

KIC 012062085

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})
012062085-01	OBS	No	508.496033	190.175328	962.0	21.325	8.0	9.2	0.67	4658	2.20	0.15

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
012062085-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—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.

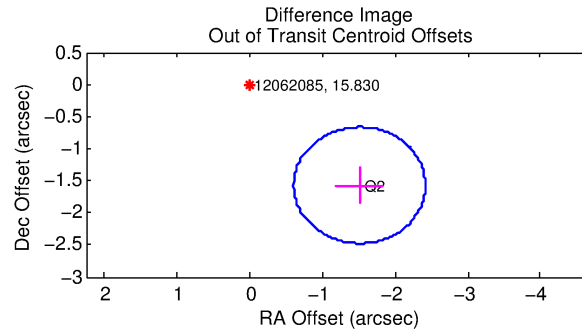
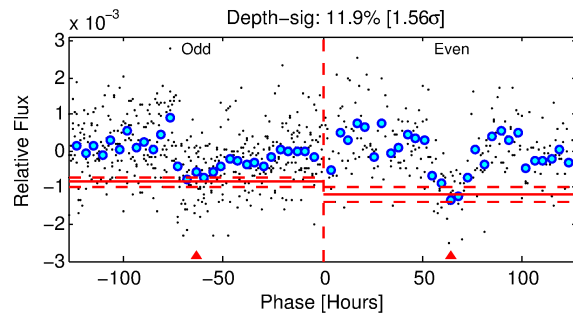
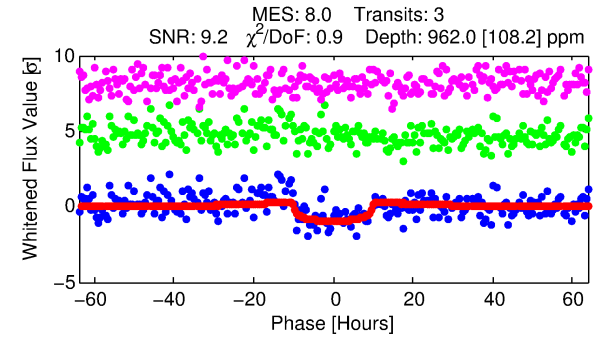
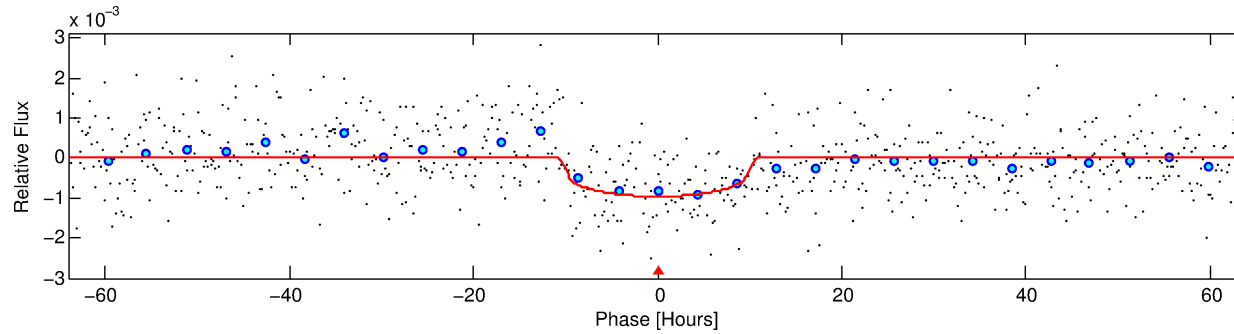
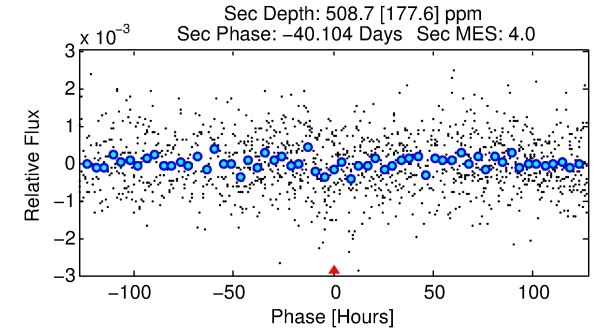
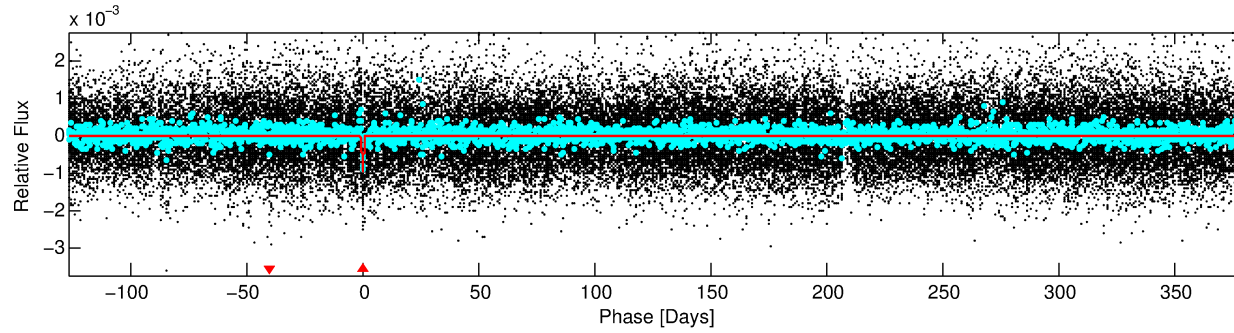
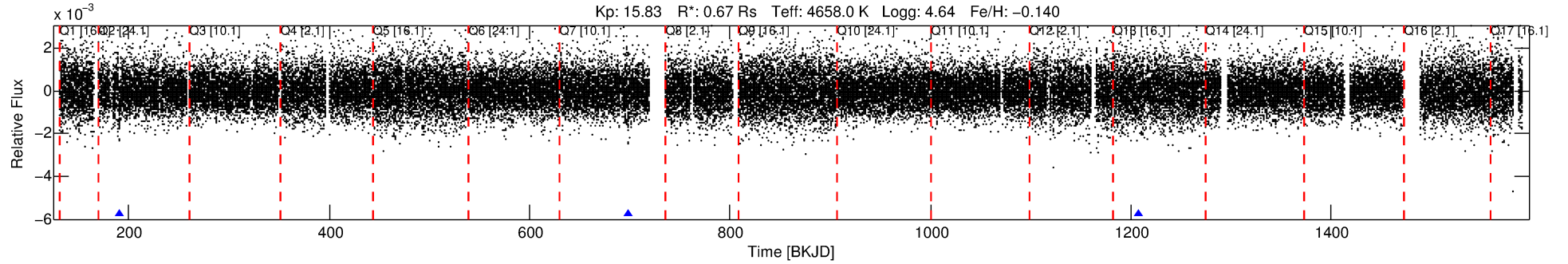
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 012062085-01

No Significant Match Found

DV One-Page Summary

KIC: 12062085 Candidate: 1 of 1 Period: 508.496 d



DV Fit Results:

Period = 508.49603 [0.02247] d
Epoch = 190.1753 [0.0262] BKJD
Rp/R* = 0.0303 [0.0093]
a/R* = 138.39 [135.46]
b = 0.70 [0.74]
Seff = 0.15 [0.02]
Teq = 159 [6] K
Rp = 2.20 [0.71] Re
a = 1.1117 [0.0782] AU
Ag = 71318.33 [51031.97] [1.40σ]
Teff = 4022 [723] K [5.34σ]

