

KIC 007517305

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})
007517305-01	OBS	No	392.187474	496.230479	282.1	4.119	7.3	7.5	1.00	6047	1.96	1.13

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007517305-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—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.

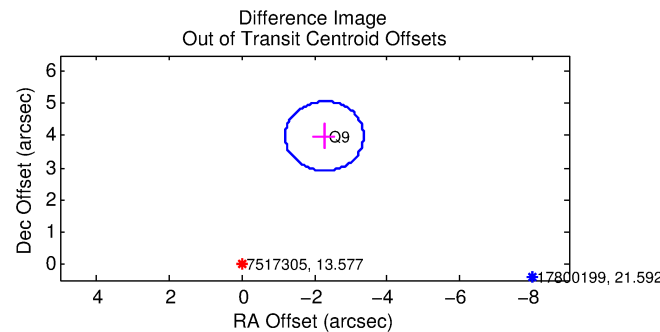
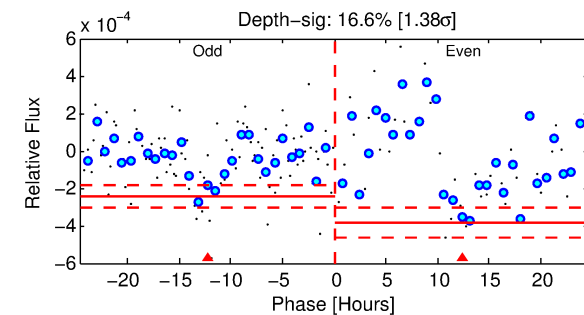
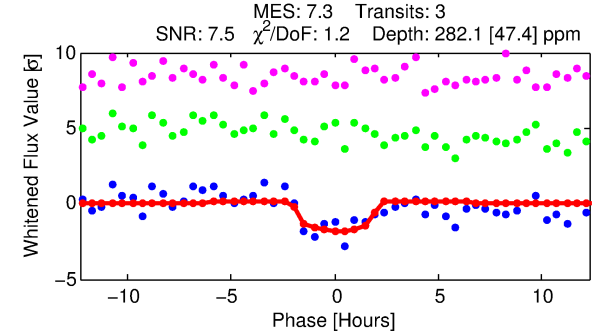
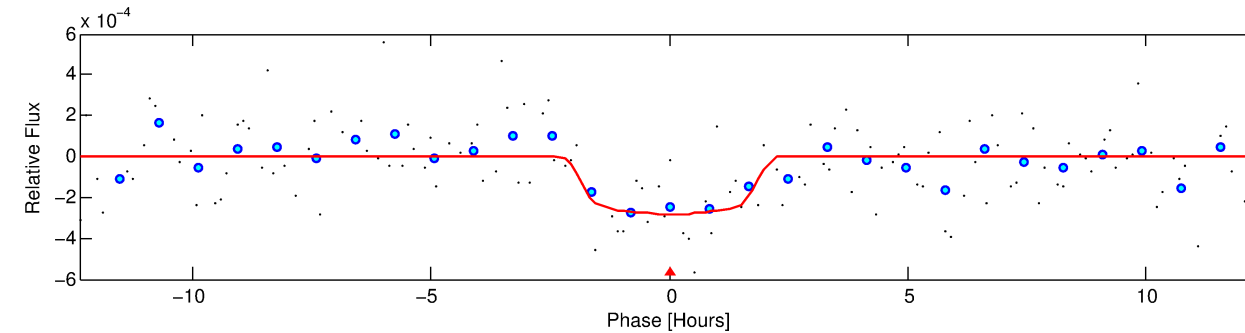
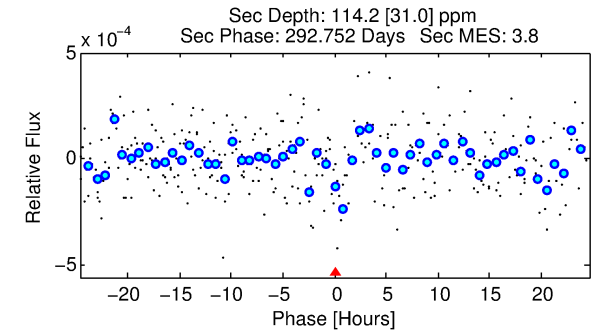
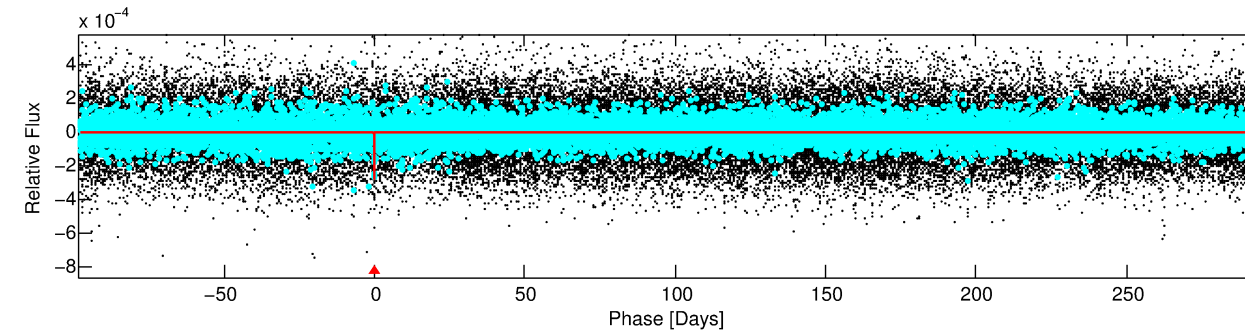
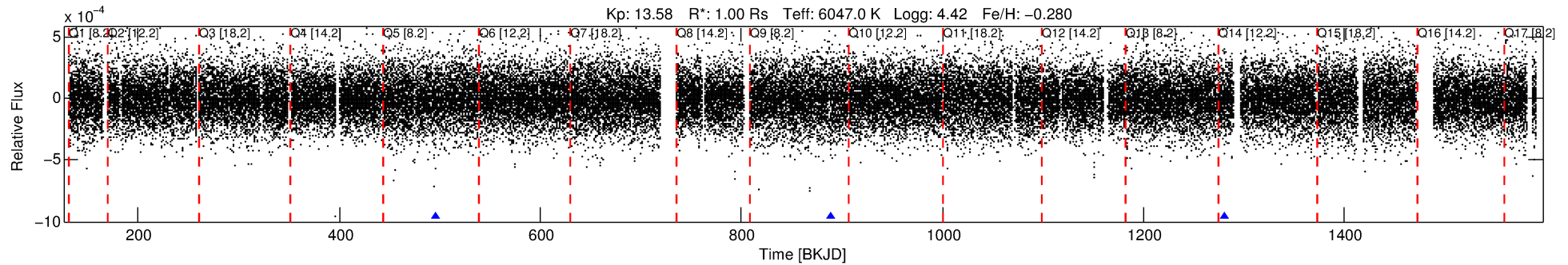
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007517305-01

No Significant Match Found

DV One-Page Summary

KIC: 7517305 Candidate: 1 of 1 Period: 392.187 d



DV Fit Results:

Period = 392.18747 [0.00866] d
Epoch = 496.2305 [0.0116] BKJD
Rp/R* = 0.0179 [0.0128]
a/R* = 367.23 [1363.56]
b = 0.88 [0.93]
Seff = 1.13 [0.43]
Teq = 263 [25] K
Rp = 1.96 [1.51] Re
a = 1.0339 [0.2538] AU
Ag = 17481.24 [26188.59] [0.67σ]
Teffp = 4676 [1704] K [2.59σ]

