

KIC 005807769

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})
005807769-01	OBS	2614.01	7.990209	132.269597	157.5	3.320	14.4	16.3	1.54	5689	2.22	362.81

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005807769-01	OBS	PC	1.00	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.

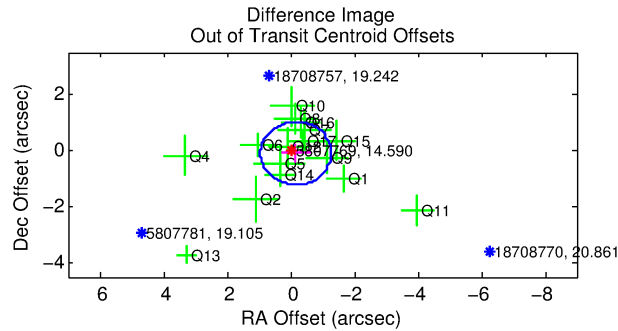
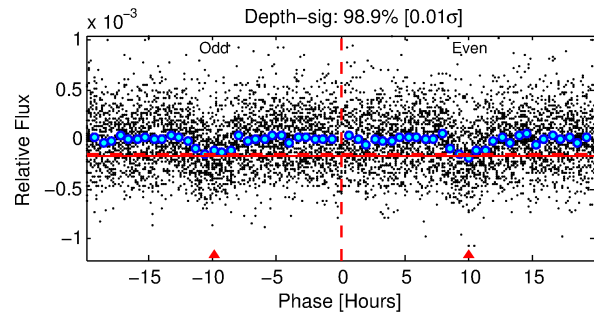
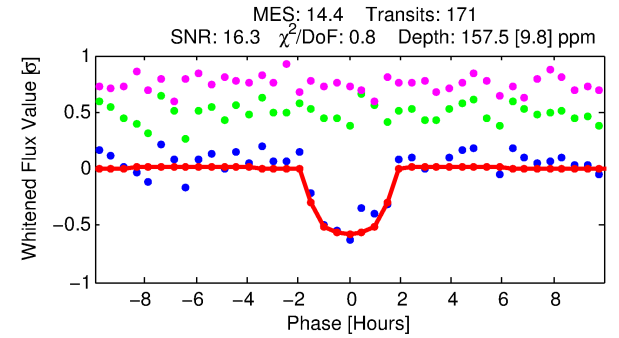
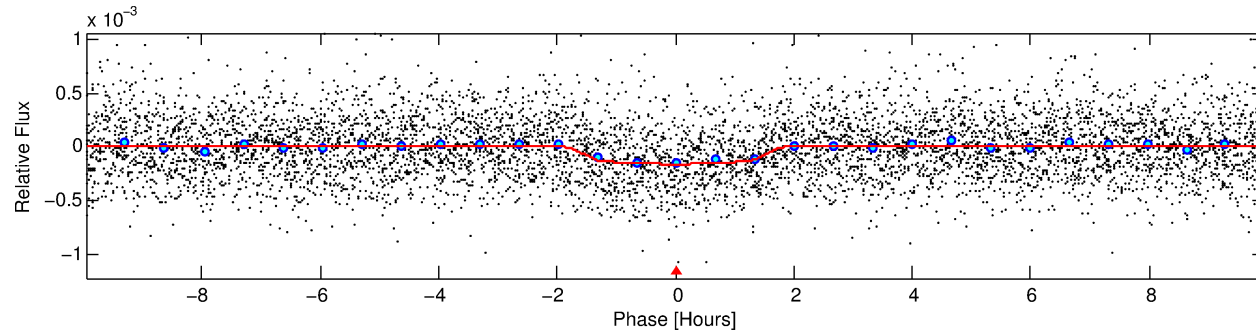
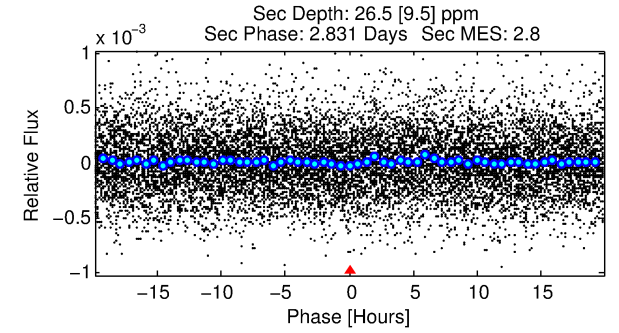
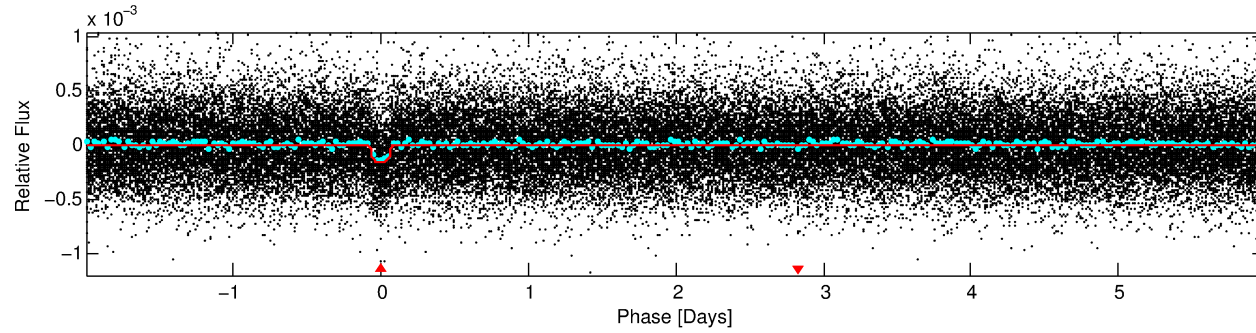
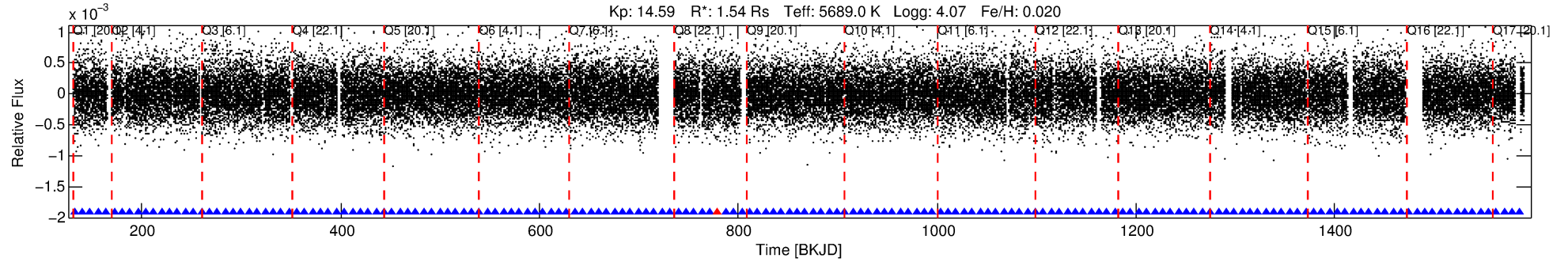
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005807769-01

No Significant Match Found

DV One-Page Summary

KIC: 5807769 Candidate: 1 of 1 Period: 7.990 d
KOI: K02614.01 Corr: 0.990



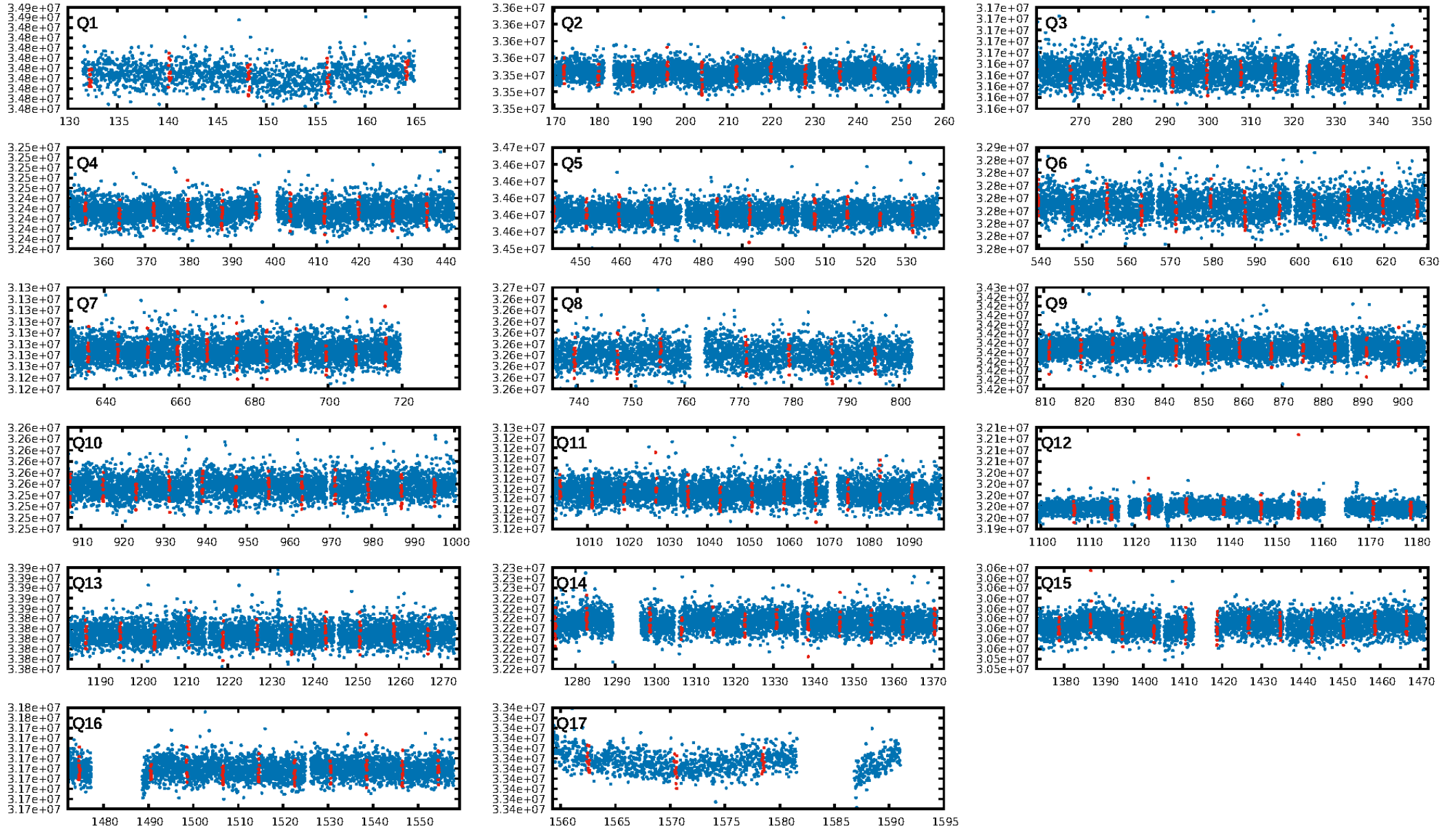
DV Fit Results:

Period = 7.99021 [0.00004] d
Epoch = 132.2696 [0.0042] BKJD
Rp/R* = 0.0132 [0.0072]
a/R* = 10.09 [24.88]
b = 0.85 [0.81]
Seff = 362.81 [124.46]
Teq = 1113 [95] K
Rp = 2.22 [1.32] Re
a = 0.0784 [0.0170] AU
Ag = 18.20 [21.83] [0.79σ]
Teffp = 3554 [1024] K [2.37σ]

