

KIC 005688790

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})
005688790-01	OBS	3144.01	8.073939	136.343910	1038.6	2.426	11.7	14.5	0.40	3675	1.54	7.35

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005688790-01	OBS	PC	0.86	0	0	0	0	CENT_KIC_POS

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

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

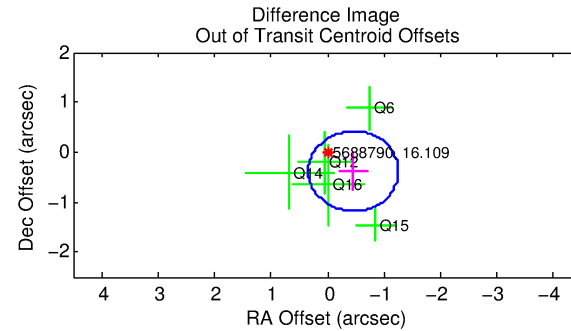
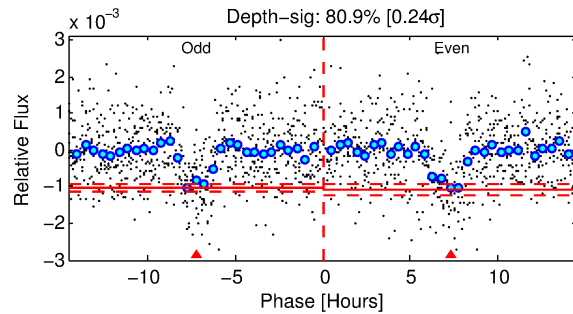
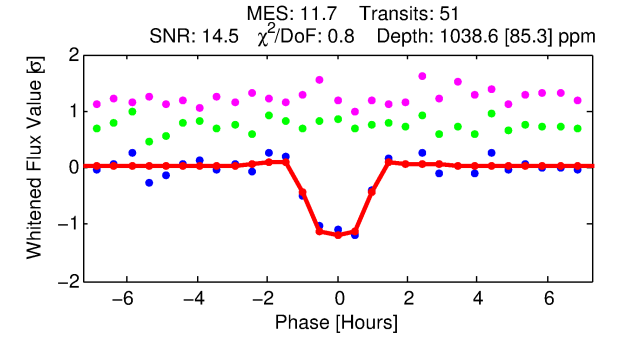
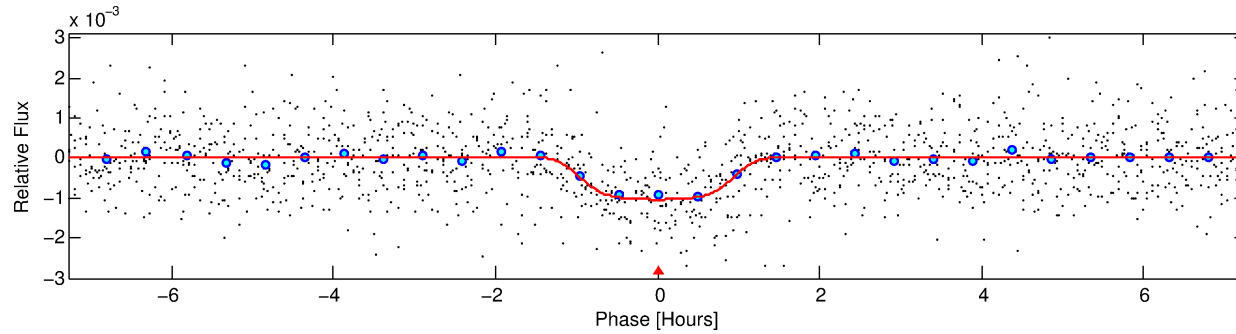
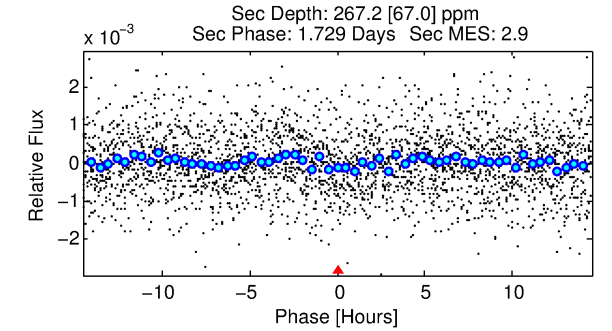
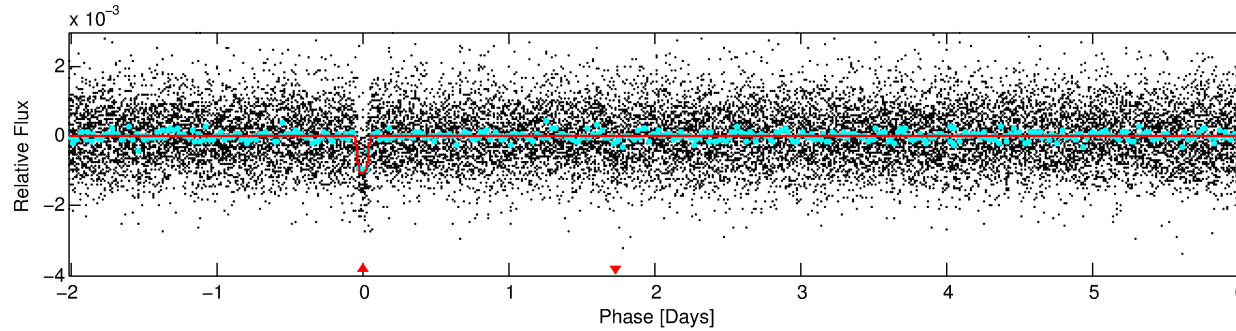
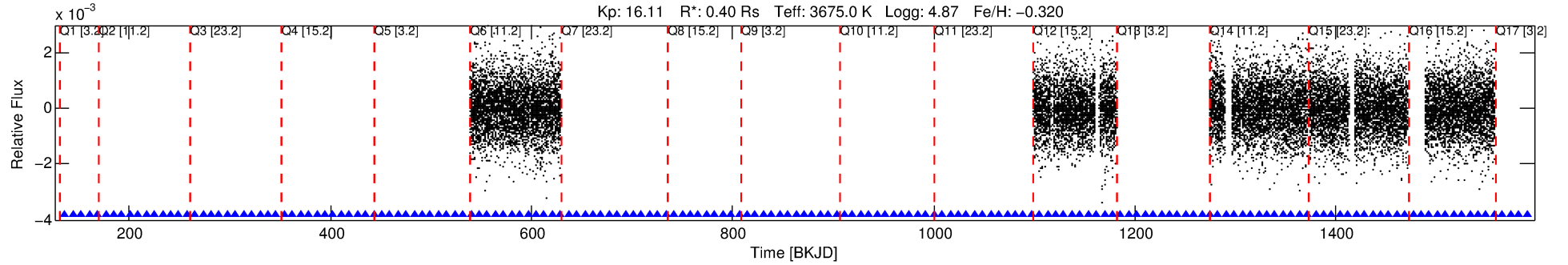
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005688790-01

No Significant Match Found

DV One-Page Summary

KIC: 5688790 Candidate: 1 of 1 Period: 8.074 d
KOI: K03144.01 Corr: 0.956



DV Fit Results:

Period = 8.07394 [0.00004] d
Epoch = 136.3439 [0.0047] BKJD
Rp/R* = 0.0355 [0.0048]
a/R* = 12.27 [7.16]
b = 0.92 [0.10]
Seff = 7.35 [1.09]
Teq = 420 [16] K
Rp = 1.54 [0.28] Re
a = 0.0593 [0.0055] AU
Ag = 218.26 [84.74] [2.56σ]
Teffp = 2495 [237] K [8.72σ]

