

KIC 007756709

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})
007756709-02	OBS	No	377.491712	402.205494	598.4	27.425	8.4	9.4	1.58	5153	5.33	1.58

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007756709-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—ALL_TRANS_CHASES—INCONSISTENT_TRANS—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.

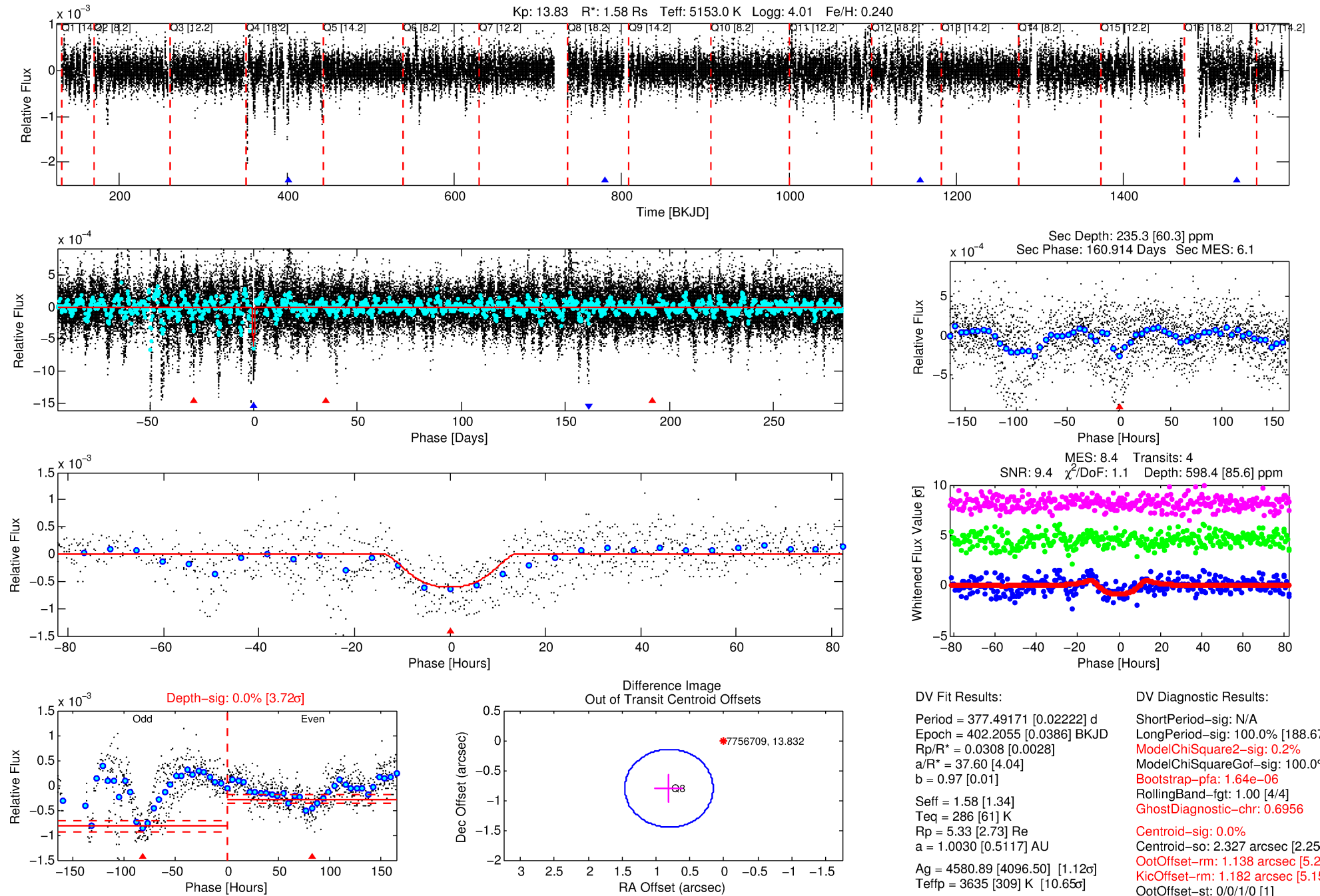
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007756709-02

No Significant Match Found

DV One-Page Summary

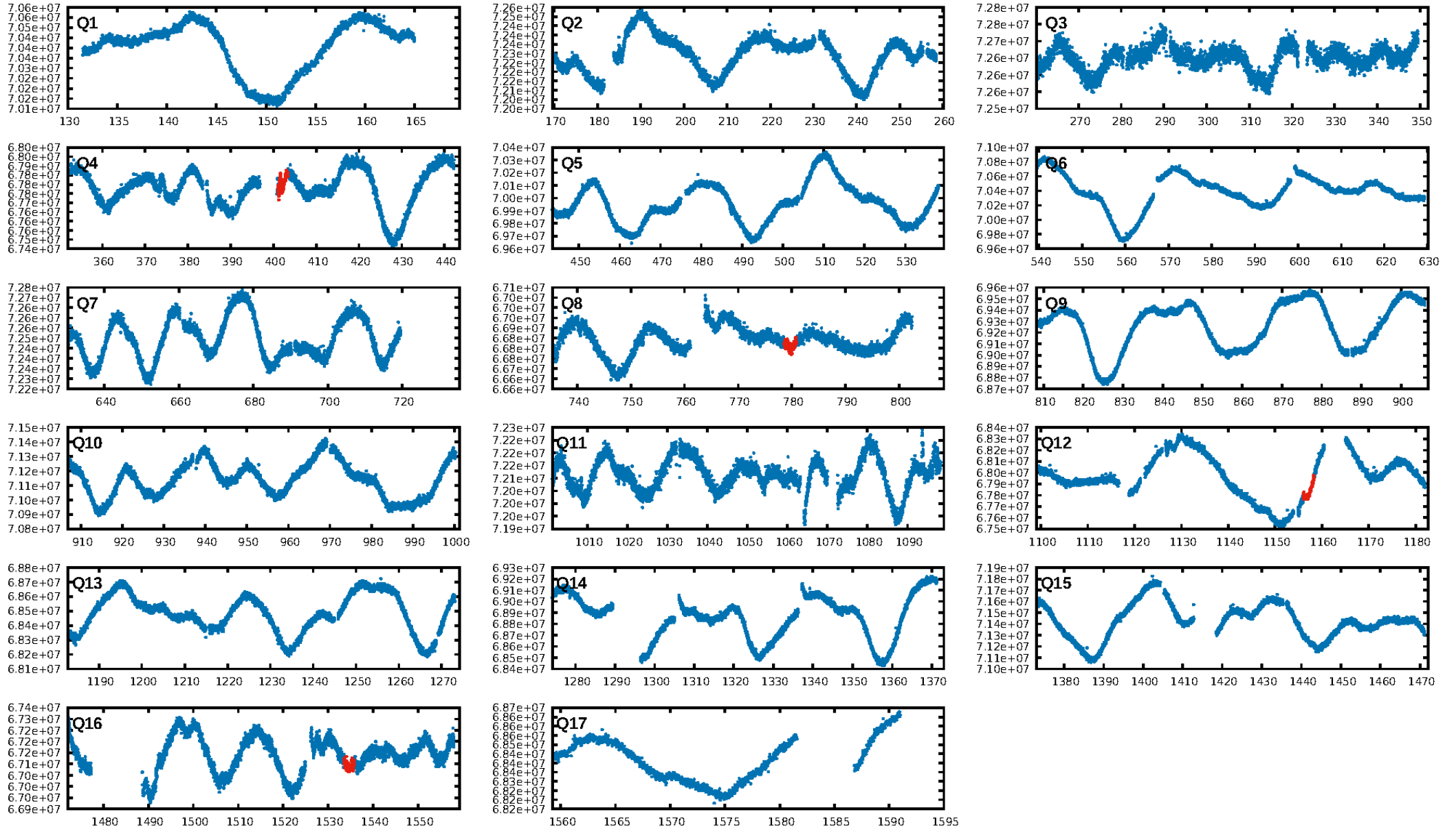
KIC: 7756709 Candidate: 2 of 2 Period: 377.492 d



