

KIC 007764743

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})
007764743-01	OBS	No	372.197527	229.300540	921.4	22.858	7.4	7.6	0.93	5778	4.54	0.89

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007764743-01	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.

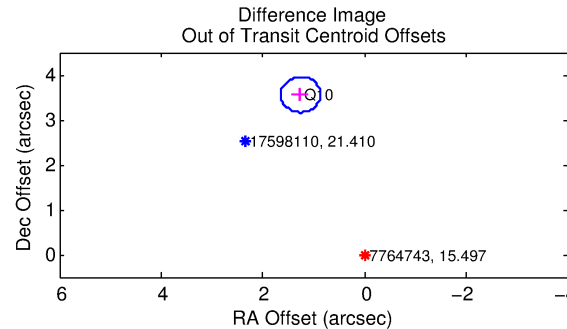
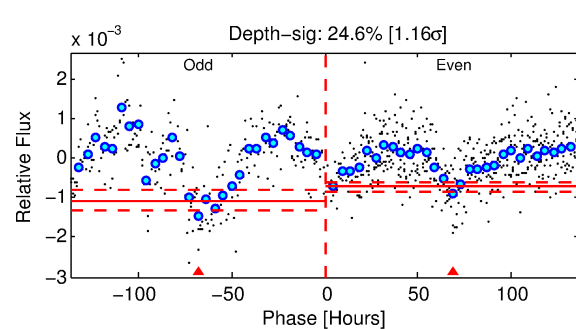
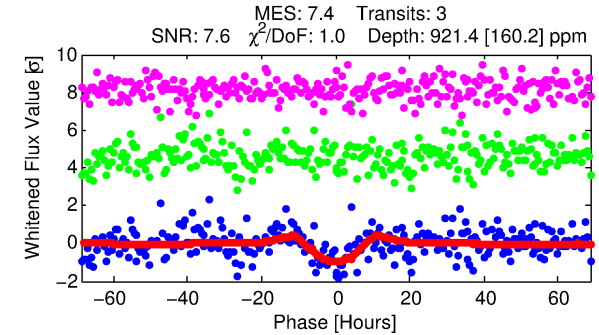
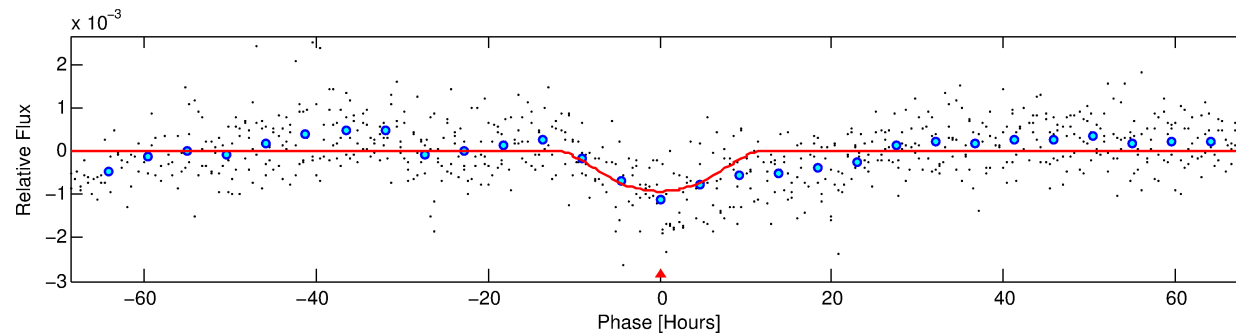
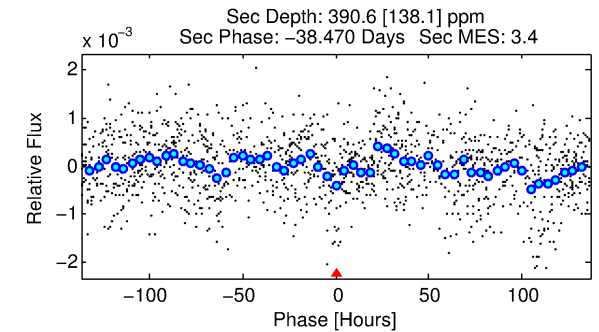
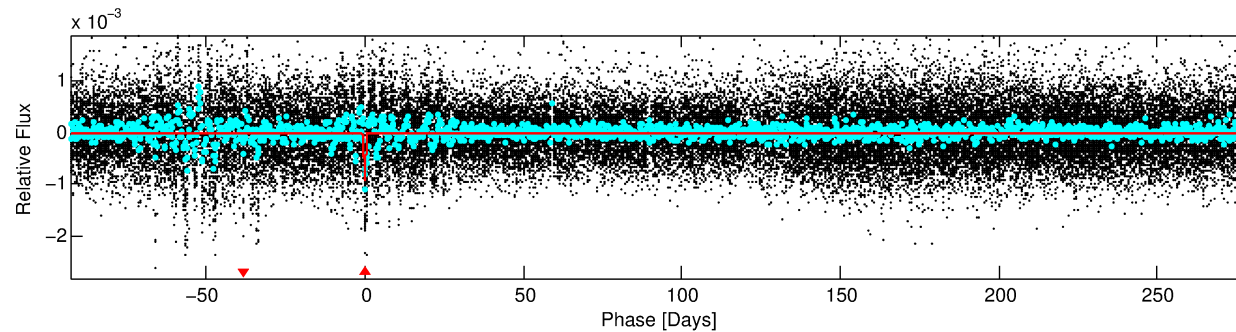
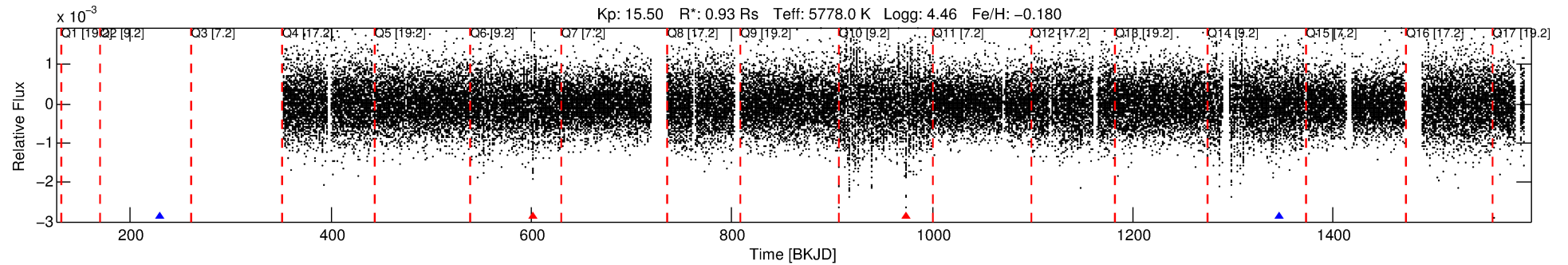
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007764743-01

No Significant Match Found

DV One-Page Summary

KIC: 7764743 Candidate: 1 of 1 Period: 372.198 d



DV Fit Results:

Period = 372.19753 [0.03218] d
Epoch = 229.3005 [0.0645] BKJD
Rp/R* = 0.0449 [0.0666]
a/R* = 43.37 [21.67]
b = 0.99 [0.12]
Seff = 0.89 [0.33]
Teq = 247 [23] K
Rp = 4.54 [6.86] Re
a = 0.9824 [0.2400] AU
Ag = 10055.17 [30224.94] [0.33σ]
Teff = 3832 [2862] K [1.25σ]

