

KIC 006048876

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})
006048876-01	OBS	No	0.671870	132.055399	22.5	2.310	8.1	6.5	1.88	7244	1.04	29614.71

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006048876-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT

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

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

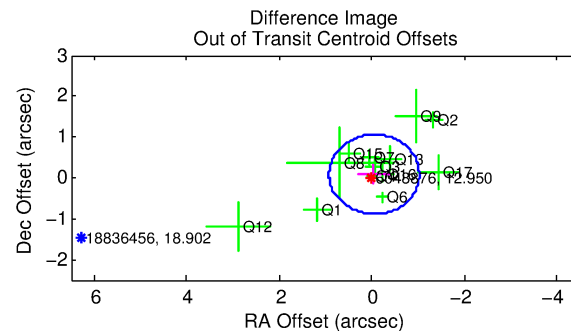
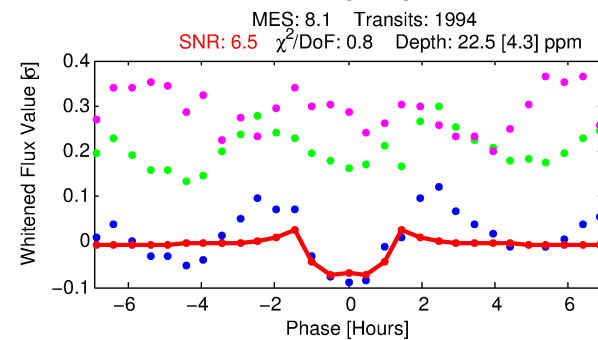
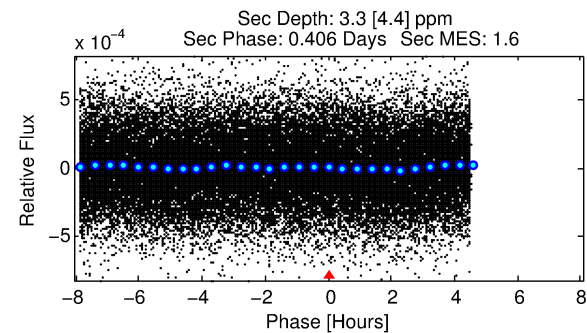
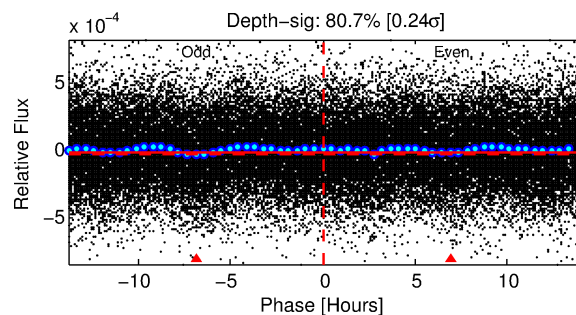
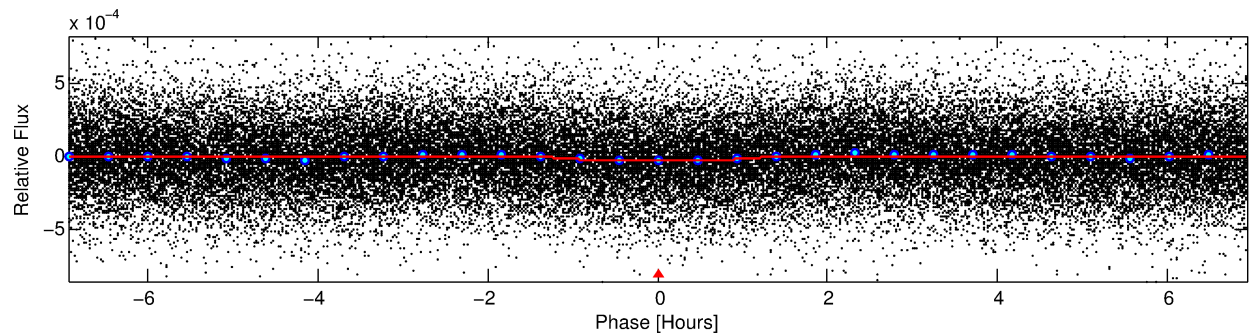
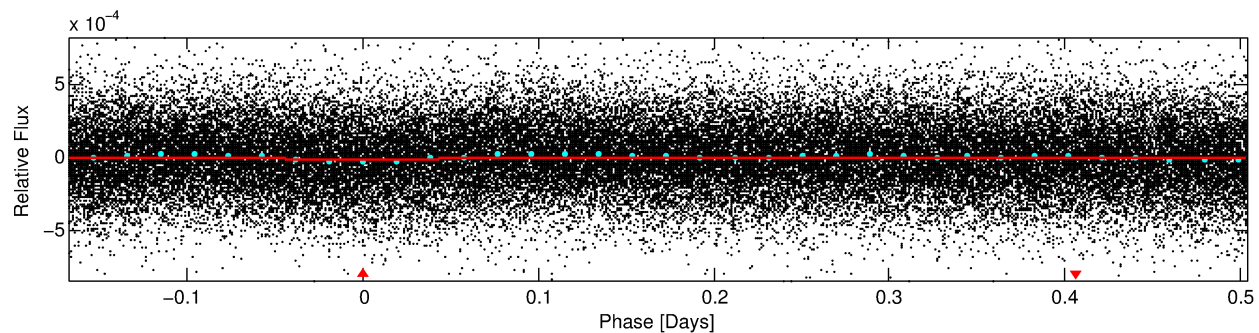
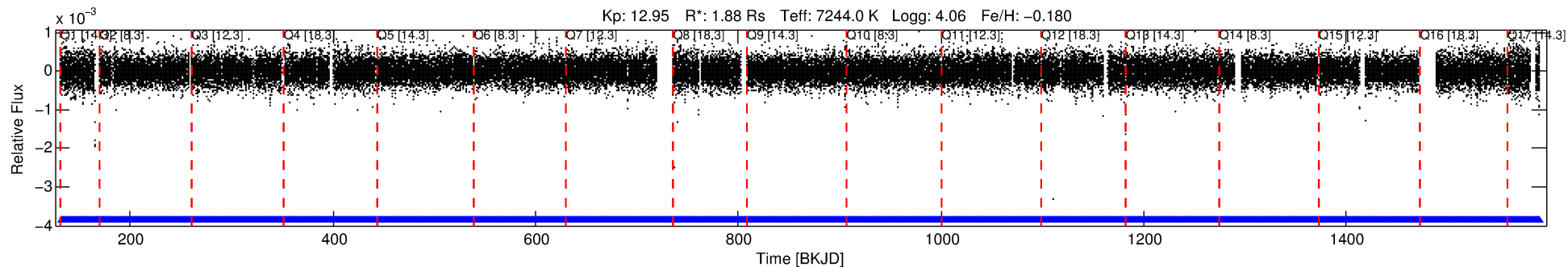
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006048876-01

No Significant Match Found

DV One-Page Summary

KIC: 6048876 Candidate: 1 of 1 Period: 0.672 d



DV Fit Results:

Period = 0.67187 [0.00001] d
Epoch = 132.0554 [0.0030] BKJD
Rp/R* = 0.0050 [0.0019]
a/R* = 1.37 [1.52]
b = 0.90 [0.51]
Seff = 29614.70 [11271.74]
Teq = 3345 [318] K
Rp = 1.04 [0.51] Re
a = 0.0172 [0.0042] AU
Ag = 0.50 [0.78] [-0.64 σ]
Teffp = 4340 [1682] K [0.58 σ]

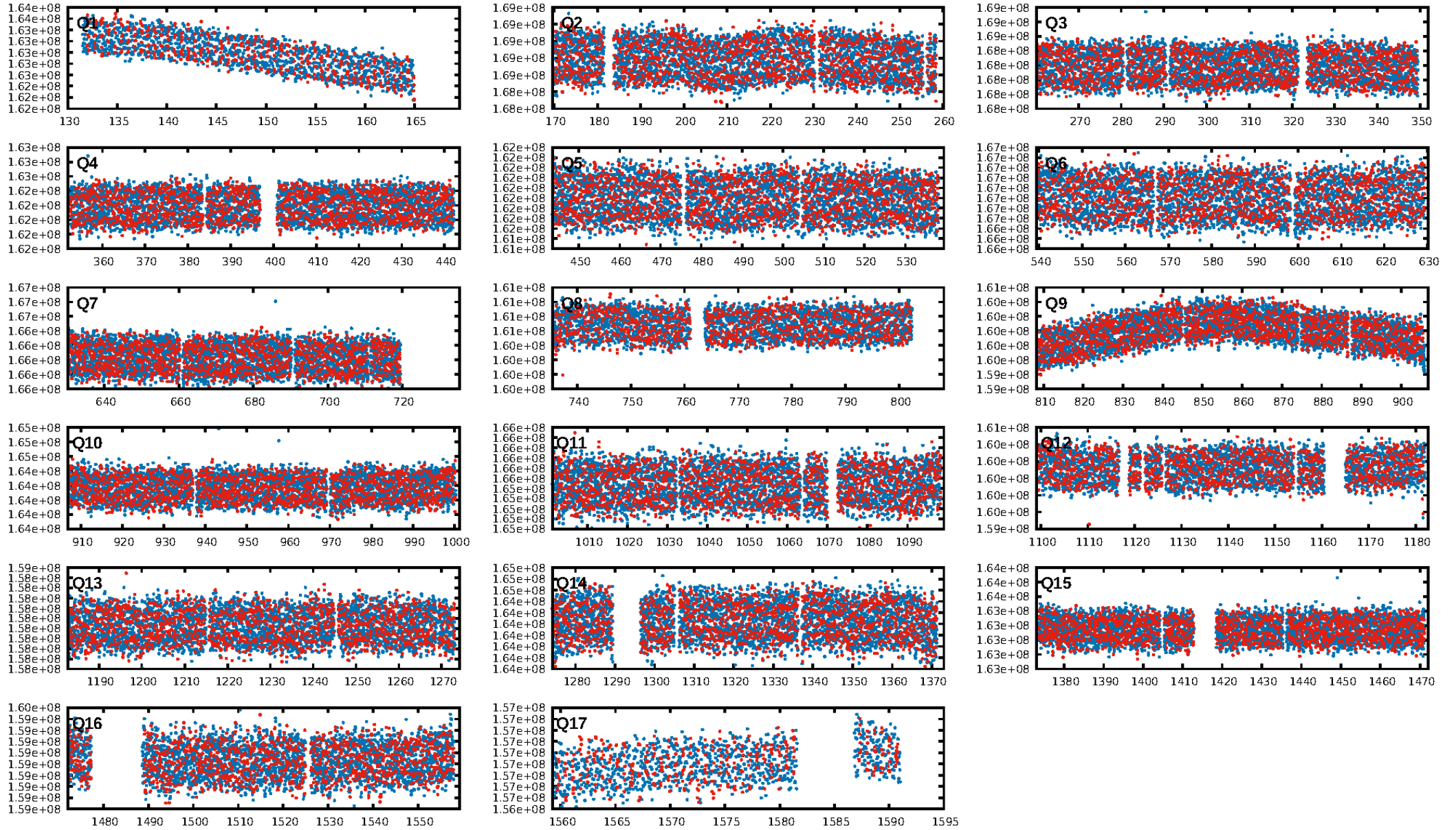
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.75e-13
RollingBand-fgt: 1.00 [1905/1905]
GhostDiagnostic-chr: 20.57
Centroid-sig: N/A
Centroid-so: 1.068 arcsec [1.14 σ]
OotOffset-rm: 0.099 arcsec [0.30 σ]
KicOffset-rm: 0.093 arcsec [0.26 σ]
OotOffset-st: 2/3/4/4 [13]
KicOffset-st: 2/3/4/4 [13]
DiffImageQuality-fgm: 0.46 [6/13]
DiffImageOverlap-fno: 1.00 [17/17]

