

KIC 008817605

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})
008817605-01	OBS	No	373.170819	140.161969	981.1	27.752	10.6	10.9	0.81	5761	4.88	0.67

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008817605-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_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.

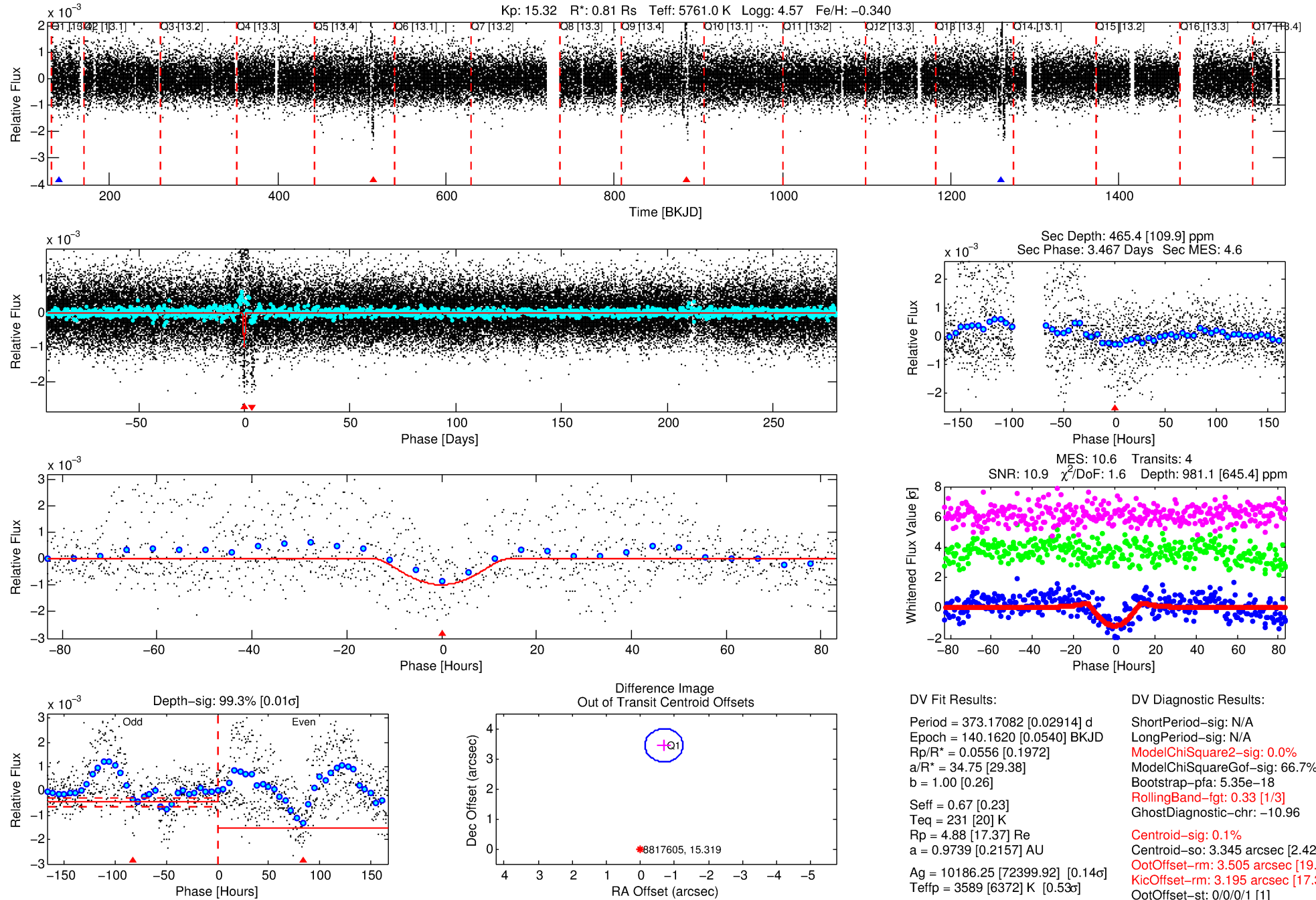
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008817605-01

No Significant Match Found

DV One-Page Summary

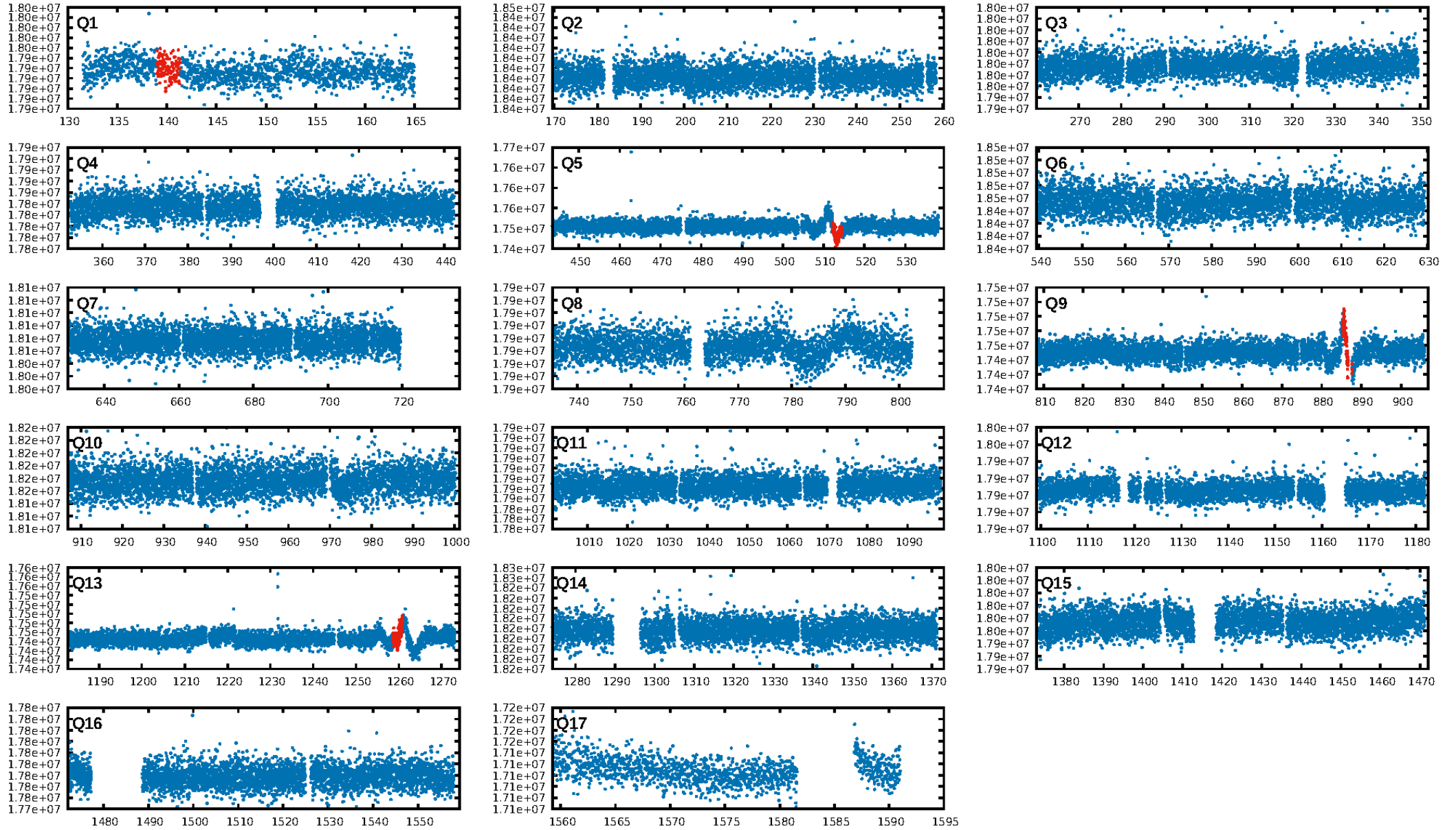
KIC: 8817605 Candidate: 1 of 1 Period: 373.171 d



