

KIC 008817510

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})
008817510-01	OBS	No	374.922674	136.731948	2595.4	80.461	11.7	16.9	0.85	5632	5.48	0.66

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008817510-01	OBS	FP	0.00	1	0	0	1	INDIV_TRANS_SKYE—LPP_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—EPHEM_MATCH

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.

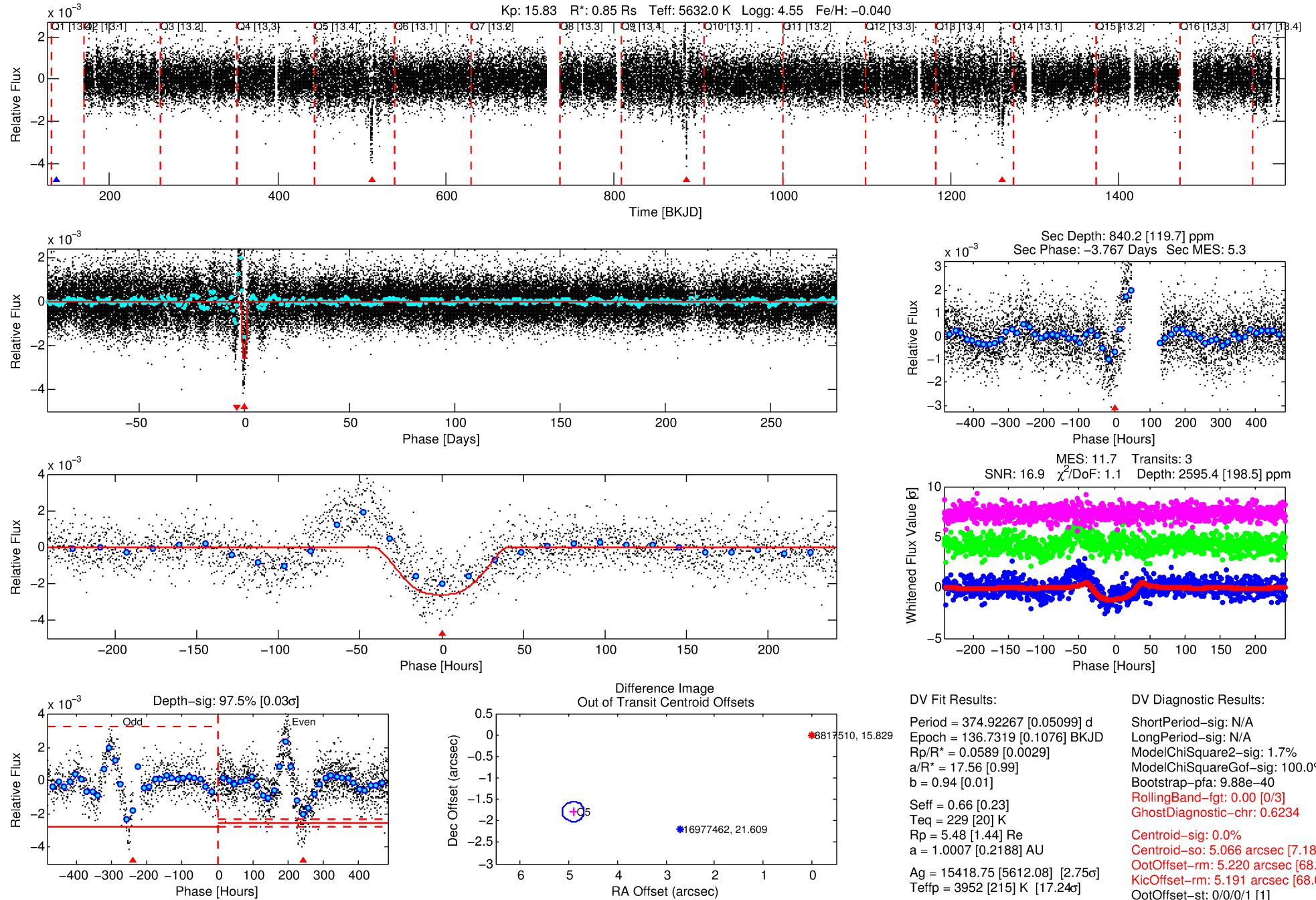
Ephemeris Match Information For 008817510-01

TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist ($''$)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
008817510-01	8817510	008621839-01	8621839	1:1	1775.5	-446	0	13.43	15.83	0.11	Col-Anomaly	1	0.43	4.80

Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

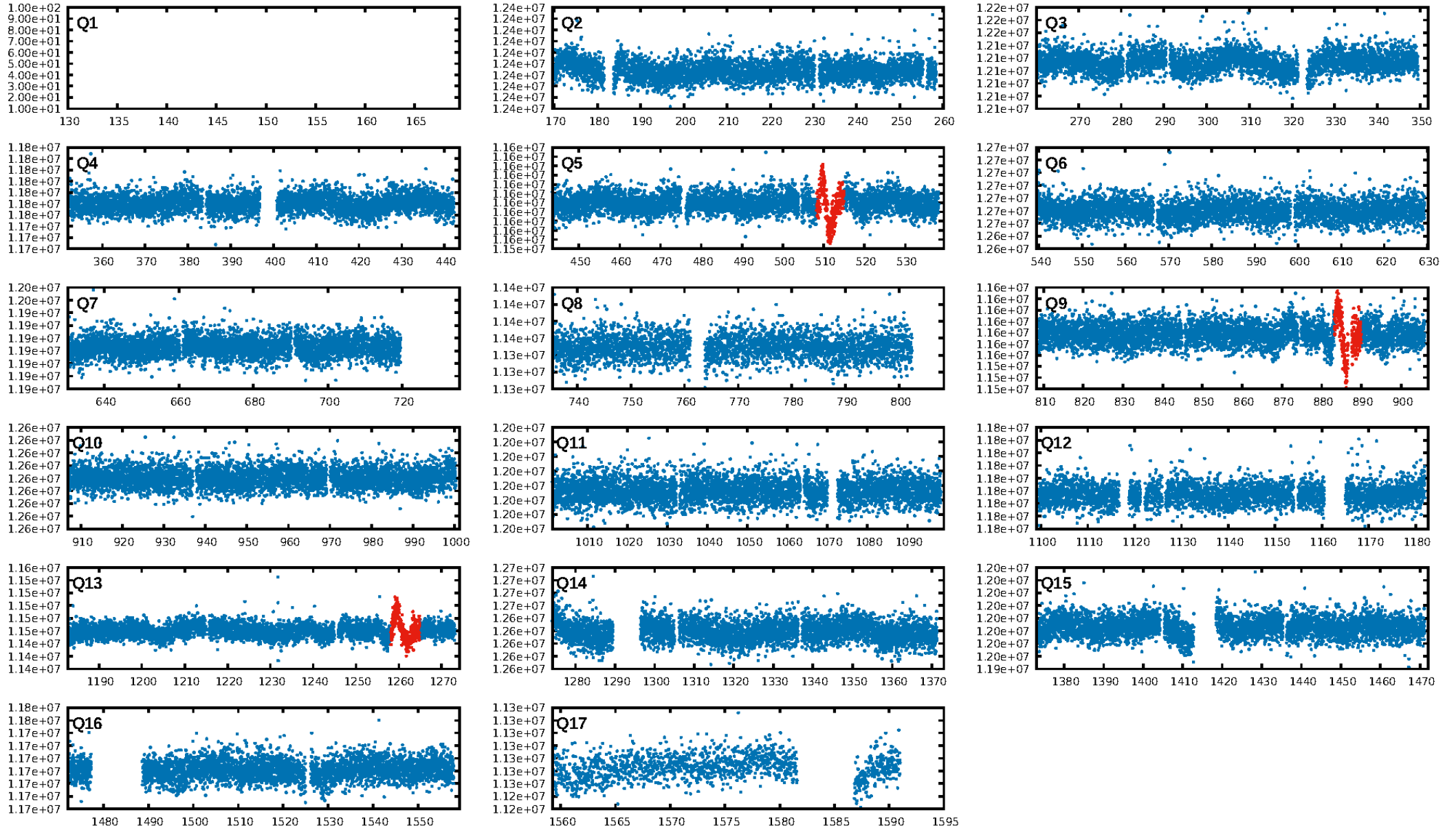
KIC: 8817510 Candidate: 1 of 1 Period: 374.923 d



