

KIC 005171707

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})
005171707-01	OBS	6532.01	0.814004	132.116126	113.3	0.808	9.3	9.7	0.99	5705	1.14	3305.31

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005171707-01	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.

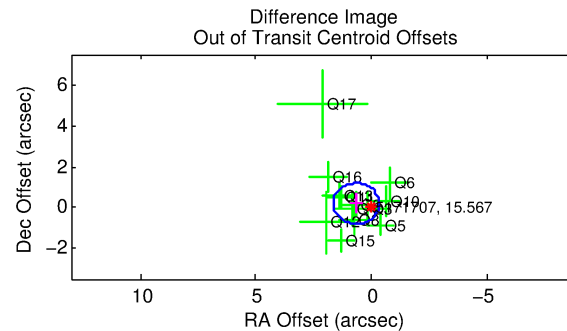
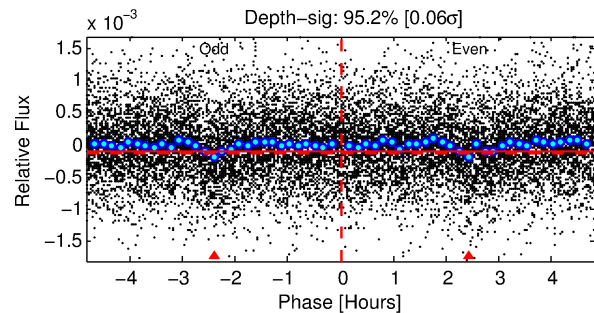
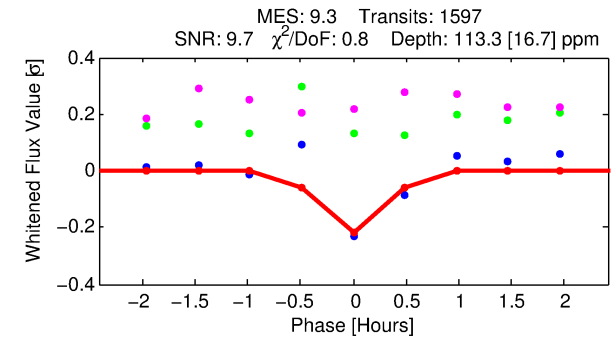
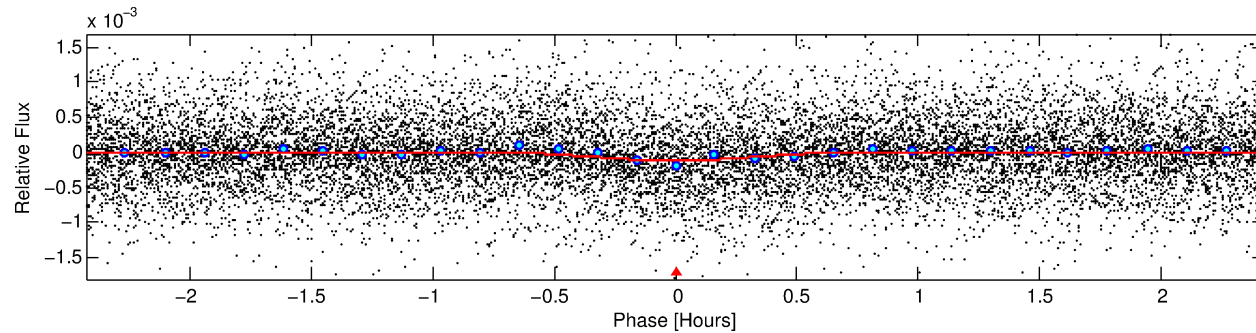
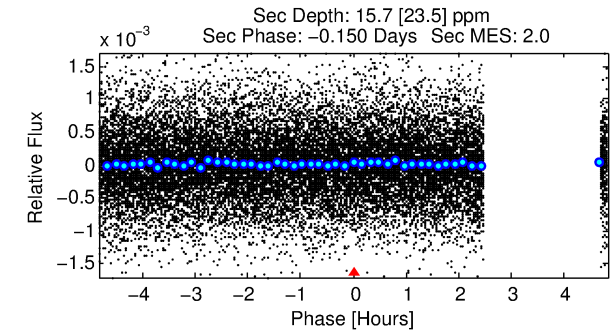
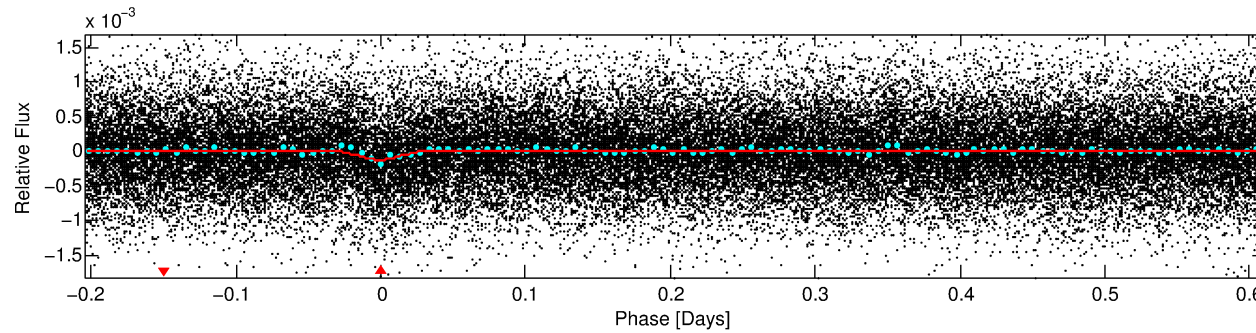
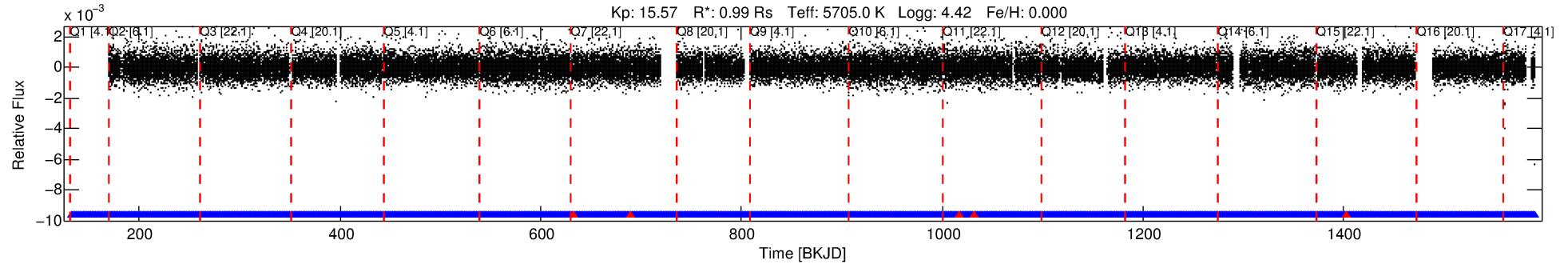
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005171707-01

No Significant Match Found

DV One-Page Summary

KIC: 5171707 Candidate: 1 of 1 Period: 0.814 d
KOI: K06532.01 Corr: 0.806



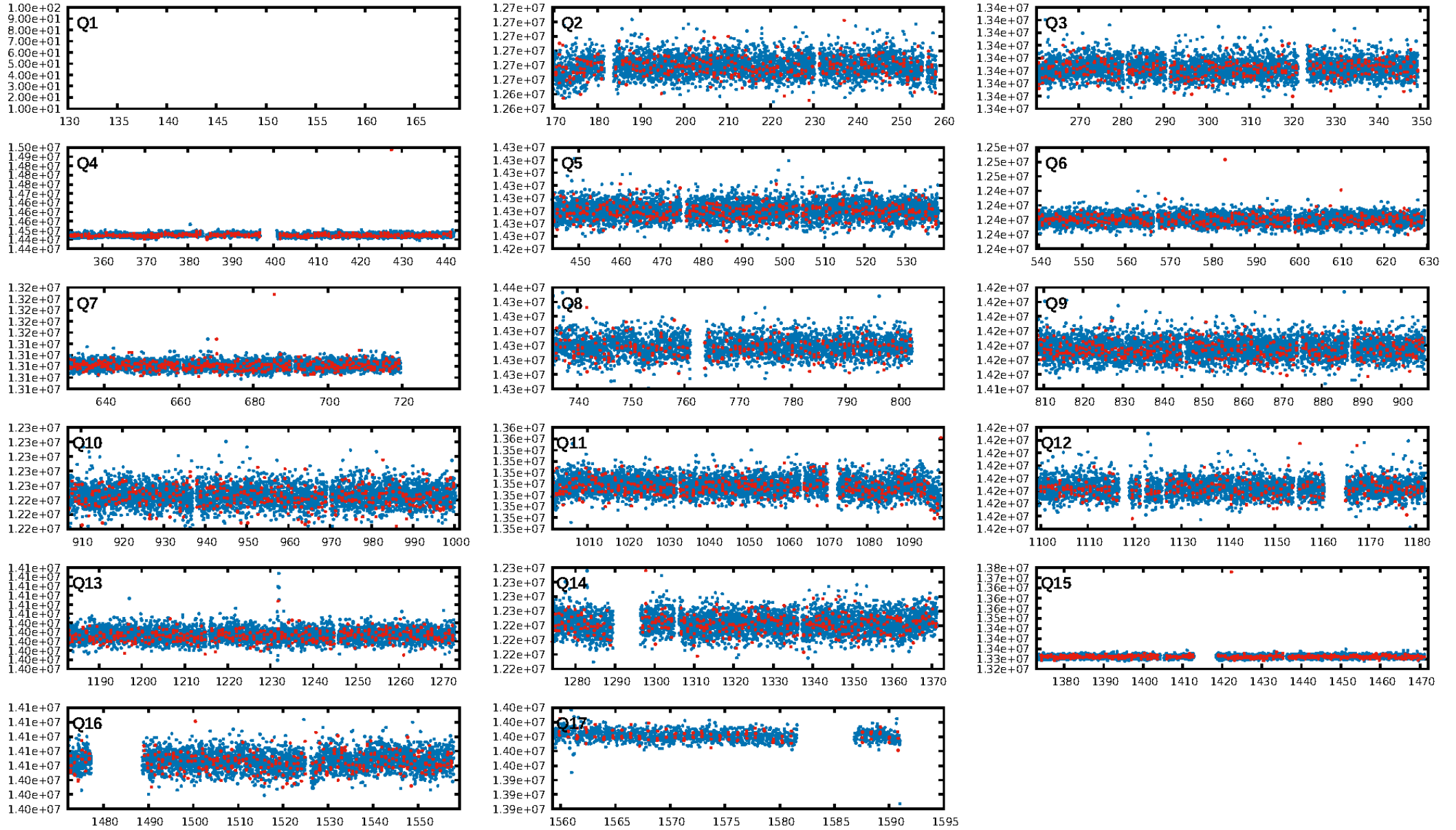
DV Fit Results:

