

KIC 003336476

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})
003336476-01	OBS	3247.01	1.891250	132.691146	15.6	5.146	11.4	12.8	2.11	8482	0.90	14527.62

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003336476-01	OBS	FP	0.00	0	0	0	1	CENT_CROWDED—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.

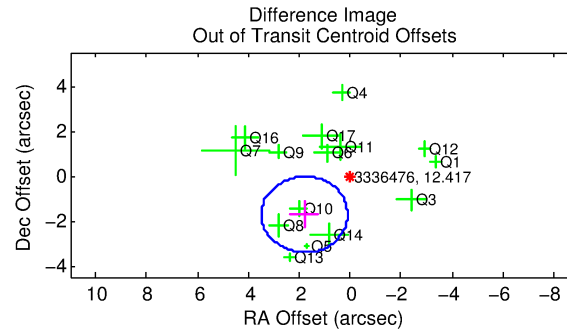
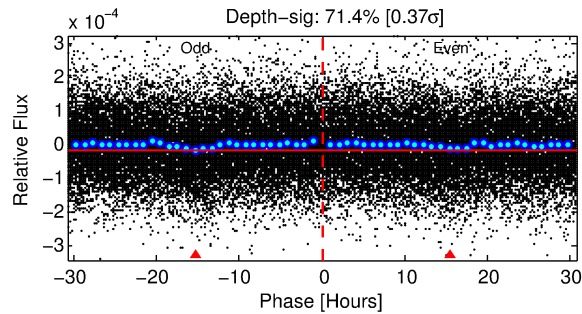
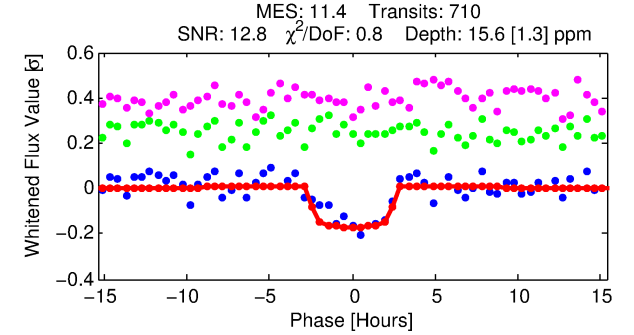
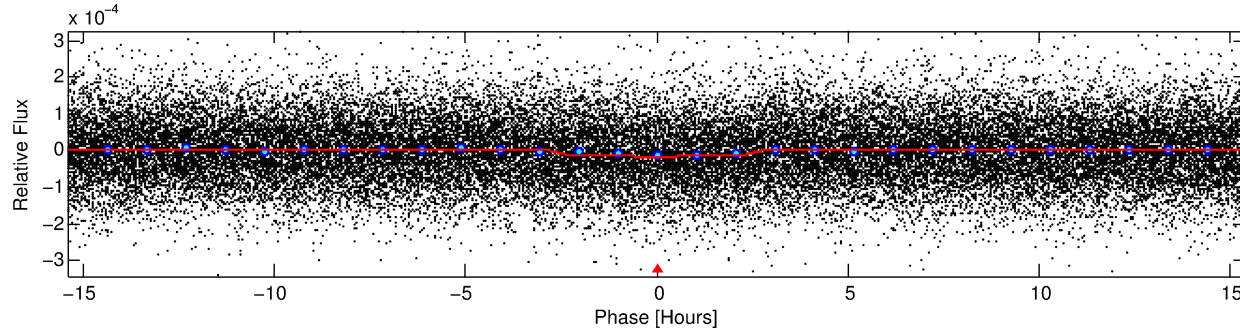
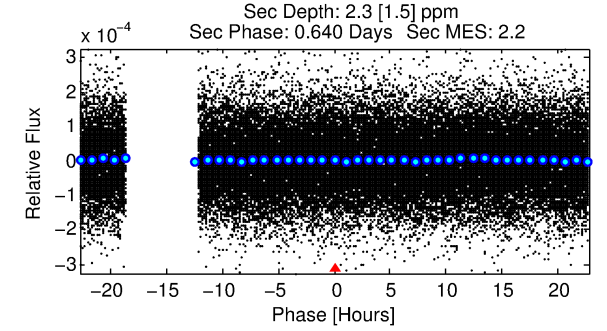
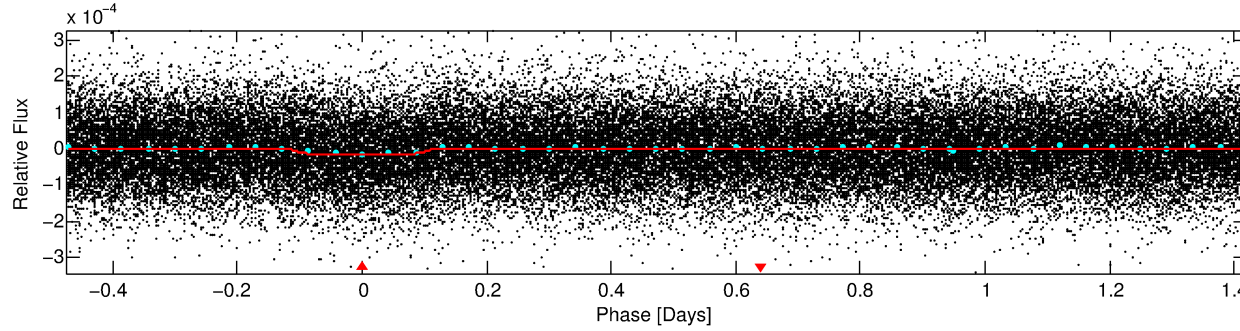
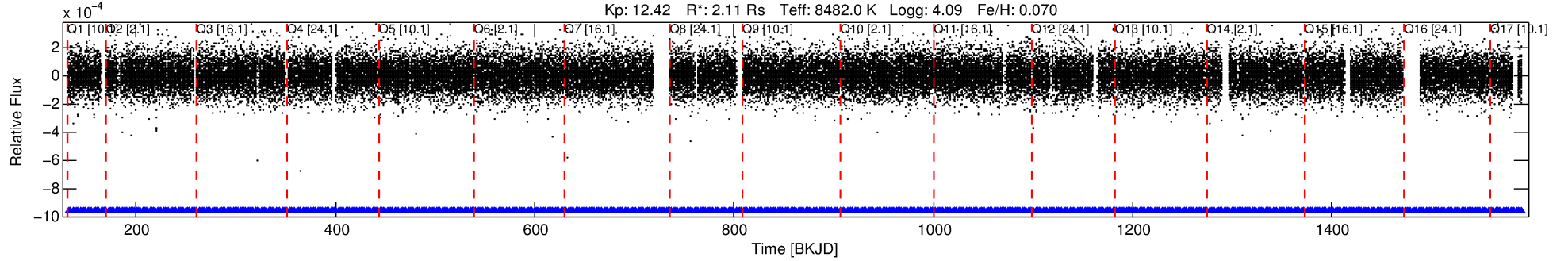
Ephemeris Match Information For 003336476-01

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
003336476-01	3336476	6286.01	2708156	1:1	2112.0	-531	1	10.67	12.41	40057.00	Col-Anomaly	0	0.72	0.45

Notes: P₁:P₂ 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. m₂ and m₁ are the magnitudes of the parent and child. D₂/D₁ 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: 3336476 Candidate: 1 of 1 Period: 1.891 d
KOI: K03247.01 Corr: 0.927



DV Fit Results:

Period = 1.89125 [0.00002] d
Epoch = 132.6911 [0.0046] BKJD
Rp/R* = 0.0039 [0.0005]
a/R* = 2.13 [1.19]
b = 0.72 [0.48]
Seff = 14527.62 [4828.76]
Teq = 2799 [233] K
Rp = 0.90 [0.24] Re
a = 0.0376 [0.0073] AU
Ag = 2.19 [1.68] [0.71σ]
Teffp = 5267 [977] K [2.46σ]

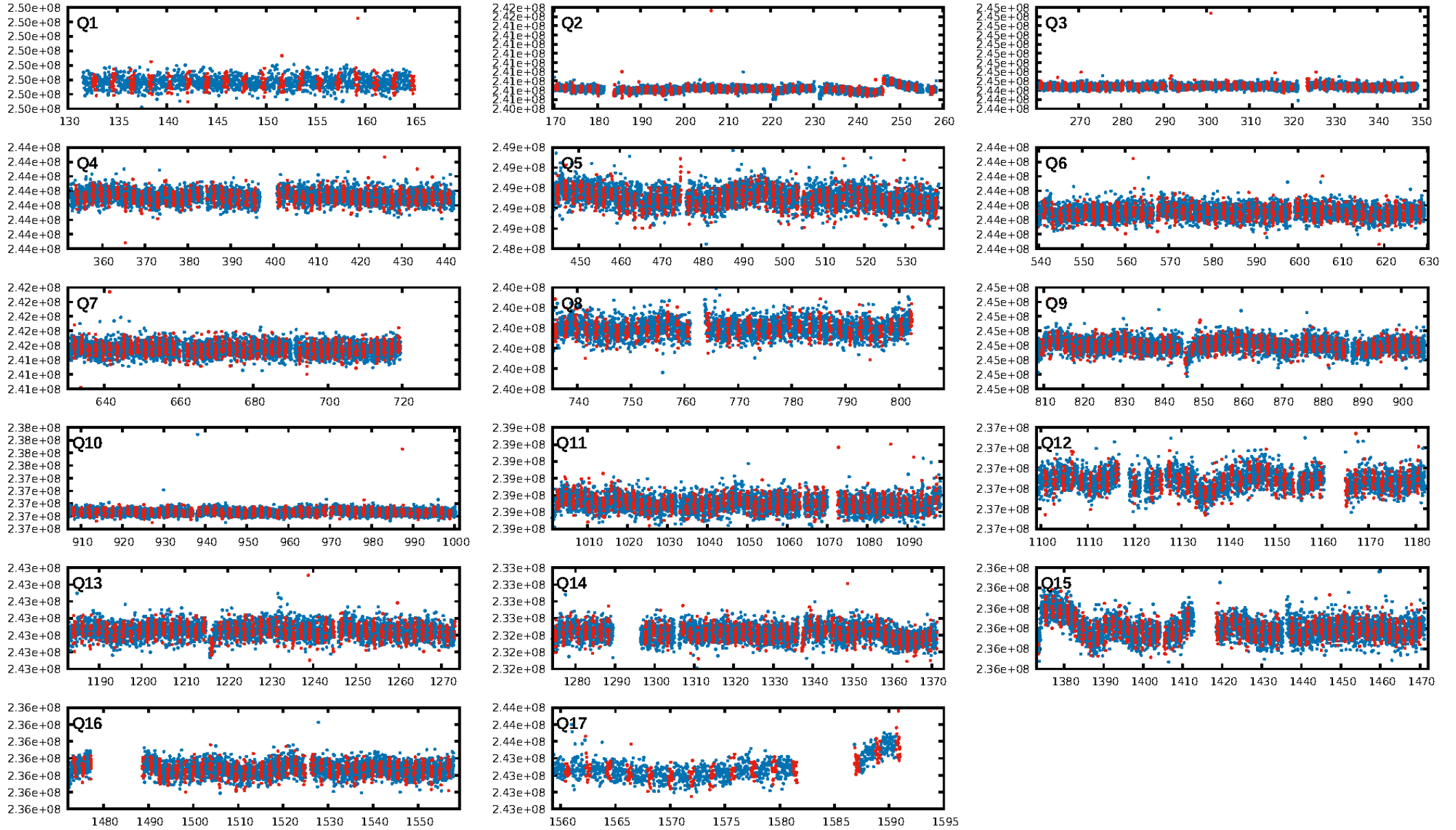
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 4.40e-29
RollingBand-fgt: 1.00 [677/677]
GhostDiagnostic-chr: 0.4683
Centroid-sig: 0.0%
Centroid-so: 3.363 arcsec [2.51σ]
OotOffset-rm: 2.486 arcsec [4.41σ]
KicOffset-rm: 2.470 arcsec [3.94σ]
OotOffset-st: 3/3/4/5 [15]
KicOffset-st: 3/3/4/5 [15]
DiffImageQuality-fgm: 0.13 [2/15]
DiffImageOverlap-fno: 1.00 [17/17]

