

KIC 008106863

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})
008106863-01	OBS	No	369.200372	232.467807	1262.2	16.110	11.4	12.4	0.88	5767	3.17	0.77

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008106863-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—CENT_FEW_DIFFS—HALO_GHOST

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

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

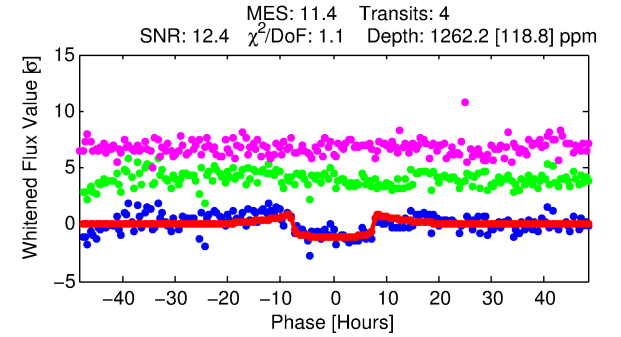
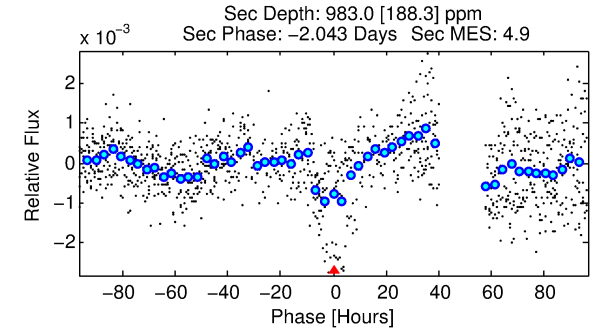
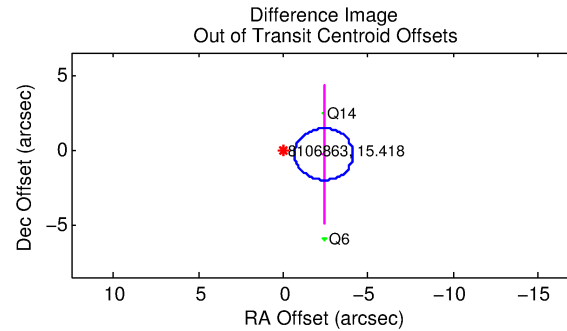
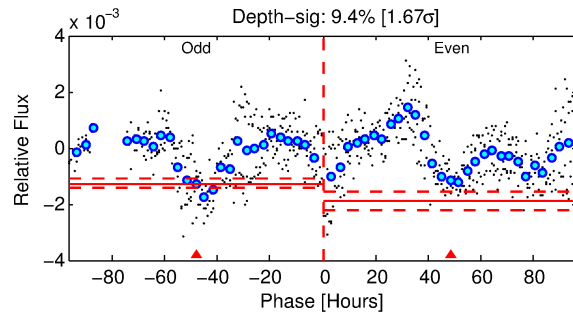
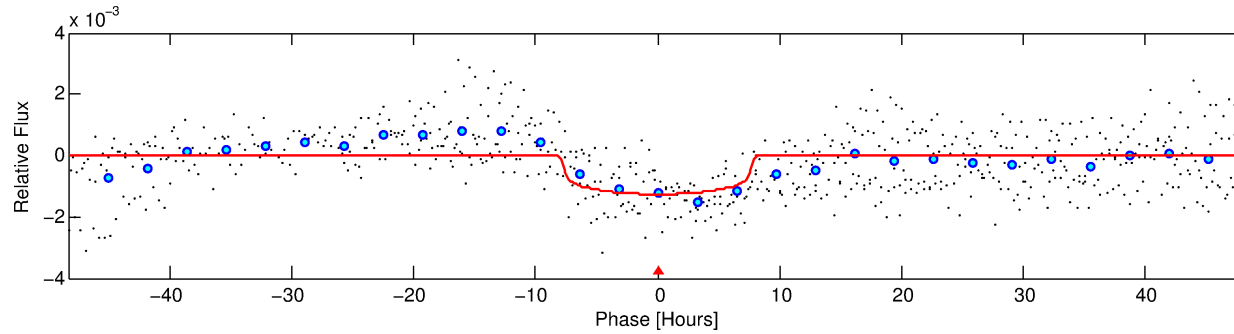
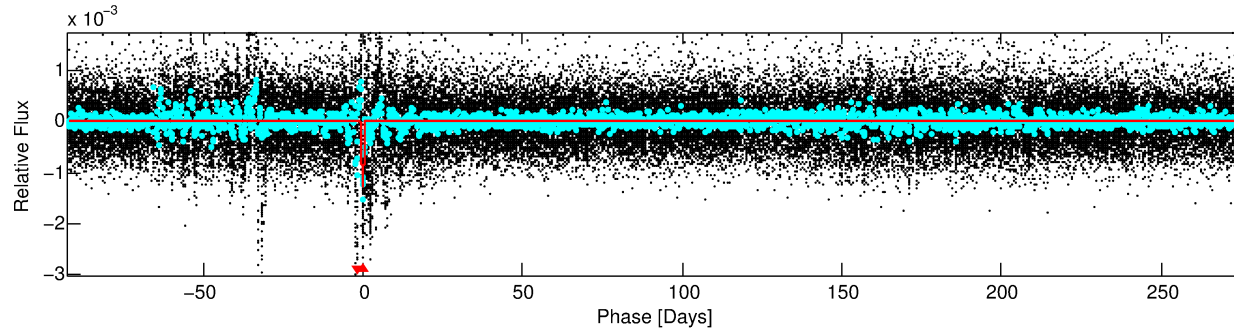
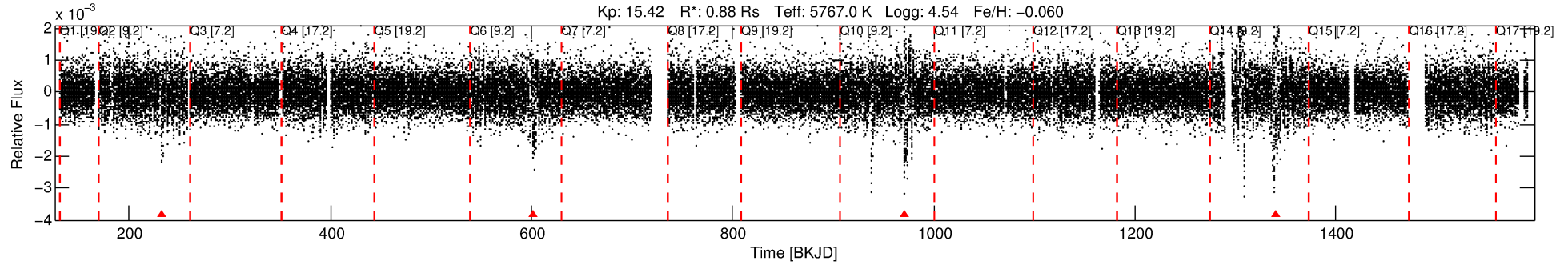
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008106863-01

No Significant Match Found

DV One-Page Summary

KIC: 8106863 Candidate: 1 of 1 Period: 369.200 d



DV Fit Results:

Period = 369.20037 [0.00682] d
Epoch = 232.4678 [0.0139] BKJD
Rp/R* = 0.0330 [0.0075]
a/R* = 163.77 [156.79]
b = 0.44 [1.78]
Seff = 0.77 [0.28]
Teq = 239 [22] K
Rp = 3.17 [1.14] Re
a = 0.9997 [0.2362] AU
Ag = 53712.35 [32467.46] [1.65 σ]
Teff = 5622 [715] K [7.52 σ]

