

KIC 005788623

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})
005788623-01	OBS	No	427.274740	355.541102	3233.3	8.283	25.8	4.4	1.71	7072	11.70	4.17

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005788623-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_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.

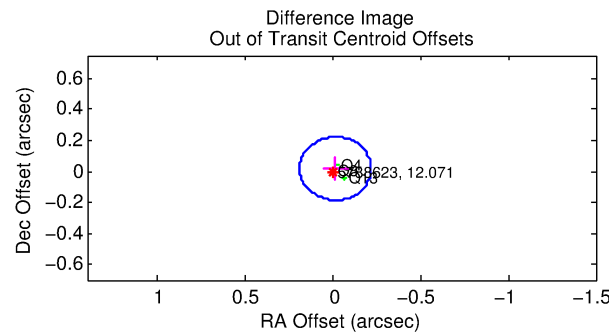
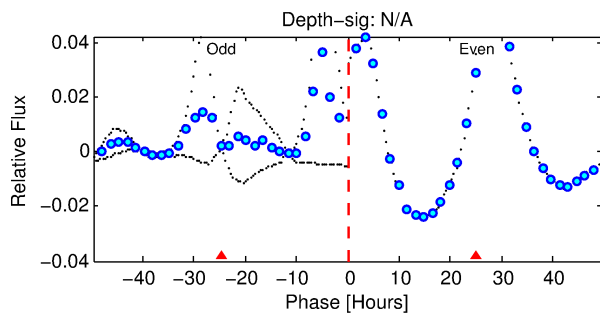
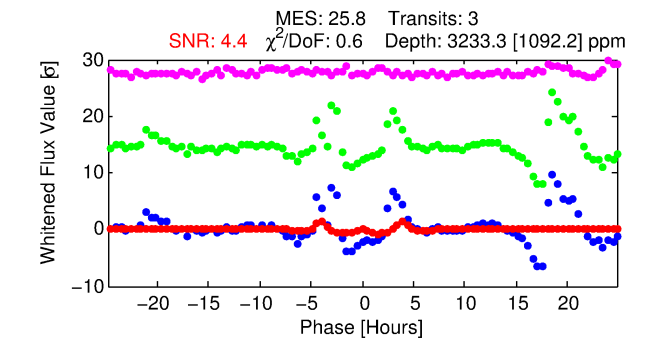
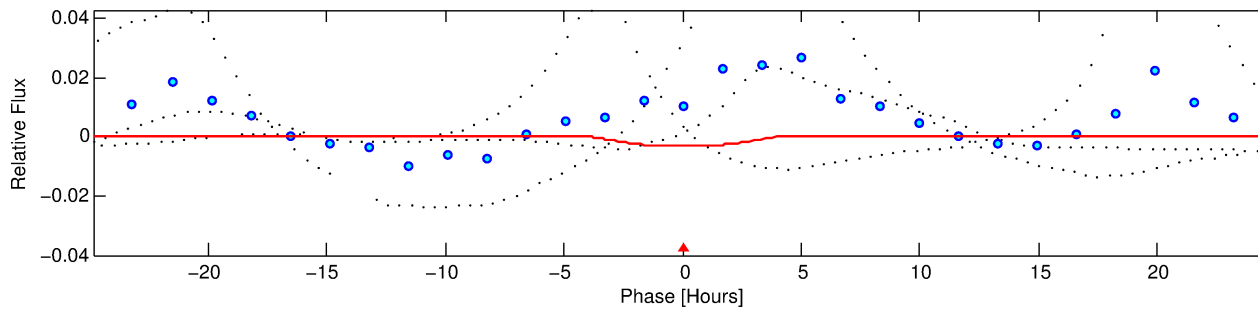
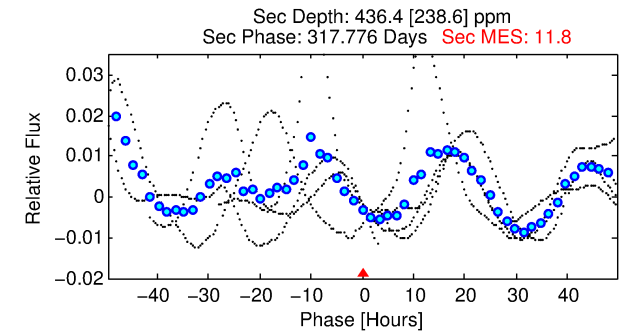
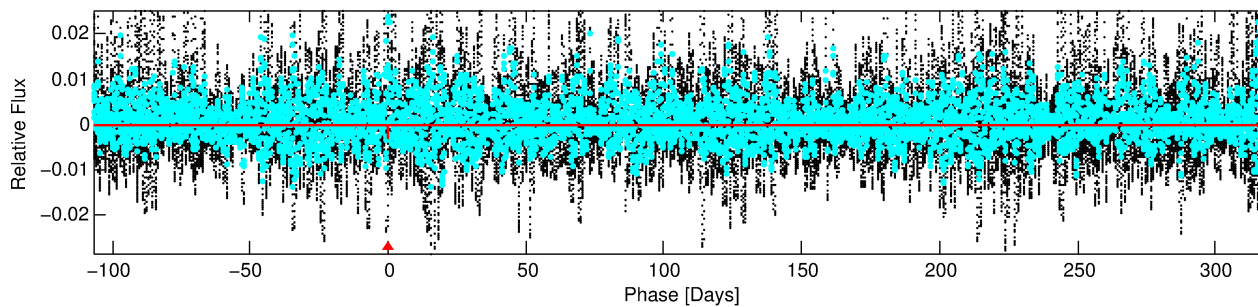
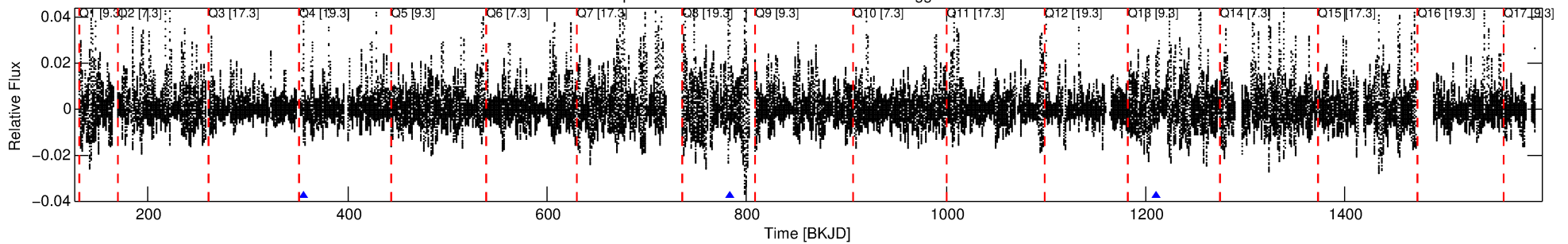
Ephemeris Match Information For 005788623-01

No Significant Match Found

DV One-Page Summary

KIC: 5788623 Candidate: 1 of 1 Period: 427.275 d

Kp: 12.07 R*: 1.71 Rs Teff: 7072.0 K Logg: 4.13 Fe/H: -0.160



DV Fit Results:

Period = 427.27474 [0.00734] d
Epoch = 355.5411 [0.0106] BKJD
Rp/R* = 0.0629 [0.0109]
a/R* = 200.74 [13.64]
b = 0.93 [0.01]
Seff = 4.17 [0.85]
Teff = 364 [19] K
Rp = 11.70 [2.75] Re
a = 1.2502 [0.1686] AU
Ag = 2742.97 [1859.45] [1.47σ]
Teffp = 4077 [662] K [5.60σ]

