

KIC 008160924

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})
008160924-01	OBS	No	374.436654	263.064642	5956.3	51.243	9.6	15.1	130.21	3331	1276.69	1864.05

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008160924-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—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.

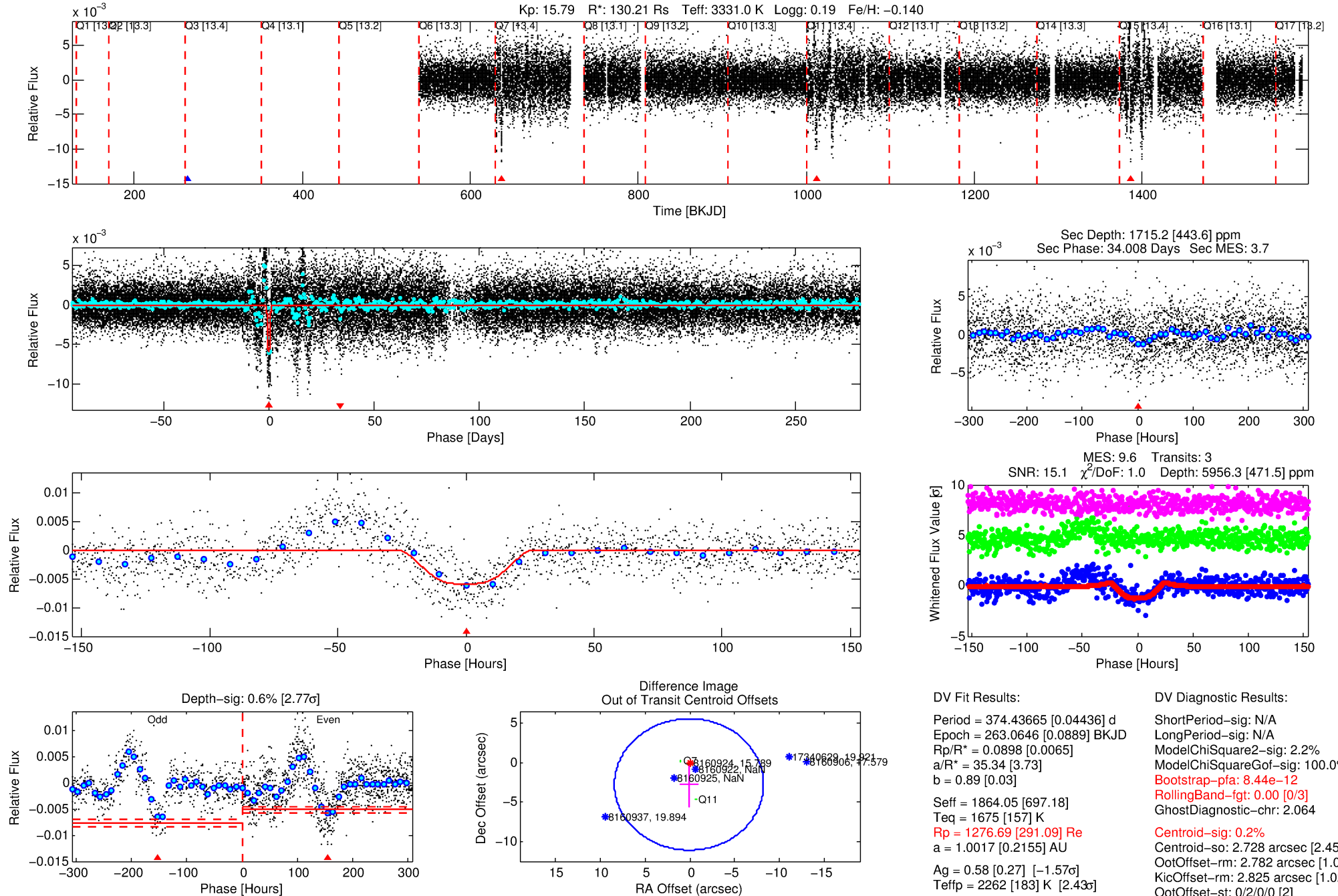
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008160924-01

No Significant Match Found

DV One-Page Summary

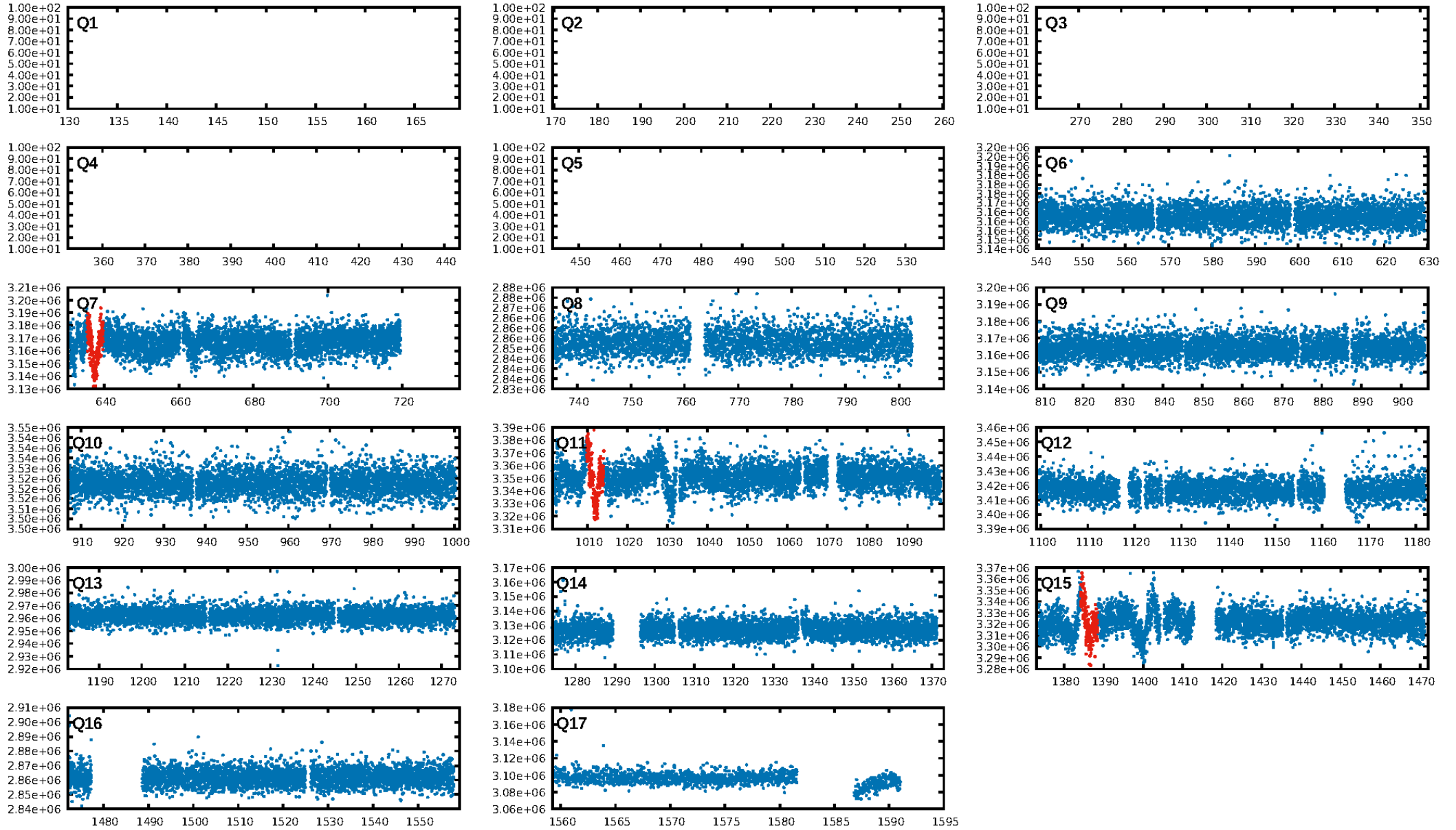
KIC: 8160924 Candidate: 1 of 1 Period: 374.437 d



