

KIC 007032923

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})
007032923-01	OBS	No	0.566772	131.822622	12.2	4.515	7.8	5.7	0.89	5897	0.31	4839.42

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007032923-01	OBS	FP	0.00	1	0	1	1	LPP_DV—CENT_FEW_DIFFS—HALO_GHOST—EPHEM_MATCH

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.

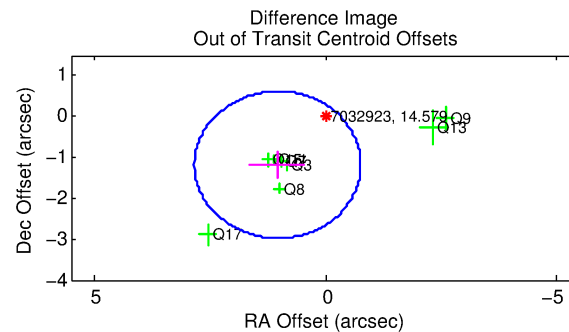
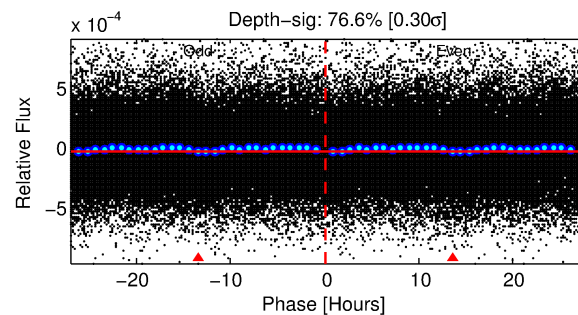
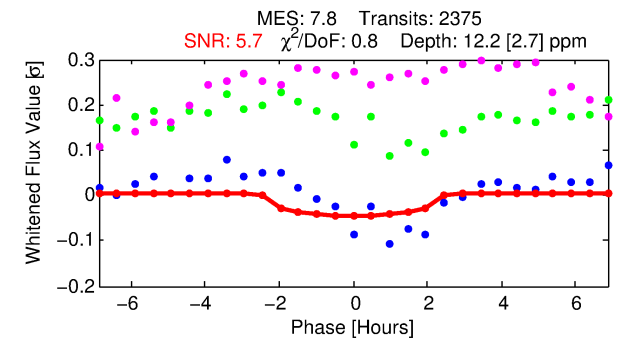
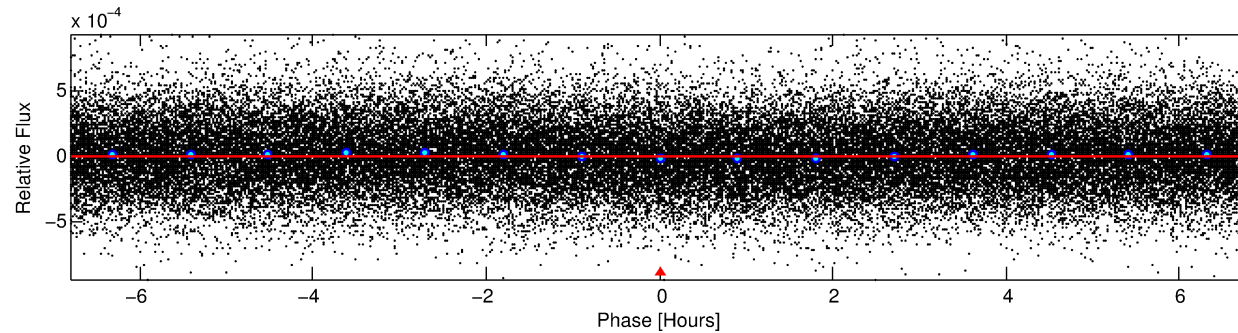
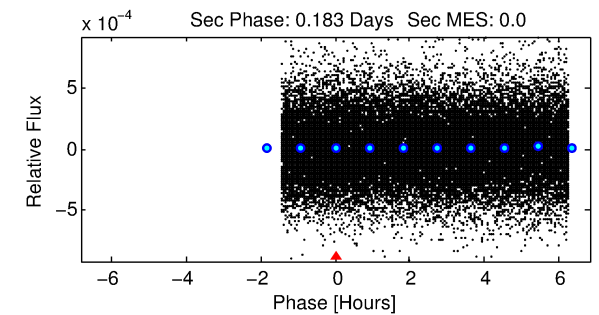
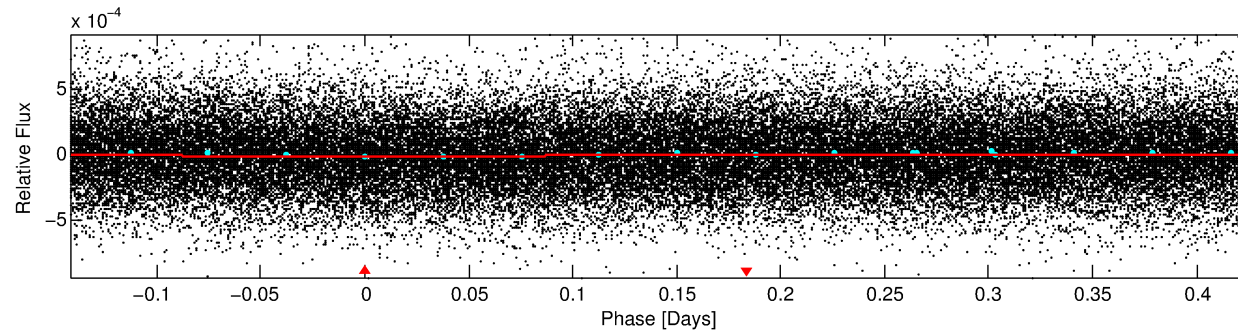
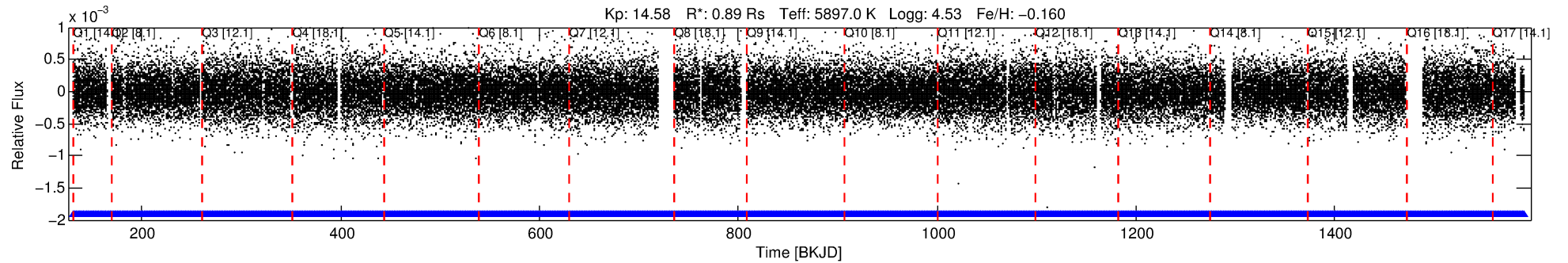
Ephemeris Match Information For 007032923-01

TCE (1)	KIC	Parent (2)	Parent KIC	P ₁ :P ₂	Dist ($''$)	Δ Row	Δ Col	m ₂	m ₁	D ₂ /D ₁	Mechanism	Flag	σ_P	σ_T
007032923-01	7032923	RR-Lyr-pri	7198959	1:1	1093.7	275	-14	7.86	14.58	51941.00	Direct-PRF	0	4.85	25.04

Notes: P₁:P₂ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m₂ and m₁ are the magnitudes of the parent and child. D₂/D₁ is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 7032923 Candidate: 1 of 1 Period: 0.567 d



DV Fit Results:

Period = 0.56677 [0.00002] d
Epoch = 131.8226 [0.0087] BKJD
Rp/R* = 0.0032 [0.0072]
a/R* = 1.15 [2.88]
b = 0.29 [32.73]
Seff = 4839.42 [1803.82]
Teff = 2127 [198] K
Rp = 0.31 [0.70] Re
a = 0.0133 [0.0032] AU
Ag = N/A
Teffp = N/A

