

KIC 003732035

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})
003732035-01	OBS	3966.01	138.945065	153.906216	528.7	11.000	21.4	22.4	1.11	6014	2.87	5.14

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003732035-01	OBS	PC	0.99	0	0	0	0	NO_COMMENT

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

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

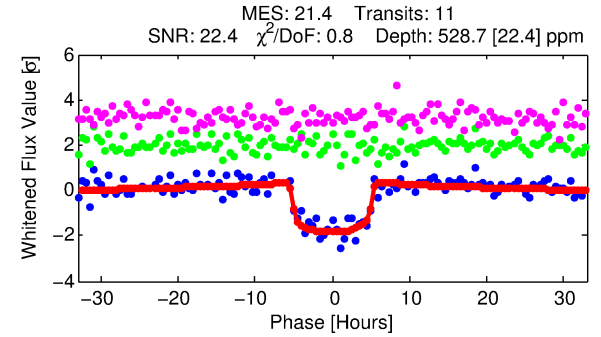
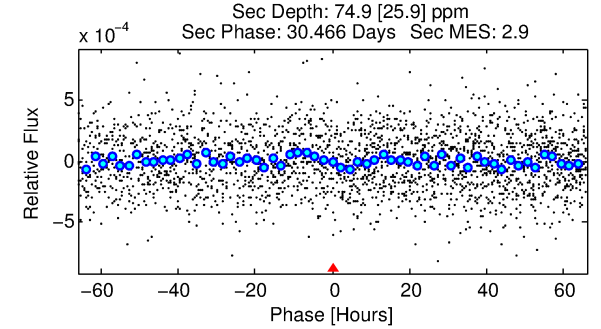
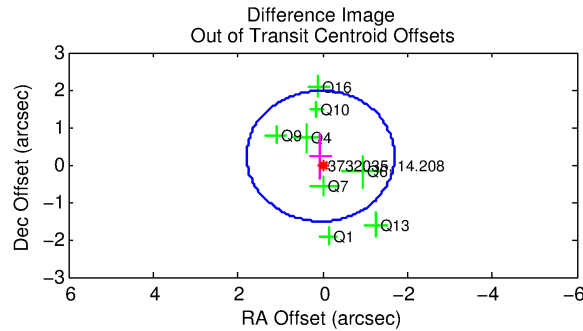
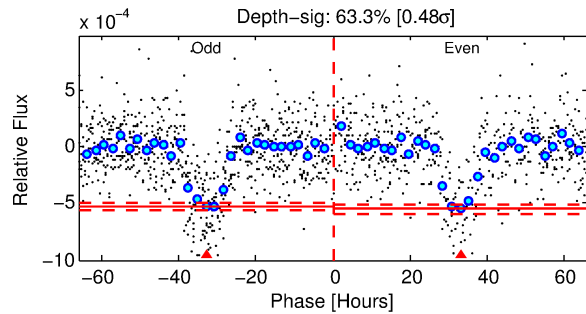
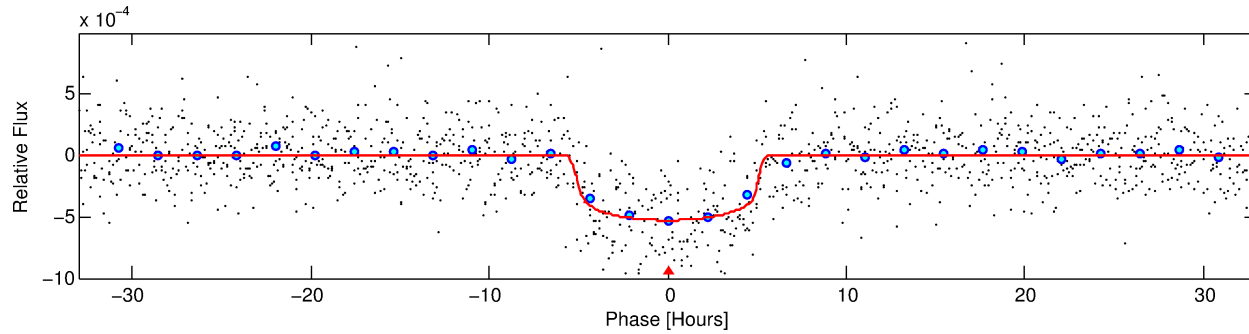
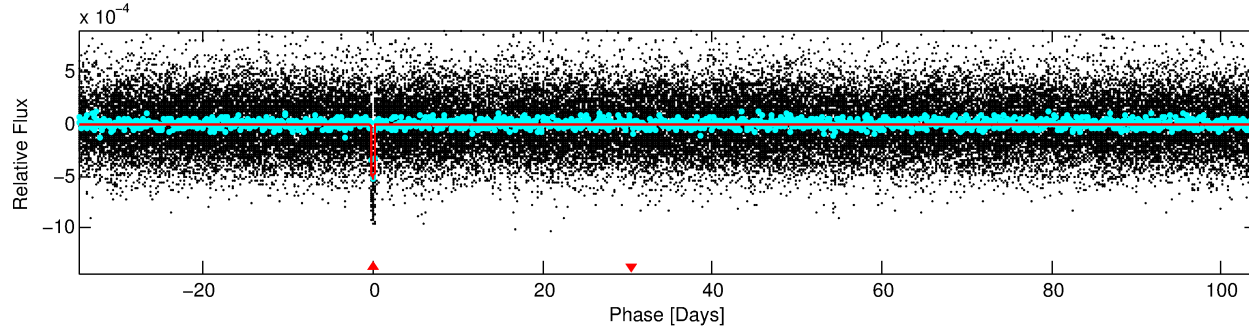
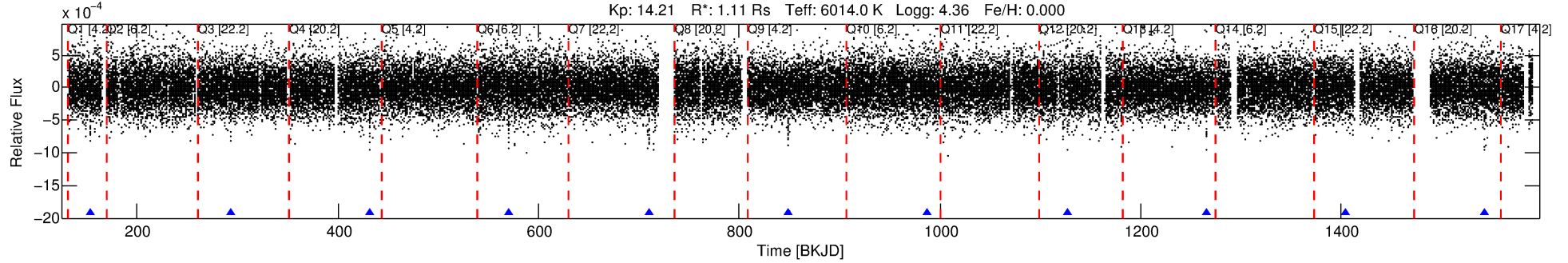
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003732035-01

No Significant Match Found

DV One-Page Summary

KIC: 3732035 Candidate: 1 of 1 Period: 138.945 d
KOI: K03966.01 Corr: 0.975



DV Fit Results:

Period = 138.94506 [0.00115] d
Epoch = 153.9062 [0.0065] BKJD
Rp/R* = 0.0236 [0.0019]
a/R* = 59.17 [21.75]
b = 0.82 [0.15]
Seff = 5.14 [1.16]
Teq = 384 [22] K
Rp = 2.87 [0.52] Re
a = 0.5327 [0.0744] AU
Ag = 1422.10 [618.07] [2.30 σ]
Teffp = 3645 [357] K [9.12 σ]

