

KIC 008008241

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})
008008241-01	OBS	No	360.669124	408.935280	266.7	14.574	8.9	9.0	2.24	5252	4.29	3.12

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008008241-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_MARSHALL—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

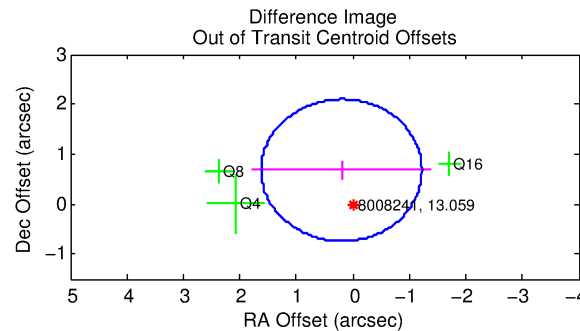
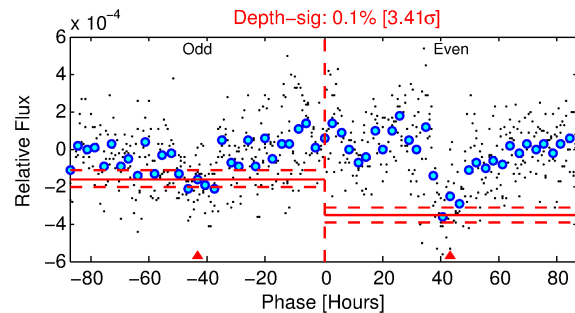
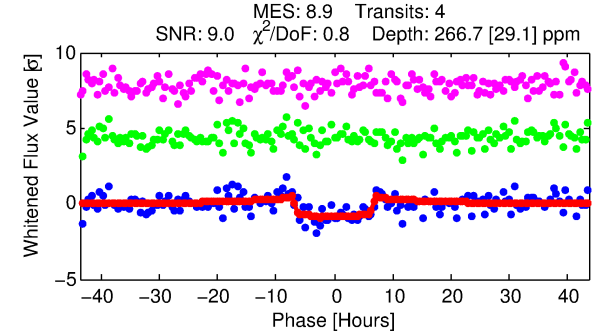
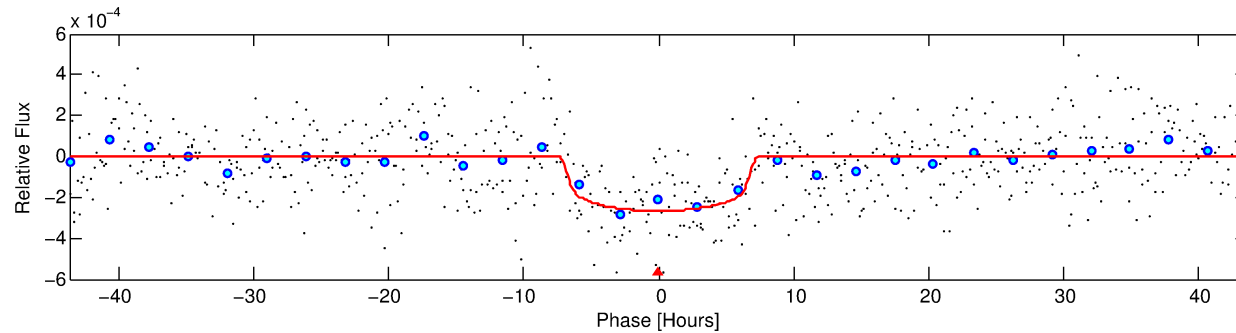
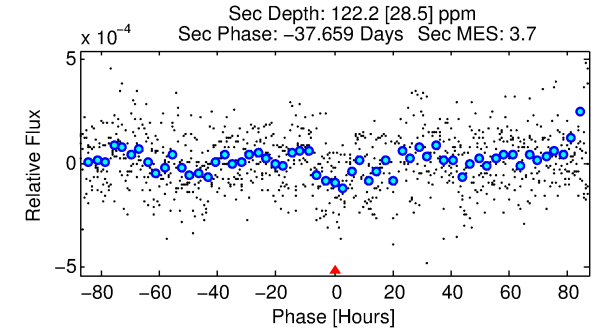
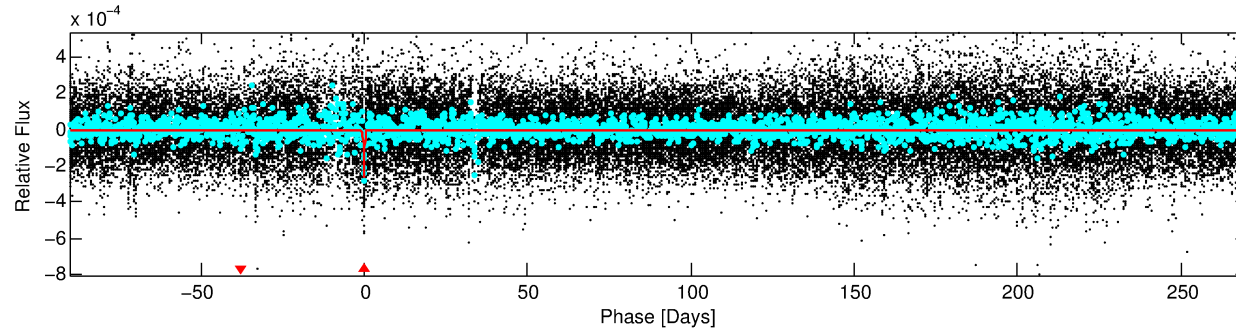
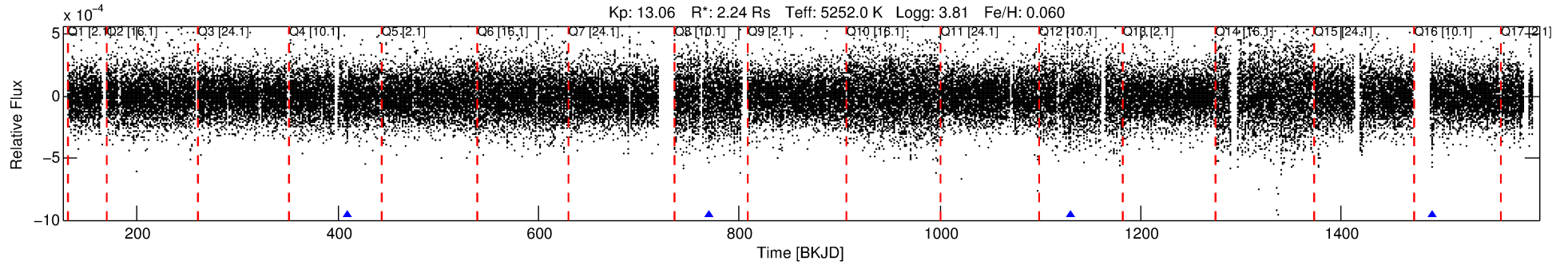
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008008241-01

No Significant Match Found

DV One-Page Summary

KIC: 8008241 Candidate: 1 of 1 Period: 360.669 d



DV Fit Results:

Period = 360.66912 [0.00703] d
Epoch = 408.9353 [0.0142] BKJD
Rp/R* = 0.0175 [0.0021]
a/R* = 100.31 [43.23]
b = 0.87 [0.12]
Seff = 3.12 [1.28]
Teq = 339 [35] K
Rp = 4.28 [1.30] Re
a = 1.0484 [0.2641] AU
Ag = 4024.92 [2067.50] [1.95σ]
Teffp = 4173 [377] K [10.12σ]

