

KIC 008879652

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})
008879652-01	OBS	No	378.500086	173.026965	258.9	39.005	8.9	7.7	0.85	5822	1.43	0.76

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008879652-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—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.

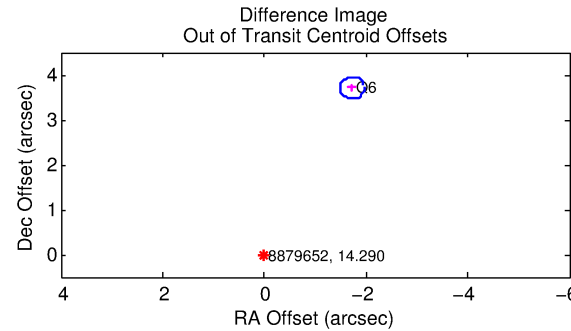
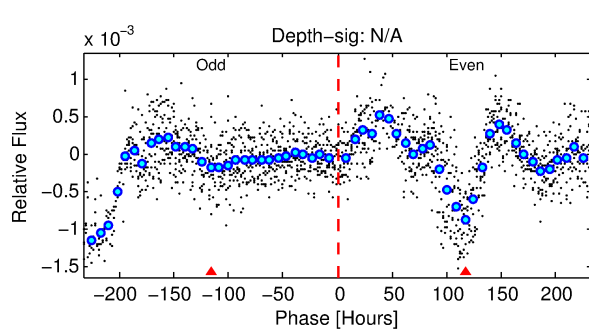
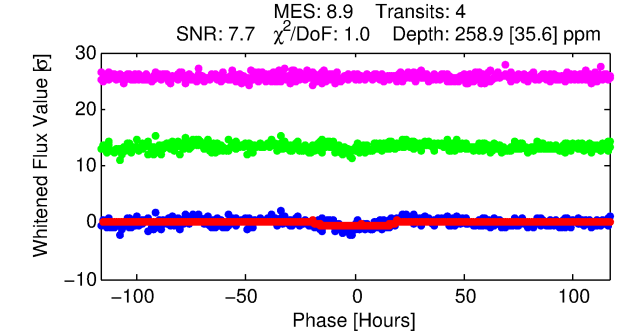
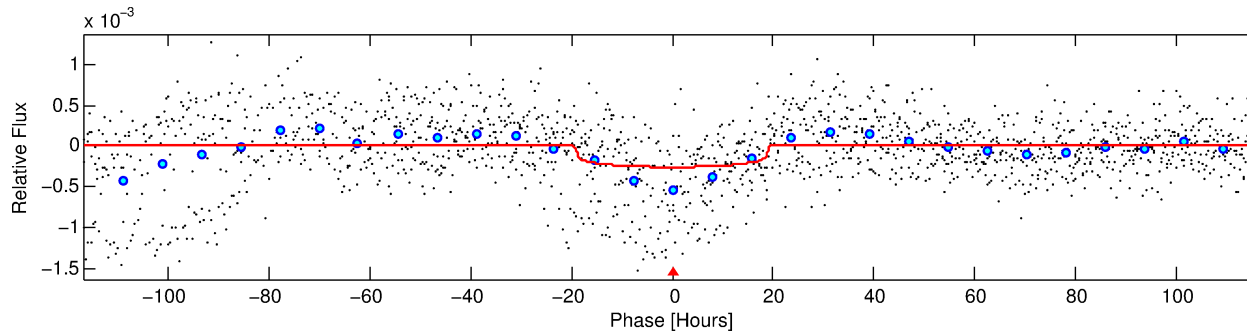
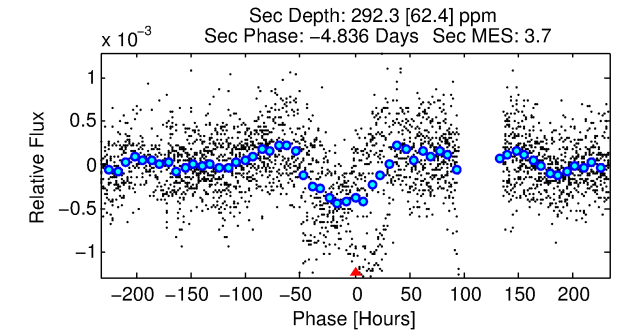
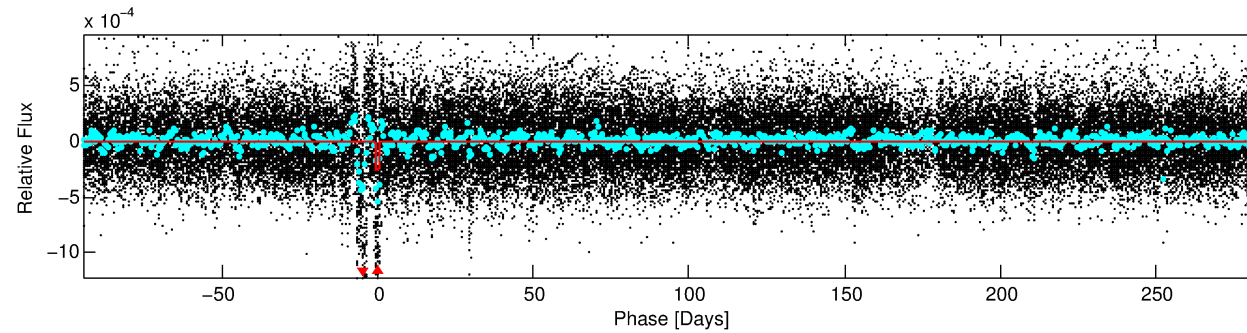
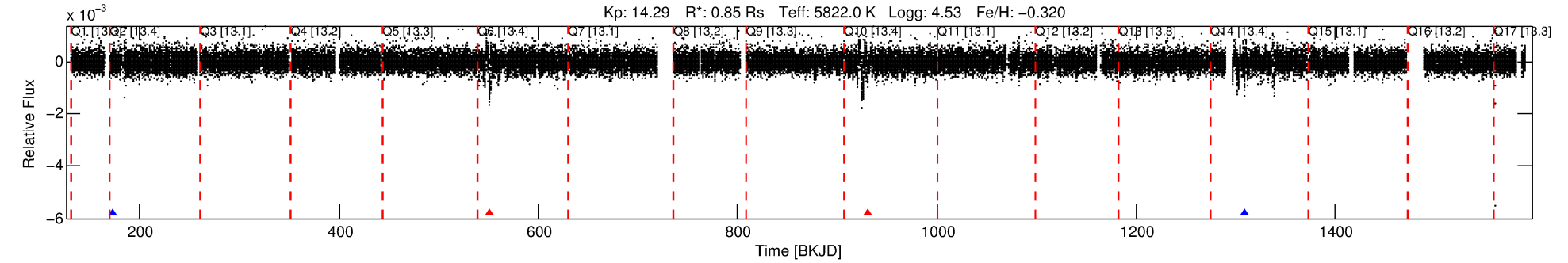
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008879652-01

No Significant Match Found

DV One-Page Summary

KIC: 8879652 Candidate: 1 of 1 Period: 378.500 d



DV Fit Results:

Period = 378.50009 [0.01868] d
Epoch = 173.0270 [0.0346] BKJD
Rp/R* = 0.0155 [0.0034]
a/R* = 59.15 [58.36]
b = 0.63 [0.96]
Seff = 0.76 [0.28]
Teq = 238 [22] K
Rp = 1.43 [0.51] Re
a = 0.9886 [0.2353] AU
Ag = 76599.17 [46279.01] [1.66σ]
Teffp = 6122 [773] K [7.61σ]

