

KIC 010799866

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})
010799866-01	OBS	No	503.264855	347.399074	311.1	10.339	11.4	10.7	1.72	5759	3.34	1.79

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010799866-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_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.

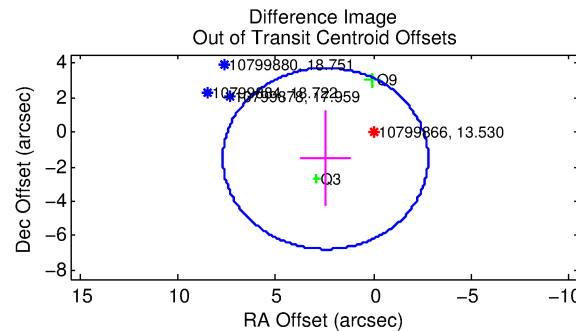
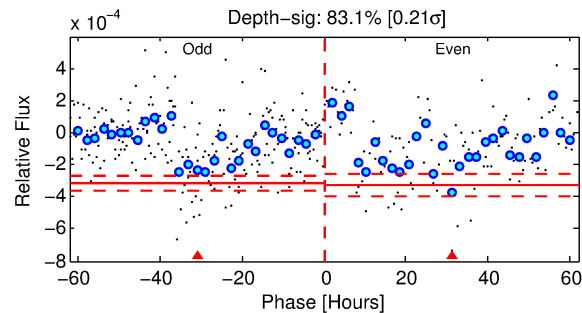
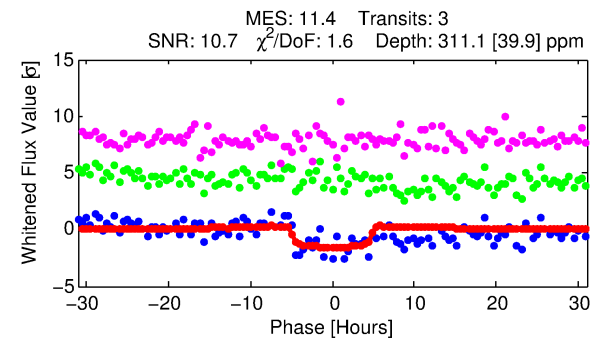
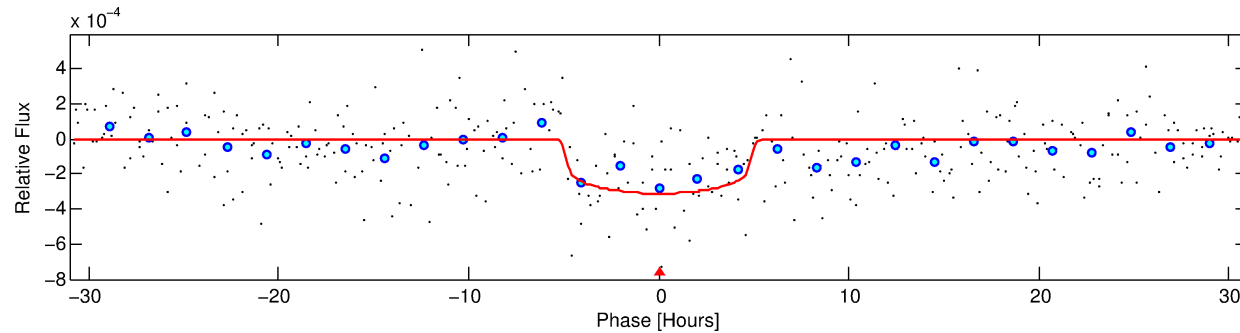
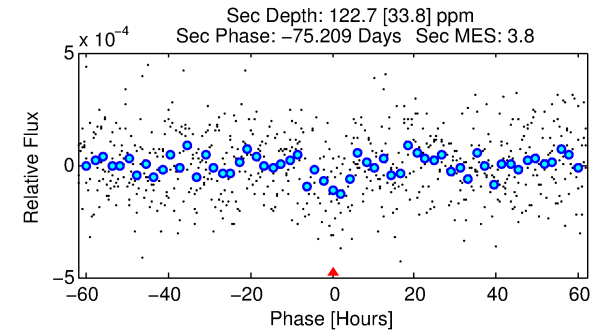
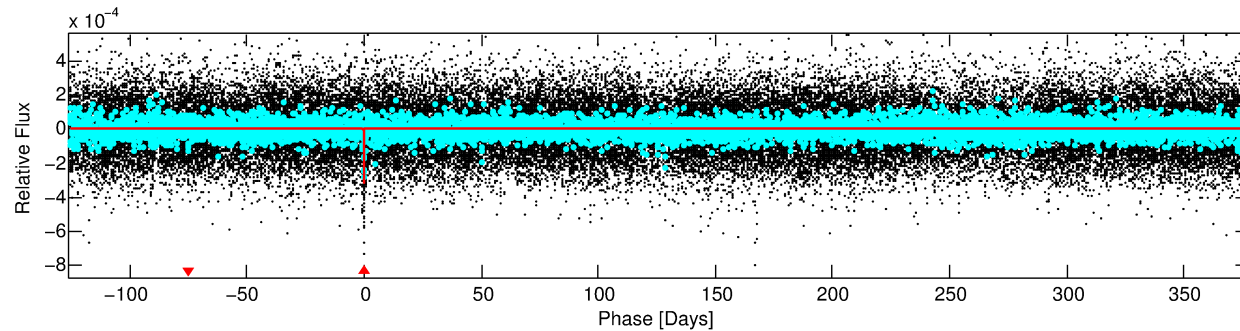
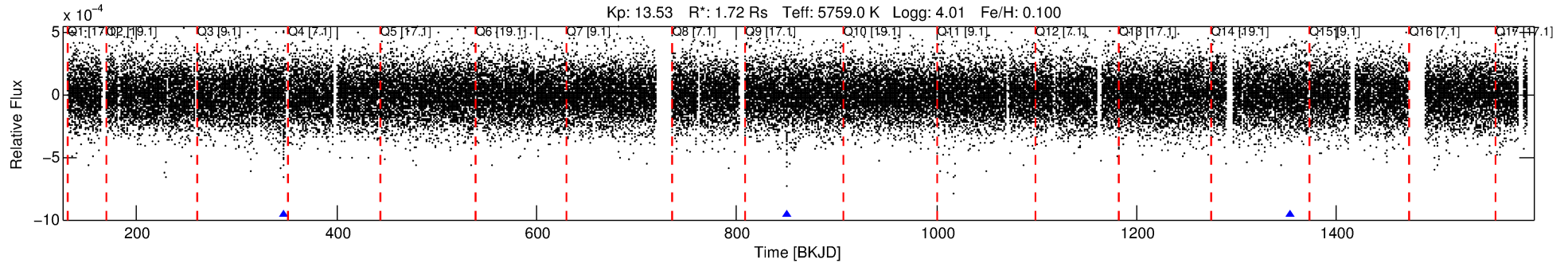
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010799866-01

No Significant Match Found

DV One-Page Summary

KIC: 10799866 Candidate: 1 of 1 Period: 503.265 d



DV Fit Results:

Period = 503.26486 [0.01262] d
Epoch = 347.3991 [0.0170] BKJD
Rp/R* = 0.0178 [0.0068]
a/R* = 243.83 [407.56]
b = 0.78 [0.86]
Seff = 1.79 [1.19]
Teff = 295 [49] K
Rp = 3.34 [1.86] Re
a = 1.2791 [0.5158] AU
Ag = 9914.22 [10379.05] [0.96σ]
Teffp = 4548 [937] K [4.53σ]

