

KIC 002832720

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})
002832720-01	OBS	No	286.416528	325.877466	1062.4	6.862	8.7	6.4	0.17	3211	0.54	0.01

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002832720-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—MOD_NONUNIQU_ALT—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.

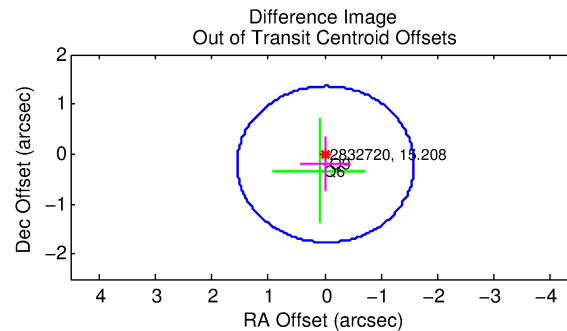
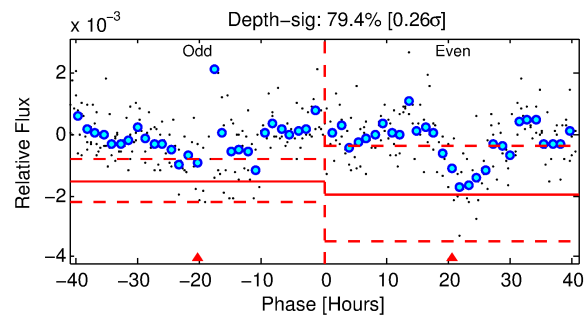
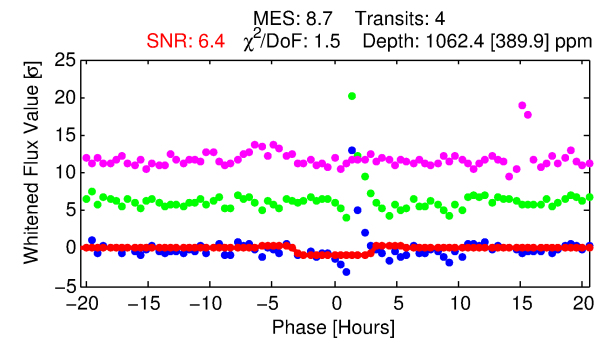
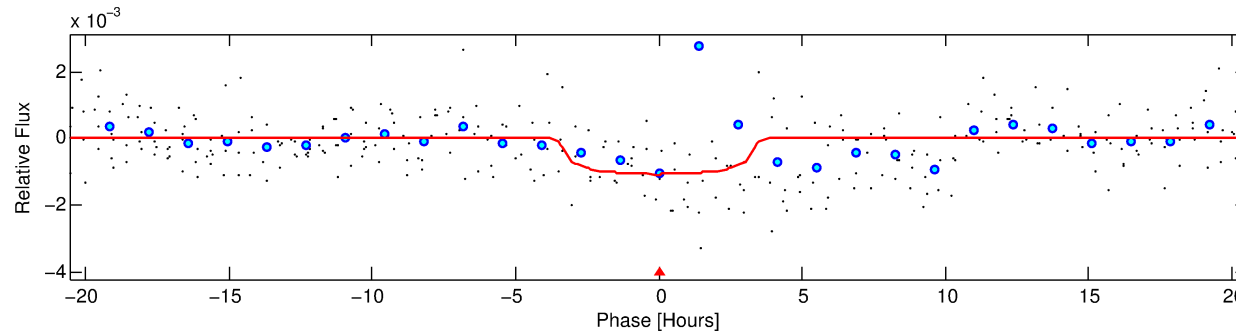
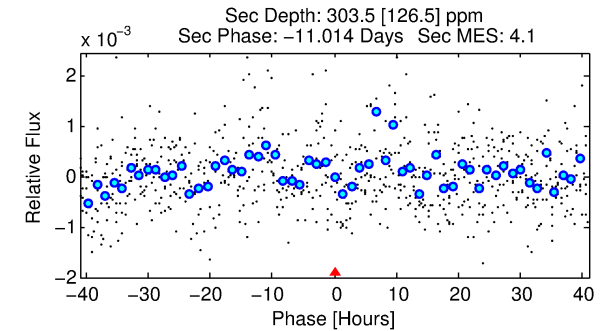
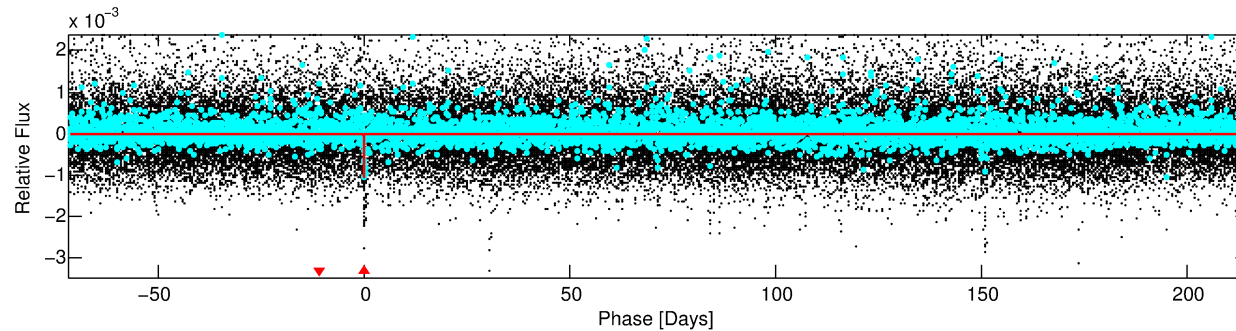
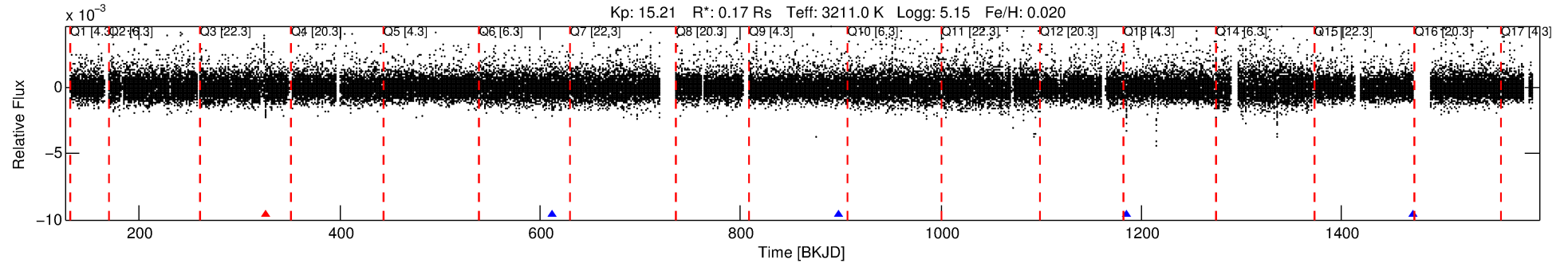
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 002832720-01

No Significant Match Found

DV One-Page Summary

KIC: 2832720 Candidate: 1 of 1 Period: 286.417 d



DV Fit Results:

Period = 286.41653 [0.01799] d
Epoch = 325.8775 [0.0314] BKJD
Rp/R* = 0.0295 [0.1520]
a/R* = 327.06 [7275.84]
b = 0.09 [255.07]
Seff = 0.01 [0.00]
Teff = 87 [4] K
Rp = 0.54 [2.79] Re
a = 0.4476 [0.0758] AU
Ag = 114667.76 [1184172.51] [0.10 σ]
Teffp = 2469 [6374] K [0.37 σ]