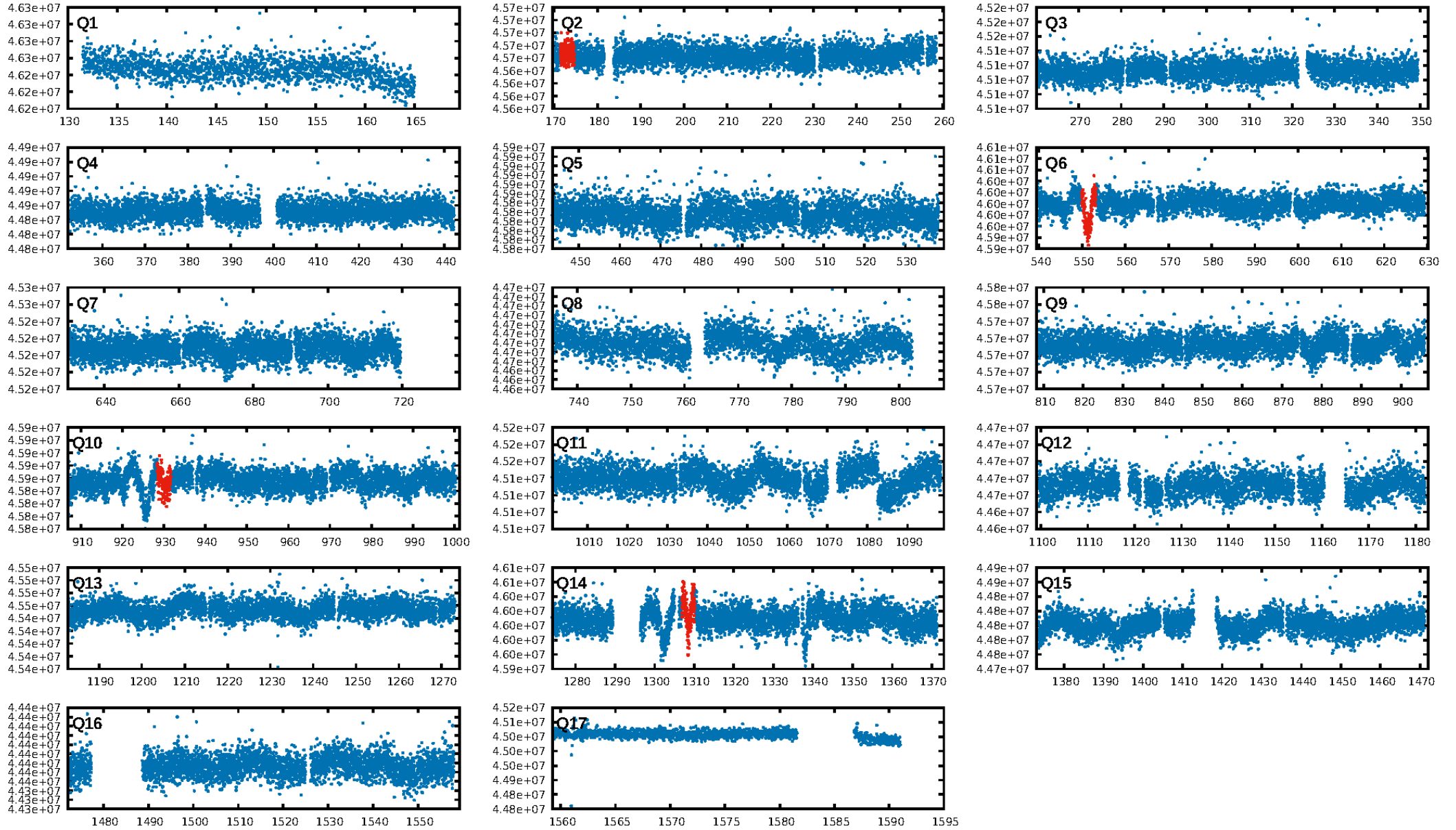
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.14e-10
RollingBand-fgt: 0.50 [2/4]
GhostDiagnostic-chr: 1.598
Centroid-sig: 0.0%
Centroid-so: 11.960 arcsec [4.48σ]
OotOffset-rm: 4.089 arcsec [50.48σ]
KicOffset-rm: 4.076 arcsec [50.32σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [2/2]

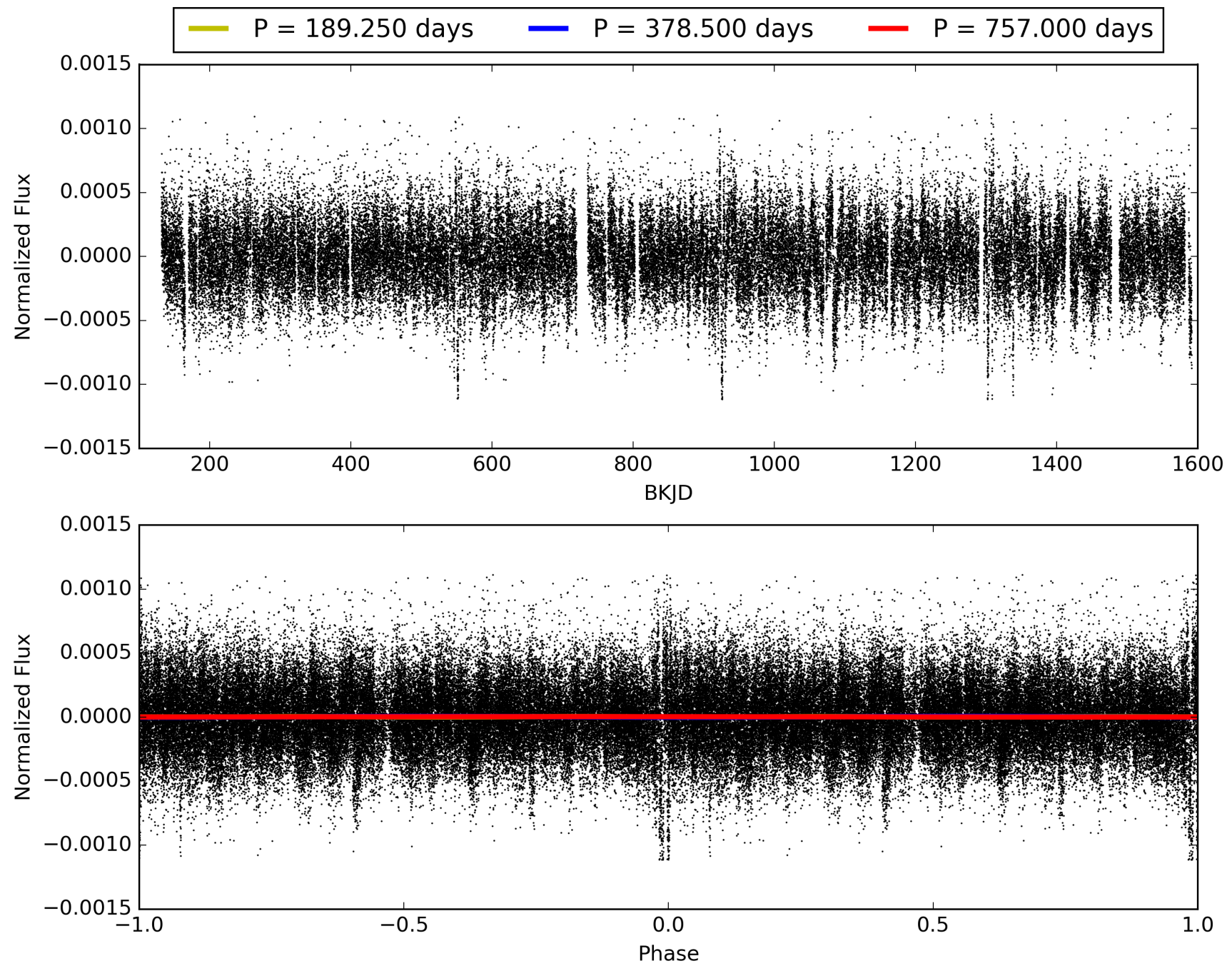
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:11:30 Z

