

KIC 011623629

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})
011623629-01	OBS	0365.01	81.737894	211.678198	639.9	7.133	86.1	89.7	0.87	5559	2.55	5.21

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011623629-01	OBS	PC	0.76	0	0	0	0	CENT_SATURATED

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

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

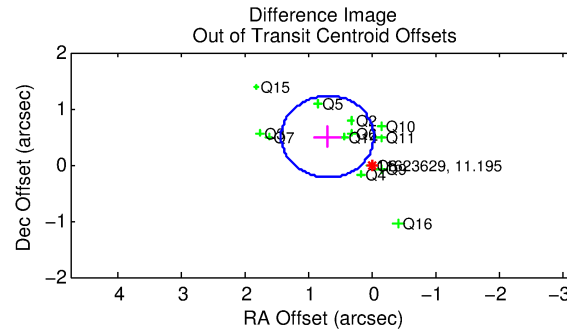
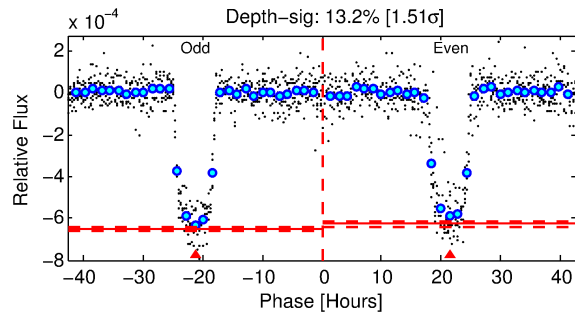
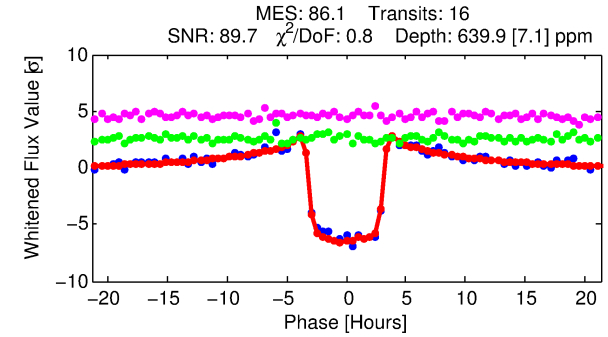
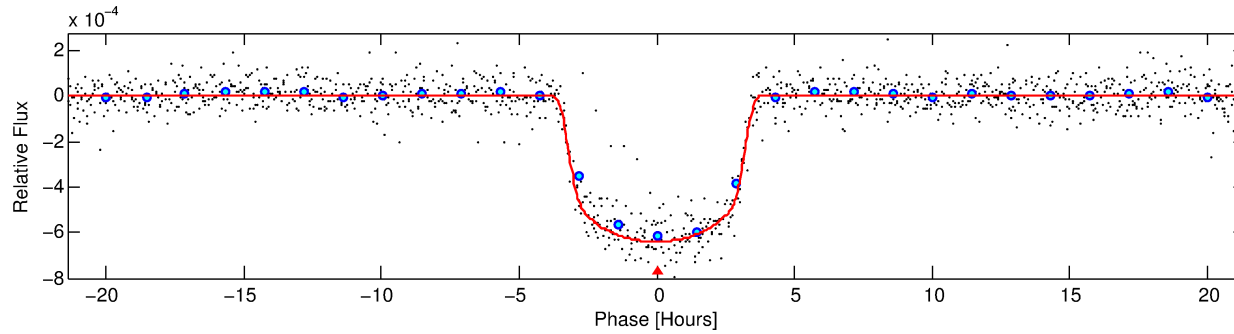
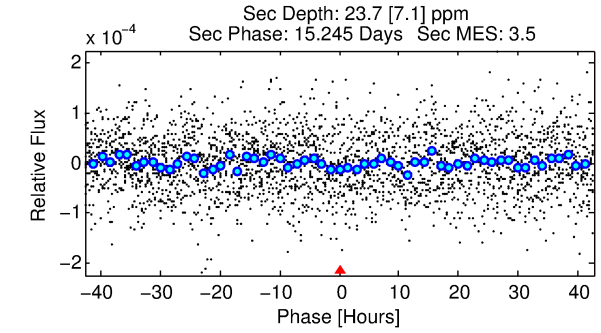
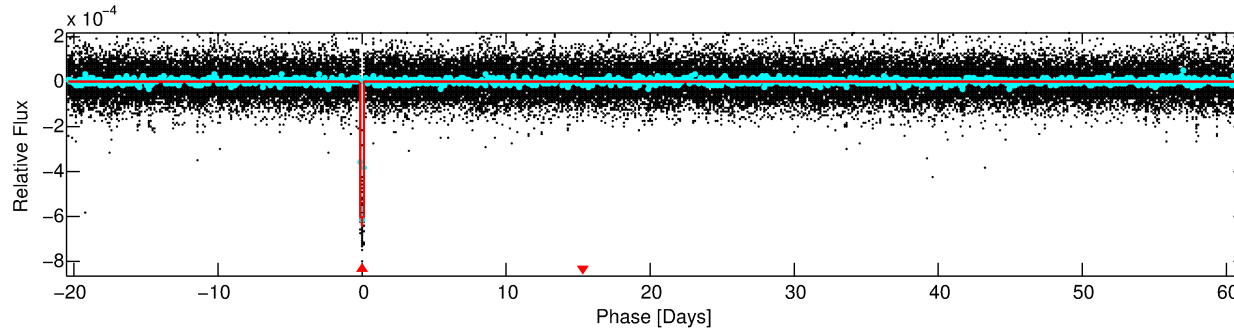
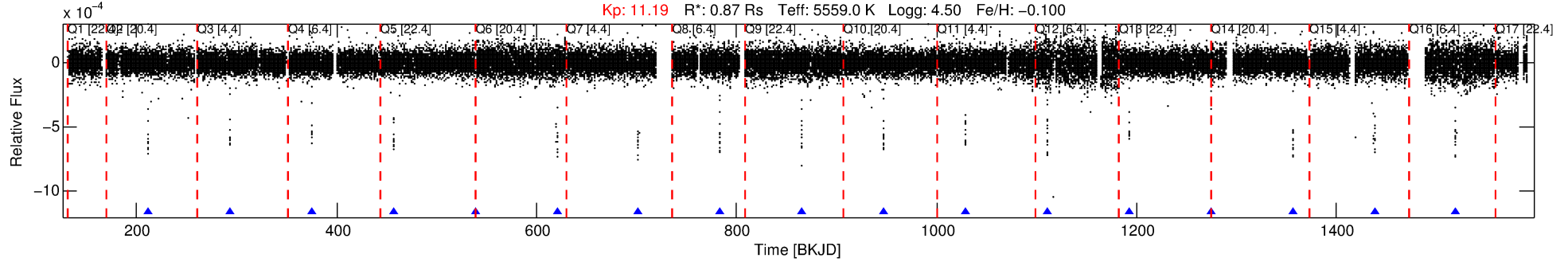
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011623629-01

No Significant Match Found

DV One-Page Summary

KIC: 11623629 Candidate: 1 of 1 Period: 81.738 d
KOI: K00365.01 Corr: 0.967



DV Fit Results:

Period = 81.73789 [0.00011] d
Epoch = 211.6782 [0.0010] BKJD
Rp/R* = 0.0267 [0.0005]
a/R* = 49.17 [3.40]
b = 0.86 [0.02]
Seff = 5.21 [0.92]
Teq = 385 [17] K
Rp = 2.55 [0.30] Re
a = 0.3537 [0.0364] AU
Ag = 251.41 [85.41] [2.93 σ]
Teffp = 2372 [184] K [10.72 σ]

