

KIC 008241045

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})
008241045-01	OBS	No	595.662624	360.280682	140.4	13.503	9.7	8.9	1.00	6170	1.29	0.69

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008241045-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—INCONSISTENT_TRANS—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.

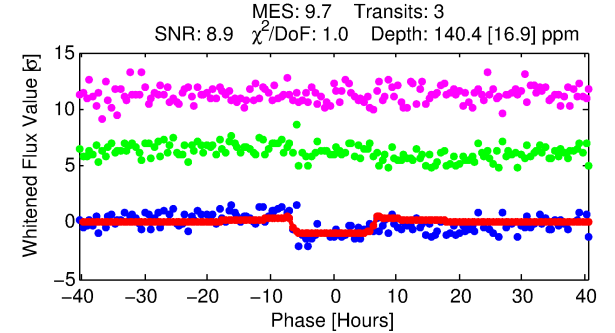
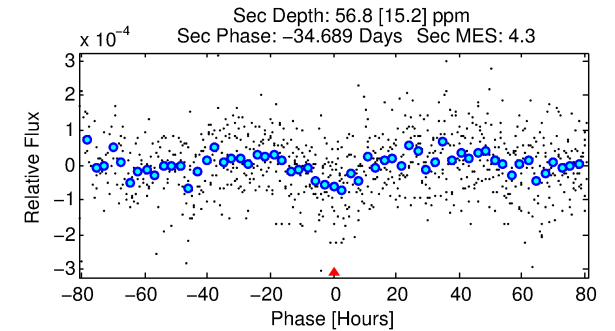
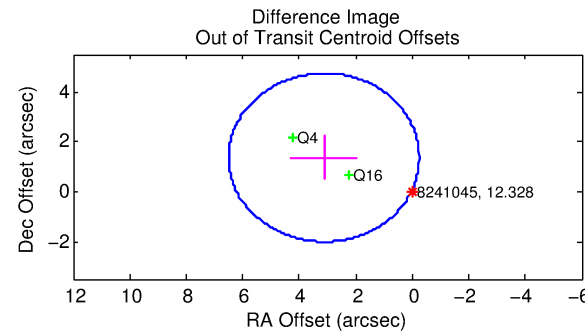
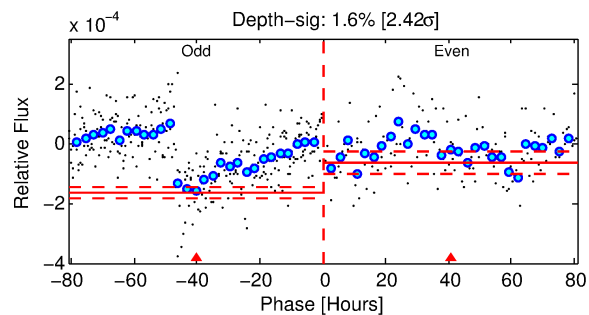
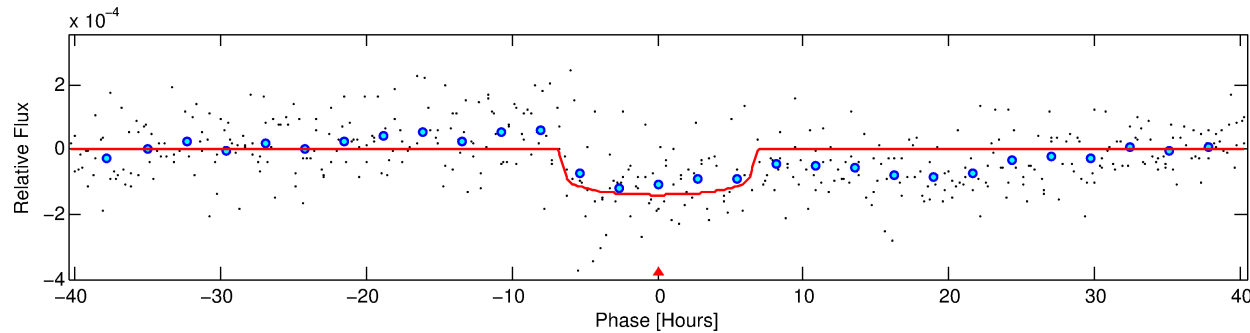
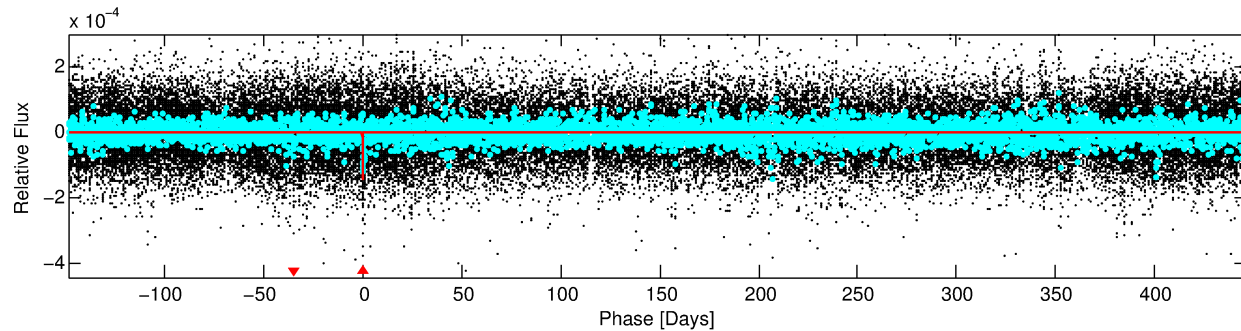
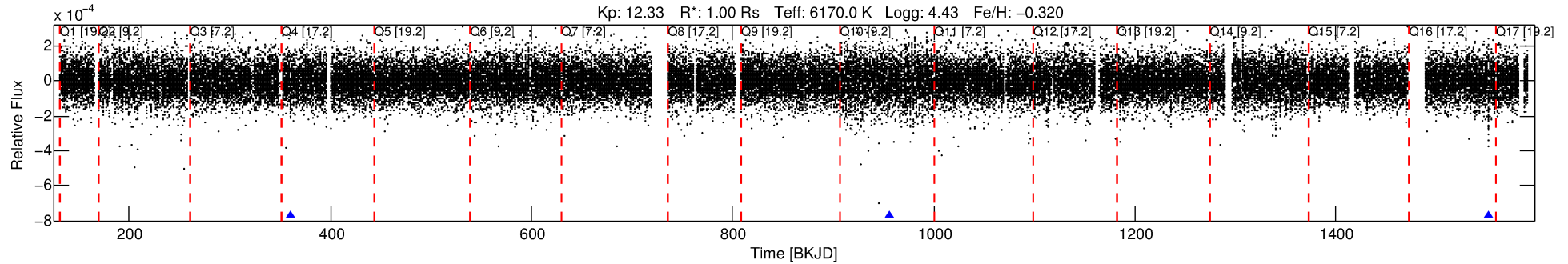
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008241045-01

No Significant Match Found

DV One-Page Summary

KIC: 8241045 Candidate: 1 of 1 Period: 595.663 d



DV Fit Results:

Period = 595.66262 [0.01108] d
Epoch = 360.2807 [0.0148] BKJD
Rp/R* = 0.0118 [0.0038]
a/R* = 229.75 [374.52]
b = 0.75 [0.97]
Seff = 0.69 [0.20]
Teq = 232 [17] K
Rp = 1.29 [0.49] Re
a = 1.3787 [0.2445] AU
Ag = 35655.99 [26408.72] [1.35 σ]
Teffp = 4937 [872] K [5.40 σ]