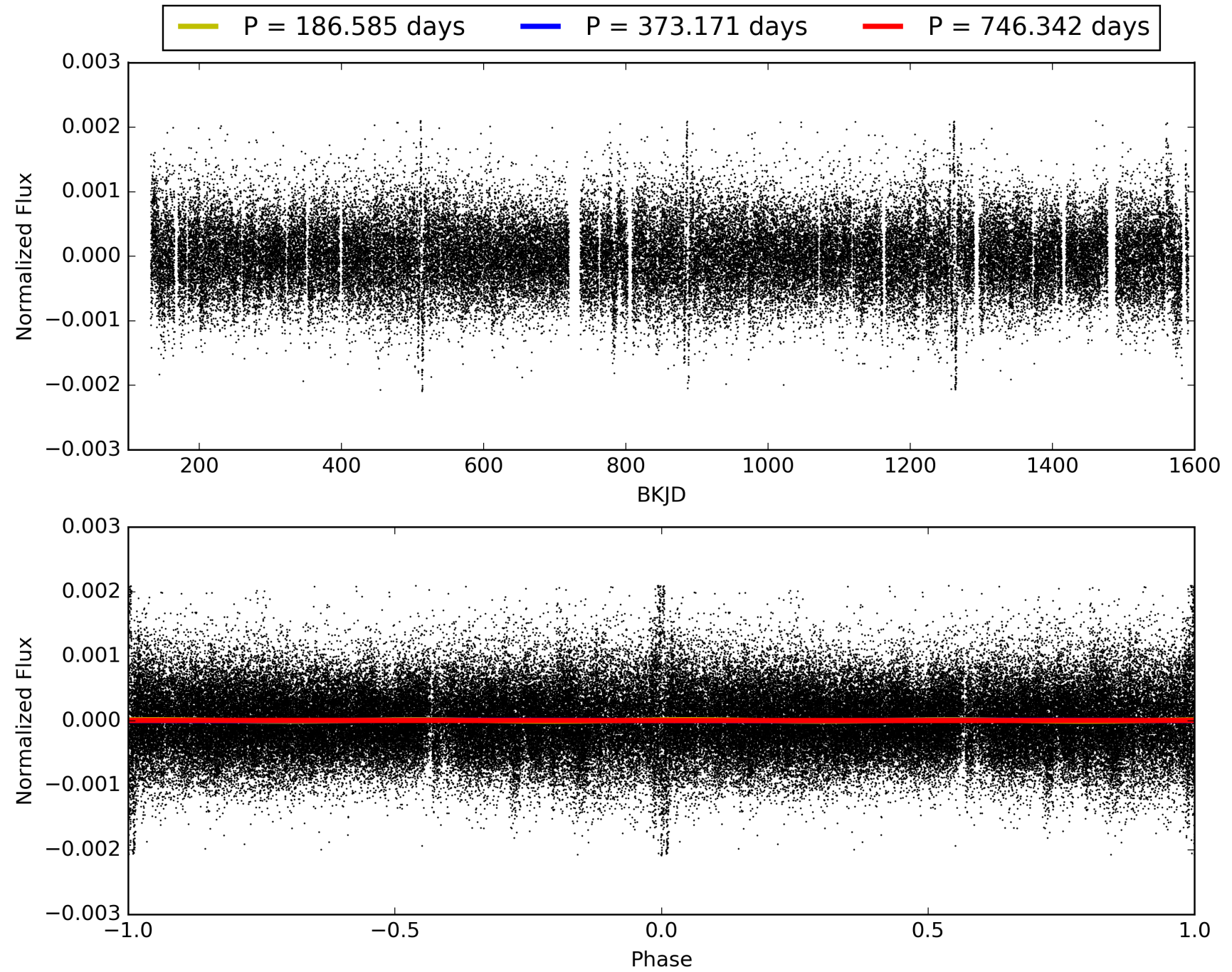
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:08:44 Z

