

KIC 008330207

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})
008330207-01	OBS	4390.01	1.636648	131.658704	706.6	1.762	11.9	11.9	3.74	5234	11.91	10204.51

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008330207-01	OBS	PC	1.00	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.

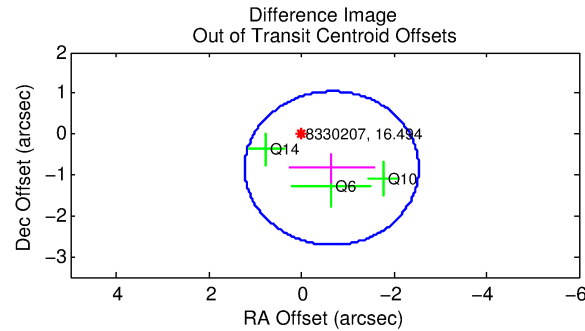
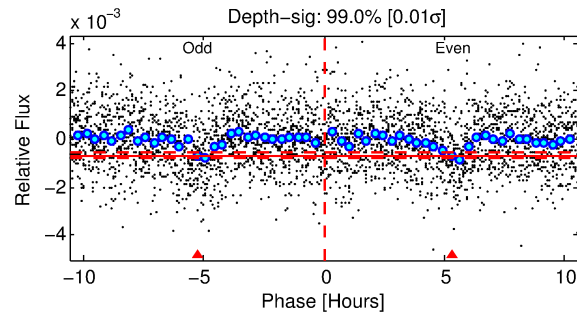
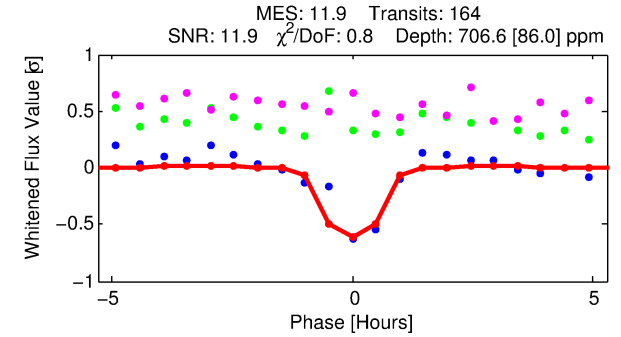
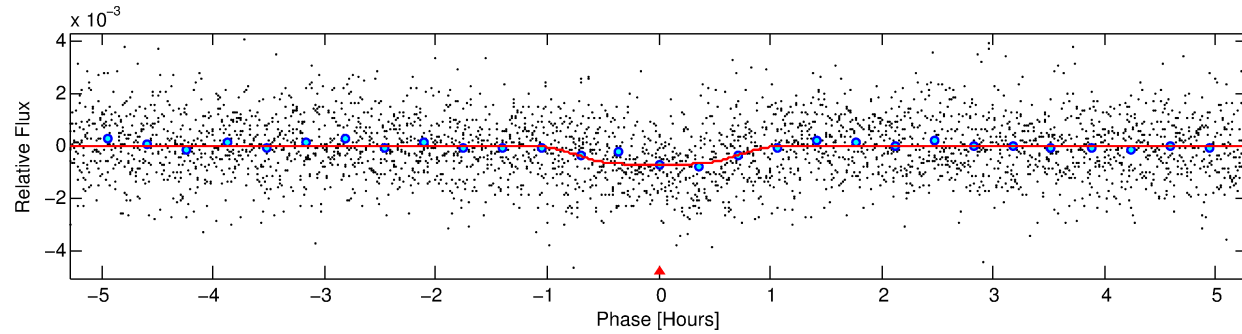
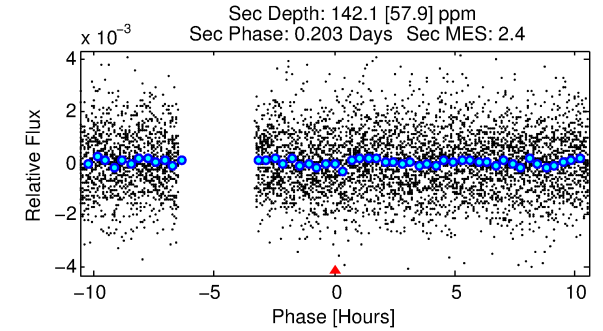
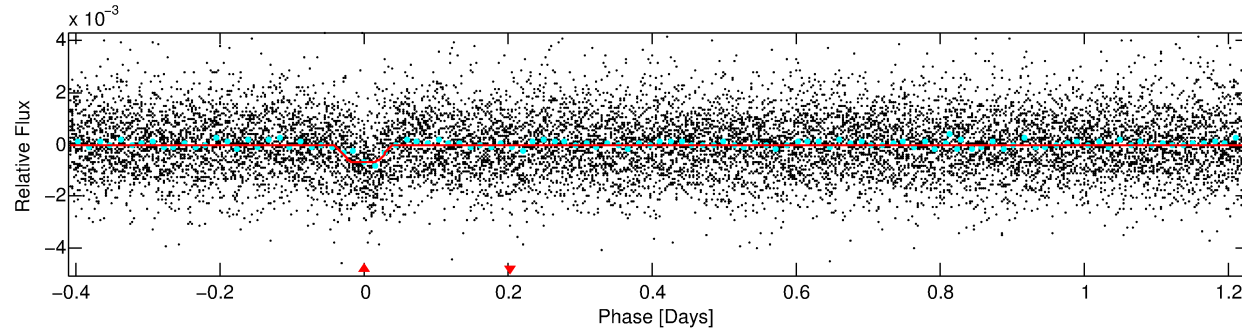
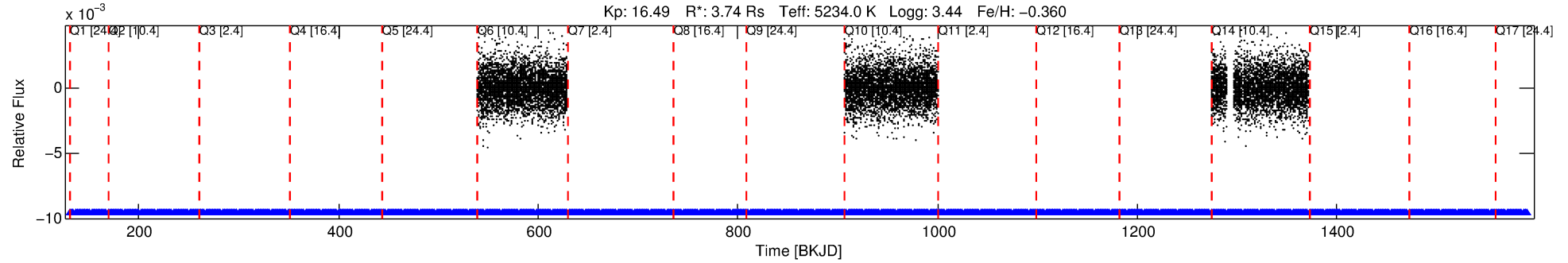
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008330207-01

No Significant Match Found

DV One-Page Summary

KIC: 8330207 Candidate: 1 of 1 Period: 1.637 d
KOI: K04390.01 Corr: 0.827



DV Fit Results:

Period = 1.63665 [0.00001] d
Epoch = 131.6587 [0.0023] BKJD
Rp/R* = 0.0292 [0.0133]
a/R* = 3.73 [6.57]
b = 0.89 [0.44]
Seff = 10204.51 [7180.02]
Teq = 2563 [451] K
Rp = 11.91 [7.78] Re
a = 0.0304 [0.0133] AU
Ag = 0.51 [0.62] [-0.80σ]
Teffp = 3344 [844] K [0.82σ]