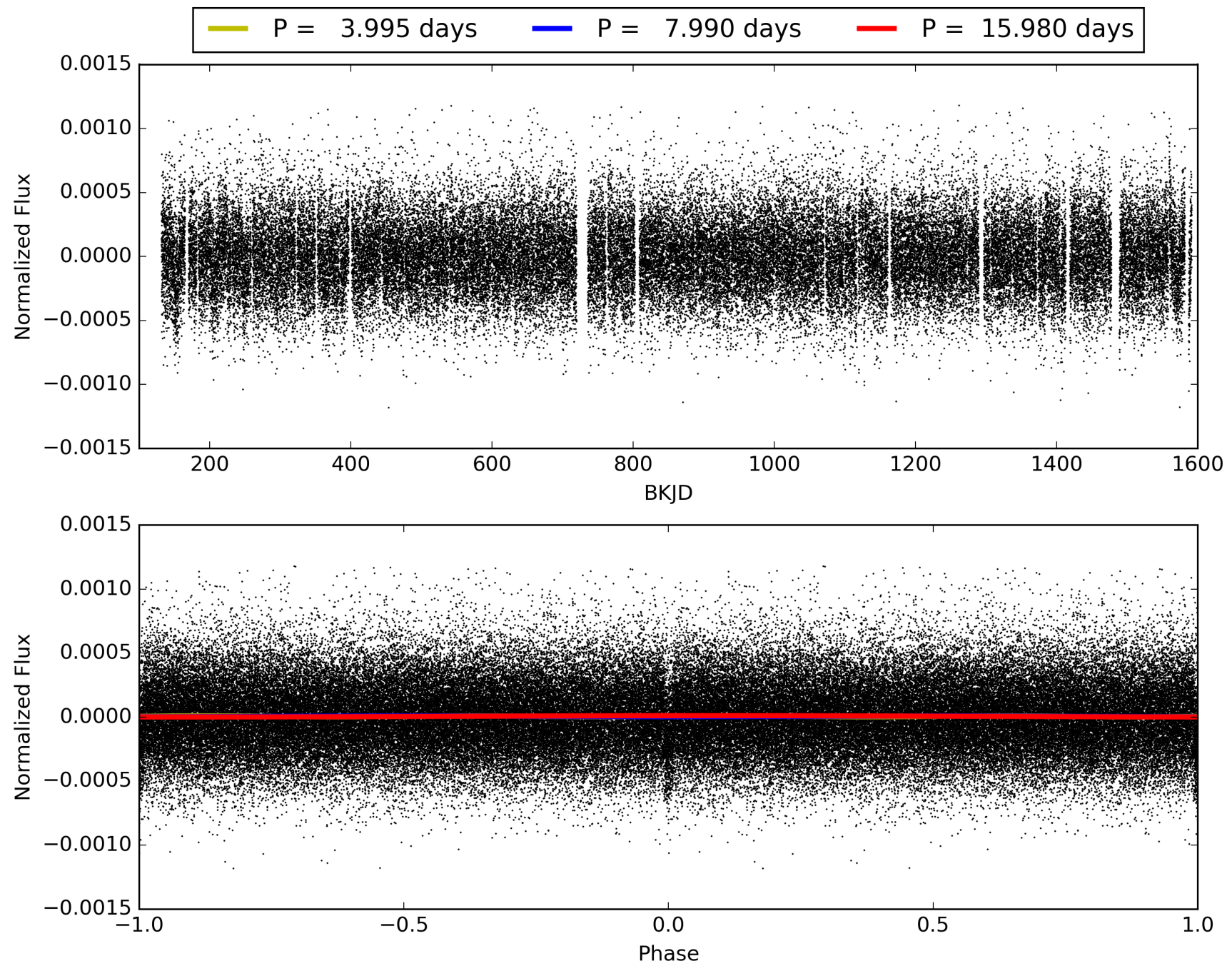
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 100.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.99e-46
RollingBand-fgt: 0.99 [162/163]
GhostDiagnostic-chr: 2.08
Centroid-sig: N/A
Centroid-so: 0.723 arcsec [0.75σ]
OotOffset-rm: 0.187 arcsec [0.50σ]
KicOffset-rm: 0.309 arcsec [0.91σ]
OotOffset-st: 4/3/4/5 [16]
KicOffset-st: 4/3/4/5 [16]
DiffImageQuality-fgm: 0.69 [11/16]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 005807769-01, PDC Light Curves