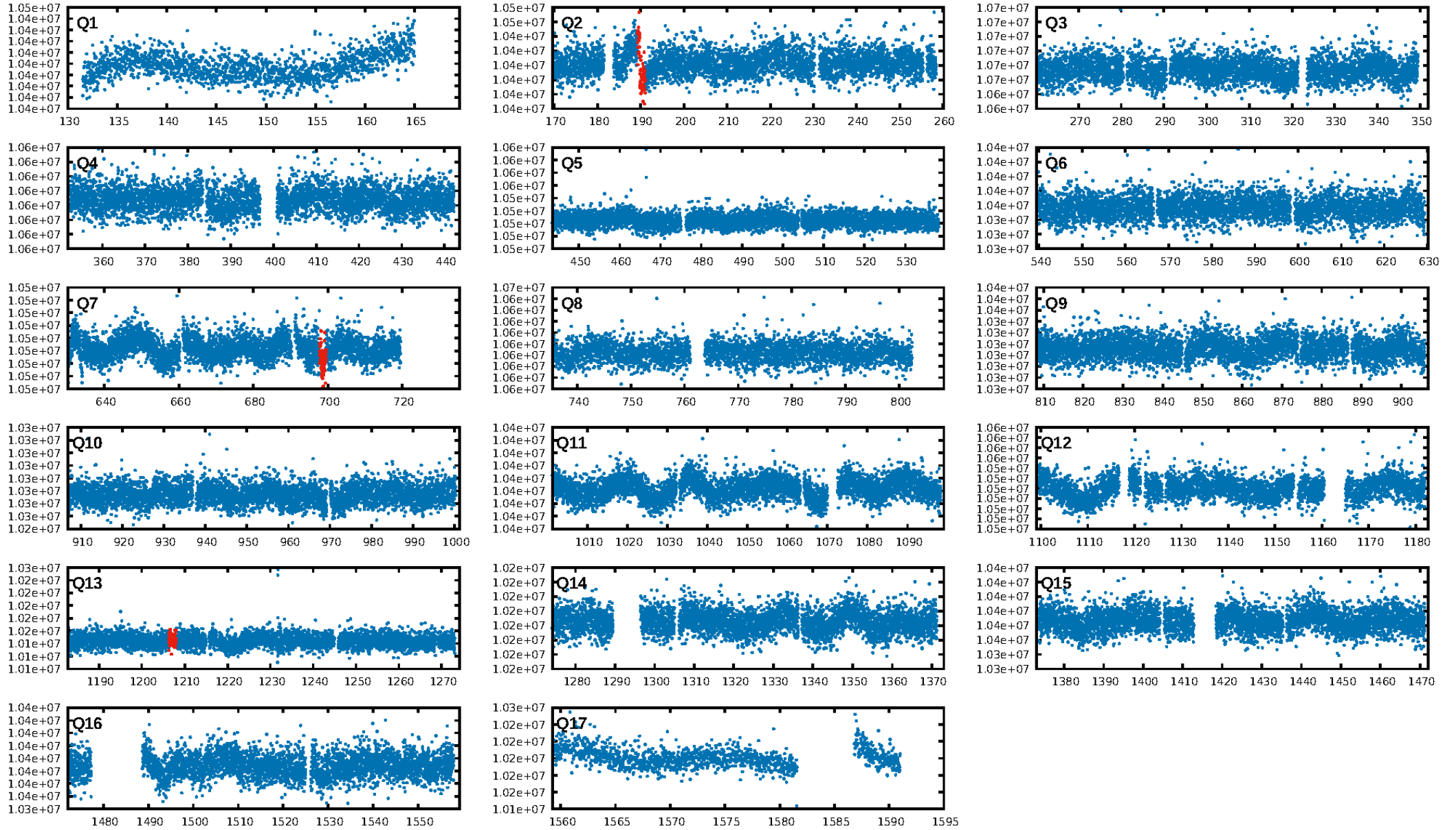
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.24e-18
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 5.473
Centroid-sig: 17.1%
Centroid-so: 1.721 arcsec [1.43σ]
OotOffset-rm: 2.181 arcsec [7.22σ]
KicOffset-rm: 2.046 arcsec [6.75σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [2/2]

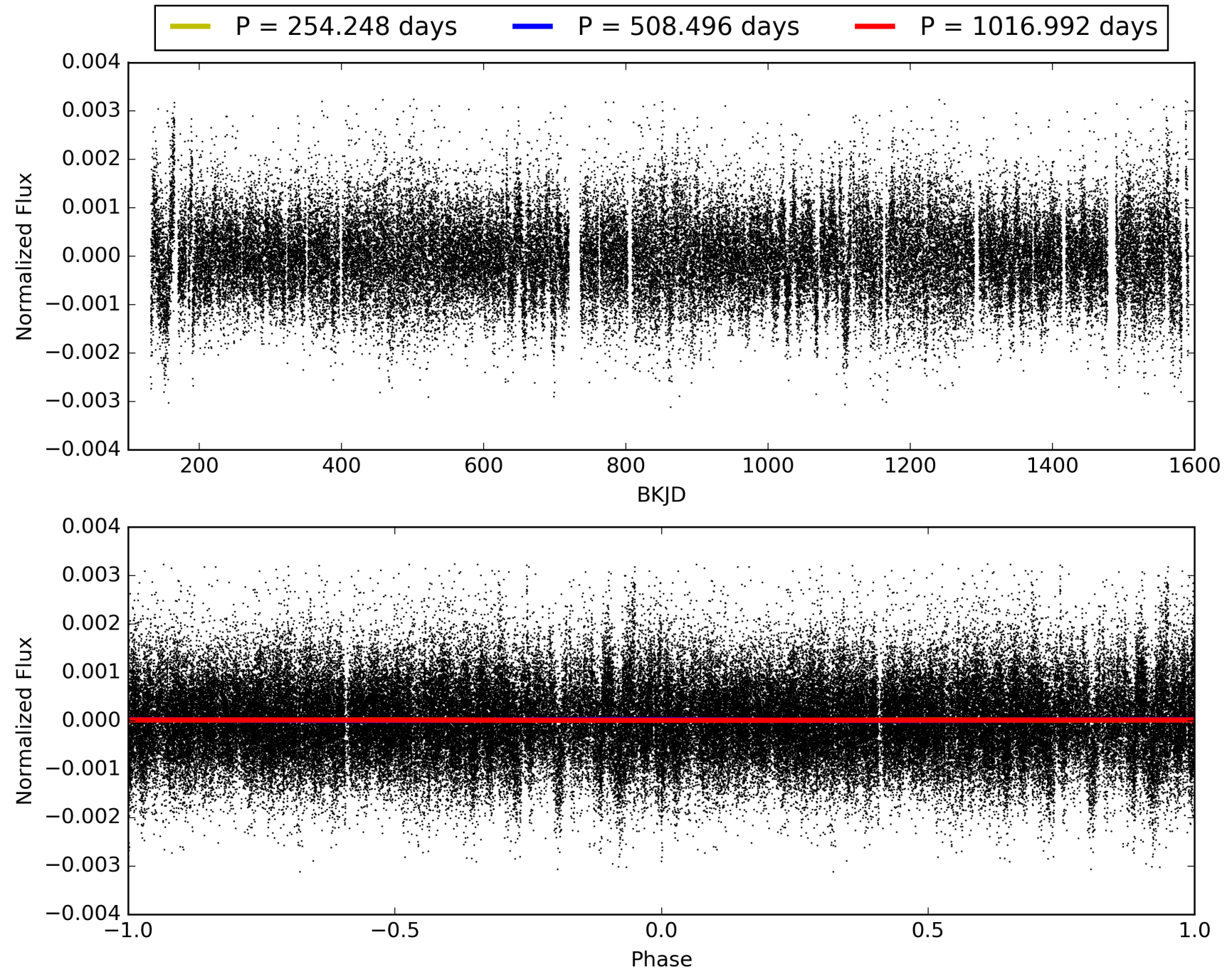
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:35:03 Z