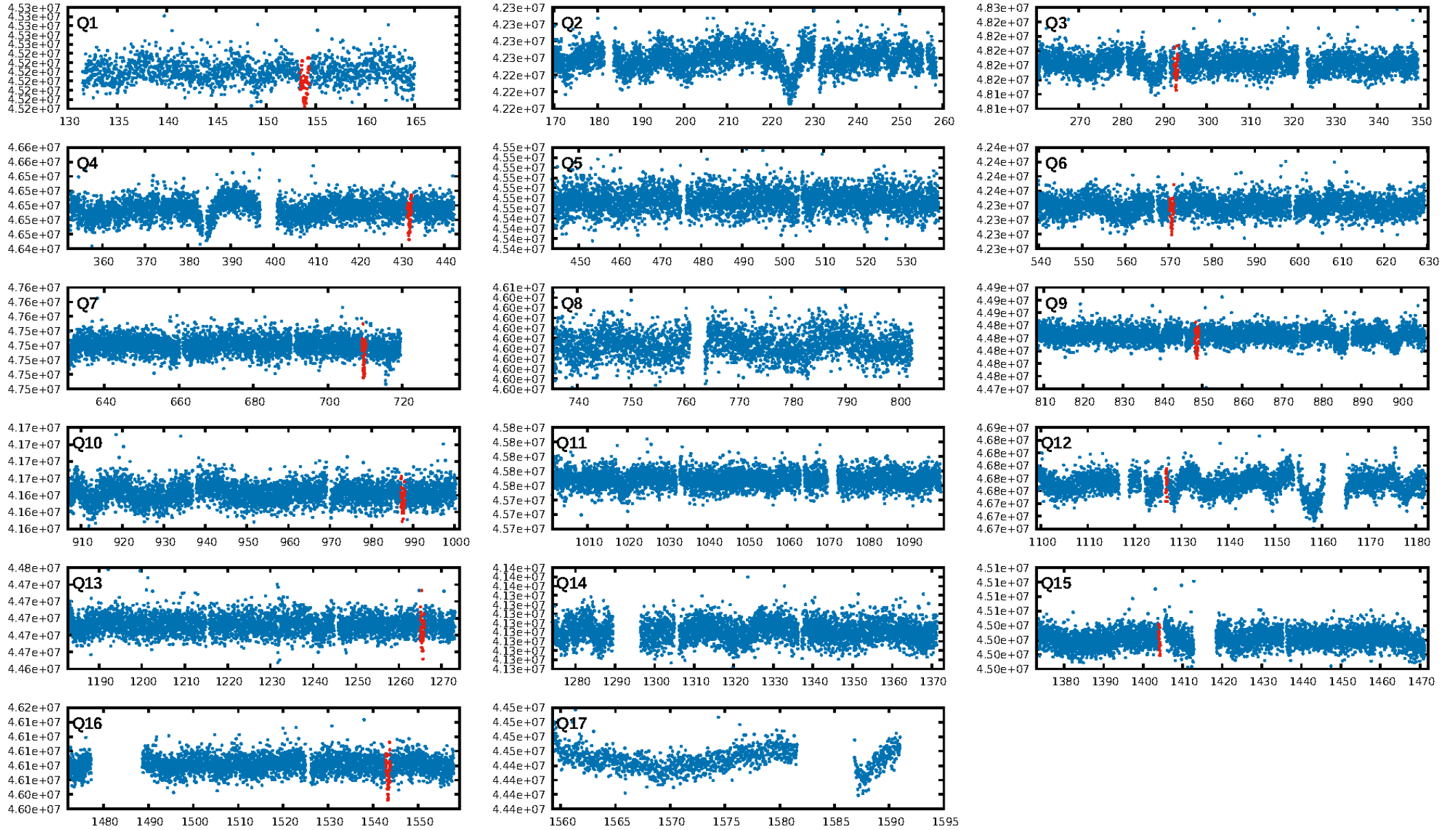
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 9.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.95e-83
RollingBand-fgt: 1.00 [10/10]
GhostDiagnostic-chr: 13.48
Centroid-sig: 31.8%
Centroid-so: 0.338 arcsec [0.60 σ]
OotOffset-rm: 0.235 arcsec [0.40 σ]
KicOffset-rm: 0.328 arcsec [0.60 σ]
OotOffset-st: 2/1/2/3 [8]
KicOffset-st: 2/1/2/3 [8]
DiffImageQuality-fgm: 1.00 [8/8]
DiffImageOverlap-fno: 1.00 [8/8]

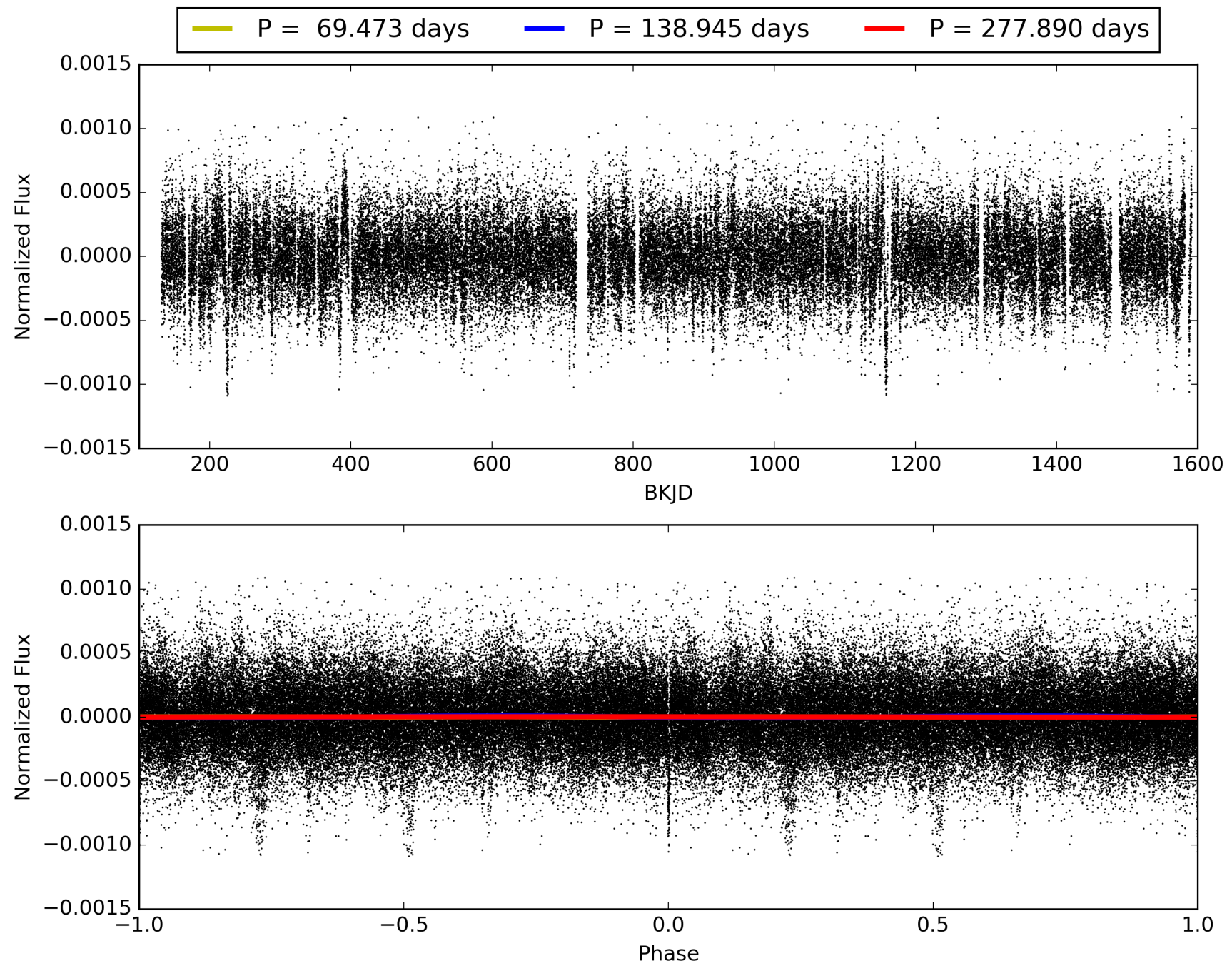
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 15:36:48 Z