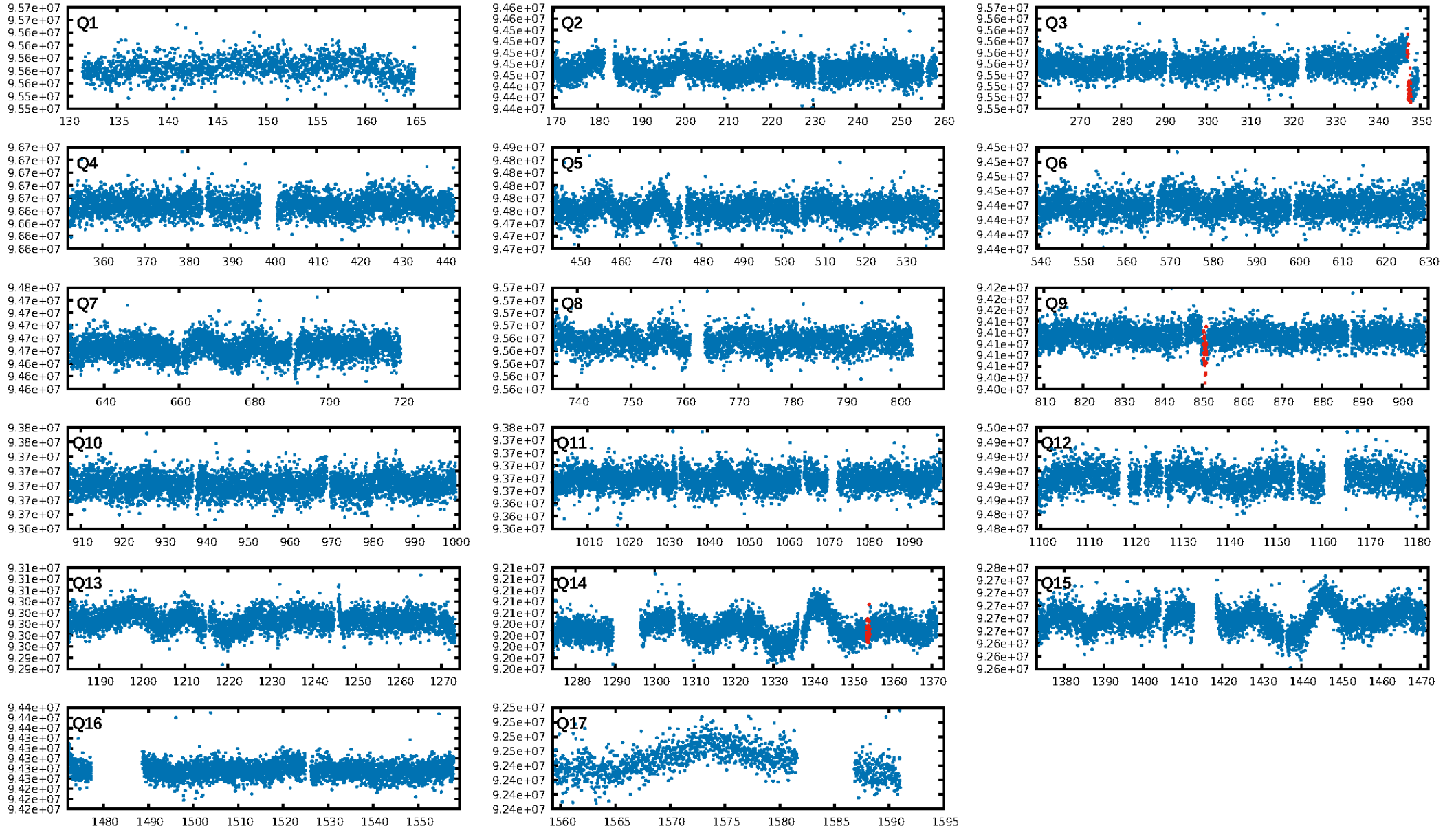
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 58.0%
Bootstrap-pfa: 4.48e-19
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.8404
Centroid-sig: 4.8%
Centroid-so: 1.507 arcsec [1.54σ]
OotOffset-rm: 2.896 arcsec [1.66σ]
KicOffset-rm: 2.871 arcsec [1.63σ]
OotOffset-st: 0/1/0/1 [2]
KicOffset-st: 0/1/0/1 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [3/3]

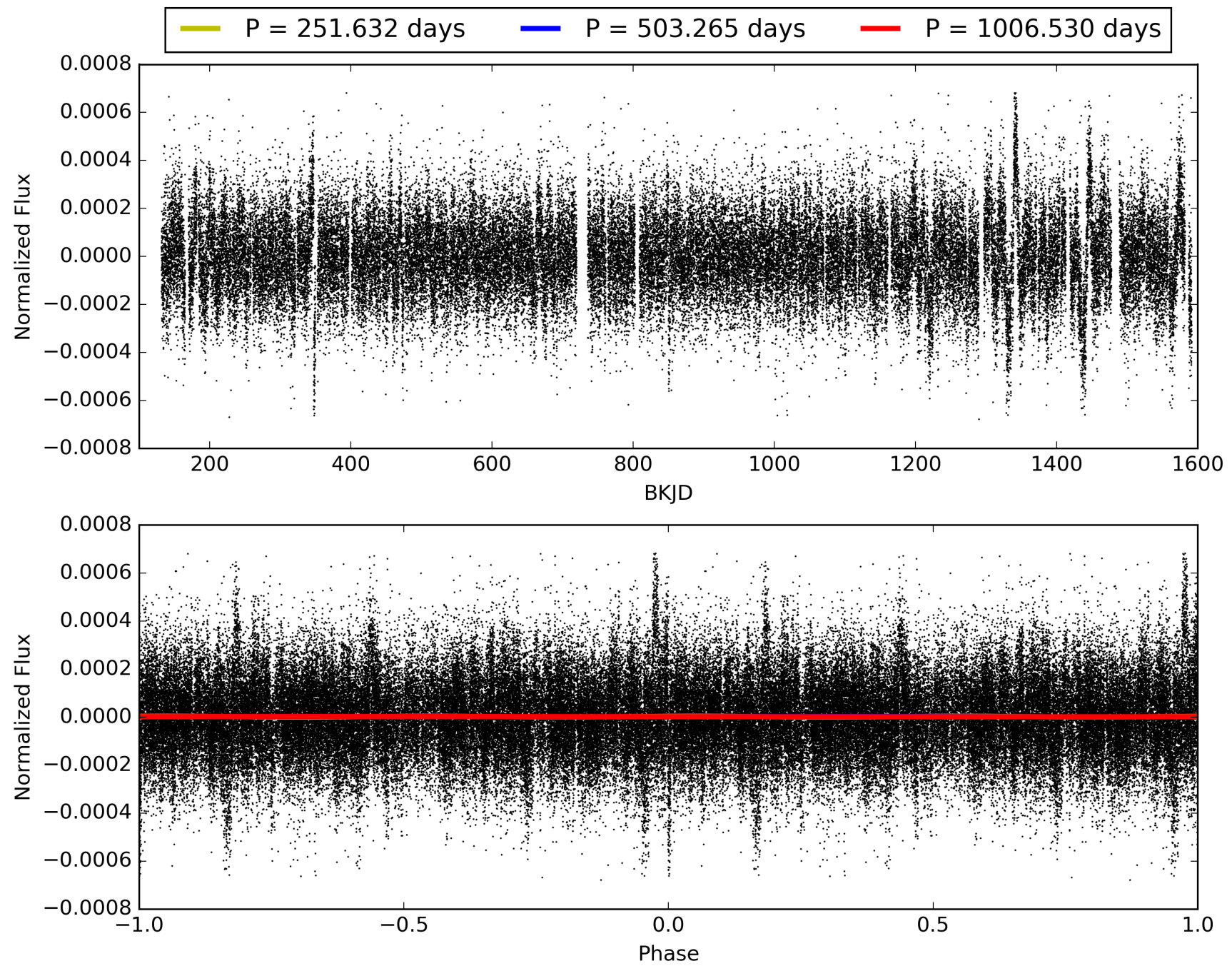
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 19:56:01 Z

