

KIC 008869680

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})
008869680-01	OBS	0696.01	7.033784	131.956438	135.1	6.514	35.1	38.7	1.93	6122	2.65	719.76

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008869680-01	OBS	PC	0.19	0	0	0	0	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.

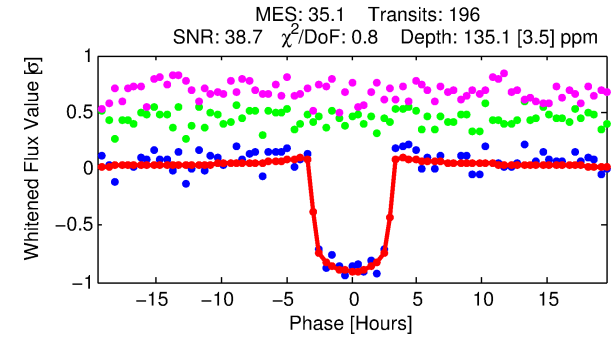
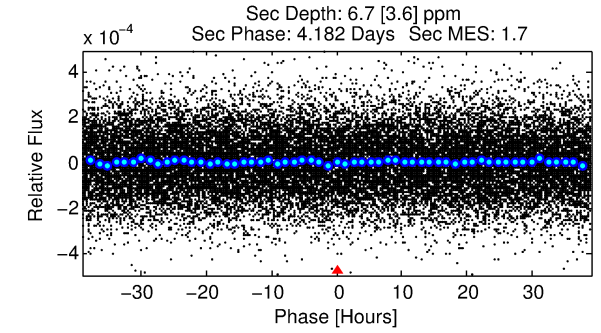
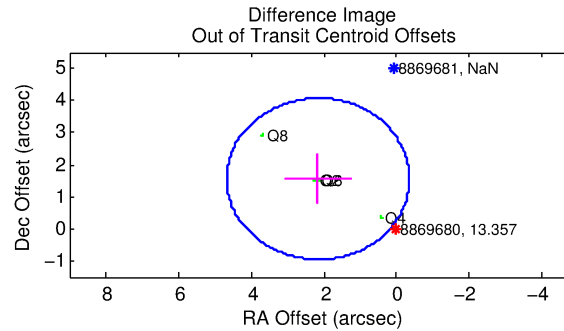
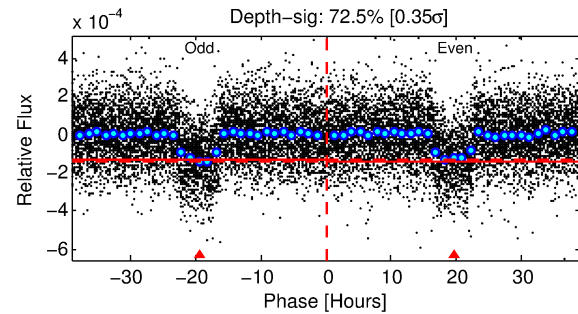
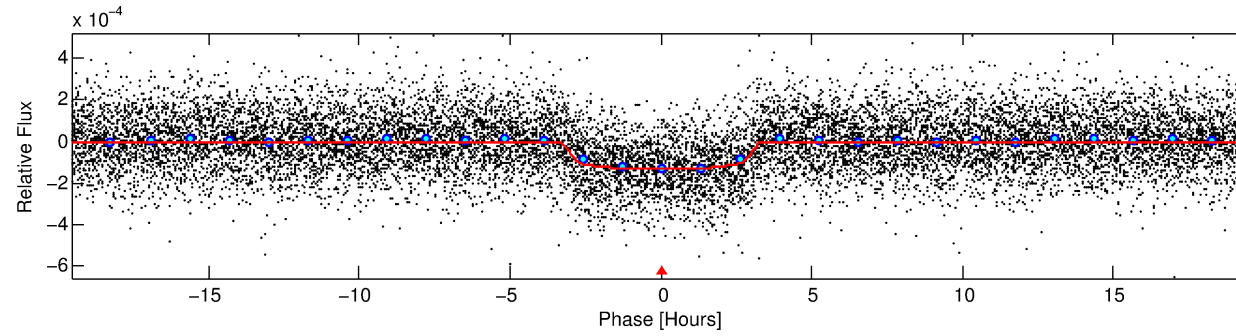
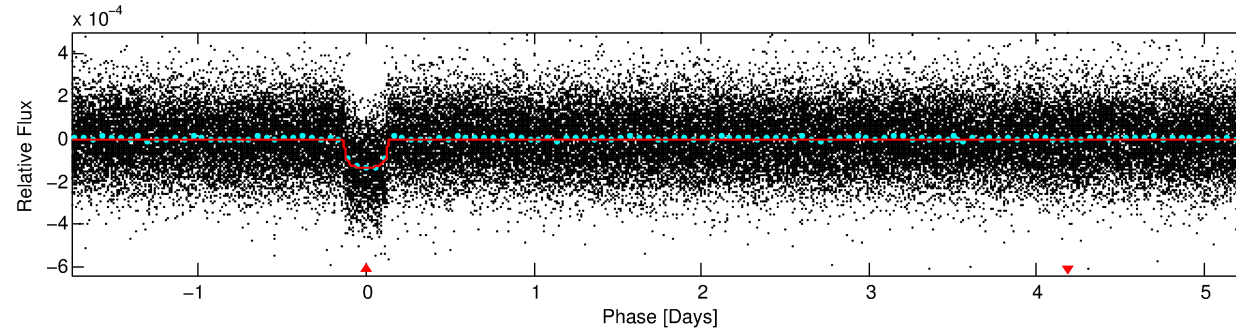
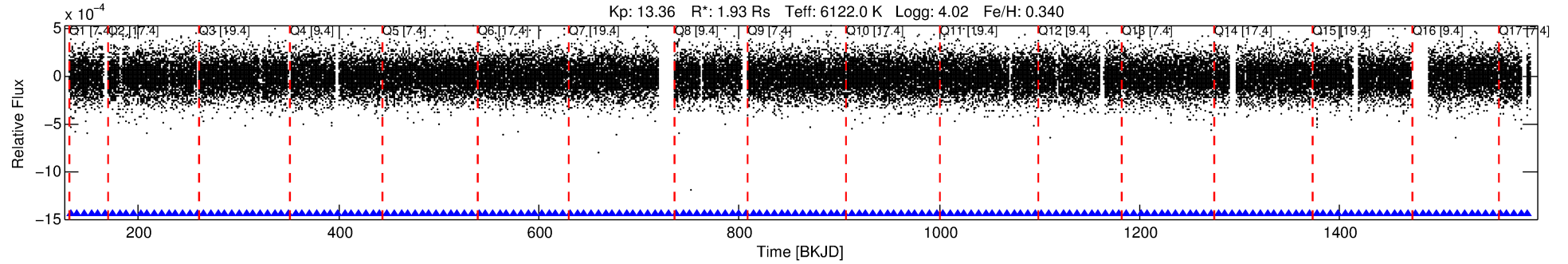
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008869680-01

No Significant Match Found

DV One-Page Summary

KIC: 8869680 Candidate: 1 of 1 Period: 7.034 d
KOI: K00696.01 Corr: 0.976



DV Fit Results:

Period = 7.03378 [0.00002] d
Epoch = 131.9564 [0.0026] BKJD
Rp/R* = 0.0125 [0.0010]
a/R* = 3.99 [1.44]
b = 0.90 [0.09]
Seff = 719.76 [313.45]
Teq = 1321 [144] K
Rp = 2.65 [0.83] Re
a = 0.0809 [0.0218] AU
Ag = 3.42 [2.40] [1.01σ]
Teffp = 2778 [405] K [3.39σ]

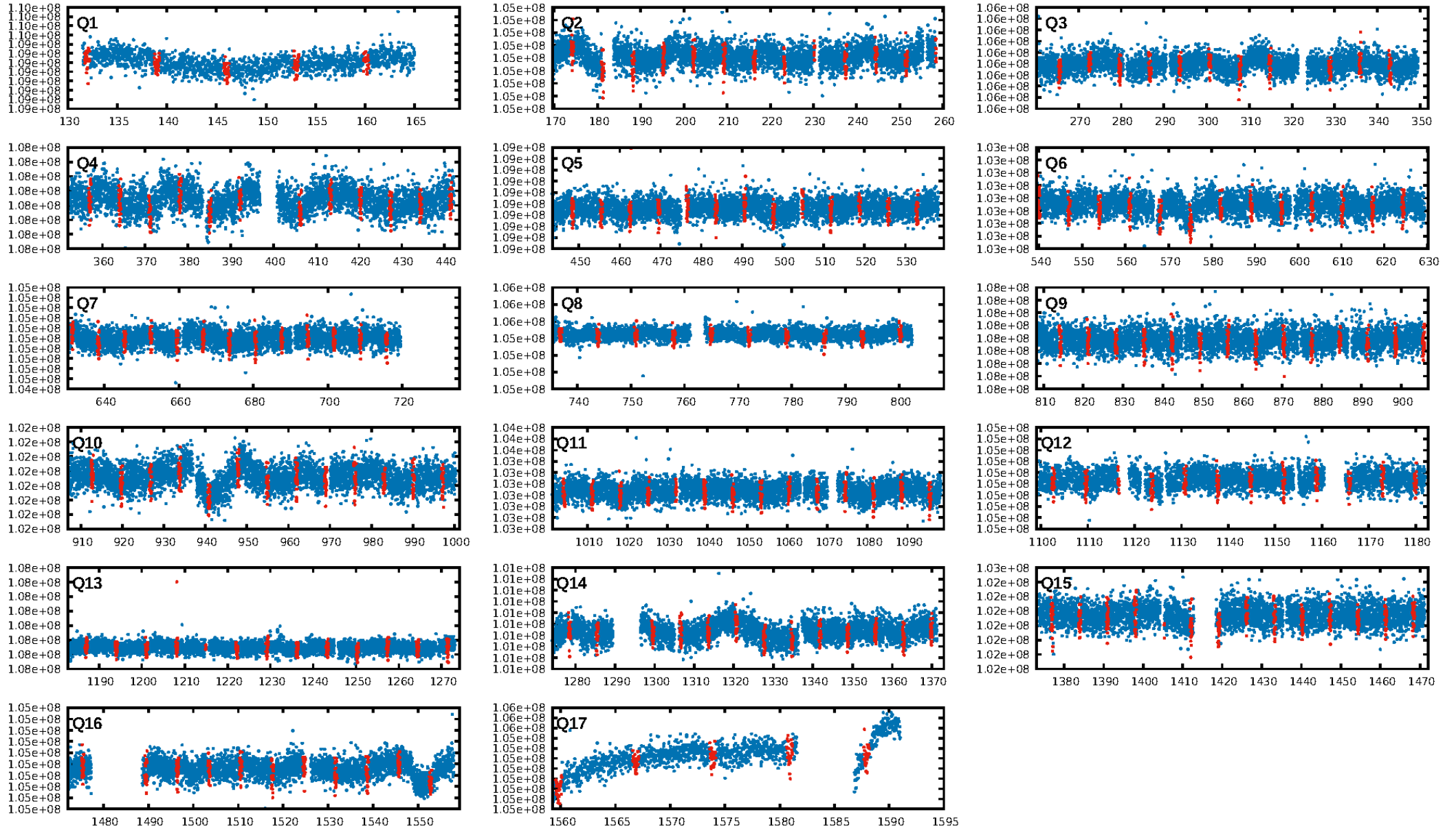
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 100.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.08e-252
RollingBand-fgt: 1.00 [186/186]
GhostDiagnostic-chr: 3.75
Centroid-sig: 0.0%
Centroid-so: 3.208 arcsec [4.61σ]
OotOffset-rm: 2.661 arcsec [3.17σ]
KicOffset-rm: 9.745 arcsec [20.05σ]
OotOffset-st: 2/0/2/0 [4]
KicOffset-st: 4/3/2/3 [12]
DiffImageQuality-fgm: 0.25 [3/12]
DiffImageOverlap-fno: 1.00 [17/17]