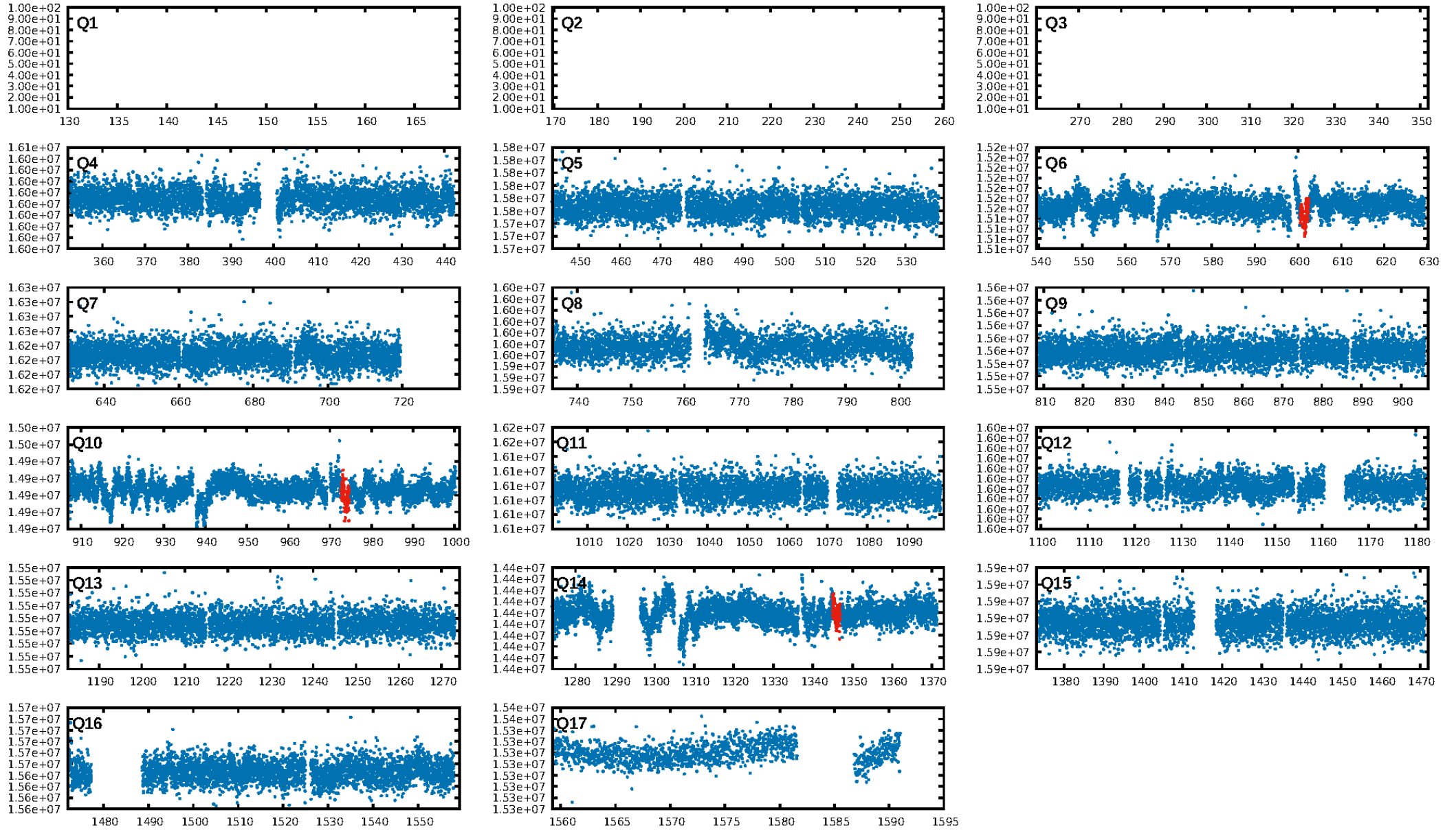
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 24.8%
ModelChiSquareGoF-sig: 100.0%
Bootstrap-pfa: 2.50e-10
RollingBand-fgt: 0.33 [1/3]
GhostDiagnostic-chr: 0.6602
Centroid-sig: 0.0%
Centroid-so: 2.976 arcsec [2.07σ]
OotOffset-rm: 3.775 arcsec [28.86σ]
KicOffset-rm: 2.276 arcsec [17.21σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [2/2]

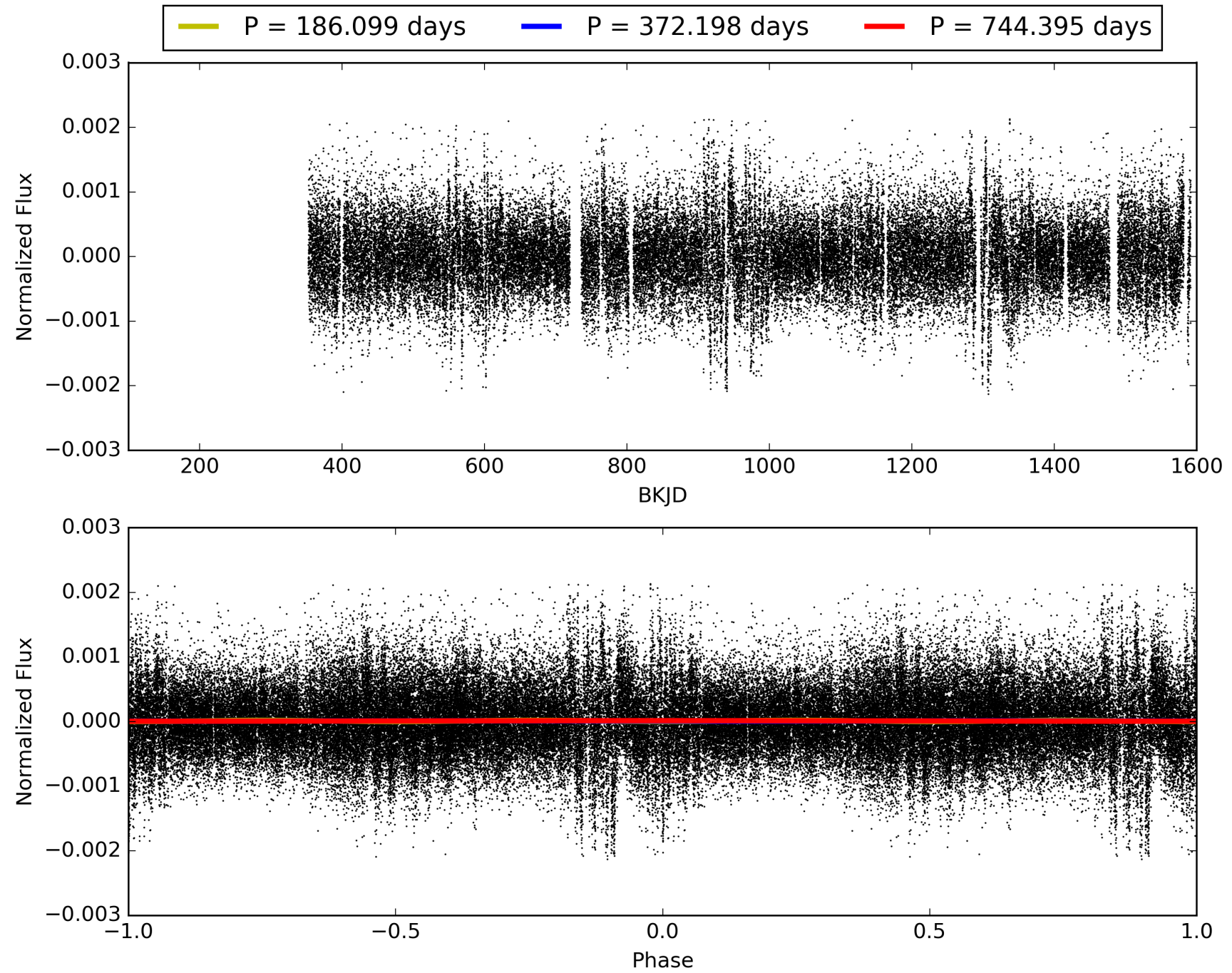
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 00:06:03 Z