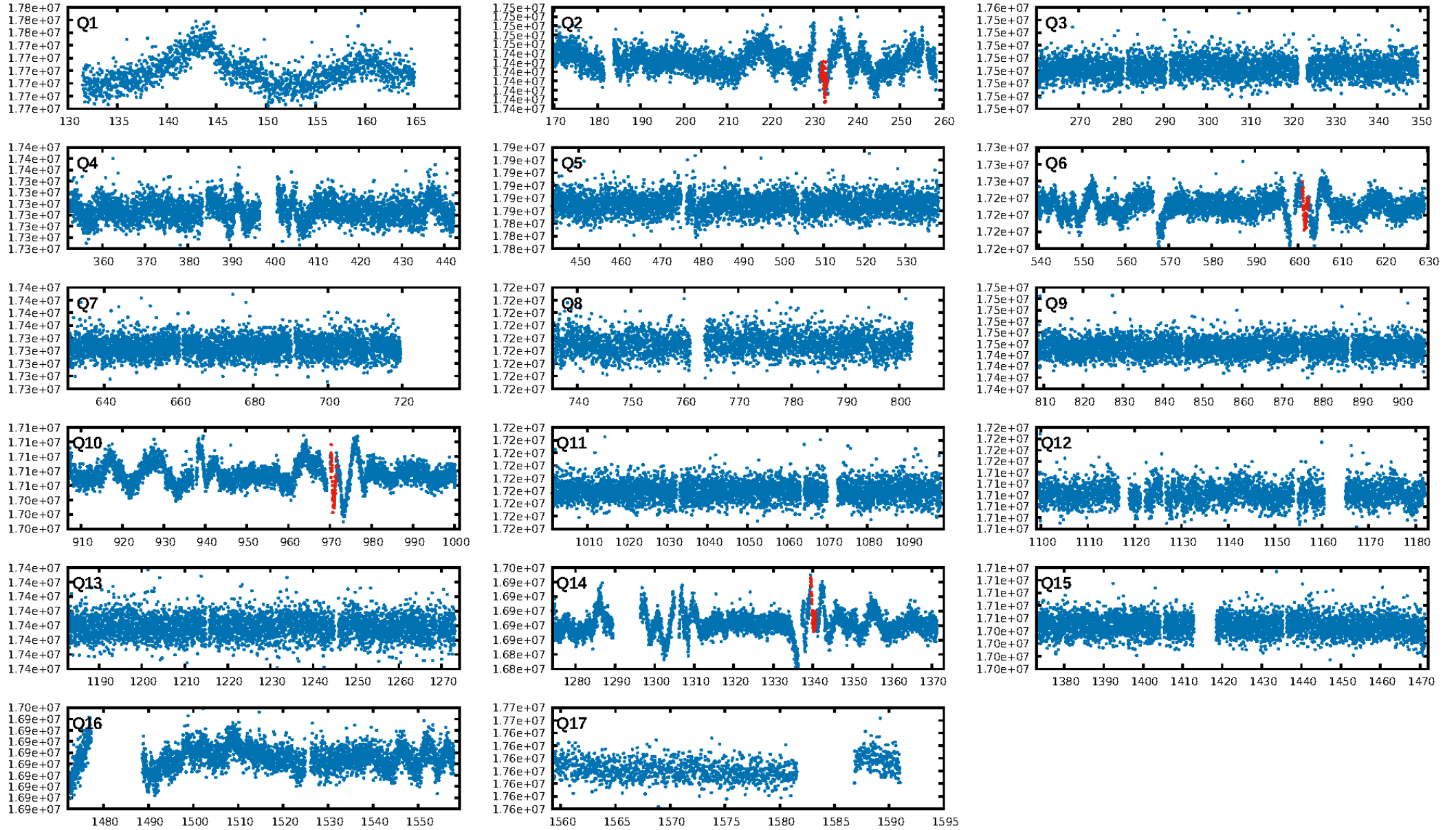
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.1%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 8.07e-14
RollingBand-fgt: 0.00 [0/4]
GhostDiagnostic-chr: 0.192
Centroid-sig: 0.0%
Centroid-so: 5.611 arcsec [2.80 σ]
OotOffset-rm: 2.418 arcsec [4.21 σ]
KicOffset-rm: 2.339 arcsec [5.26 σ]
OotOffset-st: 2/0/0/0 [2]
KicOffset-st: 2/0/0/0 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [2/2]

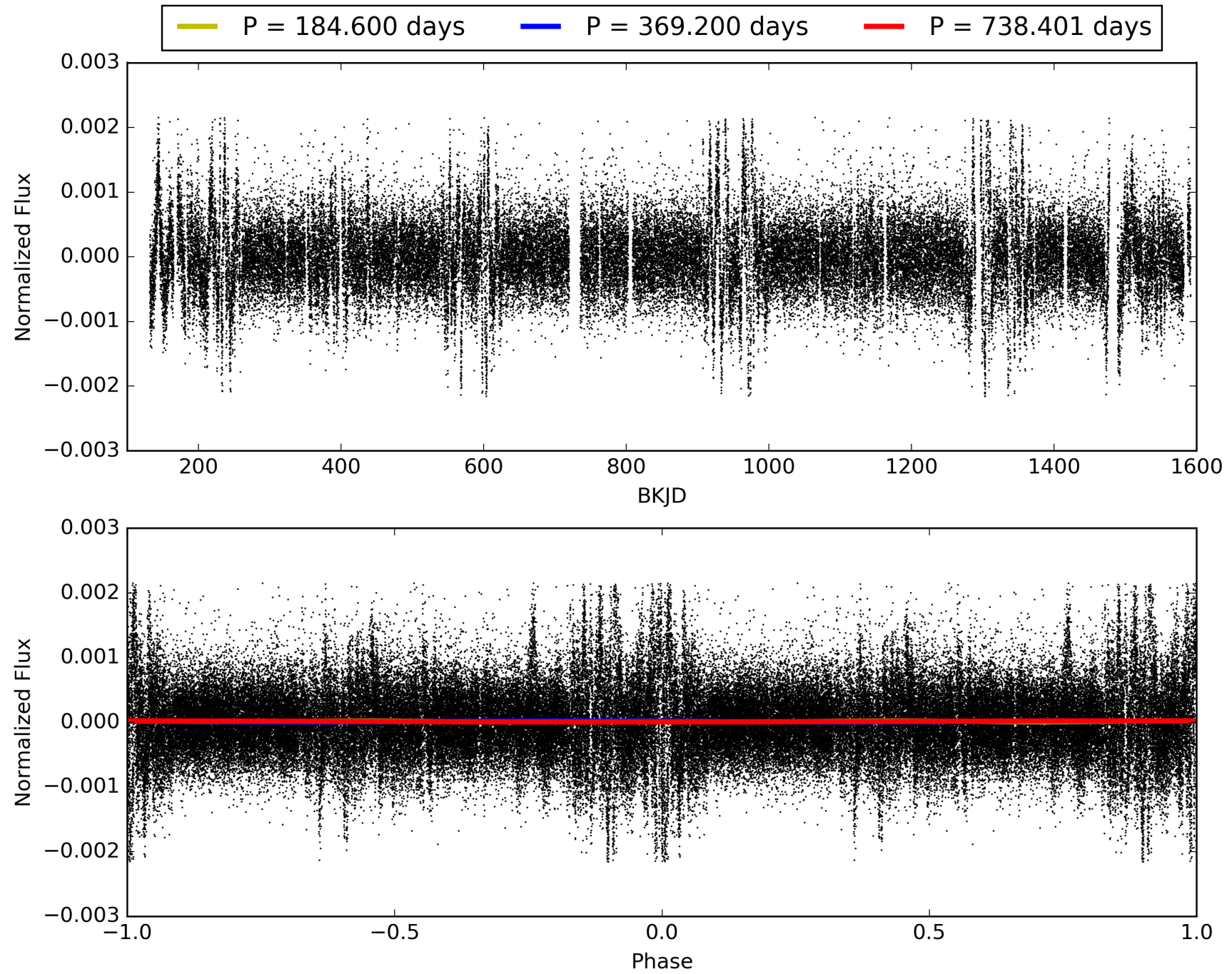
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 01:28:38 Z

