

KIC 008621230

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})
008621230-01	OBS	No	376.174179	139.741193	610.6	27.369	7.7	10.9	0.89	6113	2.59	0.96

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008621230-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE_TRACKER—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—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.

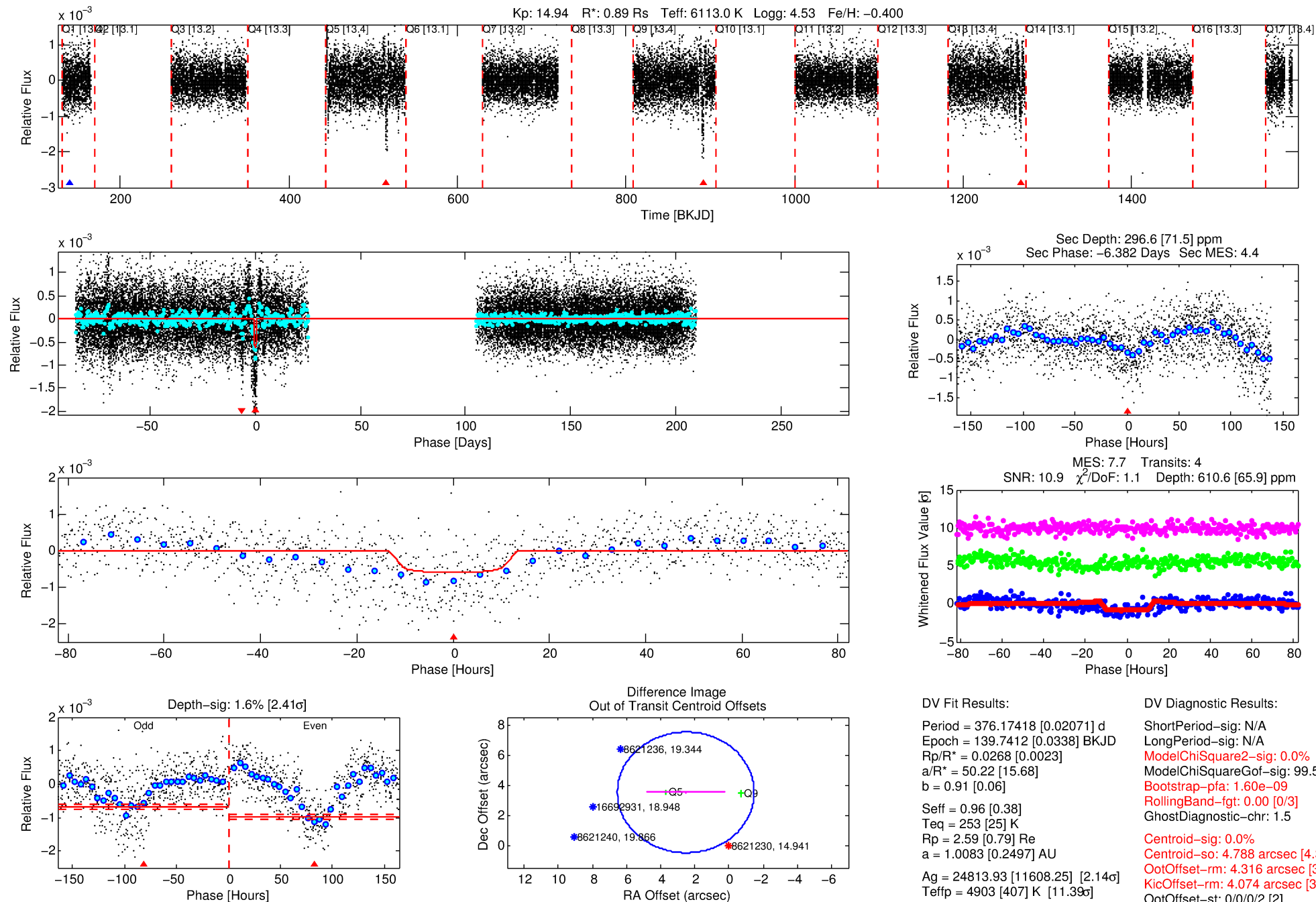
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008621230-01

No Significant Match Found

DV One-Page Summary

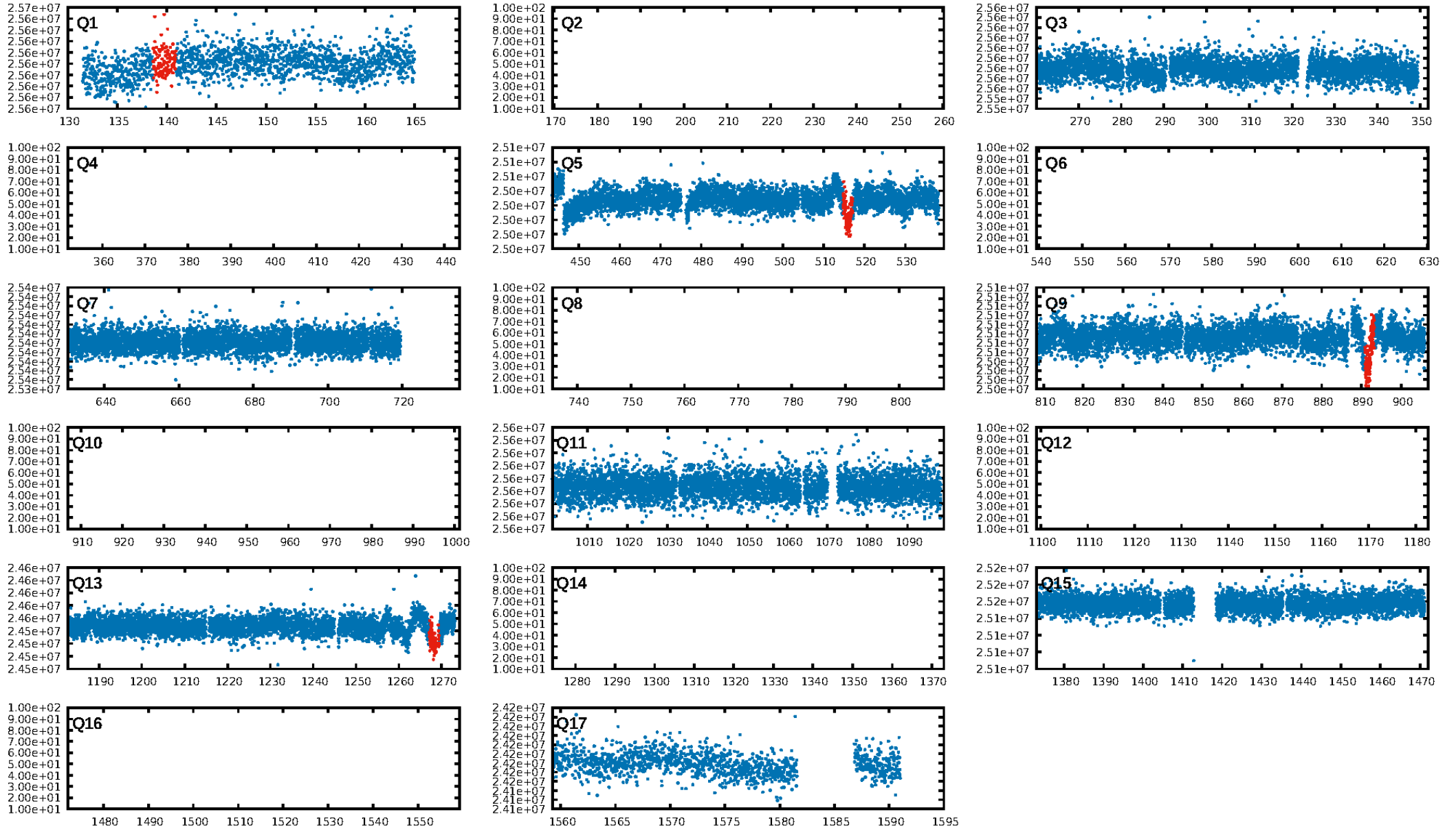
KIC: 8621230 Candidate: 1 of 1 Period: 376.174 d



