

KIC 007198834

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})
007198834-01	OBS	No	0.558577	131.685450	21.8	4.973	8.1	5.0	0.93	6017	0.45	5705.19

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007198834-01	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.

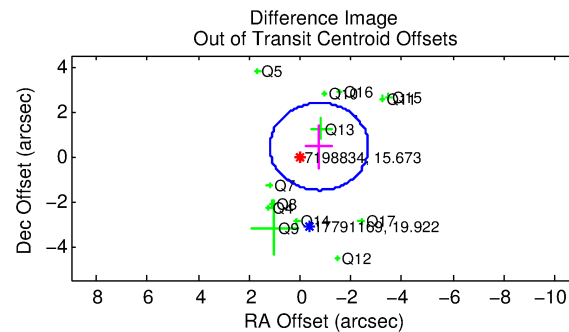
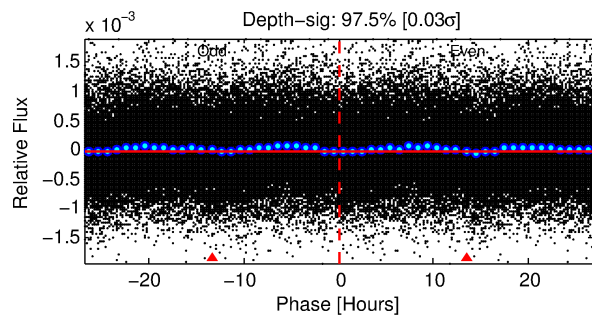
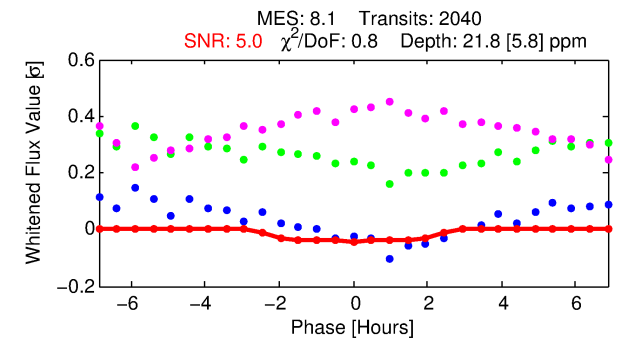
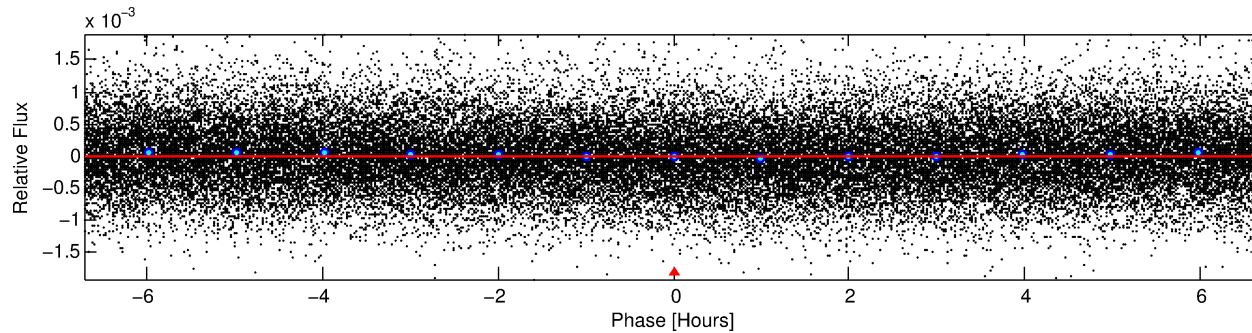
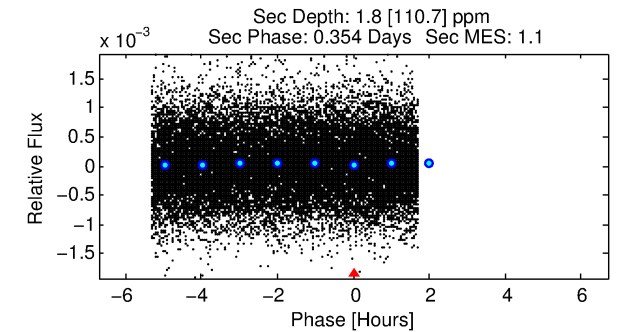
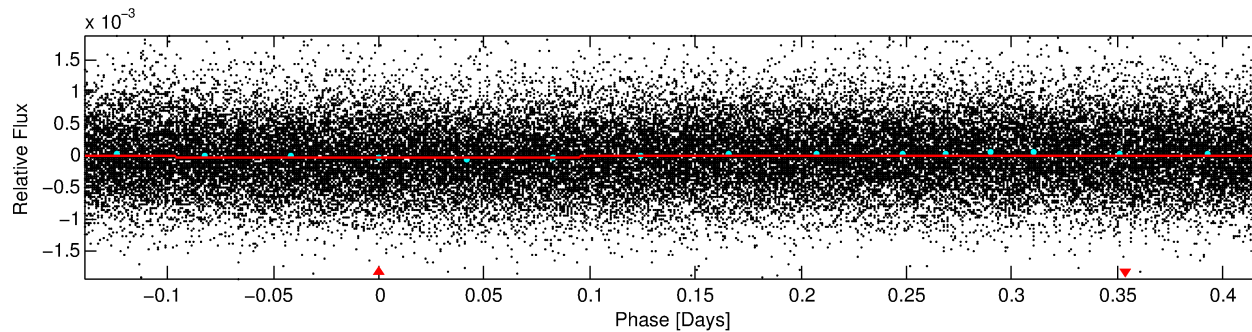
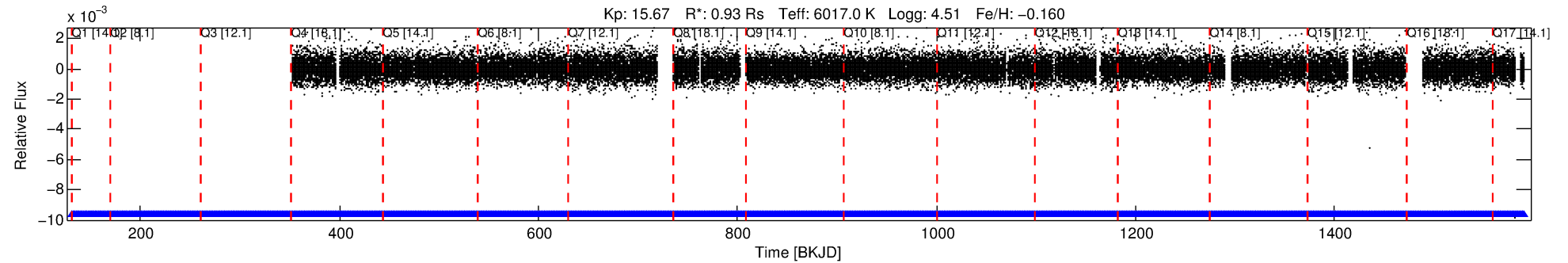
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007198834-01

No Significant Match Found

DV One-Page Summary

KIC: 7198834 Candidate: 1 of 1 Period: 0.559 d



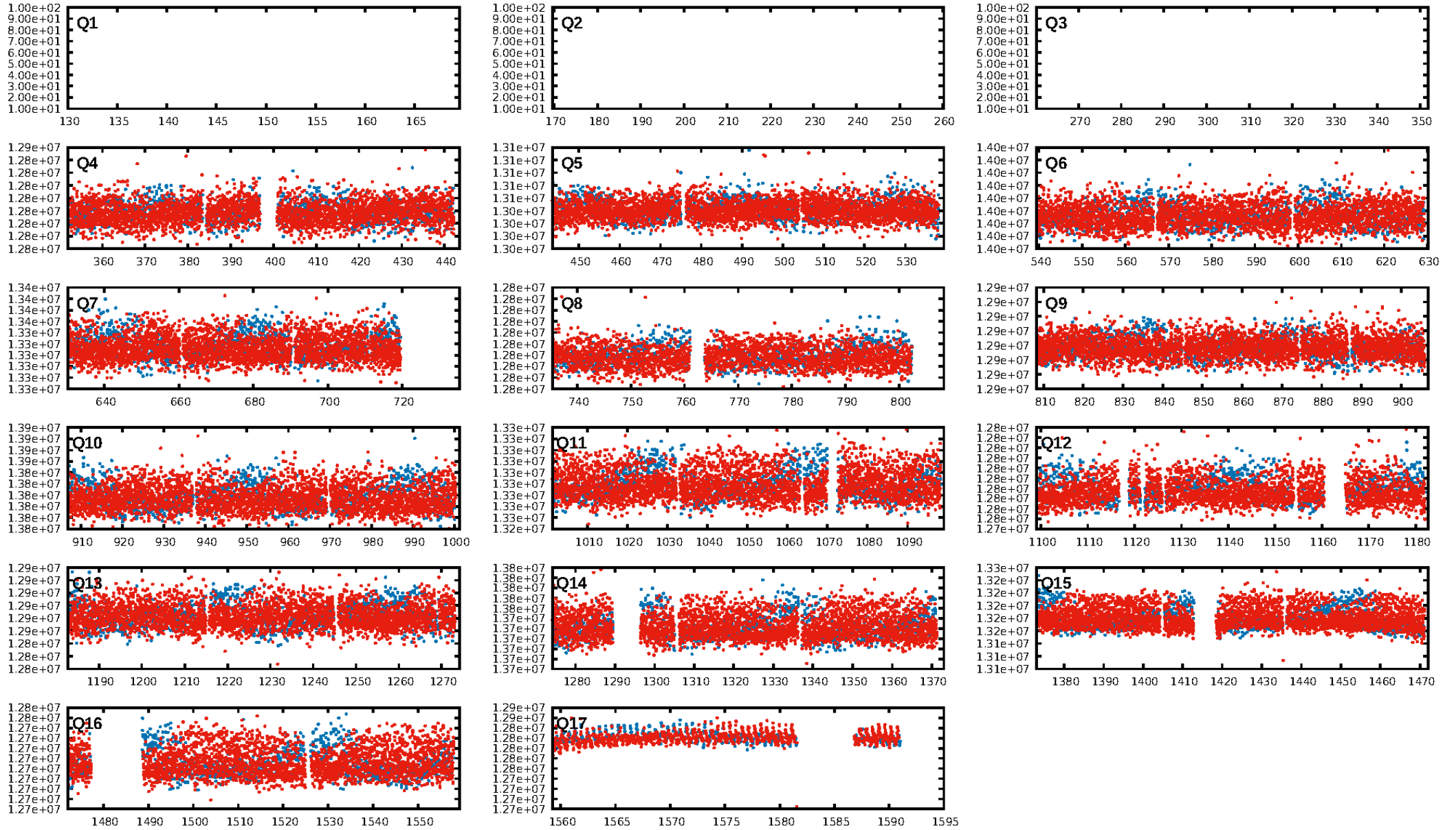
DV Fit Results:

Period = 0.55858 [0.00002] d
Epoch = 131.6854 [0.0112] BKJD
Rp/R* = 0.0044 [0.0112]
a/R* = 1.07 [1.55]
b = 0.56 [15.36]
Seff = 5705.19 [2319.14]
Teff = 2216 [225] K
Rp = 0.45 [1.14] Re
a = 0.0134 [0.0034] AU
Ag = 0.85 [53.72] [-0.00σ]
Teffp = 3288 [52057] K [0.02σ]

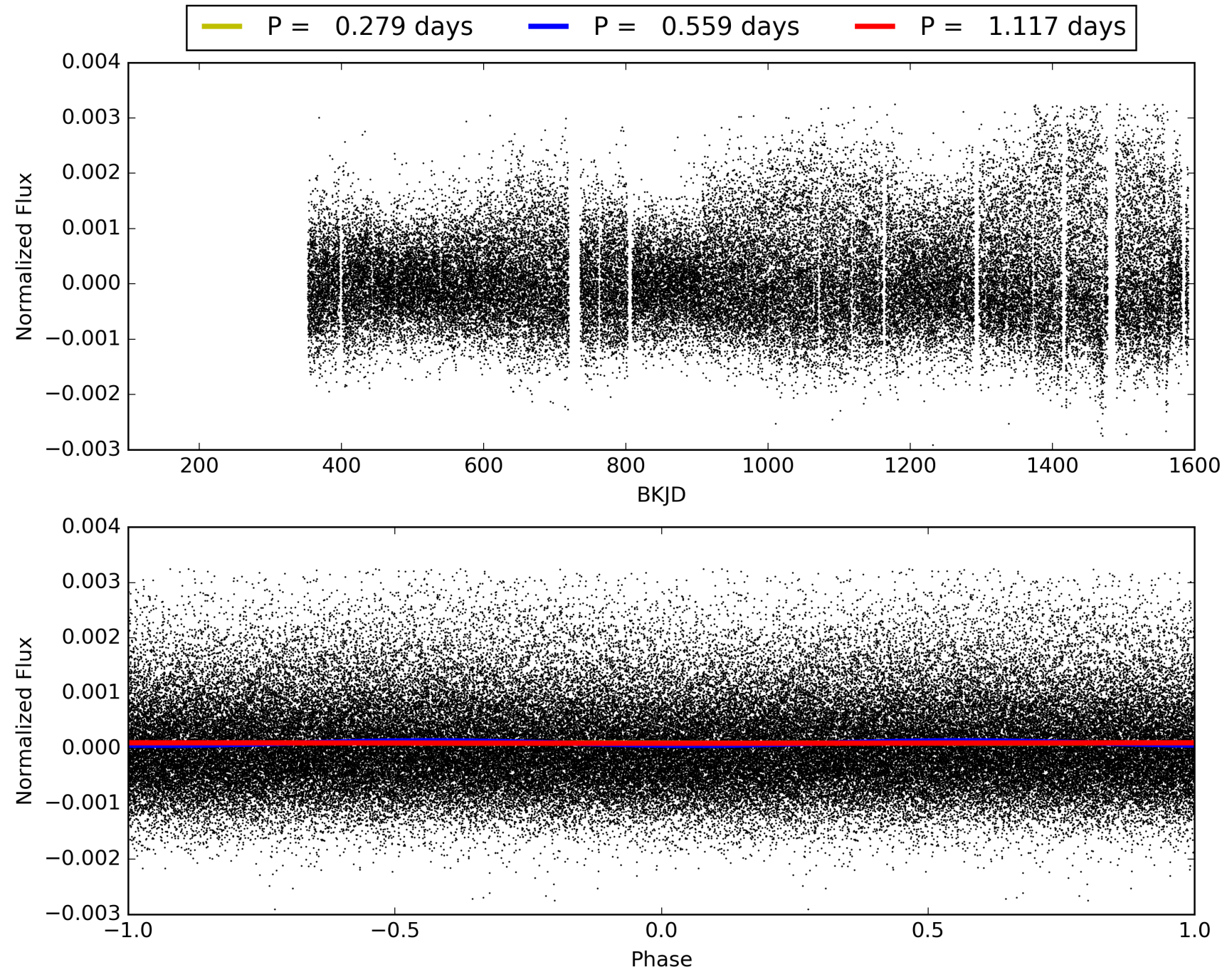
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1992/1992]
GhostDiagnostic-chr: 2.821
Centroid-sig: 57.4%
Centroid-so: 2.149 arcsec [0.77σ]
OotOffset-rm: 0.869 arcsec [1.34σ]
KicOffset-rm: 0.880 arcsec [1.33σ]
OotOffset-st: 2/3/4/4 [13]
KicOffset-st: 2/3/4/4 [13]
DiffImageQuality-fgm: 0.15 [2/13]
DiffImageOverlap-fno: 1.00 [14/14]