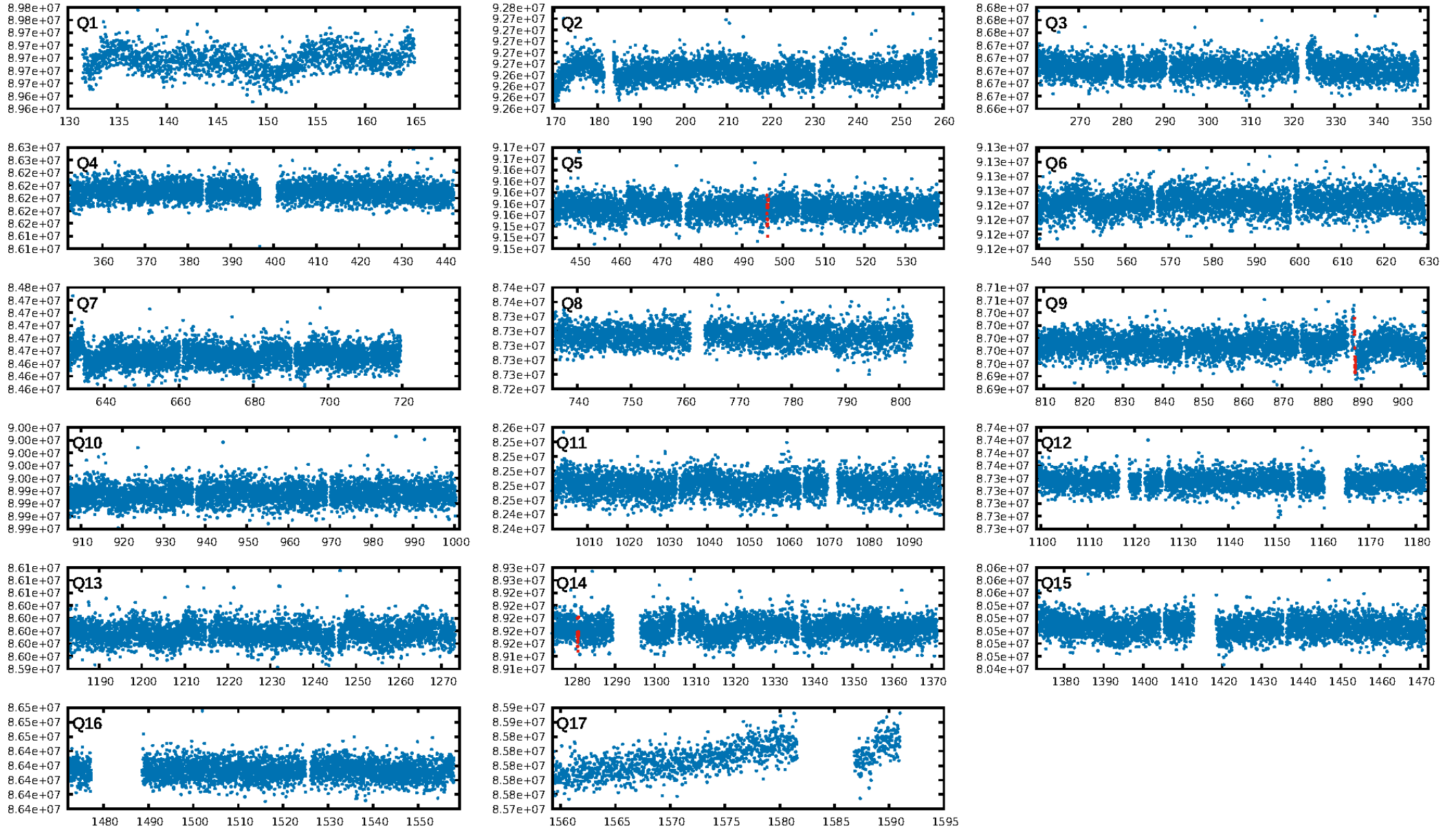
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 28.1%
ModelChiSquareGof-sig: 96.7%
Bootstrap-pfa: 2.96e-13
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 2.549
Centroid-sig: 3.6%
Centroid-so: 0.975 arcsec [0.62σ]
OotOffset-rm: 4.588 arcsec [12.77σ]
KicOffset-rm: 4.394 arcsec [12.46σ]
OotOffset-st: 0/0/0/1 [1]
KicOffset-st: 0/0/0/1 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [3/3]

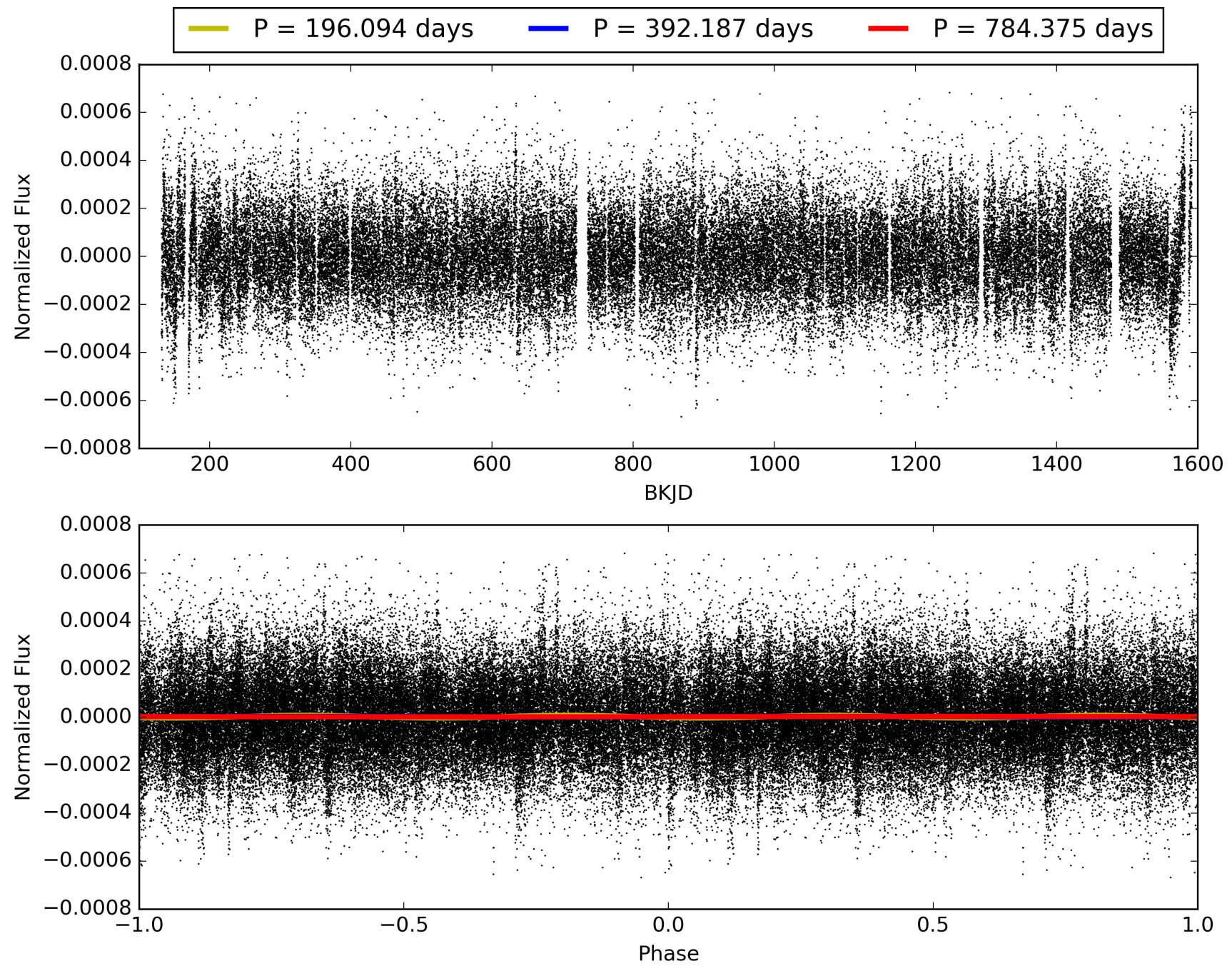
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 14:55:25 Z

