

KIC 011047115

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})
011047115-01	OBS	No	380.694518	450.987849	1624.5	4.691	13.3	5.7	0.73	4522	3.12	0.23

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011047115-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_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.

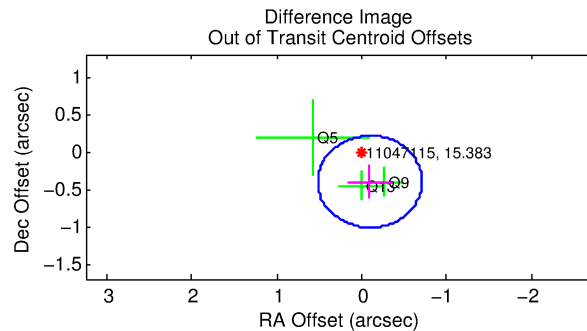
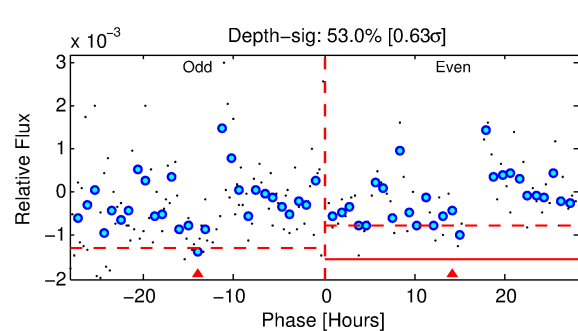
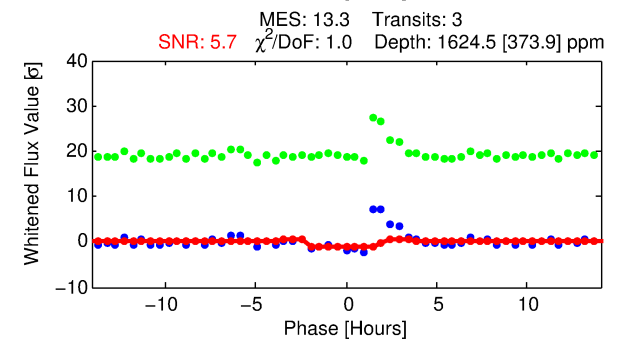
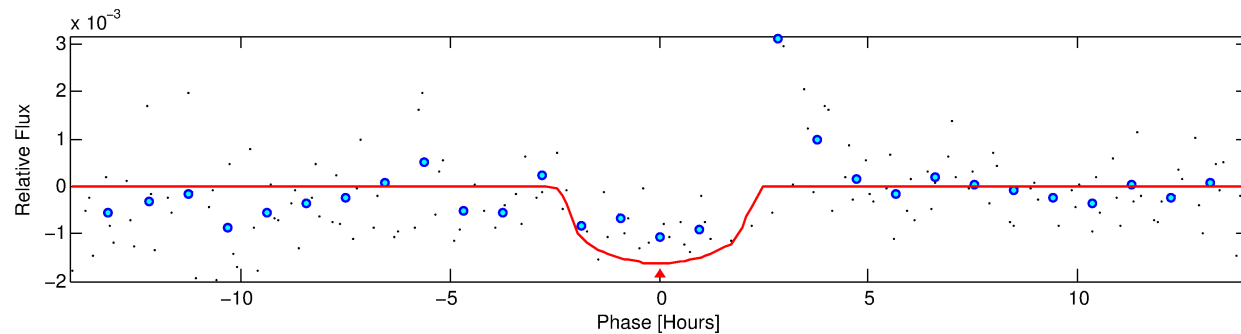
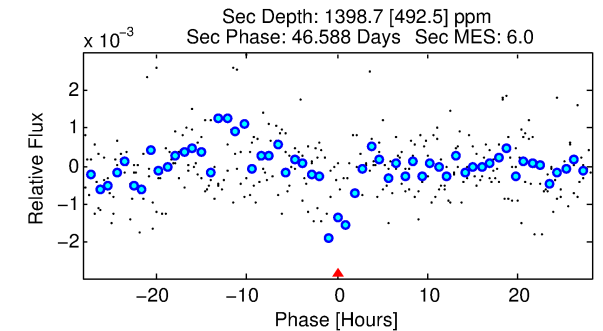
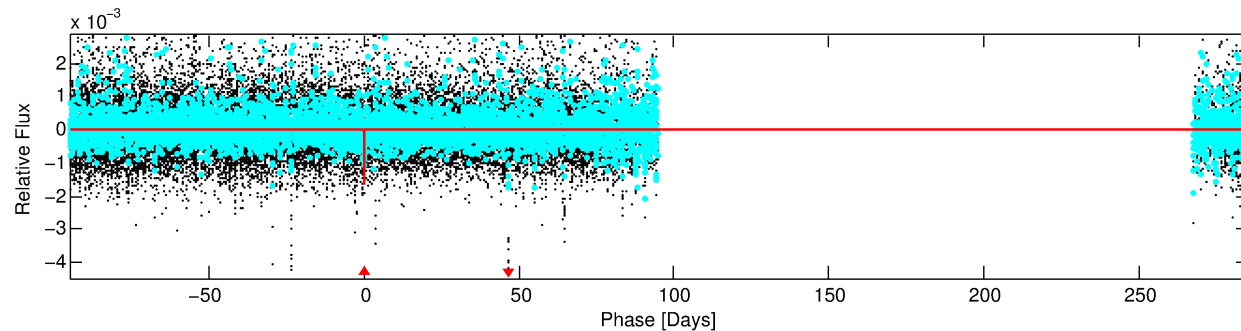
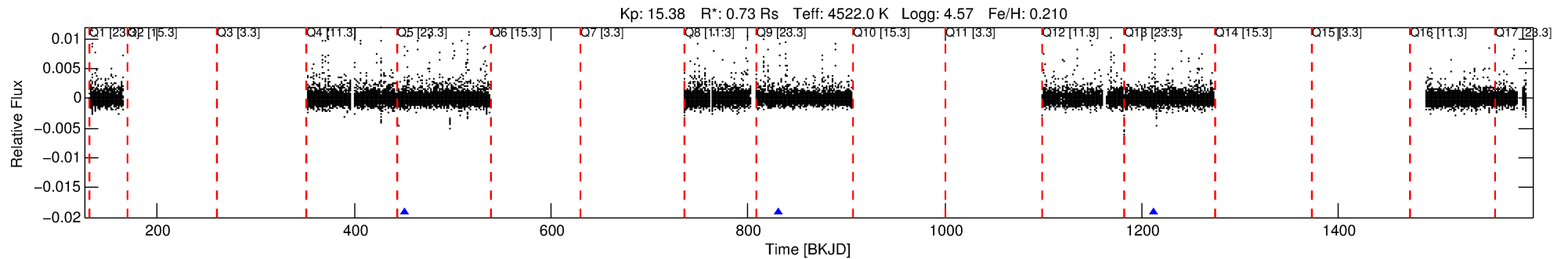
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011047115-01

No Significant Match Found

DV One-Page Summary

KIC: 11047115 Candidate: 1 of 1 Period: 380.695 d



DV Fit Results:

Period = 380.69452 [0.01172] d
Epoch = 450.9878 [0.0189] BKJD
Rp/R* = 0.0393 [0.0456]
a/R* = 481.48 [1662.70]
b = 0.69 [2.70]
Seff = 0.23 [0.04]
Teq = 177 [8] K
Rp = 3.12 [3.64] Re
a = 0.9217 [0.0673] AU
Ag = 66984.85 [157496.91] [0.43σ]
Teff = 4413 [2596] K [1.63σ]

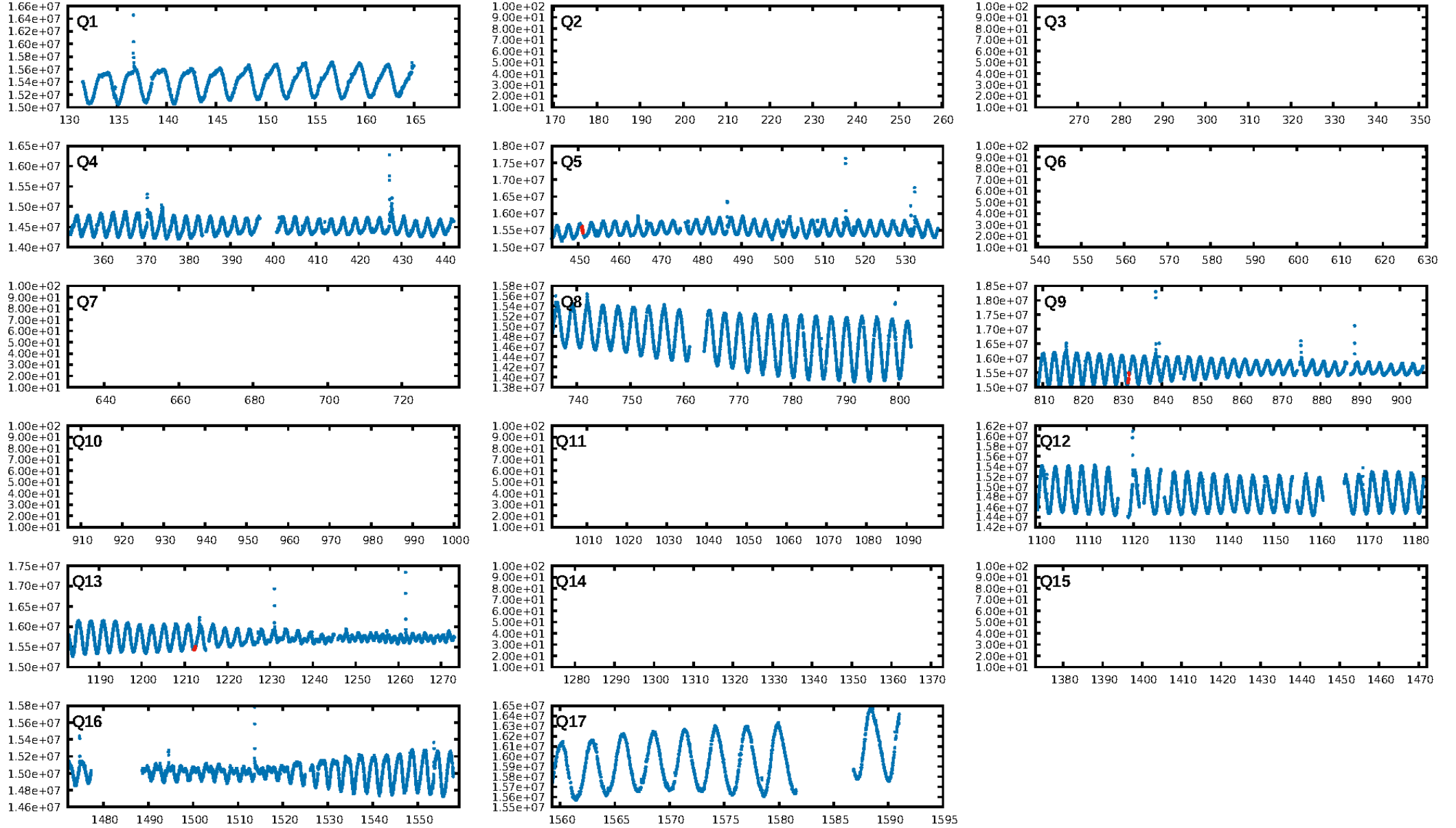
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 1.1%
ModelChiSquareGof-sig: 99.1%
Bootstrap-pfa: 1.90e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -1.637
Centroid-sig: 0.9%
Centroid-so: 2.401 arcsec [1.76σ]
OotOffset-rm: 0.413 arcsec [2.02σ]
KicOffset-rm: 0.237 arcsec [1.16σ]
OotOffset-st: 0/0/0/3 [3]
KicOffset-st: 0/0/0/3 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

