

KIC 011074643

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})
011074643-01	OBS	No	428.204192	497.511418	578.8	6.788	7.4	7.2	0.78	5150	2.12	0.34

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011074643-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—MOD_NONUNIQ_ALT—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.

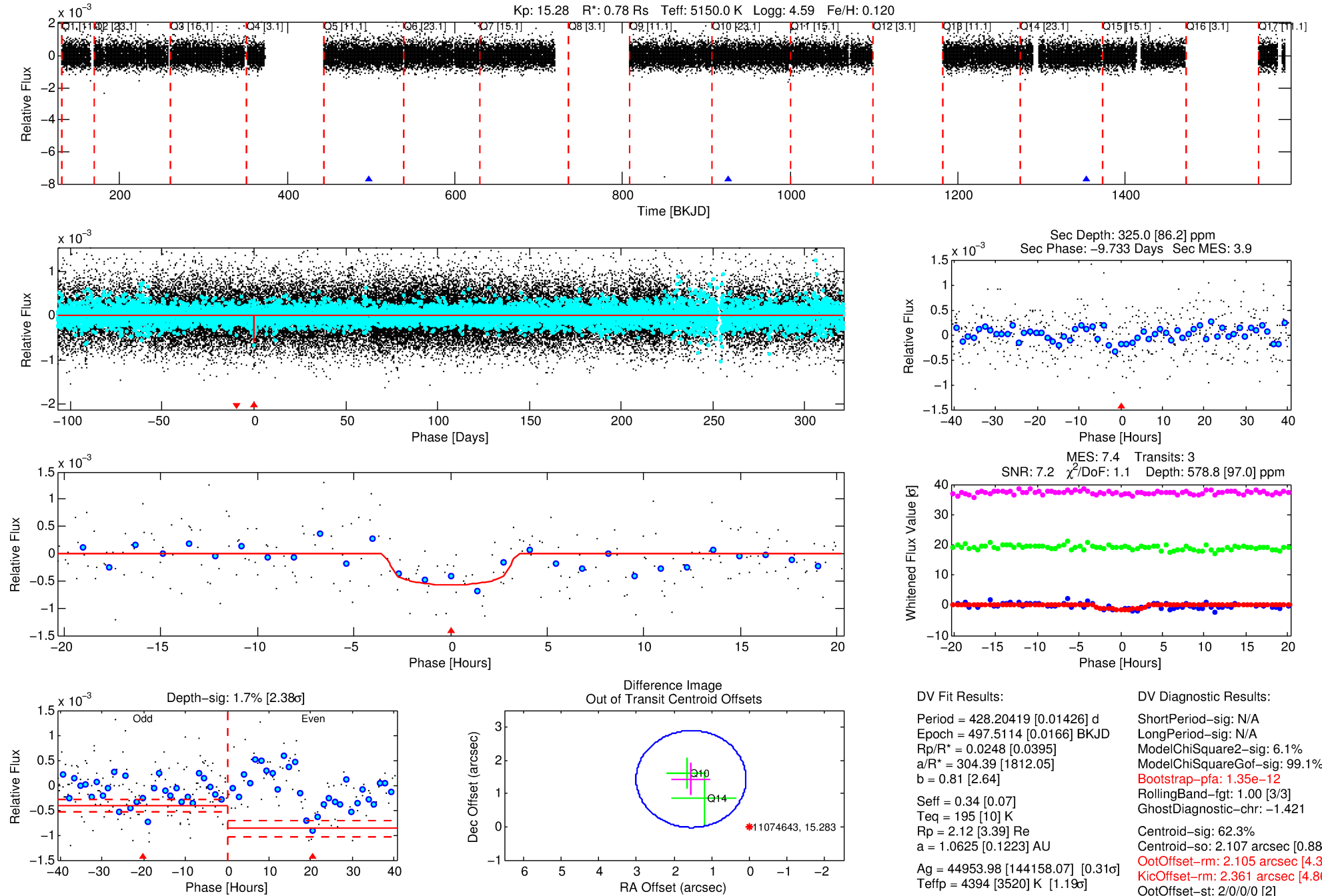
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011074643-01

