

KIC 008846823

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})
008846823-01	OBS	No	0.596241	131.678984	15.9	7.155	9.3	15.8	1.55	5676	0.64	13303.76

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008846823-01	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.

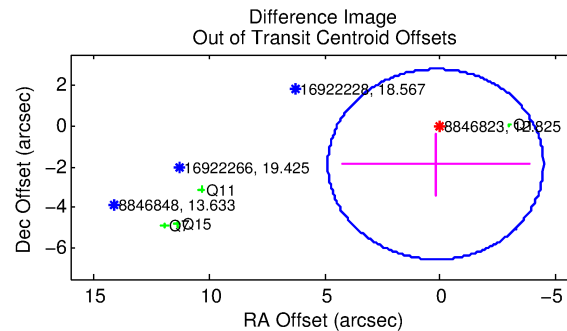
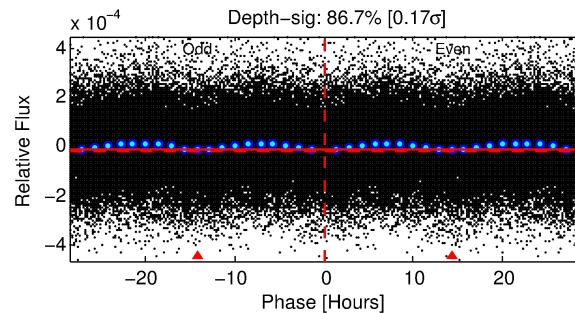
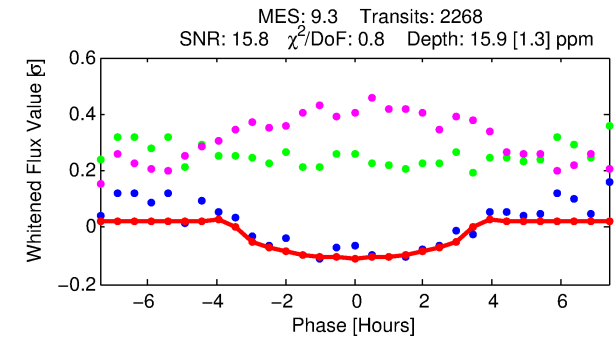
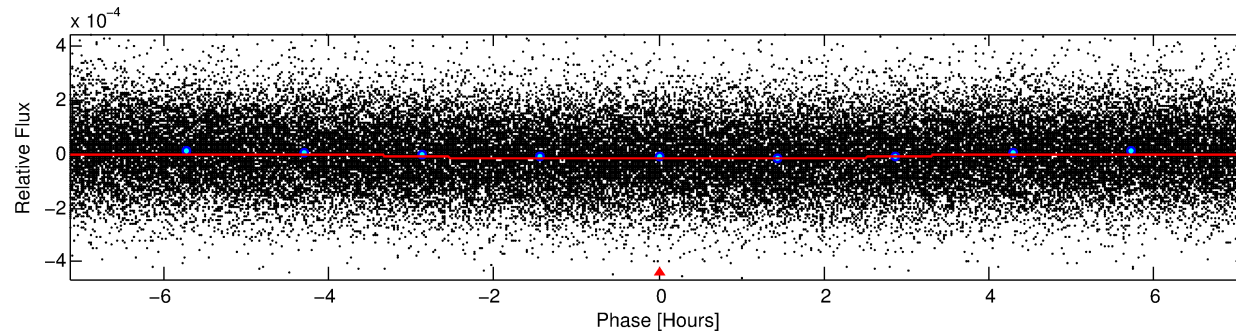
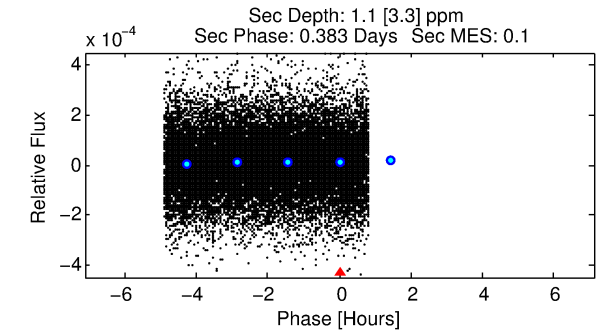
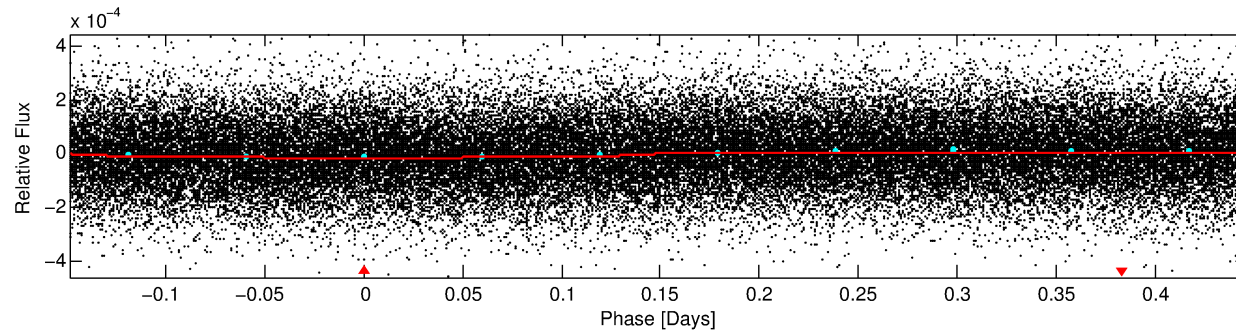
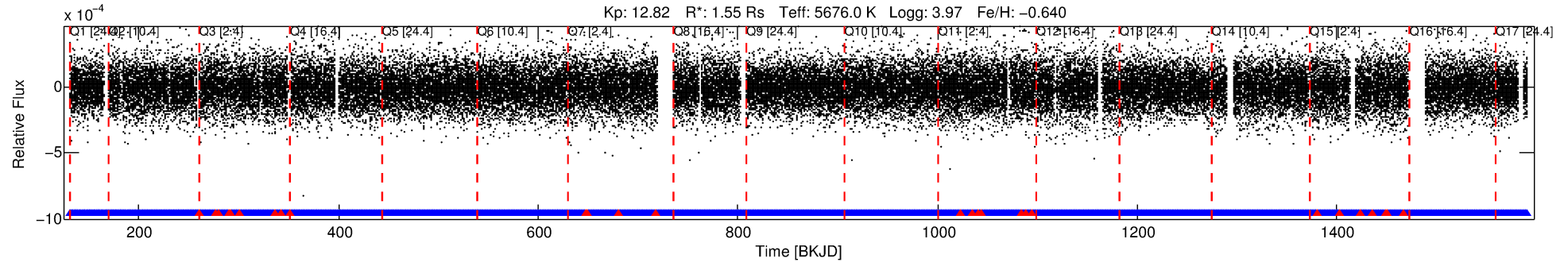
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008846823-01

No Significant Match Found

DV One-Page Summary

KIC: 8846823 Candidate: 1 of 1 Period: 0.596 d



DV Fit Results:

Period = 0.59624 [0.00001] d
Epoch = 131.6790 [0.0044] BKJD
Rp/R* = 0.0038 [0.0015]
a/R* = 1.00 [0.01]
b = 0.58 [2.25]
Seff = 13303.76 [13858.00]
Teq = 2739 [713] K
Rp = 0.64 [0.44] Re
a = 0.0129 [0.0079] AU
Ag = 0.25 [0.80] [-0.94σ]
Teffp = 2992 [2276] K [0.11σ]

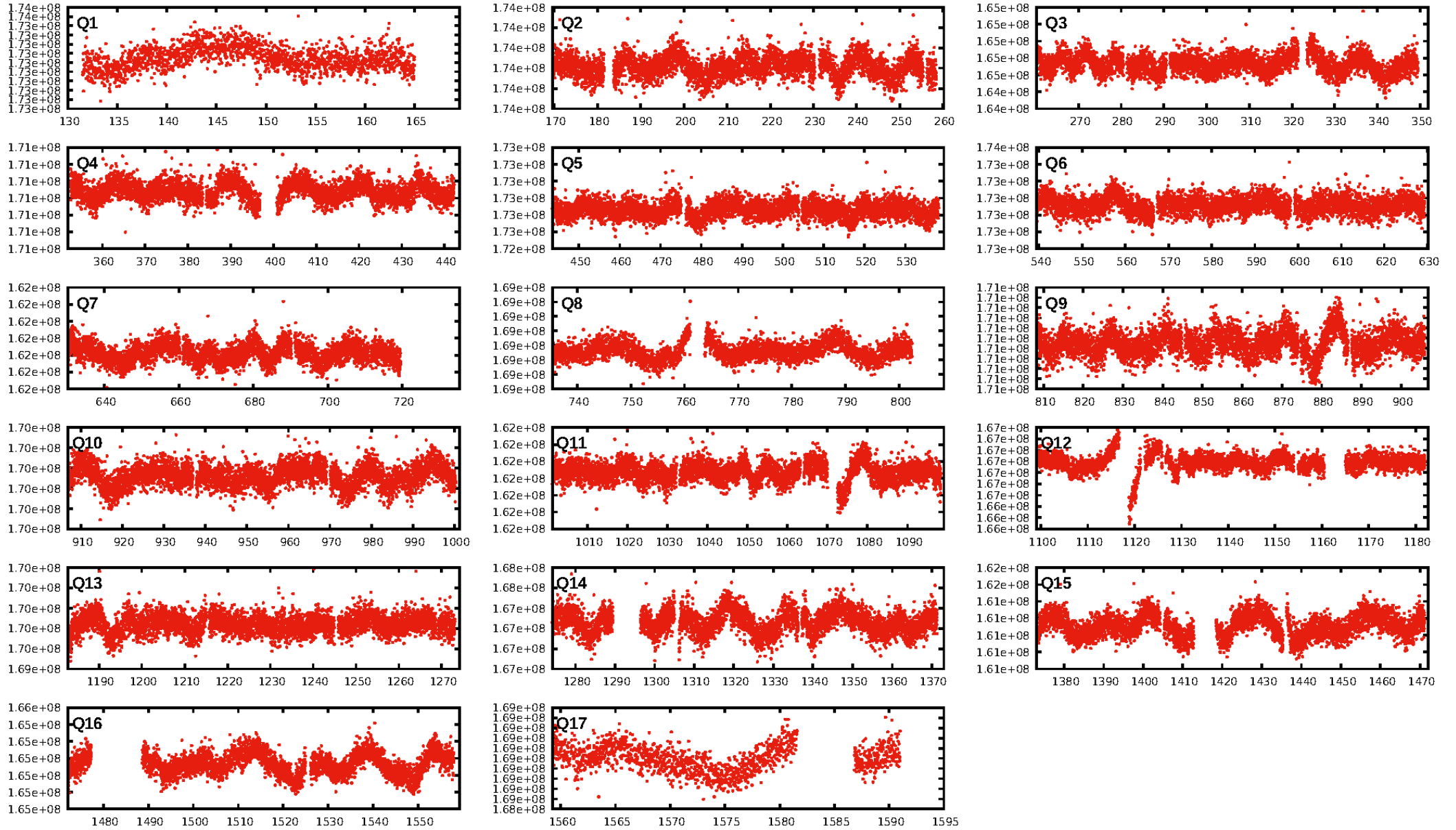
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.99 [2137/2166]
GhostDiagnostic-chr: -2.707
Centroid-sig: 0.0%
Centroid-so: 4.439 arcsec [4.65σ]
OotOffset-rm: 1.894 arcsec [1.22σ]
OotOffset-st: 0.3/0/1 [4]
KicOffset-rm: 2.106 arcsec [1.34σ]
KicOffset-st: 0.3/0/1 [4]
DiffImageQuality-fgm: 0.00 [0/4]
DiffImageOverlap-fno: 1.00 [17/17]