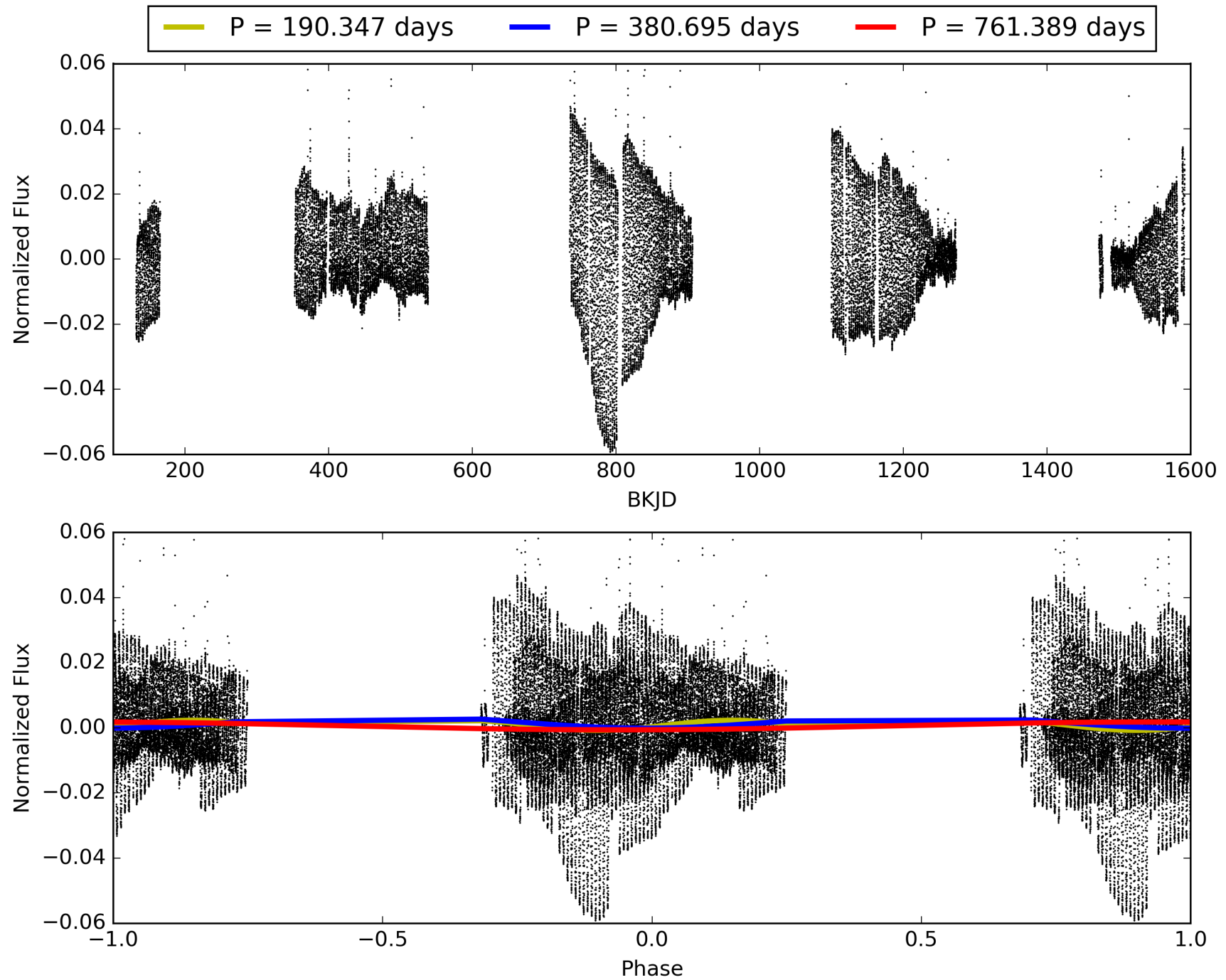
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 01:45:07 Z

