

KIC 004660665

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})
004660665-01	OBS	No	378.852957	472.162895	165.0	6.418	75.0	2.7	2.54	7872	3.52	13.45

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004660665-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED

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

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

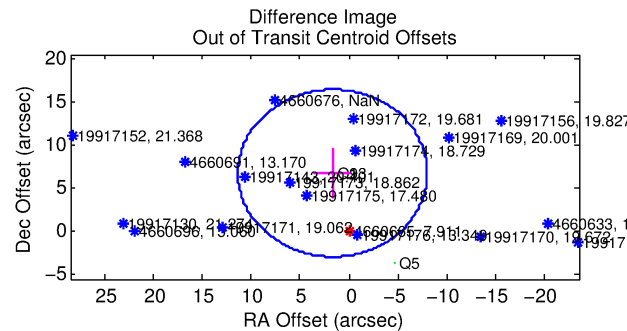
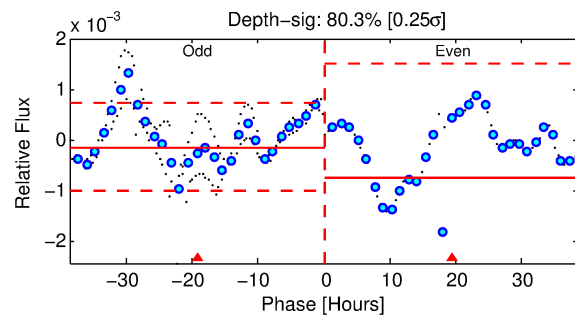
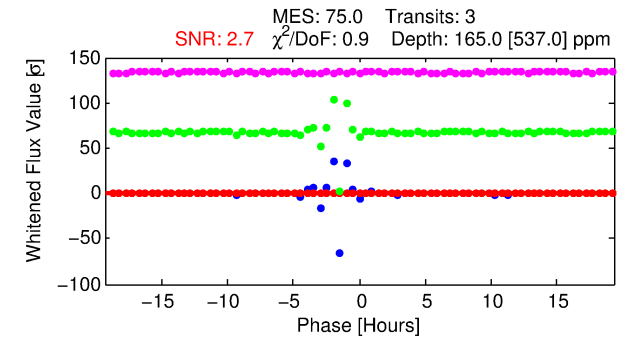
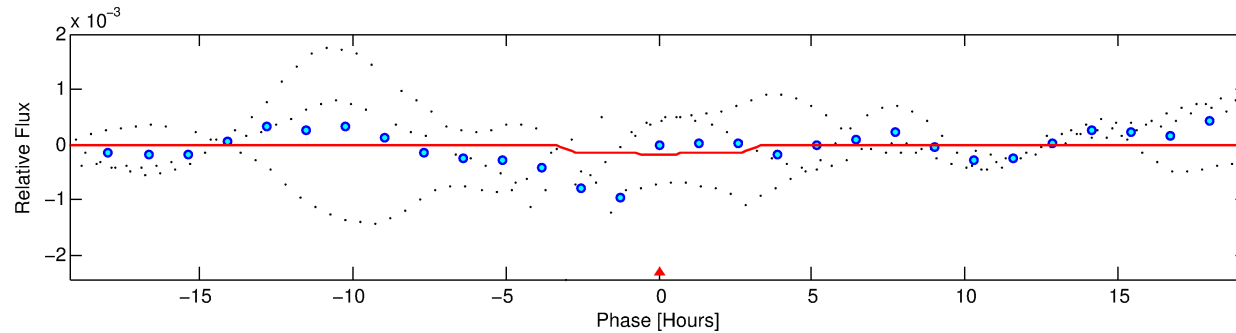
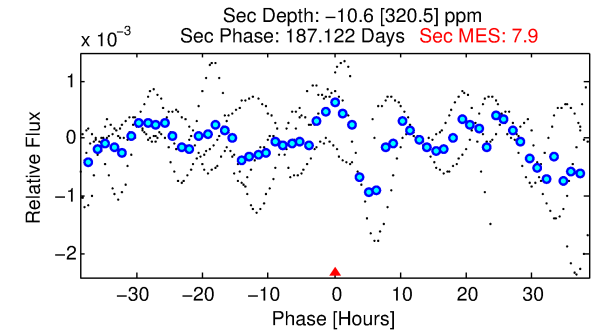
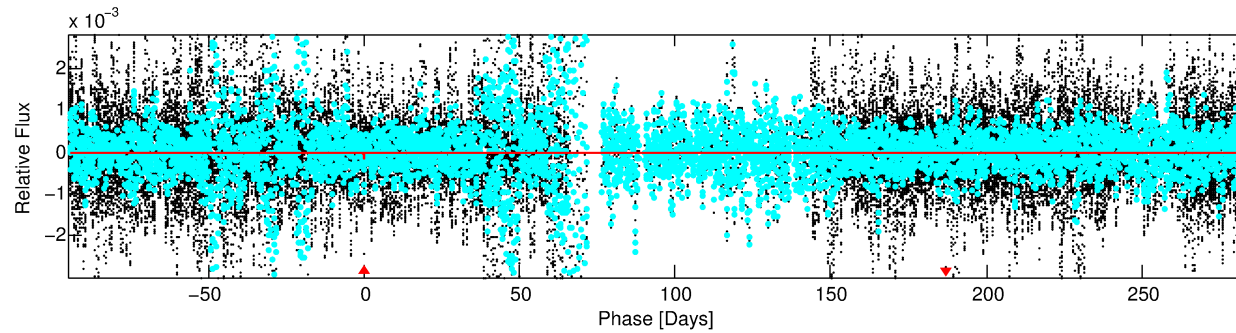
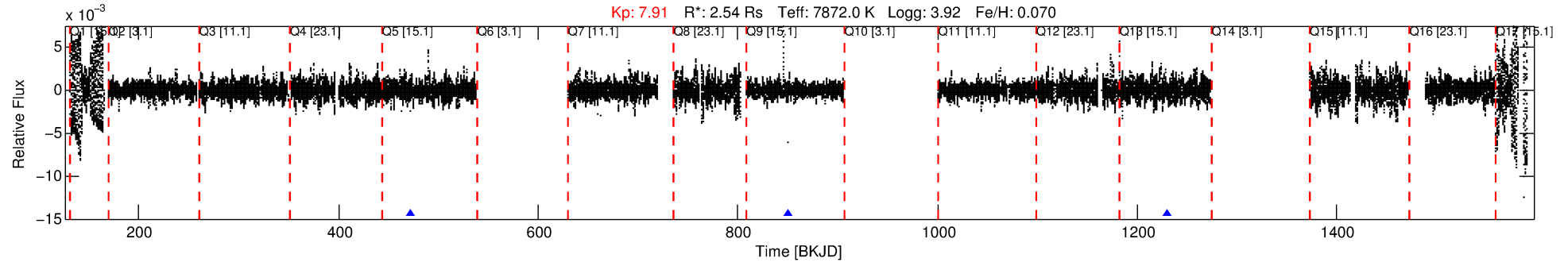
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004660665-01

No Significant Match Found

DV One-Page Summary

KIC: 4660665 Candidate: 1 of 1 Period: 378.853 d



DV Fit Results:

Period = 378.85296 [0.04307] d
Epoch = 472.1629 [0.0559] BKJD
Rp/R* = 0.0127 [0.0351]
a/R* = 317.77 [3008.35]
b = 0.73 [6.16]
Seff = 13.45 [3.75]
Teq = 488 [34] K
Rp = 3.52 [9.75] Re
a = 1.2857 [0.2354] AU
Ag = N/A
Teffp = N/A