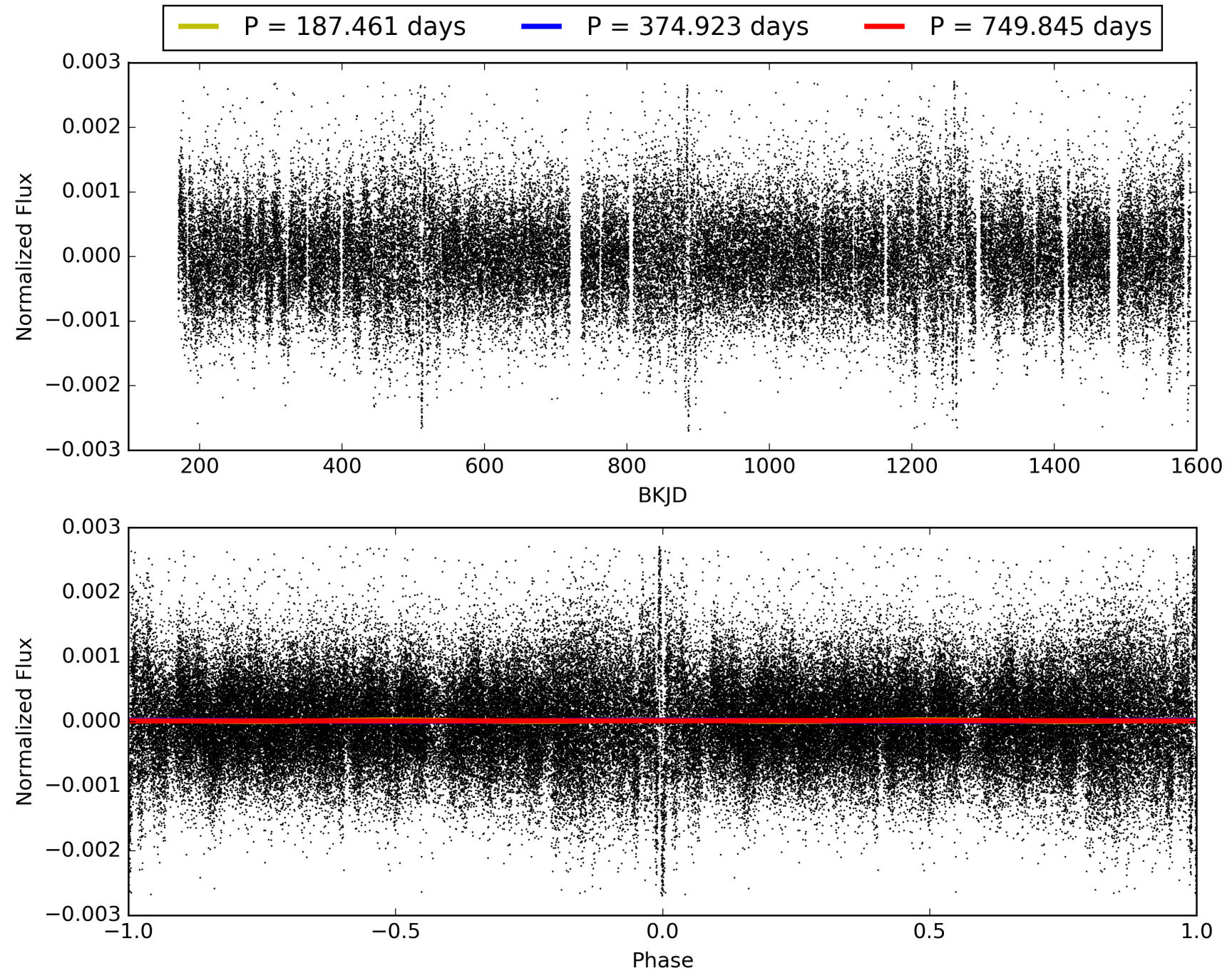
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:01:49 Z