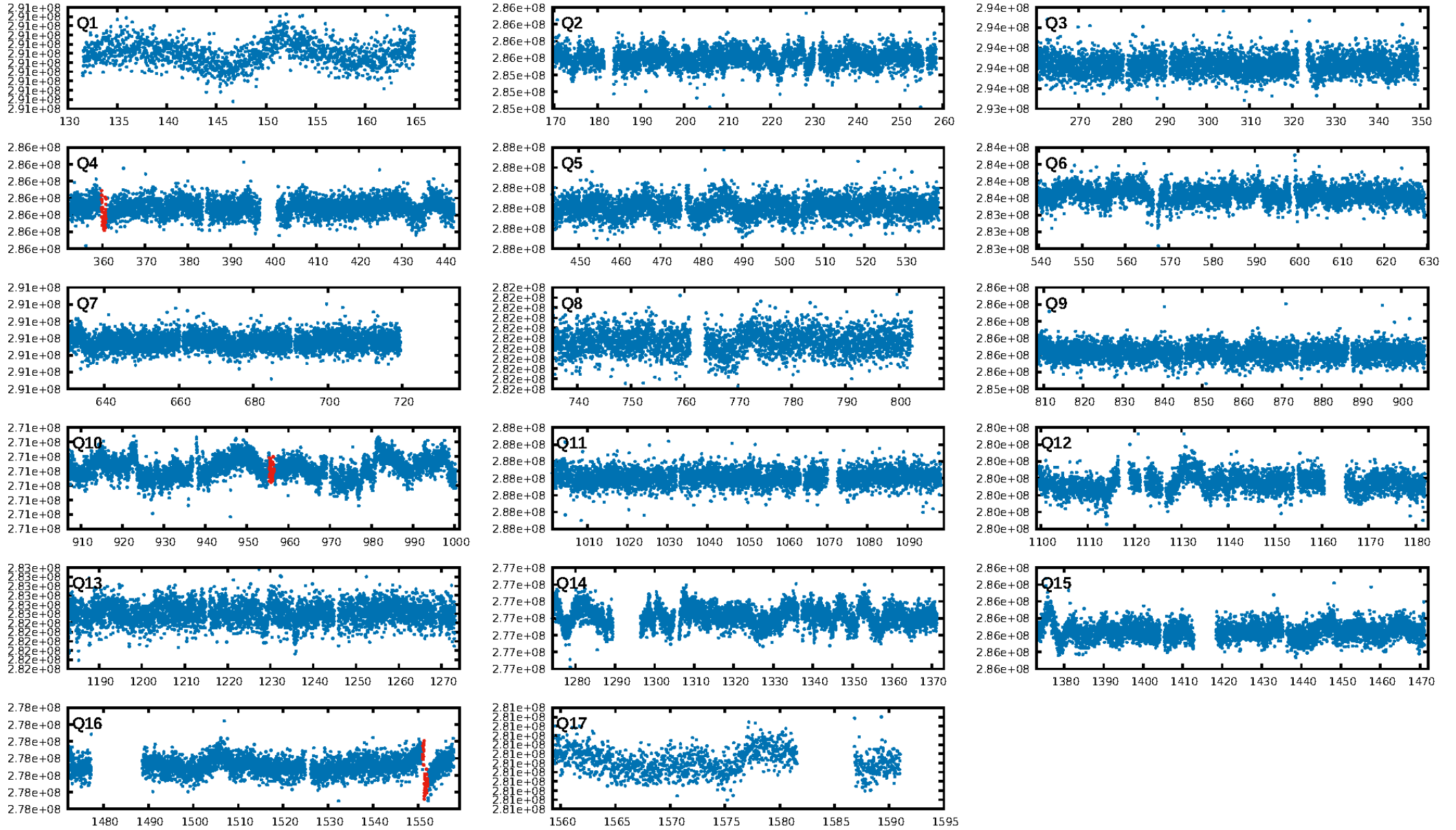
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.81e-14
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -10.63
Centroid-sig: 32.3%
Centroid-so: 1.753 arcsec [1.25 σ]
OotOffset-rm: 3.411 arcsec [3.03 σ]
KicOffset-rm: 3.502 arcsec [3.26 σ]
OotOffset-st: 0/0/2/0 [2]
KicOffset-st: 0/0/2/0 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [3/3]

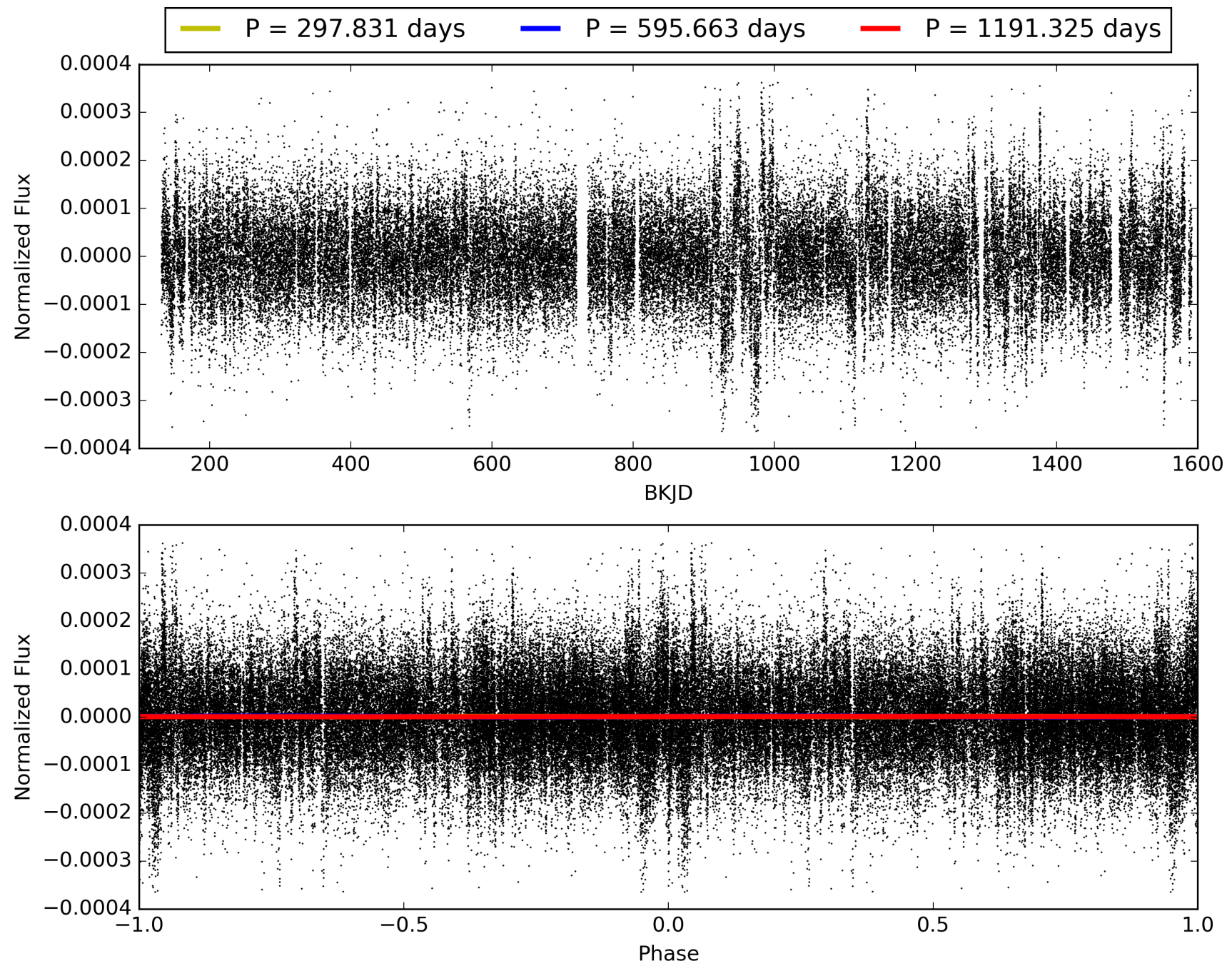
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 00:32:24 Z