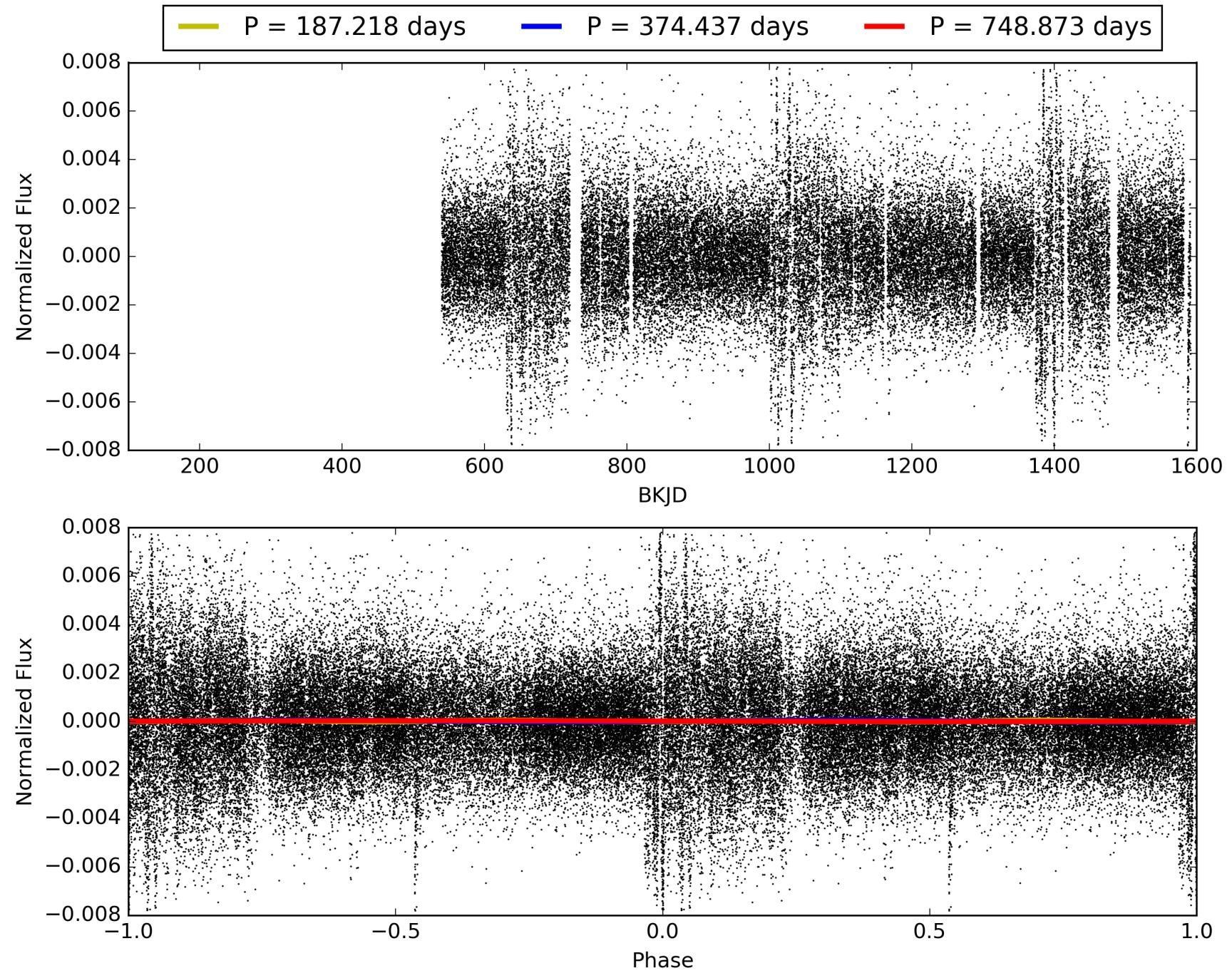
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 12:21:03 Z