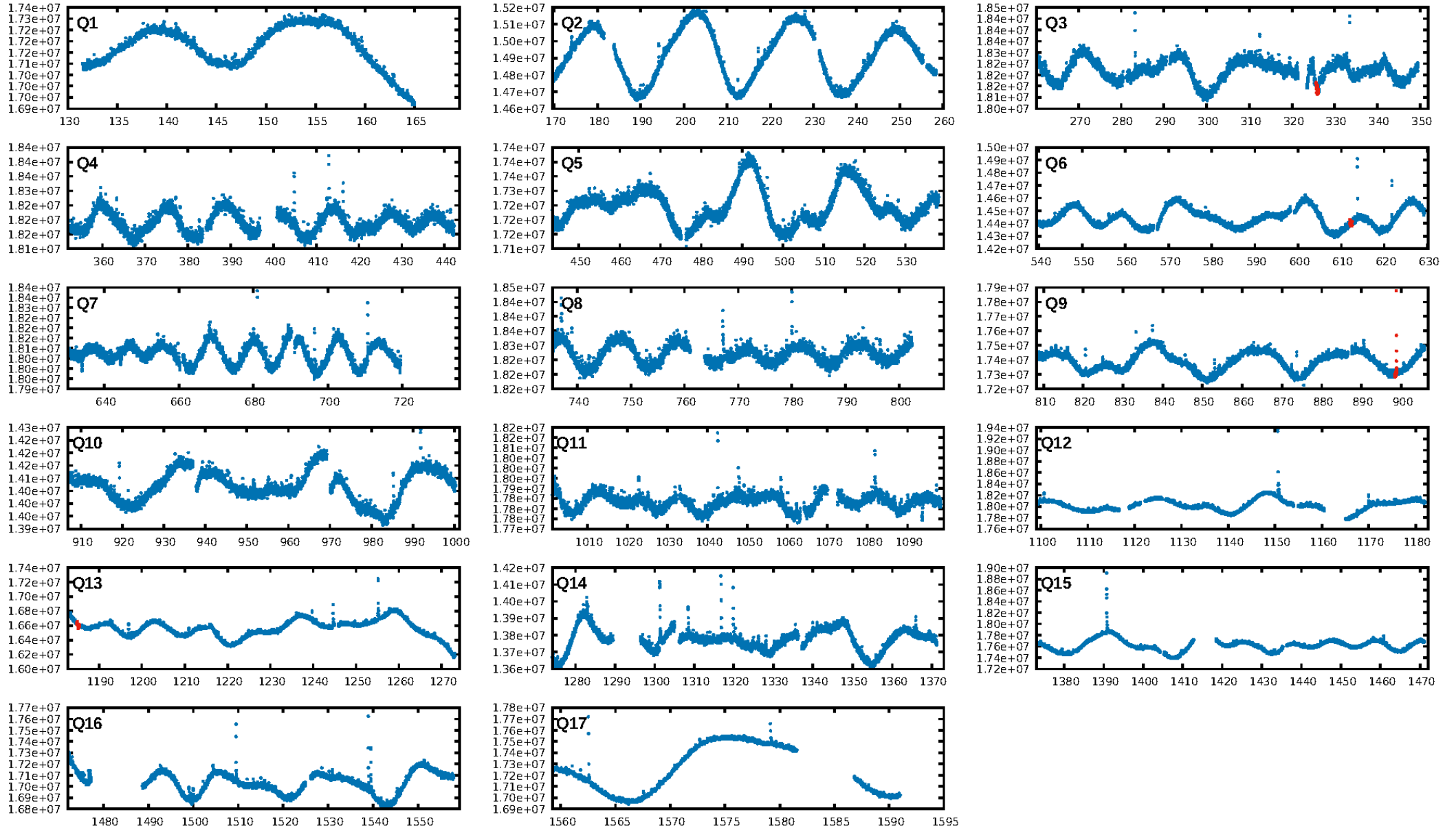
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 9.6%
ModelChiSquareGof-sig: 73.3%
Bootstrap-pfa: 2.69e-11
RollingBand-fgt: 0.75 [3/4]
GhostDiagnostic-chr: 0.6147
Centroid-sig: 12.2%
Centroid-so: 1.784 arcsec [1.58 σ]
OotOffset-rm: 0.203 arcsec [0.39 σ]
OotOffset-st: 1/0/0/1 [2]
KicOffset-rm: 0.093 arcsec [0.20 σ]
KicOffset-st: 1/0/0/1 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [3/3]

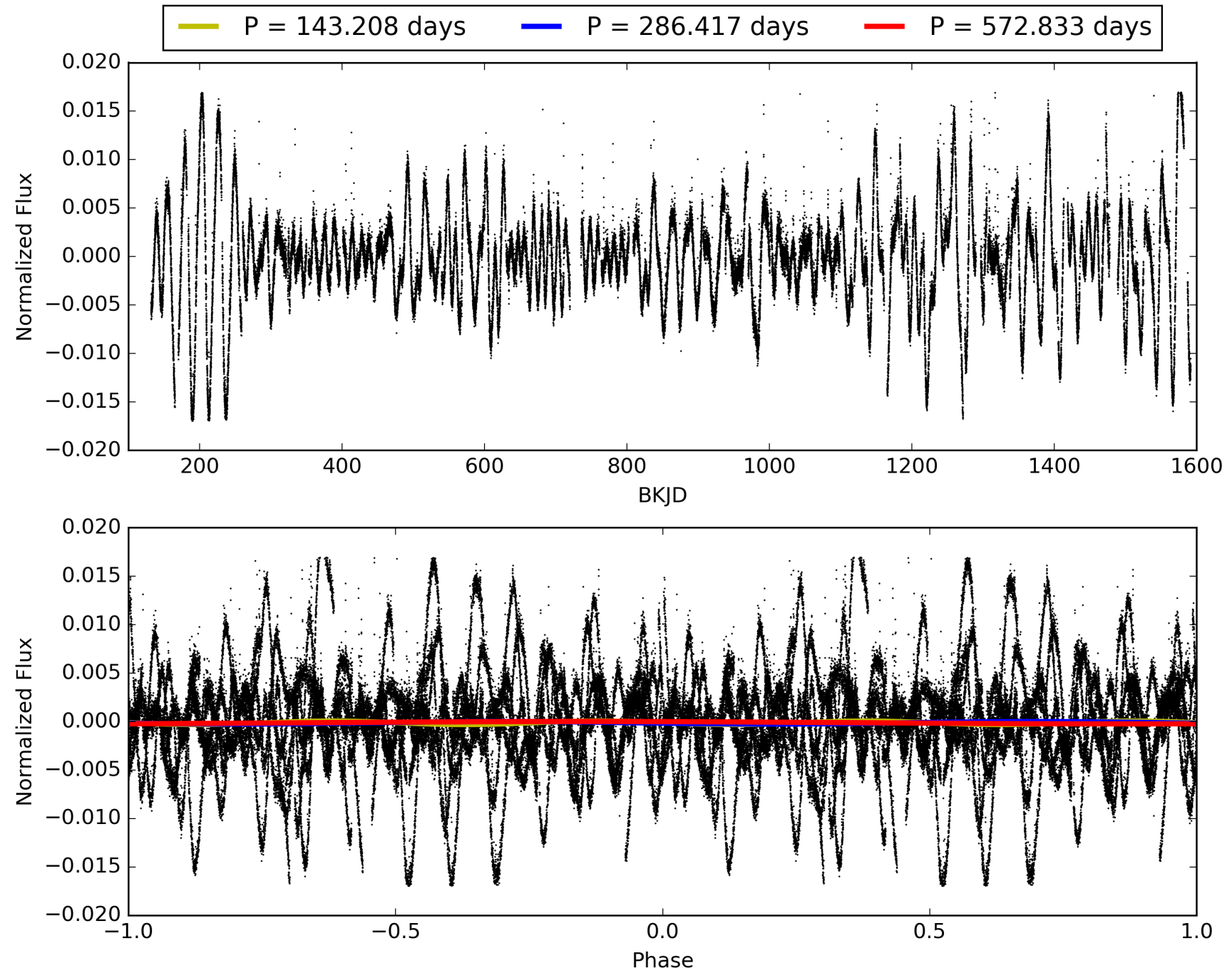
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 15:26:27 Z