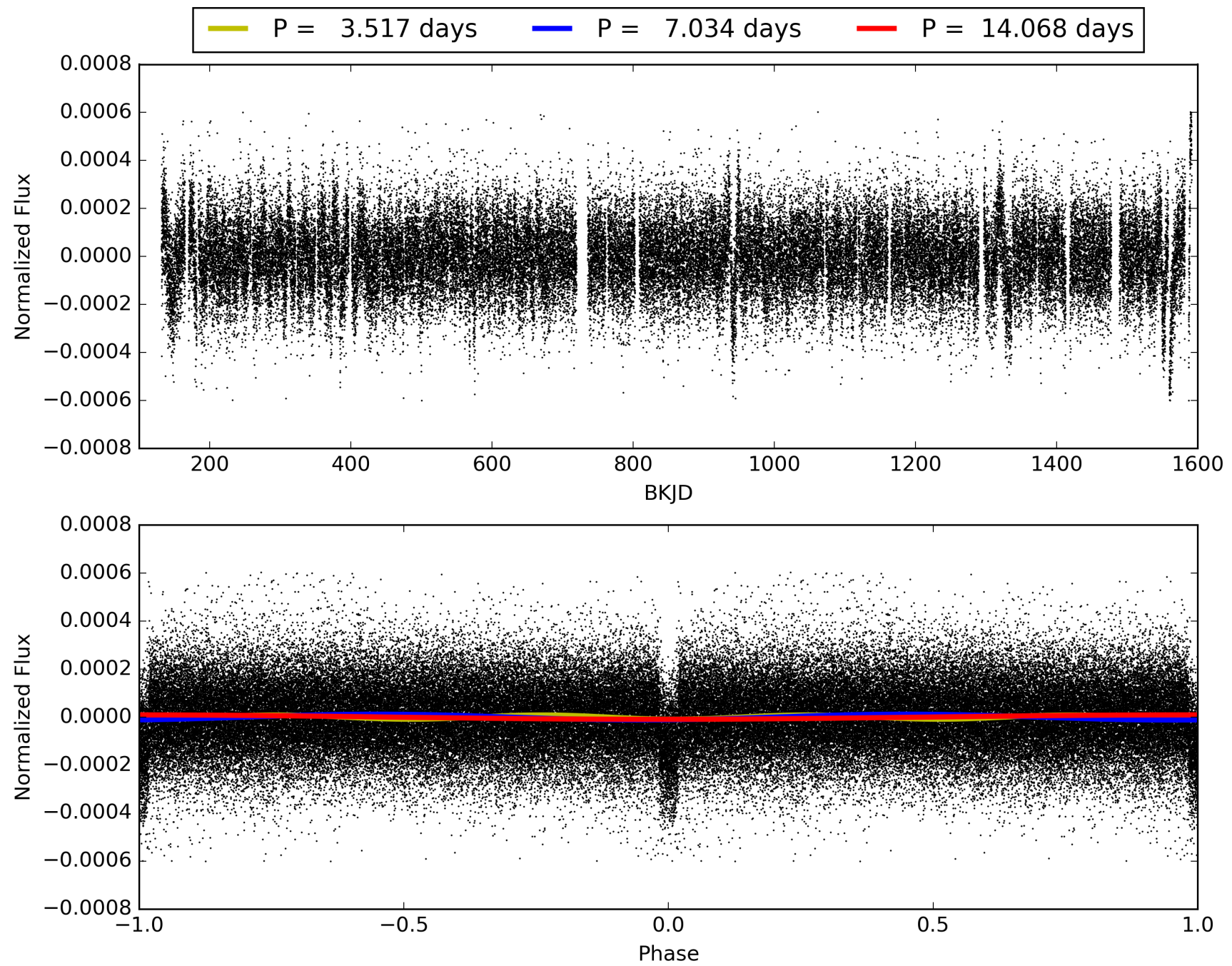
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 00:22:15 Z