Period = 0.81400 [0.00001] d
Epoch = 132.1161 [0.0016] BKJD
Rp/R* = 0.0106 [0.0059]
a/R* = 5.66 [13.30]
b = 0.70 [1.78]
Seff = 3305.31 [1209.38]
Teff = 1933 [177] K
Rp = 1.14 [0.72] Re
a = 0.0168 [0.0040] AU
Ag = 1.86 [3.53] [0.24σ]
Teffp = 3492 [1632] K [0.95σ]

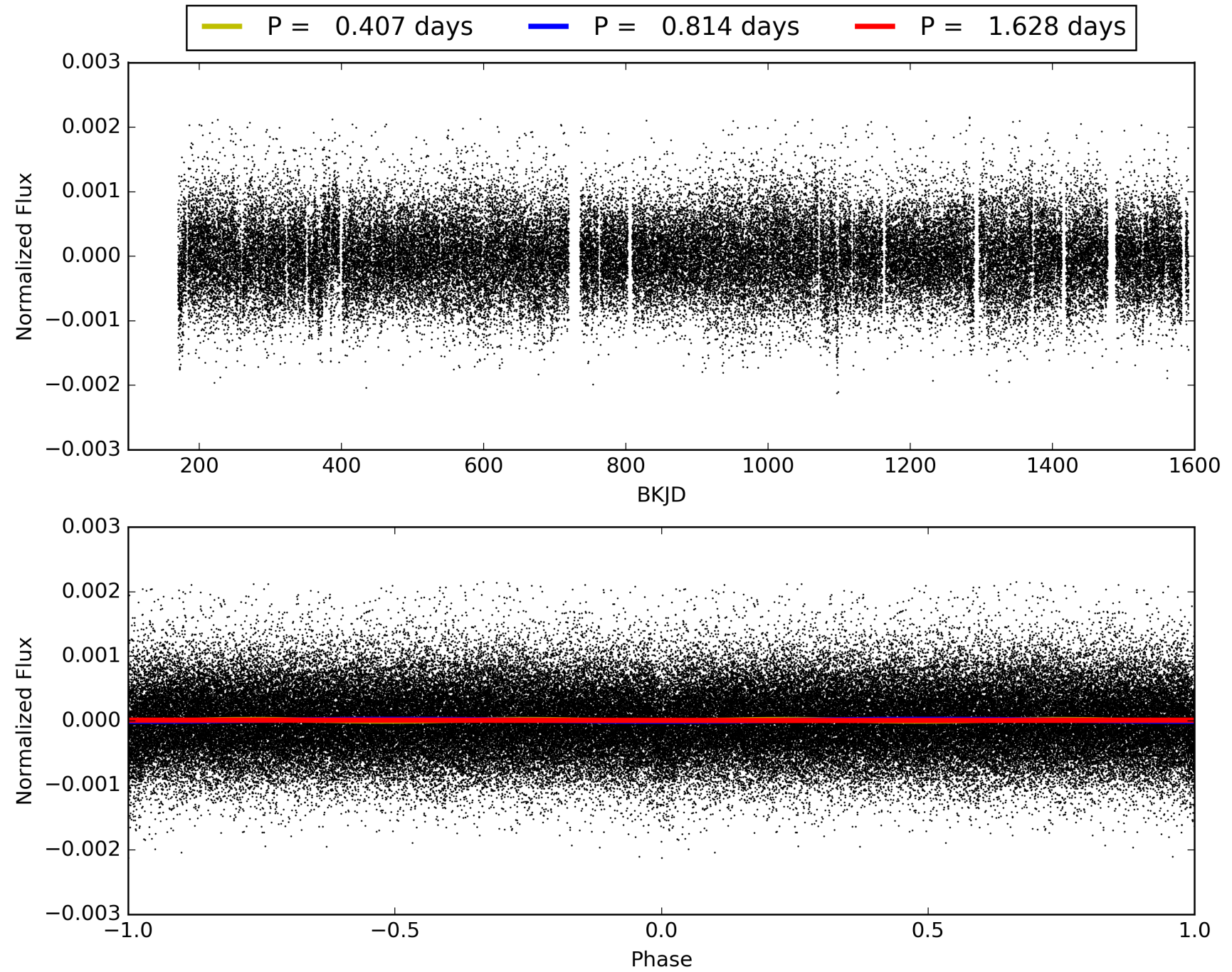
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.33e-21
RollingBand-fgt: 1.00 [1560/1565]
GhostDiagnostic-chr: 8.128
Centroid-sig: 4.4%
Centroid-so: 2.065 arcsec [1.38σ]
OotOffset-rm: 0.703 arcsec [2.11σ]
KicOffset-rm: 0.724 arcsec [2.06σ]
OotOffset-st: 2/3/4/4 [13]
KicOffset-st: 2/3/4/4 [13]
DiffImageQuality-fgm: 0.62 [8/13]
DiffImageOverlap-fno: 1.00 [16/16]