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

TCE 010799866-01, PDC Light Curves

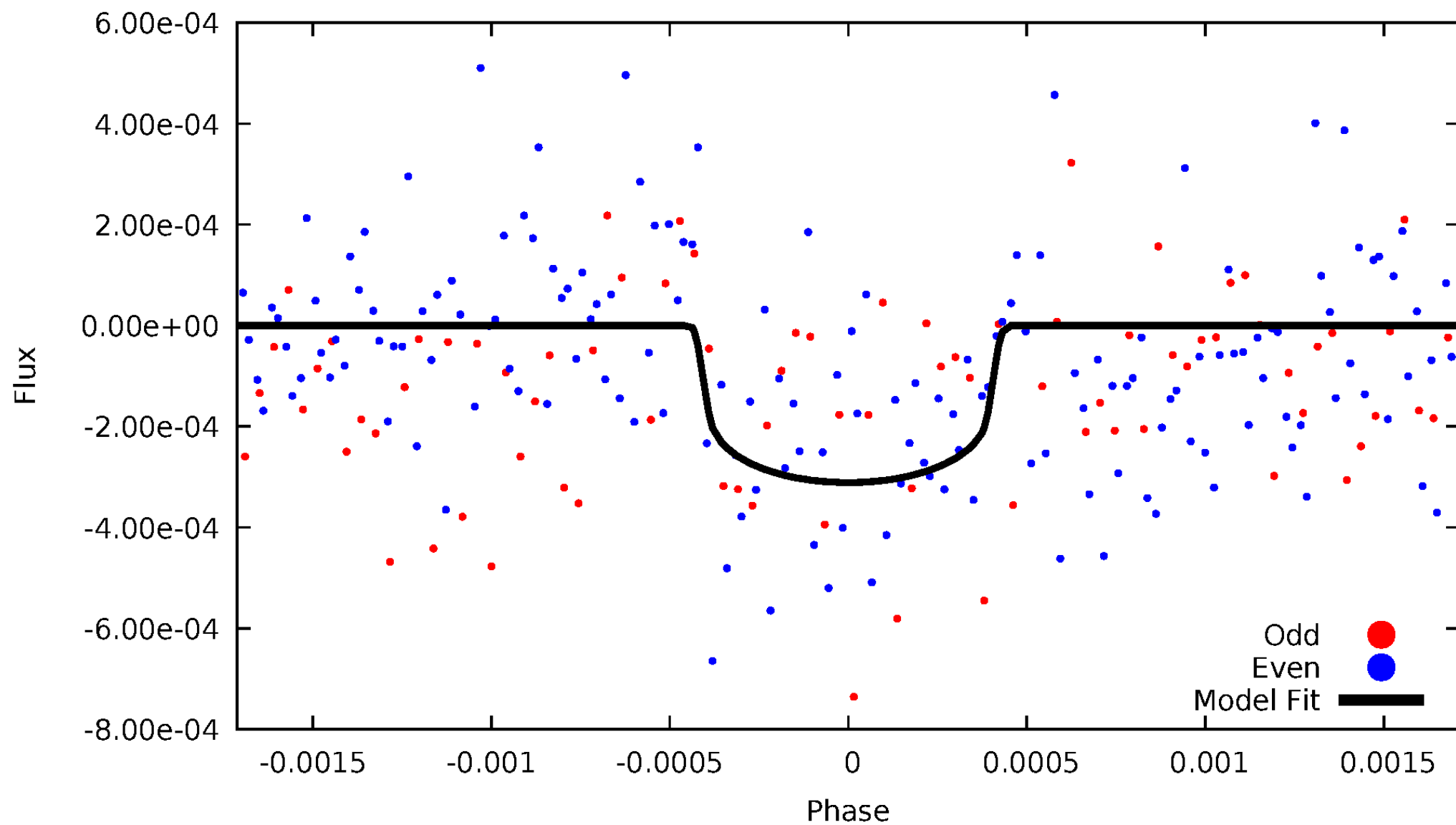


TCE 010799866-01



