

KIC 006468089

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})
006468089-01	OBS	No	0.838667	131.882773	40.1	1.591	7.4	5.7	1.23	5933	0.94	5234.39

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006468089-01	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—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.

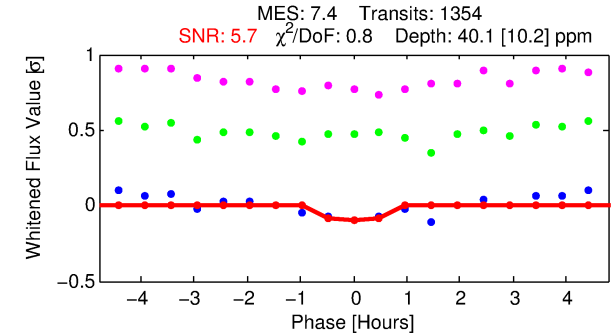
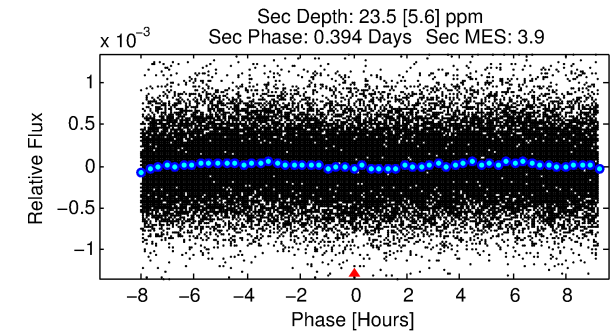
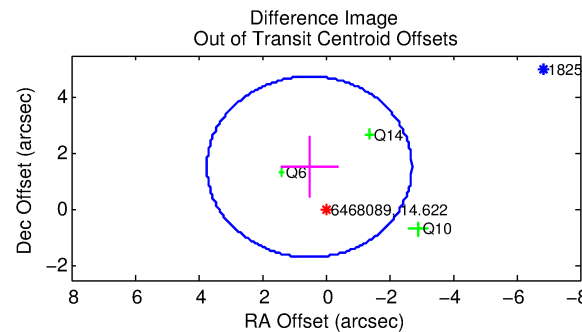
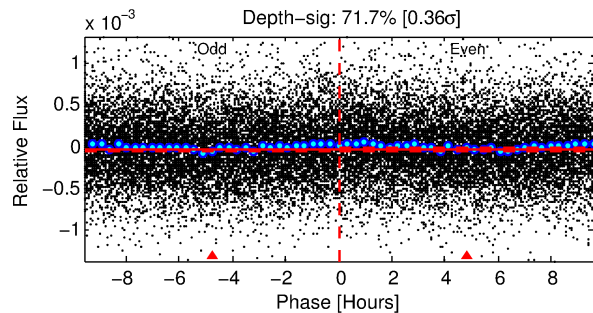
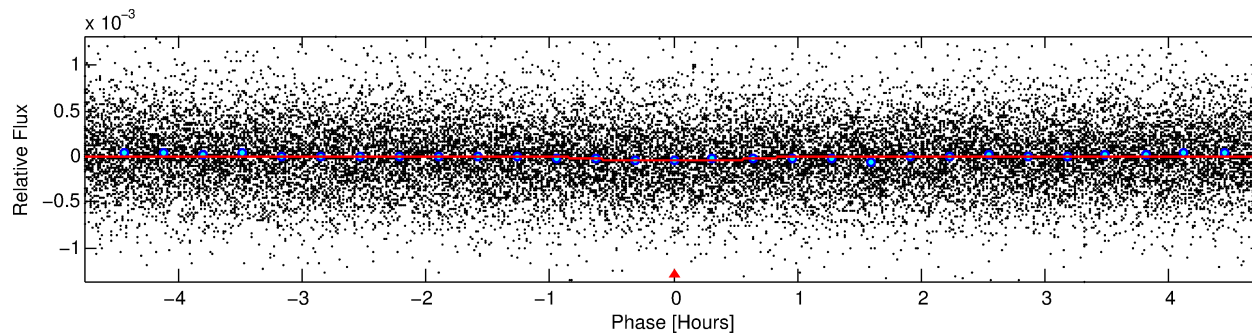
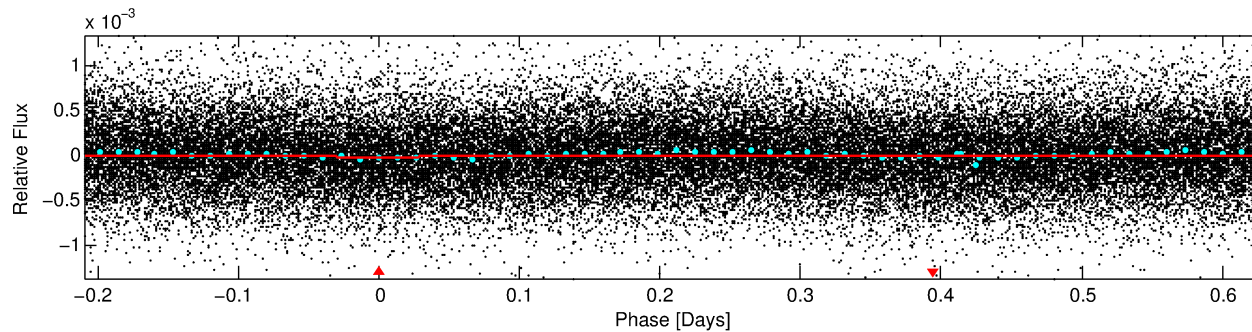
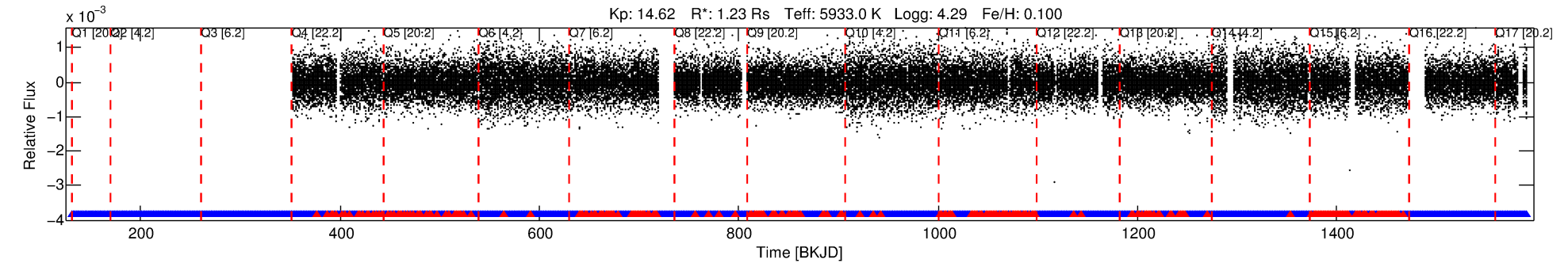
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006468089-01

No Significant Match Found

DV One-Page Summary

KIC: 6468089 Candidate: 1 of 1 Period: 0.839 d



DV Fit Results:

Period = 0.83867 [0.00002] d
Epoch = 131.8828 [0.0040] BKJD
Rp/R* = 0.0070 [0.0077]
a/R* = 1.91 [7.71]
b = 0.92 [0.96]
Seff = 5234.39 [2007.23]
Teff = 2169 [208] K
Rp = 0.94 [1.07] Re
a = 0.0179 [0.0044] AU
Ag = 4.66 [10.39] [0.35 σ]
Teffp = 4928 [2716] K [1.01 σ]

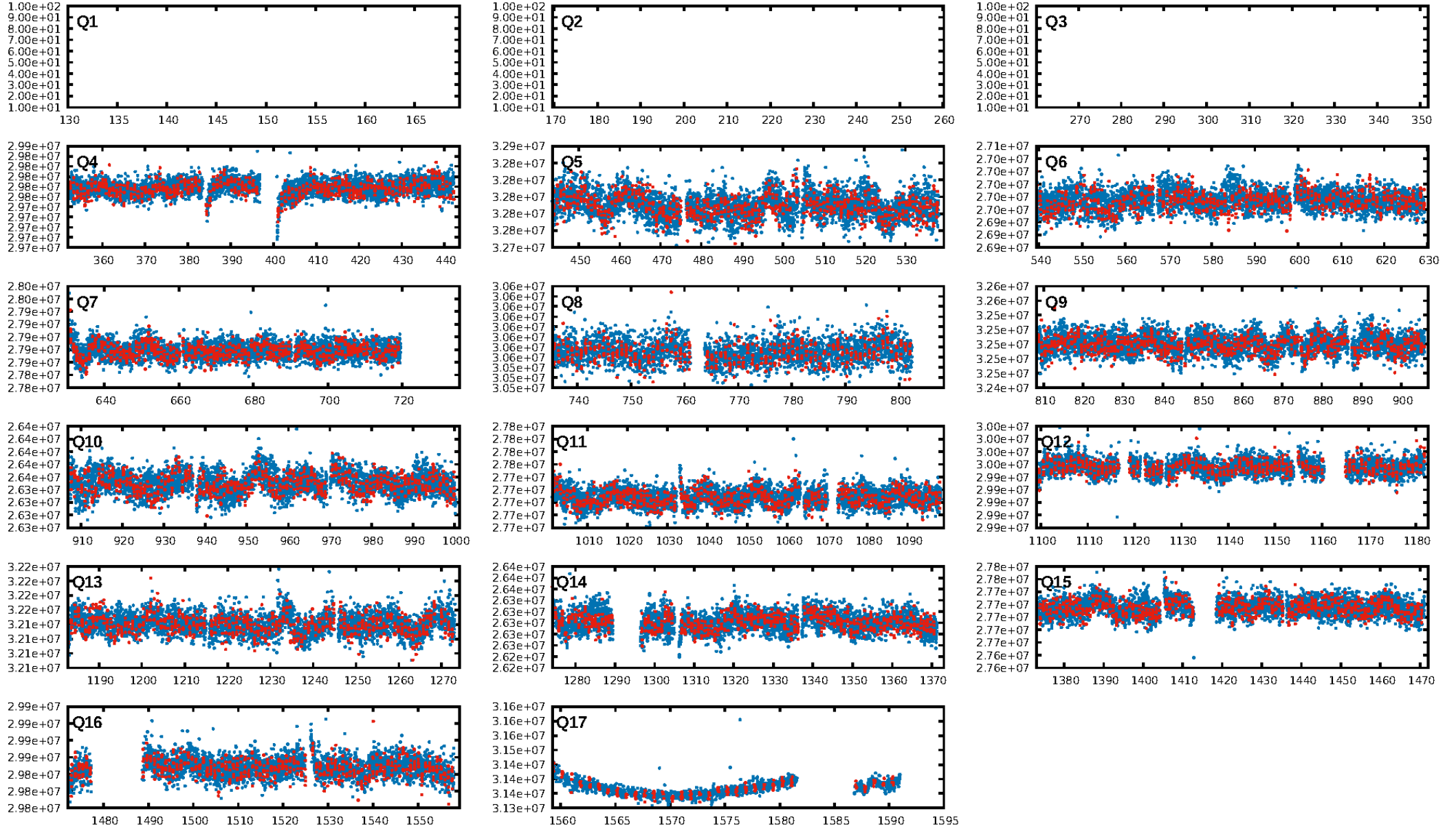
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.86e-14
RollingBand-fgt: 0.77 [1018/1322]
GhostDiagnostic-chr: -0.808
Centroid-sig: 0.7%
Centroid-so: 6.183 arcsec [4.41 σ]
OotOffset-rm: 1.611 arcsec [1.50 σ]
KicOffset-rm: 10.920 arcsec [9.44 σ]
OotOffset-st: 3/0/0/0 [3]
KicOffset-st: 3/0/0/0 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [14/14]