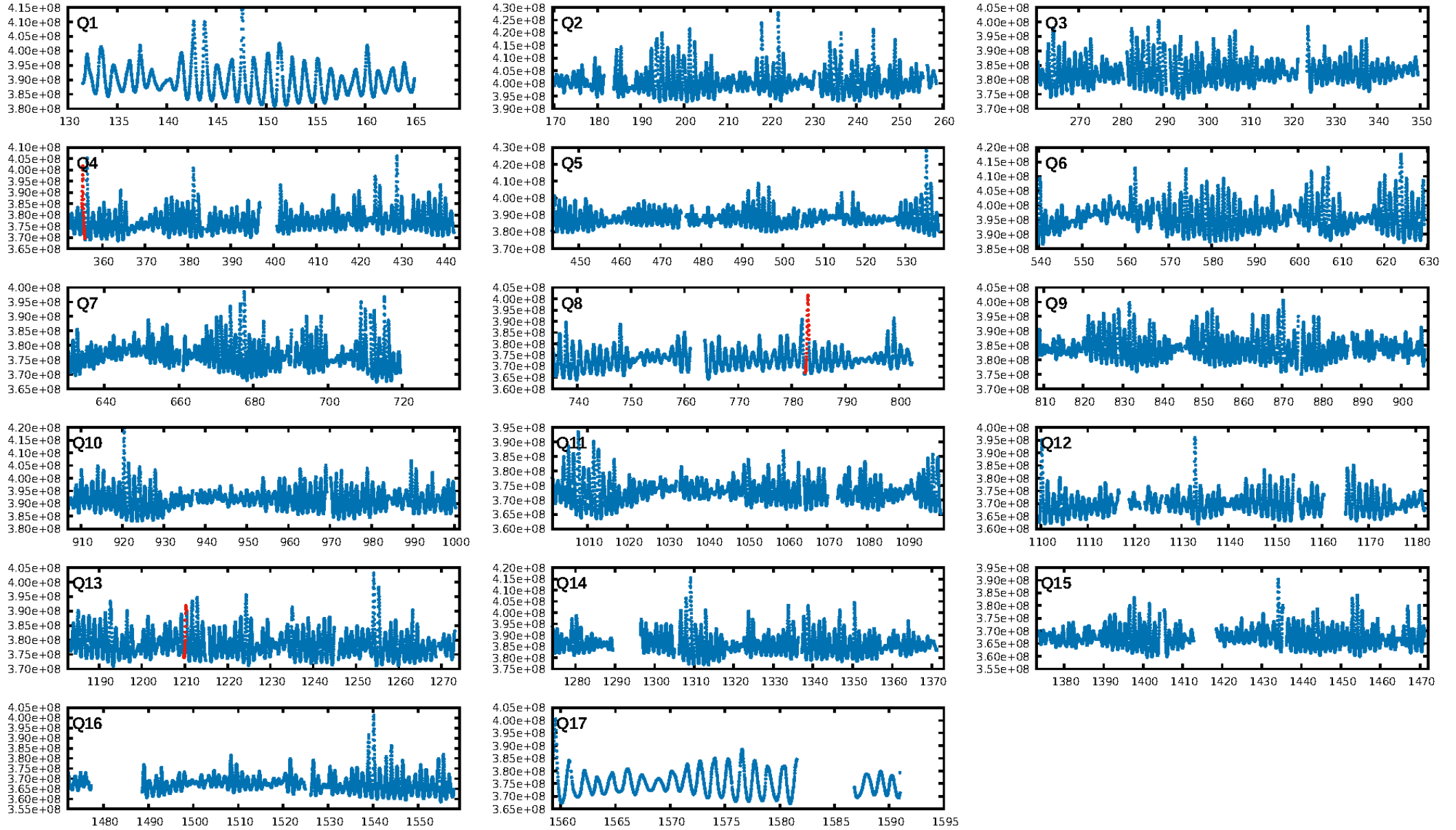
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 77.6%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.47e-14
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.213
Centroid-sig: 68.5%
Centroid-so: 0.157 arcsec [2.22σ]
OotOffset-rm: 0.024 arcsec [0.36σ]
OotOffset-st: 0/0/2/1 [3]
KicOffset-rm: 0.224 arcsec [3.10σ]
KicOffset-st: 0/0/2/1 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [3/3]

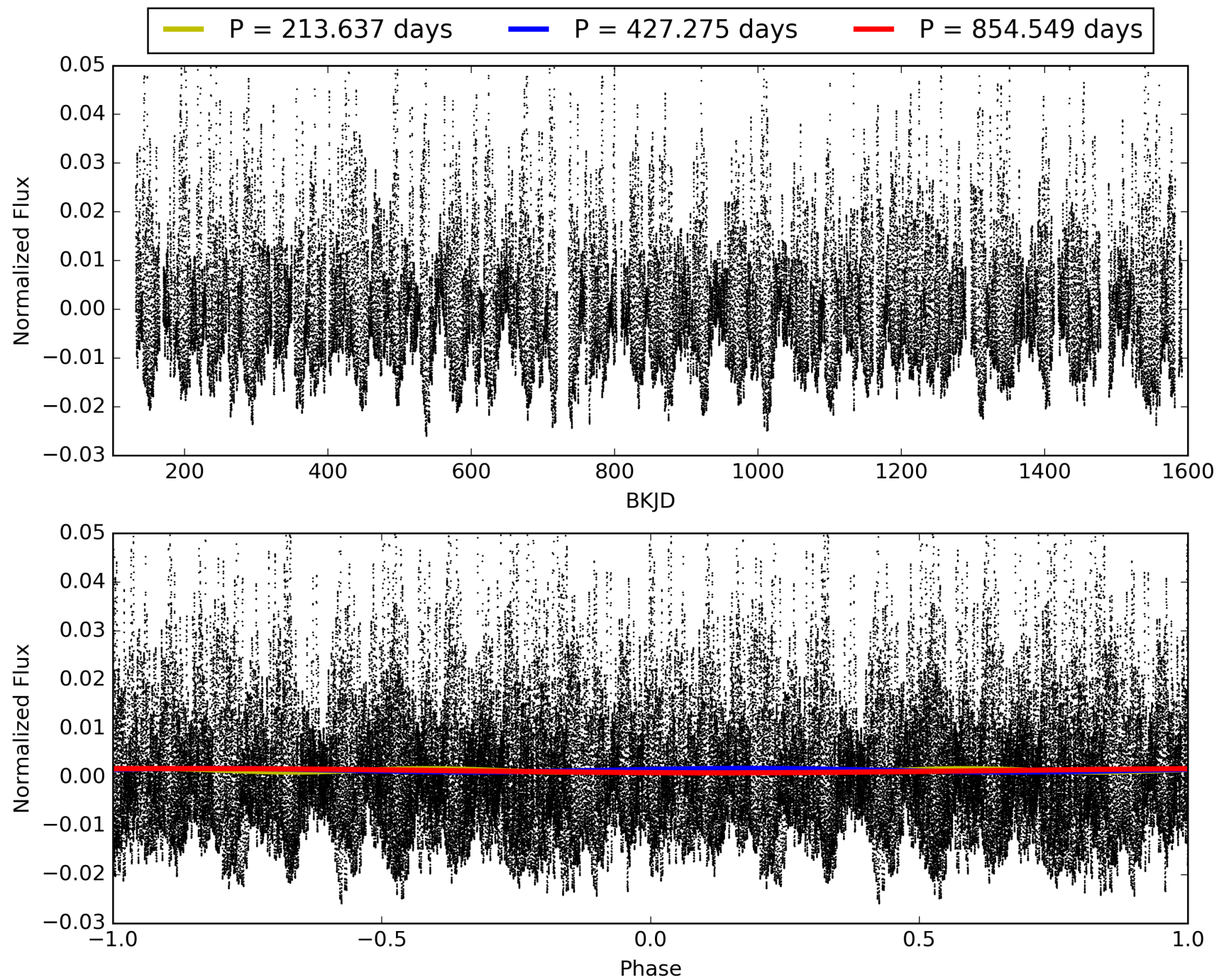
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 06:06:41 Z

