

KIC 007756816

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})
007756816-01	OBS	No	561.252643	186.288750	635.1	25.412	8.6	9.8	0.95	6075	2.92	0.61

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007756816-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_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.

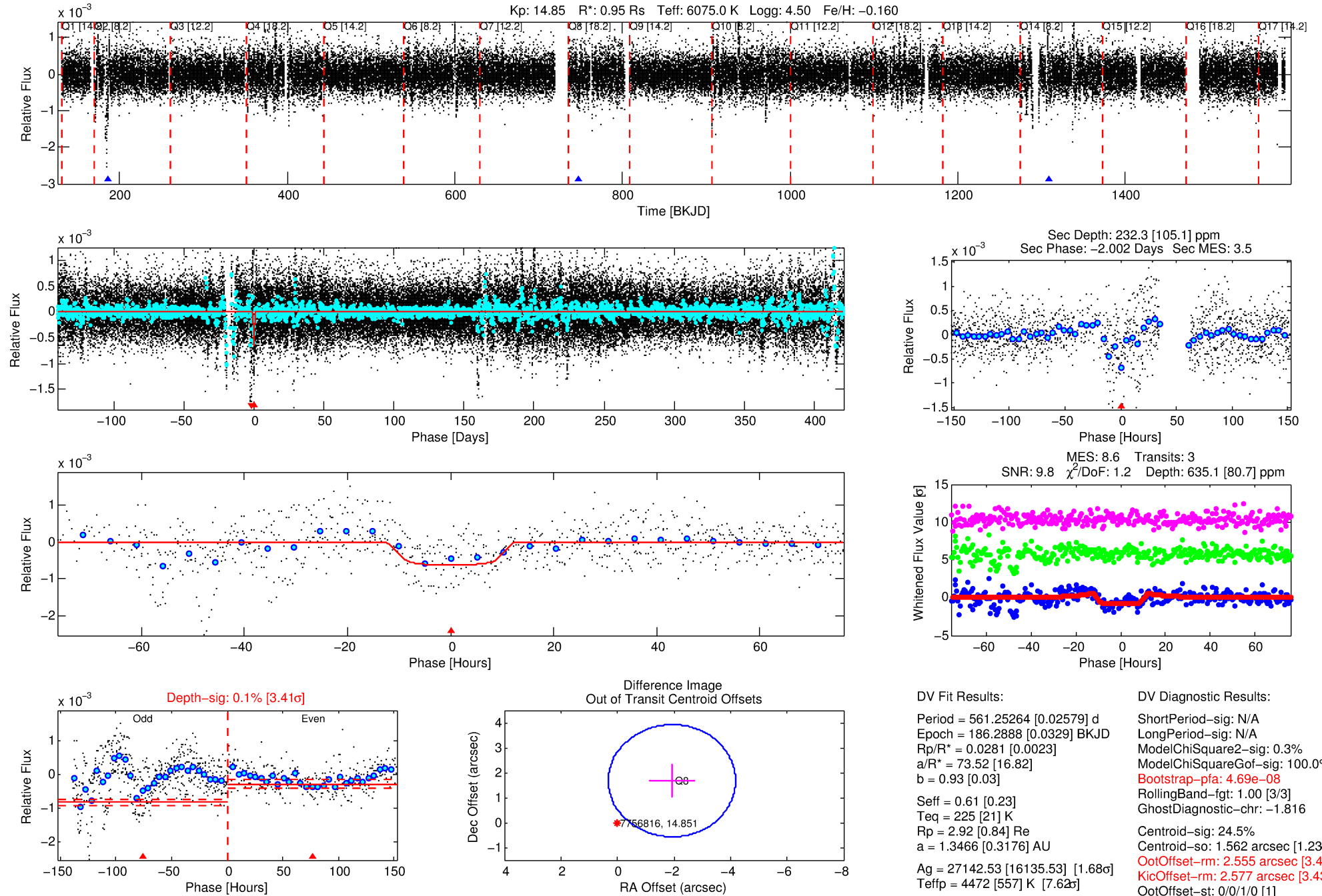
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007756816-01