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

TCE 008241045-01, PDC Light Curves

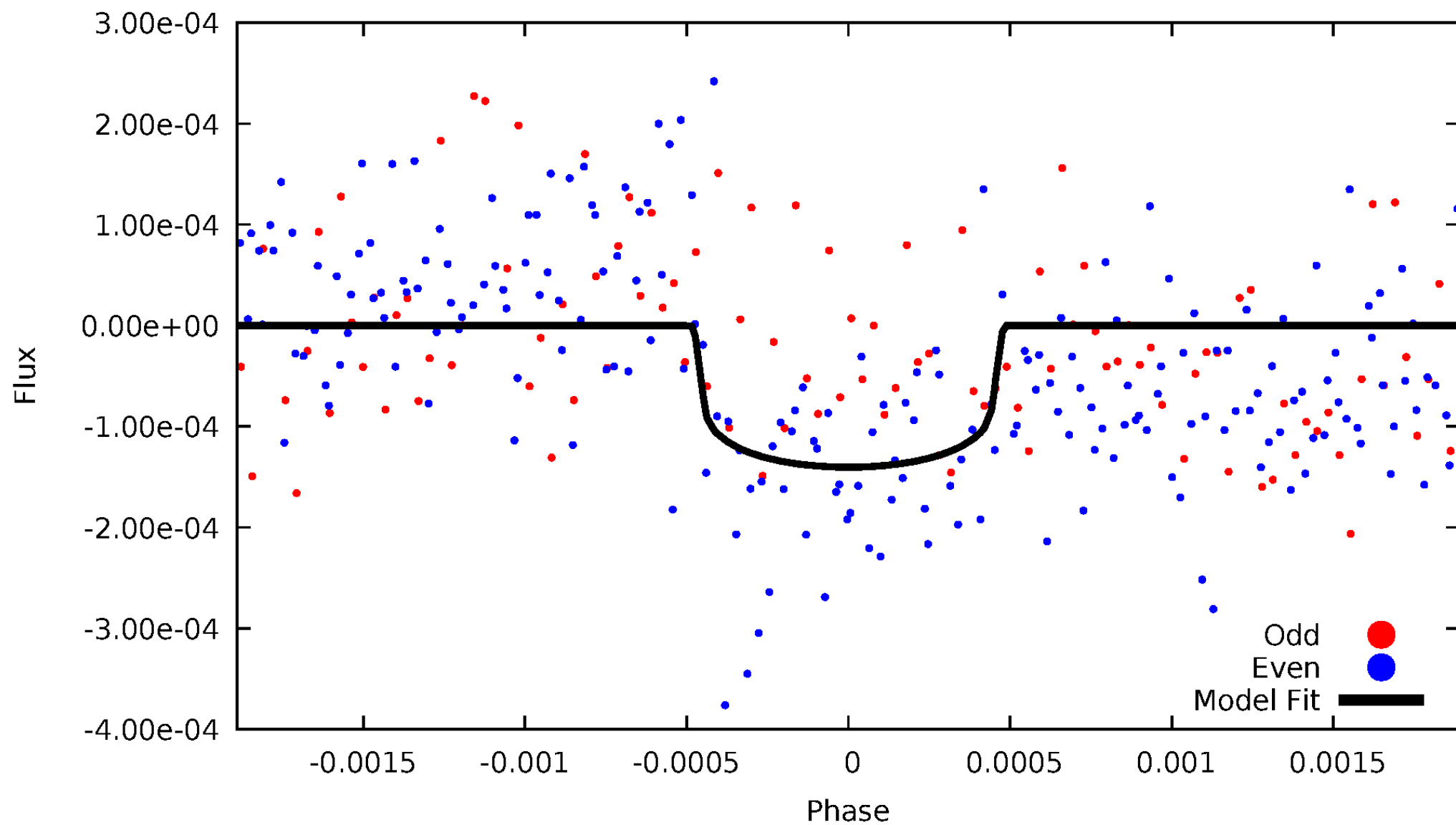


TCE 008241045-01



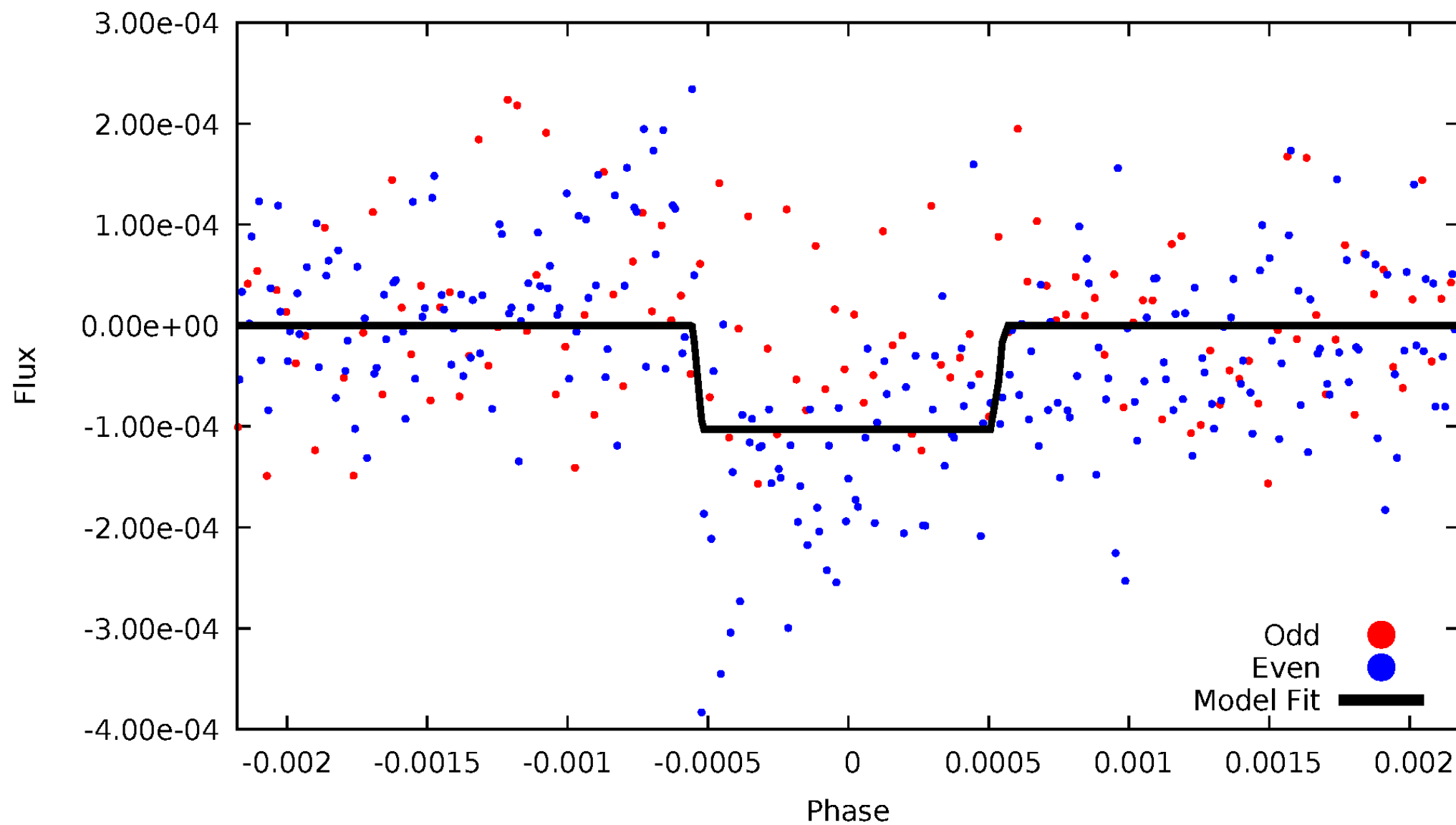
DV Odd/Even

TCE 008241045-01

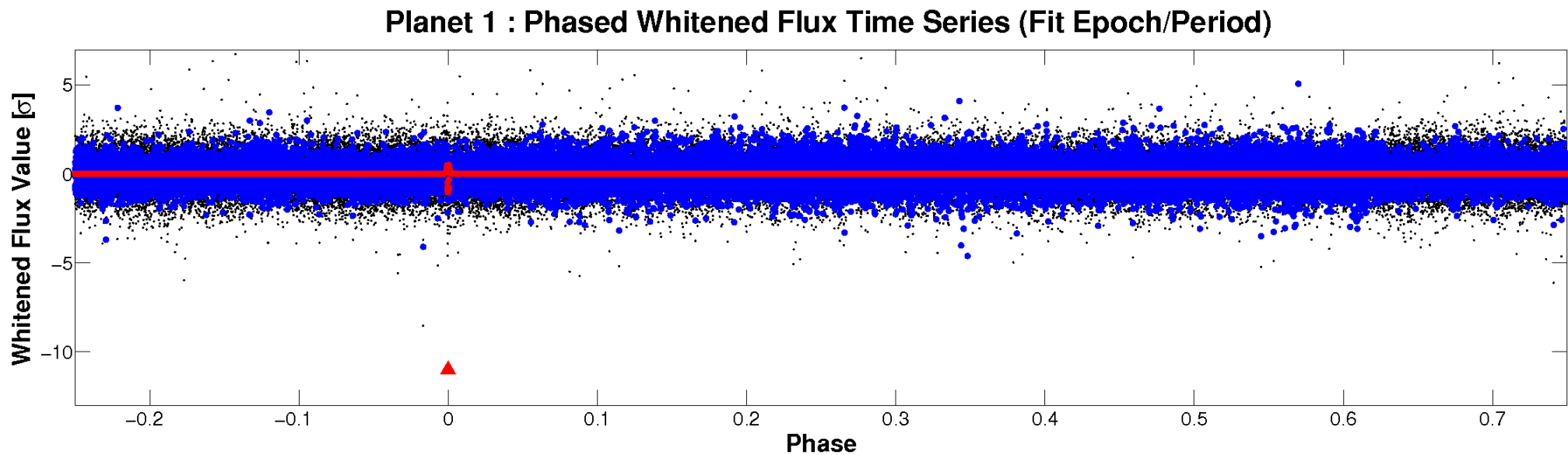
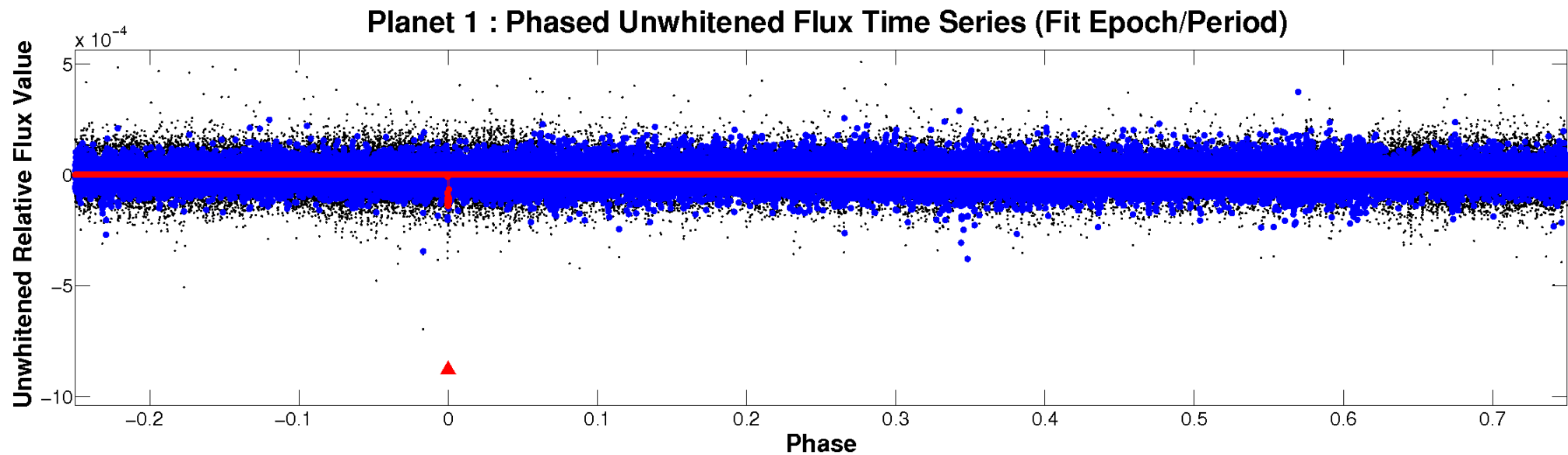


