

KIC 011073656

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})
011073656-01	OBS	2206.01	1.834278	132.859429	274.2	1.879	19.8	23.2	0.96	5751	1.86	1073.56

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011073656-01	OBS	PC	1.00	0	0	0	0	CENT_KIC_POS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

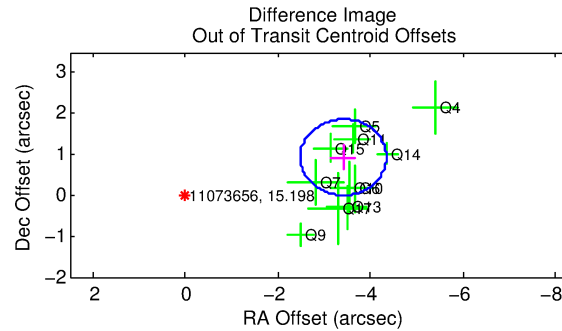
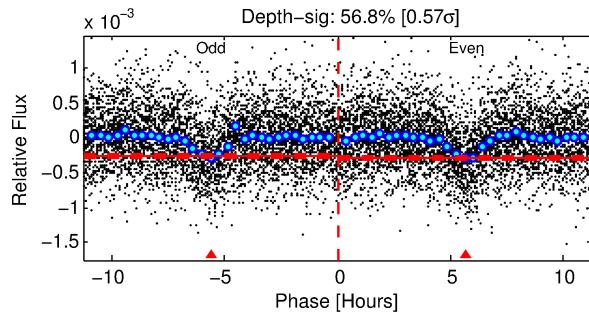
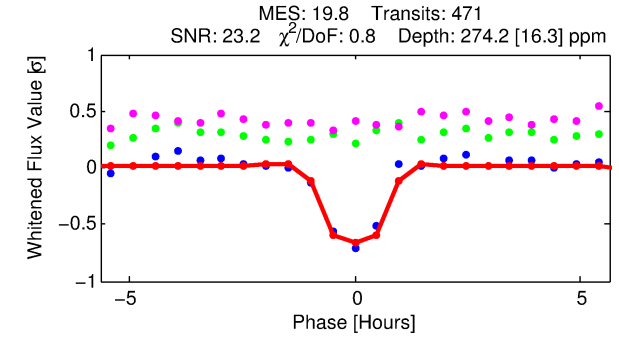
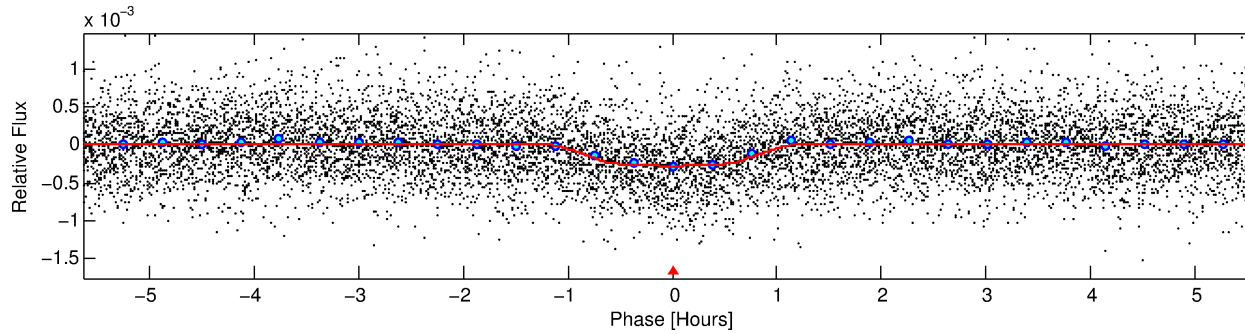
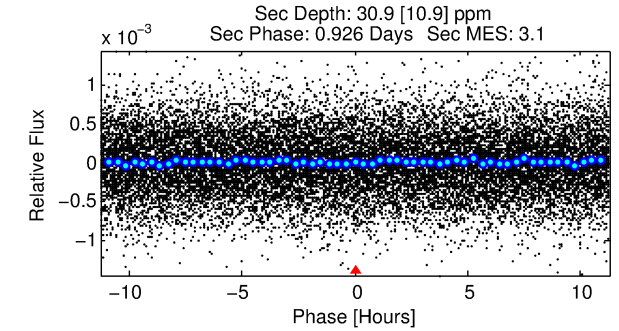
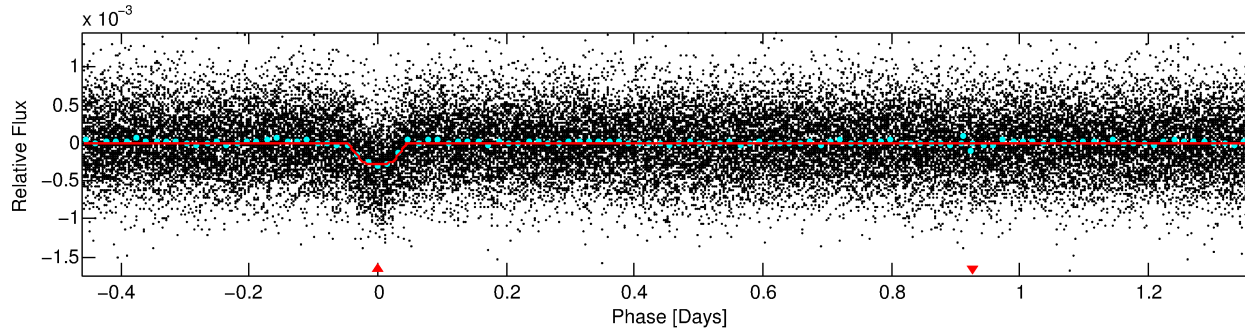
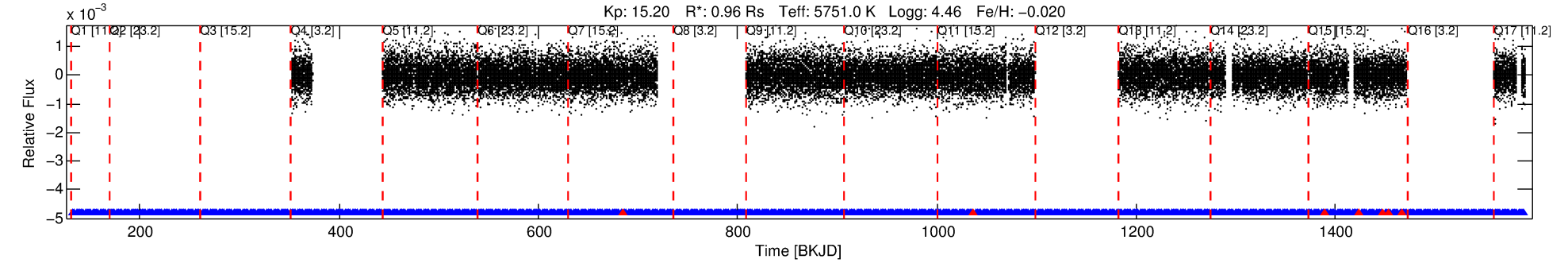
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011073656-01

No Significant Match Found

DV One-Page Summary

KIC: 11073656 Candidate: 1 of 1 Period: 1.834 d
KOI: K02206.01 Corr: 0.969



DV Fit Results:

Period = 1.83428 [0.00001] d
Epoch = 132.8594 [0.0012] BKJD
Rp/R* = 0.0178 [0.0060]
a/R* = 3.92 [5.75]
b = 0.88 [0.41]
Seff = 1073.56 [396.52]
Teq = 1460 [135] K
Rp = 1.86 [0.82] Re
a = 0.0289 [0.0068] AU
Ag = 4.12 [3.45] [0.90σ]
Teffp = 3215 [622] K [2.76σ]