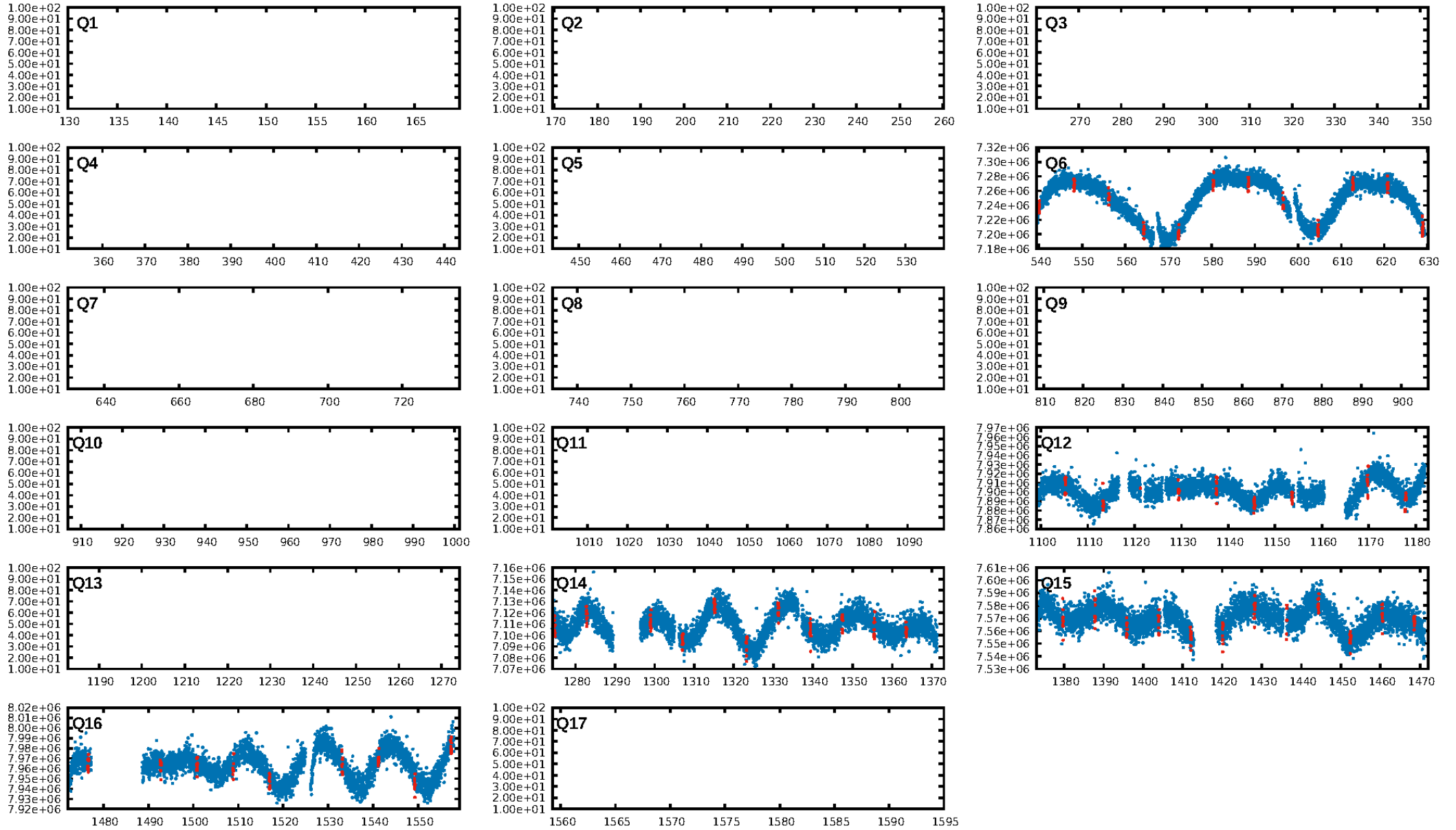
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 97.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.05e-30
RollingBand-fgt: 1.00 [51/51]
GhostDiagnostic-chr: 3.426
Centroid-sig: 2.3%
Centroid-so: 1.876 arcsec [1.66σ]
OotOffset-rm: 0.593 arcsec [2.23σ]
OotOffset-st: 2/1/2/0 [5]
KicOffset-rm: 1.343 arcsec [3.45σ]
KicOffset-st: 2/1/2/0 [5]
DiffImageQuality-fgm: 1.00 [5/5]
DiffImageOverlap-fno: 1.00 [5/5]

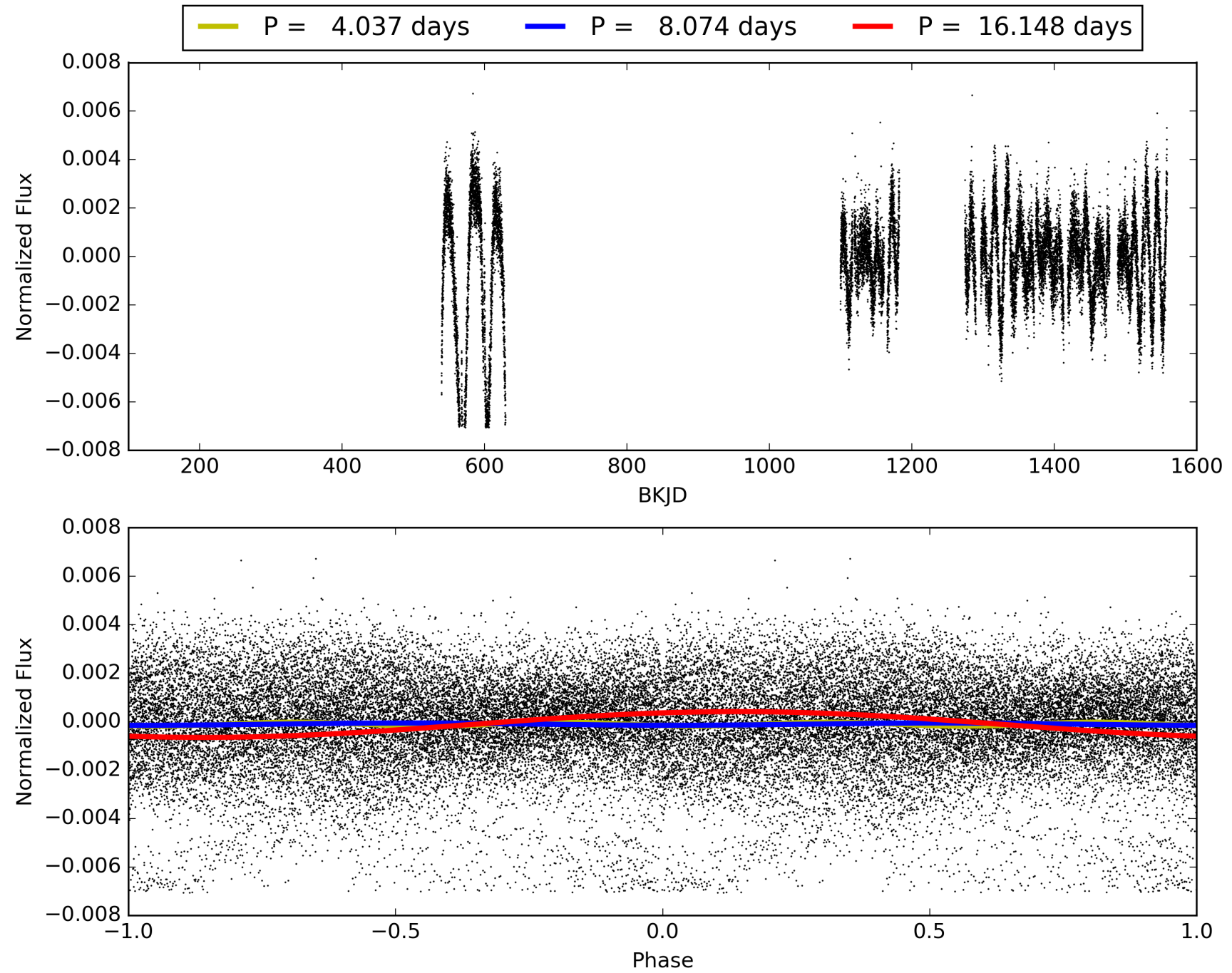
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:10:52 Z