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

TCE 008869680-01, PDC Light Curves

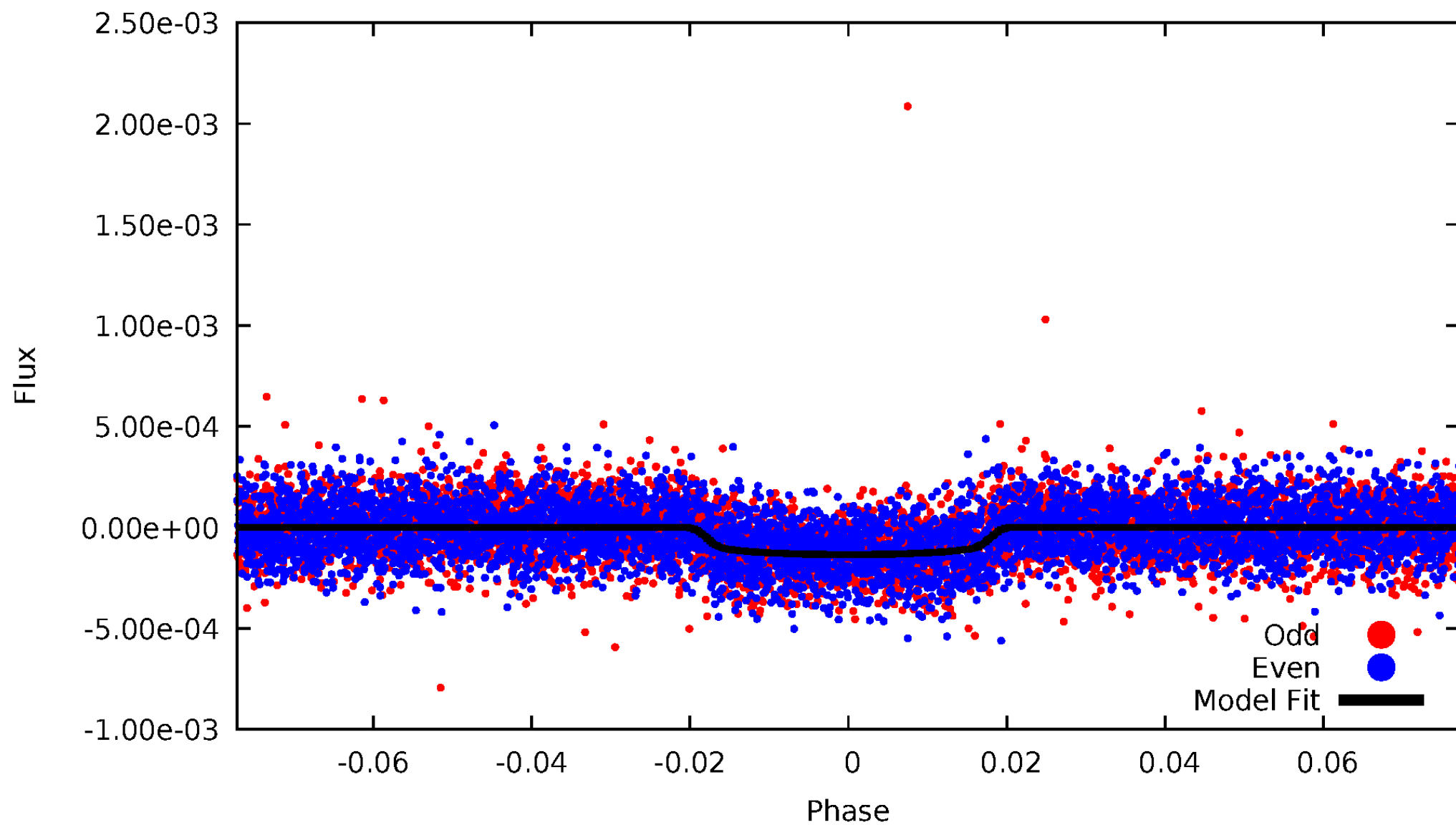


TCE 008869680-01



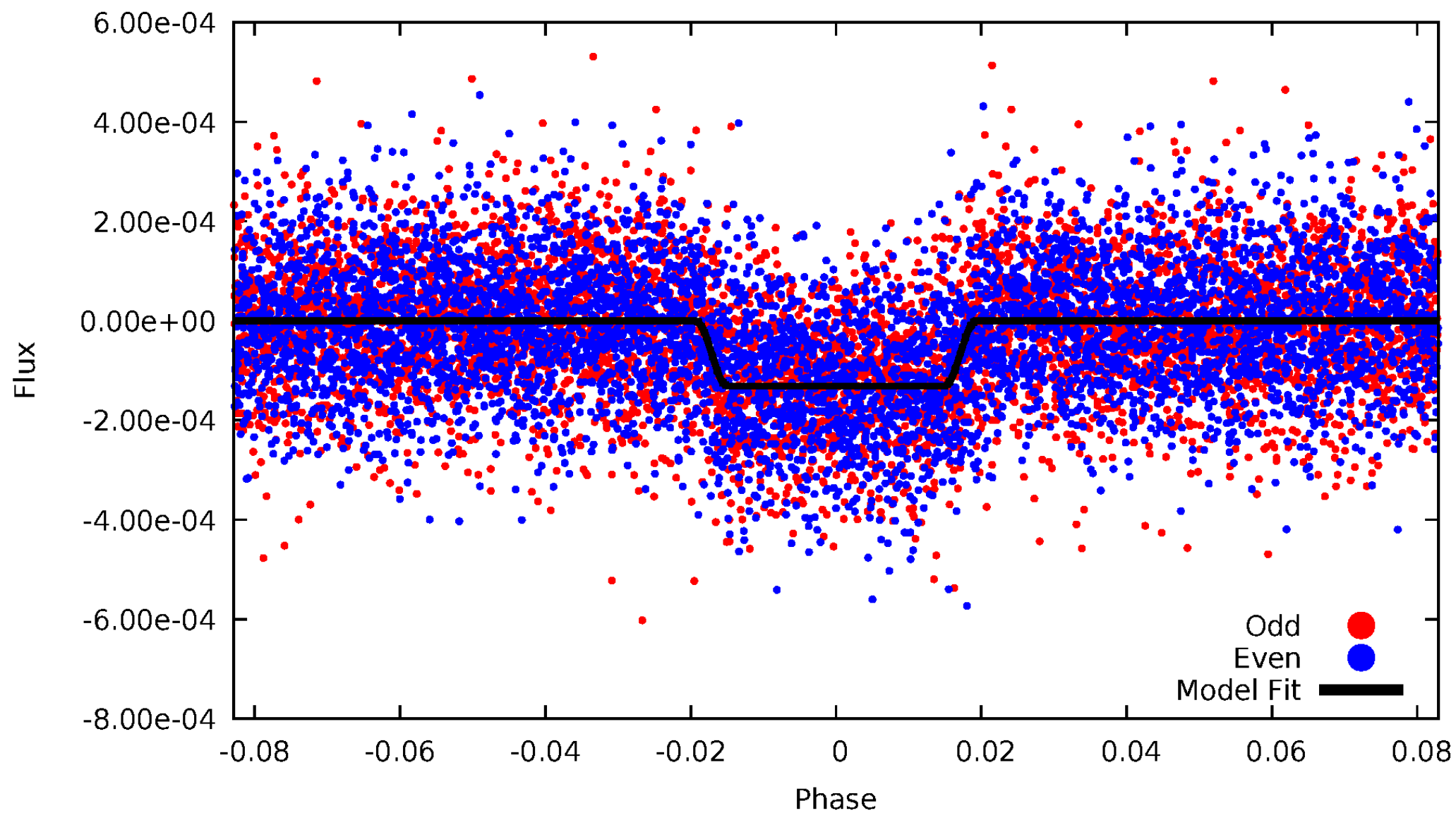
DV Odd/Even

TCE 008869680-01



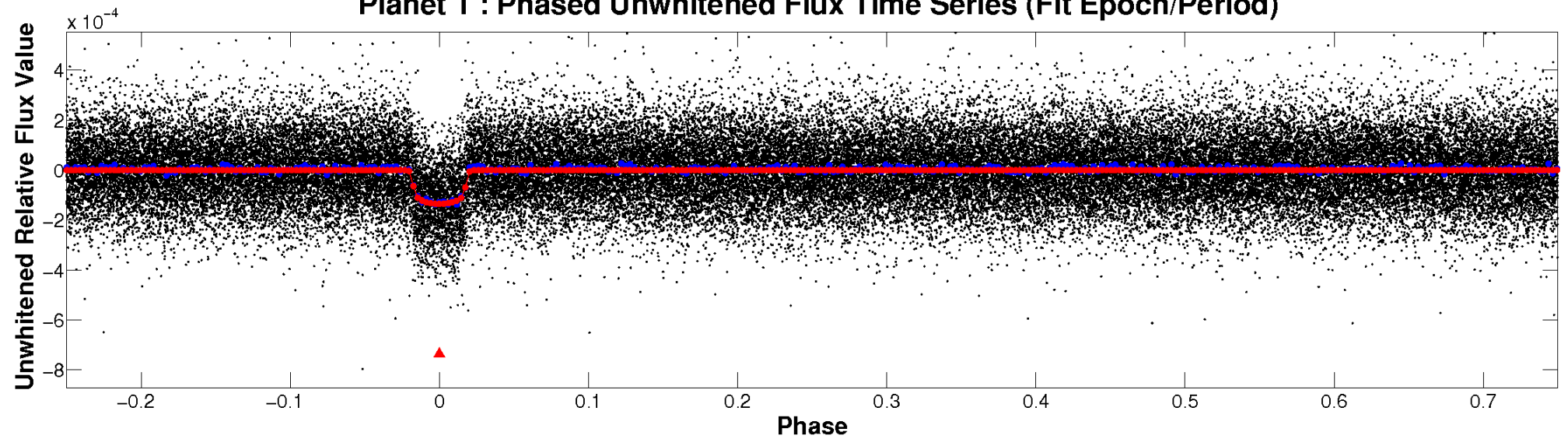
ALT Odd/Even

TCE 008869680-01

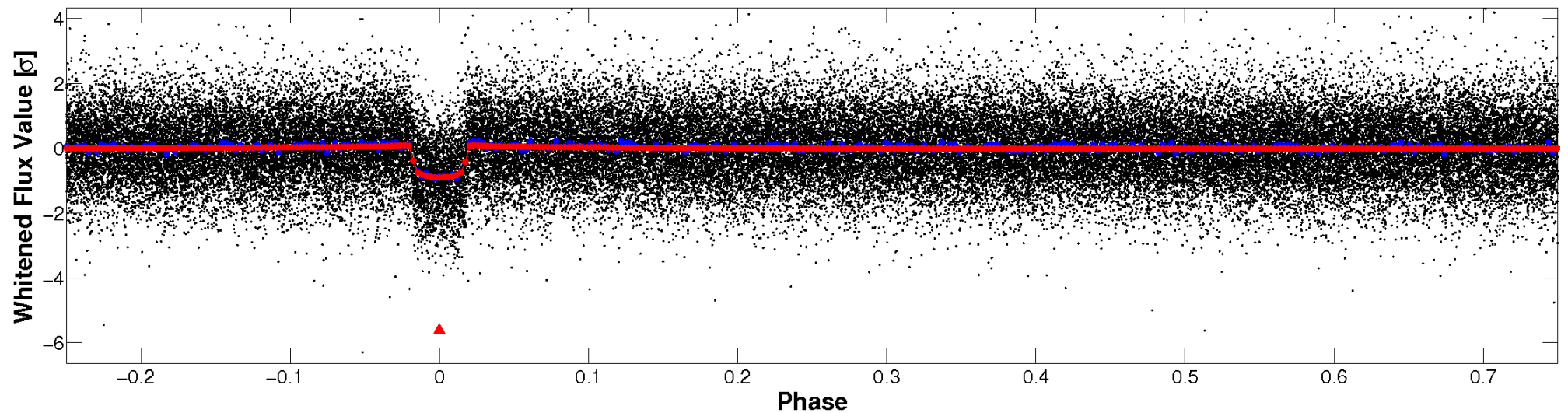


Non-Whitened Vs. Whitened Light Curve

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

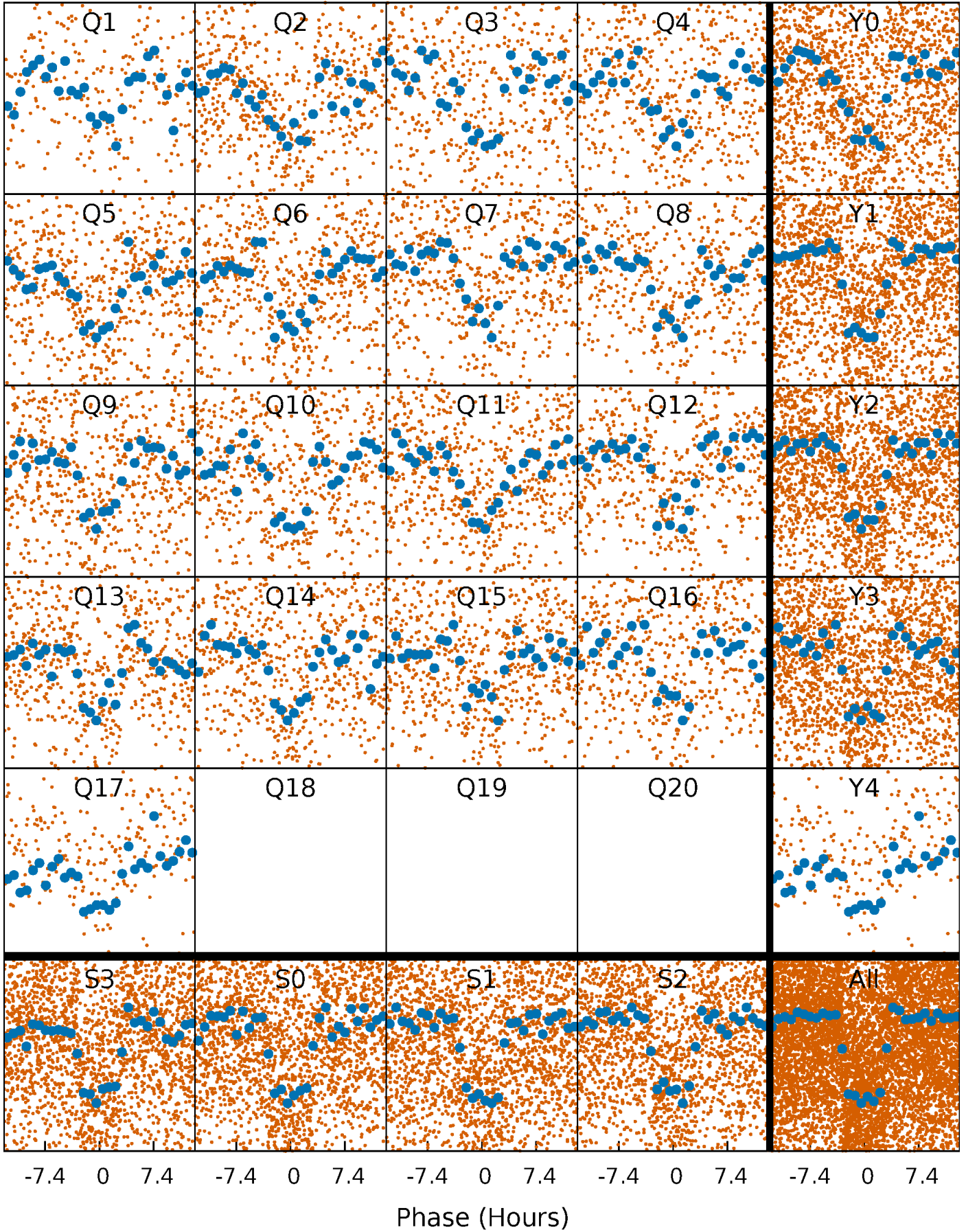


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



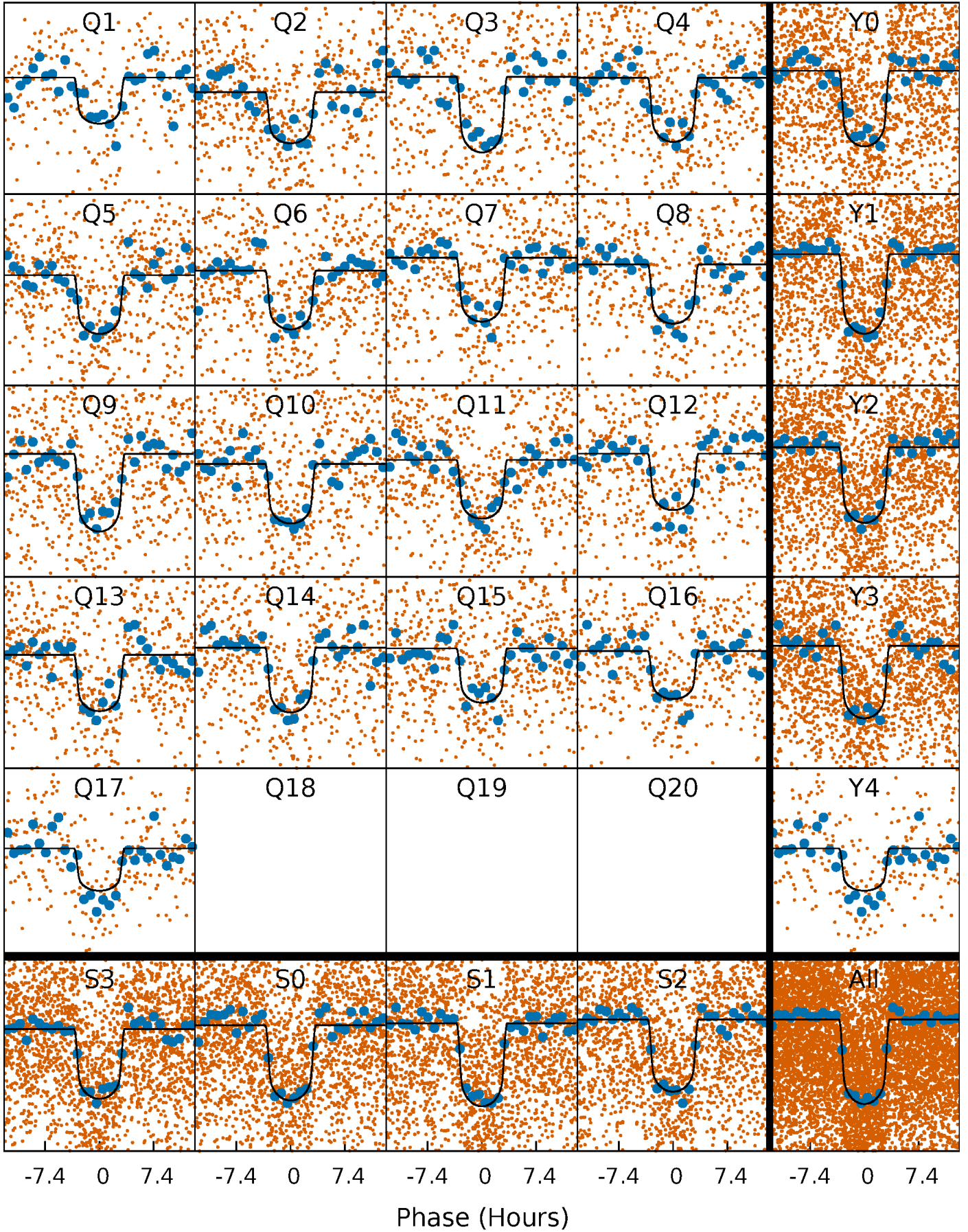
PDC Quarter-Phased Transit Curves

TCE 008869680-01 P= 7.033784 Days $T_0=131.956438$ (BKJD)