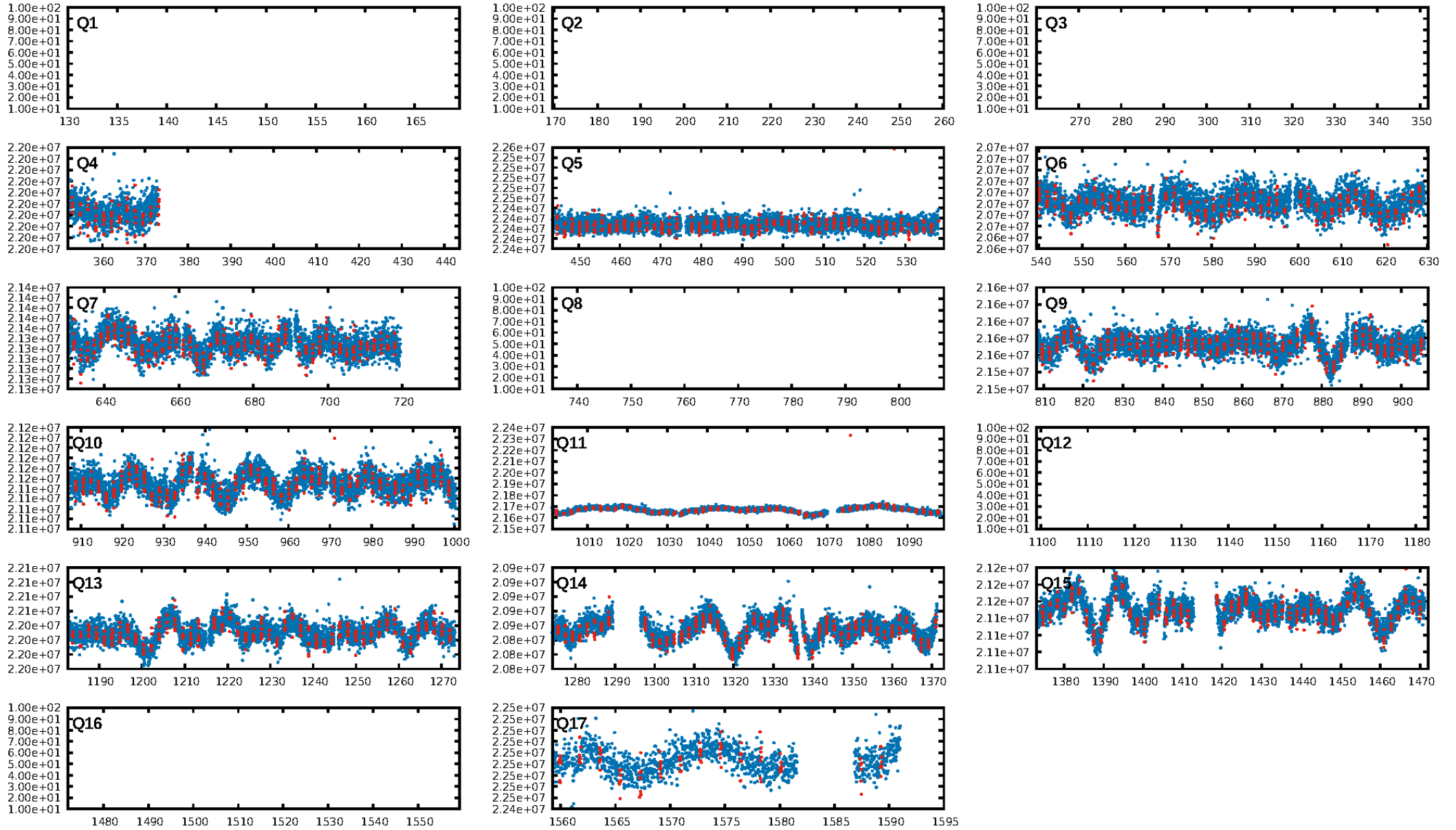
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.06e-83
RollingBand-fgt: 0.98 [438/445]
GhostDiagnostic-chr: 2.142
Centroid-sig: 0.0%
Centroid-so: 1.497 arcsec [4.13σ]
OotOffset-rm: 3.536 arcsec [11.40σ]
KicOffset-rm: 0.407 arcsec [2.04σ]
OotOffset-st: 3/3/1/4 [11]
KicOffset-st: 3/3/1/4 [11]
DiffImageQuality-fgm: 0.91 [10/11]
DiffImageOverlap-fno: 1.00 [11/11]

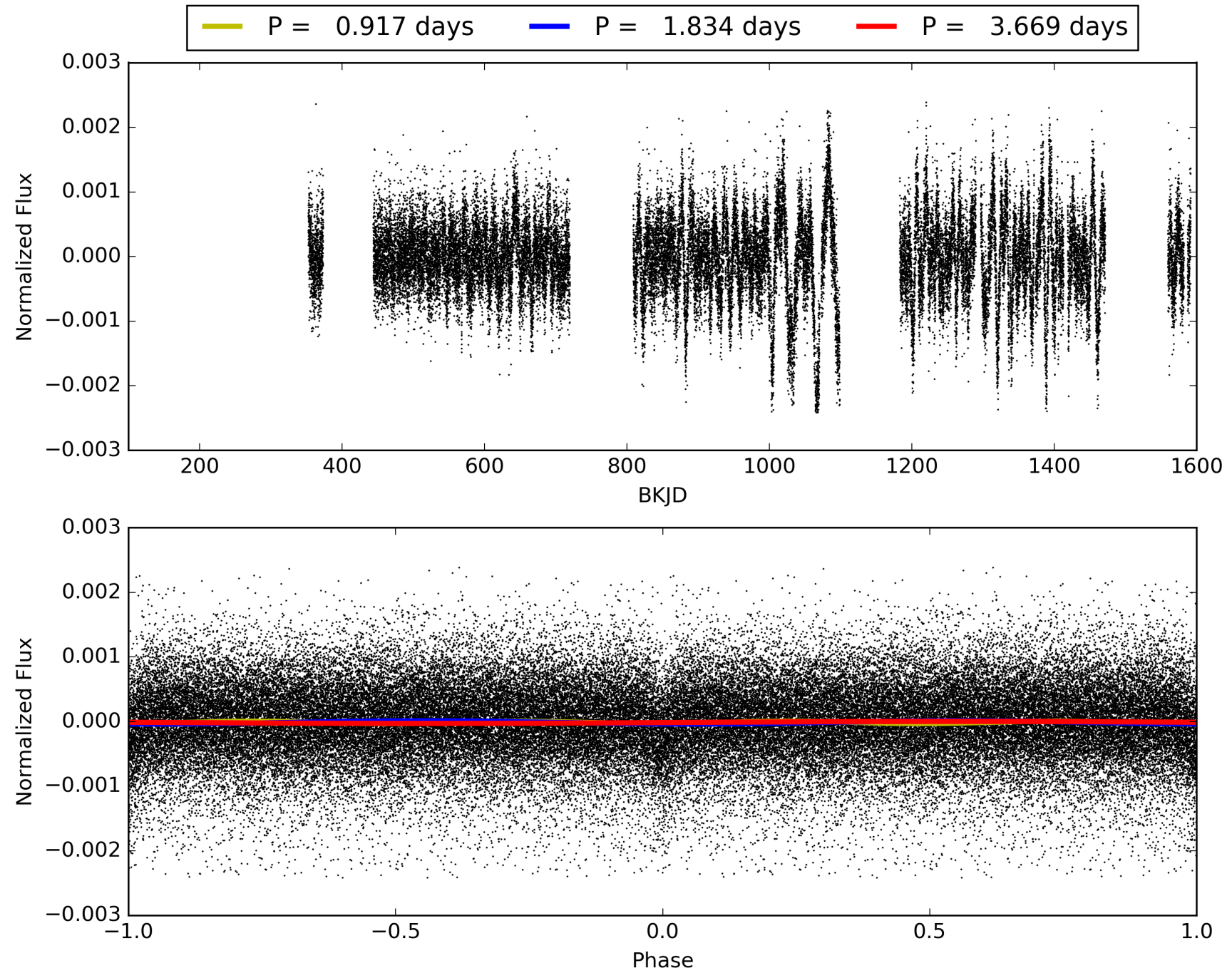
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 02:29:25 Z