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

TCE 005788623-01, PDC Light Curves

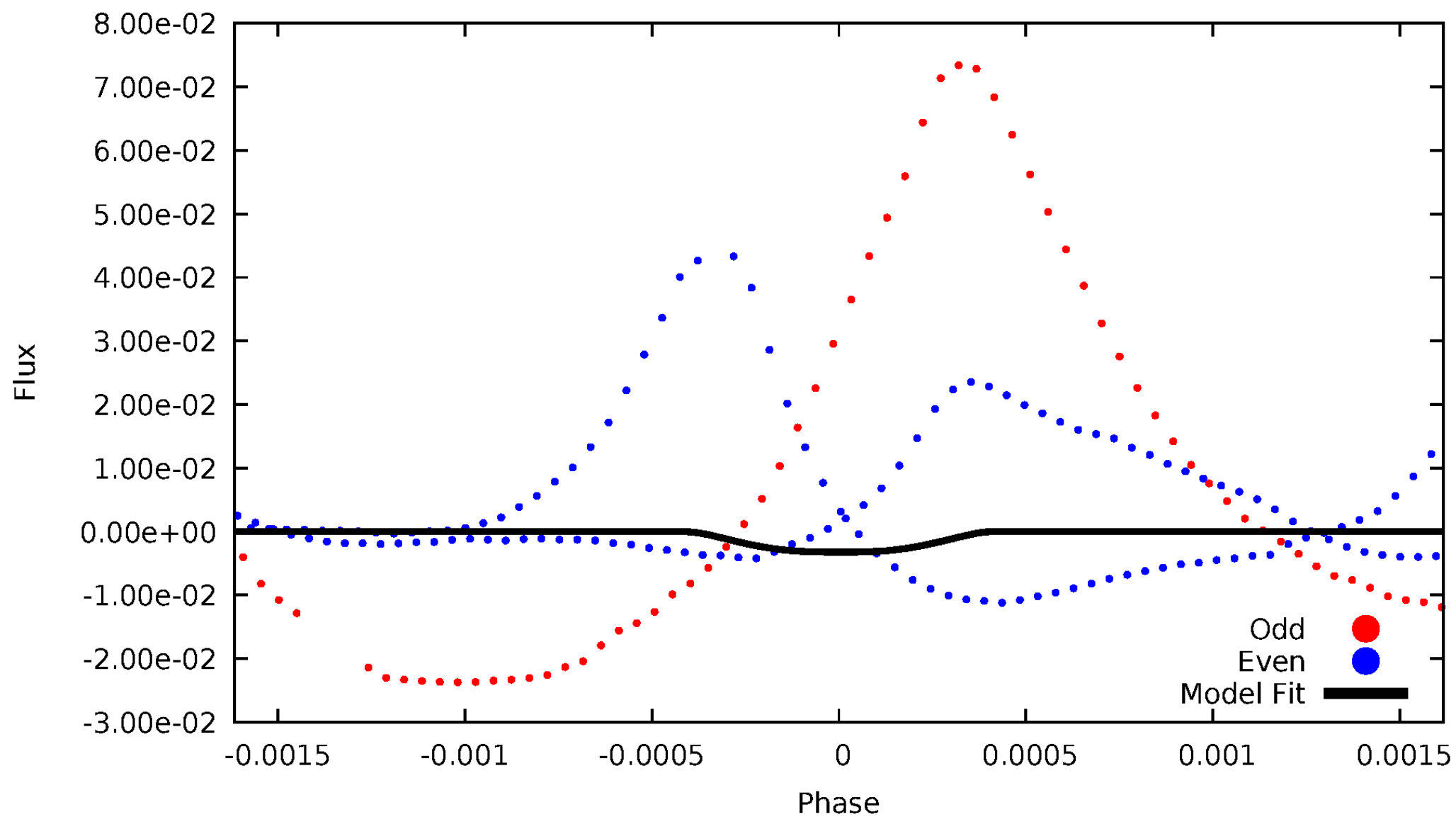


TCE 005788623-01



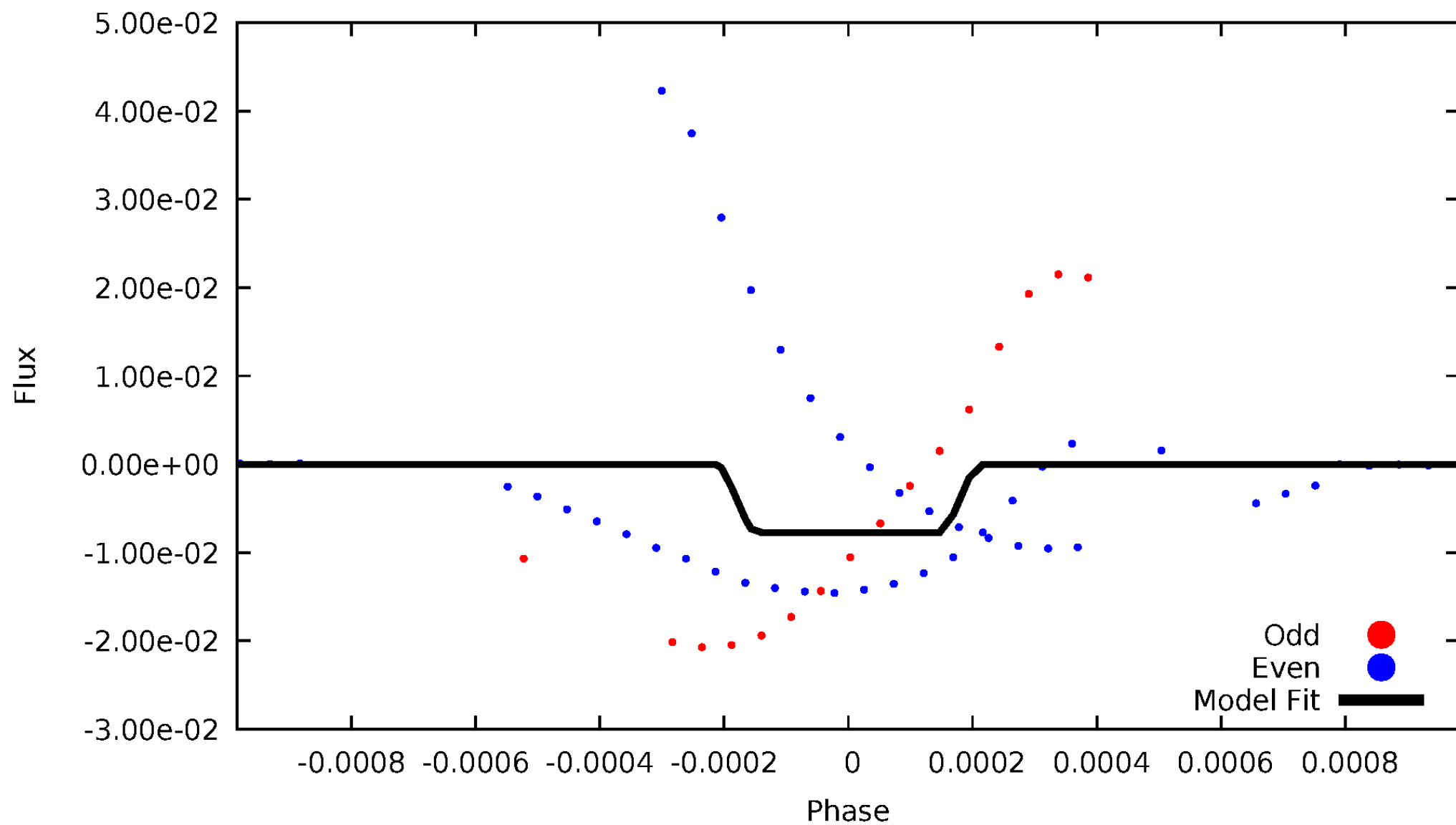
DV Odd/Even

TCE 005788623-01



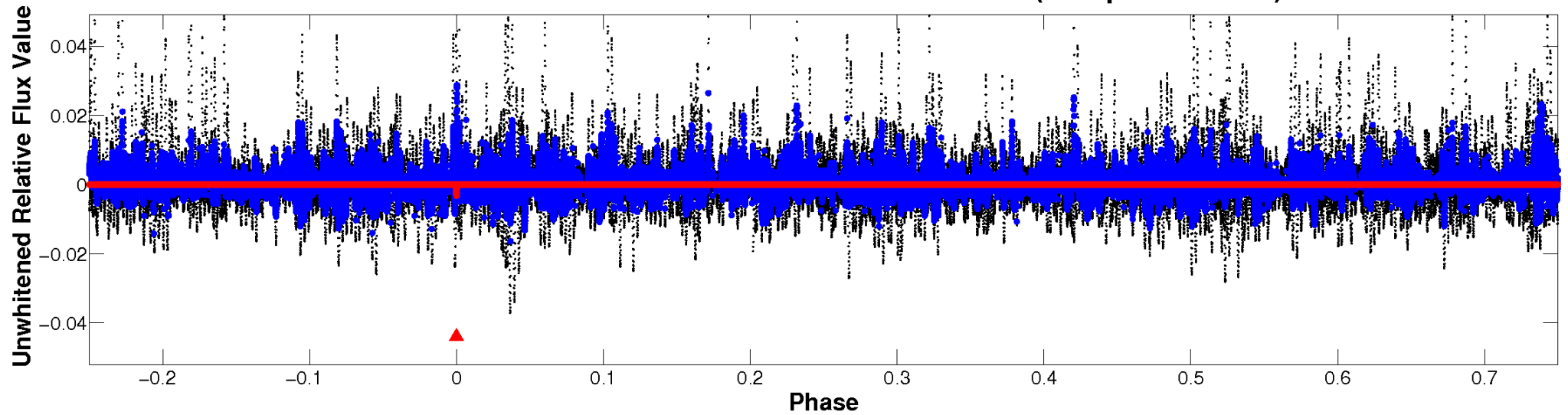
ALT Odd/Even

