

KIC 008106730

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})
008106730-01	OBS	No	368.697515	233.702906	1284.6	28.640	9.1	9.8	0.80	5206	5.67	0.47

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008106730-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE--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.

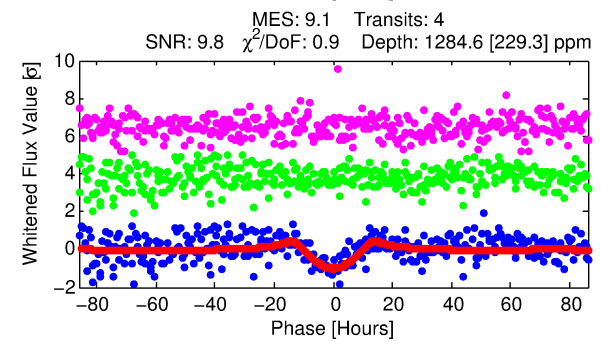
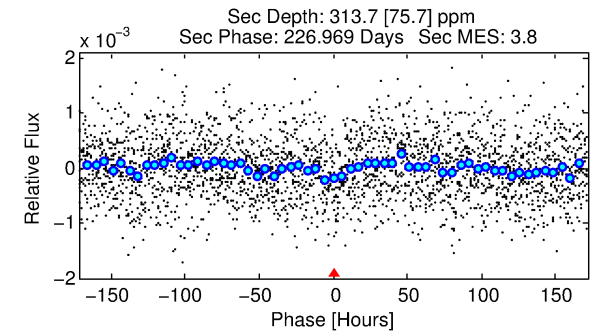
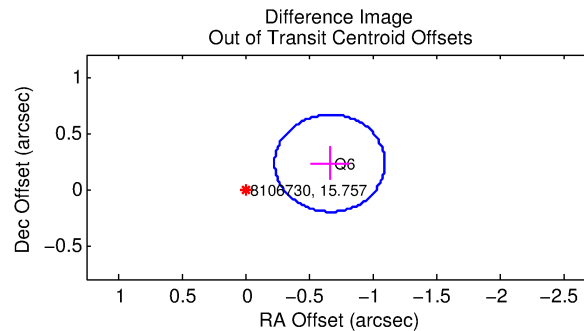
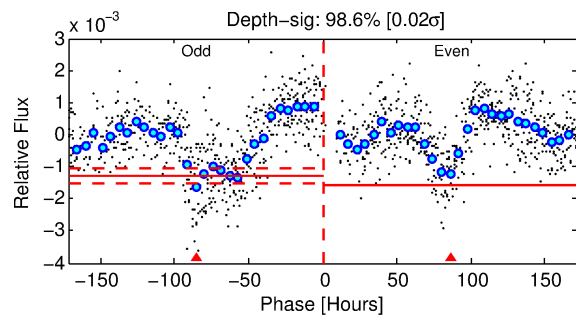
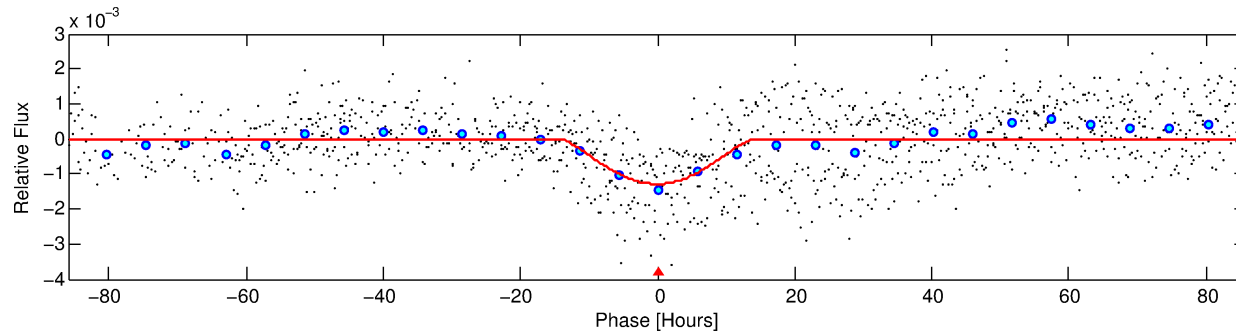
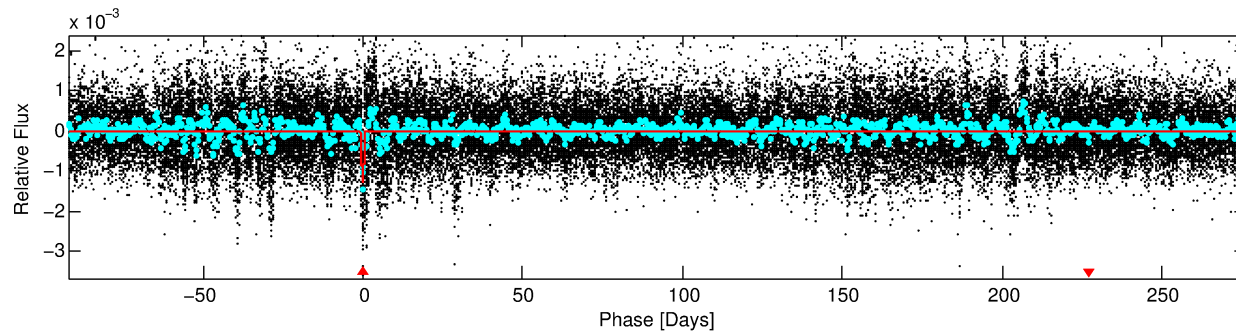
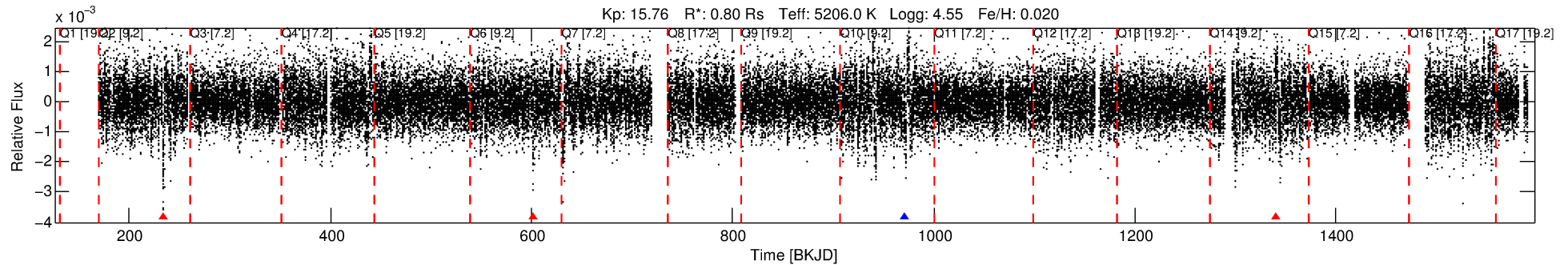
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008106730-01