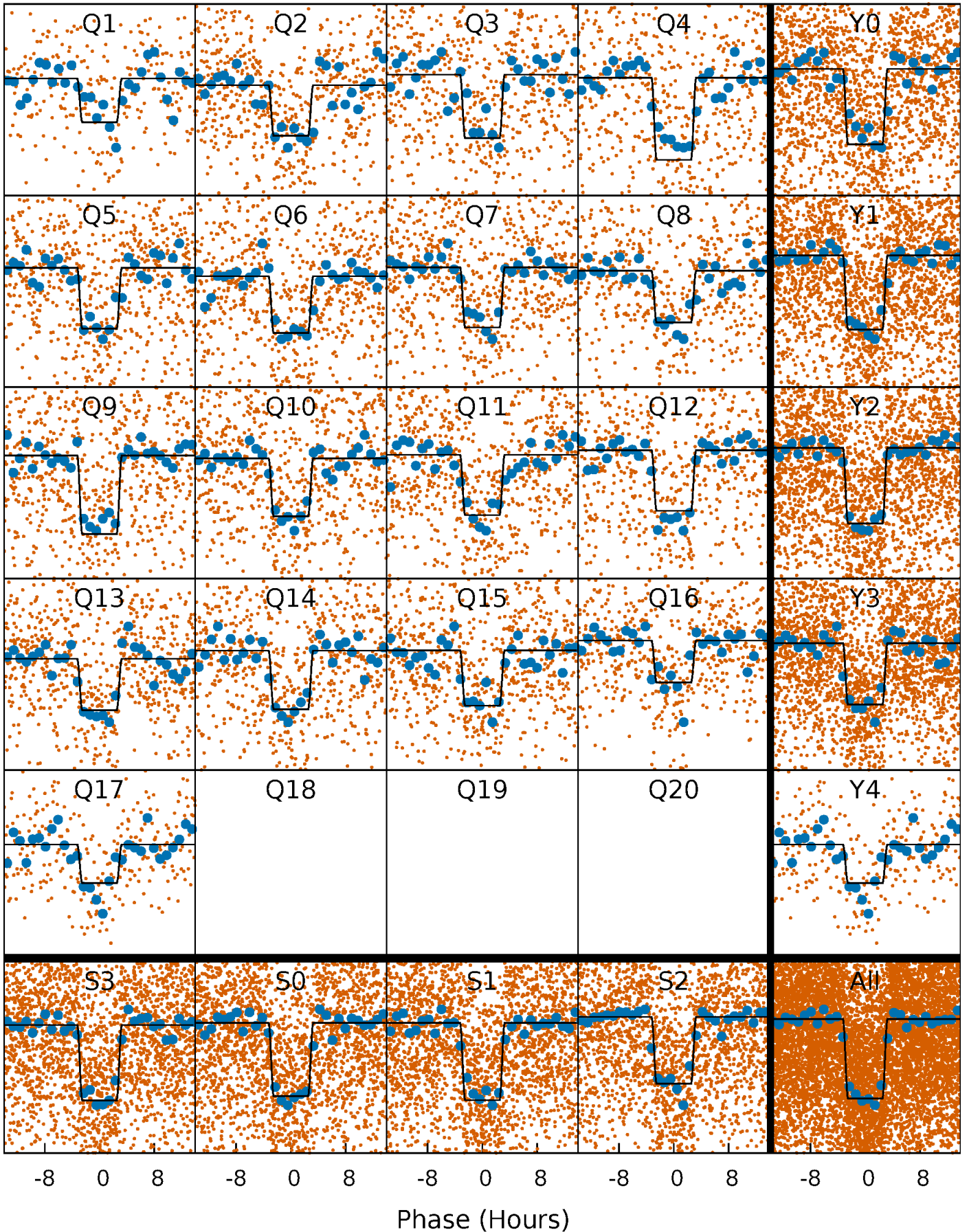
DV Quarter-Phased Transit Curves

TCE 008869680-01 P= 7.033784 Days $T_0=131.956438$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

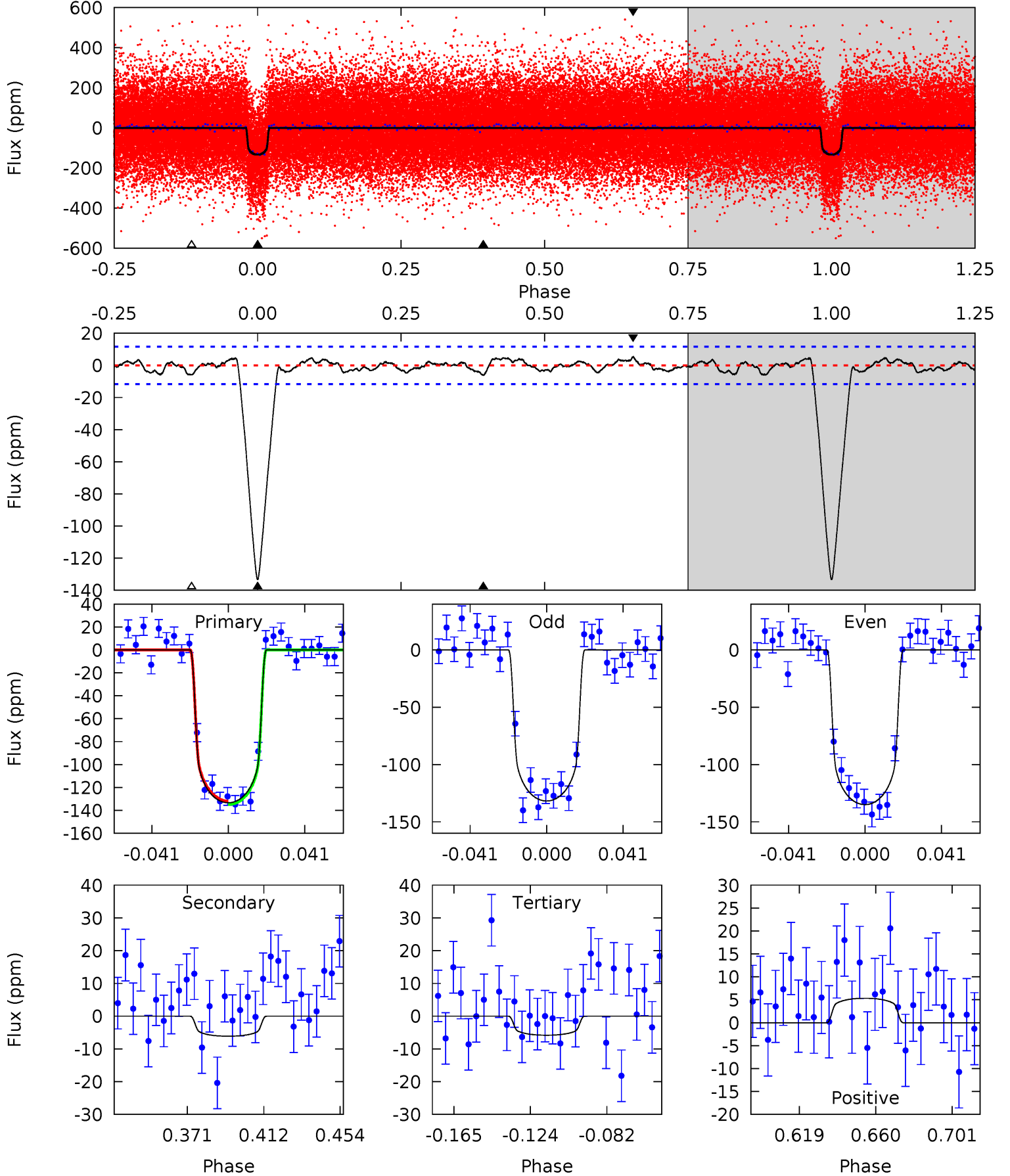
TCE 008869680-01 P= 7.033974 Days $T_0=131.934782$ (BKJD)



DV Model-Shift Uniqueness Test

008869680-01, P = 7.033784 Days, E = 124.922654 Days

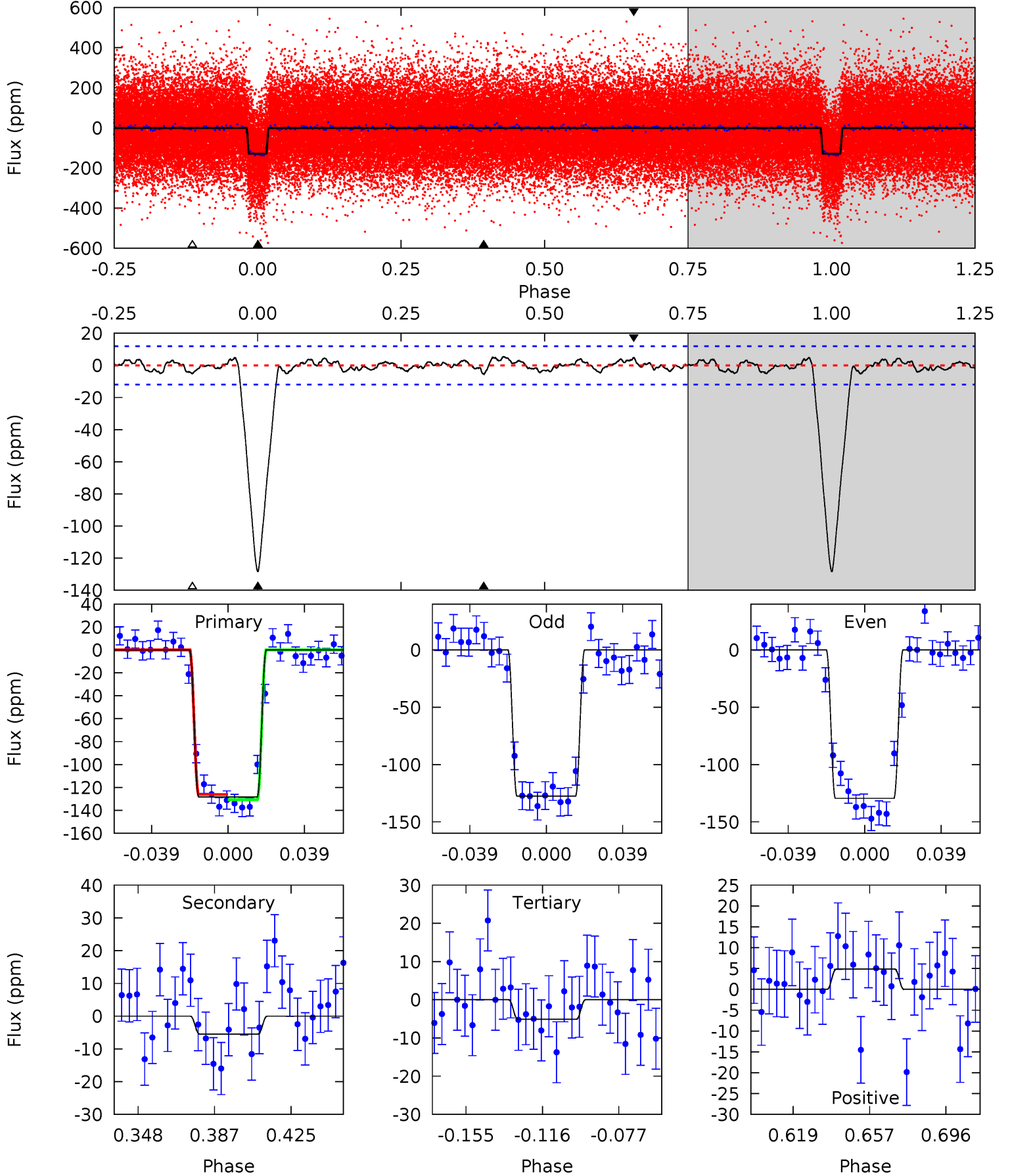
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
54.4	2.50	2.38	2.17	4.75	2.04	0.99	52.0	52.2	0.13	0.33	0.65	0.99	0.04	0.59



