

KIC 005198322

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})
005198322-01	OBS	No	3.642156	134.879253	57.5	22.195	7.4	7.9	0.88	5734	0.73	356.08

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005198322-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

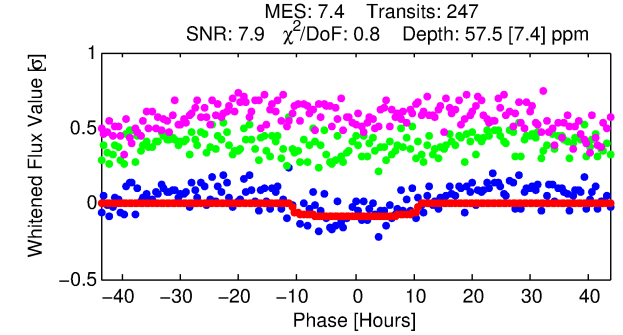
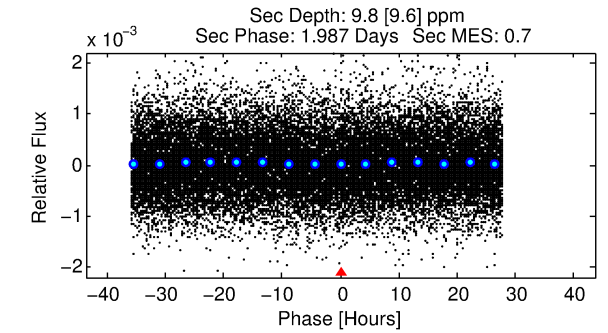
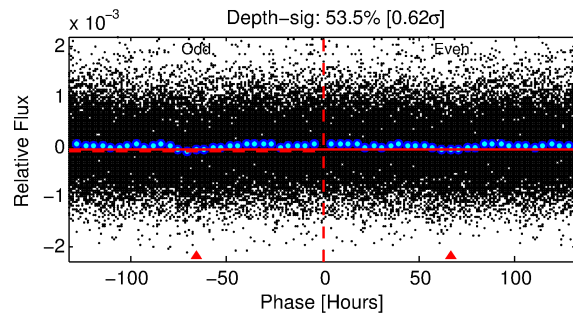
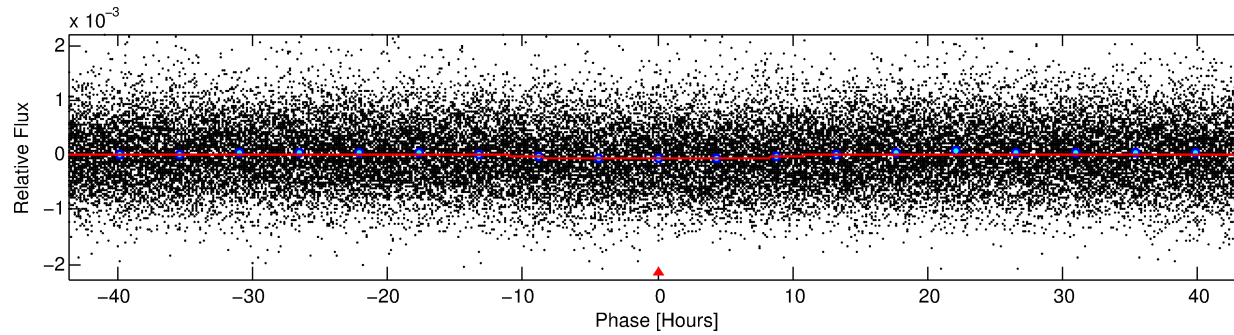
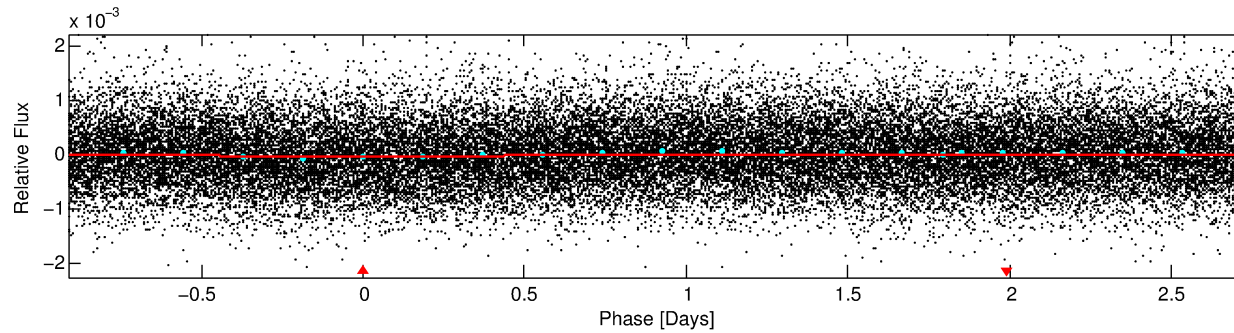
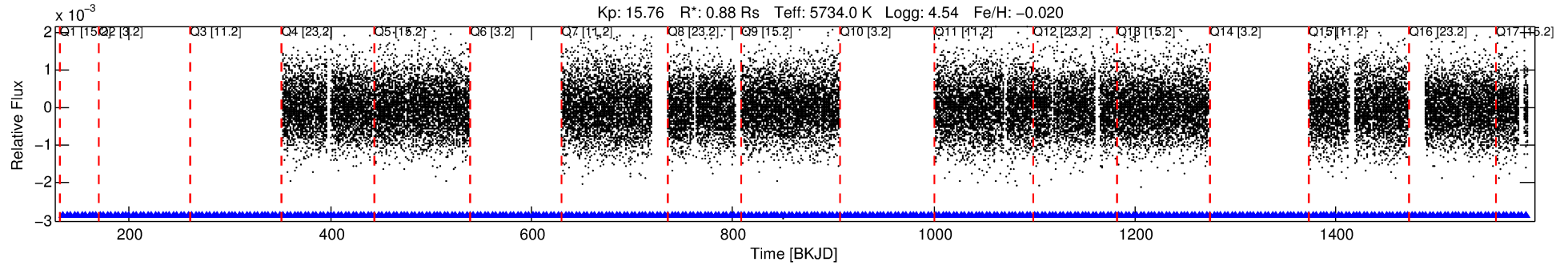
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005198322-01

No Significant Match Found

DV One-Page Summary

KIC: 5198322 Candidate: 1 of 1 Period: 3.642 d



DV Fit Results:

Period = 3.64216 [0.00013] d
Epoch = 134.8793 [0.0279] BKJD
Rp/R* = 0.0076 [0.0044]
a/R* = 1.20 [0.94]
b = 0.76 [1.46]
Seff = 356.09 [130.14]
Teq = 1108 [101] K
Rp = 0.73 [0.47] Re
a = 0.0461 [0.0107] AU
Ag = 21.46 [33.36] [0.61 σ]
Teffp = 3686 [1404] K [1.83 σ]

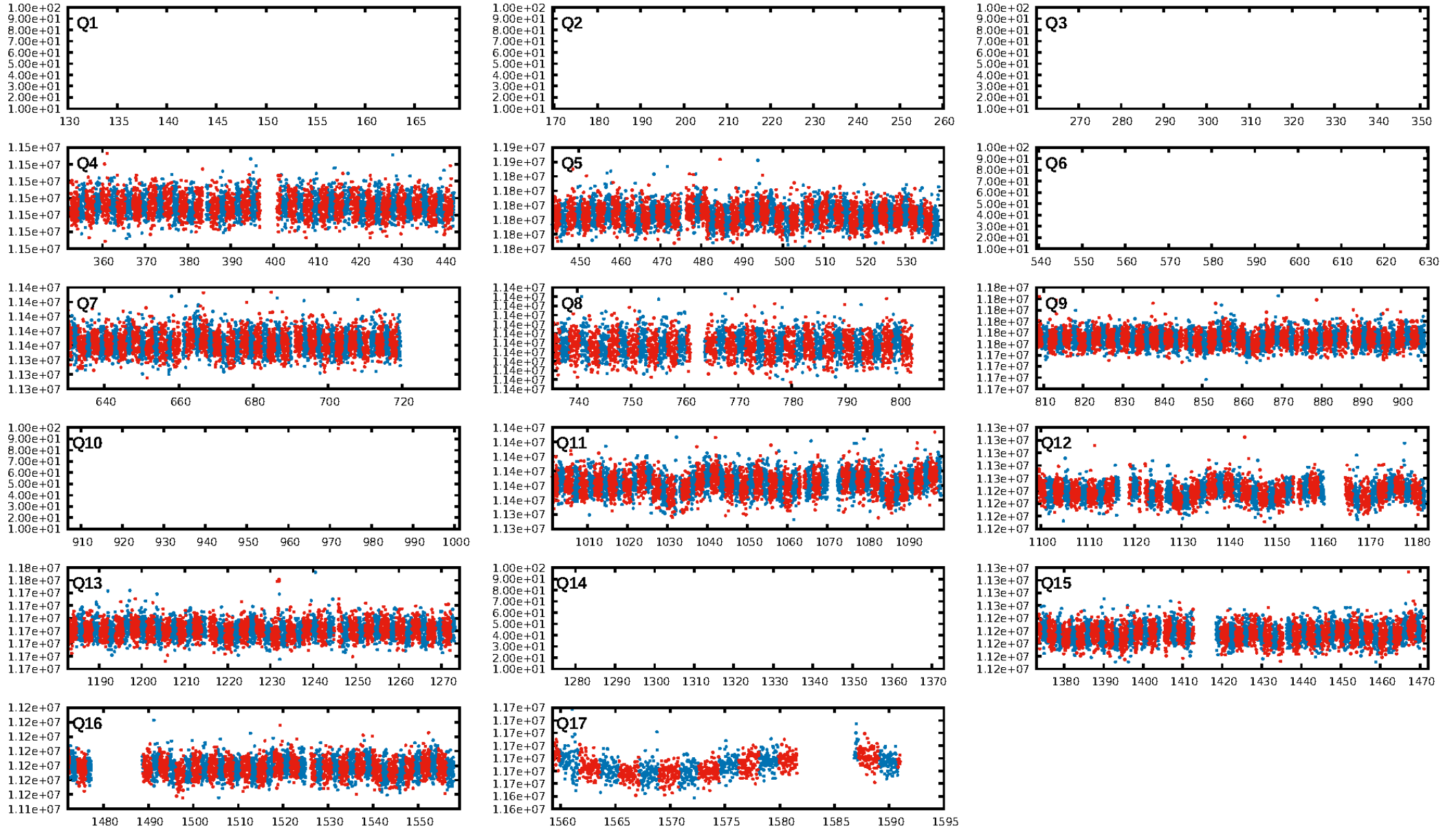
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.22e-16
RollingBand-fgm: 1.00 [239/239]
GhostDiagnostic-chr: -1.724
Centroid-sig: 0.0%
Centroid-so: 16.367 arcsec [6.70 σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [11/11]