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

TCE 008160924-01, PDC Light Curves

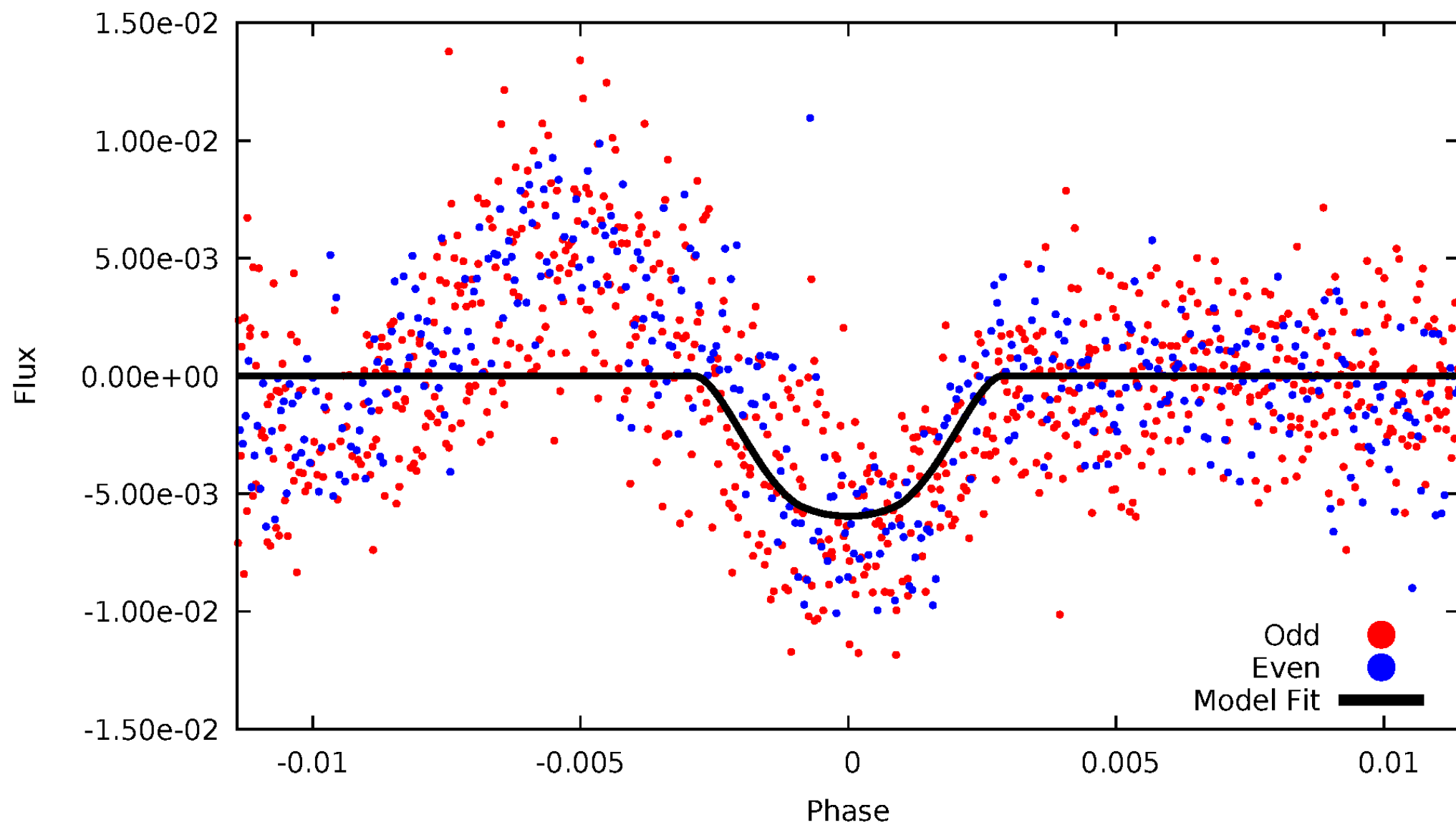


TCE 008160924-01



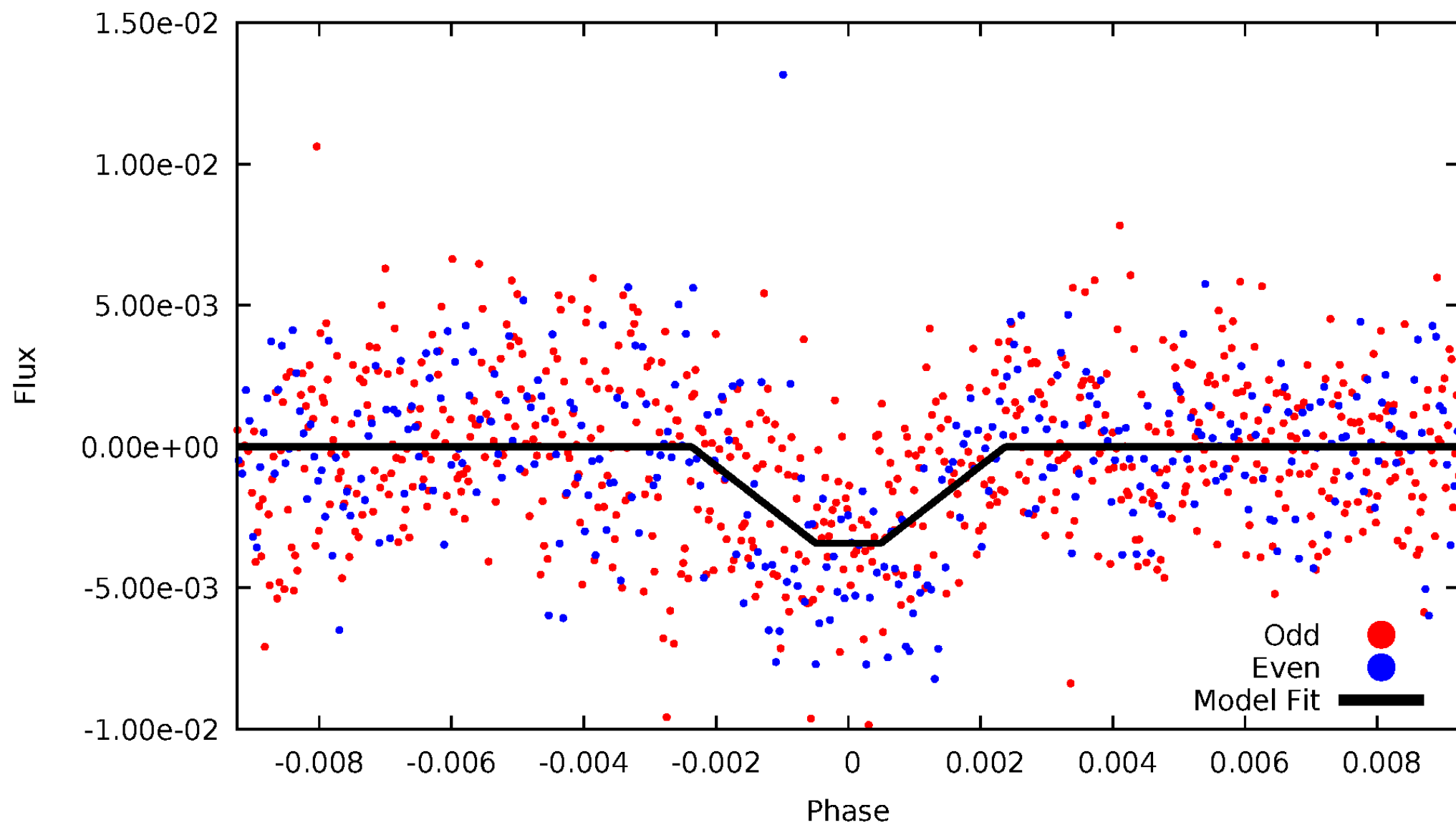
DV Odd/Even

TCE 008160924-01



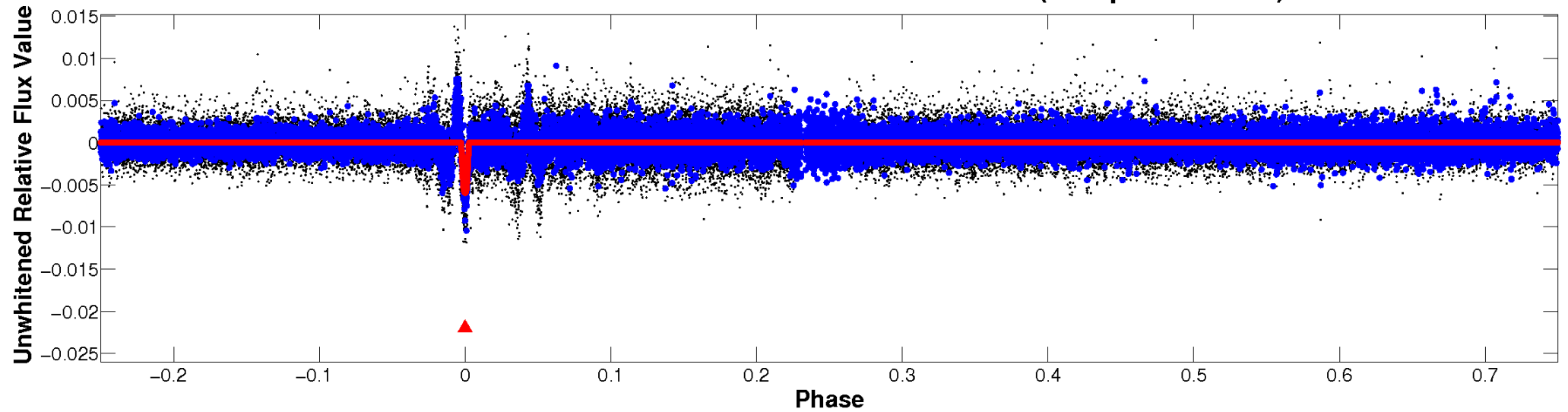
ALT Odd/Even

TCE 008160924-01

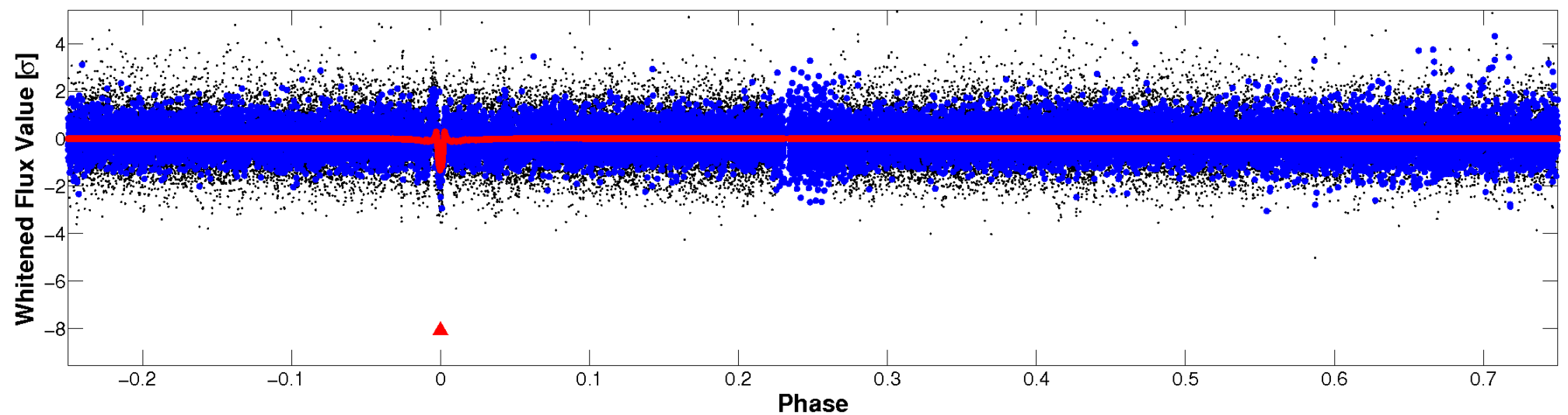


