

KIC 008621150

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})
008621150-01	OBS	No	376.502166	144.673384	647.4	84.320	8.1	15.8	0.95	6103	3.10	1.05

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008621150-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—ALL_TRANS_CHASES—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.

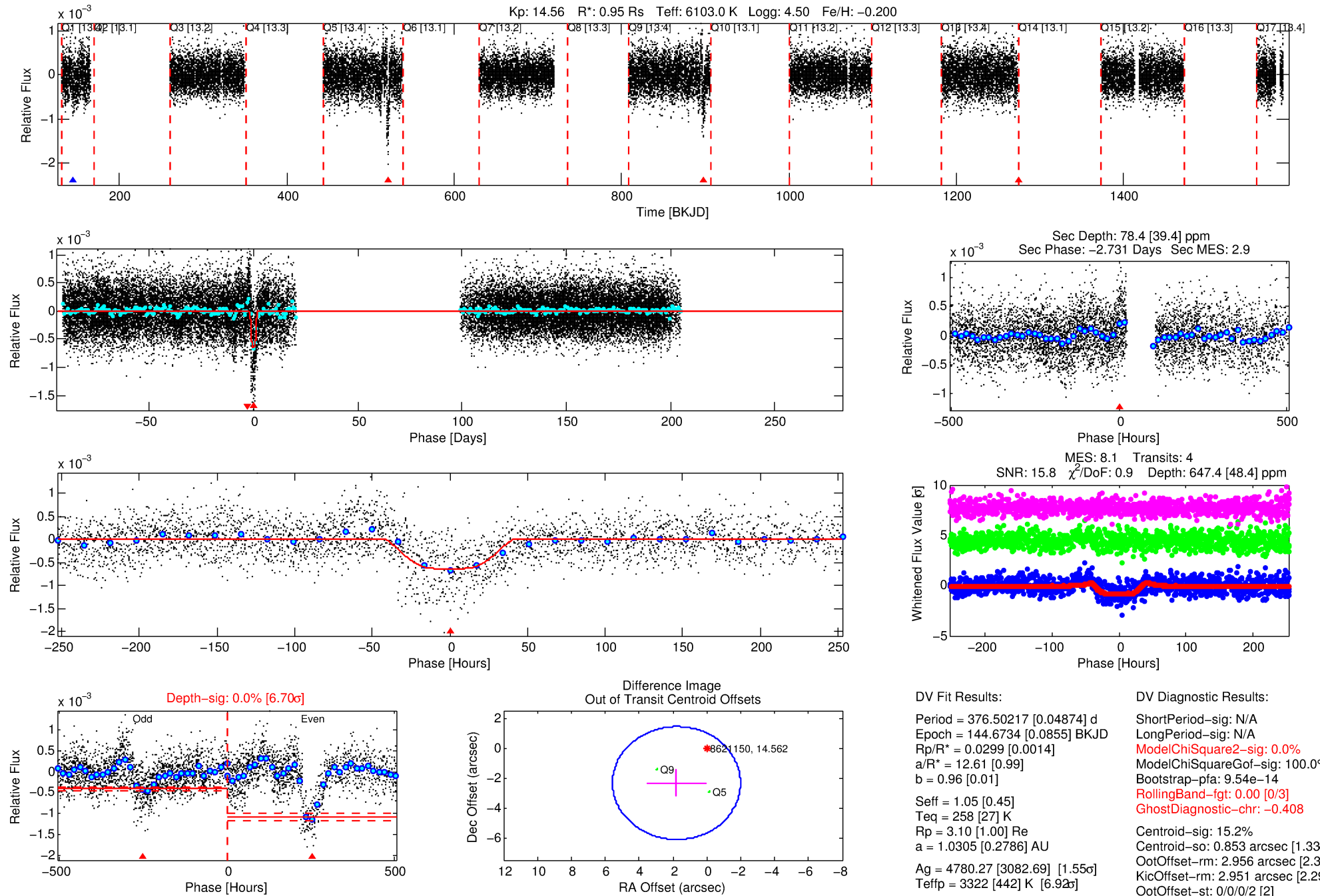
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008621150-01

No Significant Match Found

DV One-Page Summary

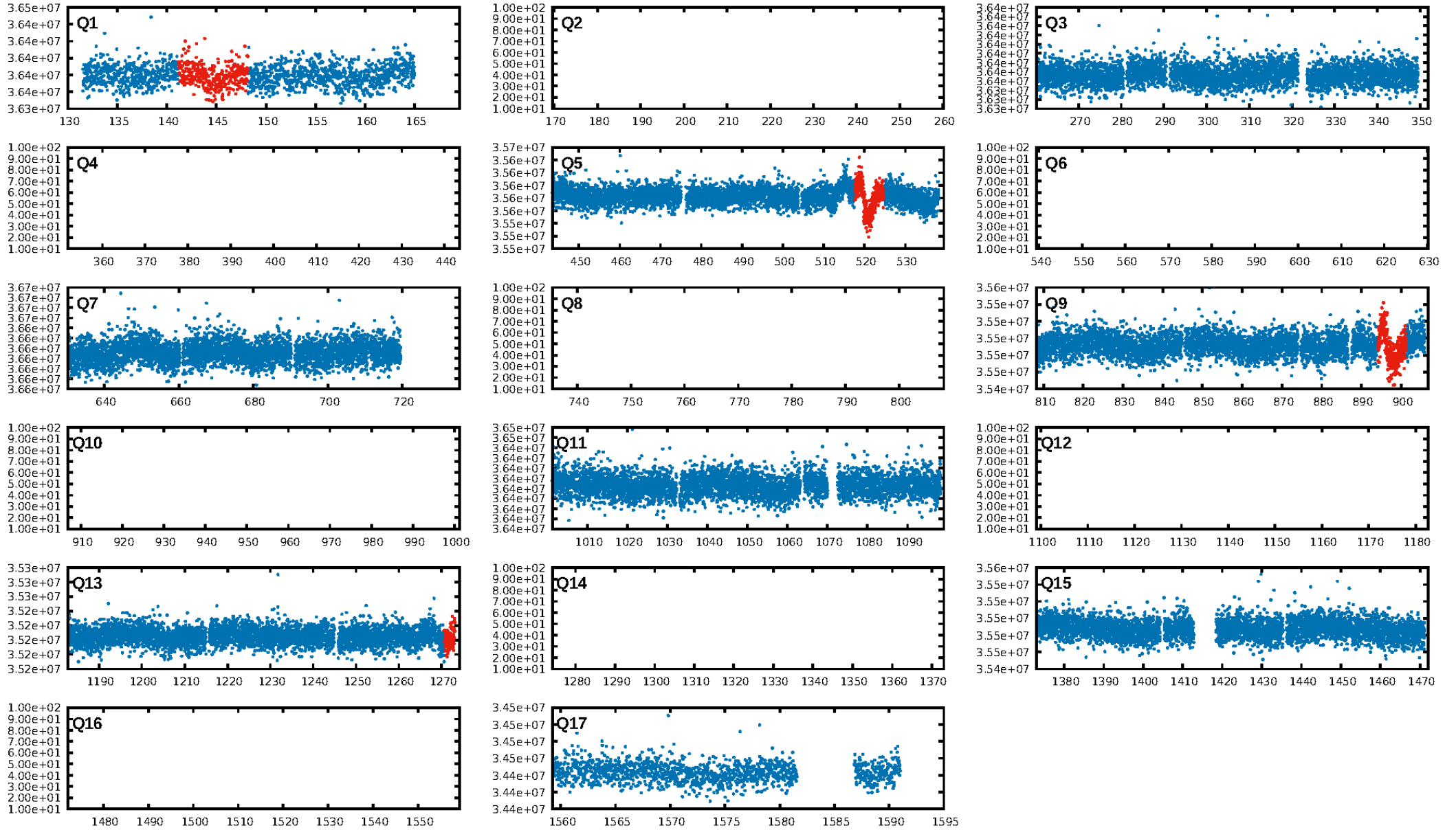
KIC: 8621150 Candidate: 1 of 1 Period: 376.502 d



