

KIC 003862244

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})
003862244-01	OBS	No	4.465148	132.153550	14.9	33.058	8.5	8.1	2.53	8132	1.03	5537.53

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003862244-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—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.

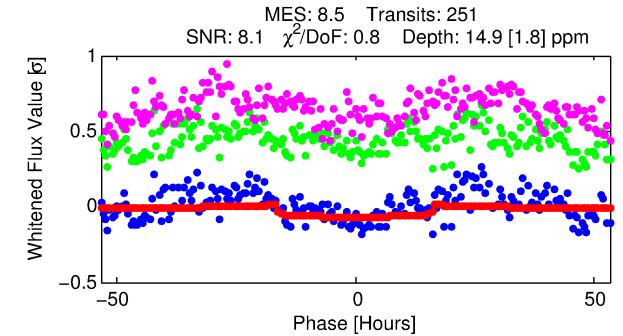
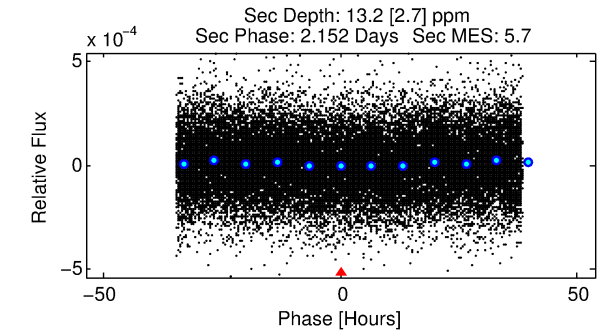
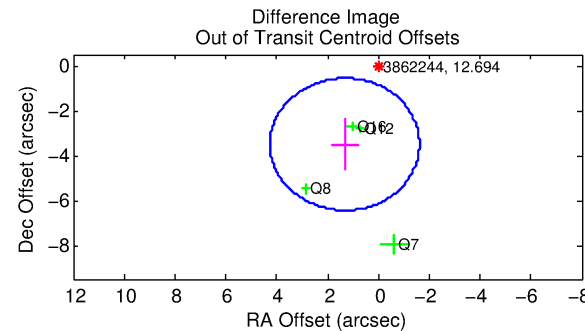
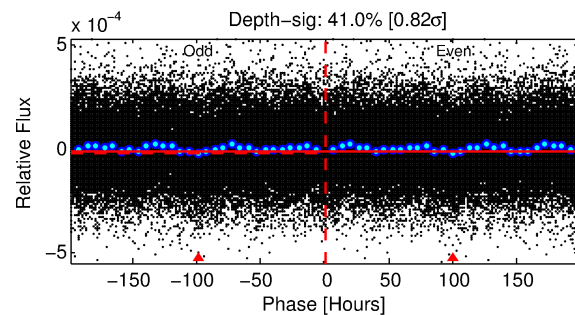
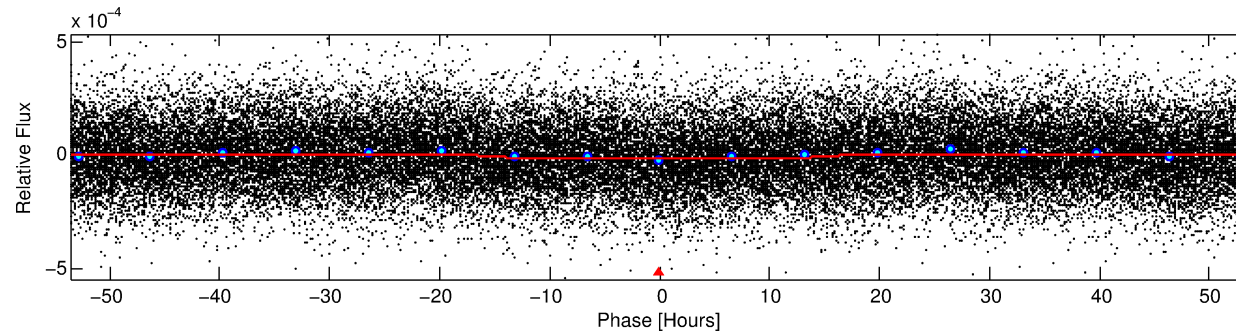
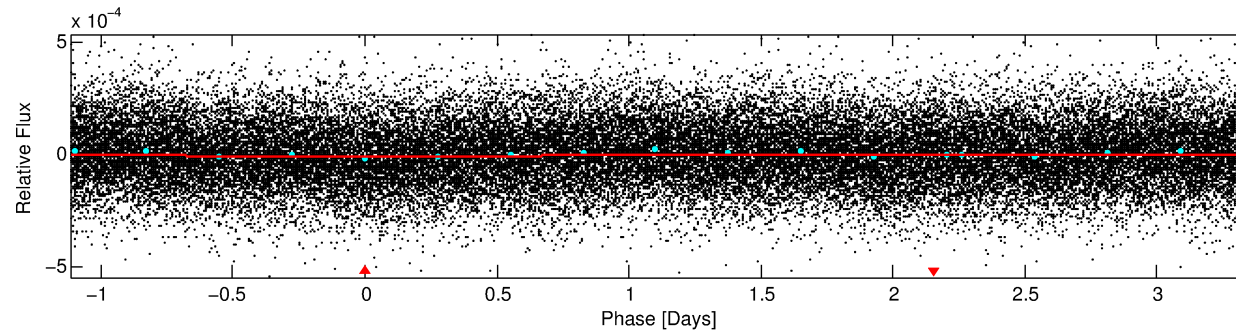
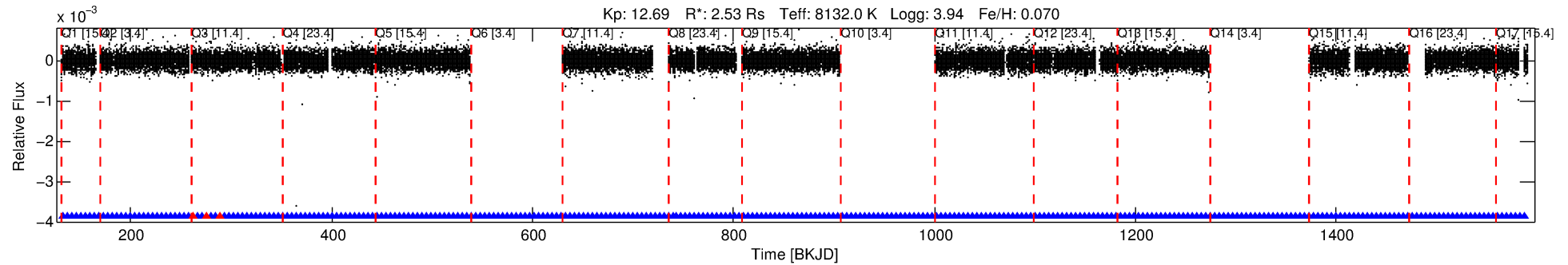
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003862244-01

No Significant Match Found

DV One-Page Summary

KIC: 3862244 Candidate: 1 of 1 Period: 4.465 d



DV Fit Results:

Period = 4.46515 [0.00014] d
Epoch = 132.1535 [0.0216] BKJD
Rp/R* = 0.0037 [0.0021]
a/R* = 1.15 [0.90]
b = 0.60 [3.54]
Seff = 5537.53 [2482.62]
Teq = 2200 [247] K
Rp = 1.03 [0.66] Re
a = 0.0673 [0.0186] AU
Ag = 31.24 [37.81] [0.80 σ]
Teffp = 8041 [2308] K [2.52 σ]

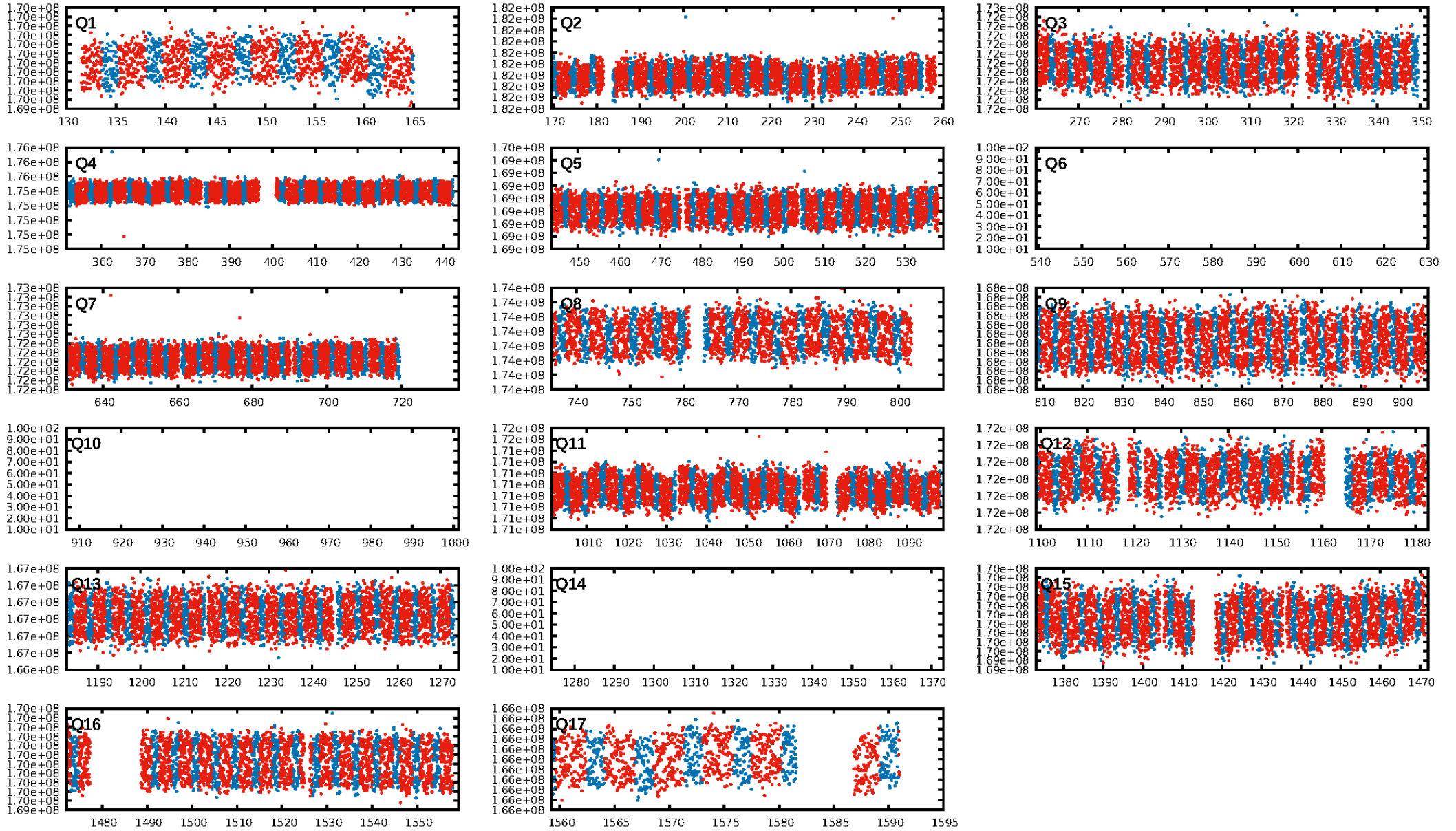
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.99 [234/237]
GhostDiagnostic-chr: 1.089
Centroid-sig: 29.4%
Centroid-so: 1.247 arcsec [0.87 σ]
OotOffset-rm: 3.749 arcsec [3.83 σ]
KicOffset-rm: 3.857 arcsec [3.25 σ]
OotOffset-st: 0/1/3/0 [4]
KicOffset-st: 0/1/3/0 [4]
DiffImageQuality-fgm: 0.25 [1/4]
DiffImageOverlap-fno: 1.00 [14/14]