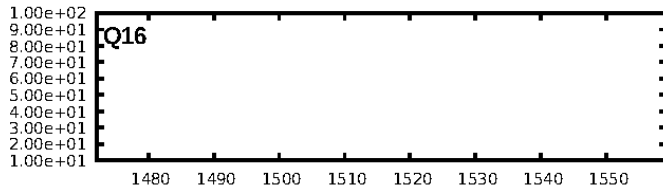
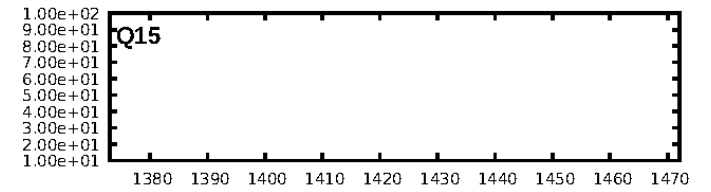
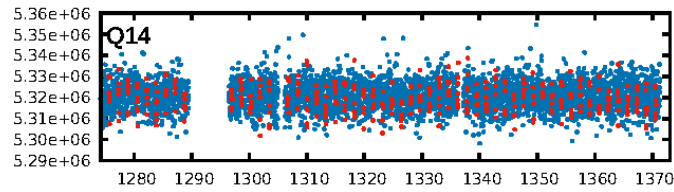
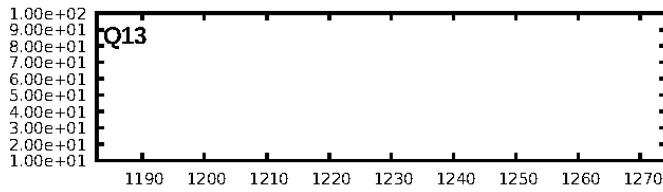
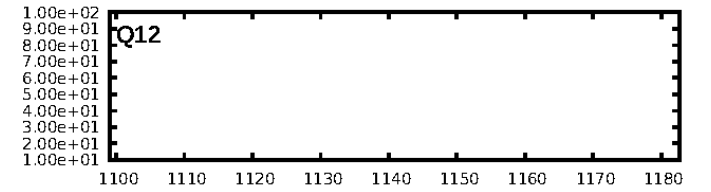
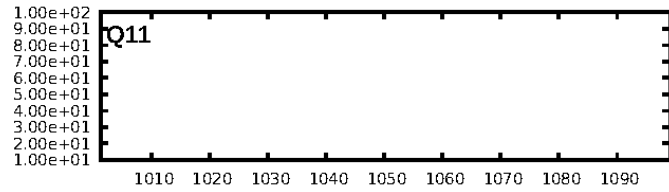
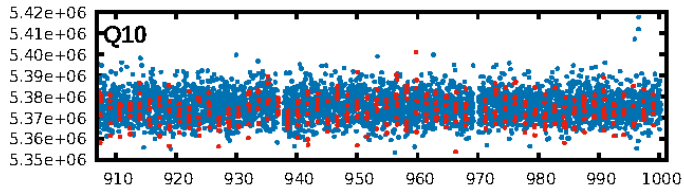
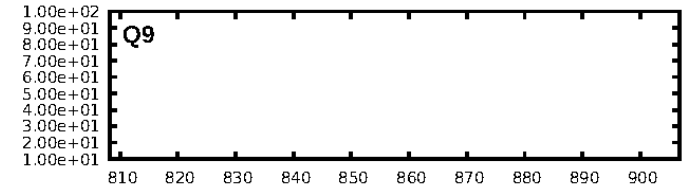
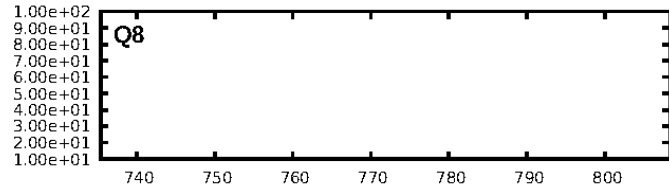
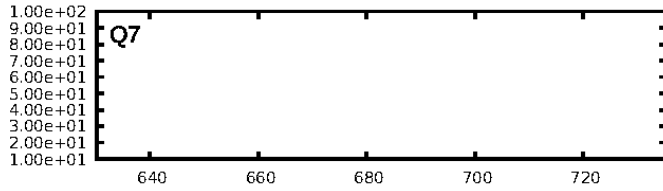
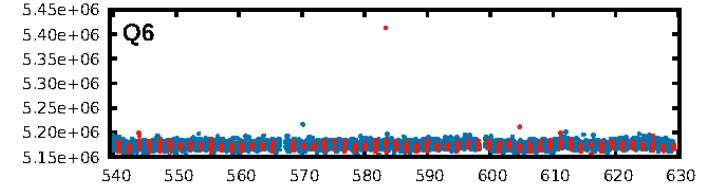
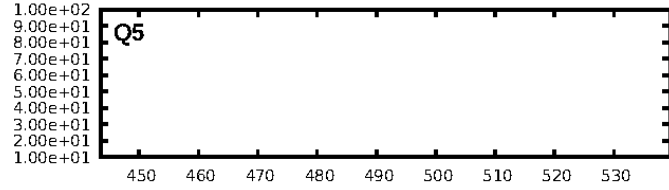
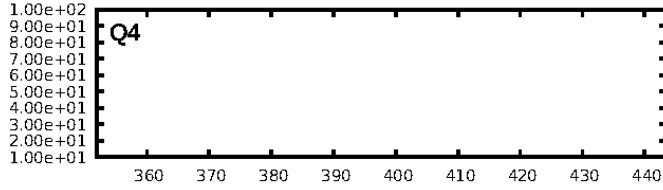
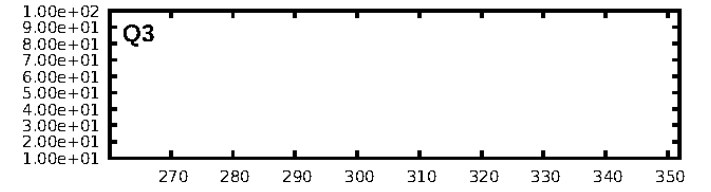
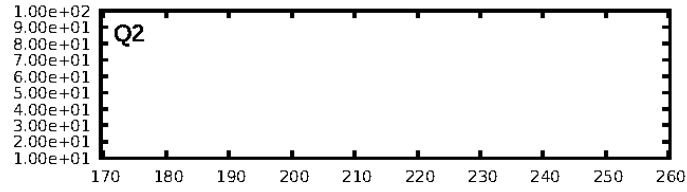
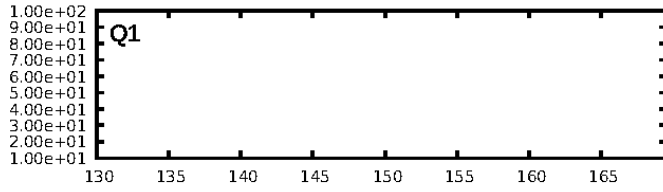
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 100.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.66e-32
RollingBand-fgt: 1.00 [164/164]
GhostDiagnostic-chr: 1.017
Centroid-sig: 9.7%
Centroid-so: 2.214 arcsec [2.12σ]
OotOffset-rm: 1.063 arcsec [1.70σ]
OotOffset-st: 3/0/0/0 [3]
KicOffset-rm: 0.638 arcsec [1.75σ]
KicOffset-st: 3/0/0/0 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

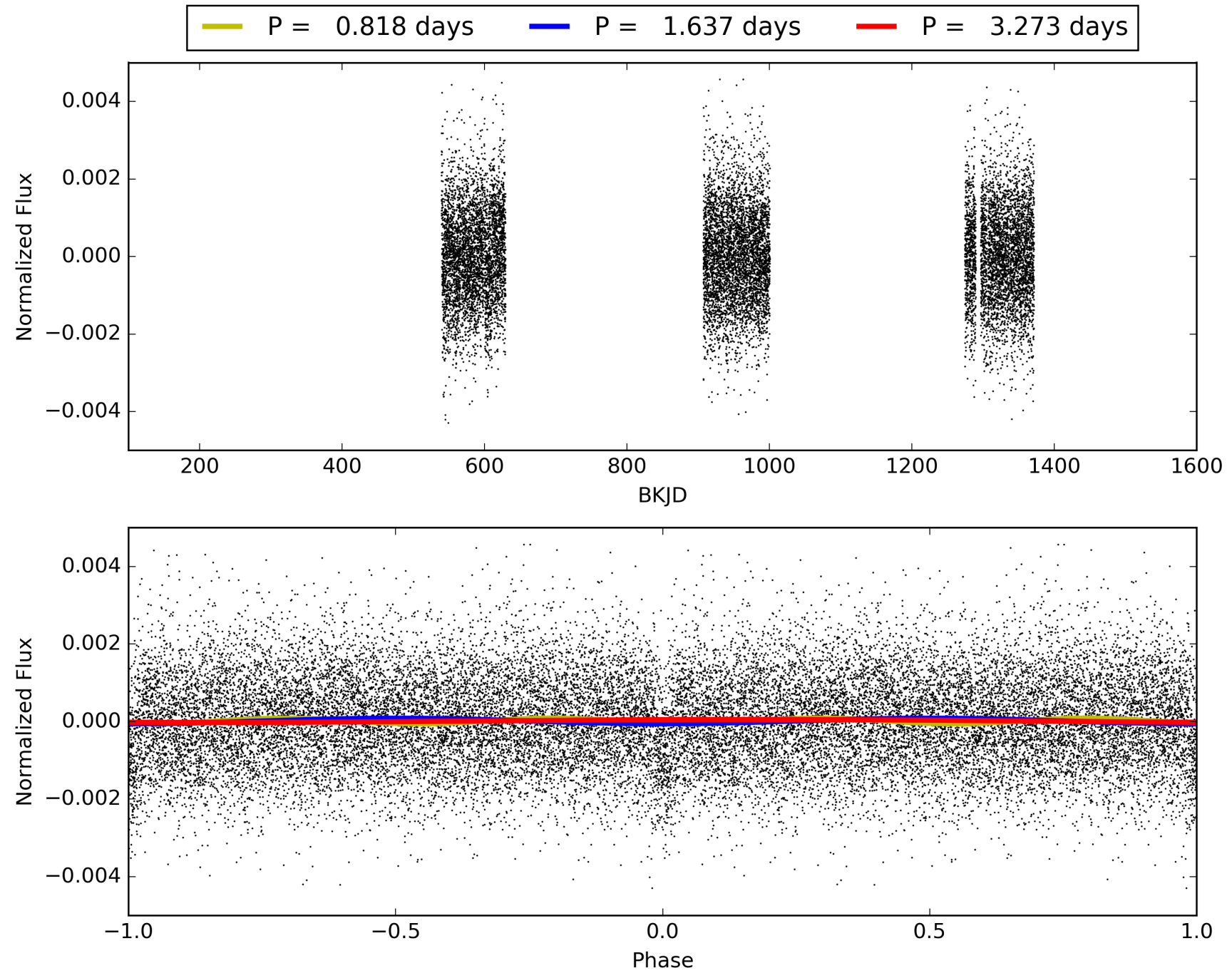
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 01:13:52 Z

