

KIC 008818050

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})
008818050-01	OBS	No	426.632409	183.456993	151.2	20.494	7.2	5.4	3.79	5123	5.01	5.42

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008818050-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—MOD_NONUNIQ_ALT

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

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

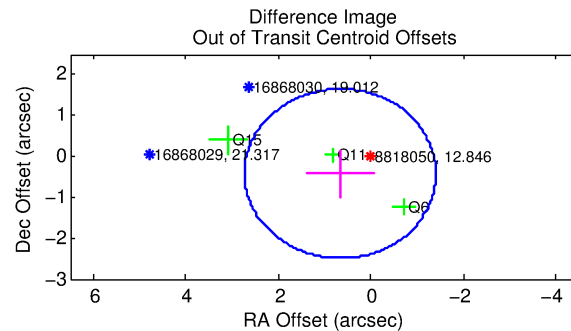
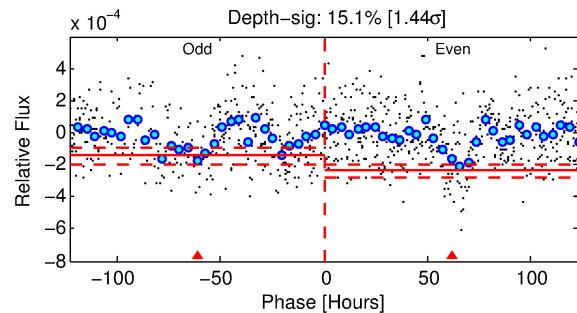
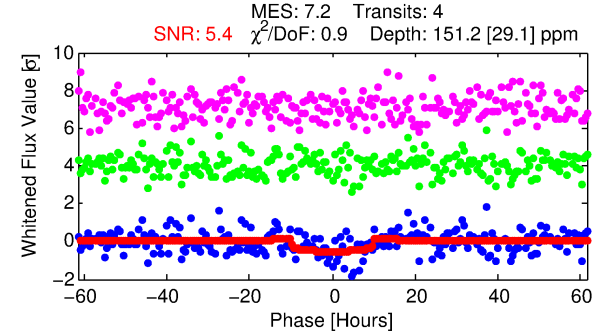
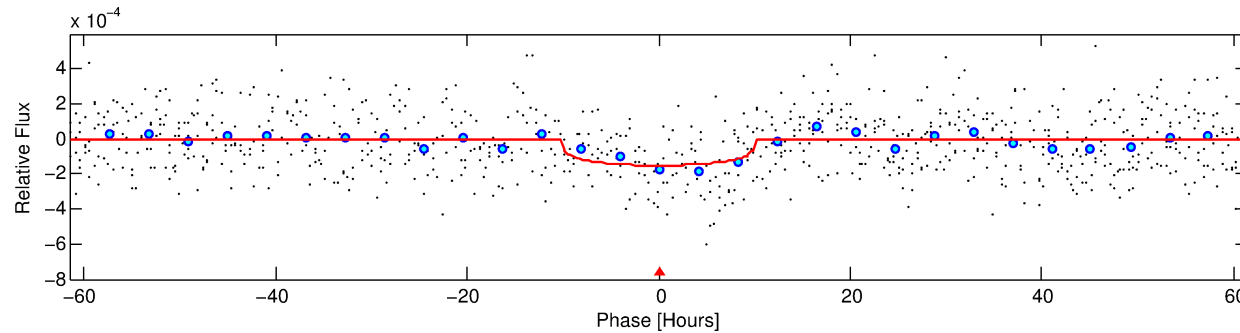
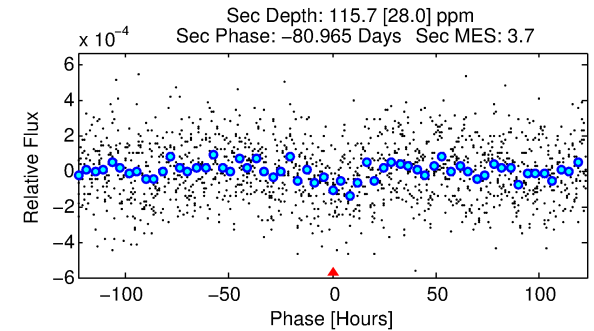
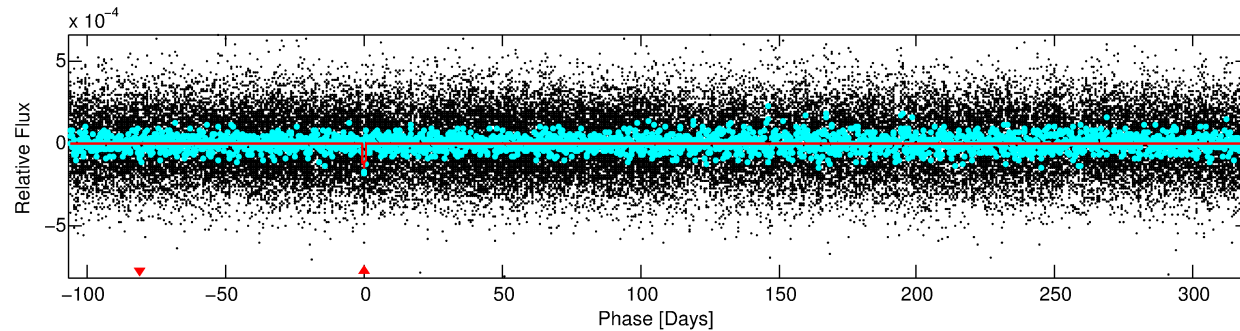
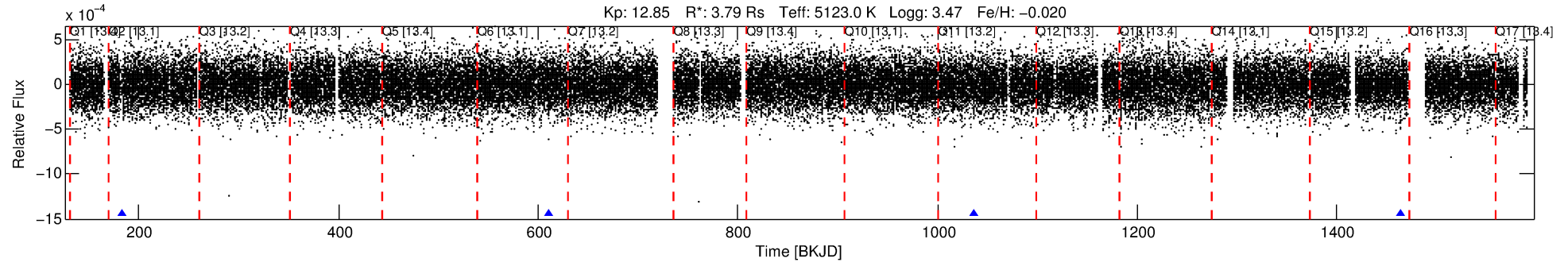
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008818050-01

No Significant Match Found

DV One-Page Summary

KIC: 8818050 Candidate: 1 of 1 Period: 426.632 d



DV Fit Results:

Period = 426.63241 [0.02019] d
Epoch = 183.4570 [0.0405] BKJD
Rp/R* = 0.0121 [0.0048]
a/R* = 112.78 [166.68]
b = 0.72 [0.97]
Seff = 5.42 [2.14]
Teq = 389 [38] K
Rp = 5.01 [2.46] Re
a = 1.2791 [0.3229] AU
Ag = 4146.95 [3768.18] [1.10σ]
Teffp = 4827 [1008] K [4.40σ]

