

KIC 003834360

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})
003834360-01	OBS	0493.01	2.908491	132.308113	345.9	1.957	33.2	36.2	0.82	5786	1.82	461.46

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003834360-01	OBS	FP	0.00	0	1	1	1	MOD_SEC_DV—CENT_RESOLVED_OFFSET—EPHEM_MATCH

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 003834360-01

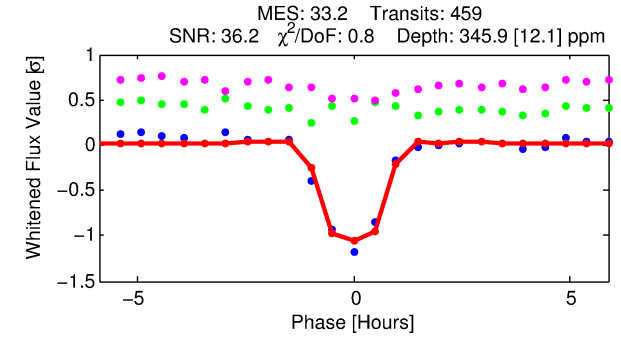
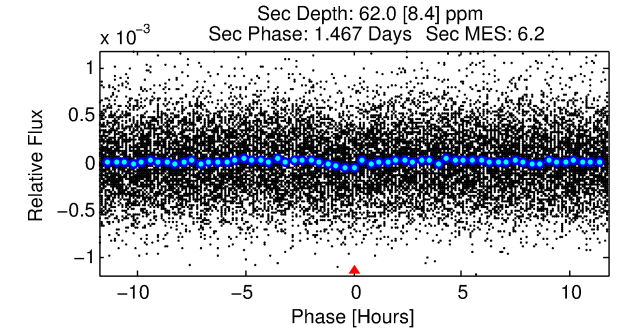
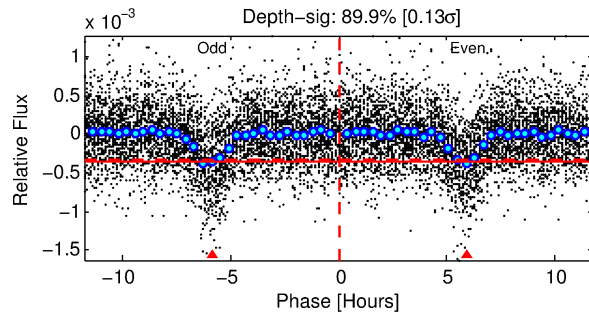
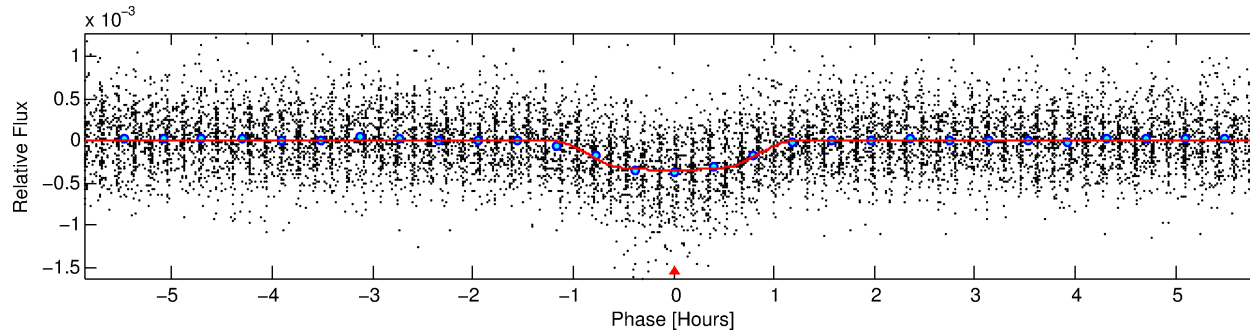
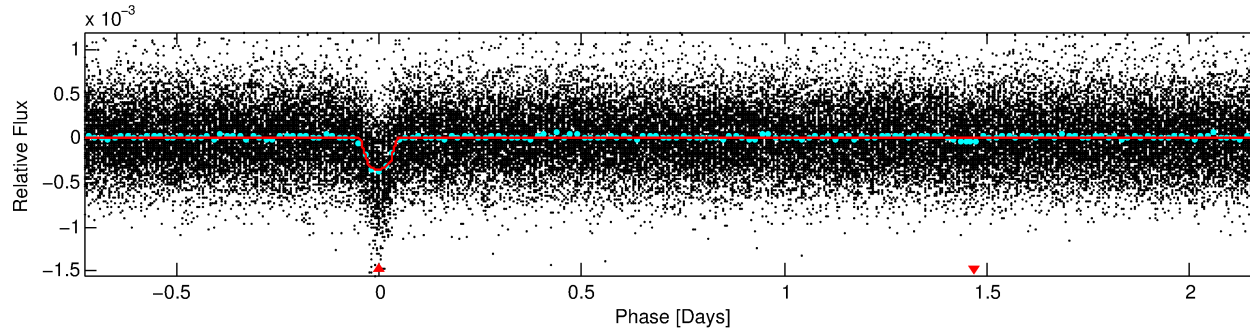
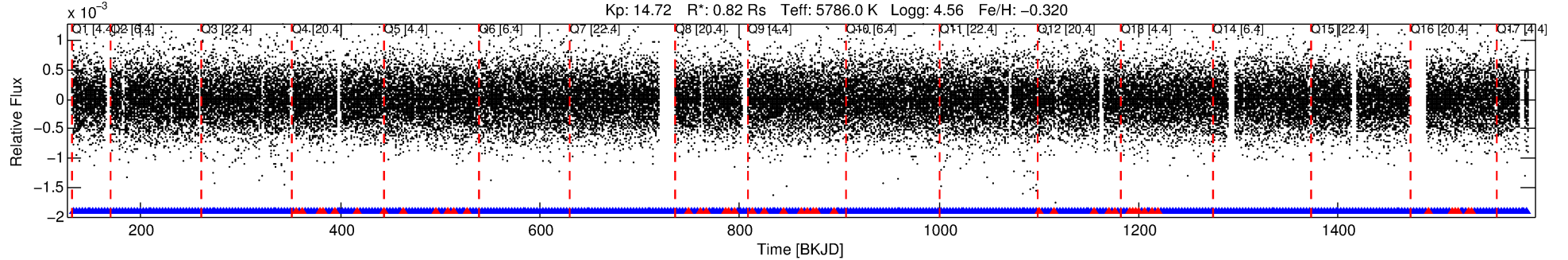
TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist ($''$)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
003834360-01	3834360	6362.01	3834364	1:1	11.4	0	-3	14.66	14.72	187.61	Direct-PRF	0	0.76	0.37

Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 3834360 Candidate: 1 of 1 Period: 2.908 d
KOI: K00493.01 Corr: 0.880

Kp: 14.72 R*: 0.82 Rs Teff: 5786.0 K Logg: 4.56 Fe/H: -0.320



DV Fit Results:

Period = 2.90849 [0.00000] d
Epoch = 132.3081 [0.0009] BKJD
Rp/R* = 0.0202 [0.0030]
a/R* = 5.51 [3.88]
b = 0.90 [0.15]
Seff = 461.46 [162.57]
Teq = 1182 [104] K
Rp = 1.82 [0.56] Re
a = 0.0384 [0.0088] AU
Ag = 15.25 [7.14] [2.00σ]
Teffp = 3611 [310] K [7.43σ]

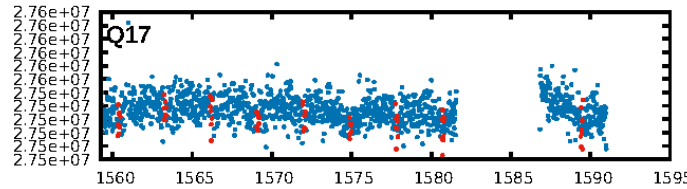
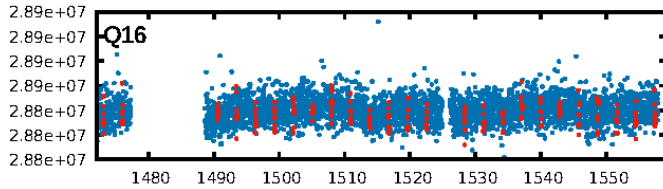
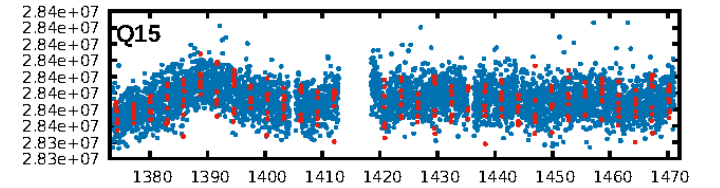
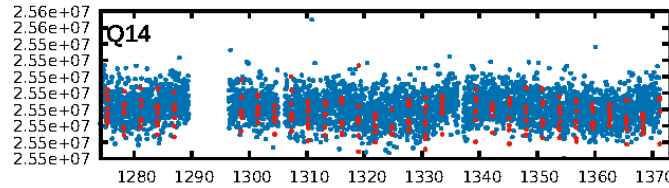
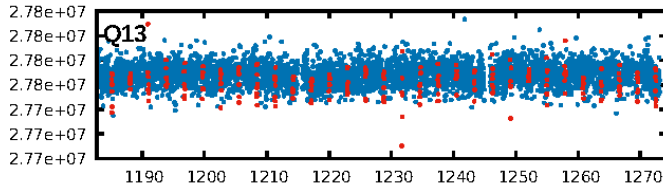
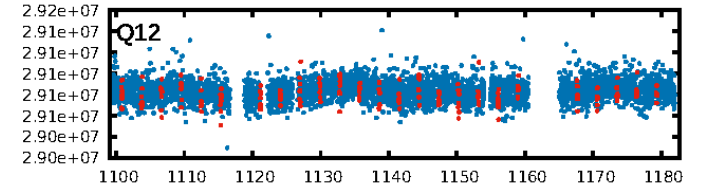
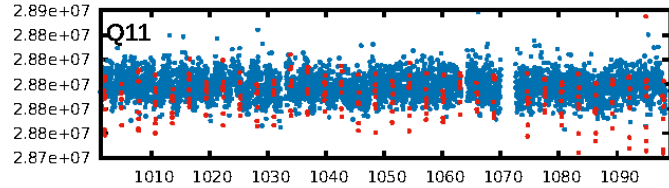
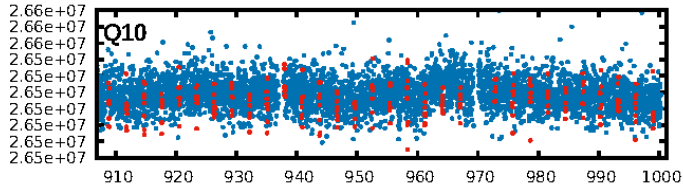
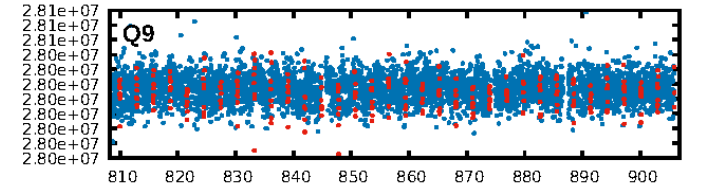
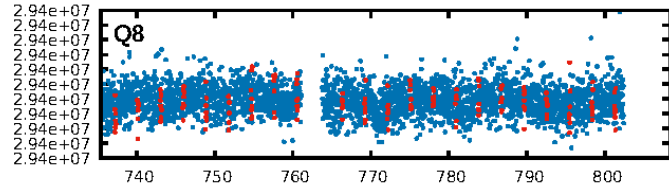
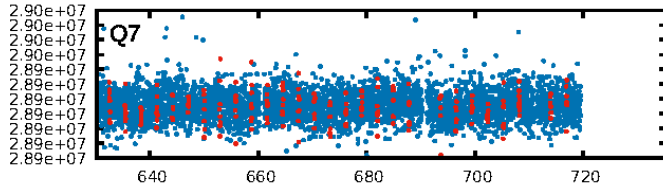
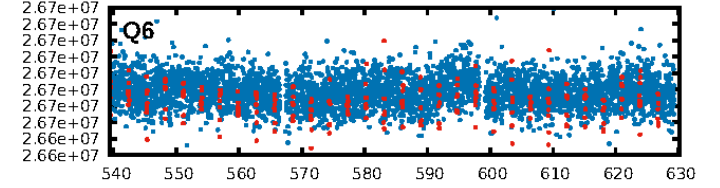
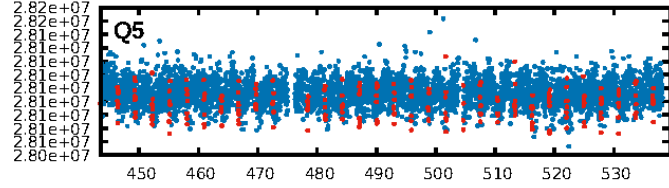
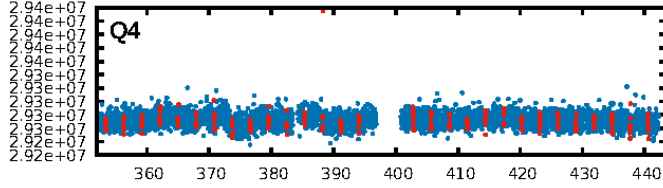
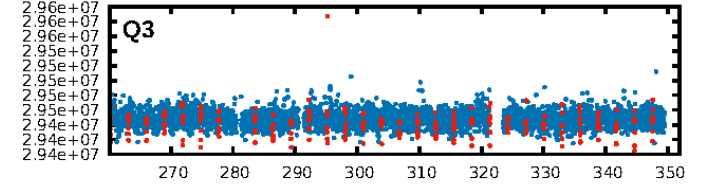
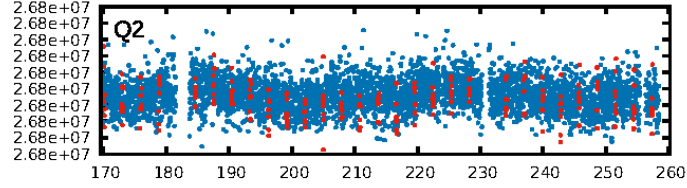
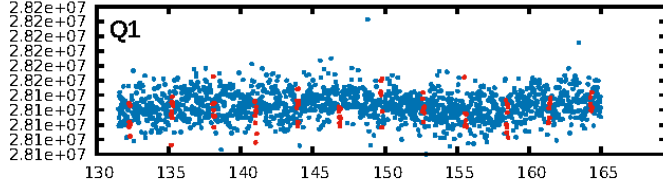
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.56e-234
RollingBand-fgt: 0.90 [394/438]
GhostDiagnostic-chr: -0.4593
Centroid-sig: 0.0%
Centroid-so: 73.108 arcsec [176.72σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [17/17]

