

KIC 005008689

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})
005008689-01	OBS	No	466.966784	137.865715	996.1	22.161	10.9	13.2	0.60	4441	2.57	0.12

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005008689-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_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.

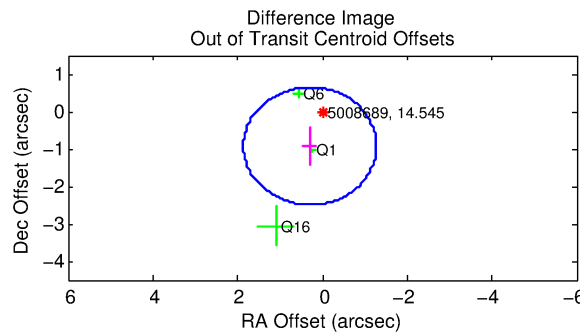
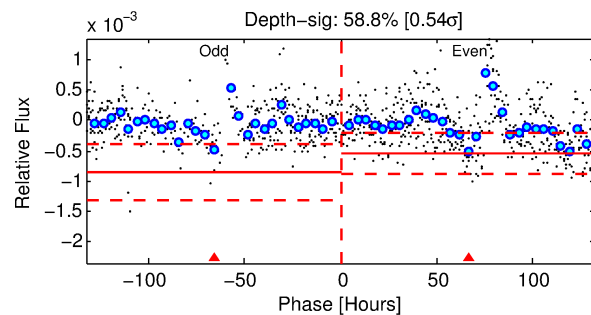
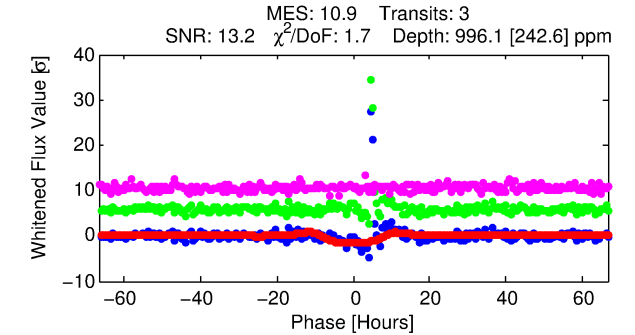
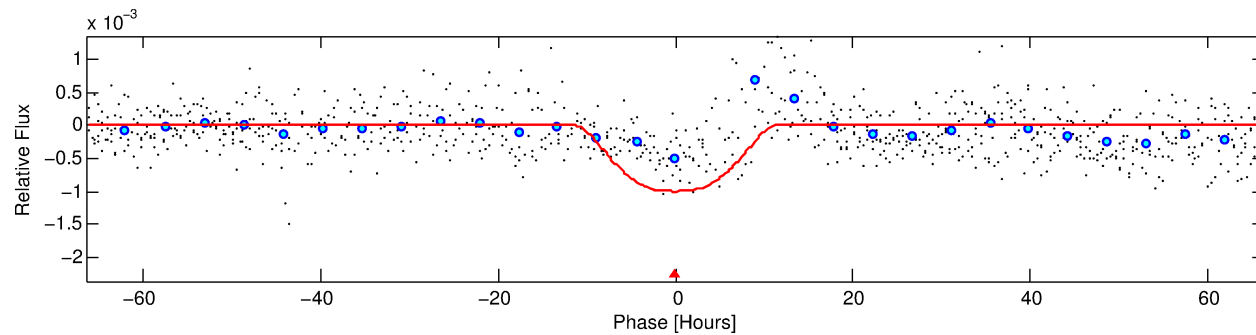
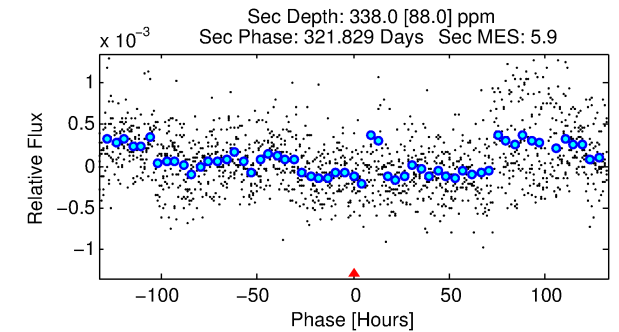
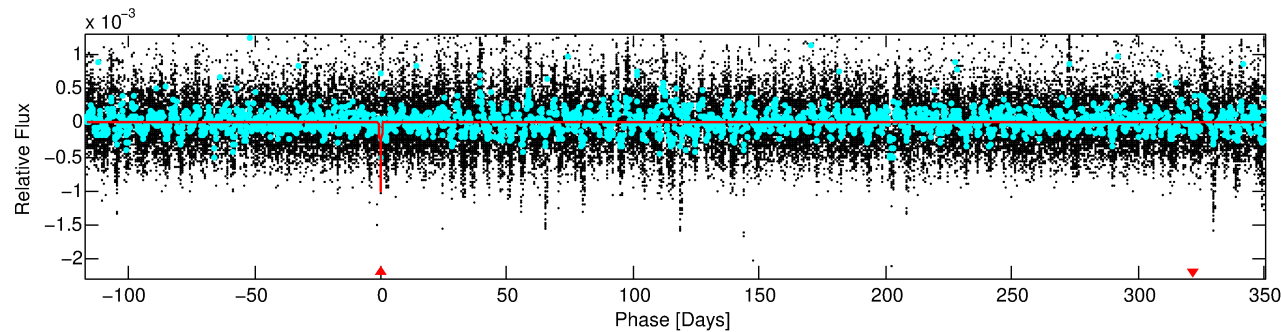
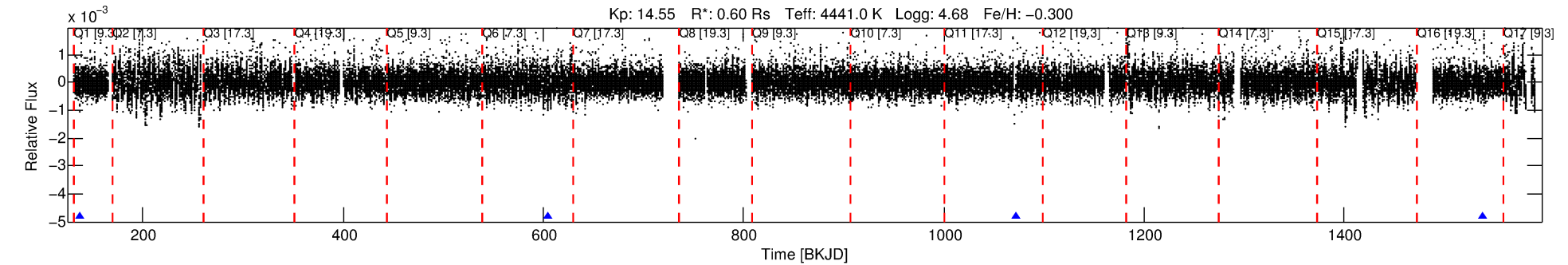
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005008689-01

No Significant Match Found

DV One-Page Summary

KIC: 5008689 Candidate: 1 of 1 Period: 466.967 d



DV Fit Results:

Period = 466.96678 [0.02716] d
 Epoch = 137.8657 [0.0514] BKJD
 Rp/R* = 0.0393 [0.0068]
 a/R* = 64.70 [14.86]
 b = 0.96 [0.03]
 Seff = 0.12 [0.01]
 Teq = 151 [4] K
 Rp = 2.57 [0.47] Re
 a = 1.0116 [0.0492] AU
 Ag = 28762.15 [12669.64] [2.27σ]
 Tefp = 3038 [335] K [8.63σ]