TCE 007198834-01, PDC Light Curves

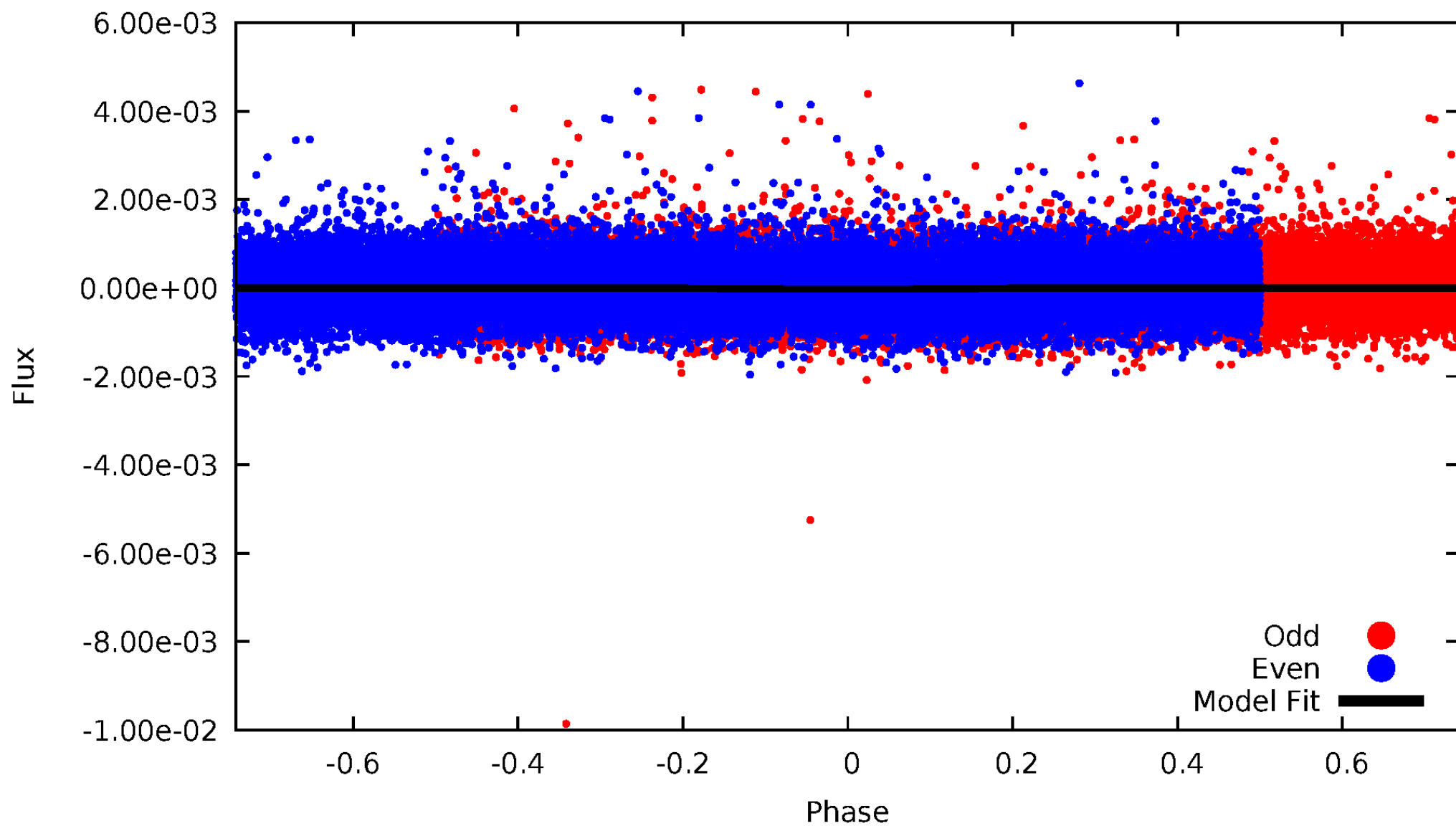


TCE 007198834-01



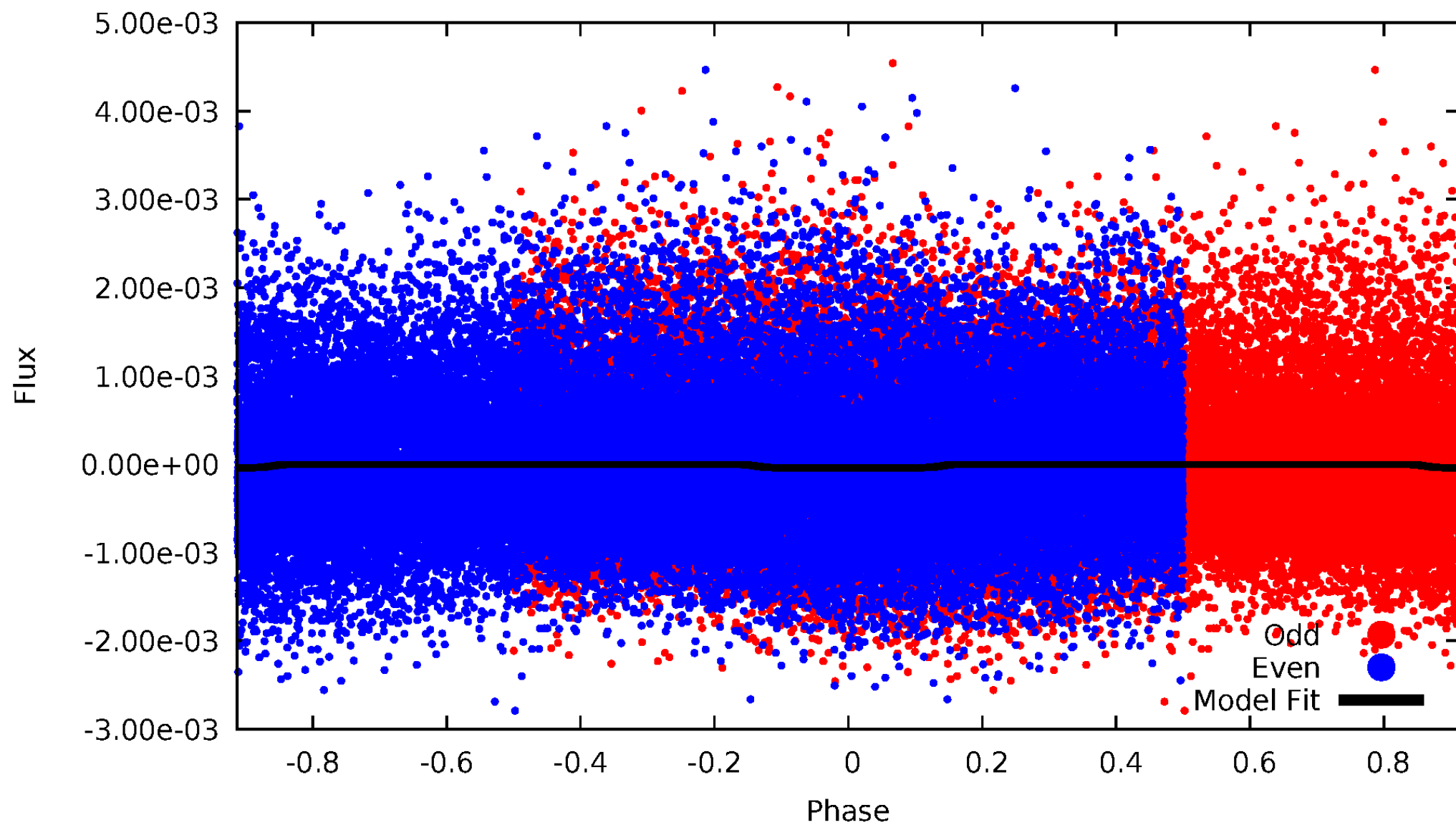
DV Odd/Even

TCE 007198834-01



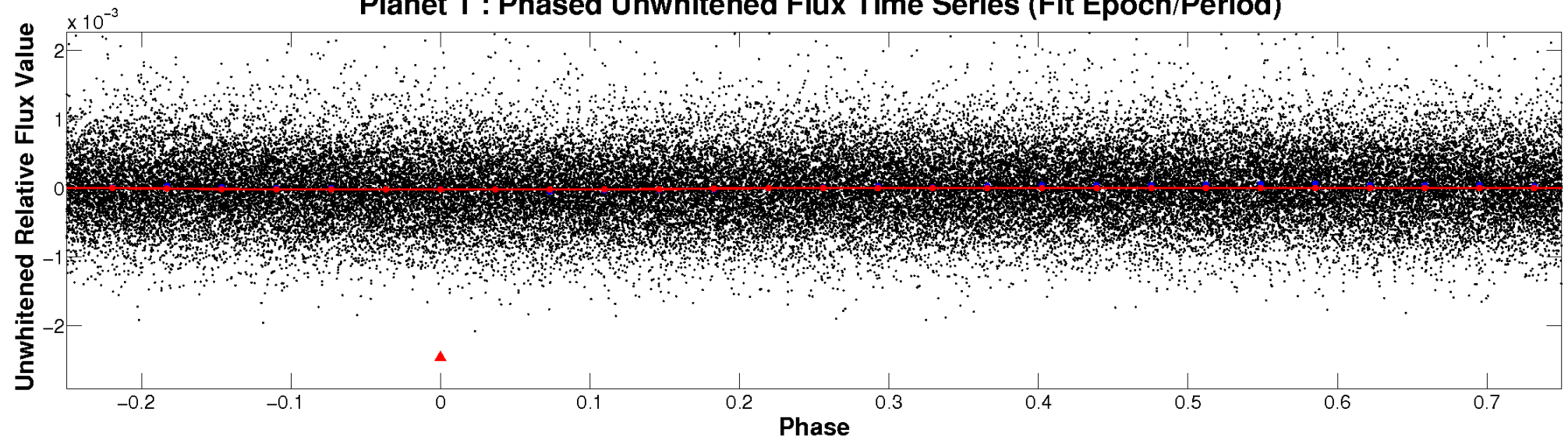
ALT Odd/Even

TCE 007198834-01

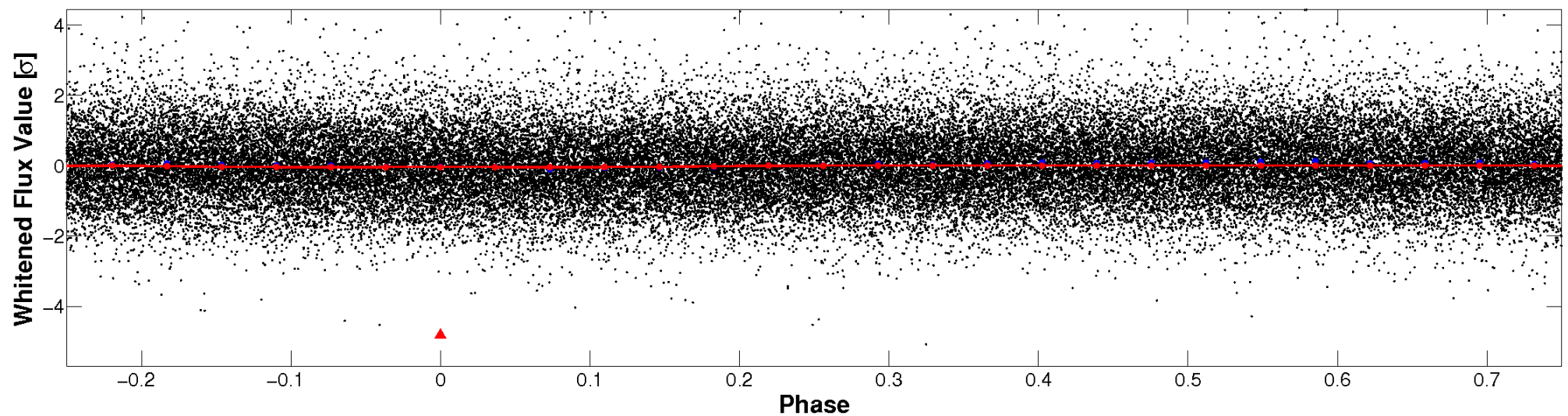


Non-Whitened Vs. Whitened Light Curve

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

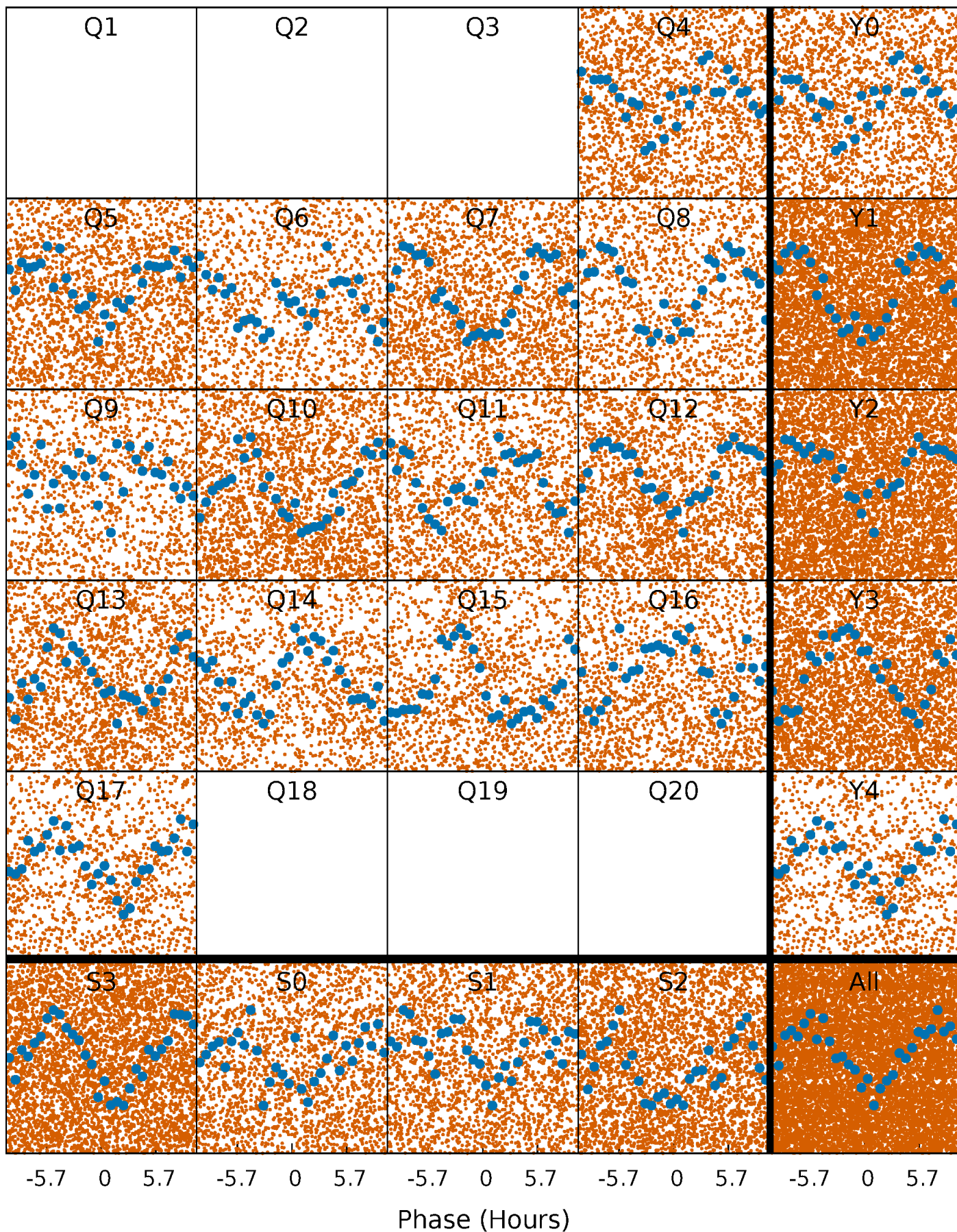