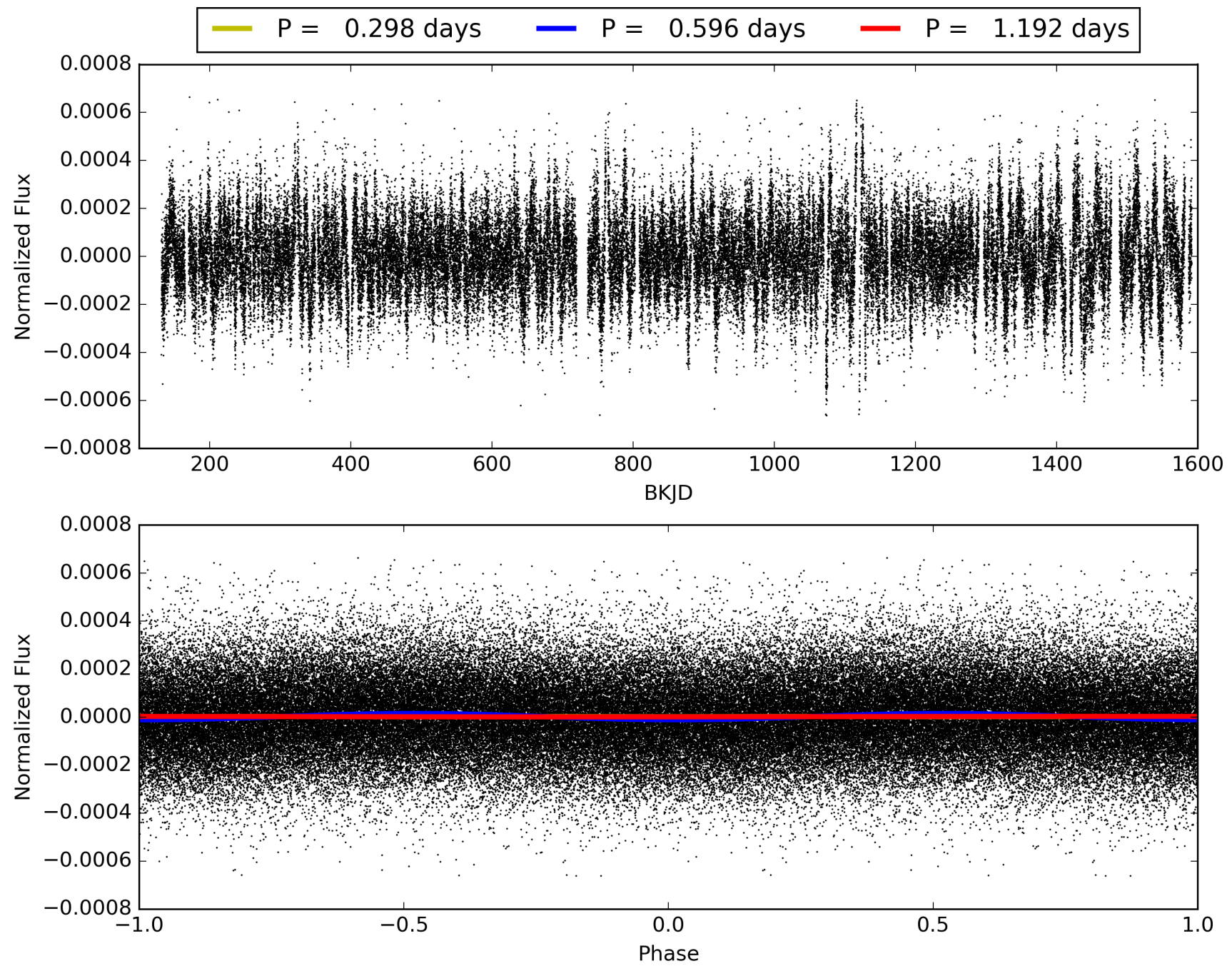
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 02:48:52 Z