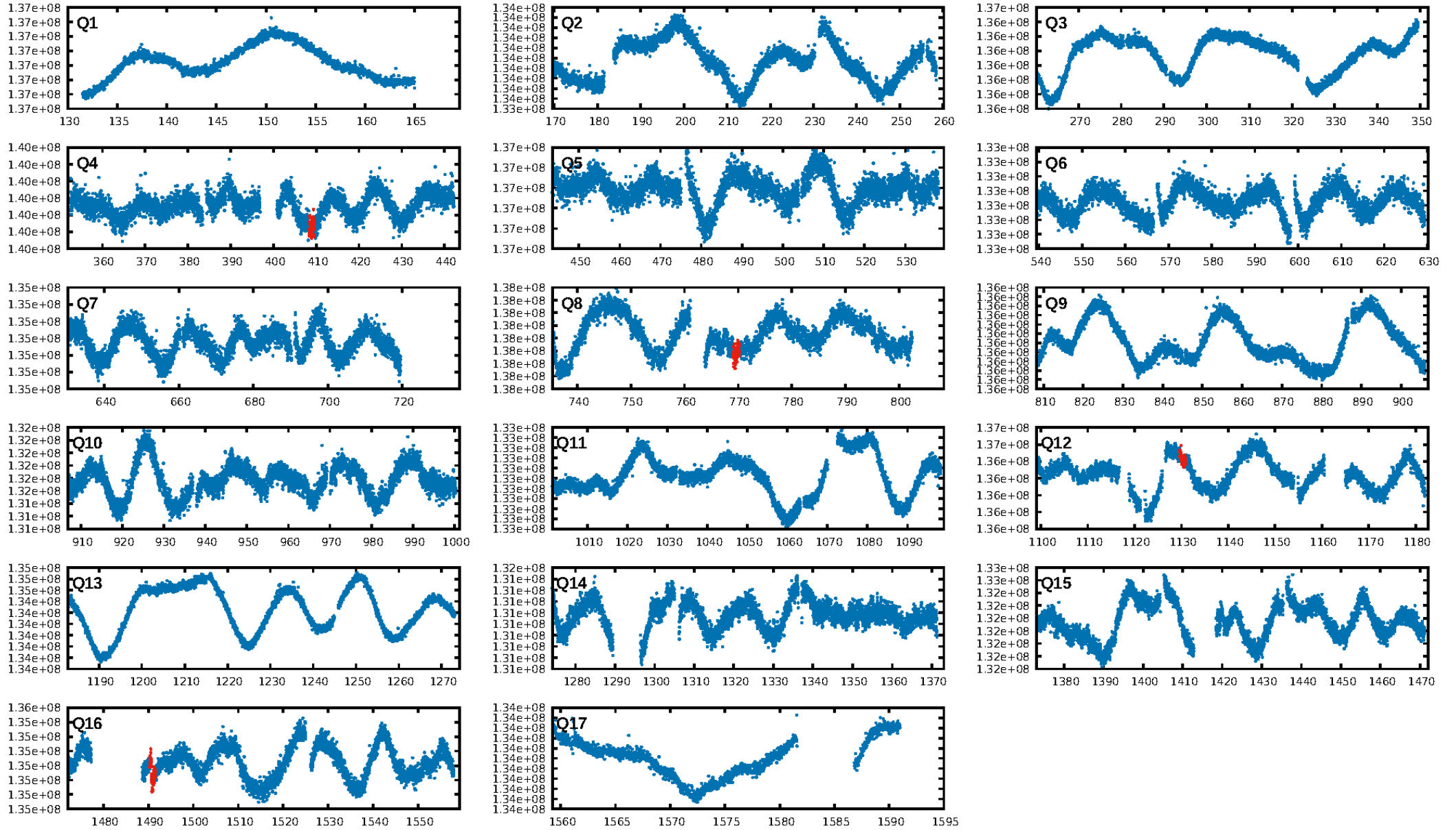
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 8.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.49e-16
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 0.1889
Centroid-sig: 31.2%
Centroid-so: 0.643 arcsec [0.63σ]
OotOffset-rm: 0.707 arcsec [1.49σ]
OotOffset-st: 0/0/3/0 [3]
KicOffset-rm: 0.670 arcsec [2.18σ]
KicOffset-st: 0/0/3/0 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

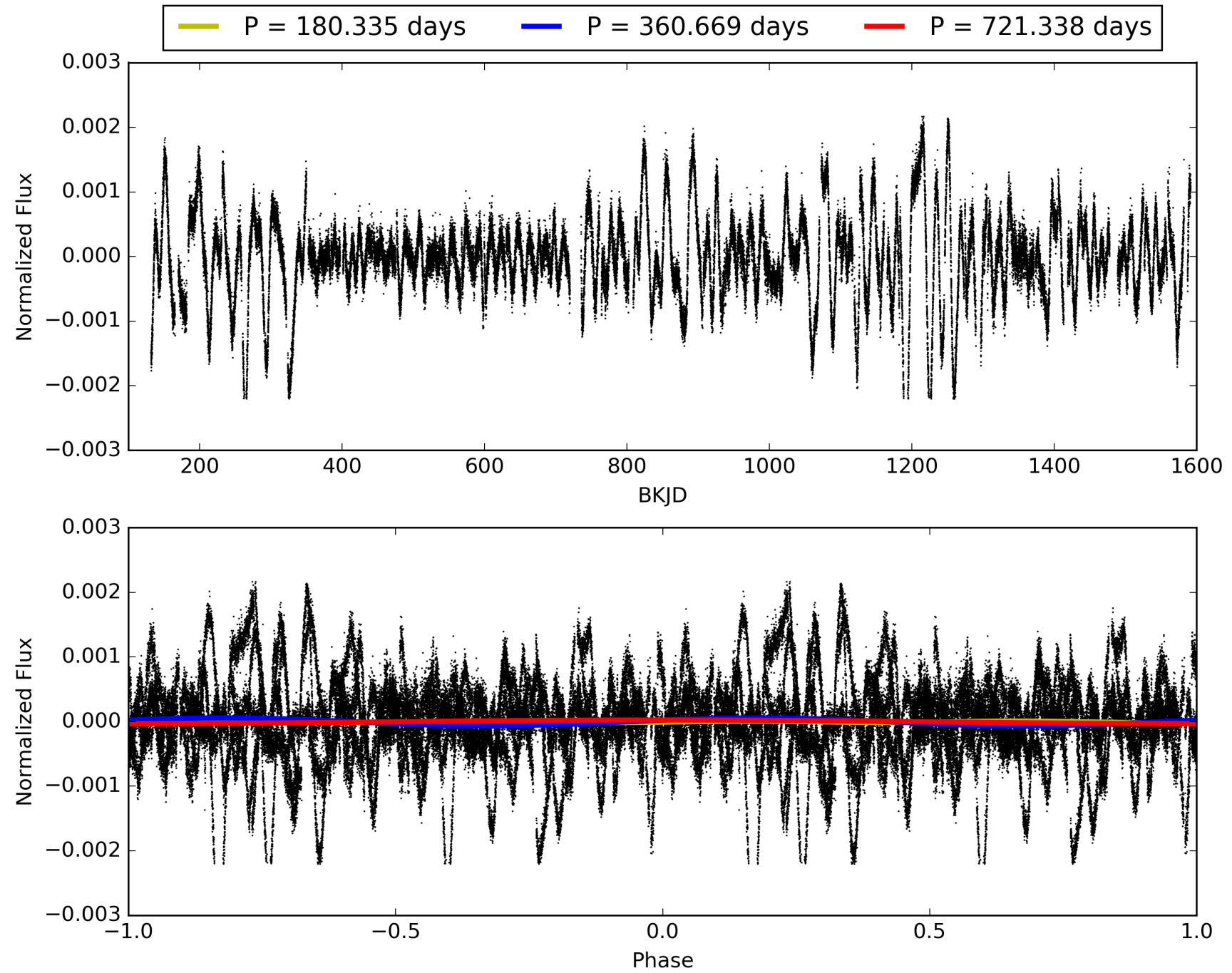
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 21:58:32 Z