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

TCE 008817510-01, PDC Light Curves

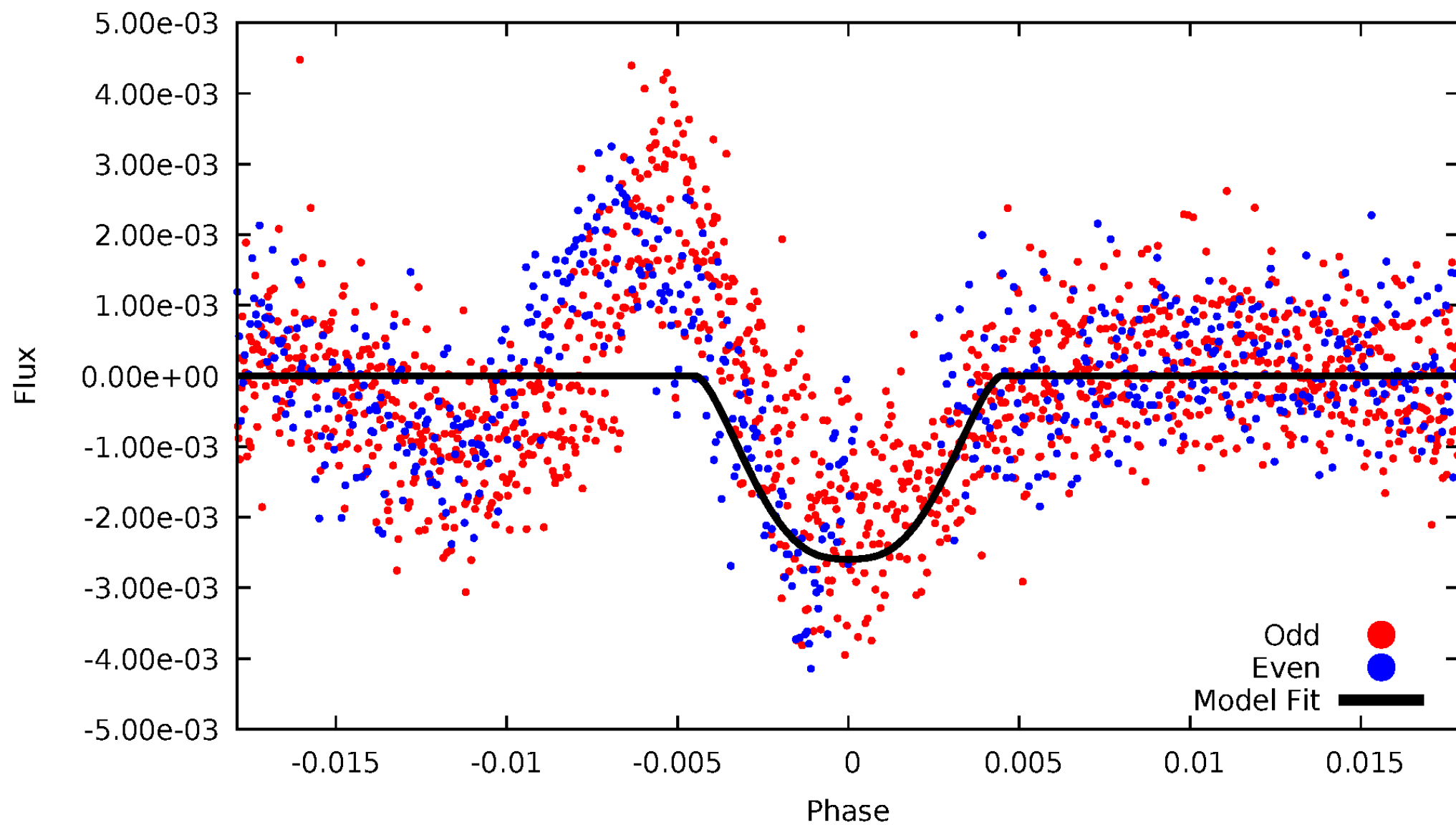


TCE 008817510-01



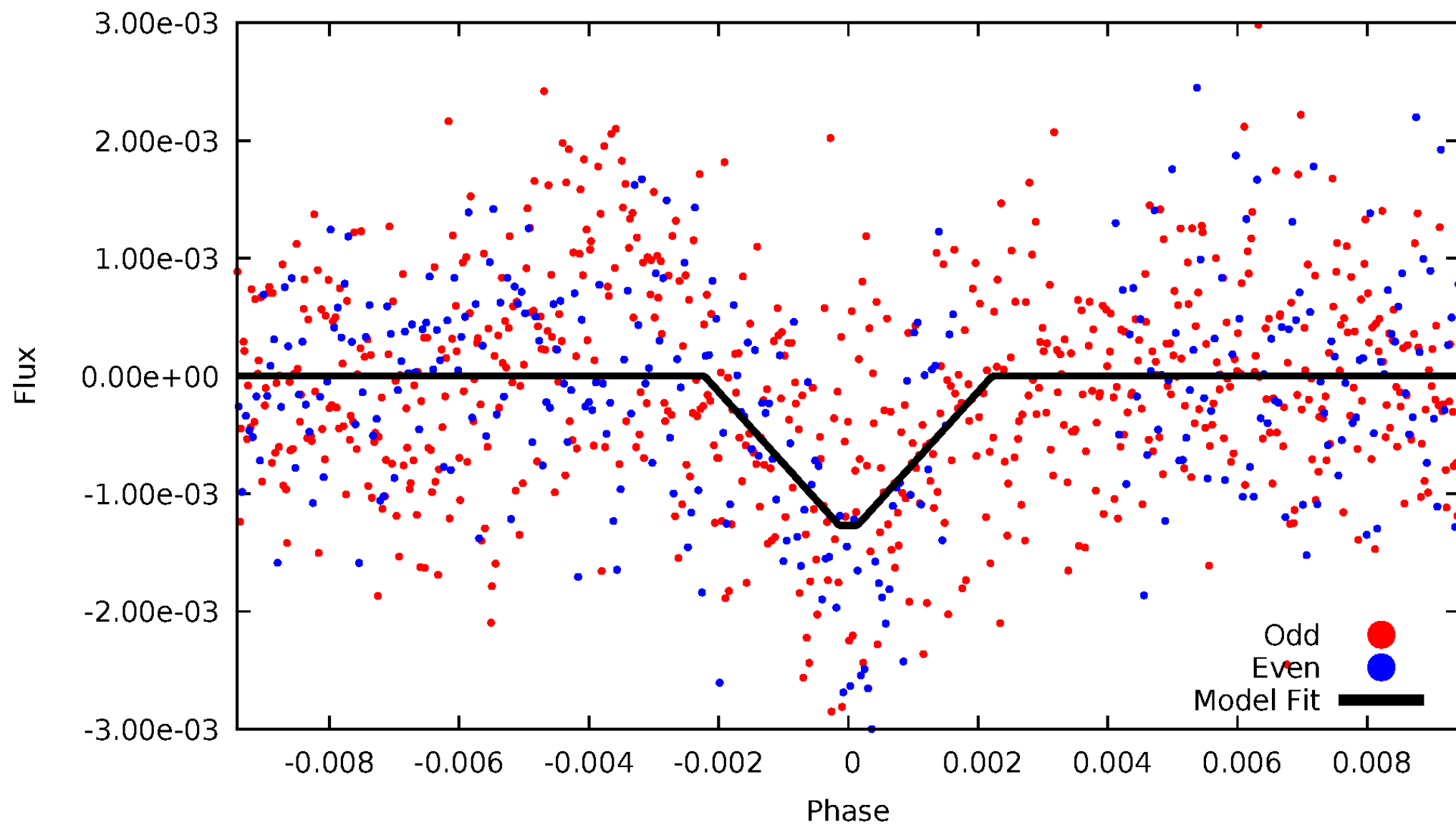
DV Odd/Even

TCE 008817510-01



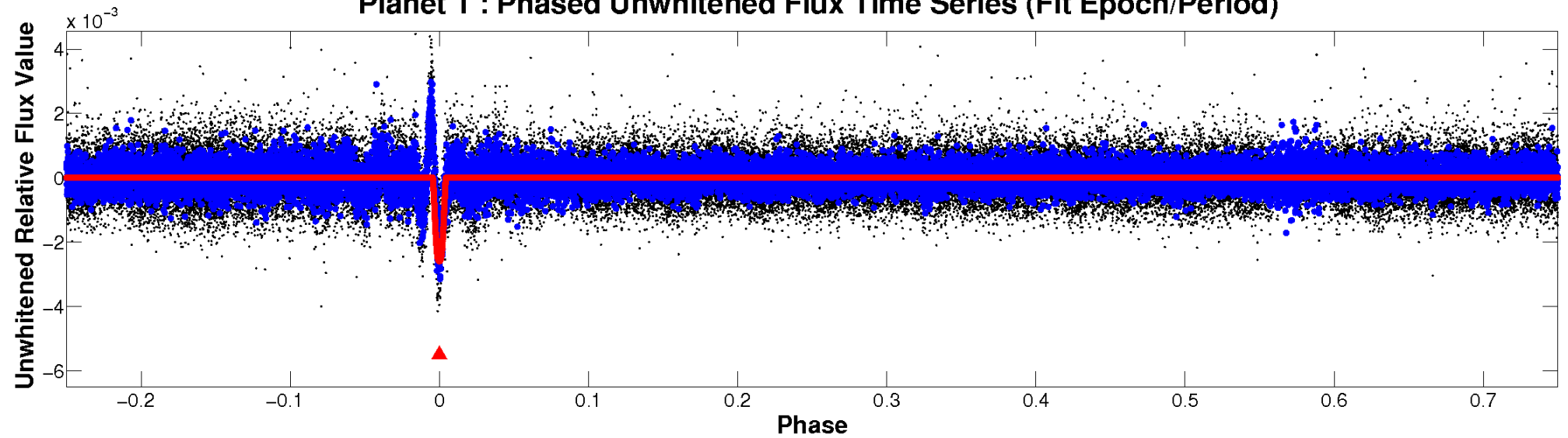
ALT Odd/Even

TCE 008817510-01