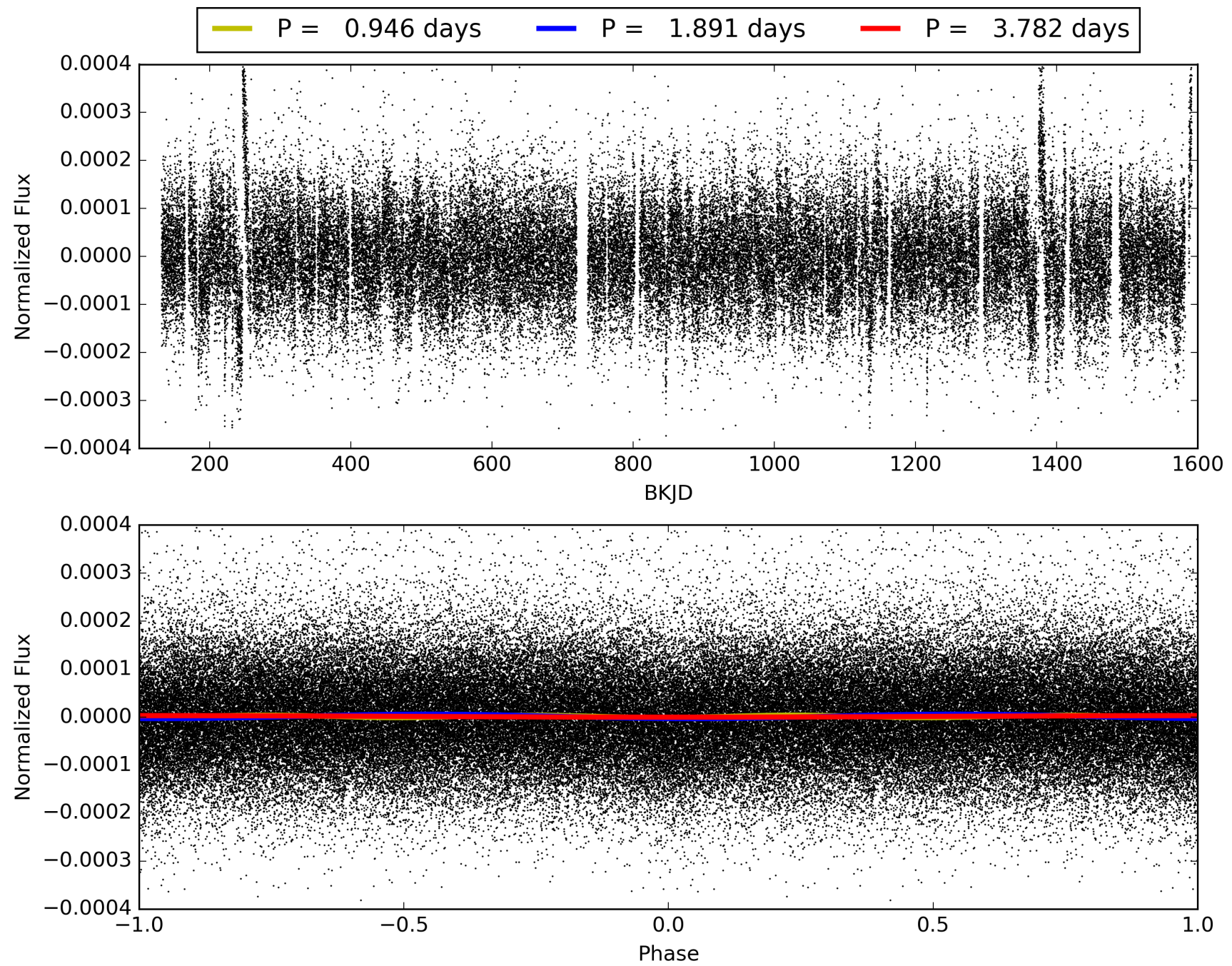
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 18:07:34 Z

