

KIC 010054085

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})
010054085-01	OBS	No	510.164194	430.195158	1038.0	6.477	9.1	5.8	0.86	5591	2.88	0.45

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010054085-01	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.

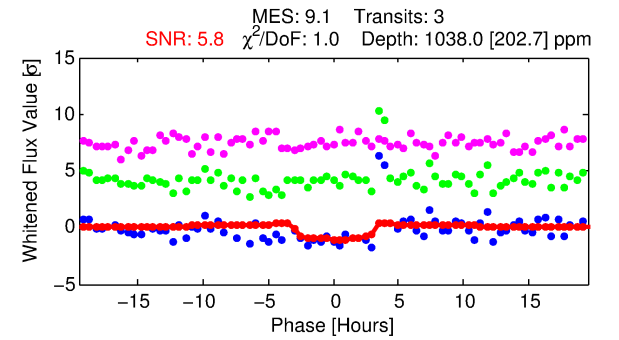
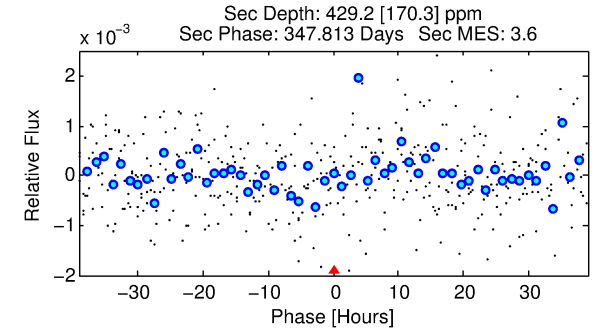
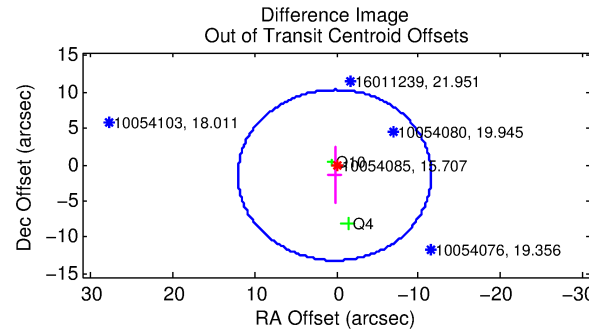
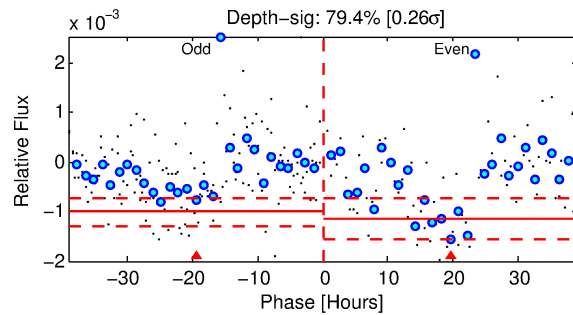
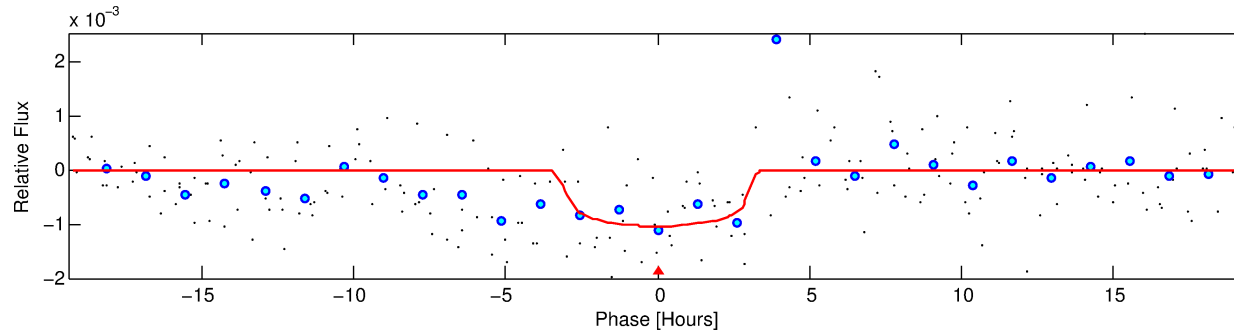
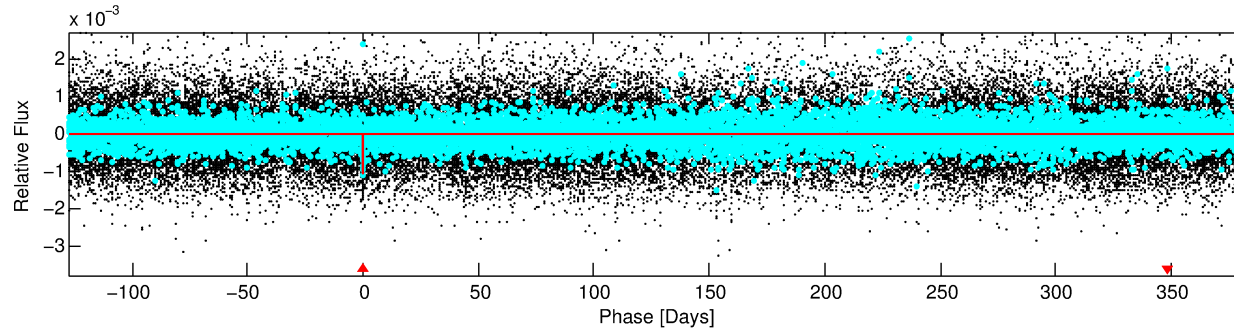
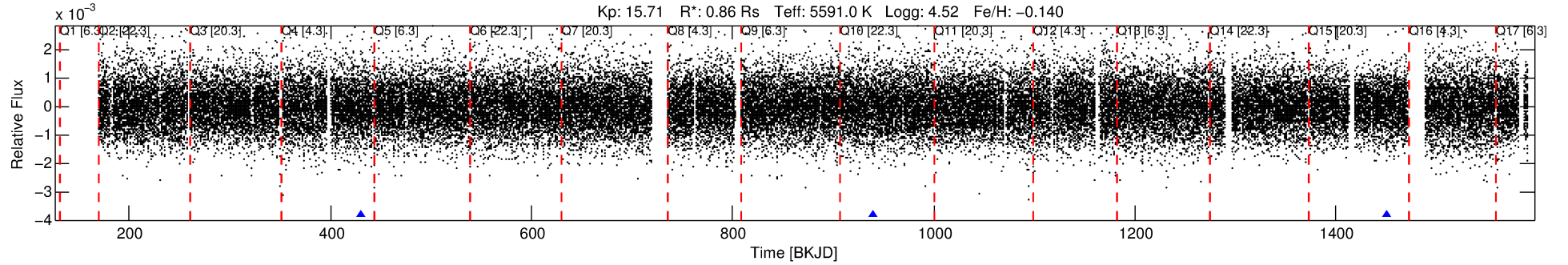
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010054085-01

No Significant Match Found

DV One-Page Summary

KIC: 10054085 Candidate: 1 of 1 Period: 510.164 d



DV Fit Results:

Period = 510.16419 [0.01264] d
Epoch = 430.1952 [0.0177] BKJD
Rp/R* = 0.0308 [0.0335]
a/R* = 499.75 [2269.15]
b = 0.61 [4.71]
Seff = 0.45 [0.14]
Teq = 209 [17] K
Rp = 2.88 [3.22] Re
a = 1.1981 [0.2460] AU
Ag = 40886.04 [91363.68] [0.45 σ]
Teffp = 4589 [2545] K [1.72 σ]