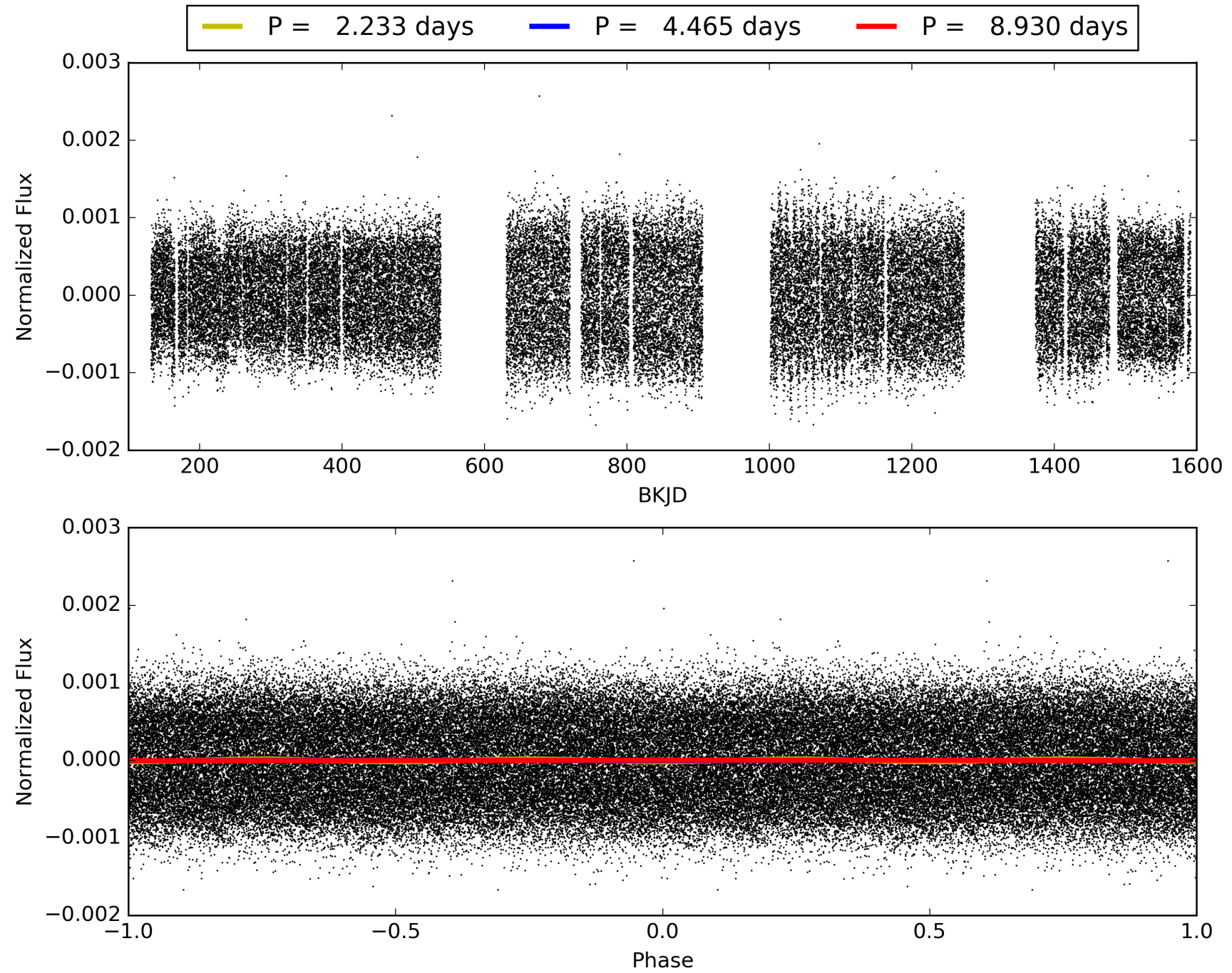
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 11:35:24 Z