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

TCE 008817605-01, PDC Light Curves

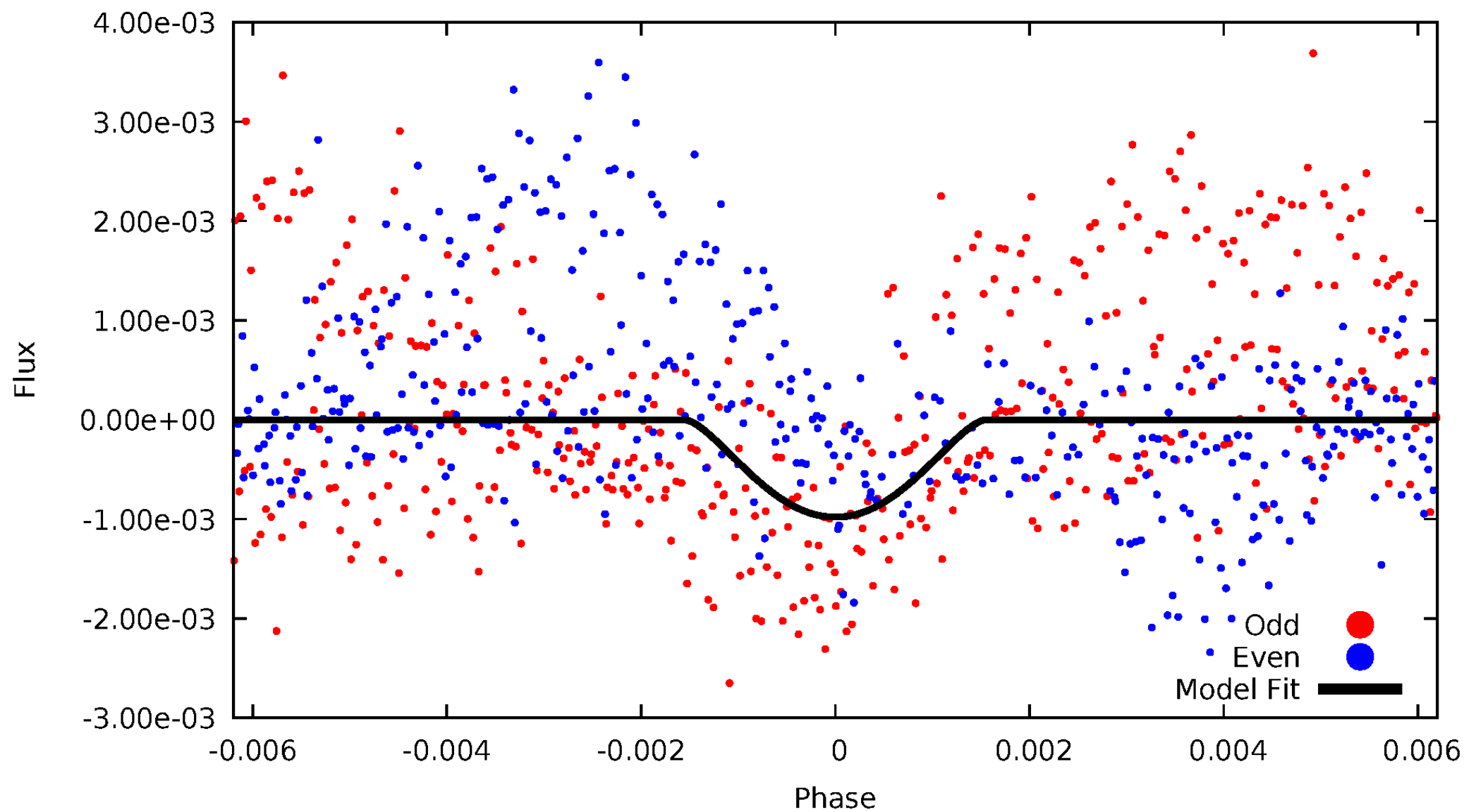


TCE 008817605-01



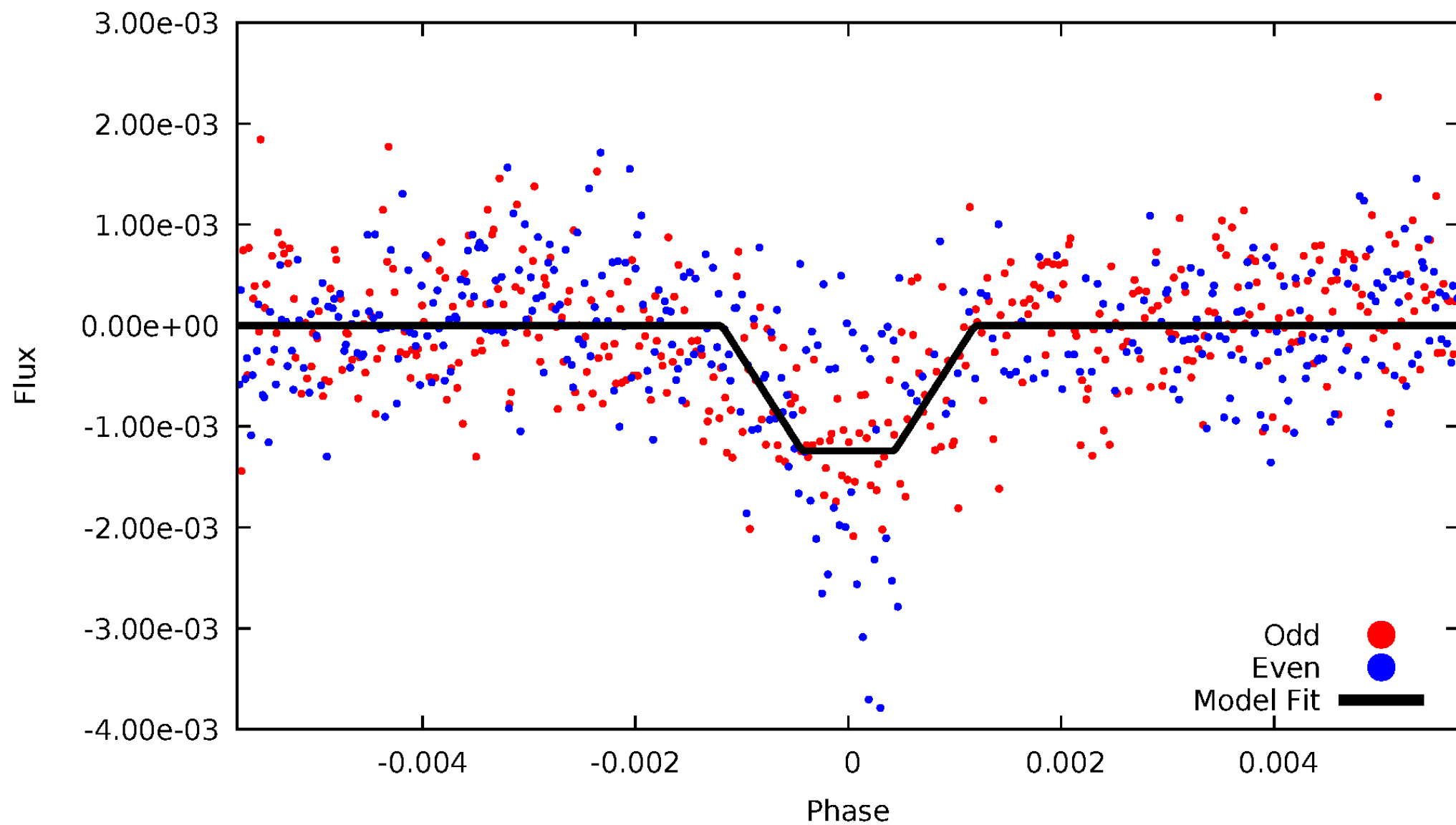
DV Odd/Even

TCE 008817605-01



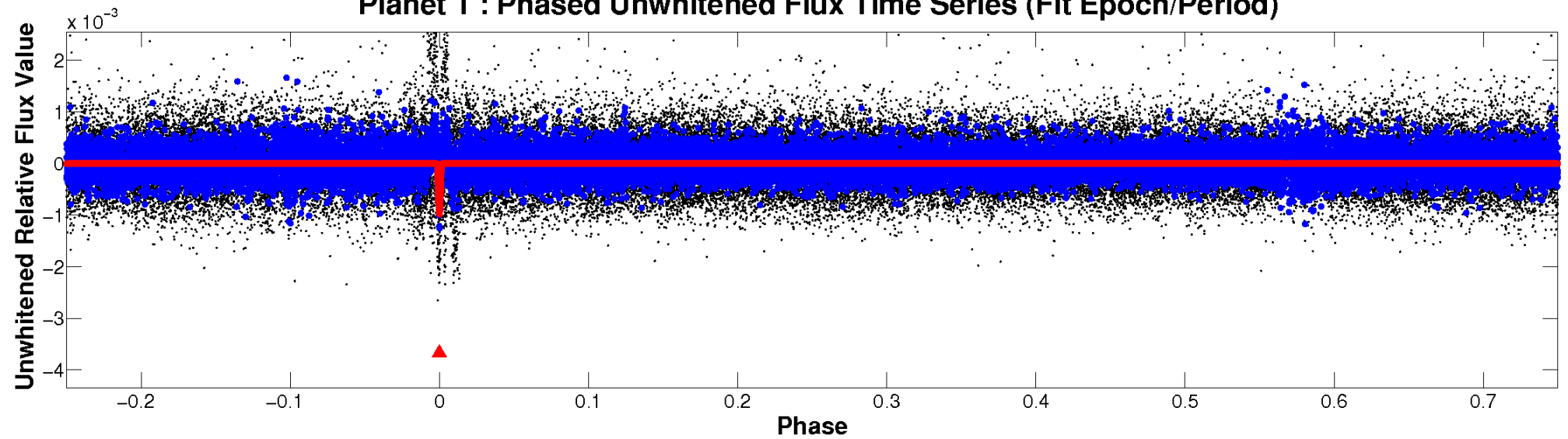
ALT Odd/Even

TCE 008817605-01

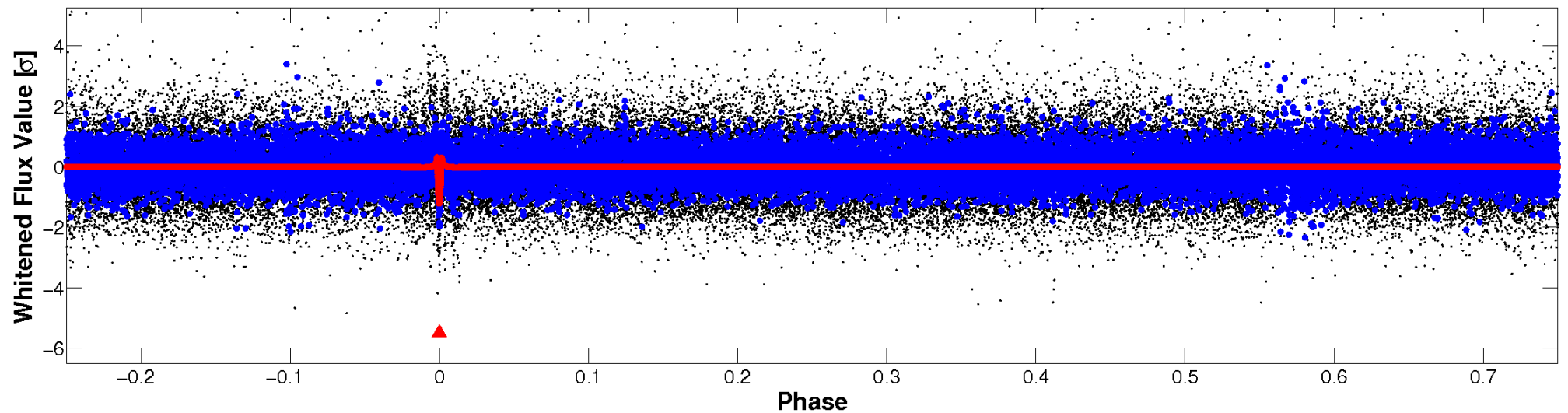