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

TCE 002832720-01, PDC Light Curves

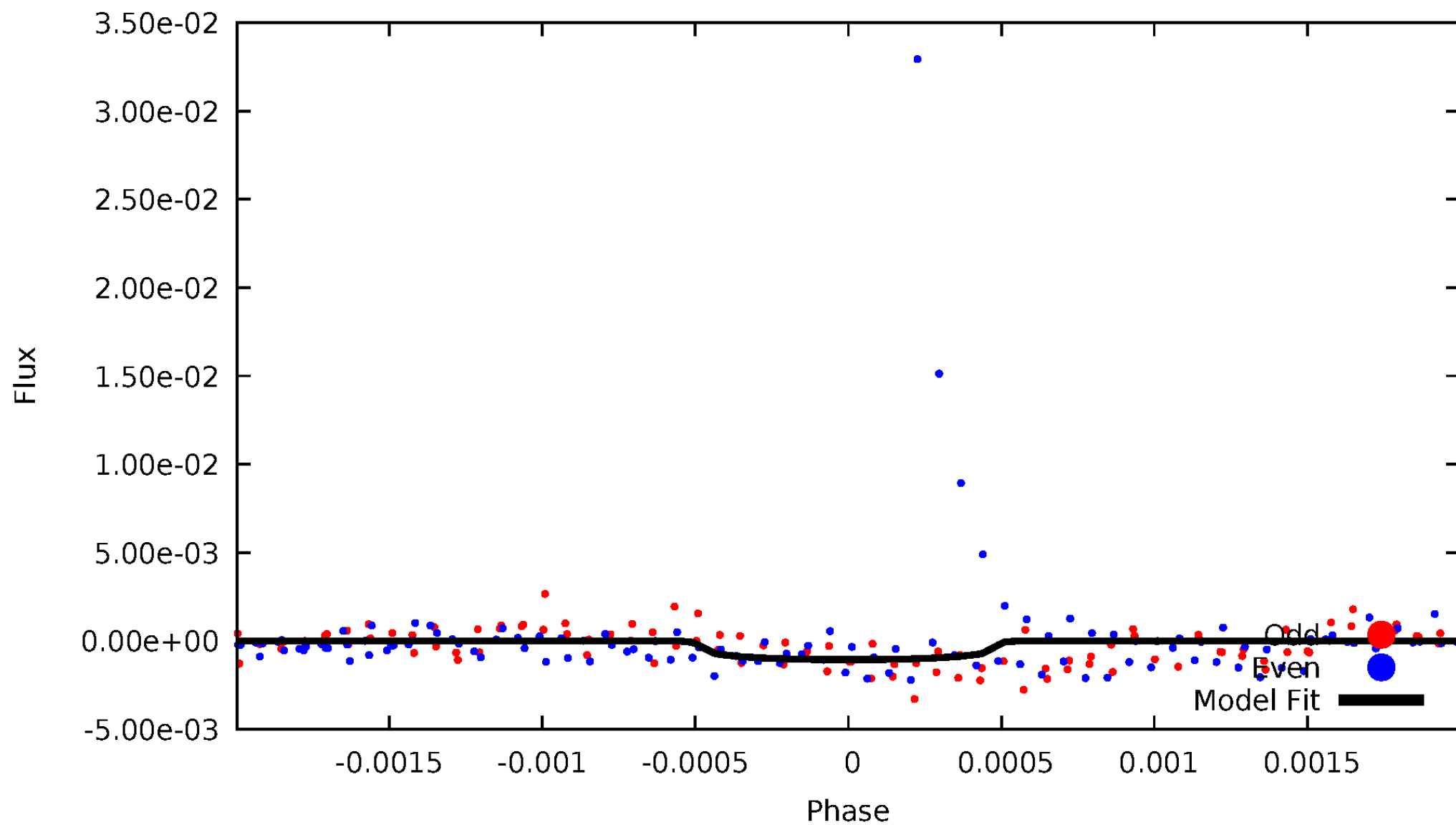


TCE 002832720-01



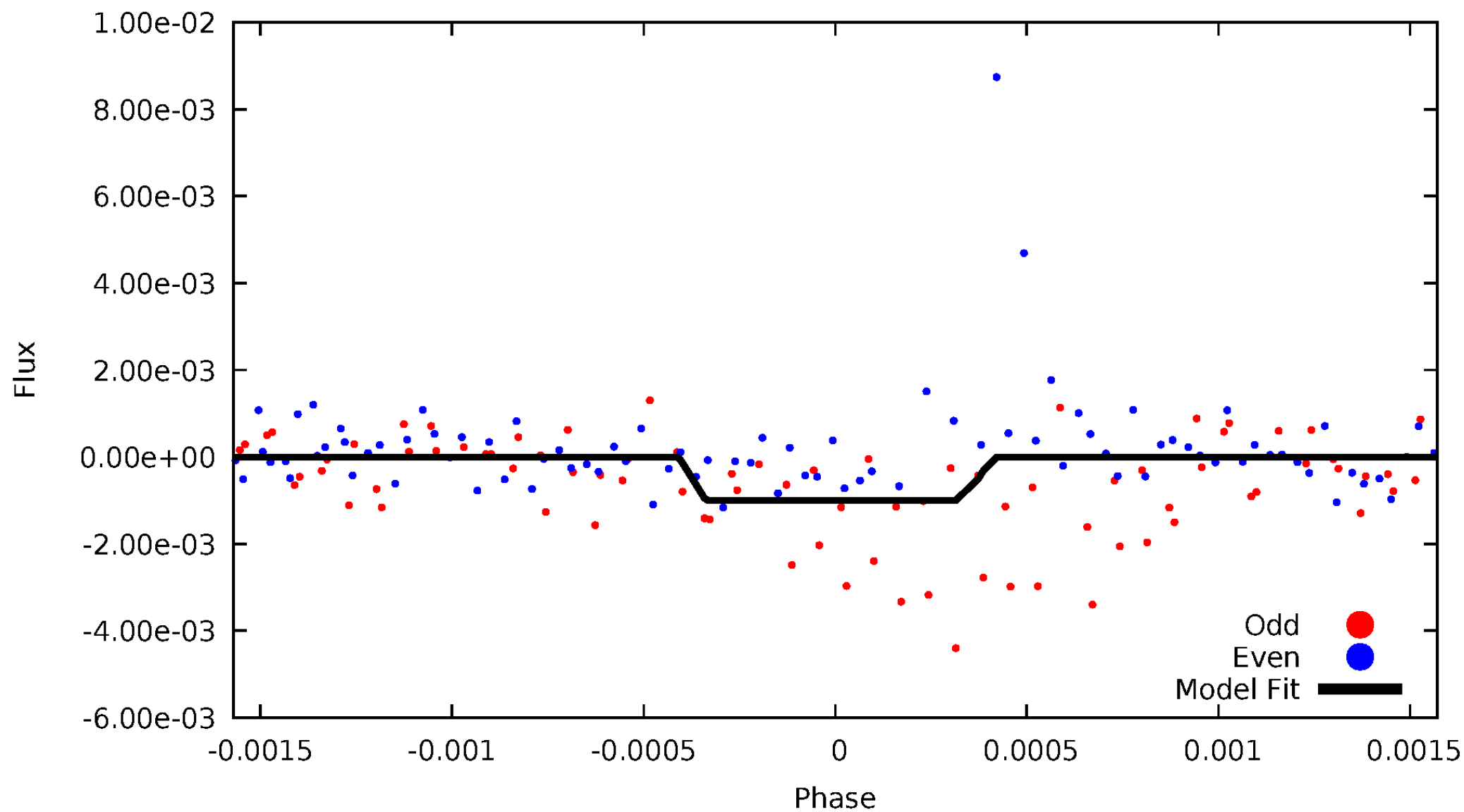
DV Odd/Even

TCE 002832720-01



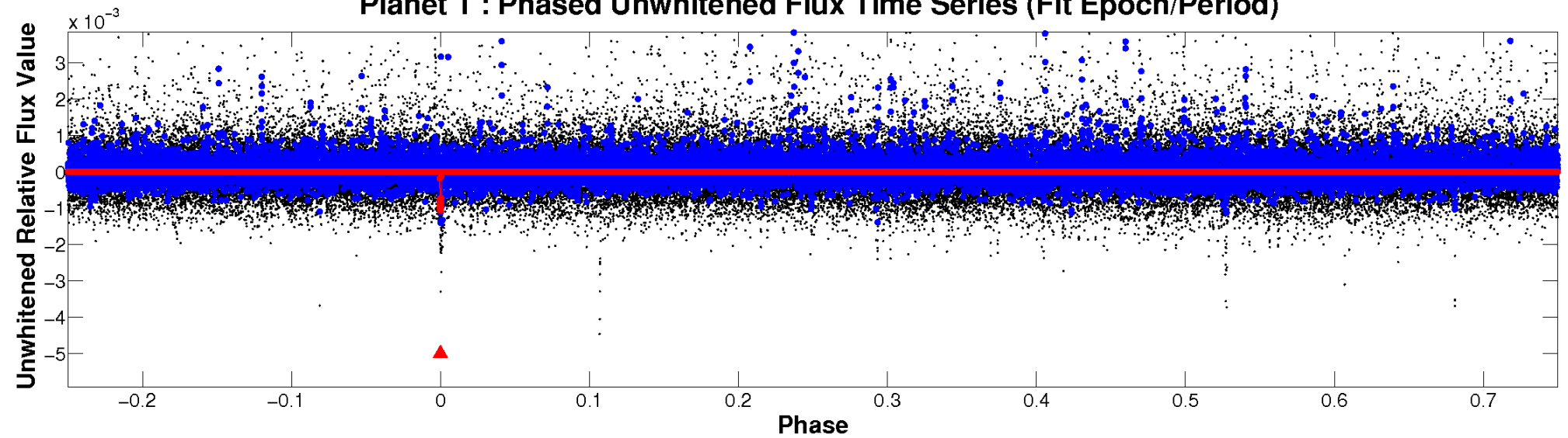
ALT Odd/Even

TCE 002832720-01