No Significant Match Found

DV One-Page Summary

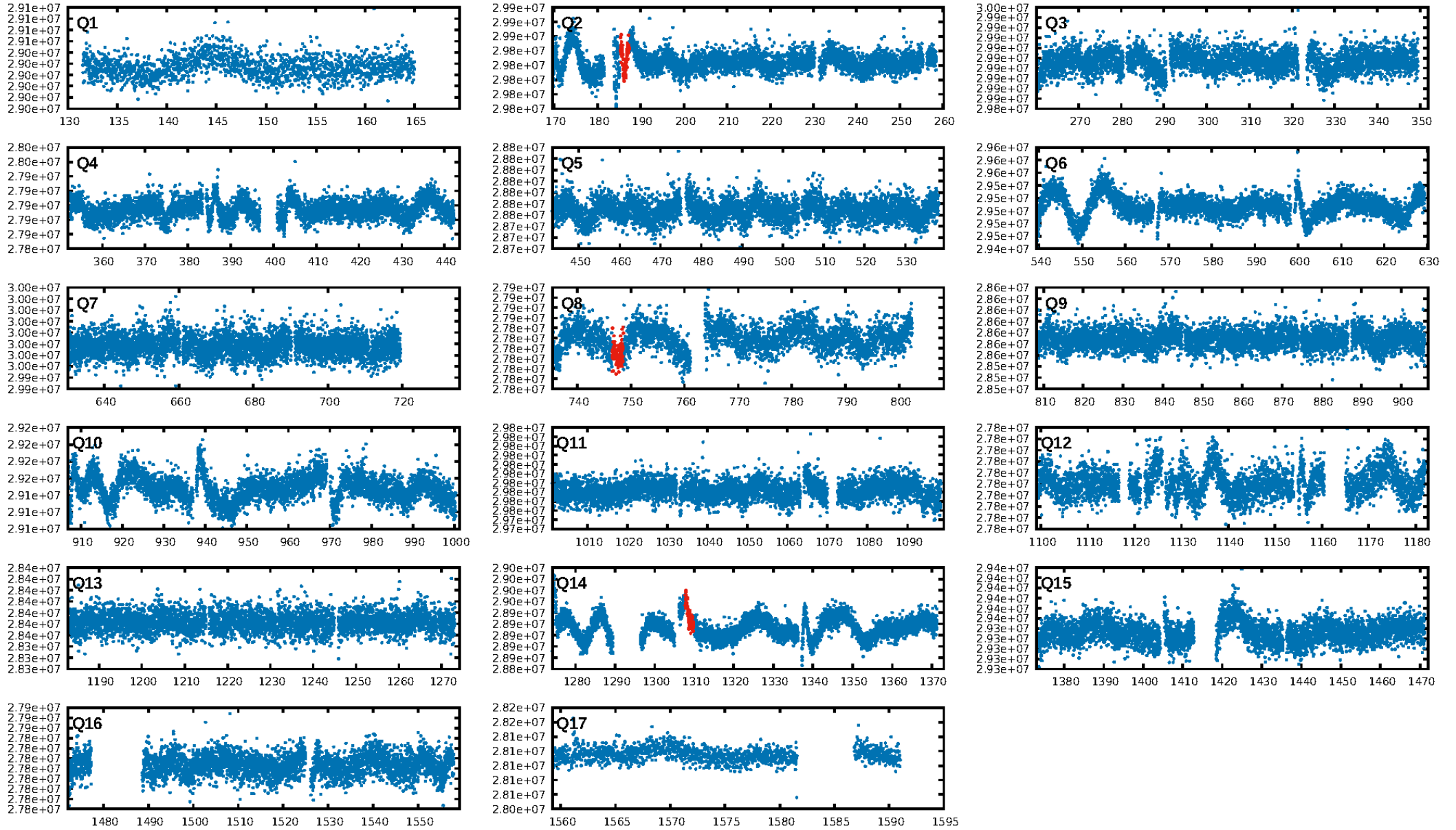
KIC: 7756816 Candidate: 1 of 1 Period: 561.253 d



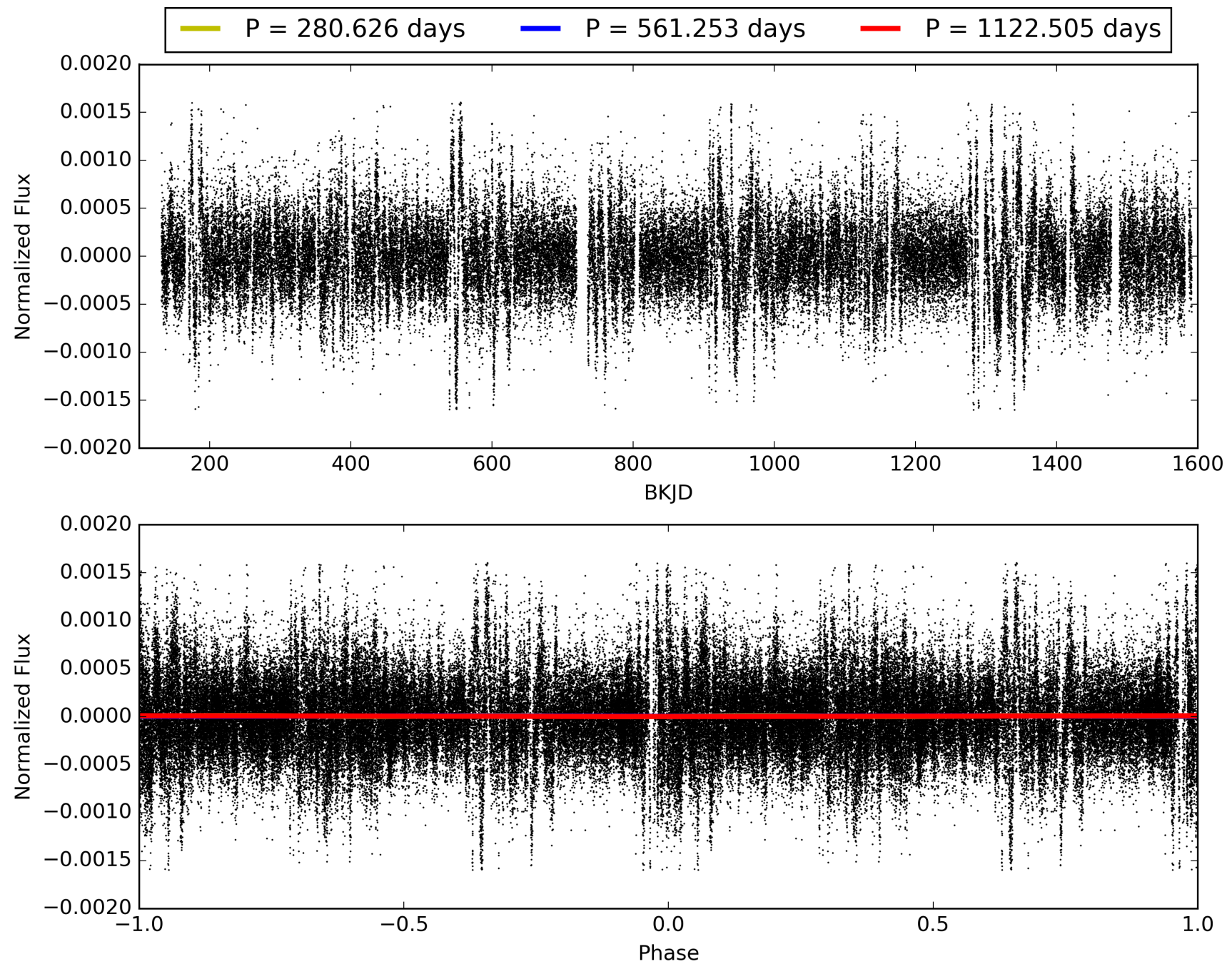
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 03:04:48 Z

