

KIC 008313052

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})
008313052-01	OBS	No	365.392626	363.591248	550.5	17.938	9.2	5.8	0.79	5344	2.05	0.50

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008313052-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—MOD_POS_DV—MOD_TER_ALT—MOD_POS_ALT—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.

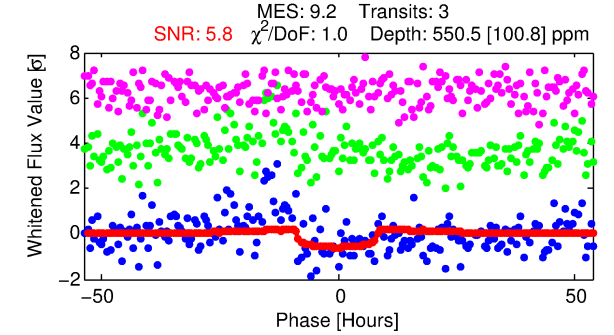
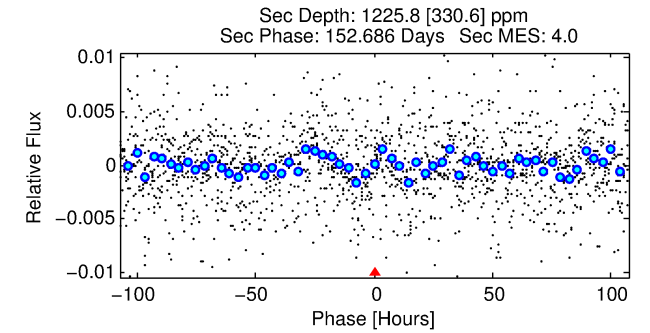
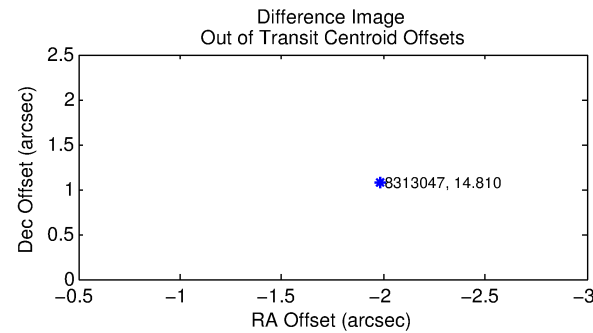
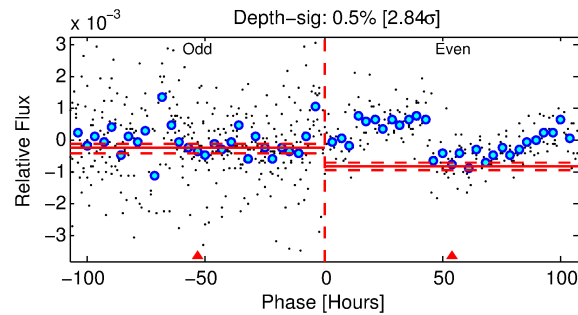
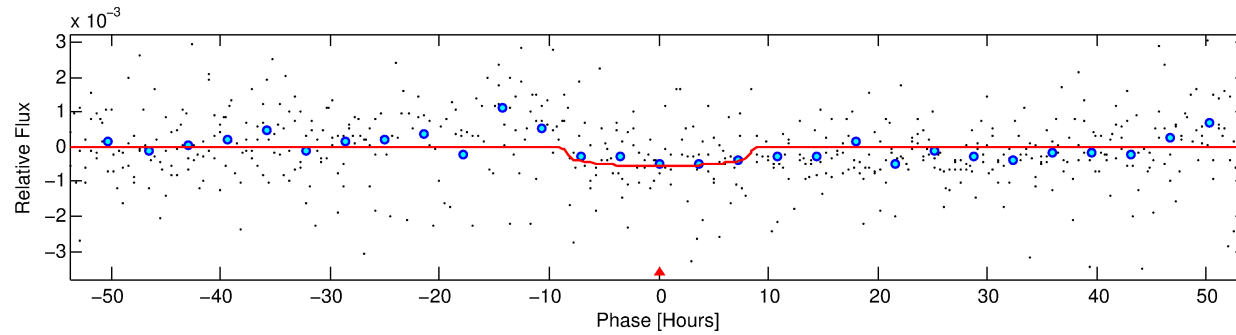
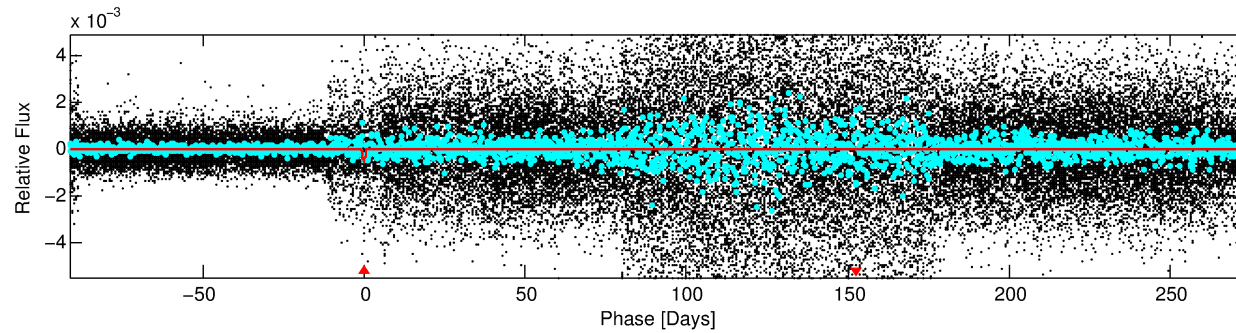
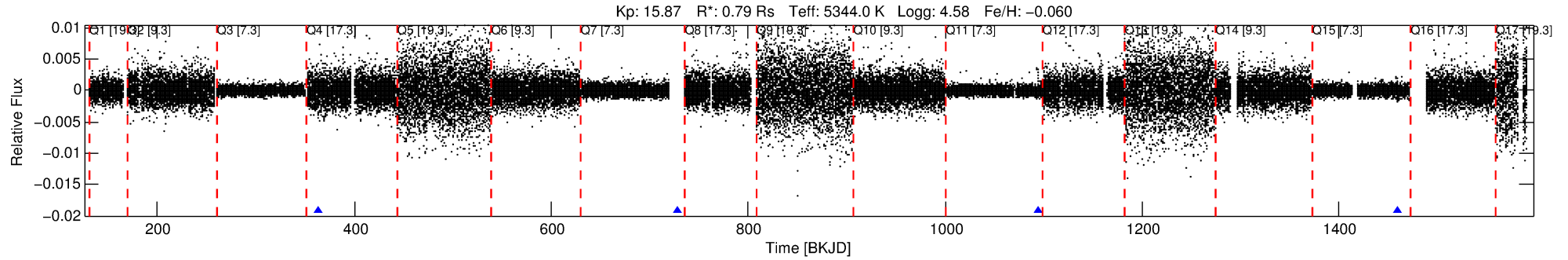
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008313052-01

No Significant Match Found

DV One-Page Summary

KIC: 8313052 Candidate: 1 of 1 Period: 365.393 d



DV Fit Results:

Period = 365.39263 [0.03172] d
Epoch = 363.5912 [0.0789] BKJD
Rp/R* = 0.0237 [0.0082]
a/R* = 102.98 [135.84]
b = 0.78 [0.67]
Seff = 0.50 [0.14]
Teq = 214 [15] K
Rp = 2.05 [0.83] Re
a = 0.9572 [0.1628] AU
Ag = 146989.01 [114803.06] [1.28σ]
Teffp = 6492 [1233] K [5.09σ]