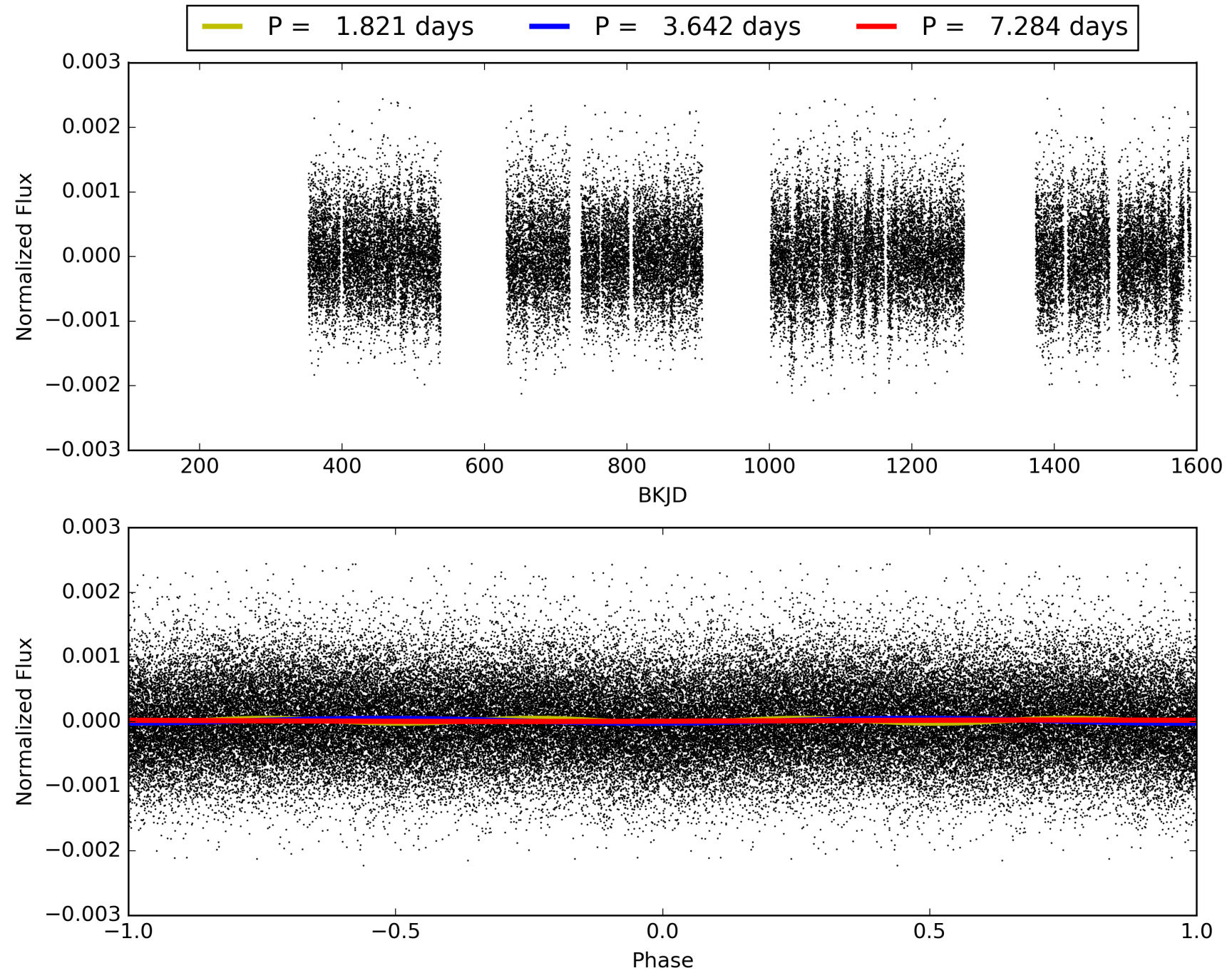
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 19:57:06 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 005198322-01, PDC Light Curves