Non-Whitened Vs. Whitened Light Curve

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

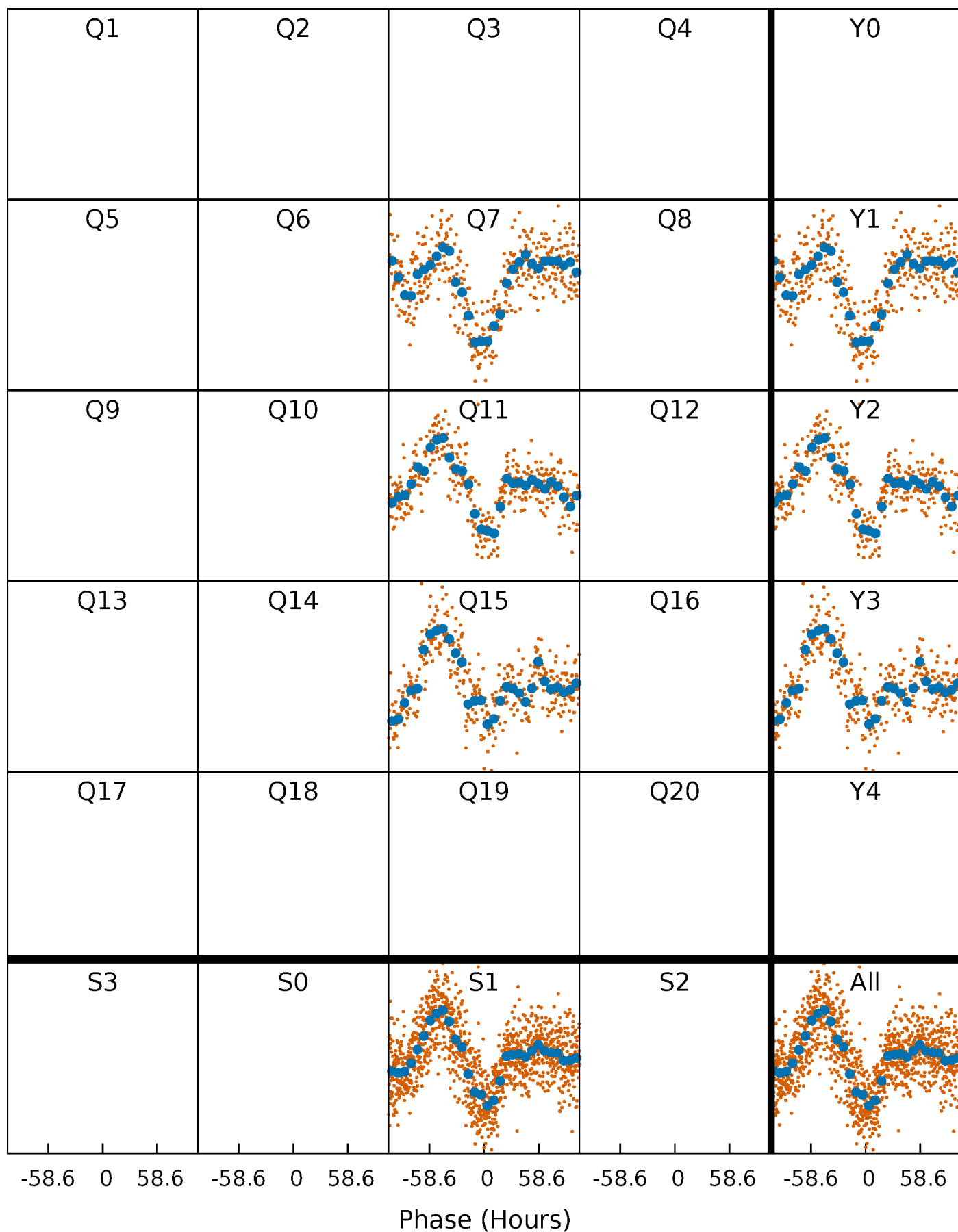


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



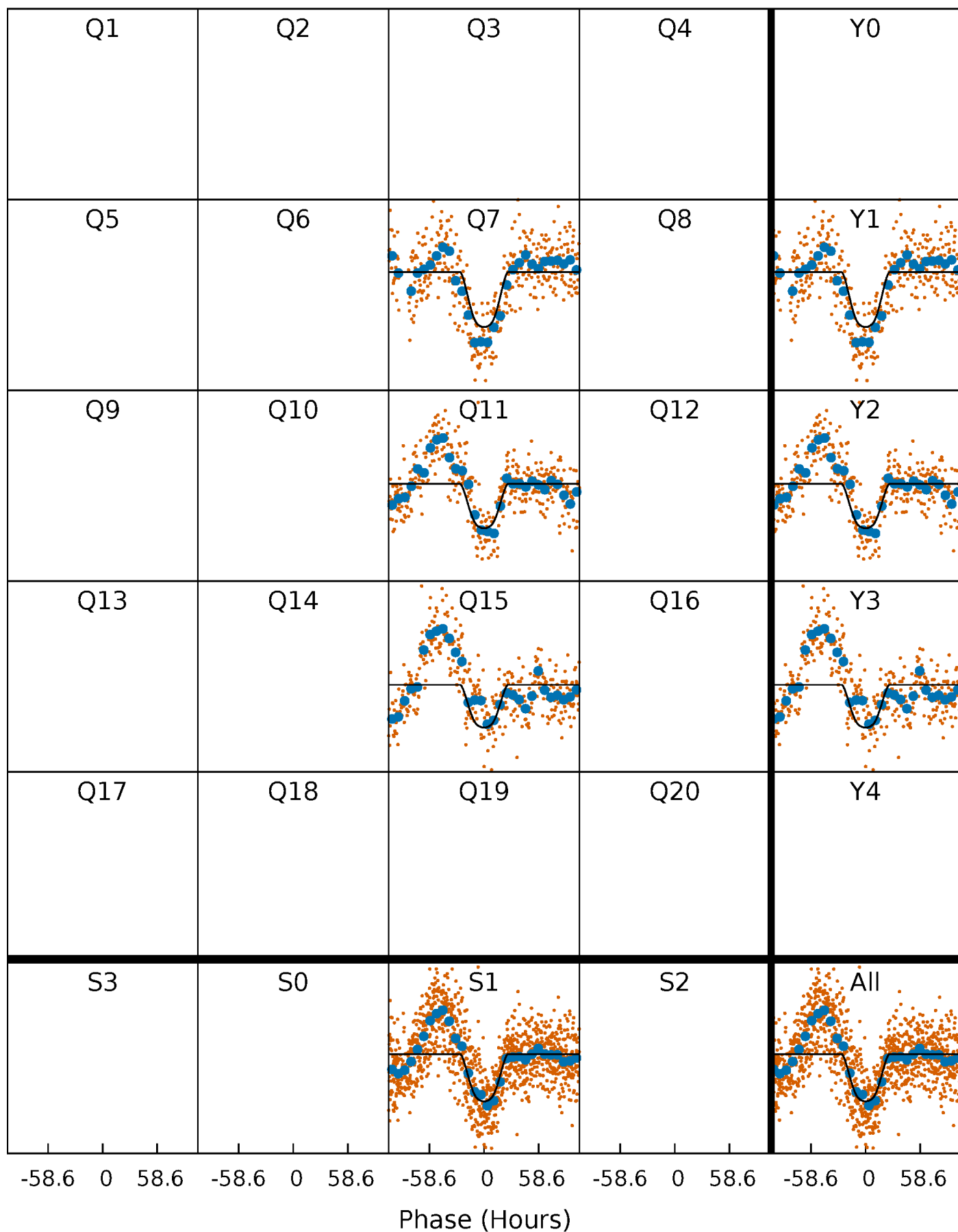
PDC Quarter-Phased Transit Curves

TCE 008160924-01 P=374.436654 Days $T_0=263.064642$ (BKJD)