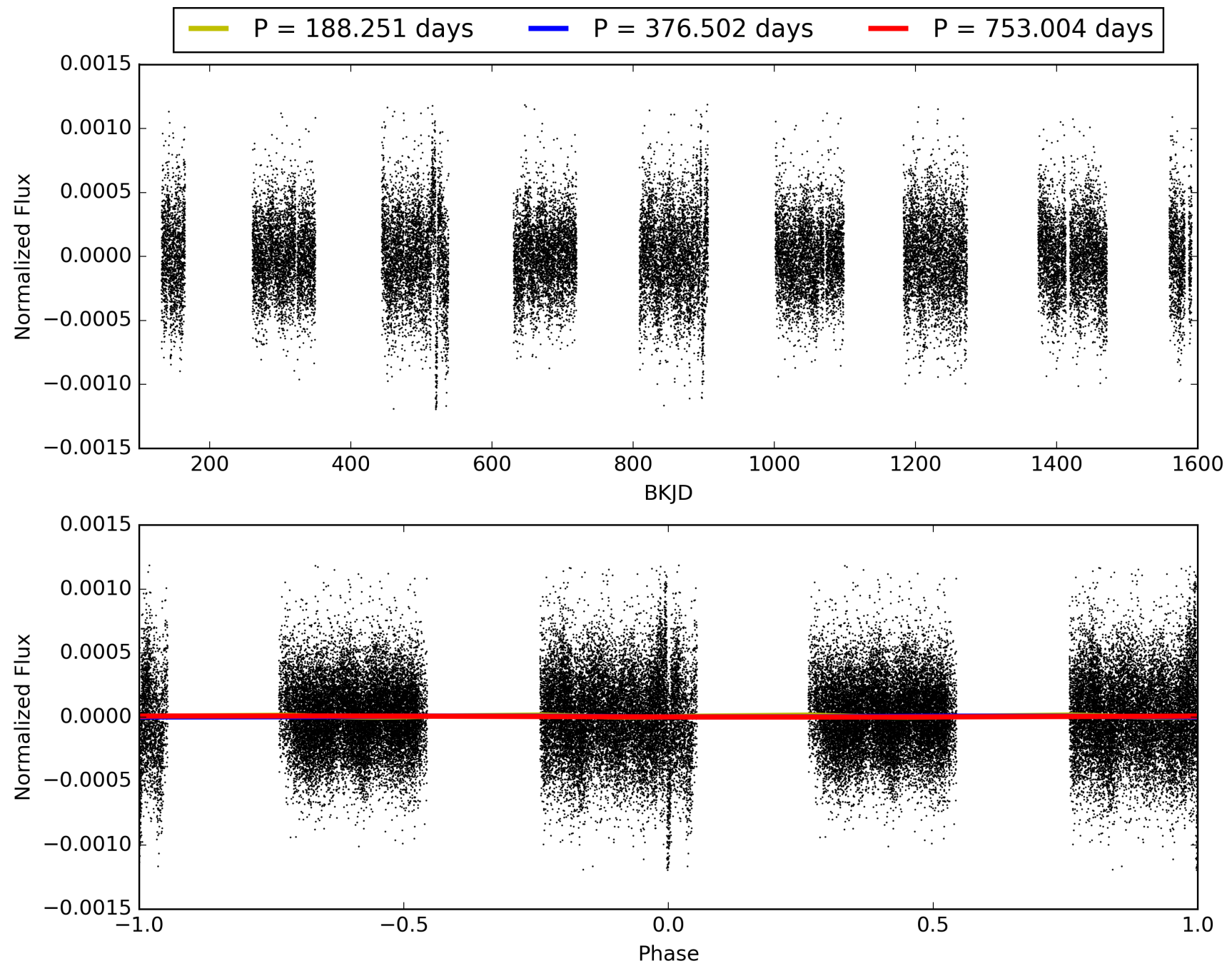
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:28:12 Z