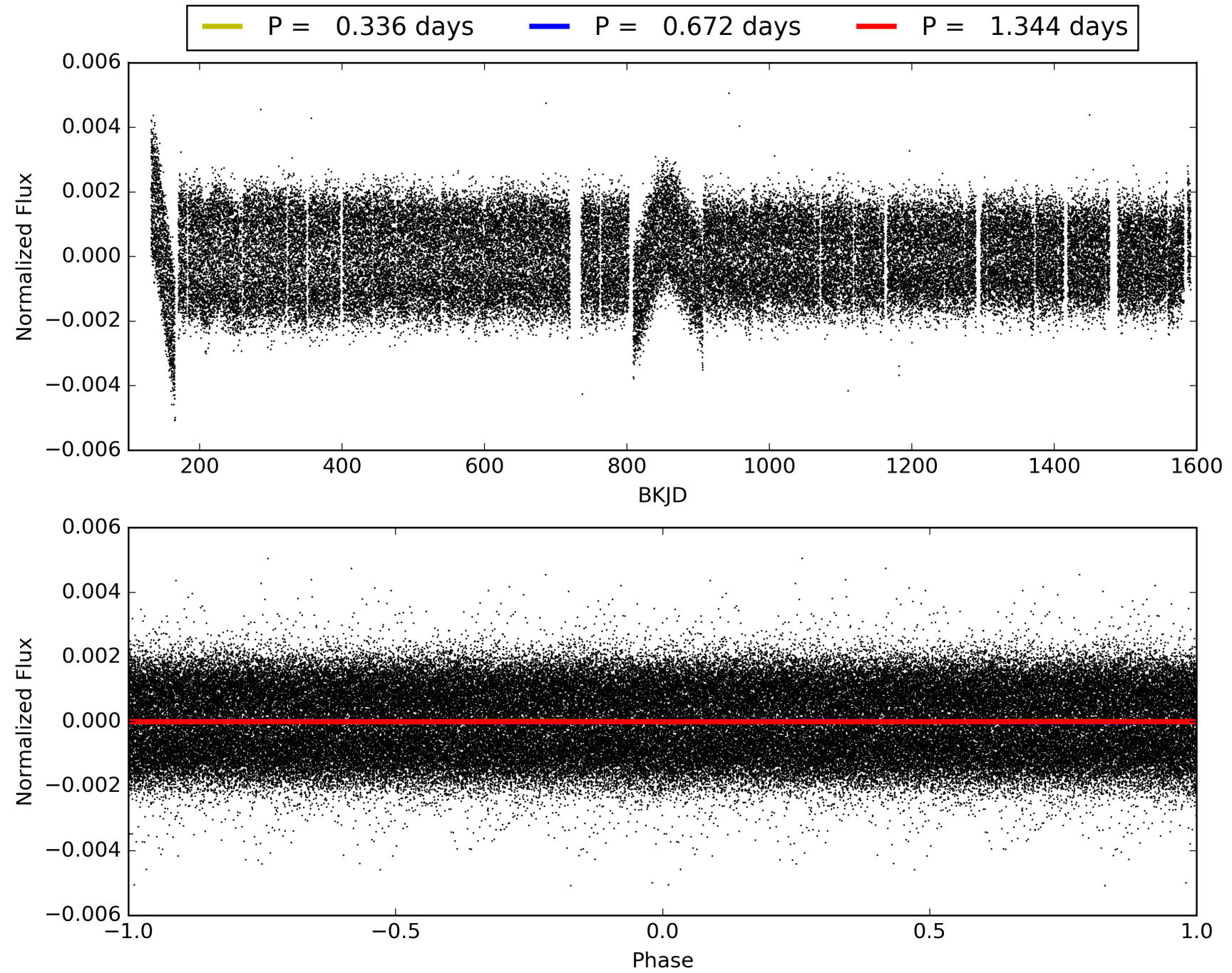
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 18:25:45 Z