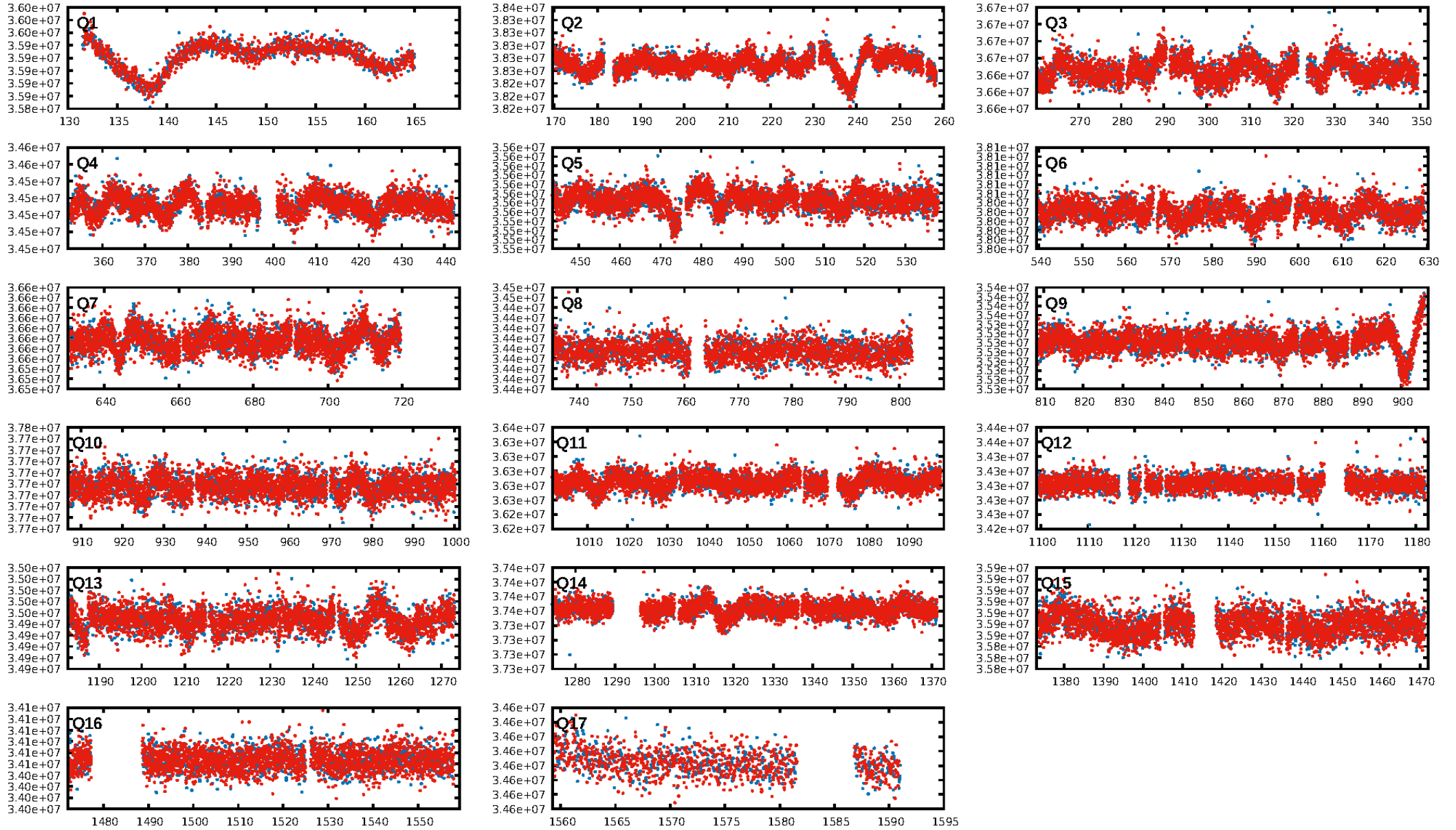
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2269/2269]
GhostDiagnostic-chr: 0.1898
Centroid-sig: 9.0%
Centroid-so: 3.399 arcsec [1.50σ]
OotOffset-rm: 1.570 arcsec [2.62σ]
OotOffset-st: 0/4/1/3 [8]
KicOffset-rm: 1.570 arcsec [3.02σ]
KicOffset-st: 0/4/1/3 [8]
DiffImageQuality-fgm: 0.75 [6/8]
DiffImageOverlap-fno: 1.00 [17/17]

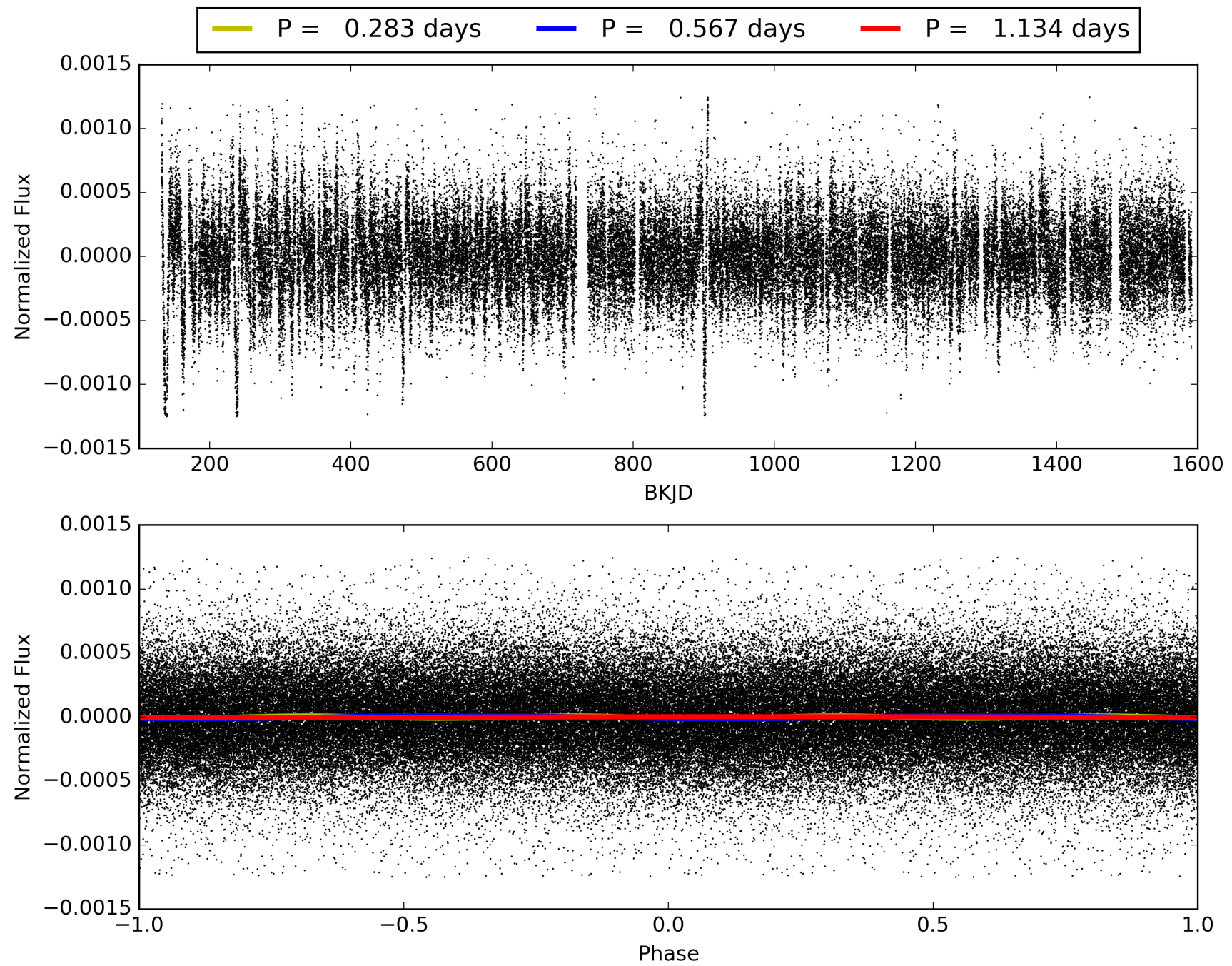
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 11:17:21 Z