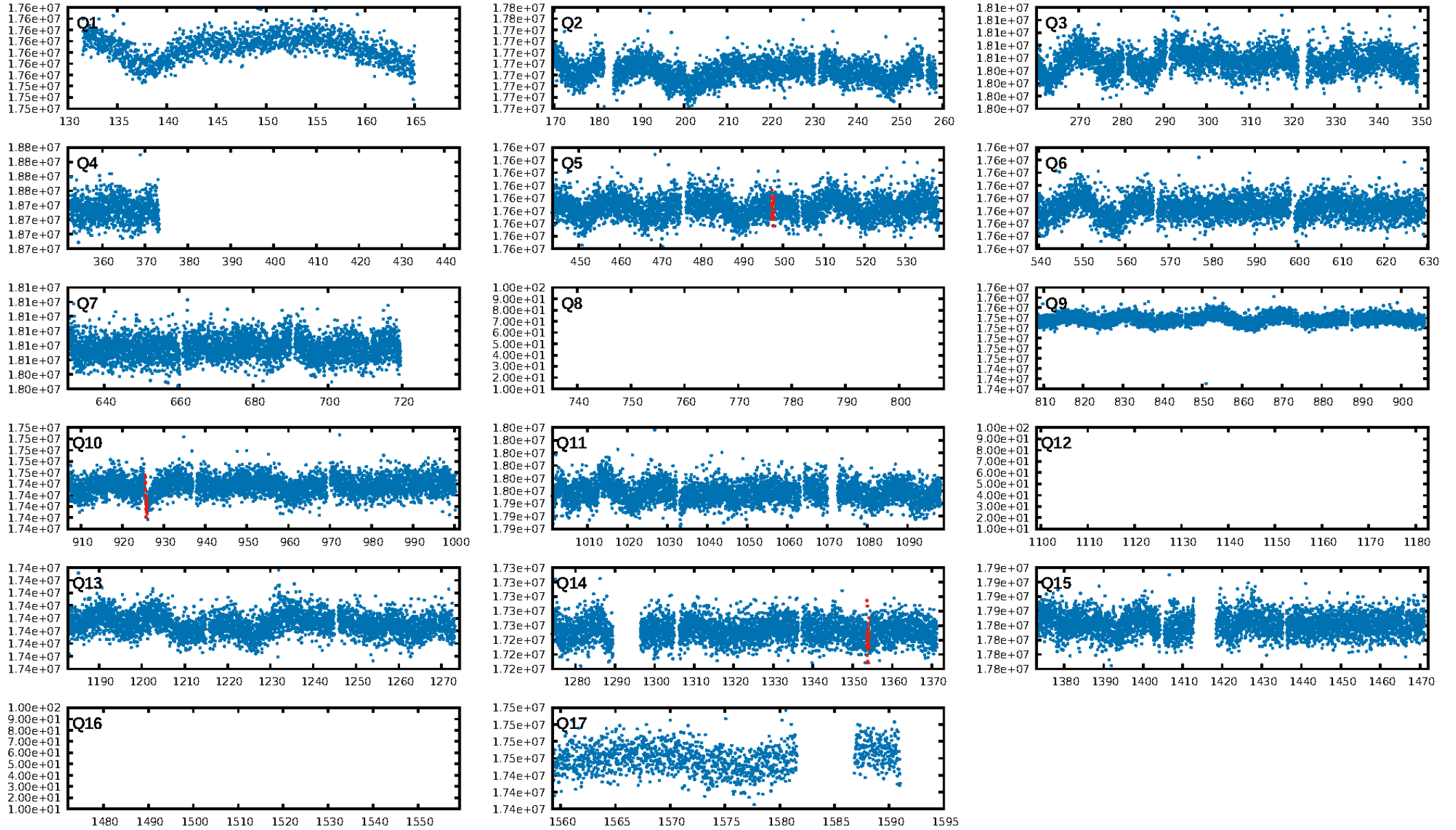
No Significant Match Found

DV One-Page Summary

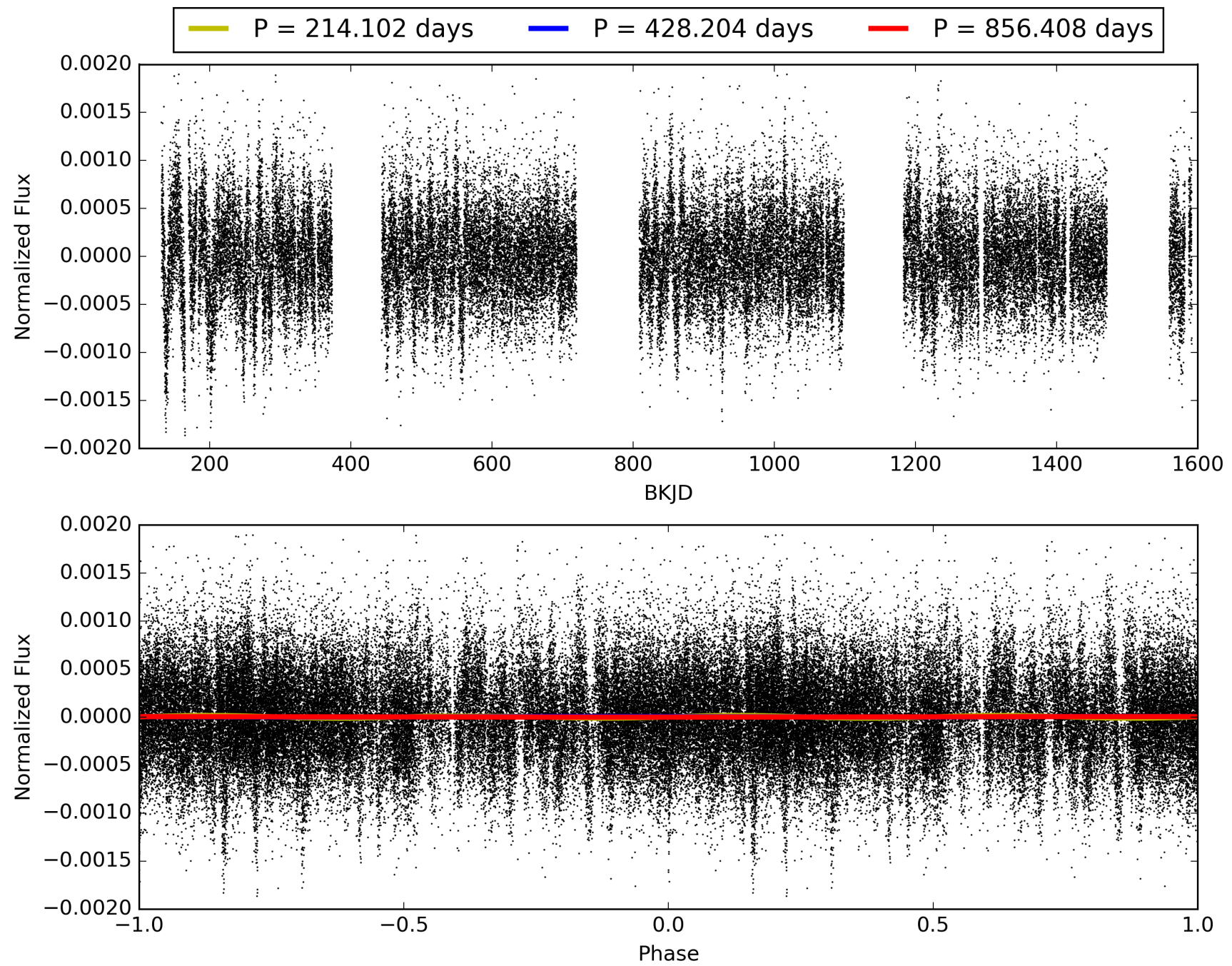
KIC: 11074643 Candidate: 1 of 1 Period: 428.204 d