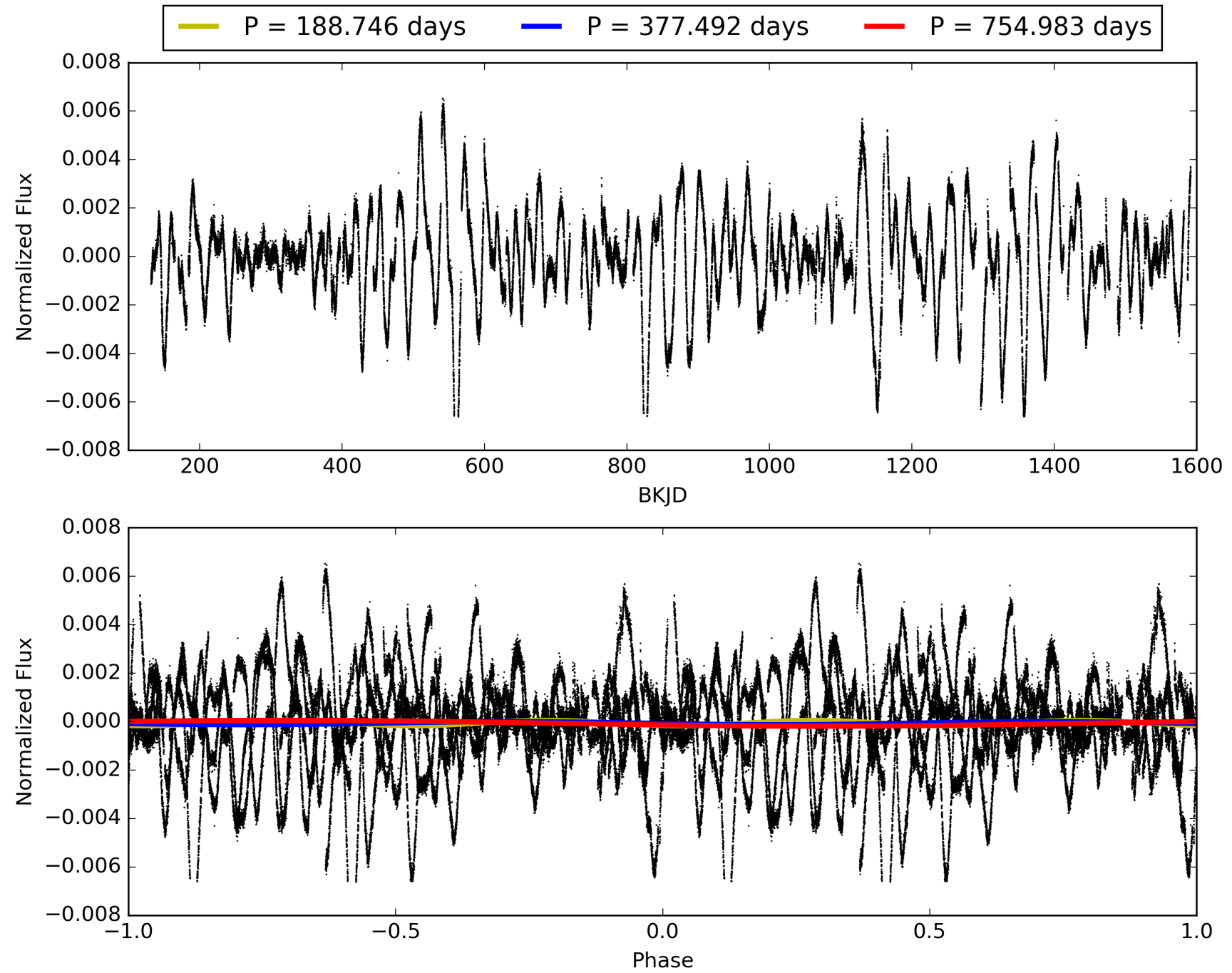
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 08:46:41 Z