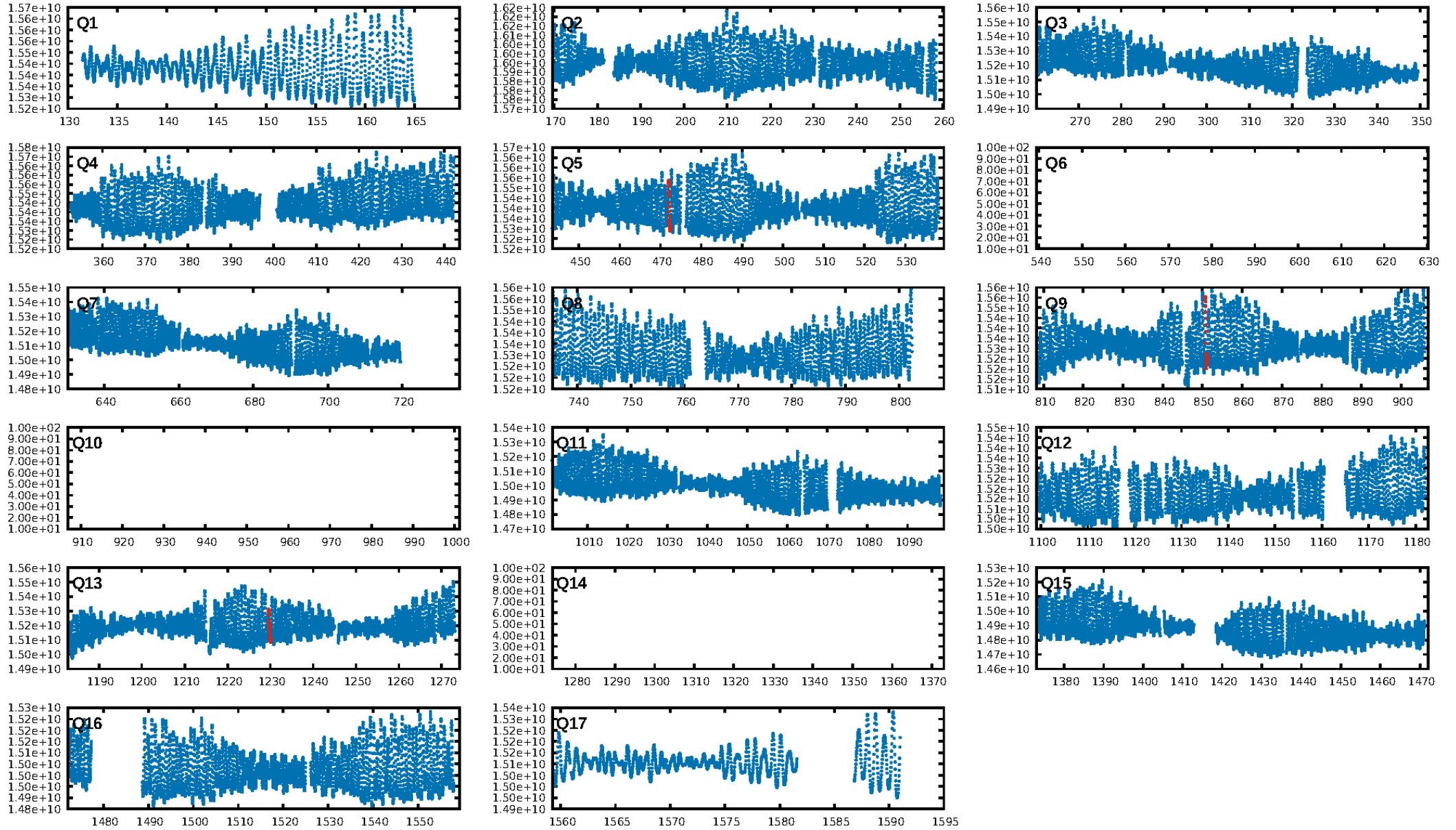
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 98.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.08e-56
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: N/A
Centroid-sig: 56.1%
Centroid-so: 11.793 arcsec [0.59σ]
OotOffset-rm: 6.951 arcsec [2.15σ]
OotOffset-st: 0/0/0/3 [3]
KicOffset-rm: 7.647 arcsec [3.03σ]
KicOffset-st: 0/0/0/3 [3]
DiffImageQuality-fgm: 0.00 [0/3]
DiffImageOverlap-fno: 1.00 [3/3]

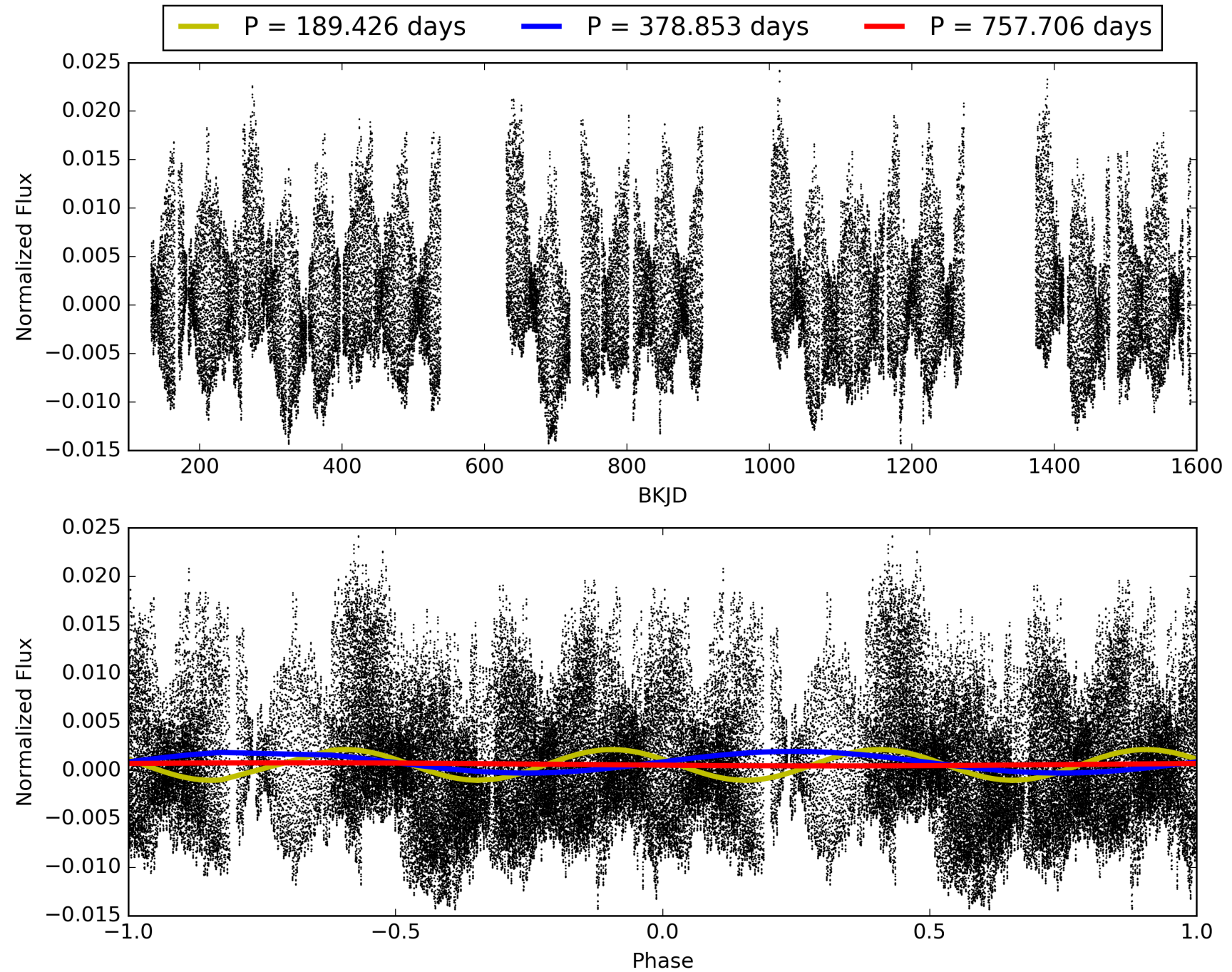
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 02:47:33 Z