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

TCE 007517305-01, PDC Light Curves

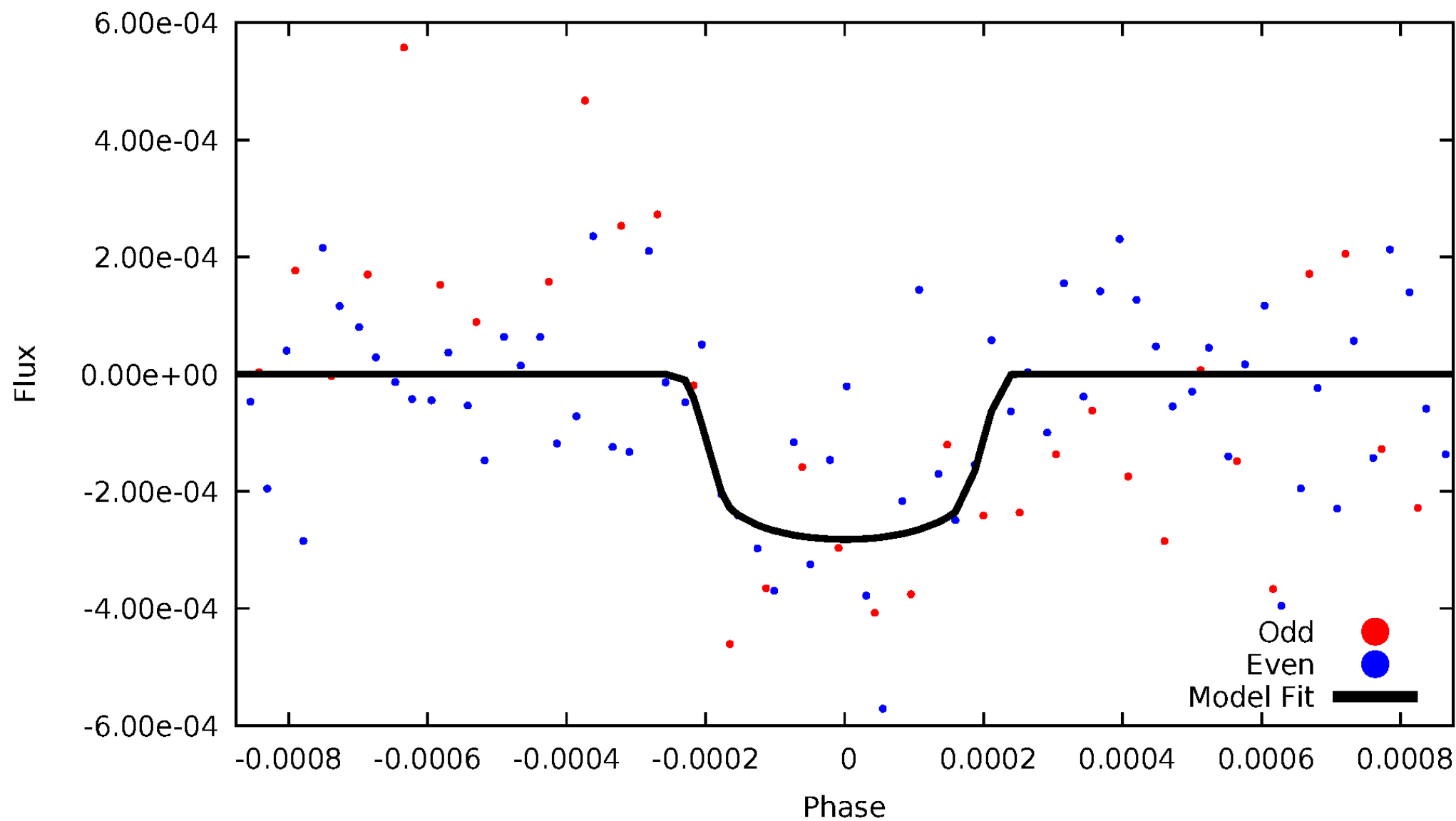


TCE 007517305-01



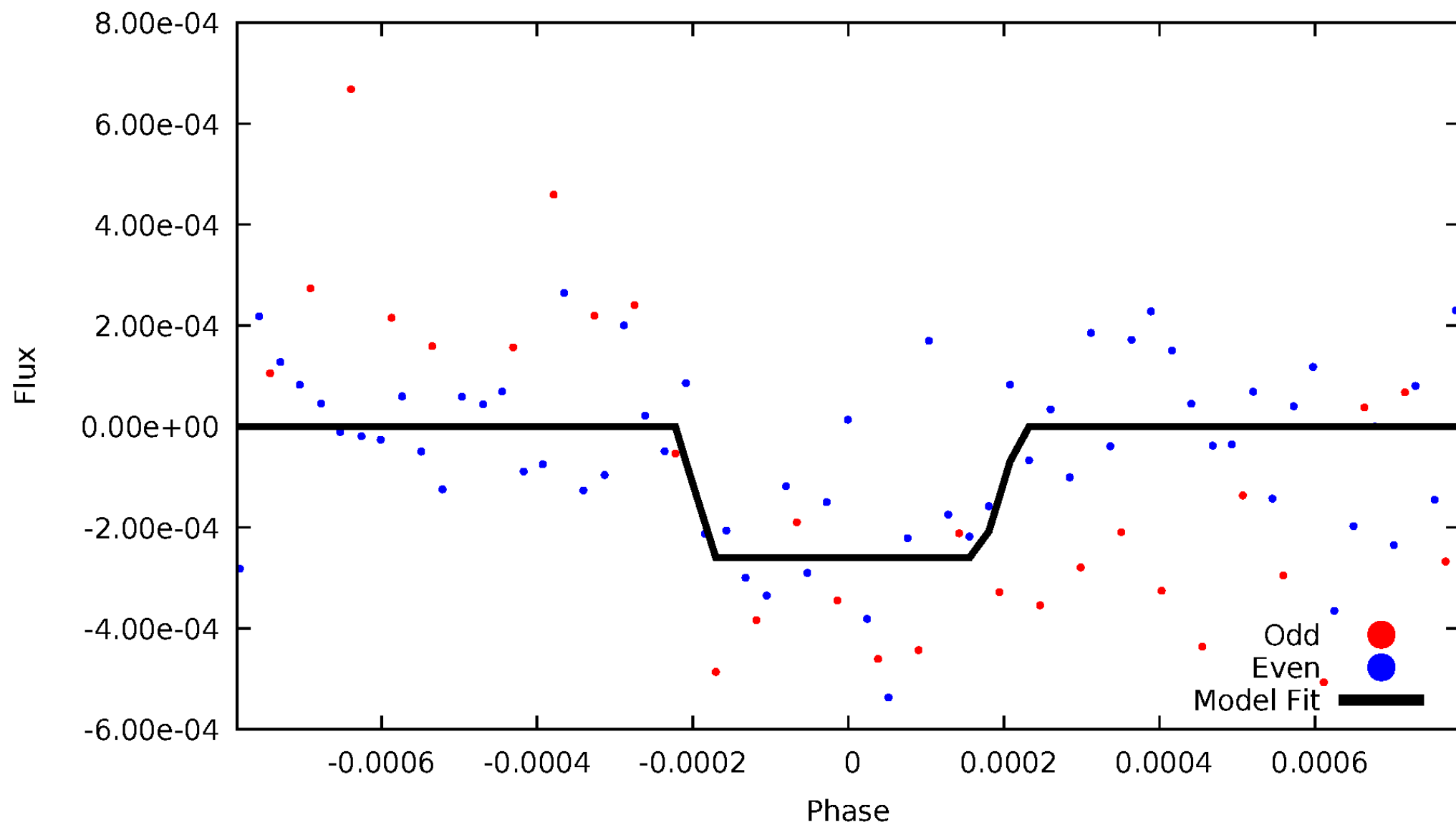
DV Odd/Even

TCE 007517305-01

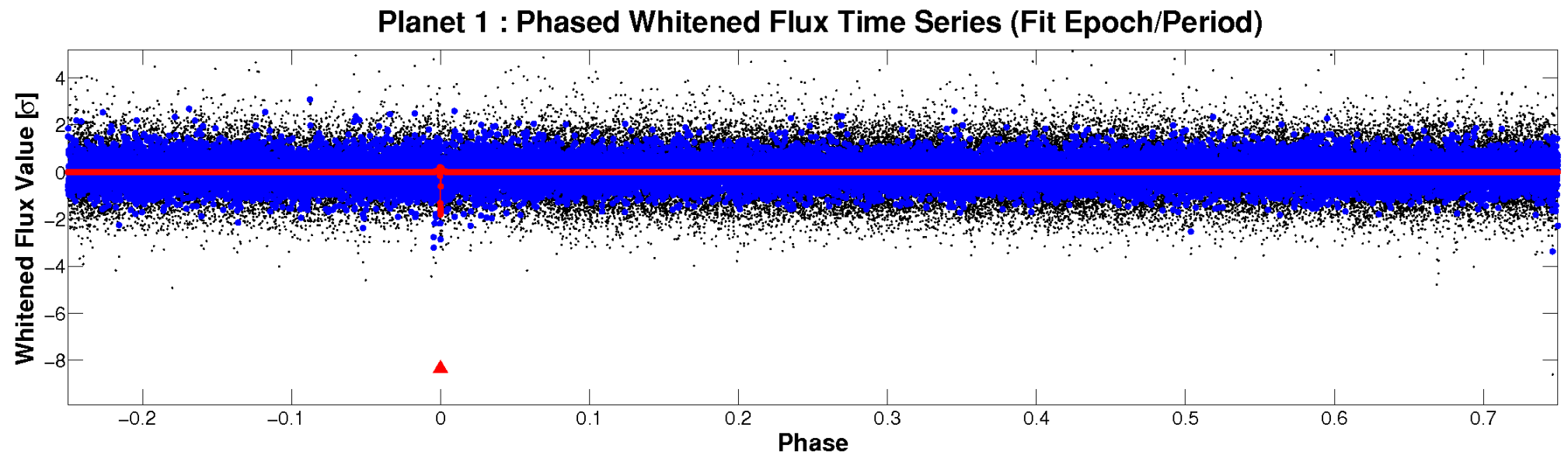
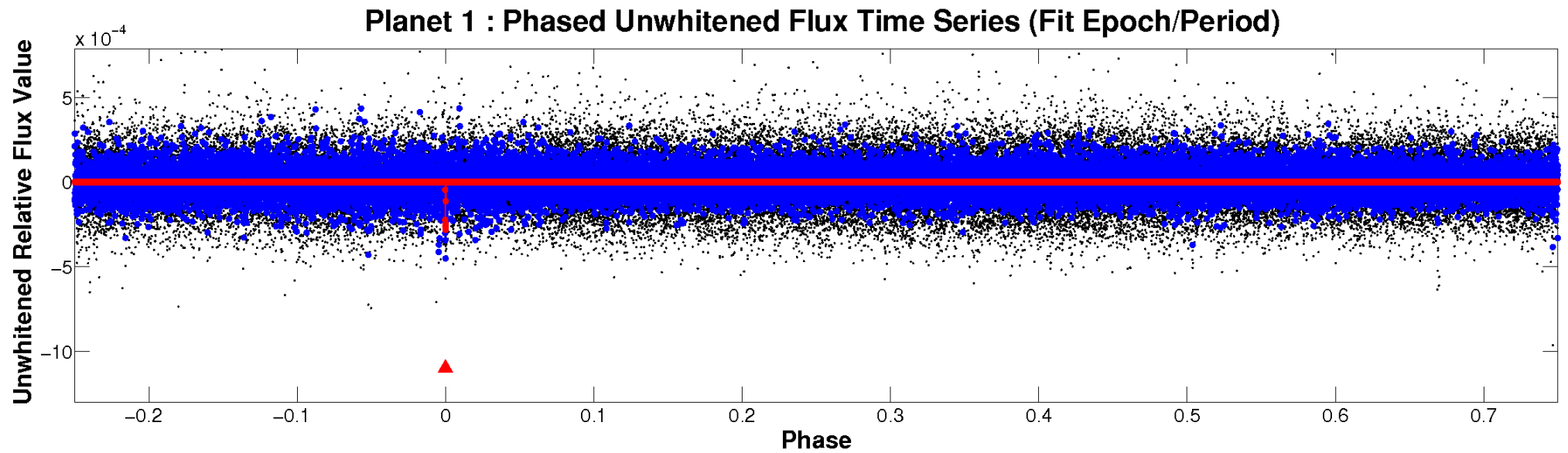