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

TCE 008846823-01, PDC Light Curves

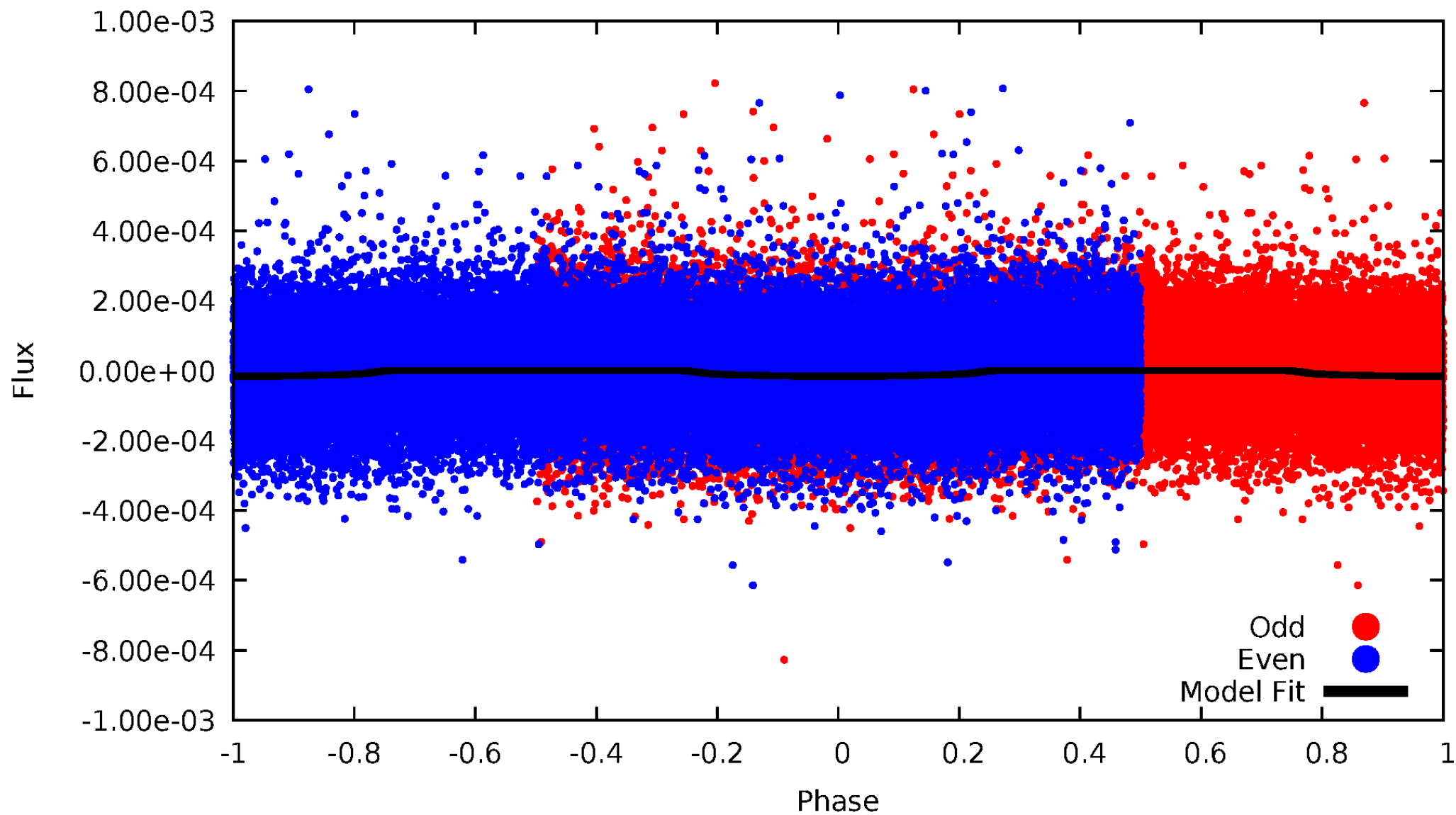


TCE 008846823-01



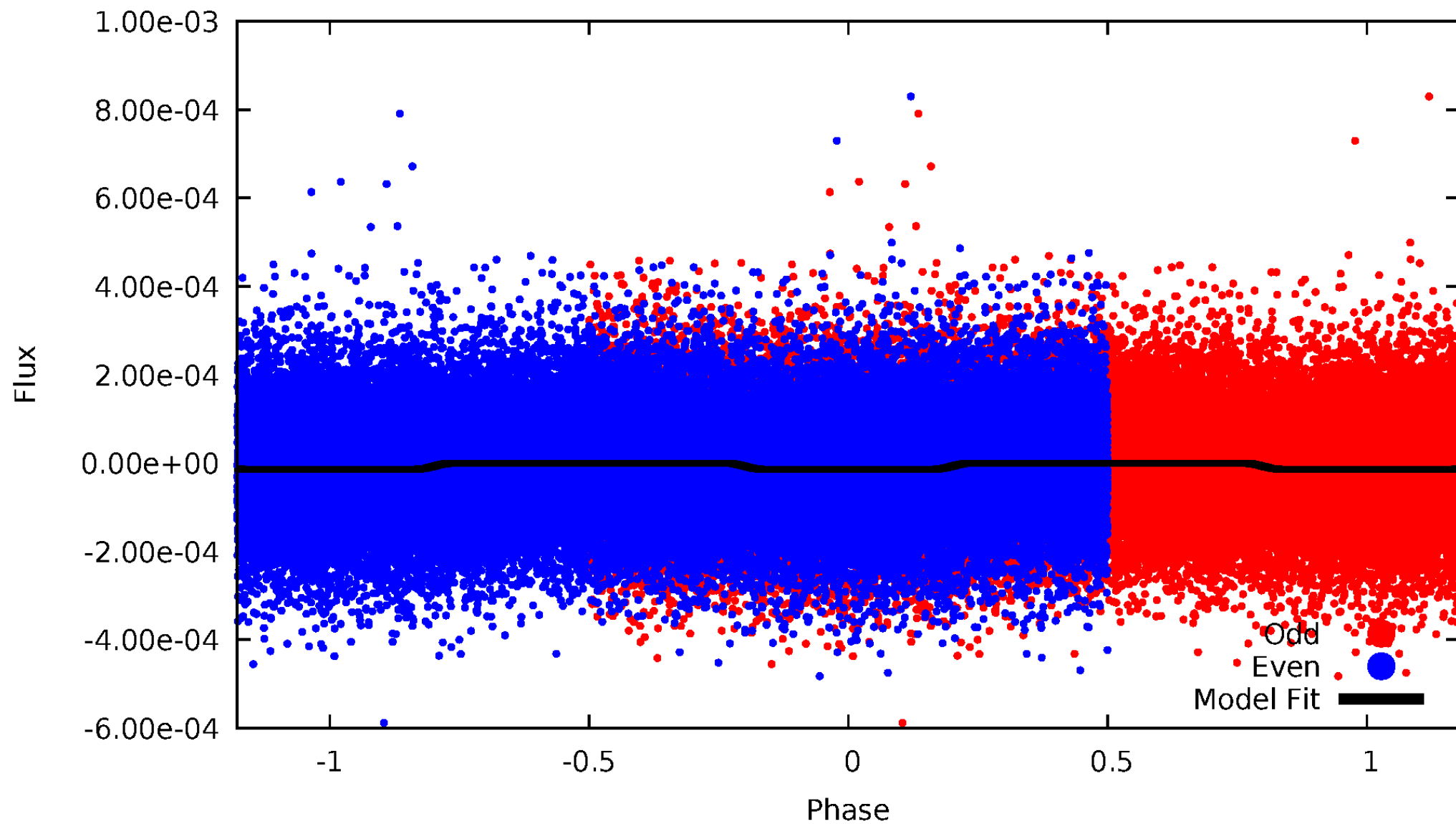
DV Odd/Even

TCE 008846823-01



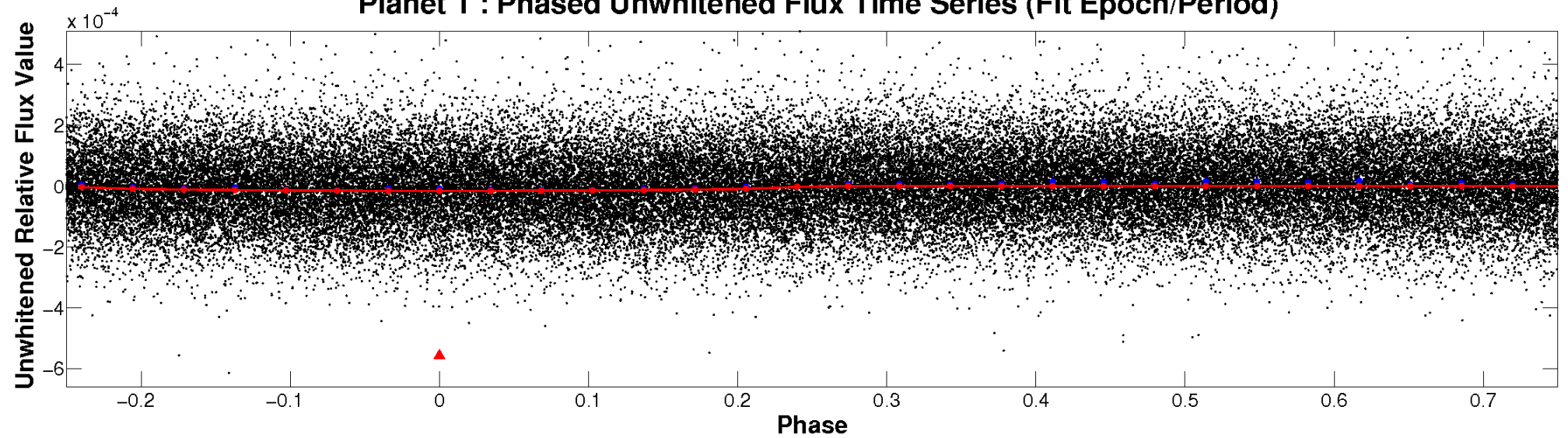
ALT Odd/Even

TCE 008846823-01

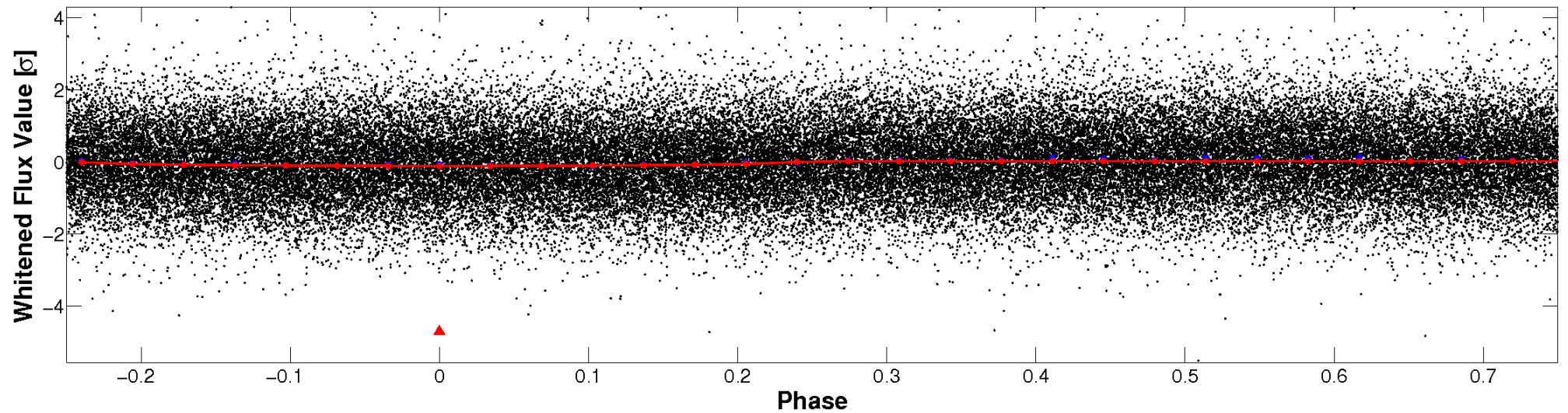


Non-Whitened Vs. Whitened Light Curve

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

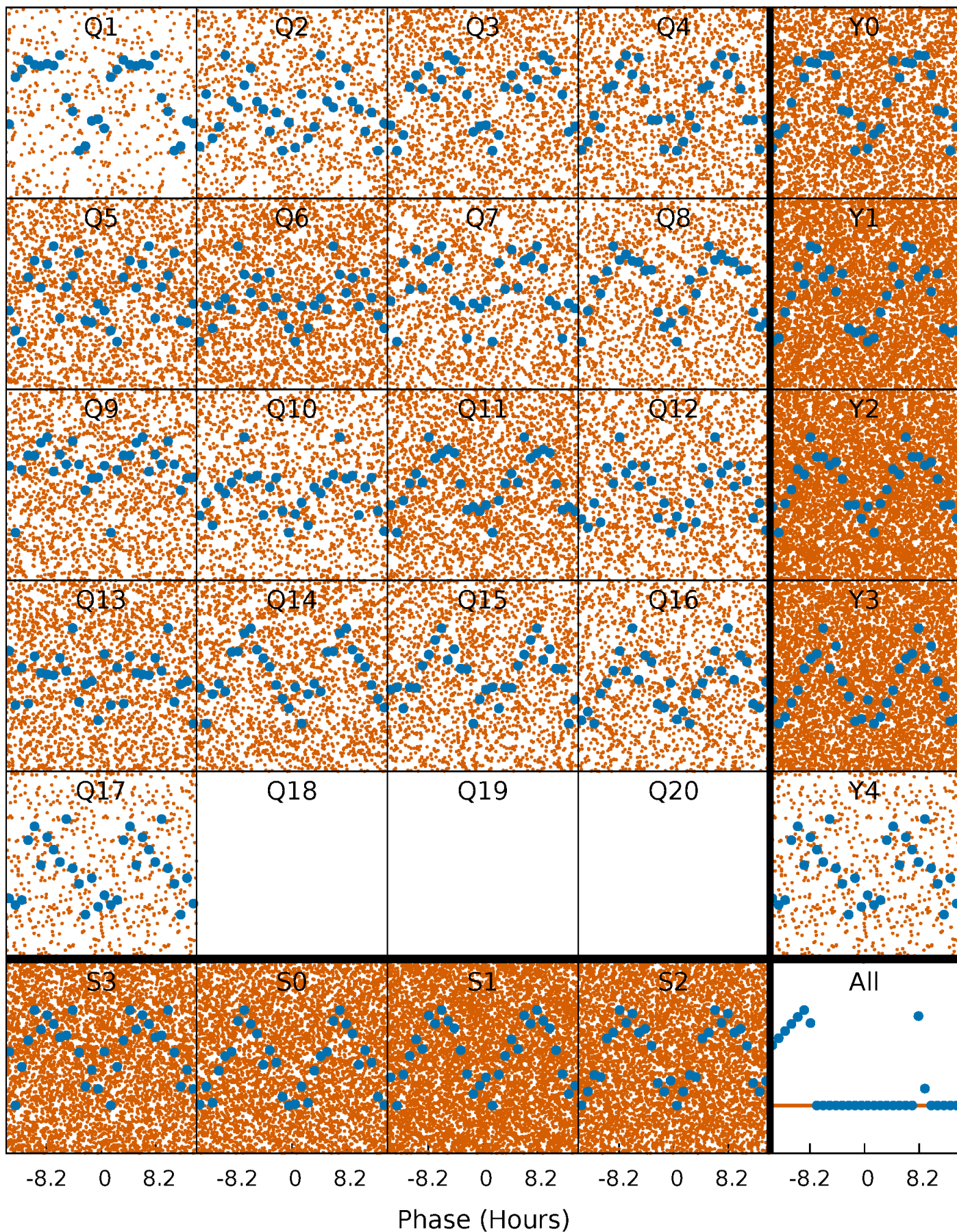