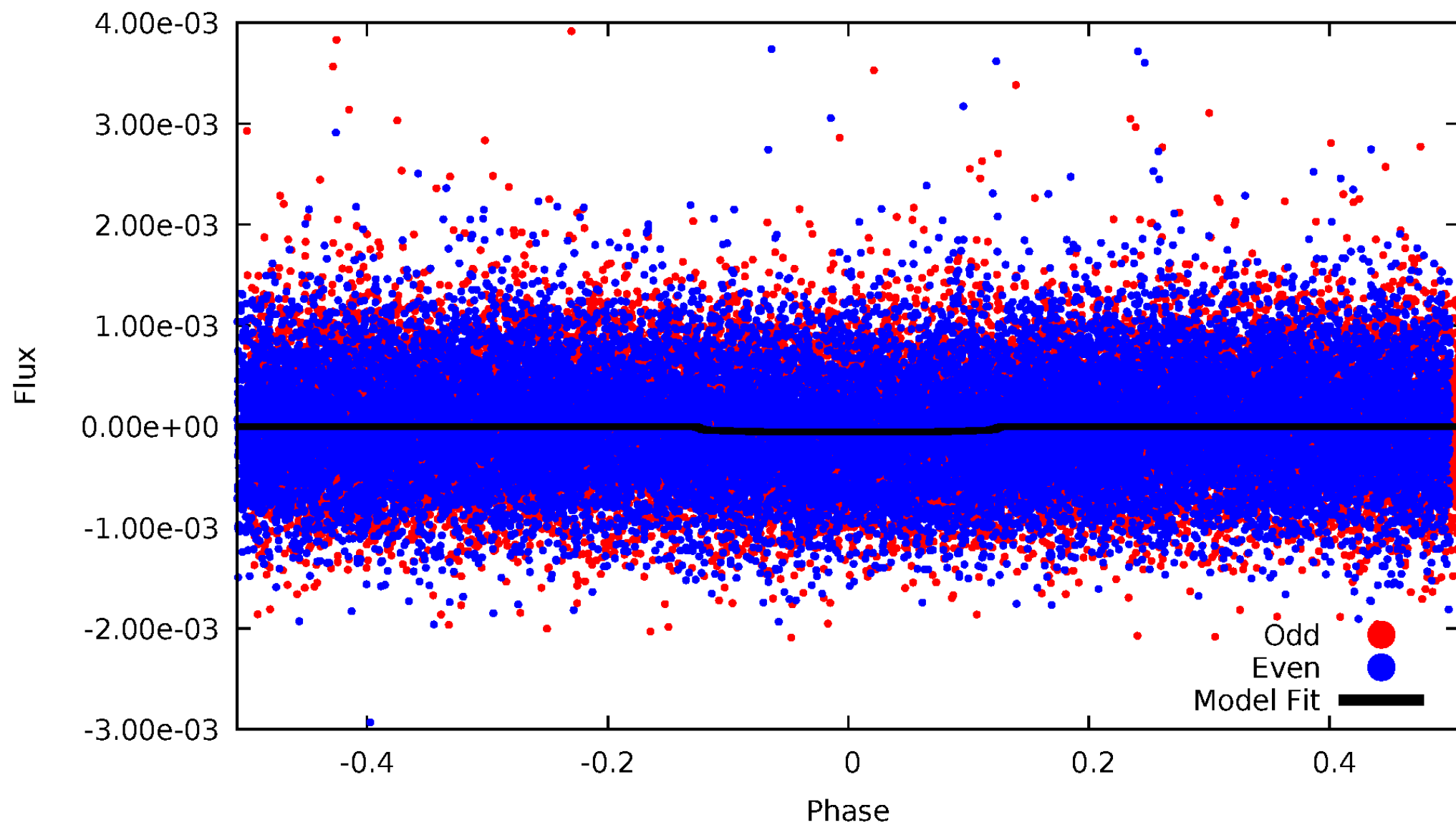


TCE 005198322-01



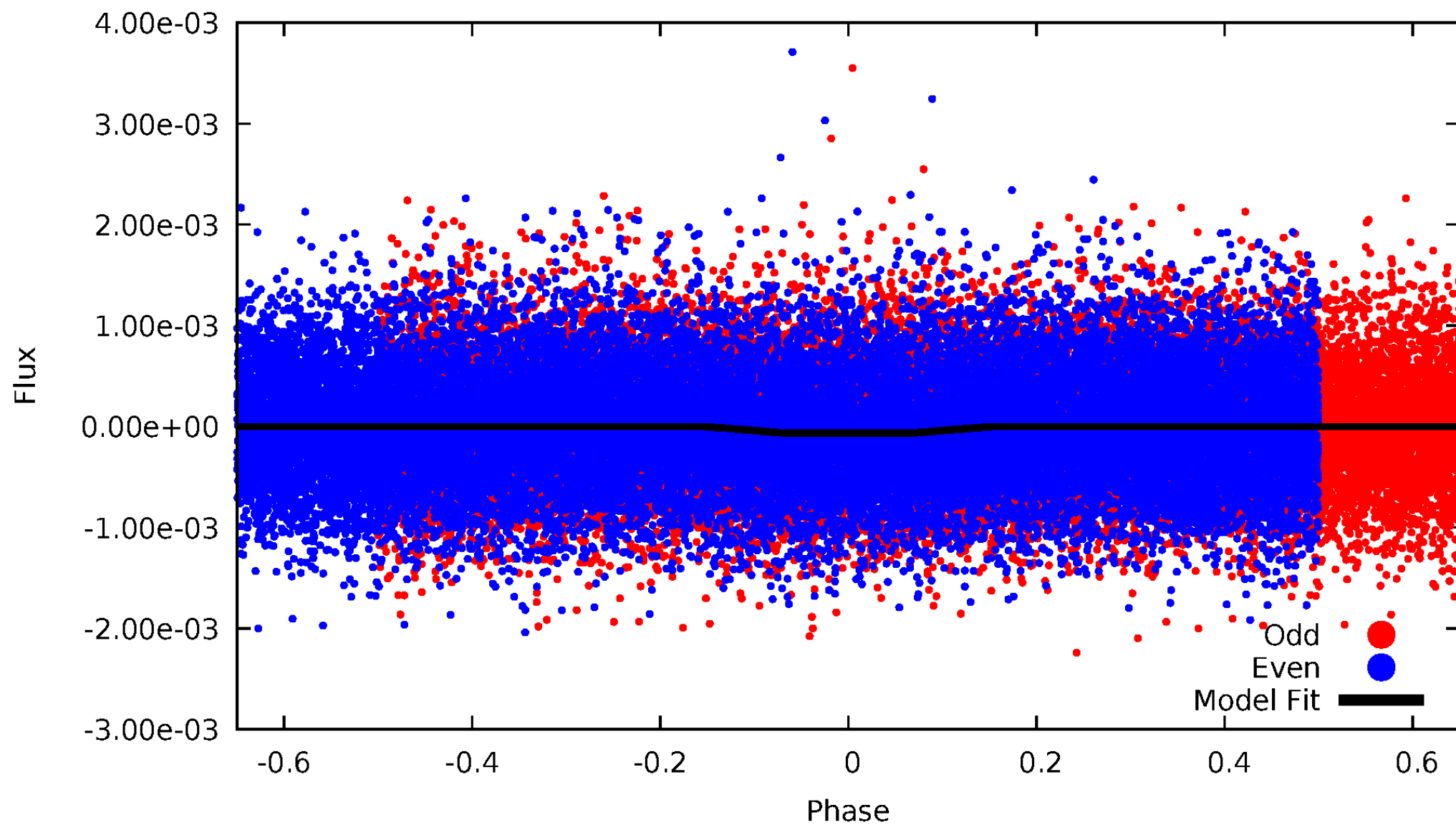
DV Odd/Even

TCE 005198322-01



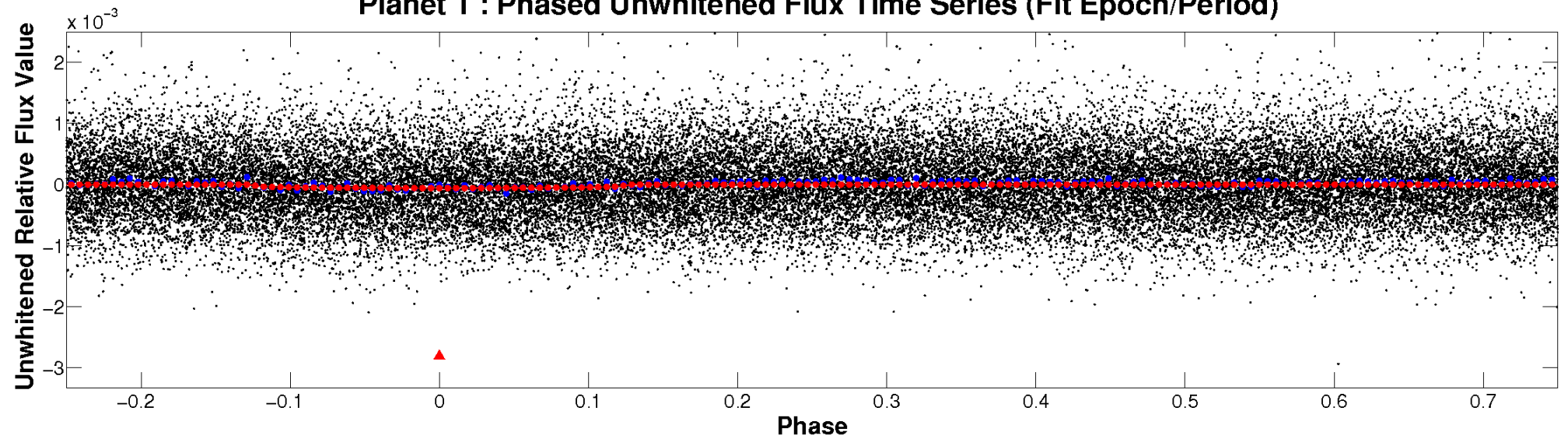
ALT Odd/Even

TCE 005198322-01

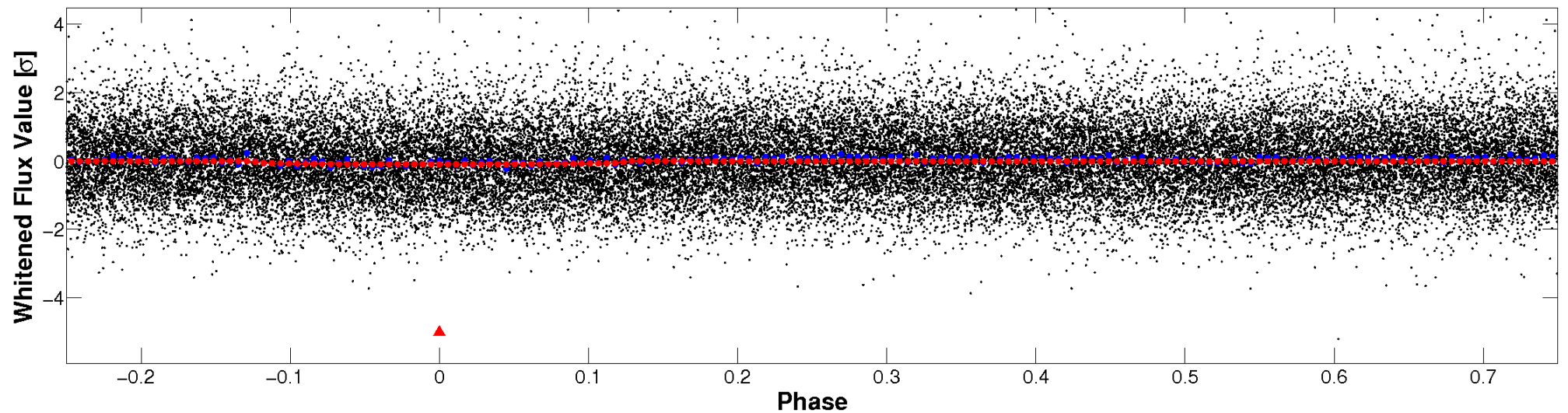


Non-Whitened Vs. Whitened Light Curve

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

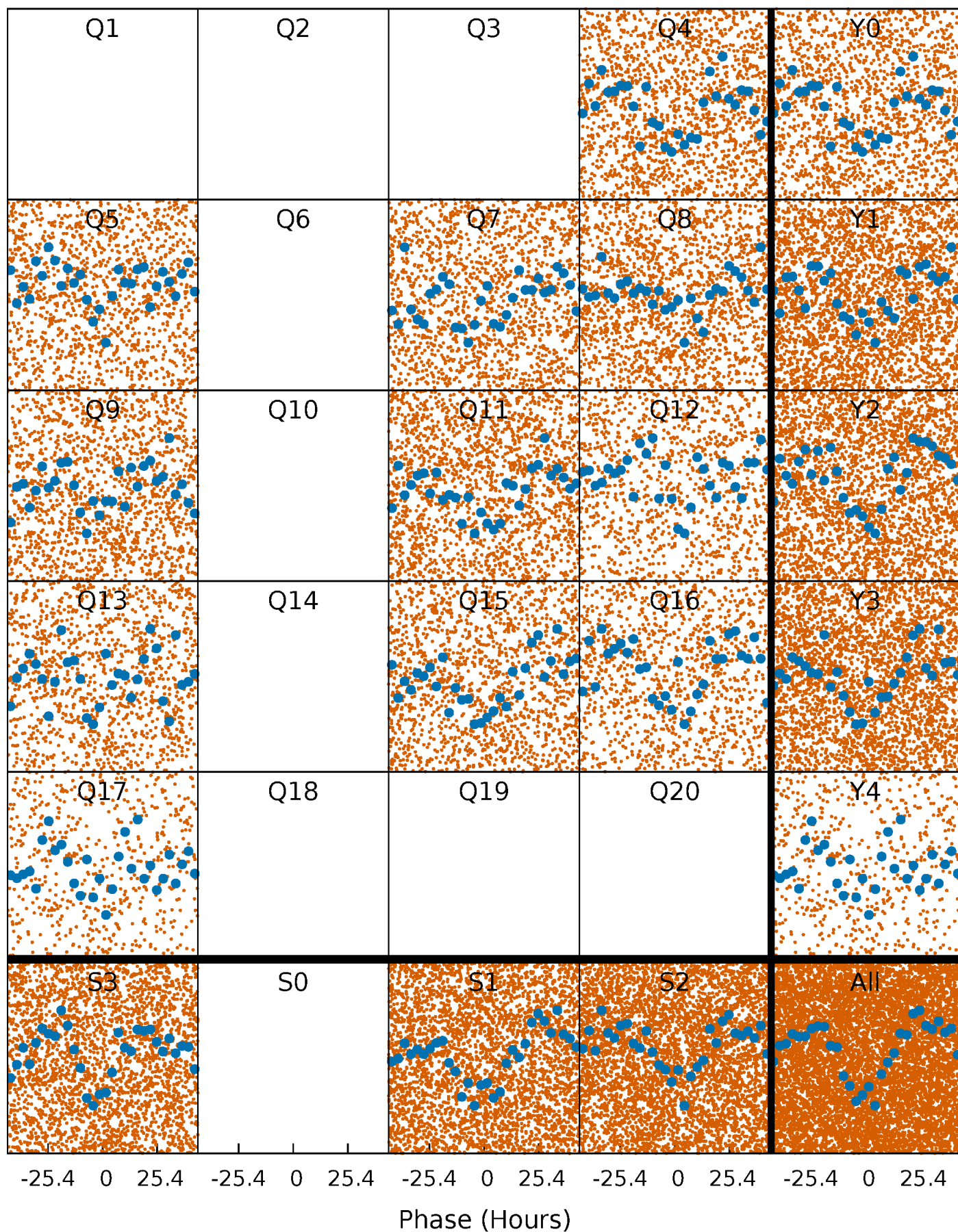