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

TCE 012062085-01, PDC Light Curves

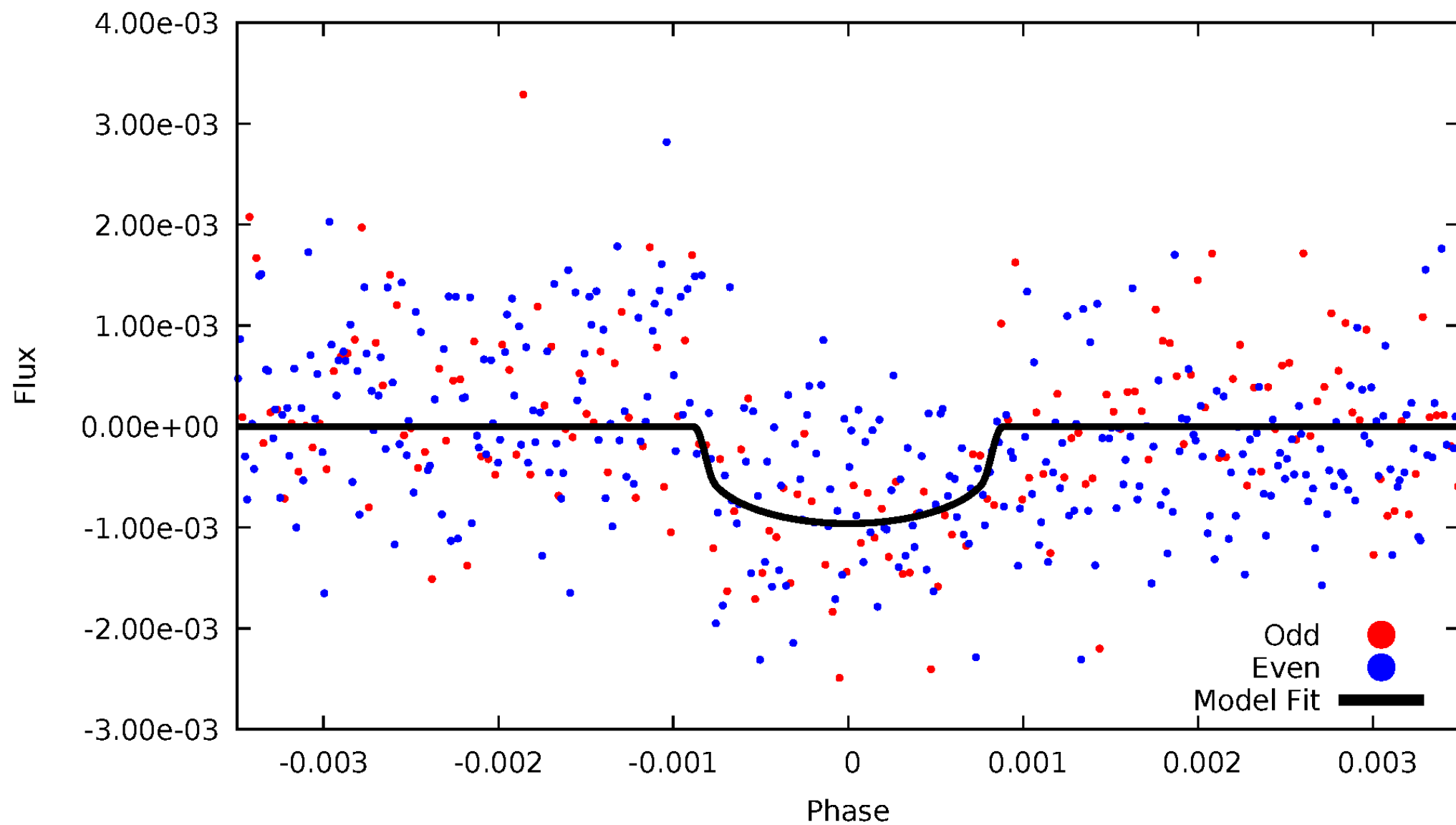


TCE 012062085-01