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



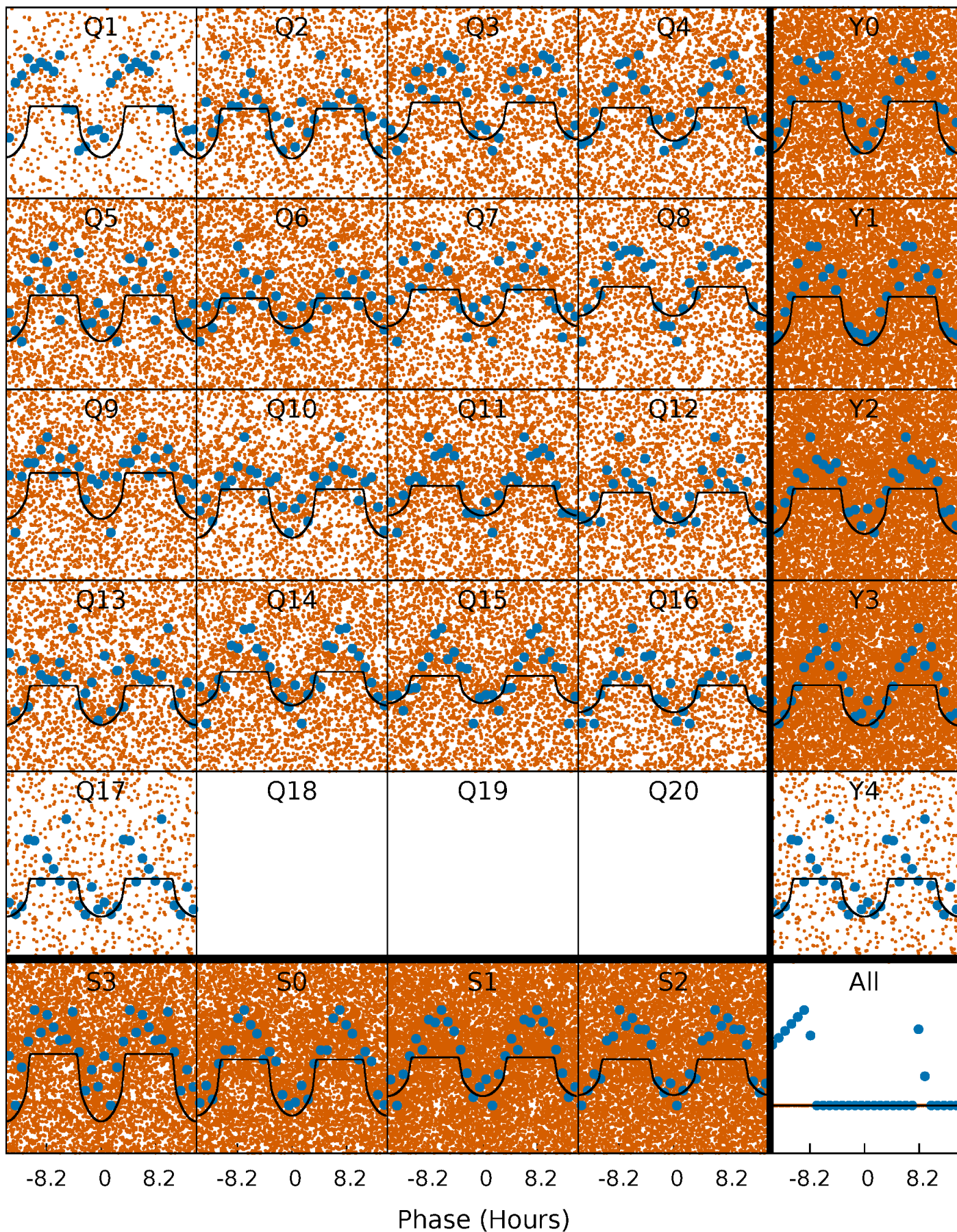
PDC Quarter-Phased Transit Curves

TCE 008846823-01 P= 0.596241 Days $T_0=131.678984$ (BKJD)



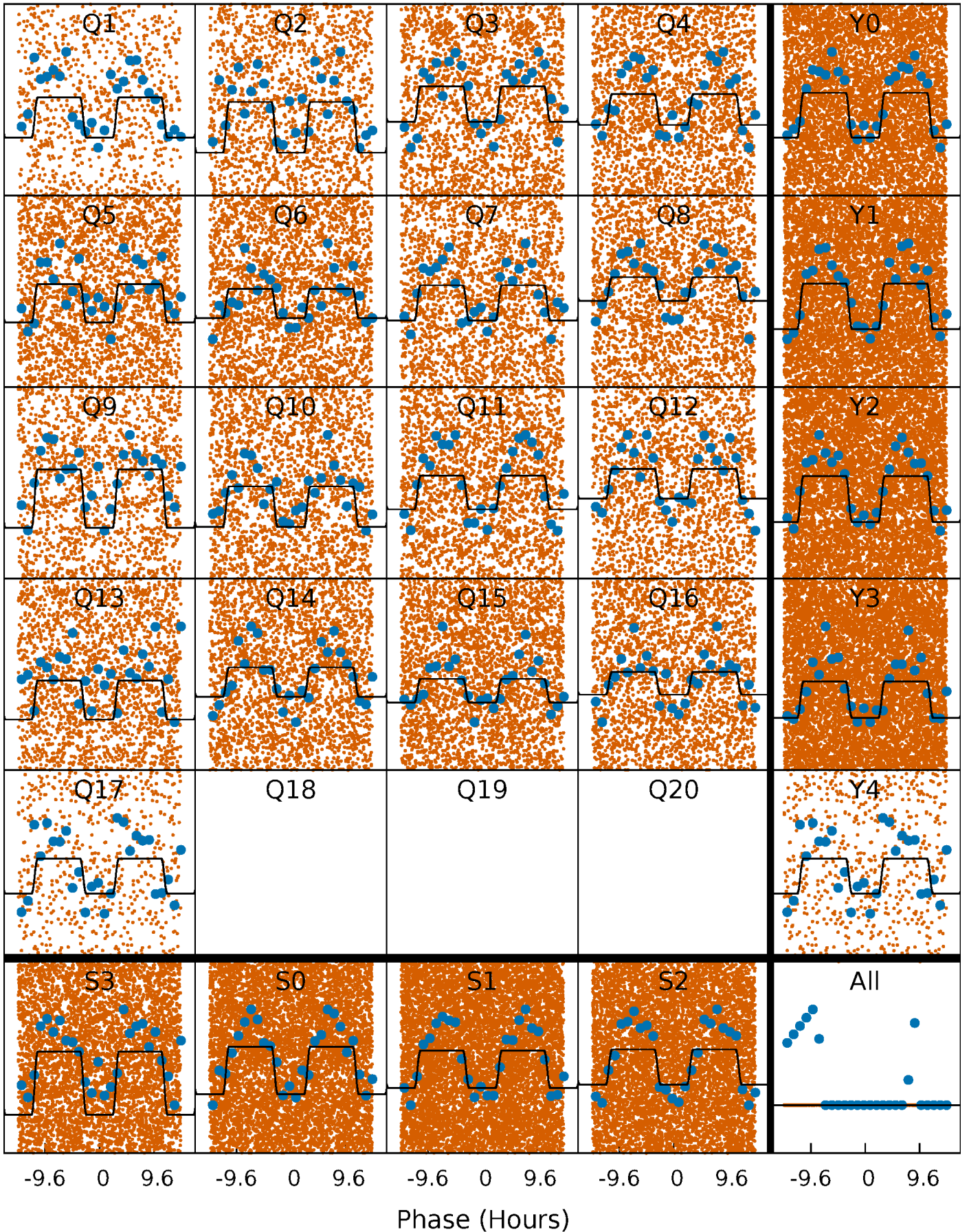
DV Quarter-Phased Transit Curves

TCE 008846823-01 P= 0.596241 Days $T_0=131.678984$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

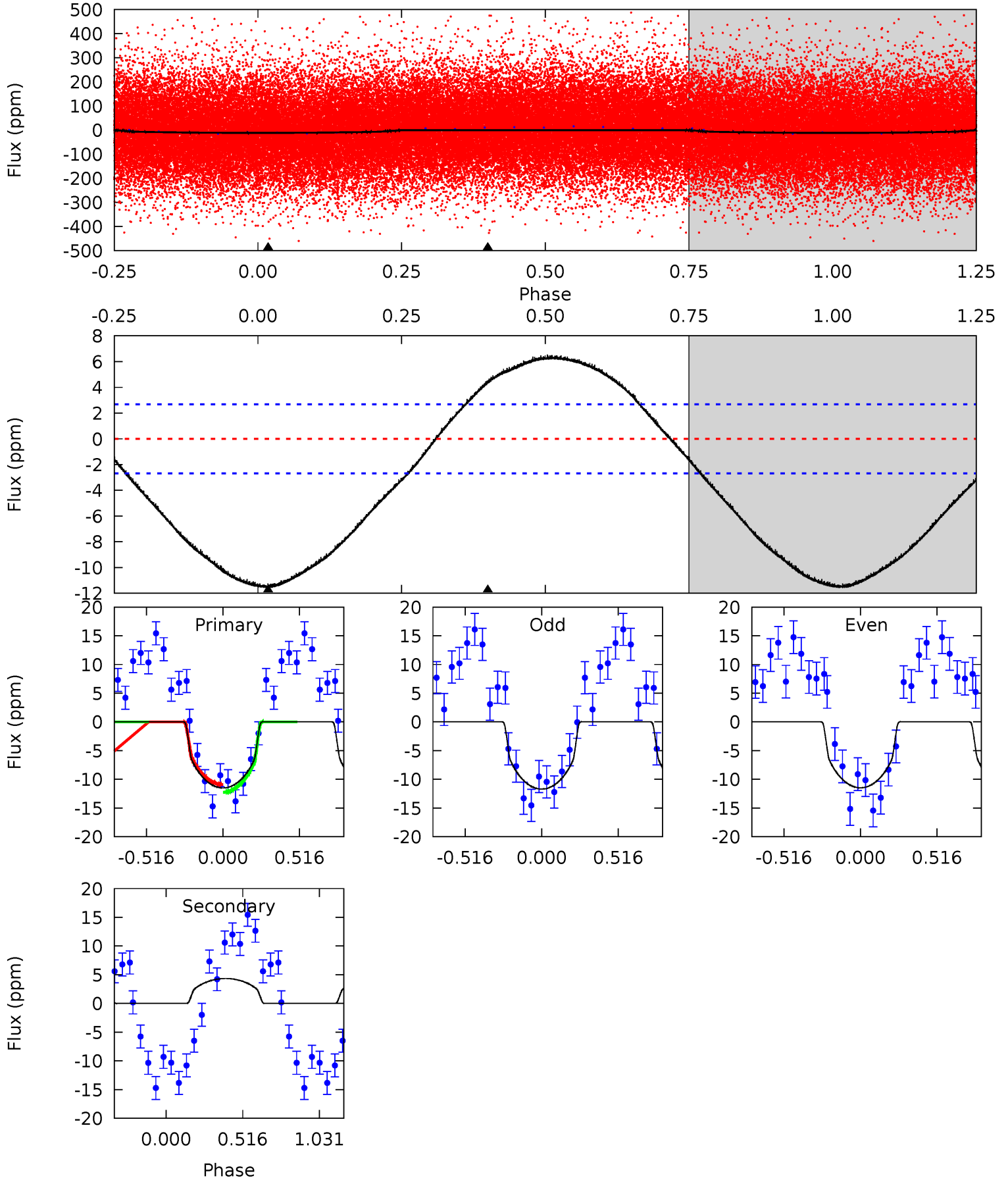
TCE 008846823-01 P= 0.596260 Days $T_0=131.657356$ (BKJD)