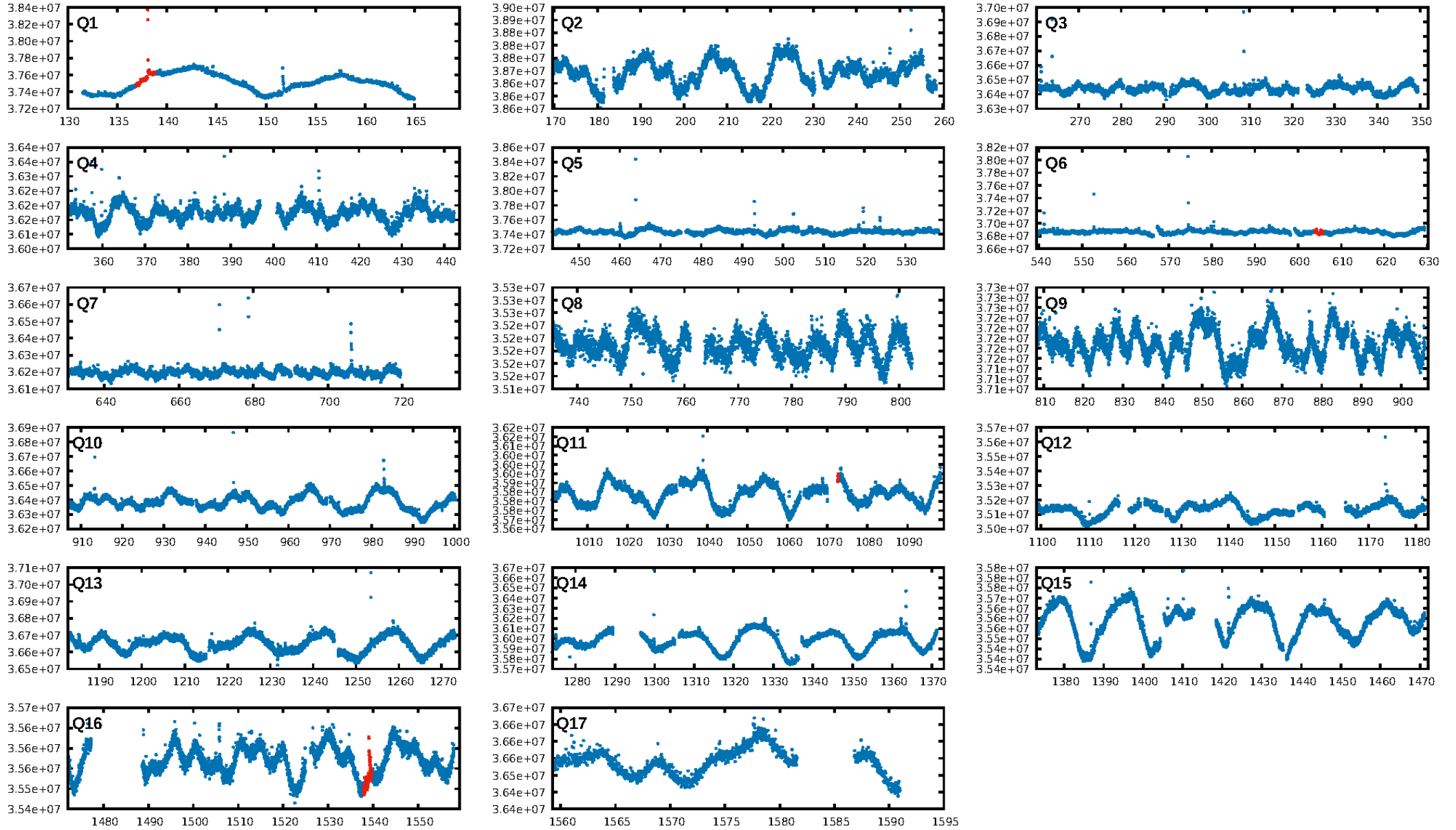
DV Diagnostic Results:

ShortPeriod-sig: N/A
 LongPeriod-sig: N/A
 ModelChiSquare2-sig: 16.4%
 ModelChiSquareGof-sig: 34.2%
 Bootstrap-pfa: 3.12e-13
 RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: 0.9718
 Centroid-sig: 29.2%
 Centroid-so: 0.435 arcsec [0.93σ]
 OotOffset-rm: 0.970 arcsec [1.86σ]
 KicOffset-rm: 0.980 arcsec [1.03σ]
 OotOffset-st: 1/0/1/1 [3]
 KicOffset-st: 1/0/1/1 [3]
 DiffImageQuality-fgm: 0.67 [2/3]
 DiffImageOverlap-fno: 1.00 [3/3]

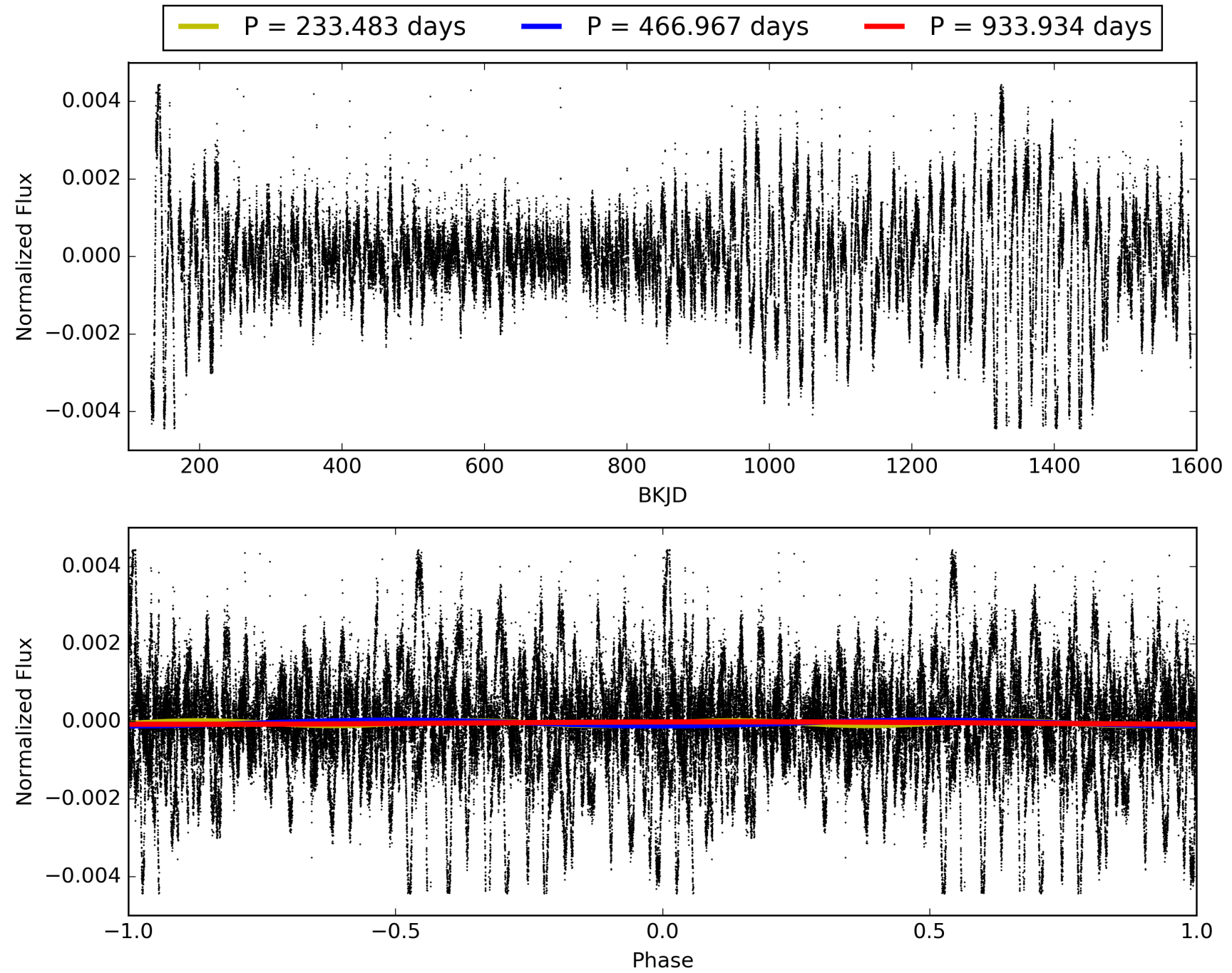
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 03:58:32 Z