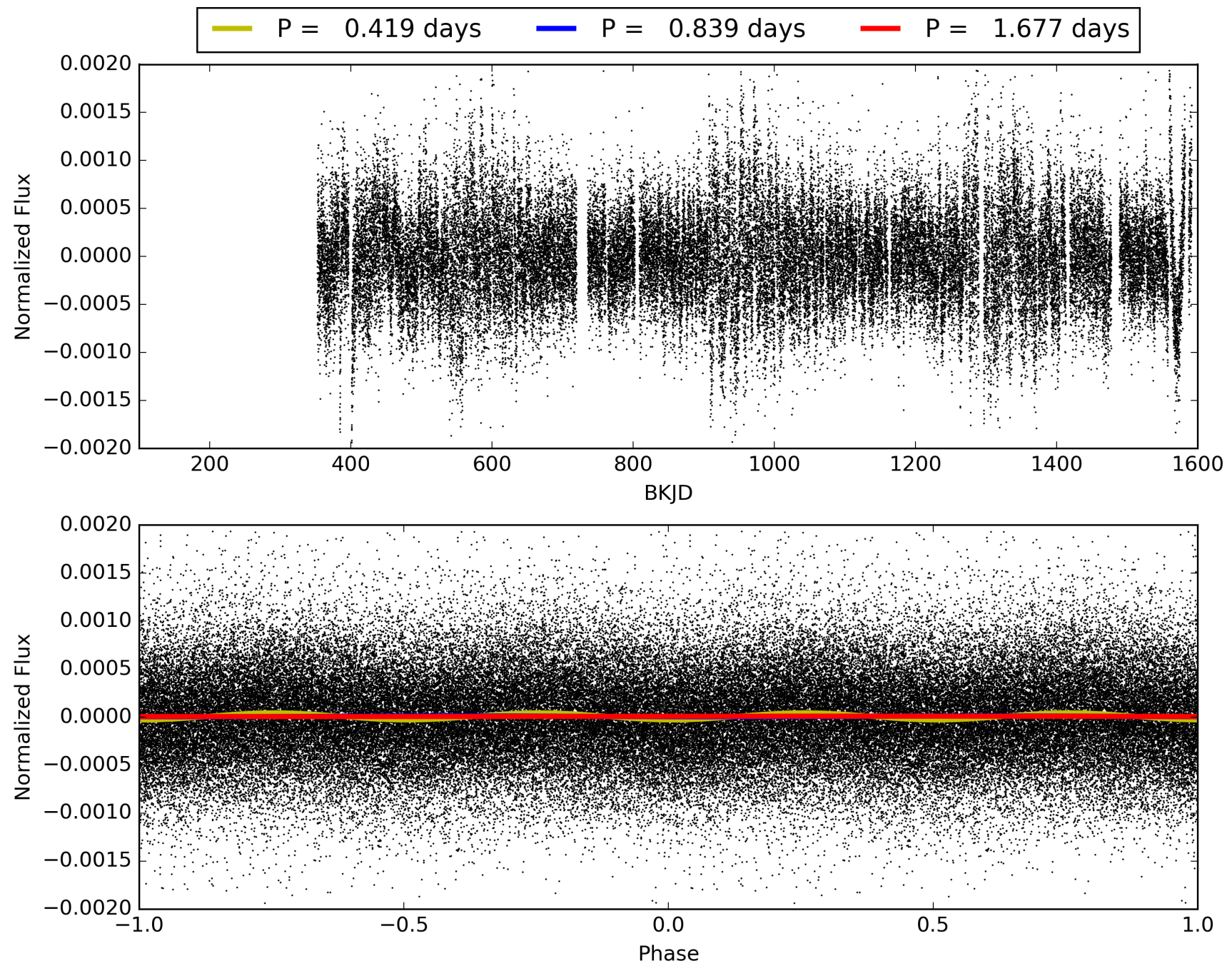
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 02:16:31 Z