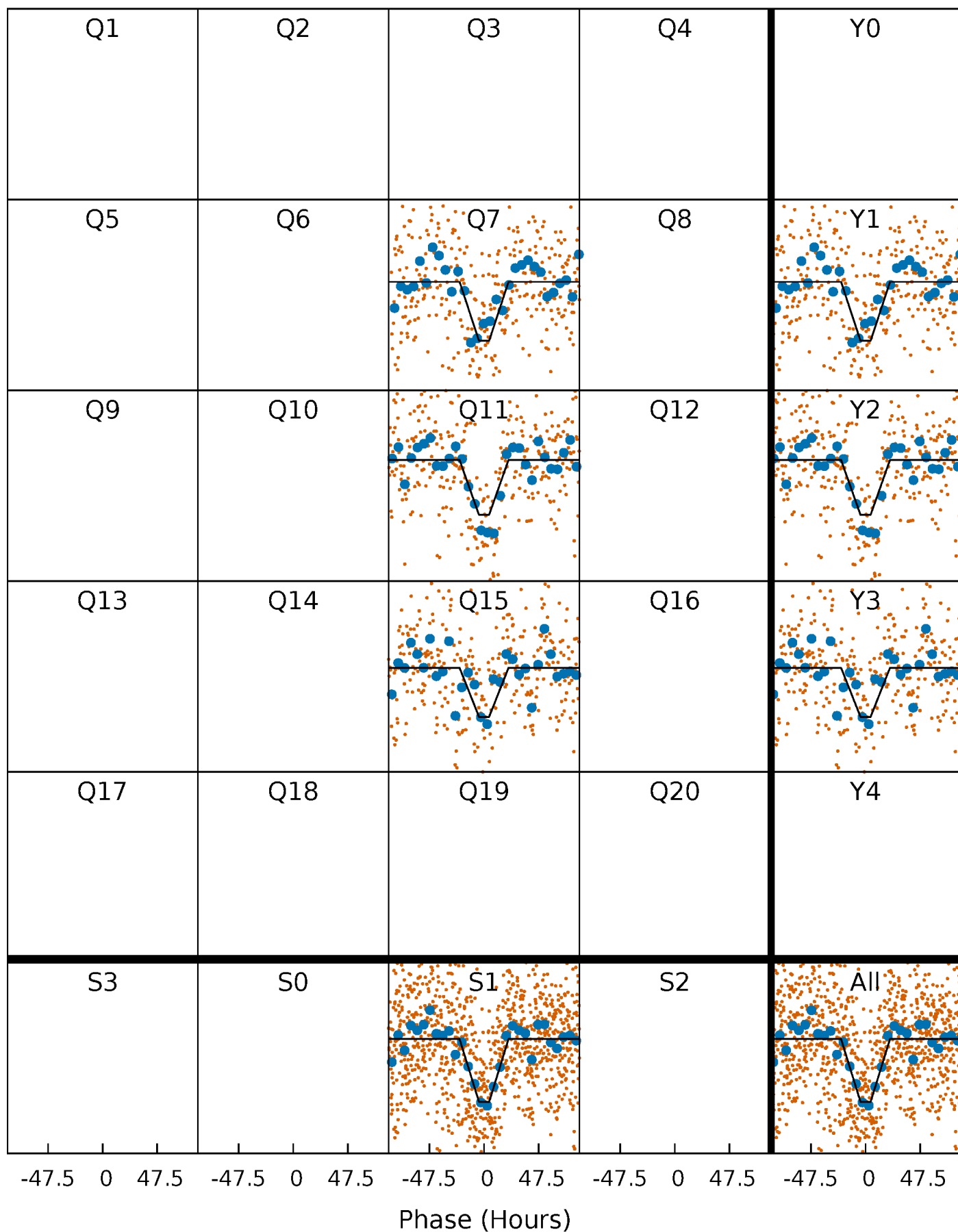
DV Quarter-Phased Transit Curves

TCE 008160924-01 P=374.436654 Days $T_0=263.064642$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

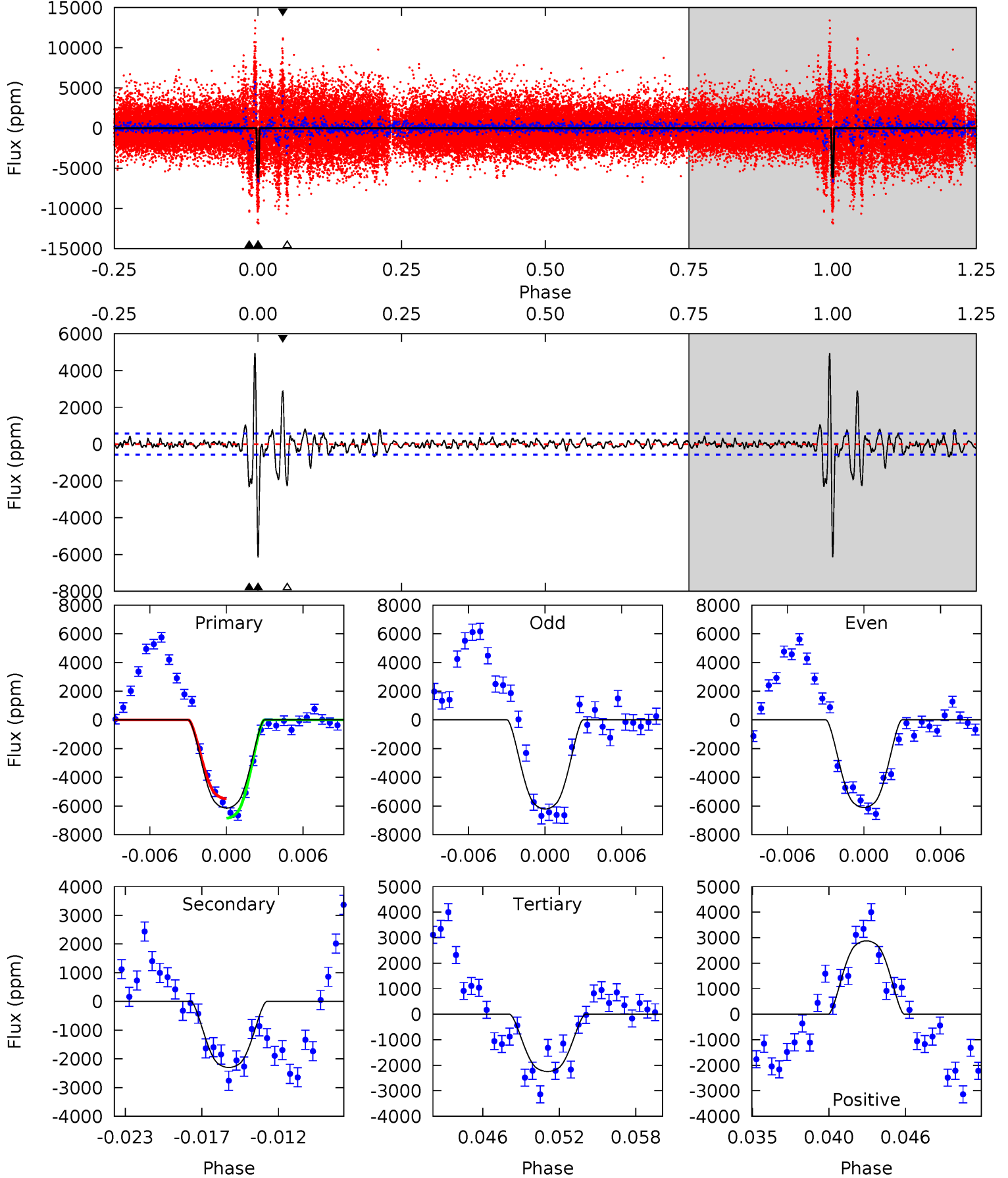
TCE 008160924-01 P=374.553966 Days $T_0=262.930958$ (BKJD)