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

TCE 004660665-01, PDC Light Curves

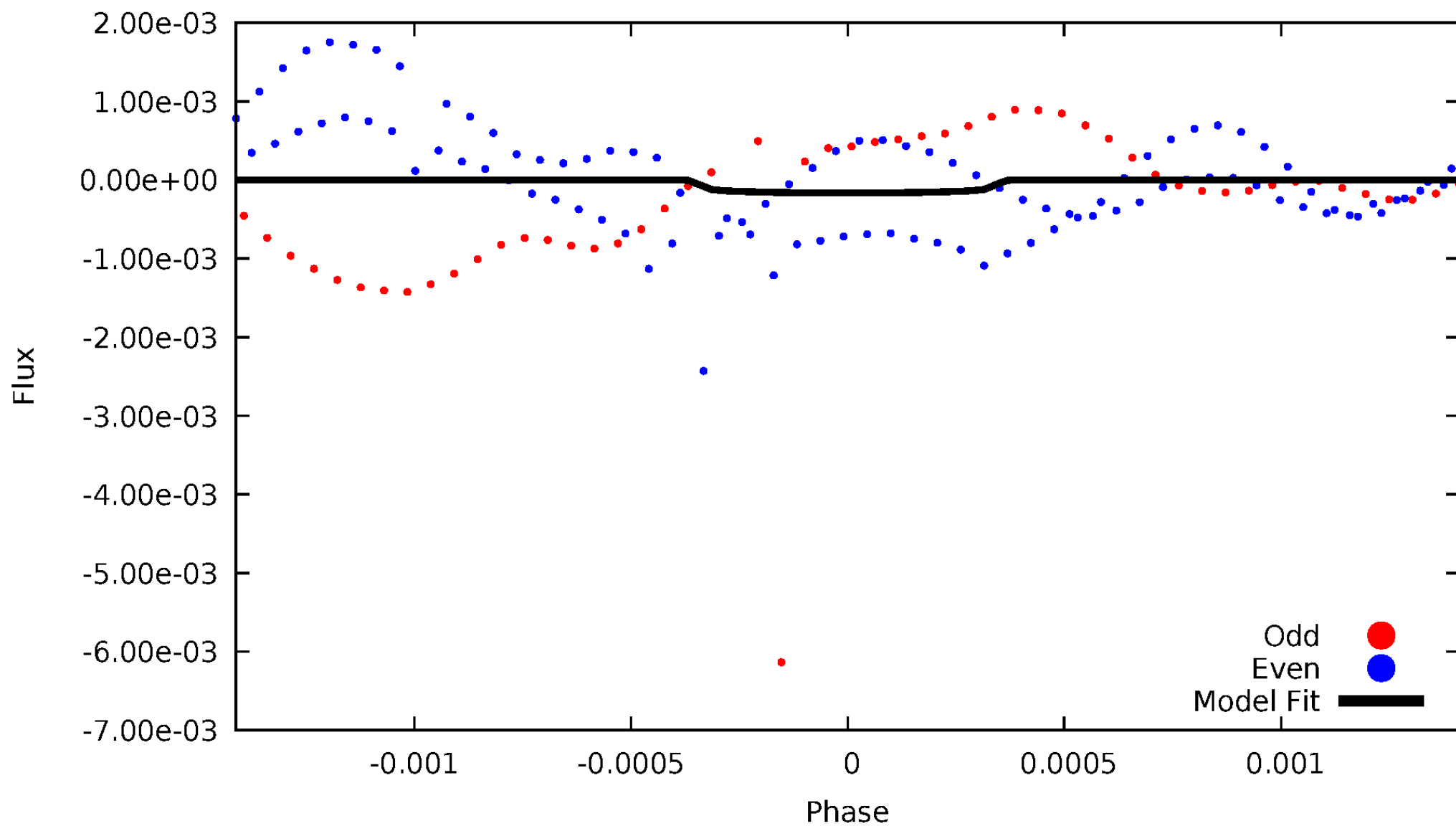


TCE 004660665-01



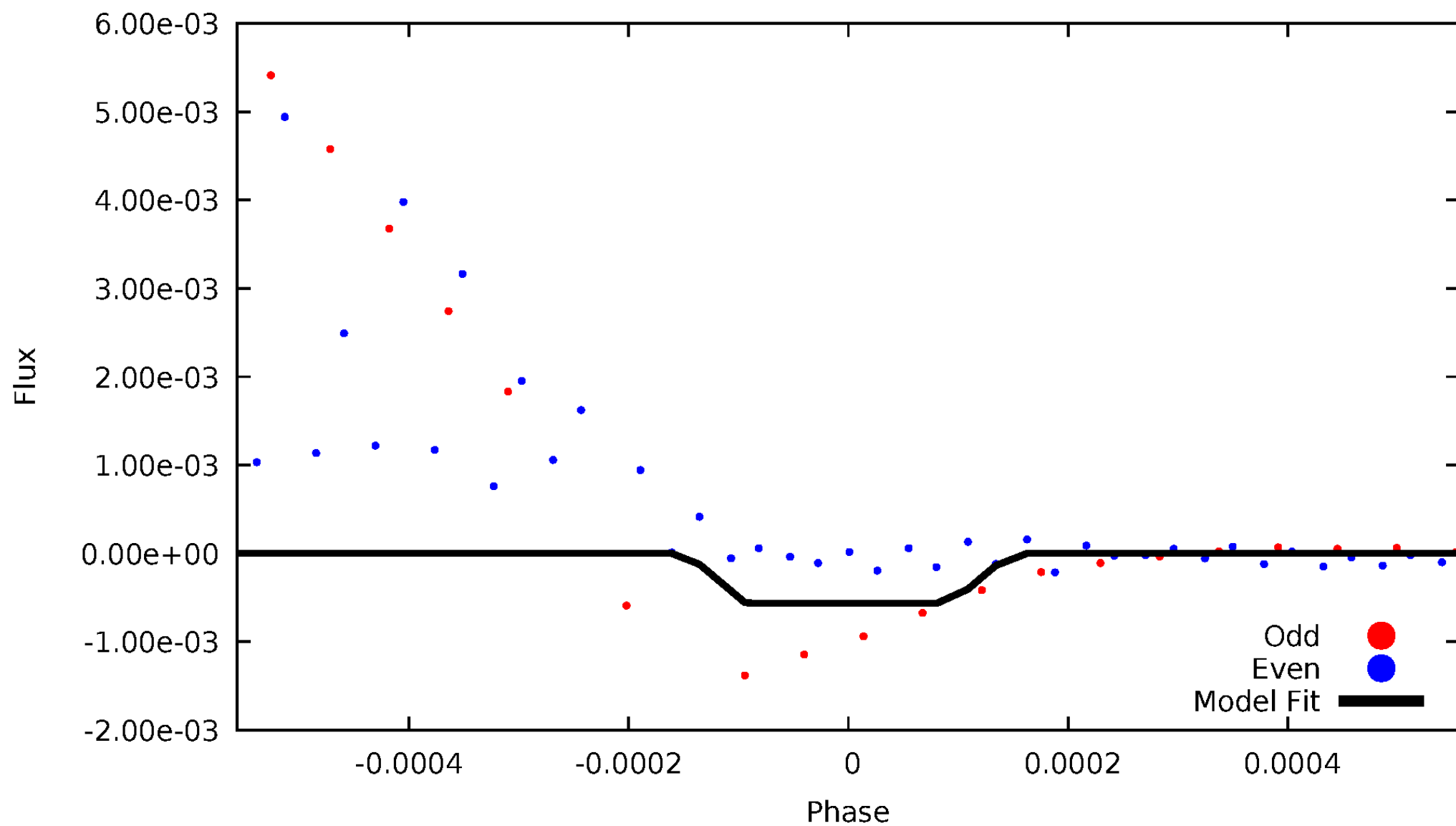
DV Odd/Even

TCE 004660665-01



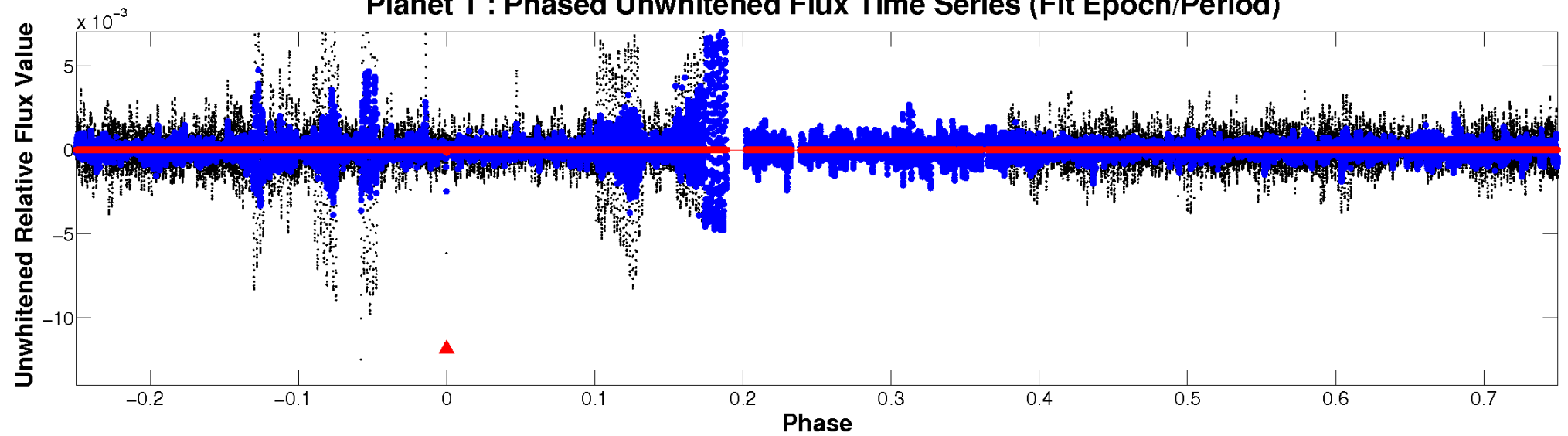
ALT Odd/Even

TCE 004660665-01

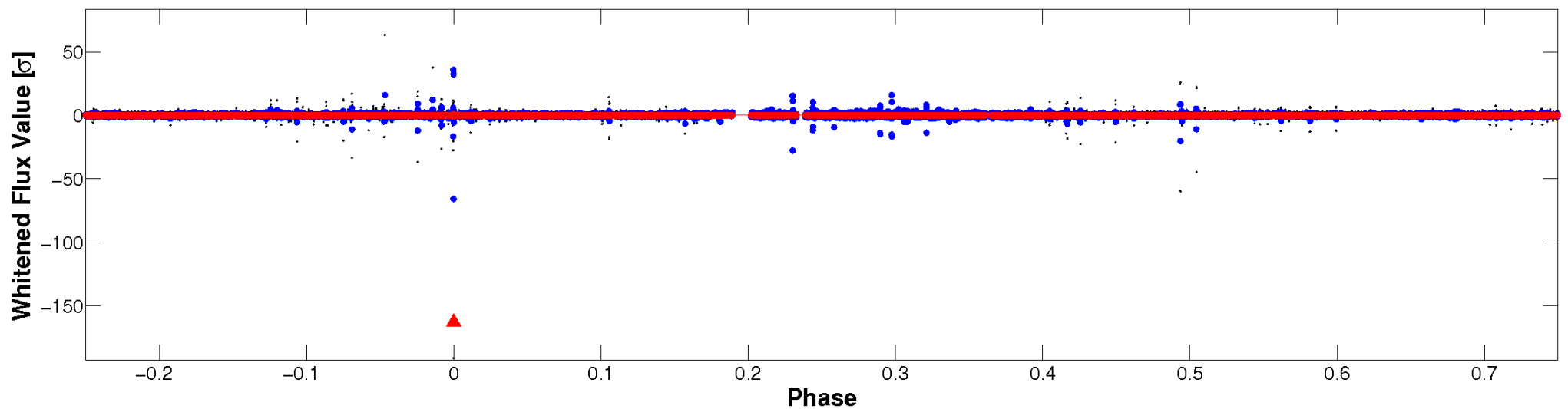