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

TCE 008330207-01, PDC Light Curves

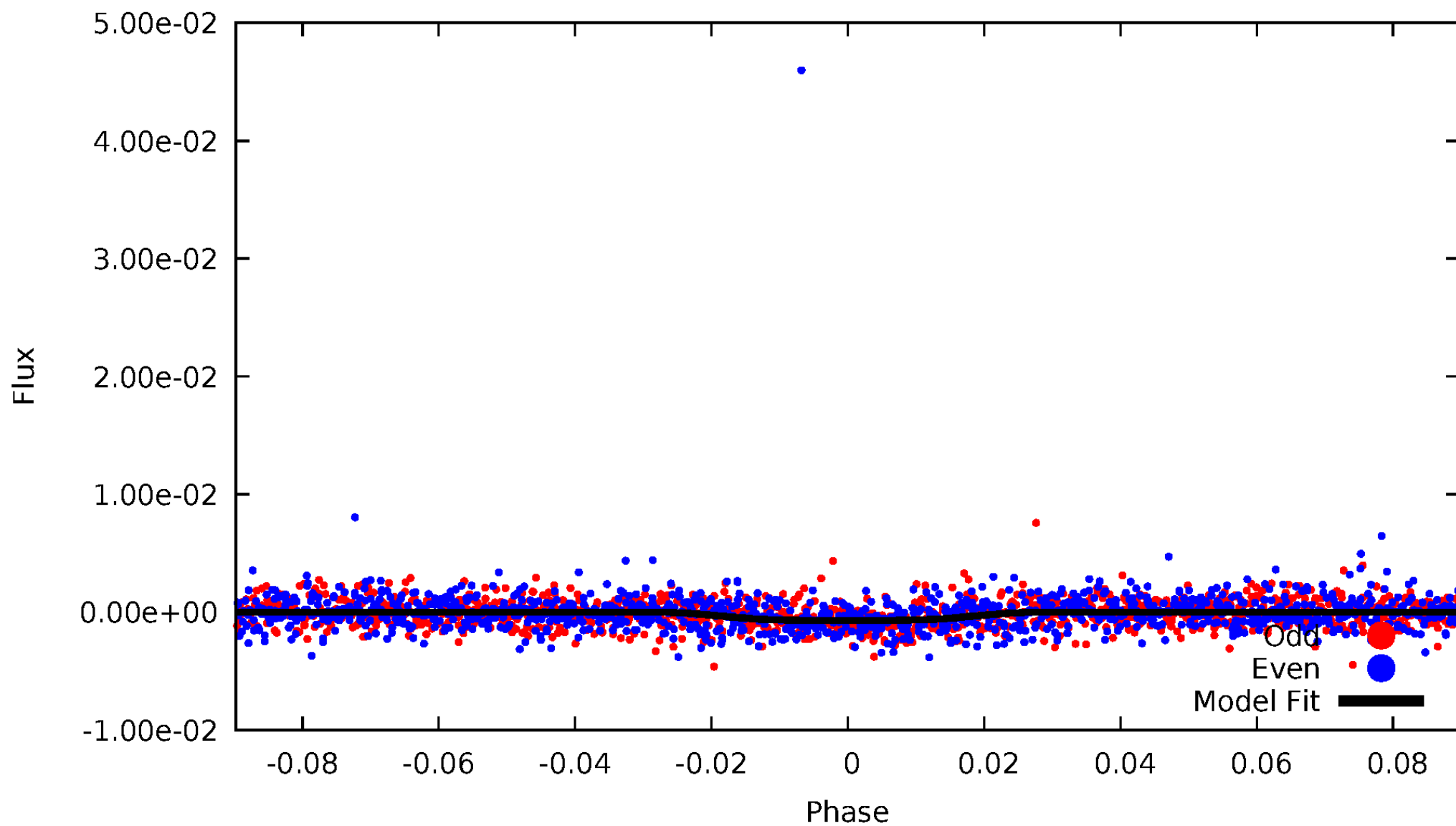


TCE 008330207-01



