

KIC 003633806

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})
003633806-01	OBS	No	1.966163	133.325916	9.6	11.809	7.7	6.0	1.36	5631	0.42	1966.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003633806-01	OBS	FP	0.00	1	0	0	0	LPP_DV

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

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

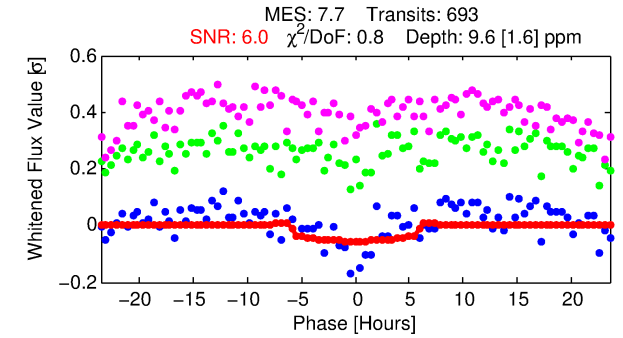
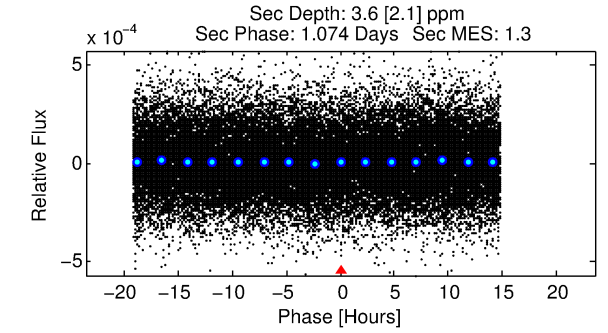
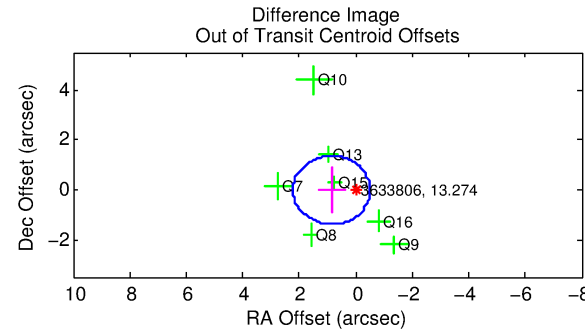
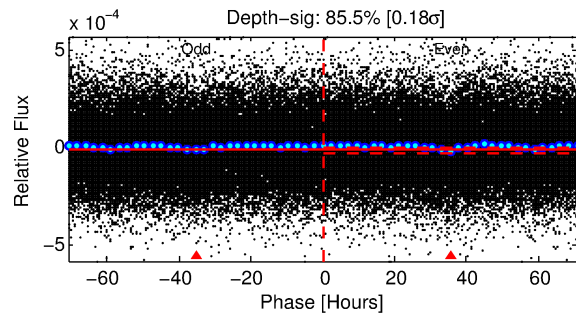
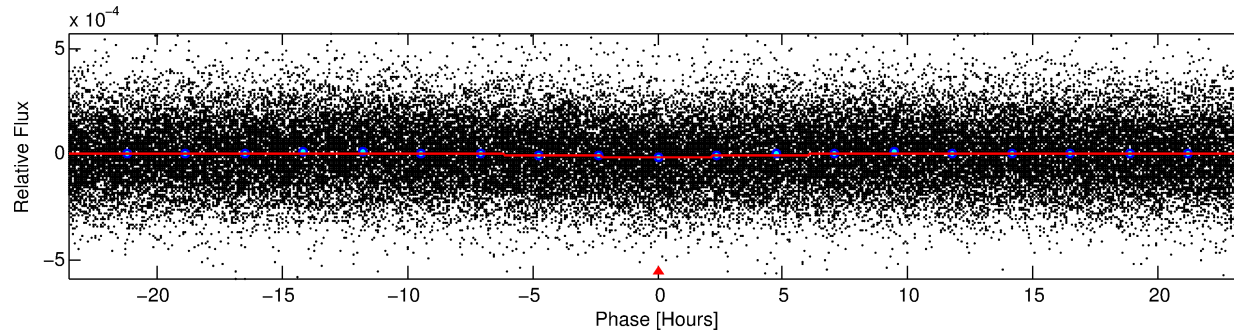
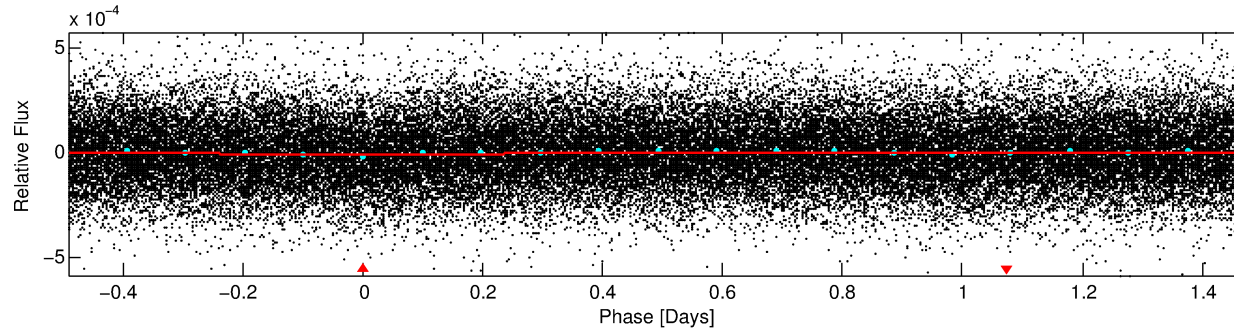
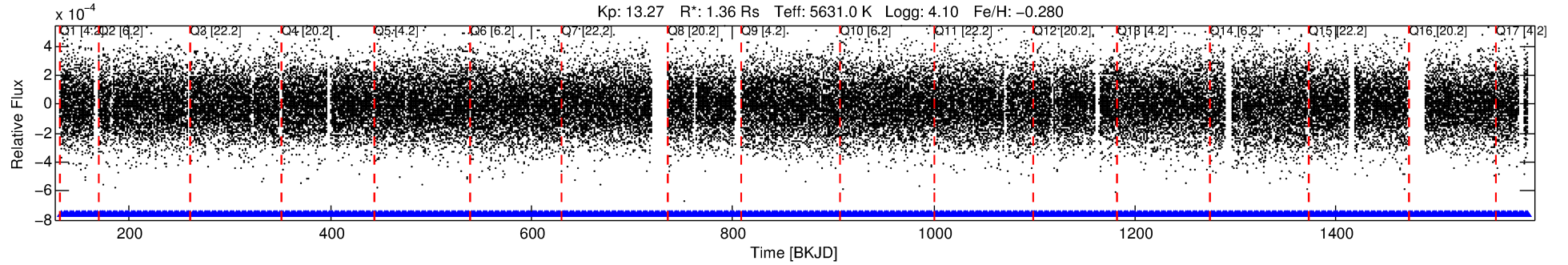
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003633806-01

No Significant Match Found

DV One-Page Summary

KIC: 3633806 Candidate: 1 of 1 Period: 1.966 d



DV Fit Results:

Period = 1.96616 [0.00006] d
Epoch = 133.3259 [0.0179] BKJD
Rp/R* = 0.0028 [0.0057]
a/R* = 1.40 [6.12]
b = 0.23 [37.71]
Seff = 1966.30 [1417.27]
Teq = 1698 [306] K
Rp = 0.42 [0.87] Re
a = 0.0291 [0.0126] AU
Ag = 9.51 [39.57] [0.22 σ]
Teffp = 4610 [4726] K [0.61 σ]