No Significant Match Found

DV One-Page Summary

KIC: 8106730 Candidate: 1 of 1 Period: 368.698 d



DV Fit Results:

Period = 368.69751 [0.02271] d
Epoch = 233.7029 [0.0393] BKJD
Rp/R* = 0.0647 [0.1462]
a/R* = 36.26 [18.50]
b = 1.00 [0.22]
Seff = 0.47 [0.09]
Teq = 211 [10] K
Rp = 5.67 [12.83] Re
a = 0.9505 [0.1031] AU
Ag = 4847.18 [21940.11] [0.22σ]
Teffp = 2723 [3081] K [0.82σ]

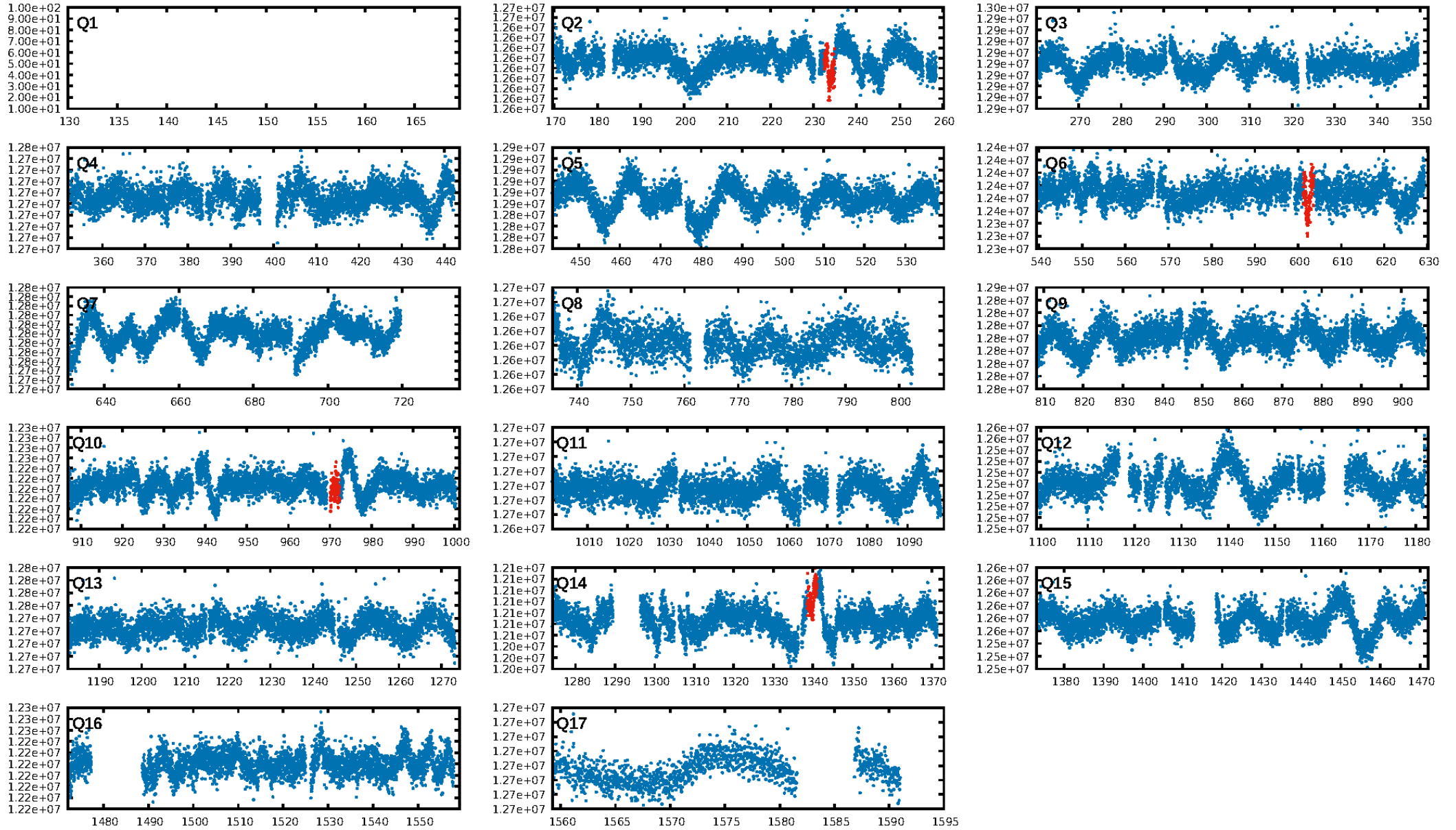
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.87e-11
RollingBand-fgt: 0.25 [1/4]
GhostDiagnostic-chr: -8.663
Centroid-sig: 21.5%
Centroid-so: 2.724 arcsec [0.88σ]
OotOffset-rm: 0.704 arcsec [4.88σ]
KicOffset-rm: 0.555 arcsec [3.84σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [1/1]

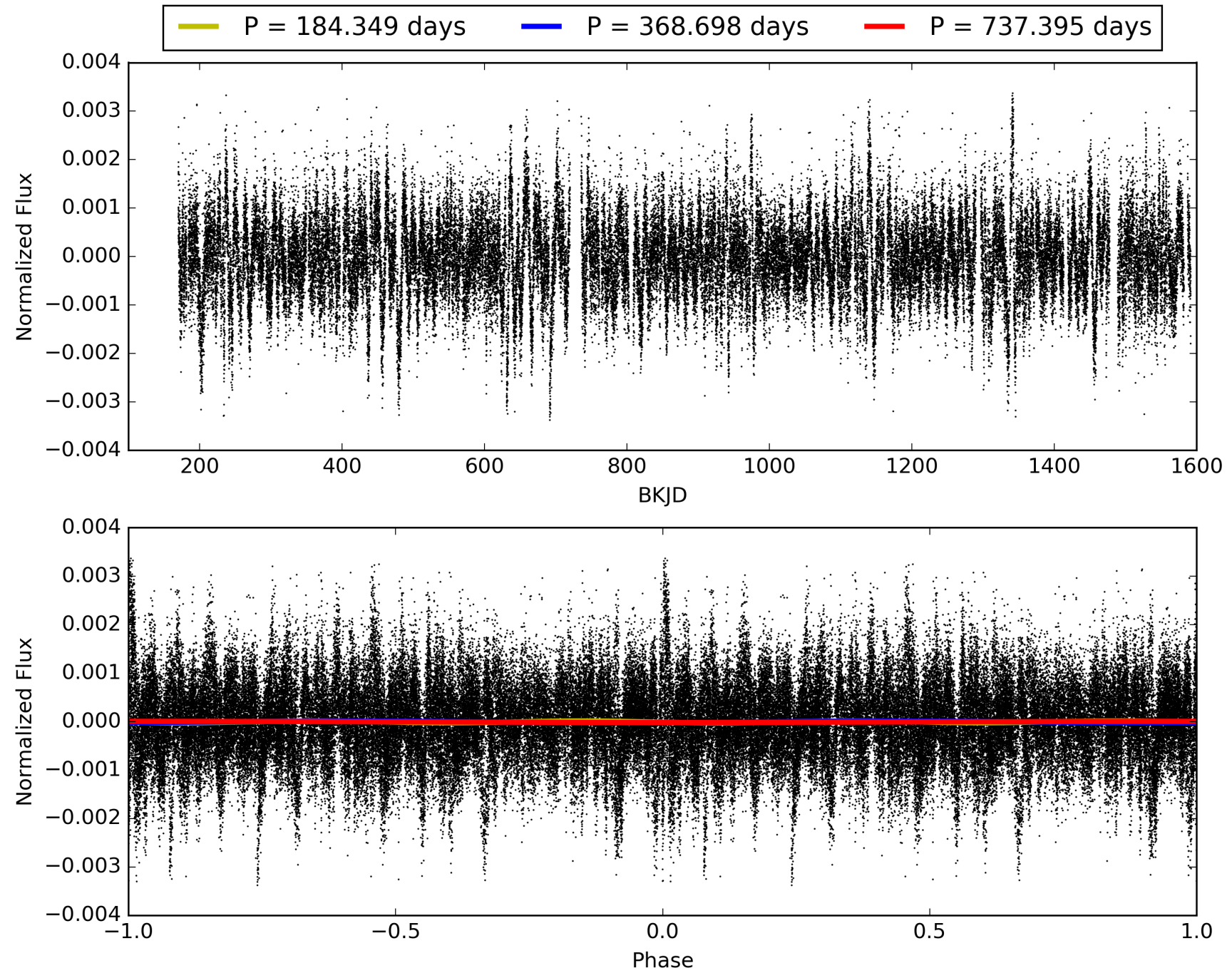
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 01:09:15 Z