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

TCE 007764743-01, PDC Light Curves

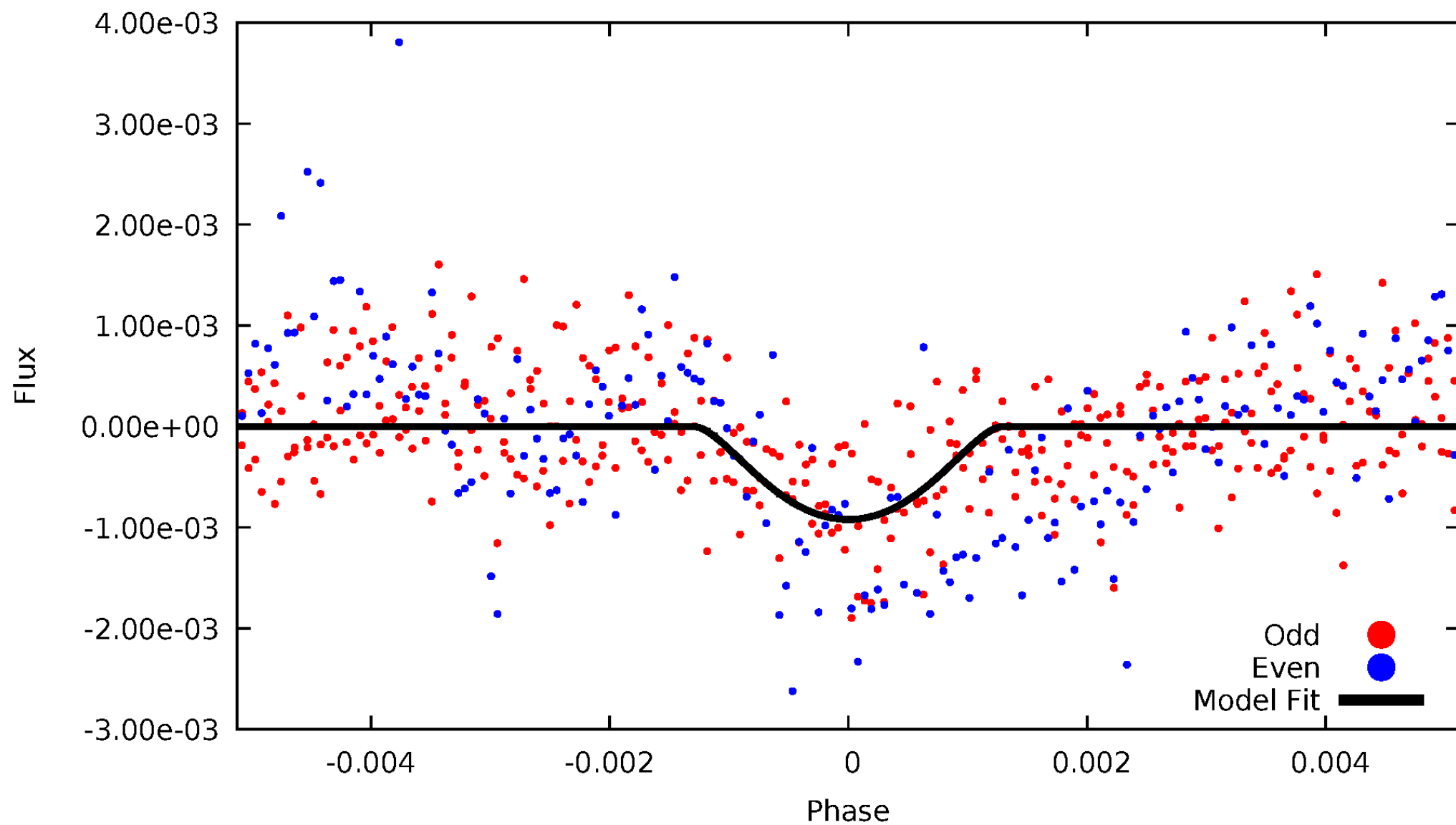


TCE 007764743-01



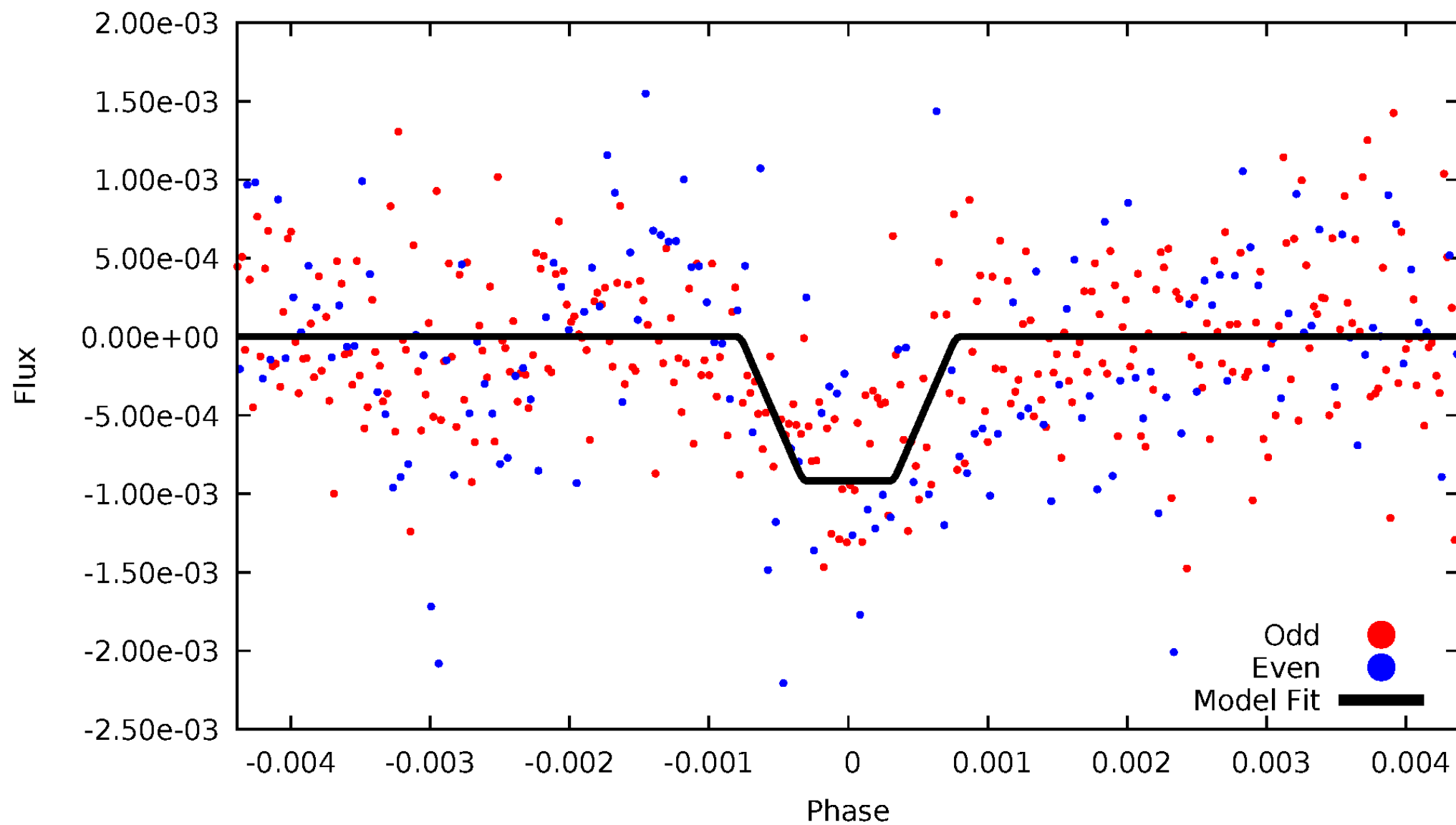
DV Odd/Even

TCE 007764743-01

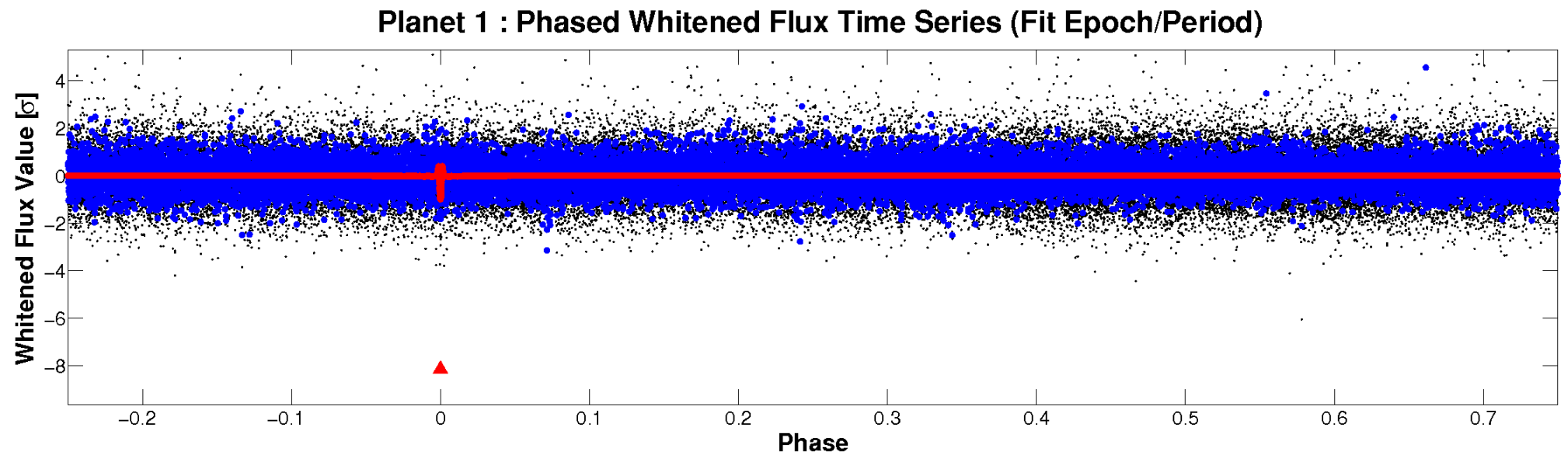
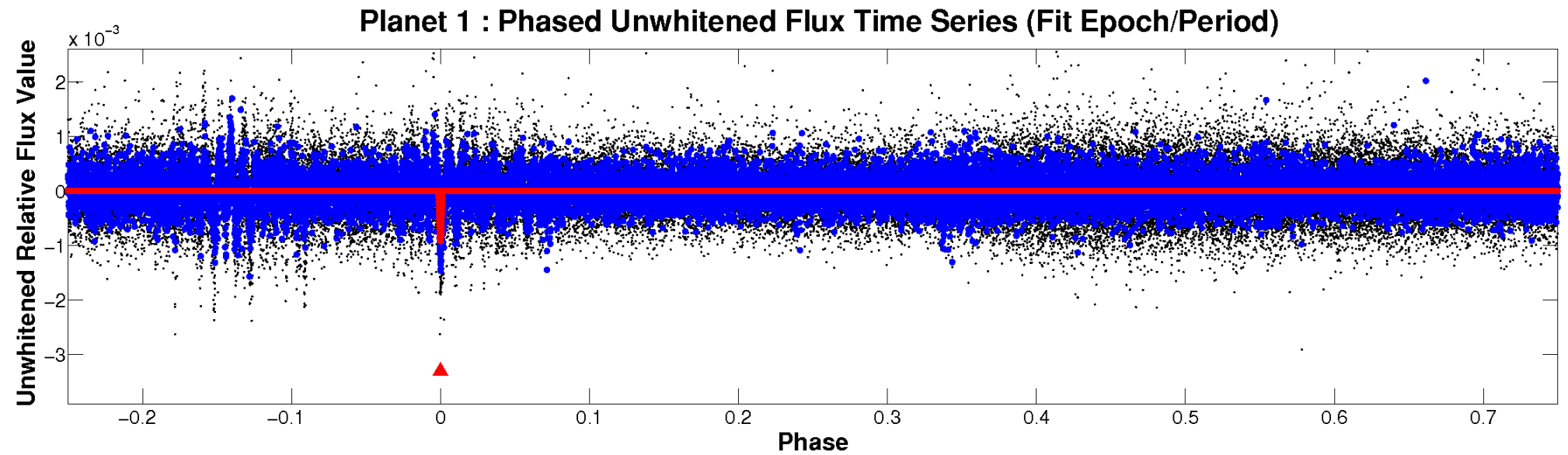