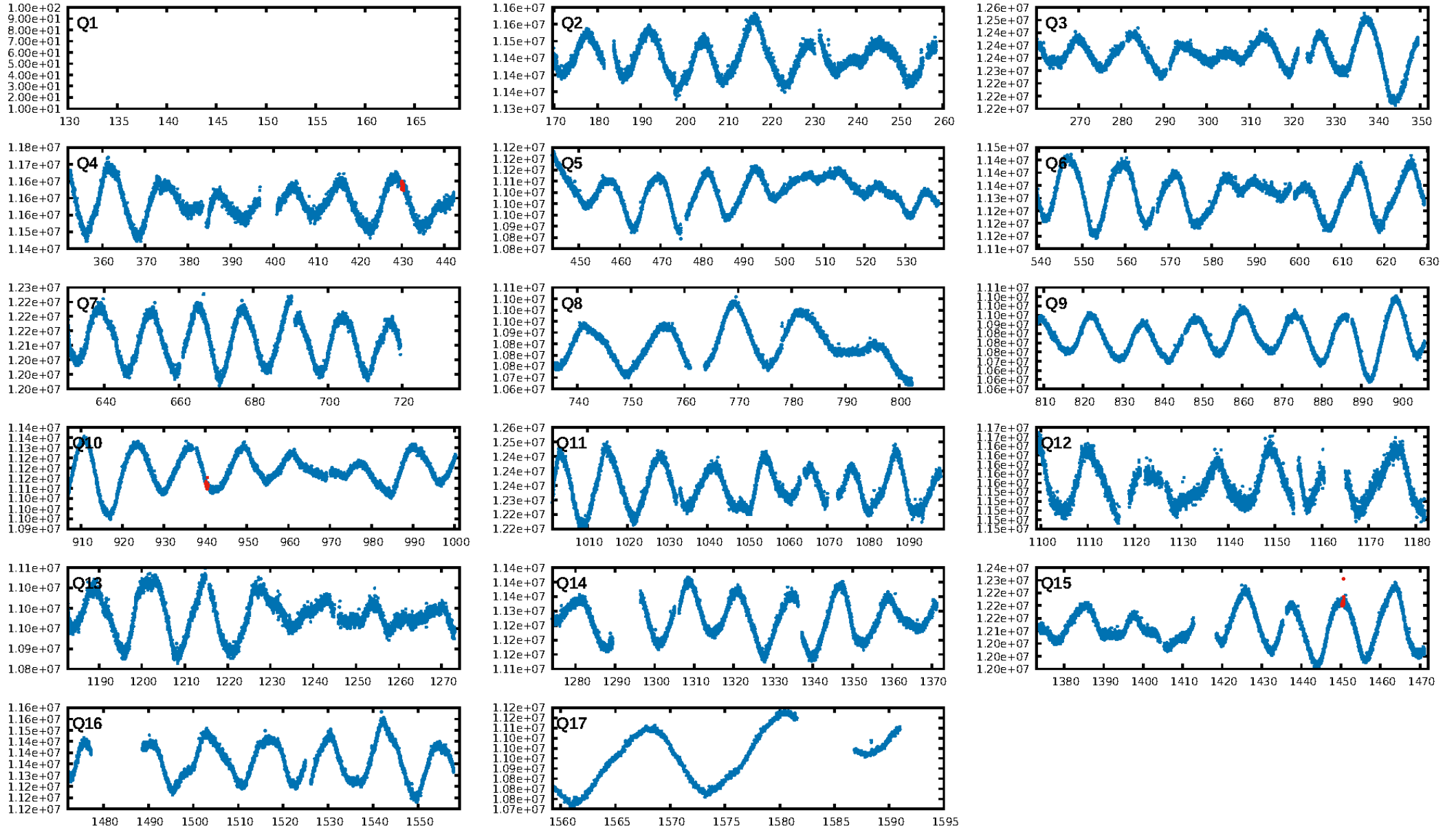
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 5.4%
ModelChiSquareGof-sig: 97.8%
Bootstrap-pfa: 4.99e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 4.819
Centroid-sig: 3.8%
Centroid-so: 2.140 arcsec [1.31 σ]
OotOffset-rm: 1.464 arcsec [0.37 σ]
KicOffset-rm: 1.391 arcsec [0.35 σ]
OotOffset-st: 1/0/1/0 [2]
KicOffset-st: 1/0/1/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [2/2]

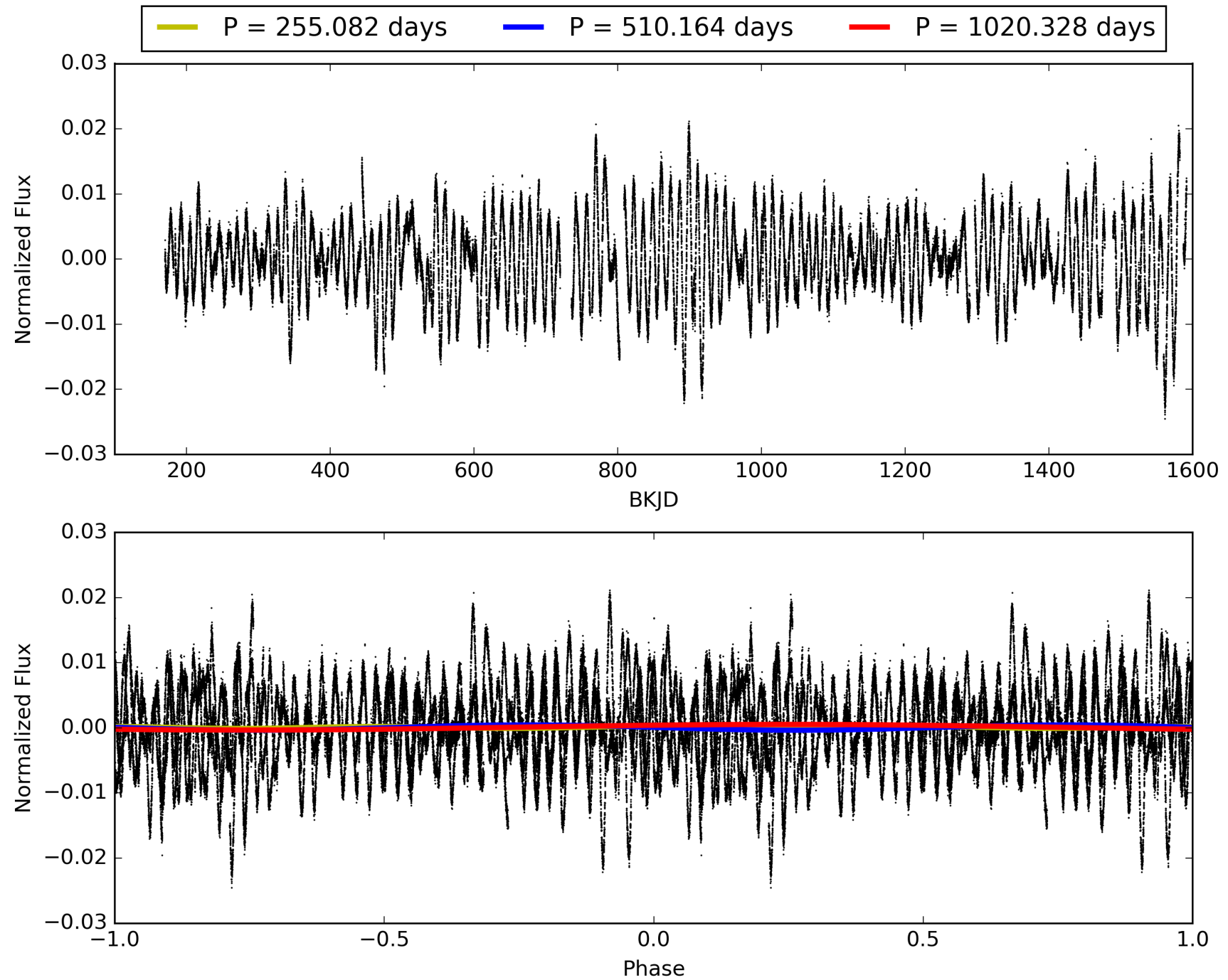
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:25:22 Z