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

TCE 005008689-01, PDC Light Curves

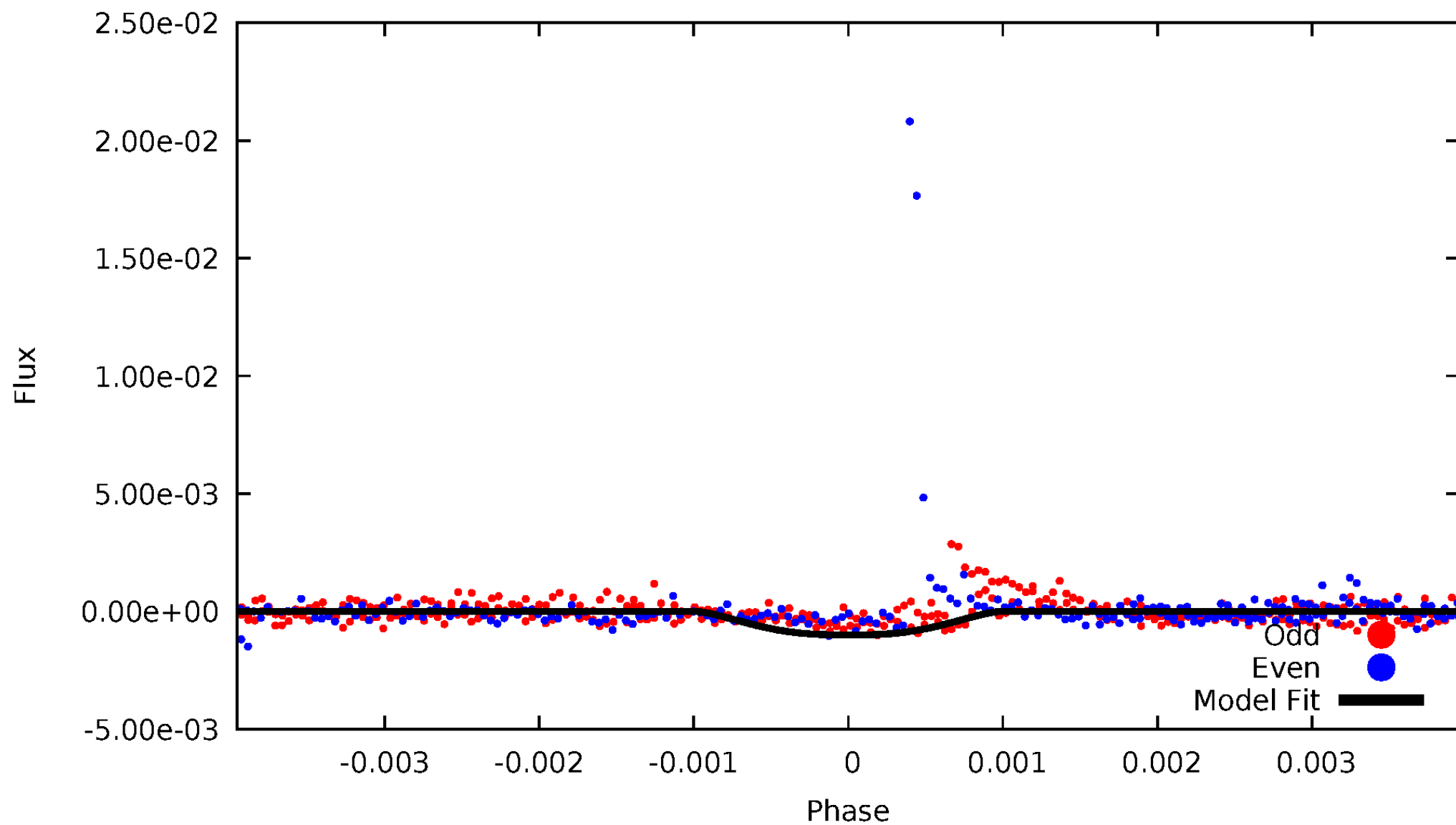


TCE 005008689-01



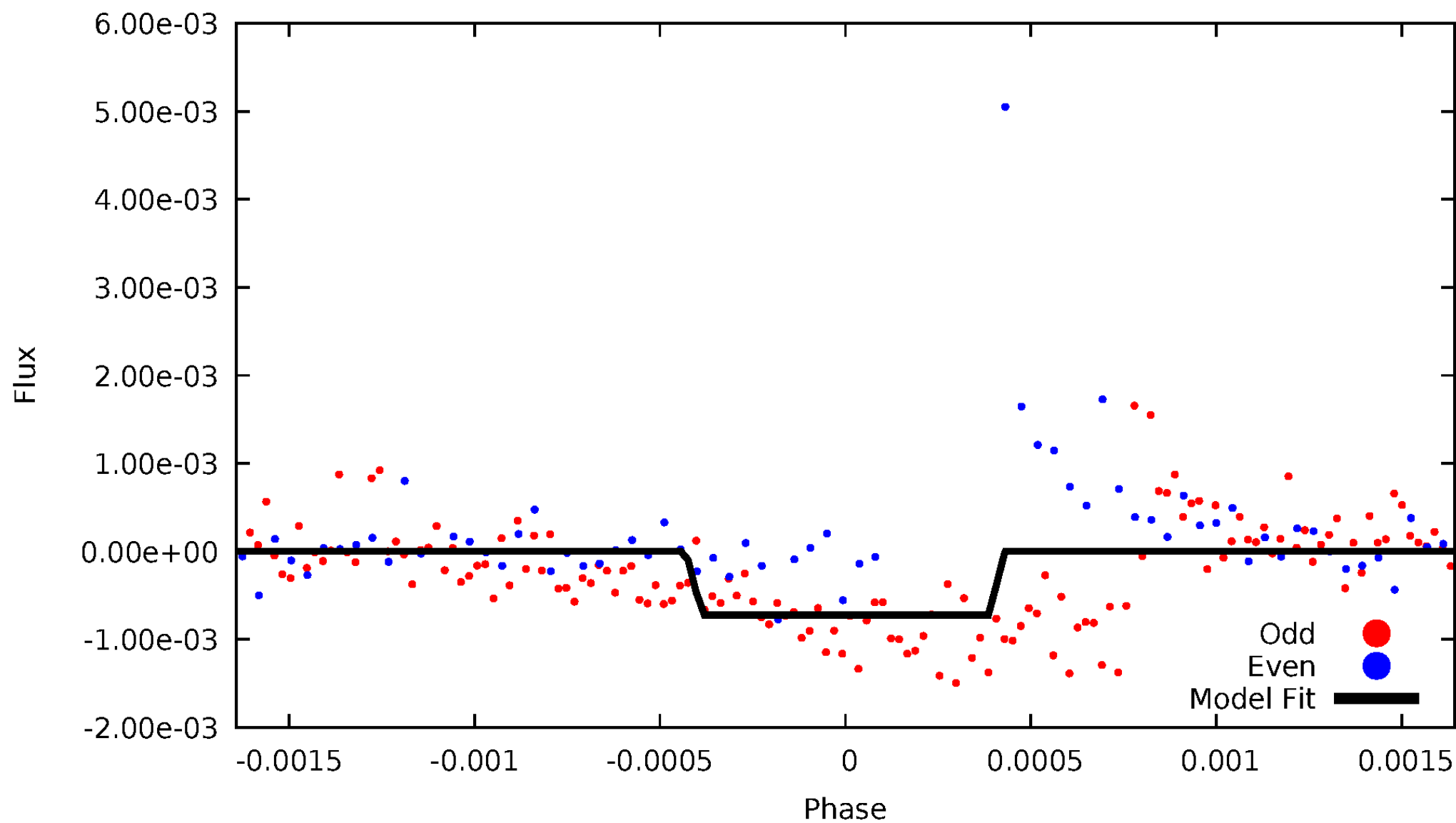
DV Odd/Even

TCE 005008689-01



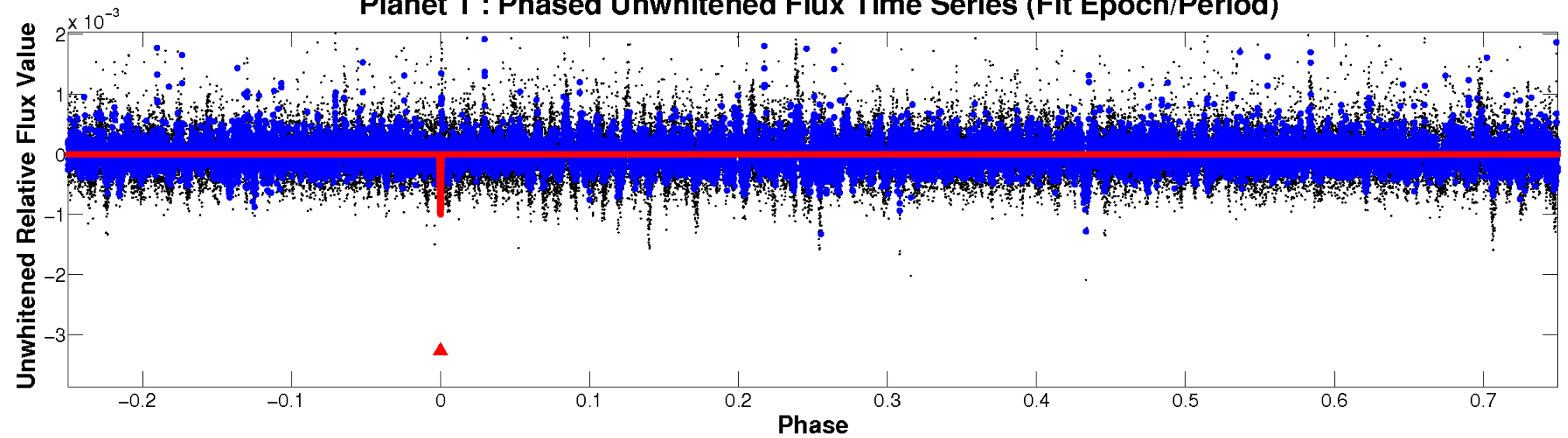
ALT Odd/Even