Non-Whitened Vs. Whitened Light Curve

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

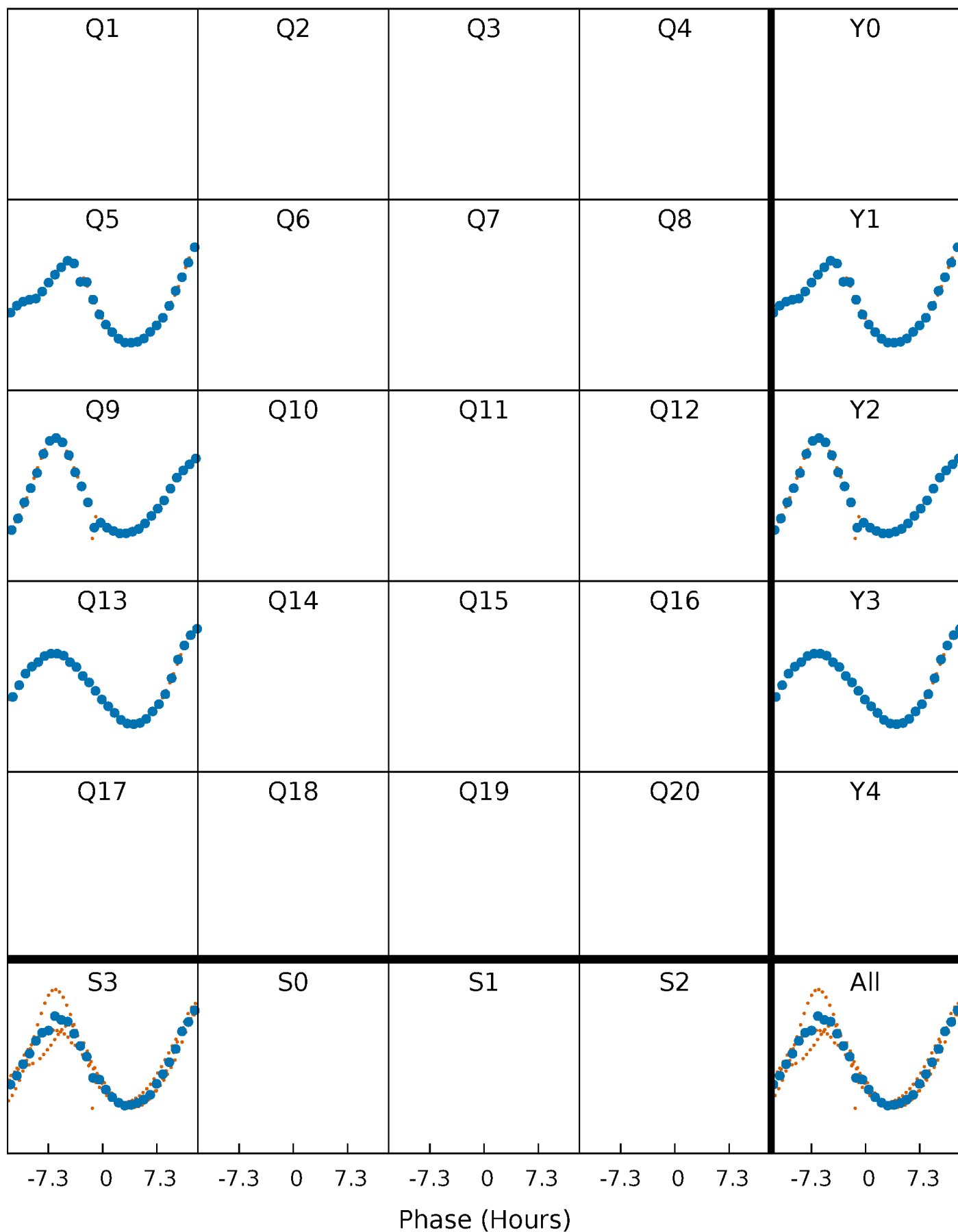


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



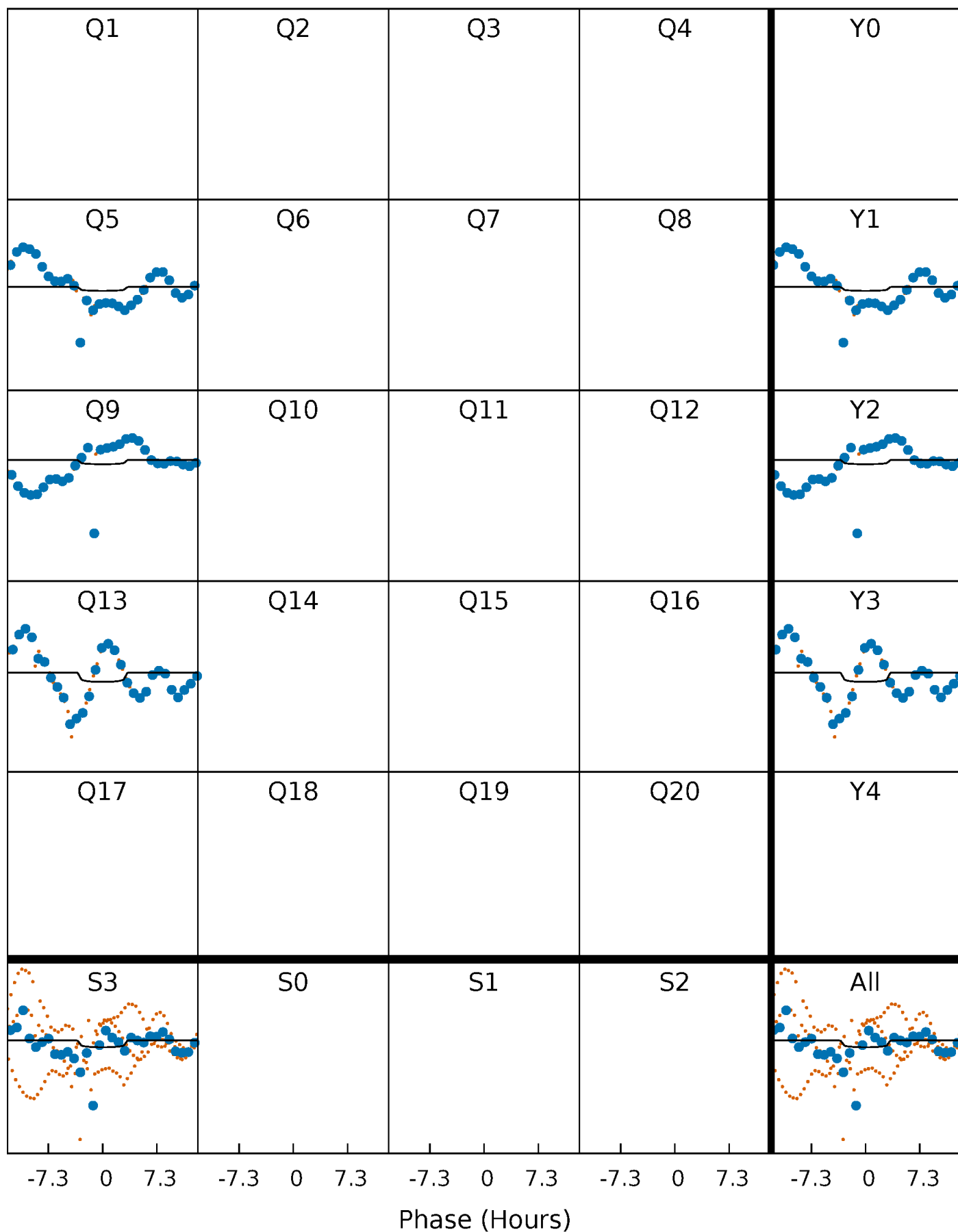
PDC Quarter-Phased Transit Curves

TCE 004660665-01 P=378.852957 Days $T_0=472.162895$ (BKJD)