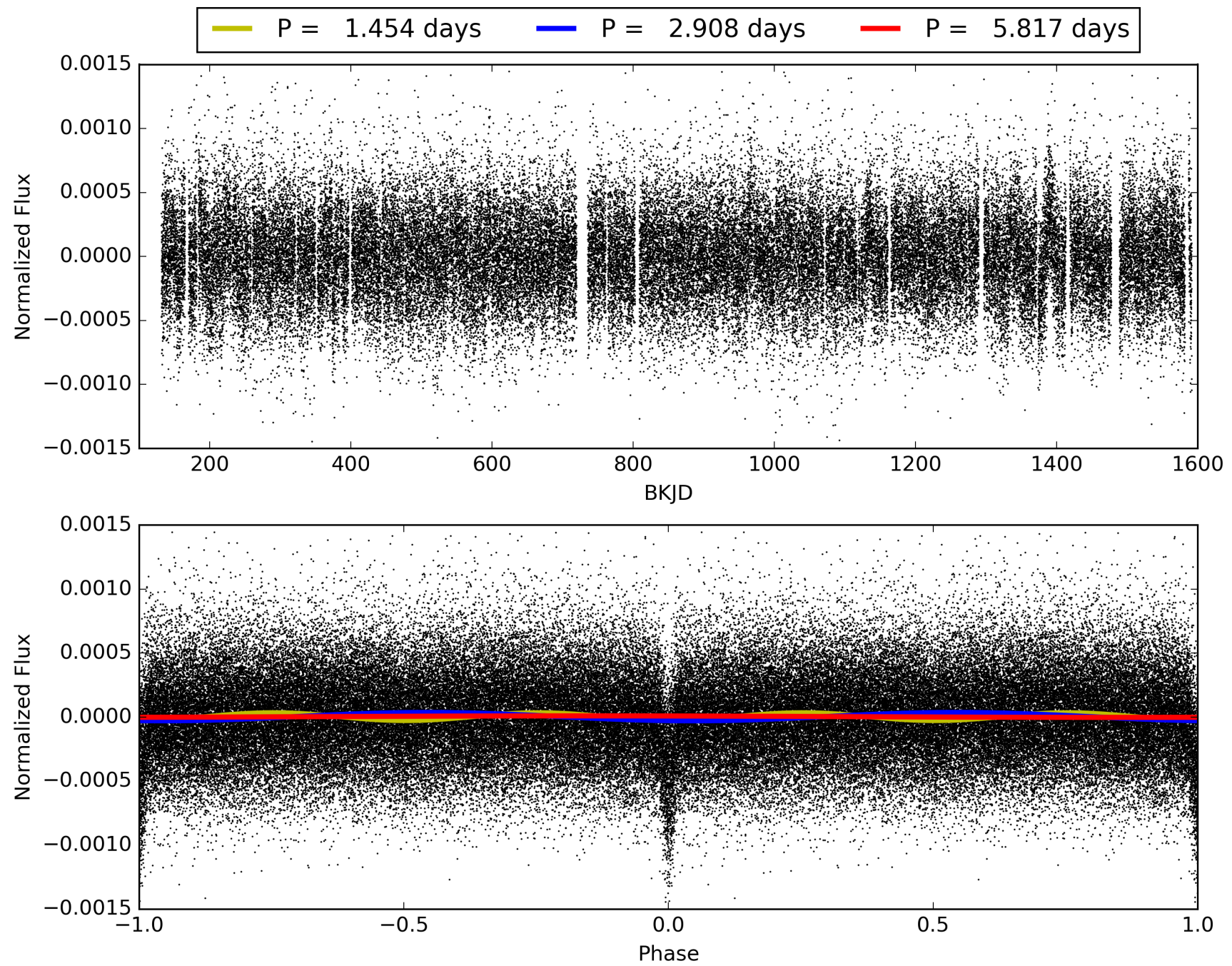
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 01:06:00 Z