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

TCE 011073656-01, PDC Light Curves

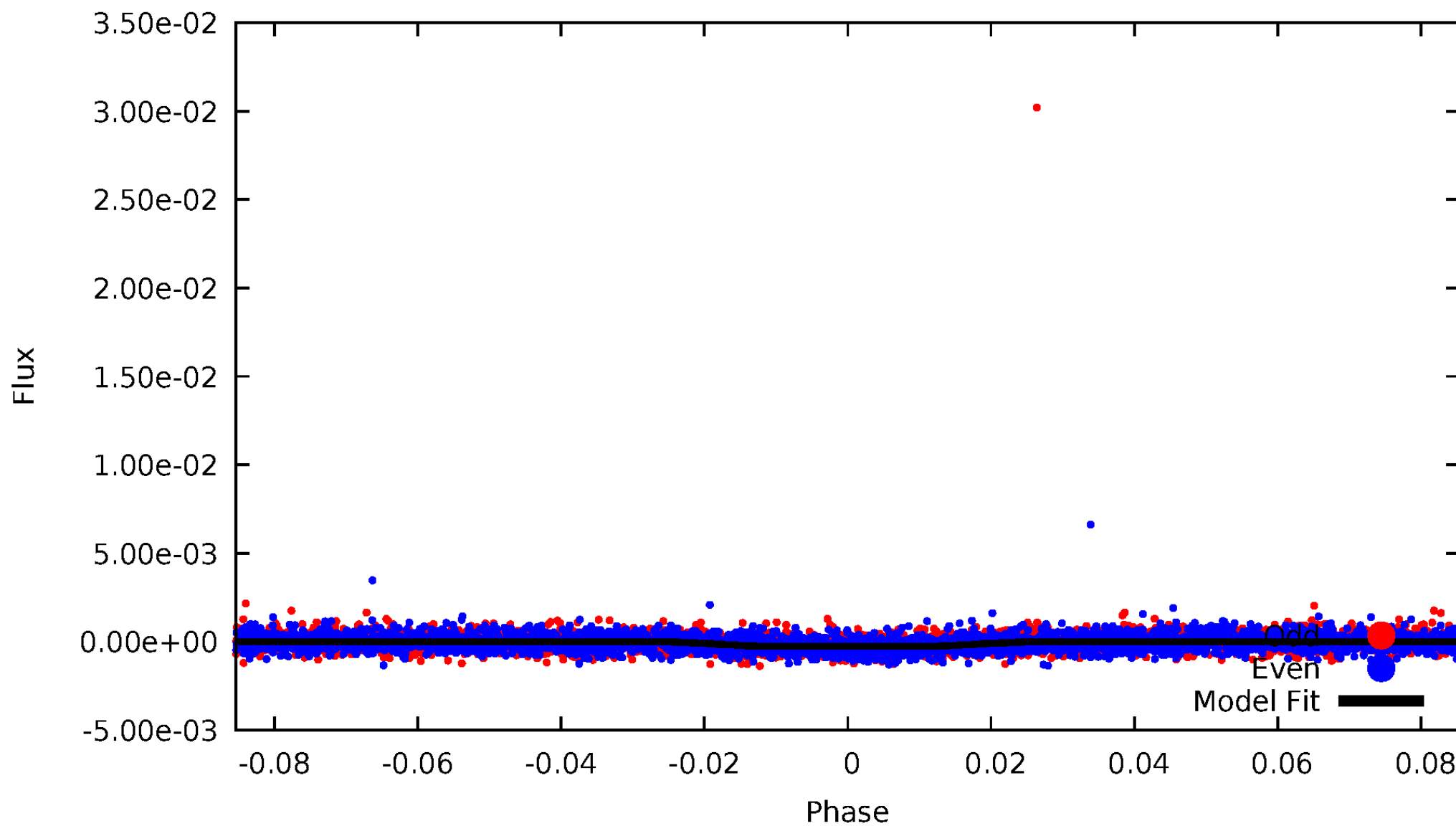


TCE 011073656-01



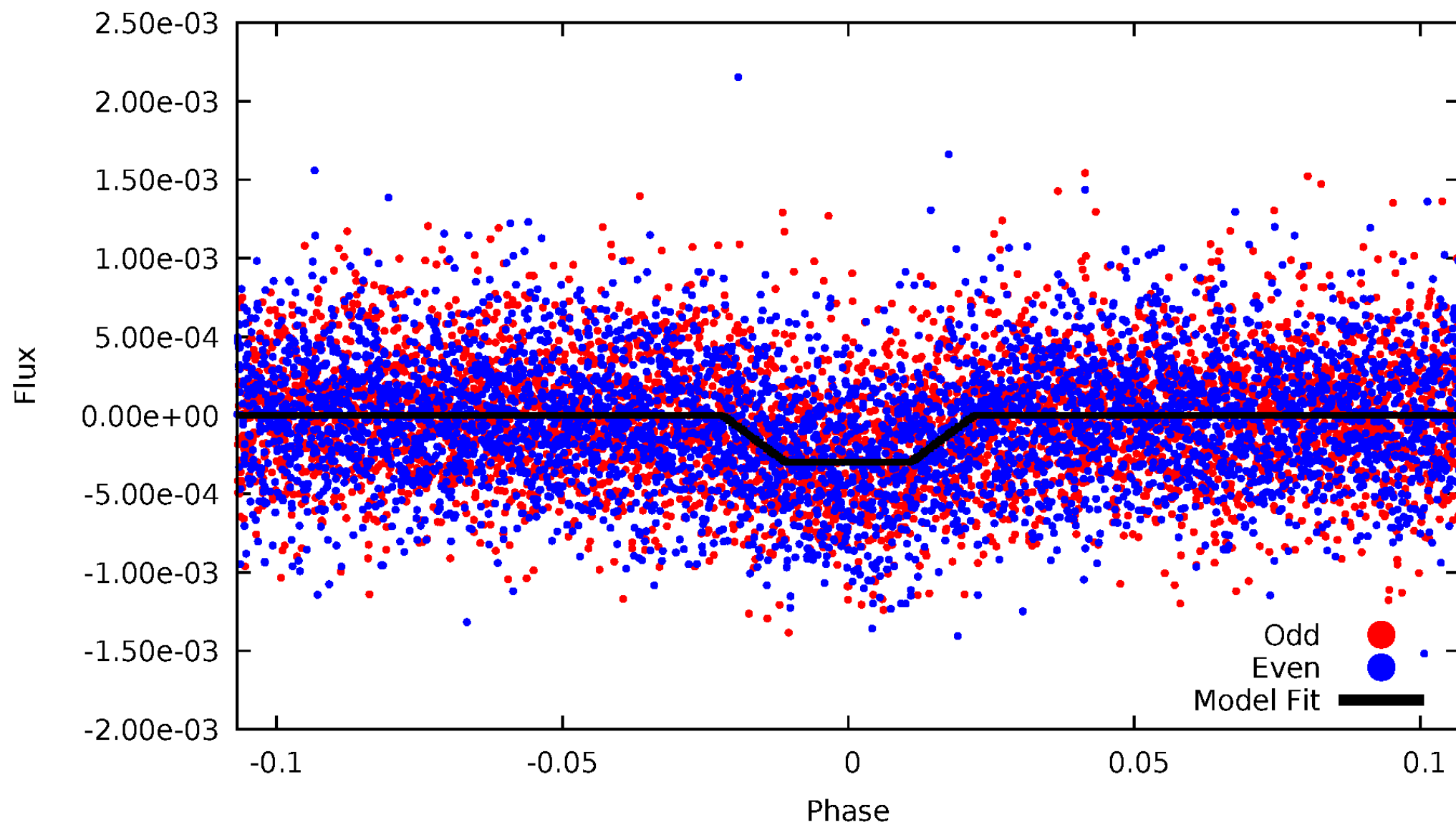
DV Odd/Even

TCE 011073656-01



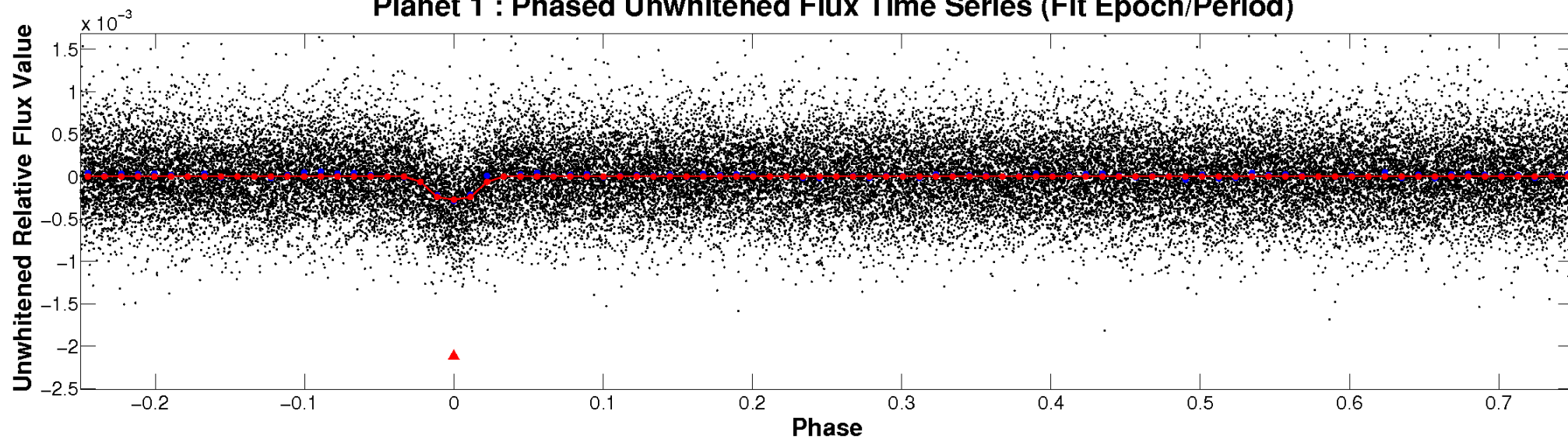
ALT Odd/Even

