

KIC 006965782

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})
006965782-02	OBS	No	240.068677	271.639477	632.8	6.188	7.3	7.3	13.38	5412	35.14	108.68

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006965782-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_MARSHALL—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—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.

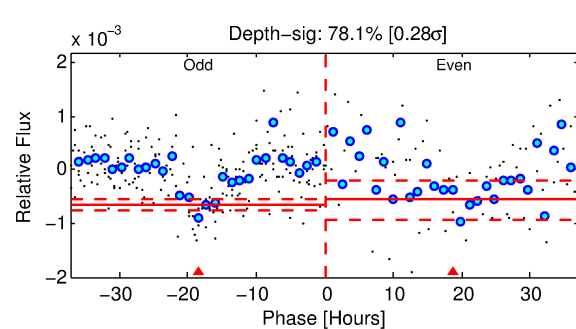
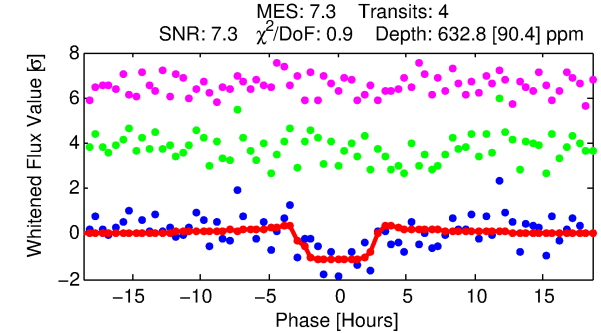
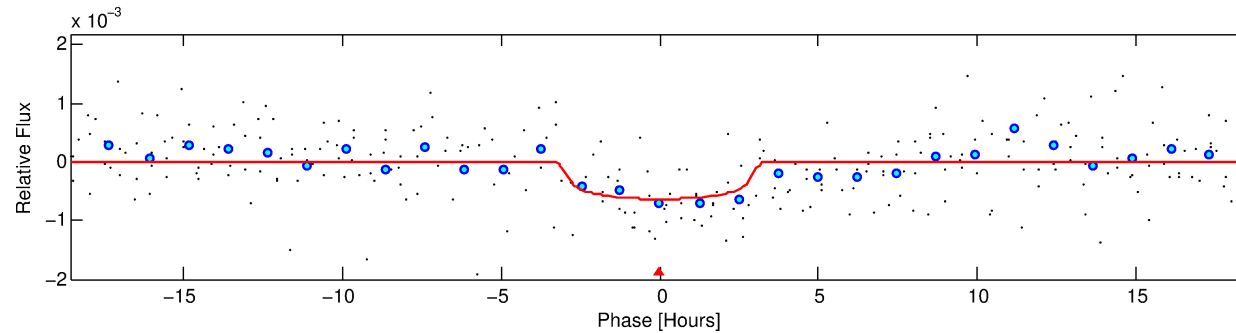
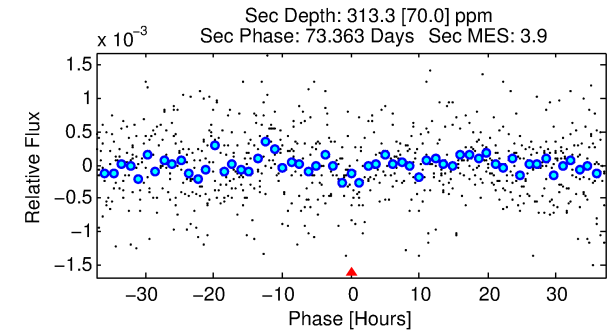
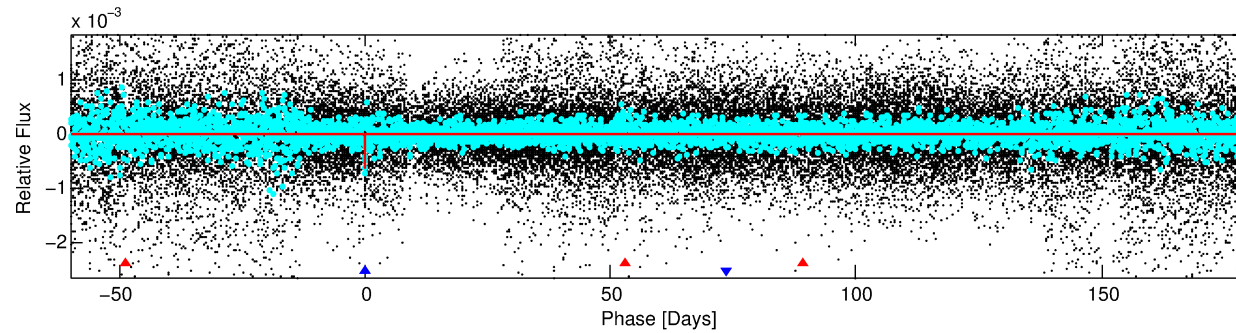
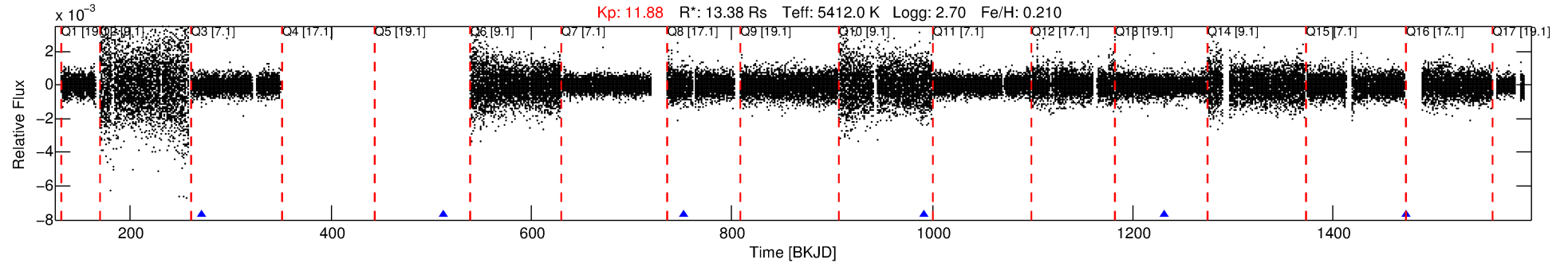
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006965782-02

No Significant Match Found

DV One-Page Summary

KIC: 6965782 Candidate: 2 of 2 Period: 240.069 d



DV Fit Results:

Period = 240.06868 [0.00575] d
Epoch = 271.6395 [0.0163] BKJD
Rp/R* = 0.0241 [0.0404]
a/R* = 239.85 [1572.57]
b = 0.63 [6.43]
Seff = 108.68 [73.94]
Teq = 823 [140] K
Rp = 35.14 [61.72] Re
a = 1.1251 [0.4753] AU
Ag = 176.66 [603.34] [0.29σ]
Teff = 4641 [3921] K [0.97σ]