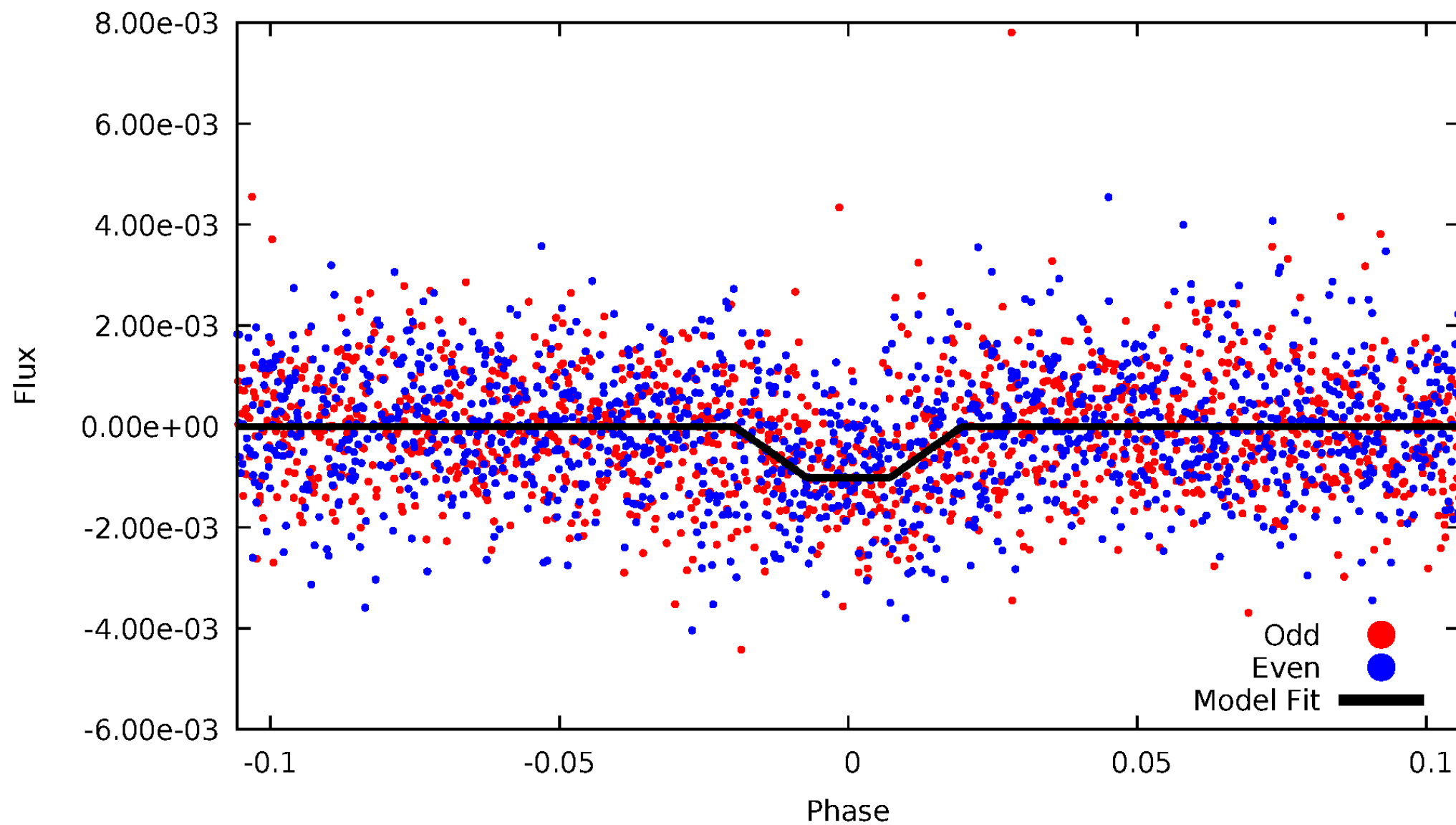
DV Odd/Even

TCE 008330207-01

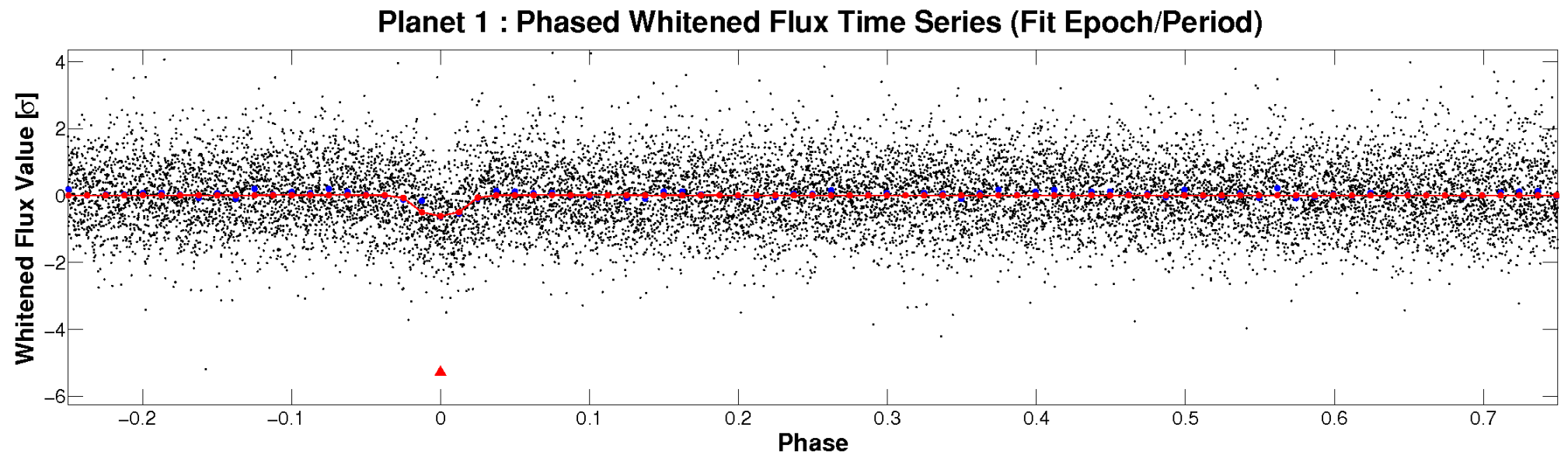
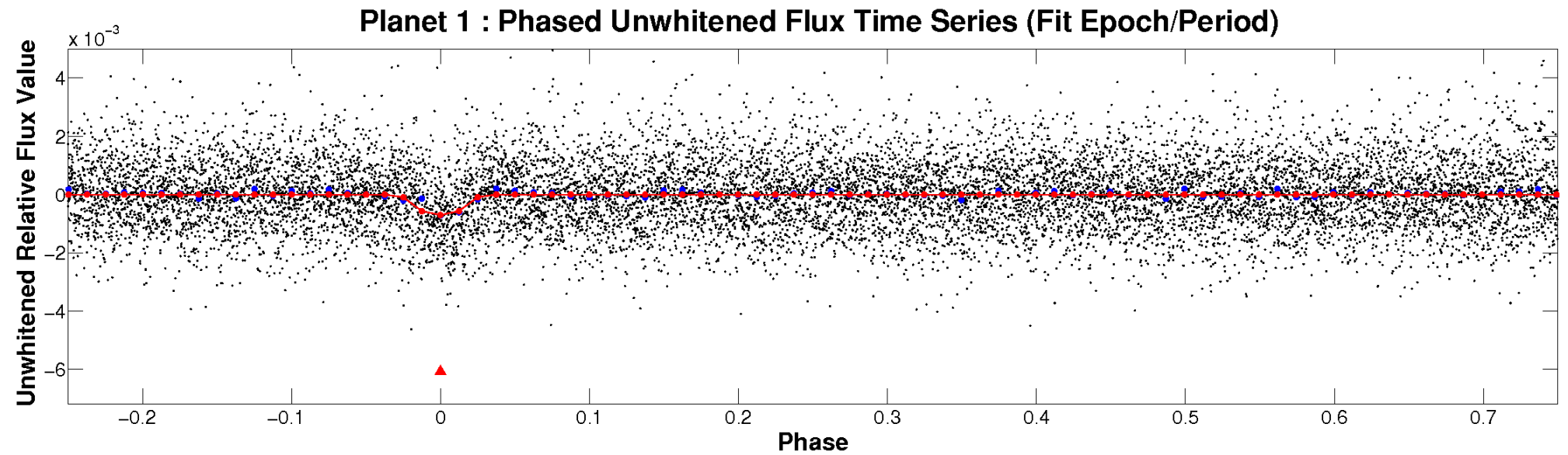