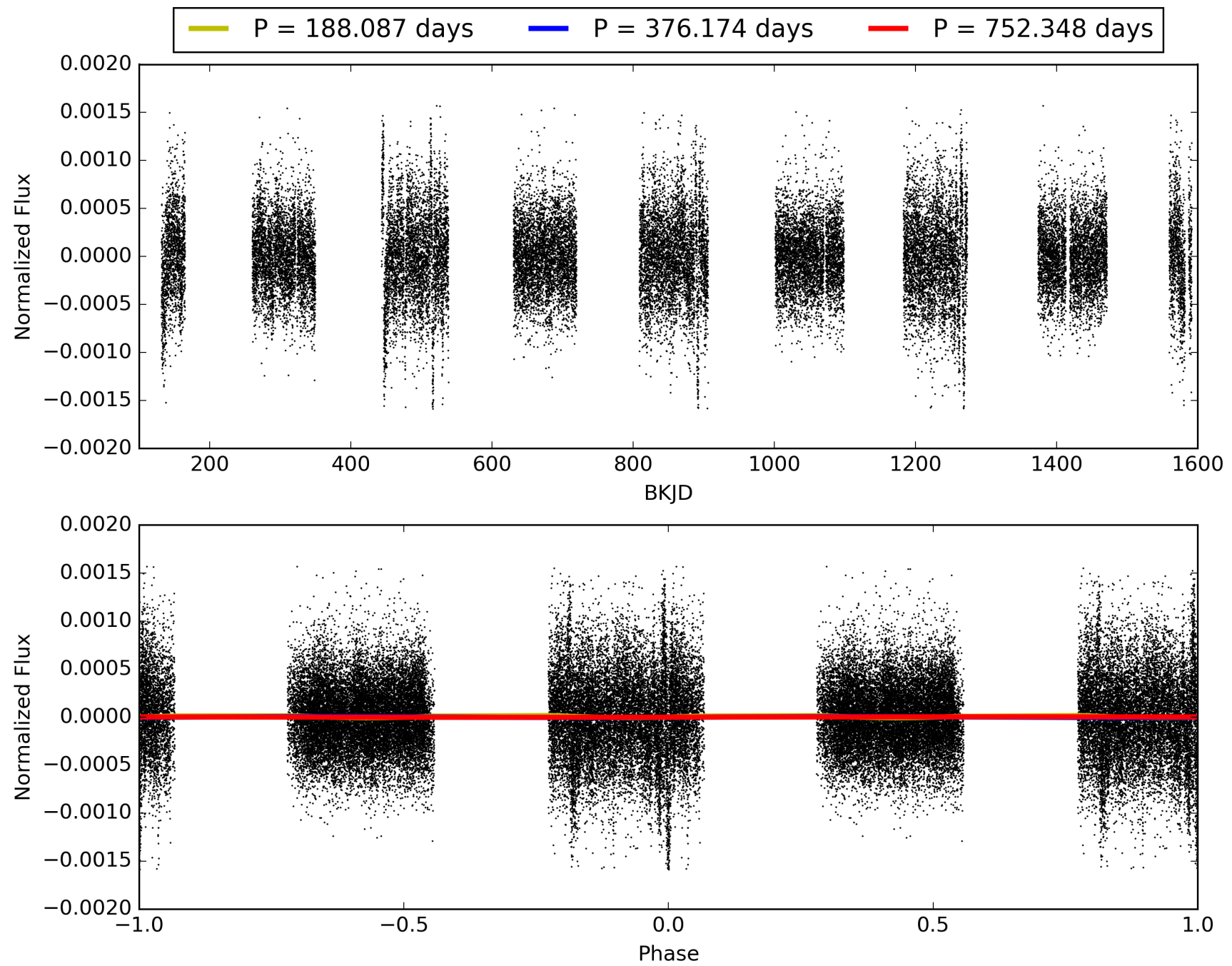
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:01:08 Z