DV Model-Shift Uniqueness Test

008846823-01, P = 0.596241 Days, E = 131.082743 Days

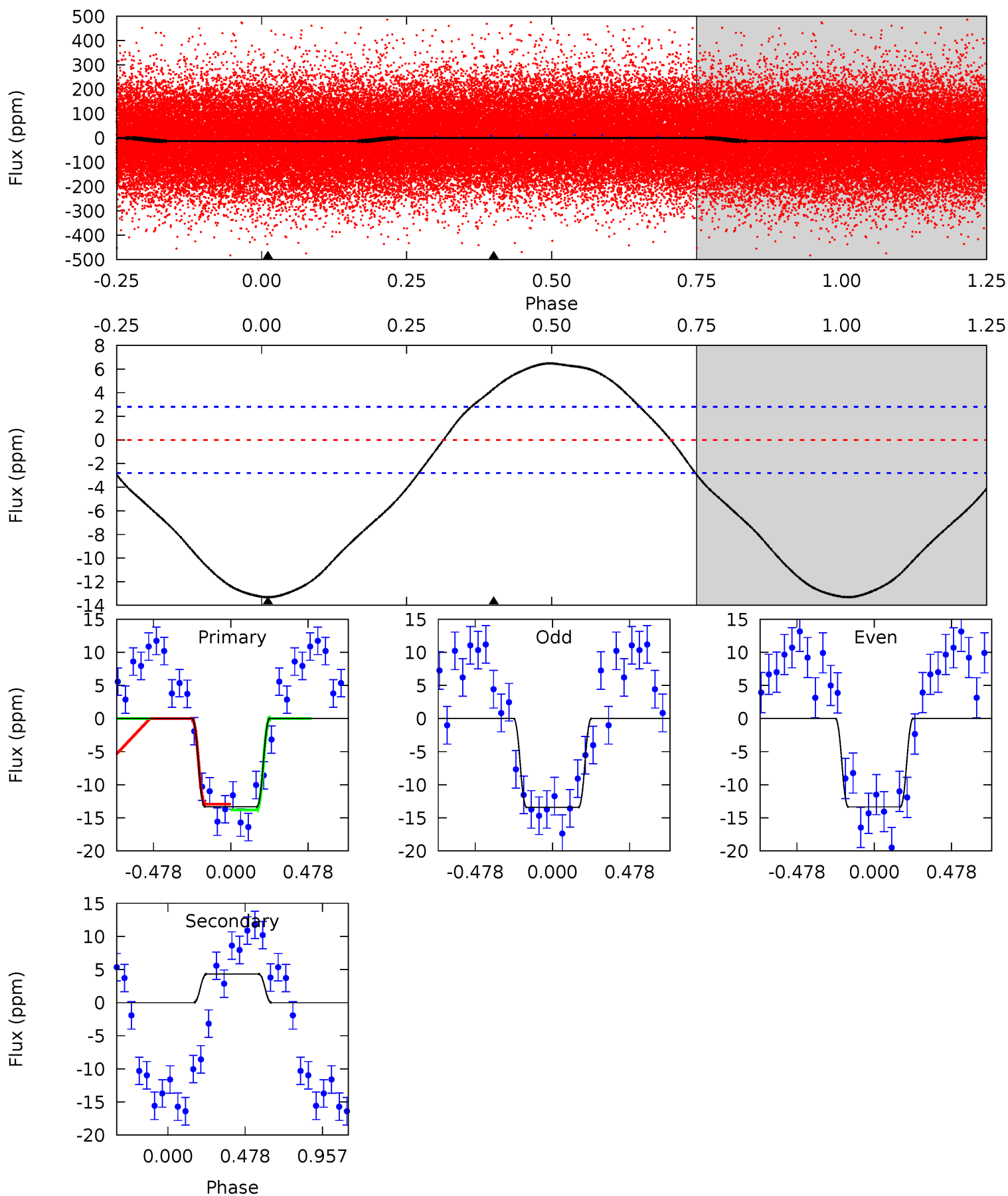
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.1	-6.83	0	0	4.21	0.65	2.32	18.1	18.1	-6.83	-6.83	0.18	1.51	0.36	1.04



Alt Model-Shift Uniqueness Test

008846823-01, P = 0.596260 Days, E = 131.061096 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.1	-6.52	0	0	4.22	0.71	2.69	20.1	20.1	-6.52	-6.52	0.05	0.97	0.33	0.66



Stellar Parameters For KIC 008846823

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5676^{+169}_{-169}	$3.968^{+0.630}_{-0.210}$	$-0.640^{+0.300}_{-0.300}$	$1.546^{+0.569}_{-0.854}$	$0.809^{+0.085}_{-0.085}$	$0.308^{+2.302}_{-0.189}$
	+3%/-3%	+16%/-5%	+47%/-47%	+37%/-55%	+11%/-11%	+746%/-61%
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 008846823-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	4 ± 1	$0.58^{+0.33}_{-0.26}$	3762^{+376}_{-575}	-4650^{+465}_{-916}	$-1.193^{+0.714}_{-2.633}$
Alt.	4 ± 1	$0.56^{+0.33}_{-0.25}$	3750^{+386}_{-572}	-4668^{+446}_{-930}	$-1.288^{+0.773}_{-2.967}$

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

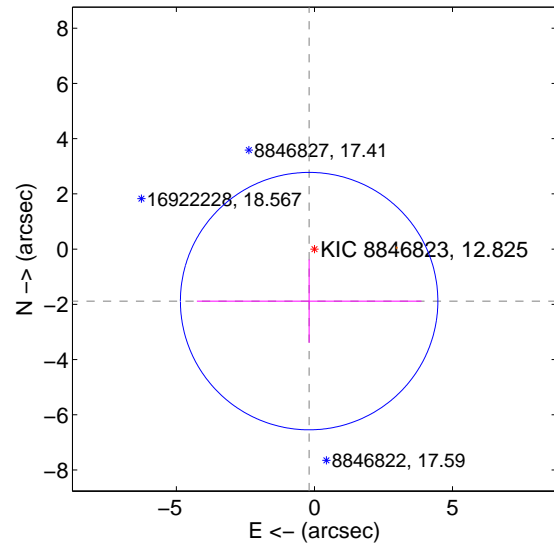
Supplemental centroid analysis for 008846823-01. Kepler magnitude: 12.82. Transit SNR 15.79

There are 0 quarters with good PRF difference image offsets

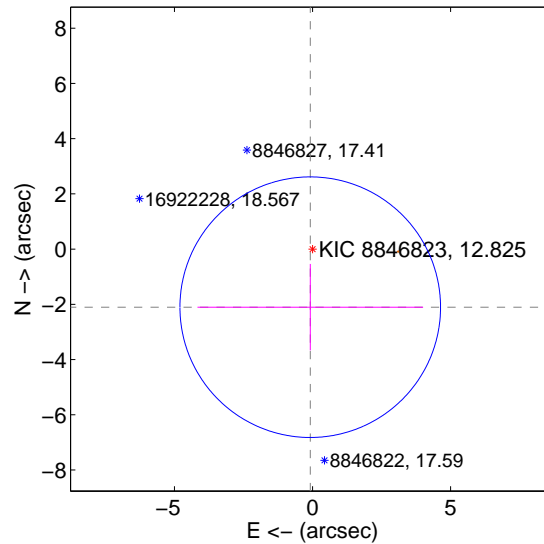
The direct PRF centroid is offset from the target star catalog position by about 0.35 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.894 ± 1.554	1.22	0.192 ± 4.068	-1.884 ± 1.506
PRF-fit source offset from KIC position	2.106 ± 1.573	1.34	0.083 ± 4.086	-2.104 ± 1.566
photometric centroid source offset	4.44 ± 0.96	4.65	2.60 ± 1.19	-3.60 ± 0.81

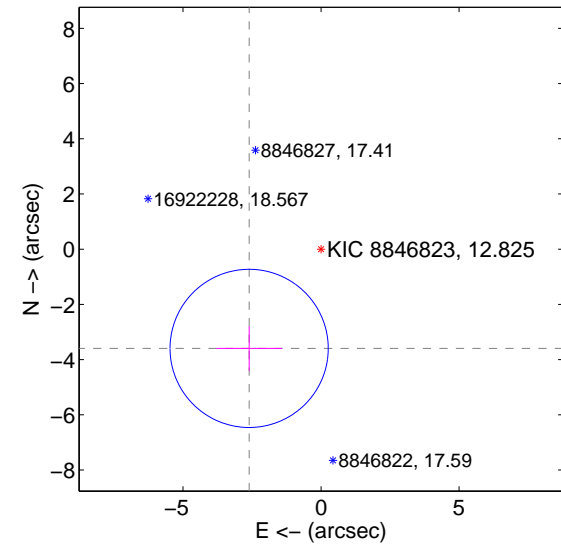
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

