

KIC 007451315

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})
007451315-01	OBS	8268.01	368.531637	177.469795	895.1	22.218	8.0	8.2	0.94	6063	3.48	1.09

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007451315-01	OBS	FP	0.23	1	0	0	0	LPP_DV—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.

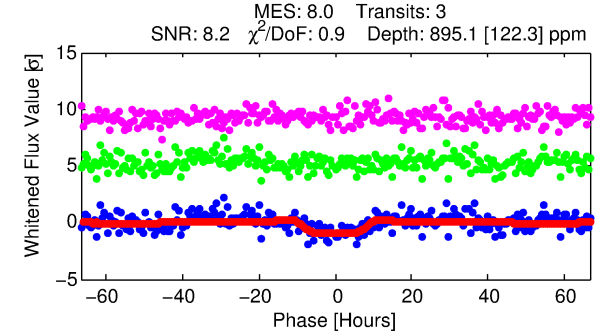
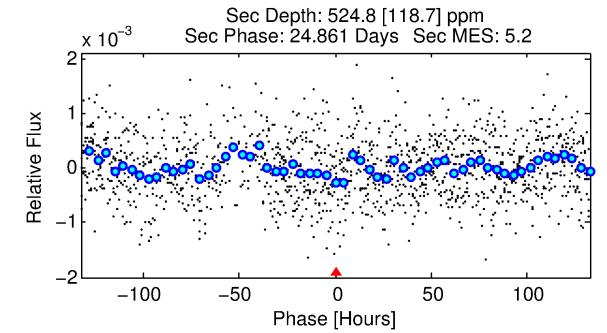
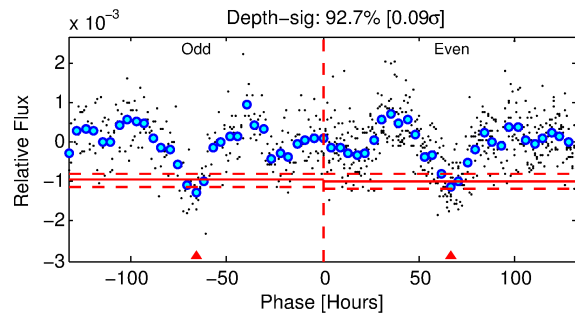
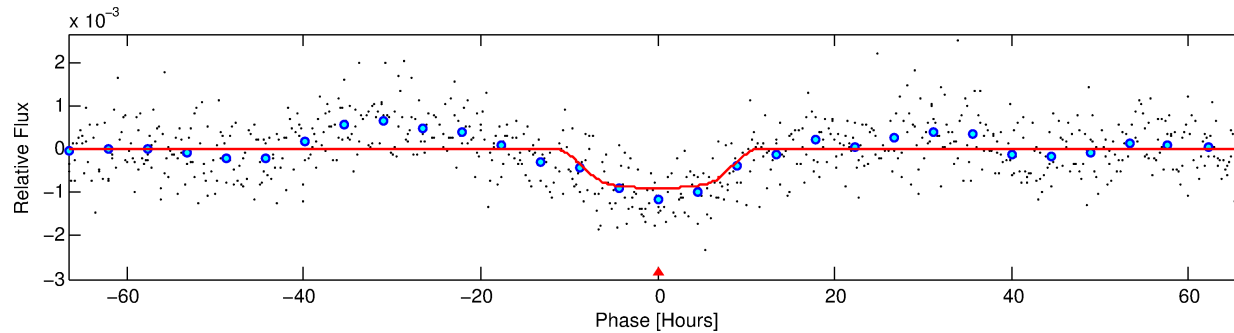
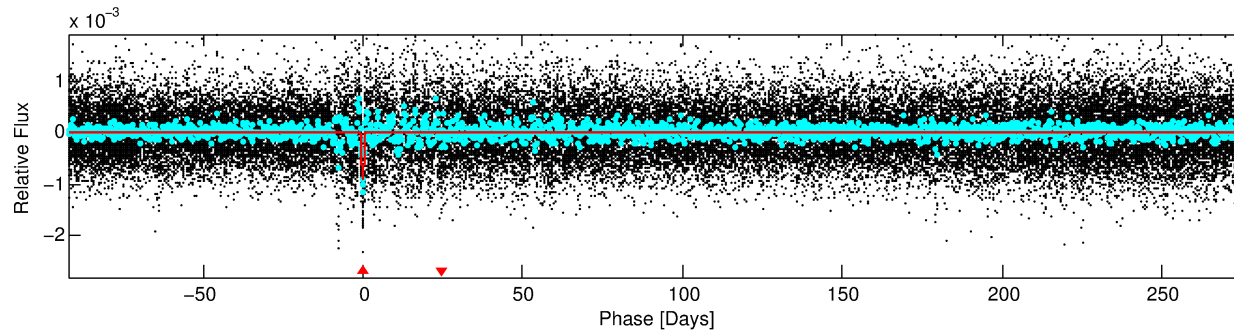
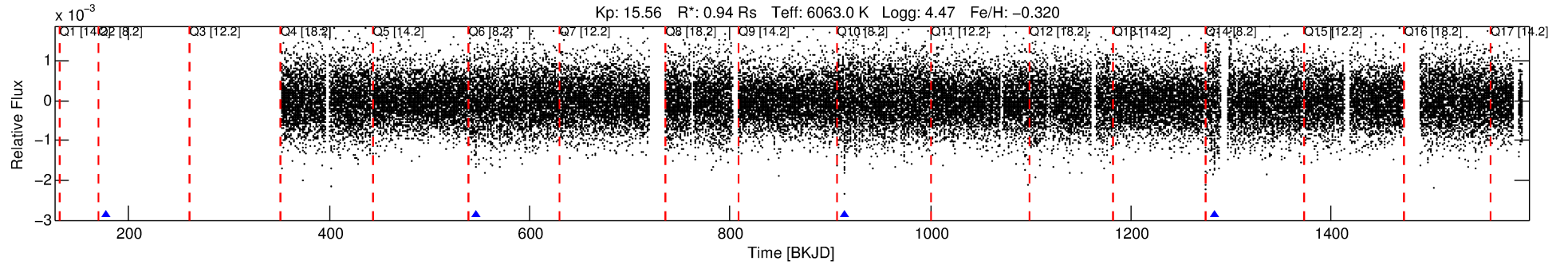
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007451315-01

No Significant Match Found

DV One-Page Summary

KIC: 7451315 Candidate: 1 of 1 Period: 368.532 d



DV Fit Results:

Period = 368.53164 [0.03080] d
Epoch = 177.4698 [0.0630] BKJD
Rp/R* = 0.0339 [0.0030]
a/R* = 53.77 [11.44]
b = 0.94 [0.03]
Seff = 1.09 [0.45]
Teq = 260 [27] K
Rp = 3.48 [1.09] Re
a = 0.9925 [0.2548] AU
Ag = 23492.40 [11174.57] [2.10 σ]
Teffp = 4985 [406] K [11.62 σ]