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

TCE 003336476-01, PDC Light Curves

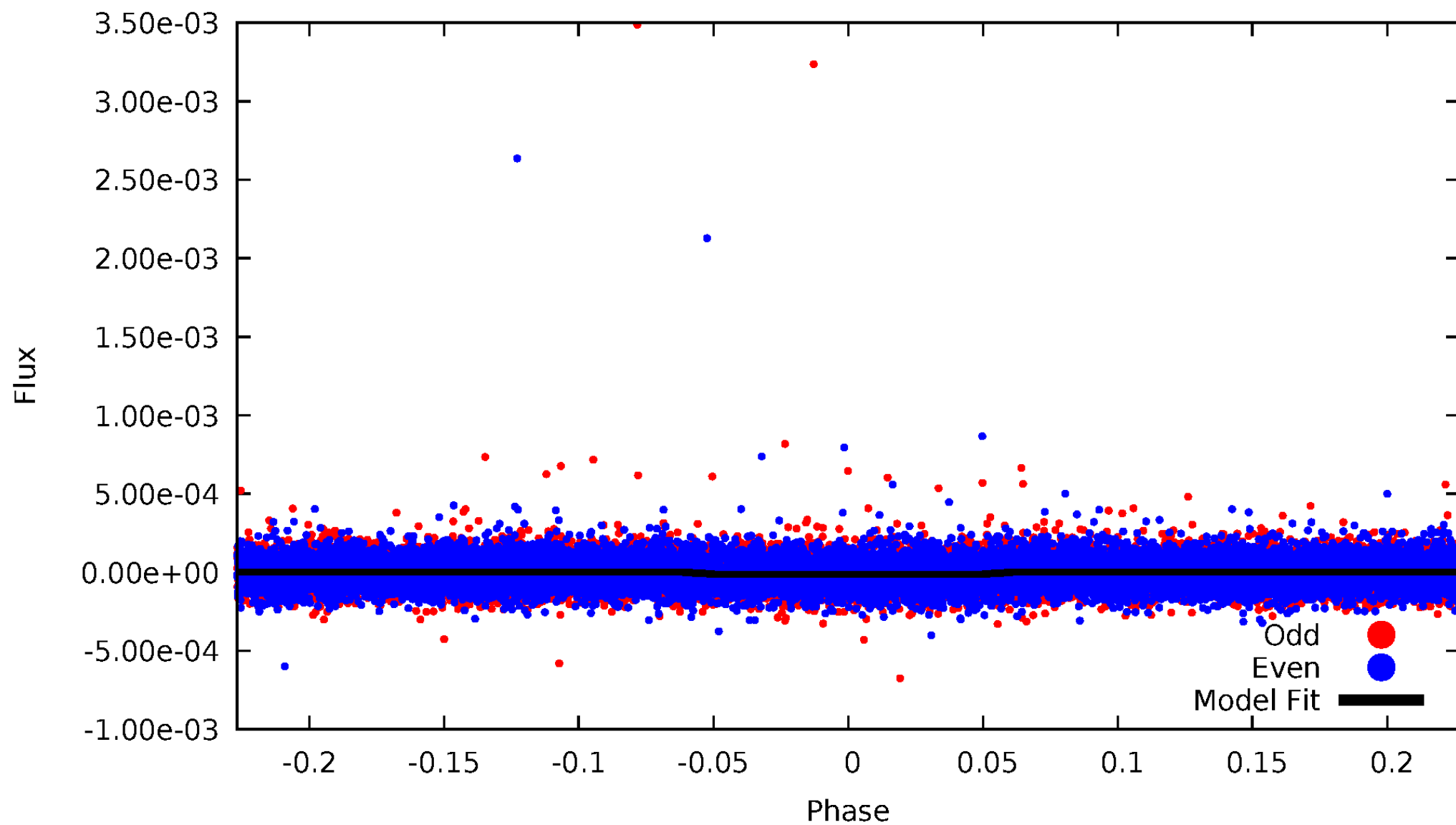


TCE 003336476-01



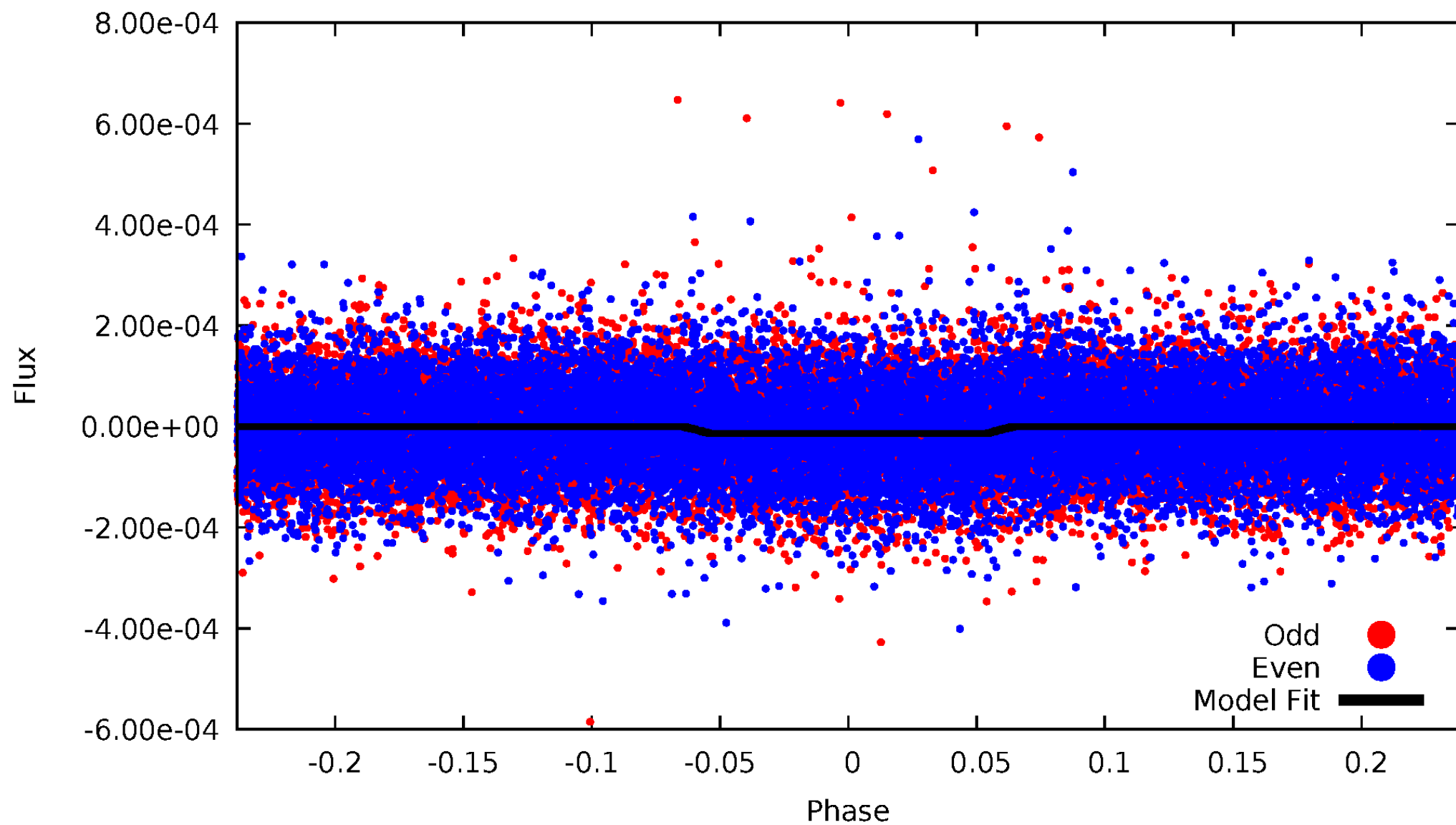
DV Odd/Even

TCE 003336476-01



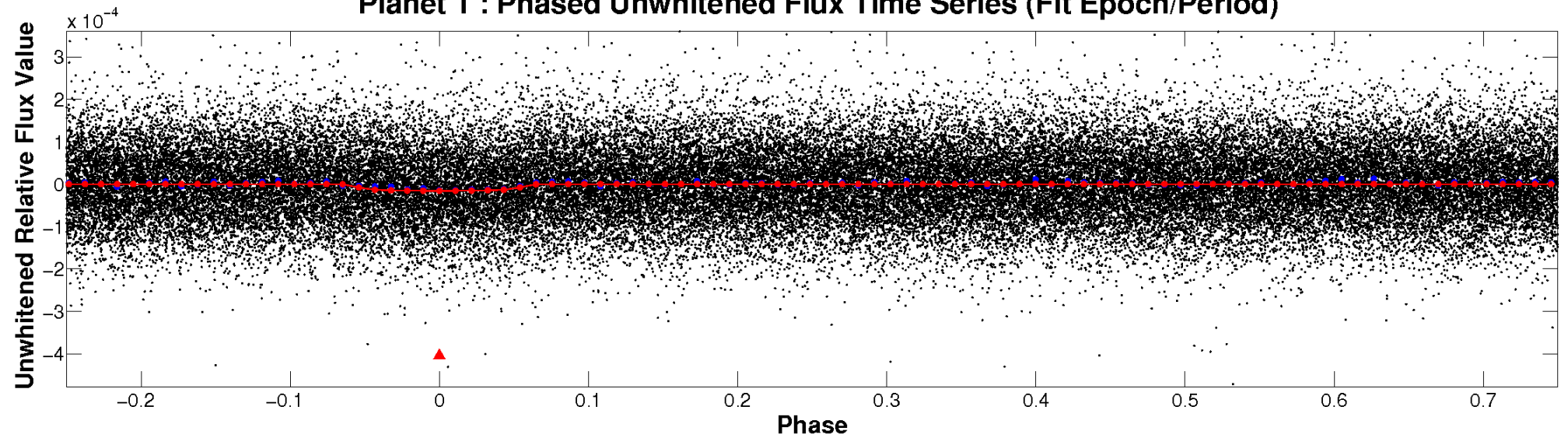
ALT Odd/Even

TCE 003336476-01

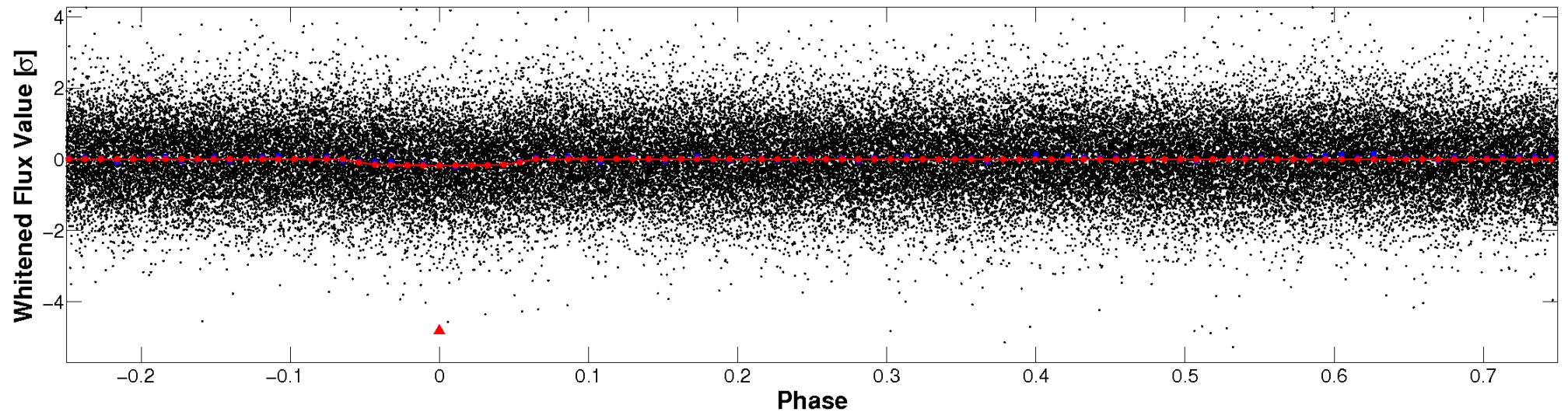


Non-Whitened Vs. Whitened Light Curve

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

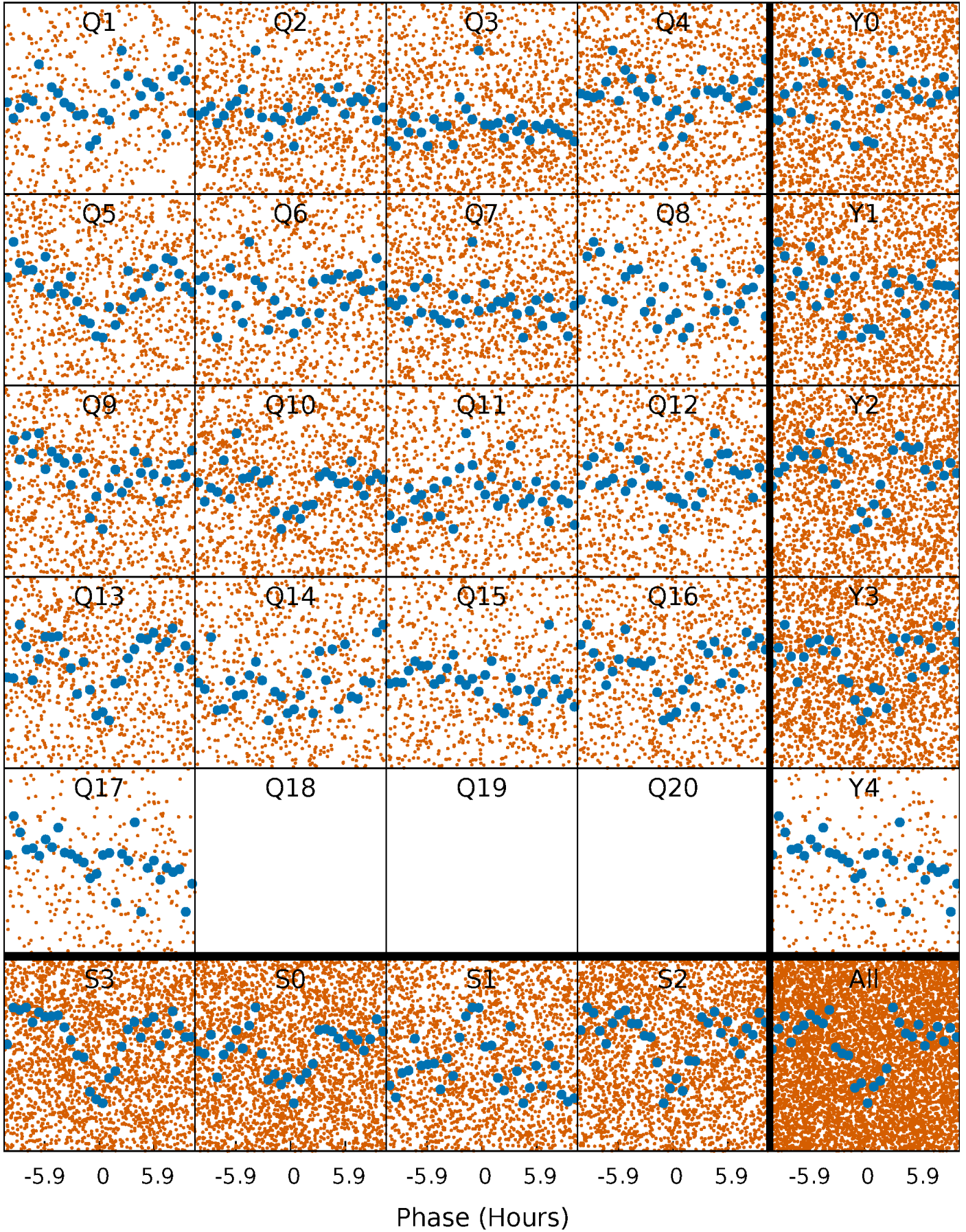


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



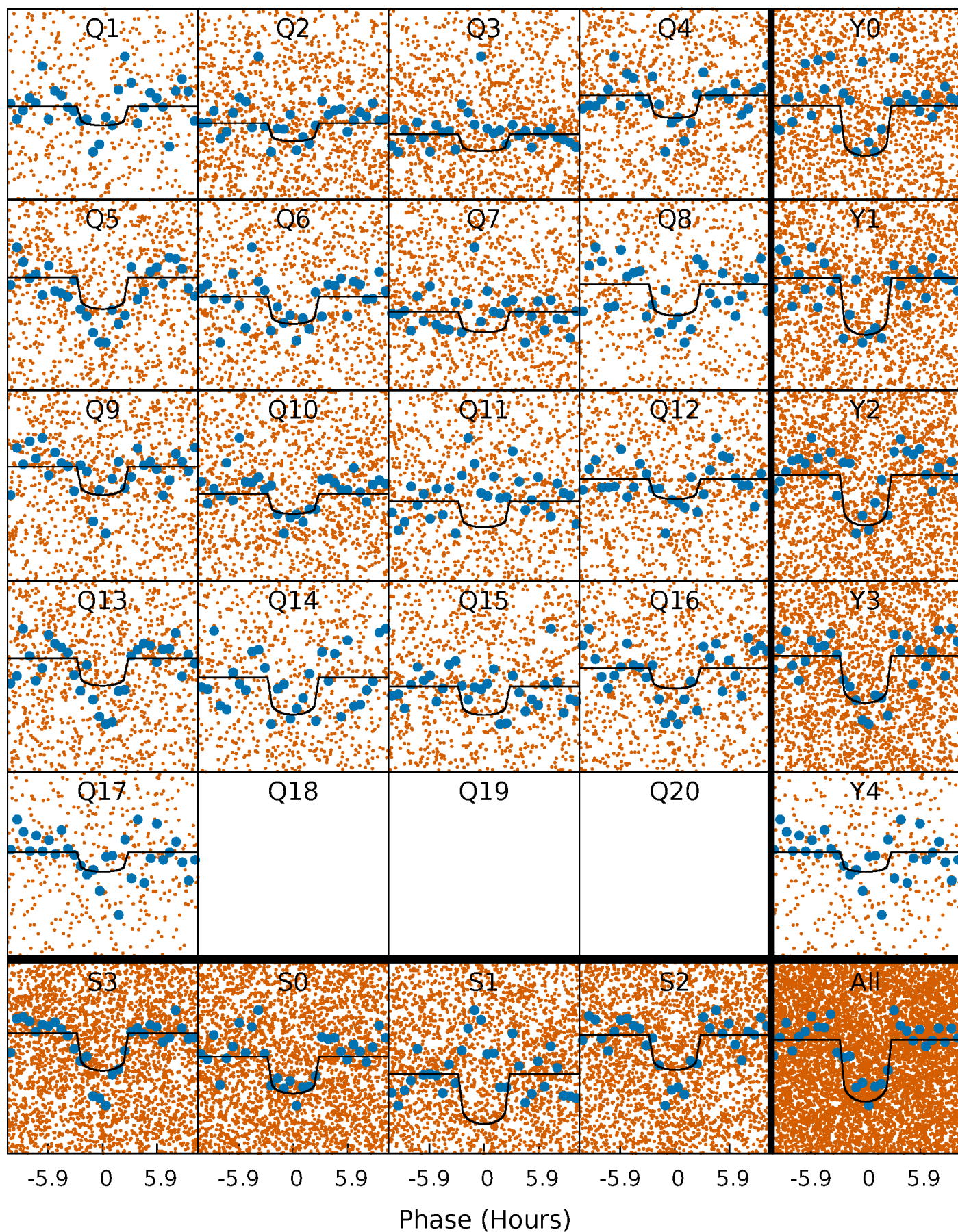
PDC Quarter-Phased Transit Curves

TCE 003336476-01 P= 1.891250 Days $T_0=132.691146$ (BKJD)