TCE 005788623-01

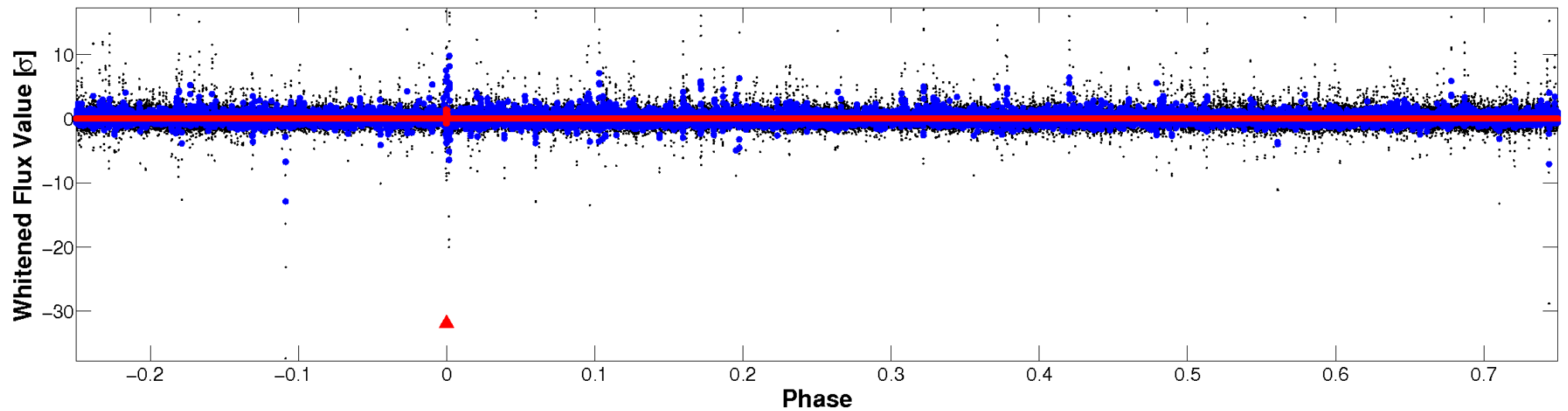


Non-Whitened Vs. Whitened Light Curve

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

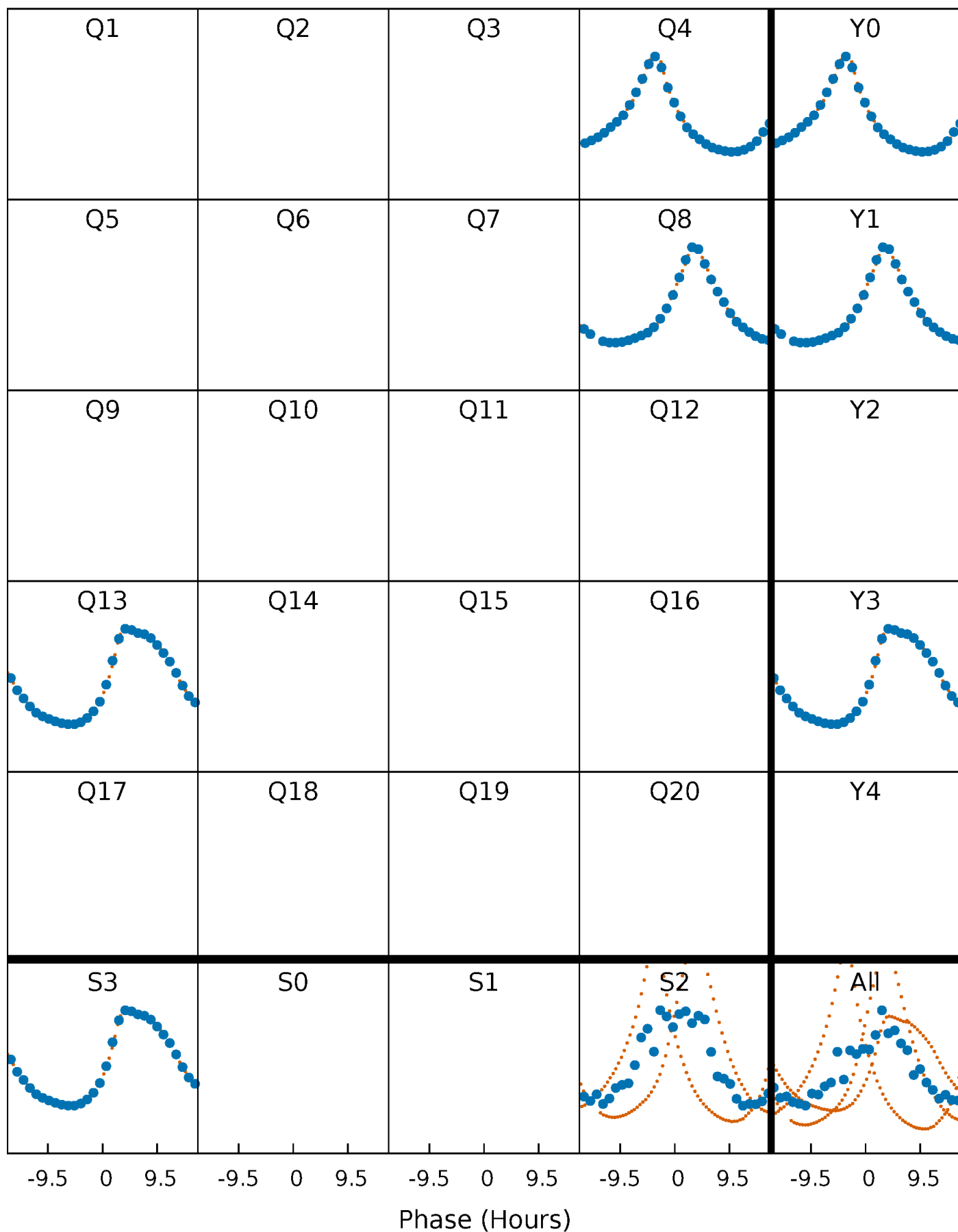


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



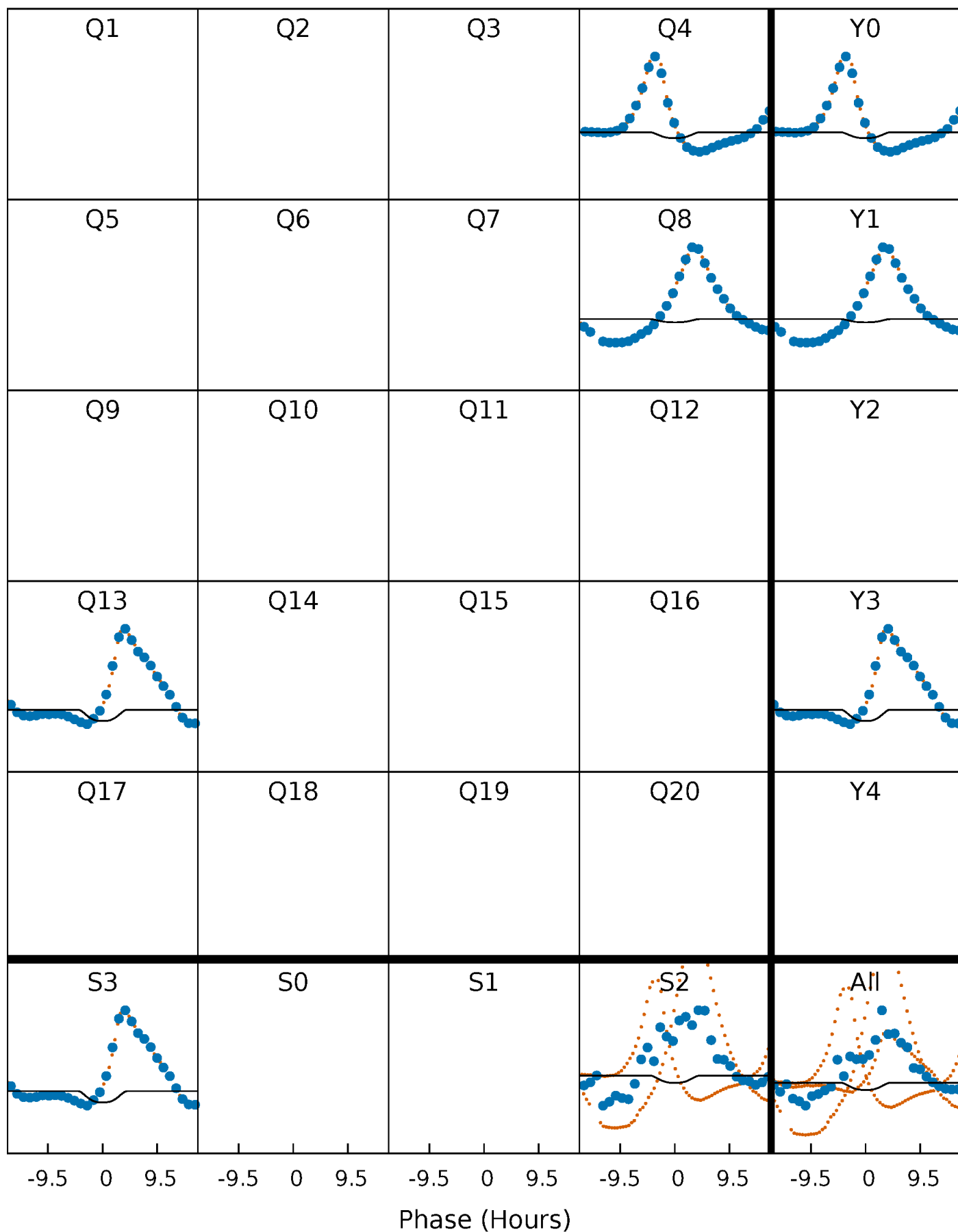