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

TCE 008621230-01, PDC Light Curves

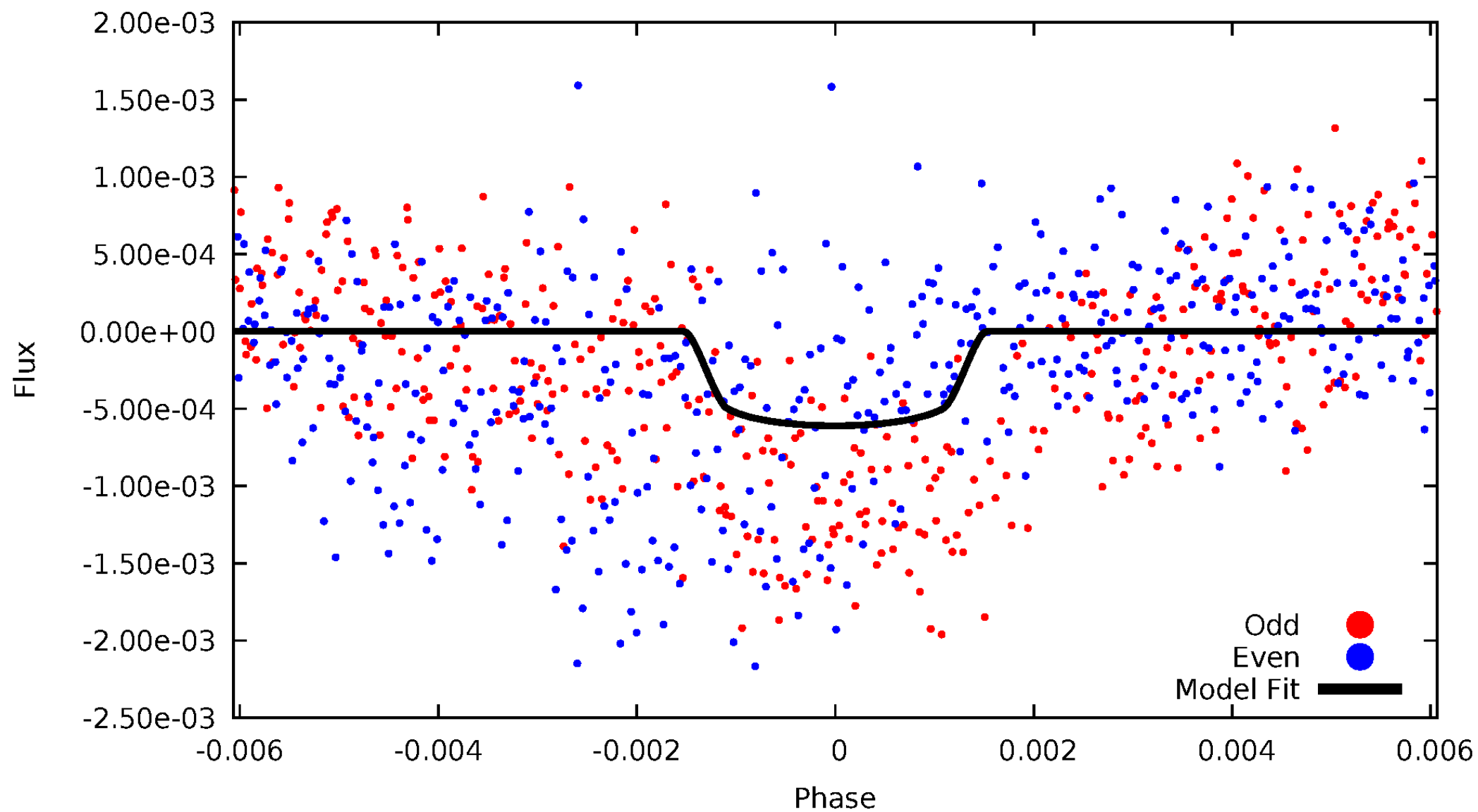


TCE 008621230-01



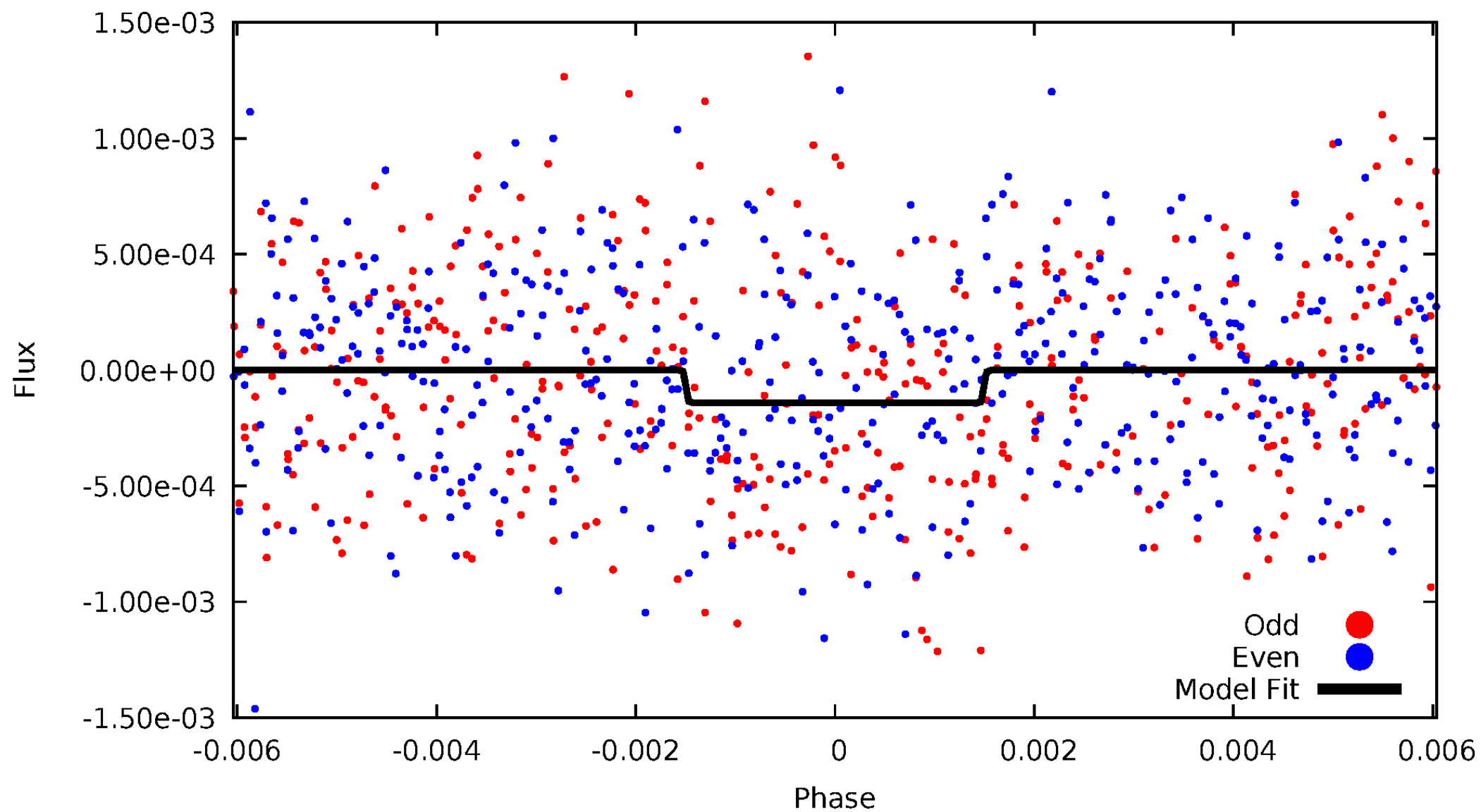
DV Odd/Even

TCE 008621230-01



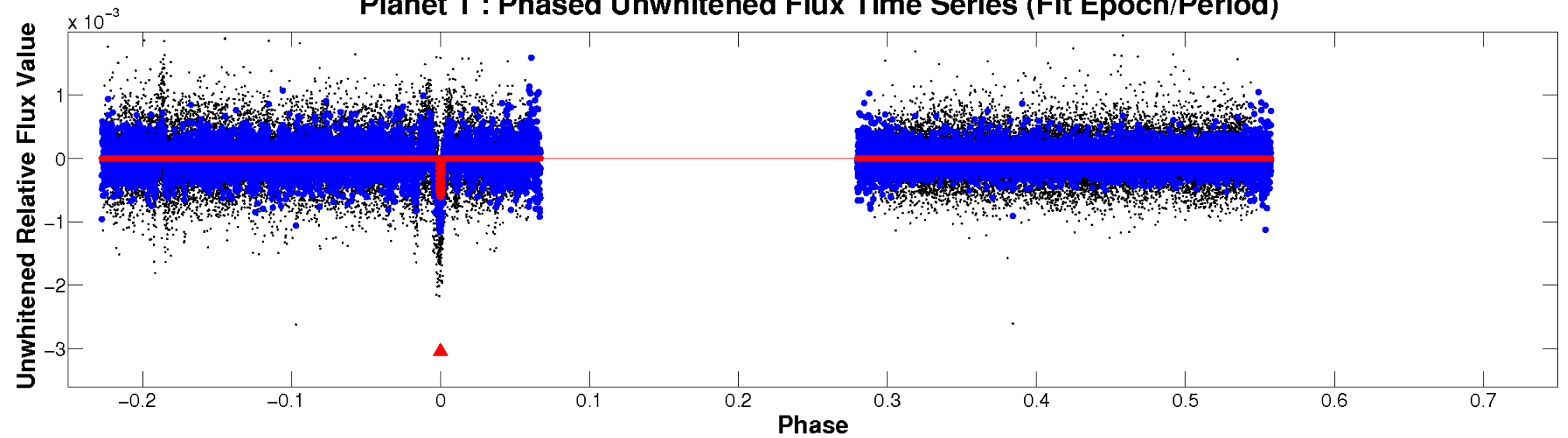
ALT Odd/Even

TCE 008621230-01

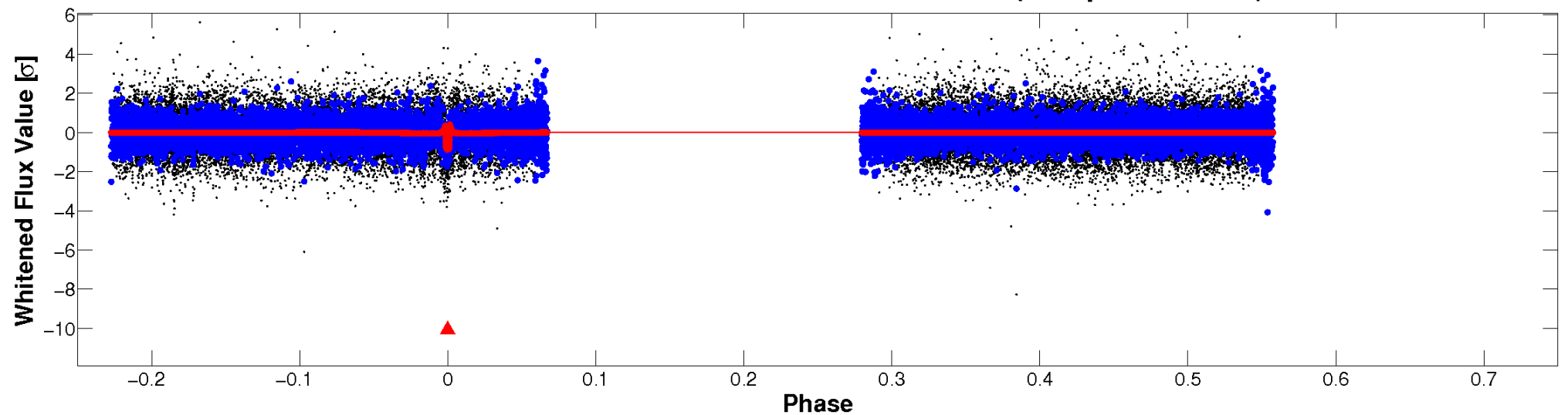