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

TCE 003732035-01, PDC Light Curves

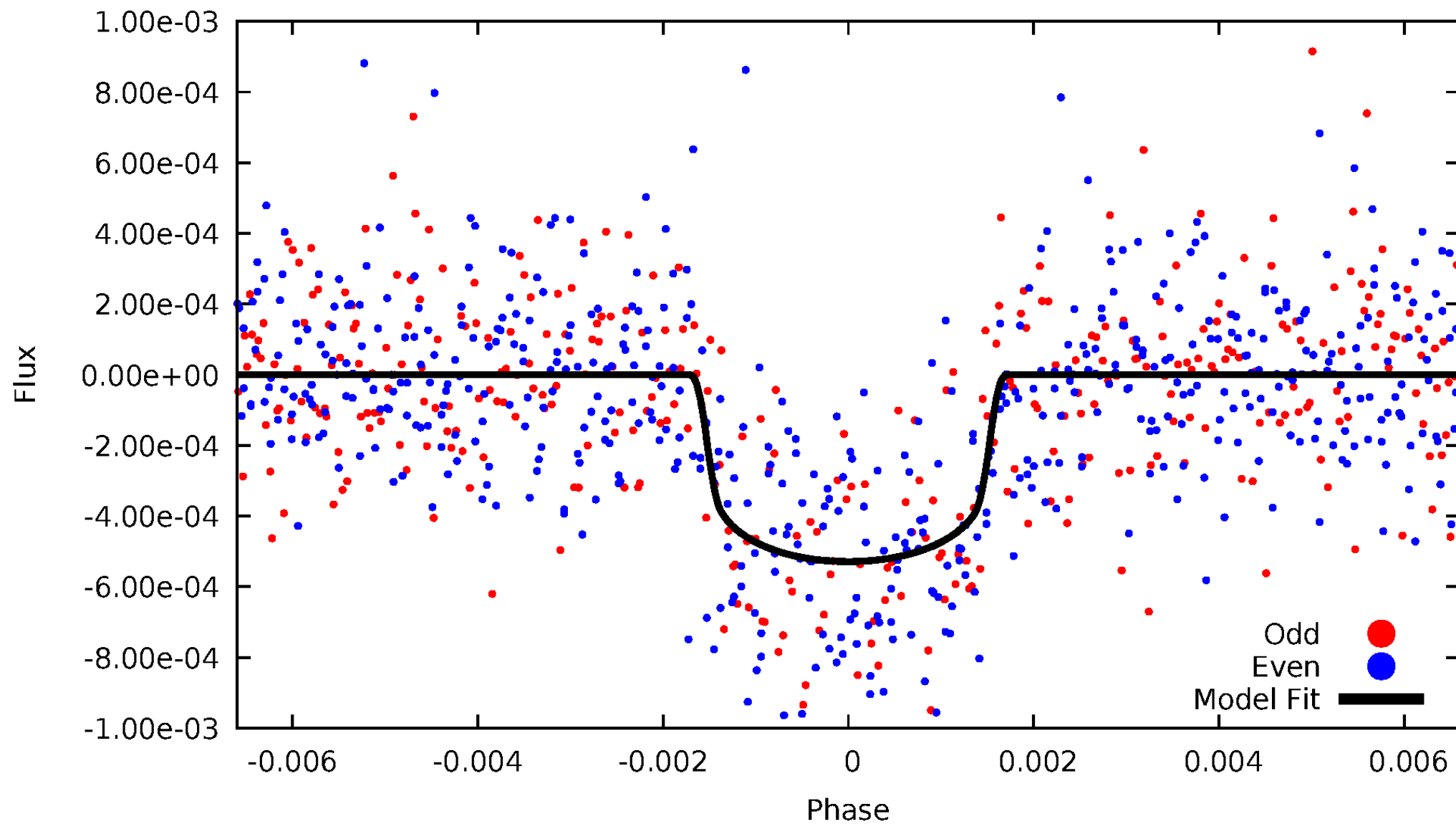


TCE 003732035-01



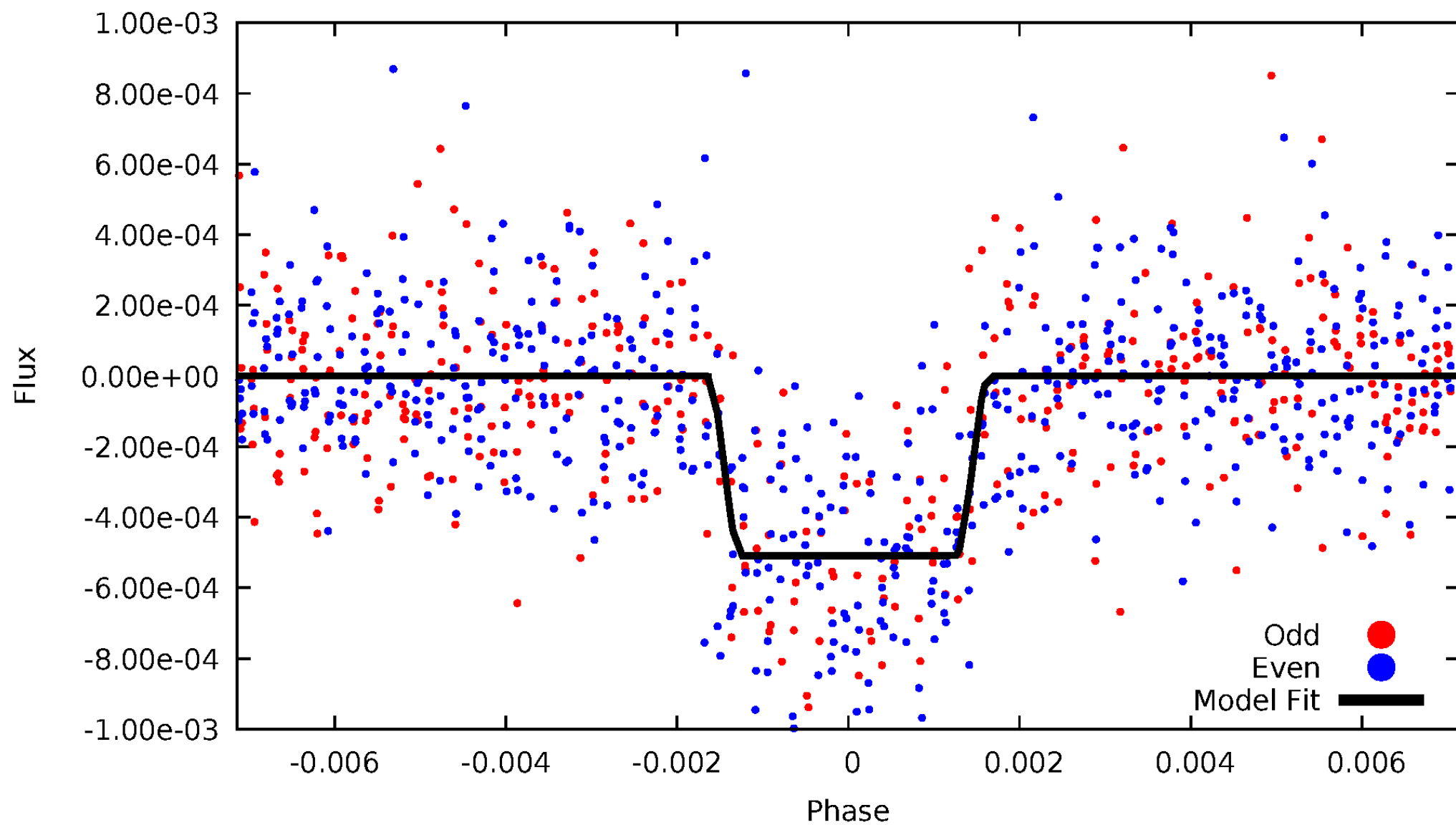
DV Odd/Even

TCE 003732035-01



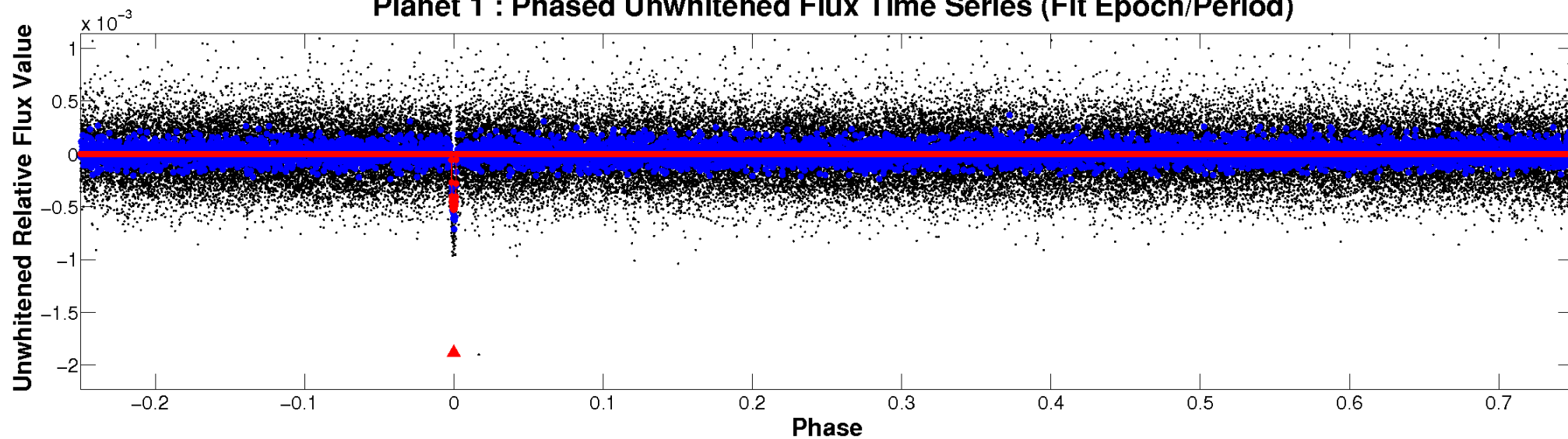
ALT Odd/Even

TCE 003732035-01

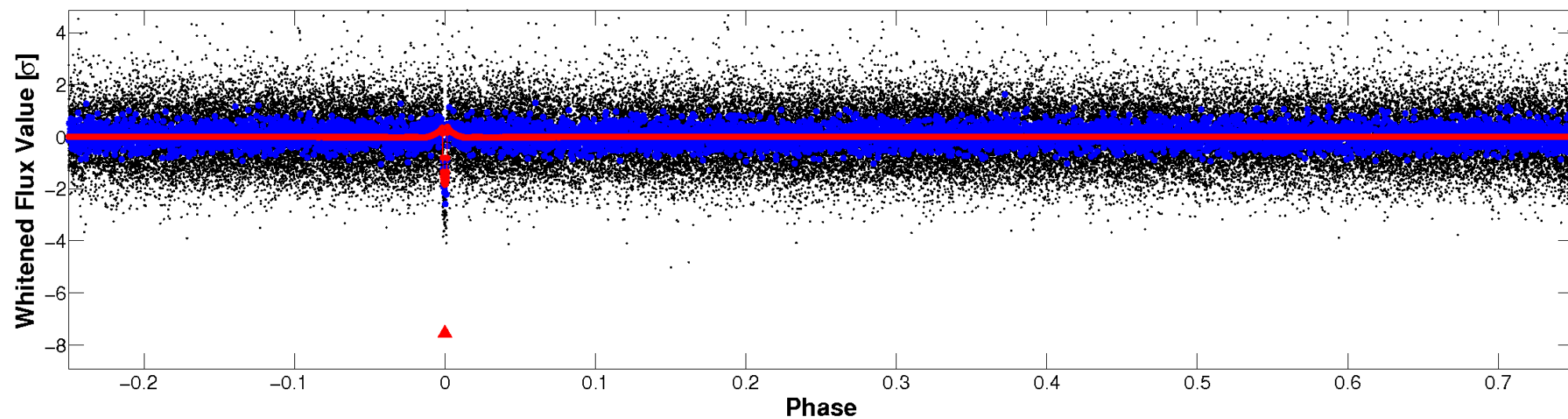


Non-Whitened Vs. Whitened Light Curve

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