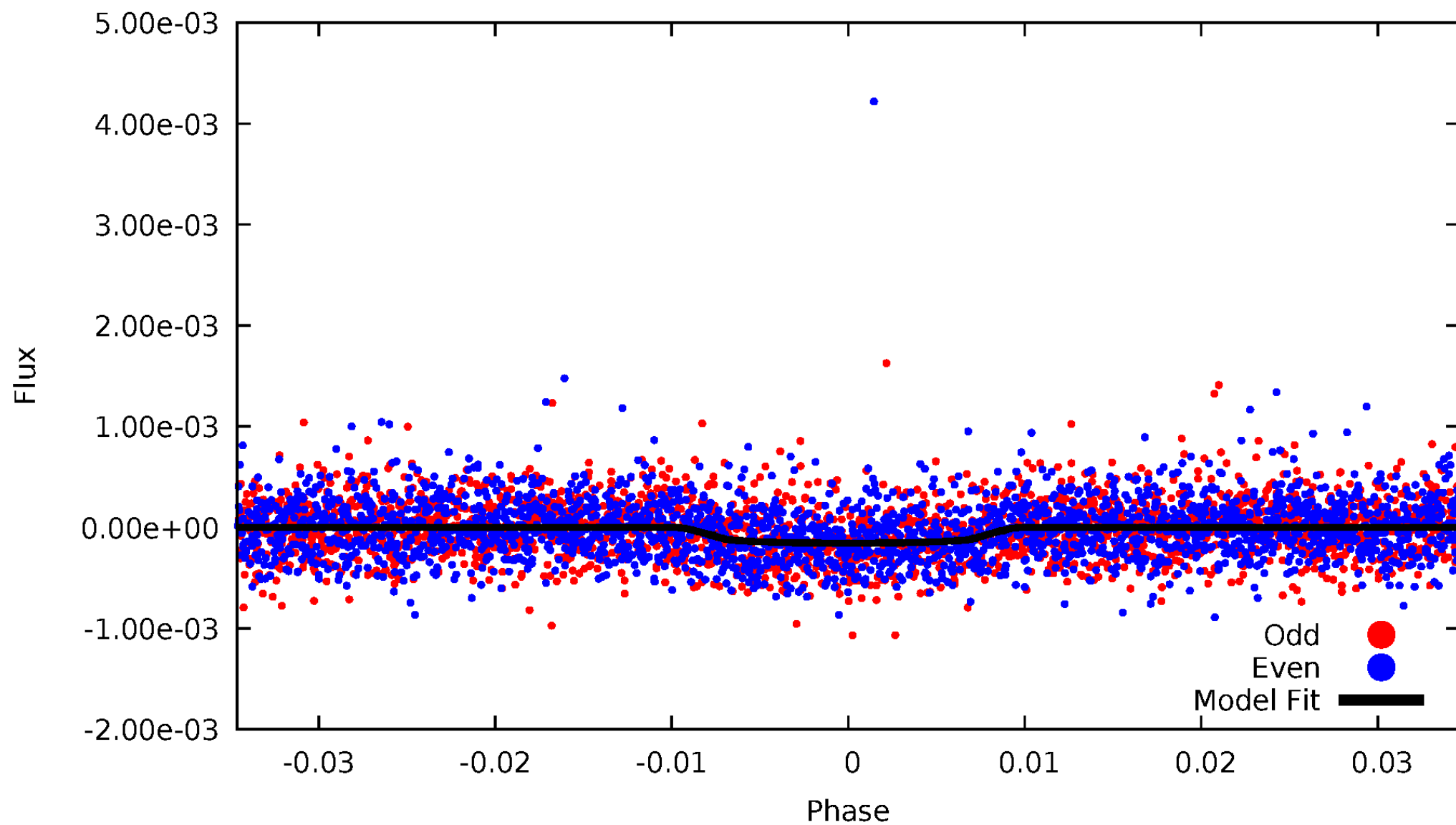


TCE 005807769-01



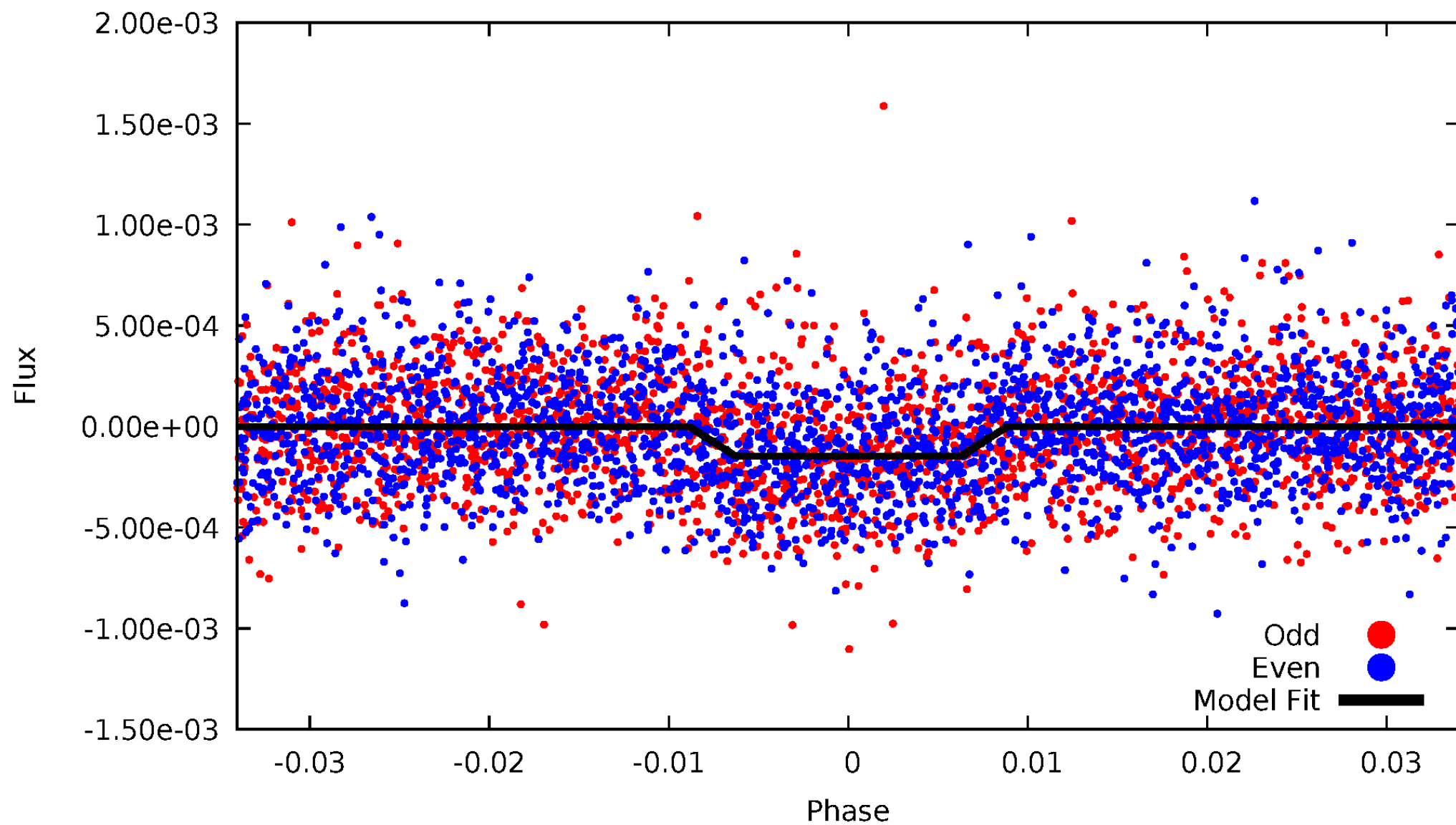
DV Odd/Even

TCE 005807769-01



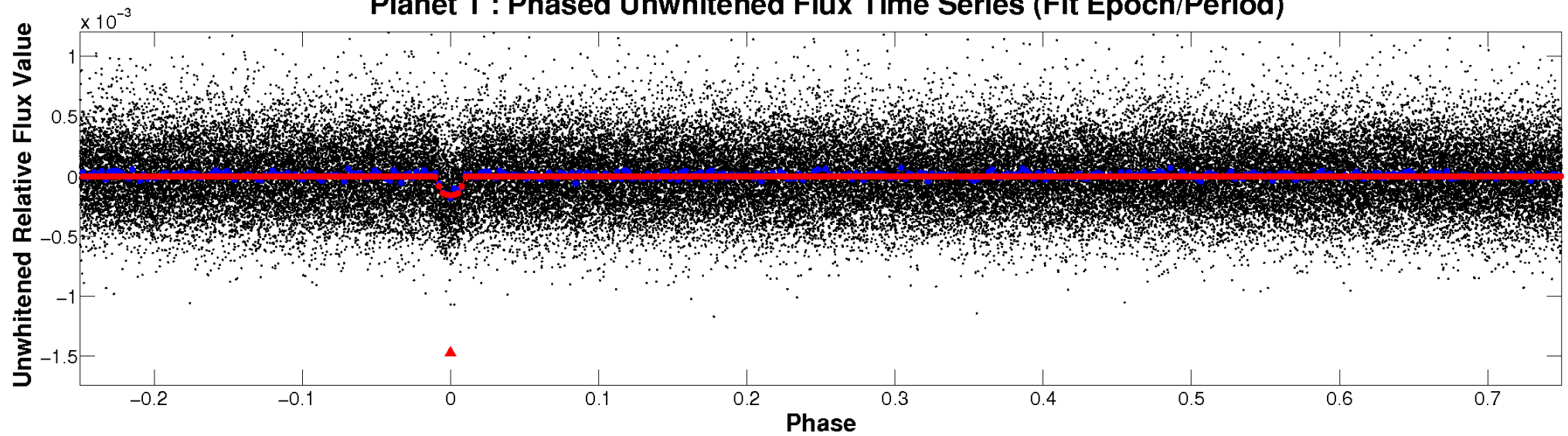
ALT Odd/Even

TCE 005807769-01

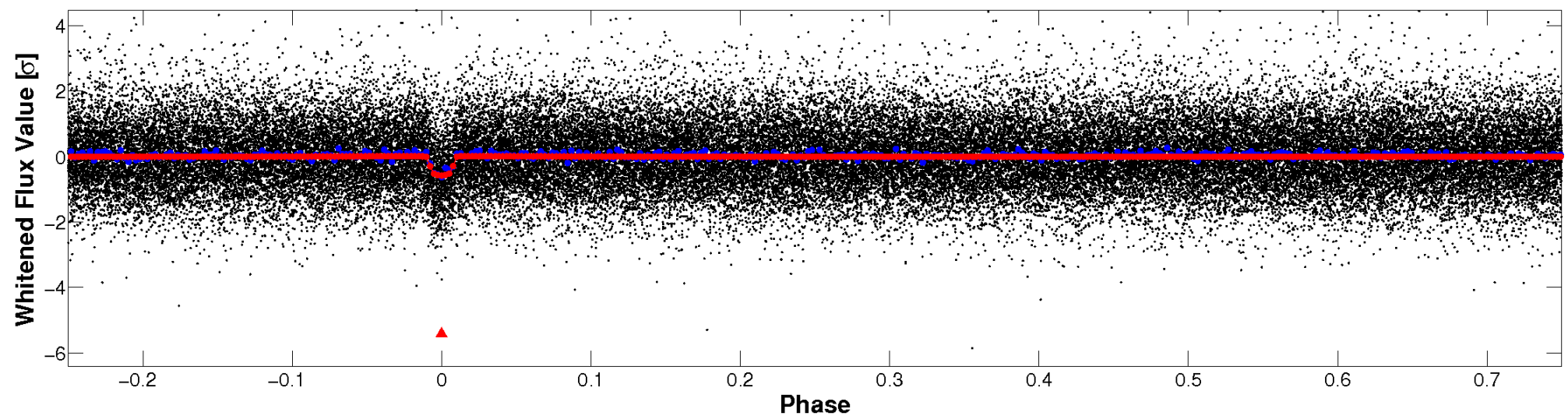


Non-Whitened Vs. Whitened Light Curve

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

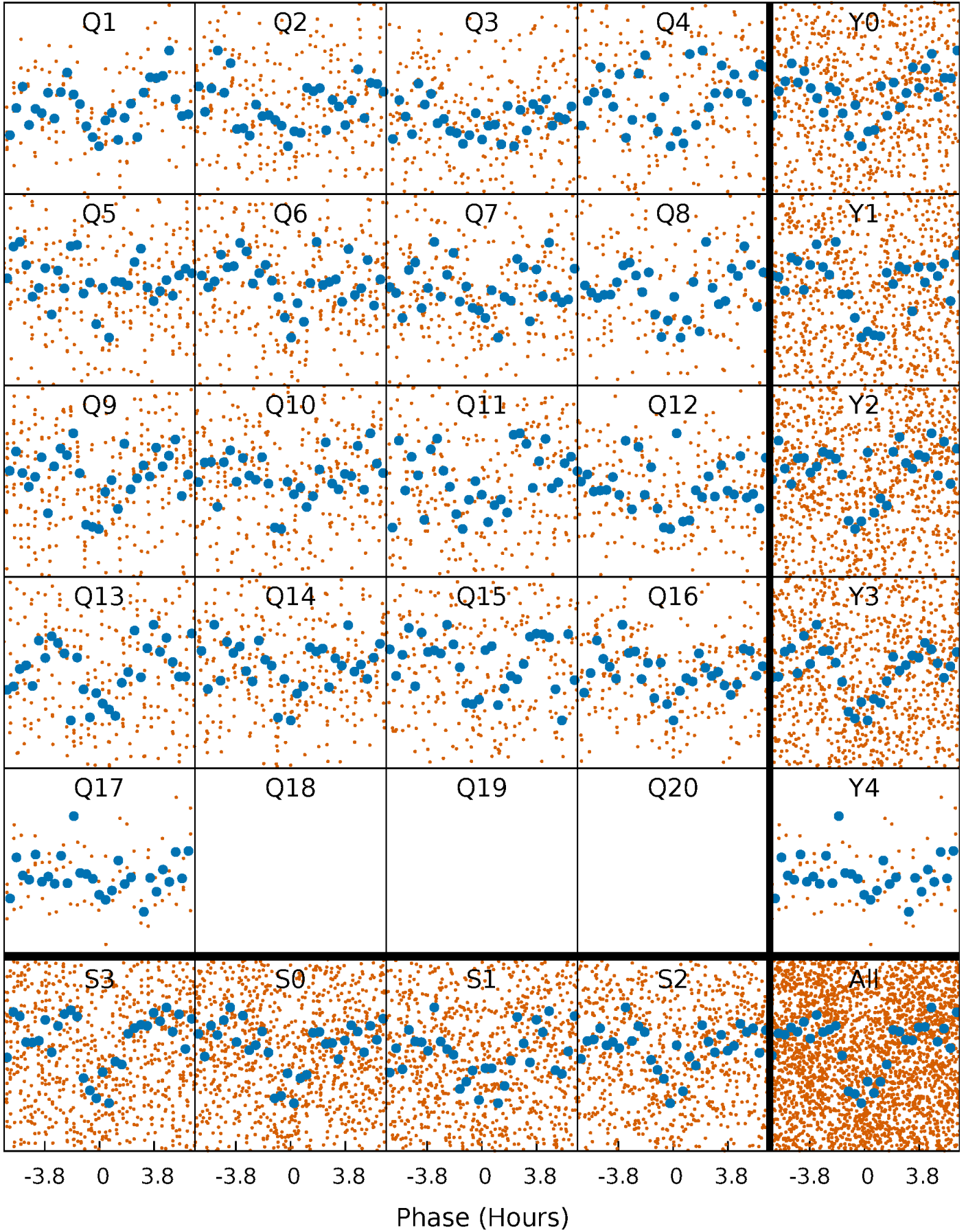


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



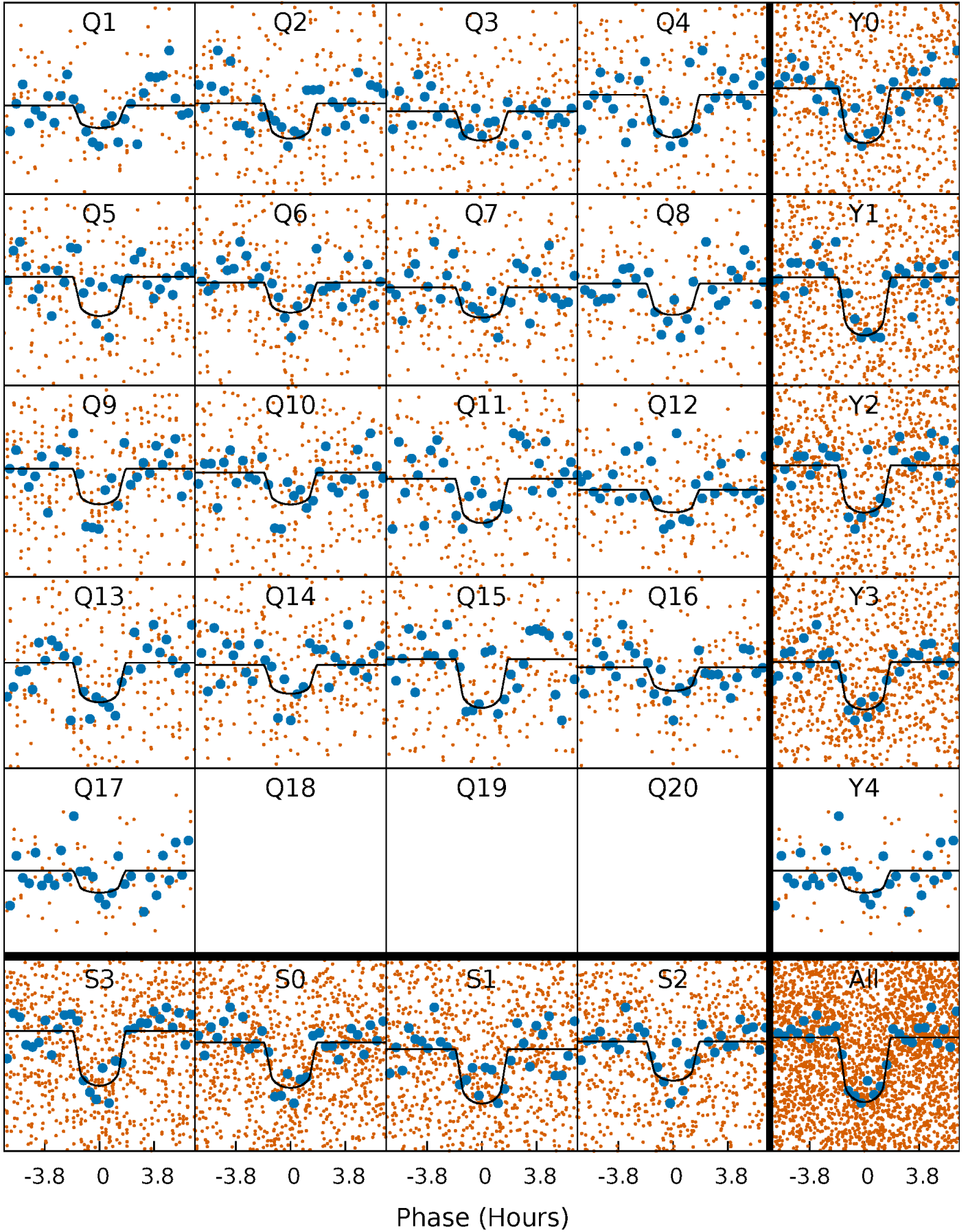
PDC Quarter-Phased Transit Curves

TCE 005807769-01 P= 7.990209 Days $T_0=132.269598$ (BKJD)