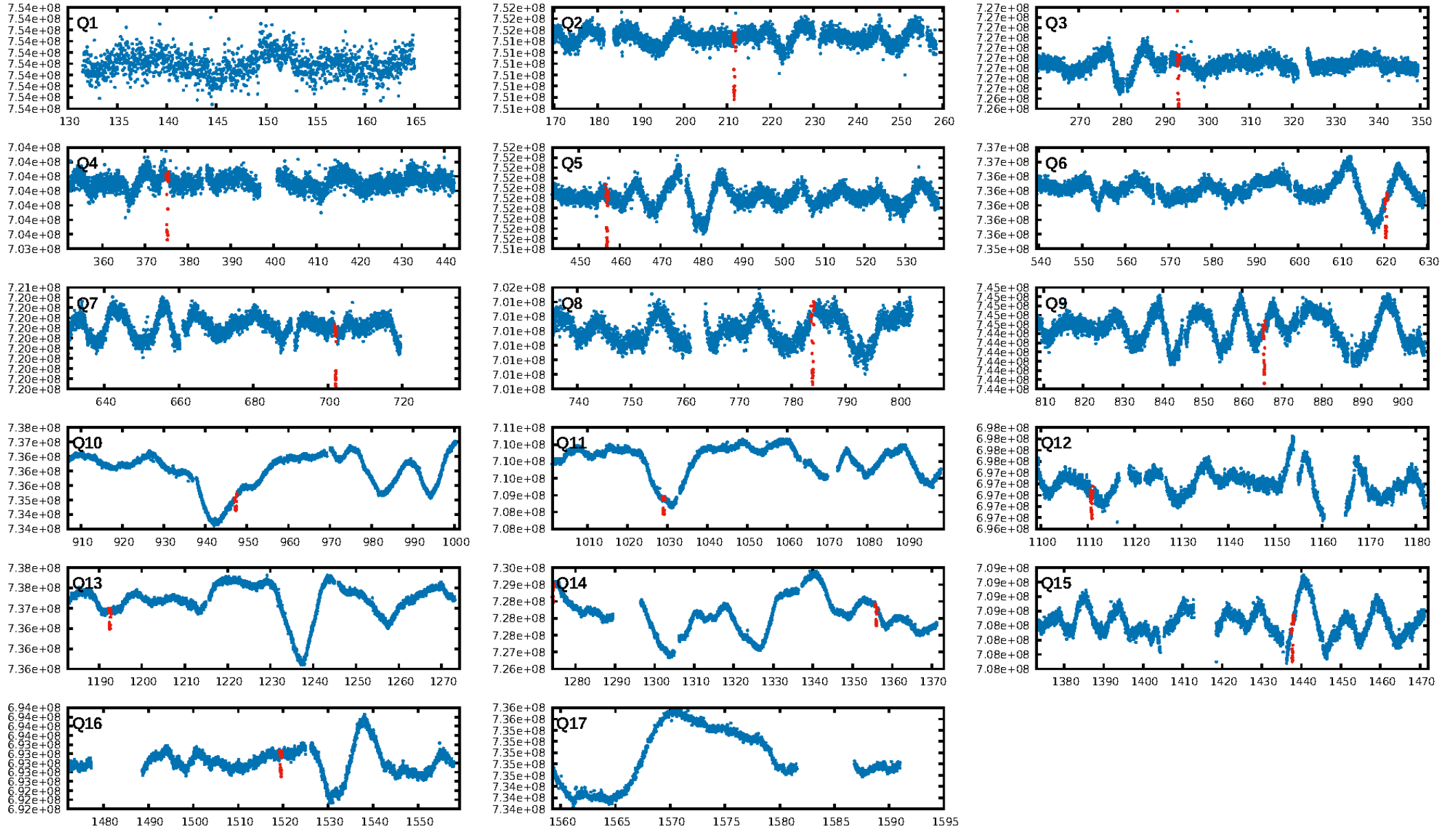
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 2.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [16/16]
GhostDiagnostic-chr: 9.366
Centroid-sig: 0.4%
Centroid-so: 0.689 arcsec [6.13 σ]
OotOffset-rm: 0.863 arcsec [3.56 σ]
KicOffset-rm: 0.439 arcsec [2.28 σ]
OotOffset-st: 4/4/3/2 [13]
KicOffset-st: 4/4/3/2 [13]
DiffImageQuality-fgm: 0.92 [12/13]
DiffImageOverlap-fno: 1.00 [13/13]

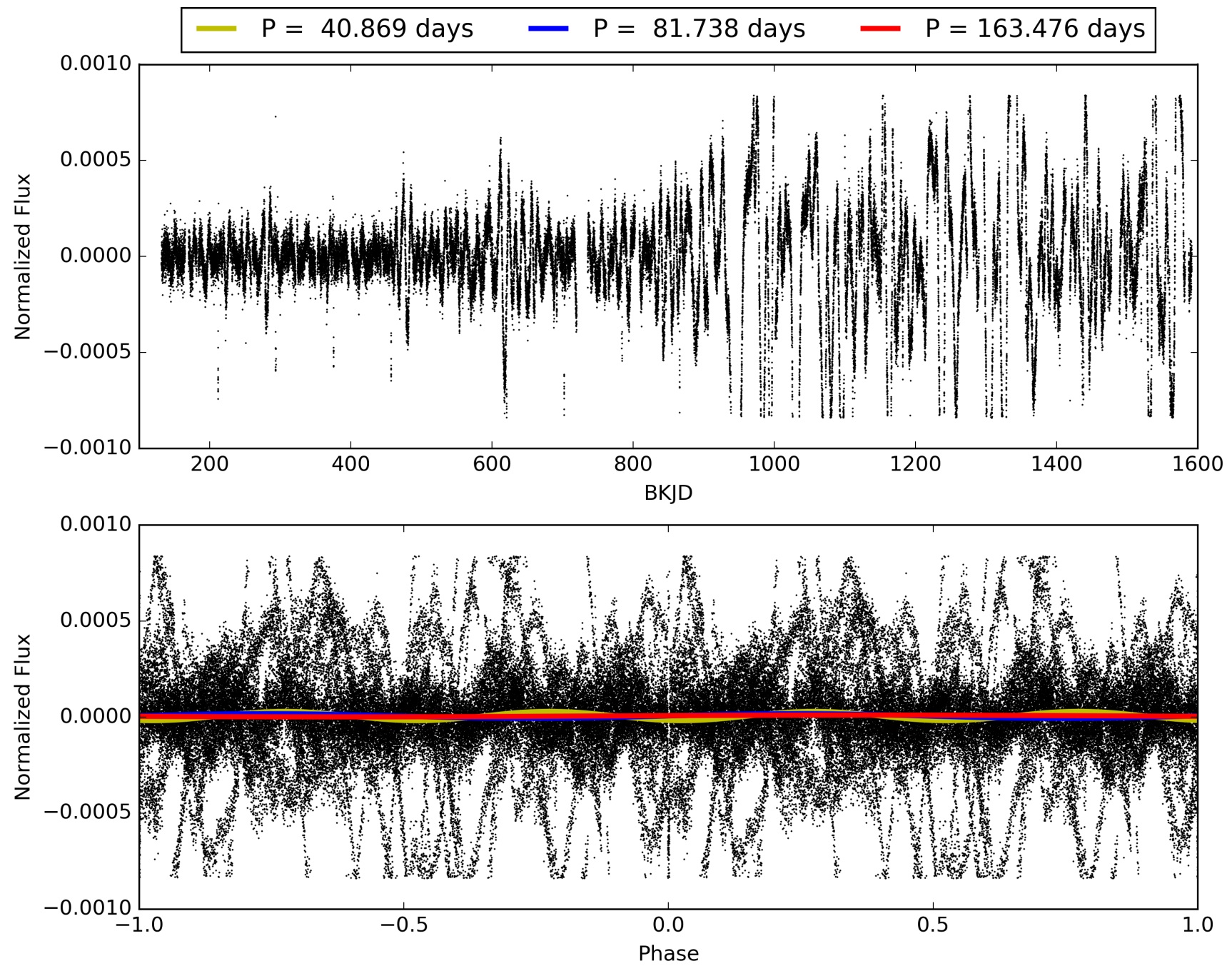
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:47:17 Z

