

KIC 007033713

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})
007033713-01	OBS	6813.01	2.196409	133.507841	90.1	4.978	9.6	10.3	0.81	5376	0.88	479.37

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007033713-01	OBS	FP	0.00	0	0	1	1	CENT_RESOLVED_OFFSET—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.

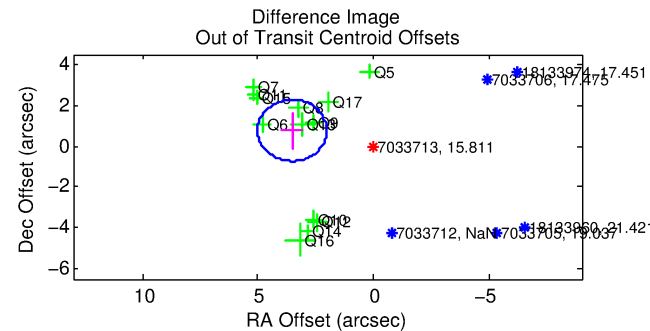
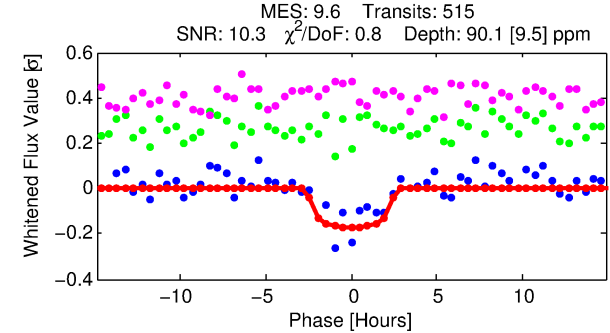
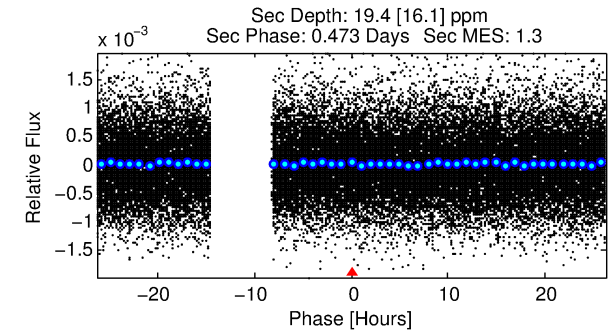
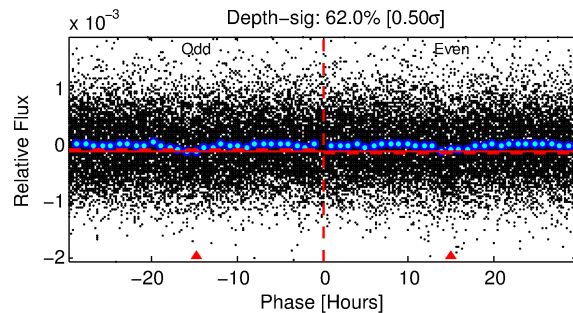
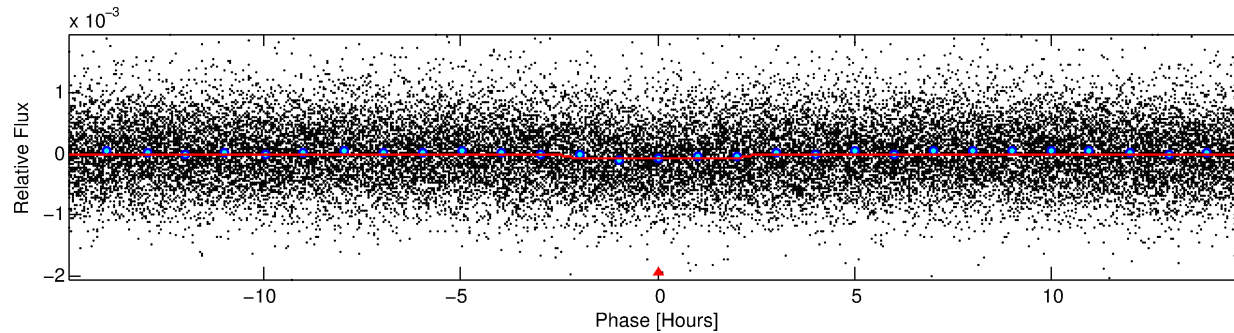
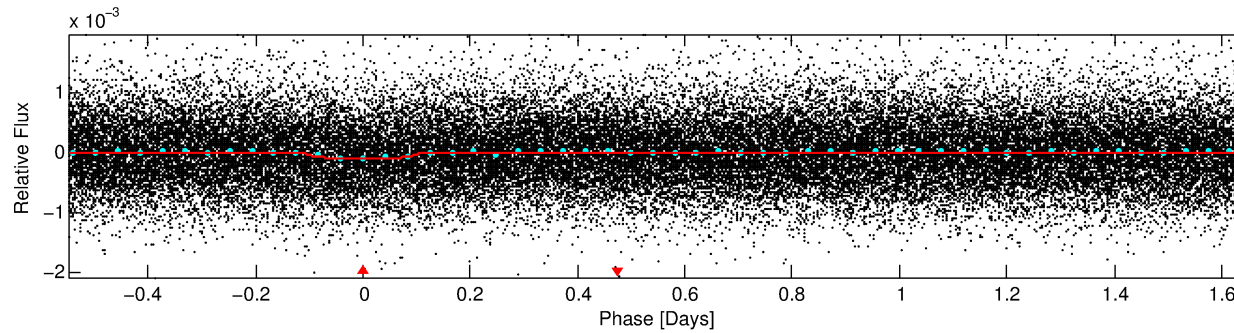
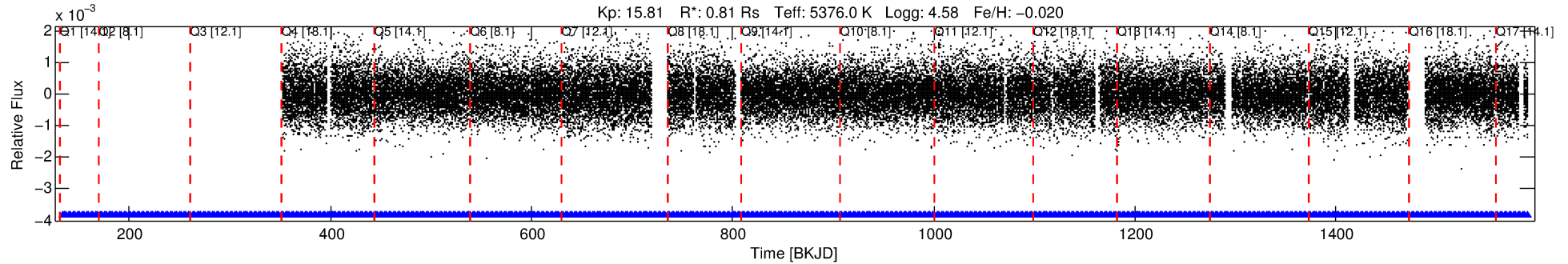
Ephemeris Match Information For 007033713-01

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
007033713-01	7033713	007033748-pri	7033748	1:2	30.6	-8	-2	13.69	15.82	3133.30	Direct-PRF	0	3.36	0.48

Notes: $P_1:P_2$ 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. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 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: 7033713 Candidate: 1 of 1 Period: 2.196 d
KOI: K06813.01 Corr: 0.942



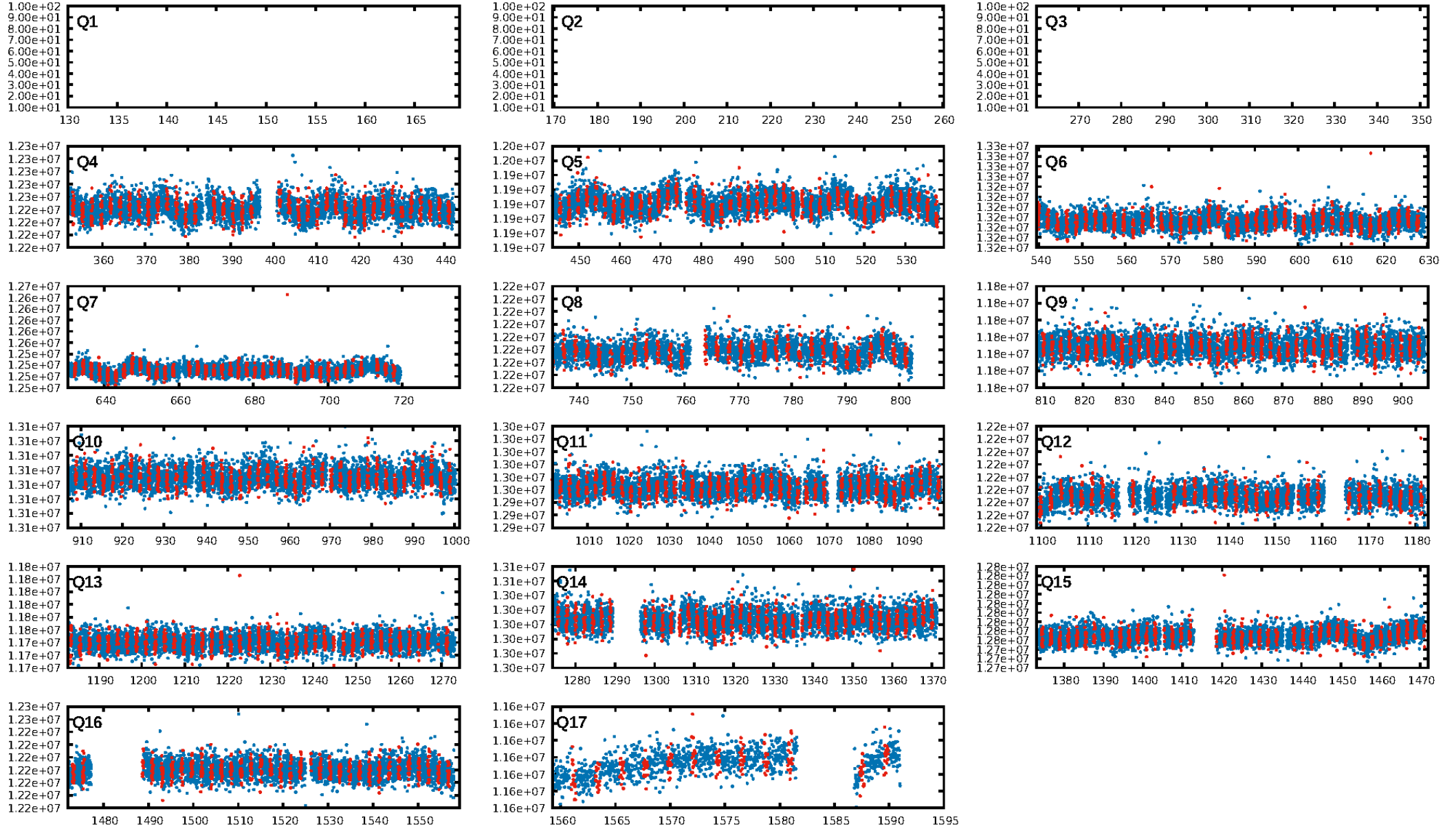
DV Fit Results:

Period = 2.19641 [0.00002] d
Epoch = 133.5078 [0.0066] BKJD
Rp/R* = 0.0100 [0.0074]
a/R* = 2.03 [4.76]
b = 0.85 [1.00]
Seff = 479.37 [123.96]
Teq = 1193 [77] K
Rp = 0.88 [0.67] Re
a = 0.0318 [0.0048] AU
Ag = 13.89 [23.59] [0.55 σ]
Teff = 3561 [1505] K [1.57 σ]

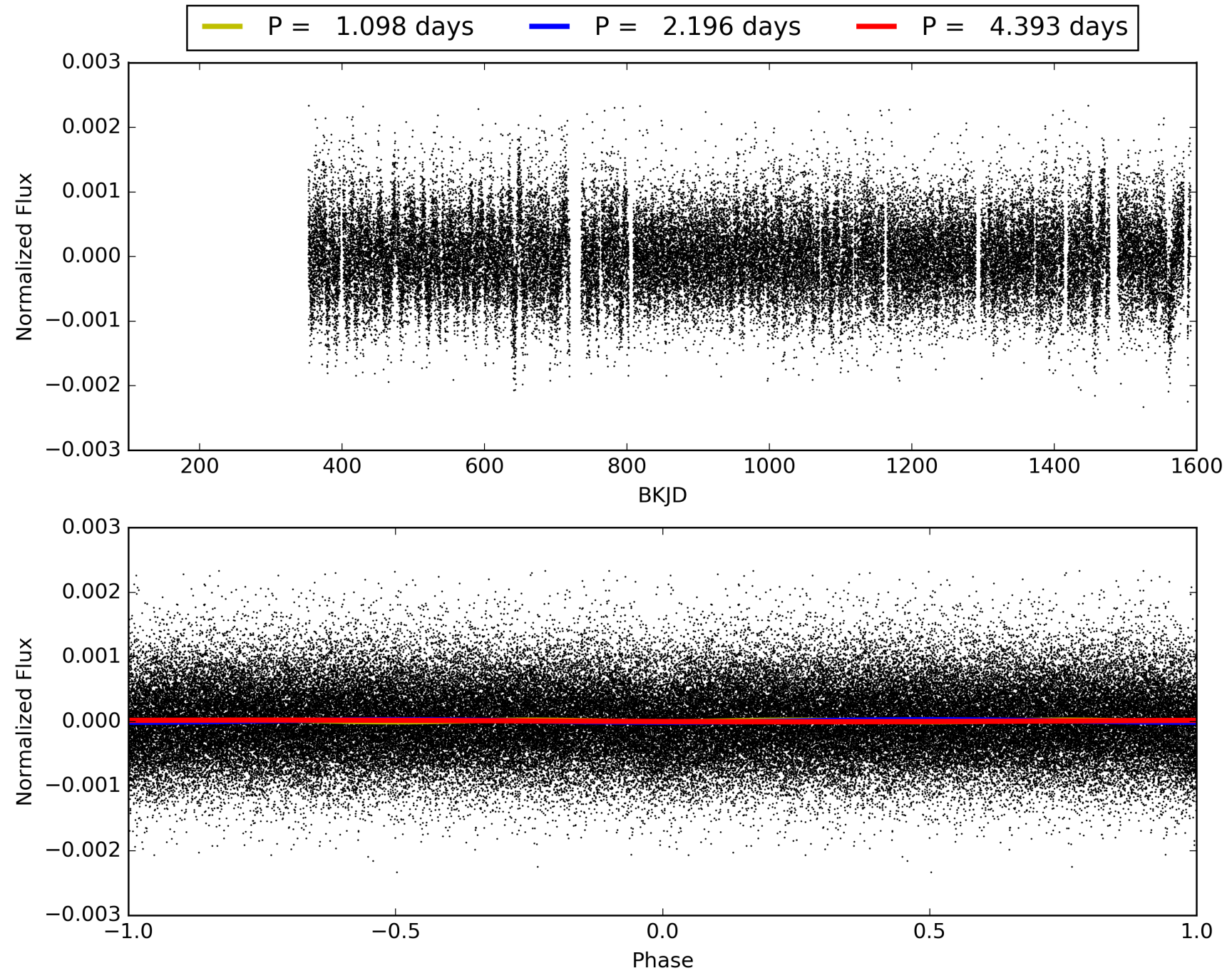
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.65e-22
RollingBand-fgt: 1.00 [503/503]
GhostDiagnostic-chr: 0.1466
Centroid-sig: 0.0%
Centroid-so: 6.703 arcsec [5.93 σ]
OotOffset-rm: 3.619 arcsec [7.23 σ]
KicOffset-rm: 3.284 arcsec [7.03 σ]
OotOffset-st: 3/3/3/4 [13]
KicOffset-st: 3/3/3/4 [13]
DiffImageQuality-fgm: 0.00 [0/13]
DiffImageOverlap-fno: 1.00 [14/14]