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

TCE 005688790-01, PDC Light Curves

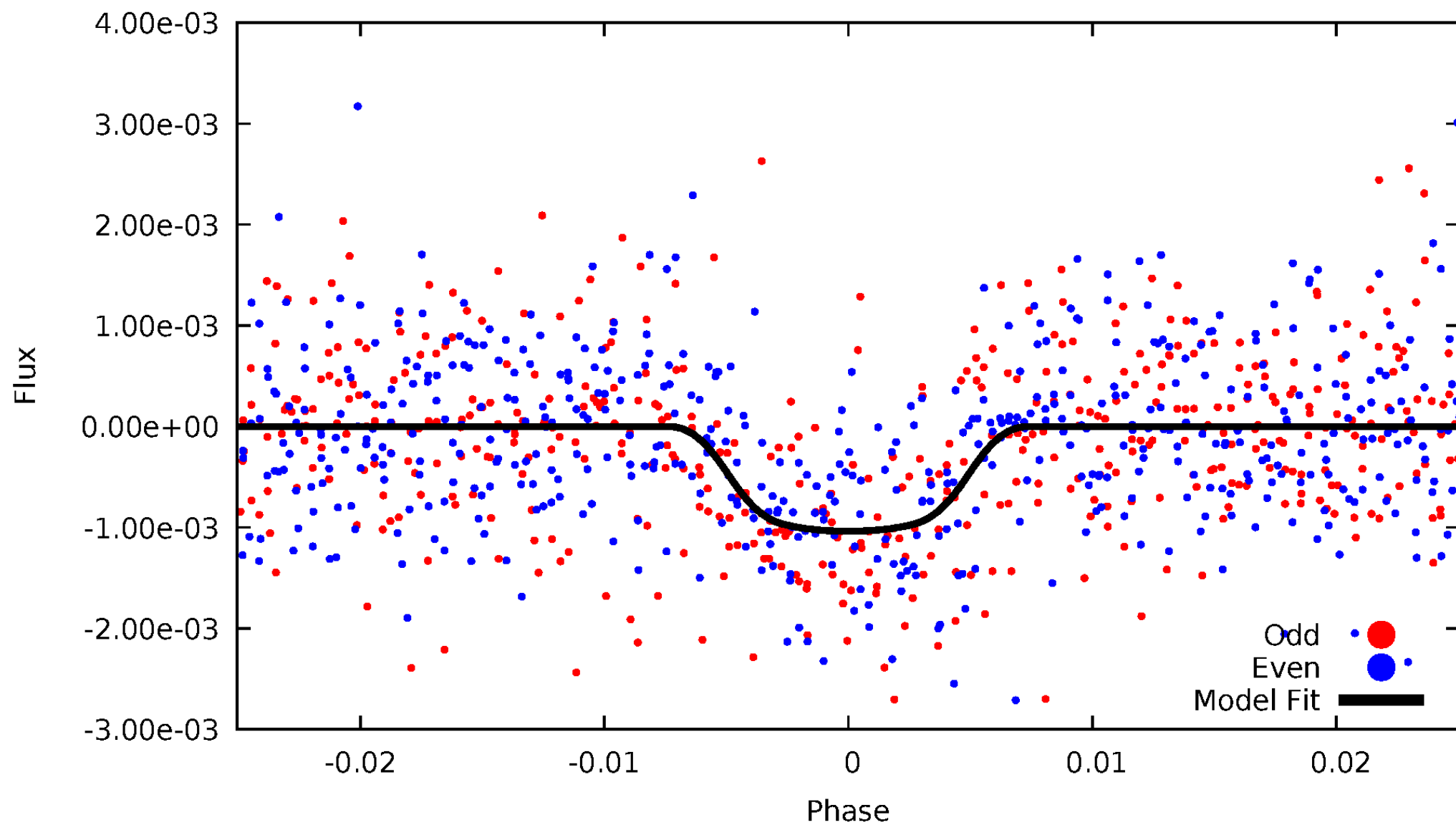


TCE 005688790-01



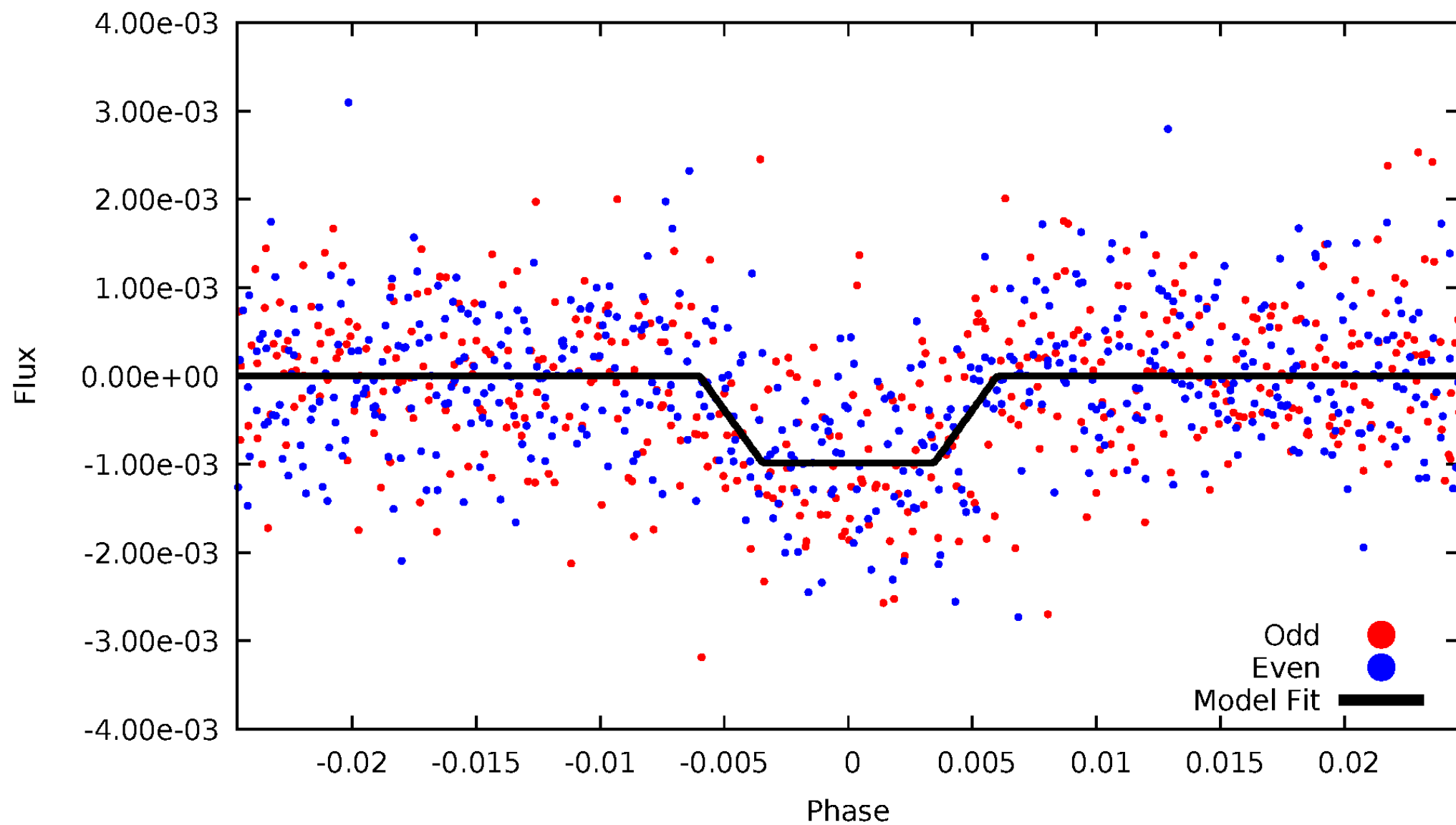
DV Odd/Even

TCE 005688790-01

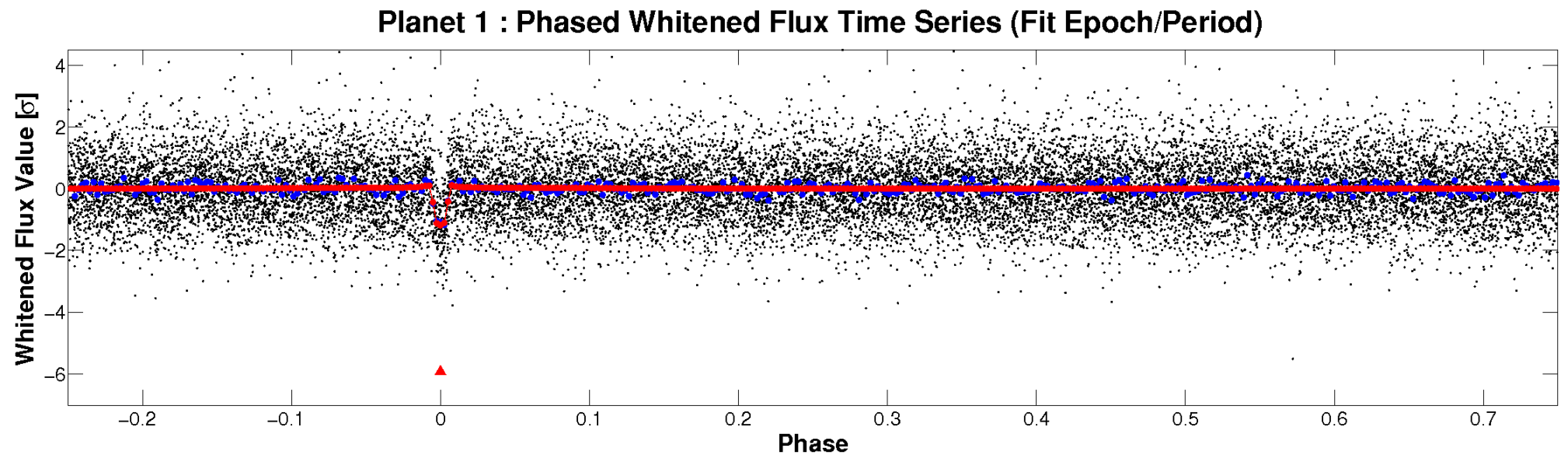
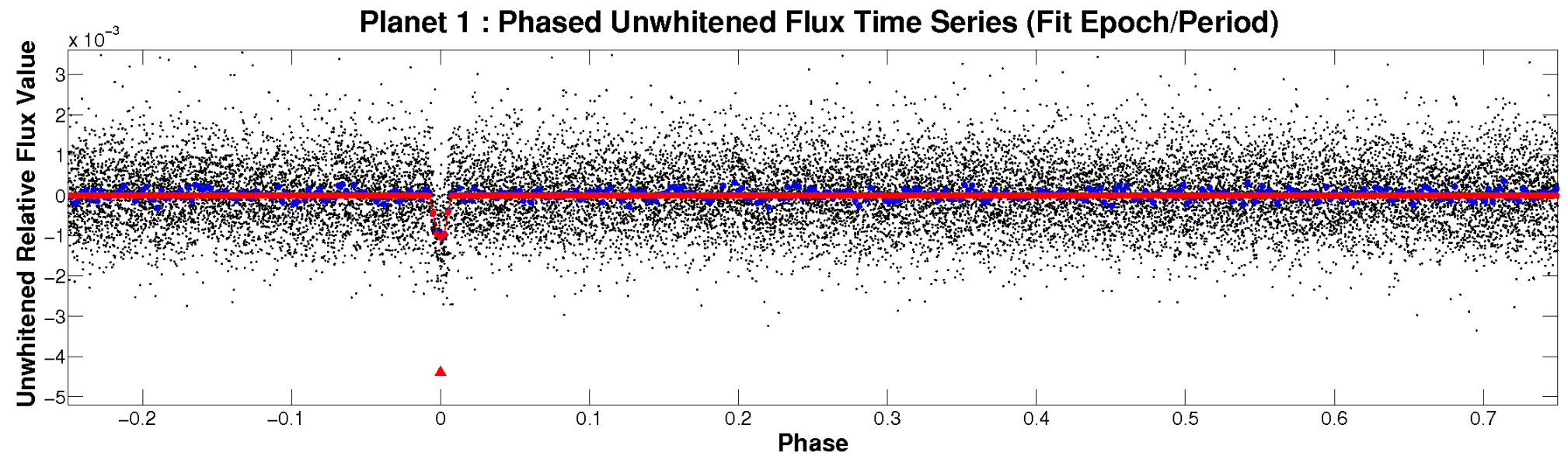