TCE 011074643-01, PDC Light Curves

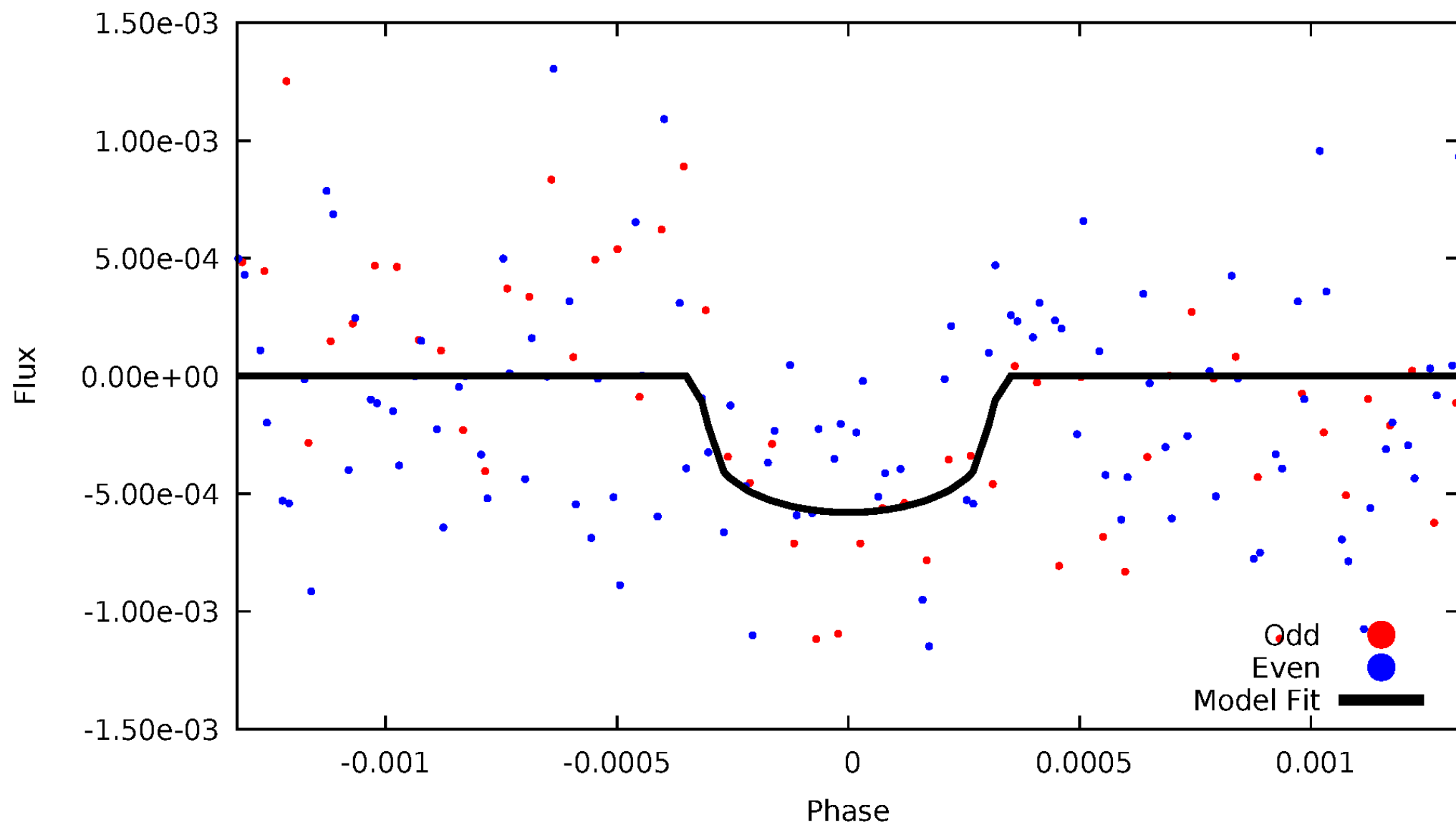


TCE 011074643-01



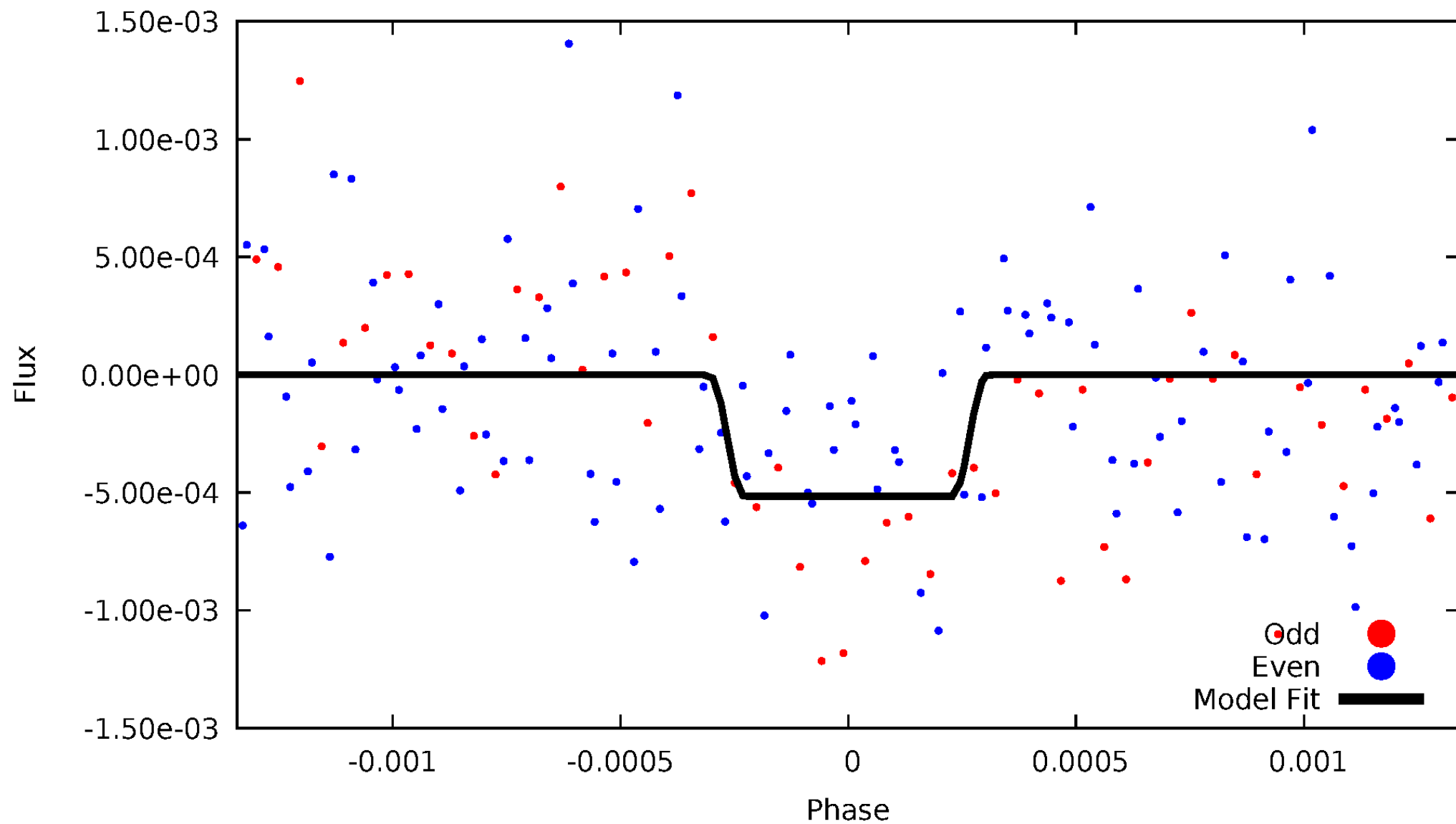
DV Odd/Even

TCE 011074643-01

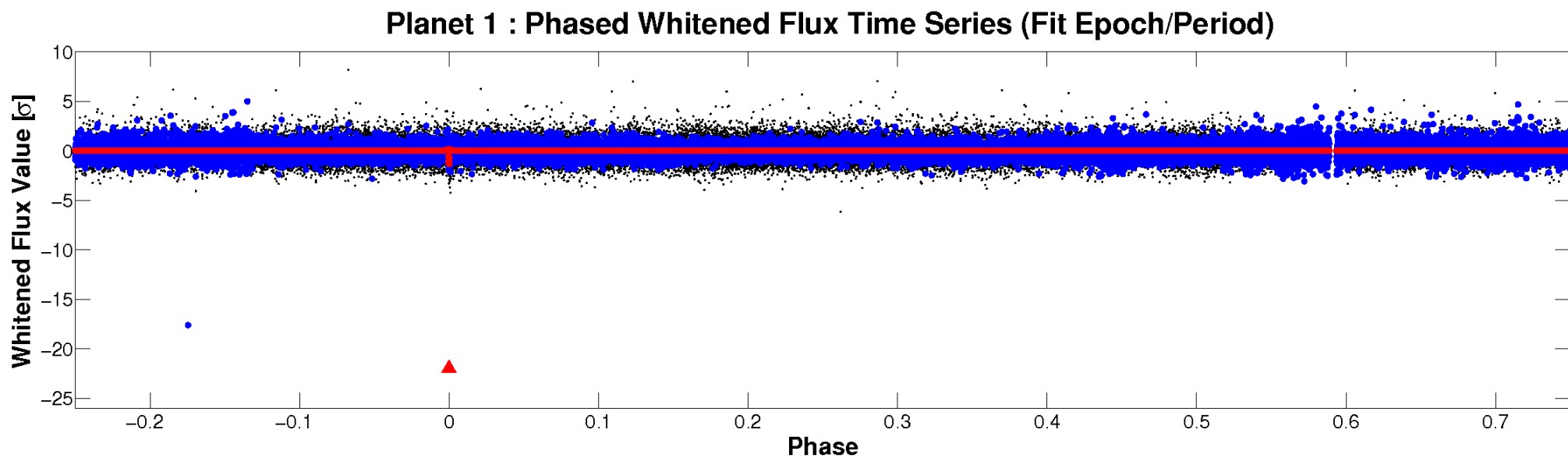
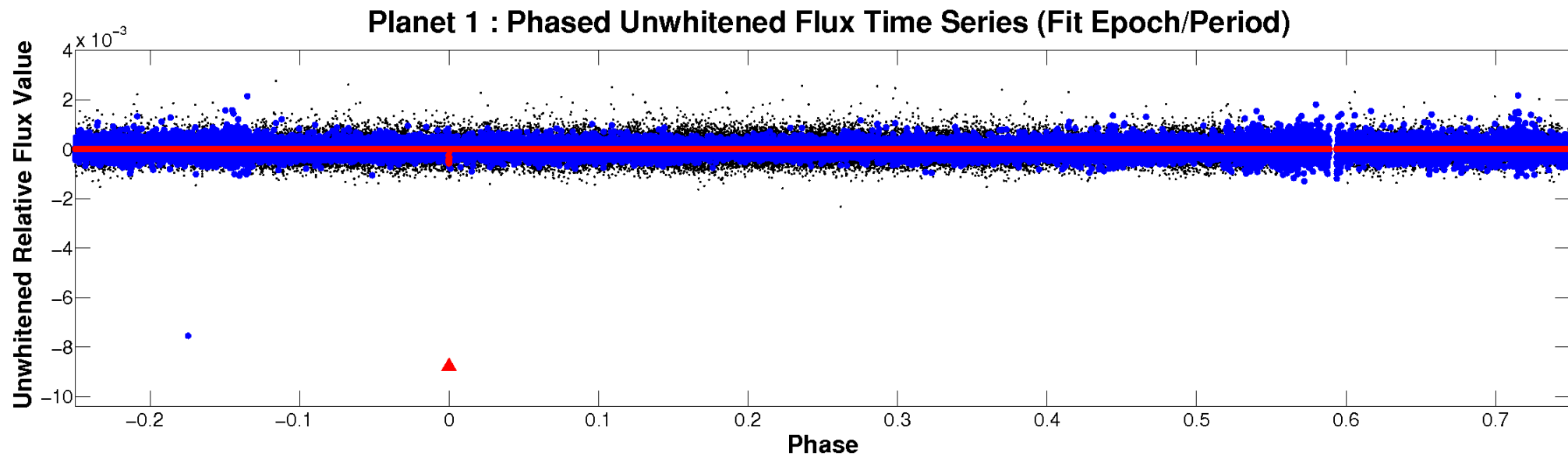