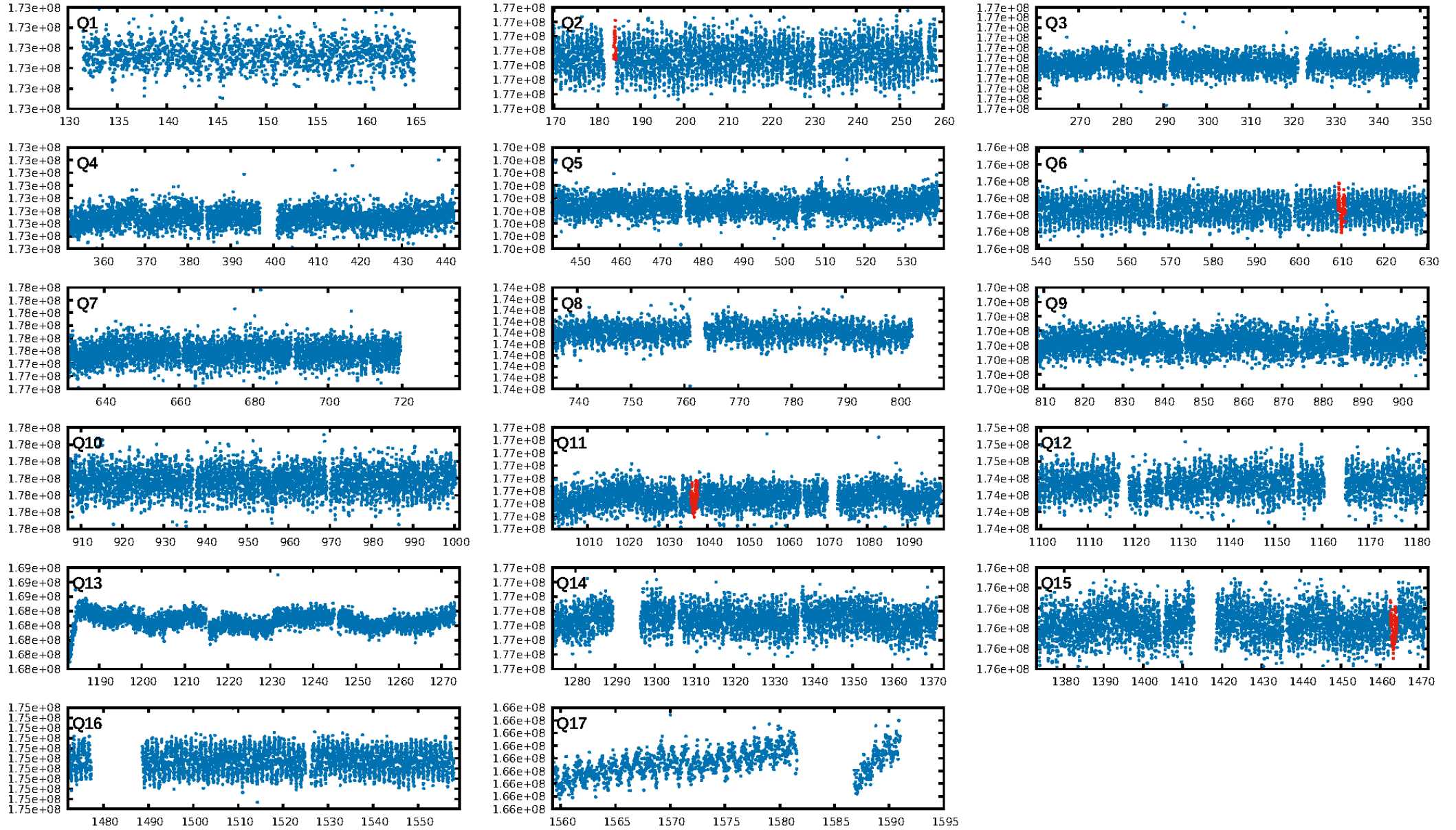
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 73.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.00e-12
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 2.051
Centroid-sig: 20.9%
Centroid-so: 1.447 arcsec [1.19σ]
OotOffset-rm: 0.788 arcsec [1.14σ]
OotOffset-st: 1/2/0/0 [3]
KicOffset-rm: 0.907 arcsec [1.30σ]
KicOffset-st: 1/2/0/0 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

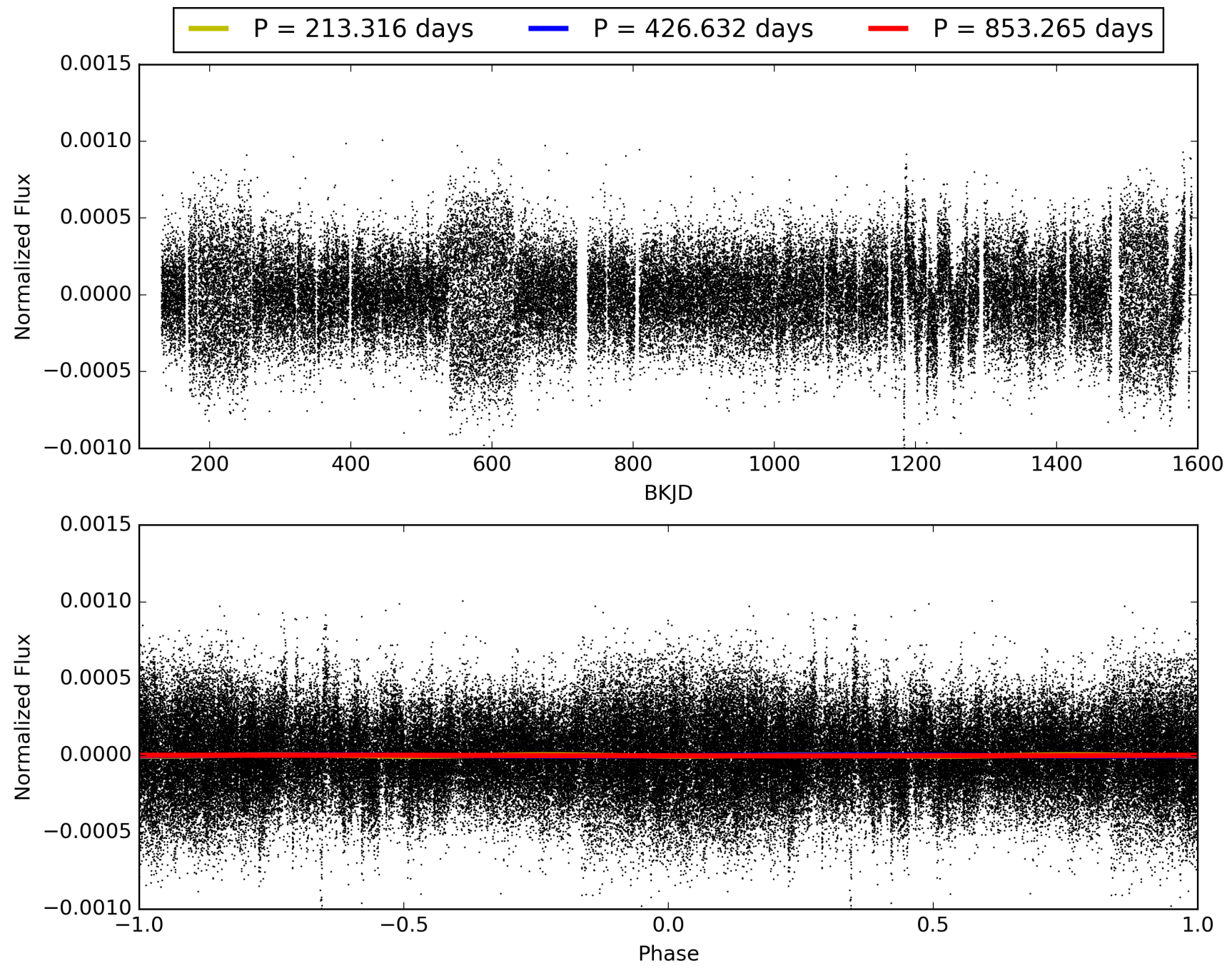
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:46:50 Z