ALT Odd/Even

TCE 007764743-01

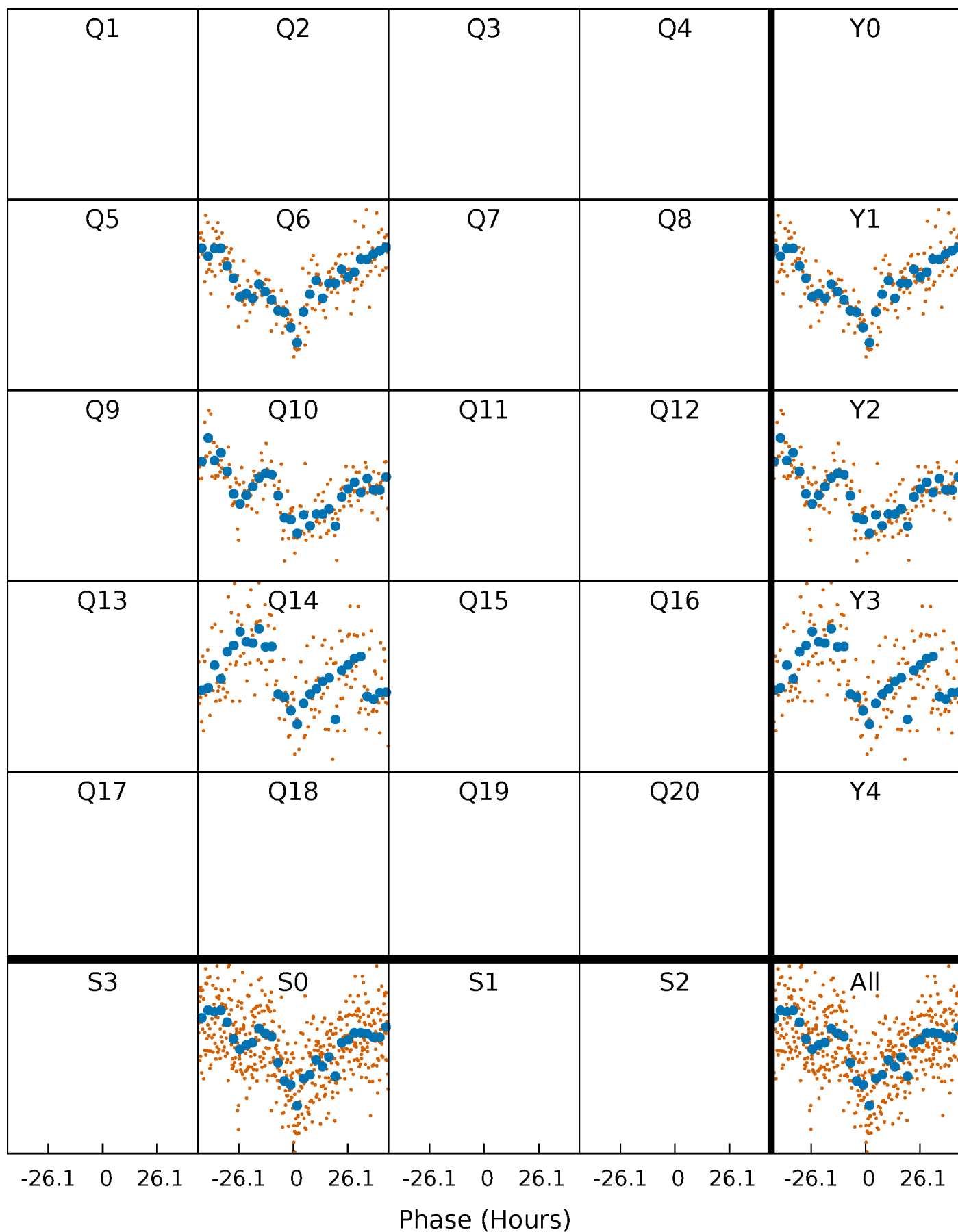


Non-Whitened Vs. Whitened Light Curve



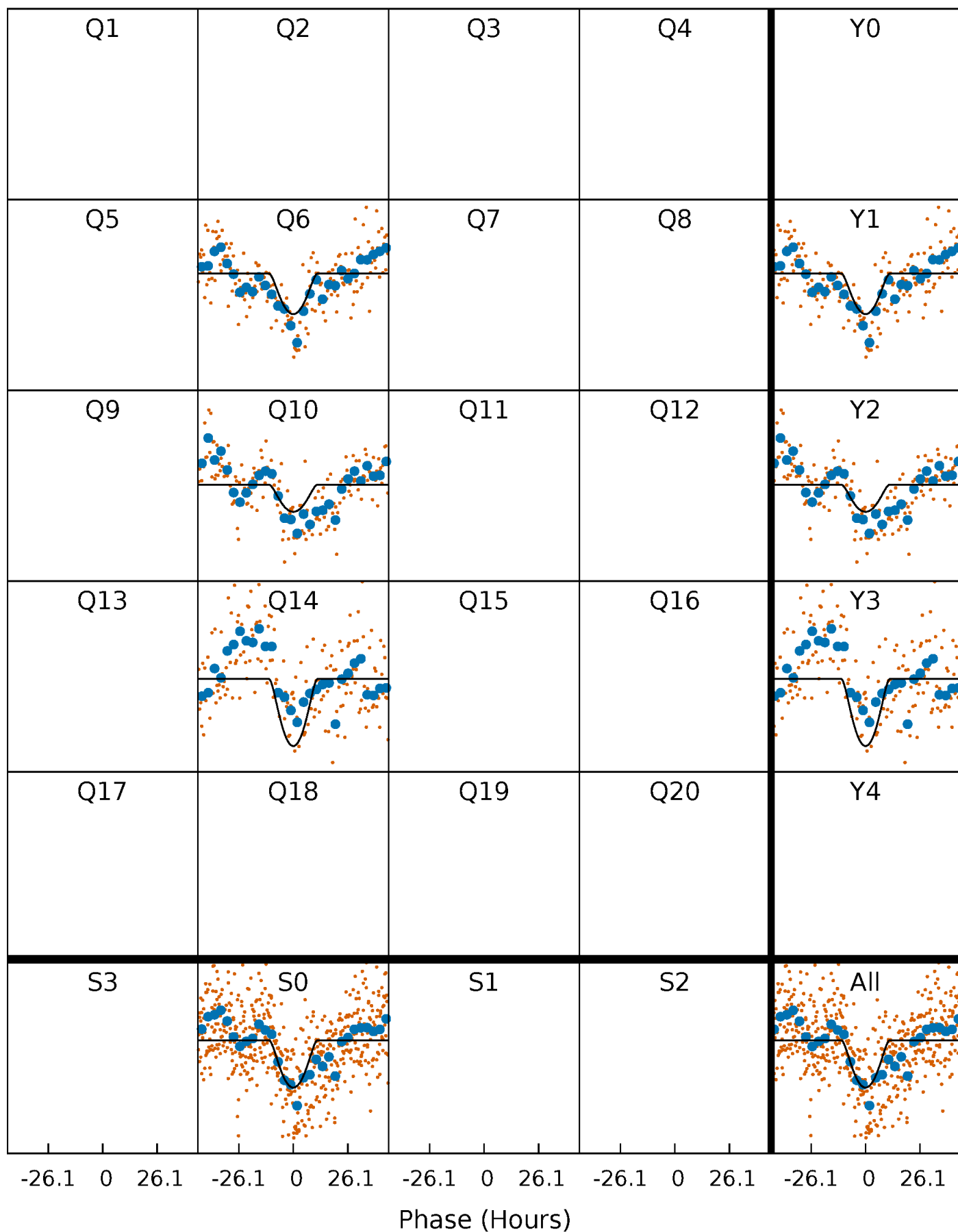
PDC Quarter-Phased Transit Curves

TCE 007764743-01 P=372.197527 Days $T_0=229.300540$ (BKJD)