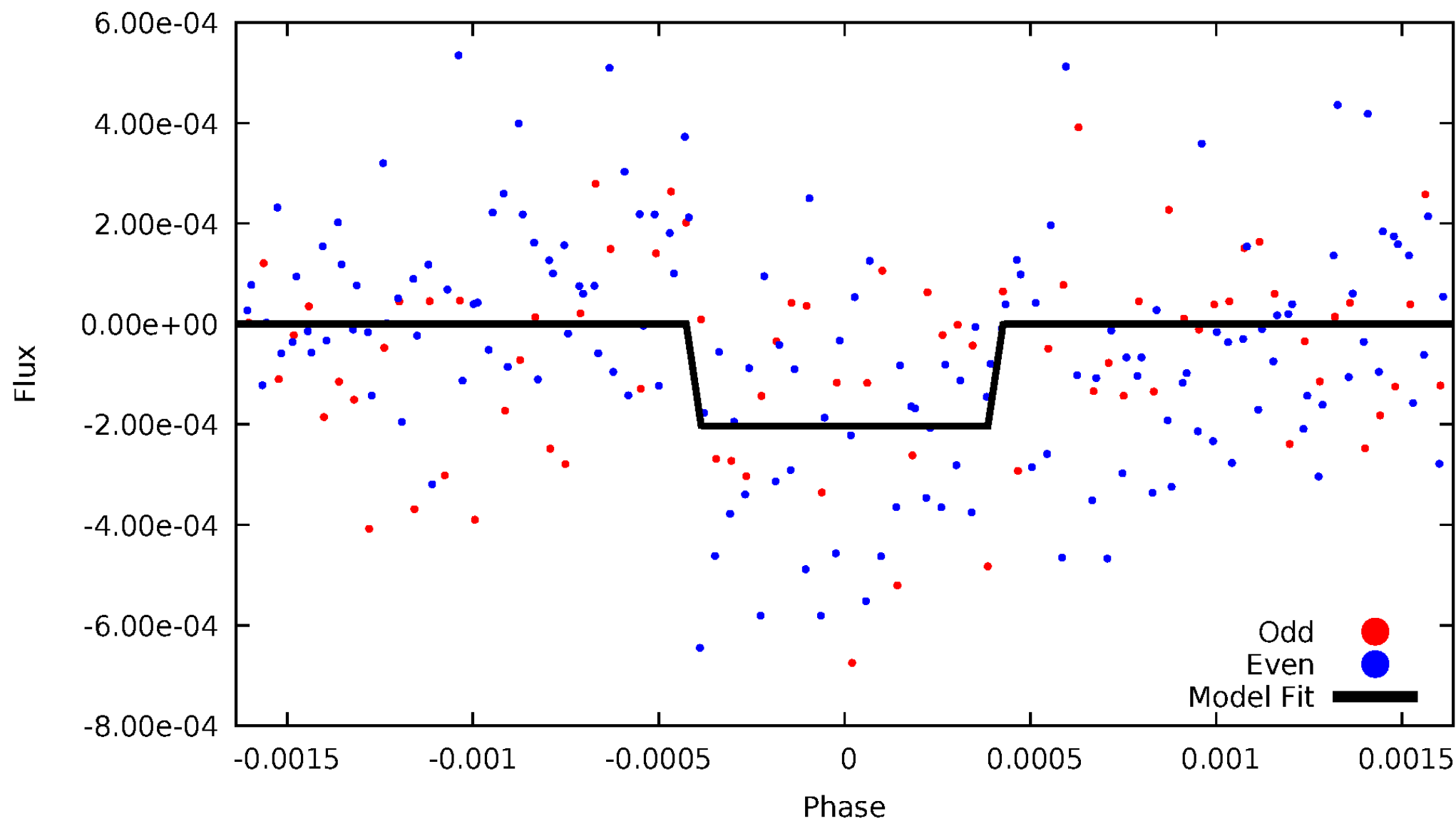
DV Odd/Even

TCE 010799866-01

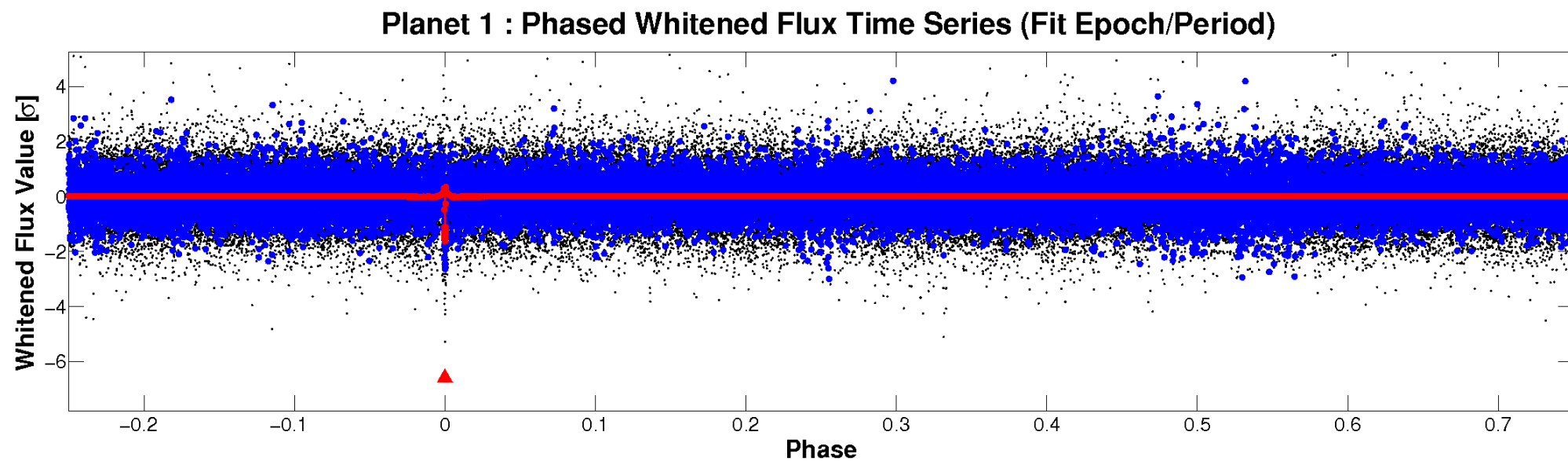
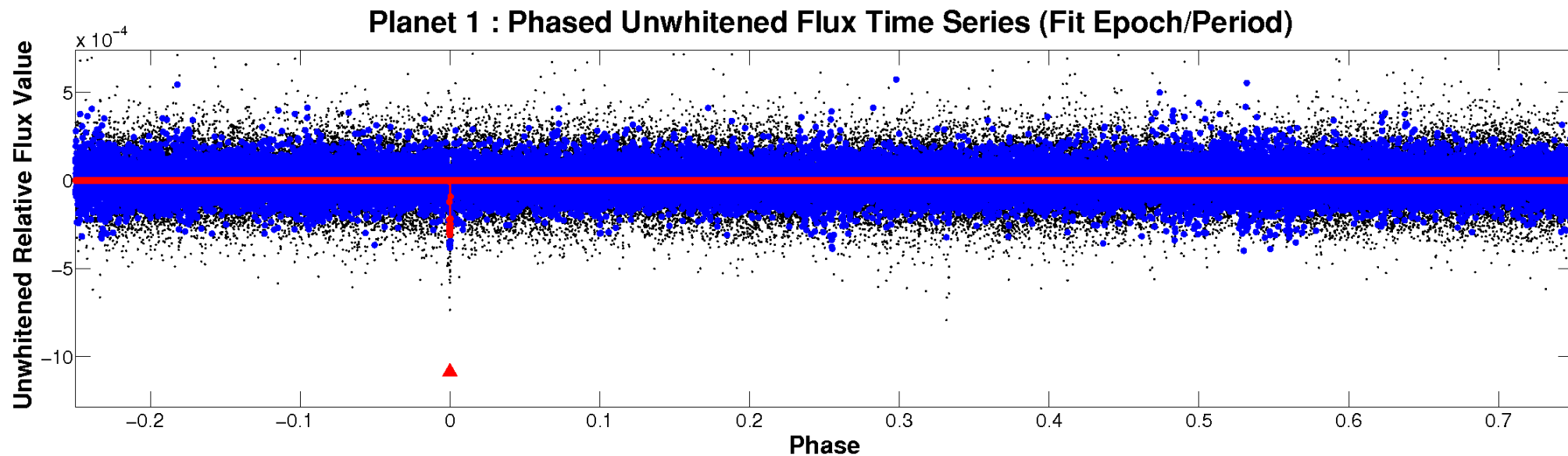