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

TCE 003834360-01, PDC Light Curves

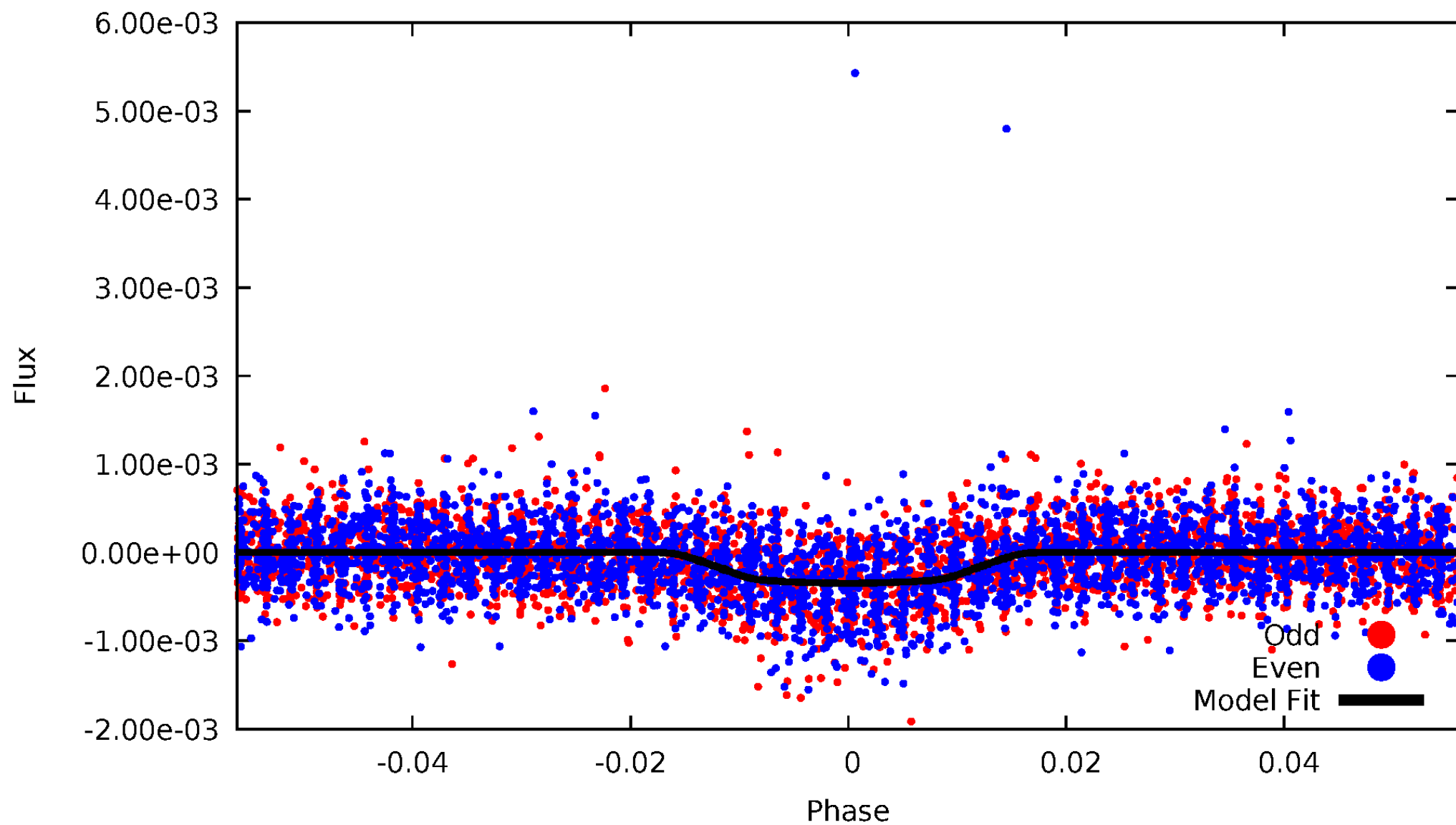


TCE 003834360-01



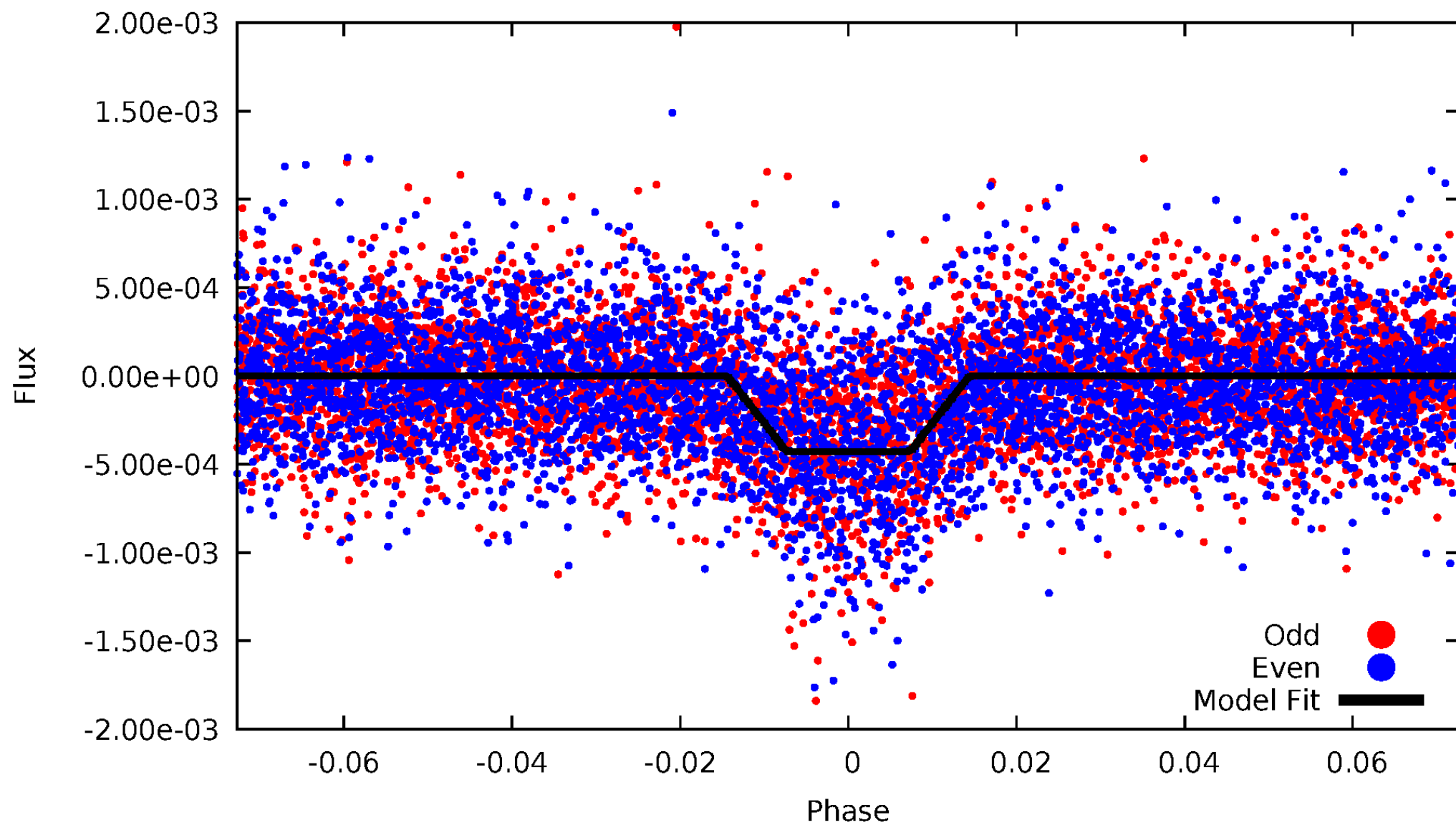
DV Odd/Even

TCE 003834360-01

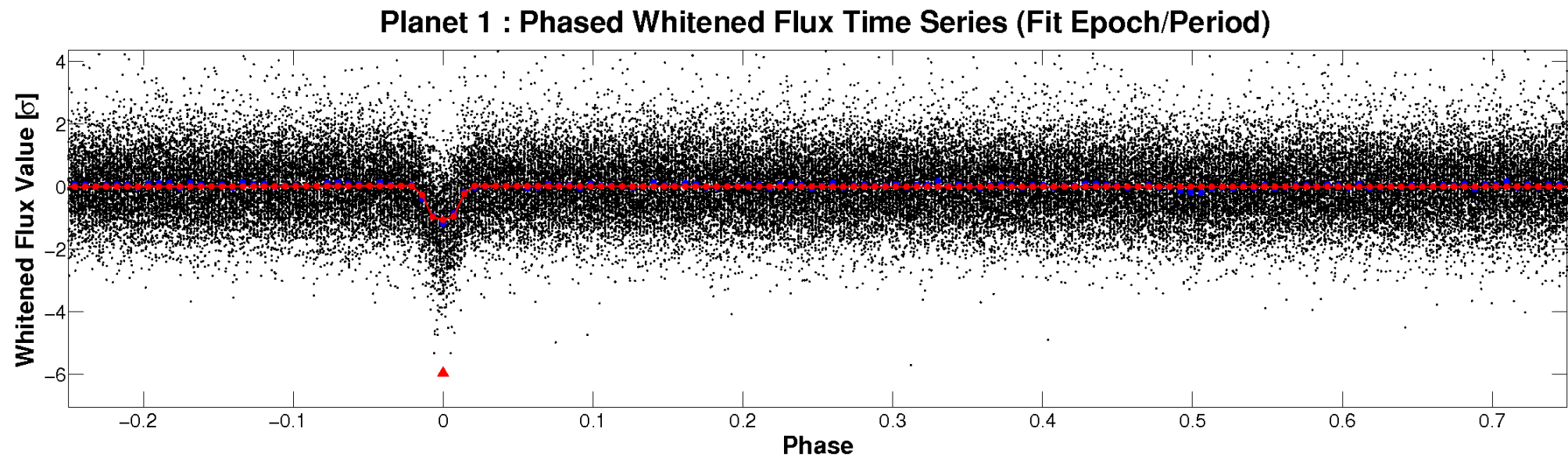
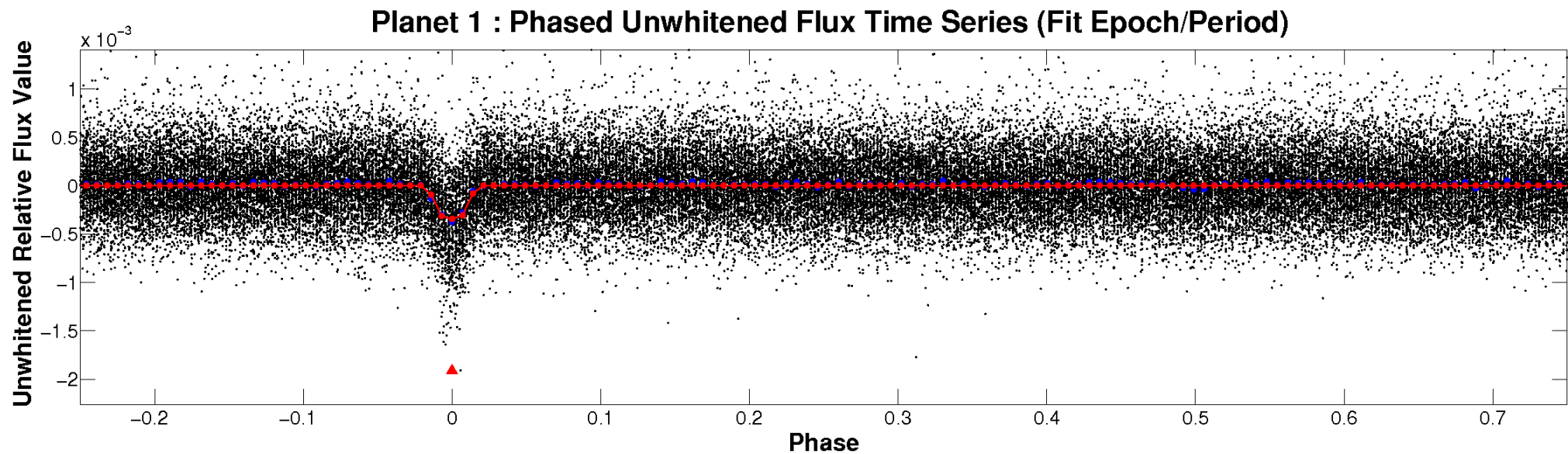