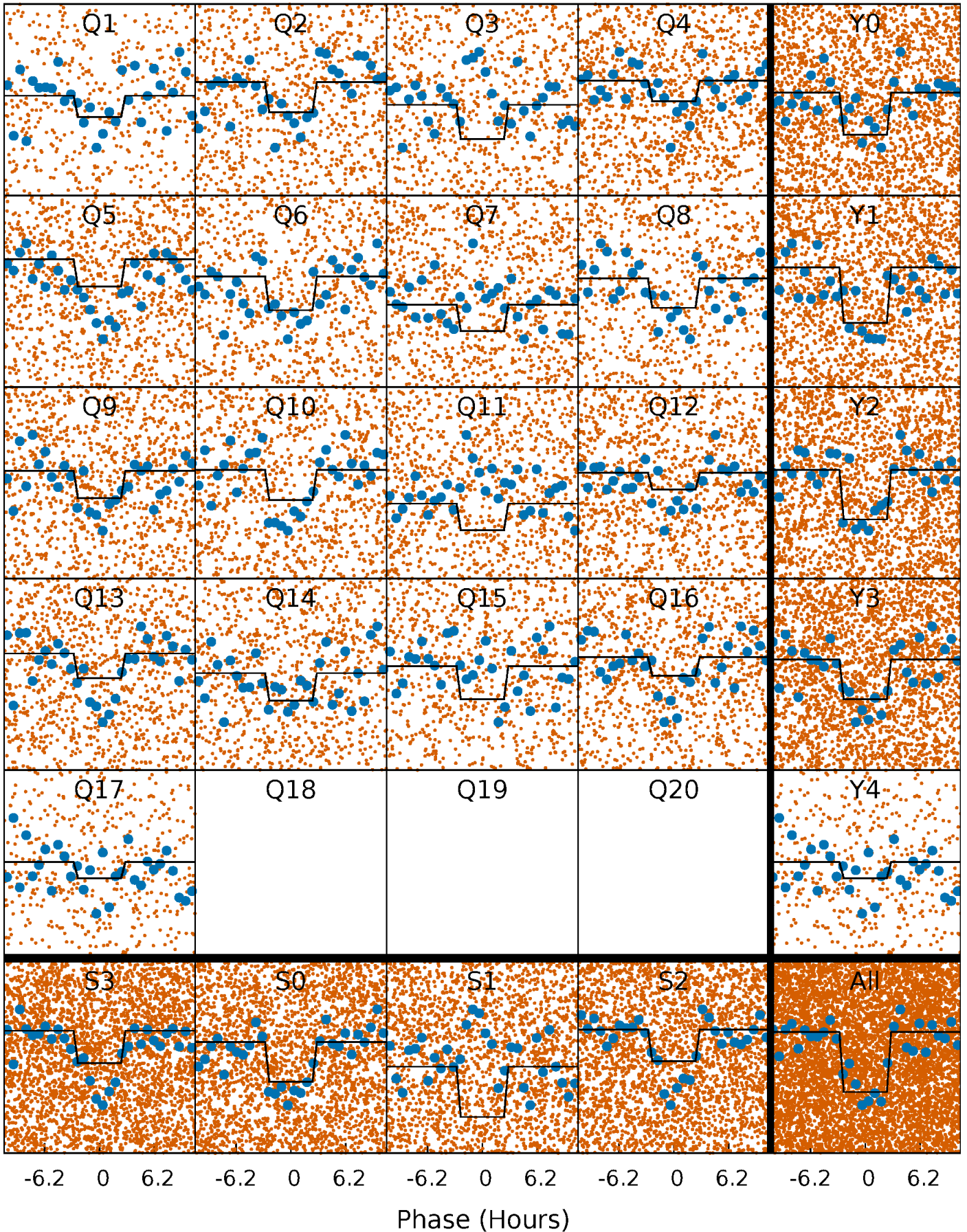
DV Quarter-Phased Transit Curves

TCE 003336476-01 P= 1.891250 Days $T_0=132.691146$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

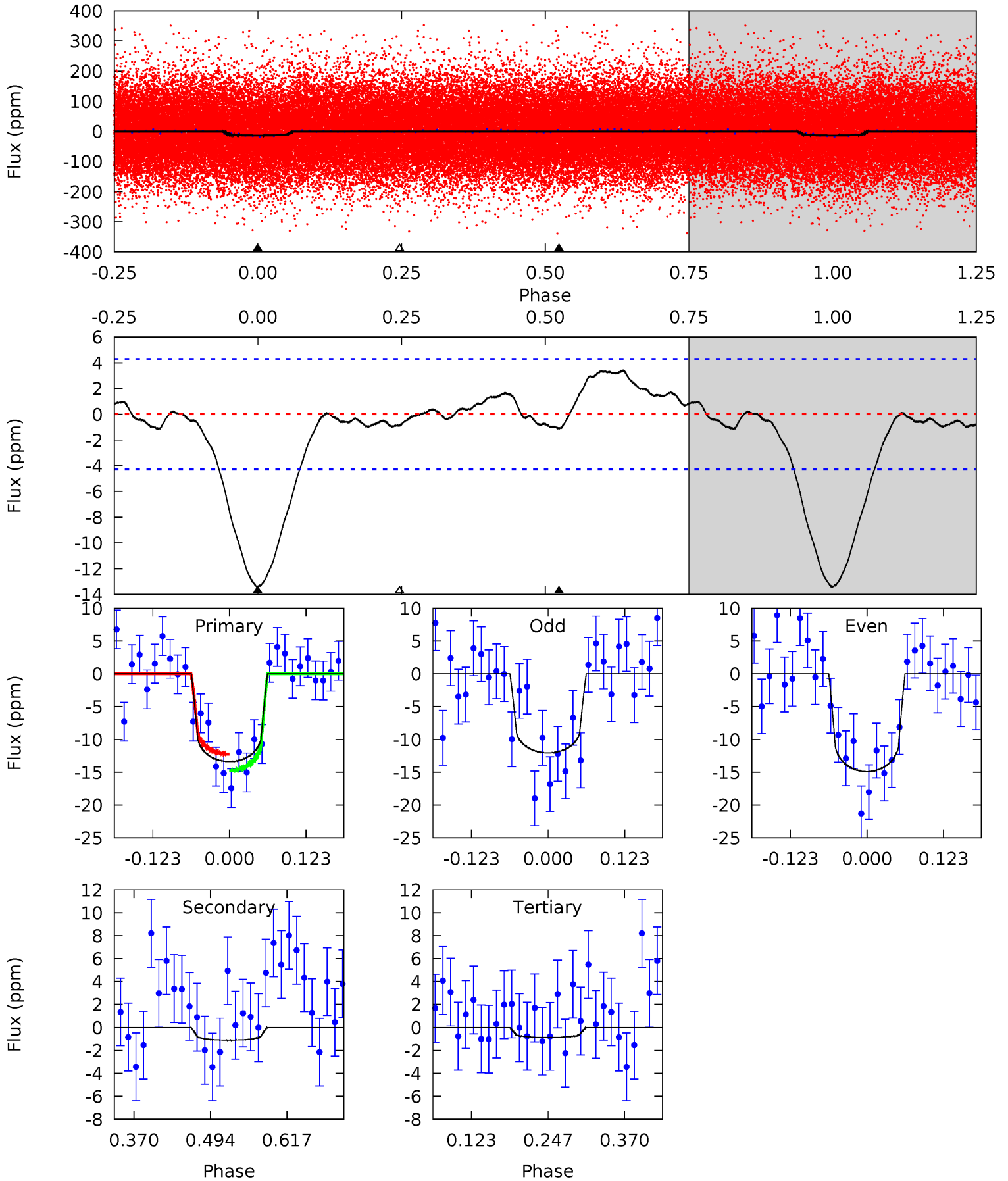
TCE 003336476-01 P= 1.891298 Days $T_0=132.665824$ (BKJD)



DV Model-Shift Uniqueness Test

003336476-01, P = 1.891250 Days, E = 130.799896 Days

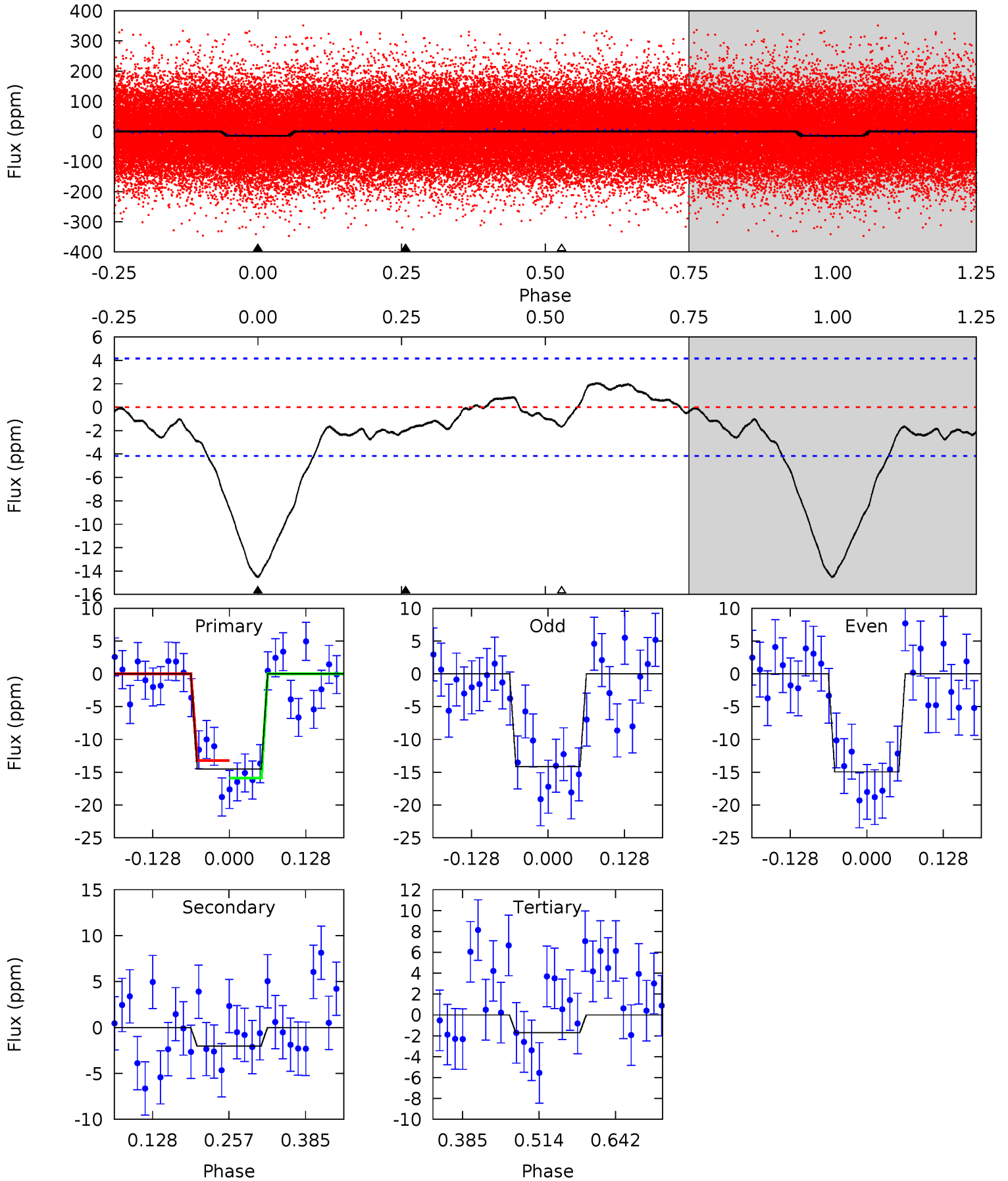
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.1	1.16	0.92	0	4.52	1.54	0.95	13.2	14.1	0.24	1.16	1.50	0.95	0.20	1.32



