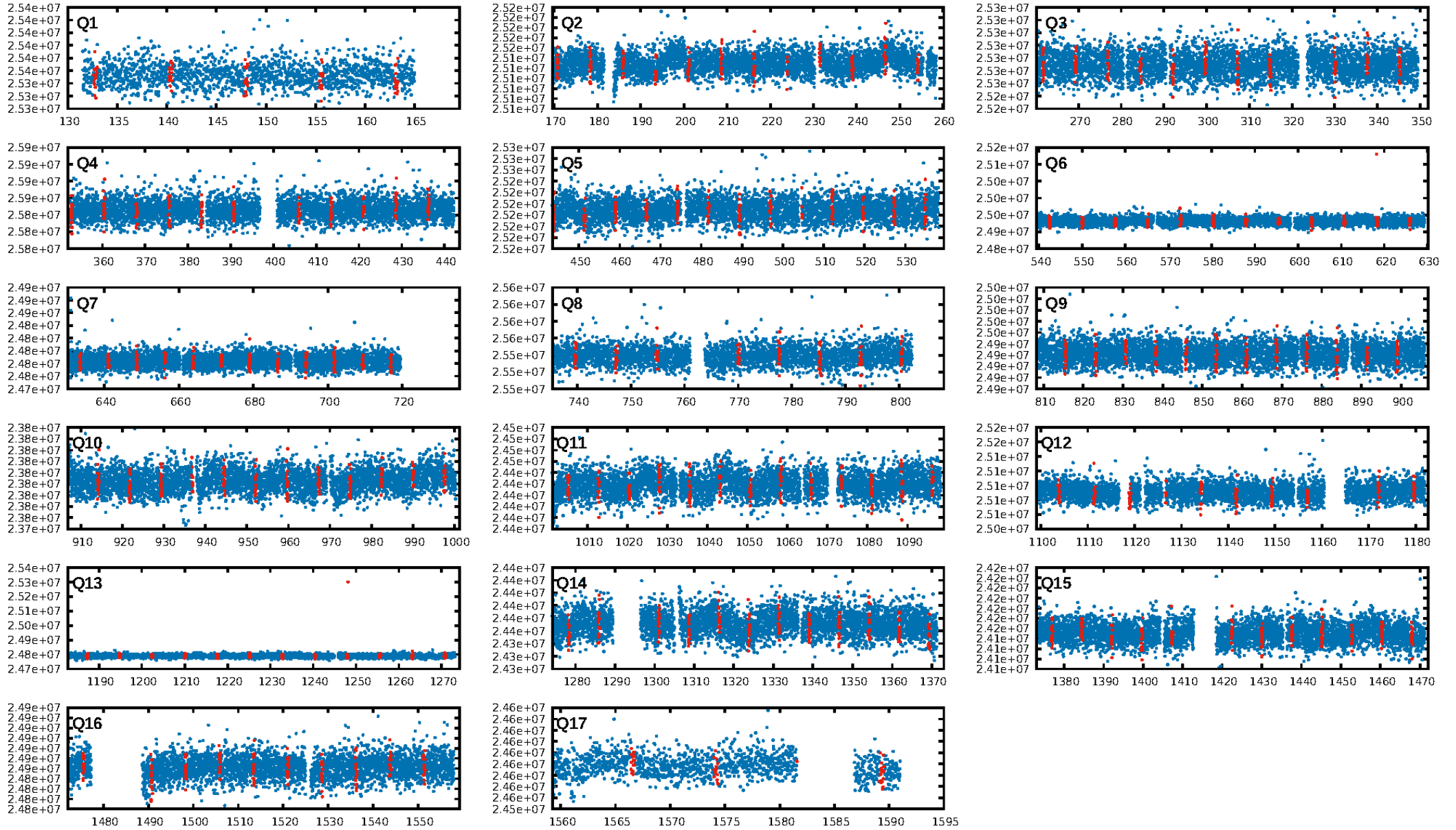
DV Fit Results:

Period = 7.58613 [0.00008] d
Epoch = 132.8028 [0.0075] BKJD
Rp/R* = 0.0115 [0.0057]
a/R* = 7.00 [18.57]
b = 0.87 [0.76]
Seff = 175.77 [55.56]
Teq = 928 [73] K
Rp = 1.10 [0.60] Re
a = 0.0692 [0.0134] AU
Ag = 58.95 [65.77] [0.88σ]
Teffp = 3978 [1077] K [2.82σ]

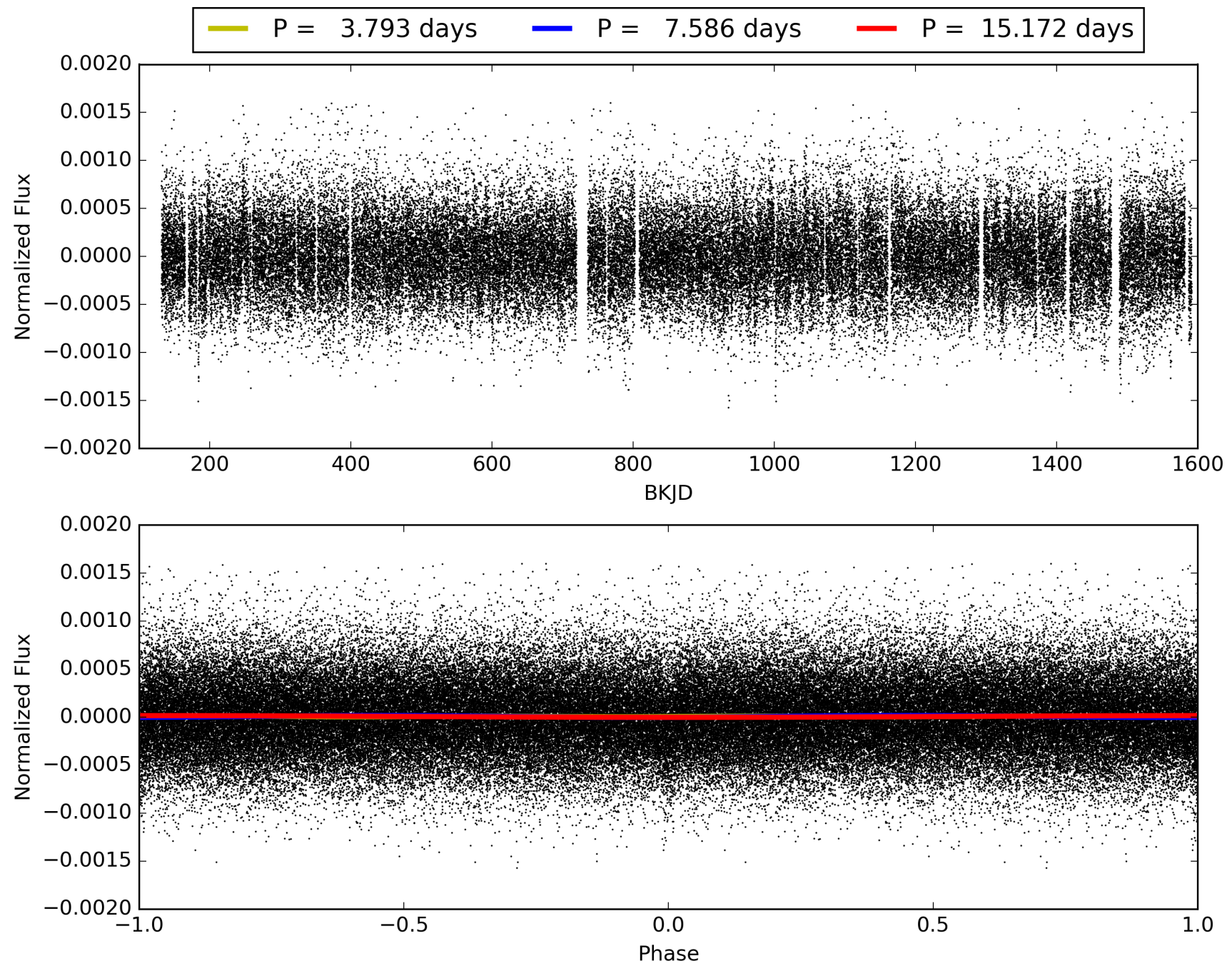
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 100.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.18e-23
RollingBand-fgt: 1.00 [171/171]
GhostDiagnostic-chr: -2.906
Centroid-sig: 43.9%
Centroid-so: 1.161 arcsec [0.83σ]
OotOffset-rm: 0.287 arcsec [0.34σ]
KicOffset-rm: 0.386 arcsec [0.45σ]
OotOffset-st: 4/3/2/3 [12]
KicOffset-st: 4/3/2/3 [12]
DiffImageQuality-fgm: 0.25 [3/12]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 008054719-01, PDC Light Curves