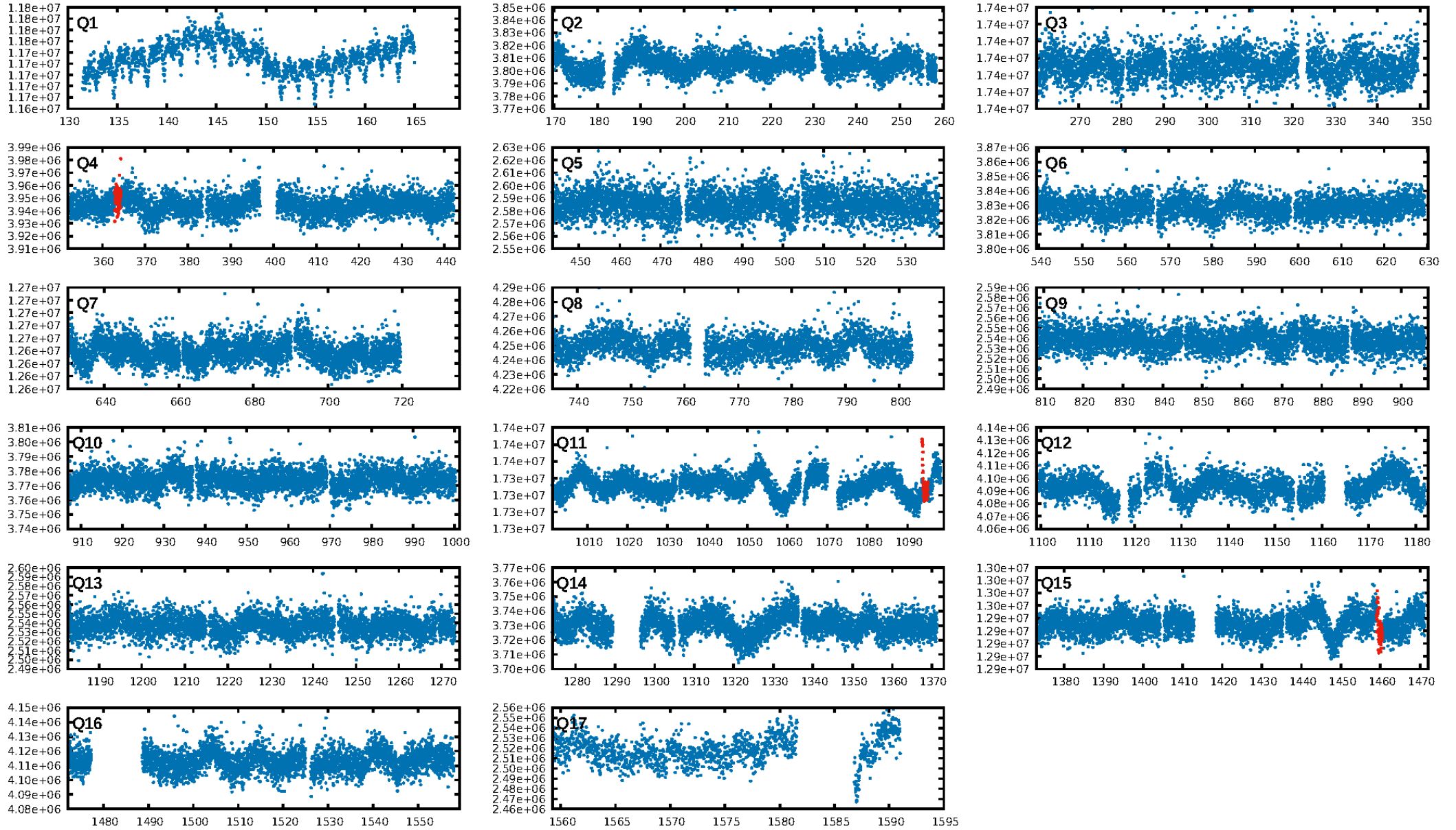
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 16.6%
ModelChiSquareGof-sig: 99.6%
Bootstrap-pfa: 5.57e-19
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.116
Centroid-sig: 8.9%
Centroid-so: 2.154 arcsec [16.36σ]
OotOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-rm: 2.077 arcsec [7.39σ]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [2/2]

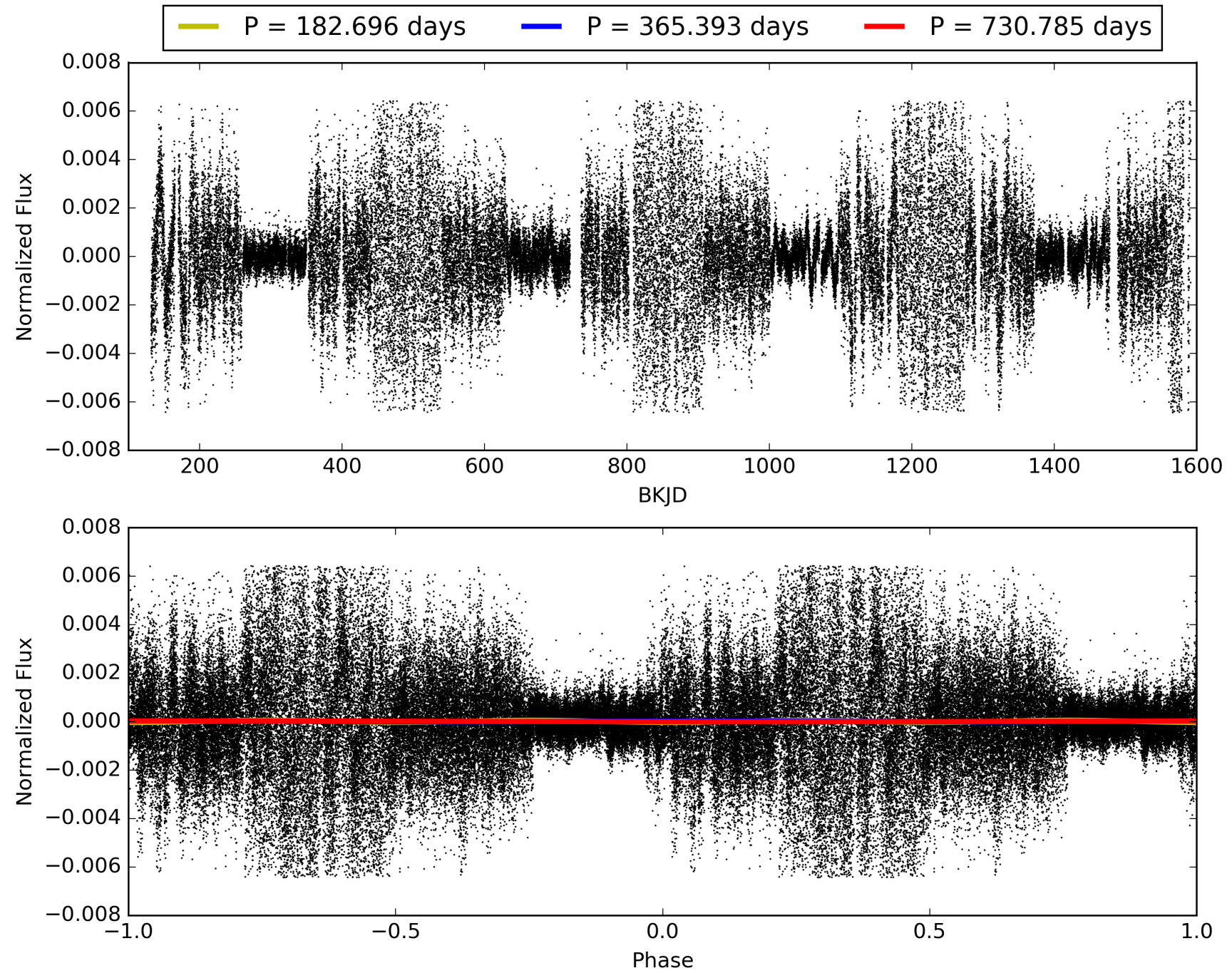
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:49:51 Z