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



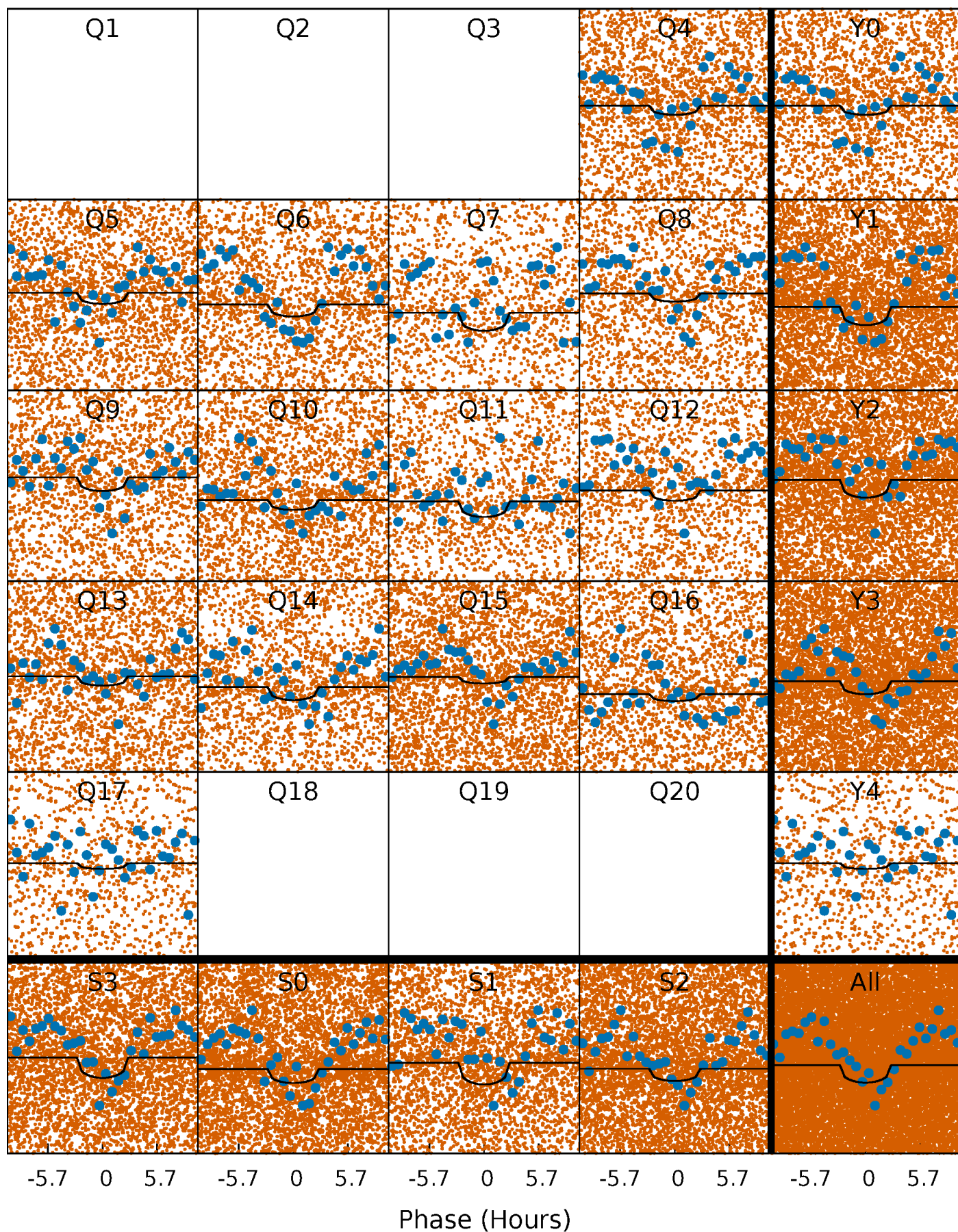
PDC Quarter-Phased Transit Curves

TCE 007198834-01 P= 0.558577 Days $T_0=131.685450$ (BKJD)



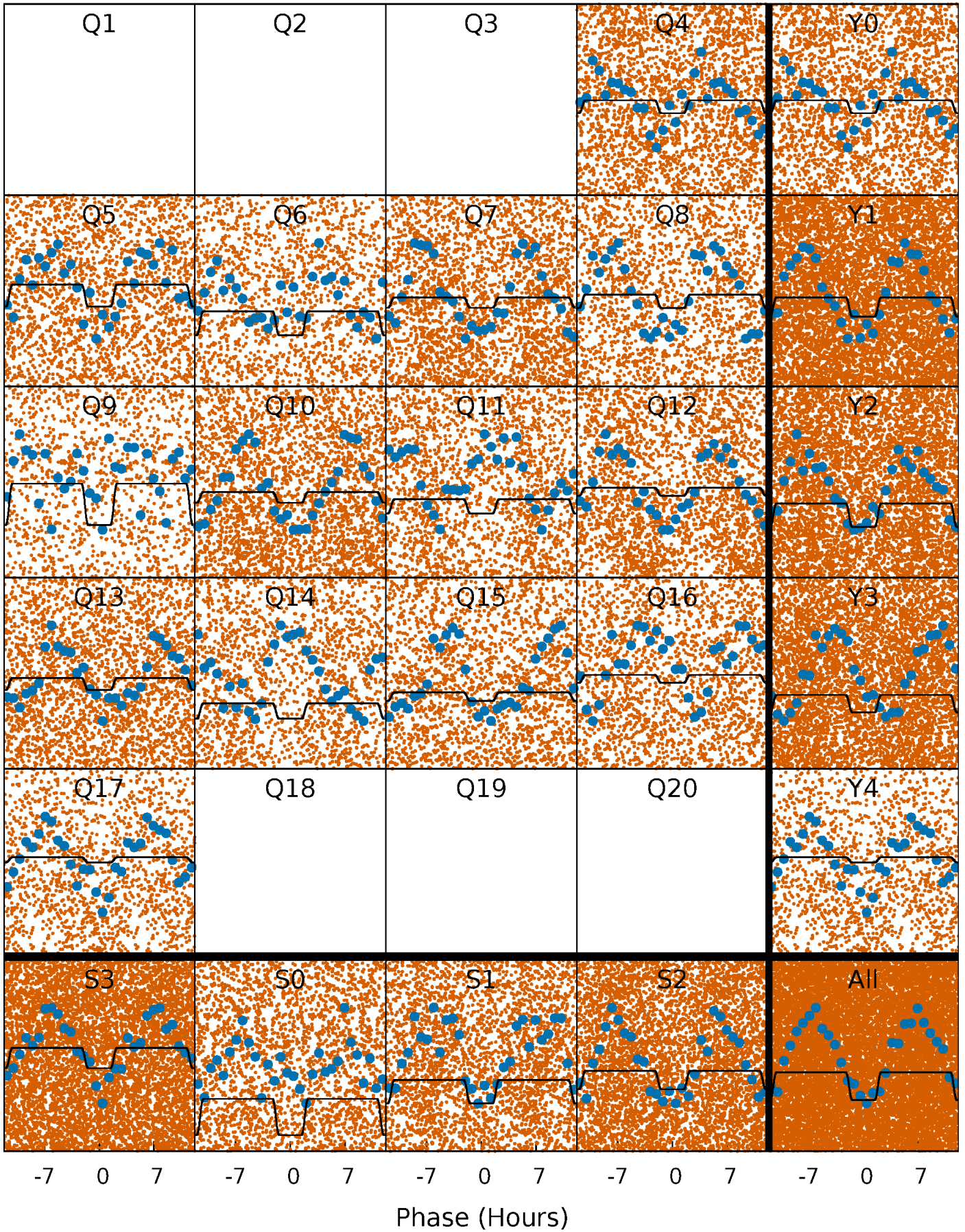
DV Quarter-Phased Transit Curves

TCE 007198834-01 P= 0.558577 Days $T_0=131.685450$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

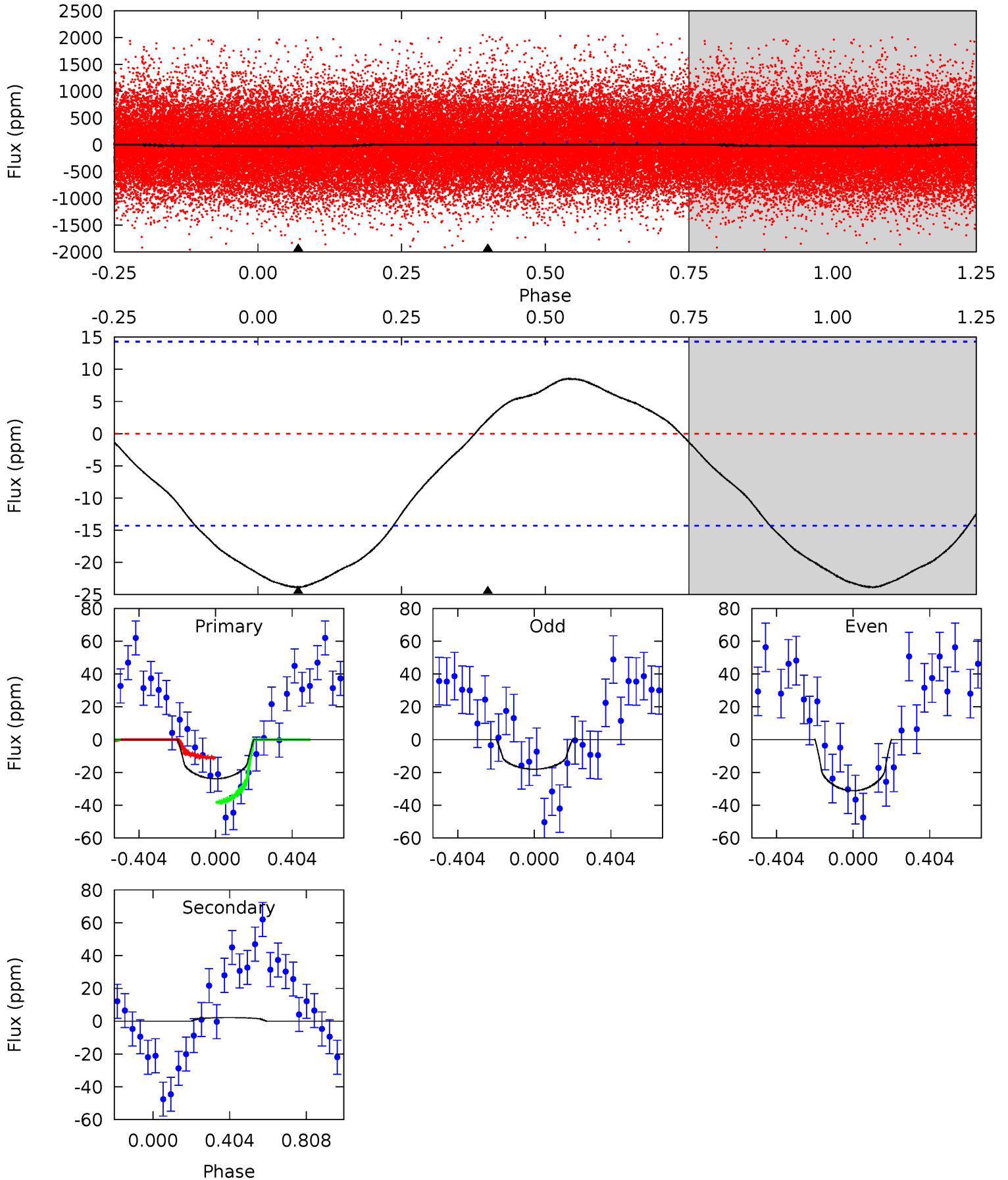
TCE 007198834-01 P= 0.558623 Days $T_0=131.653065$ (BKJD)