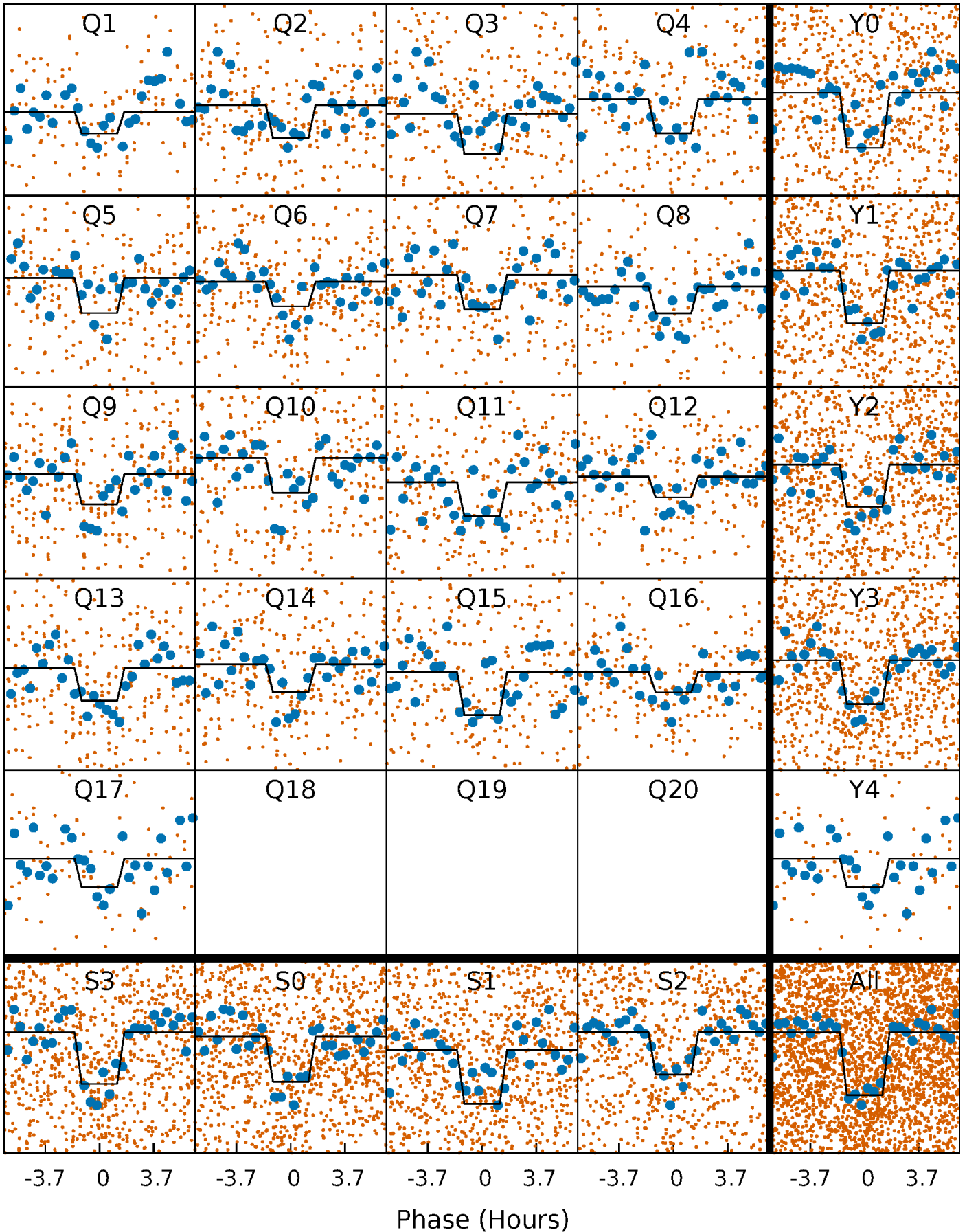
DV Quarter-Phased Transit Curves

TCE 005807769-01 P= 7.990209 Days $T_0=132.269598$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

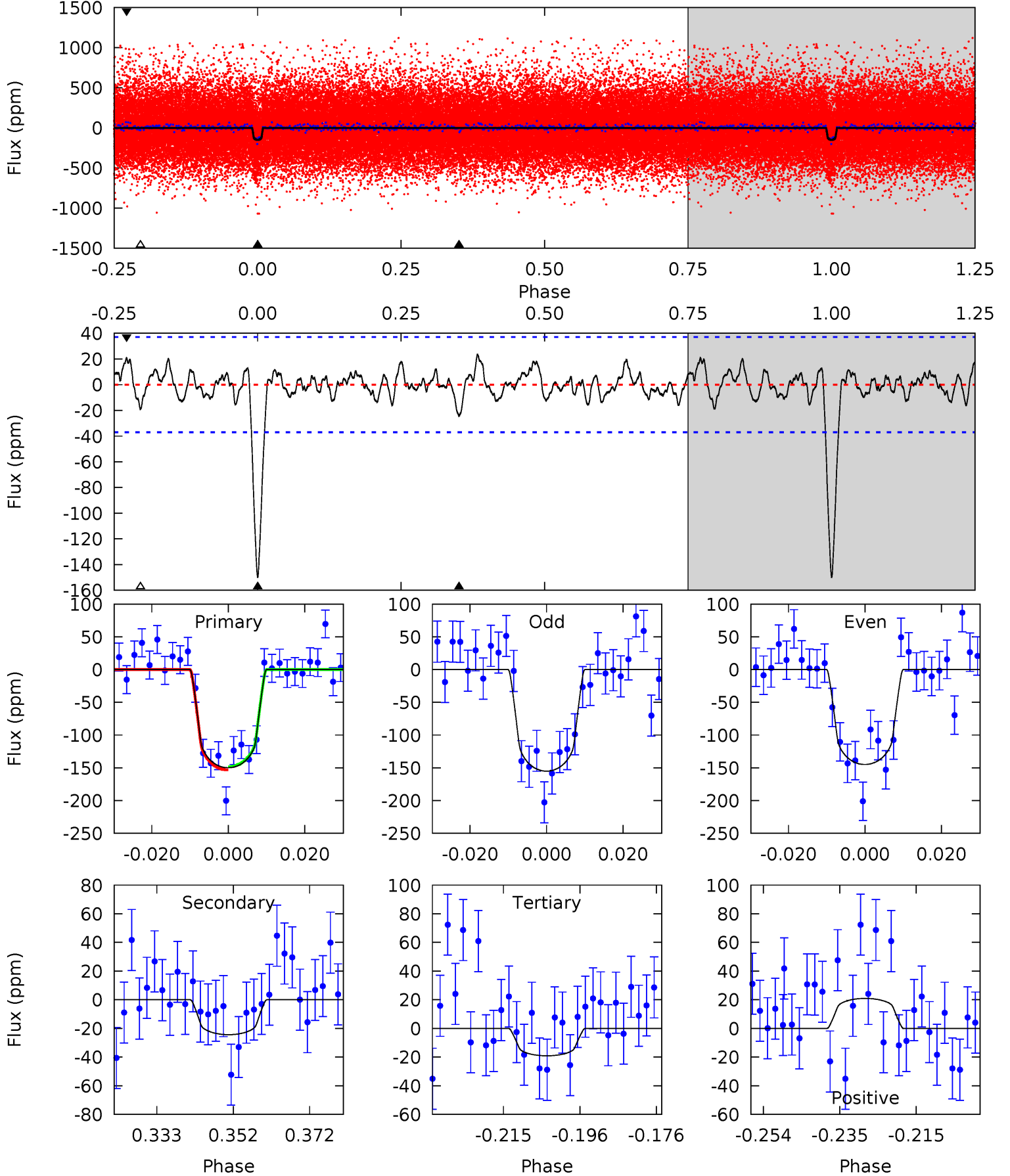
TCE 005807769-01 P= 7.990212 Days $T_0=132.270607$ (BKJD)



DV Model-Shift Uniqueness Test

005807769-01, P = 7.990209 Days, E = 124.279389 Days

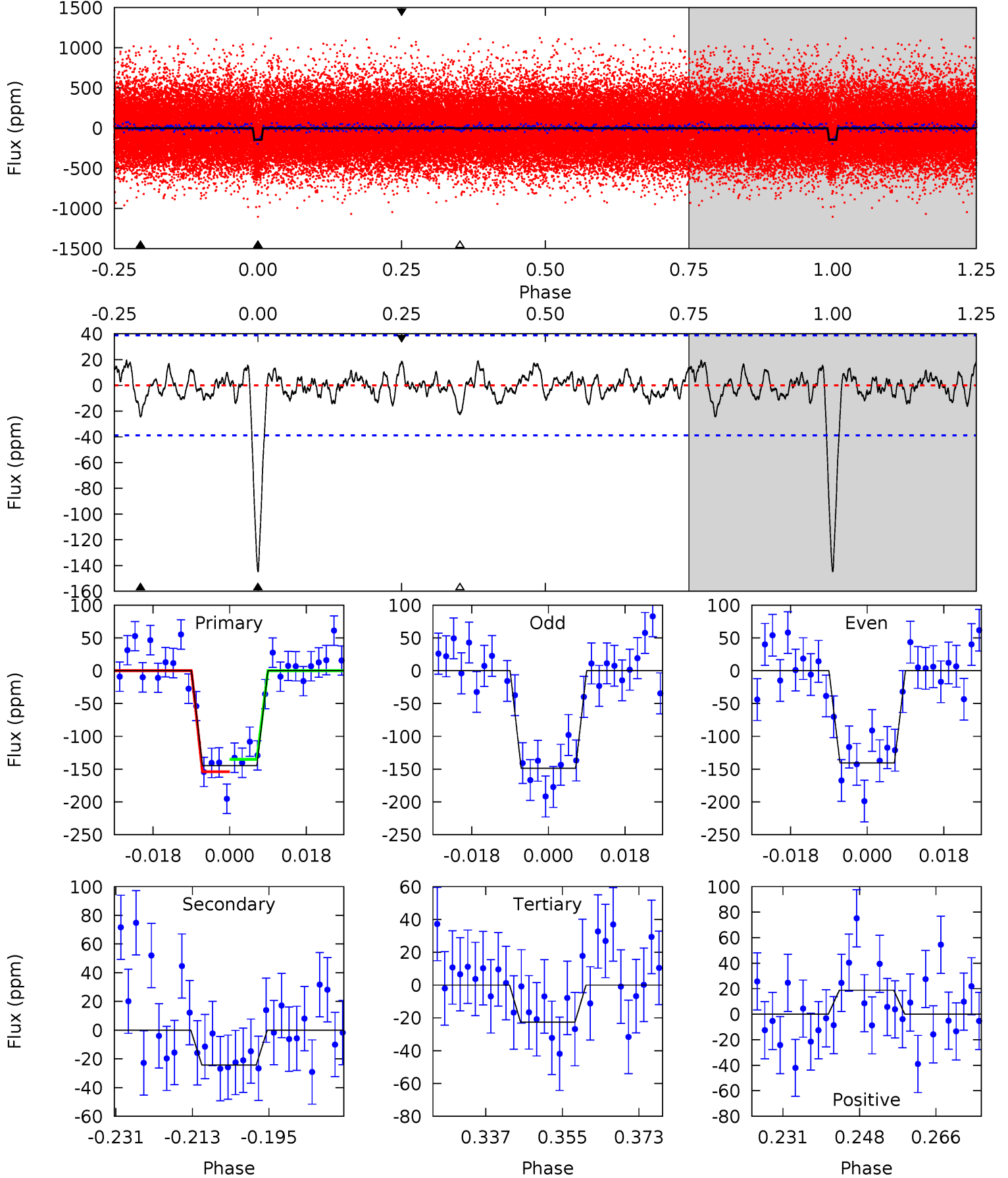
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.8	3.22	2.52	2.76	4.90	2.33	1.06	17.3	17.0	0.69	0.45	0.67	1.05	0.14	0.32