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

TCE 008008241-01, PDC Light Curves

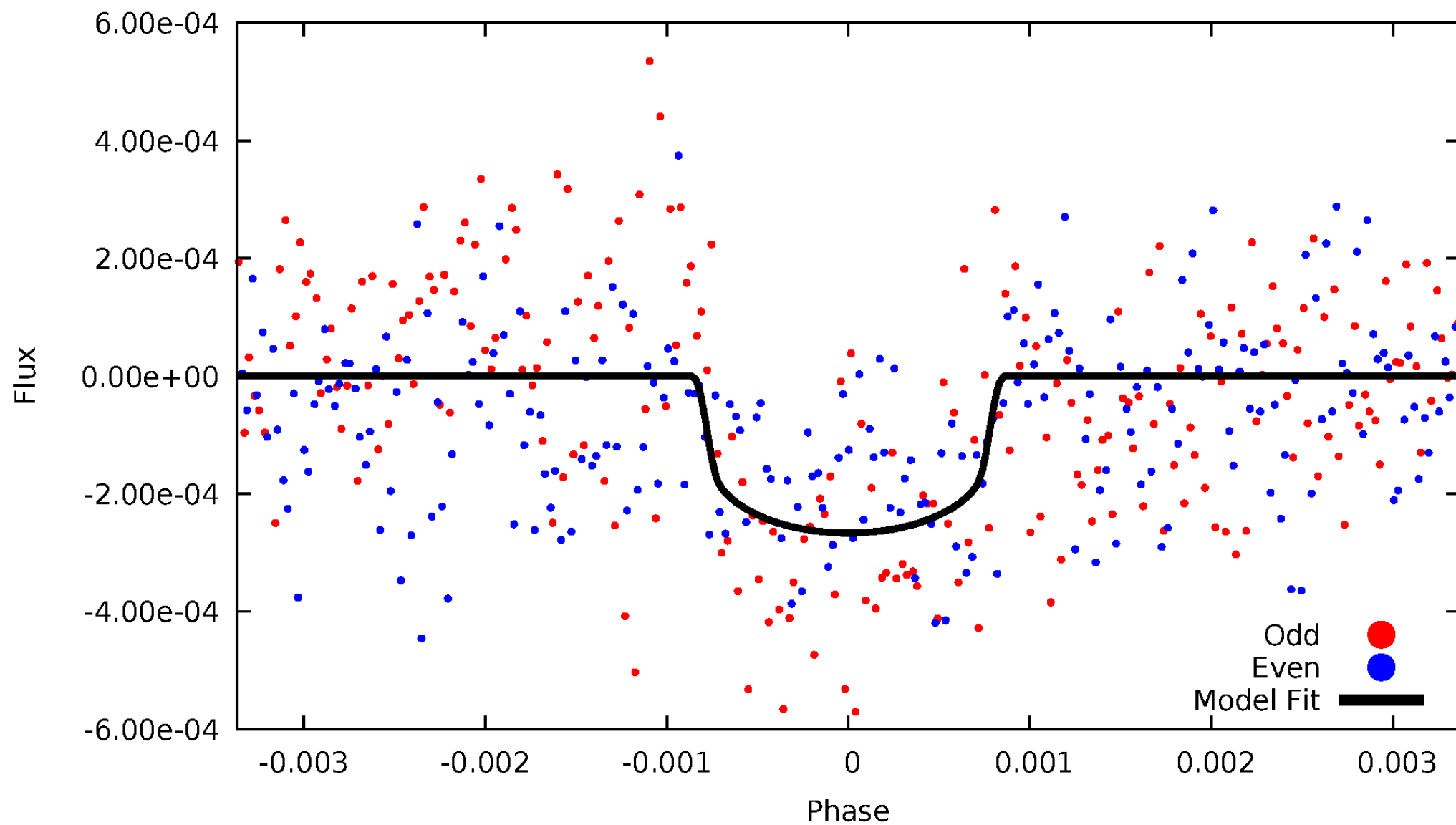


TCE 008008241-01



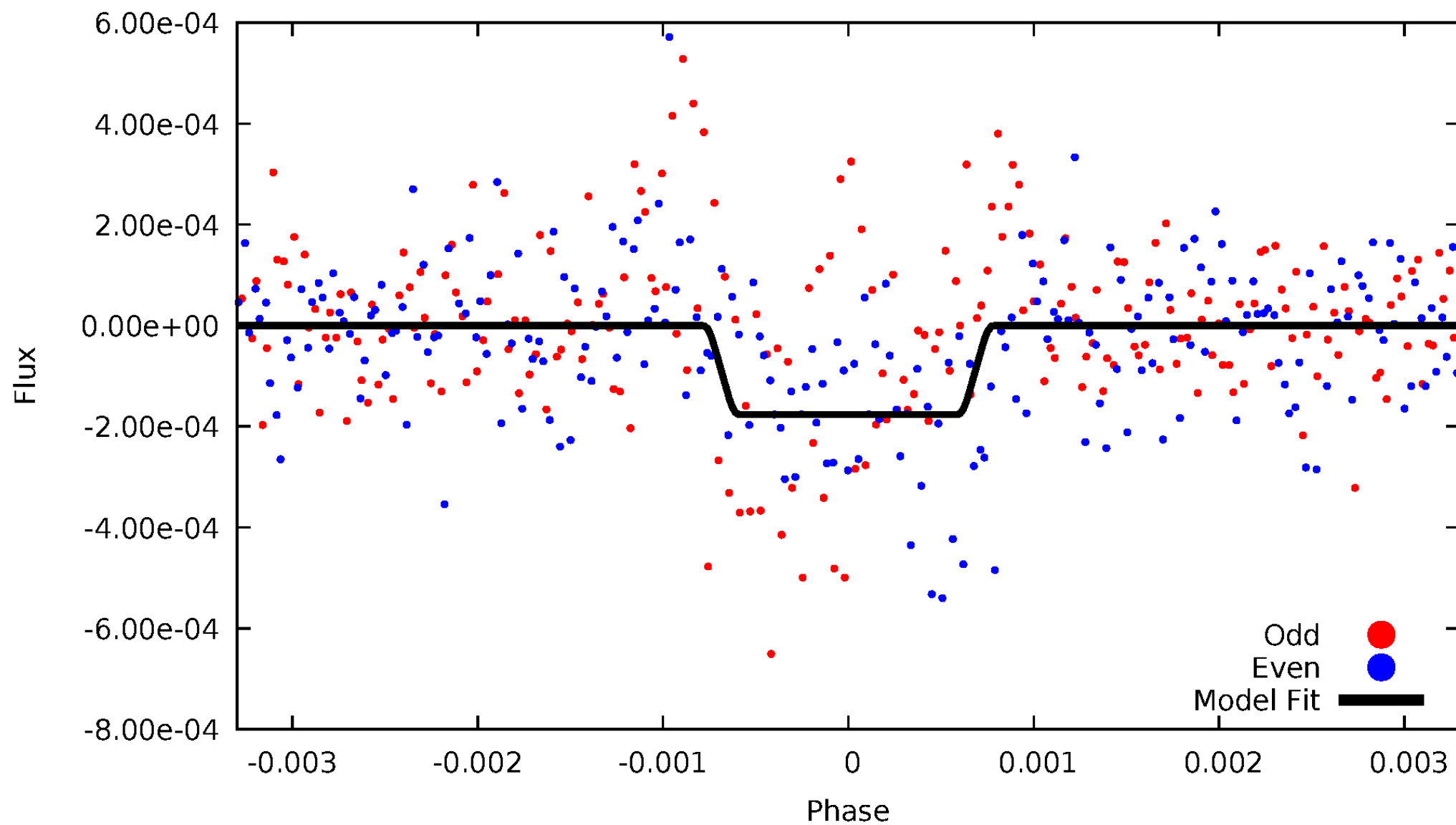
DV Odd/Even

TCE 008008241-01

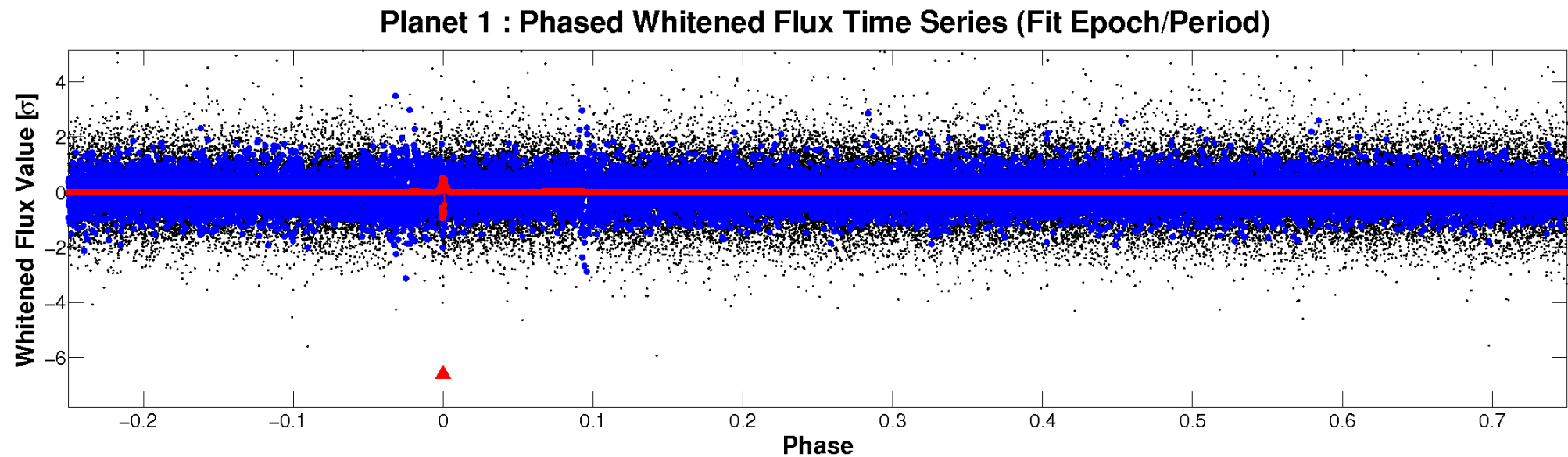
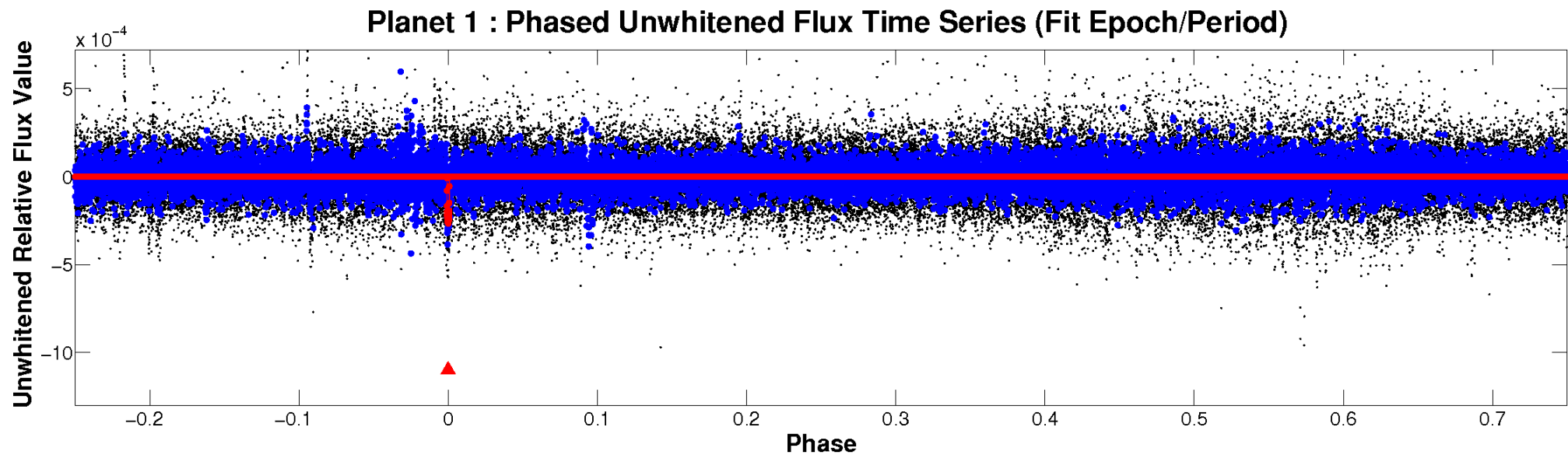