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

TCE 007756816-01, PDC Light Curves

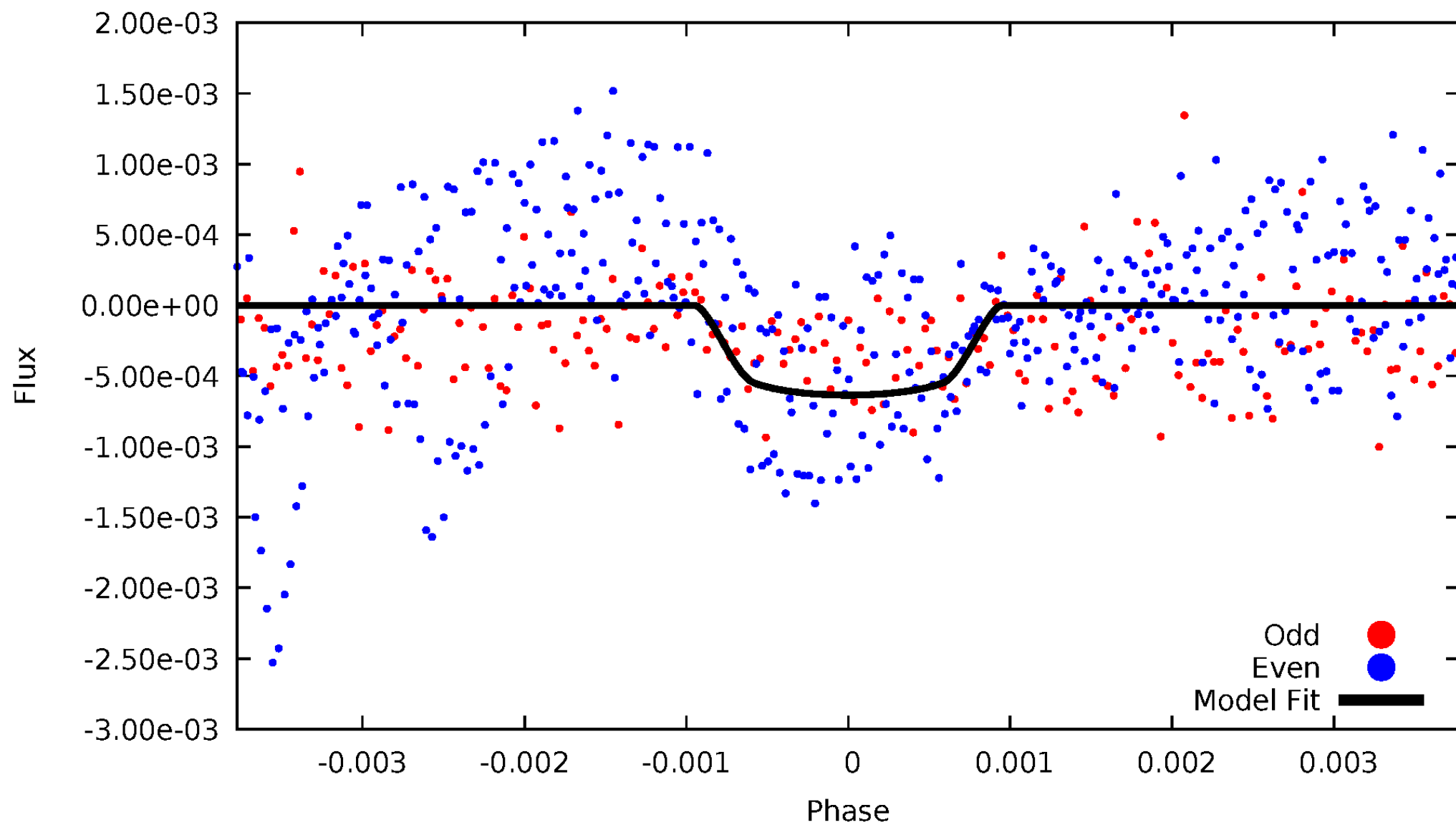


TCE 007756816-01



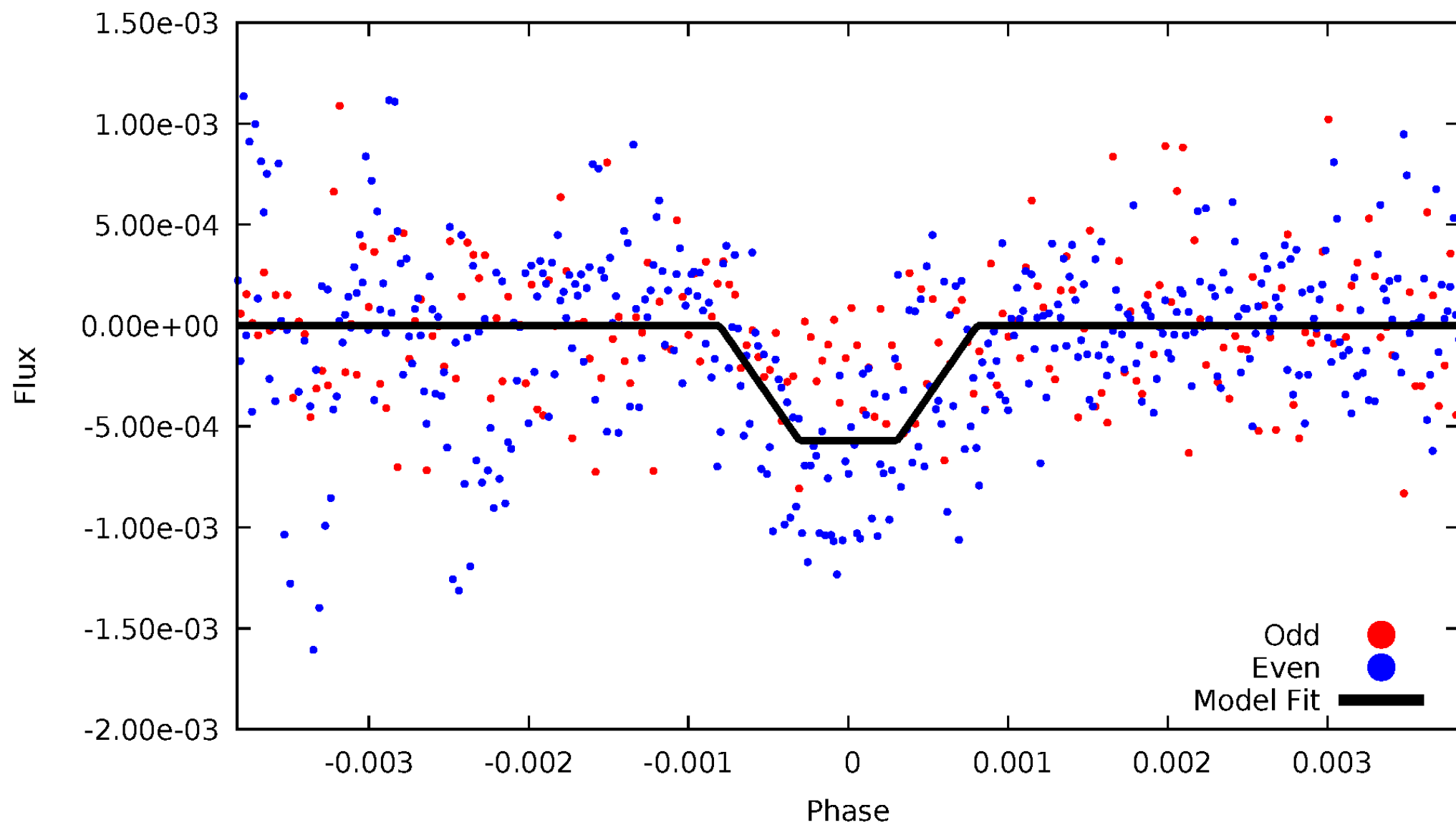
DV Odd/Even

TCE 007756816-01