TCE 011073656-01

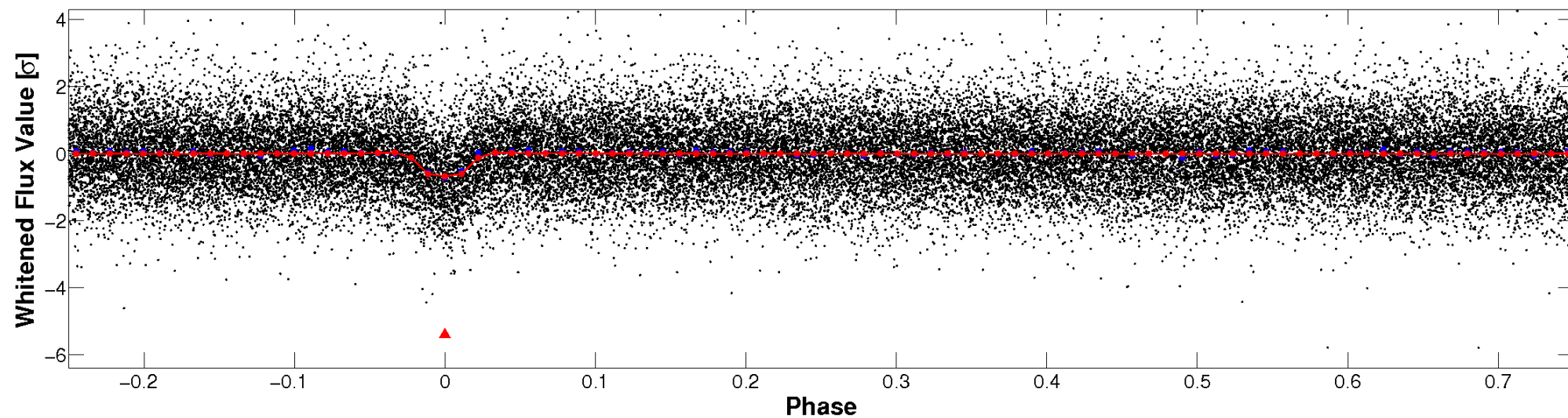


Non-Whitened Vs. Whitened Light Curve

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

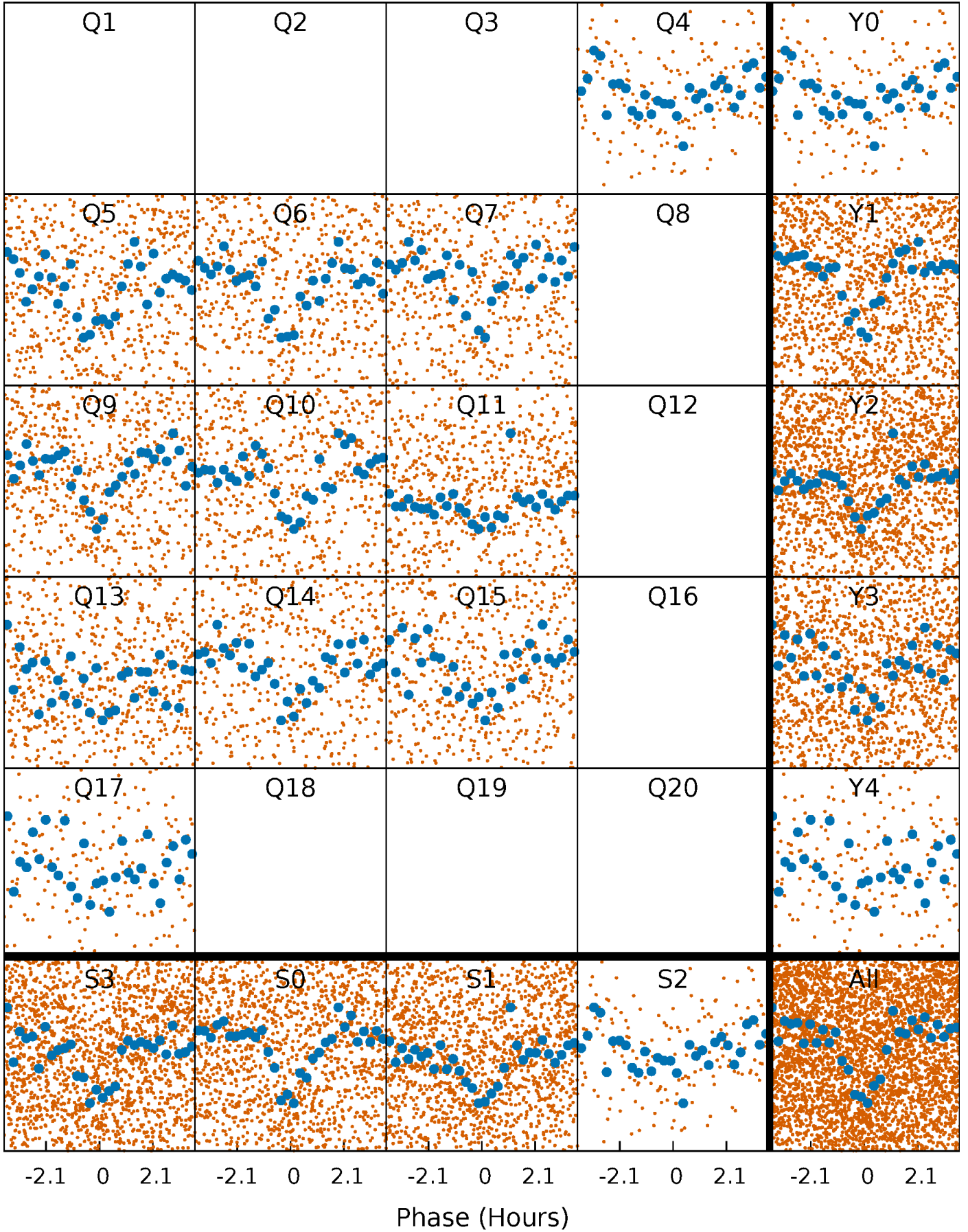


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



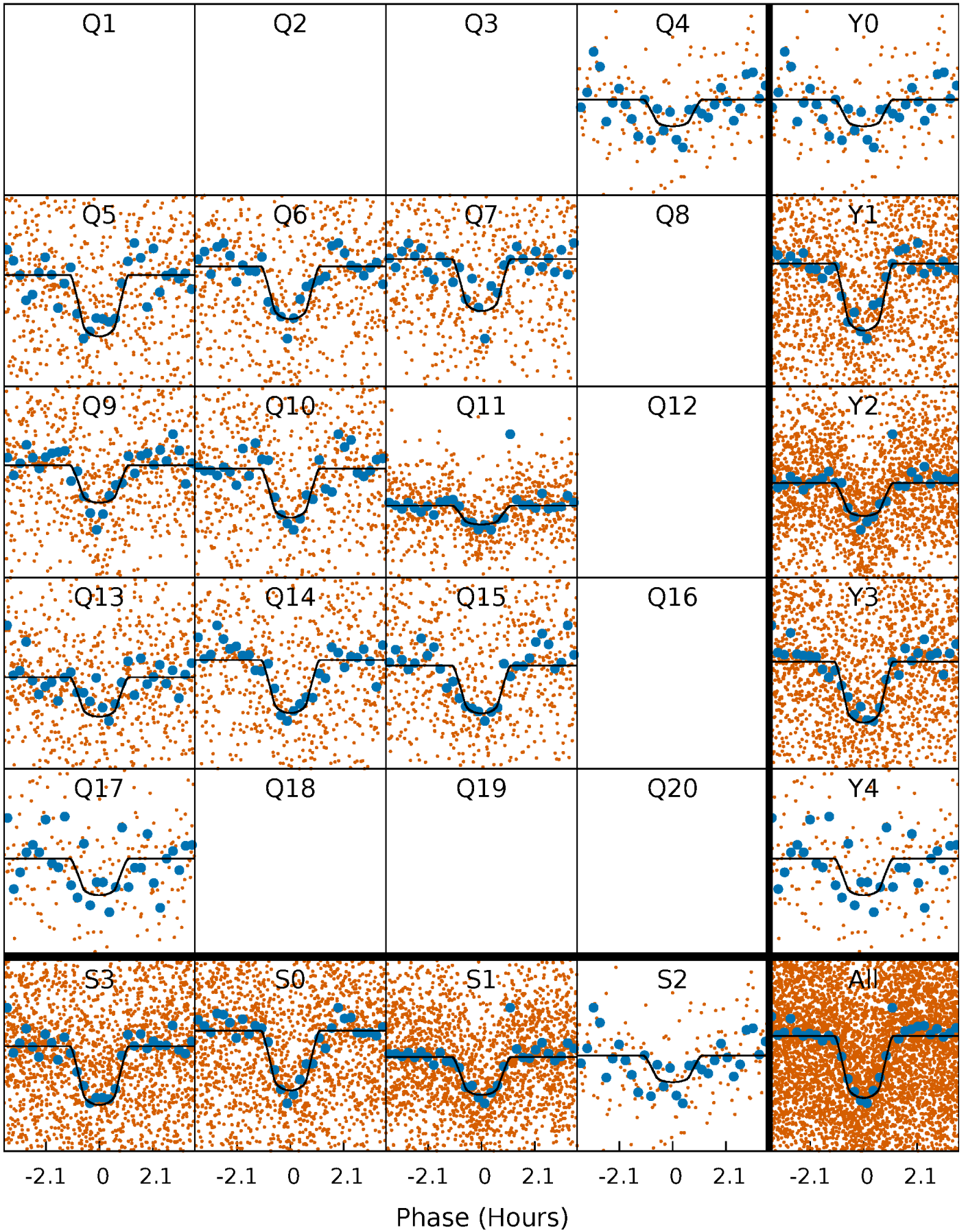