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

TCE 006048876-01, PDC Light Curves

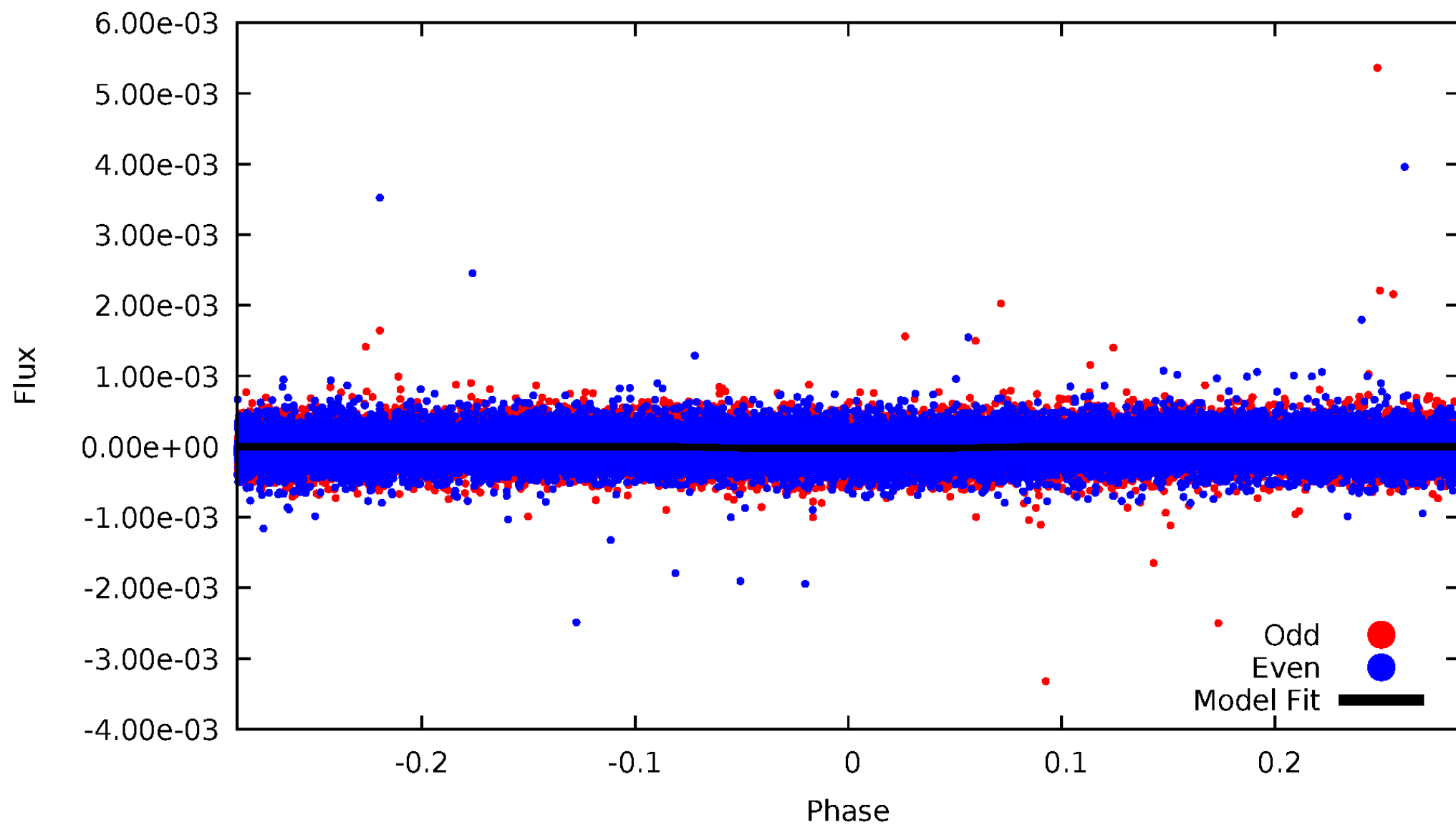


TCE 006048876-01



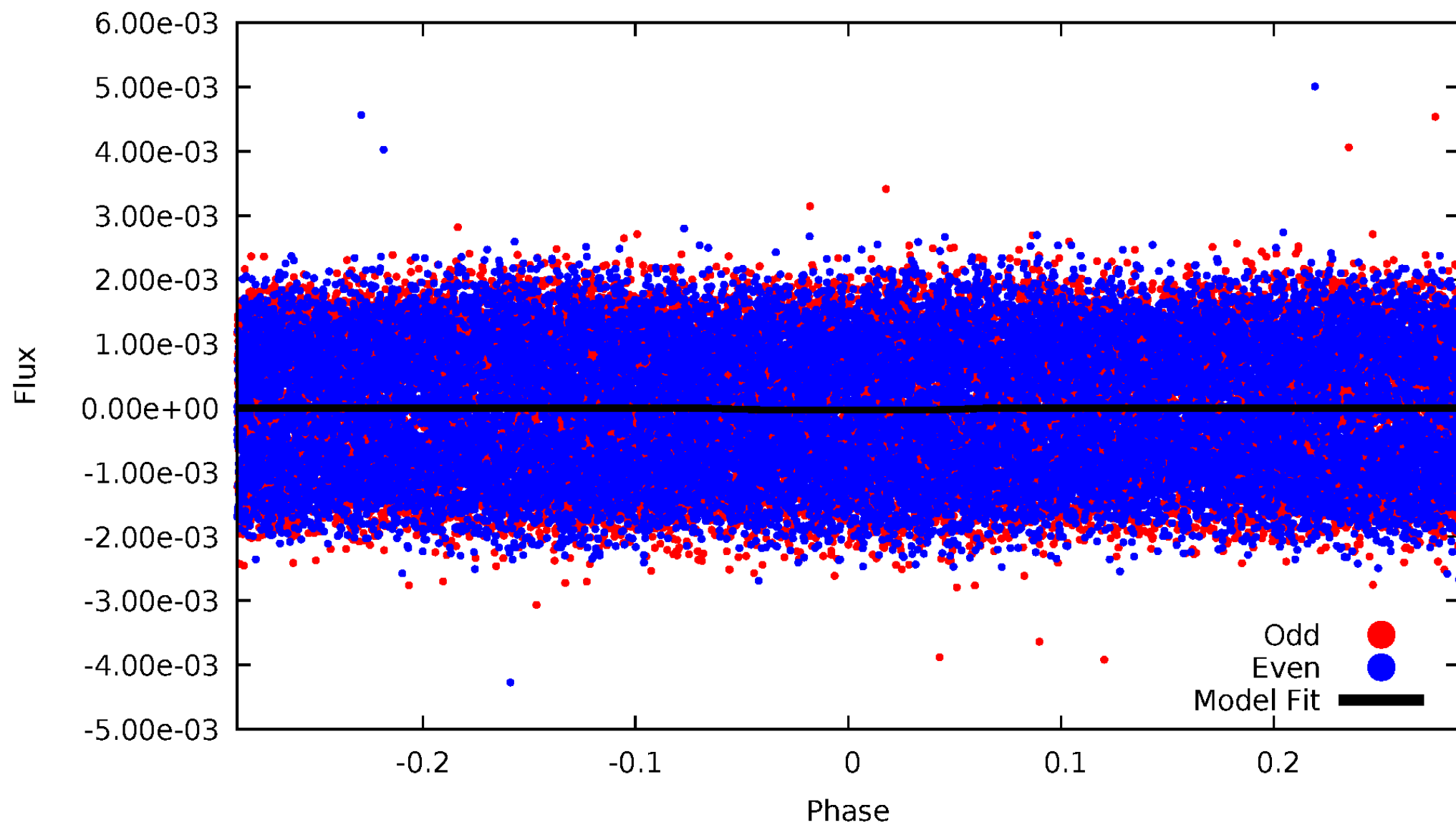
DV Odd/Even

TCE 006048876-01



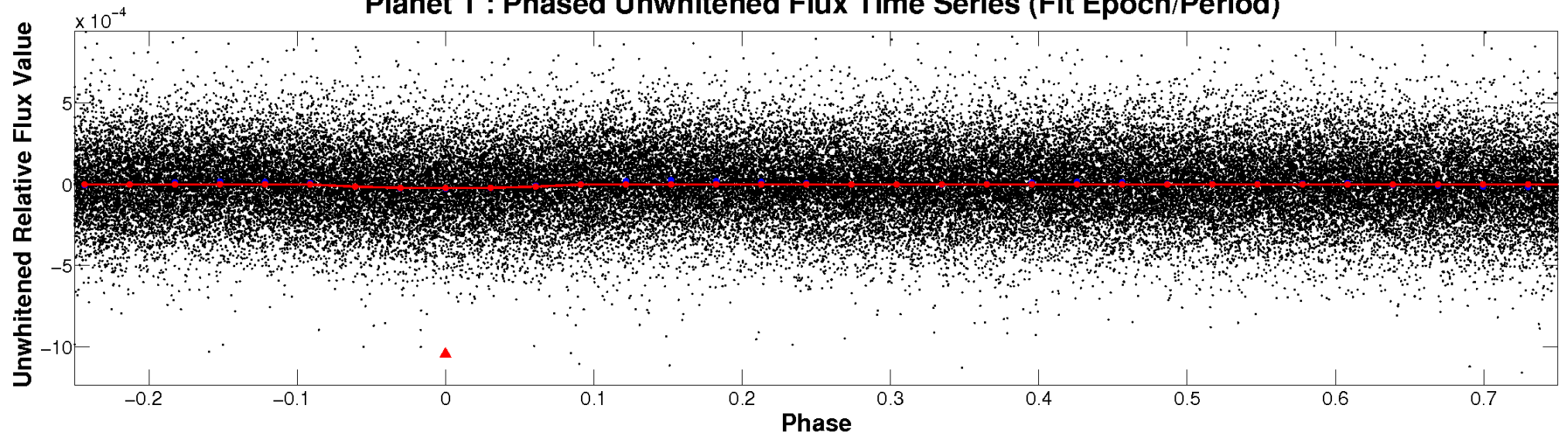
ALT Odd/Even

TCE 006048876-01

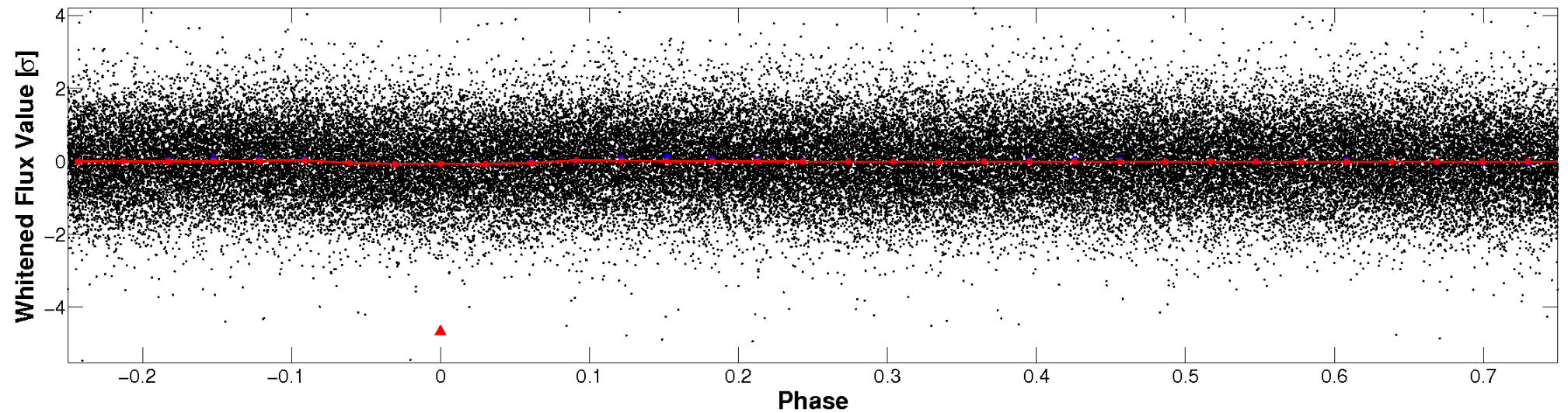


Non-Whitened Vs. Whitened Light Curve

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

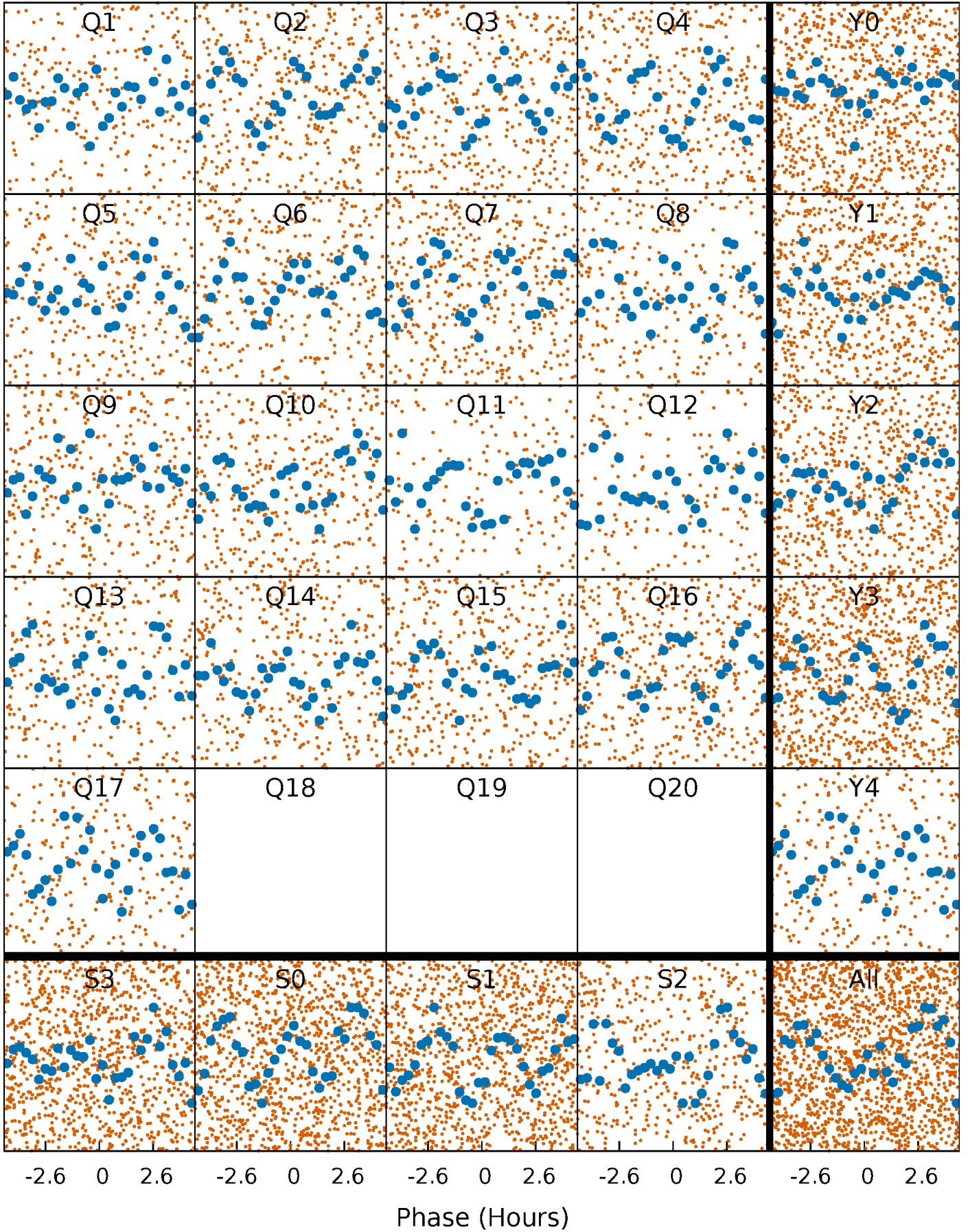


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



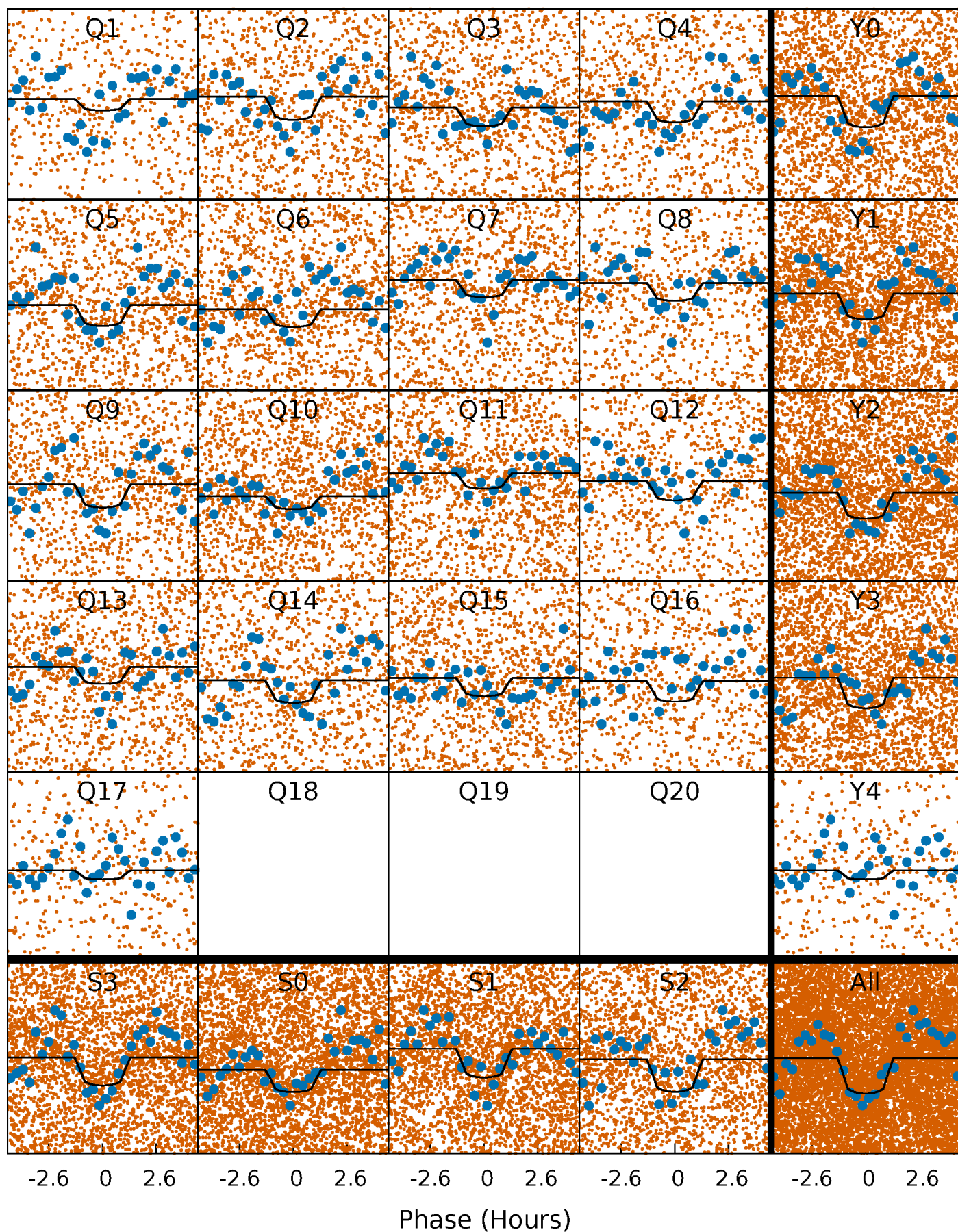
PDC Quarter-Phased Transit Curves

TCE 006048876-01 P= 0.671870 Days $T_0=132.055399$ (BKJD)