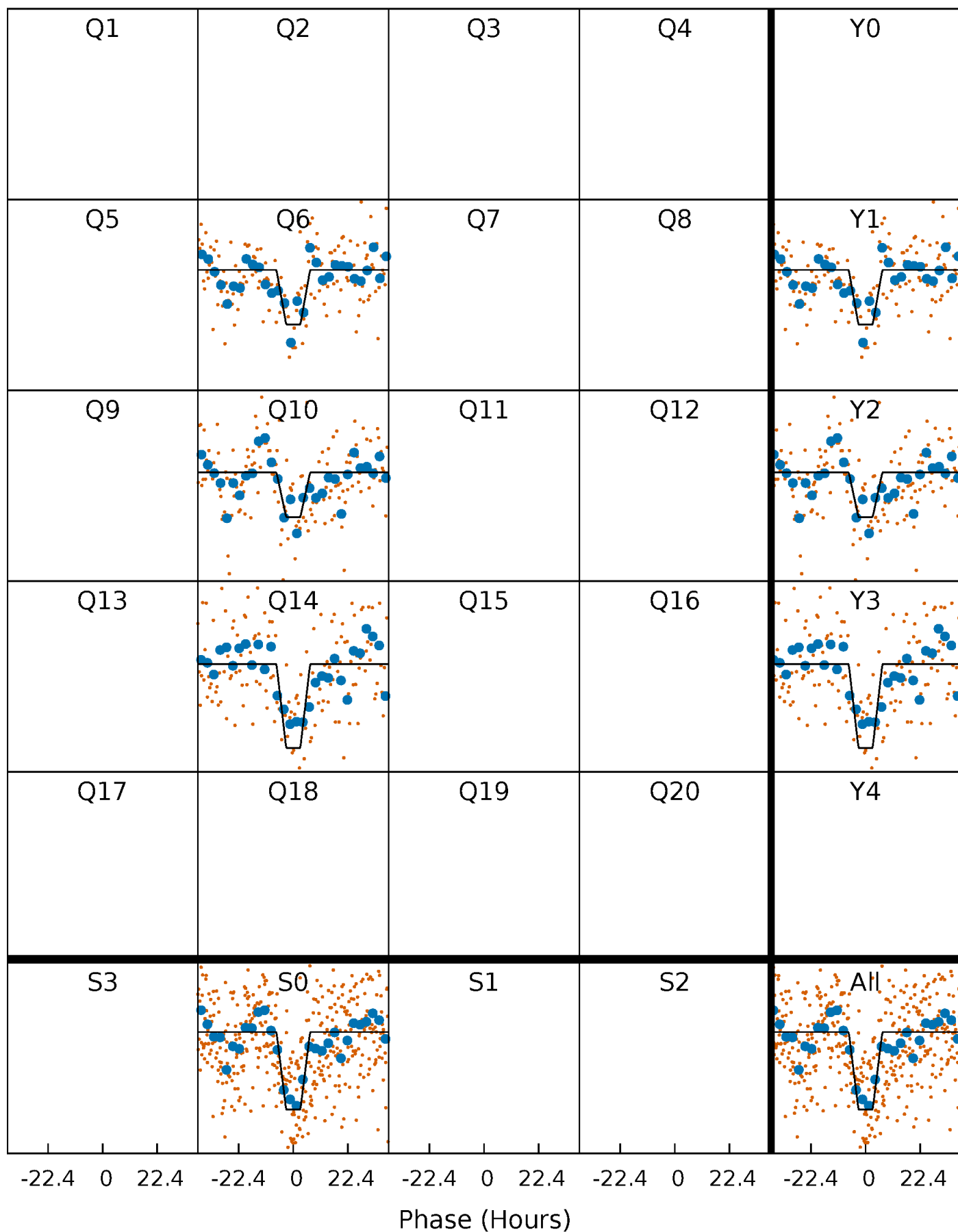
DV Quarter-Phased Transit Curves

TCE 007764743-01 P=372.197527 Days $T_0=229.300540$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

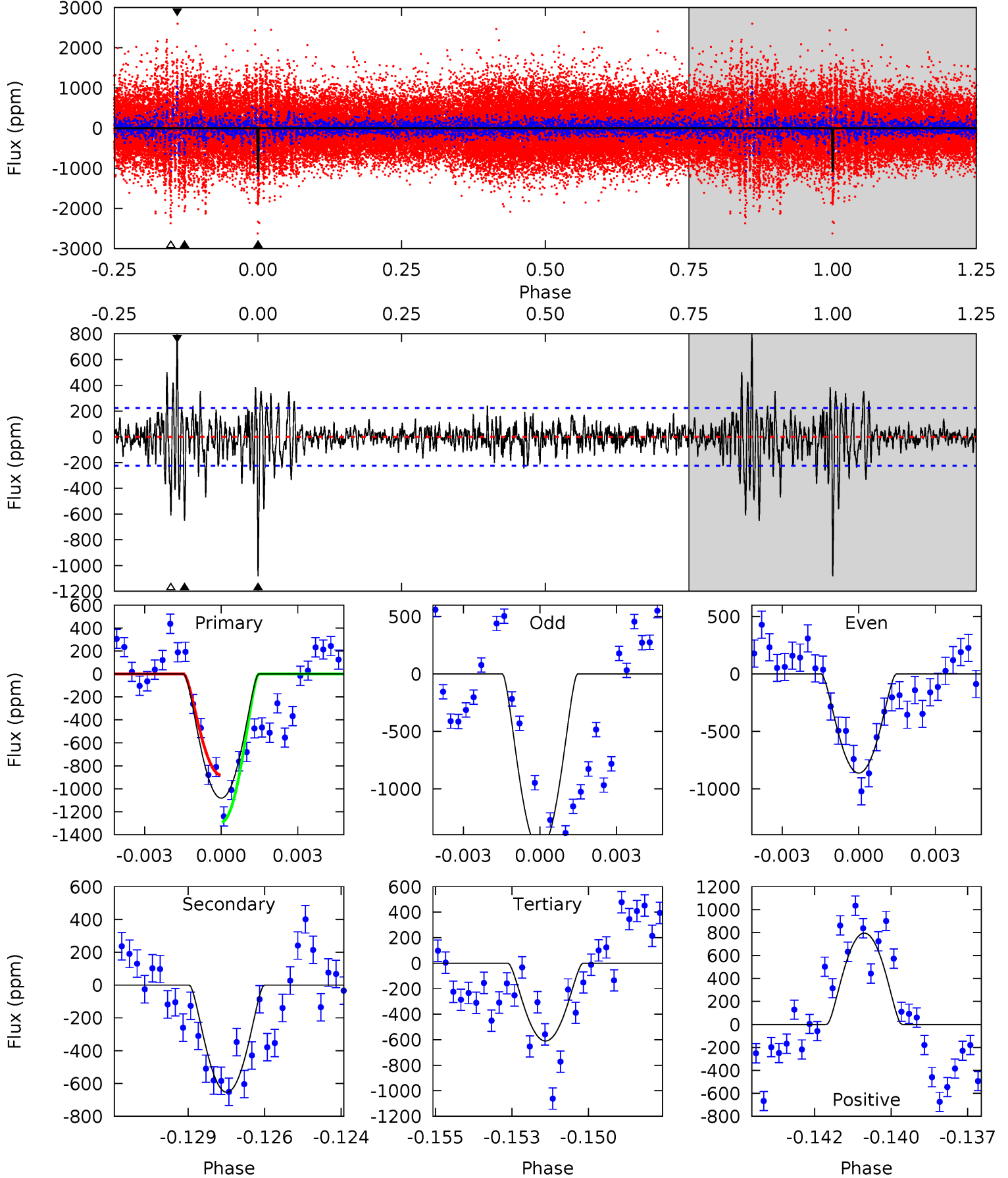
TCE 007764743-01 P=372.122372 Days $T_0=229.450367$ (BKJD)



