

KIC 010011212

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})
010011212-01	OBS	No	98.711545	214.189965	1095.2	2.613	10.3	12.0	16.08	5006	56.52	384.22

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010011212-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— INCONSISTENT_TRANS—CENT_FEW_MEAS

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

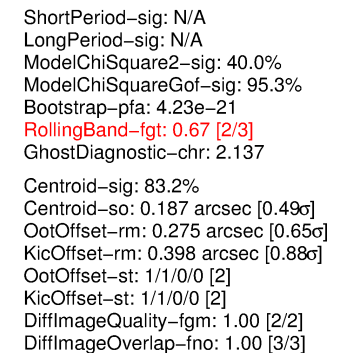
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

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

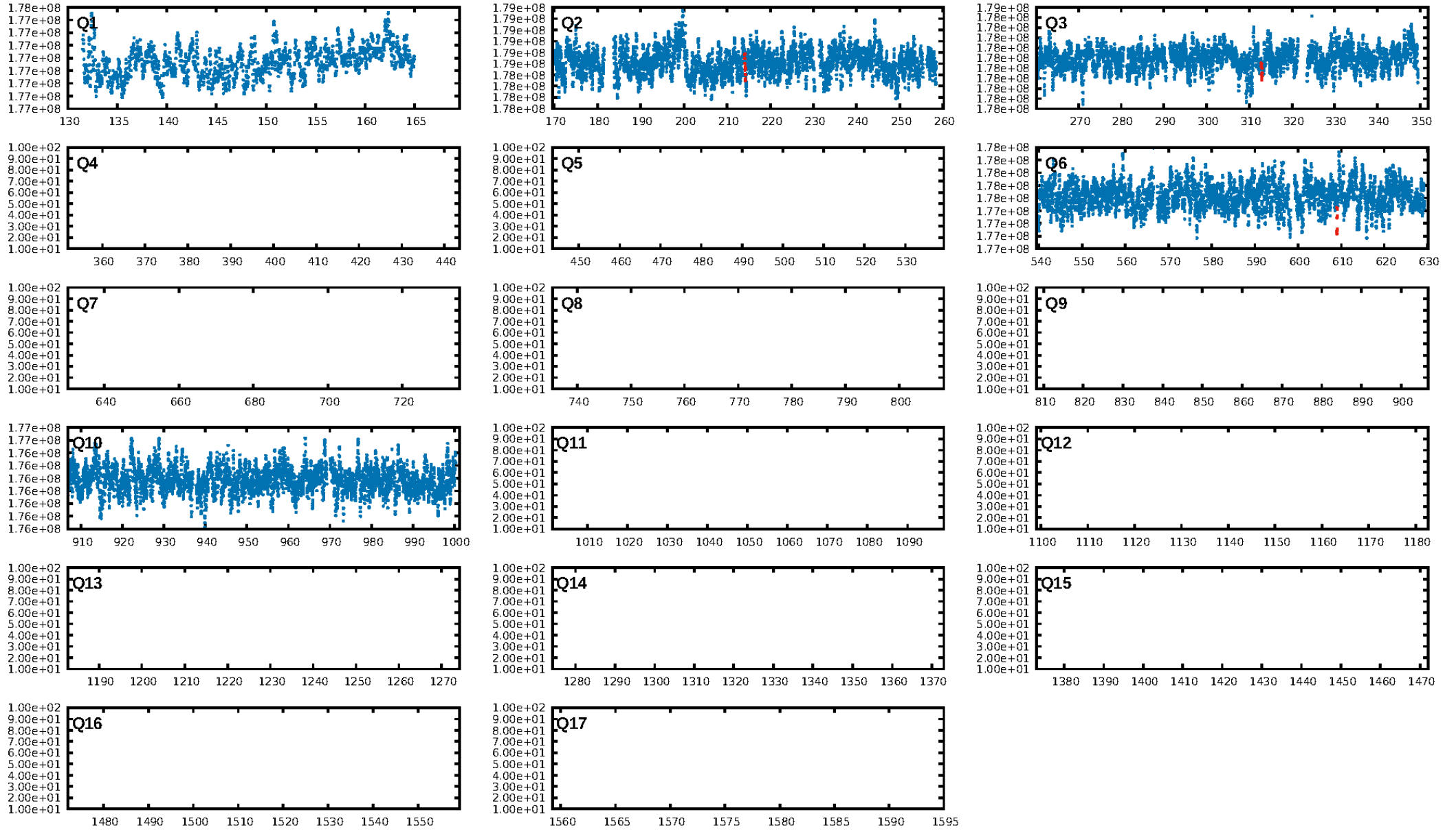
Ephemeris Match Information For 010011212-01

No Significant Match Found

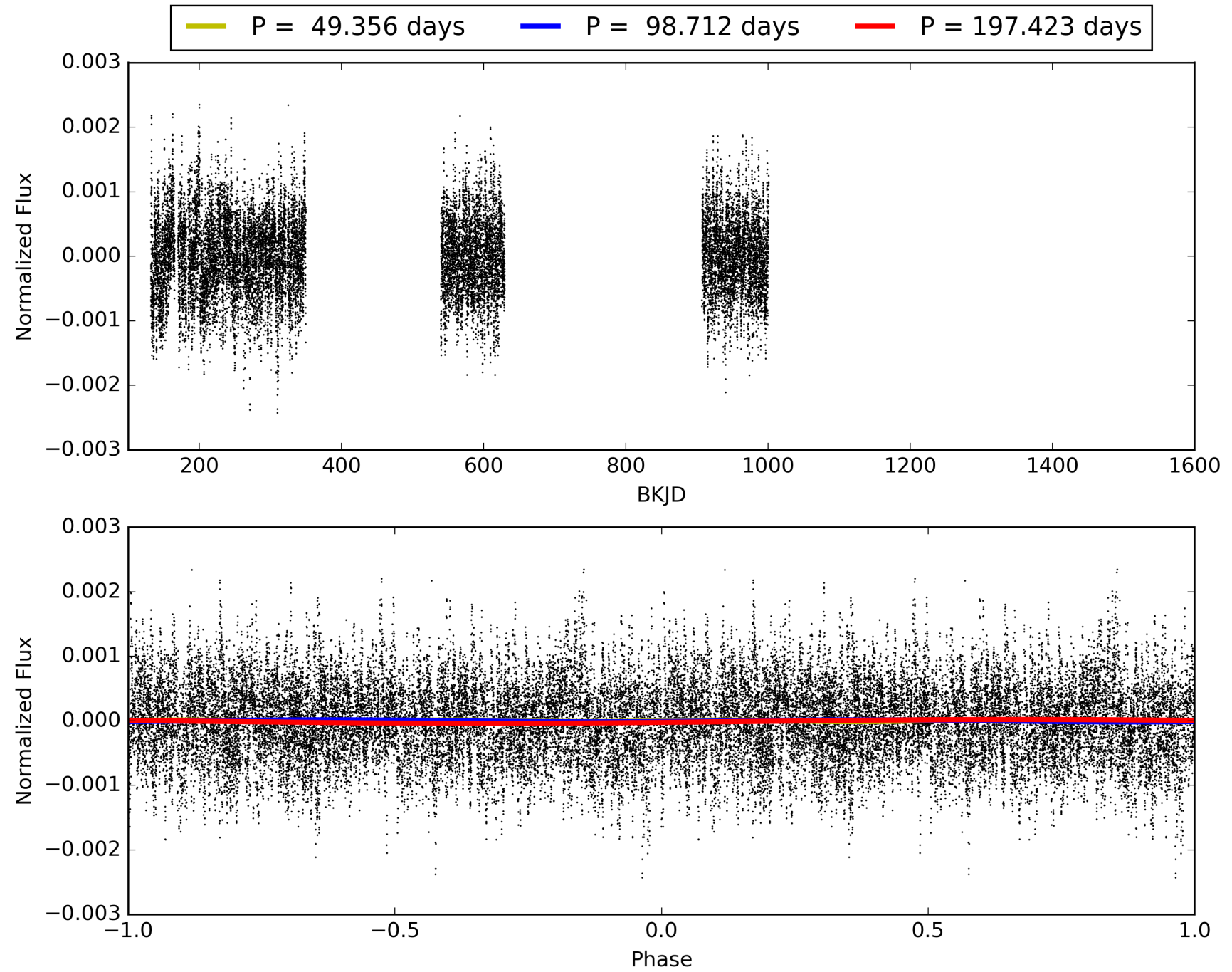
KIC: 10011212 Candidate: 1 of 1 Period: 98.712 d