TCE 007033713-01, PDC Light Curves

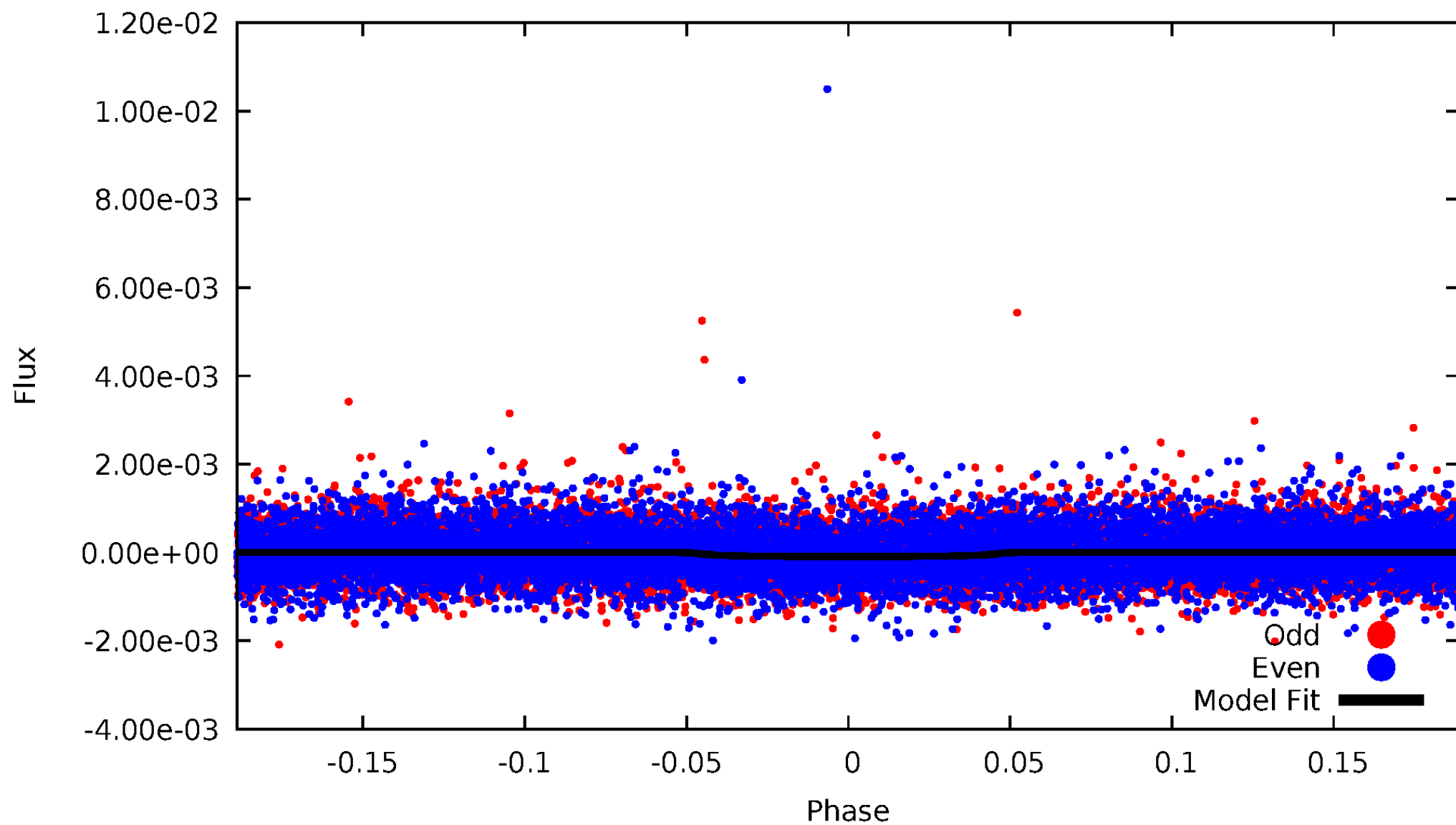


TCE 007033713-01



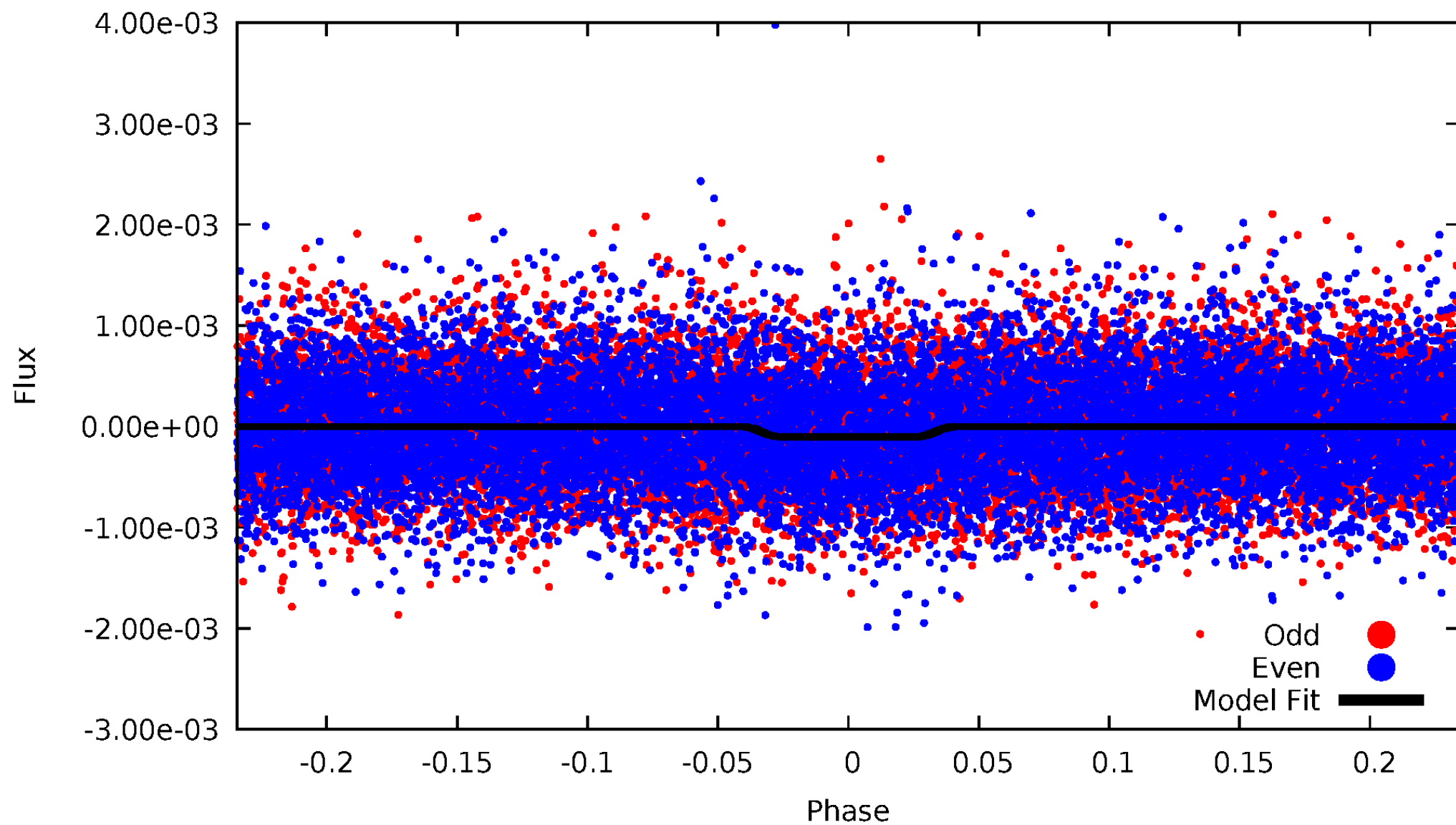
DV Odd/Even

TCE 007033713-01

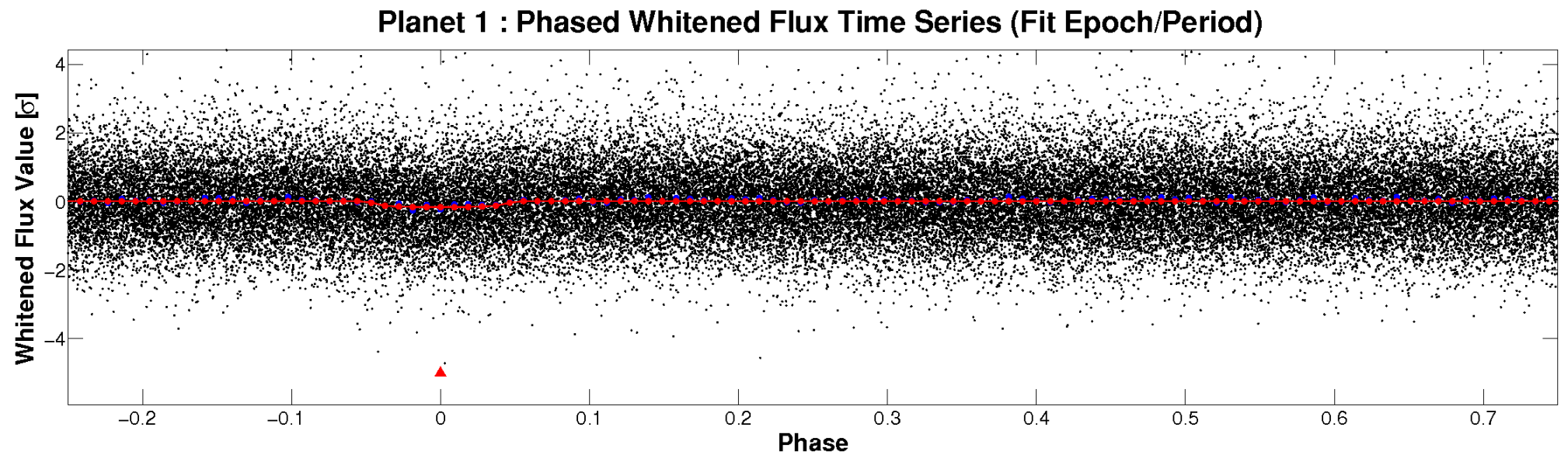
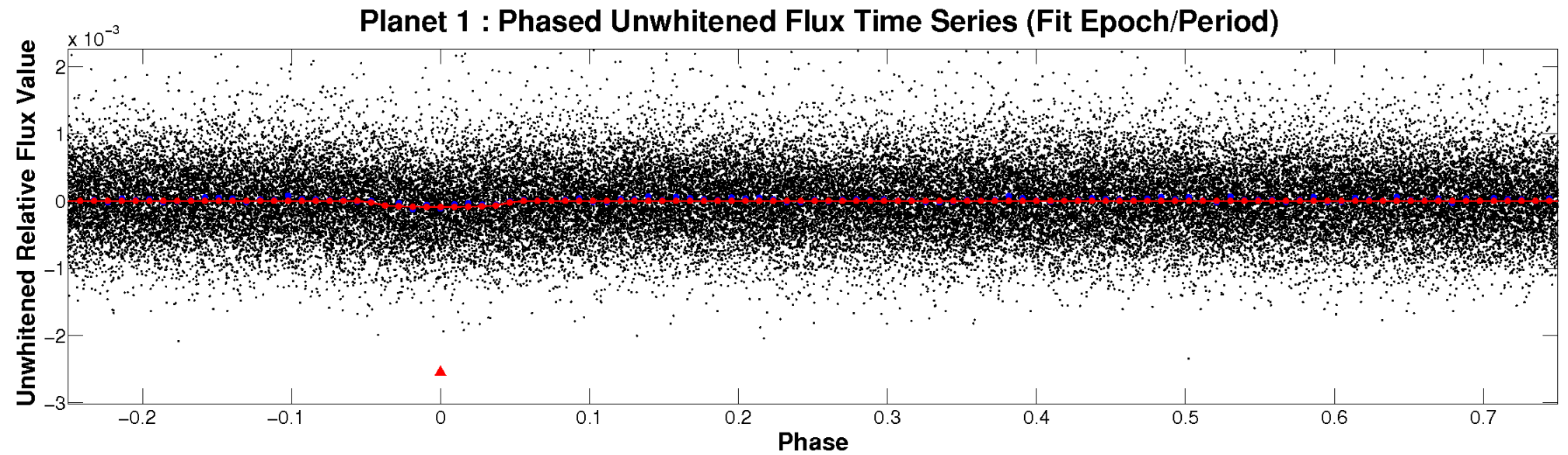