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

TCE 007032923-01, PDC Light Curves

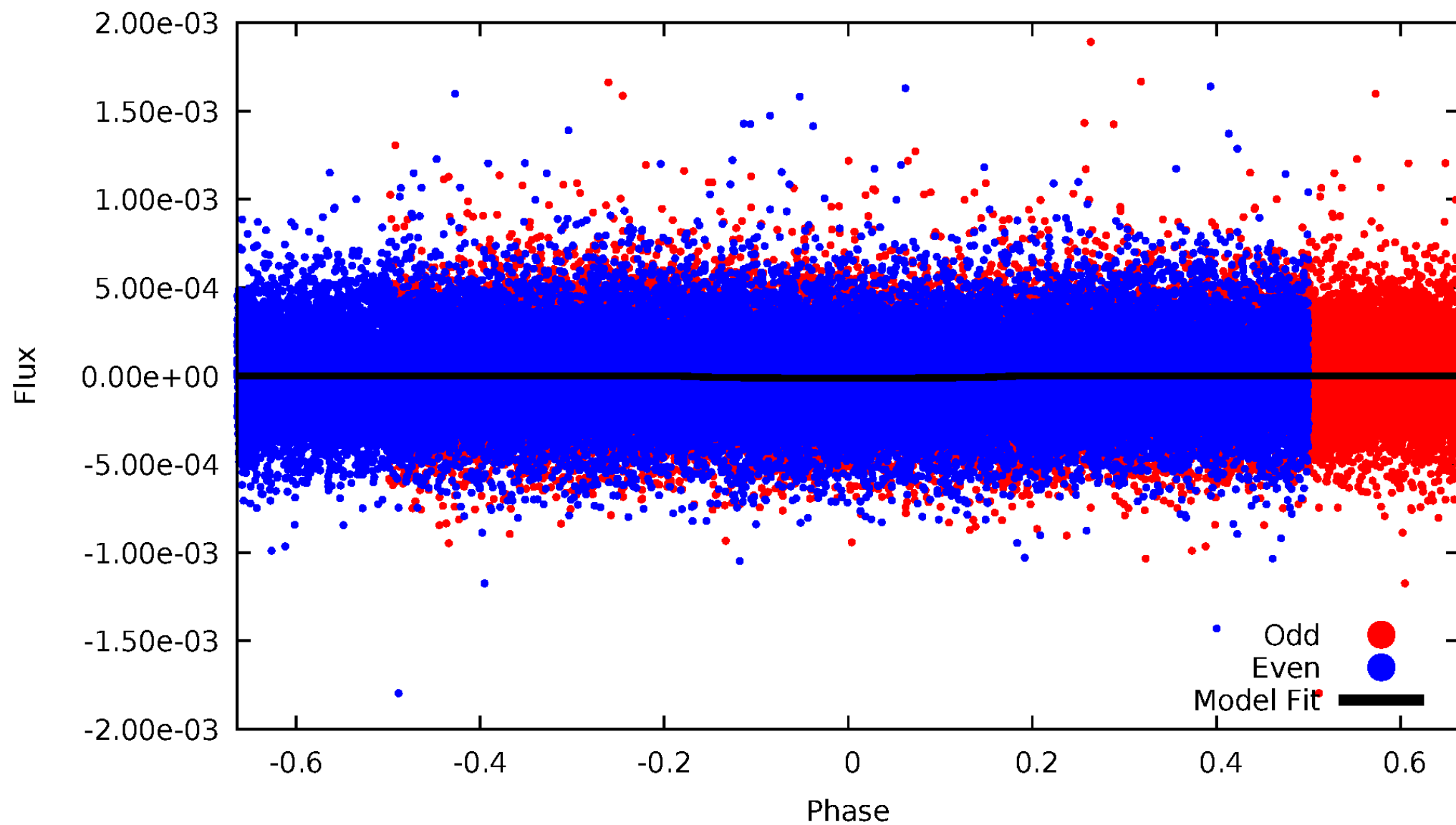


TCE 007032923-01



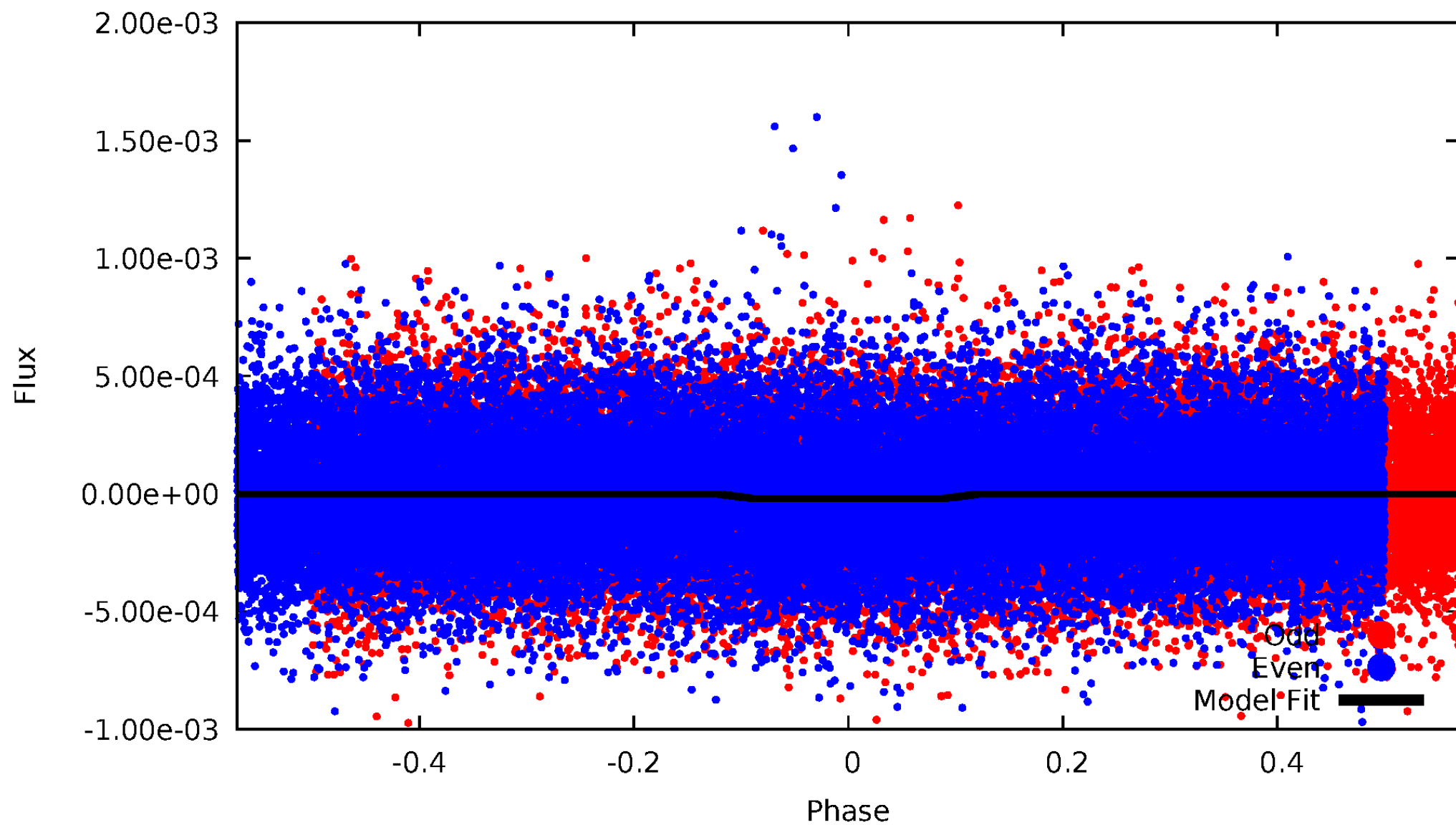
DV Odd/Even

TCE 007032923-01



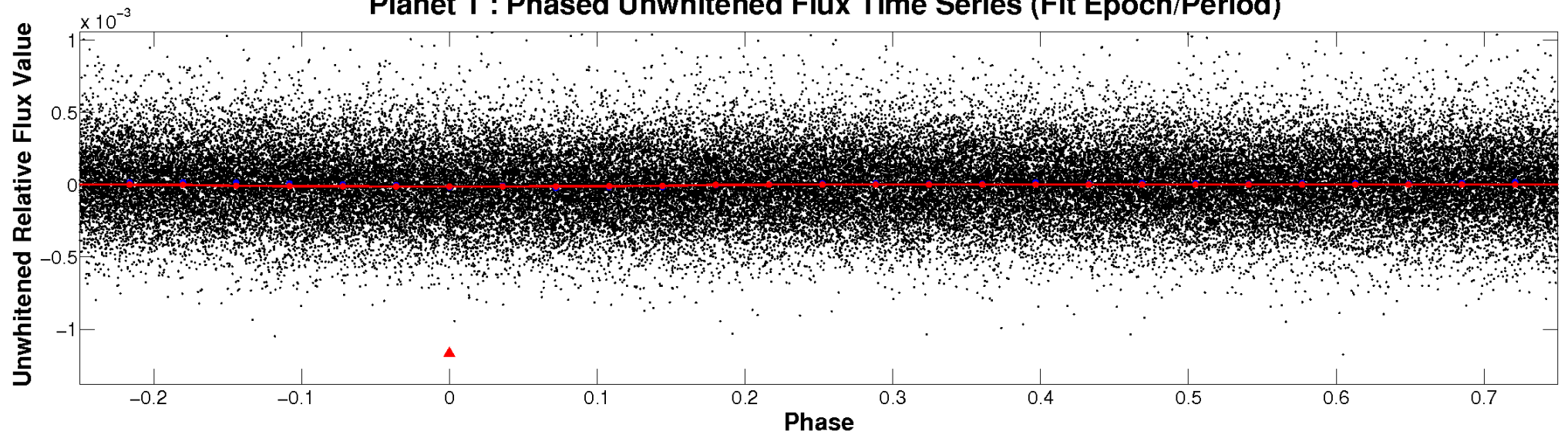
ALT Odd/Even

TCE 007032923-01

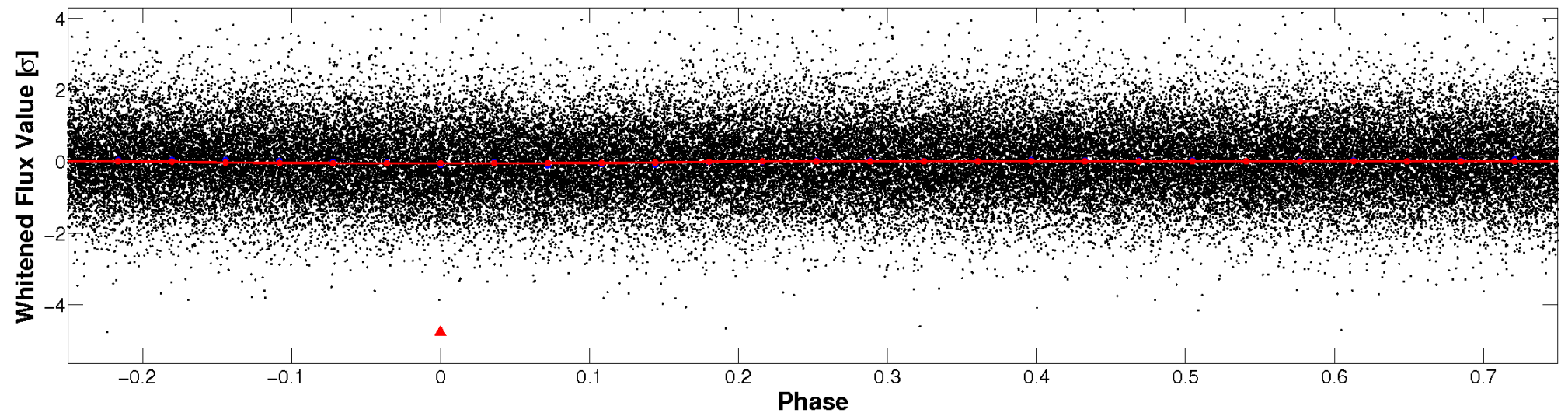


Non-Whitened Vs. Whitened Light Curve

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

