

KIC 008019191

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})
008019191-01	OBS	No	382.775056	471.754085	252.6	6.174	9.2	9.3	1.37	6748	2.35	3.12

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008019191-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—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.

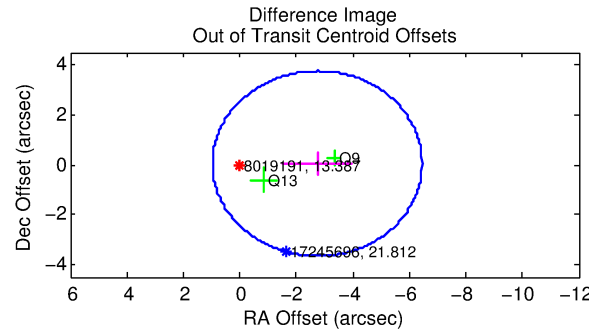
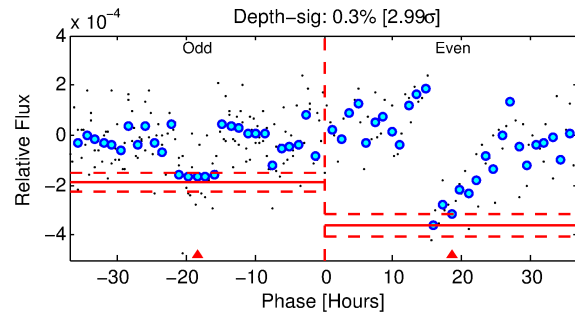
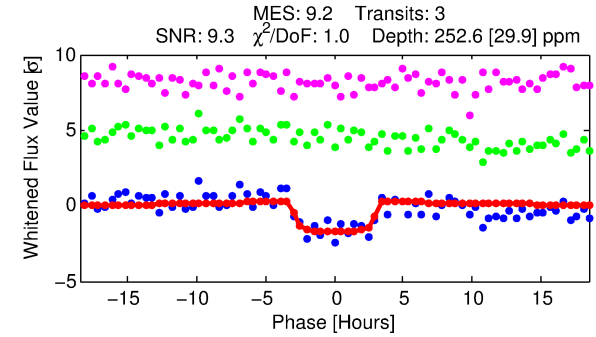
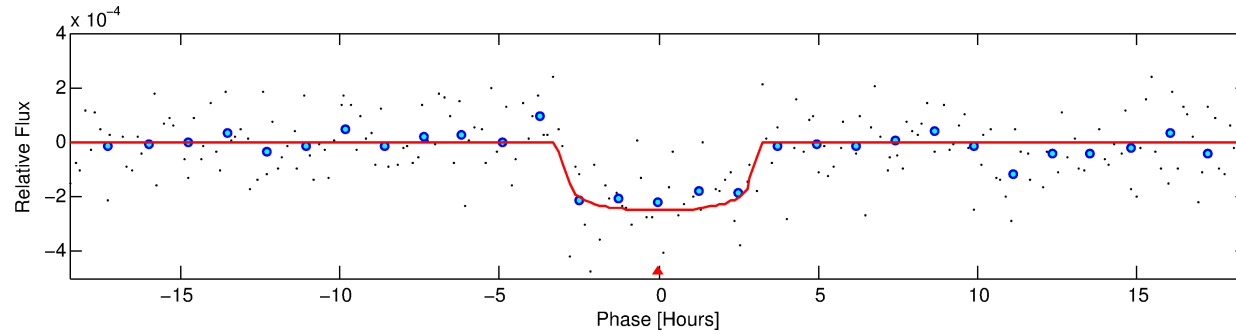
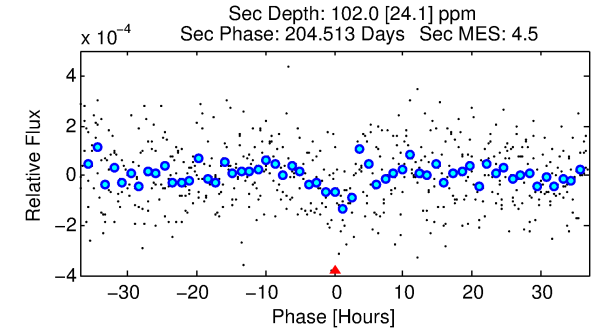
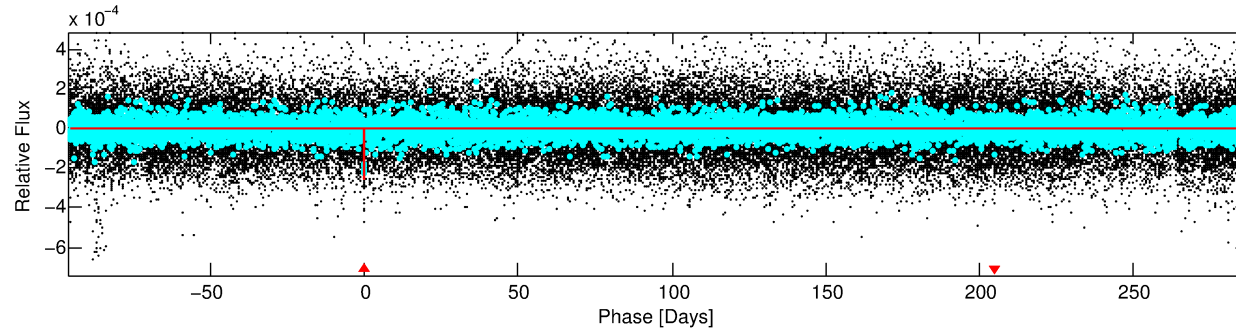
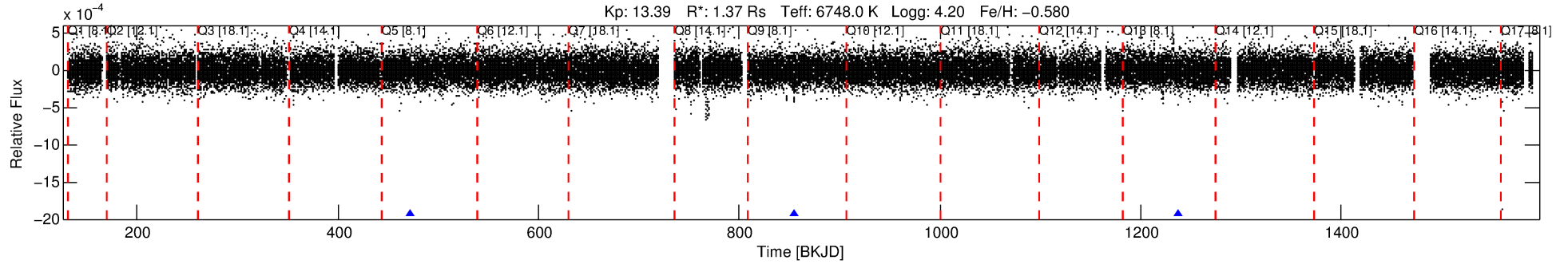
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008019191-01

No Significant Match Found

DV One-Page Summary

KIC: 8019191 Candidate: 1 of 1 Period: 382.775 d



DV Fit Results:

Period = 382.77506 [0.00727] d
Epoch = 471.7541 [0.0089] BKJD
Rp/R* = 0.0157 [0.0130]
a/R* = 339.93 [1634.13]
b = 0.72 [3.25]
Seff = 3.12 [1.18]
Teq = 339 [32] K
Rp = 2.34 [2.05] Re
a = 1.0577 [0.2534] AU
Ag = 11418.11 [19591.02] [0.58σ]
Teffp = 5417 [2280] K [2.23σ]