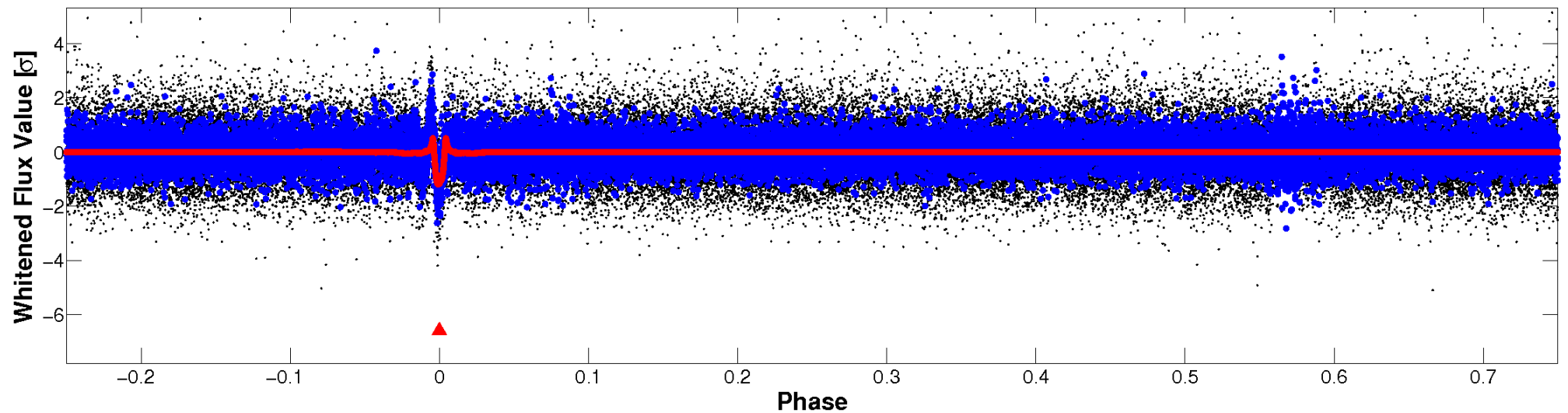


Non-Whitened Vs. Whitened Light Curve

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

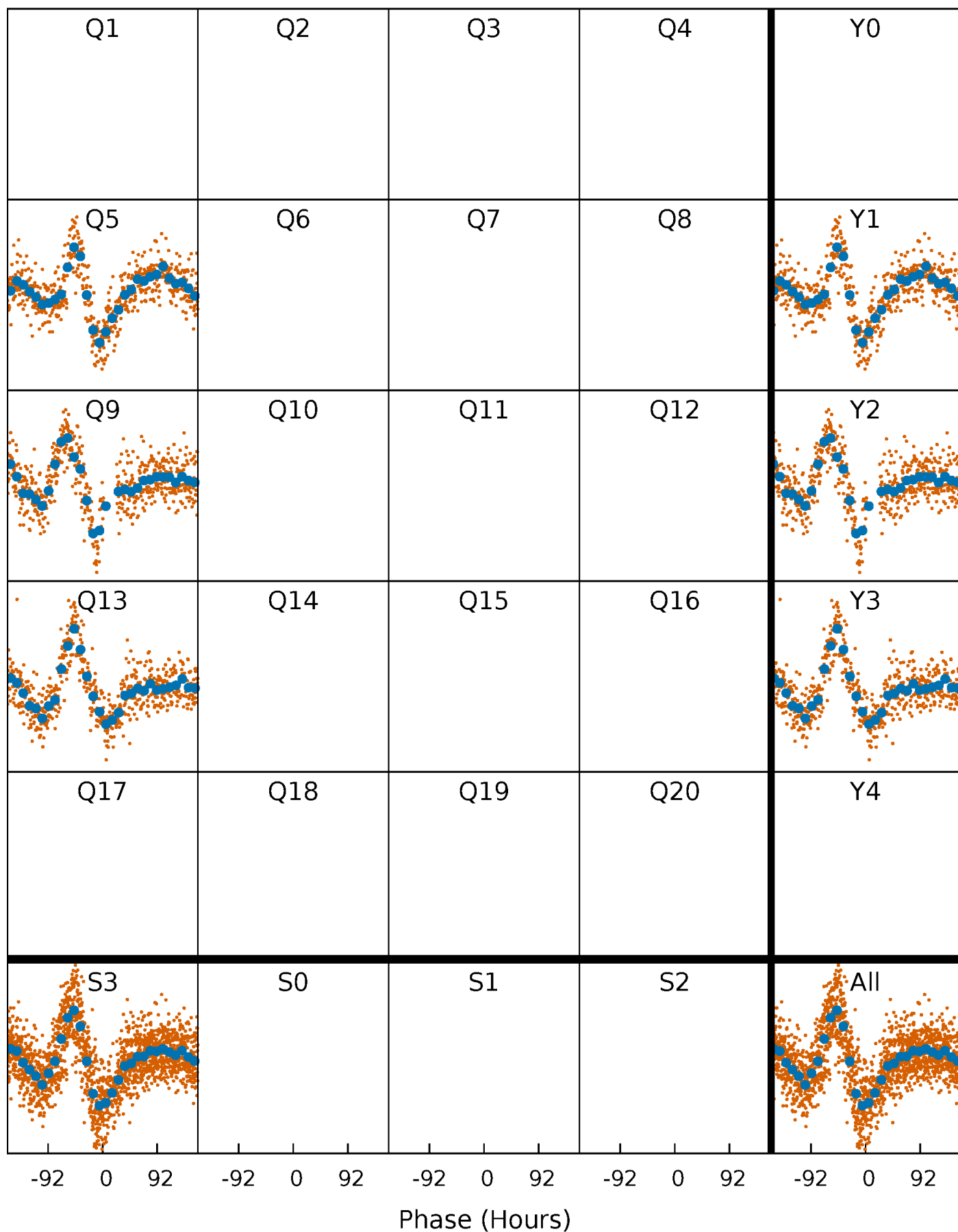


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



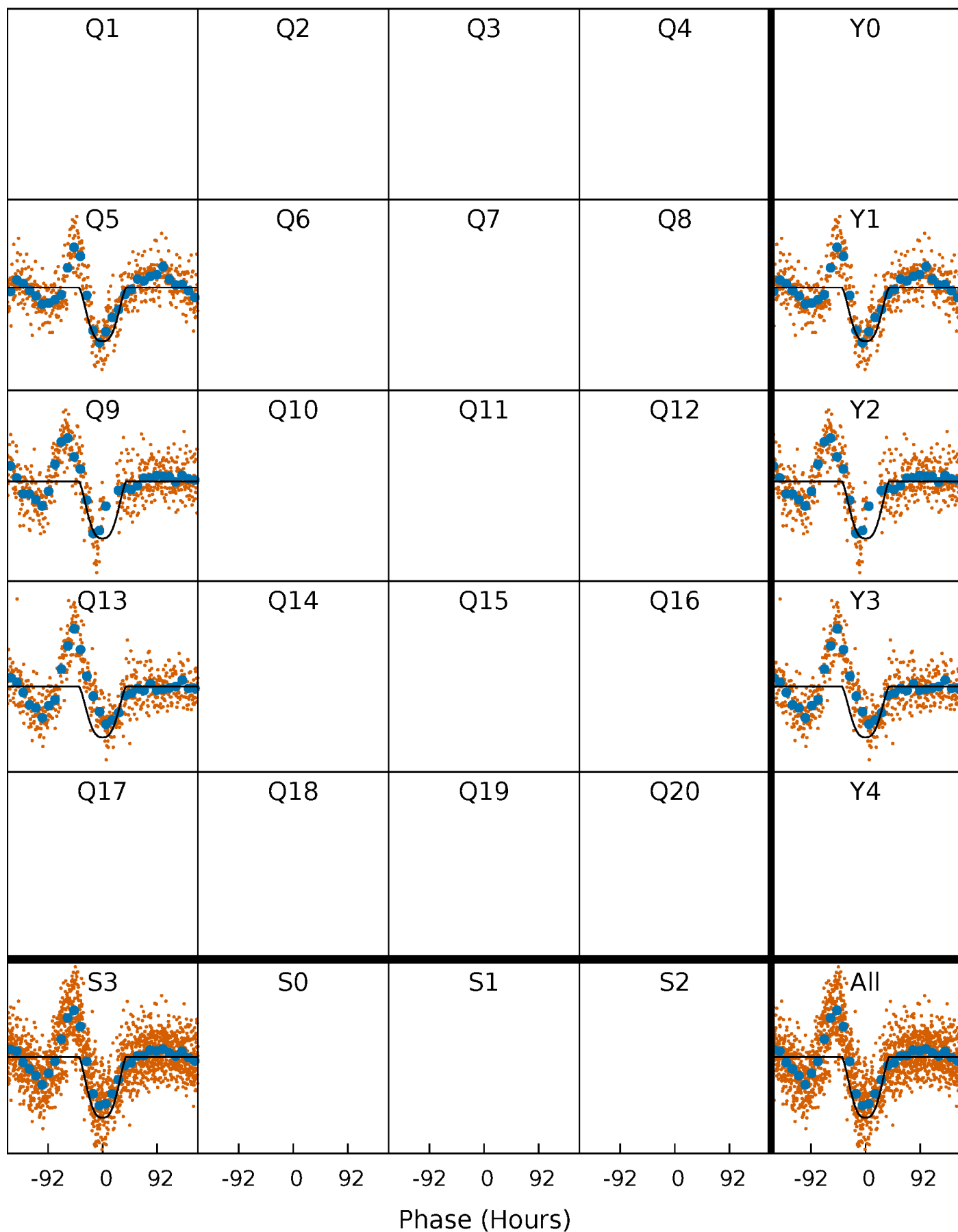
PDC Quarter-Phased Transit Curves