PDC Quarter-Phased Transit Curves

TCE 005788623-01 P=427.274740 Days $T_0=355.541102$ (BKJD)



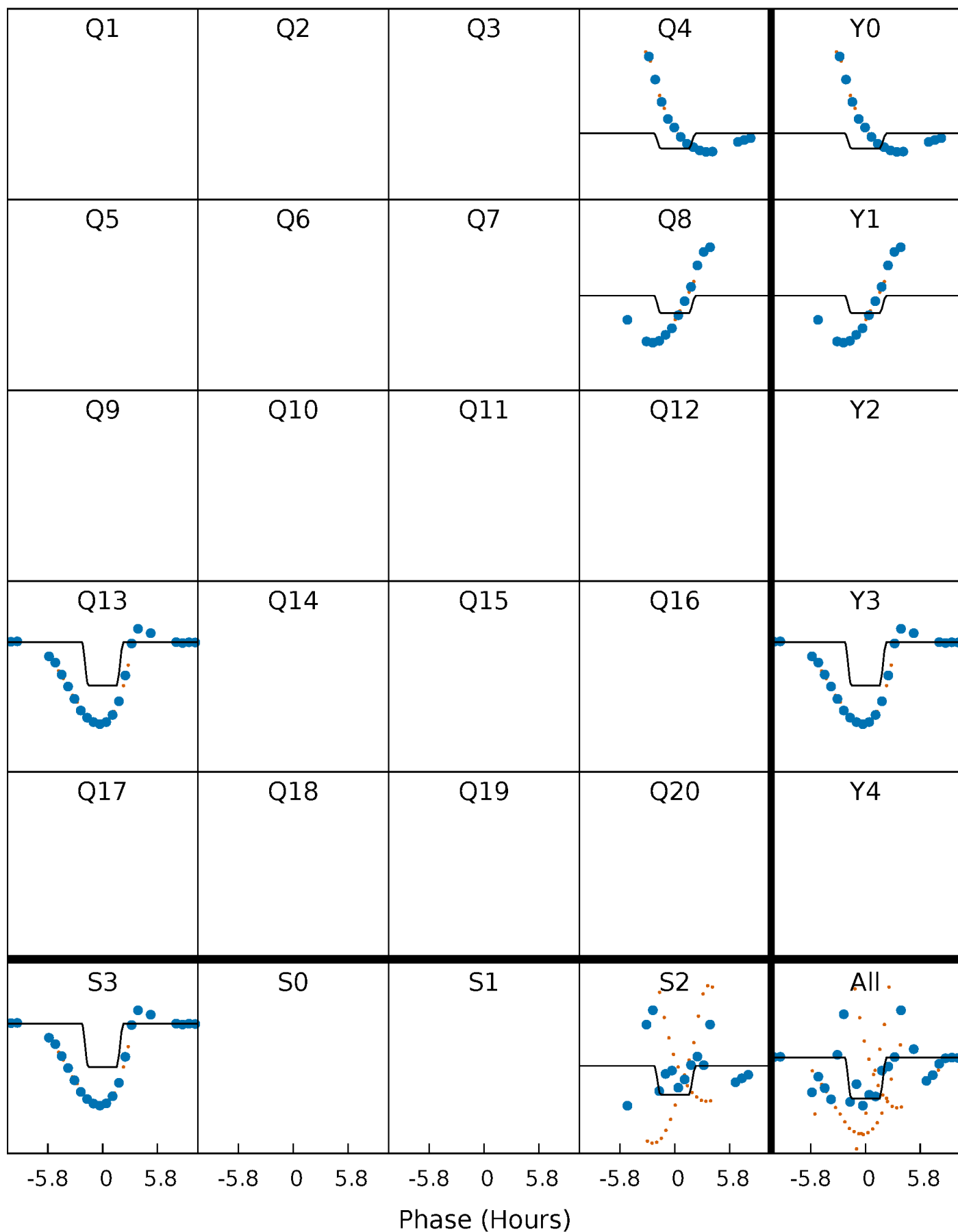
DV Quarter-Phased Transit Curves

TCE 005788623-01 P=427.274740 Days $T_0=355.541102$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