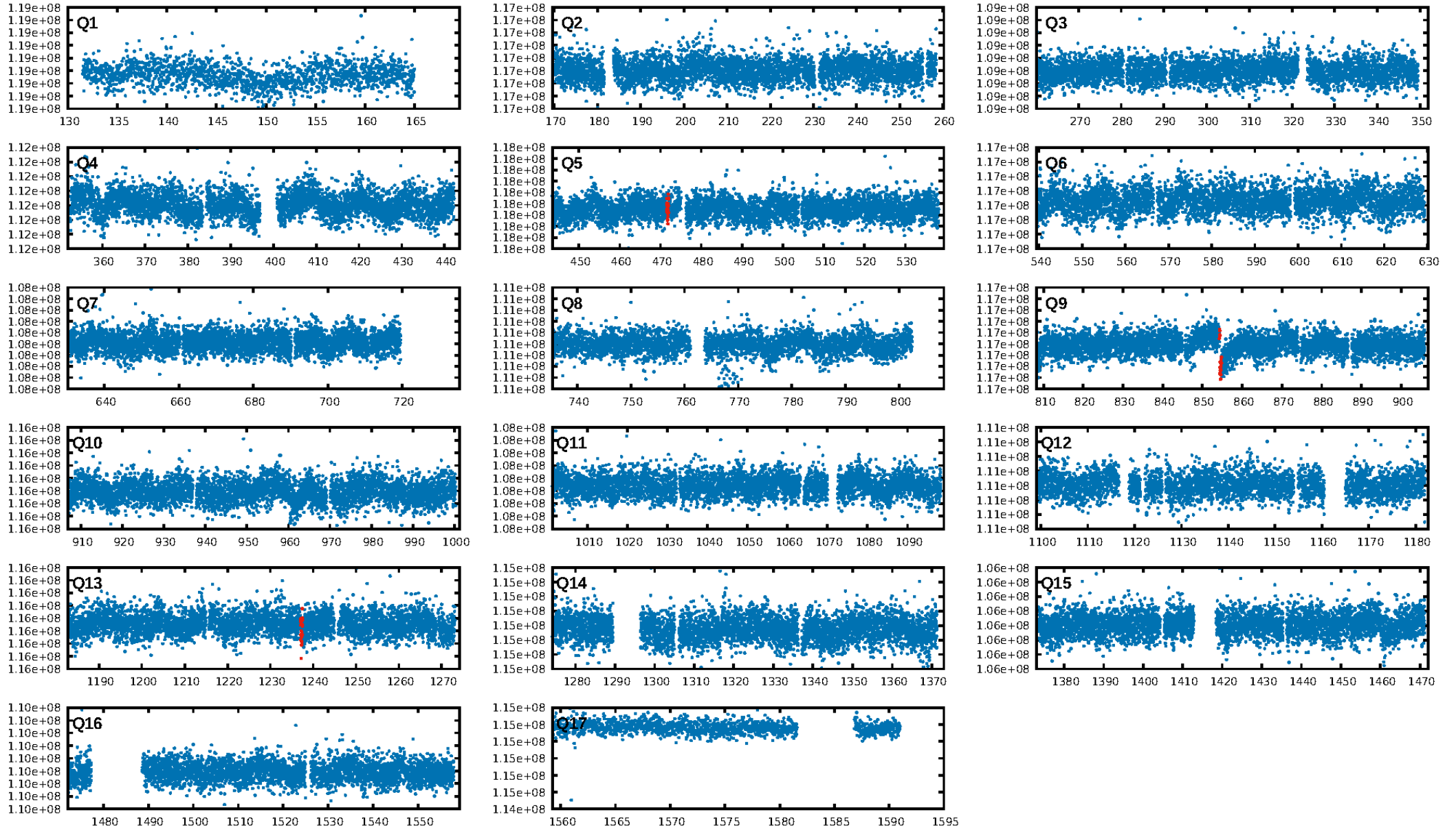
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.4%
ModelChiSquareGof-sig: 95.6%
Bootstrap-pfa: 7.24e-13
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 2.47
Centroid-sig: 60.0%
Centroid-so: 0.844 arcsec [0.79σ]
OotOffset-rm: 2.739 arcsec [2.22σ]
KicOffset-rm: 2.803 arcsec [2.25σ]
OotOffset-st: 0/0/0/2 [2]
KicOffset-st: 0/0/0/2 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [3/3]

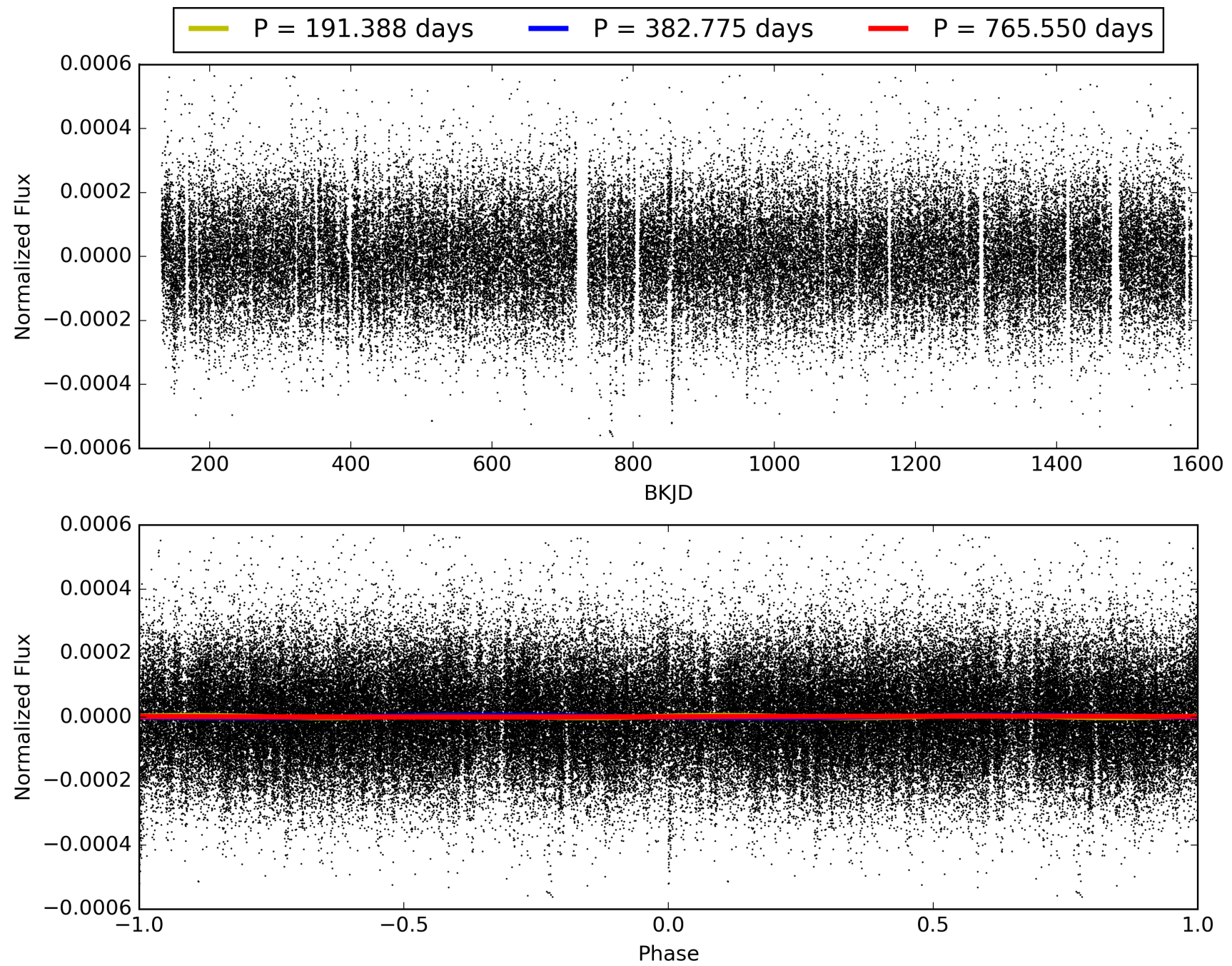
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 21:40:49 Z