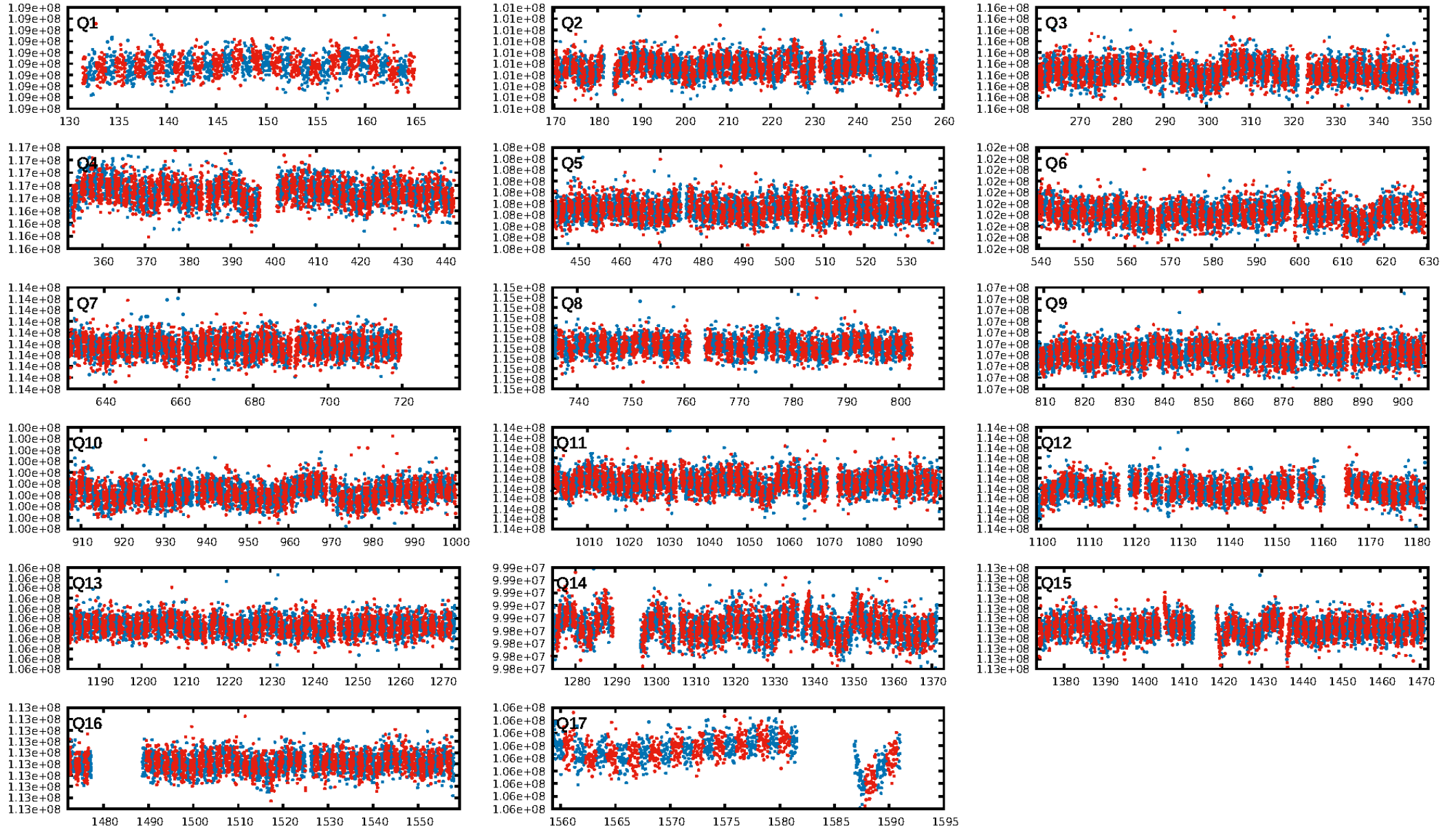
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.28e-09
RollingBand-fgt: 1.00 [662/662]
GhostDiagnostic-chr: 4.868
Centroid-sig: 0.0%
Centroid-so: 7.320 arcsec [3.23 σ]
OotOffset-rm: 0.860 arcsec [1.88 σ]
KicOffset-rm: 0.907 arcsec [1.56 σ]
OotOffset-st: 1/2/2/2 [7]
KicOffset-st: 1/2/2/2 [7]
DiffImageQuality-fgm: 0.71 [5/7]
DiffImageOverlap-fno: 1.00 [17/17]

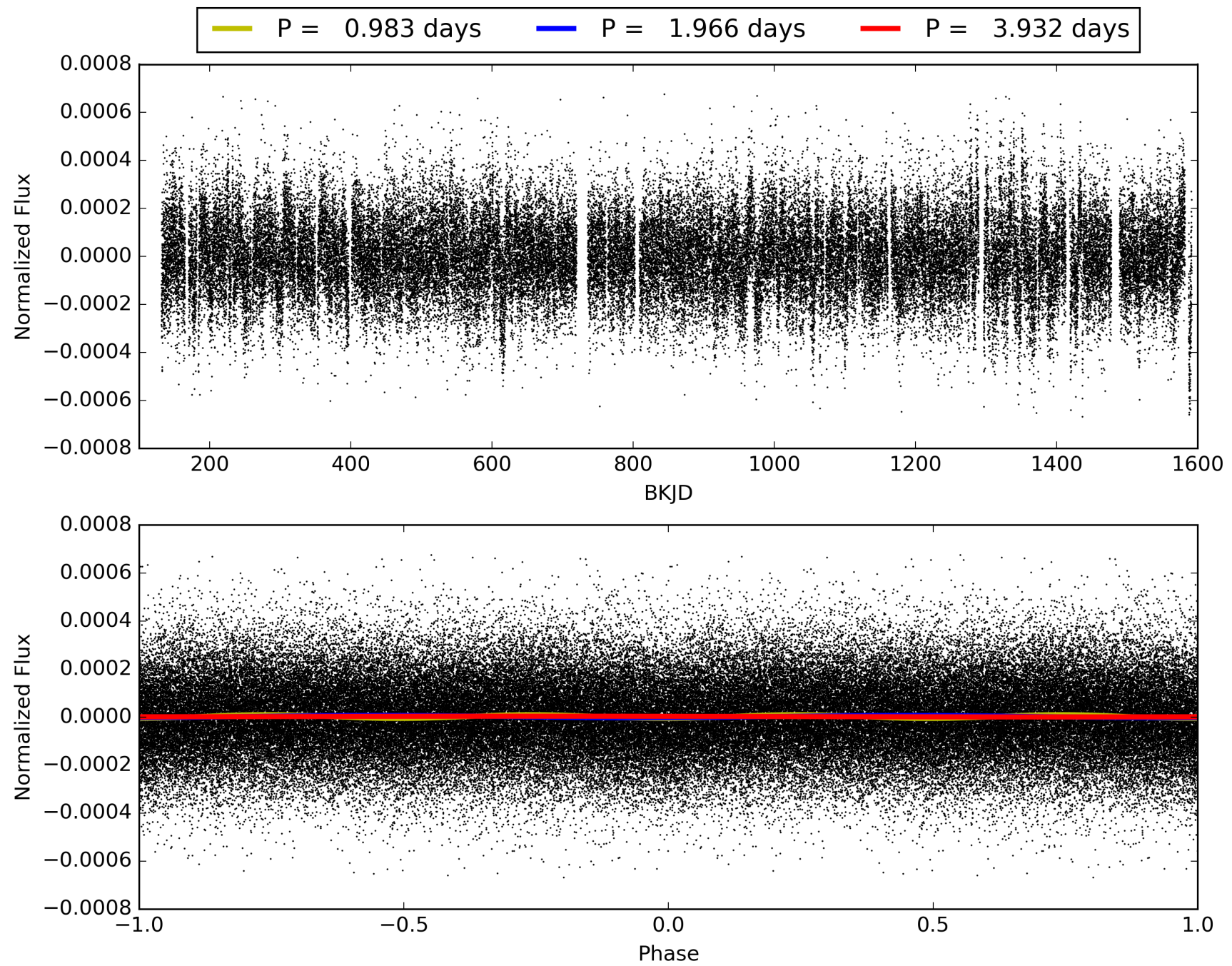
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 18:06:46 Z