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

TCE 008621150-01, PDC Light Curves

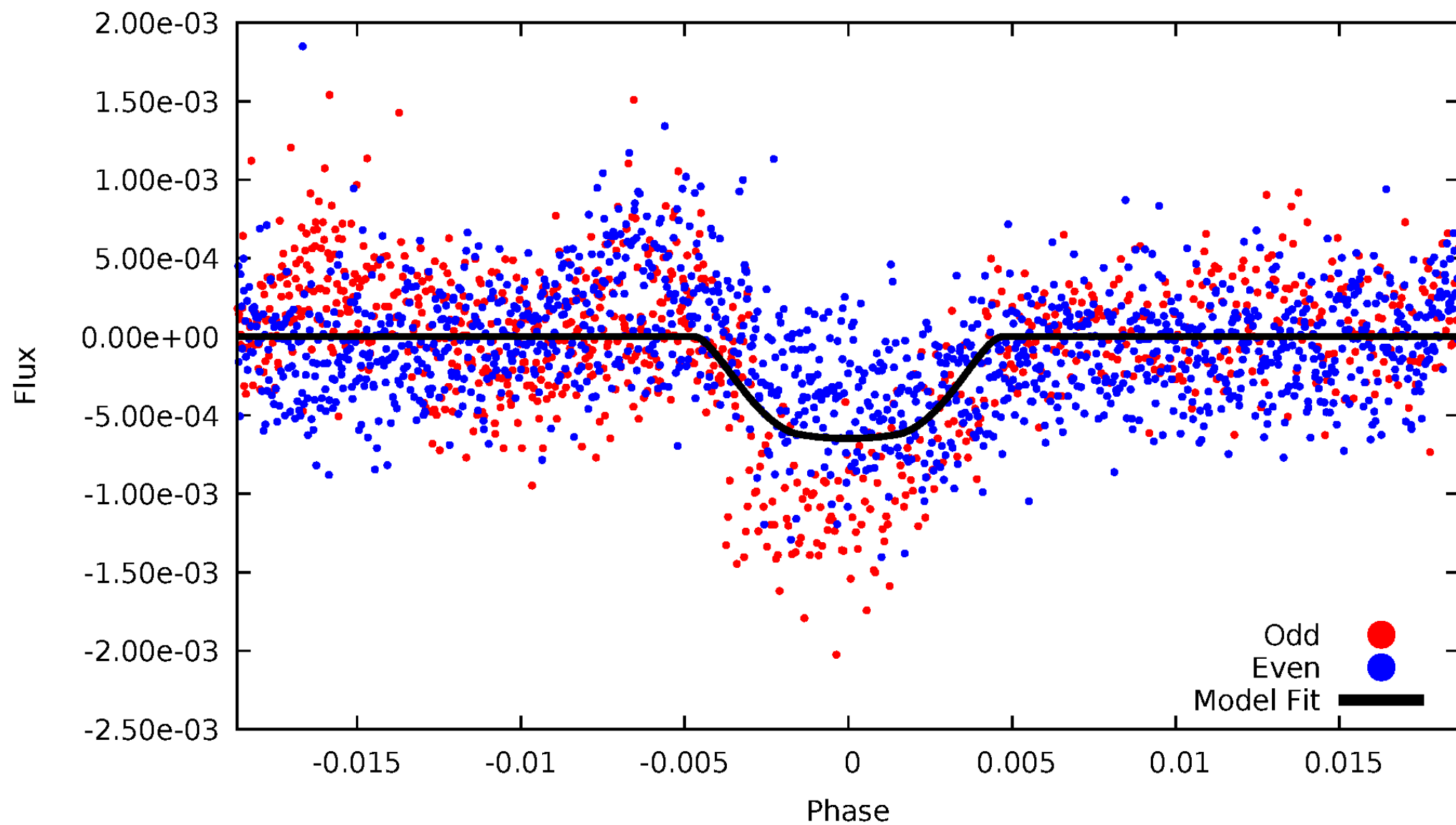


TCE 008621150-01



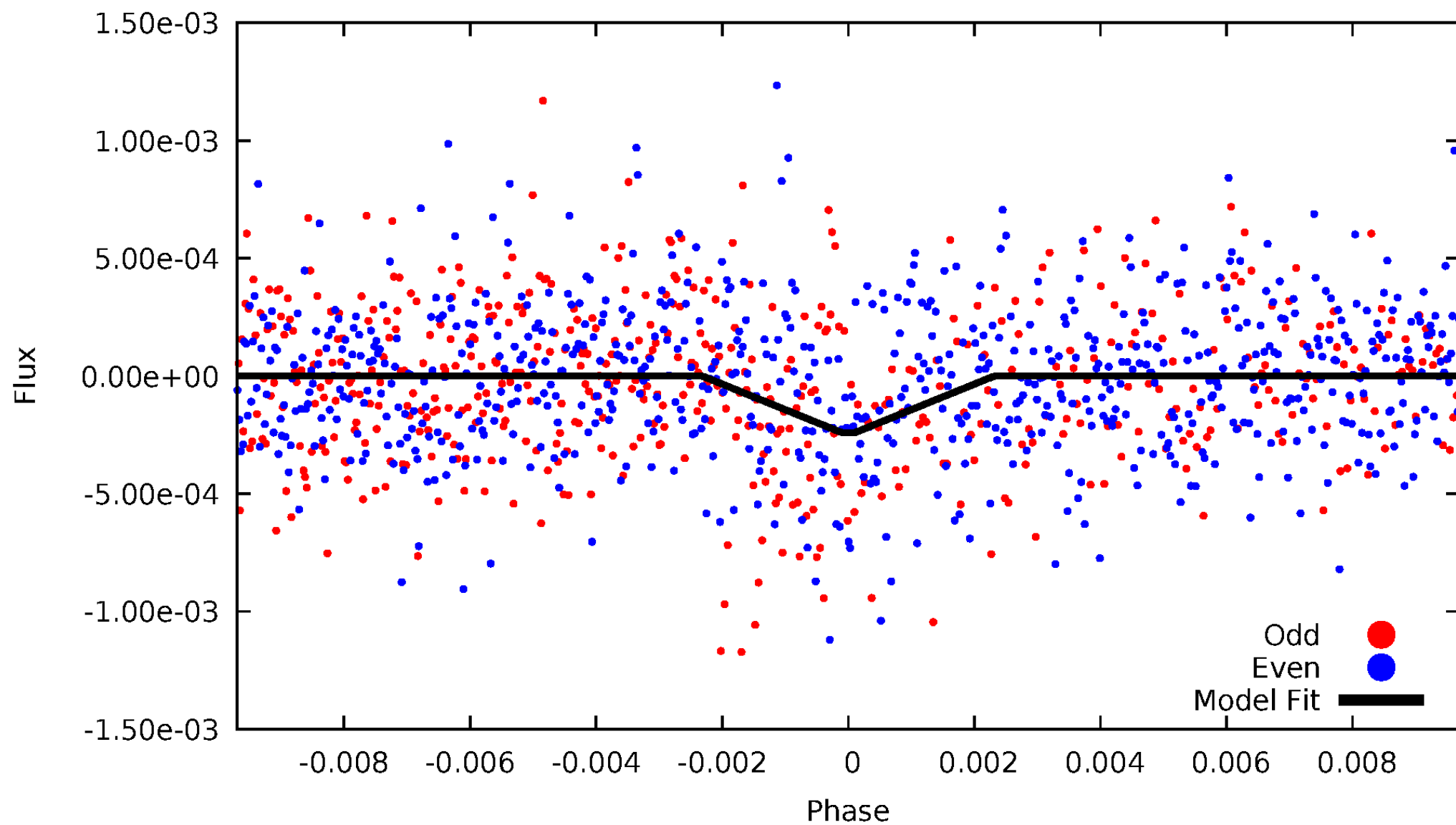
DV Odd/Even

TCE 008621150-01



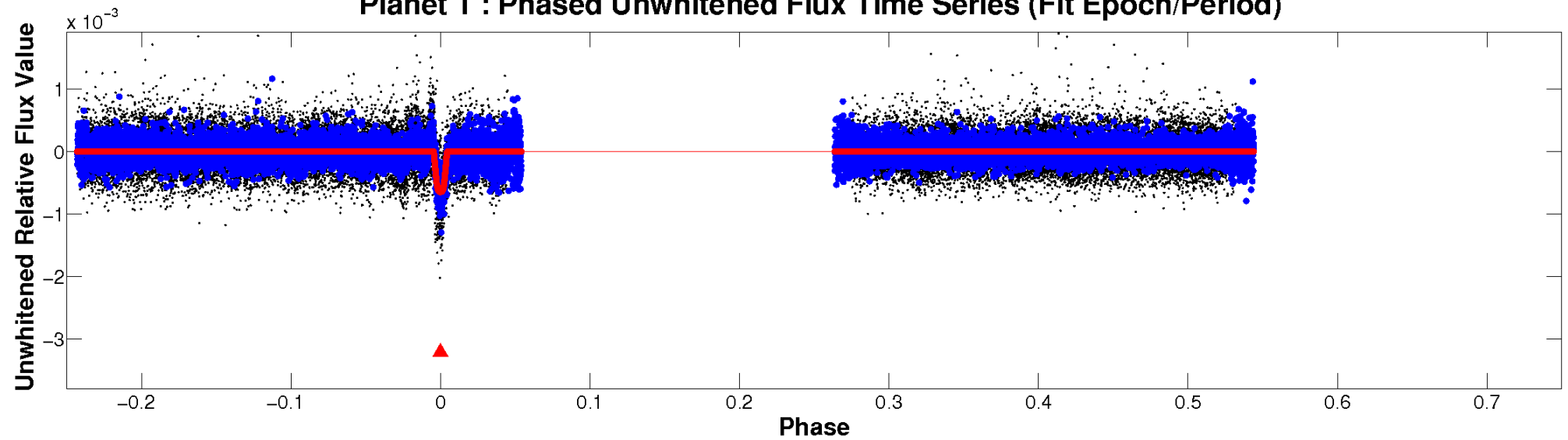