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

TCE 007756709-02, PDC Light Curves

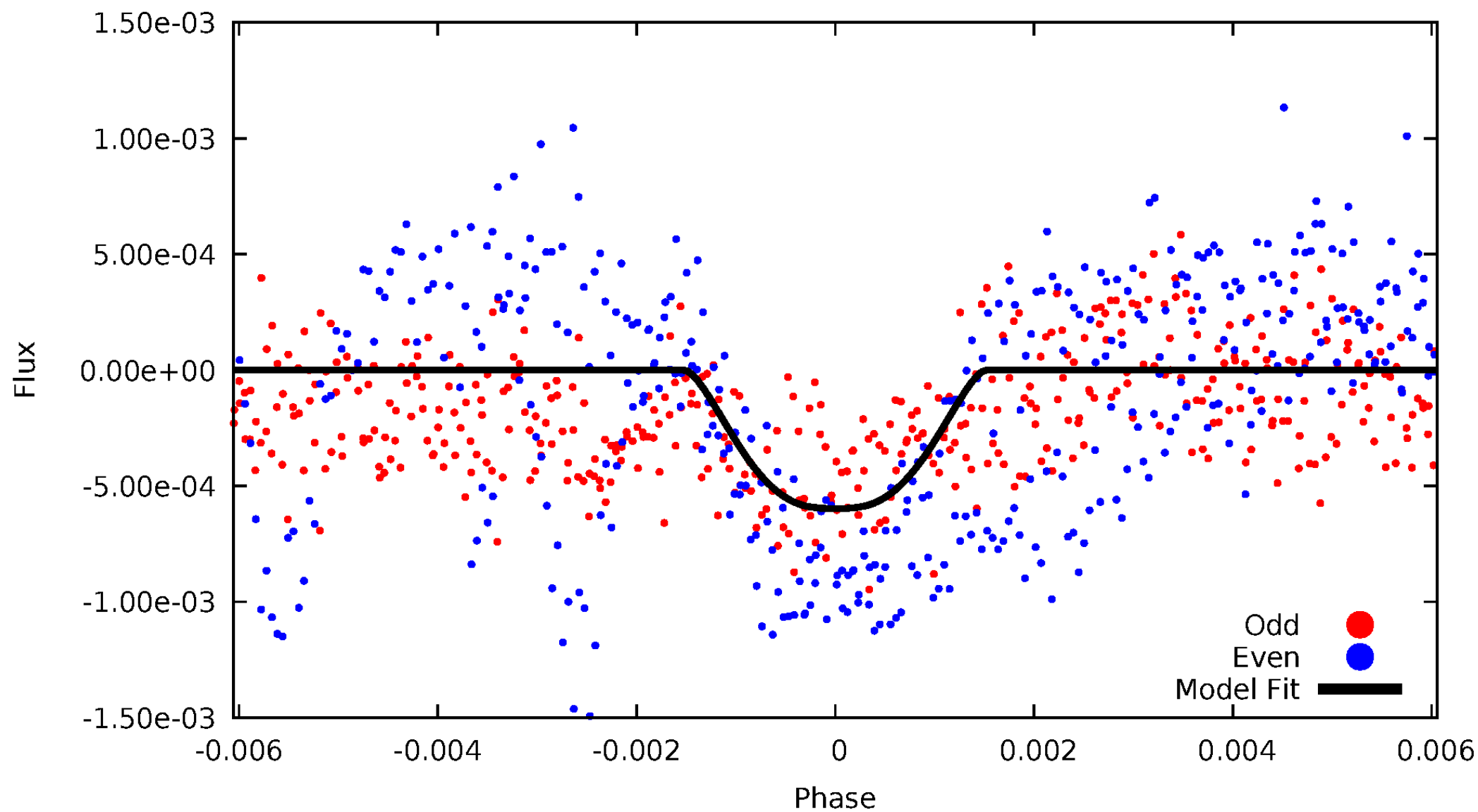


TCE 007756709-02



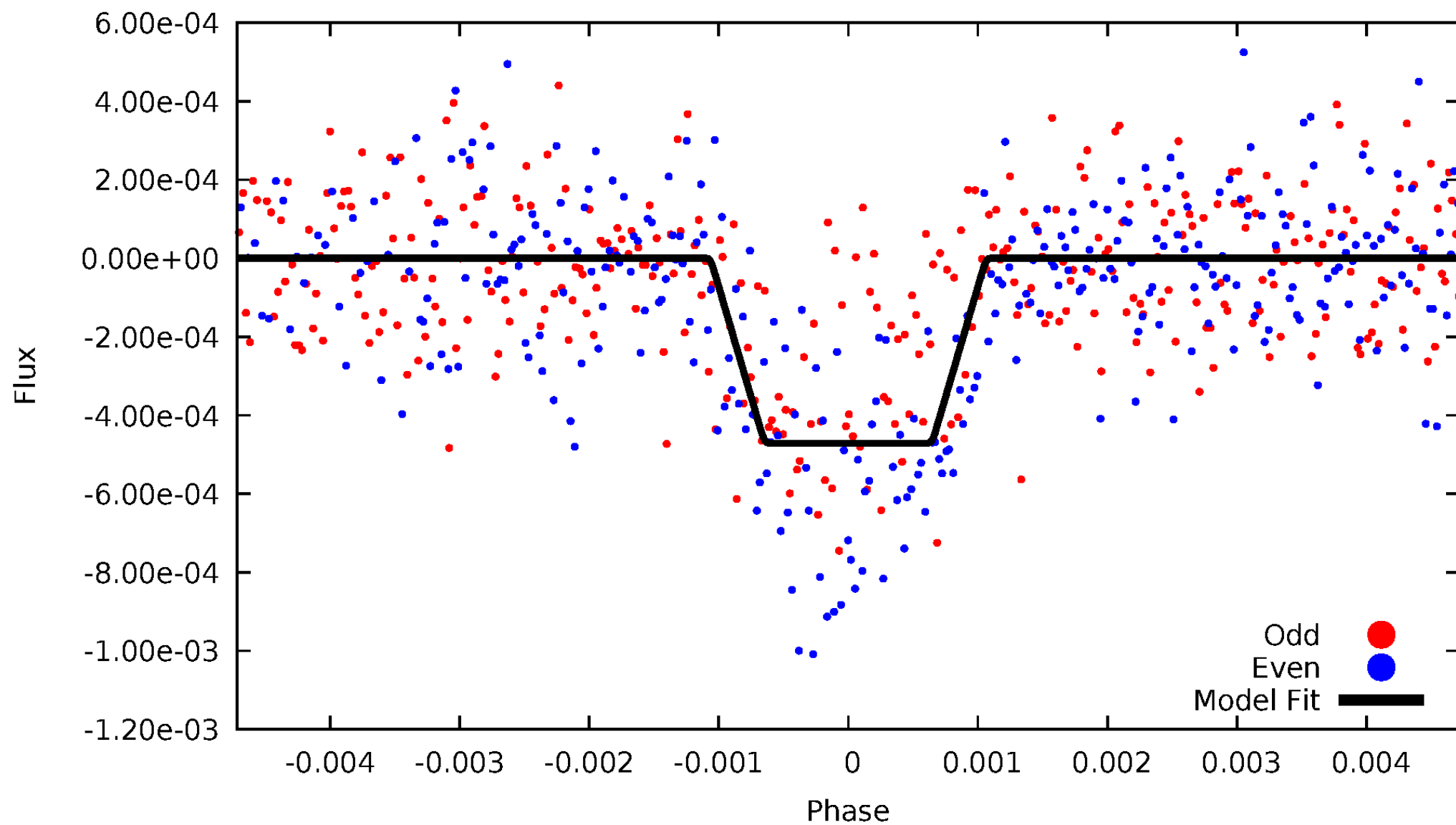
DV Odd/Even

TCE 007756709-02



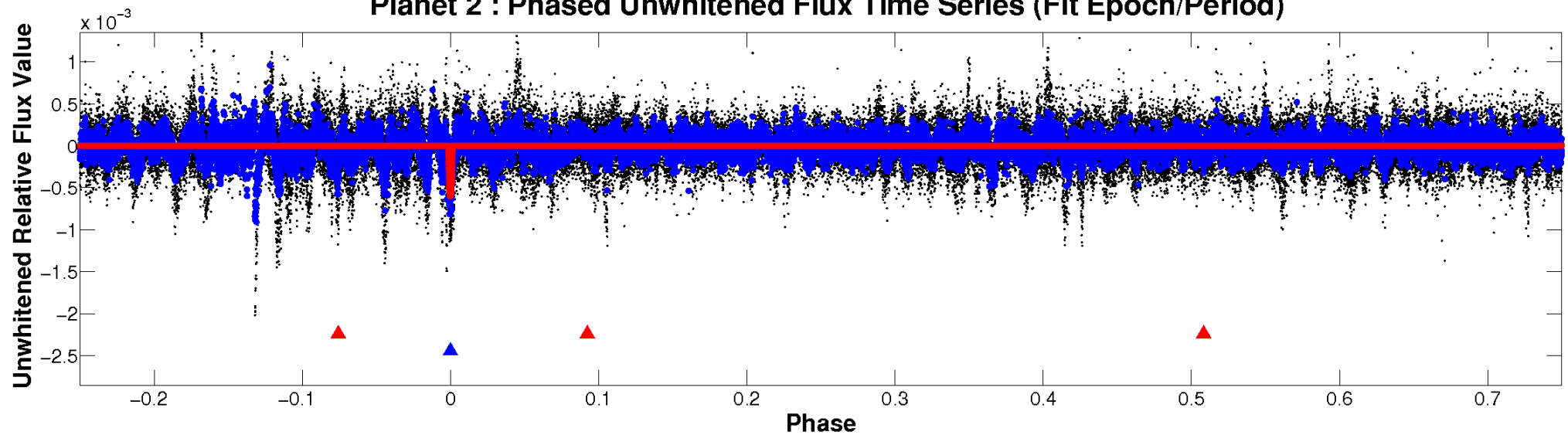