TCE 005171707-01, PDC Light Curves

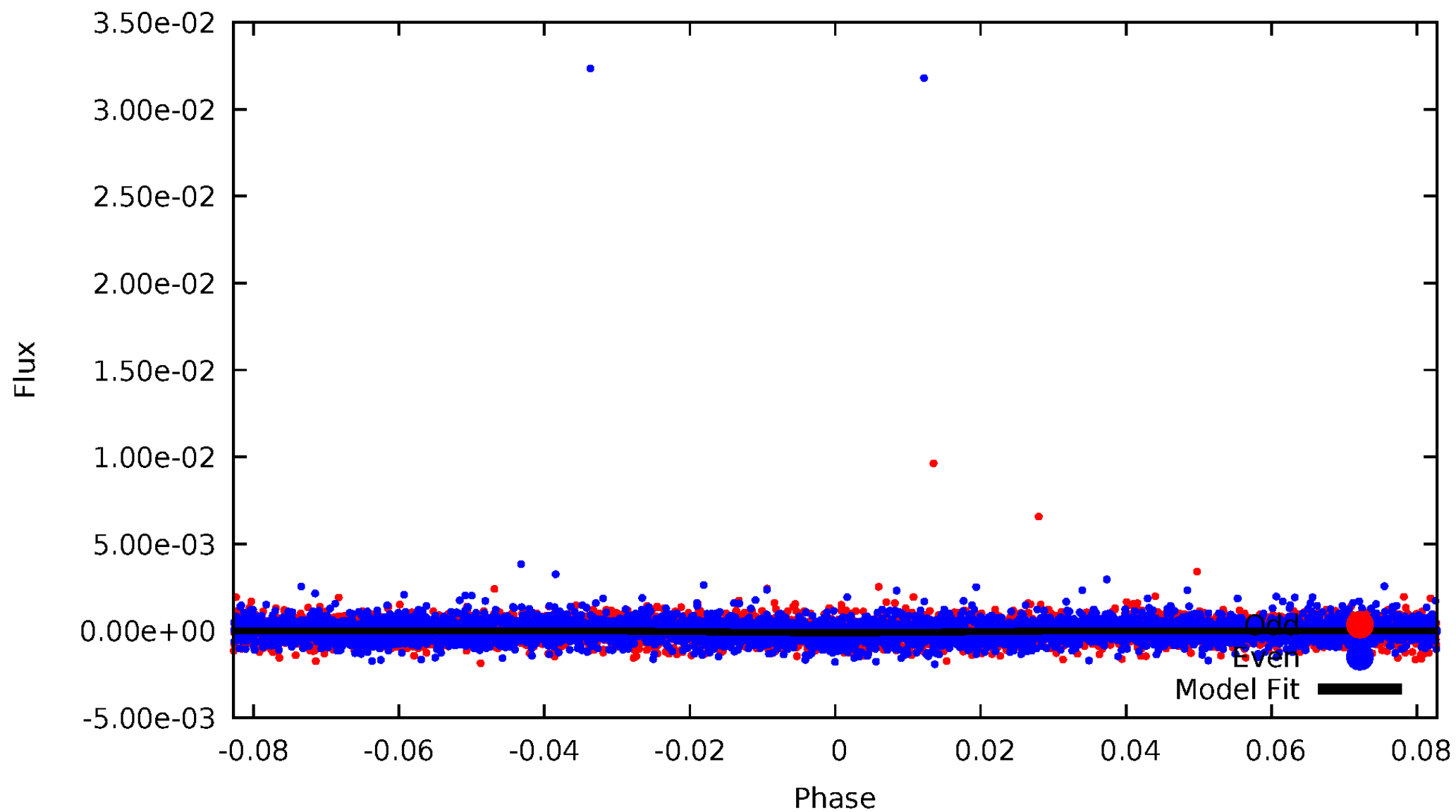


TCE 005171707-01



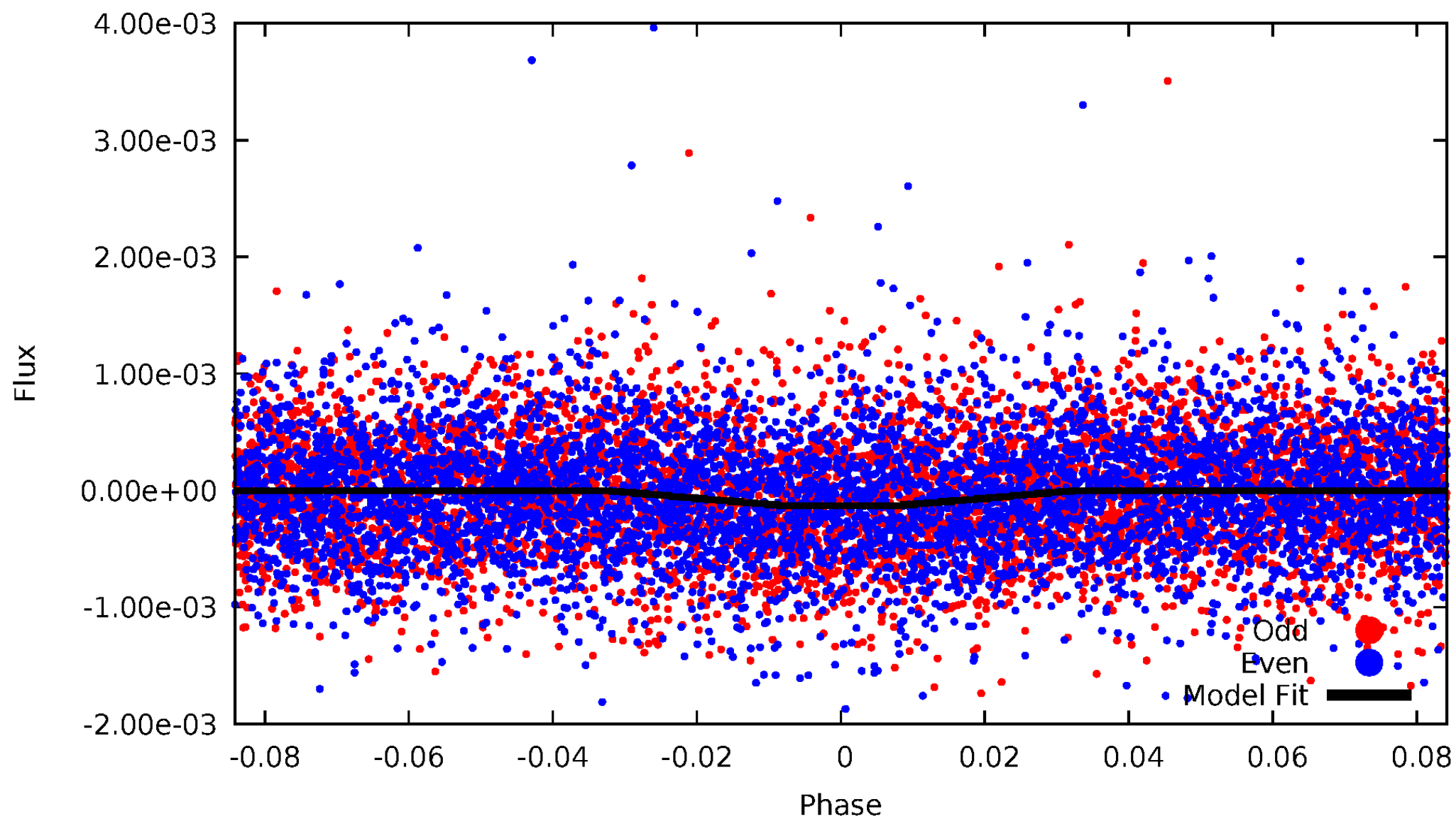
DV Odd/Even

TCE 005171707-01



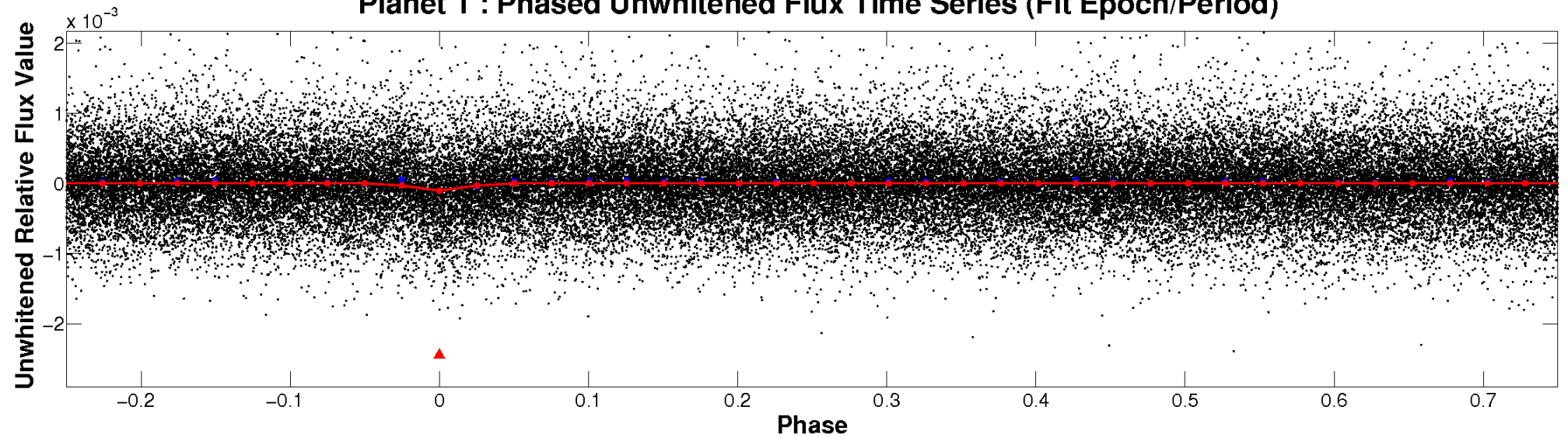
ALT Odd/Even

TCE 005171707-01

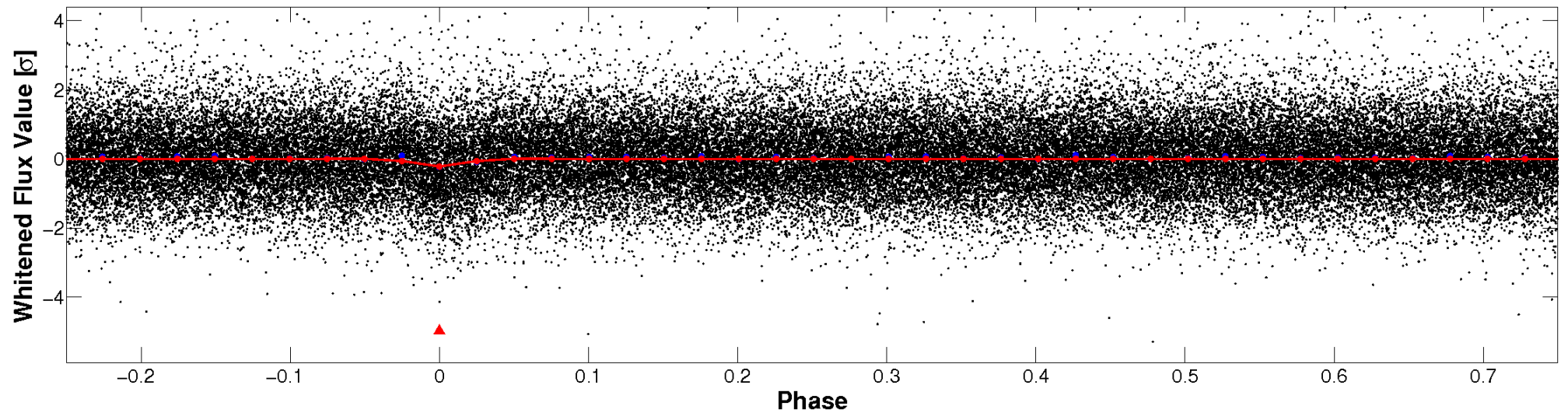


Non-Whitened Vs. Whitened Light Curve

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

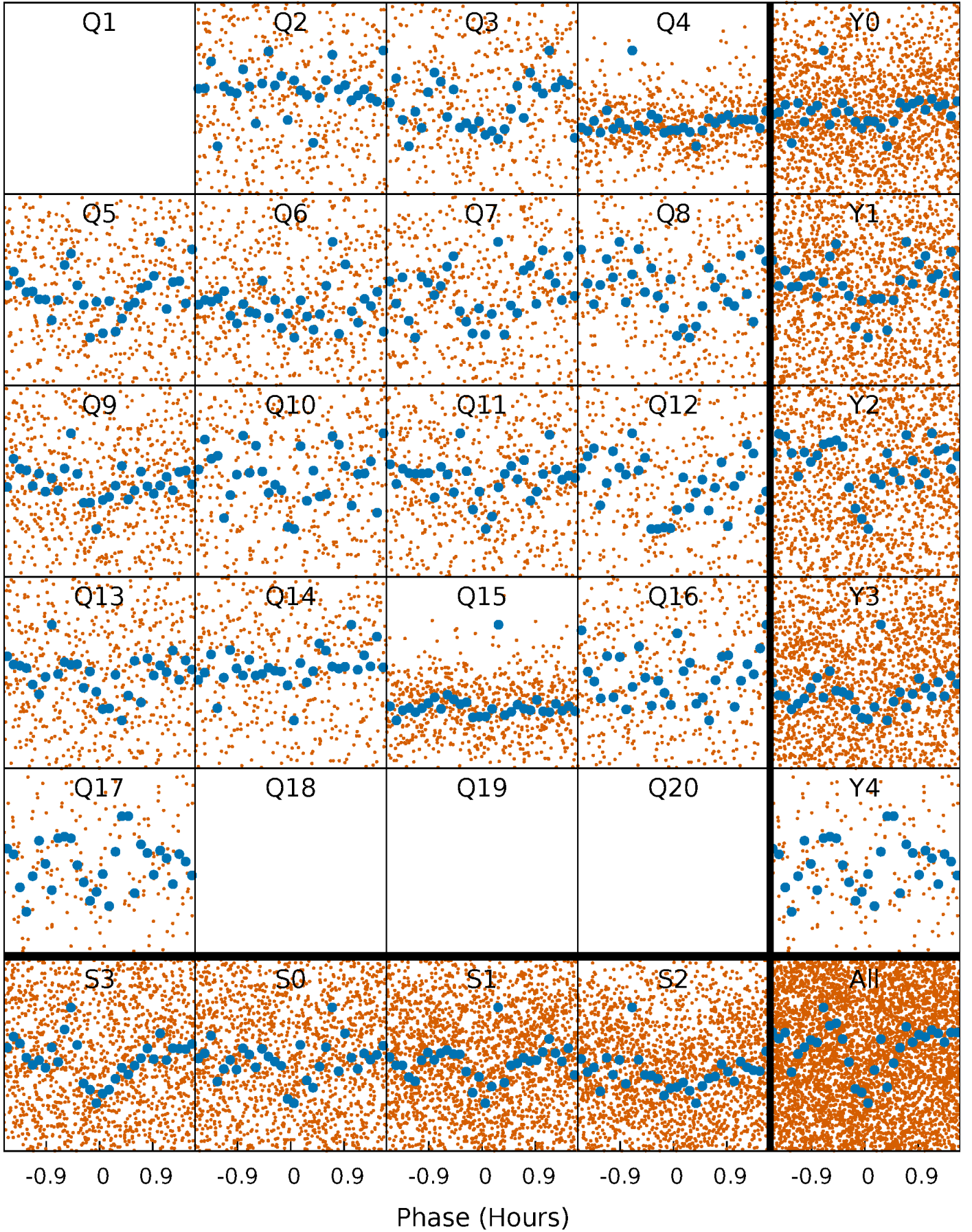