ALT Odd/Even

TCE 008621150-01

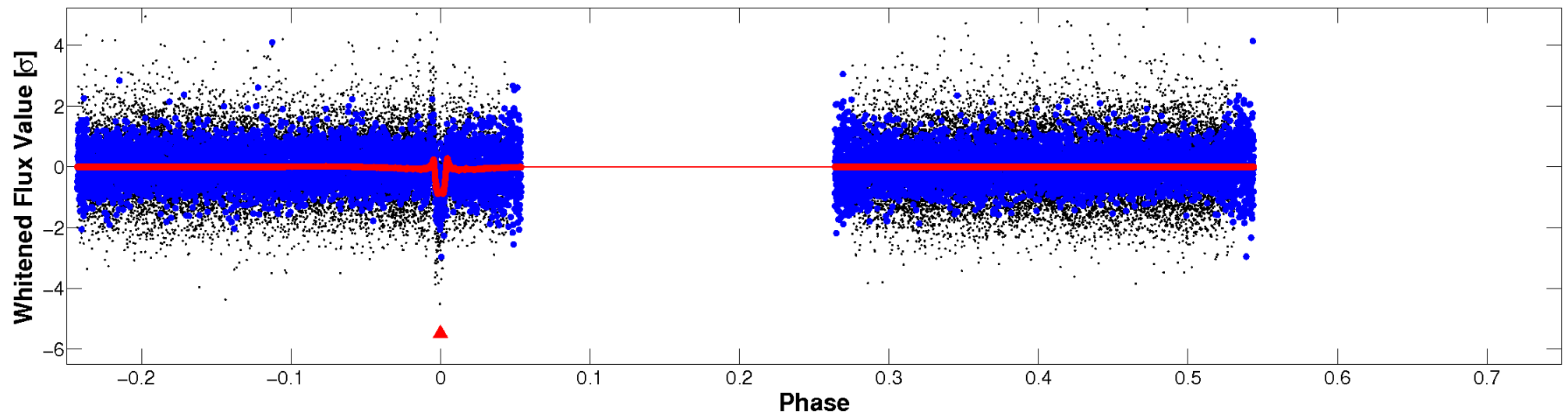


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

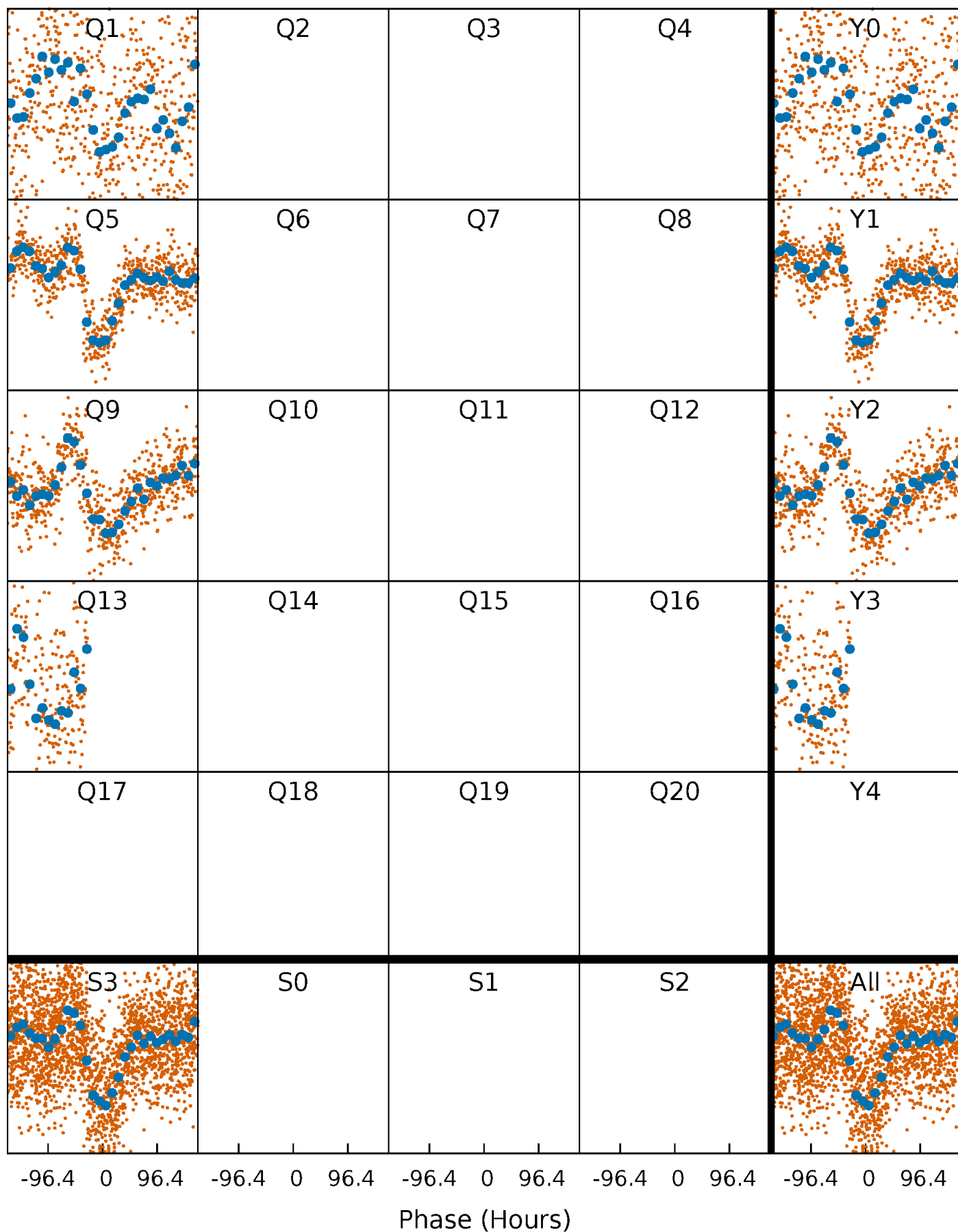


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



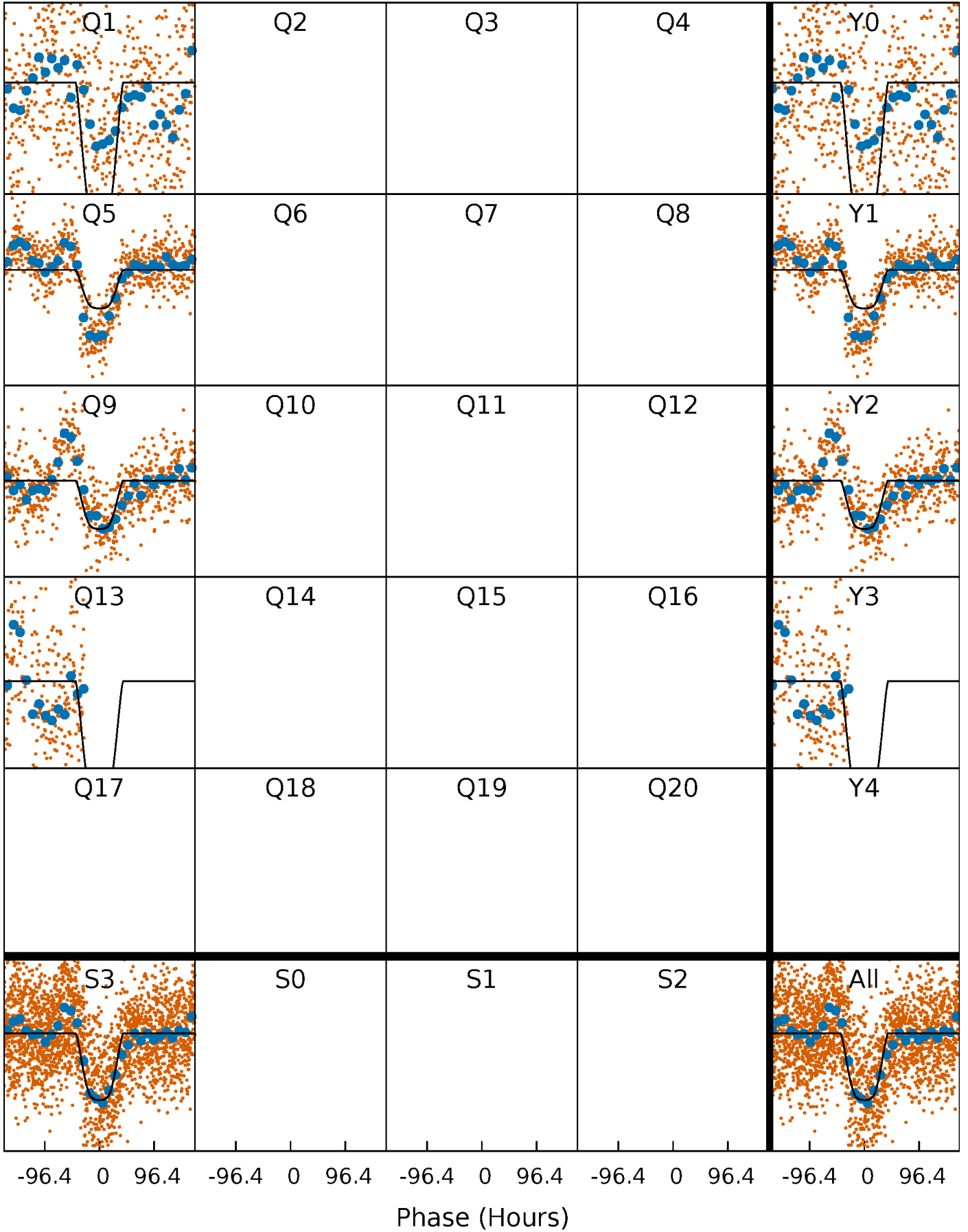