ALT Odd/Even

TCE 011074643-01

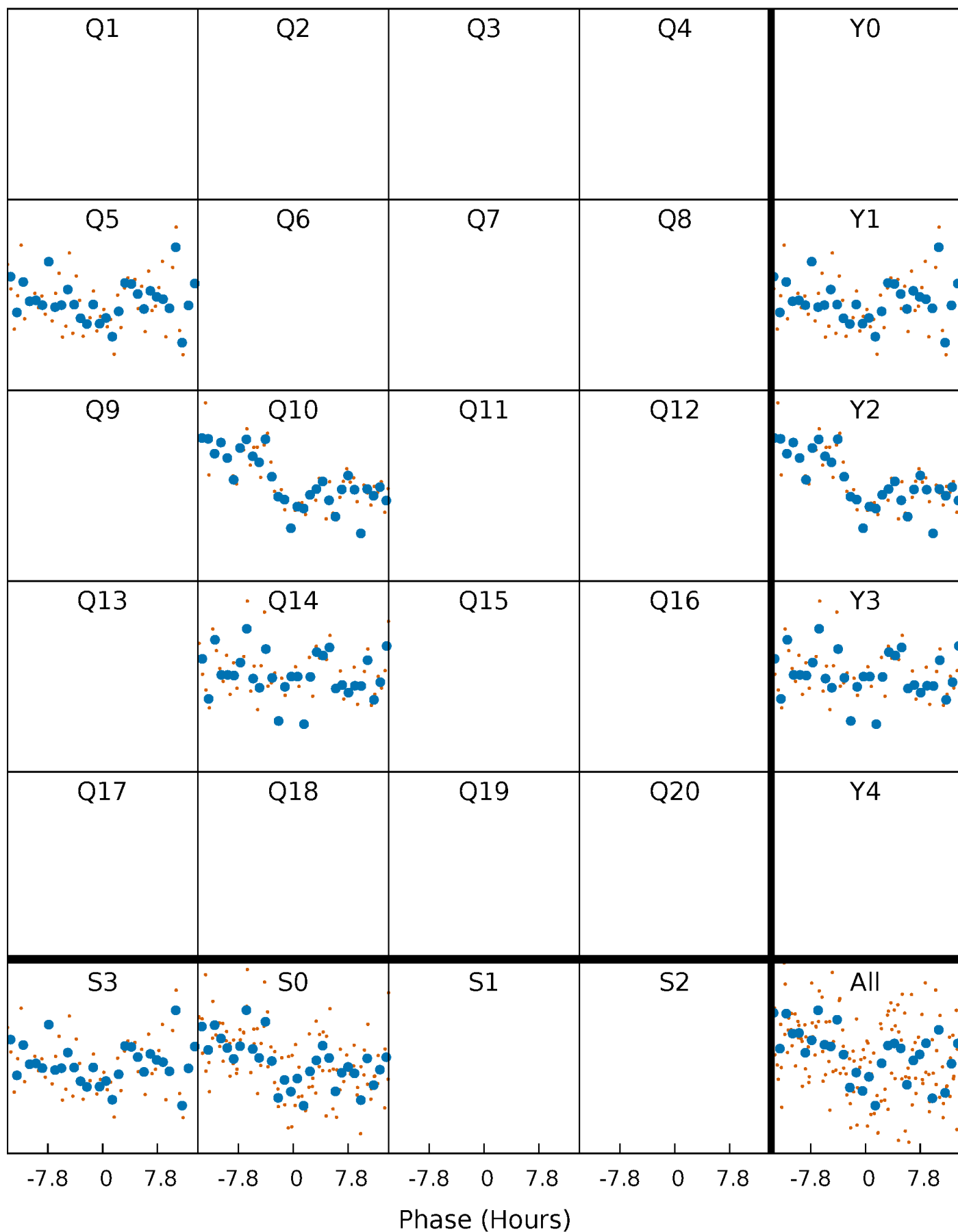


Non-Whitened Vs. Whitened Light Curve



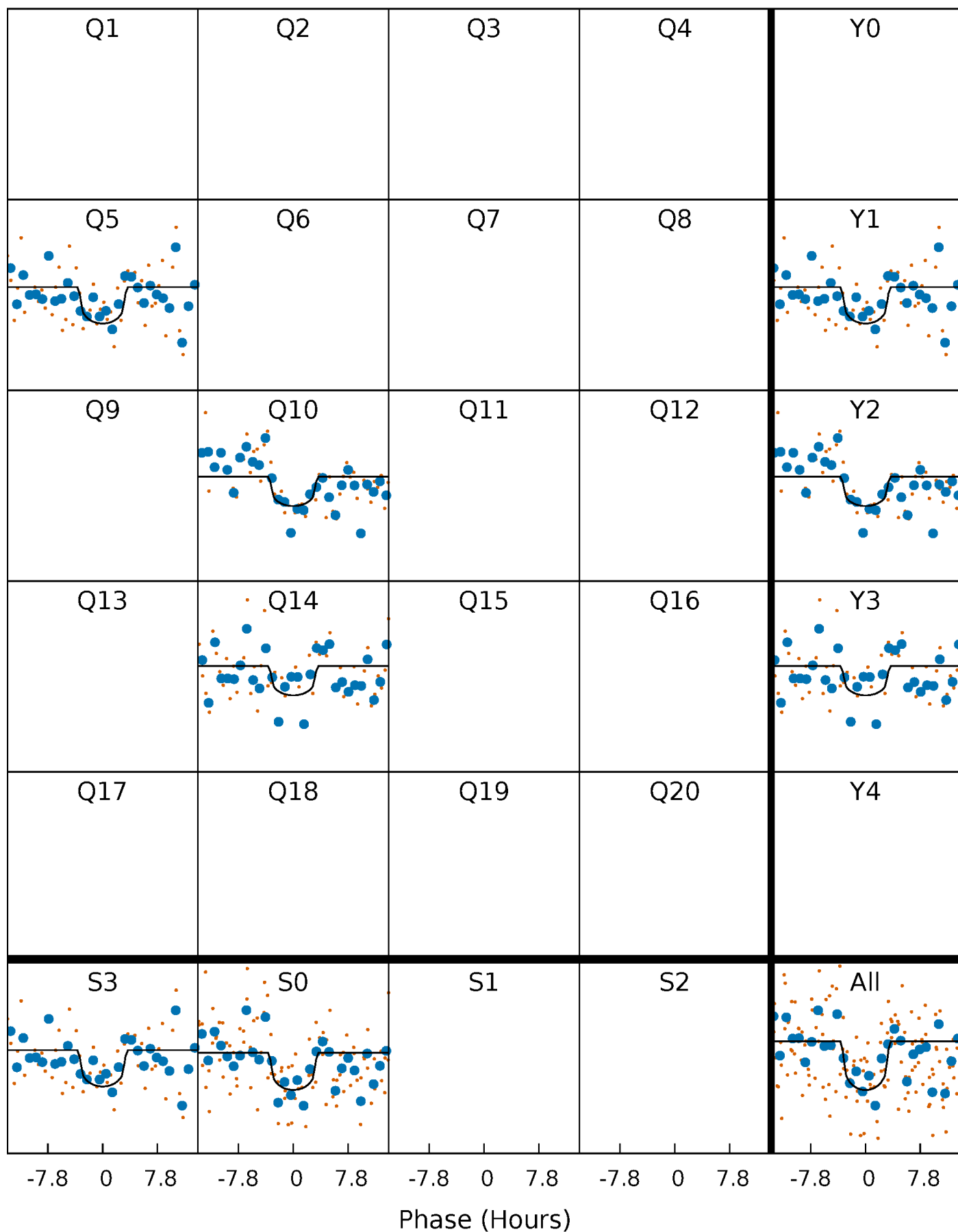
PDC Quarter-Phased Transit Curves

TCE 011074643-01 P=428.204191 Days $T_0=497.511418$ (BKJD)



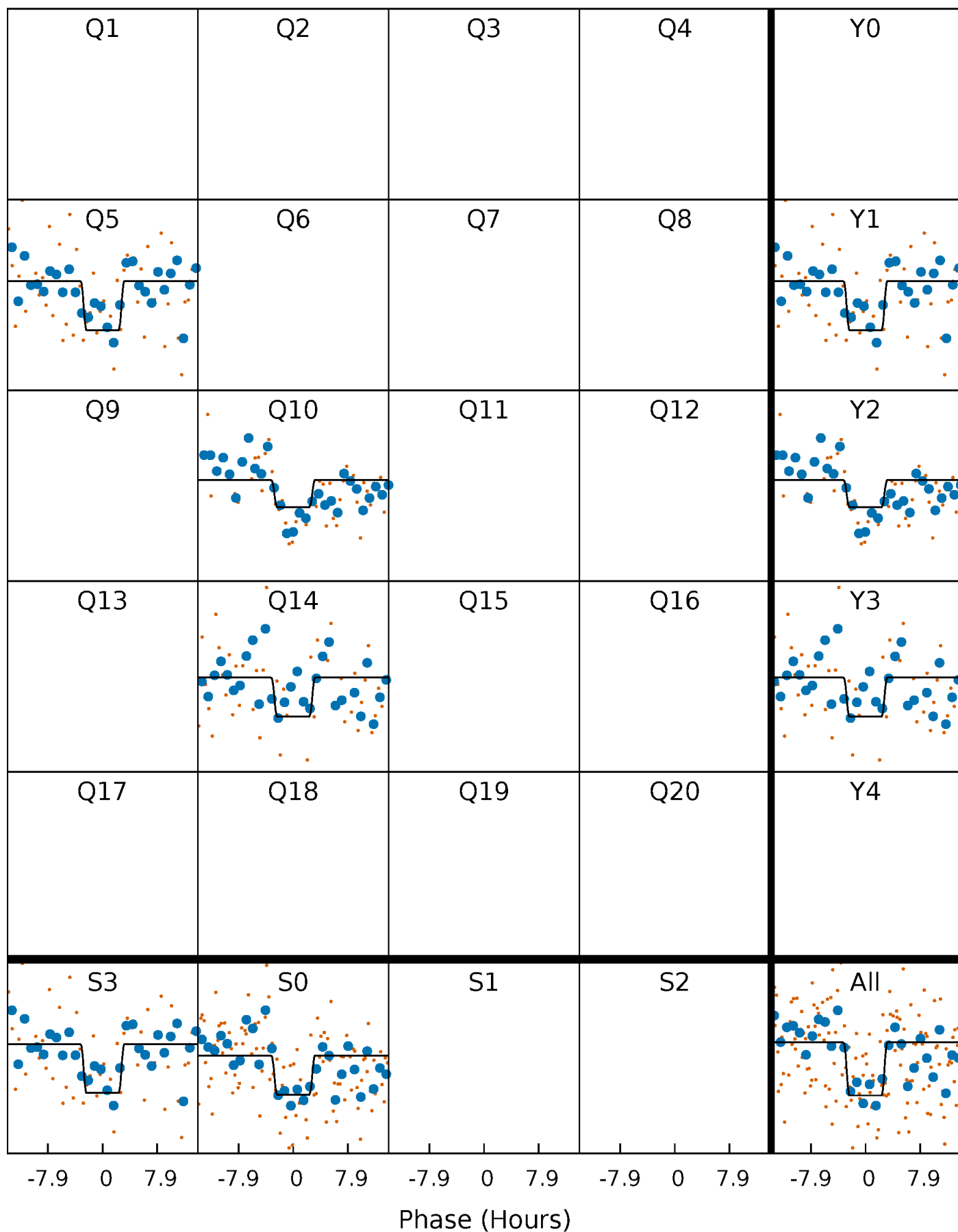
DV Quarter-Phased Transit Curves

TCE 011074643-01 P=428.204191 Days $T_0=497.511418$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