ALT Odd/Even

TCE 008241045-01

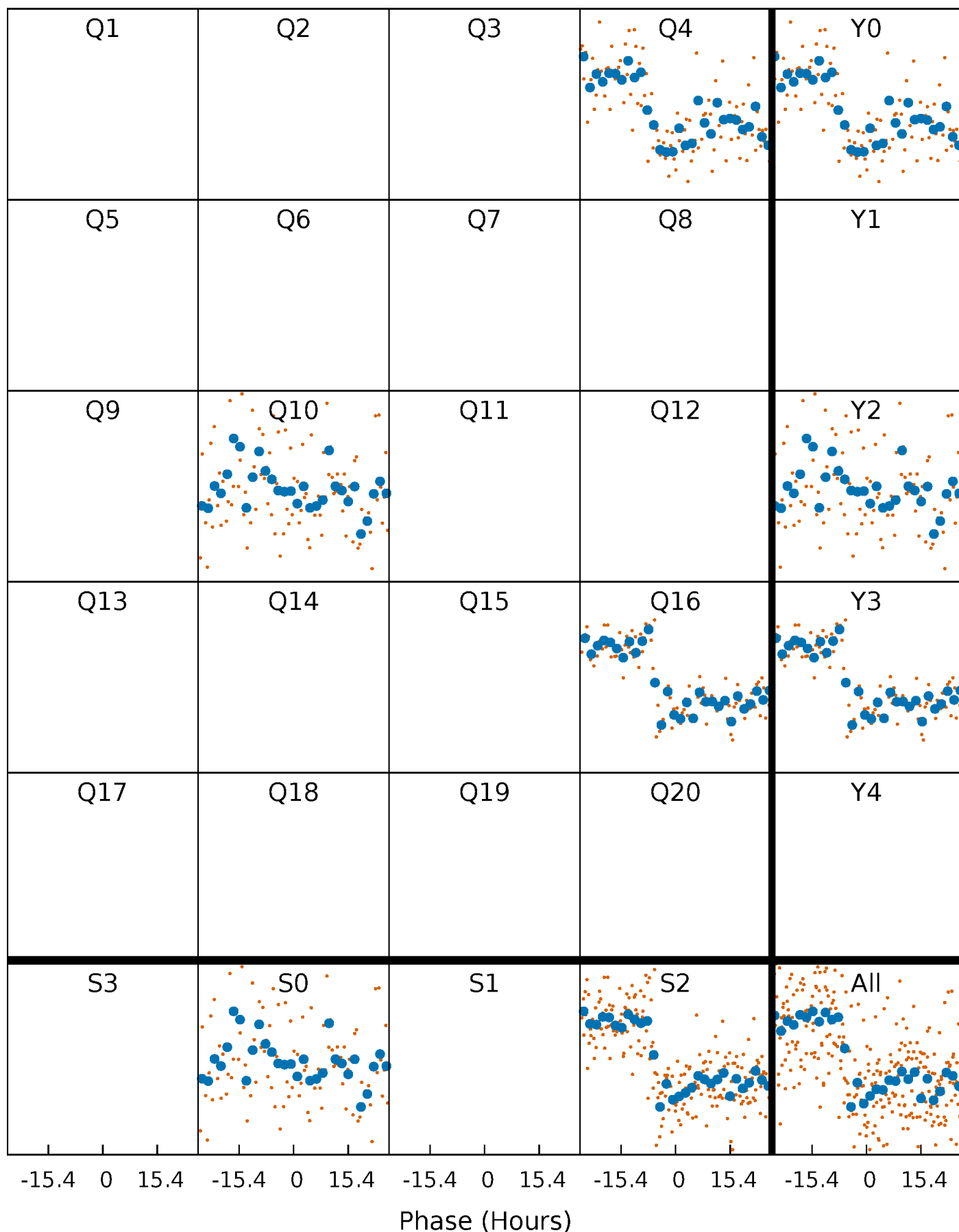


Non-Whitened Vs. Whitened Light Curve



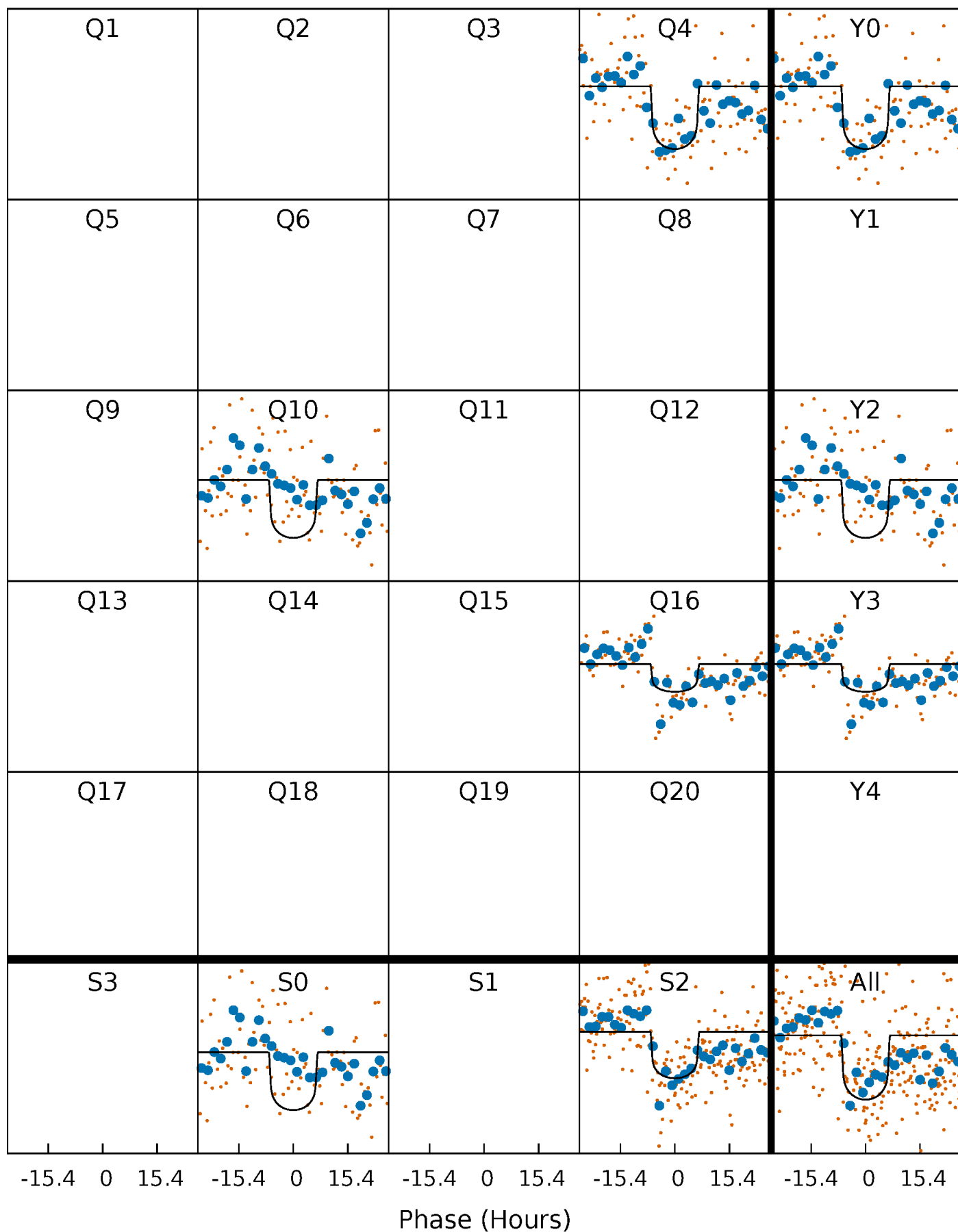
PDC Quarter-Phased Transit Curves

TCE 008241045-01 P=595.662624 Days $T_0=360.280682$ (BKJD)