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

TCE 008106730-01, PDC Light Curves

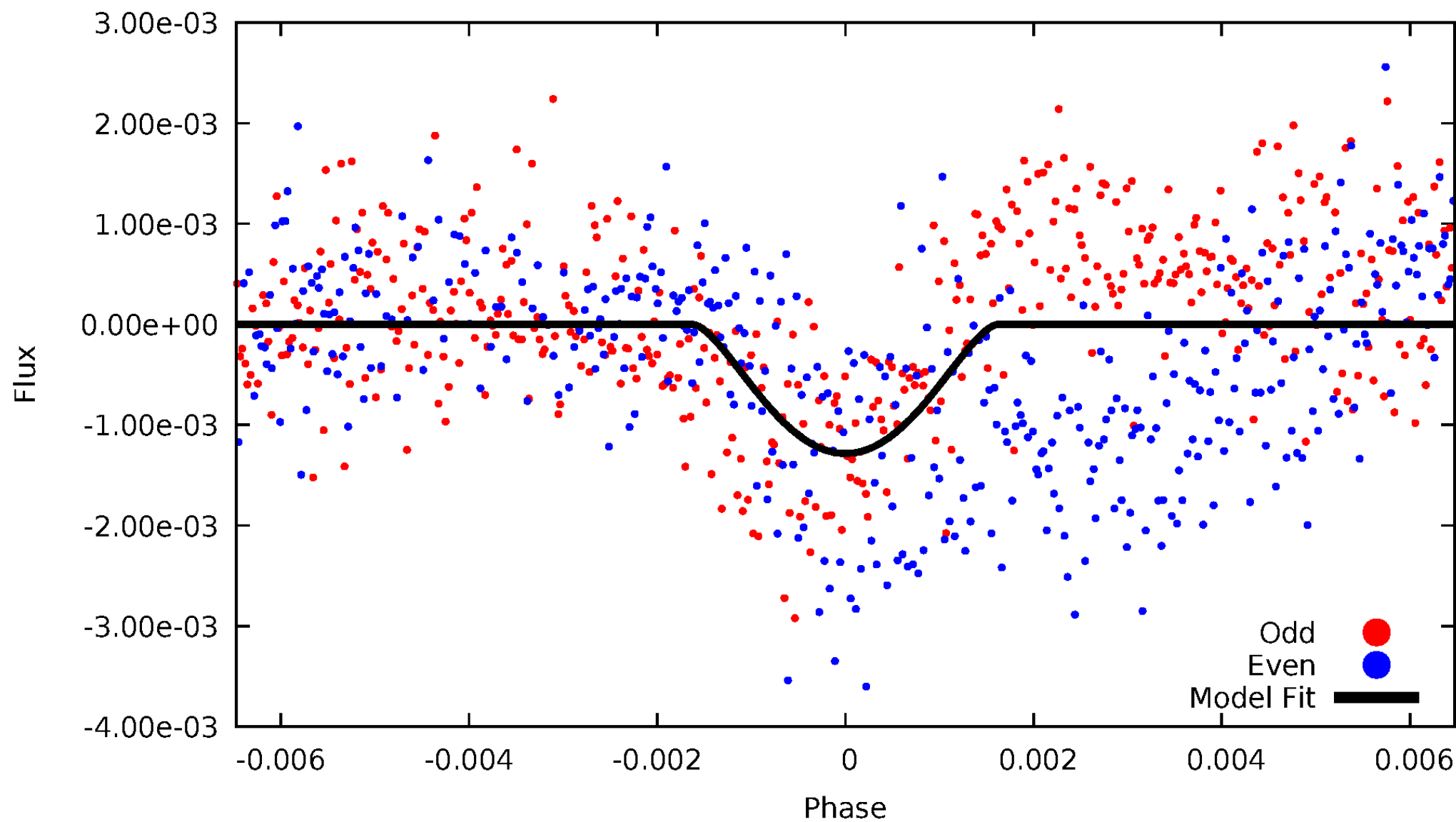


TCE 008106730-01



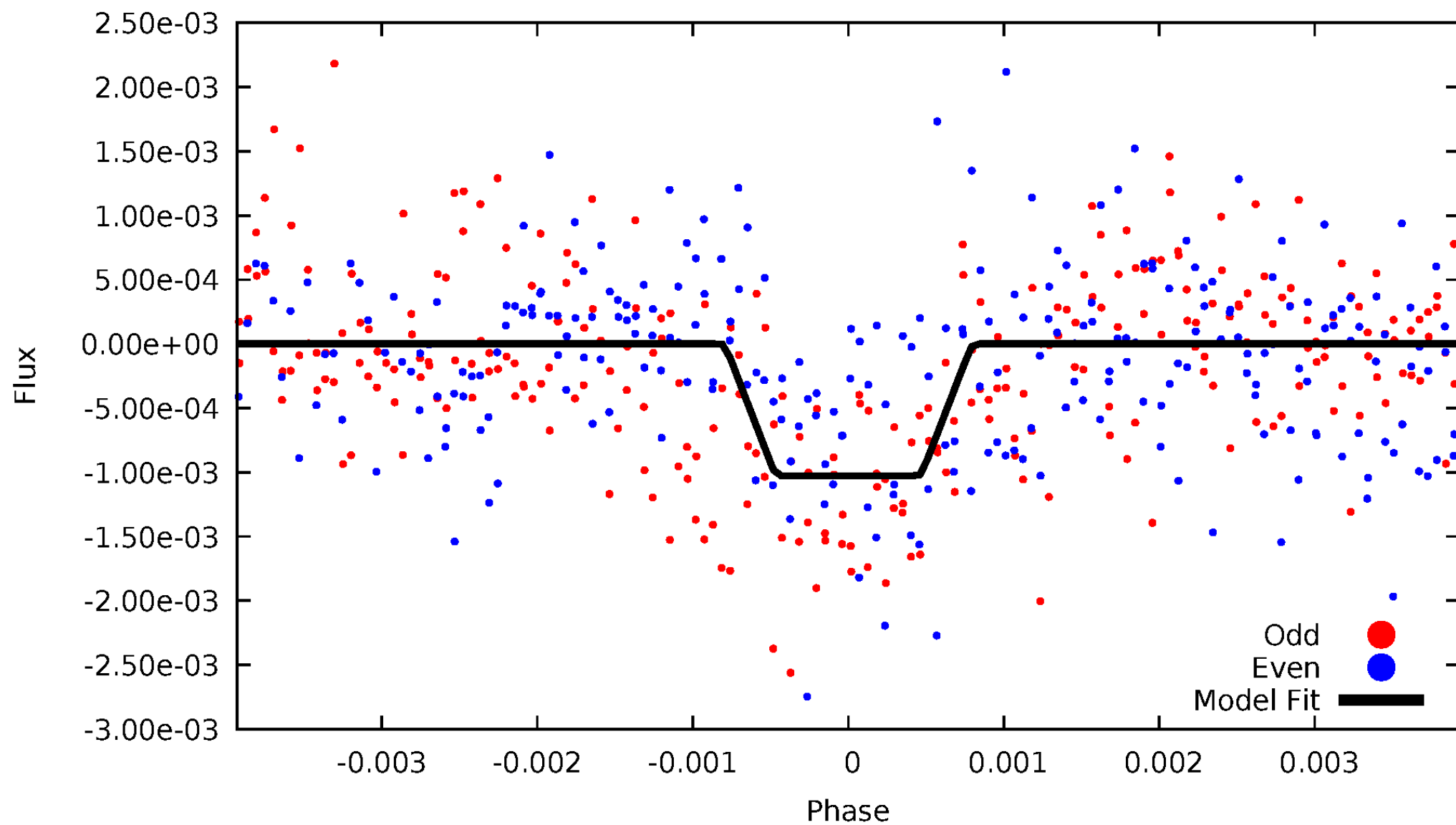
DV Odd/Even