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

TCE 011623629-01, PDC Light Curves

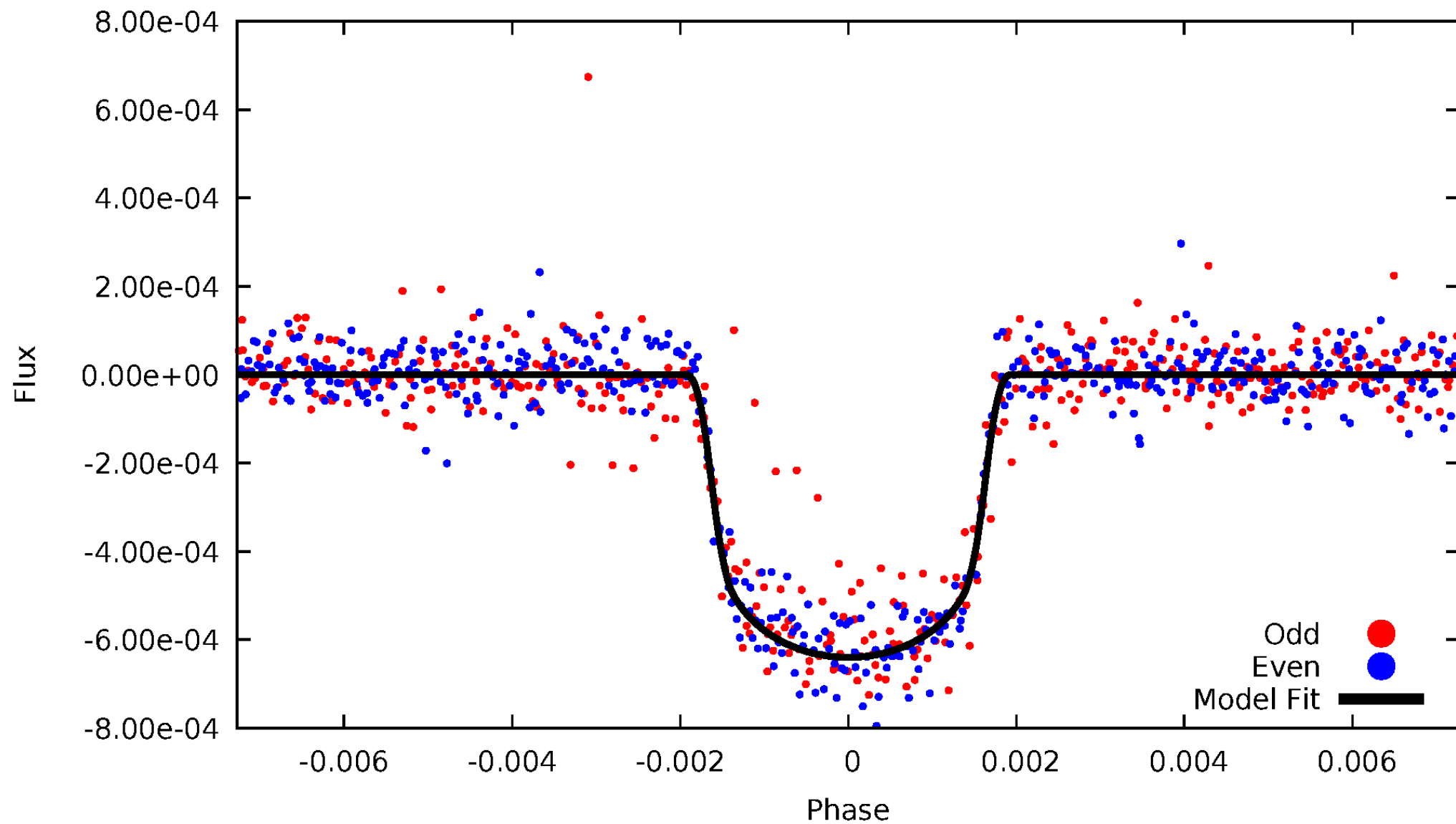


TCE 011623629-01



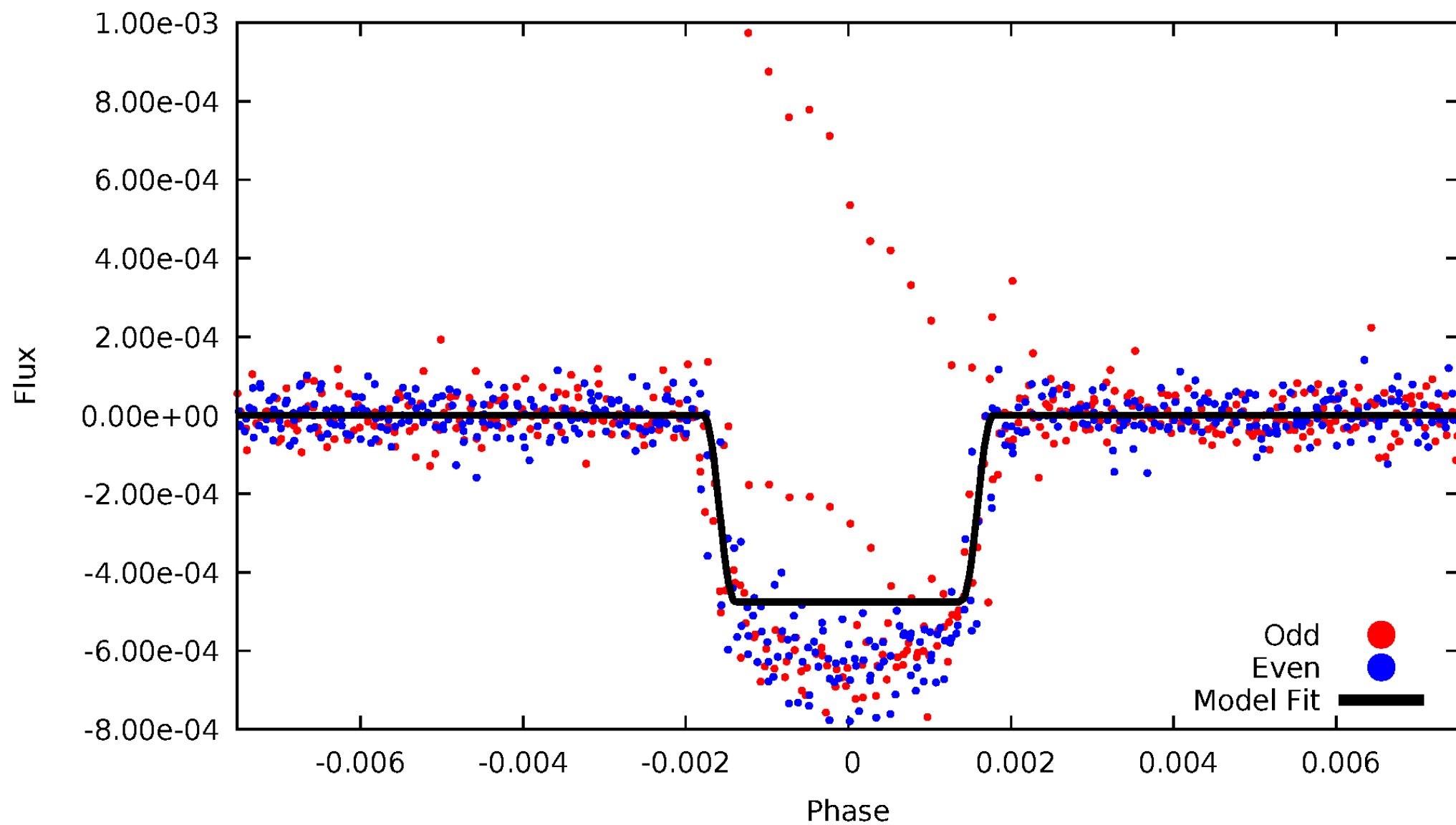
DV Odd/Even

TCE 011623629-01

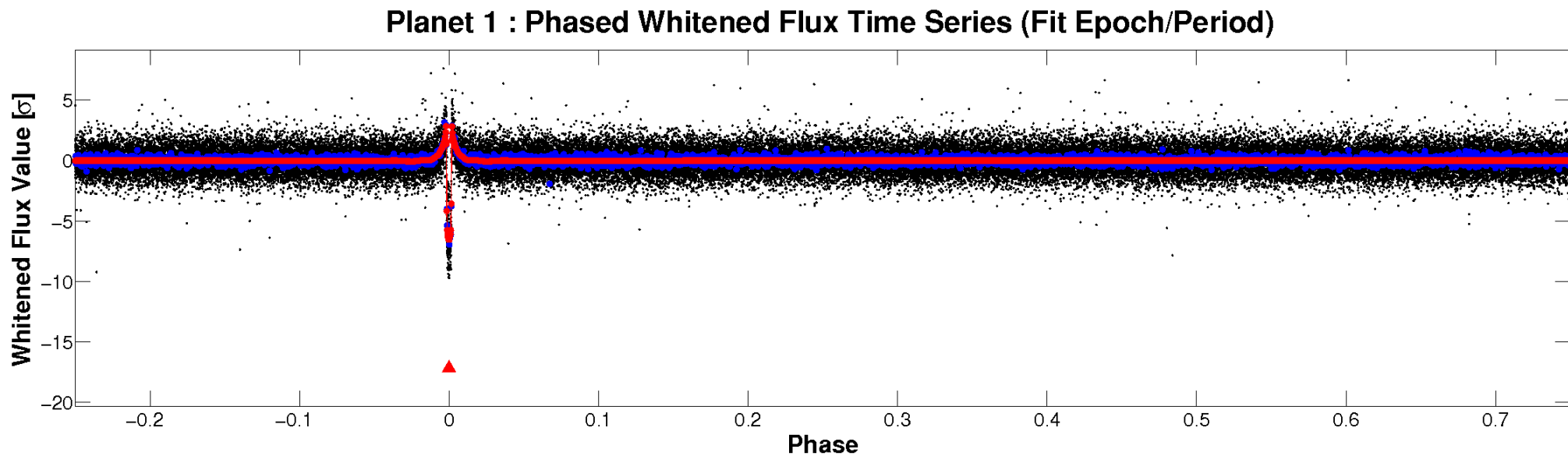
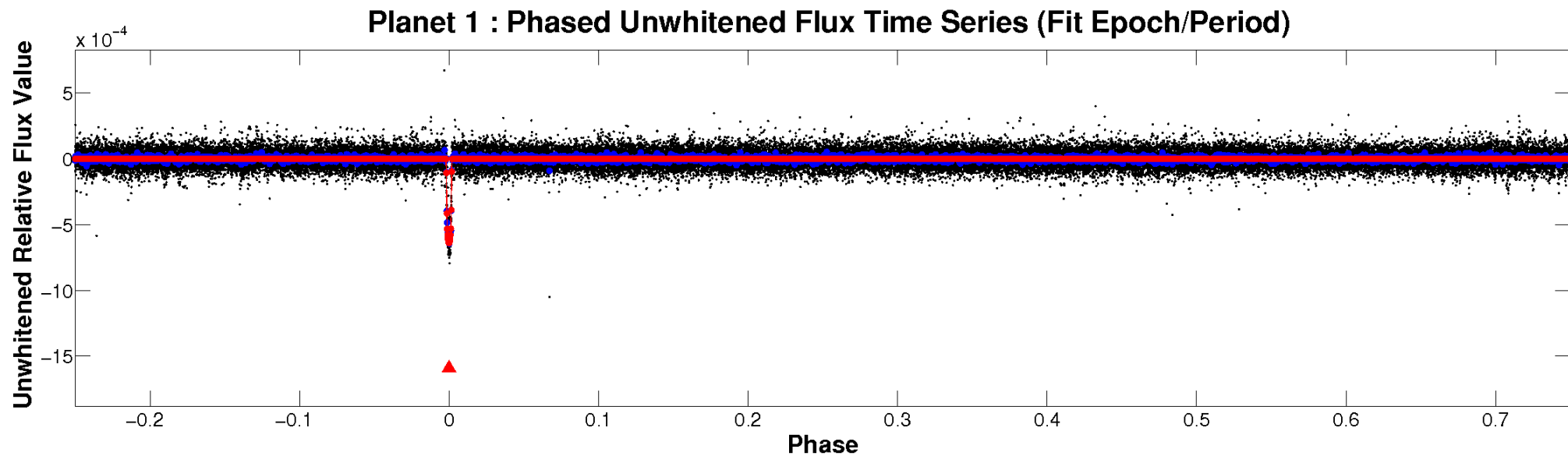