Alt Model-Shift Uniqueness Test

008869680-01, P = 7.033974 Days, E = 124.900808 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
51.3	2.18	2.04	1.94	4.76	2.07	0.91	49.2	49.3	0.14	0.24	0.38	1.00	0.04	0.92



Stellar Parameters For KIC 008869680

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6122^{+181}_{-217}	$4.019^{+0.234}_{-0.126}$	$0.340^{+0.150}_{-0.300}$	$1.934^{+0.389}_{-0.584}$	$1.427^{+0.150}_{-0.278}$	$0.278^{+0.391}_{-0.104}$
	+3%/-4%	+6%/-3%	+44%/-88%	+20%/-30%	+11%/-19%	+141%/-38%
Source	PHO1	FLK73	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 008869680-01 / KOI 0696.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-6 ± 2	$2.58^{+0.41}_{-0.46}$	1821^{+120}_{-141}	3249^{+212}_{-287}	$3.446^{+1.855}_{-1.614}$
Alt.	-5 ± 3	$2.38^{+0.36}_{-0.41}$	1824^{+131}_{-136}	3260^{+265}_{-333}	$3.448^{+2.296}_{-1.712}$

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

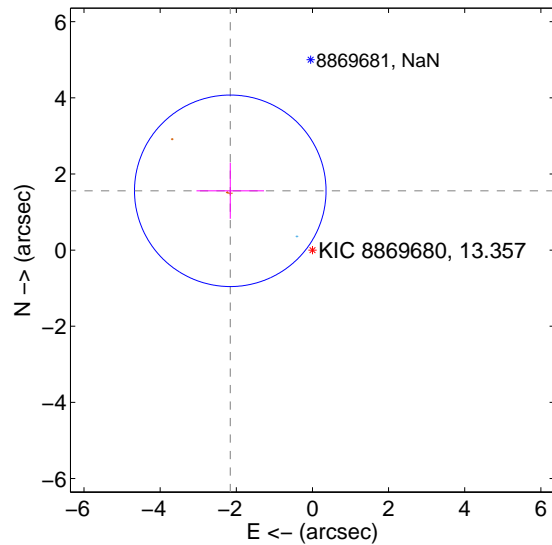
Supplemental centroid analysis for 008869680-01. Kepler magnitude: 13.36. Transit SNR 38.72

There are 3 quarters with good PRF difference image offsets

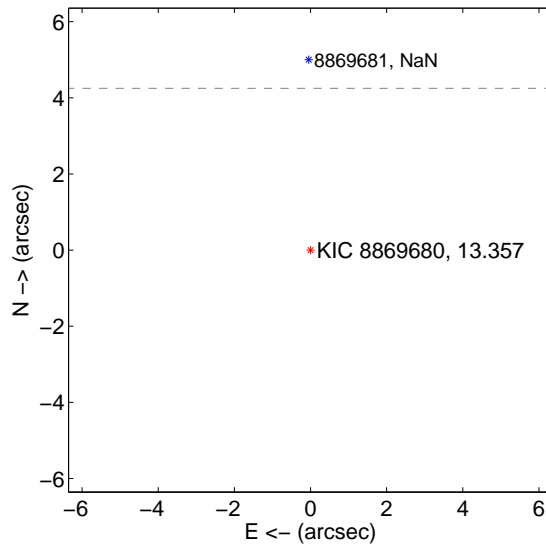
The OOT PRF centroid is offset from the target star catalog position by about 8.81 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.661 ± 0.838	3.17	2.158 ± 0.887	1.557 ± 0.735
PRF-fit source offset from KIC position	9.745 ± 0.486	20.05	-8.771 ± 0.798	4.248 ± 0.689
photometric centroid source offset	3.21 ± 0.70	4.61	-3.17 ± 0.70	0.48 ± 0.63

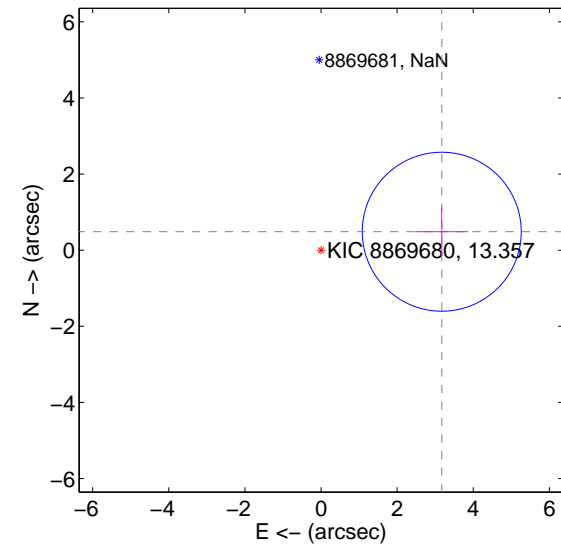
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

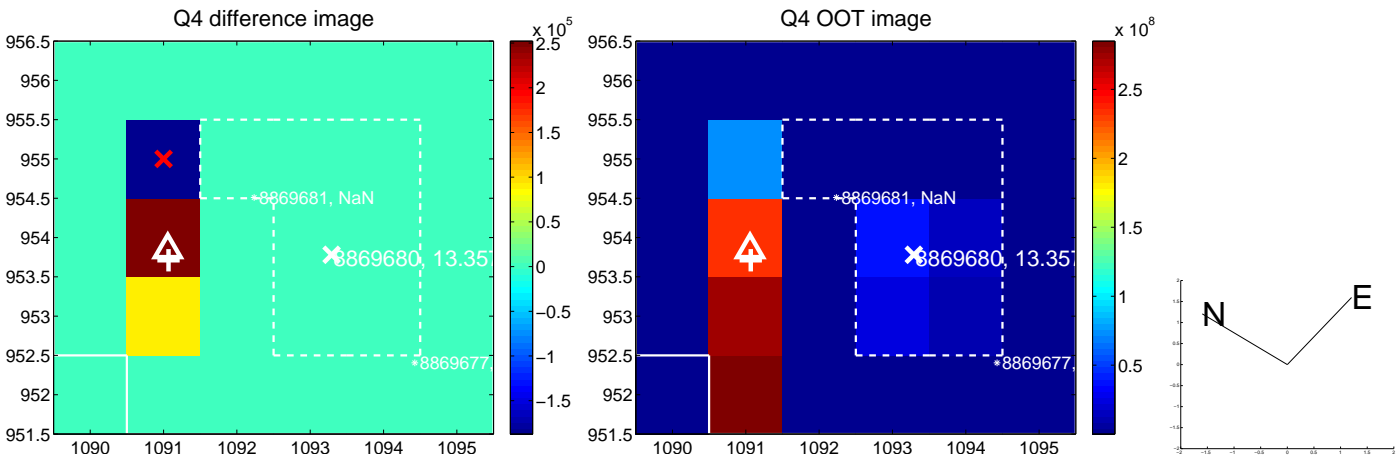
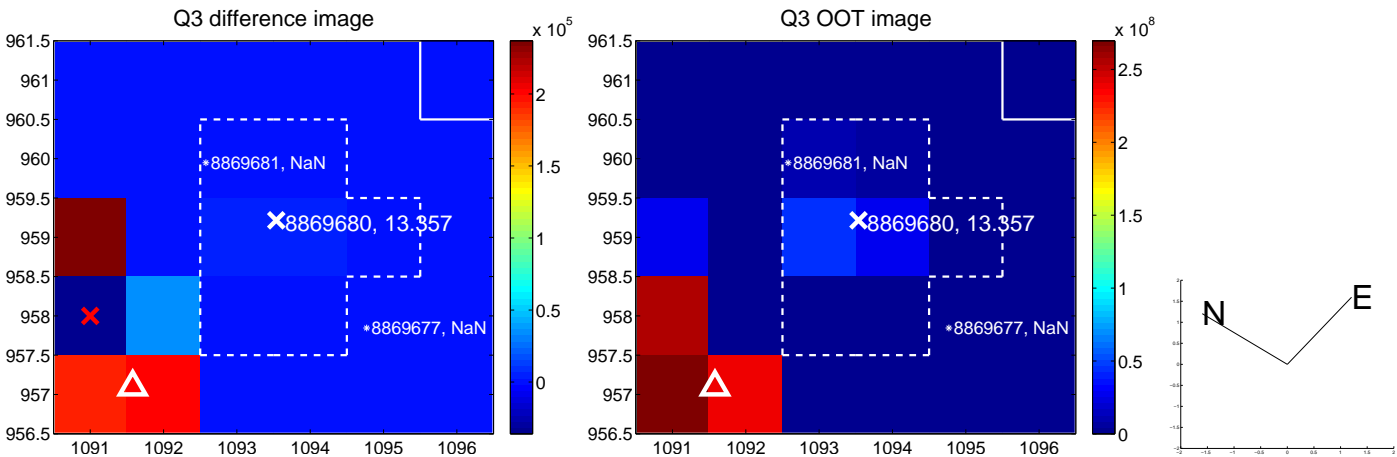
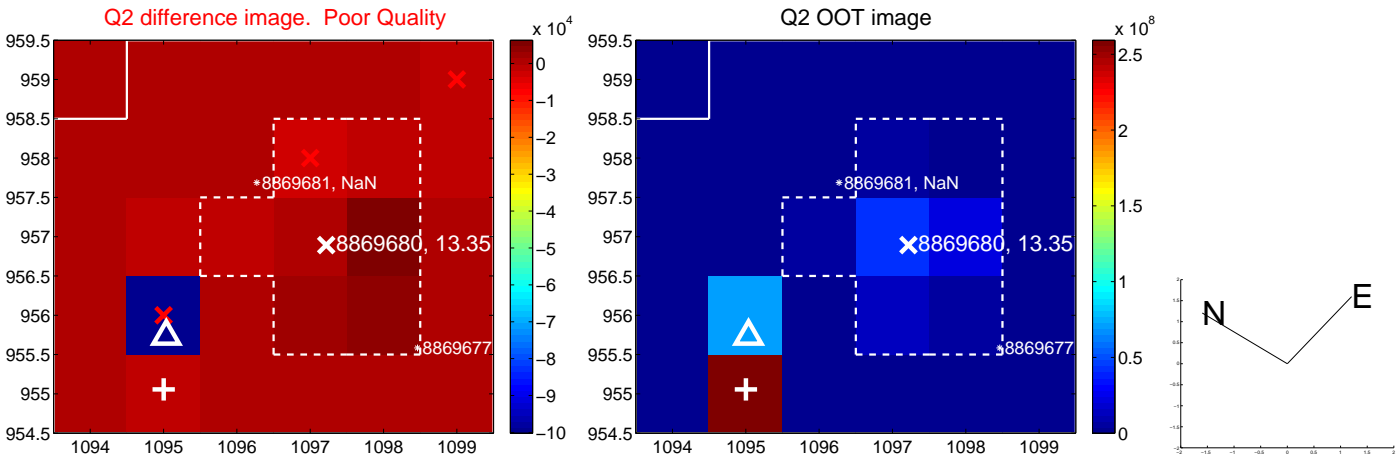
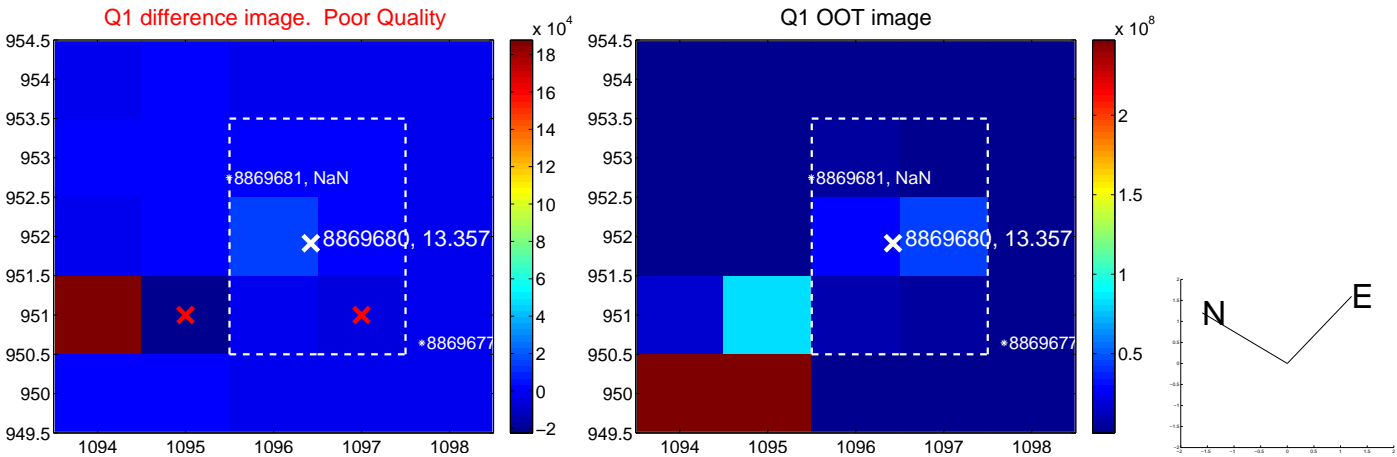