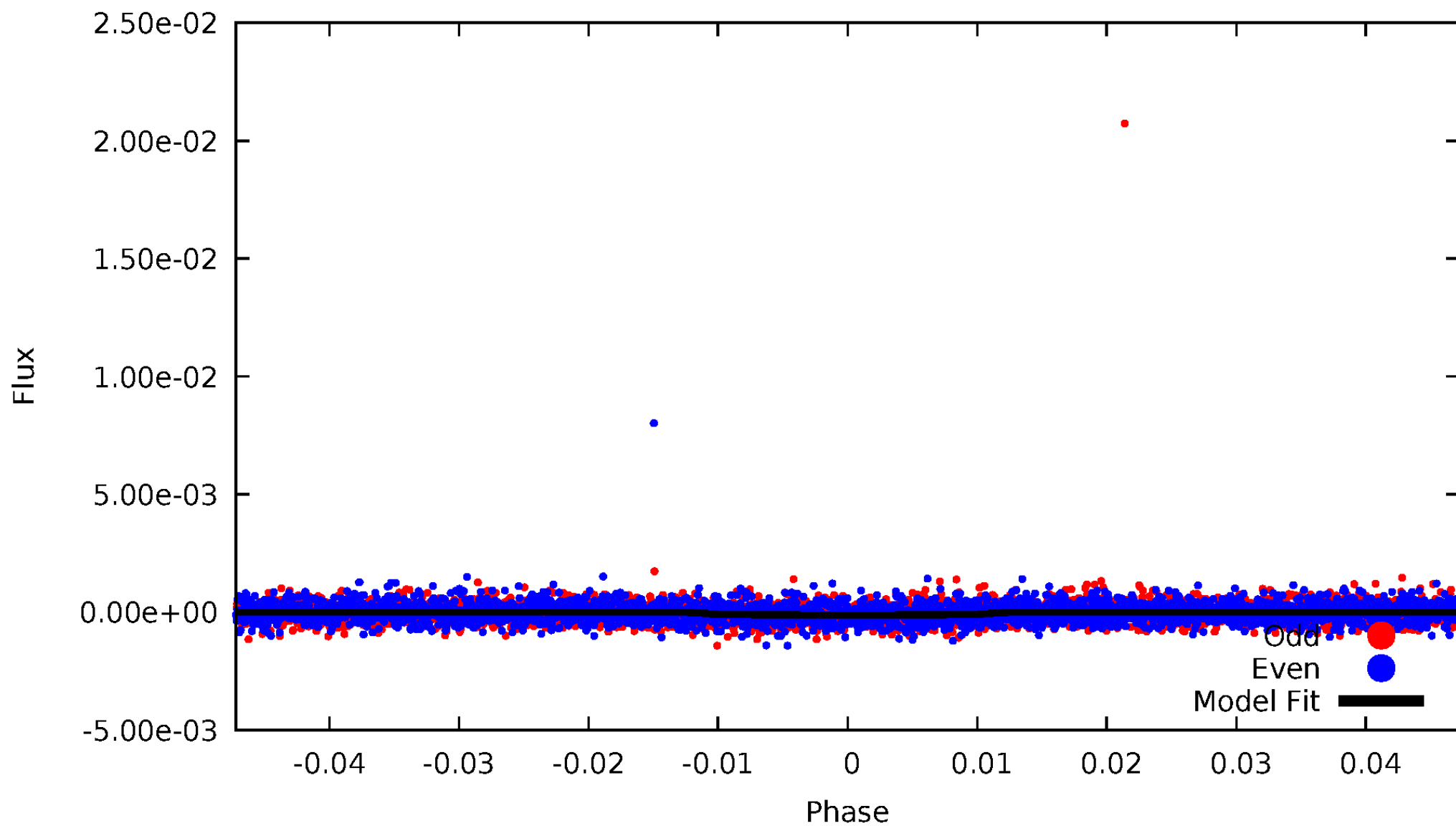


TCE 008054719-01



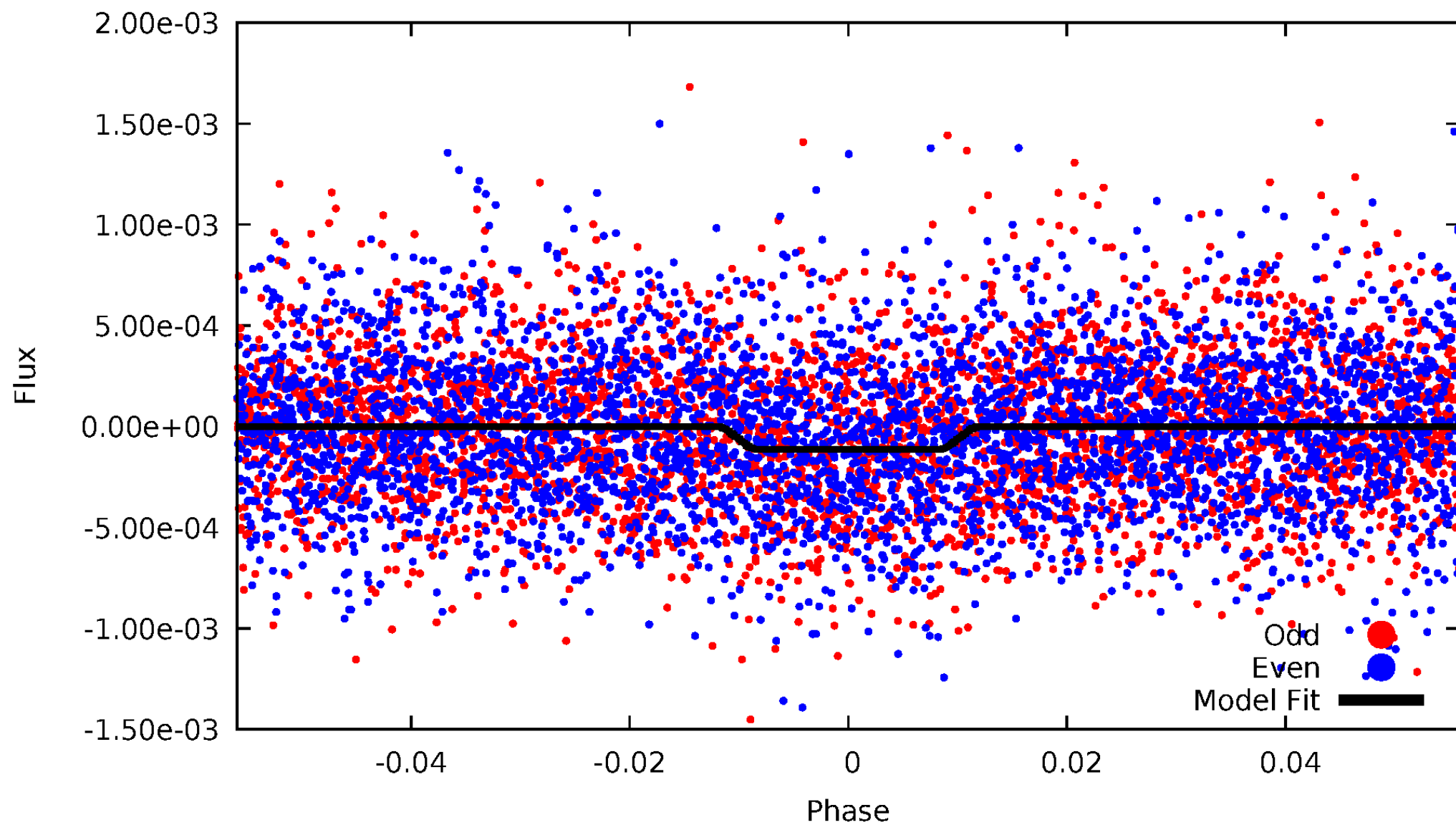
DV Odd/Even

TCE 008054719-01



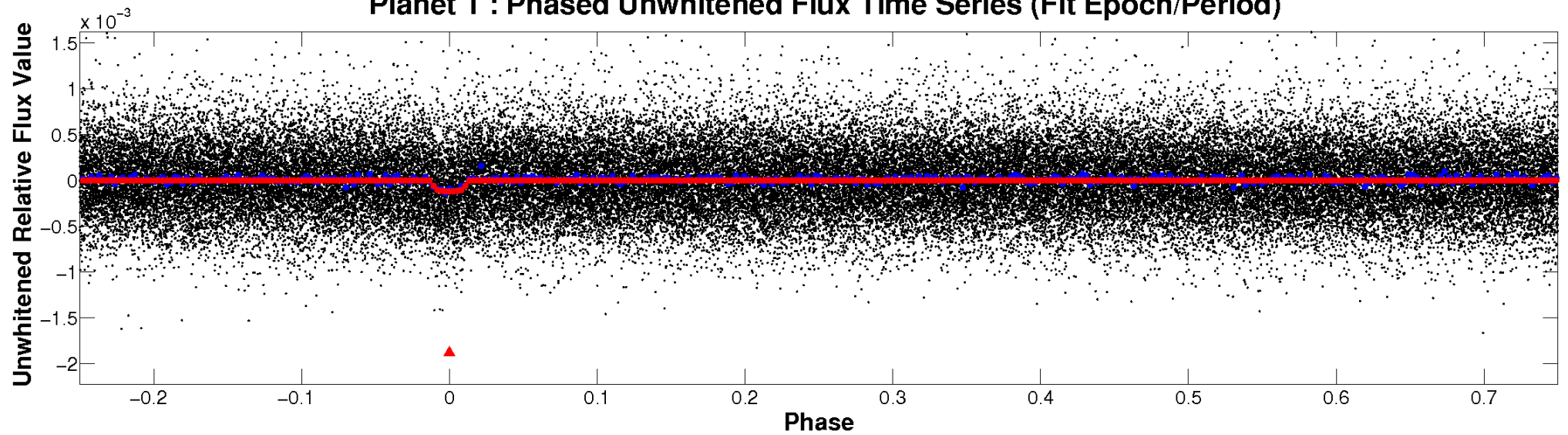
ALT Odd/Even

TCE 008054719-01

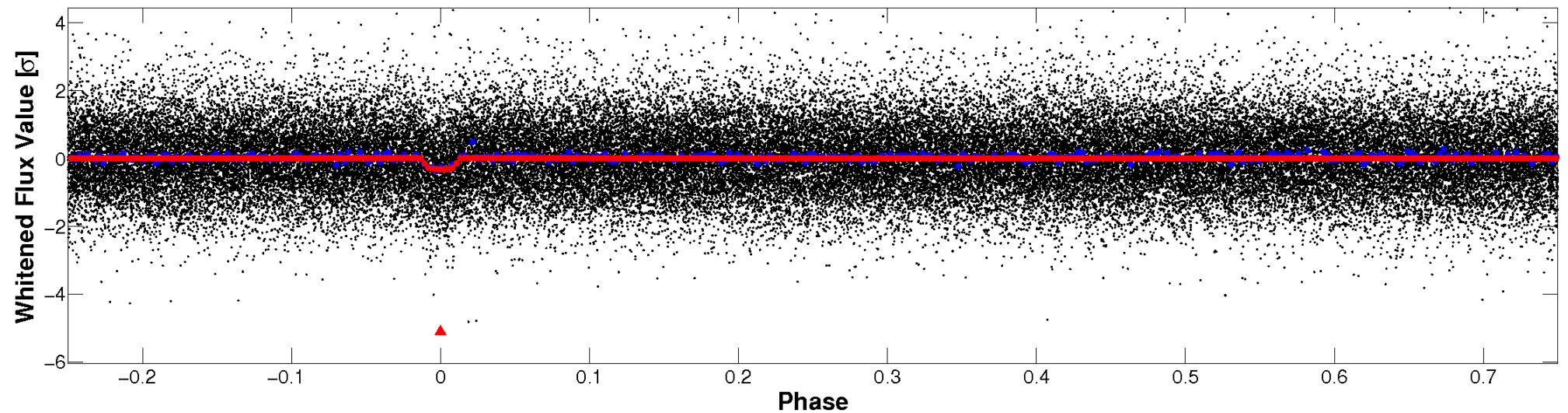


Non-Whitened Vs. Whitened Light Curve

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

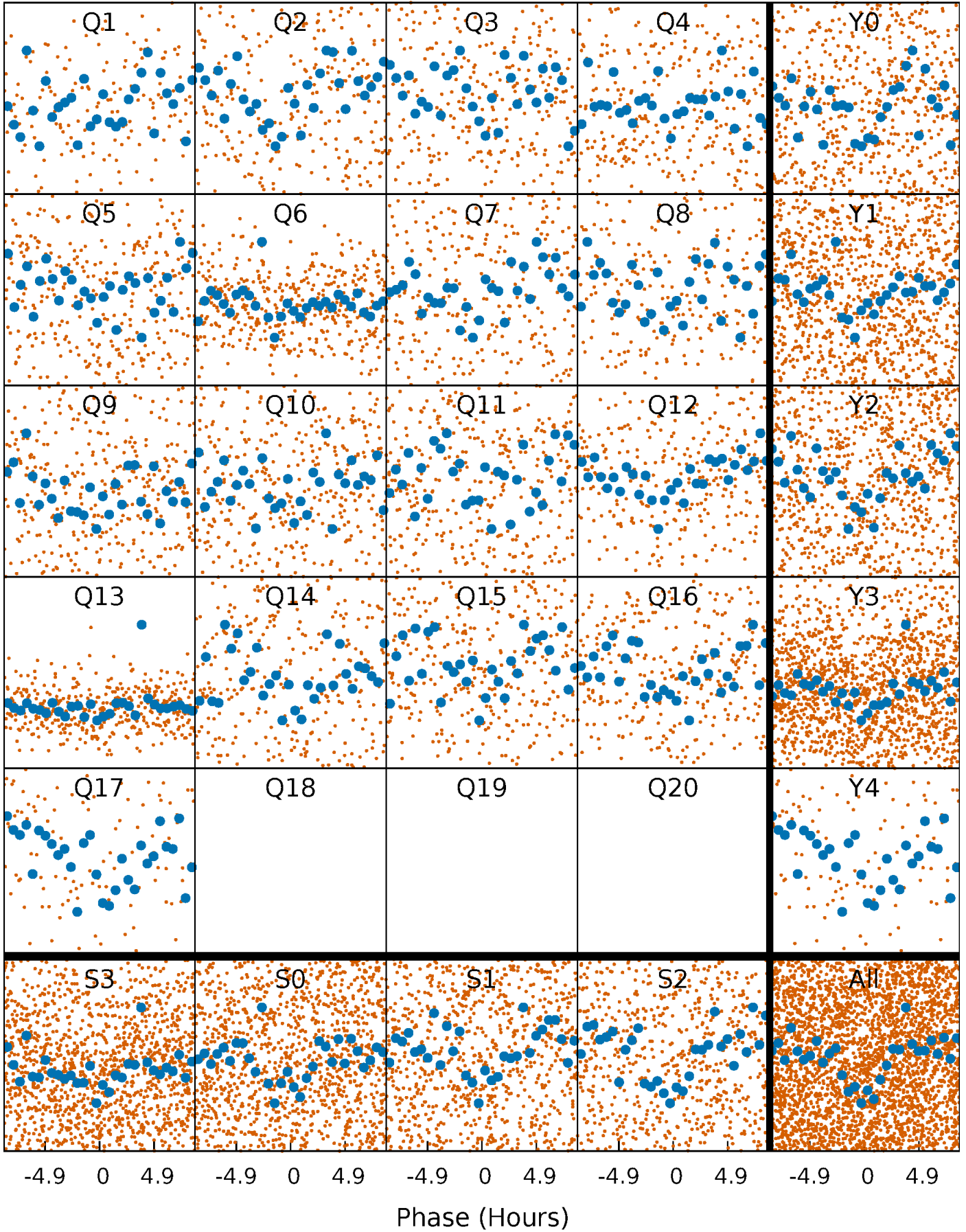