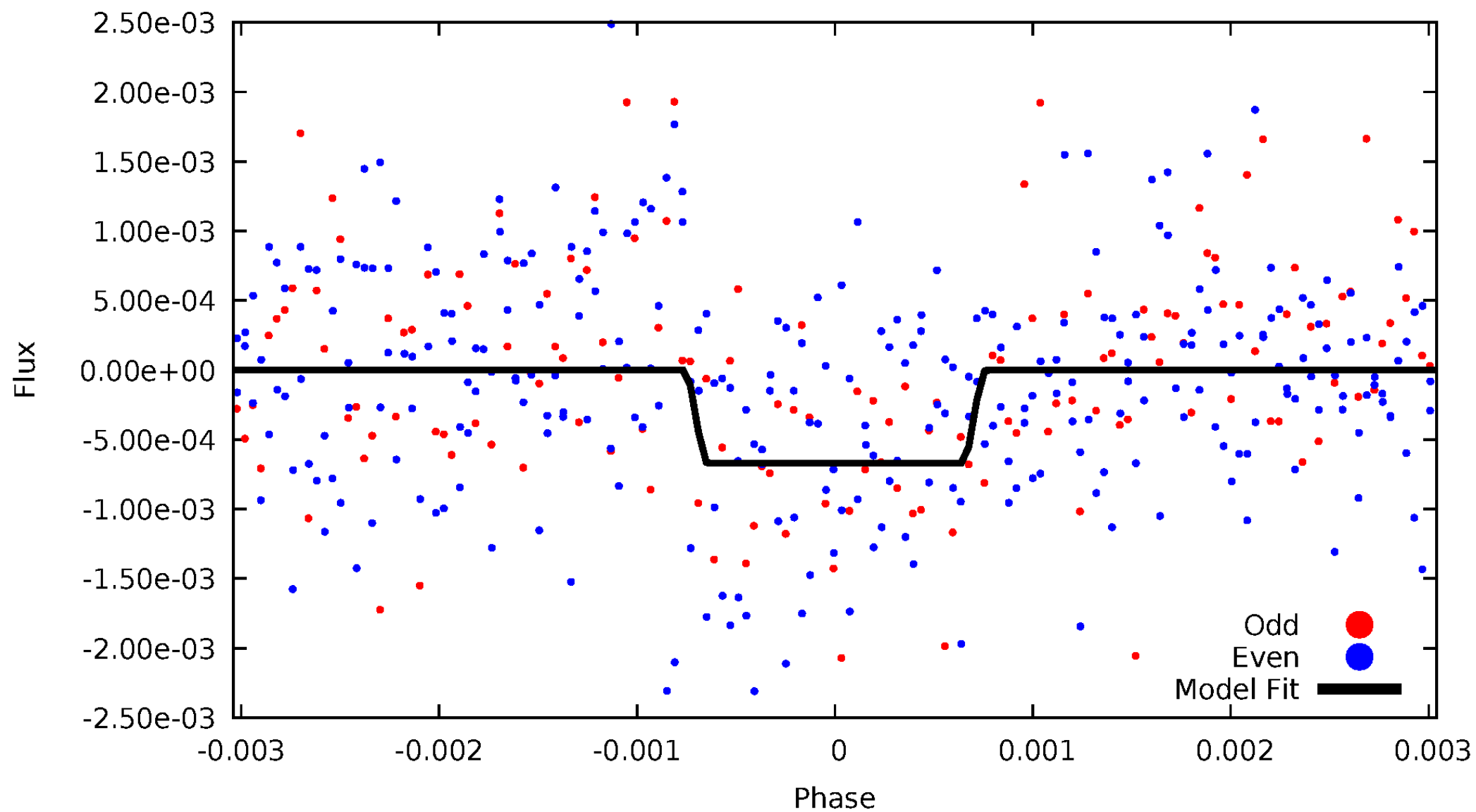
DV Odd/Even

TCE 012062085-01

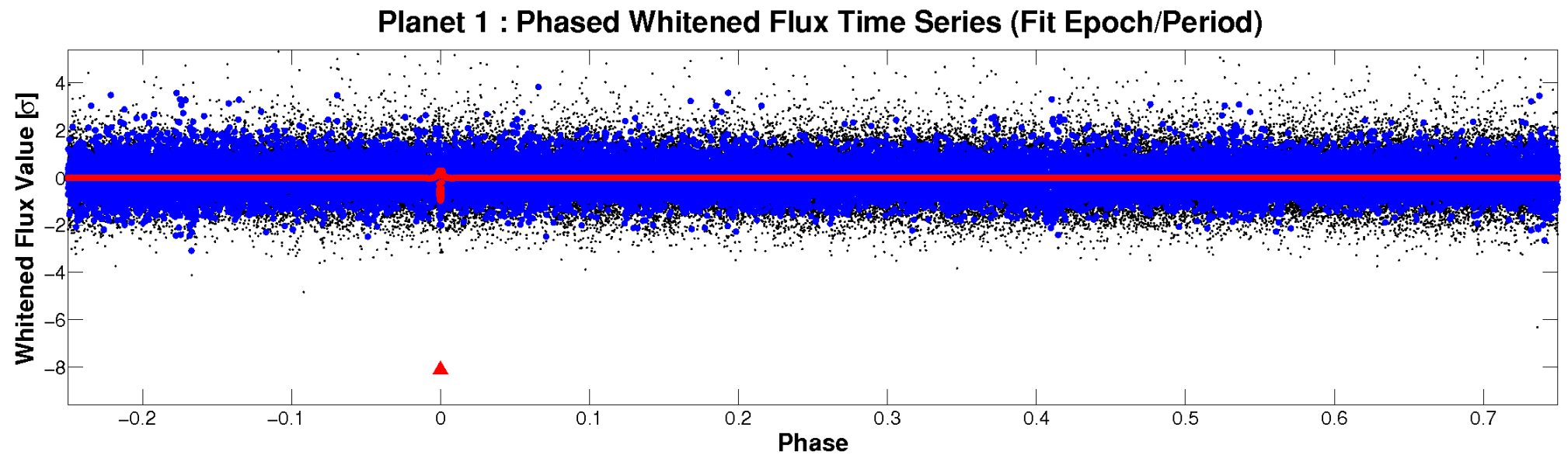
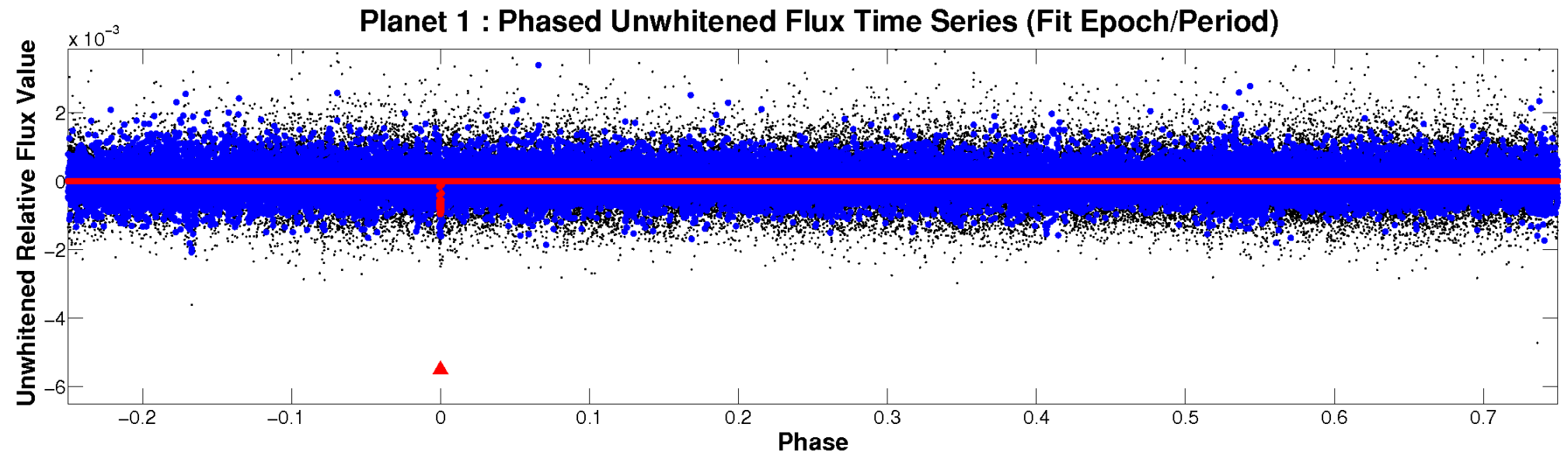