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

TCE 006468089-01, PDC Light Curves

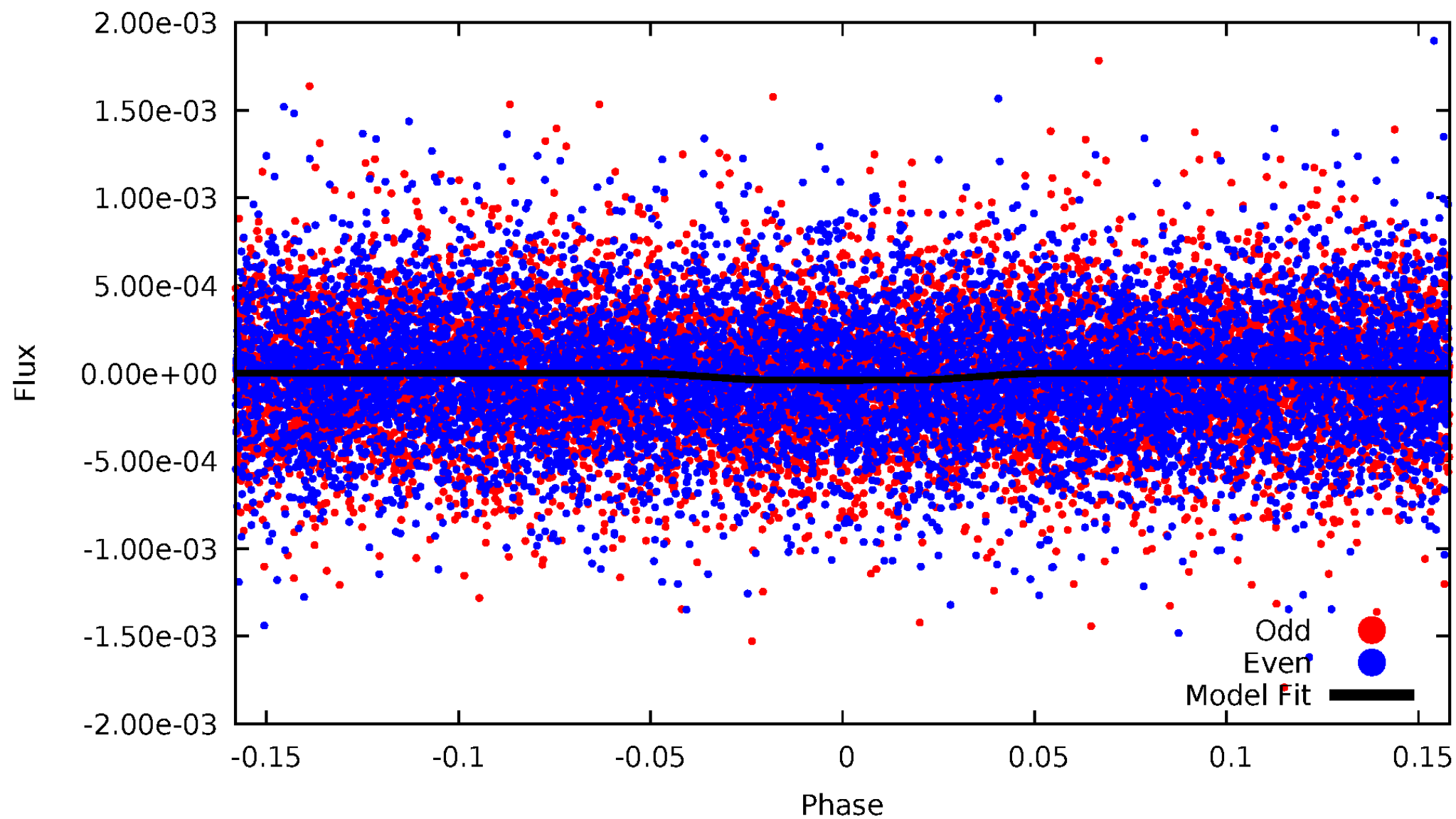


TCE 006468089-01



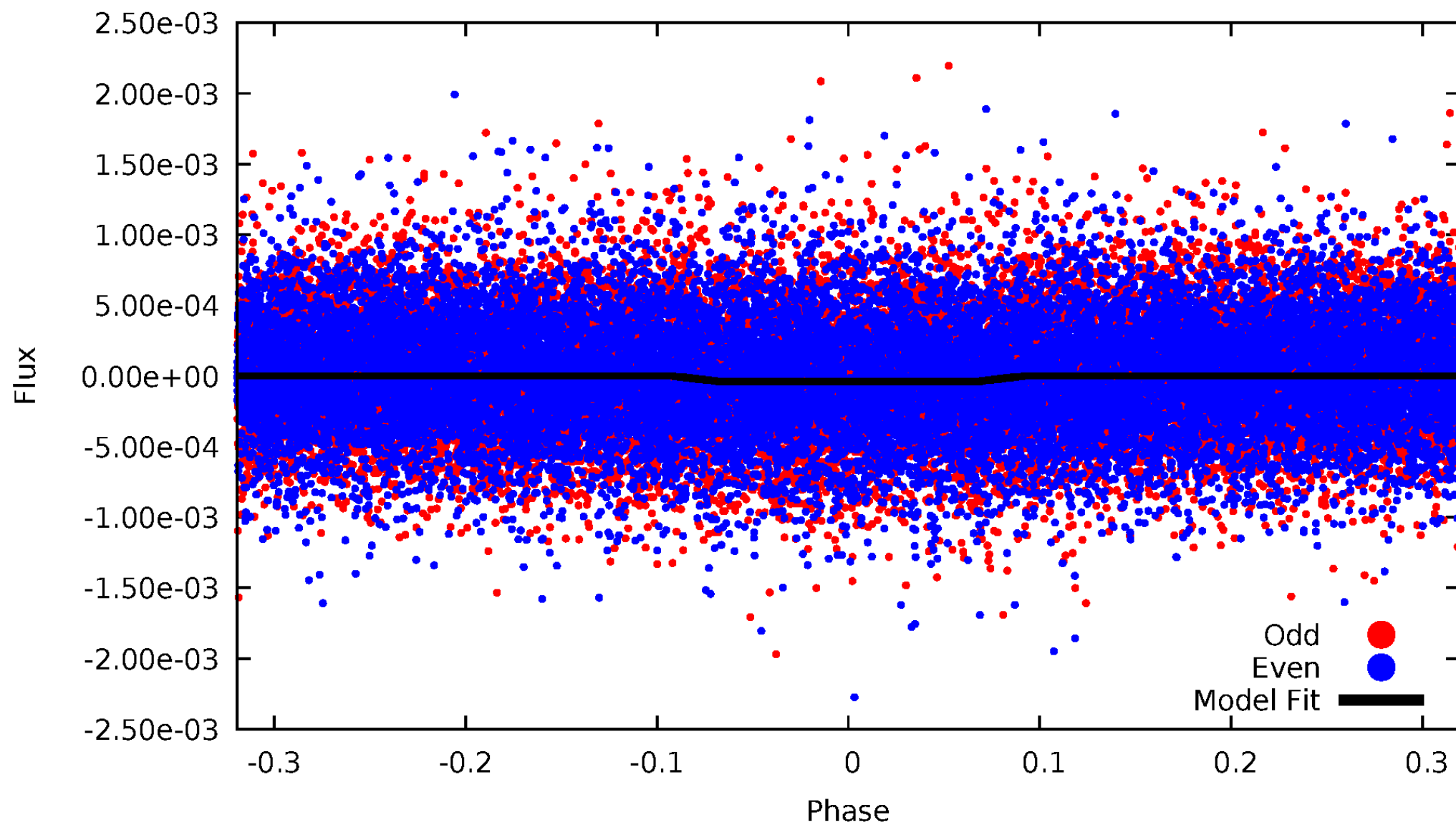
DV Odd/Even

TCE 006468089-01

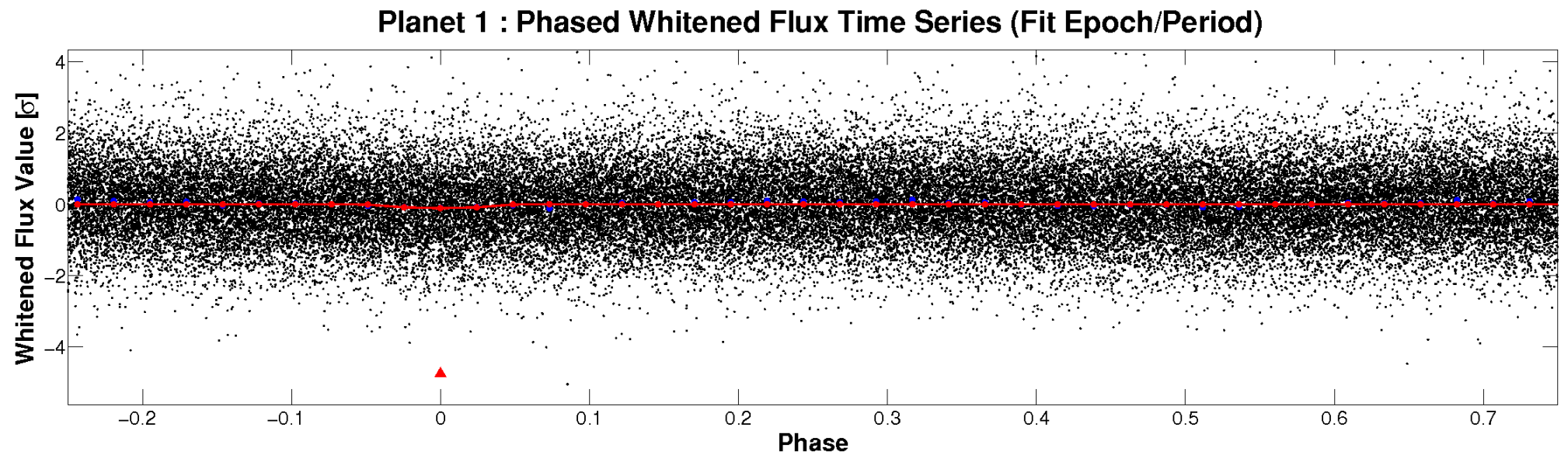
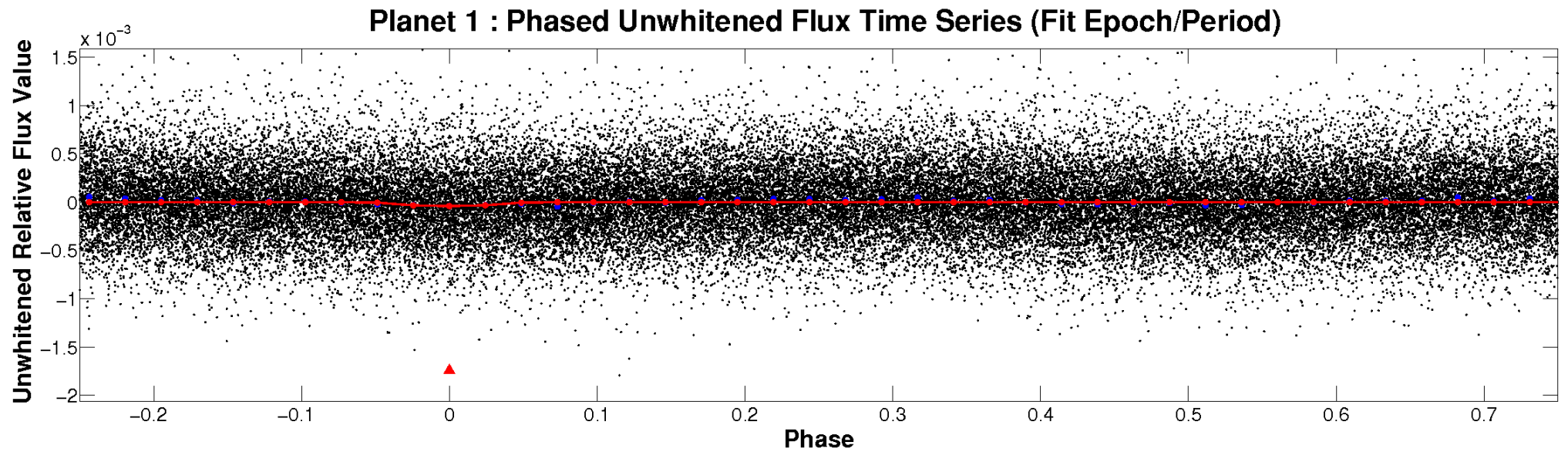