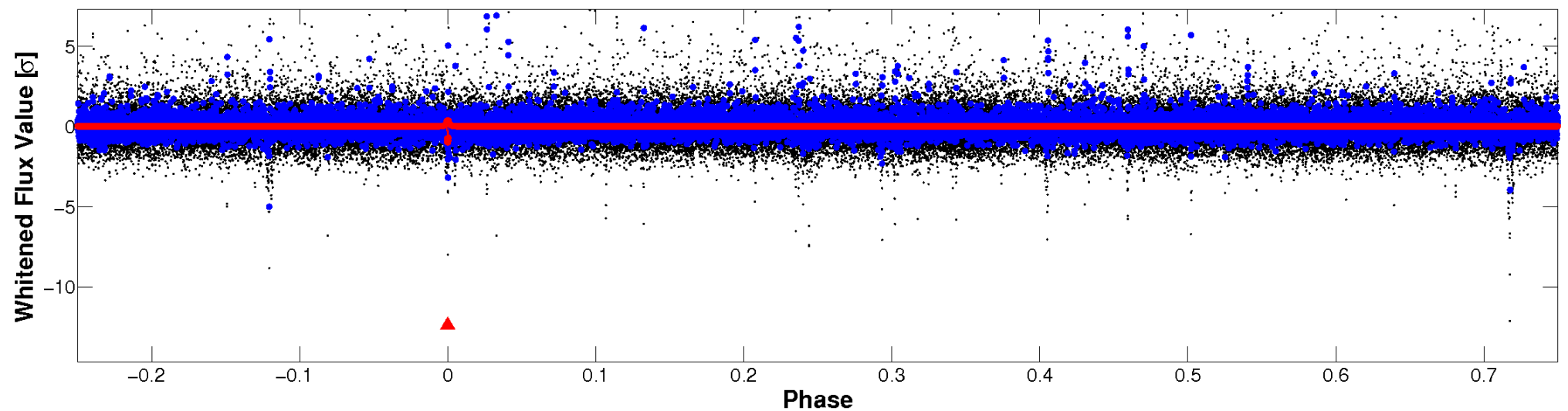


Non-Whitened Vs. Whitened Light Curve

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

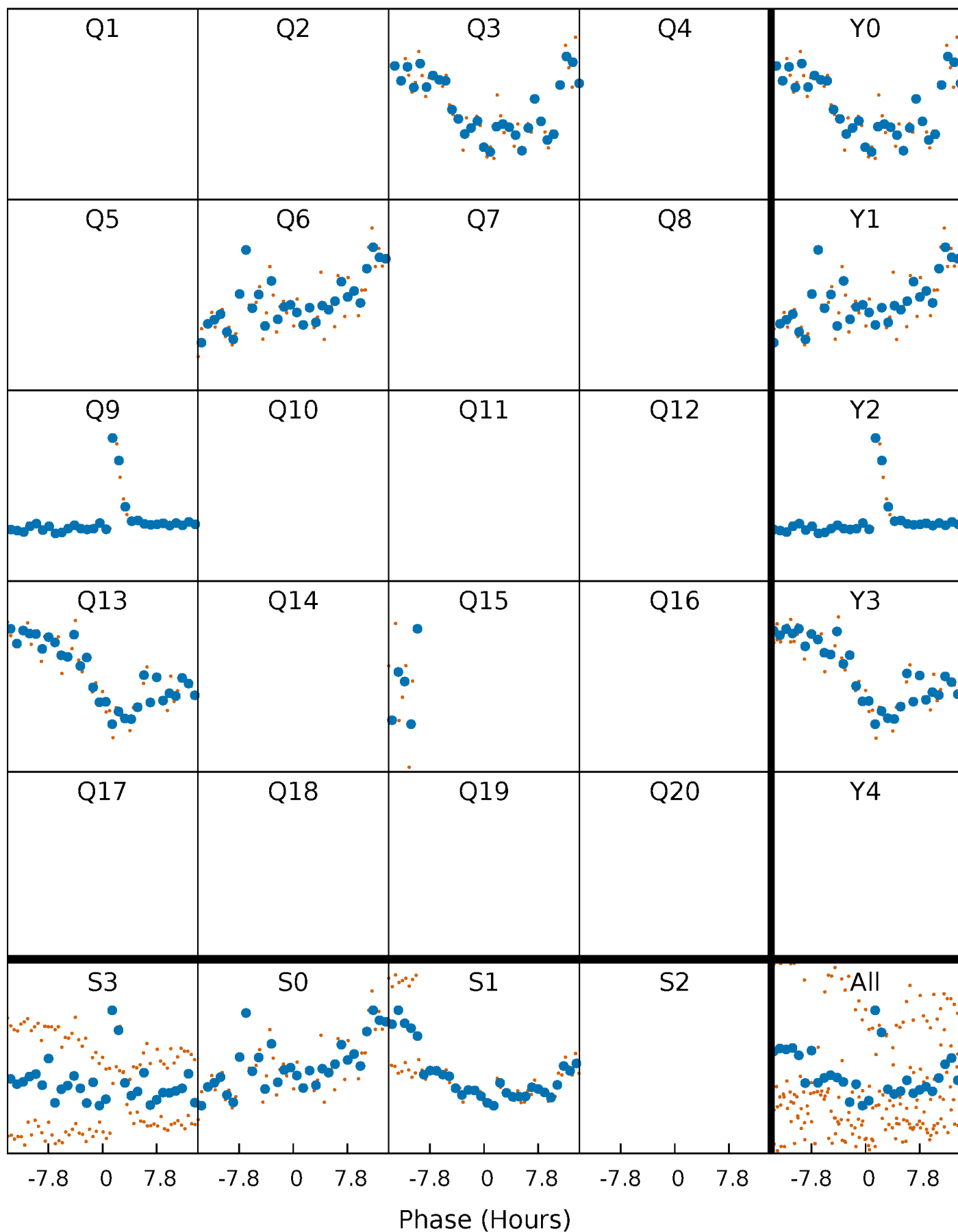


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



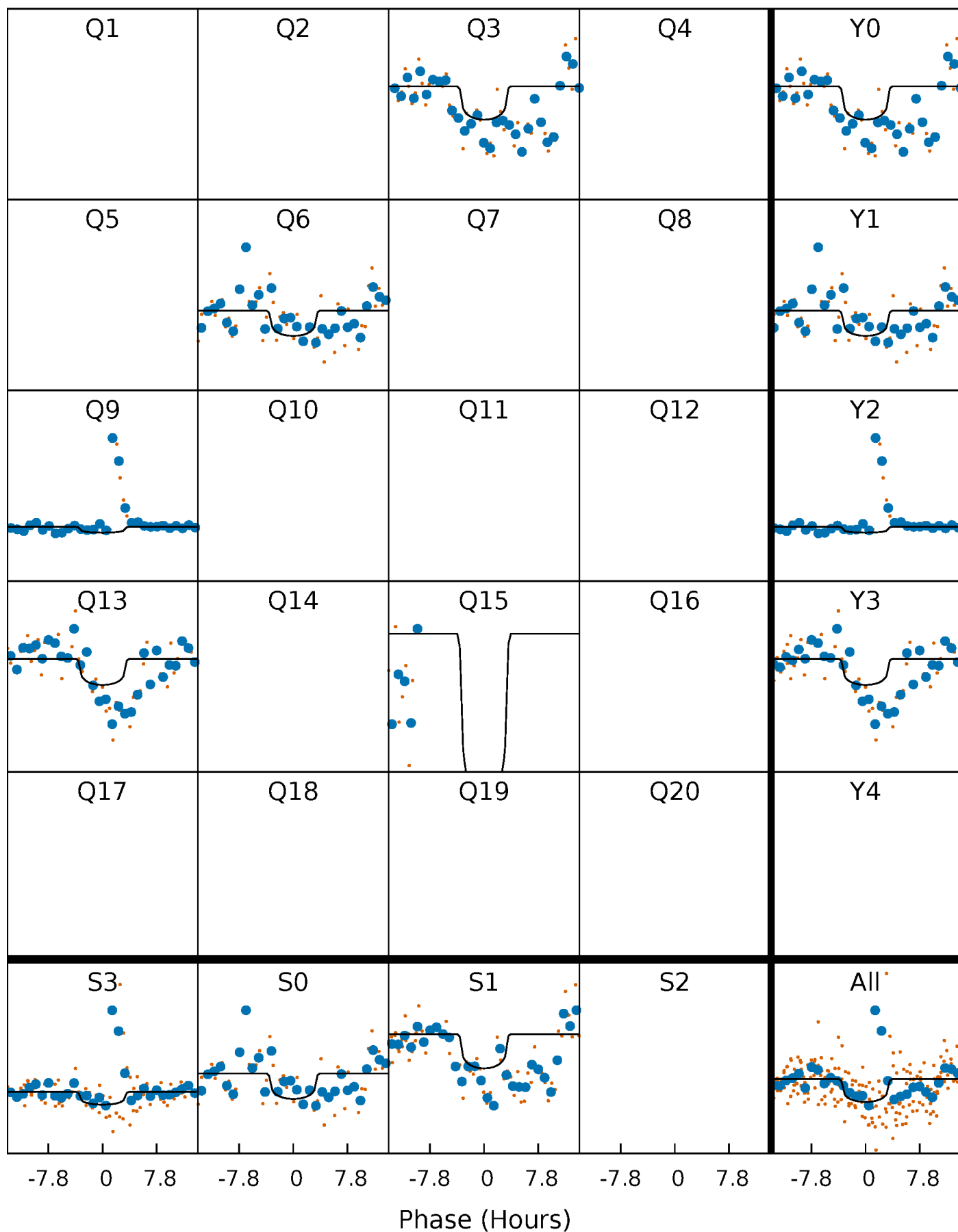
PDC Quarter-Phased Transit Curves