Non-Whitened Vs. Whitened Light Curve

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 008817605-01 P=373.170819 Days $T_0=140.161969$ (BKJD)



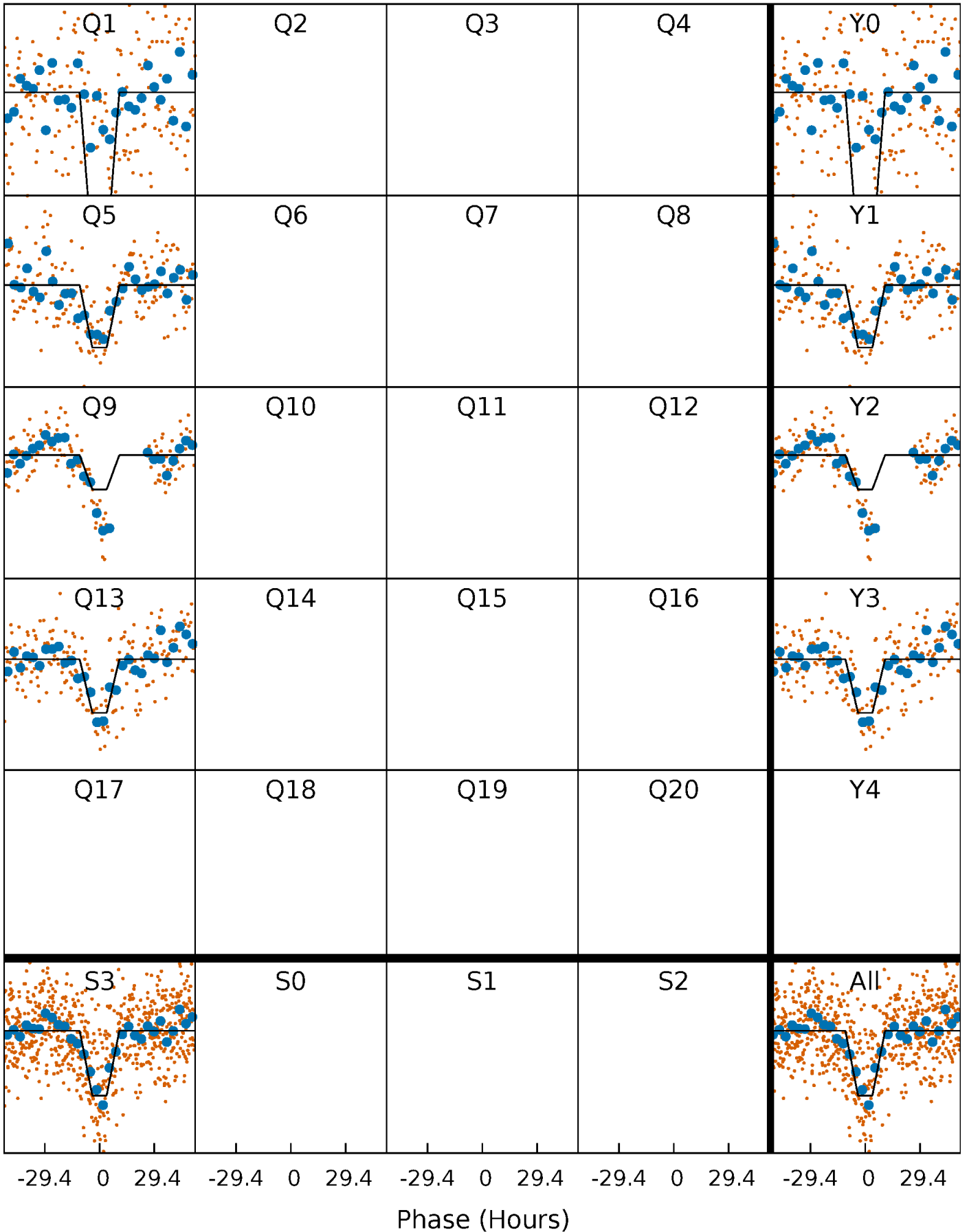
DV Quarter-Phased Transit Curves

TCE 008817605-01 P=373.170819 Days $T_0=140.161969$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