ALT Odd/Even

TCE 007517305-01

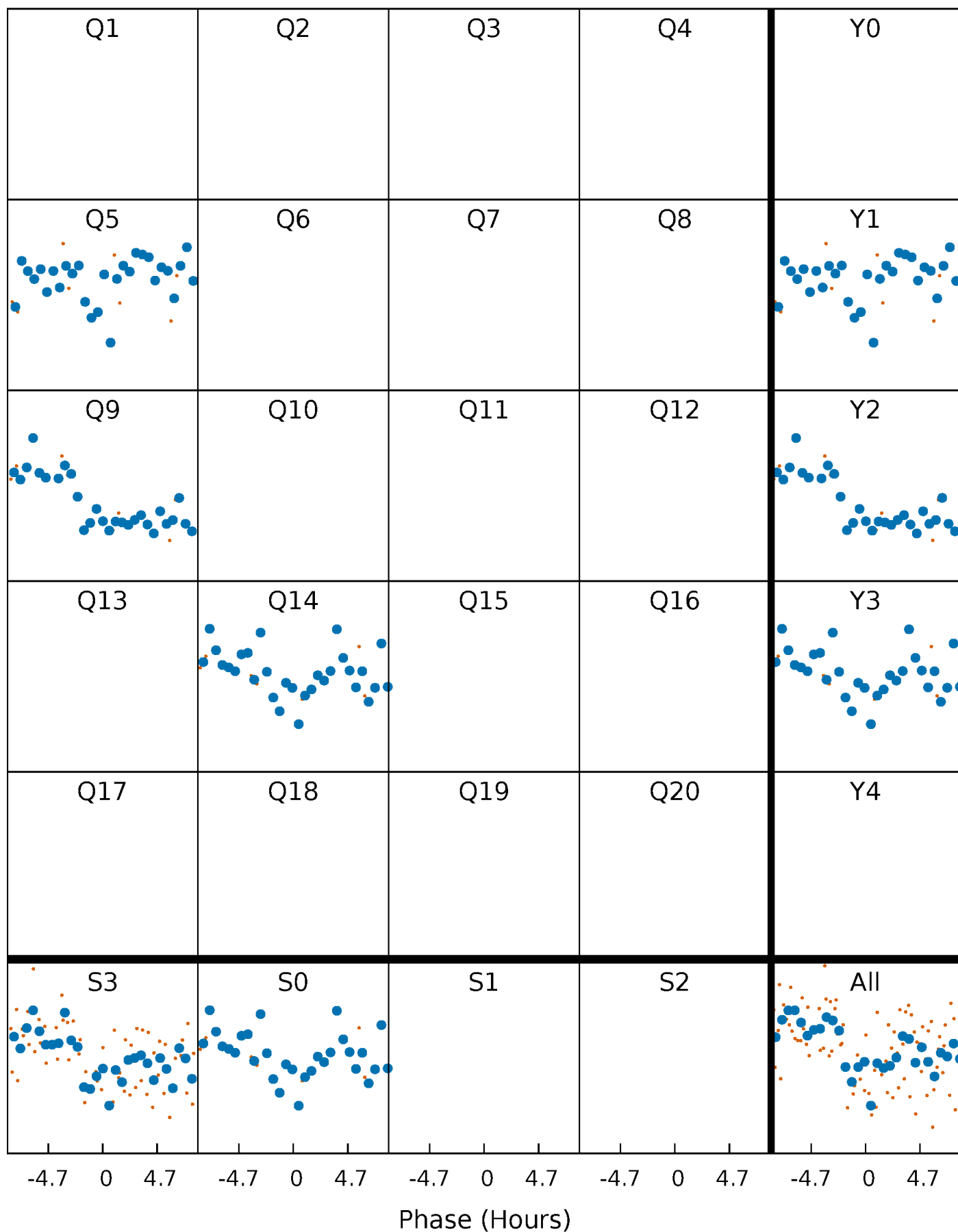


Non-Whitened Vs. Whitened Light Curve



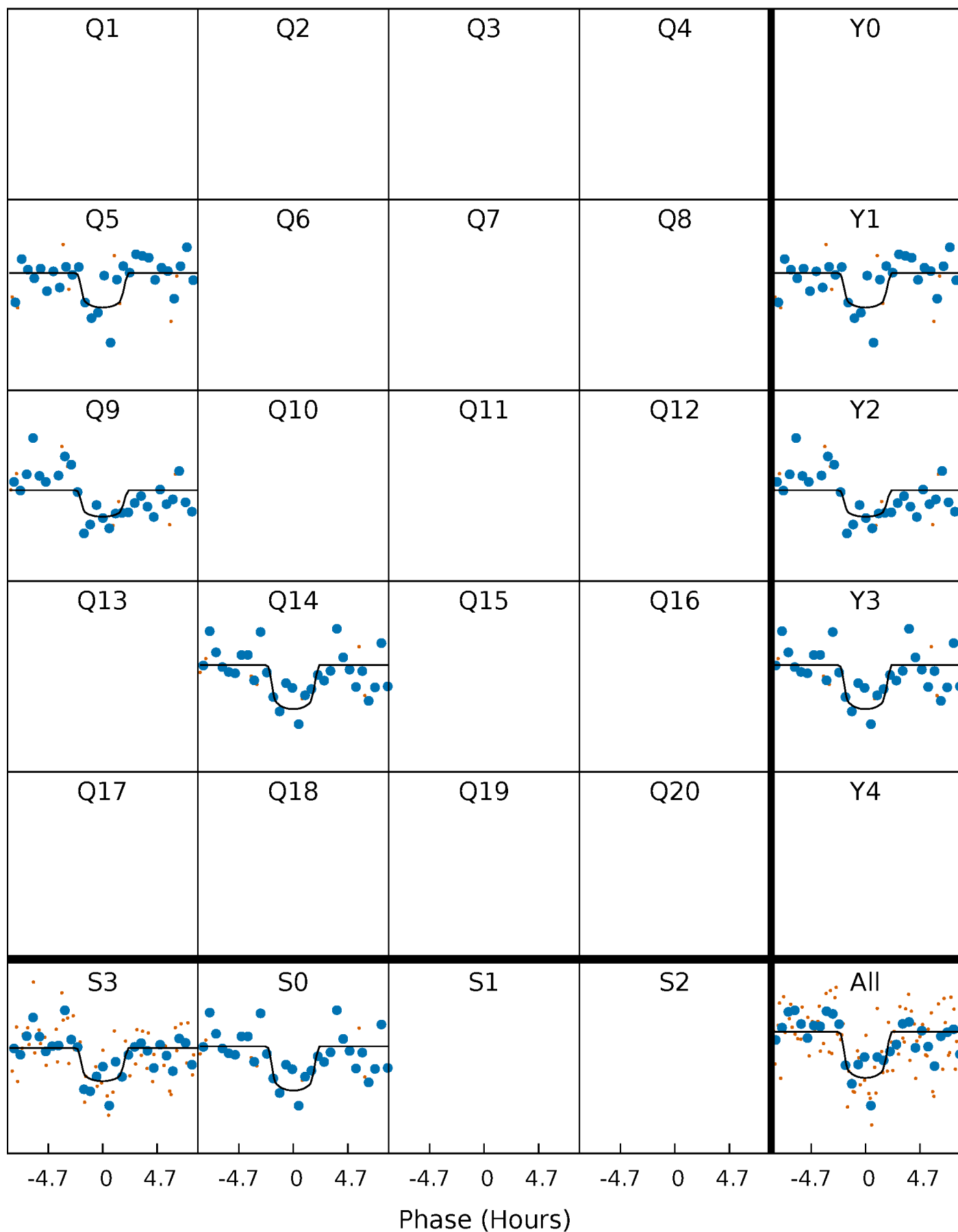
PDC Quarter-Phased Transit Curves

TCE 007517305-01 P=392.187474 Days $T_0=496.230479$ (BKJD)