PDC Quarter-Phased Transit Curves

TCE 008621150-01 P=376.502166 Days $T_0=144.673384$ (BKJD)



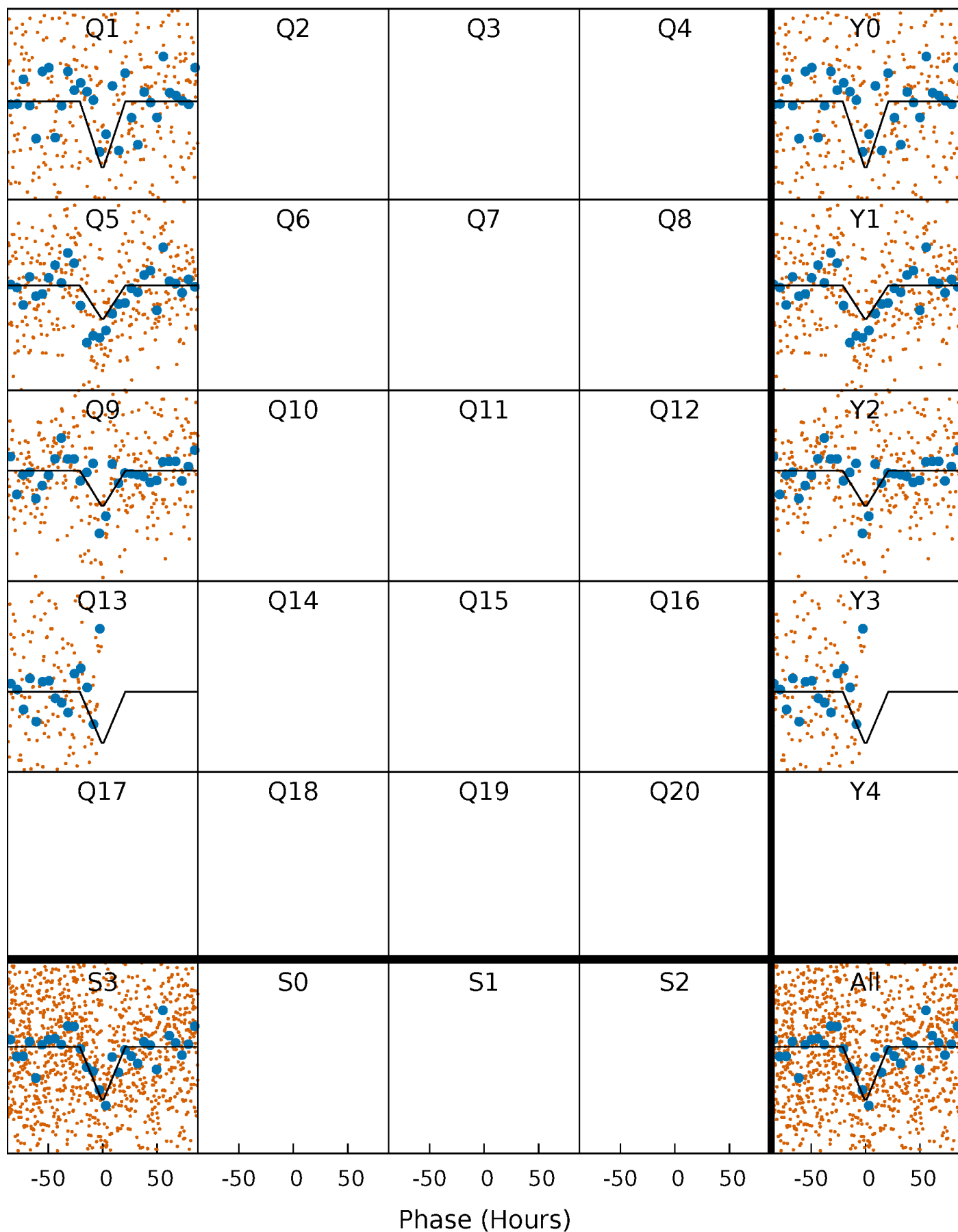
DV Quarter-Phased Transit Curves

TCE 008621150-01 P=376.502166 Days $T_0=144.673384$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