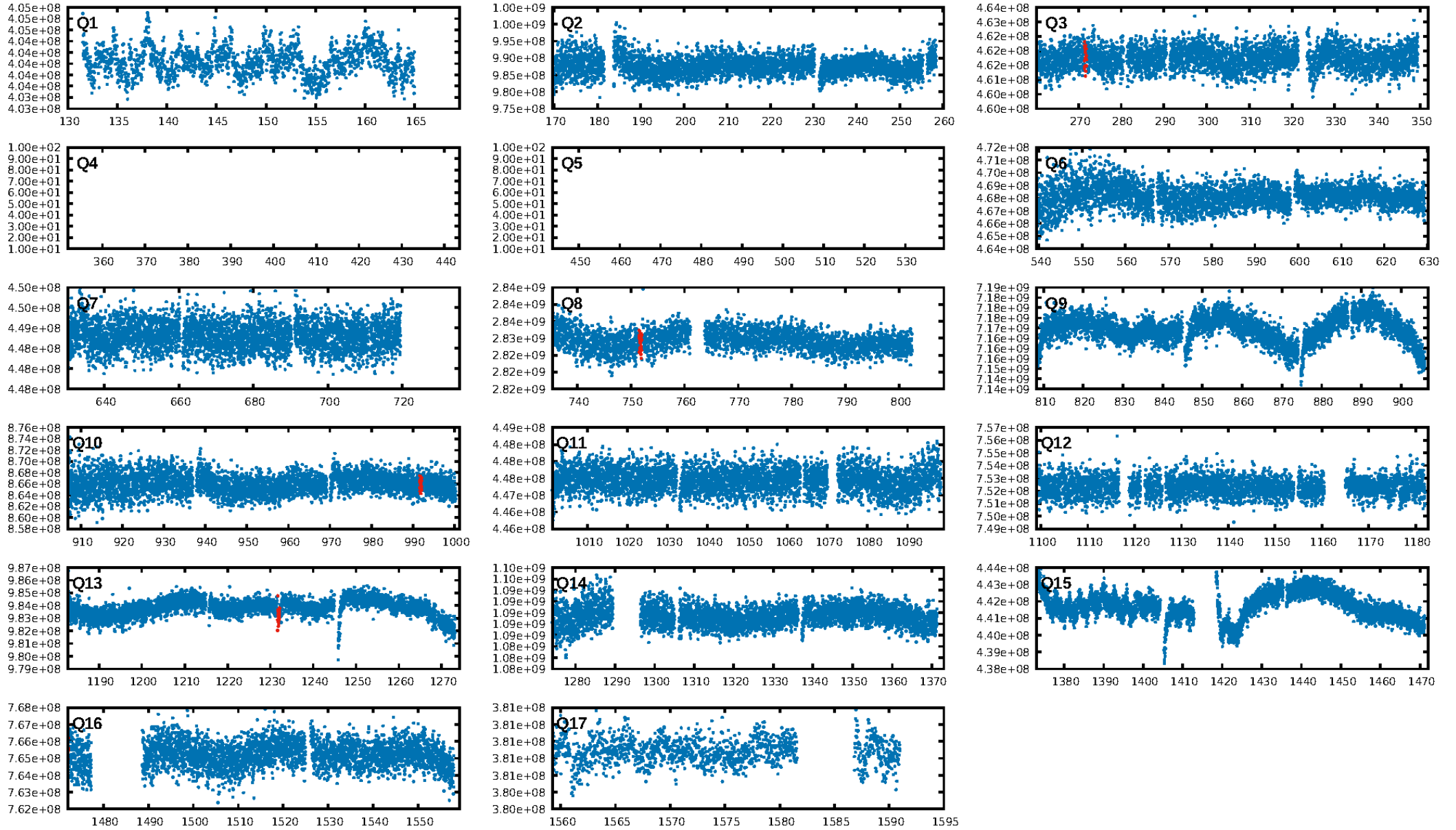
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [323.25σ]
ModelChiSquare2-sig: 16.0%
ModelChiSquareGof-sig: 99.8%
Bootstrap-pfa: 1.30e-10
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -0.1262
Centroid-sig: 13.6%
Centroid-so: 2.601 arcsec [1.70σ]
OotOffset-rm: 5.033 arcsec [74.16σ]
KicOffset-rm: 4.536 arcsec [66.86σ]
OotOffset-st: 0/0/1/0 [1]
KicOffset-st: 0/0/1/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [2/2]

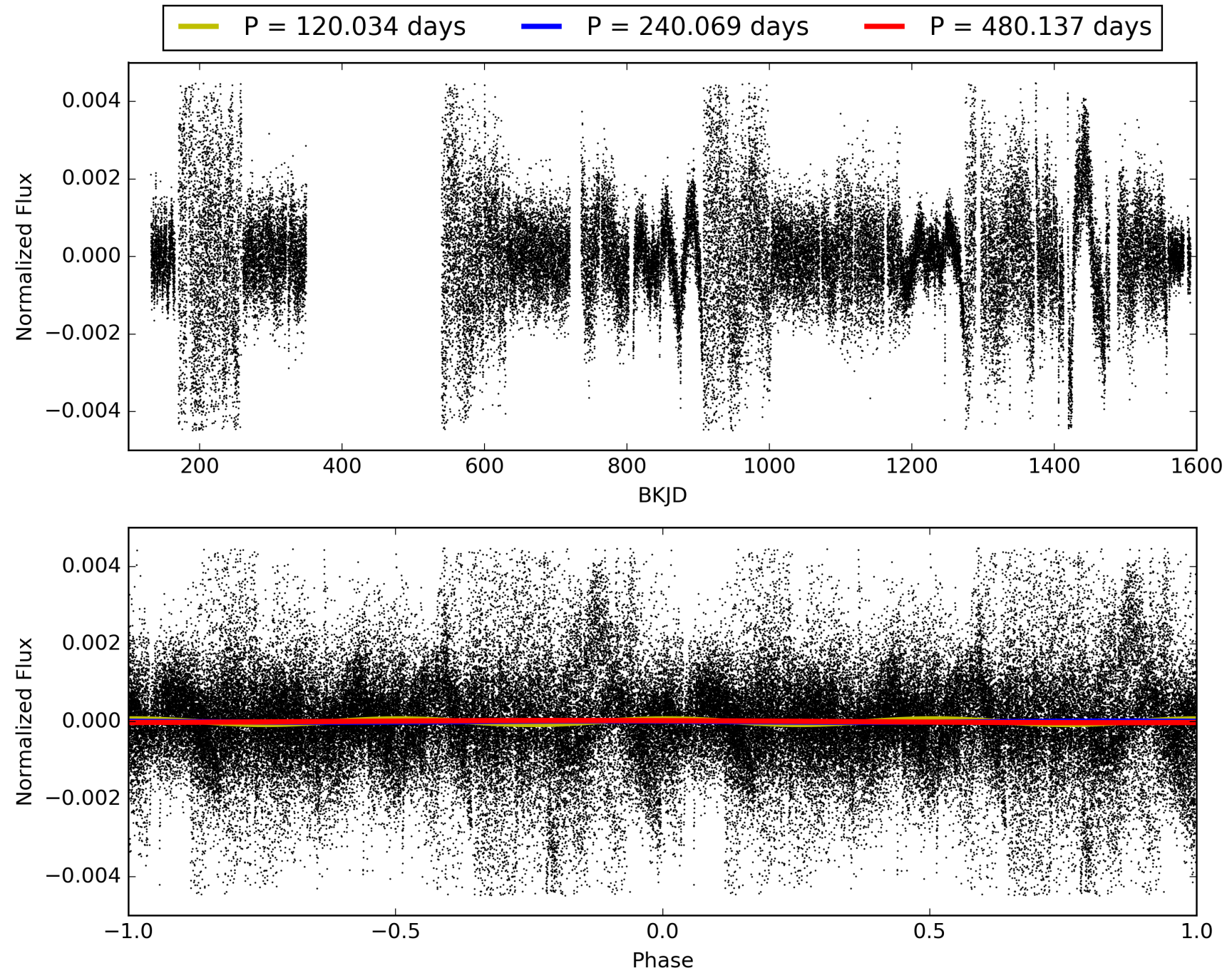
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 20:14:18 Z