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

TCE 008313052-01, PDC Light Curves

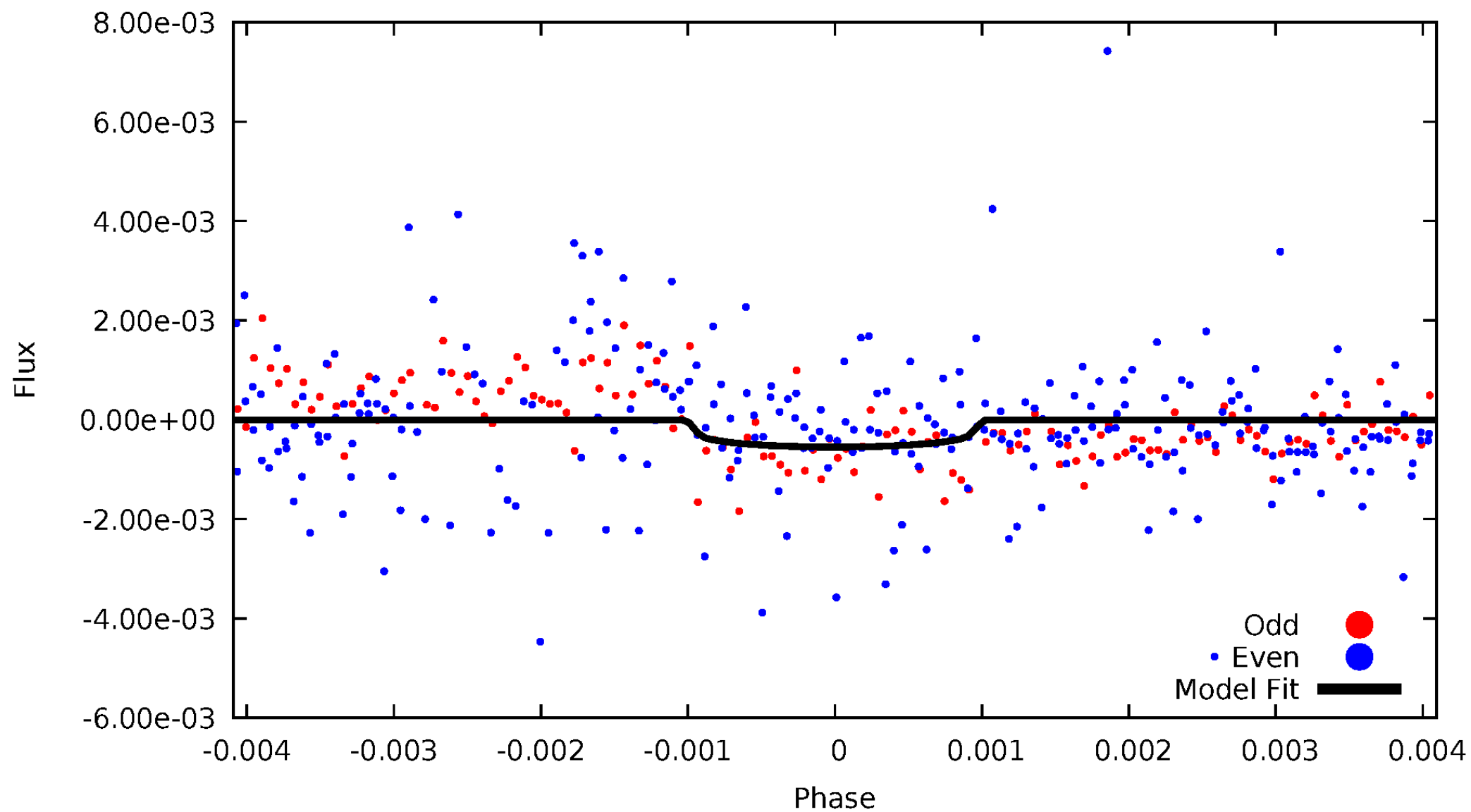


TCE 008313052-01



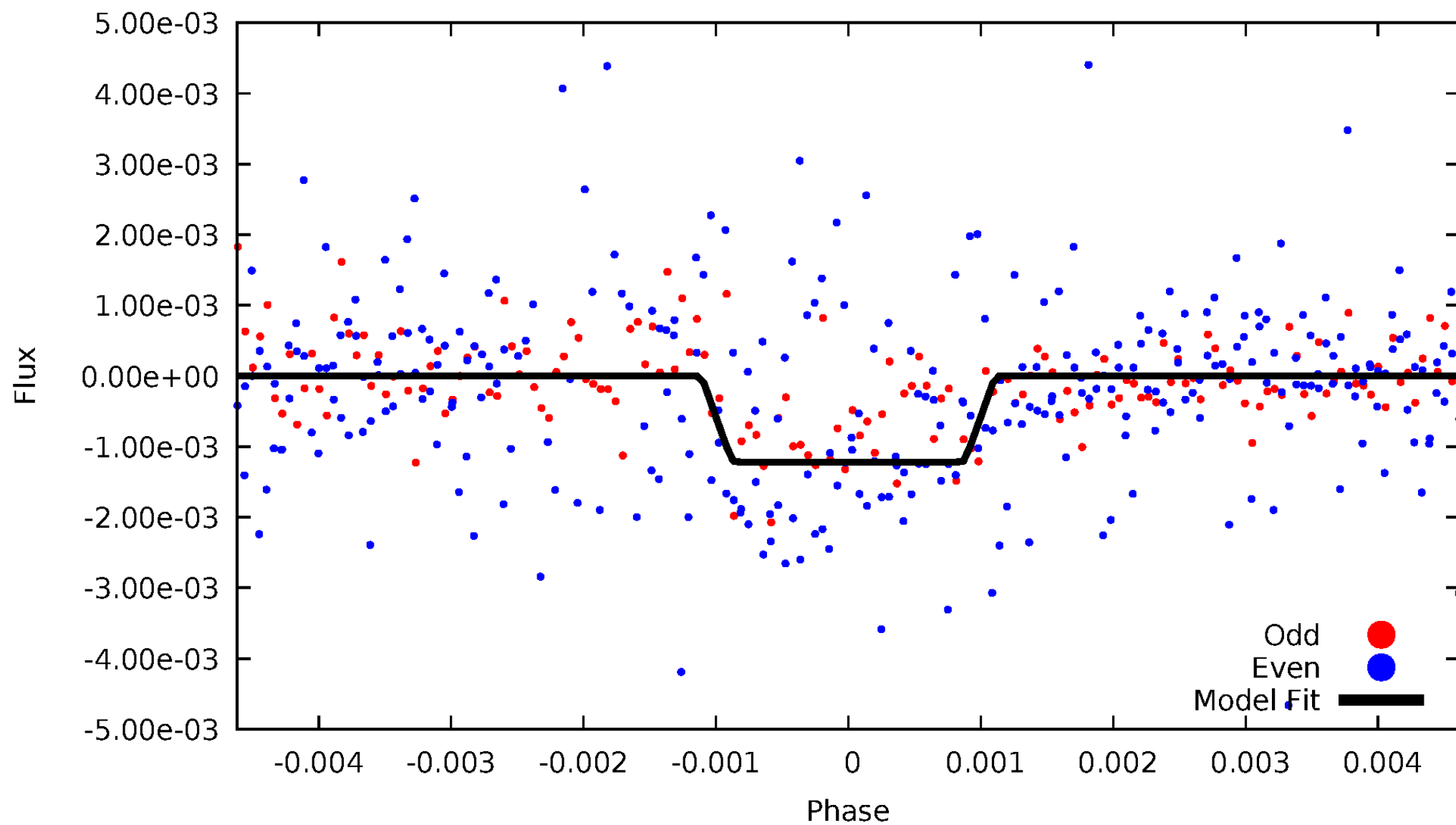
DV Odd/Even

TCE 008313052-01



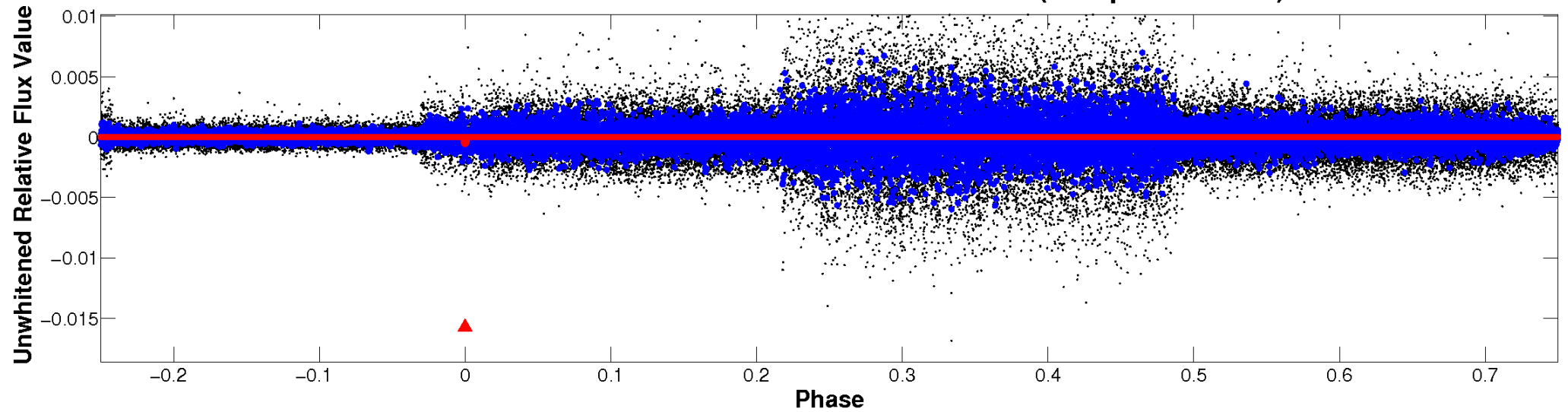
ALT Odd/Even