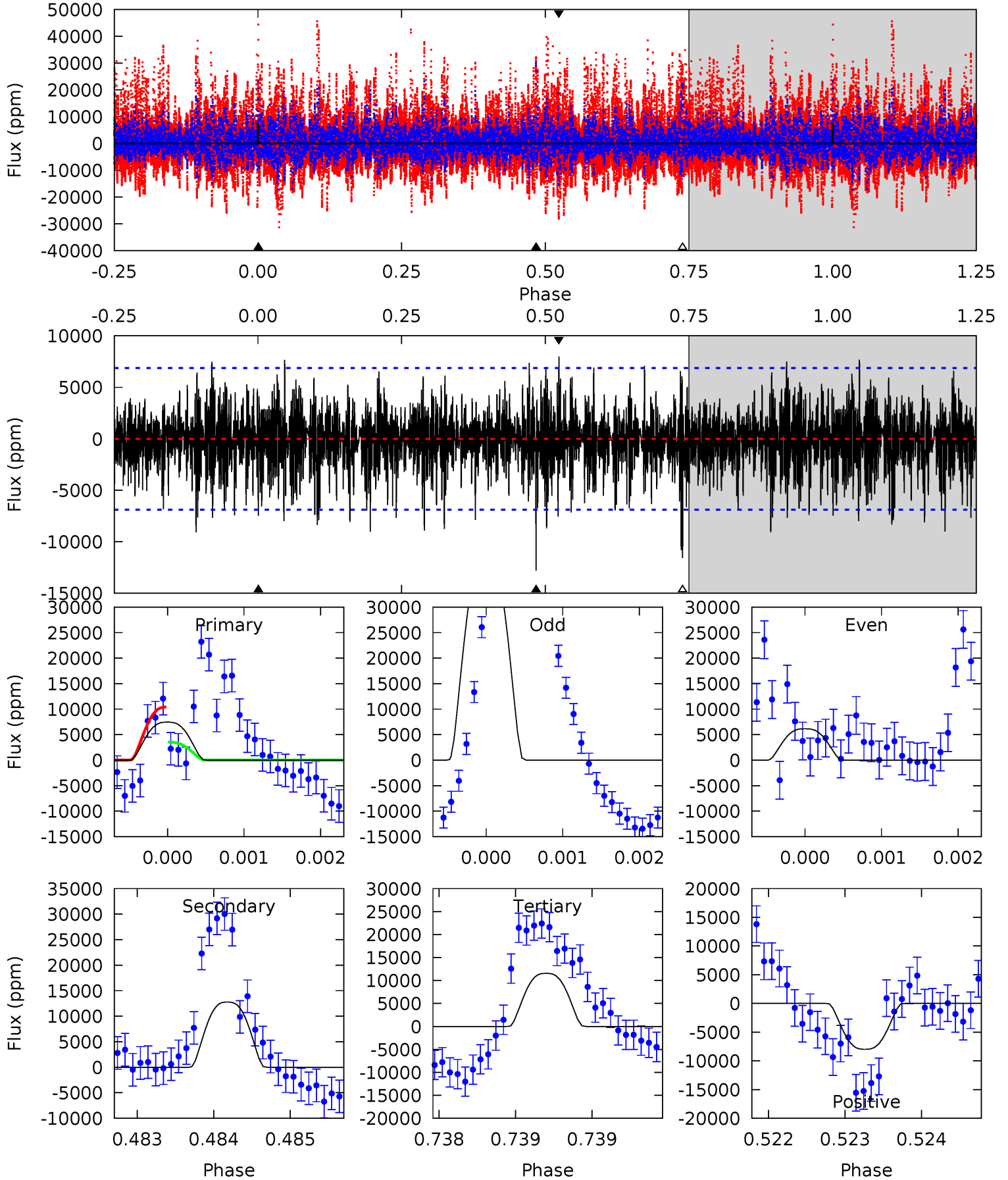
TCE 005788623-01 P=427.258928 Days $T_0=355.549230$ (BKJD)



DV Model-Shift Uniqueness Test

005788623-01, P = 427.274740 Days, E = 355.541102 Days

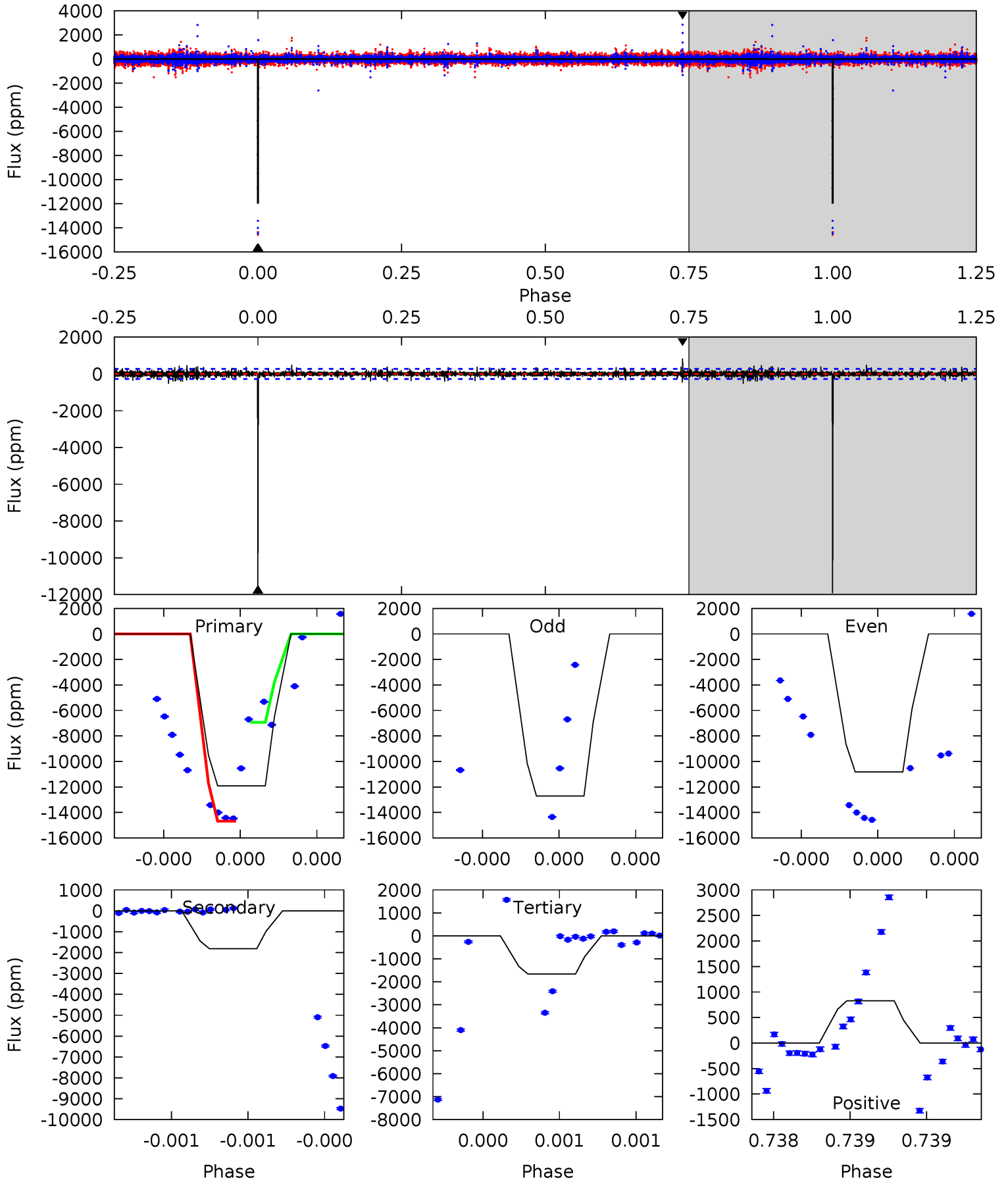
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.94	10.2	9.21	6.36	5.48	3.33	1.98	-3.27	-0.42	0.98	3.82	13.2	1.88	0.38	2.73



Alt Model-Shift Uniqueness Test

005788623-01, P = 427.258928 Days, E = 355.549230 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
242.4	36.9	33.9	16.8	5.61	3.54	1.39	208.5	225.6	3.00	20.1	11.5	0.65	0.06	0



Stellar Parameters For KIC 005788623

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7072^{+74}_{-84}	$4.129^{+0.110}_{-0.110}$	$-0.160^{+0.150}_{-0.150}$	$1.705^{+0.269}_{-0.269}$	$1.428^{+0.106}_{-0.117}$	$0.406^{+0.225}_{-0.134}$
	+1%/-1%	+3%/-3%	+94%/-94%	+16%/-16%	+7%/-8%	+55%/-33%
Source	SPE68	SPE68	SPE68	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 005788623-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-12791 ± 1256	$11.61^{+2.40}_{-2.16}$	510^{+21}_{-21}	10466^{+1694}_{-1195}	83567^{+42734}_{-27965}
Alt.	-1812 ± 49	$16.33^{+2.70}_{-2.32}$	510^{+21}_{-21}	4984^{+283}_{-249}	5808^{+2202}_{-1474}