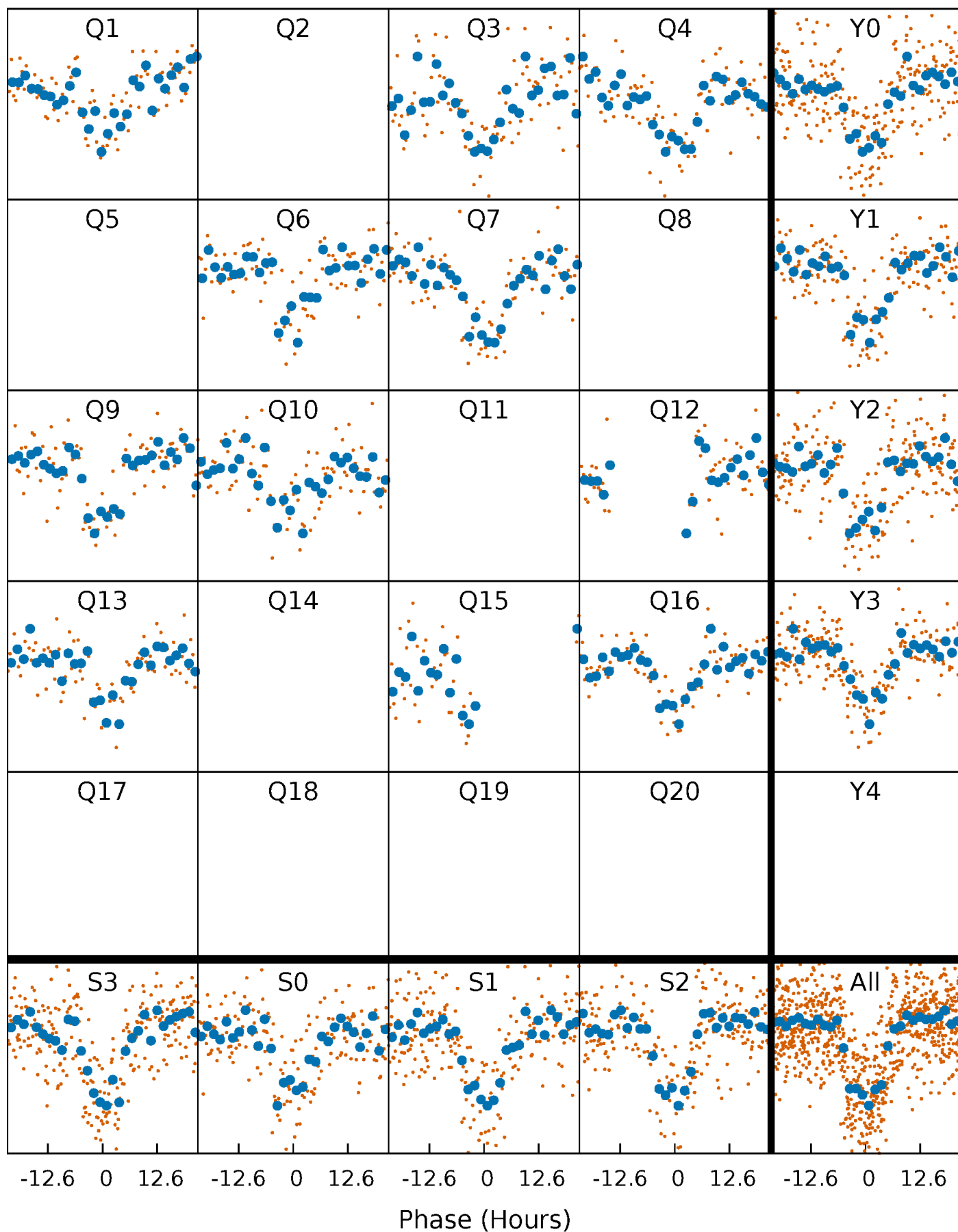


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



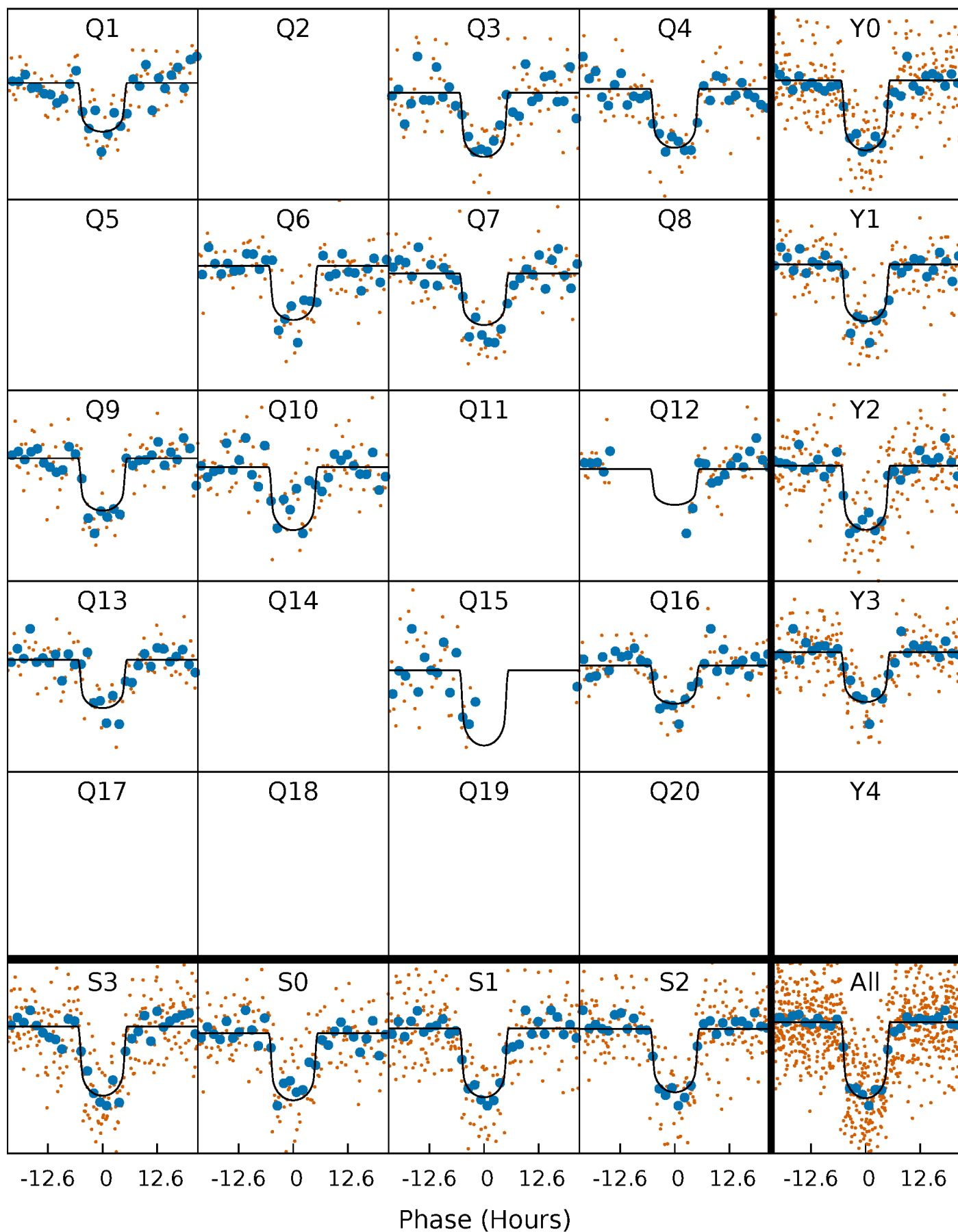
PDC Quarter-Phased Transit Curves

TCE 003732035-01 P=138.945065 Days $T_0=153.906216$ (BKJD)



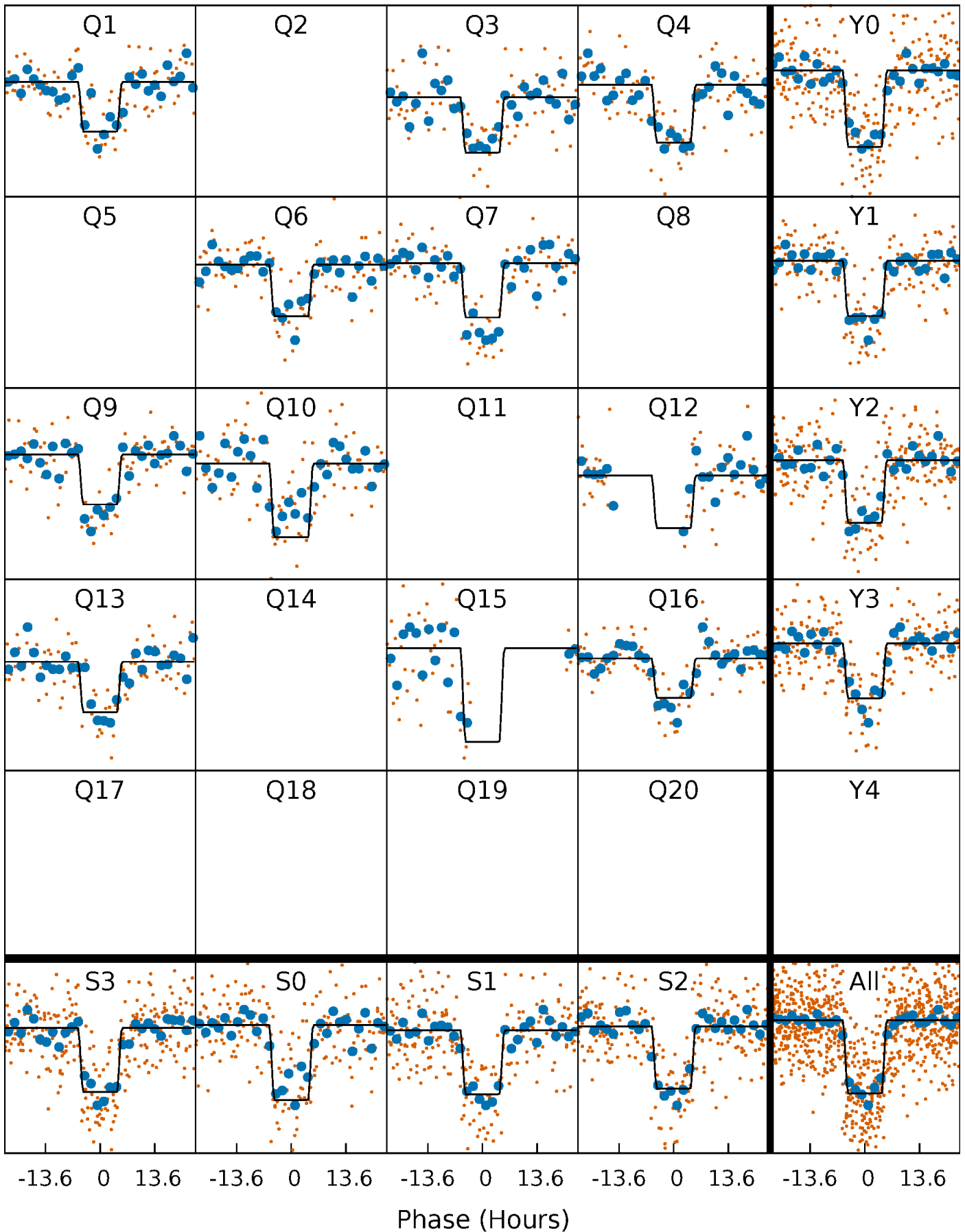
DV Quarter-Phased Transit Curves

TCE 003732035-01 P=138.945065 Days $T_0=153.906216$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