TCE 008313052-01

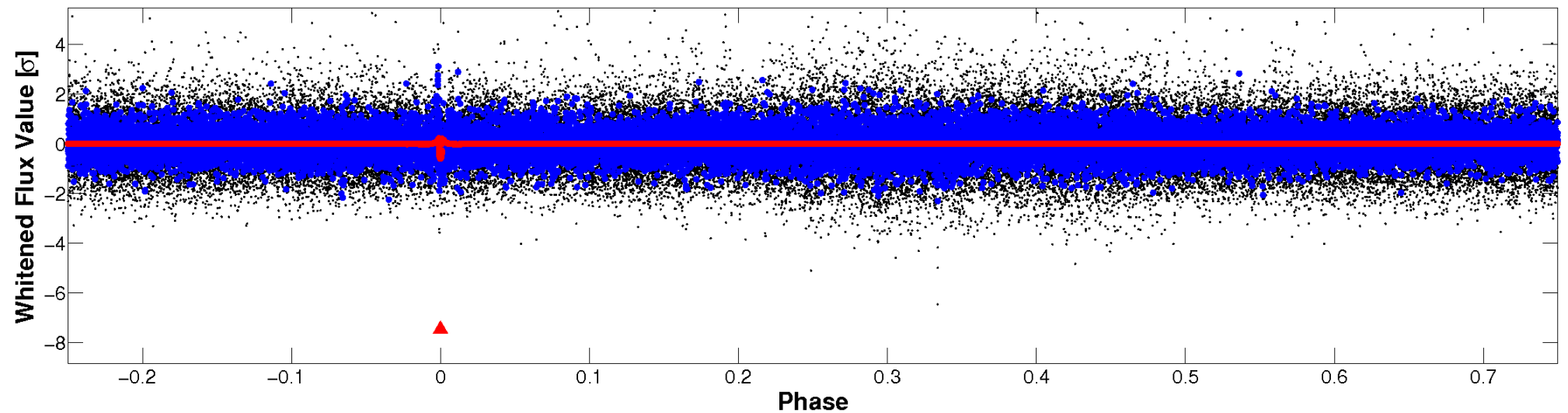


Non-Whitened Vs. Whitened Light Curve

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

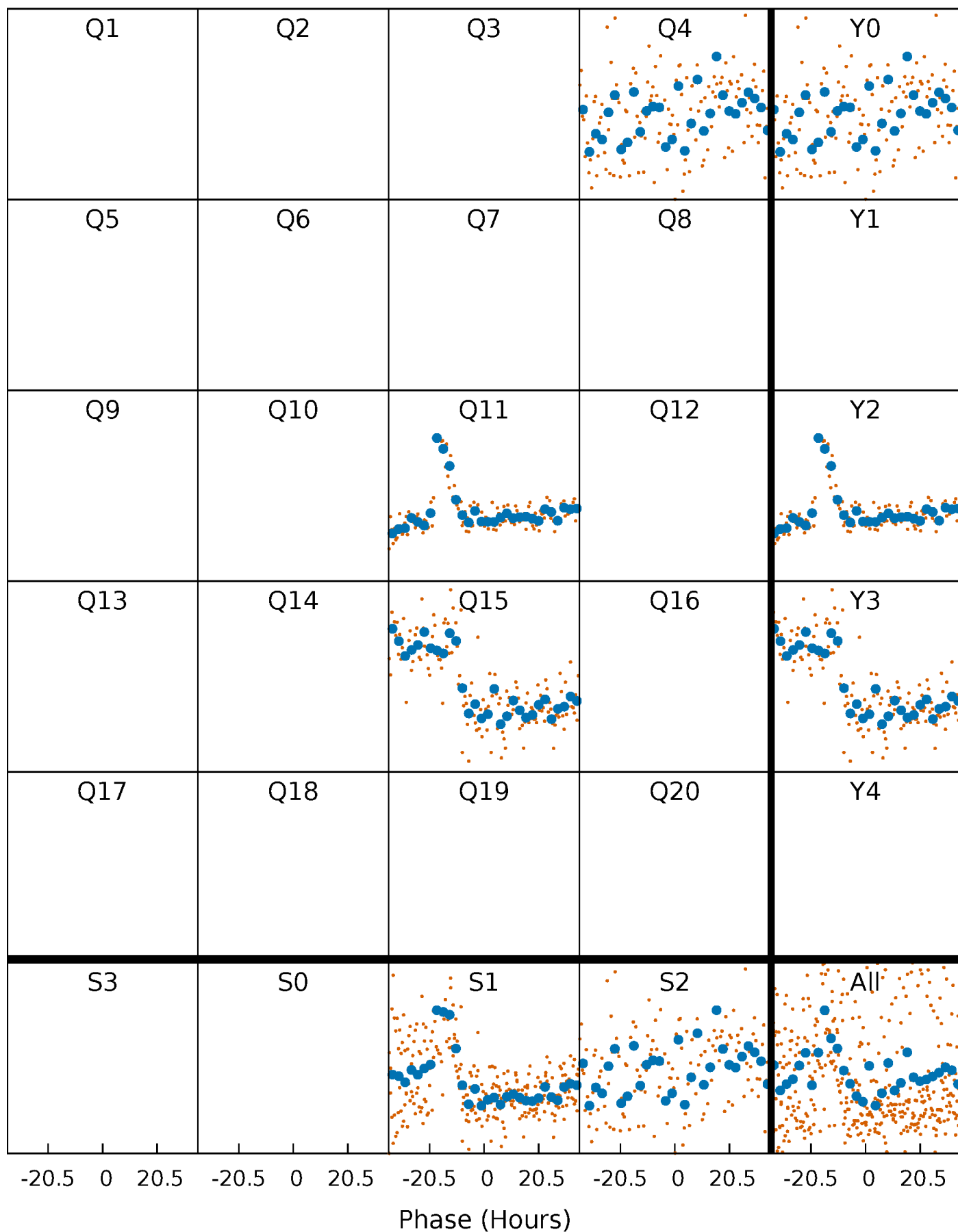


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



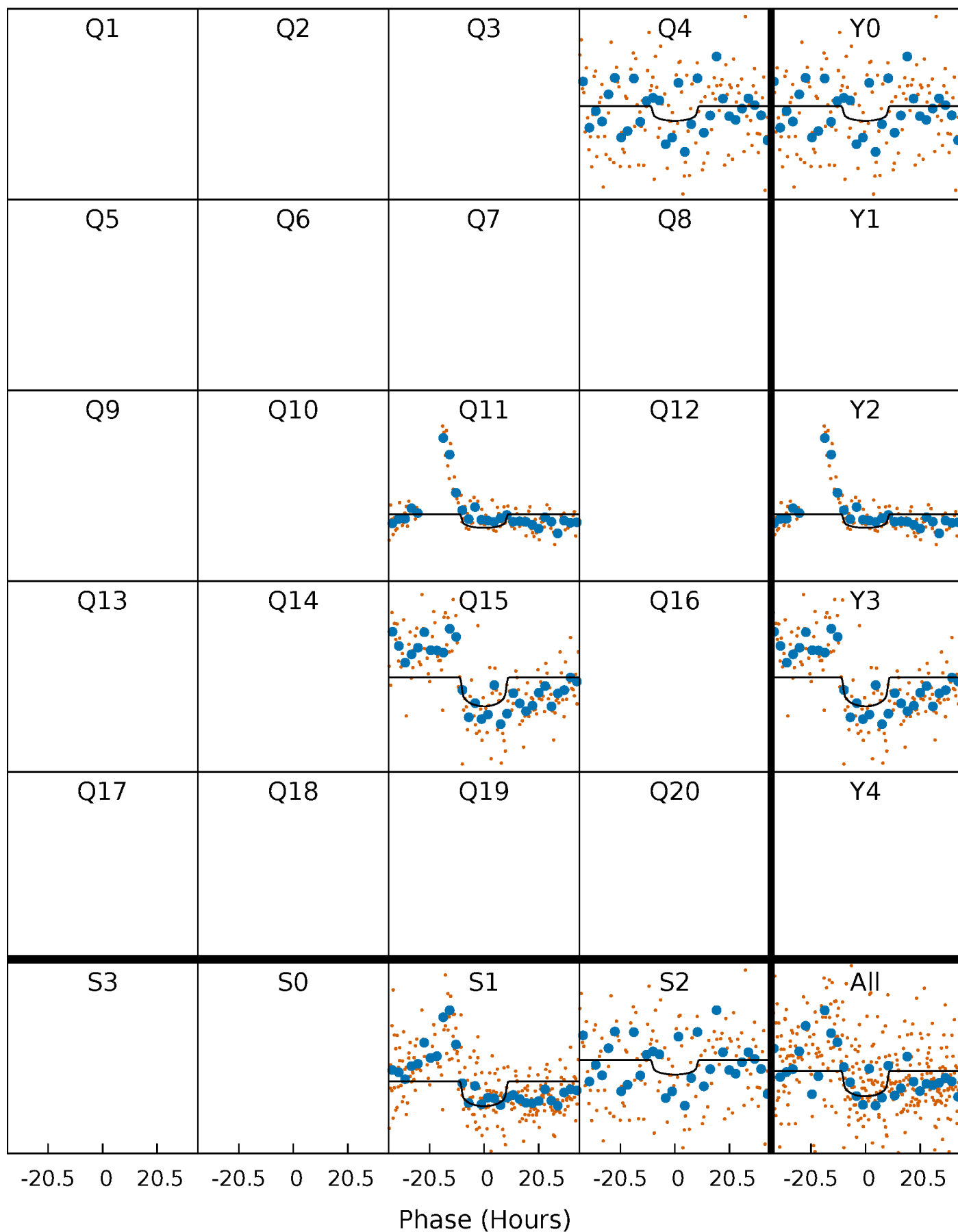