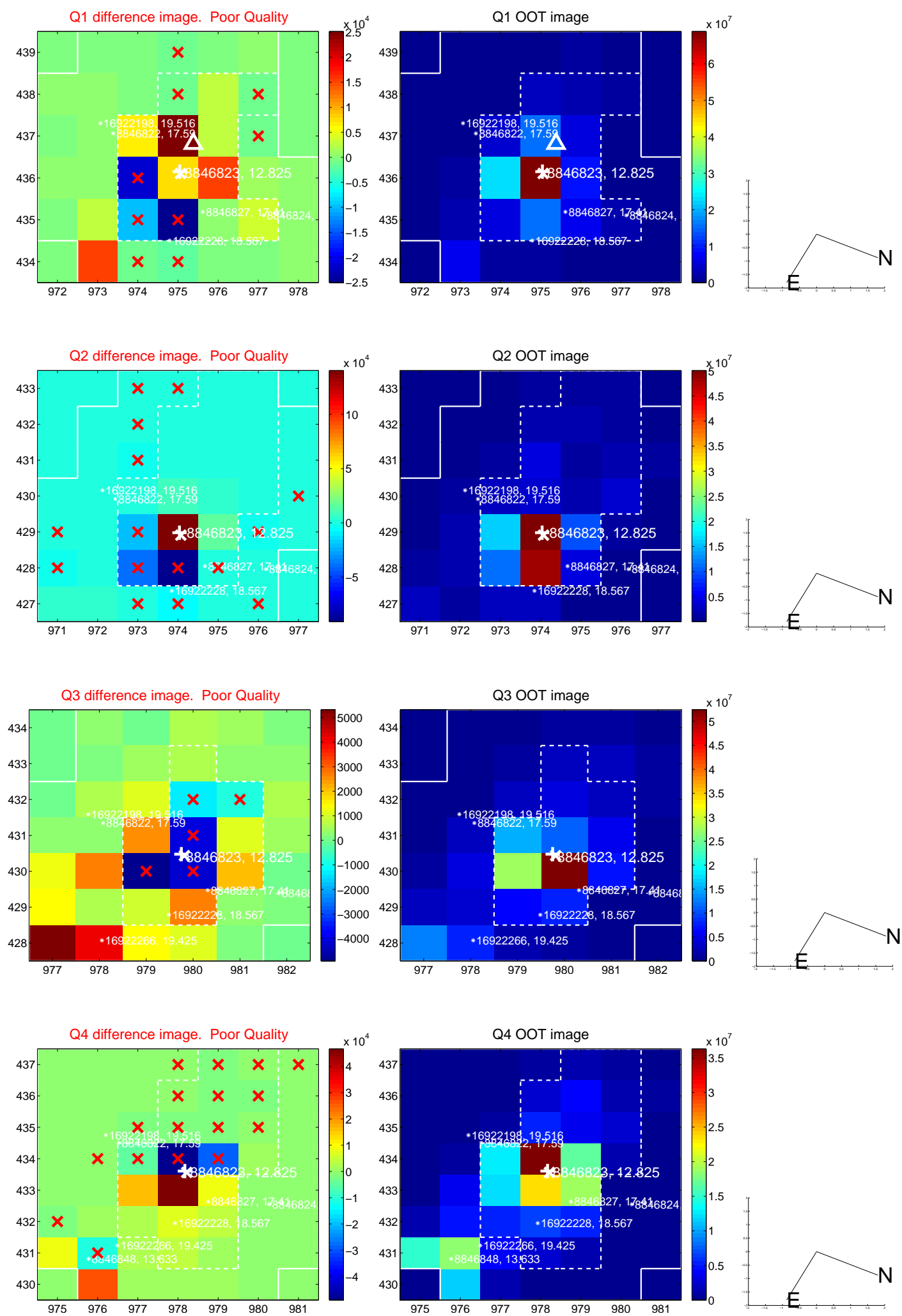


offset from photometric centroids

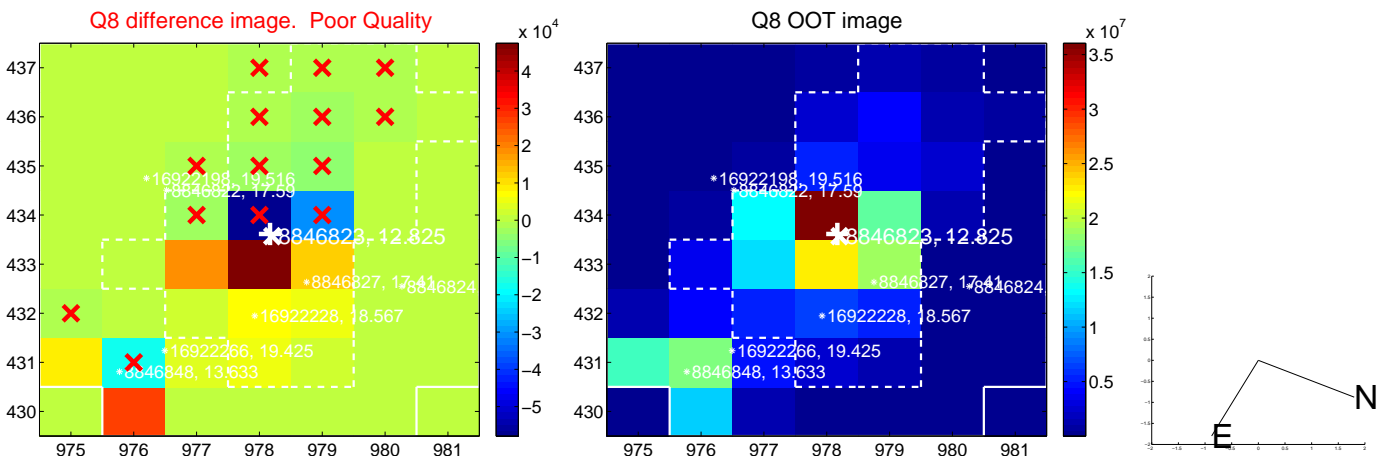
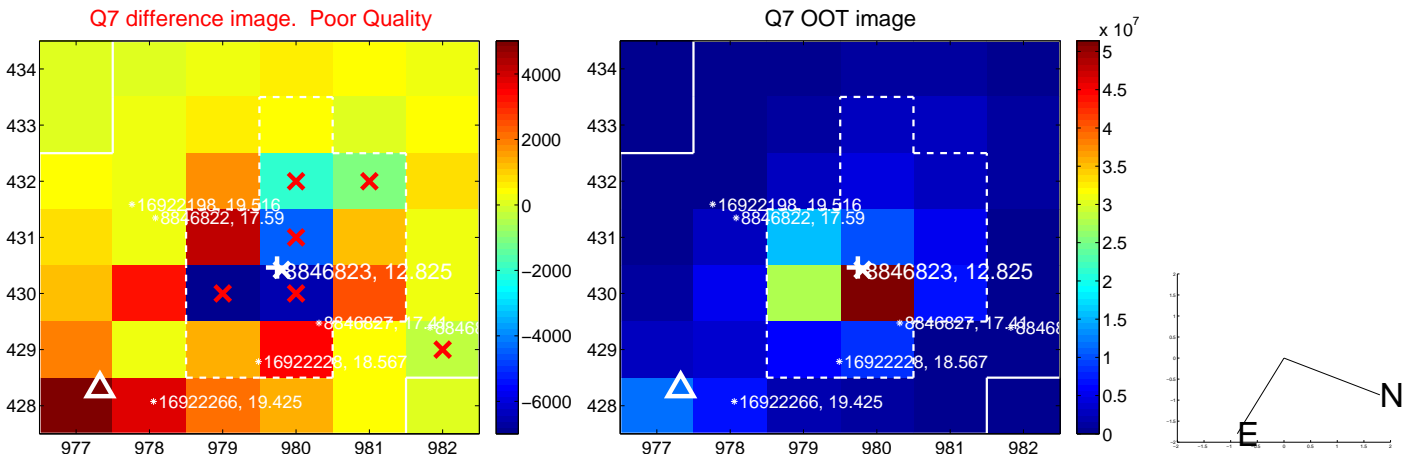
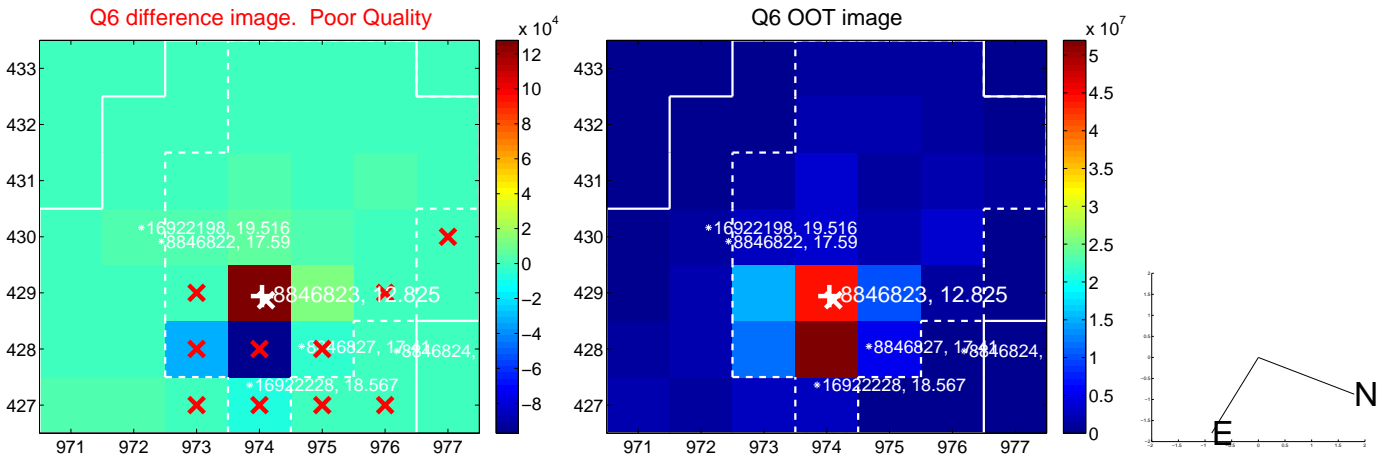
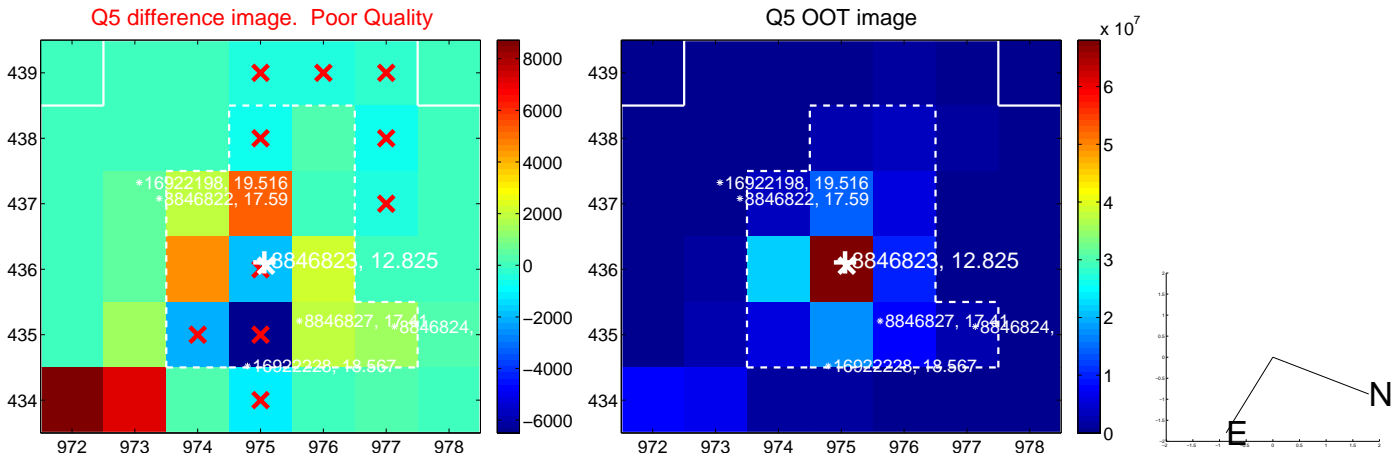