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

TCE 003633806-01, PDC Light Curves

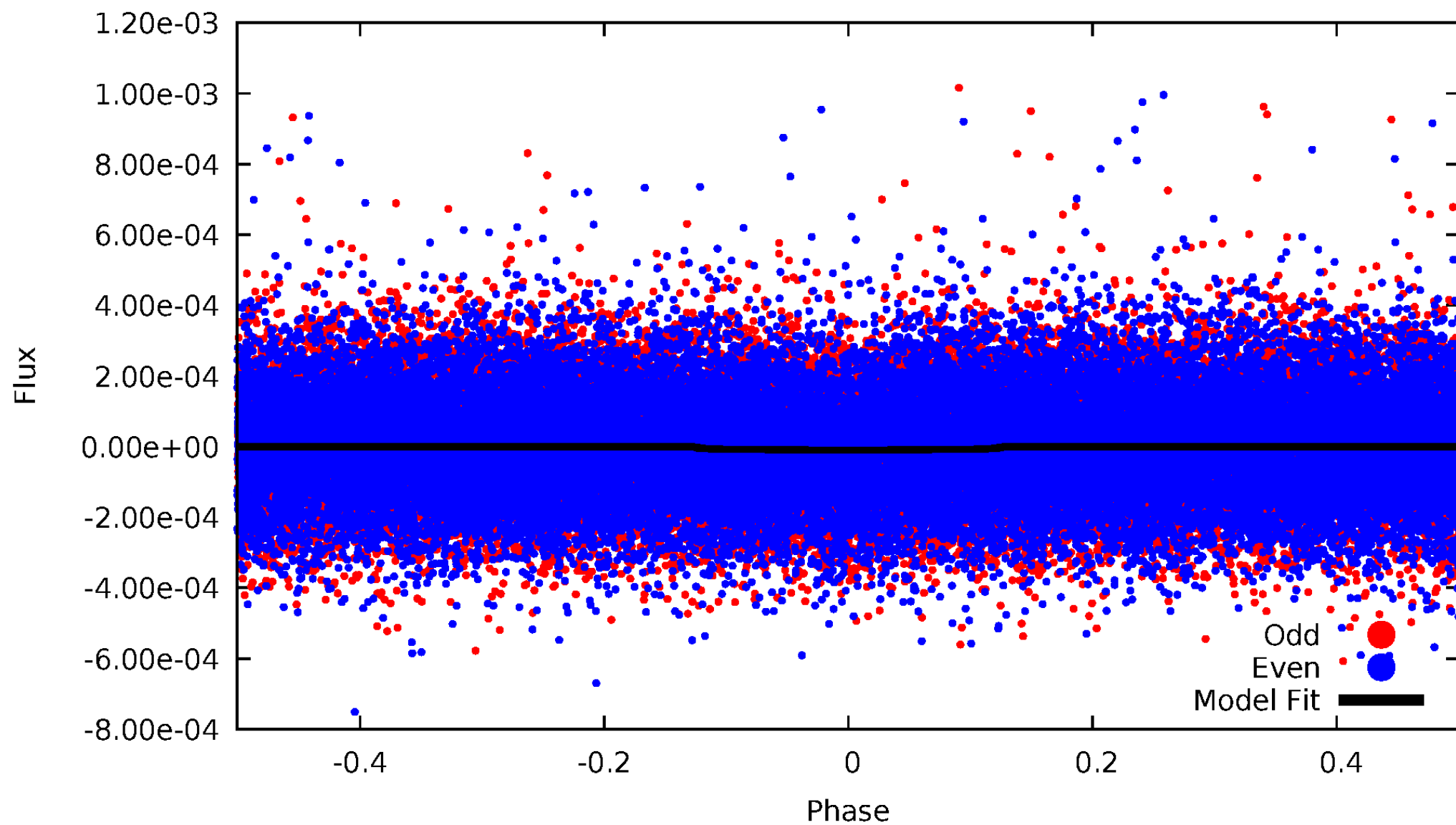


TCE 003633806-01



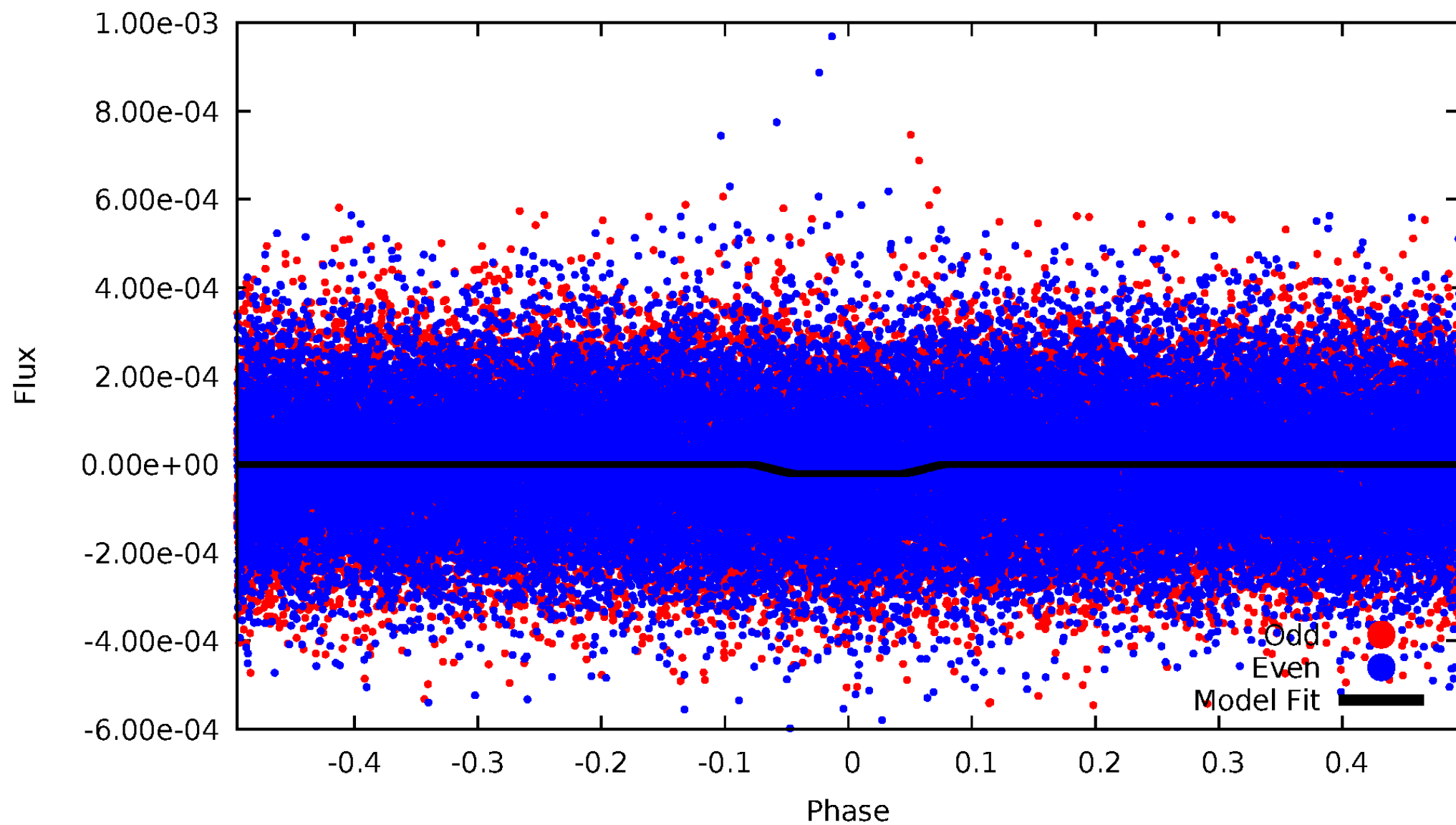
DV Odd/Even

TCE 003633806-01



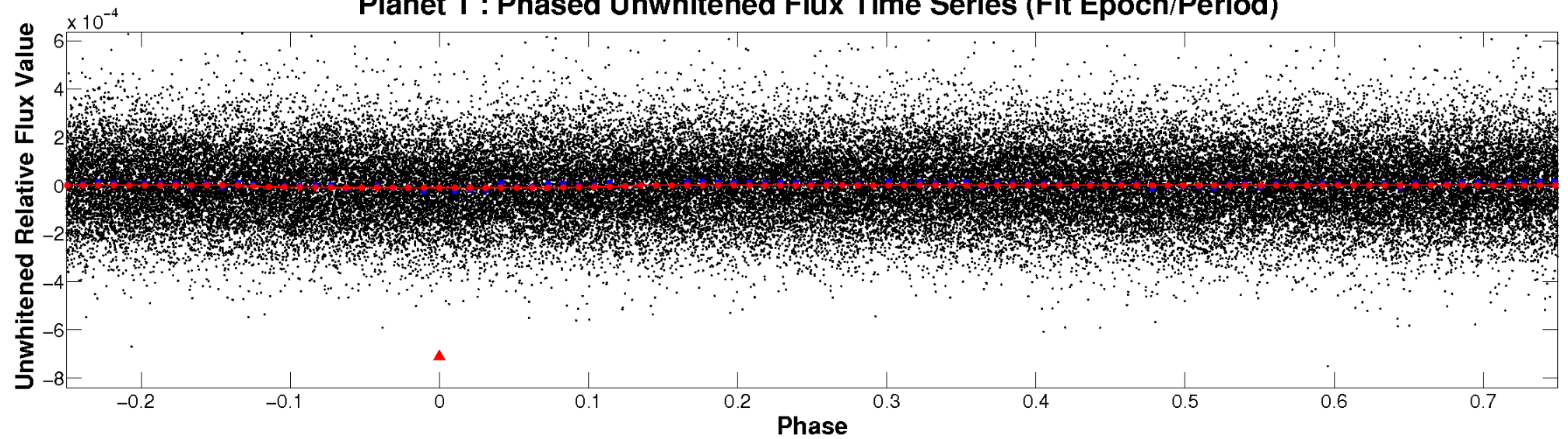
ALT Odd/Even

TCE 003633806-01

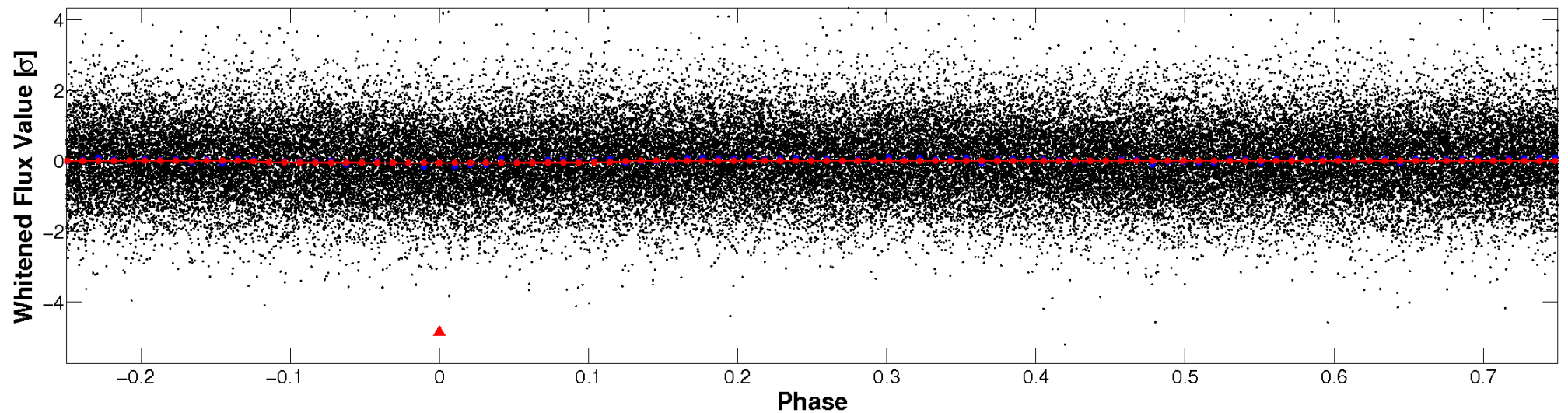