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

TCE 006965782-02, PDC Light Curves

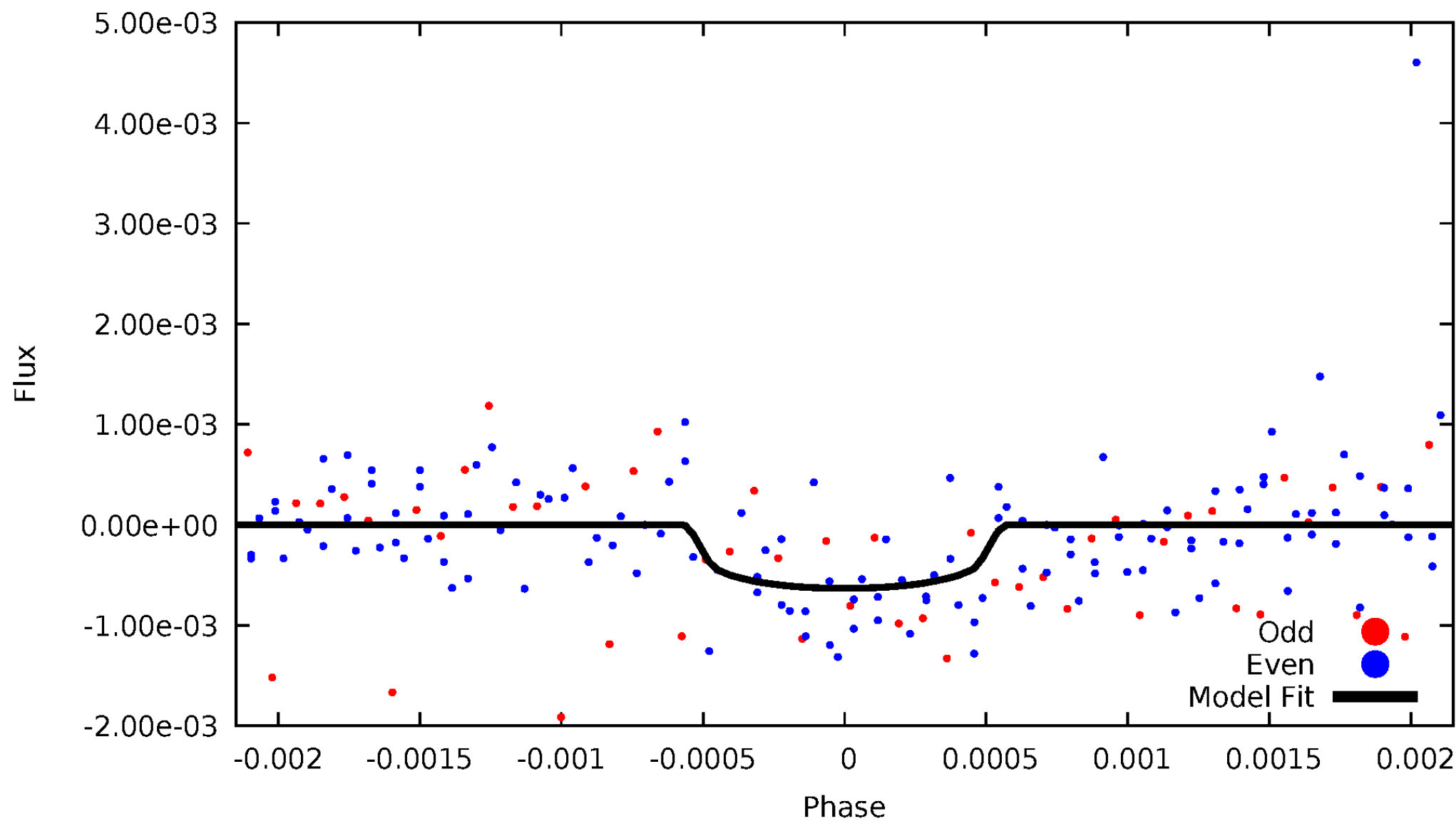


TCE 006965782-02



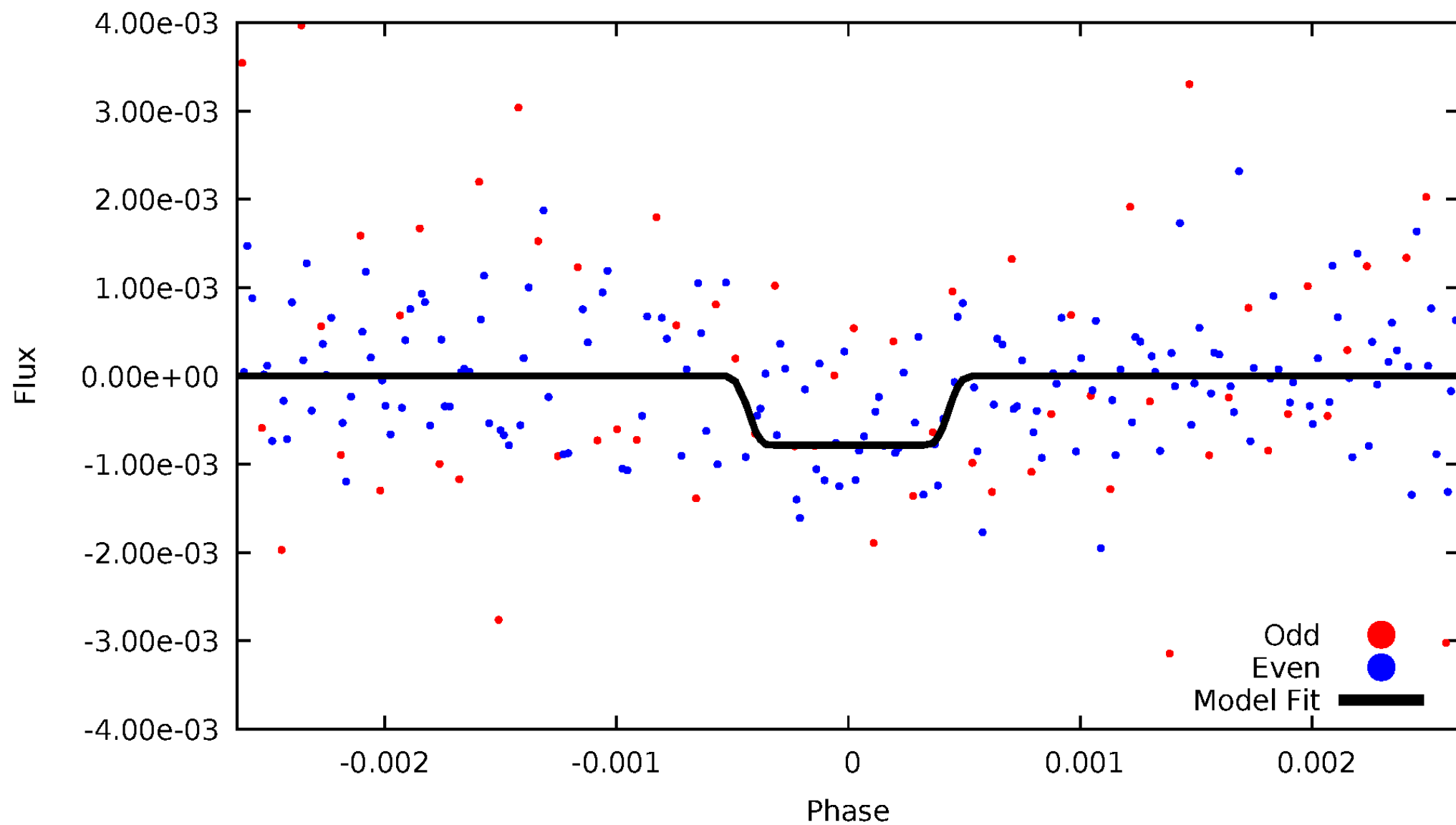
DV Odd/Even

TCE 006965782-02



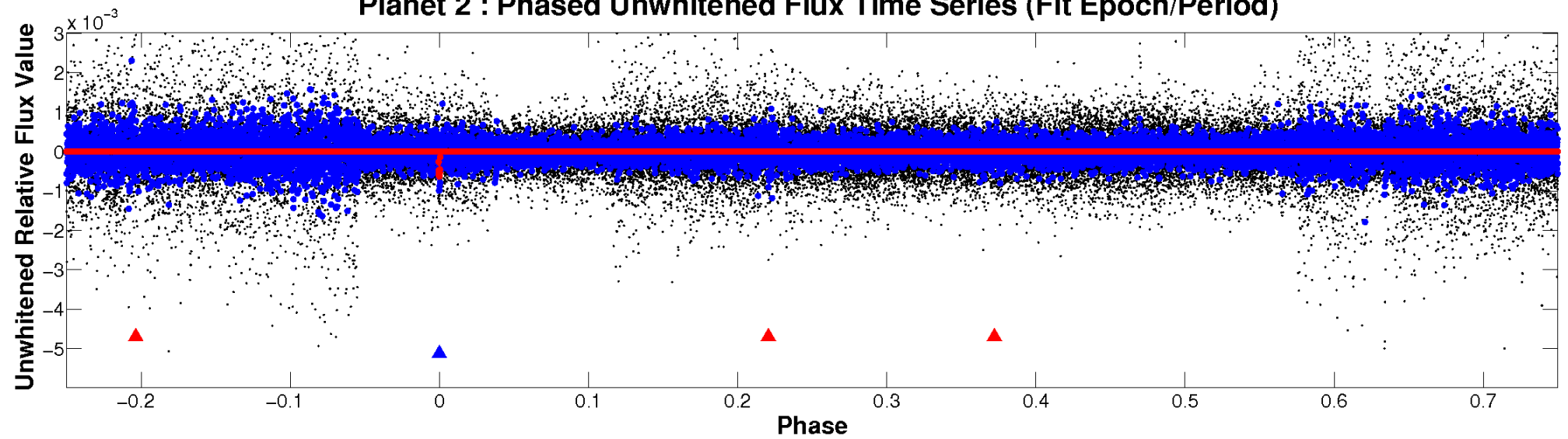