ALT Odd/Even

TCE 011623629-01

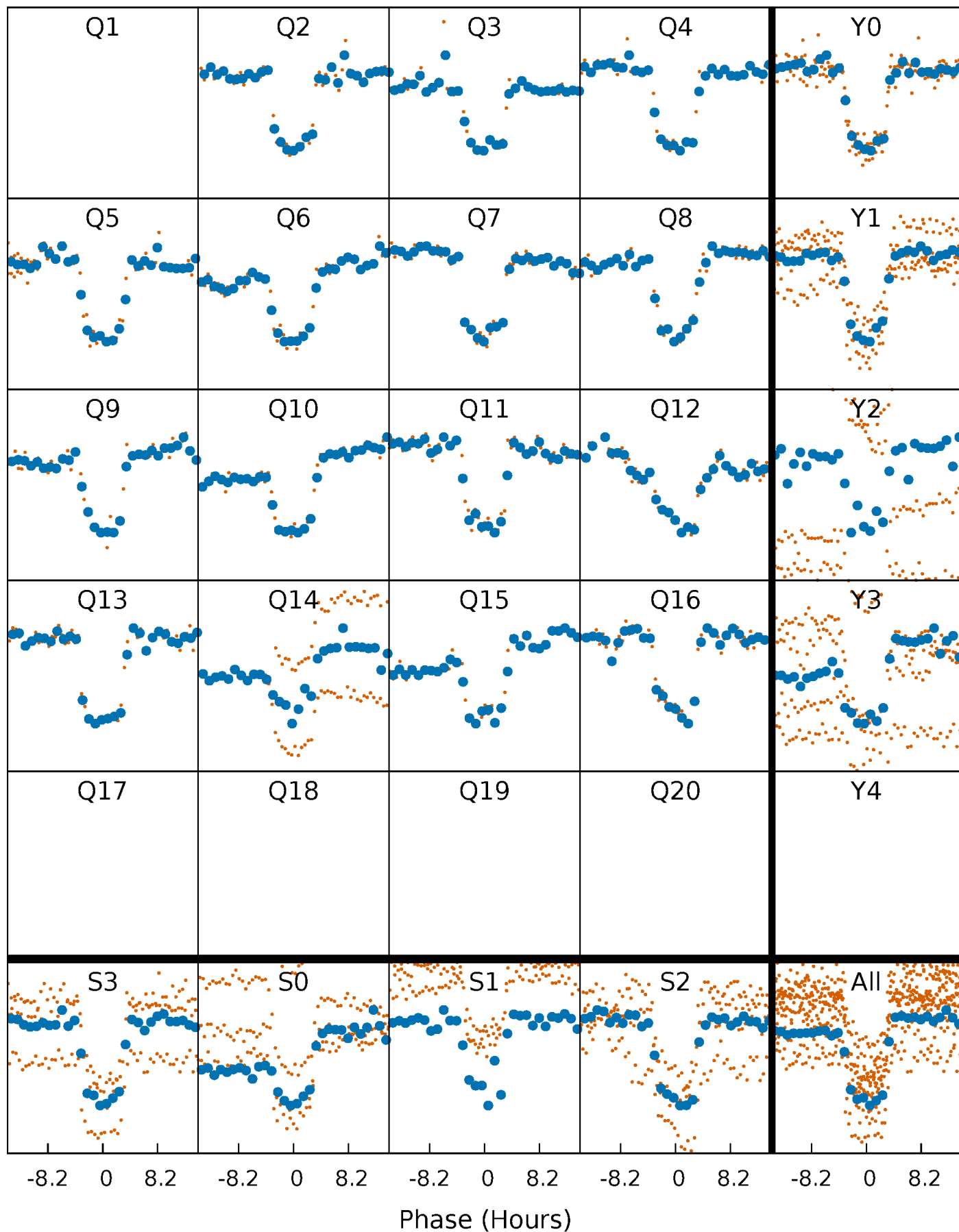


Non-Whitened Vs. Whitened Light Curve



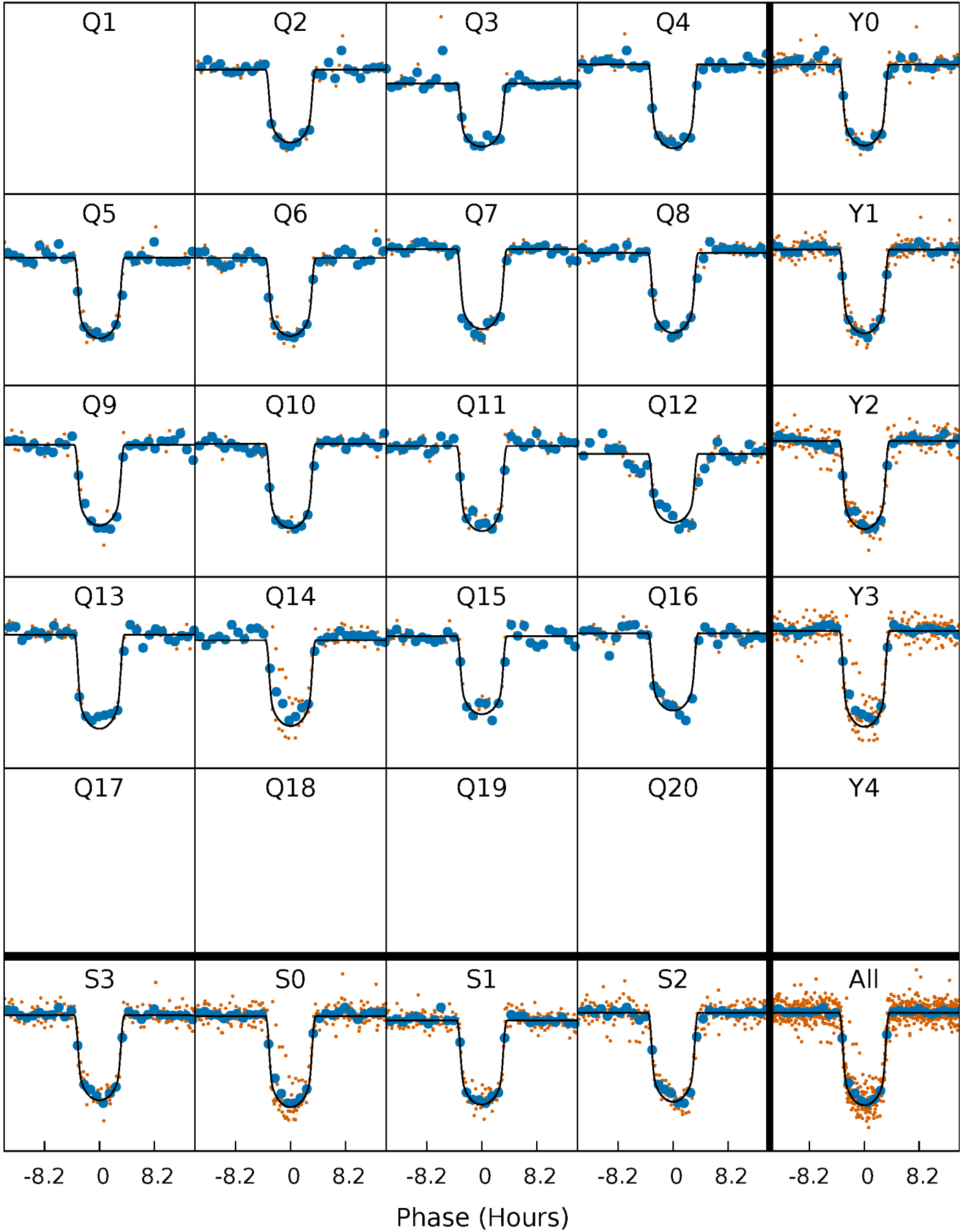
PDC Quarter-Phased Transit Curves

TCE 011623629-01 P= 81.737894 Days $T_0=211.678198$ (BKJD)



