

KIC 012061238

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})
012061238-01	OBS	1502.01	1.876411	133.126956	414.5	1.636	31.6	36.1	0.76	5198	1.87	478.59

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
012061238-01	OBS	FP	0.00	0	0	1	0	CENT_UNRESOLVED_OFFSET

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 012061238-01

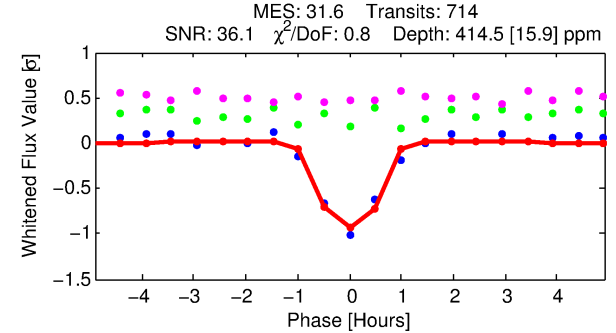
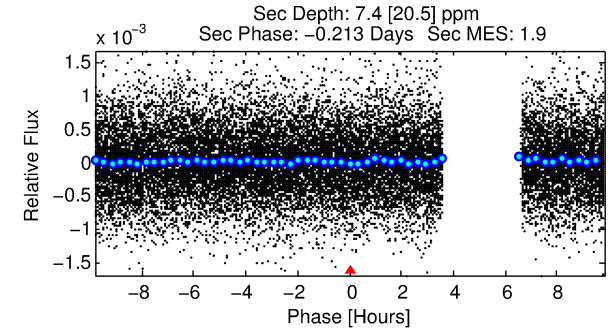
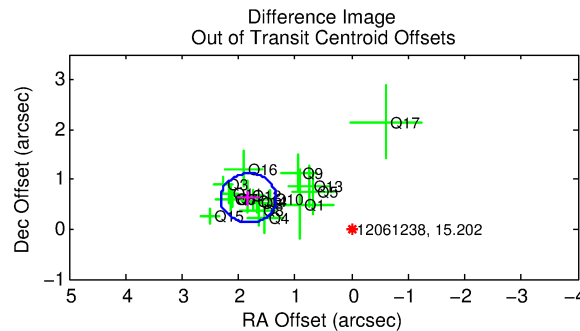
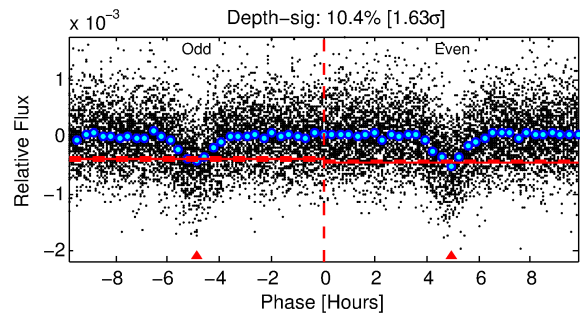
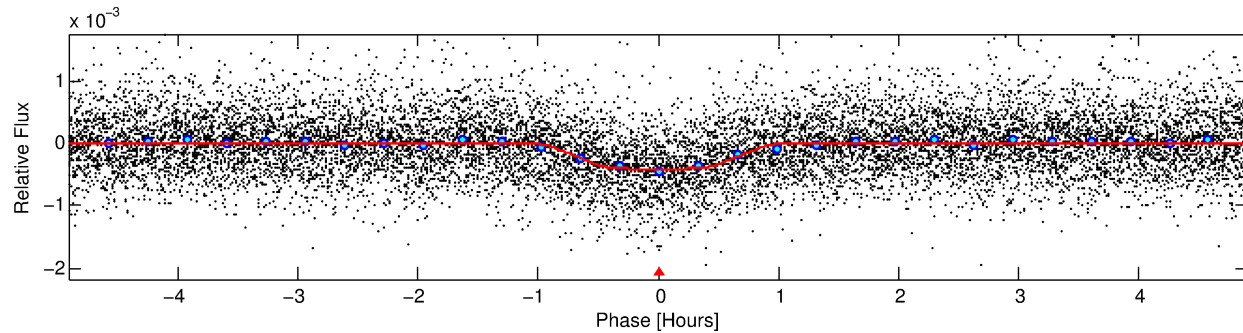
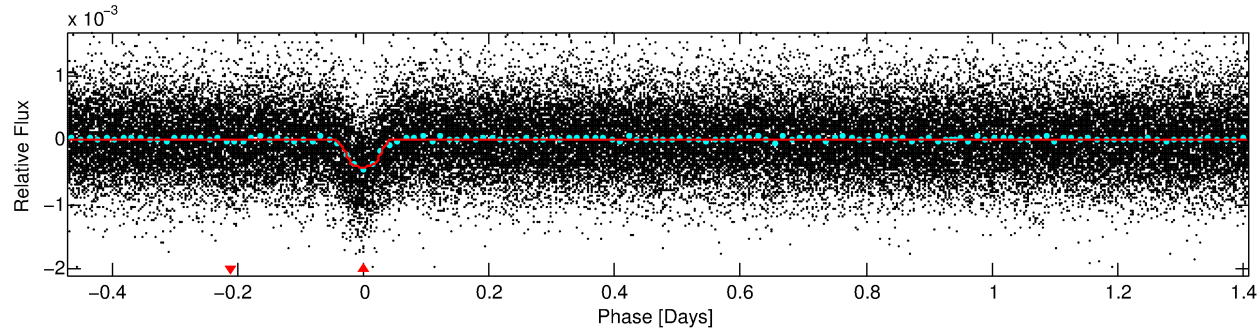
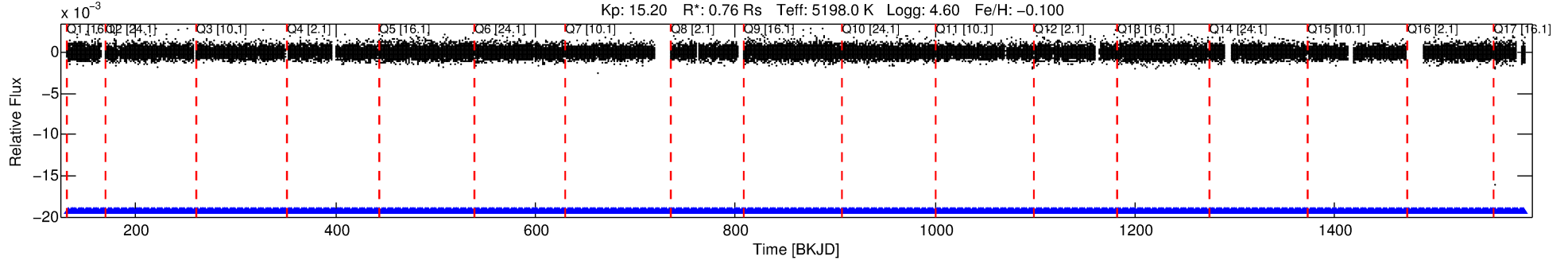
No Significant Match Found

DV One-Page Summary

KIC: 12061238 Candidate: 1 of 1 Period: 1.876 d

KOI: K01502.01 Corr: 0.983

Kp: 15.20 R*: 0.76 Rs Teff: 5198.0 K Logg: 4.60 Fe/H: -0.100



DV Fit Results:

Period = 1.87641 [0.00000] d
Epoch = 133.1270 [0.0007] BKJD
Rp/R* = 0.0226 [0.0048]
a/R* = 4.36 [3.62]
b = 0.90 [0.19]
Seff = 478.59 [101.34]
Teq = 1193 [63] K
Rp = 1.87 [0.48] Re
a = 0.0281 [0.0033] AU
Ag = 0.92 [2.56] [-0.03σ]
Teffp = 1805 [1257] K [0.49σ]

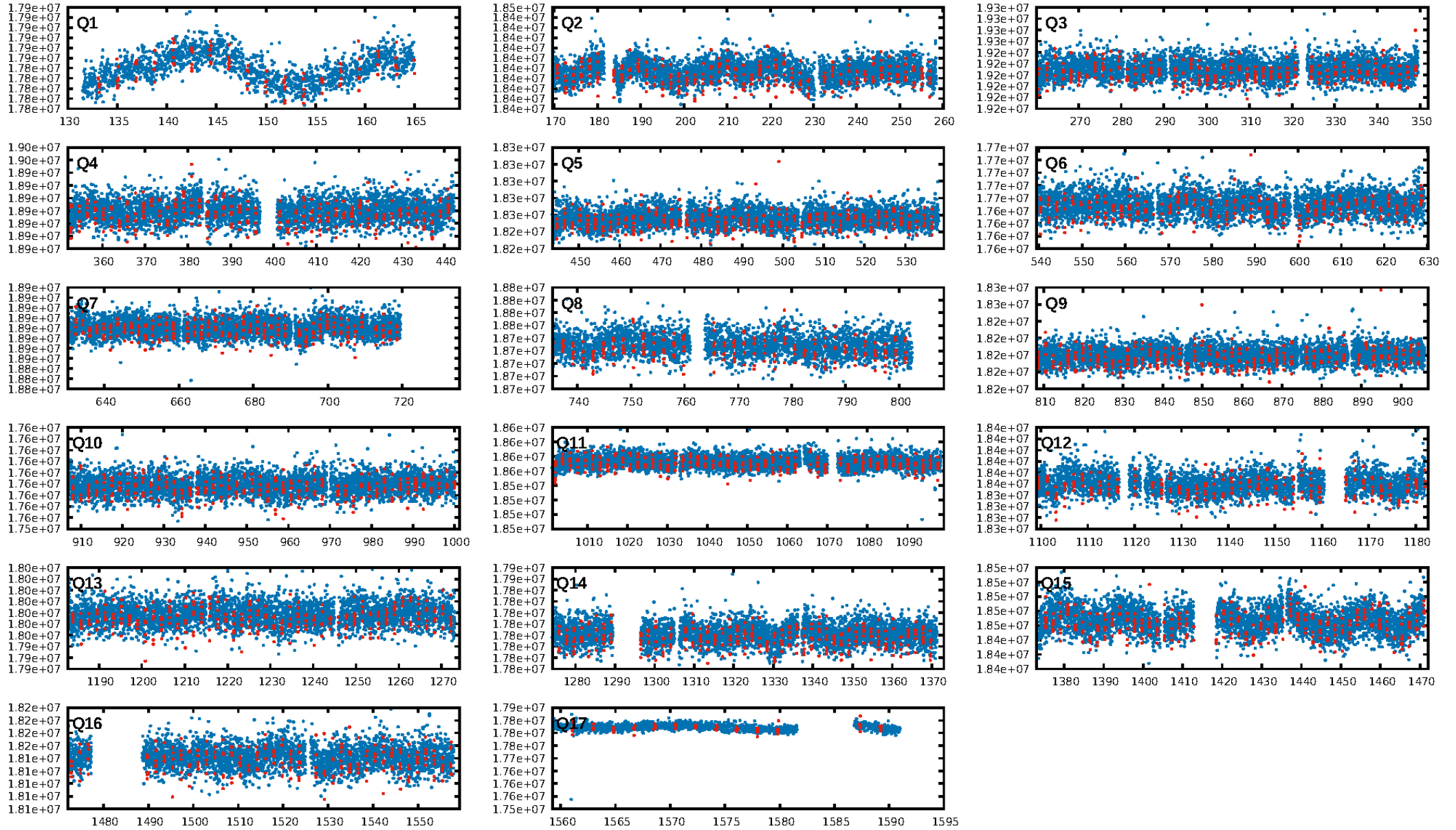
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.78e-213
RollingBand-fgt: 1.00 [683/683]
GhostDiagnostic-chr: 1.988
Centroid-sig: 0.0%
Centroid-so: 3.311 arcsec [9.41σ]
OotOffset-rm: 1.929 arcsec [11.74σ]
KicOffset-rm: 2.100 arcsec [19.00σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