ALT Odd/Even

TCE 008330207-01

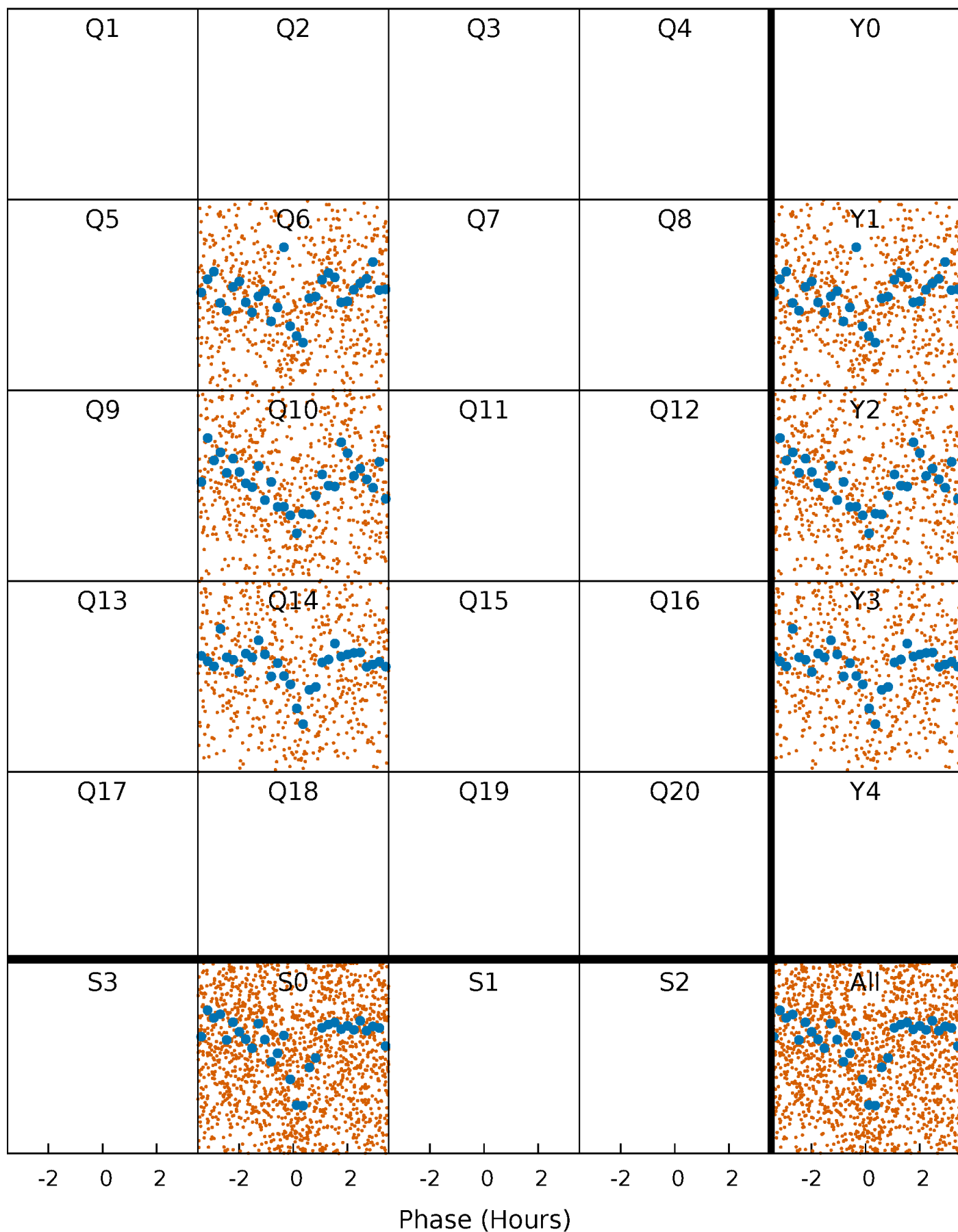


Non-Whitened Vs. Whitened Light Curve



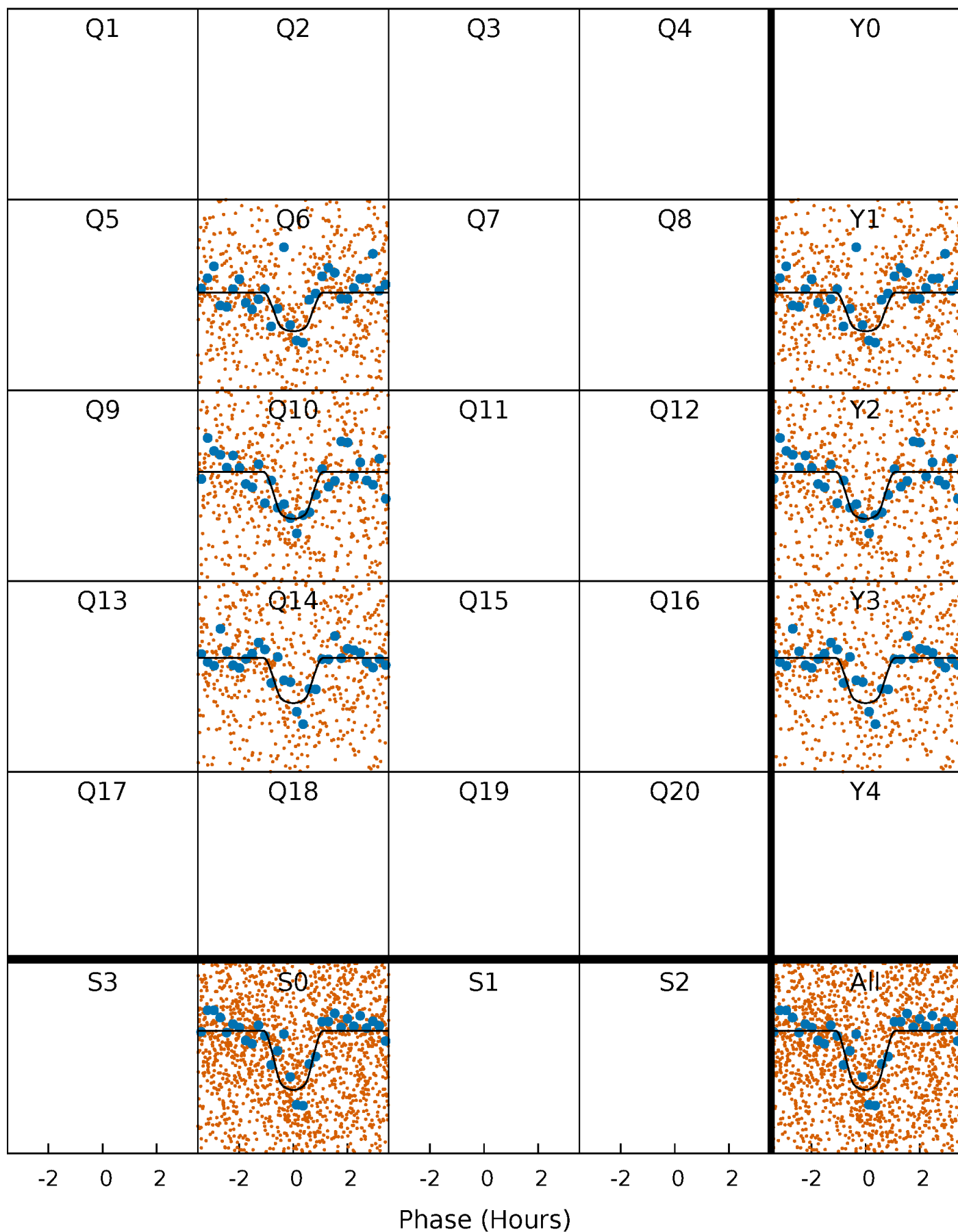
PDC Quarter-Phased Transit Curves

TCE 008330207-01 P= 1.636648 Days $T_0=131.658704$ (BKJD)



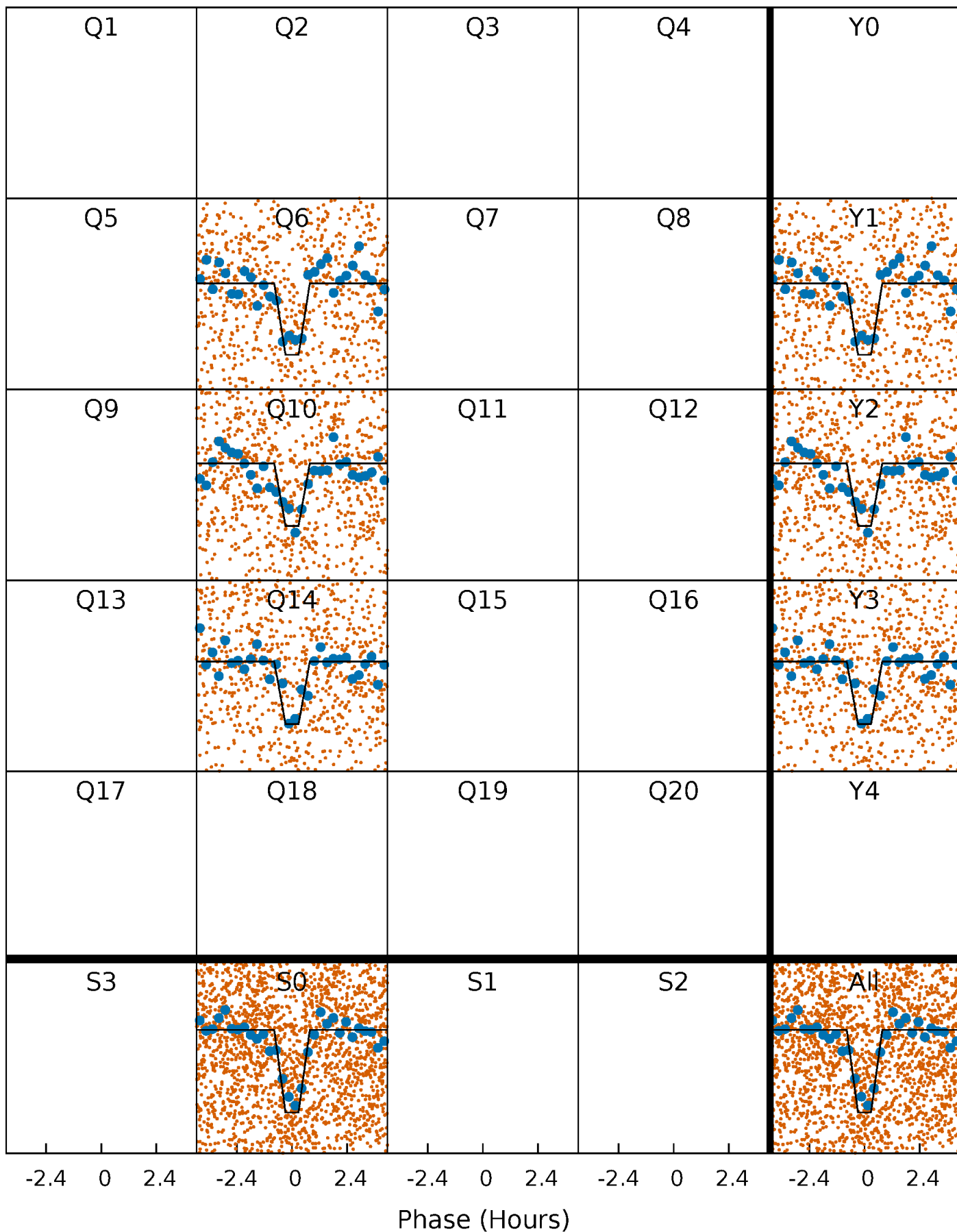
DV Quarter-Phased Transit Curves

TCE 008330207-01 P= 1.636648 Days $T_0=131.658704$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