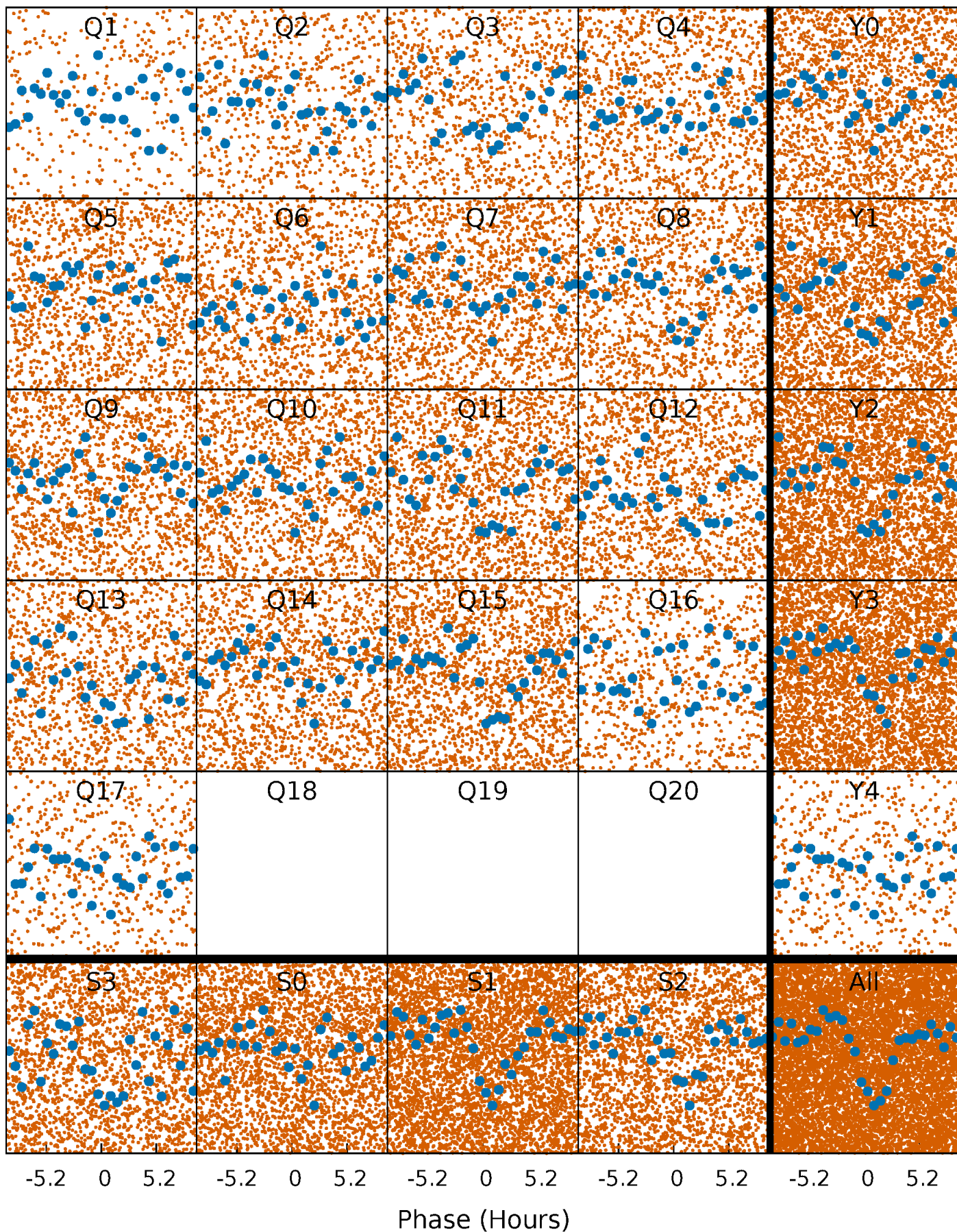


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



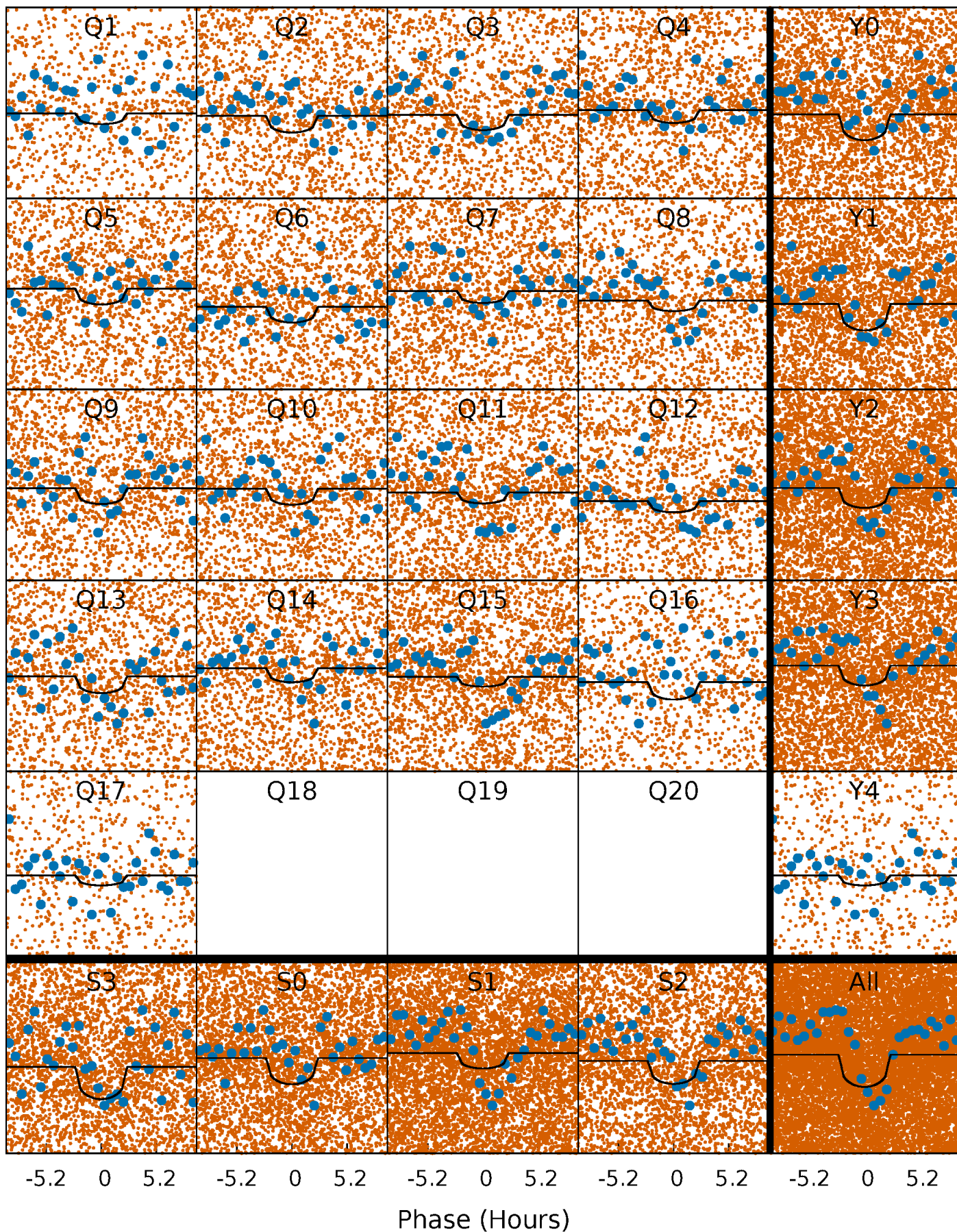
PDC Quarter-Phased Transit Curves

TCE 007032923-01 P= 0.566772 Days $T_0=131.822622$ (BKJD)



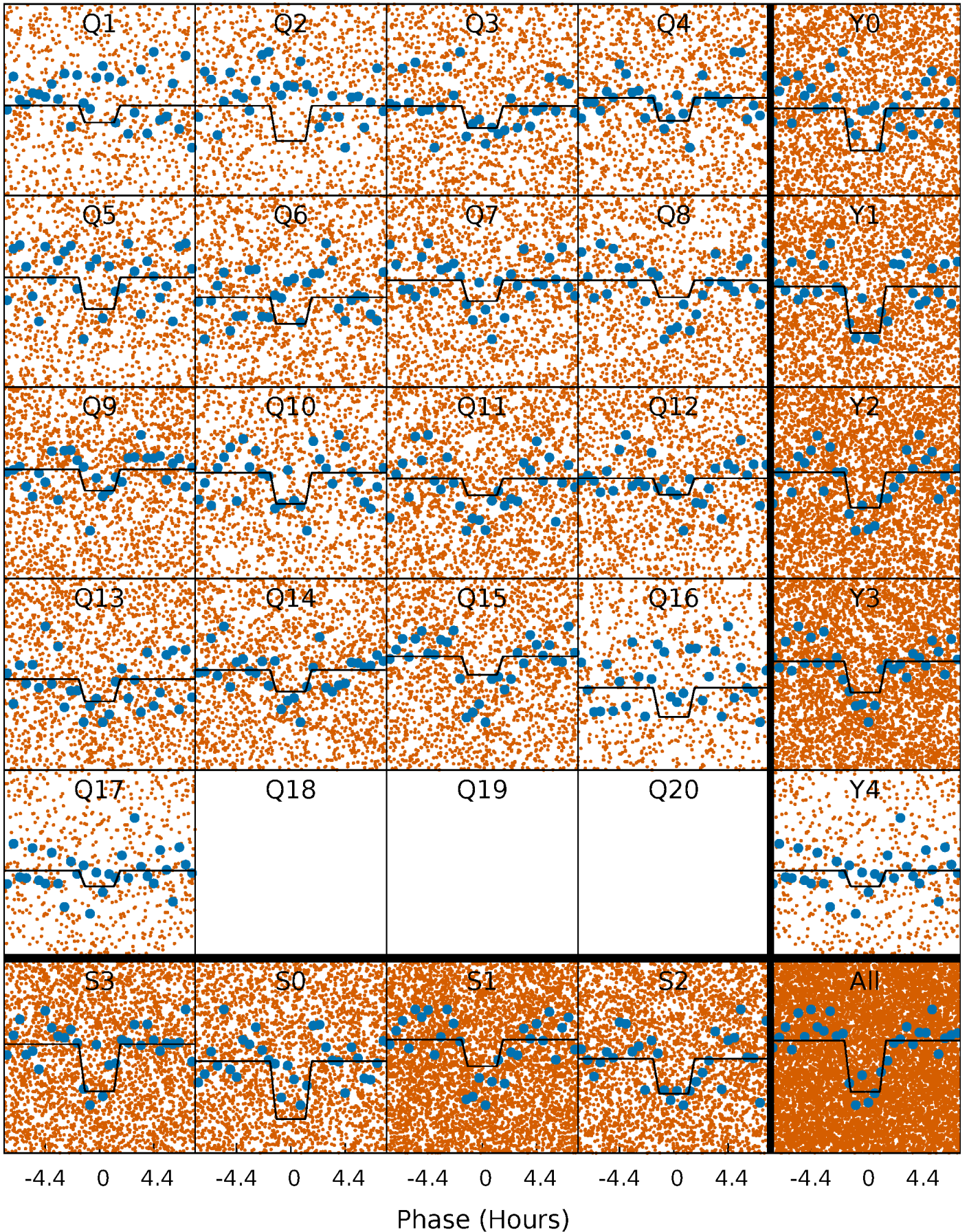
DV Quarter-Phased Transit Curves

TCE 007032923-01 P= 0.566772 Days $T_0=131.822622$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