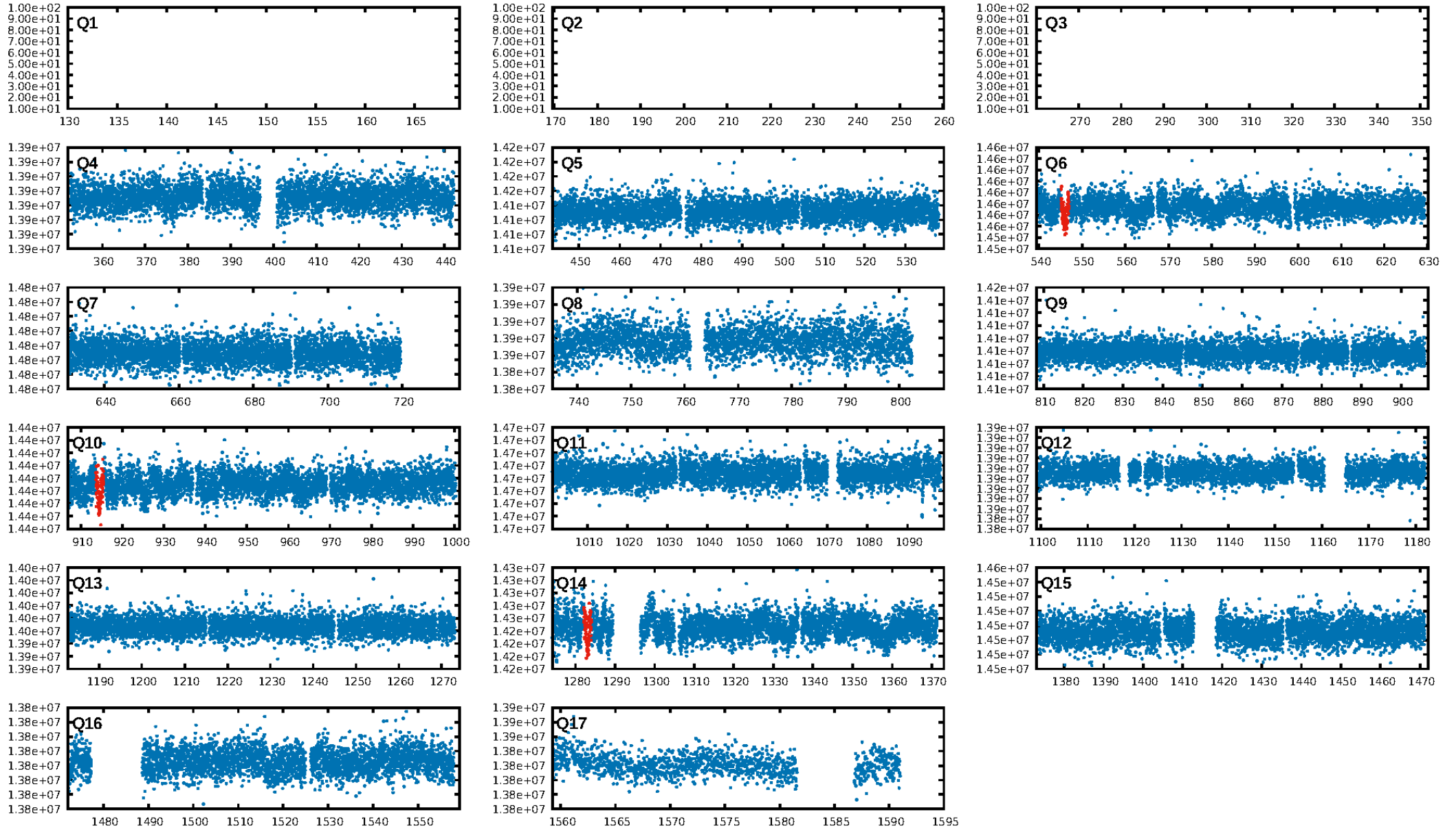
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 39.0%
ModelChiSquareGoF-sig: 100.0%
Bootstrap-pfa: 3.45e-09
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -1.553
Centroid-sig: 0.0%
Centroid-so: 5.198 arcsec [4.19 σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [2/2]

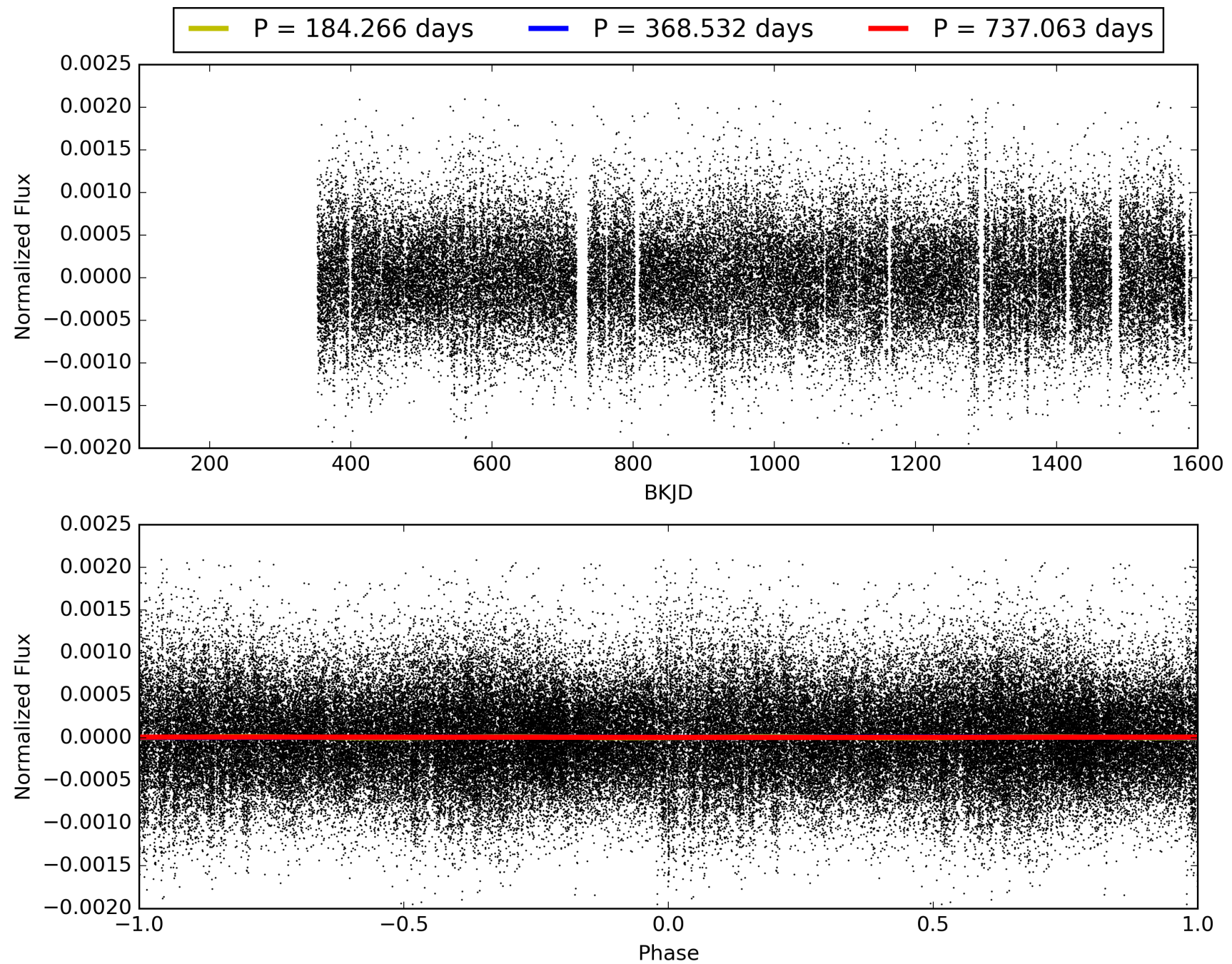
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 03:25:41 Z