TCE 010011212-01, PDC Light Curves

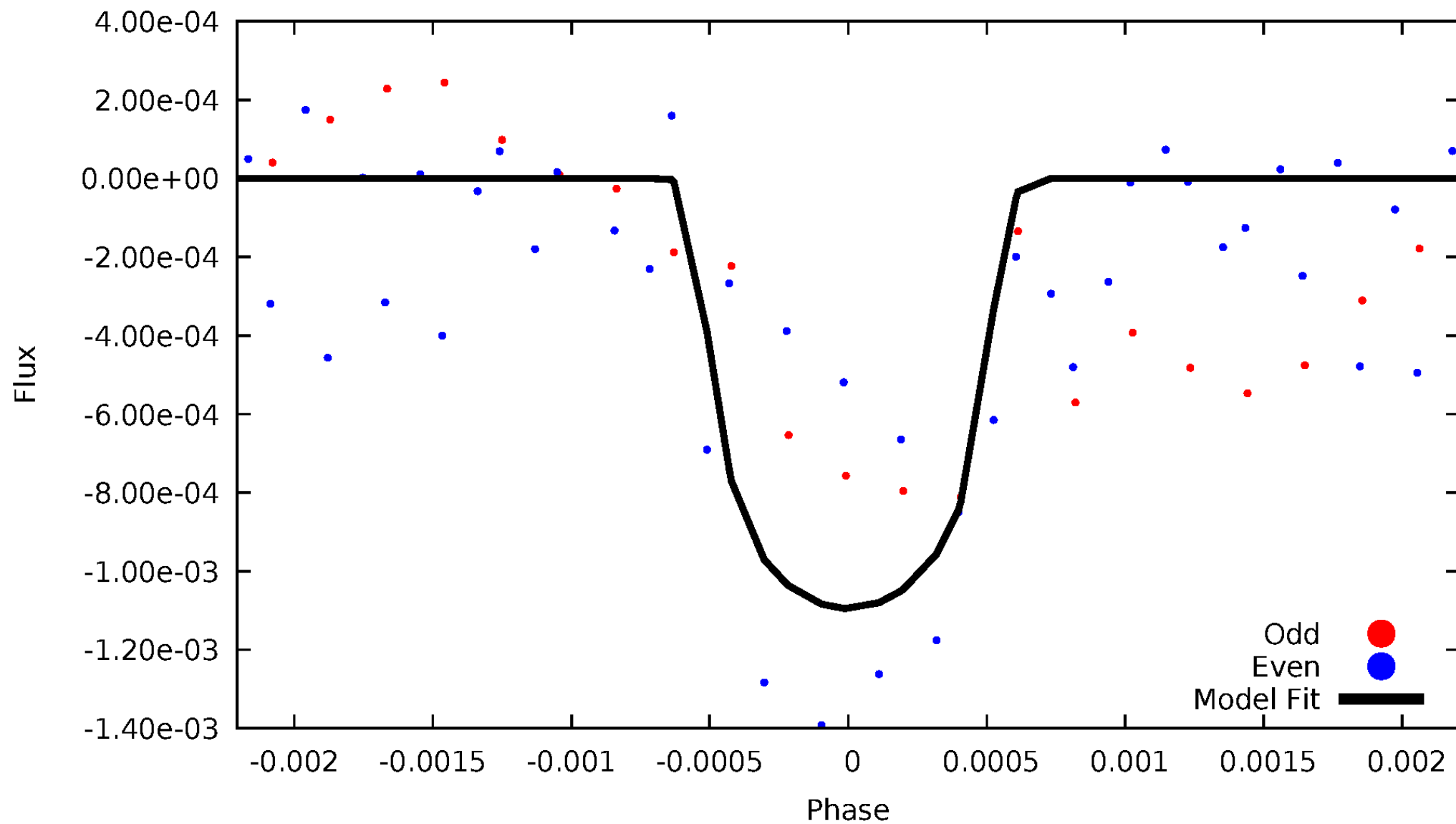


TCE 010011212-01



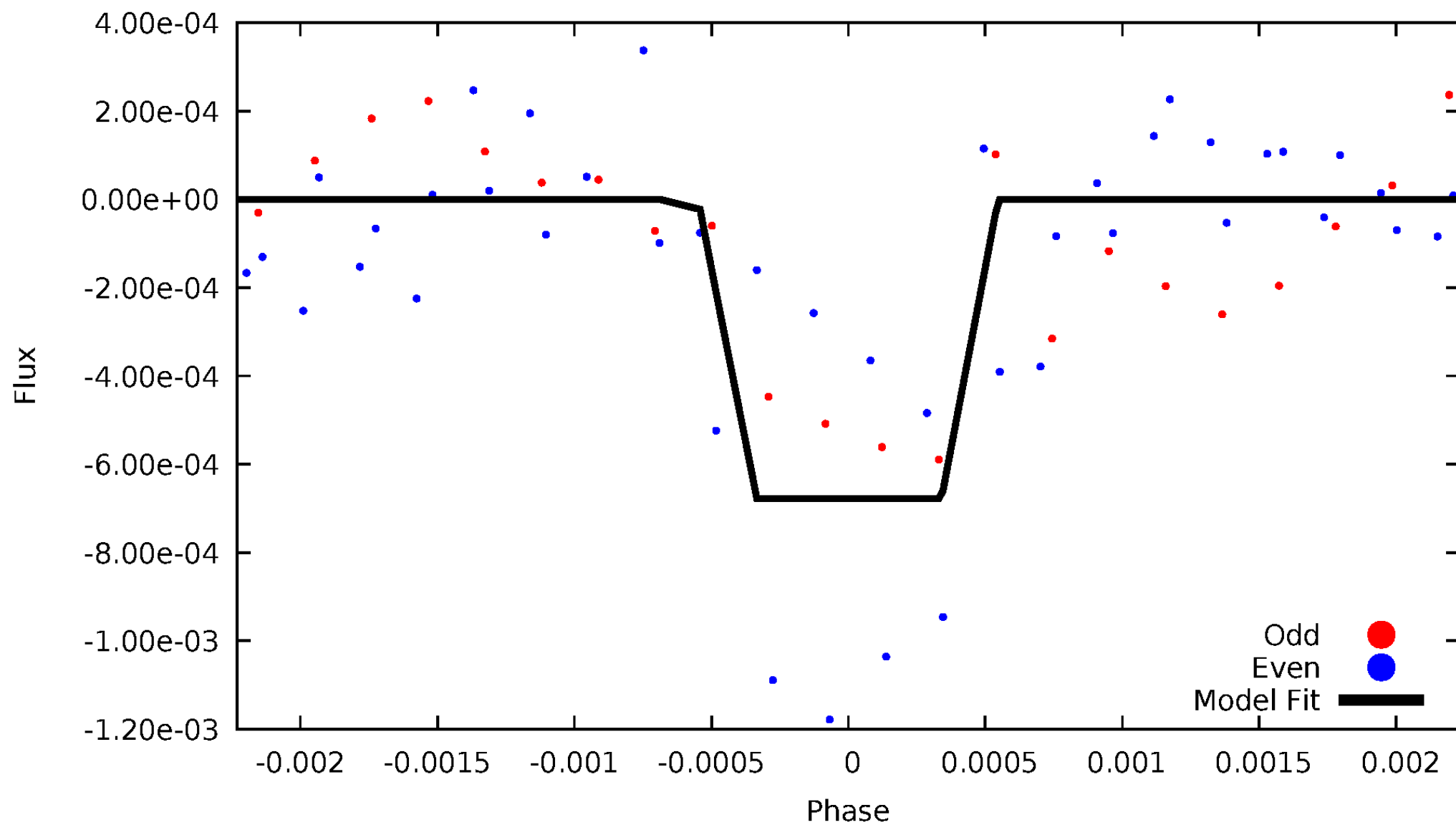
DV Odd/Even

TCE 010011212-01



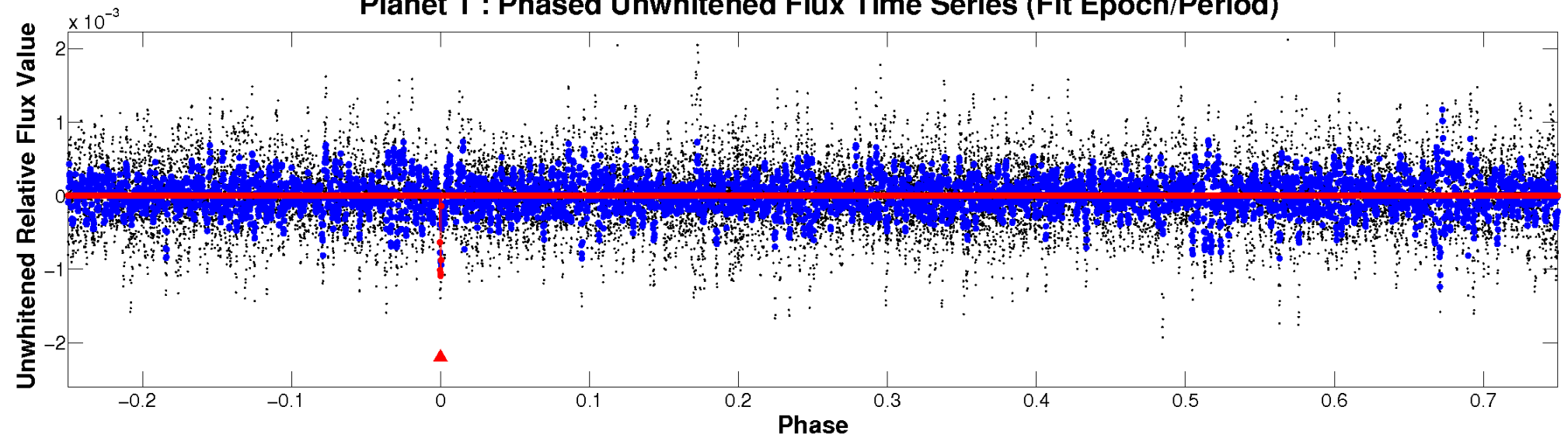