ALT Odd/Even

TCE 006468089-01

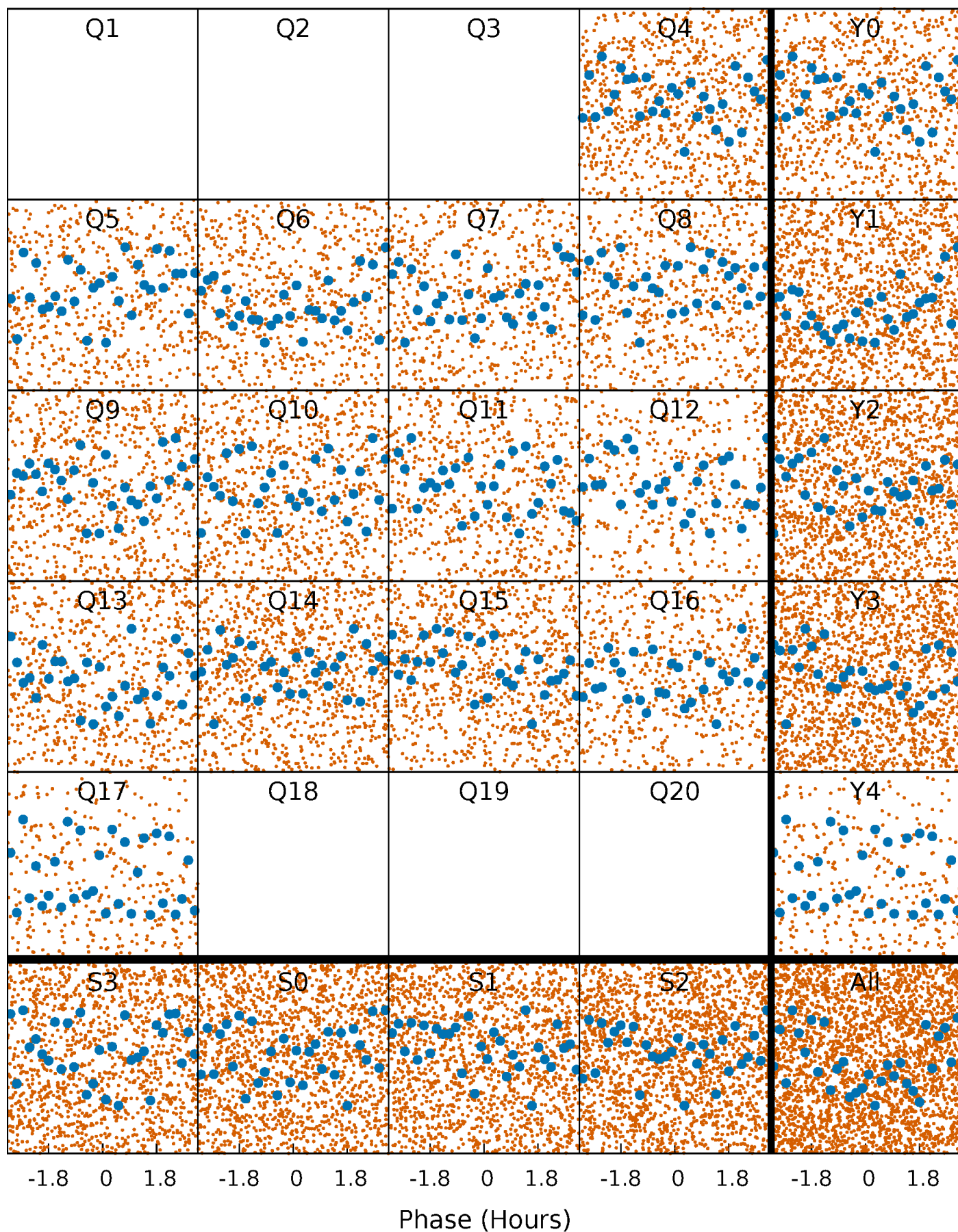


Non-Whitened Vs. Whitened Light Curve



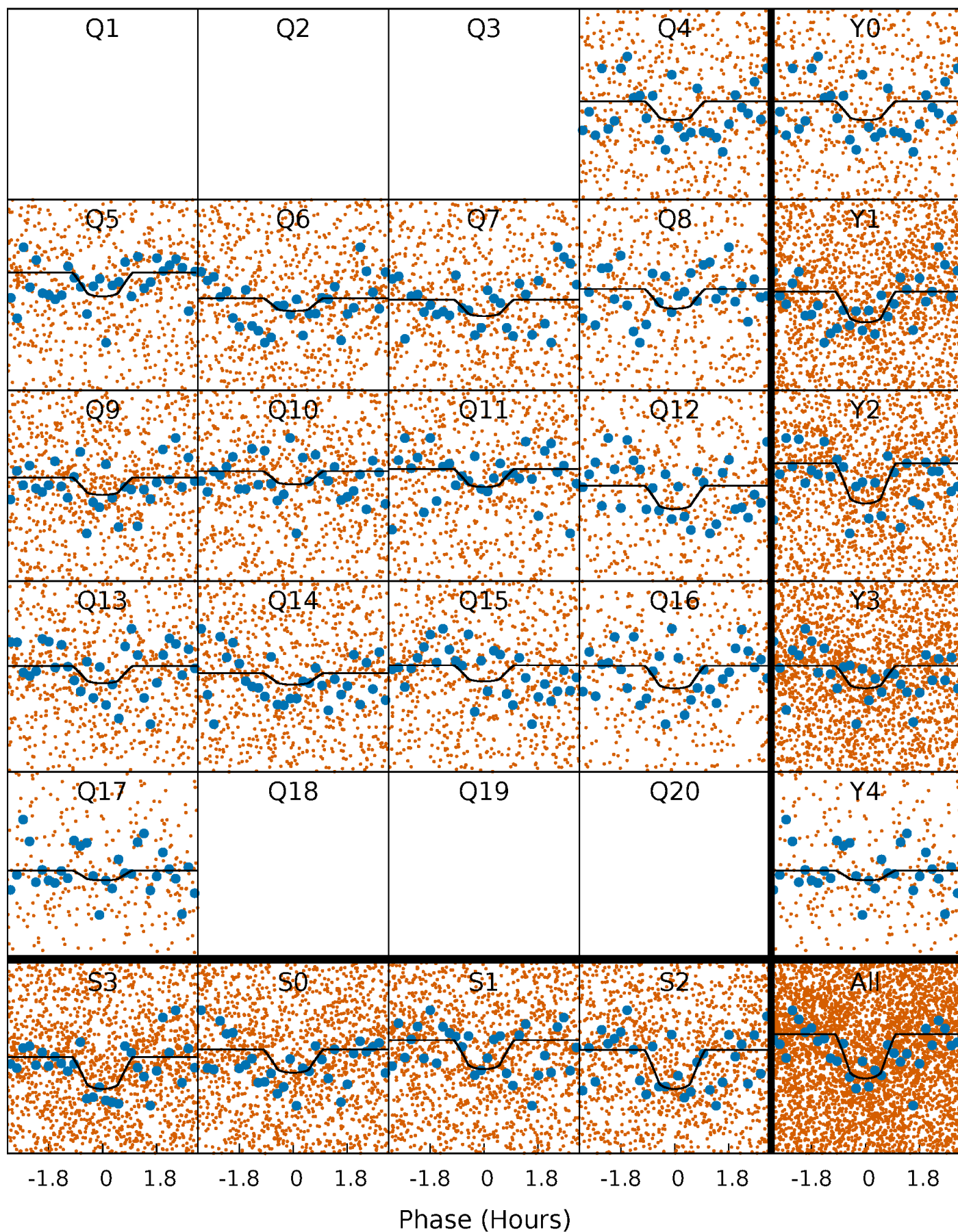
PDC Quarter-Phased Transit Curves

TCE 006468089-01 P= 0.838667 Days $T_0=131.882773$ (BKJD)



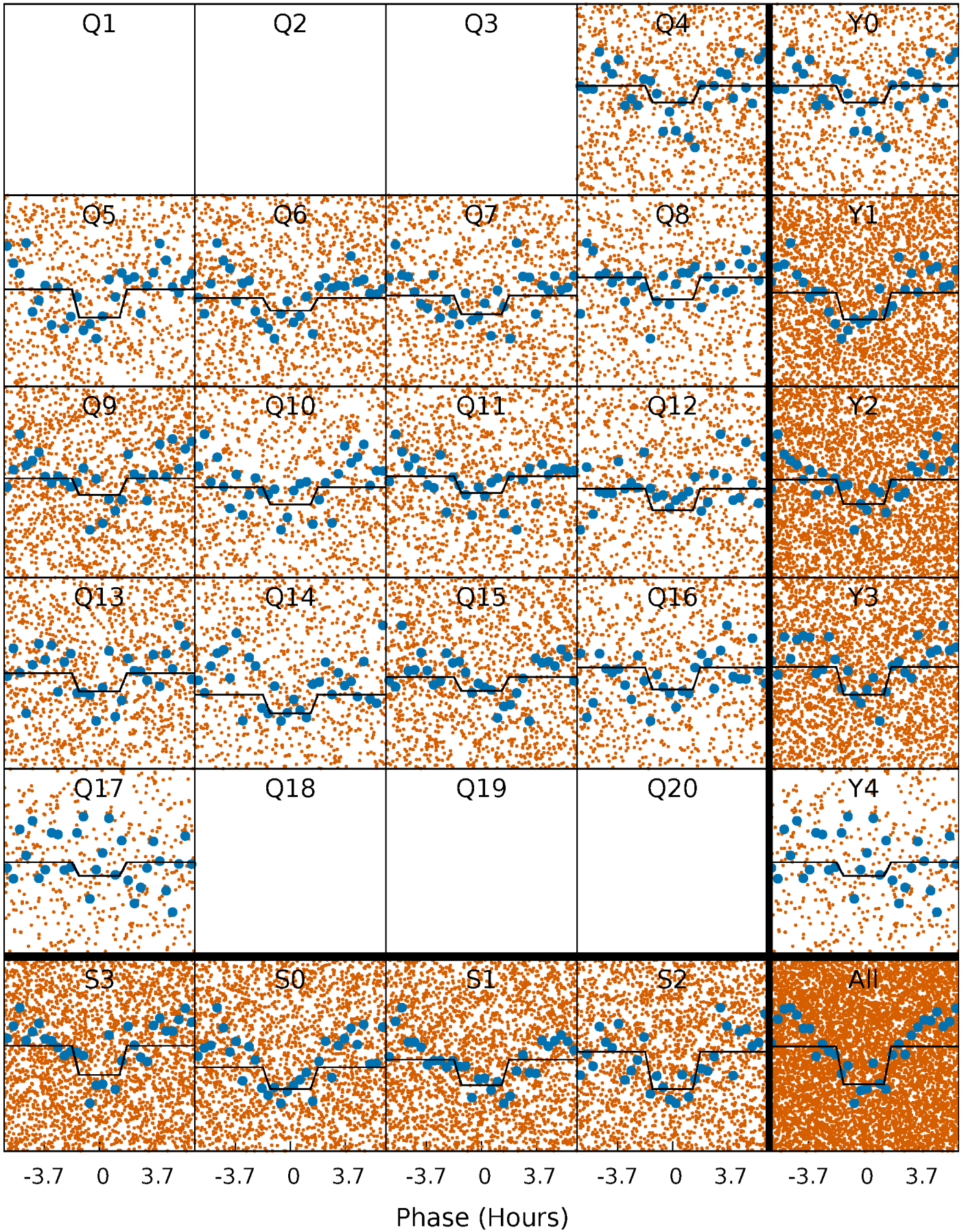
DV Quarter-Phased Transit Curves

TCE 006468089-01 P= 0.838667 Days $T_0=131.882773$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

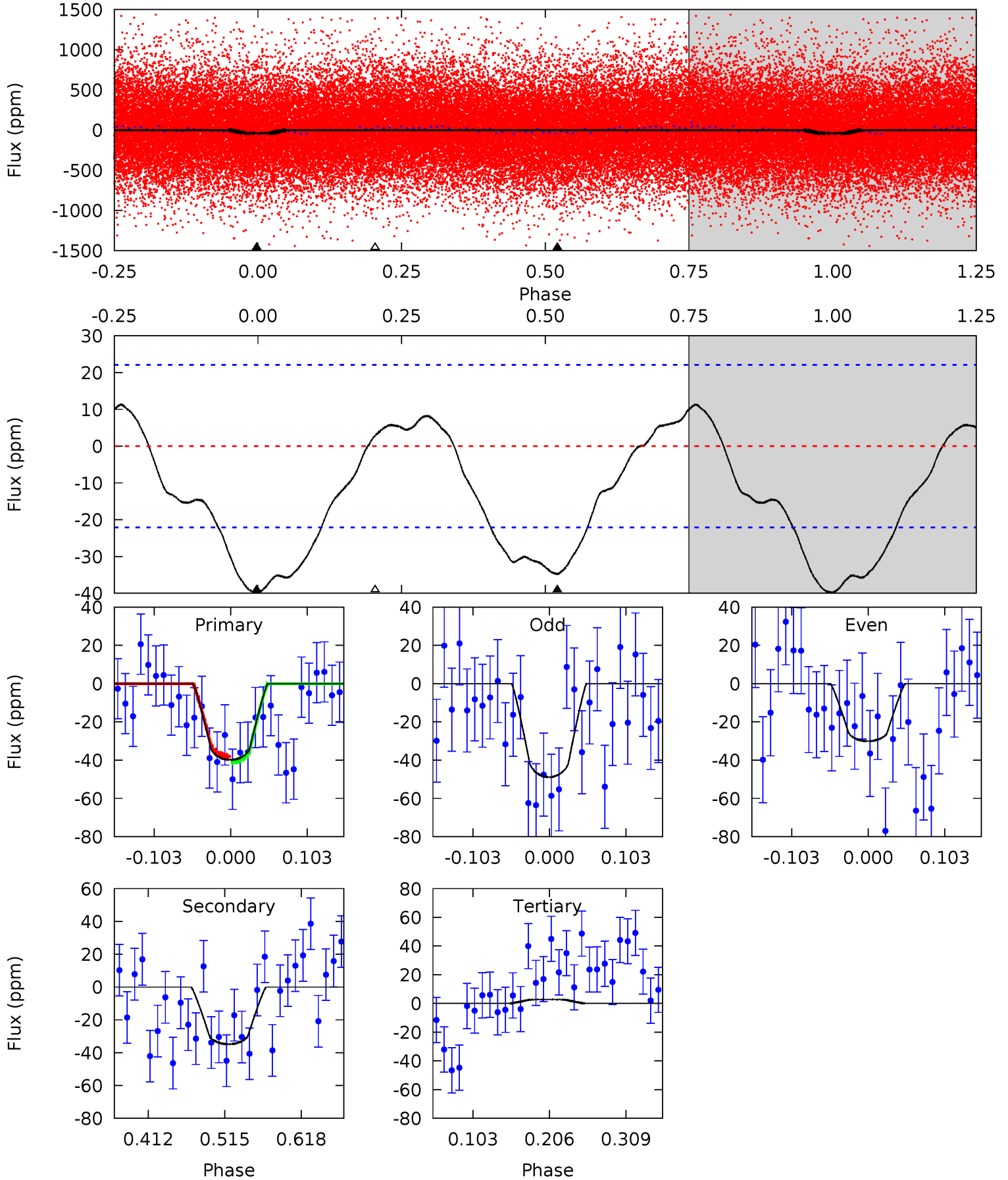
TCE 006468089-01 P= 0.838675 Days $T_0=131.886285$ (BKJD)