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

TCE 007451315-01, PDC Light Curves

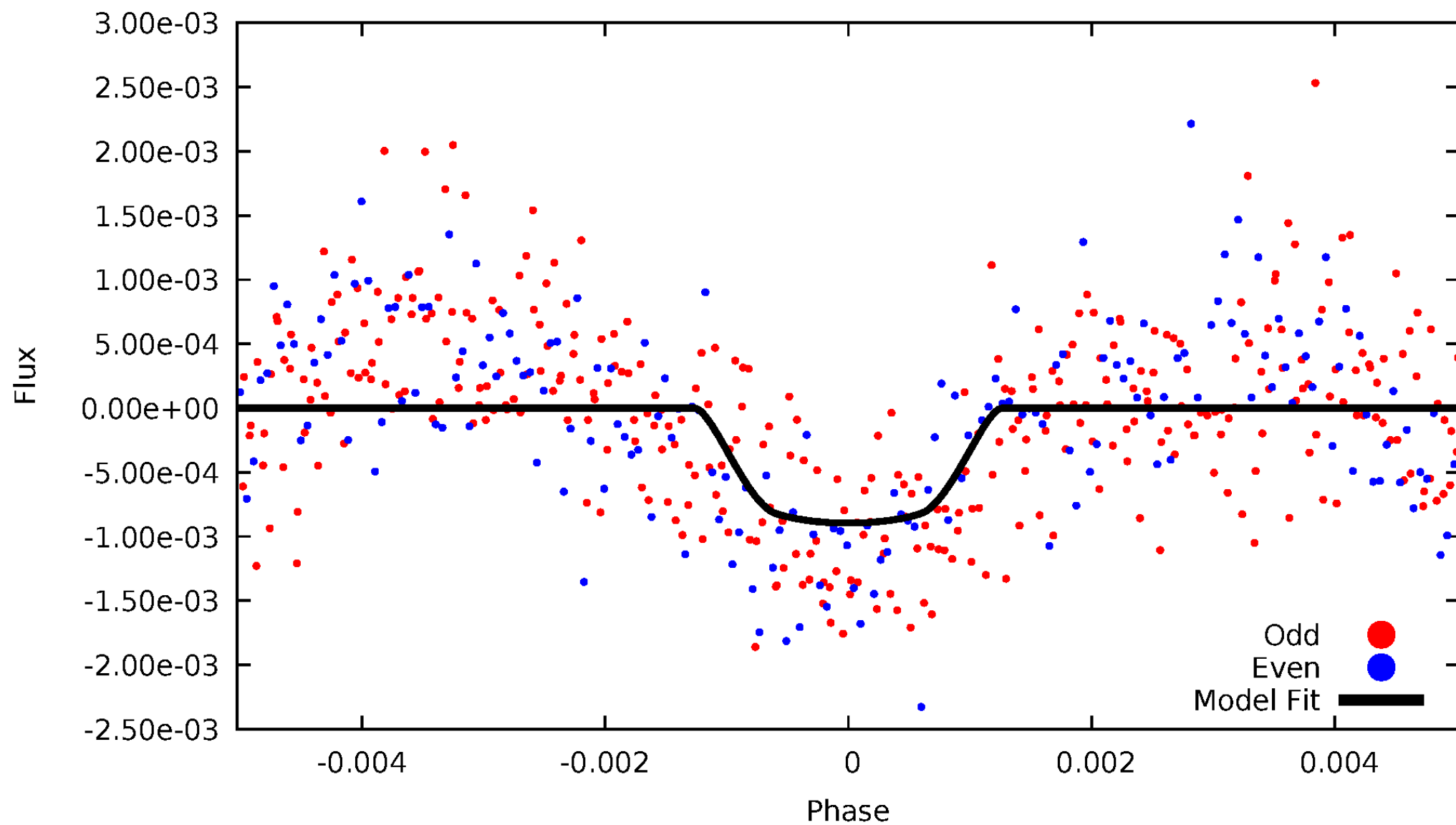


TCE 007451315-01



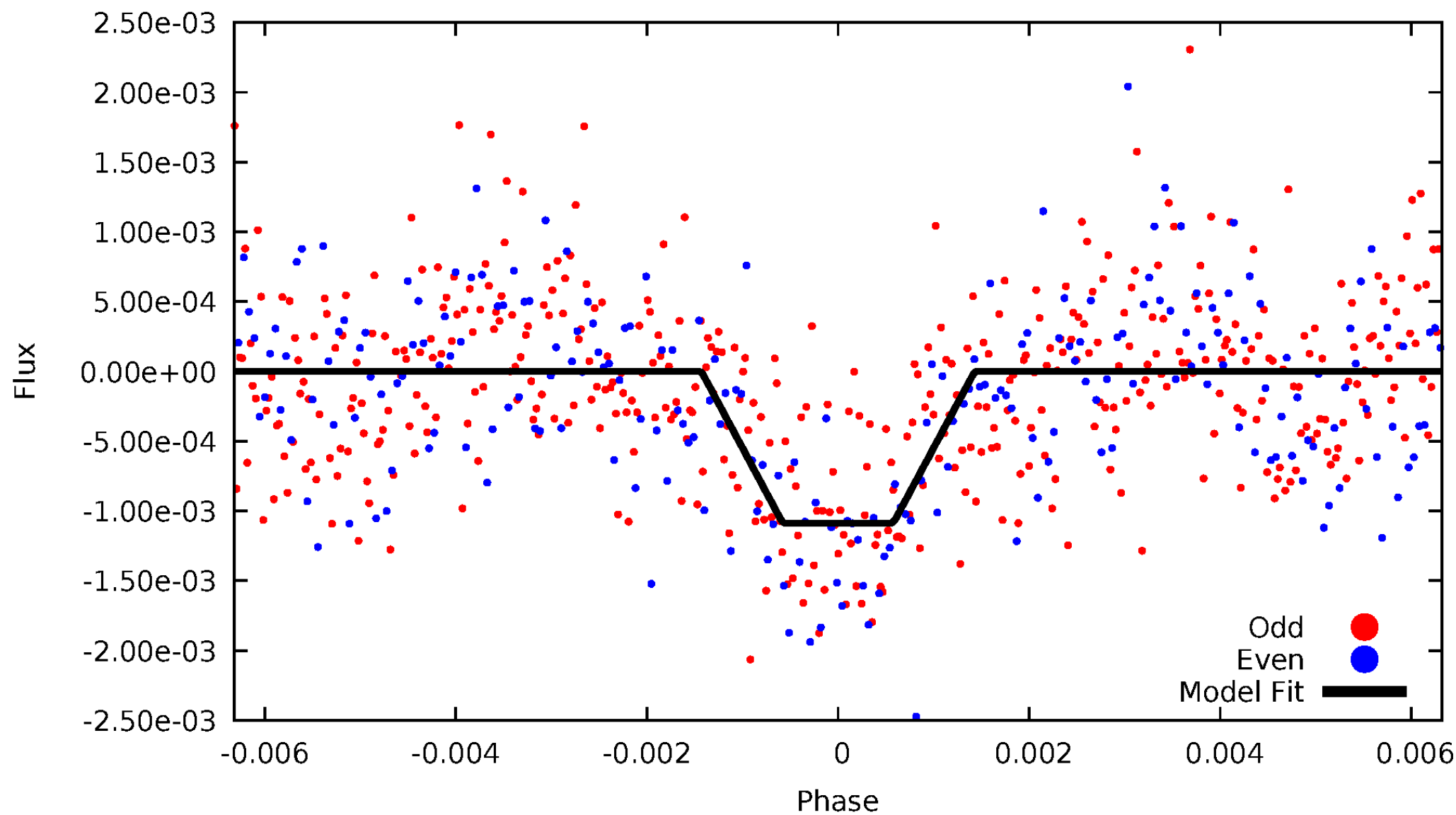
DV Odd/Even

TCE 007451315-01



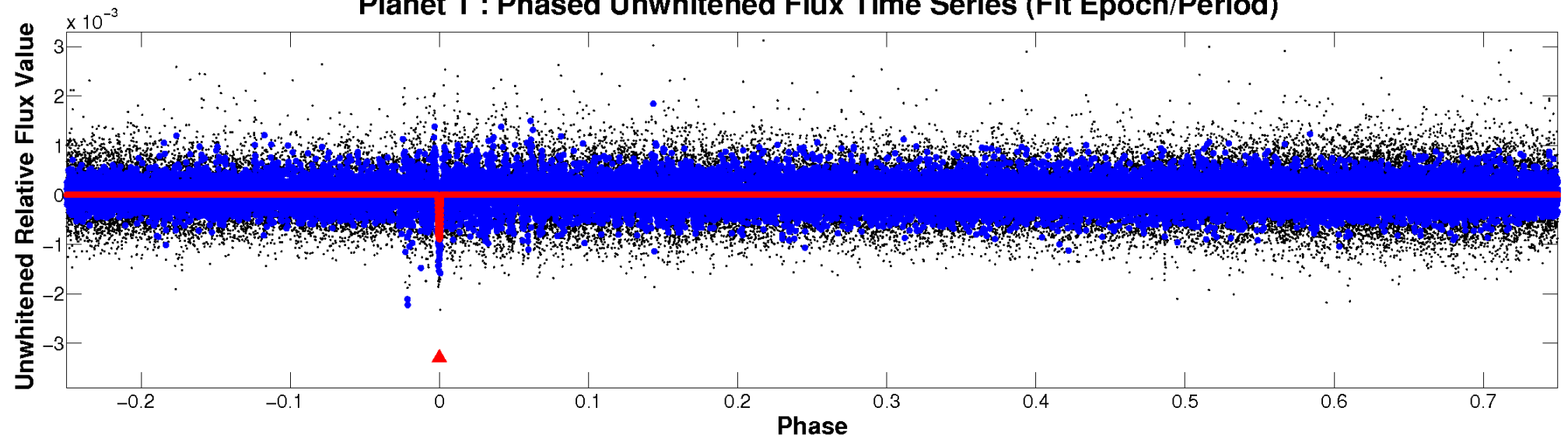
ALT Odd/Even

TCE 007451315-01

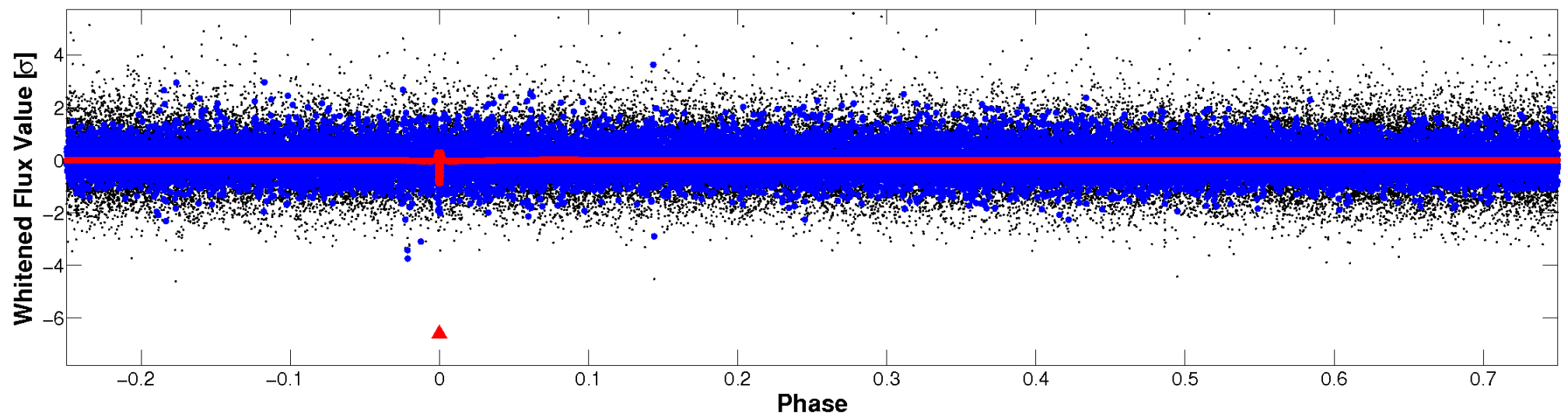