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

TCE 003862244-01, PDC Light Curves

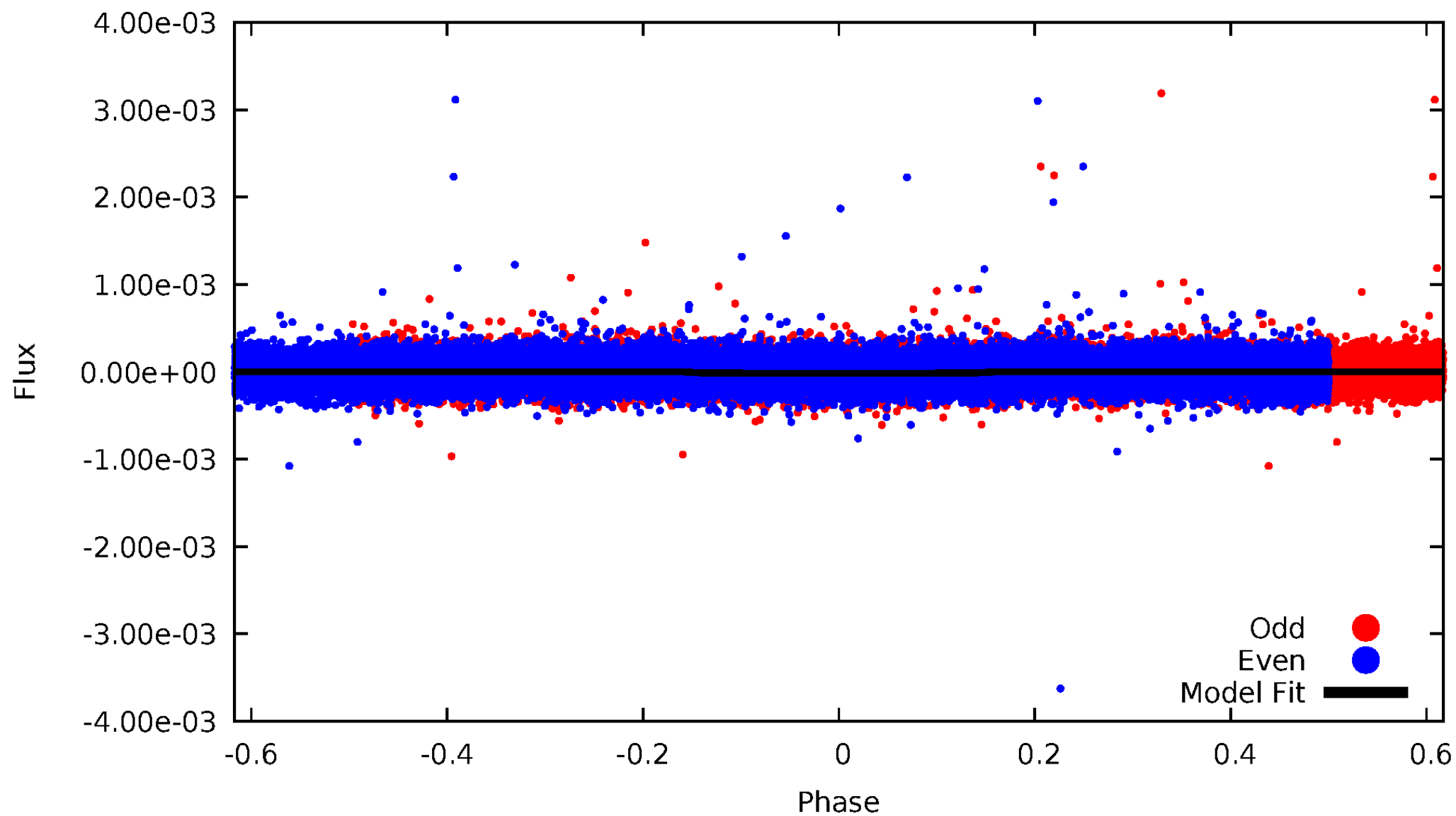


TCE 003862244-01



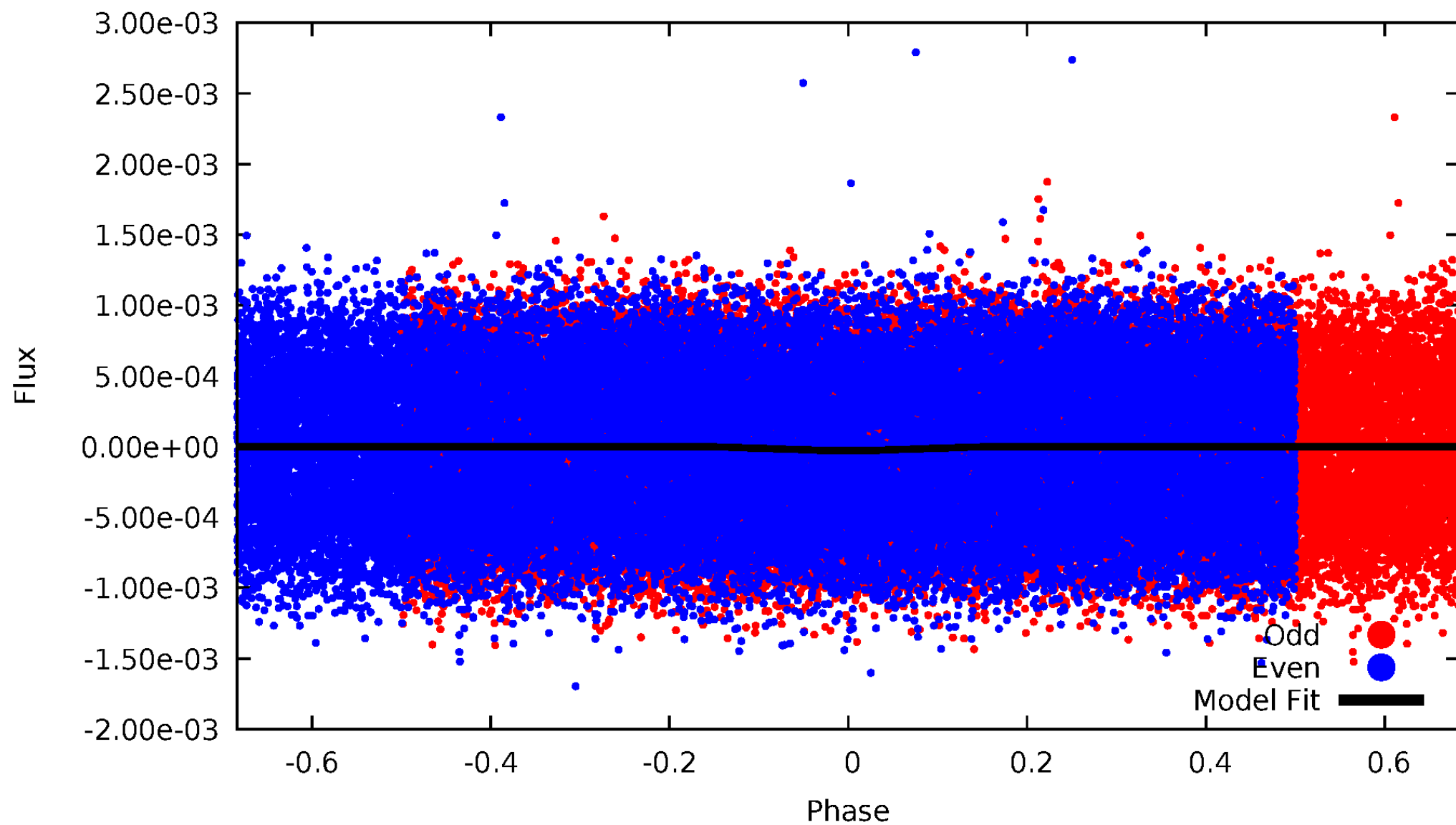
DV Odd/Even

TCE 003862244-01



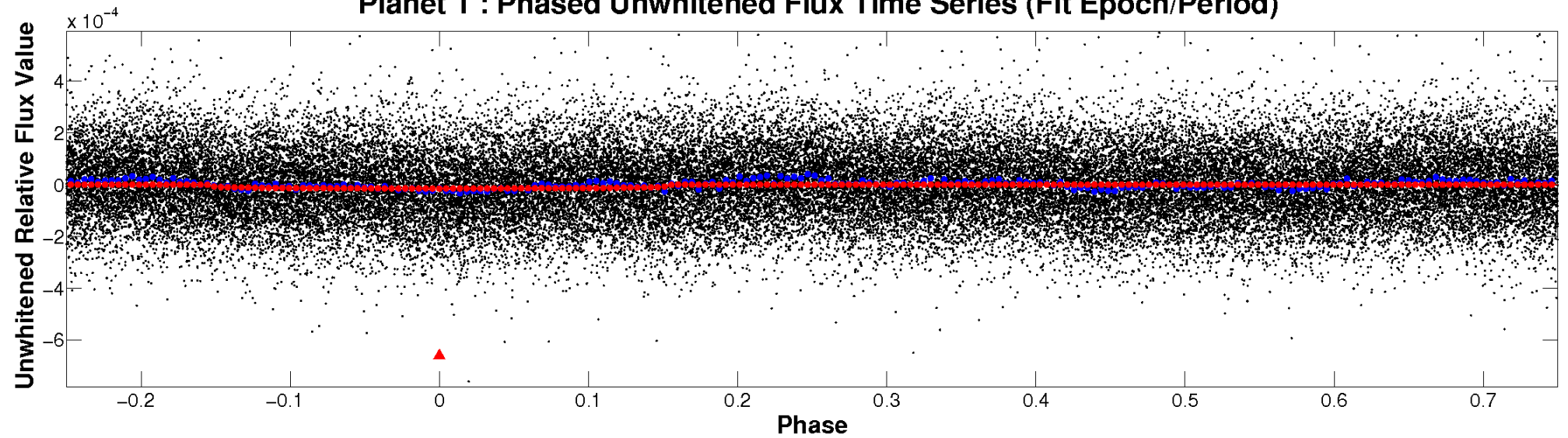
ALT Odd/Even

TCE 003862244-01

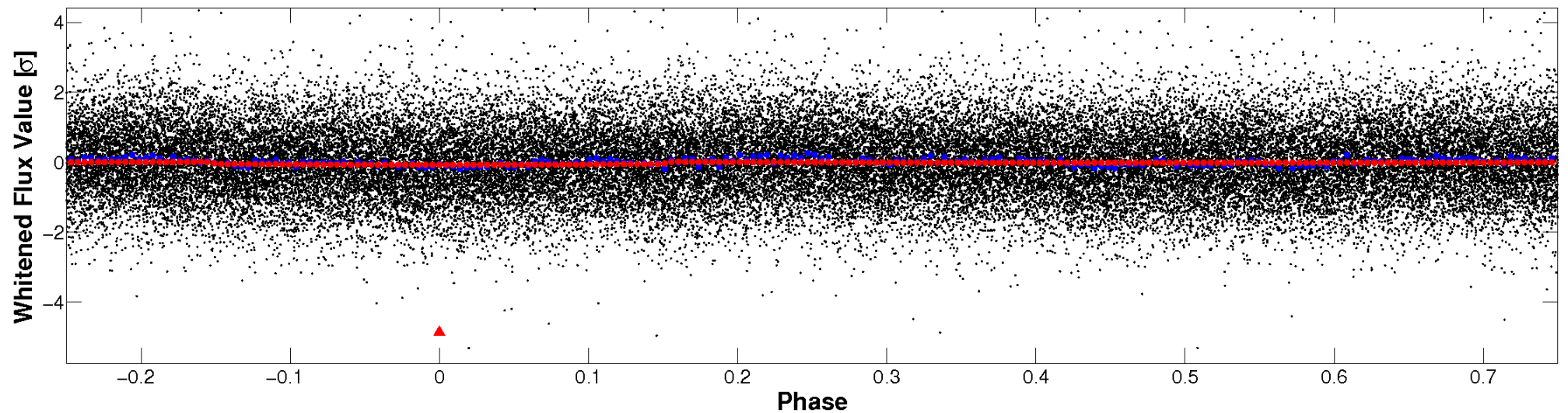


Non-Whitened Vs. Whitened Light Curve

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

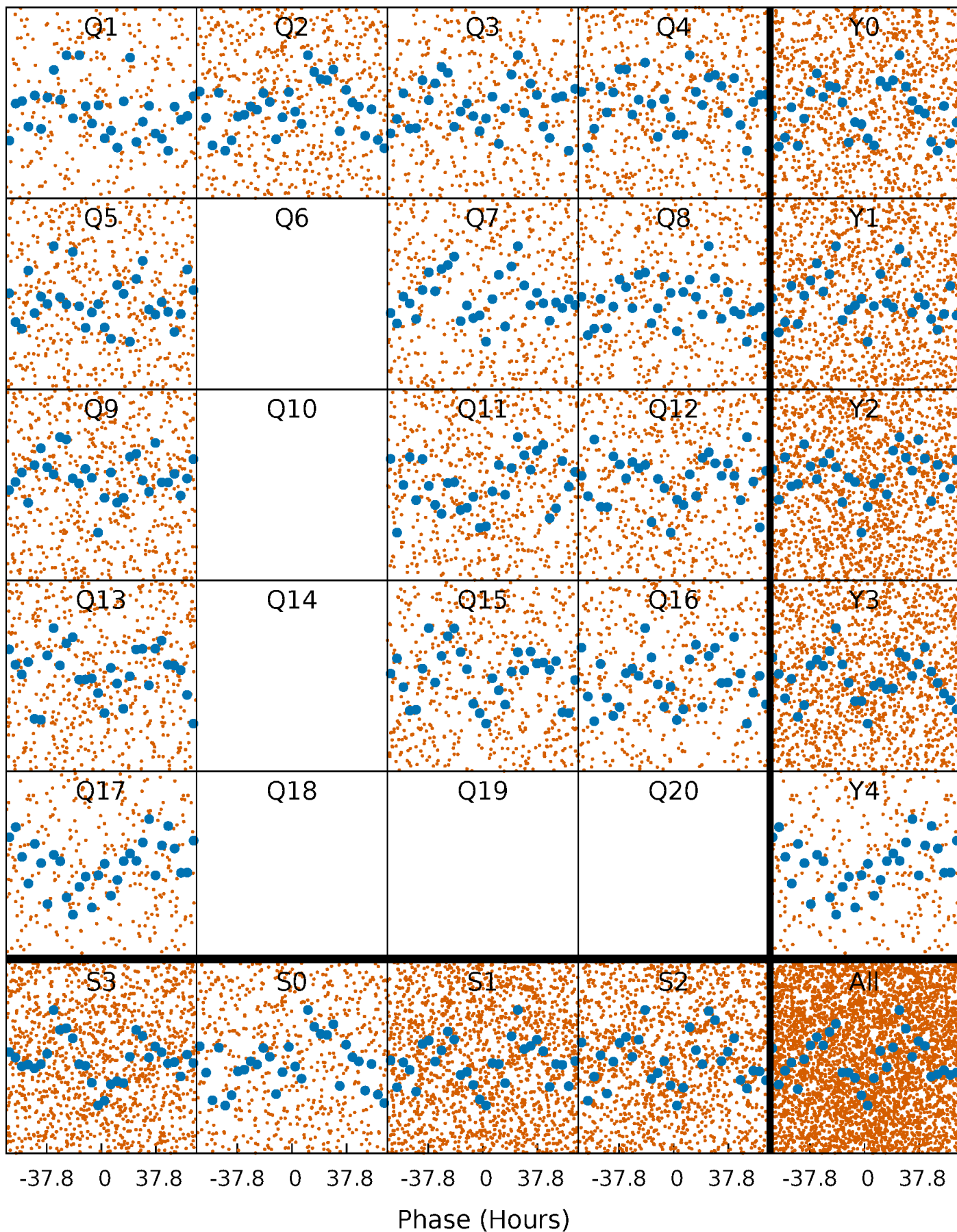