Non-Whitened Vs. Whitened Light Curve

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

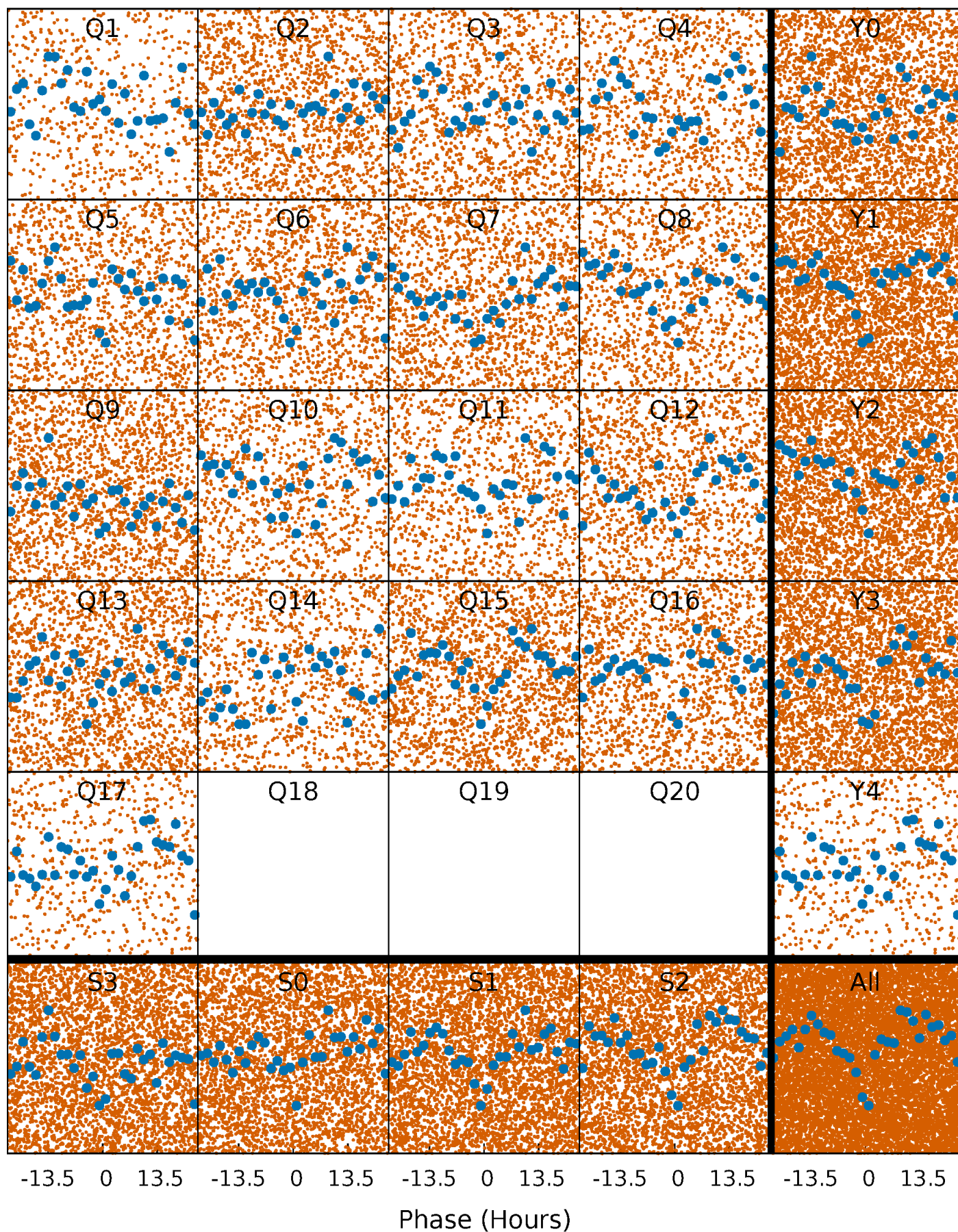


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



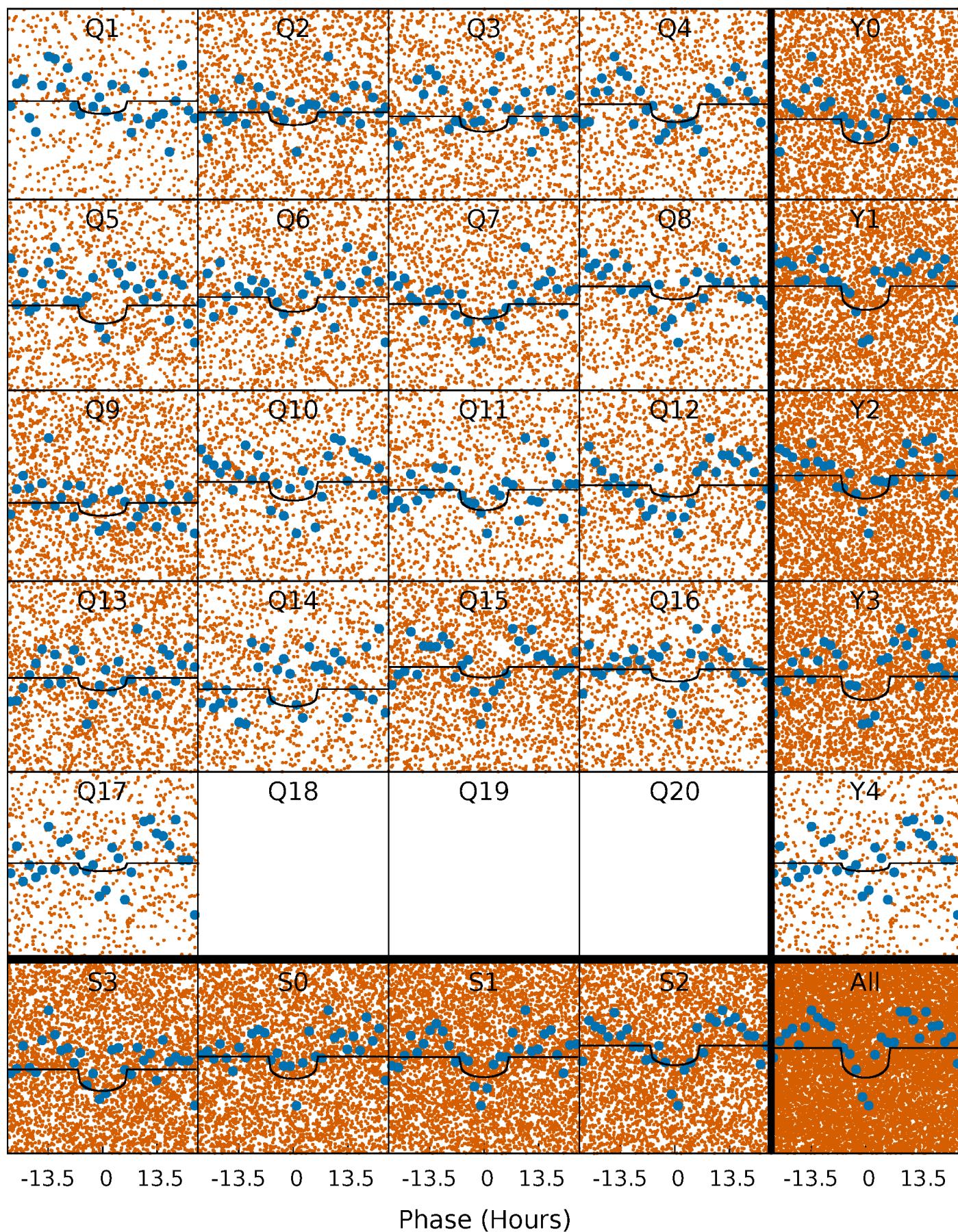
PDC Quarter-Phased Transit Curves

TCE 003633806-01 P= 1.966163 Days $T_0=133.325916$ (BKJD)