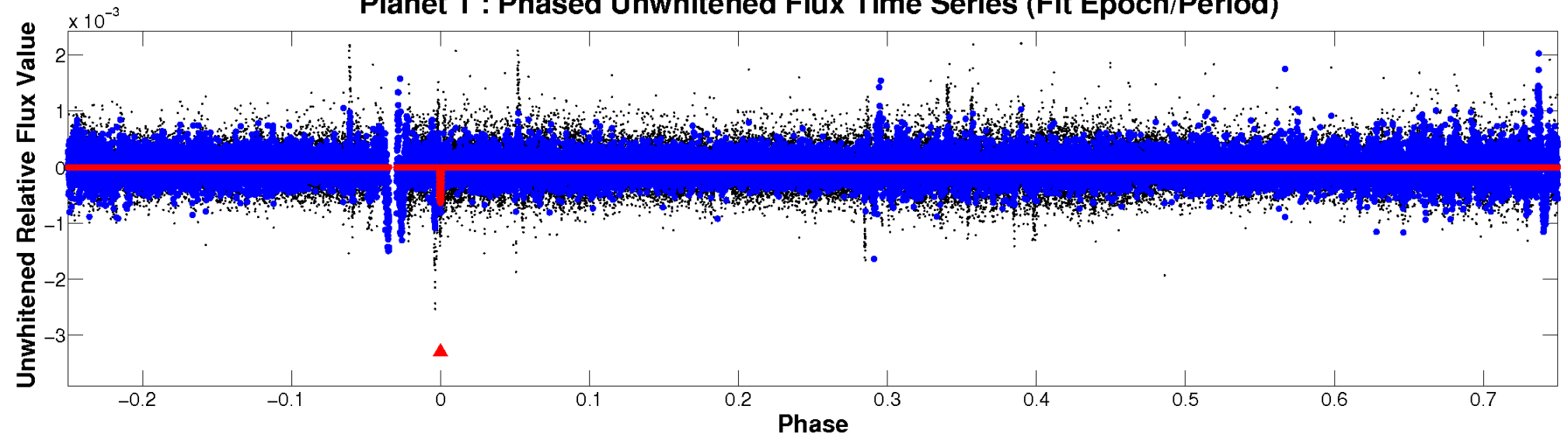
ALT Odd/Even

TCE 007756816-01

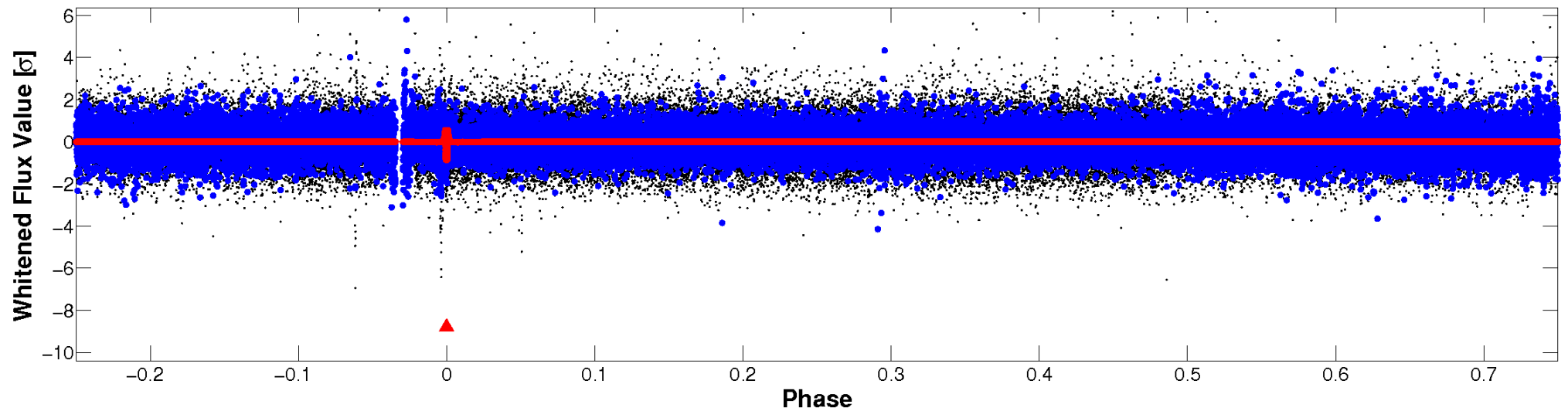


Non-Whitened Vs. Whitened Light Curve

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 007756816-01 P=561.252643 Days $T_0=186.288750$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007756816-01 P=561.252643 Days $T_0=186.288750$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

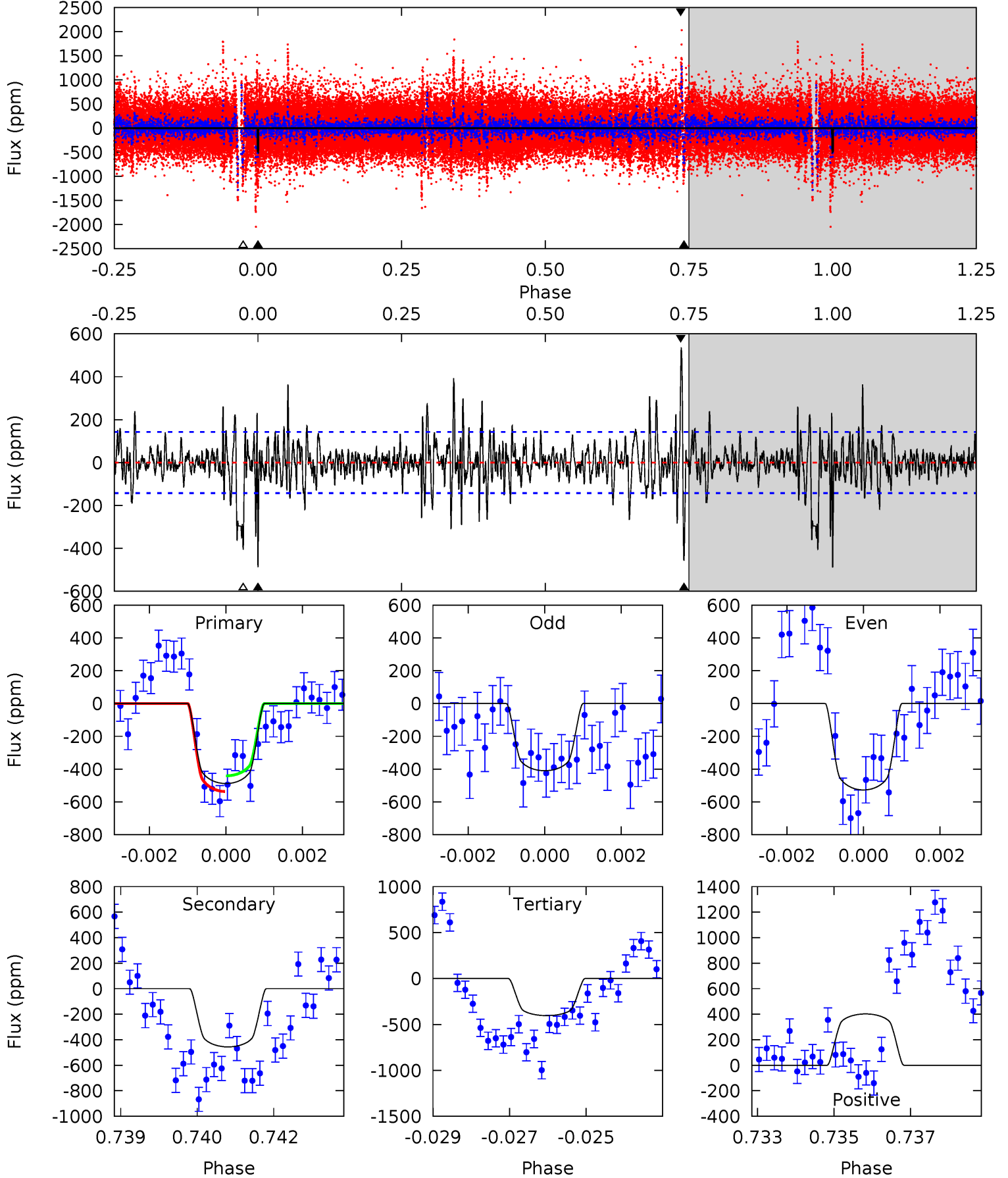
TCE 007756816-01 P=561.214537 Days $T_0=186.214110$ (BKJD)