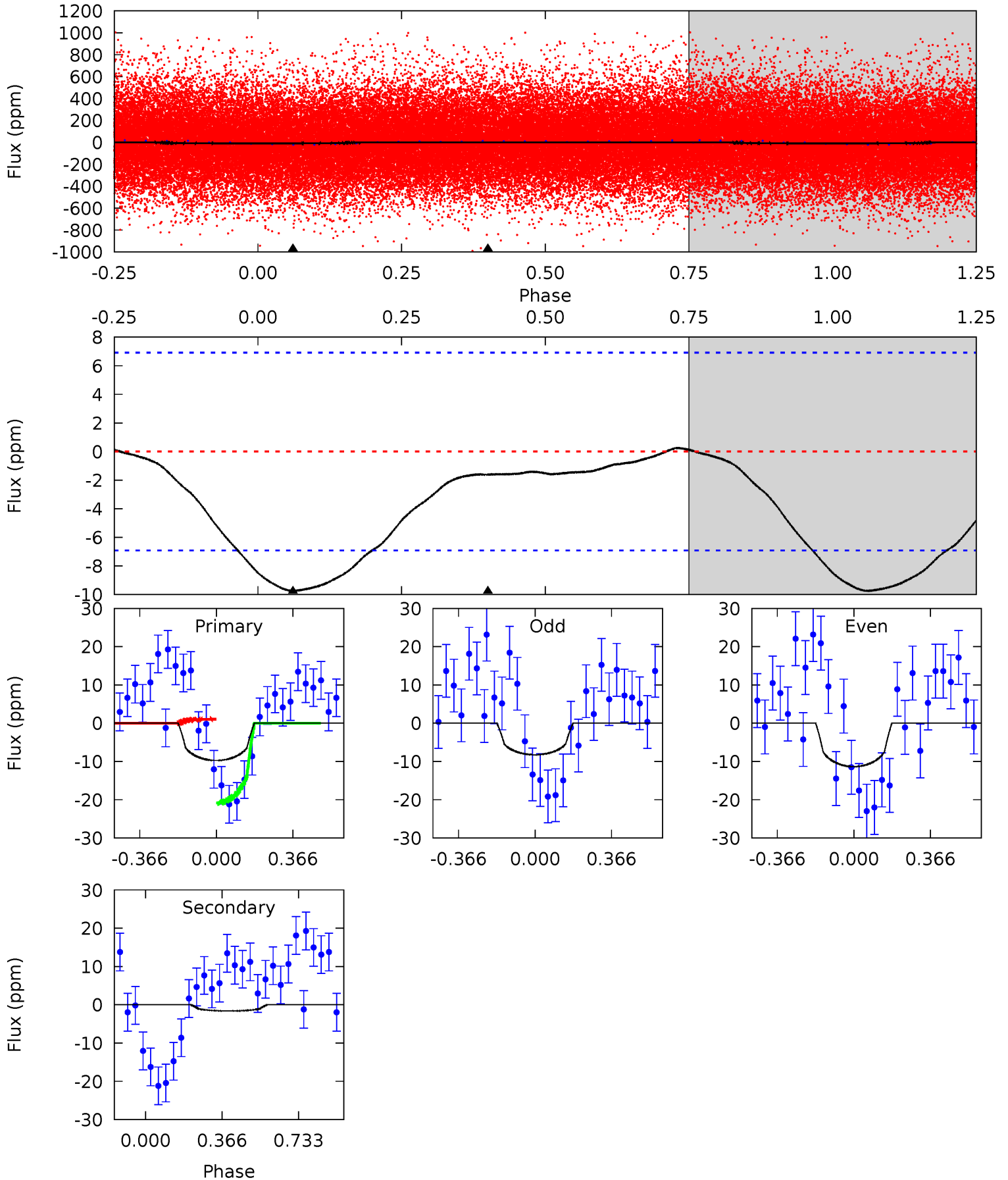
TCE 007032923-01 P= 0.566814 Days $T_0=131.797151$ (BKJD)



DV Model-Shift Uniqueness Test

007032923-01, P = 0.566772 Days, E = 131.255850 Days

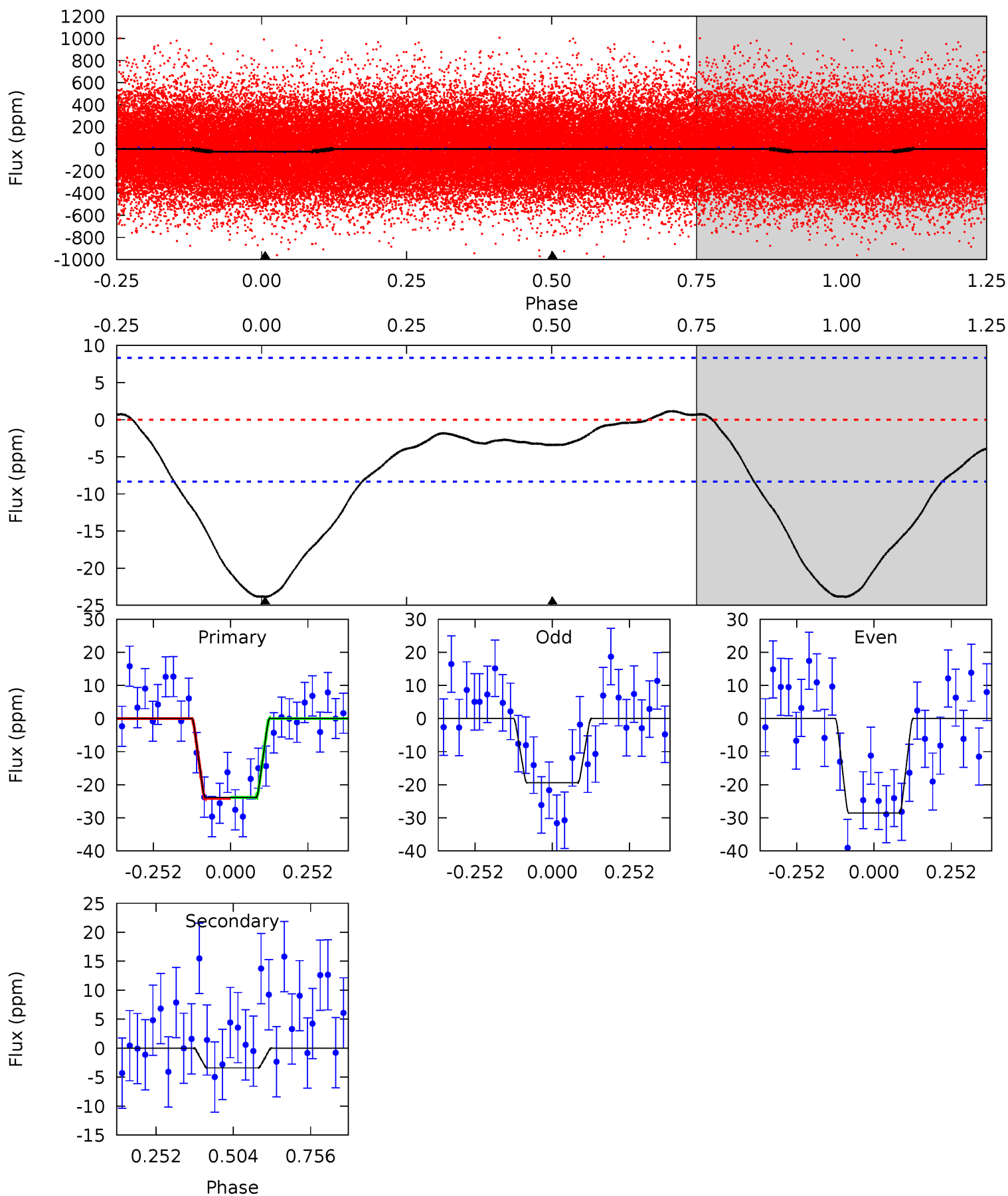
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.04	1.00	0	0	4.28	0.90	0.12	6.04	6.04	1.00	1.00	0.97	0.96	0.03	6.20



Alt Model-Shift Uniqueness Test

007032923-01, P = 0.566814 Days, E = 131.230337 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.5	1.79	0	0	4.37	1.15	1.17	12.5	12.5	1.79	1.79	2.39	0.97	0.05	0.08