TCE 002832720-01 P=286.416528 Days $T_0=325.877466$ (BKJD)



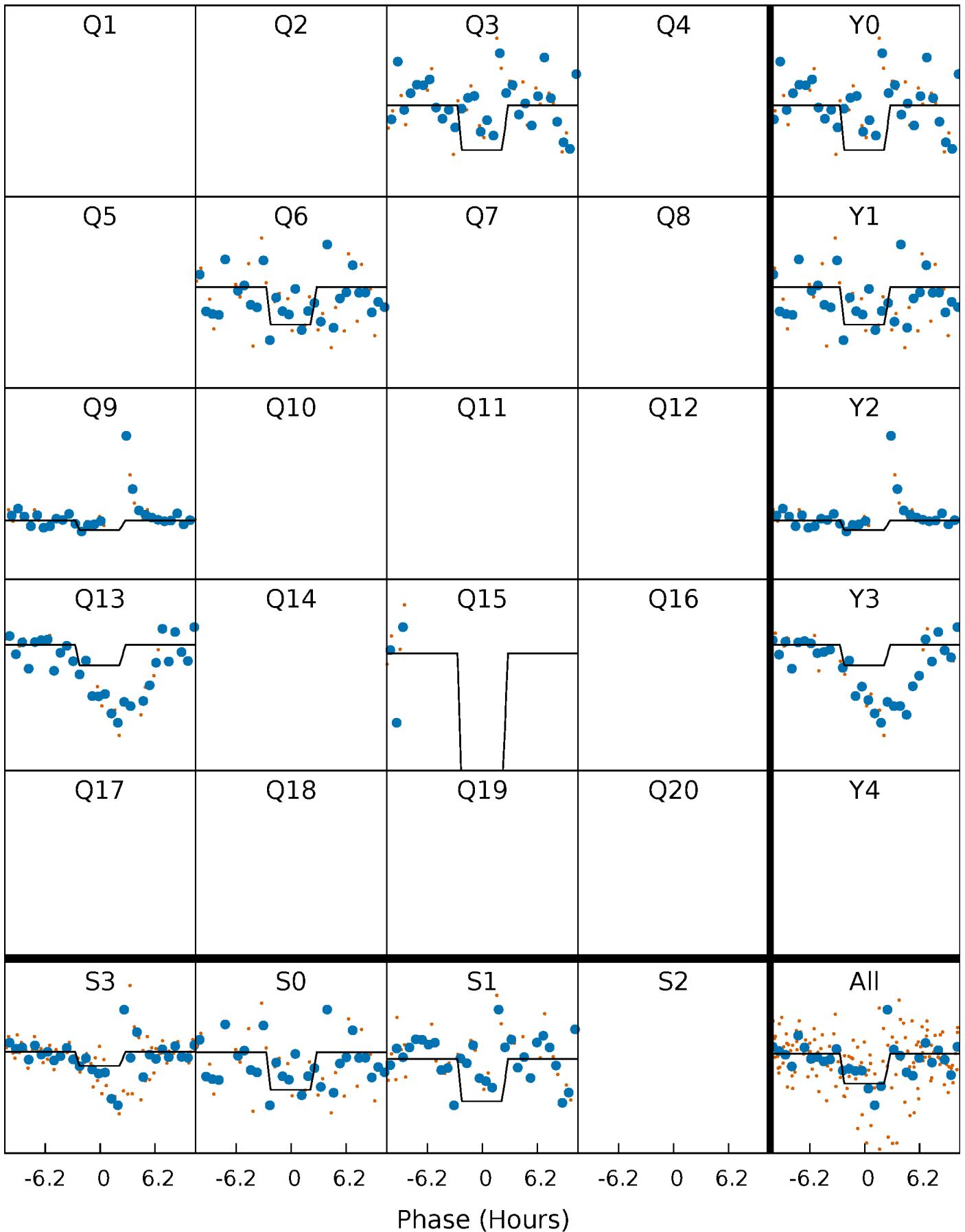
DV Quarter-Phased Transit Curves

TCE 002832720-01 P=286.416528 Days $T_0=325.877466$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

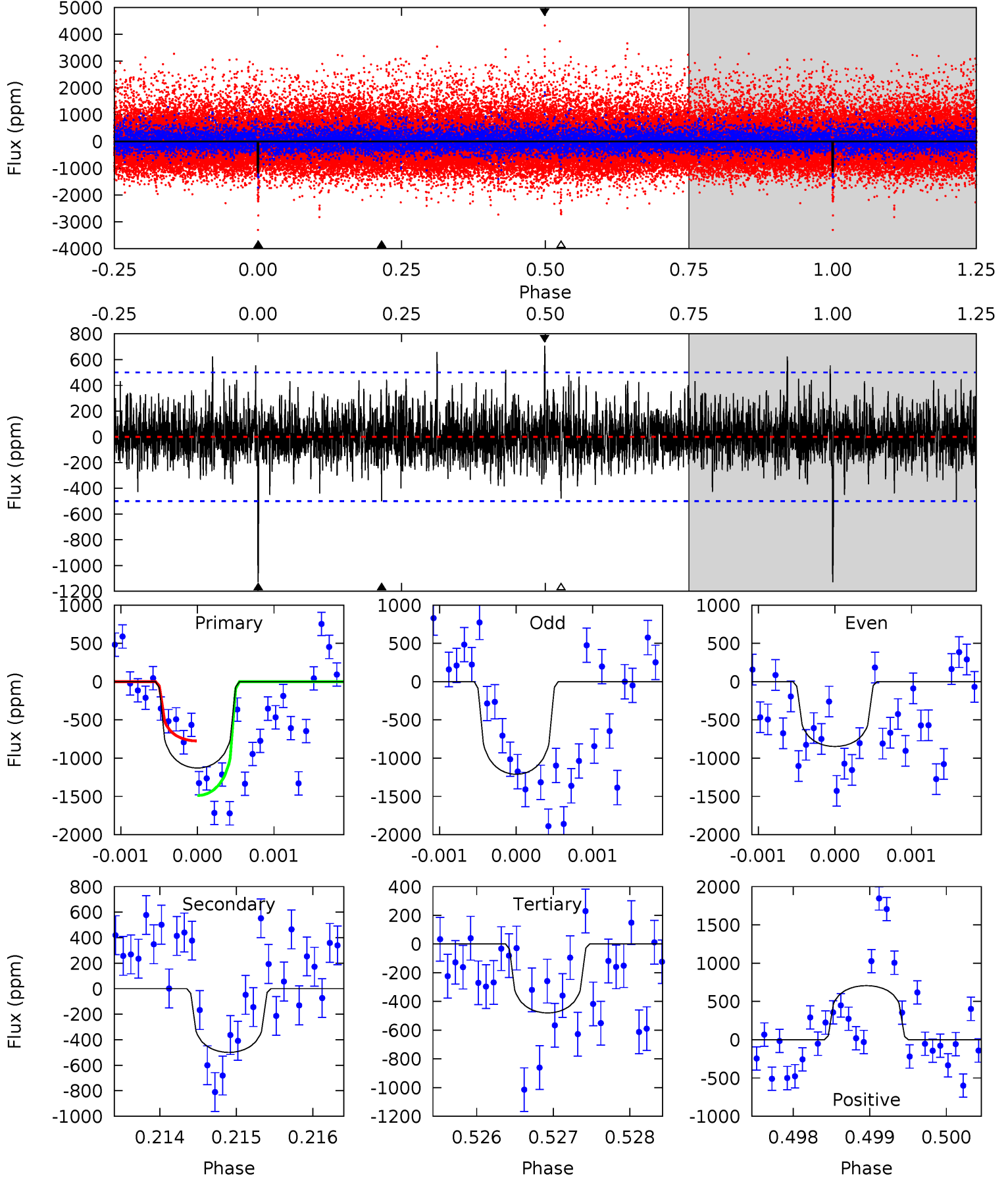
TCE 002832720-01 P=286.403588 Days $T_0=325.888271$ (BKJD)