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

TCE 008879652-01, PDC Light Curves

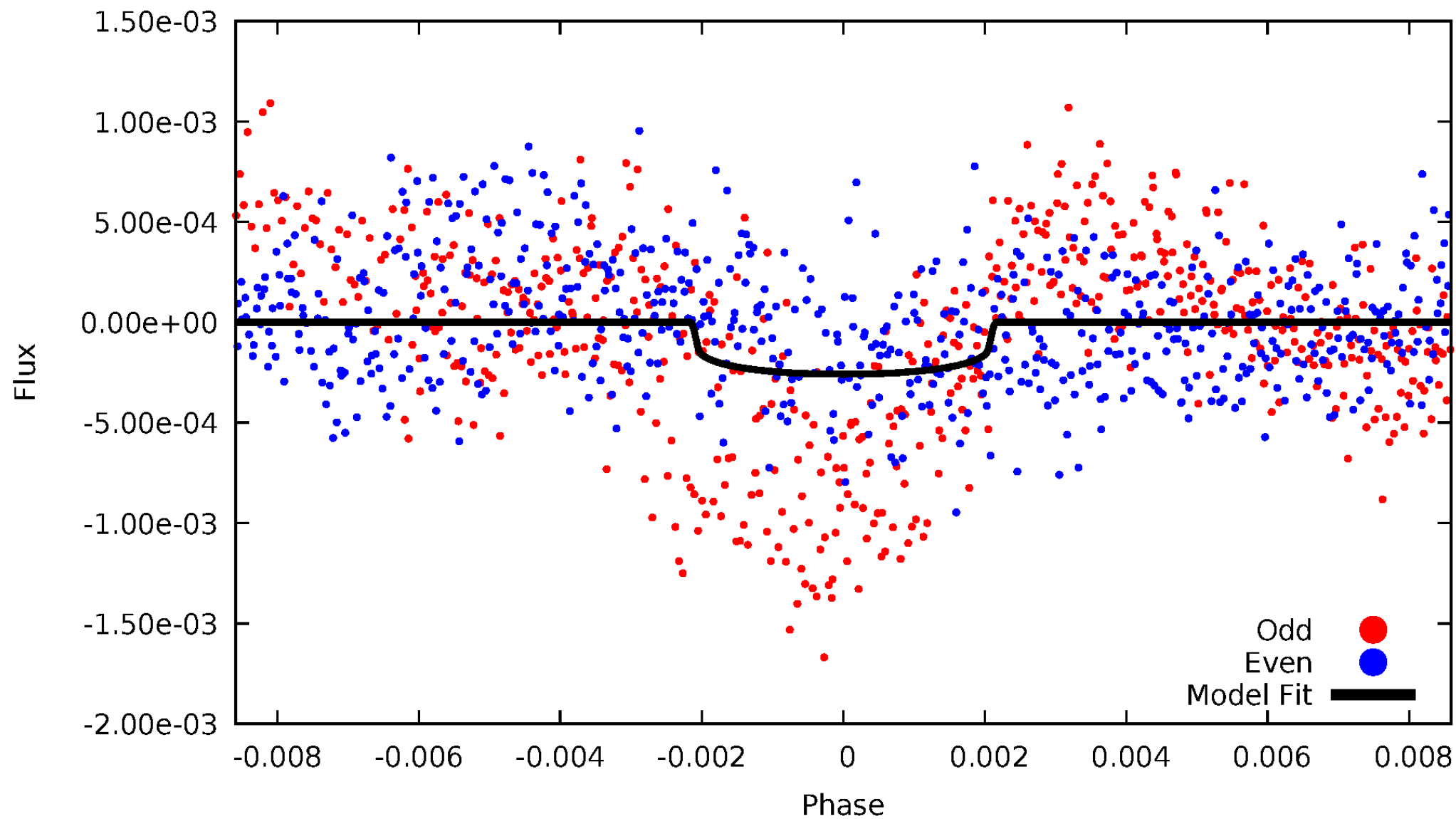


TCE 008879652-01



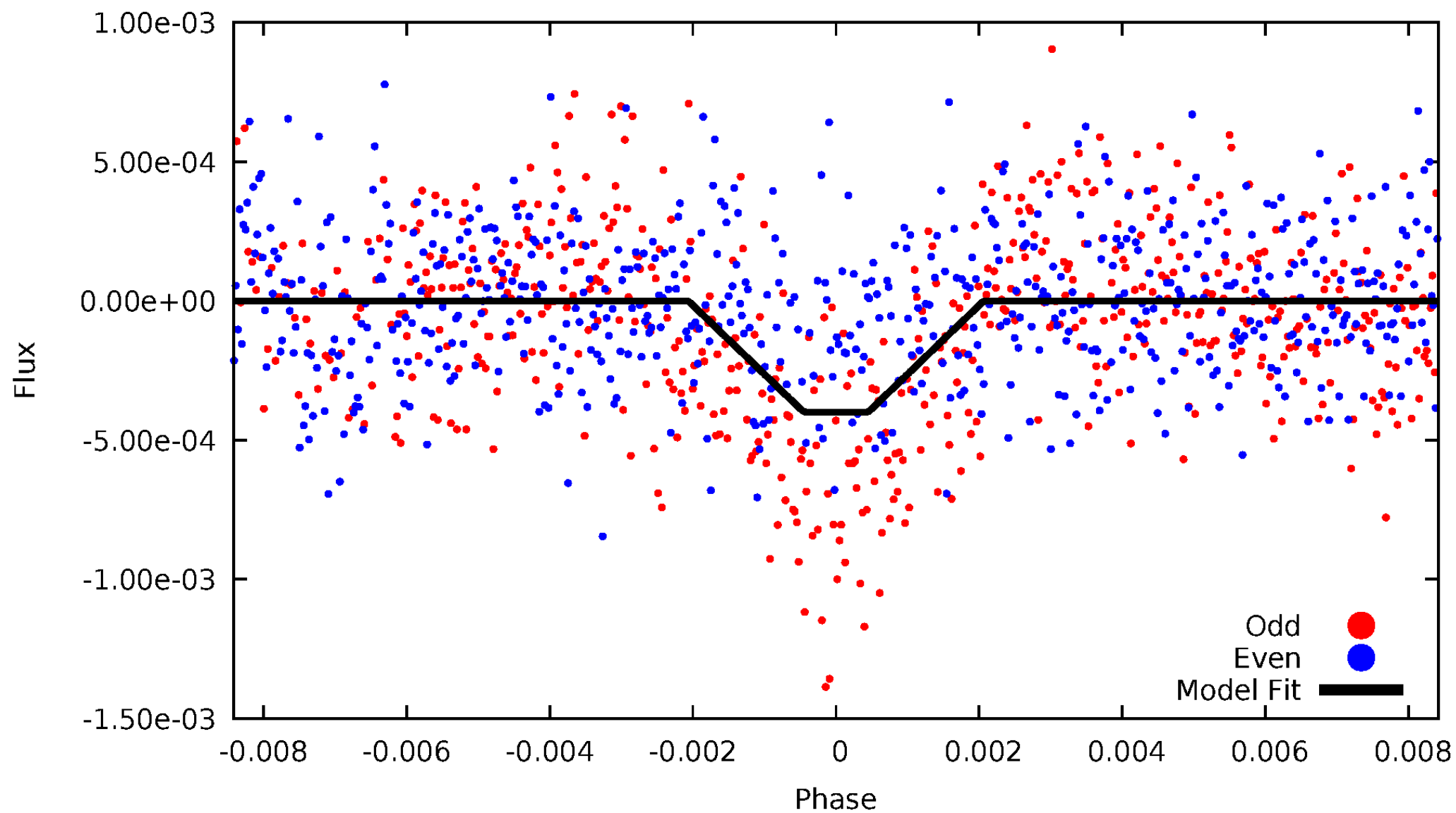
DV Odd/Even

TCE 008879652-01



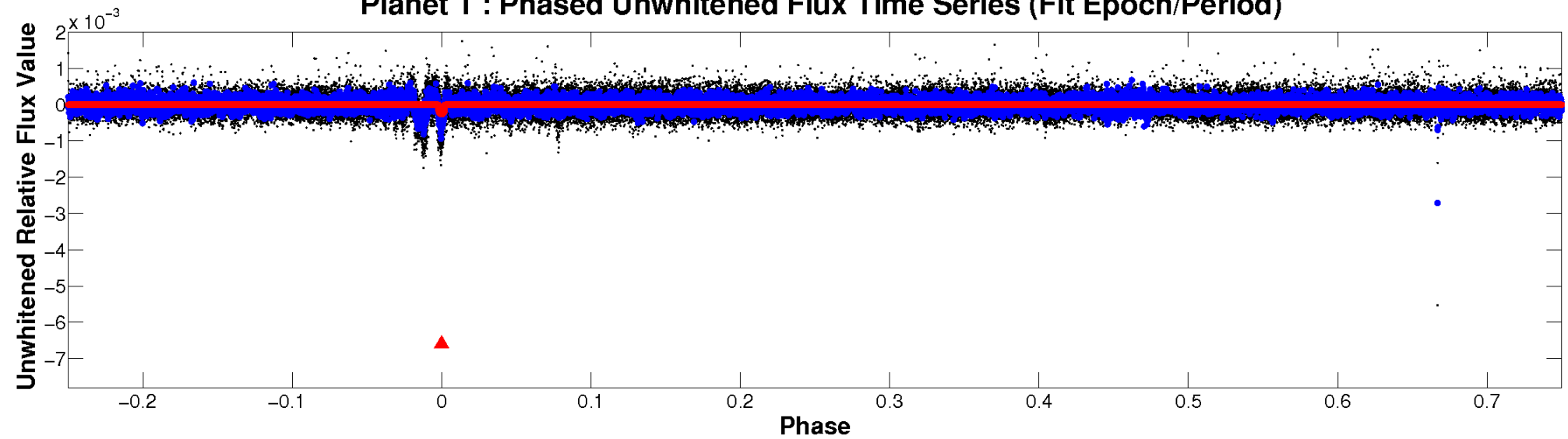
ALT Odd/Even

TCE 008879652-01