TCE 008817510-01 P=374.922674 Days $T_0=136.731948$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 008817510-01 P=374.922674 Days $T_0=136.731948$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

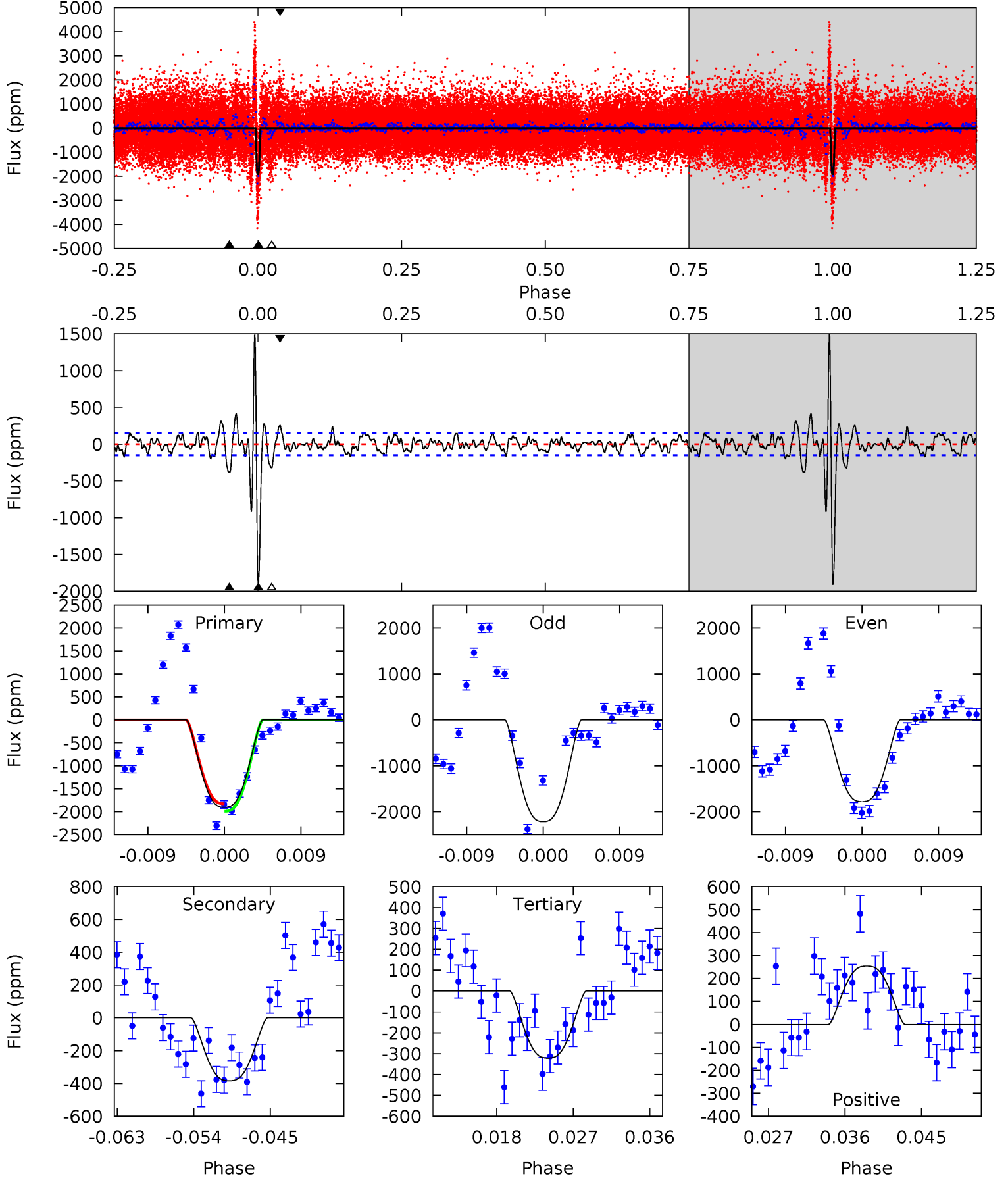
TCE 008817510-01 P=374.846847 Days $T_0=136.337966$ (BKJD)