ALT Odd/Even

TCE 010011212-01

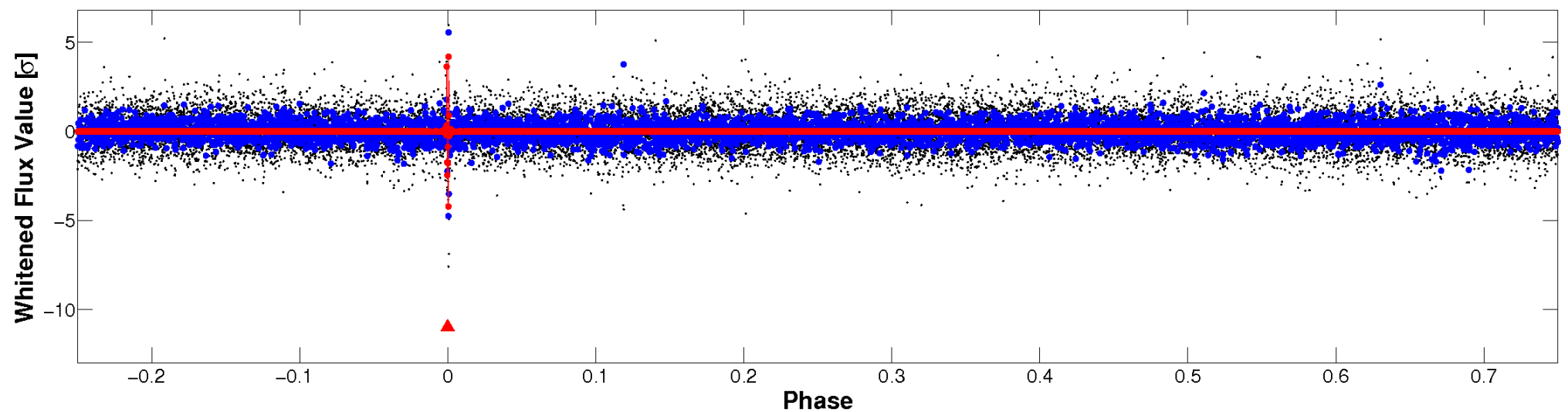


Non-Whitened Vs. Whitened Light Curve

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

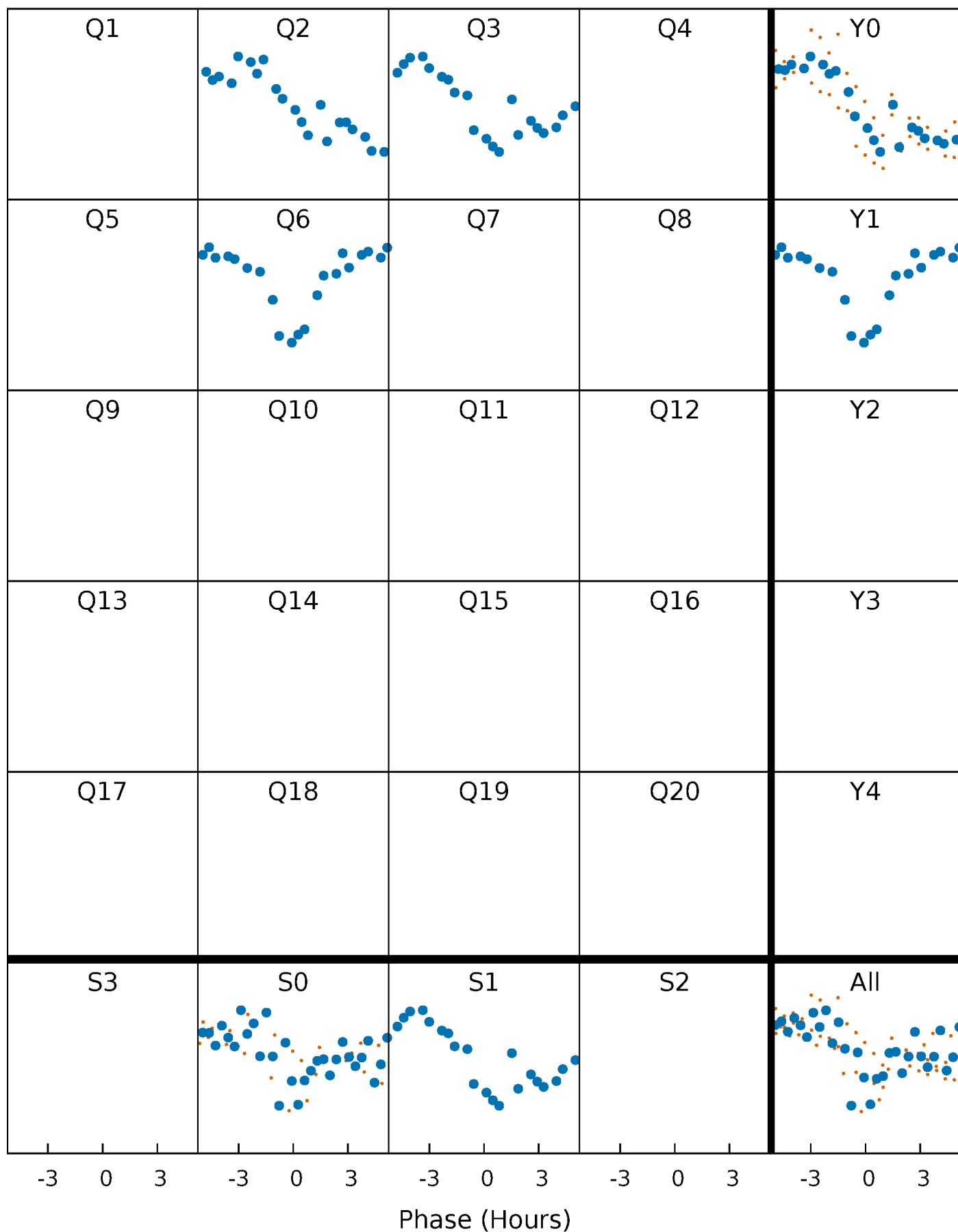