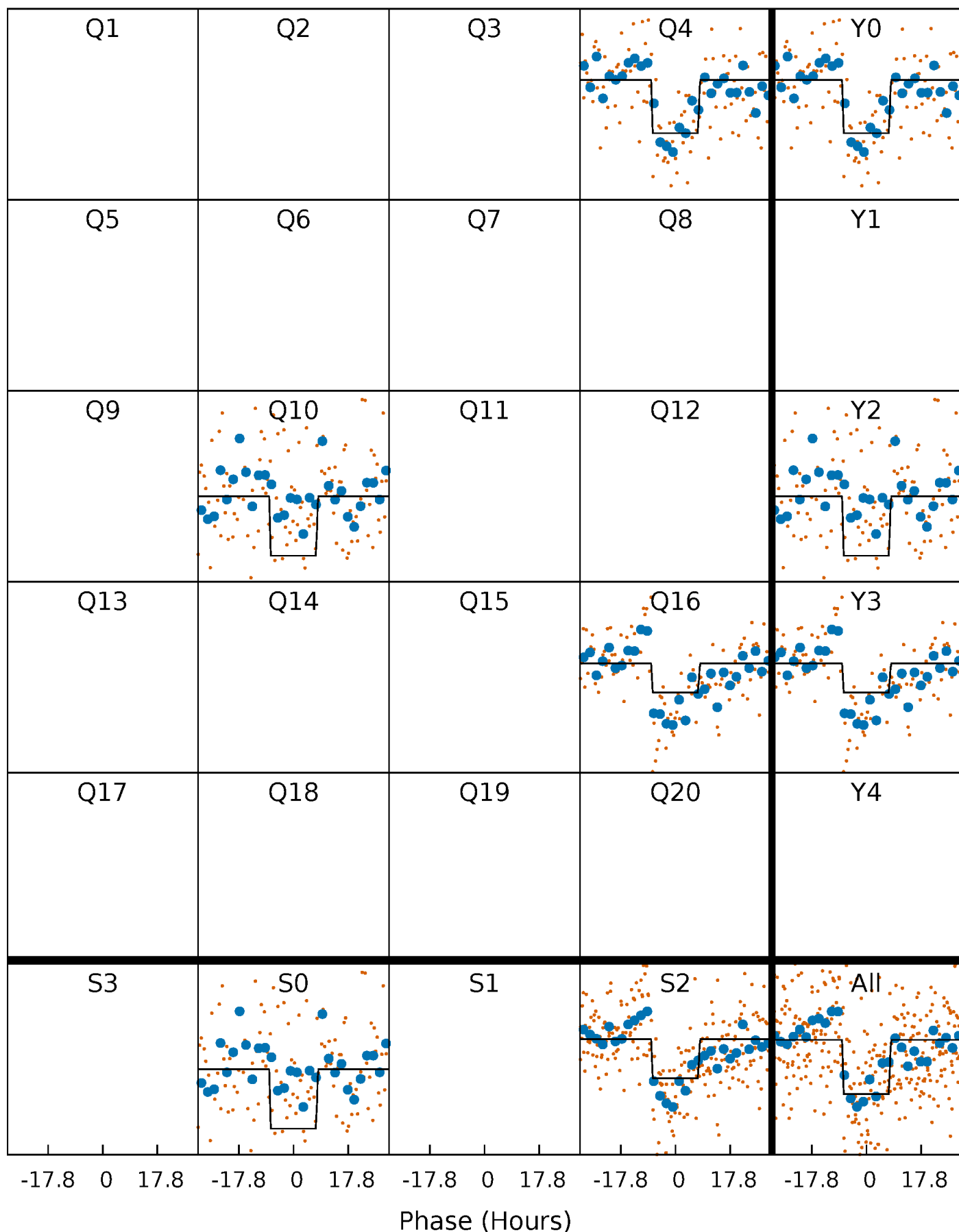
DV Quarter-Phased Transit Curves

TCE 008241045-01 P=595.662624 Days $T_0=360.280682$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

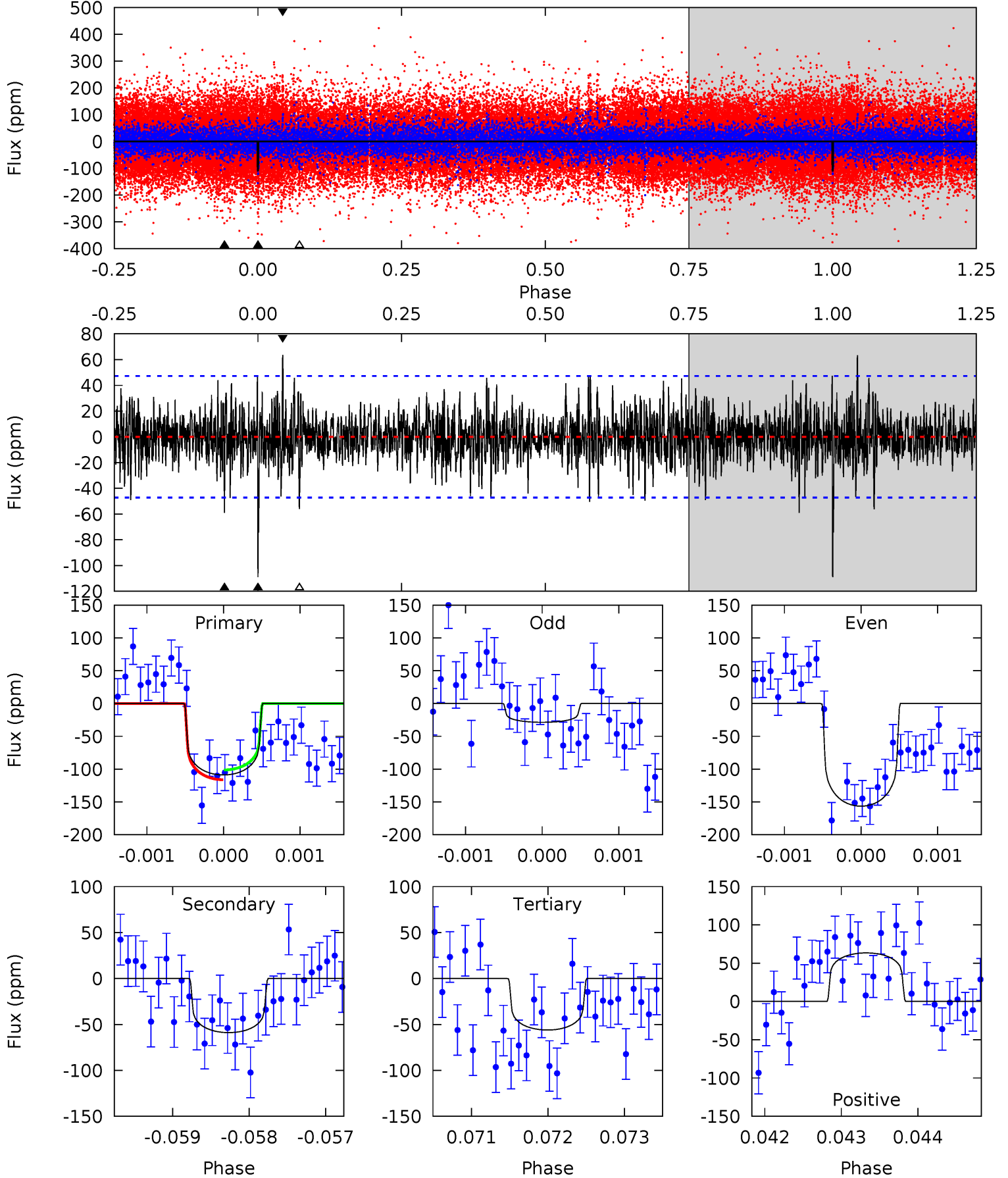
TCE 008241045-01 P=595.713197 Days $T_0=360.264085$ (BKJD)