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



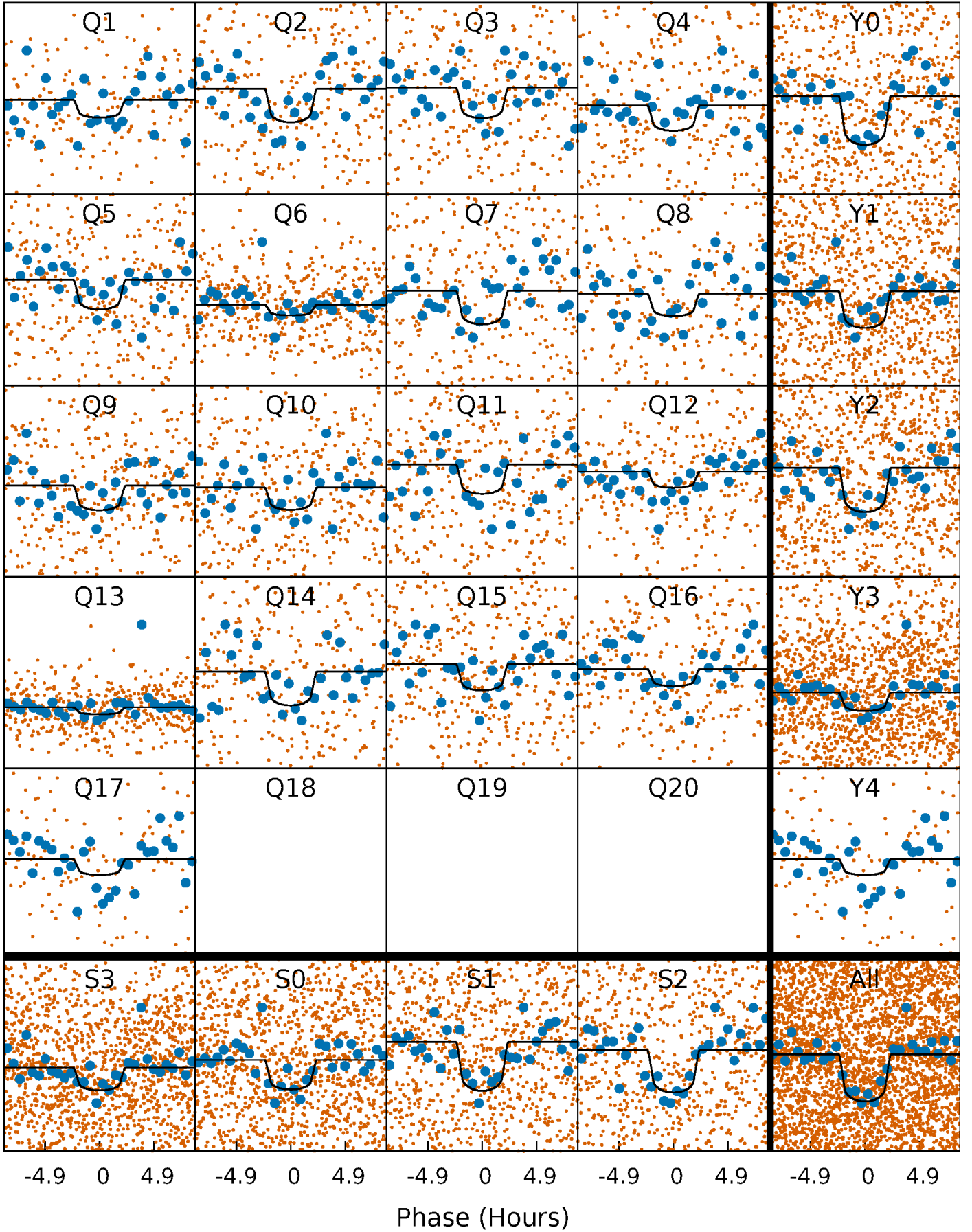
PDC Quarter-Phased Transit Curves

TCE 008054719-01 P= 7.586133 Days $T_0=132.802771$ (BKJD)



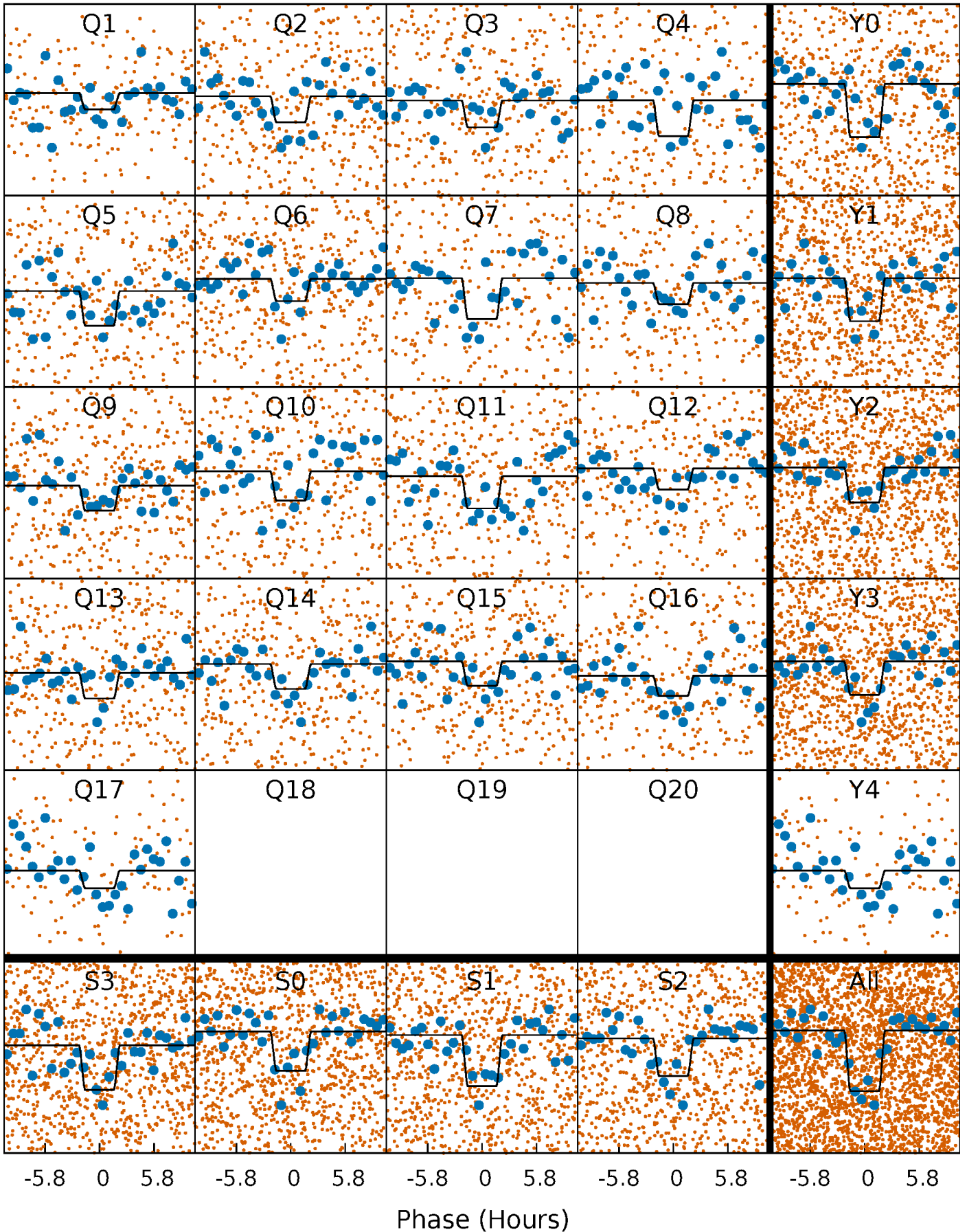
DV Quarter-Phased Transit Curves

TCE 008054719-01 P= 7.586133 Days $T_0=132.802771$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