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

TCE 011047115-01, PDC Light Curves

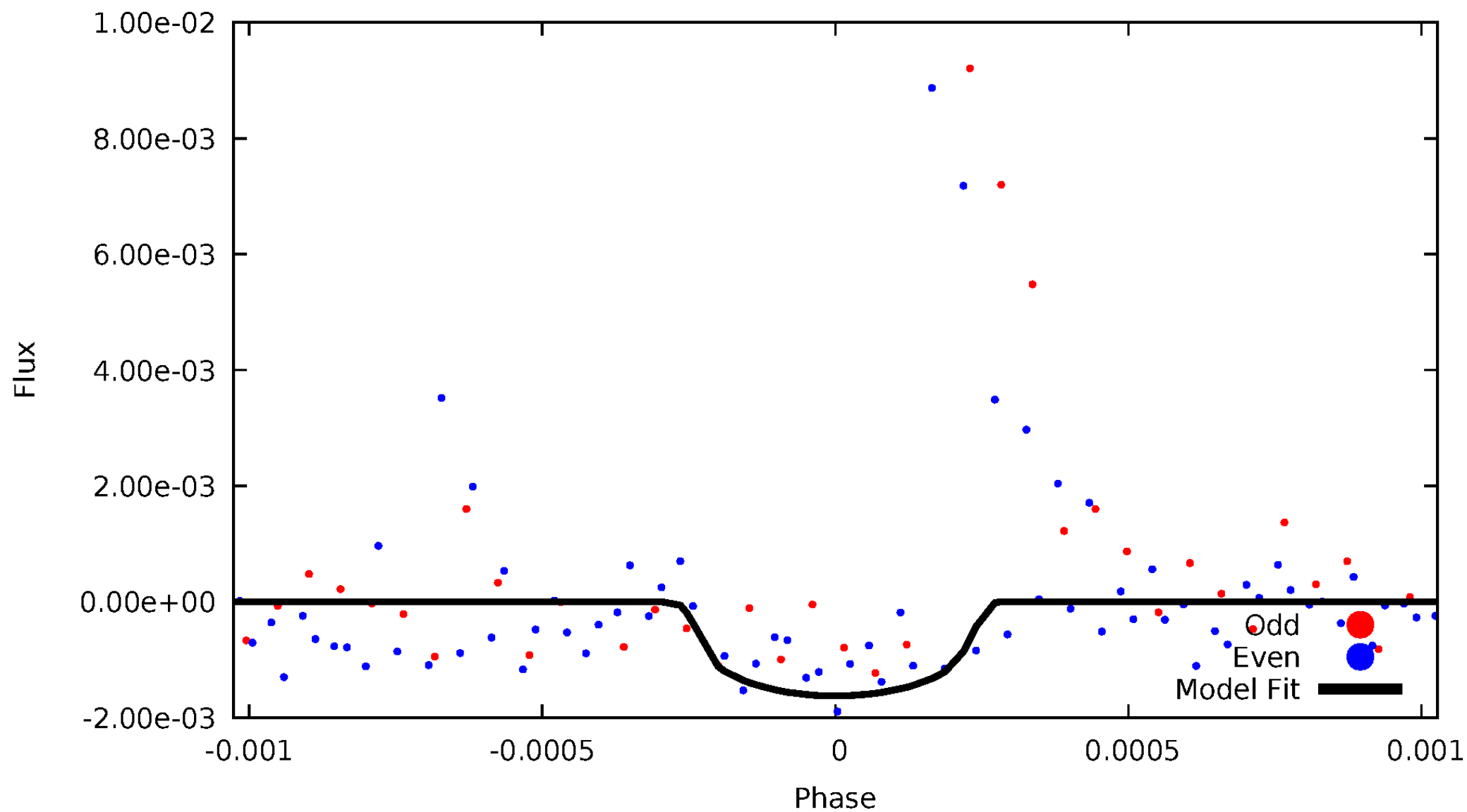


TCE 011047115-01



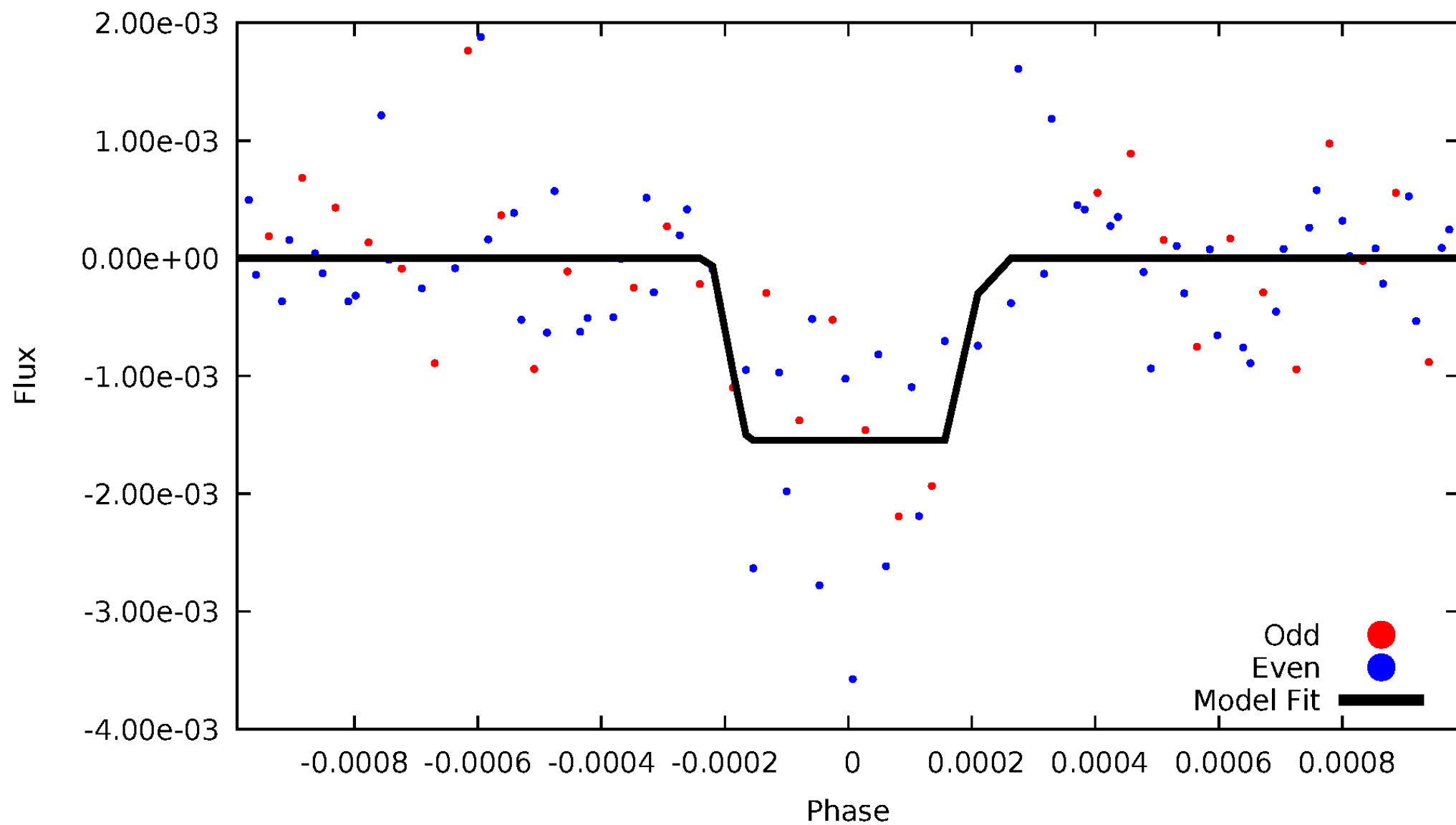
DV Odd/Even

TCE 011047115-01



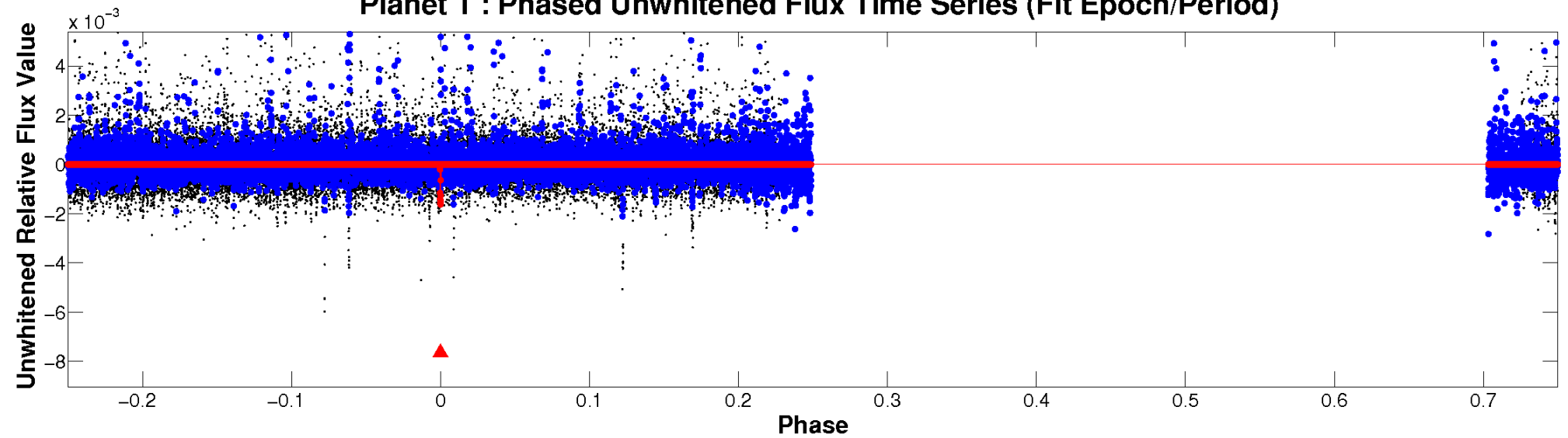
ALT Odd/Even

TCE 011047115-01

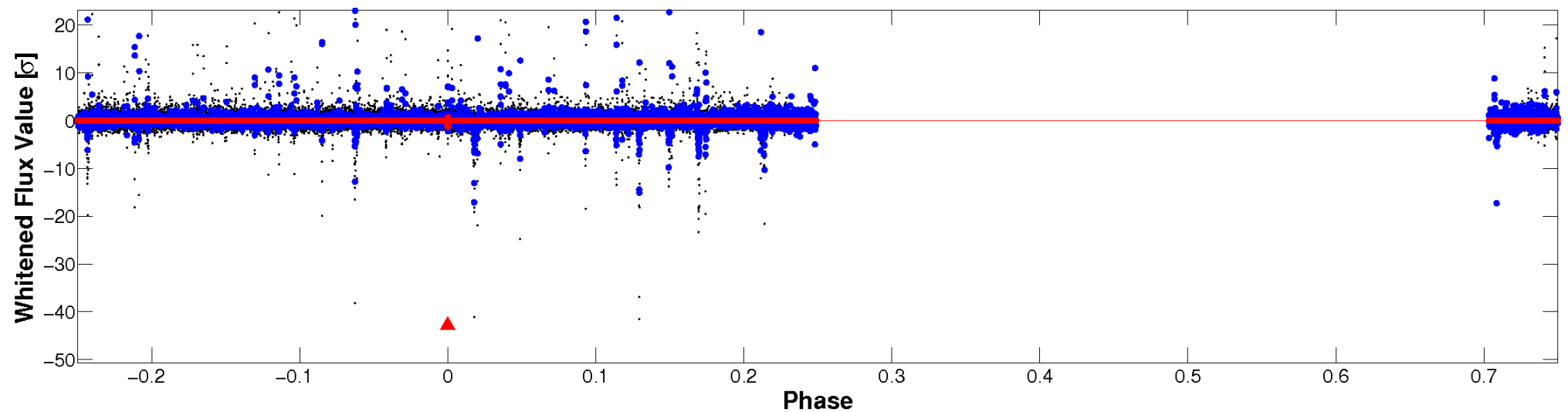


Non-Whitened Vs. Whitened Light Curve

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