ALT Odd/Even

TCE 012062085-01

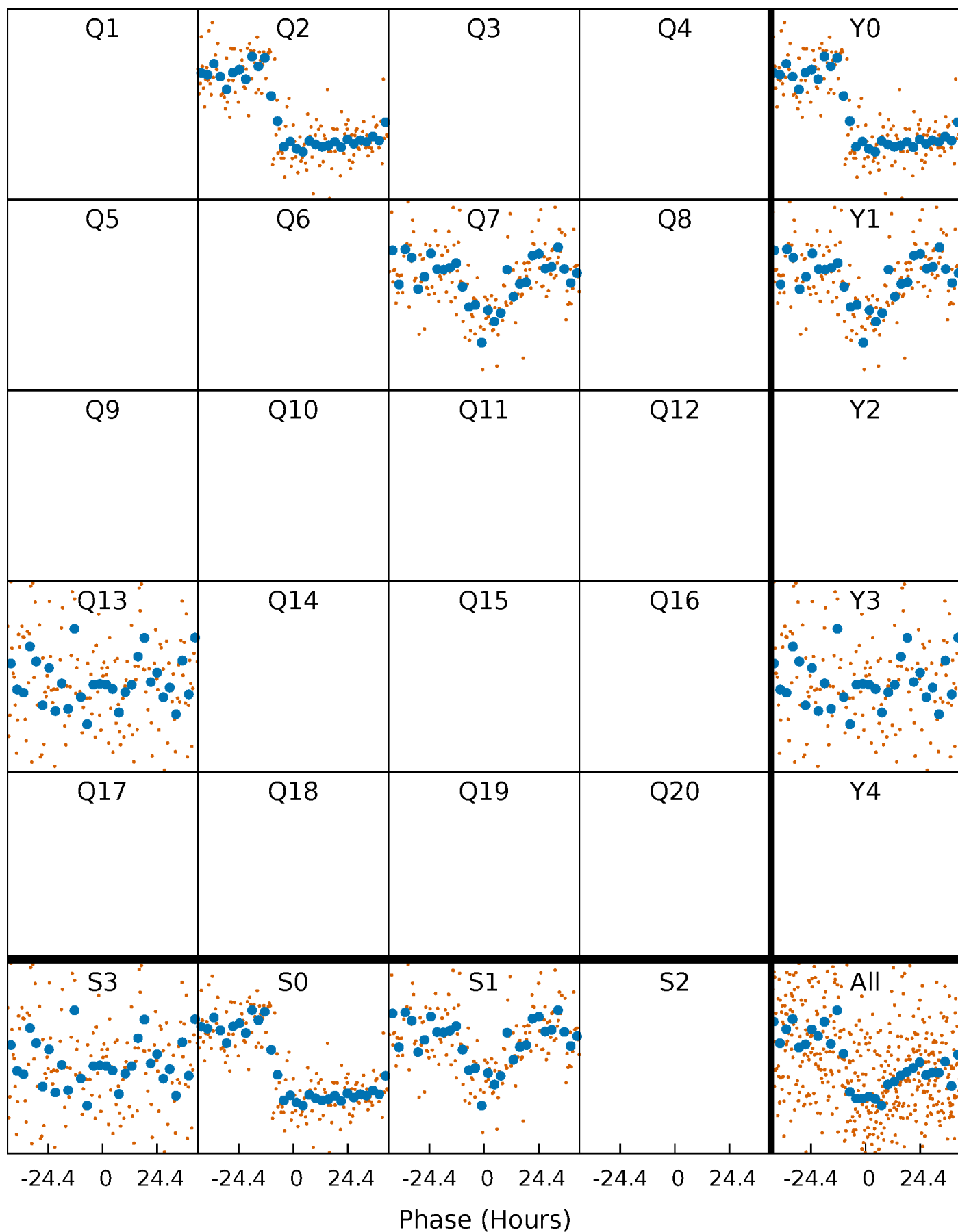


Non-Whitened Vs. Whitened Light Curve



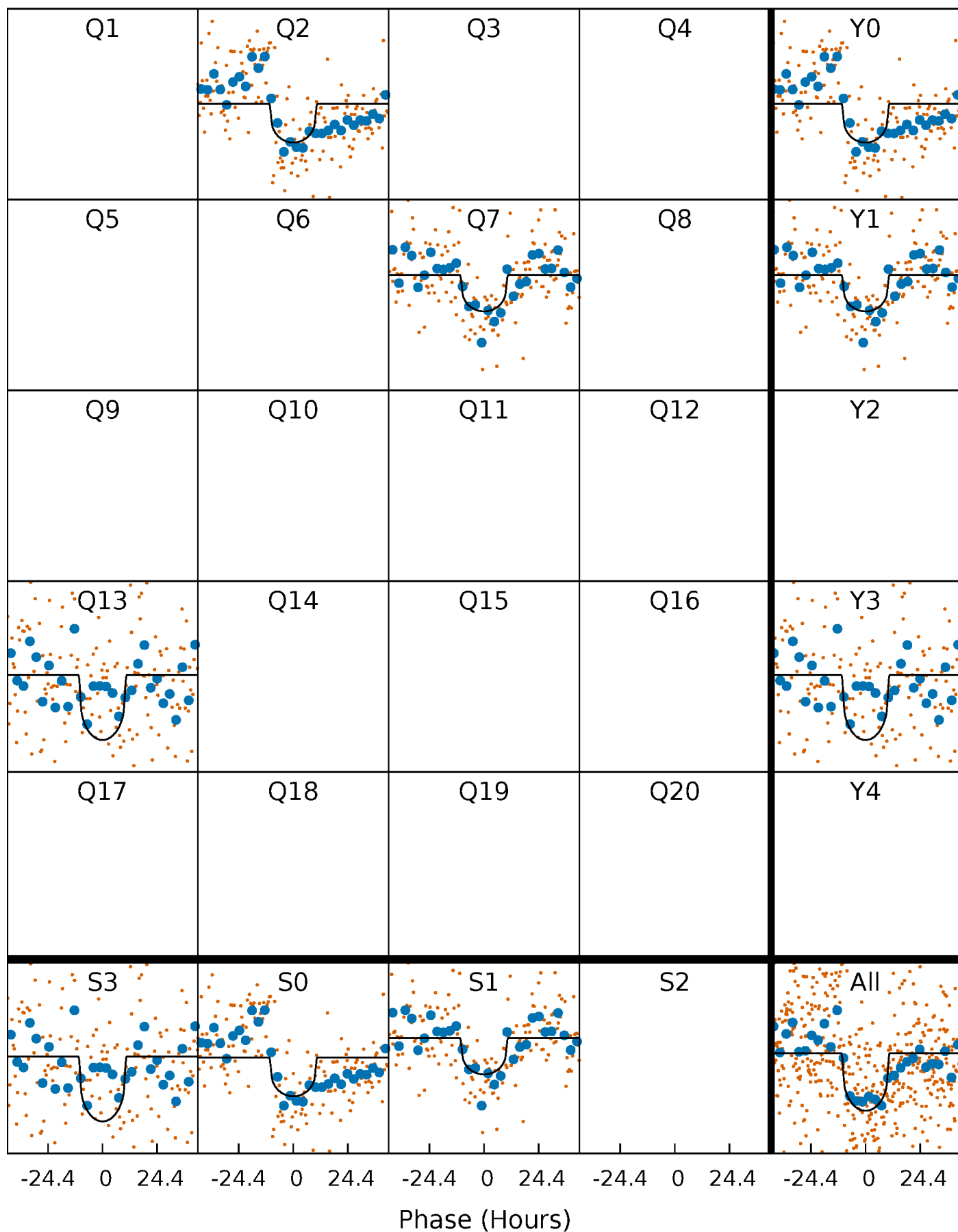
PDC Quarter-Phased Transit Curves

TCE 012062085-01 P=508.496033 Days $T_0=190.175328$ (BKJD)



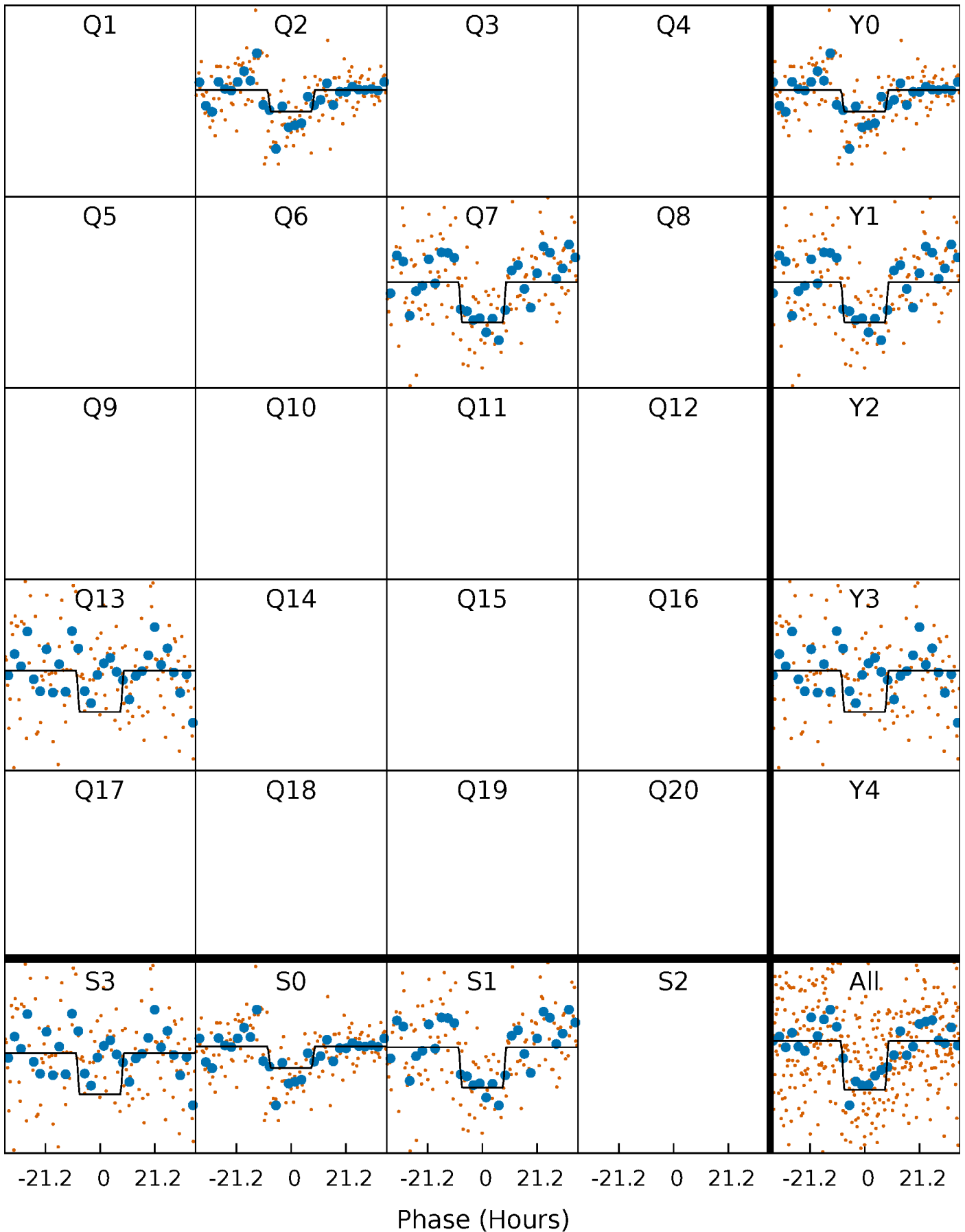
DV Quarter-Phased Transit Curves

TCE 012062085-01 P=508.496033 Days $T_0=190.175328$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