ALT Odd/Even

TCE 008008241-01

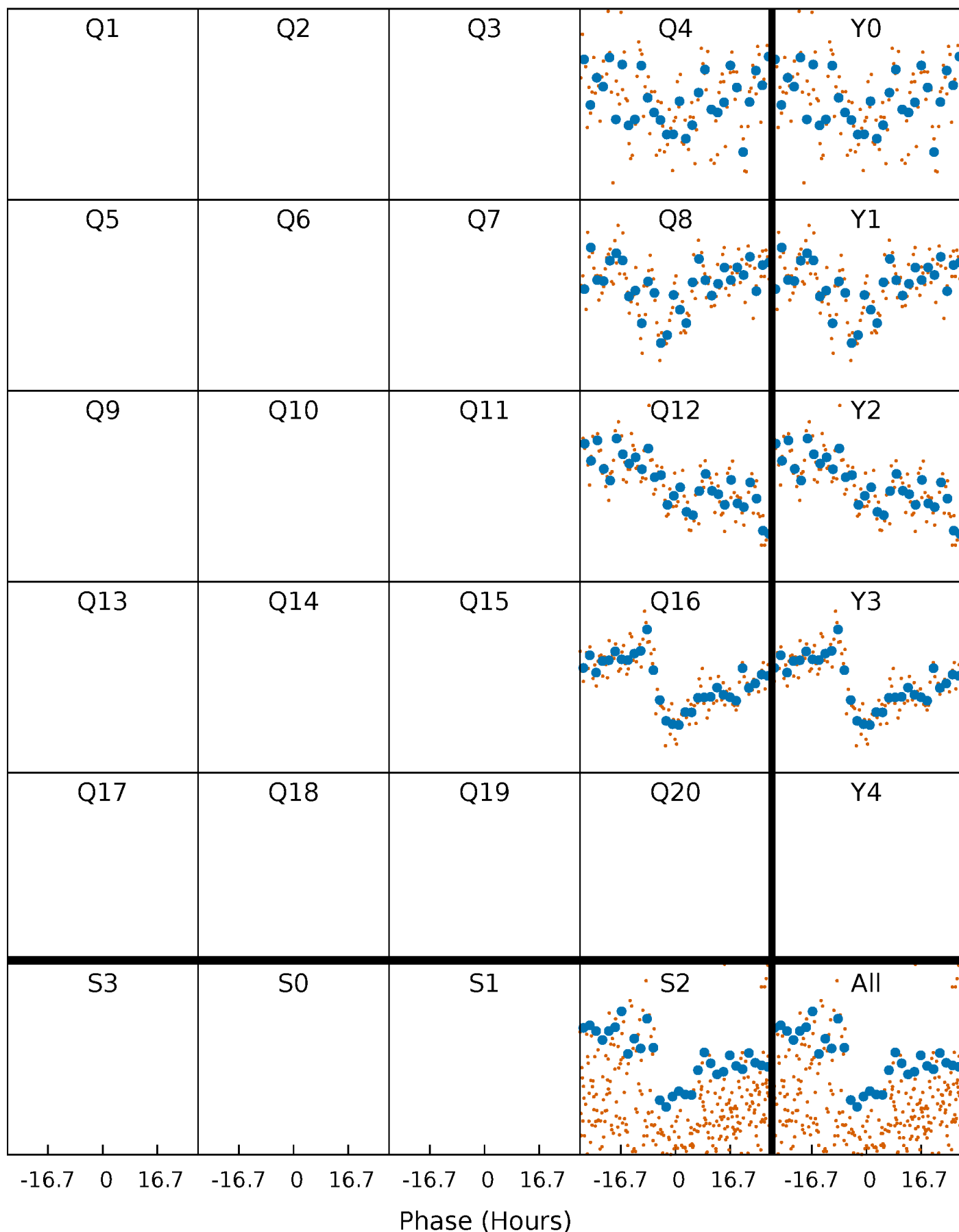


Non-Whitened Vs. Whitened Light Curve



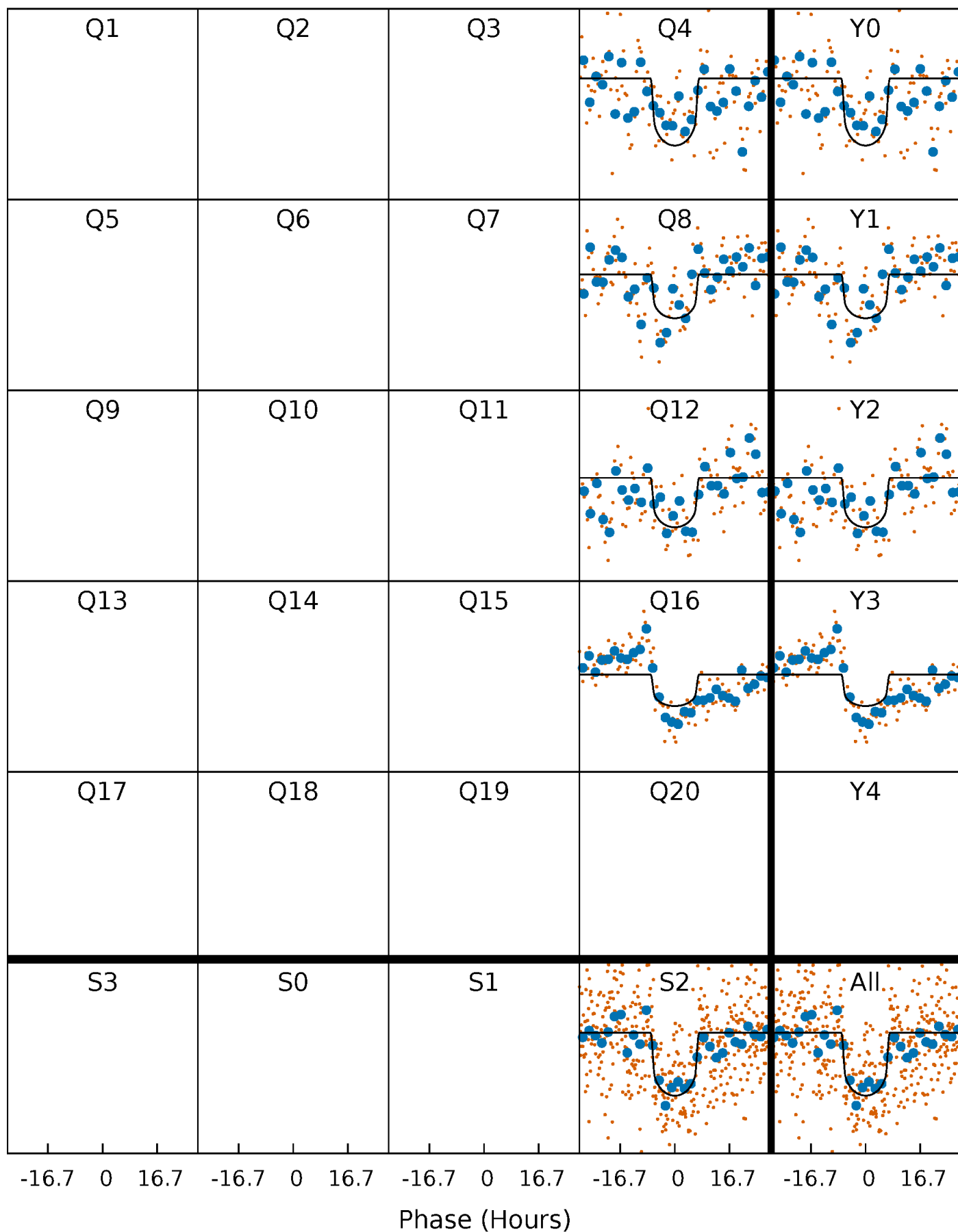
PDC Quarter-Phased Transit Curves

TCE 008008241-01 P=360.669124 Days $T_0=408.935280$ (BKJD)