ALT Odd/Even

TCE 007033713-01

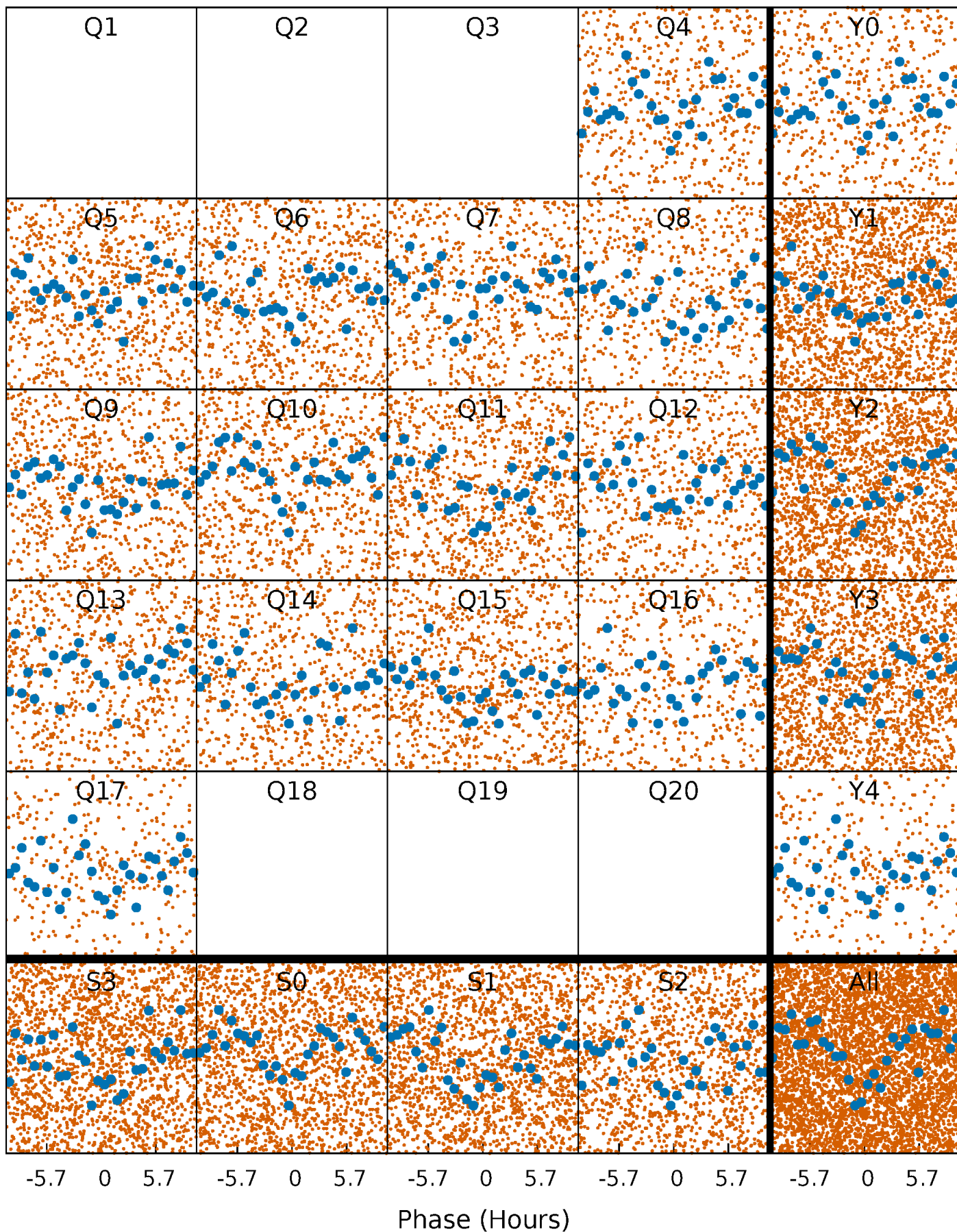


Non-Whitened Vs. Whitened Light Curve



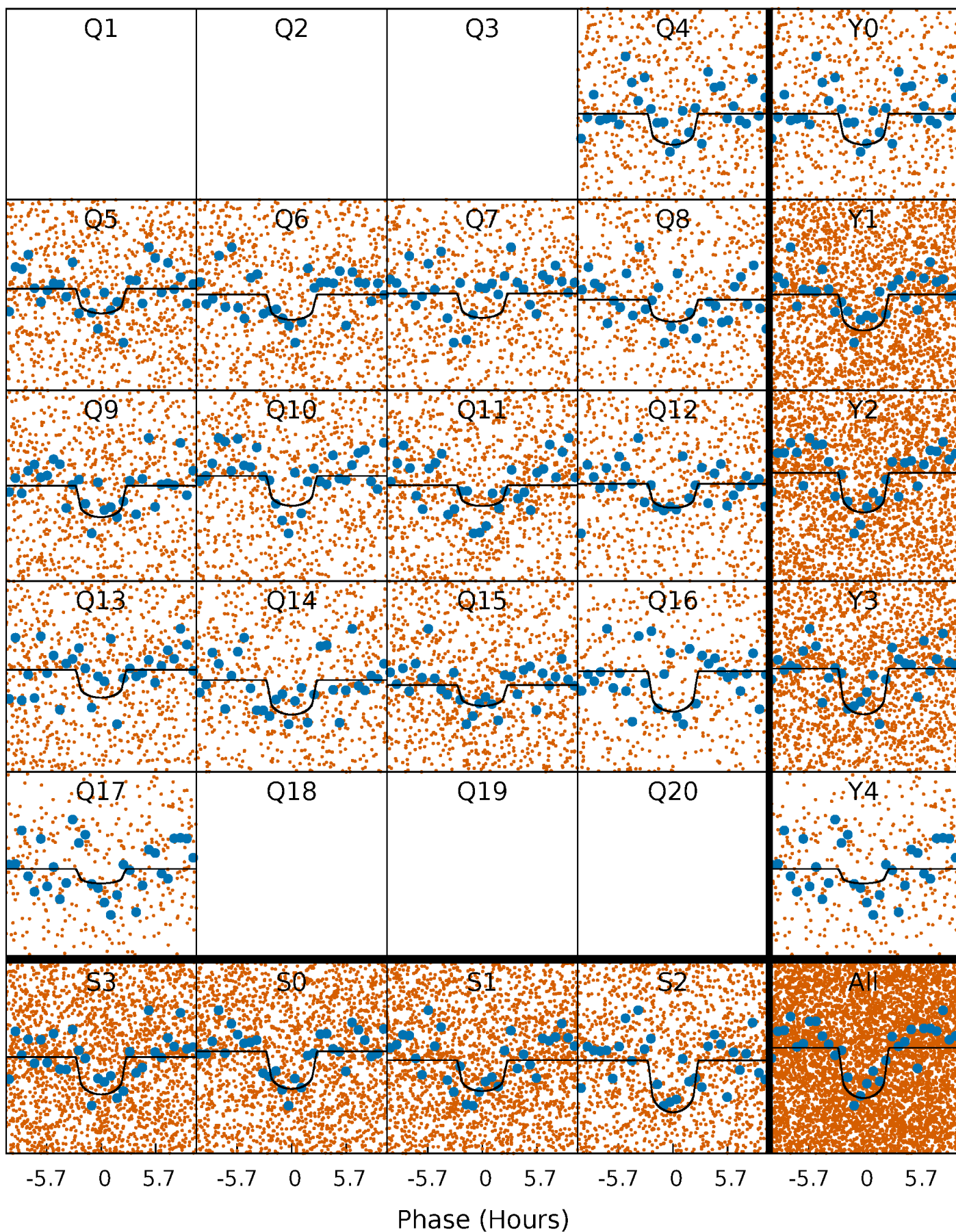
PDC Quarter-Phased Transit Curves

TCE 007033713-01 P= 2.196409 Days $T_0=133.507841$ (BKJD)



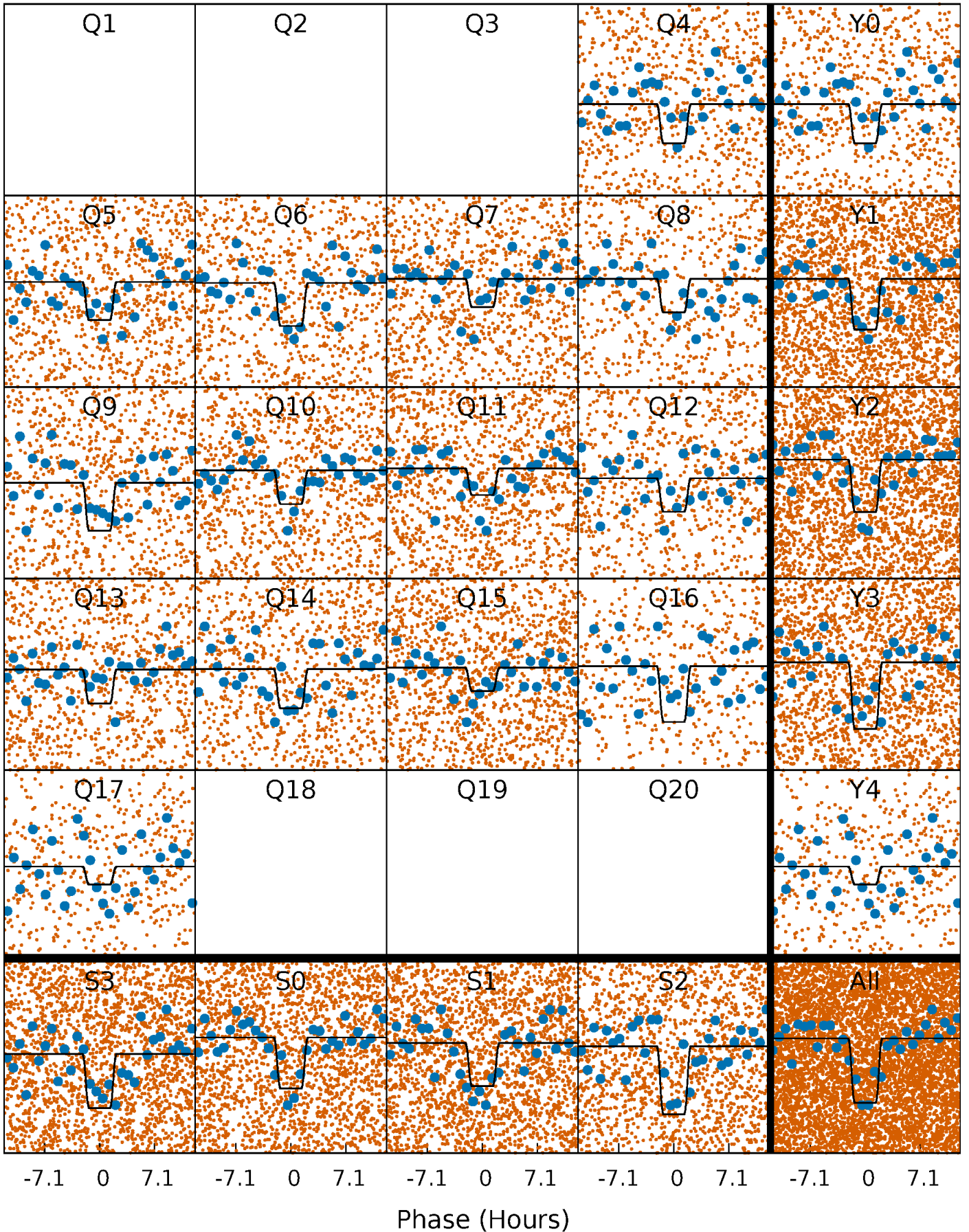
DV Quarter-Phased Transit Curves

TCE 007033713-01 P= 2.196409 Days $T_0=133.507841$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

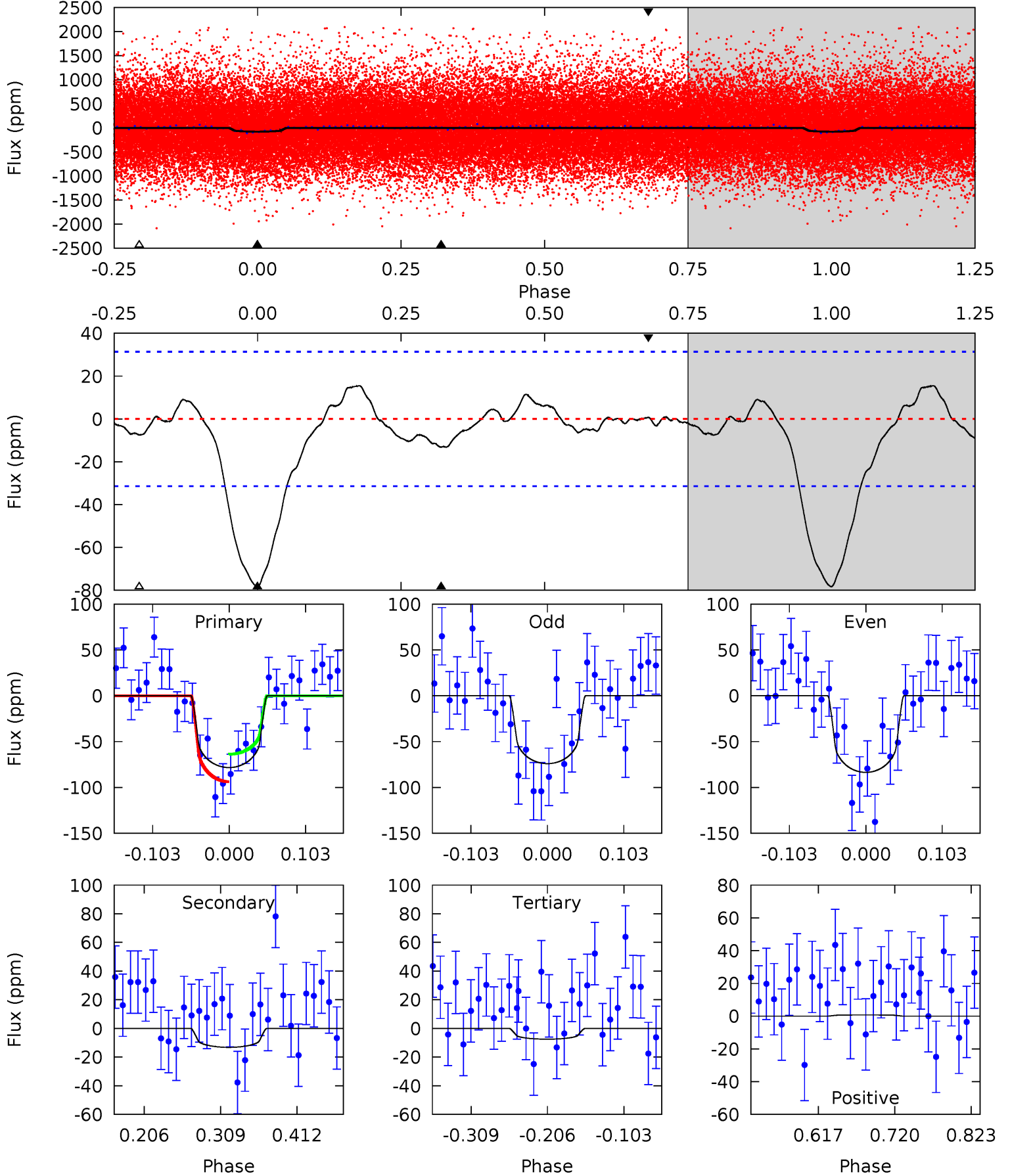
TCE 007033713-01 P= 2.196445 Days $T_0=133.479790$ (BKJD)