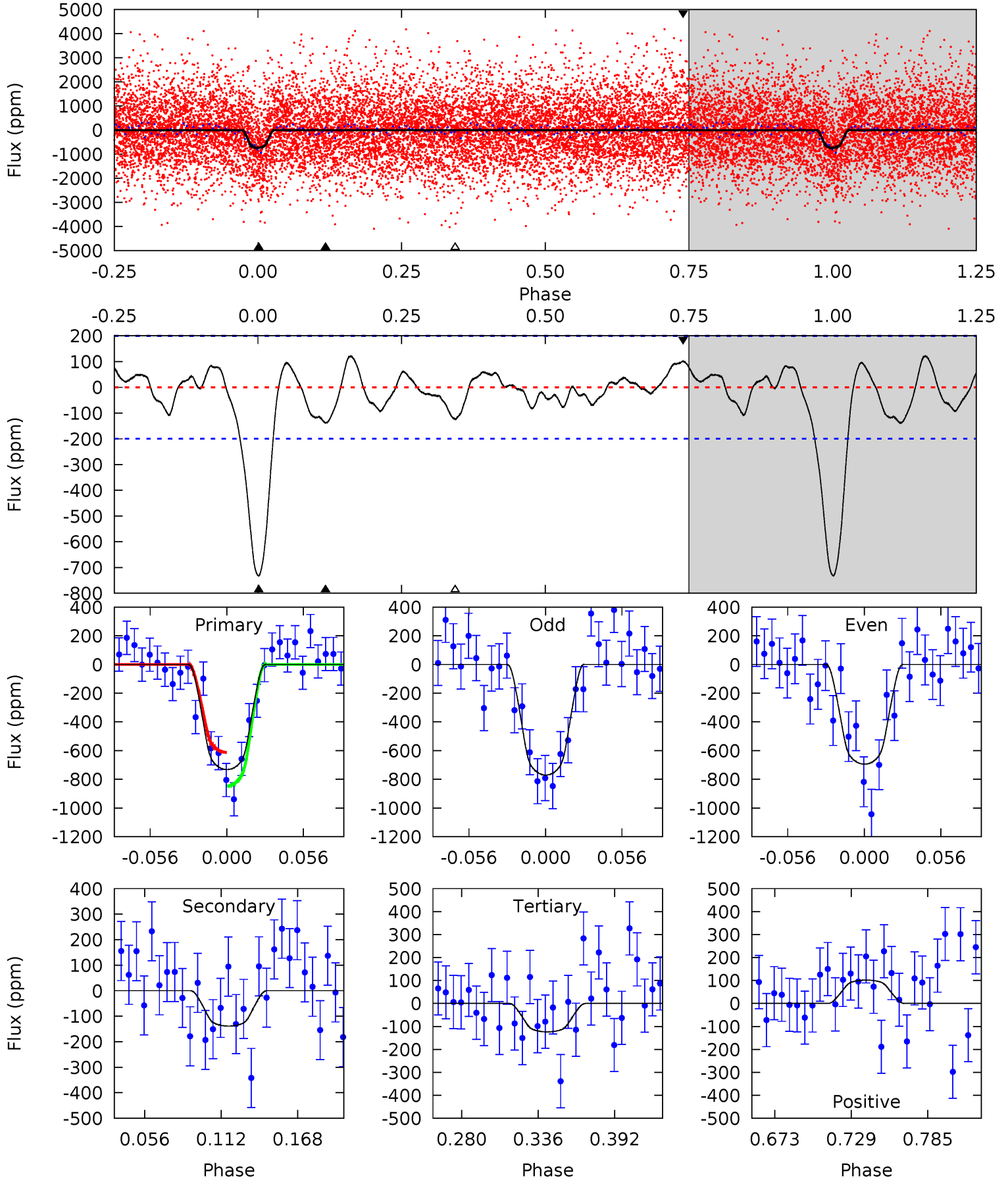
TCE 008330207-01 P= 1.636669 Days $T_0=131.651642$ (BKJD)



DV Model-Shift Uniqueness Test

008330207-01, P = 1.636648 Days, E = 131.658704 Days

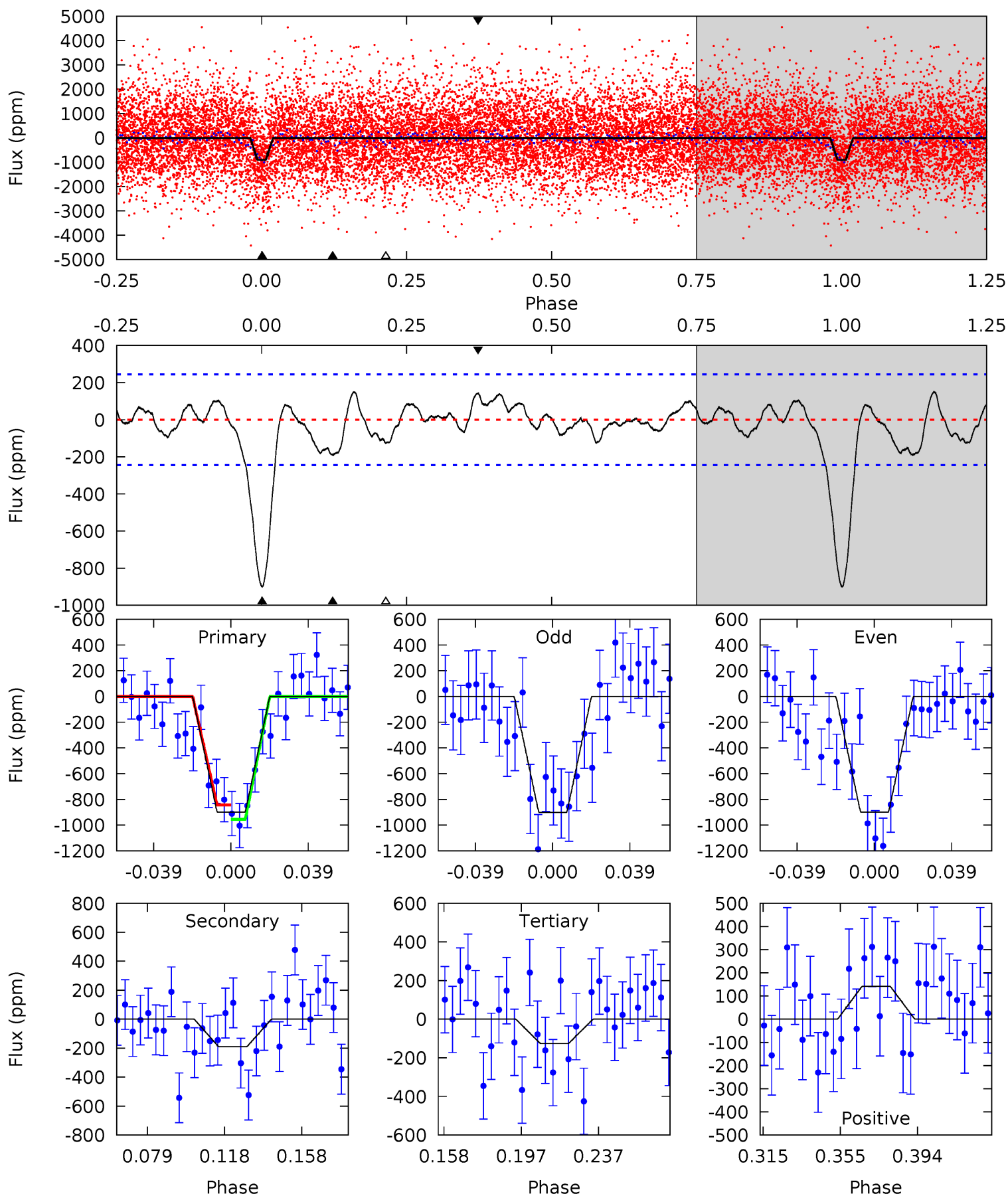
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.2	3.25	2.90	2.38	4.68	1.91	1.18	14.3	14.8	0.35	0.87	0.89	0.78	0.14	2.74



Alt Model-Shift Uniqueness Test

008330207-01, P = 1.636669 Days, E = 131.651642 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.5	3.71	2.45	2.76	4.76	2.06	1.17	15.1	14.7	1.26	0.95	0.03	0.98	0.14	1.09



Stellar Parameters For KIC 008330207

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5234^{+158}_{-174}	$3.436^{+0.402}_{-0.234}$	$-0.360^{+0.300}_{-0.300}$	$3.739^{+1.307}_{-1.743}$	$1.390^{+0.192}_{-0.480}$	$0.037^{+0.131}_{-0.020}$
	+3%/-3%	+12%/-7%	+83%/-83%	+35%/-47%	+14%/-35%	+349%/-54%
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 008330207-01 / KOI 4390.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-139 ± 43	$11.31^{+6.36}_{-5.28}$	3579^{+348}_{-408}	3216^{+1122}_{-6166}	$0.530^{+1.372}_{-0.332}$
Alt.	-191 ± 51	$12.56^{+6.41}_{-5.84}$	3558^{+365}_{-447}	3344^{+1023}_{-6037}	$0.600^{+1.366}_{-0.354}$