DV Model-Shift Uniqueness Test

006468089-01, P = 0.838667 Days, E = 131.882773 Days

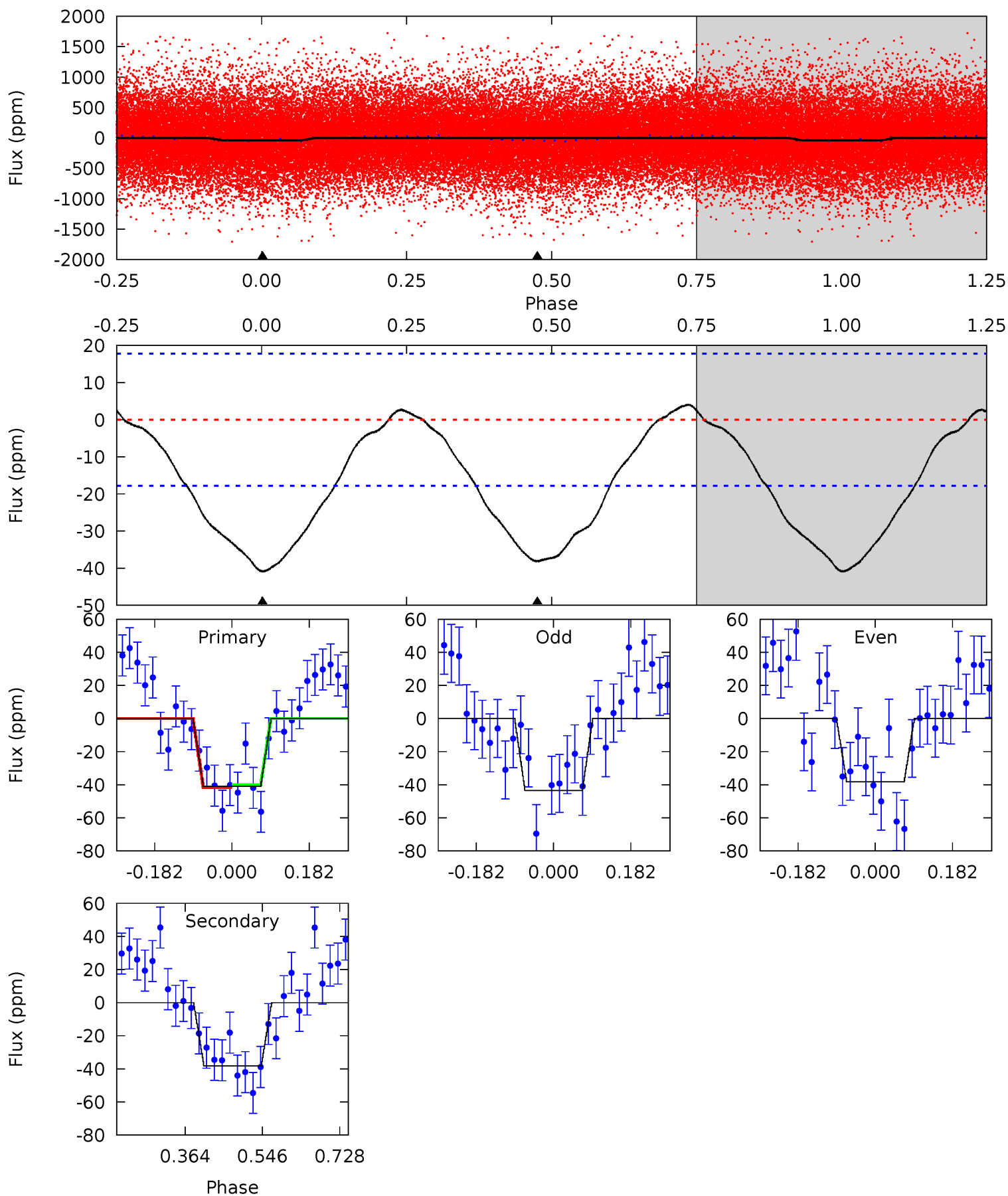
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.23	7.19	-0.58	0	4.56	1.63	2.03	8.81	8.23	7.77	7.19	1.94	0.96	0.22	0.30



Alt Model-Shift Uniqueness Test

006468089-01, P = 0.838675 Days, E = 131.886285 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.2	9.51	0	0	4.44	1.33	0.62	10.2	10.2	9.51	9.51	0.64	0.83	0.09	0.24



Stellar Parameters For KIC 006468089

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5933^{+187}_{-208}	$4.294^{+0.158}_{-0.193}$	$0.100^{+0.250}_{-0.300}$	$1.226^{+0.366}_{-0.244}$	$1.079^{+0.148}_{-0.148}$	$0.824^{+0.652}_{-0.426}$
	+3%/-4%	+4%/-4%	+250%/-300%	+30%/-20%	+14%/-14%	+79%/-52%
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 006468089-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-35 ± 5	$1.16^{+0.99}_{-0.74}$	3048^{+228}_{-197}	4945^{+3490}_{-1166}	$4.502^{+28.718}_{-3.227}$
Alt.	-38 ± 4	$1.17^{+0.95}_{-0.75}$	3036^{+263}_{-188}	5051^{+3586}_{-1136}	$4.793^{+32.398}_{-3.307}$

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 $A_{obs} \gg 1.0$

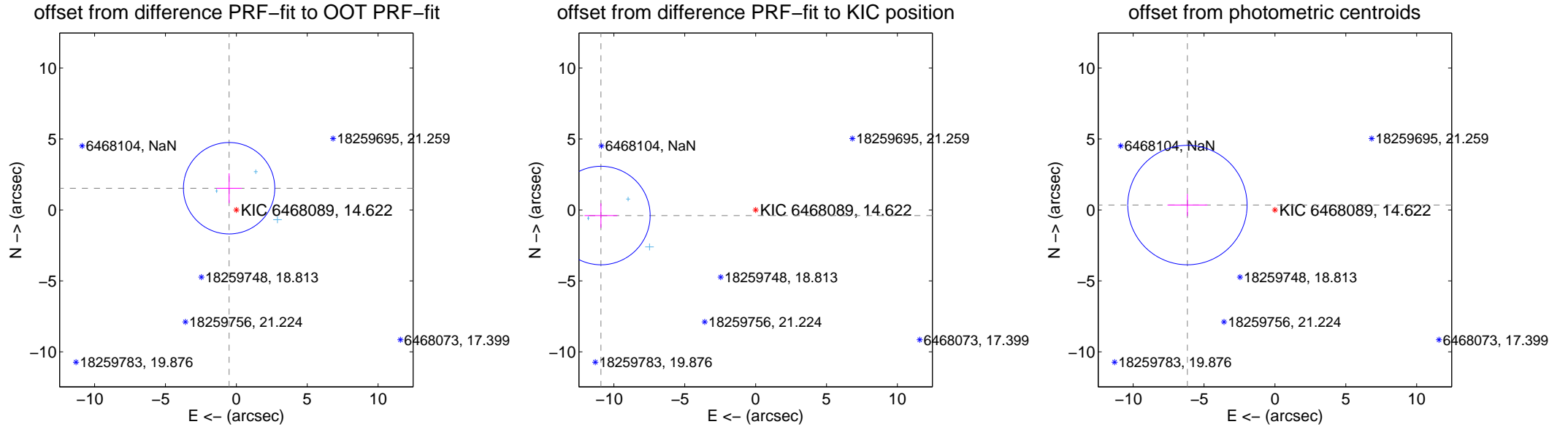
DV Centroid Data

Supplemental centroid analysis for 006468089-01. Kepler magnitude: 14.62. Transit SNR 5.67

There are 3 quarters with good PRF difference image offsets

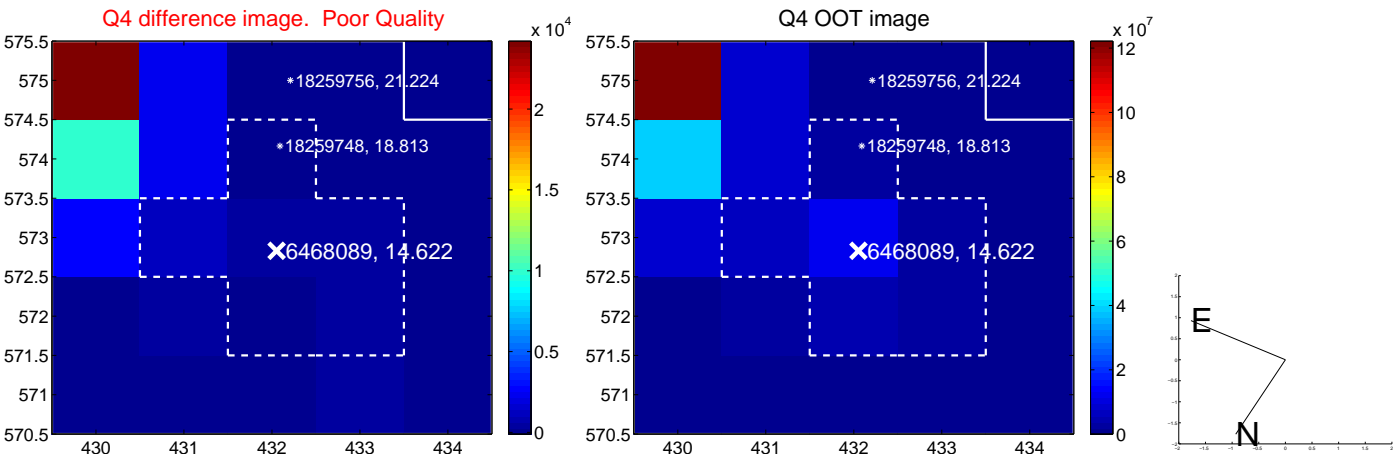
The OOT PRF centroid is offset from the target star catalog position by about 10.55 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.611 ± 1.074	1.50	0.510 ± 0.889	1.528 ± 1.048
PRF-fit source offset from KIC position	10.920 ± 1.157	9.44	10.912 ± 1.157	-0.396 ± 0.861
photometric centroid source offset	6.18 ± 1.40	4.41	6.17 ± 1.40	0.34 ± 0.78