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

TCE 008818050-01, PDC Light Curves

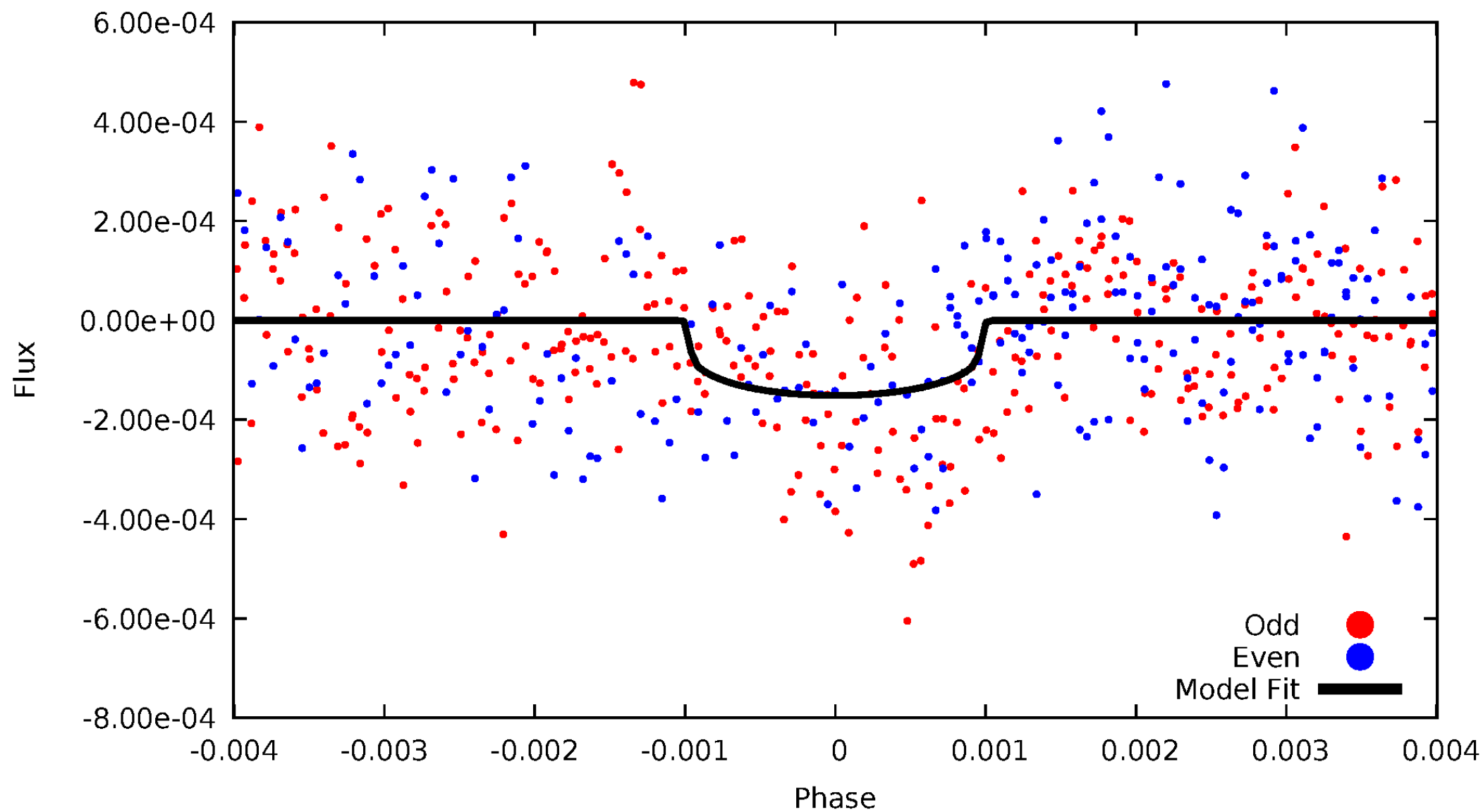


TCE 008818050-01



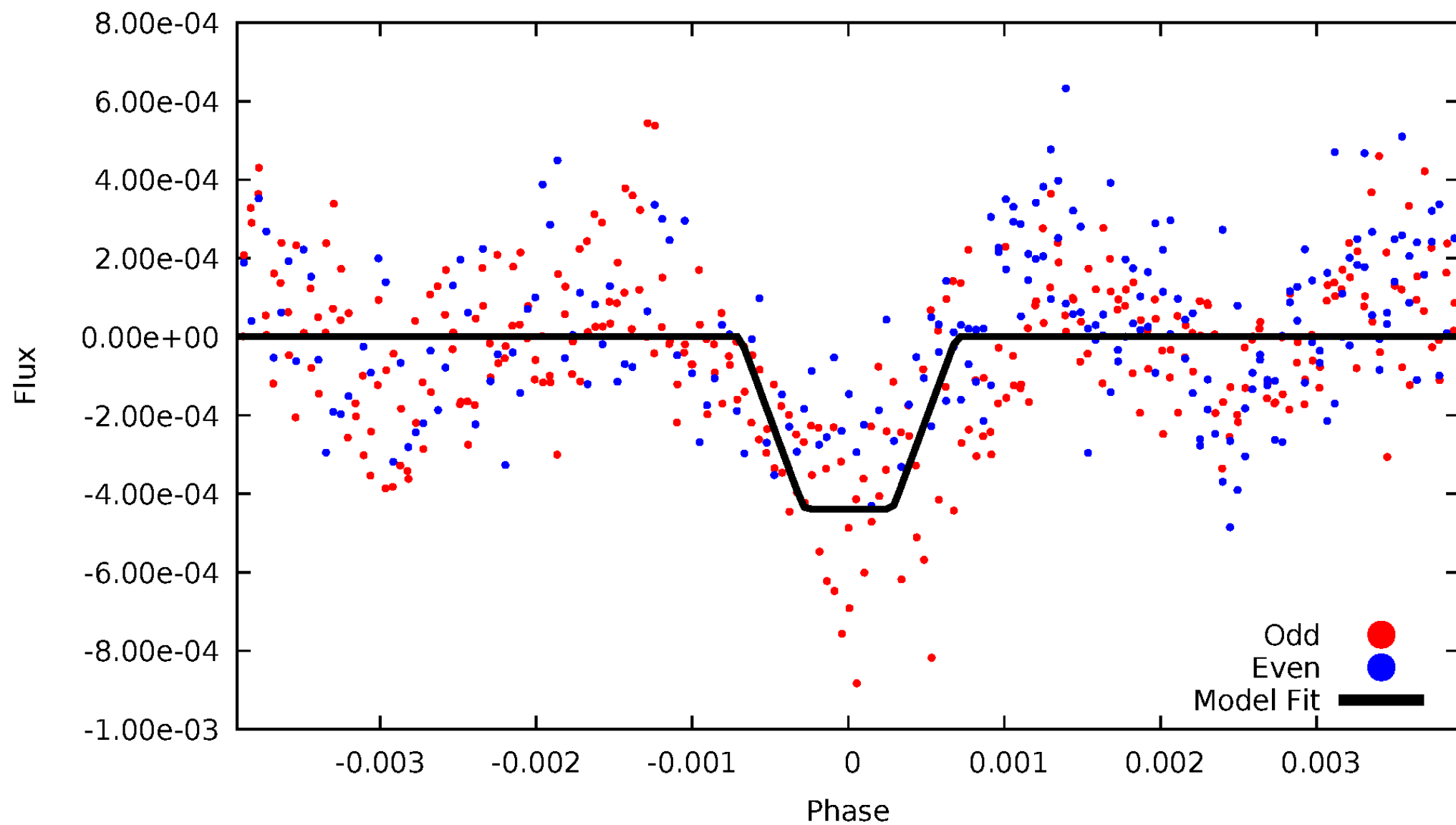
DV Odd/Even

TCE 008818050-01



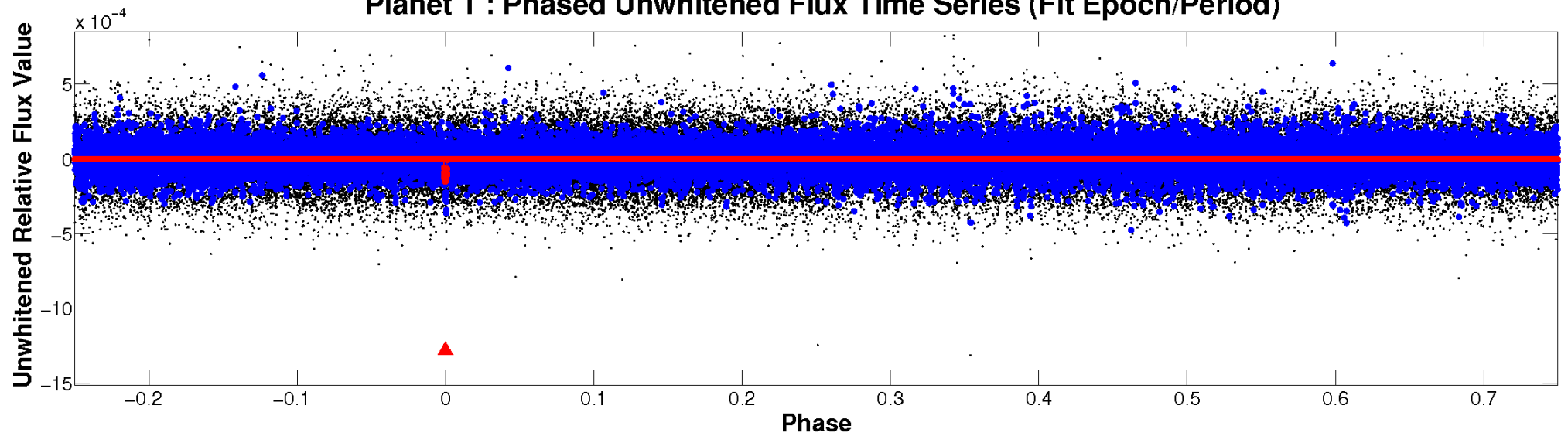
ALT Odd/Even

TCE 008818050-01