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

TCE 008019191-01, PDC Light Curves

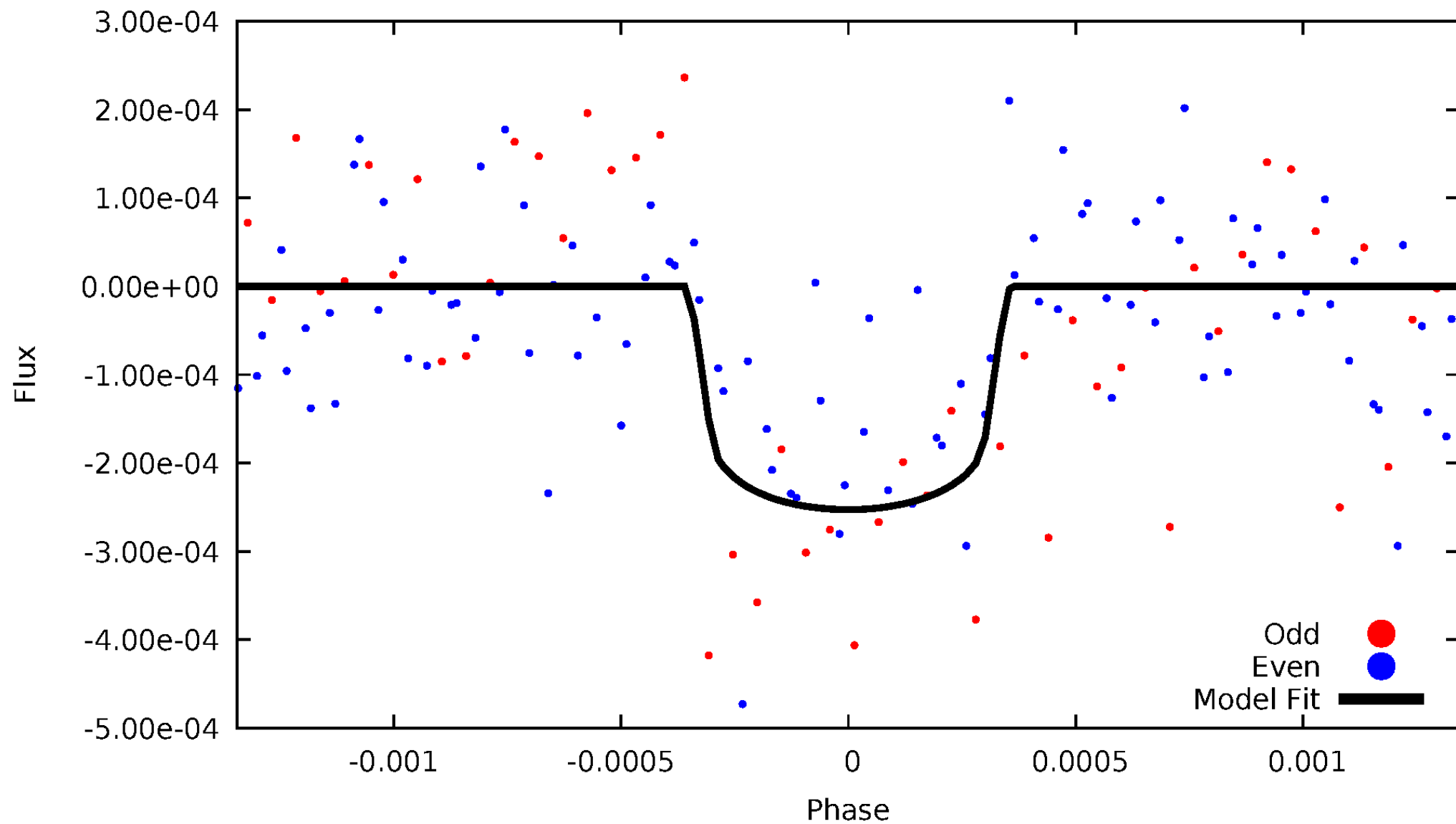


TCE 008019191-01



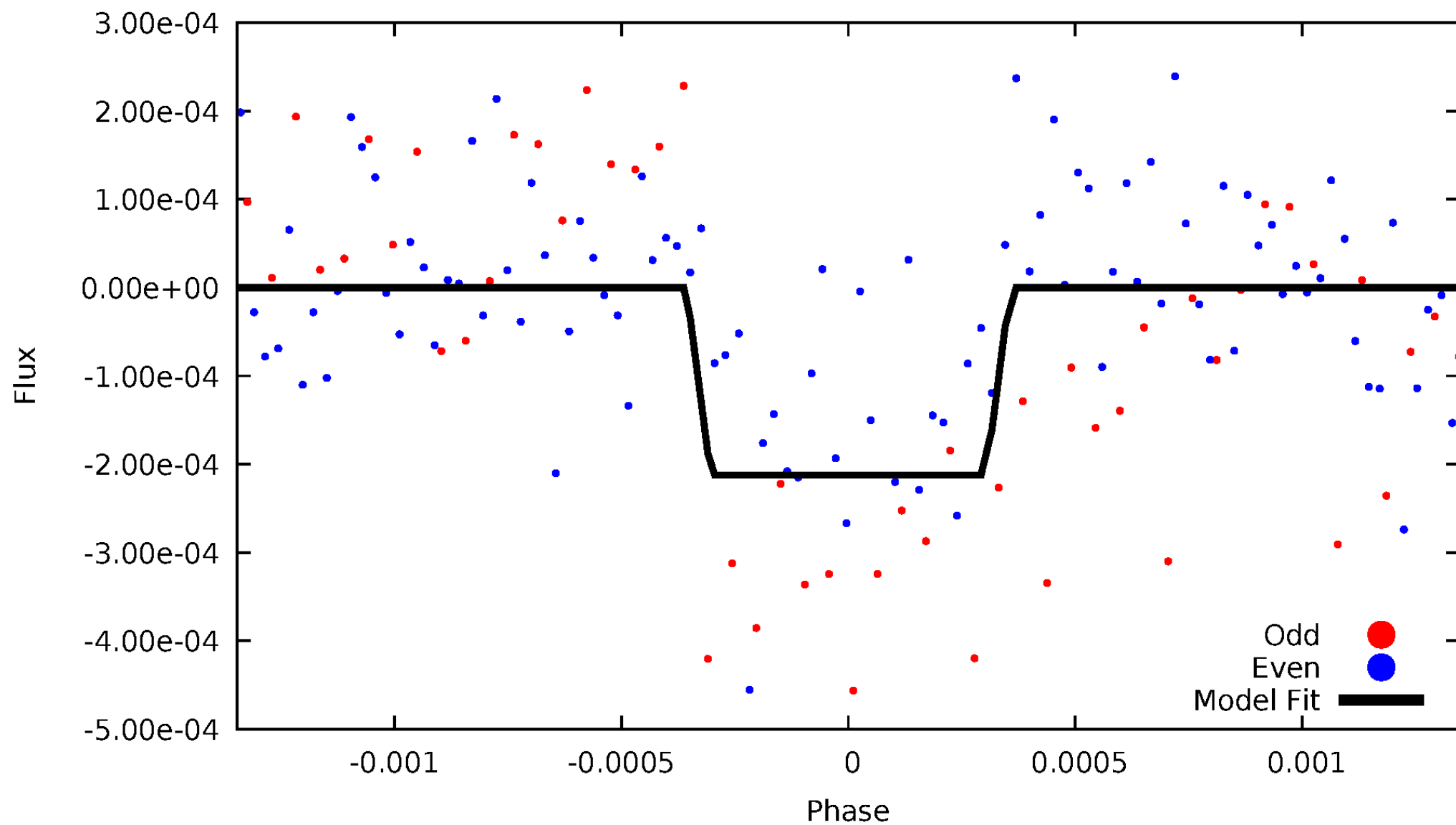
DV Odd/Even

TCE 008019191-01

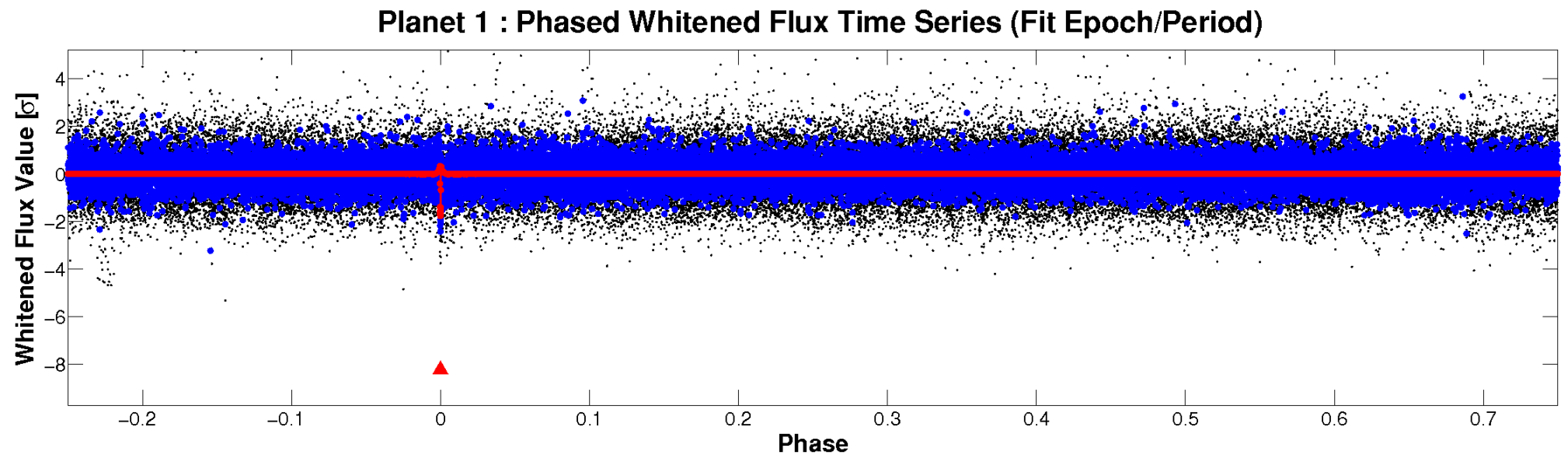
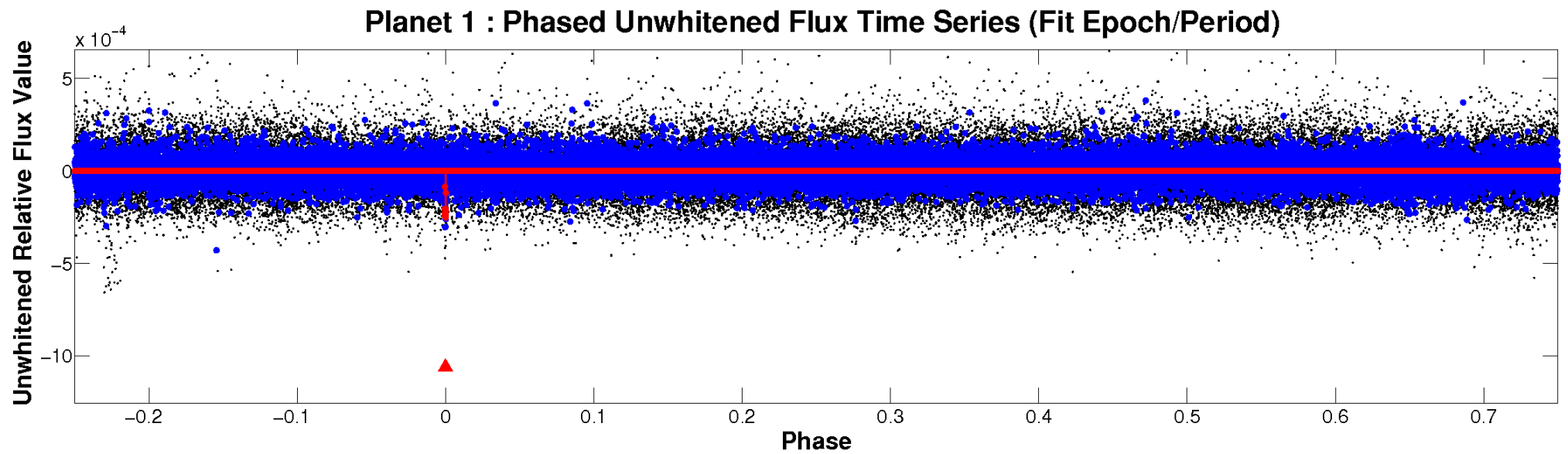