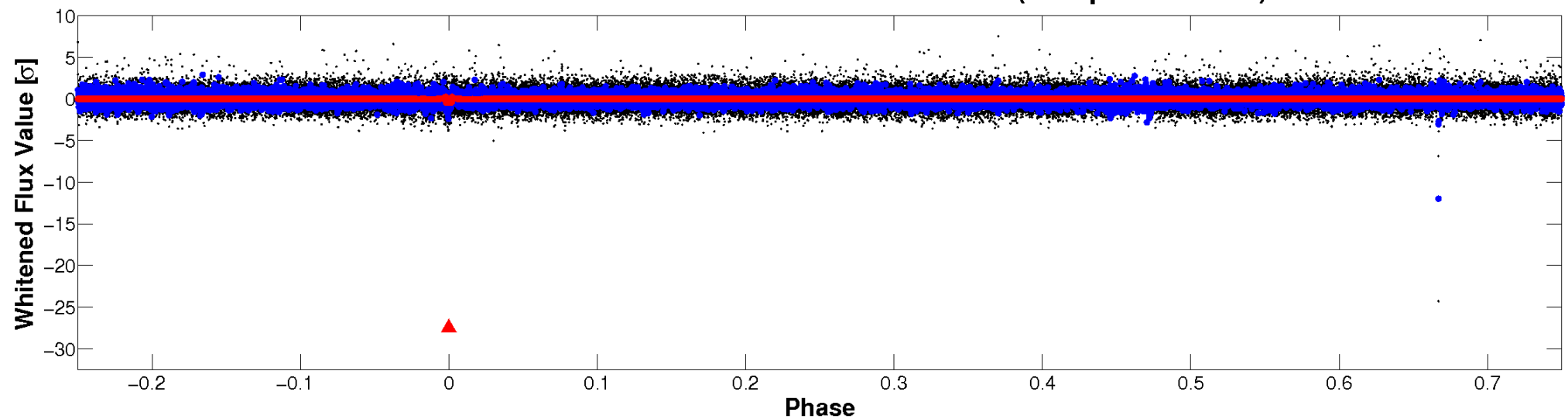


Non-Whitened Vs. Whitened Light Curve

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

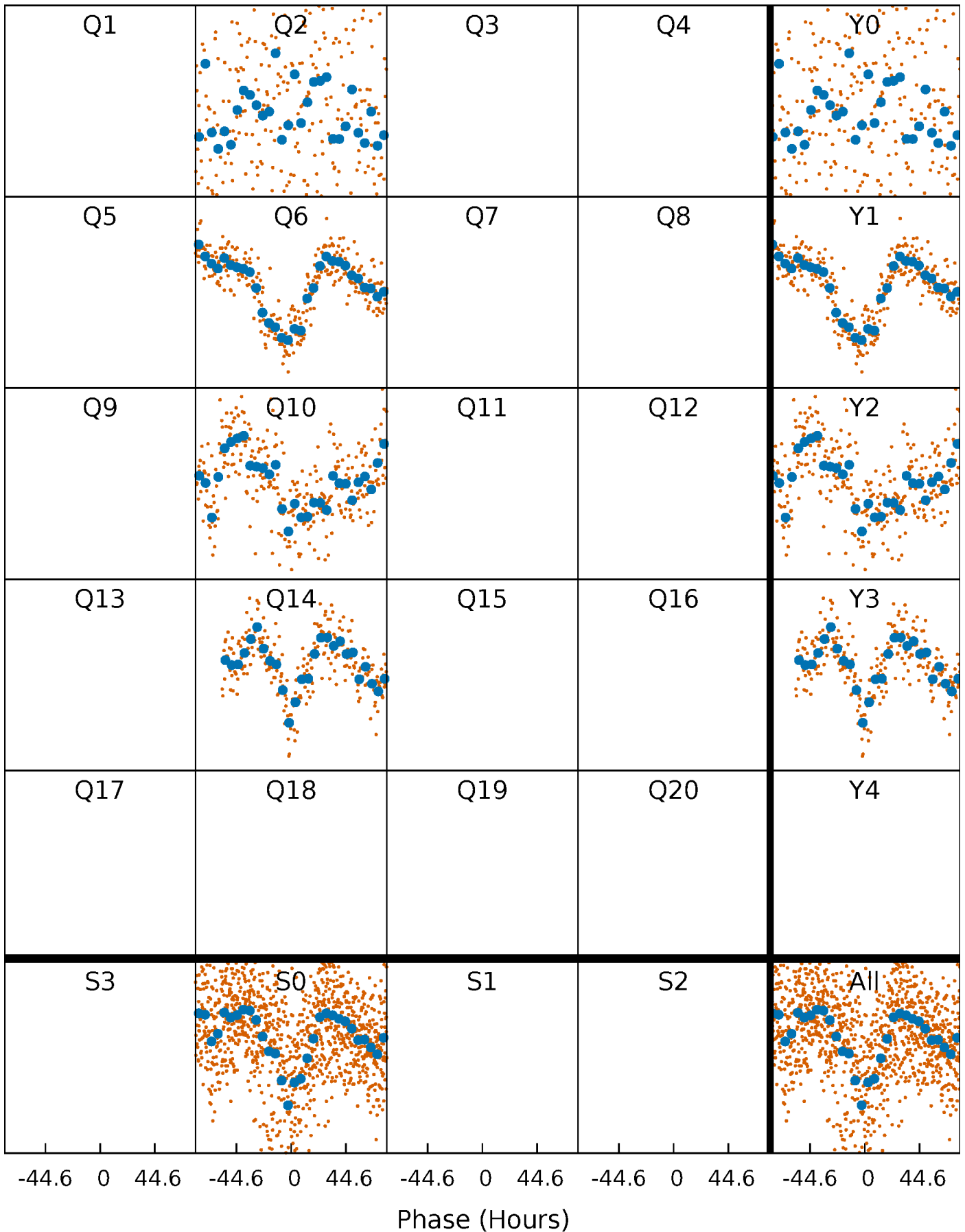


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



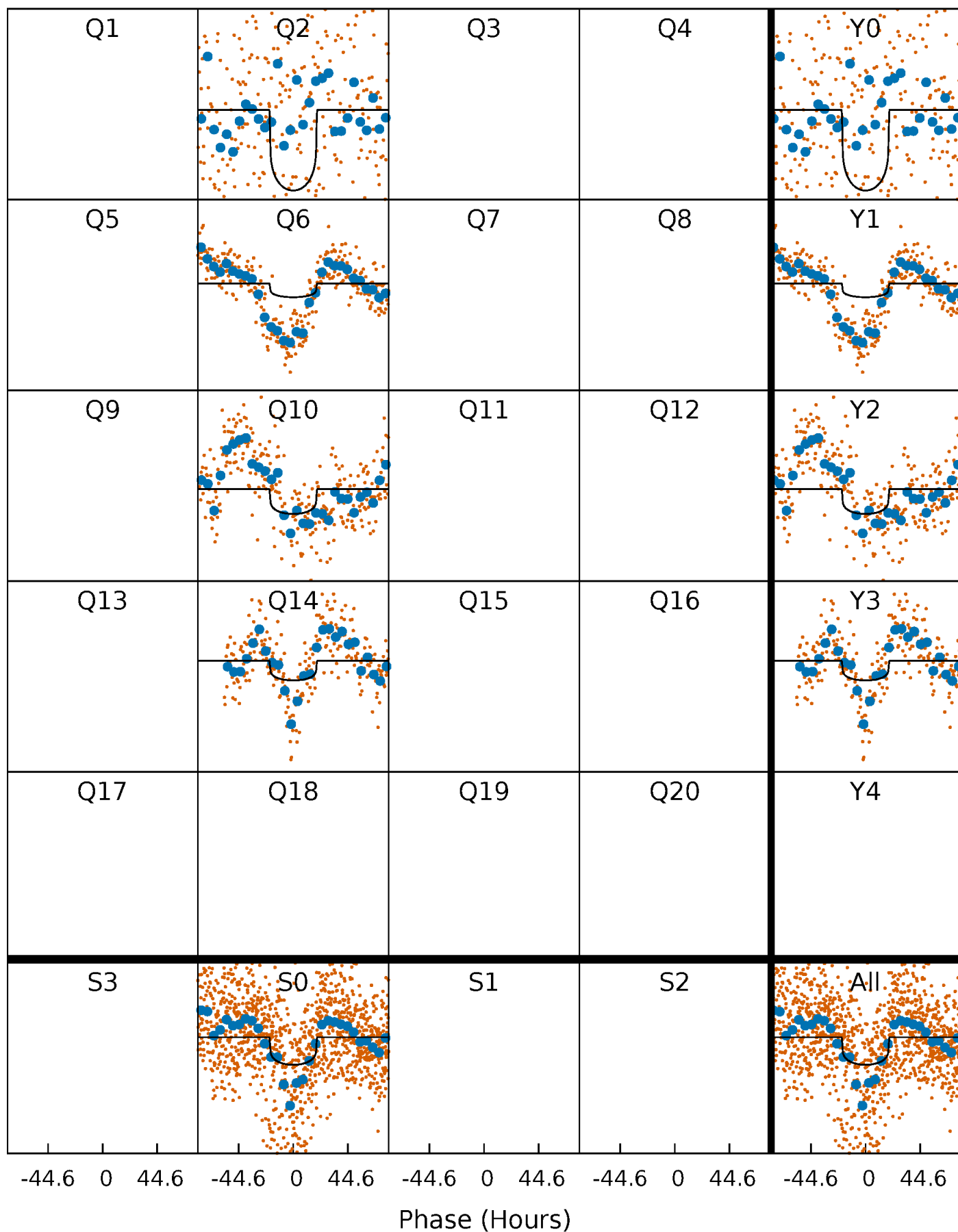
PDC Quarter-Phased Transit Curves