ALT Odd/Even

TCE 006965782-02

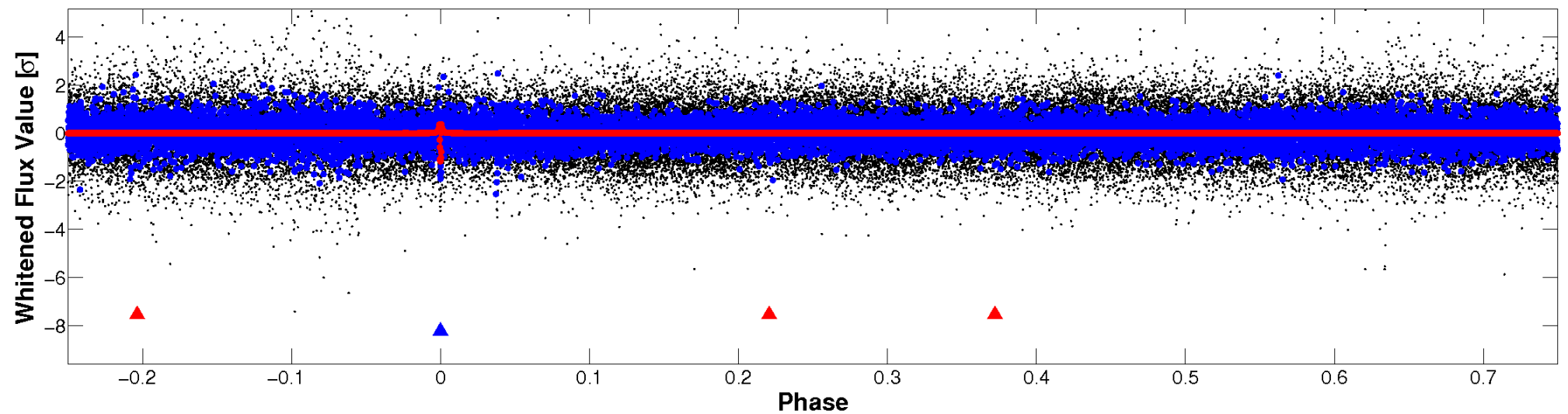


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

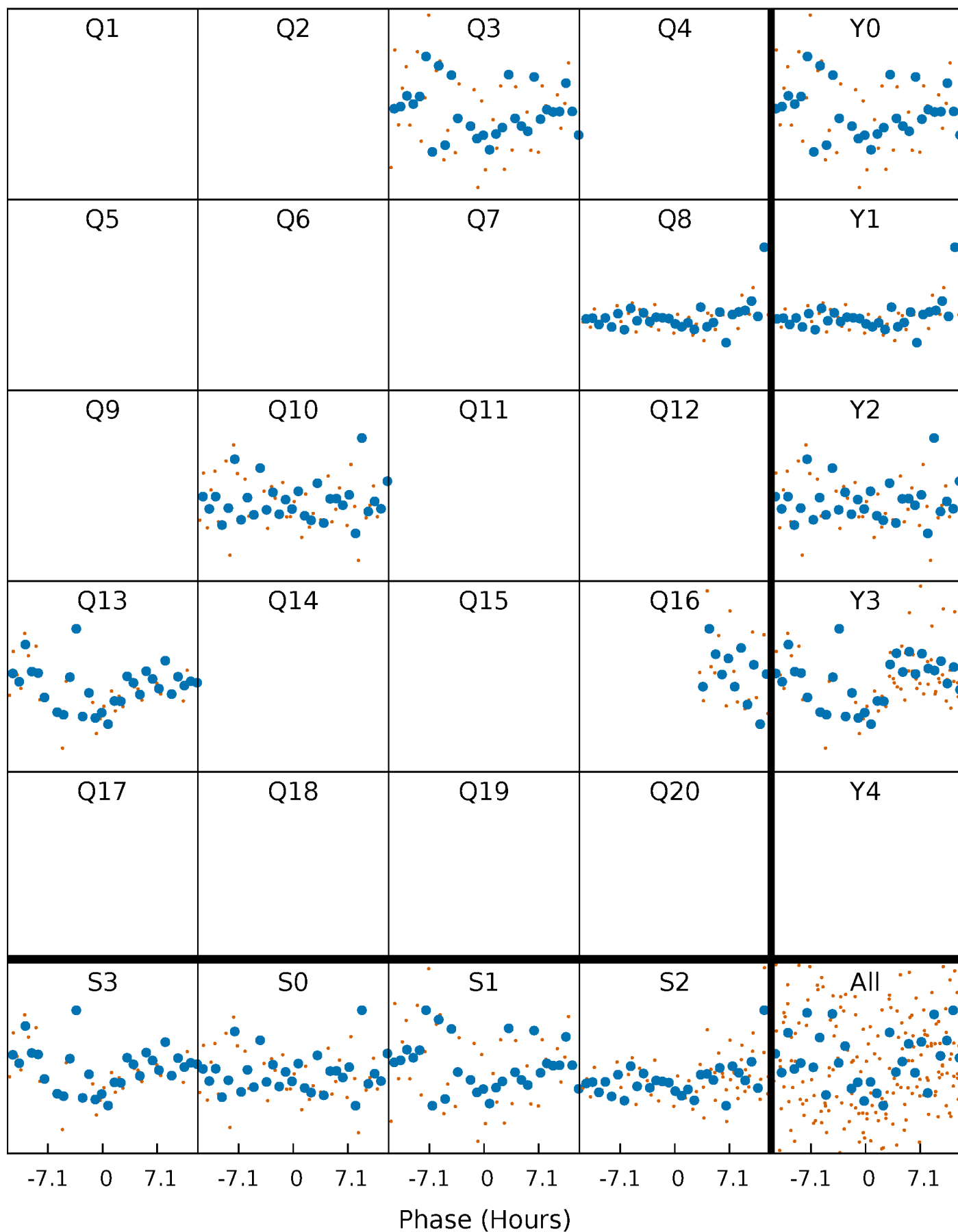


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



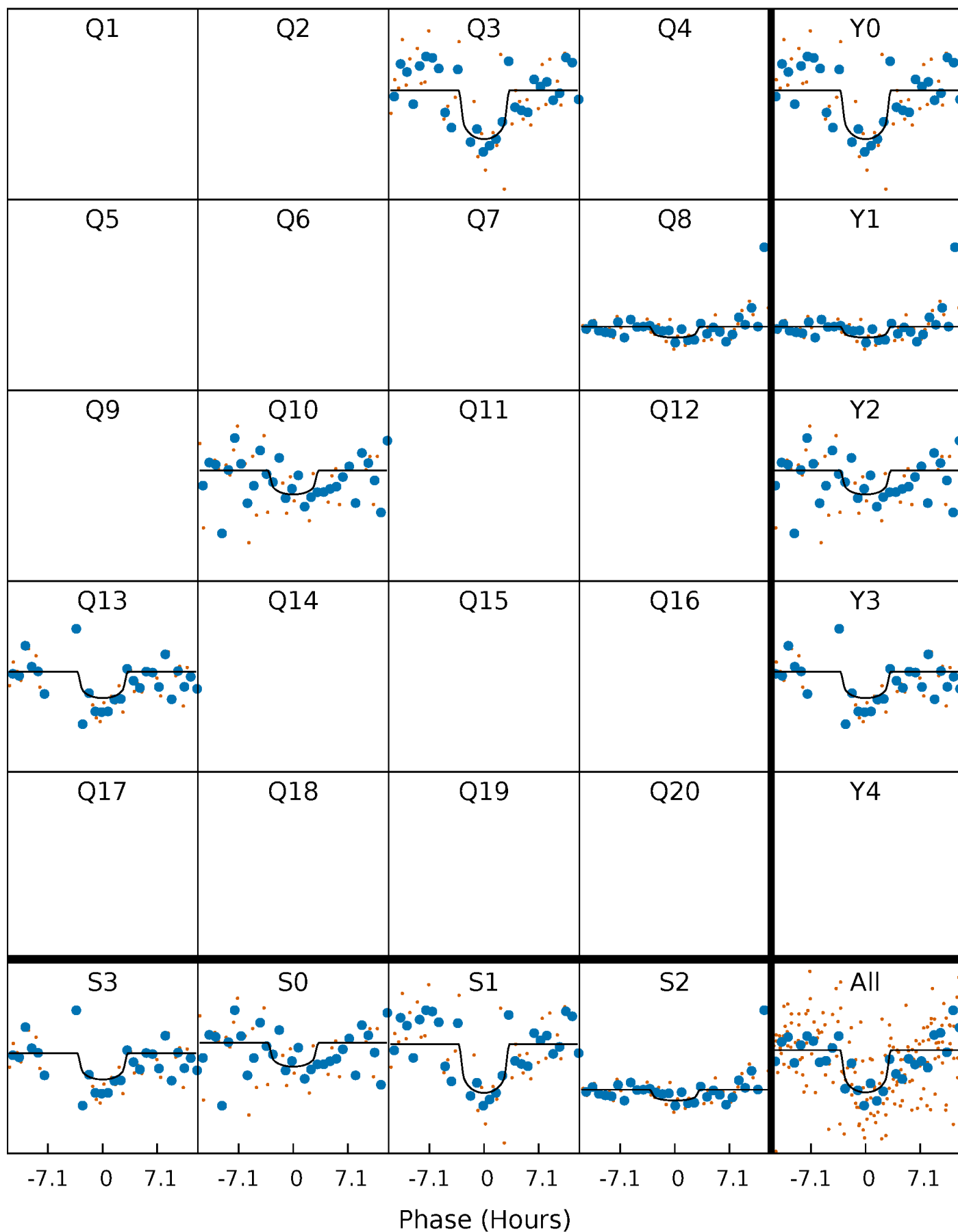