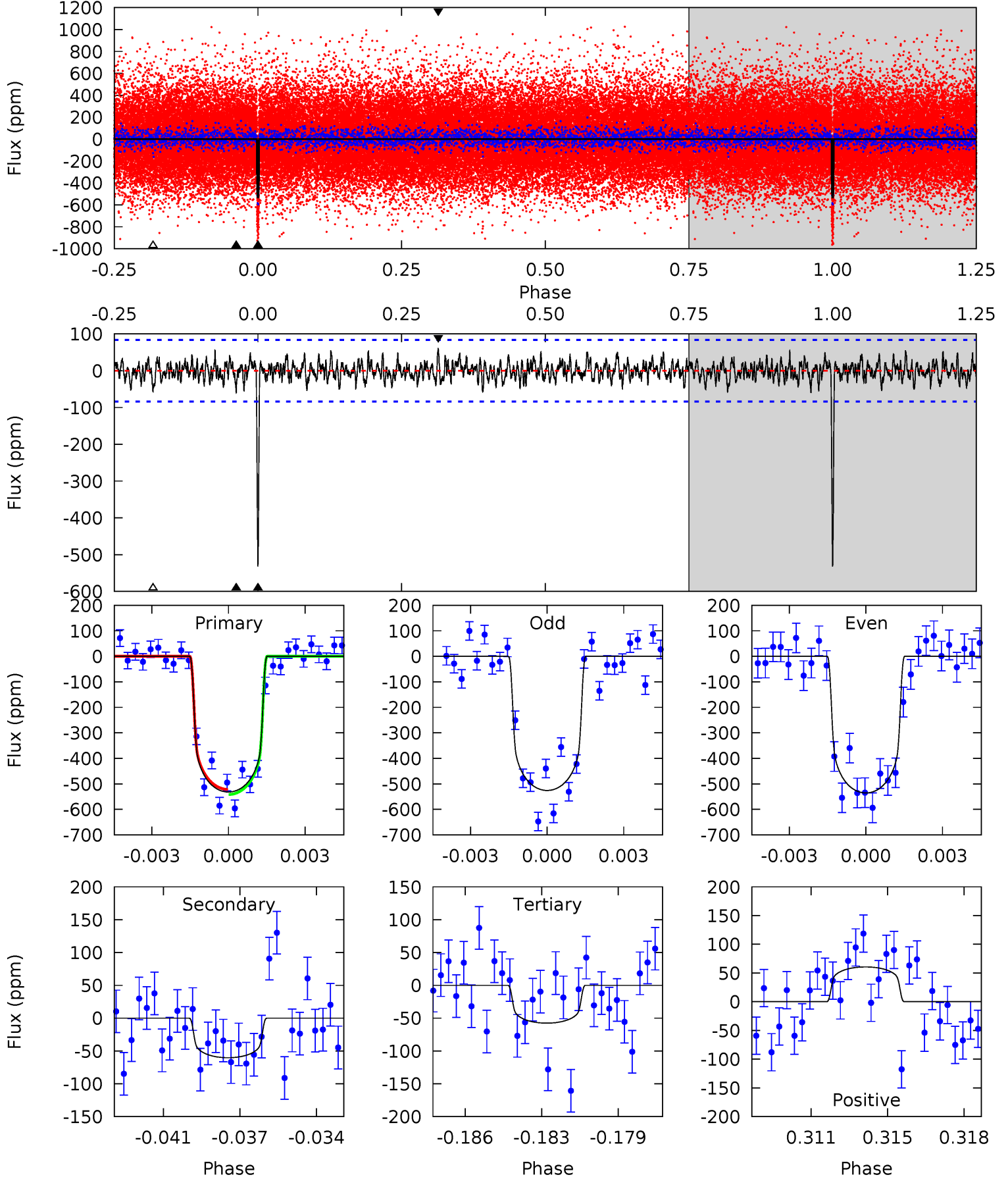
TCE 003732035-01 P=138.948208 Days $T_0=153.893706$ (BKJD)



DV Model-Shift Uniqueness Test

003732035-01, P = 138.945065 Days, E = 14.961151 Days

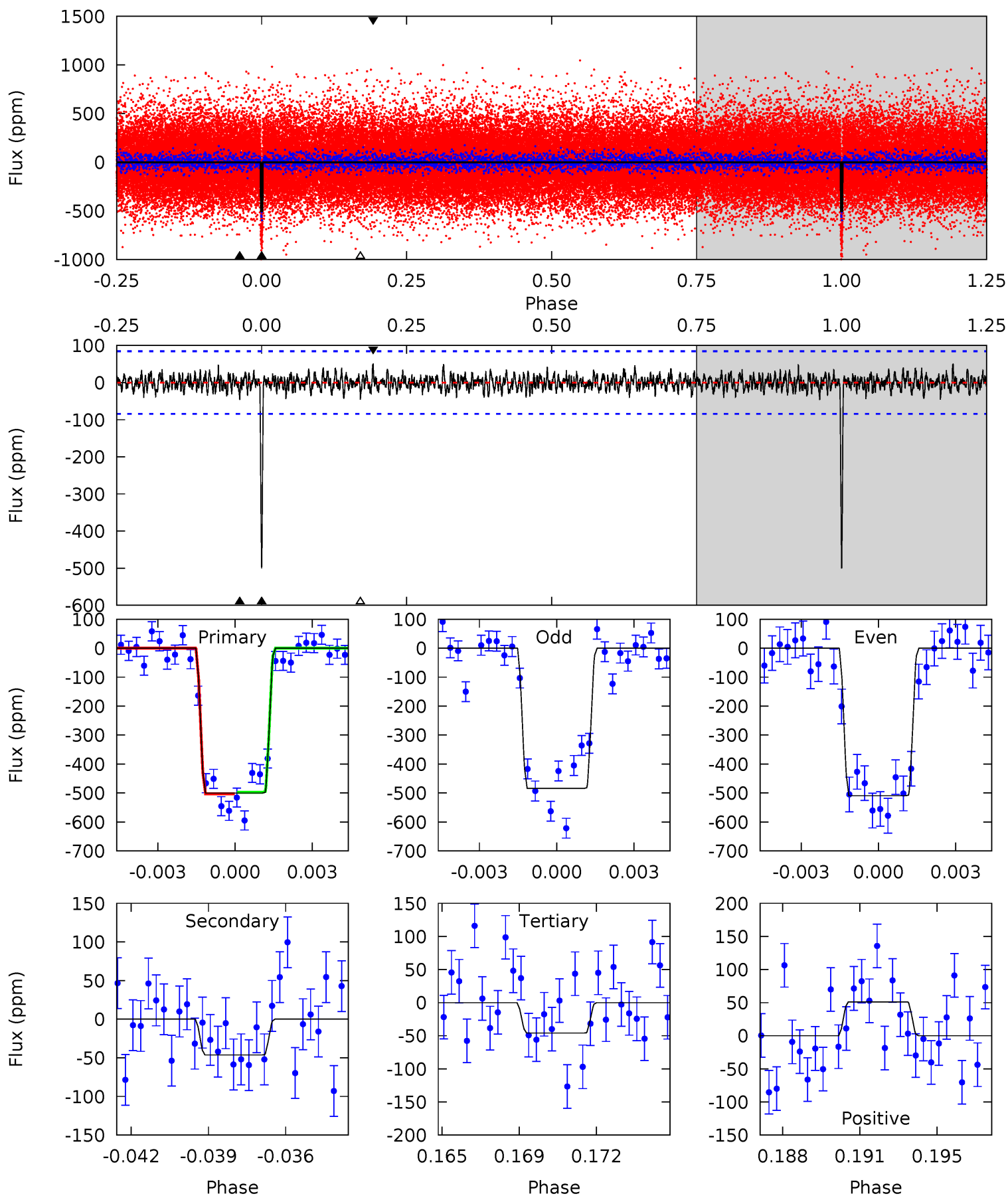
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
33.2	3.76	3.59	3.78	5.23	2.93	1.22	29.6	29.4	0.17	-0.02	0.29	1.02	0.10	0.61



Alt Model-Shift Uniqueness Test

003732035-01, $P = 138.948208$ Days, $E = 14.945498$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
31.1	2.88	2.86	3.18	5.24	2.94	0.94	28.2	27.9	0.02	-0.30	0.77	1.07	0.09	0.16



Stellar Parameters For KIC 003732035

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6014^{+108}_{-133}	$4.362^{+0.084}_{-0.116}$	$0.000^{+0.150}_{-0.150}$	$1.115^{+0.180}_{-0.120}$	$1.044^{+0.086}_{-0.070}$	$1.060^{+0.366}_{-0.382}$
	+2%/-2%	+2%/-3%	+inf%/-inf%	+16%/-11%	+8%/-7%	+35%/-36%
Source	SPE57	SPE57	SPE57	DSEP		