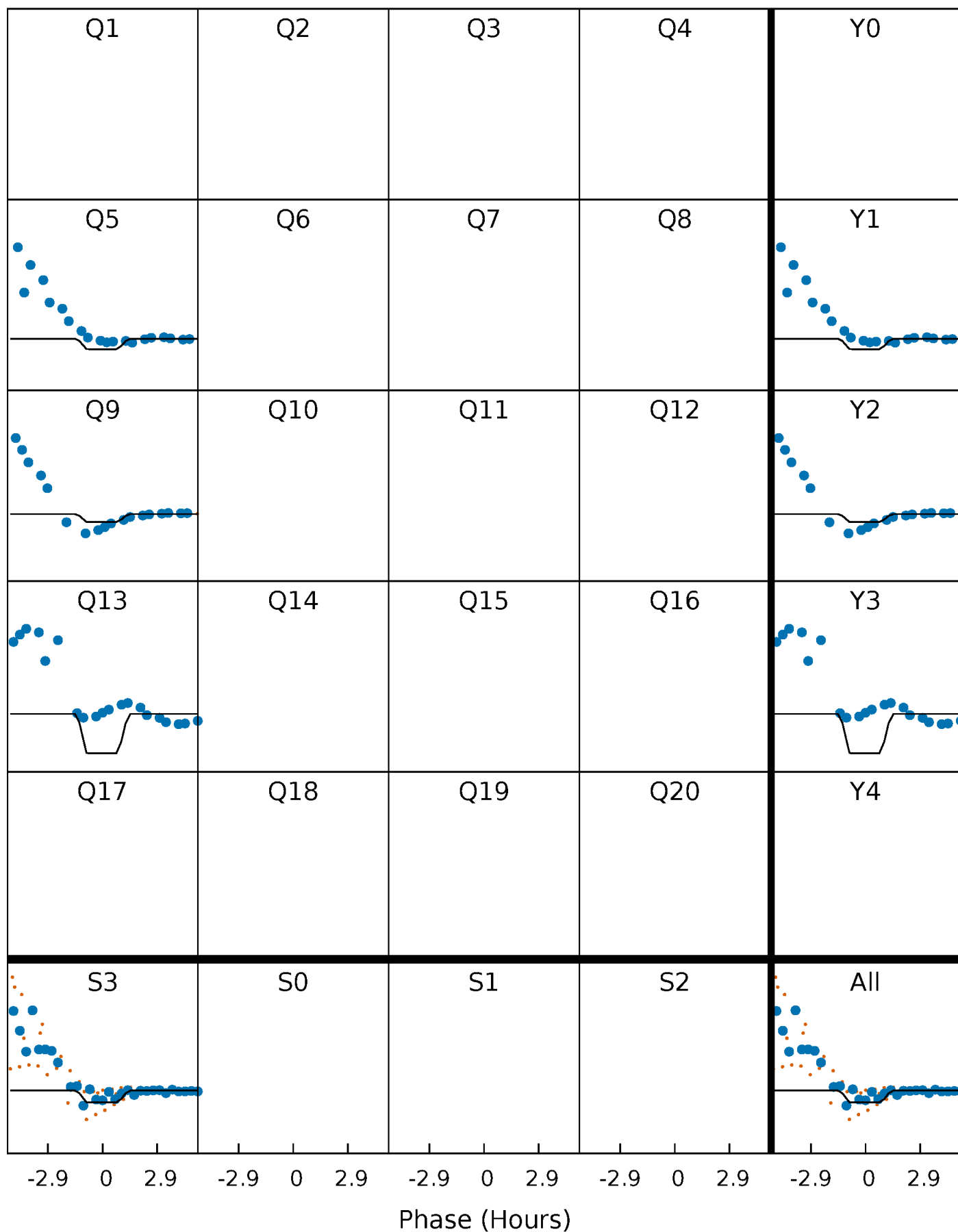
DV Quarter-Phased Transit Curves

TCE 004660665-01 P=378.852957 Days $T_0=472.162895$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

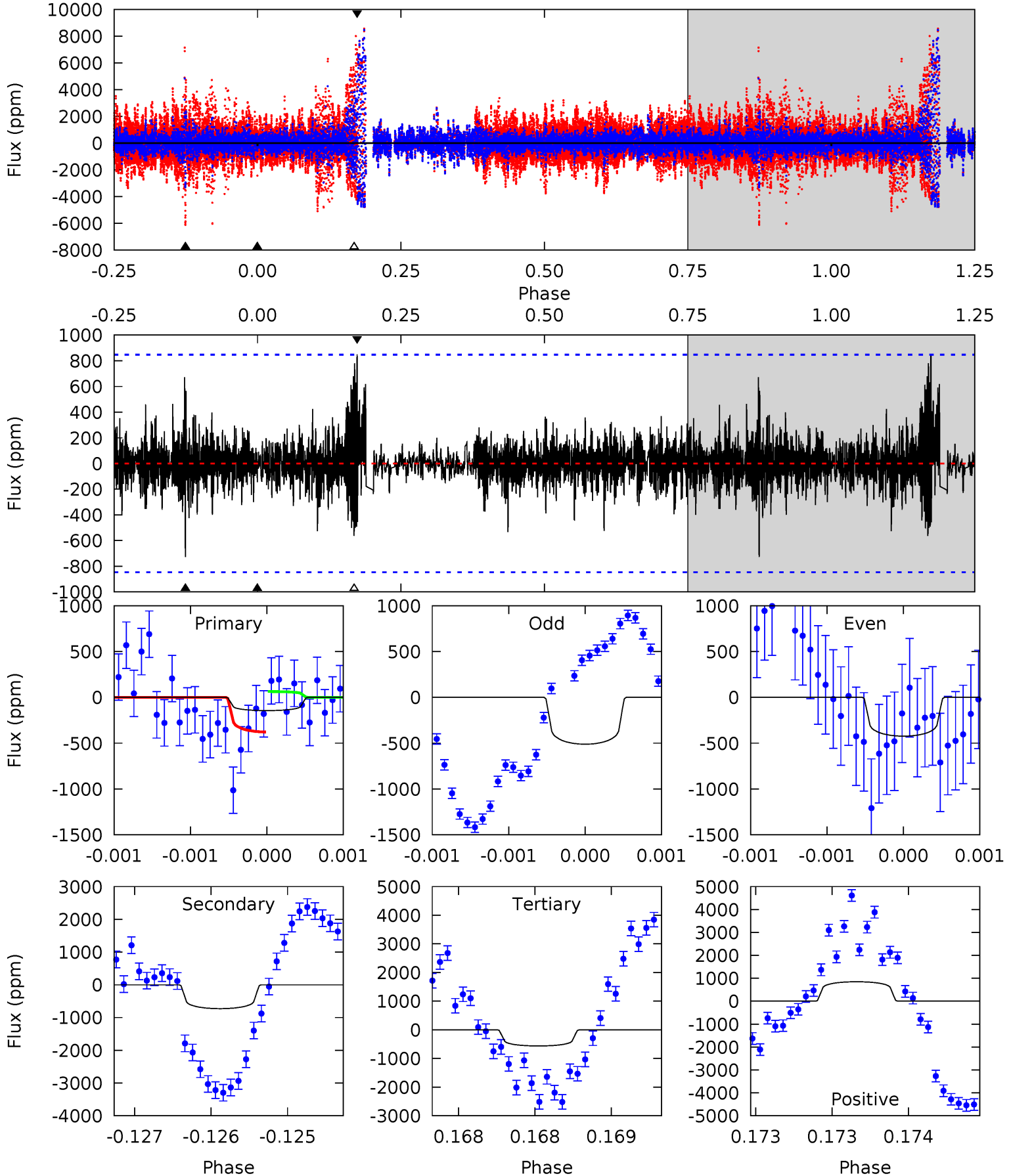
TCE 004660665-01 P=378.803190 Days $T_0=472.210803$ (BKJD)



DV Model-Shift Uniqueness Test

004660665-01, P = 378.852957 Days, E = 93.309938 Days

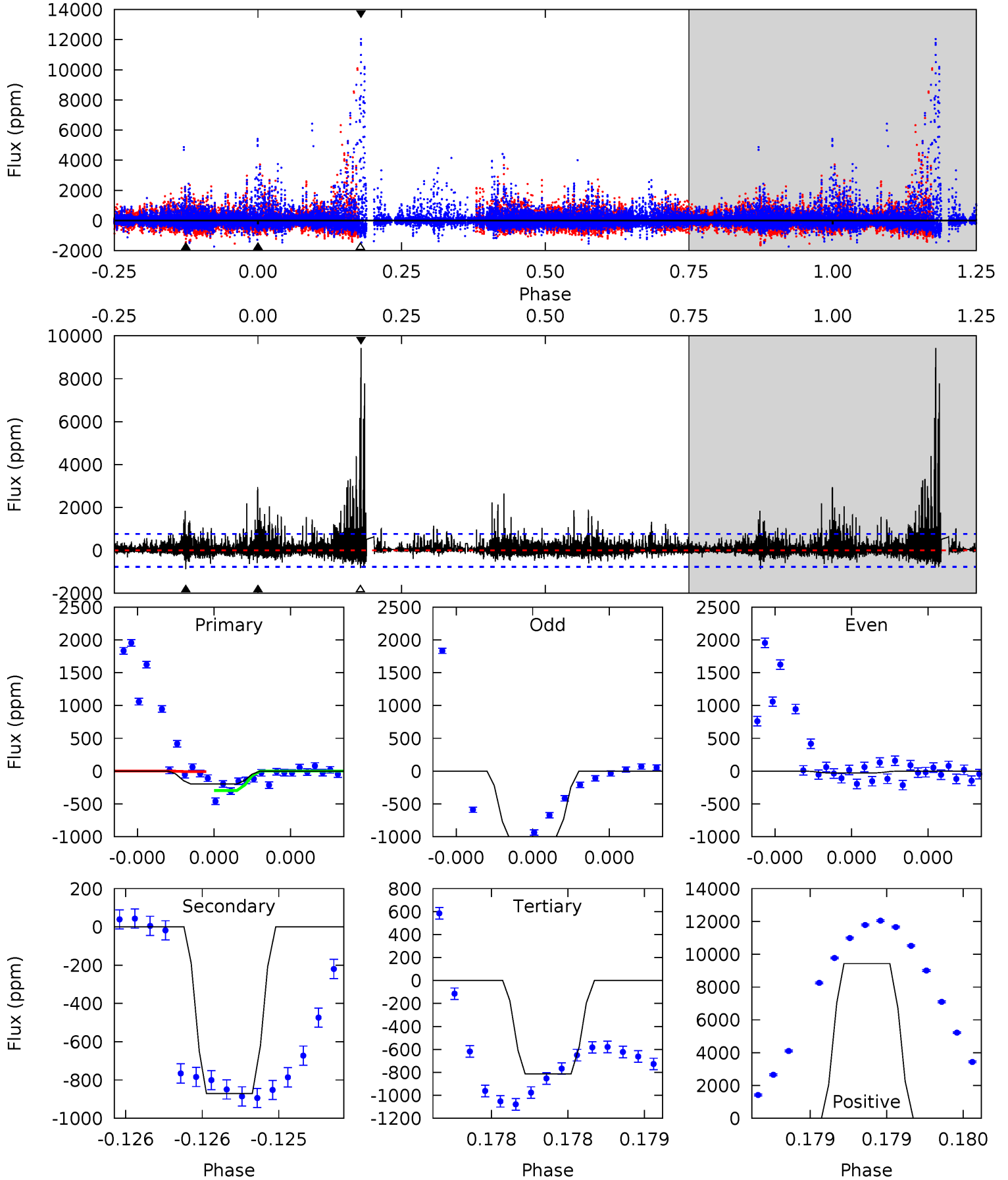
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.94	4.73	3.66	5.51	5.51	3.38	0.89	-2.72	-4.57	1.07	-0.78	0.18	2.47	0.54	1.02