Non-Whitened Vs. Whitened Light Curve

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

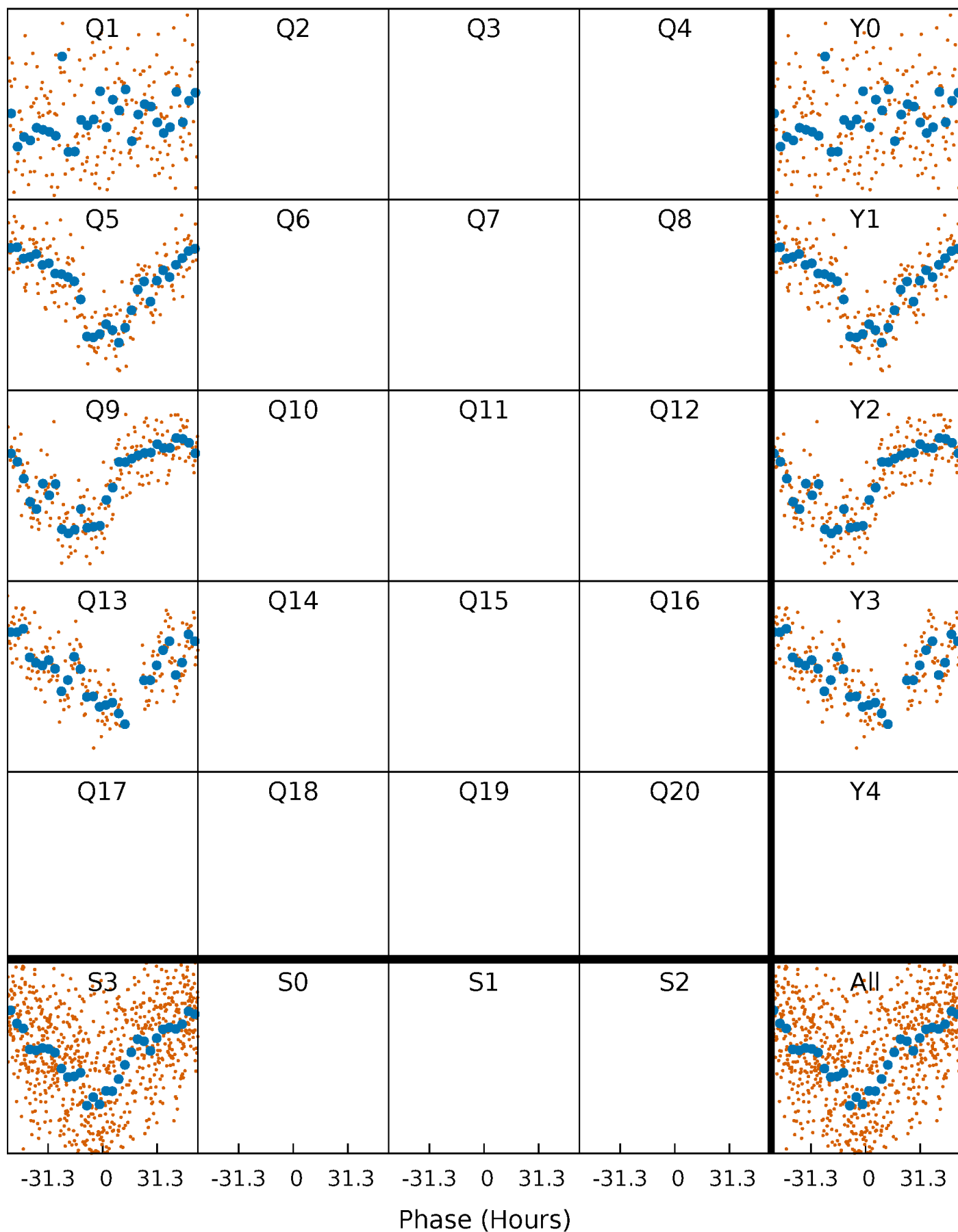


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



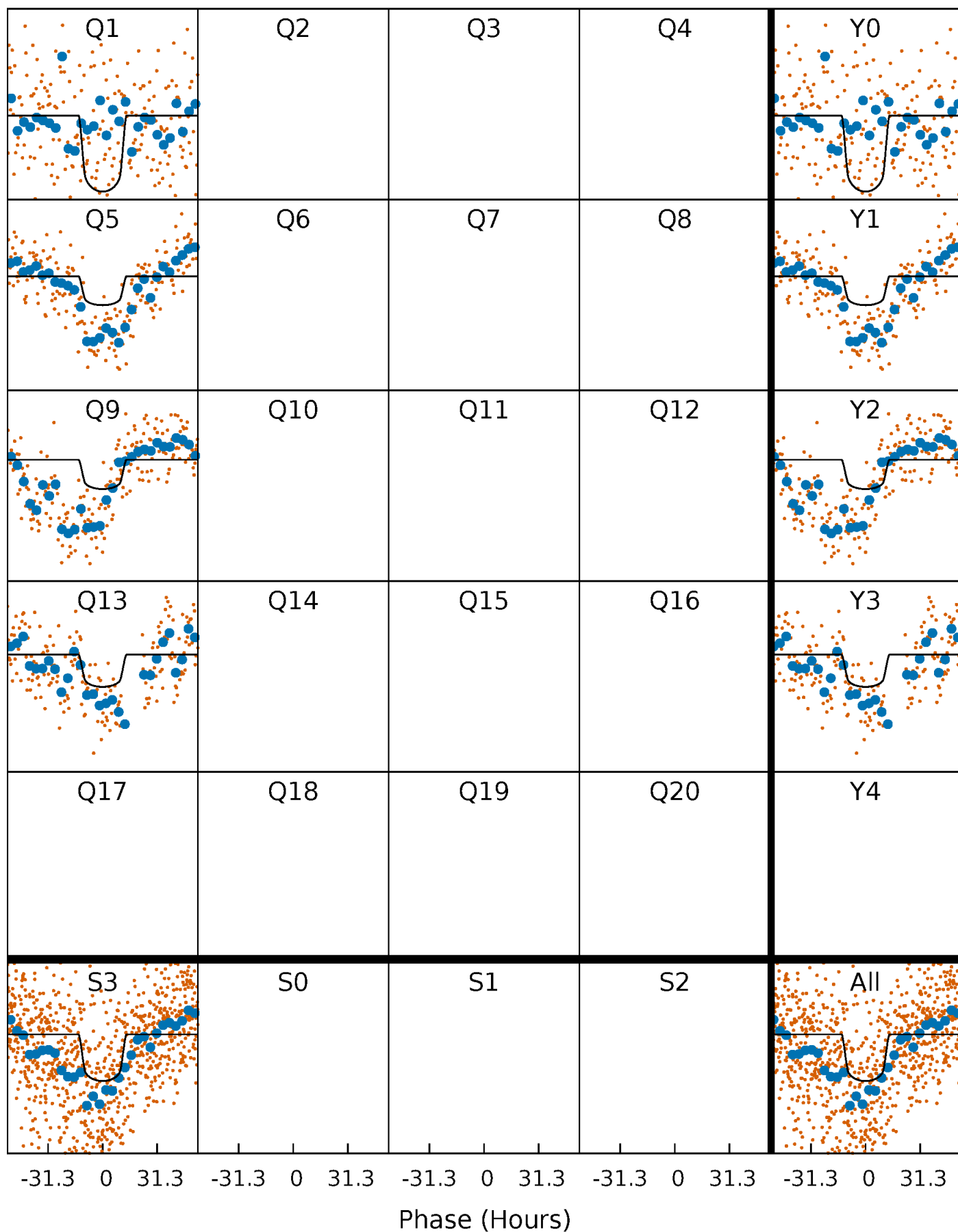
PDC Quarter-Phased Transit Curves

TCE 008621230-01 $P=376.174179$ Days $T_0=139.741193$ (BKJD)