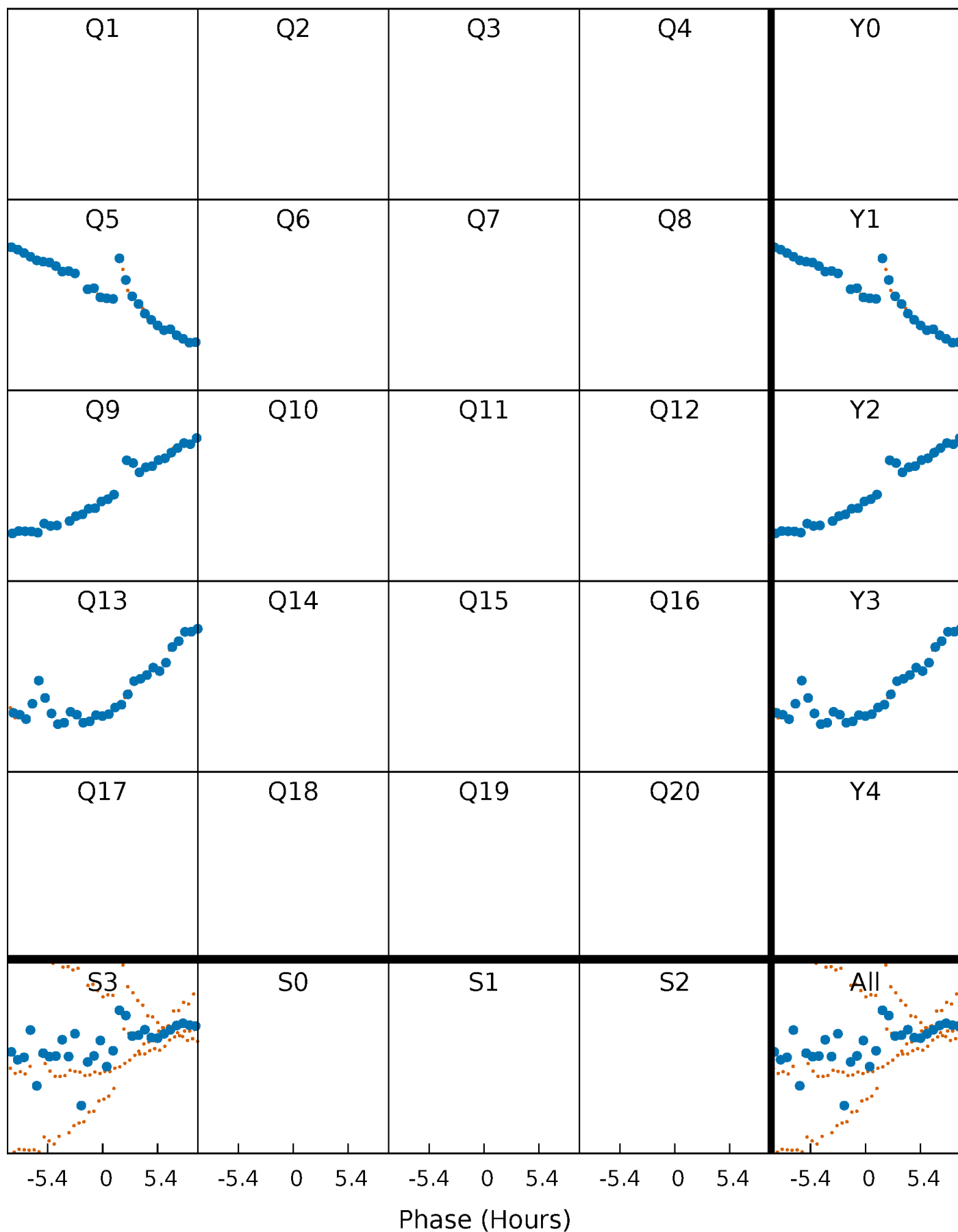


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



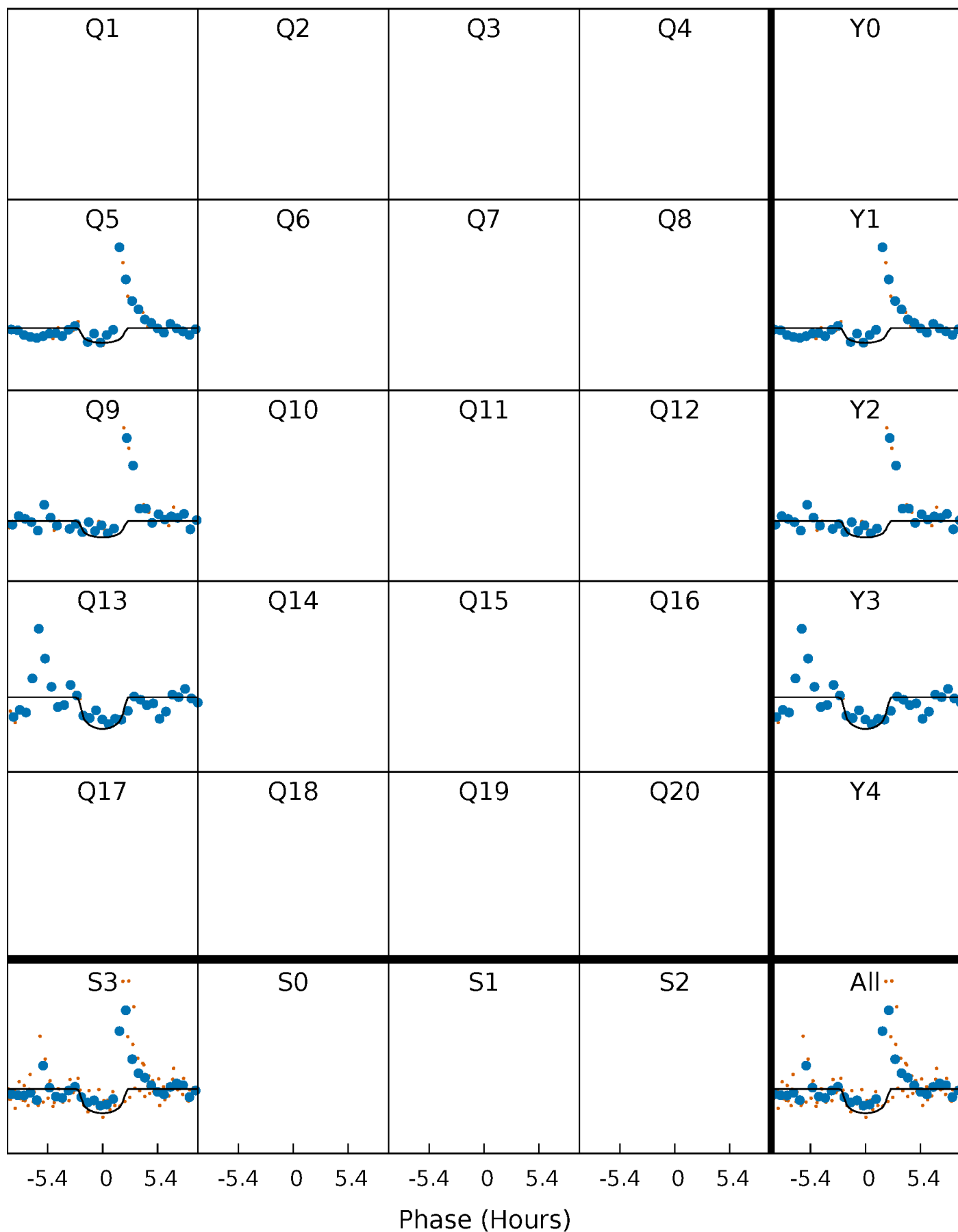
PDC Quarter-Phased Transit Curves

TCE 011047115-01 P=380.694518 Days $T_0=450.987849$ (BKJD)



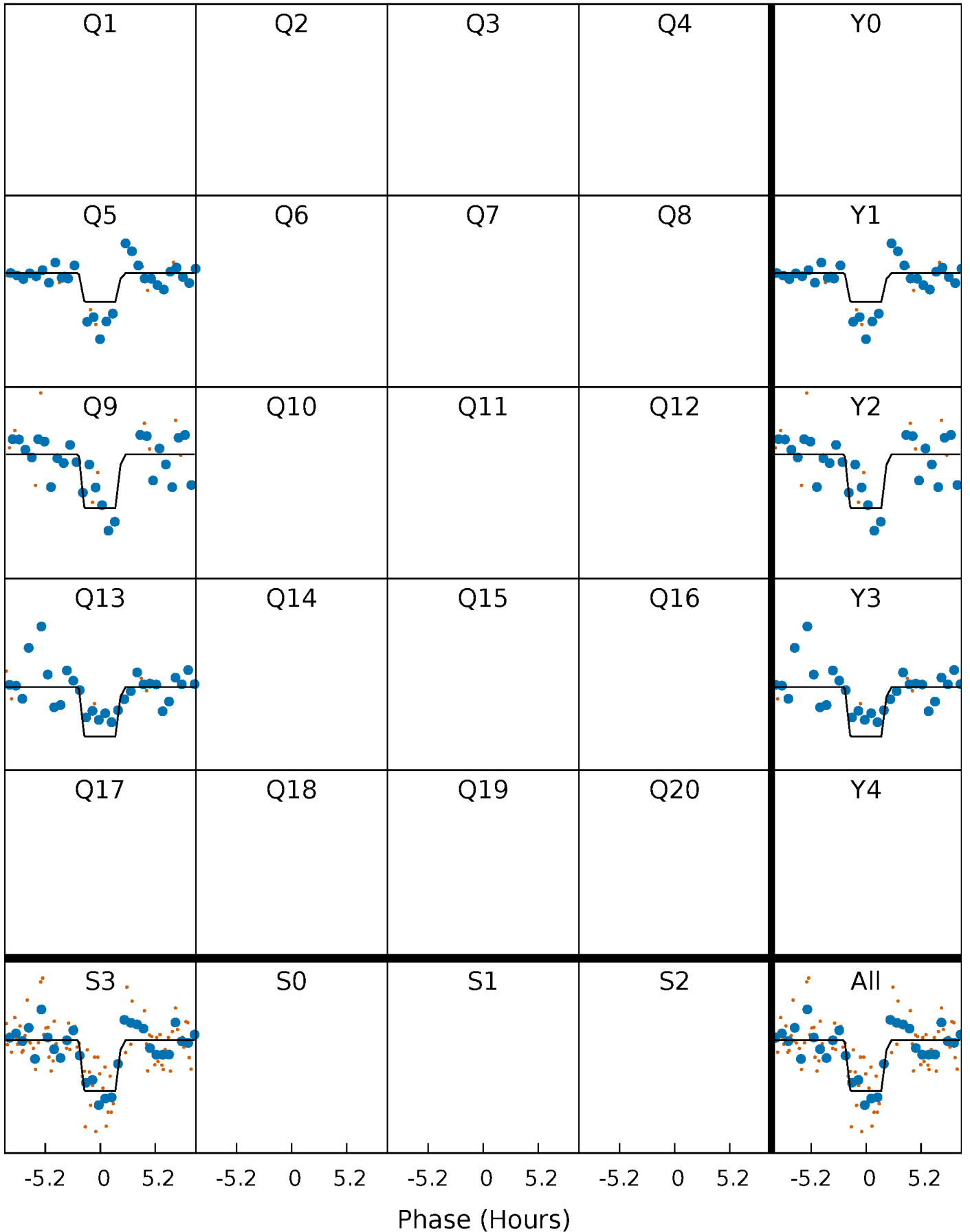
DV Quarter-Phased Transit Curves

TCE 011047115-01 P=380.694518 Days $T_0=450.987849$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