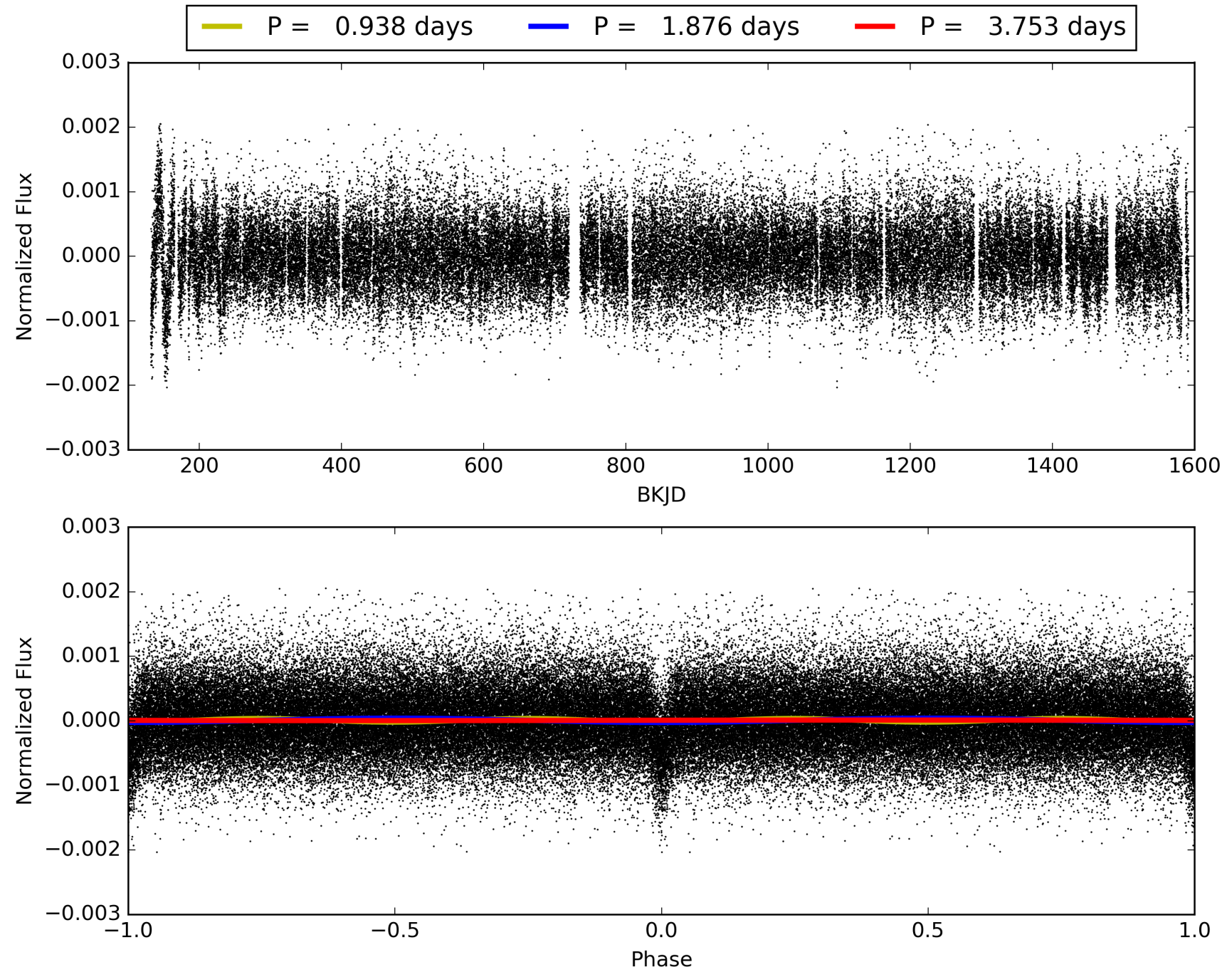
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 01:13:00 Z