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



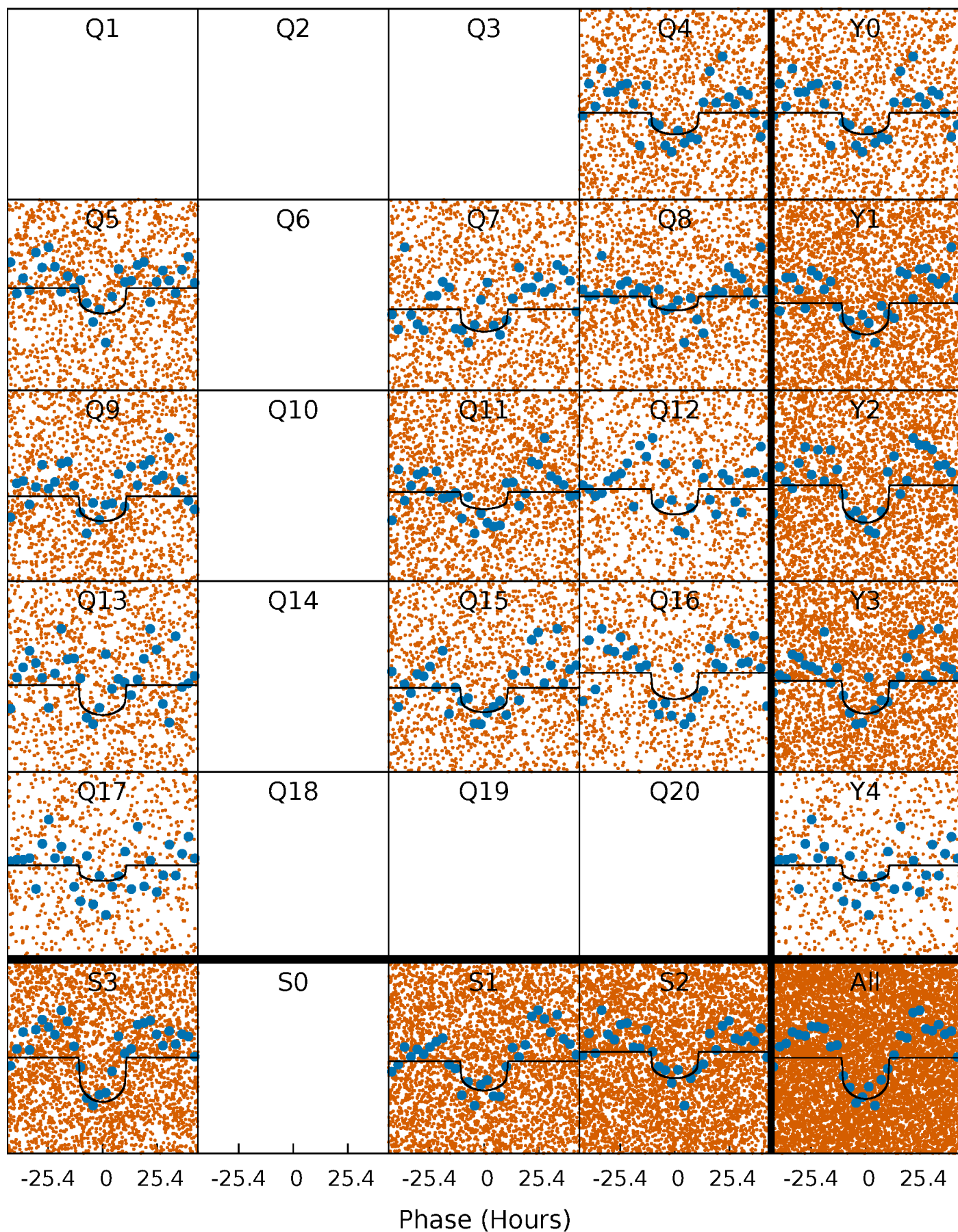
PDC Quarter-Phased Transit Curves

TCE 005198322-01 P= 3.642156 Days $T_0=134.879254$ (BKJD)



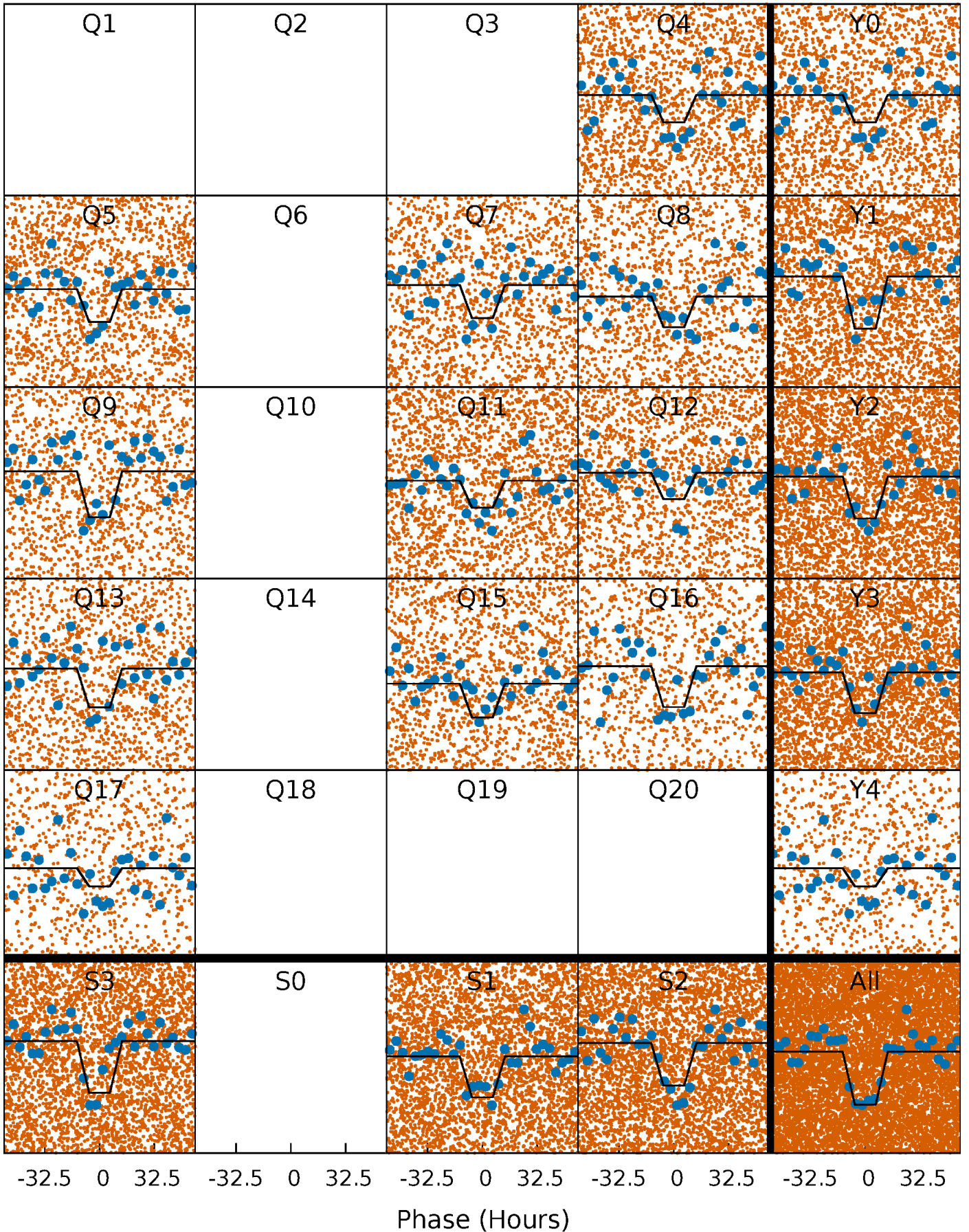
DV Quarter-Phased Transit Curves

TCE 005198322-01 P= 3.642156 Days $T_0=134.879254$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