ALT Odd/Even

TCE 005688790-01

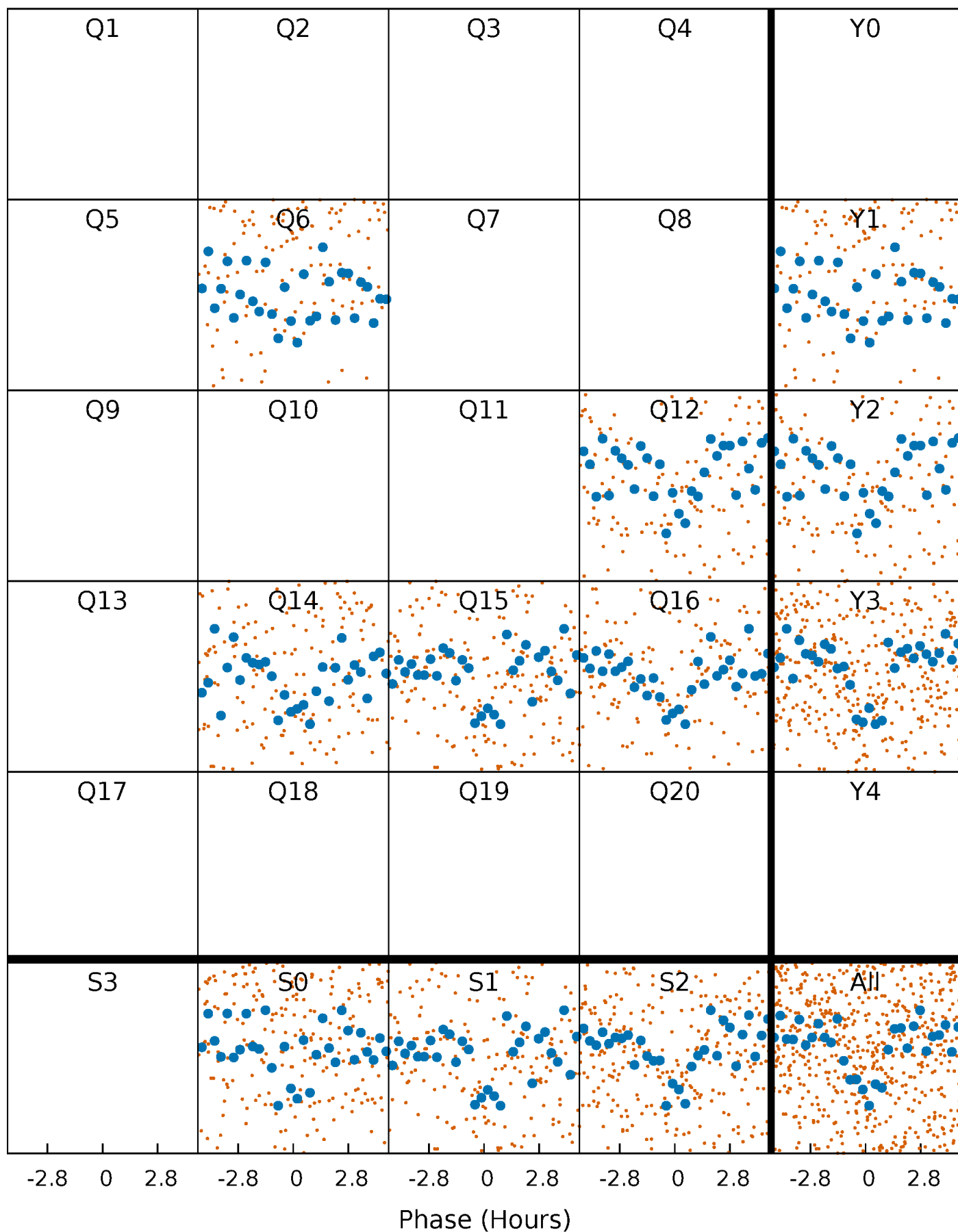


Non-Whitened Vs. Whitened Light Curve



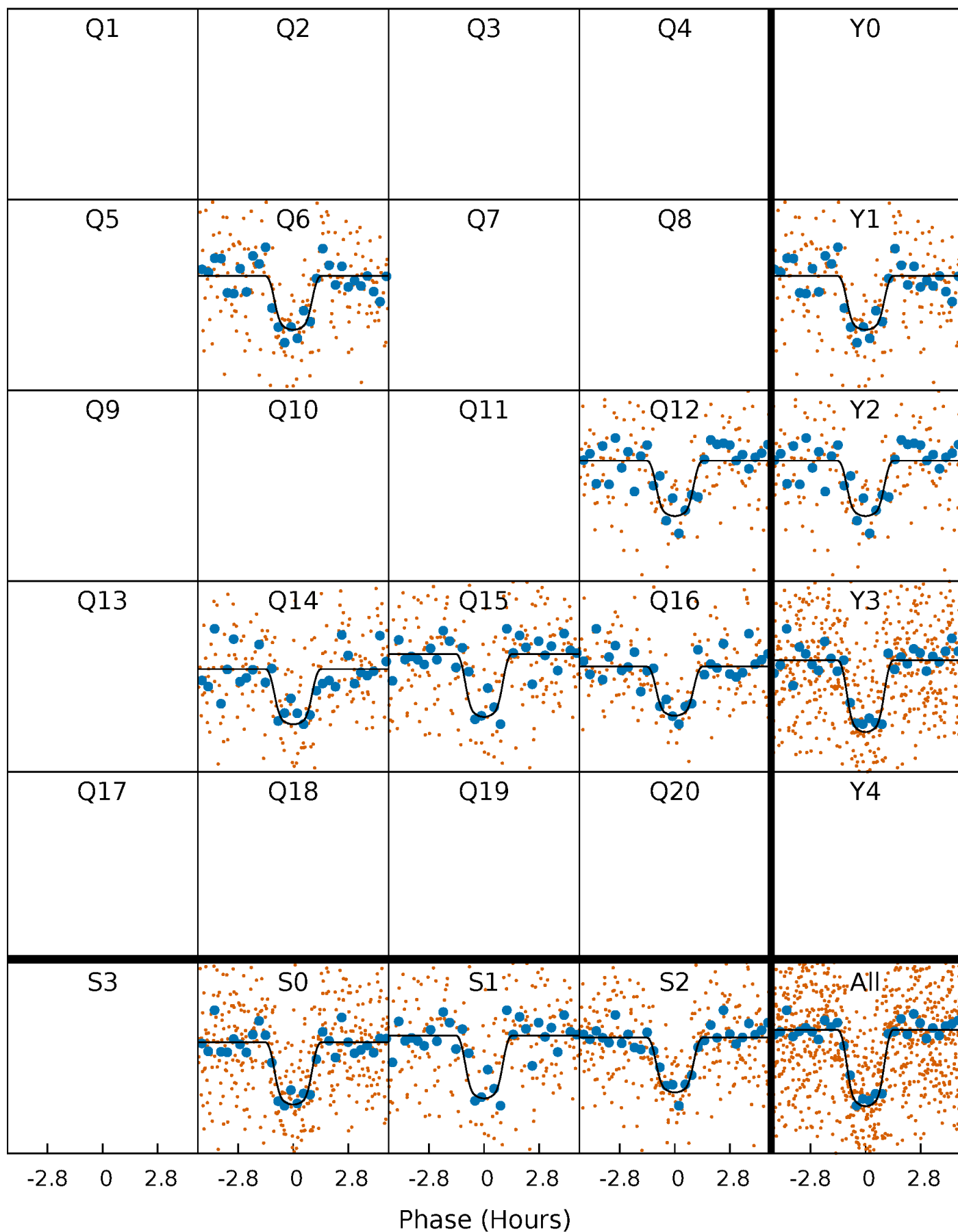
PDC Quarter-Phased Transit Curves

TCE 005688790-01 P= 8.073939 Days $T_0=136.343910$ (BKJD)