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

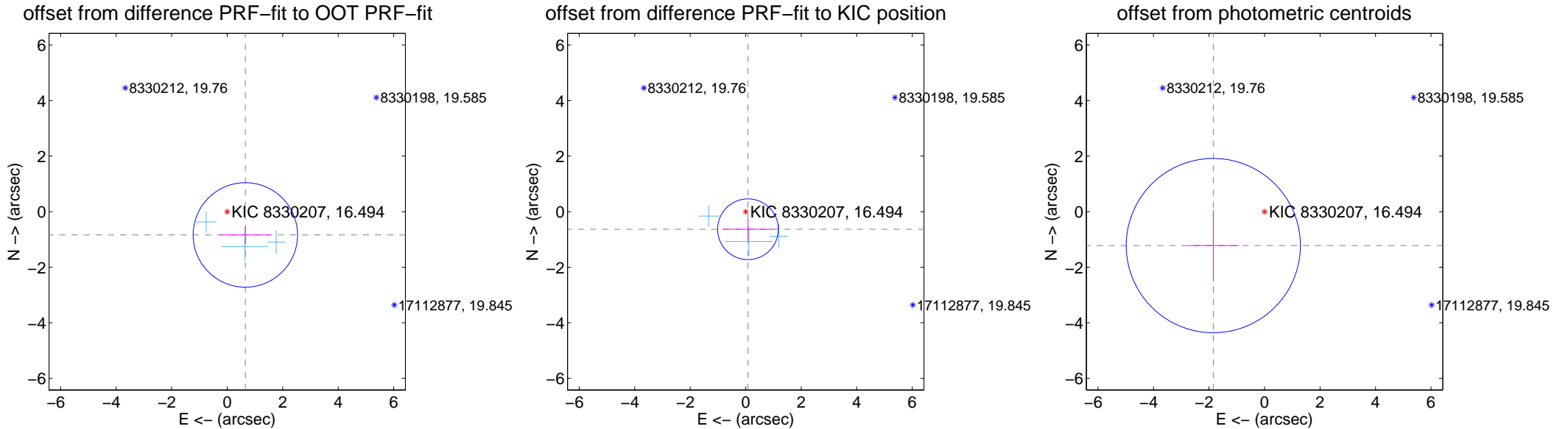
DV Centroid Data

Supplemental centroid analysis for 008330207-01. Kepler magnitude: 16.49. Transit SNR 11.86

There are 3 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.62 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.063 ± 0.627	1.70	-0.655 ± 0.917	-0.838 ± 0.347
PRF-fit source offset from KIC position	0.638 ± 0.364	1.75	-0.082 ± 0.919	-0.633 ± 0.348
photometric centroid source offset	2.21 ± 1.05	2.12	1.85 ± 0.92	-1.22 ± 1.29

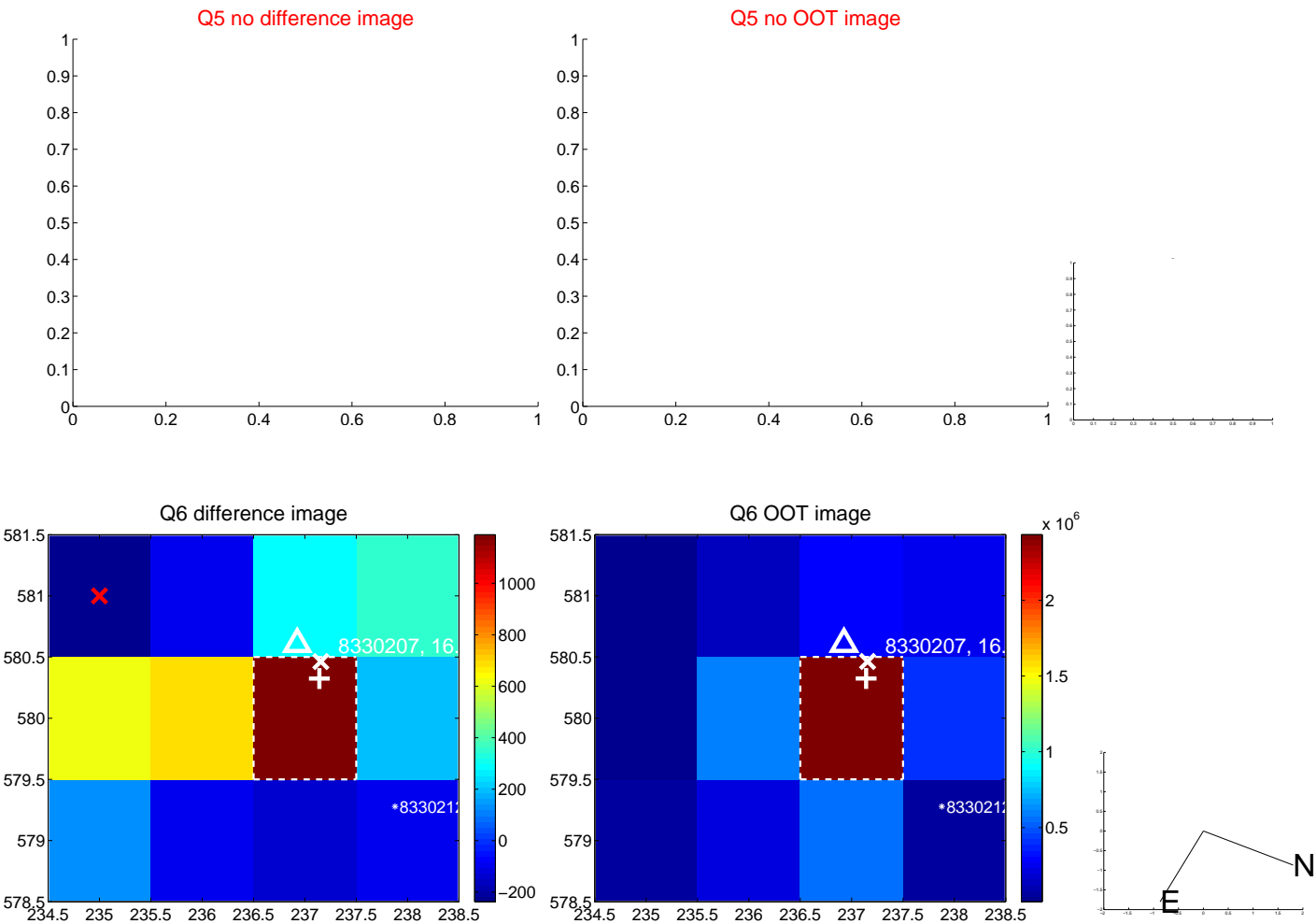


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

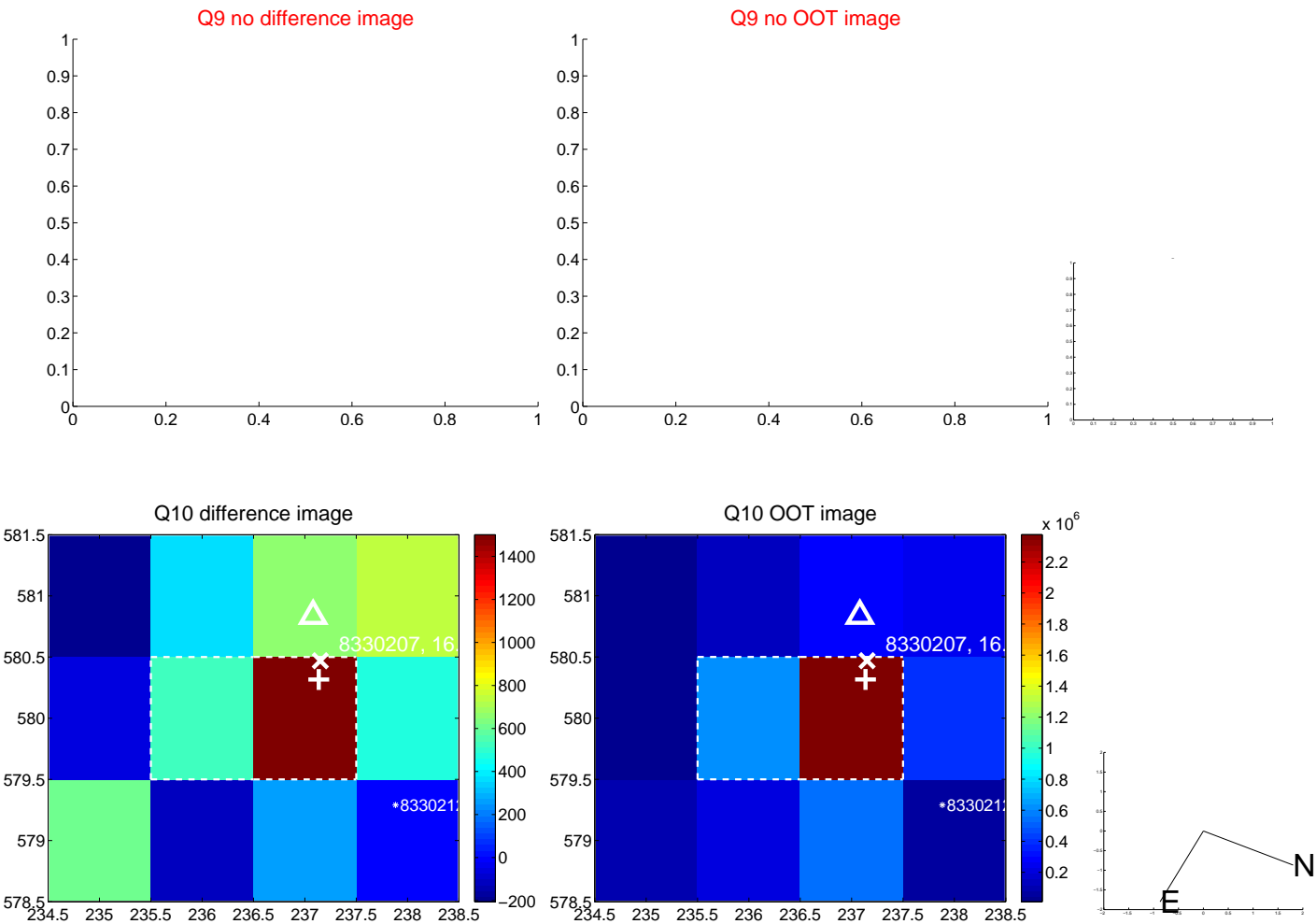
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