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

TCE 010054085-01, PDC Light Curves

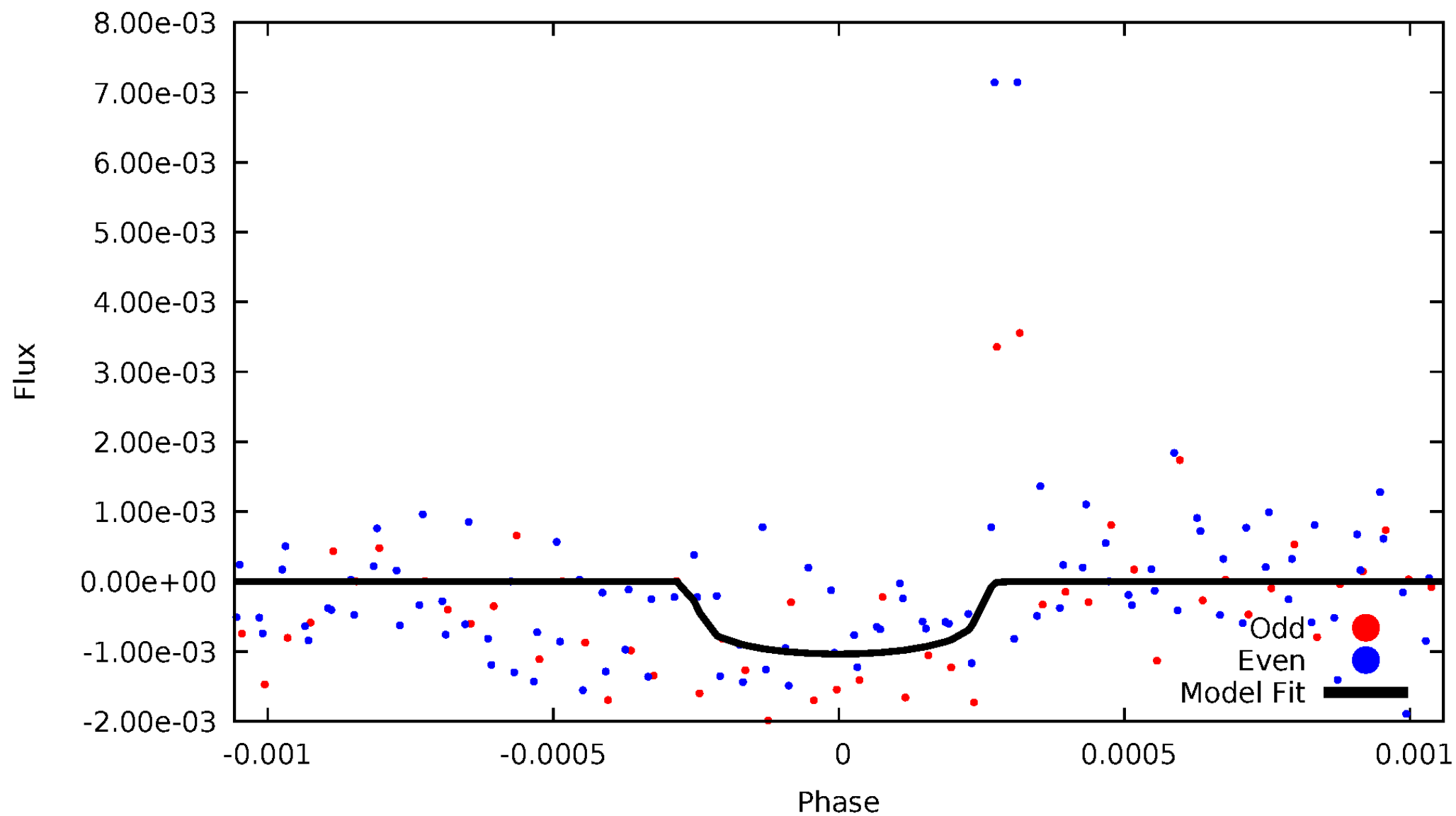


TCE 010054085-01