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

TCE 012061238-01, PDC Light Curves

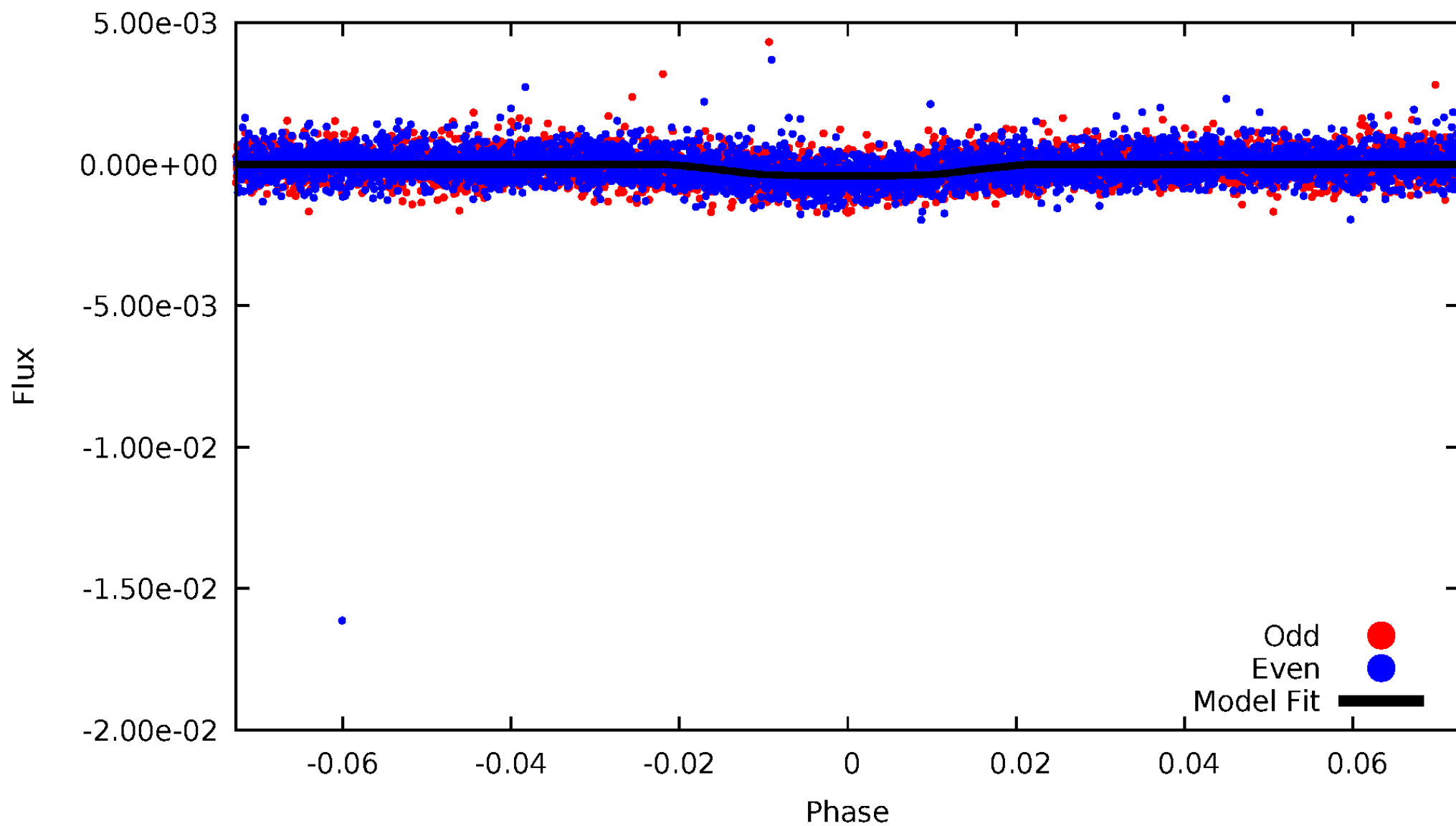


TCE 012061238-01



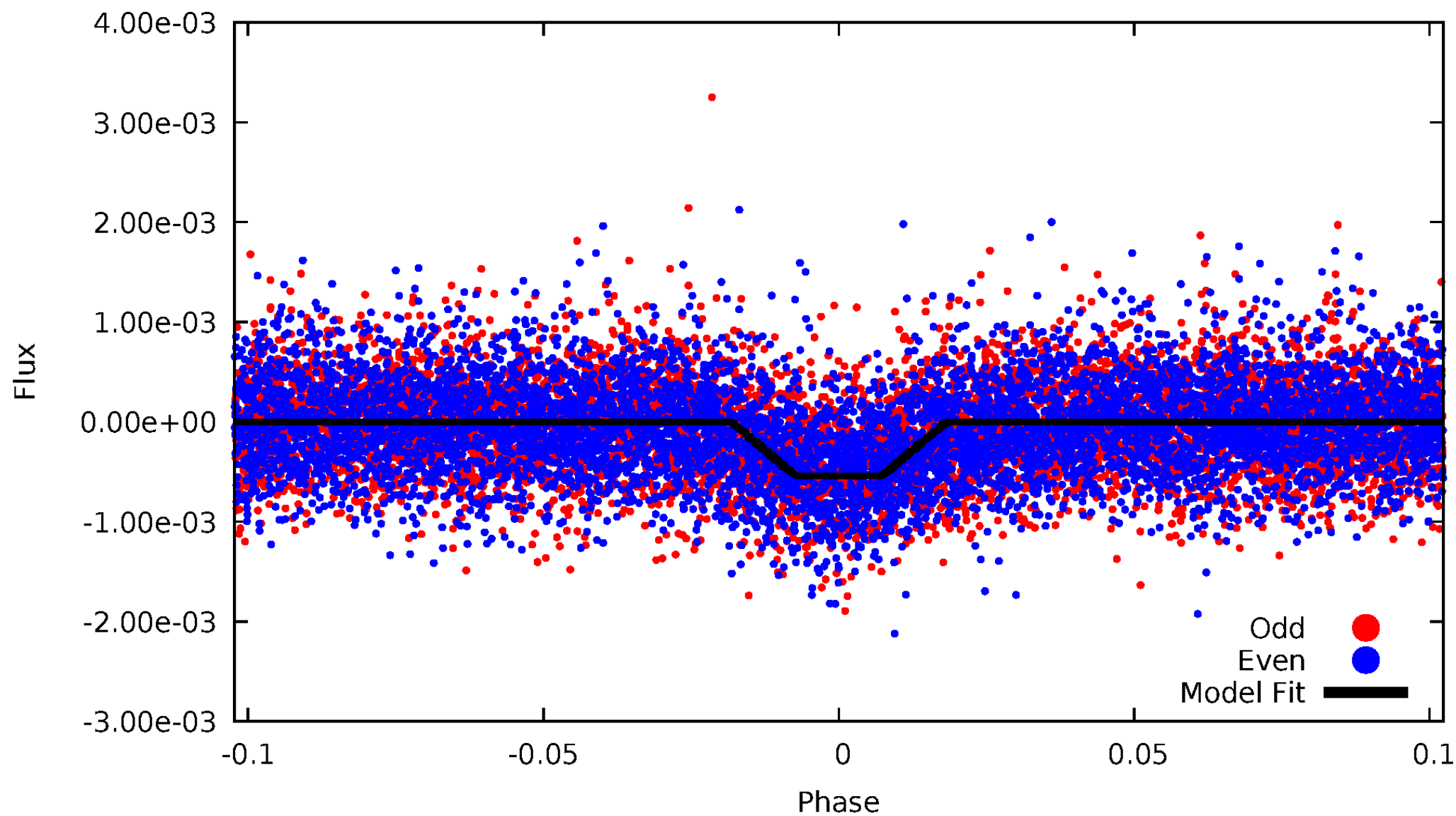
DV Odd/Even

TCE 012061238-01

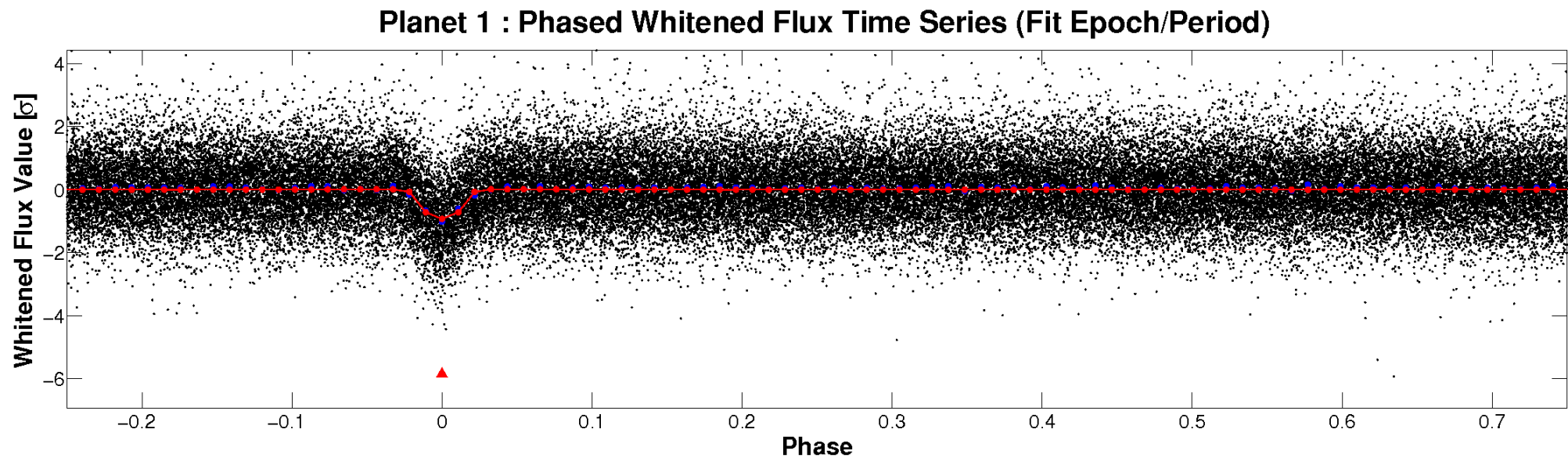
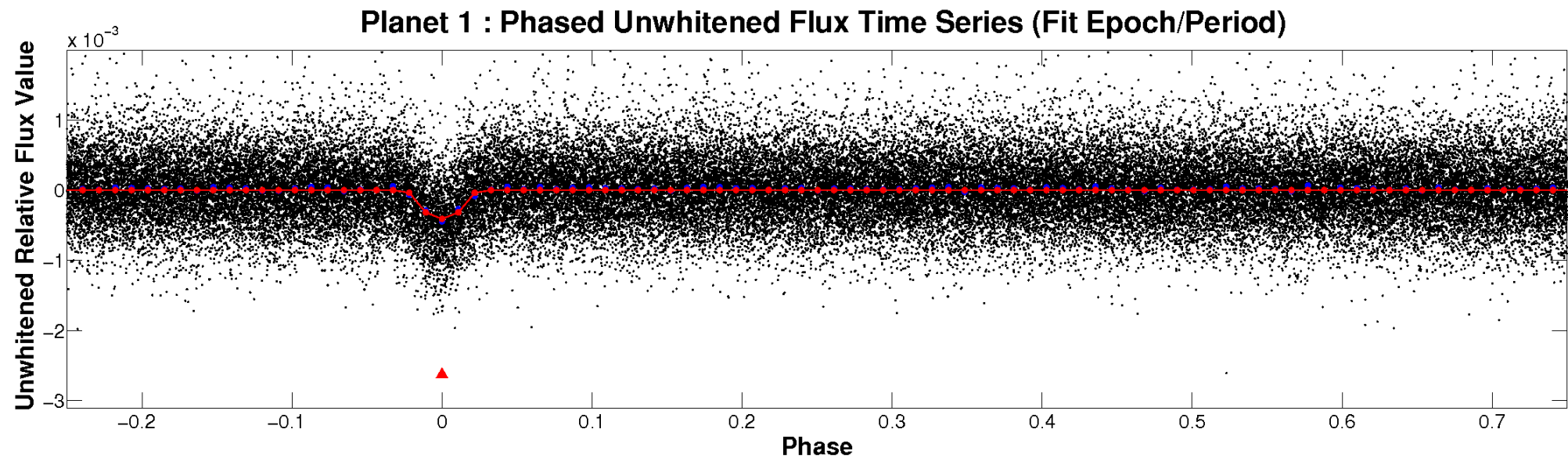