ALT Odd/Even

TCE 003834360-01

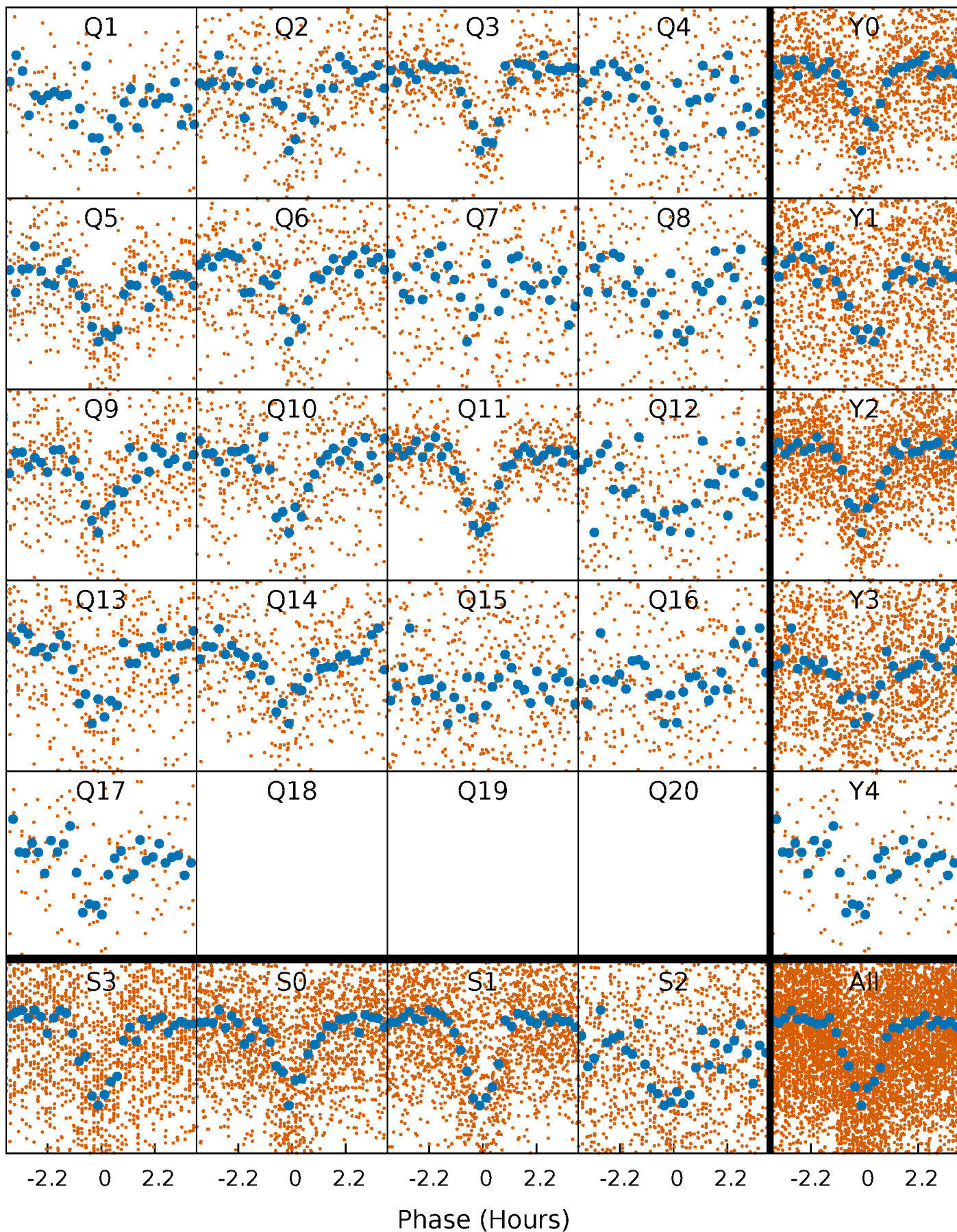


Non-Whitened Vs. Whitened Light Curve



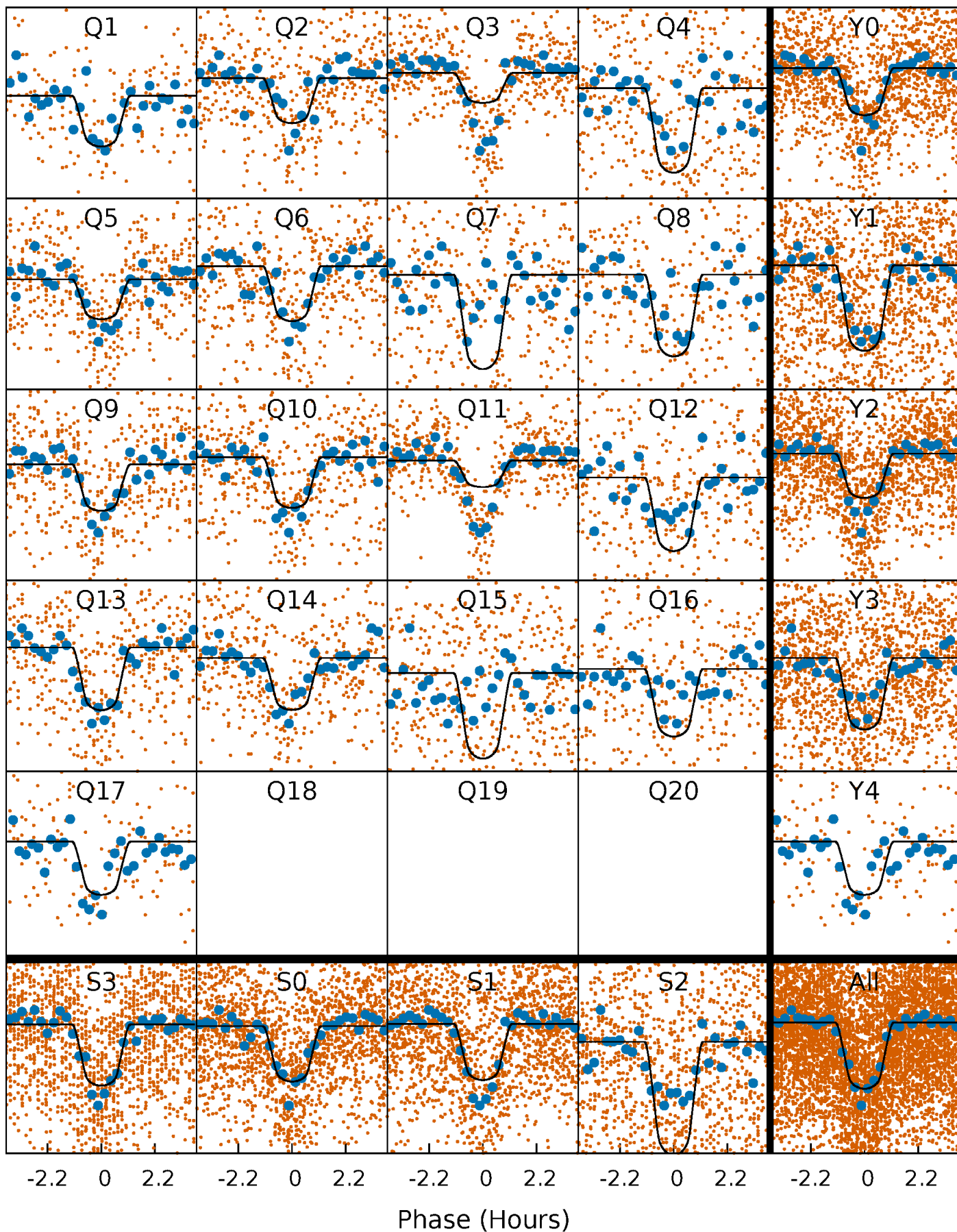
PDC Quarter-Phased Transit Curves

TCE 003834360-01 P= 2.908491 Days $T_0=132.308113$ (BKJD)



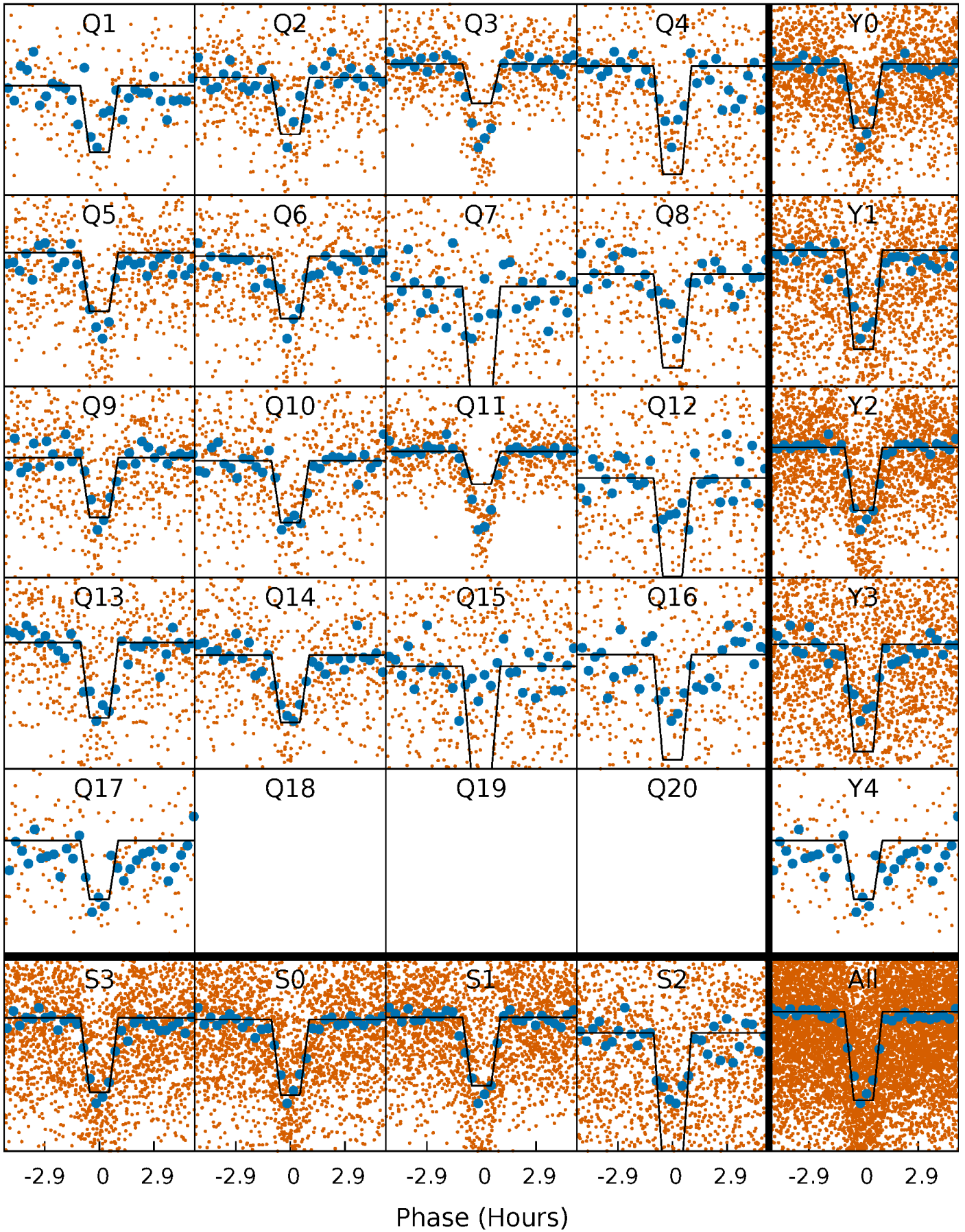
DV Quarter-Phased Transit Curves

TCE 003834360-01 P= 2.908491 Days $T_0=132.308113$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