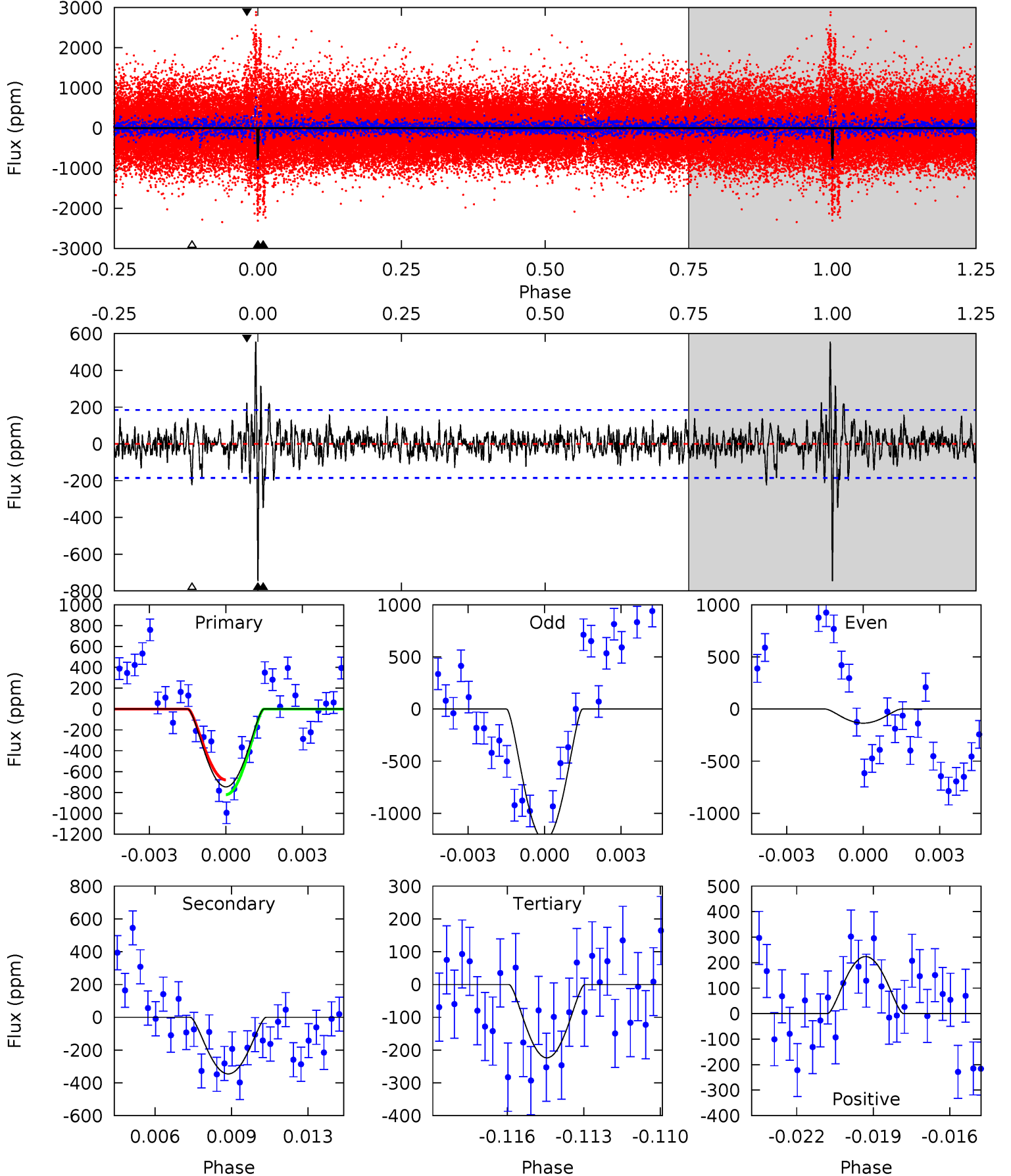
TCE 008817605-01 P=373.191729 Days $T_0=140.079361$ (BKJD)



DV Model-Shift Uniqueness Test

008817605-01, $P = 373.170819$ Days, $E = 140.161969$ Days

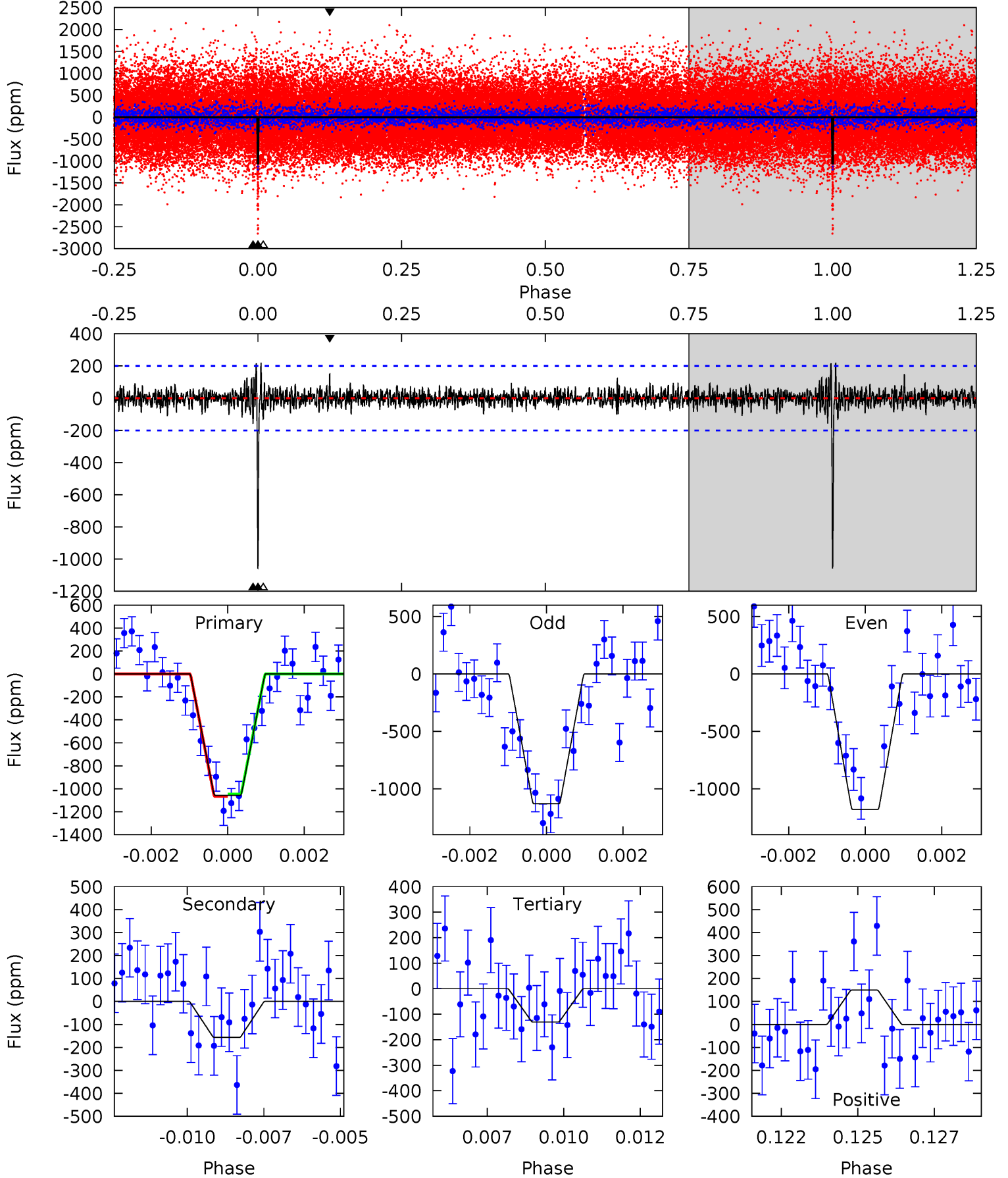
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.2	9.80	6.35	6.35	5.24	2.95	1.68	14.8	14.8	3.46	3.45	16.0	1.61	0.43	2.01