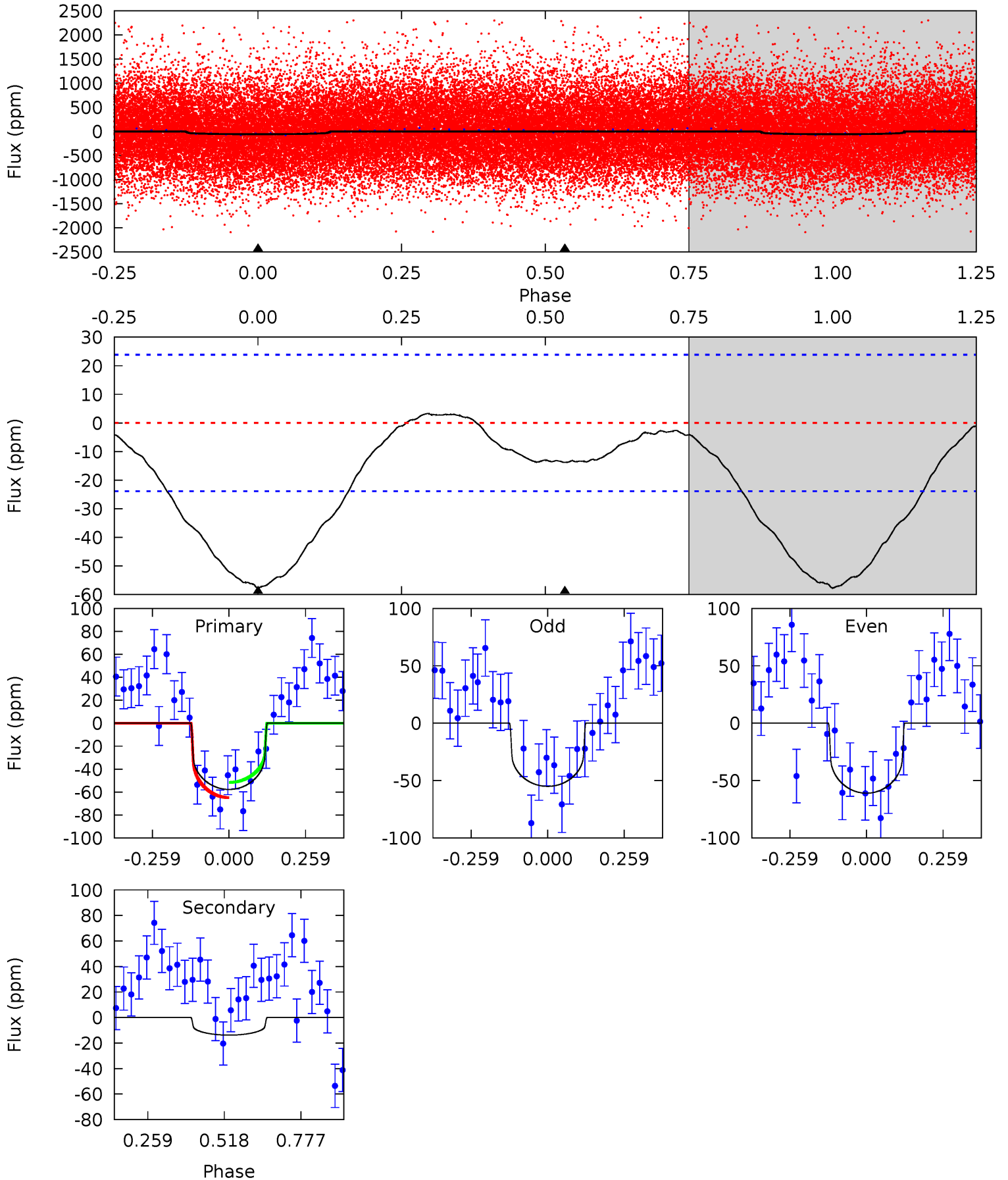
TCE 005198322-01 P= 3.641726 Days $T_0=134.982218$ (BKJD)



DV Model-Shift Uniqueness Test

005198322-01, P = 3.642156 Days, E = 134.879254 Days

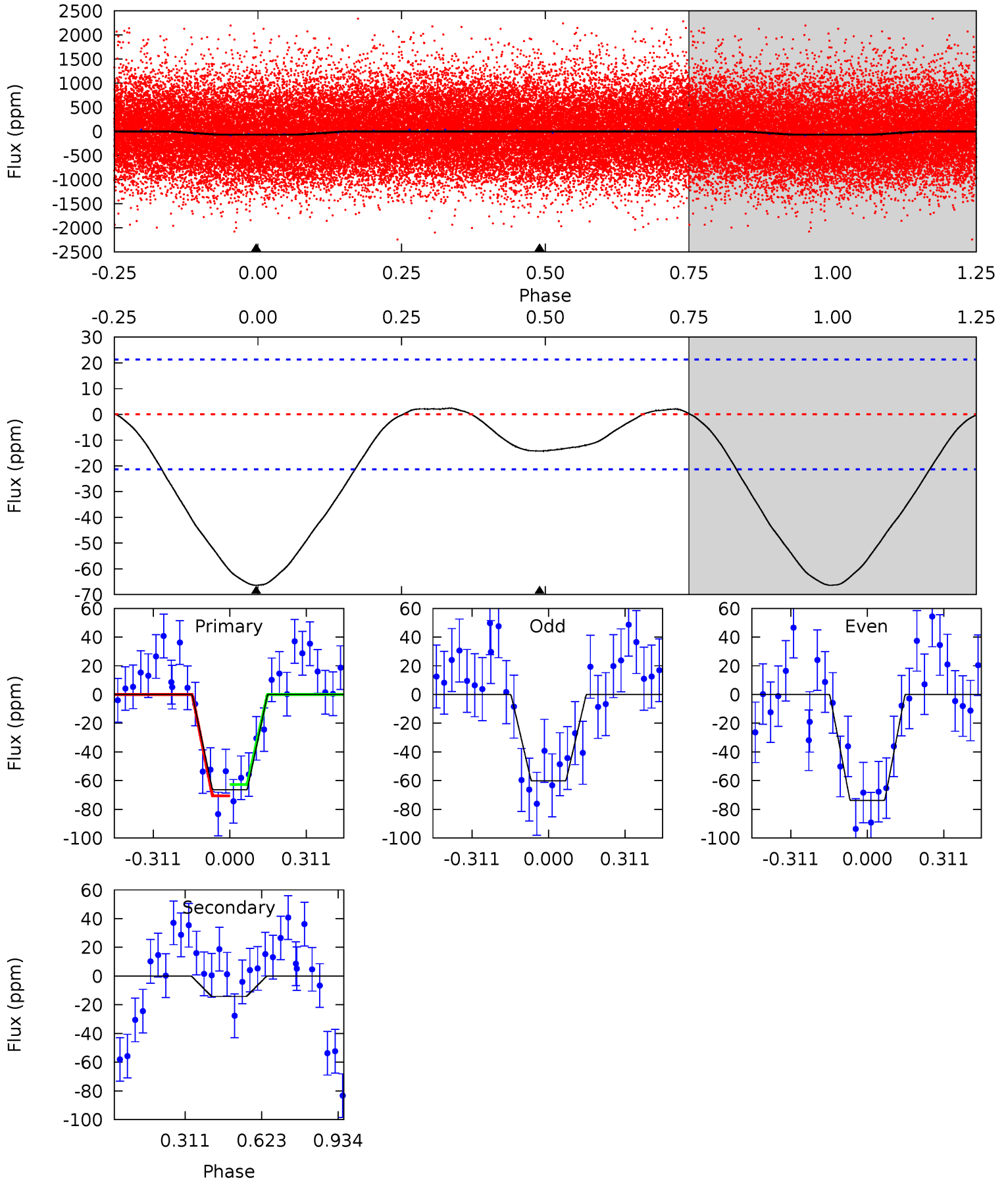
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.5	2.52	0	0	4.36	1.13	0.65	10.5	10.5	2.52	2.52	0.54	0.88	0.05	1.20



Alt Model-Shift Uniqueness Test

005198322-01, P = 3.641726 Days, E = 134.982218 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.4	2.89	0	0	4.32	1.01	0.38	13.4	13.4	2.89	2.89	1.38	0.90	0.04	0.80



Stellar Parameters For KIC 005198322

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	5734^{+182}_{-202}	$4.538^{+0.046}_{-0.184}$	$-0.020^{+0.250}_{-0.300}$	$0.883^{+0.244}_{-0.081}$	$0.982^{+0.102}_{-0.125}$	$2.009^{+0.373}_{-0.991}$
	+3%/-4%	+1%/-4%	+1250%/-1500%	+28%/-9%	+10%/-13%	+19%/-49%
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 005198322-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-14 ± 5	$0.78^{+0.43}_{-0.42}$	1577^{+101}_{-79}	4173^{+1716}_{-716}	25^{+91}_{-17}
Alt.	-14 ± 5	$0.82^{+0.45}_{-0.43}$	1577^{+107}_{-79}	4125^{+1463}_{-643}	23^{+82}_{-15}

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 $A_{obs} \gg 1.0$

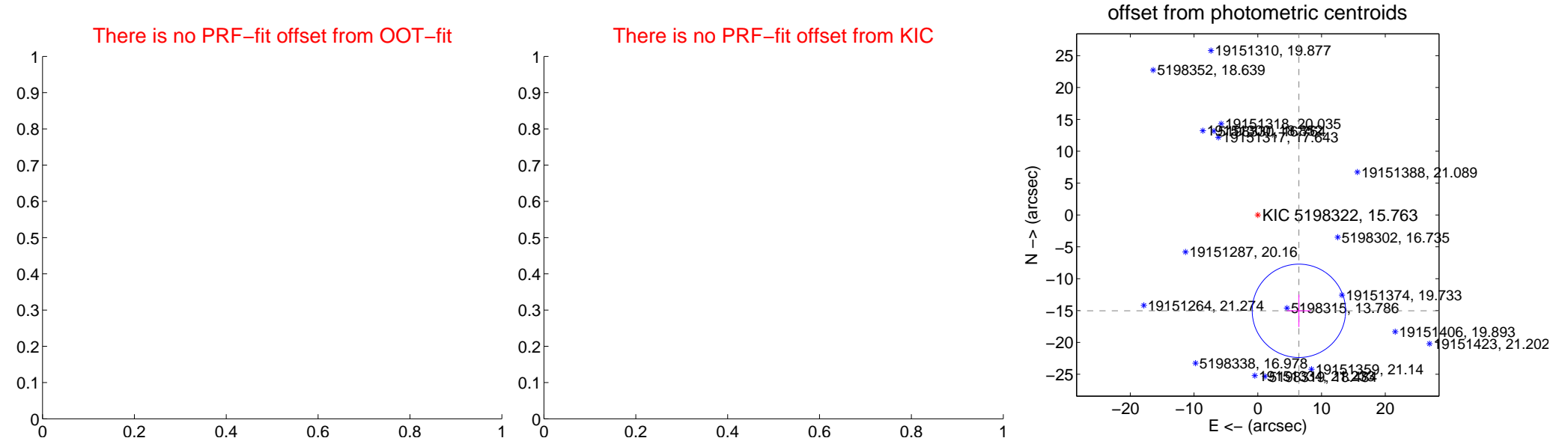
DV Centroid Data

Supplemental centroid analysis for 005198322-01. Kepler magnitude: 15.76. Transit SNR 7.88