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



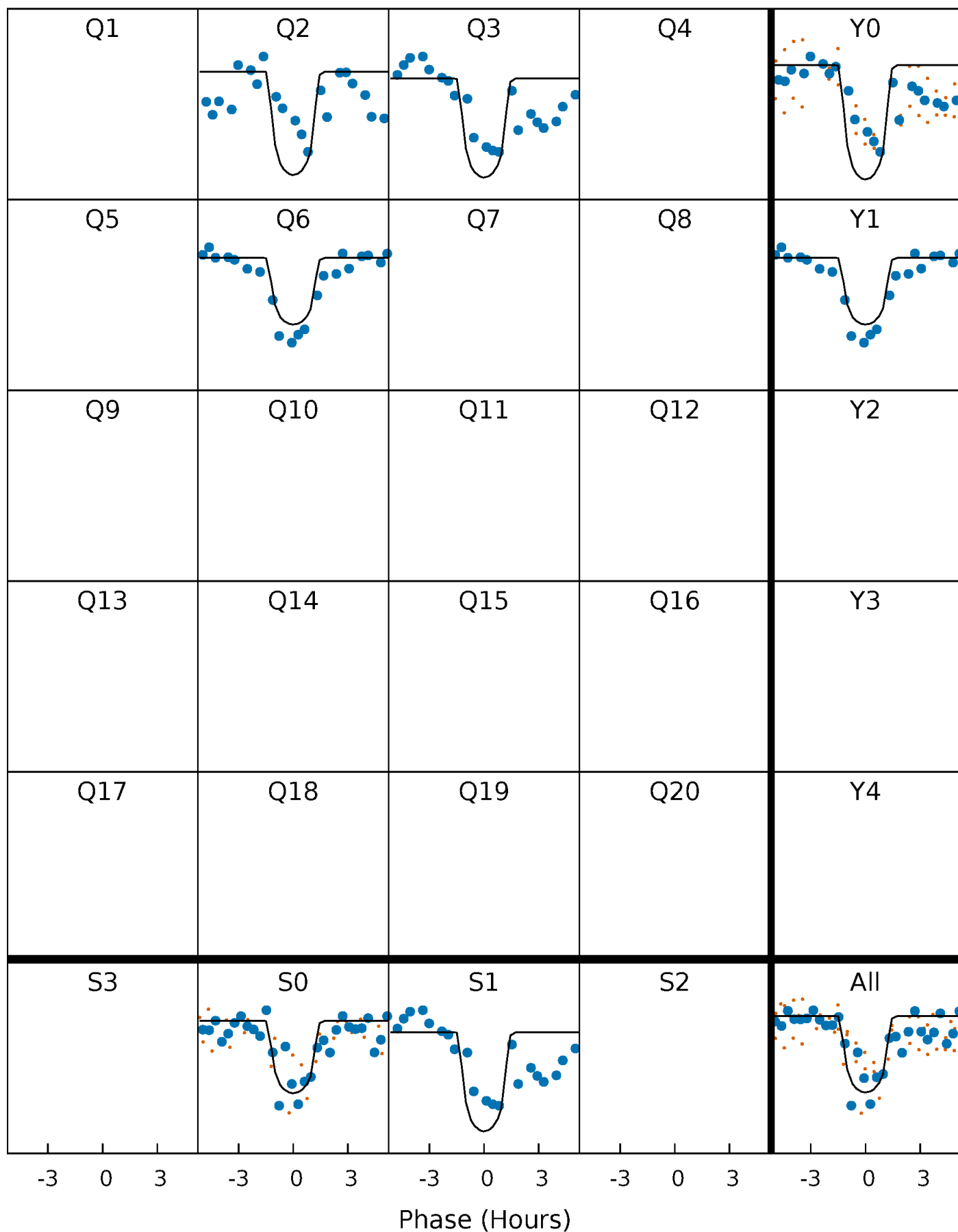
PDC Quarter-Phased Transit Curves

TCE 010011212-01 P= 98.711545 Days $T_0=214.189965$ (BKJD)