ALT Odd/Even

TCE 008019191-01

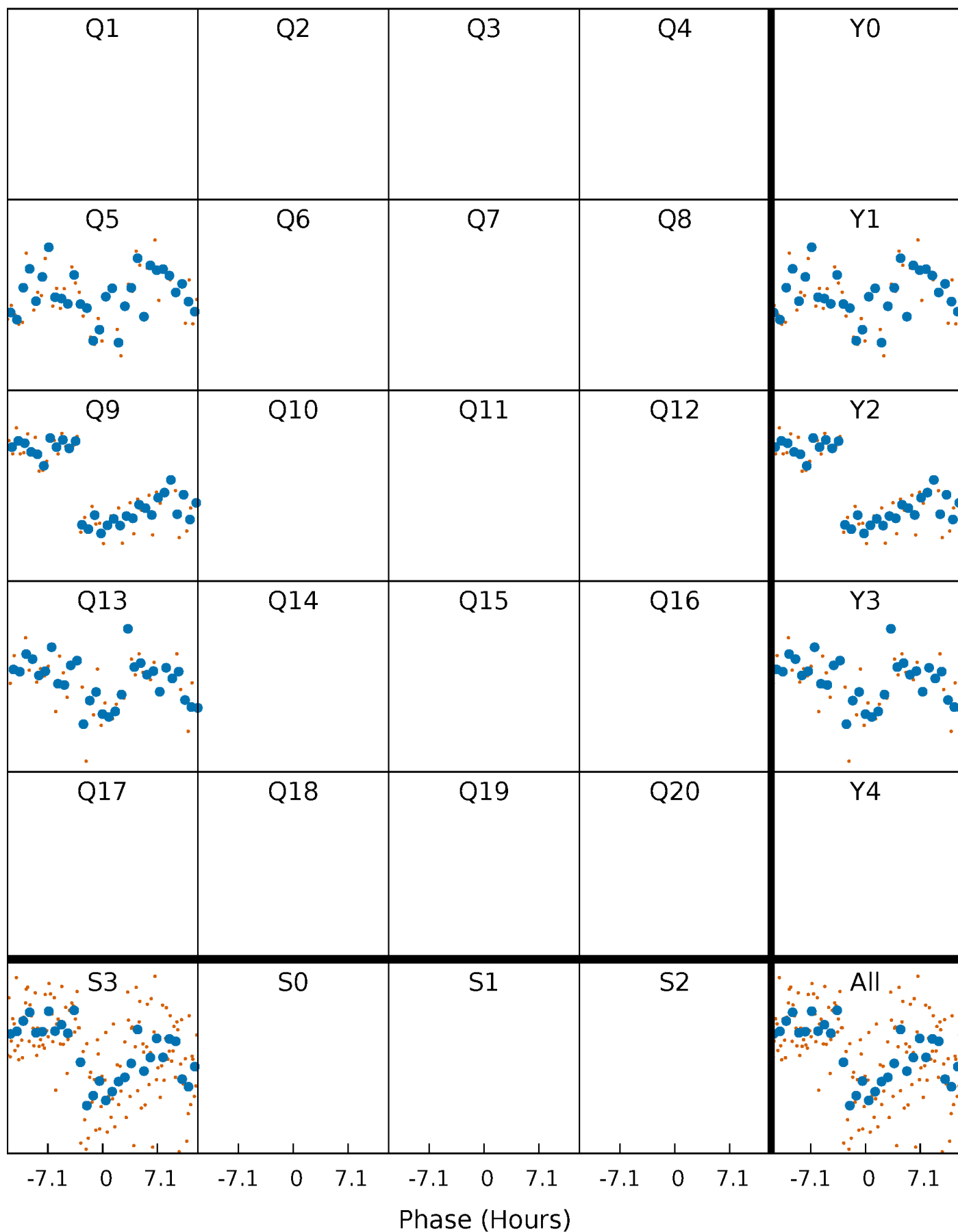


Non-Whitened Vs. Whitened Light Curve



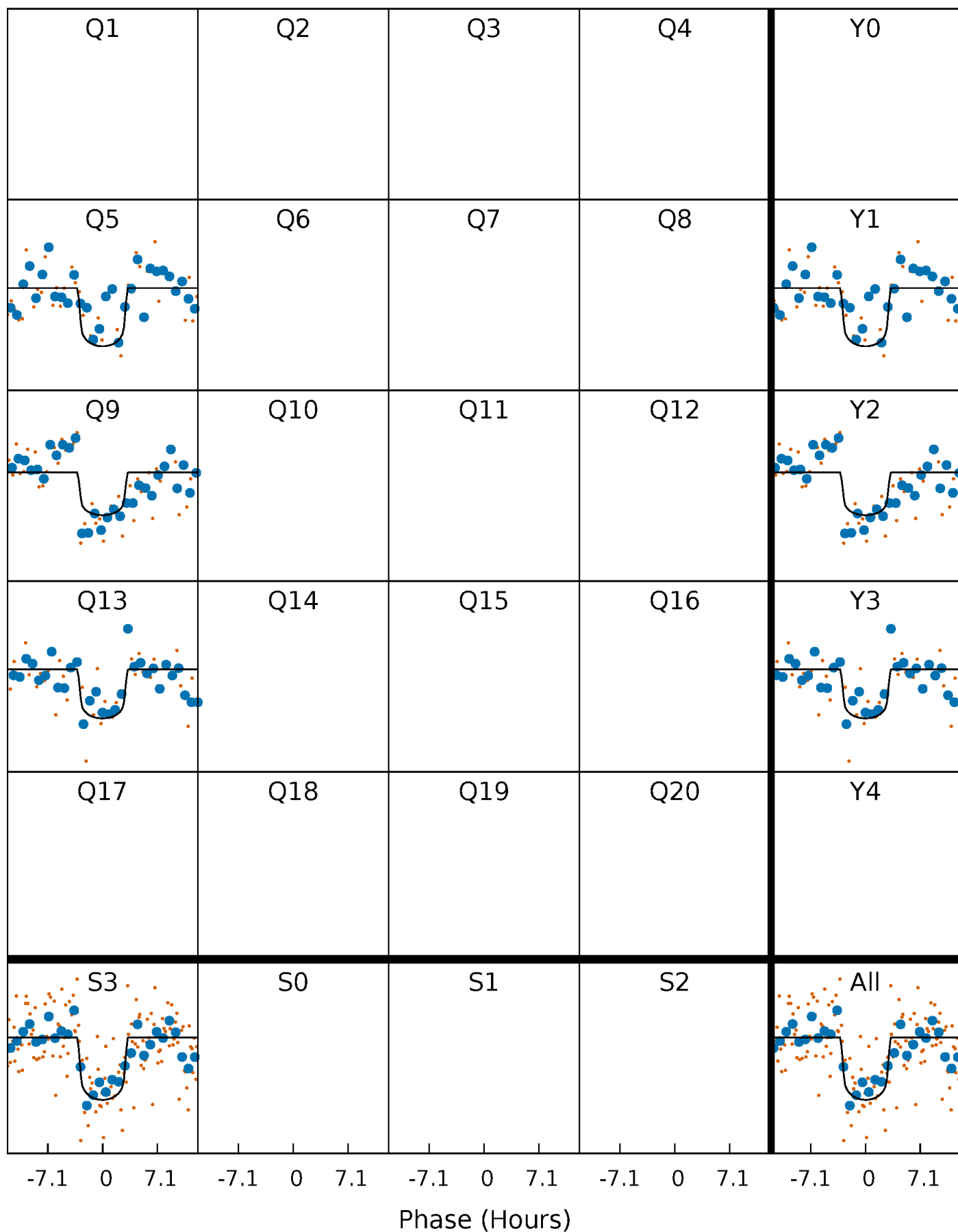
PDC Quarter-Phased Transit Curves

TCE 008019191-01 $P=382.775056$ Days $T_0=471.754085$ (BKJD)