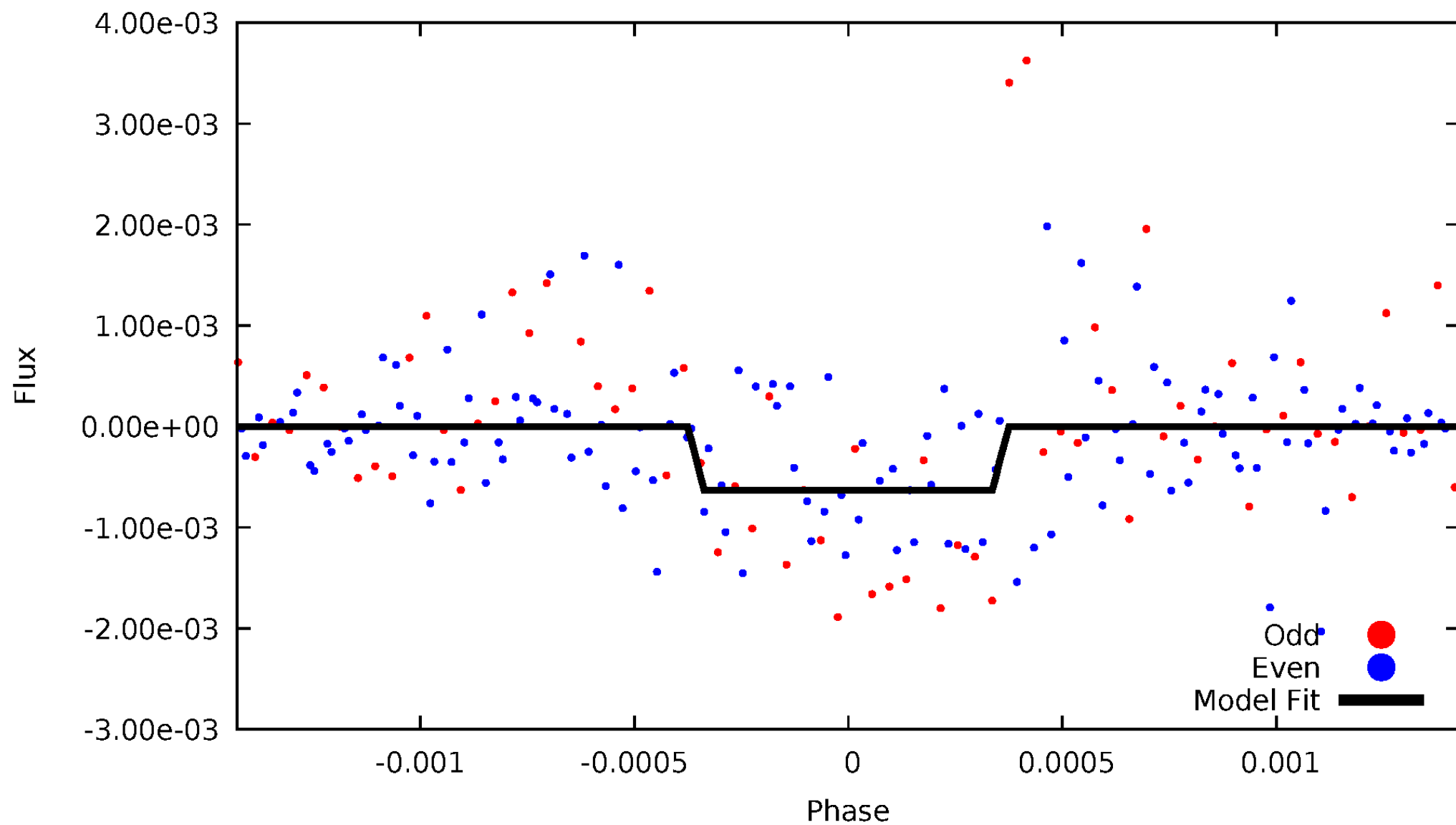
DV Odd/Even

TCE 010054085-01

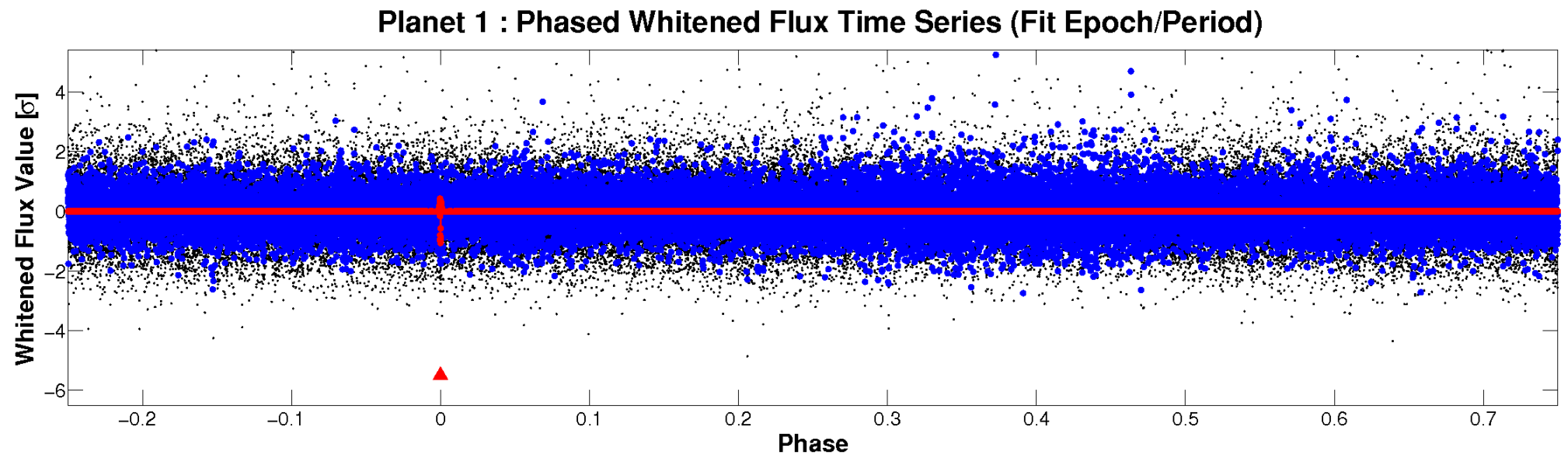
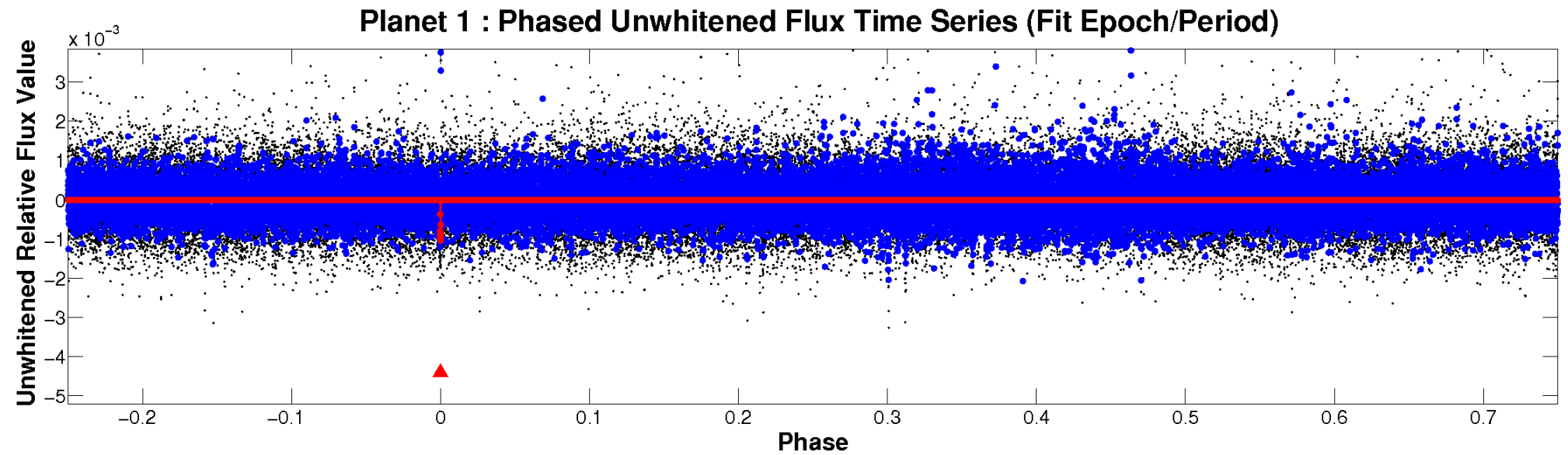