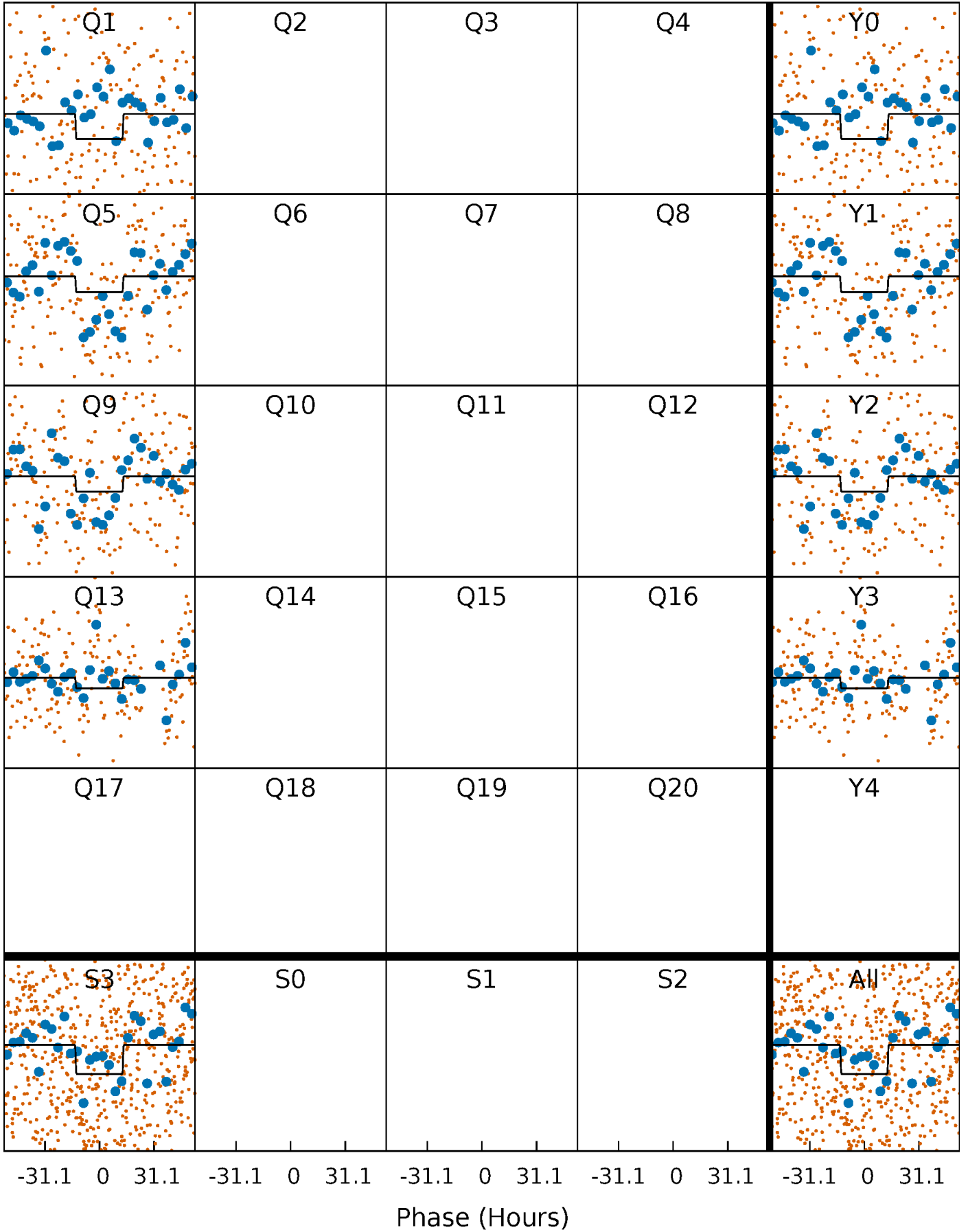
DV Quarter-Phased Transit Curves

TCE 008621230-01 $P=376.174179$ Days $T_0=139.741193$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

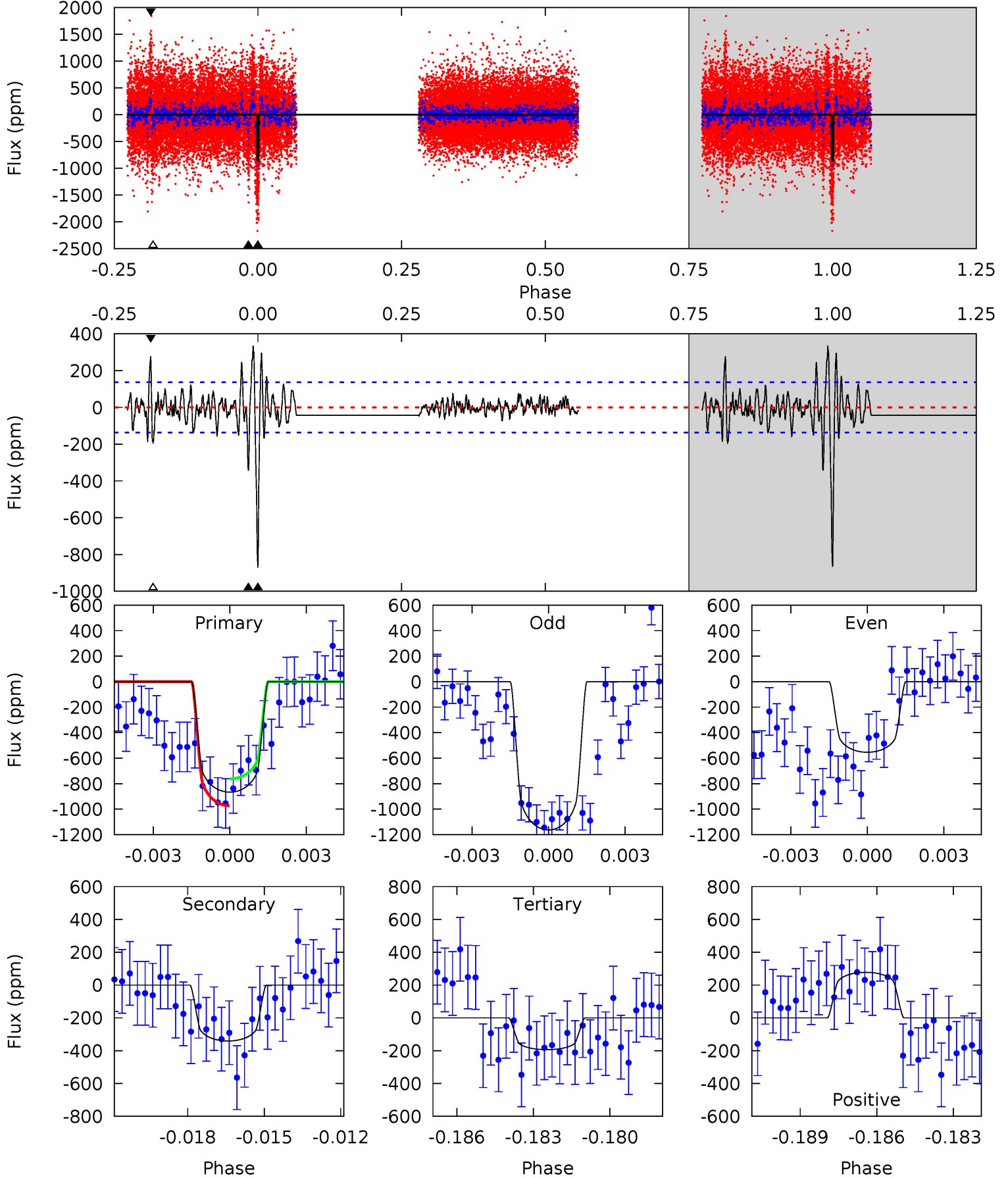
TCE 008621230-01 P=375.895770 Days $T_0=140.035236$ (BKJD)