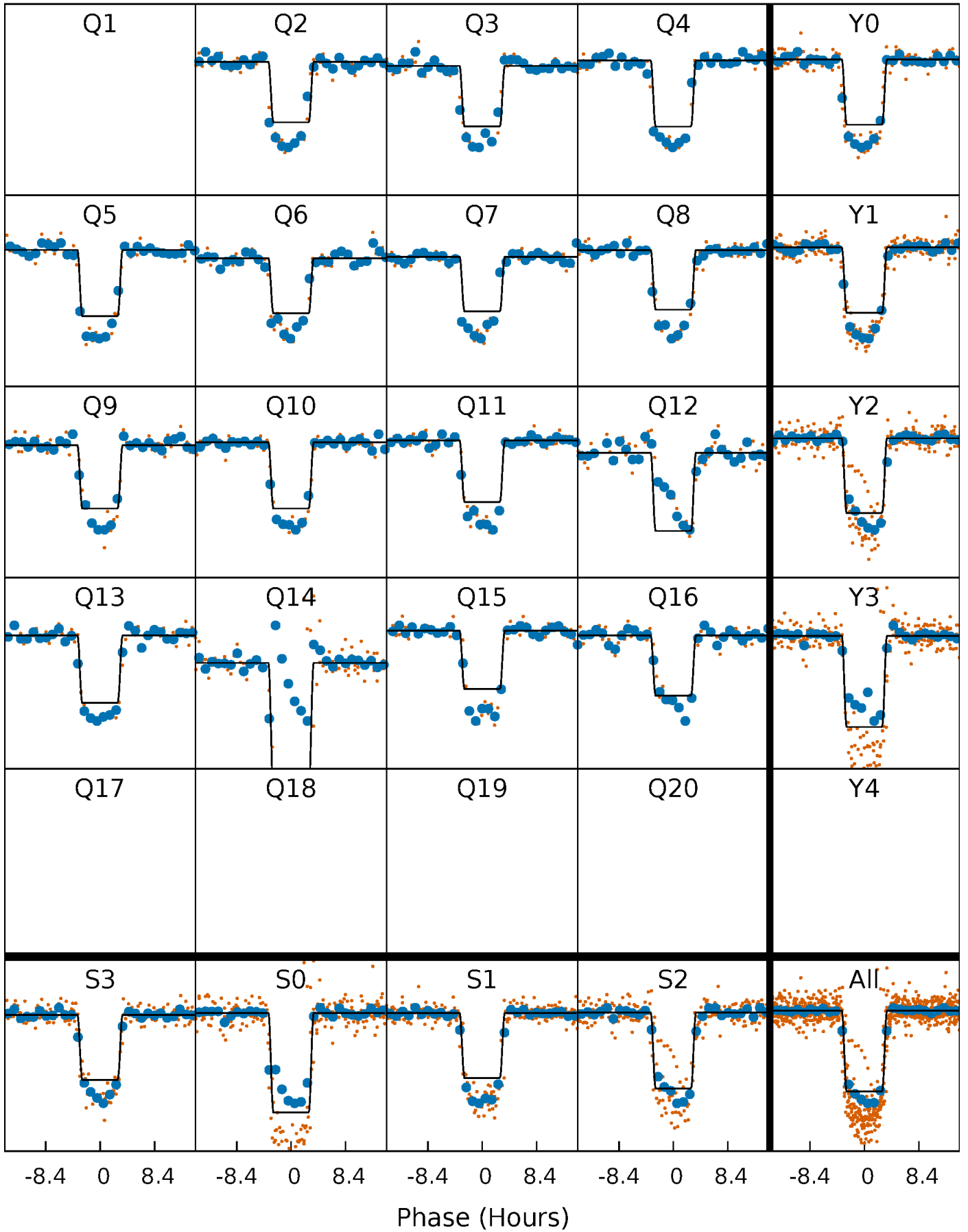
DV Quarter-Phased Transit Curves

TCE 011623629-01 P= 81.737894 Days $T_0=211.678198$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

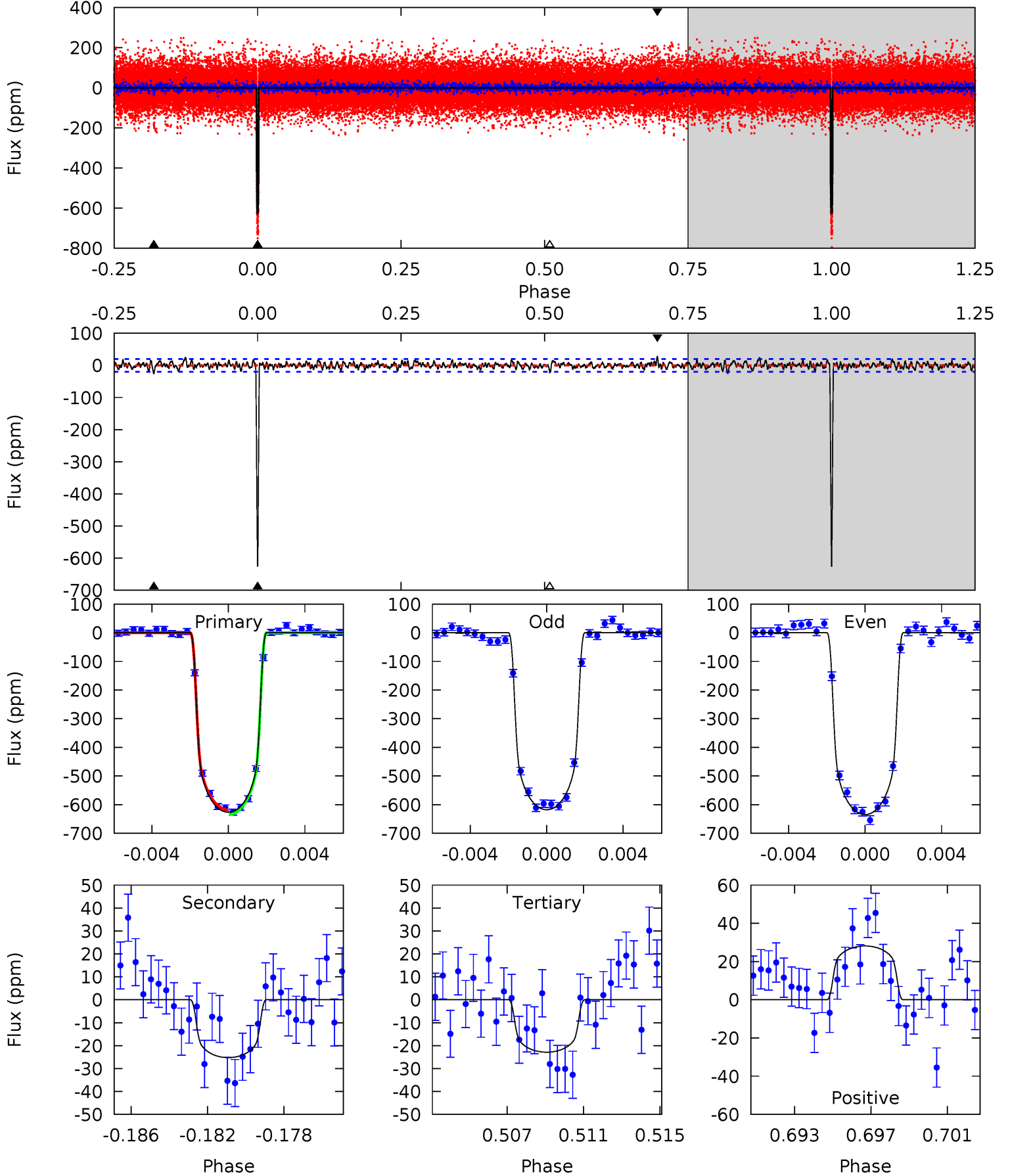
TCE 011623629-01 P= 81.735881 Days $T_0=211.693593$ (BKJD)