DV Model-Shift Uniqueness Test

008160924-01, P = 374.436654 Days, E = 263.064642 Days

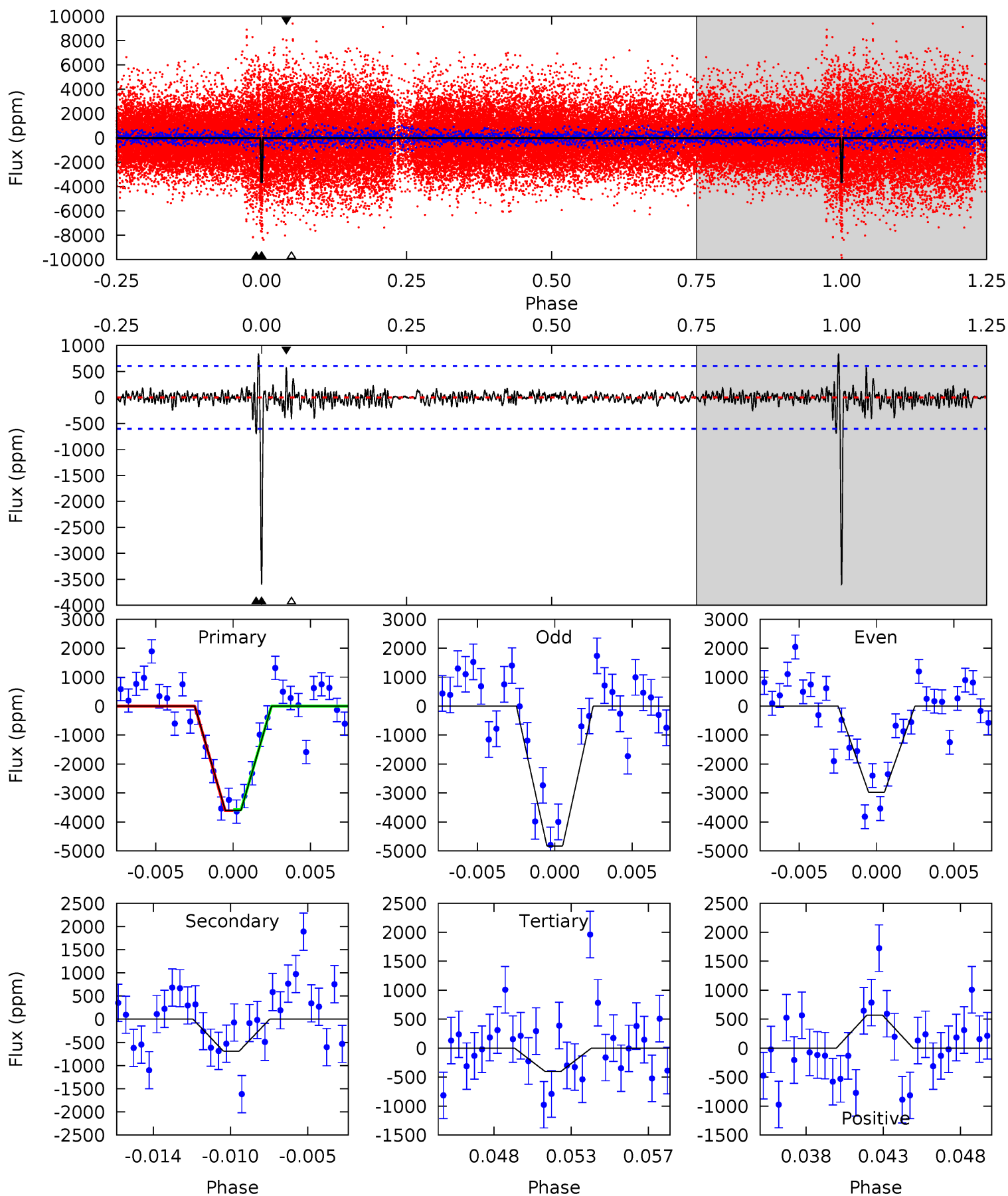
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
55.1	20.6	20.1	25.8	5.13	2.76	3.60	34.9	29.3	0.49	-5.17	0.43	1.02	0.45	5.98



Alt Model-Shift Uniqueness Test

008160924-01, P = 374.553966 Days, E = 262.930958 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
30.8	5.91	3.45	4.87	5.17	2.82	0.75	27.4	26.0	2.45	1.04	7.60	1.11	0.19	0.17



Stellar Parameters For KIC 008160924

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3331^{+109}_{-89}	$0.189^{+0.208}_{-0.052}$	$-0.140^{+0.250}_{-0.150}$	$130.213^{+18.783}_{-28.174}$	$0.955^{+0.326}_{-0.036}$	$0.000^{+0.000}_{-0.000}$
	+3%/-3%	+110%/-28%	+179%/-107%	+14%/-22%	+34%/-4%	+105%/-21%
Source	PHO54	PHO54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 008160924-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-2299 ± 112	$1254.88^{+152.98}_{-170.52}$	2302^{+112}_{-156}	2642^{+119}_{-100}	$0.861^{+0.274}_{-0.175}$
Alt.	-689 ± 117	$820.50^{+130.71}_{-123.74}$	2299^{+108}_{-144}	2450^{+189}_{-197}	$0.608^{+0.284}_{-0.166}$