TCE 008106730-01



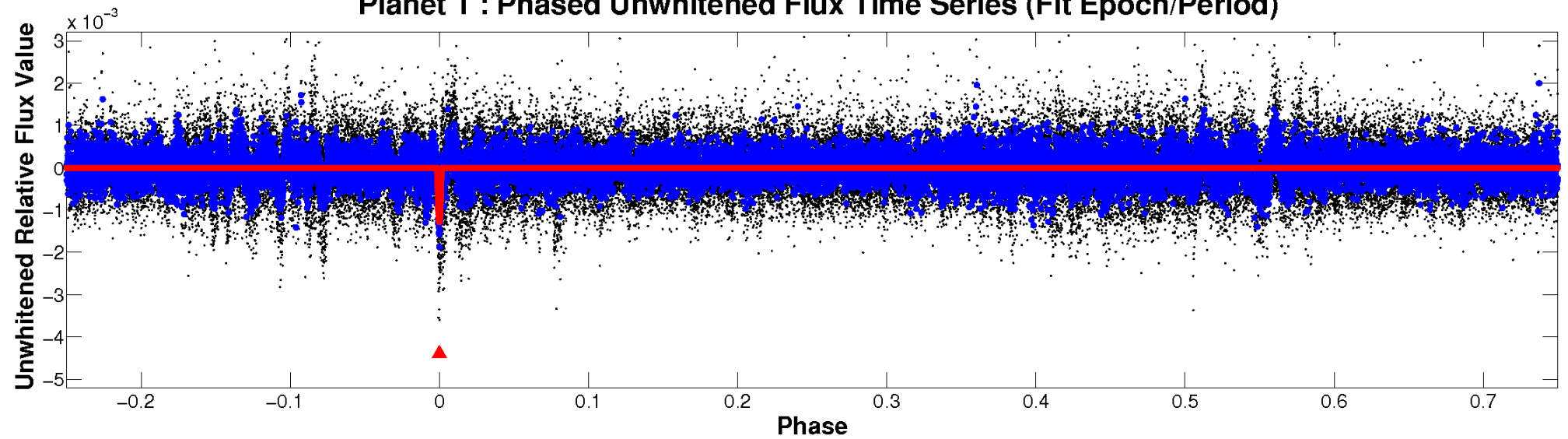
ALT Odd/Even

TCE 008106730-01

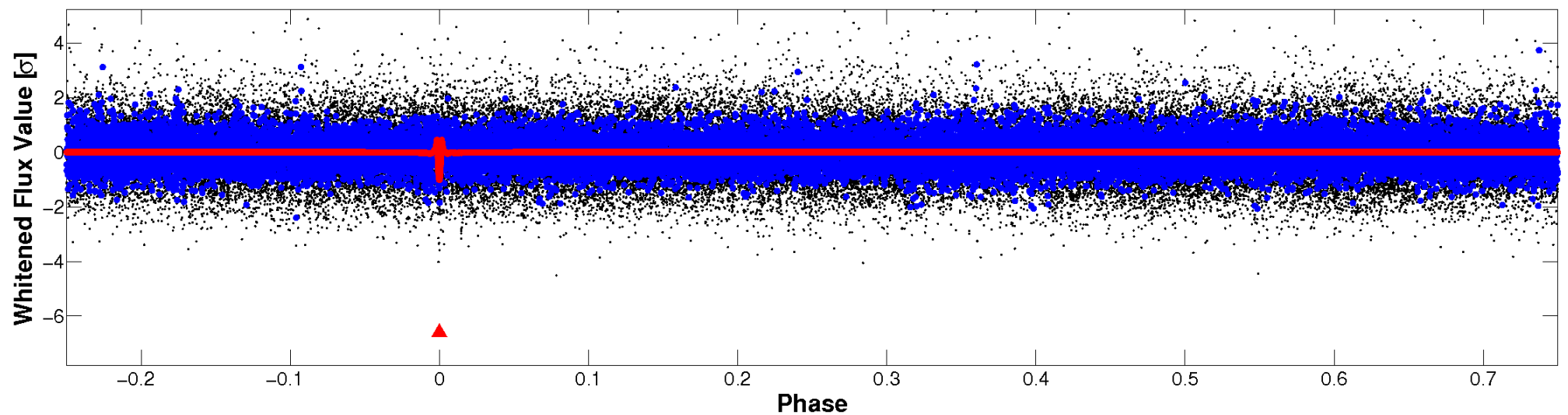


Non-Whitened Vs. Whitened Light Curve

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