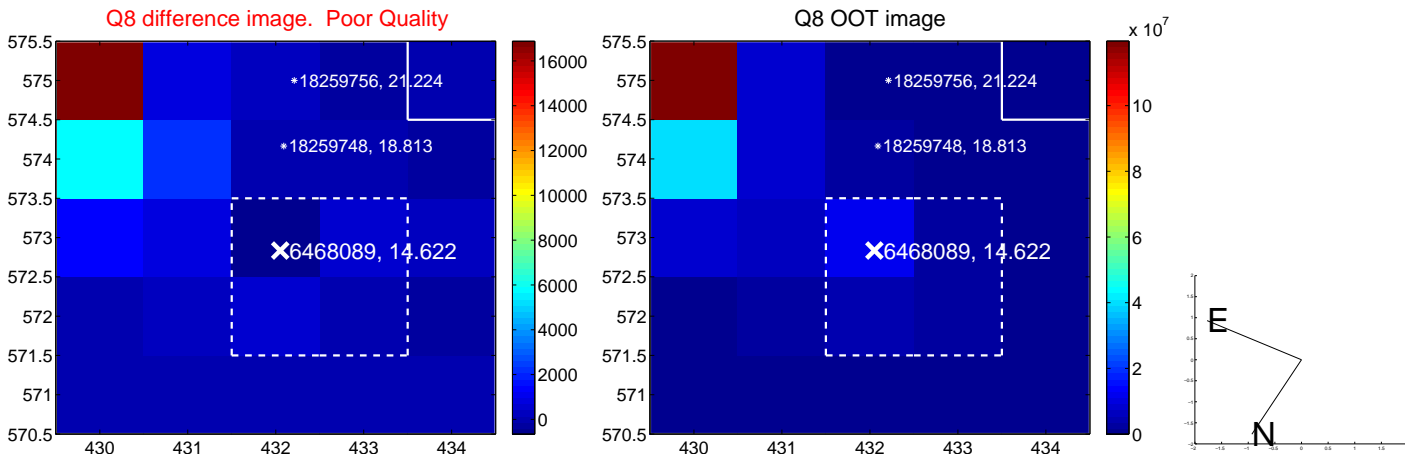
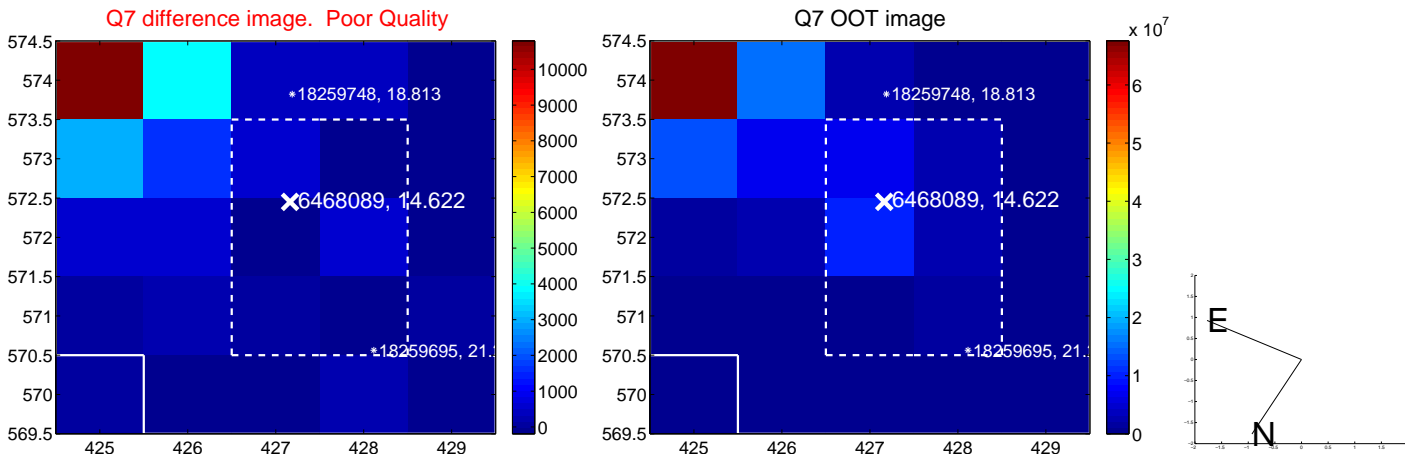
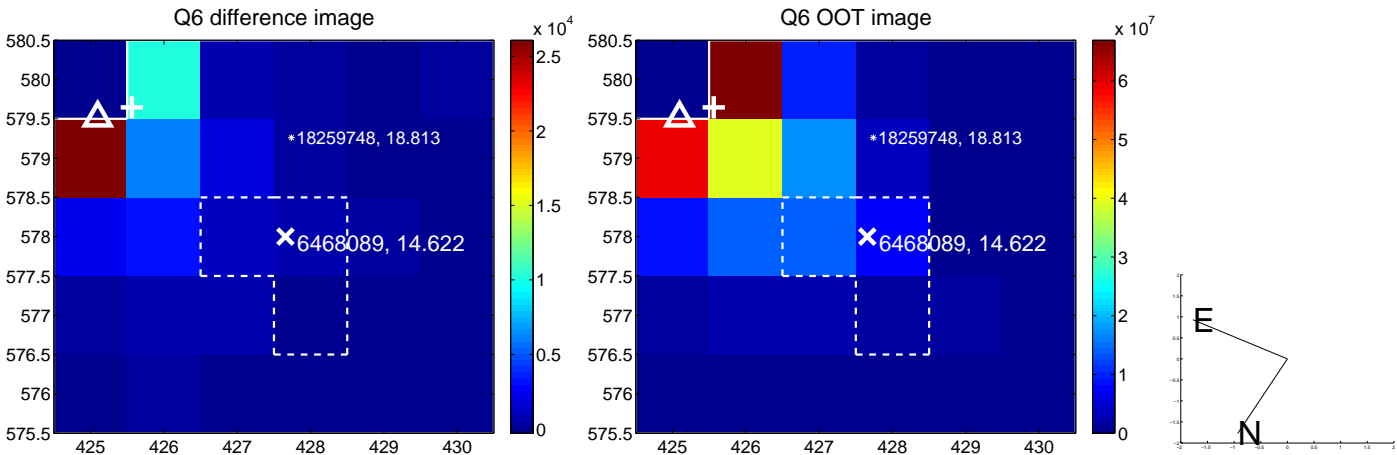
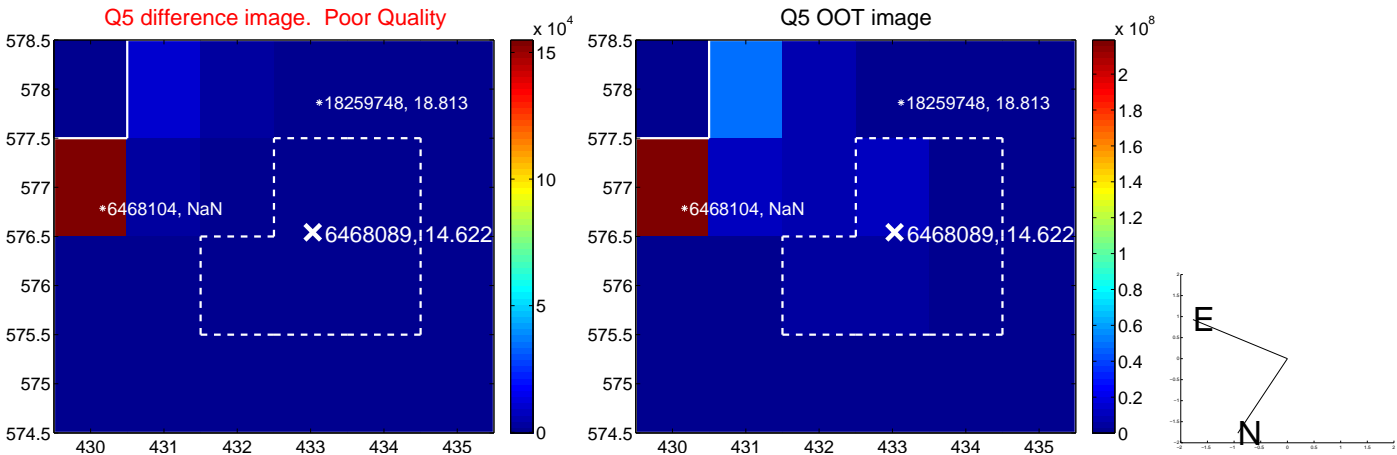