DV Model-Shift Uniqueness Test

008817510-01, P = 374.922674 Days, E = 136.731948 Days

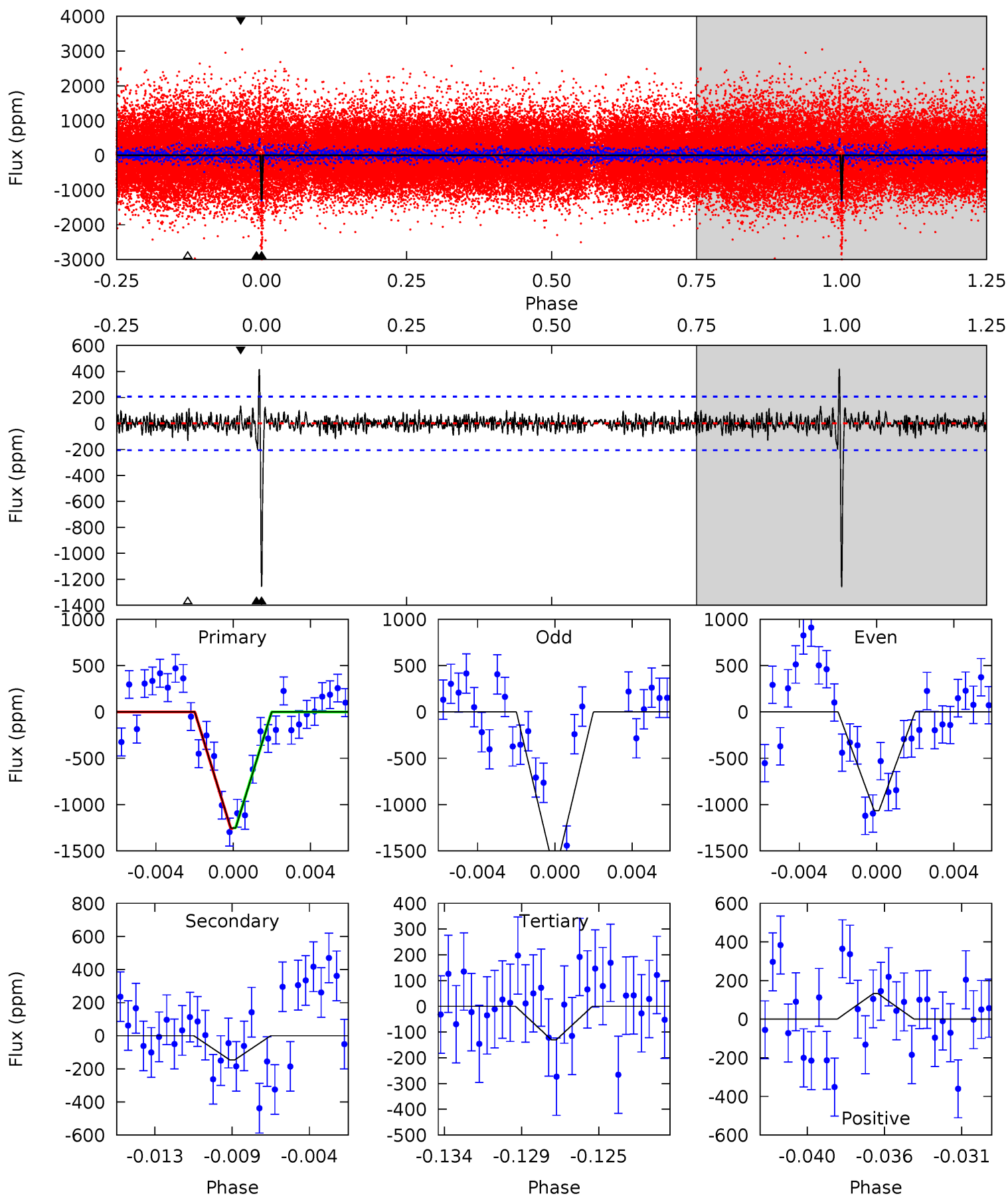
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
63.4	12.8	10.7	8.46	5.05	2.61	3.32	52.7	54.9	2.08	4.31	6.47	0.88	0.44	2.71



Alt Model-Shift Uniqueness Test

008817510-01, P = 374.846847 Days, E = 136.337966 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
31.4	3.66	3.26	3.31	5.18	2.84	0.91	28.1	28.1	0.40	0.35	6.69	0.75	0.25	0.09



Stellar Parameters For KIC 008817510

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5632^{+169}_{-186}	$4.554^{+0.033}_{-0.176}$	$-0.040^{+0.250}_{-0.300}$	$0.853^{+0.220}_{-0.073}$	$0.952^{+0.094}_{-0.115}$	$2.163^{+0.396}_{-1.066}$
	+3%/-3%	+1%/-4%	+625%/-750%	+26%/-9%	+10%/-12%	+18%/-49%
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 008817510-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-384 ± 30	$5.68^{+0.82}_{-0.49}$	329^{+20}_{-15}	3670^{+112}_{-107}	6365^{+1391}_{-1322}
Alt.	-146 ± 40	$3.48^{+0.51}_{-0.38}$	329^{+19}_{-15}	3672^{+203}_{-205}	6377^{+2308}_{-2038}

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 $A_{obs} \gg 1.0$

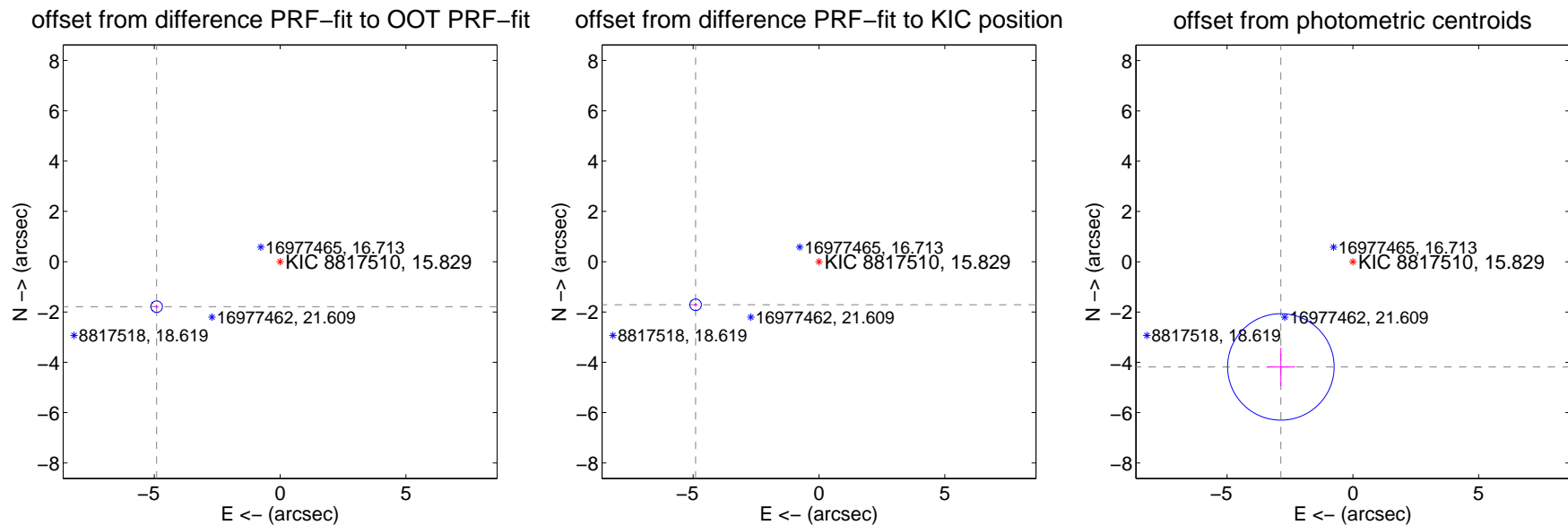
DV Centroid Data

Supplemental centroid analysis for 008817510-01. Kepler magnitude: 15.83. Transit SNR 16.95