DV Model-Shift Uniqueness Test

008241045-01, $P = 595.662624$ Days, $E = 360.280682$ Days

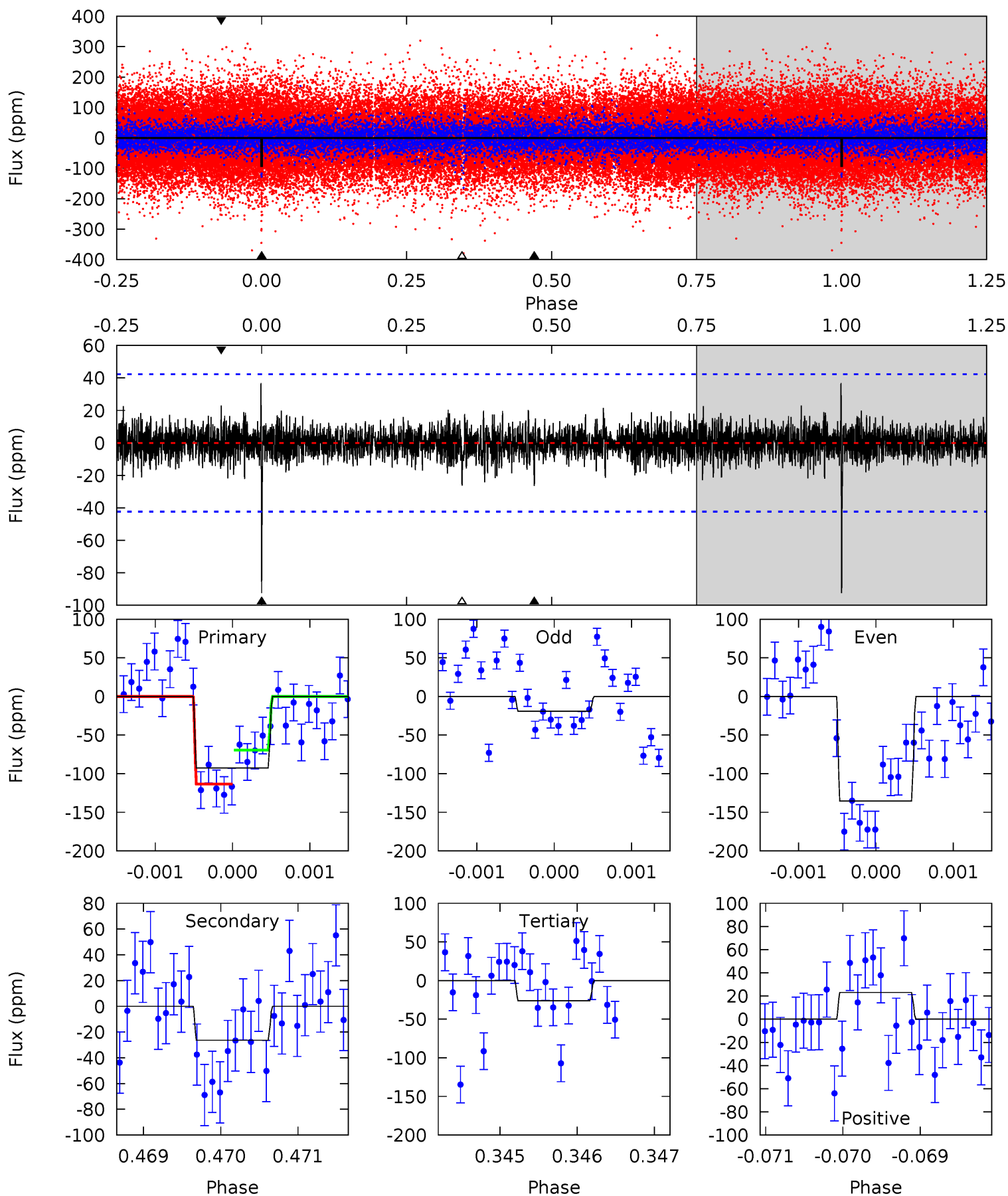
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.6	6.81	6.48	7.33	5.46	3.30	1.68	6.11	5.26	0.33	-0.52	6.99	0.89	0.37	0.86



Alt Model-Shift Uniqueness Test

008241045-01, P = 595.713197 Days, E = 360.264085 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.9	3.39	3.37	2.96	5.43	3.26	0.82	8.52	8.92	0.02	0.42	7.09	0.98	0.29	2.81



Stellar Parameters For KIC 008241045

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6170^{+150}_{-206}	$4.427^{+0.077}_{-0.143}$	$-0.320^{+0.300}_{-0.300}$	$1.005^{+0.210}_{-0.122}$	$0.984^{+0.124}_{-0.111}$	$1.365^{+0.532}_{-0.530}$
	+2%/-3%	+2%/-3%	+94%/-94%	+21%/-12%	+13%/-11%	+39%/-39%
Source	PHO1	FLK73	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 008241045-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-59 ± 9	$1.32^{+0.45}_{-0.42}$	327^{+20}_{-15}	5042^{+941}_{-593}	35470^{+42970}_{-15980}
Alt.	-26 ± 8	$1.12^{+0.47}_{-0.42}$	327^{+18}_{-16}	4542^{+1050}_{-573}	21221^{+33648}_{-11138}

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 $A_{\text{obs}} \gg 1.0$

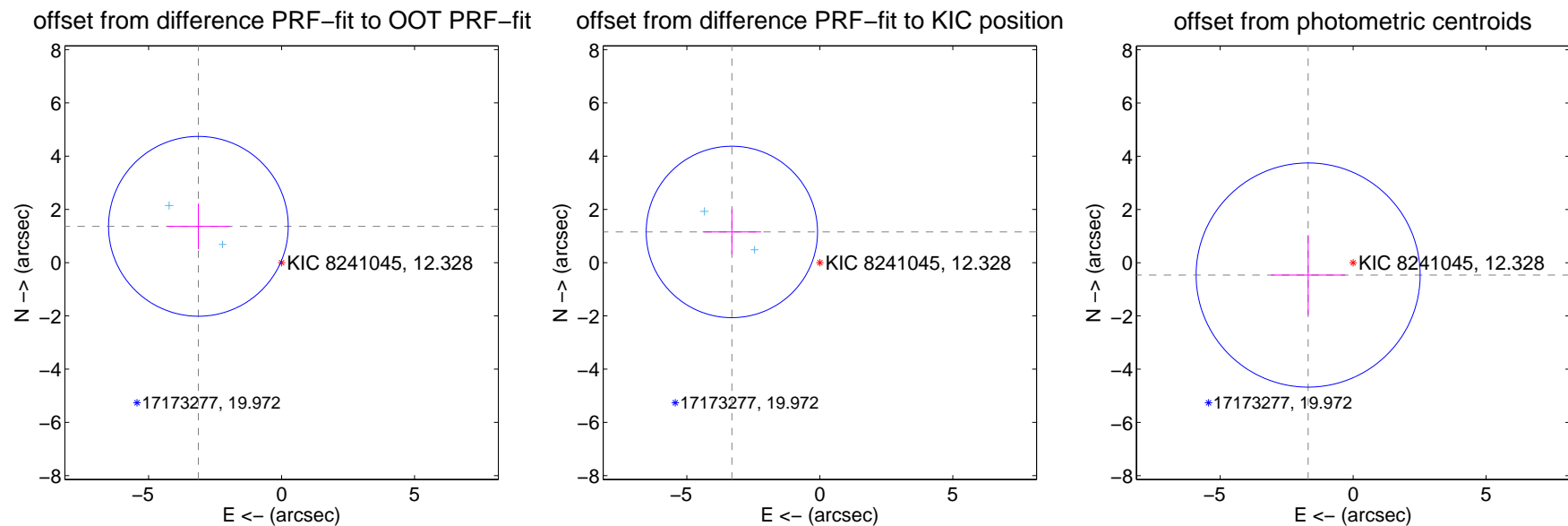
DV Centroid Data

Supplemental centroid analysis for 008241045-01. Kepler magnitude: 12.33. Transit SNR 8.86