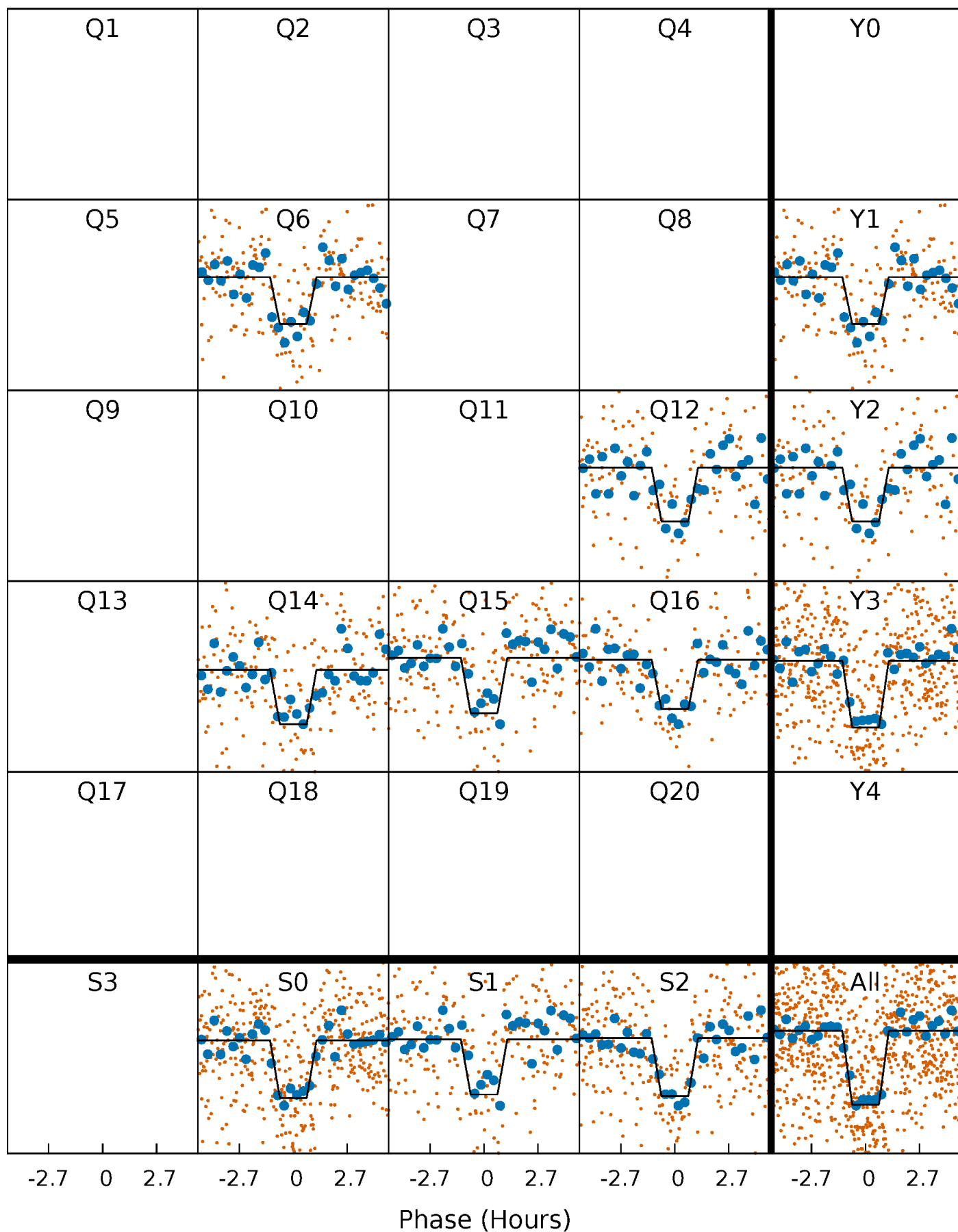
DV Quarter-Phased Transit Curves

TCE 005688790-01 P= 8.073939 Days $T_0=136.343910$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

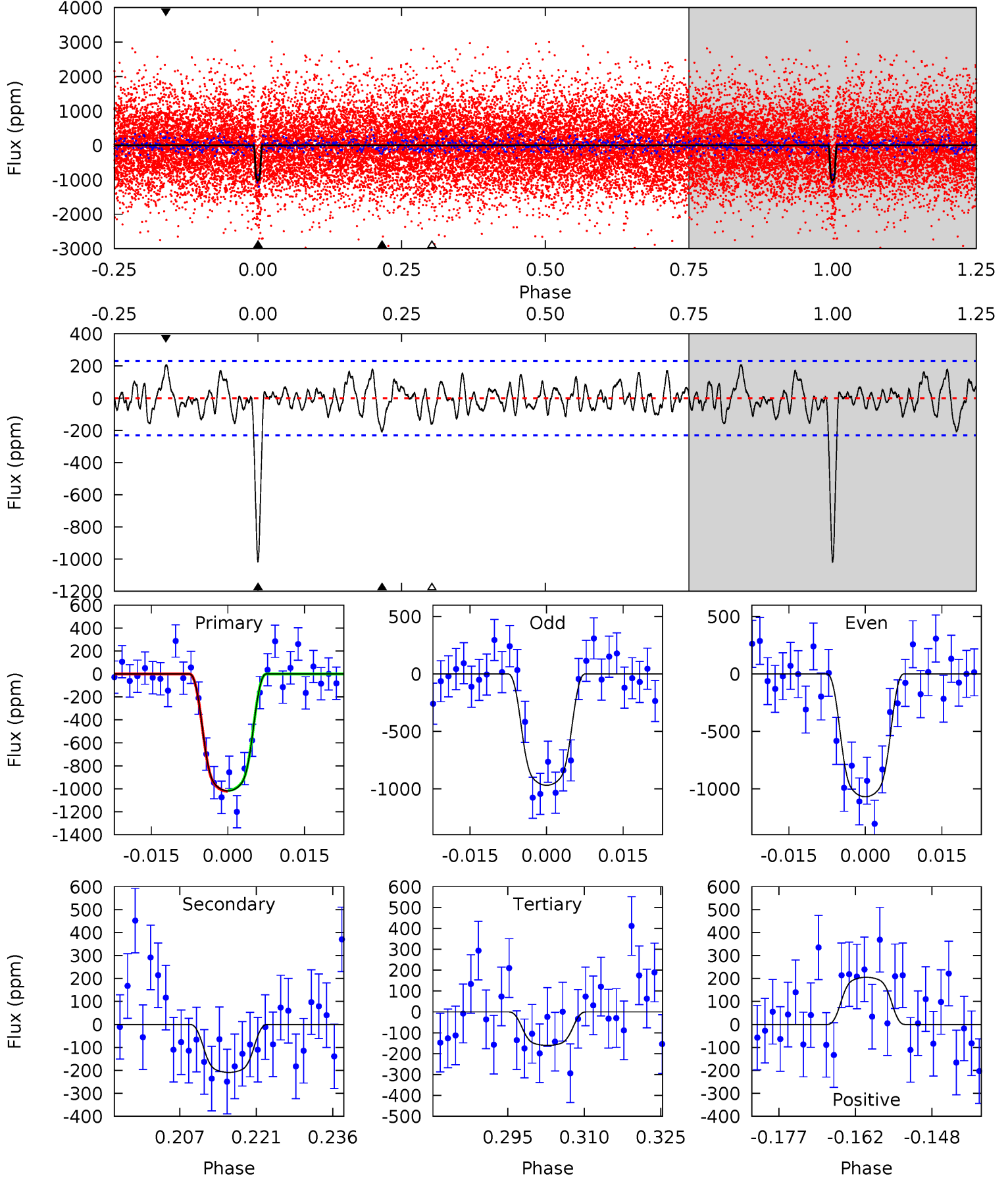
TCE 005688790-01 P= 8.073948 Days $T_0=136.342851$ (BKJD)