DV Model-Shift Uniqueness Test

008621230-01, P = 376.174179 Days, E = 139.741193 Days

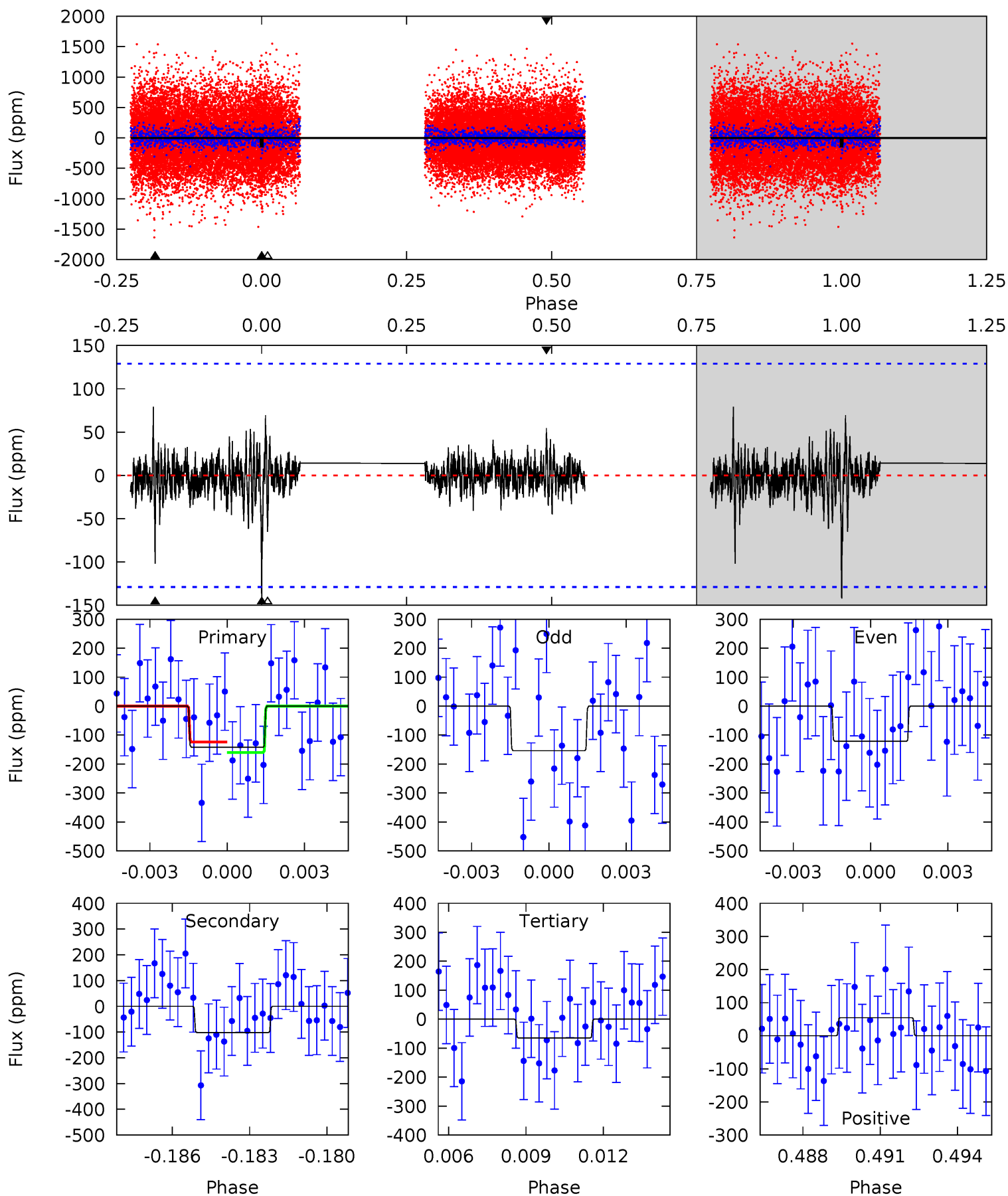
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
33.3	13.1	7.45	10.7	5.25	2.96	2.56	25.8	22.6	5.65	2.43	11.7	0.85	0.28	4.03



Alt Model-Shift Uniqueness Test

008621230-01, P = 375.895770 Days, E = 140.035236 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.79	4.15	2.64	2.22	5.25	2.96	0.63	3.14	3.57	1.50	1.93	0.66	1.17	0.36	0.74



Stellar Parameters For KIC 008621230

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6113^{+192}_{-235}	$4.529^{+0.050}_{-0.200}$	$-0.400^{+0.300}_{-0.300}$	$0.885^{+0.258}_{-0.086}$	$0.965^{+0.114}_{-0.127}$	$1.958^{+0.503}_{-1.024}$
	+3%/-4%	+1%/-4%	+75%/-75%	+29%/-10%	+12%/-13%	+26%/-52%
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 008621230-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-341 ± 26	$2.69^{+0.45}_{-0.34}$	360^{+26}_{-18}	5140^{+268}_{-251}	25873^{+7344}_{-6885}
Alt.	-102 ± 25	$1.20^{+0.28}_{-0.24}$	360^{+24}_{-19}	5612^{+709}_{-578}	37886^{+25407}_{-14419}

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

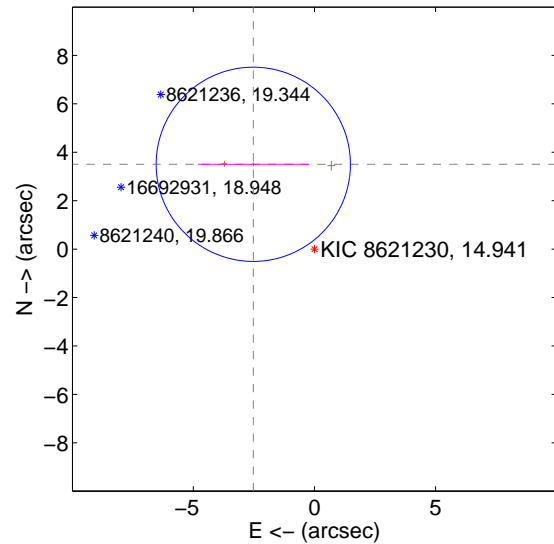
Supplemental centroid analysis for 008621230-01. Kepler magnitude: 14.94. Transit SNR 10.91

There are 0 quarters with good PRF difference image offsets

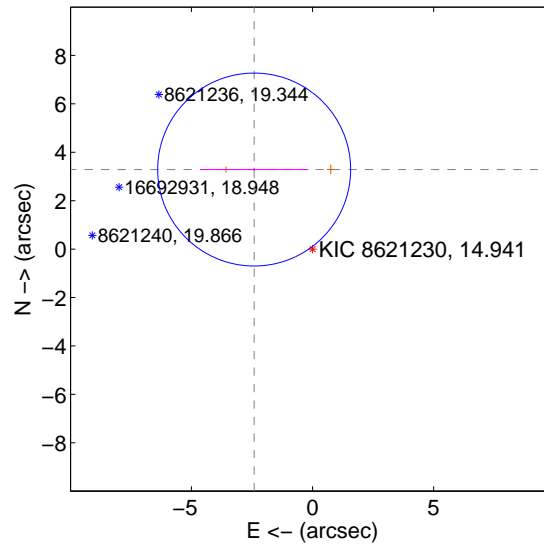
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.316 ± 1.337	3.23	2.525 ± 2.282	3.501 ± 0.078
PRF-fit source offset from KIC position	4.074 ± 1.328	3.07	2.410 ± 2.242	3.284 ± 0.067
photometric centroid source offset	4.79 ± 1.10	4.34	-2.08 ± 1.11	4.32 ± 1.10