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 $A_{obs} \gg 1.0$

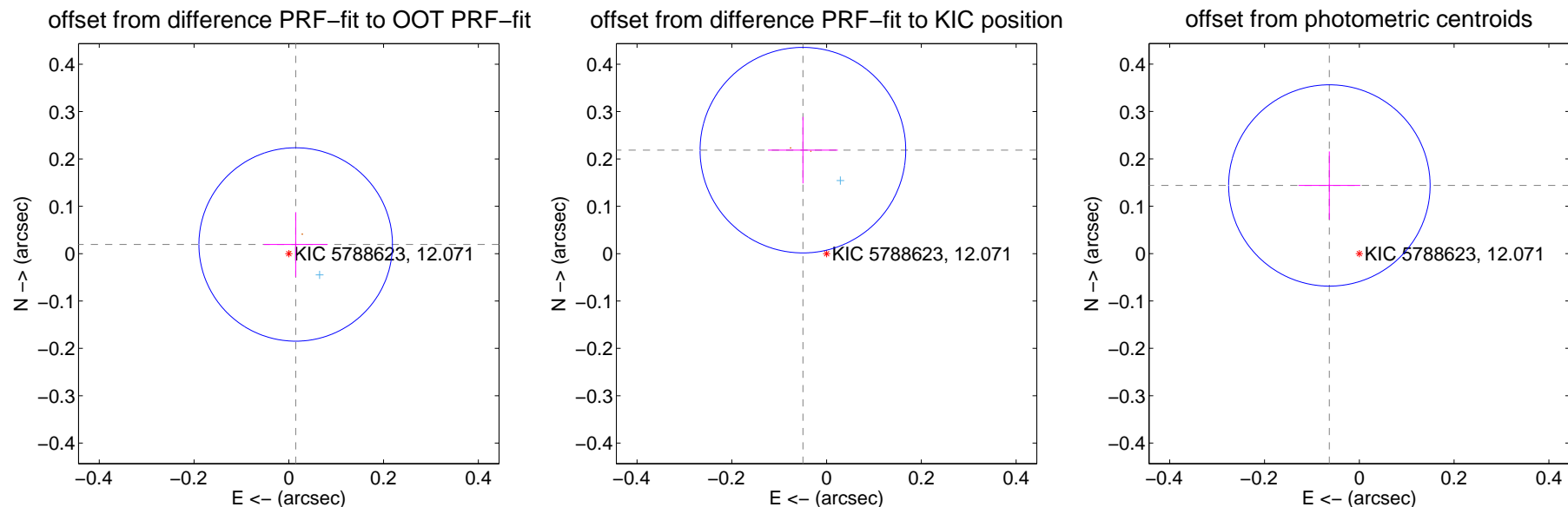
DV Centroid Data

Supplemental centroid analysis for 005788623-01. Kepler magnitude: 12.07. Transit SNR 4.39

There are 1 quarters with good PRF difference image offsets

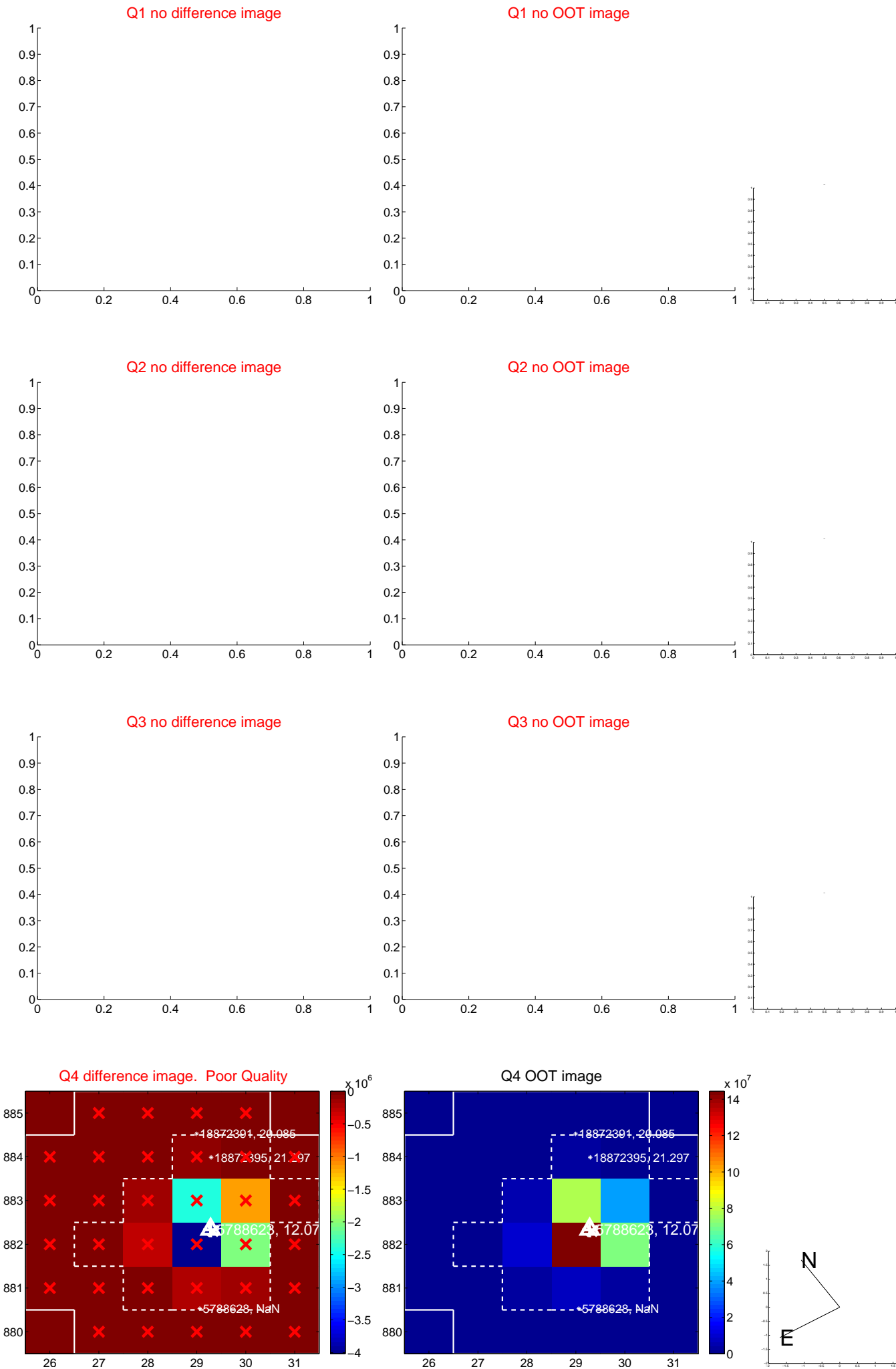
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.024 ± 0.068	0.36	-0.014 ± 0.068	0.019 ± 0.068
PRF-fit source offset from KIC position	0.224 ± 0.072	3.10	0.050 ± 0.074	0.219 ± 0.070
photometric centroid source offset	0.16 ± 0.07	2.22	0.06 ± 0.07	0.14 ± 0.07