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



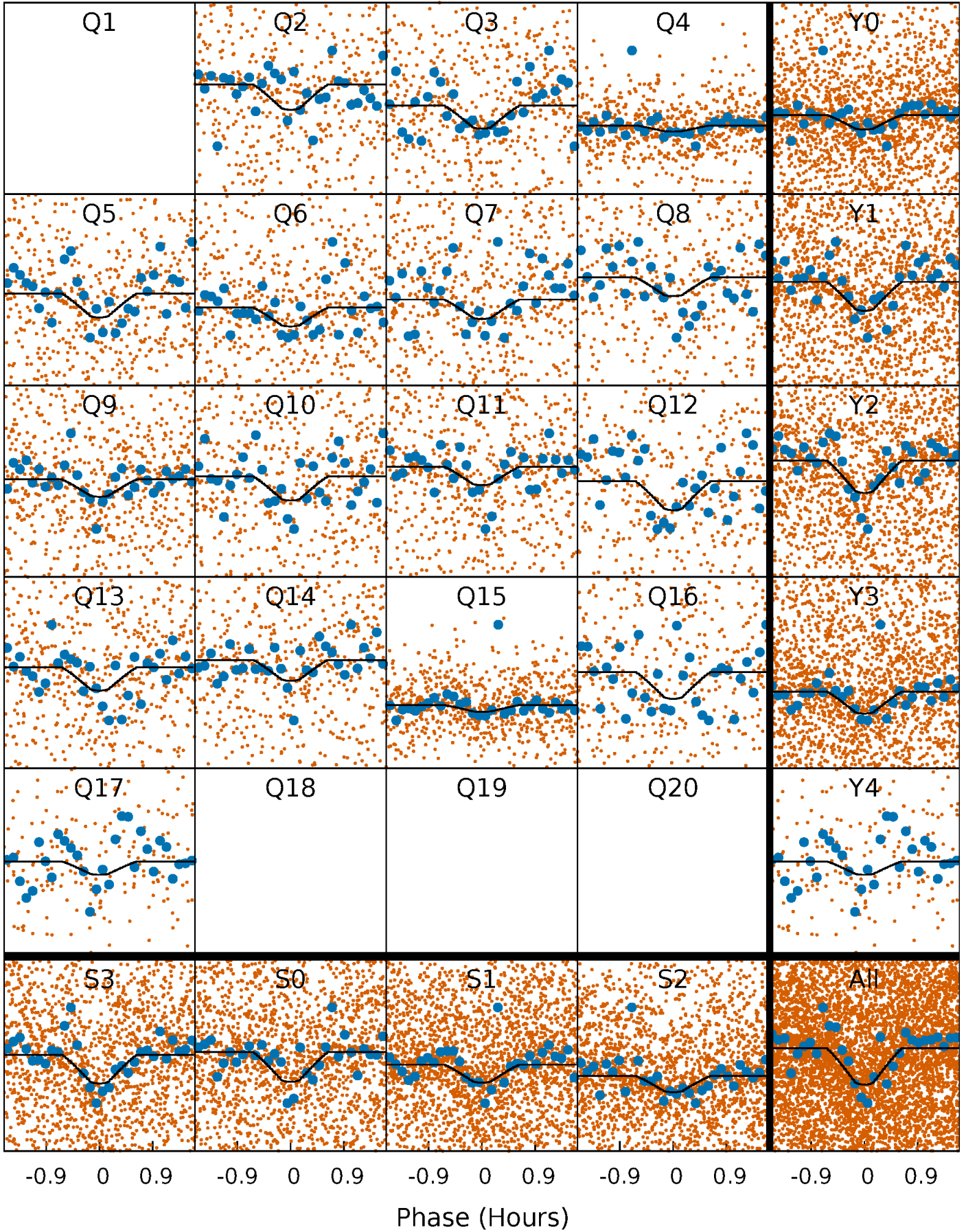
PDC Quarter-Phased Transit Curves

TCE 005171707-01 P= 0.814004 Days $T_0=132.116126$ (BKJD)



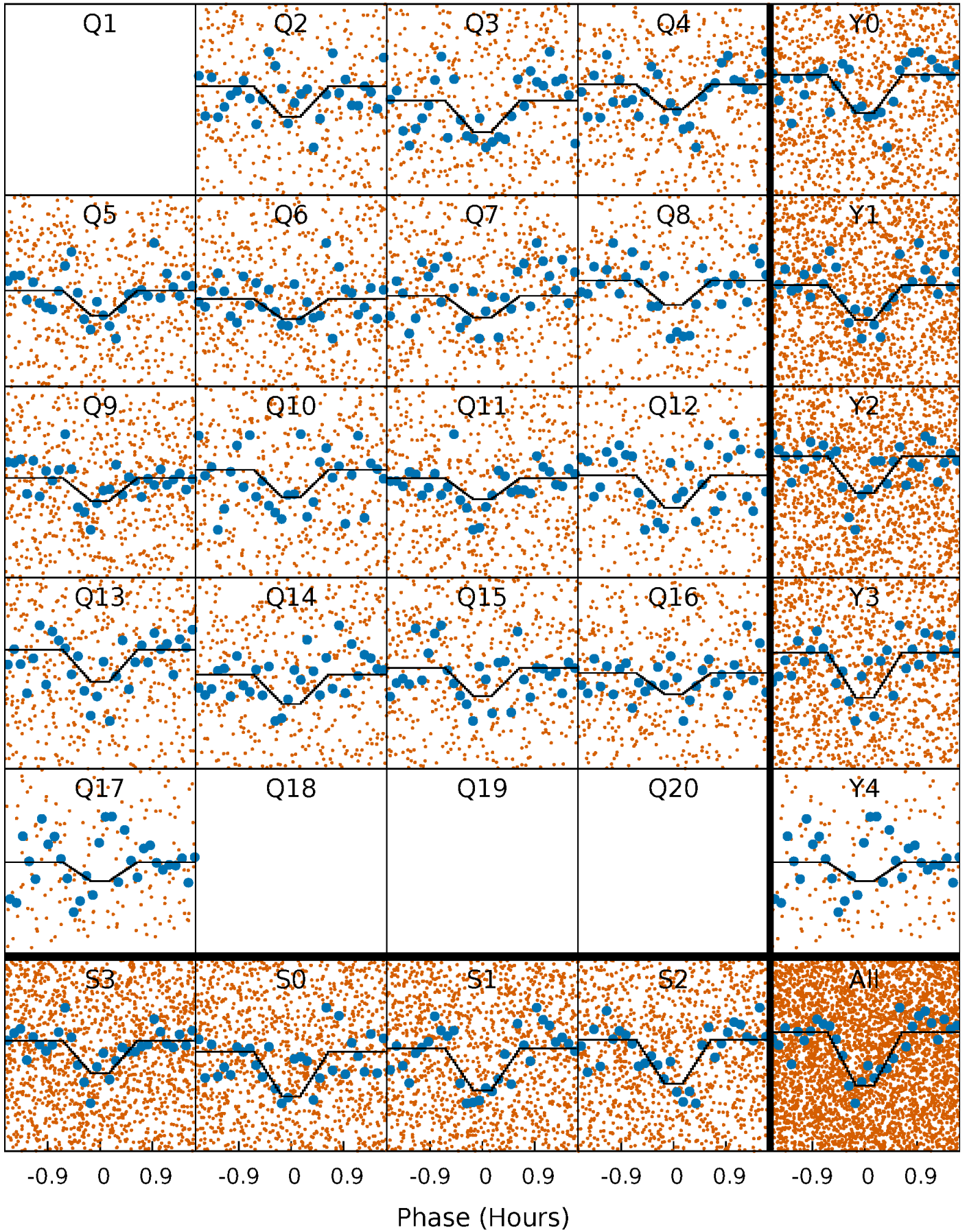
DV Quarter-Phased Transit Curves

TCE 005171707-01 P= 0.814004 Days $T_0=132.116126$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

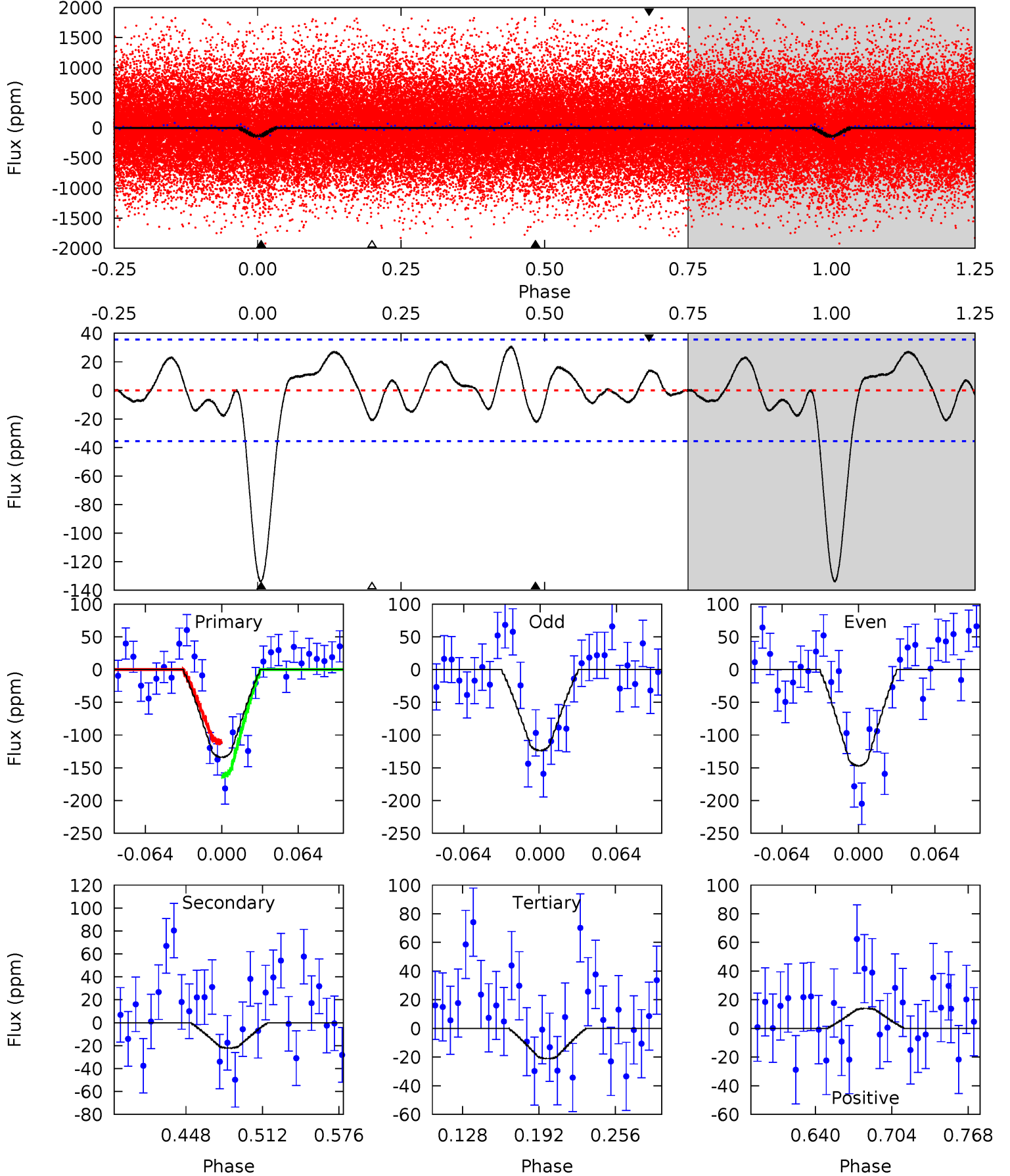
TCE 005171707-01 P= 0.814012 Days $T_0=132.114677$ (BKJD)