Alt Model-Shift Uniqueness Test

004660665-01, P = 378.803190 Days, E = 93.407613 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.46	6.45	6.03	69.9	5.68	3.64	2.57	-4.57	-68.4	0.42	-63.4	2.83	4.44	0.92	1.05



Stellar Parameters For KIC 004660665

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7872^{+70}_{-94}	$3.923^{+0.154}_{-0.066}$	$0.070^{+0.150}_{-0.150}$	$2.542^{+0.205}_{-0.533}$	$1.973^{+0.162}_{-0.243}$	$0.169^{+0.149}_{-0.032}$
	+1%/-1%	+4%/-2%	+214%/-214%	+8%/-21%	+8%/-12%	+88%/-19%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 004660665-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-728 ± 154	$7.70^{+8.20}_{-5.38}$	679^{+21}_{-31}	7672^{+12220}_{-2438}	$11159^{+114616}_{-8587}$
Alt.	-871 ± 135	$9.33^{+8.59}_{-6.29}$	679^{+18}_{-29}	7125^{+9719}_{-2004}	8707^{+82622}_{-6326}

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

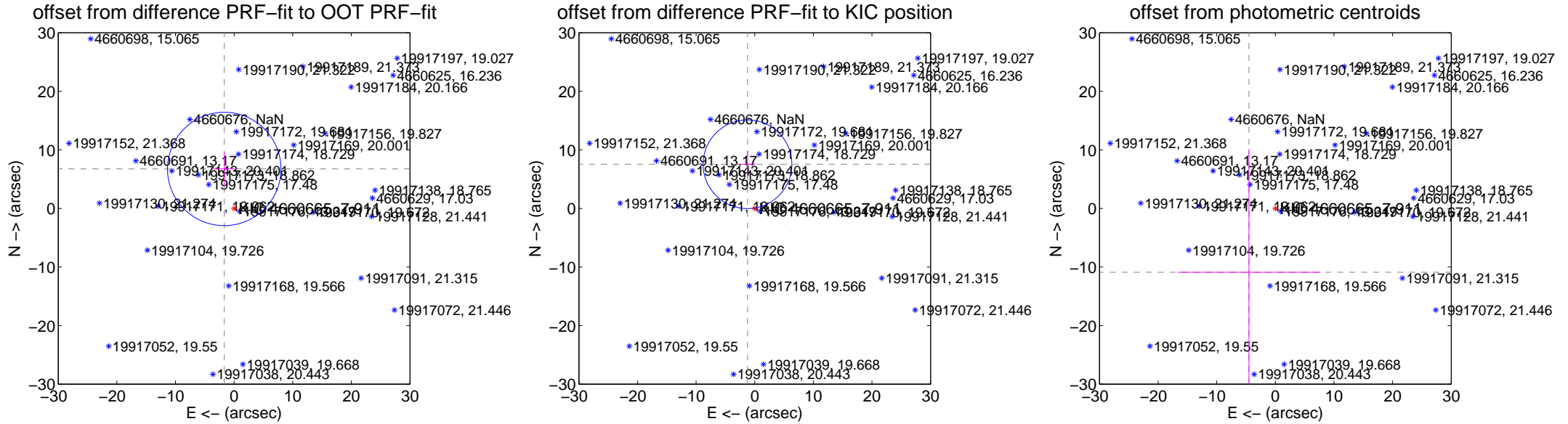
DV Centroid Data

Supplemental centroid analysis for 004660665-01. **Kepler magnitude: 7.91.** Transit SNR 2.65

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.96 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.951 ± 3.226	2.15	1.684 ± 1.775	6.744 ± 2.883
PRF-fit source offset from KIC position	7.647 ± 2.524	3.03	1.235 ± 1.444	7.546 ± 2.321
photometric centroid source offset	11.79 ± 20.00	0.59	4.50 ± 12.20	-10.90 ± 21.05

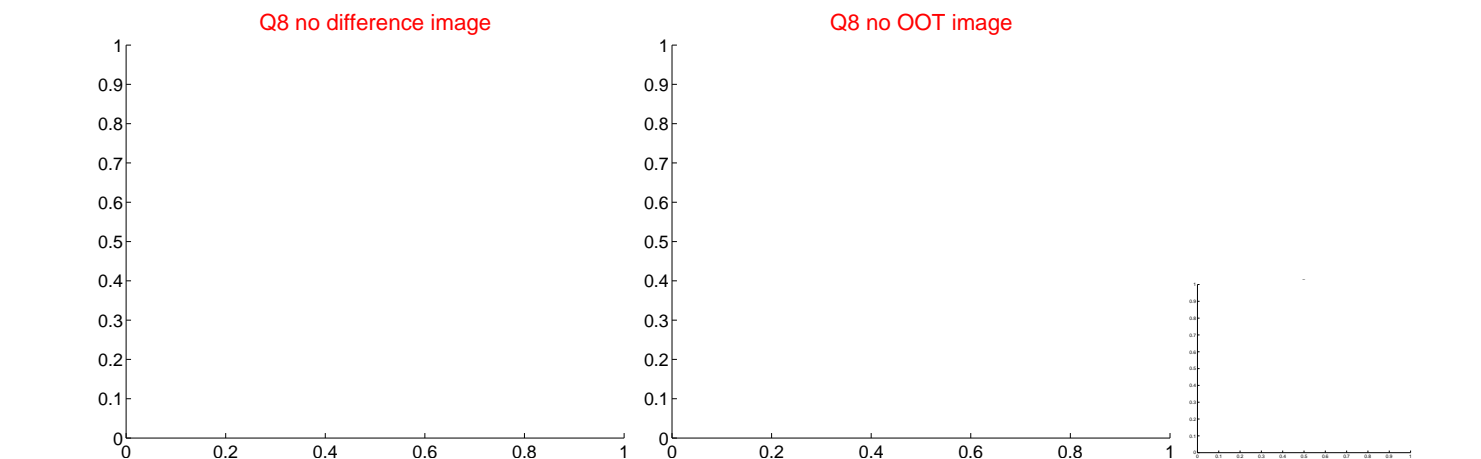
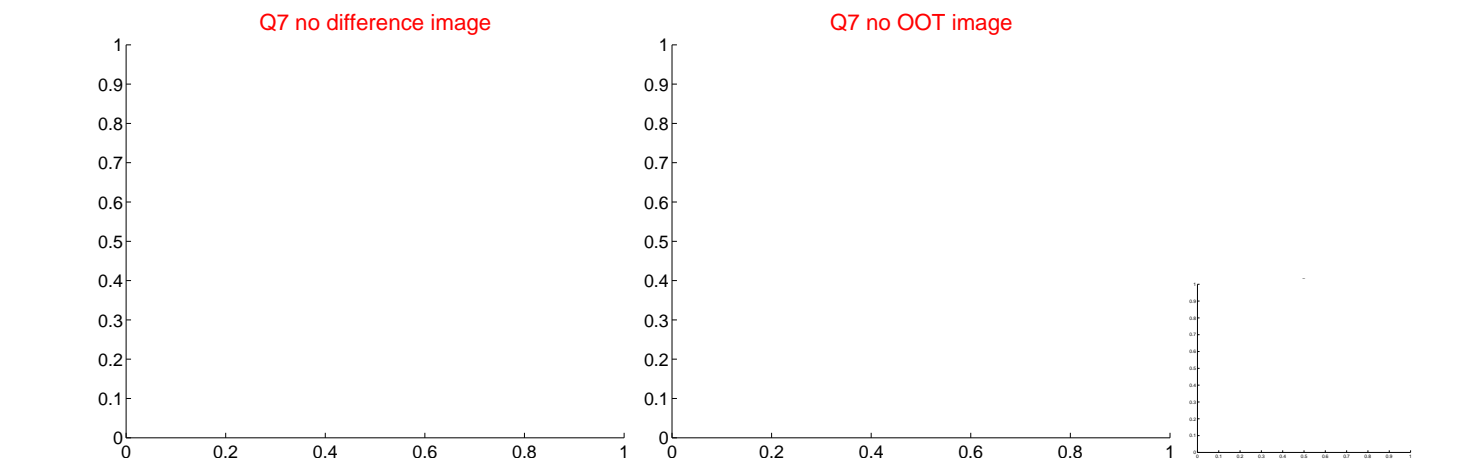
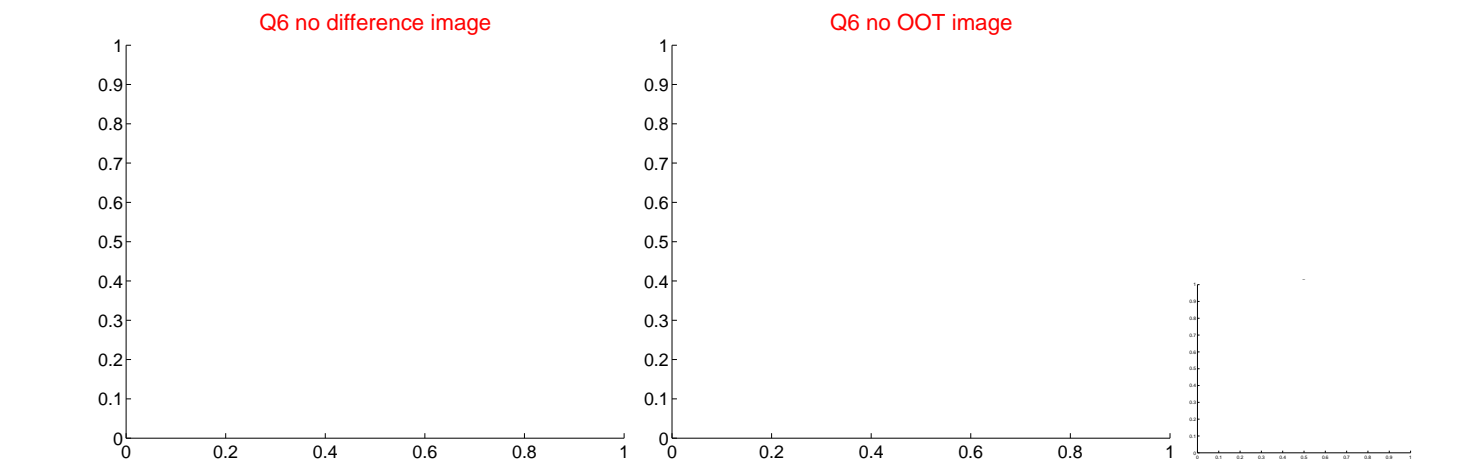
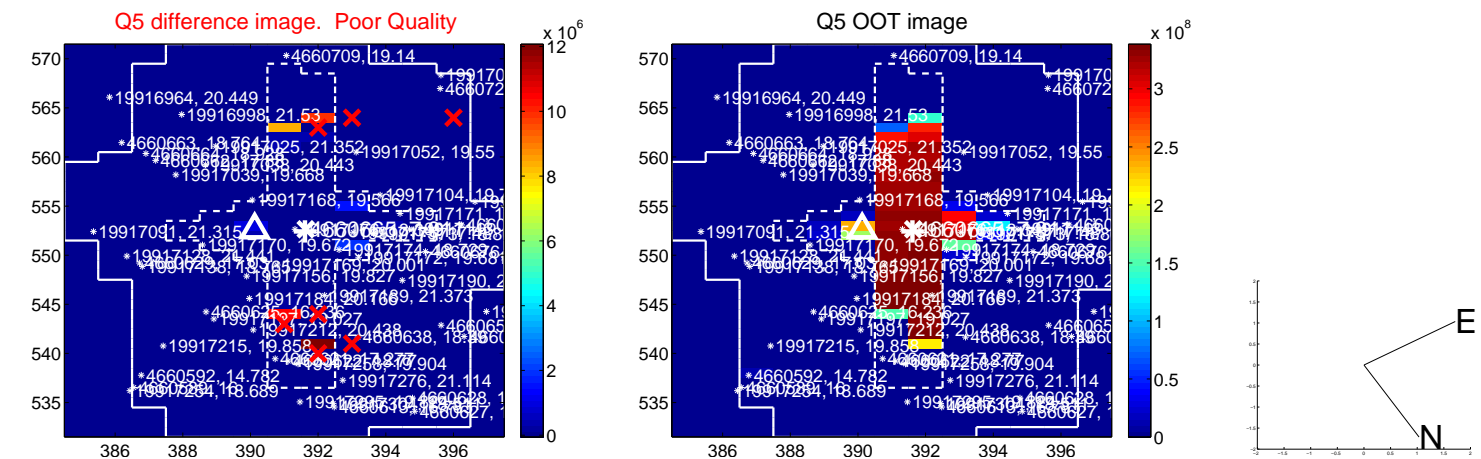