There are 0 quarters with good PRF difference image offsets

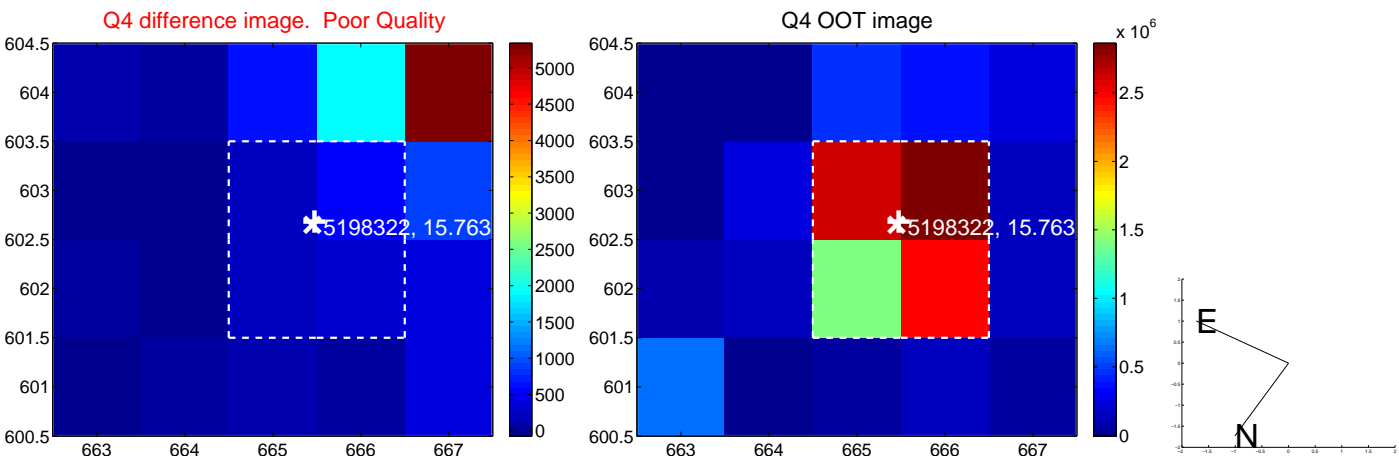
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	16.37 ± 2.44	6.70	-6.45 ± 1.87	-15.04 ± 2.53

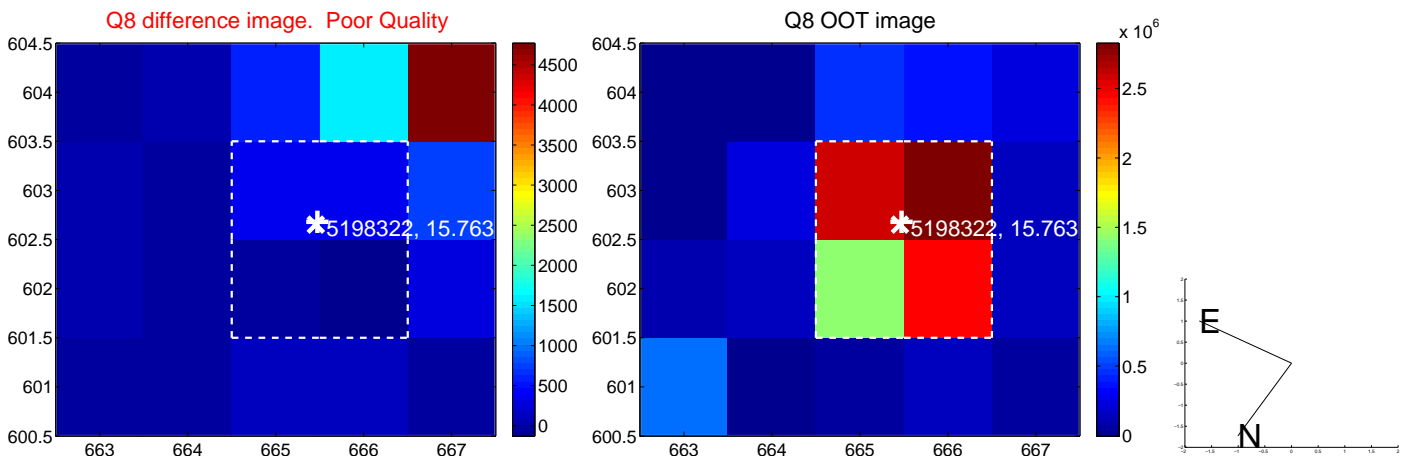
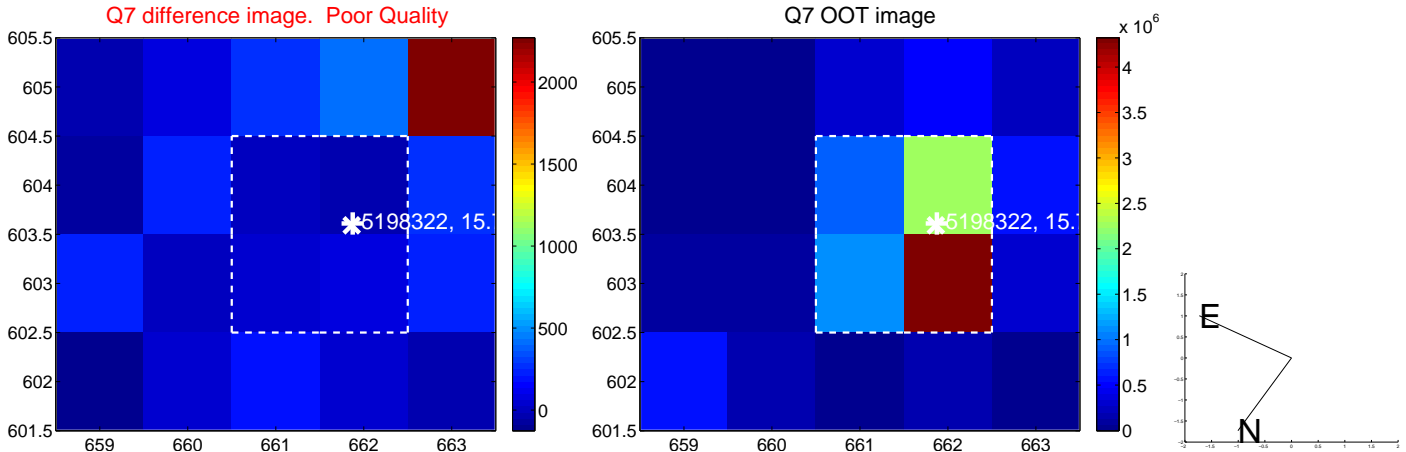
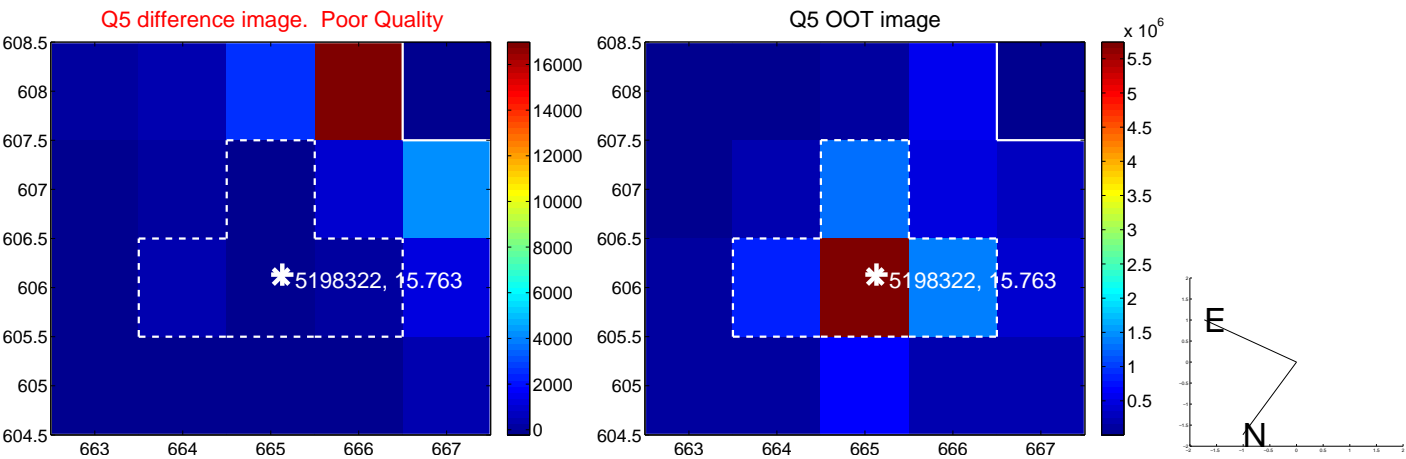