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



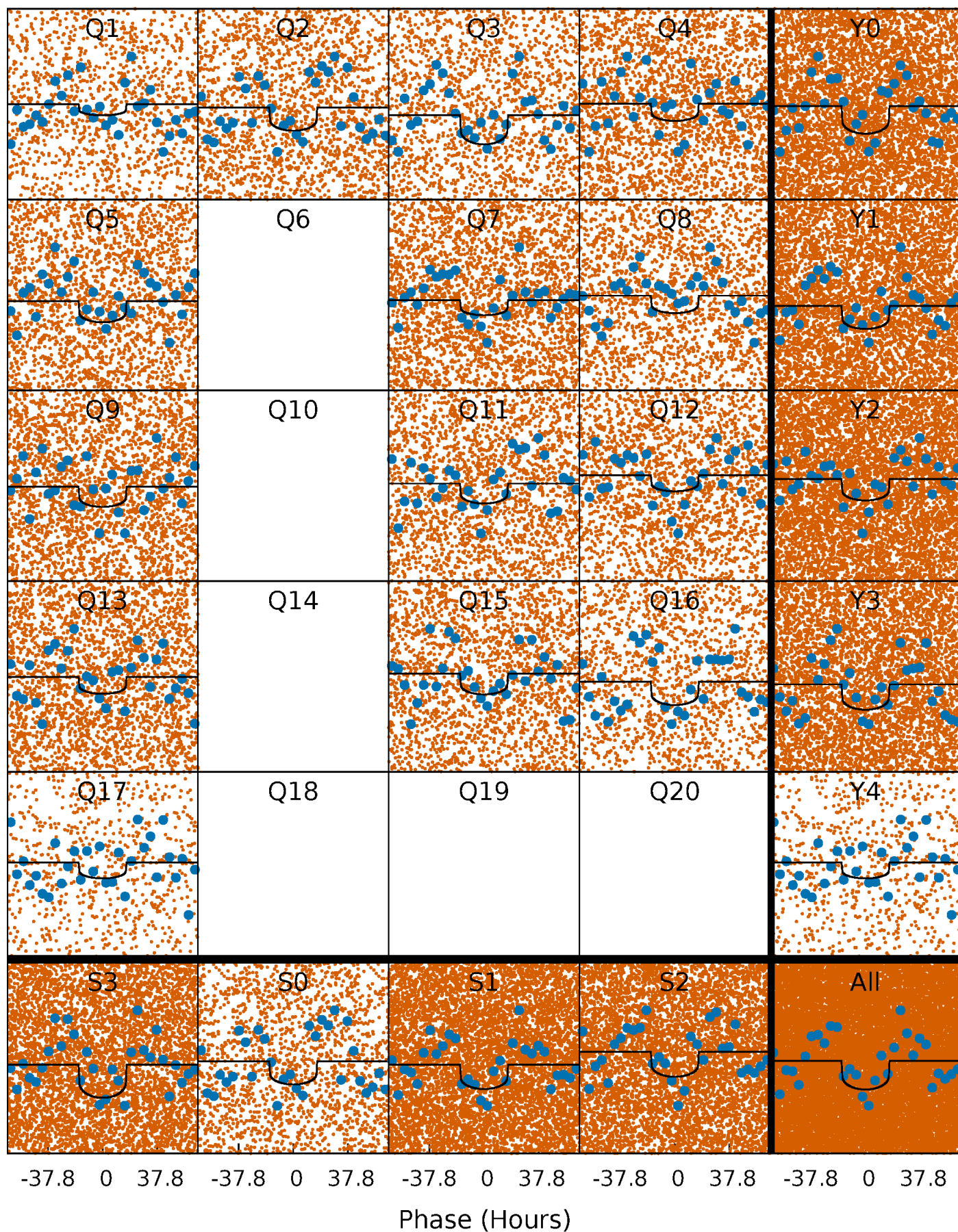
PDC Quarter-Phased Transit Curves

TCE 003862244-01 P= 4.465148 Days $T_0=132.153550$ (BKJD)



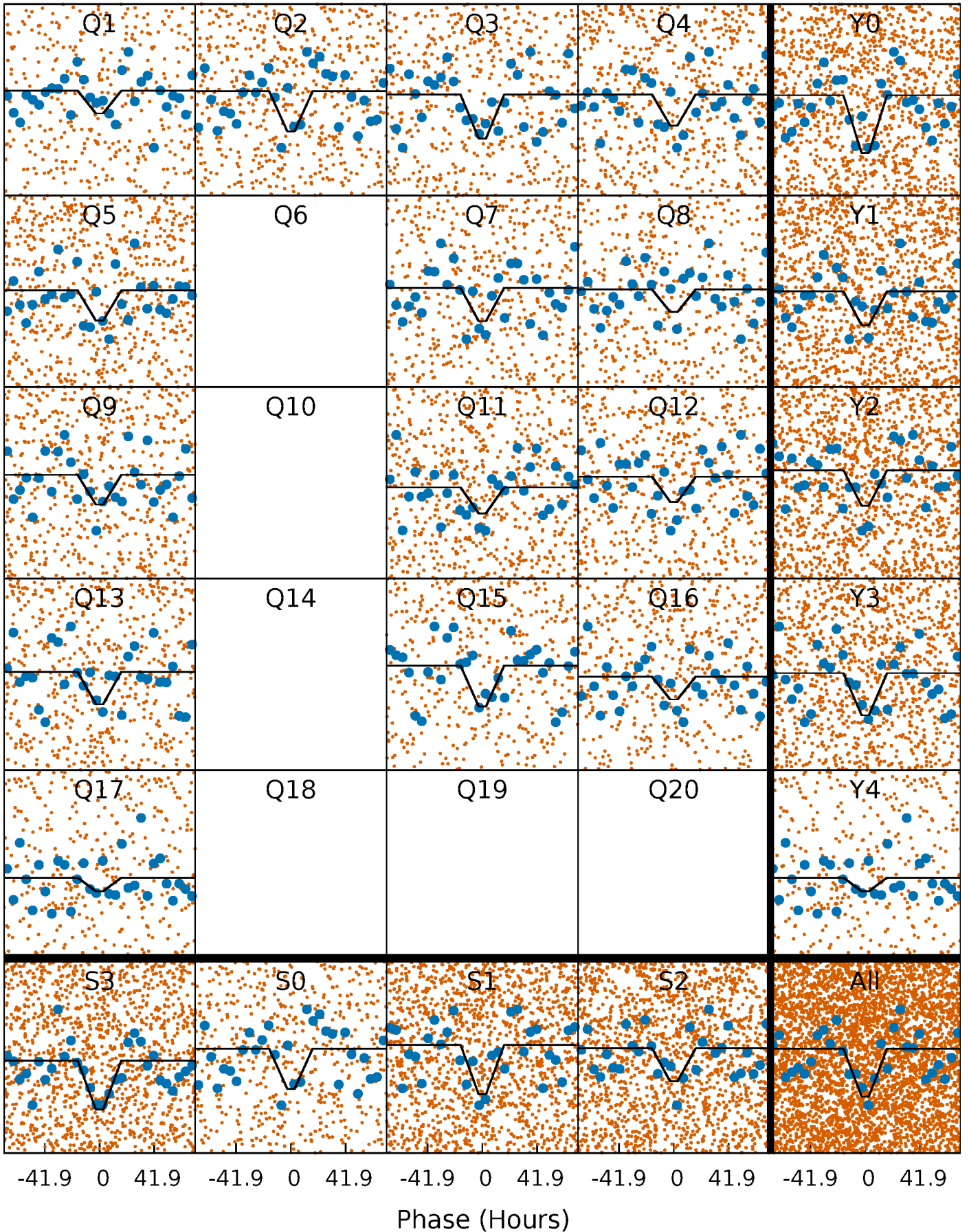
DV Quarter-Phased Transit Curves

TCE 003862244-01 P= 4.465148 Days $T_0=132.153550$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

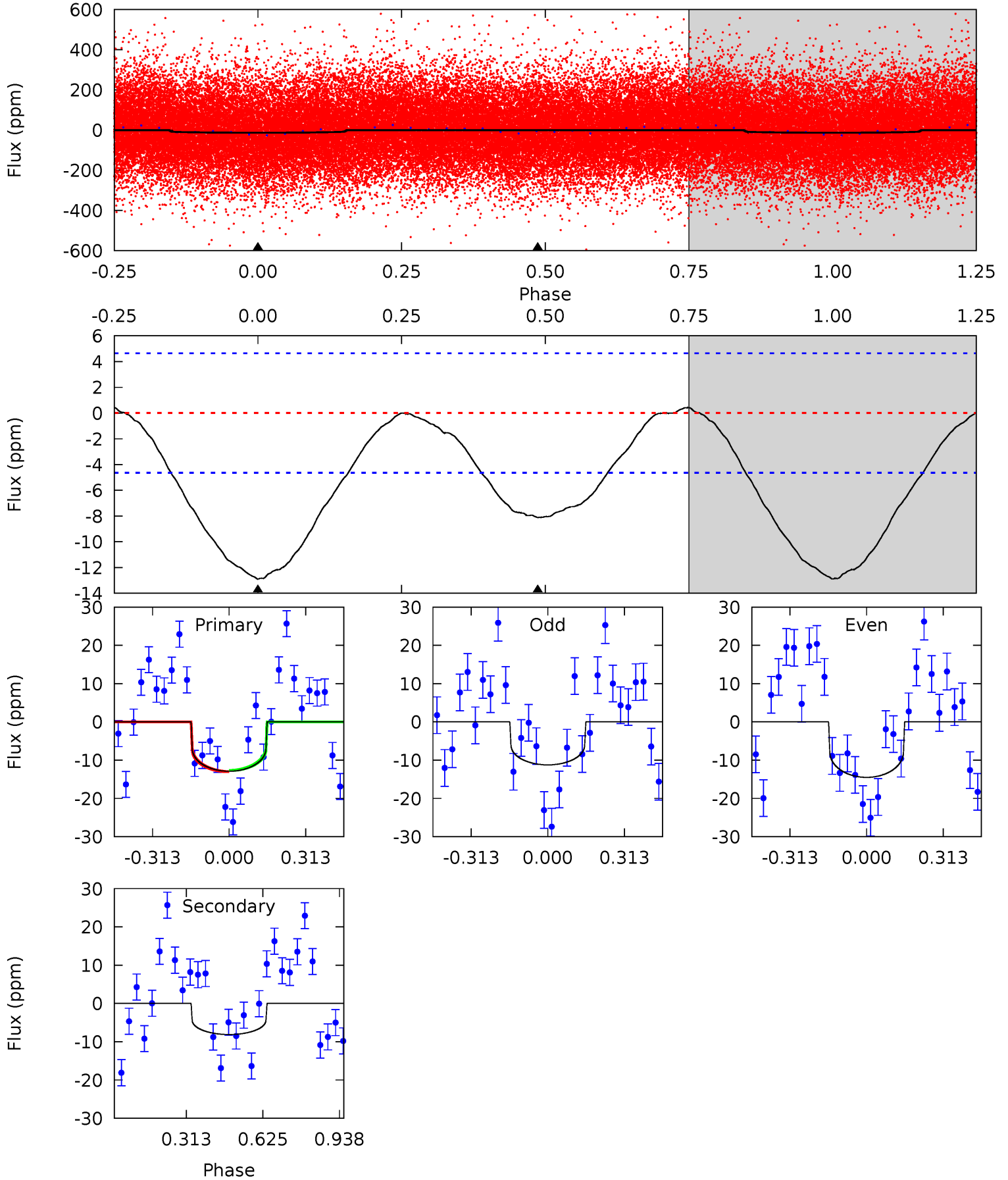
TCE 003862244-01 P= 4.465266 Days $T_0=132.123432$ (BKJD)