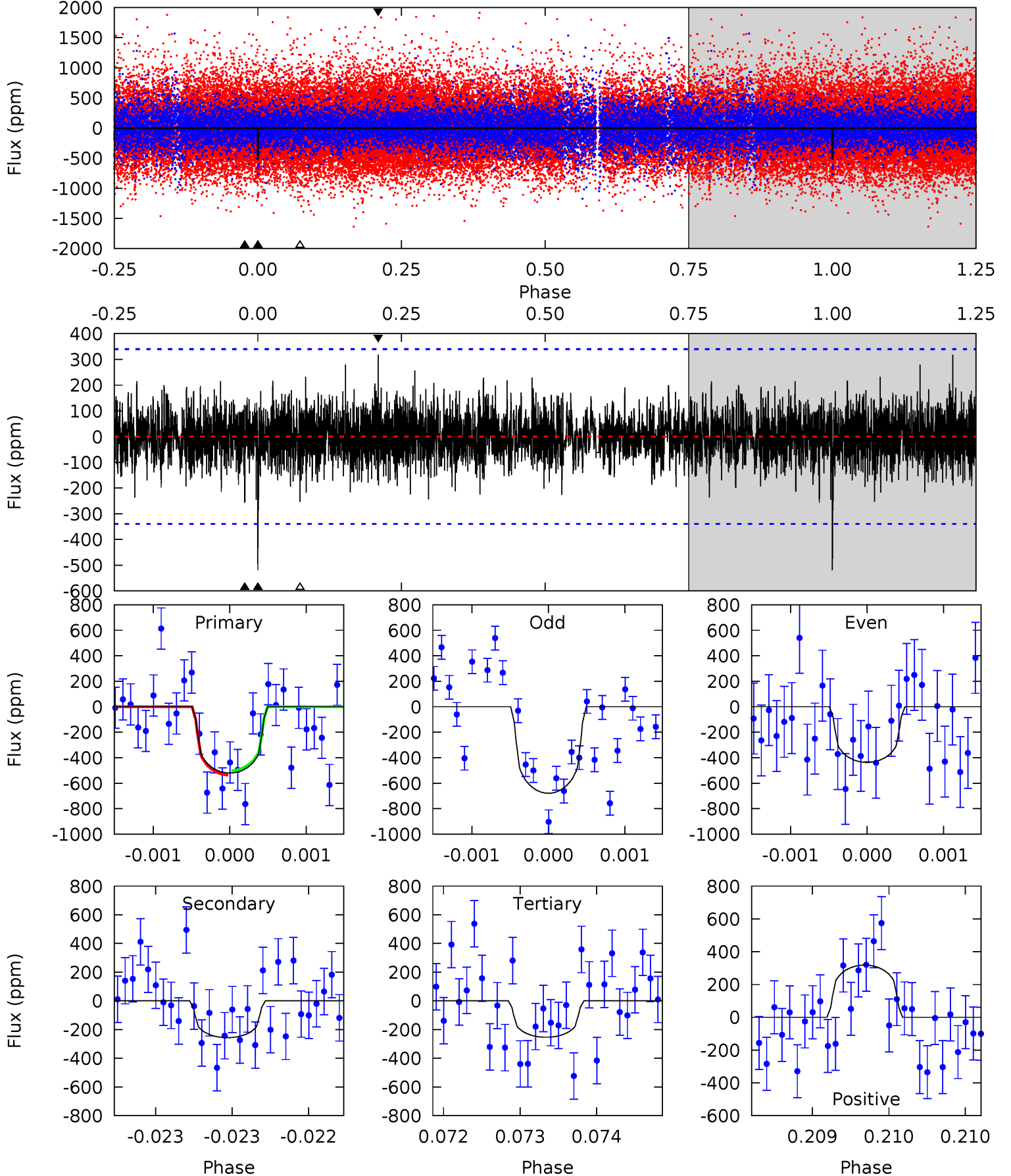
TCE 011074643-01 P=428.198872 Days $T_0=497.512048$ (BKJD)



DV Model-Shift Uniqueness Test

011074643-01, P = 428.204191 Days, E = 69.307227 Days

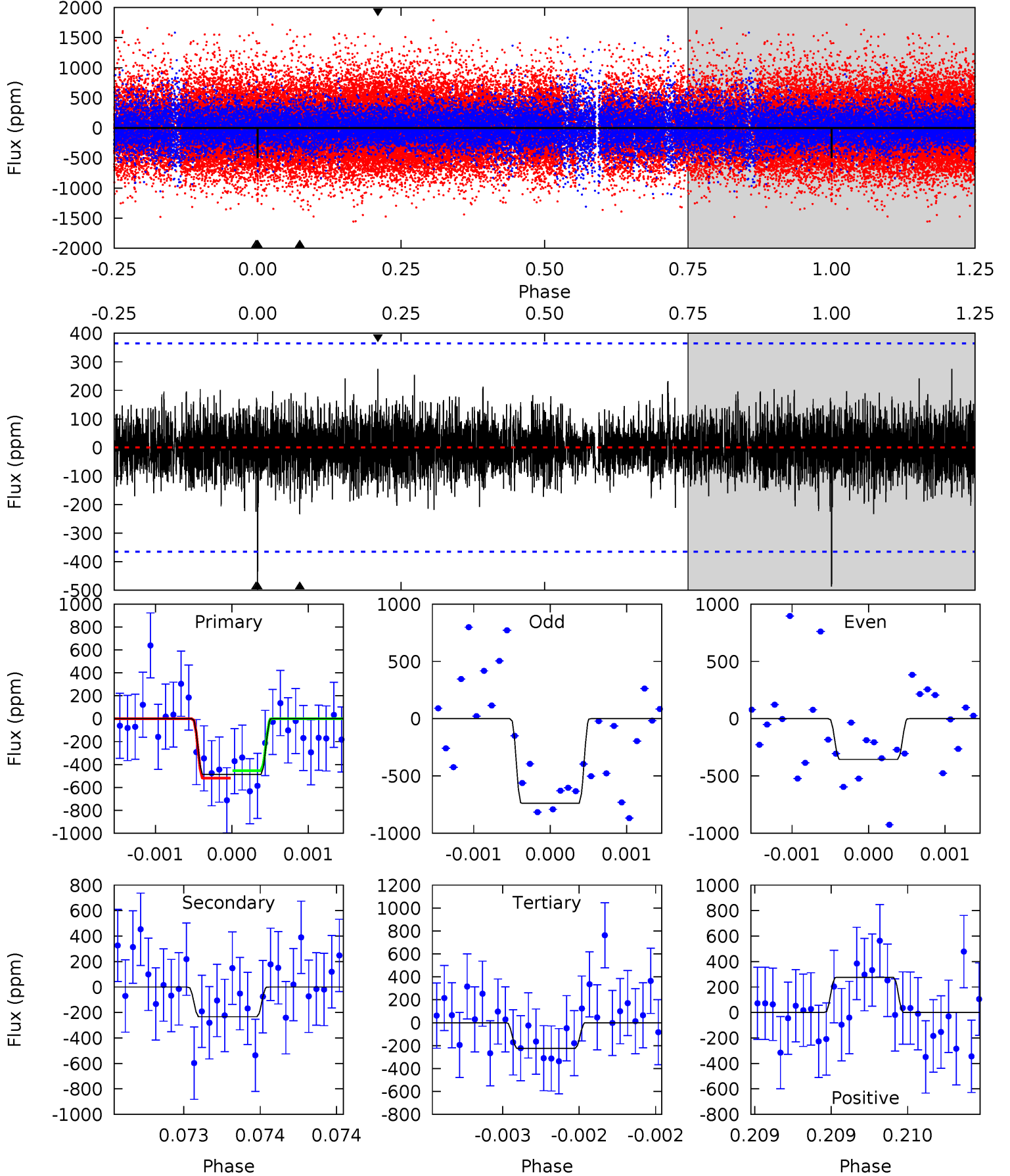
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.44	4.16	4.12	5.17	5.51	3.39	1.15	4.32	3.27	0.05	-1.00	1.85	1.17	0.38	0.28



Alt Model-Shift Uniqueness Test

011074643-01, P = 428.198872 Days, E = 69.313176 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.40	3.54	3.41	4.17	5.54	3.43	0.96	3.99	3.23	0.14	-0.63	2.74	1.24	0.36	0.50