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.220 ± 0.076	68.39	4.904 ± 0.076	-1.788 ± 0.078
PRF-fit source offset from KIC position	5.191 ± 0.076	68.03	4.900 ± 0.076	-1.713 ± 0.078
photometric centroid source offset	5.07 ± 0.71	7.18	2.86 ± 0.57	-4.18 ± 0.76

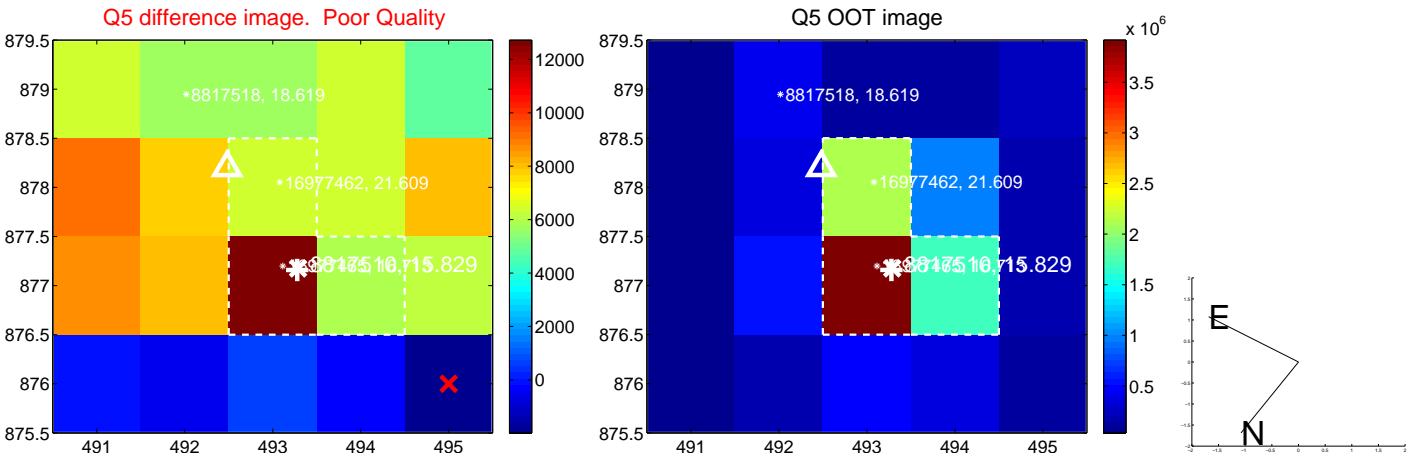


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



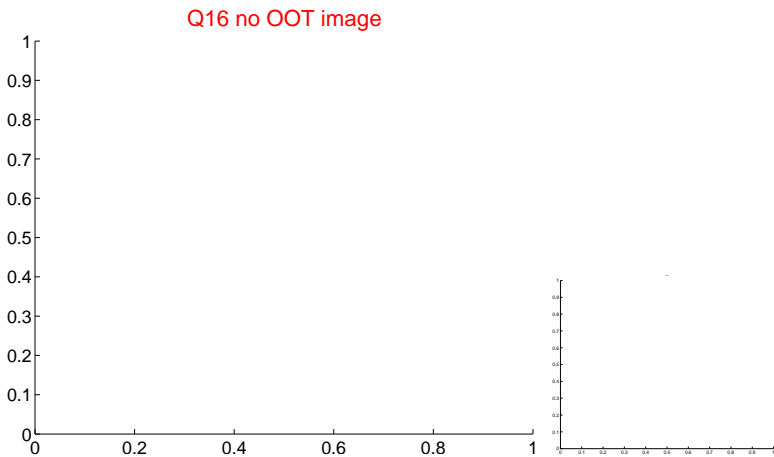