DV Model-Shift Uniqueness Test

005171707-01, P = 0.814004 Days, E = 132.116126 Days

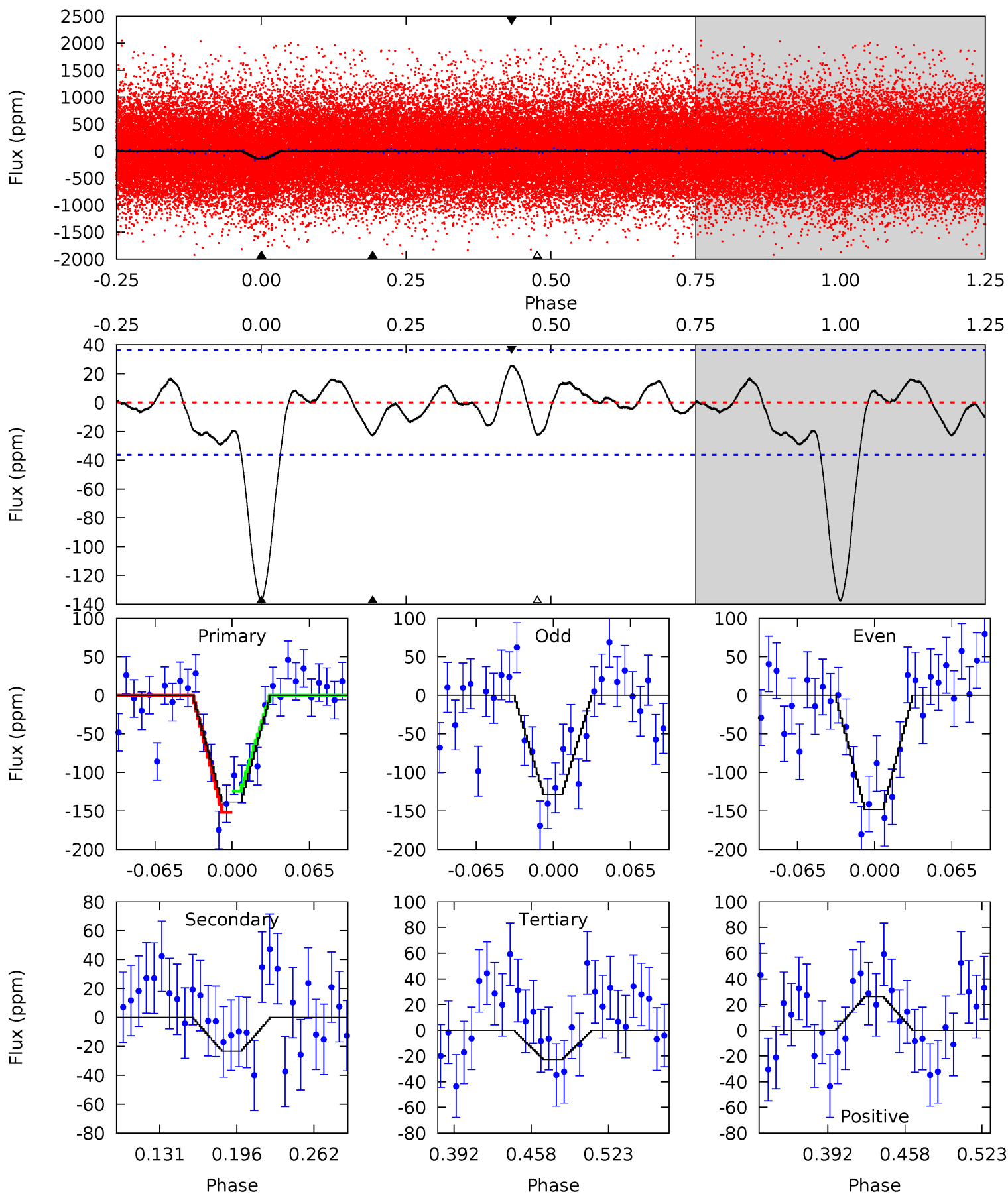
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.5	2.90	2.75	1.83	4.66	1.85	1.45	14.8	15.7	0.15	1.07	1.53	0.88	0.19	3.35



Alt Model-Shift Uniqueness Test

005171707-01, P = 0.814012 Days, E = 132.114677 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	2.99	2.93	3.35	4.65	1.84	1.44	14.8	14.4	0.07	-0.35	1.28	0.86	0.16	1.77



Stellar Parameters For KIC 005171707

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5705^{+156}_{-173}	$4.424^{+0.101}_{-0.188}$	$0.000^{+0.250}_{-0.300}$	$0.989^{+0.281}_{-0.141}$	$0.945^{+0.114}_{-0.091}$	$1.377^{+0.616}_{-0.691}$
	+3%/-3%	+2%/-4%	+inf%/-inf%	+28%/-14%	+12%/-10%	+45%/-50%
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 005171707-01 / KOI 6532.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-22 ± 8	$1.17^{+0.67}_{-0.60}$	2728^{+190}_{-145}	3944^{+1398}_{-692}	$2.385^{+7.583}_{-1.498}$
Alt.	-23 ± 8	$1.31^{+0.67}_{-0.58}$	2734^{+209}_{-147}	3806^{+1119}_{-604}	$1.967^{+4.841}_{-1.137}$

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 $A_{obs} \gg 1.0$

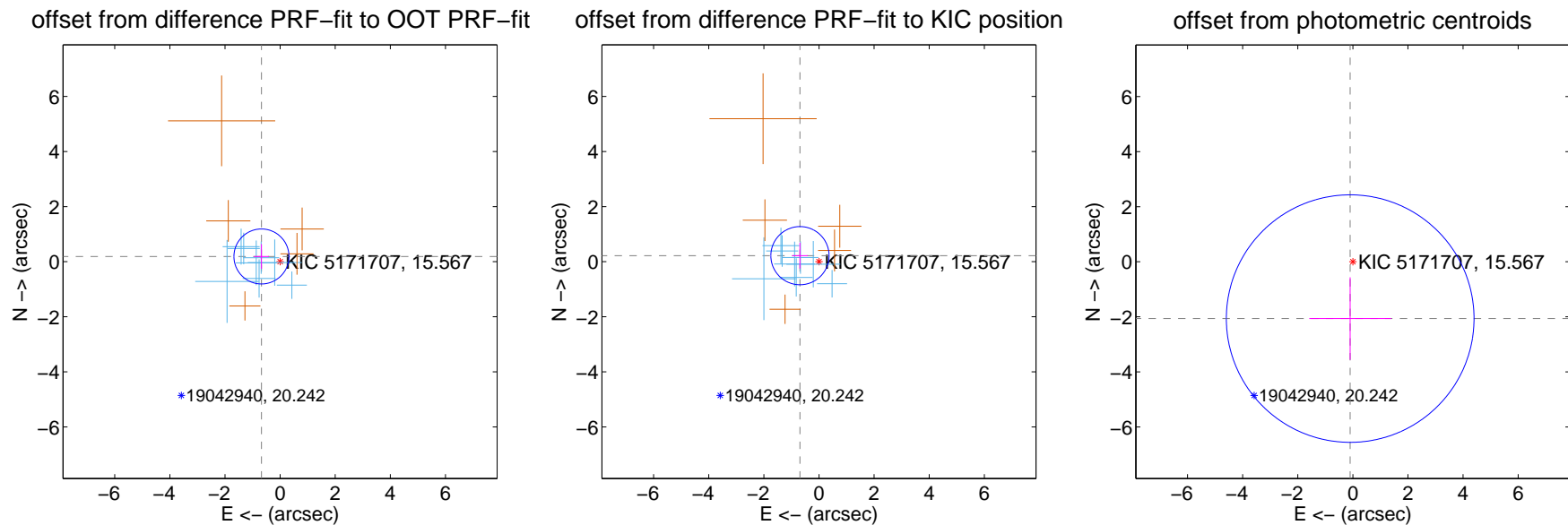
DV Centroid Data

Supplemental centroid analysis for 005171707-01. Kepler magnitude: 15.57. Transit SNR 9.67

There are 8 quarters with good PRF difference image offsets

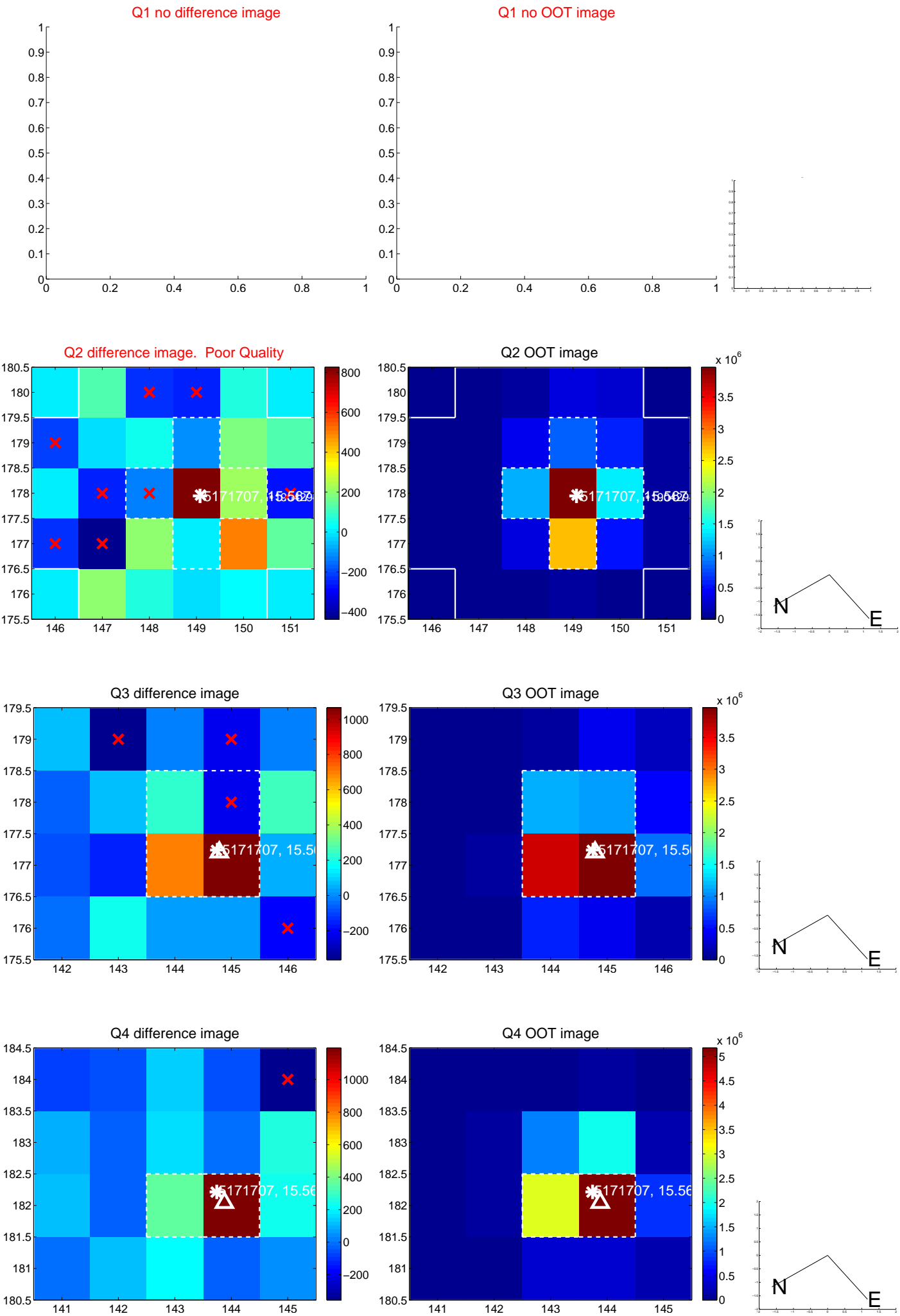
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.703 ± 0.333	2.11	0.676 ± 0.270	0.190 ± 0.449
PRF-fit source offset from KIC position	0.724 ± 0.352	2.06	0.690 ± 0.283	0.219 ± 0.471
photometric centroid source offset	2.07 ± 1.50	1.38	0.10 ± 1.49	-2.06 ± 1.50