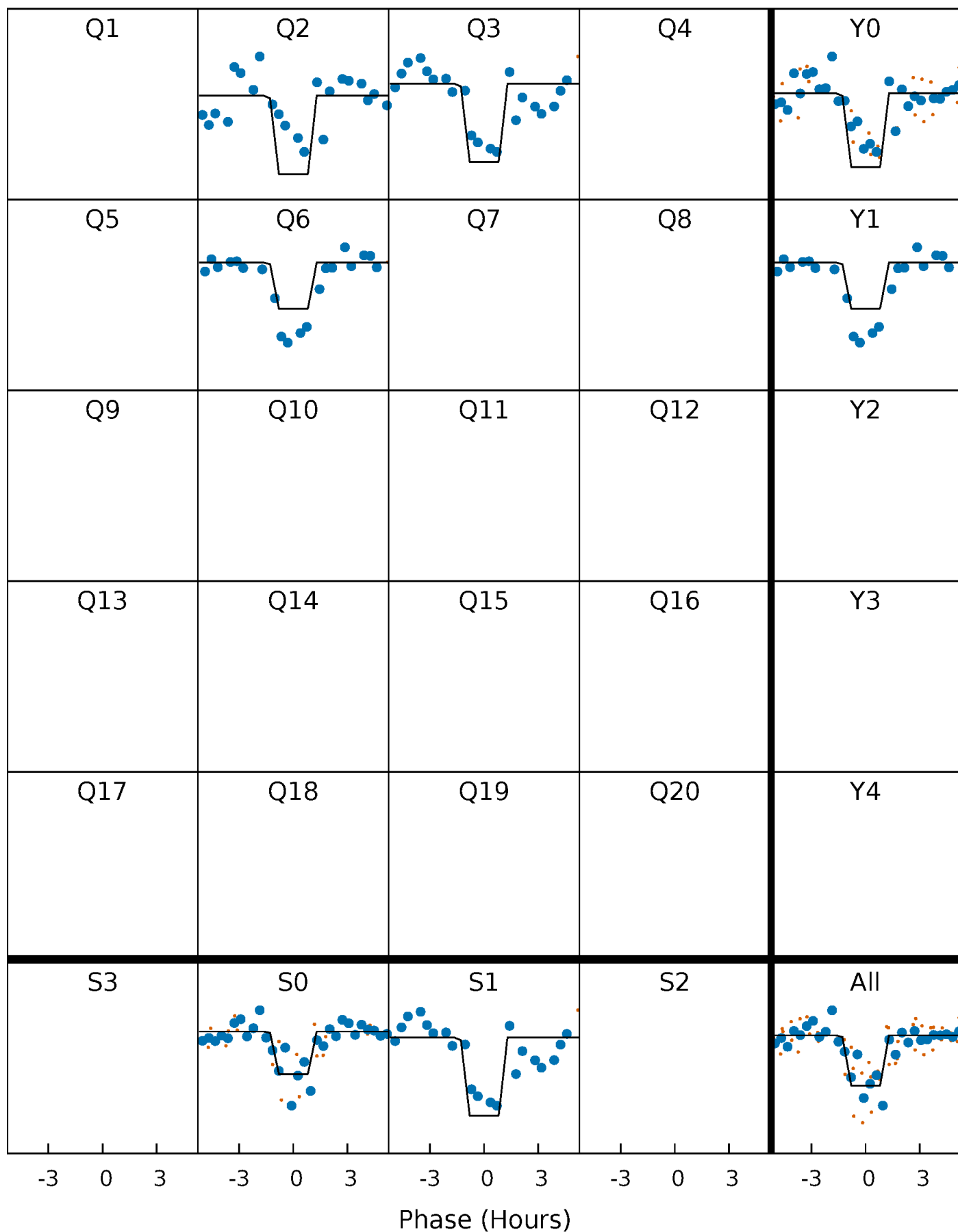
DV Quarter-Phased Transit Curves

TCE 010011212-01 P= 98.711545 Days $T_0=214.189965$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

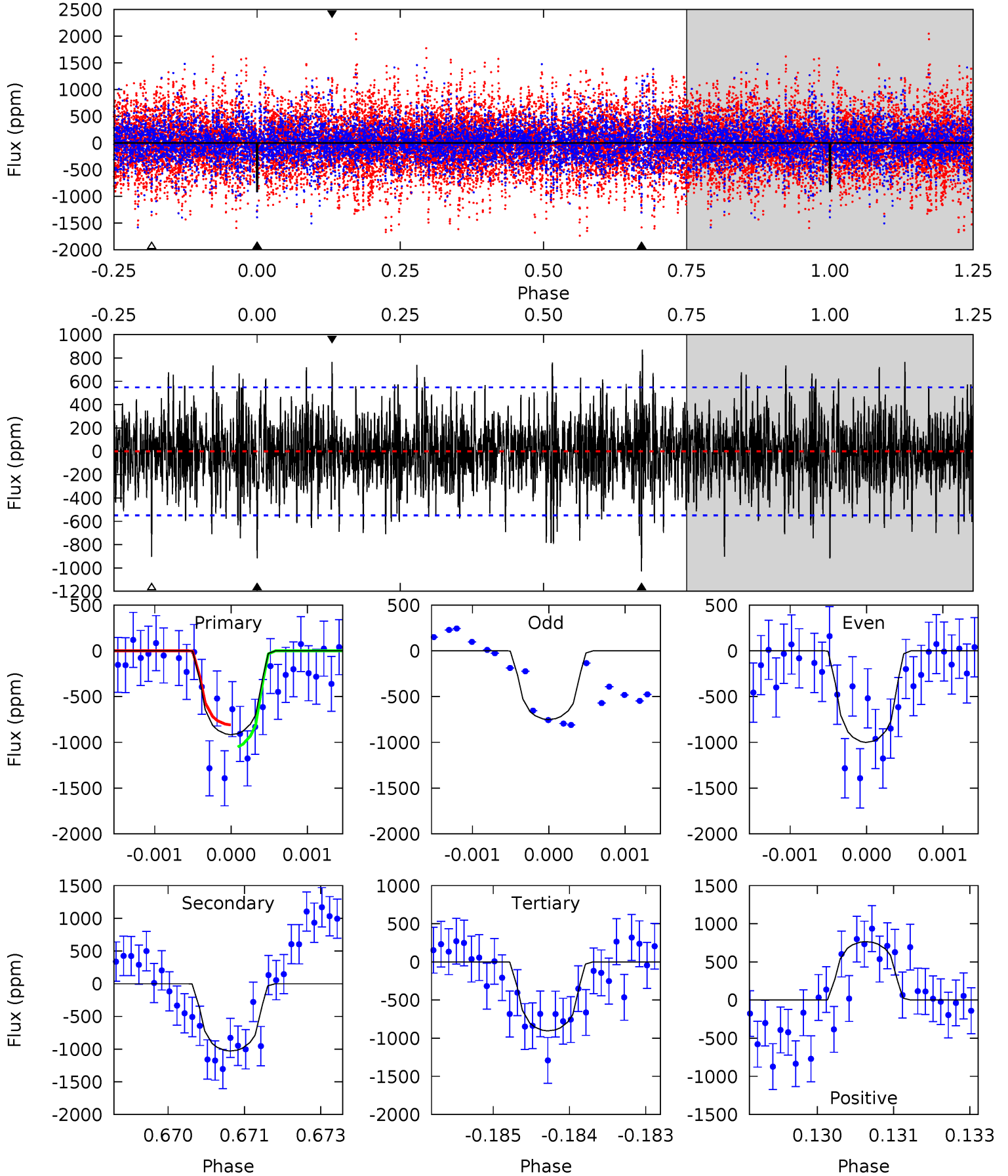
TCE 010011212-01 P= 98.708137 Days $T_0=214.200861$ (BKJD)