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

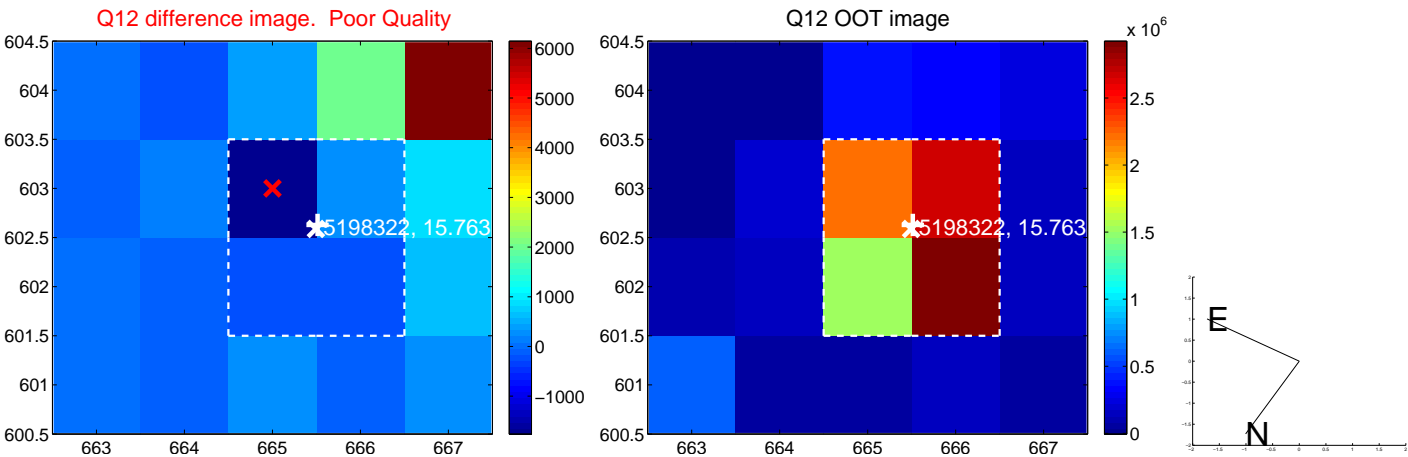
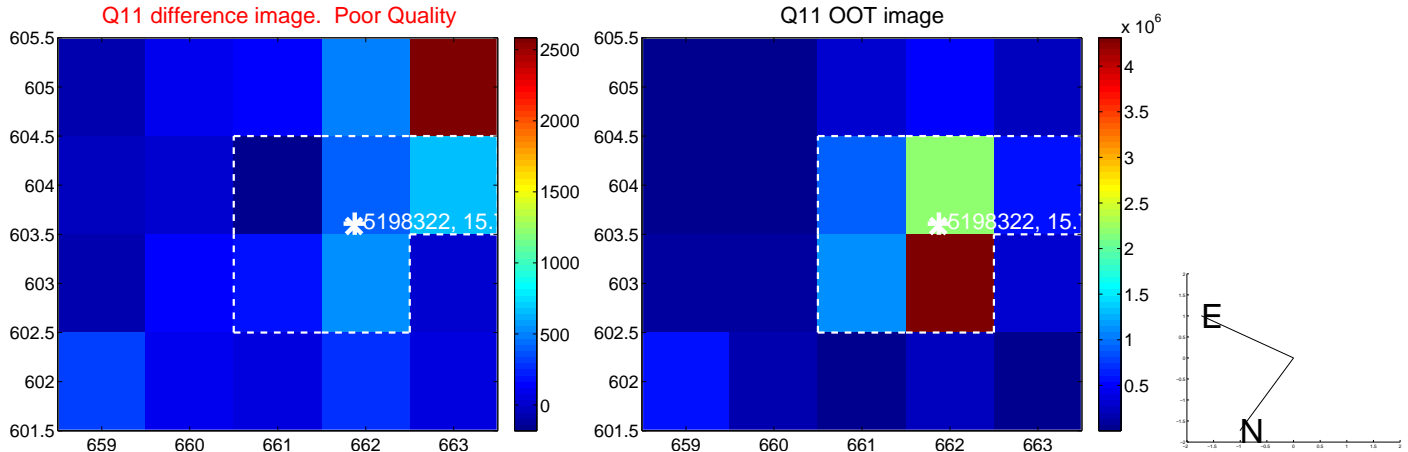
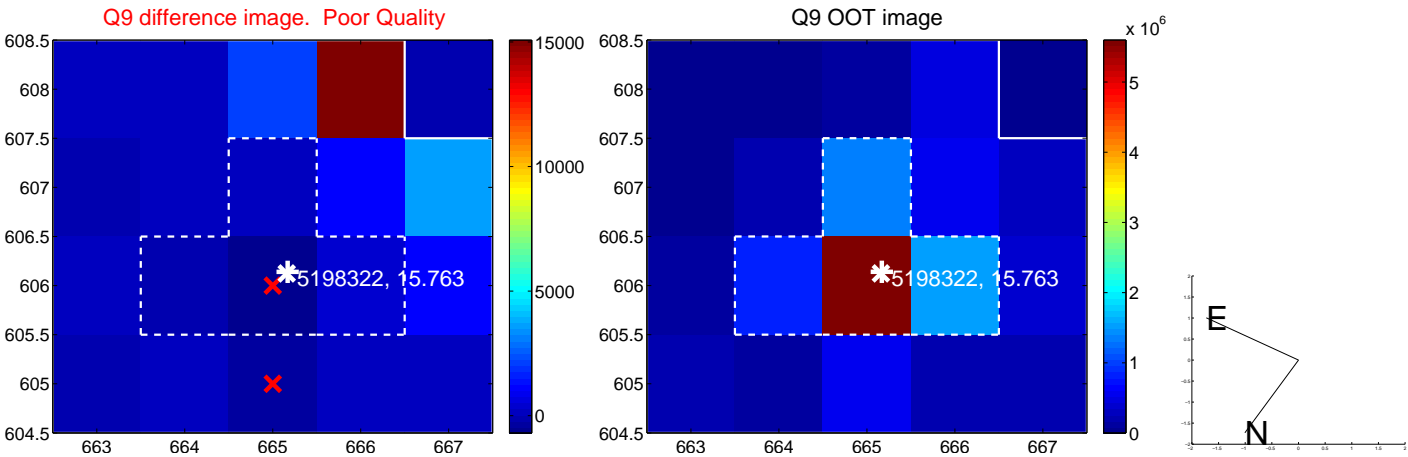
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



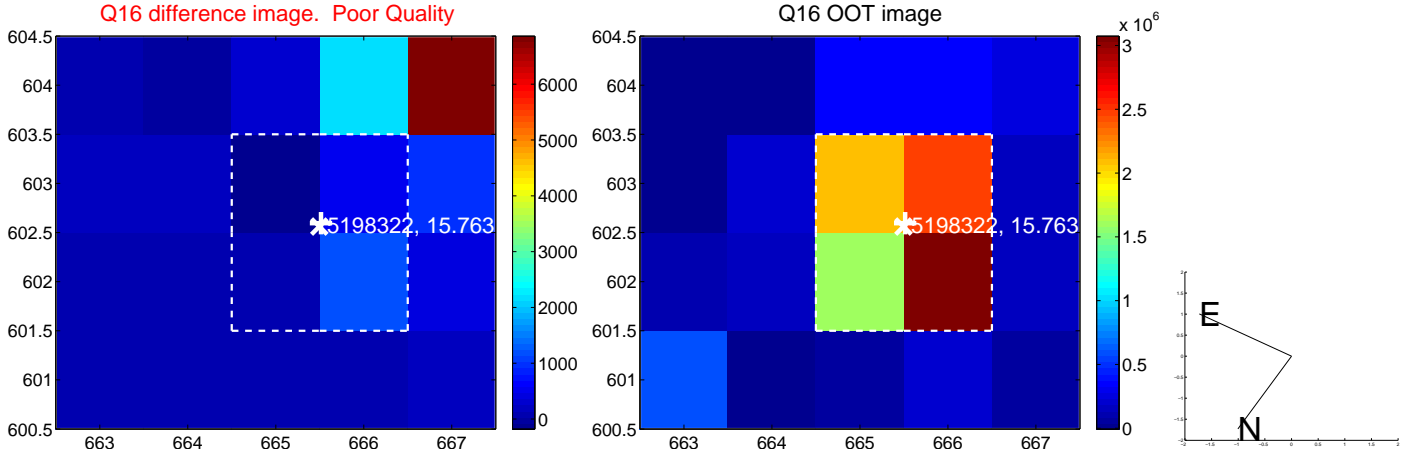
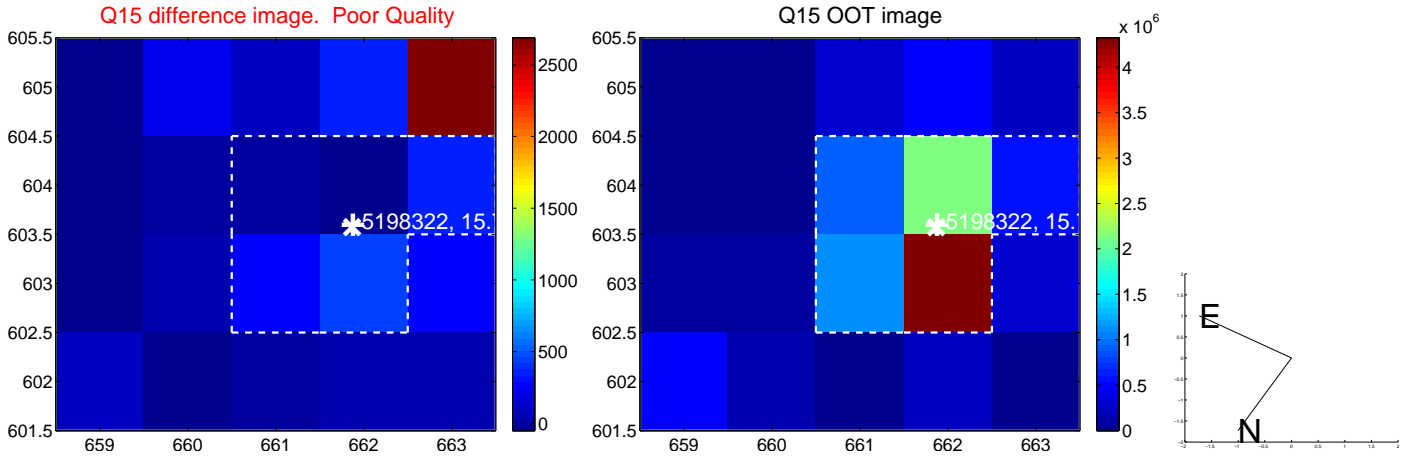
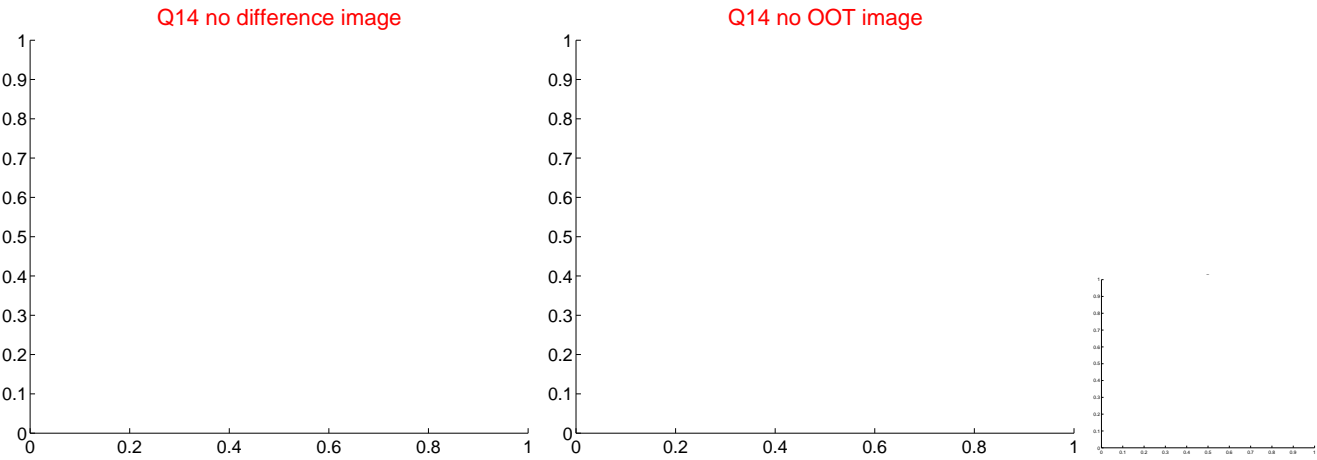
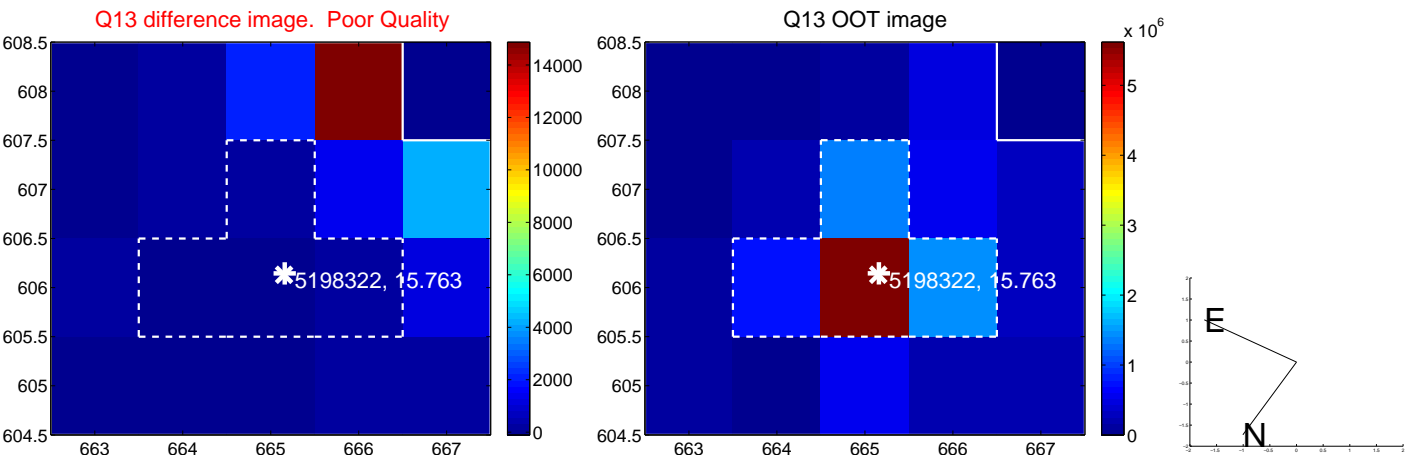
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