DV Model-Shift Uniqueness Test

007756816-01, P = 561.252643 Days, E = 186.288750 Days

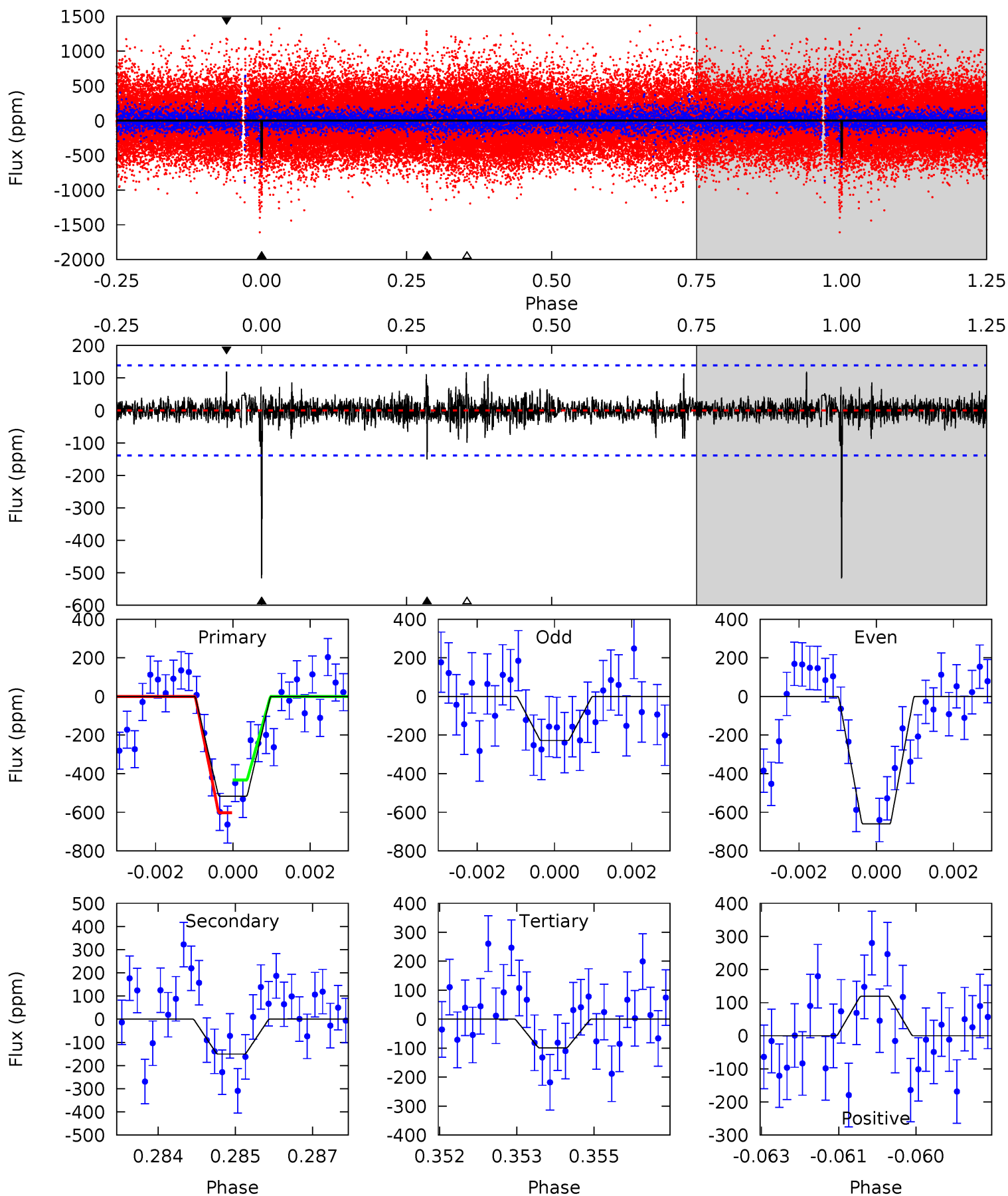
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.3	17.1	15.1	15.1	5.34	3.10	3.11	3.15	3.21	1.94	2.01	2.07	1.19	0.52	1.80



Alt Model-Shift Uniqueness Test

007756816-01, P = 561.214537 Days, E = 186.214110 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.9	5.81	3.83	4.61	5.36	3.15	0.87	16.1	15.3	1.98	1.20	7.93	1.25	0.19	3.27



Stellar Parameters For KIC 007756816

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6075^{+169}_{-190}	$4.495^{+0.048}_{-0.192}$	$-0.160^{+0.250}_{-0.350}$	$0.952^{+0.263}_{-0.105}$	$1.033^{+0.130}_{-0.143}$	$1.689^{+0.431}_{-0.839}$
	+3%/-3%	+1%/-4%	+156%/-219%	+28%/-11%	+13%/-14%	+26%/-50%
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 007756816-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-456 ± 27	$3.03^{+0.44}_{-0.37}$	322^{+20}_{-16}	5343^{+275}_{-238}	48937^{+12419}_{-11450}
Alt.	-151 ± 26	$2.57^{+0.46}_{-0.31}$	322^{+20}_{-14}	4537^{+238}_{-263}	21668^{+7877}_{-6345}