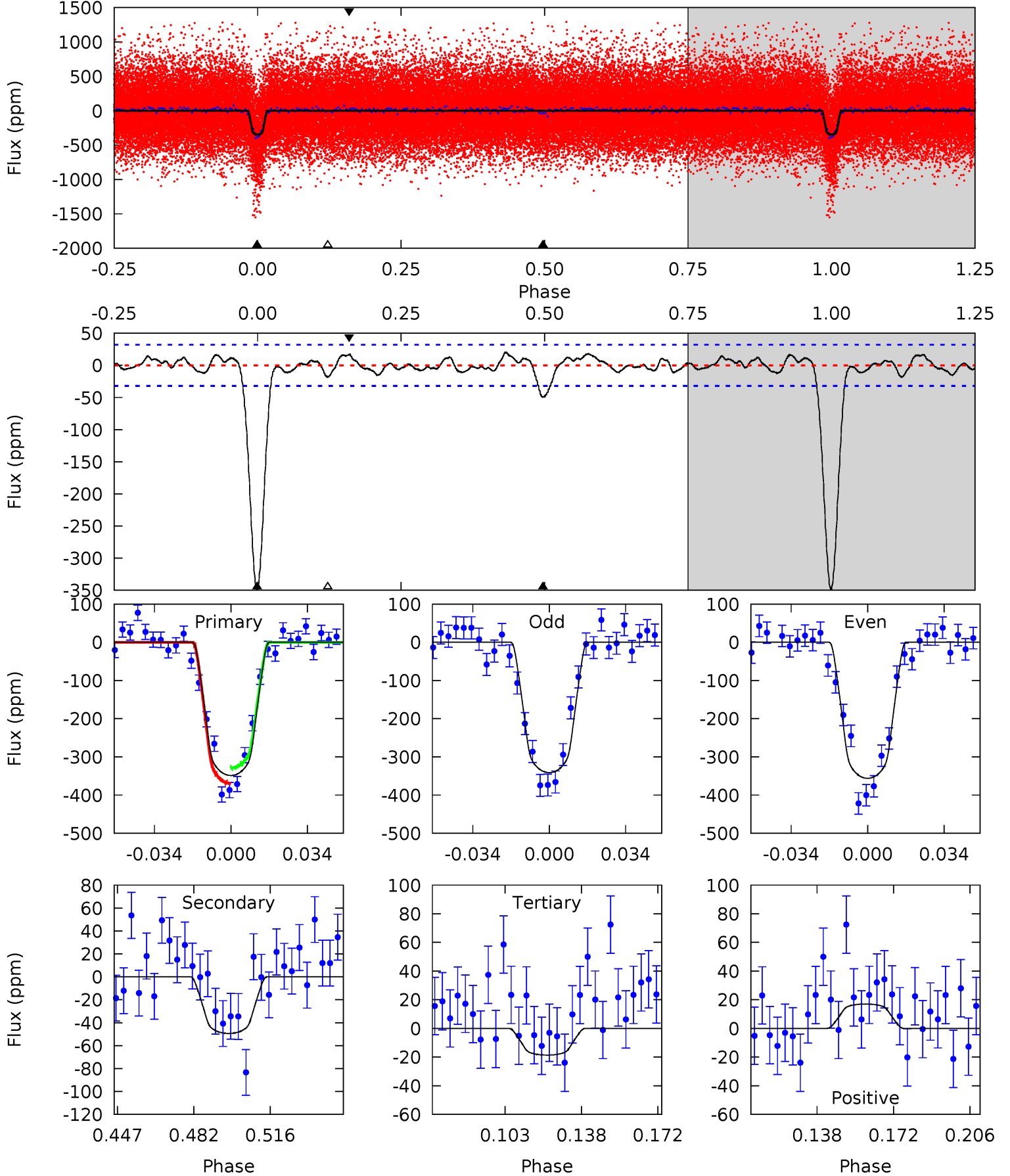
TCE 003834360-01 P= 2.908454 Days $T_0=132.314910$ (BKJD)



DV Model-Shift Uniqueness Test

003834360-01, P = 2.908491 Days, E = 129.399622 Days

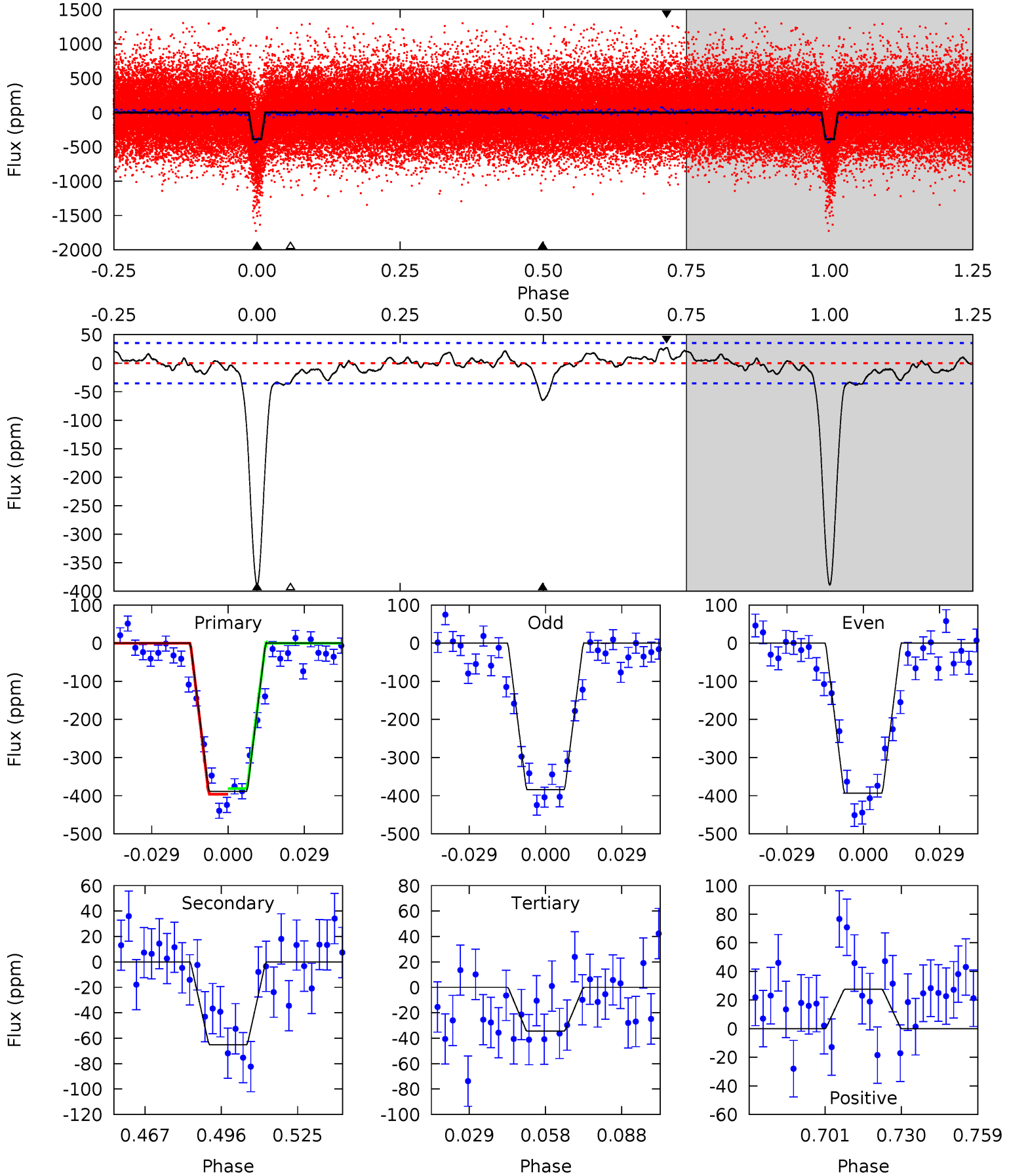
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
52.2	7.40	2.79	2.55	4.78	2.12	1.22	49.4	49.6	4.61	4.85	1.11	1.08	0.06	3.05



Alt Model-Shift Uniqueness Test

003834360-01, P = 2.908454 Days, E = 129.406456 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
52.8	8.83	4.68	3.73	4.82	2.18	1.70	48.1	49.1	4.15	5.10	0.61	1.08	0.07	0.98



Stellar Parameters For KIC 003834360

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5786^{+155}_{-155}	$4.558^{+0.046}_{-0.184}$	$-0.320^{+0.300}_{-0.300}$	$0.824^{+0.224}_{-0.075}$	$0.895^{+0.100}_{-0.100}$	$2.253^{+0.422}_{-1.124}$
	+3%/-3%	+1%/-4%	+94%/-94%	+27%/-9%	+11%/-11%	+19%/-50%
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 003834360-01 / KOI 0493.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-49 ± 7	$1.89^{+0.37}_{-0.33}$	1688^{+112}_{-76}	3776^{+263}_{-208}	11^{+5}_{-3}
Alt.	-65 ± 7	$1.94^{+0.38}_{-0.31}$	1684^{+105}_{-73}	3925^{+241}_{-214}	14^{+6}_{-4}

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

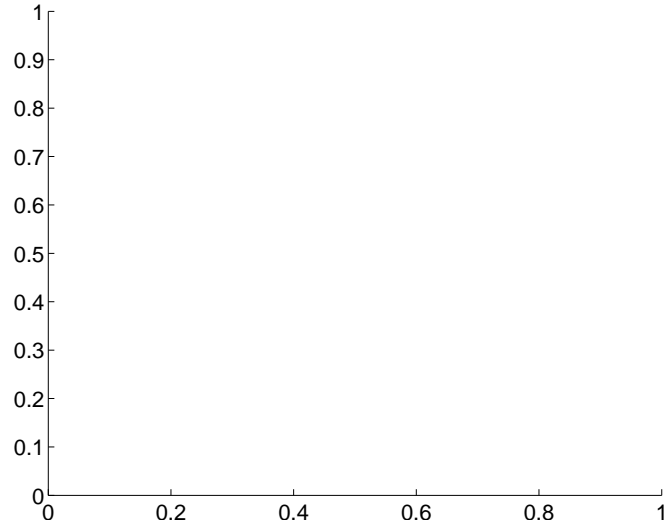
Supplemental centroid analysis for 003834360-01. Kepler magnitude: 14.72. Transit SNR 36.24

There are 0 quarters with good PRF difference image offsets

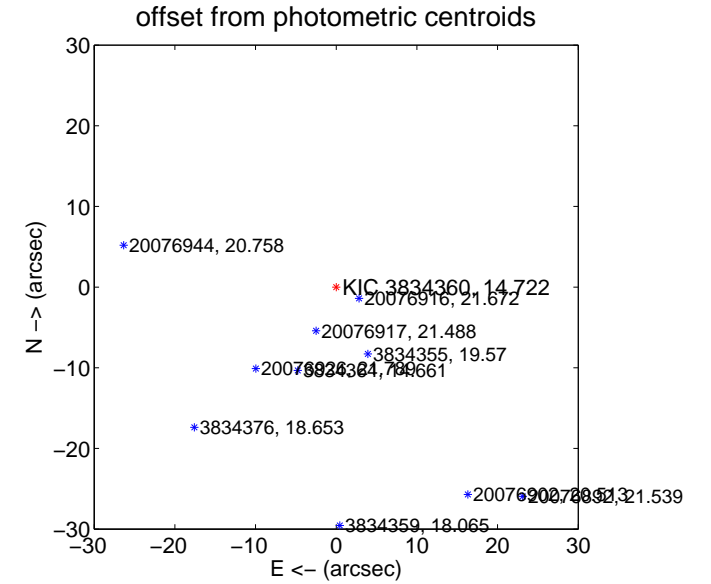
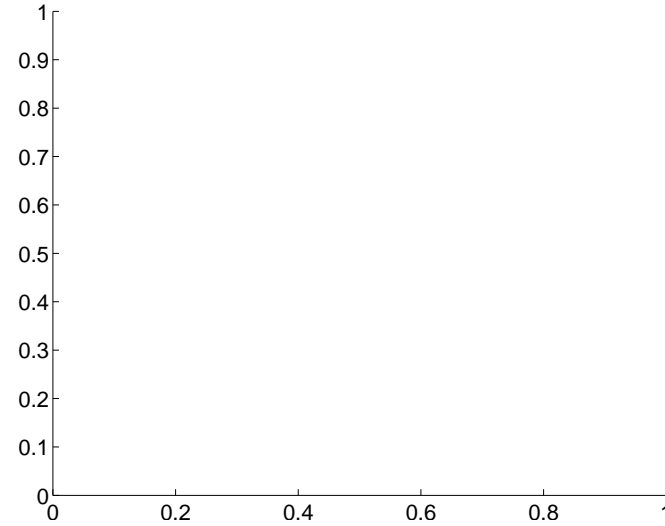
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	73.11 ± 0.41	176.72	38.42 ± 0.38	-62.20 ± 0.43