DV Model-Shift Uniqueness Test

011623629-01, $P = 81.737894$ Days, $E = 129.940304$ Days

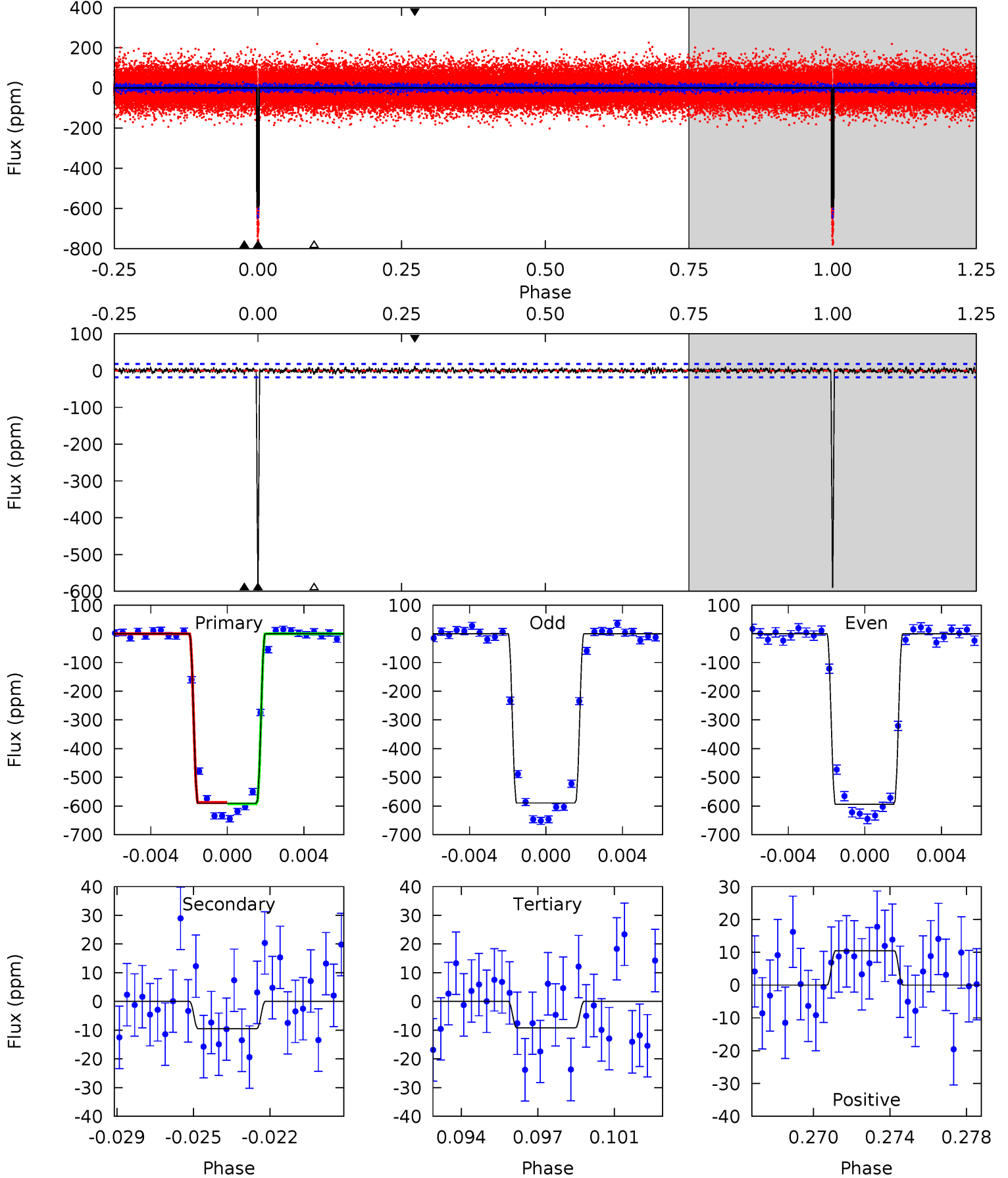
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
164.2	6.61	5.99	7.38	5.21	2.89	1.71	158.2	156.8	0.62	-0.76	2.19	0.98	0.04	2.22



Alt Model-Shift Uniqueness Test

011623629-01, P = 81.735881 Days, E = 129.957712 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
168.6	2.70	2.61	2.98	5.22	2.91	0.83	166.0	165.7	0.09	-0.28	0.63	0.87	0.02	0.69



Stellar Parameters For KIC 011623629

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5559^{+110}_{-110}	$4.502^{+0.052}_{-0.090}$	$-0.100^{+0.150}_{-0.150}$	$0.873^{+0.100}_{-0.059}$	$0.882^{+0.055}_{-0.055}$	$1.870^{+0.364}_{-0.527}$
	+2%/-2%	+1%/-2%	+150%/-150%	+11%/-7%	+6%/-6%	+19%/-28%
Source	SPE59	SPE59	SPE59	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011623629-01 / KOI 0365.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-25 ± 4	$2.57^{+0.18}_{-0.13}$	541^{+20}_{-17}	3049^{+78}_{-83}	258^{+51}_{-44}
Alt.	-9 ± 4	$2.09^{+0.13}_{-0.11}$	541^{+19}_{-17}	2815^{+131}_{-189}	145^{+62}_{-61}

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

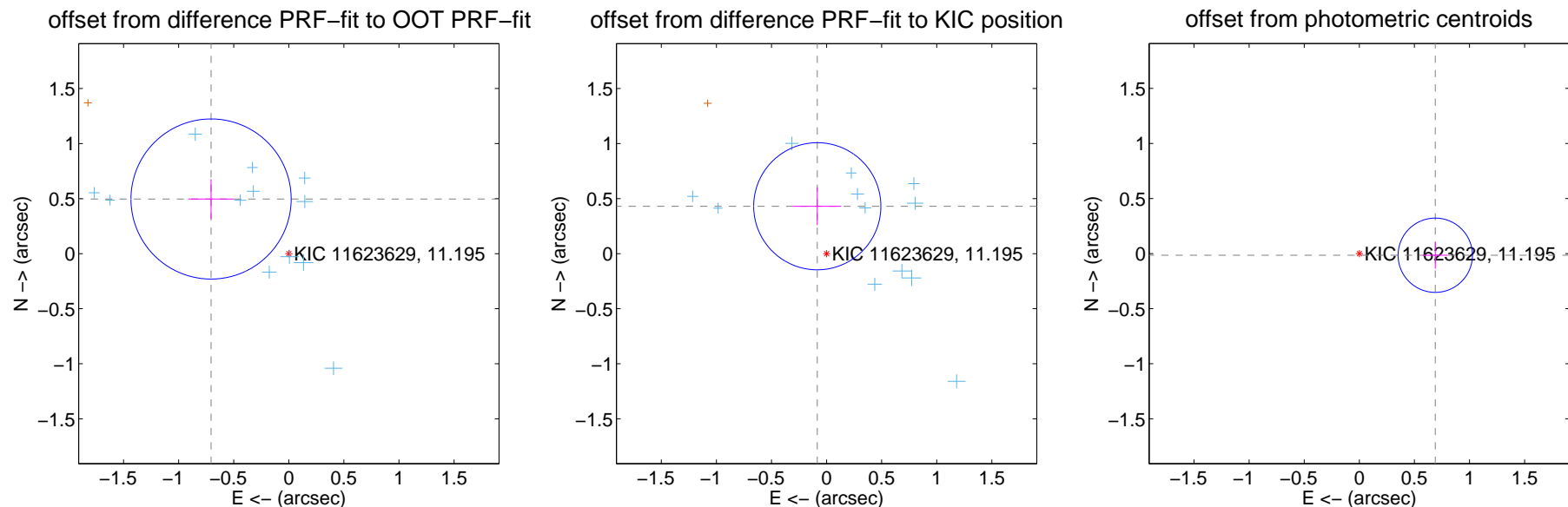
DV Centroid Data

Supplemental centroid analysis for 011623629-01. **Kepler magnitude: 11.20.** Transit SNR 89.72