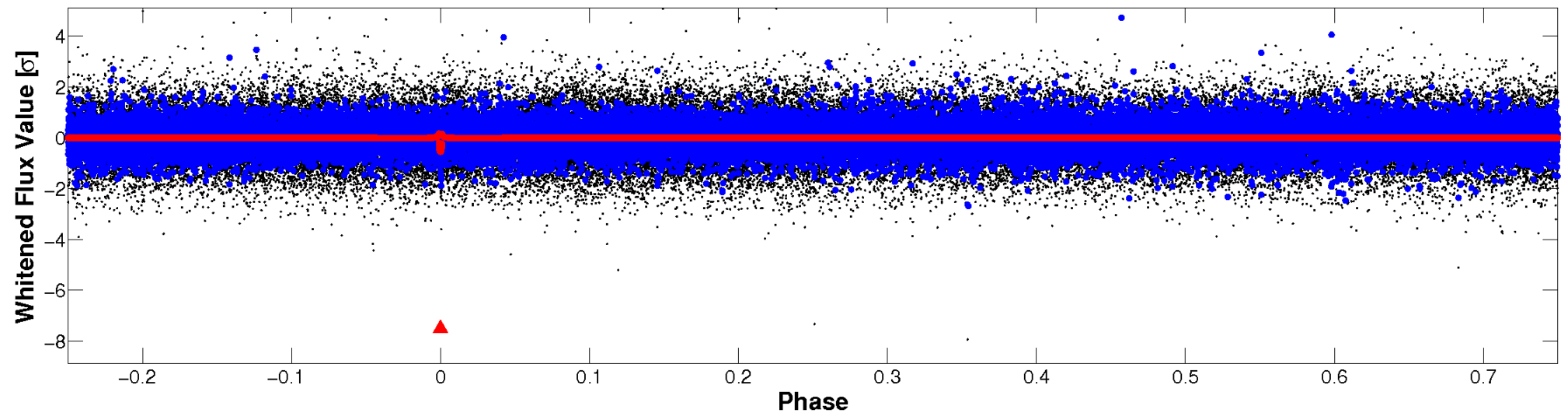


Non-Whitened Vs. Whitened Light Curve

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

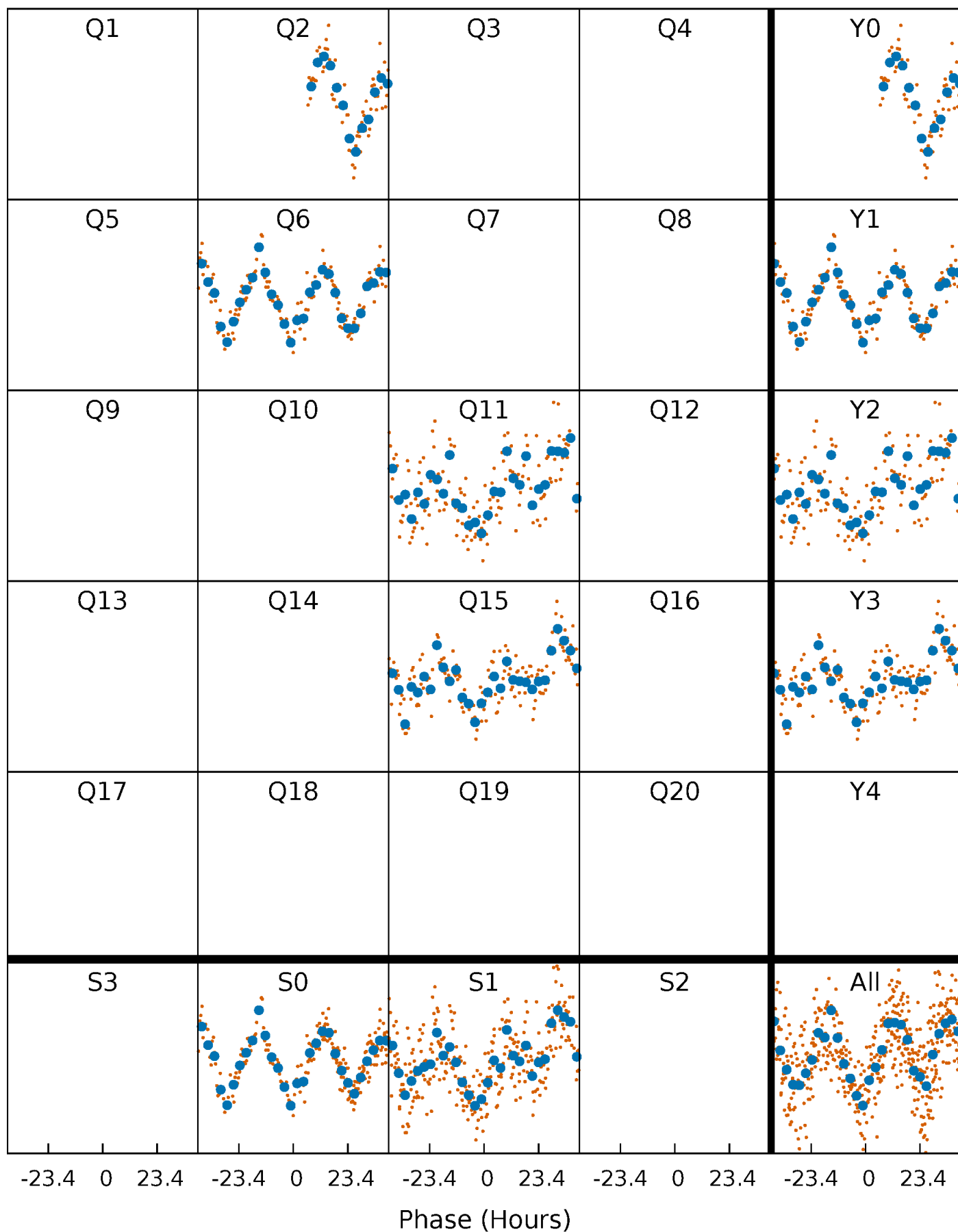


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



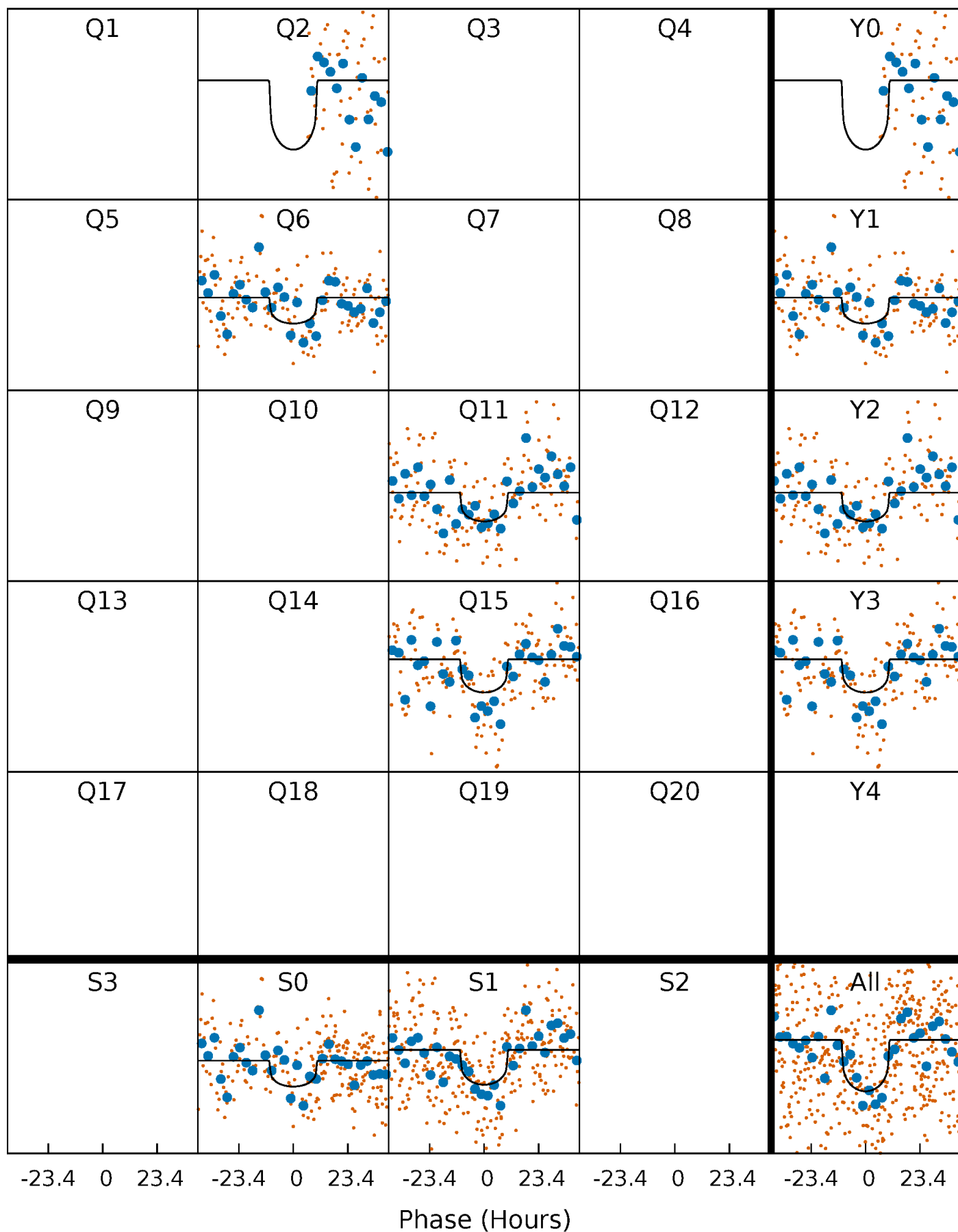
PDC Quarter-Phased Transit Curves