PDC Quarter-Phased Transit Curves

TCE 006965782-02 $P=240.068677$ Days $T_0=271.639477$ (BKJD)



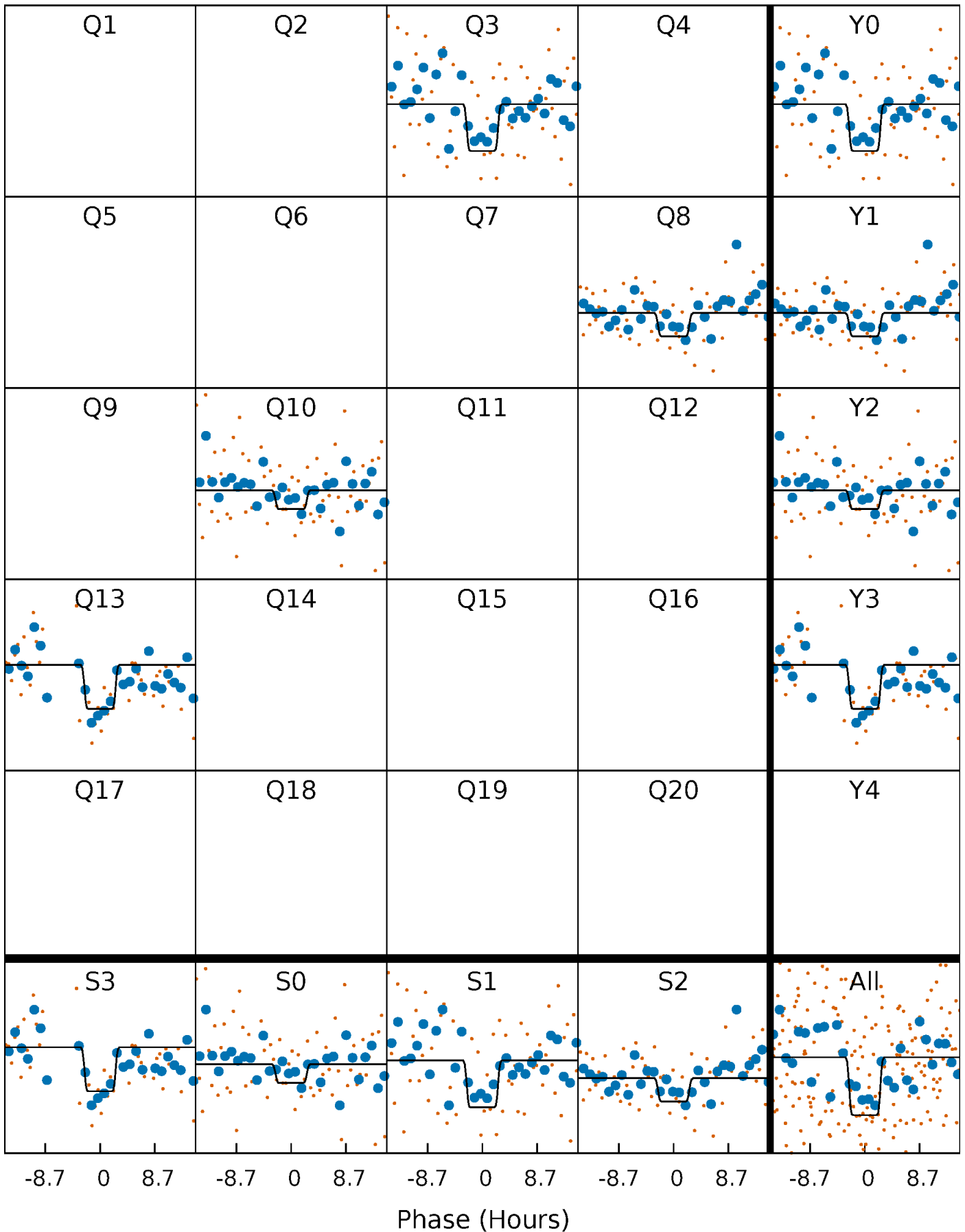
DV Quarter-Phased Transit Curves

TCE 006965782-02 P=240.068677 Days $T_0=271.639477$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