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

Secondary Eclipse Parameters for KIC 003732035-01 / KOI 3966.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-60 ± 16	$2.91^{+0.34}_{-0.30}$	538^{+24}_{-19}	3817^{+207}_{-215}	1106^{+414}_{-343}
Alt.	-46 ± 16	$2.78^{+0.33}_{-0.29}$	538^{+22}_{-20}	3717^{+234}_{-261}	925^{+442}_{-322}

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 $A_{obs} \gg 1.0$

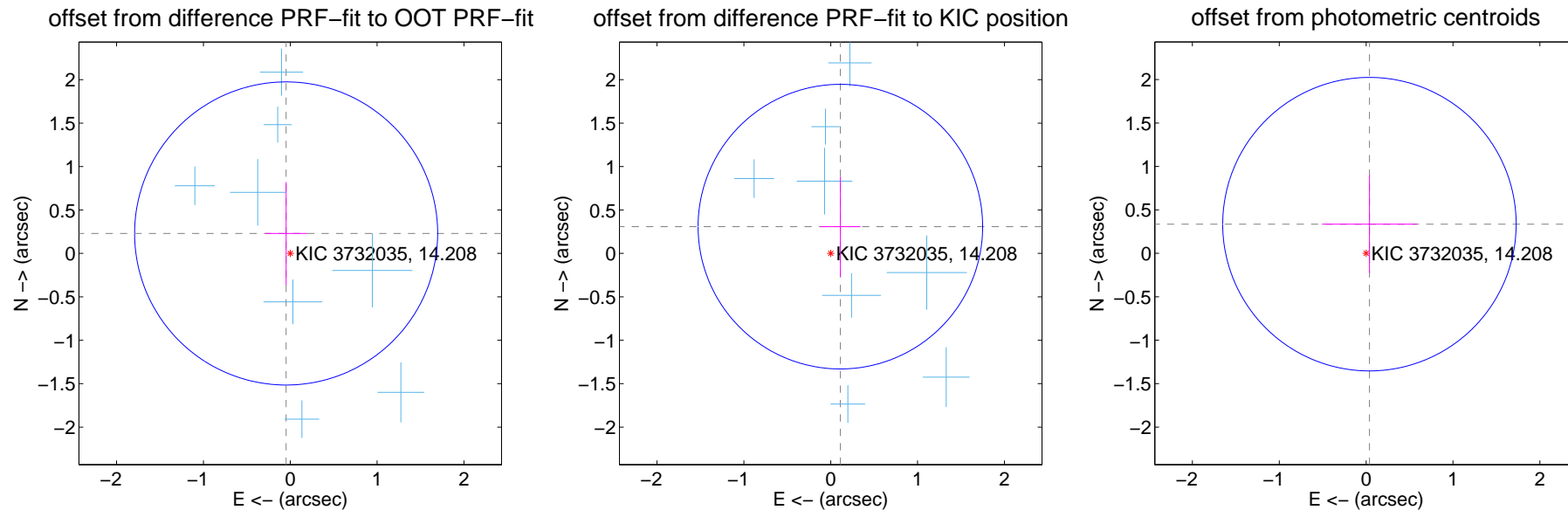
DV Centroid Data

Supplemental centroid analysis for 003732035-01. Kepler magnitude: 14.21. Transit SNR 22.45

There are 8 quarters with good PRF difference image offsets

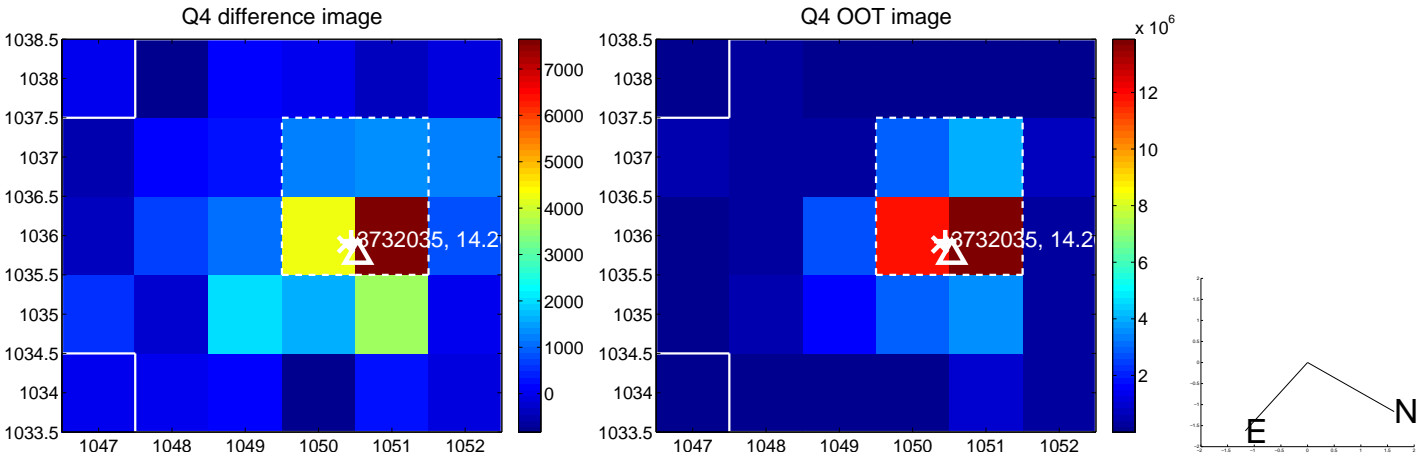
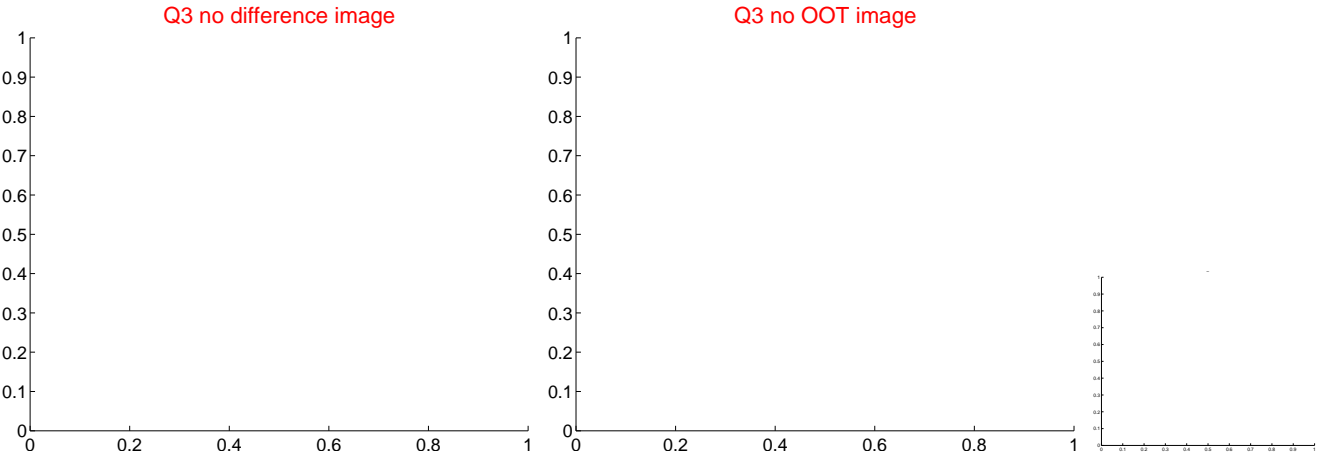
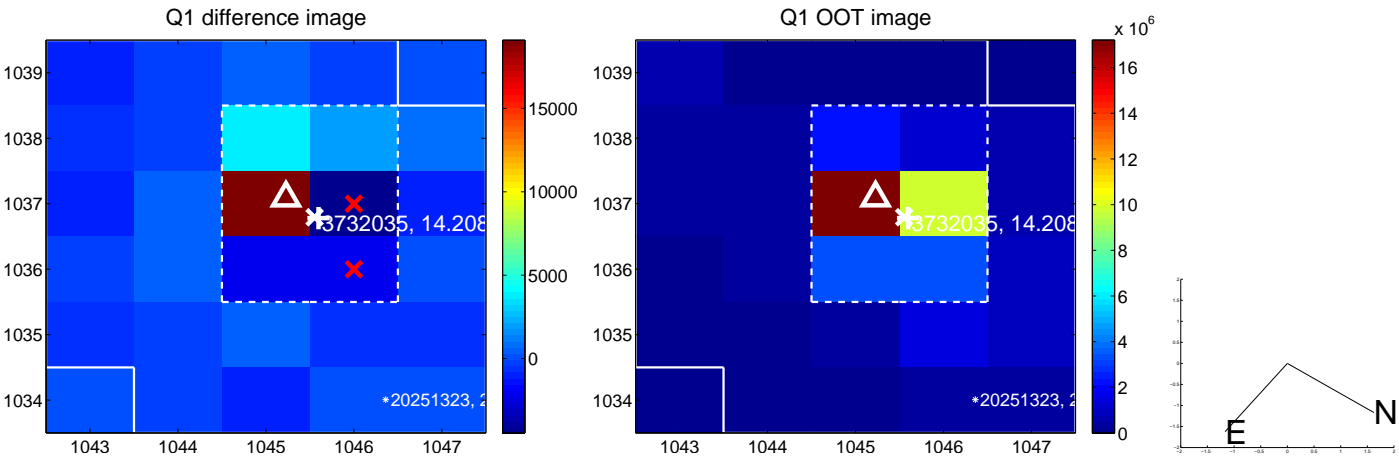
The direct PRF centroid is offset from the target star catalog position by about 0.34 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.235 ± 0.582	0.40	0.048 ± 0.242	0.230 ± 0.592
PRF-fit source offset from KIC position	0.328 ± 0.546	0.60	-0.111 ± 0.231	0.308 ± 0.575
photometric centroid source offset	0.34 ± 0.56	0.60	-0.04 ± 0.55	0.34 ± 0.56