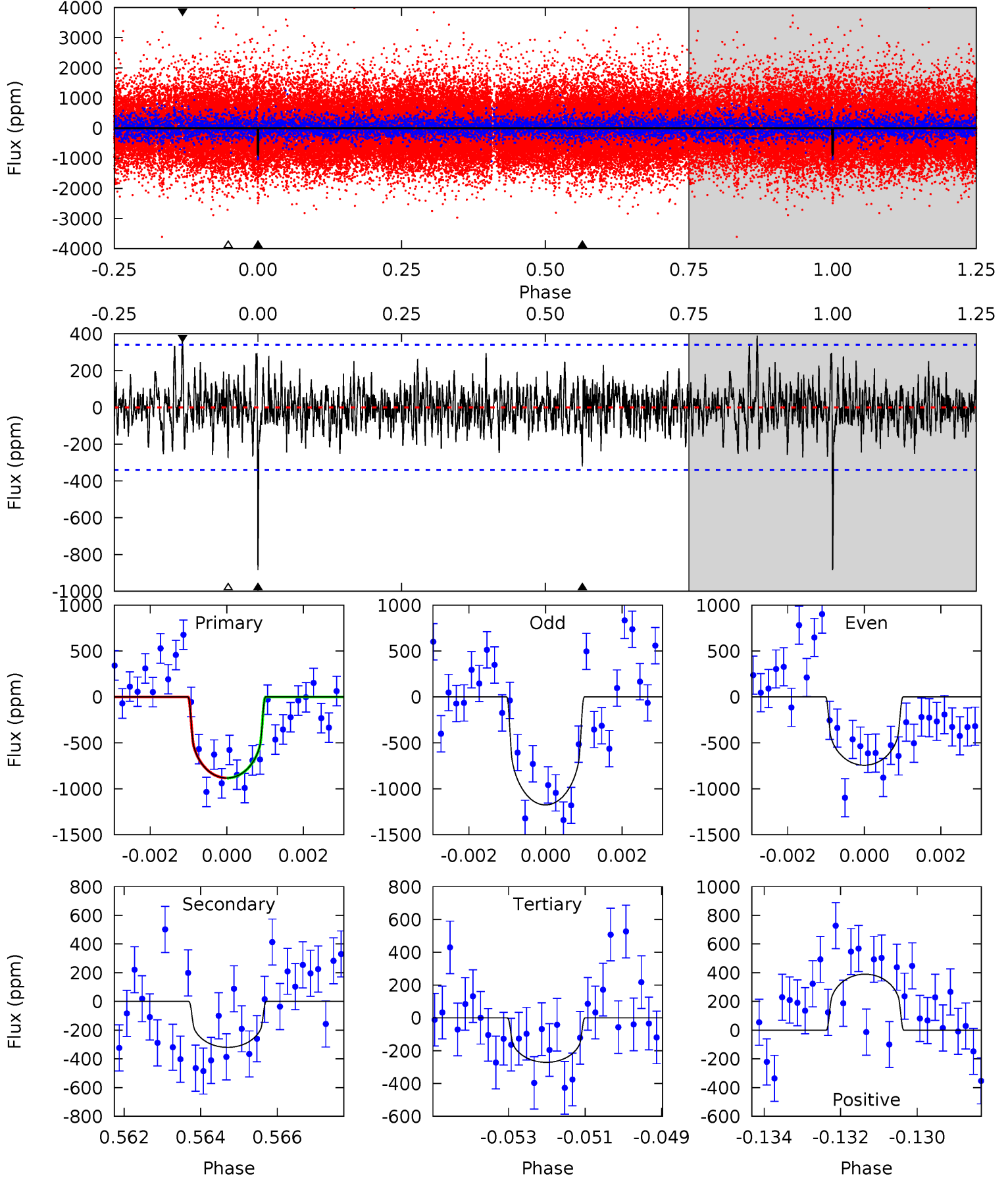
TCE 012062085-01 P=508.407406 Days $T_0=190.221857$ (BKJD)



DV Model-Shift Uniqueness Test

012062085-01, P = 508.496033 Days, E = 190.175328 Days

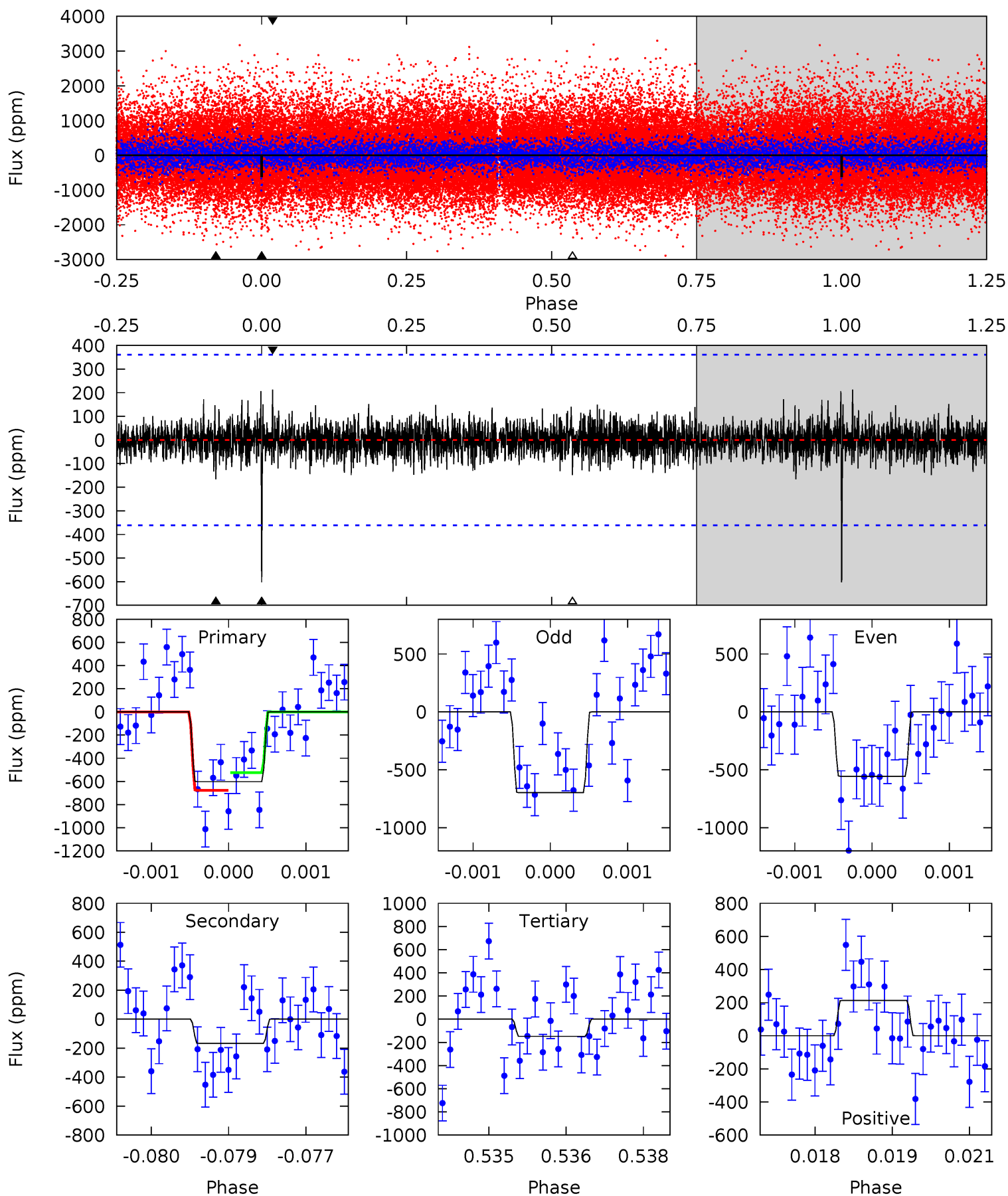
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.9	5.03	4.26	6.13	5.35	3.13	1.38	9.62	7.75	0.76	-1.11	3.14	0.82	0.31	0.01