TCE 008879652-01 P=378.500086 Days $T_0=173.026965$ (BKJD)



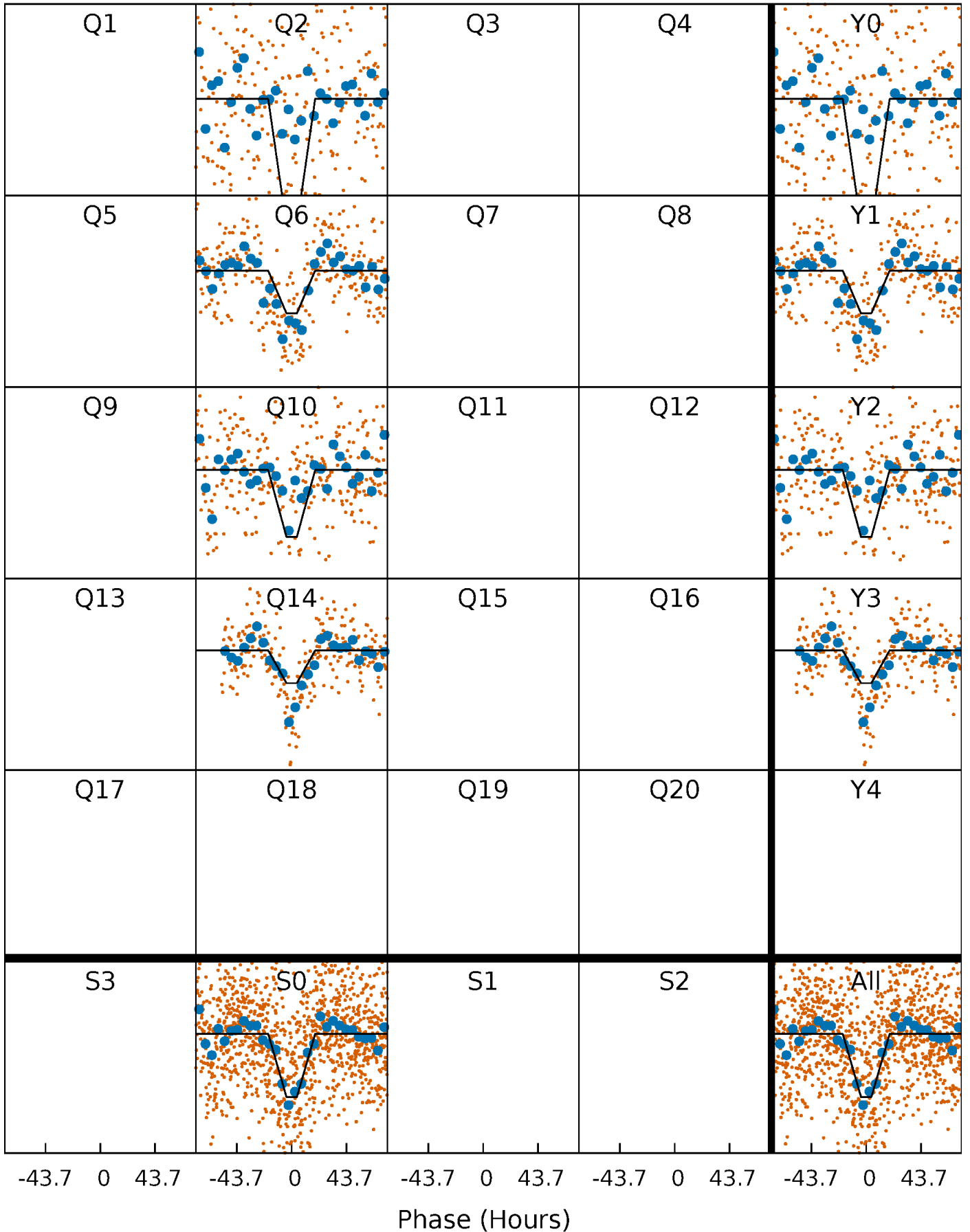
DV Quarter-Phased Transit Curves

TCE 008879652-01 P=378.500086 Days $T_0=173.026965$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

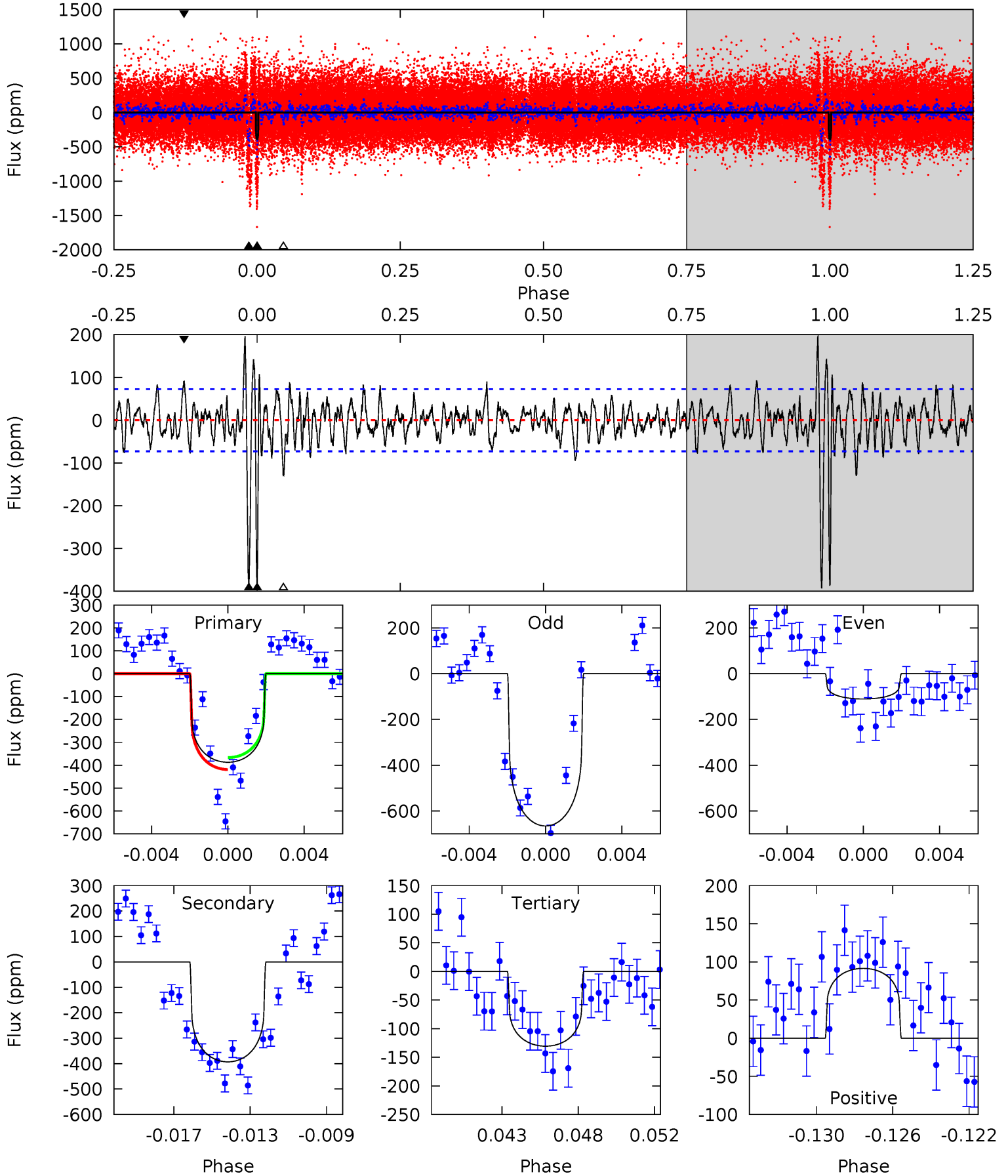
TCE 008879652-01 P=378.456776 Days $T_0=173.132598$ (BKJD)