offset from photometric centroids

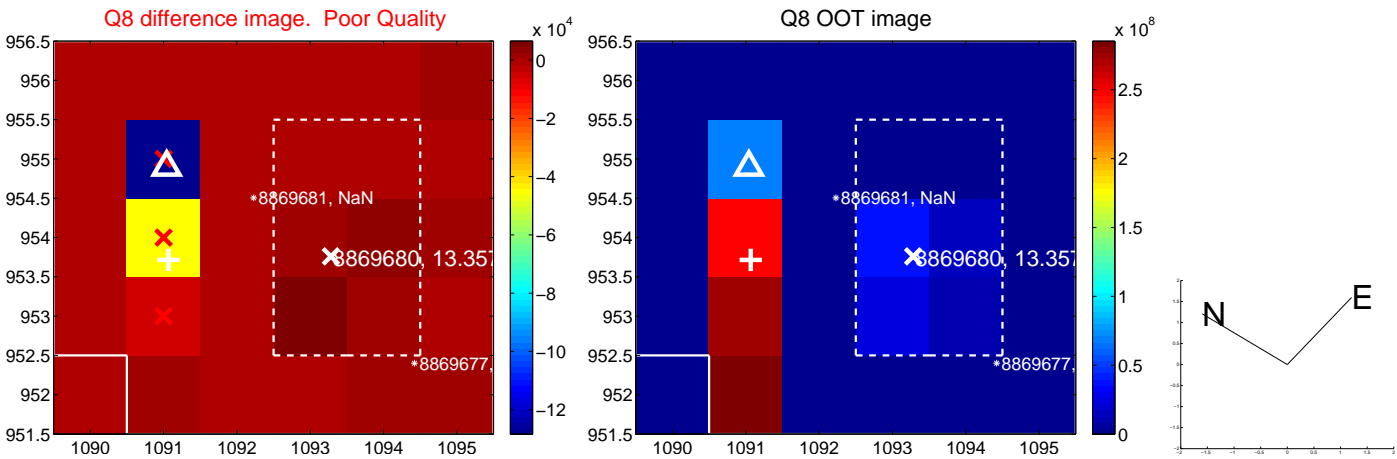
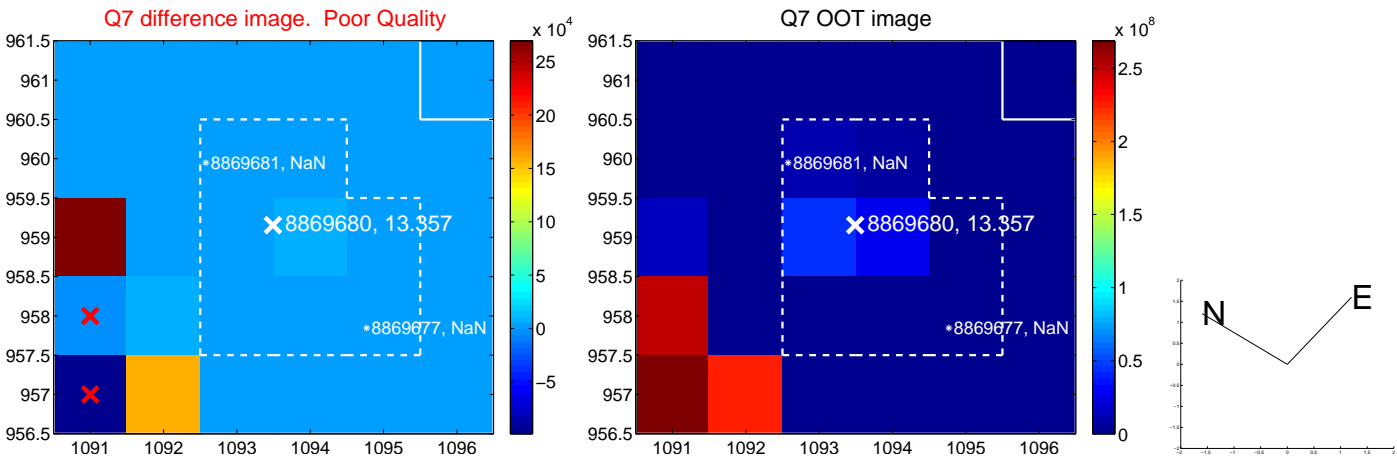
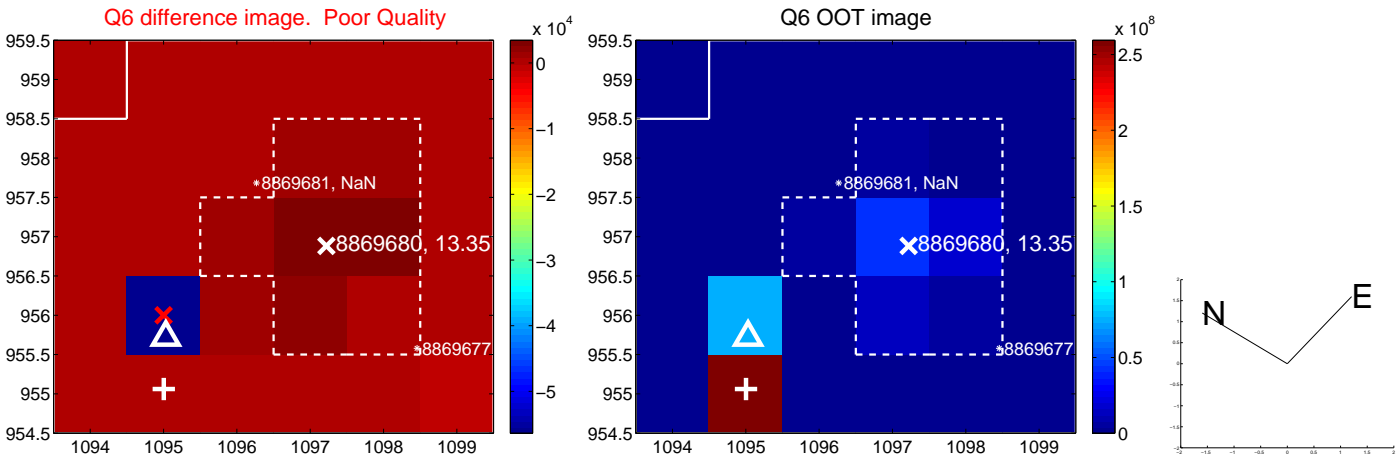
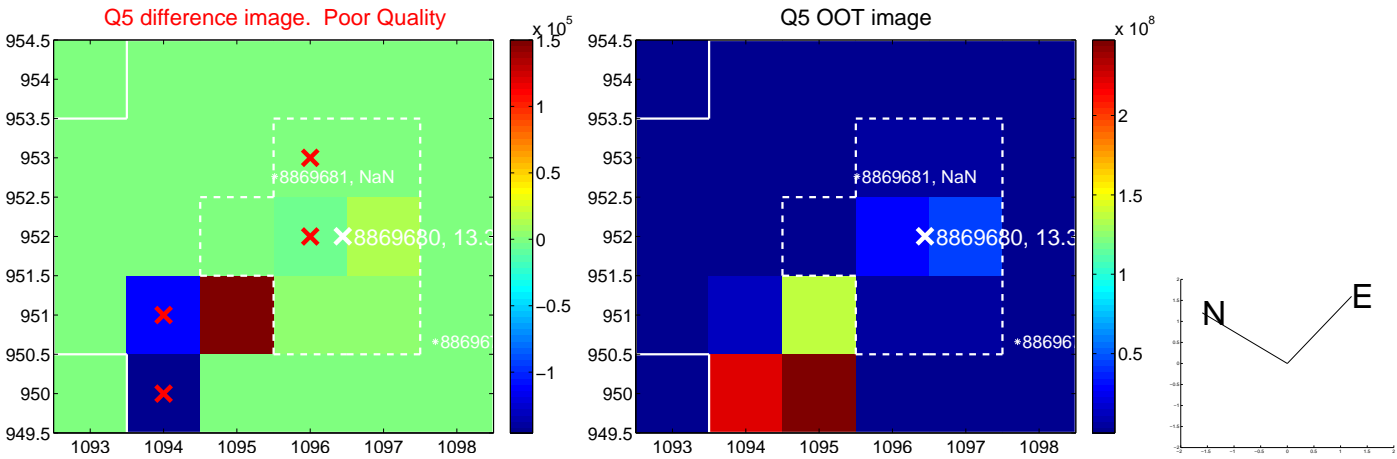