Alt Model-Shift Uniqueness Test

005807769-01, P = 7.990212 Days, E = 124.280395 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.3	3.07	2.86	2.38	4.92	2.37	0.94	15.4	15.9	0.21	0.69	0.53	0.99	0.12	1.19



Stellar Parameters For KIC 005807769

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5689^{+85}_{-76}	$4.065^{+0.195}_{-0.105}$	$0.020^{+0.150}_{-0.150}$	$1.542^{+0.241}_{-0.362}$	$1.007^{+0.086}_{-0.086}$	$0.387^{+0.427}_{-0.119}$
	+1%/-1%	+5%/-3%	+750%/-750%	+16%/-23%	+9%/-9%	+110%/-31%
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 005807769-01 / KOI 2614.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-24 ± 8	$2.22^{+1.26}_{-1.15}$	1549^{+75}_{-94}	3788^{+1213}_{-536}	16^{+58}_{-10}
Alt.	-24 ± 8	$1.97^{+1.26}_{-1.07}$	1546^{+76}_{-90}	3924^{+1407}_{-637}	21^{+78}_{-14}

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 $A_{obs} \gg 1.0$

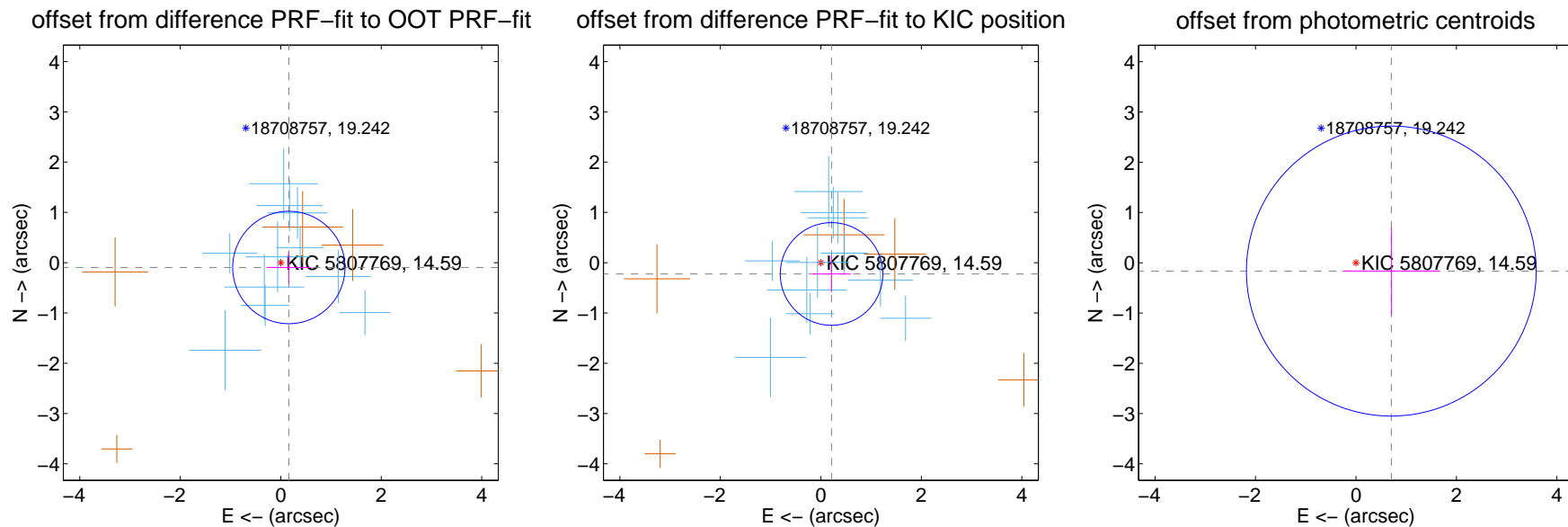
DV Centroid Data

Supplemental centroid analysis for 005807769-01. Kepler magnitude: 14.59. Transit SNR 16.27

There are 11 quarters with good PRF difference image offsets

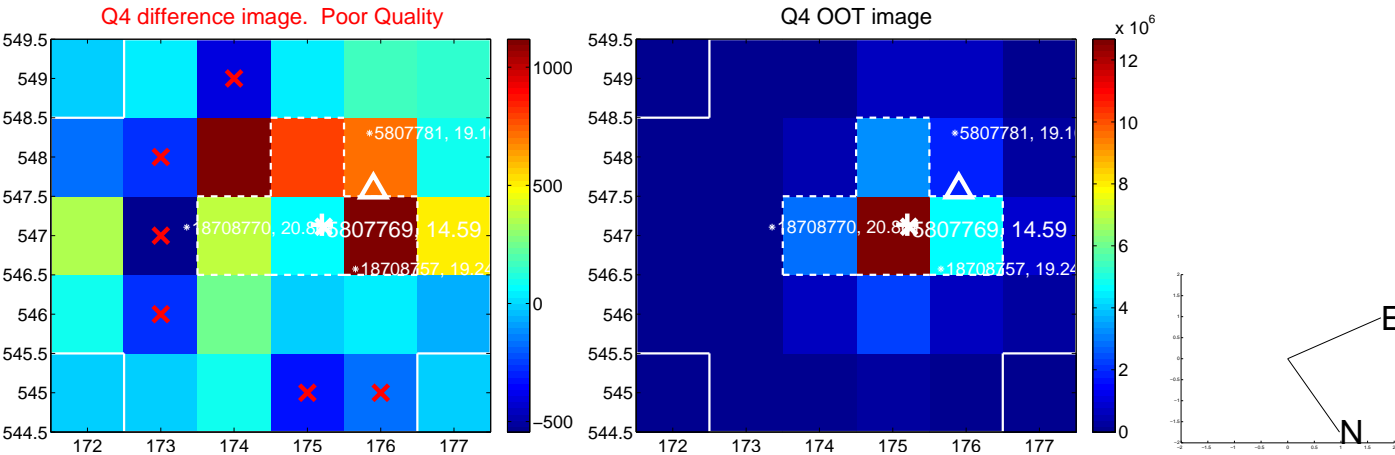
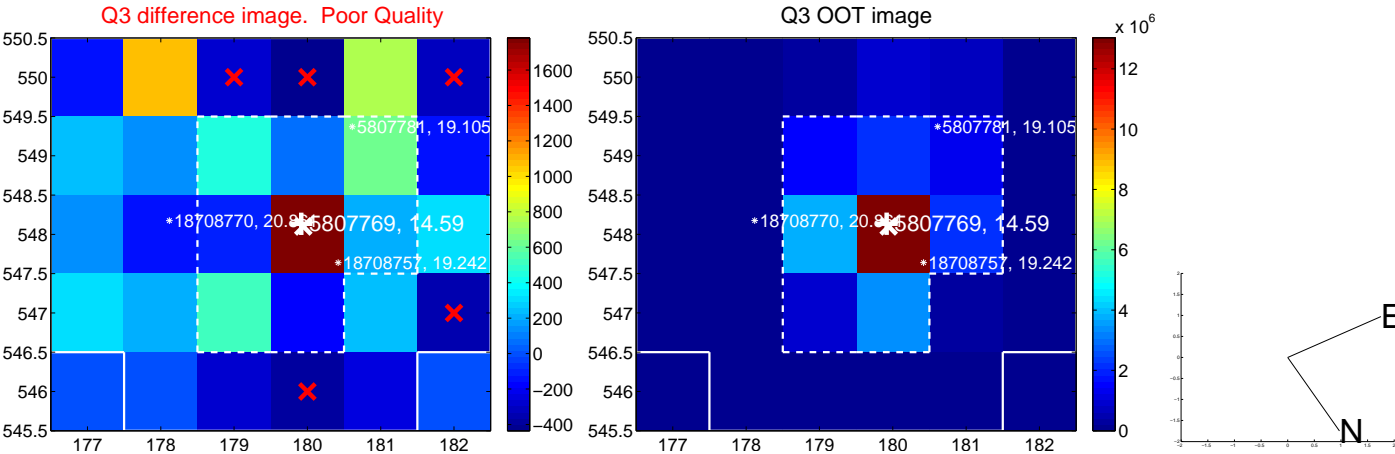
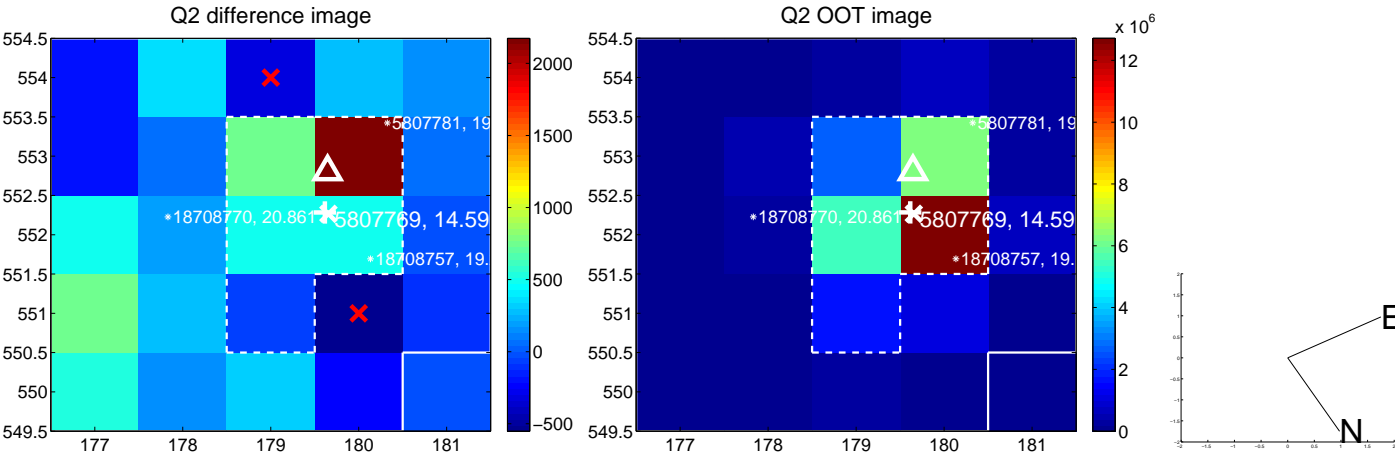
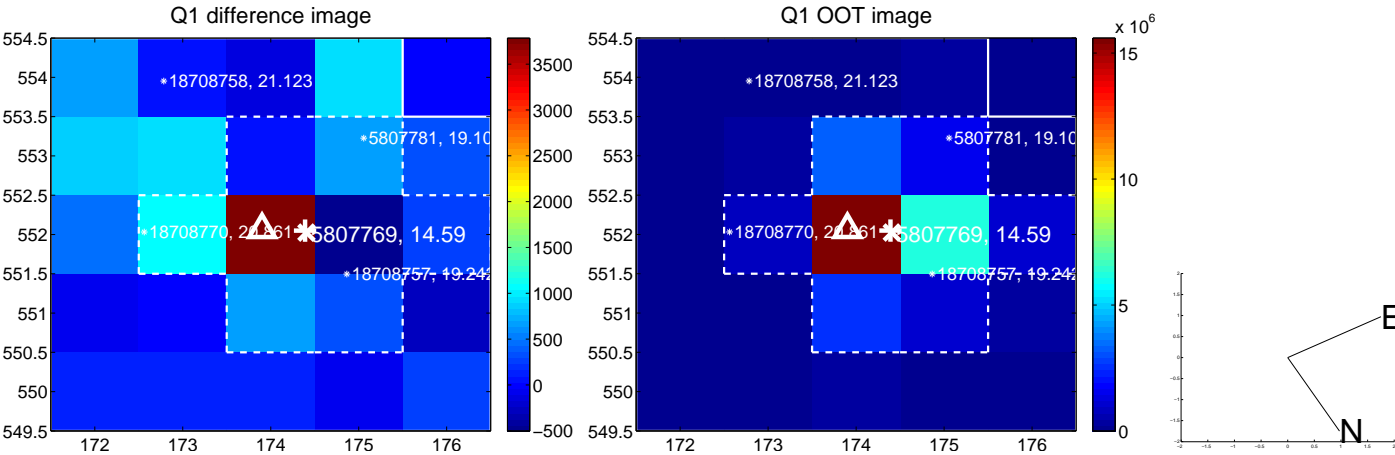
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.187 ± 0.373	0.50	-0.161 ± 0.440	-0.095 ± 0.316
PRF-fit source offset from KIC position	0.309 ± 0.340	0.91	-0.213 ± 0.384	-0.224 ± 0.361
photometric centroid source offset	0.72 ± 0.96	0.75	-0.70 ± 0.97	-0.16 ± 0.86