PDC Quarter-Phased Transit Curves

TCE 011073656-01 P= 1.834278 Days $T_0=132.859429$ (BKJD)



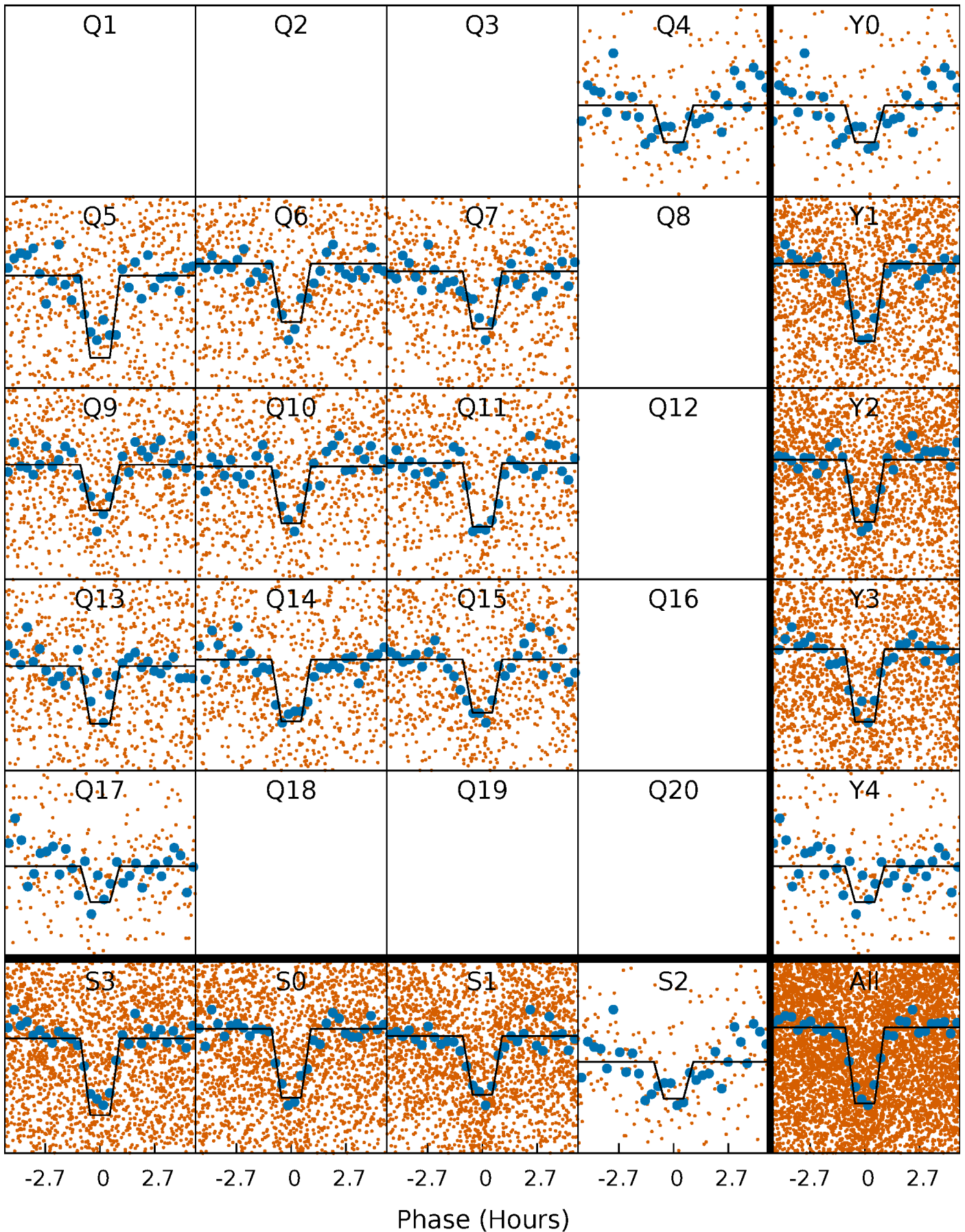
DV Quarter-Phased Transit Curves

TCE 011073656-01 P= 1.834278 Days $T_0=132.859429$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