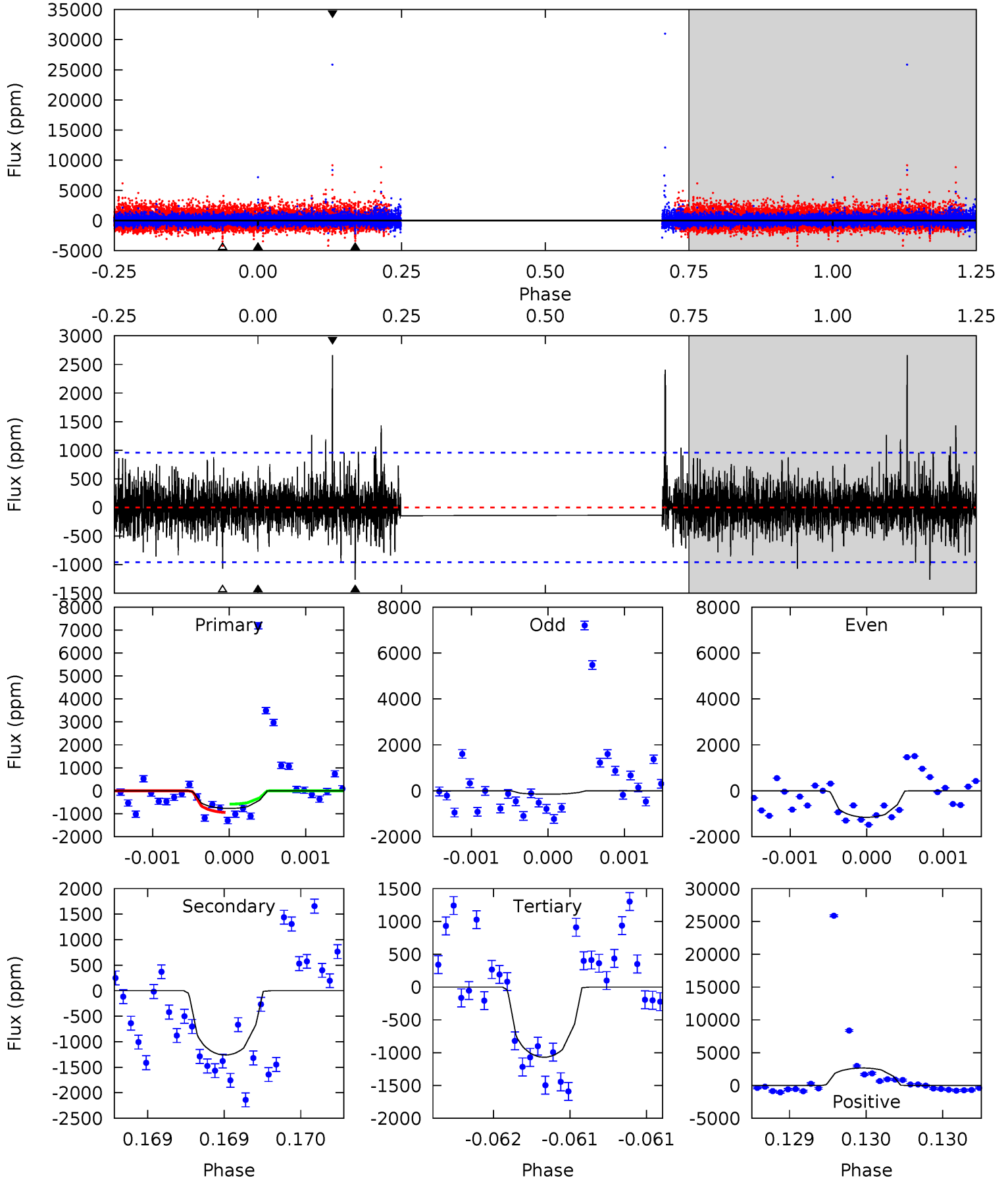
TCE 011047115-01 P=380.690691 Days $T_0=450.986527$ (BKJD)



DV Model-Shift Uniqueness Test

011047115-01, P = 380.694518 Days, E = 70.293331 Days

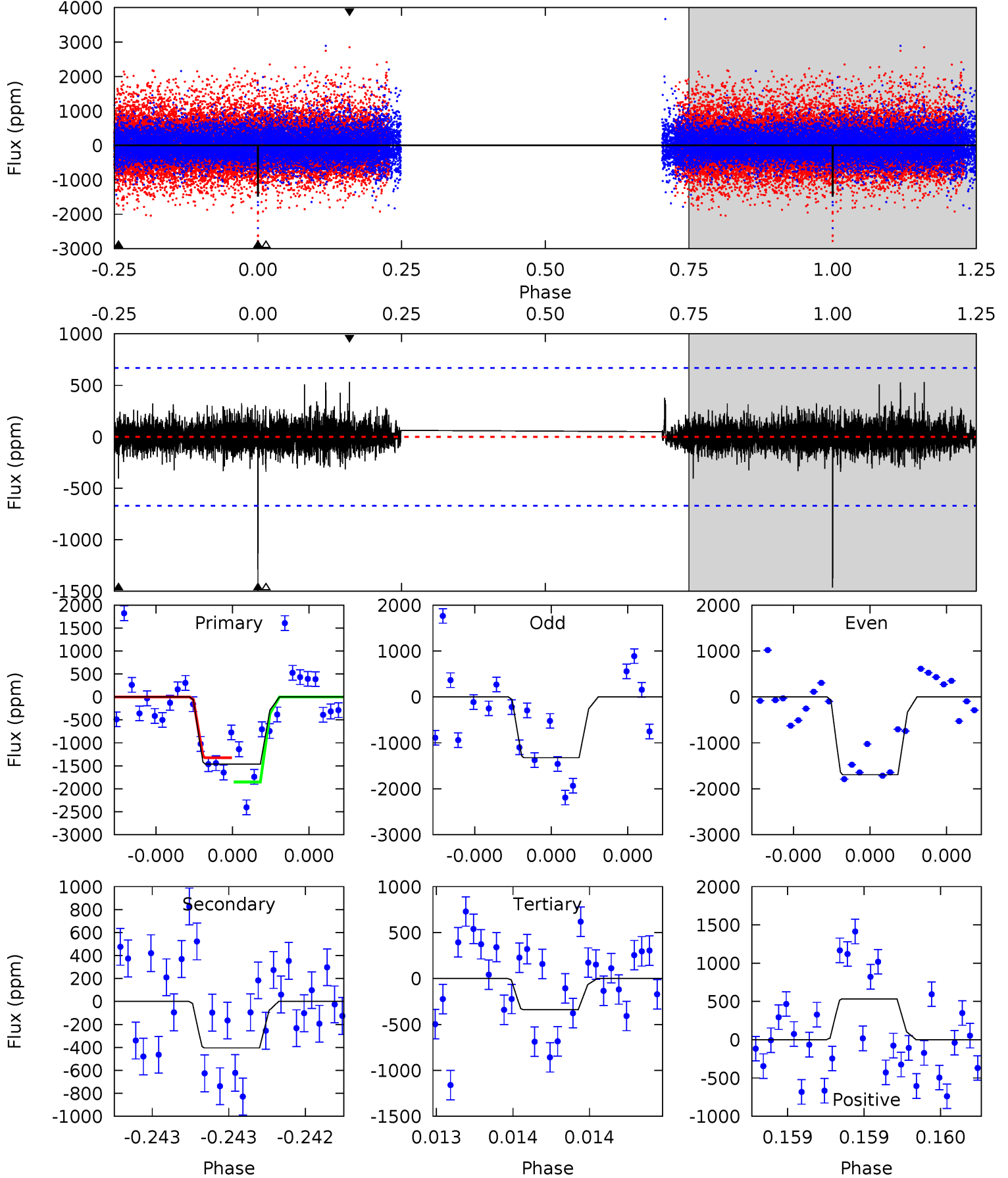
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.47	7.31	6.20	15.4	5.56	3.46	1.57	-1.73	-11.0	1.11	-8.13	1.52	1.20	0.68	1.06



Alt Model-Shift Uniqueness Test

011047115-01, $P = 380.690691$ Days, $E = 70.295836$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.2	3.39	2.83	4.46	5.60	3.52	0.72	9.41	7.78	0.56	-1.07	1.43	1.22	0.27	2.24



Stellar Parameters For KIC 011047115

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4522^{+159}_{-159}	$4.570^{+0.060}_{-0.020}$	$0.210^{+0.200}_{-0.300}$	$0.729^{+0.035}_{-0.062}$	$0.720^{+0.056}_{-0.056}$	$2.617^{+0.662}_{-0.241}$
	+4%/-4%	+1%/-0%	+95%/-143%	+5%/-9%	+8%/-8%	+25%/-9%
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 011047115-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1261 ± 172	$4.04^{+3.34}_{-2.62}$	246^{+10}_{-10}	3950^{+2042}_{-724}	$35090^{+251194}_{-24406}$
Alt.	-404 ± 119	$3.92^{+3.32}_{-2.38}$	245^{+9}_{-9}	3303^{+1322}_{-574}	12361^{+73675}_{-9137}