DV Model-Shift Uniqueness Test

010011212-01, P = 98.711545 Days, E = 115.478420 Days

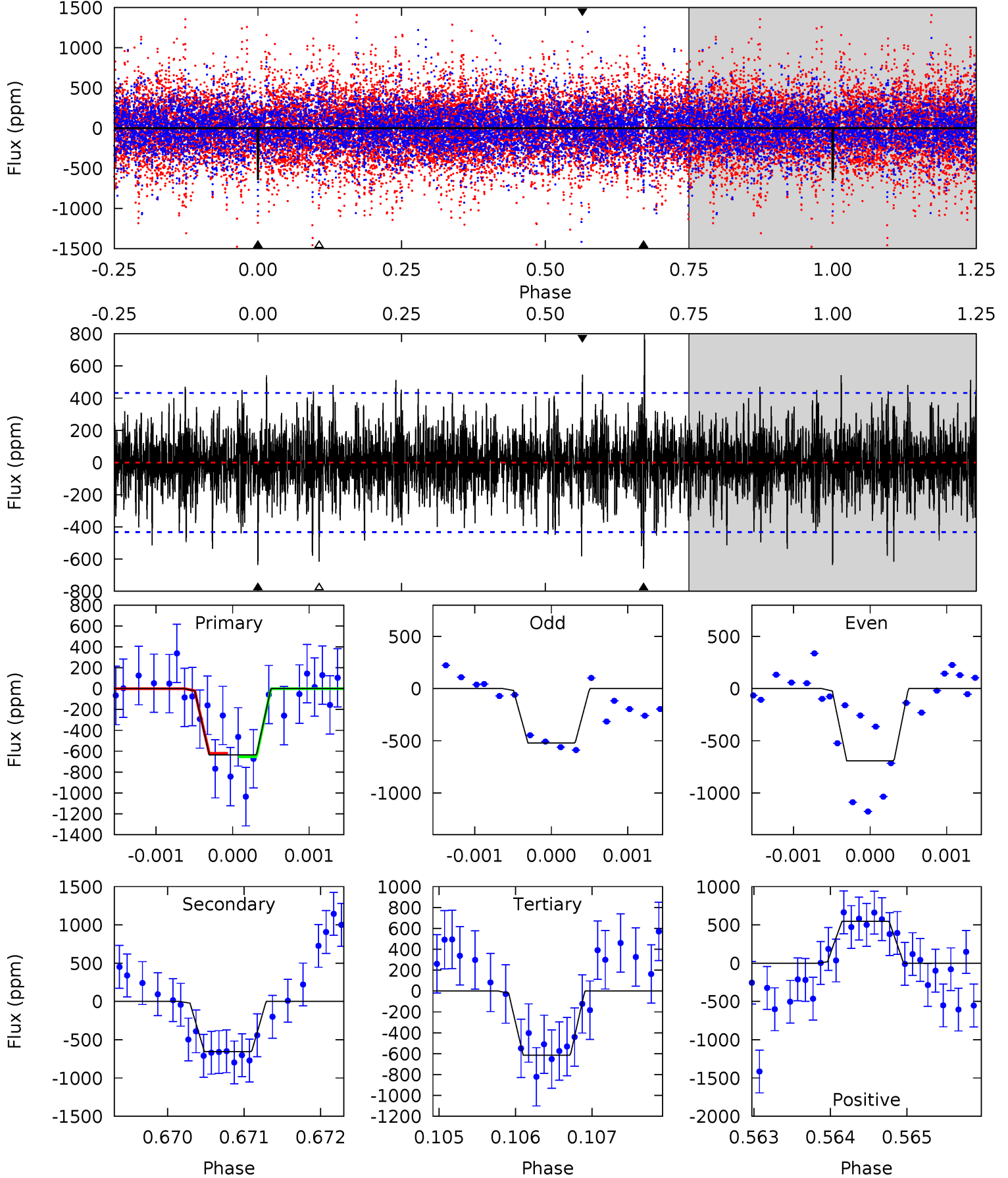
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.04	10.2	8.92	7.56	5.41	3.23	2.33	0.12	1.48	1.23	2.59	1.18	1.23	0.46	1.19



Alt Model-Shift Uniqueness Test

010011212-01, $P = 98.708137$ Days, $E = 115.492724$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.00	8.26	7.73	6.87	5.44	3.27	1.94	0.27	1.13	0.53	1.39	1.04	1.22	0.55	0.20



Stellar Parameters For KIC 010011212

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5006^{+35}_{-316}	$2.529^{+0.030}_{-0.030}$	$0.070^{+0.200}_{-0.400}$	$16.081^{+1.000}_{-5.666}$	$3.190^{+0.099}_{-1.786}$	$0.001^{+0.001}_{-0.000}$
	+1%/-6%	+1%/-1%	+286%/-571%	+6%/-35%	+3%/-56%	+55%/-10%
Source	PHO1	AST9	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 010011212-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1029±101	$59.47^{+30.07}_{-28.11}$	1574^{+28}_{-96}	4790^{+1513}_{-680}	60^{+155}_{-33}
Alt.	-657±80	$47.69^{+27.71}_{-25.31}$	1570^{+30}_{-90}	4763^{+2001}_{-742}	60^{+203}_{-37}

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 $A_{obs} \gg 1.0$

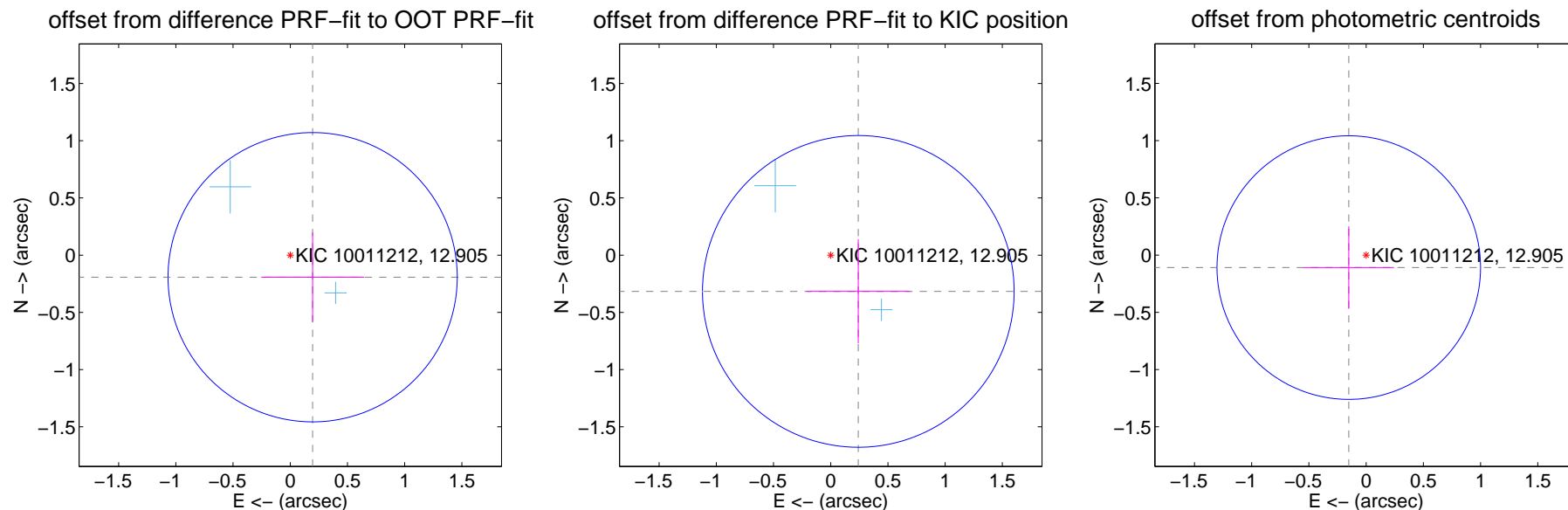
DV Centroid Data

Supplemental centroid analysis for 010011212-01. Kepler magnitude: 12.90. Transit SNR 11.99