Alt Model-Shift Uniqueness Test

008817605-01, P = 373.191729 Days, E = 140.079361 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
27.9	4.13	3.45	3.95	5.29	3.03	0.95	24.5	24.0	0.68	0.19	0.66	1.04	0.17	0.28



Stellar Parameters For KIC 008817605

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5761^{+155}_{-155}	$4.573^{+0.033}_{-0.176}$	$-0.340^{+0.300}_{-0.300}$	$0.805^{+0.212}_{-0.071}$	$0.893^{+0.090}_{-0.100}$	$2.410^{+0.404}_{-1.108}$
	+3%/-3%	+1%/-4%	+88%/-88%	+26%/-9%	+10%/-11%	+17%/-46%
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 008817605-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-345 ± 35	$14.15^{+13.80}_{-9.70}$	331^{+21}_{-13}	2750^{+1154}_{-400}	857^{+7859}_{-630}
Alt.	-156 ± 38	$13.50^{+14.51}_{-9.95}$	331^{+19}_{-15}	2546^{+1111}_{-424}	450^{+5669}_{-352}

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

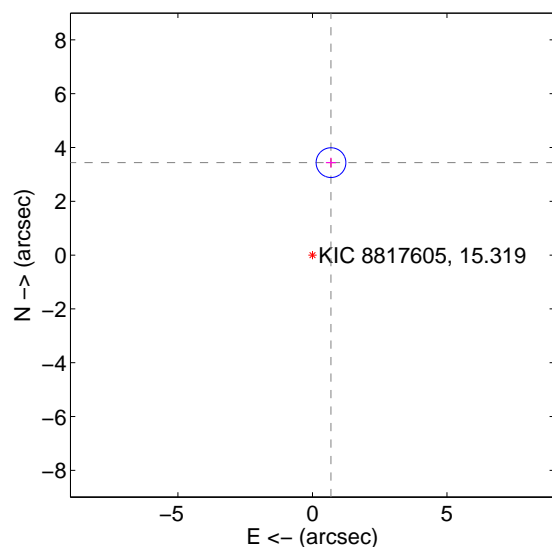
Supplemental centroid analysis for 008817605-01. Kepler magnitude: 15.32. Transit SNR 10.94

There are 0 quarters with good PRF difference image offsets

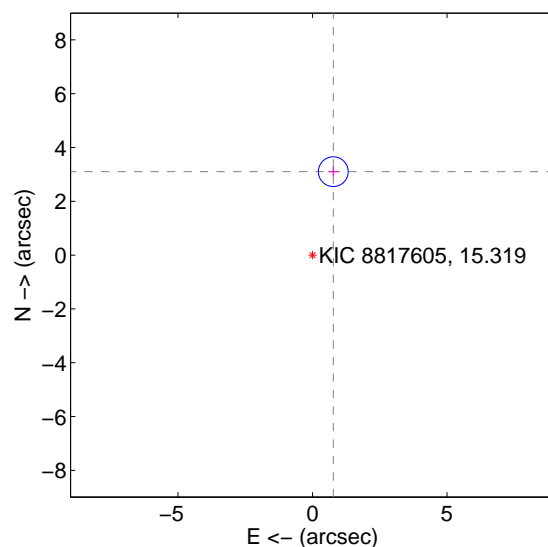
The direct PRF centroid is offset from the target star catalog position by about 0.35 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.505 ± 0.184	19.02	-0.689 ± 0.188	3.436 ± 0.184
PRF-fit source offset from KIC position	3.195 ± 0.184	17.34	-0.771 ± 0.188	3.101 ± 0.184
photometric centroid source offset	3.34 ± 1.38	2.42	0.95 ± 1.28	3.21 ± 1.39

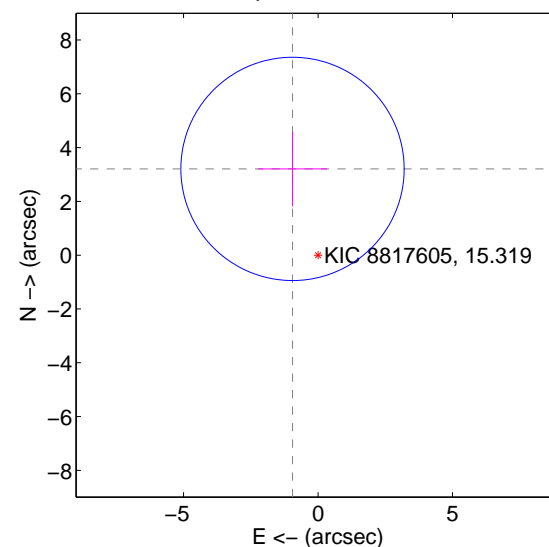
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