ALT Odd/Even

TCE 007756709-02

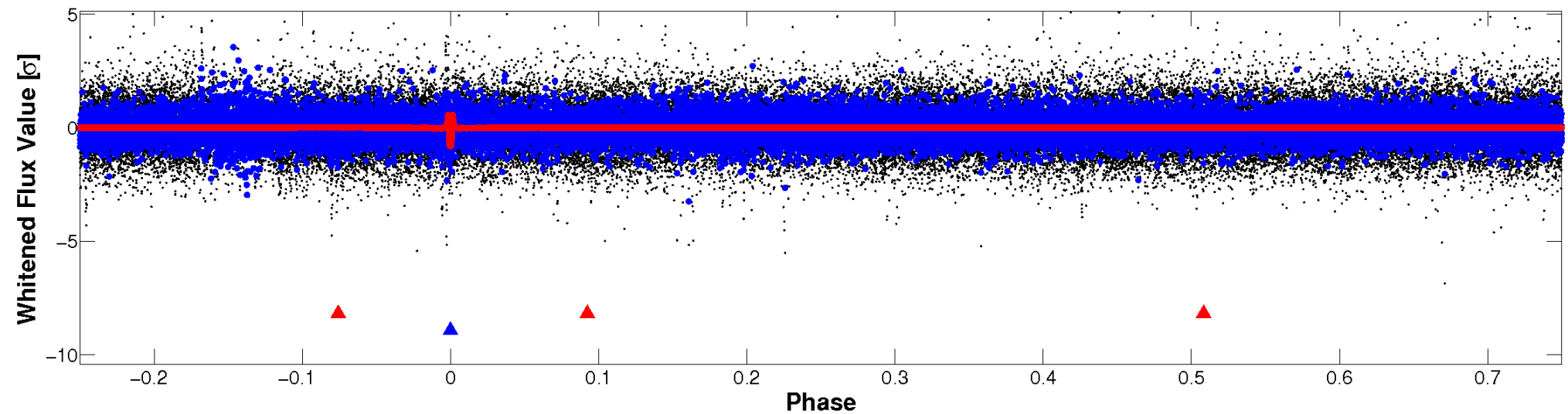


Non-Whitened Vs. Whitened Light Curve

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

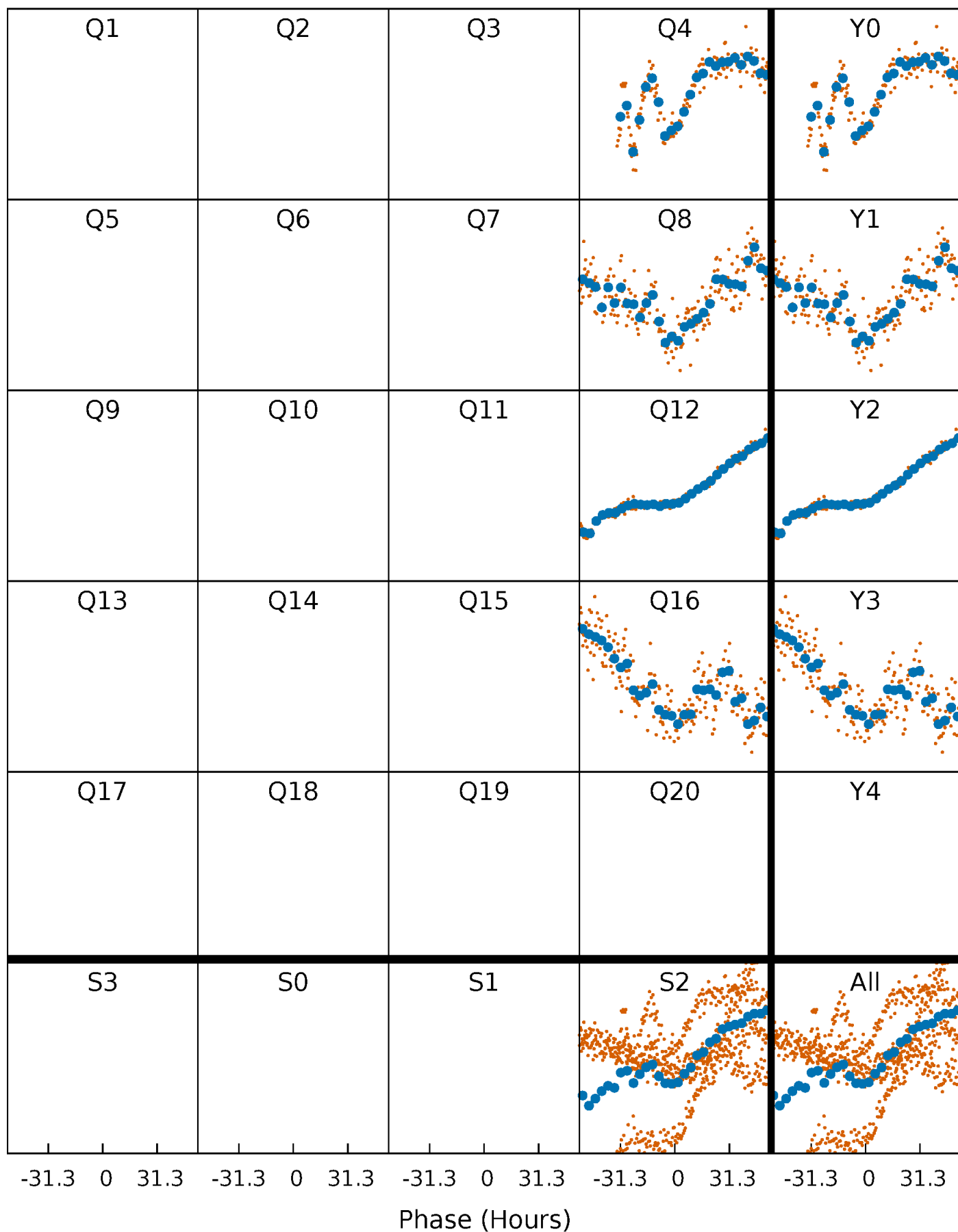