There are 2 quarters with good PRF difference image offsets

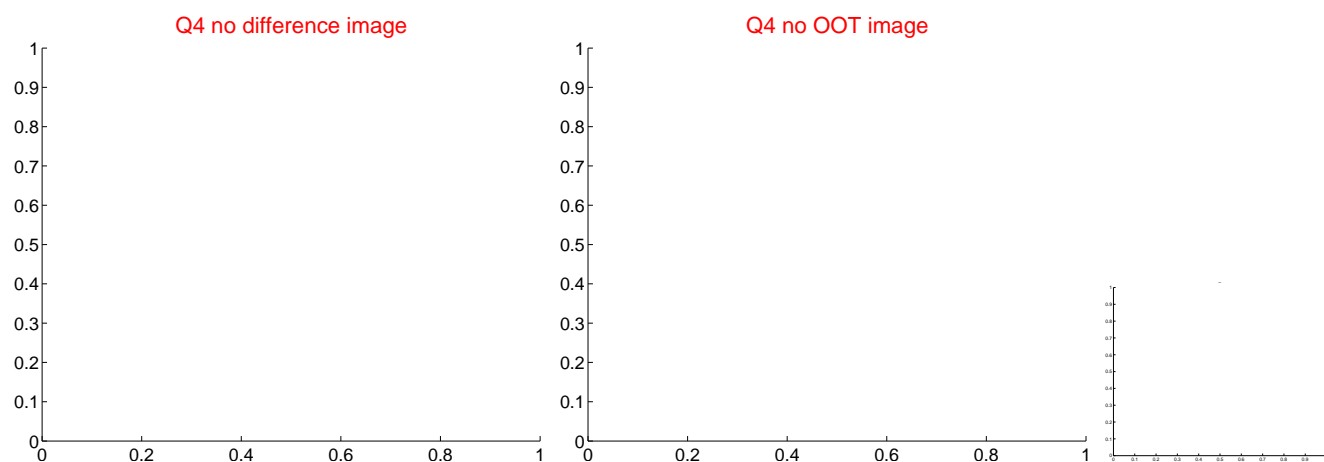
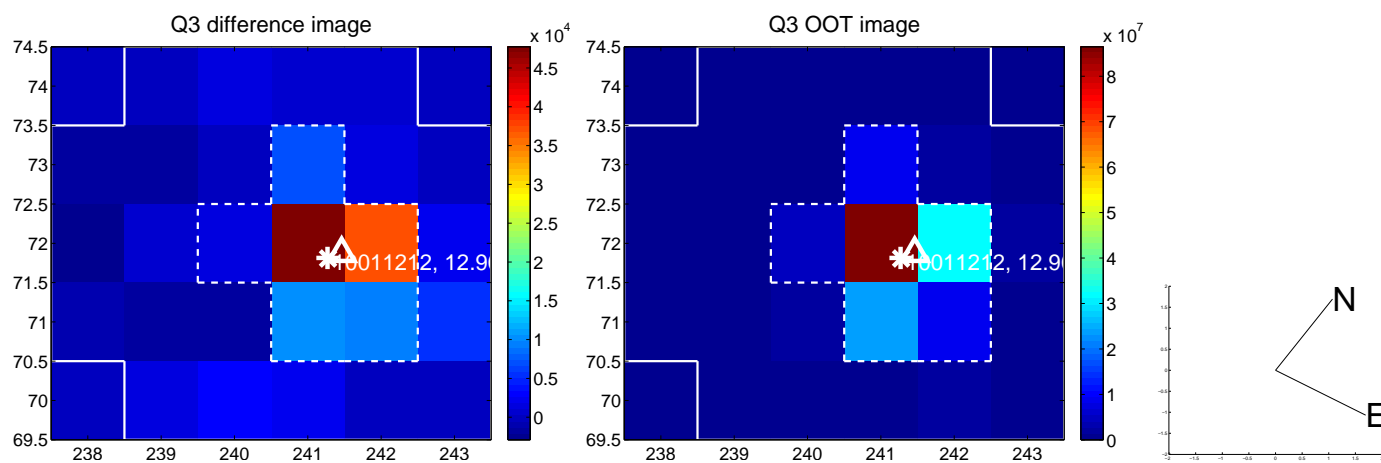
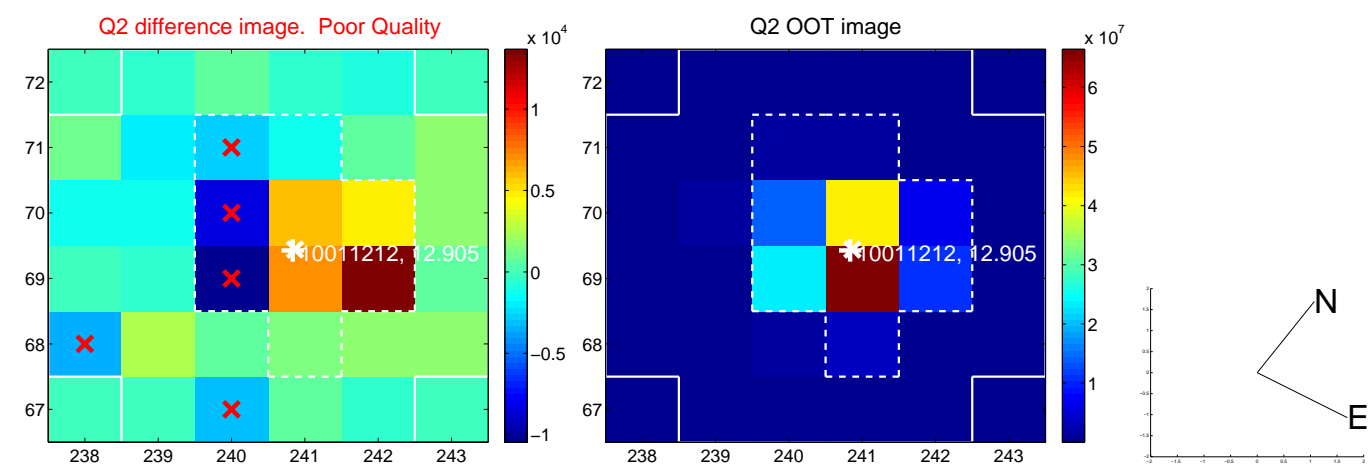
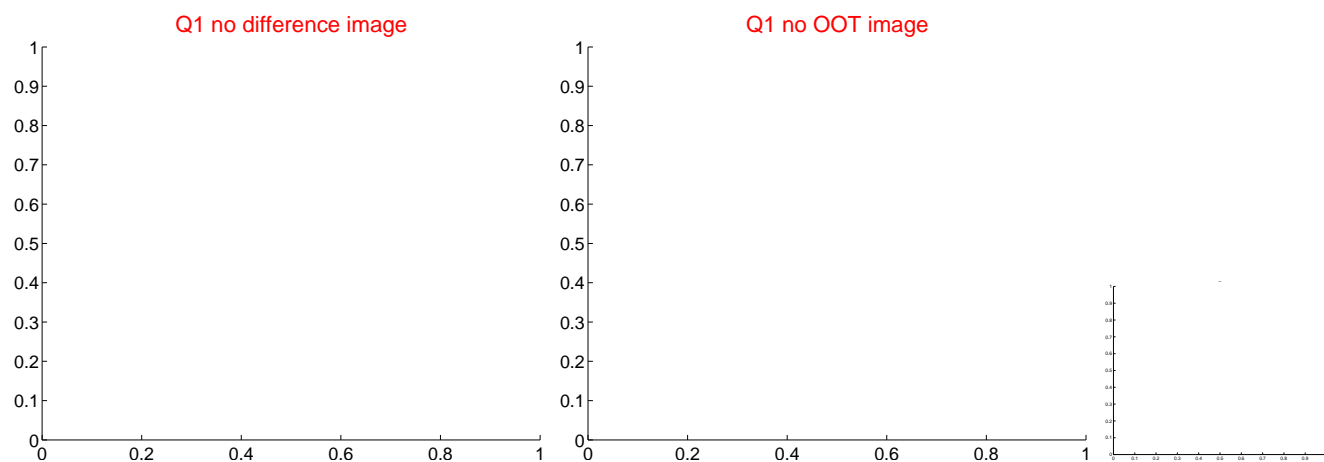
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.275 ± 0.421	0.65	-0.196 ± 0.449	-0.193 ± 0.390
PRF-fit source offset from KIC position	0.398 ± 0.454	0.88	-0.241 ± 0.453	-0.317 ± 0.455
photometric centroid source offset	0.19 ± 0.38	0.49	0.15 ± 0.40	-0.11 ± 0.36