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



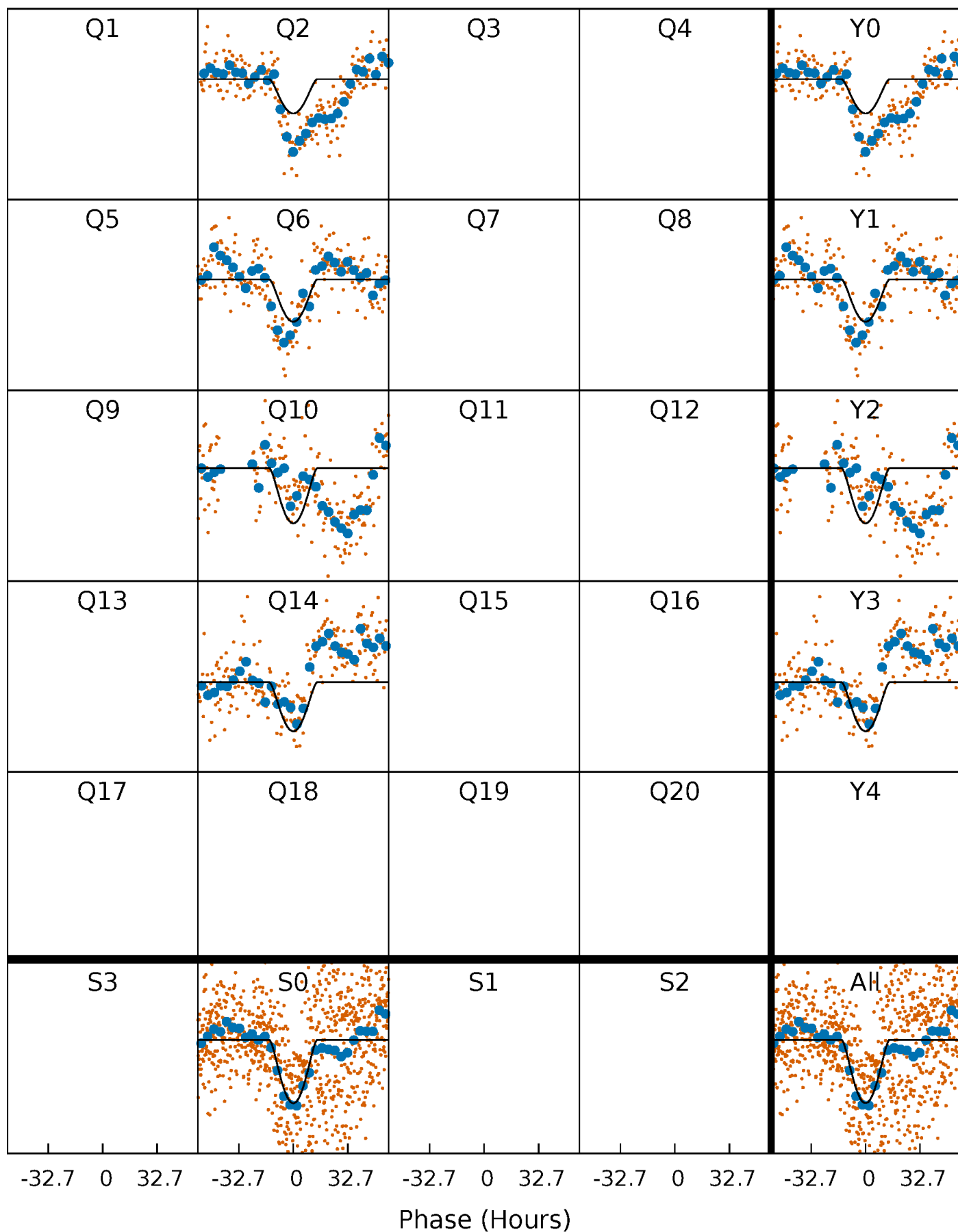
PDC Quarter-Phased Transit Curves

TCE 008106730-01 P=368.697515 Days $T_0=233.702906$ (BKJD)