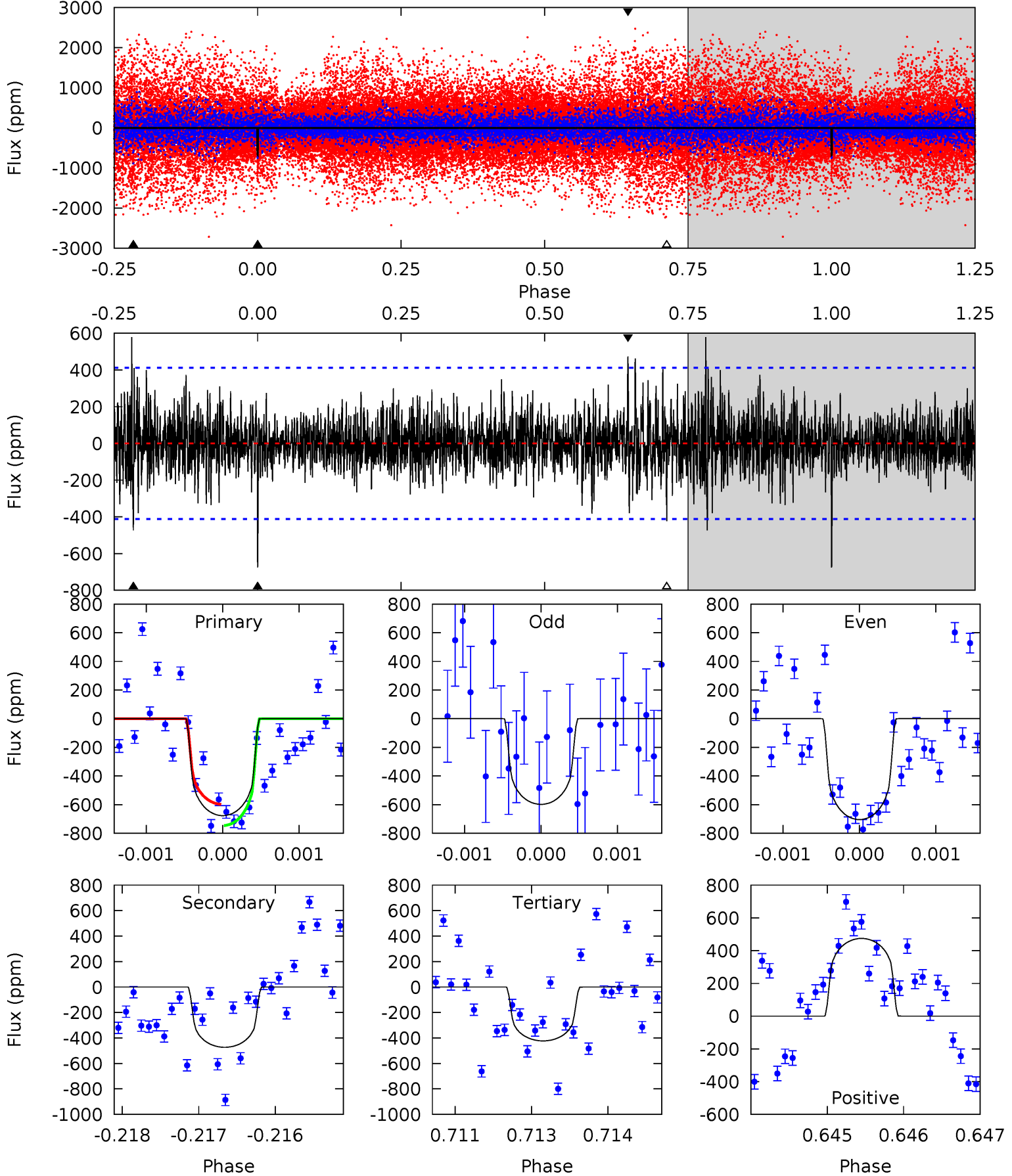
TCE 006965782-02 P=240.069555 Days $T_0=271.656519$ (BKJD)



DV Model-Shift Uniqueness Test

006965782-02, $P = 240.068677$ Days, $E = 31.570800$ Days

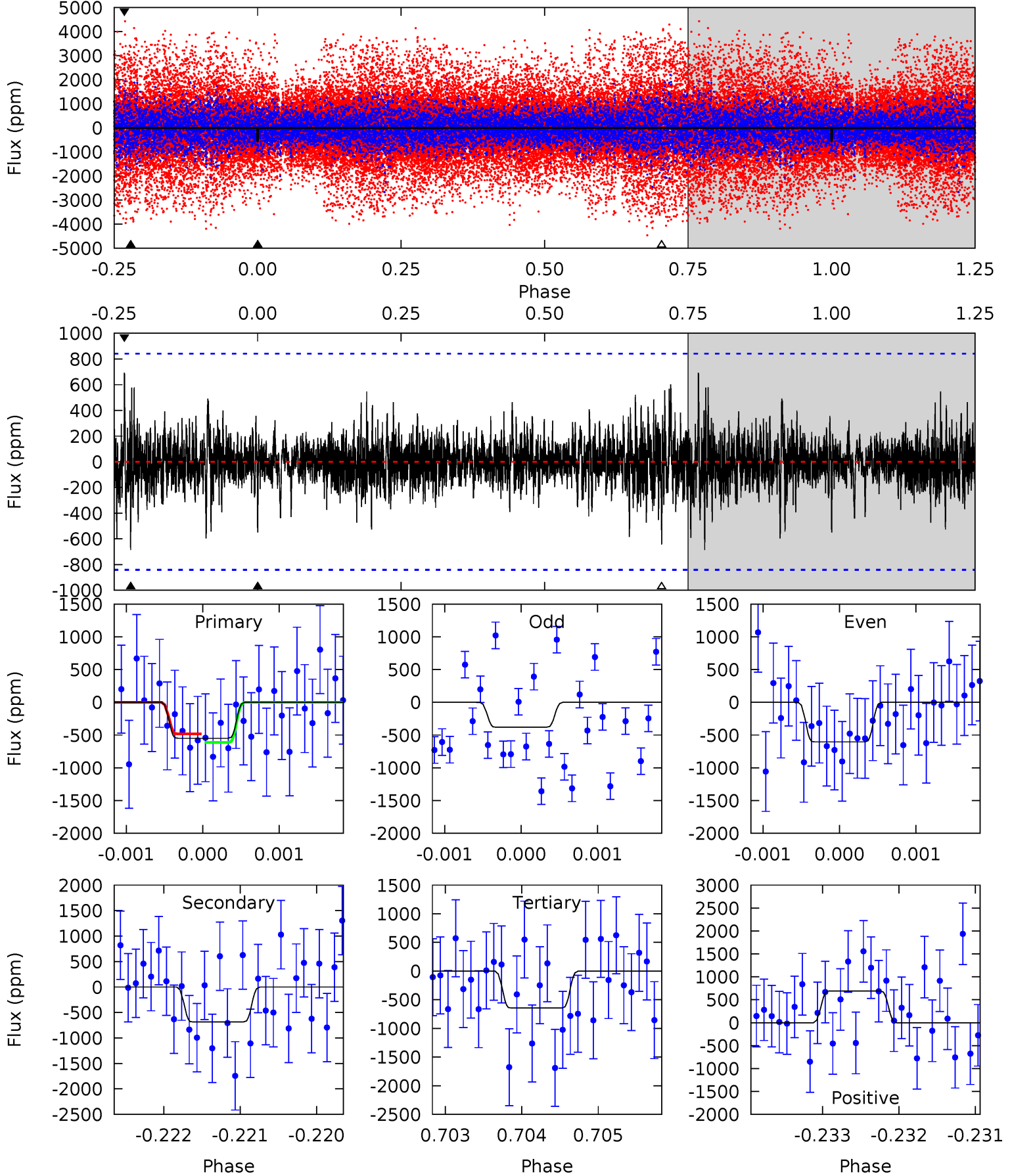
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.90	6.22	5.56	6.24	5.42	3.24	1.40	3.34	2.66	0.66	-0.02	0.60	1.09	0.46	0.96