DV Model-Shift Uniqueness Test

008879652-01, P = 378.500086 Days, E = 173.026965 Days

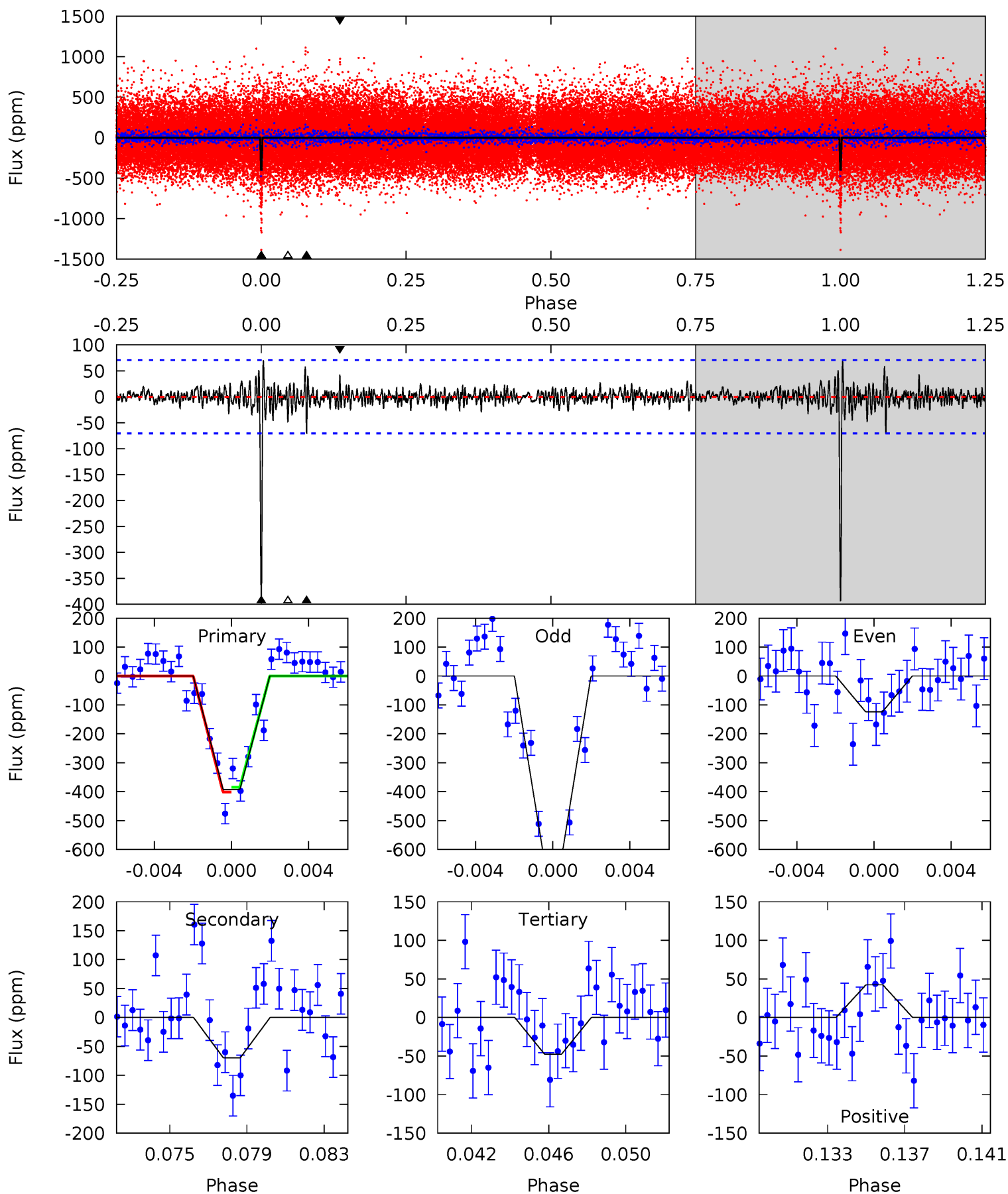
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
27.7	28.1	9.33	6.54	5.18	2.85	2.44	18.3	21.1	18.8	21.5	19.8	1.25	0.33	1.86



Alt Model-Shift Uniqueness Test

008879652-01, P = 378.456776 Days, E = 173.132598 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
28.9	5.14	3.51	3.11	5.19	2.87	0.81	25.4	25.8	1.63	2.02	18.9	0.99	0.15	0.62



Stellar Parameters For KIC 008879652

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5822^{+145}_{-160}	$4.534^{+0.048}_{-0.192}$	$-0.320^{+0.300}_{-0.300}$	$0.849^{+0.238}_{-0.079}$	$0.898^{+0.101}_{-0.090}$	$2.071^{+0.516}_{-1.016}$
	+2%/-3%	+1%/-4%	+94%/-94%	+28%/-9%	+11%/-10%	+25%/-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 008879652-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-393 ± 14	$1.51^{+0.35}_{-0.36}$	339^{+24}_{-15}	6625^{+993}_{-668}	92489^{+65104}_{-32423}
Alt.	-70 ± 14	$1.93^{+0.42}_{-0.37}$	340^{+23}_{-15}	4087^{+310}_{-295}	10104^{+5685}_{-3798}

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

DV Centroid Data

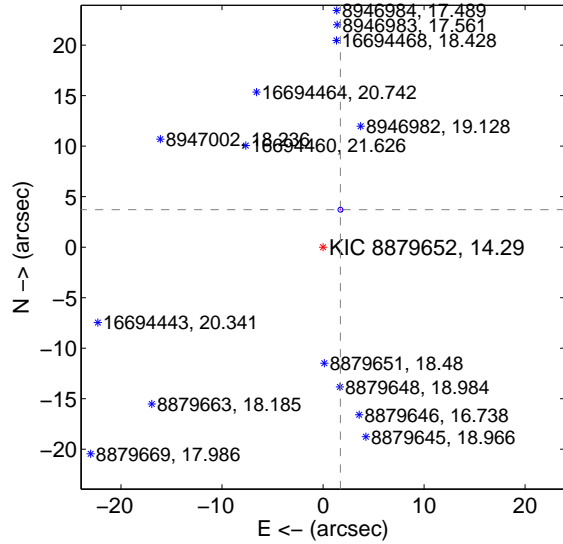
Supplemental centroid analysis for 008879652-01. Kepler magnitude: 14.29. Transit SNR 7.66

There are 0 quarters with good PRF difference image offsets

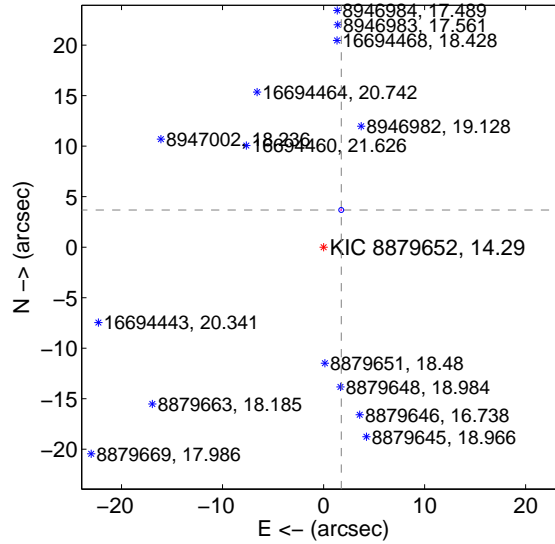
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.089 ± 0.081	50.48	-1.722 ± 0.083	3.708 ± 0.081
PRF-fit source offset from KIC position	4.076 ± 0.081	50.32	-1.748 ± 0.083	3.683 ± 0.081
photometric centroid source offset	11.96 ± 2.67	4.48	-11.86 ± 2.68	1.56 ± 1.63