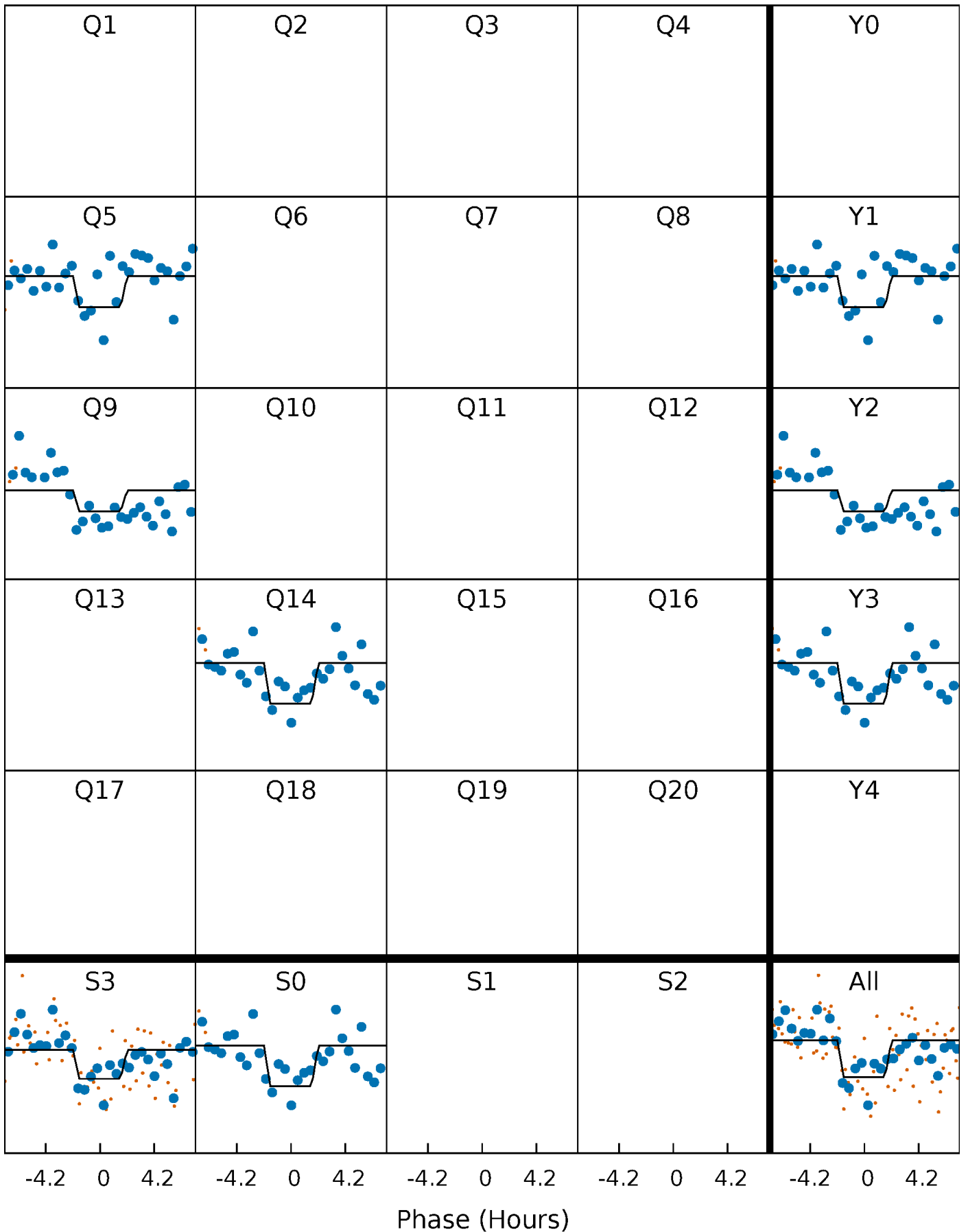
DV Quarter-Phased Transit Curves

TCE 007517305-01 P=392.187474 Days $T_0=496.230479$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

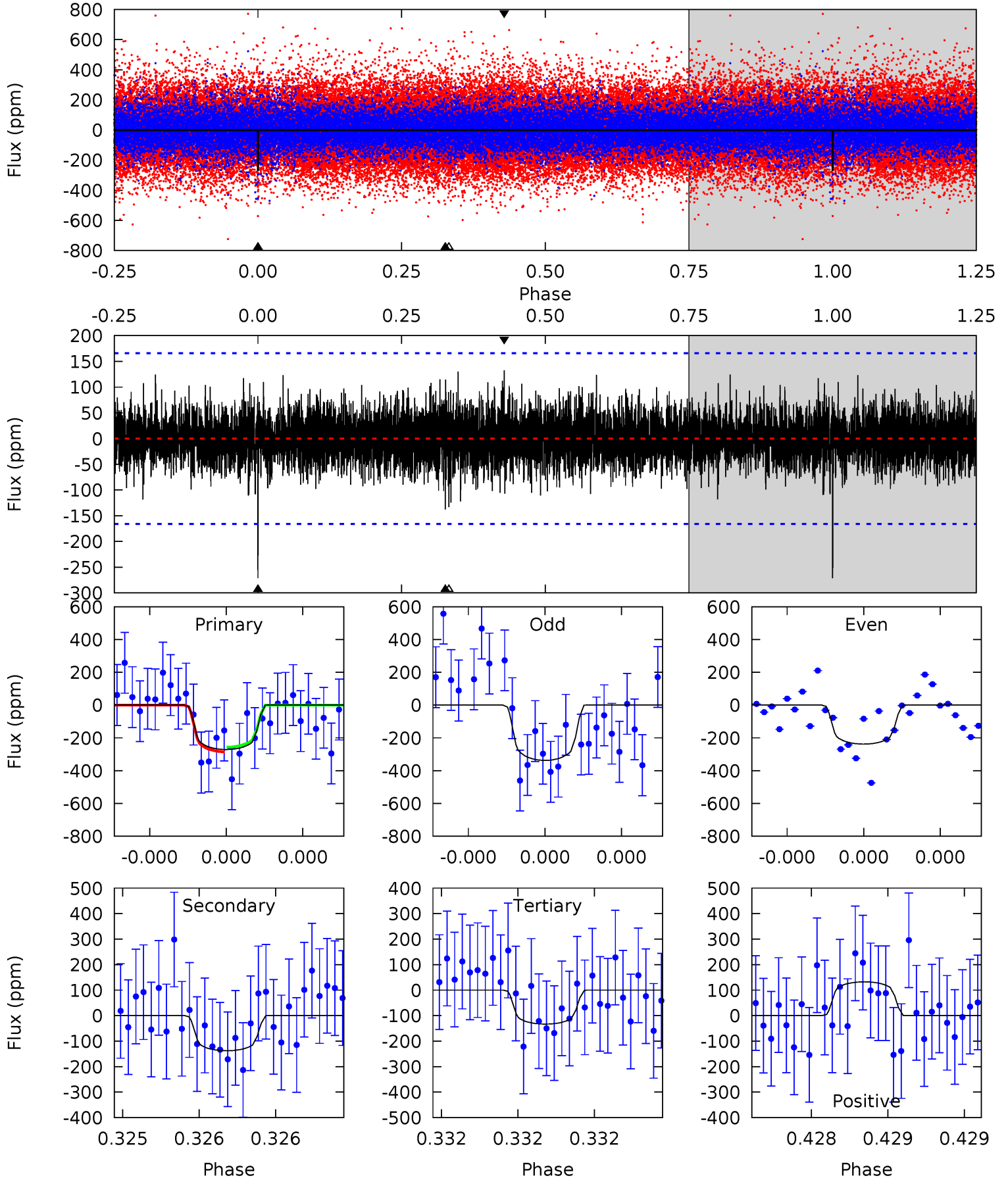
TCE 007517305-01 P=392.188128 Days $T_0=496.231840$ (BKJD)