DV Model-Shift Uniqueness Test

003862244-01, P = 4.465148 Days, E = 127.688402 Days

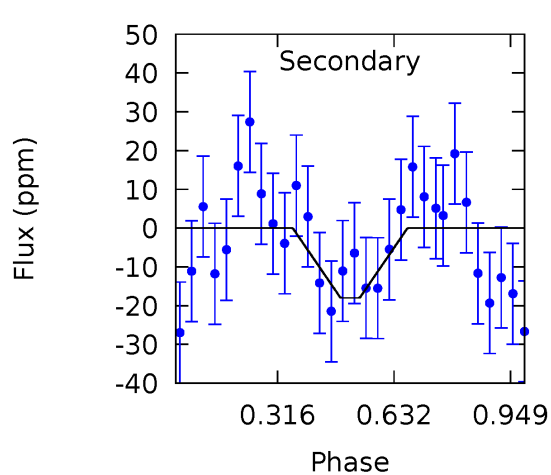
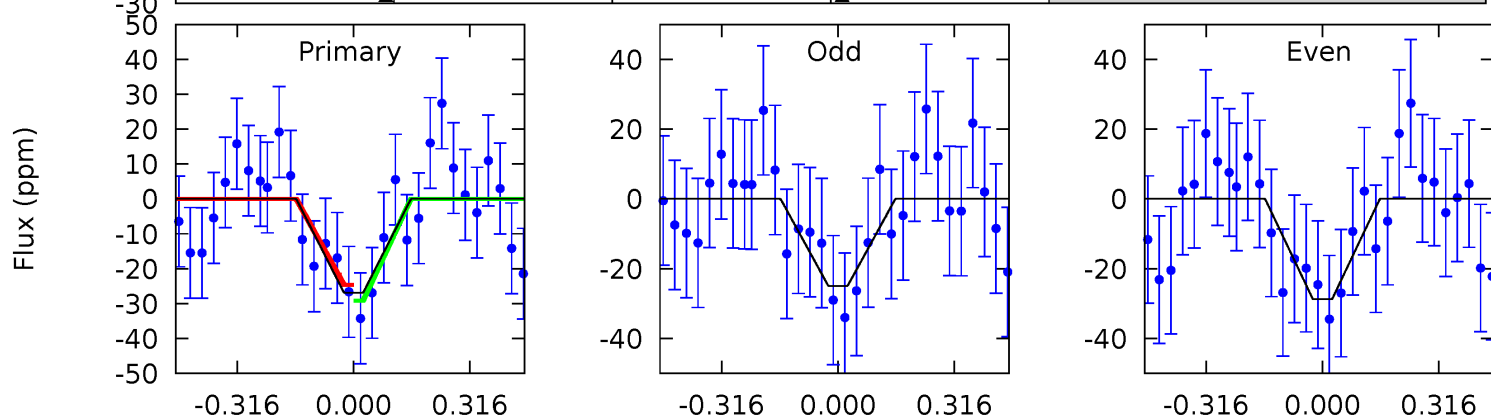
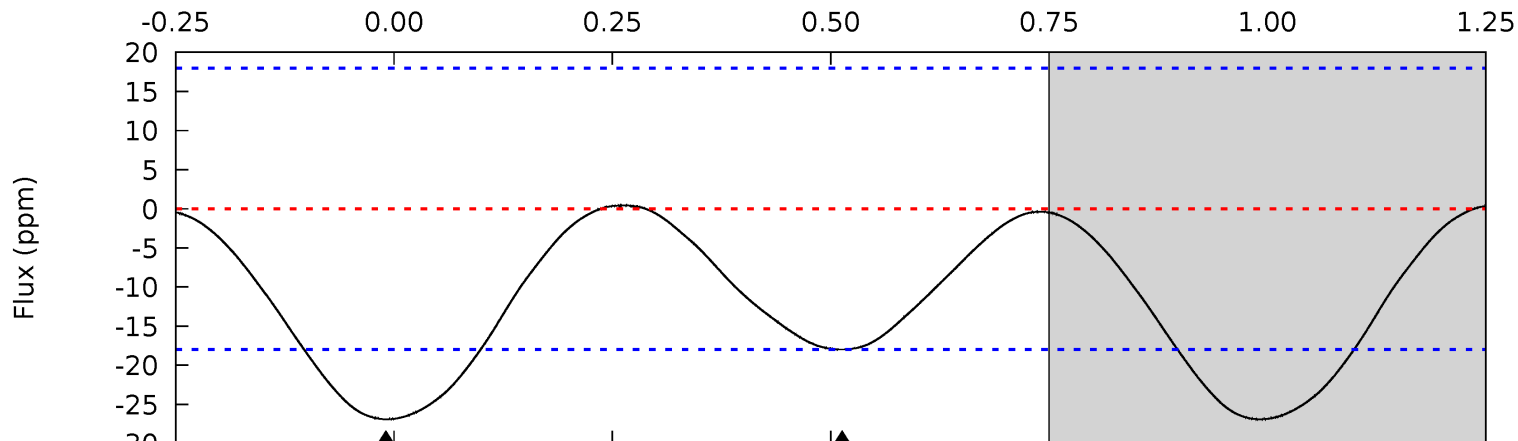
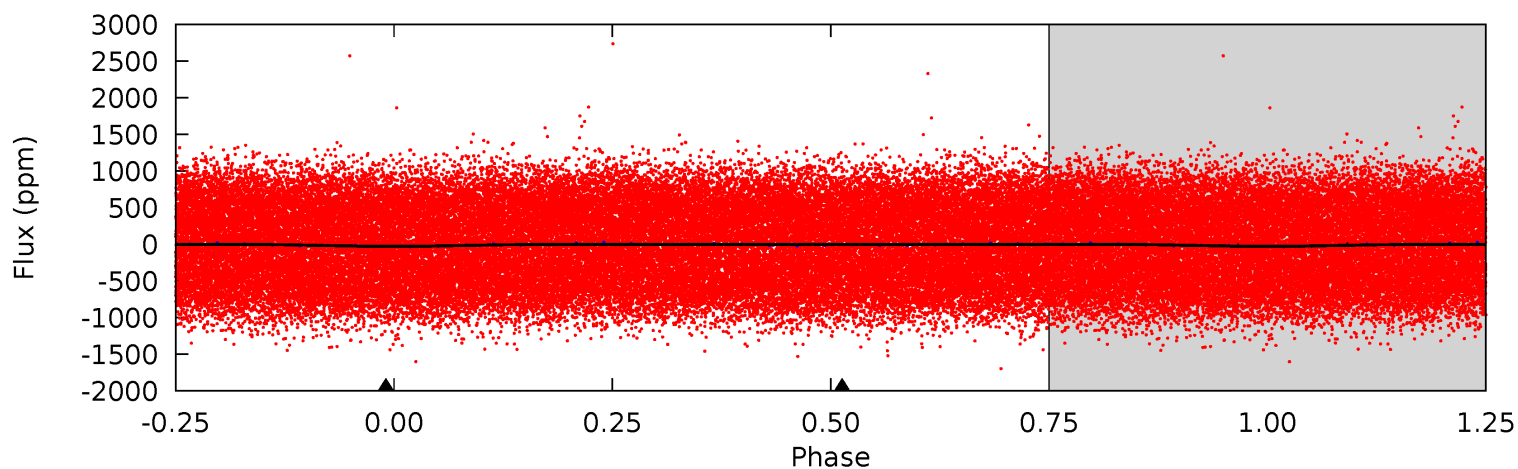
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.0	7.56	0	0	4.32	1.01	0.27	12.0	12.0	7.56	7.56	1.53	1.28	0.03	0.15



Alt Model-Shift Uniqueness Test

003862244-01, P = 4.465266 Days, E = 127.658166 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.46	4.32	0	0	4.32	1.00	0.11	6.46	6.46	4.32	4.32	0.46	2.66	0.02	0.55



Stellar Parameters For KIC 003862244

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8132^{+225}_{-338}	$3.941^{+0.234}_{-0.126}$	$0.070^{+0.200}_{-0.450}$	$2.530^{+0.466}_{-0.799}$	$2.036^{+0.318}_{-0.476}$	$0.177^{+0.296}_{-0.070}$
	+3%/-4%	+6%/-3%	+286%/-643%	+18%/-32%	+16%/-23%	+167%/-39%
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 003862244-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-8 ± 1	$1.02^{+0.57}_{-0.52}$	3039^{+201}_{-258}	6732^{+4205}_{-1327}	19^{+59}_{-11}
Alt.	-18 ± 4	$1.41^{+0.66}_{-0.59}$	3032^{+212}_{-240}	7026^{+2697}_{-1217}	22^{+42}_{-13}

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

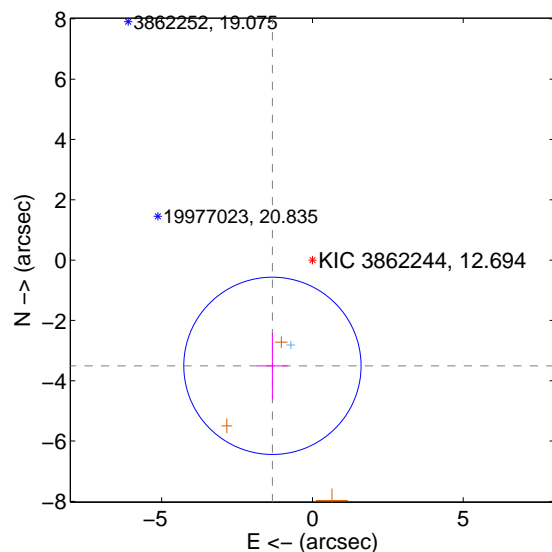
Supplemental centroid analysis for 003862244-01. Kepler magnitude: 12.69. Transit SNR 8.07

There are 1 quarters with good PRF difference image offsets

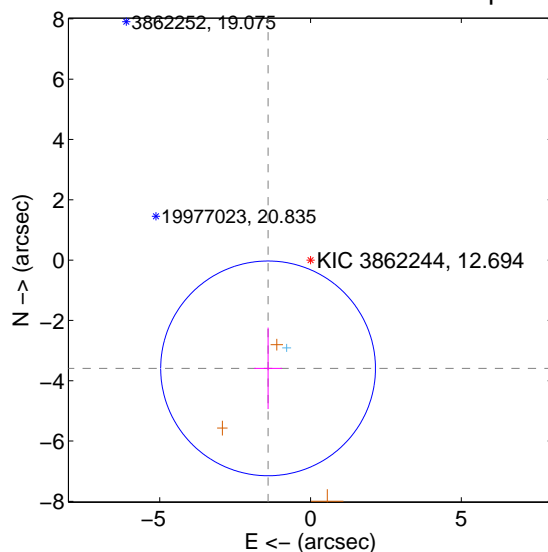
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.749 ± 0.980	3.83	1.327 ± 0.504	-3.506 ± 1.094
PRF-fit source offset from KIC position	3.857 ± 1.187	3.25	1.408 ± 0.458	-3.591 ± 1.351
photometric centroid source offset	1.25 ± 1.44	0.87	-0.15 ± 1.26	-1.24 ± 1.44

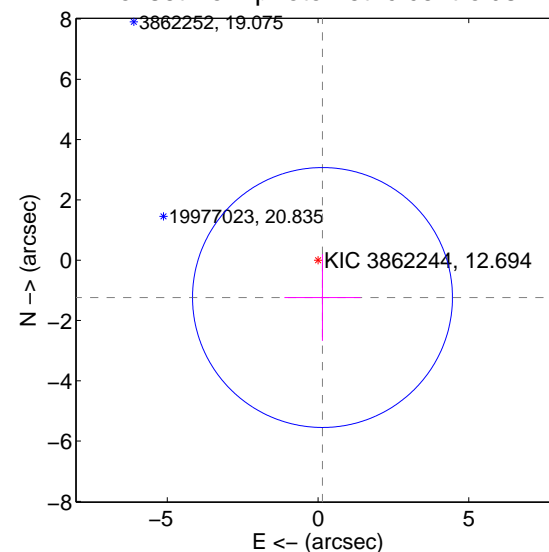
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