There is no PRF-fit offset from OOT-fit

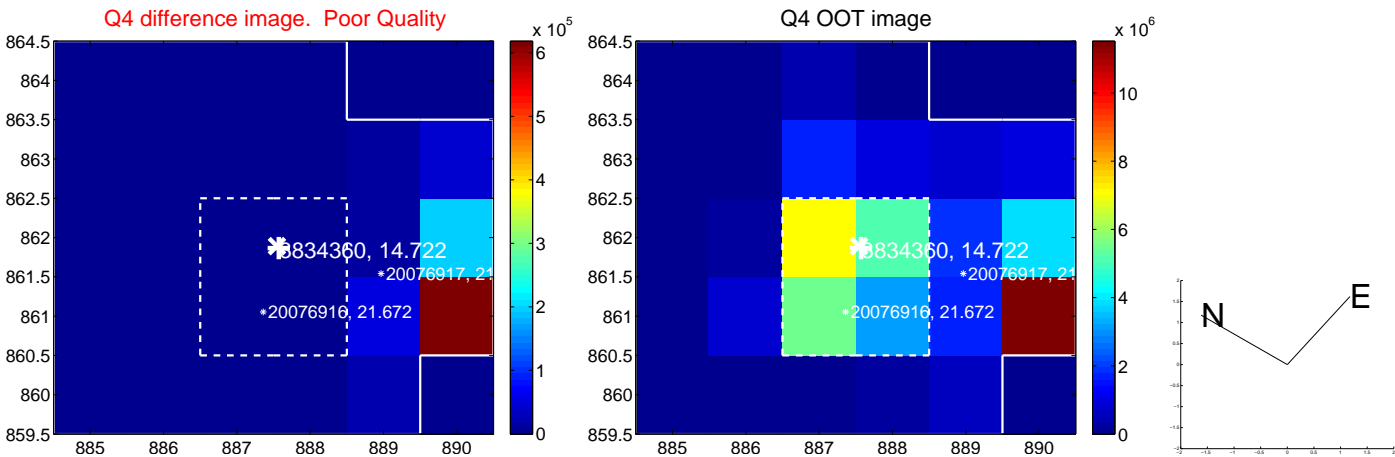
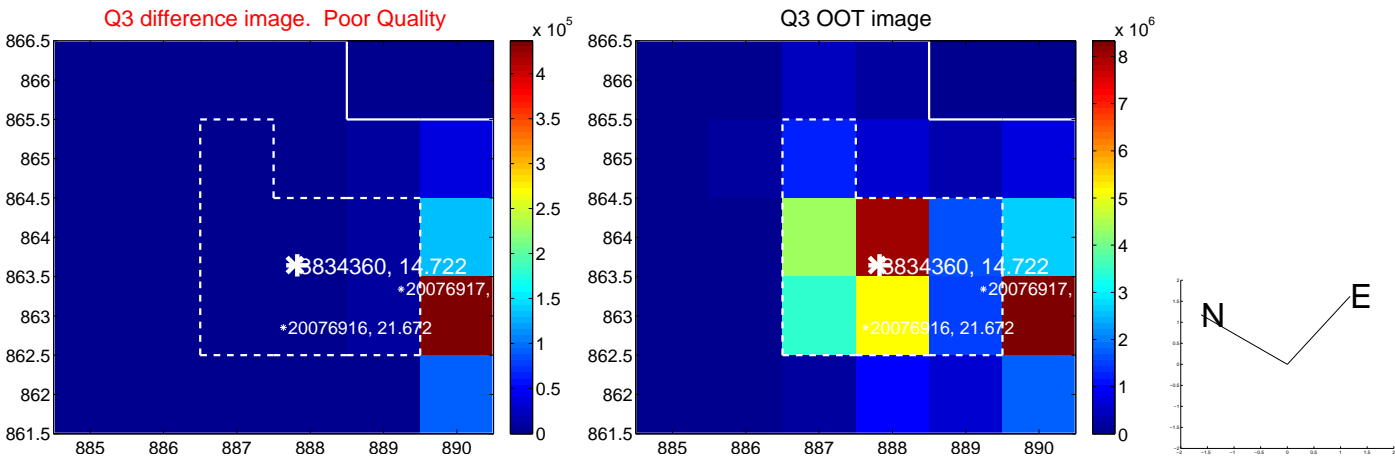
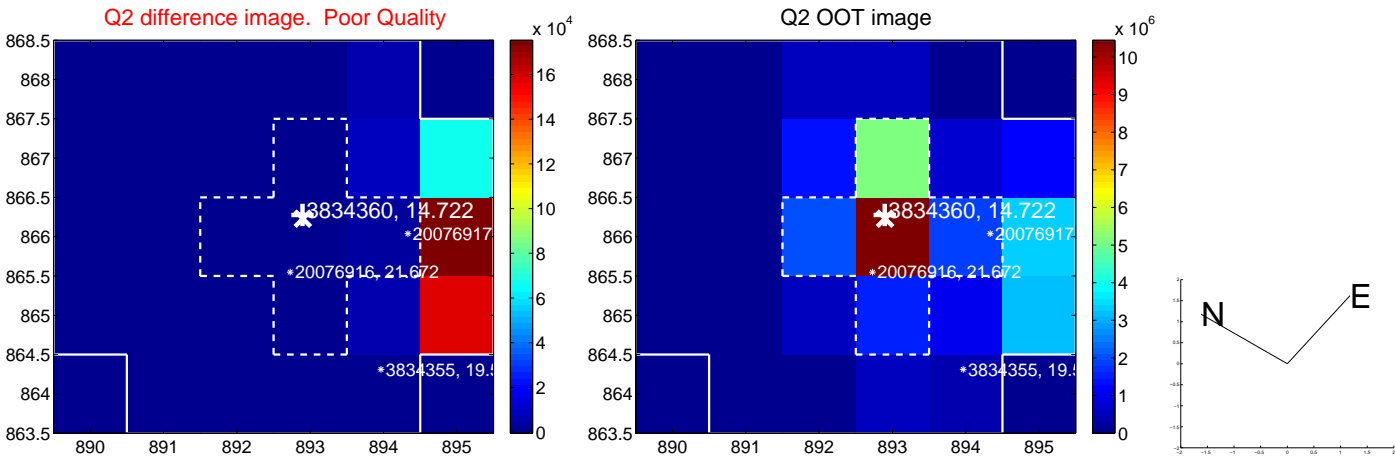
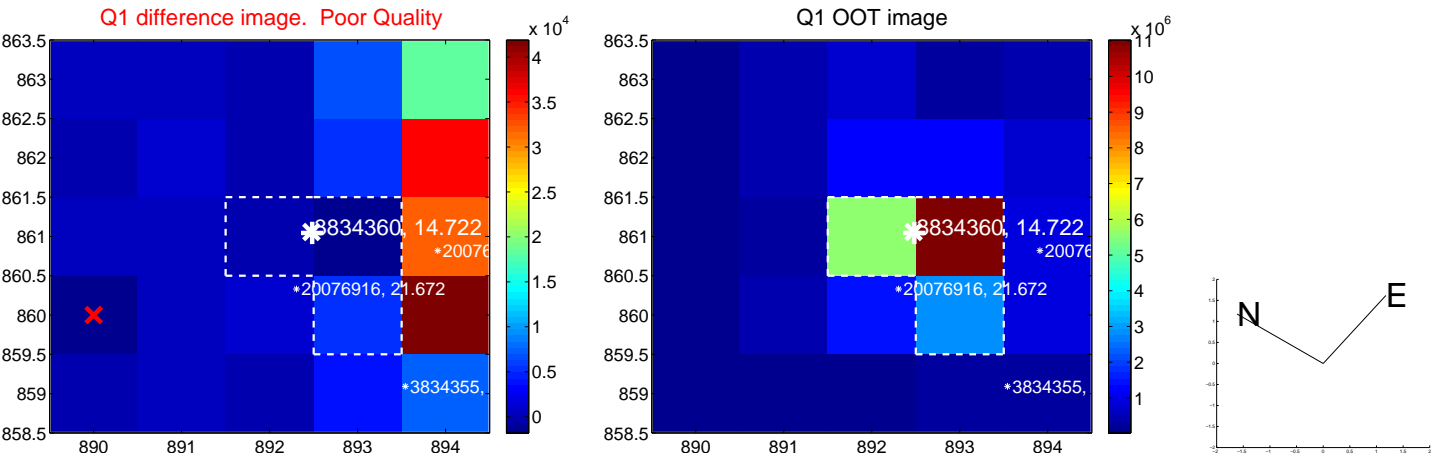