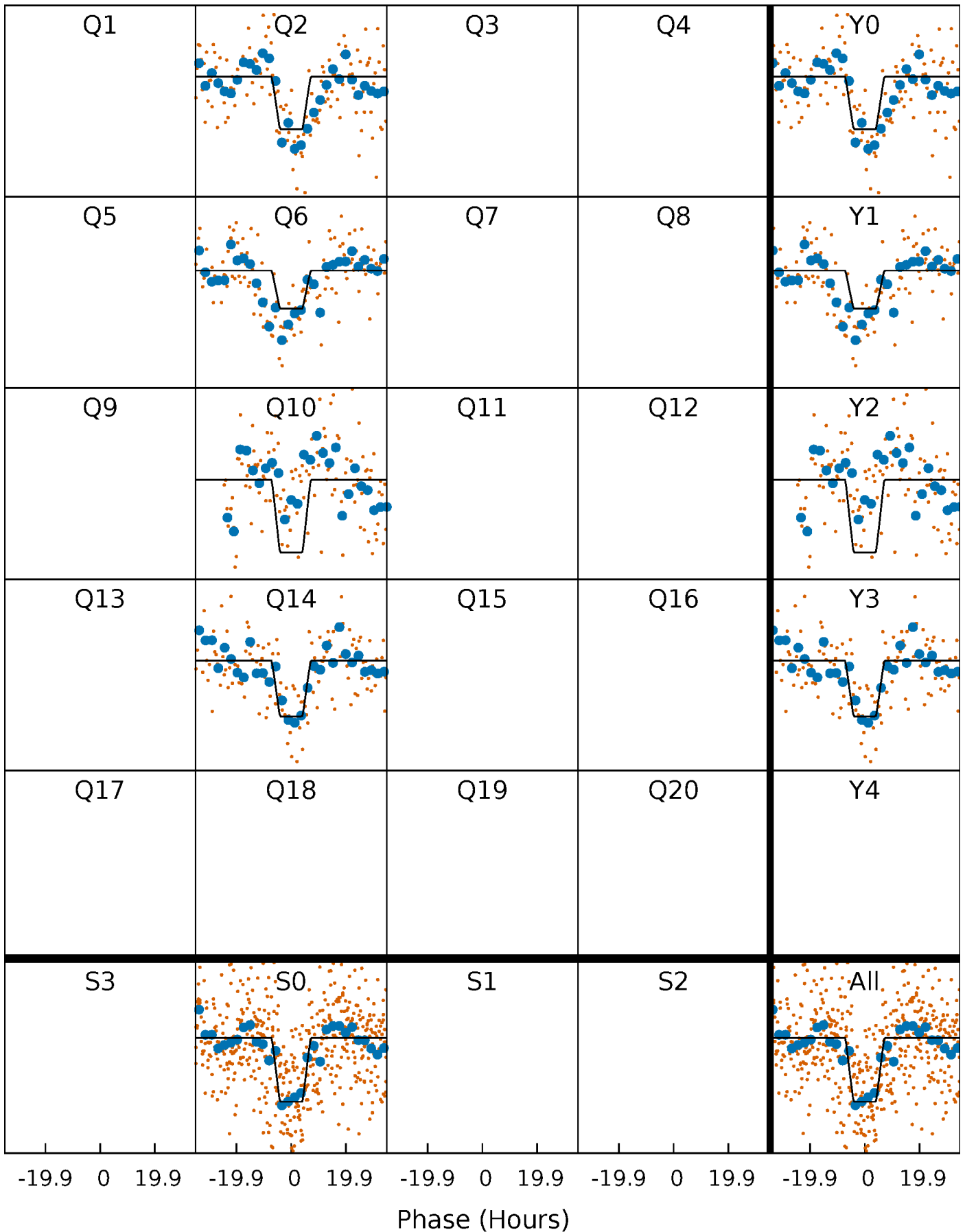
DV Quarter-Phased Transit Curves

TCE 008106730-01 P=368.697515 Days $T_0=233.702906$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

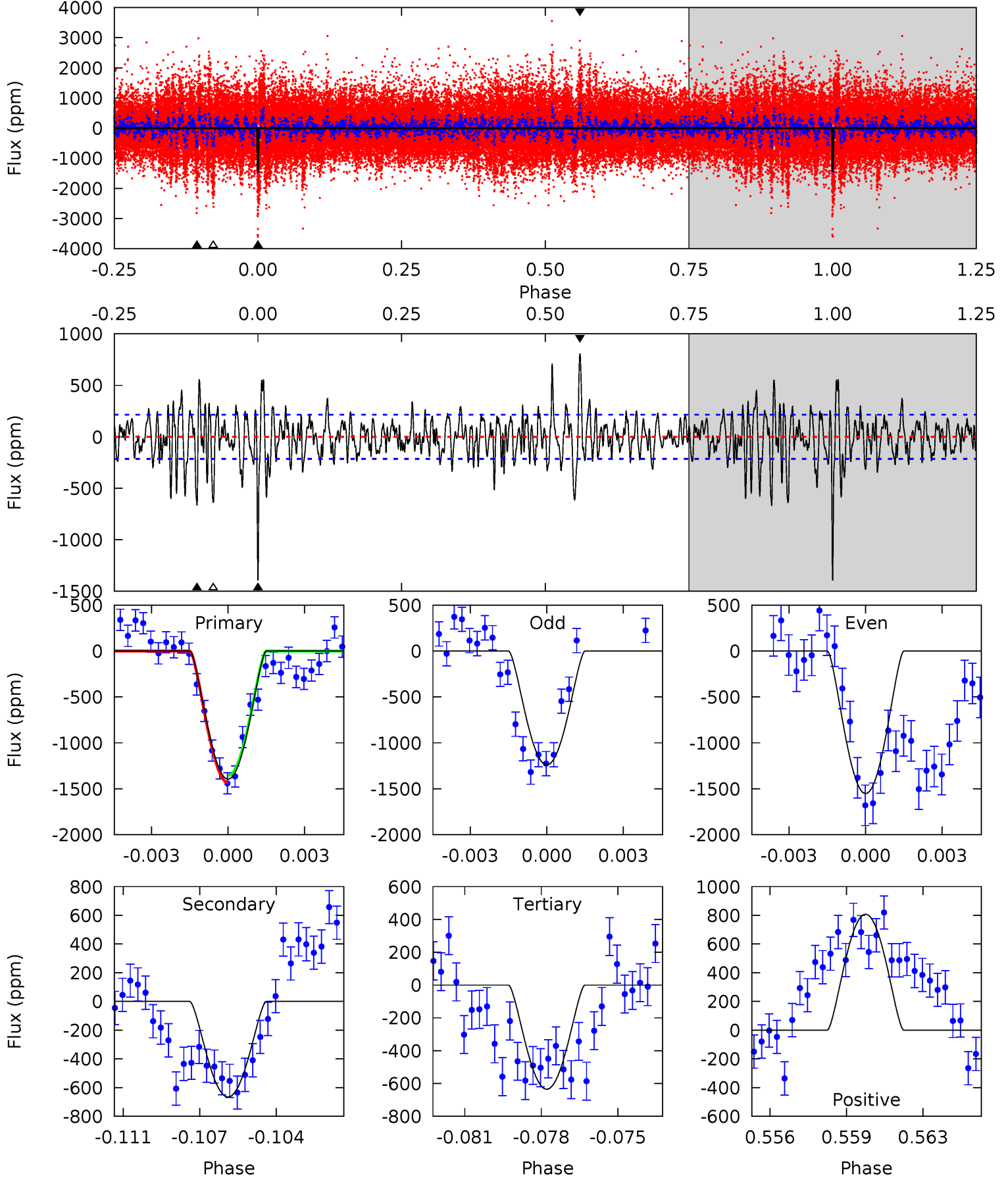
TCE 008106730-01 P=368.764457 Days $T_0=233.575134$ (BKJD)