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

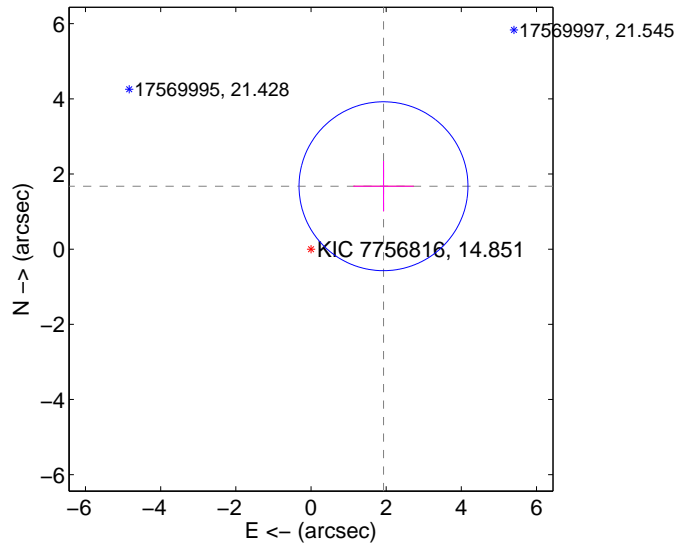
Supplemental centroid analysis for 007756816-01. Kepler magnitude: 14.85. Transit SNR 9.80

There are 0 quarters with good PRF difference image offsets

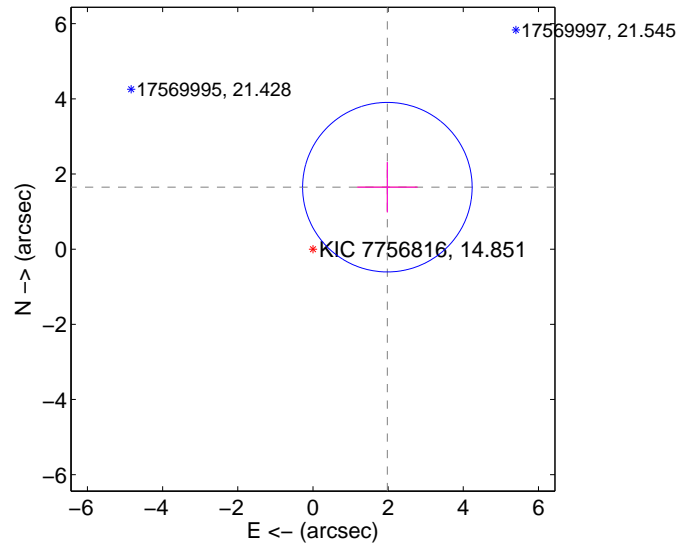
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.555 ± 0.749	3.41	-1.929 ± 0.804	1.675 ± 0.669
PRF-fit source offset from KIC position	2.577 ± 0.752	3.43	-1.980 ± 0.804	1.649 ± 0.669
photometric centroid source offset	1.56 ± 1.27	1.23	-1.25 ± 1.27	0.94 ± 1.26

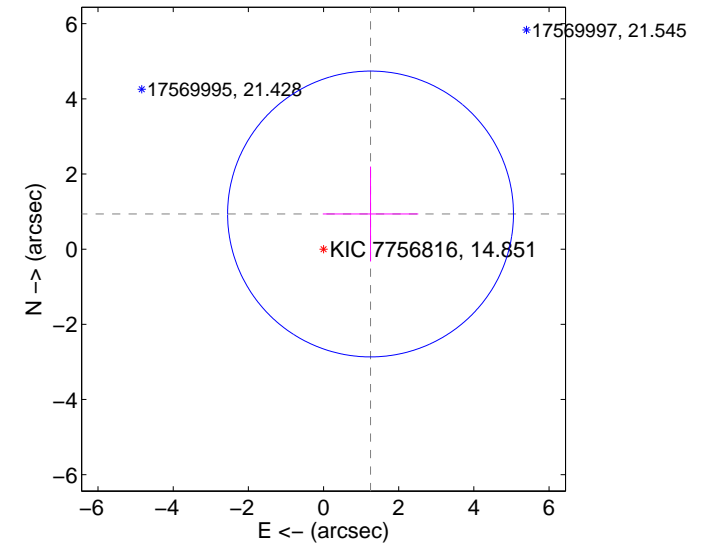
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