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

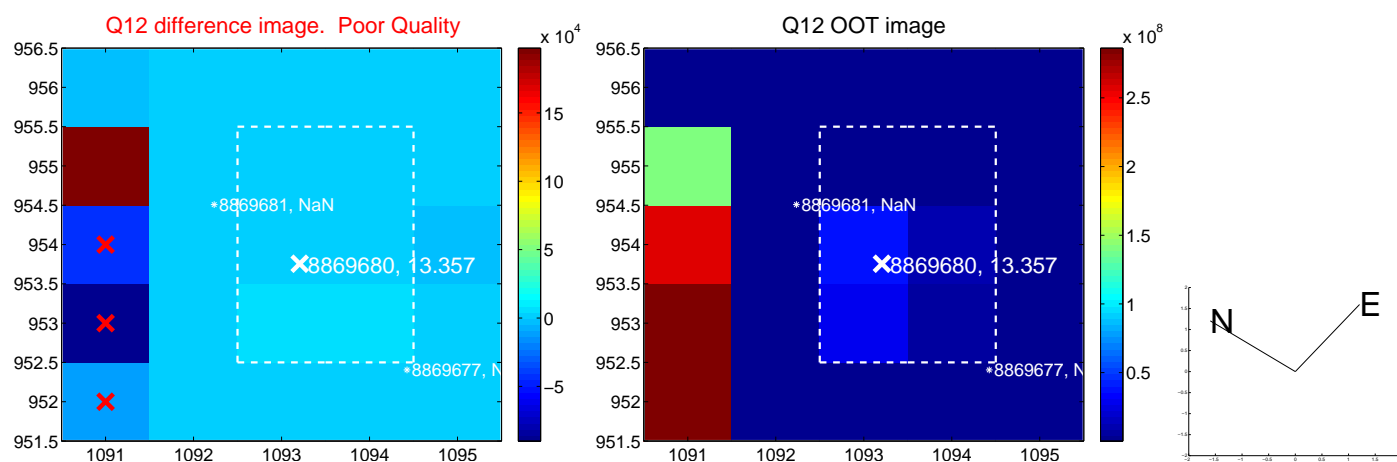
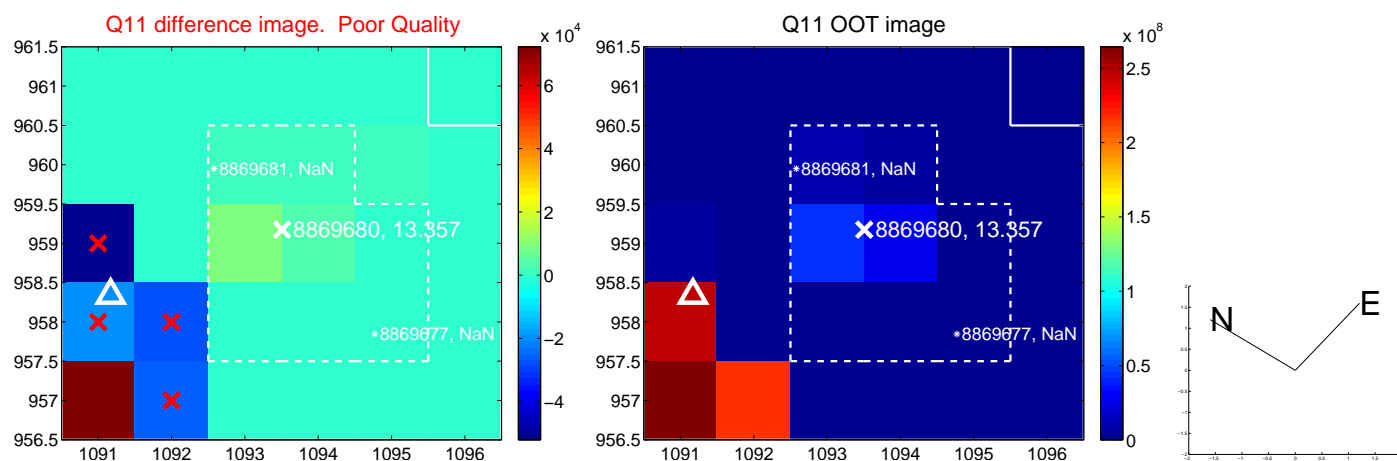
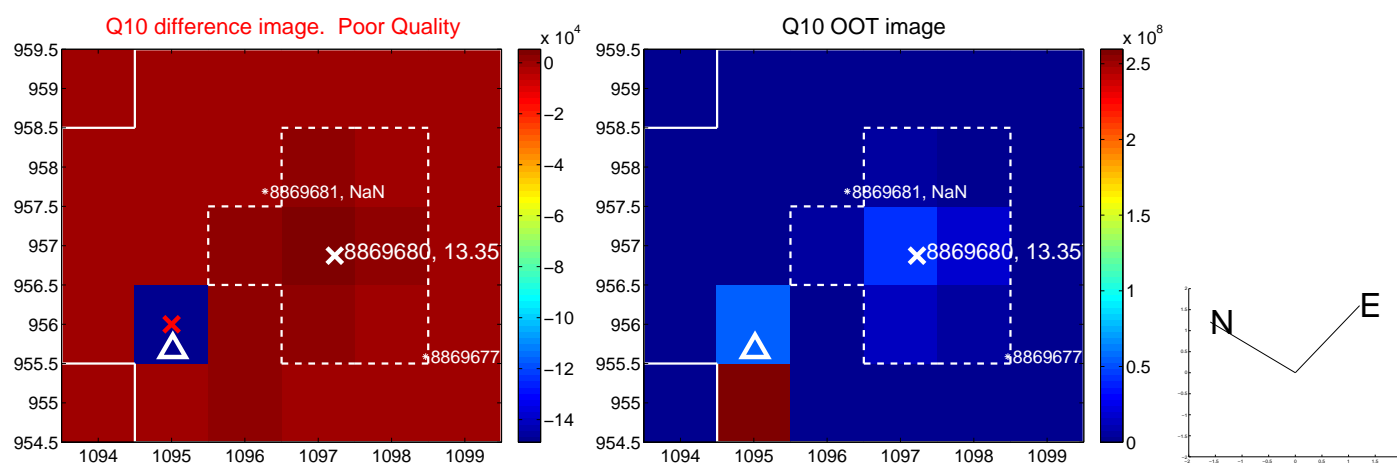
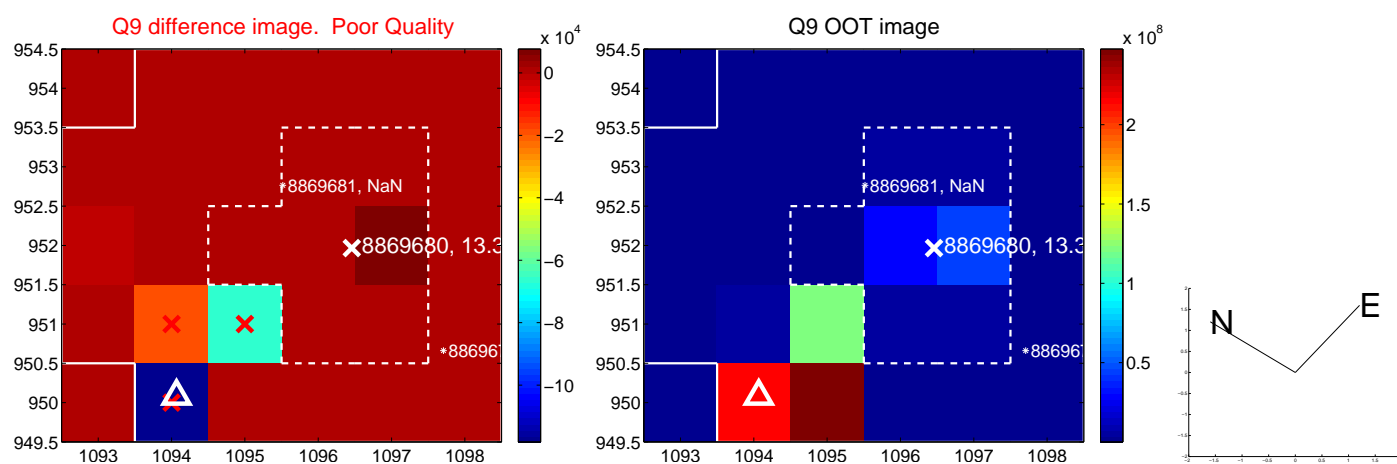
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