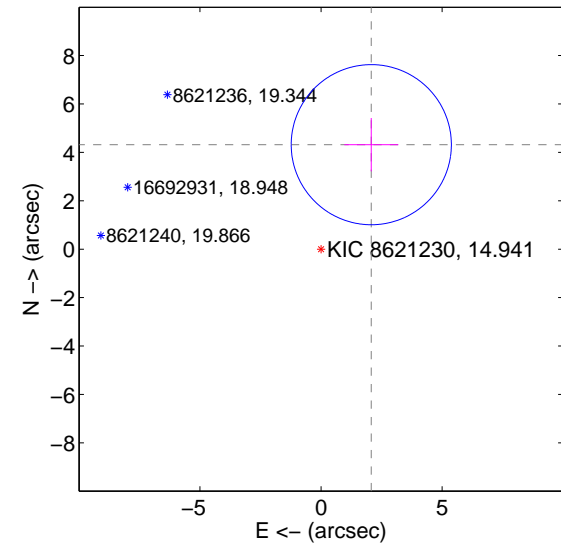
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

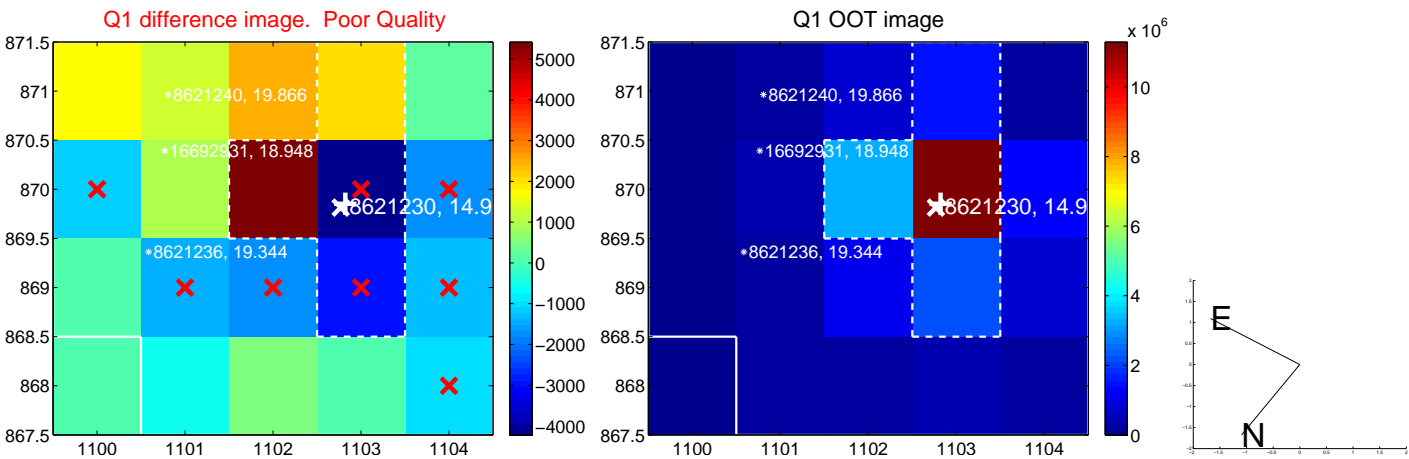


offset from photometric centroids

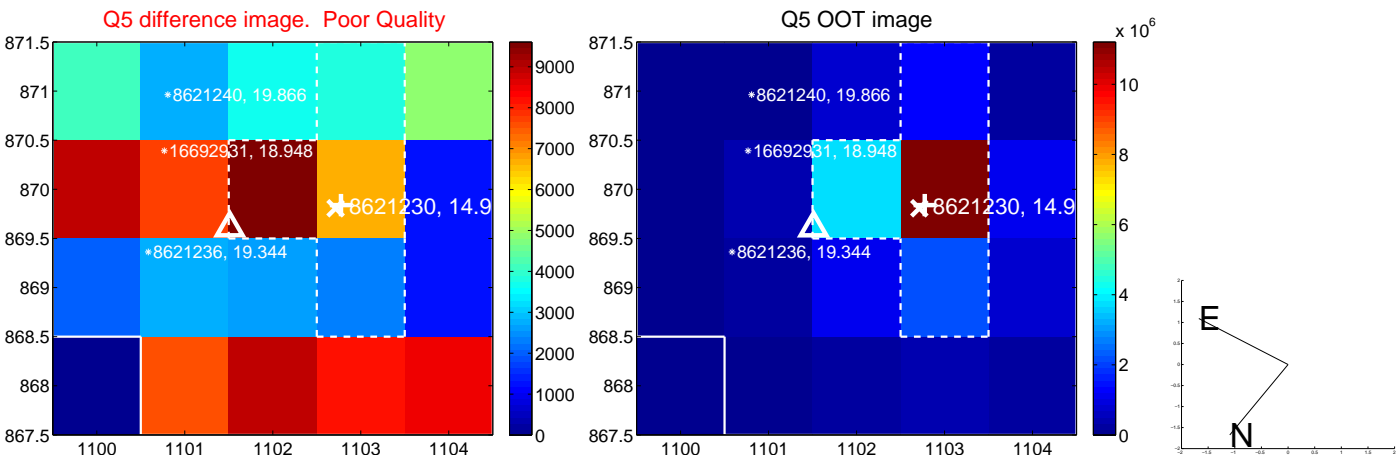


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

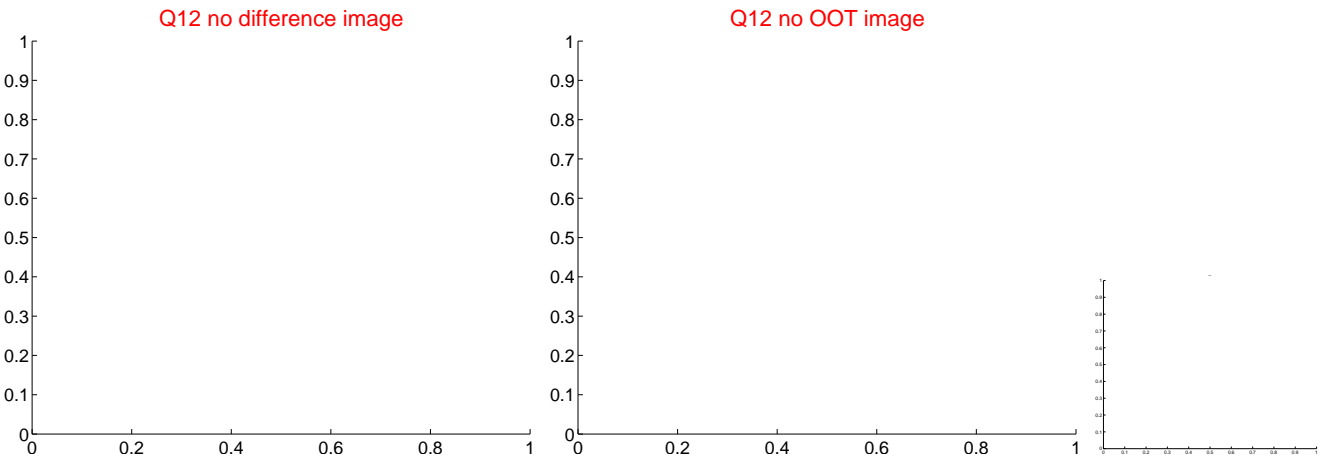