TCE 005008689-01

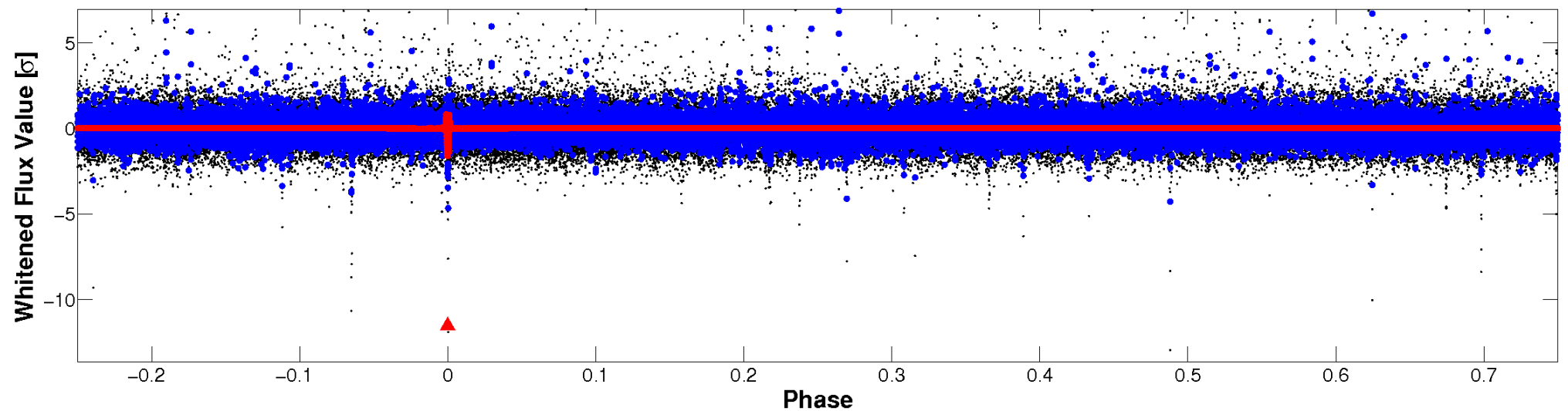


Non-Whitened Vs. Whitened Light Curve

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

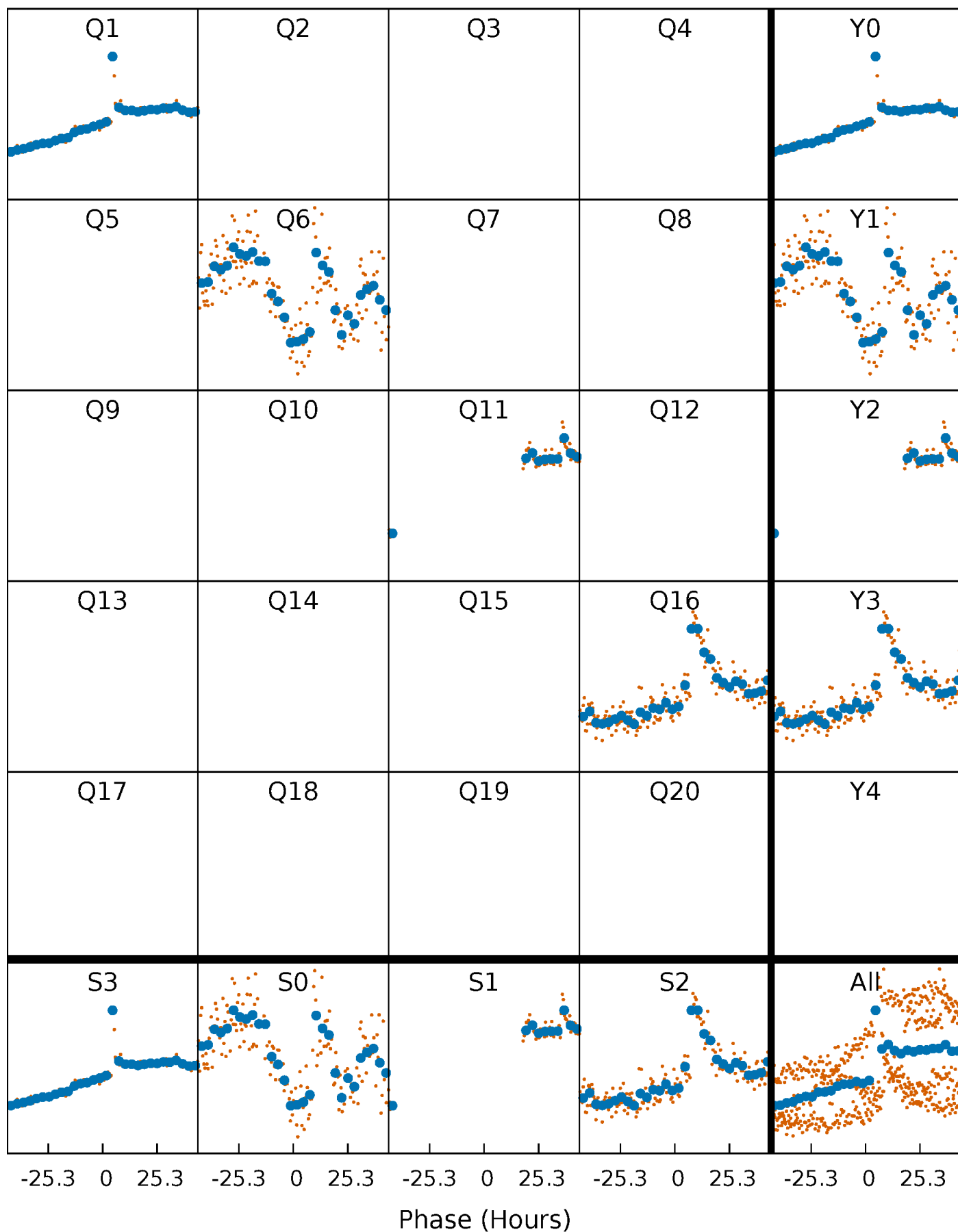


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



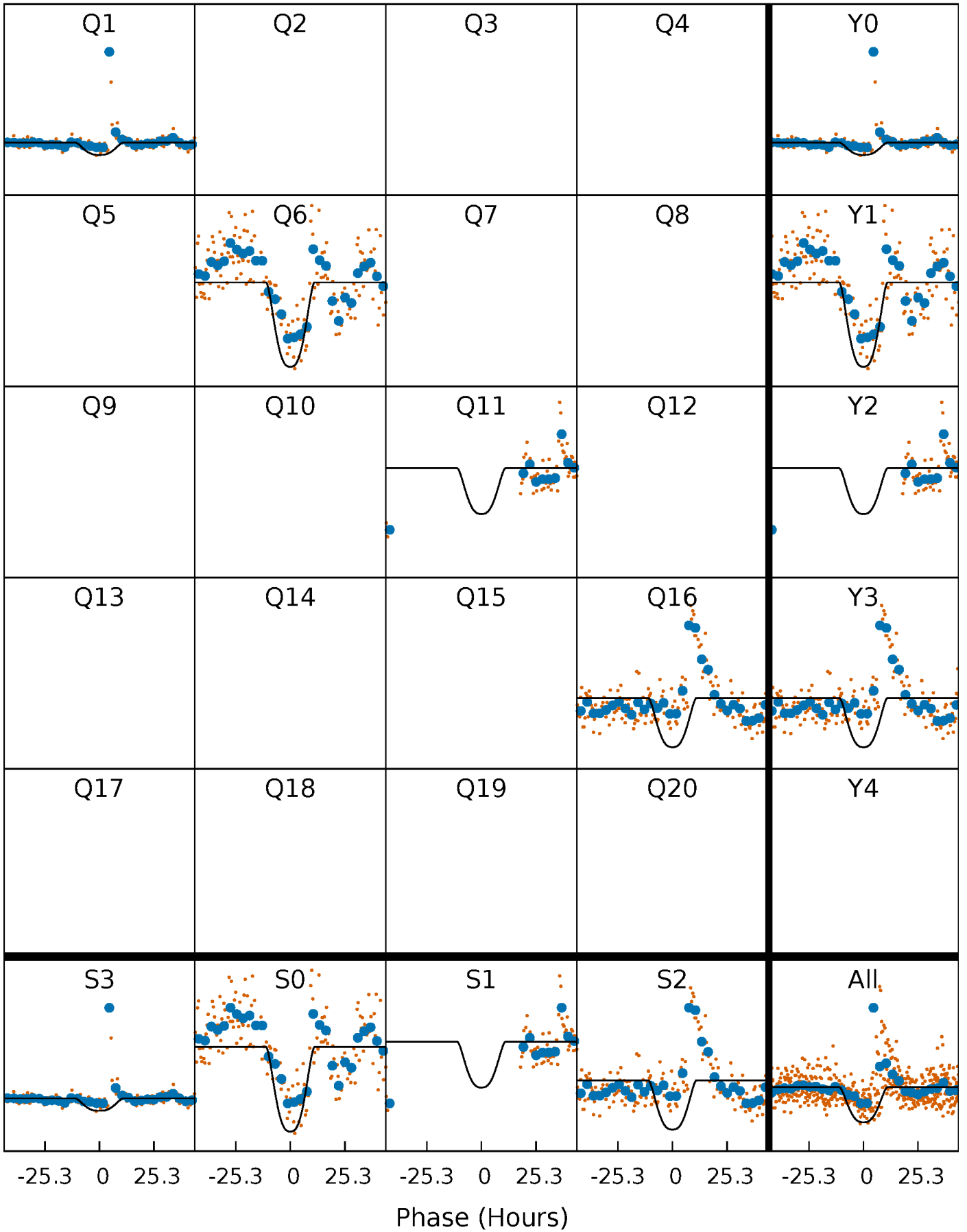