There is no PRF-fit offset from KIC

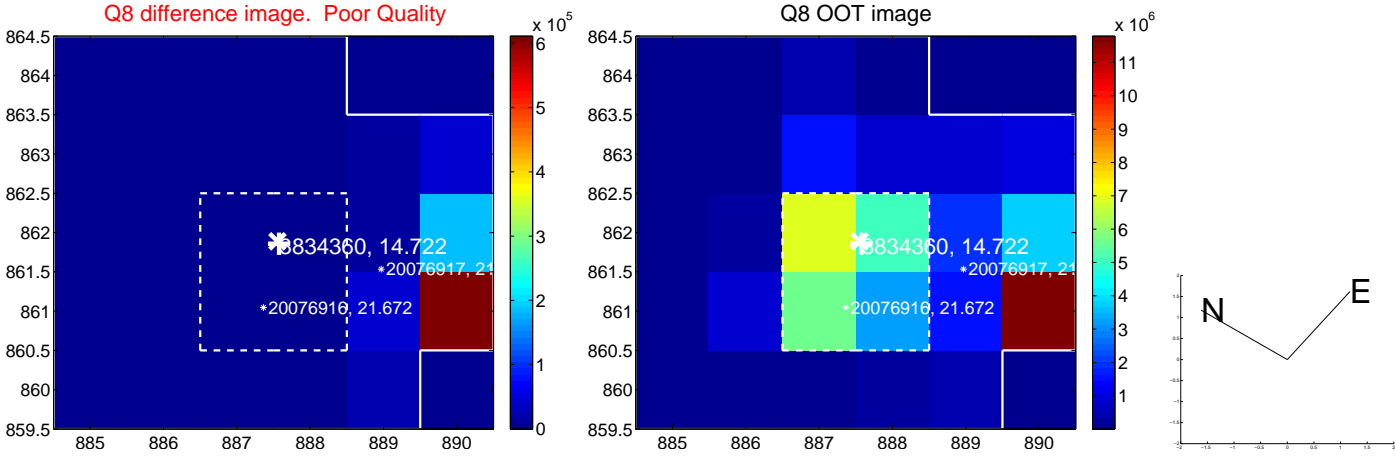
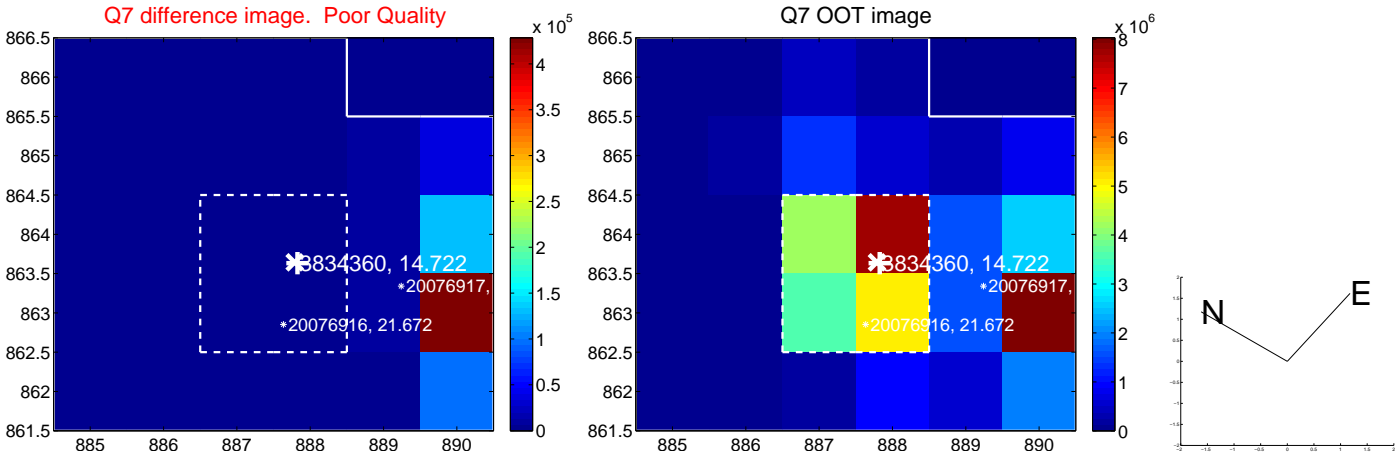
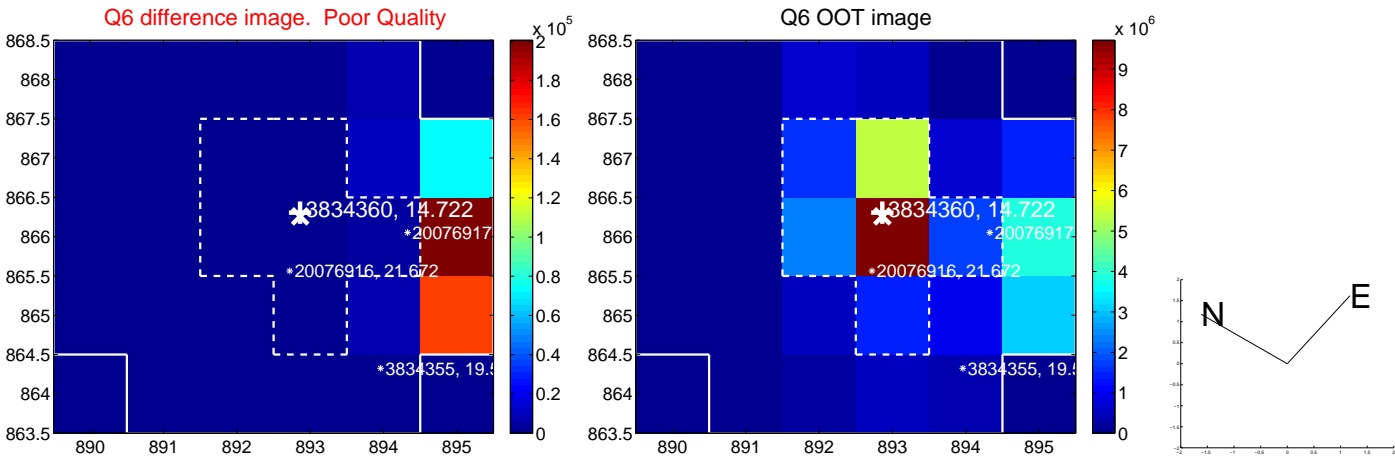
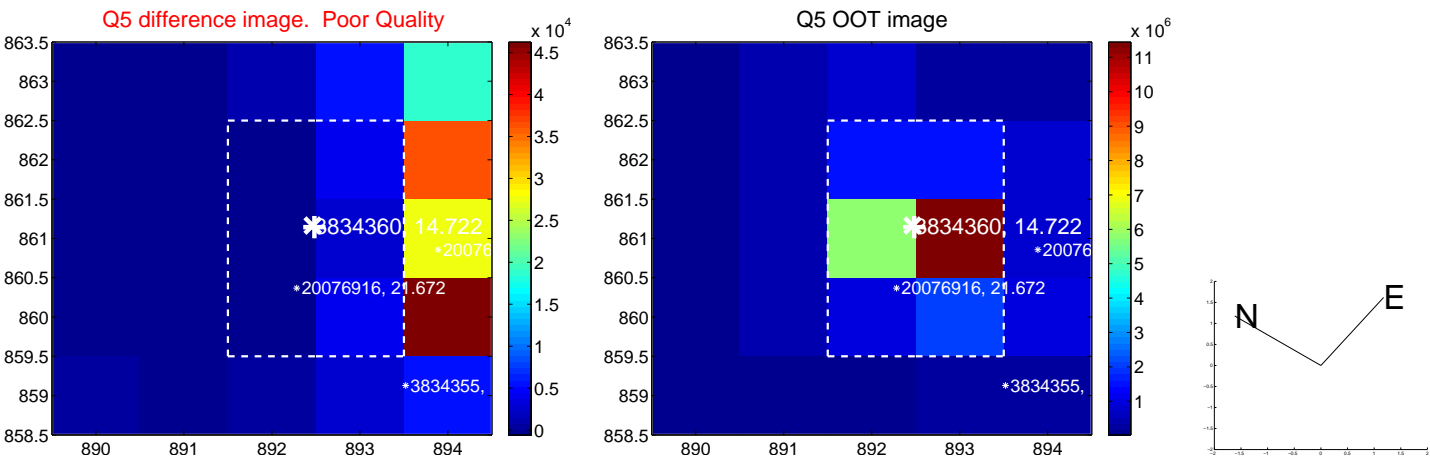


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

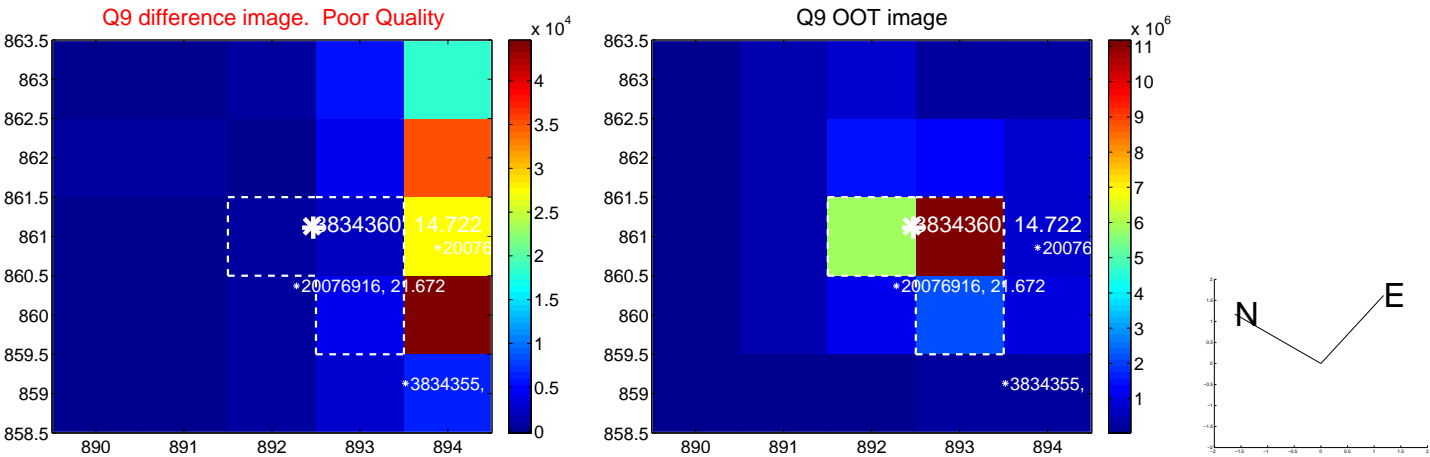
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