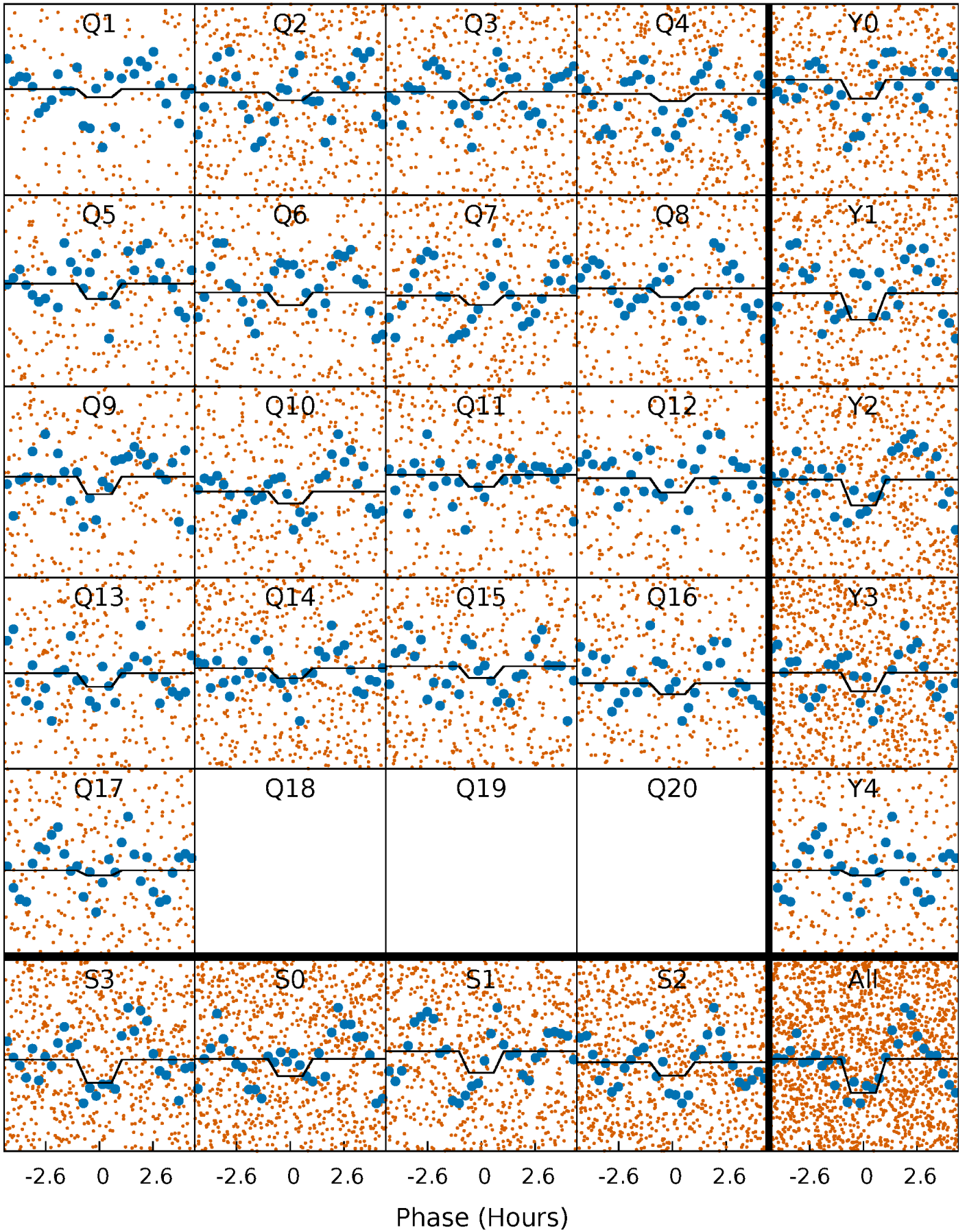
DV Quarter-Phased Transit Curves

TCE 006048876-01 P= 0.671870 Days $T_0=132.055399$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

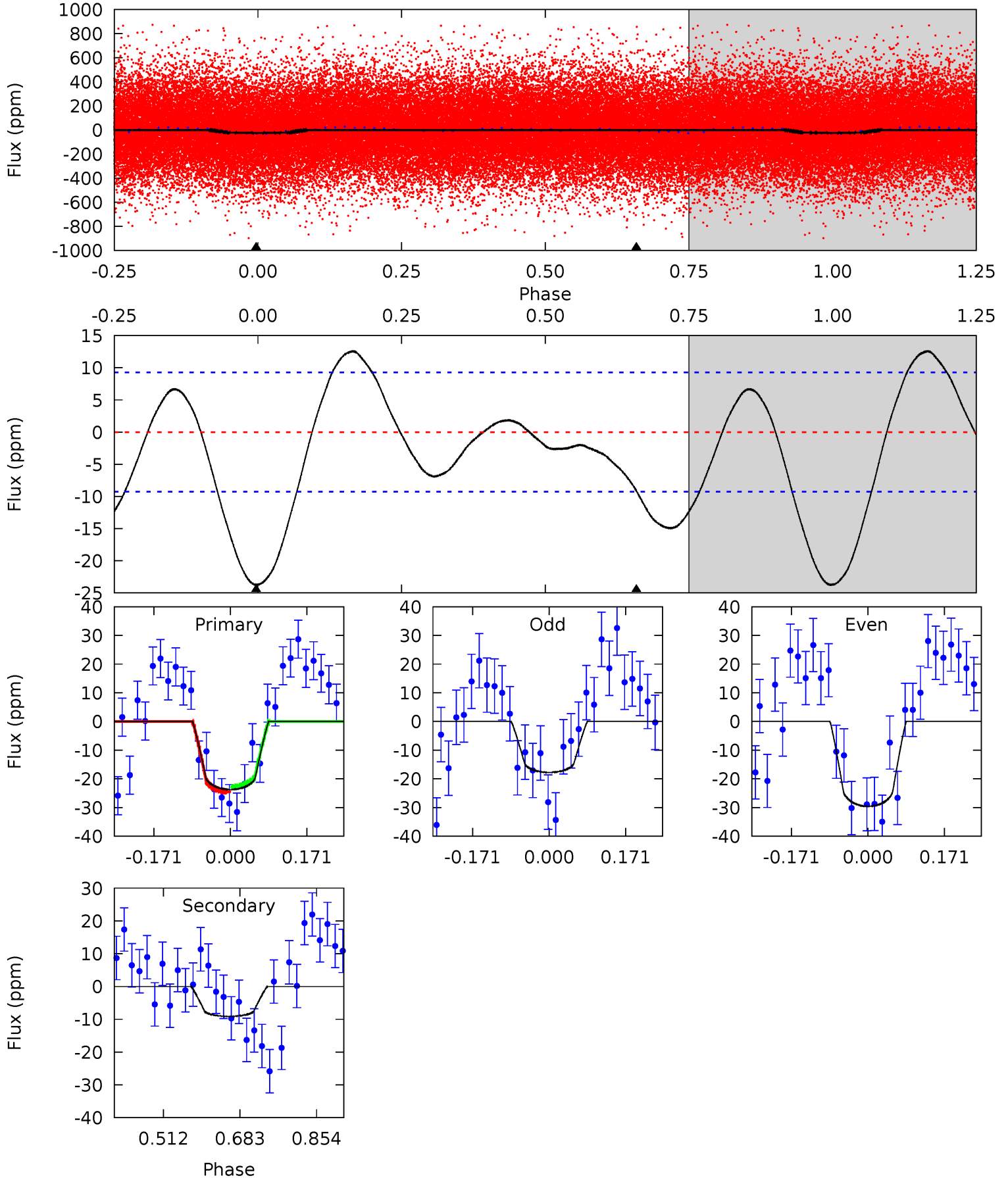
TCE 006048876-01 P= 0.671892 Days $T_0=132.056552$ (BKJD)



DV Model-Shift Uniqueness Test

006048876-01, P = 0.671870 Days, E = 131.383529 Days

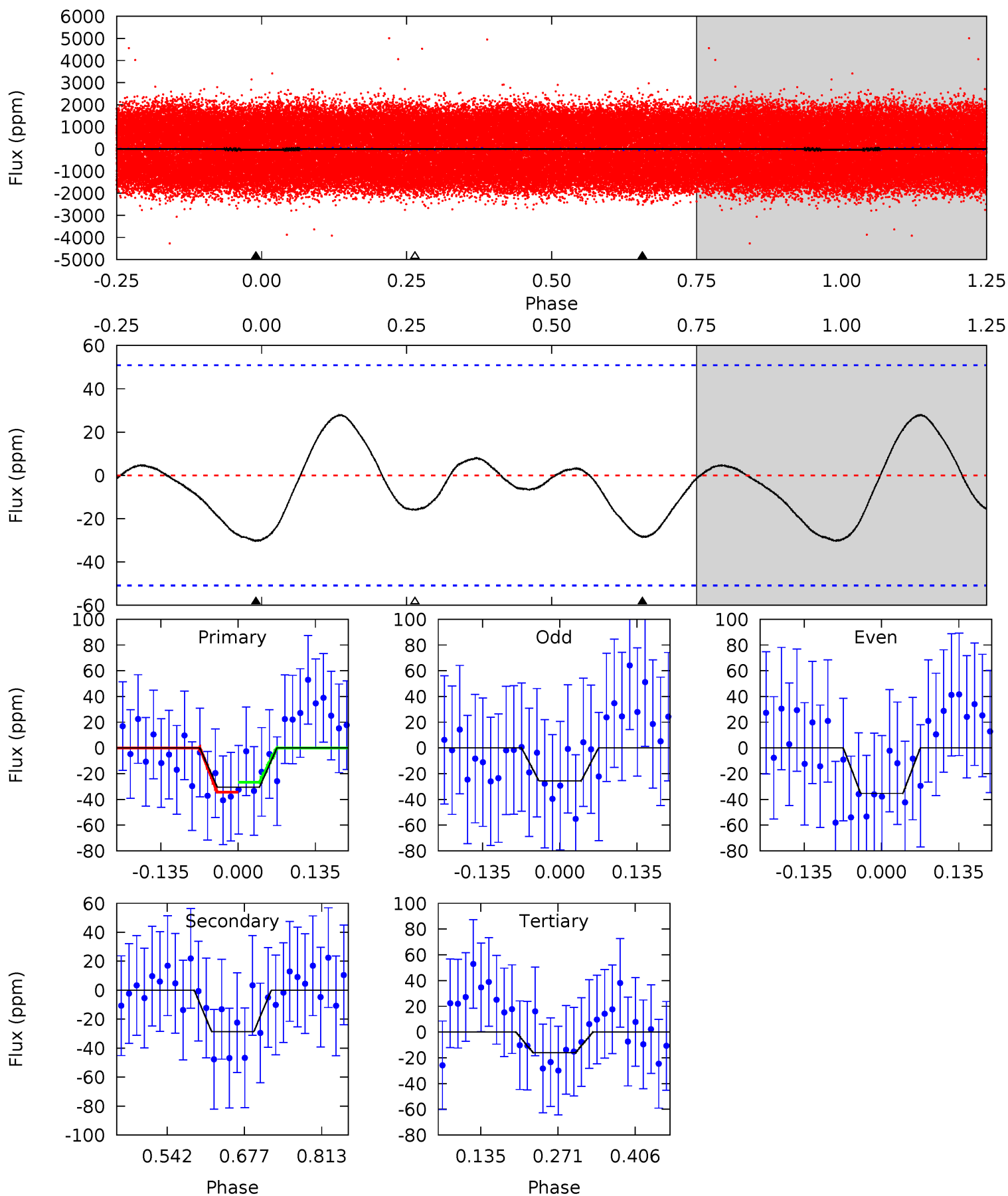
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.4	4.38	0	0	4.45	1.37	2.48	11.4	11.4	4.38	4.38	2.84	0.94	0.35	0.40