DV Model-Shift Uniqueness Test

007033713-01, P = 2.196409 Days, E = 133.507841 Days

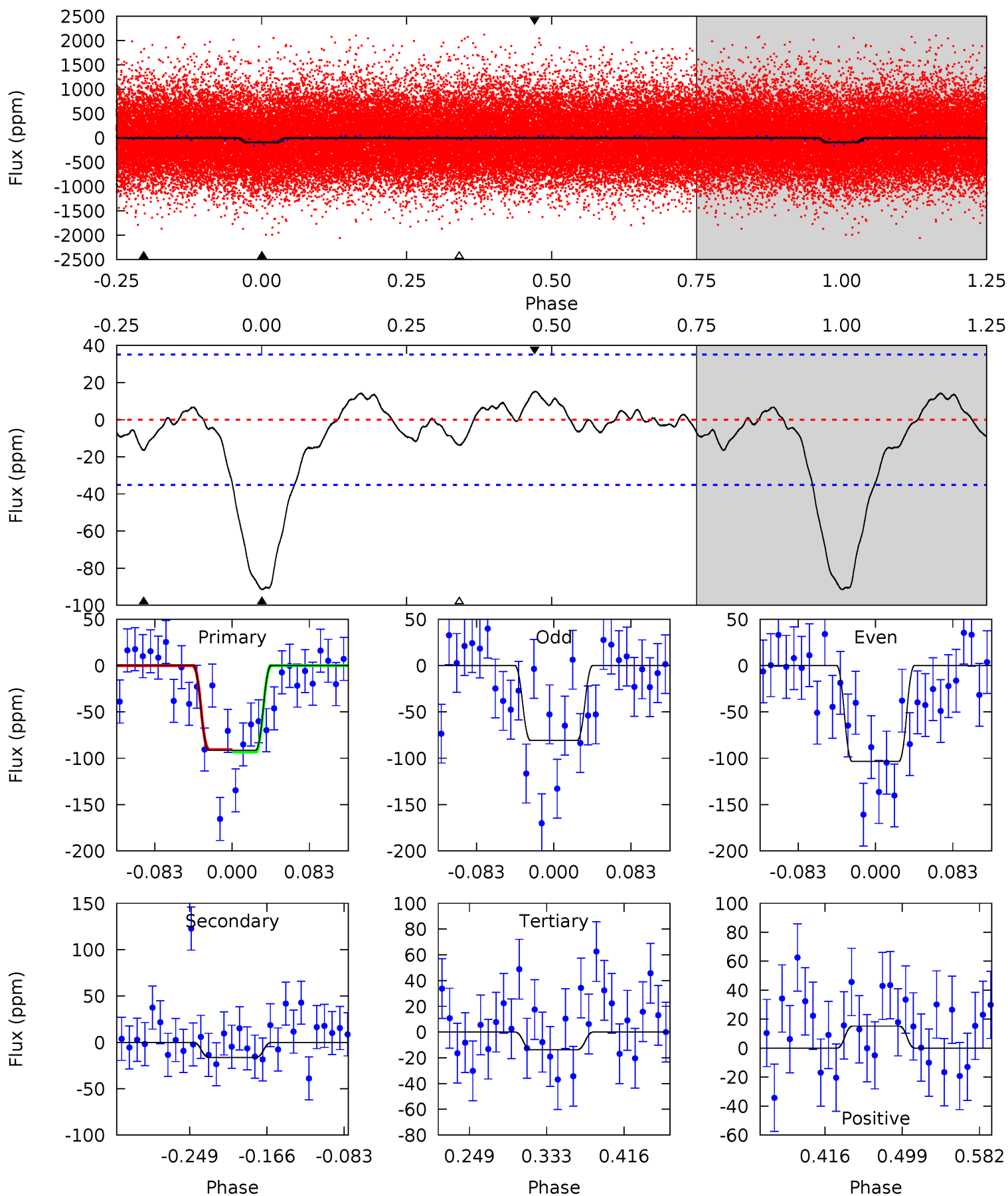
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.4	1.92	1.09	0.11	4.56	1.63	0.82	10.3	11.3	0.83	1.81	0.69	0.90	0.17	2.18



Alt Model-Shift Uniqueness Test

007033713-01, P = 2.196445 Days, E = 133.479790 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.0	2.15	1.79	1.99	4.60	1.73	0.95	10.2	10.00	0.36	0.16	1.49	0.92	0.14	0.19



Stellar Parameters For KIC 007033713

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5376^{+185}_{-185}	$4.576^{+0.030}_{-0.120}$	$-0.020^{+0.250}_{-0.300}$	$0.806^{+0.143}_{-0.066}$	$0.897^{+0.070}_{-0.104}$	$2.413^{+0.394}_{-0.883}$
	+3%/-3%	+1%/-3%	+1250%/-1500%	+18%/-8%	+8%/-12%	+16%/-37%
Source	KIC0	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 007033713-01 / KOI 6813.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-13 ± 7	$0.99^{+0.63}_{-0.57}$	1692^{+89}_{-76}	3448^{+1290}_{-613}	$6.513^{+31.910}_{-4.532}$
Alt.	-16 ± 8	$0.95^{+0.66}_{-0.54}$	1696^{+89}_{-75}	3661^{+1392}_{-673}	$9.428^{+39.528}_{-6.769}$

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

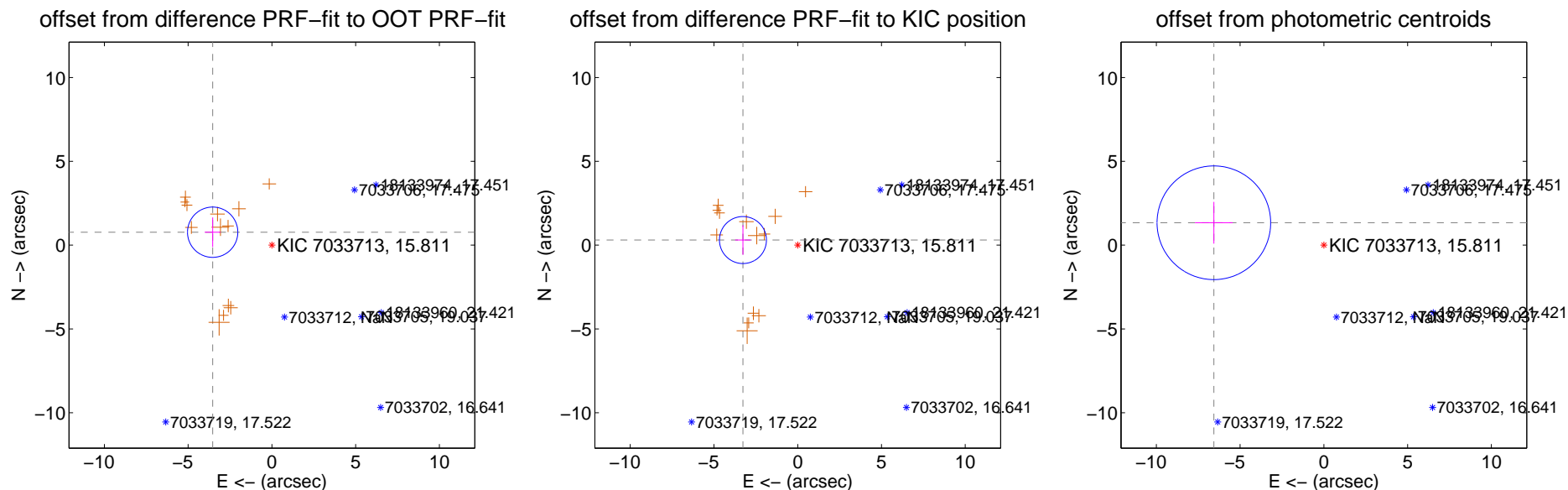
DV Centroid Data

Supplemental centroid analysis for 007033713-01. Kepler magnitude: 15.81. Transit SNR 10.34

There are 0 quarters with good PRF difference image offsets

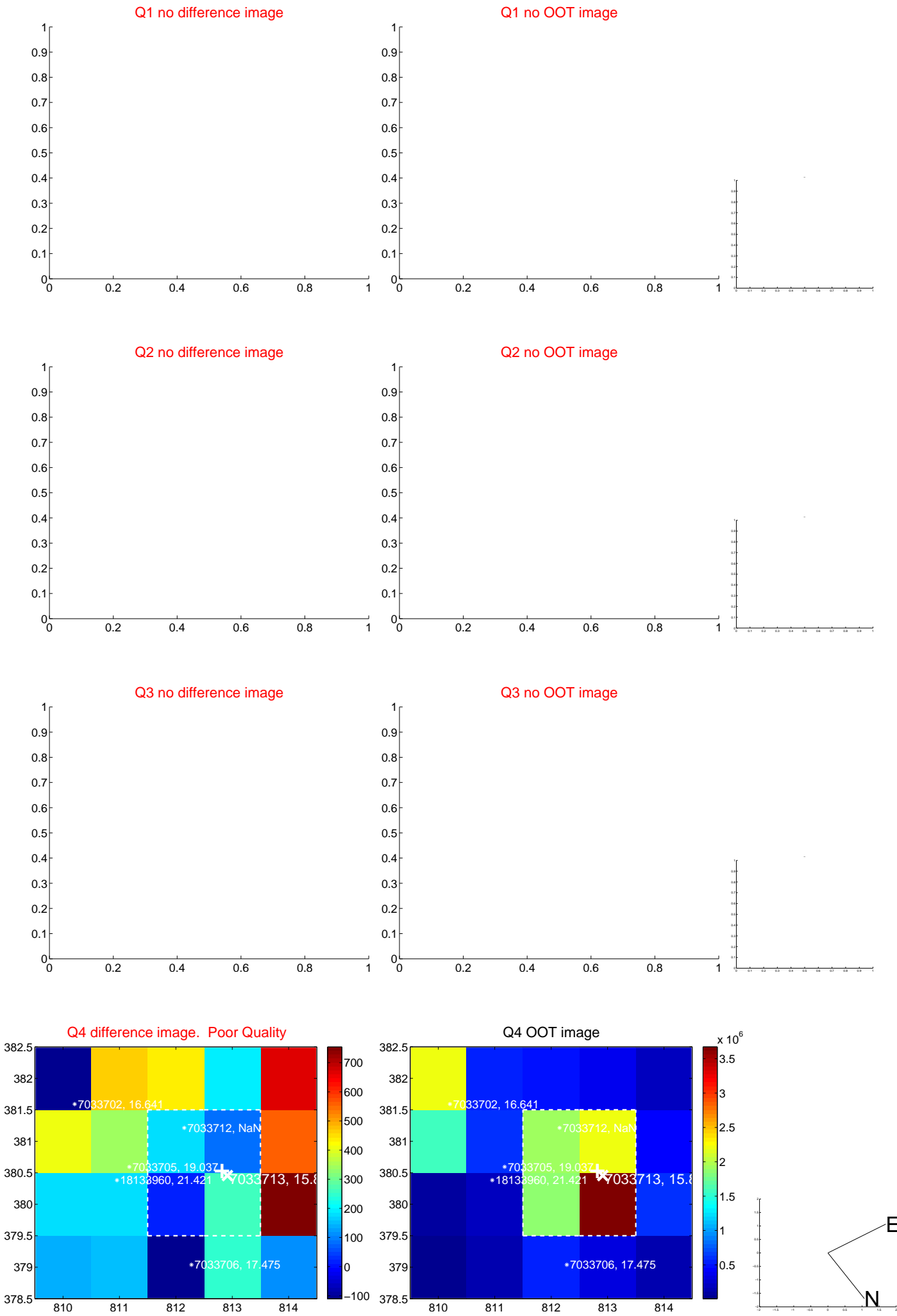
The direct PRF centroid is offset from the target star catalog position by about 0.77 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.619 ± 0.500	7.23	3.536 ± 0.475	0.772 ± 0.883
PRF-fit source offset from KIC position	3.284 ± 0.467	7.03	3.270 ± 0.462	0.305 ± 0.884
photometric centroid source offset	6.70 ± 1.13	5.93	6.57 ± 1.13	1.34 ± 1.24