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

TCE 008106863-01, PDC Light Curves

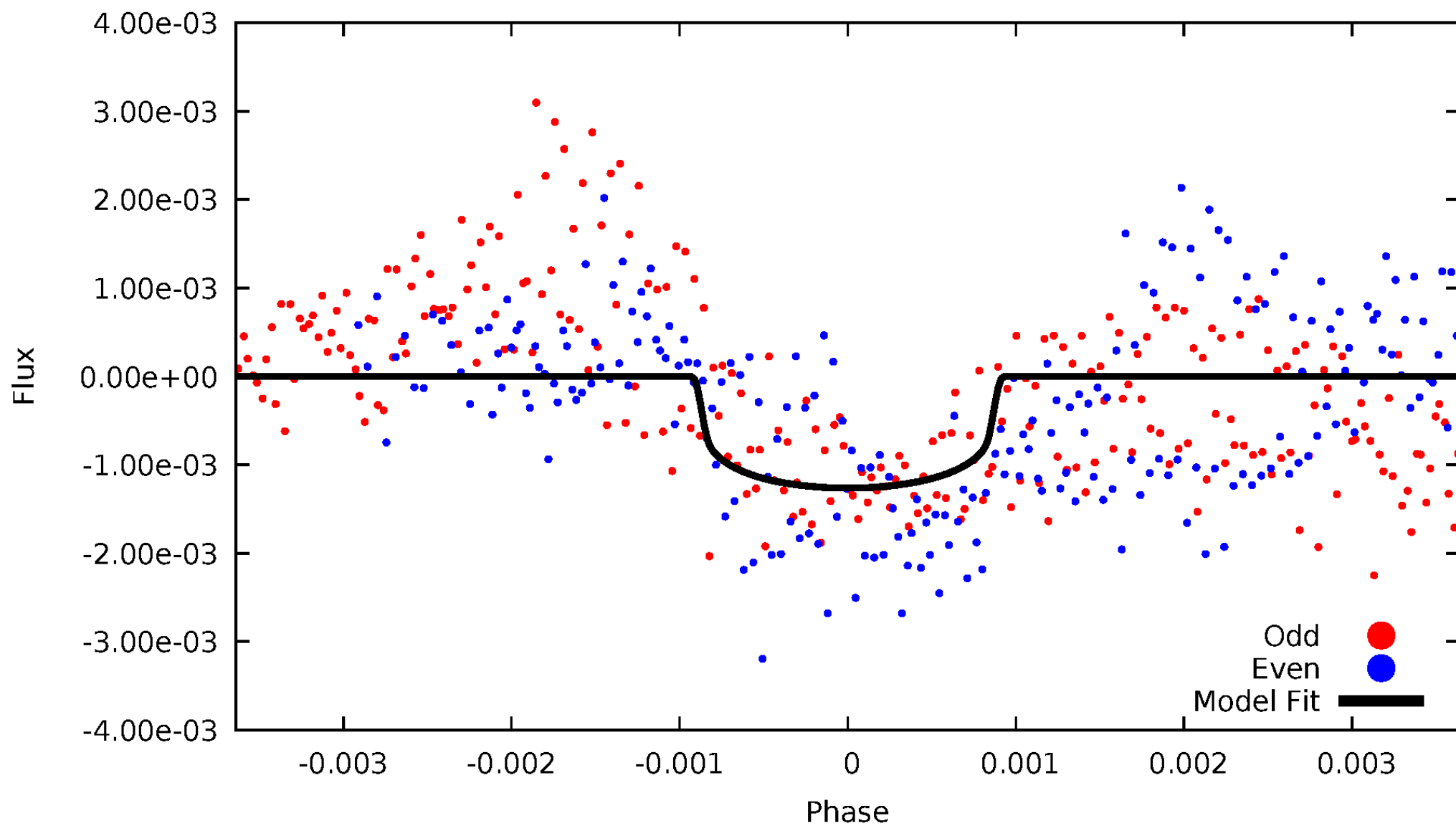


TCE 008106863-01



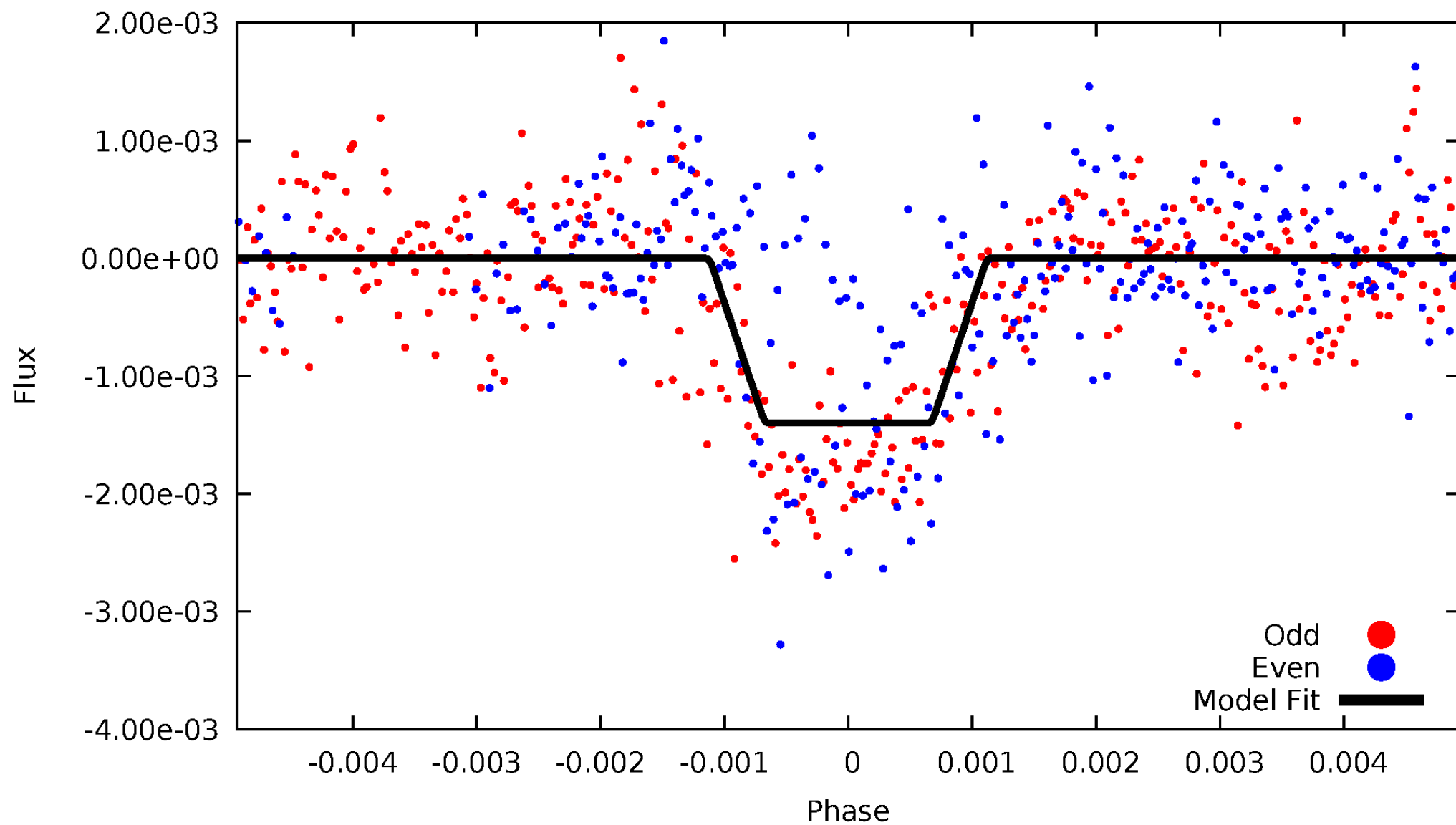
DV Odd/Even

TCE 008106863-01

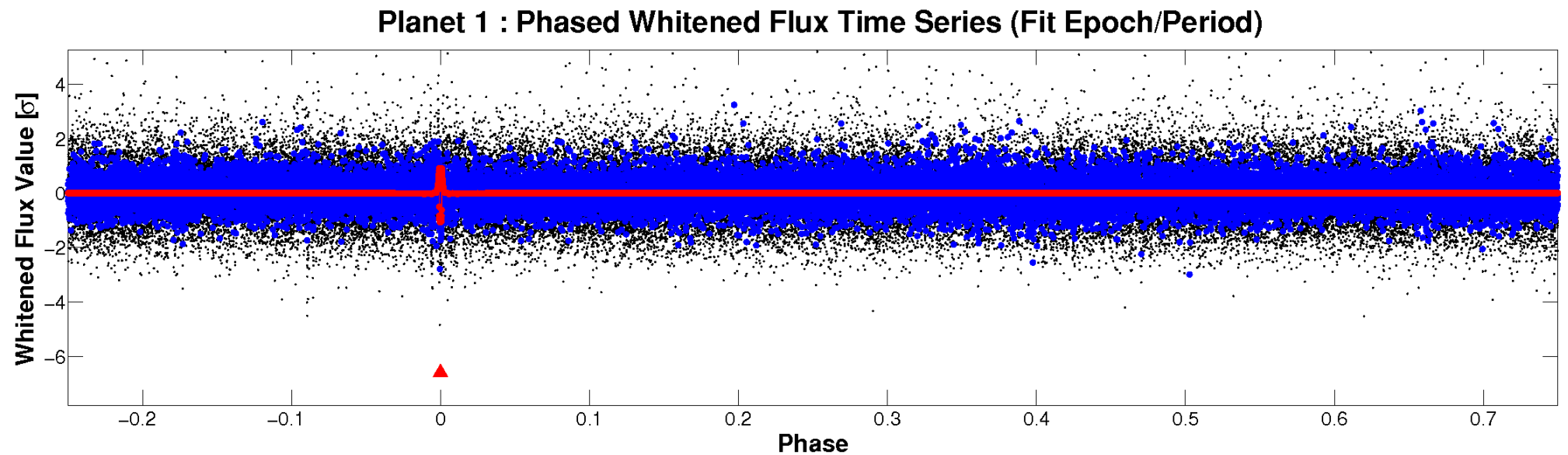
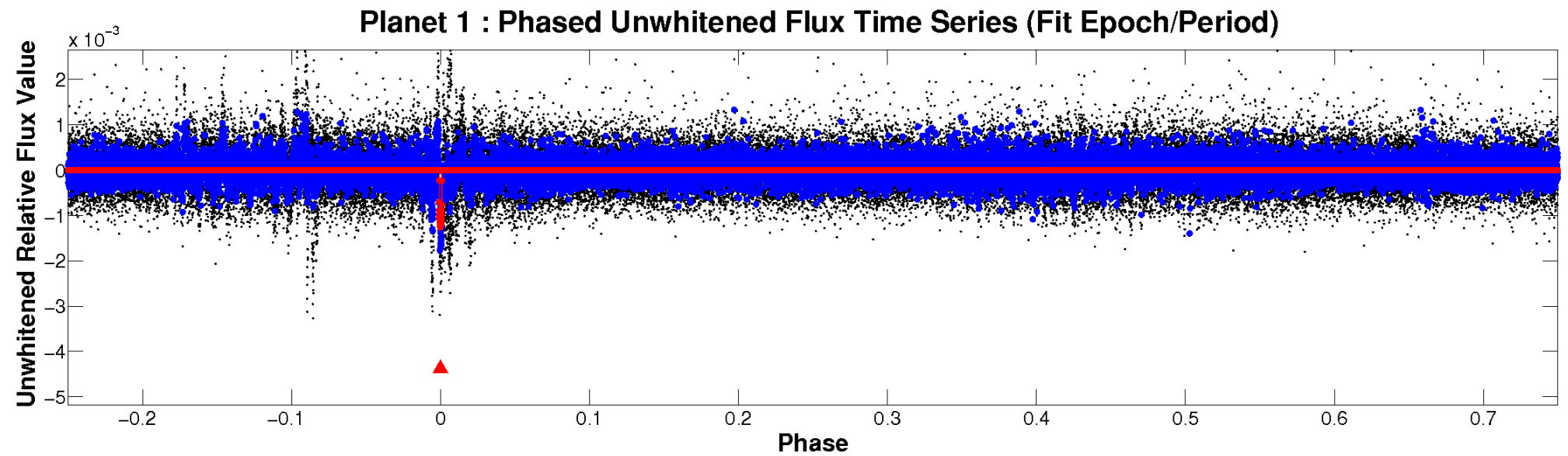