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

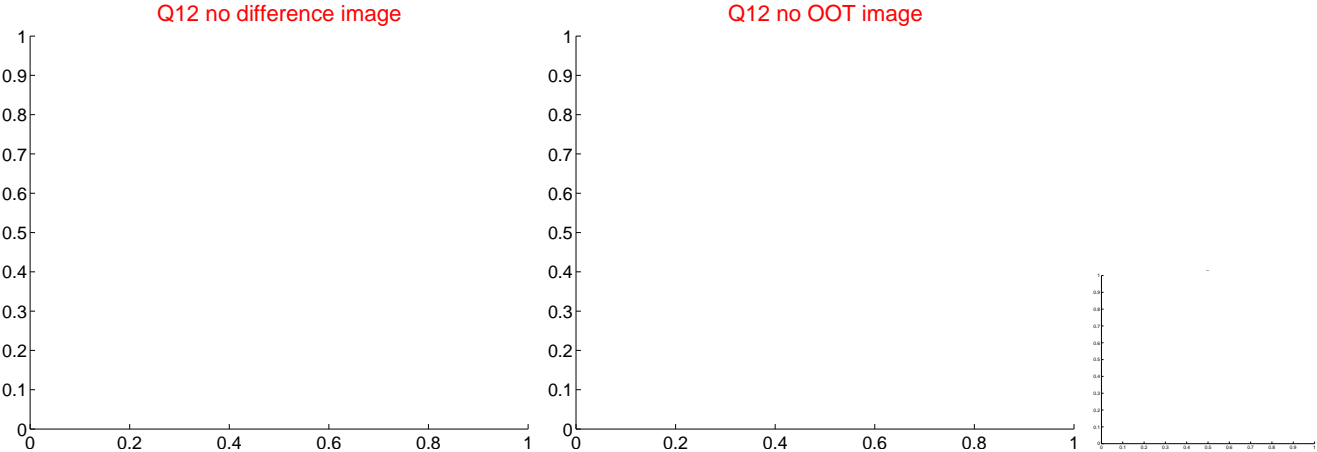
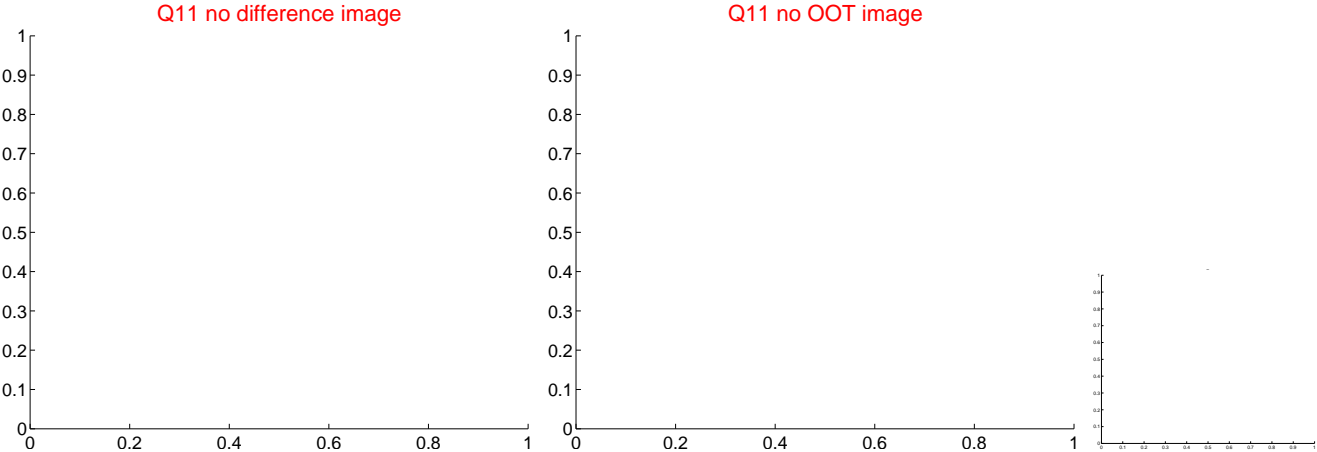
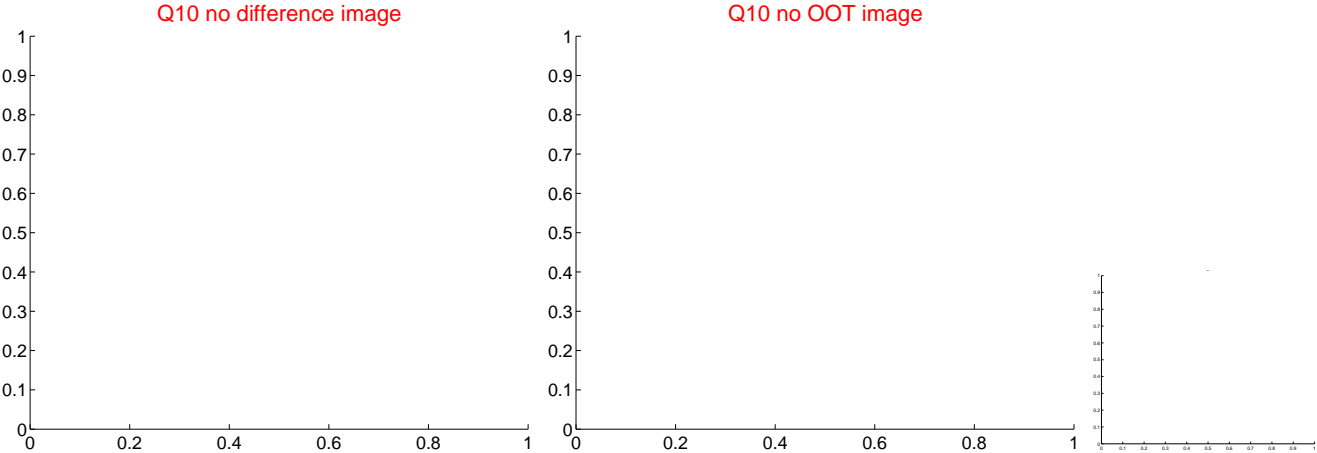
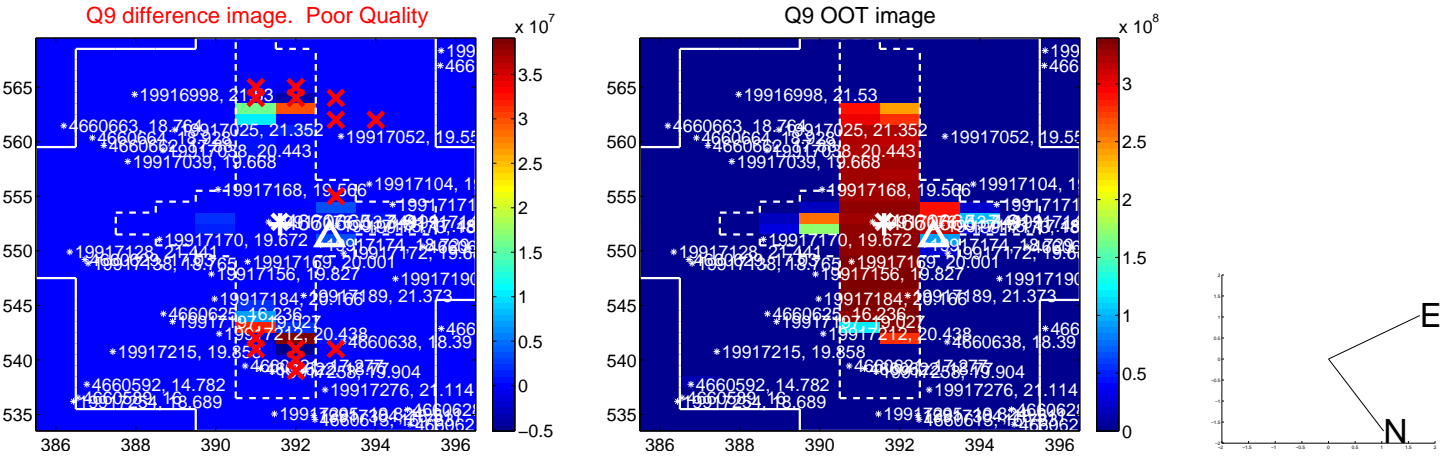
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