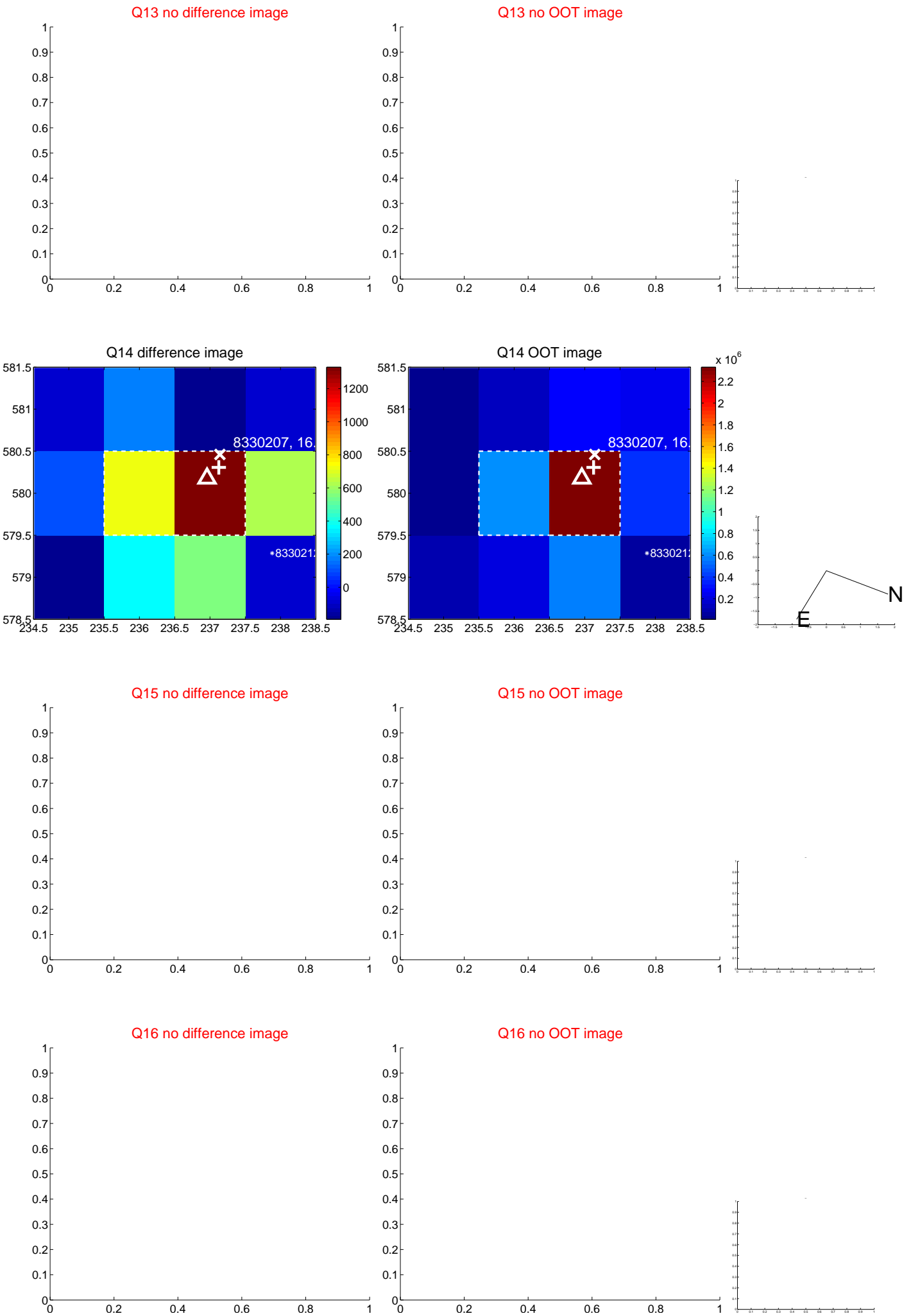
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



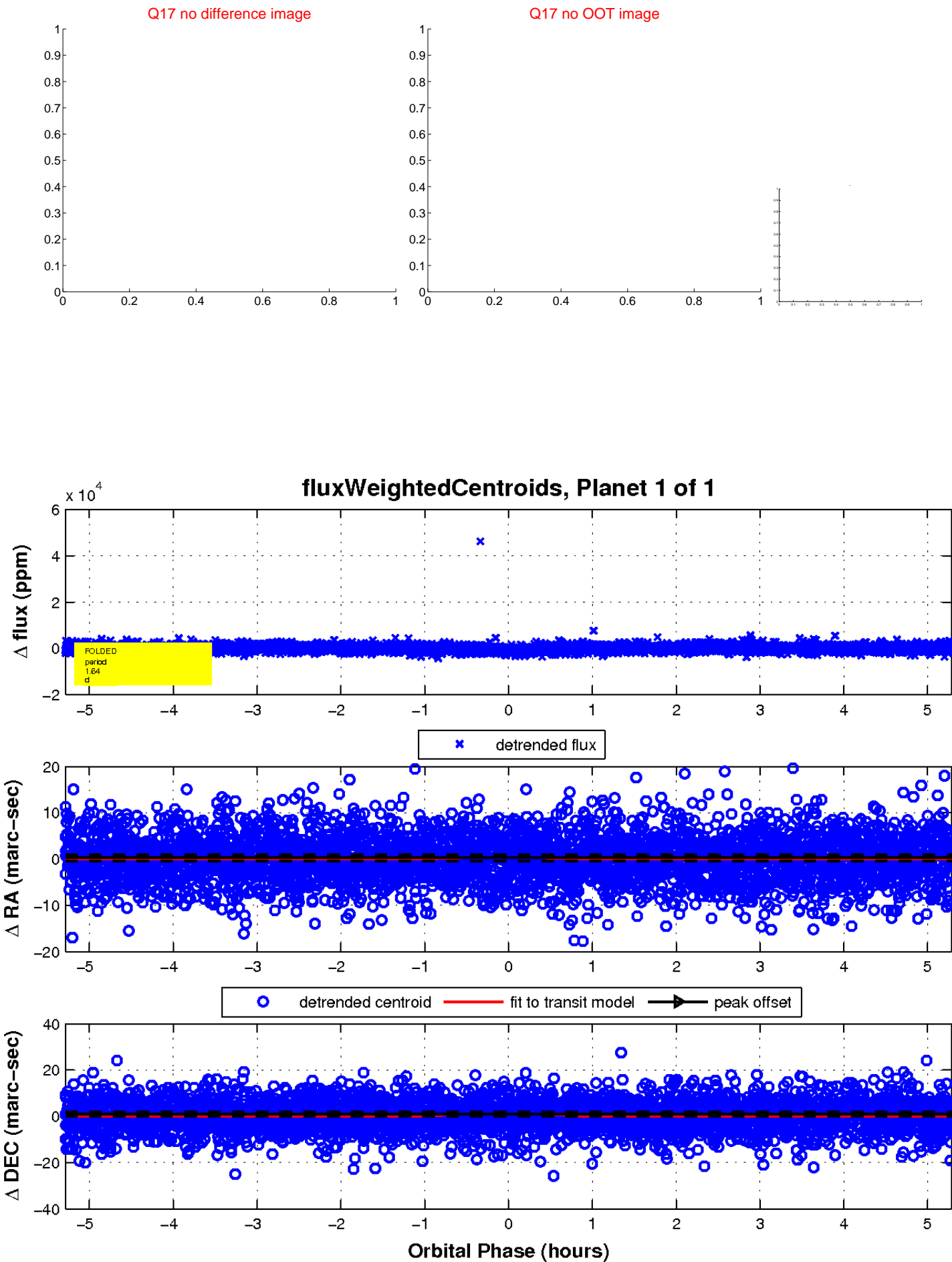
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