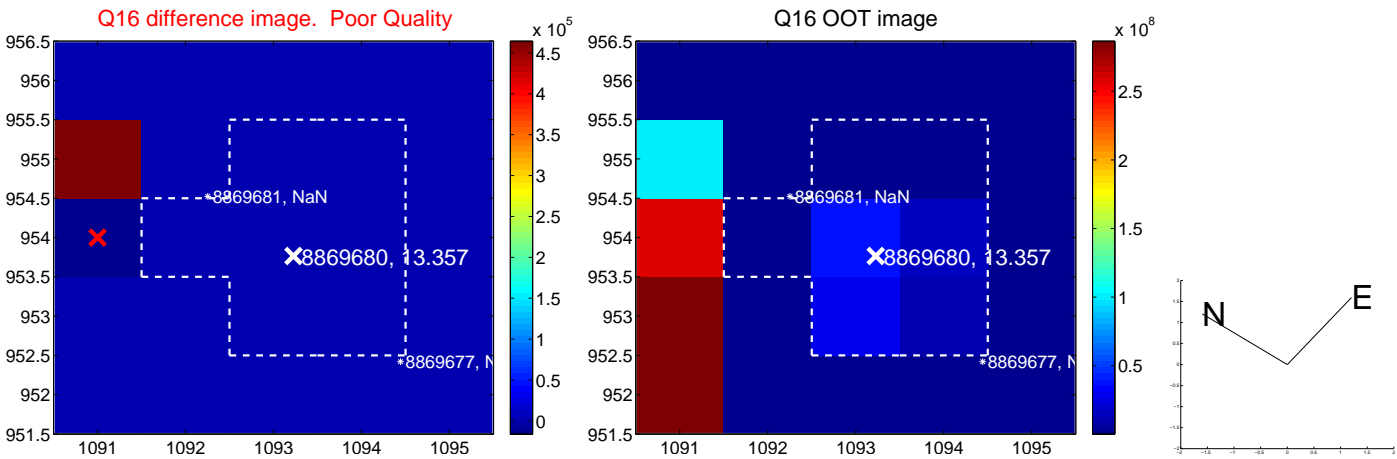
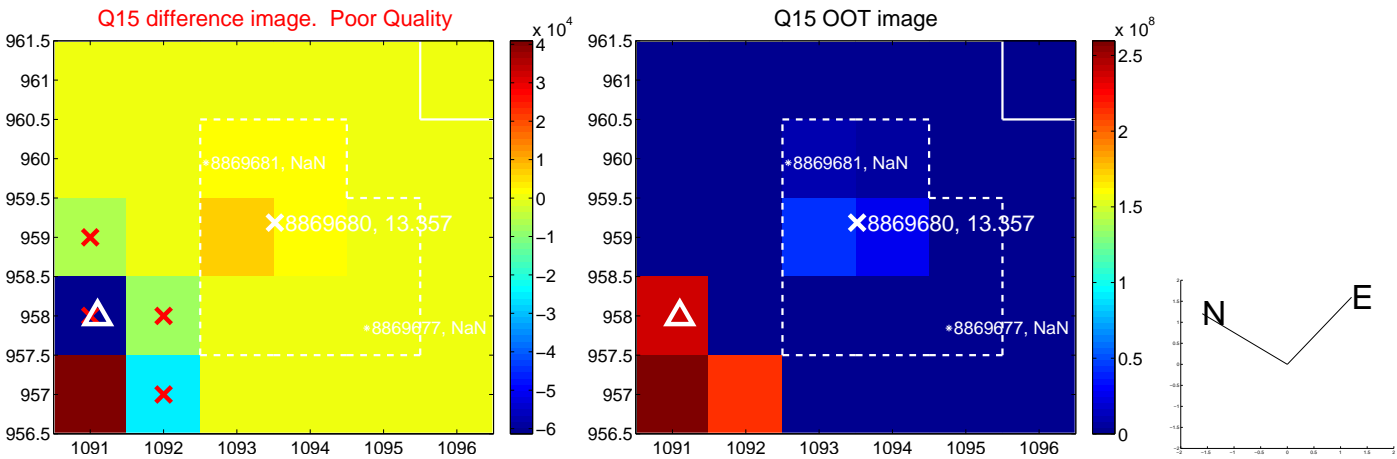
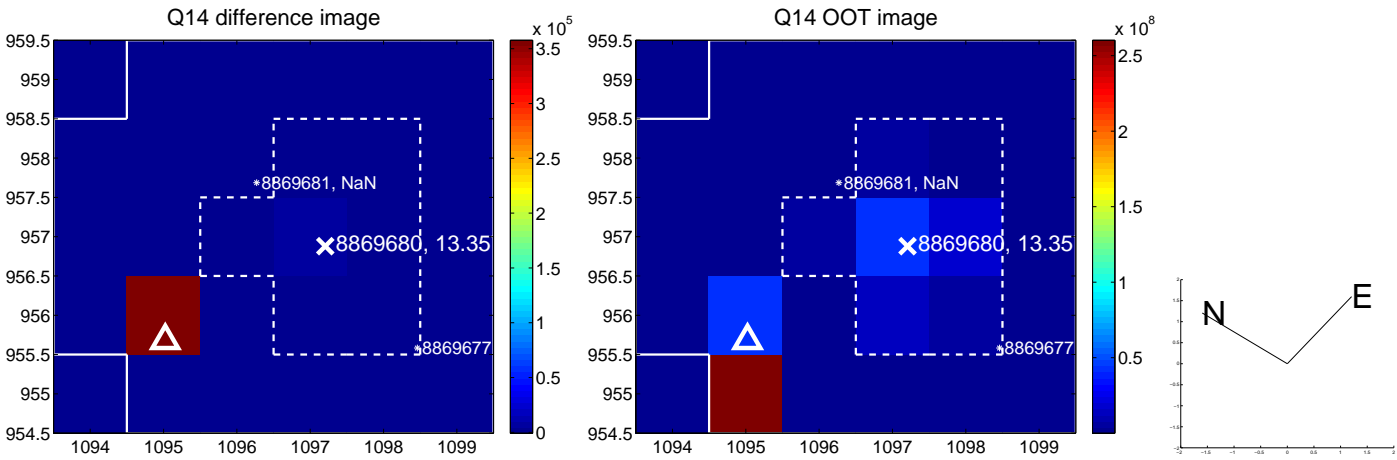
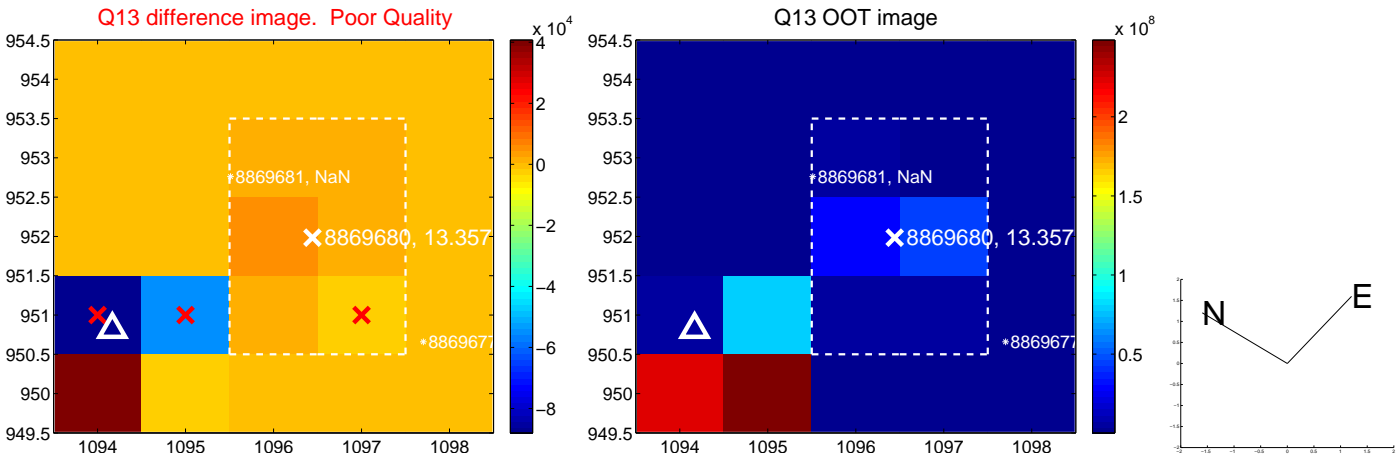
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



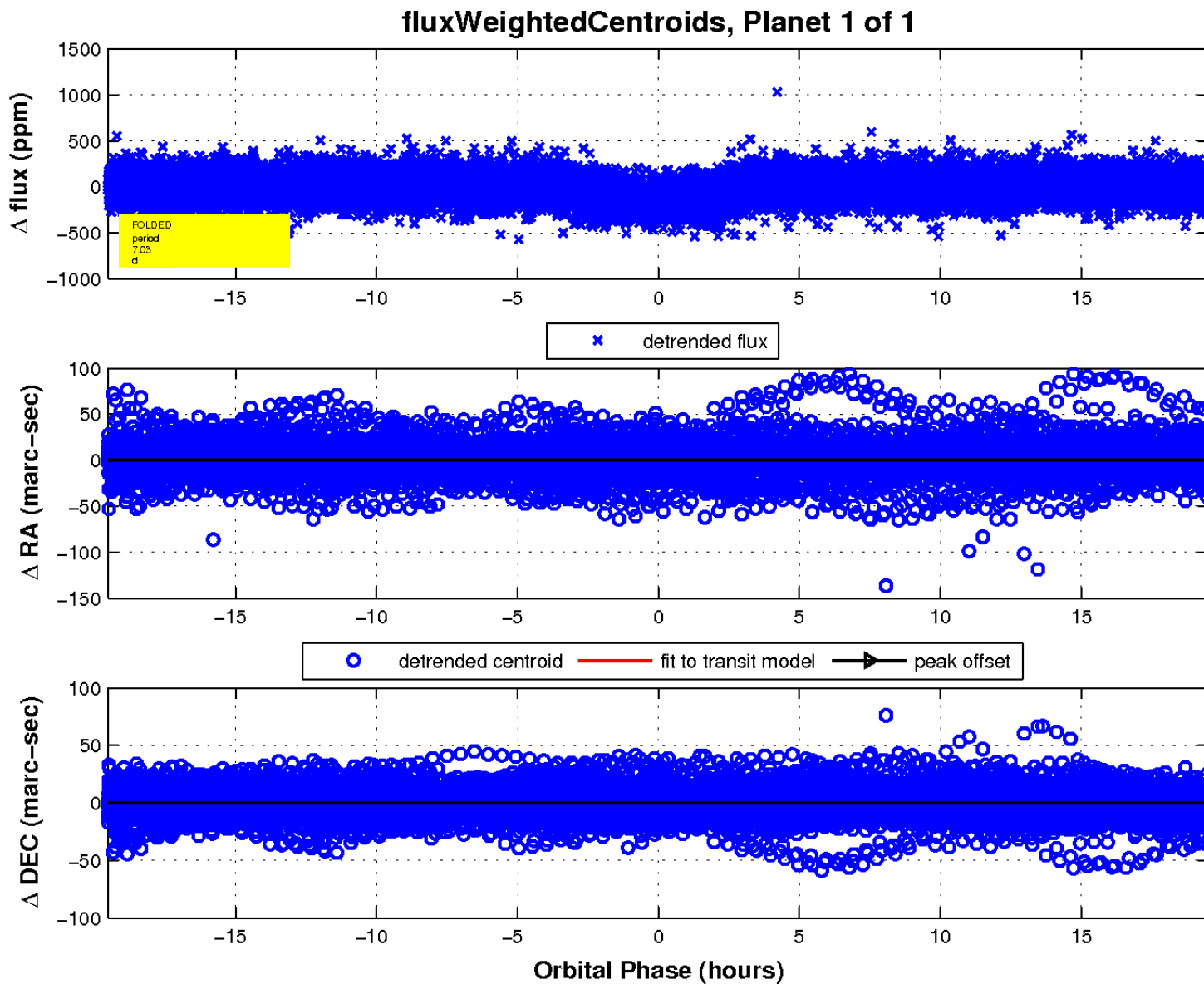
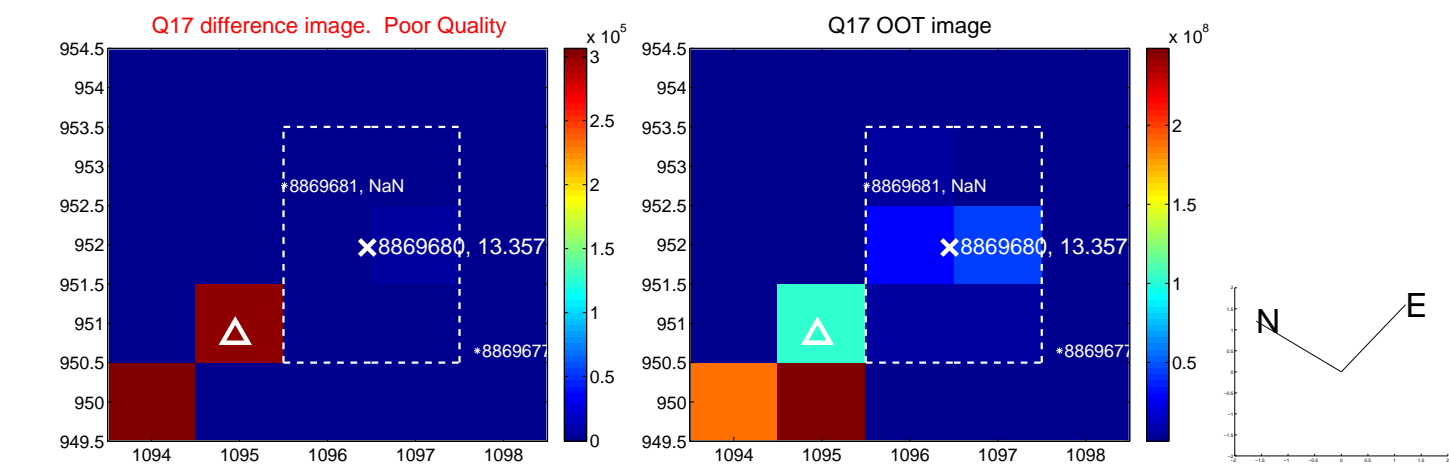
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