Alt Model-Shift Uniqueness Test

012062085-01, P = 508.407406 Days, E = 190.221857 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.96	2.48	2.21	3.17	5.38	3.18	0.68	6.75	5.80	0.26	-0.69	0.97	0.86	0.26	1.13



Stellar Parameters For KIC 012062085

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	4658^{+140}_{-126}	$4.640^{+0.028}_{-0.048}$	$-0.140^{+0.300}_{-0.300}$	$0.667^{+0.060}_{-0.049}$	$0.709^{+0.057}_{-0.069}$	$3.371^{+0.500}_{-0.584}$
	+3%/-3%	+1%/-1%	+214%/-214%	+9%/-7%	+8%/-10%	+15%/-17%
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 012062085-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-320 ± 64	$2.22^{+0.76}_{-0.69}$	224^{+7}_{-6}	3808^{+598}_{-342}	42364^{+51872}_{-18750}
Alt.	-166 ± 67	$1.90^{+0.69}_{-0.68}$	224^{+8}_{-7}	3605^{+646}_{-398}	30468^{+45061}_{-16144}

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 $A_{obs} \gg 1.0$

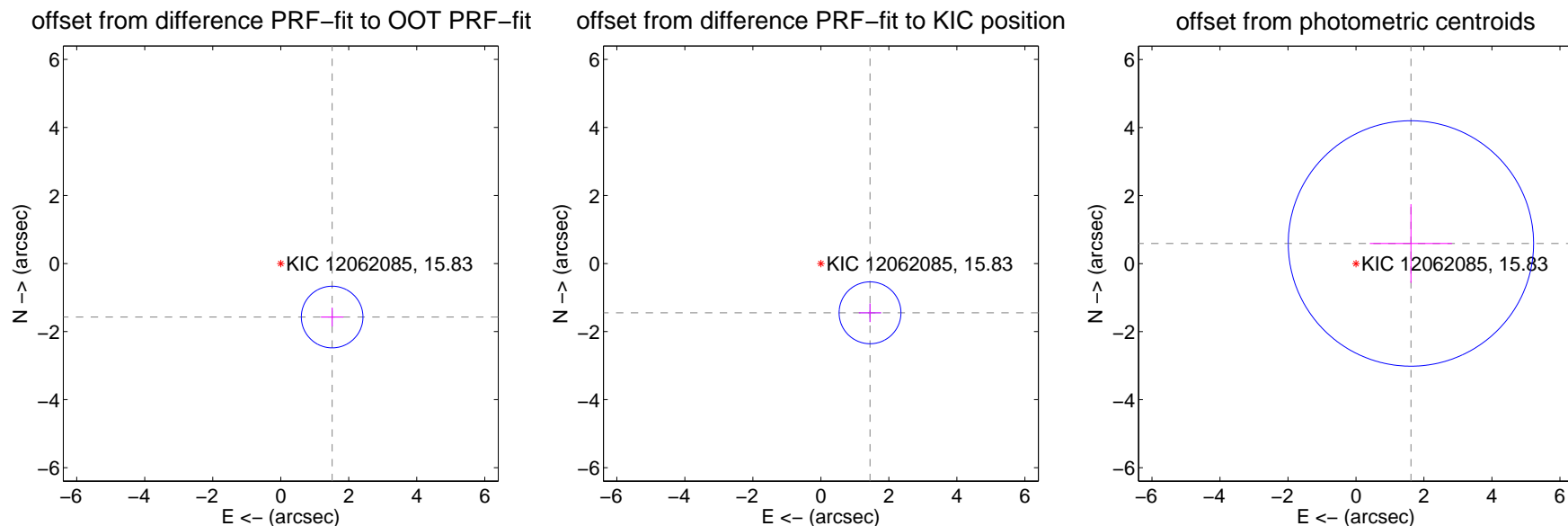
DV Centroid Data

Supplemental centroid analysis for 012062085-01. Kepler magnitude: 15.83. Transit SNR 9.20

There are 1 quarters with good PRF difference image offsets

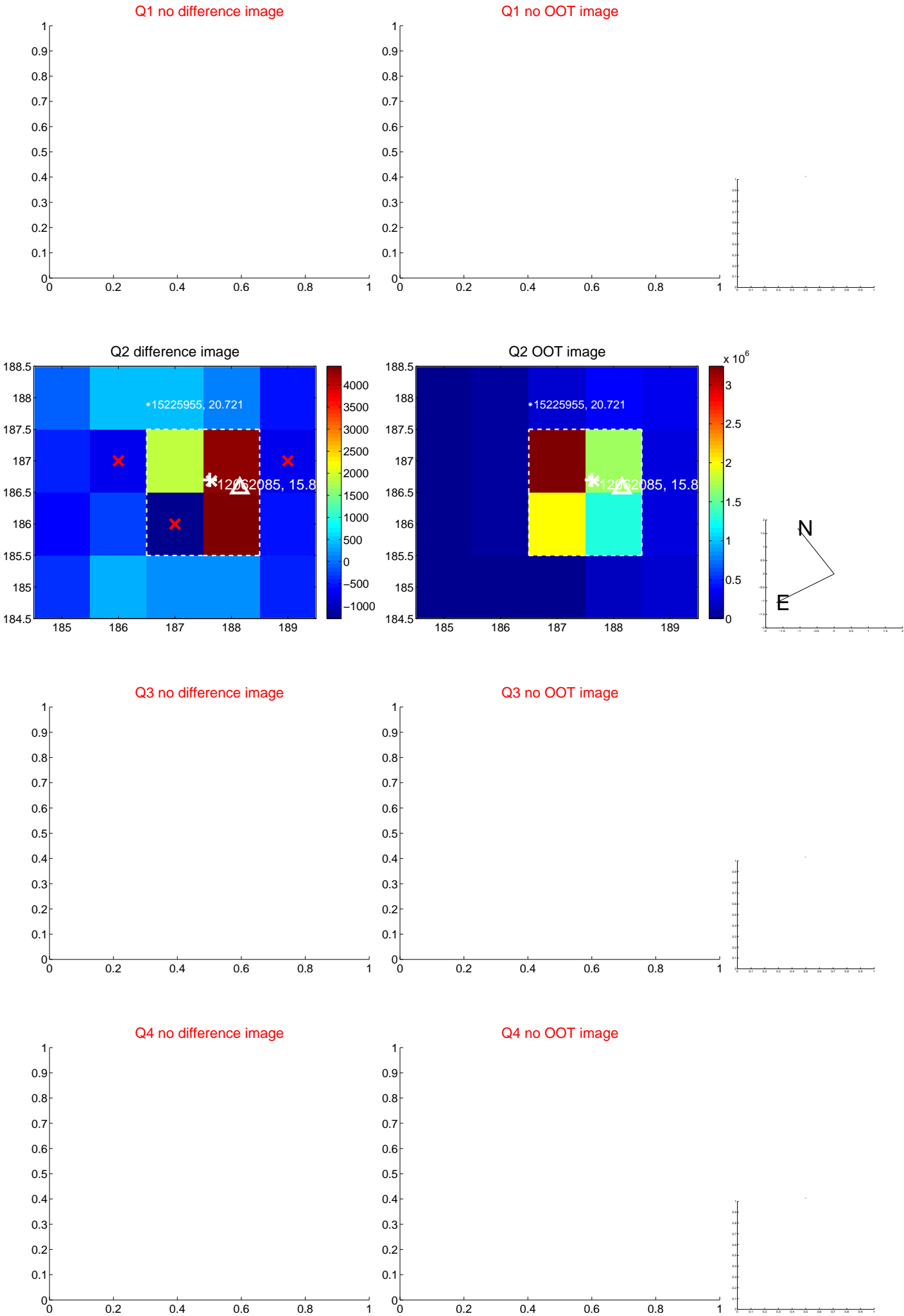
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.181 ± 0.302	7.22	-1.511 ± 0.330	-1.572 ± 0.274
PRF-fit source offset from KIC position	2.046 ± 0.303	6.75	-1.446 ± 0.330	-1.447 ± 0.274
photometric centroid source offset	1.72 ± 1.20	1.43	-1.62 ± 1.21	0.59 ± 1.16