TCE 008818050-01 P=426.632409 Days $T_0=183.456993$ (BKJD)



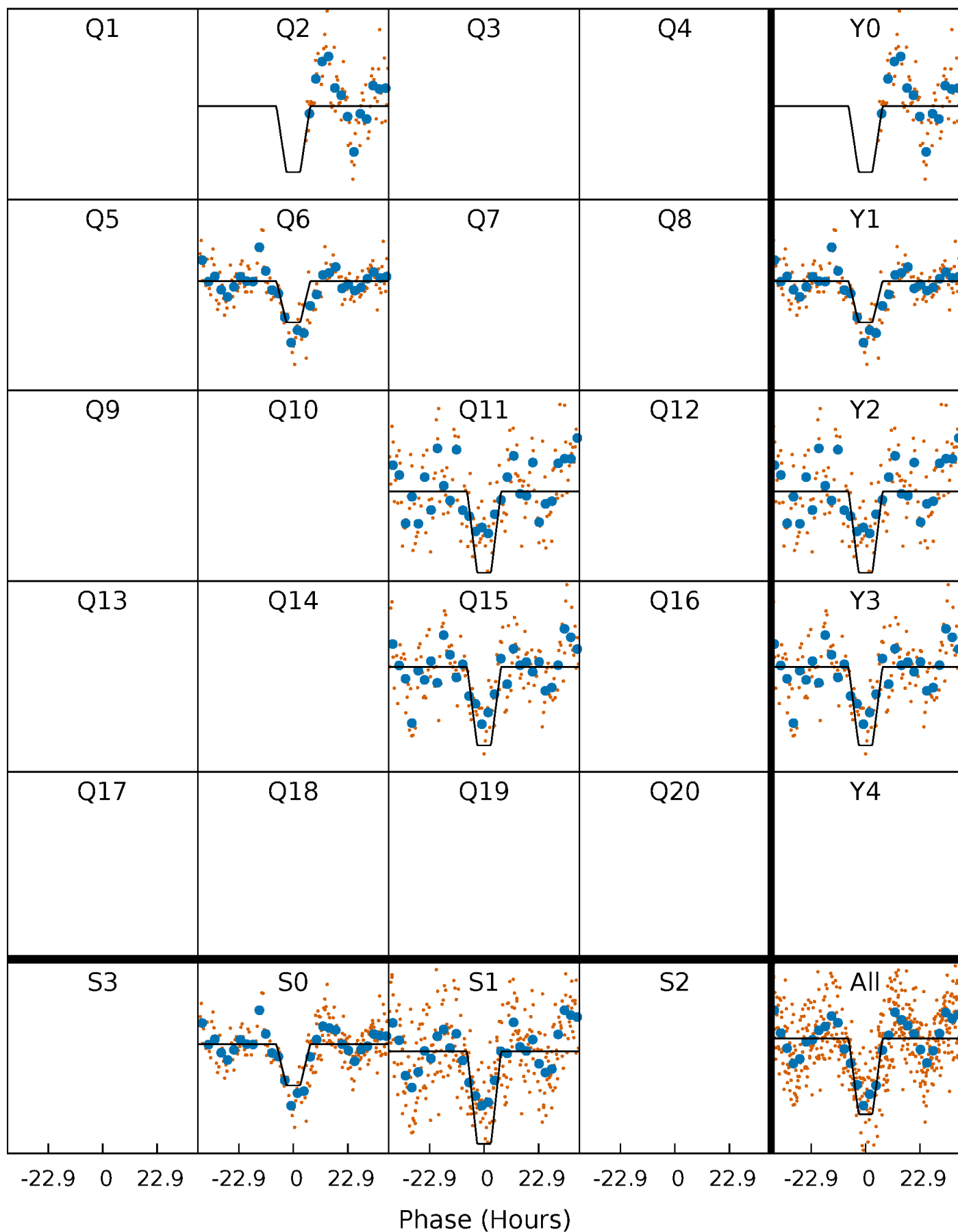
DV Quarter-Phased Transit Curves

TCE 008818050-01 P=426.632409 Days $T_0=183.456993$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

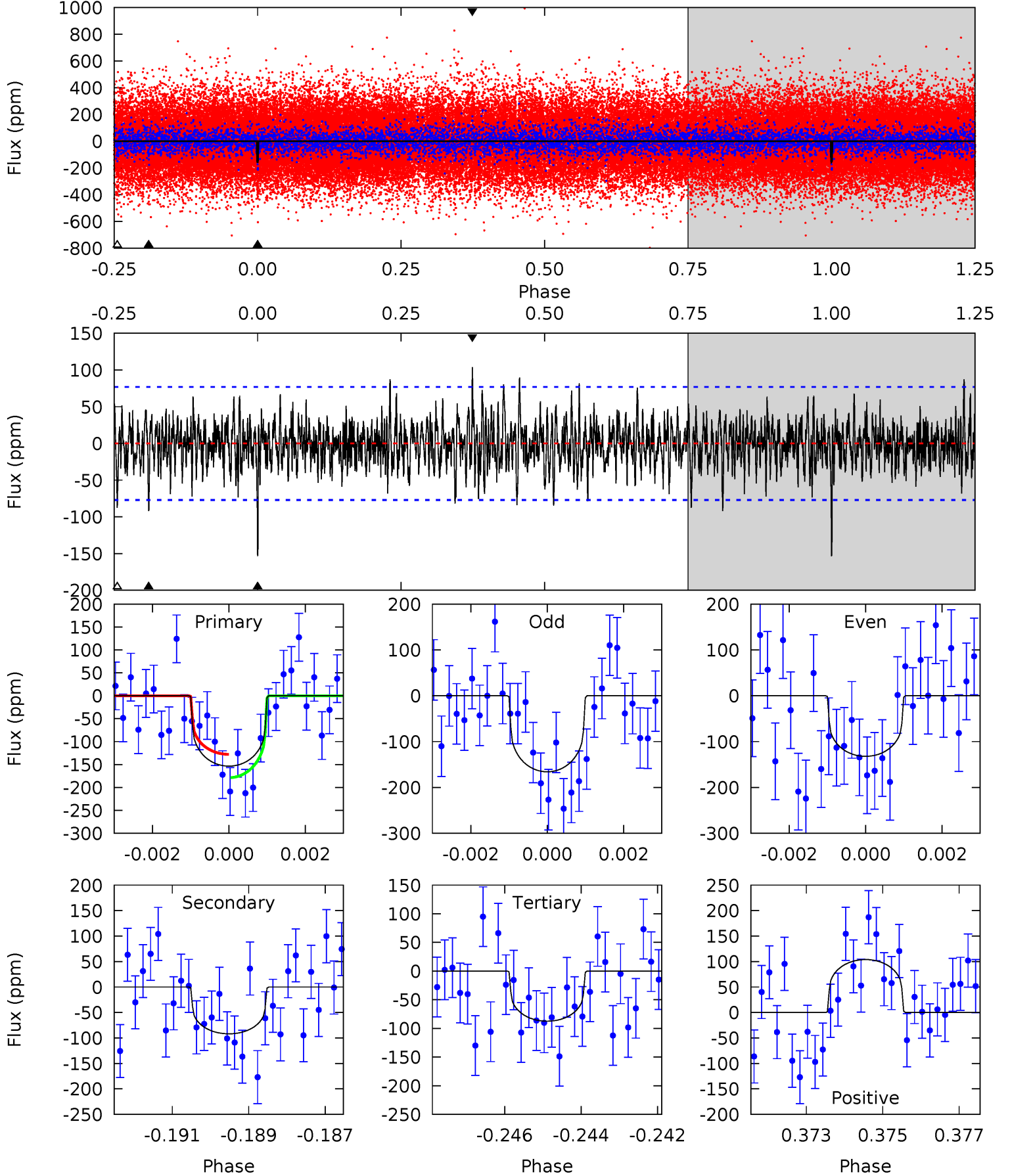
TCE 008818050-01 P=426.570998 Days $T_0=183.495166$ (BKJD)