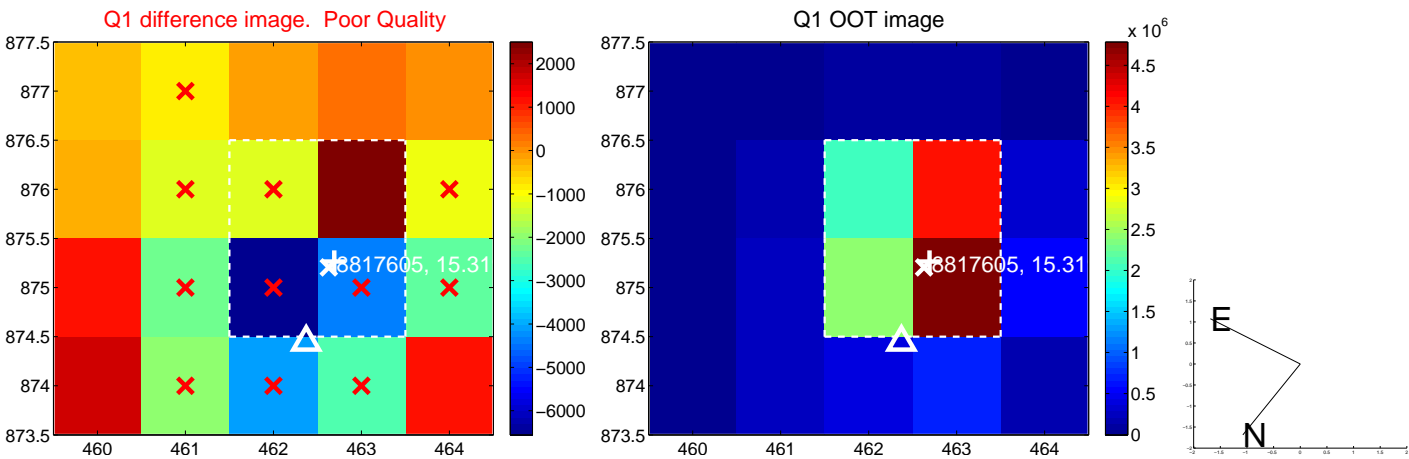


offset from photometric centroids

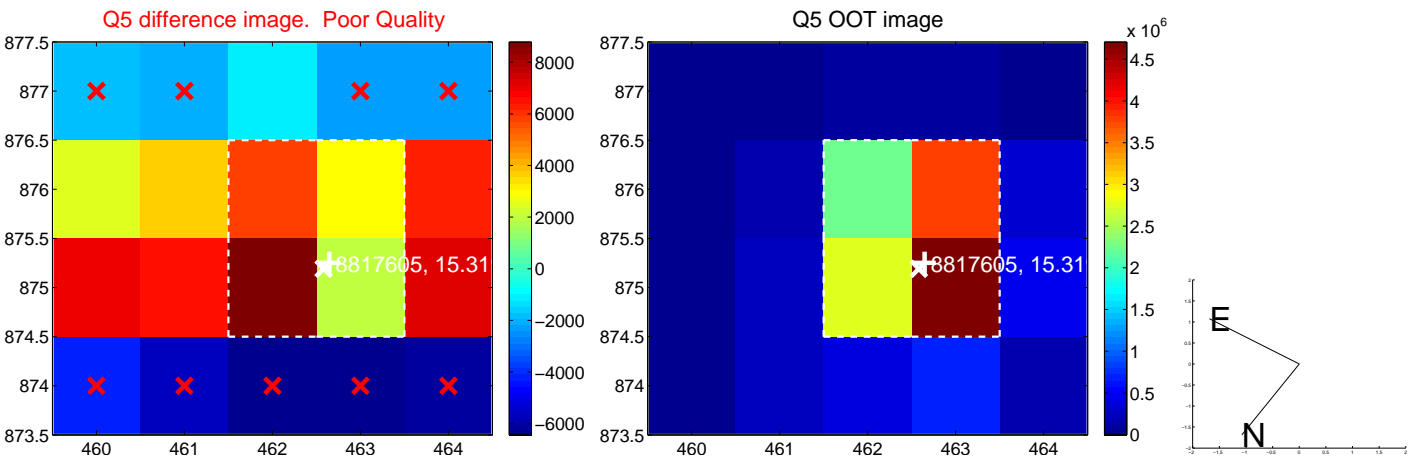


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



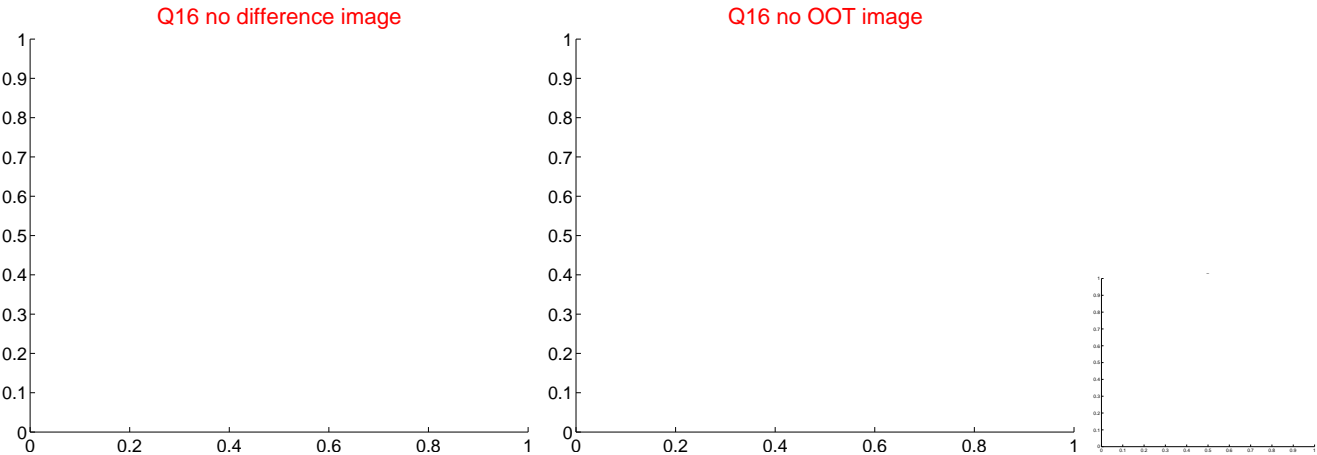
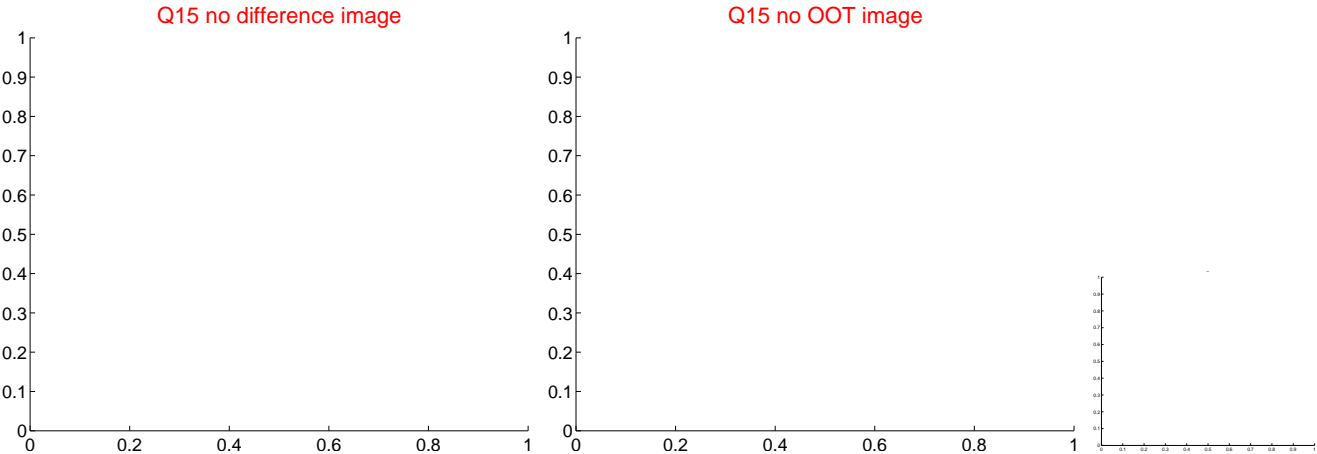
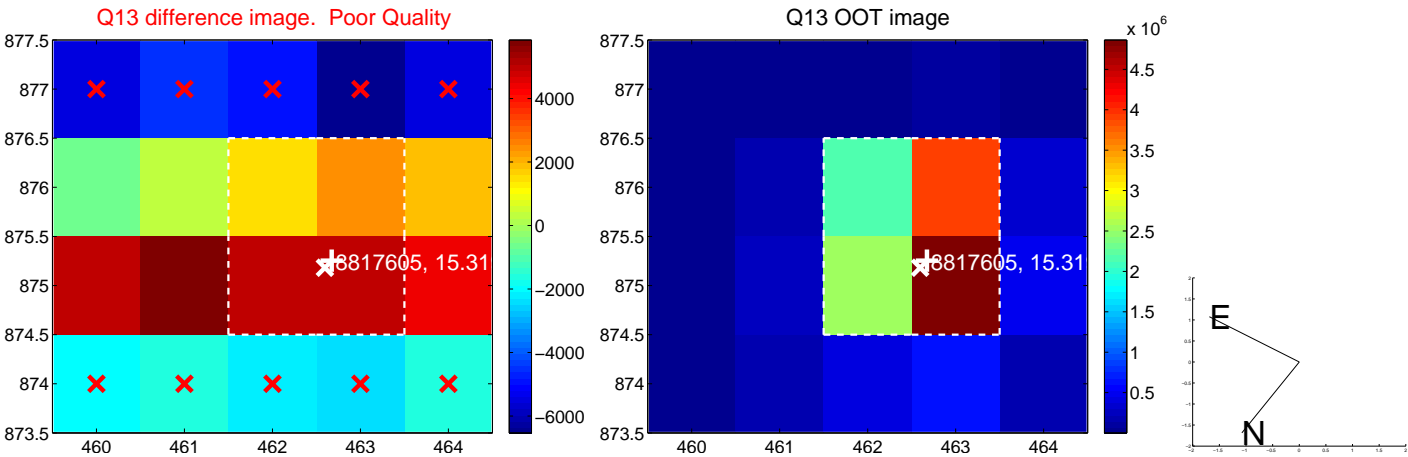
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