DV Model-Shift Uniqueness Test

005688790-01, P = 8.073939 Days, E = 136.343910 Days

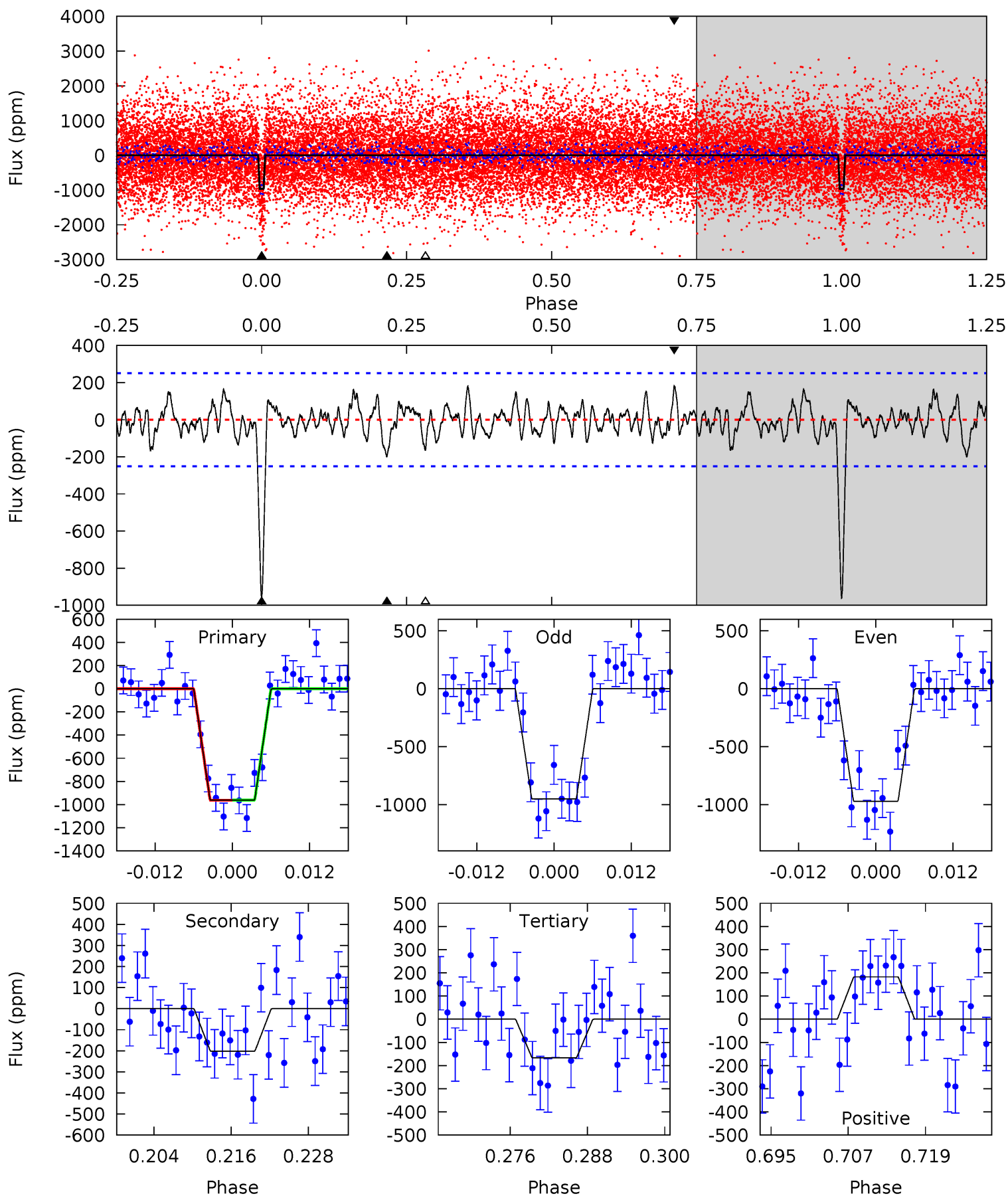
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.8	4.47	3.43	4.39	4.95	2.44	1.47	18.3	17.4	1.03	0.08	1.07	1.08	0.17	0.08



Alt Model-Shift Uniqueness Test

005688790-01, P = 8.073948 Days, E = 136.342851 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	4.02	3.31	3.63	4.99	2.51	1.27	15.8	15.5	0.71	0.39	0.20	0.95	0.16	0.00



Stellar Parameters For KIC 005688790

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3675^{+73}_{-82}	$4.869^{+0.049}_{-0.055}$	$-0.320^{+0.150}_{-0.150}$	$0.398^{+0.049}_{-0.049}$	$0.428^{+0.042}_{-0.063}$	$9.527^{+2.875}_{-2.027}$
	+2%/-2%	+1%/-1%	+47%/-47%	+12%/-12%	+10%/-15%	+30%/-21%
Source	SPE70	PHO2	SPE70	DSEP		

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

Secondary Eclipse Parameters for KIC 005688790-01 / KOI 3144.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-209 ± 47	$1.55^{+0.24}_{-0.26}$	585^{+19}_{-17}	2803^{+159}_{-135}	169^{+76}_{-54}
Alt.	-202 ± 50	$1.34^{+0.24}_{-0.23}$	587^{+19}_{-18}	2903^{+176}_{-156}	211^{+110}_{-67}