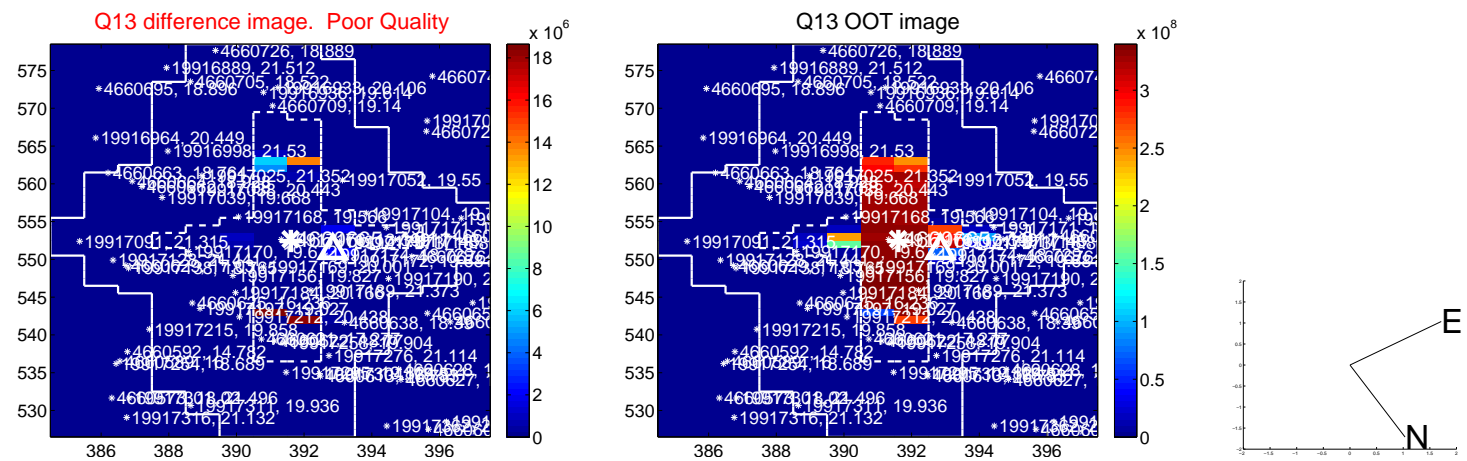
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



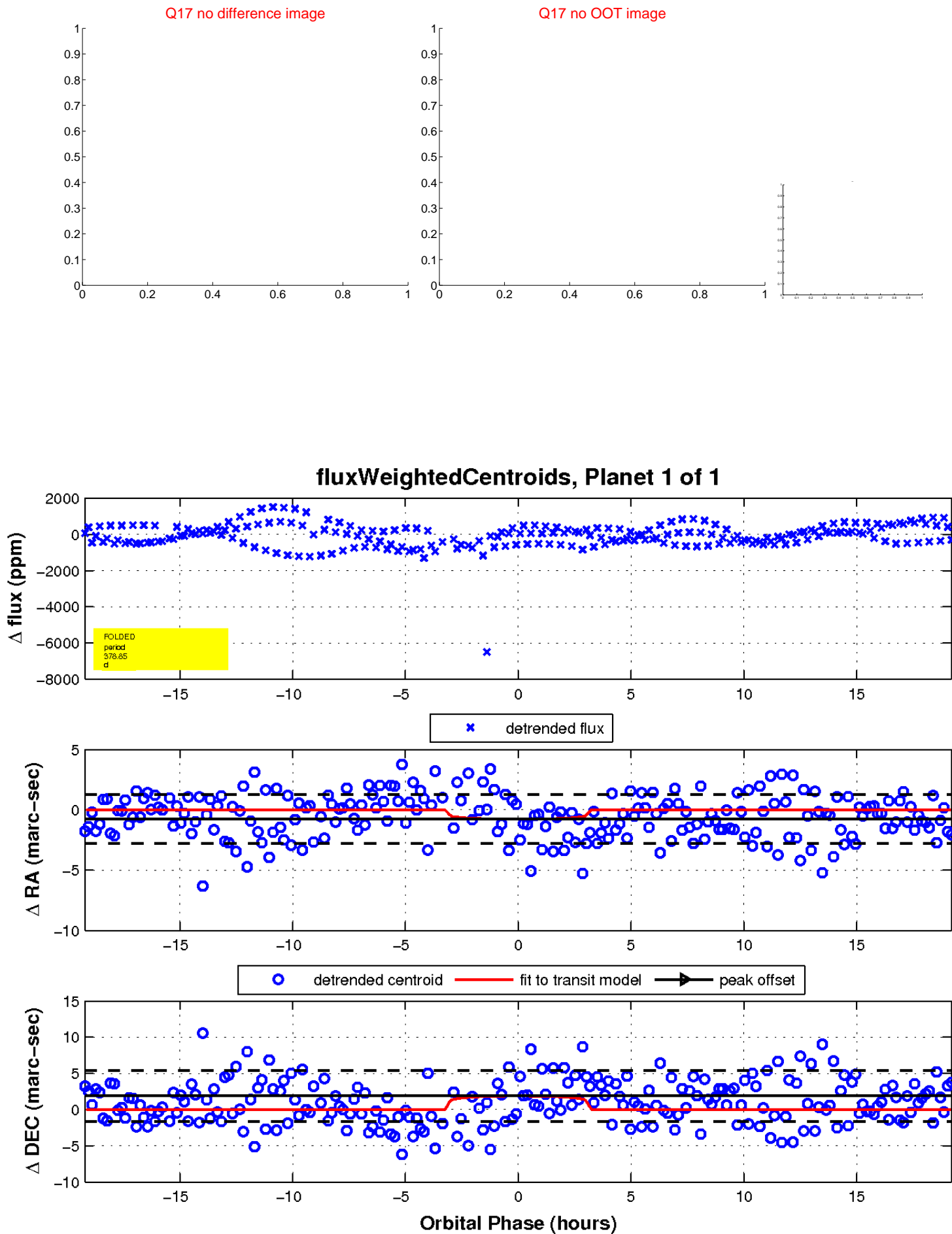
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