PDC Quarter-Phased Transit Curves

TCE 005008689-01 P=466.966784 Days $T_0=137.865715$ (BKJD)



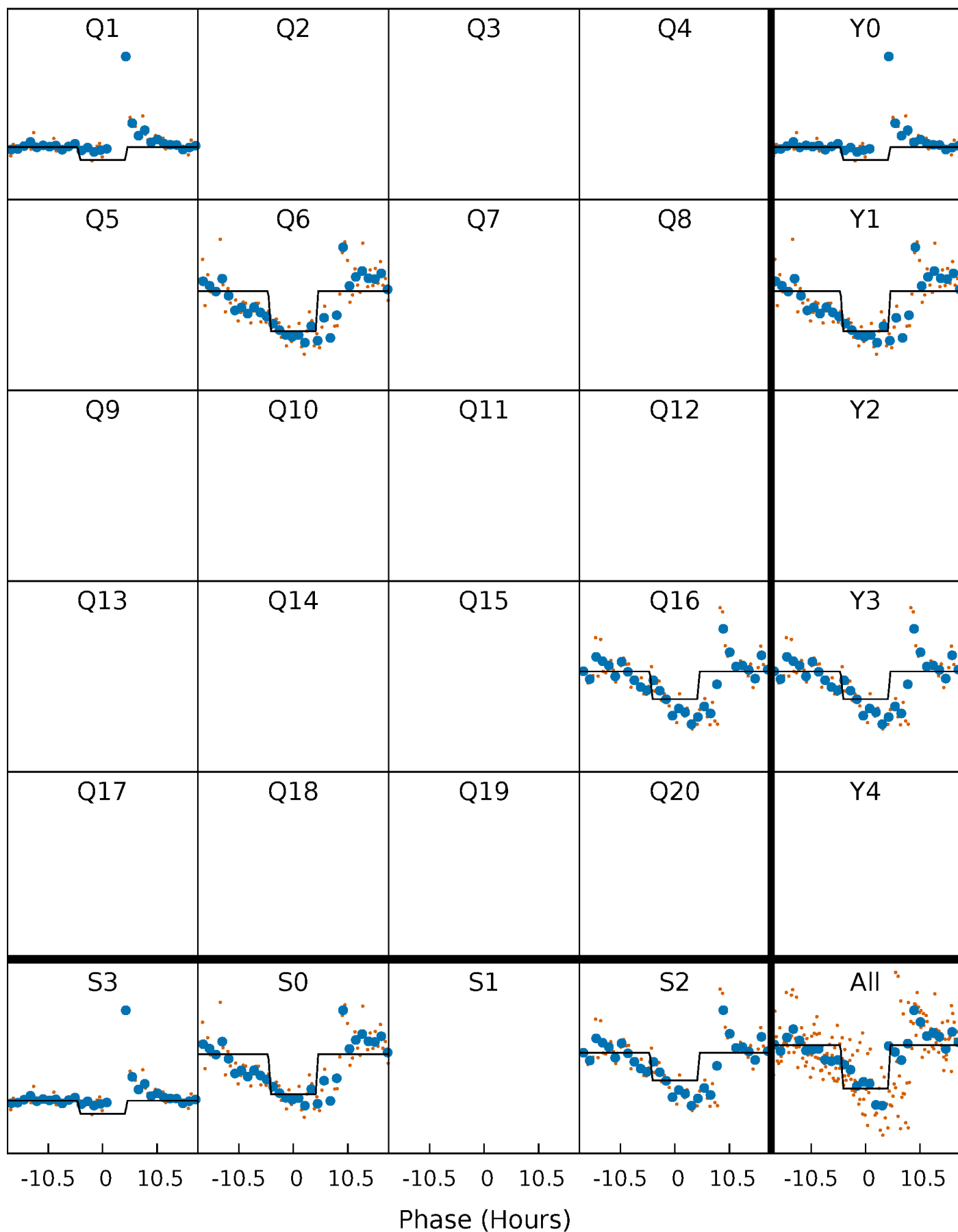
DV Quarter-Phased Transit Curves

TCE 005008689-01 P=466.966784 Days $T_0=137.865715$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