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 $A_{obs} \gg 1.0$

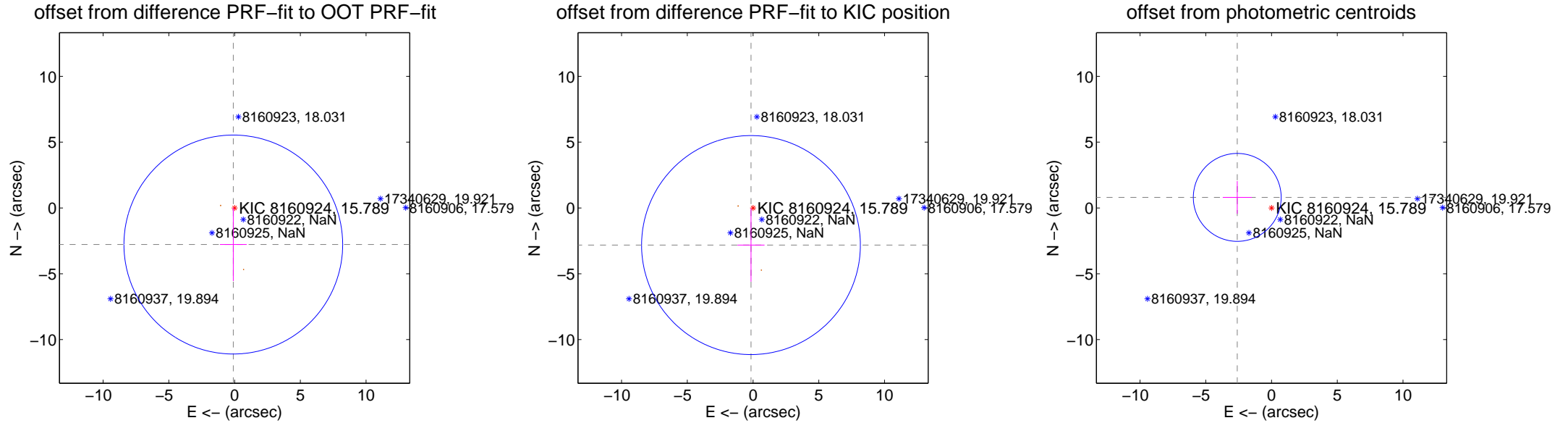
DV Centroid Data

Supplemental centroid analysis for 008160924-01. Kepler magnitude: 15.79. Transit SNR 15.12

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.782 ± 2.773	1.00	0.097 ± 1.018	-2.780 ± 2.775
PRF-fit source offset from KIC position	2.825 ± 2.774	1.02	0.158 ± 1.030	-2.821 ± 2.778
photometric centroid source offset	2.73 ± 1.11	2.45	2.61 ± 1.10	0.80 ± 1.24



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.

Q5 no difference image



Q5 no OOT image



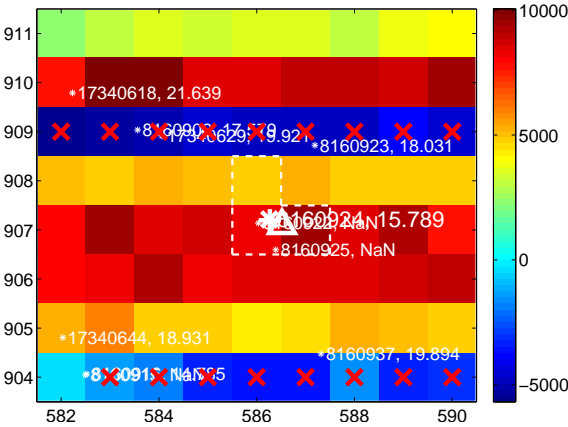
Q6 no difference image



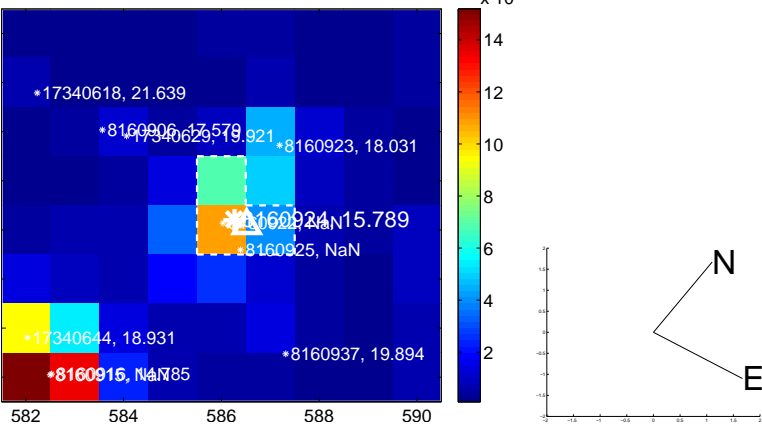
Q6 no OOT image



Q7 difference image. Poor Quality



Q7 OOT image



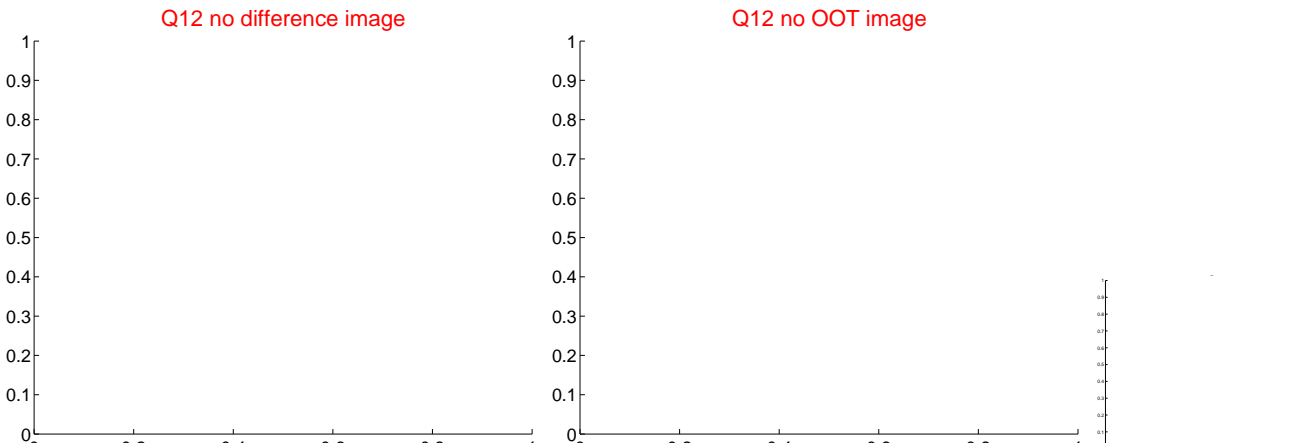
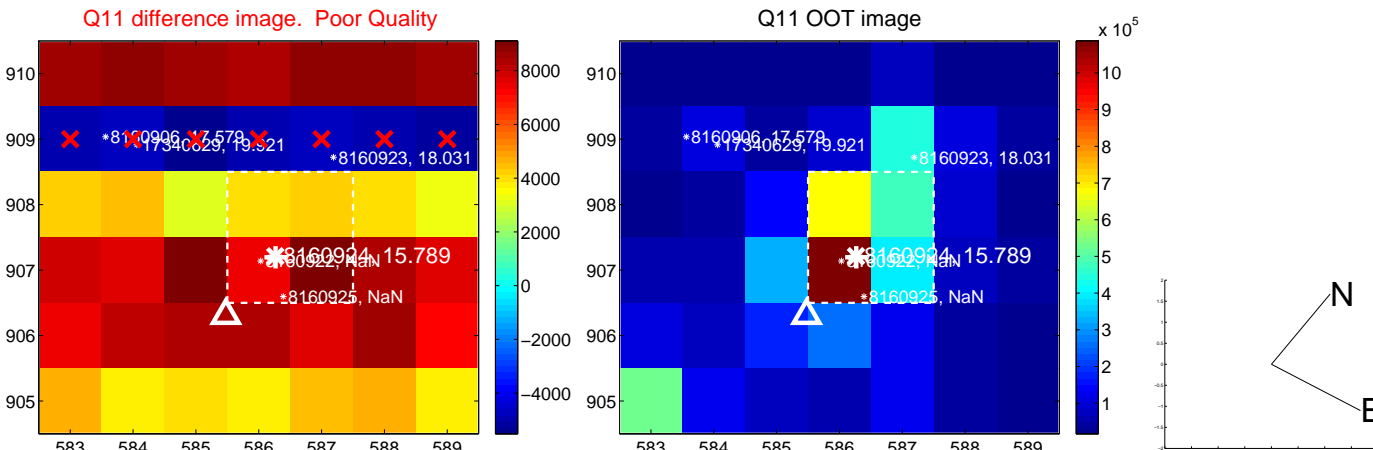
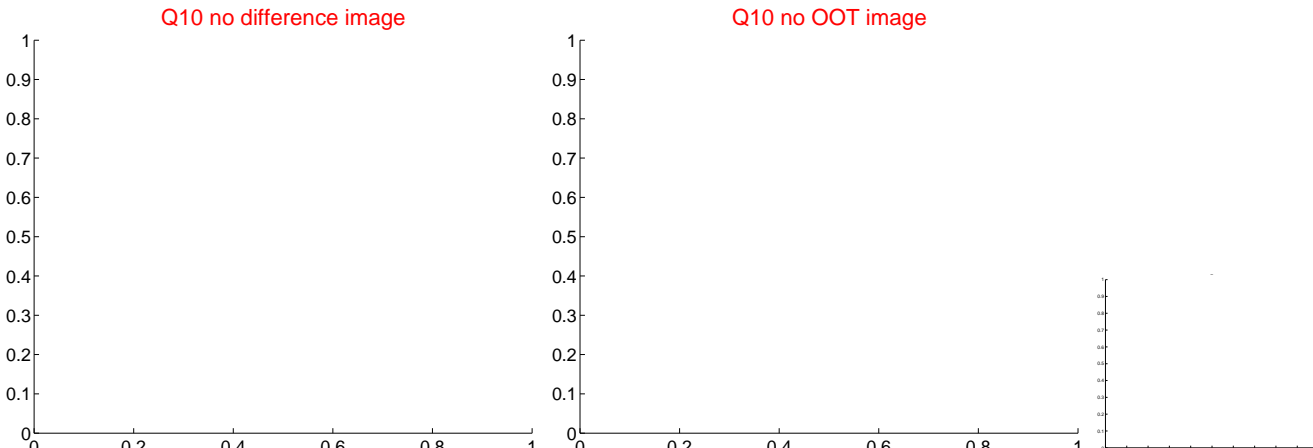
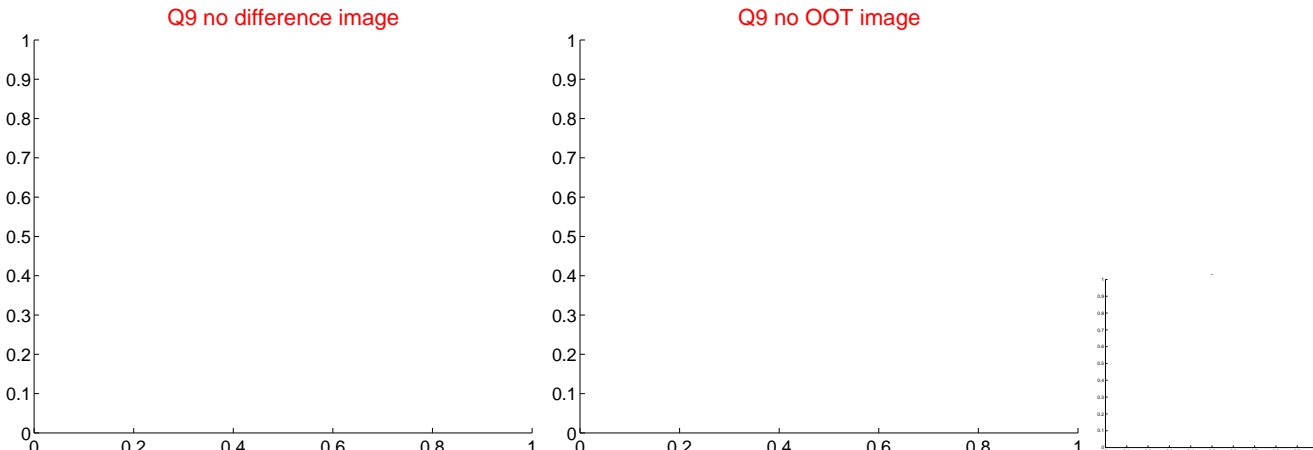
Q8 no difference image