DV Model-Shift Uniqueness Test

007198834-01, P = 0.558577 Days, E = 131.685450 Days

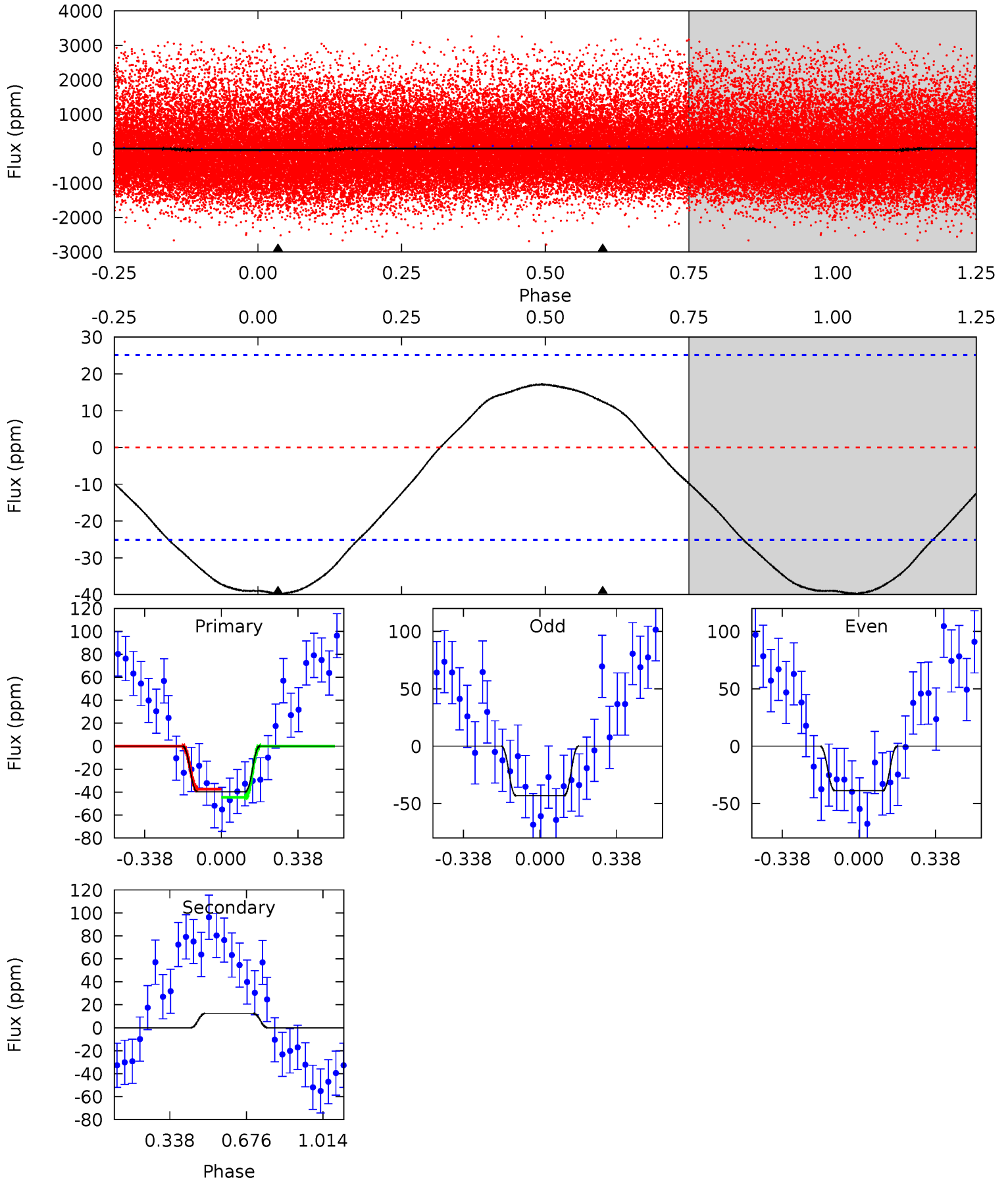
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.11	-0.65	0	0	4.26	0.83	0.73	7.11	7.11	-0.65	-0.65	1.98	0.94	0.26	3.97



Alt Model-Shift Uniqueness Test

007198834-01, P = 0.558623 Days, E = 131.653065 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.79	-2.13	0	0	4.30	0.96	0.87	6.79	6.79	-2.13	-2.13	0.38	0.21	0.30	0.60



Stellar Parameters For KIC 007198834

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6017^{+188}_{-230}	$4.508^{+0.052}_{-0.208}$	$-0.160^{+0.300}_{-0.350}$	$0.931^{+0.279}_{-0.093}$	$1.016^{+0.131}_{-0.144}$	$1.776^{+0.387}_{-0.935}$
	+3%/-4%	+1%/-5%	+188%/-219%	+30%/-10%	+13%/-14%	+22%/-53%
Source	KIC0	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 007198834-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	2 ± 3	$1.02^{+0.99}_{-0.73}$	3158^{+247}_{-152}	-3411^{+447}_{-1011}	$-0.129^{+0.225}_{-1.771}$
Alt.	12 ± 6	$1.16^{+1.04}_{-0.78}$	3157^{+232}_{-156}	-3952^{+479}_{-2017}	$-0.839^{+0.651}_{-7.333}$

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 $A_{obs} \gg 1.0$

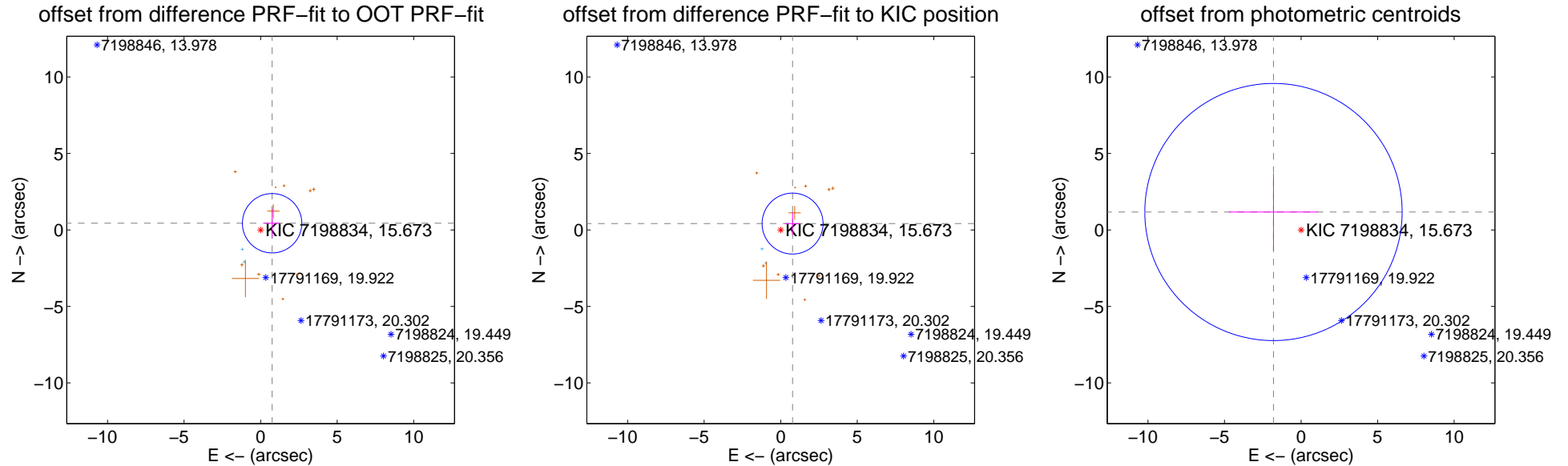
DV Centroid Data

Supplemental centroid analysis for 007198834-01. Kepler magnitude: 15.67. Transit SNR 5.03

There are 2 quarters with good PRF difference image offsets

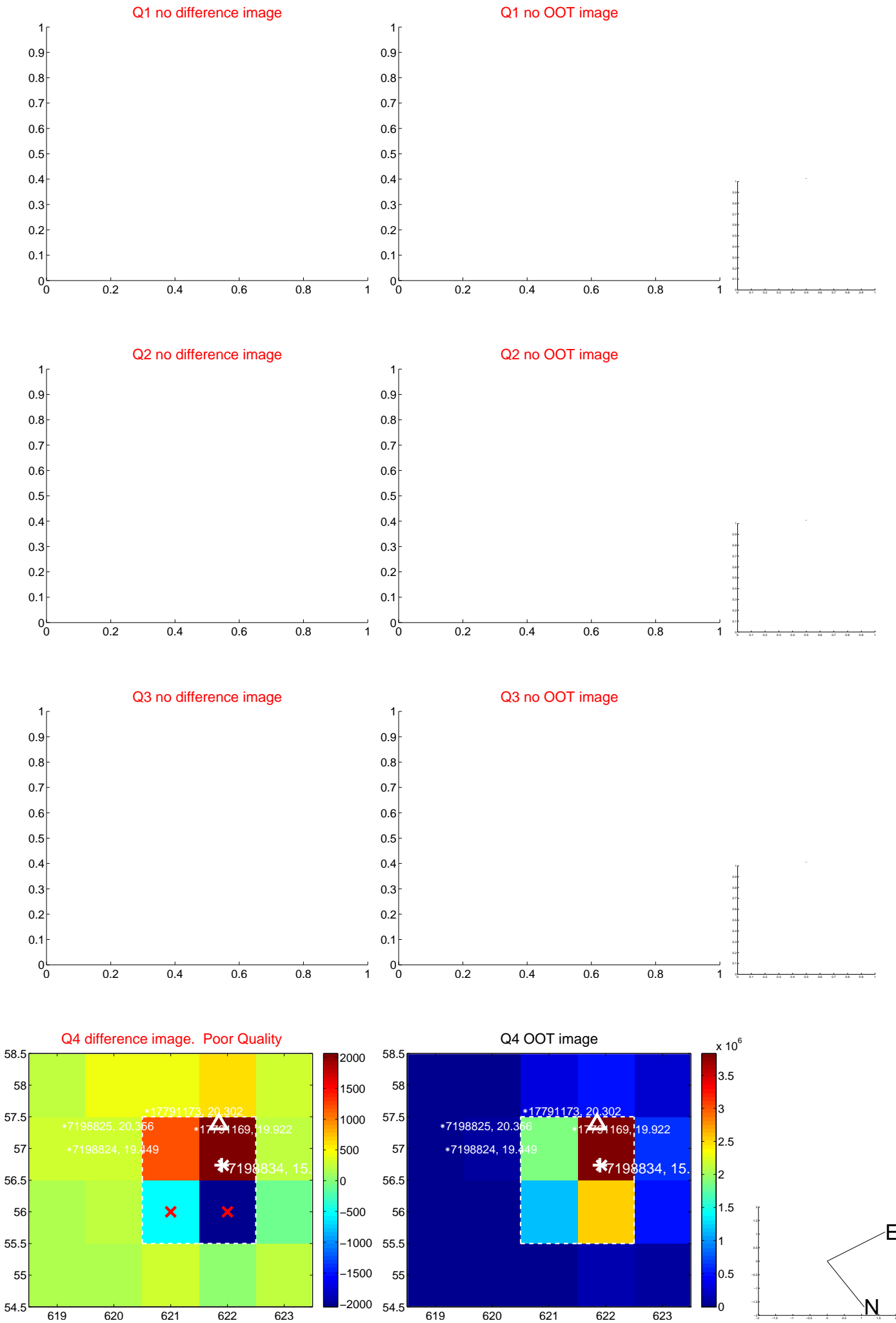
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.869 ± 0.647	1.34	-0.750 ± 0.504	0.438 ± 0.949
PRF-fit source offset from KIC position	0.880 ± 0.664	1.33	-0.776 ± 0.504	0.415 ± 0.734
photometric centroid source offset	2.15 ± 2.80	0.77	1.80 ± 2.91	1.17 ± 2.52