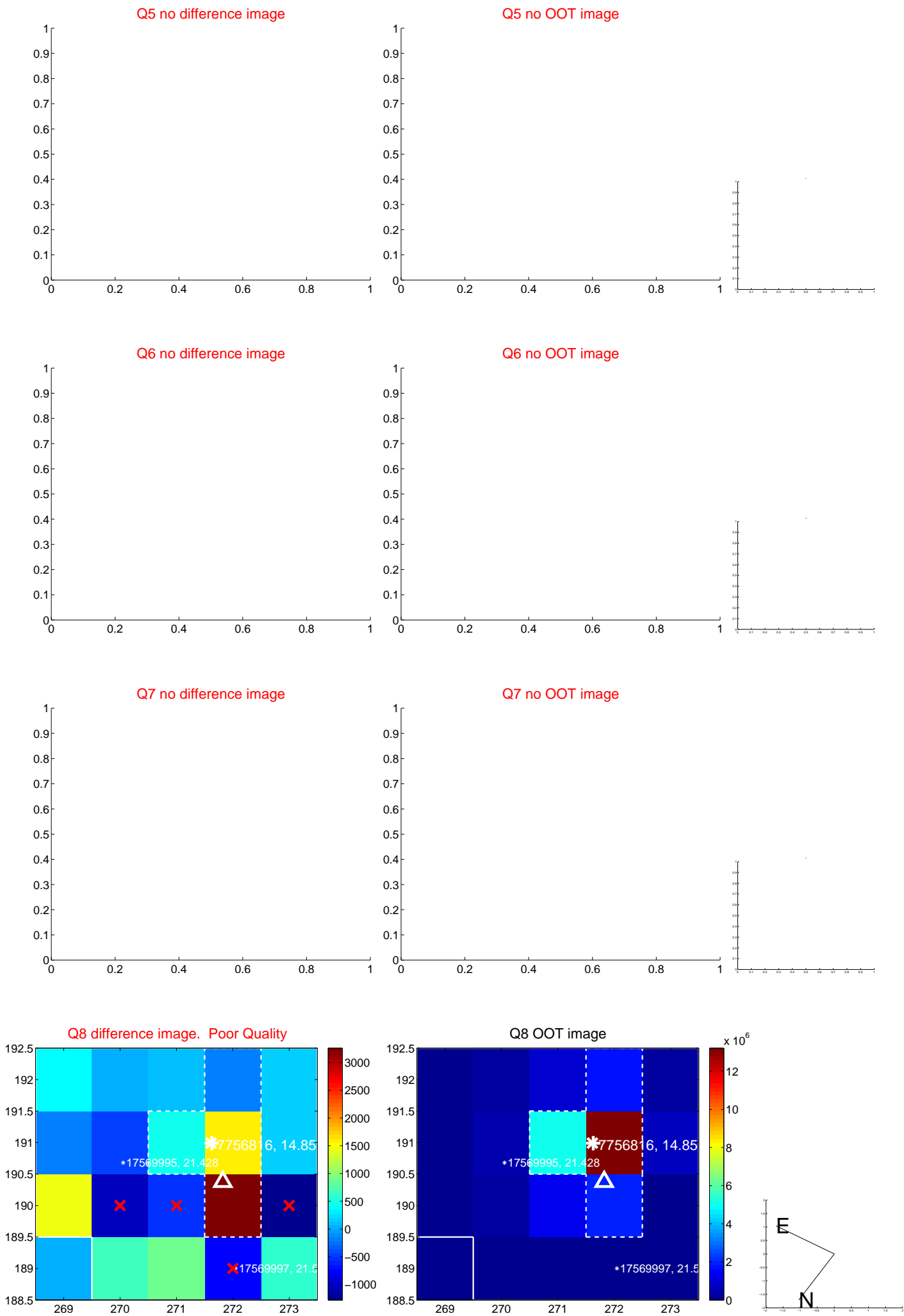


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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 ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



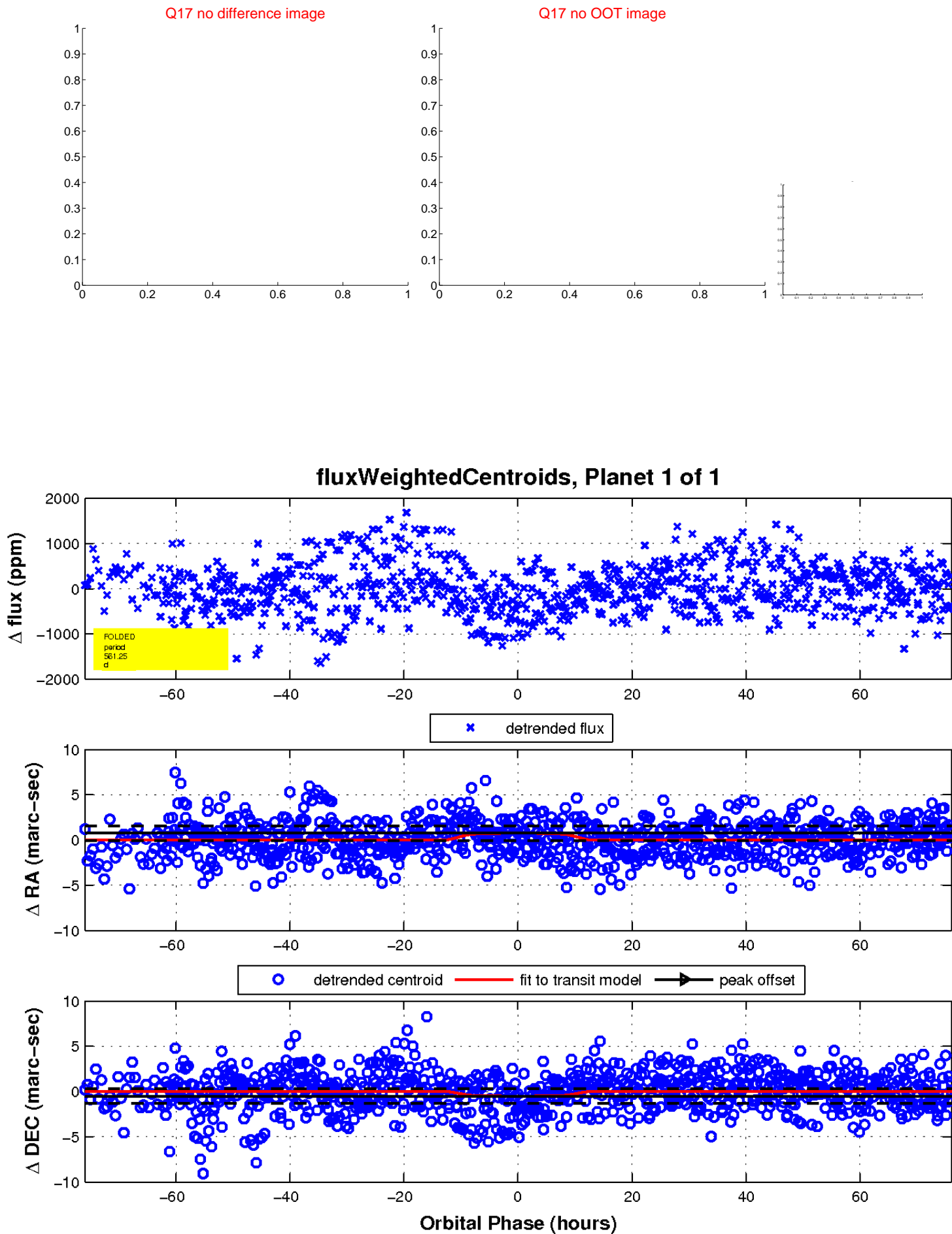
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