Alt Model-Shift Uniqueness Test

006965782-02, P = 240.069555 Days, E = 31.586964 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.56	4.45	4.17	4.48	5.46	3.30	0.86	-0.62	-0.93	0.27	-0.04	0.62	1.11	0.50	0.42



Stellar Parameters For KIC 006965782

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5412^{+149}_{-447}	$2.703^{+0.315}_{-0.135}$	$0.210^{+0.150}_{-0.650}$	$13.378^{+2.317}_{-6.951}$	$3.294^{+0.195}_{-1.857}$	$0.002^{+0.007}_{-0.001}$
	+3%/-8%	+12%/-5%	+71%/-310%	+17%/-52%	+6%/-56%	+347%/-37%
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 006965782-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-473 ± 76	$50.77^{+54.90}_{-35.02}$	1112^{+101}_{-135}	4225^{+2733}_{-880}	120^{+1117}_{-91}
Alt.	-686 ± 154	$56.75^{+55.44}_{-36.90}$	1112^{+99}_{-116}	4333^{+2314}_{-854}	141^{+949}_{-105}

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

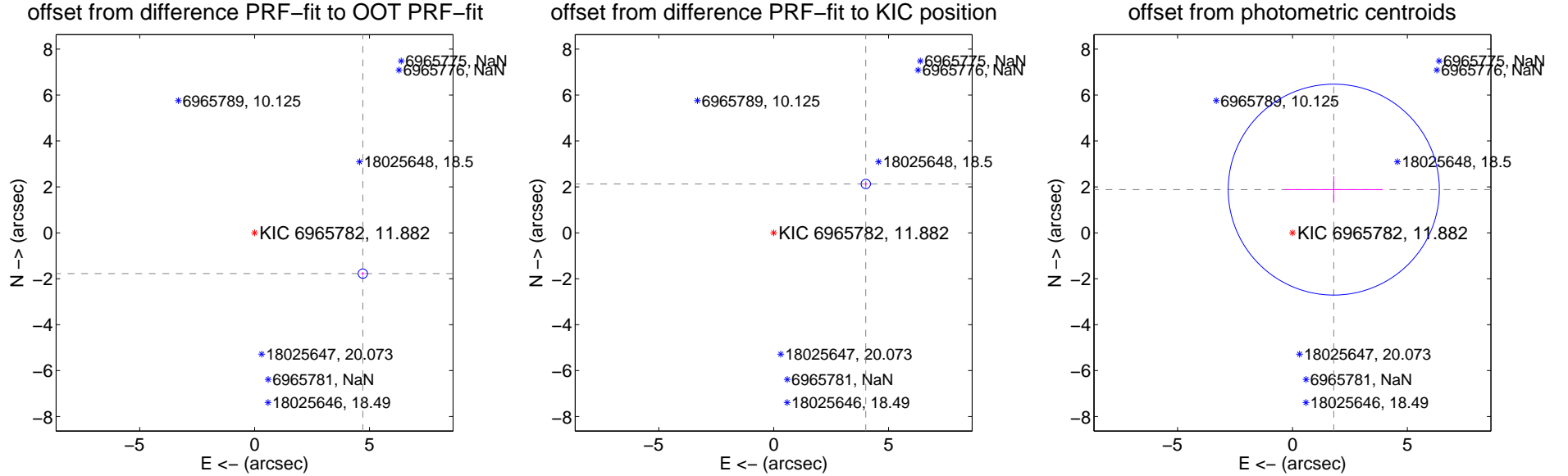
DV Centroid Data

Supplemental centroid analysis for 006965782-02. **Kepler magnitude: 11.88.** Transit SNR 7.33

There are 1 quarters with good PRF difference image offsets

The OOT PRF centroid is offset from the target star catalog position by about 3.97 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

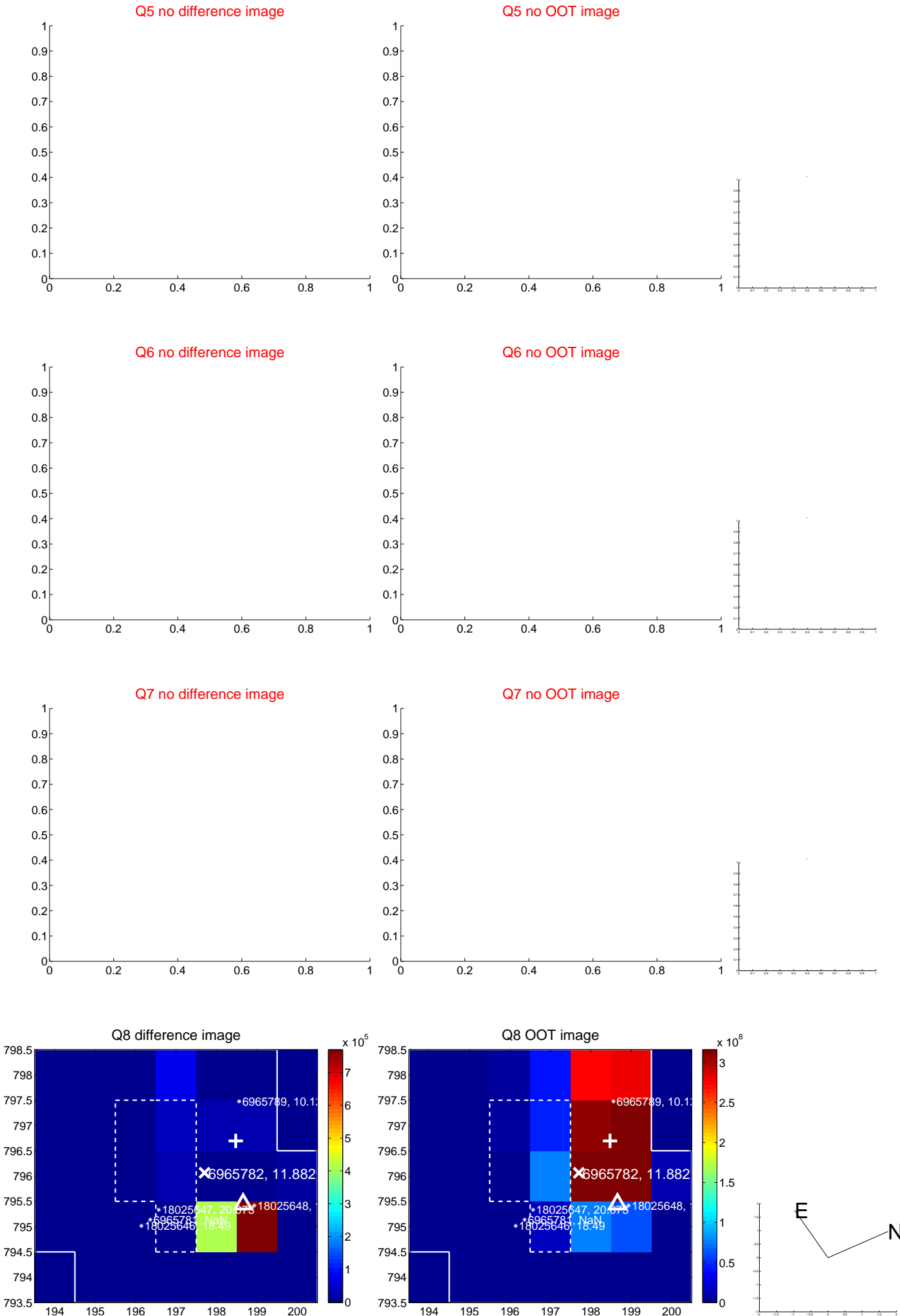
	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.033 ± 0.068	74.16	-4.709 ± 0.068	-1.777 ± 0.068
PRF-fit source offset from KIC position	4.536 ± 0.068	66.86	-4.007 ± 0.068	2.126 ± 0.068
photometric centroid source offset	2.60 ± 1.53	1.70	-1.80 ± 2.13	1.88 ± 0.58