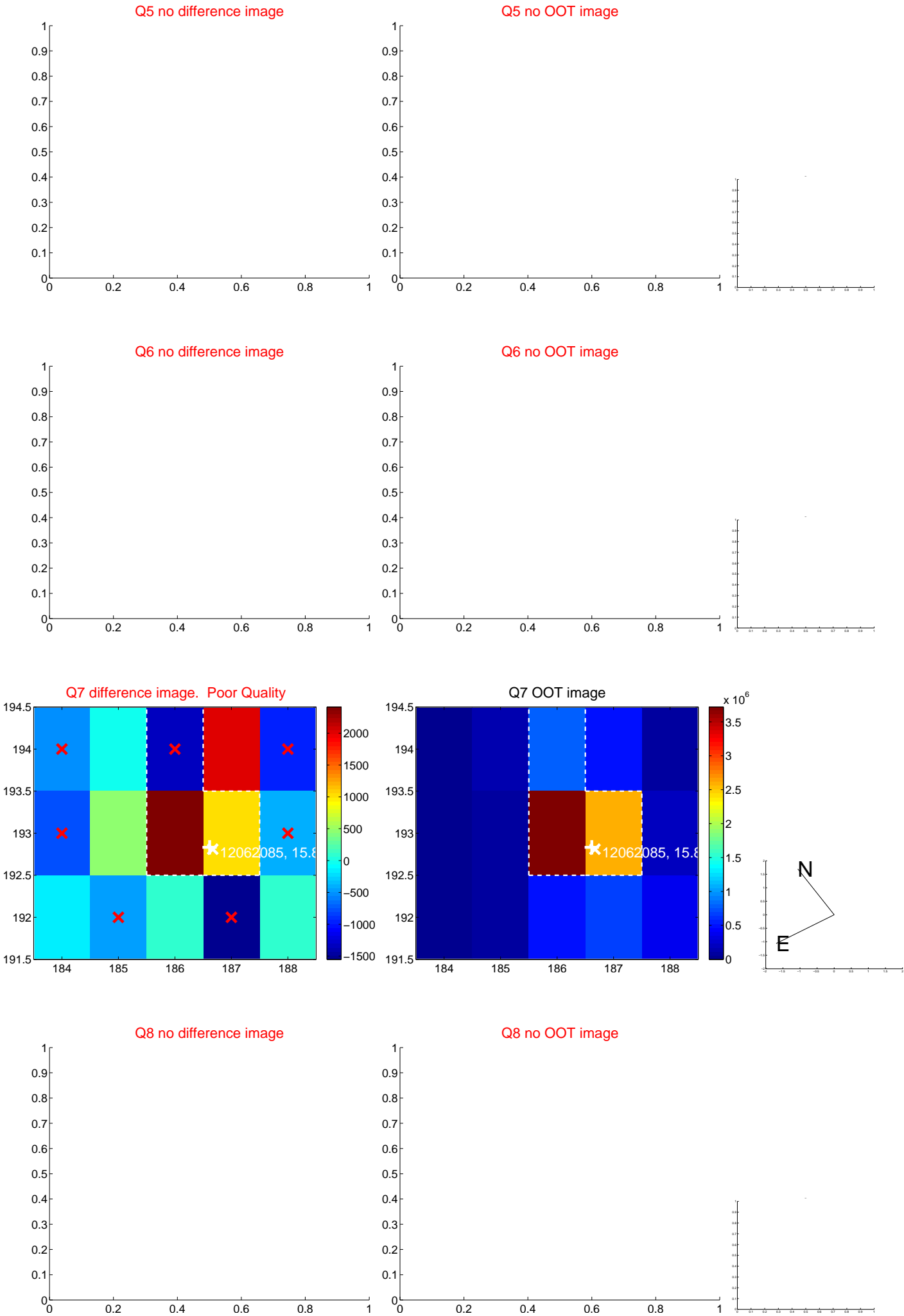


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



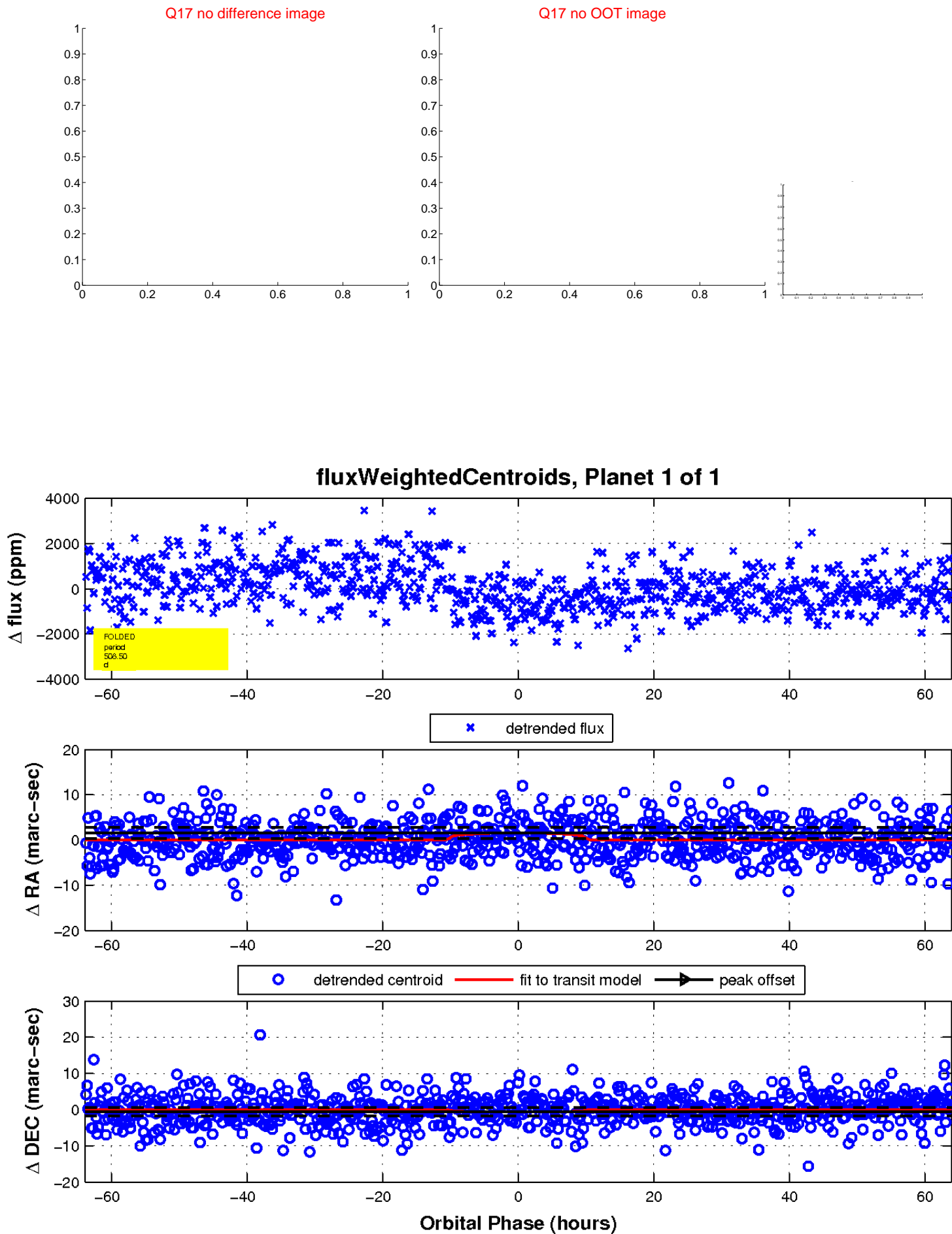
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