Alt Model-Shift Uniqueness Test

006048876-01, P = 0.671892 Days, E = 131.384660 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.69	2.53	1.43	0	4.50	1.49	0.96	1.27	2.69	1.10	2.53	0.43	0.97	0.48	0.33



Stellar Parameters For KIC 006048876

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7244^{+228}_{-304}	$4.064^{+0.180}_{-0.180}$	$-0.180^{+0.250}_{-0.350}$	$1.882^{+0.567}_{-0.464}$	$1.495^{+0.224}_{-0.249}$	$0.316^{+0.320}_{-0.149}$
	+3%/-4%	+4%/-4%	+139%/-194%	+30%/-25%	+15%/-17%	+101%/-47%
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 006048876-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-9 ± 2	$1.01^{+0.41}_{-0.43}$	4664^{+349}_{-351}	5250^{+1892}_{-999}	$1.355^{+2.838}_{-0.702}$
Alt.	-29 ± 11	$1.14^{+0.47}_{-0.42}$	4669^{+387}_{-339}	6738^{+2378}_{-1315}	$3.249^{+5.086}_{-1.776}$

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

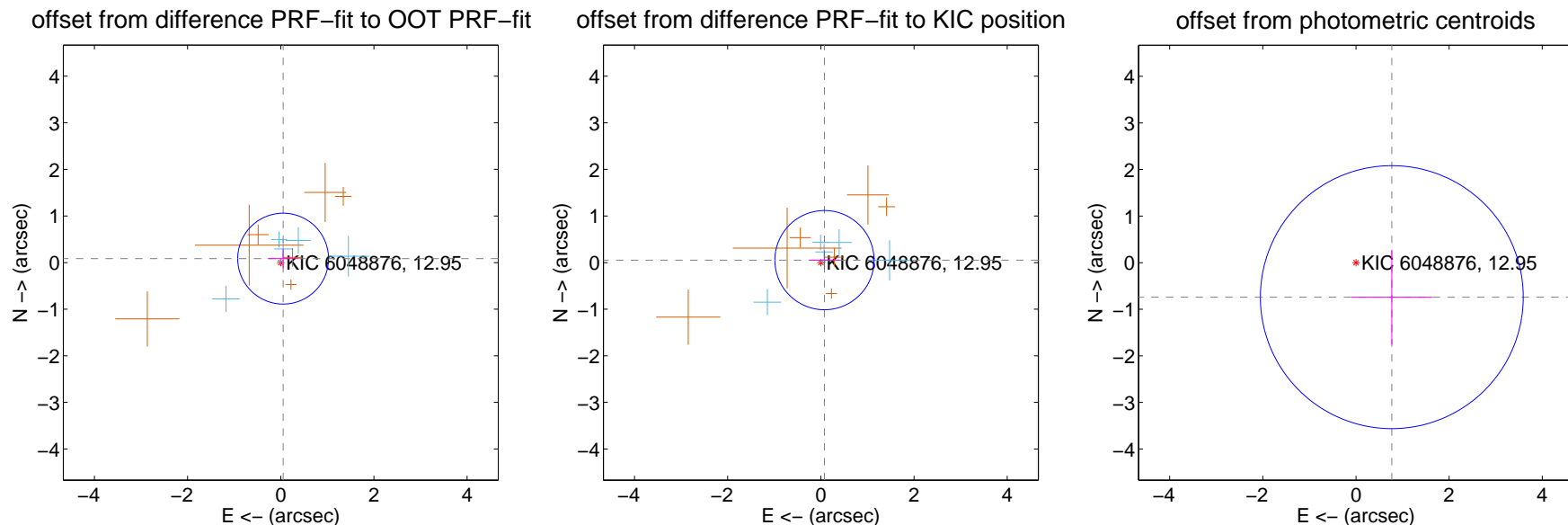
DV Centroid Data

Supplemental centroid analysis for 006048876-01. Kepler magnitude: 12.95. Transit SNR 6.51

There are 6 quarters with good PRF difference image offsets

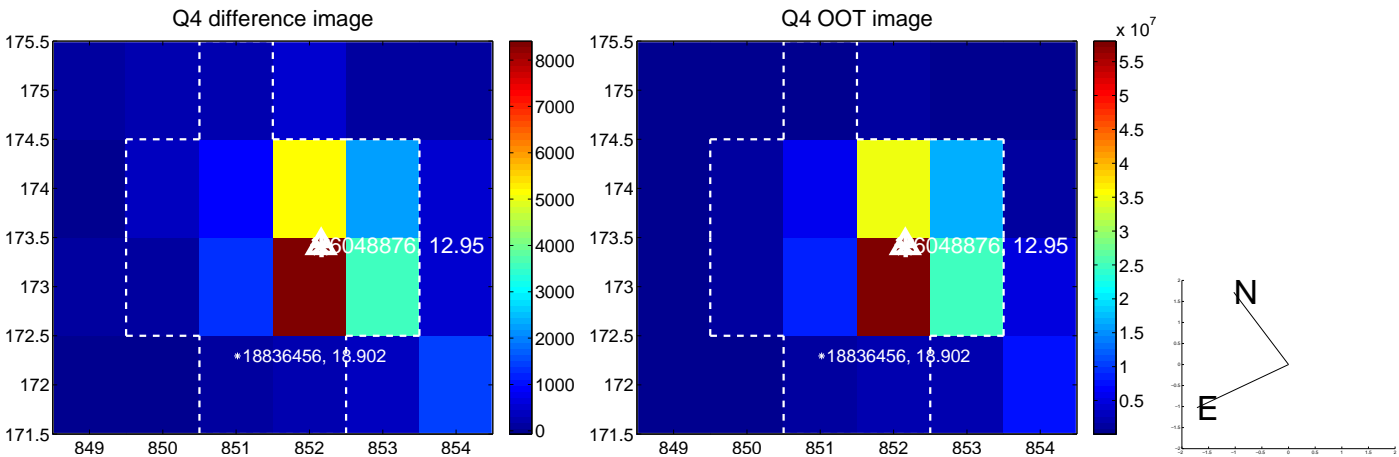
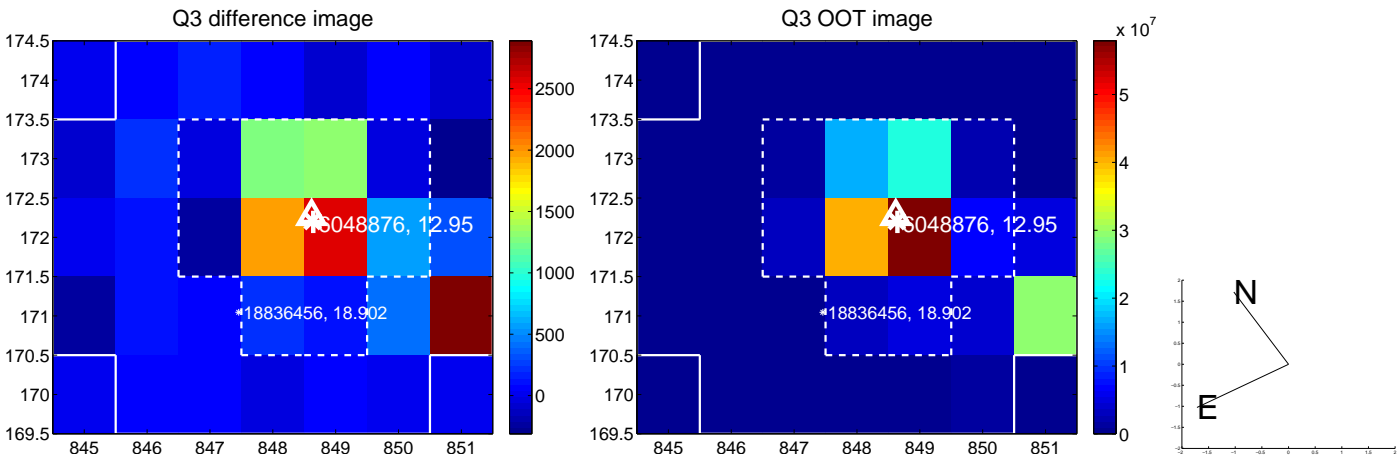
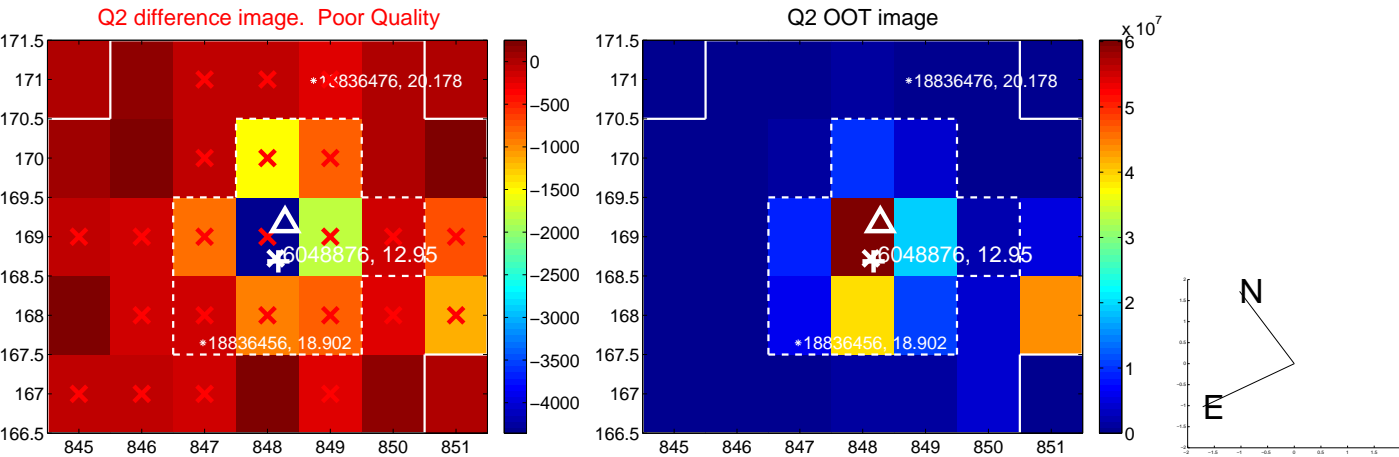
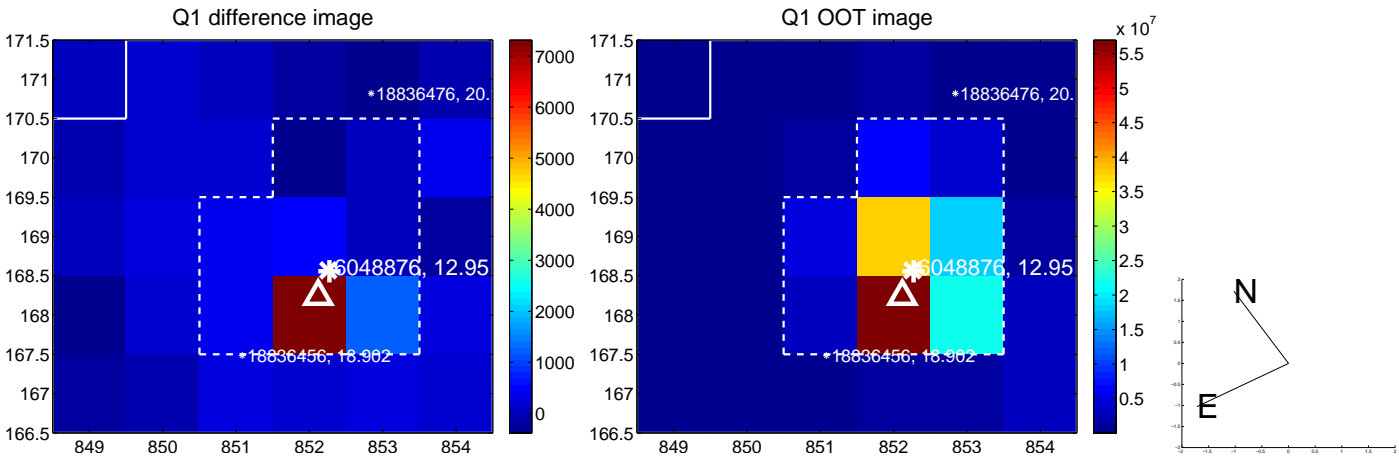
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.099 ± 0.325	0.30	-0.051 ± 0.325	0.085 ± 0.212
PRF-fit source offset from KIC position	0.093 ± 0.355	0.26	-0.077 ± 0.323	0.053 ± 0.205
photometric centroid source offset	1.07 ± 0.94	1.14	-0.77 ± 0.87	-0.74 ± 1.02