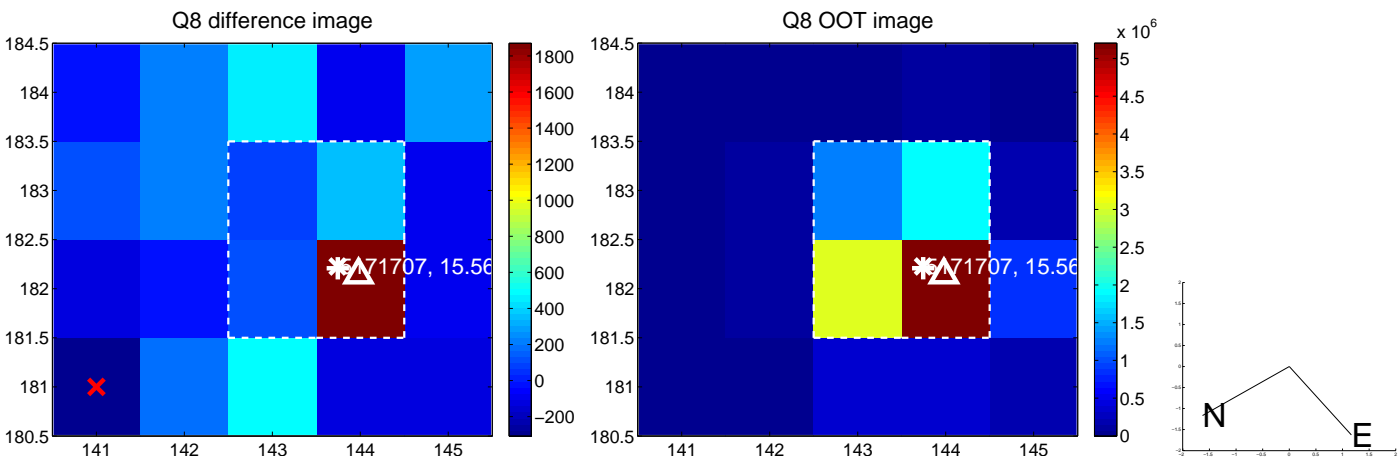
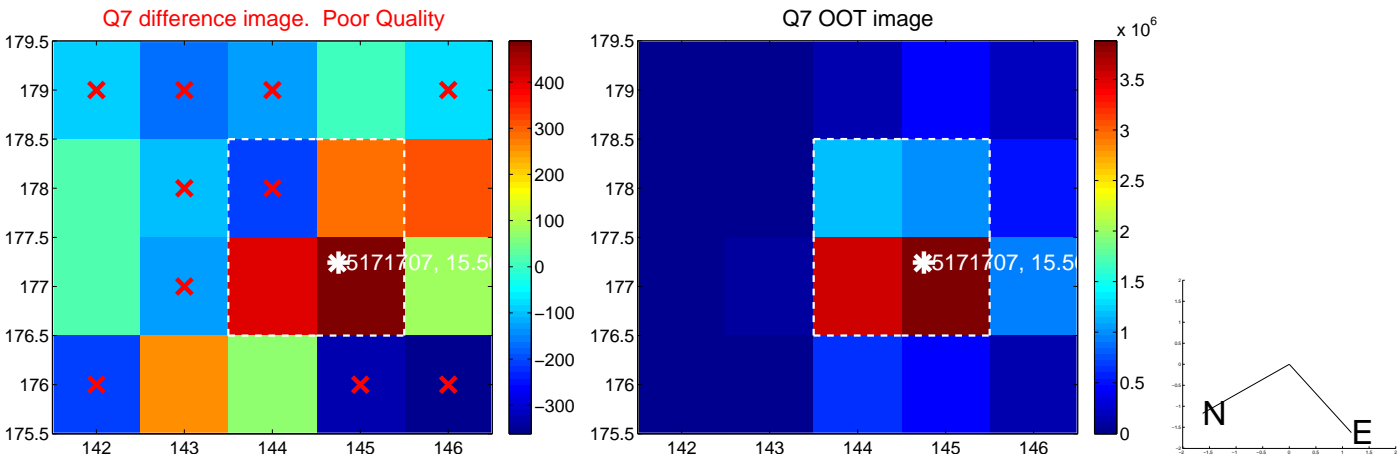
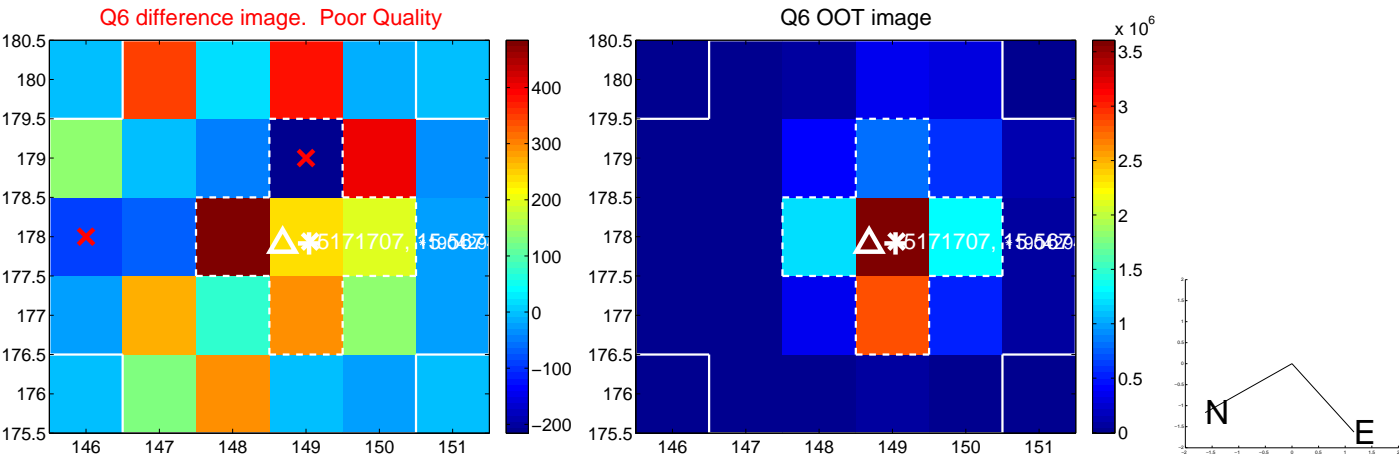
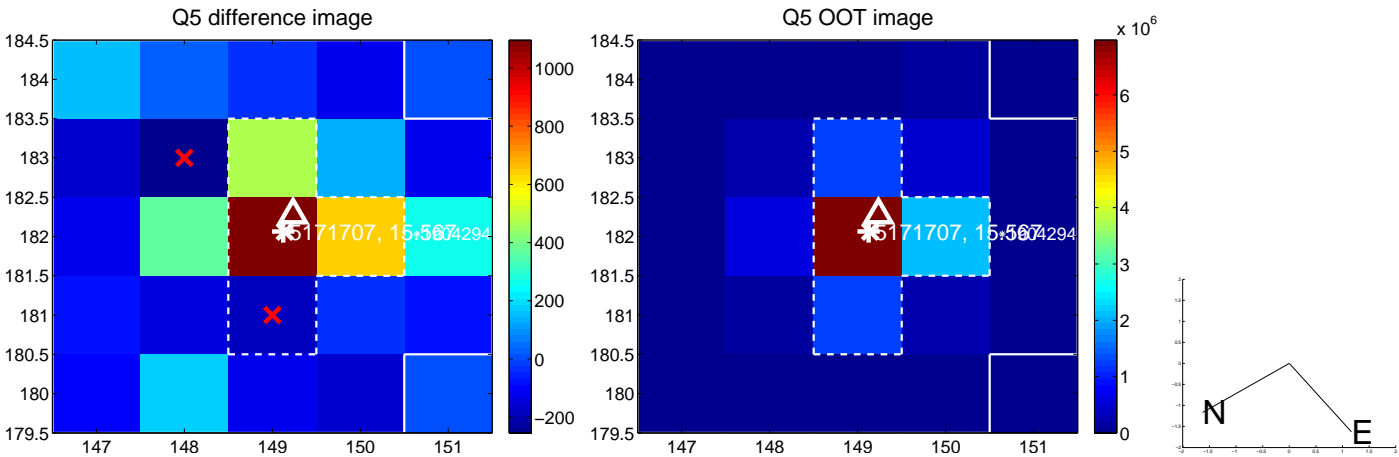