Stellar Parameters For KIC 007032923

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5897^{+141}_{-176}	$4.531^{+0.046}_{-0.196}$	$-0.160^{+0.300}_{-0.300}$	$0.891^{+0.247}_{-0.082}$	$0.983^{+0.108}_{-0.120}$	$1.958^{+0.378}_{-0.996}$
	+2%/-3%	+1%/-4%	+188%/-188%	+28%/-9%	+11%/-12%	+19%/-51%
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 007032923-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-2 ± 2	$0.63^{+0.63}_{-0.43}$	3033^{+199}_{-128}	-2151^{+6720}_{-1036}	$0.284^{+2.955}_{-0.296}$
Alt.	-3 ± 2	$0.69^{+0.67}_{-0.44}$	3022^{+196}_{-125}	3105^{+1868}_{-5975}	$0.572^{+4.348}_{-0.436}$

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 $A_{obs} \gg 1.0$

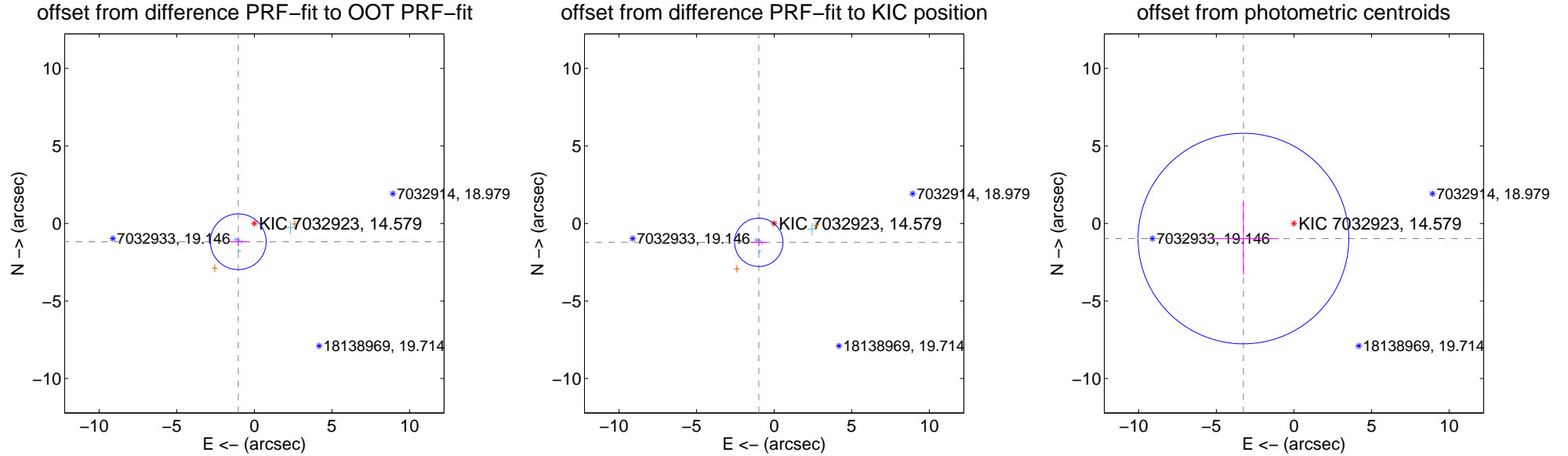
DV Centroid Data

Supplemental centroid analysis for 007032923-01. Kepler magnitude: 14.58. Transit SNR 5.68

There are 6 quarters with good PRF difference image offsets

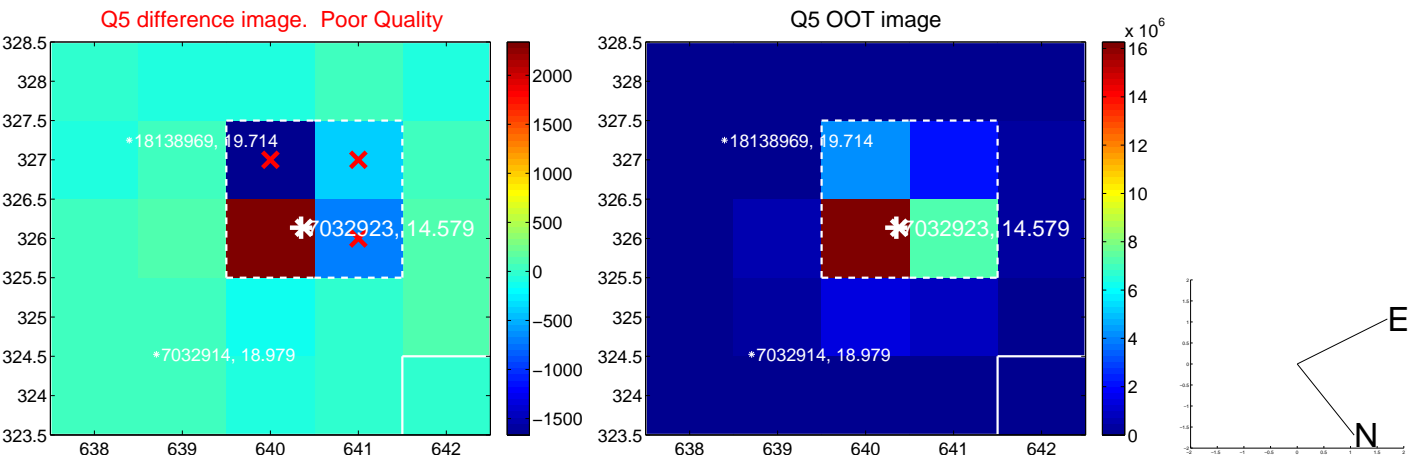
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.570 ± 0.599	2.62	1.035 ± 0.586	-1.180 ± 0.306
PRF-fit source offset from KIC position	1.570 ± 0.520	3.02	0.989 ± 0.524	-1.219 ± 0.270
photometric centroid source offset	3.40 ± 2.26	1.50	3.26 ± 2.26	-0.98 ± 2.33