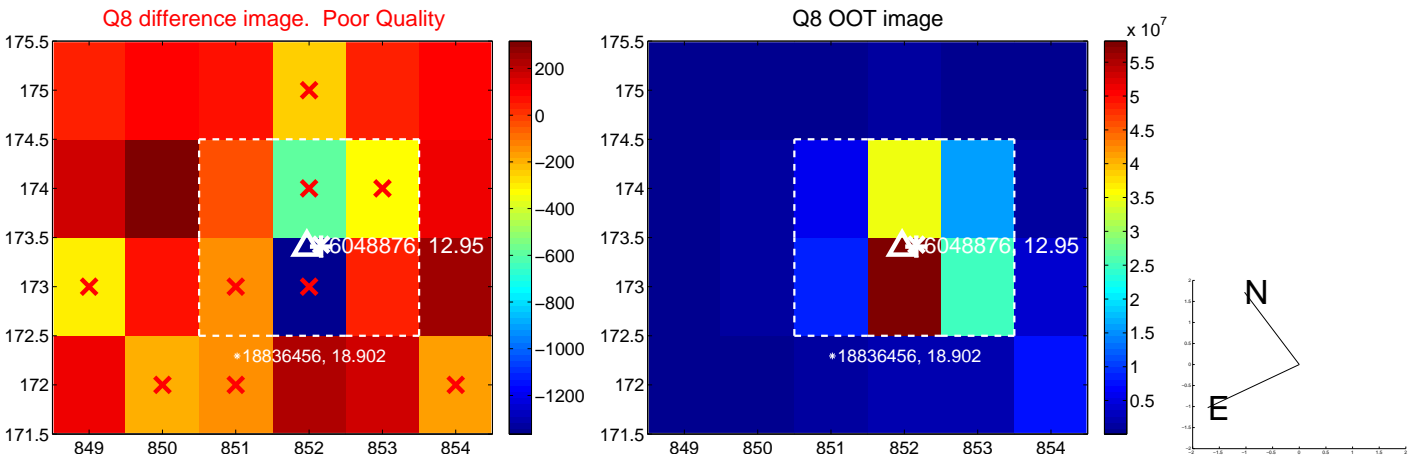
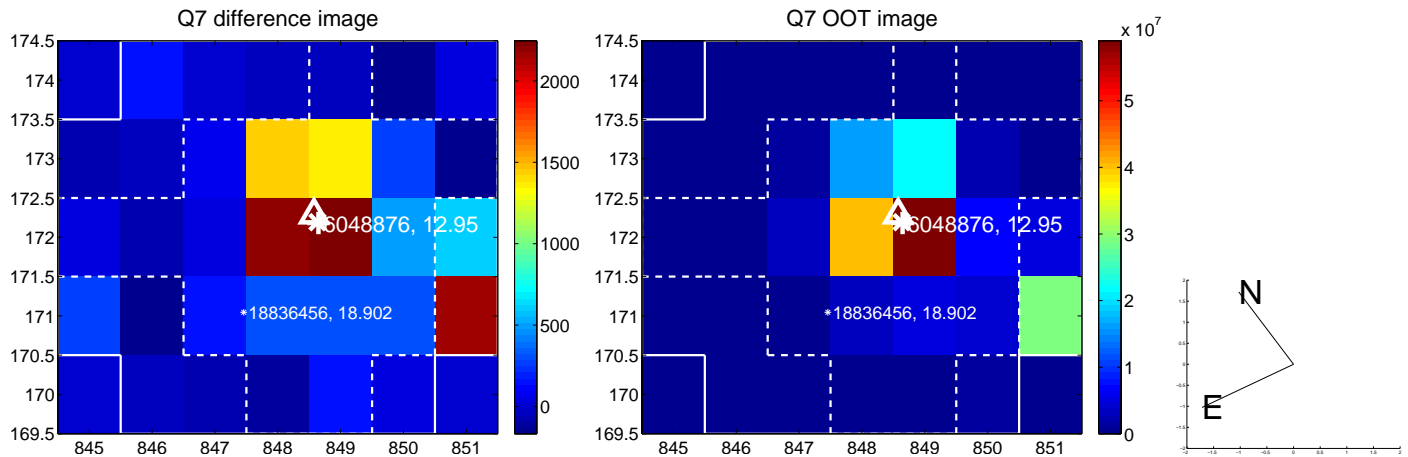
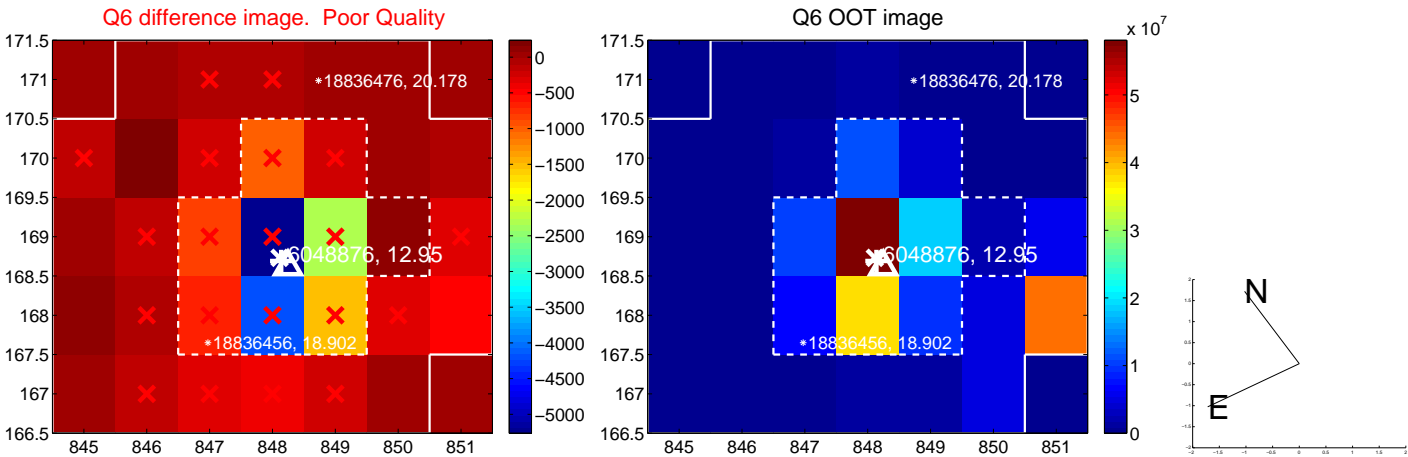
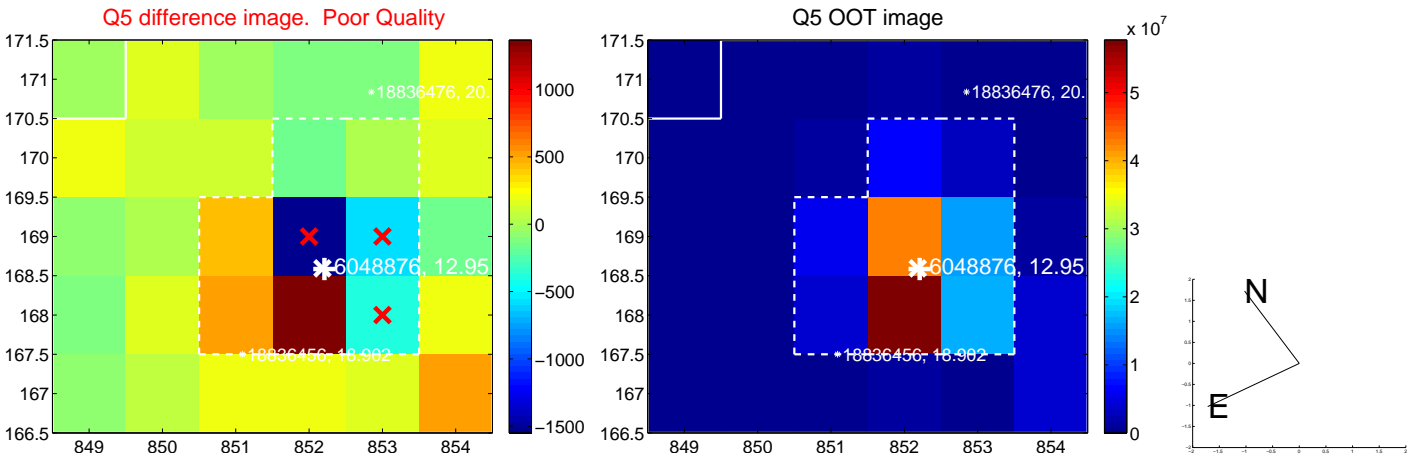