DV Model-Shift Uniqueness Test

007764743-01, P = 372.197527 Days, E = 229.300540 Days

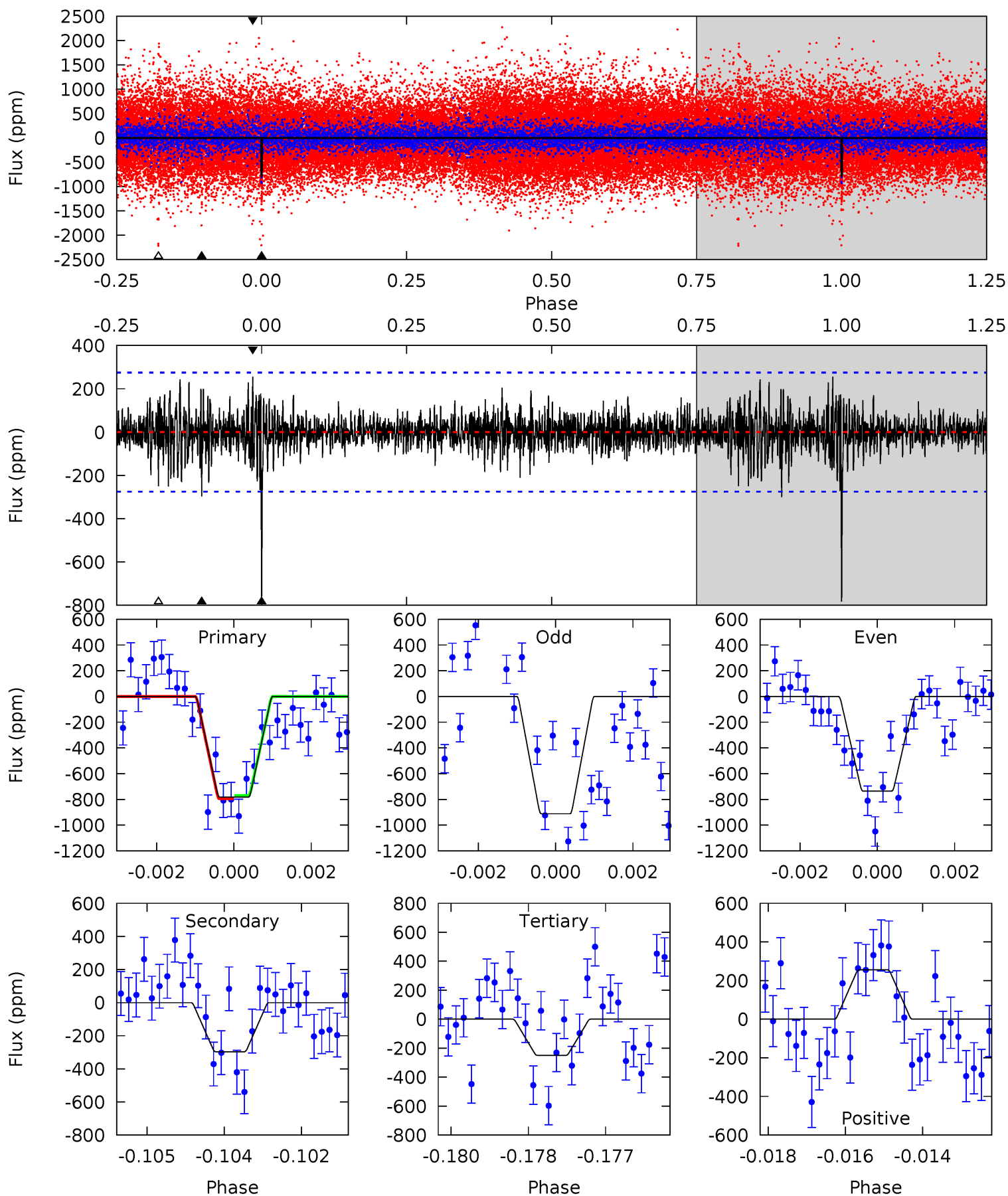
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.5	15.4	14.4	18.7	5.28	3.01	2.52	11.1	6.76	1.03	-3.33	7.22	0.83	0.42	4.82



Alt Model-Shift Uniqueness Test

007764743-01, P = 372.122372 Days, E = 229.450367 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.3	5.78	4.86	4.98	5.37	3.16	1.17	10.4	10.3	0.92	0.80	1.60	0.96	0.25	0.26



Stellar Parameters For KIC 007764743

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5778^{+172}_{-190}	$4.465^{+0.081}_{-0.189}$	$-0.180^{+0.300}_{-0.300}$	$0.926^{+0.273}_{-0.117}$	$0.914^{+0.123}_{-0.092}$	$1.619^{+0.572}_{-0.826}$
	+3%/-3%	+2%/-4%	+167%/-167%	+29%/-13%	+13%/-10%	+35%/-51%
Source	KIC0	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 007764743-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-653 ± 42	$6.96^{+7.11}_{-4.52}$	350^{+28}_{-17}	3905^{+2152}_{-761}	7090^{+51679}_{-5324}
Alt.	-297 ± 51	$6.00^{+5.57}_{-4.09}$	350^{+24}_{-19}	3629^{+1980}_{-683}	4404^{+39539}_{-3242}

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

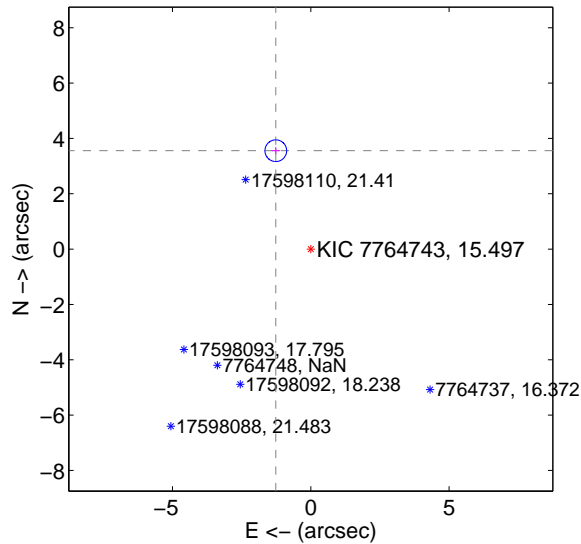
Supplemental centroid analysis for 007764743-01. Kepler magnitude: 15.50. Transit SNR 7.60

There are 1 quarters with good PRF difference image offsets

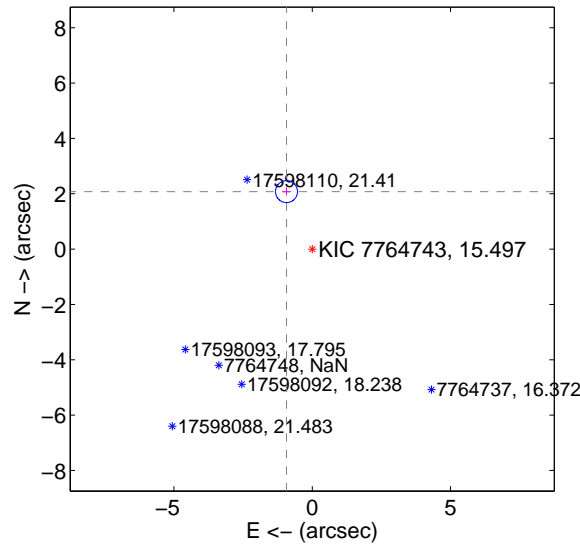
The direct PRF centroid is offset from the target star catalog position by about 1.52 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.775 \pm 0.131	28.86	1.264 \pm 0.153	3.557 \pm 0.128
PRF-fit source offset from KIC position	2.276 \pm 0.132	17.21	0.930 \pm 0.153	2.078 \pm 0.128
photometric centroid source offset	2.98 \pm 1.44	2.07	0.02 \pm 1.28	2.98 \pm 1.44