Stellar Parameters For KIC 011074643

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5150^{+154}_{-154}	$4.590^{+0.024}_{-0.096}$	$0.120^{+0.250}_{-0.300}$	$0.784^{+0.104}_{-0.061}$	$0.878^{+0.050}_{-0.092}$	$2.566^{+0.377}_{-0.700}$
	+3%/-3%	+1%/-2%	+208%/-250%	+13%/-8%	+6%/-10%	+15%/-27%
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 011074643-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-256 ± 62	$3.38^{+3.01}_{-2.07}$	276^{+12}_{-10}	3697^{+1754}_{-692}	13582^{+83399}_{-9925}
Alt.	-233 ± 66	$3.09^{+2.95}_{-2.11}$	277^{+11}_{-11}	3705^{+2179}_{-691}	$14027^{+123314}_{-10413}$

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

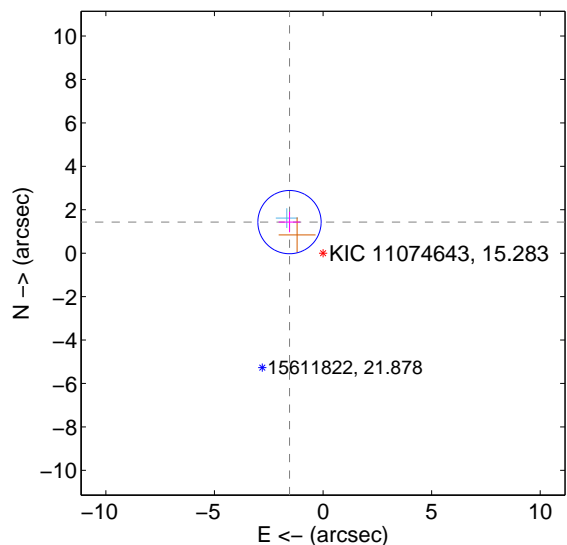
Supplemental centroid analysis for 011074643-01. Kepler magnitude: 15.28. Transit SNR 7.19

There are 1 quarters with good PRF difference image offsets

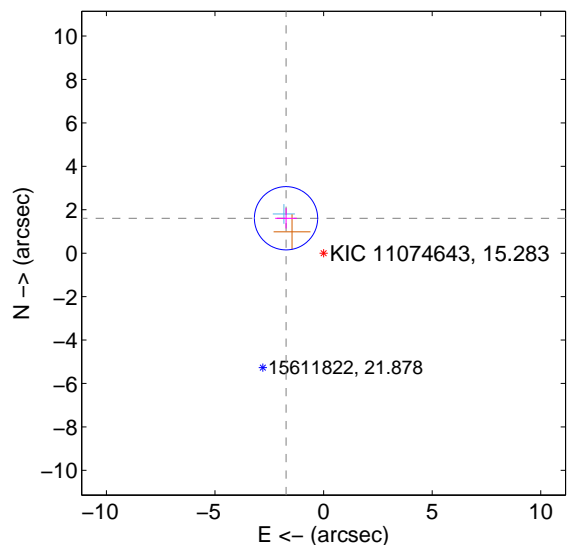
The direct PRF centroid is offset from the target star catalog position by about 0.29 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.105 ± 0.486	4.34	1.544 ± 0.499	1.430 ± 0.469
PRF-fit source offset from KIC position	2.361 ± 0.485	4.86	1.729 ± 0.499	1.608 ± 0.469
photometric centroid source offset	2.11 ± 2.39	0.88	2.10 ± 2.39	0.16 ± 2.04

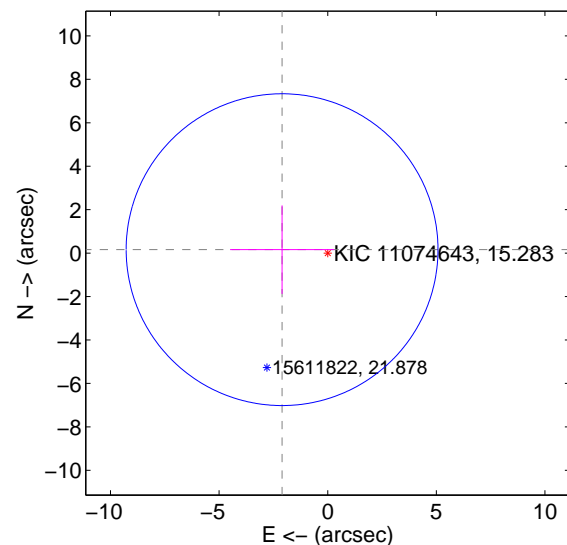
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

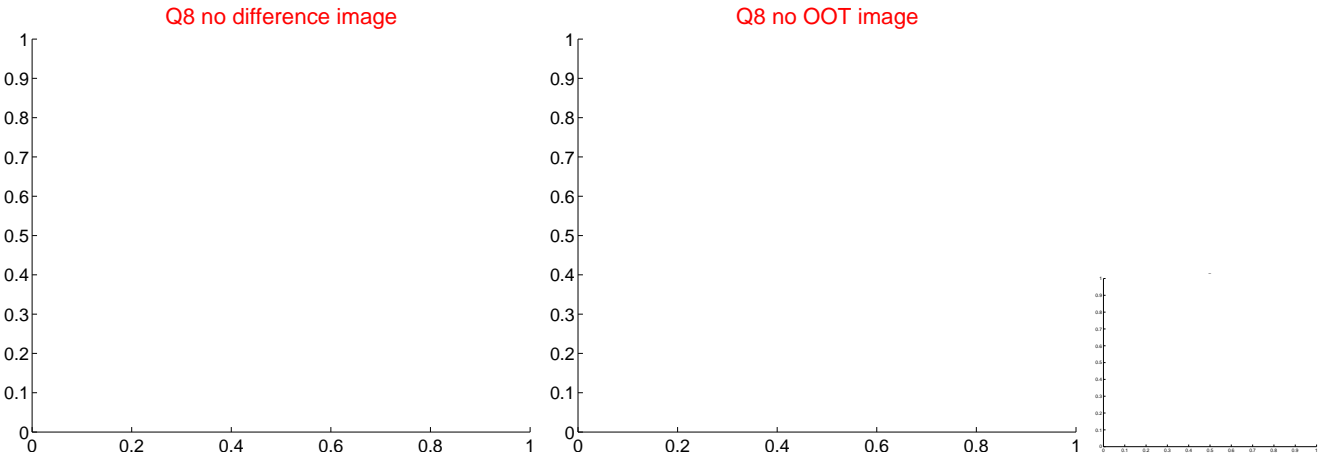
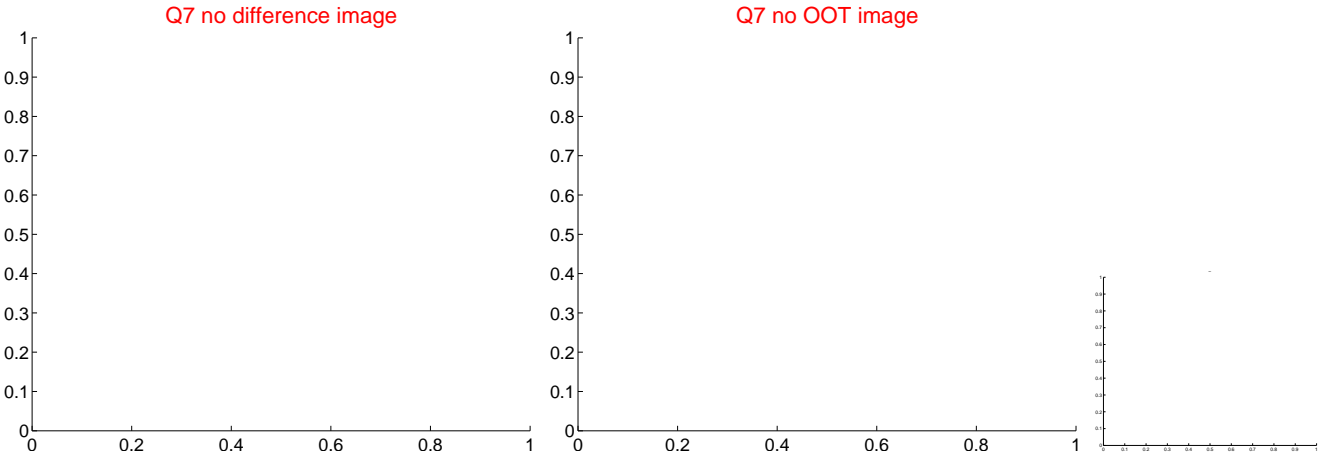
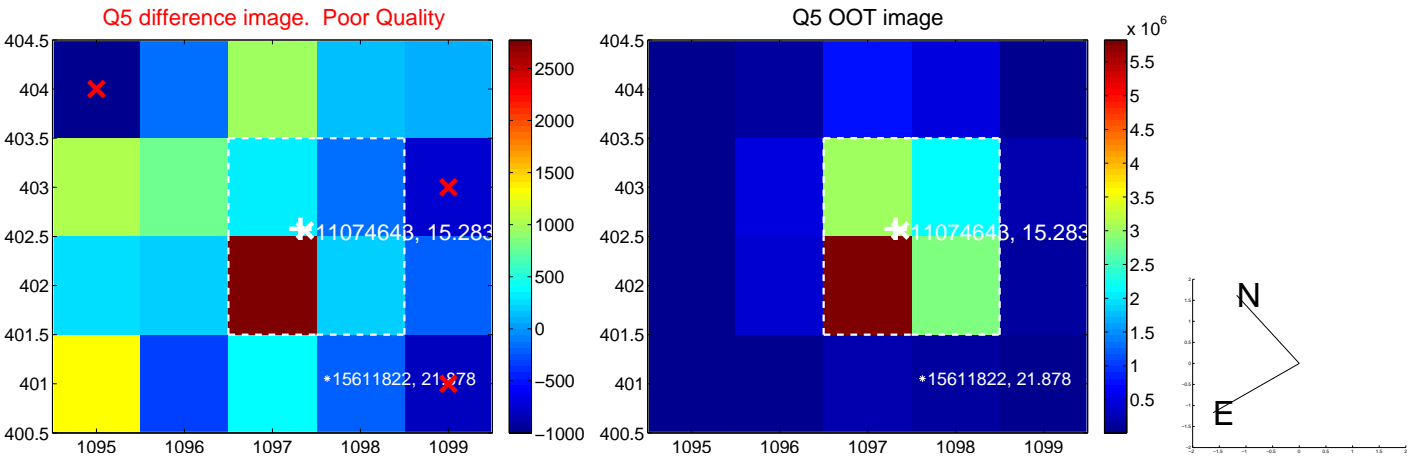