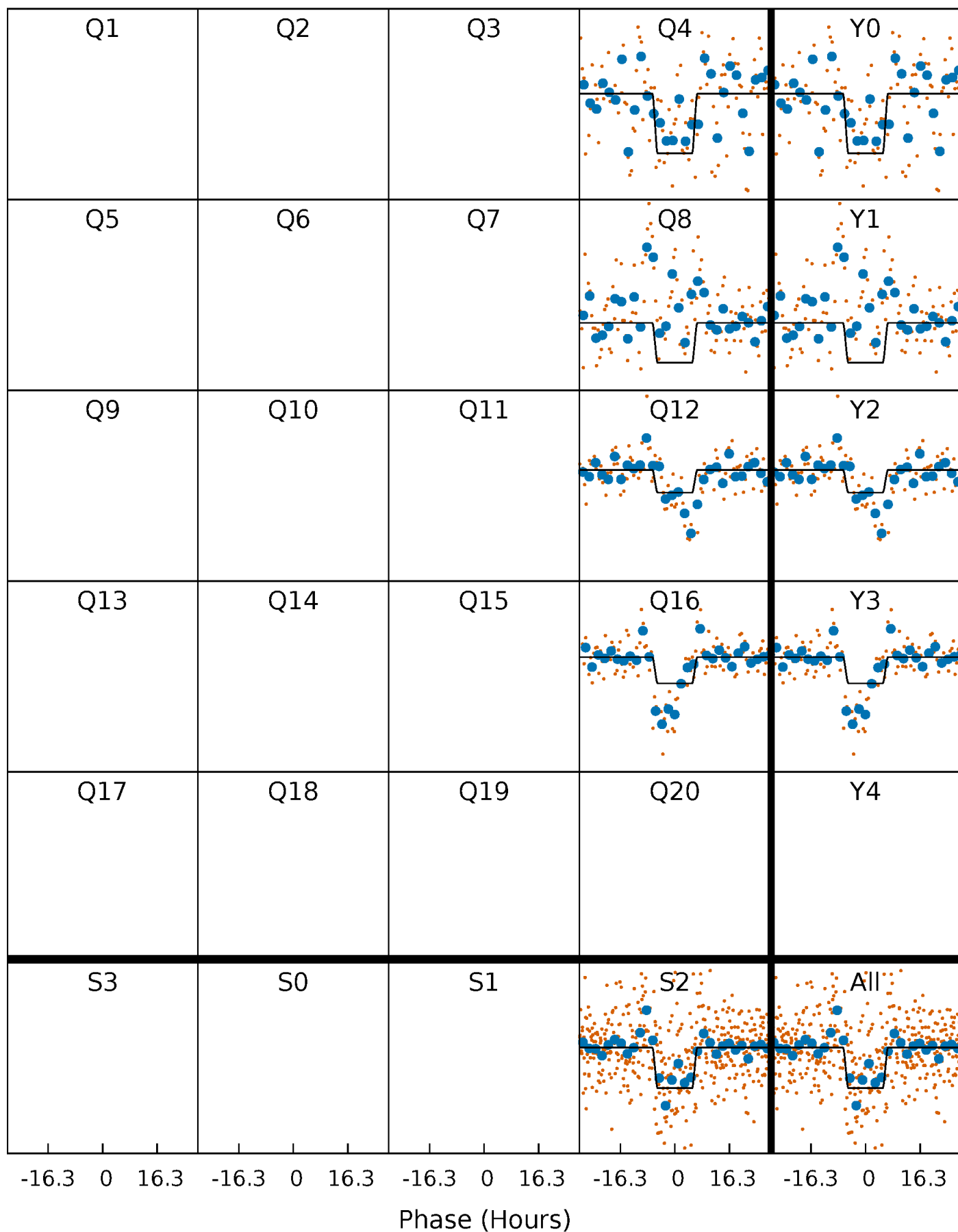
DV Quarter-Phased Transit Curves

TCE 008008241-01 P=360.669124 Days $T_0=408.935280$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

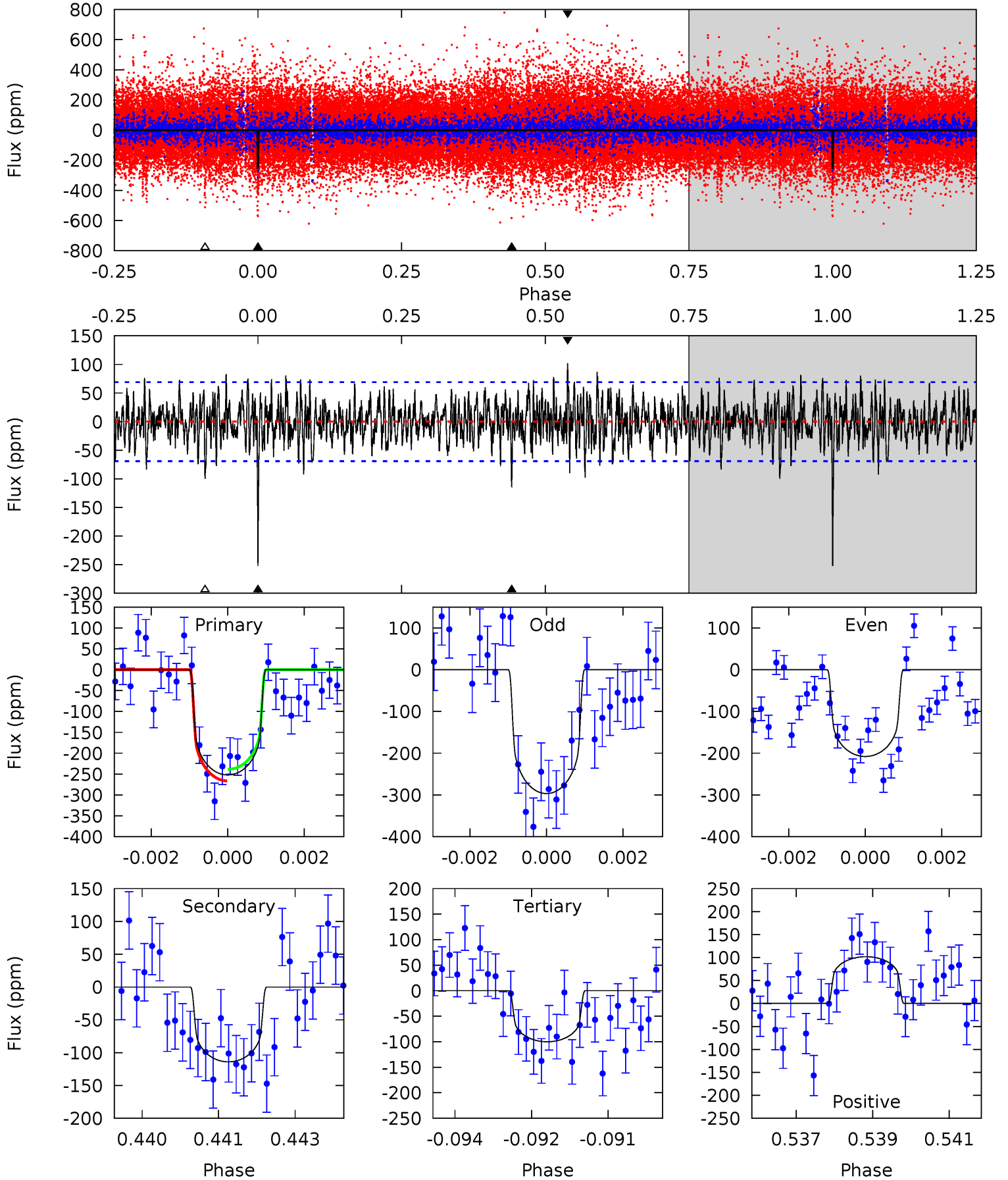
TCE 008008241-01 P=360.679579 Days $T_0=408.925118$ (BKJD)