ALT Odd/Even

TCE 008106863-01

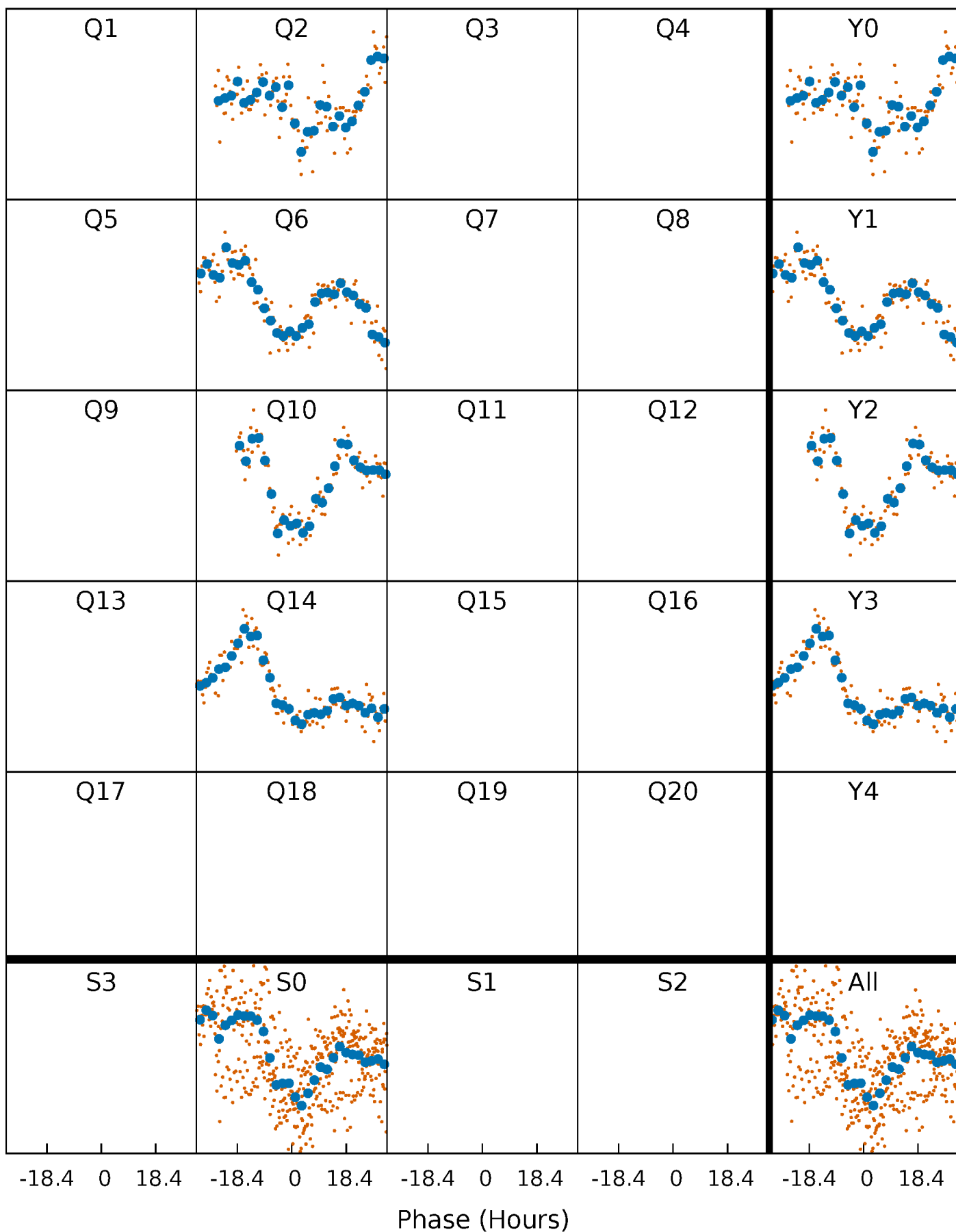


Non-Whitened Vs. Whitened Light Curve



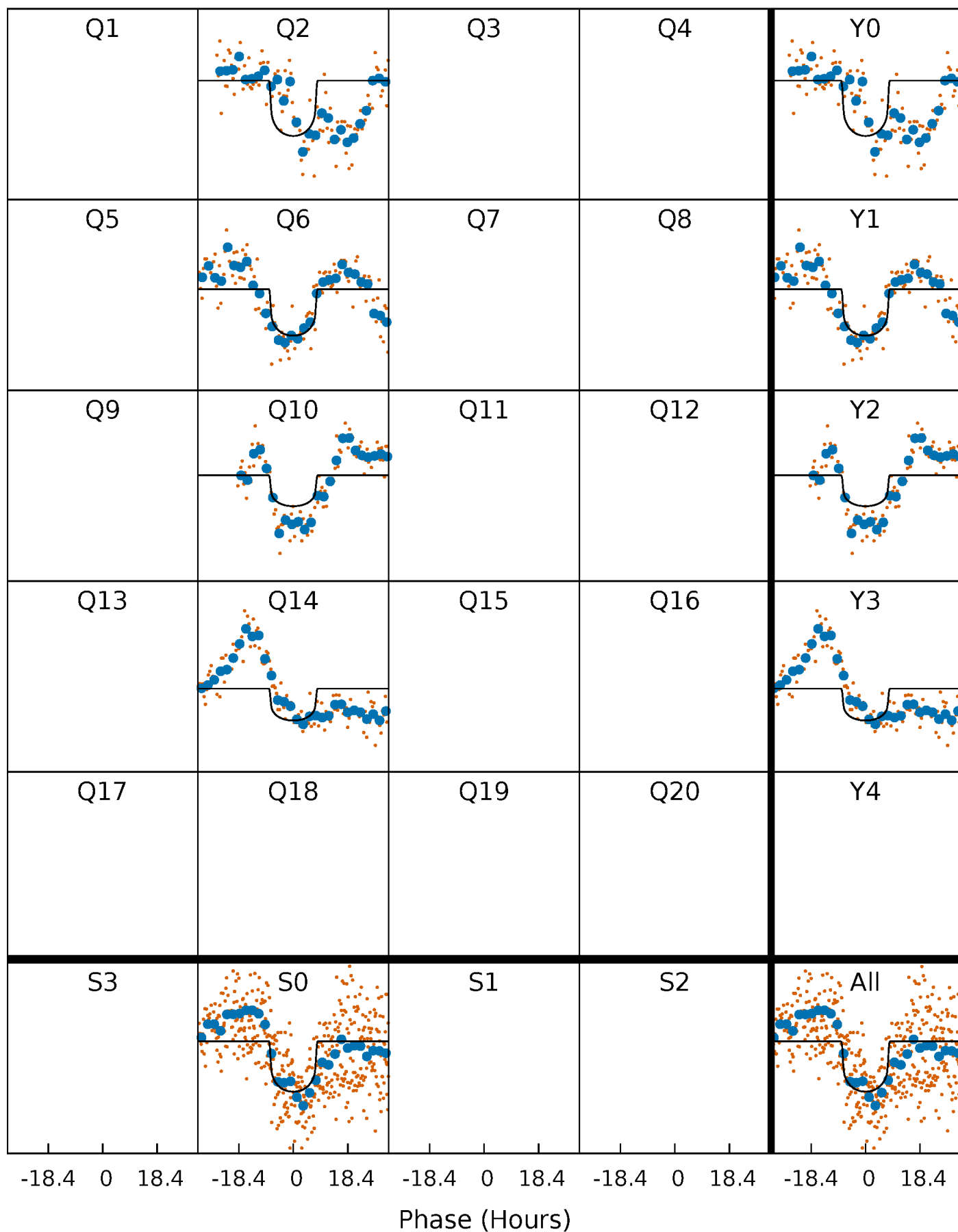
PDC Quarter-Phased Transit Curves

TCE 008106863-01 P=369.200373 Days $T_0=232.467807$ (BKJD)