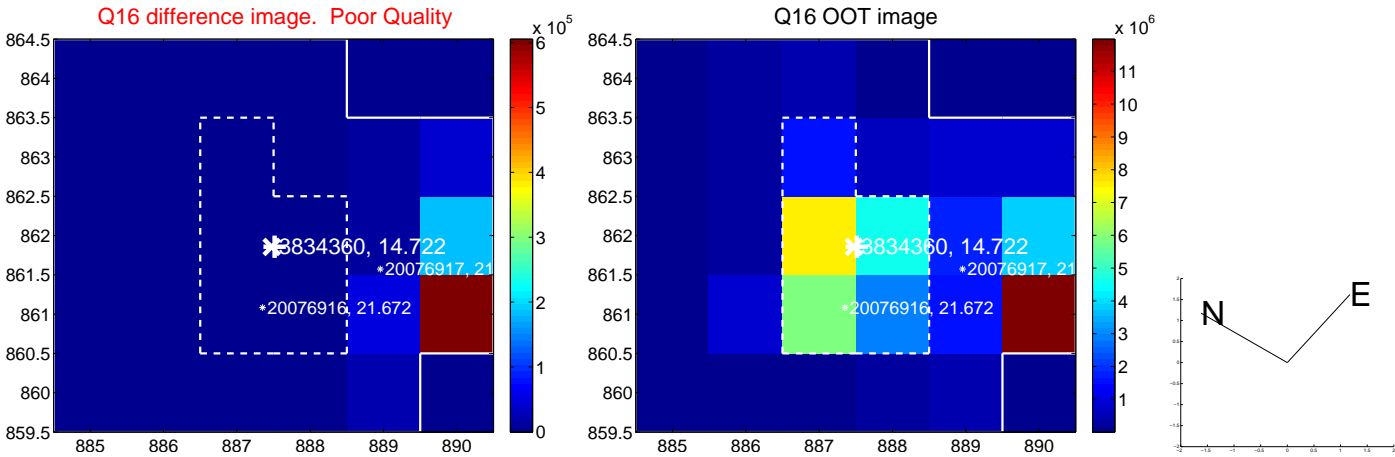
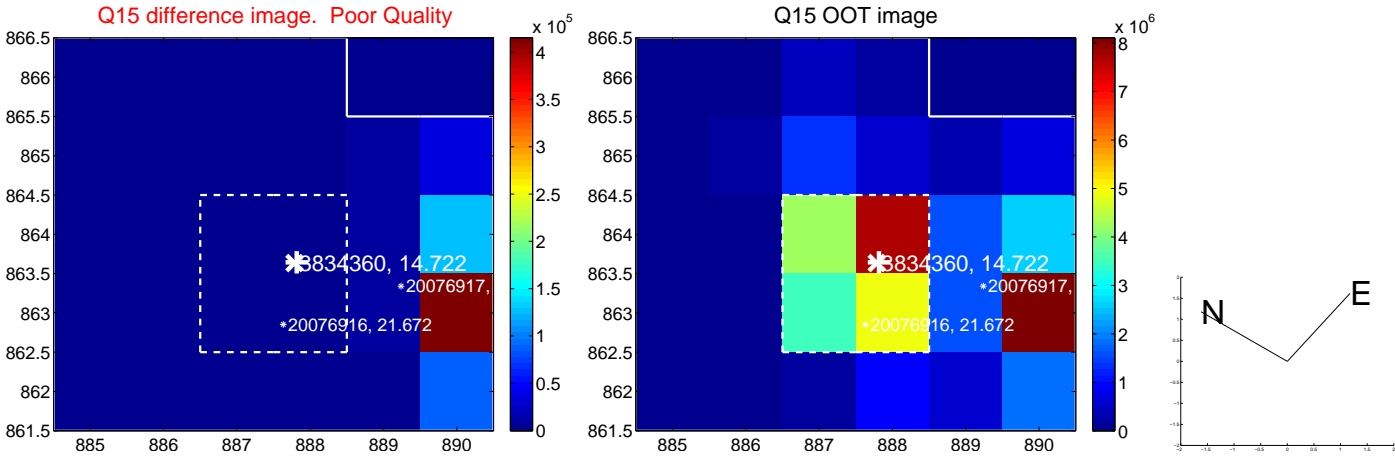
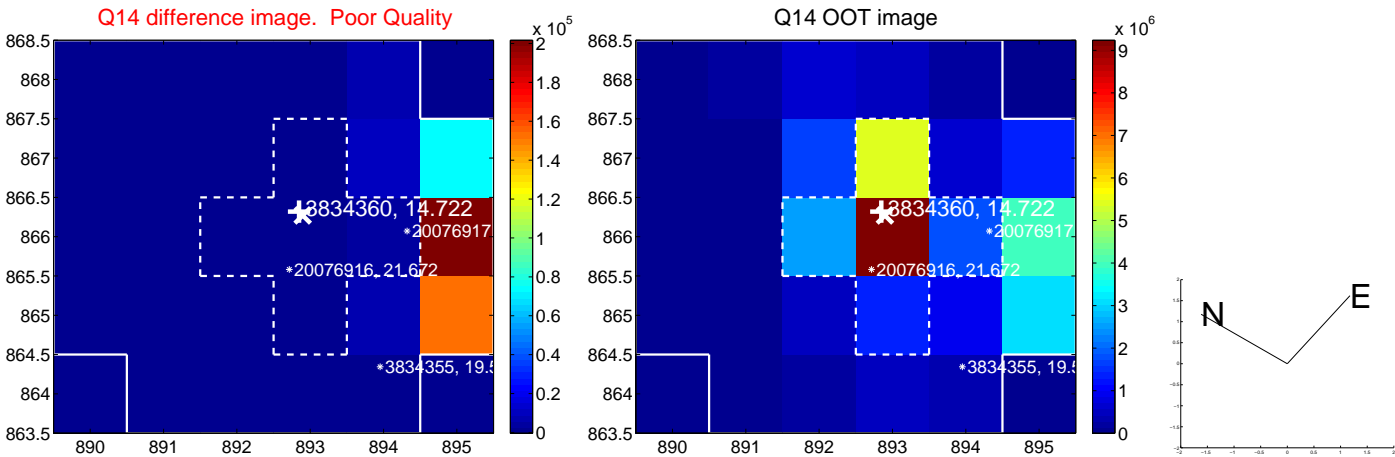
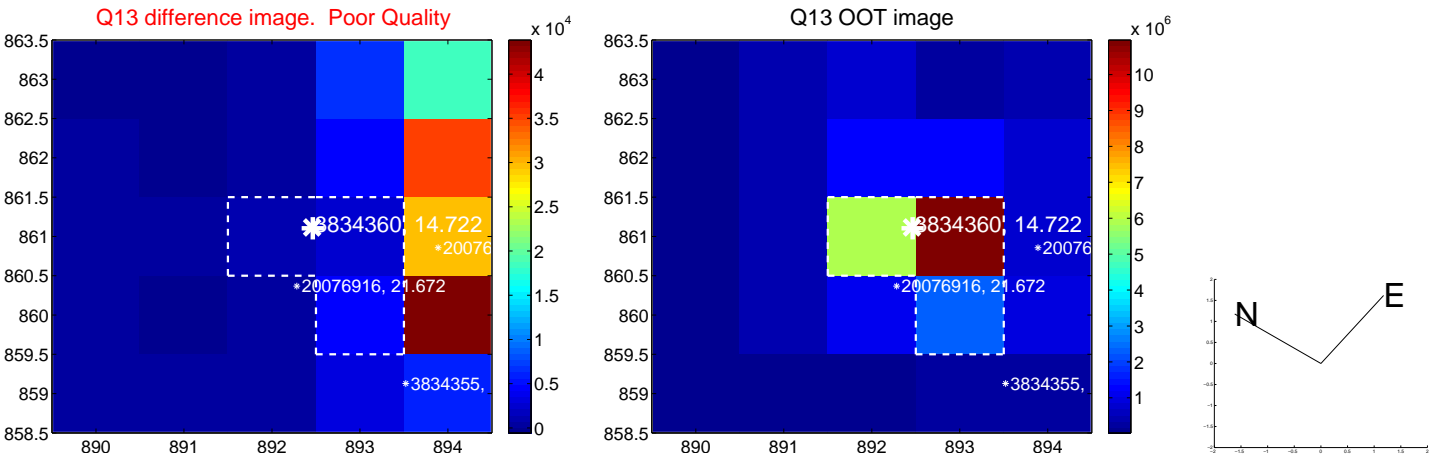
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



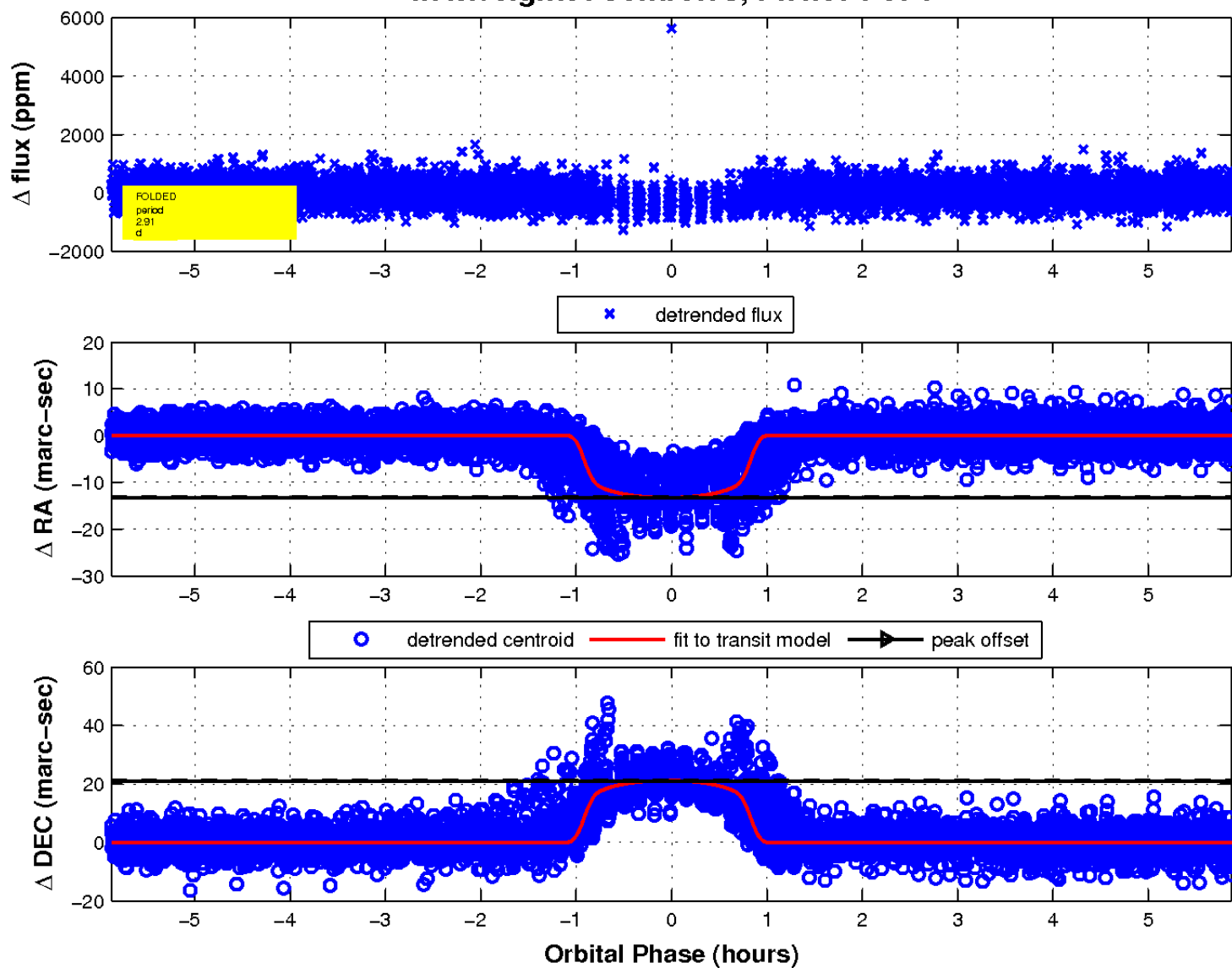
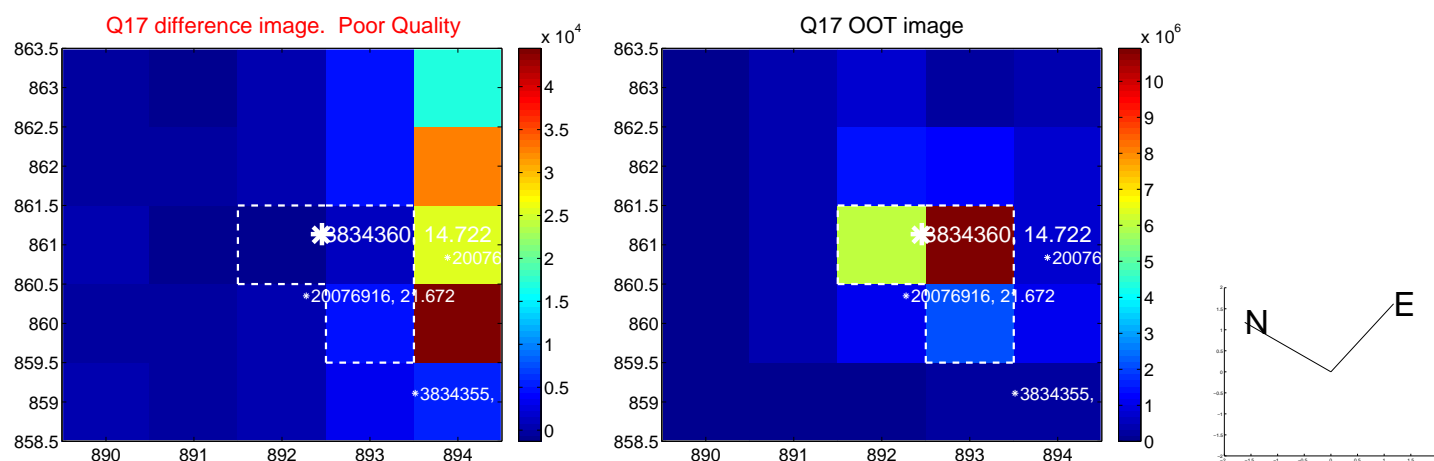
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: 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.



UKIRT Image

Declination