PDC Quarter-Phased Transit Curves

TCE 008313052-01 P=365.392626 Days $T_0=363.591248$ (BKJD)



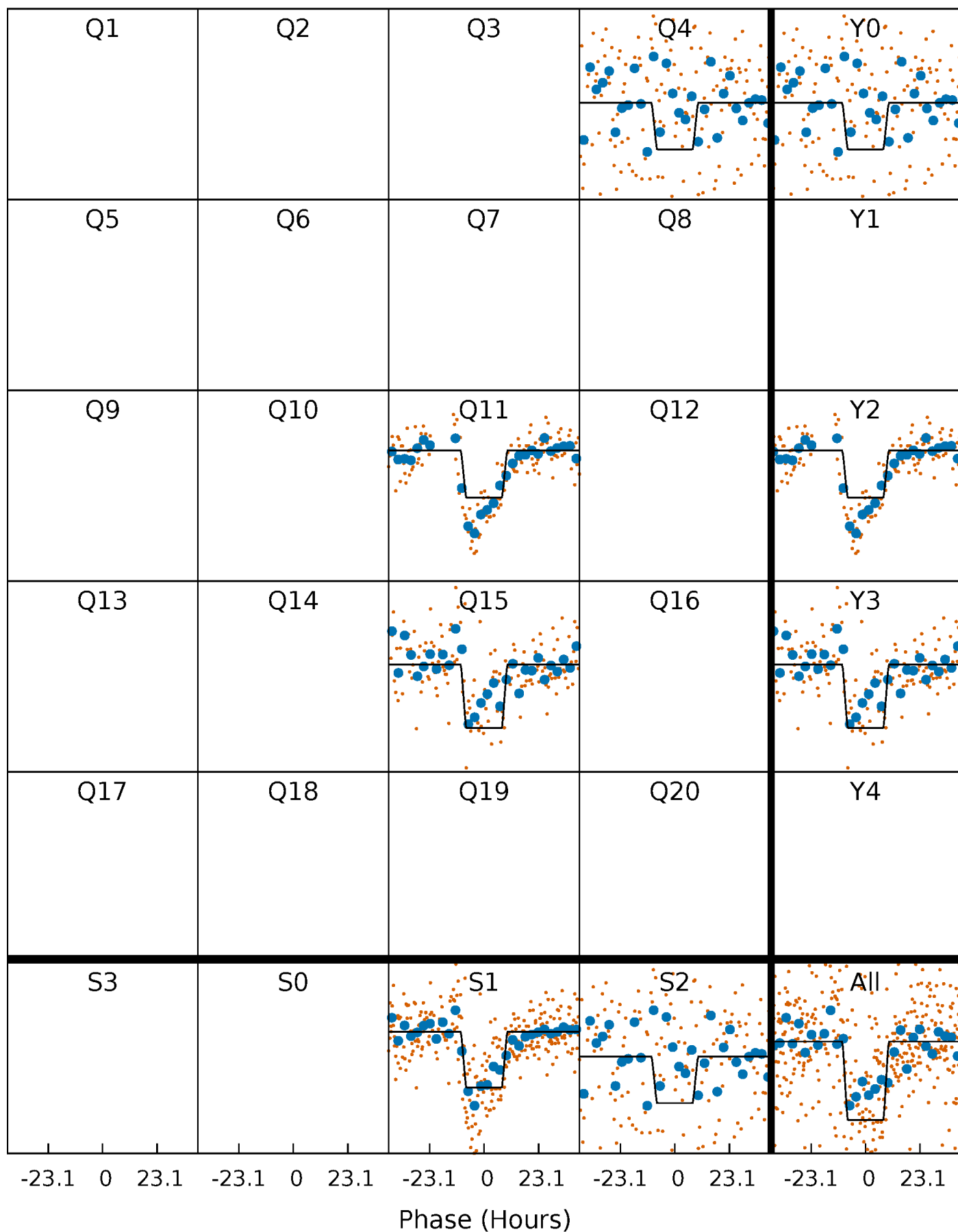
DV Quarter-Phased Transit Curves

TCE 008313052-01 P=365.392626 Days $T_0=363.591248$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