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 007756709-02 P=377.491712 Days $T_0=402.205494$ (BKJD)



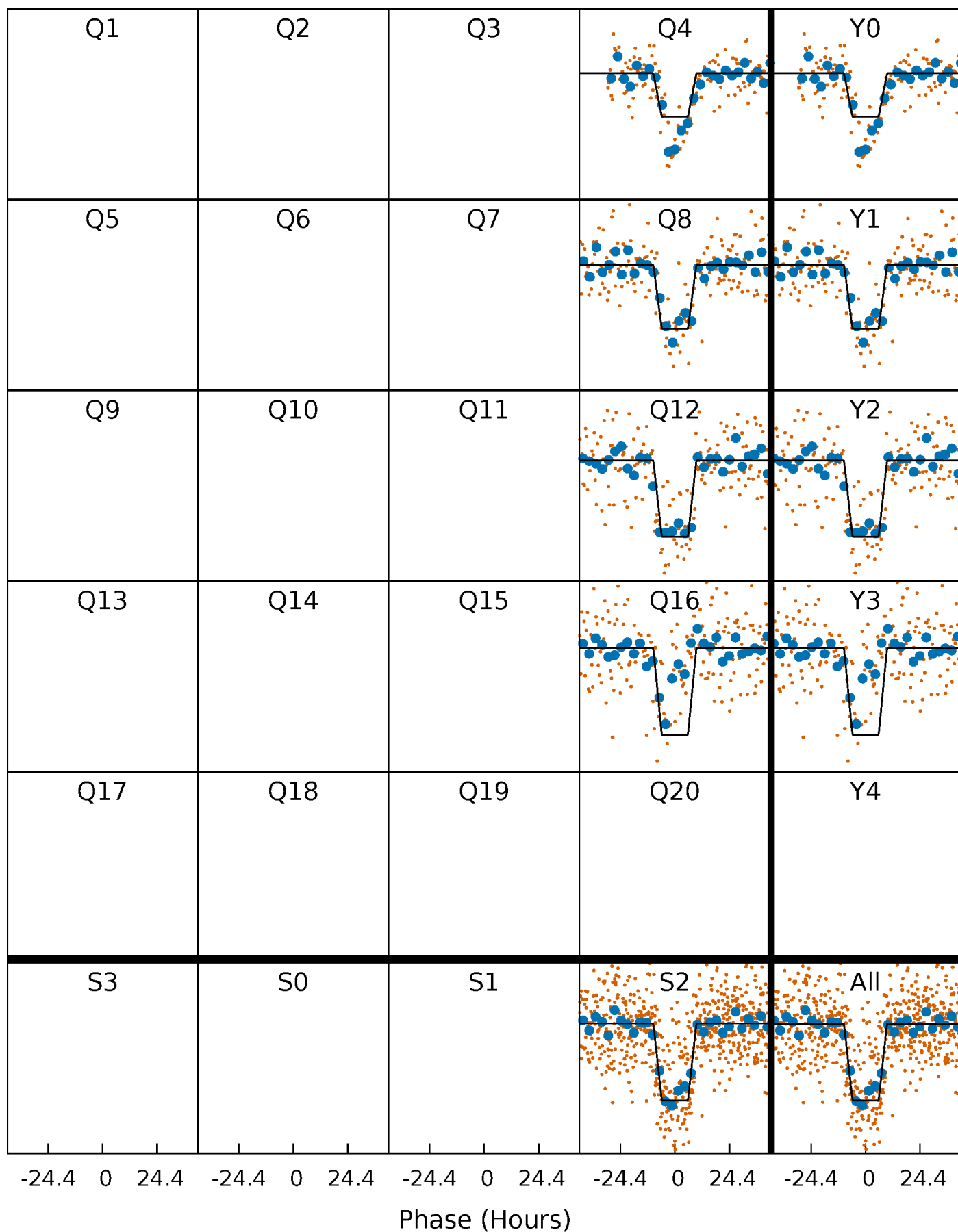
DV Quarter-Phased Transit Curves

TCE 007756709-02 P=377.491712 Days $T_0=402.205494$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