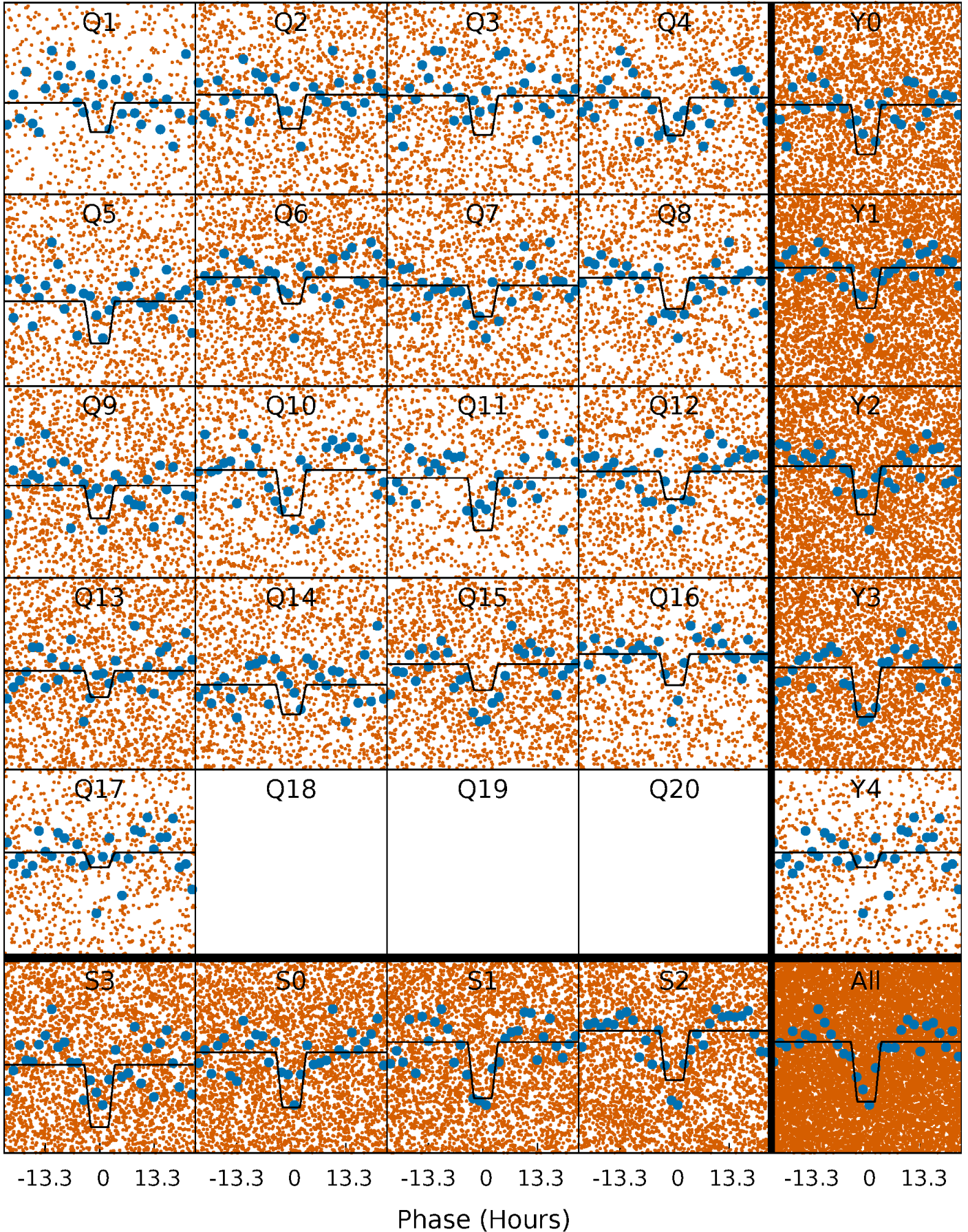
DV Quarter-Phased Transit Curves

TCE 003633806-01 P= 1.966163 Days $T_0=133.325916$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

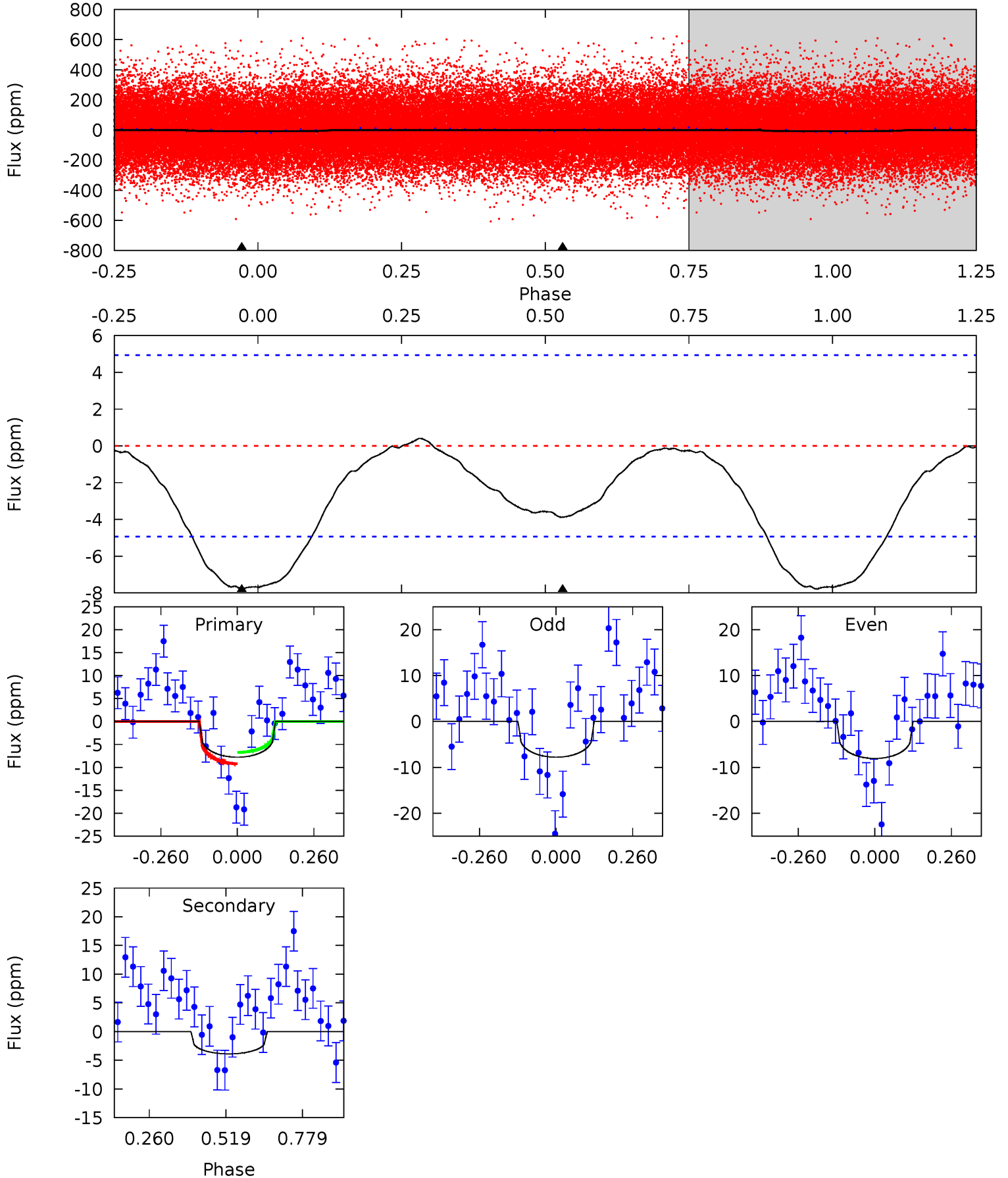
TCE 003633806-01 P= 1.966291 Days $T_0=133.256531$ (BKJD)



DV Model-Shift Uniqueness Test

003633806-01, P = 1.966163 Days, E = 131.359753 Days

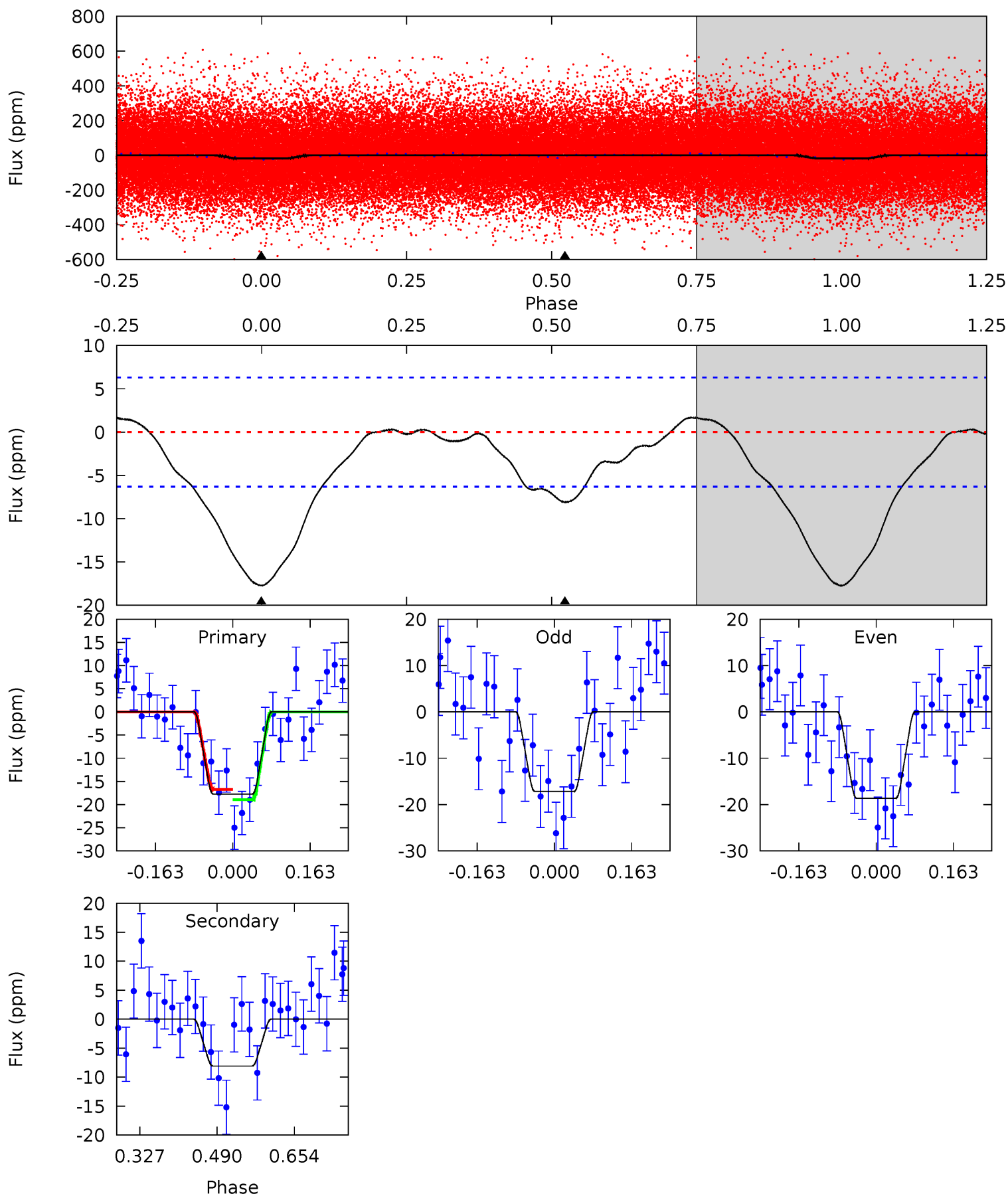
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.88	3.43	0	0	4.36	1.13	0.26	6.88	6.88	3.43	3.43	0.12	0.85	0.05	1.09