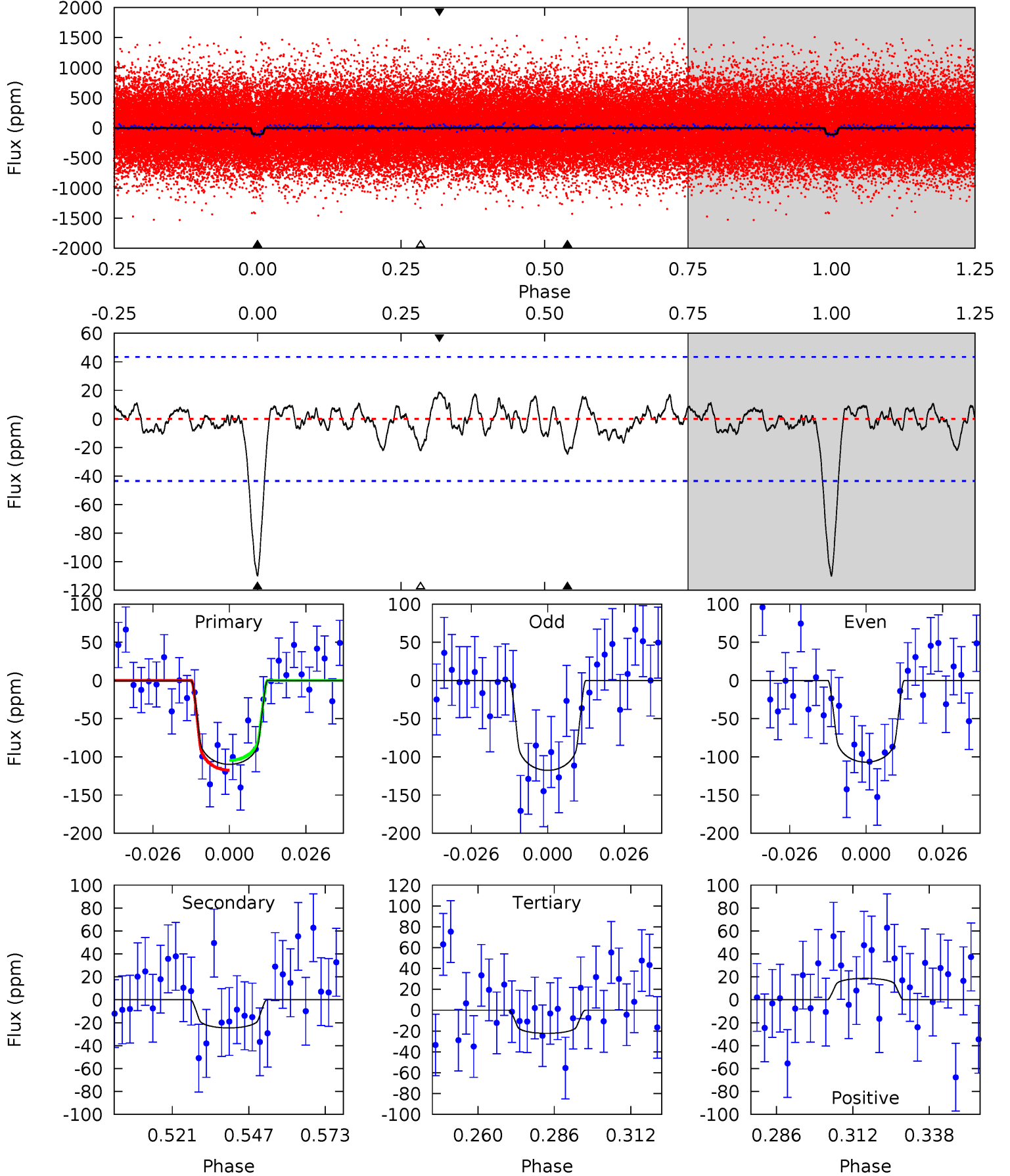
TCE 008054719-01 P= 7.586264 Days $T_0=132.782757$ (BKJD)



DV Model-Shift Uniqueness Test

008054719-01, P = 7.586133 Days, E = 125.216638 Days

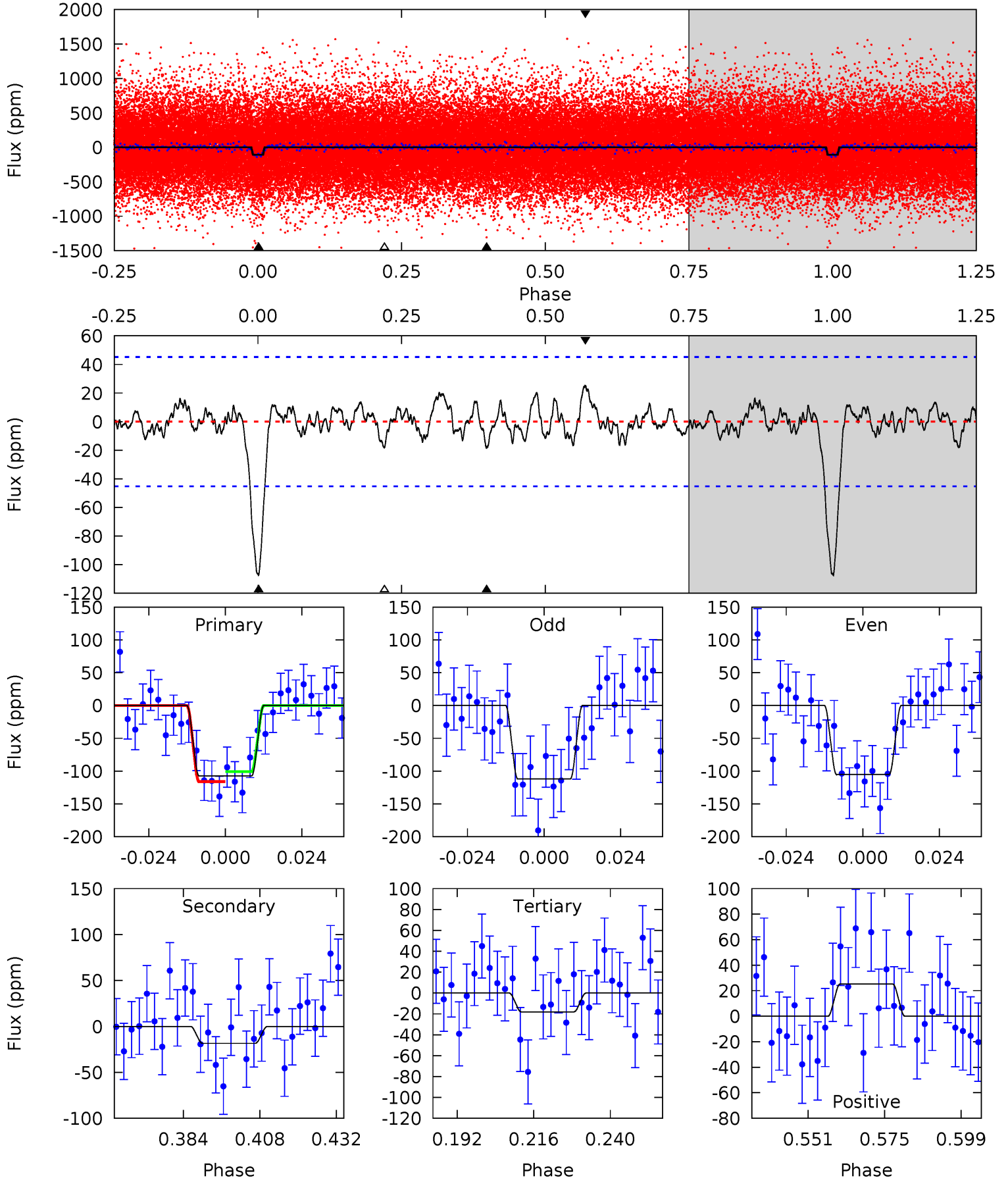
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.2	2.74	2.48	2.08	4.84	2.23	0.87	9.74	10.1	0.26	0.65	0.60	0.98	0.15	0.72



Alt Model-Shift Uniqueness Test

008054719-01, P = 7.586264 Days, E = 125.196493 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.5	1.98	1.94	2.71	4.86	2.26	0.86	9.59	8.82	0.04	-0.73	0.36	0.95	0.19	0.81



Stellar Parameters For KIC 008054719

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5934^{+178}_{-160}	$4.444^{+0.135}_{-0.165}$	$-0.800^{+0.300}_{-0.300}$	$0.871^{+0.191}_{-0.139}$	$0.767^{+0.094}_{-0.043}$	$1.637^{+0.998}_{-0.730}$
	+3%/-3%	+3%/-4%	+37%/-37%	+22%/-16%	+12%/-6%	+61%/-45%
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 008054719-01 / KOI 4776.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-25 ± 9	$1.09^{+0.60}_{-0.48}$	1304^{+79}_{-81}	4107^{+1226}_{-584}	52^{+129}_{-33}
Alt.	-18 ± 9	$1.06^{+0.55}_{-0.54}$	1303^{+81}_{-75}	3962^{+1260}_{-684}	41^{+123}_{-28}

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

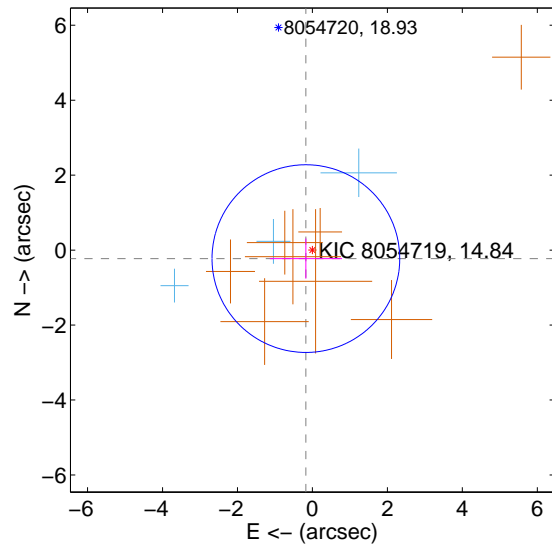
Supplemental centroid analysis for 008054719-01. Kepler magnitude: 14.84. Transit SNR 10.72