Alt Model-Shift Uniqueness Test

003336476-01, P = 1.891298 Days, E = 130.774526 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.7	2.18	1.83	0	4.51	1.52	1.34	13.9	15.7	0.35	2.18	0.42	1.02	0.12	1.44



Stellar Parameters For KIC 003336476

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8482^{+233}_{-400}	$4.089^{+0.131}_{-0.145}$	$0.070^{+0.250}_{-0.500}$	$2.106^{+0.503}_{-0.453}$	$1.987^{+0.344}_{-0.420}$	$0.299^{+0.228}_{-0.130}$
	+3%/-5%	+3%/-4%	+357%/-714%	+24%/-22%	+17%/-21%	+76%/-43%
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 003336476-01 / KOI 3247.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1 ± 1	$0.89^{+0.19}_{-0.15}$	3918^{+245}_{-252}	4174^{+702}_{-7347}	$1.034^{+1.081}_{-0.890}$
Alt.	-2 ± 1	$0.88^{+0.17}_{-0.15}$	3932^{+232}_{-277}	4859^{+610}_{-750}	$1.940^{+1.445}_{-0.998}$

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

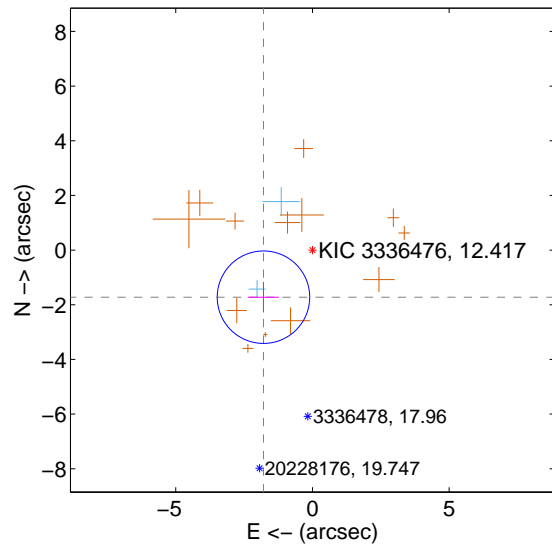
Supplemental centroid analysis for 003336476-01. Kepler magnitude: 12.42. Transit SNR 12.82

There are 2 quarters with good PRF difference image offsets

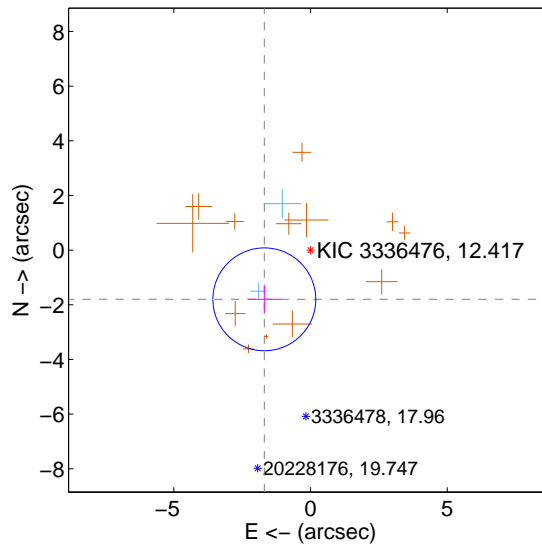
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.486 ± 0.564	4.41	1.792 ± 0.568	-1.723 ± 0.557
PRF-fit source offset from KIC position	2.470 ± 0.627	3.94	1.690 ± 0.609	-1.802 ± 0.528
photometric centroid source offset	3.36 ± 1.34	2.51	1.15 ± 1.00	3.16 ± 1.38

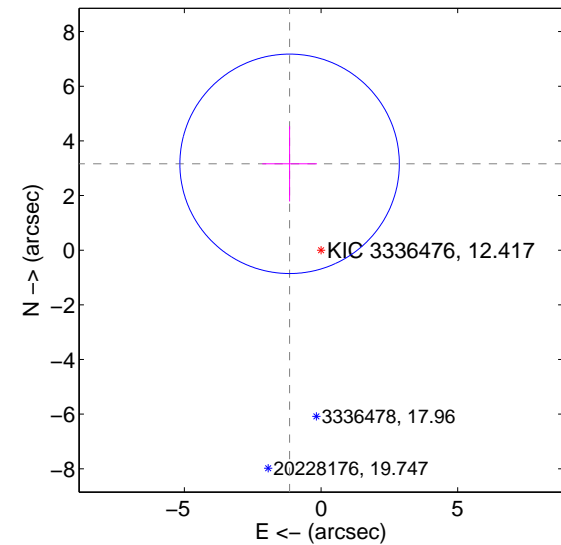
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

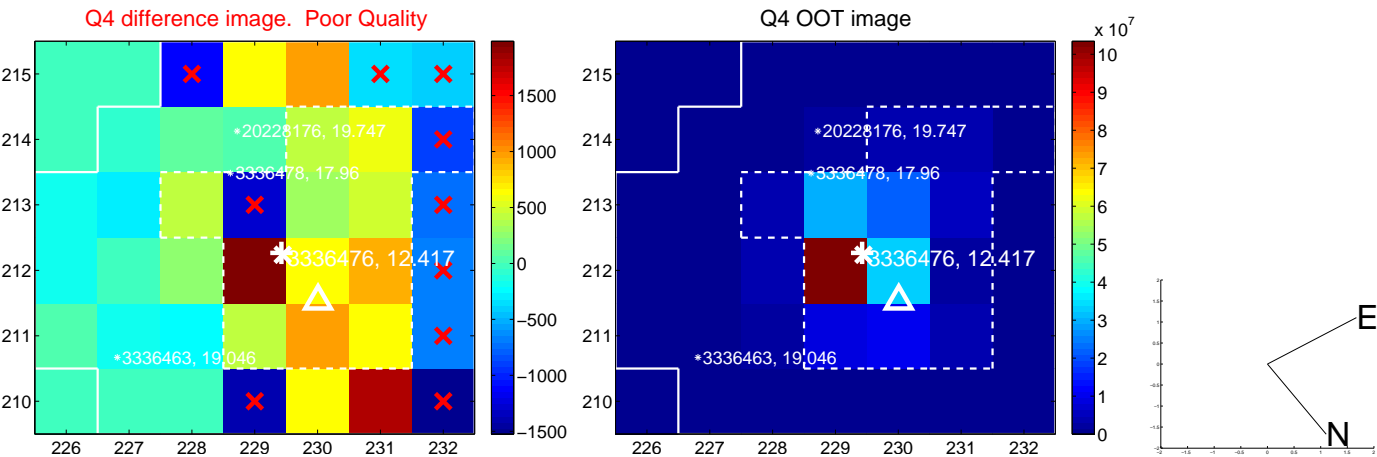
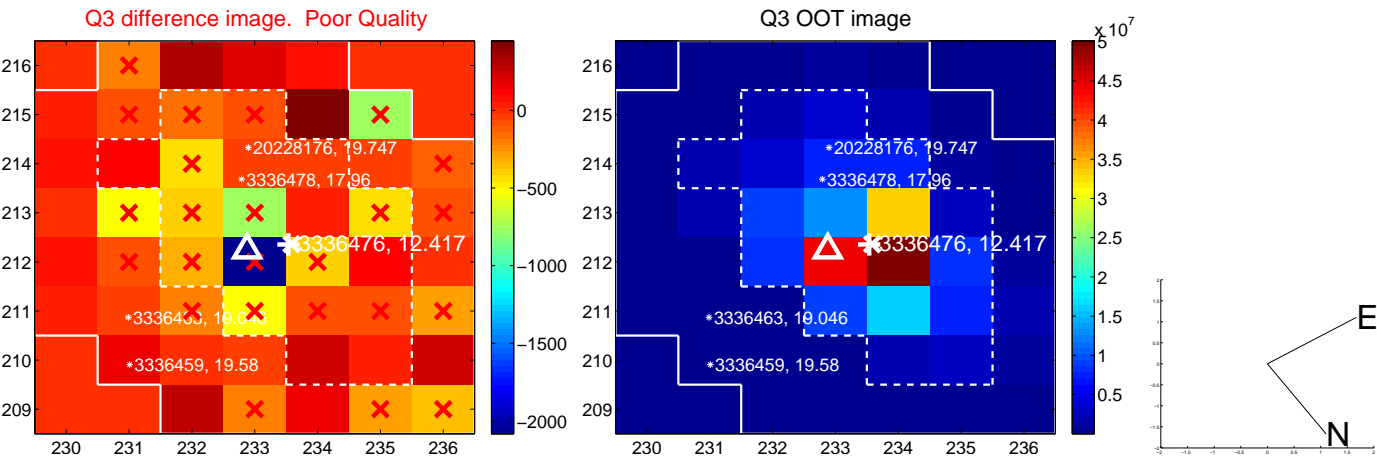
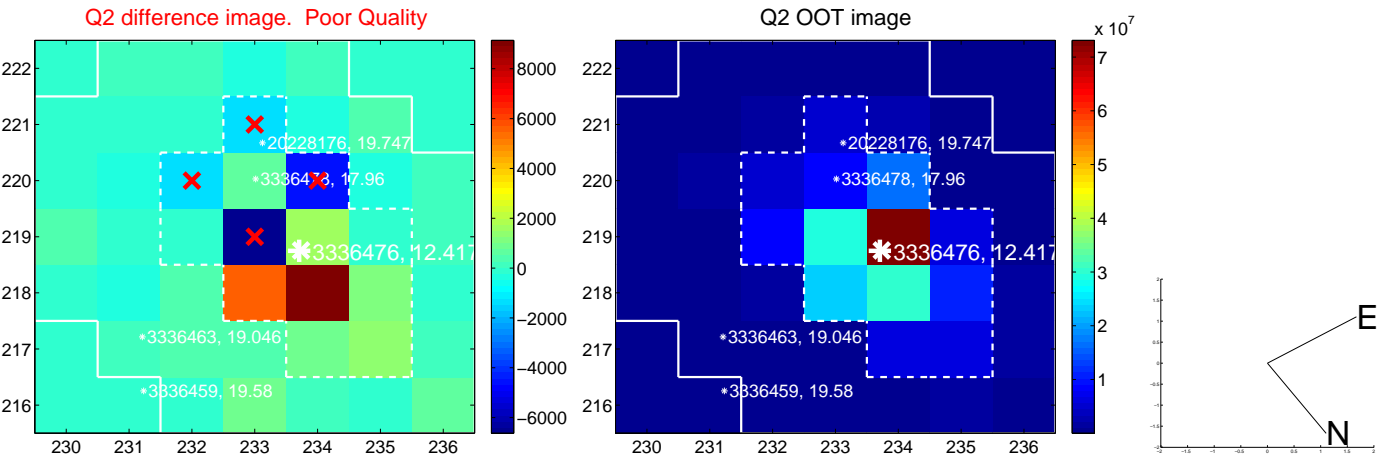
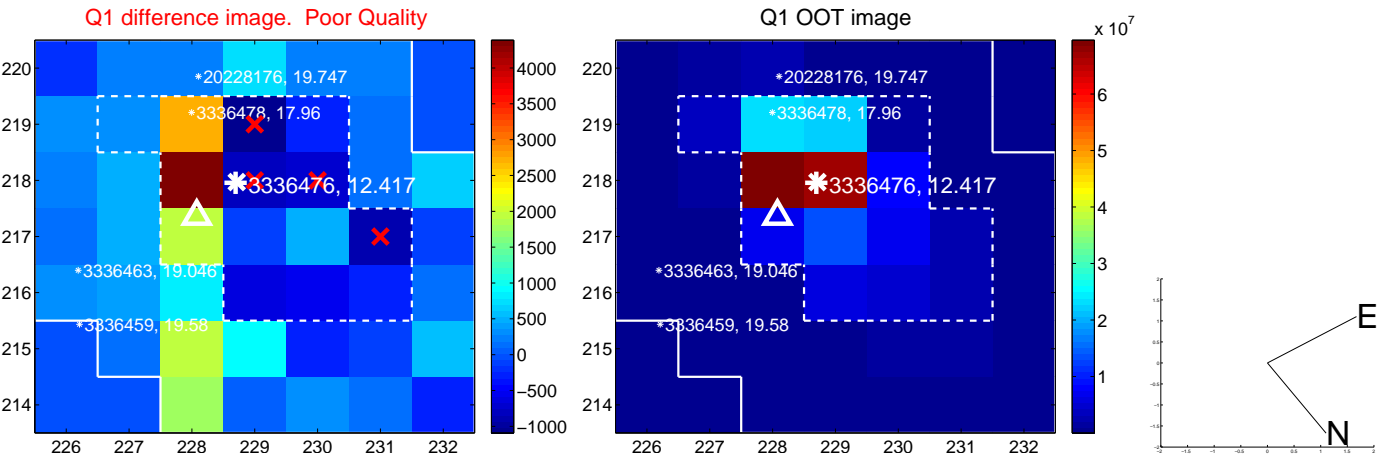