DV Model-Shift Uniqueness Test

002832720-01, $P = 286.416528$ Days, $E = 39.460938$ Days

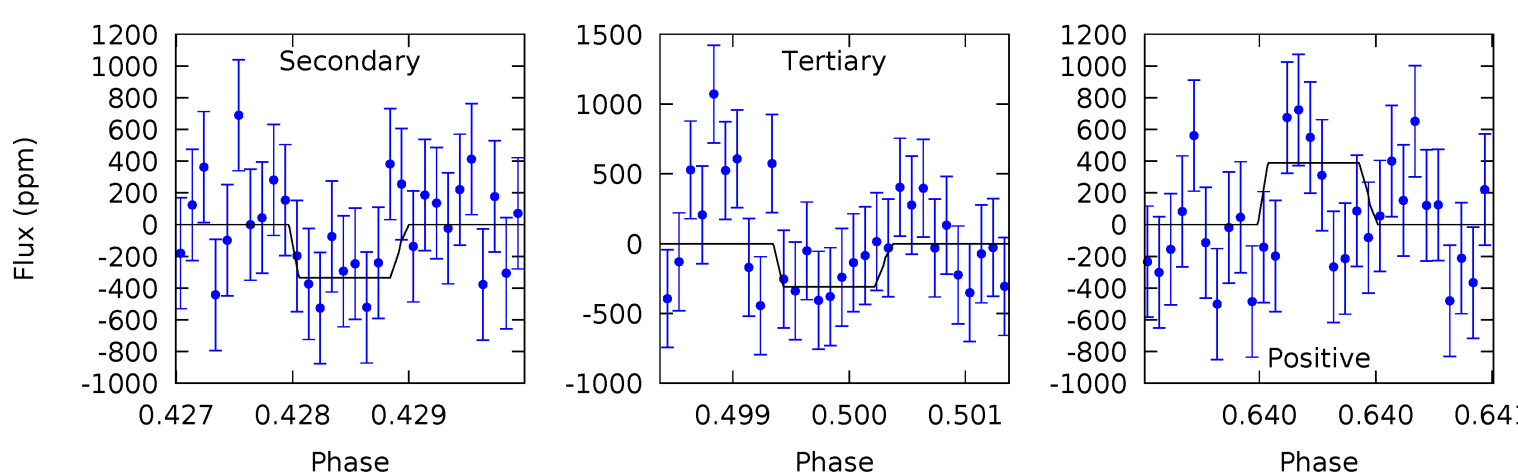
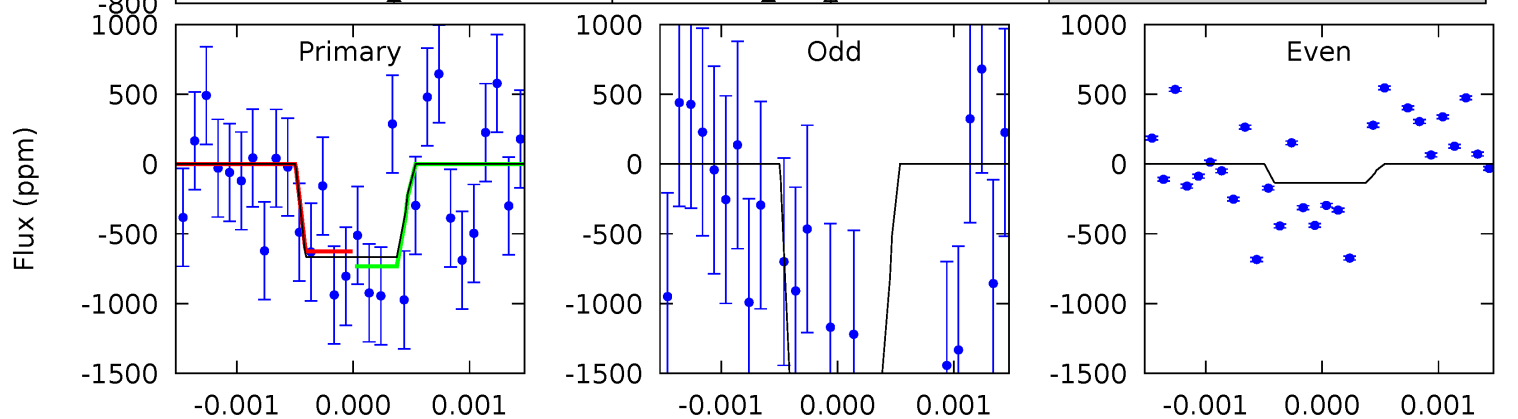
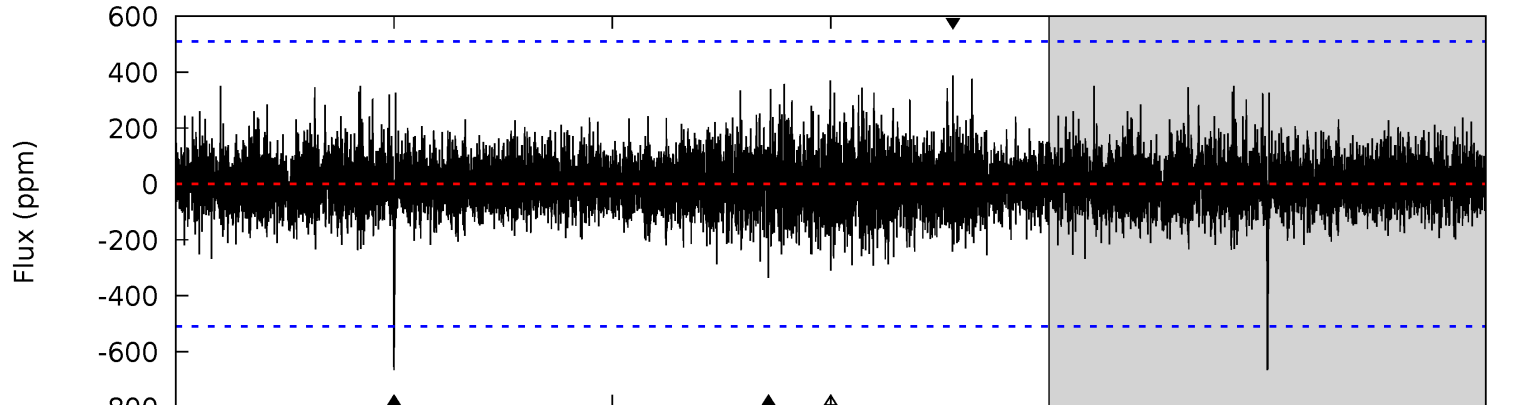
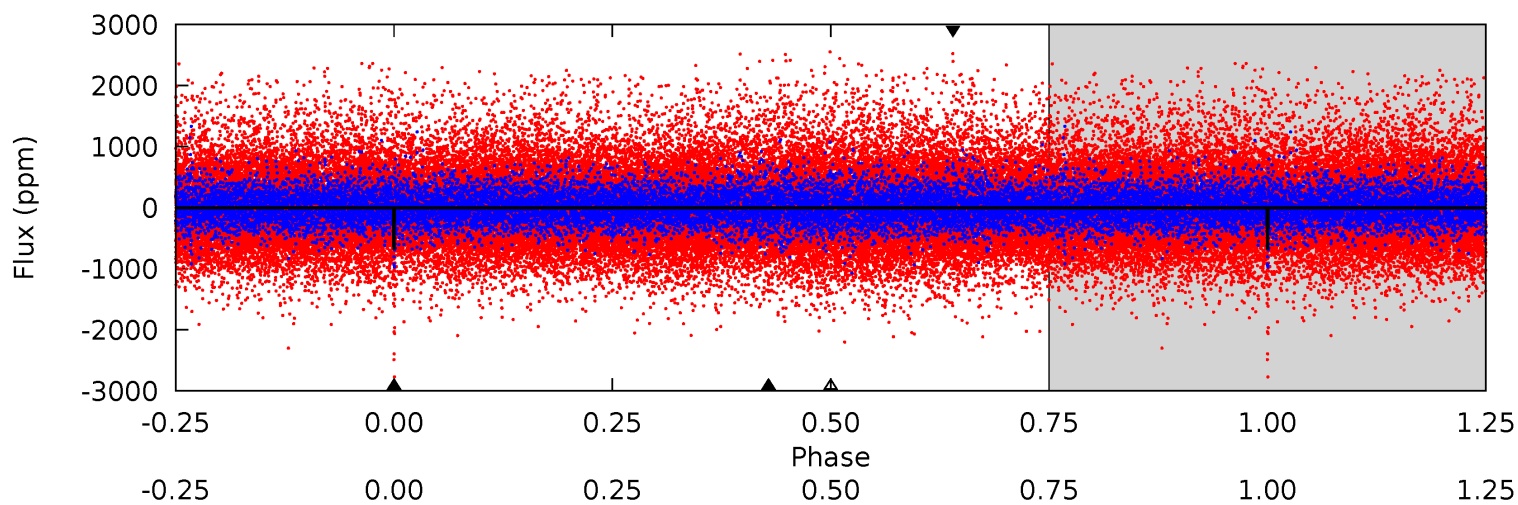
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.3	5.44	5.23	7.70	5.45	3.28	1.51	7.07	4.60	0.21	-2.26	1.90	-0.20	0.38	3.90