There are 2 quarters with good PRF difference image offsets

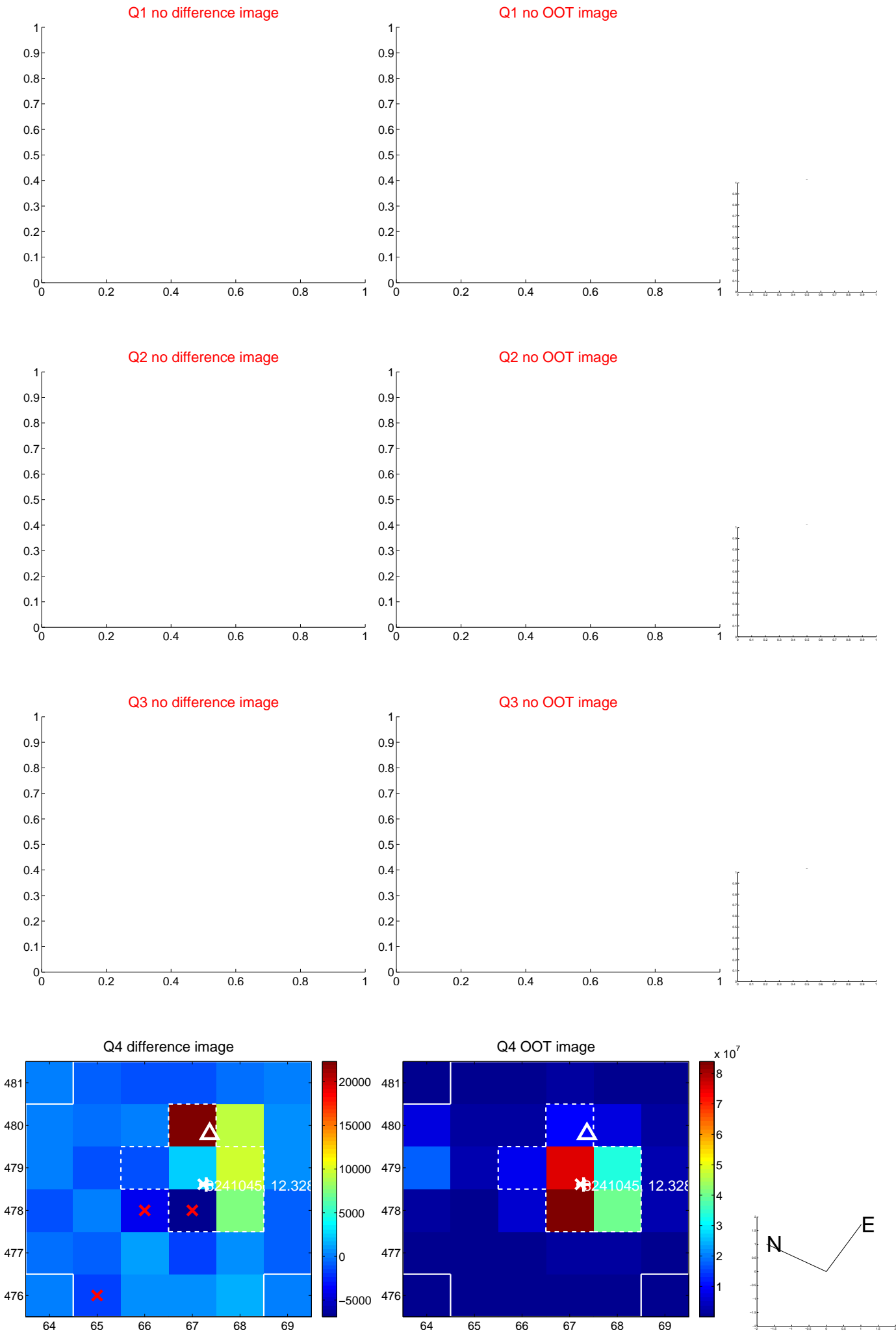
The direct PRF centroid is offset from the target star catalog position by about 0.31 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.411 ± 1.126	3.03	3.127 ± 1.170	1.364 ± 0.855
PRF-fit source offset from KIC position	3.502 ± 1.073	3.26	3.307 ± 1.098	1.153 ± 0.842
photometric centroid source offset	1.75 ± 1.40	1.25	1.69 ± 1.40	-0.46 ± 1.50



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.

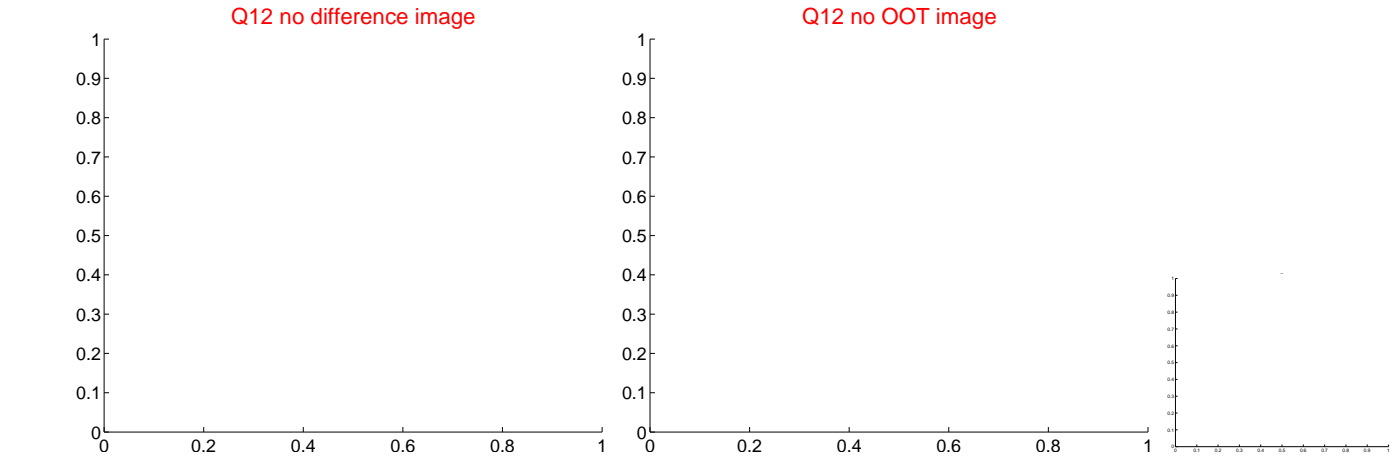
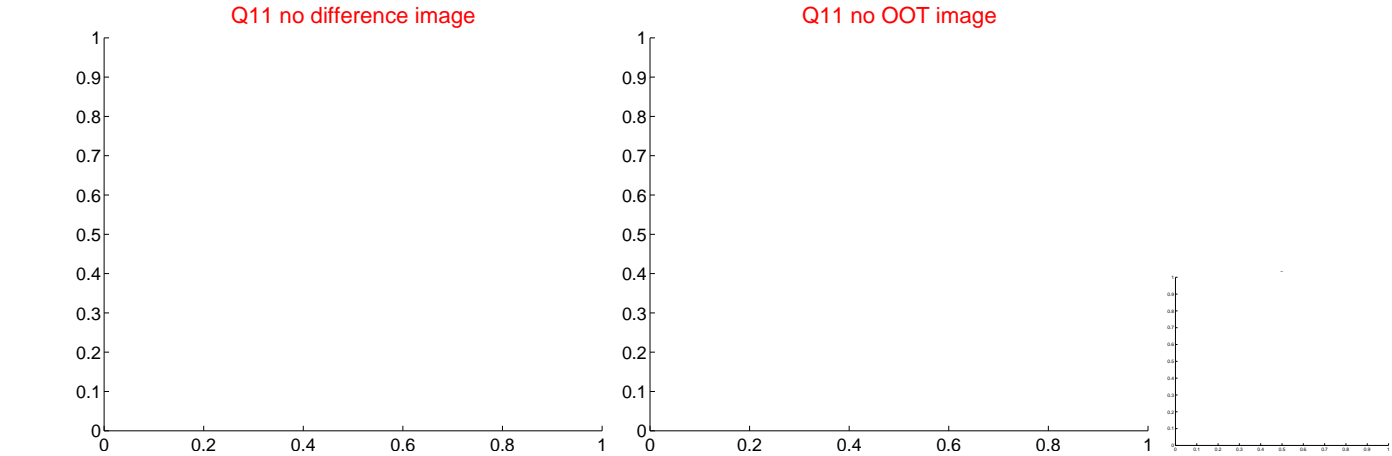
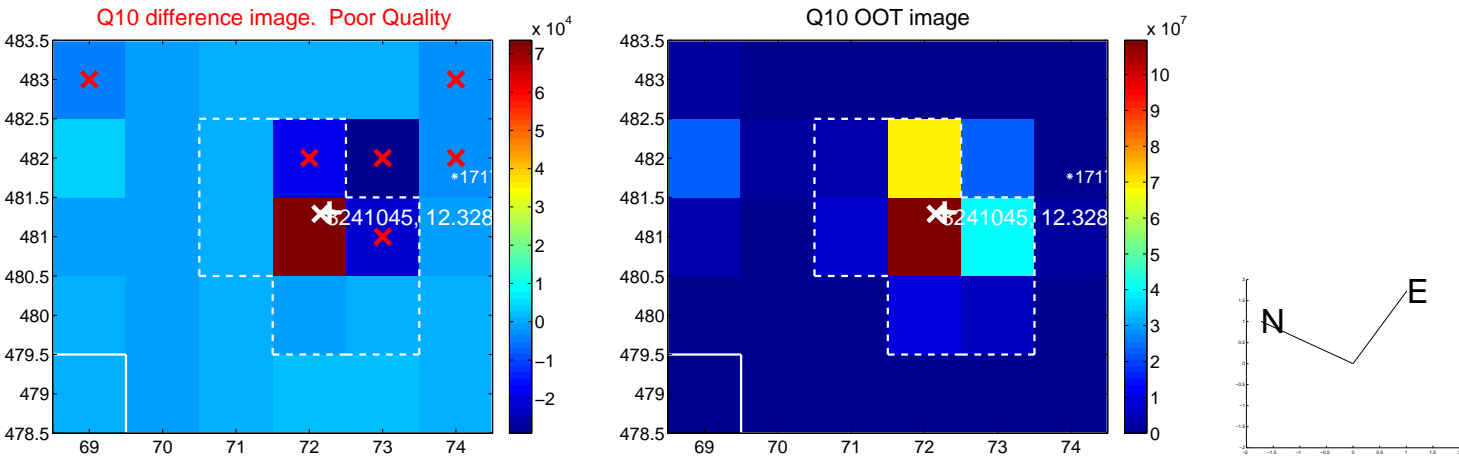
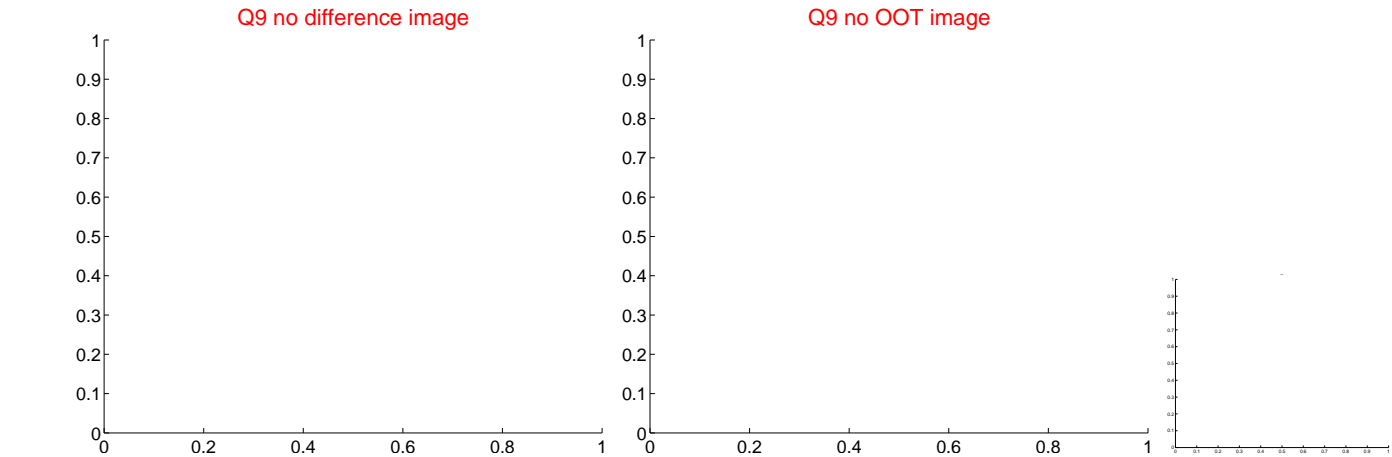
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