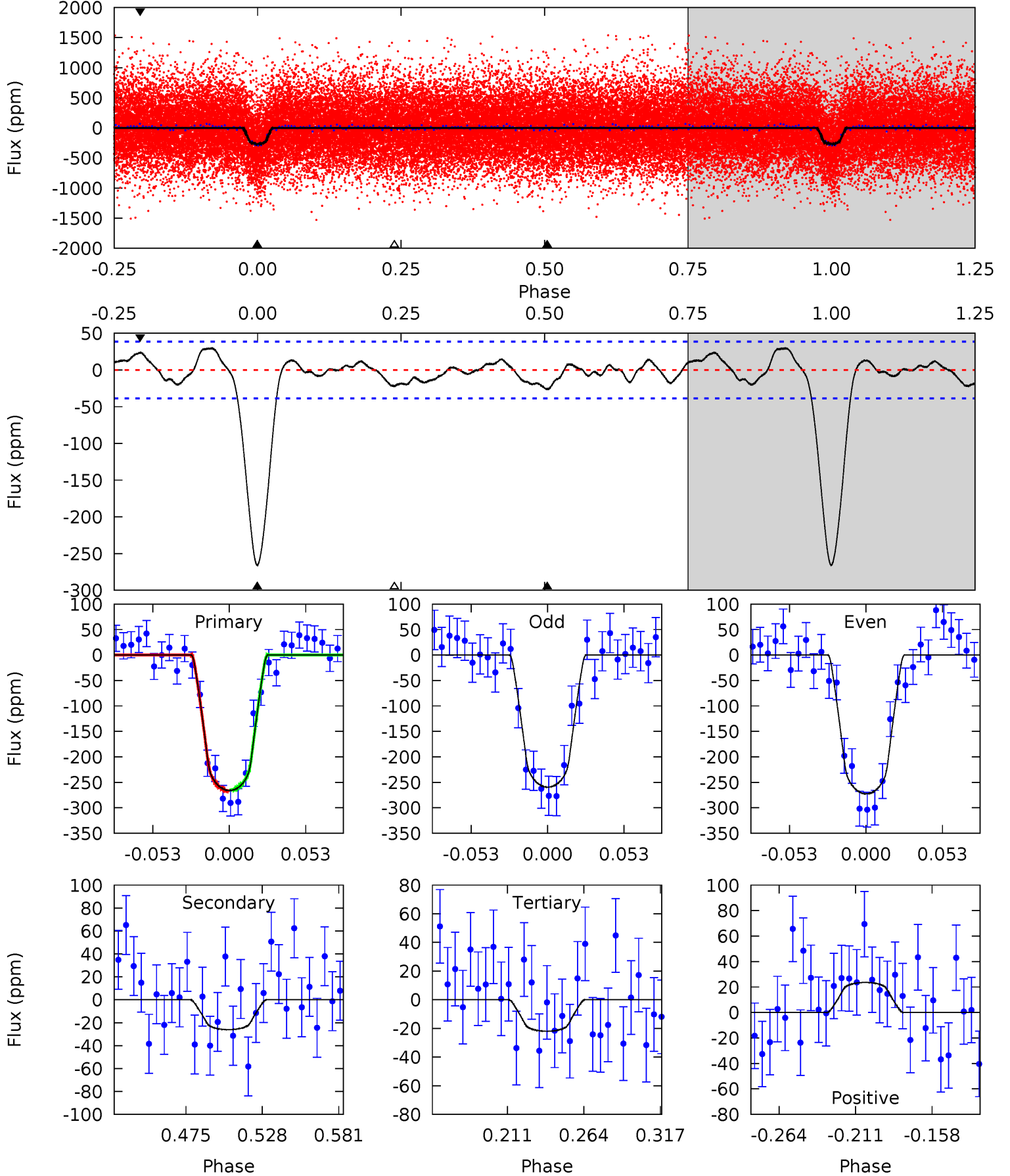
TCE 011073656-01 P= 1.834296 Days $T_0=132.851324$ (BKJD)



DV Model-Shift Uniqueness Test

011073656-01, P = 1.834278 Days, E = 132.859429 Days

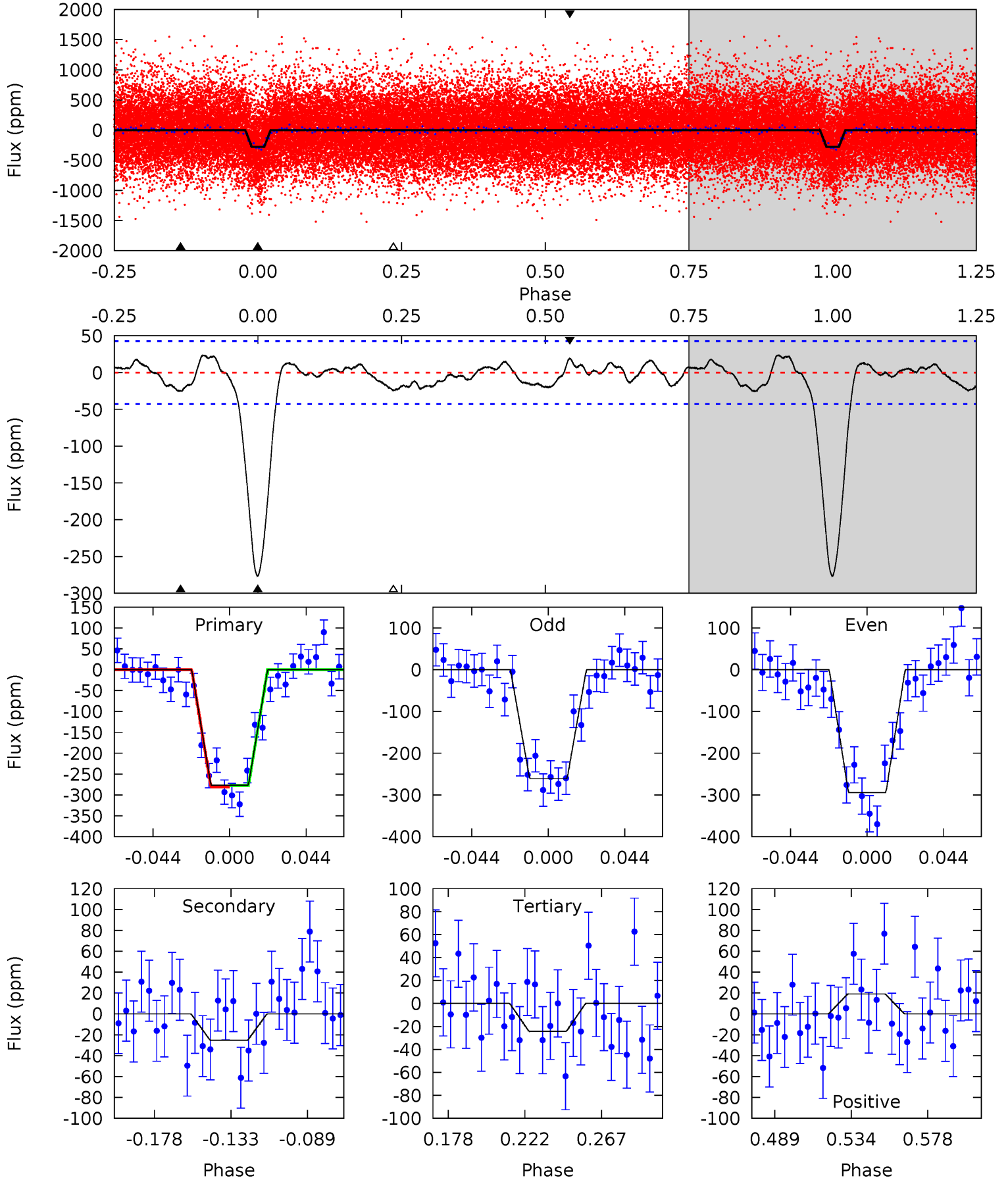
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
32.4	3.17	2.67	2.87	4.70	1.94	1.43	29.7	29.5	0.50	0.30	0.80	0.95	0.10	0.09



Alt Model-Shift Uniqueness Test

011073656-01, P = 1.834296 Days, E = 132.851324 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
30.8	2.82	2.70	2.12	4.73	2.01	1.24	28.1	28.7	0.12	0.70	1.87	1.00	0.08	0.19



Stellar Parameters For KIC 011073656

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5751^{+173}_{-190}	$4.458^{+0.081}_{-0.189}$	$-0.020^{+0.300}_{-0.300}$	$0.958^{+0.268}_{-0.115}$	$0.962^{+0.125}_{-0.102}$	$1.539^{+0.544}_{-0.786}$
	+3%/-3%	+2%/-4%	+1500%/-1500%	+28%/-12%	+13%/-11%	+35%/-51%
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 011073656-01 / KOI 2206.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-26 ± 8	$1.89^{+0.76}_{-0.70}$	2067^{+139}_{-115}	3513^{+594}_{-430}	$3.395^{+4.593}_{-1.864}$
Alt.	-25 ± 9	$1.87^{+0.75}_{-0.62}$	2070^{+147}_{-112}	3447^{+626}_{-414}	$3.056^{+4.500}_{-1.625}$