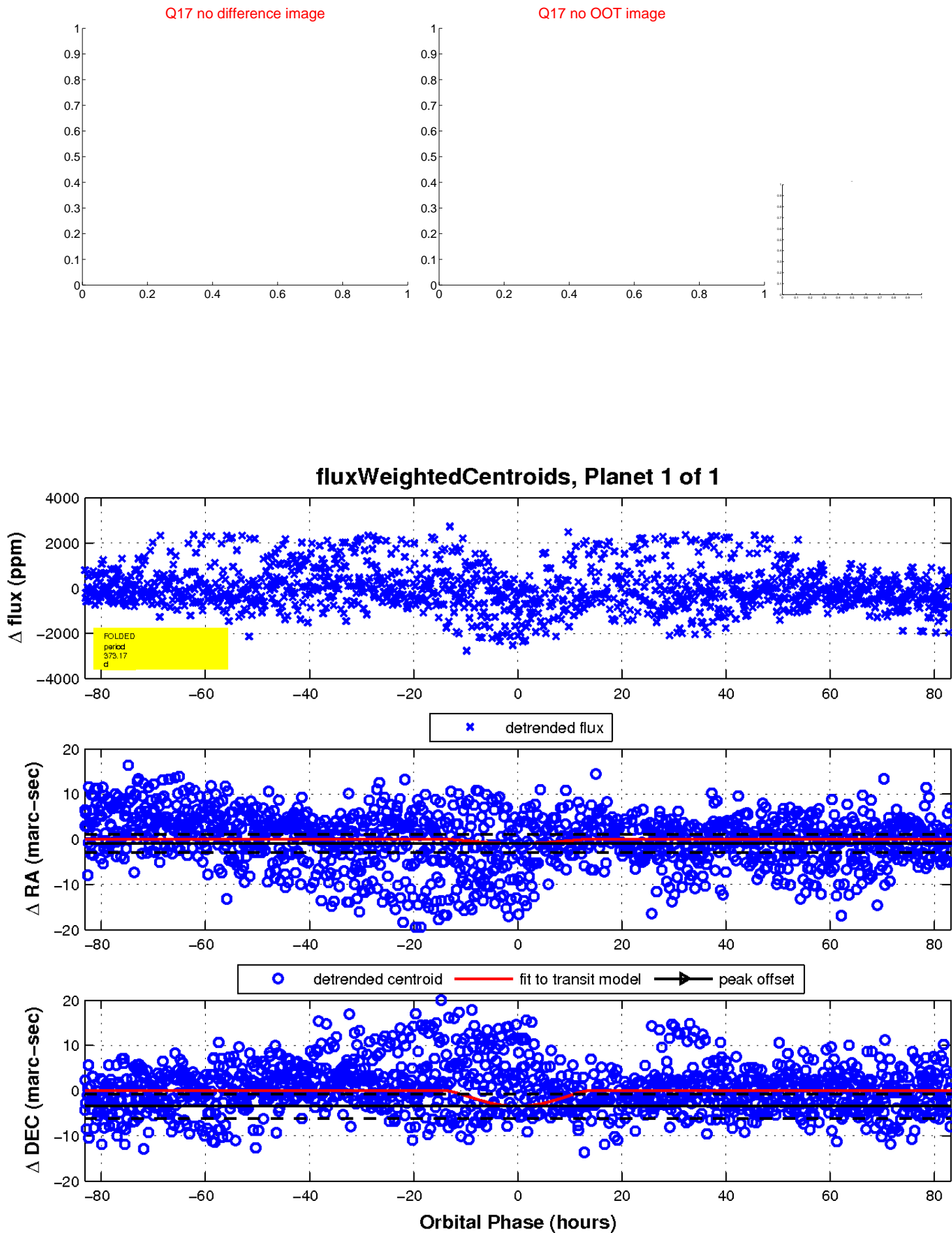
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