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

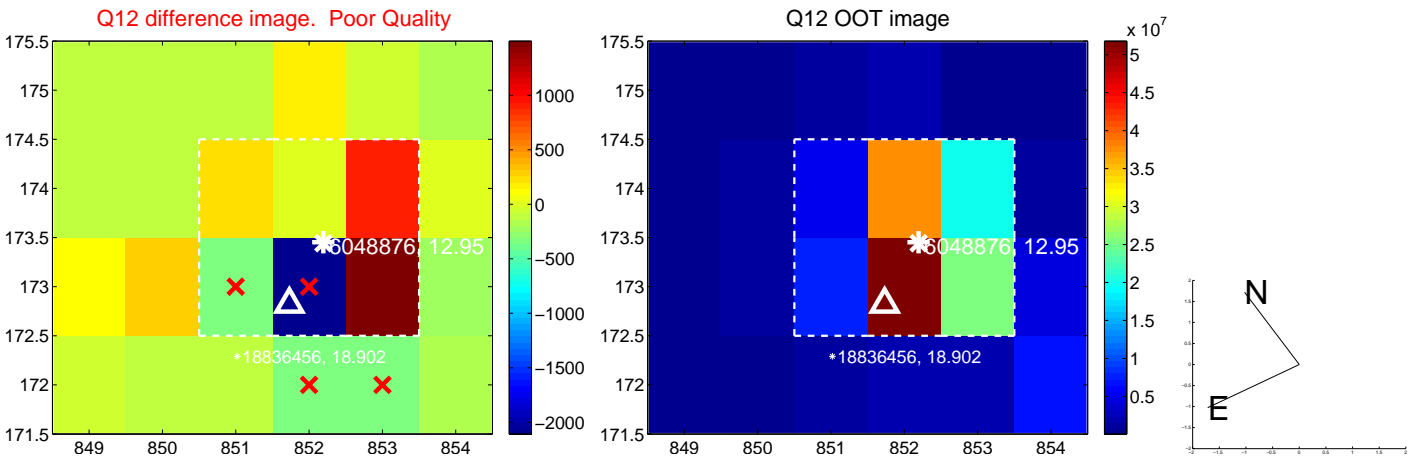
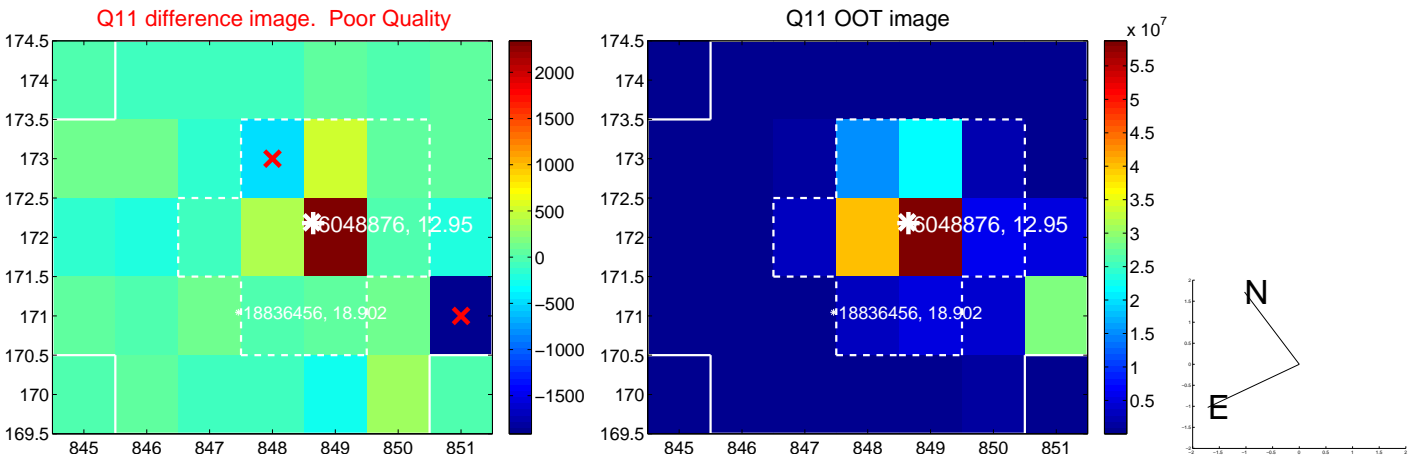
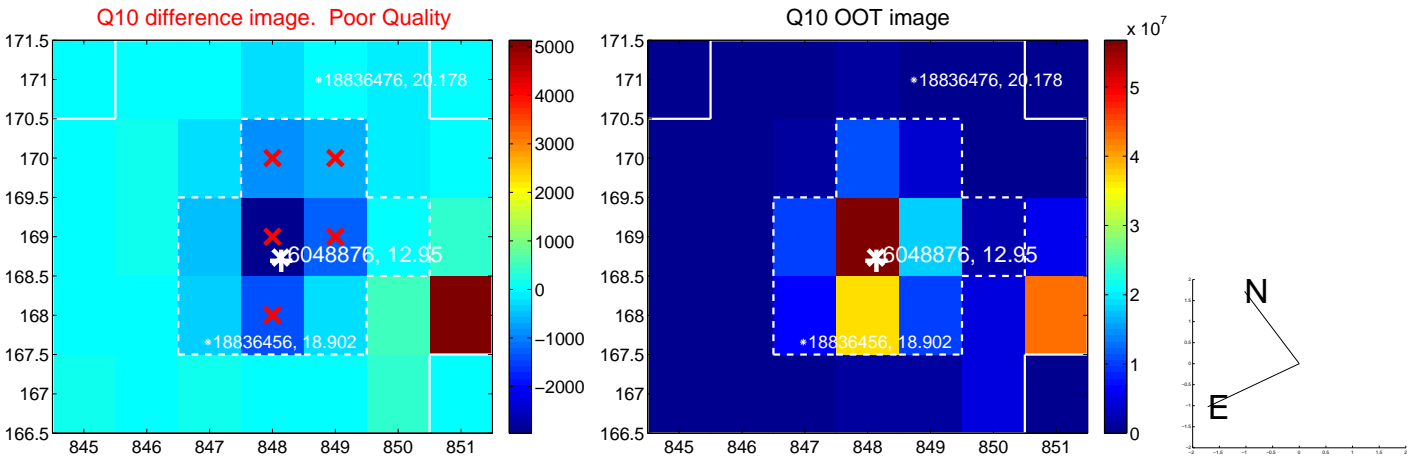
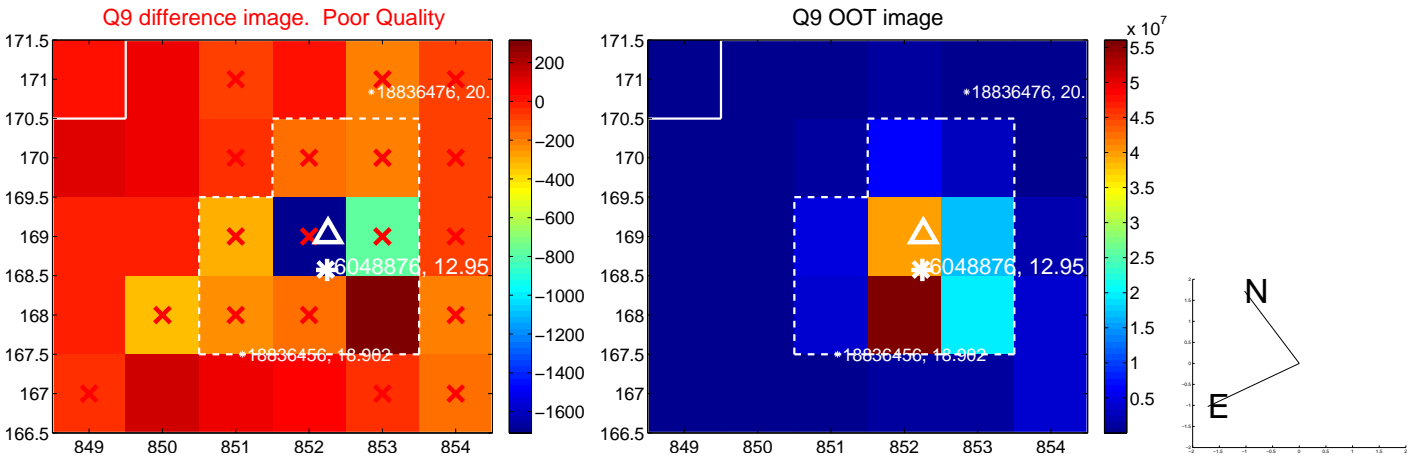
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