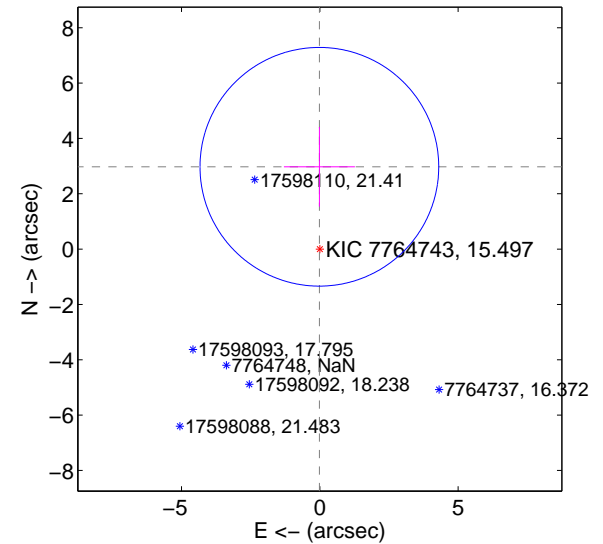
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids



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.

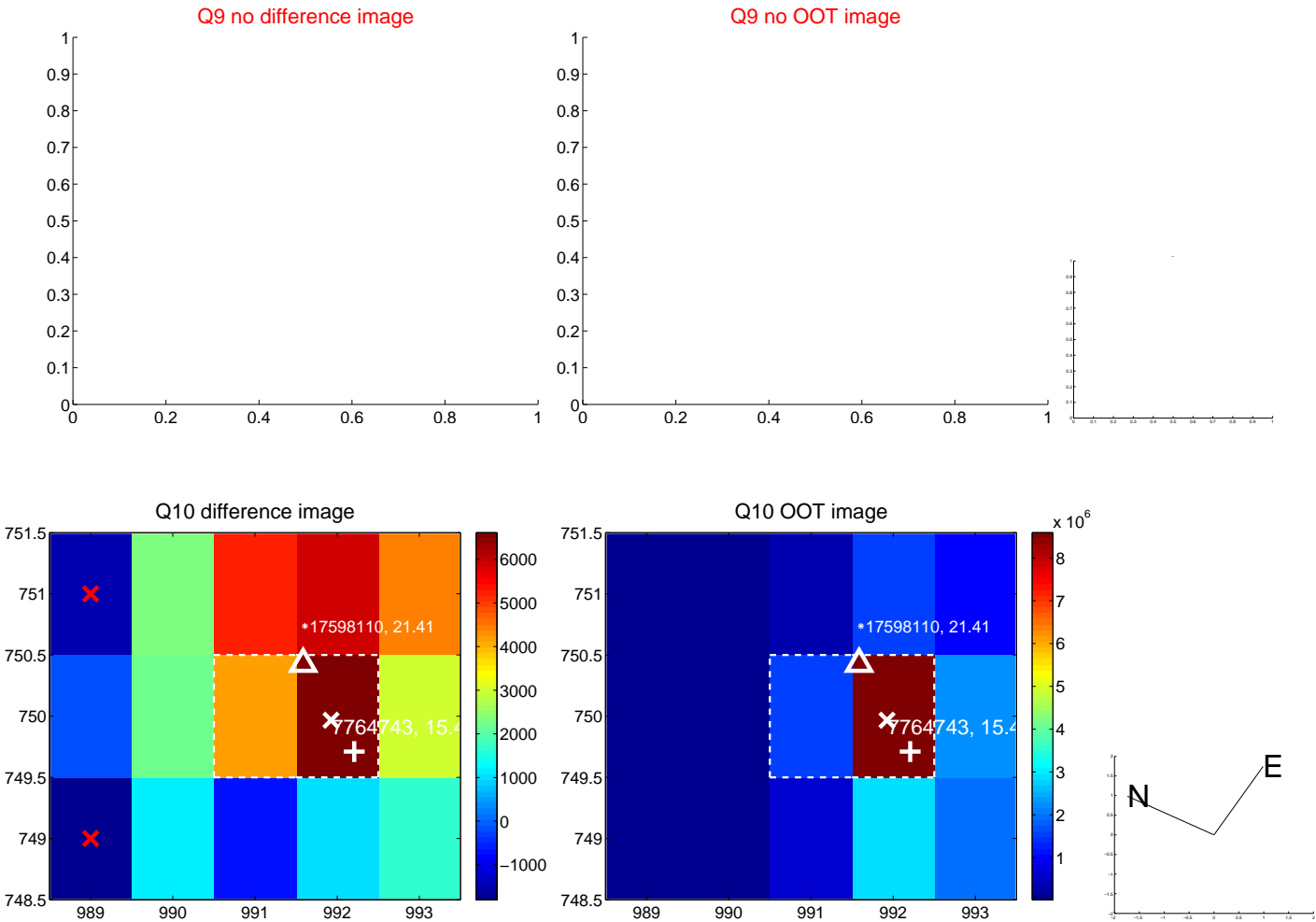
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