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

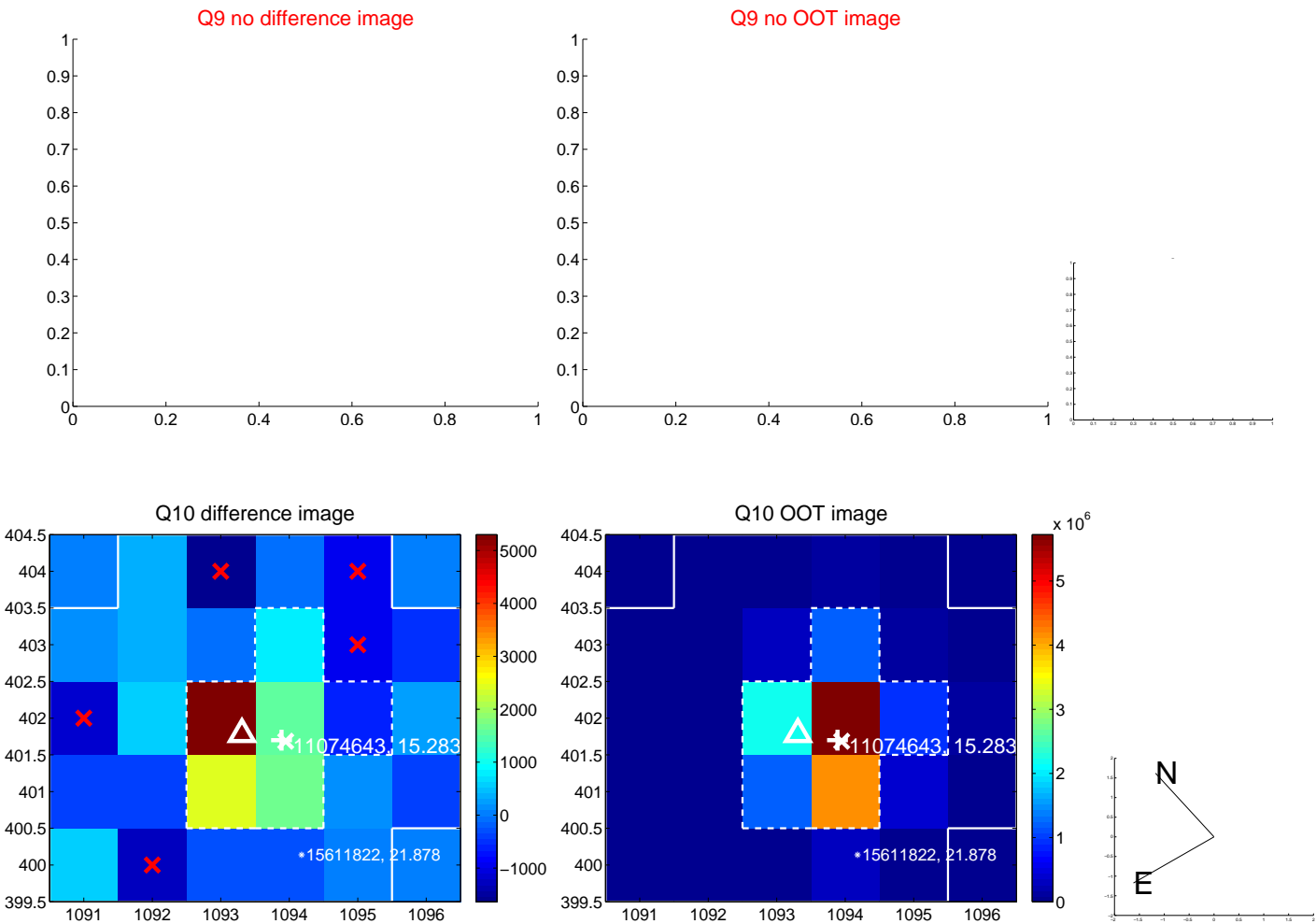
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