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

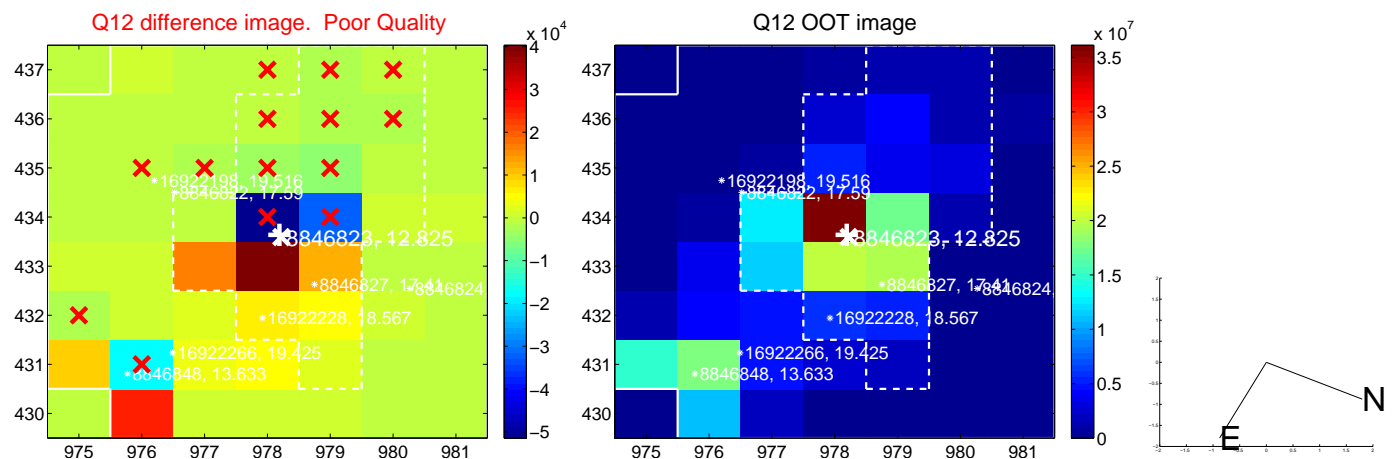
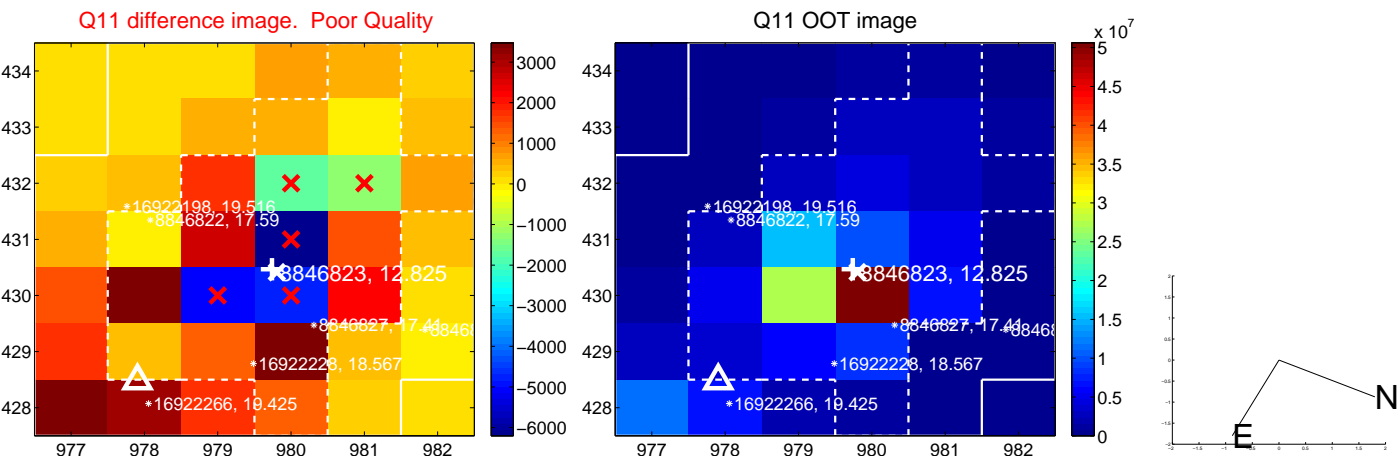
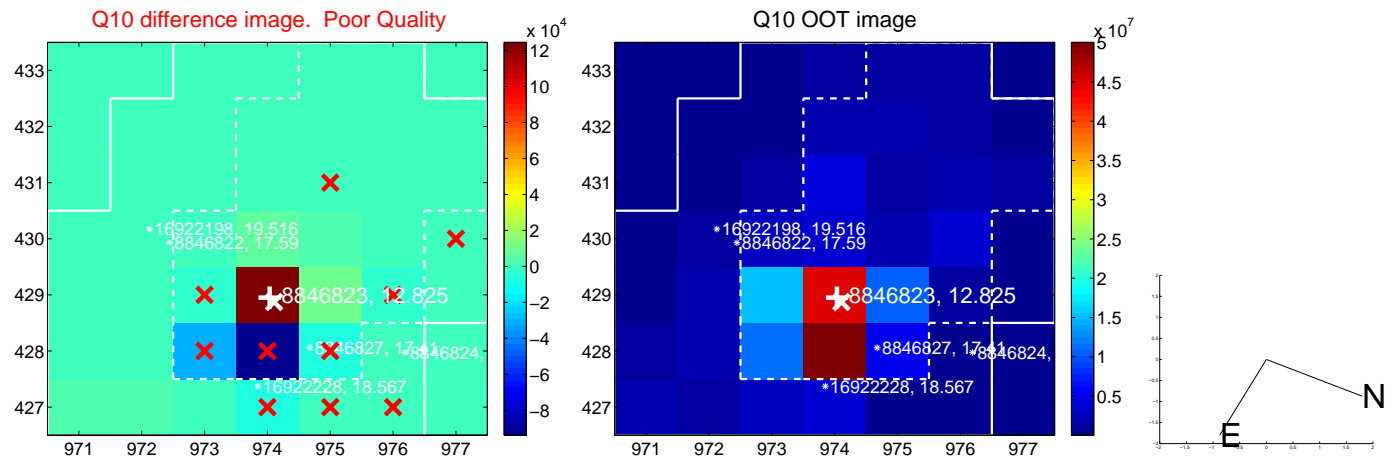
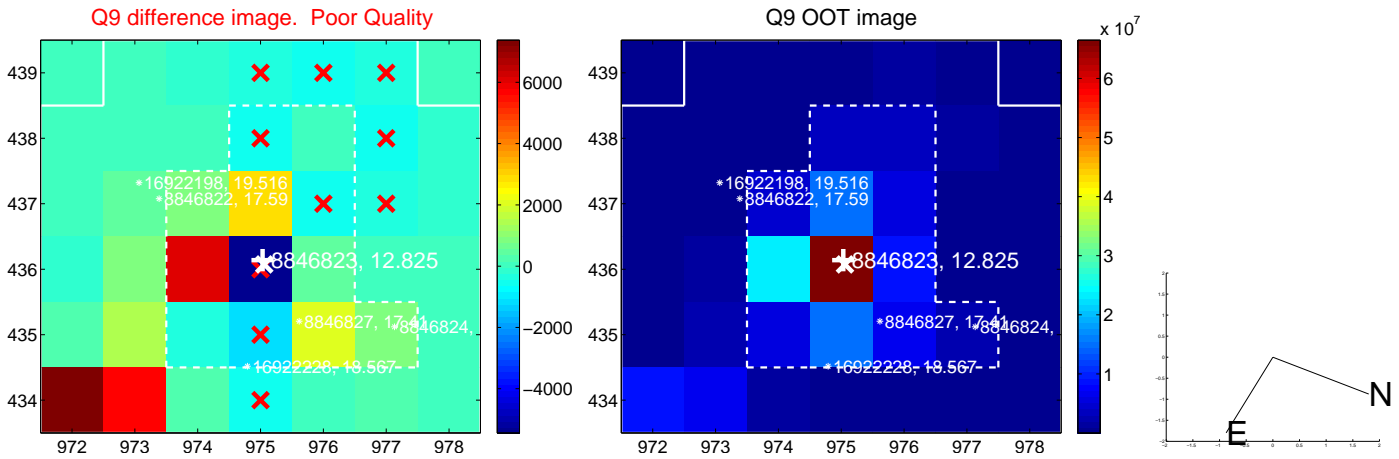
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