Alt Model-Shift Uniqueness Test

003633806-01, P = 1.966291 Days, E = 131.290240 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.6	5.73	0	0	4.46	1.39	0.67	12.6	12.6	5.73	5.73	0.52	1.11	0.09	0.78



Stellar Parameters For KIC 003633806

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5631^{+152}_{-152}	$4.101^{+0.427}_{-0.183}$	$-0.280^{+0.350}_{-0.250}$	$1.361^{+0.428}_{-0.571}$	$0.853^{+0.107}_{-0.078}$	$0.477^{+1.541}_{-0.262}$
	+3%/-3%	+10%/-4%	+125%/-89%	+31%/-42%	+13%/-9%	+323%/-55%
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 003633806-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-4 ± 1	$0.67^{+0.69}_{-0.49}$	2328^{+226}_{-301}	3791^{+2790}_{-856}	$3.884^{+44.892}_{-2.968}$
Alt.	-8 ± 1	$0.84^{+0.79}_{-0.54}$	2343^{+196}_{-299}	4053^{+2503}_{-799}	$5.326^{+37.291}_{-3.911}$

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

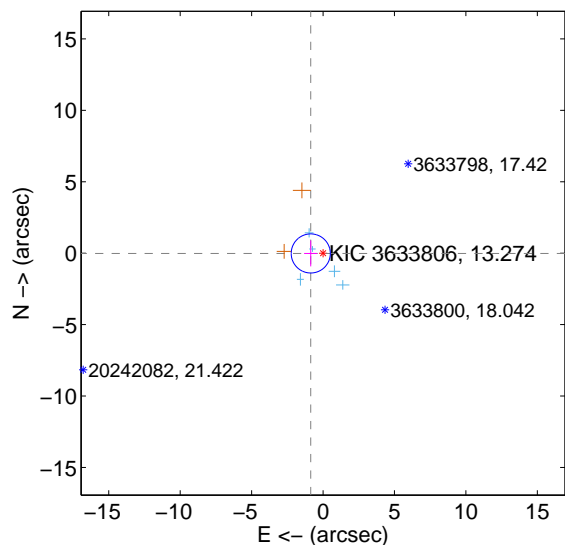
Supplemental centroid analysis for 003633806-01. Kepler magnitude: 13.27. Transit SNR 6.02

There are 5 quarters with good PRF difference image offsets

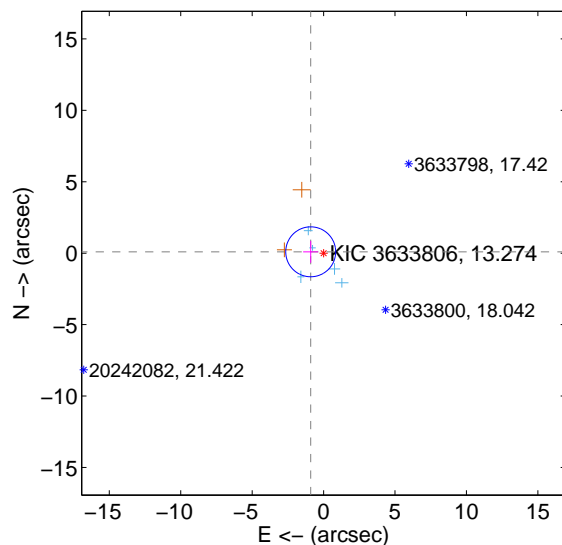
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.860 ± 0.456	1.88	0.859 ± 0.464	-0.019 ± 0.910
PRF-fit source offset from KIC position	0.907 ± 0.583	1.56	0.902 ± 0.533	0.096 ± 0.769
photometric centroid source offset	7.32 ± 2.27	3.23	5.56 ± 2.01	-4.76 ± 2.57

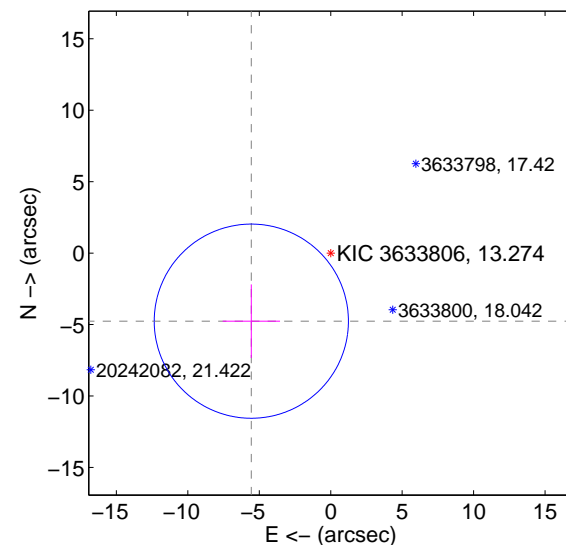
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