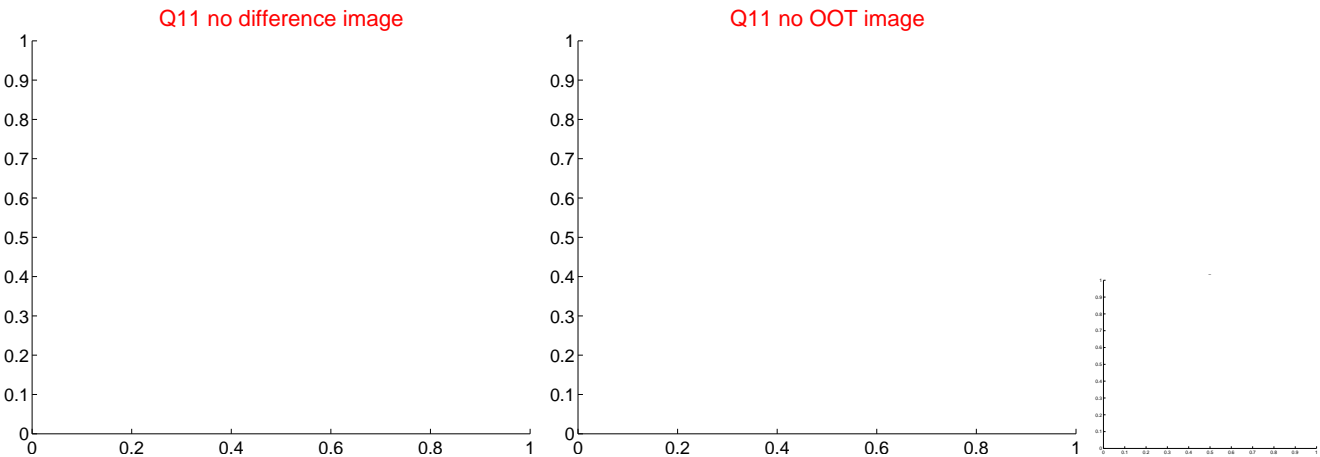
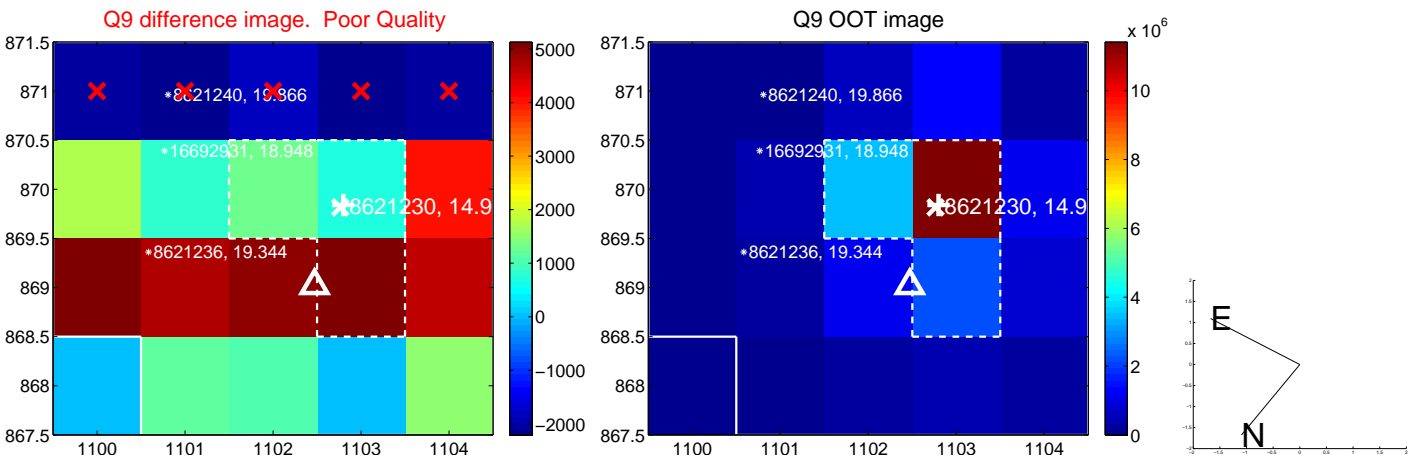
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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



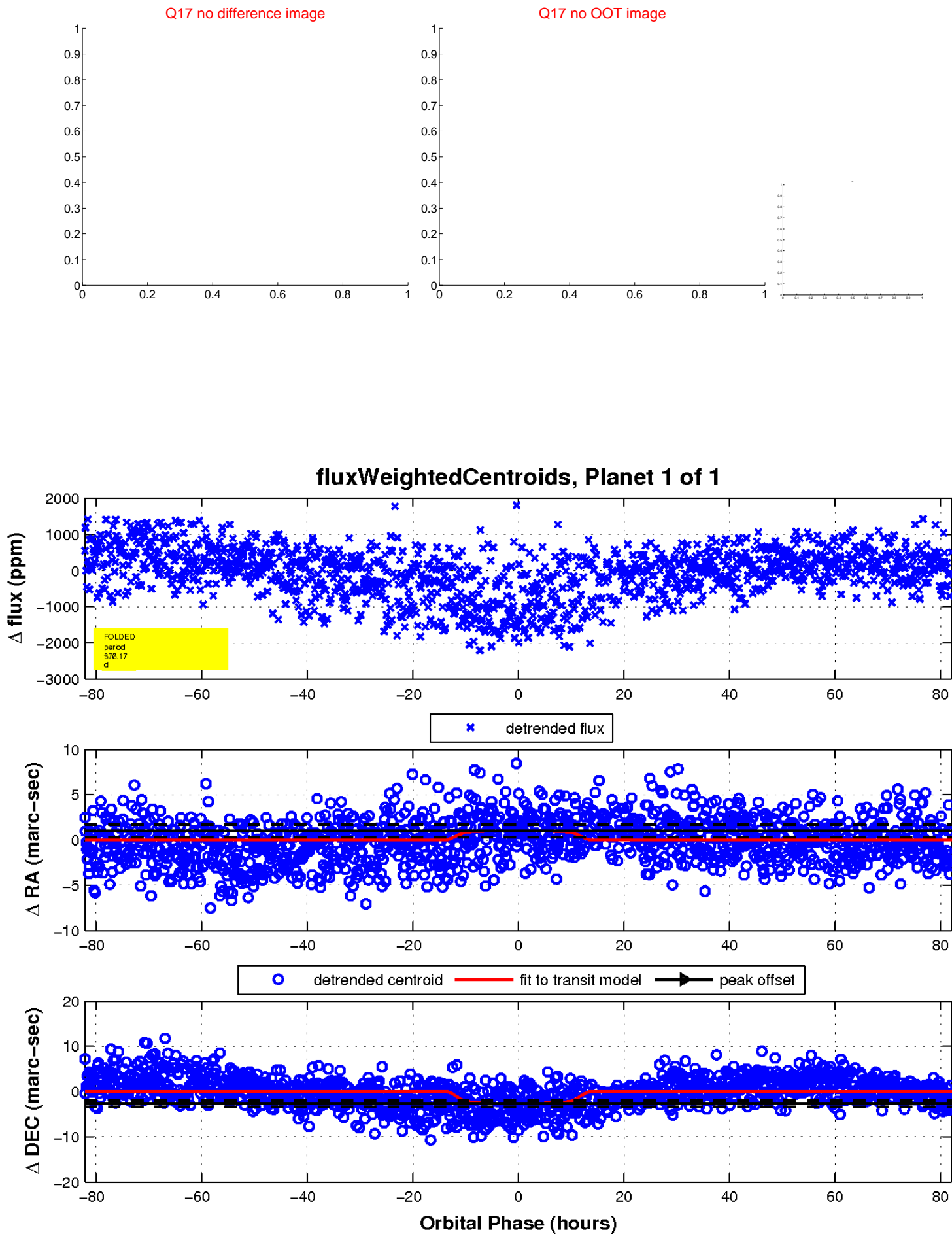
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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