ALT Odd/Even

TCE 012061238-01

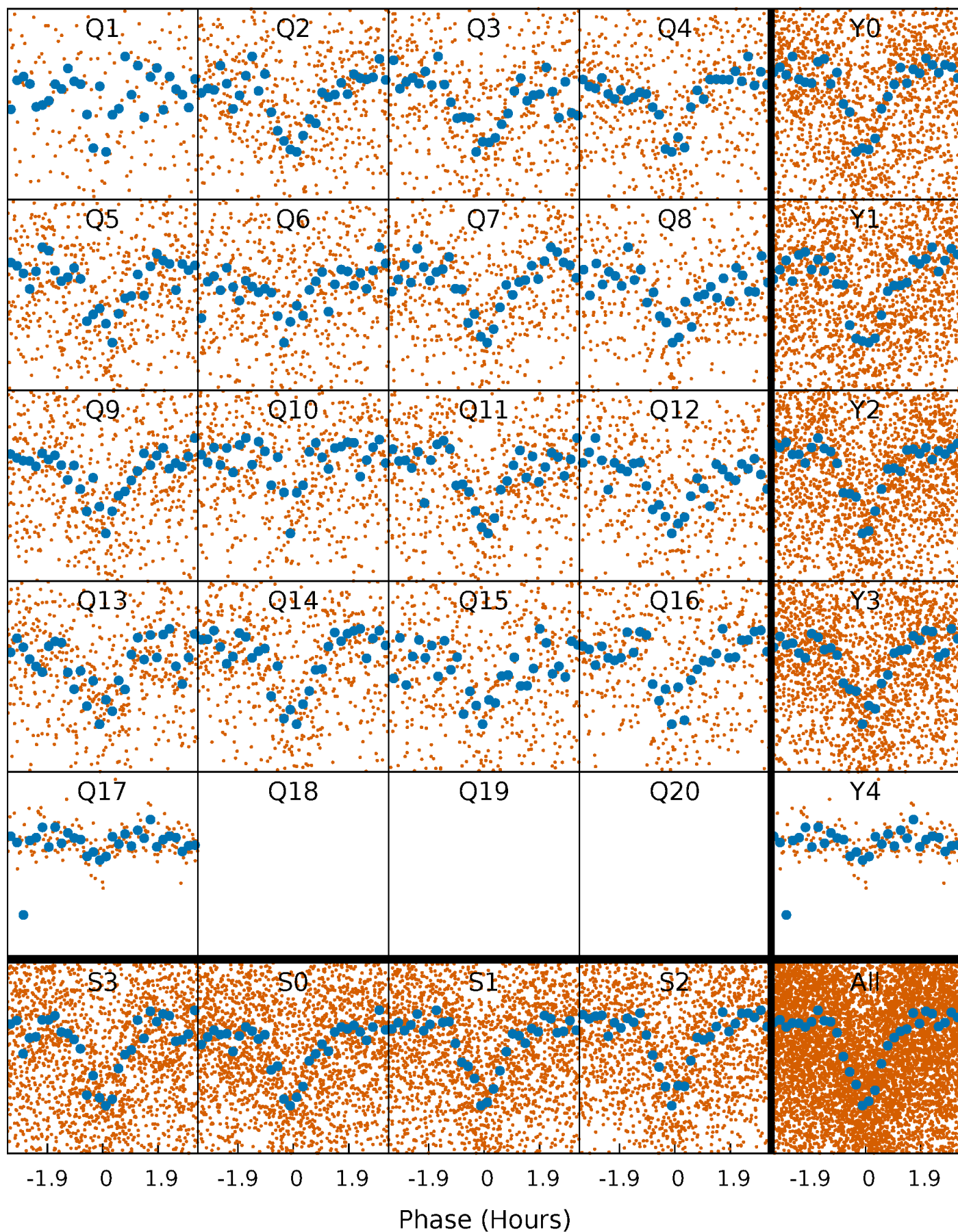


Non-Whitened Vs. Whitened Light Curve



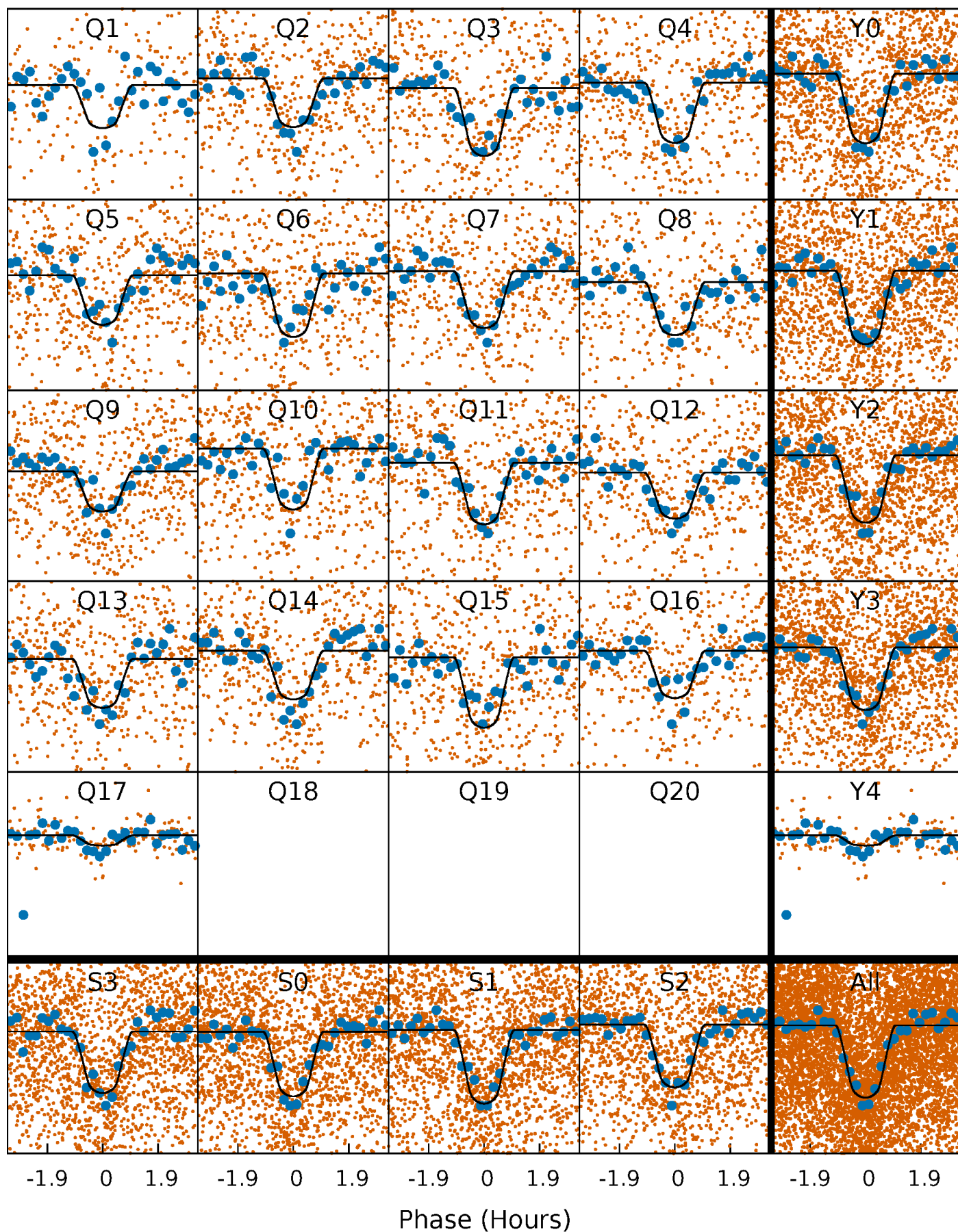
PDC Quarter-Phased Transit Curves

TCE 012061238-01 P= 1.876411 Days $T_0=133.126956$ (BKJD)



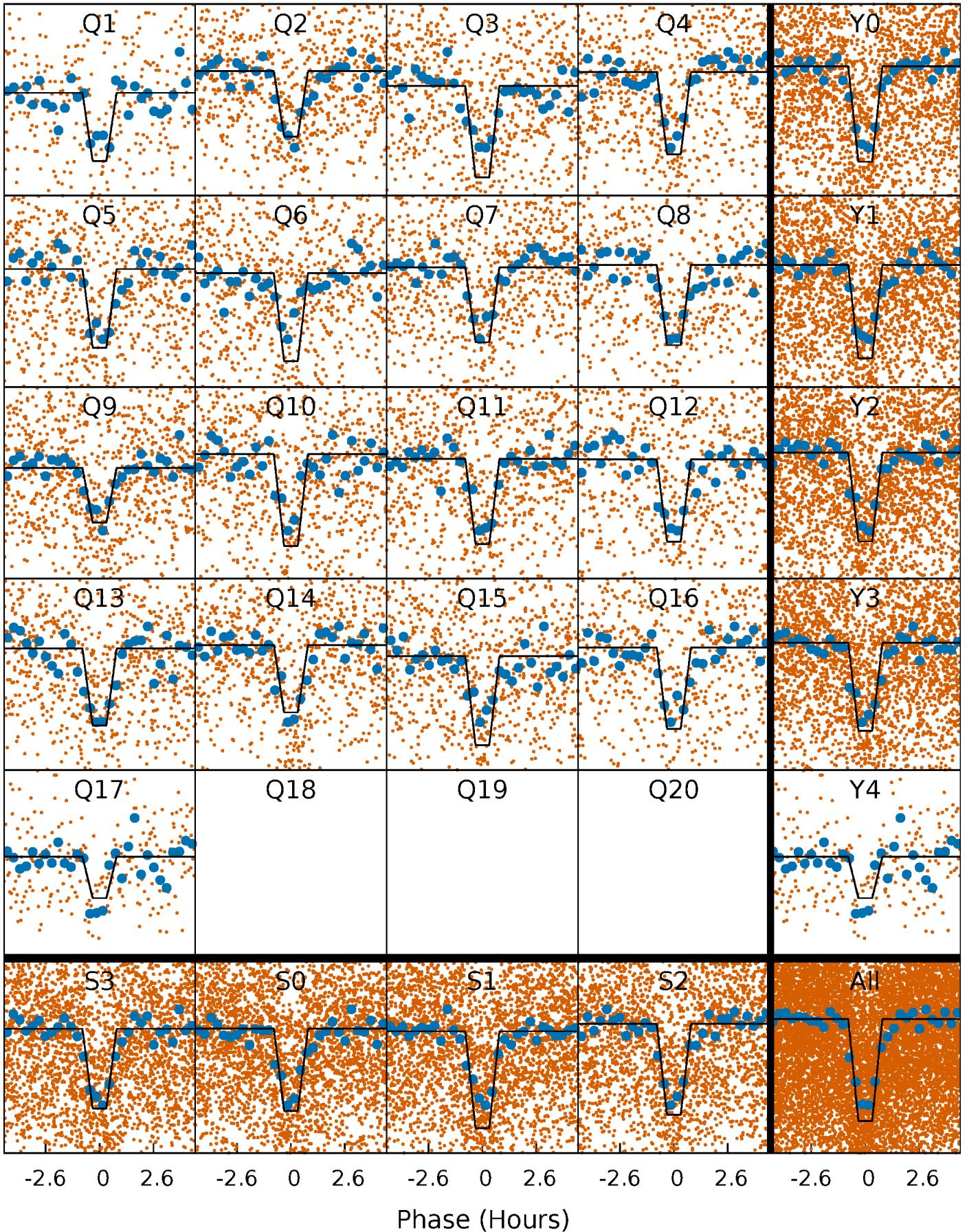
DV Quarter-Phased Transit Curves

TCE 012061238-01 P= 1.876411 Days $T_0=133.126956$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