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

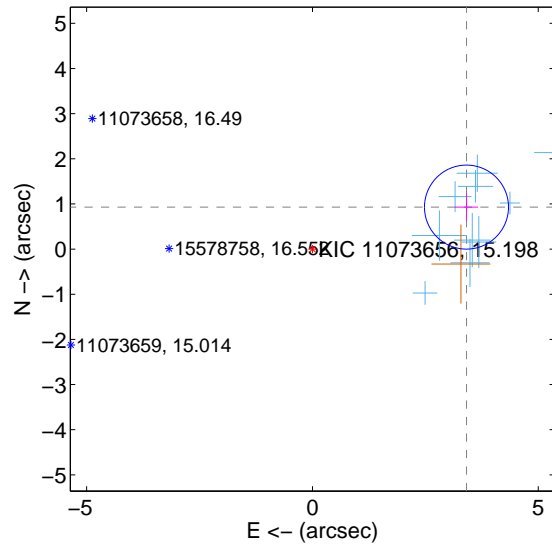
Supplemental centroid analysis for 011073656-01. Kepler magnitude: 15.20. Transit SNR 23.22

There are 10 quarters with good PRF difference image offsets

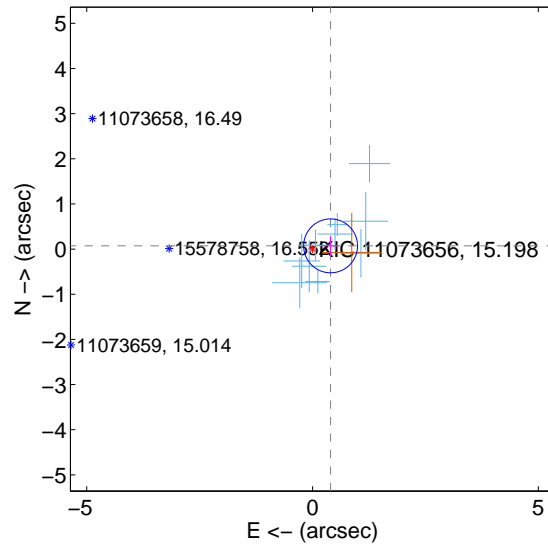
The OOT PRF centroid is offset from the target star catalog position by about 2.43 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.536 ± 0.310	11.40	-3.412 ± 0.256	0.930 ± 0.304
PRF-fit source offset from KIC position	0.407 ± 0.199	2.04	-0.400 ± 0.176	0.072 ± 0.214
photometric centroid source offset	1.50 ± 0.36	4.13	1.48 ± 0.36	-0.25 ± 0.27

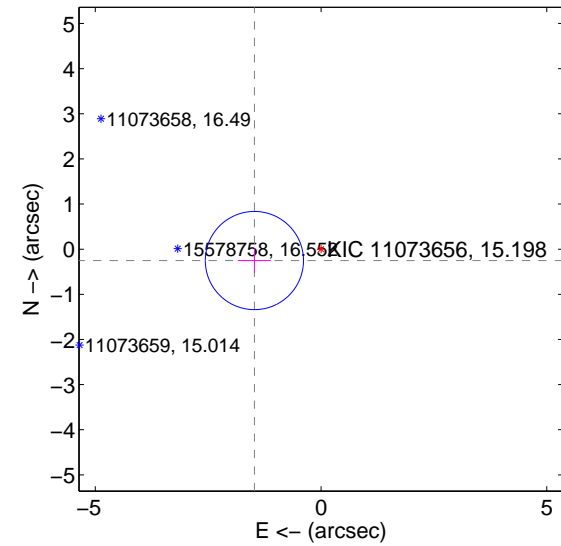
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