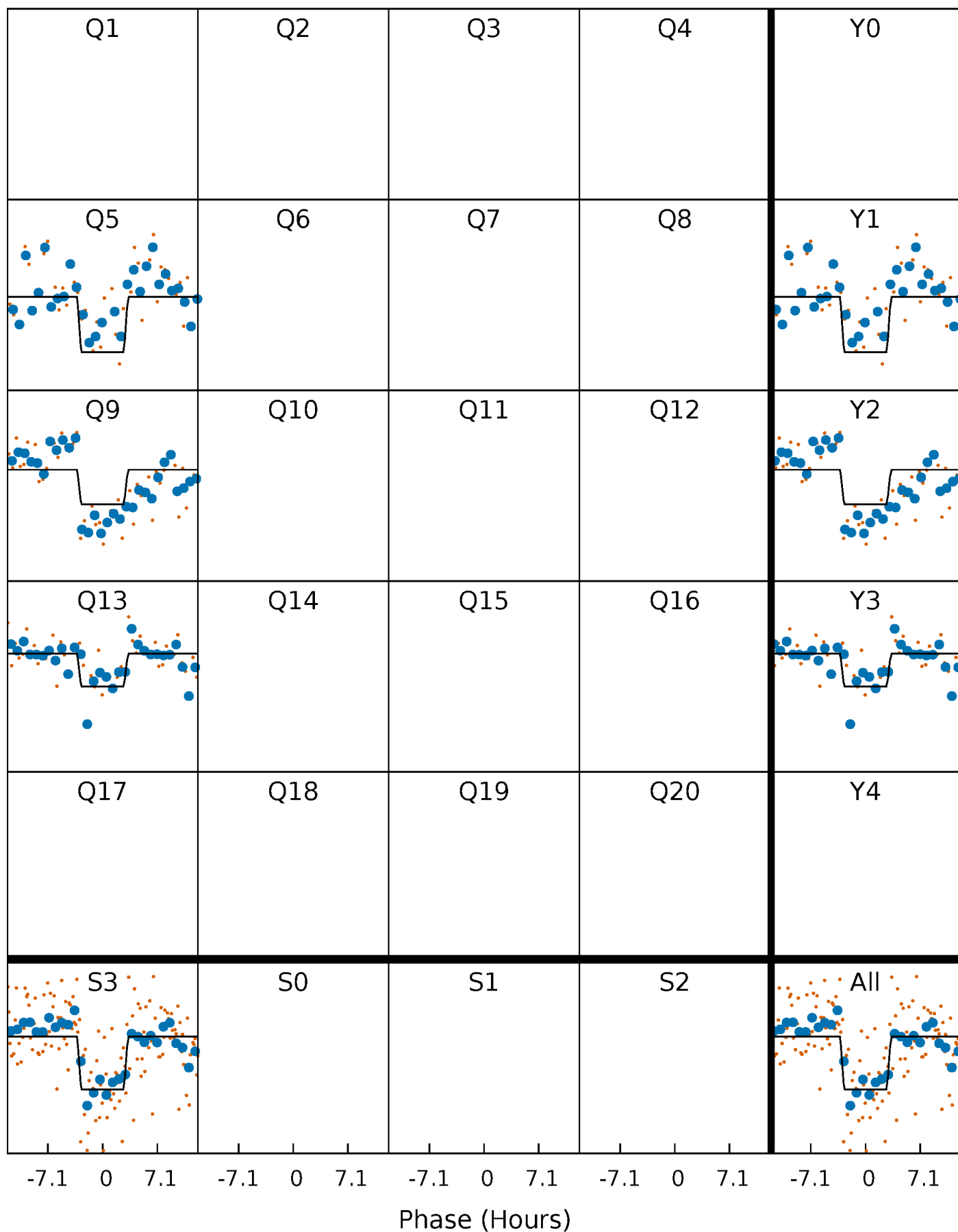
DV Quarter-Phased Transit Curves

TCE 008019191-01 $P=382.775056$ Days $T_0=471.754085$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

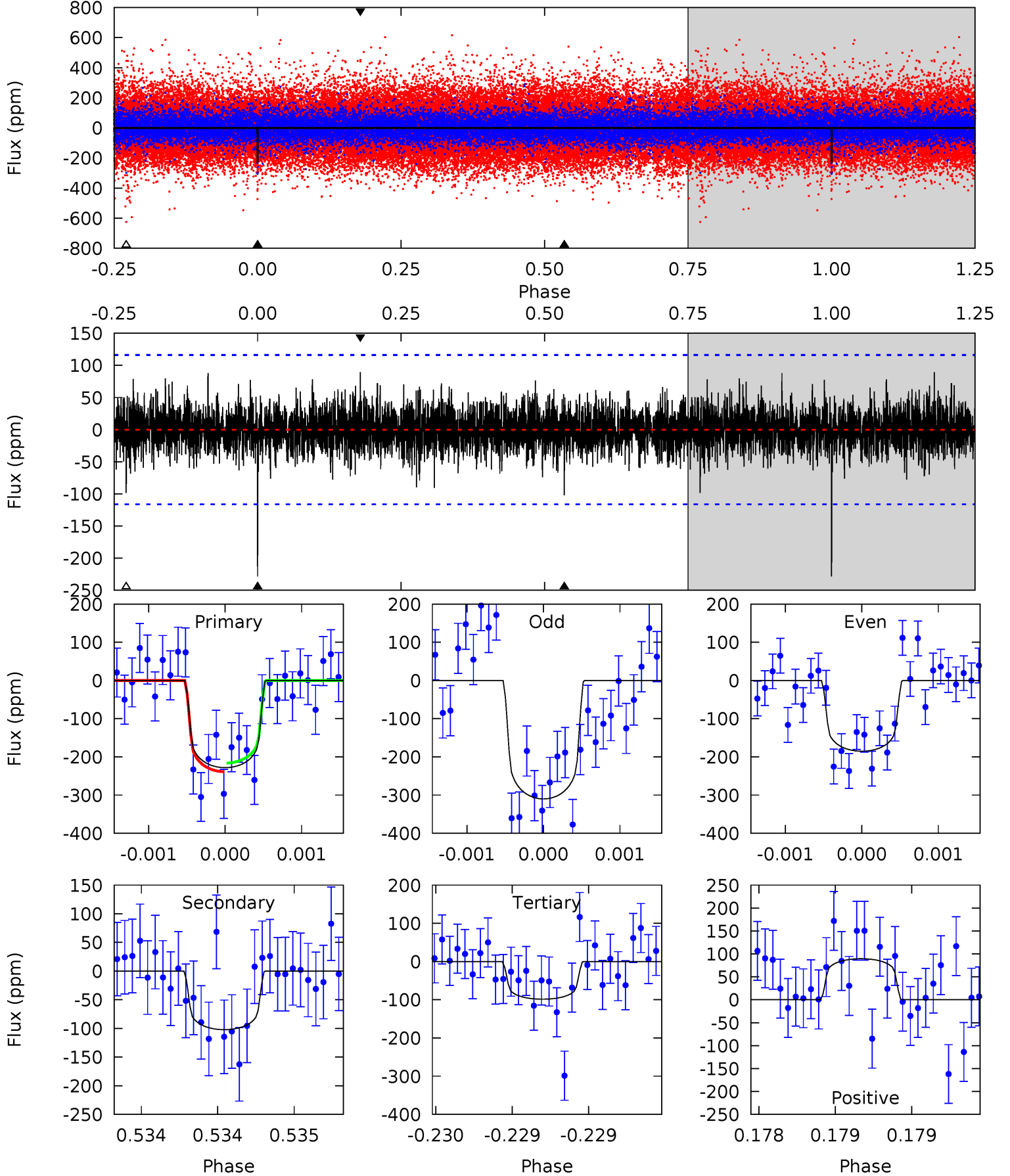
TCE 008019191-01 P=382.768257 Days $T_0=471.761825$ (BKJD)