Non-Whitened Vs. Whitened Light Curve

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

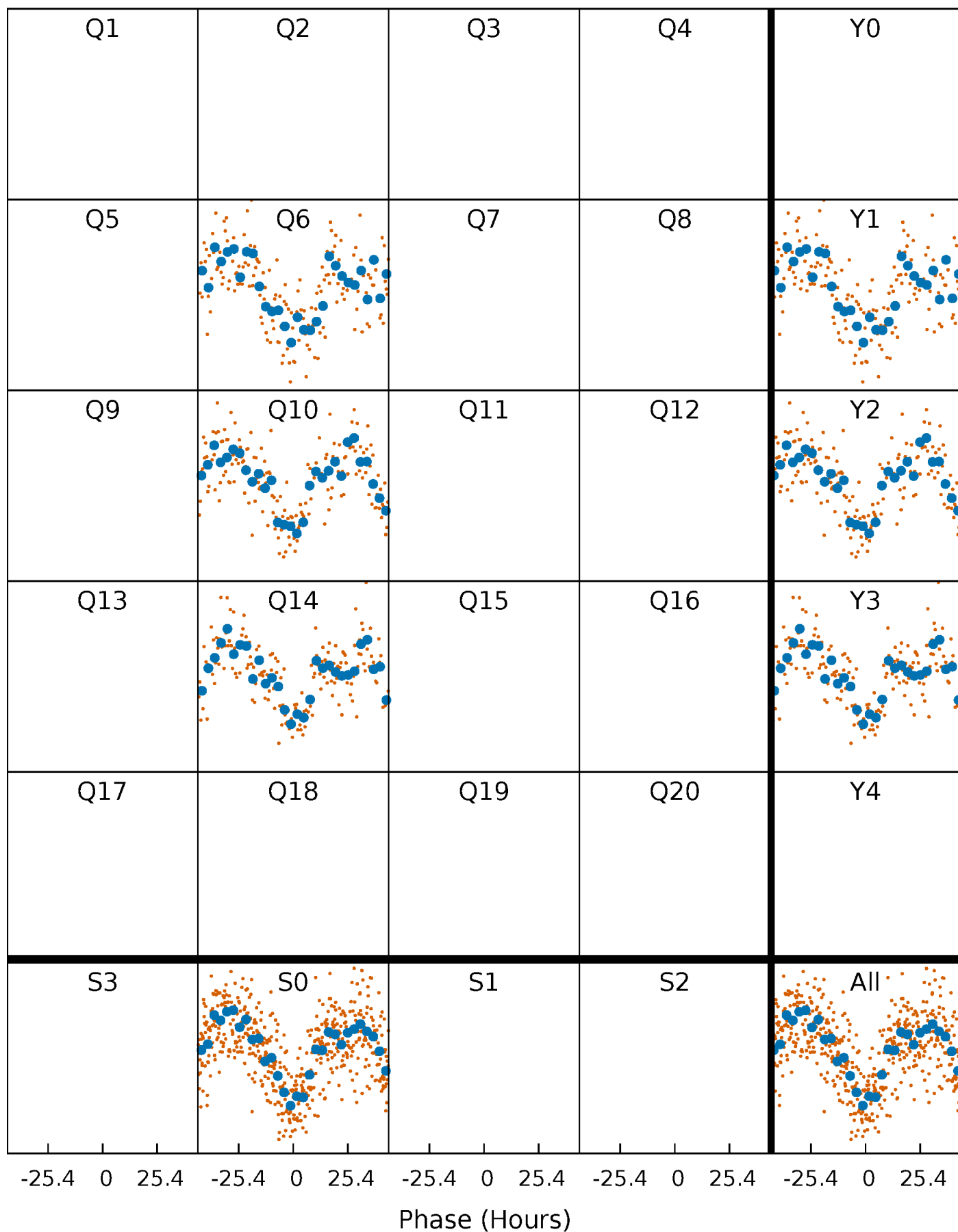


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



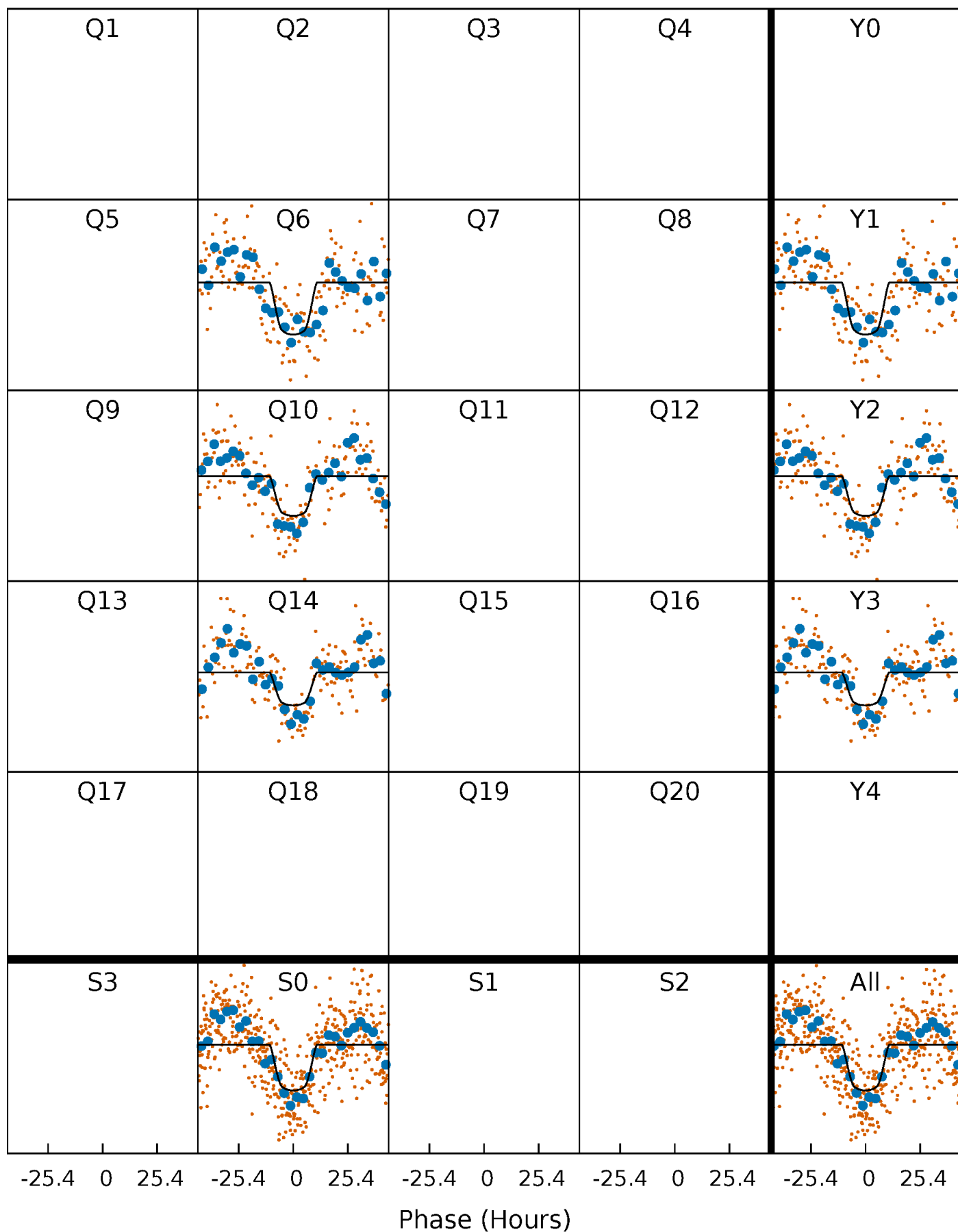
PDC Quarter-Phased Transit Curves

TCE 007451315-01 P=368.531637 Days $T_0=177.469795$ (BKJD)