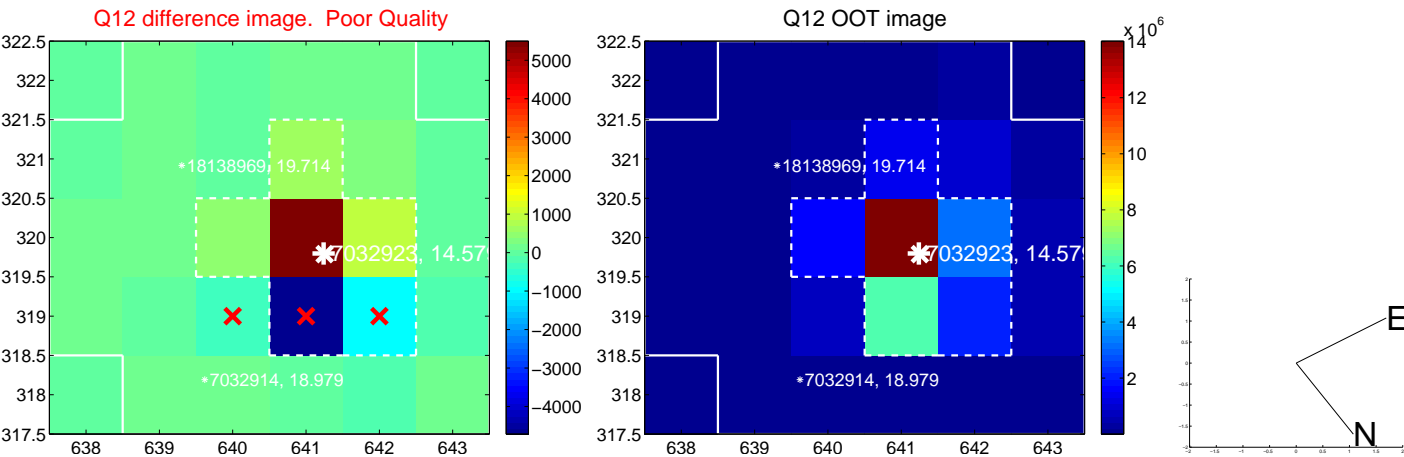
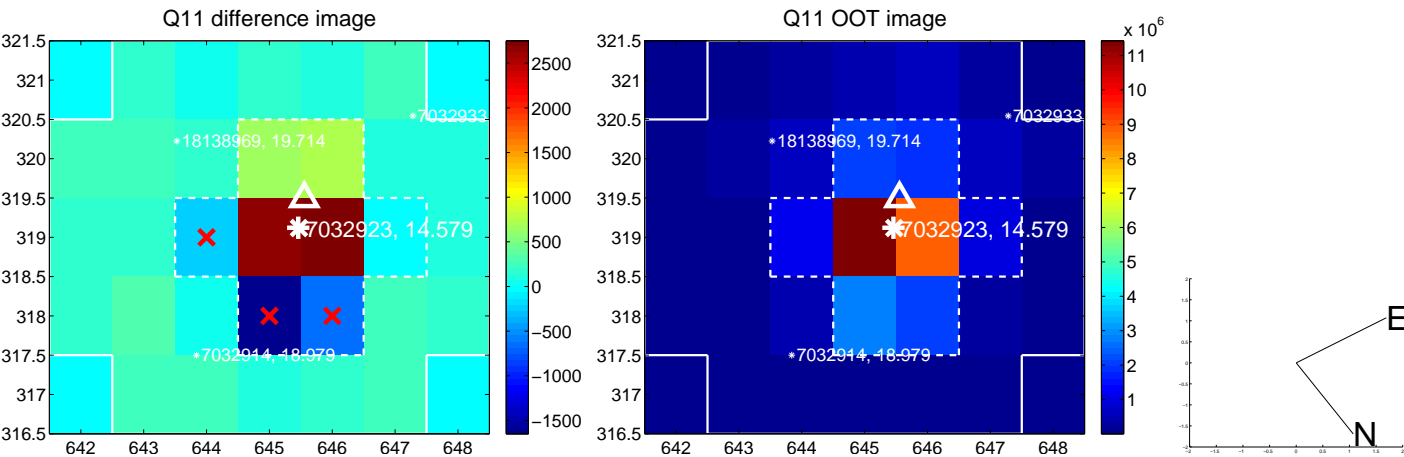
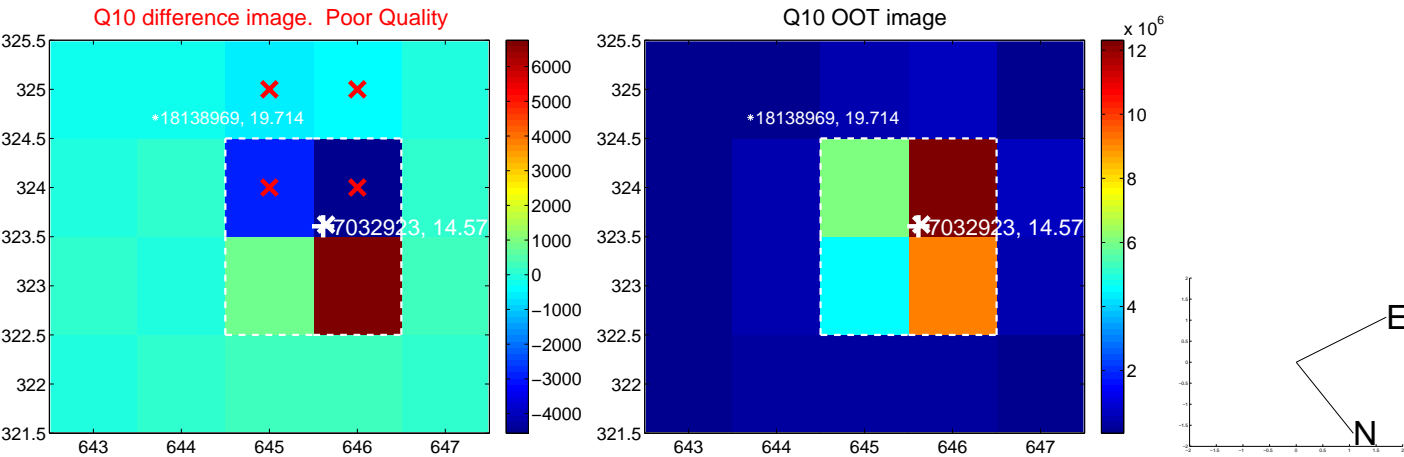
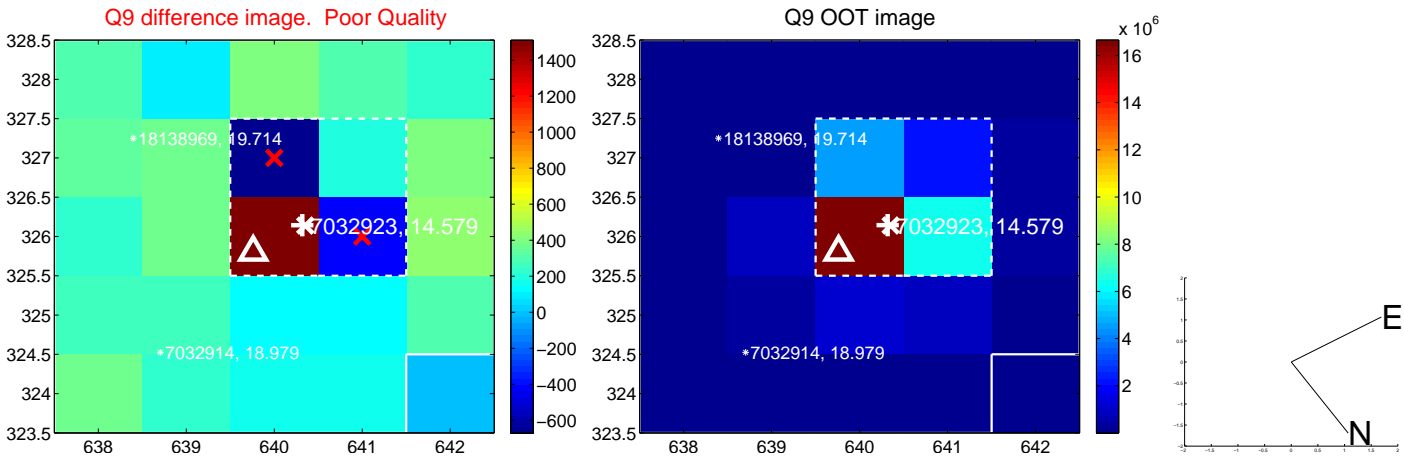


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

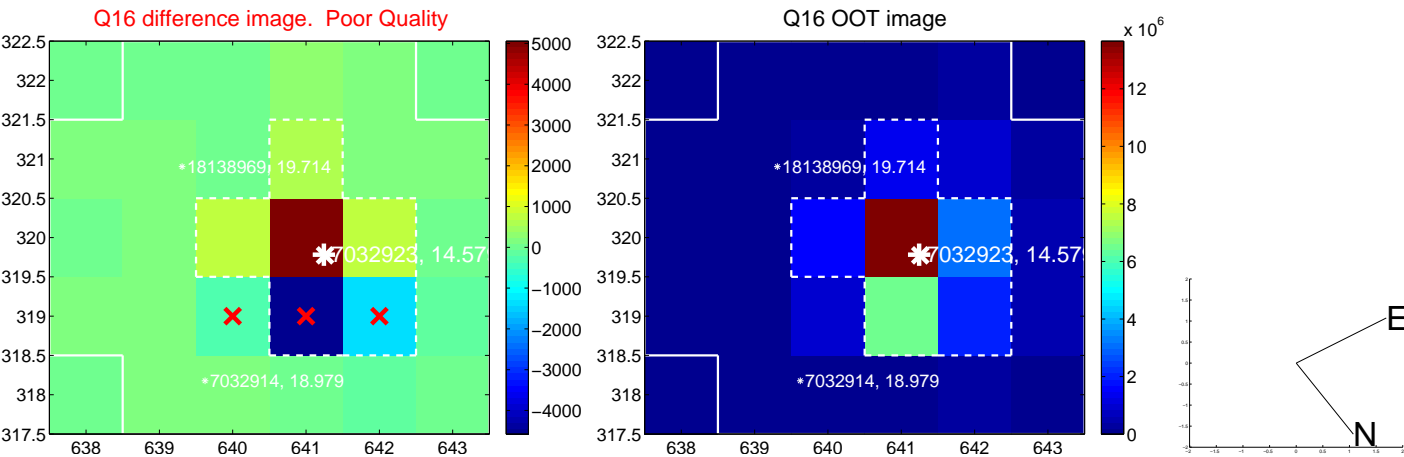
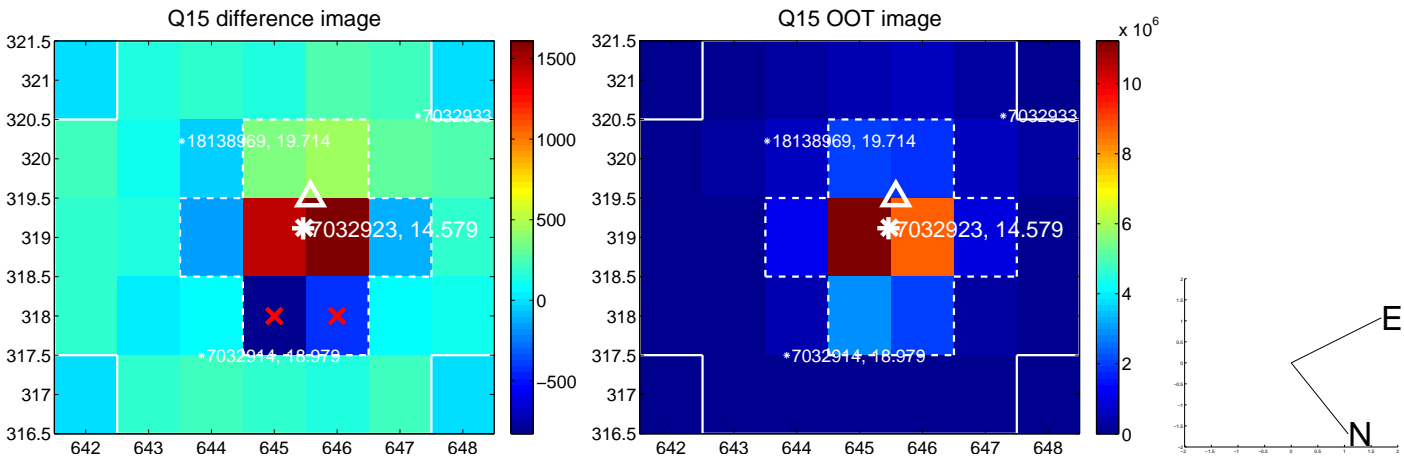
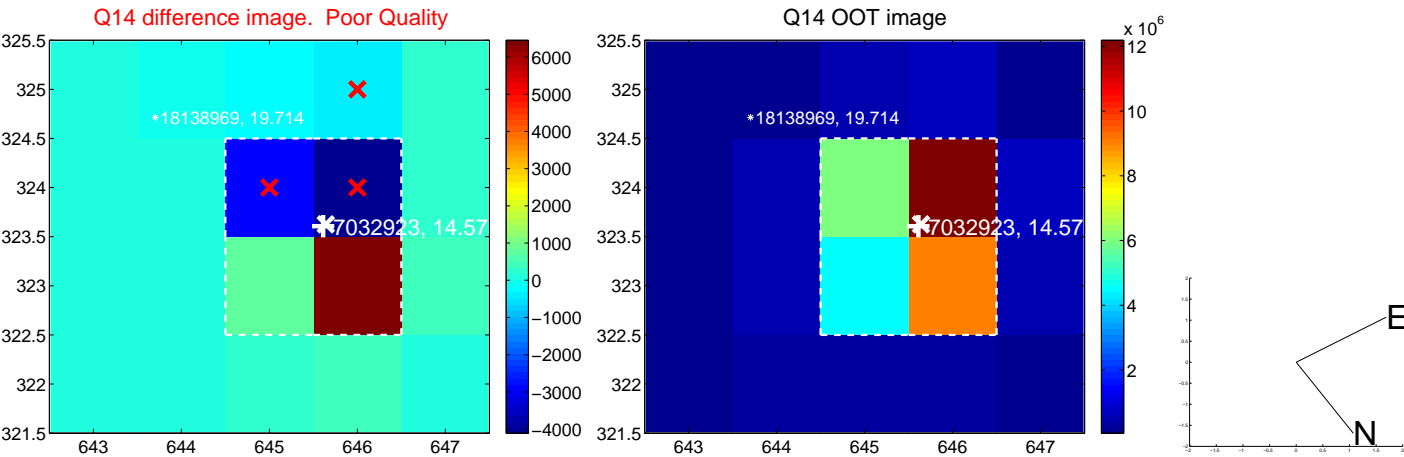
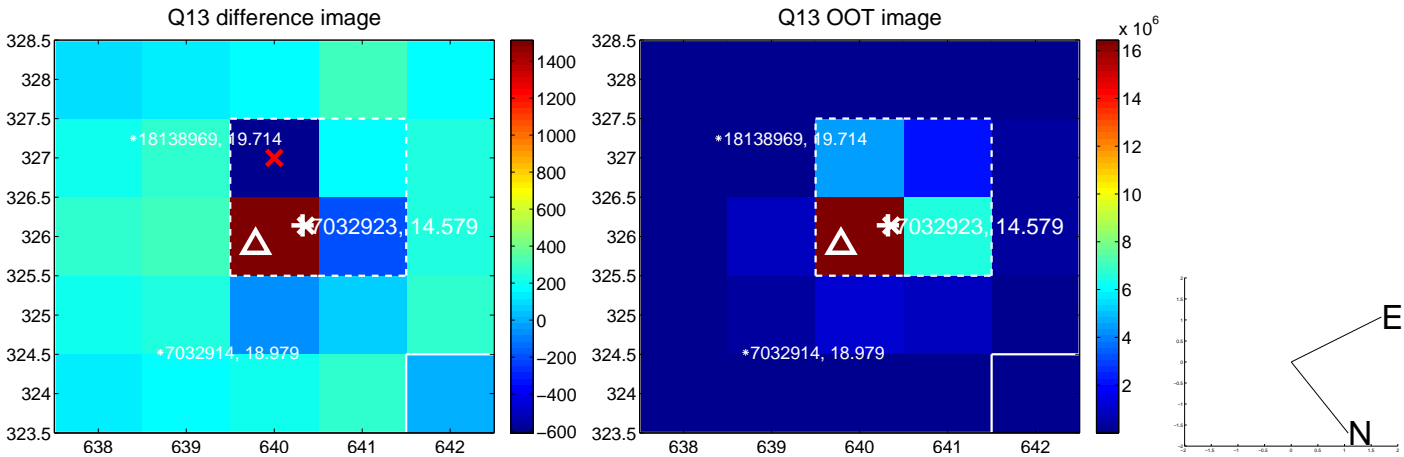
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