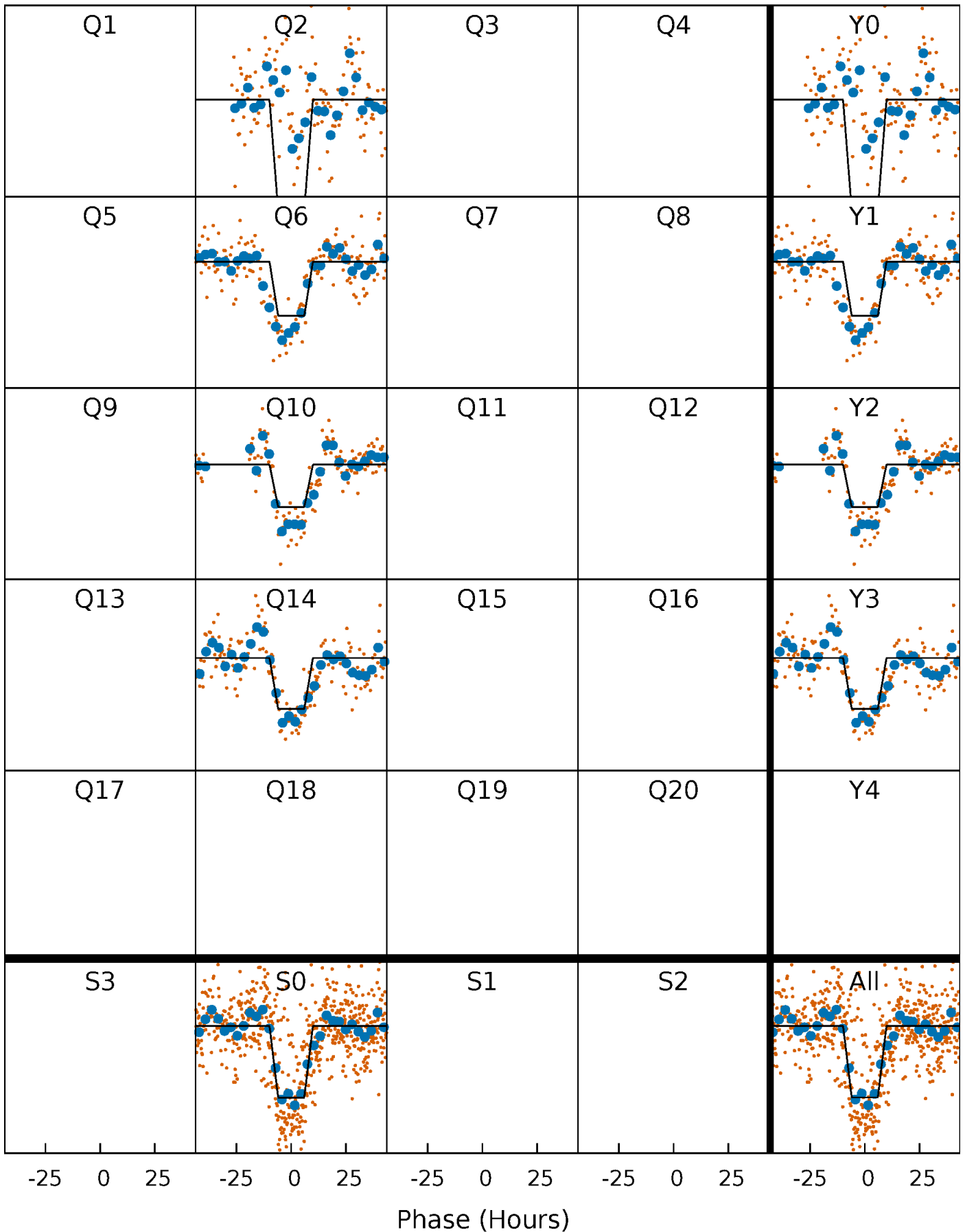
DV Quarter-Phased Transit Curves

TCE 008106863-01 P=369.200373 Days $T_0=232.467807$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

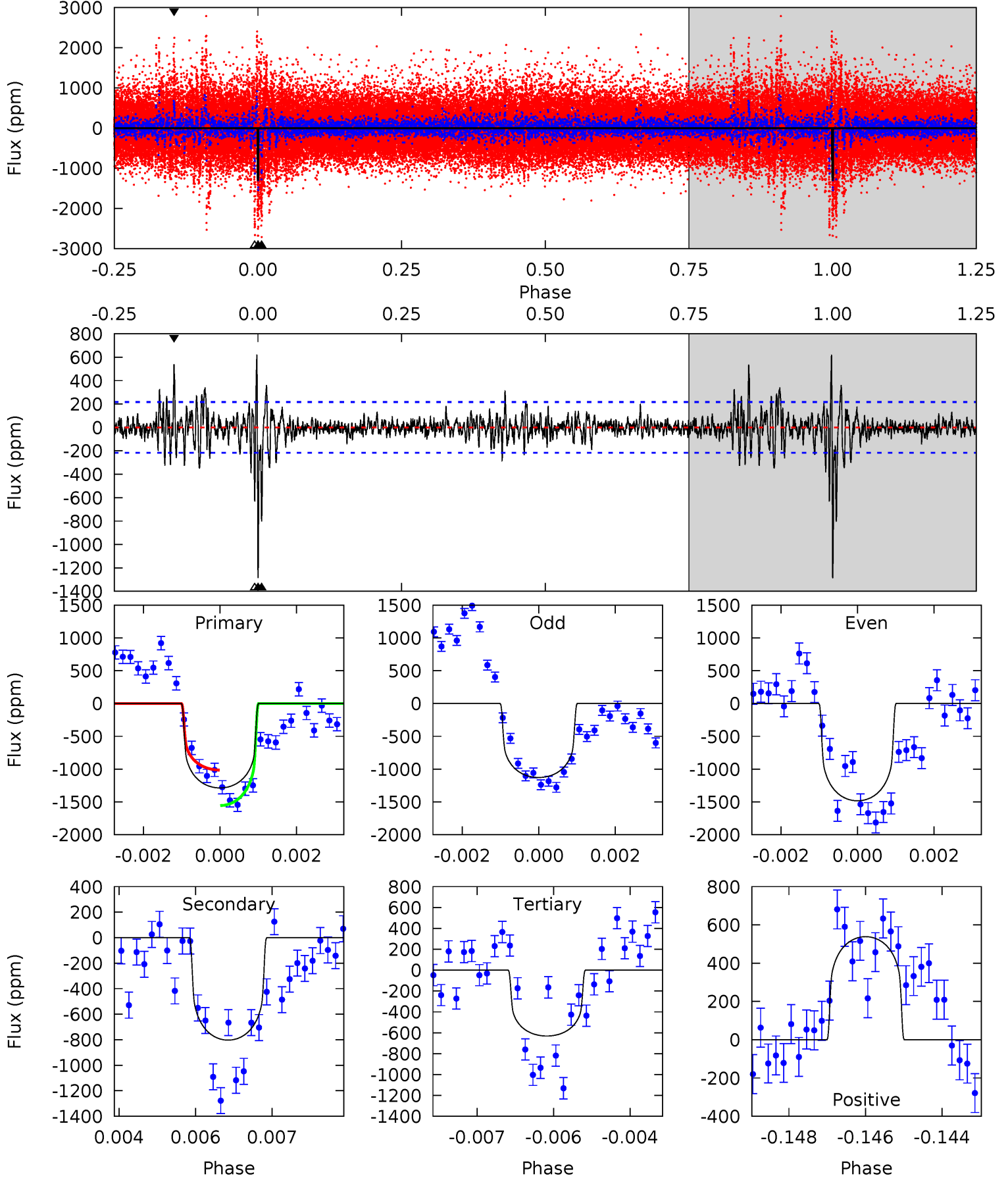
TCE 008106863-01 P=369.179940 Days $T_0=232.523823$ (BKJD)