Alt Model-Shift Uniqueness Test

002832720-01, P = 286.403588 Days, E = 39.484683 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.17	3.61	3.33	4.17	5.49	3.34	0.89	3.83	2.99	0.28	-0.56	8.26	1.63	0.37	0.57



Stellar Parameters For KIC 002832720

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3211^{+38}_{-19}	$5.151^{+0.063}_{-0.077}$	$0.020^{+0.100}_{-0.100}$	$0.168^{+0.040}_{-0.022}$	$0.146^{+0.044}_{-0.022}$	$43.320^{+15.610}_{-13.530}$
	+1%/-1%	+1%/-1%	+500%/-500%	+24%/-13%	+30%/-15%	+36%/-31%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 002832720-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-499 ± 92	$2.18^{+2.16}_{-1.46}$	122^{+4}_{-3}	2135^{+633}_{-291}	12073^{+89150}_{-9155}
Alt.	-336 ± 93	$2.28^{+2.19}_{-1.59}$	122^{+4}_{-4}	2010^{+630}_{-247}	6982^{+72354}_{-5265}

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 $A_{\text{obs}} \gg 1.0$

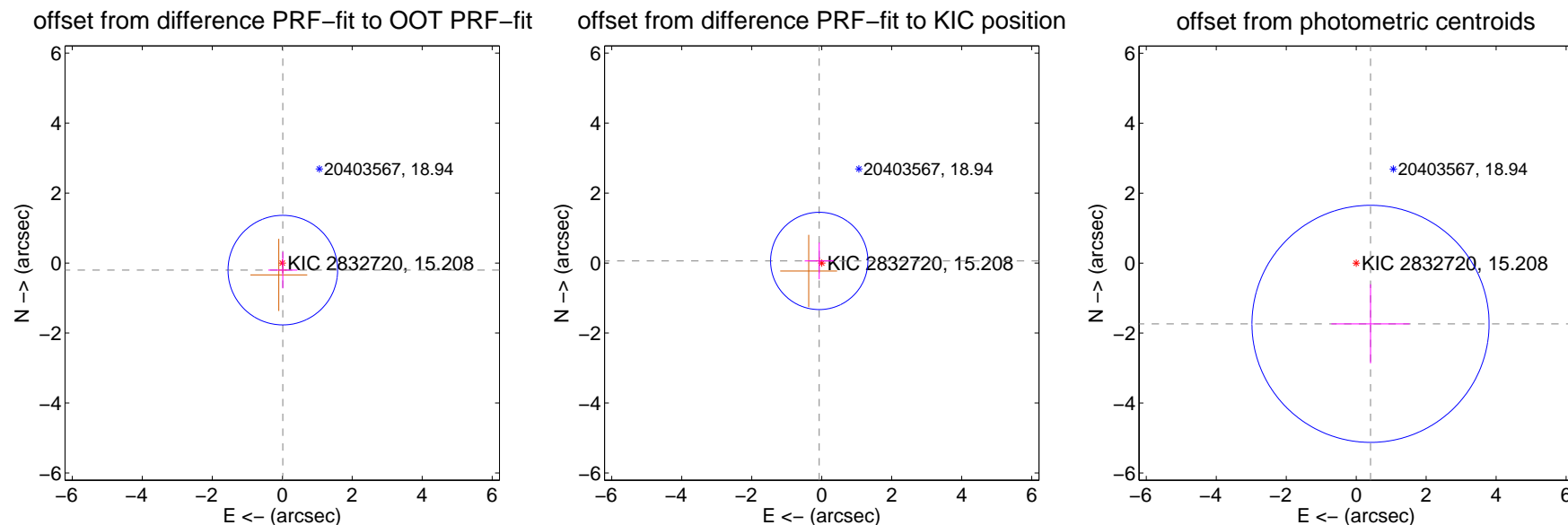
DV Centroid Data

Supplemental centroid analysis for 002832720-01. Kepler magnitude: 15.21. Transit SNR 6.45