DV Model-Shift Uniqueness Test

008106730-01, P = 368.697515 Days, E = 233.702906 Days

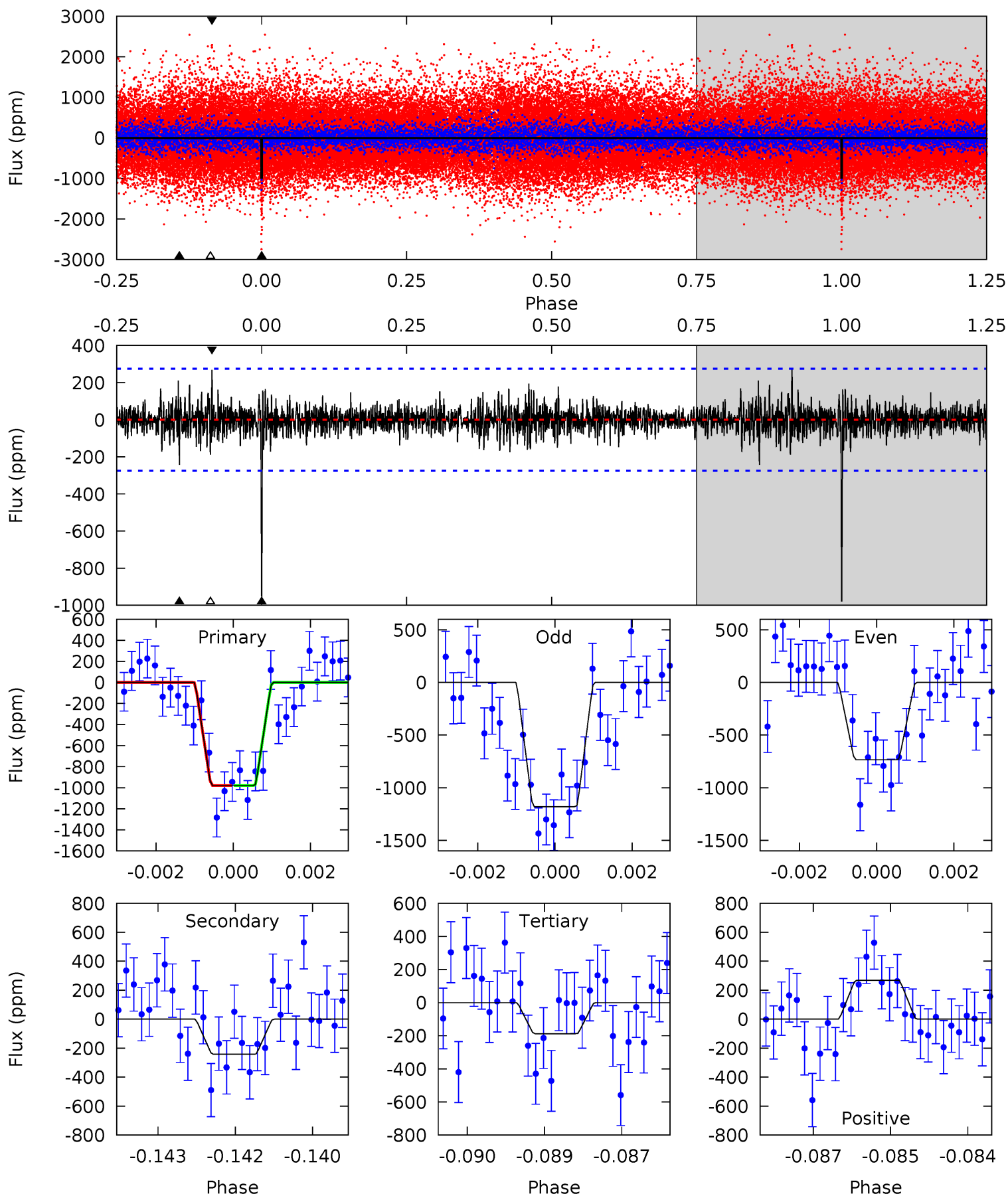
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
34.0	16.3	15.5	19.7	5.24	2.94	4.46	18.5	14.3	0.75	-3.47	3.80	1.13	0.37	0.95



Alt Model-Shift Uniqueness Test

008106730-01, P = 368.764457 Days, E = 233.575134 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.1	4.72	3.66	5.25	5.37	3.15	1.01	15.4	13.9	1.06	-0.52	4.38	0.86	0.22	0.01



Stellar Parameters For KIC 008106730

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5206^{+155}_{-155}	$4.554^{+0.045}_{-0.084}$	$0.020^{+0.300}_{-0.300}$	$0.803^{+0.105}_{-0.070}$	$0.841^{+0.071}_{-0.078}$	$2.292^{+0.509}_{-0.594}$
	+3%/-3%	+1%/-2%	+1500%/-1500%	+13%/-9%	+8%/-9%	+22%/-26%
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 008106730-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-666 ± 41	$11.32^{+11.04}_{-7.76}$	296^{+11}_{-10}	3004^{+1358}_{-507}	2603^{+22872}_{-1946}
Alt.	-242 ± 51	$10.10^{+10.68}_{-6.98}$	297^{+12}_{-12}	2706^{+1120}_{-448}	1161^{+10907}_{-883}

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 $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

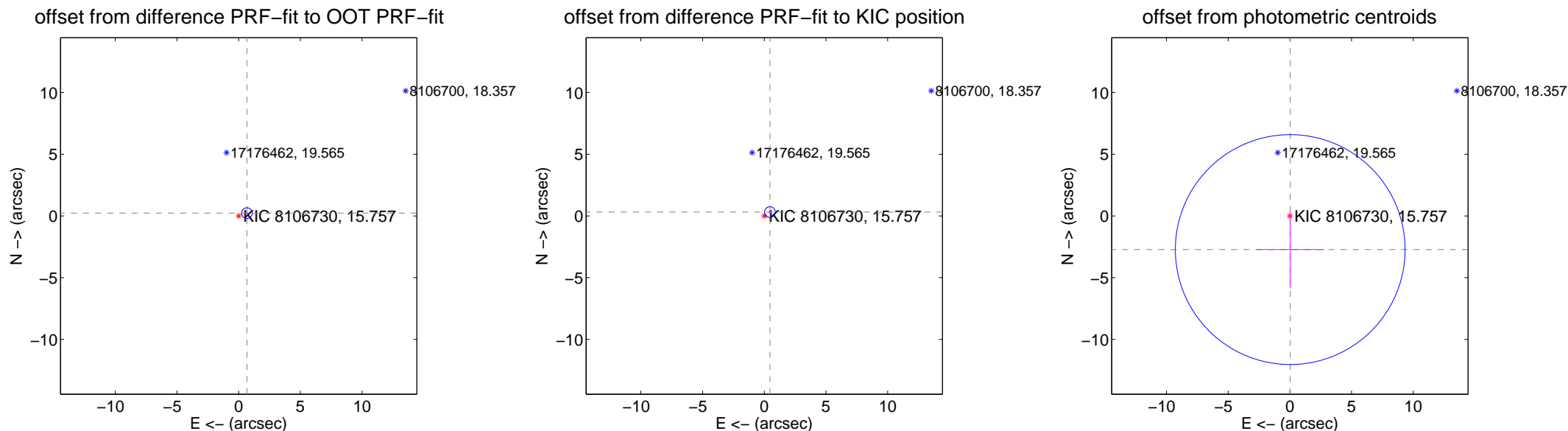
DV Centroid Data

Supplemental centroid analysis for 008106730-01. Kepler magnitude: 15.76. Transit SNR 9.79

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.22 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.704 ± 0.144	4.88	-0.666 ± 0.144	0.230 ± 0.145
PRF-fit source offset from KIC position	0.555 ± 0.145	3.84	-0.458 ± 0.144	0.313 ± 0.145
photometric centroid source offset	2.72 ± 3.10	0.88	-0.03 ± 2.75	-2.72 ± 3.10