DV Model-Shift Uniqueness Test

008106863-01, P = 369.200373 Days, E = 232.467807 Days

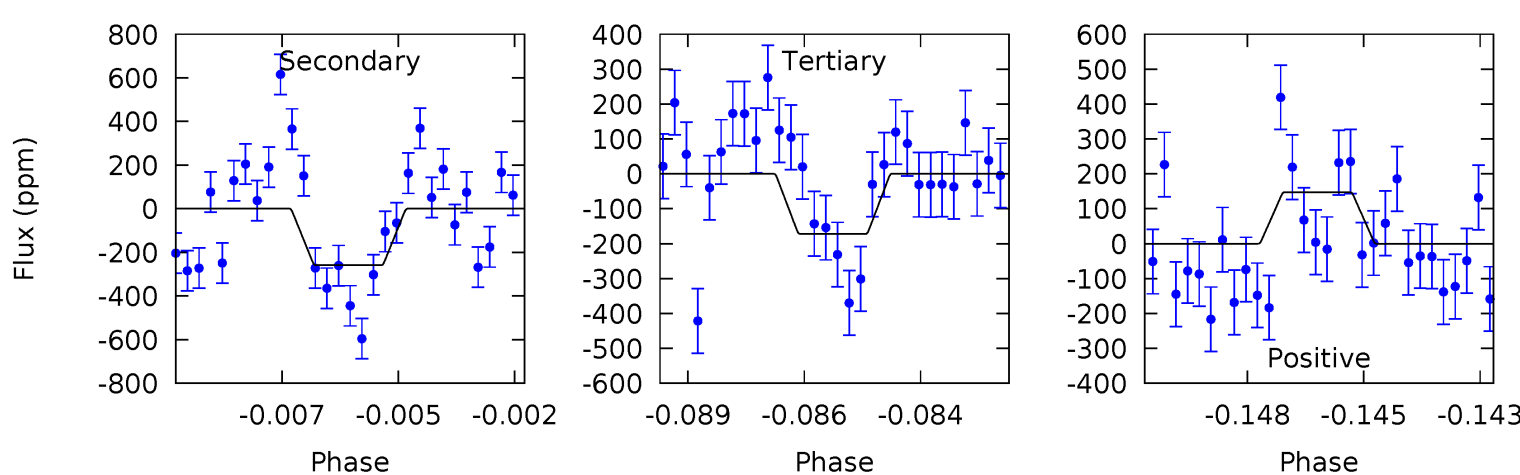
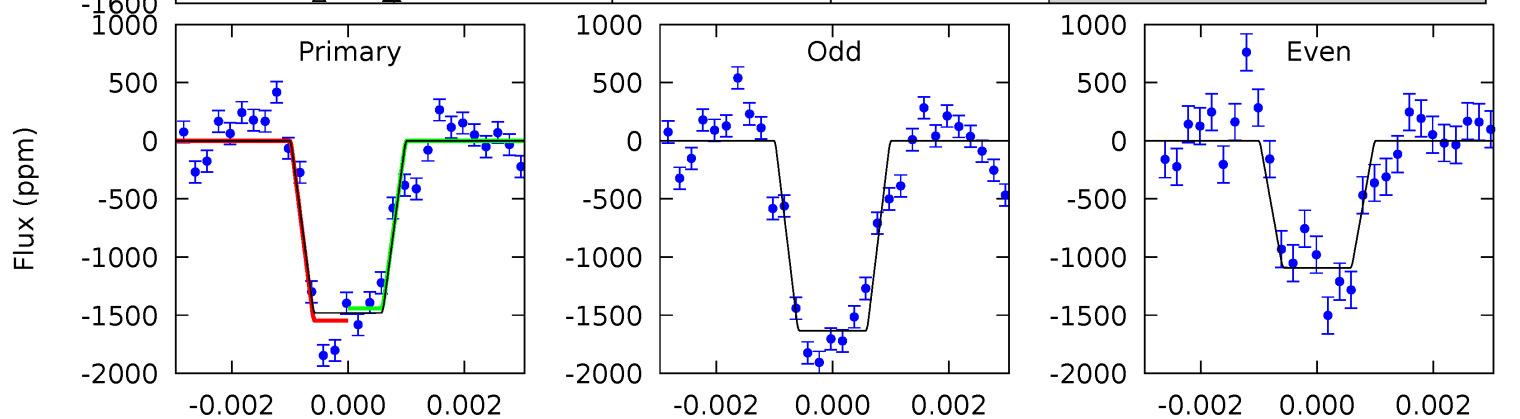
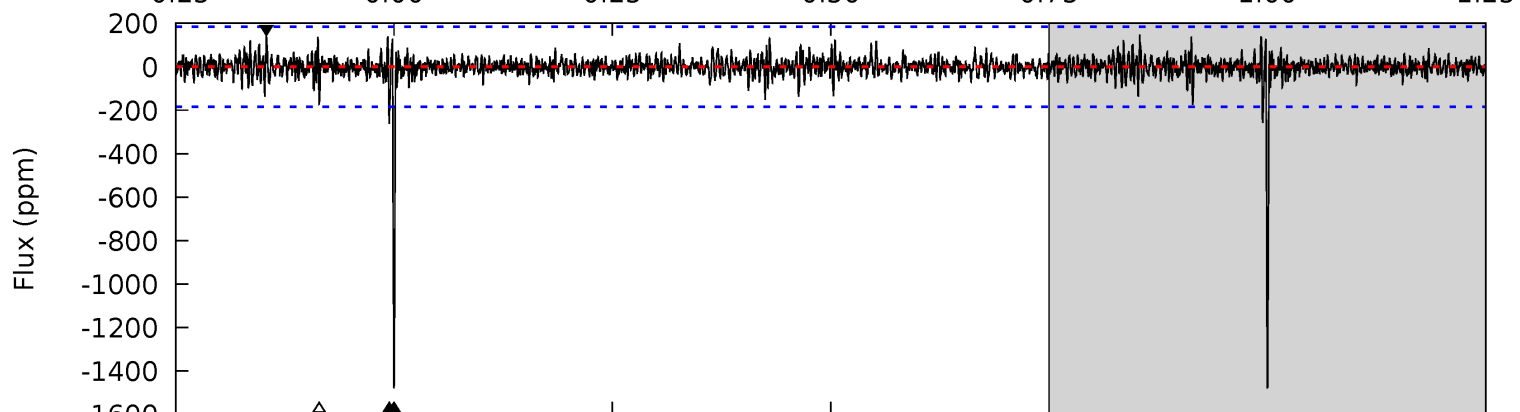
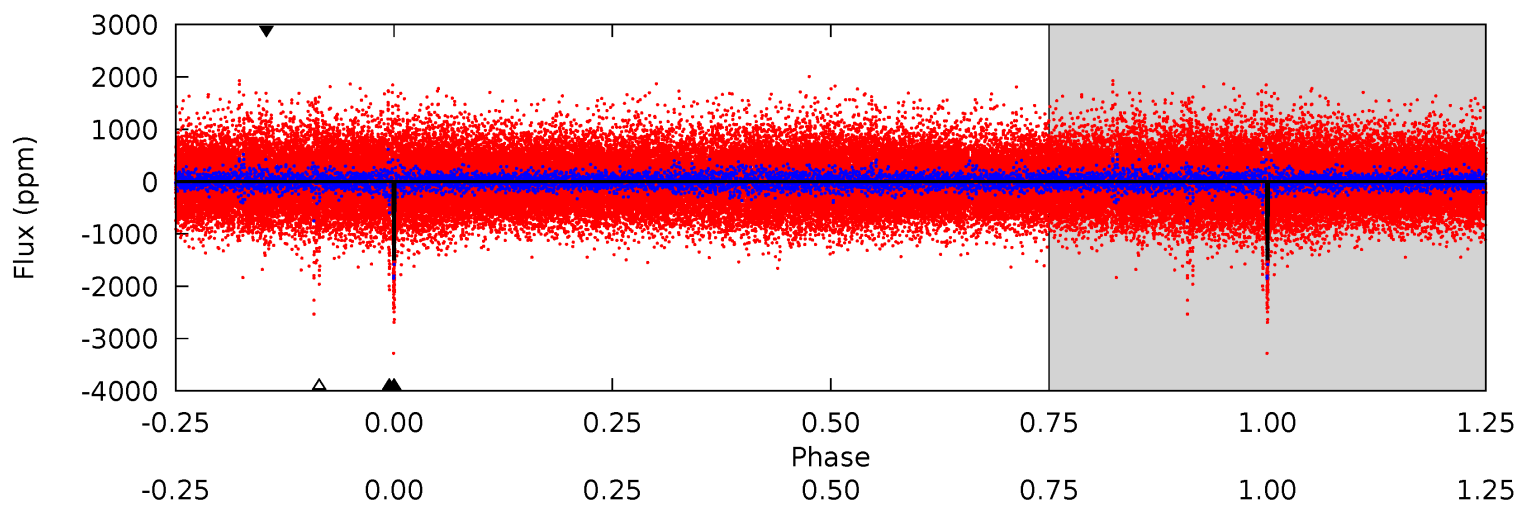
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
31.7	19.8	15.5	13.3	5.34	3.11	2.21	16.2	18.4	4.23	6.51	4.35	1.16	0.33	6.62



Alt Model-Shift Uniqueness Test

008106863-01, P = 369.179940 Days, E = 232.523823 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
42.5	7.43	4.94	4.23	5.30	3.05	0.96	37.6	38.3	2.49	3.20	7.98	0.83	0.09	1.53



Stellar Parameters For KIC 008106863

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5767^{+156}_{-173}	$4.538^{+0.036}_{-0.192}$	$-0.060^{+0.300}_{-0.300}$	$0.881^{+0.244}_{-0.081}$	$0.979^{+0.102}_{-0.114}$	$2.017^{+0.387}_{-1.018}$
	+3%/-3%	+1%/-4%	+500%/-500%	+28%/-9%	+10%/-12%	+19%/-50%
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 008106863-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-803 ± 41	$3.32^{+0.93}_{-0.79}$	341^{+22}_{-14}	5382^{+702}_{-494}	39424^{+27461}_{-14981}
Alt.	-258 ± 35	$3.78^{+0.91}_{-0.83}$	343^{+21}_{-15}	4046^{+391}_{-252}	9531^{+5892}_{-3498}

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

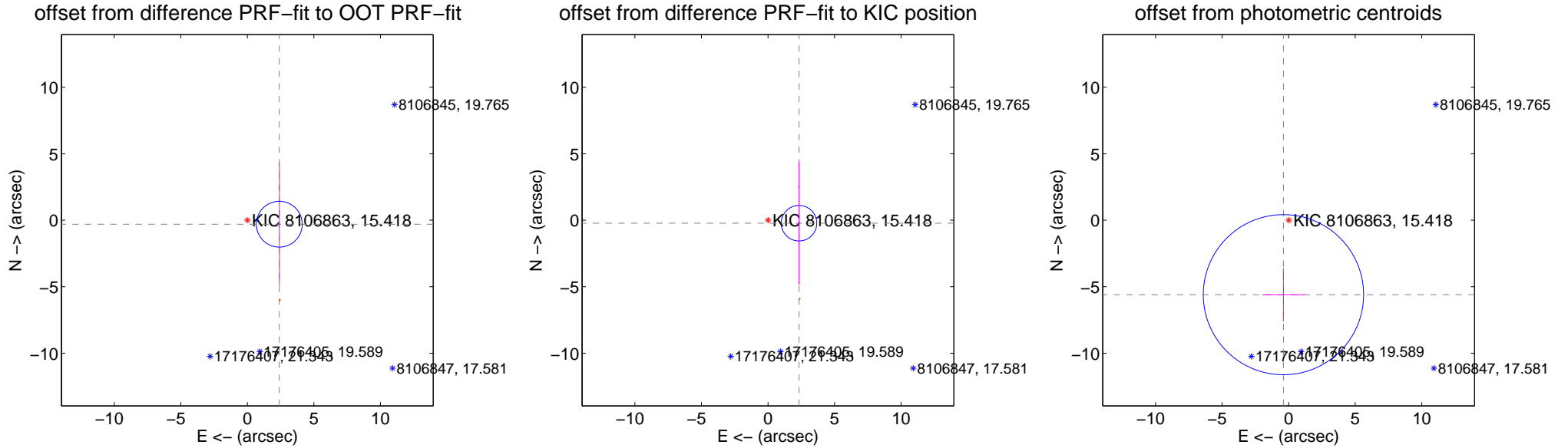
DV Centroid Data

Supplemental centroid analysis for 008106863-01. Kepler magnitude: 15.42. Transit SNR 12.40