There are 3 quarters with good PRF difference image offsets

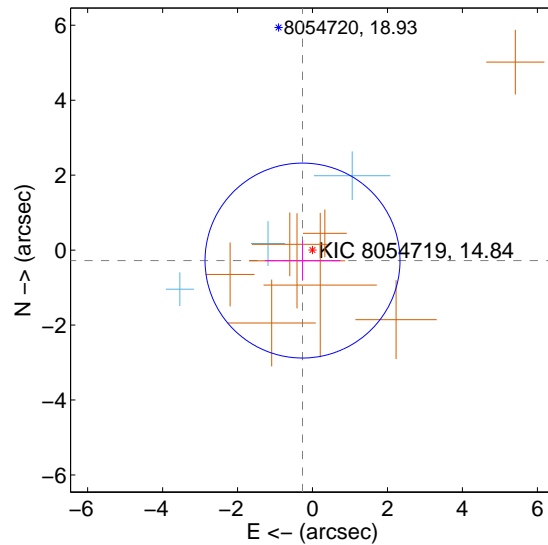
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.287 ± 0.835	0.34	0.175 ± 0.964	-0.227 ± 0.537
PRF-fit source offset from KIC position	0.386 ± 0.867	0.45	0.267 ± 1.009	-0.279 ± 0.534
photometric centroid source offset	1.16 ± 1.41	0.83	1.06 ± 1.40	-0.48 ± 1.42

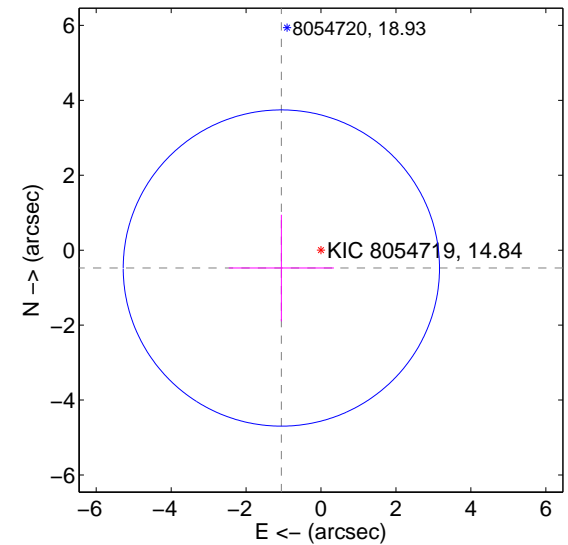
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

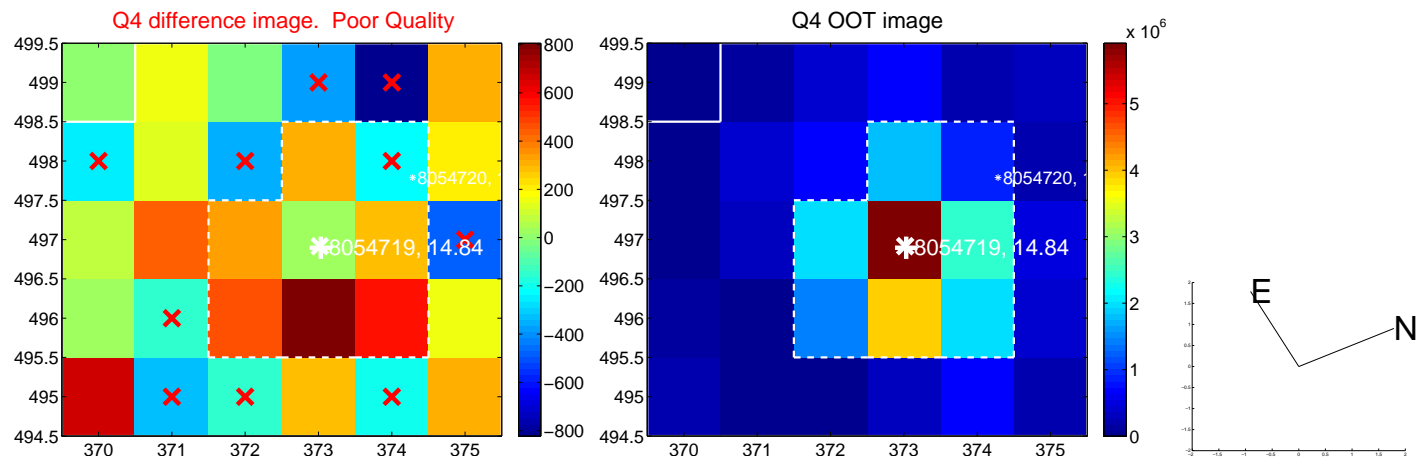
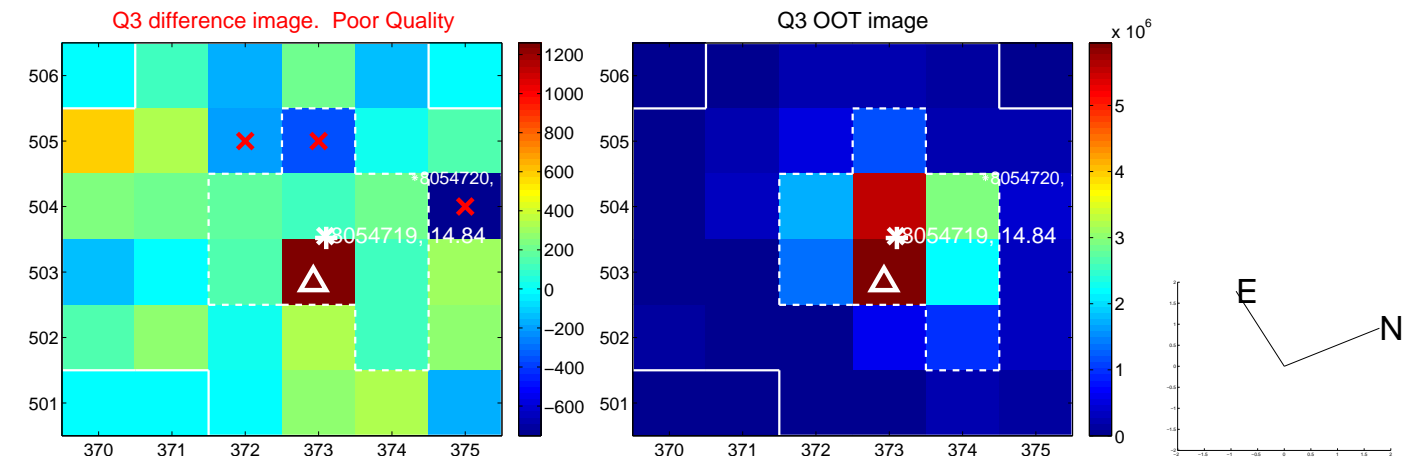
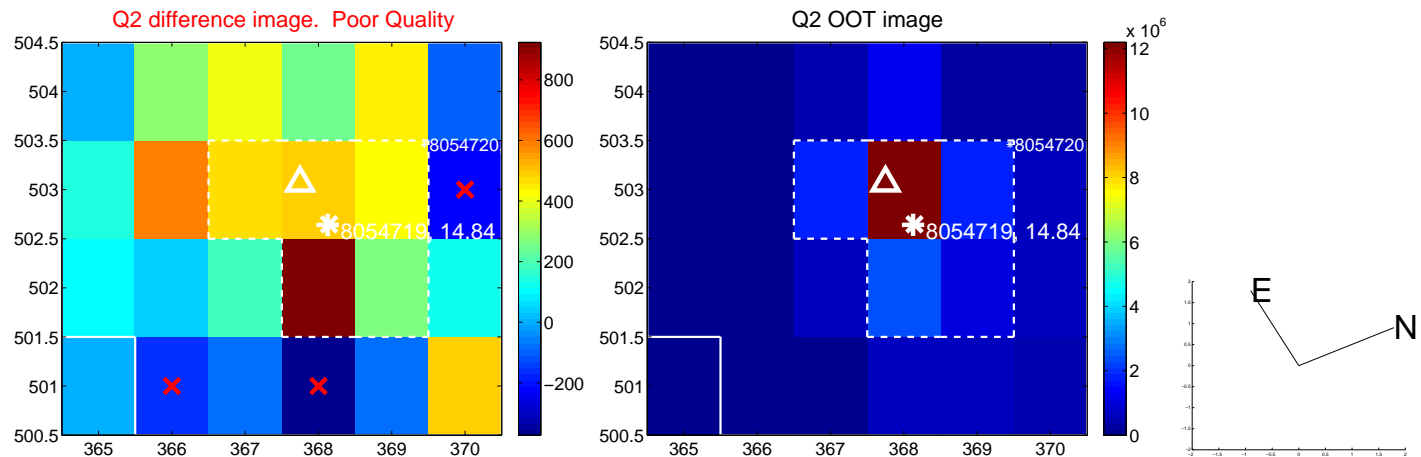
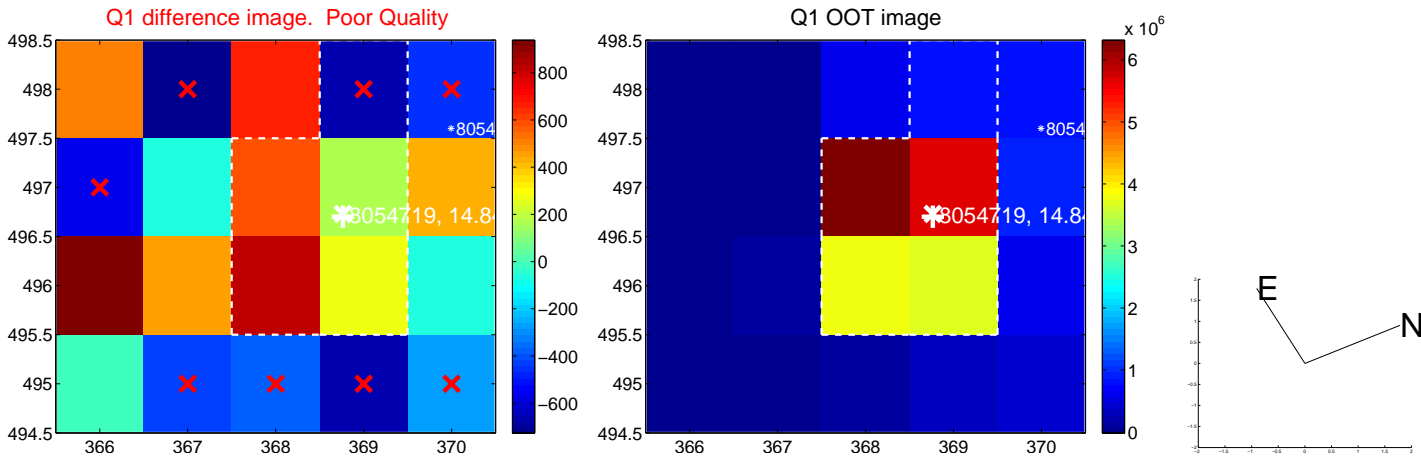