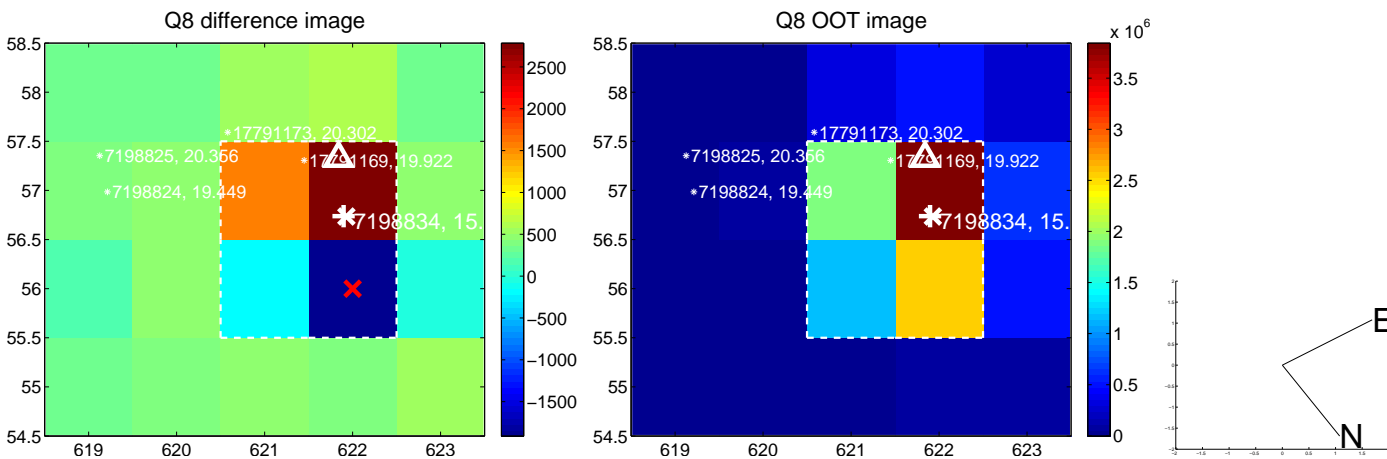
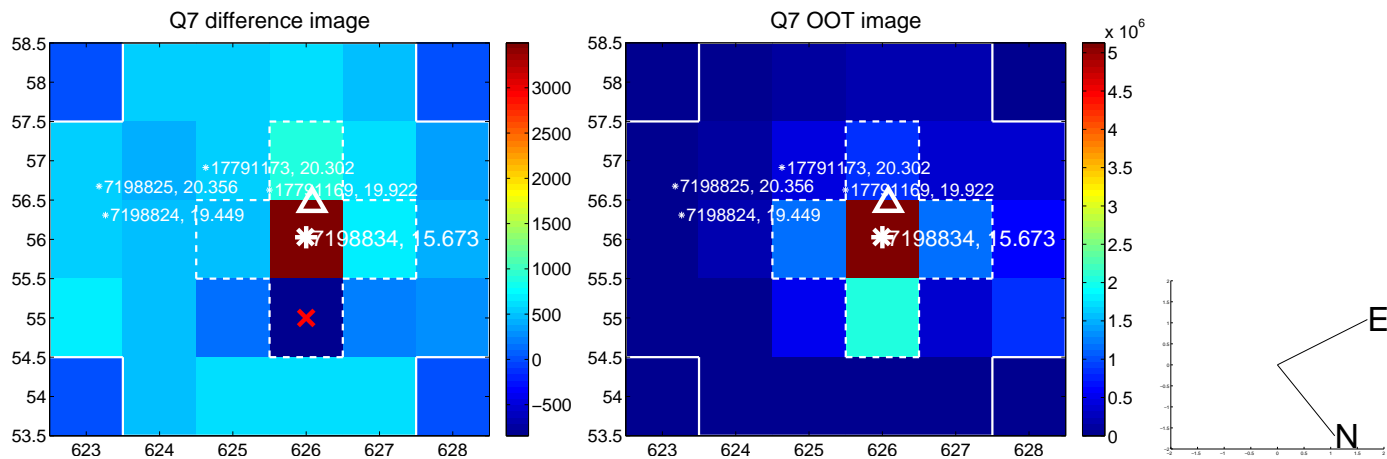
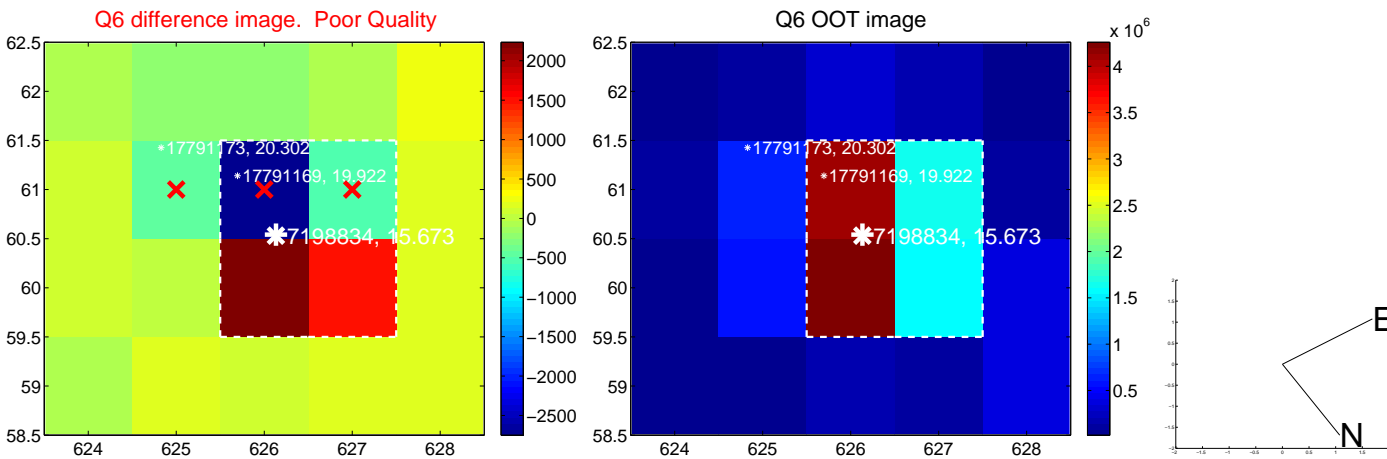
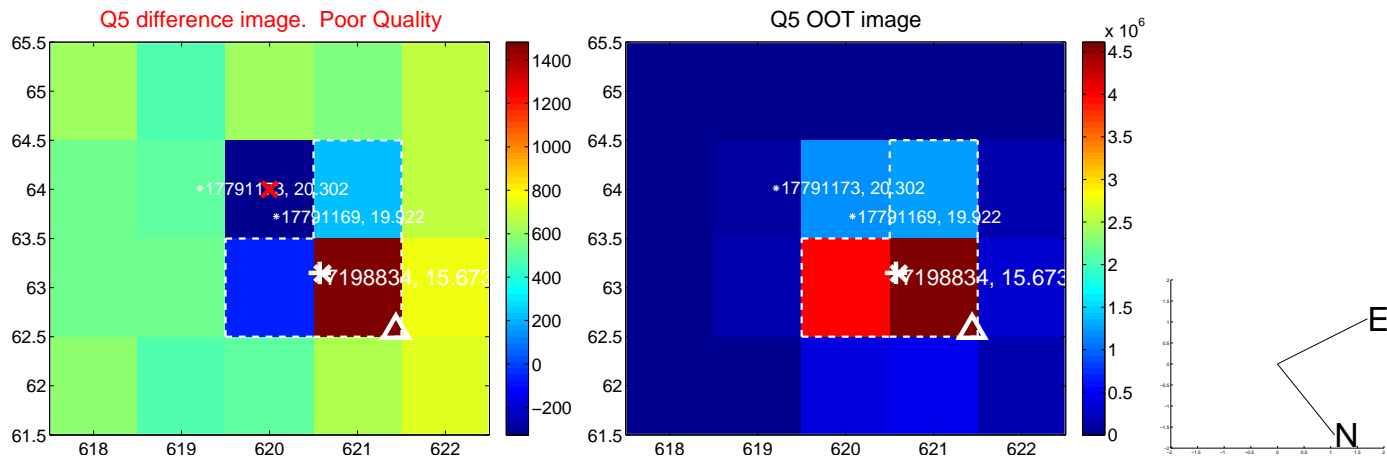