offset from photometric centroids

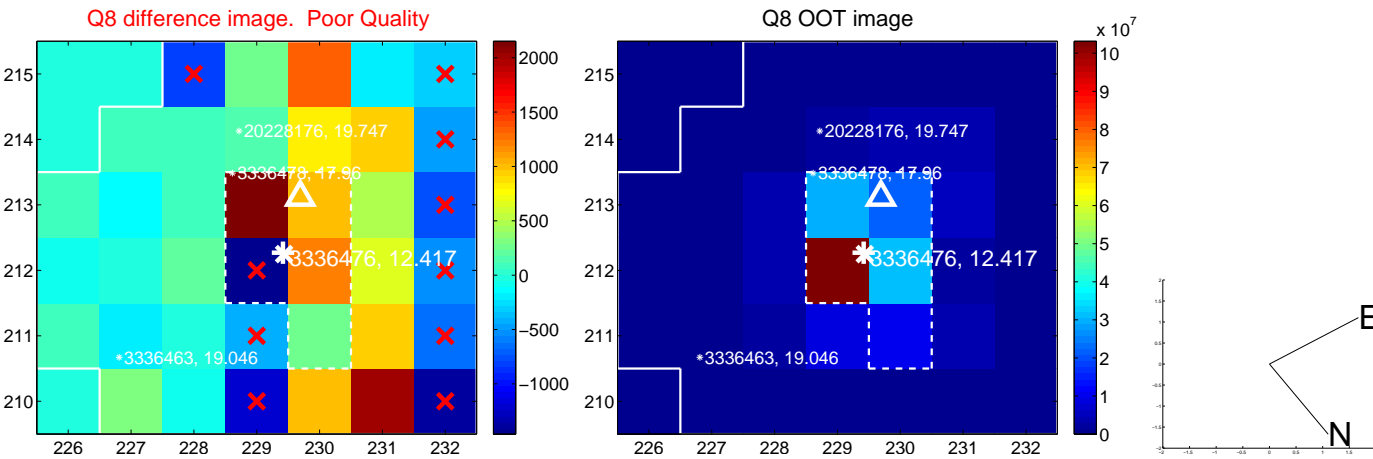
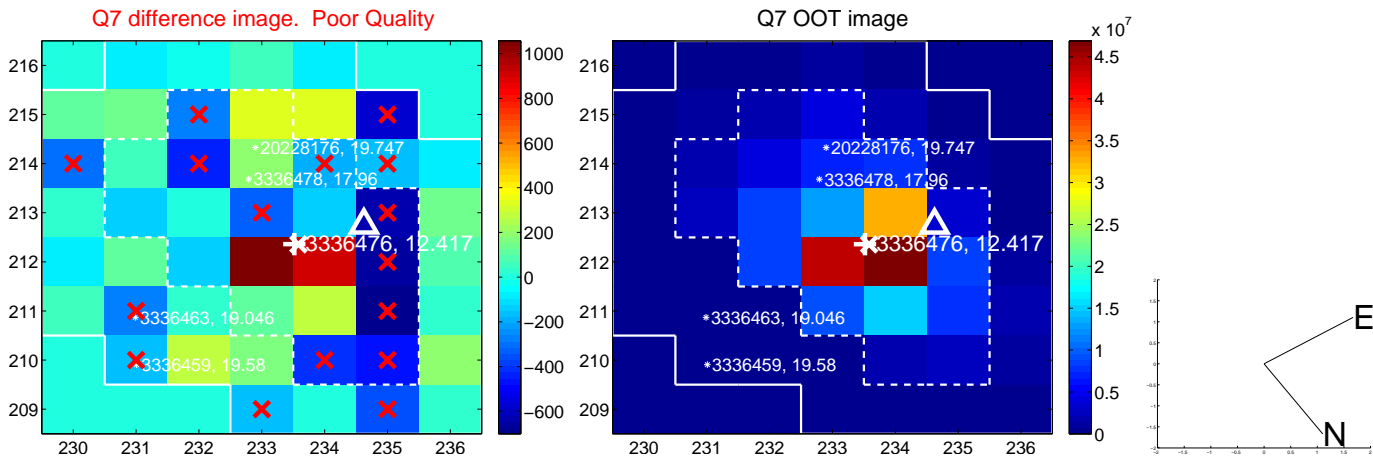
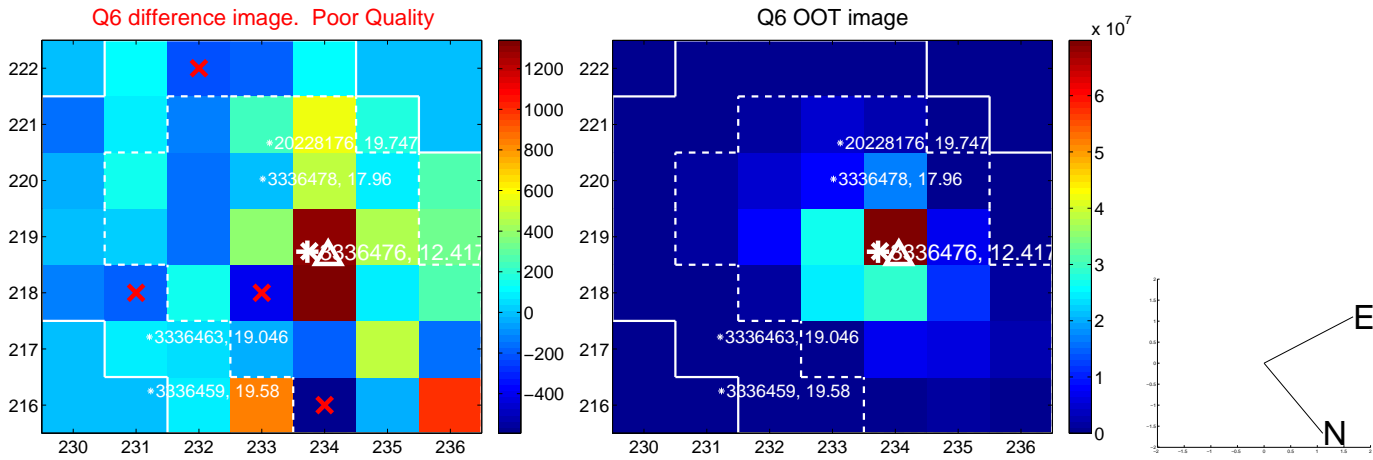
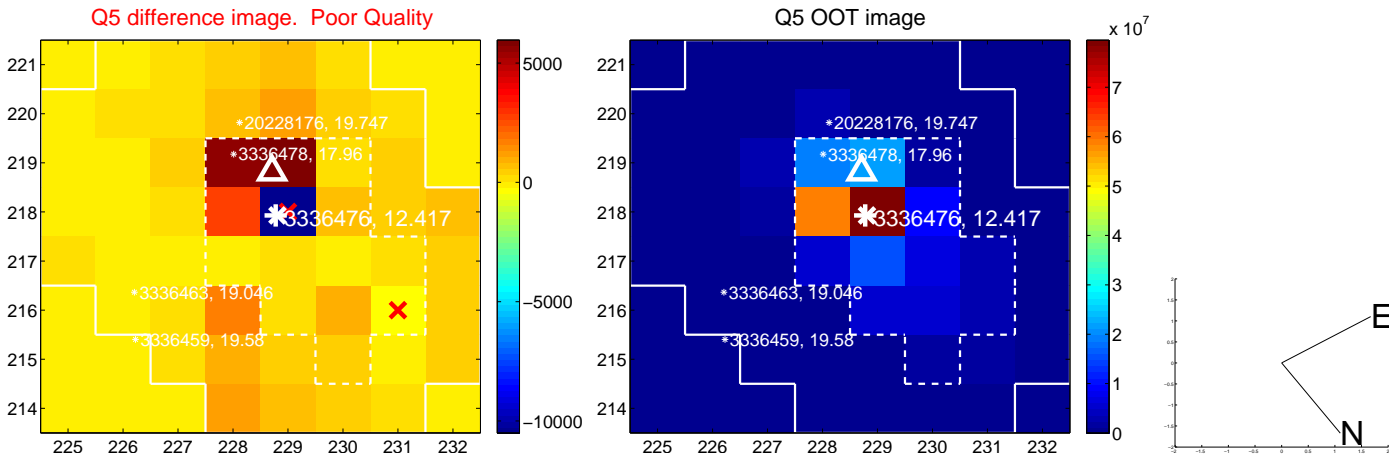