offset from photometric centroids

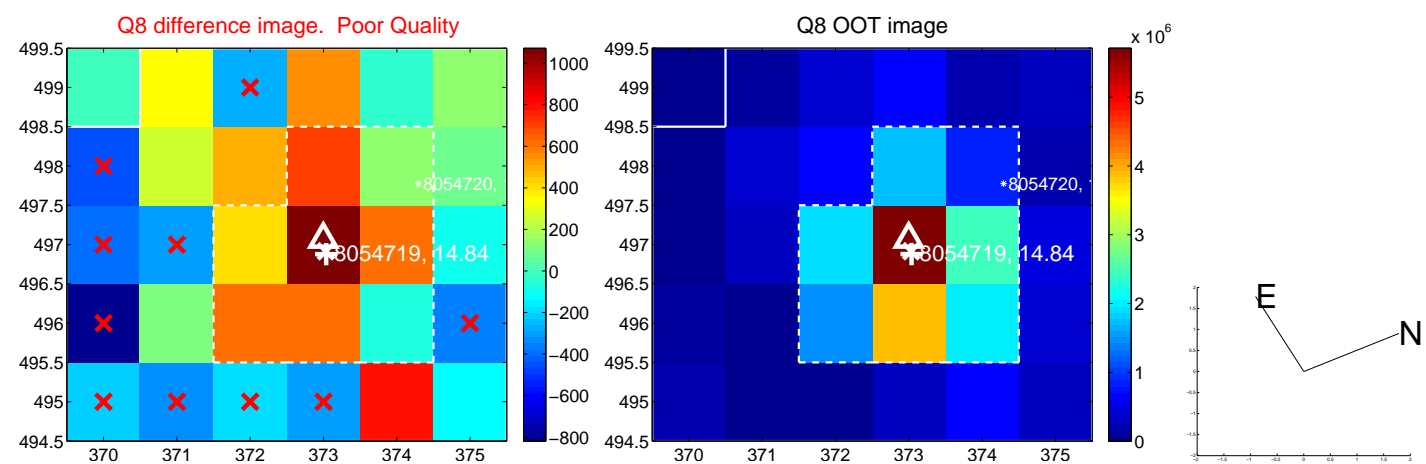
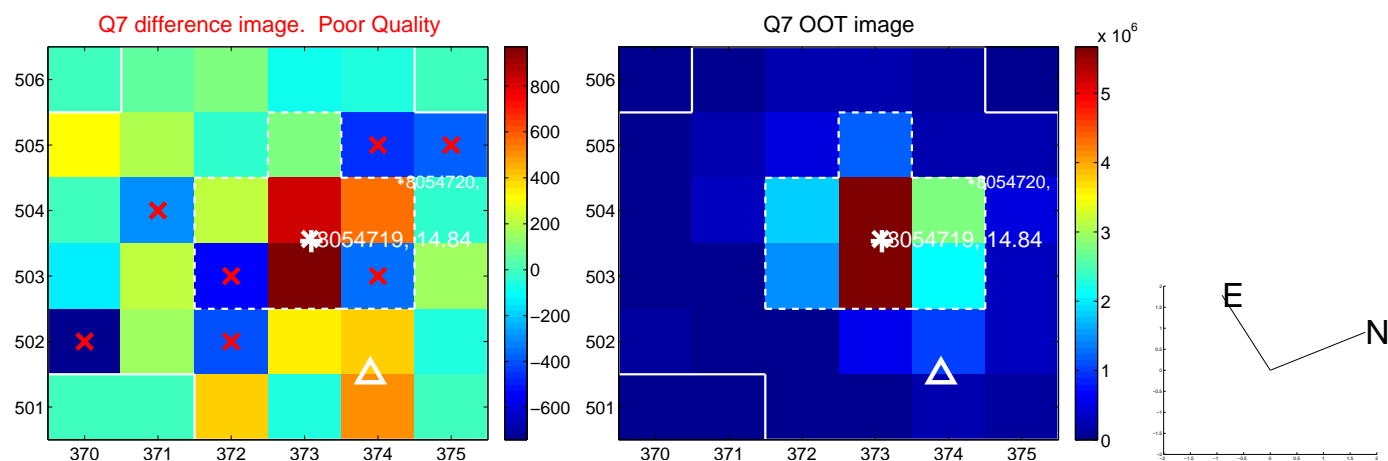
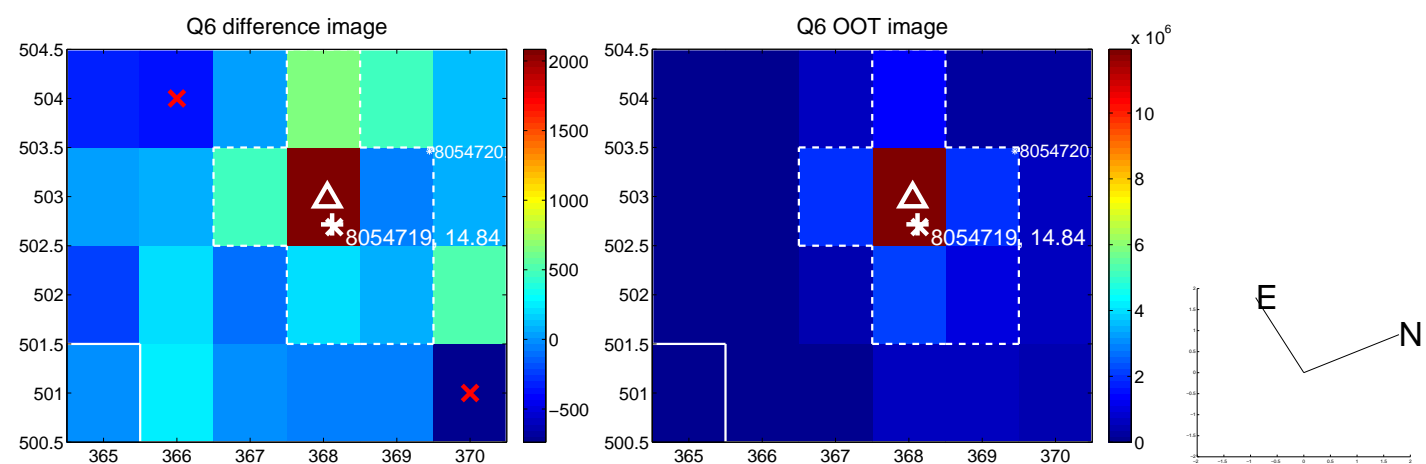
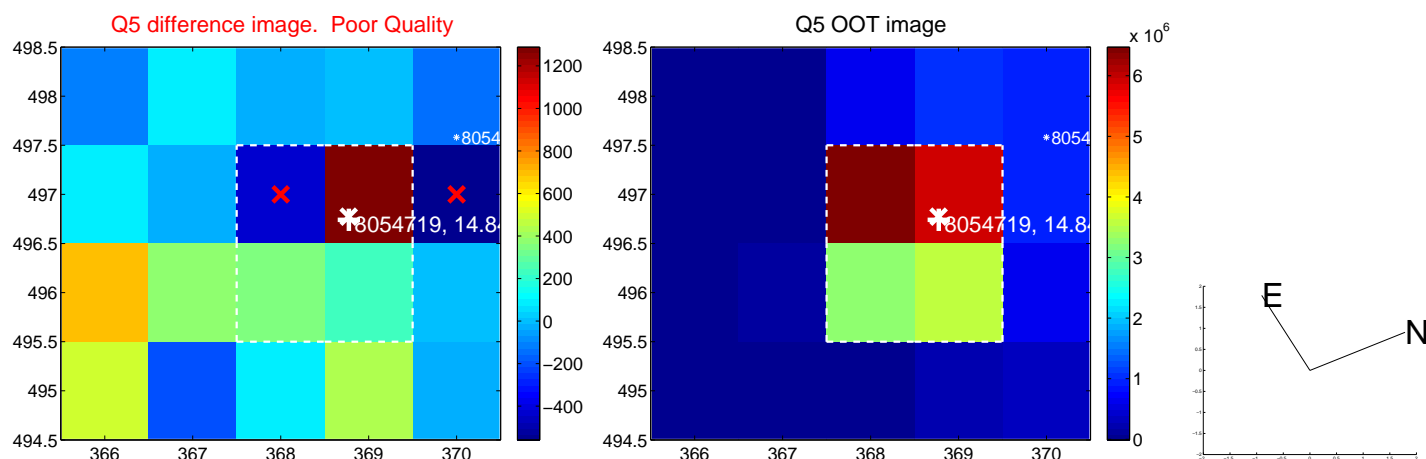