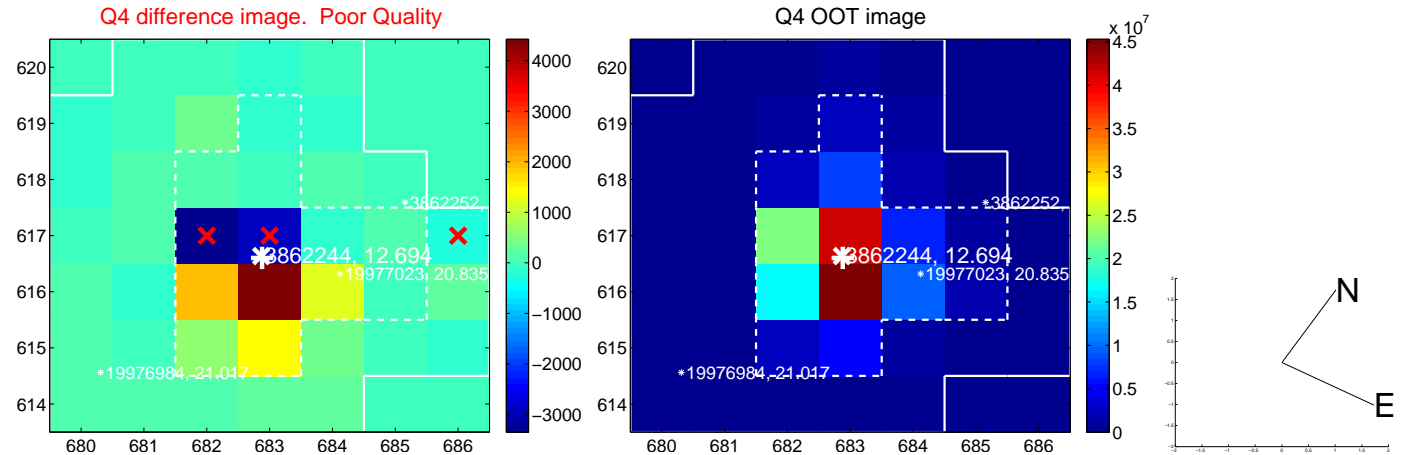
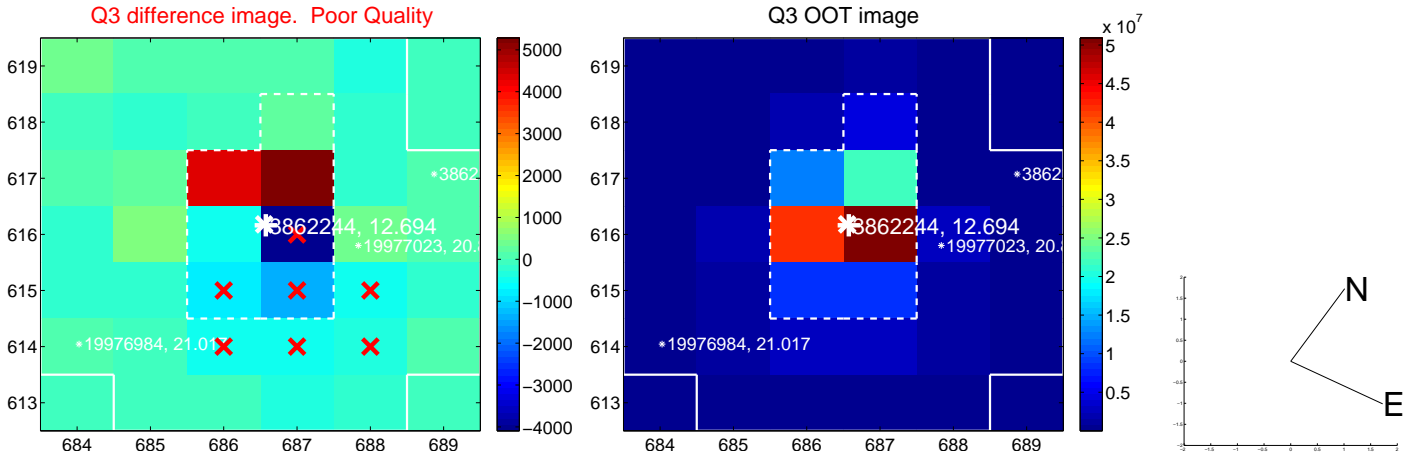
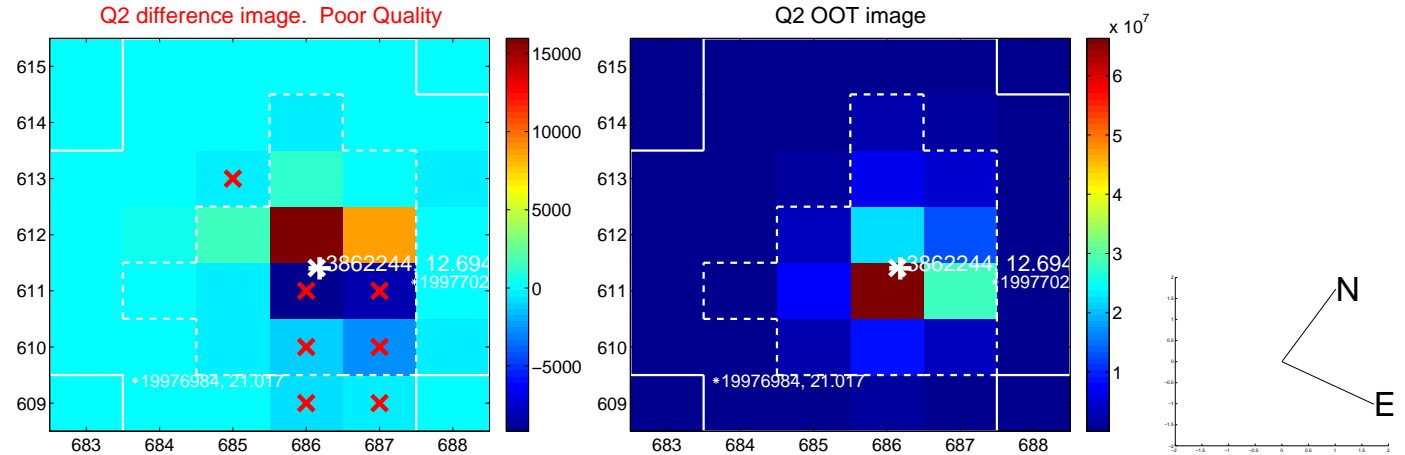
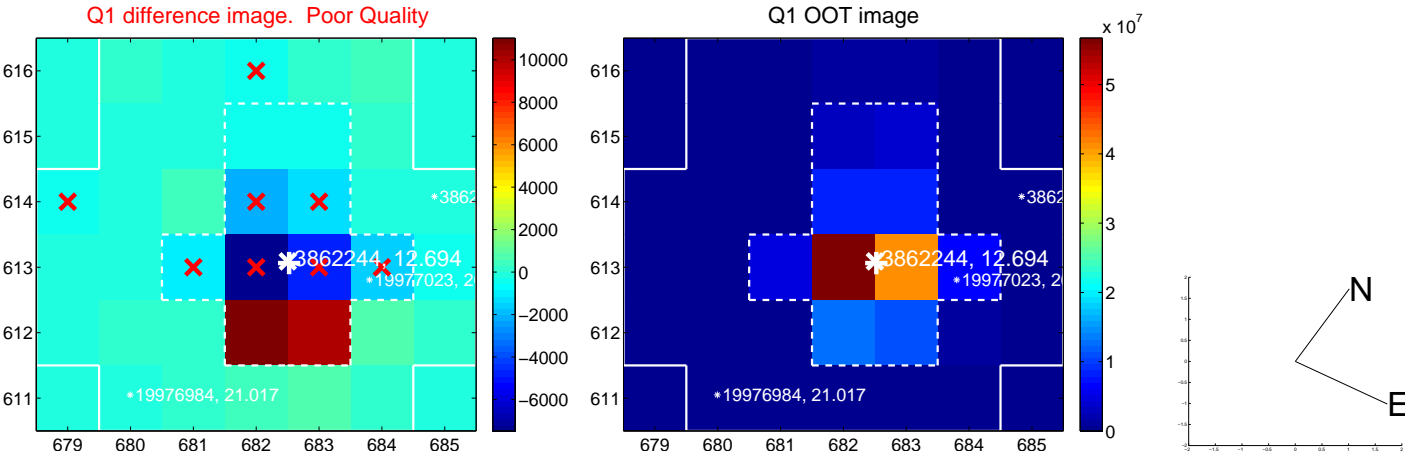