There are 0 quarters with good PRF difference image offsets

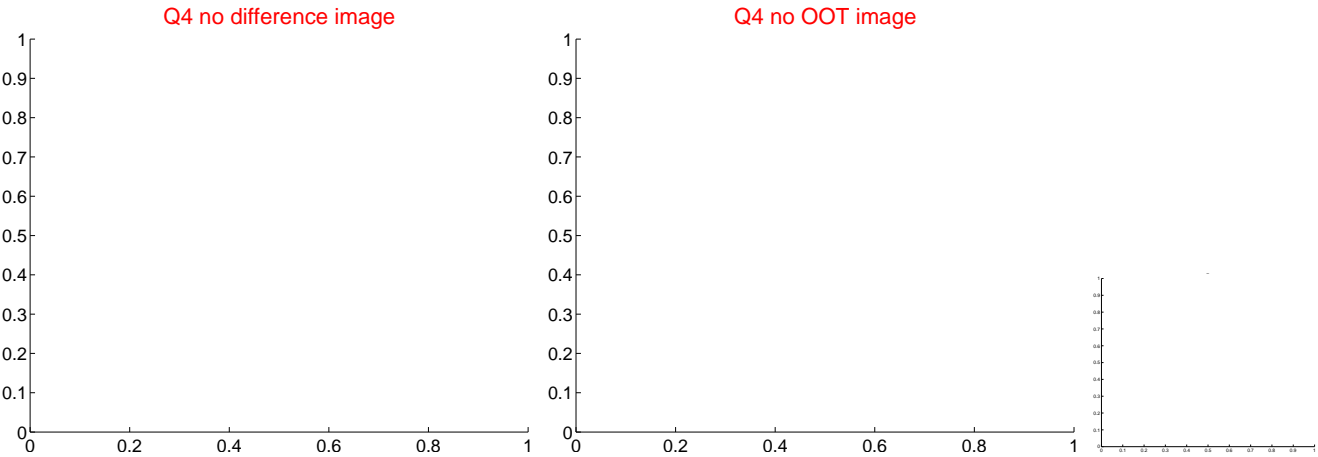
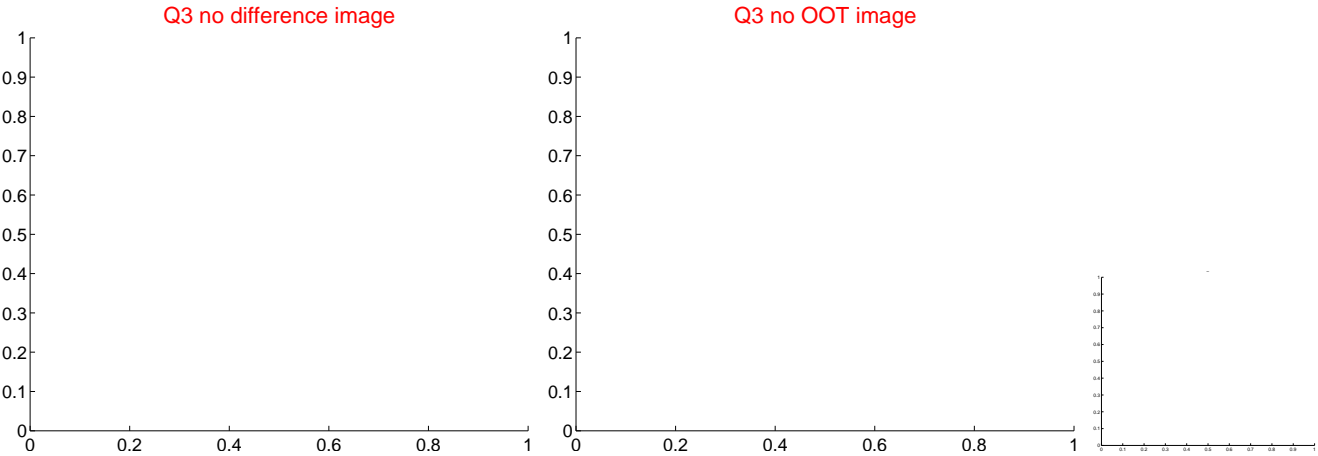
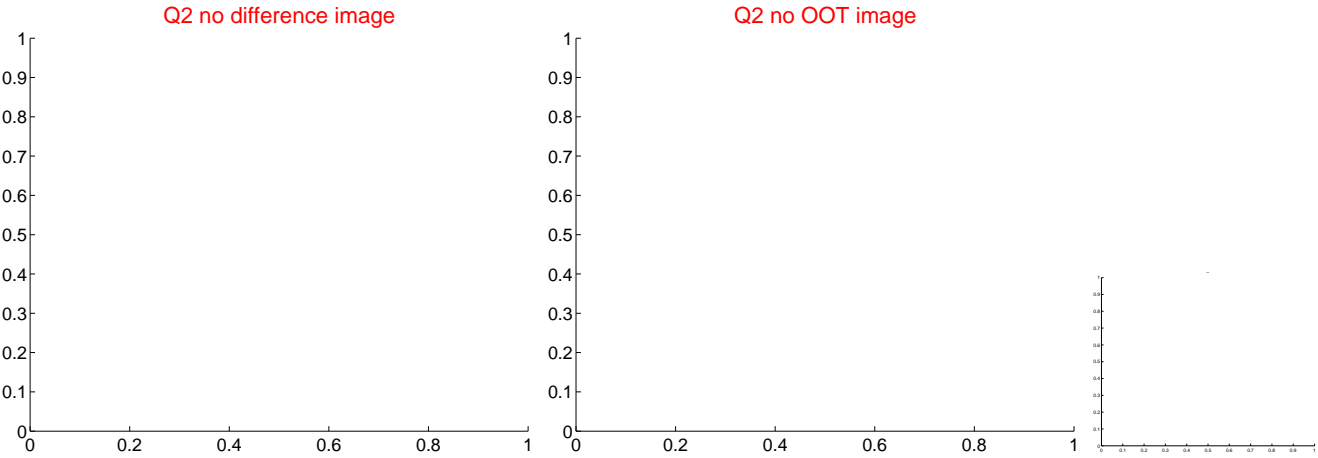
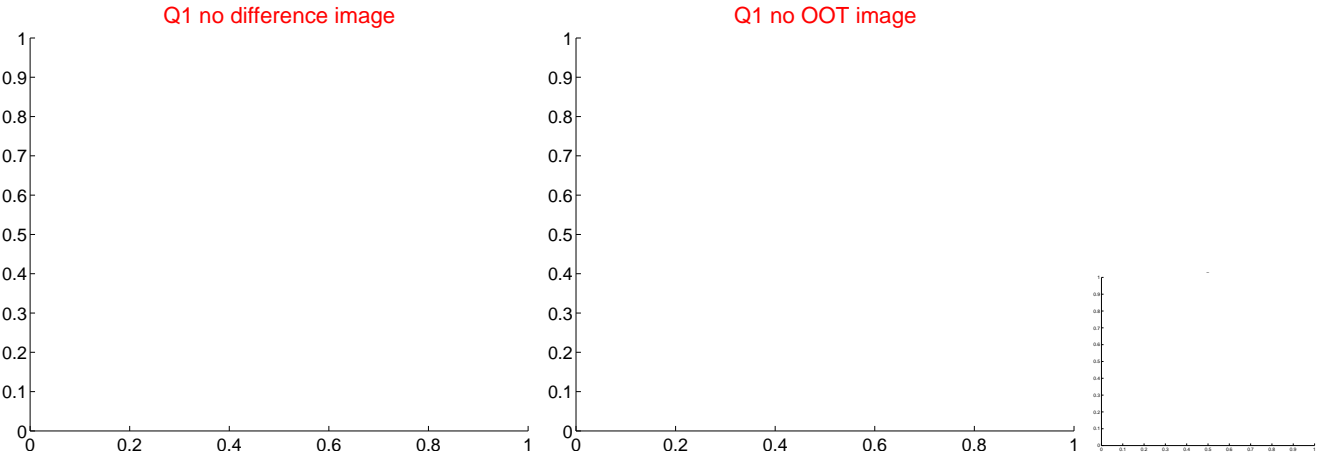
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.418 ± 0.574	4.21	-2.400 ± 0.072	-0.298 ± 4.619
PRF-fit source offset from KIC position	2.339 ± 0.445	5.26	-2.328 ± 0.074	-0.223 ± 4.609
photometric centroid source offset	5.61 ± 2.01	2.80	0.39 ± 1.59	-5.60 ± 2.01