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

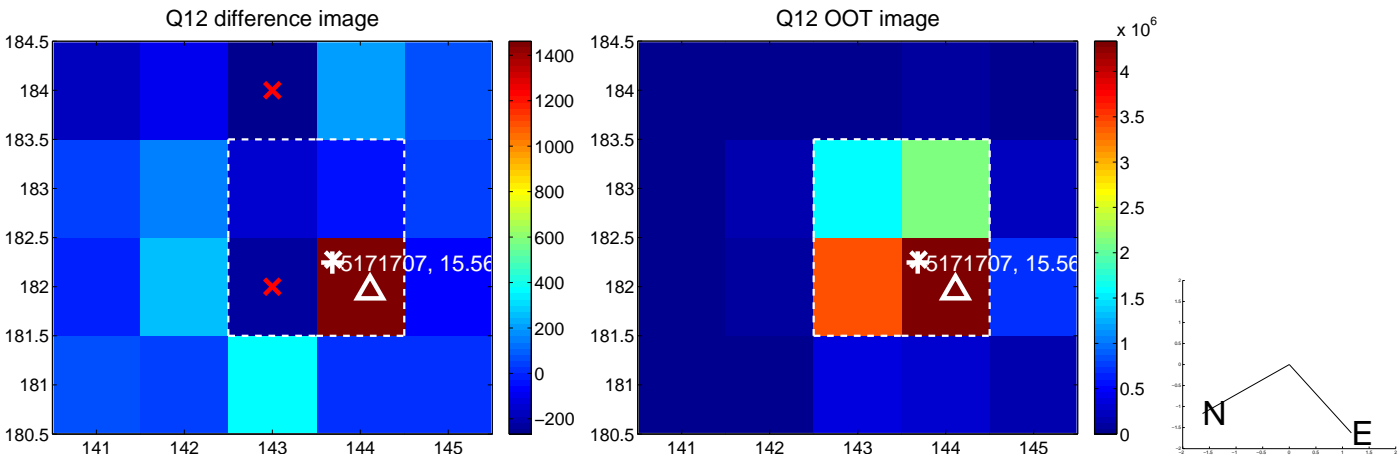
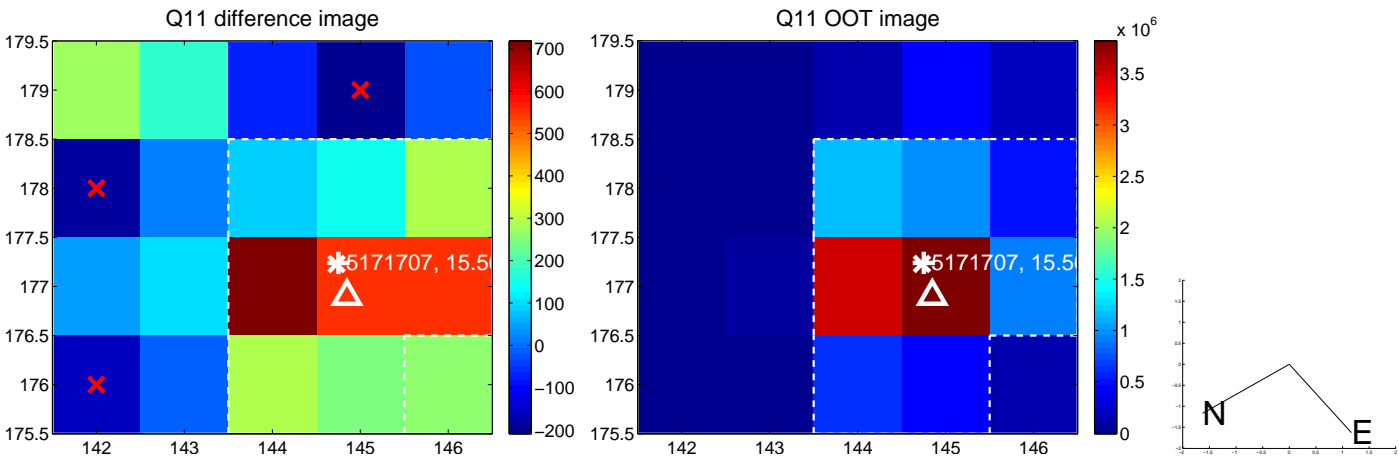
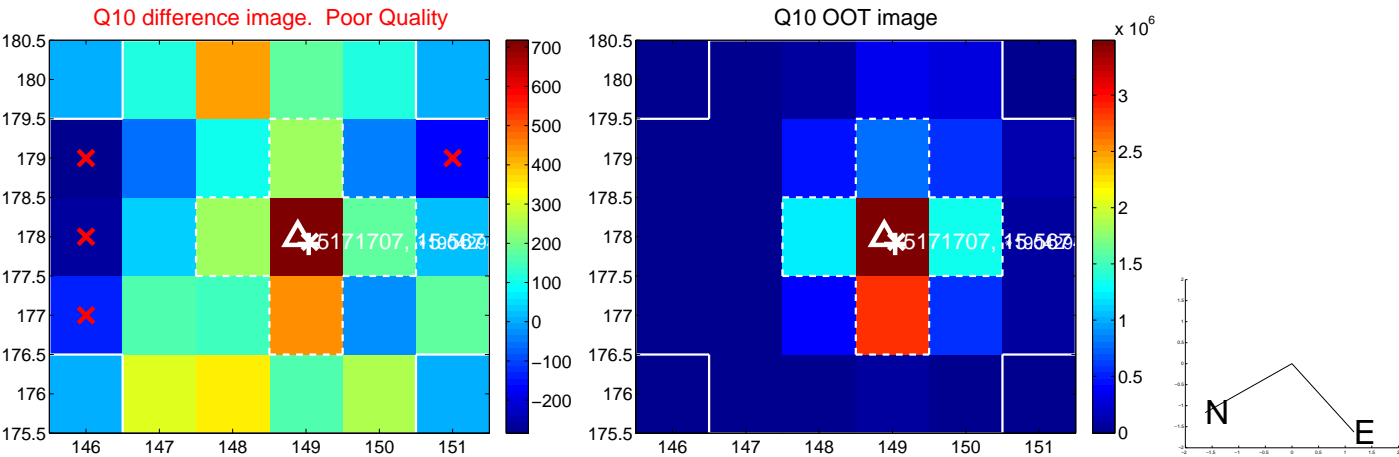
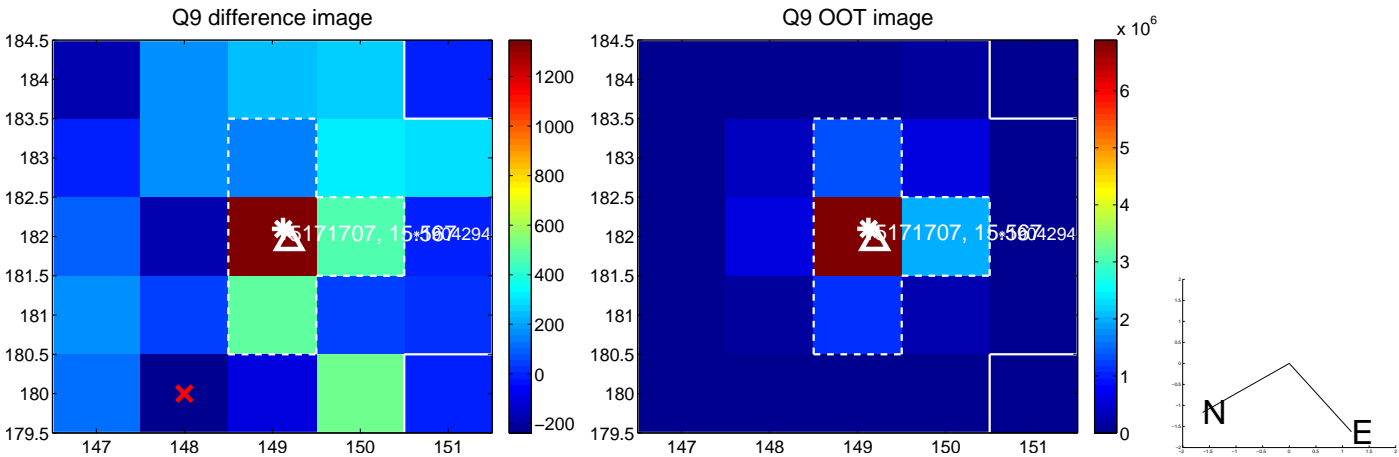
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