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 $A_{obs} \gg 1.0$

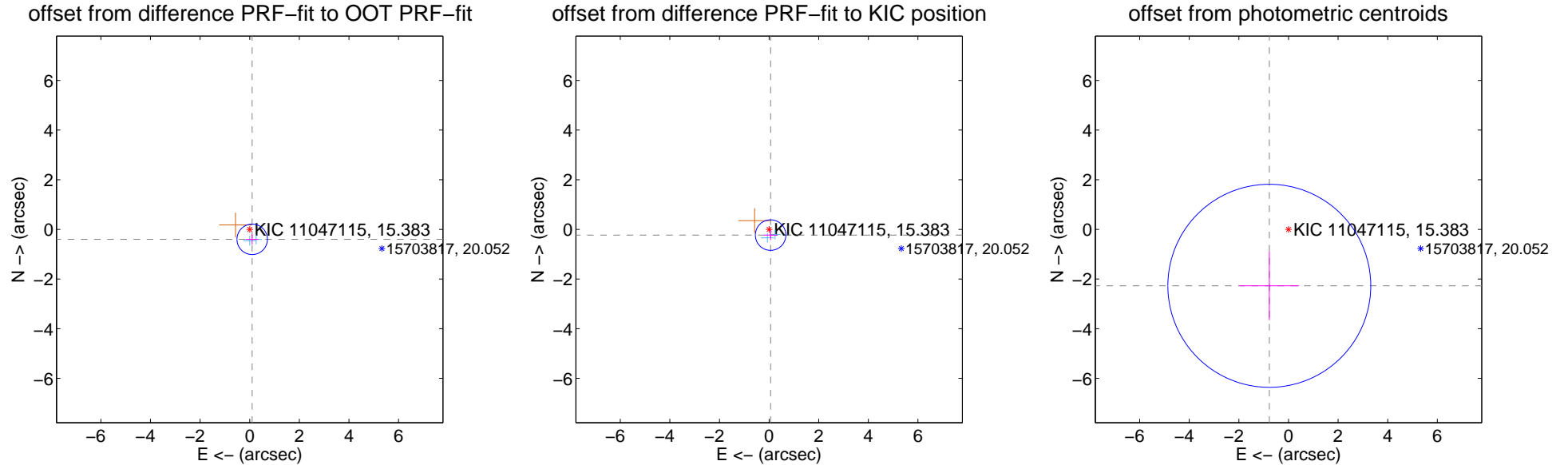
DV Centroid Data

Supplemental centroid analysis for 011047115-01. Kepler magnitude: 15.38. Transit SNR 5.74

There are 2 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.413 ± 0.204	2.02	-0.099 ± 0.257	-0.400 ± 0.201
PRF-fit source offset from KIC position	0.237 ± 0.205	1.16	-0.060 ± 0.257	-0.230 ± 0.201
photometric centroid source offset	2.40 ± 1.36	1.76	0.77 ± 1.20	-2.27 ± 1.38

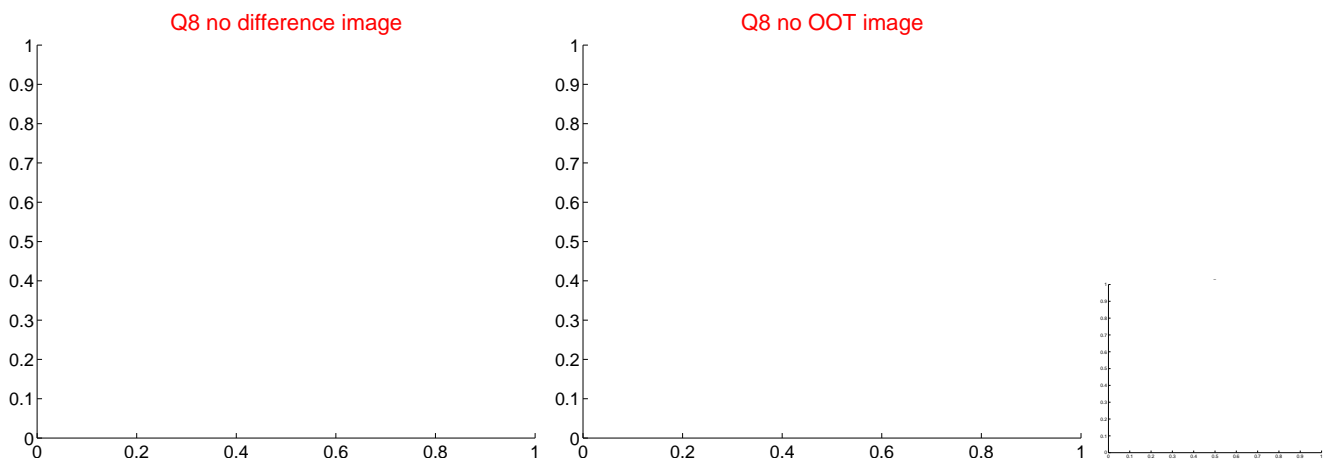
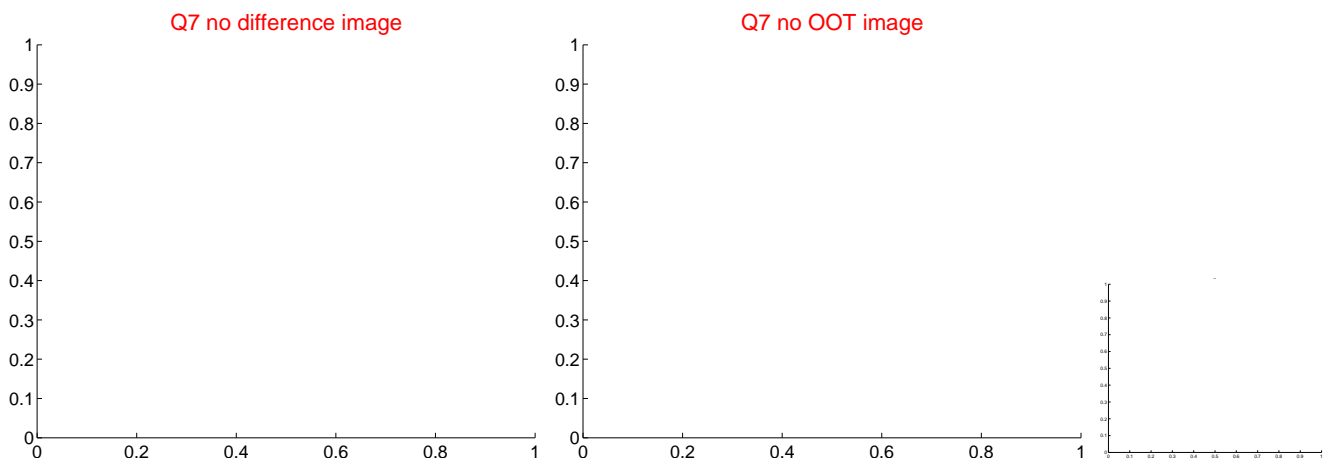
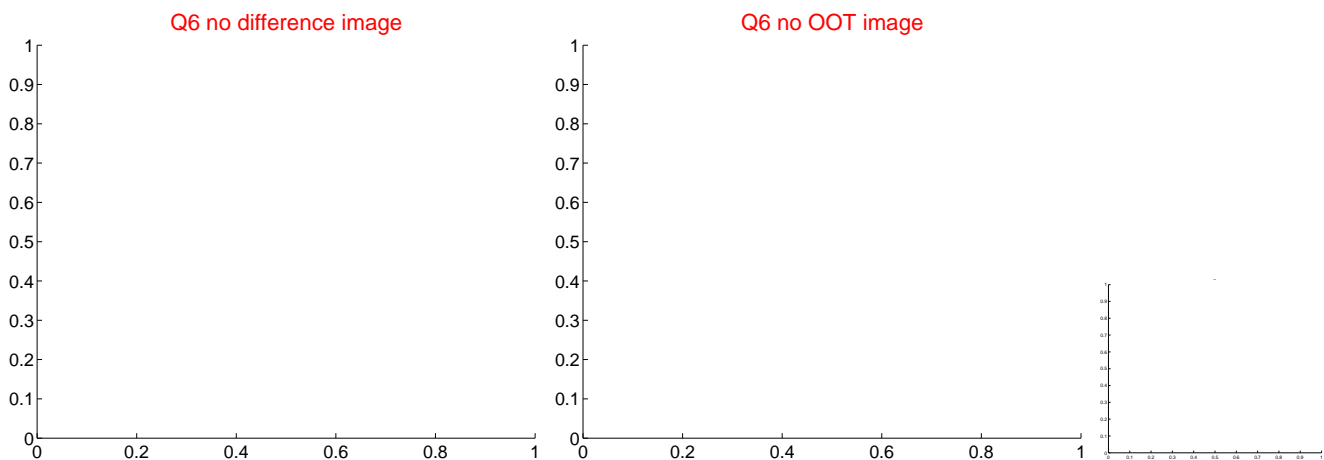
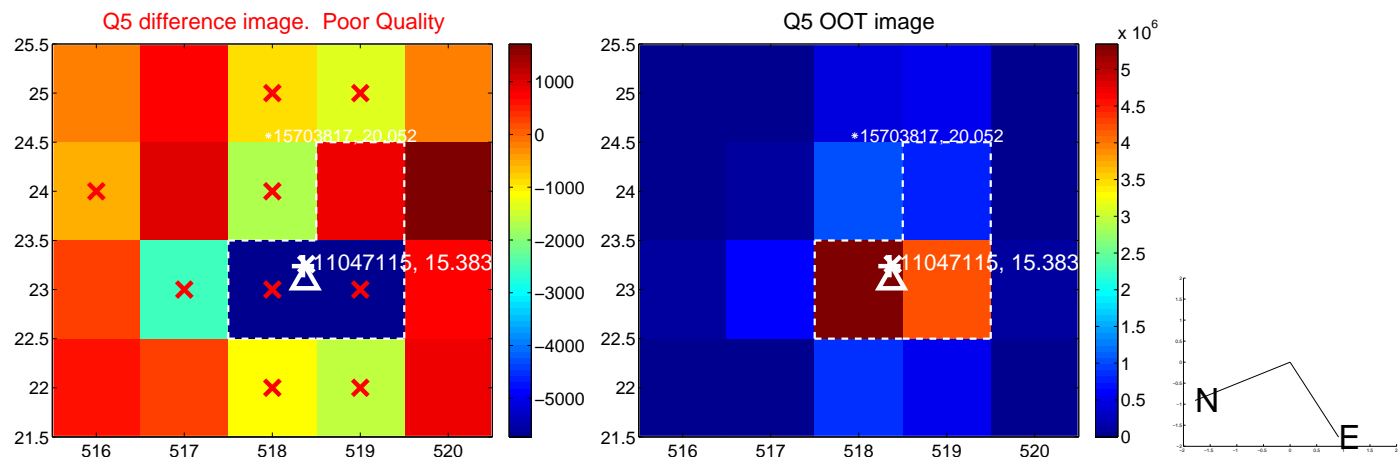