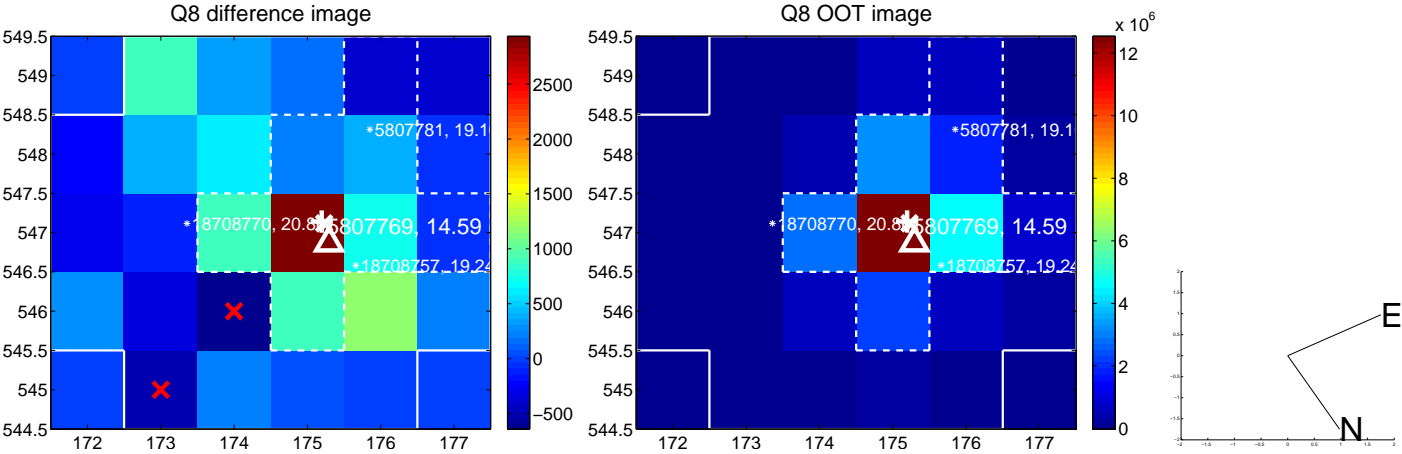
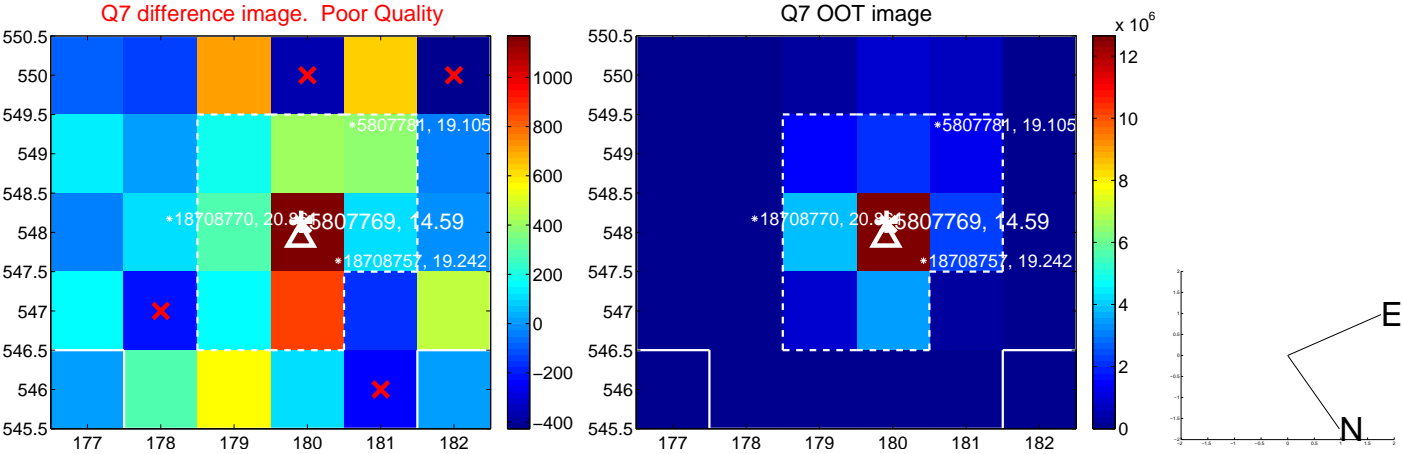
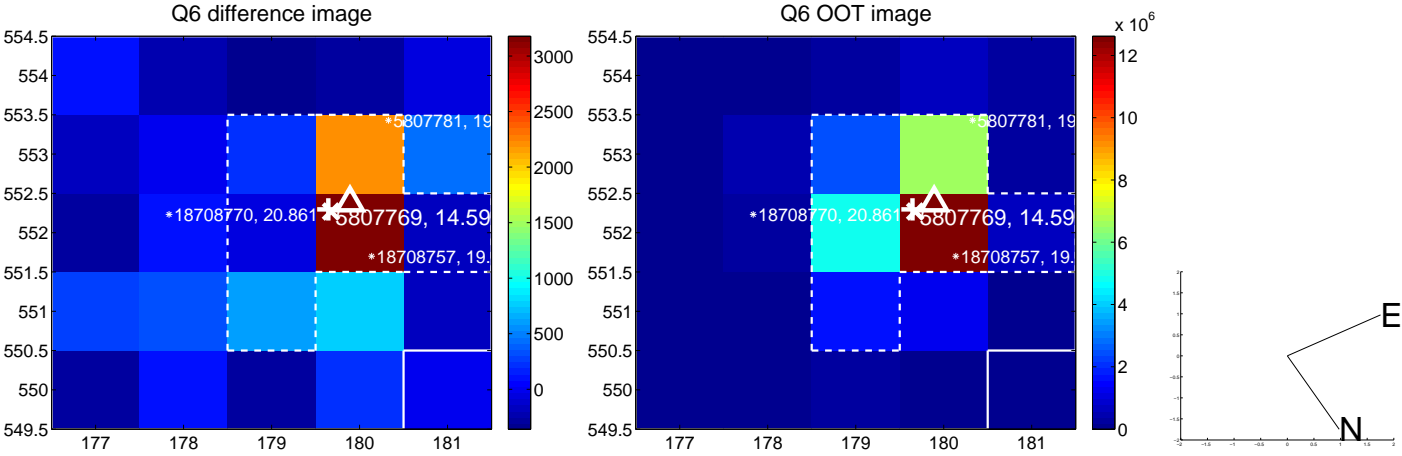
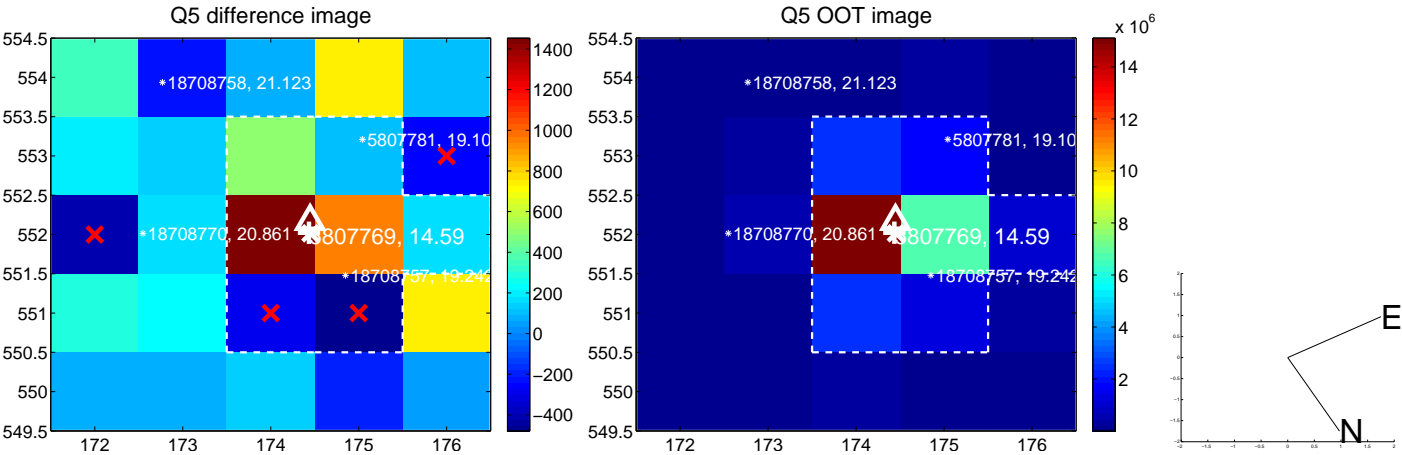