ALT Odd/Even

TCE 010054085-01

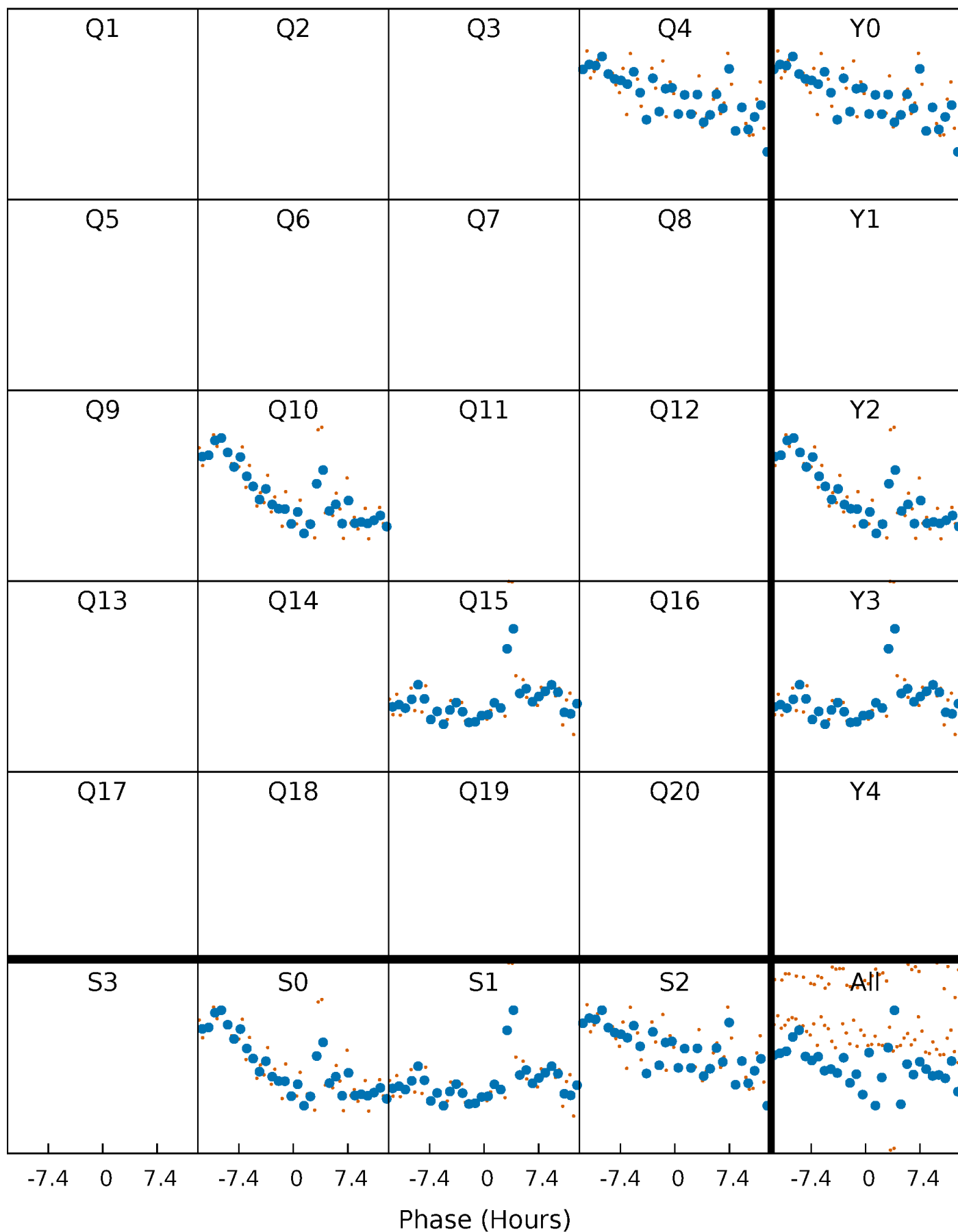


Non-Whitened Vs. Whitened Light Curve



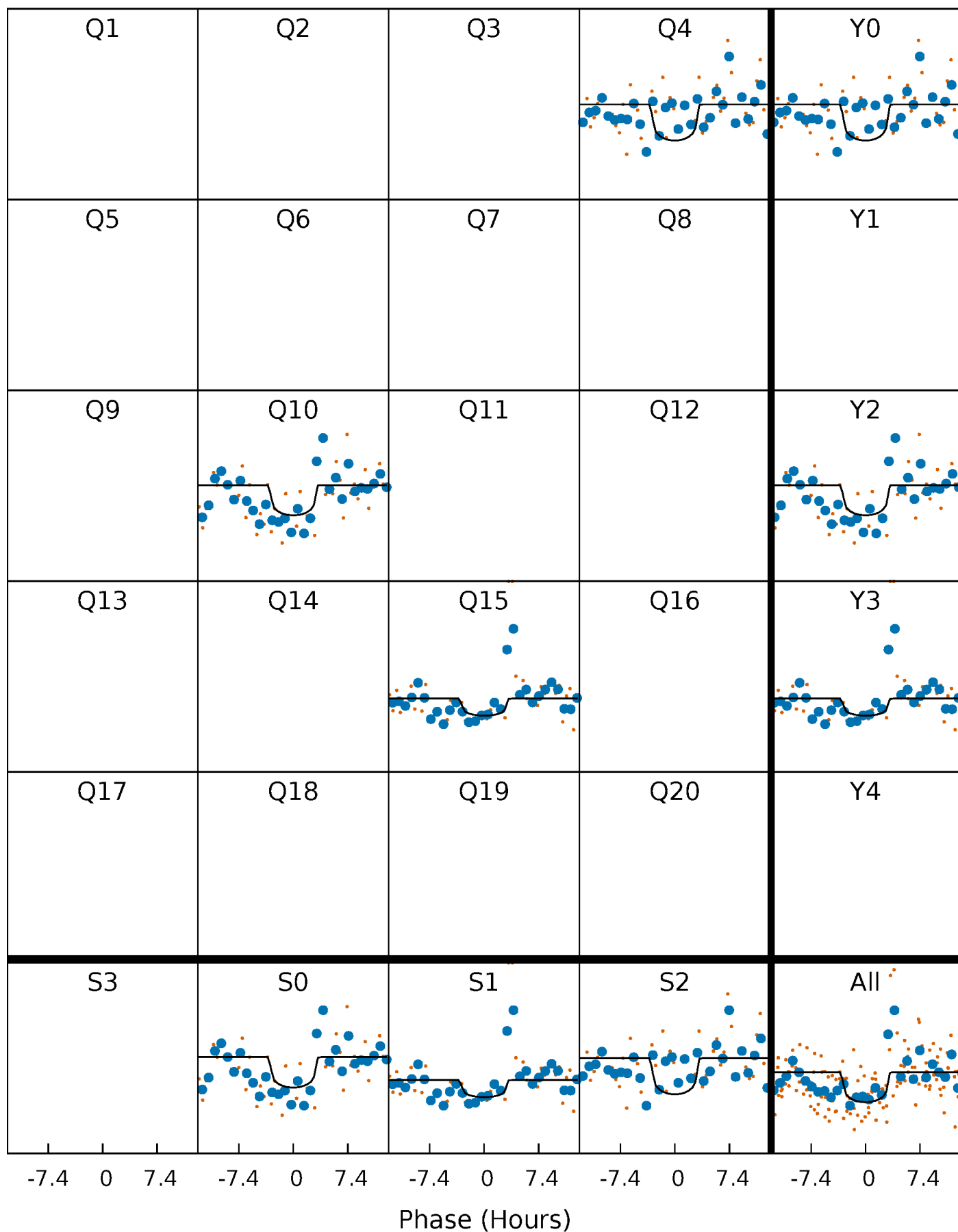
PDC Quarter-Phased Transit Curves

TCE 010054085-01 P=510.164194 Days $T_0=430.195158$ (BKJD)



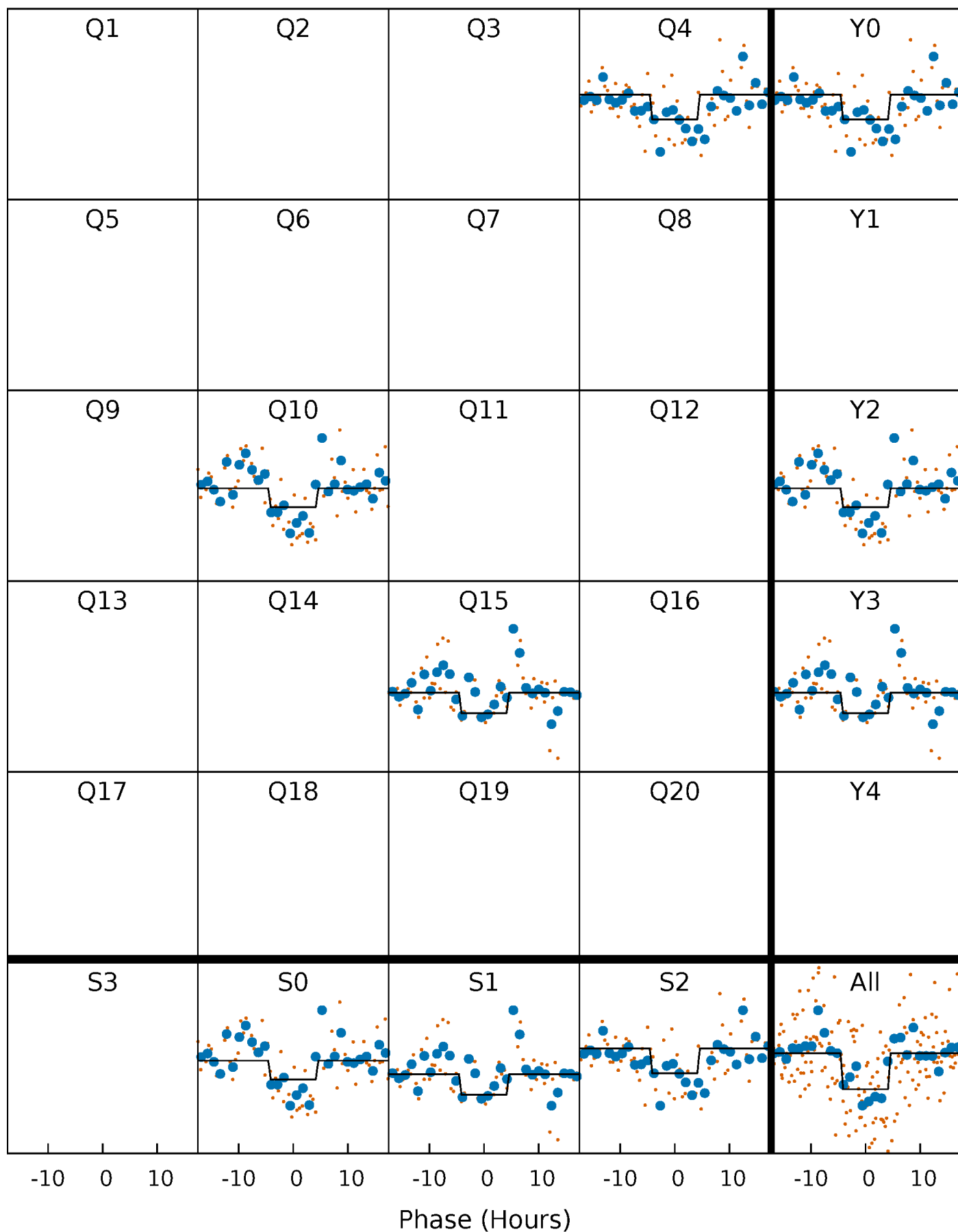
DV Quarter-Phased Transit Curves

TCE 010054085-01 P=510.164194 Days $T_0=430.195158$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