DV Model-Shift Uniqueness Test

008008241-01, $P = 360.669124$ Days, $E = 48.266156$ Days

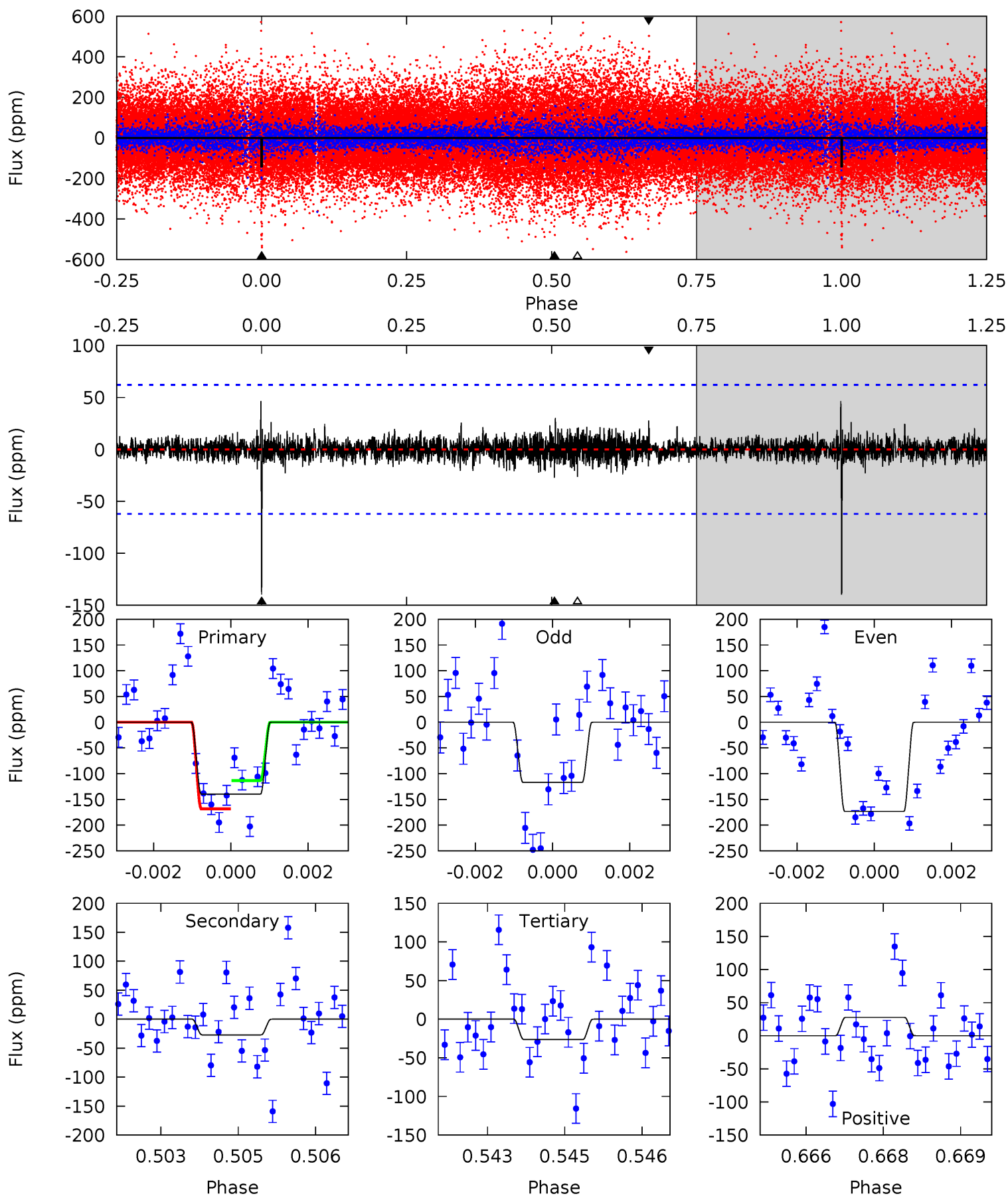
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.5	8.82	7.75	7.88	5.35	3.13	2.20	11.8	11.6	1.08	0.94	3.42	1.08	0.29	1.07



Alt Model-Shift Uniqueness Test

008008241-01, P = 360.679579 Days, E = 48.245539 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.1	2.34	2.27	2.39	5.37	3.17	0.55	9.84	9.72	0.07	-0.05	2.44	0.83	0.25	2.35



Stellar Parameters For KIC 008008241

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5252^{+173}_{-157}	$3.809^{+0.222}_{-0.148}$	$0.060^{+0.250}_{-0.250}$	$2.242^{+0.510}_{-0.624}$	$1.180^{+0.143}_{-0.214}$	$0.148^{+0.192}_{-0.063}$
	+3%/-3%	+6%/-4%	+417%/-417%	+23%/-28%	+12%/-18%	+130%/-43%
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 008008241-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-114 ± 13	$4.16^{+0.89}_{-0.76}$	469^{+35}_{-34}	4312^{+252}_{-238}	3975^{+2068}_{-1298}
Alt.	-27 ± 12	$3.22^{+0.71}_{-0.73}$	475^{+32}_{-40}	3642^{+367}_{-312}	1471^{+1304}_{-679}

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 $A_{obs} \gg 1.0$

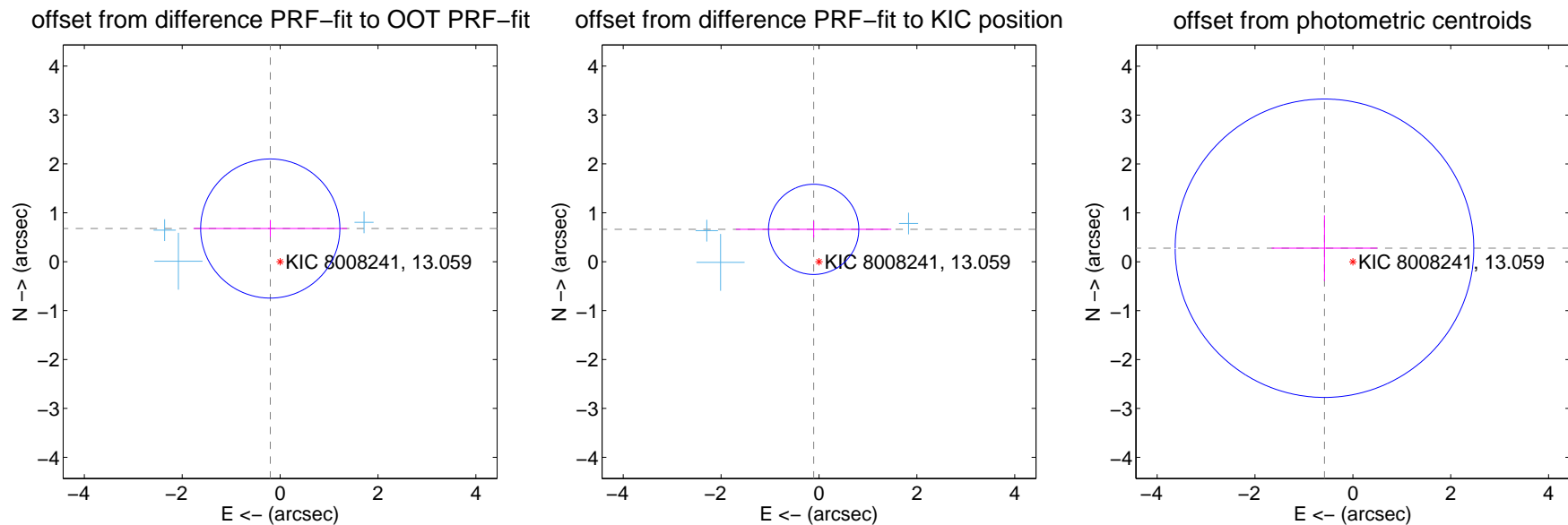
DV Centroid Data

Supplemental centroid analysis for 008008241-01. Kepler magnitude: 13.06. Transit SNR 9.02