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

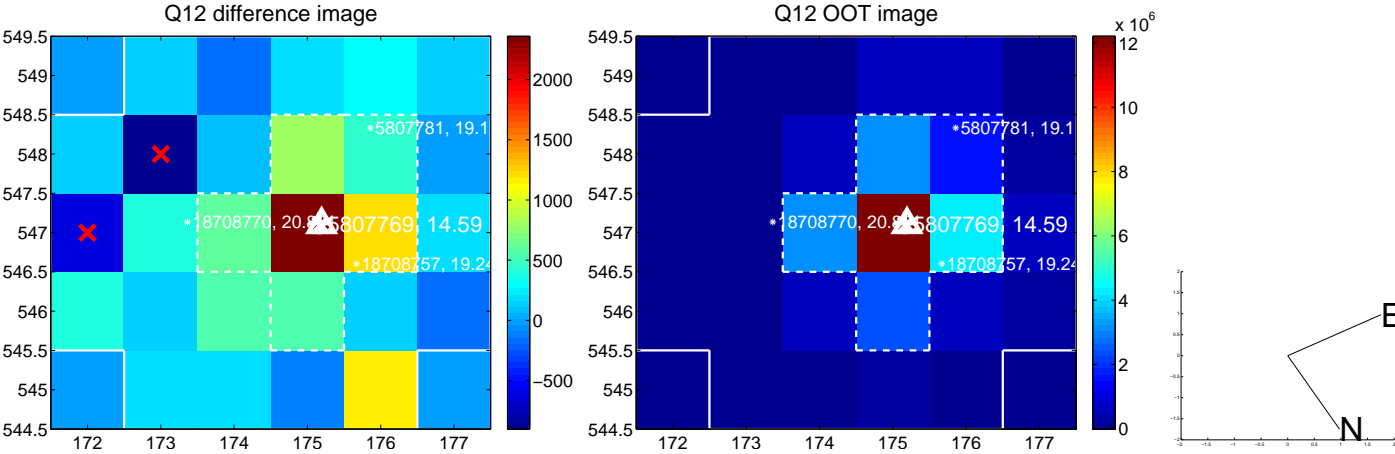
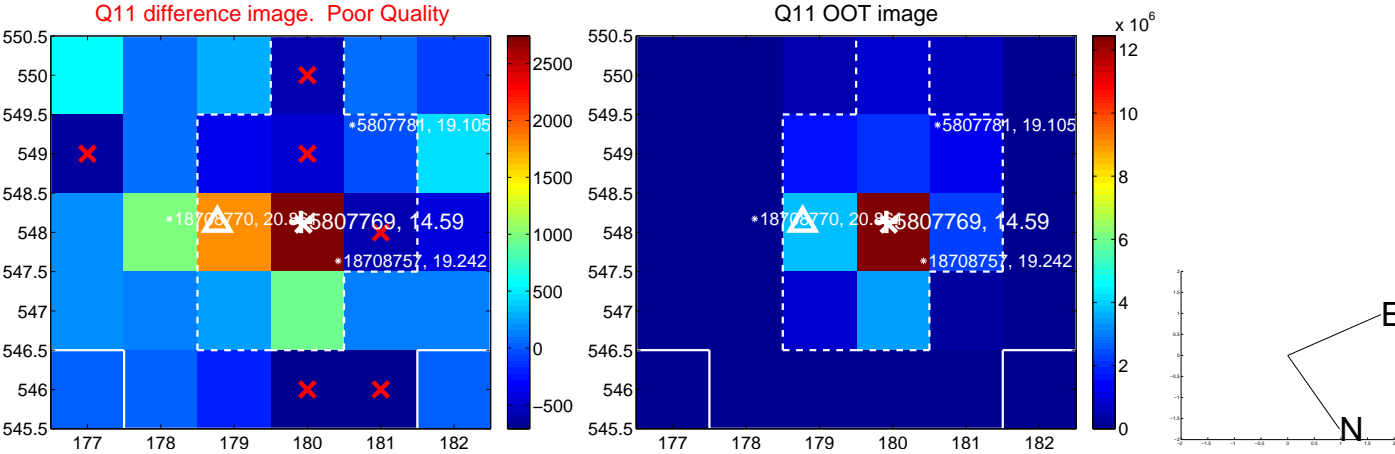
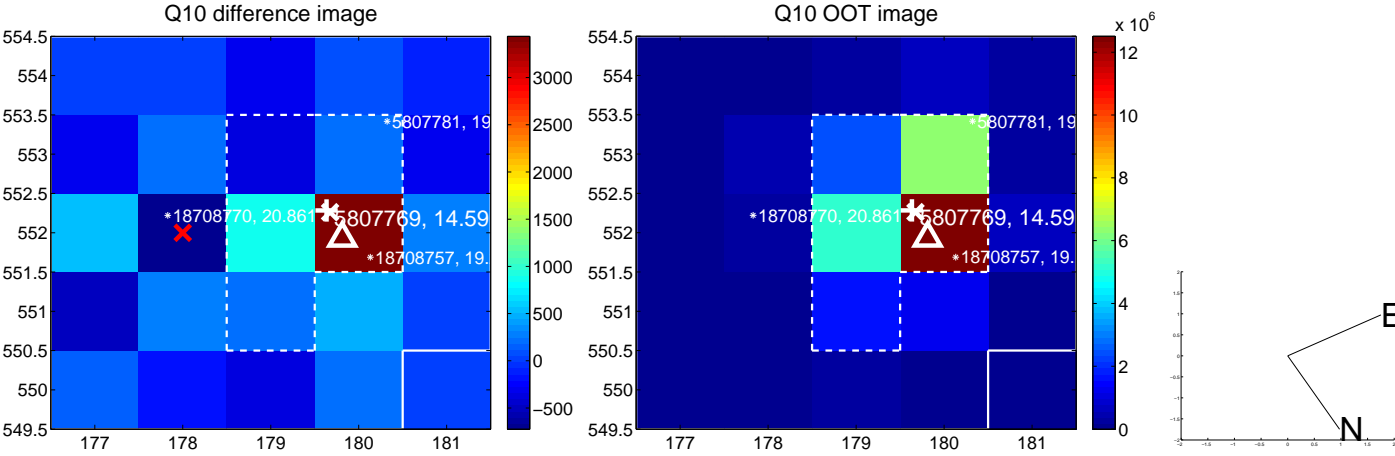
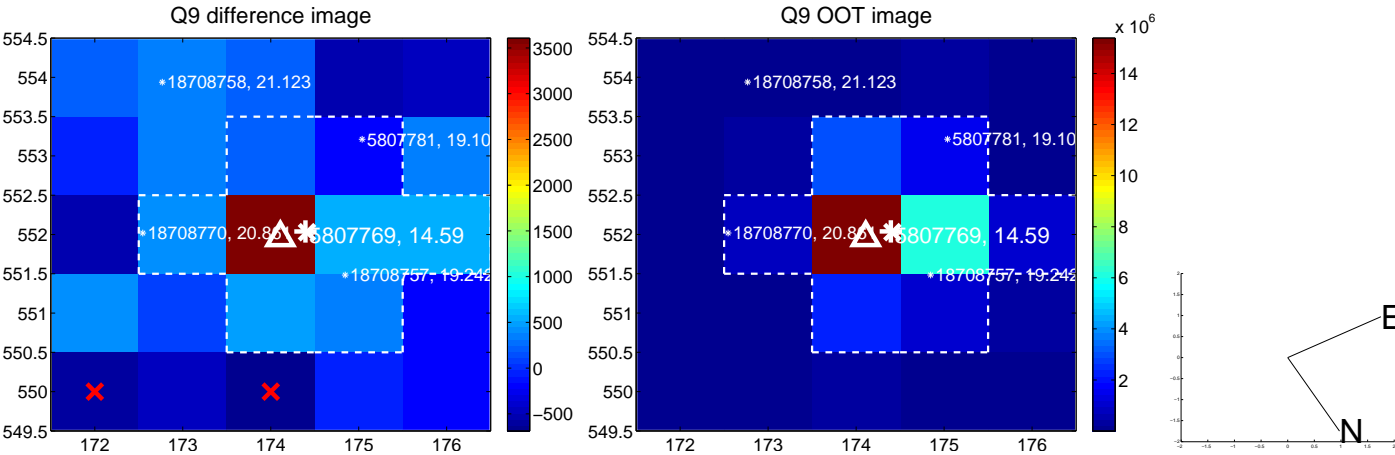
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