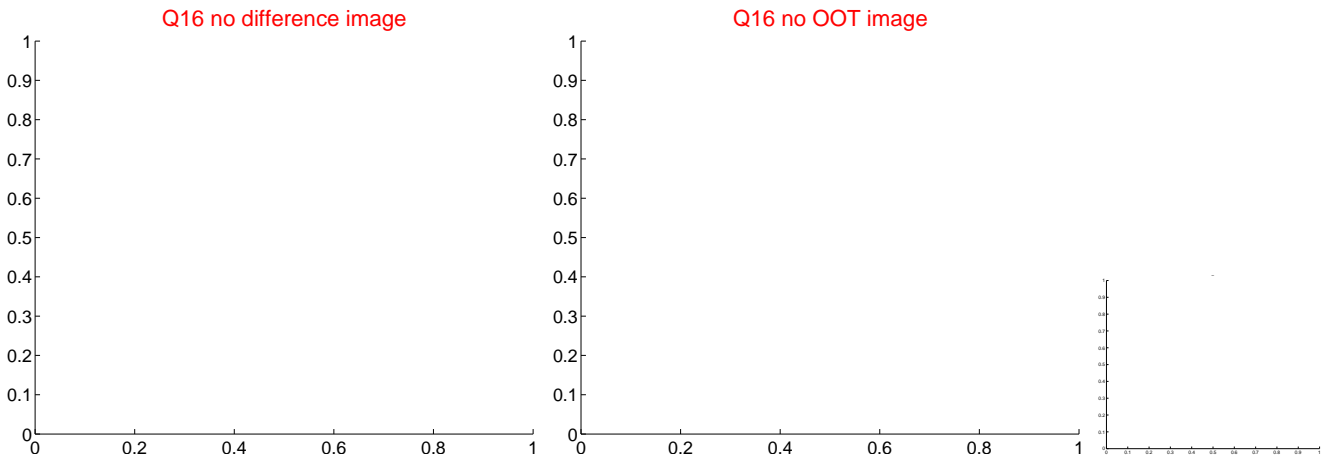
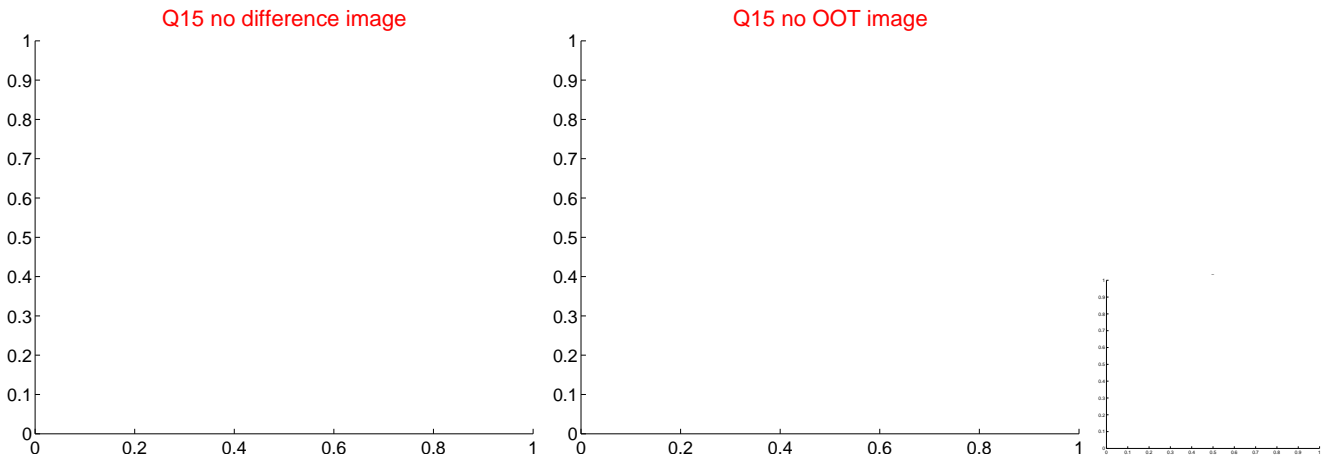
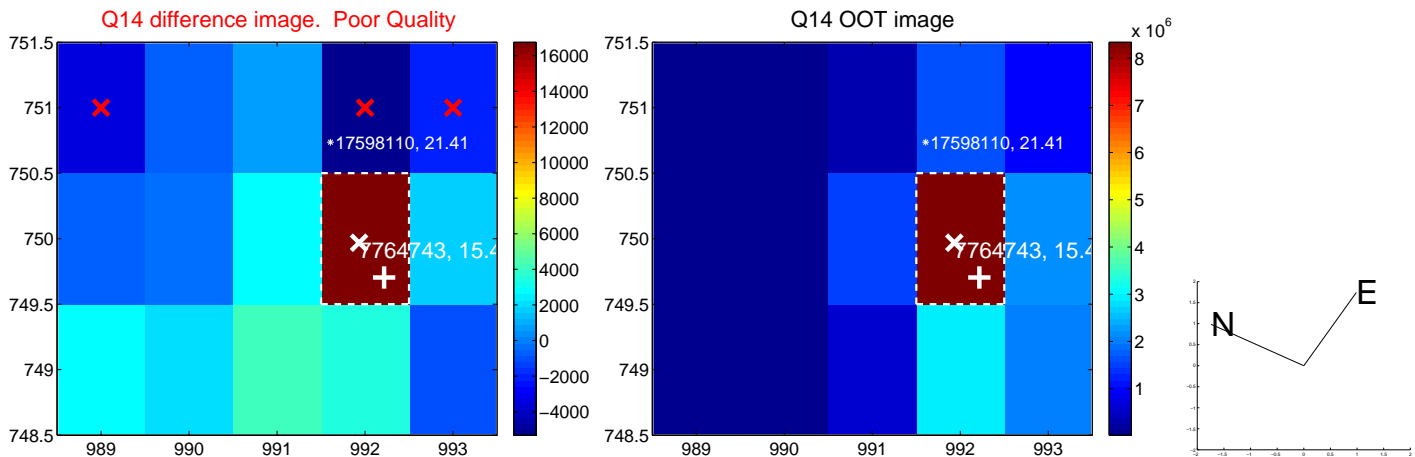
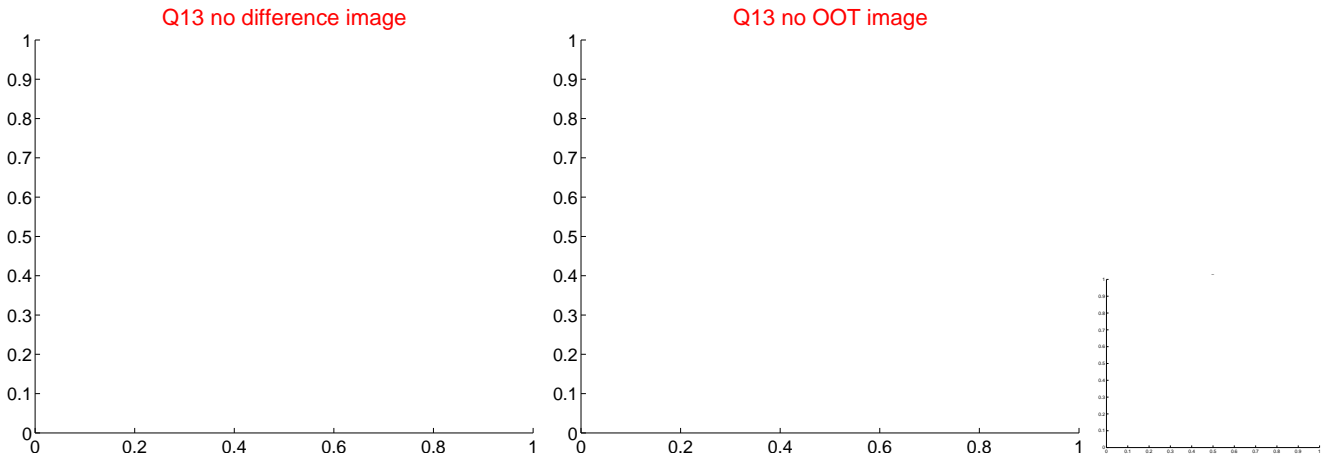
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



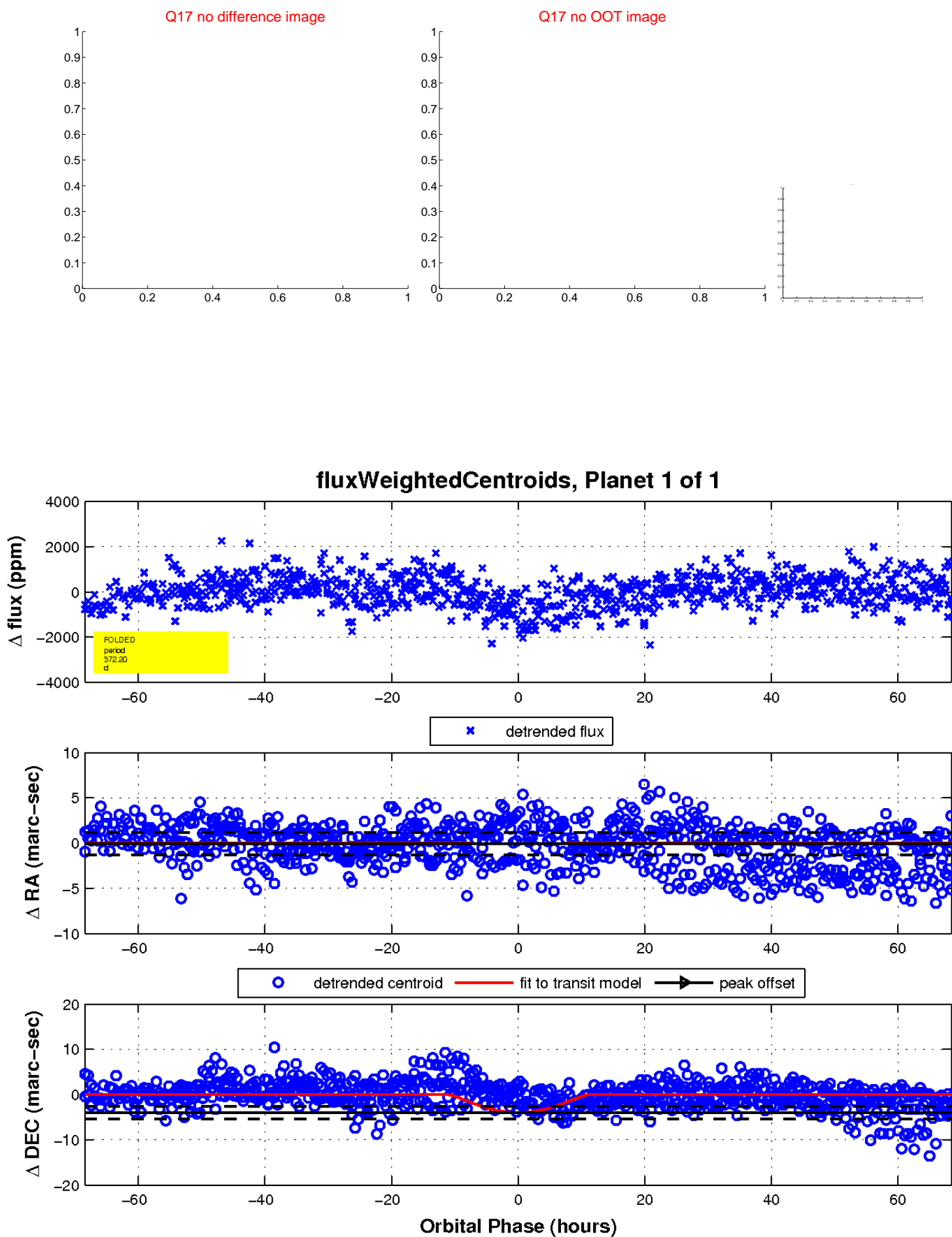
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