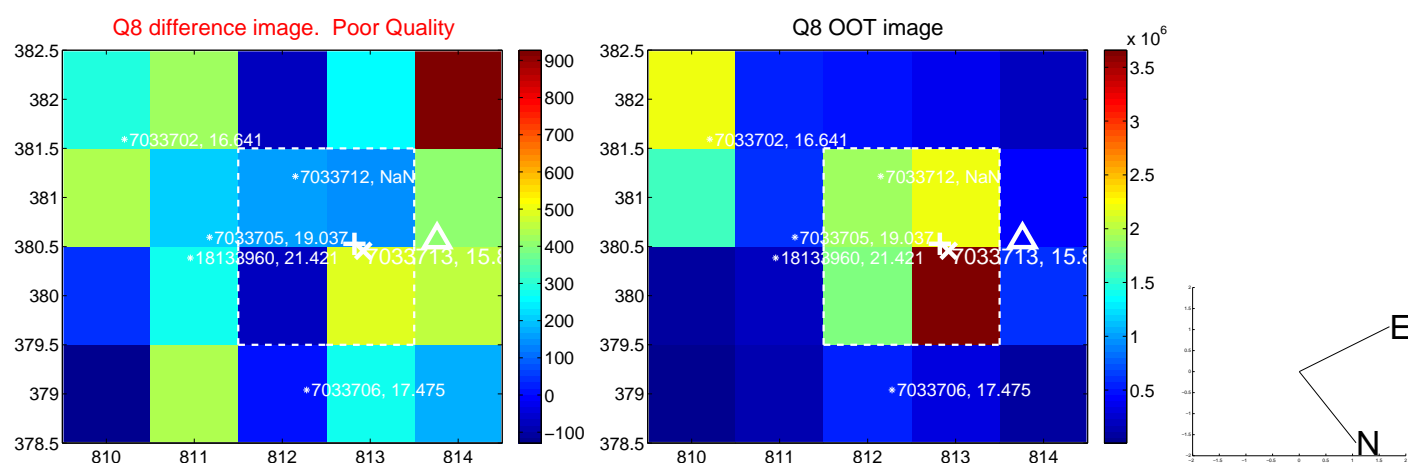
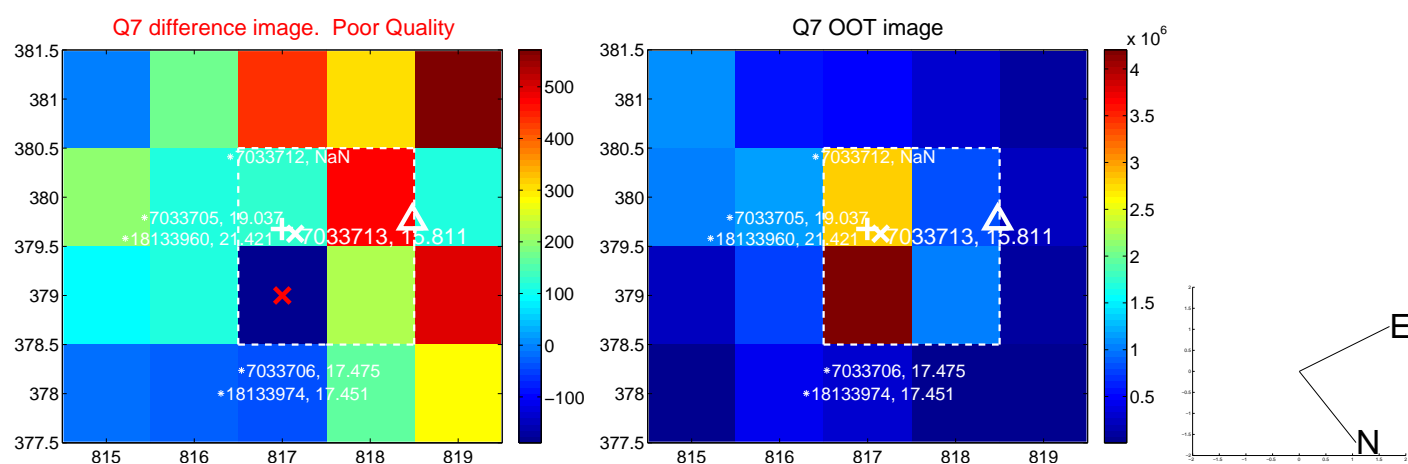
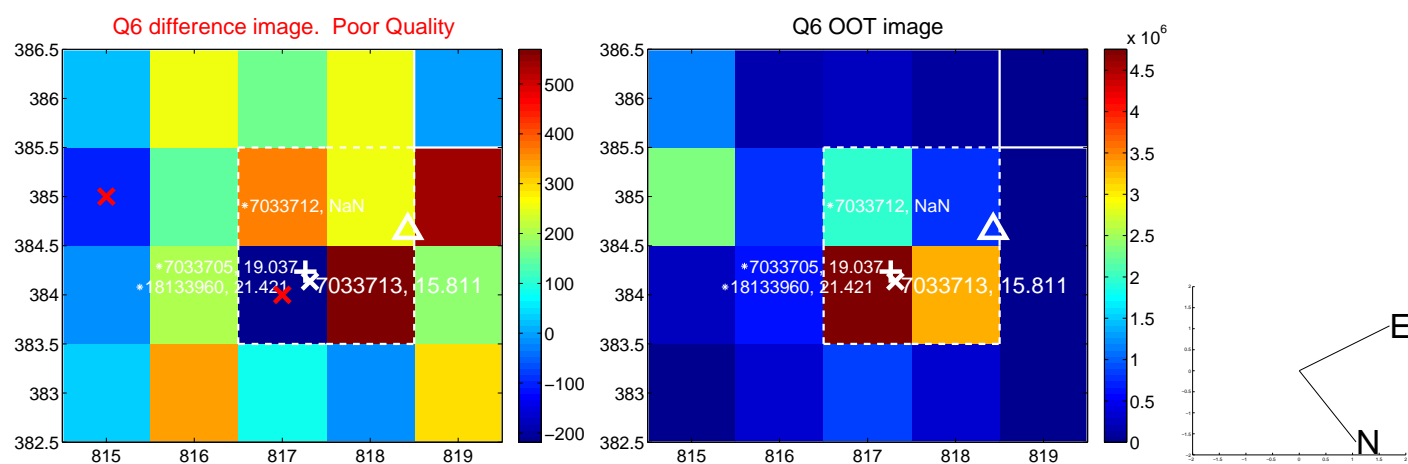
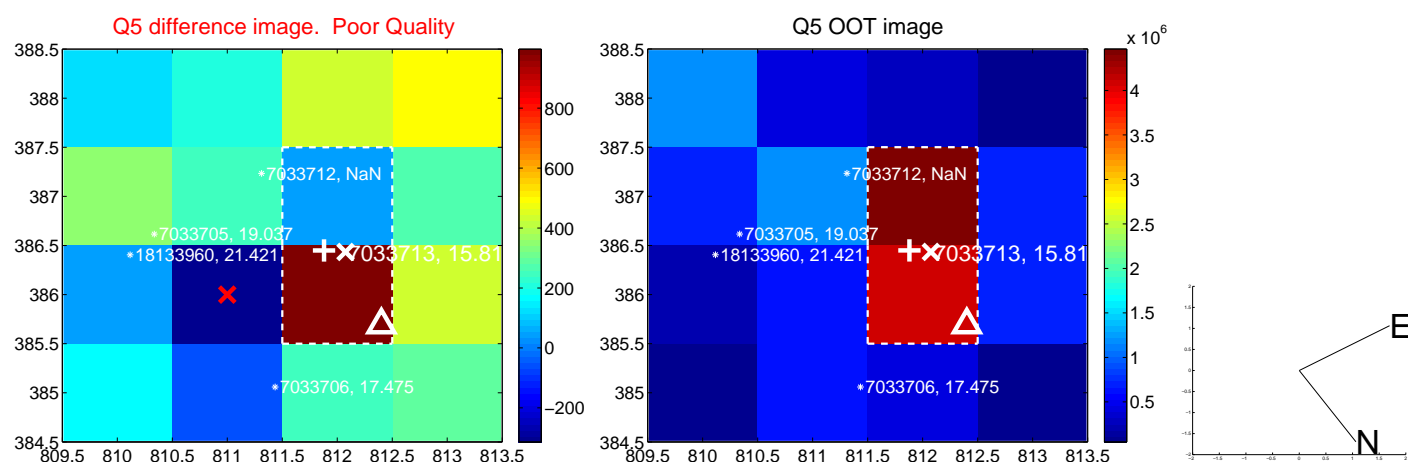