ALT Odd/Even

TCE 010799866-01

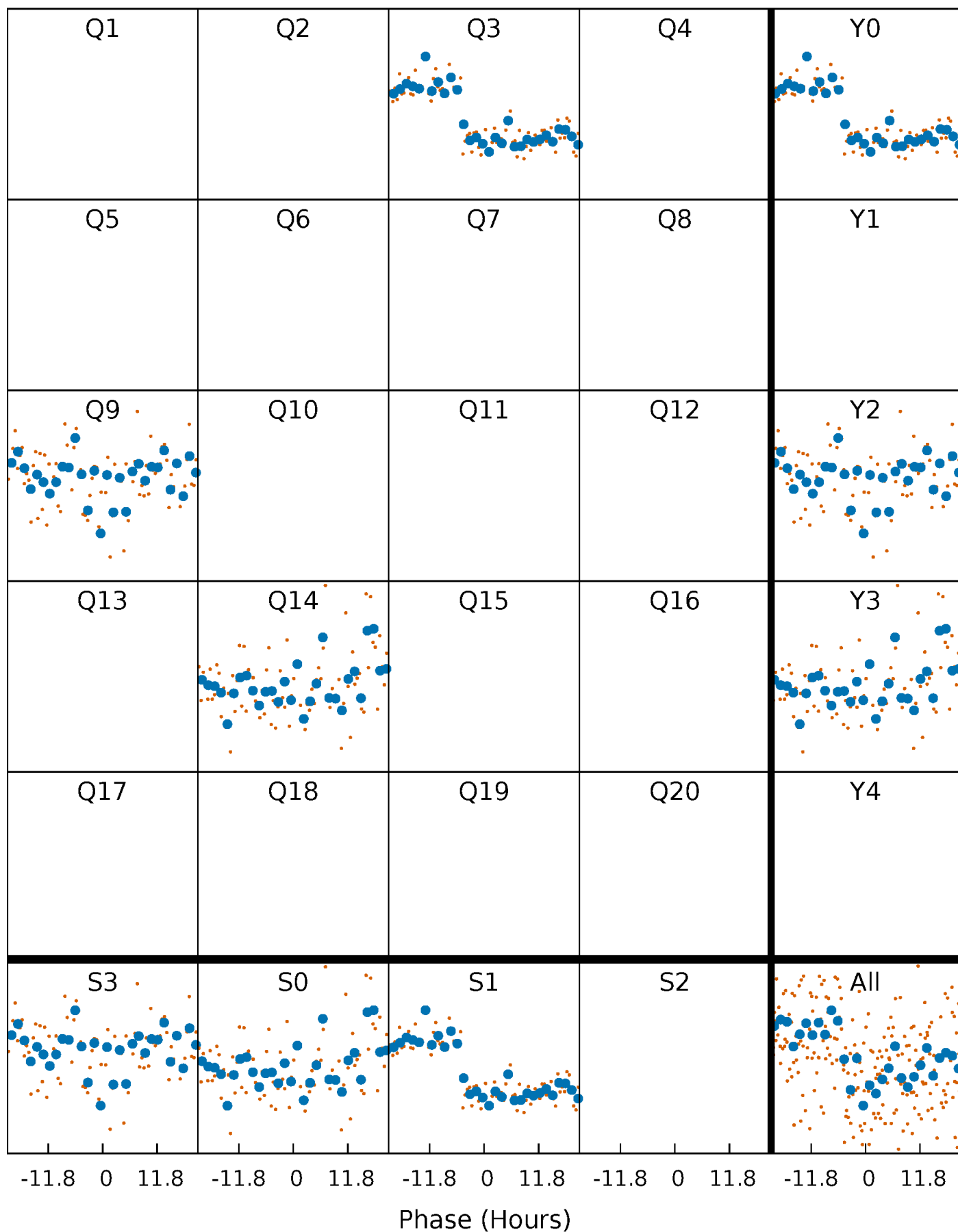


Non-Whitened Vs. Whitened Light Curve



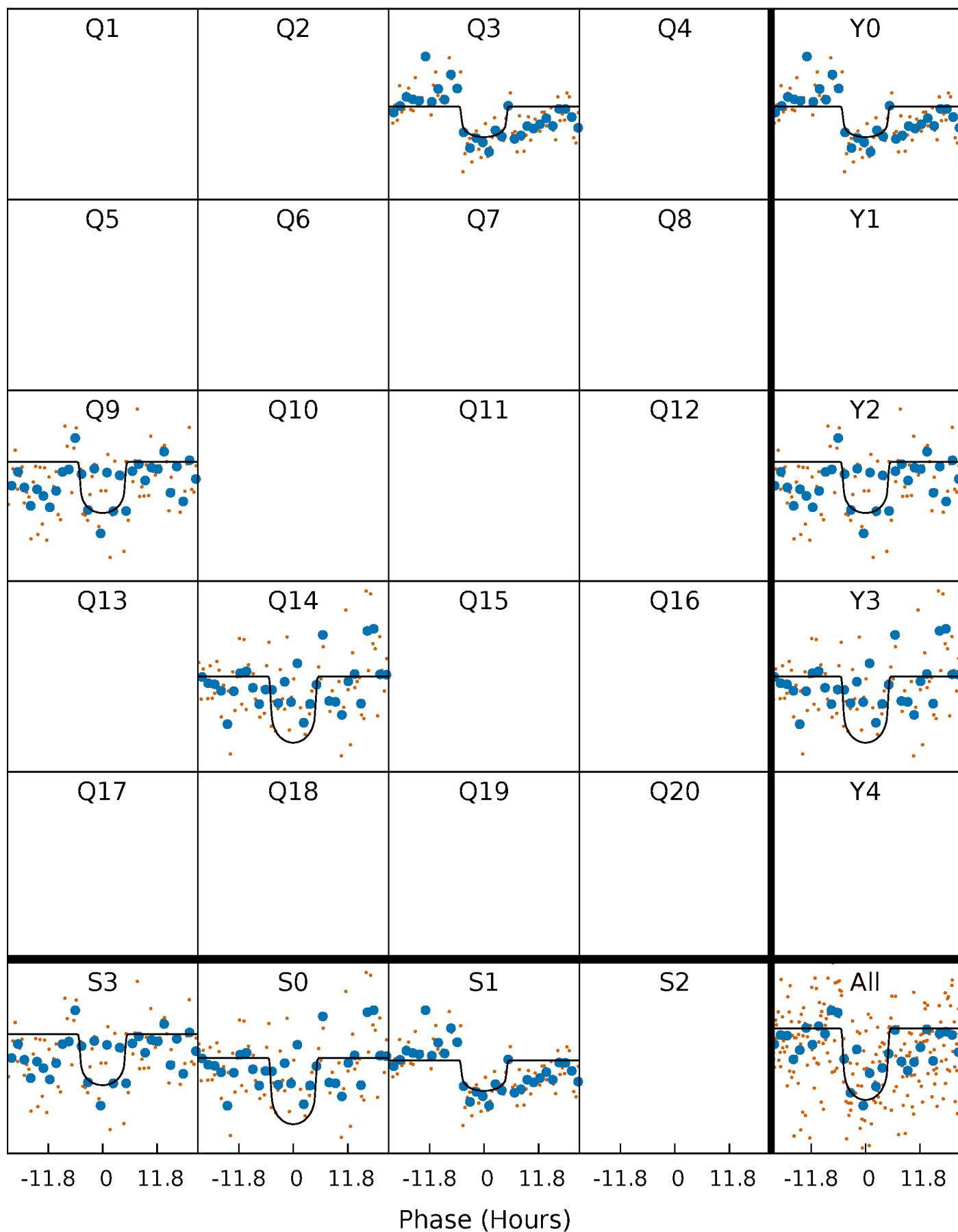
PDC Quarter-Phased Transit Curves

TCE 010799866-01 P=503.264855 Days $T_0=347.399074$ (BKJD)



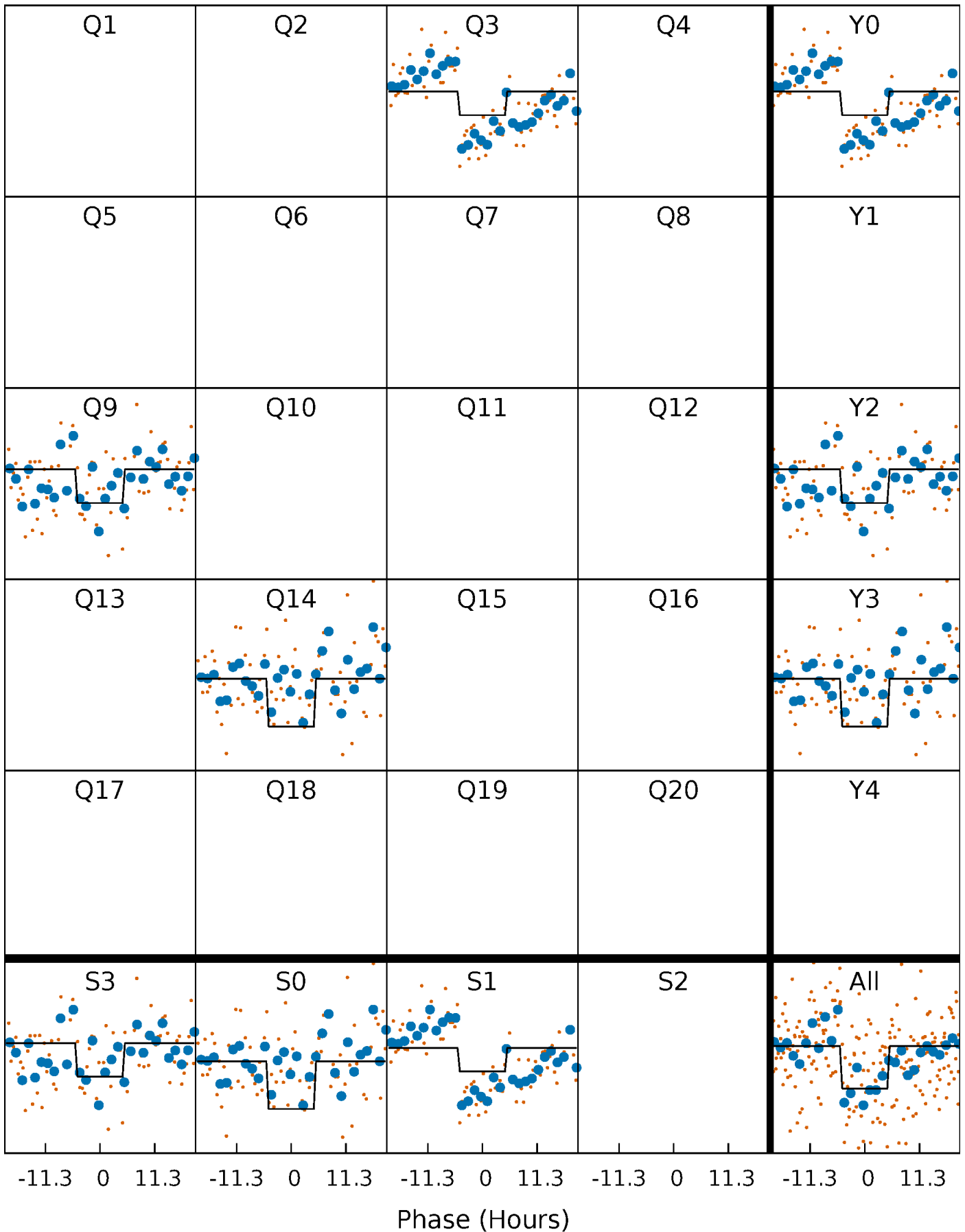
DV Quarter-Phased Transit Curves

TCE 010799866-01 $P=503.264855$ Days $T_0=347.399074$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