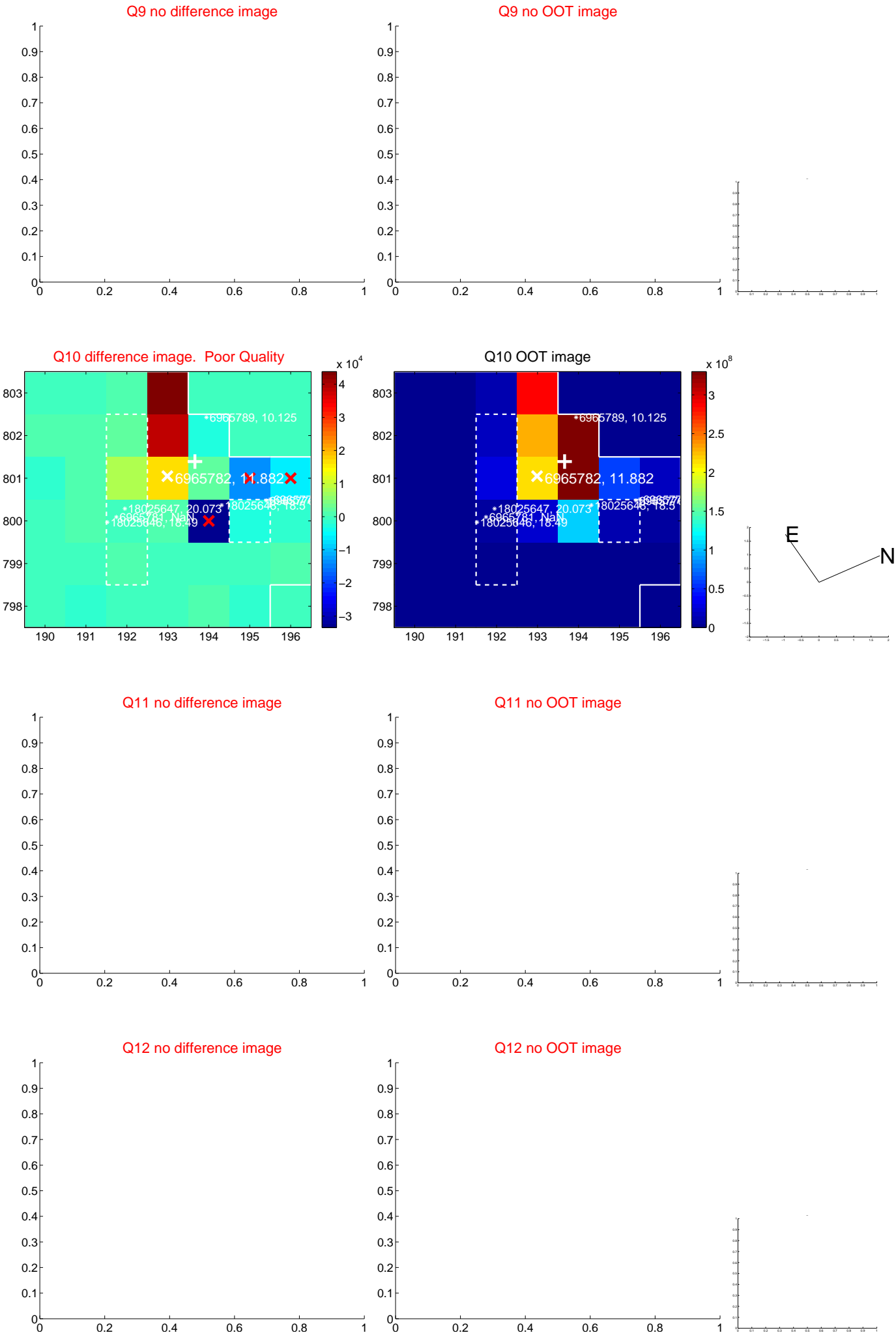
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



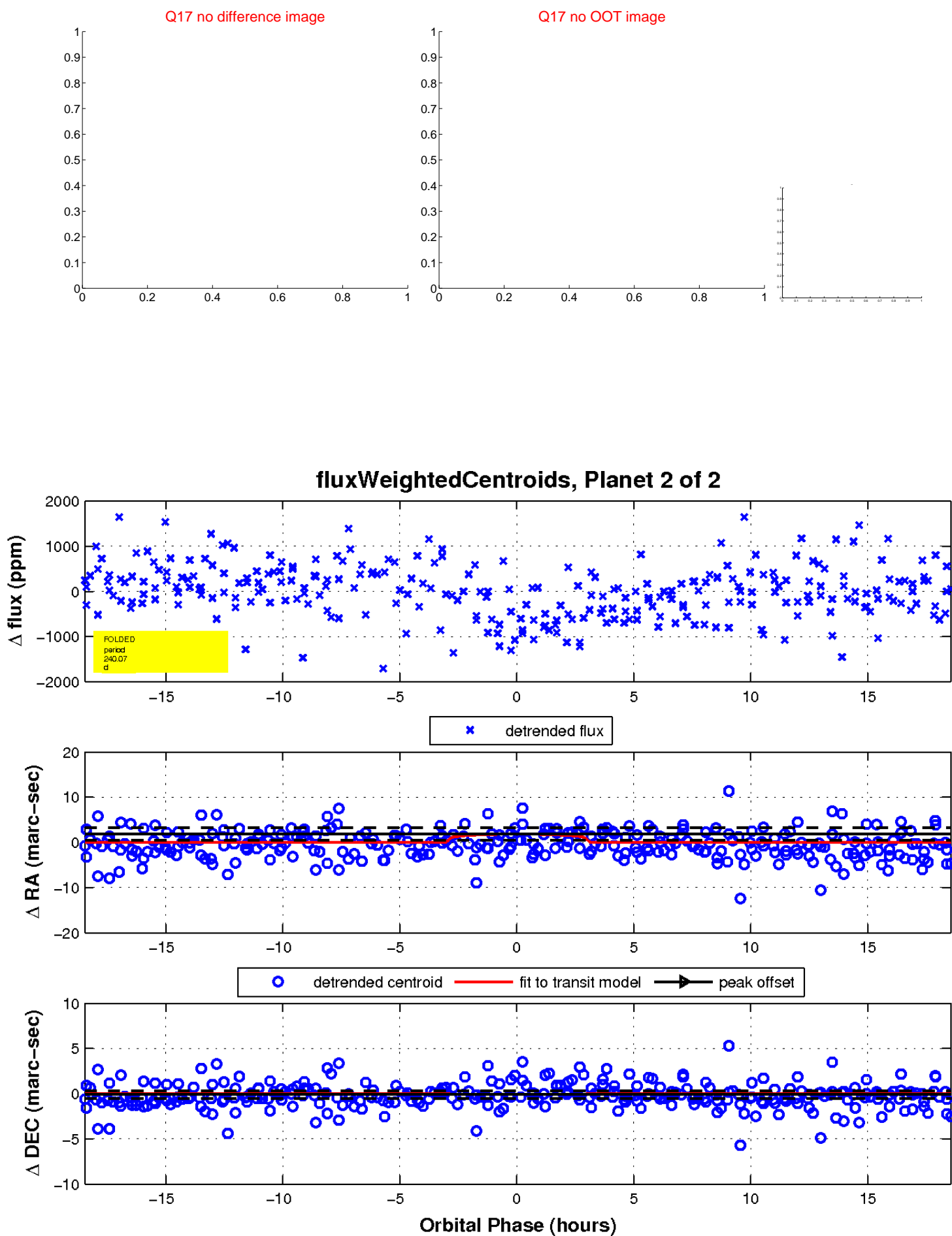
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



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



UKIRT Image

Declination