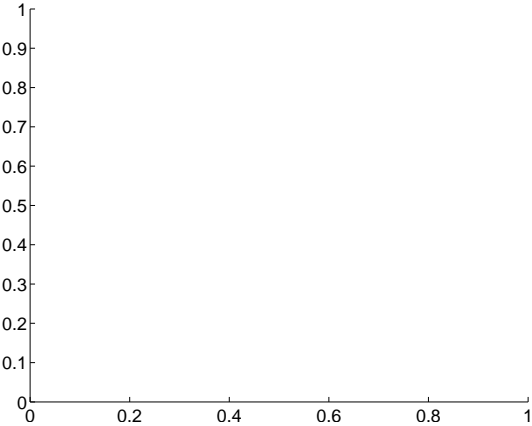
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

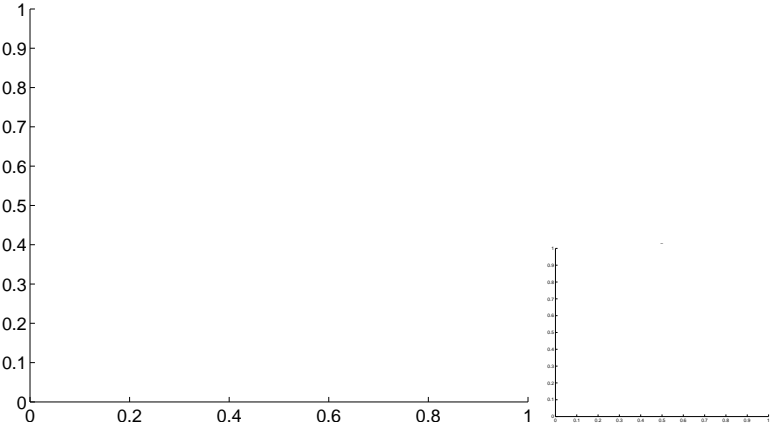


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

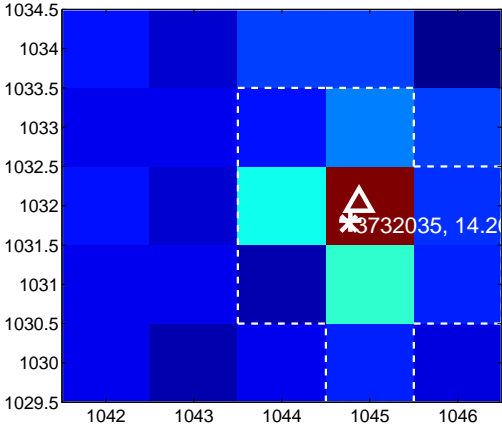
Q5 no difference image



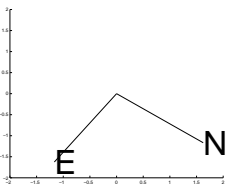
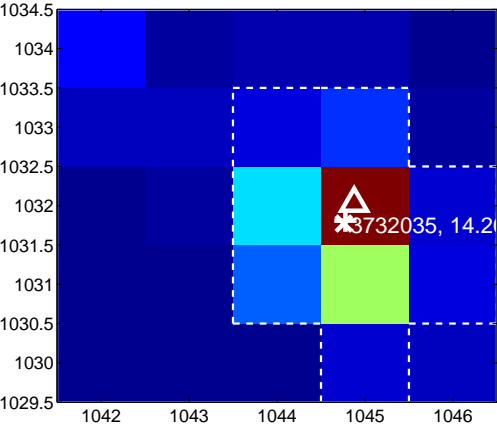
Q5 no OOT image



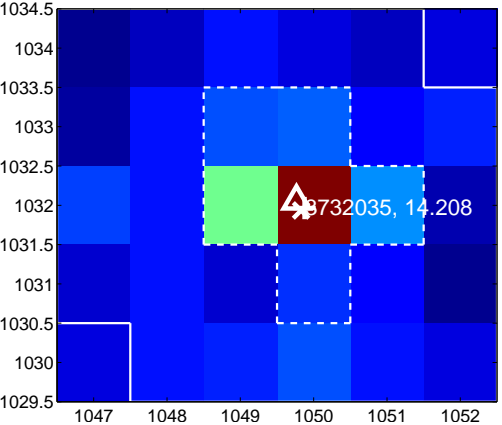
Q6 difference image



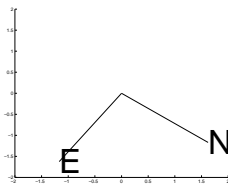
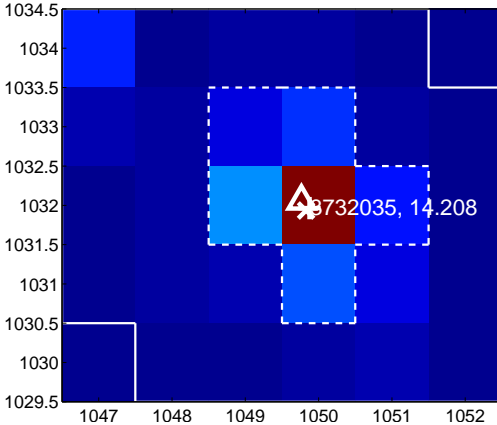
Q6 OOT image



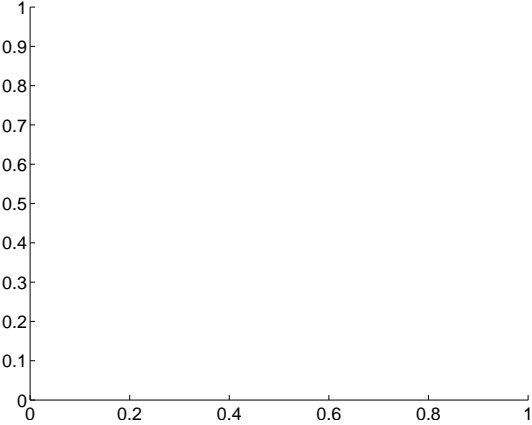
Q7 difference image



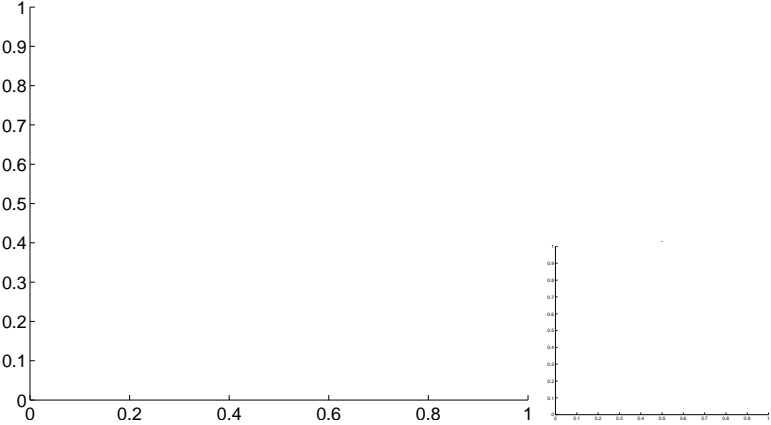
Q7 OOT image



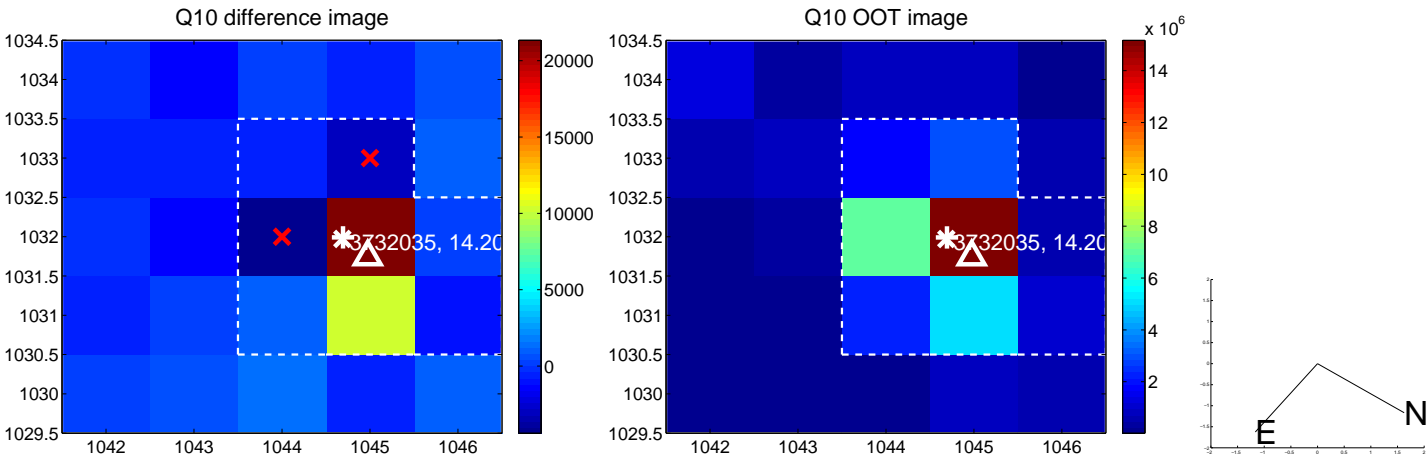
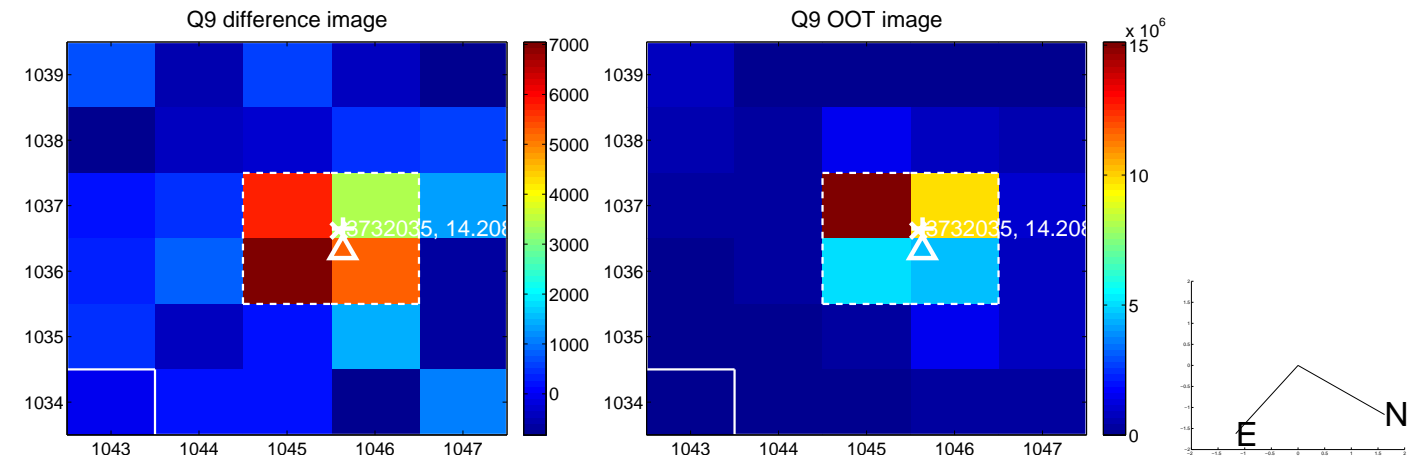
Q8 no difference image