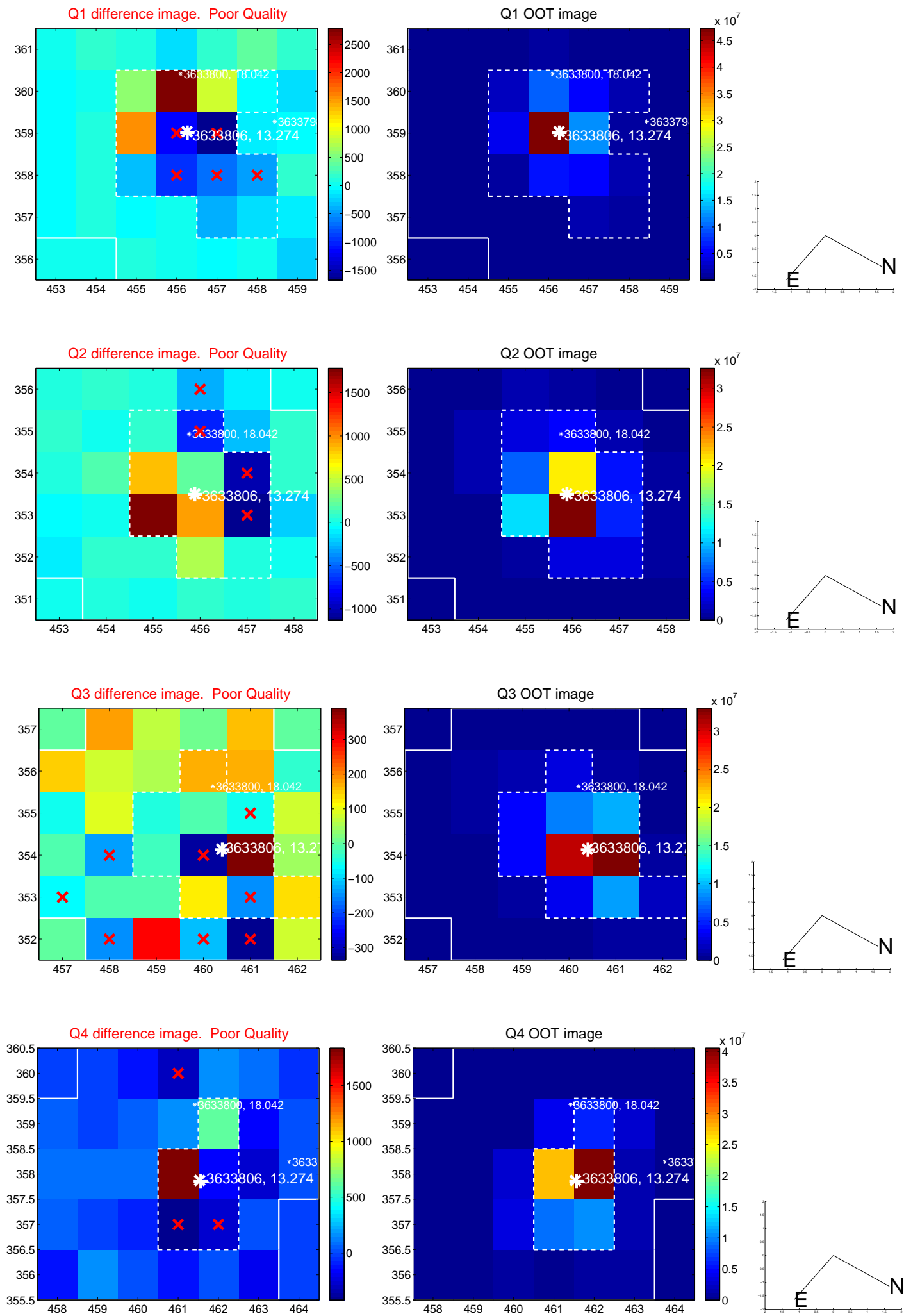


offset from photometric centroids

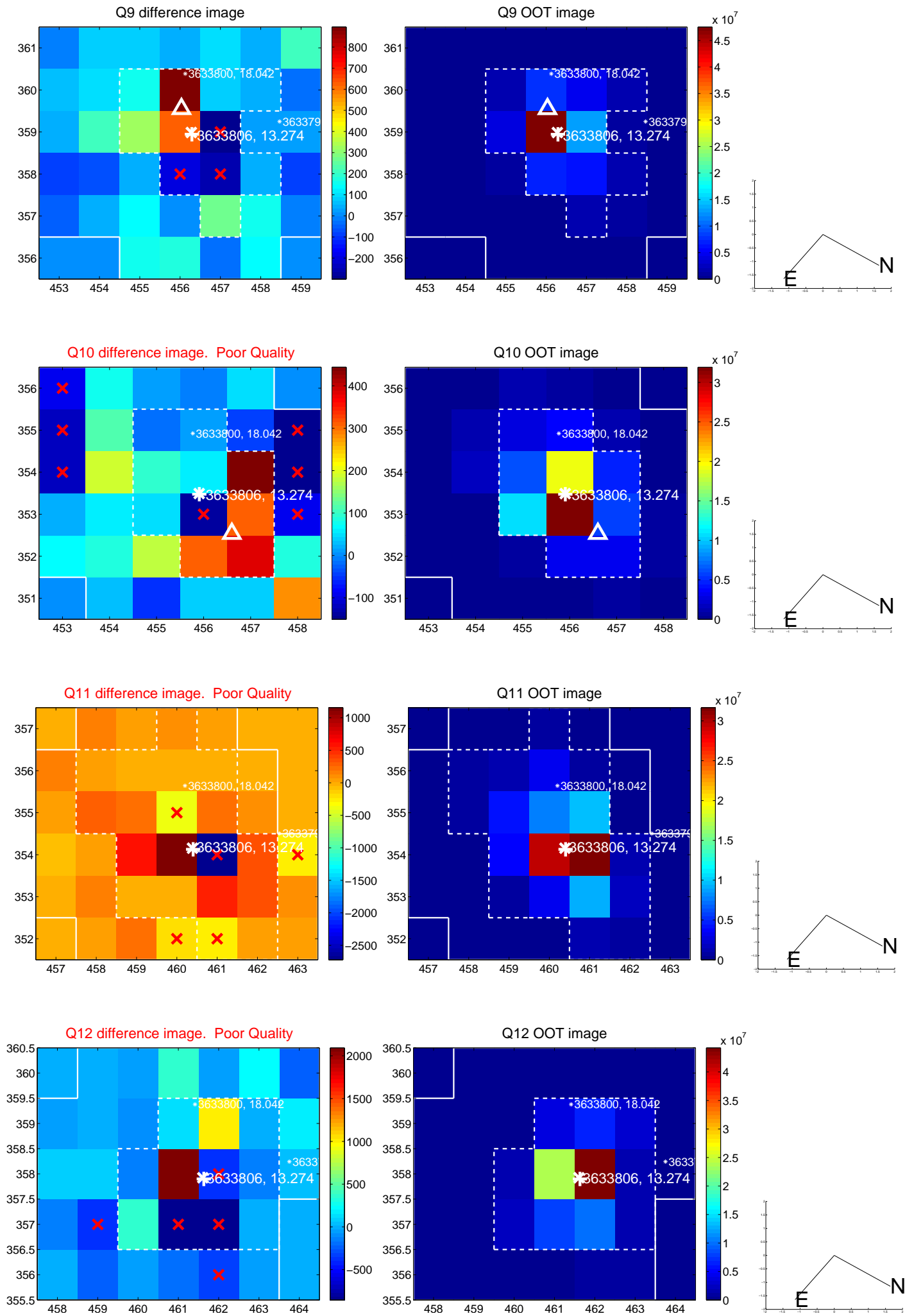


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

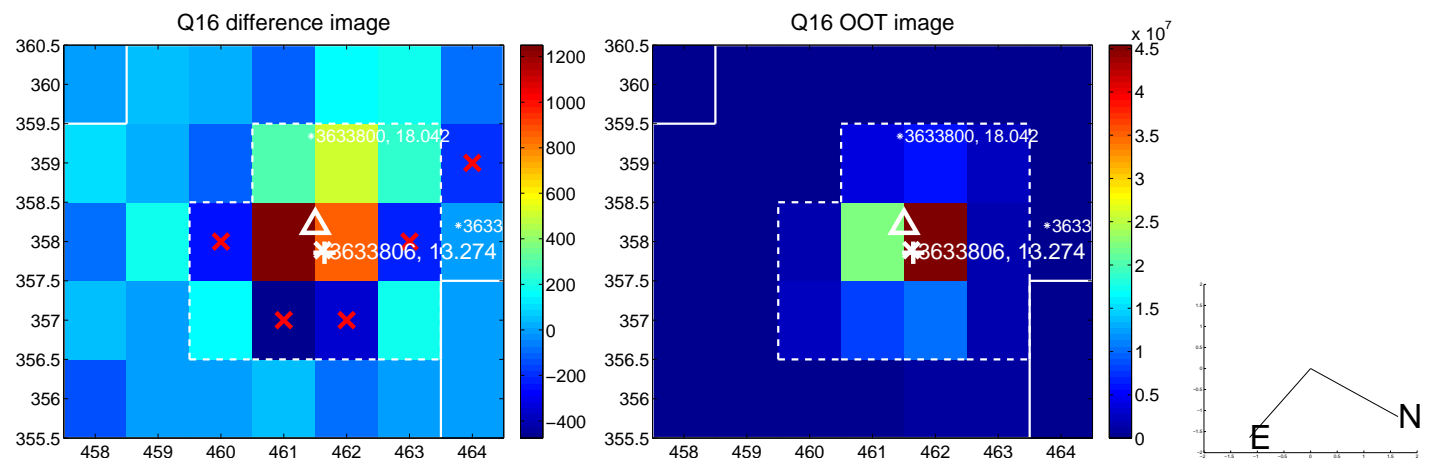
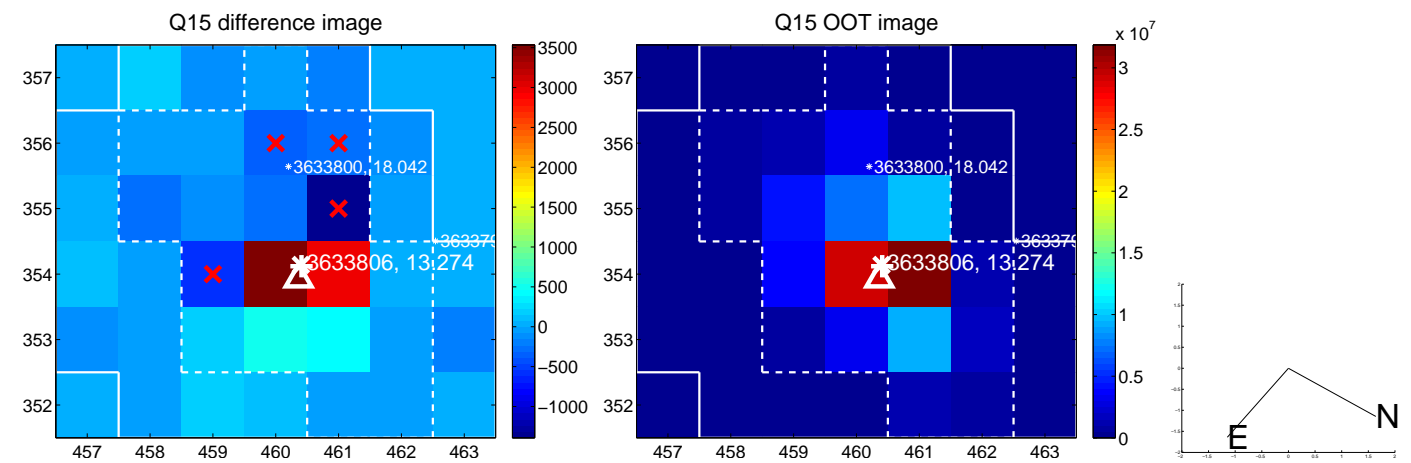
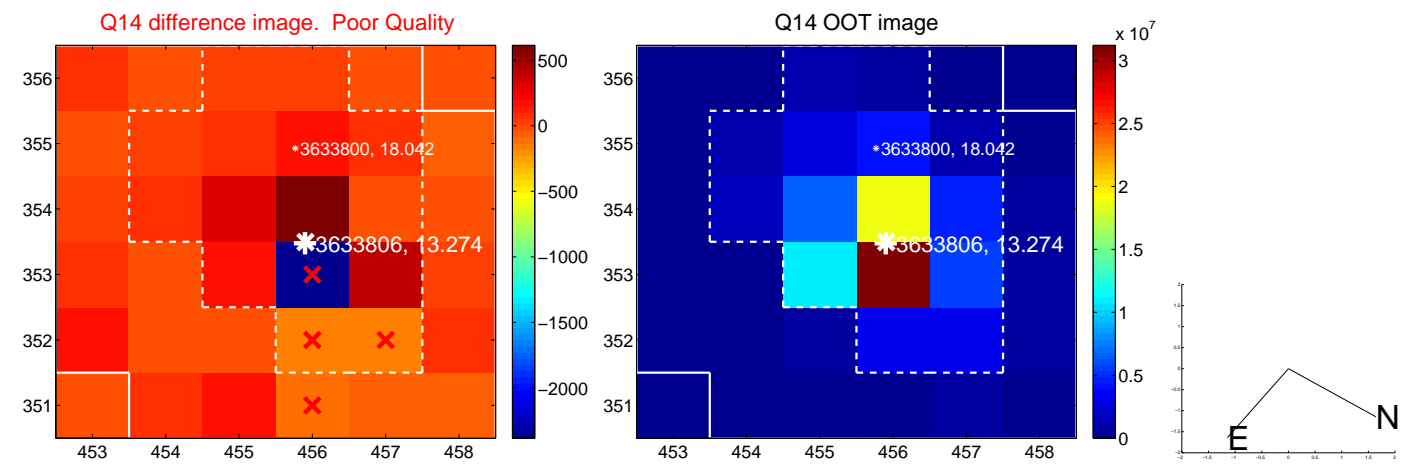
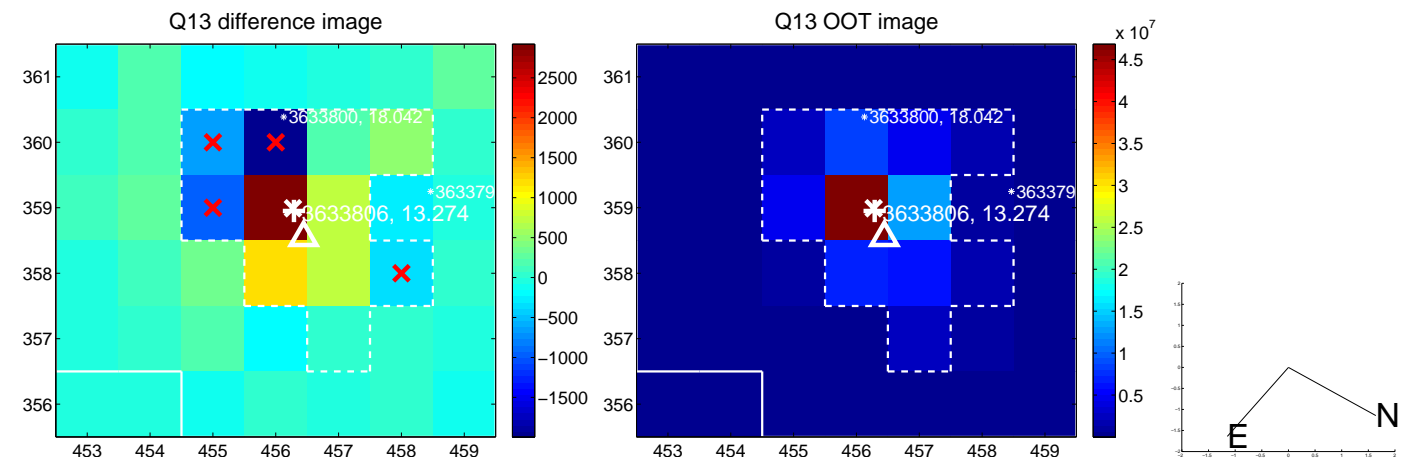
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