DV Model-Shift Uniqueness Test

008019191-01, $P = 382.775056$ Days, $E = 88.979029$ Days

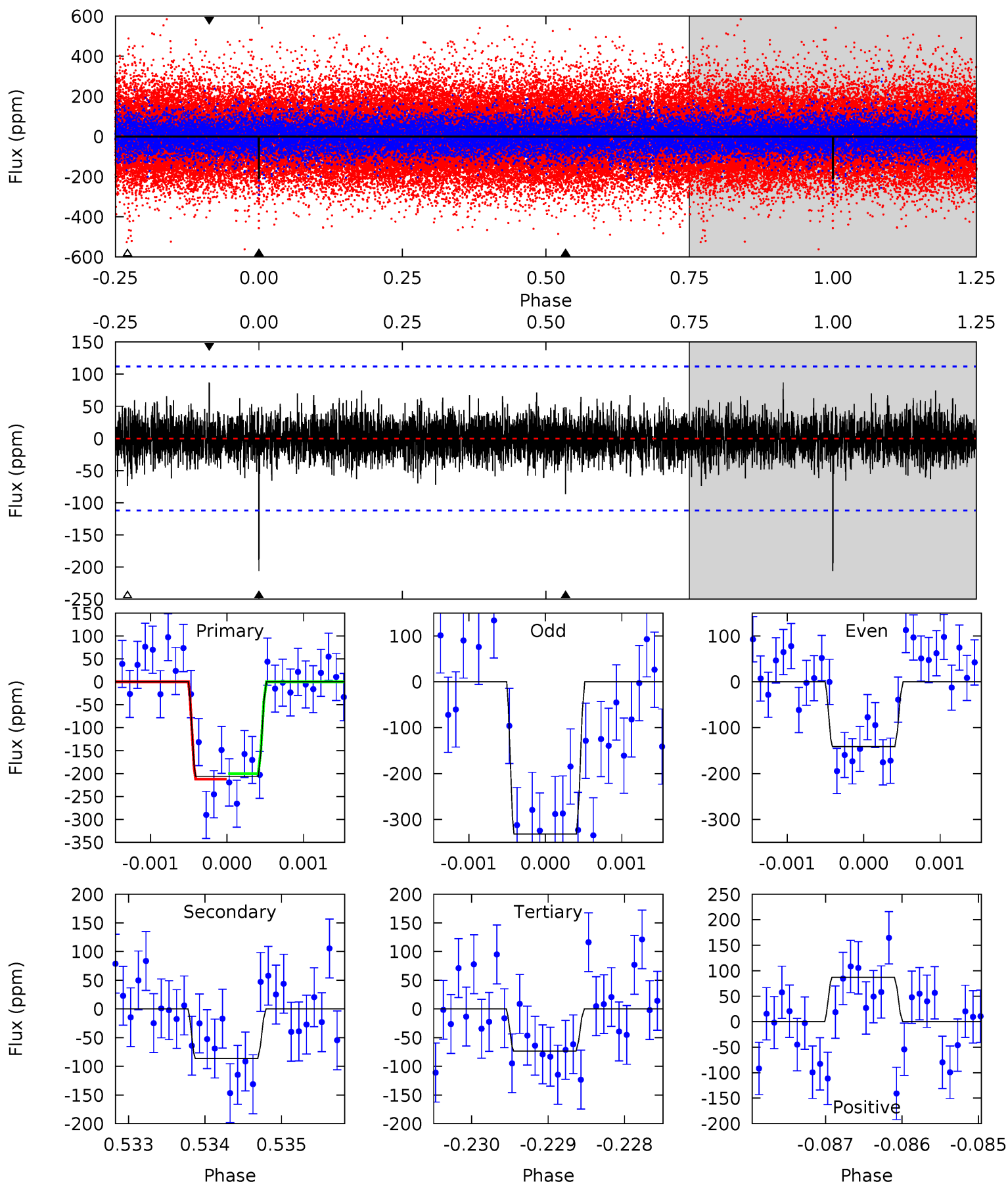
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.8	4.85	4.68	4.25	5.52	3.40	1.09	6.15	6.59	0.17	0.60	2.84	1.09	0.28	0.54



Alt Model-Shift Uniqueness Test

008019191-01, $P = 382.768257$ Days, $E = 88.993568$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.1	4.24	3.61	4.27	5.51	3.38	0.99	6.53	5.87	0.63	-0.03	4.48	1.20	0.30	0.29



Stellar Parameters For KIC 008019191

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6748^{+181}_{-222}	$4.196^{+0.198}_{-0.180}$	$-0.580^{+0.300}_{-0.300}$	$1.371^{+0.381}_{-0.312}$	$1.075^{+0.157}_{-0.114}$	$0.587^{+0.563}_{-0.292}$
	+3%/-3%	+5%/-4%	+52%/-52%	+28%/-23%	+15%/-11%	+96%/-50%
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 008019191-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-102 ± 21	$2.50^{+1.92}_{-1.53}$	471^{+37}_{-36}	5262^{+3518}_{-1085}	10068^{+61563}_{-6982}
Alt.	-86 ± 20	$2.45^{+2.03}_{-1.50}$	472^{+37}_{-32}	5139^{+3118}_{-1130}	8831^{+49136}_{-6385}

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

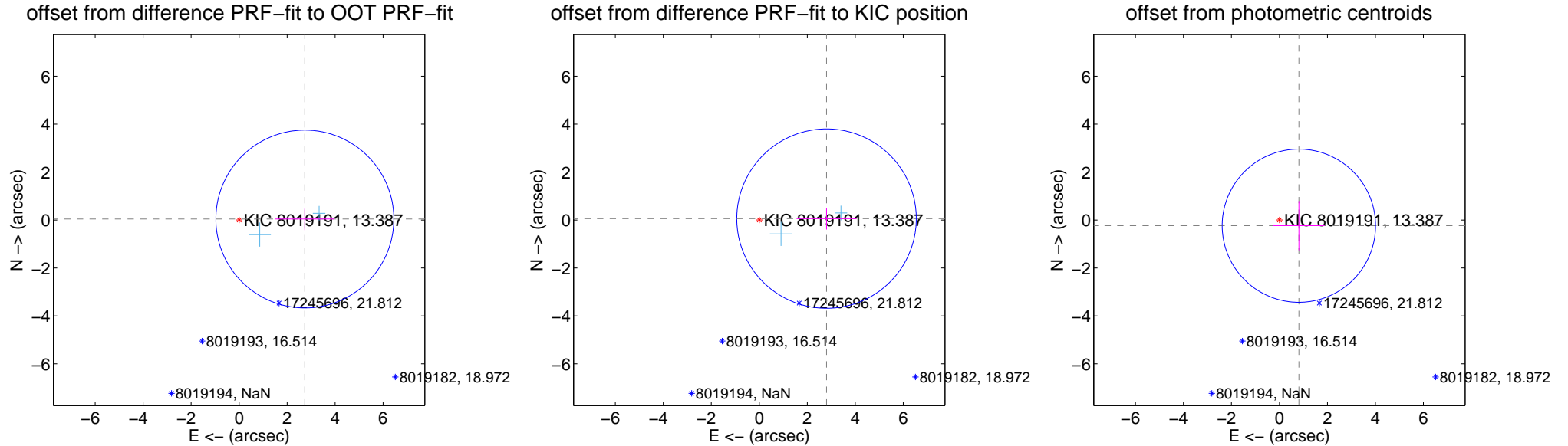
DV Centroid Data

Supplemental centroid analysis for 008019191-01. Kepler magnitude: 13.39. Transit SNR 9.27