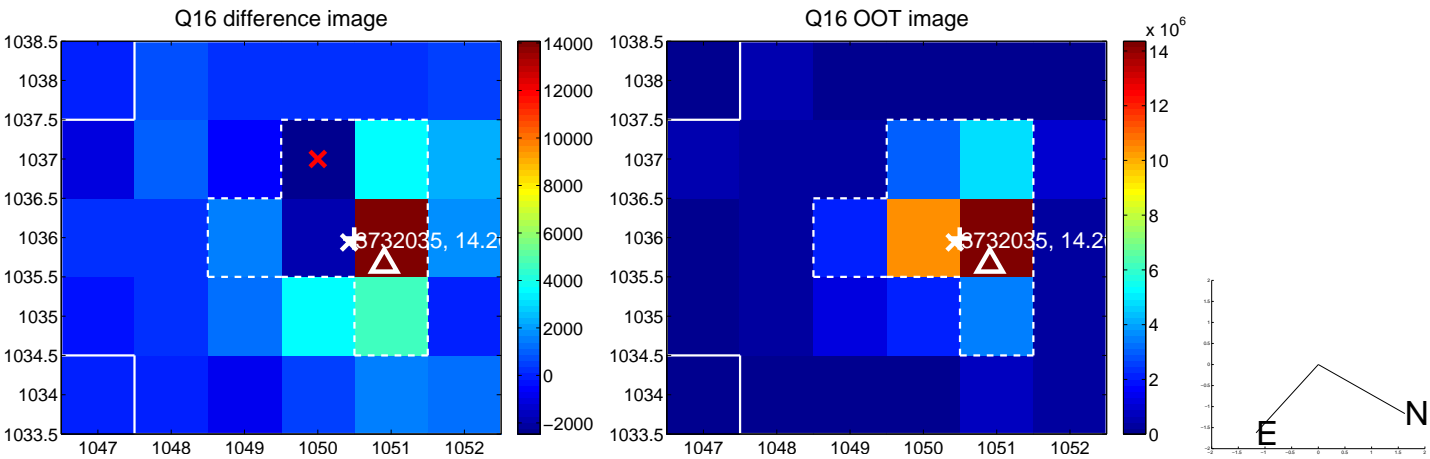
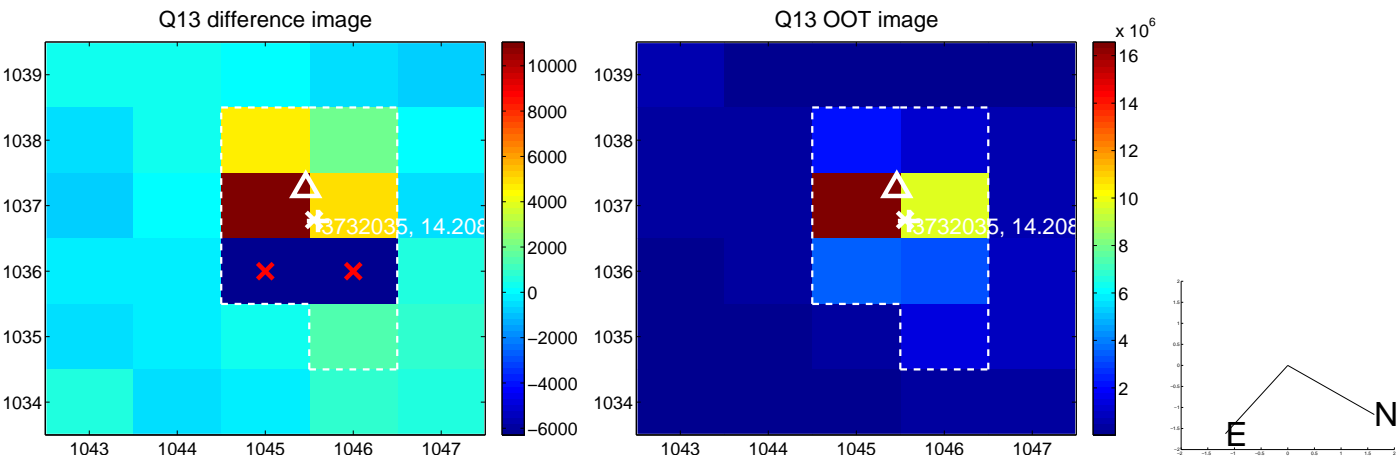
Q8 no OOT image



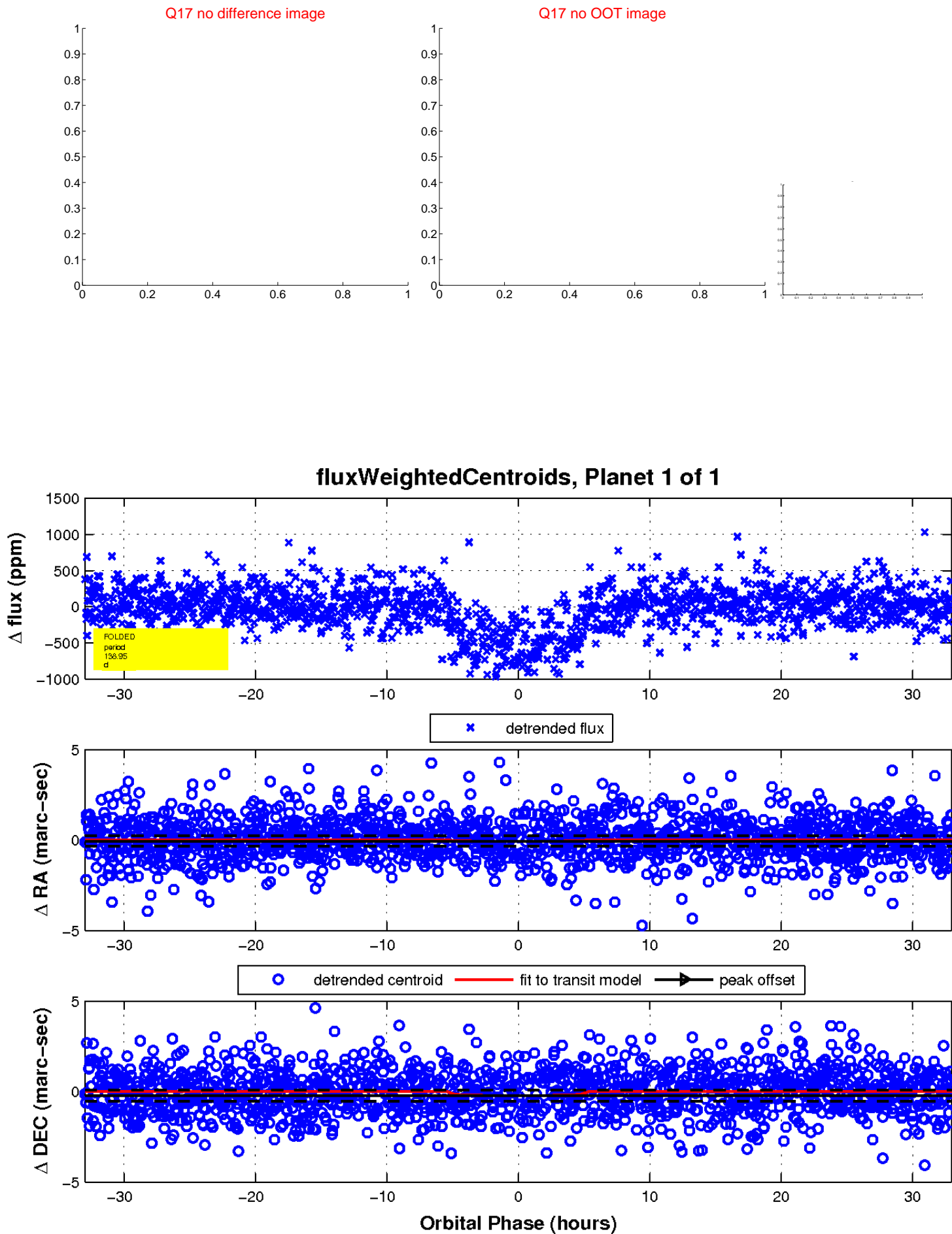
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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.



UKIRT Image

Declination