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

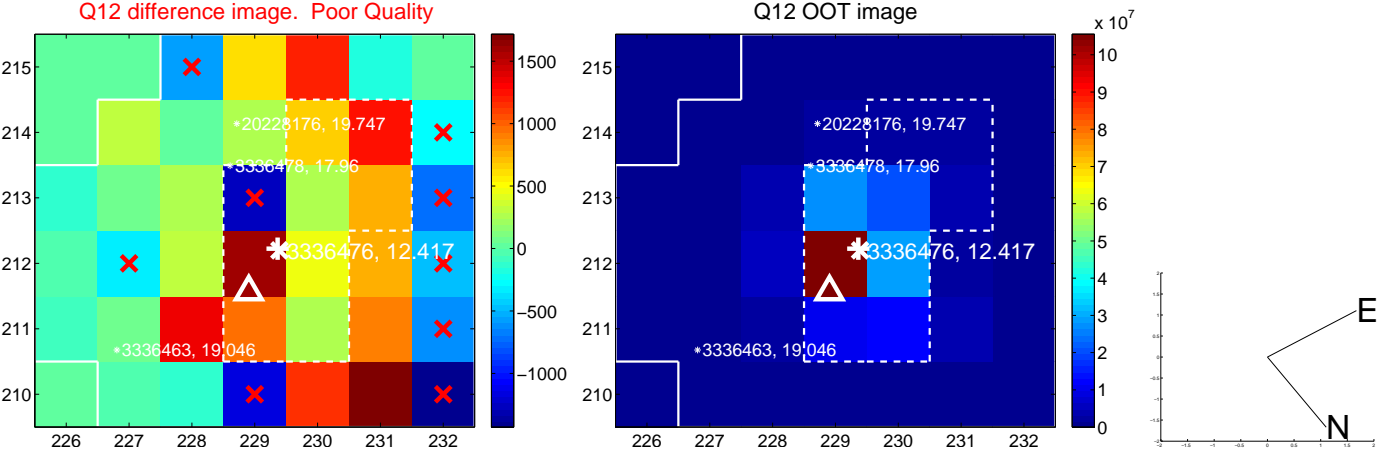
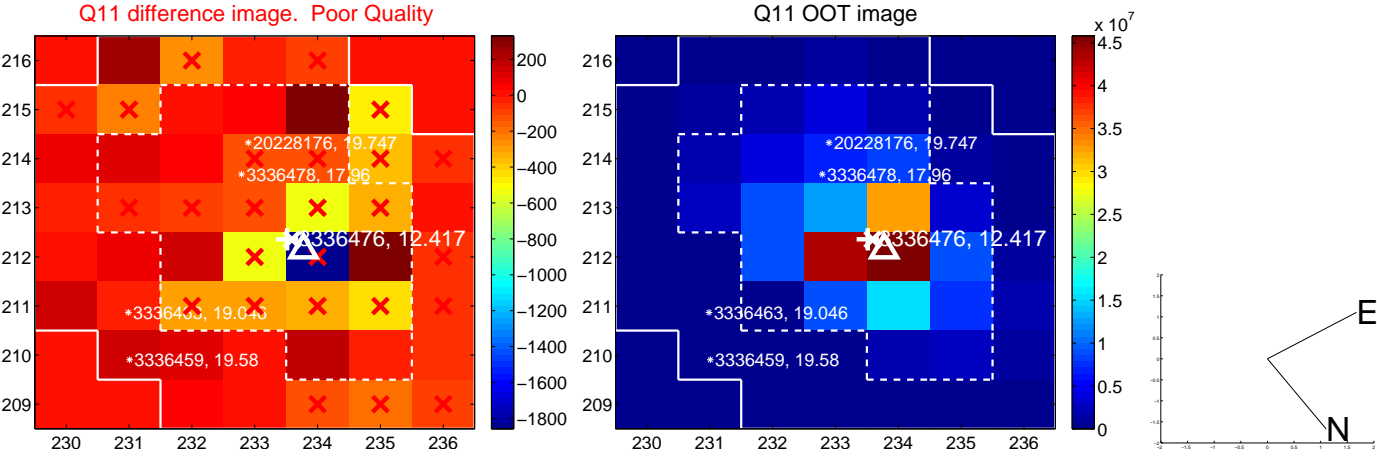
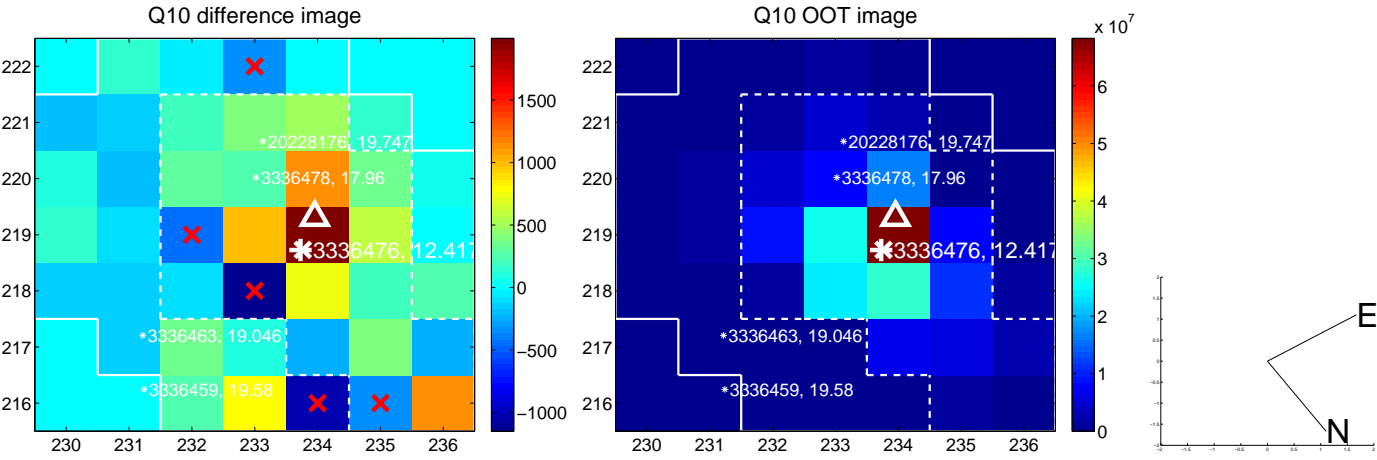
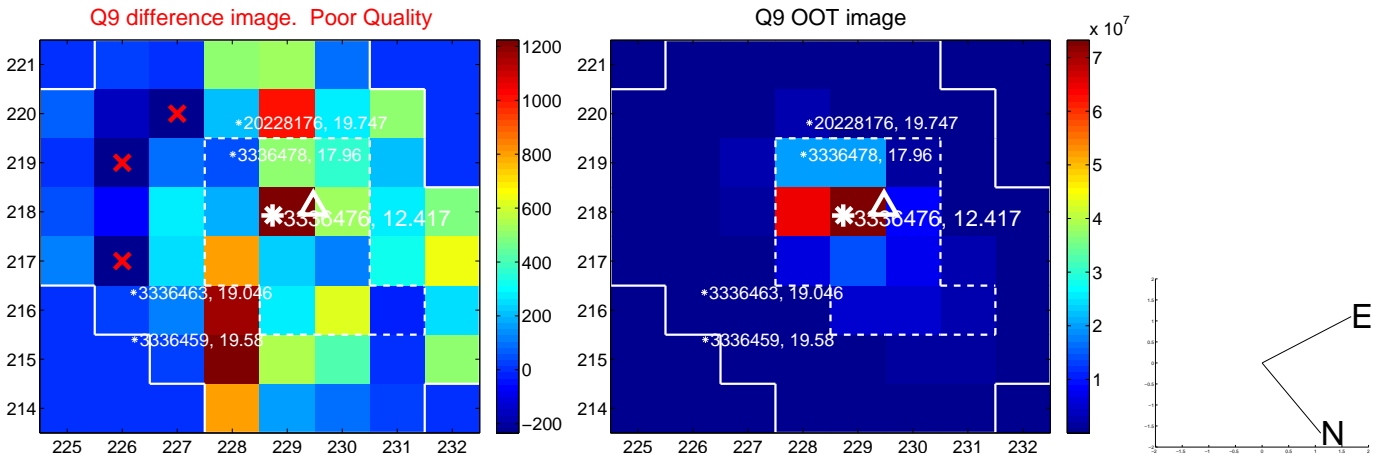
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