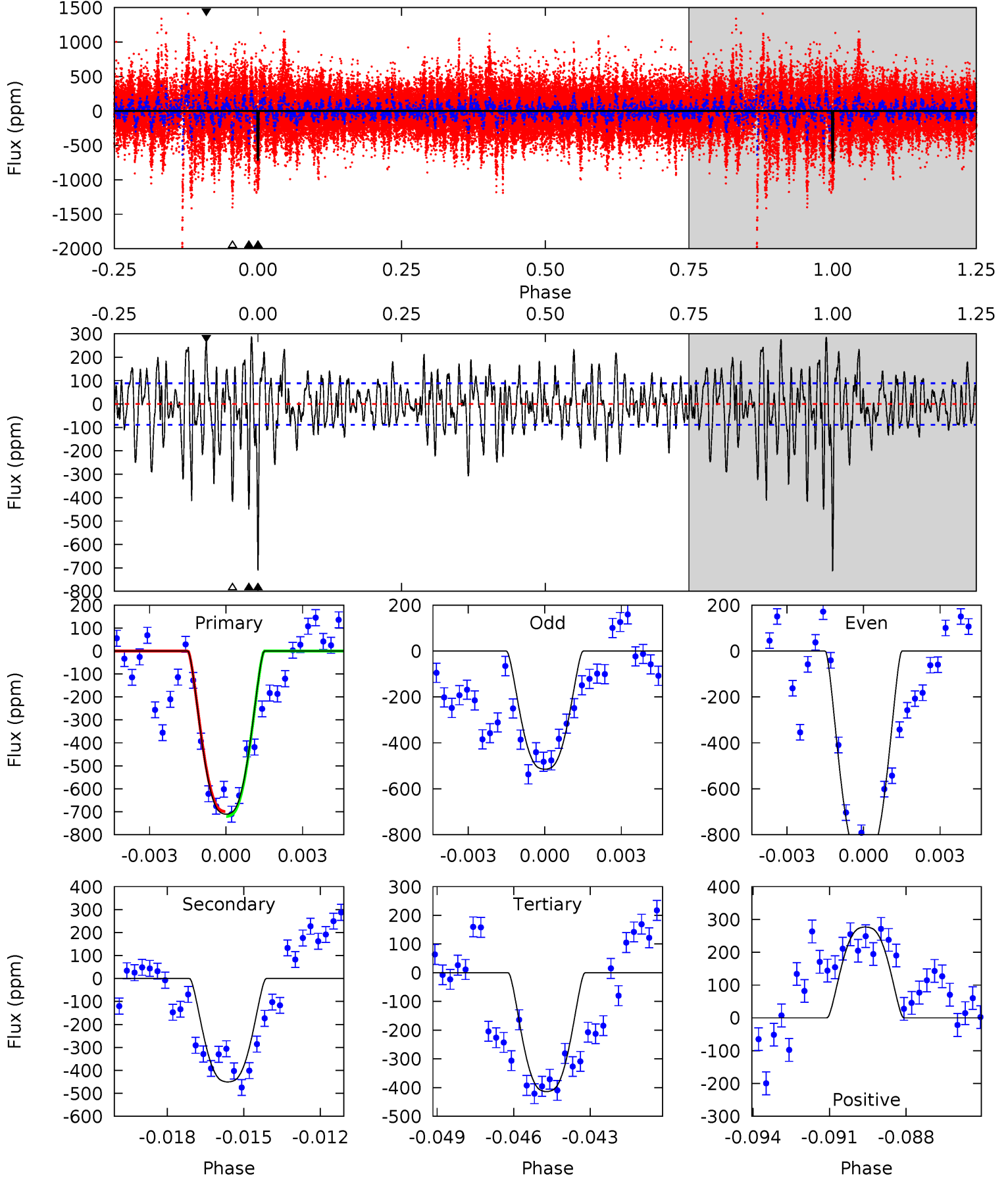
TCE 007756709-02 P=377.496399 Days $T_0=402.071184$ (BKJD)



DV Model-Shift Uniqueness Test

007756709-02, P = 377.491712 Days, E = 24.713782 Days

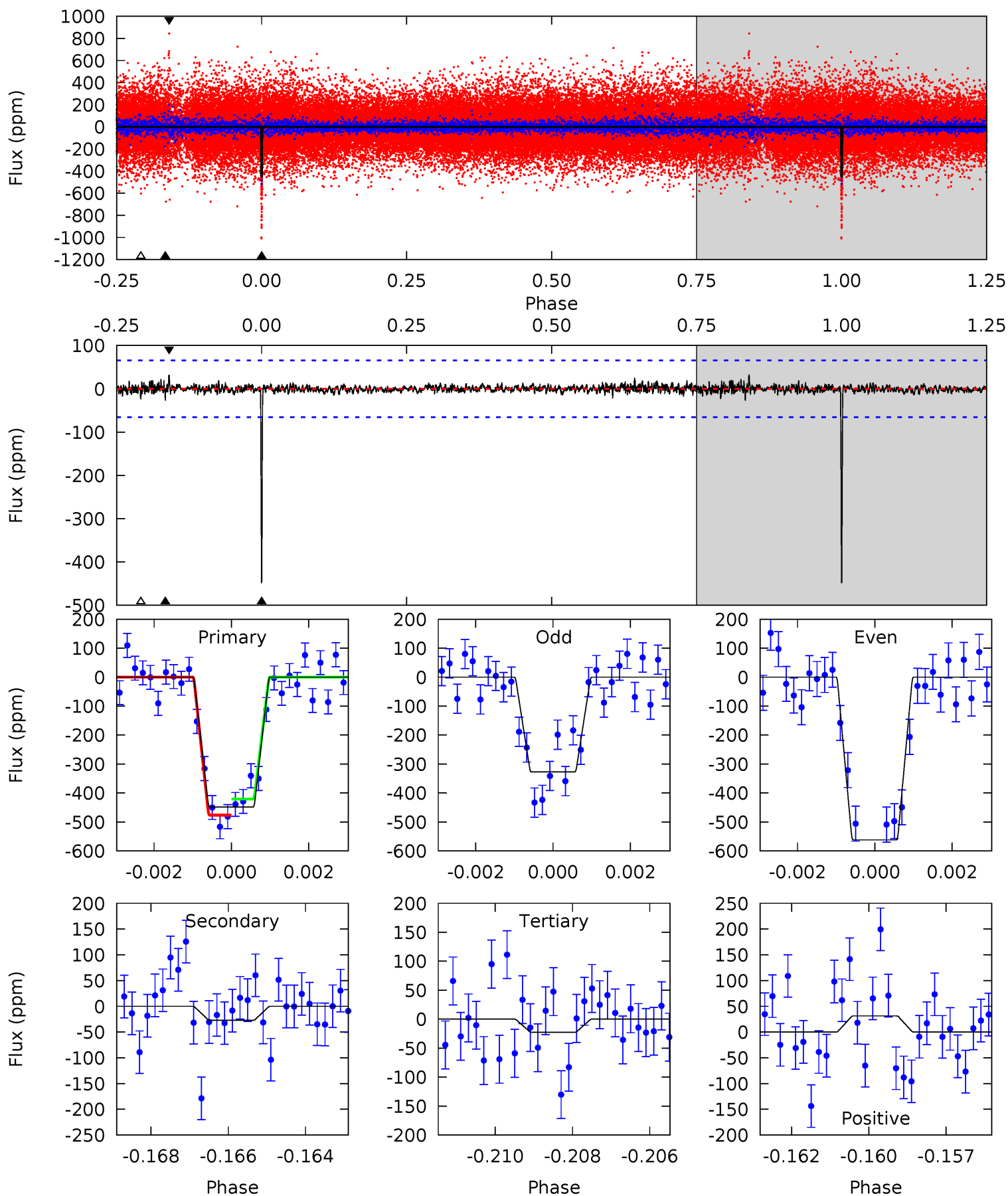
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
42.2	26.7	24.6	16.4	5.25	2.96	5.93	17.6	25.7	2.17	10.3	11.8	0.92	0.29	0.63