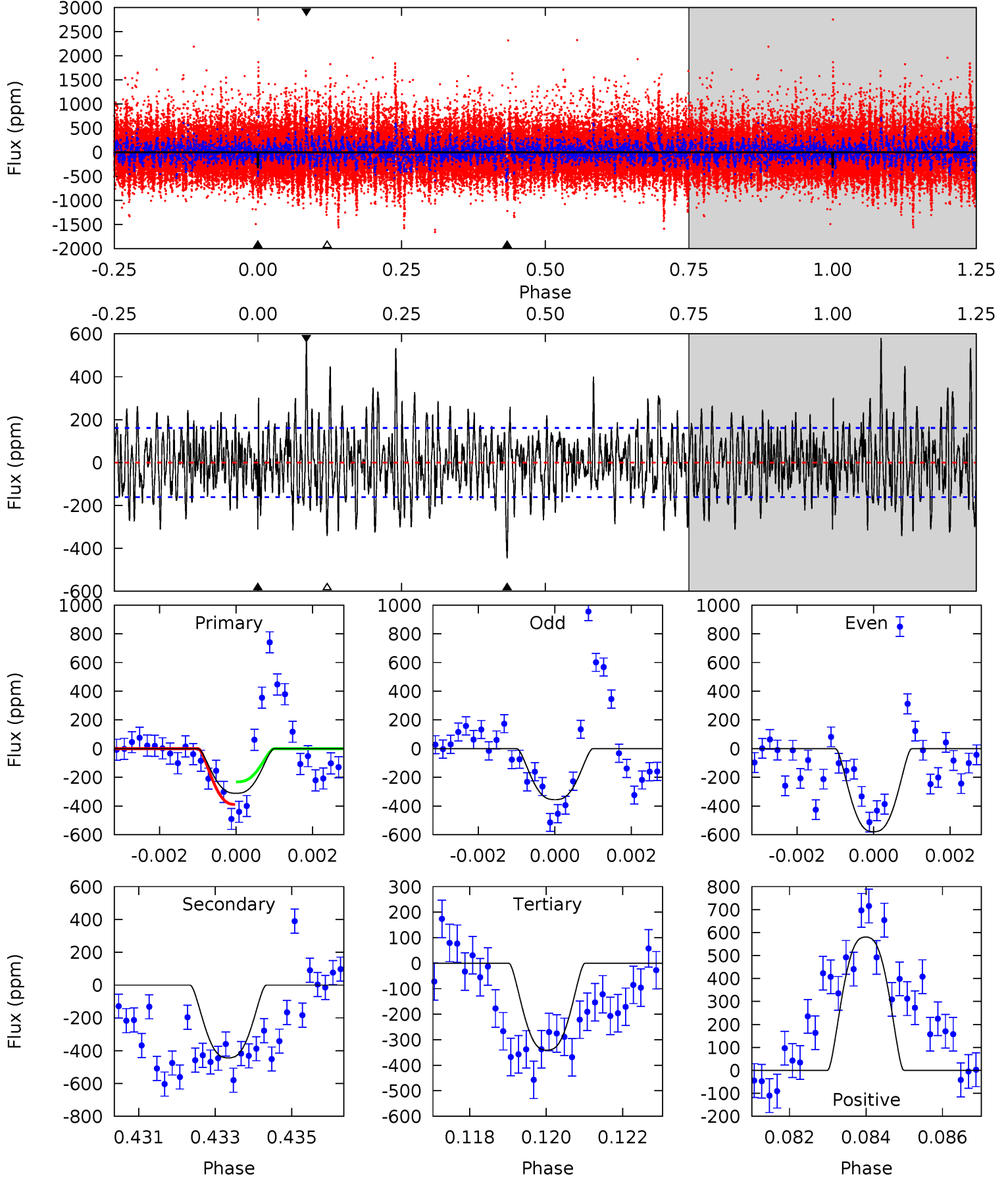
TCE 005008689-01 P=466.940902 Days $T_0=137.891214$ (BKJD)



DV Model-Shift Uniqueness Test

005008689-01, P = 466.966784 Days, E = 137.865715 Days

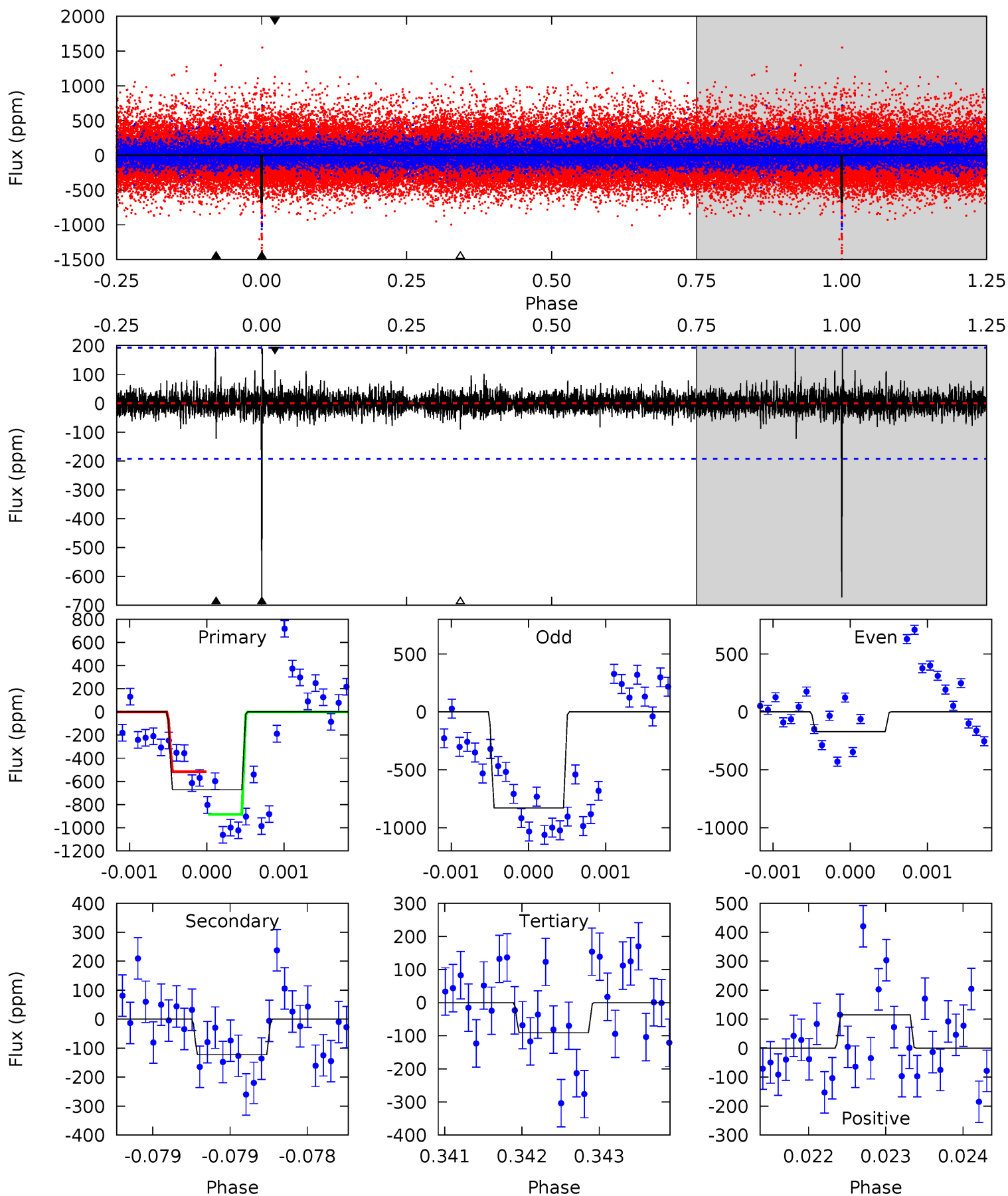
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.3	14.7	11.3	19.2	5.33	3.09	4.17	-0.97	-8.91	3.41	-4.52	3.38	-8.99	0.57	2.61



Alt Model-Shift Uniqueness Test

005008689-01, P = 466.940902 Days, E = 137.891214 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.1	3.48	2.58	3.26	5.48	3.33	0.66	16.5	15.8	0.90	0.22	8.04	0.82	0.22	5.19



Stellar Parameters For KIC 005008689

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4441^{+80}_{-80}	$4.683^{+0.012}_{-0.040}$	$-0.300^{+0.150}_{-0.150}$	$0.600^{+0.034}_{-0.022}$	$0.647^{+0.025}_{-0.043}$	$4.213^{+0.224}_{-0.607}$
	+2%/-2%	+0%/-1%	+50%/-50%	+6%/-4%	+4%/-7%	+5%/-14%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 005008689-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-444 ± 30	$2.64^{+0.46}_{-0.48}$	212^{+4}_{-4}	3550^{+249}_{-182}	35844^{+17449}_{-9818}
Alt.	-123 ± 35	$1.78^{+0.48}_{-0.49}$	212^{+5}_{-4}	3295^{+381}_{-299}	21913^{+21143}_{-10117}