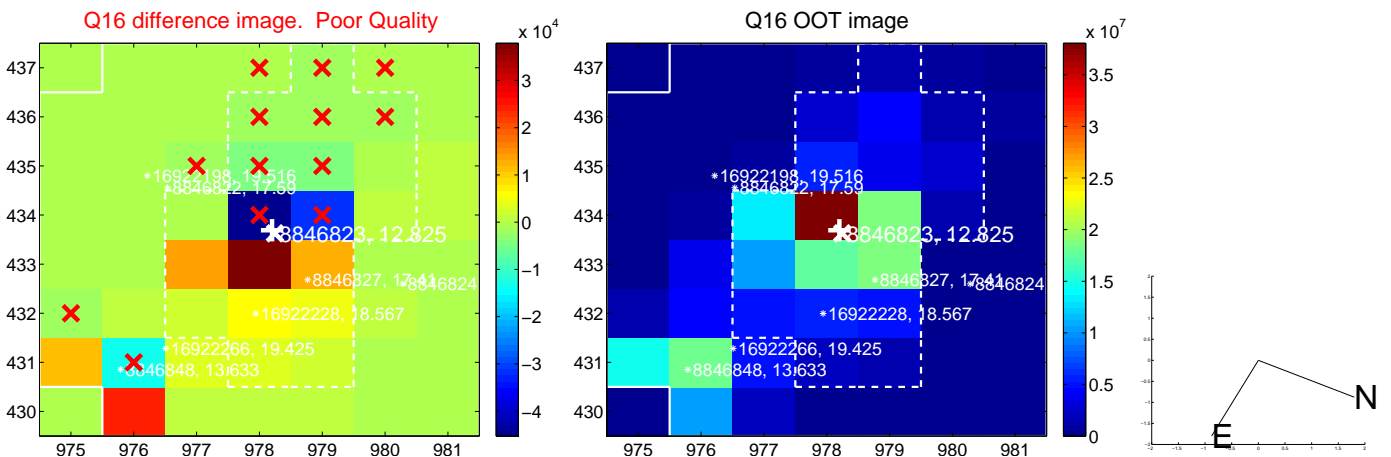
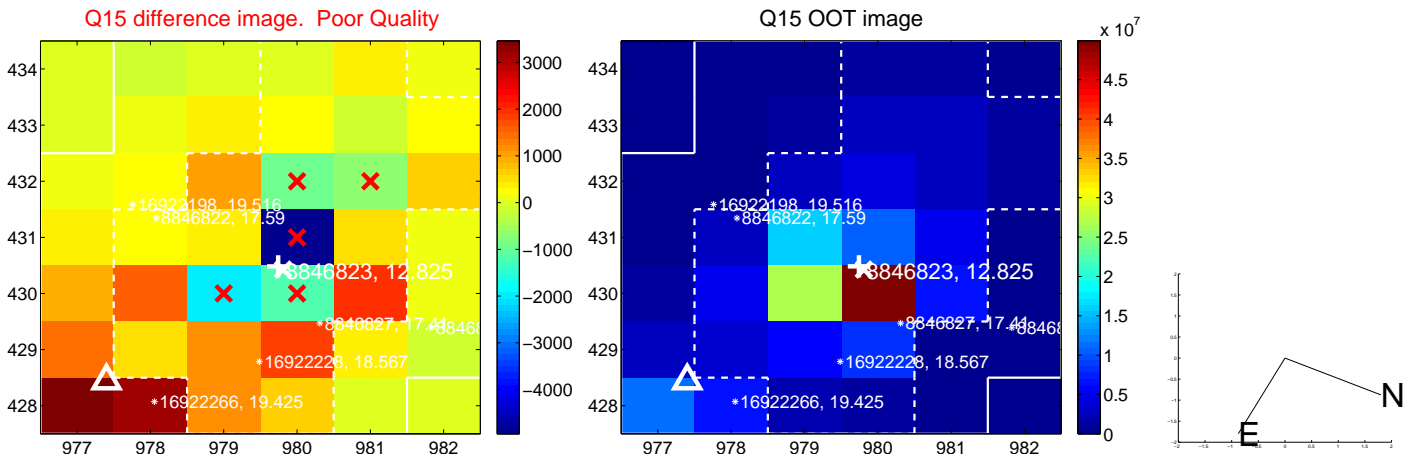
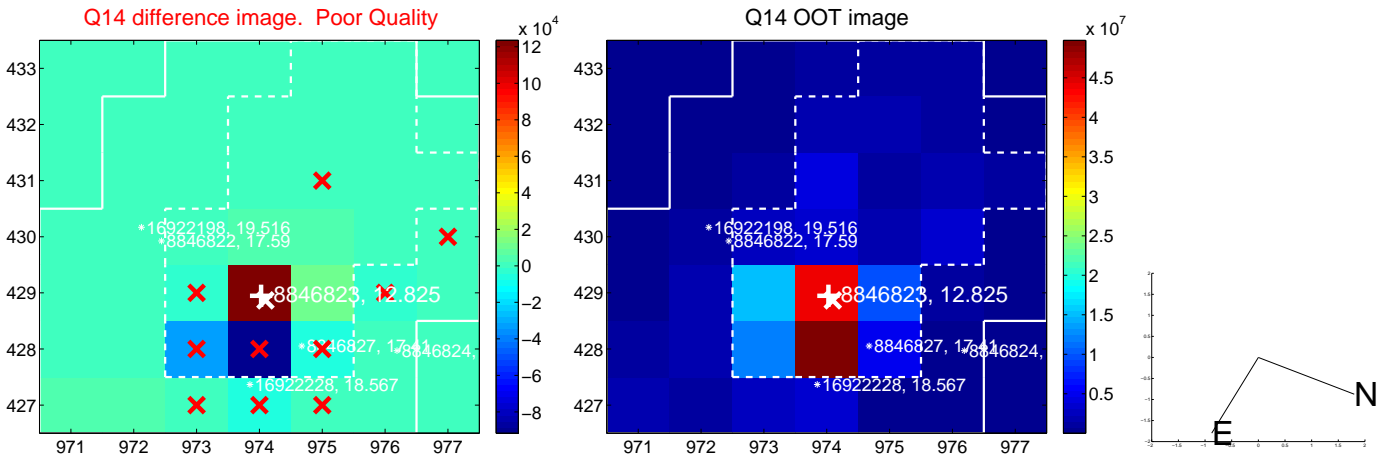
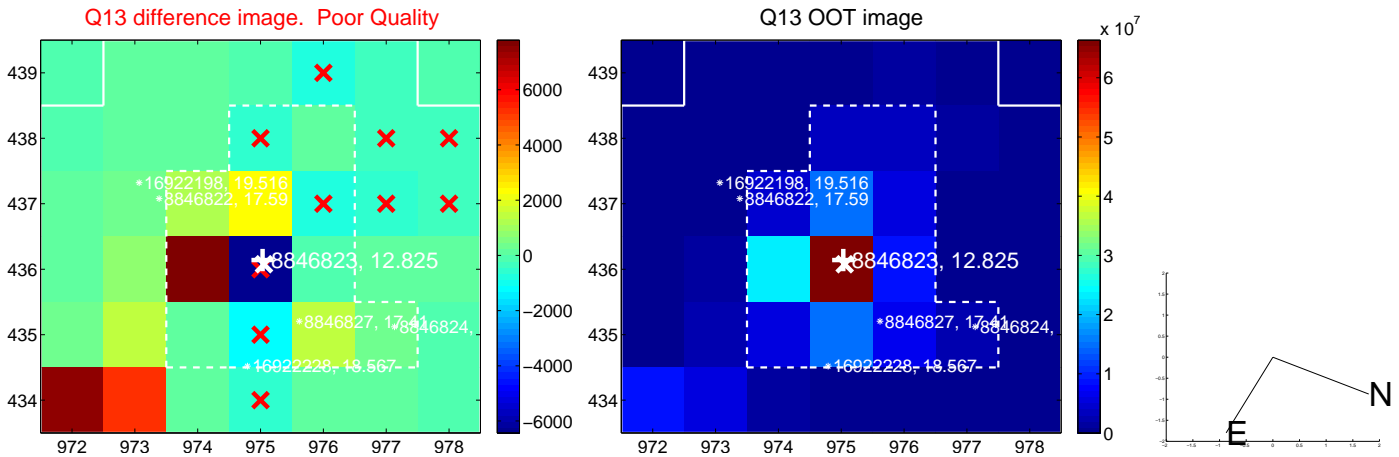
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



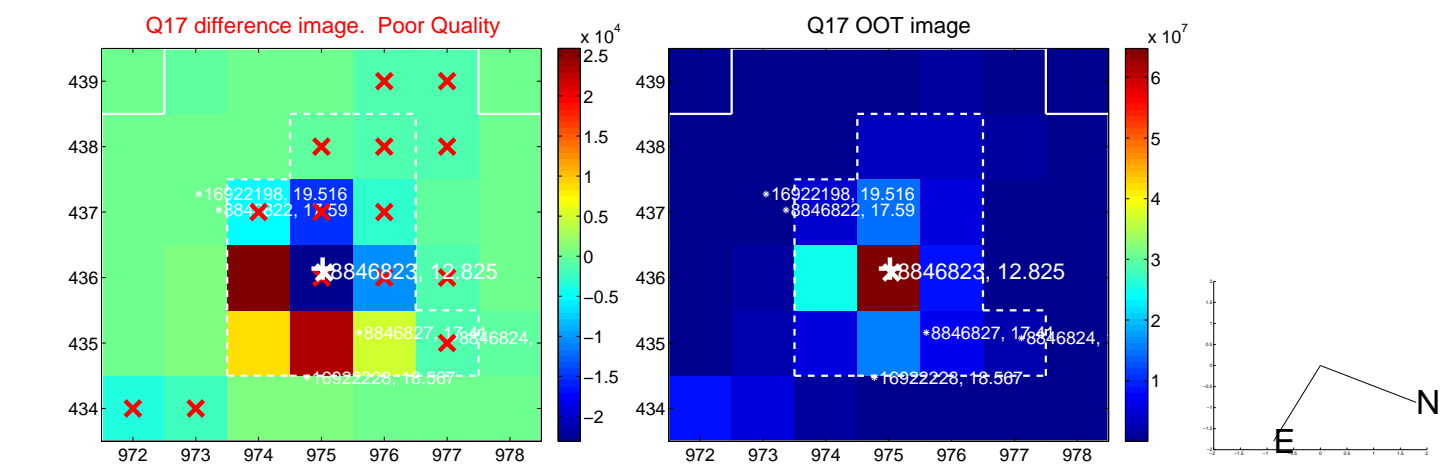
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



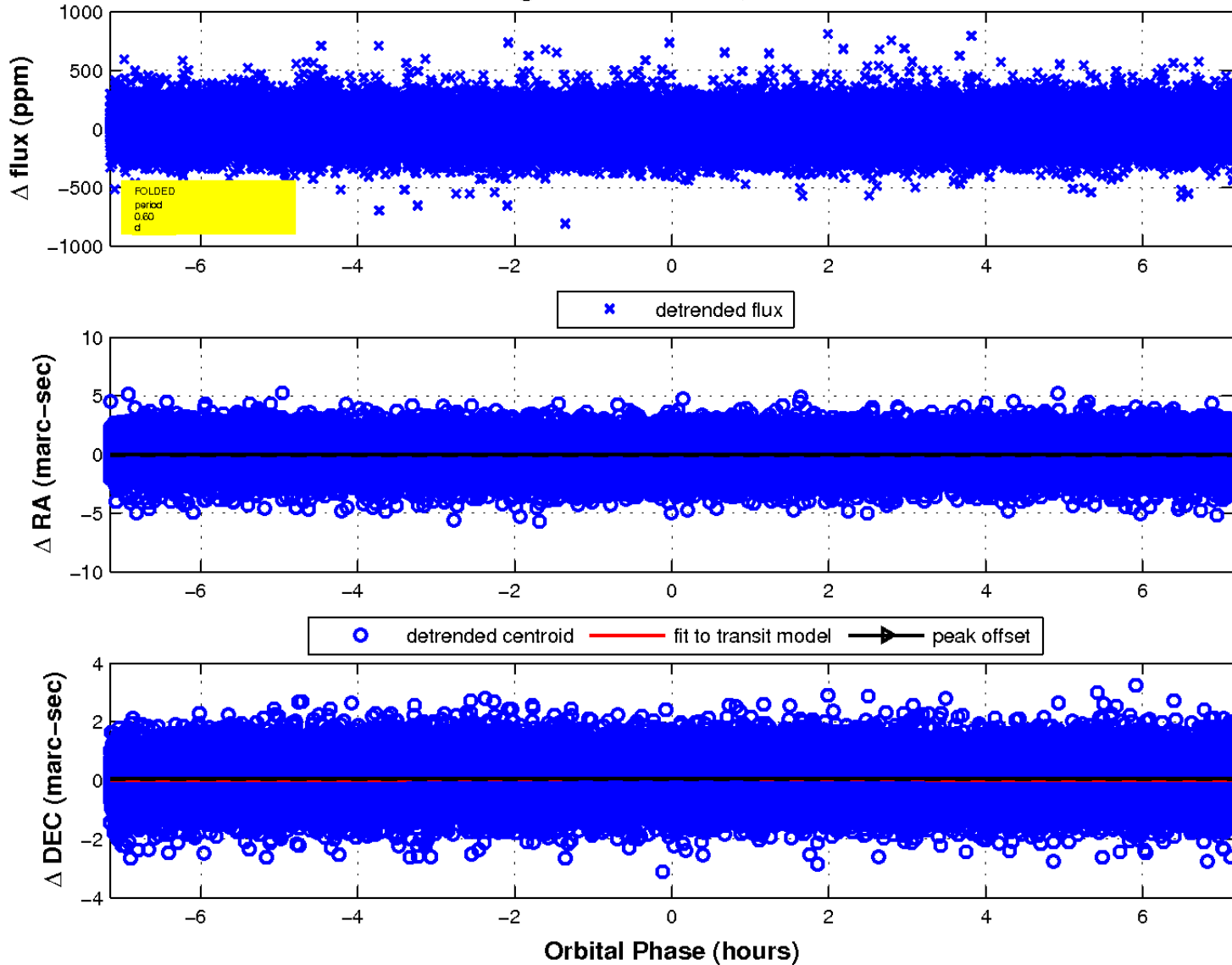
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