There are 0 quarters with good PRF difference image offsets

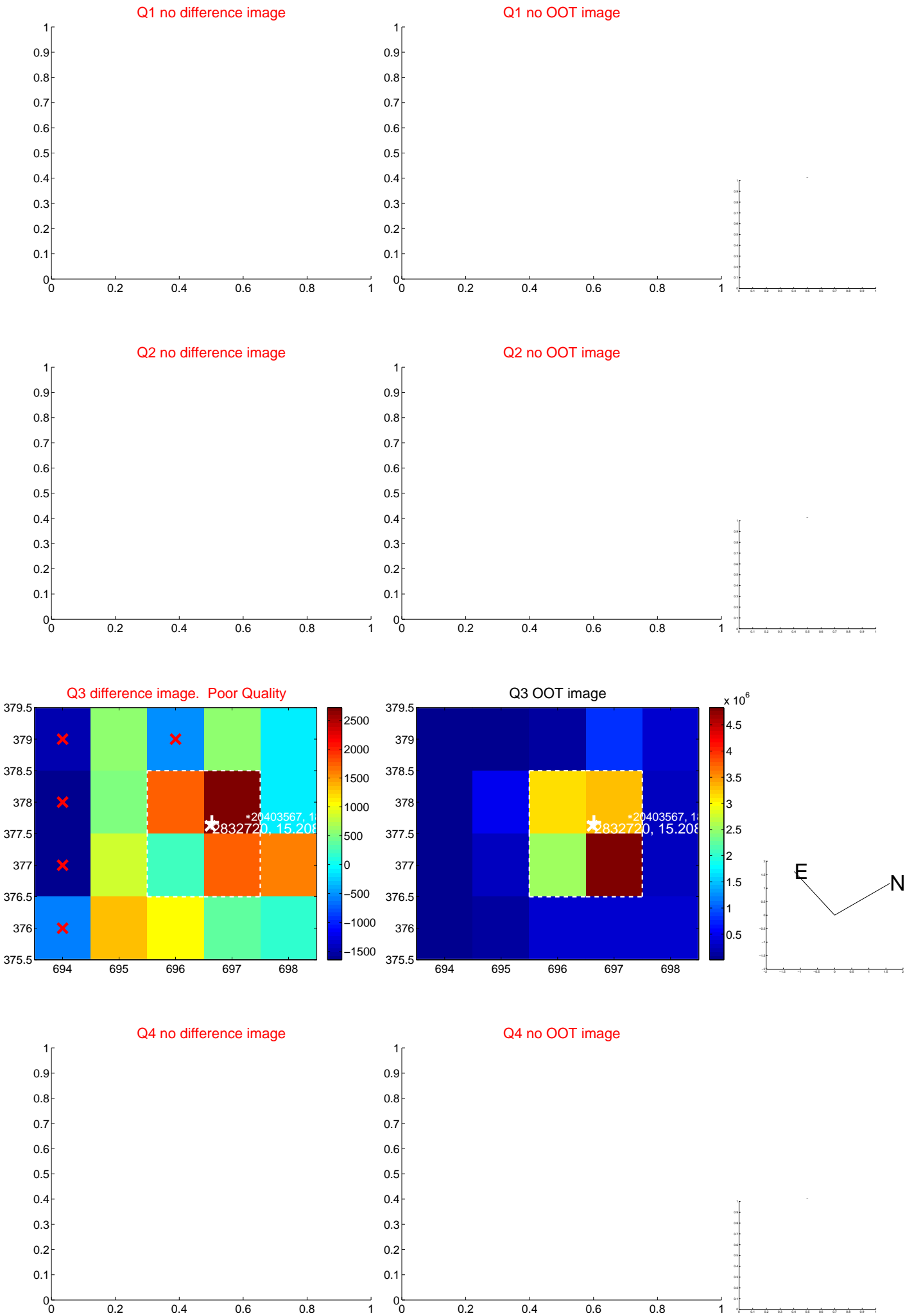
The direct PRF centroid is offset from the target star catalog position by about 0.28 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.203 ± 0.522	0.39	-0.017 ± 0.415	-0.203 ± 0.523
PRF-fit source offset from KIC position	0.093 ± 0.463	0.20	0.071 ± 0.415	0.060 ± 0.523
photometric centroid source offset	1.78 ± 1.13	1.58	-0.41 ± 1.12	-1.74 ± 1.13

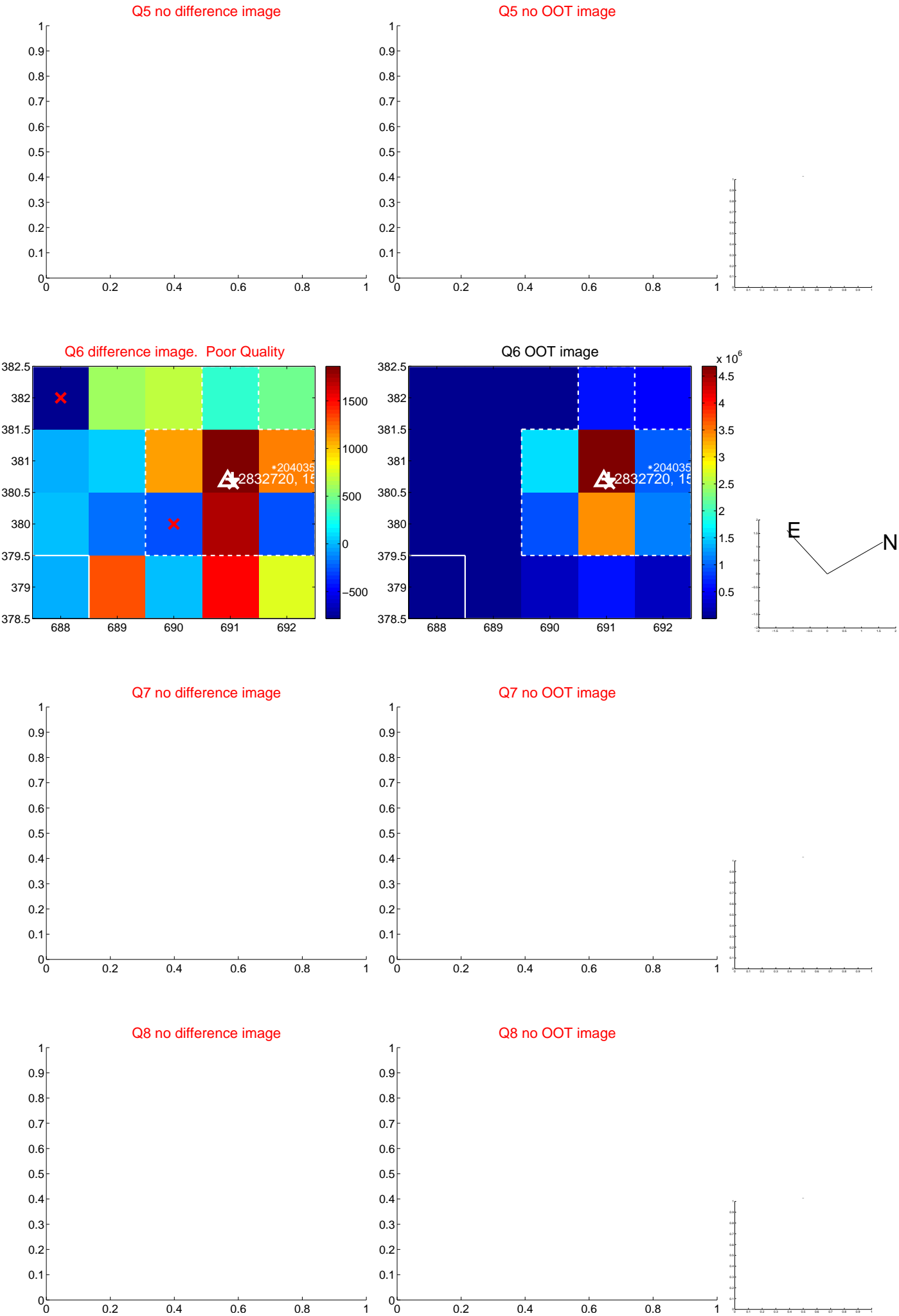


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

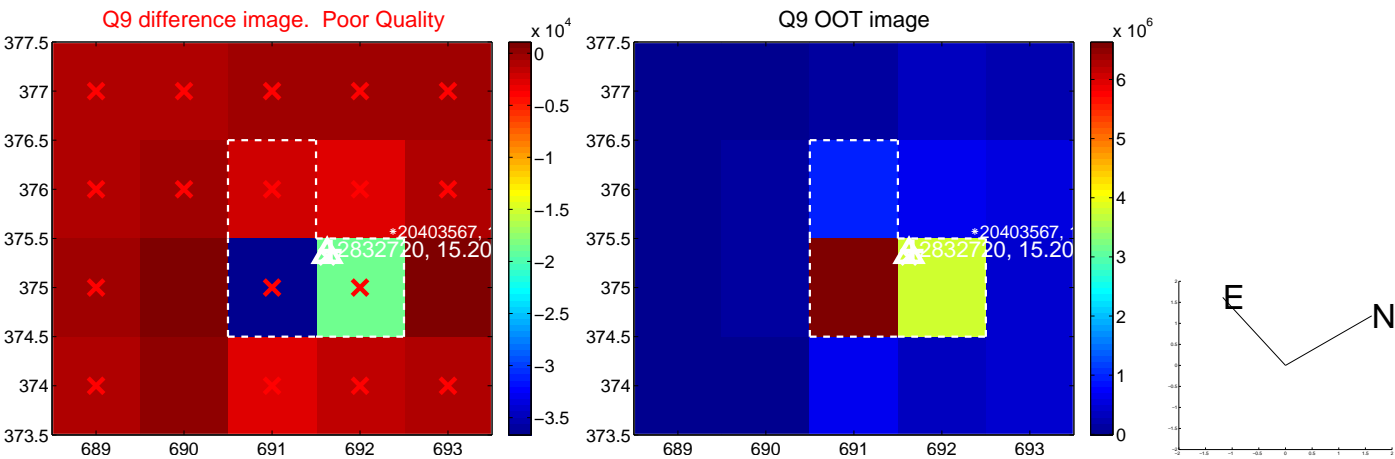
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



white ×: 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.



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