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

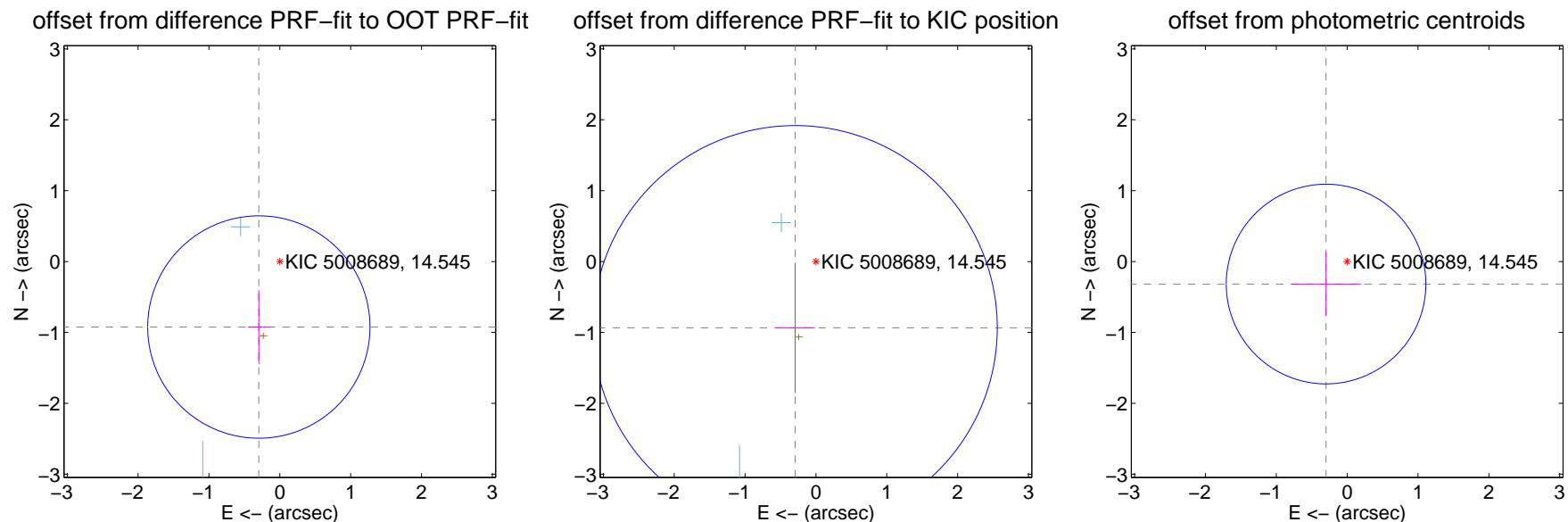
DV Centroid Data

Supplemental centroid analysis for 005008689-01. Kepler magnitude: 14.54. Transit SNR 13.25

There are 2 quarters with good PRF difference image offsets

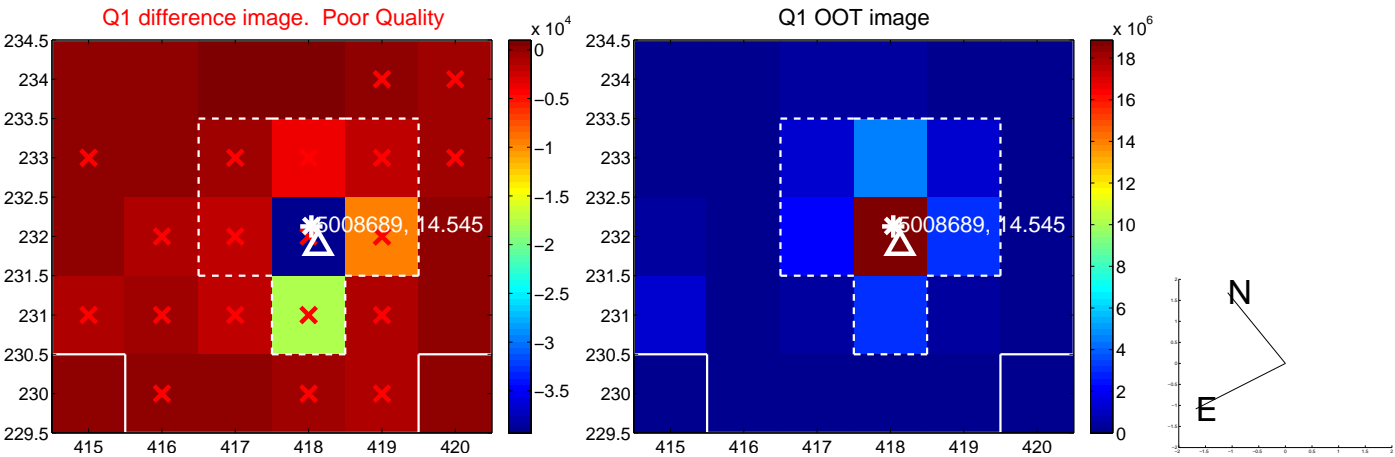
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.970 ± 0.523	1.86	0.296 ± 0.156	-0.924 ± 0.520
PRF-fit source offset from KIC position	0.980 ± 0.951	1.03	0.294 ± 0.279	-0.935 ± 0.917
photometric centroid source offset	0.44 ± 0.47	0.93	0.30 ± 0.49	-0.32 ± 0.45