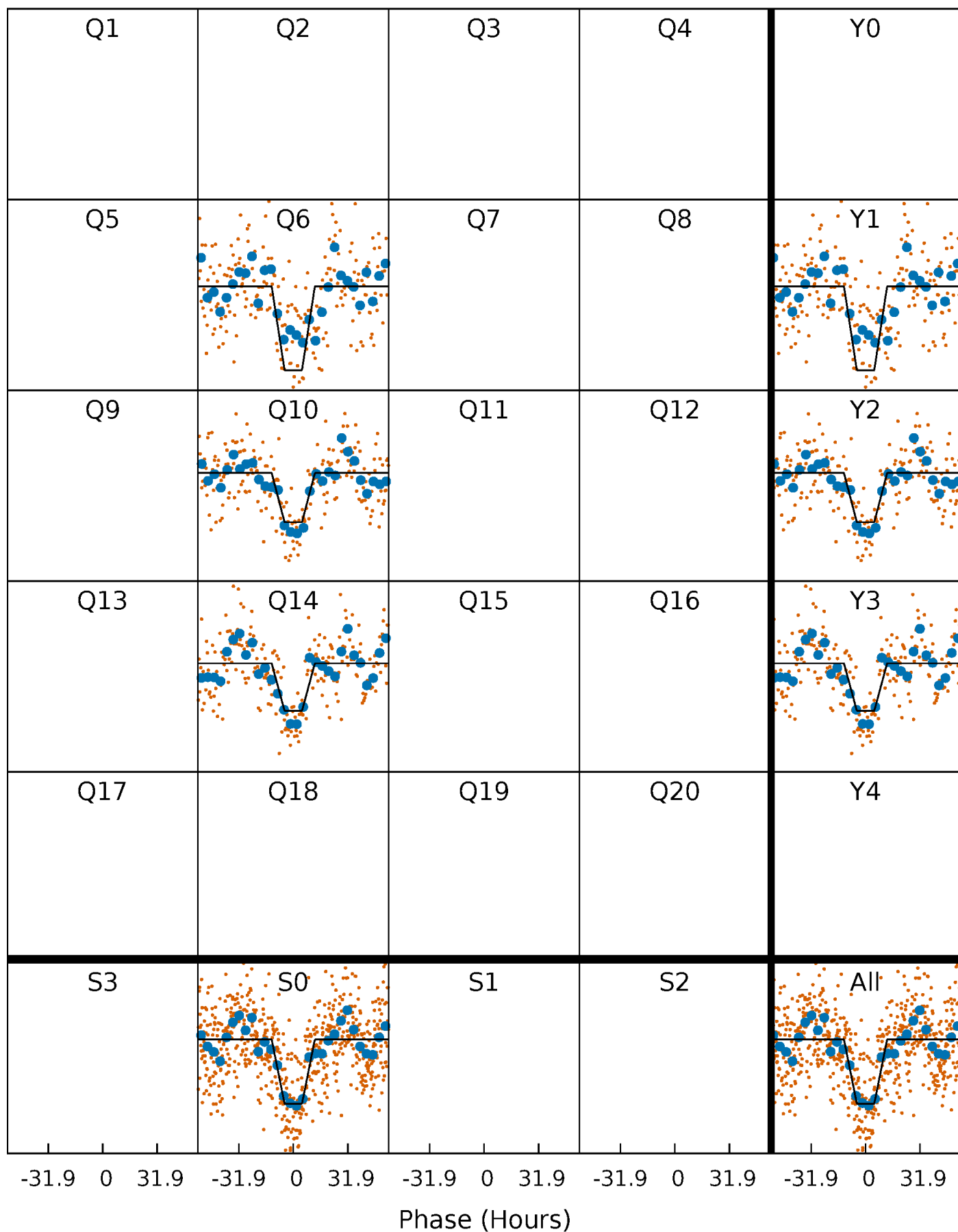
DV Quarter-Phased Transit Curves

TCE 007451315-01 P=368.531637 Days $T_0=177.469795$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

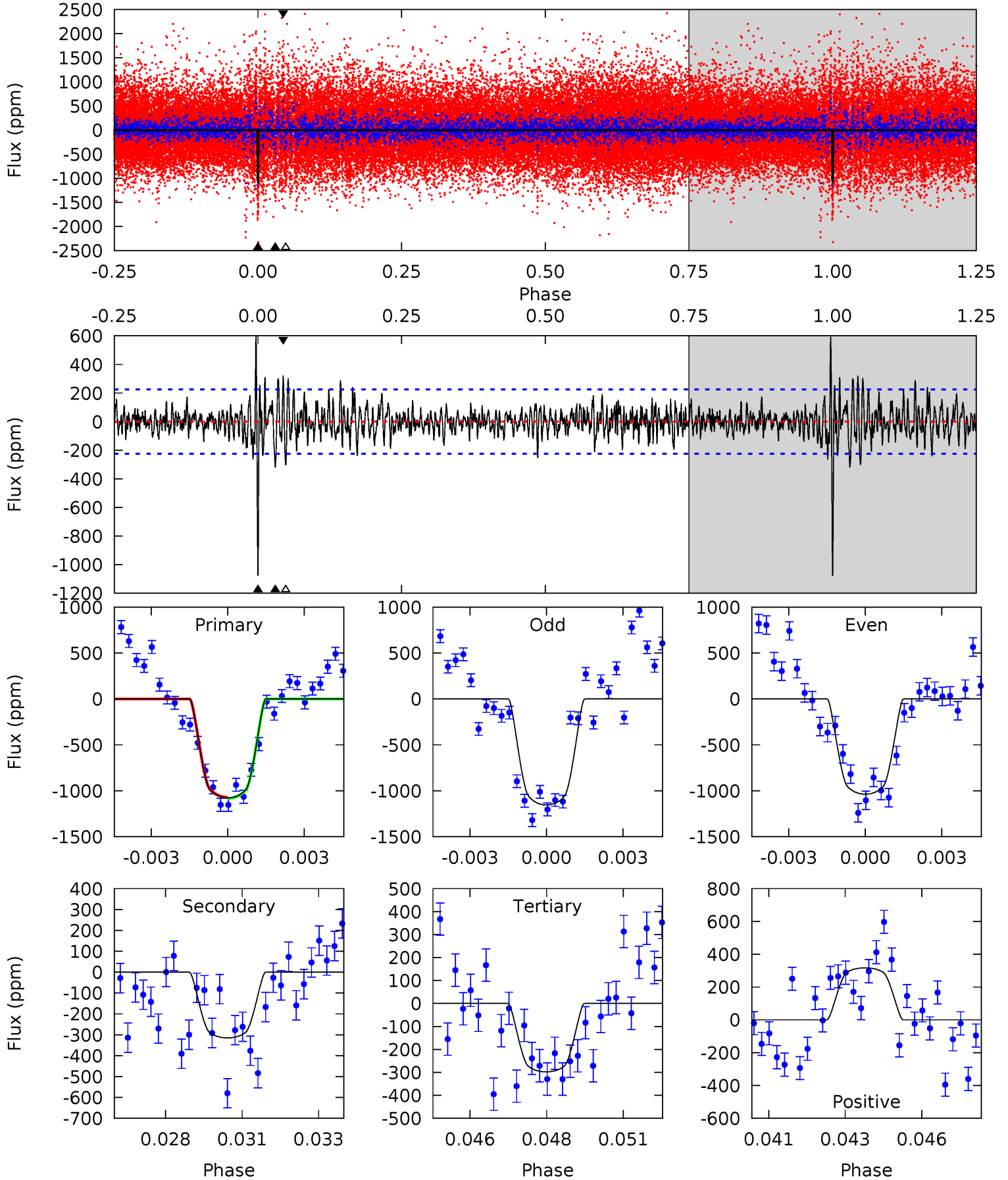
TCE 007451315-01 P=368.669101 Days $T_0=177.114406$ (BKJD)