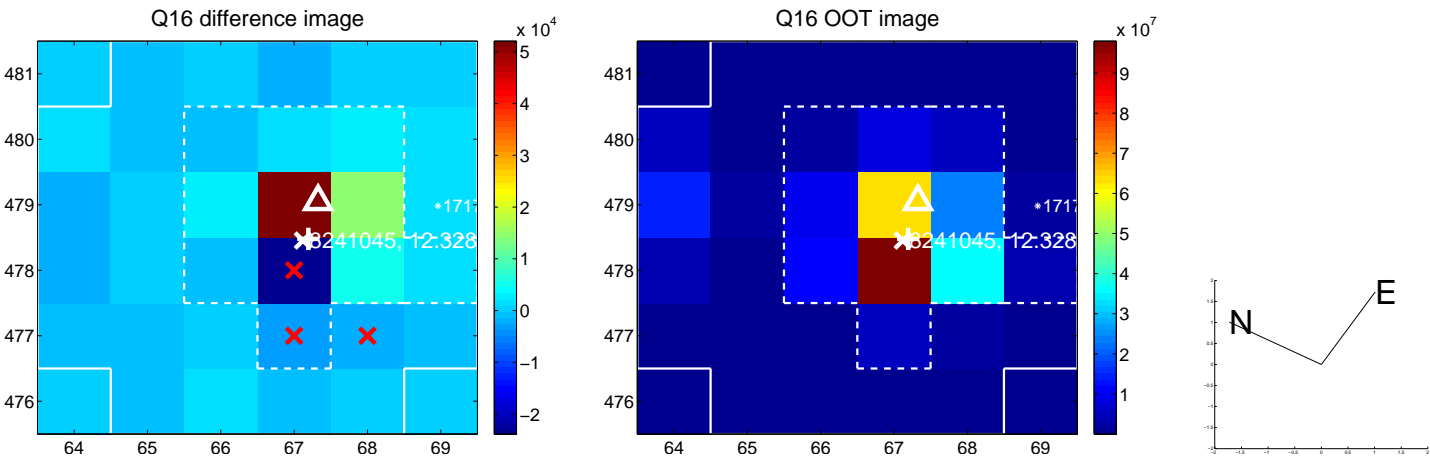
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



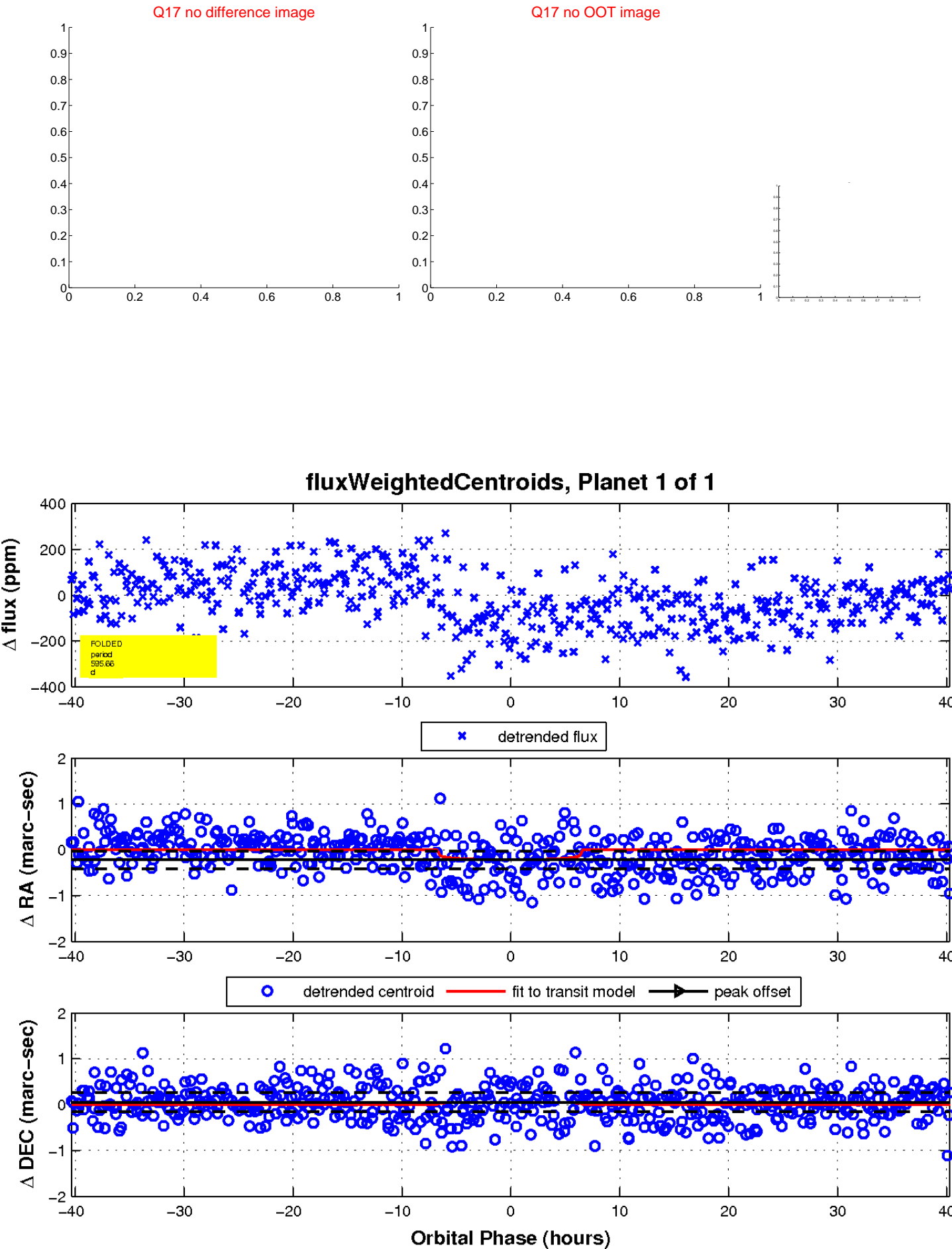
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