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

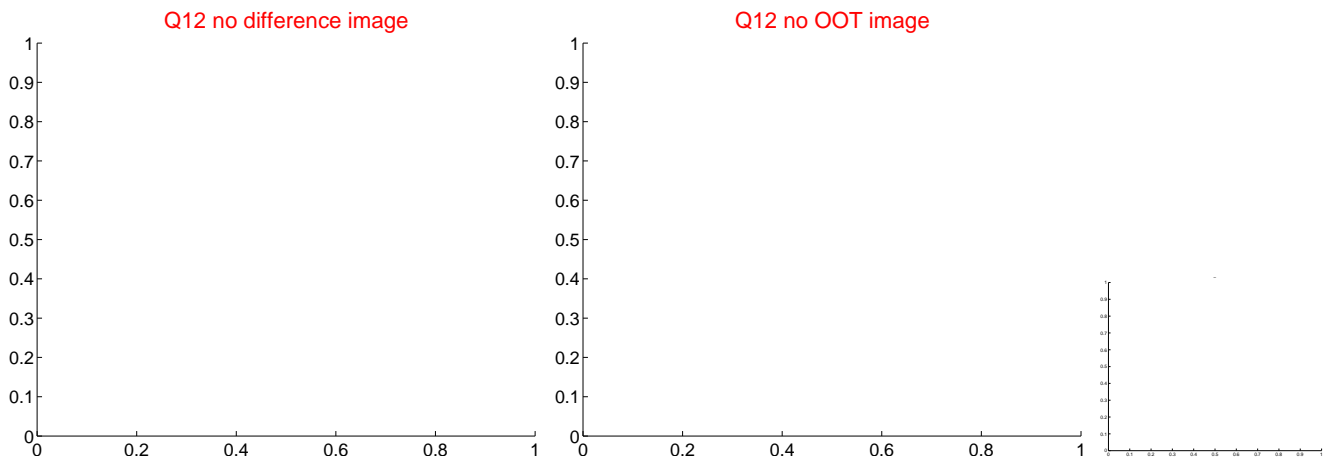
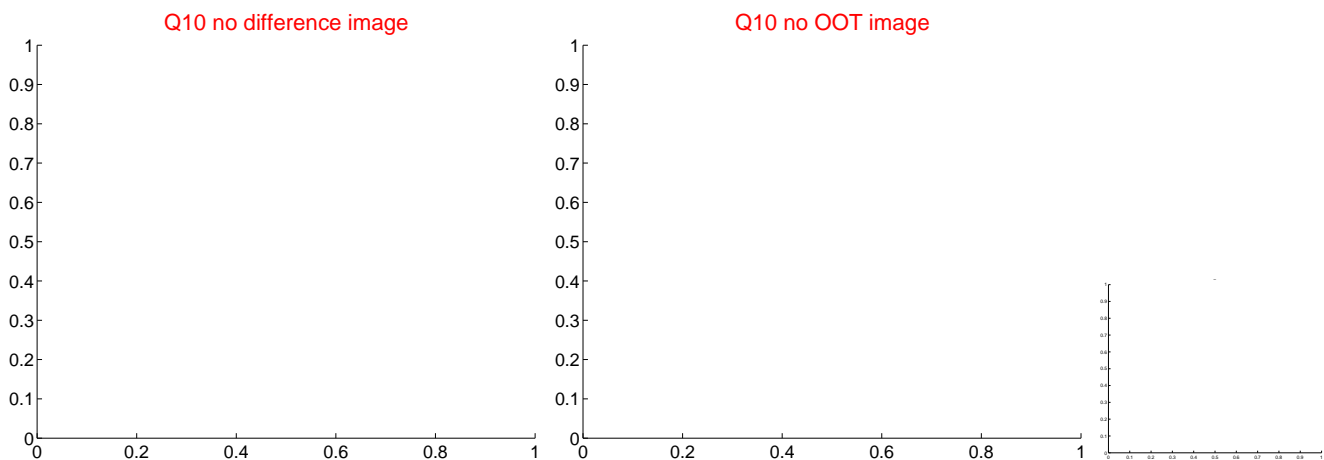
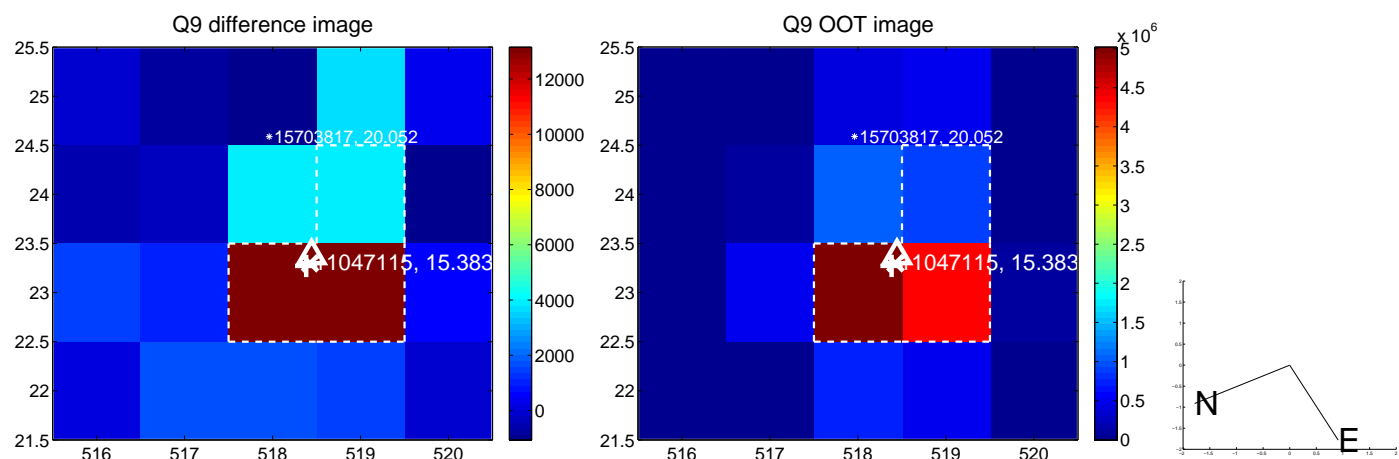
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