There are 3 quarters with good PRF difference image offsets

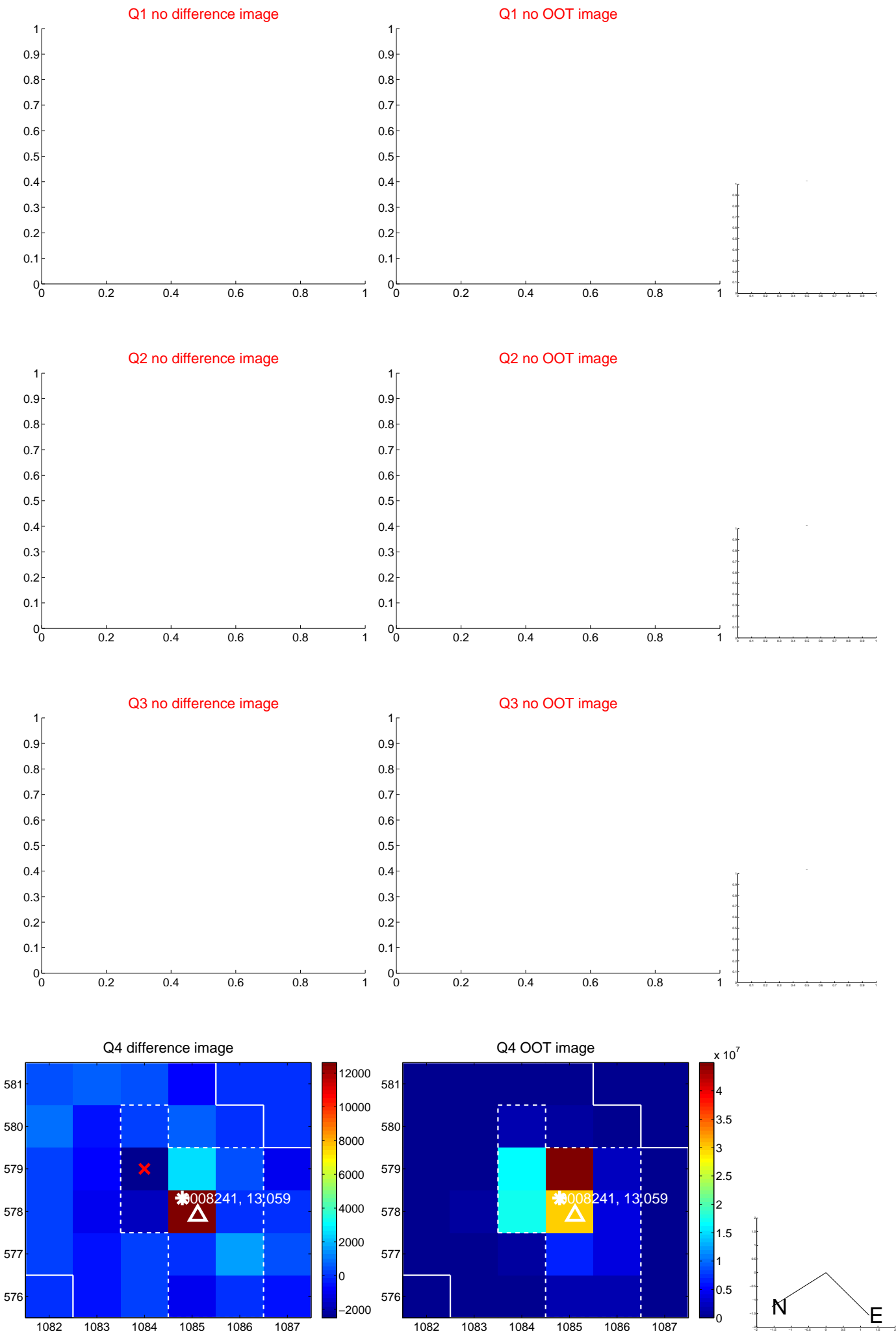
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.707 ± 0.474	1.49	0.201 ± 1.568	0.678 ± 0.169
PRF-fit source offset from KIC position	0.670 ± 0.307	2.18	0.109 ± 1.588	0.661 ± 0.169
photometric centroid source offset	0.64 ± 1.02	0.63	0.58 ± 1.08	0.28 ± 0.67