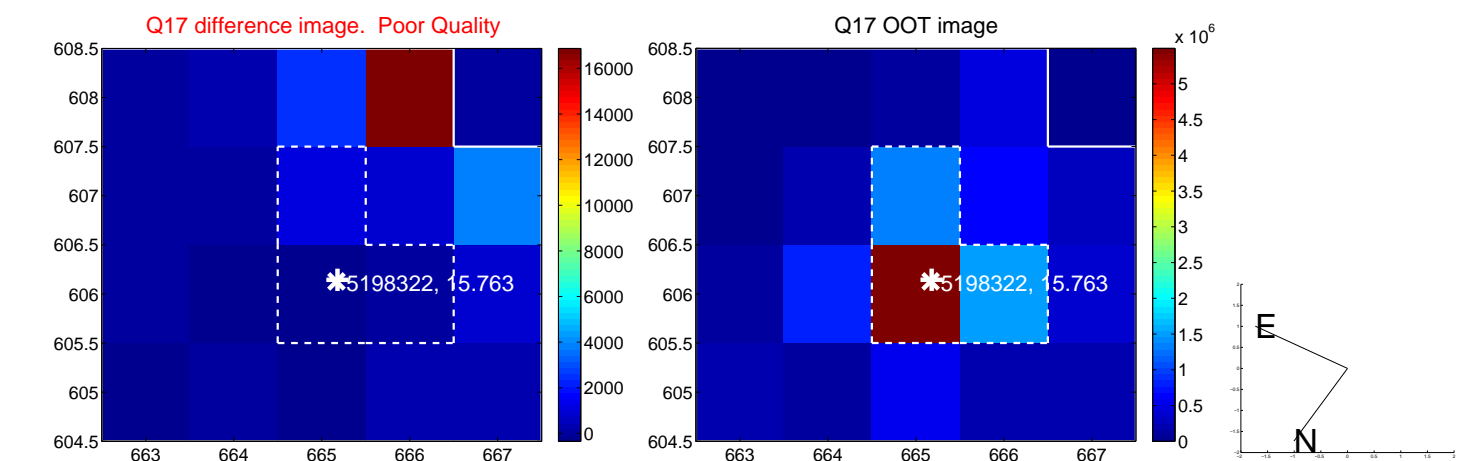
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



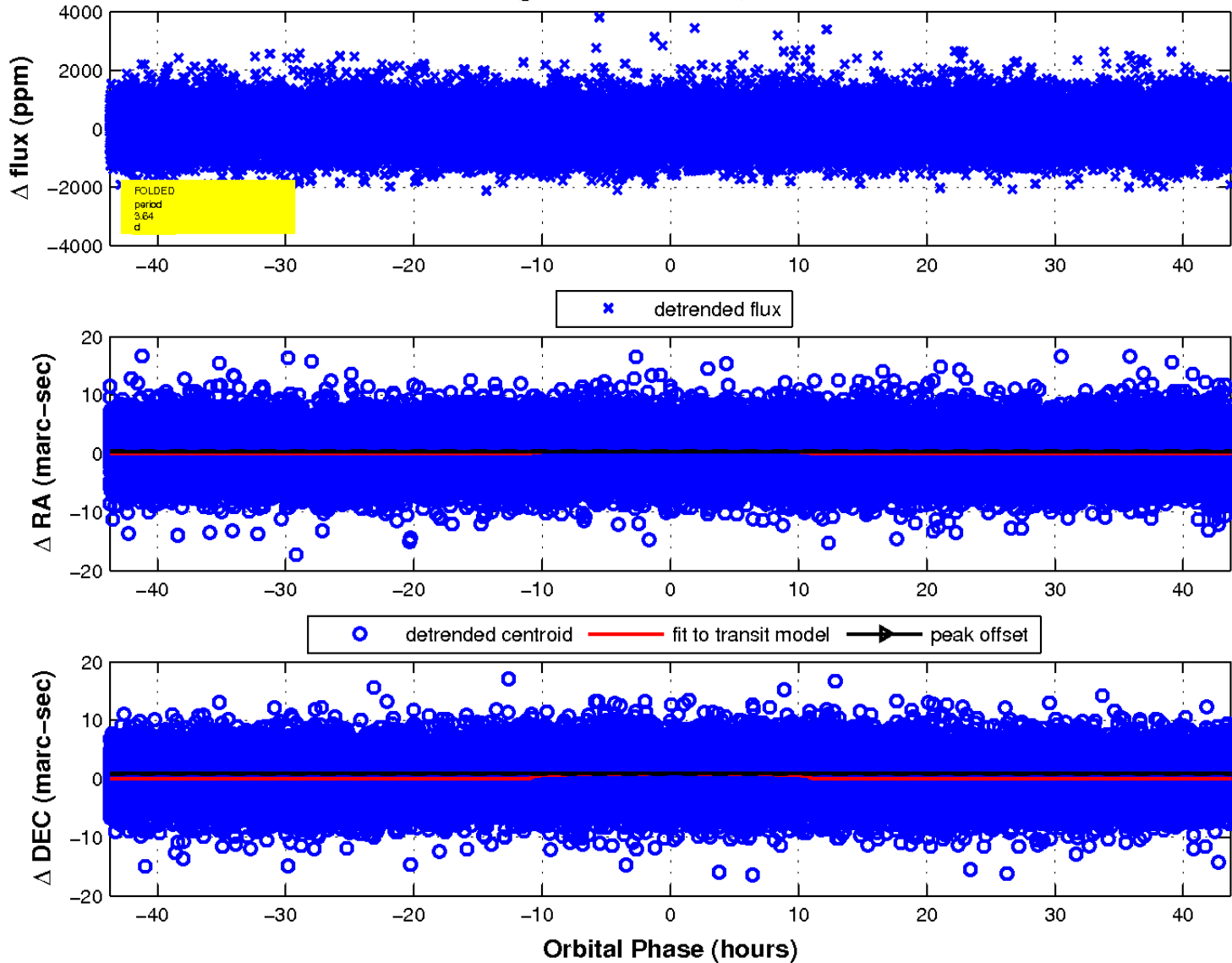
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