DV Model-Shift Uniqueness Test

007517305-01, P = 392.187474 Days, E = 104.043005 Days

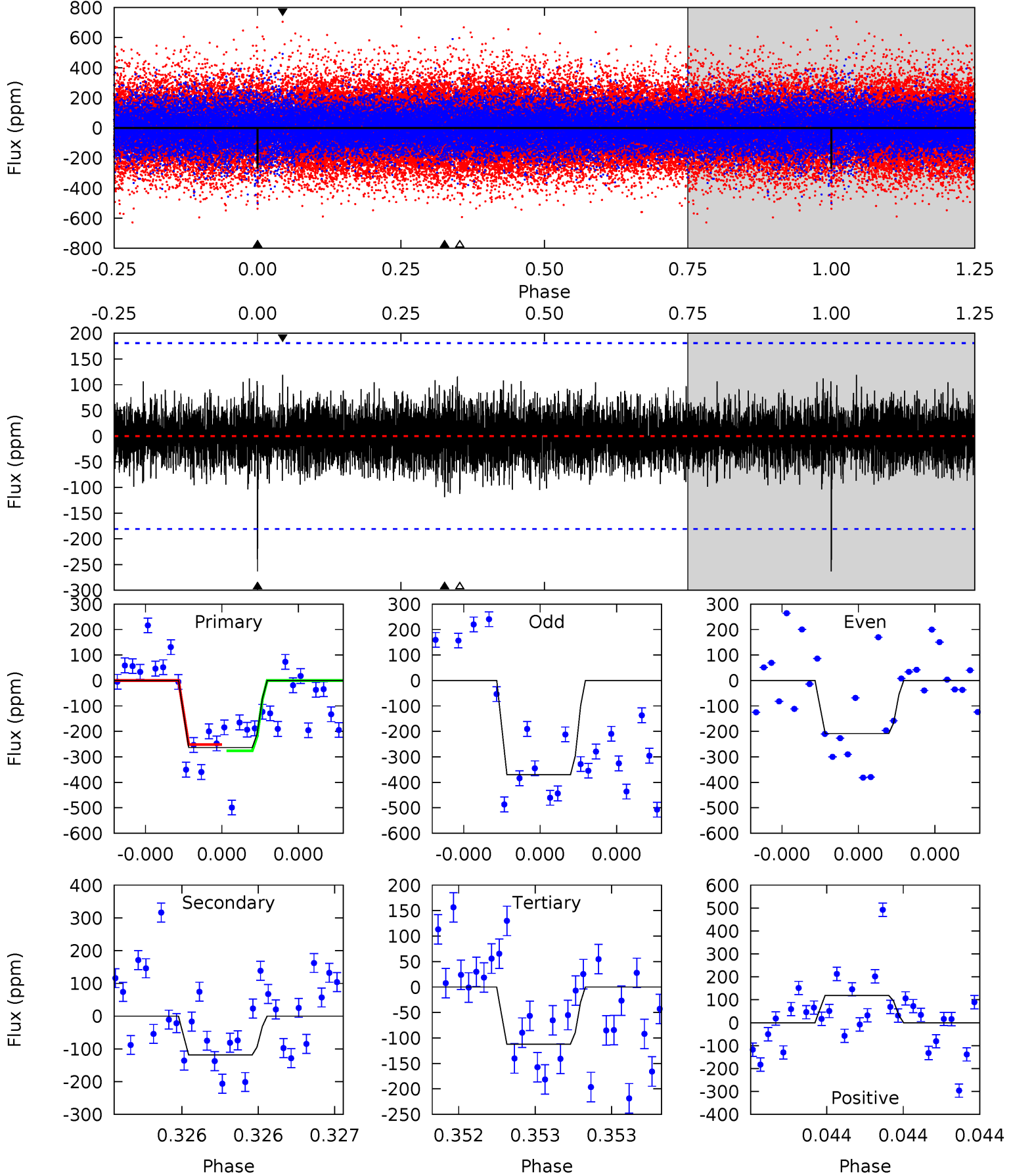
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.13	4.64	4.49	4.46	5.58	3.50	1.15	4.64	4.67	0.15	0.18	1.61	1.14	0.33	0.48



Alt Model-Shift Uniqueness Test

007517305-01, P = 392.188128 Days, E = 104.043712 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.18	3.68	3.49	3.70	5.62	3.55	0.99	4.69	4.48	0.19	-0.02	2.42	1.16	0.31	0.37



Stellar Parameters For KIC 007517305

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6047^{+163}_{-181}	$4.415^{+0.101}_{-0.203}$	$-0.280^{+0.300}_{-0.300}$	$1.005^{+0.286}_{-0.154}$	$0.960^{+0.129}_{-0.103}$	$1.332^{+0.592}_{-0.656}$
	+3%/-3%	+2%/-5%	+107%/-107%	+28%/-15%	+13%/-11%	+44%/-49%
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 007517305-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-138 ± 30	$2.20^{+1.37}_{-1.25}$	373^{+26}_{-21}	4792^{+2462}_{-798}	16231^{+71521}_{-10288}
Alt.	-118 ± 32	$1.99^{+1.44}_{-1.20}$	372^{+28}_{-22}	4865^{+2871}_{-932}	17591^{+98195}_{-12114}

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 $A_{obs} \gg 1.0$

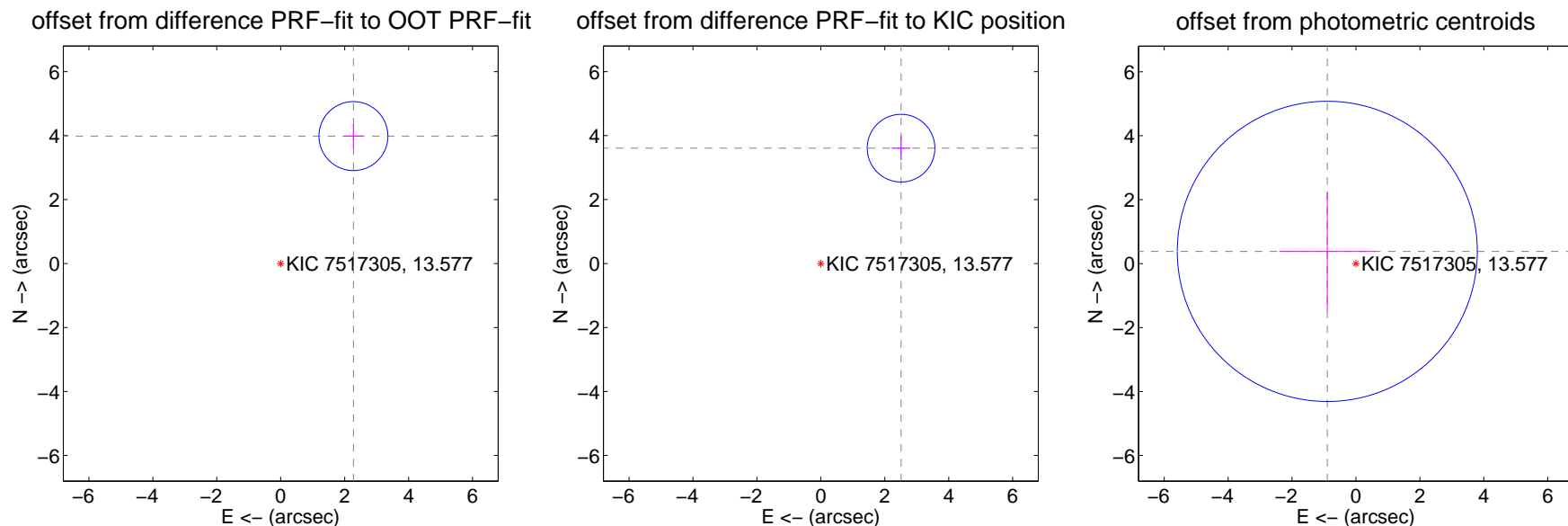
DV Centroid Data

Supplemental centroid analysis for 007517305-01. Kepler magnitude: 13.58. Transit SNR 7.51