DV Model-Shift Uniqueness Test

008818050-01, P = 426.632409 Days, E = 183.456993 Days

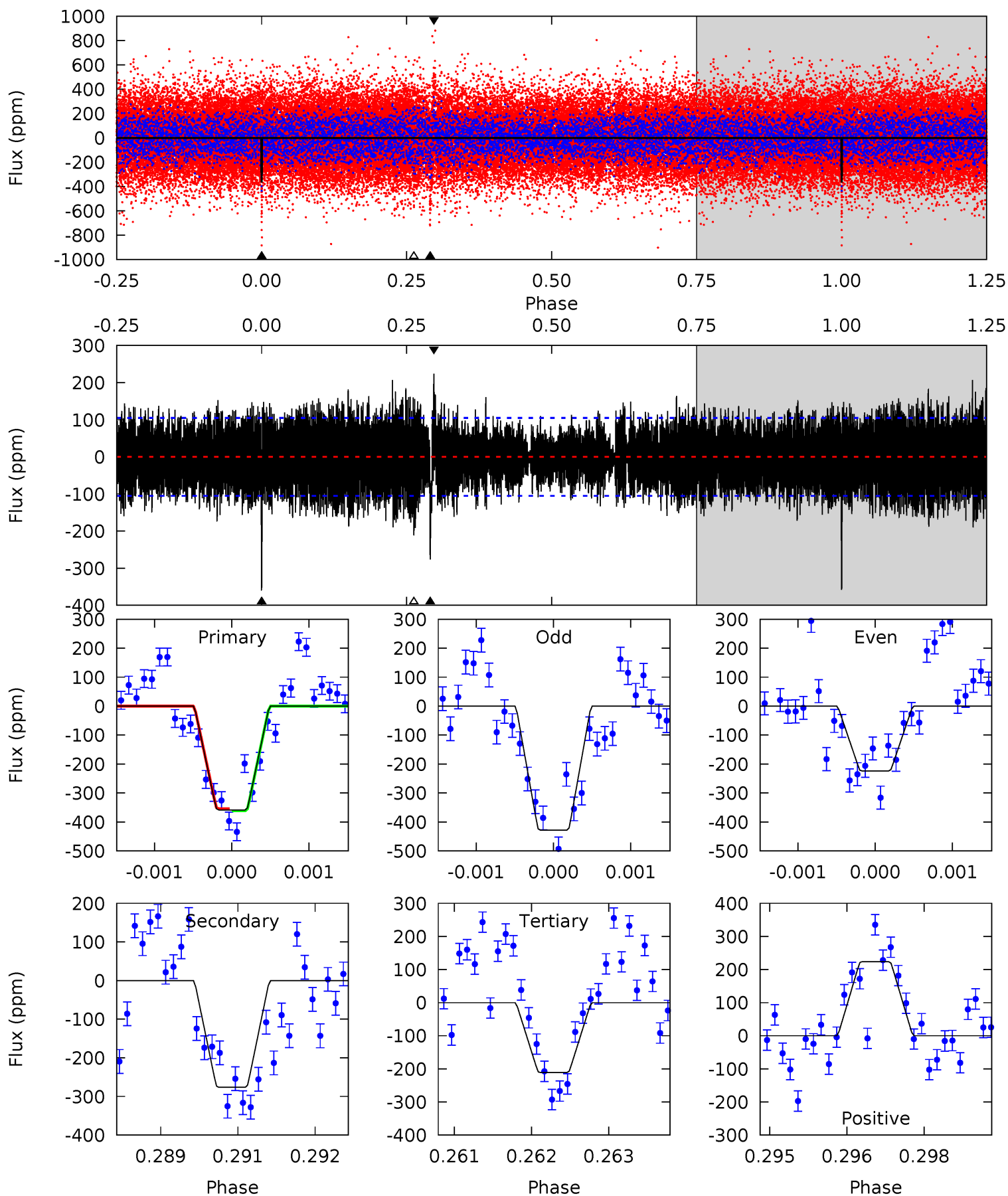
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.6	6.35	6.05	7.19	5.33	3.09	1.76	4.57	3.43	0.31	-0.83	1.13	1.01	0.40	1.76



Alt Model-Shift Uniqueness Test

008818050-01, P = 426.570998 Days, E = 183.495166 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.4	14.2	10.8	11.5	5.39	3.19	4.10	7.56	6.91	3.35	2.70	5.05	1.08	0.38	0.18



Stellar Parameters For KIC 008818050

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5123^{+101}_{-152}	$3.466^{+0.210}_{-0.157}$	$-0.020^{+0.200}_{-0.300}$	$3.791^{+0.736}_{-1.105}$	$1.532^{+0.212}_{-0.494}$	$0.040^{+0.051}_{-0.016}$
	+2%/-3%	+6%/-5%	+1000%/-1500%	+19%/-29%	+14%/-32%	+129%/-40%
Source	PHO1	FLK73	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 008818050-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-92 ± 14	$4.93^{+2.21}_{-2.09}$	541^{+35}_{-43}	4625^{+1193}_{-581}	3477^{+6606}_{-1913}
Alt.	-276 ± 19	$8.32^{+2.48}_{-2.16}$	541^{+36}_{-38}	4673^{+499}_{-422}	3479^{+2657}_{-1392}

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 $A_{obs} \gg 1.0$

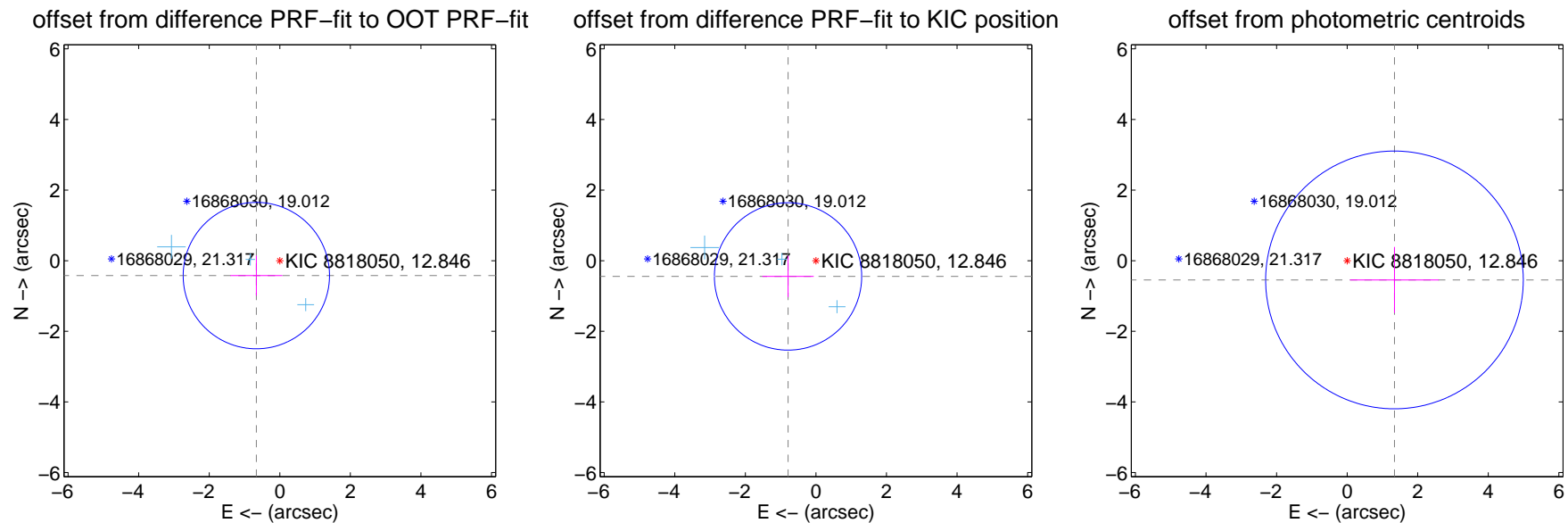
DV Centroid Data

Supplemental centroid analysis for 008818050-01. Kepler magnitude: 12.85. Transit SNR 5.38