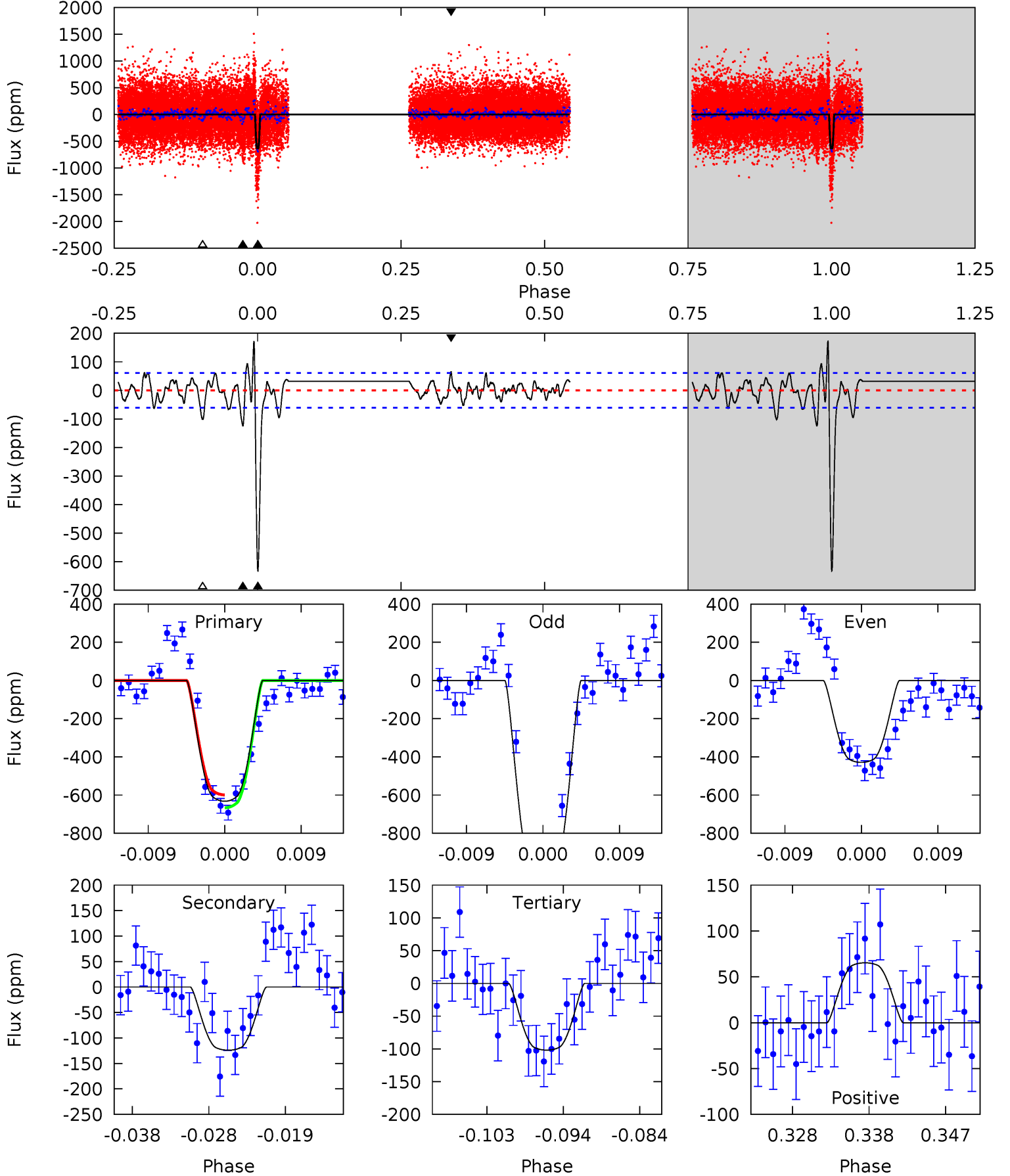
TCE 008621150-01 P=376.290819 Days $T_0=144.241267$ (BKJD)



DV Model-Shift Uniqueness Test

008621150-01, P = 376.502166 Days, E = 144.673384 Days

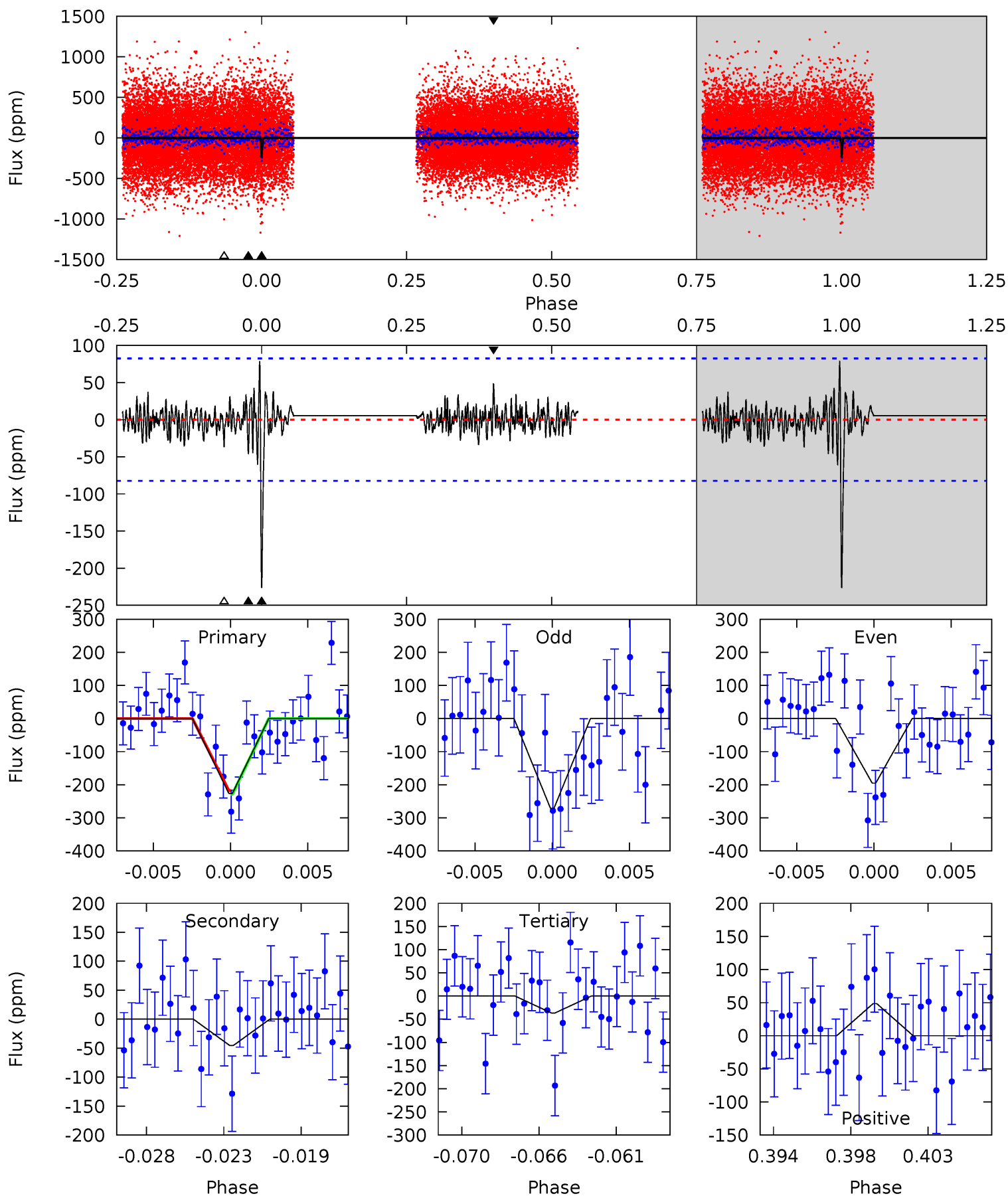
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
52.2	10.2	8.41	5.39	5.04	2.60	2.39	43.8	46.8	1.83	4.85	24.5	1.22	0.21	2.76



Alt Model-Shift Uniqueness Test

008621150-01, P = 376.290819 Days, E = 144.241267 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.2	2.85	2.30	3.05	5.17	2.83	0.88	11.9	11.2	0.55	-0.20	2.35	1.00	0.26	0.36



Stellar Parameters For KIC 008621150

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6103^{+190}_{-232}	$4.496^{+0.054}_{-0.216}$	$-0.200^{+0.250}_{-0.300}$	$0.949^{+0.304}_{-0.101}$	$1.028^{+0.140}_{-0.140}$	$1.697^{+0.483}_{-0.892}$
	+3%/-4%	+1%/-5%	+125%/-150%	+32%/-11%	+14%/-14%	+28%/-53%
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 008621150-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-124 ± 12	$3.20^{+0.52}_{-0.32}$	369^{+27}_{-19}	4038^{+134}_{-141}	6788^{+1742}_{-1609}
Alt.	-45 ± 16	$1.66^{+0.29}_{-0.21}$	369^{+28}_{-20}	4249^{+338}_{-377}	8962^{+5205}_{-3760}