Alt Model-Shift Uniqueness Test

007756709-02, $P = 377.496399$ Days, $E = 24.574785$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
36.3	2.19	1.83	2.53	5.31	3.06	0.45	34.5	33.8	0.37	-0.34	9.53	0.95	0.07	2.26



Stellar Parameters For KIC 007756709

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5153^{+171}_{-140}	$4.013^{+0.500}_{-0.231}$	$0.240^{+0.200}_{-0.250}$	$1.585^{+0.653}_{-0.799}$	$0.945^{+0.086}_{-0.105}$	$0.334^{+1.910}_{-0.179}$
	+3%/-3%	+12%/-6%	+83%/-104%	+41%/-50%	+9%/-11%	+572%/-54%
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 007756709-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-450 ± 17	$5.15^{+1.33}_{-1.33}$	394^{+43}_{-51}	4430^{+203}_{-189}	9405^{+7425}_{-3478}
Alt.	-27 ± 12	$3.52^{+1.00}_{-0.98}$	390^{+47}_{-57}	3120^{+252}_{-280}	1187^{+1259}_{-635}

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 $A_{obs} \gg 1.0$

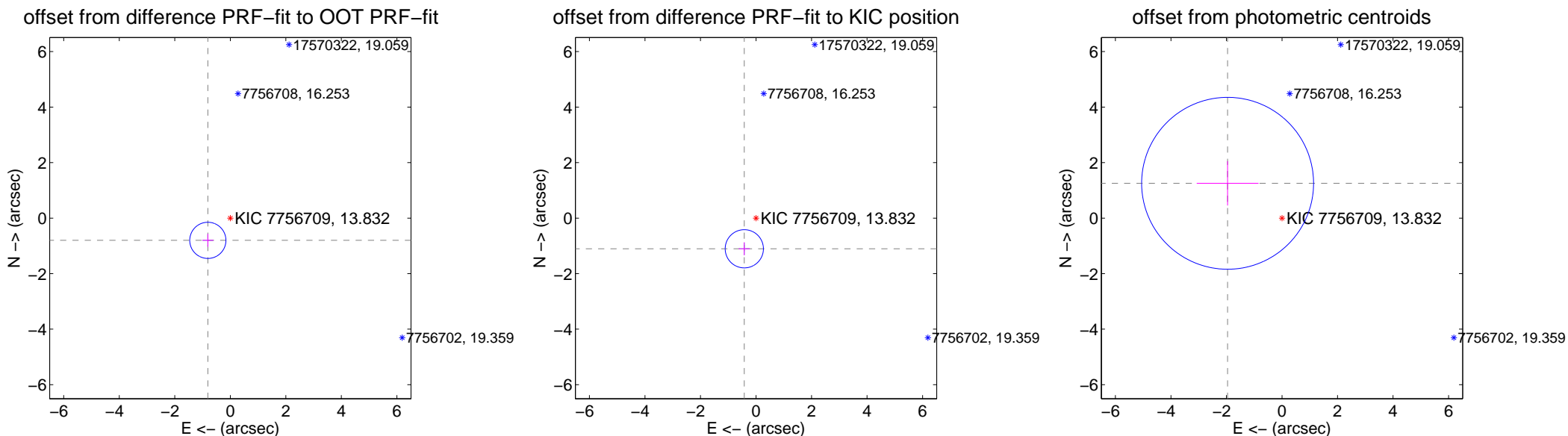
DV Centroid Data

Supplemental centroid analysis for 007756709-02. Kepler magnitude: 13.83. Transit SNR 9.39

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.49 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.138 ± 0.217	5.24	0.809 ± 0.200	-0.801 ± 0.233
PRF-fit source offset from KIC position	1.182 ± 0.229	5.15	0.422 ± 0.200	-1.104 ± 0.233
photometric centroid source offset	2.33 ± 1.03	2.25	1.96 ± 1.11	1.25 ± 0.80