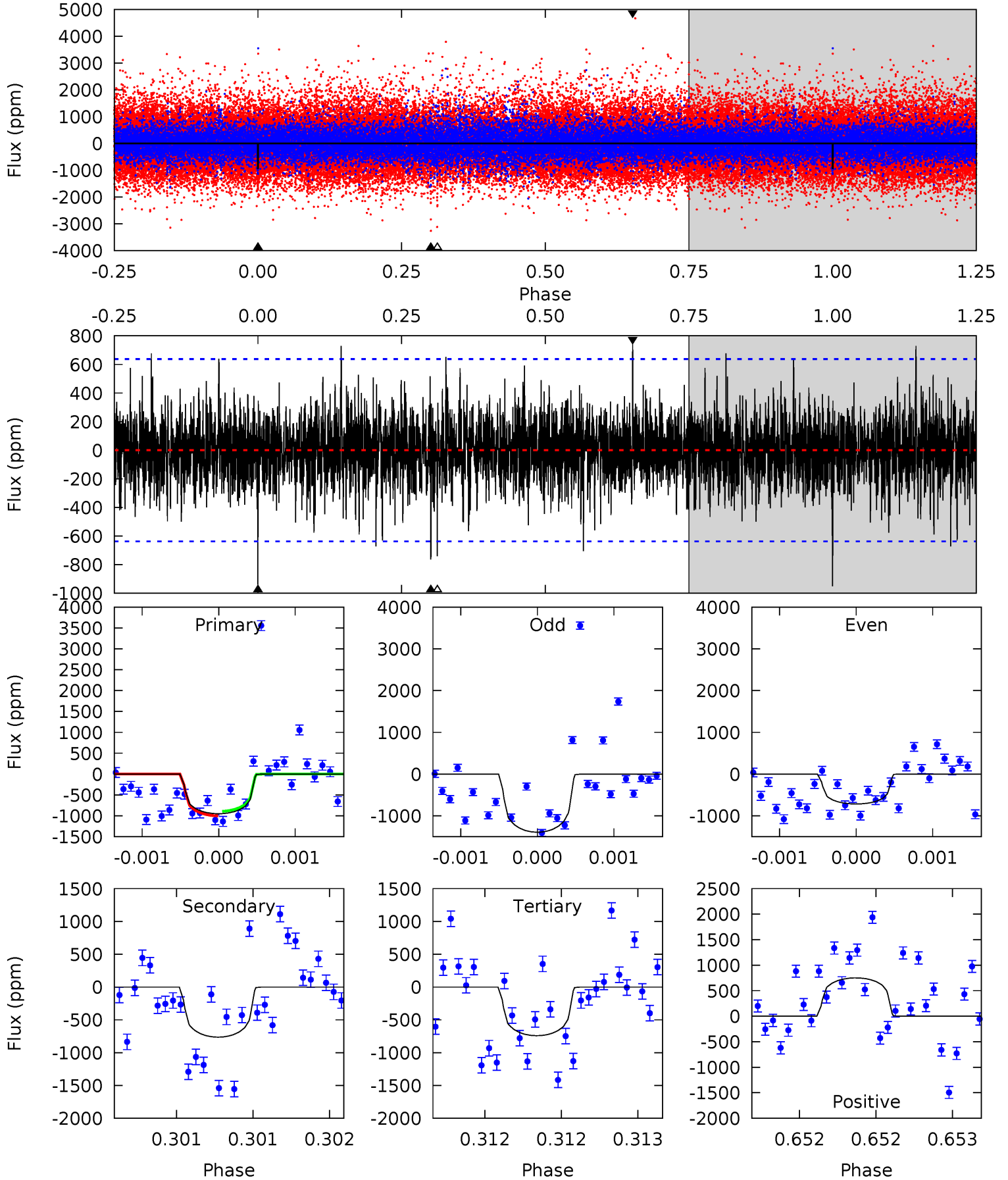
TCE 010054085-01 P=510.157881 Days $T_0=430.150726$ (BKJD)



DV Model-Shift Uniqueness Test

010054085-01, P = 510.164194 Days, E = 430.195158 Days

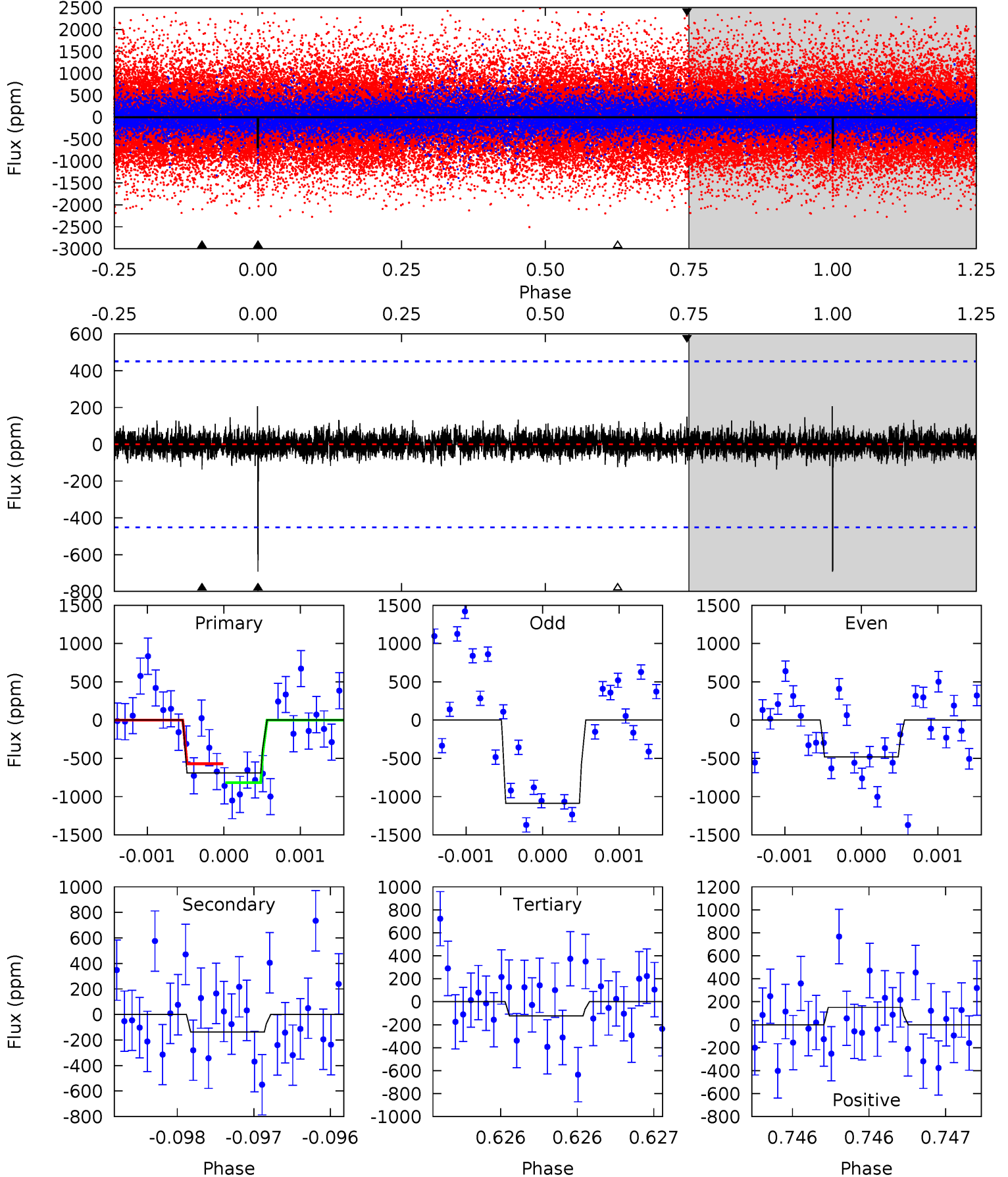
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.28	6.66	6.46	6.54	5.55	3.45	1.47	1.82	1.74	0.19	0.11	2.79	0.87	0.44	0.47