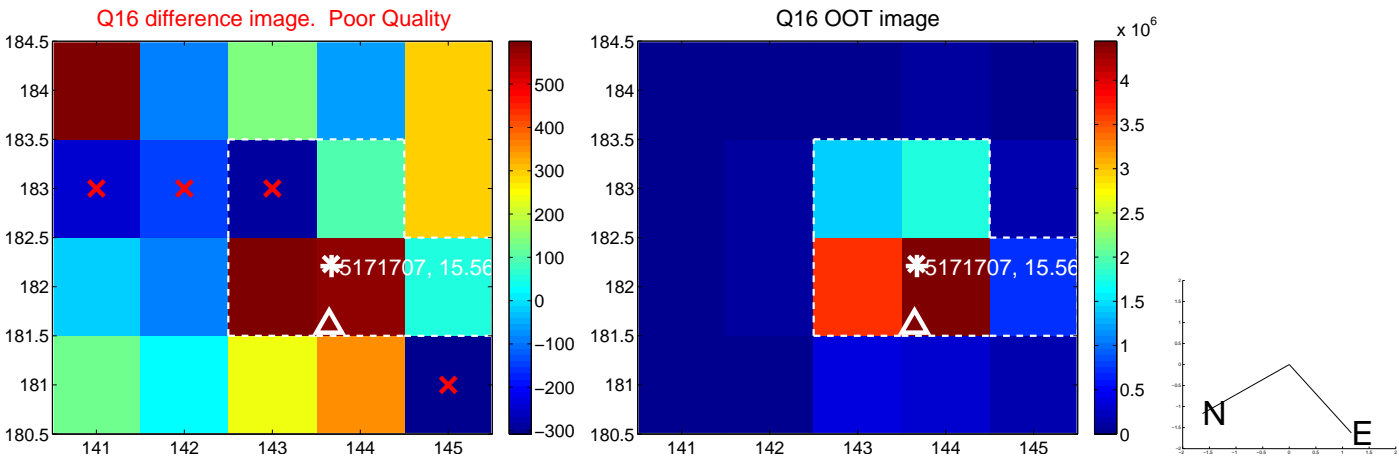
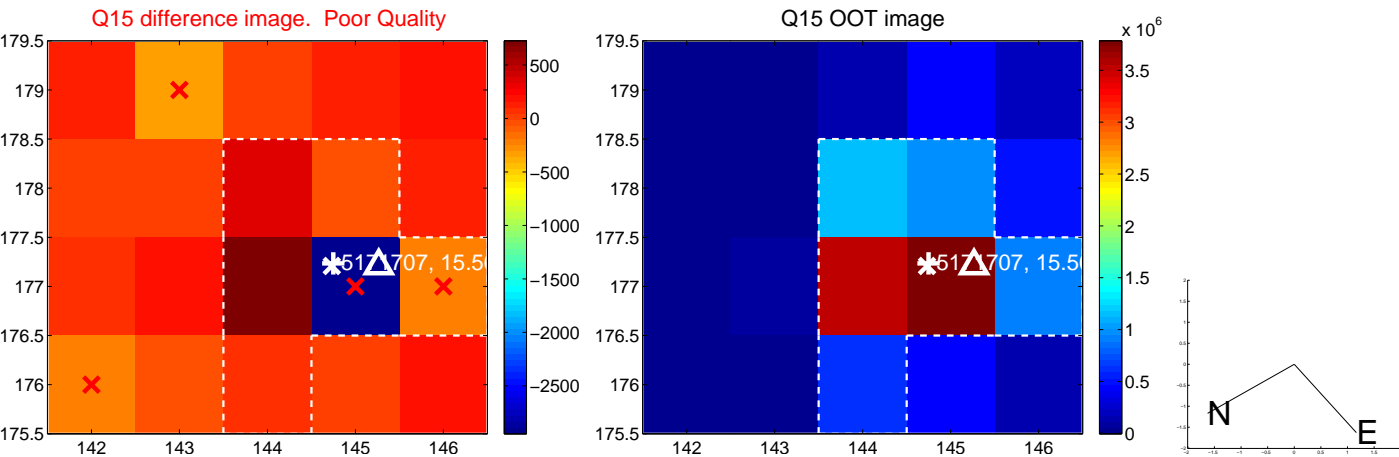
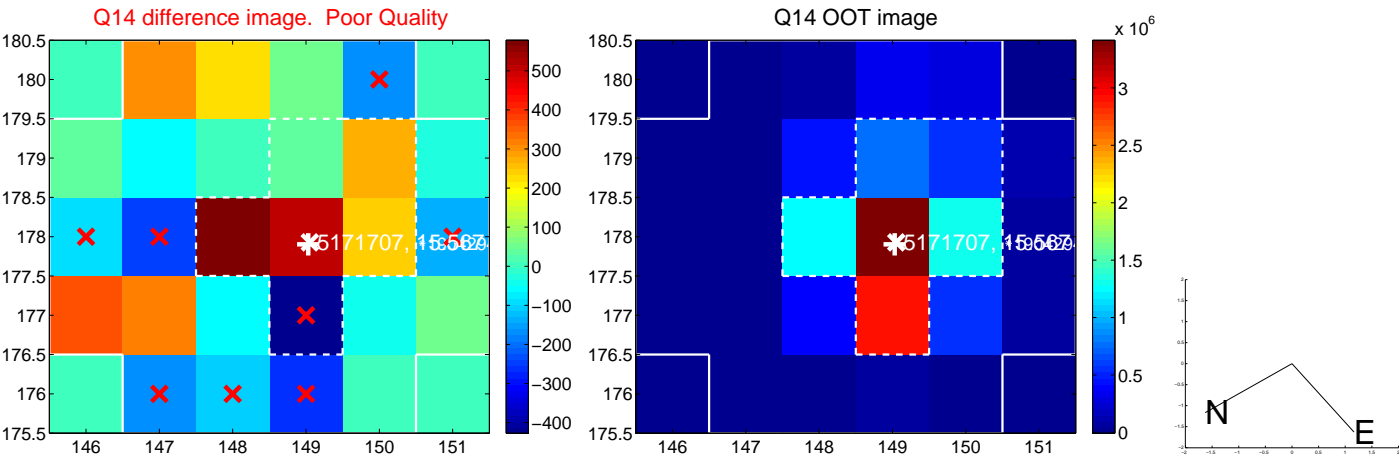
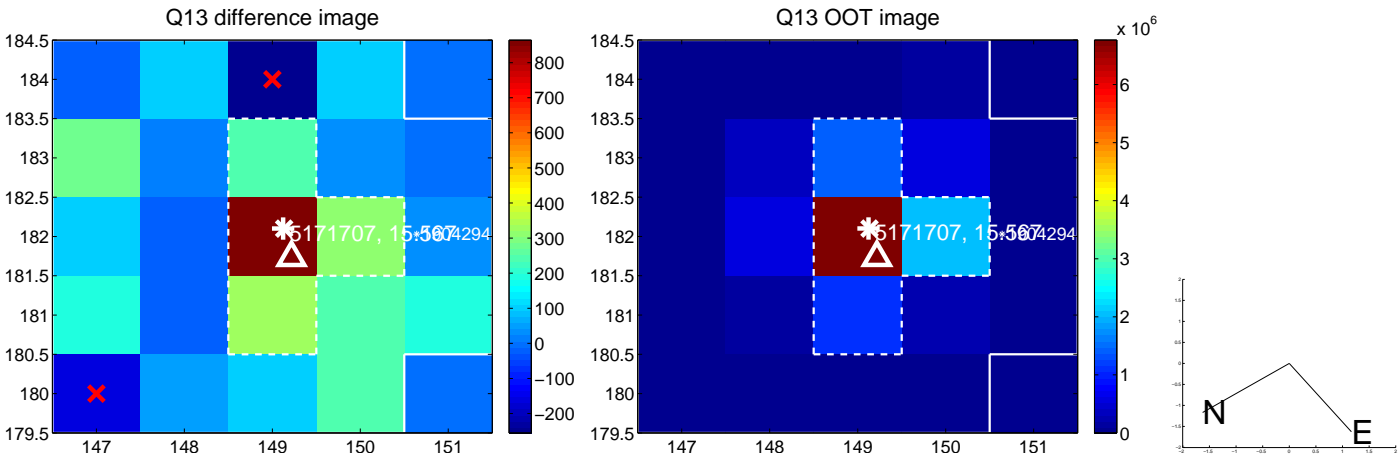
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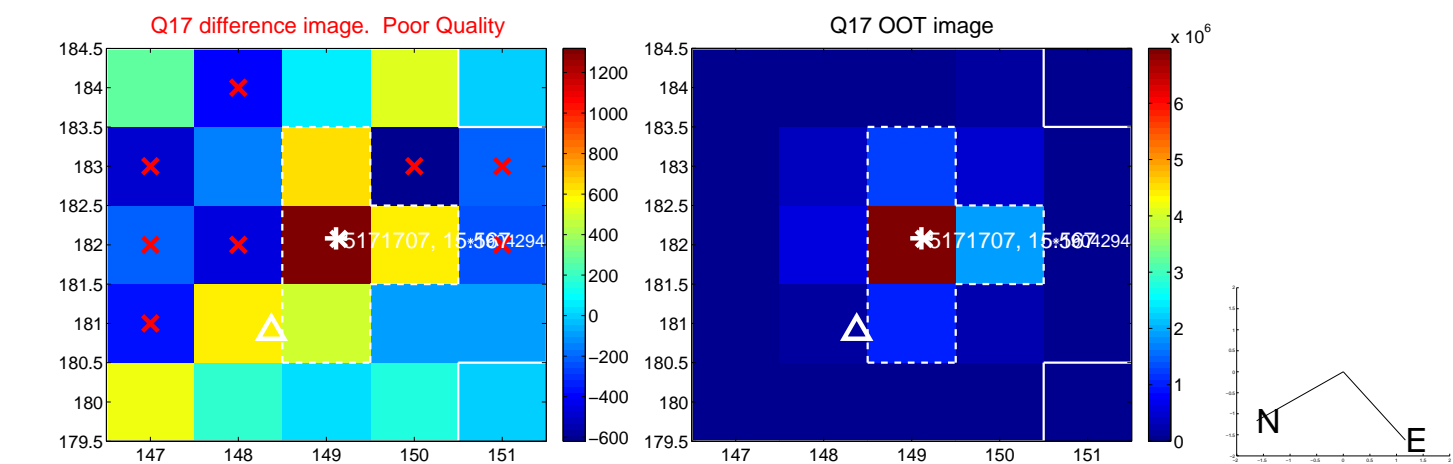
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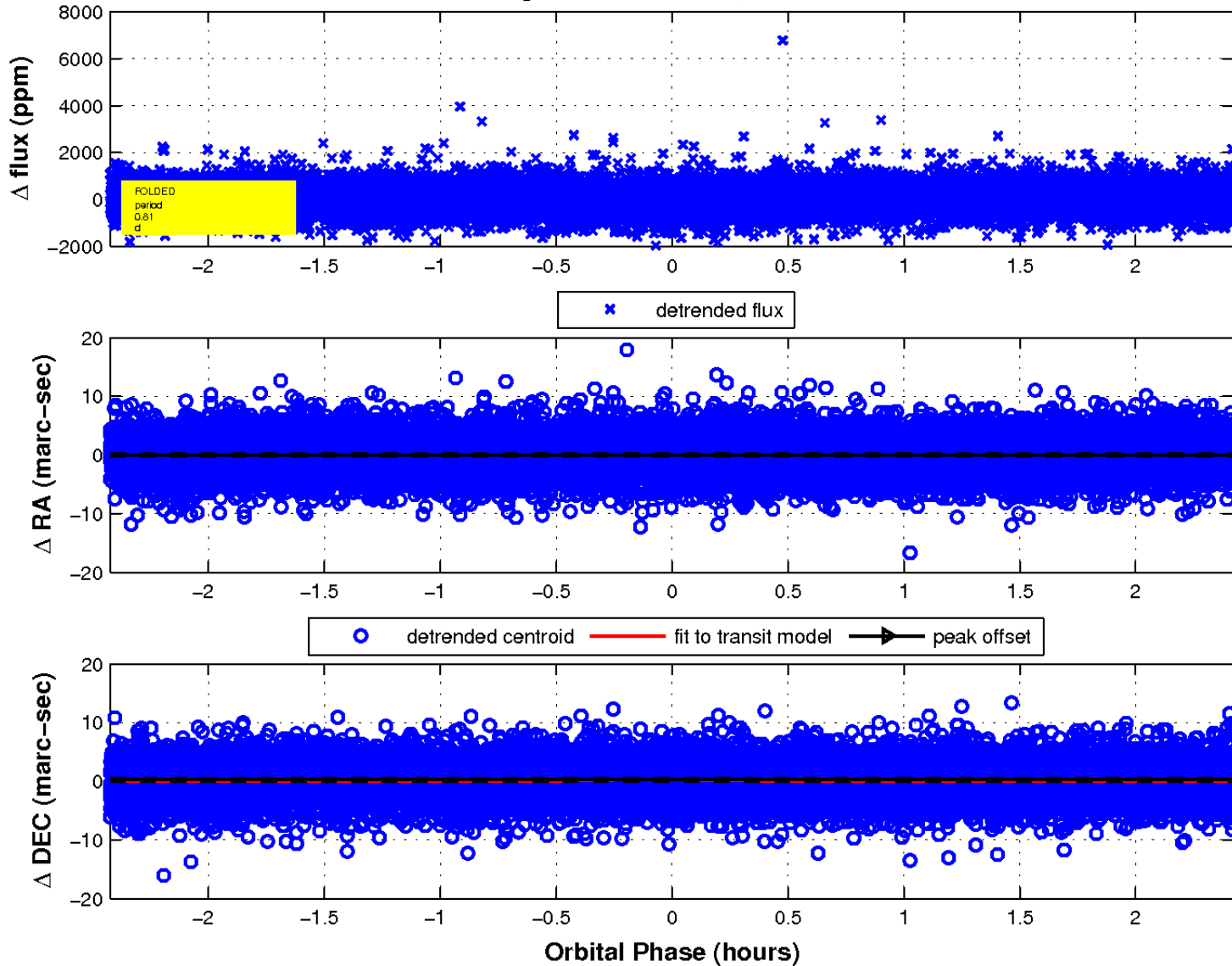
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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