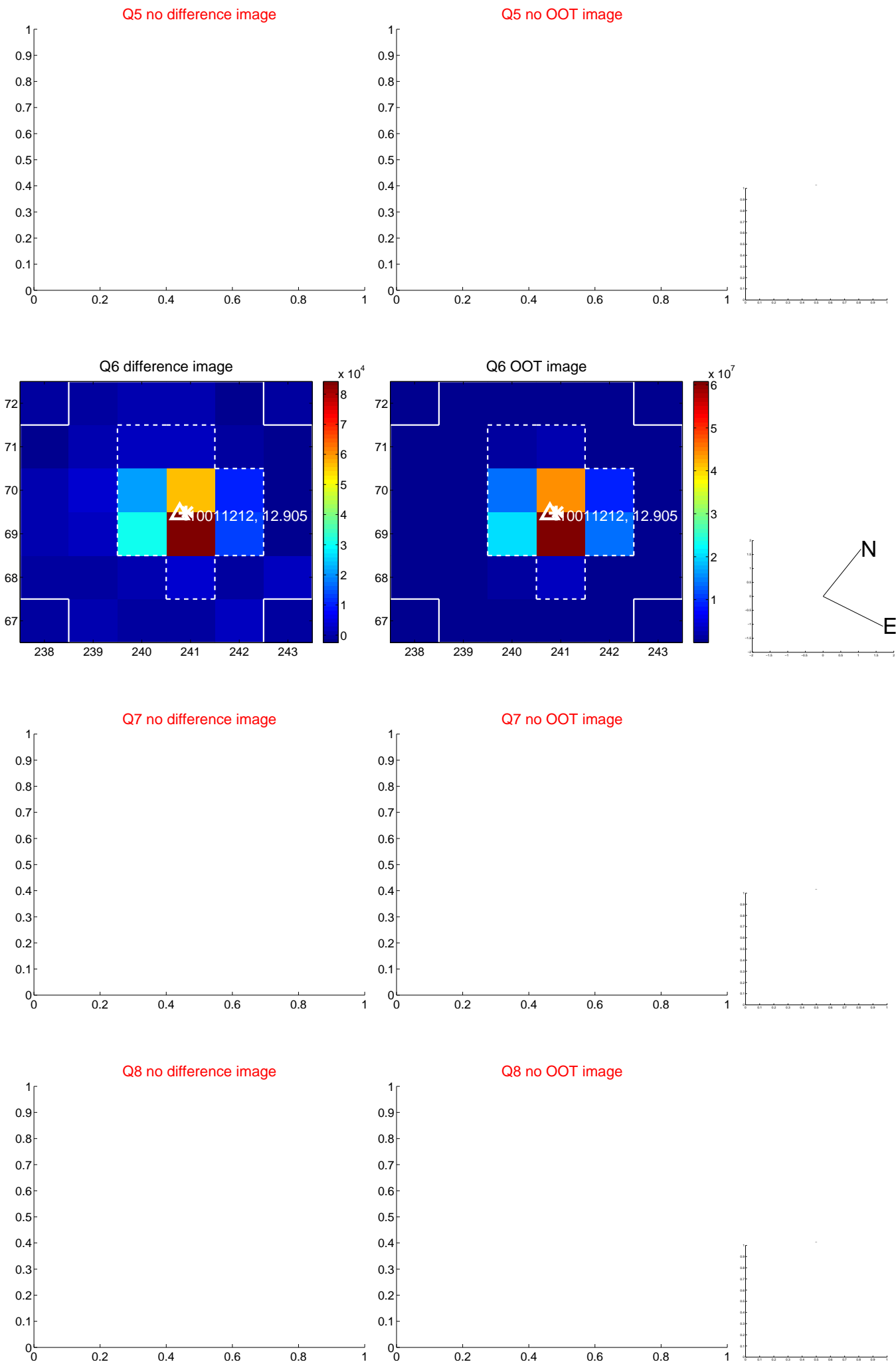


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



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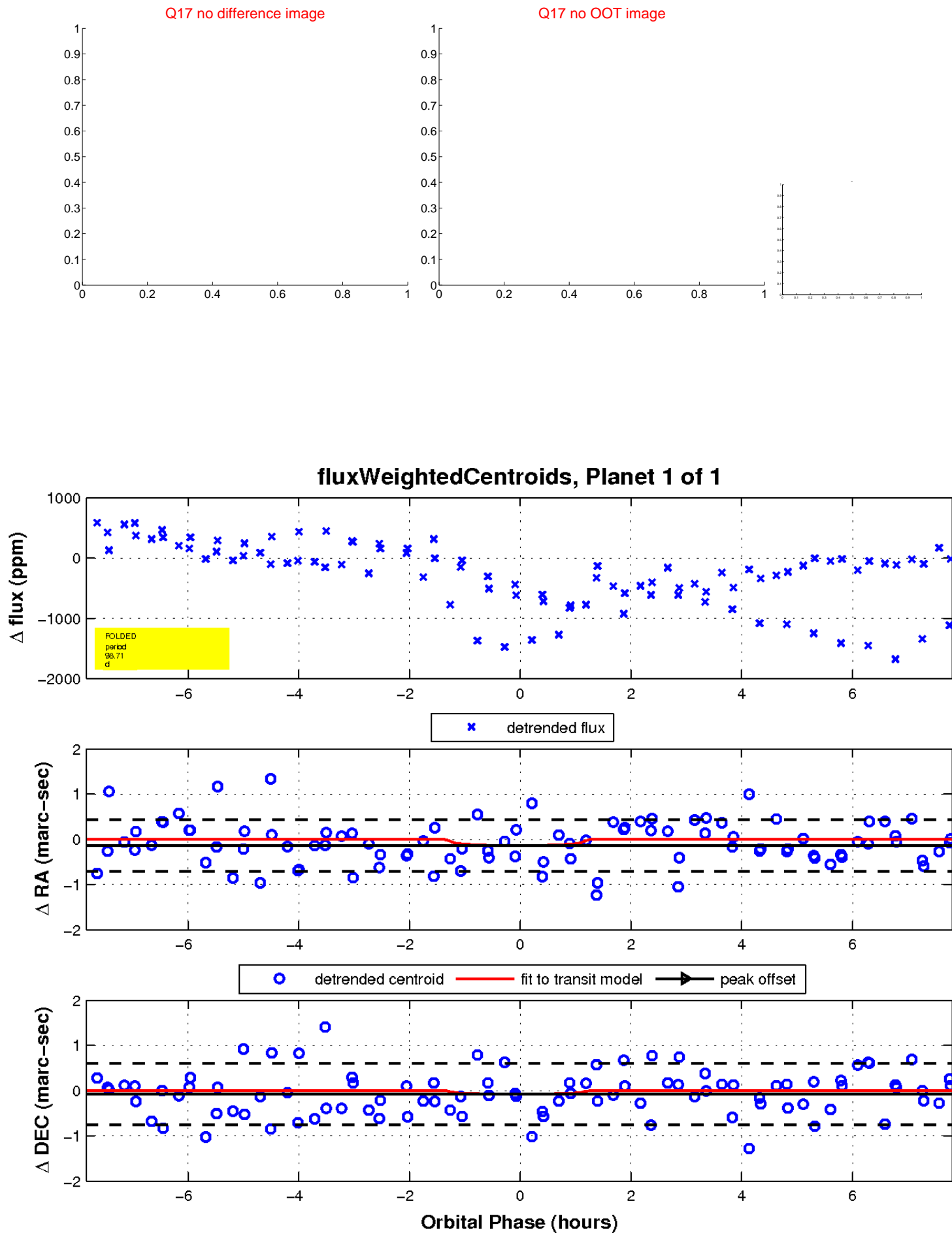
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UKIRT Image

Declination