DV Model-Shift Uniqueness Test

007451315-01, P = 368.531637 Days, E = 177.469795 Days

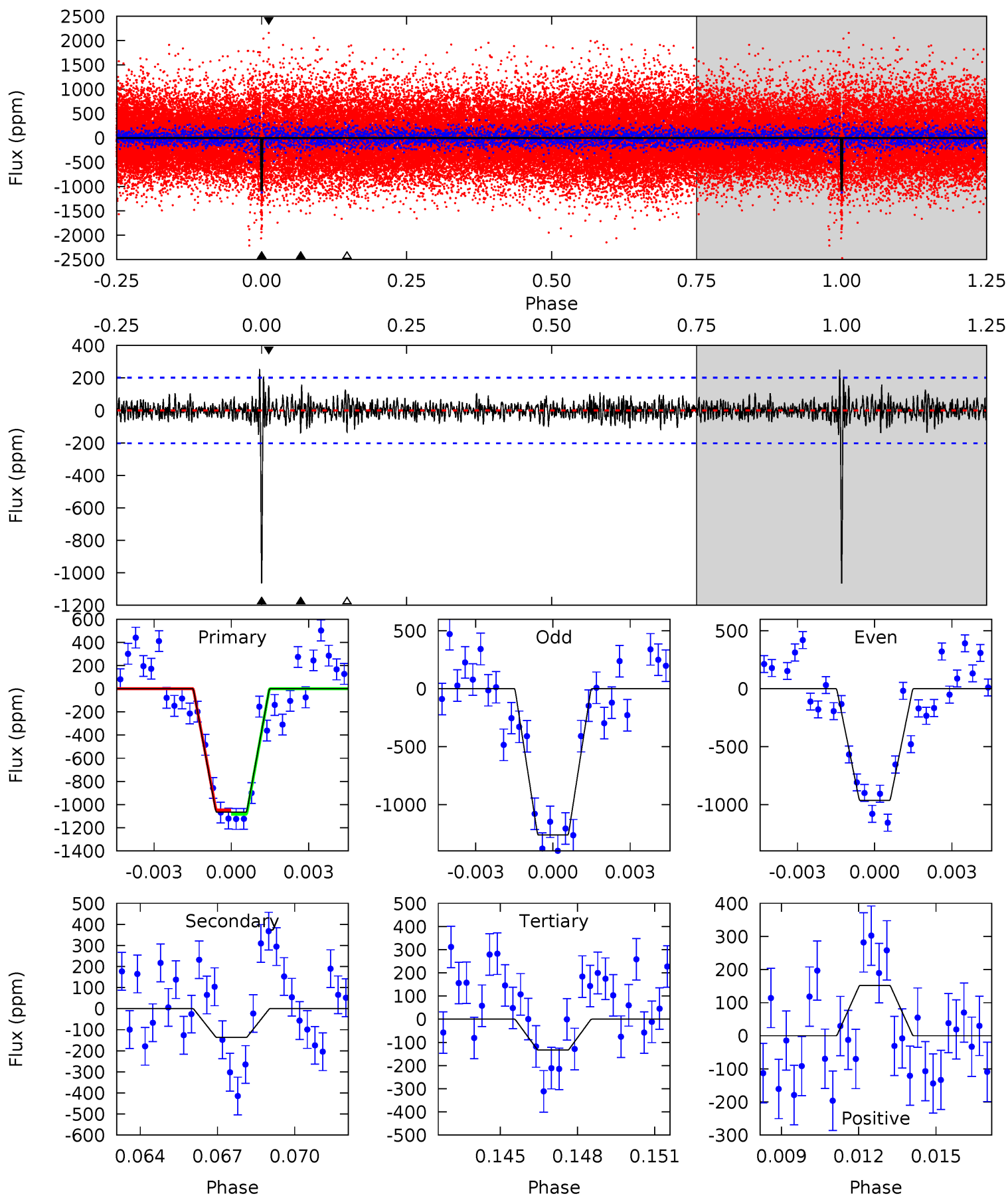
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.3	7.40	7.00	7.45	5.28	3.02	1.86	18.3	17.8	0.41	-0.05	1.29	0.93	0.35	0.13



Alt Model-Shift Uniqueness Test

007451315-01, P = 368.669101 Days, E = 177.114406 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
27.7	3.54	3.46	3.95	5.26	2.98	1.00	24.2	23.7	0.08	-0.41	3.64	0.87	0.19	0.47



Stellar Parameters For KIC 007451315

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6063^{+191}_{-233}	$4.473^{+0.070}_{-0.210}$	$-0.320^{+0.300}_{-0.300}$	$0.941^{+0.282}_{-0.121}$	$0.959^{+0.129}_{-0.116}$	$1.620^{+0.582}_{-0.873}$
	+3%/-4%	+2%/-5%	+94%/-94%	+30%/-13%	+13%/-12%	+36%/-54%
Source	KIC0	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 007451315-01 / KOI 8268.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-315 ± 43	$3.59^{+0.62}_{-0.44}$	369^{+27}_{-20}	4544^{+254}_{-248}	12809^{+4545}_{-3450}
Alt.	-136 ± 38	$3.50^{+0.64}_{-0.47}$	369^{+27}_{-20}	3933^{+253}_{-232}	5878^{+2689}_{-2013}

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

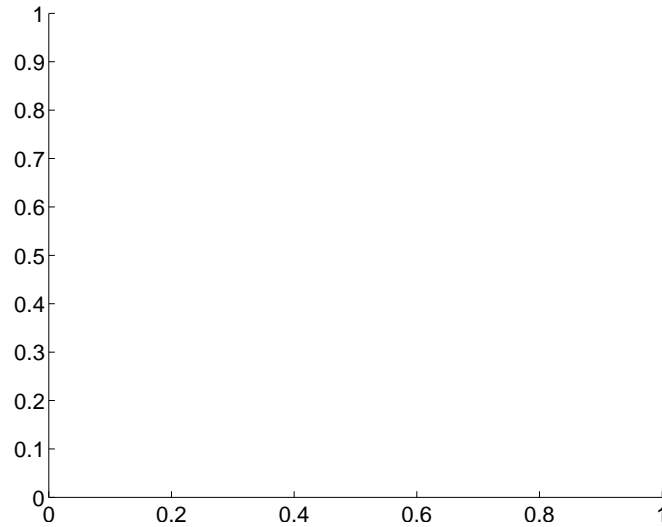
Supplemental centroid analysis for 007451315-01. Kepler magnitude: 15.56. Transit SNR 8.15

There are 0 quarters with good PRF difference image offsets

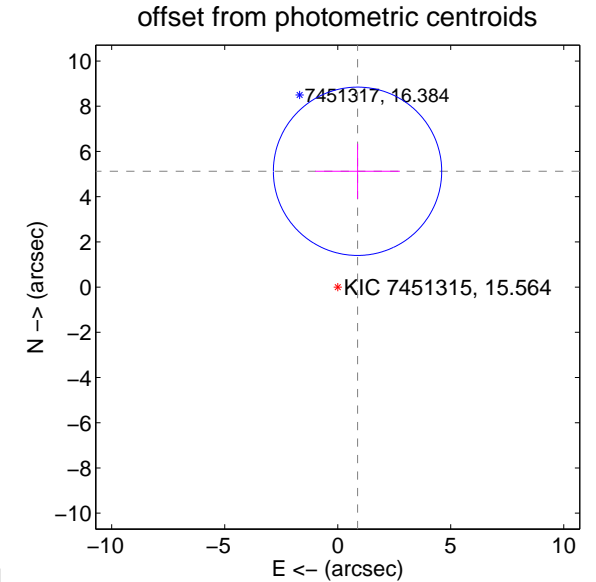
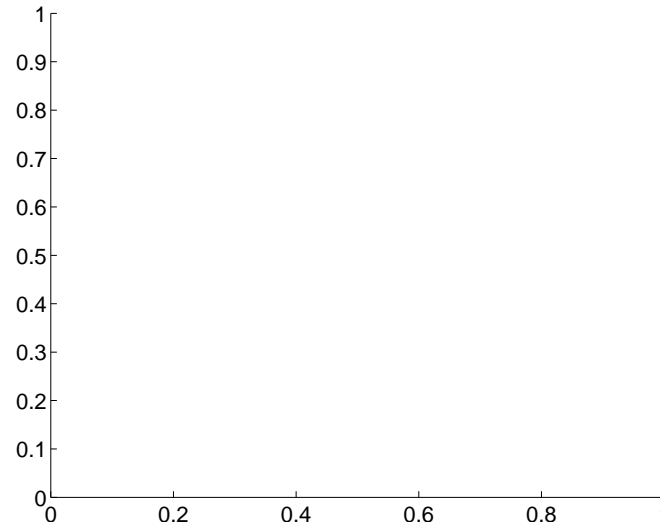
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	5.20 ± 1.24	4.19	-0.88 ± 1.87	5.12 ± 1.22