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

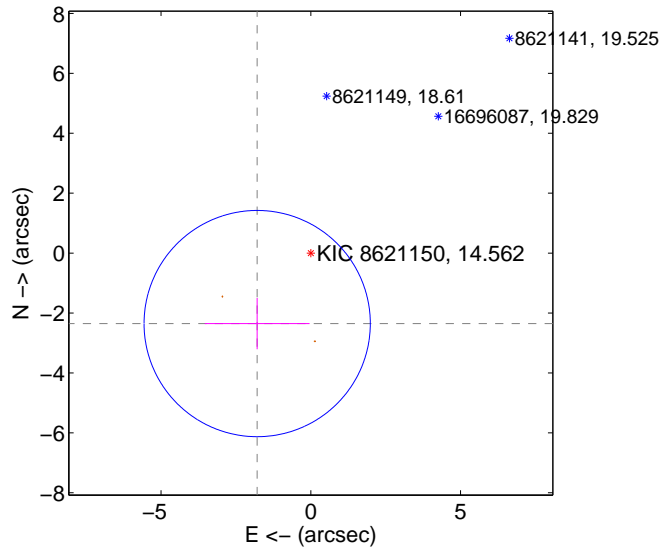
Supplemental centroid analysis for 008621150-01. Kepler magnitude: 14.56. Transit SNR 15.76

There are 0 quarters with good PRF difference image offsets

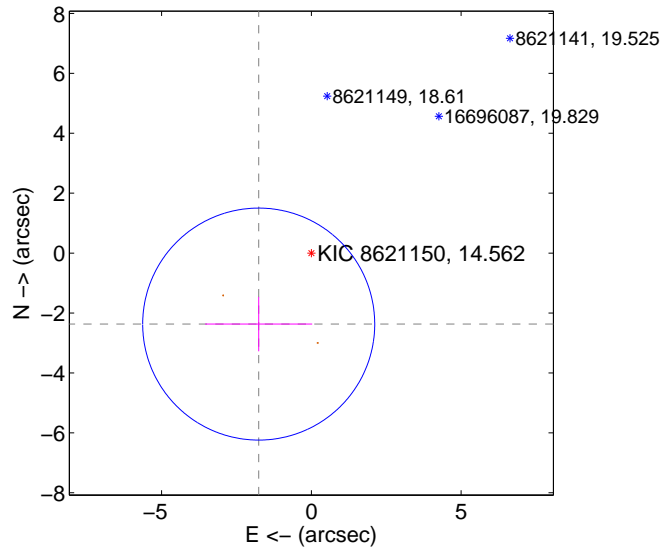
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.956 ± 1.259	2.35	1.790 ± 1.748	-2.353 ± 0.857
PRF-fit source offset from KIC position	2.951 ± 1.291	2.29	1.758 ± 1.787	-2.370 ± 0.909
photometric centroid source offset	0.85 ± 0.64	1.33	0.80 ± 0.64	-0.29 ± 0.67

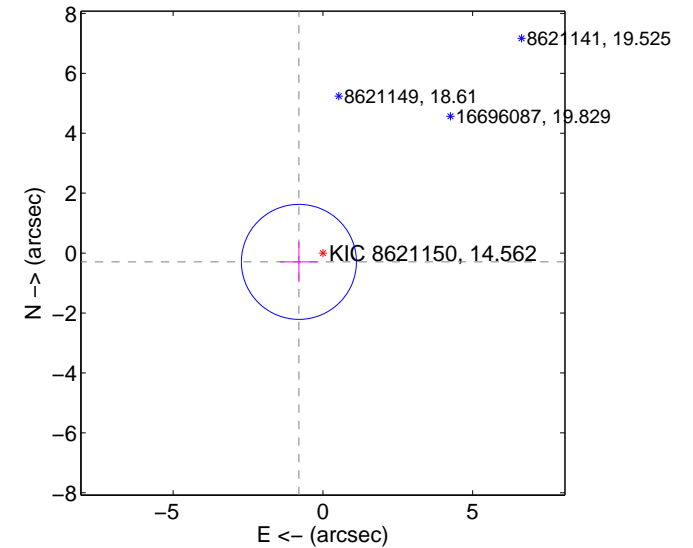
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