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.44 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.588 ± 0.359	12.77	-2.274 ± 0.290	3.985 ± 0.379
PRF-fit source offset from KIC position	4.394 ± 0.353	12.46	-2.509 ± 0.290	3.608 ± 0.379
photometric centroid source offset	0.97 ± 1.56	0.62	0.90 ± 1.50	0.38 ± 1.87

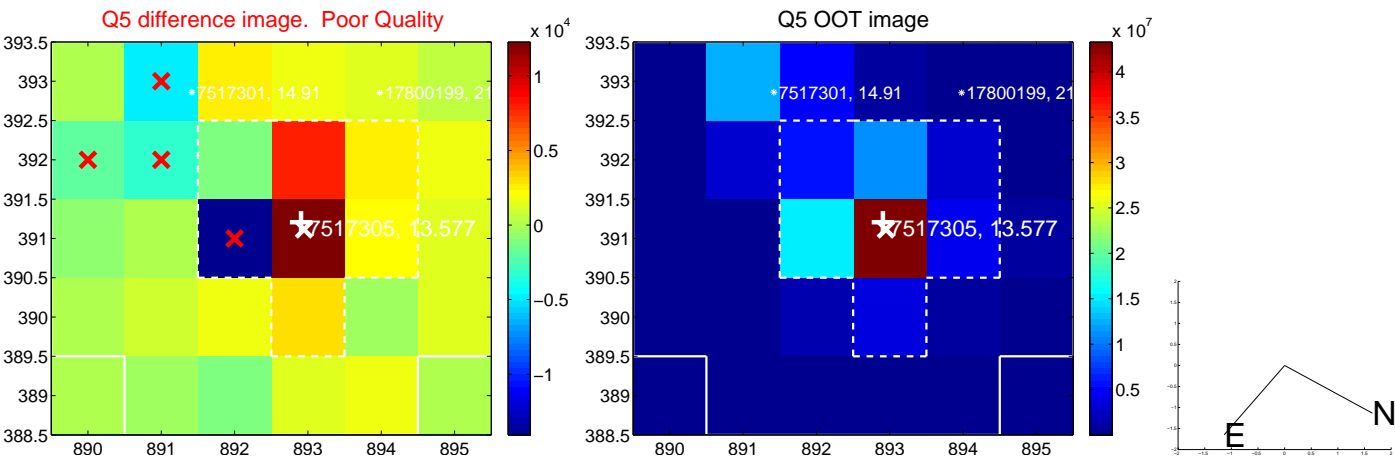


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

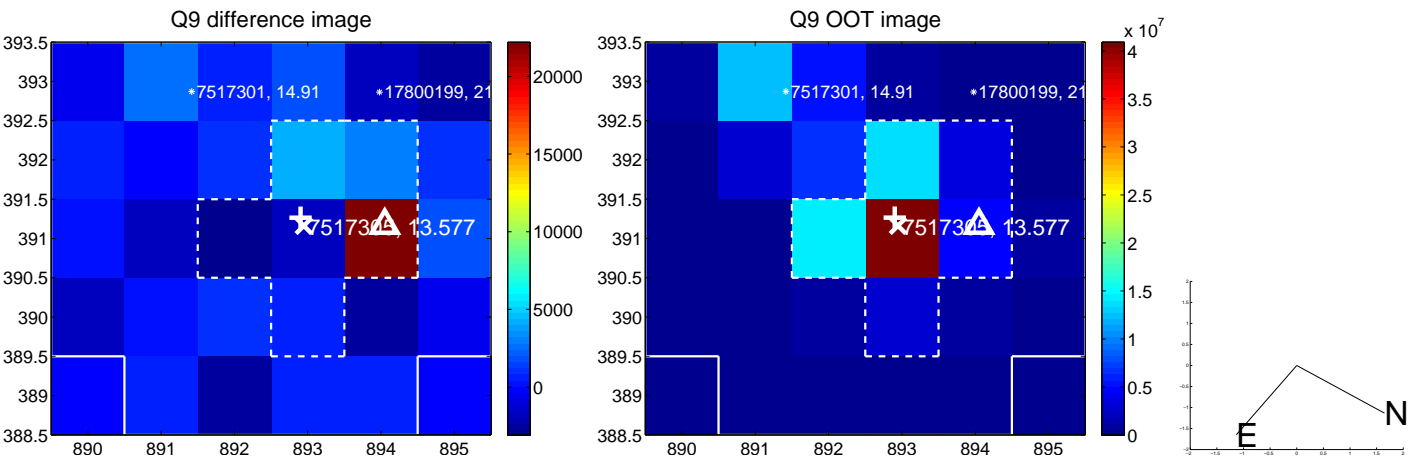
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