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

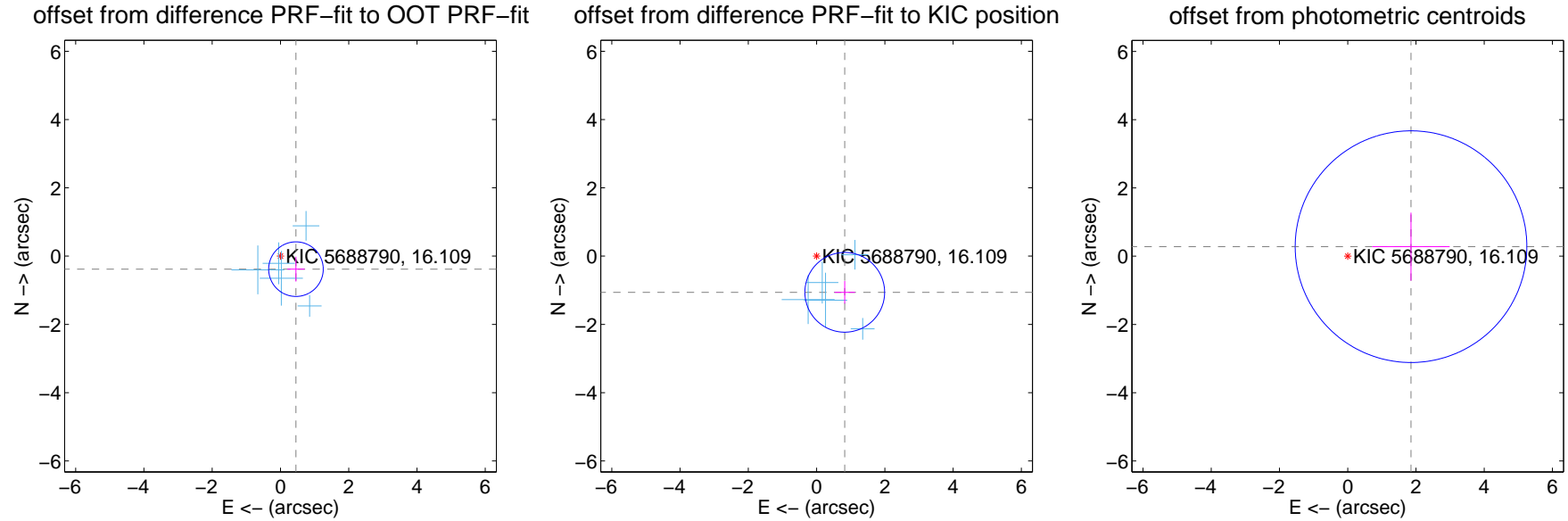
DV Centroid Data

Supplemental centroid analysis for 005688790-01. Kepler magnitude: 16.11. Transit SNR 14.47

There are 5 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.68 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.593 ± 0.267	2.23	-0.454 ± 0.253	-0.381 ± 0.364
PRF-fit source offset from KIC position	1.343 ± 0.389	3.45	-0.825 ± 0.301	-1.060 ± 0.330
photometric centroid source offset	1.88 ± 1.13	1.66	-1.86 ± 1.13	0.28 ± 1.00

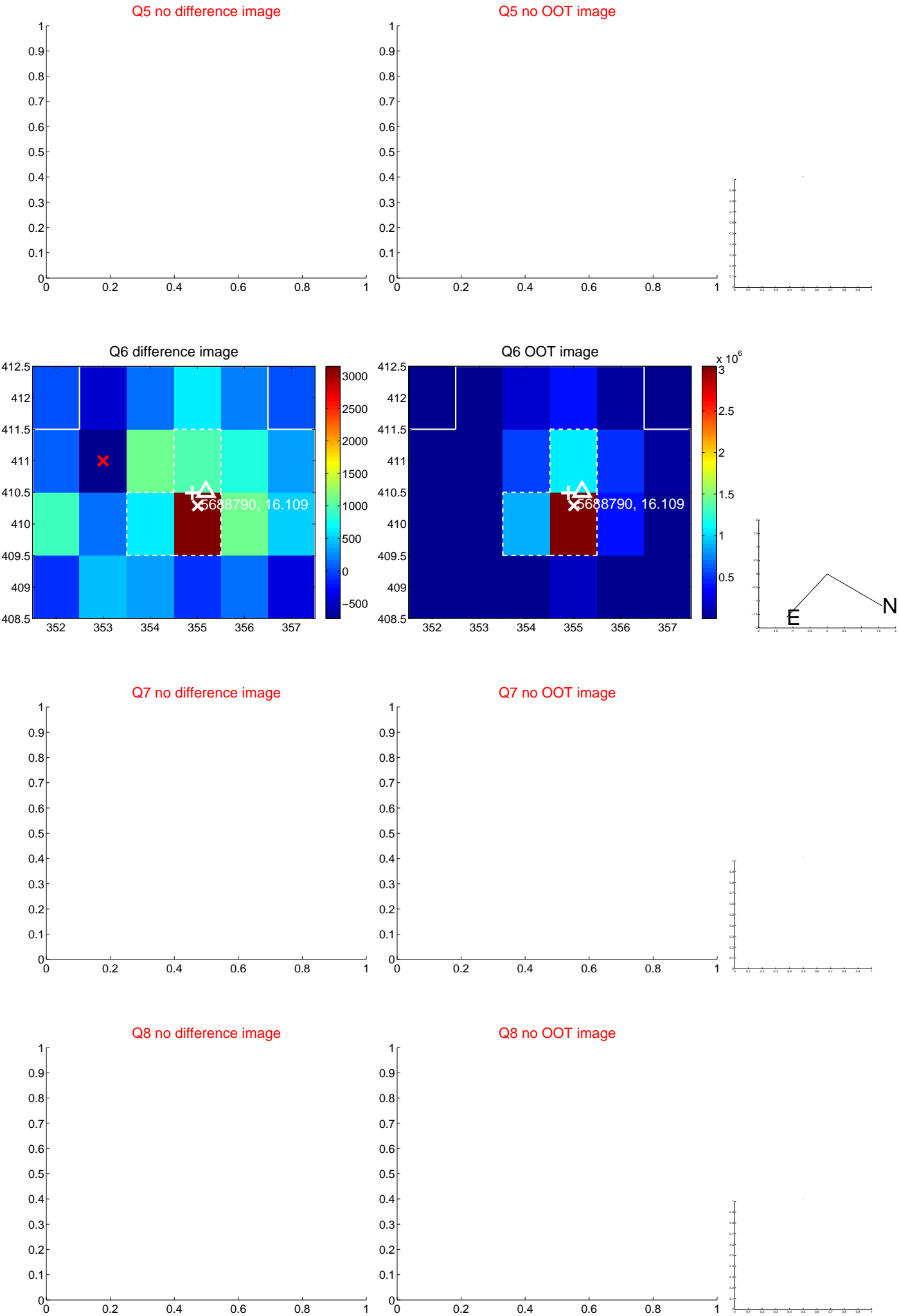


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

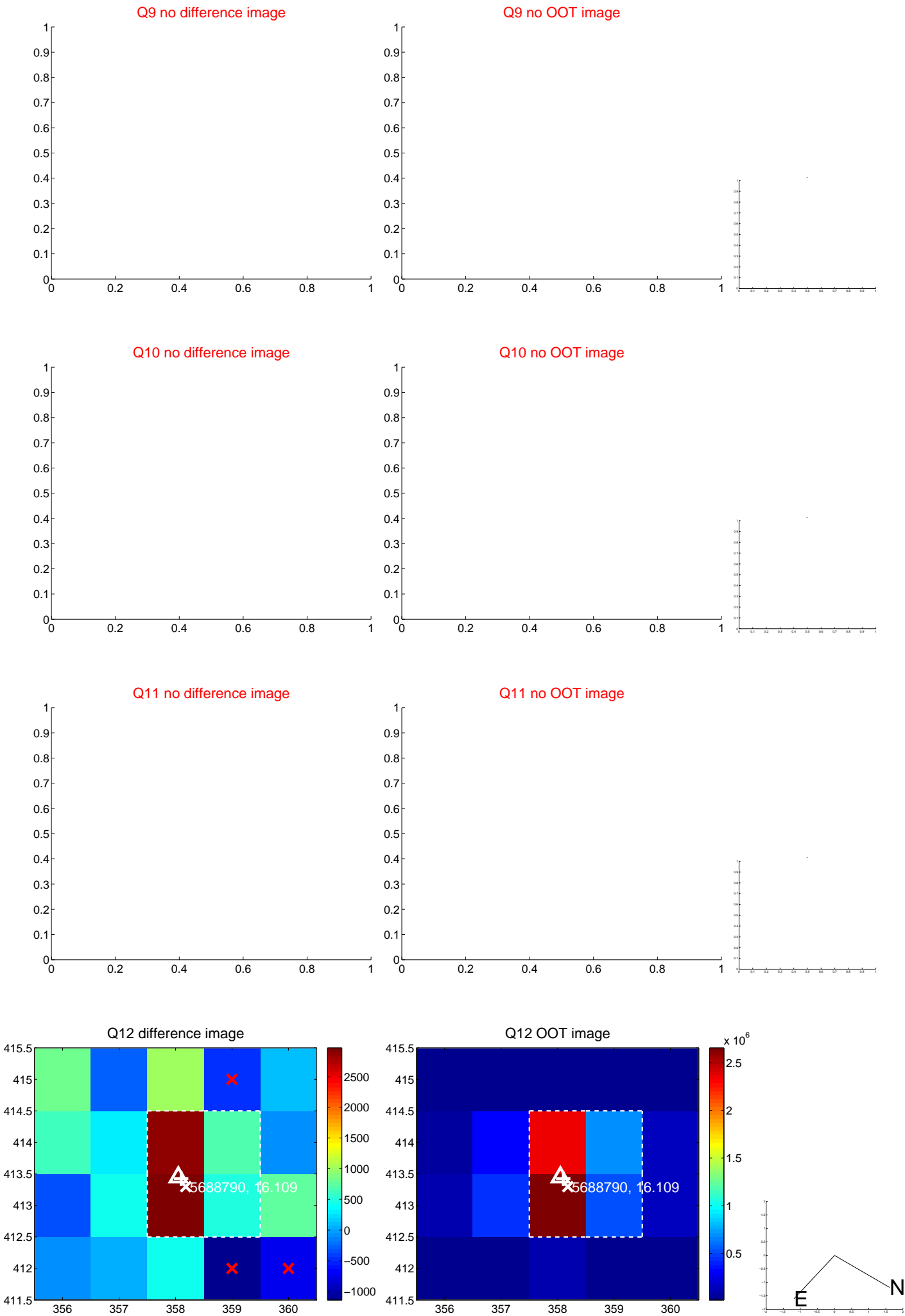
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