There is no PRF-fit offset from OOT-fit



There is no PRF-fit offset from KIC

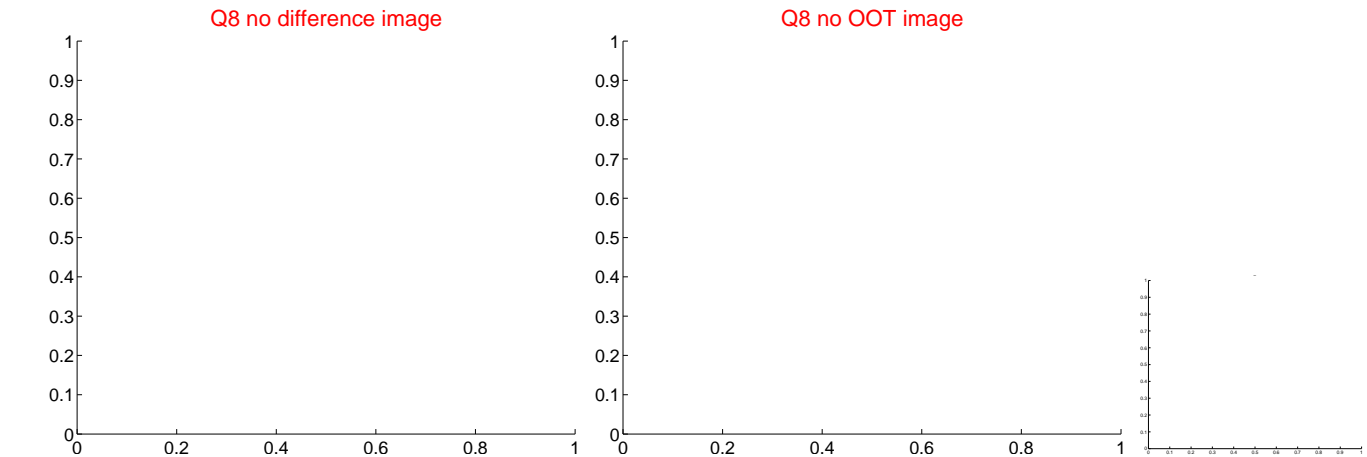
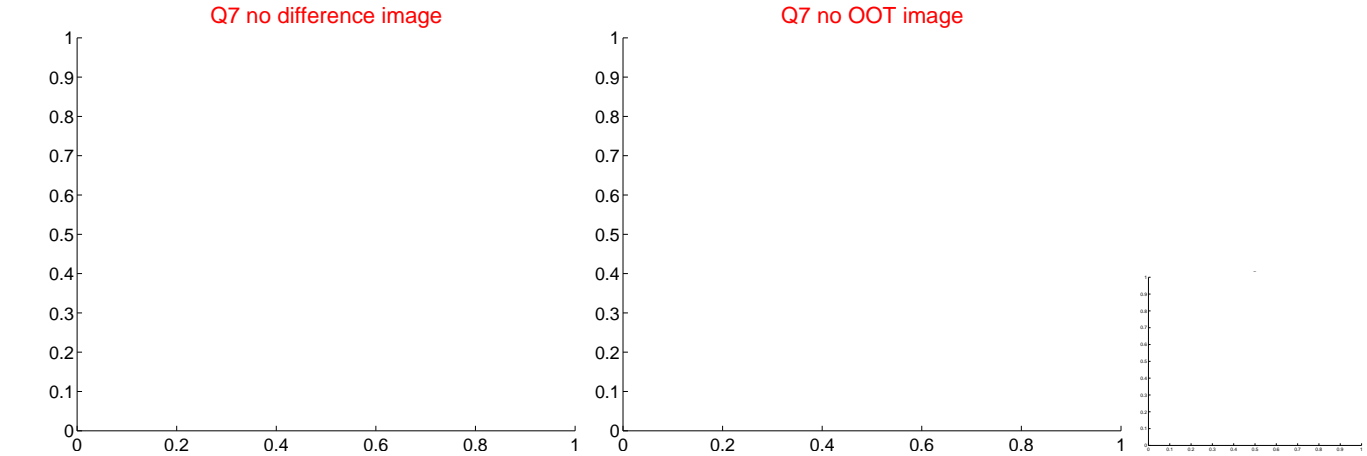
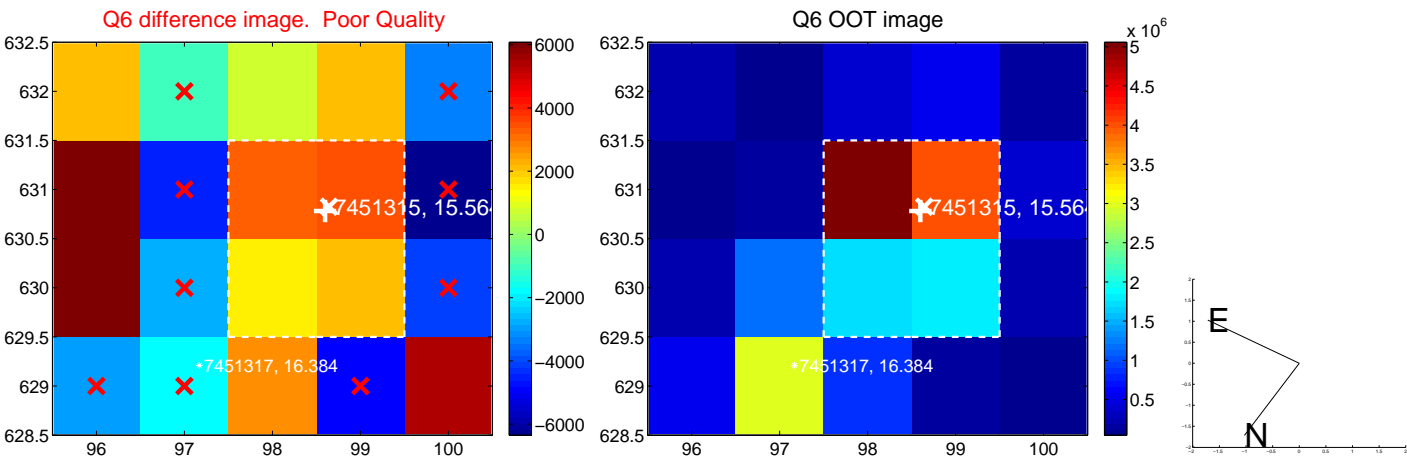
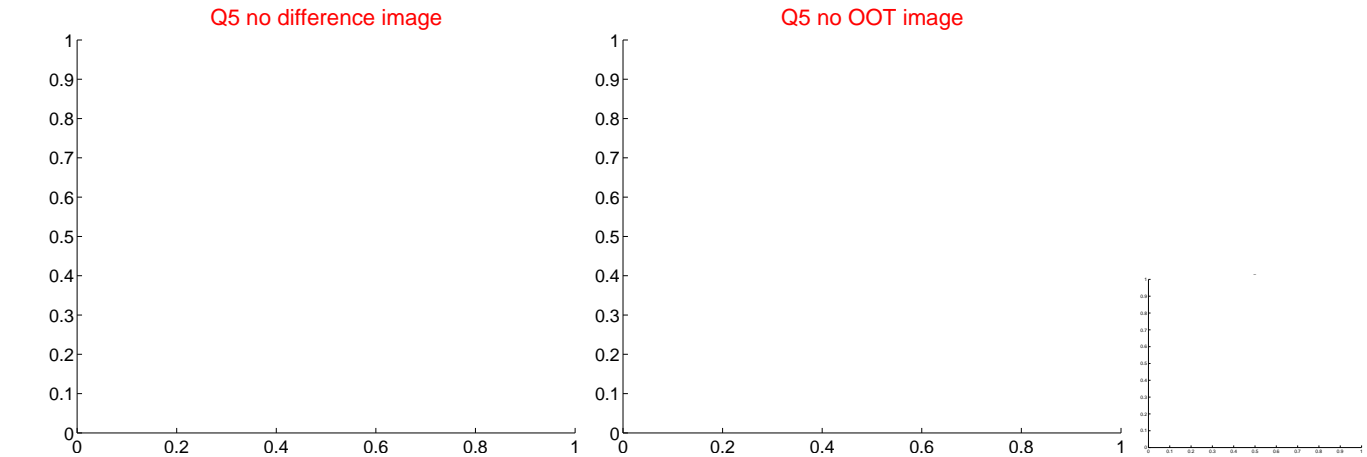