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	2.739 ± 1.236	2.22	-2.739 ± 1.236	0.041 ± 0.466
PRF-fit source offset from KIC position	2.803 ± 1.247	2.25	-2.803 ± 1.247	0.058 ± 0.457
photometric centroid source offset	0.84 ± 1.07	0.79	-0.81 ± 1.07	-0.24 ± 1.03

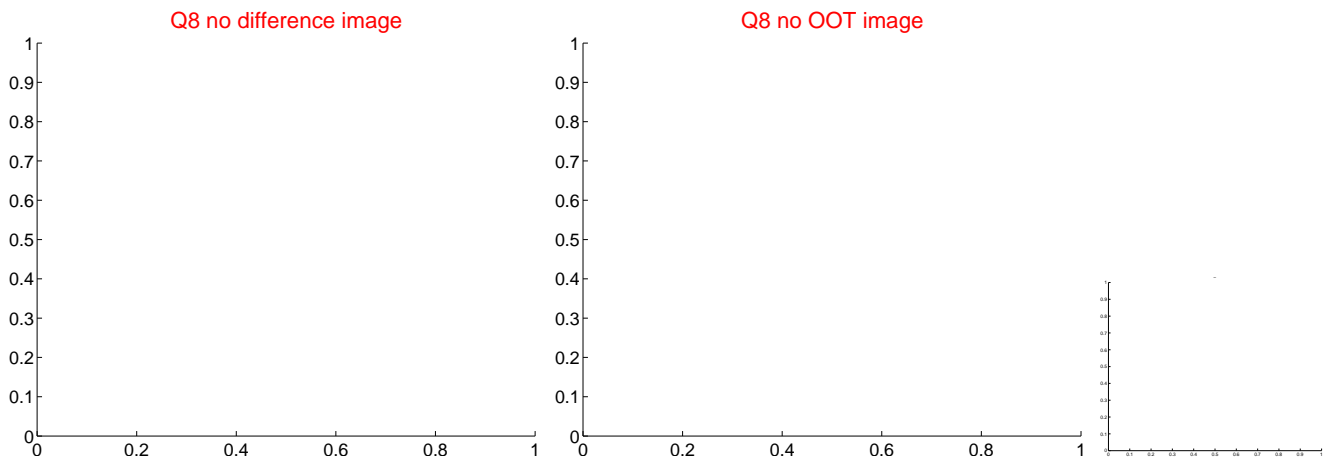
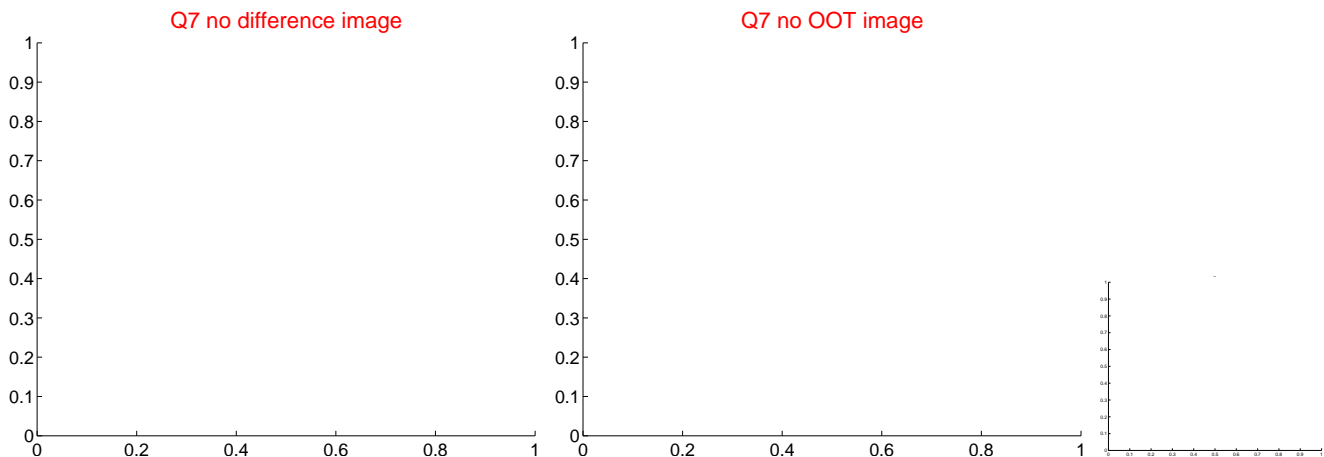
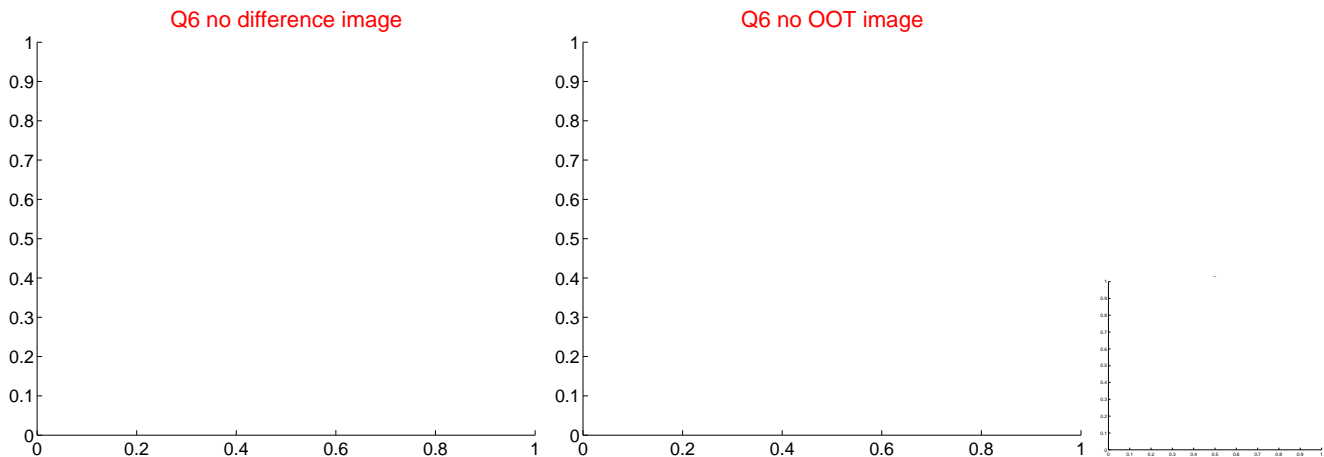
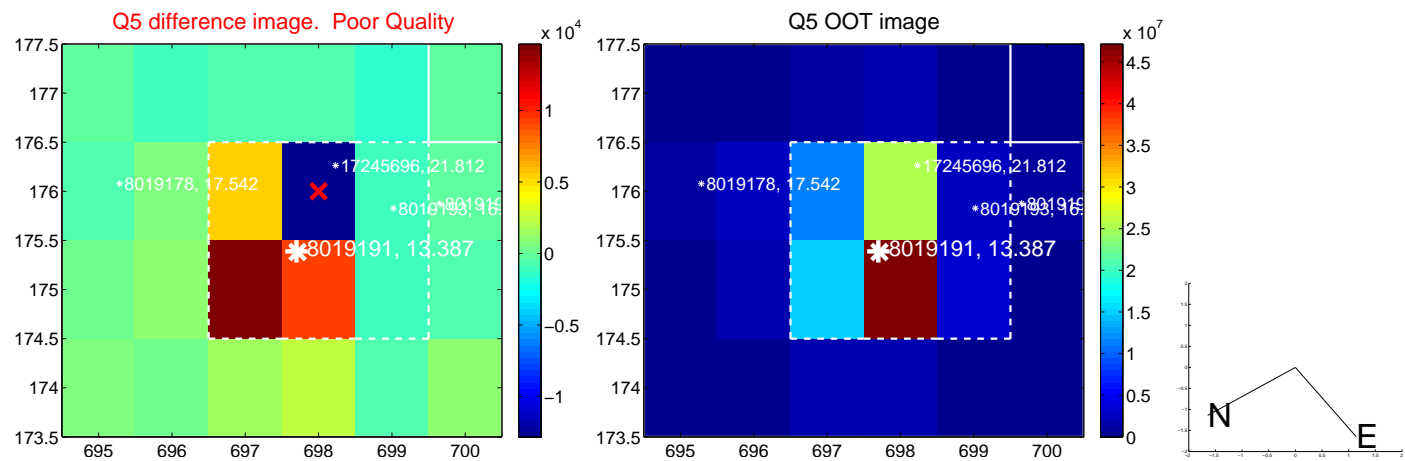