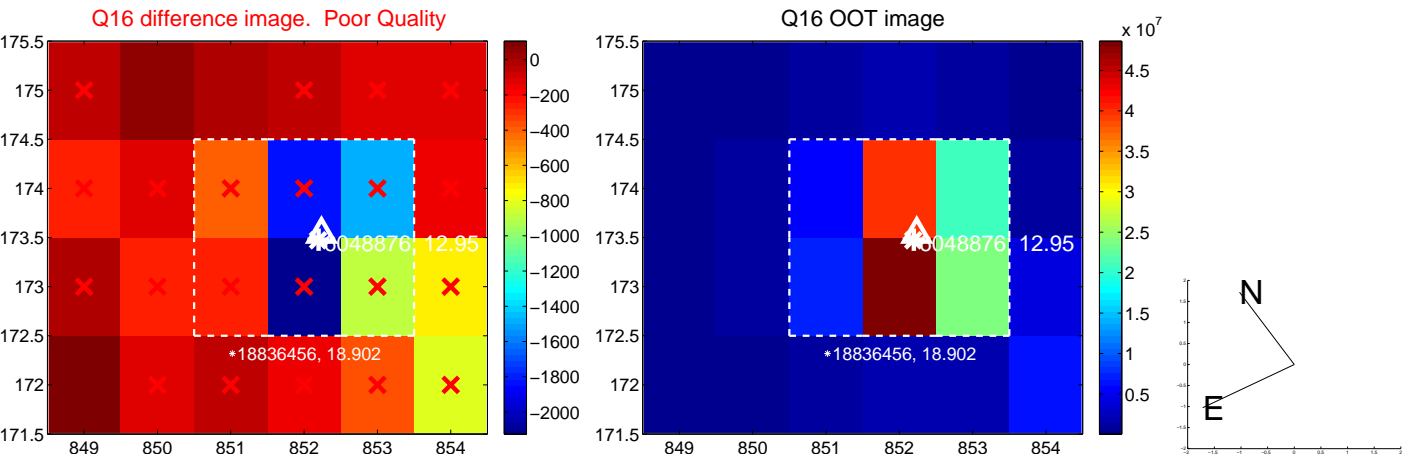
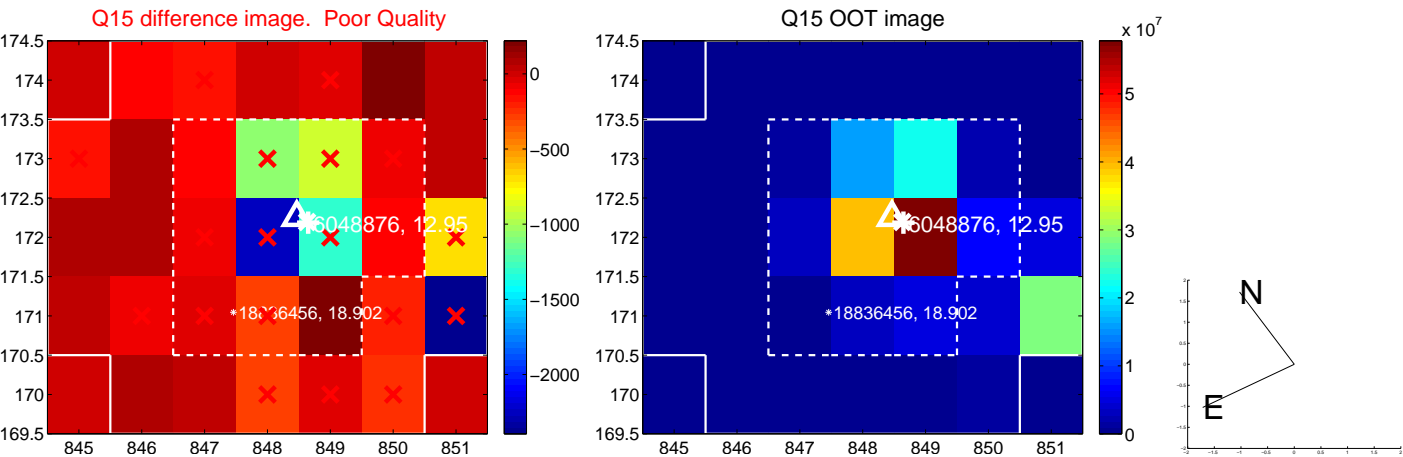
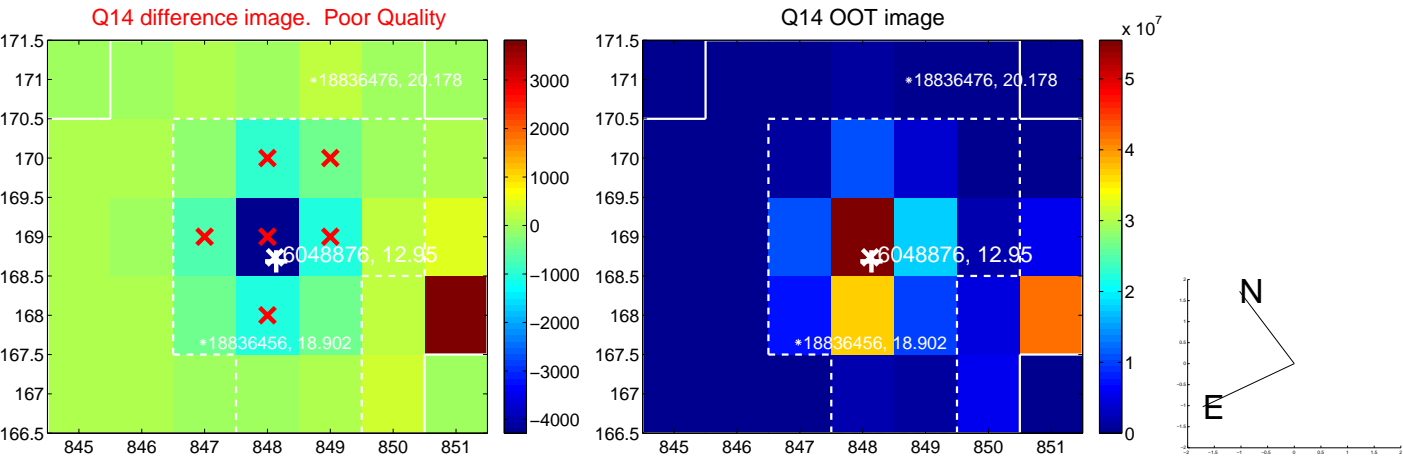
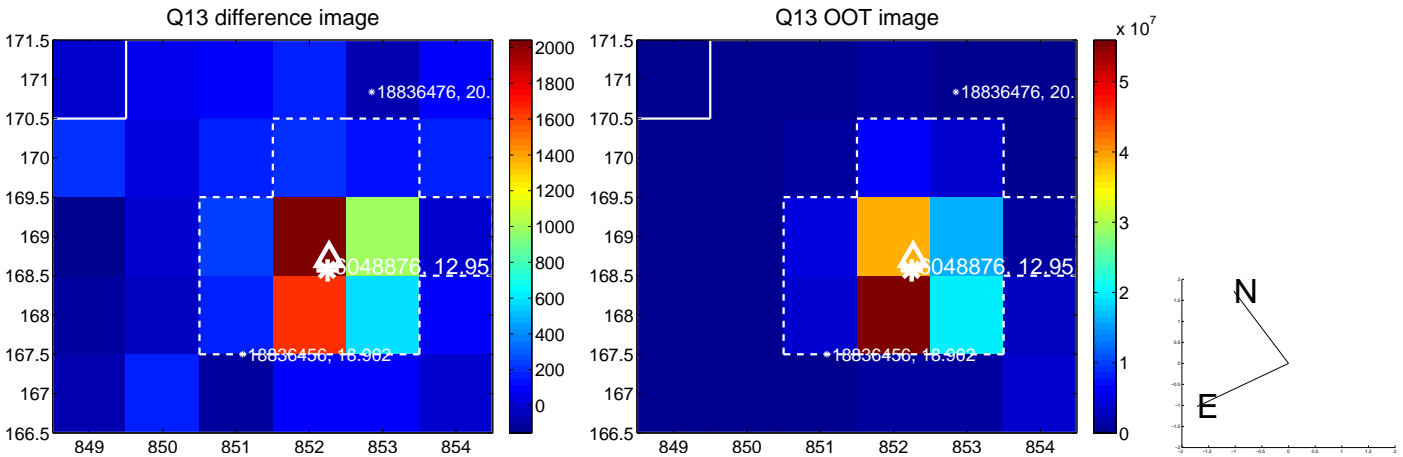
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



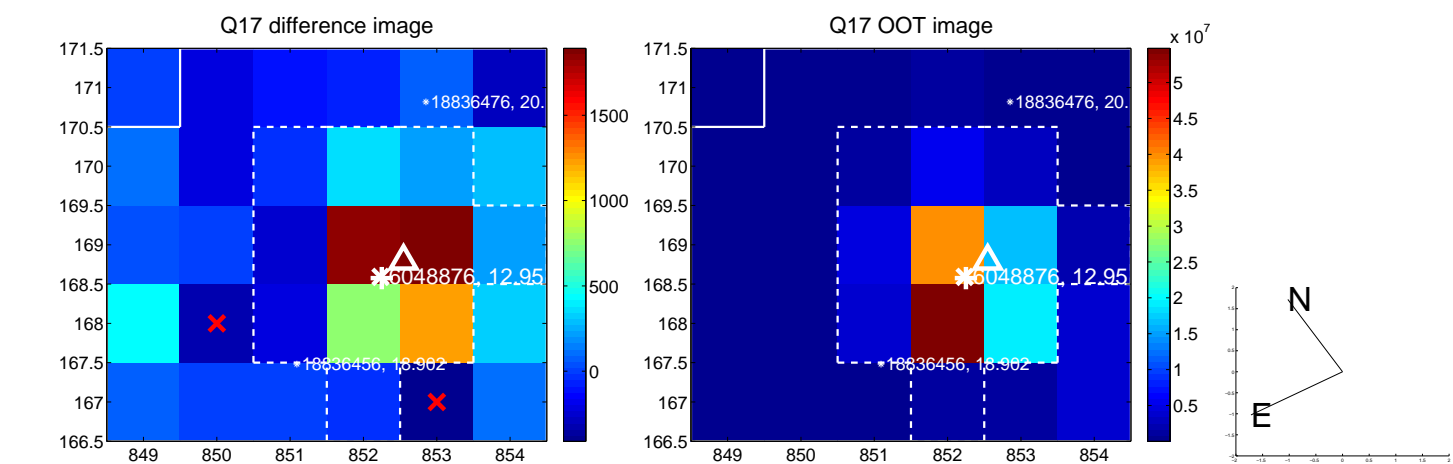
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



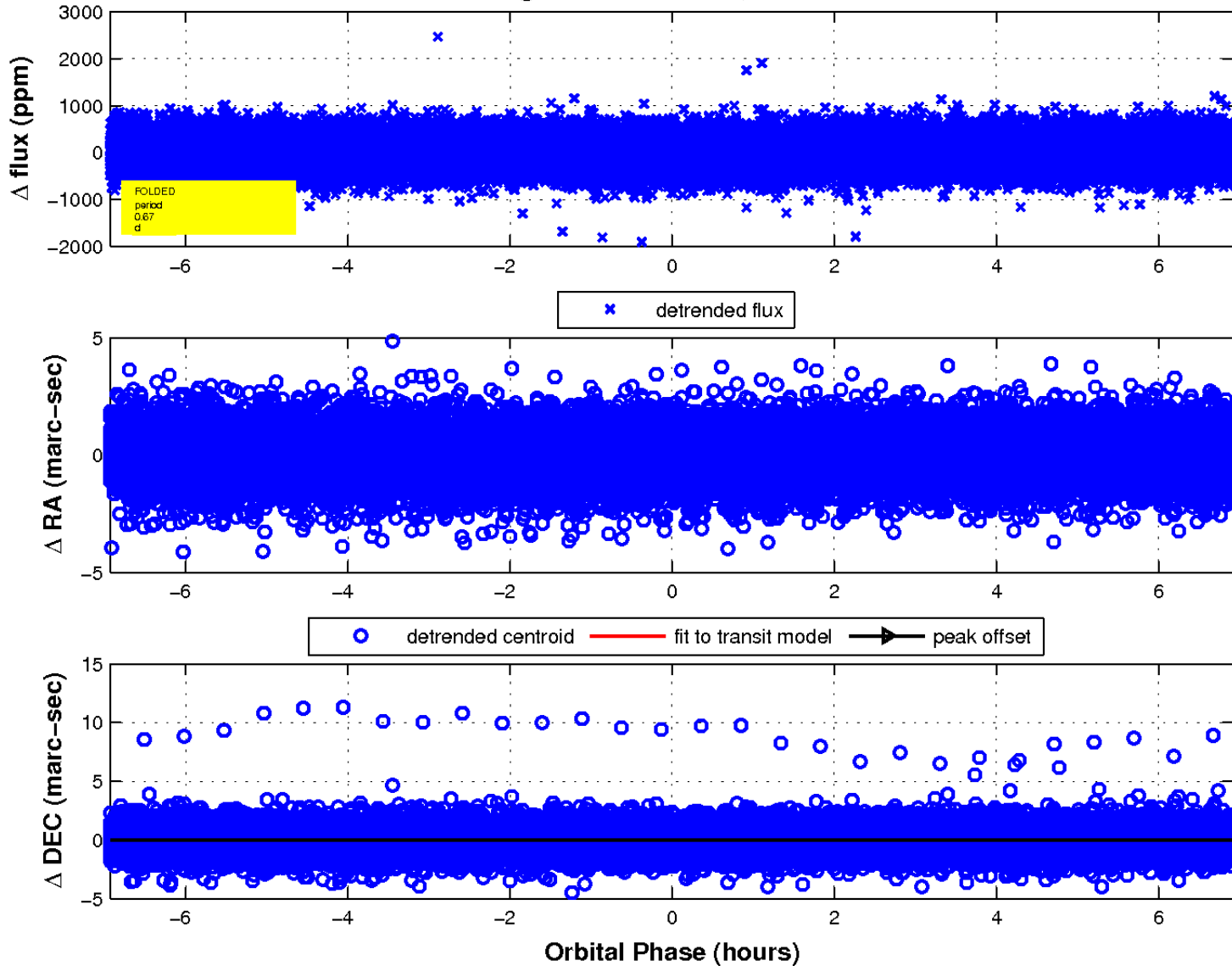
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