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

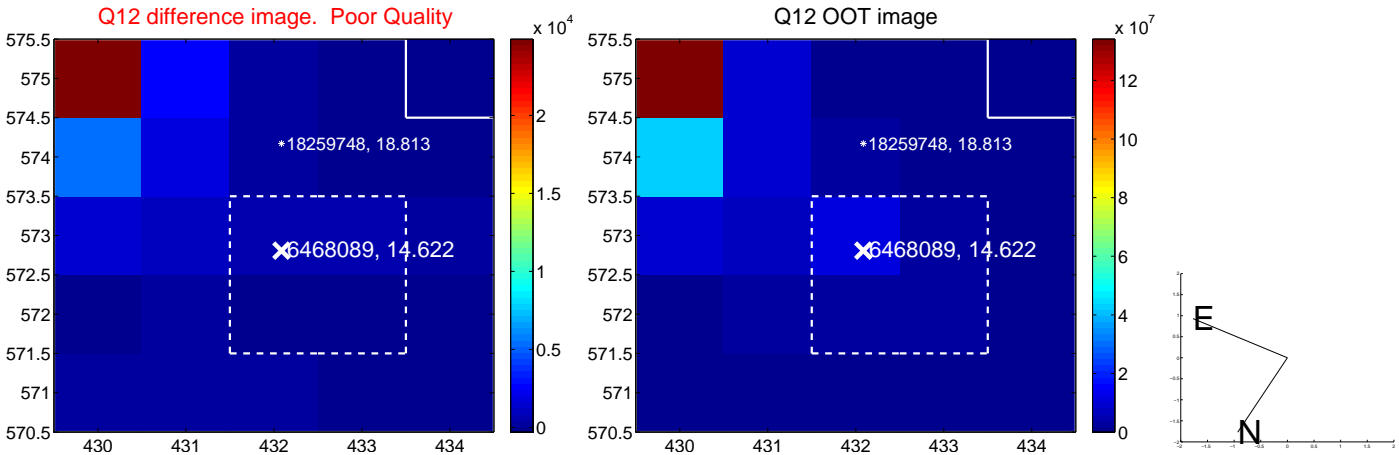
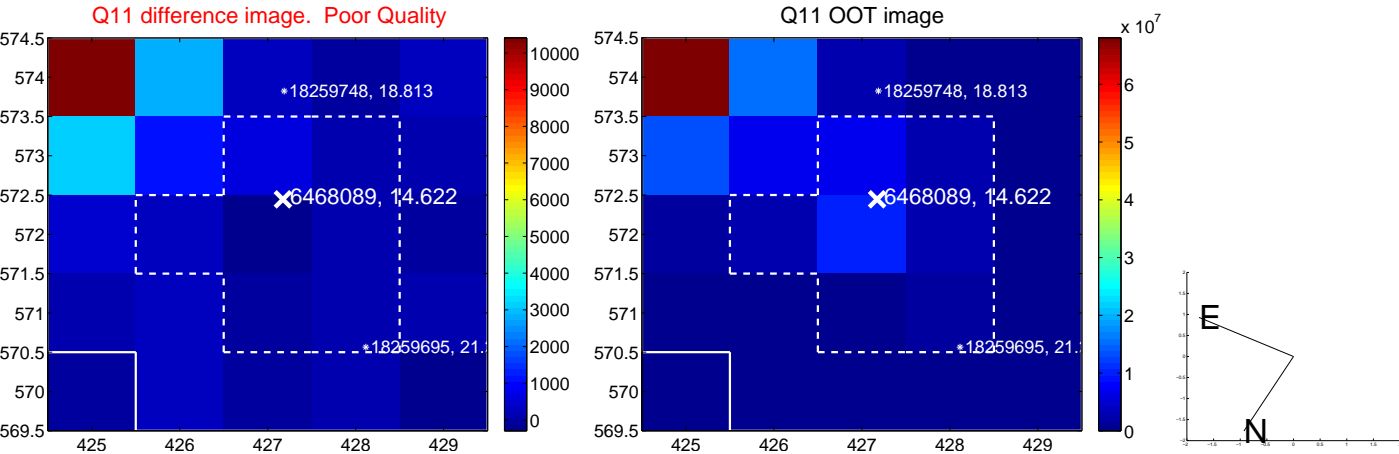
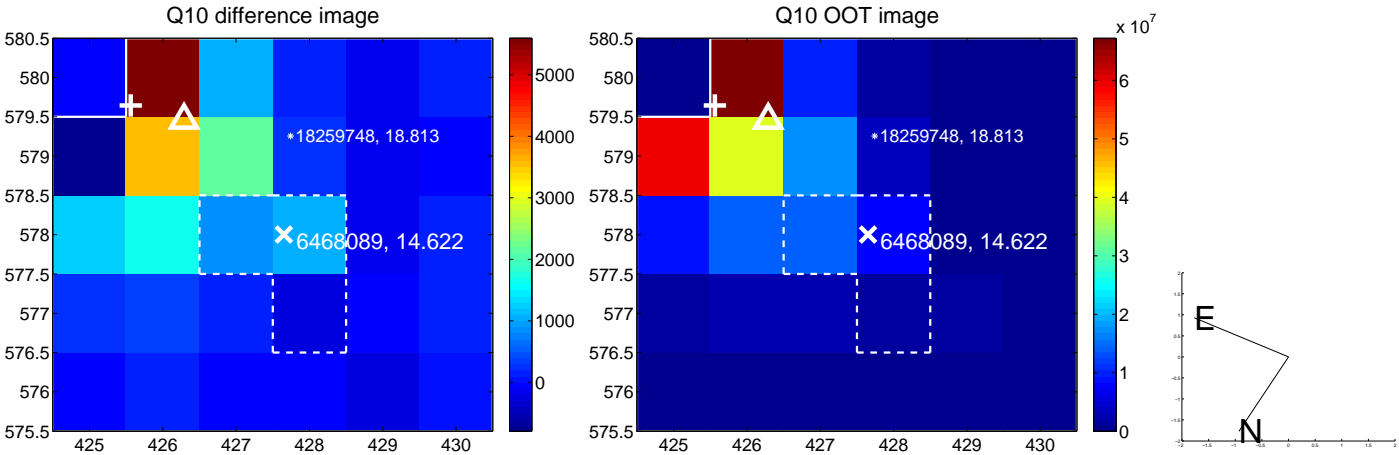
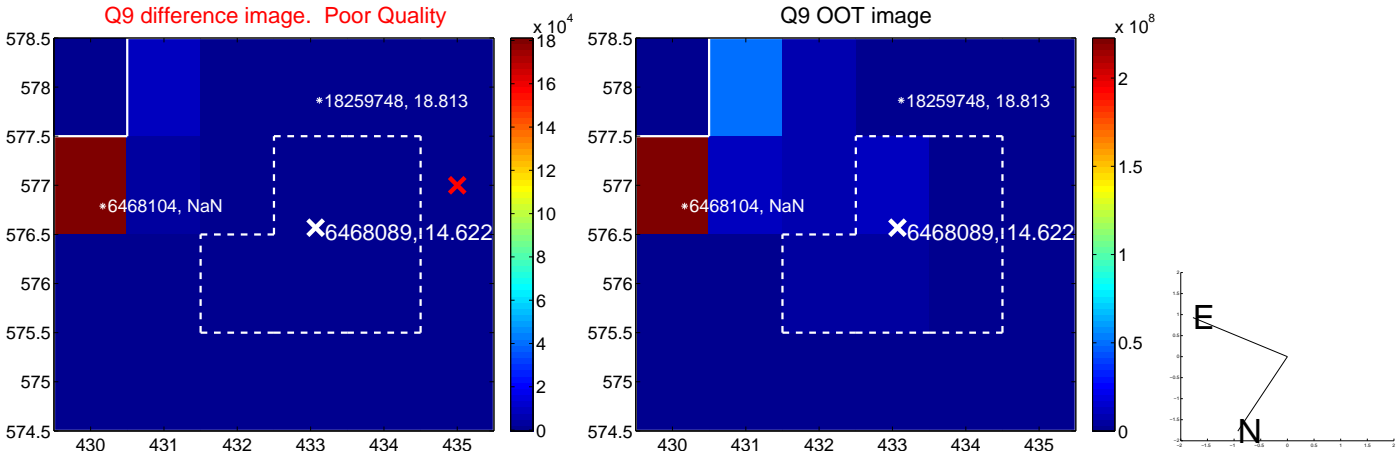
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