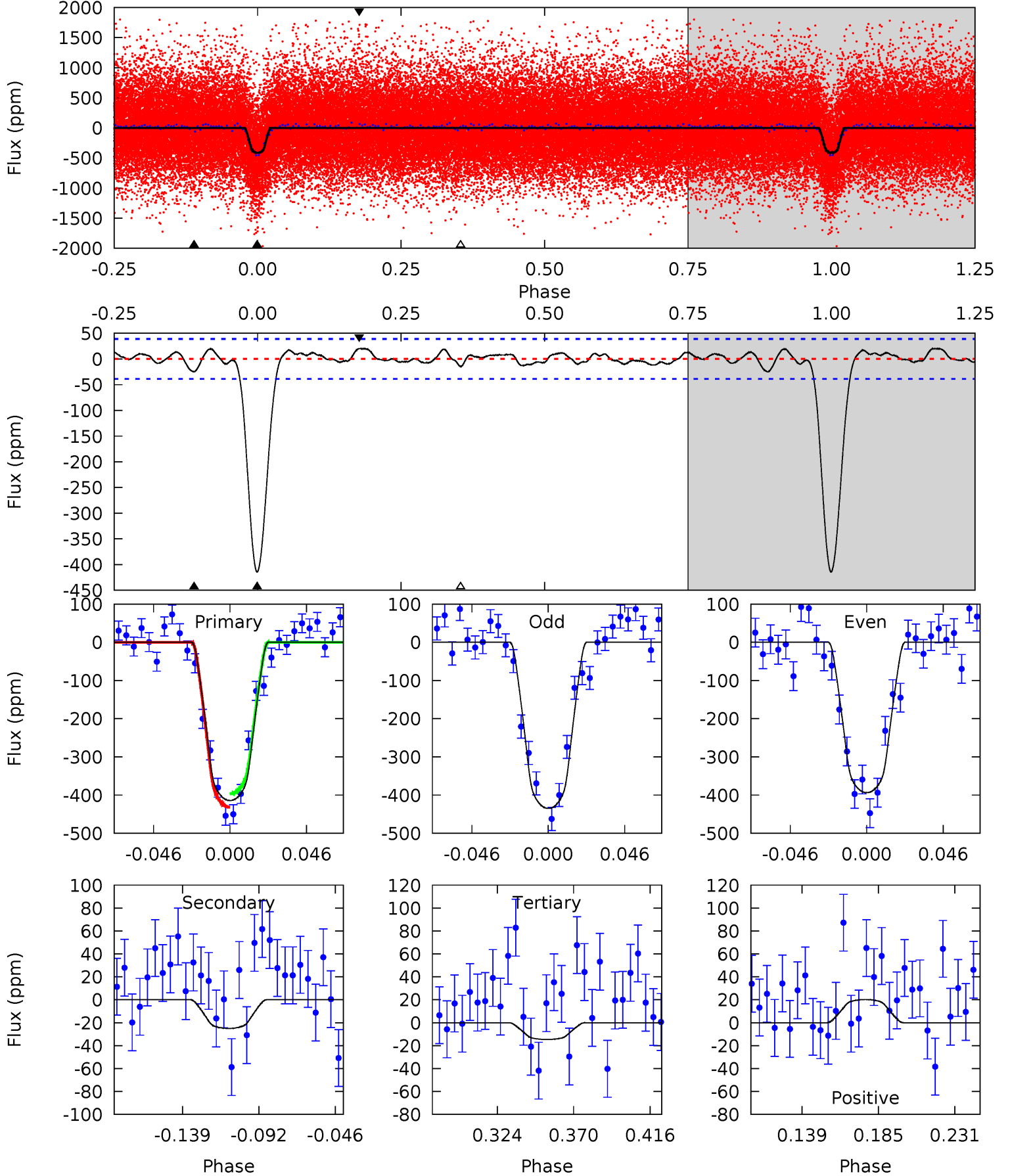
TCE 012061238-01 P= 1.876408 Days $T_0=133.127276$ (BKJD)



DV Model-Shift Uniqueness Test

012061238-01, P = 1.876411 Days, E = 131.250545 Days

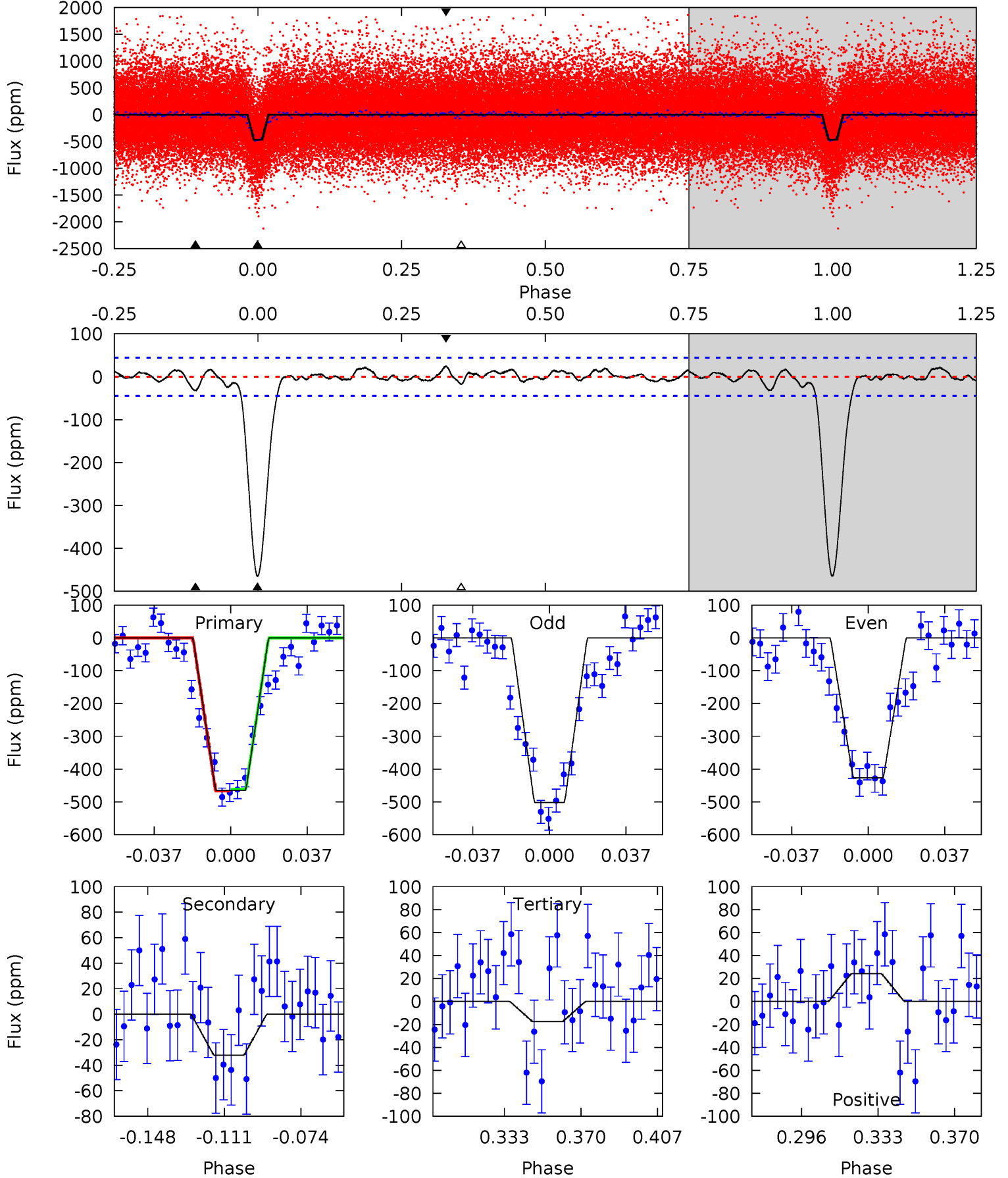
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
50.3	3.03	1.78	2.45	4.72	1.99	0.98	48.5	47.8	1.25	0.58	2.52	1.01	0.05	2.14



Alt Model-Shift Uniqueness Test

012061238-01, P = 1.876408 Days, E = 131.250868 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
49.9	3.45	1.89	2.60	4.77	2.09	0.96	48.0	47.3	1.56	0.85	4.06	1.00	0.05	0.31



Stellar Parameters For KIC 012061238

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5198^{+169}_{-154}	$4.600^{+0.030}_{-0.090}$	$-0.100^{+0.300}_{-0.300}$	$0.759^{+0.107}_{-0.066}$	$0.843^{+0.066}_{-0.091}$	$2.720^{+0.446}_{-0.811}$
	+3%/-3%	+1%/-2%	+300%/-300%	+14%/-9%	+8%/-11%	+16%/-30%
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 012061238-01 / KOI 1502.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-25 ± 8	$1.92^{+0.44}_{-0.43}$	1689^{+70}_{-58}	3017^{+281}_{-253}	$2.897^{+2.090}_{-1.222}$
Alt.	-32 ± 9	$1.99^{+0.43}_{-0.42}$	1690^{+68}_{-62}	3094^{+266}_{-239}	$3.447^{+2.405}_{-1.419}$

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 $A_{\text{obs}} \gg 1.0$

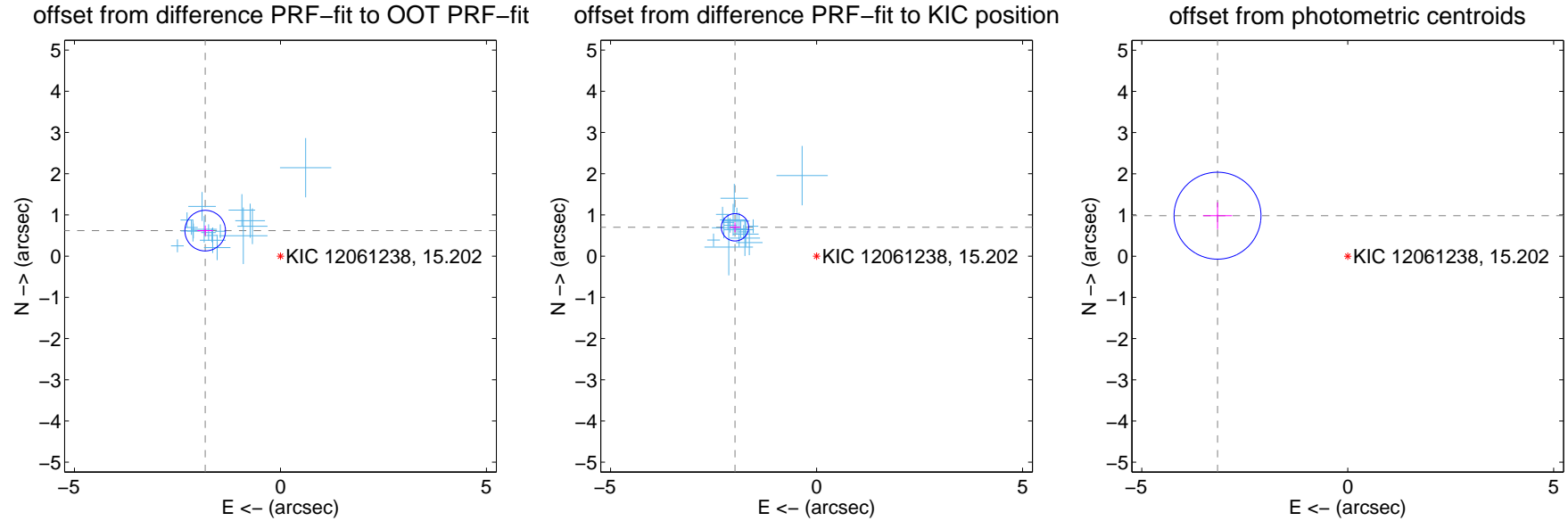
DV Centroid Data

Supplemental centroid analysis for 012061238-01. Kepler magnitude: 15.20. Transit SNR 36.05