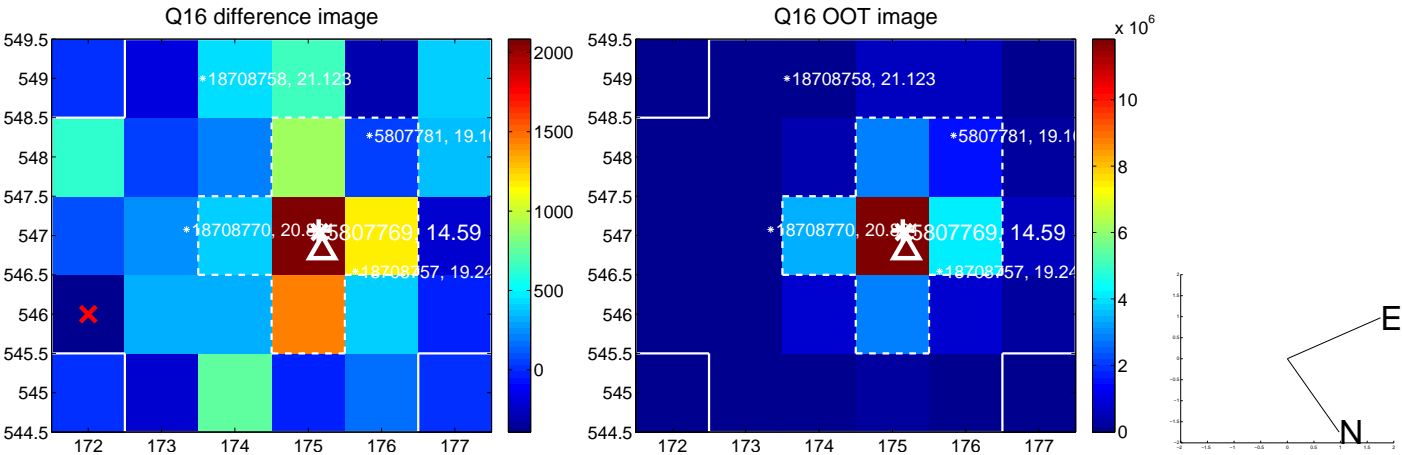
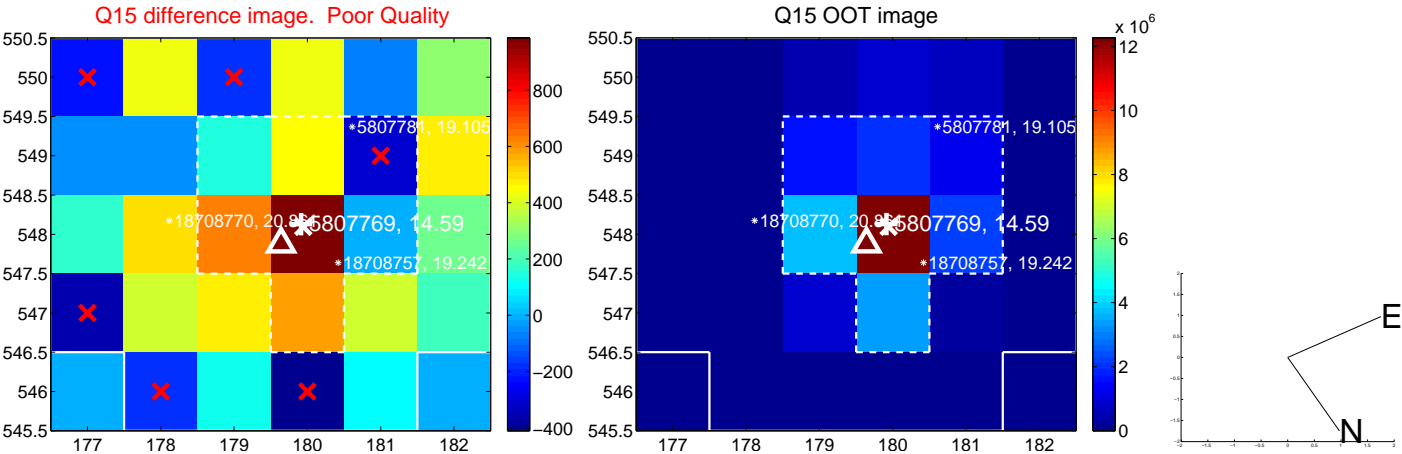
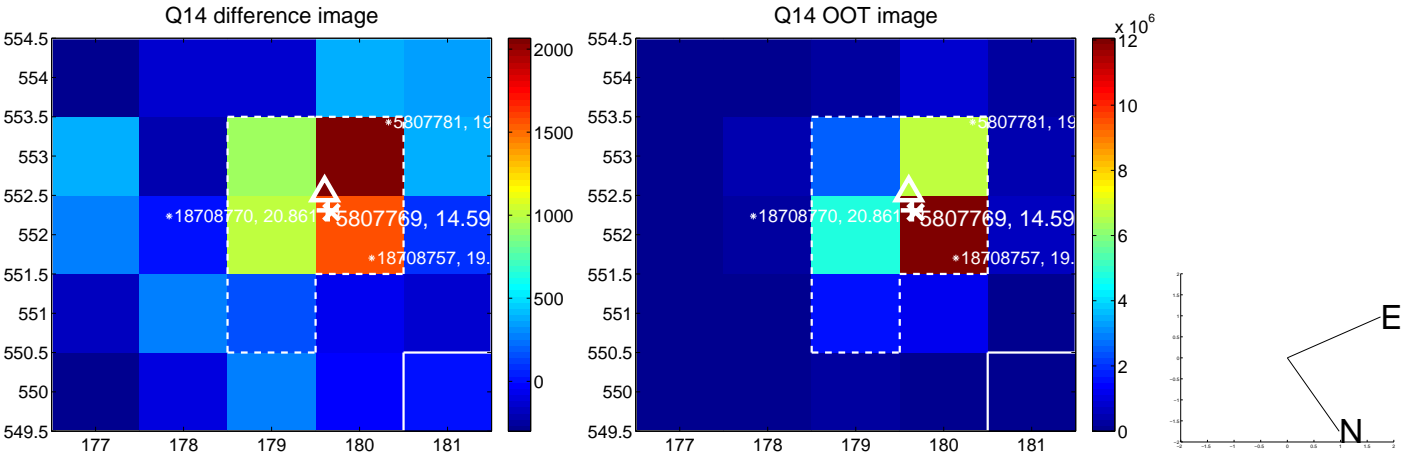
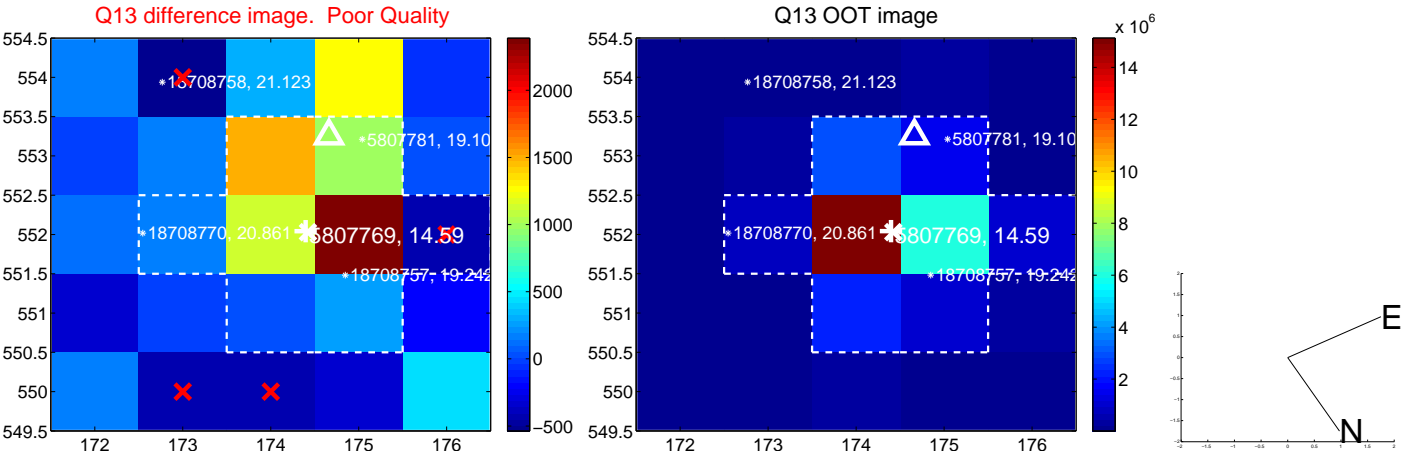
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



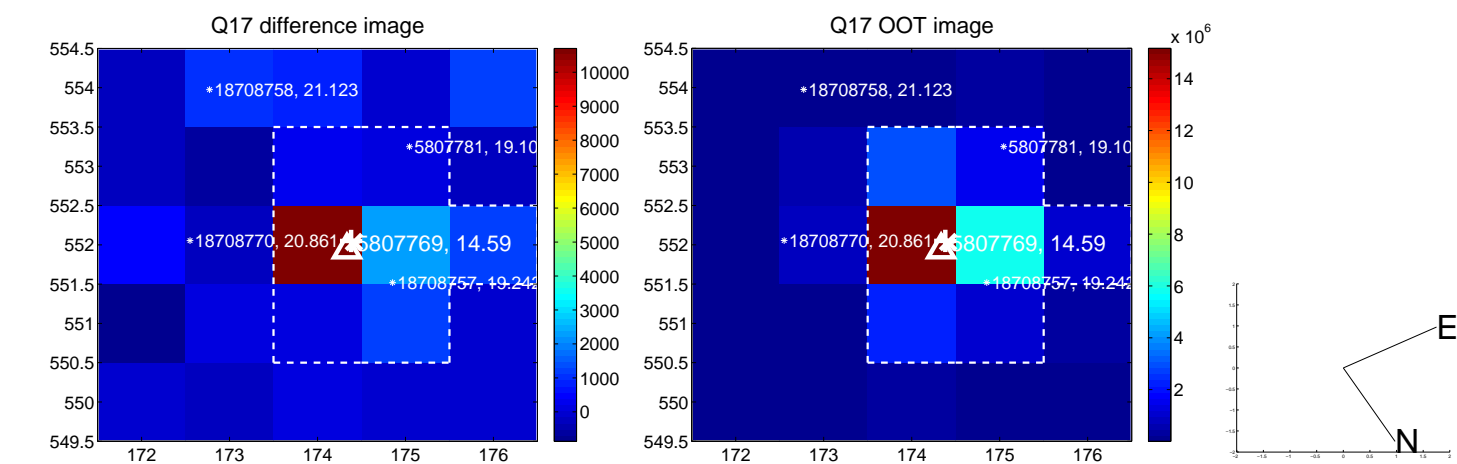
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



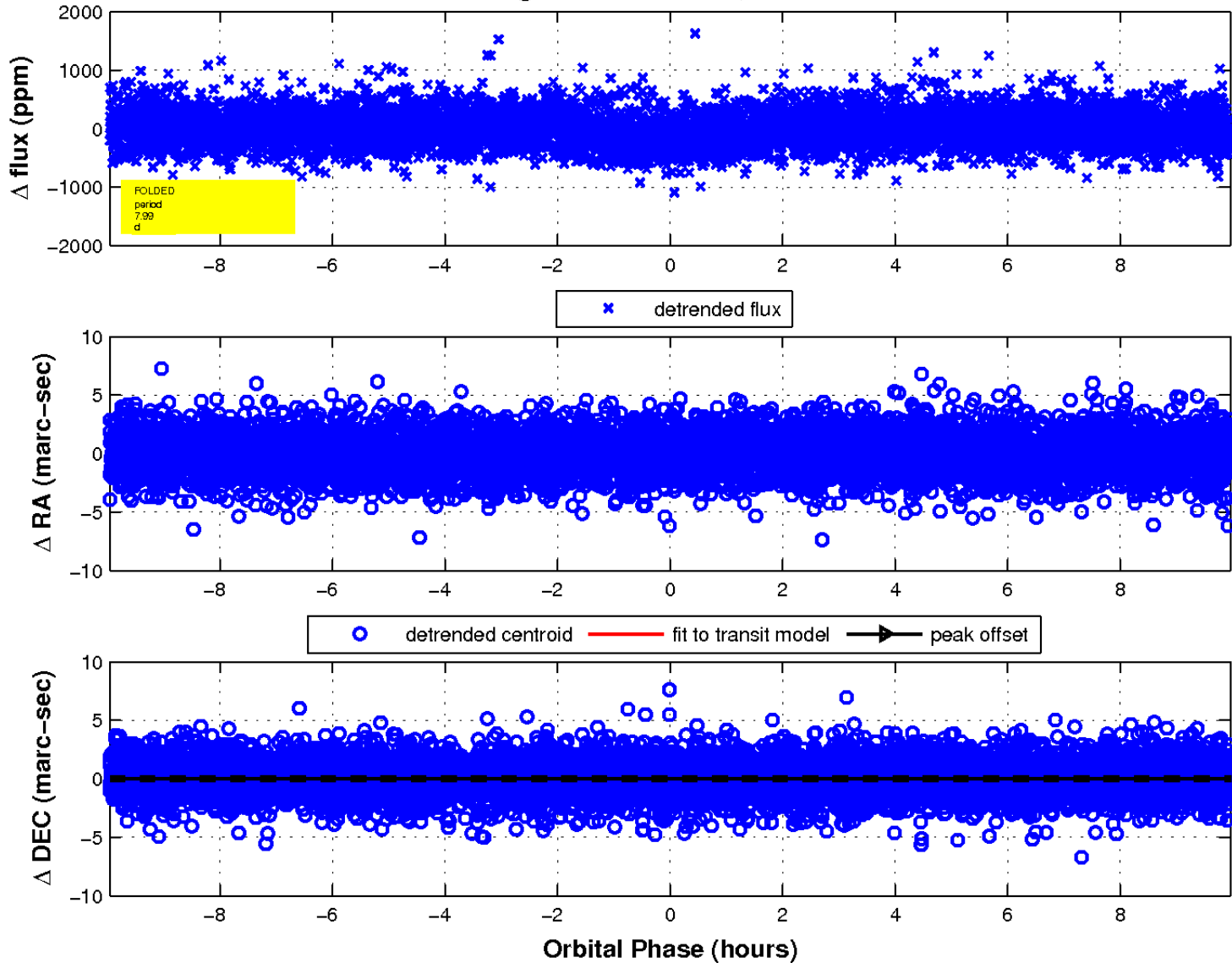
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