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

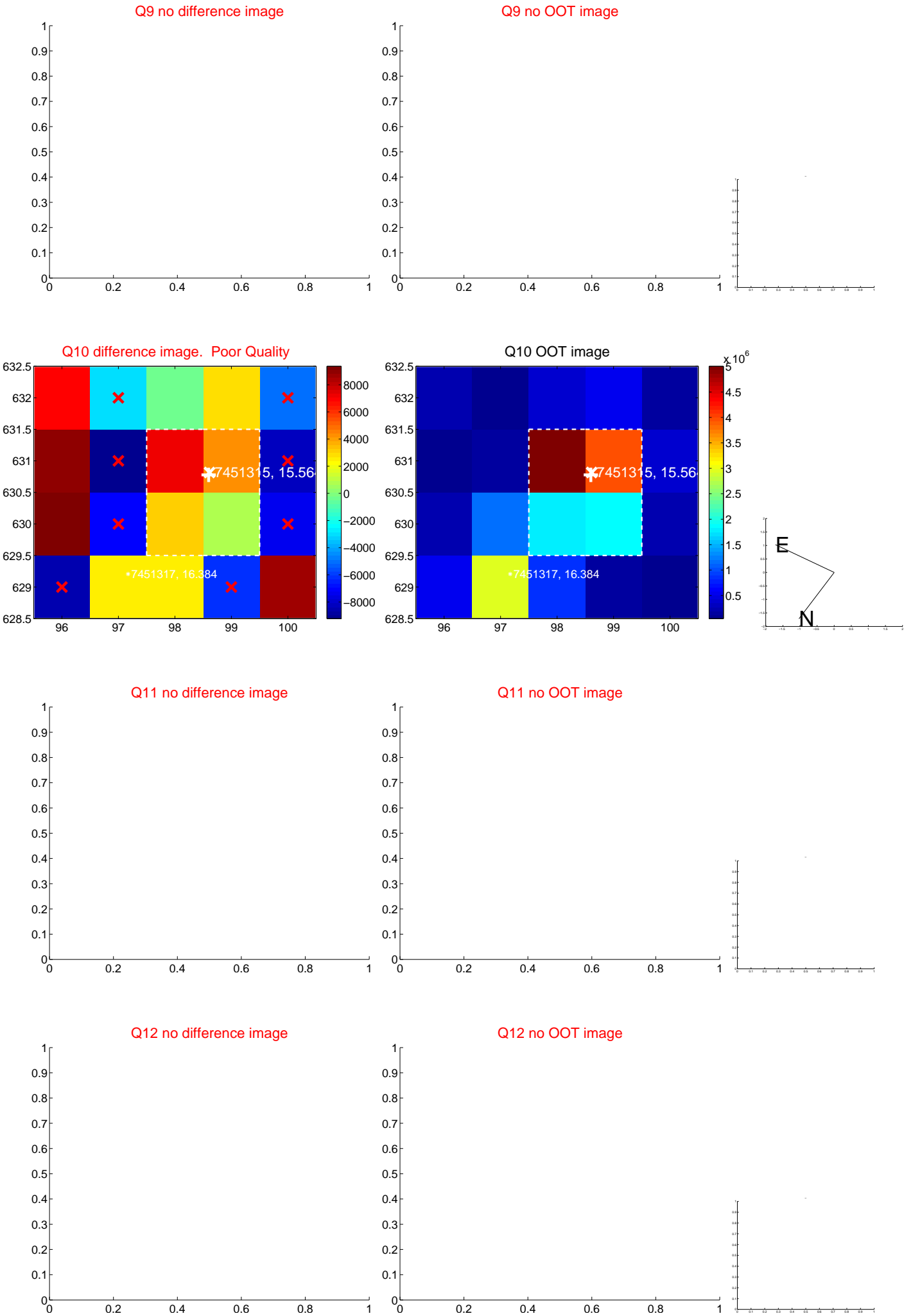
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



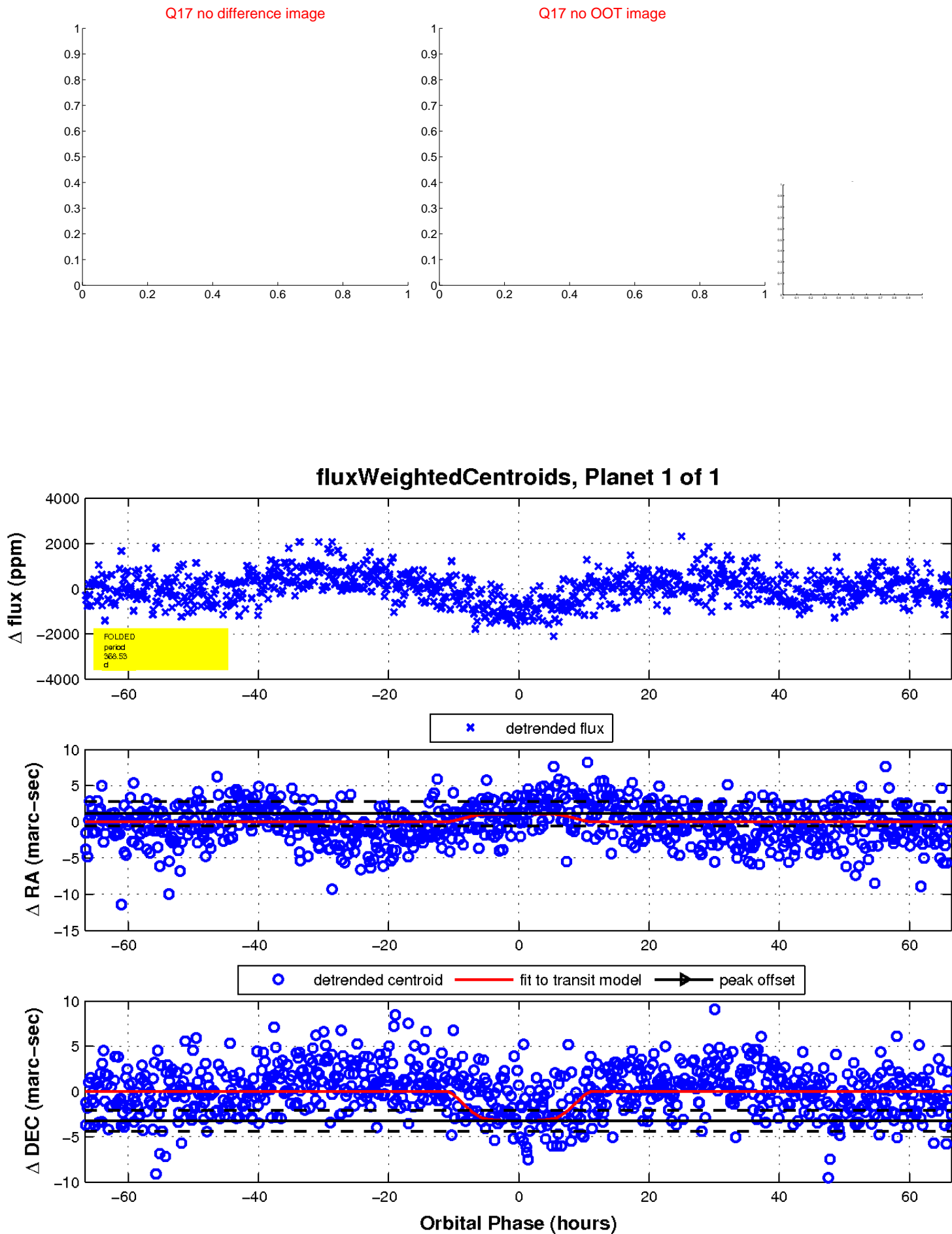
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \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