There are 12 quarters with good PRF difference image offsets

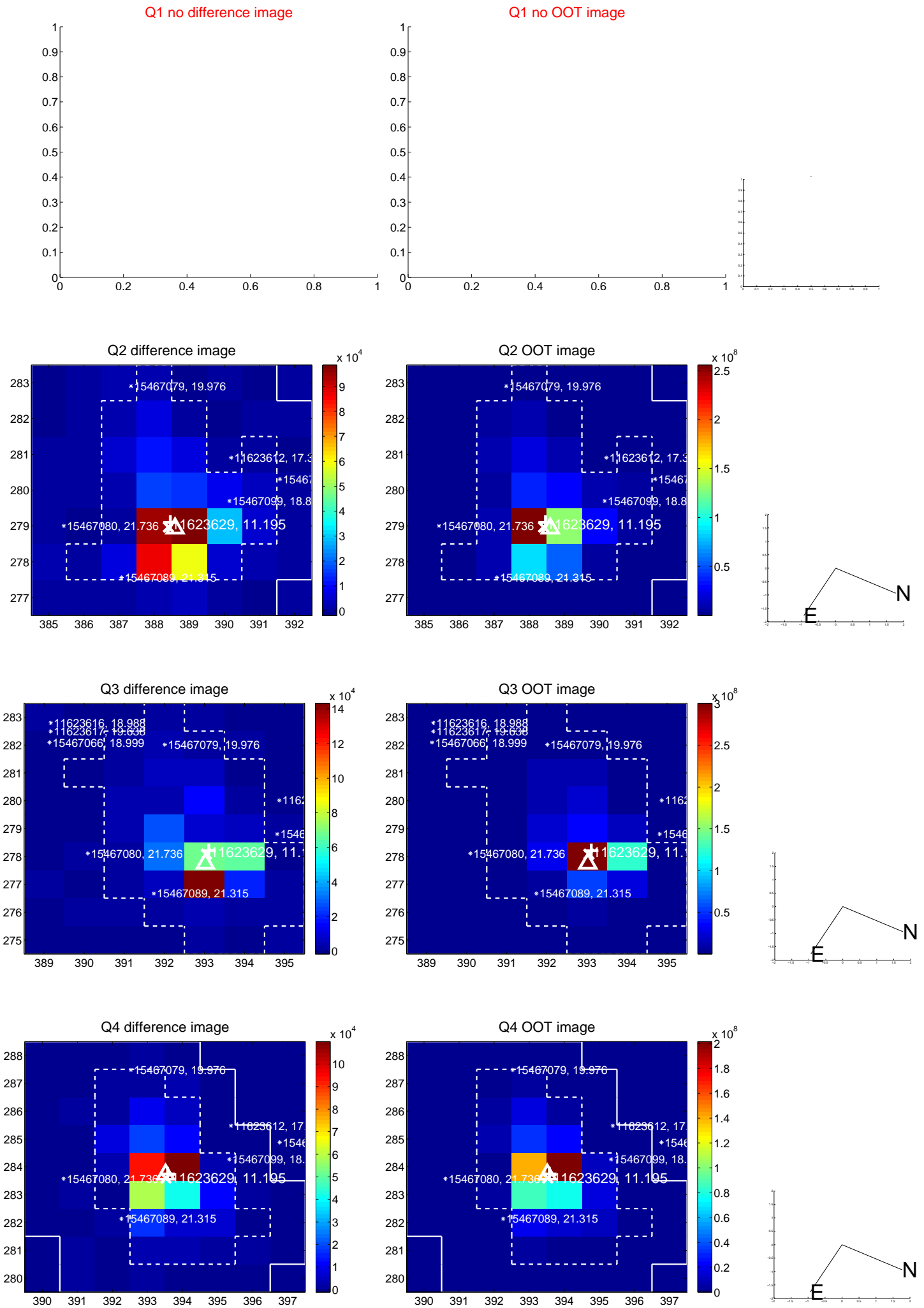
The direct PRF centroid is offset from the target star catalog position by about 0.78 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.863 ± 0.242	3.56	0.706 ± 0.207	0.496 ± 0.180
PRF-fit source offset from KIC position	0.439 ± 0.192	2.28	0.084 ± 0.218	0.431 ± 0.171
photometric centroid source offset	0.69 ± 0.11	6.13	-0.69 ± 0.11	-0.02 ± 0.12

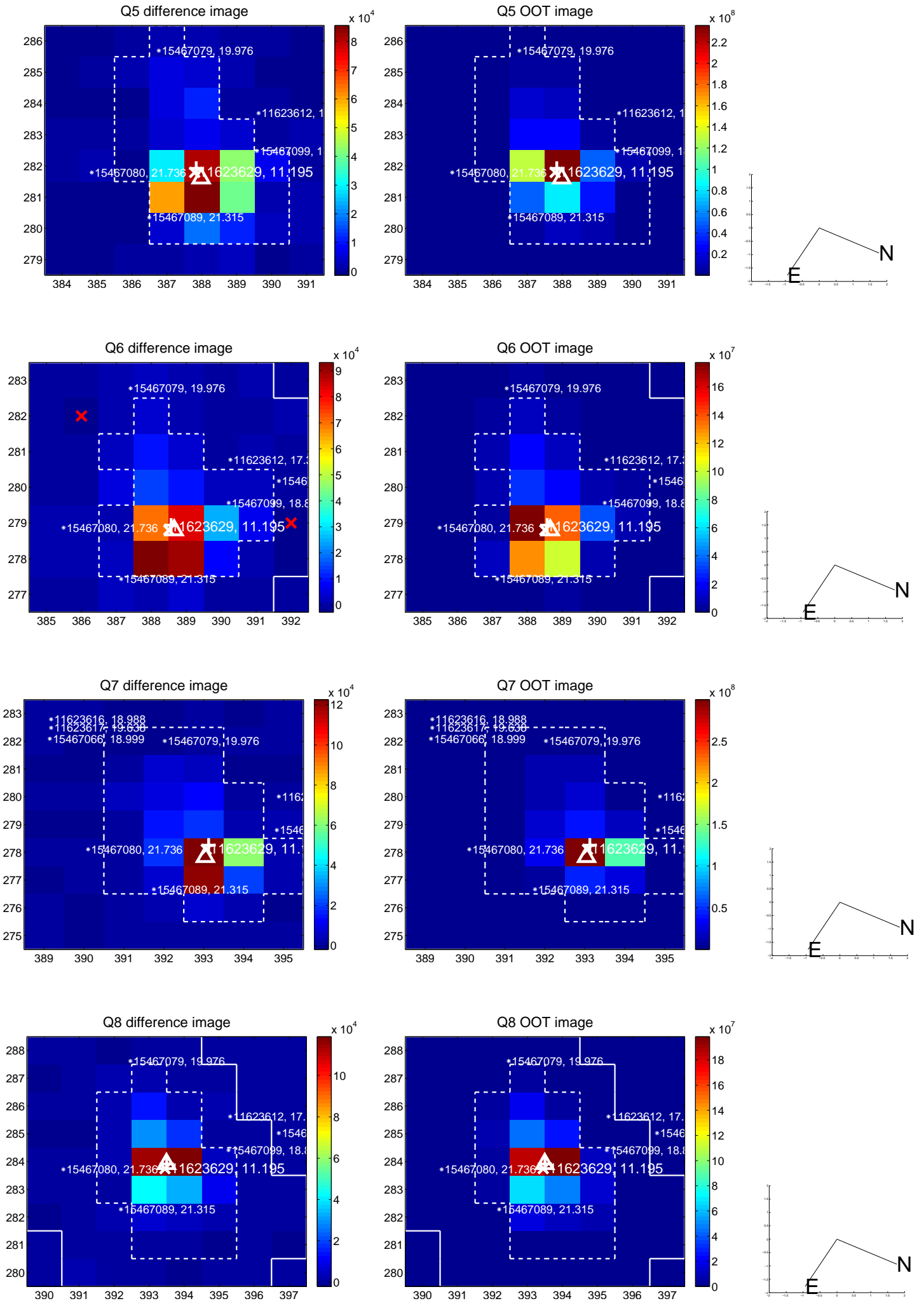


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

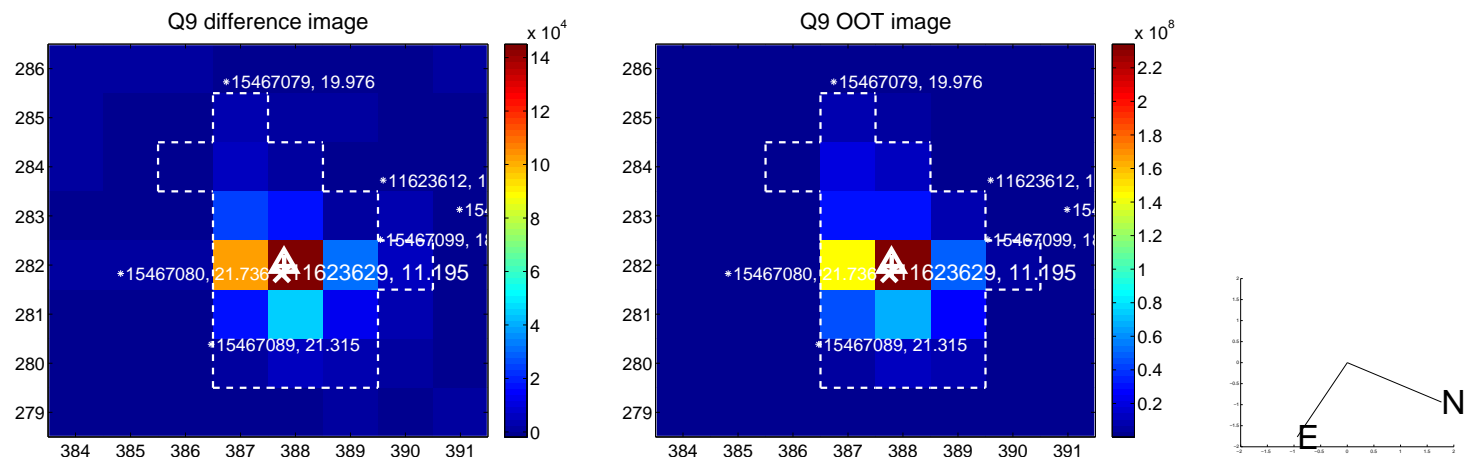
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