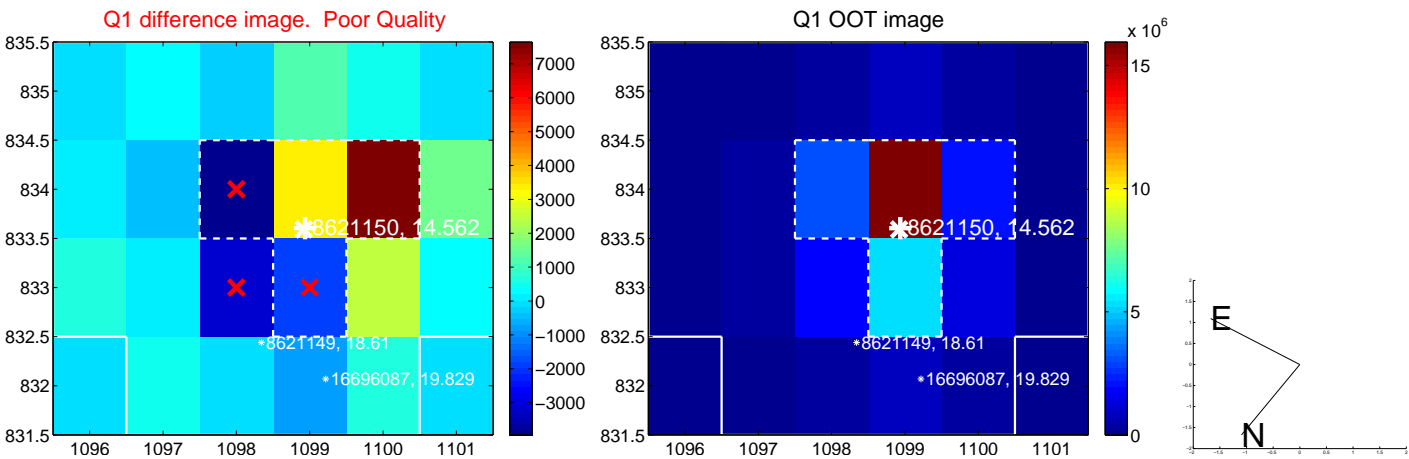


offset from photometric centroids

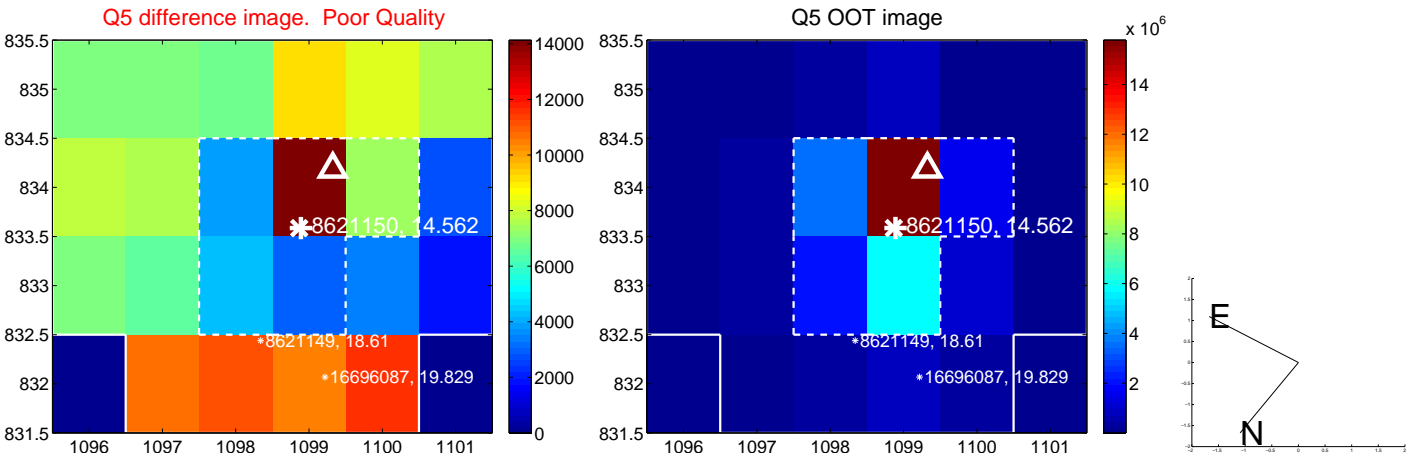


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

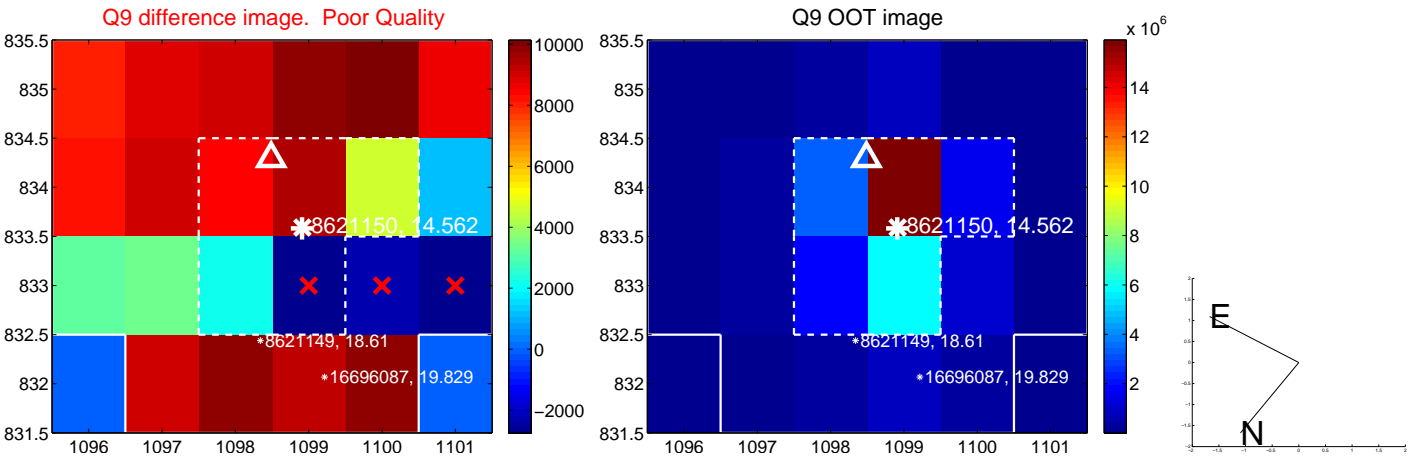
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



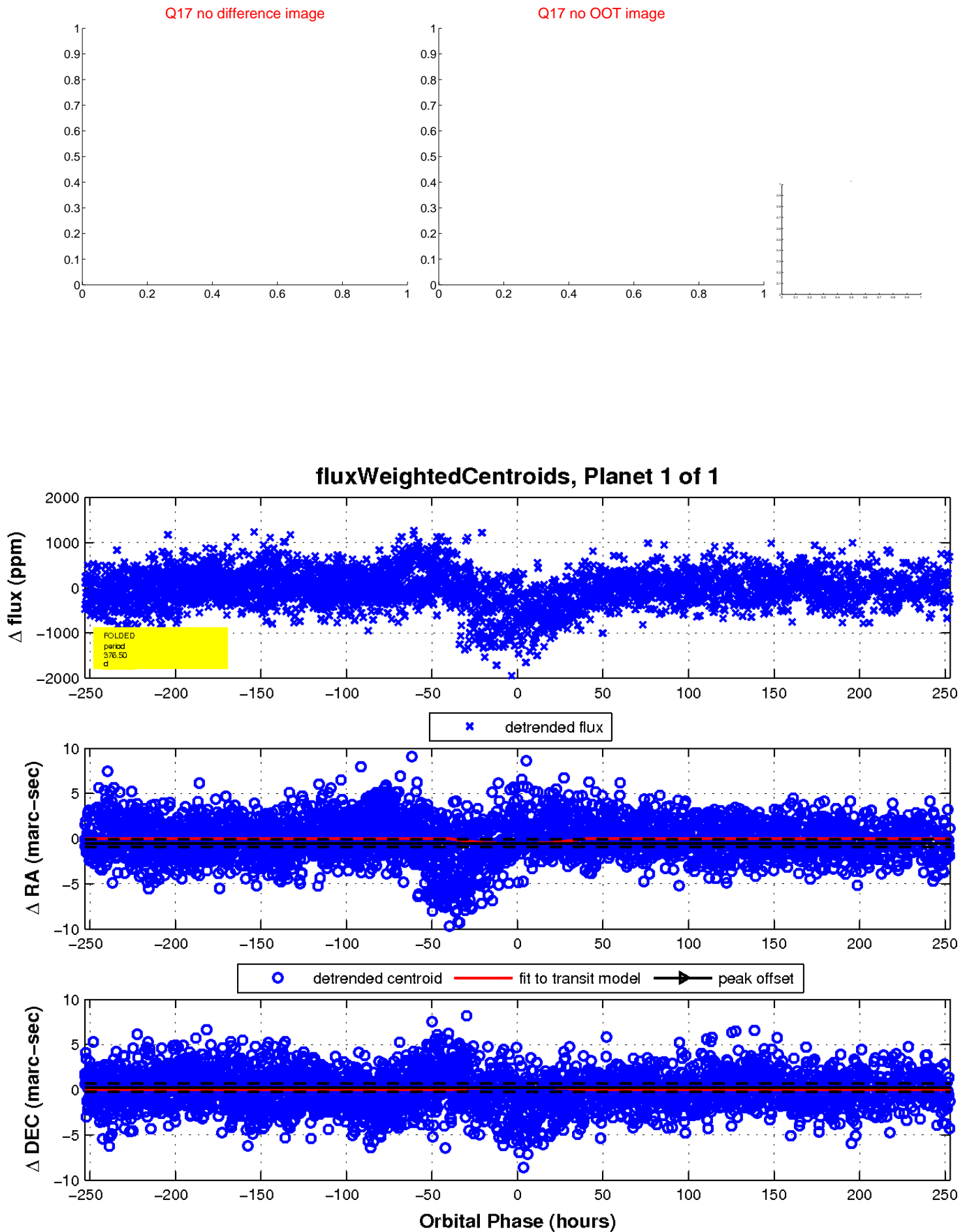
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