There are 17 quarters with good PRF difference image offsets

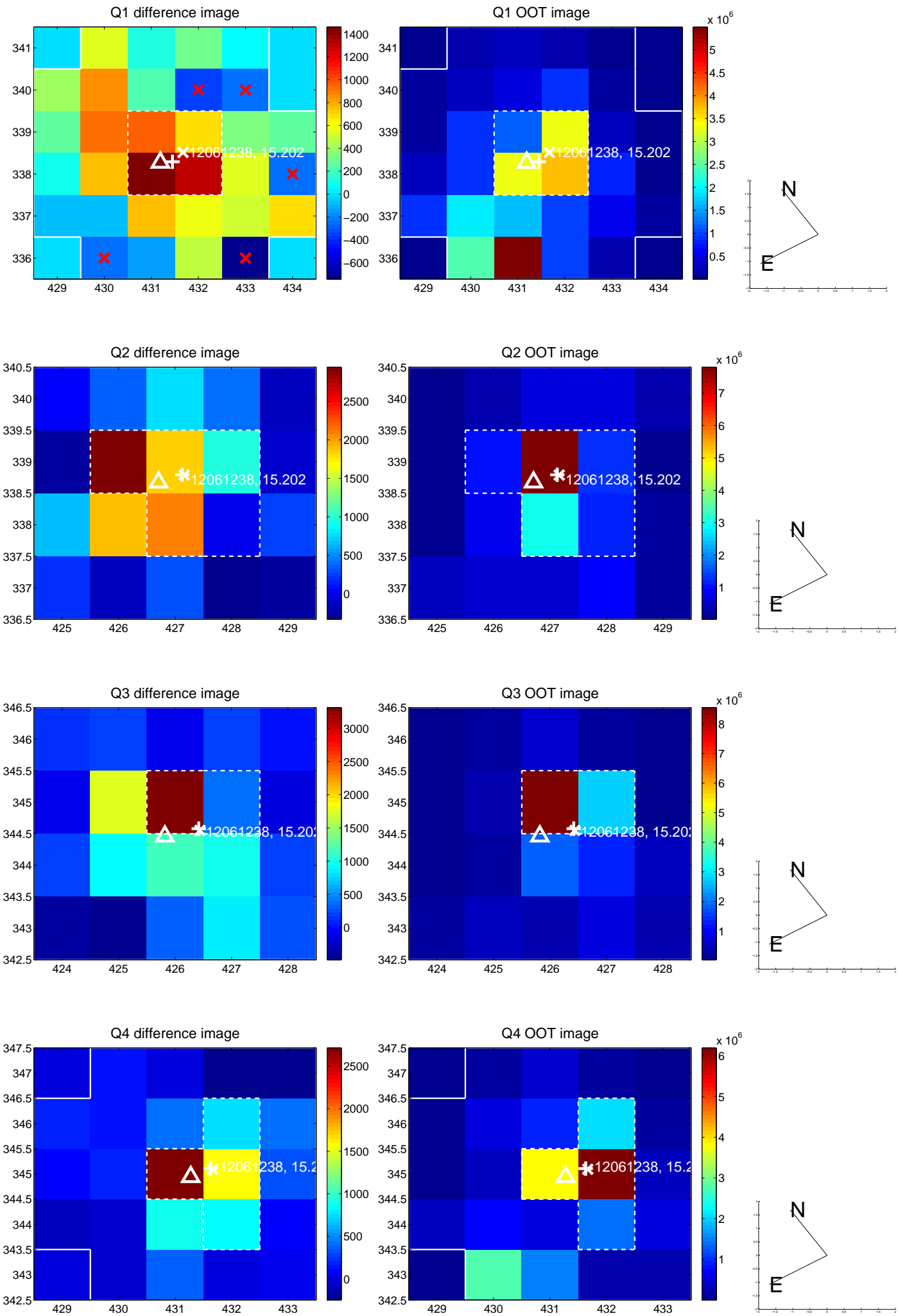
The direct PRF centroid is offset from the target star catalog position by about 0.98 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.929 ± 0.164	11.74	1.827 ± 0.189	0.619 ± 0.124
PRF-fit source offset from KIC position	2.100 ± 0.110	19.00	1.980 ± 0.129	0.699 ± 0.118
photometric centroid source offset	3.31 ± 0.35	9.41	3.16 ± 0.35	0.98 ± 0.32

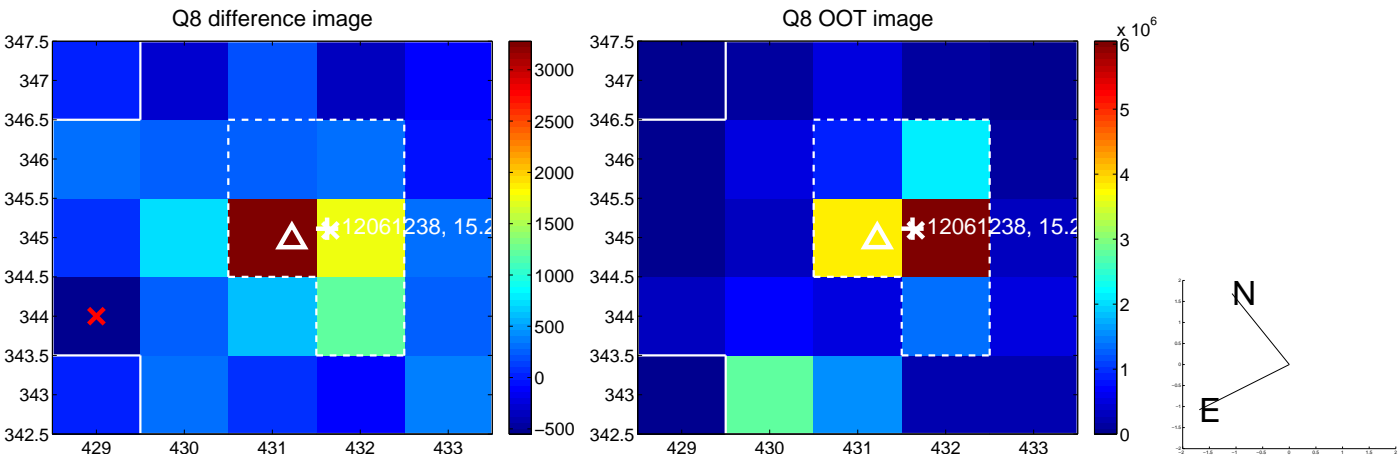
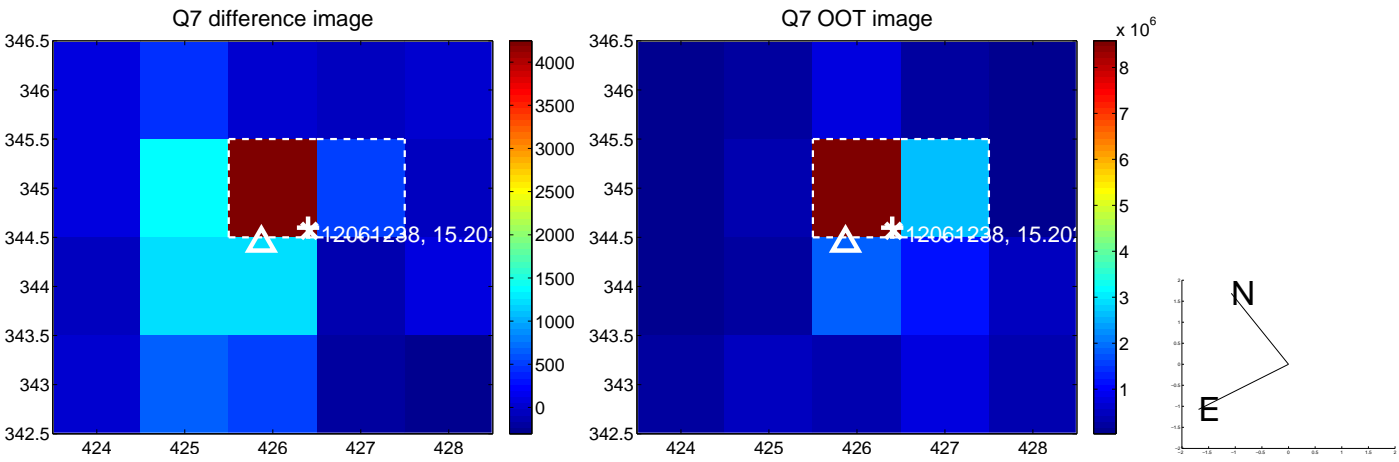
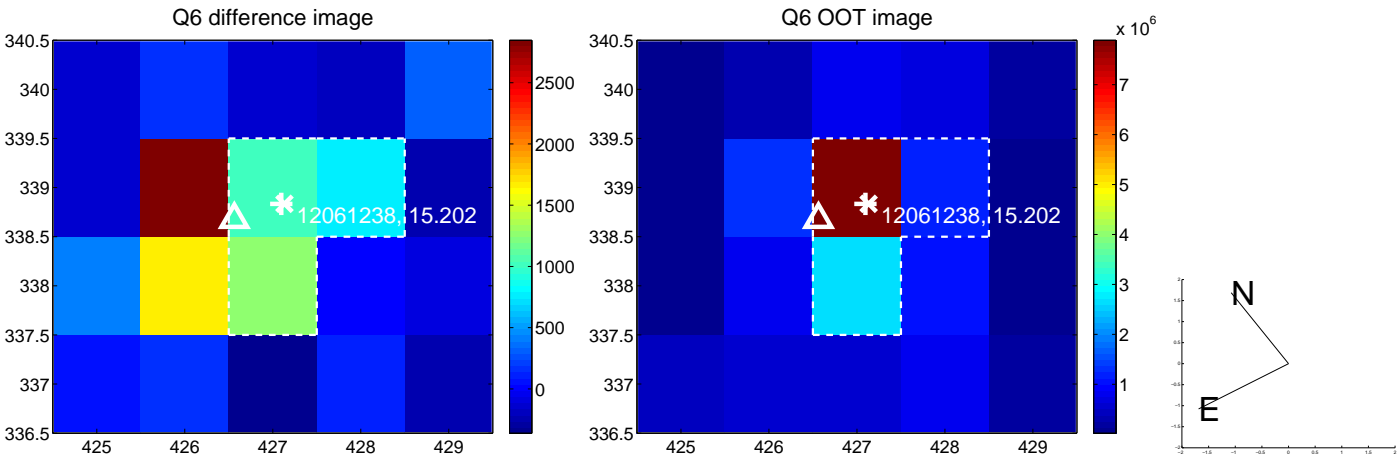
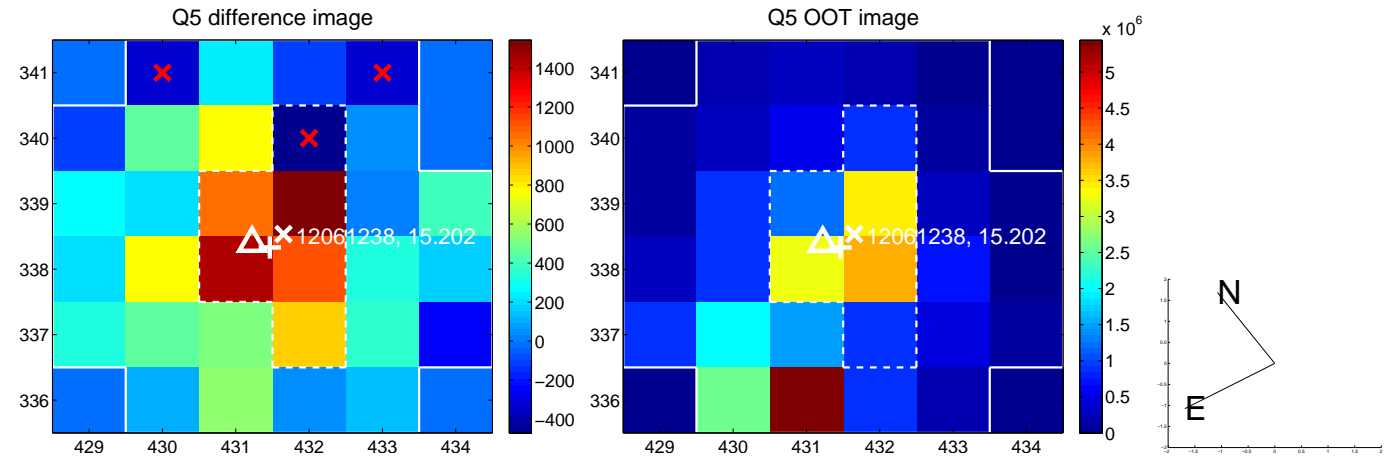