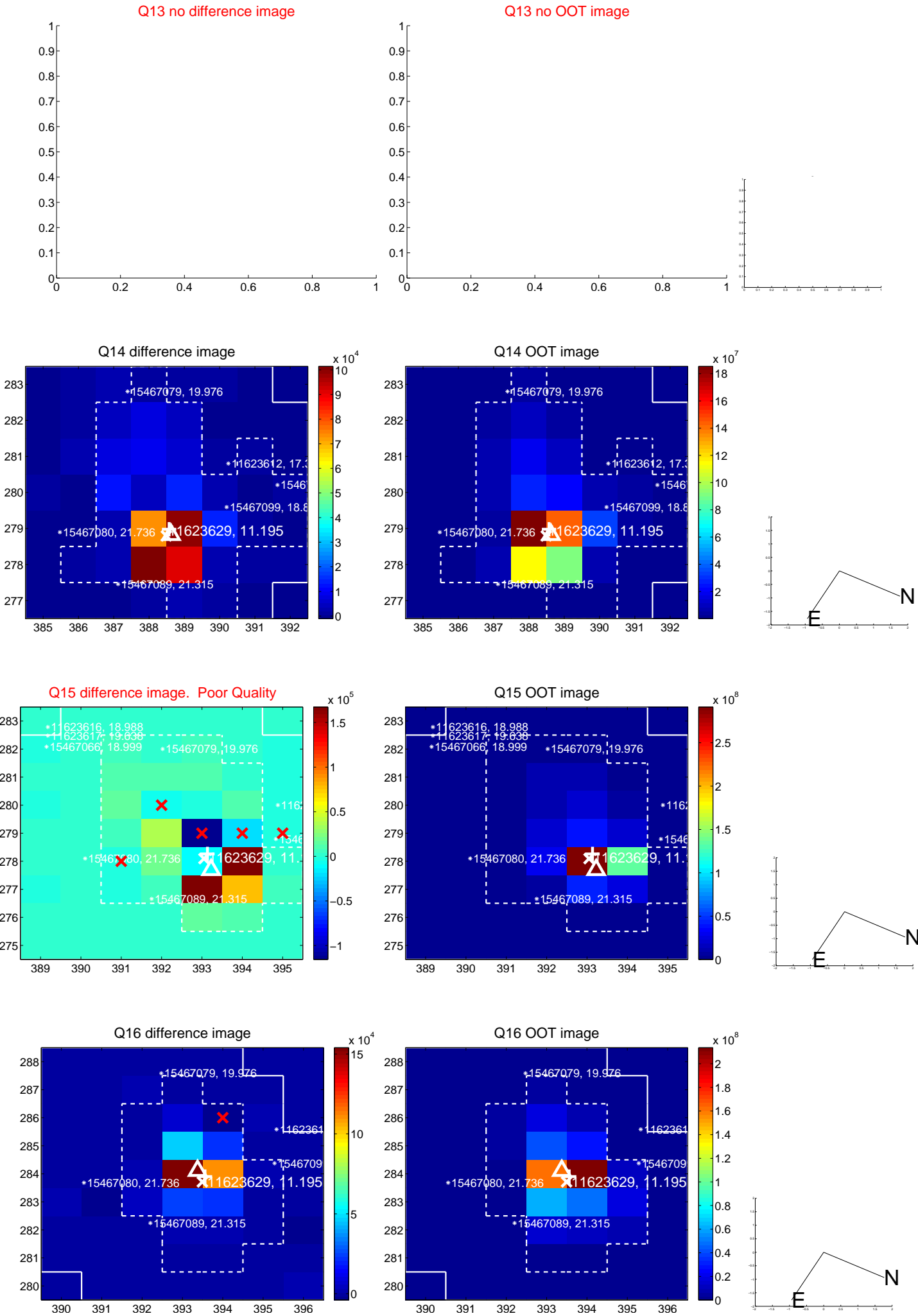
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



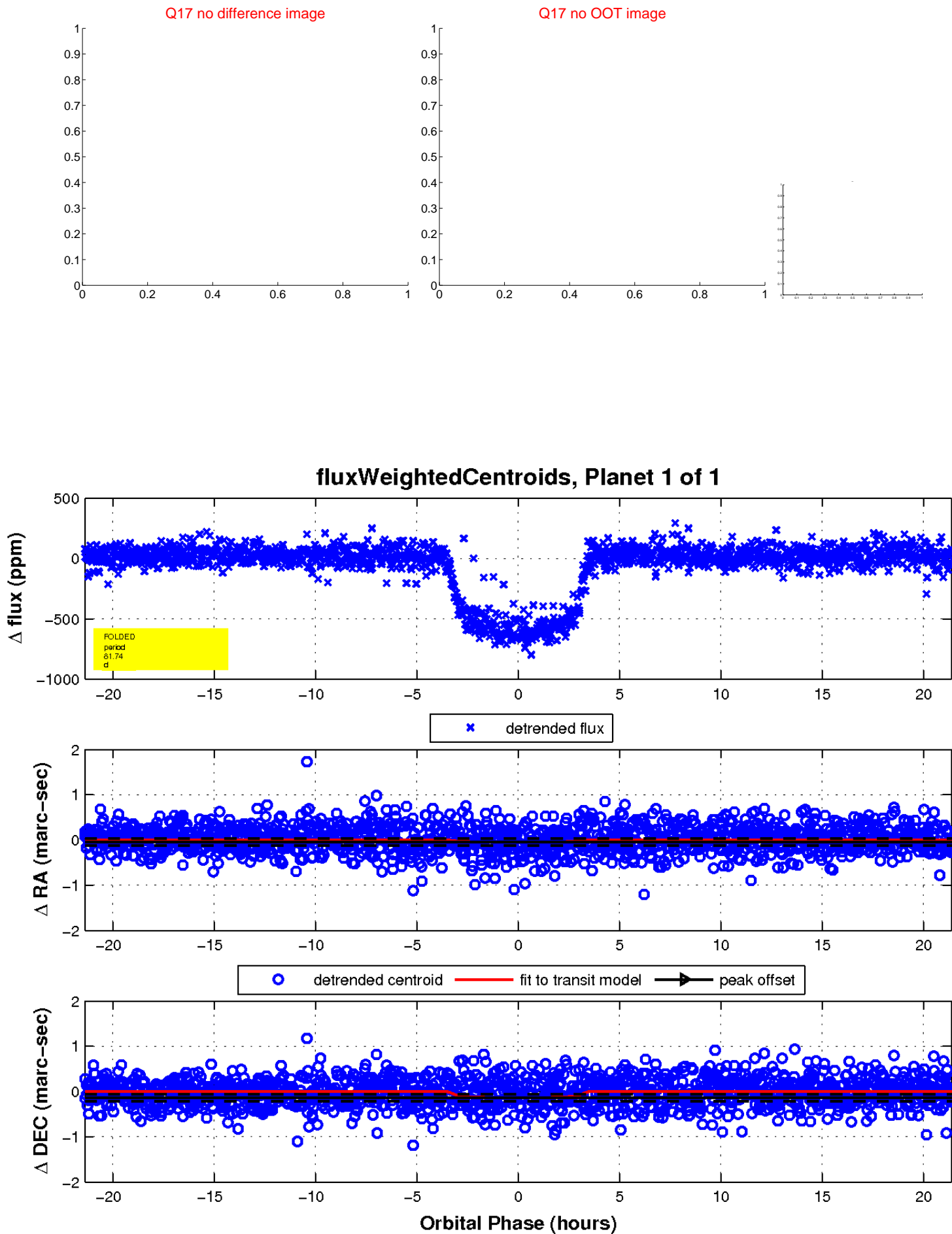
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