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

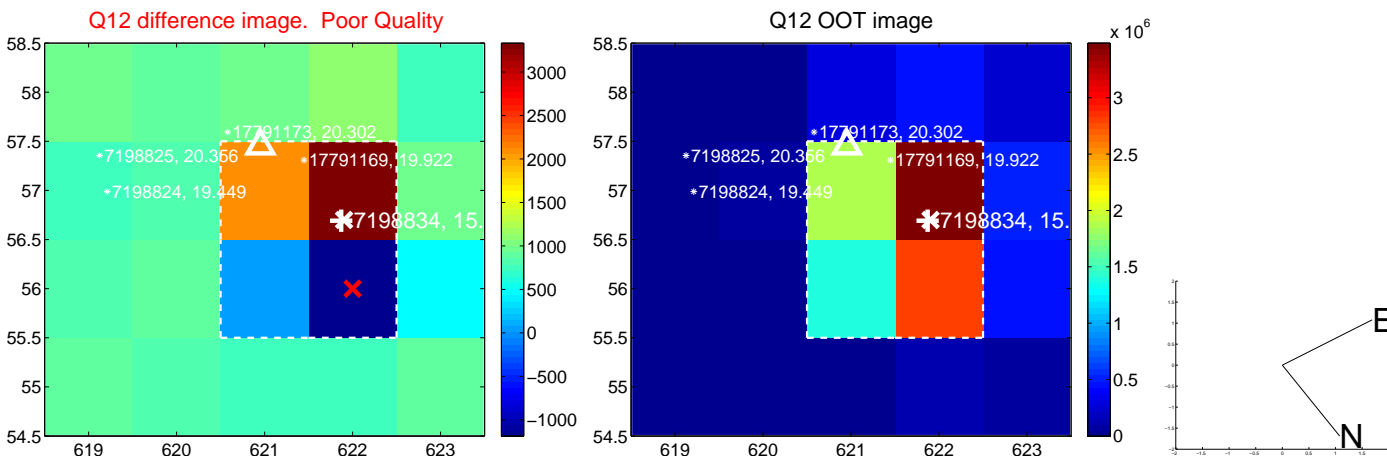
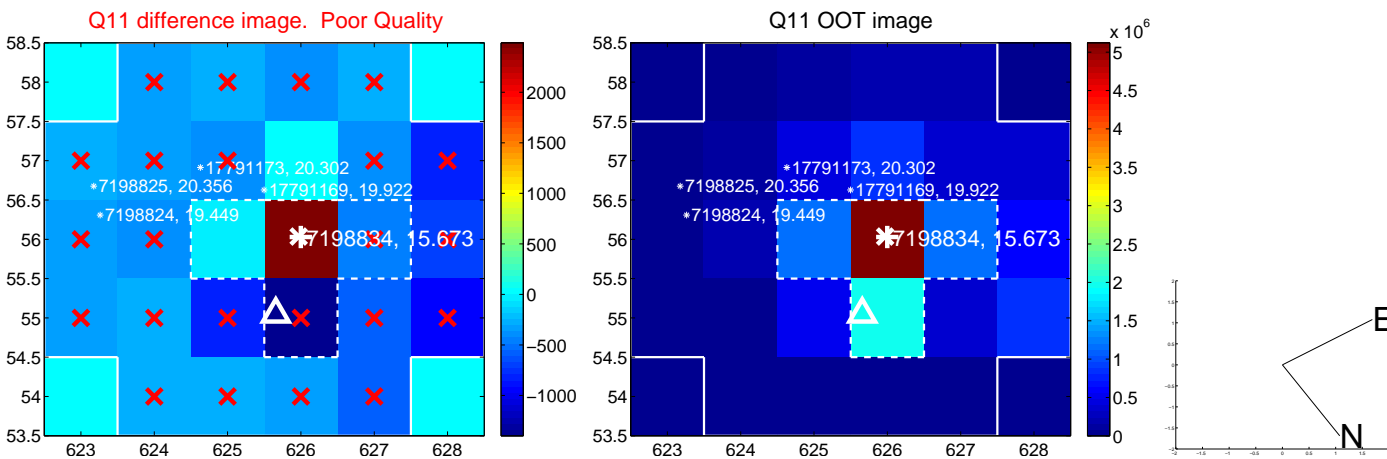
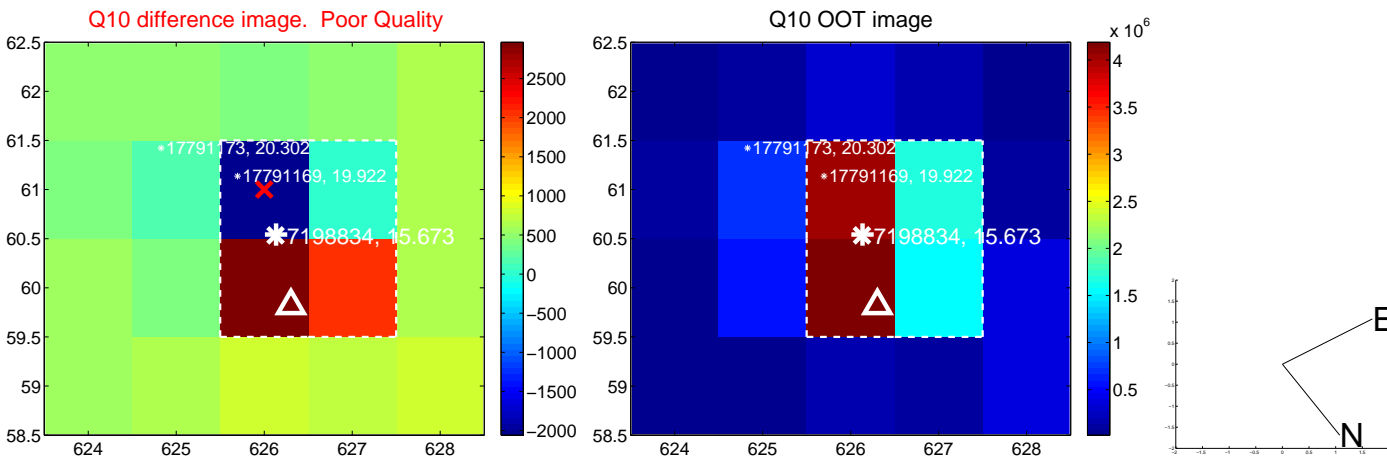
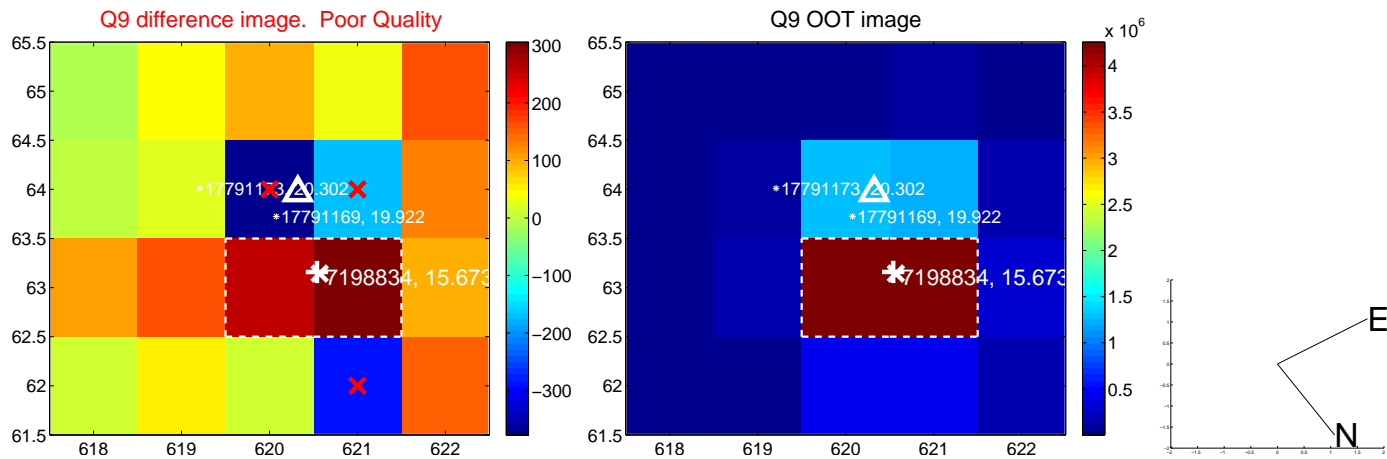
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