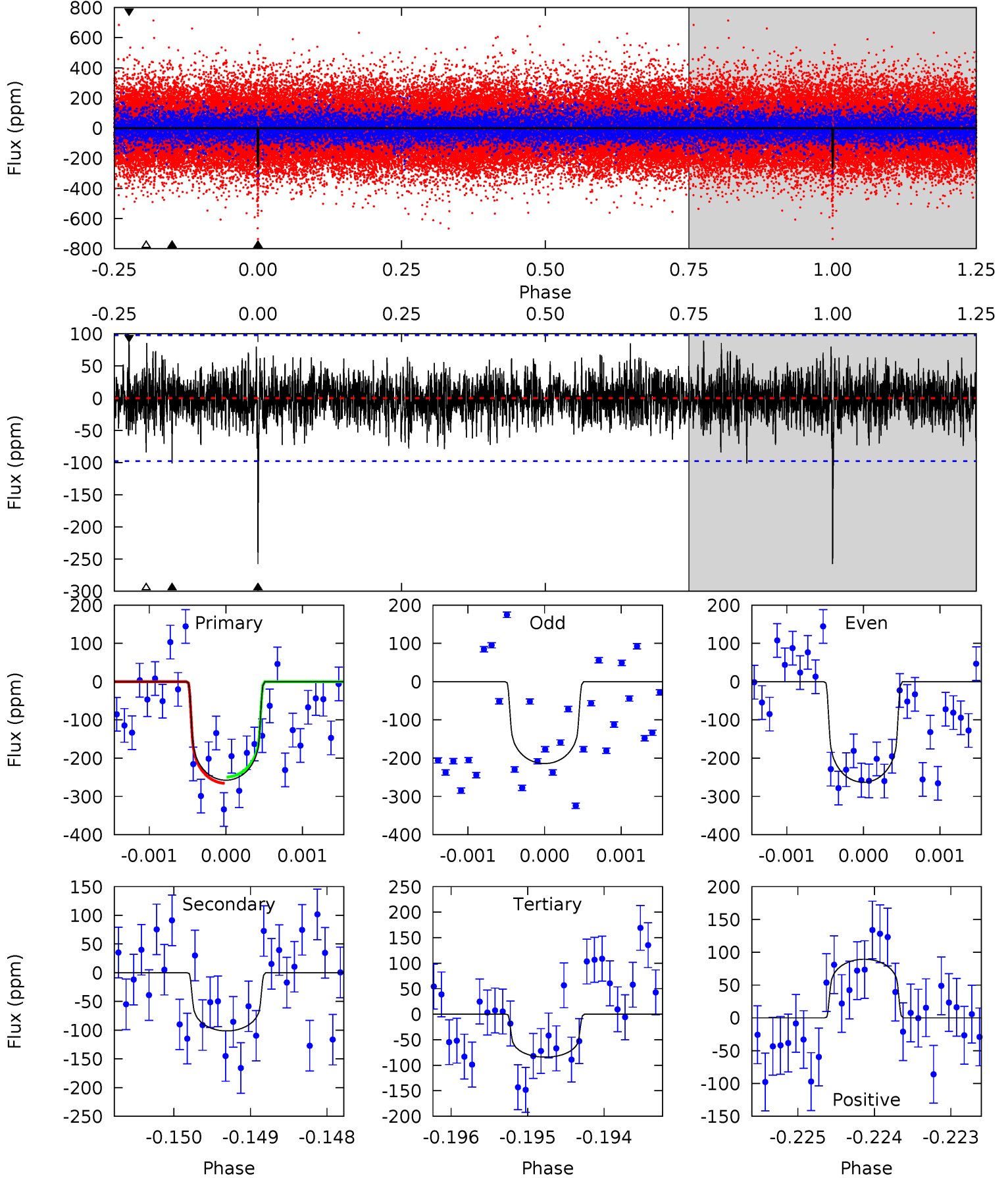
TCE 010799866-01 P=503.258149 Days $T_0=347.403445$ (BKJD)



DV Model-Shift Uniqueness Test

010799866-01, P = 503.264855 Days, E = 347.399074 Days

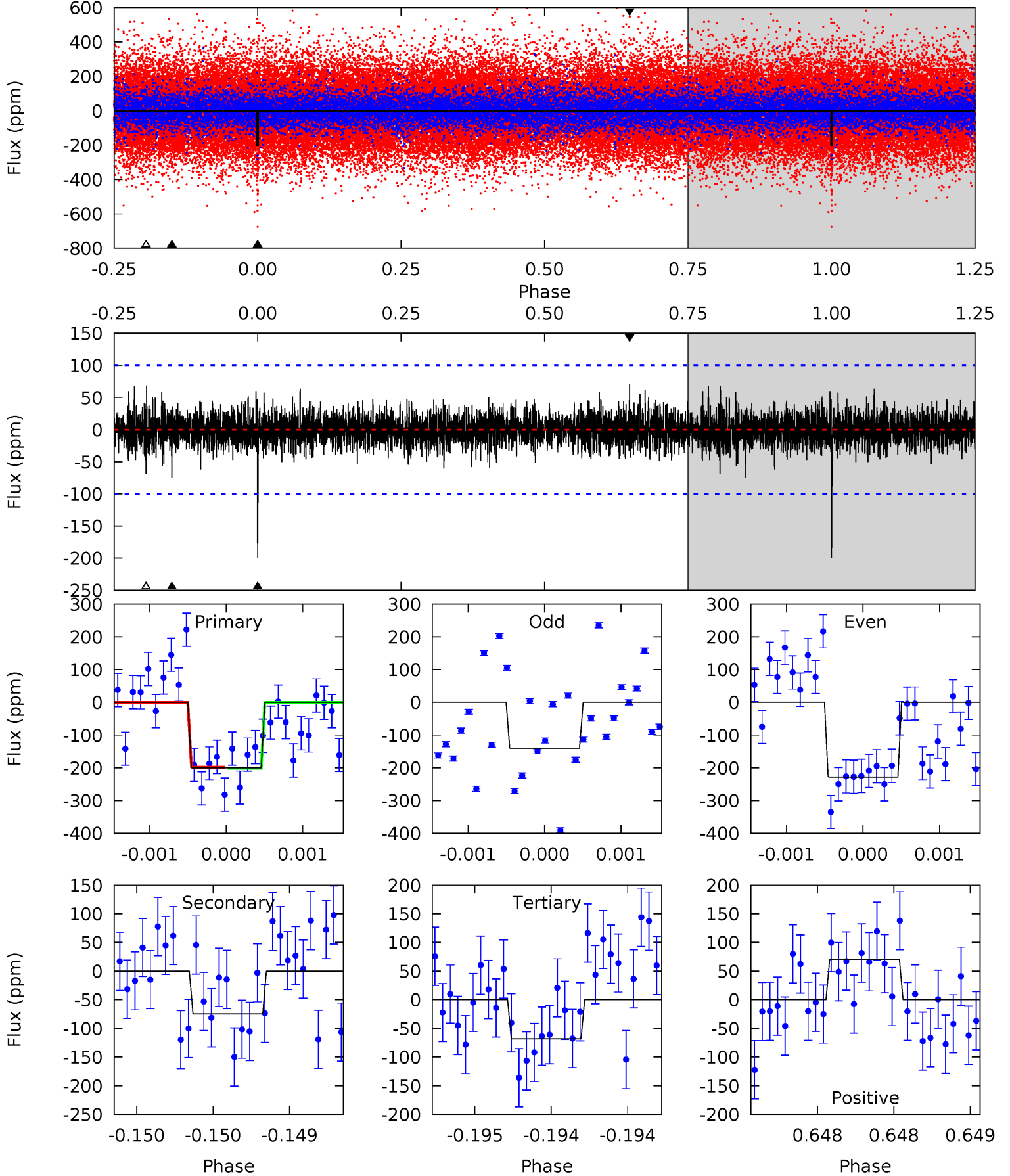
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.4	5.66	4.70	4.99	5.47	3.32	1.32	9.70	9.40	0.96	0.67	1.29	1.03	0.26	0.46