Q8 no OOT image



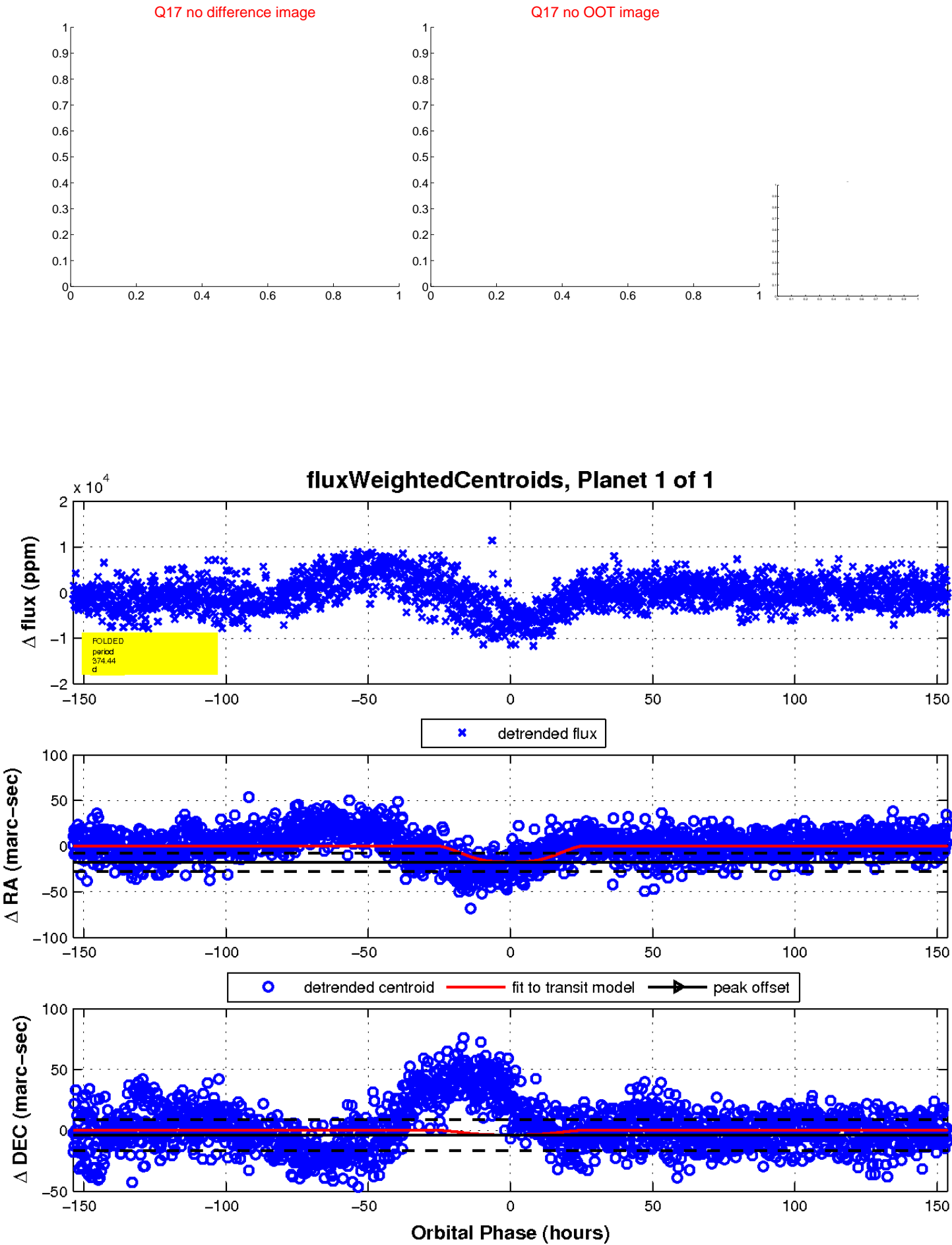
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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



UKIRT Image

Declination