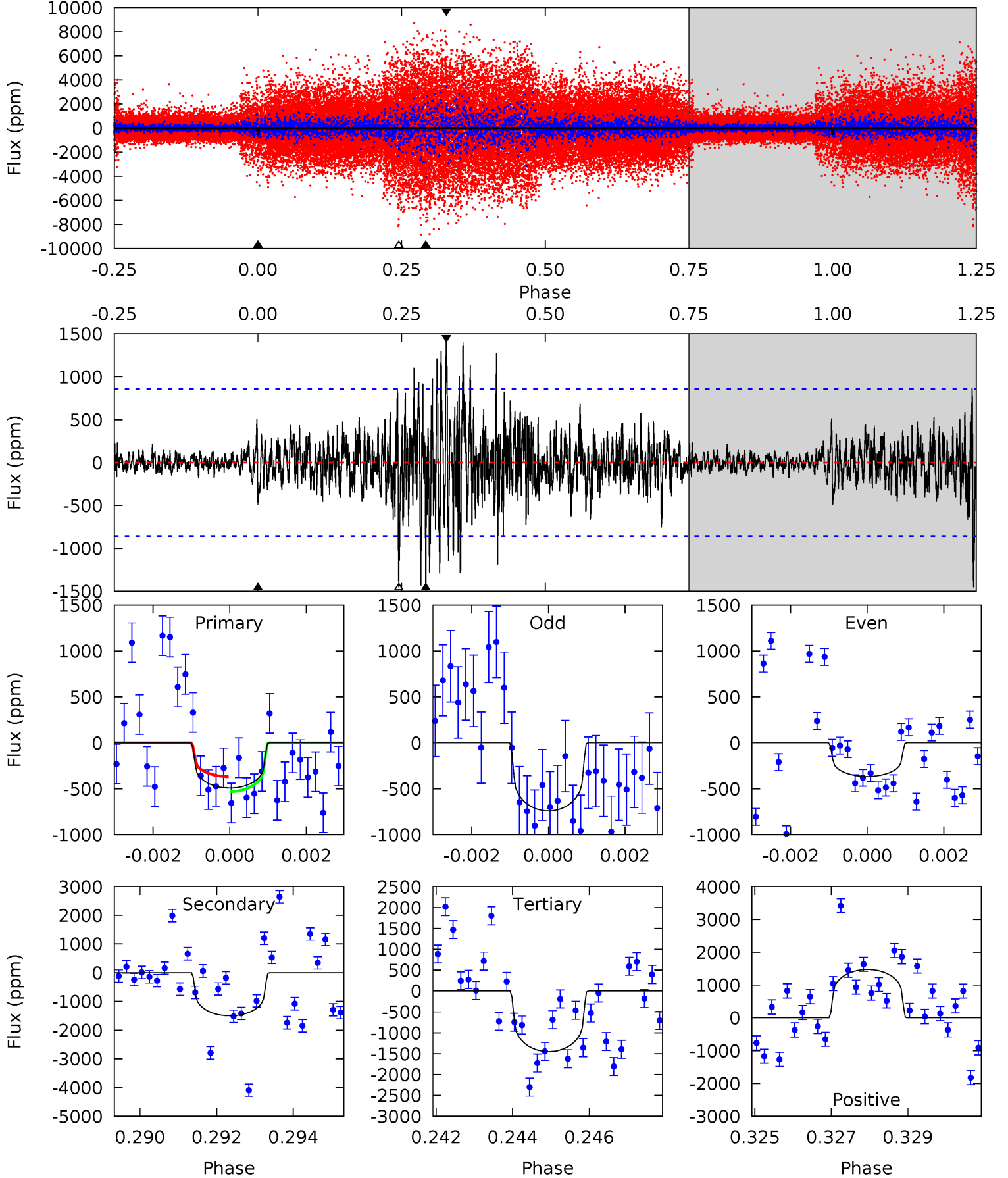
TCE 008313052-01 P=365.474654 Days $T_0=363.320232$ (BKJD)



DV Model-Shift Uniqueness Test

008313052-01, P = 365.392626 Days, E = 363.591248 Days

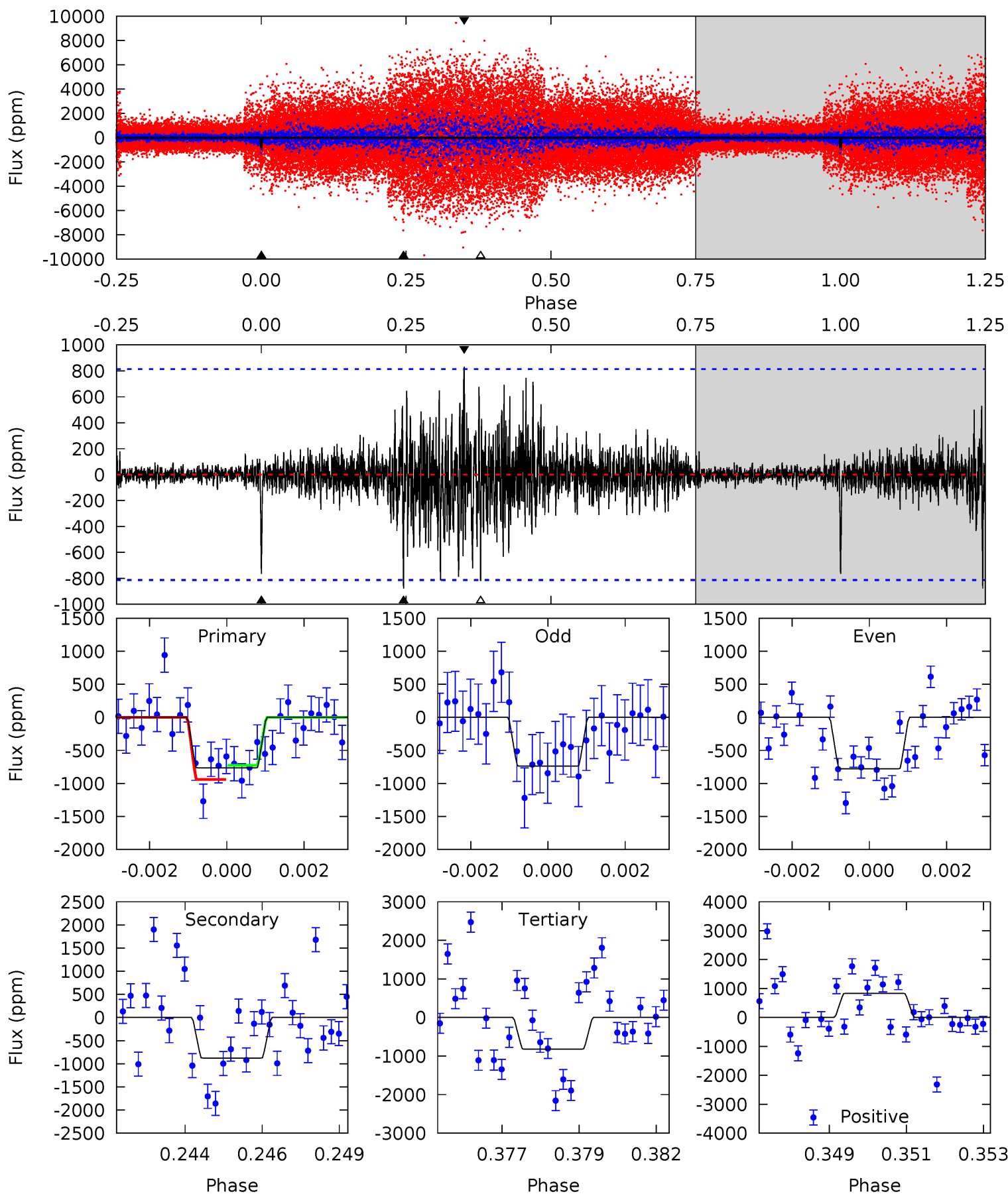
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.05	9.31	9.01	9.15	5.32	3.08	1.72	-5.96	-6.10	0.30	0.16	1.09	0.81	0.50	0.45