Alt Model-Shift Uniqueness Test

010799866-01, P = 503.258149 Days, E = 347.403445 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.9	4.07	3.73	3.84	5.48	3.34	0.92	7.18	7.07	0.35	0.23	2.25	1.22	0.26	0.07



Stellar Parameters For KIC 010799866

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5759^{+158}_{-175}	$4.008^{+0.390}_{-0.130}$	$0.100^{+0.250}_{-0.300}$	$1.722^{+0.376}_{-0.698}$	$1.103^{+0.144}_{-0.175}$	$0.304^{+0.953}_{-0.115}$
	+3%/-3%	+10%/-3%	+250%/-300%	+22%/-41%	+13%/-16%	+313%/-38%
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 010799866-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-101 ± 18	$3.08^{+1.36}_{-1.20}$	404^{+28}_{-46}	4473^{+959}_{-488}	9680^{+16261}_{-5113}
Alt.	-75 ± 18	$2.52^{+1.27}_{-1.23}$	405^{+29}_{-45}	4631^{+1501}_{-651}	10684^{+30444}_{-6227}

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

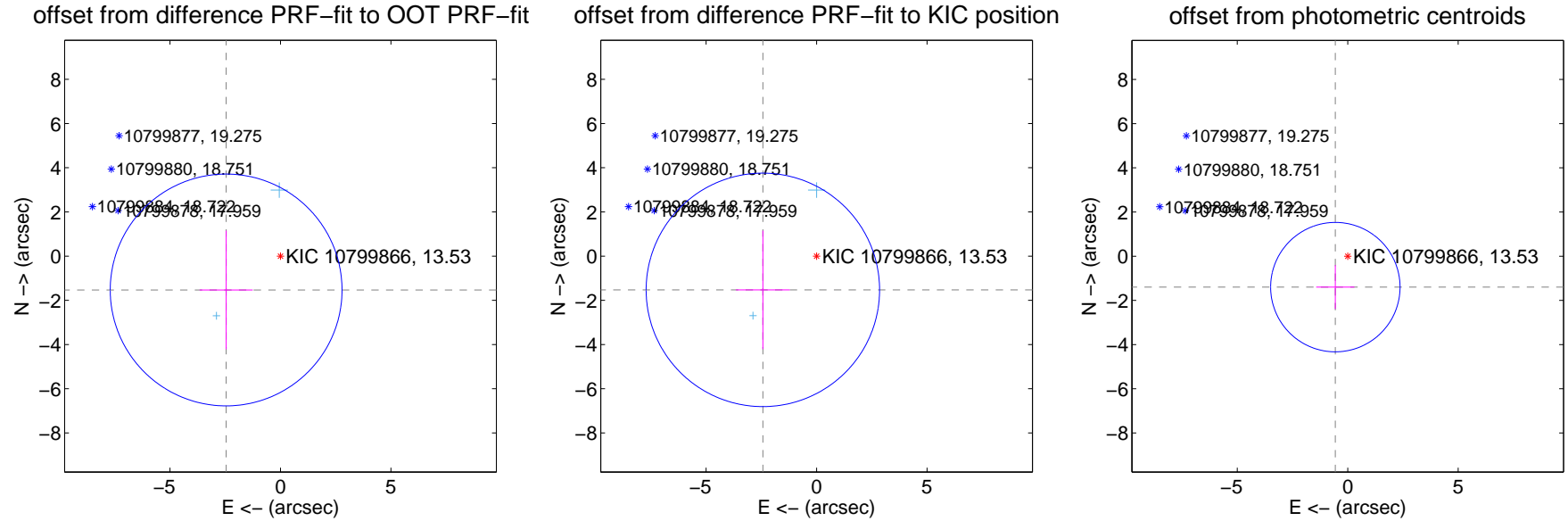
DV Centroid Data

Supplemental centroid analysis for 010799866-01. Kepler magnitude: 13.53. Transit SNR 10.72

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	2.896 ± 1.748	1.66	2.458 ± 1.203	-1.531 ± 2.684
PRF-fit source offset from KIC position	2.871 ± 1.761	1.63	2.431 ± 1.218	-1.527 ± 2.682
photometric centroid source offset	1.51 ± 0.98	1.54	0.56 ± 0.86	-1.40 ± 0.99



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.