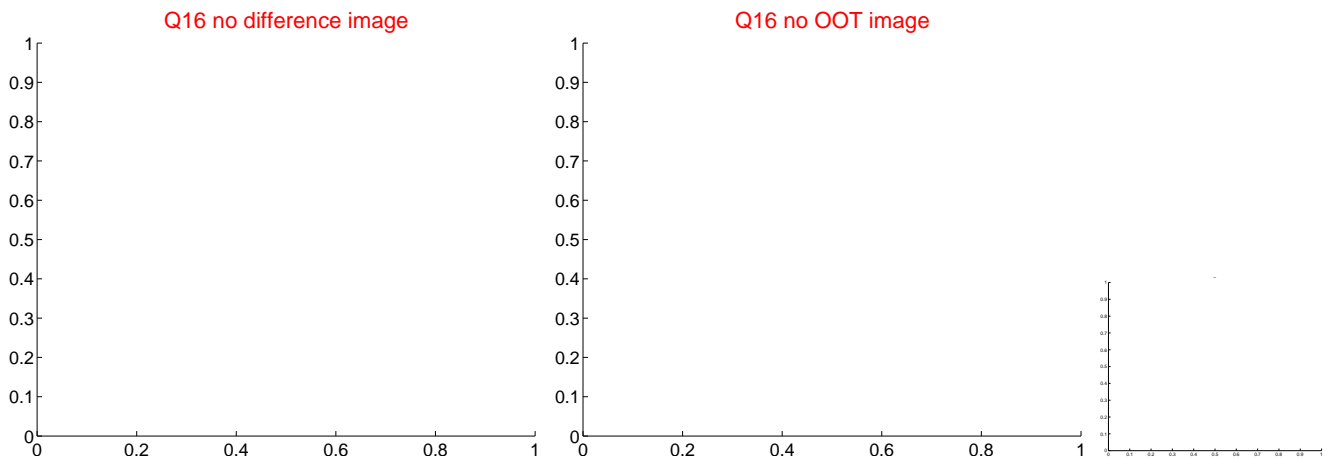
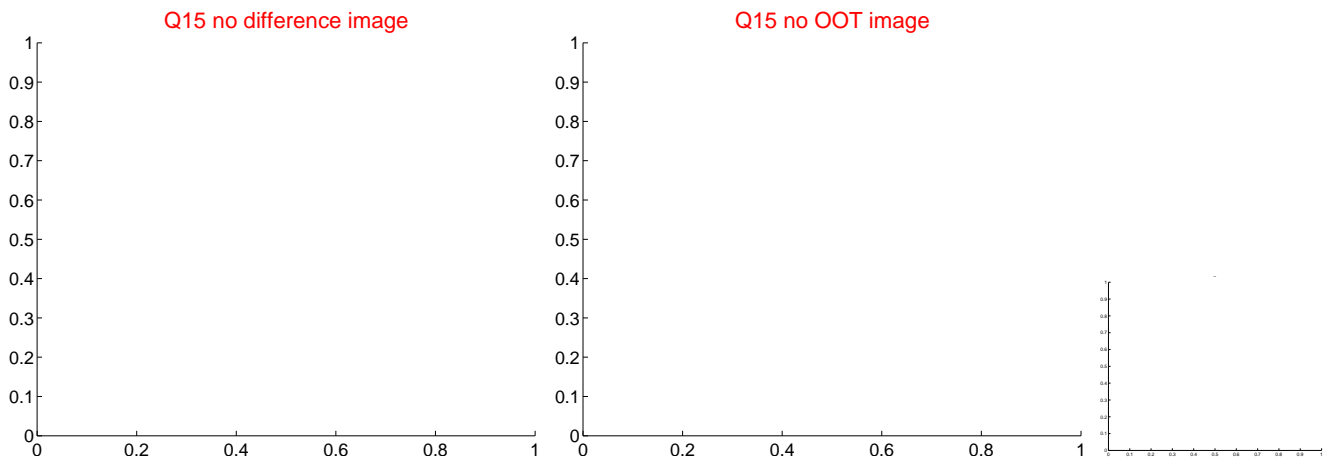
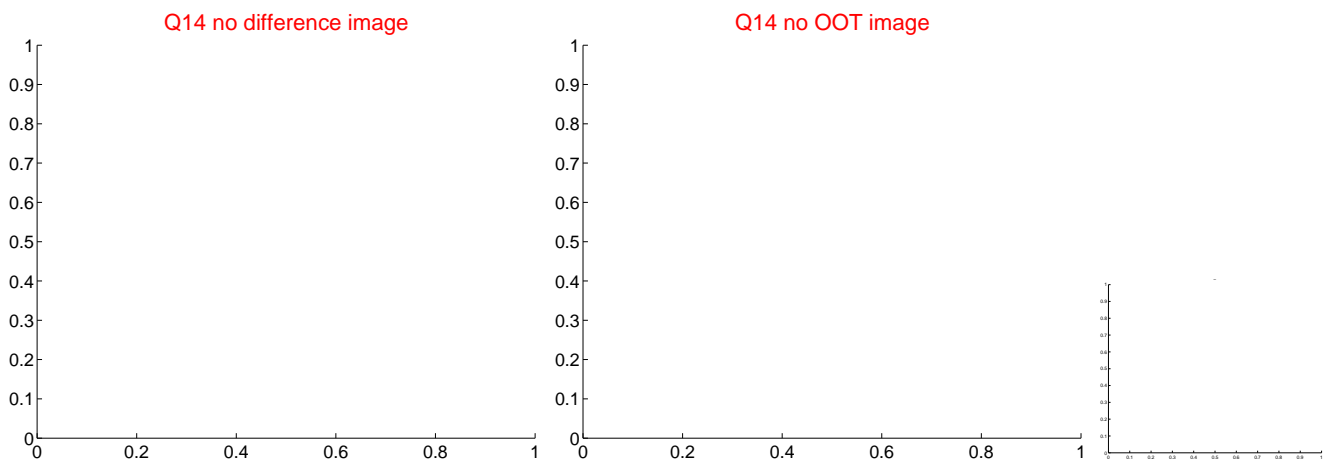
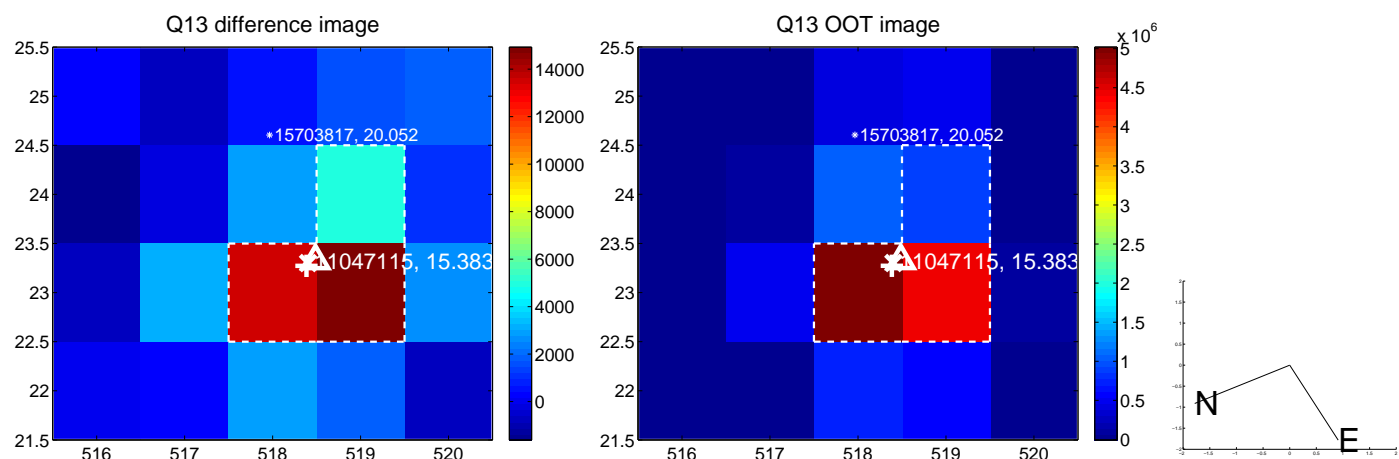
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



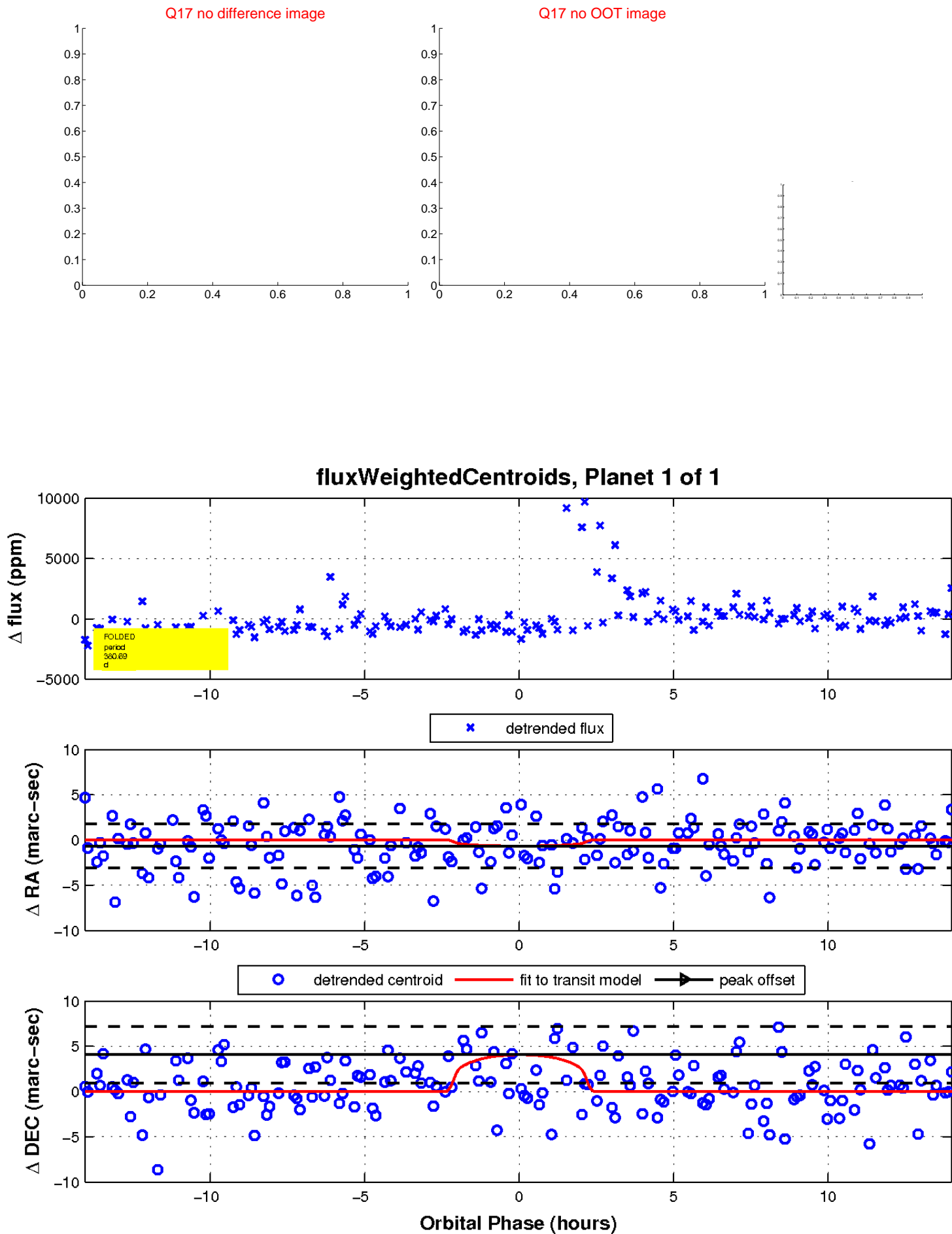
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