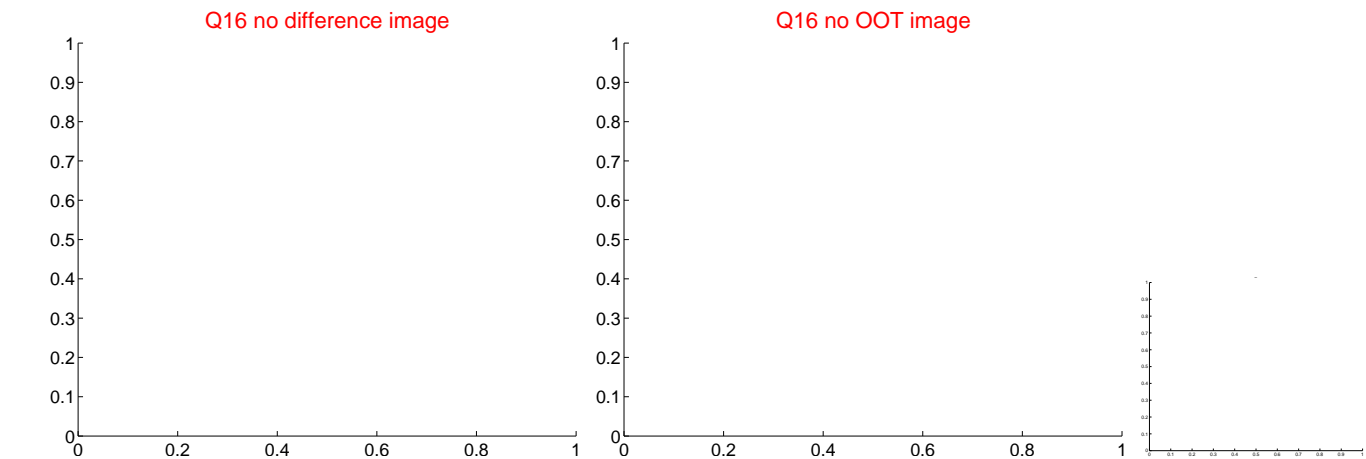
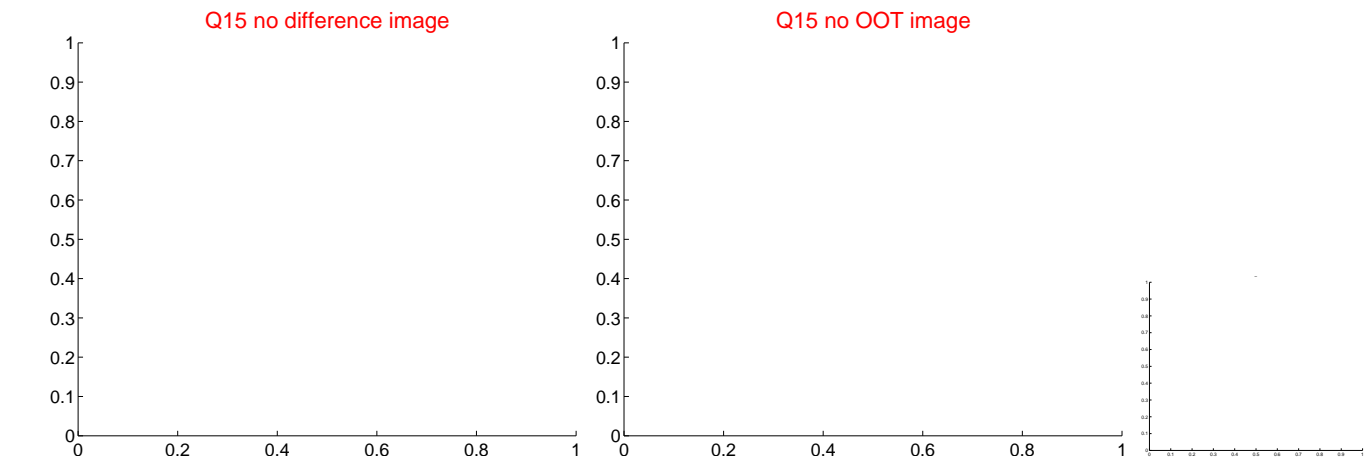
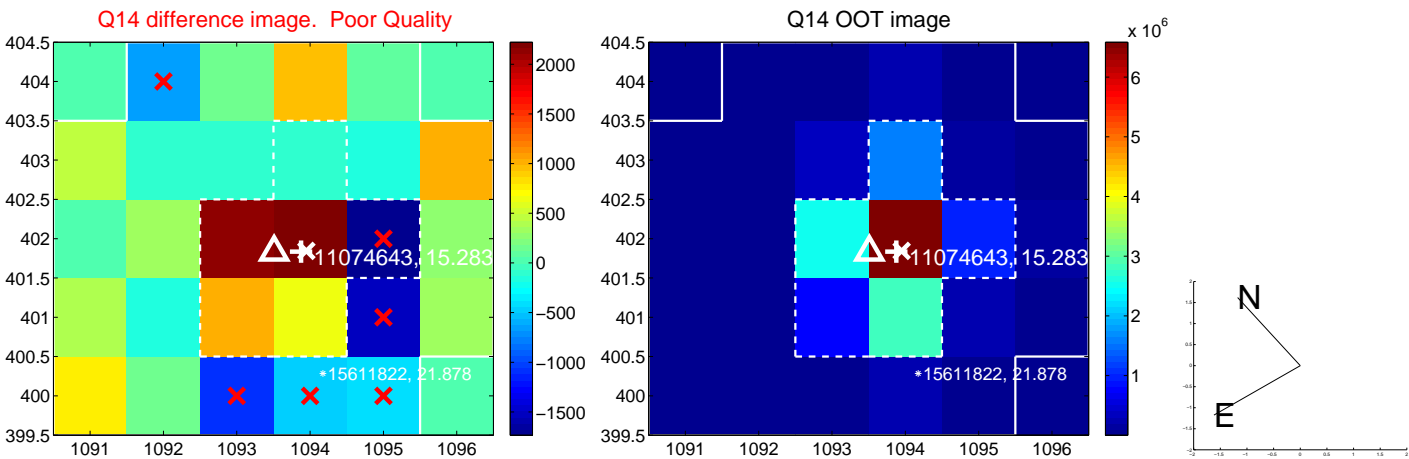
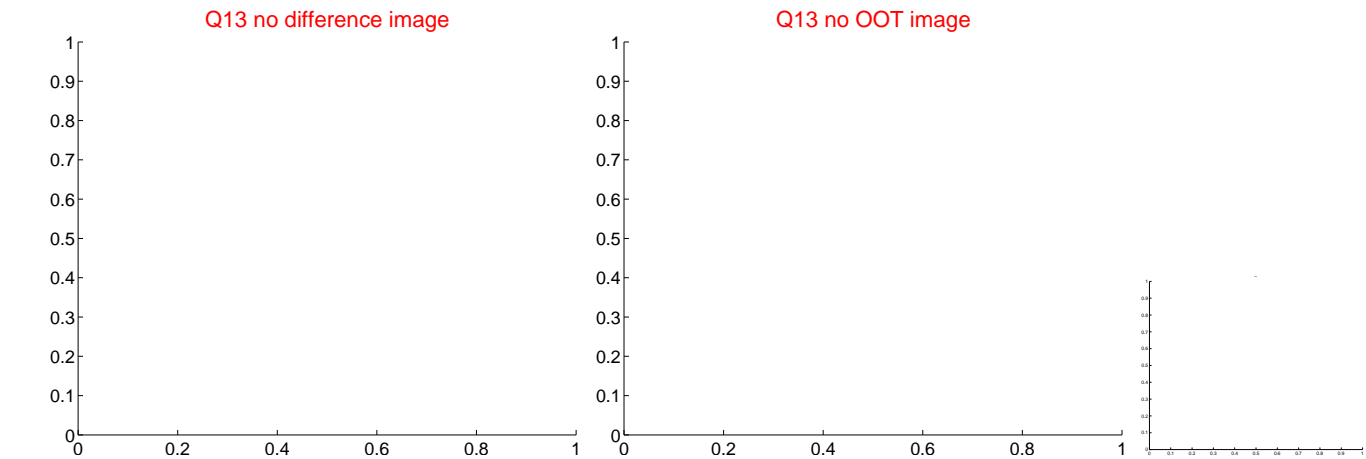
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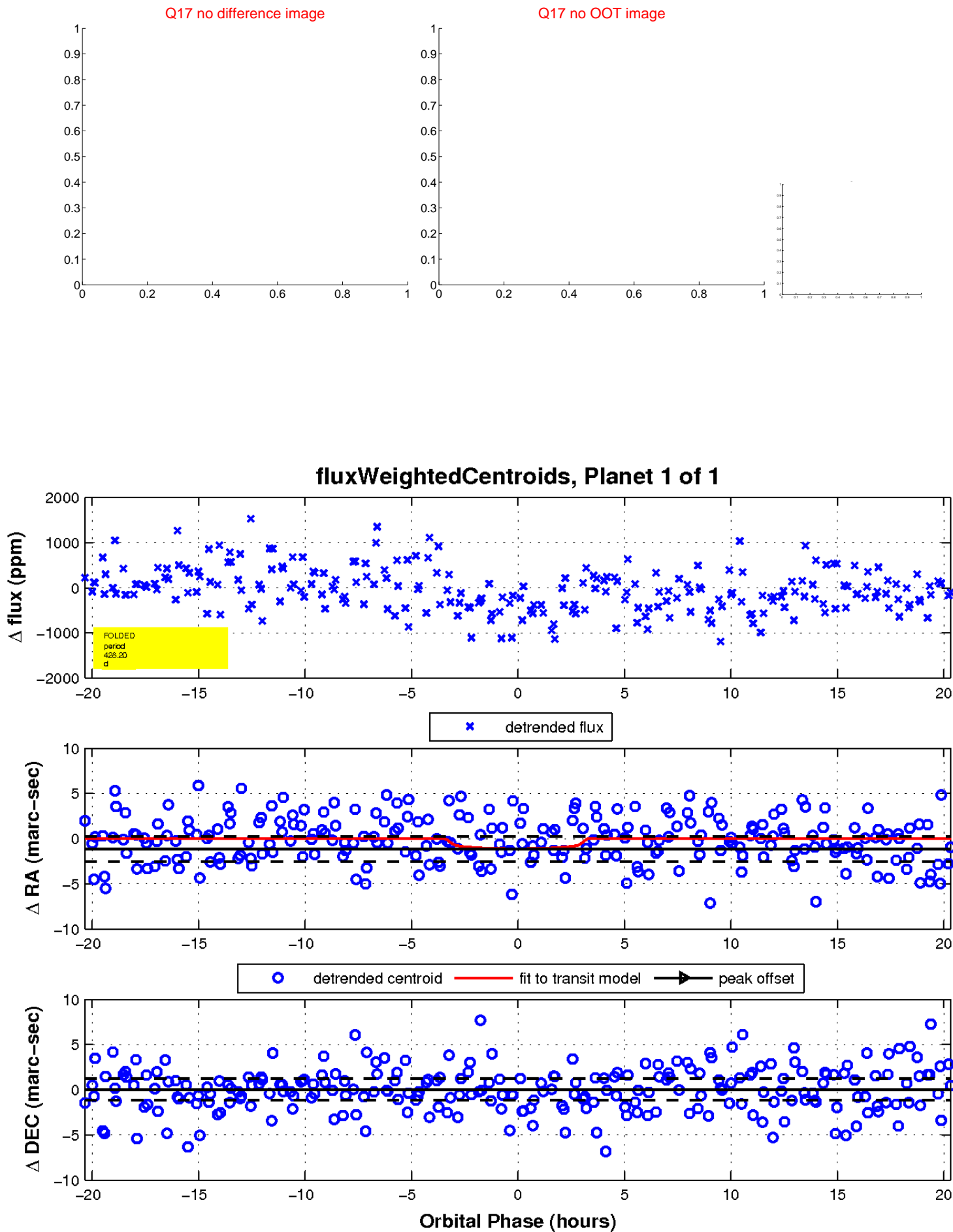
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UKIRT Image

Declination