Alt Model-Shift Uniqueness Test

010054085-01, P = 510.157881 Days, E = 430.150726 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.45	1.67	1.51	1.83	5.51	3.39	0.41	6.95	6.62	0.16	-0.17	3.49	0.93	0.23	1.52



Stellar Parameters For KIC 010054085

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5591^{+149}_{-166}	$4.516^{+0.058}_{-0.161}$	$-0.140^{+0.300}_{-0.300}$	$0.858^{+0.211}_{-0.090}$	$0.883^{+0.102}_{-0.081}$	$1.967^{+0.571}_{-0.881}$
	+3%/-3%	+1%/-4%	+214%/-214%	+25%/-10%	+12%/-9%	+29%/-45%
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 010054085-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-763 ± 115	$3.52^{+3.02}_{-2.22}$	295^{+16}_{-12}	4973^{+3592}_{-1086}	$49068^{+326822}_{-35326}$
Alt.	-136 ± 82	$3.56^{+2.75}_{-2.17}$	297^{+19}_{-13}	3461^{+1583}_{-680}	6599^{+43114}_{-5184}

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 $A_{obs} \gg 1.0$

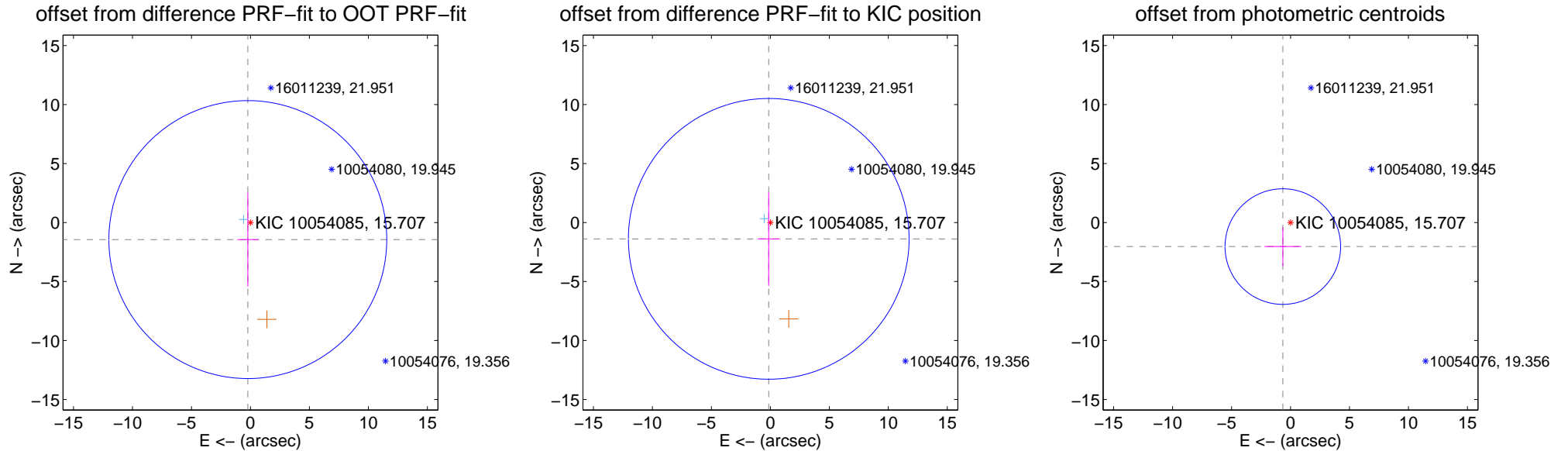
DV Centroid Data

Supplemental centroid analysis for 010054085-01. Kepler magnitude: 15.71. Transit SNR 5.82

There are 1 quarters with good PRF difference image offsets

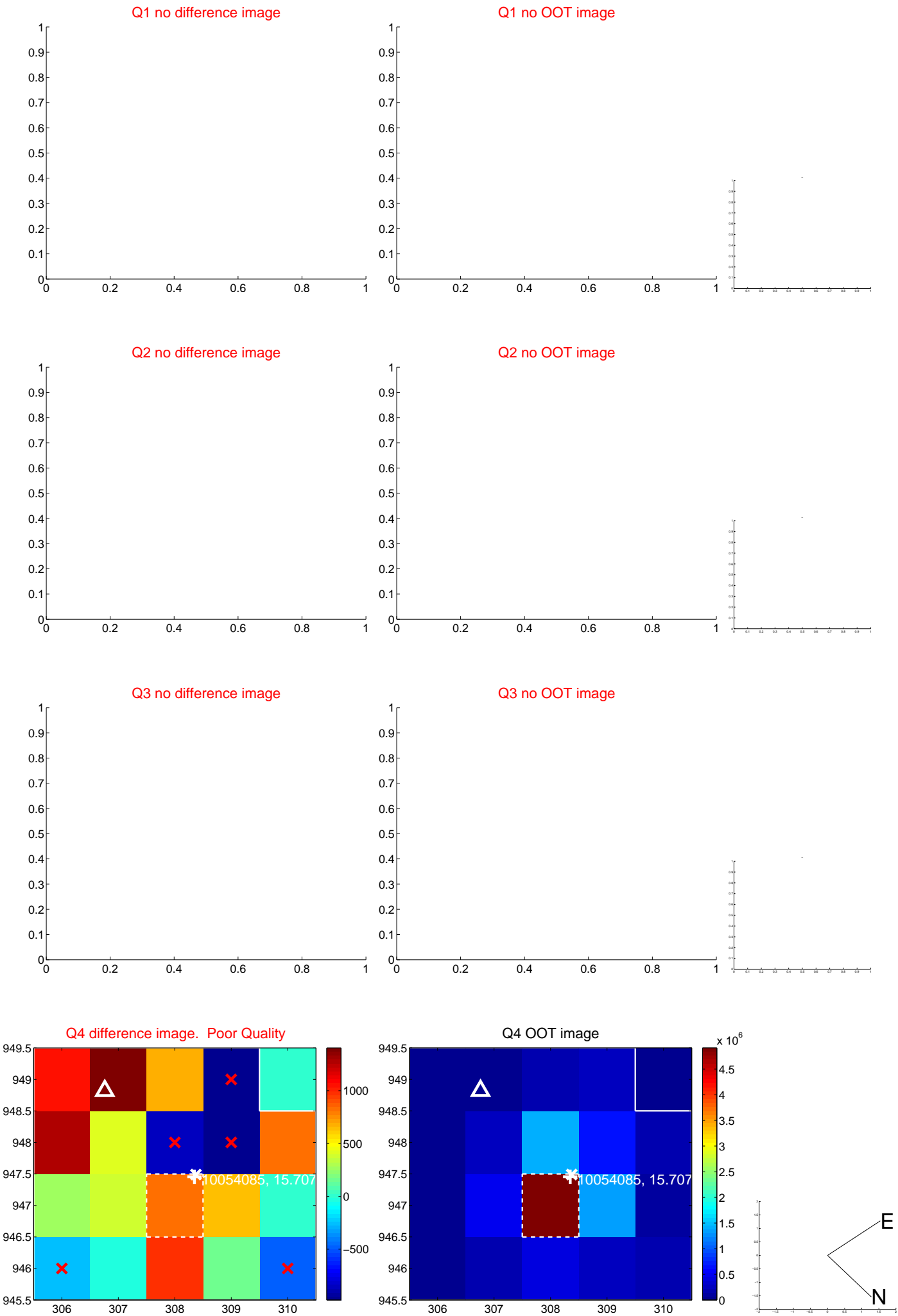
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.464 ± 3.927	0.37	0.224 ± 0.894	-1.446 ± 3.971
PRF-fit source offset from KIC position	1.391 ± 3.967	0.35	0.136 ± 0.940	-1.384 ± 3.985
photometric centroid source offset	2.14 ± 1.63	1.31	0.65 ± 1.56	-2.04 ± 1.64



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.