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

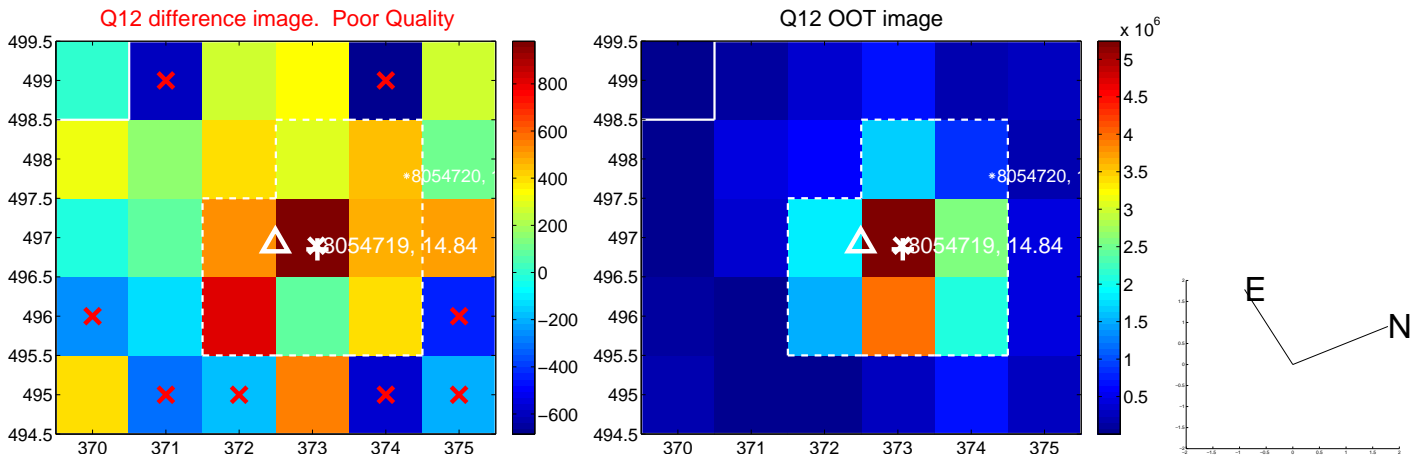
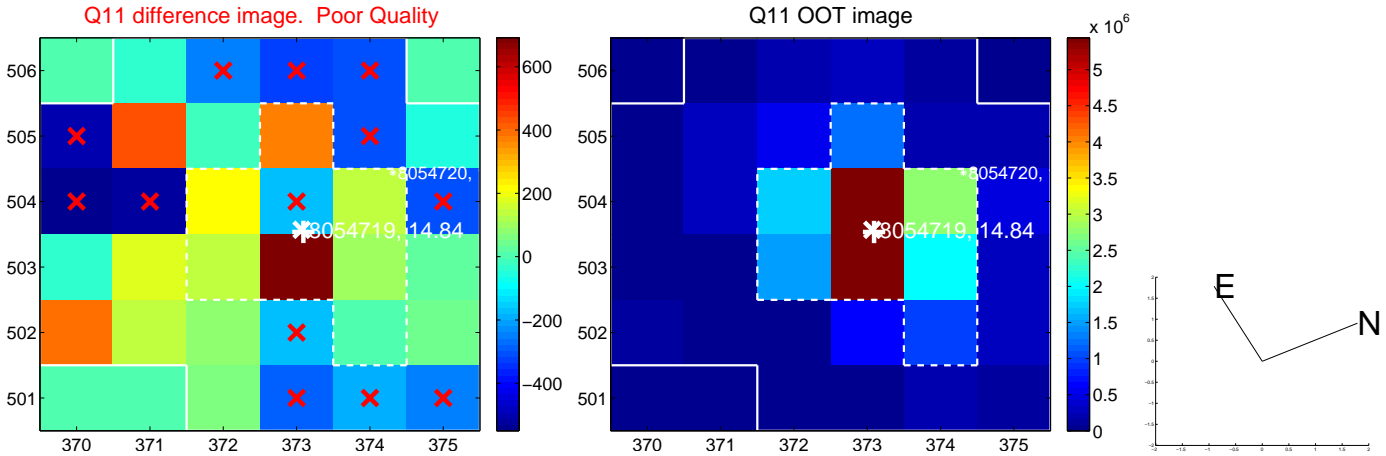
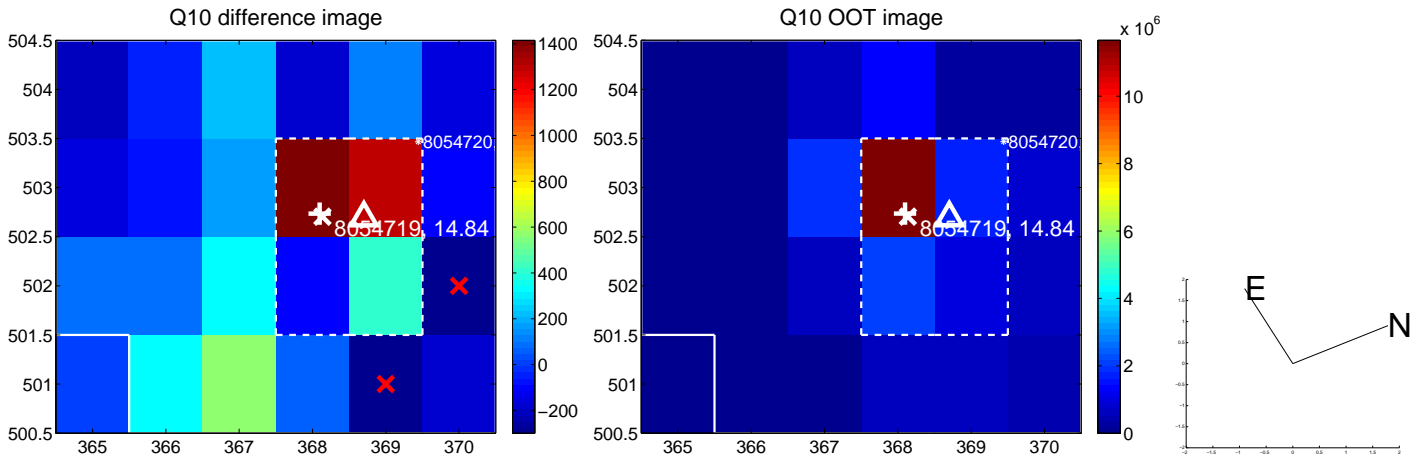
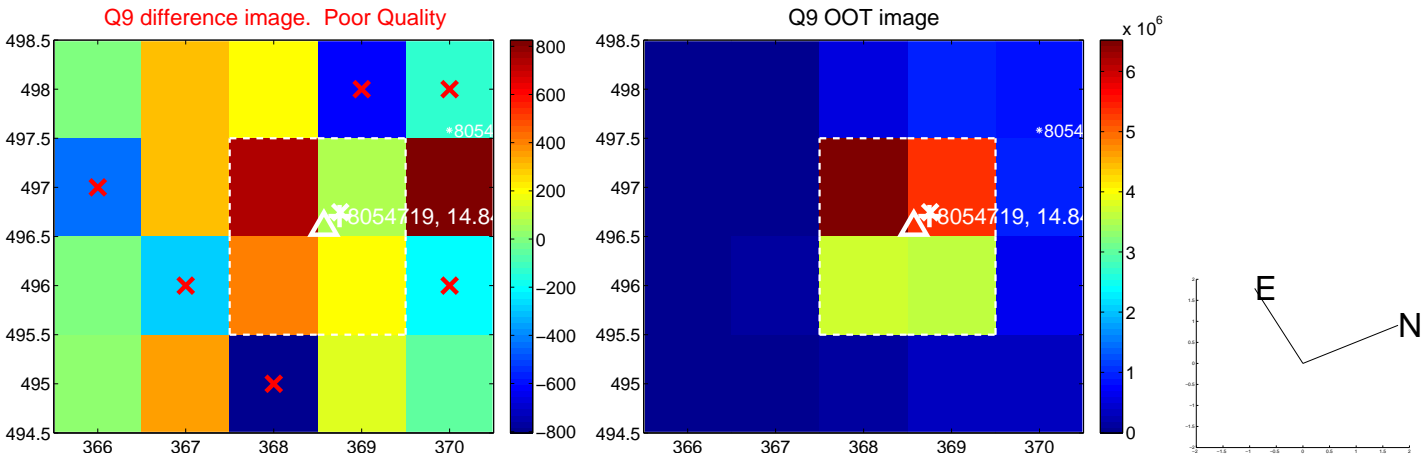
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