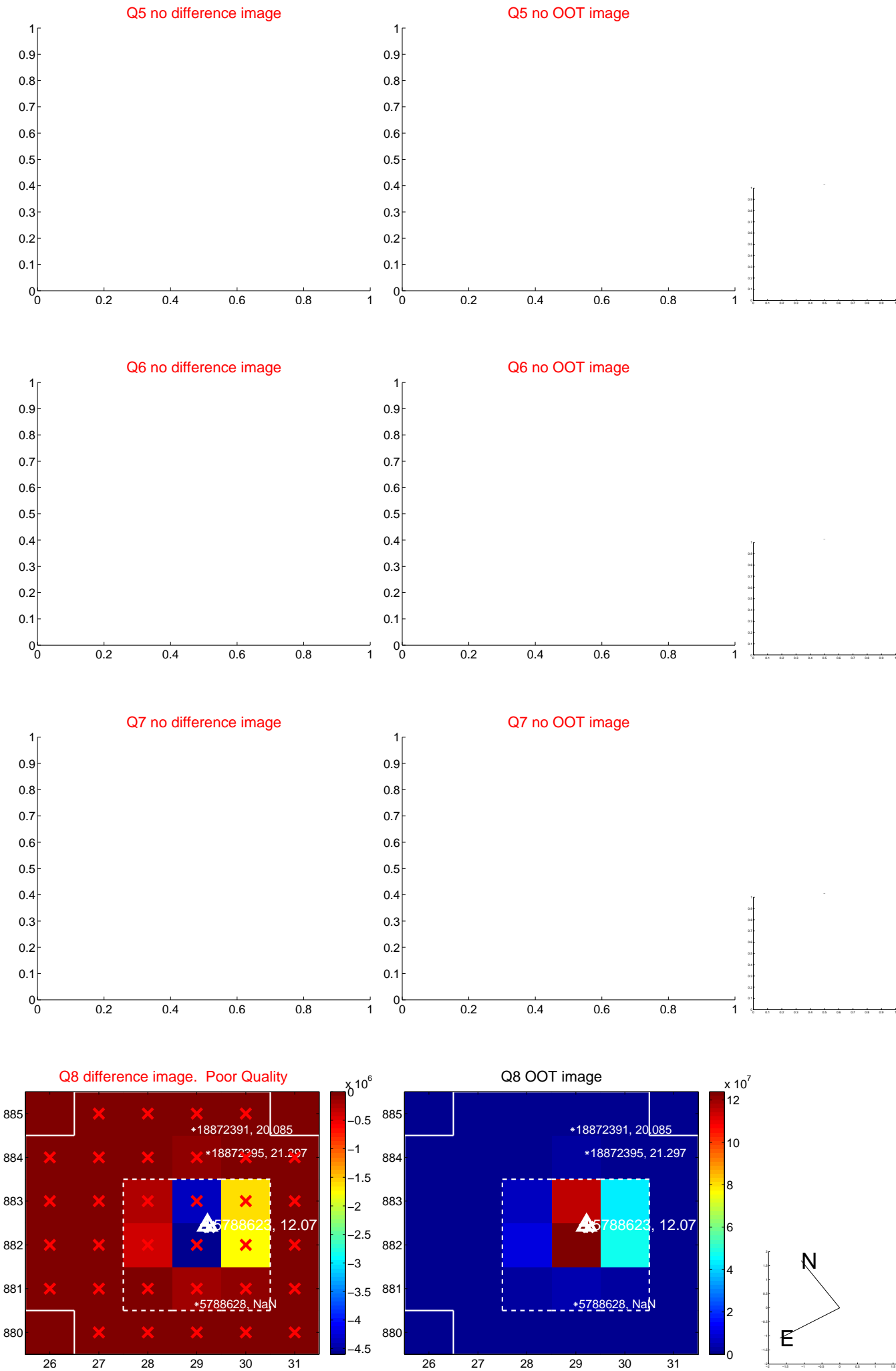


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



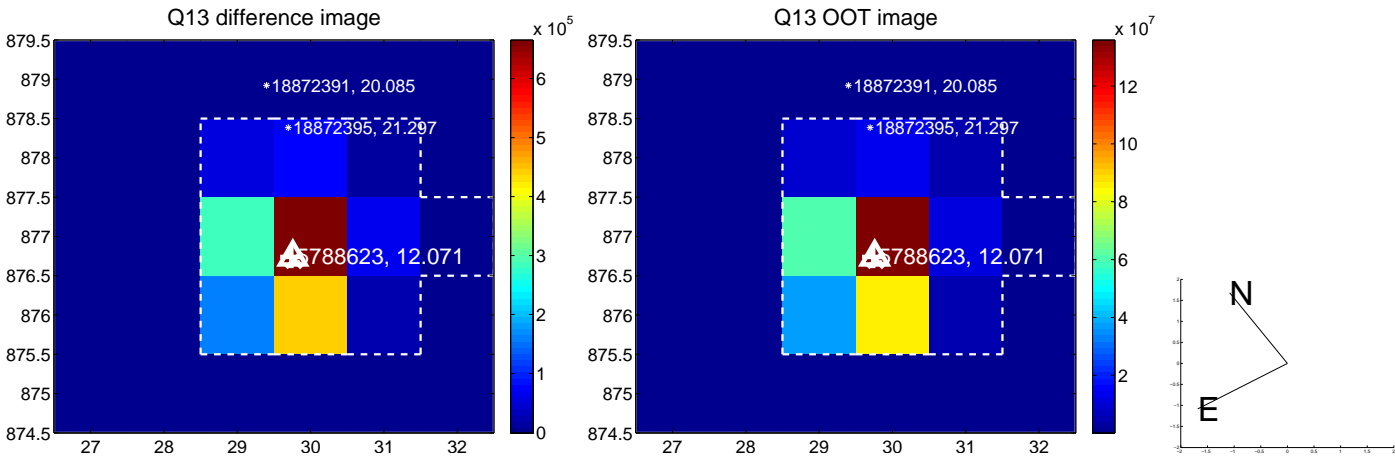
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



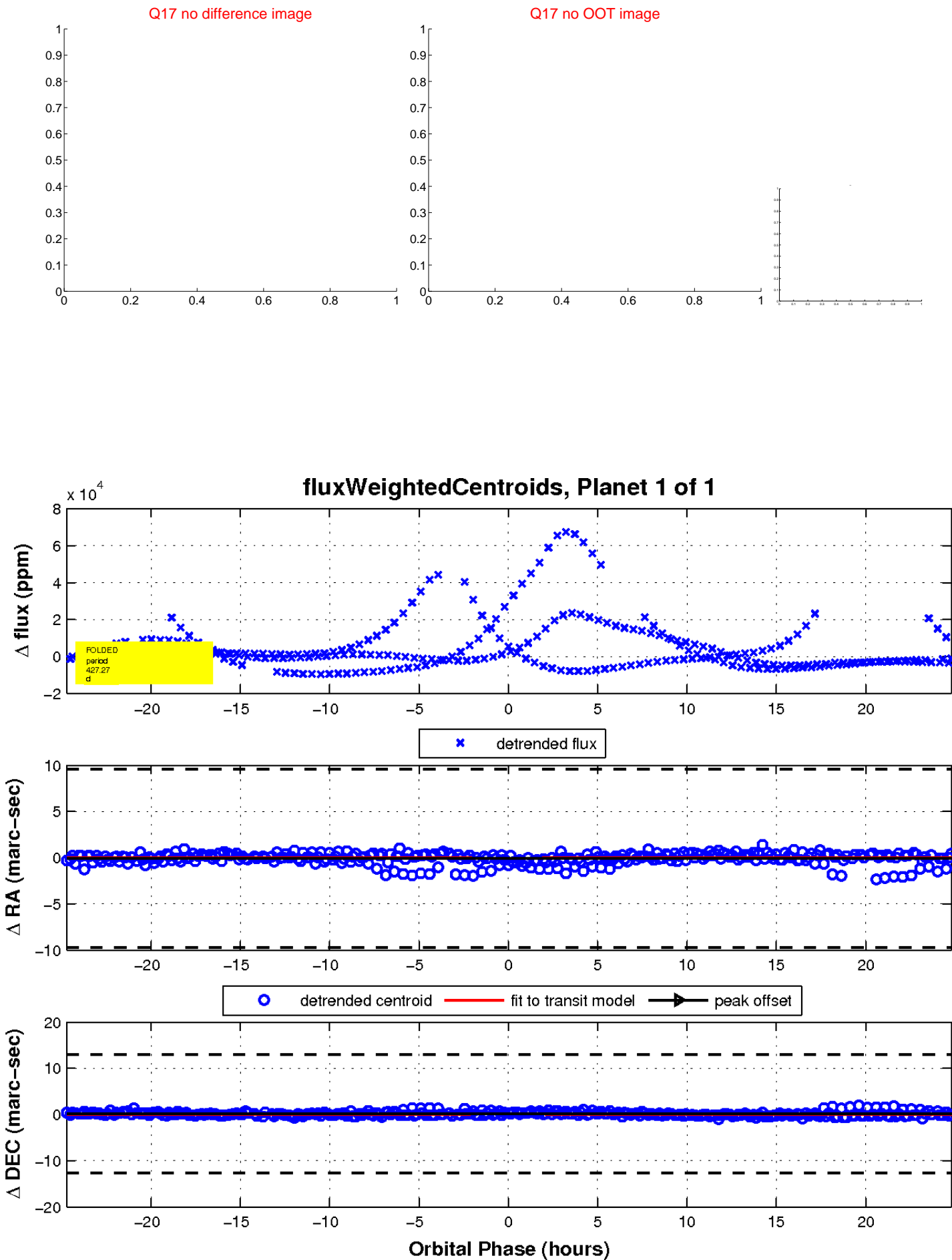
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