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

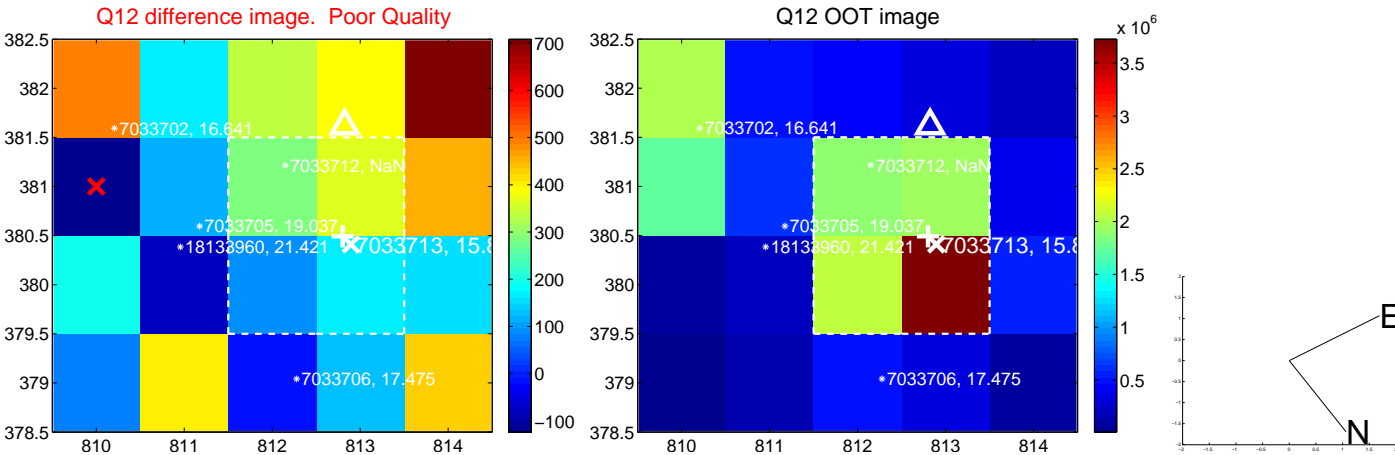
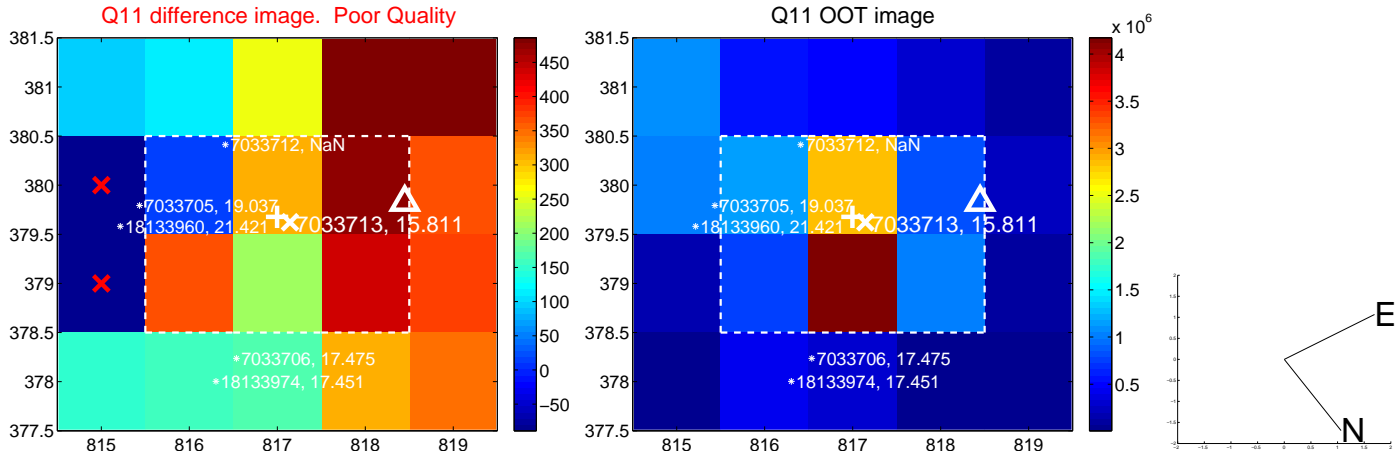
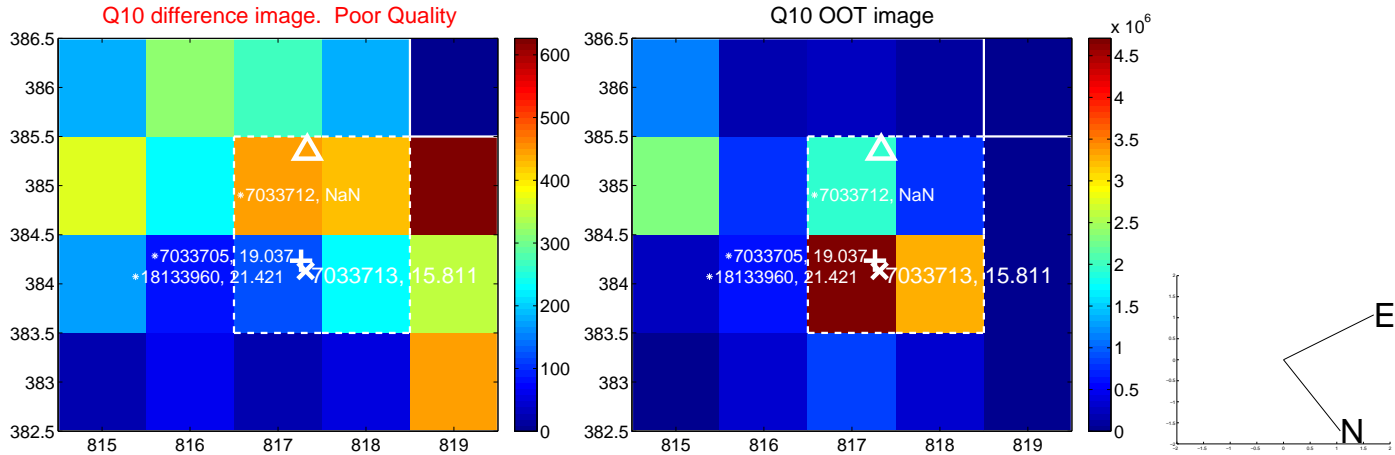
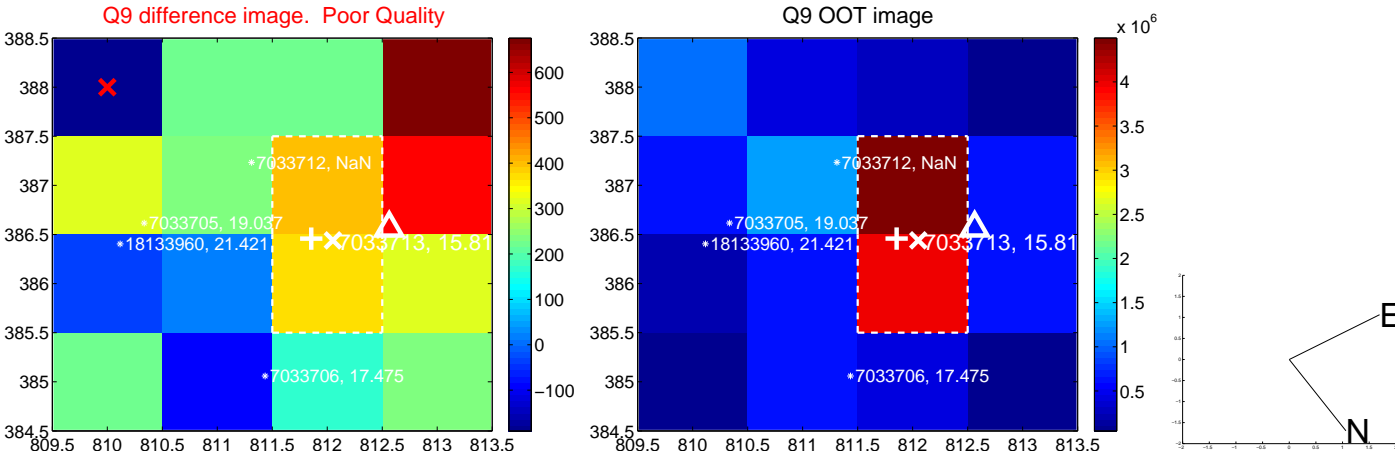
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