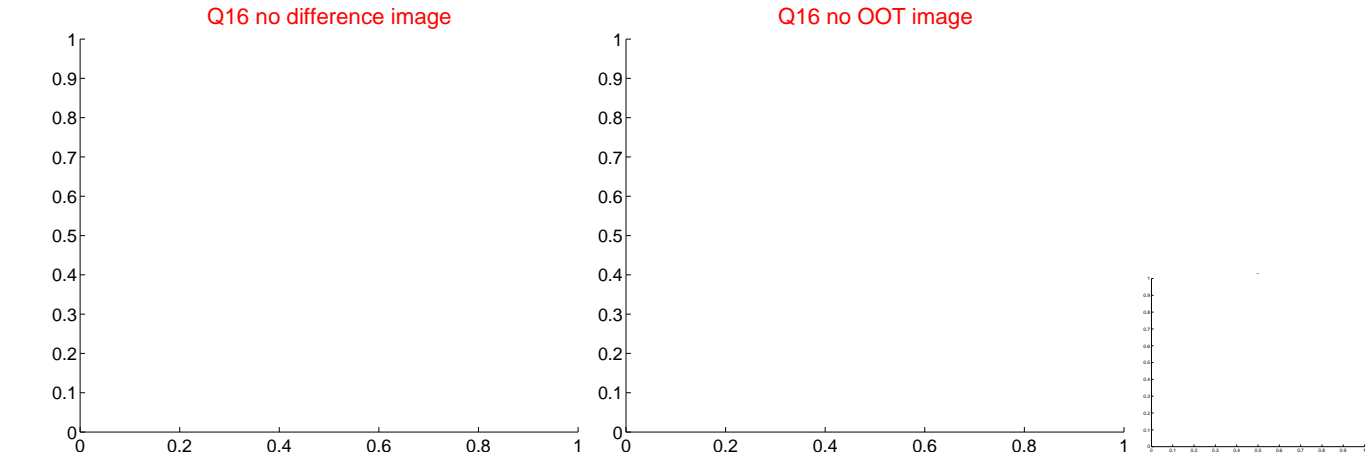
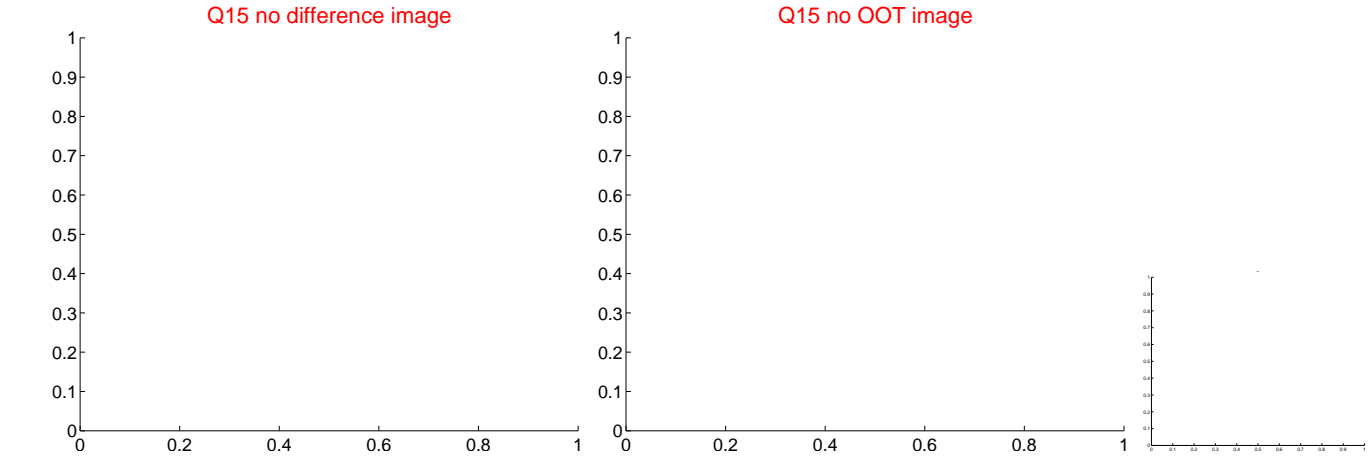
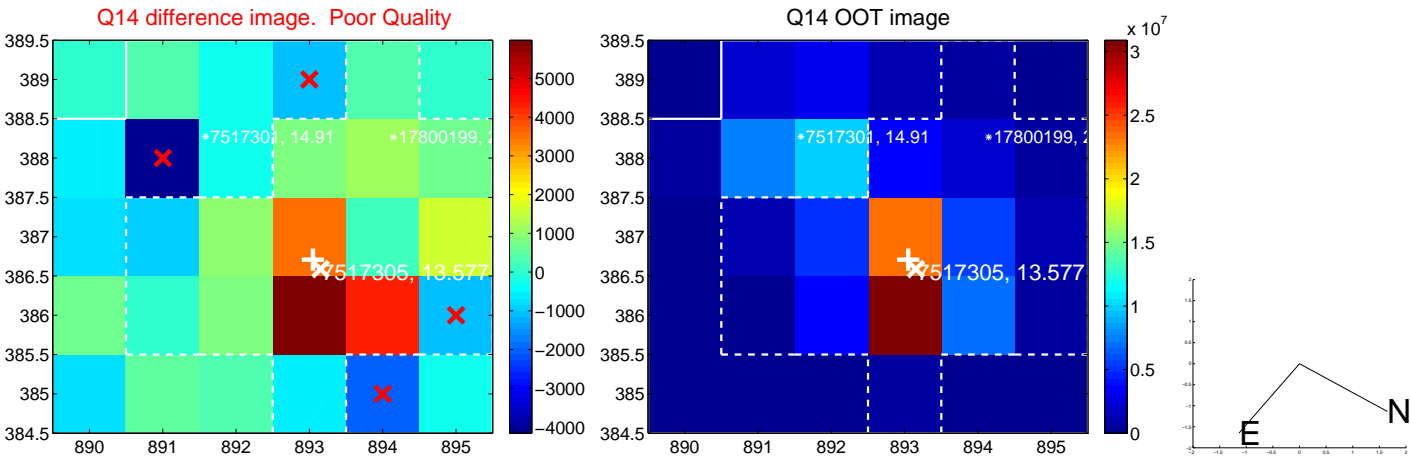
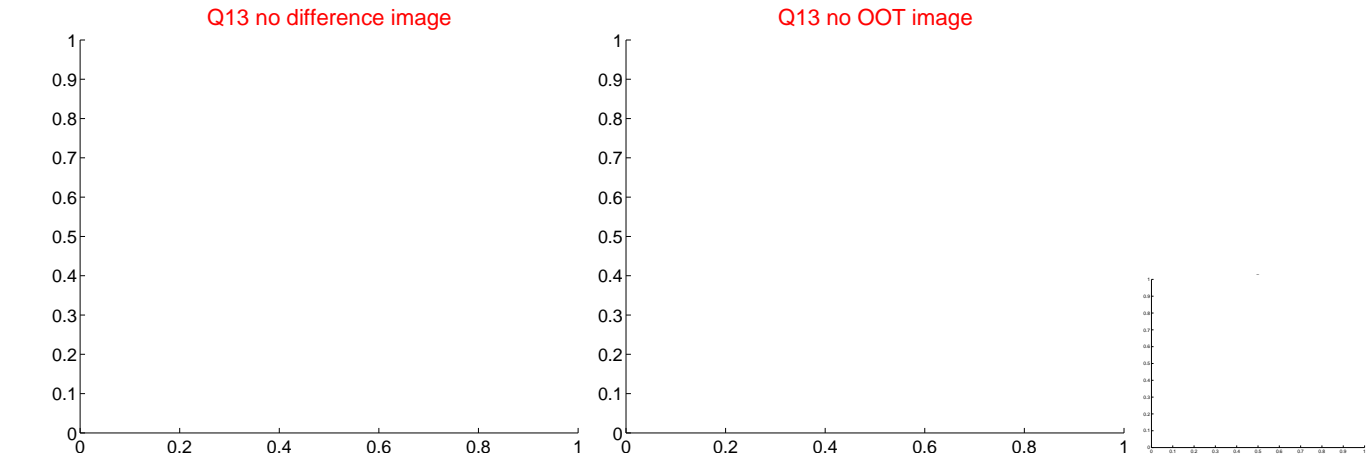
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



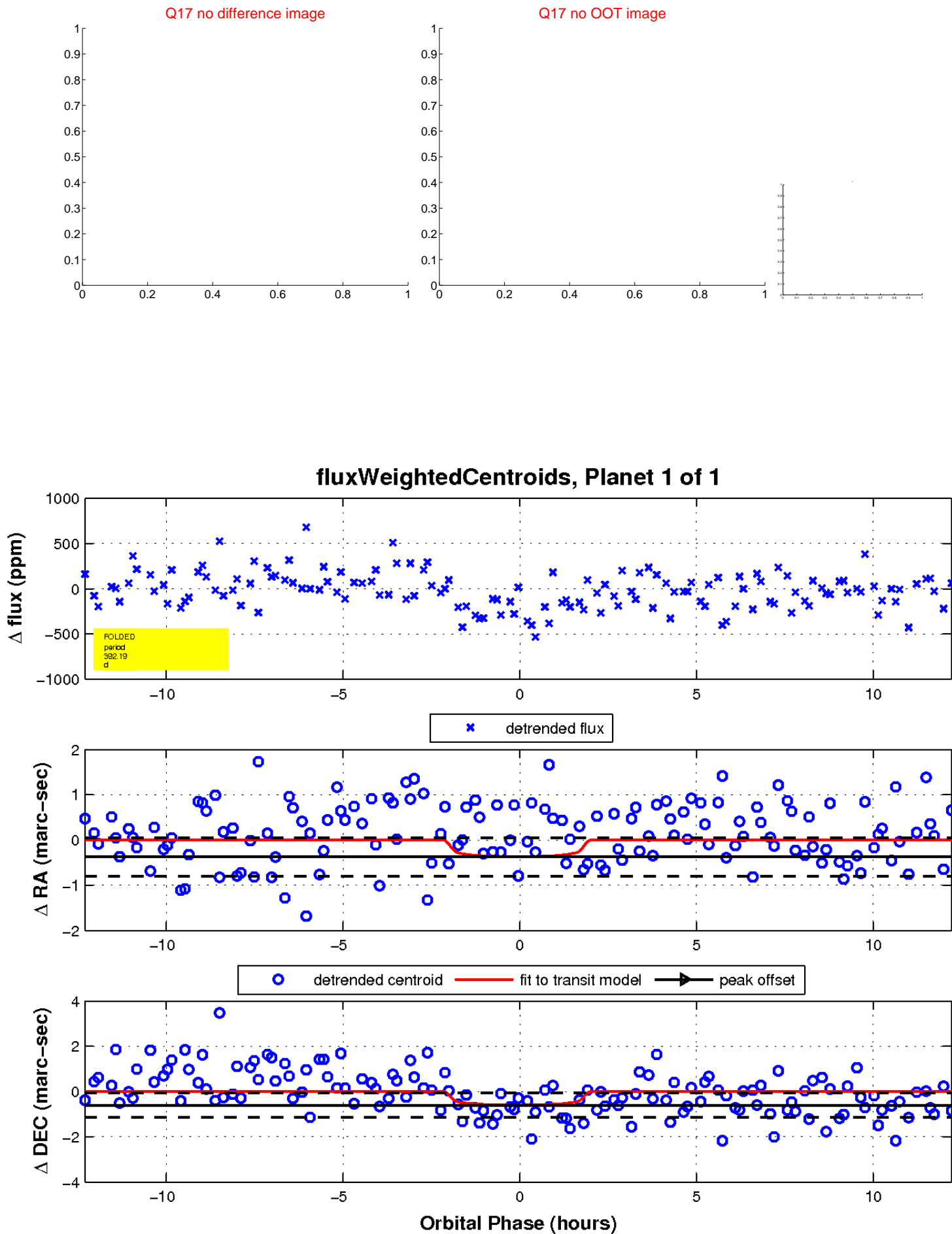
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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



UKIRT Image

Declination