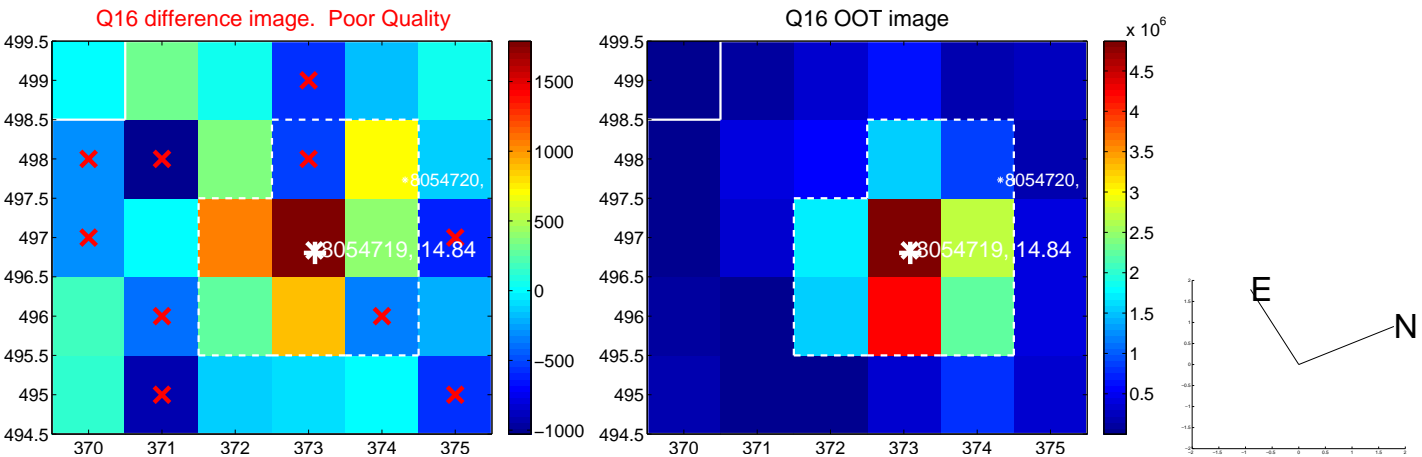
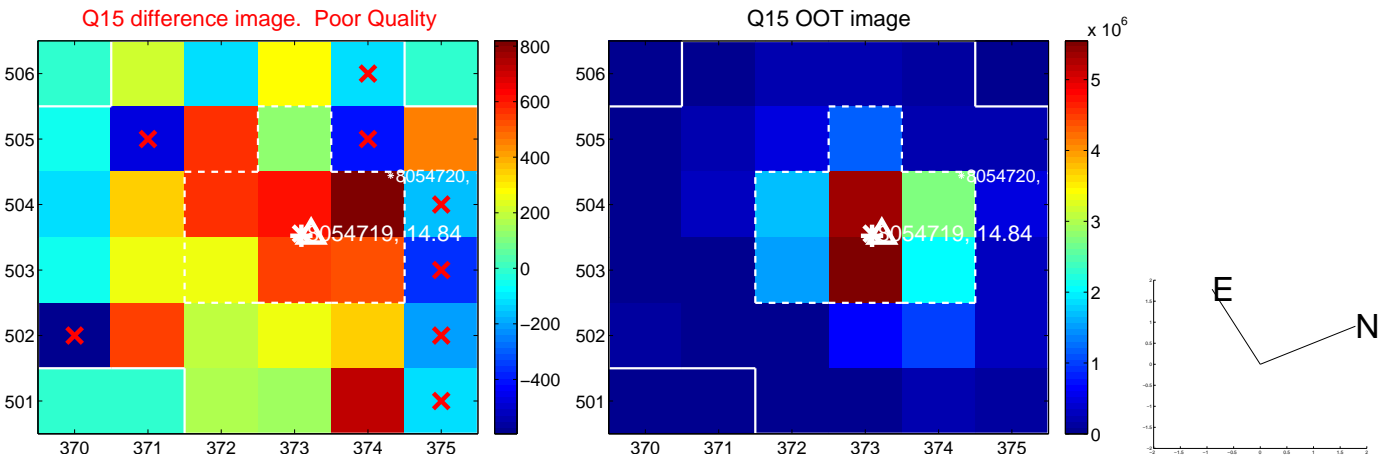
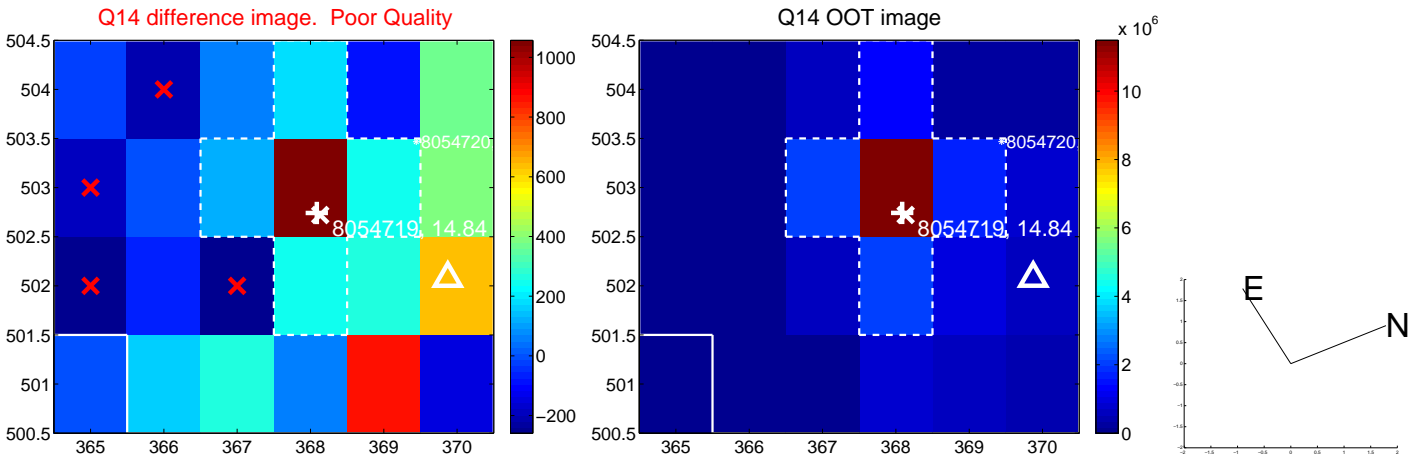
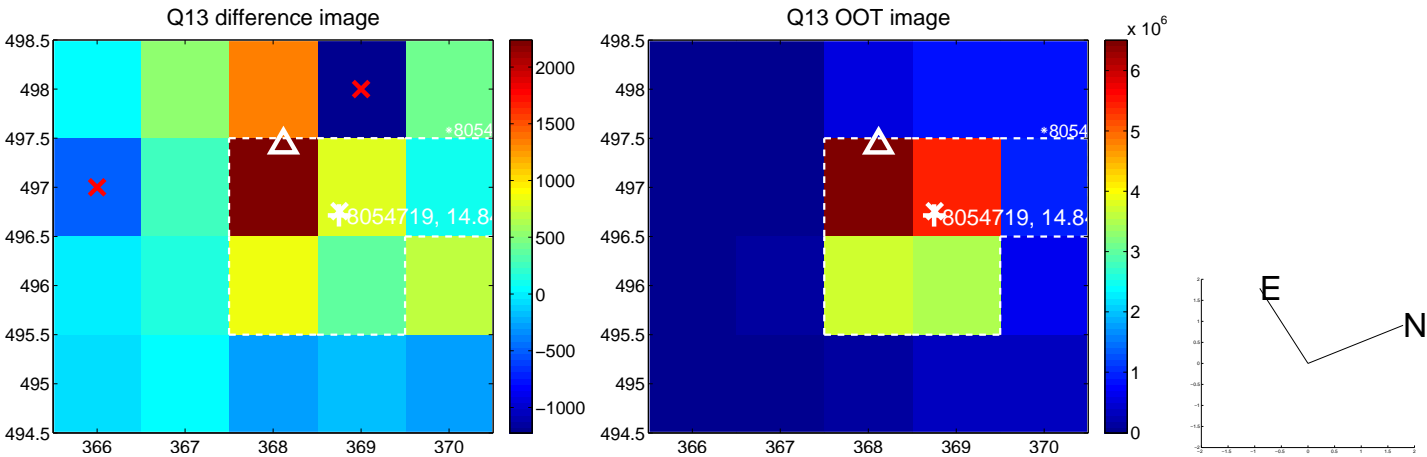
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



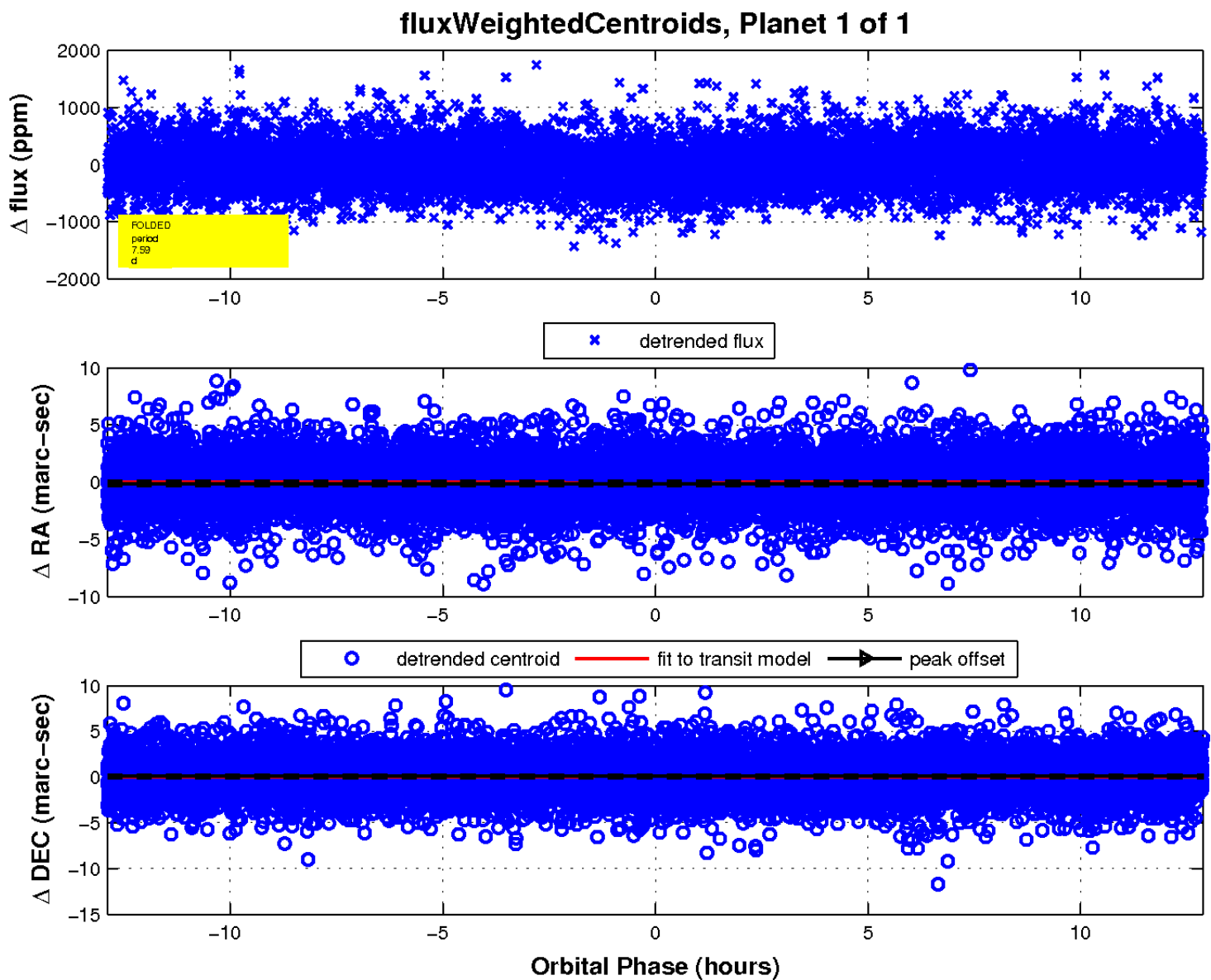
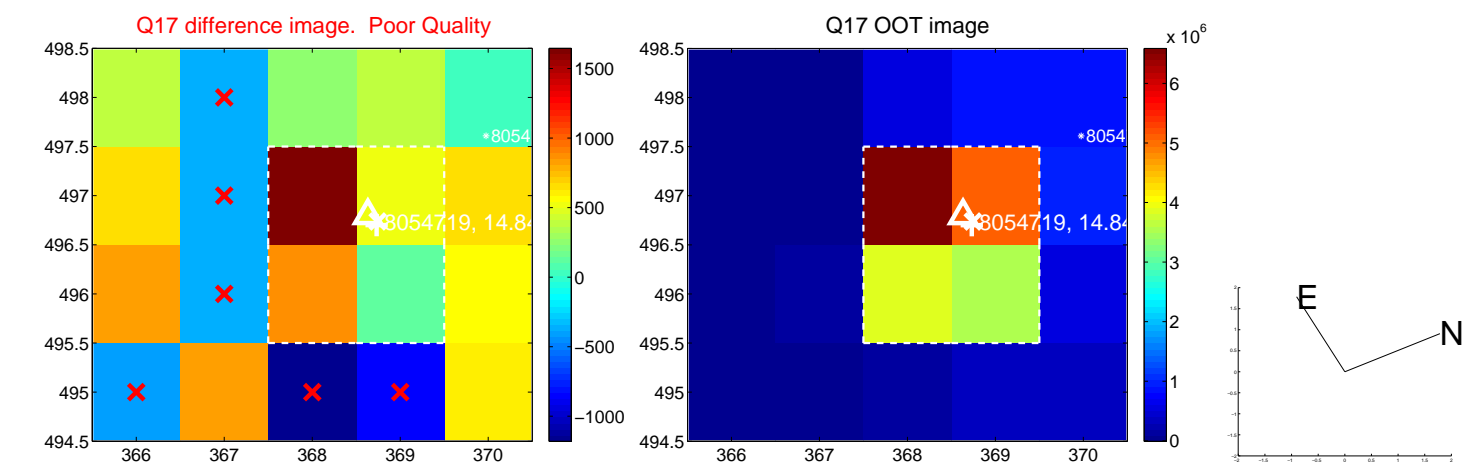
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UKIRT Image

Declination