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

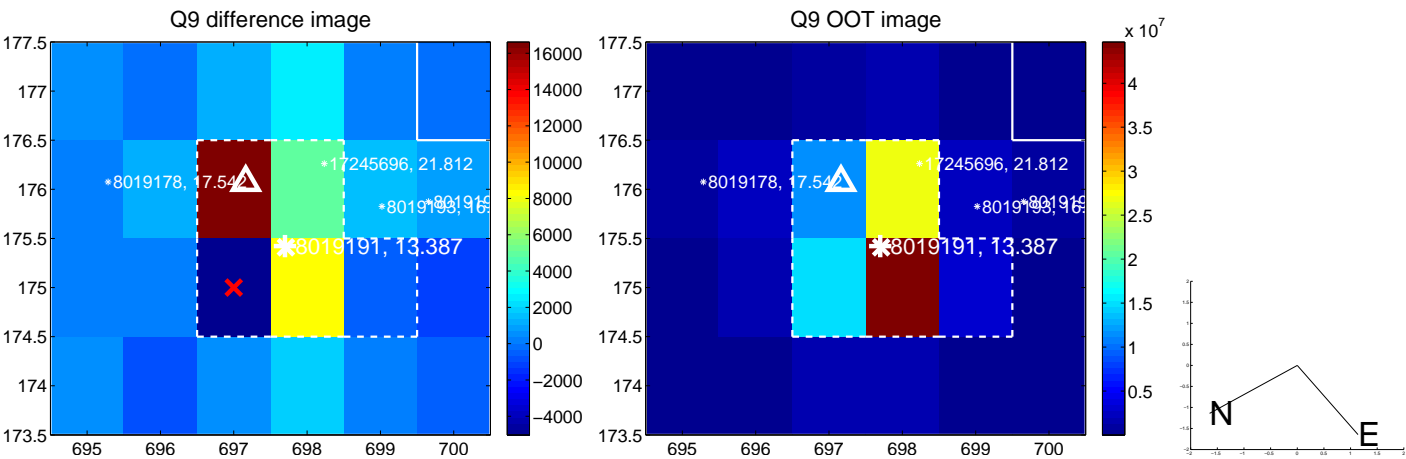
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



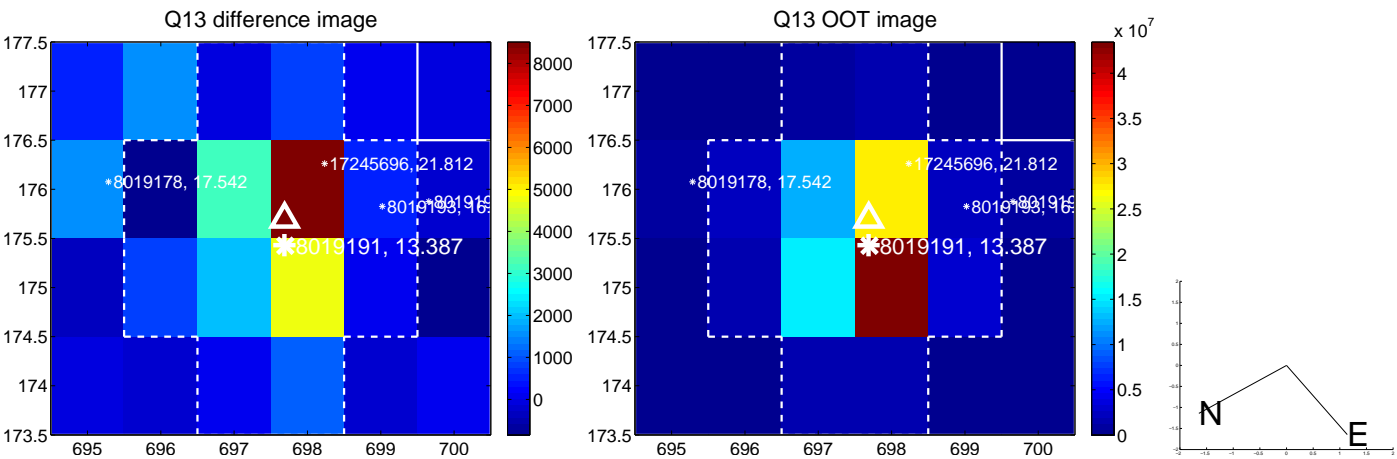
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



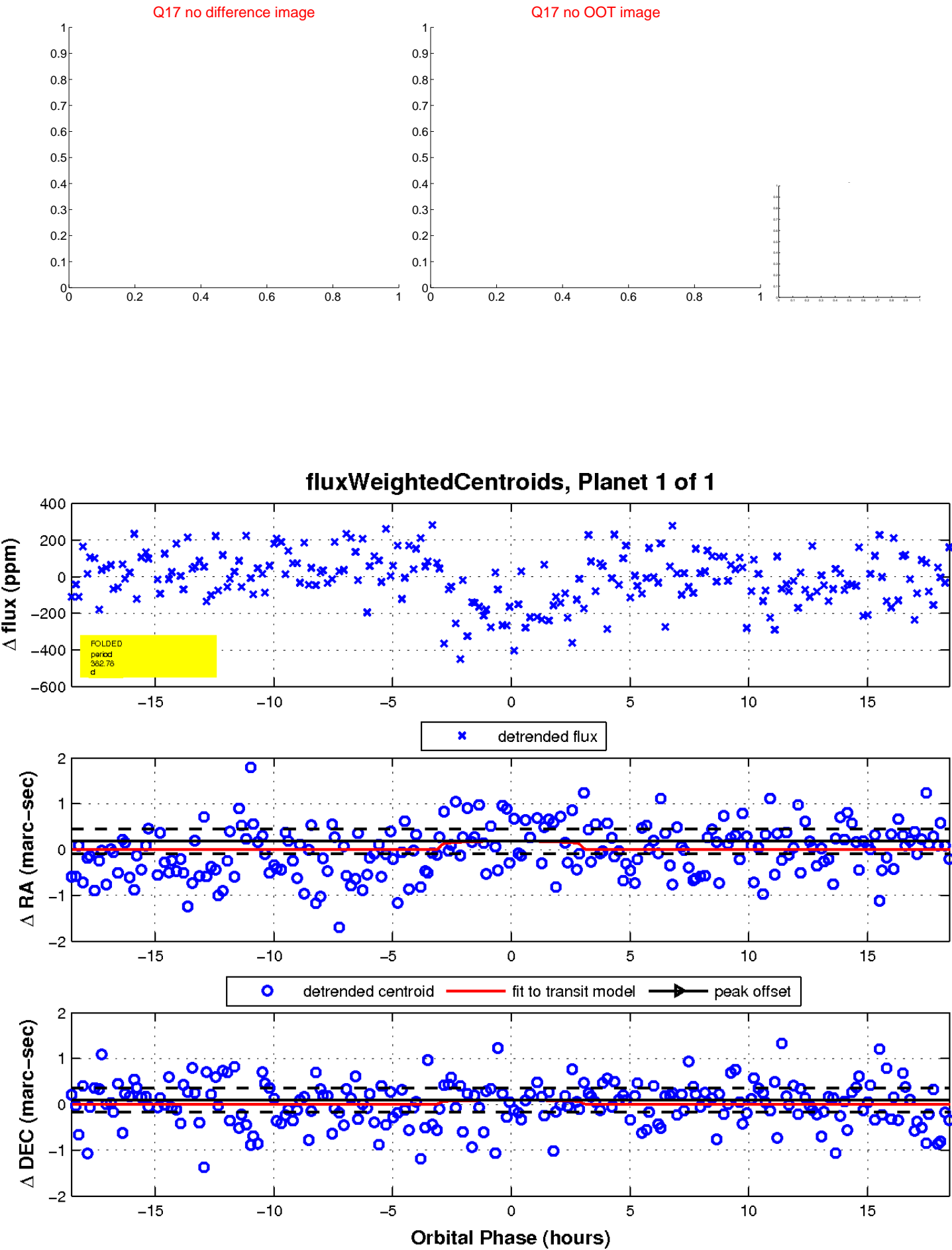
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