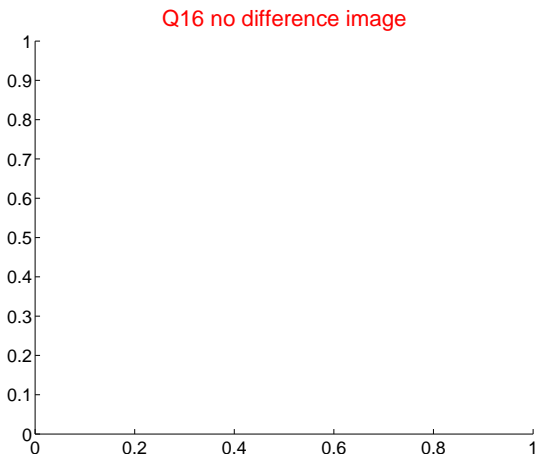
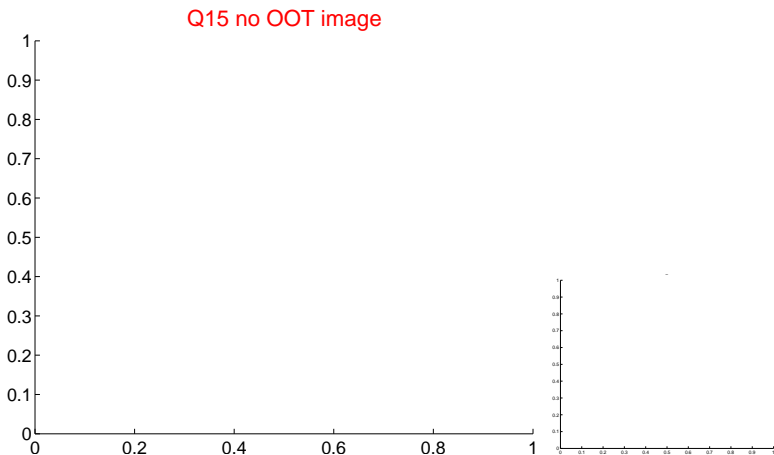
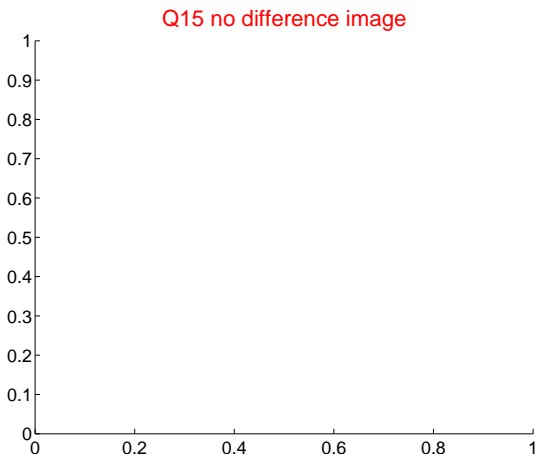
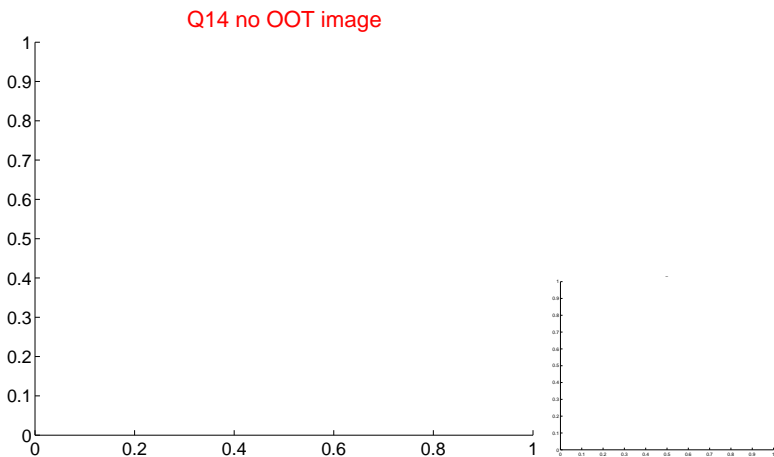
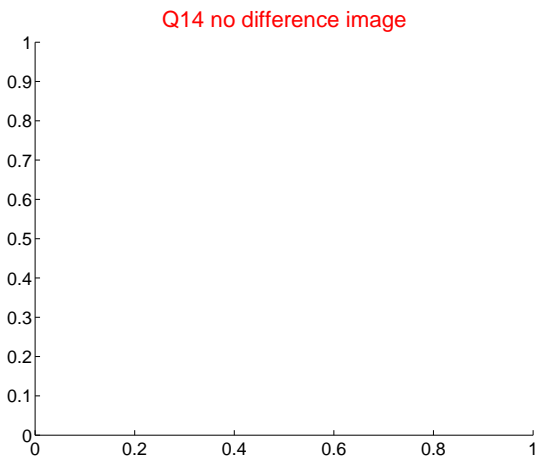
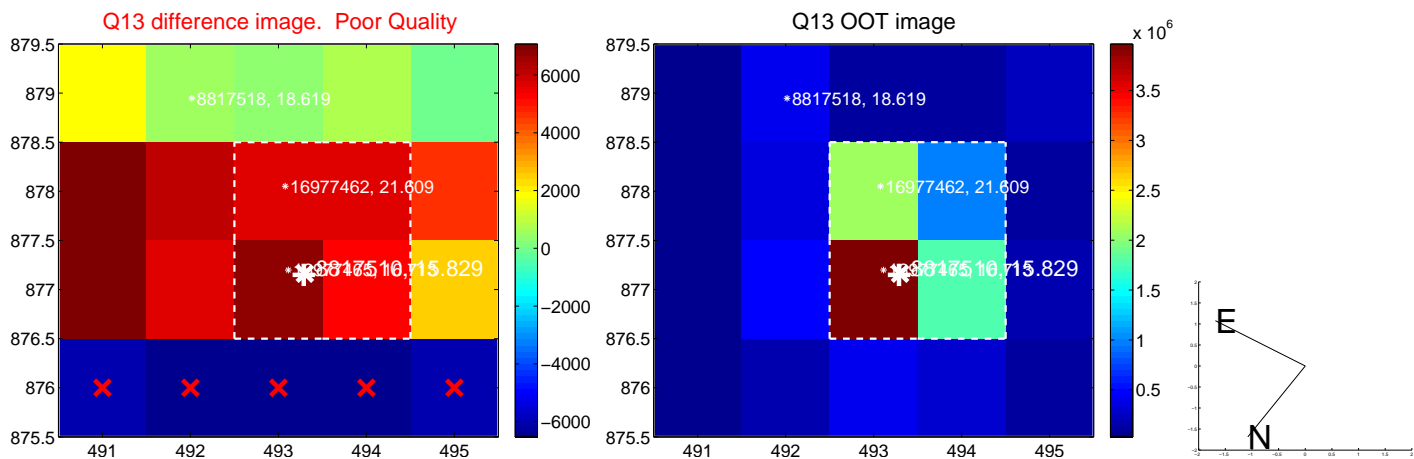
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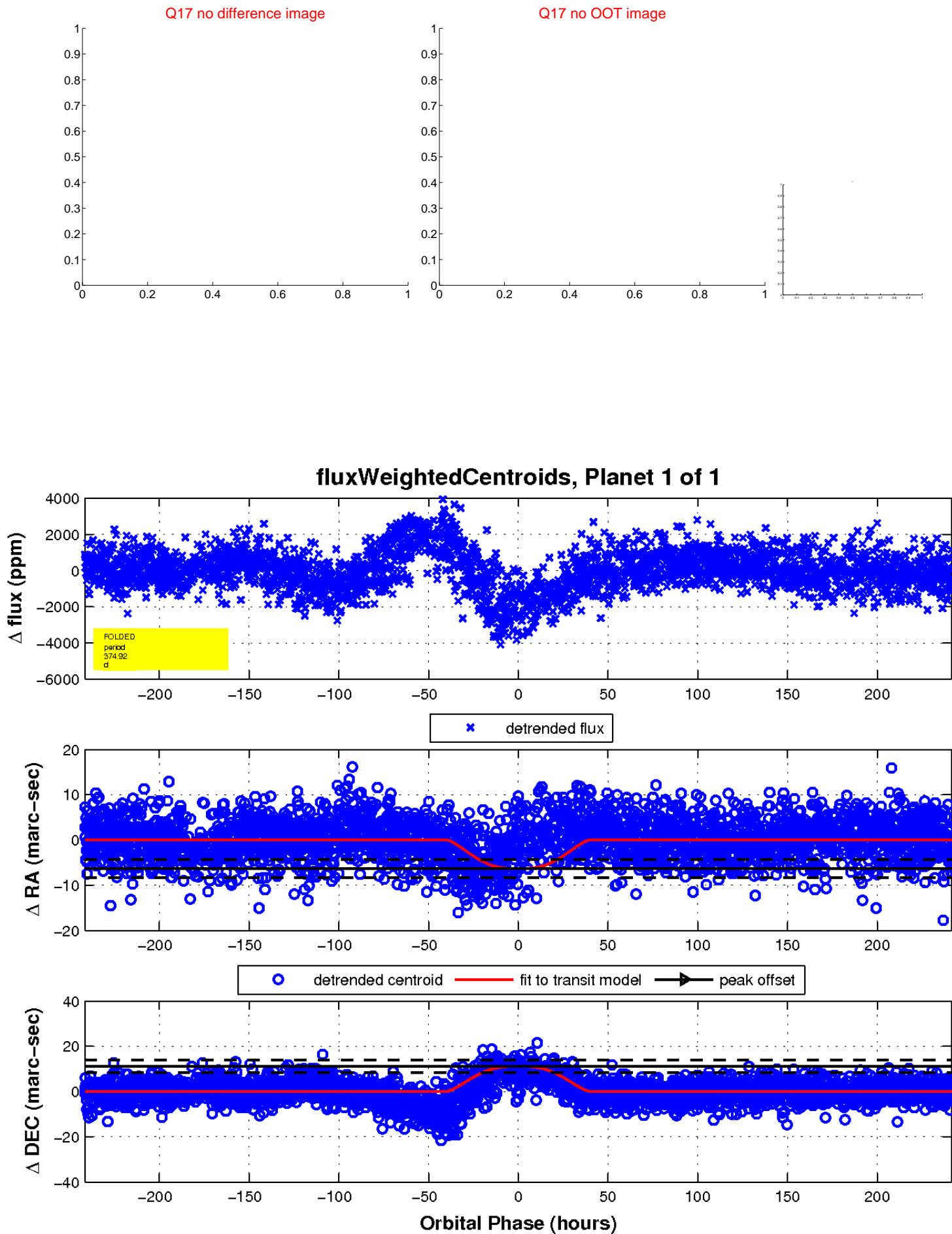
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UKIRT Image

Declination