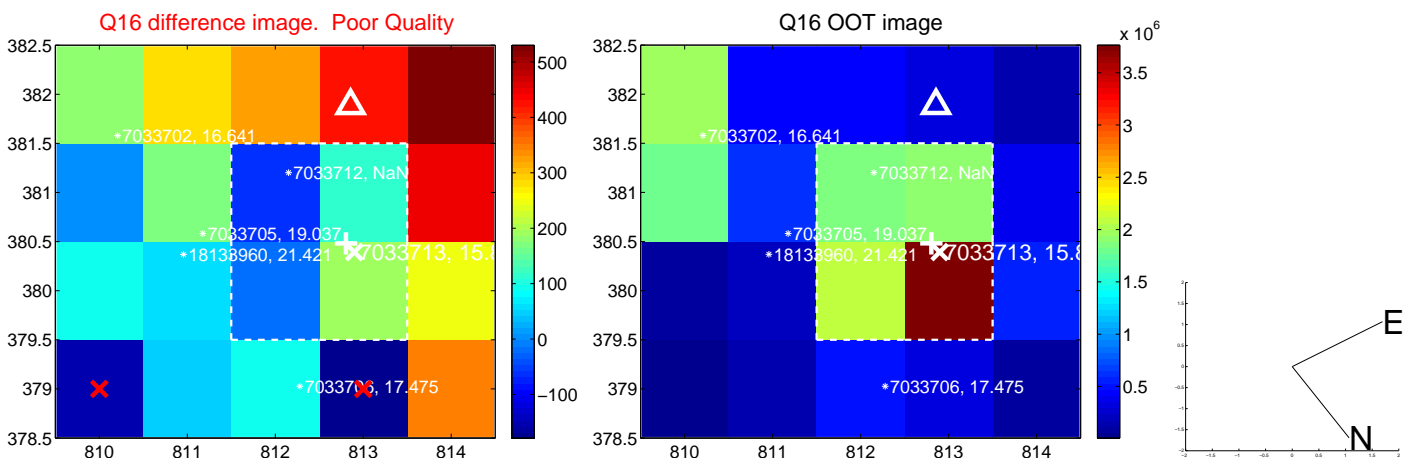
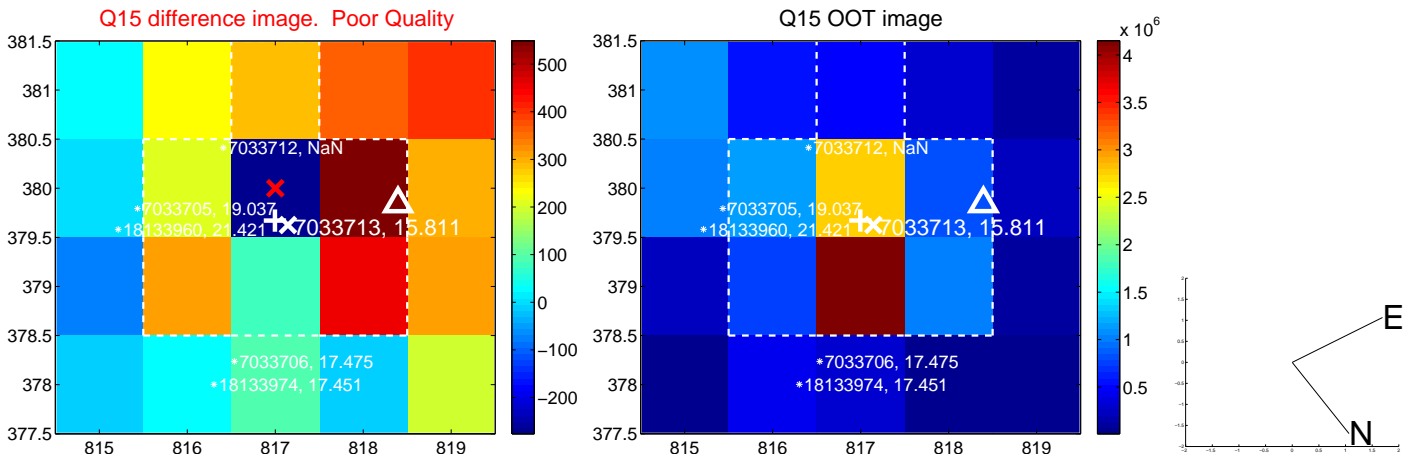
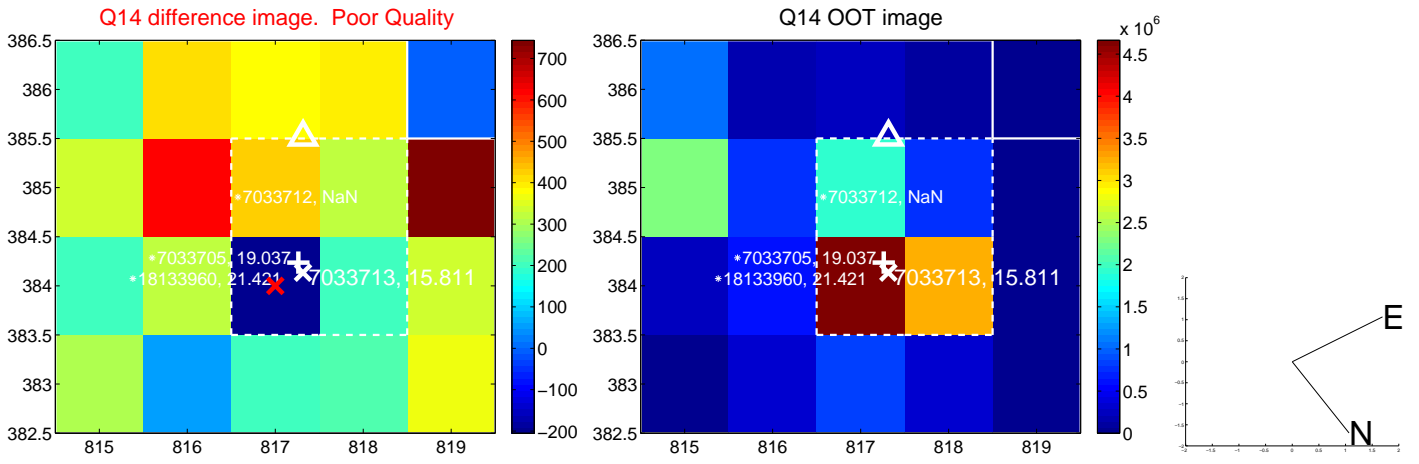
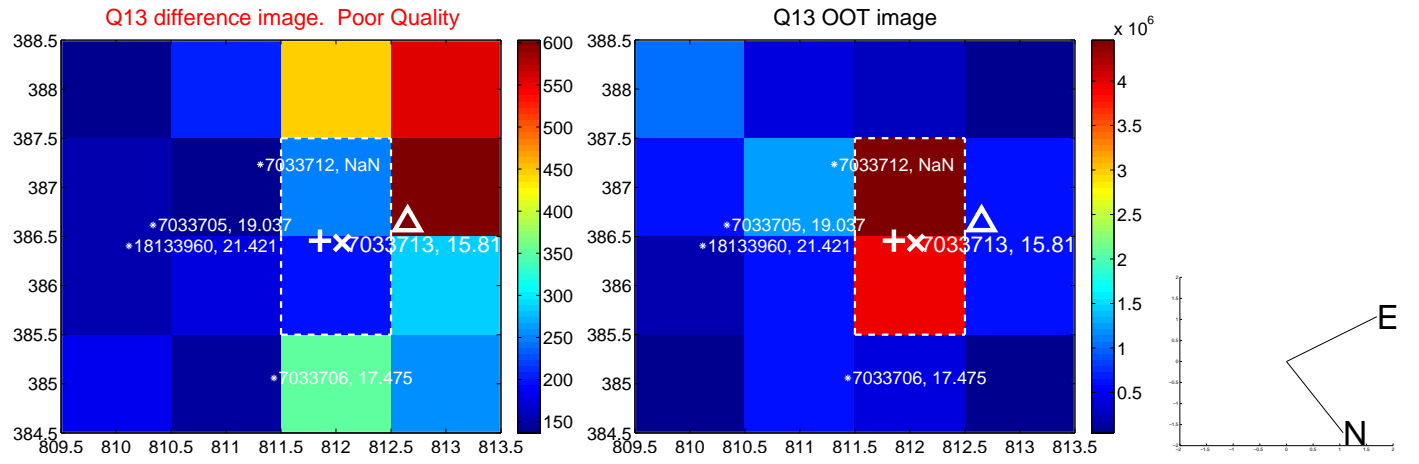
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



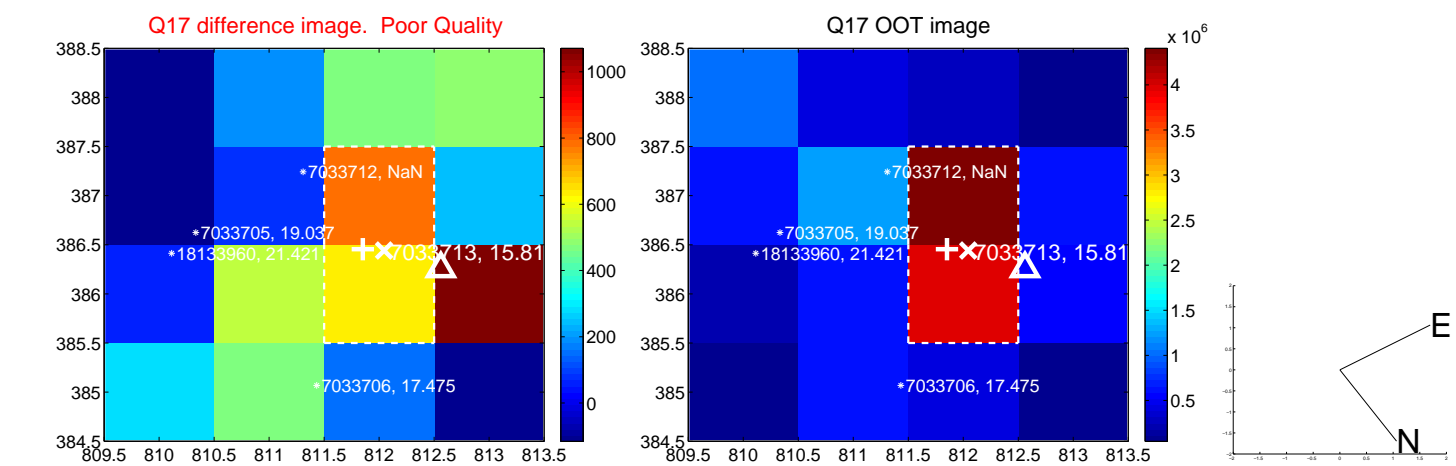
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



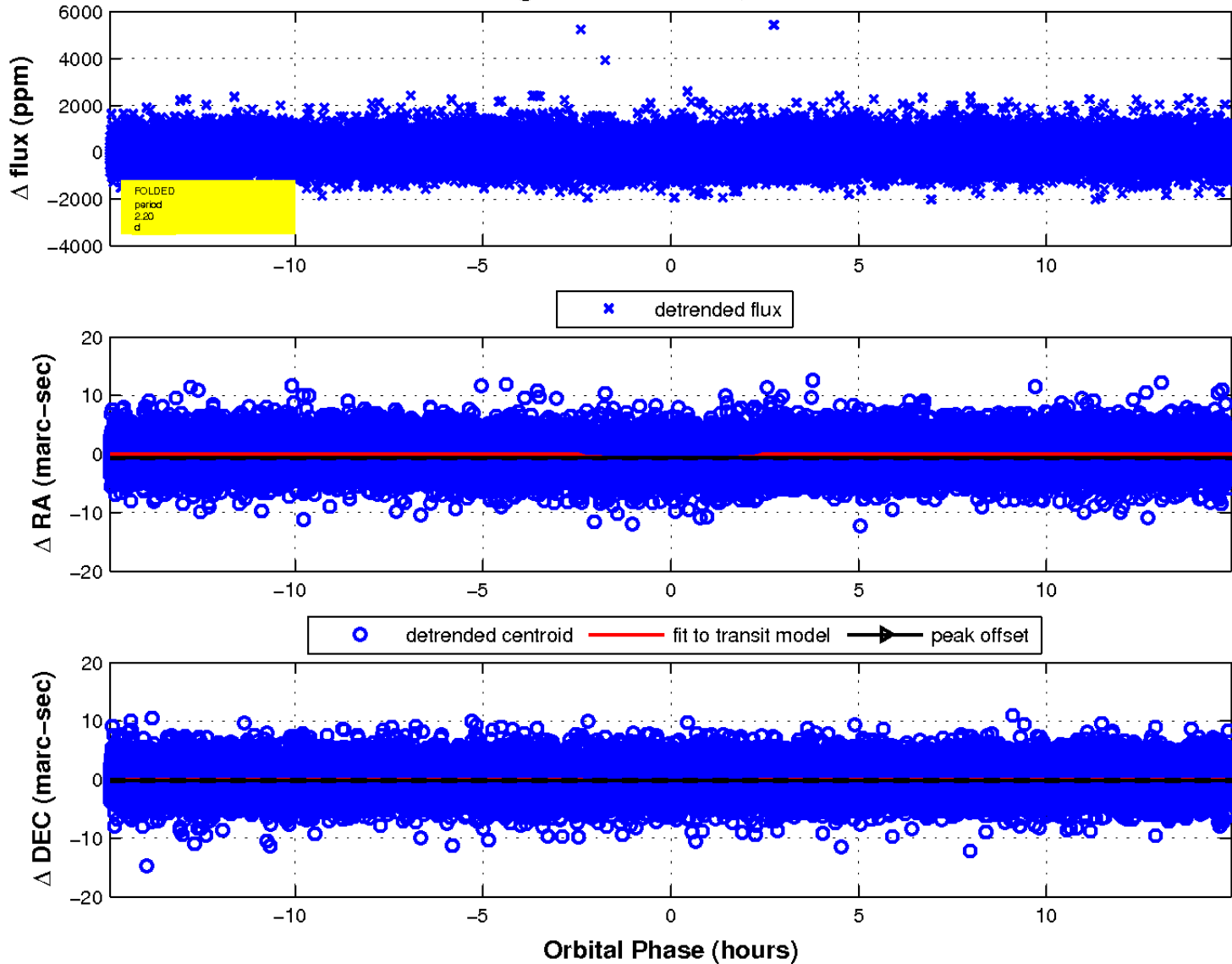
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