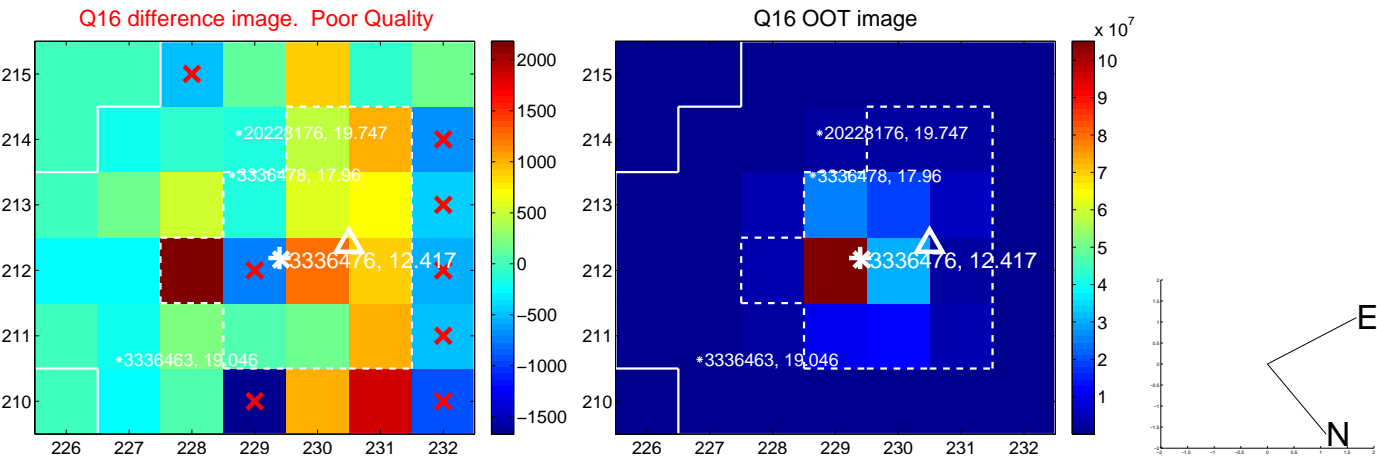
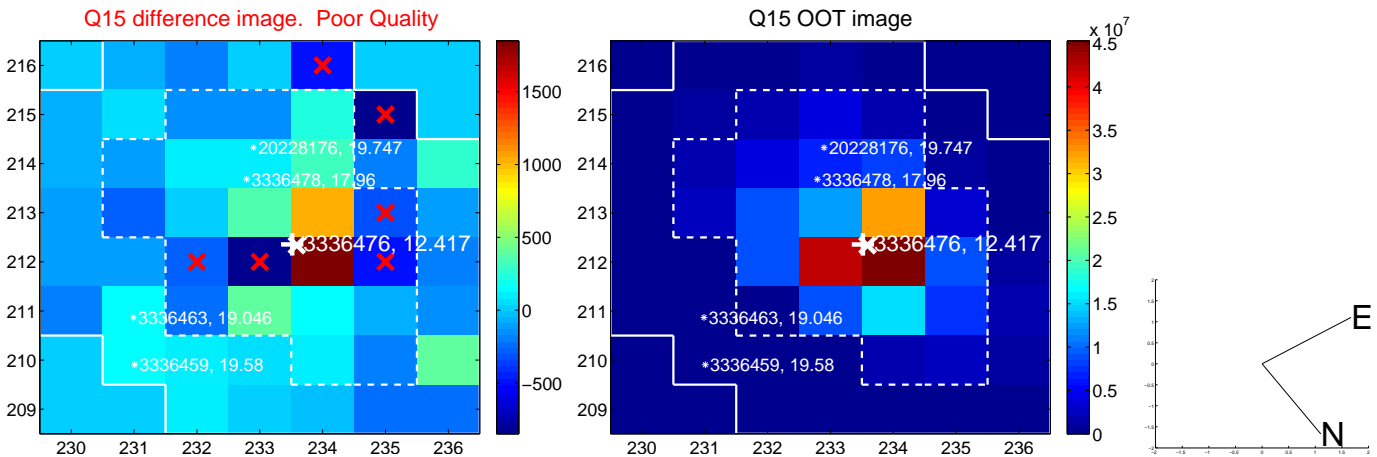
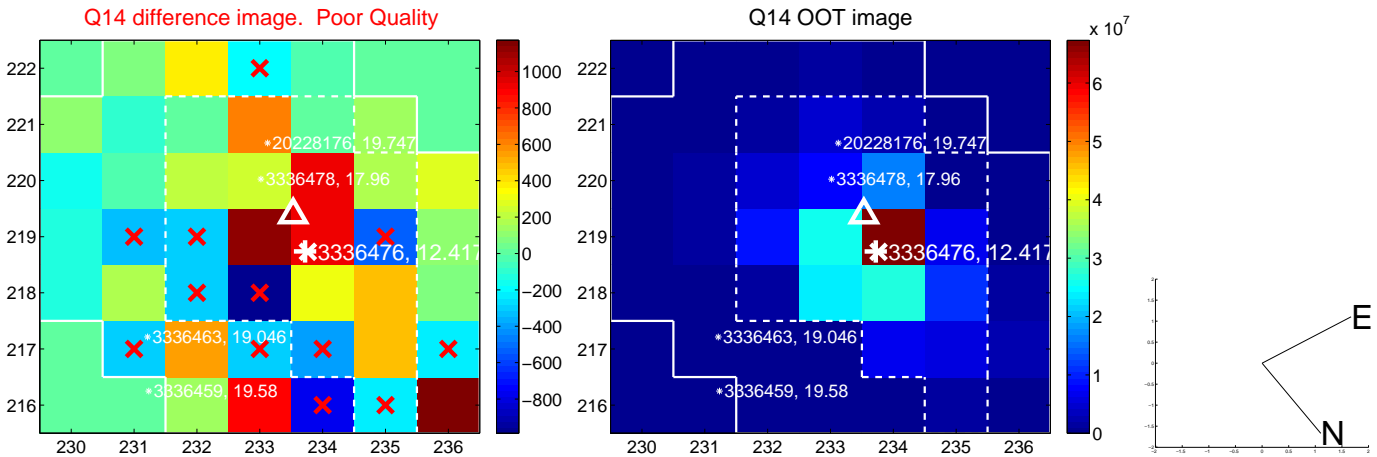
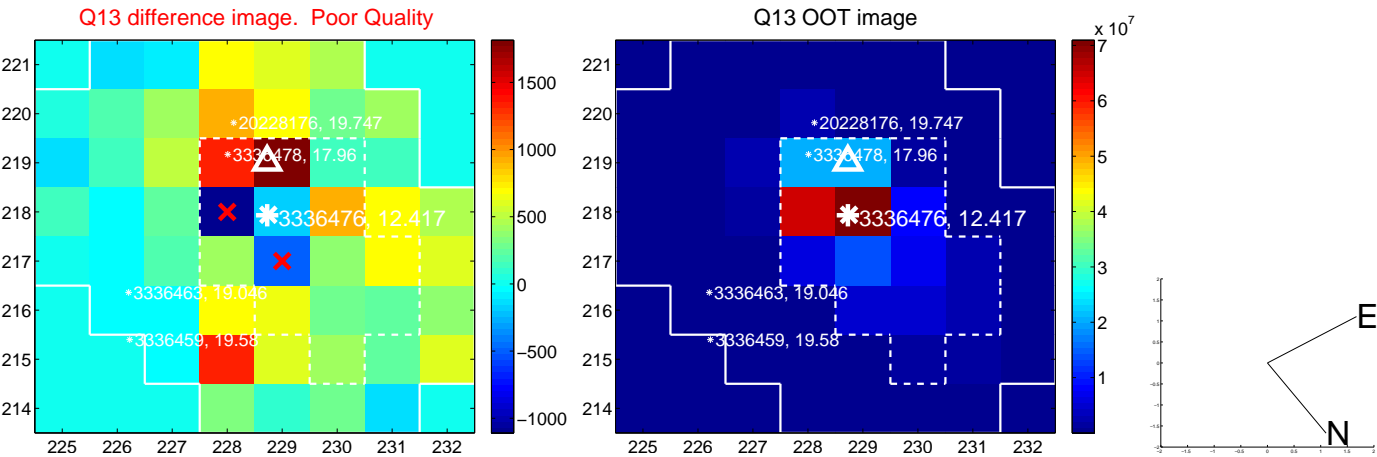
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



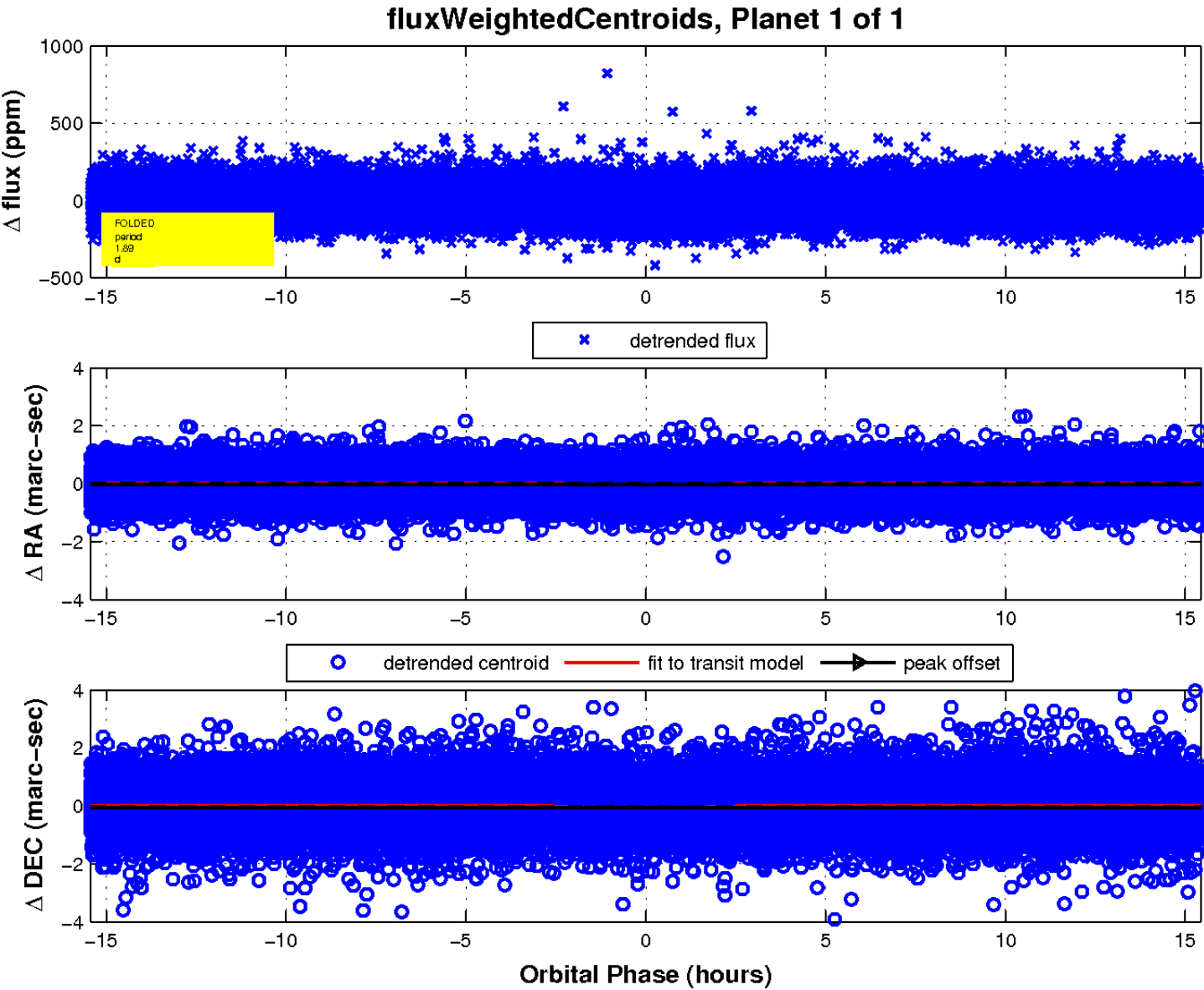
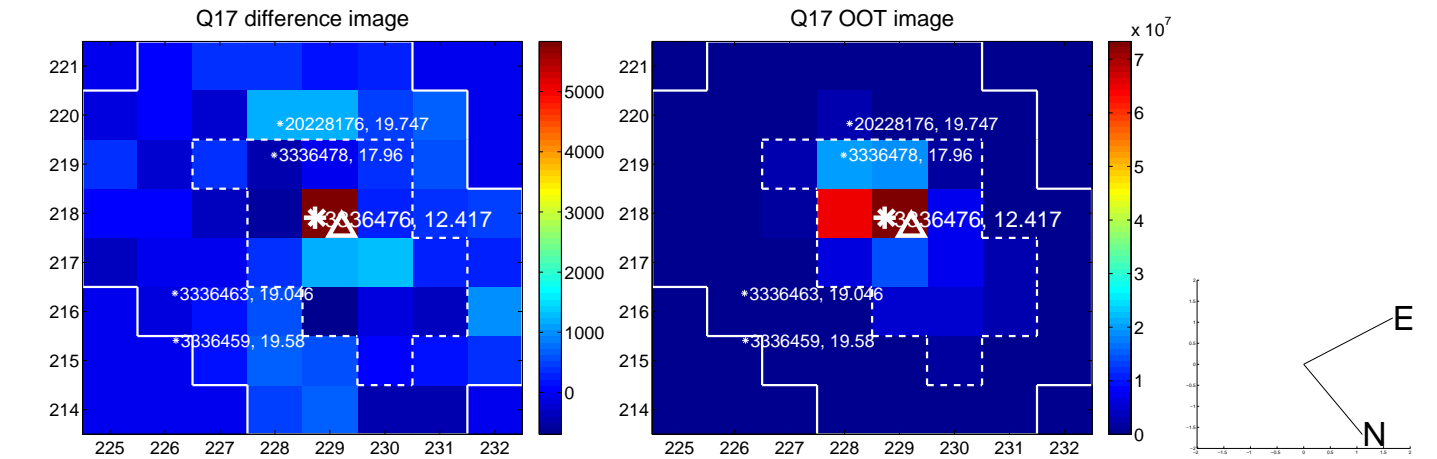
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