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

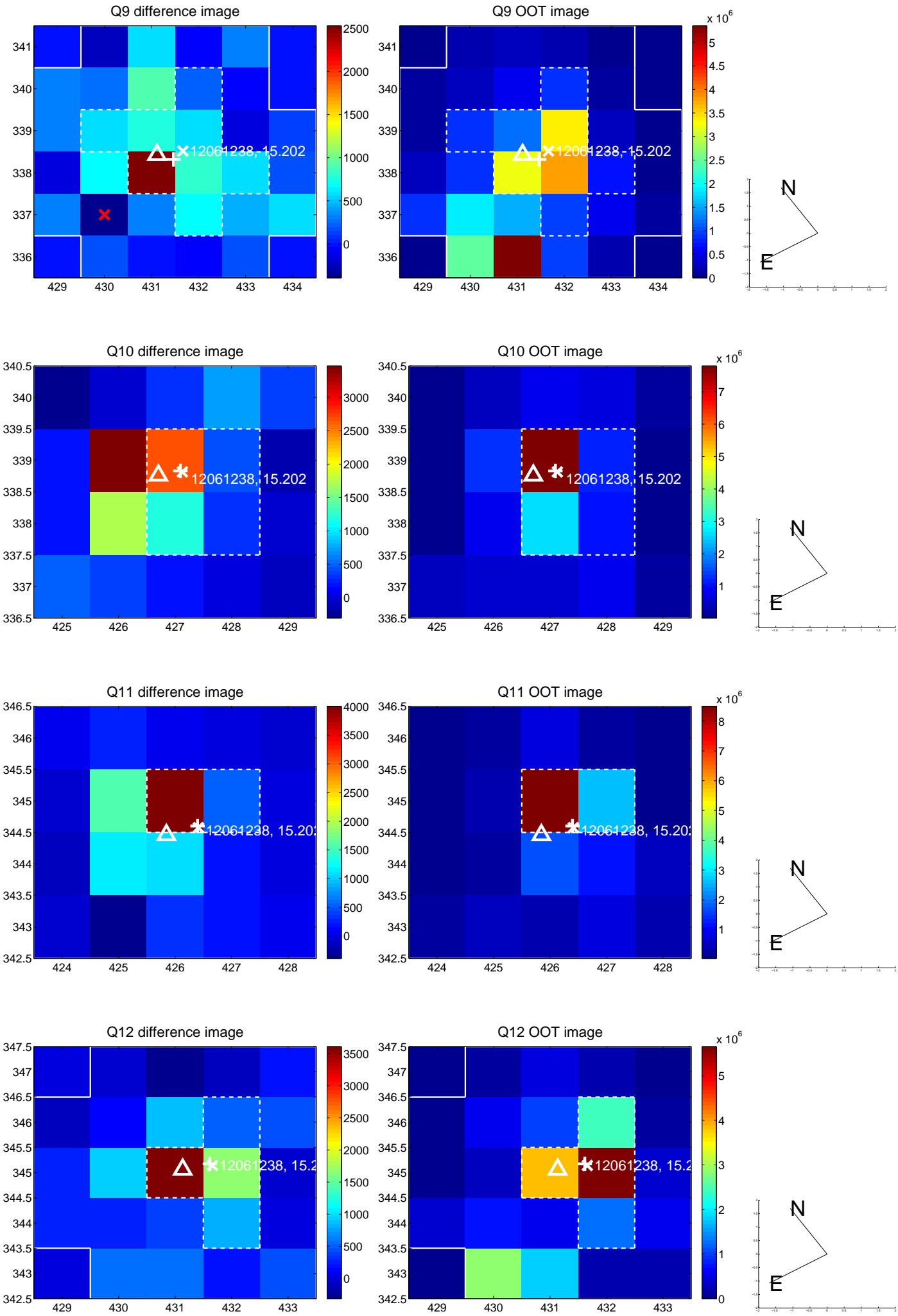
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