offset from photometric centroids

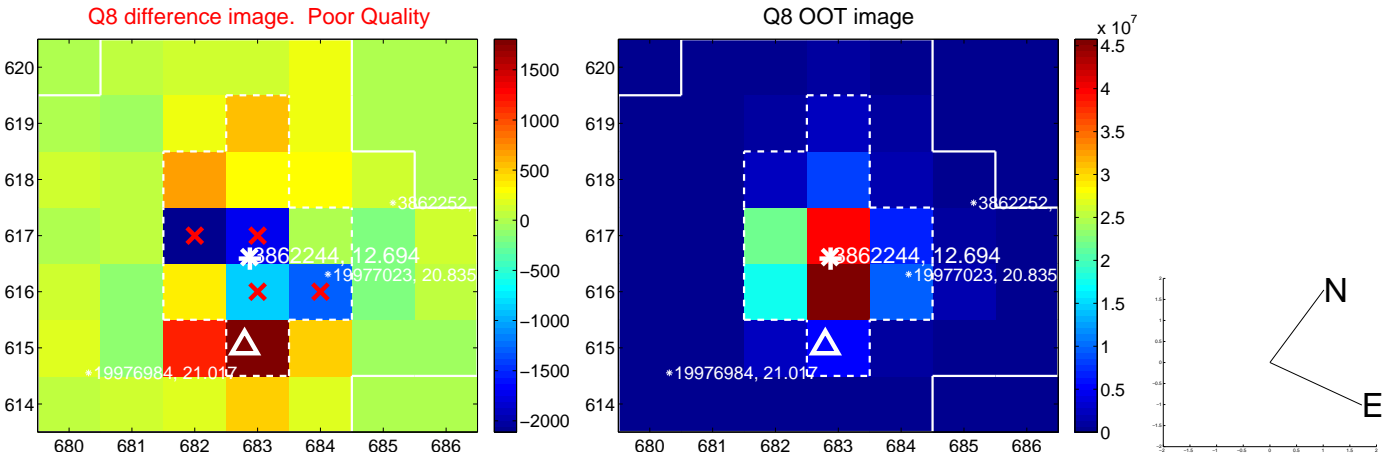
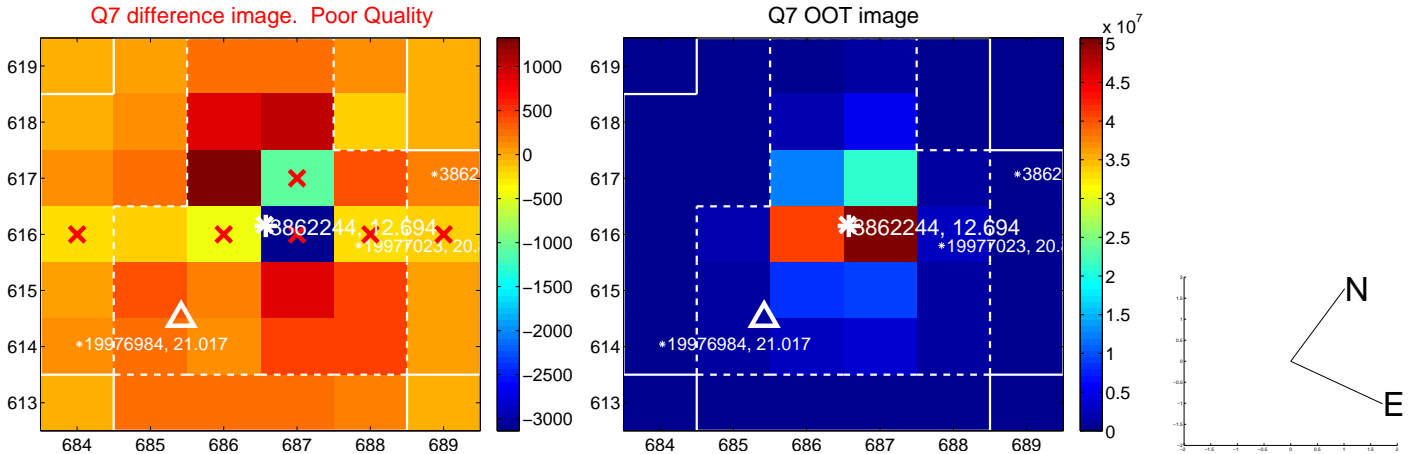
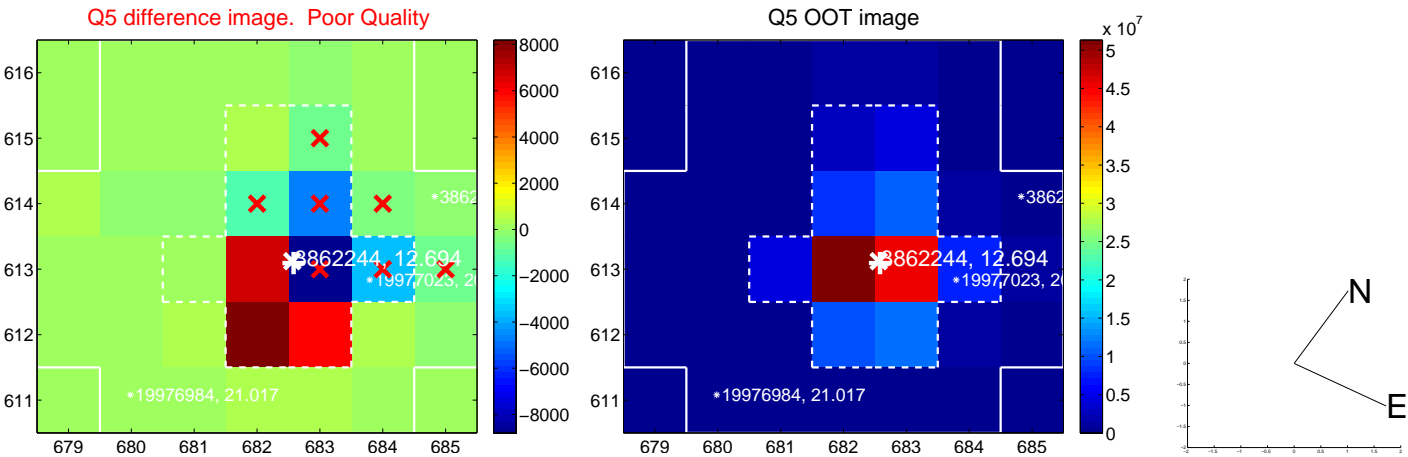


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

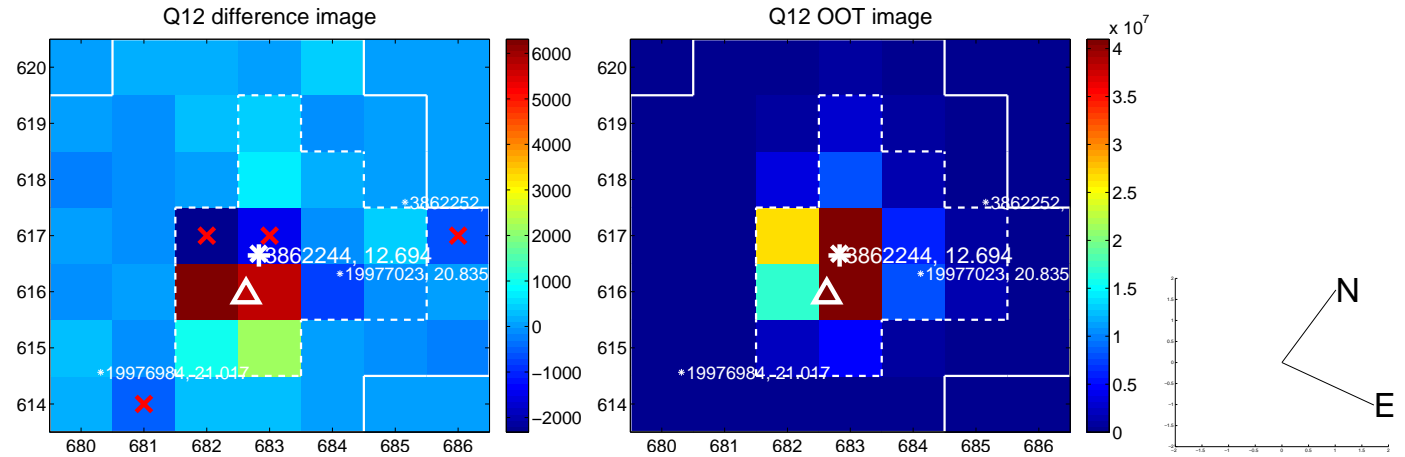
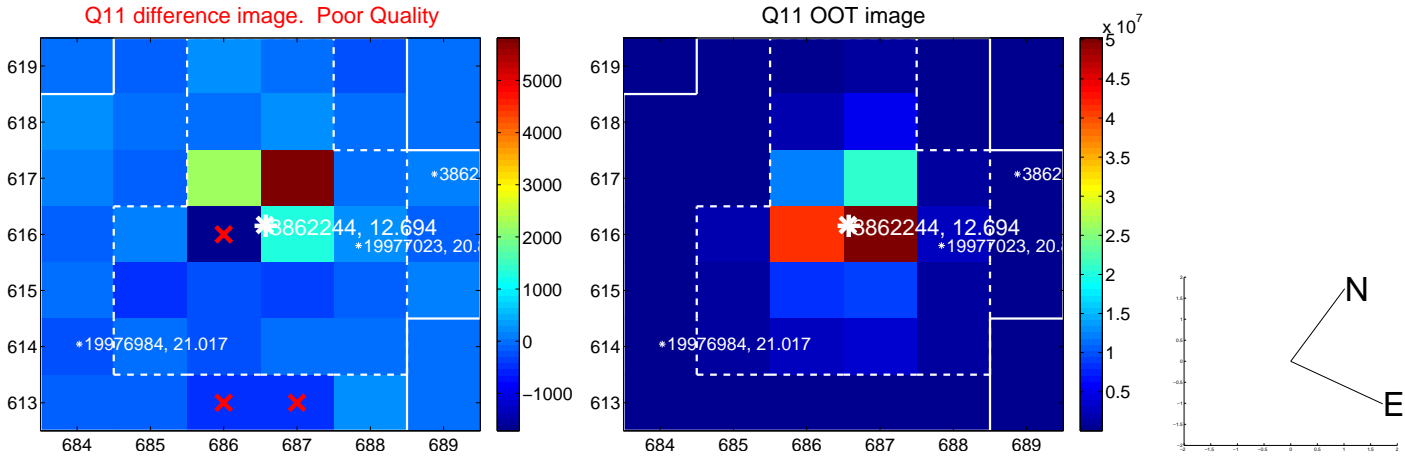
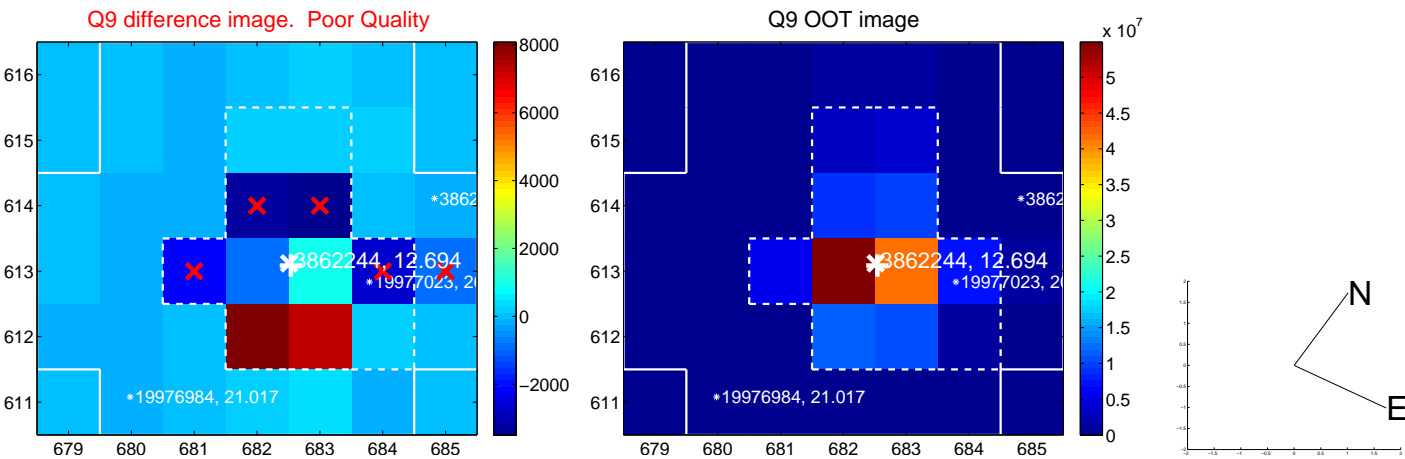
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