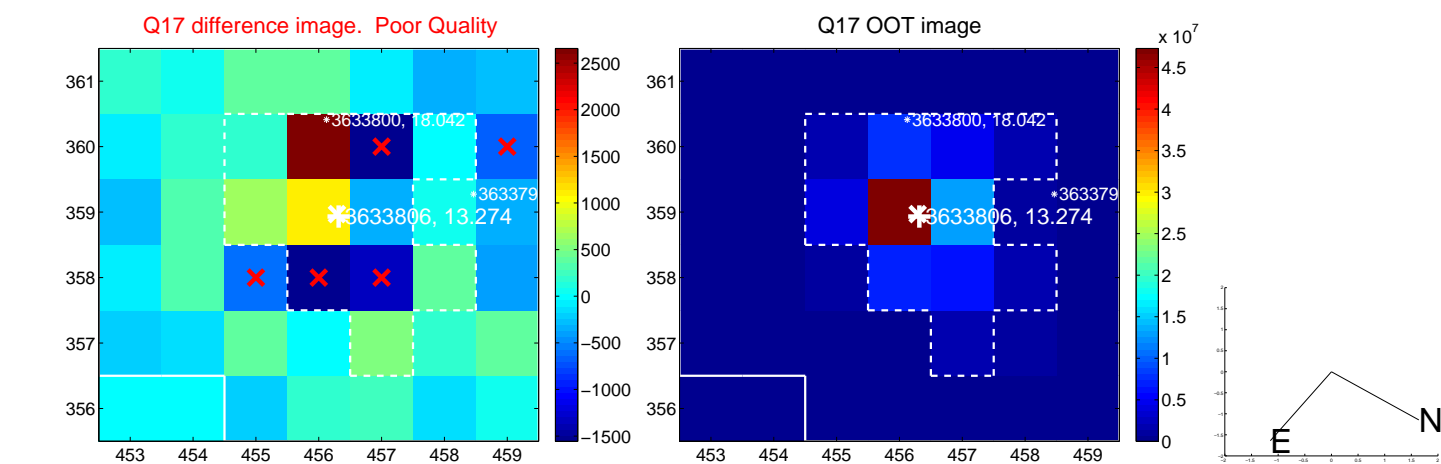
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



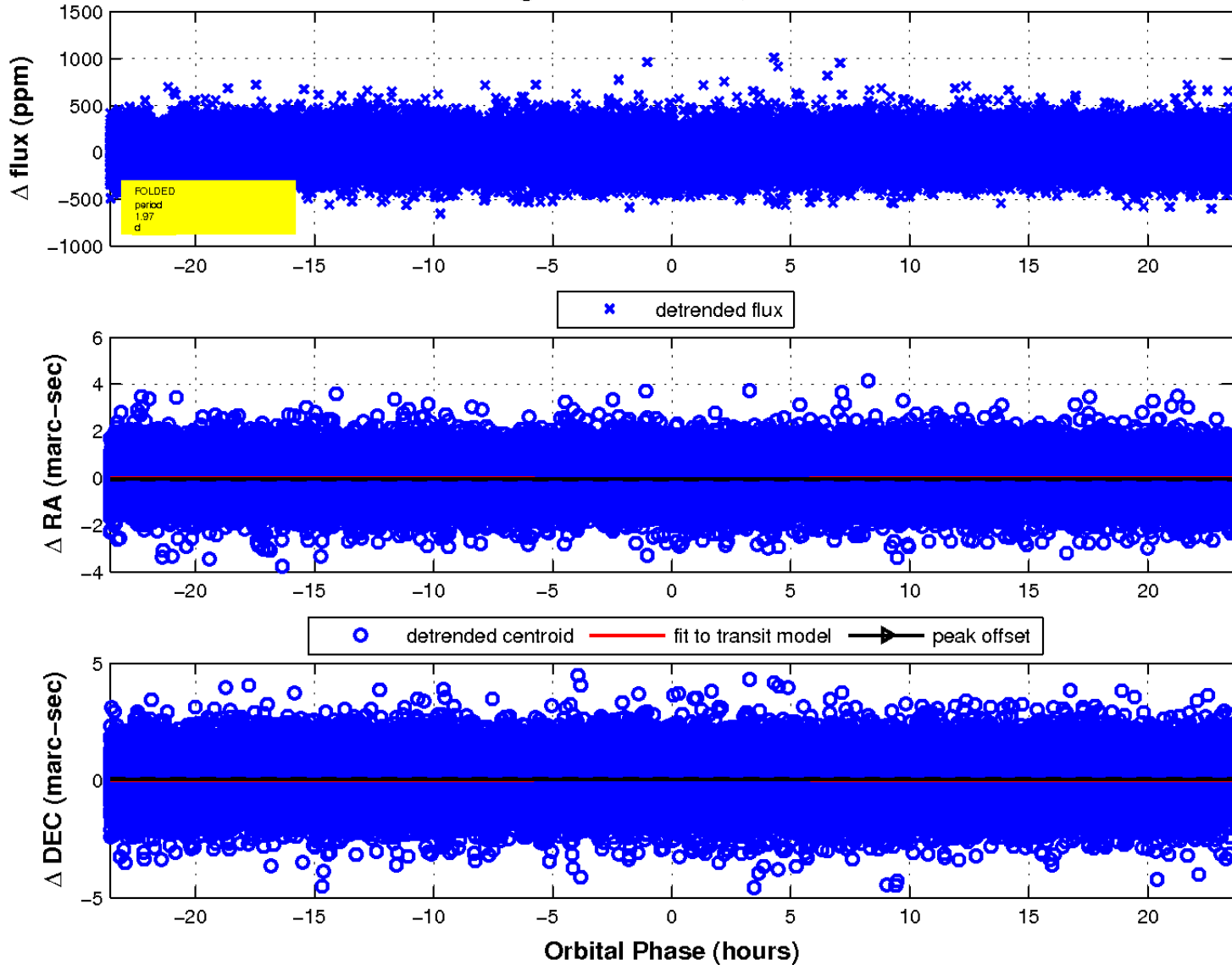
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