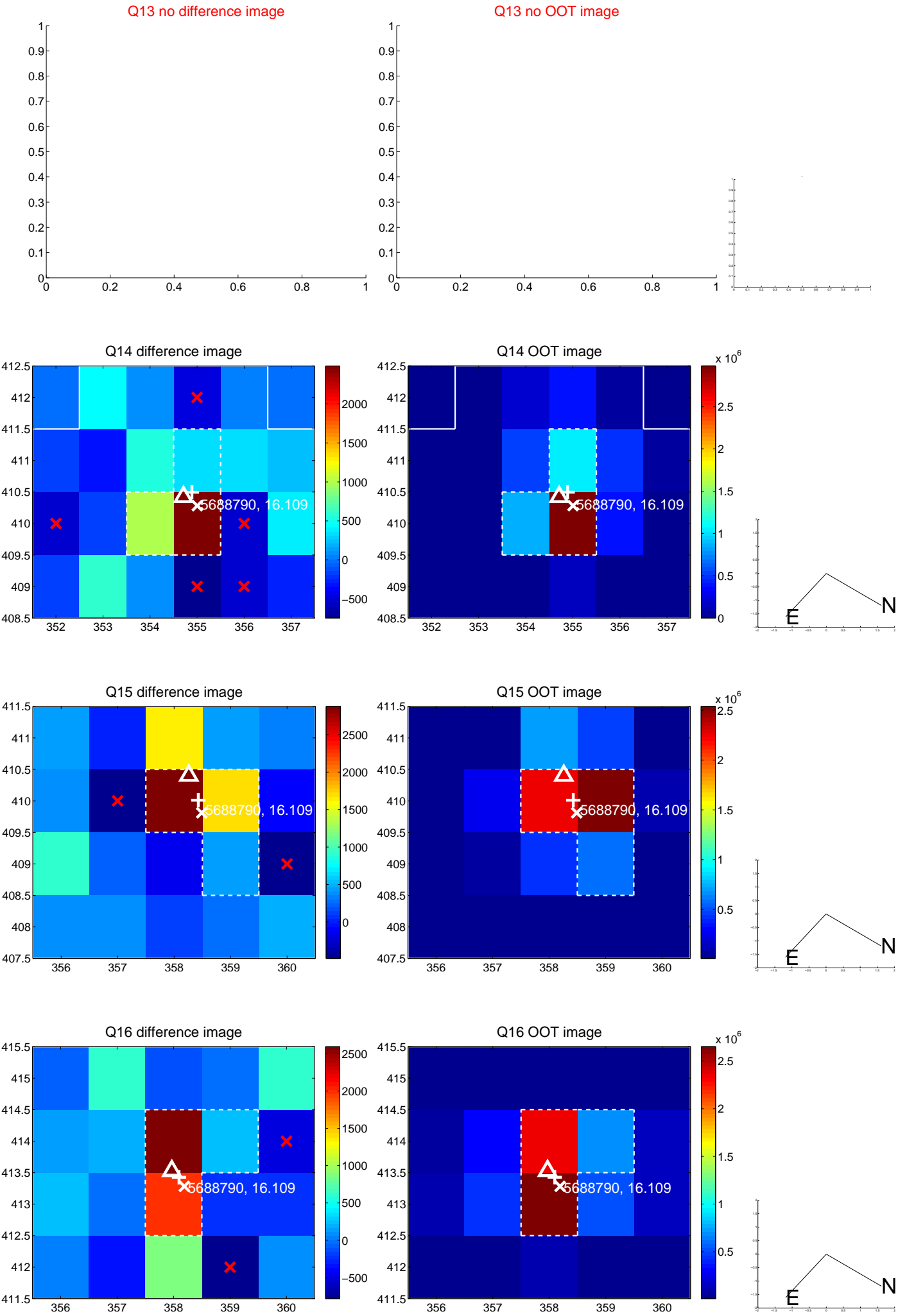
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



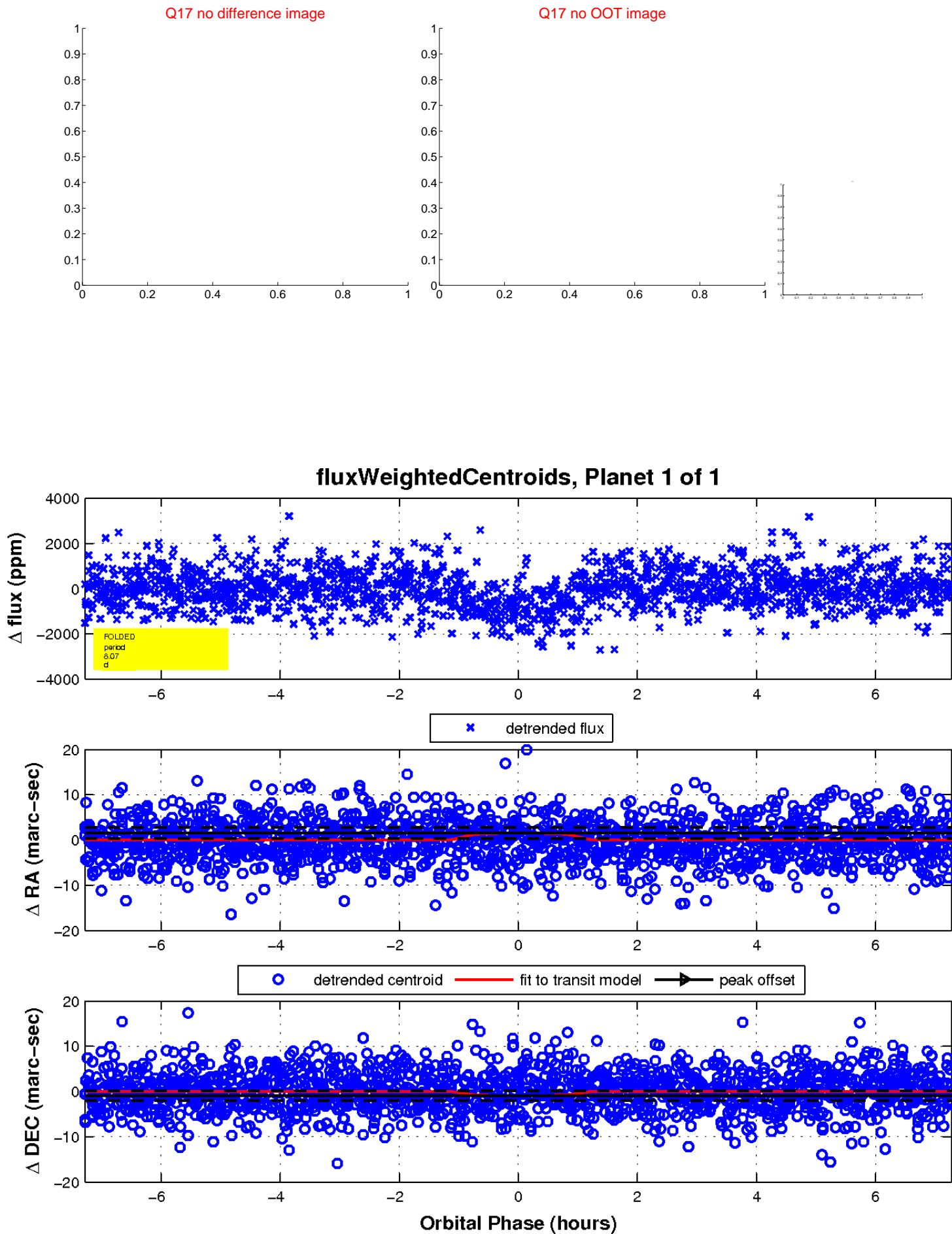
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