Alt Model-Shift Uniqueness Test

008313052-01, P = 365.474654 Days, E = 363.320232 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.00	5.73	5.36	5.43	5.31	3.06	0.97	-0.36	-0.43	0.38	0.30	0.13	1.04	0.49	0.61



Stellar Parameters For KIC 008313052

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5344^{+212}_{-212}	$4.583^{+0.032}_{-0.128}$	$-0.060^{+0.300}_{-0.300}$	$0.792^{+0.165}_{-0.066}$	$0.881^{+0.077}_{-0.096}$	$2.498^{+0.439}_{-0.963}$
	+4%/-4%	+1%/-3%	+500%/-500%	+21%/-8%	+9%/-11%	+18%/-39%
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 008313052-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1499 ± 161	$2.14^{+0.79}_{-0.77}$	305^{+17}_{-14}	6778^{+2152}_{-1029}	$164253^{+230352}_{-77657}$
Alt.	-877 ± 153	$3.12^{+0.78}_{-0.75}$	305^{+17}_{-14}	4981^{+712}_{-481}	45401^{+32231}_{-17780}

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

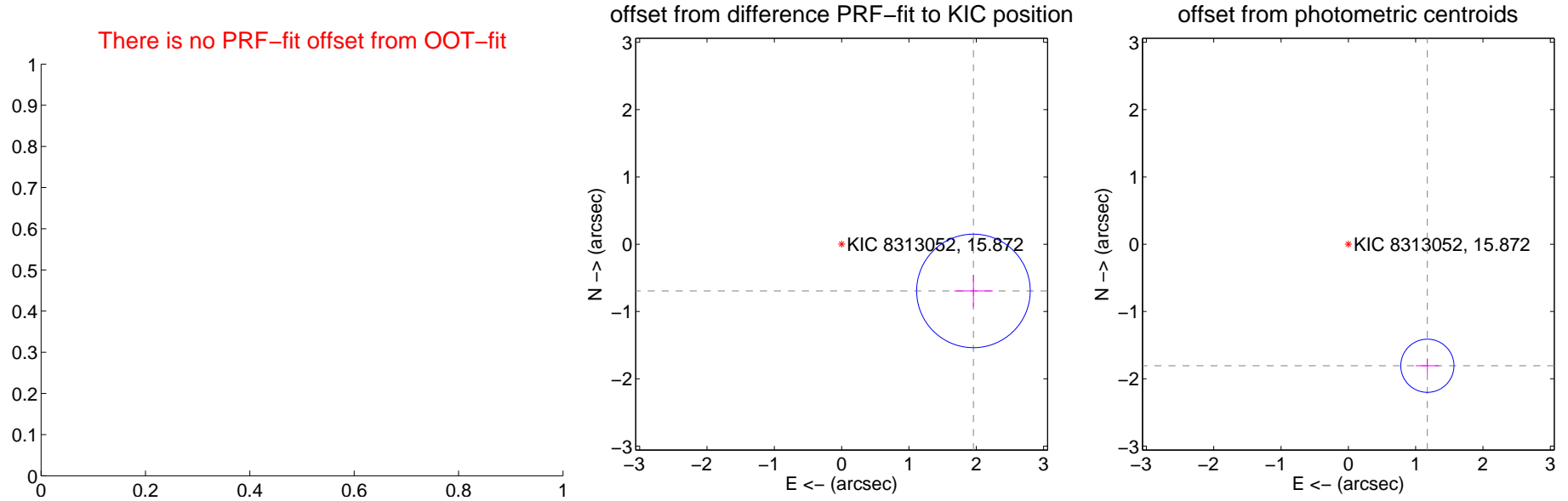
DV Centroid Data

Supplemental centroid analysis for 008313052-01. Kepler magnitude: 15.87. Transit SNR 5.75

There are 1 quarters with good PRF difference image offsets

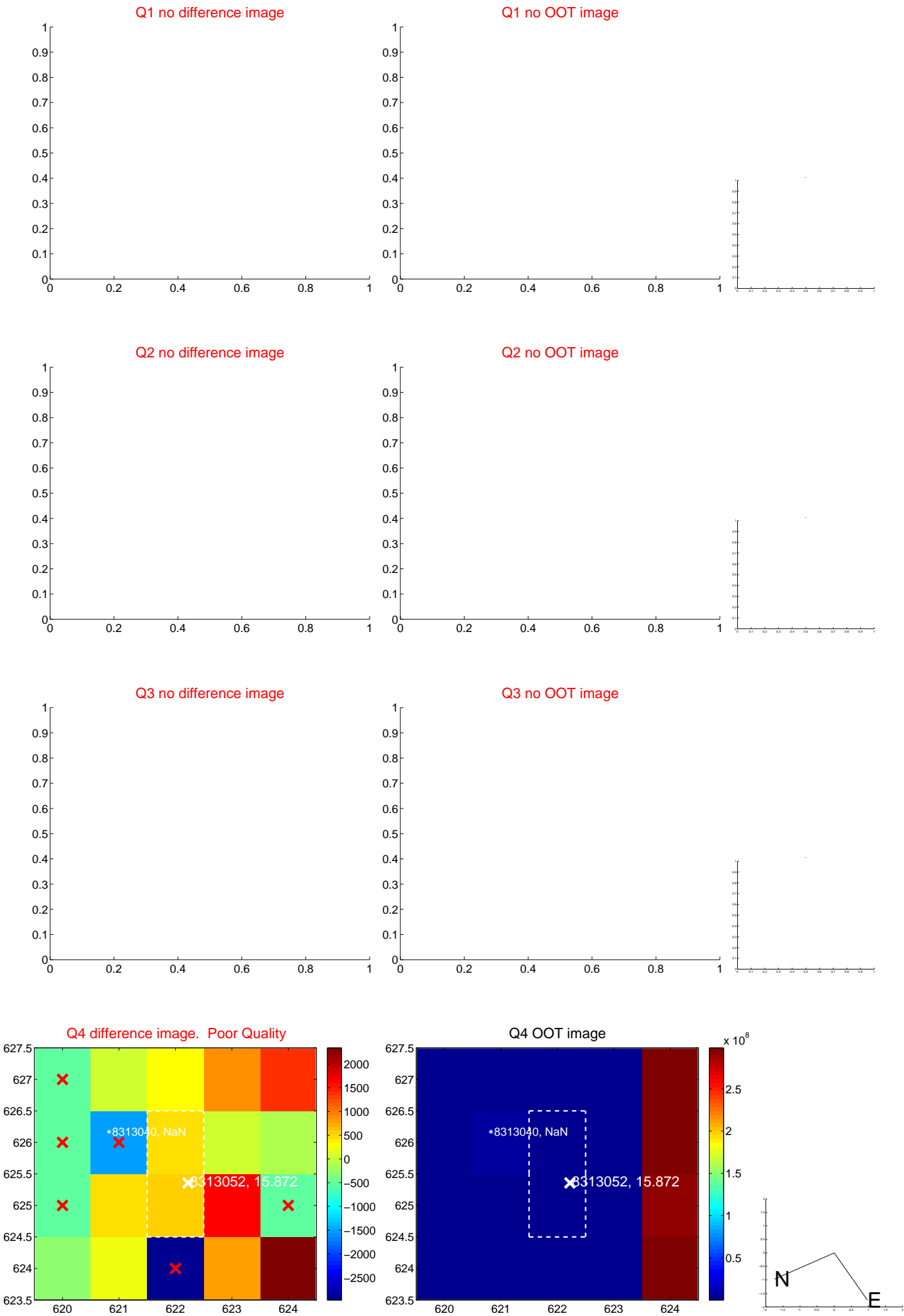
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	2.077 ± 0.281	7.39	-1.958 ± 0.286	-0.694 ± 0.238
photometric centroid source offset	2.15 ± 0.13	16.36	-1.17 ± 0.17	-1.81 ± 0.11



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.