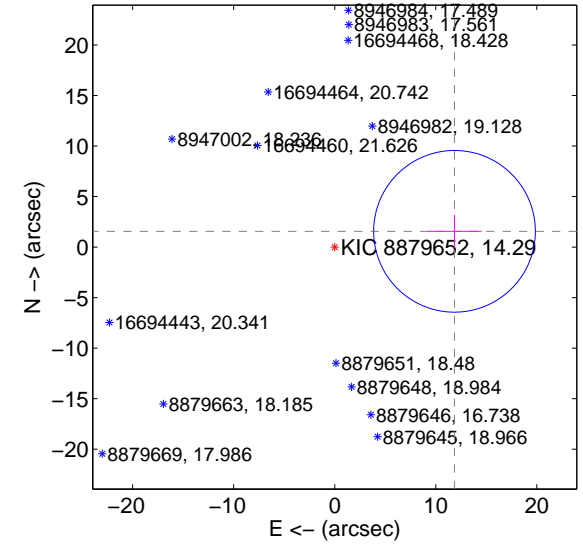
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

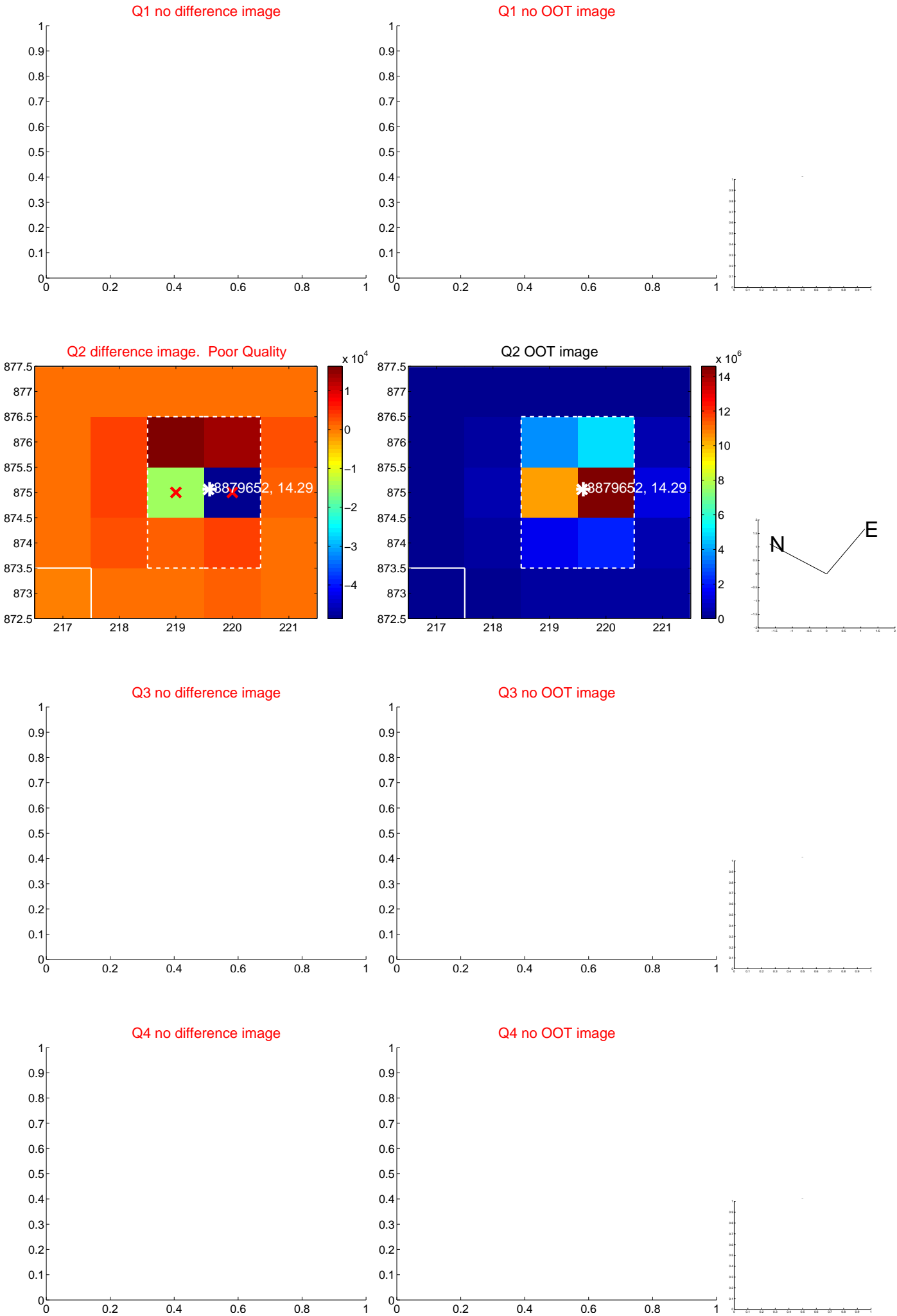


offset from photometric centroids

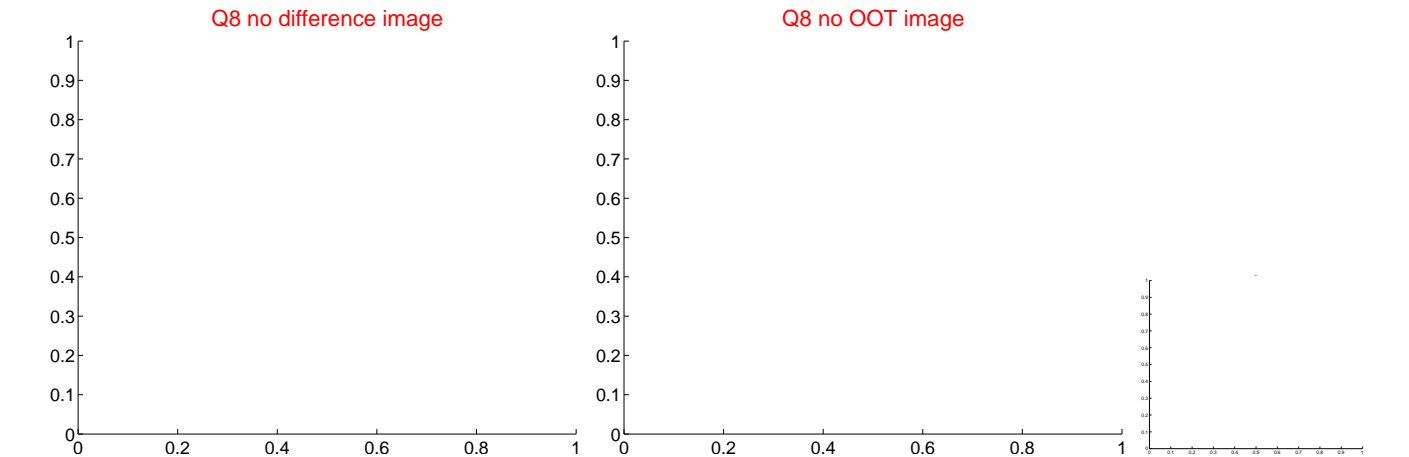
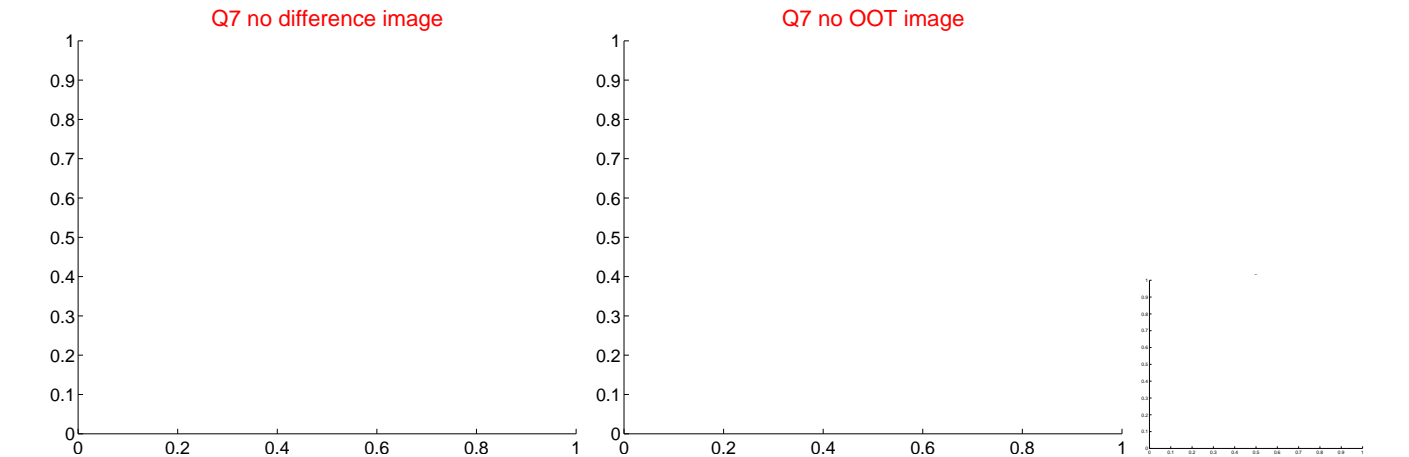