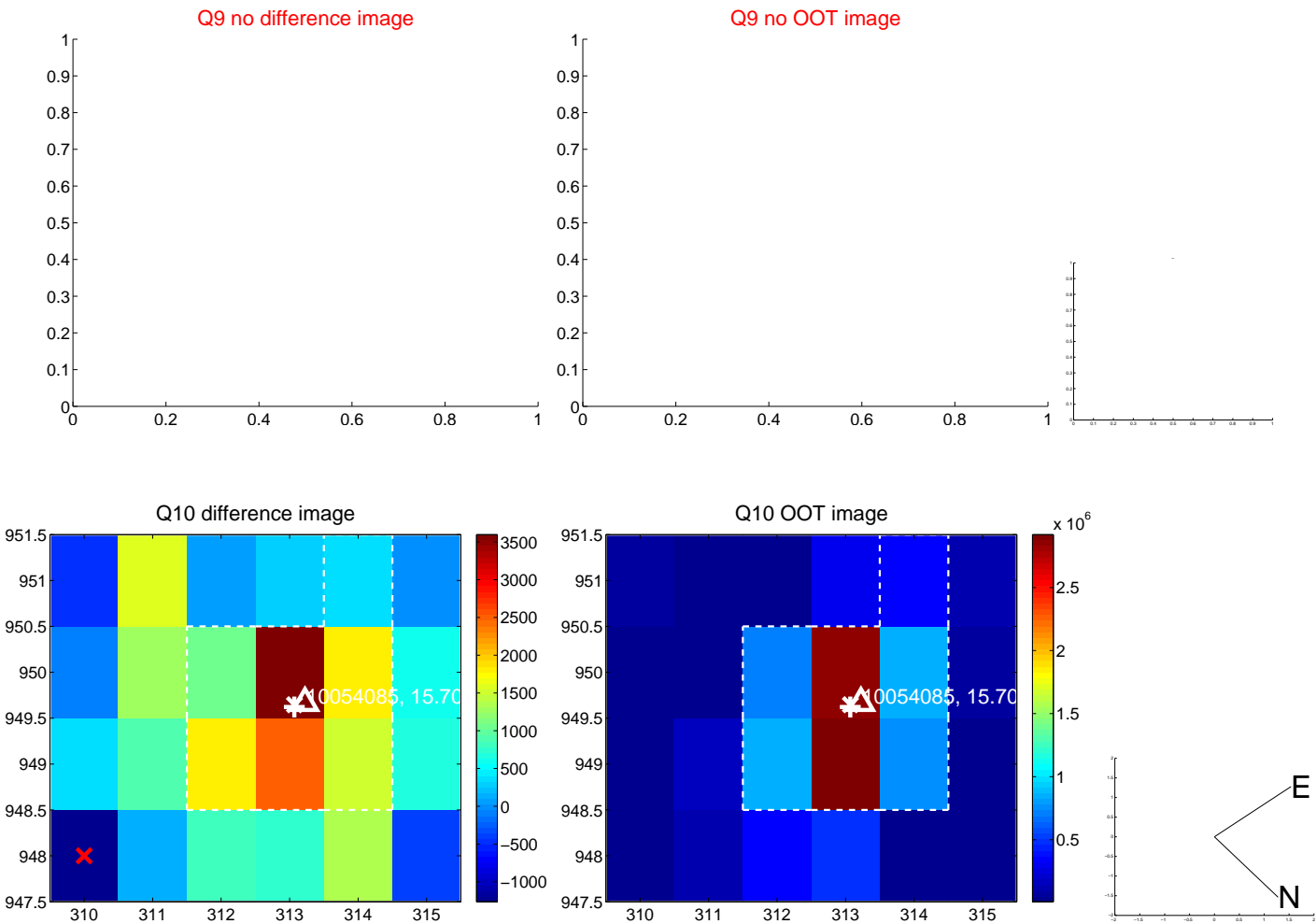
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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



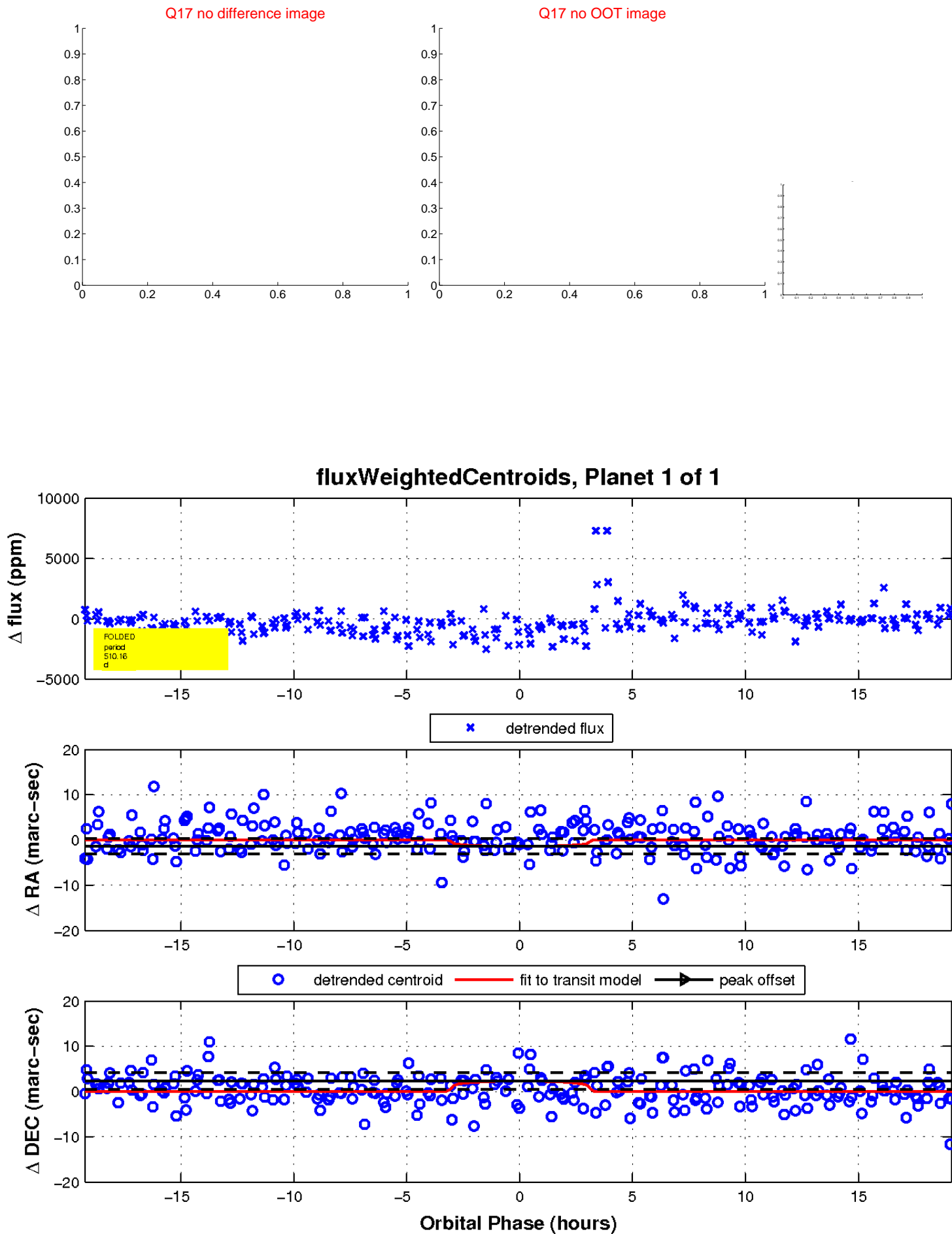
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