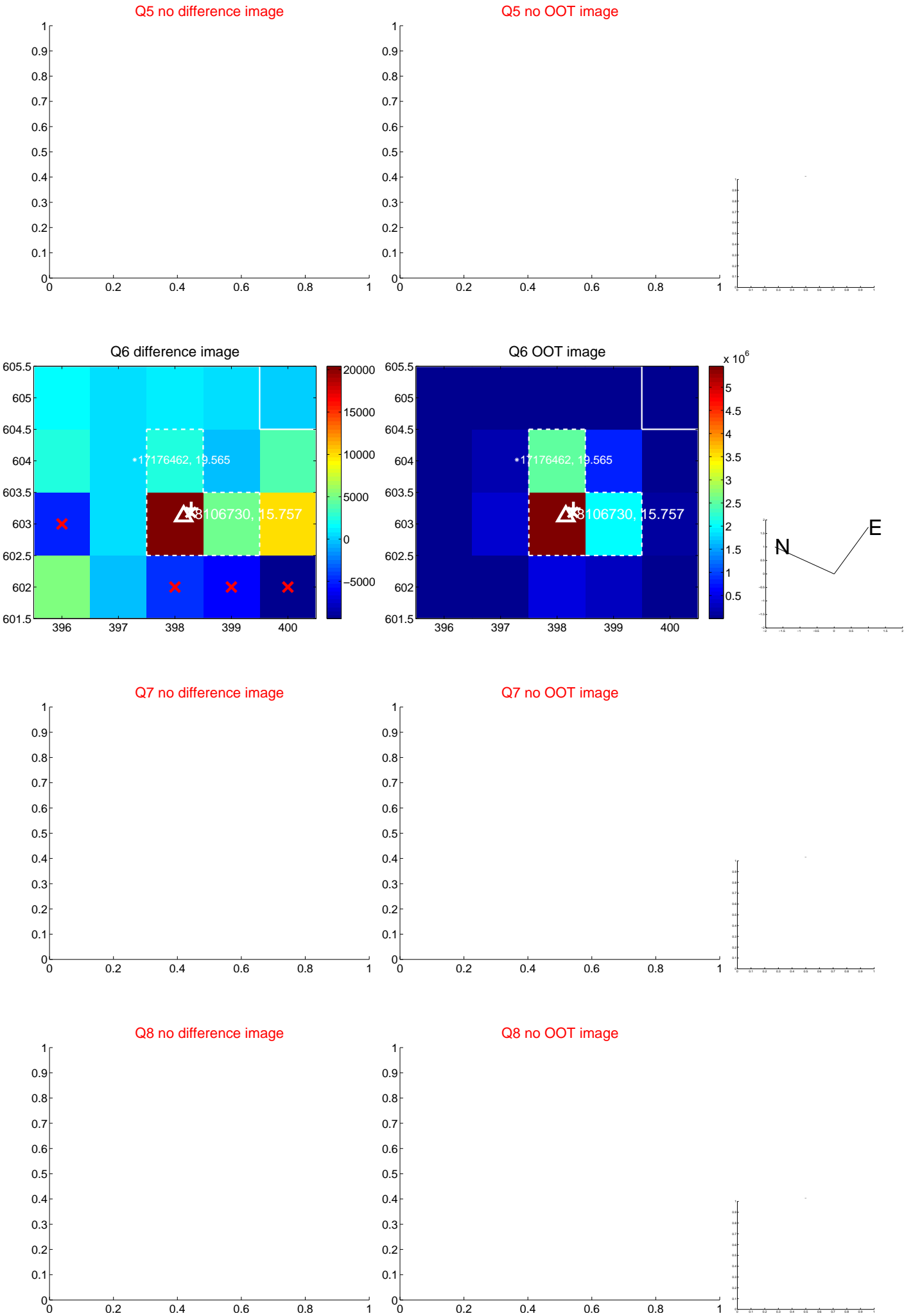


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



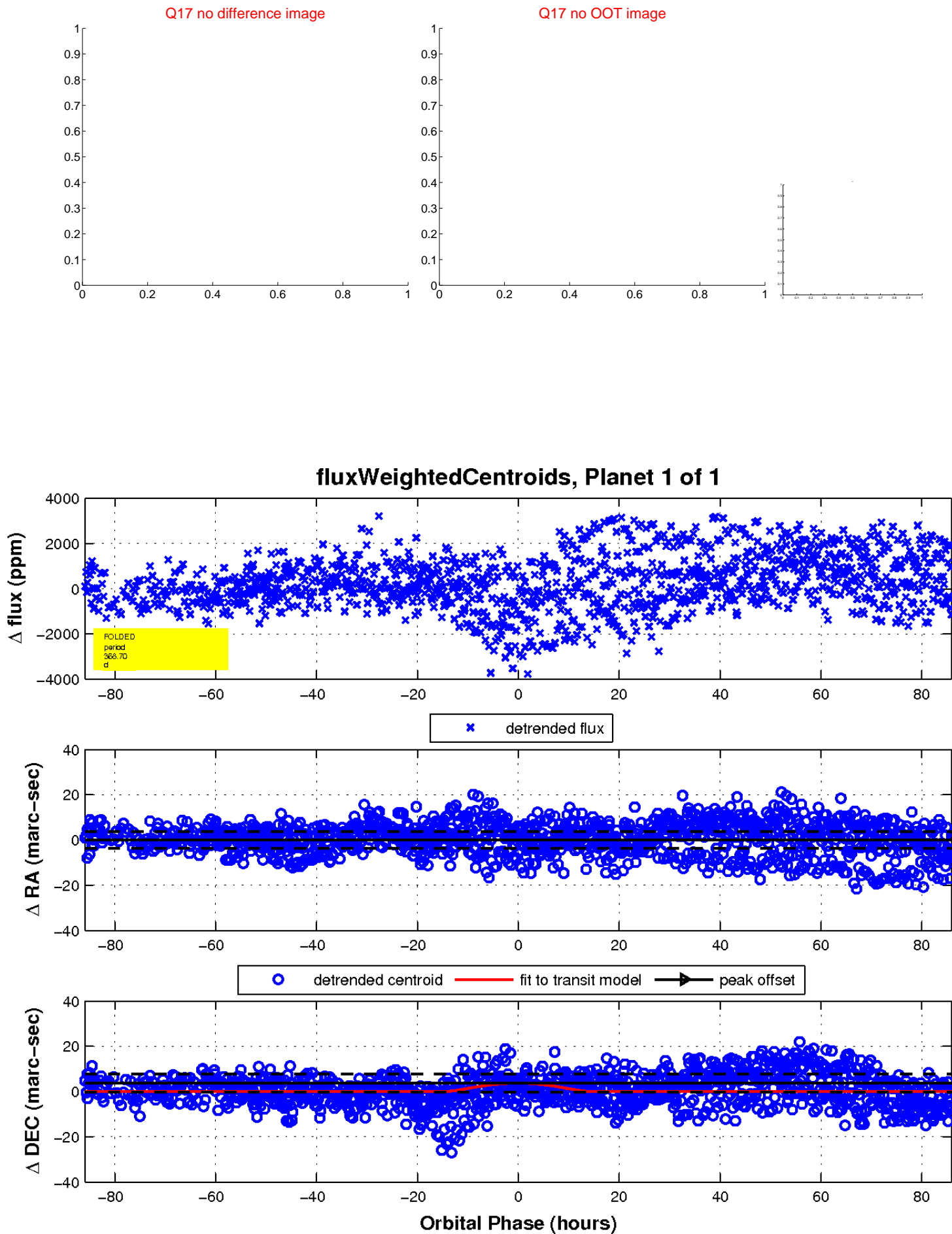
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