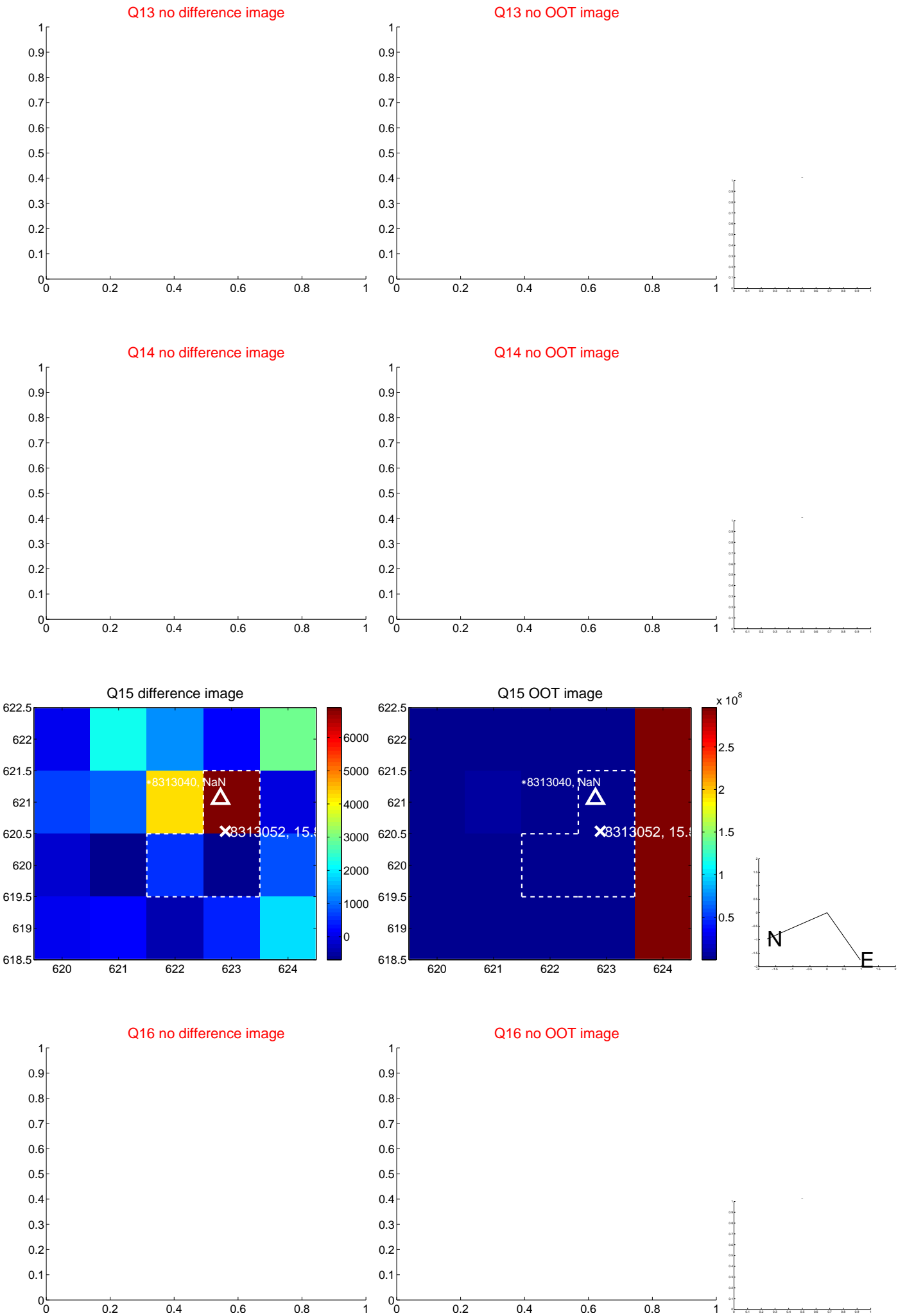
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



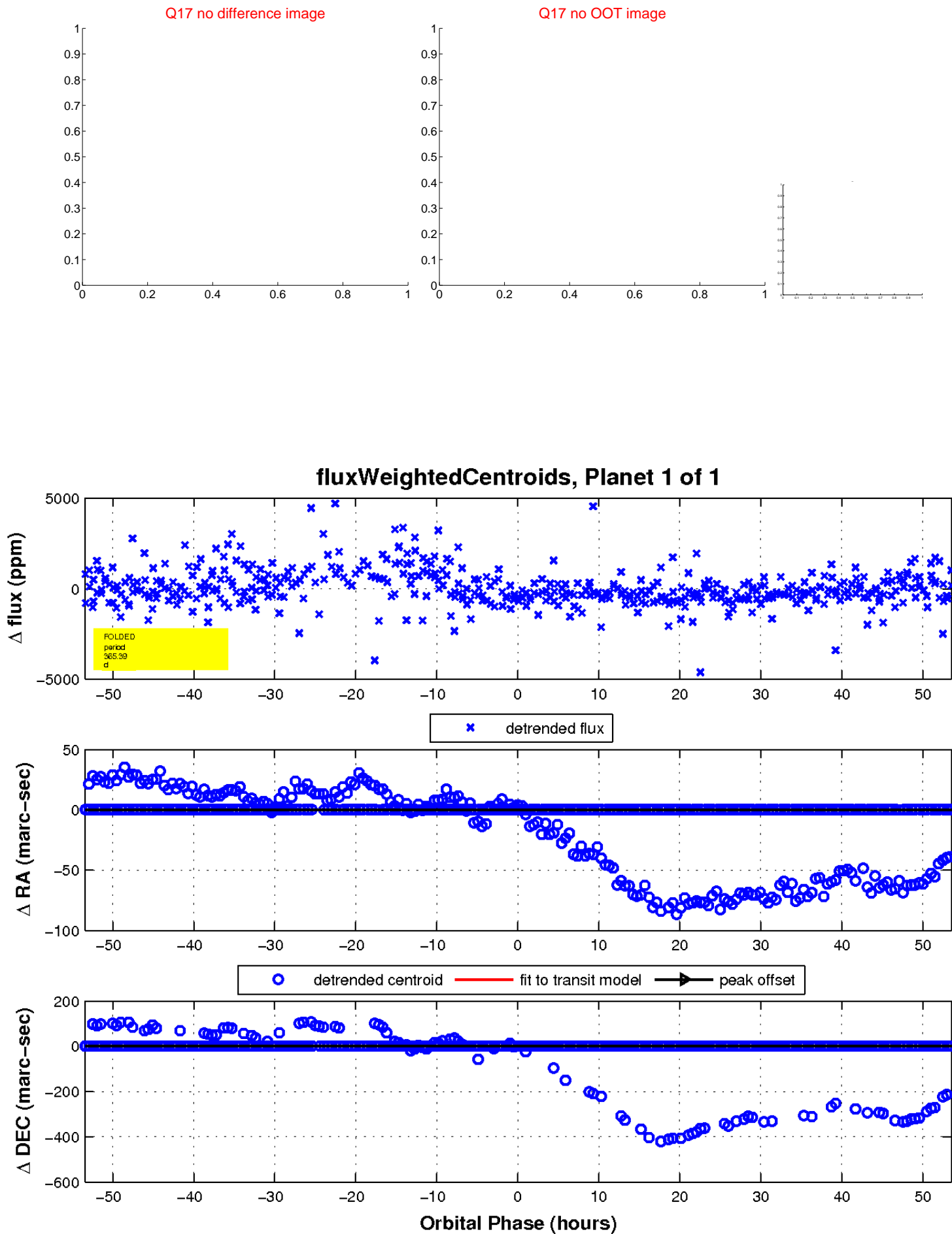
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