Q1 no difference image



Q1 no OOT image



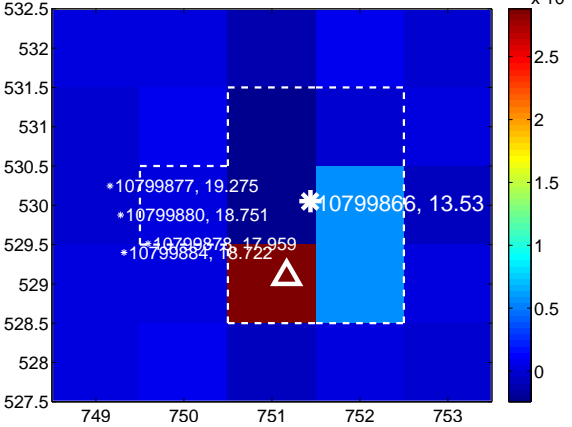
Q2 no difference image



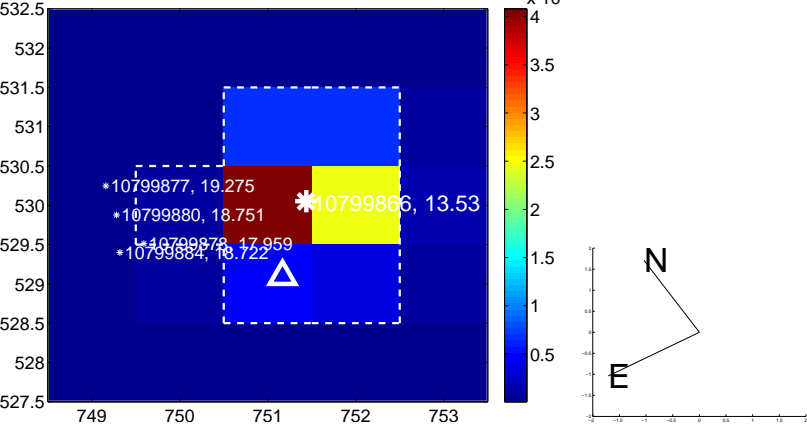
Q2 no OOT image



Q3 difference image



Q3 OOT image



Q4 no difference image



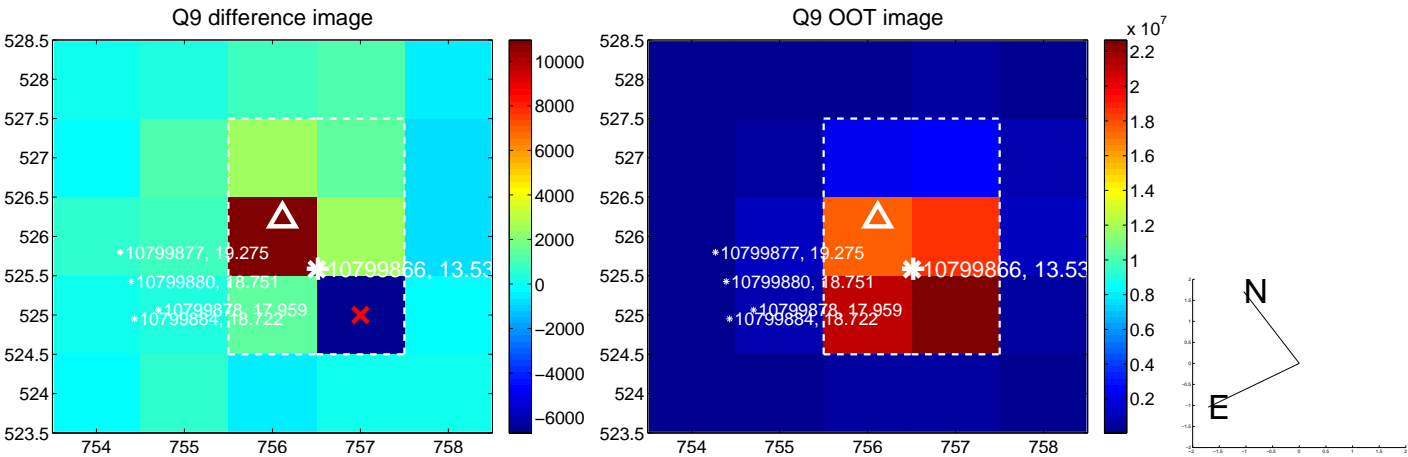
Q4 no OOT image



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.

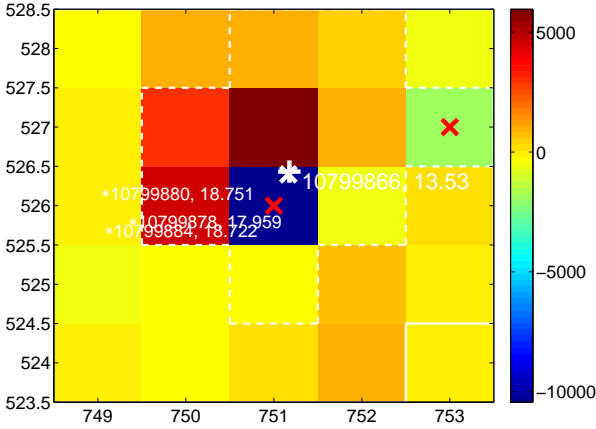
Q13 no difference image



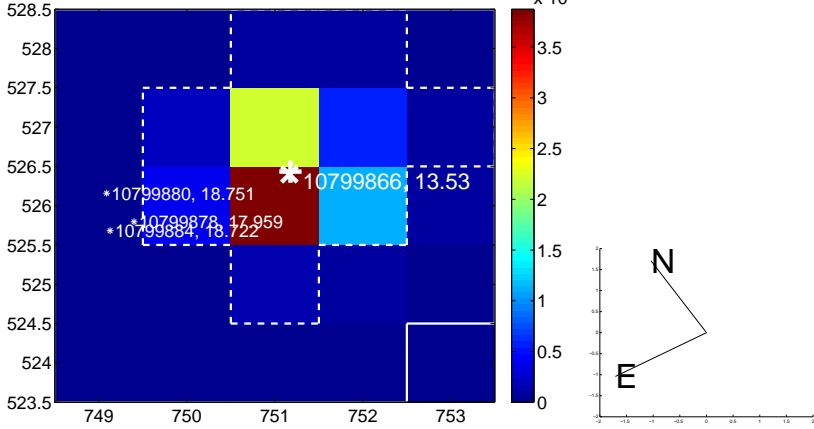
Q13 no OOT image



Q14 difference image. Poor Quality



Q14 OOT image



Q15 no difference image



Q15 no OOT image



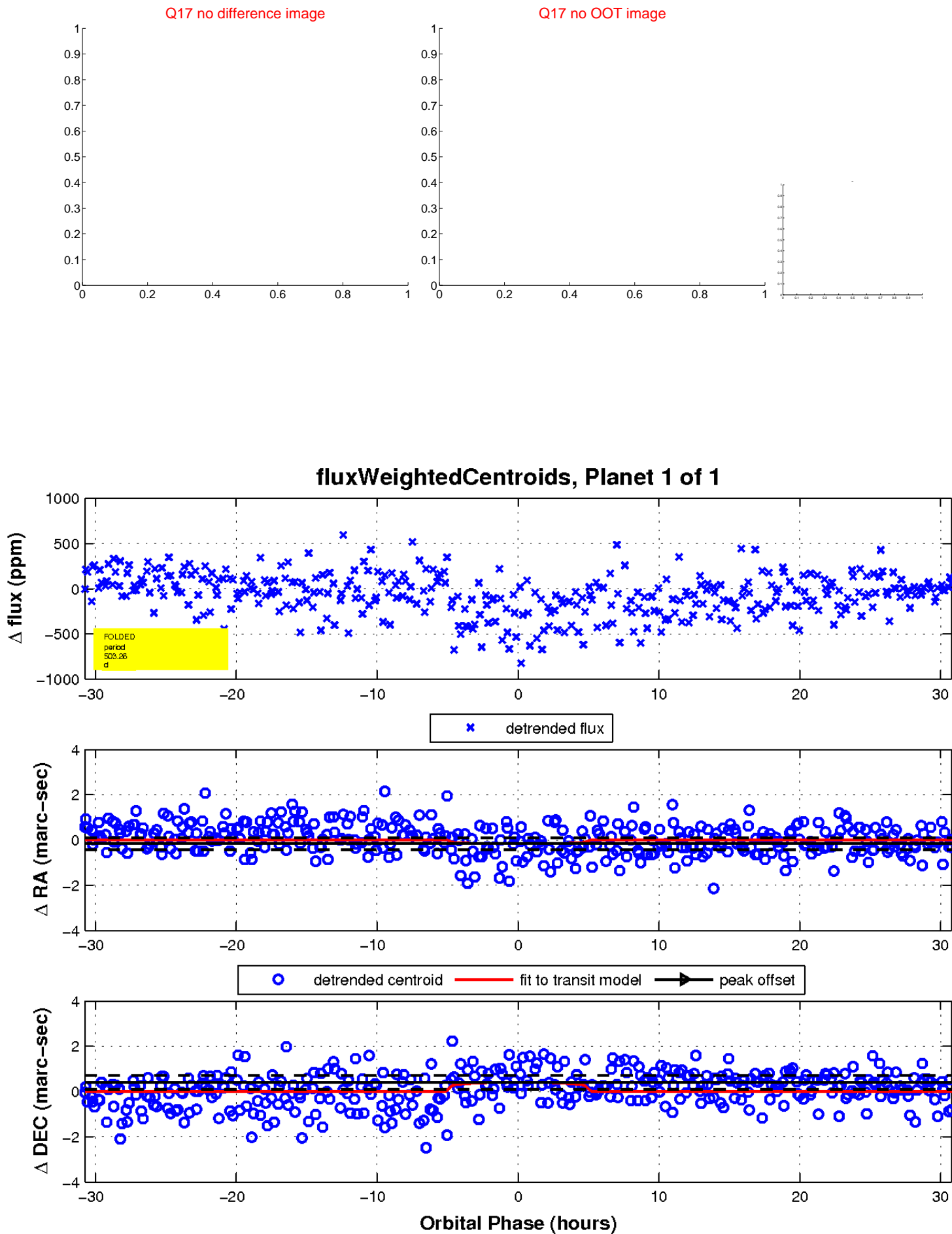
Q16 no difference image



Q16 no OOT image



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



UKIRT Image

Declination