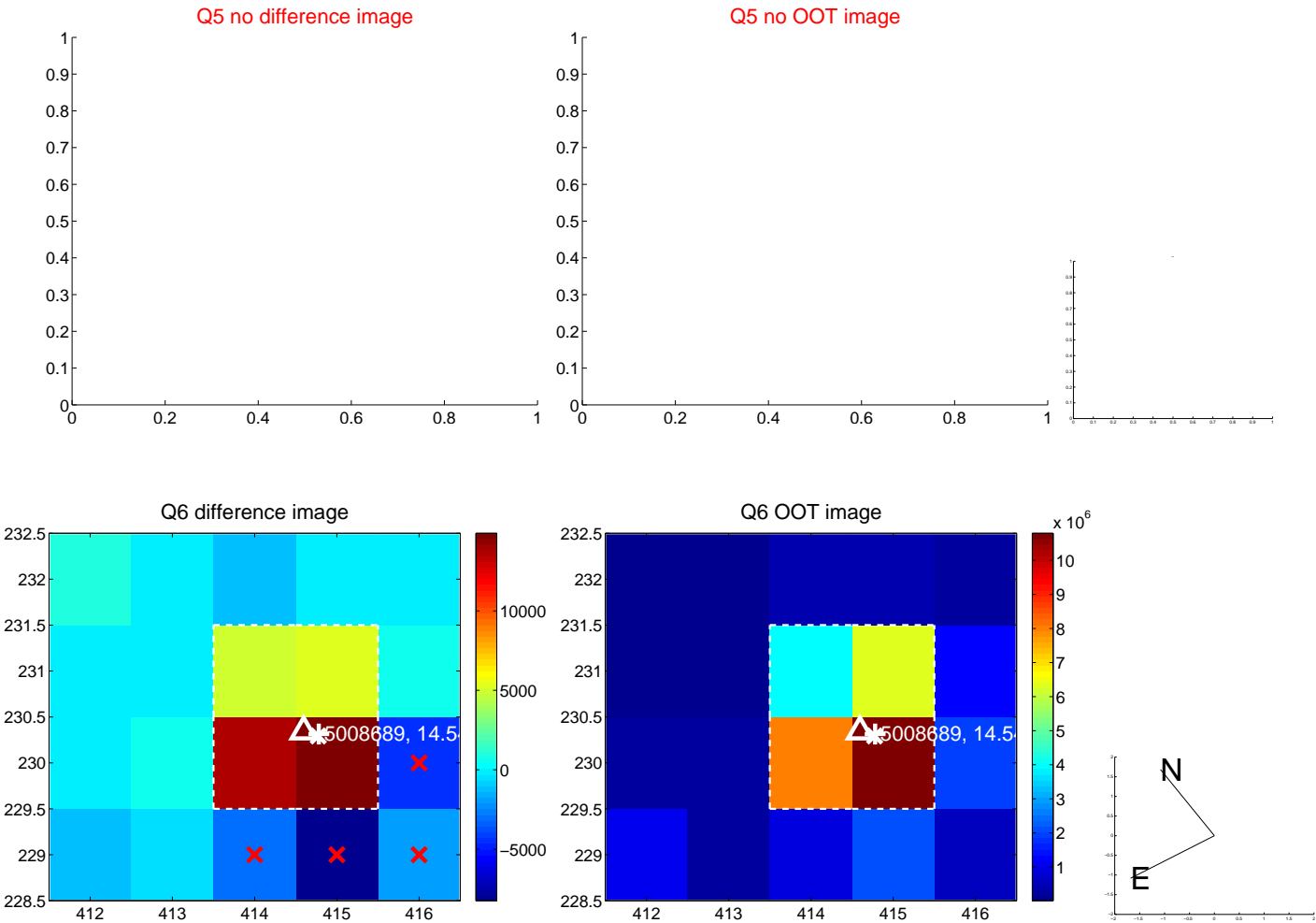


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



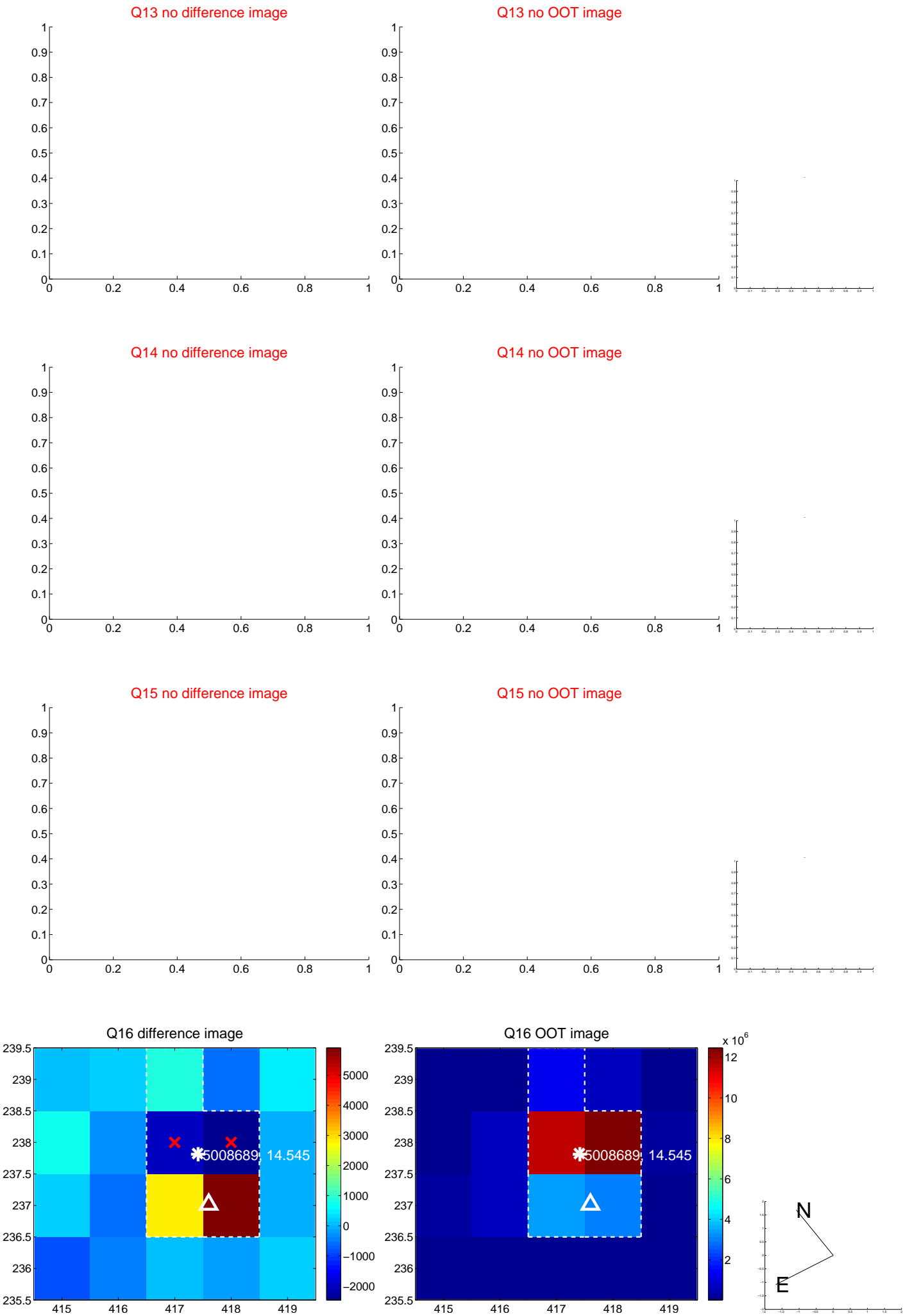
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



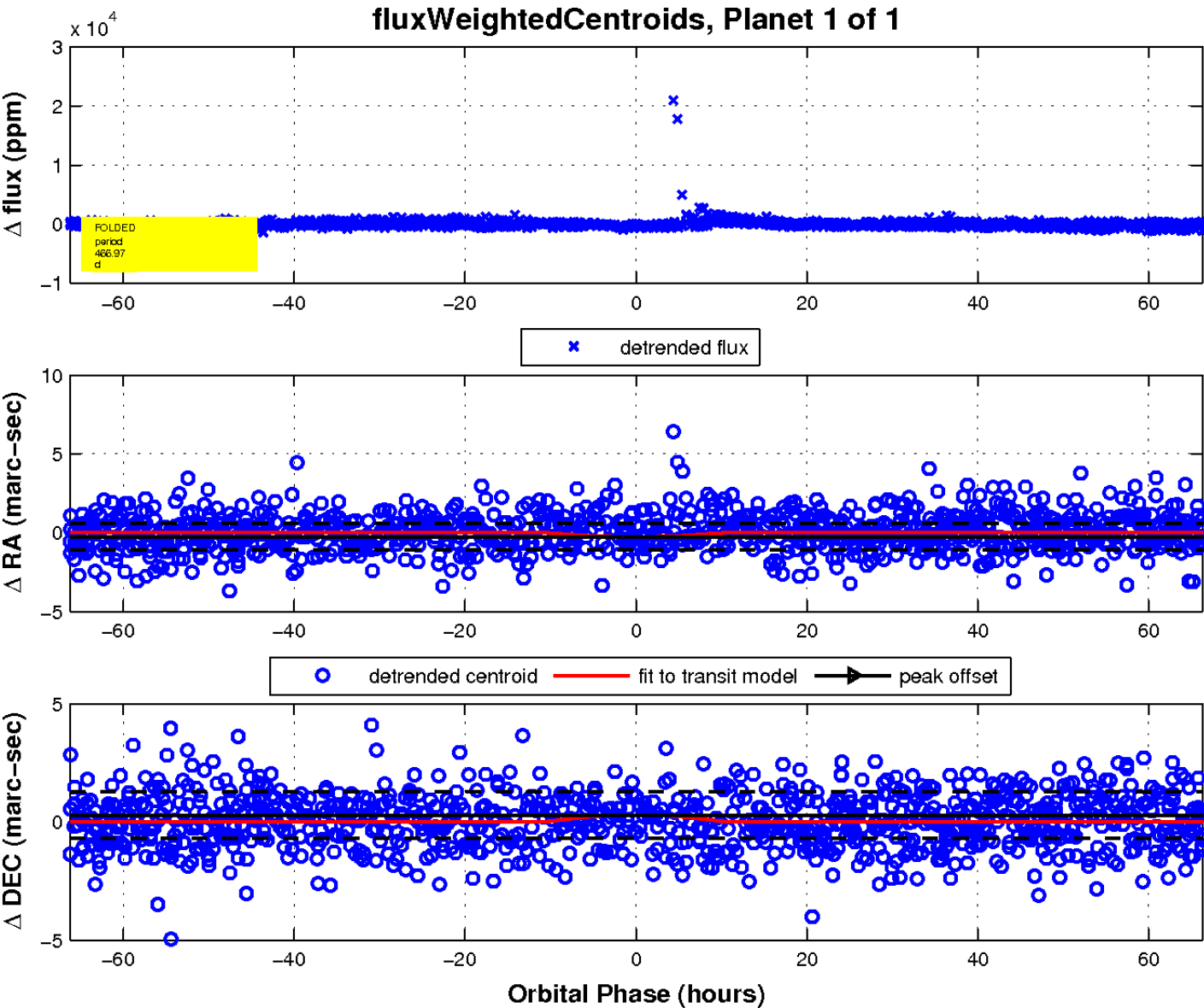
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