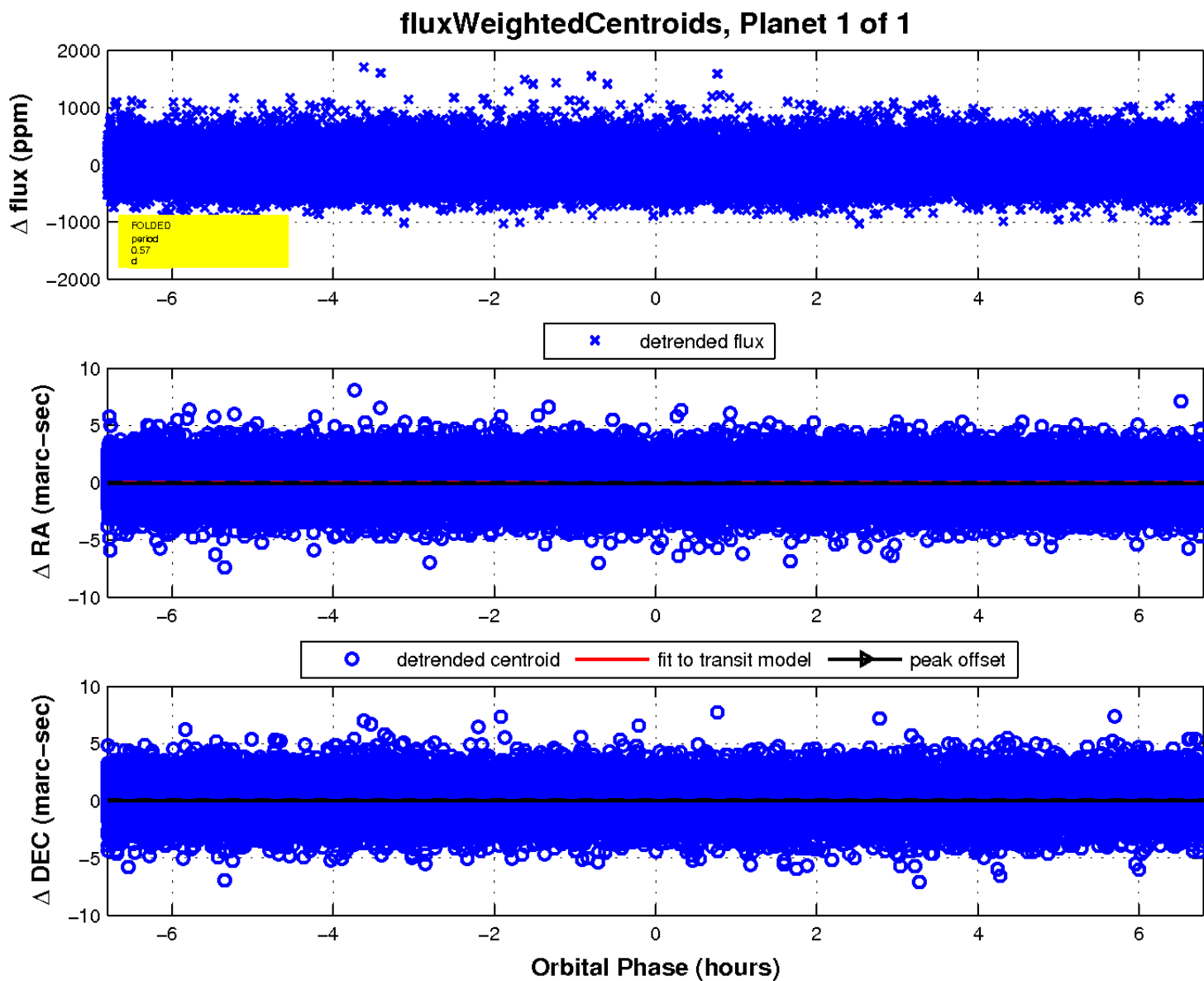
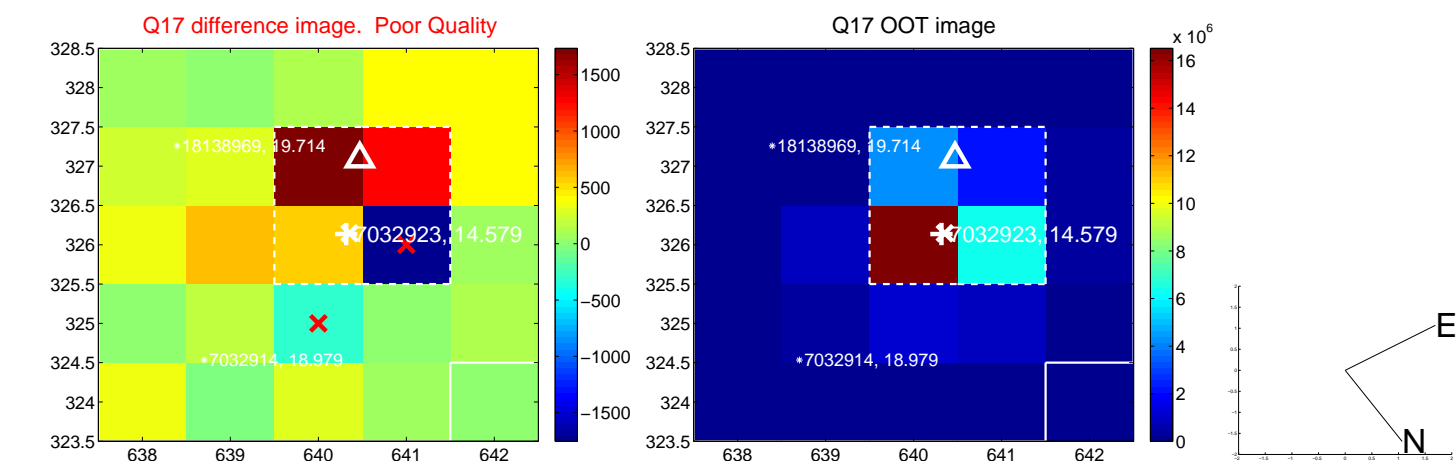
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