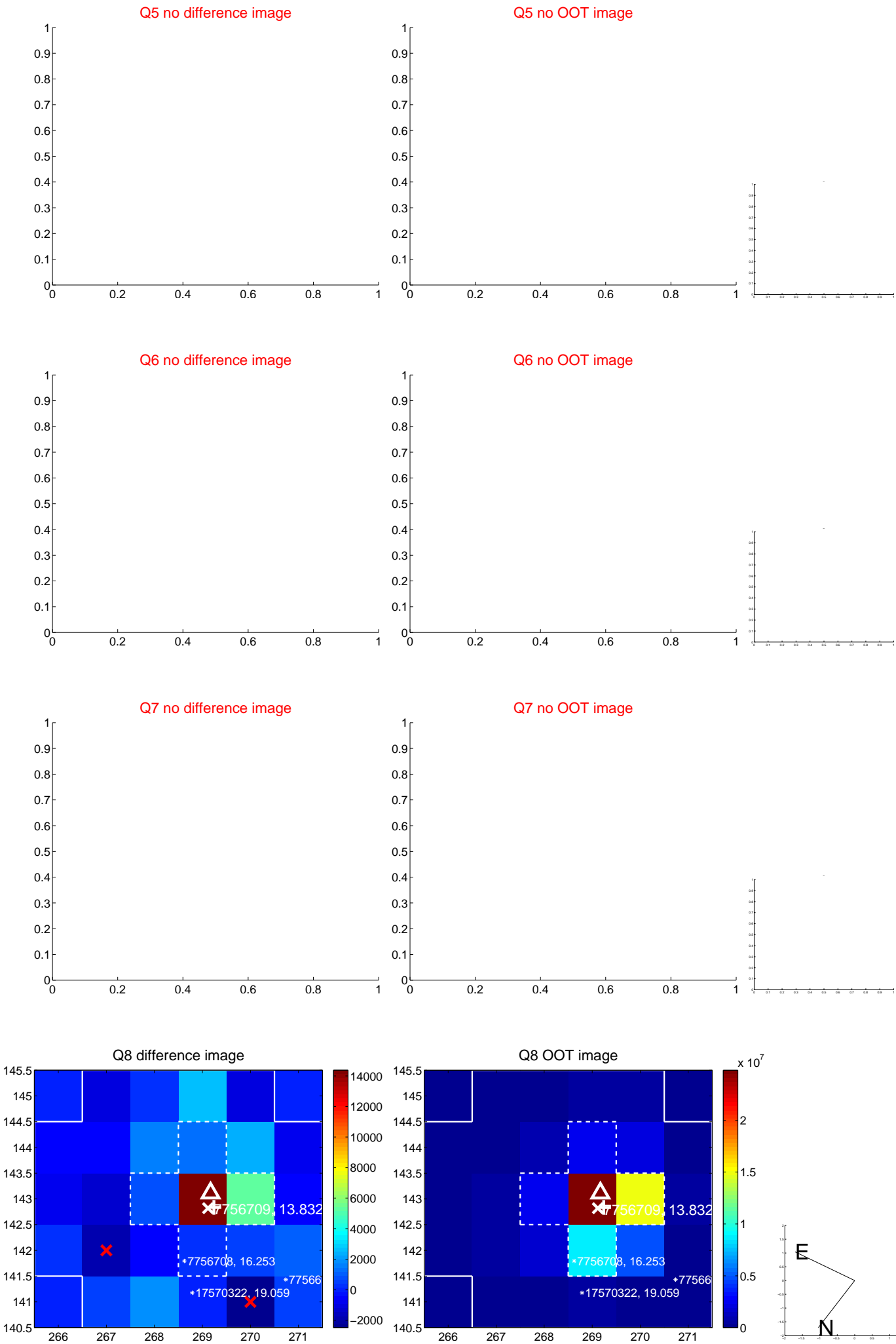


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



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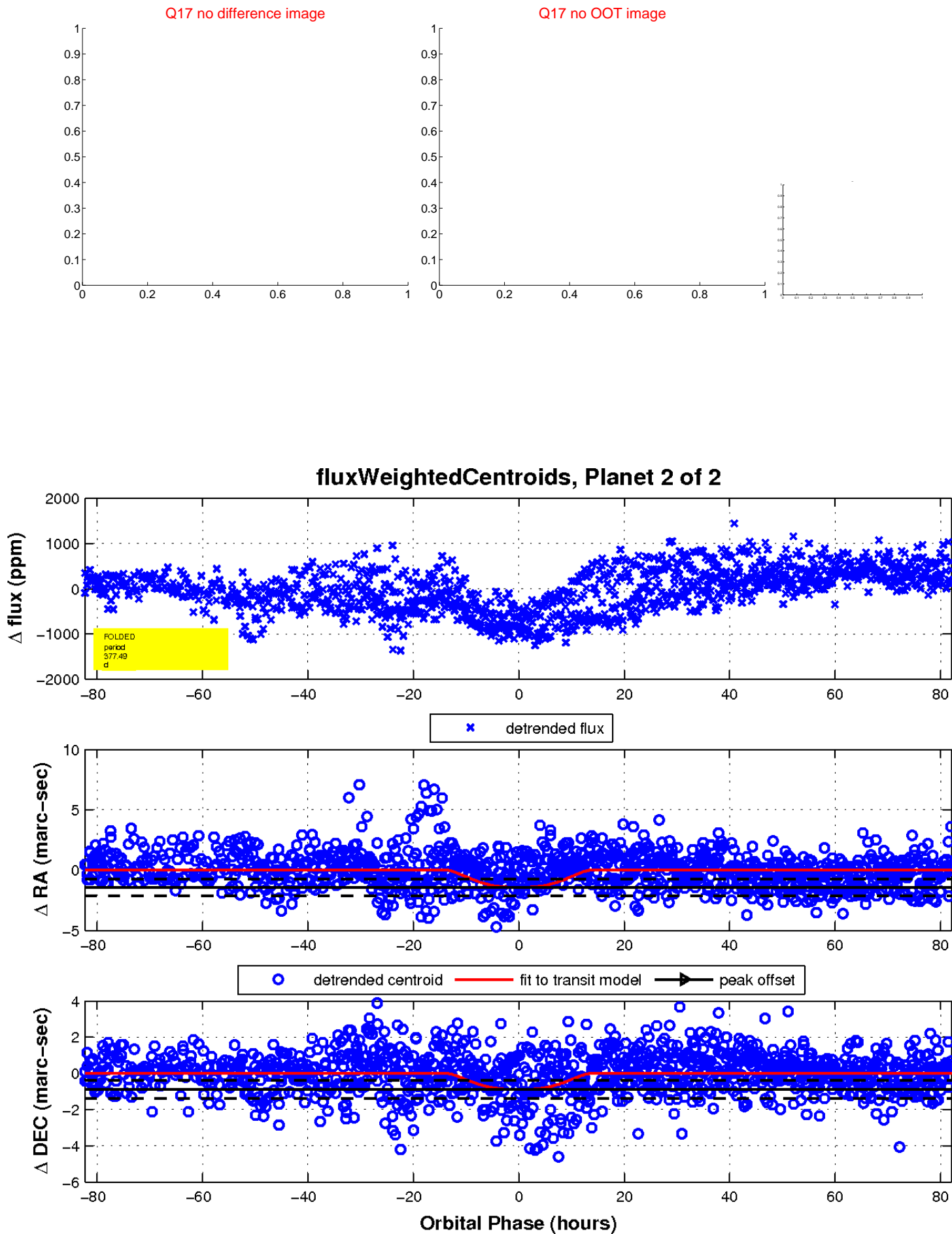
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