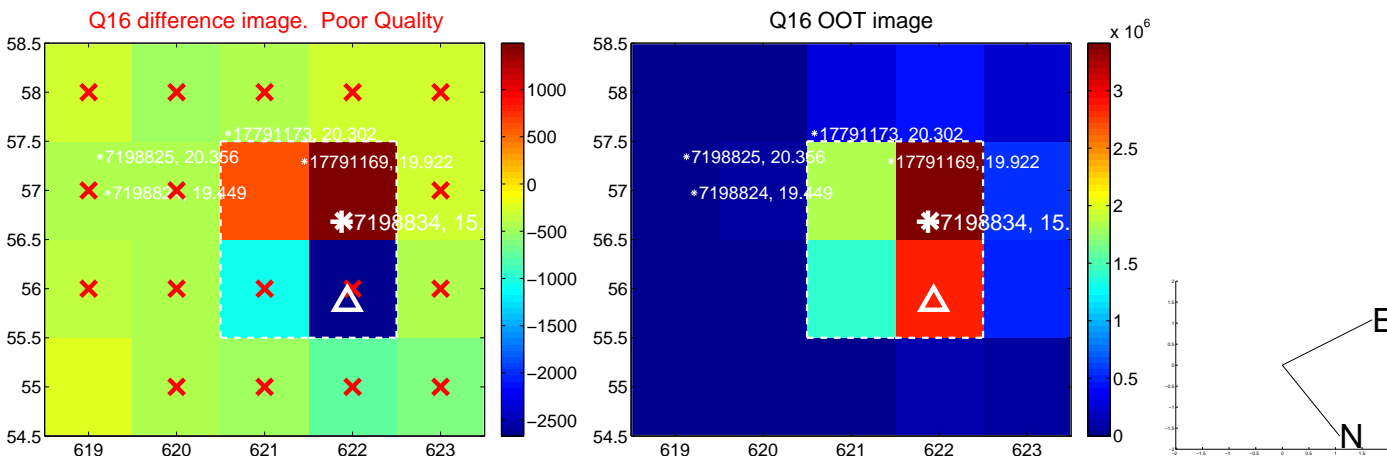
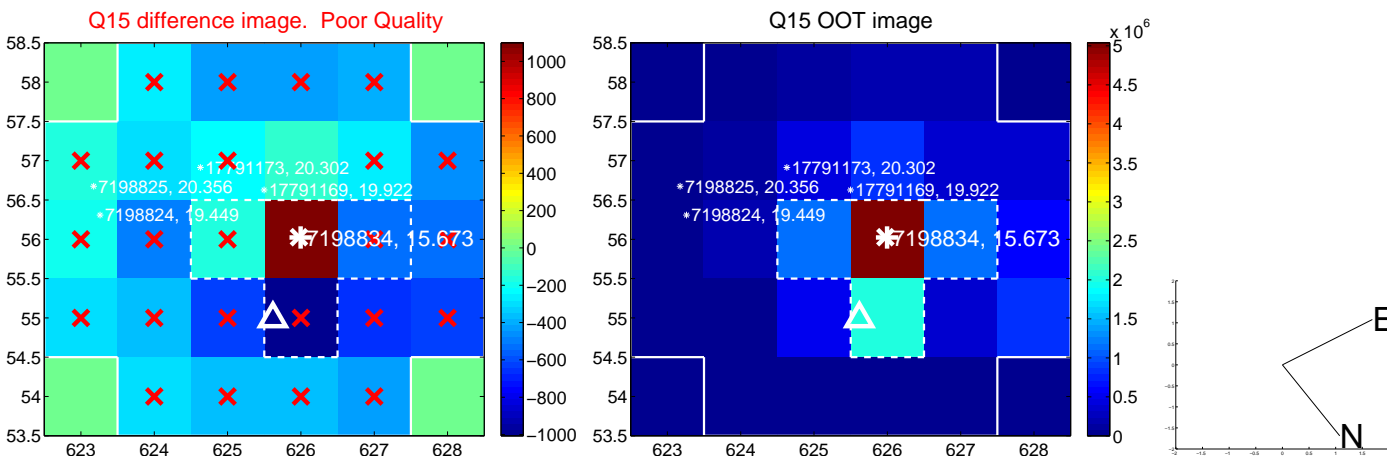
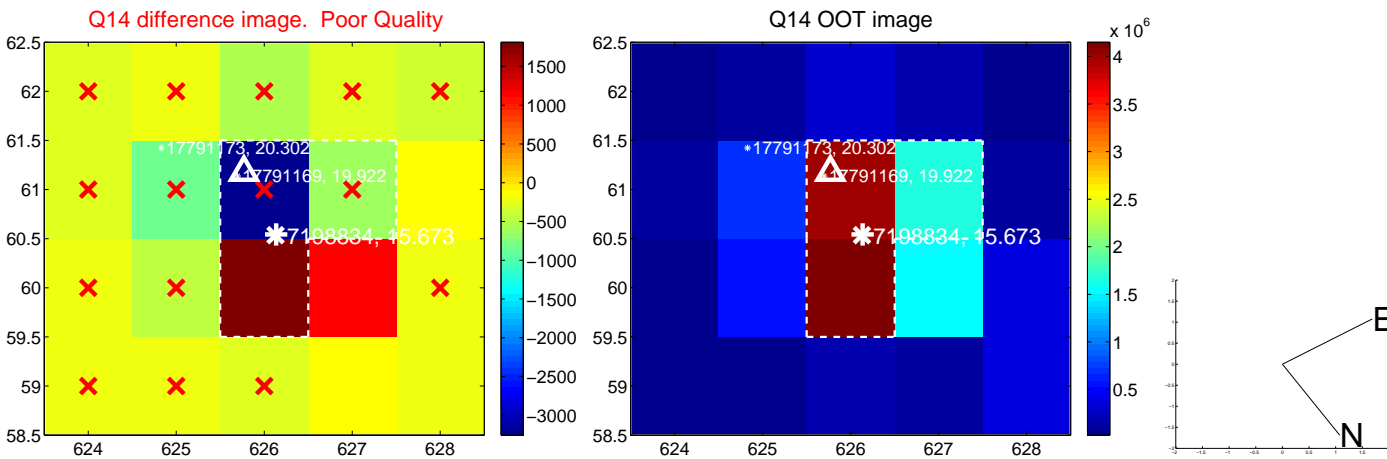
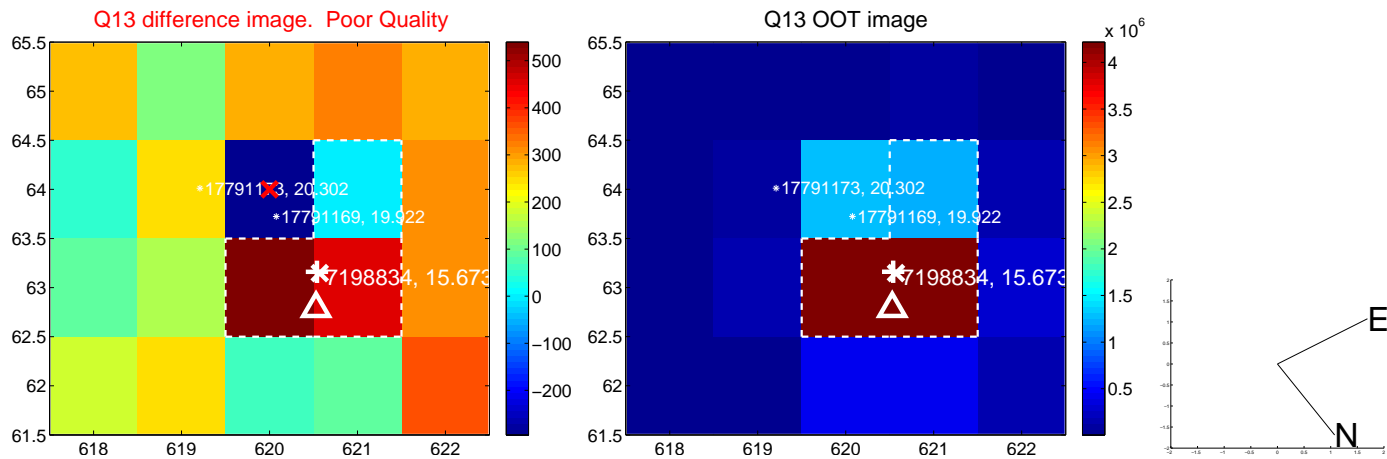
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



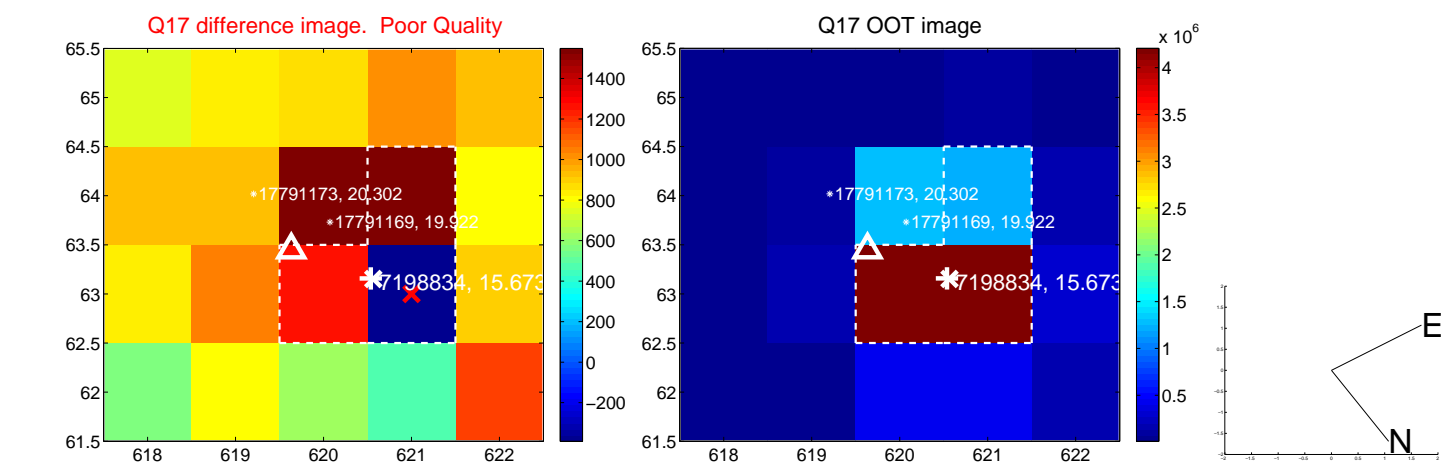
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



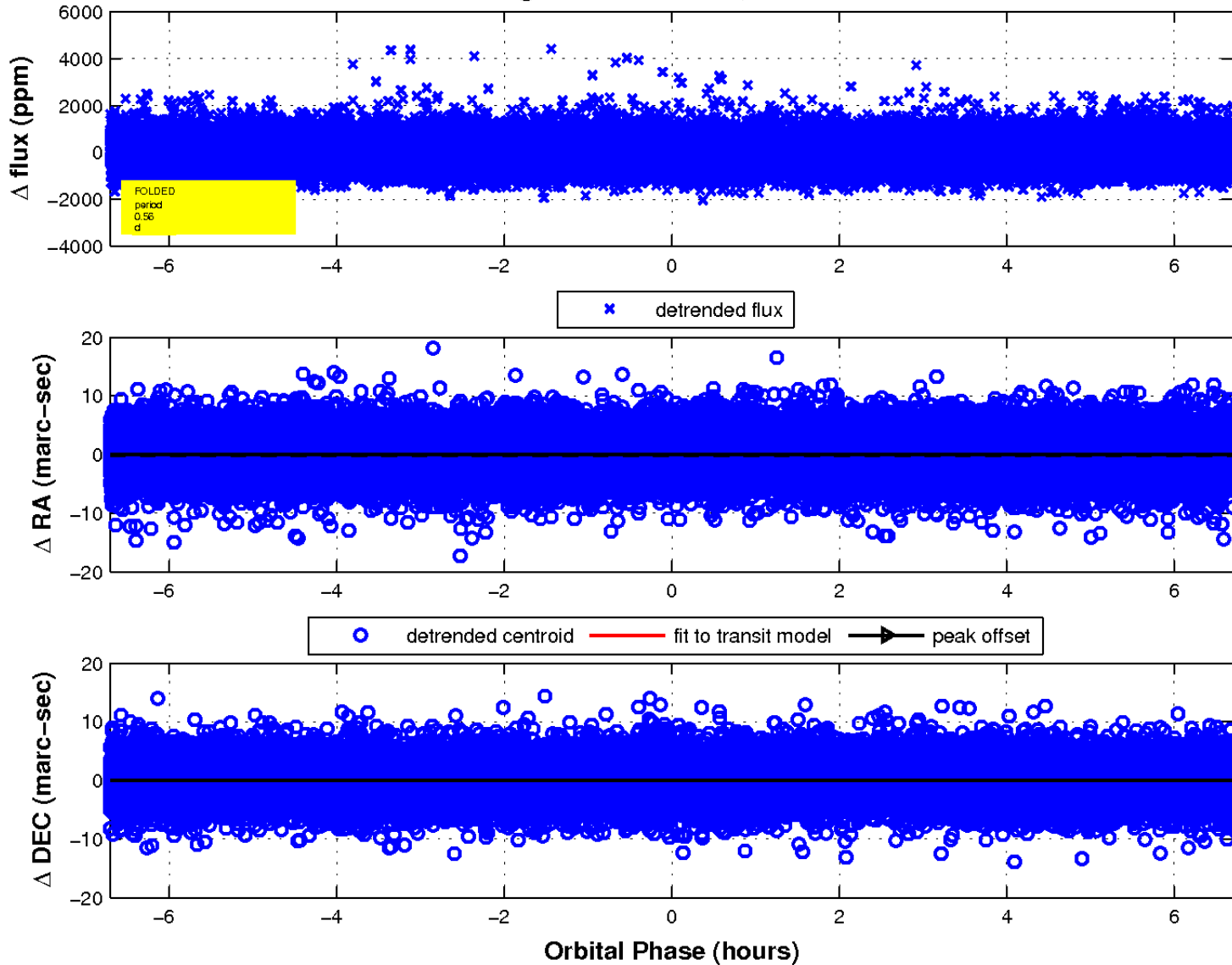
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