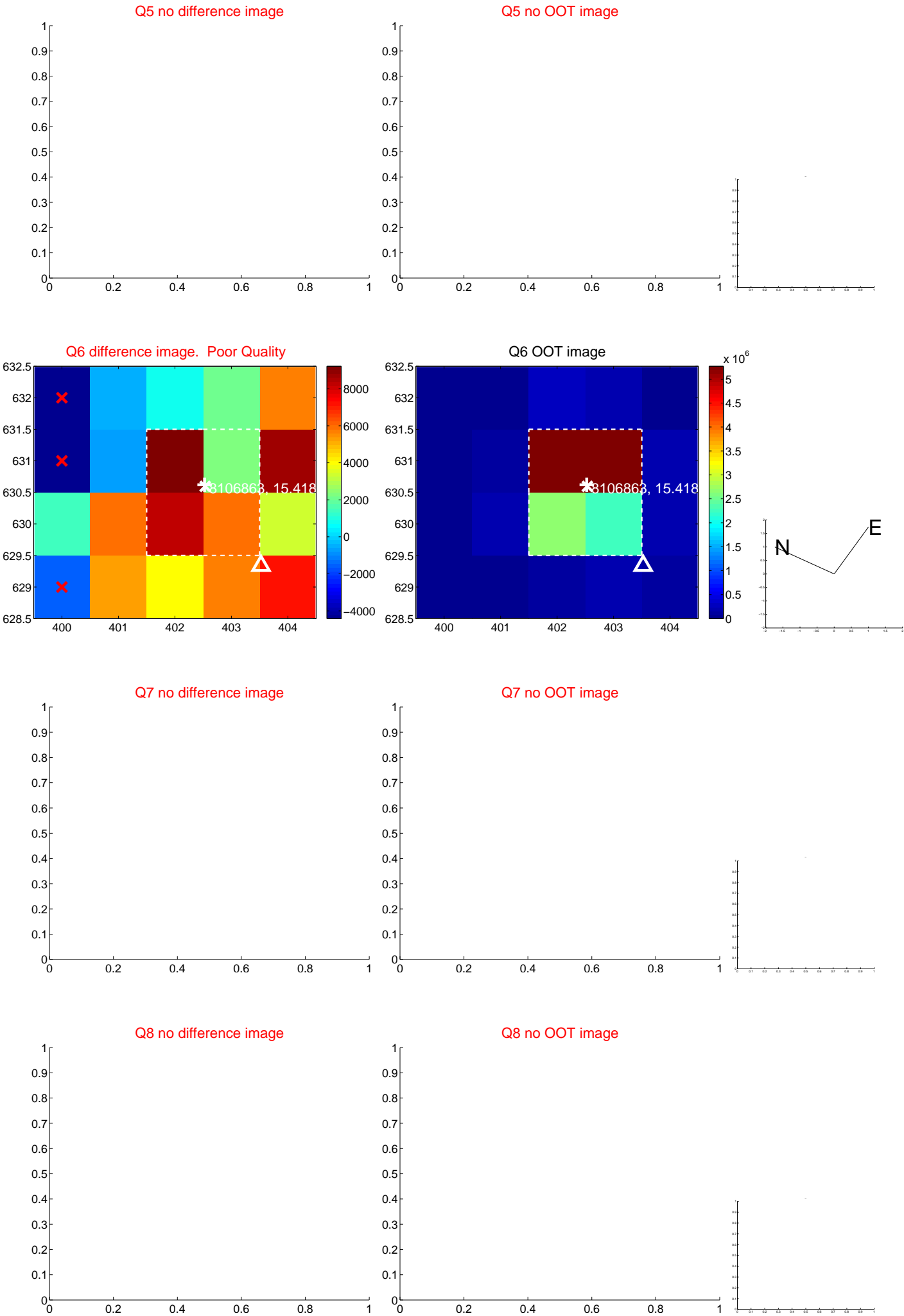


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



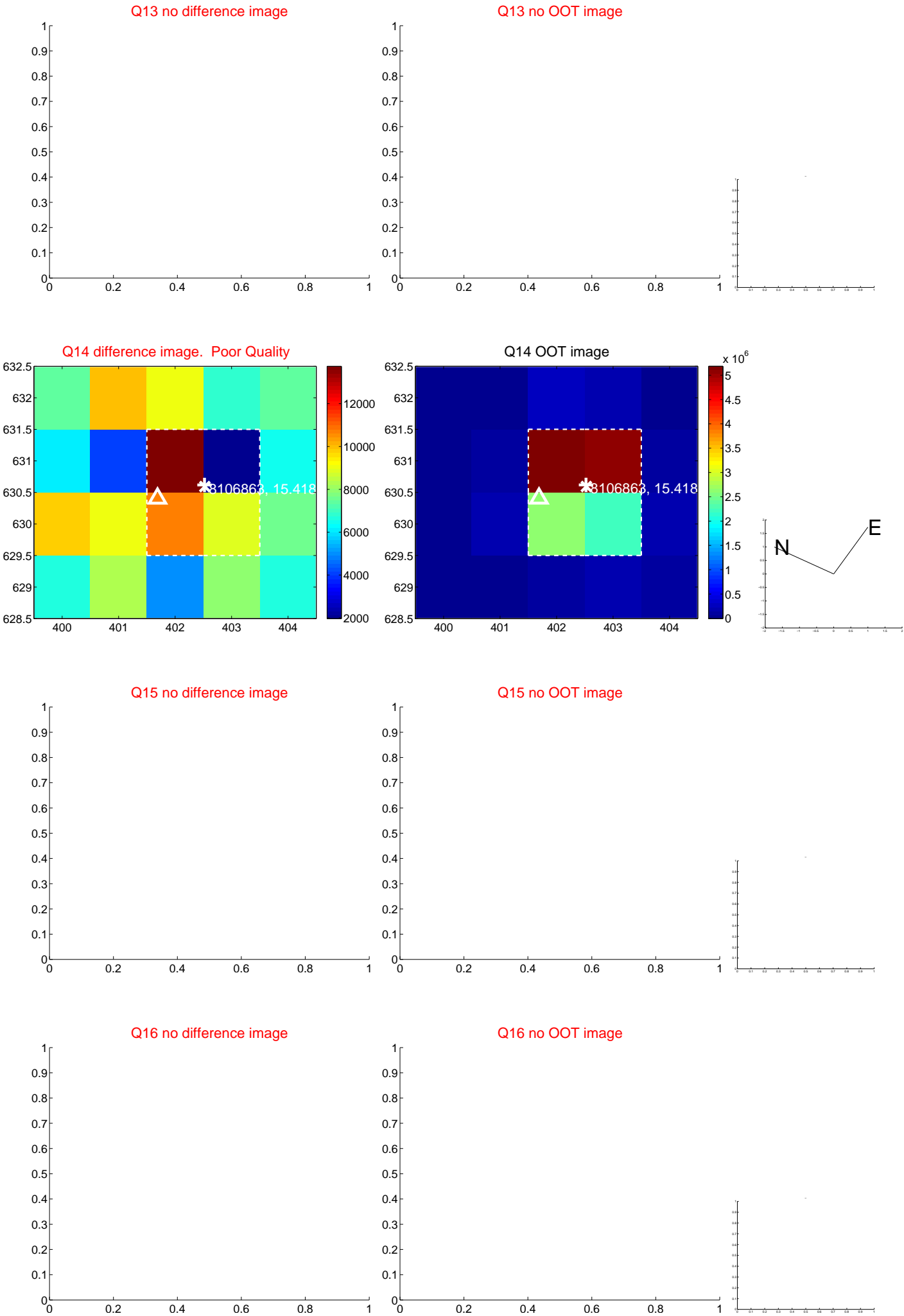
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



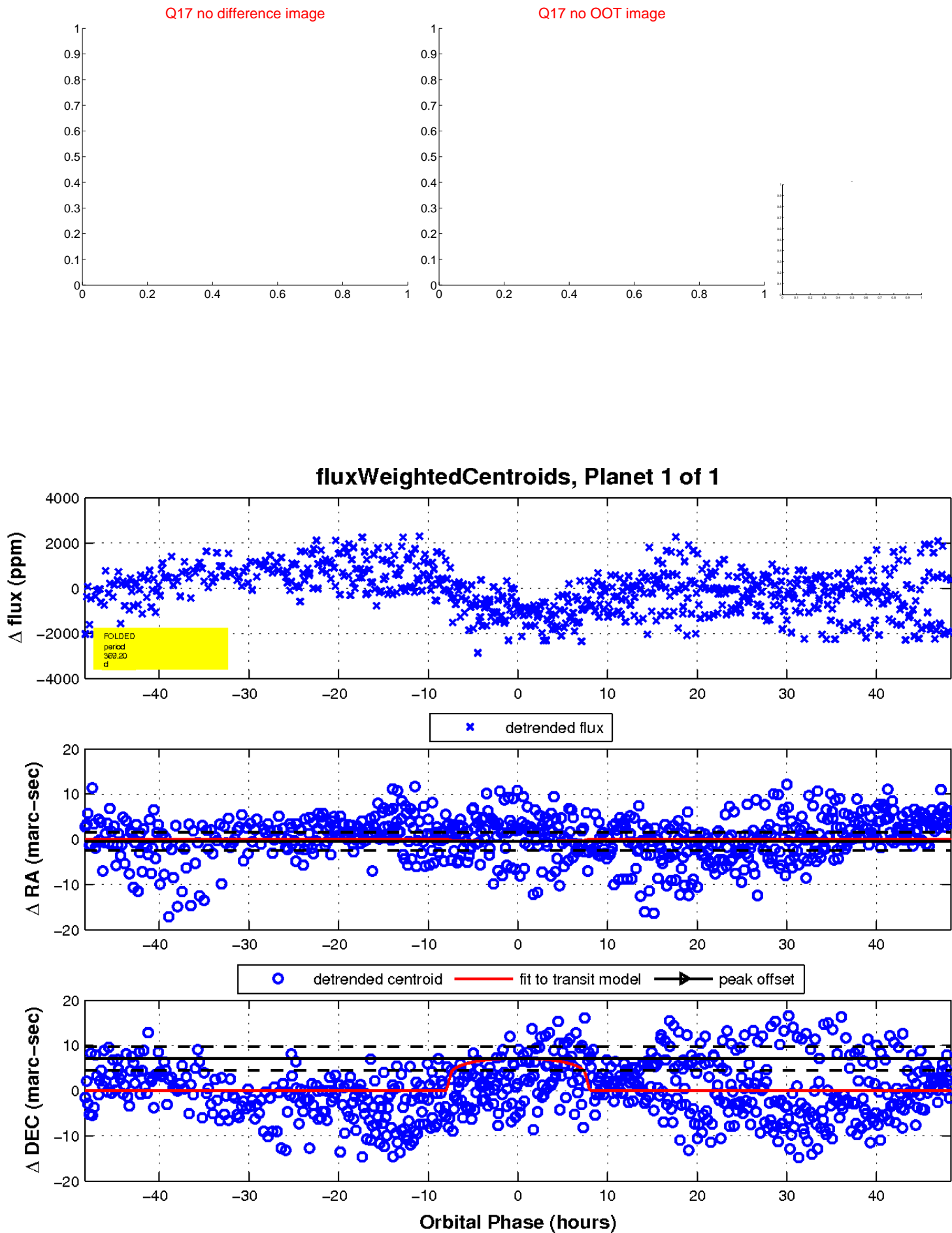
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



UKIRT Image

Declination