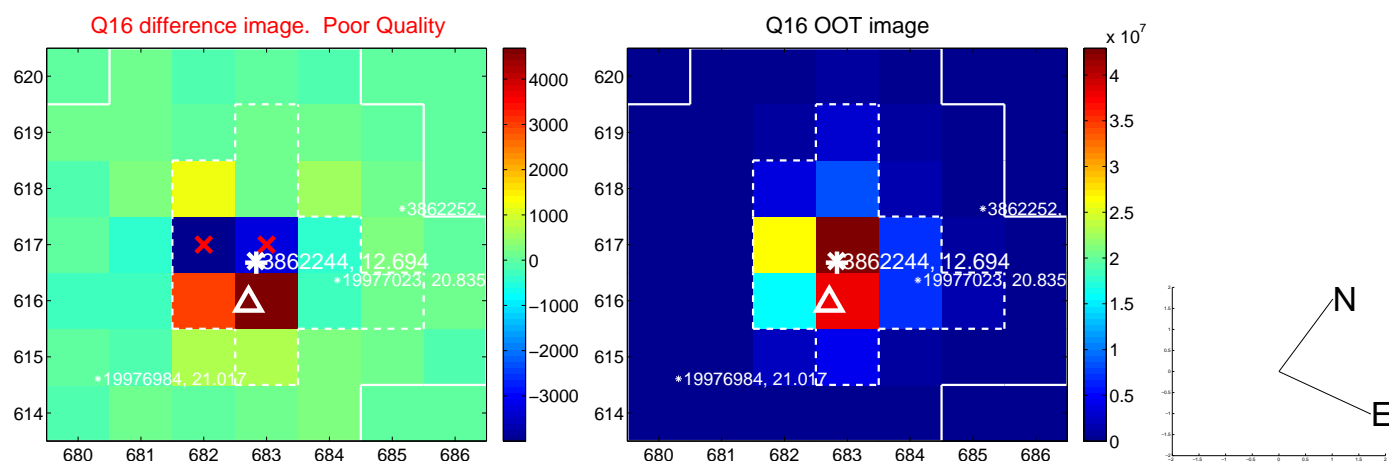
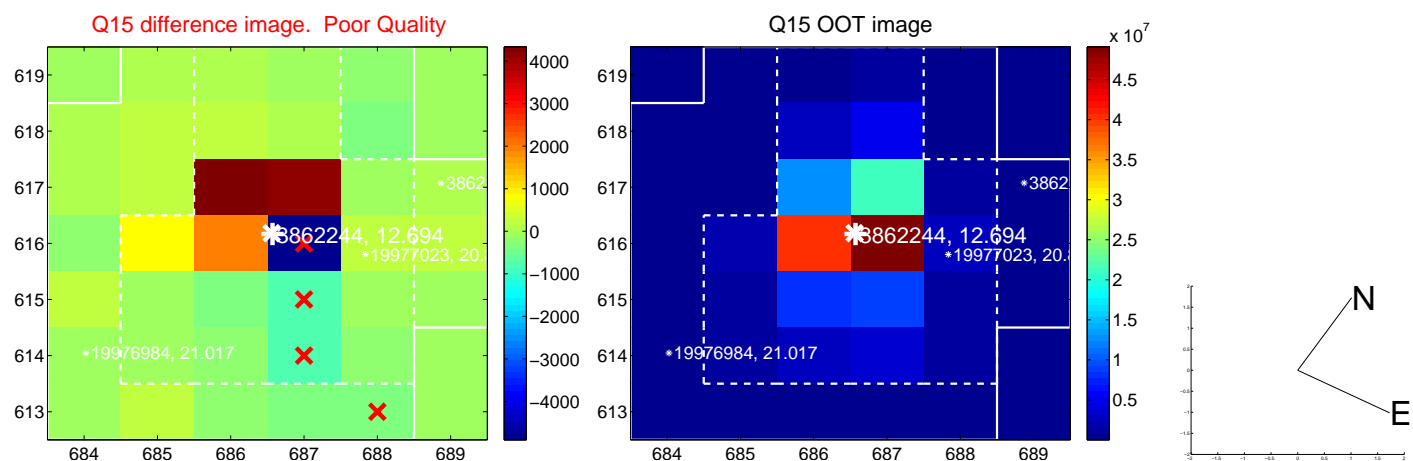
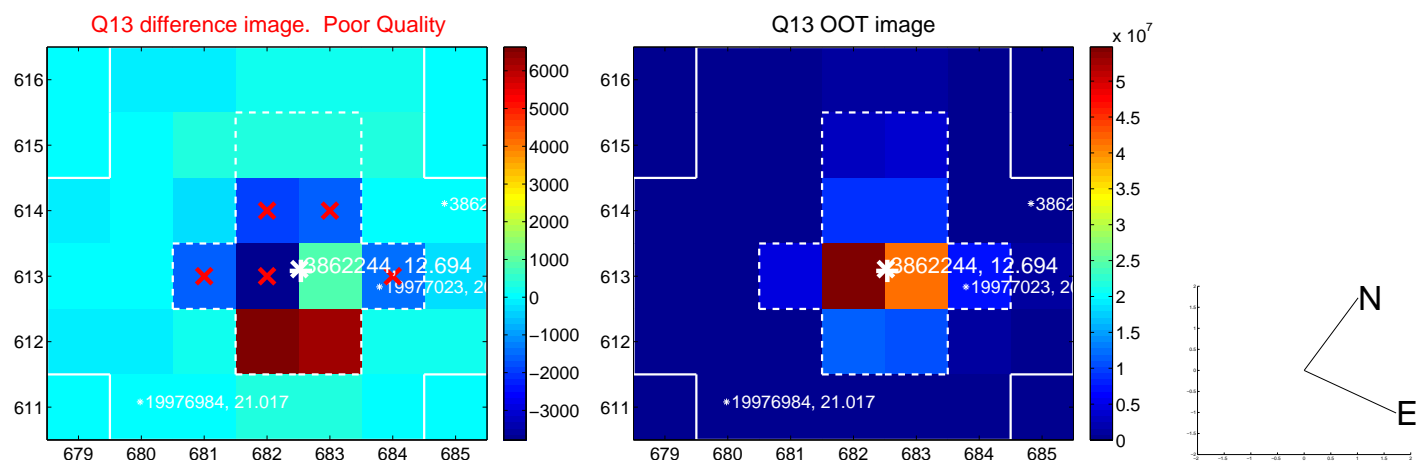
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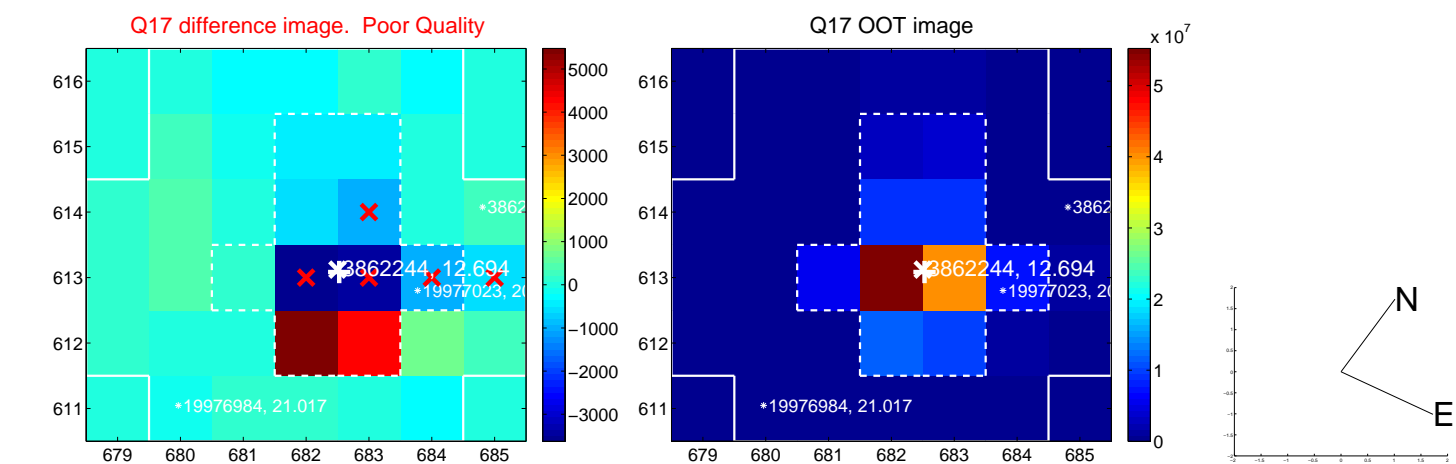
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



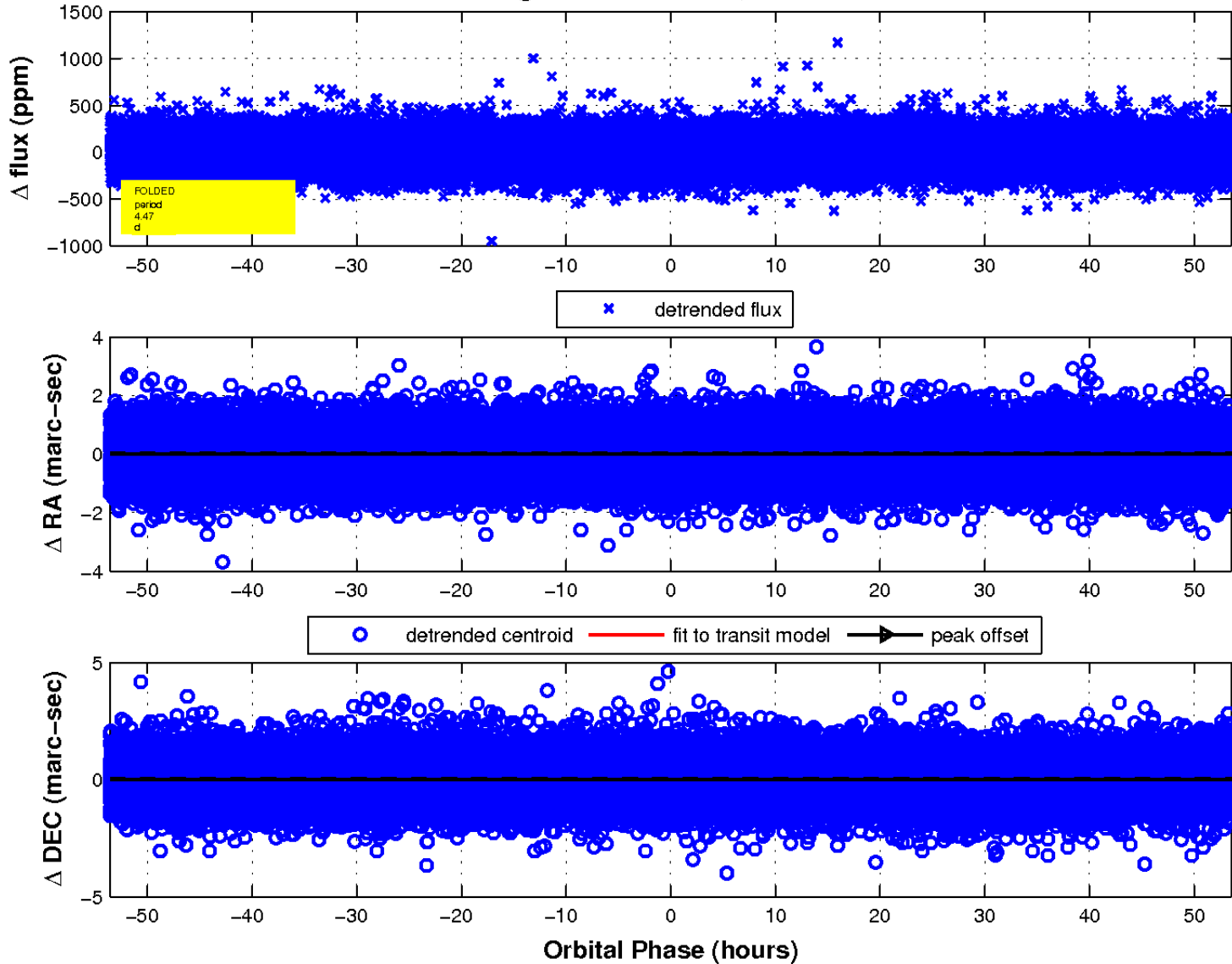
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