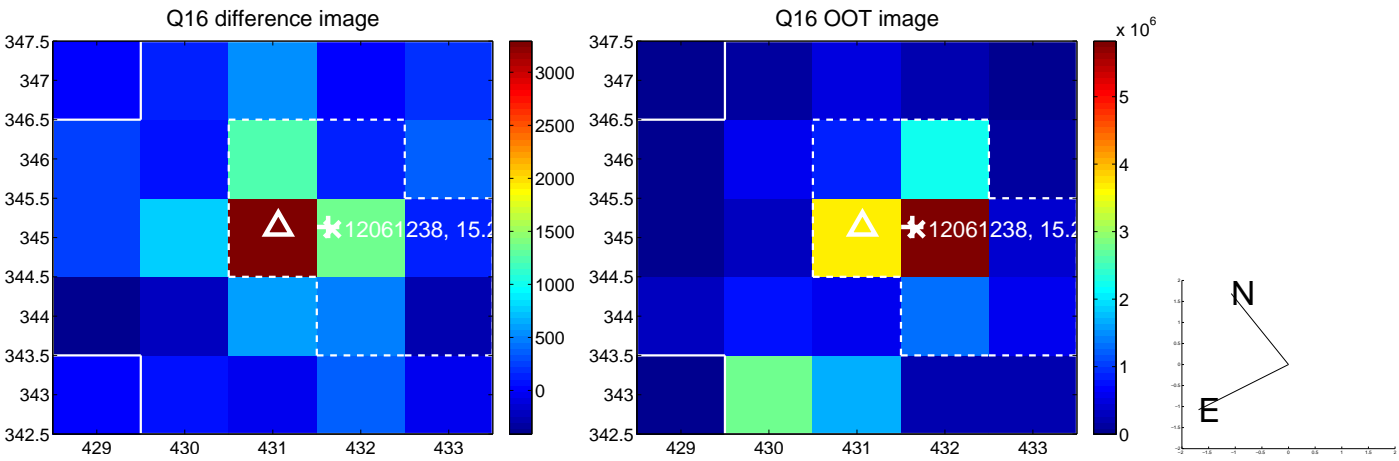
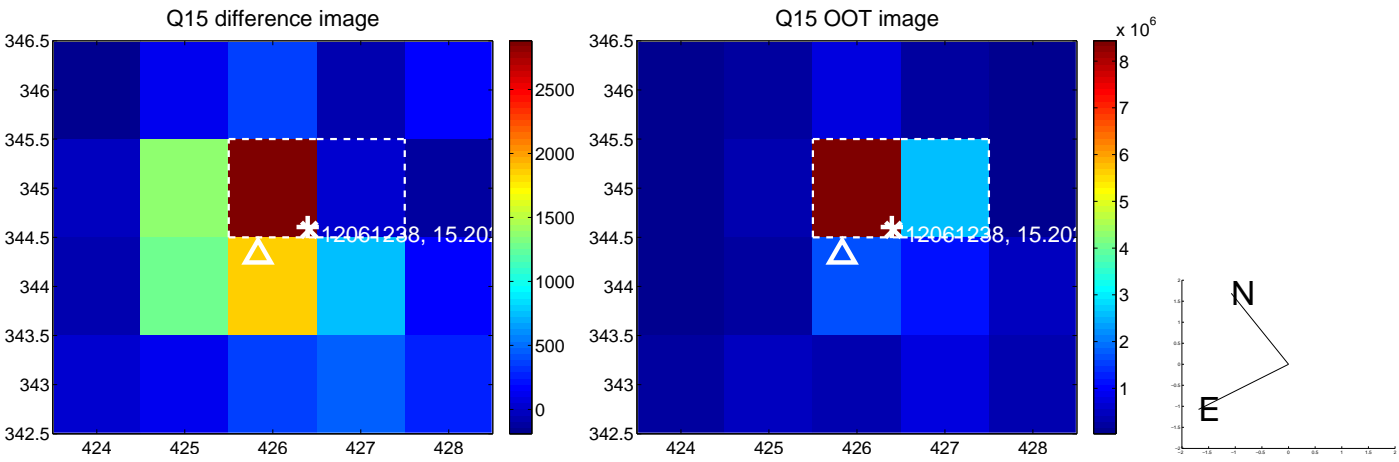
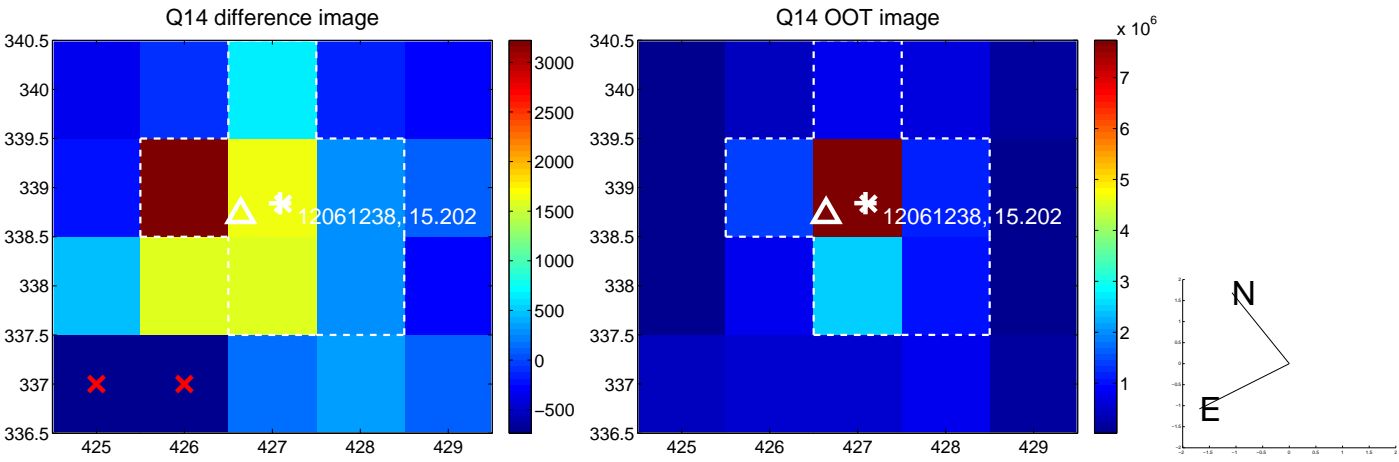
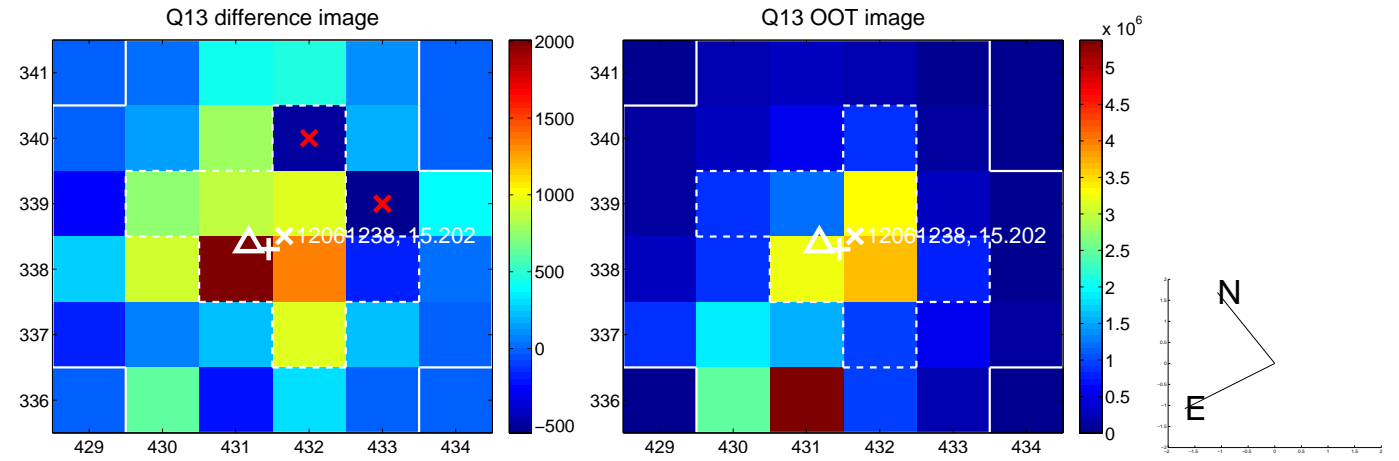
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



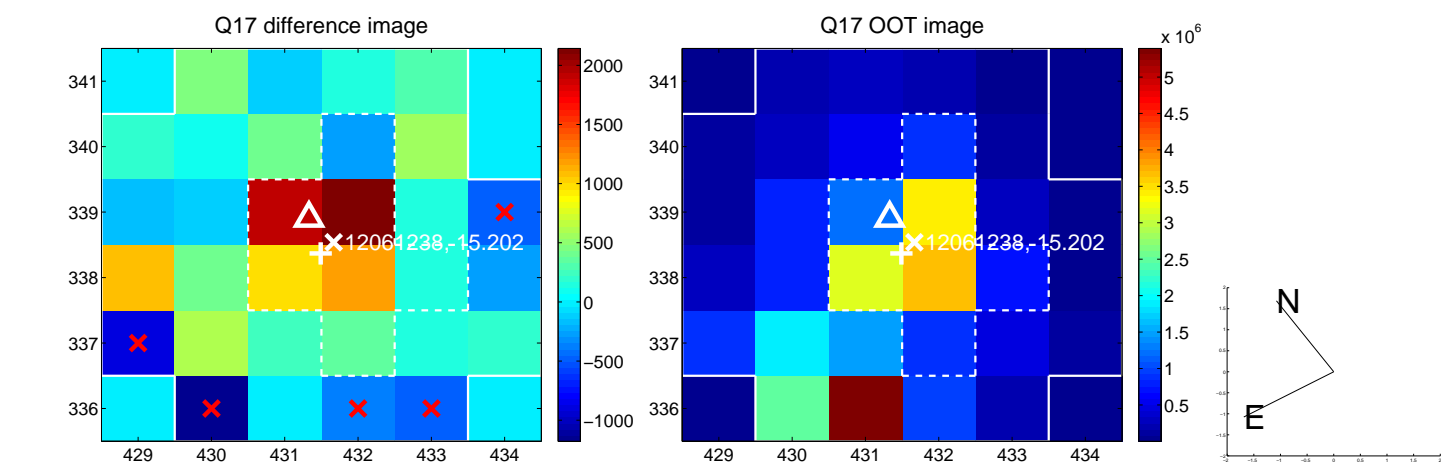
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



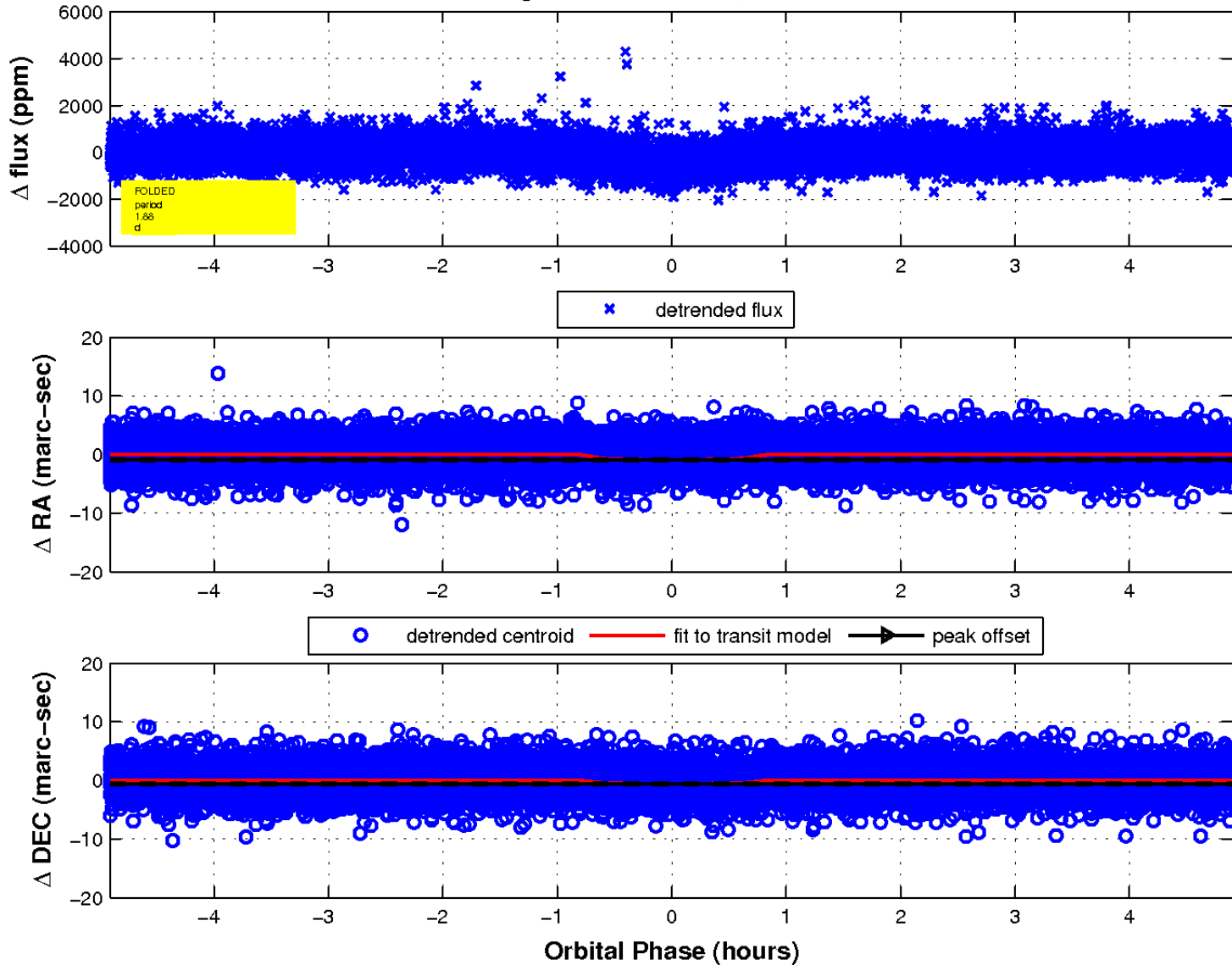
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