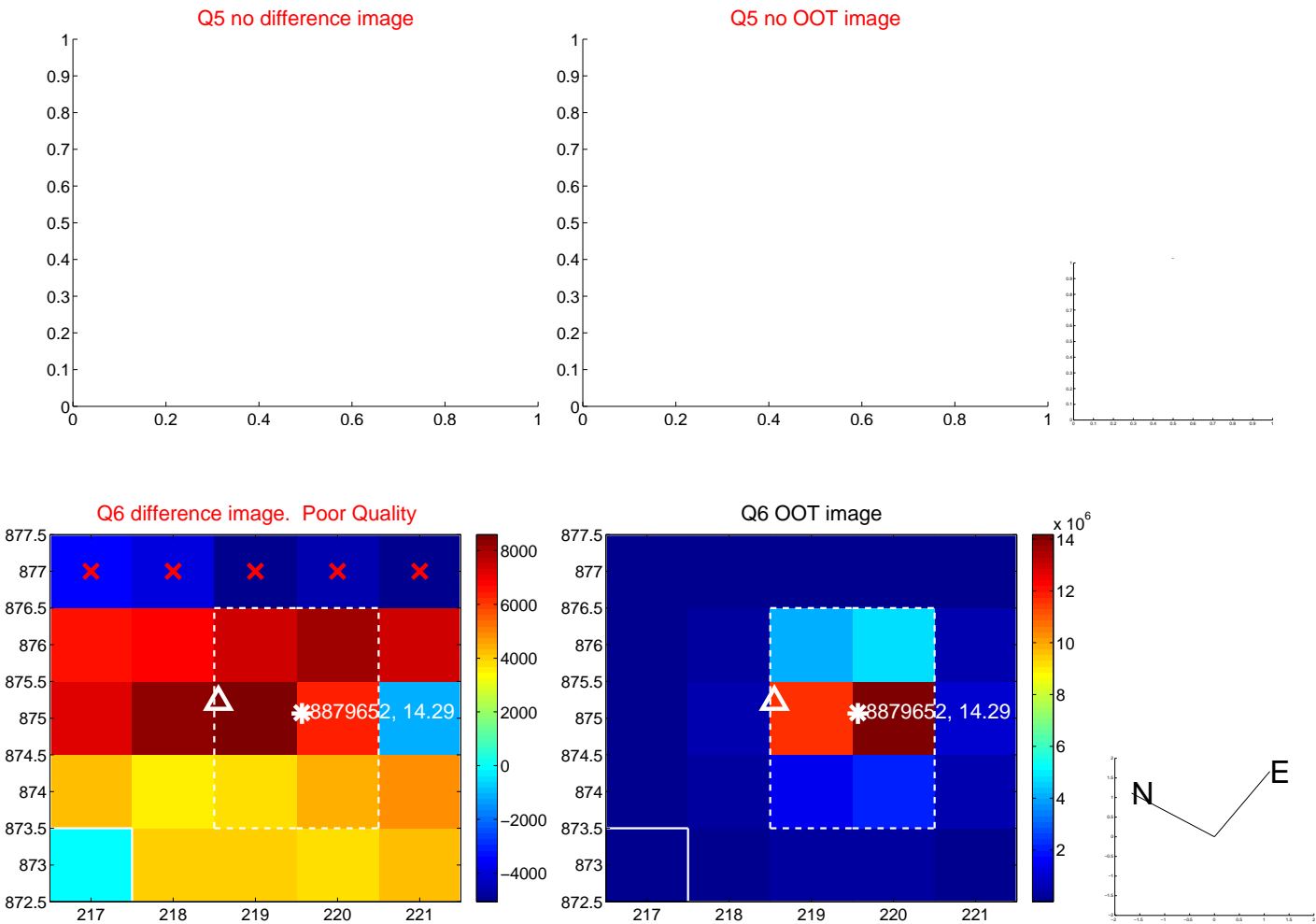


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



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



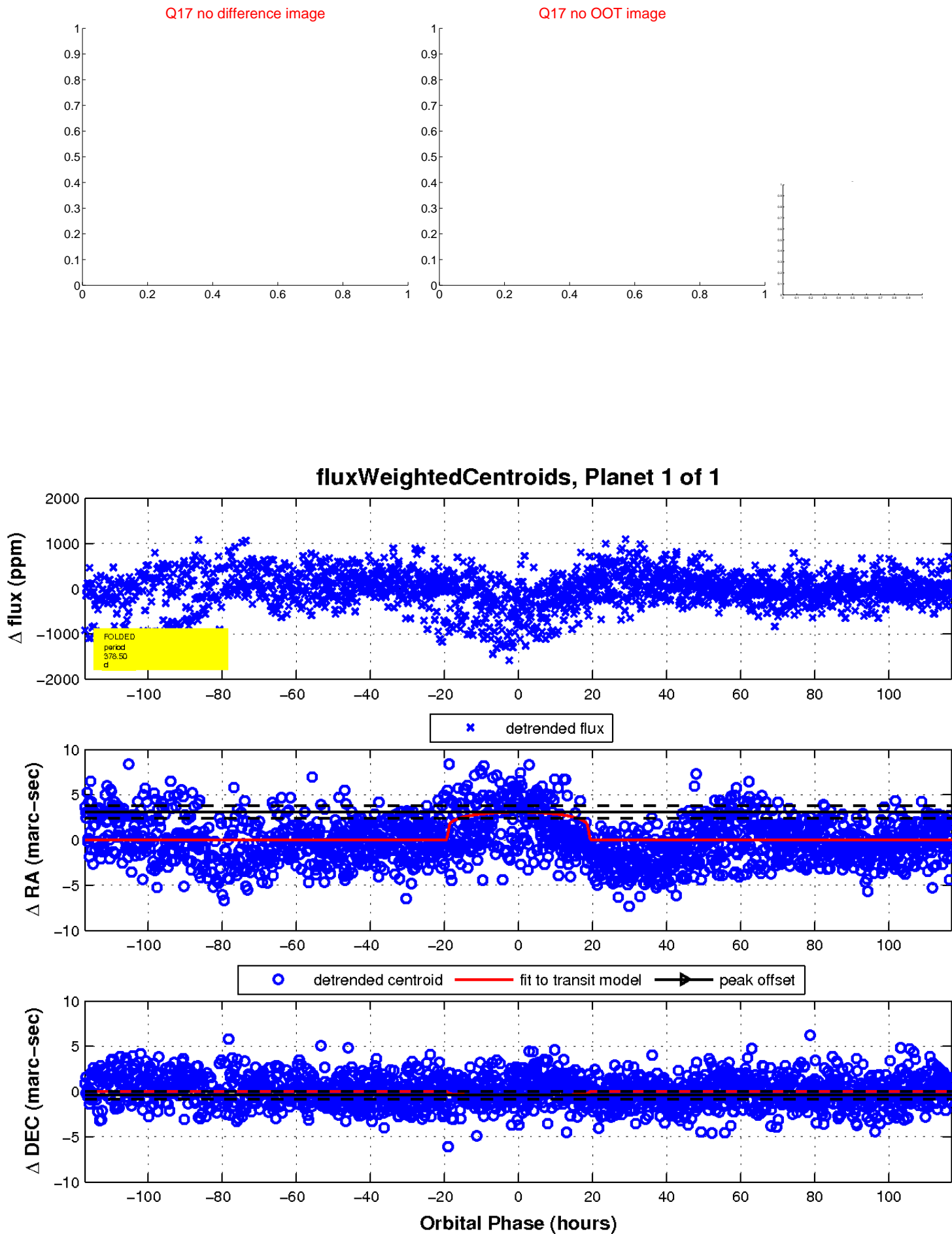
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