There are 3 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.788 ± 0.691	1.14	0.665 ± 0.735	-0.422 ± 0.567
PRF-fit source offset from KIC position	0.907 ± 0.696	1.30	0.790 ± 0.727	-0.446 ± 0.585
photometric centroid source offset	1.45 ± 1.22	1.19	-1.34 ± 1.26	-0.54 ± 0.93

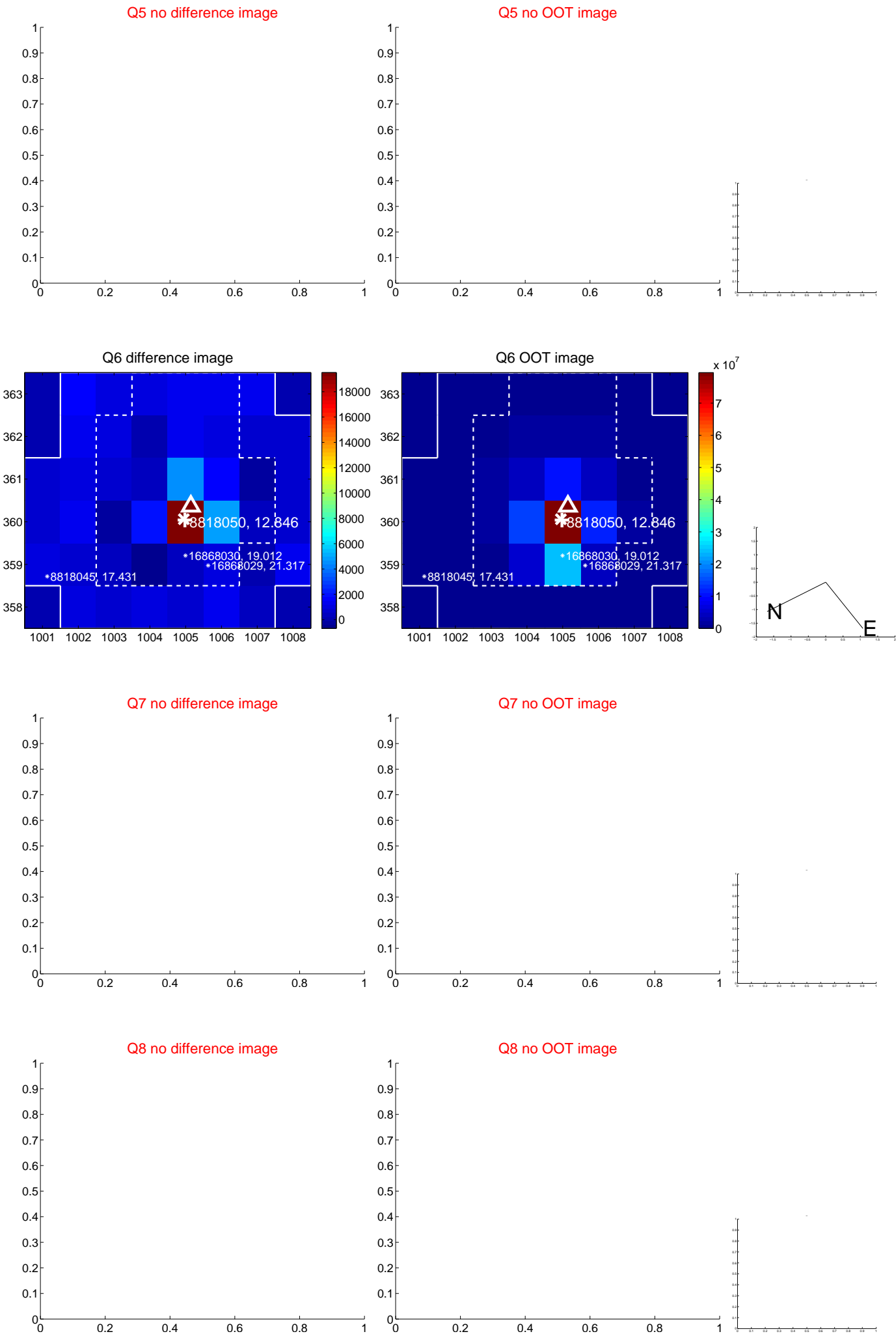


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

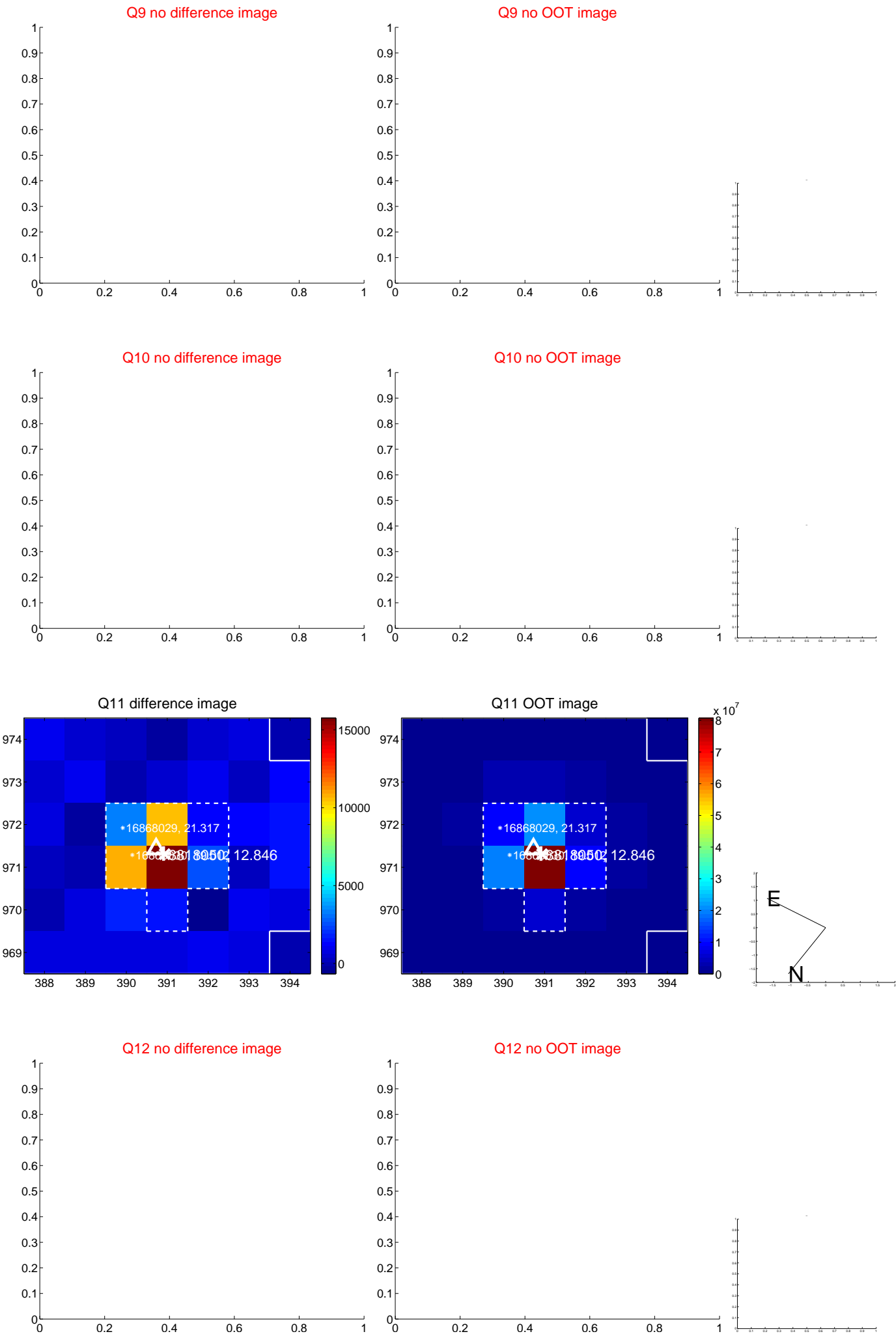
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