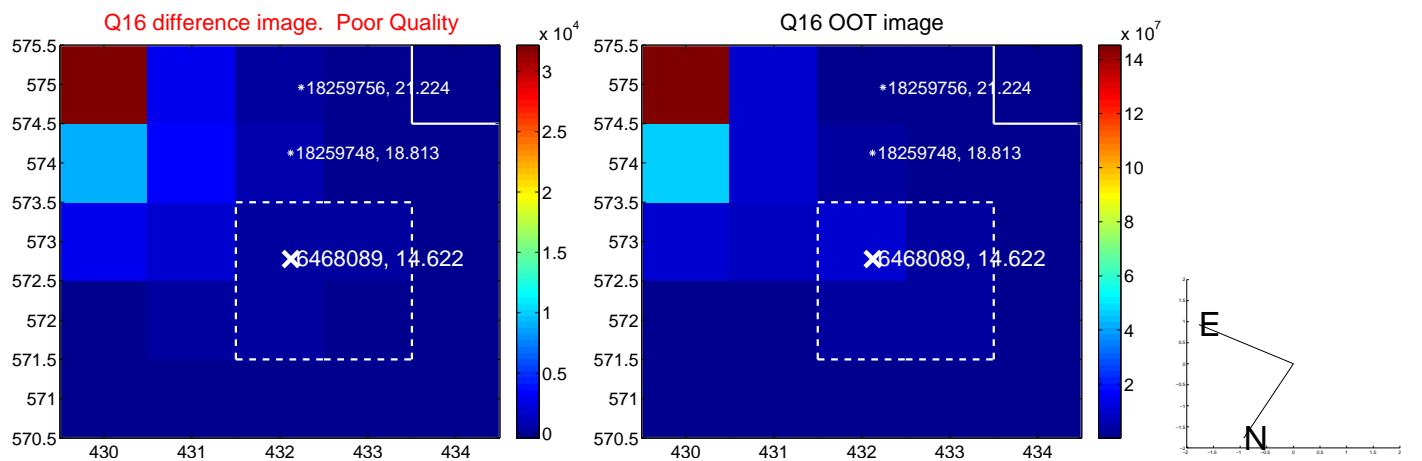
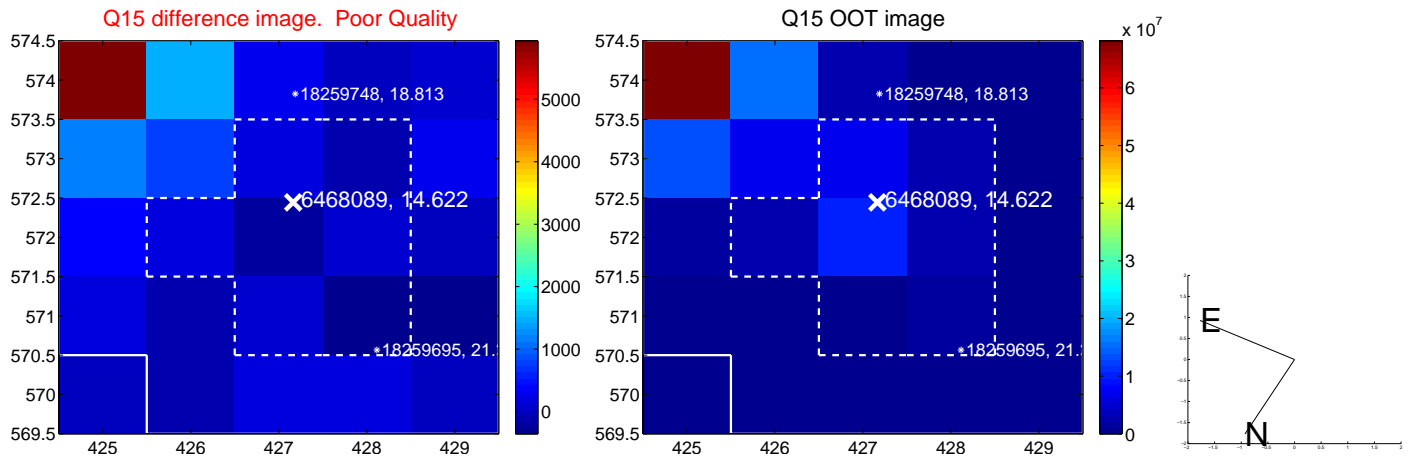
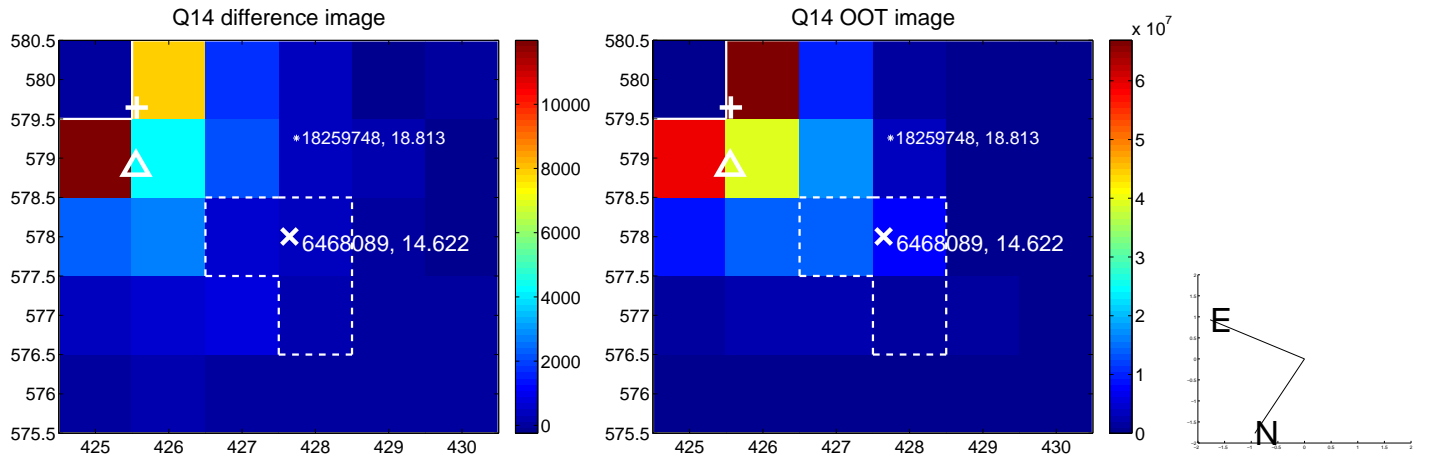
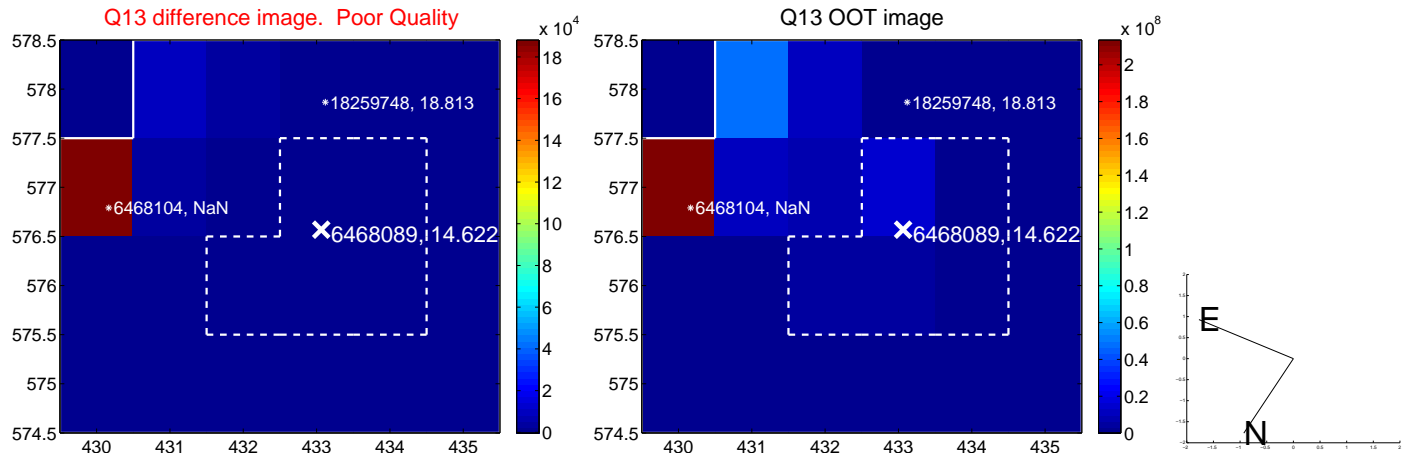
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



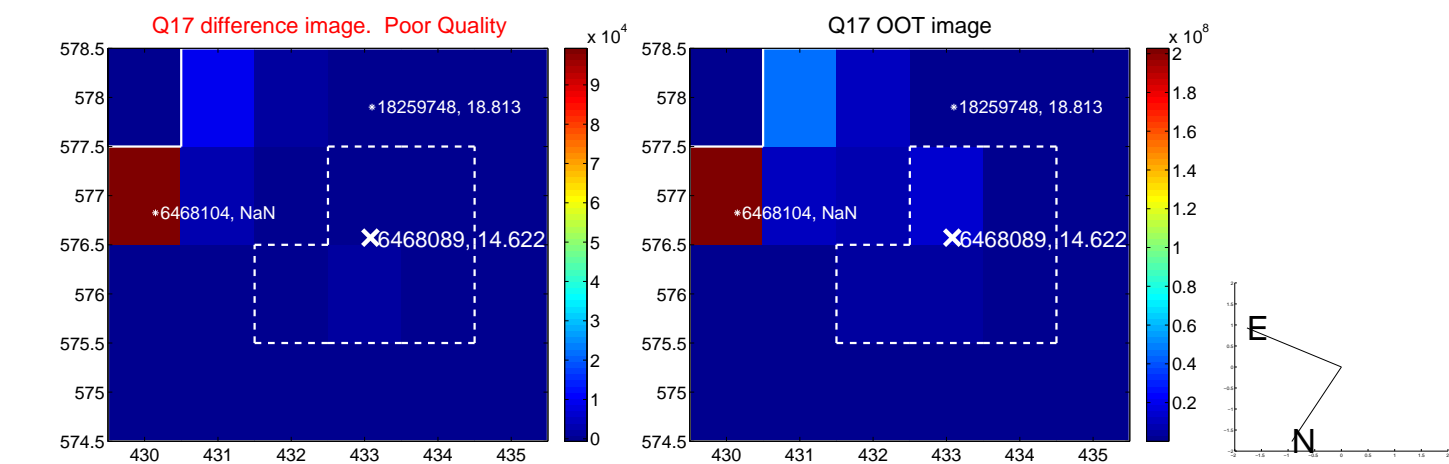
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



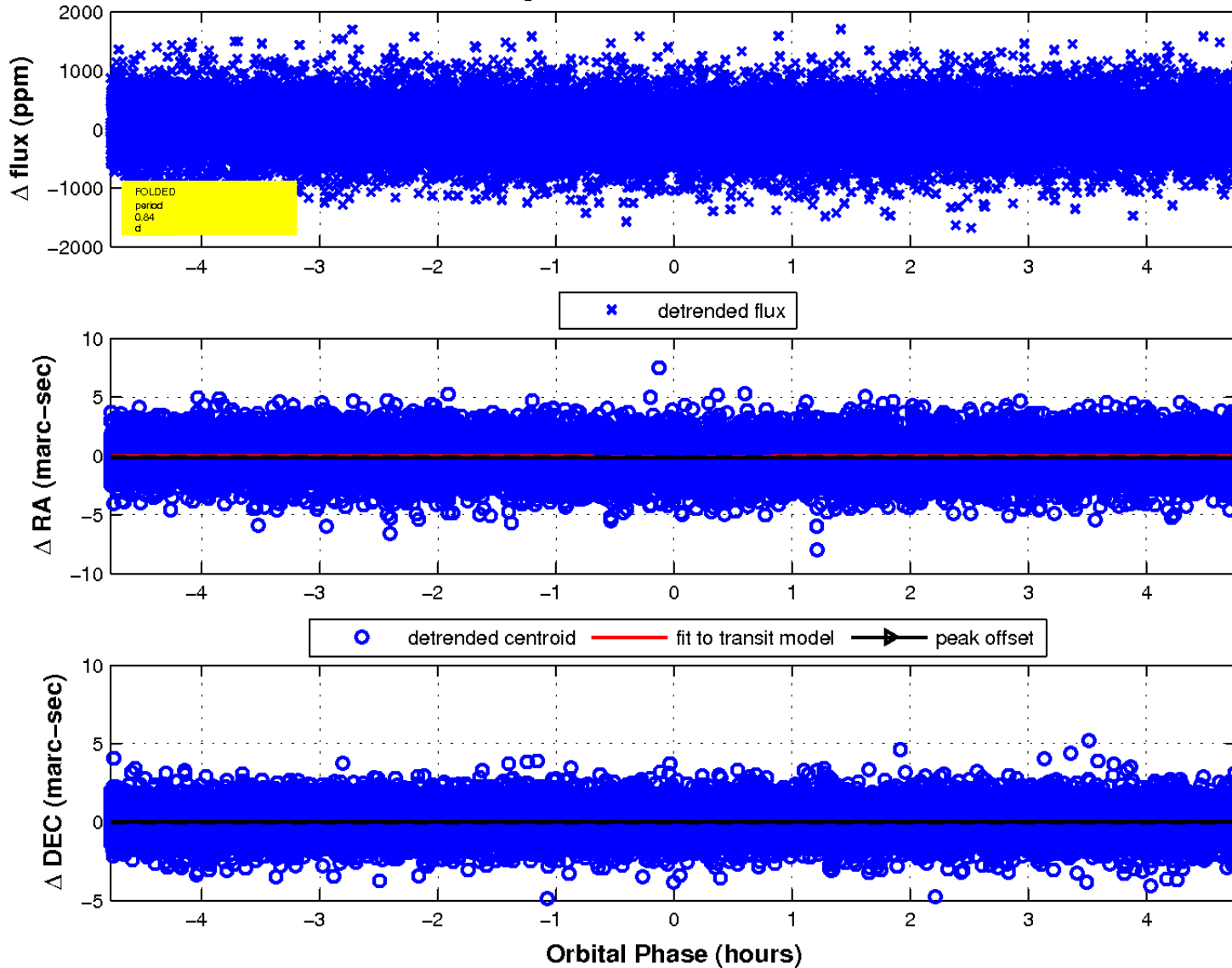
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