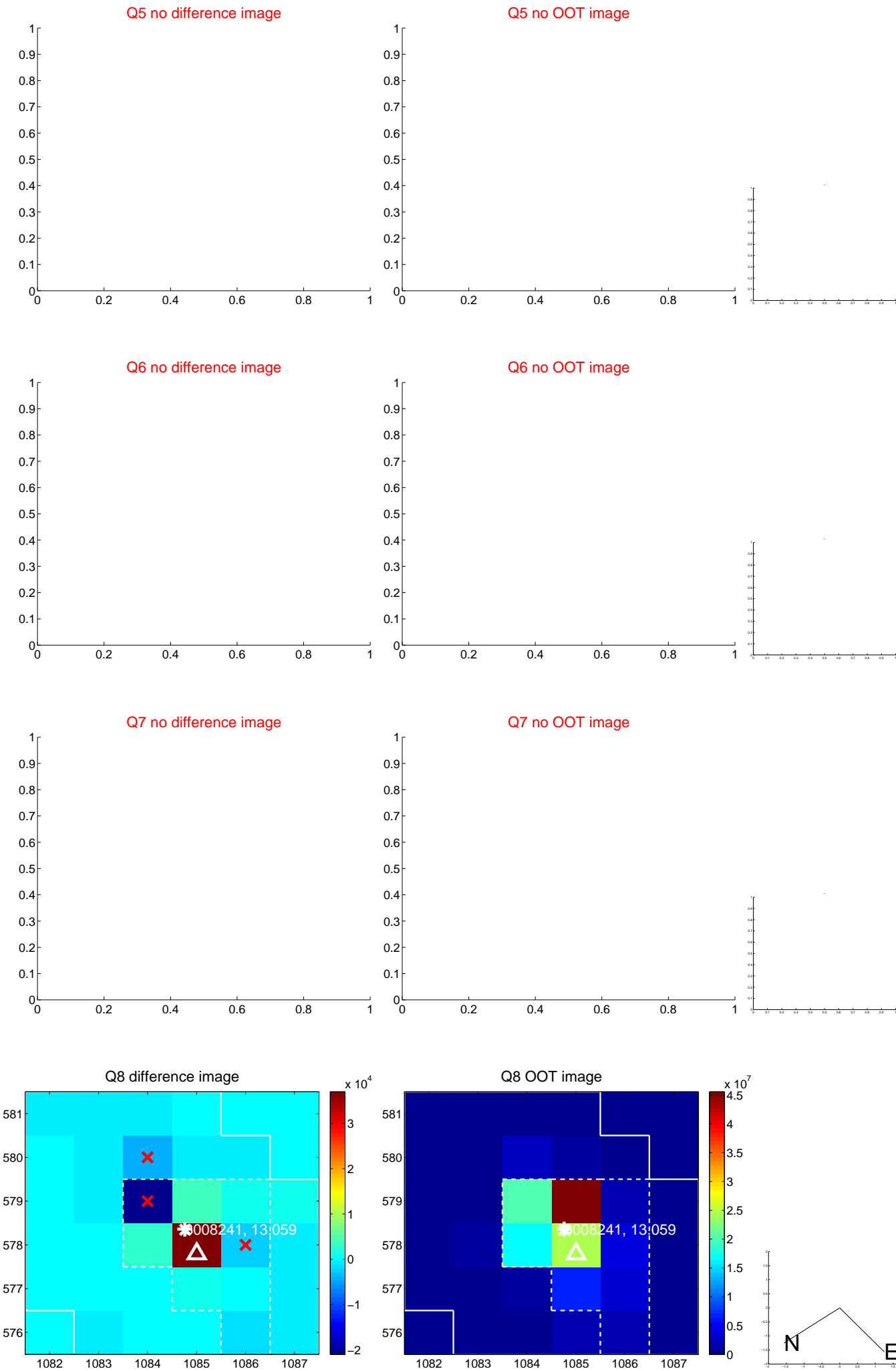


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



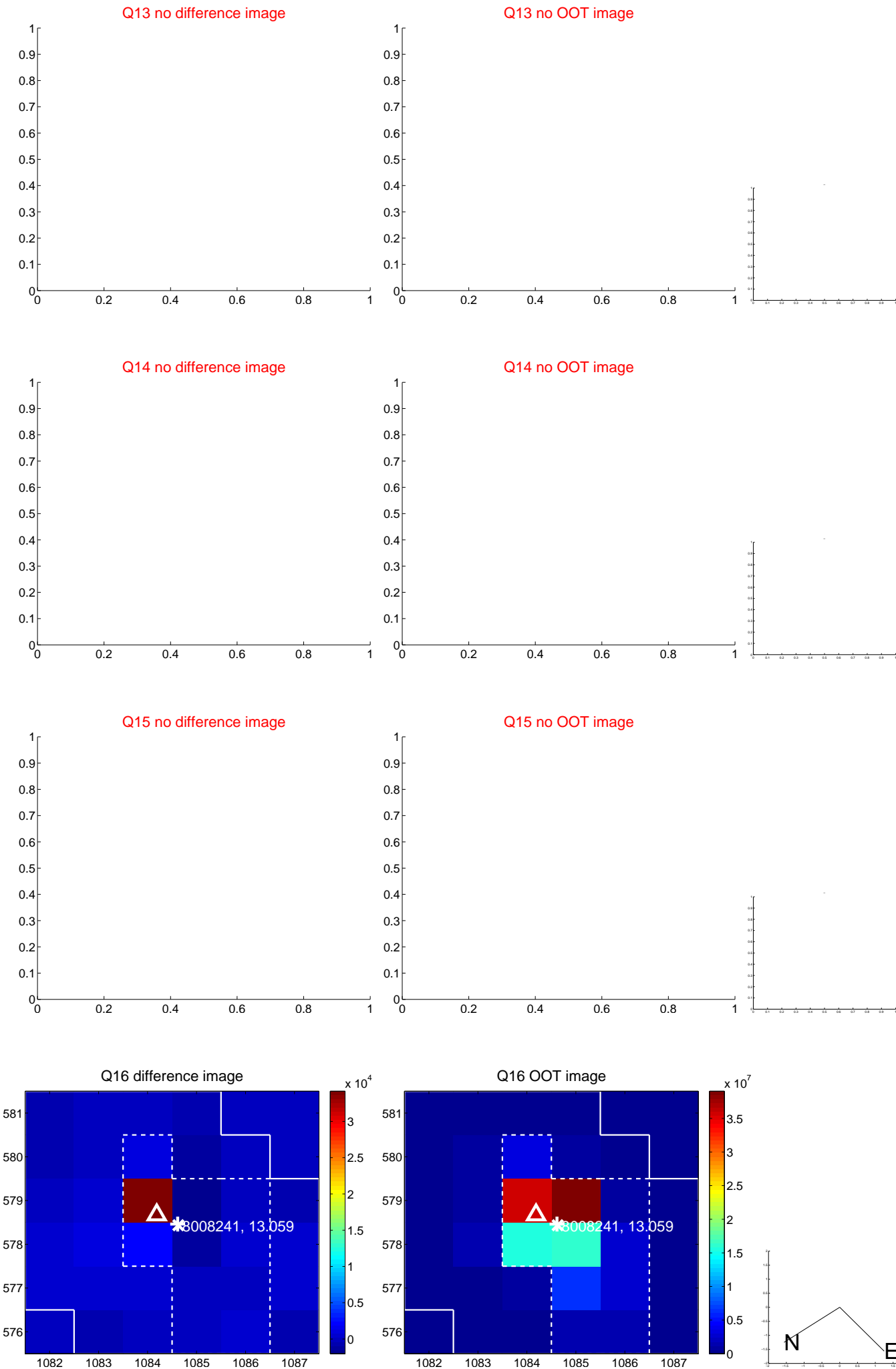
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



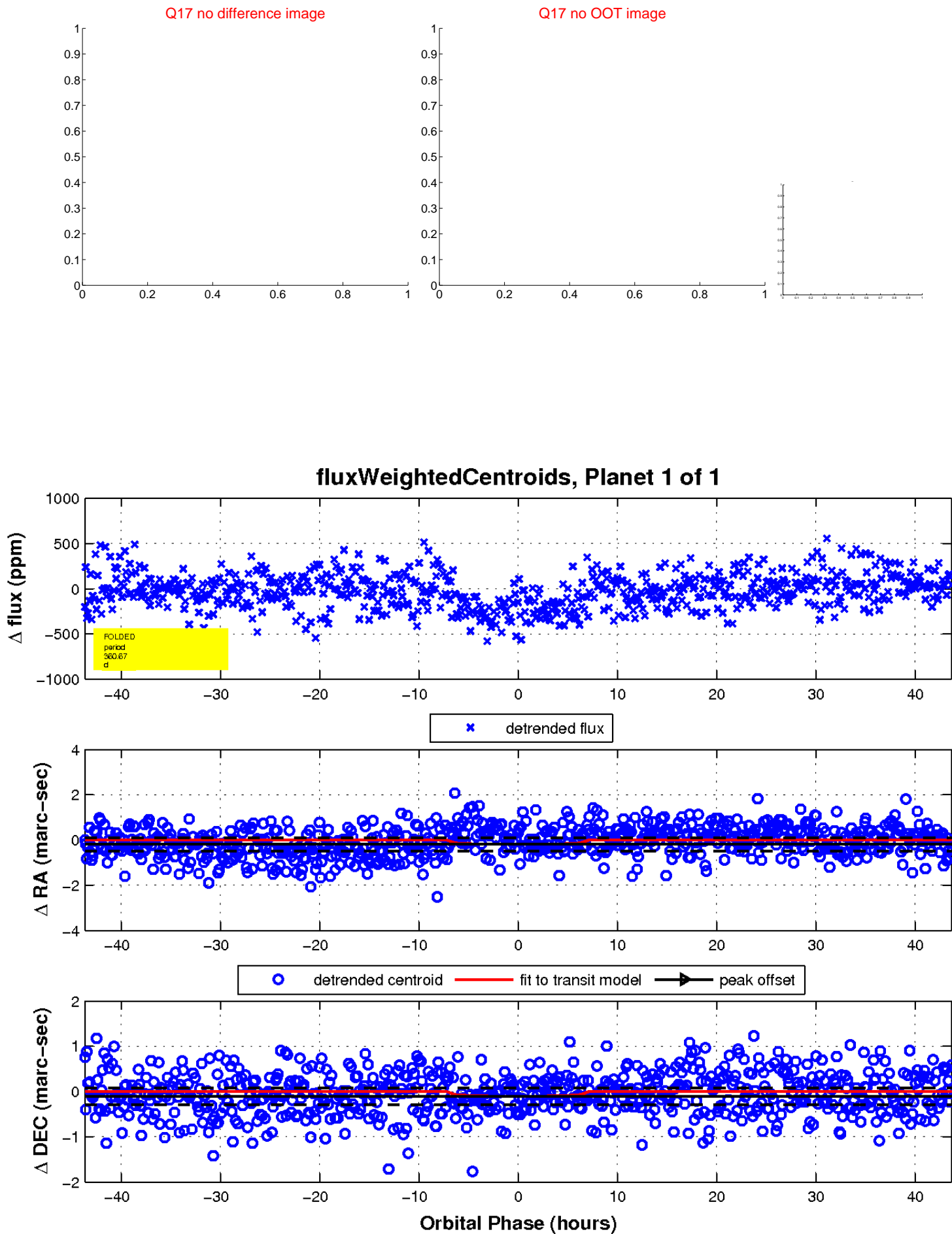
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