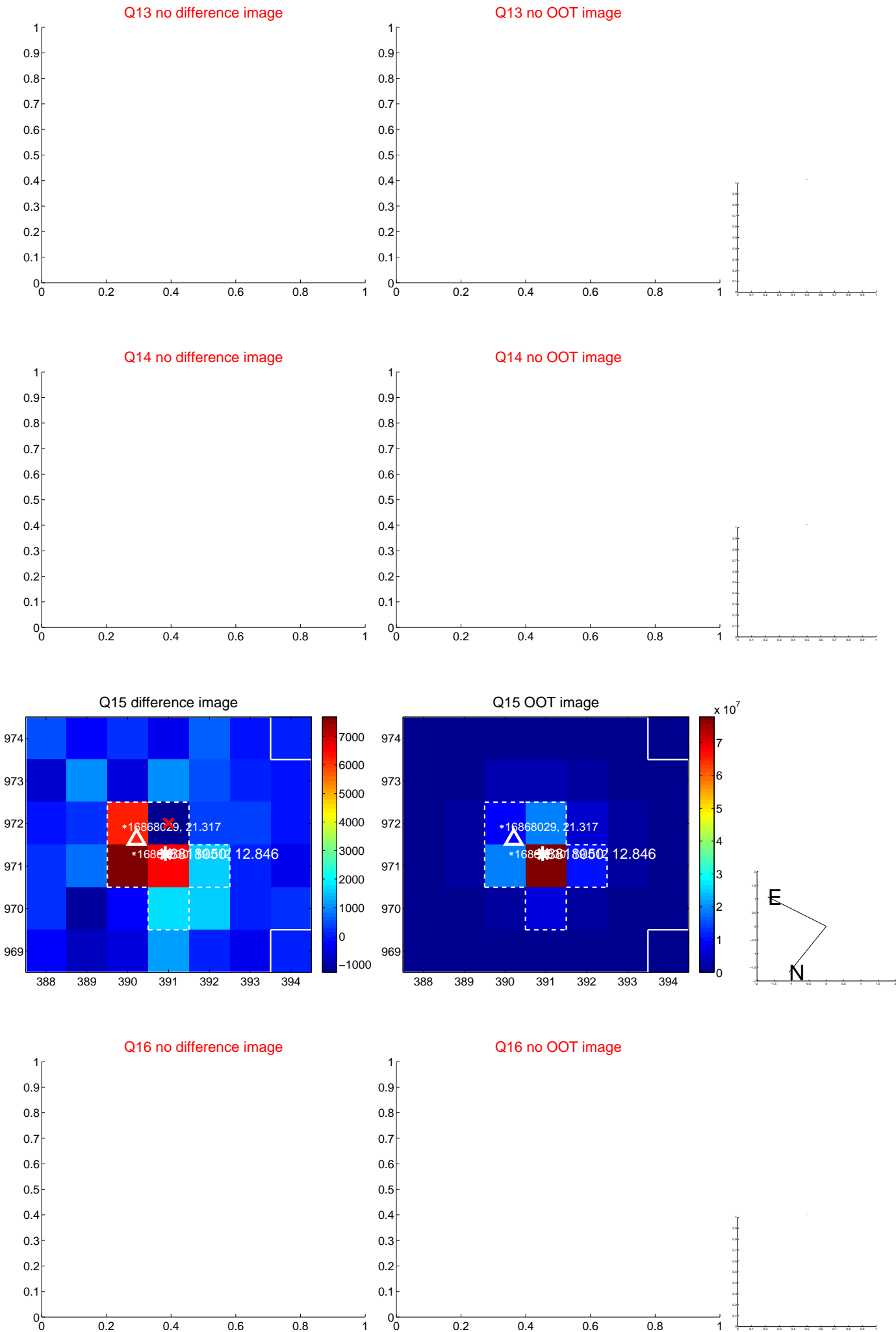
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



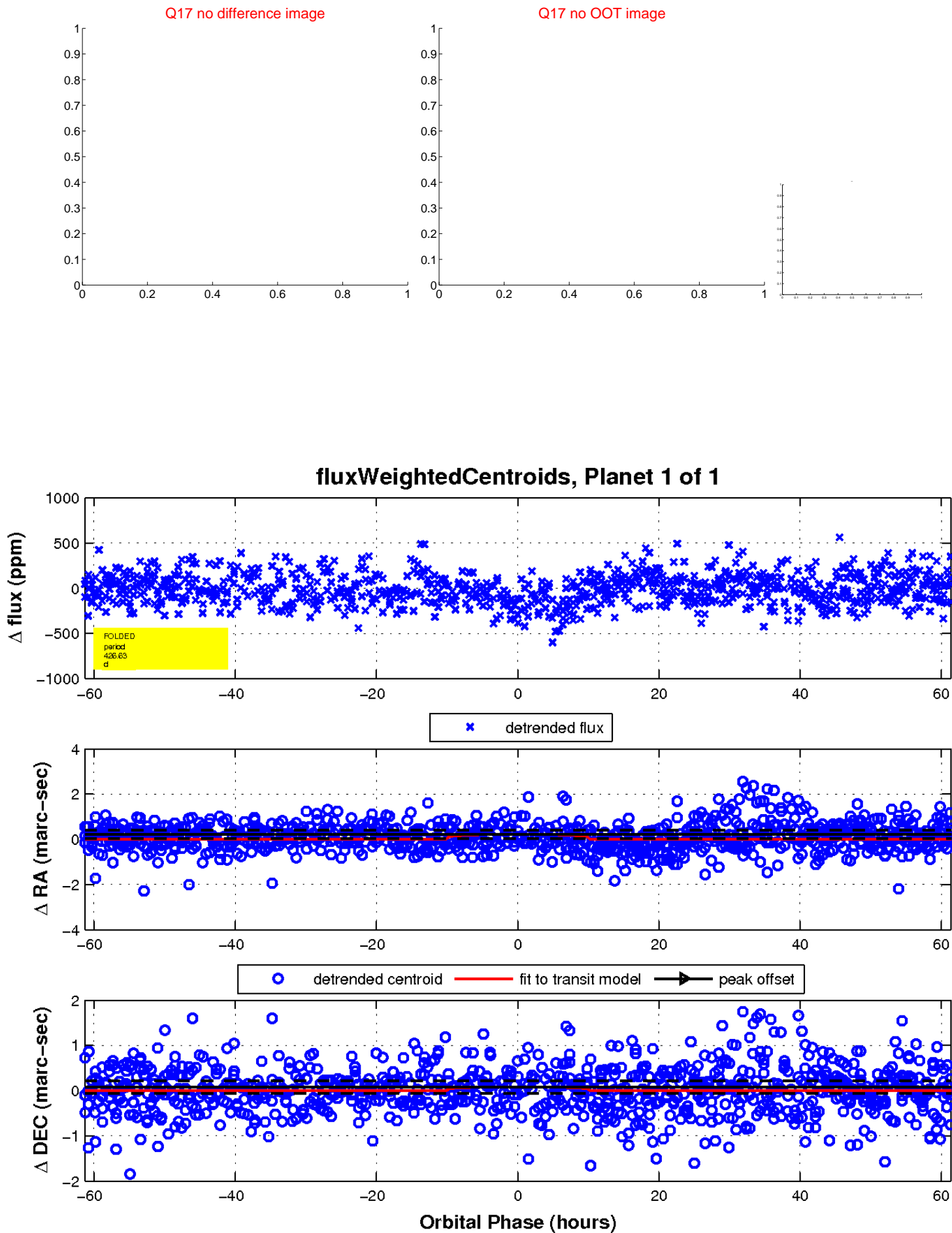
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