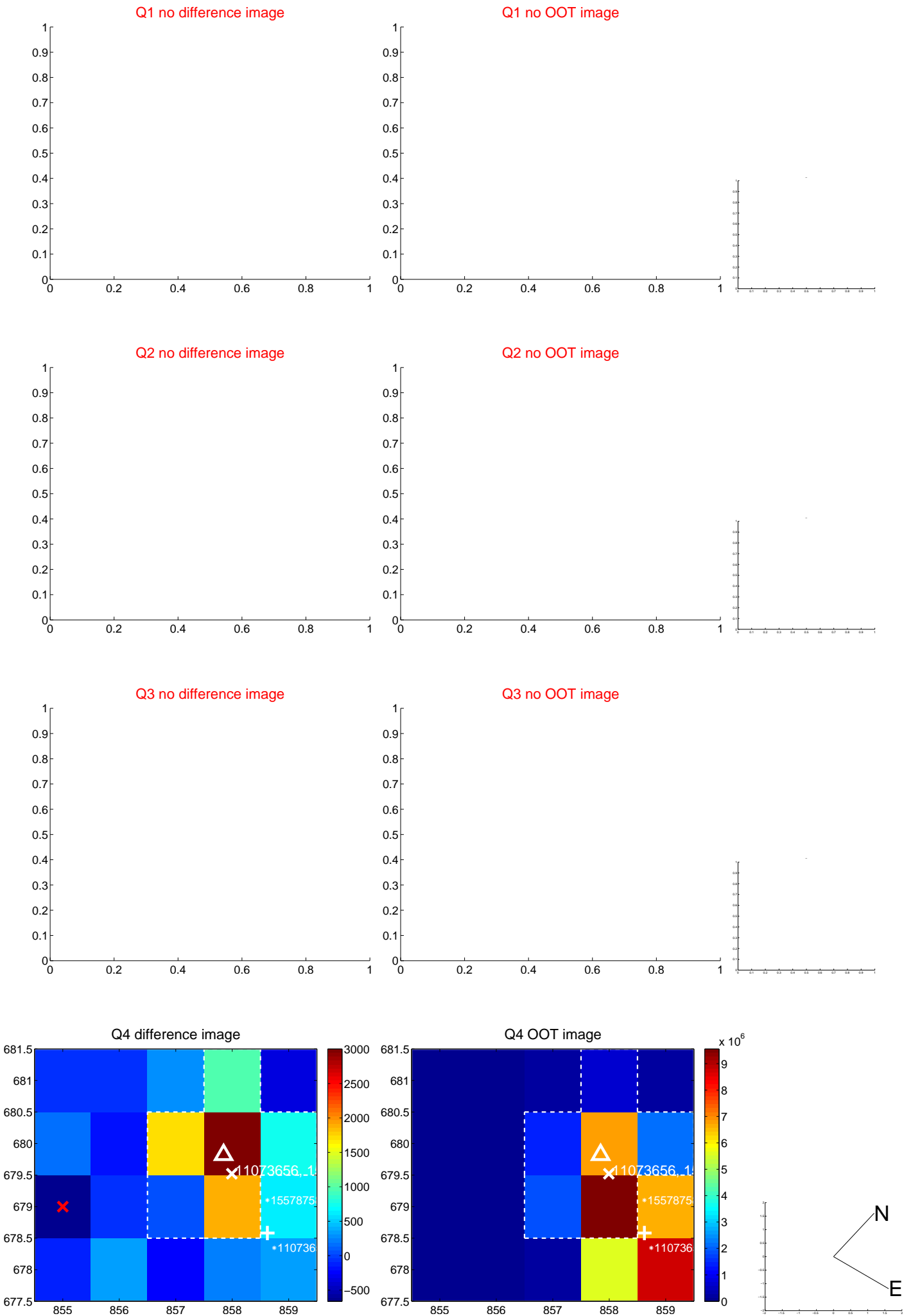


offset from photometric centroids

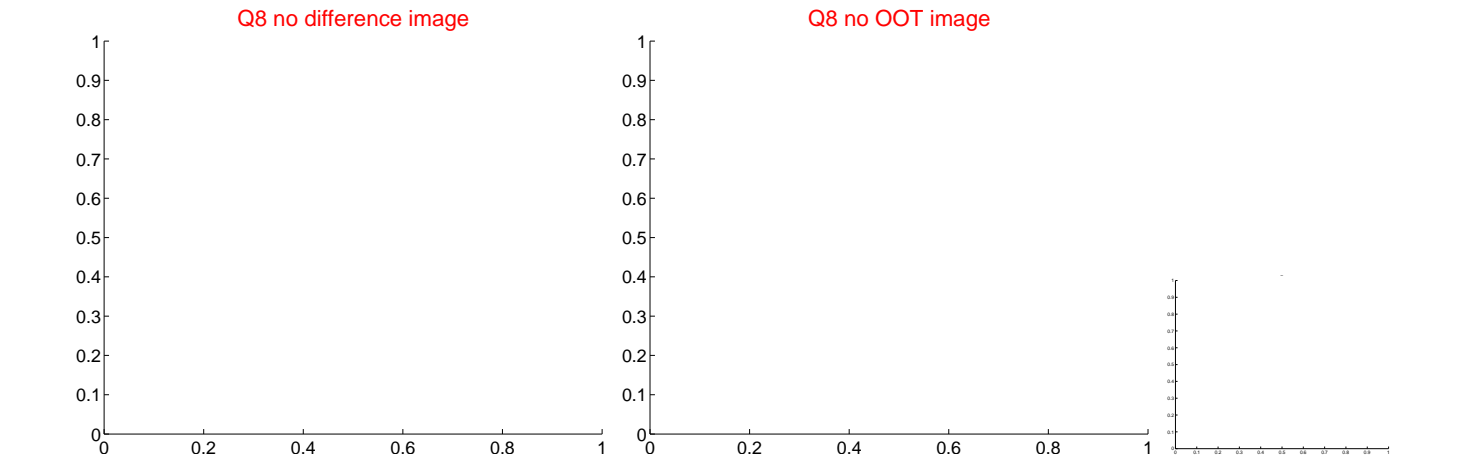
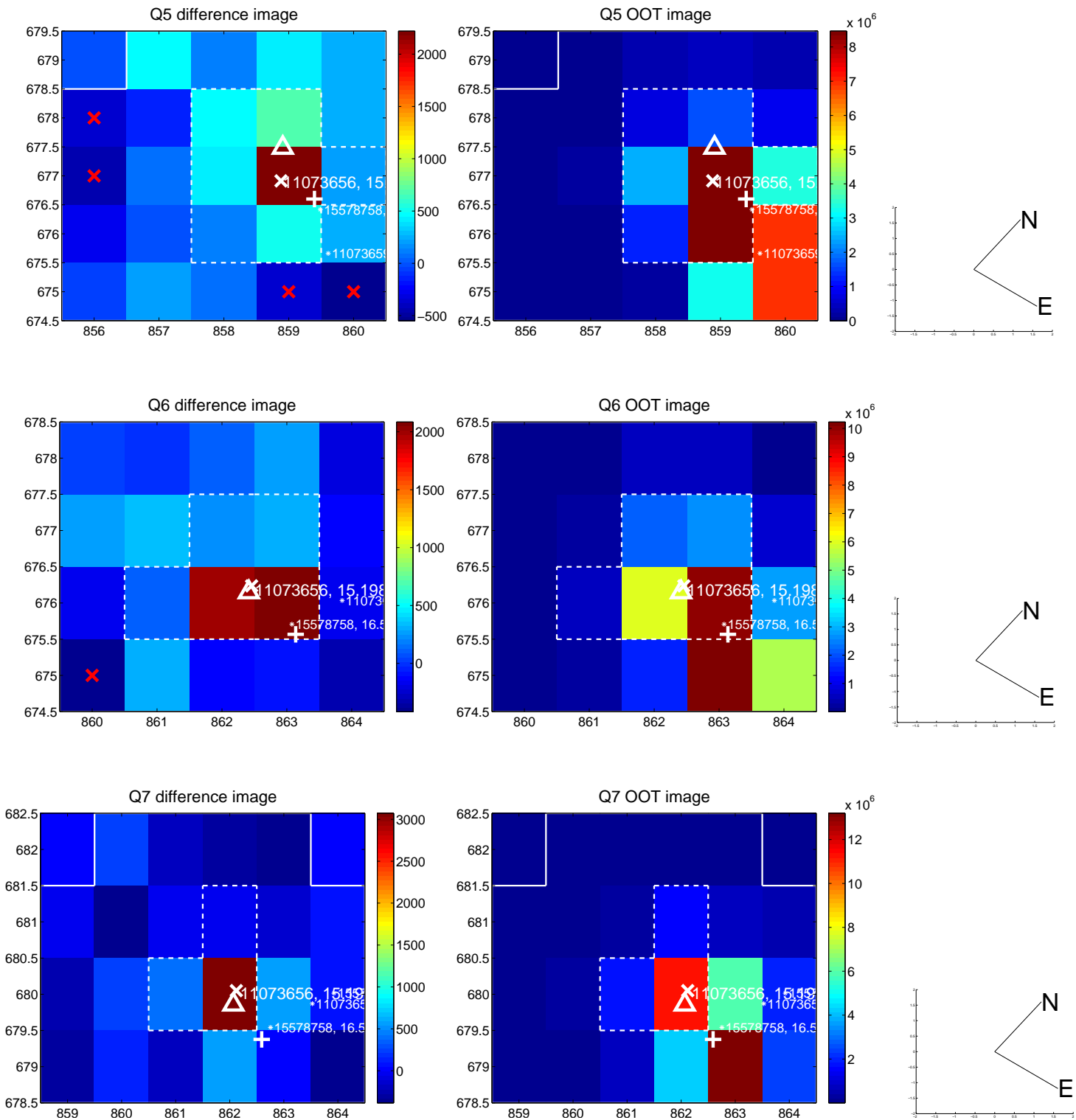


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

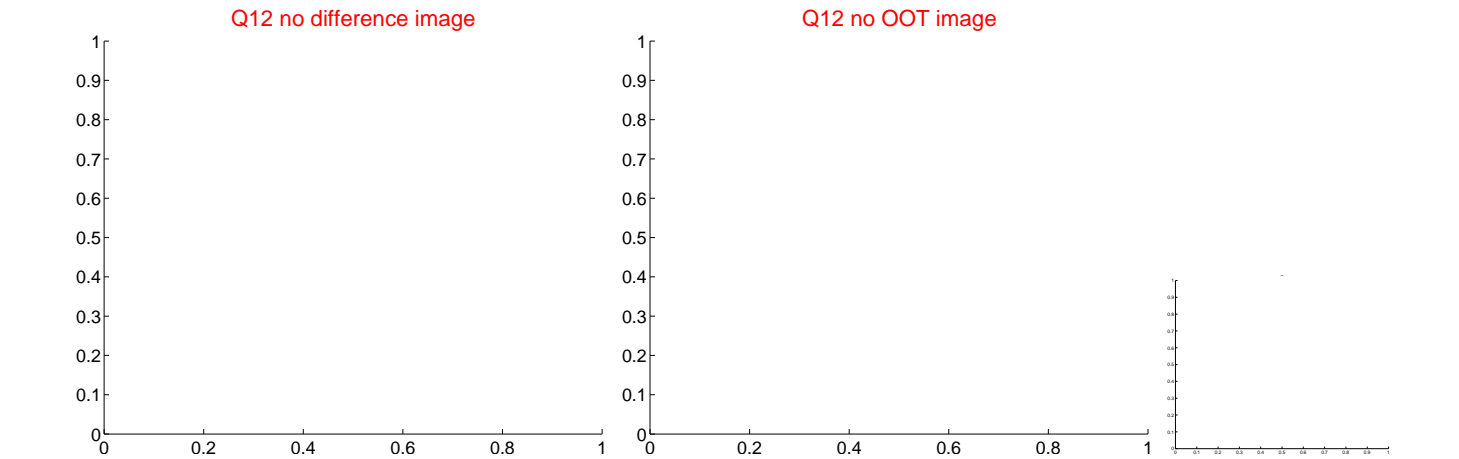
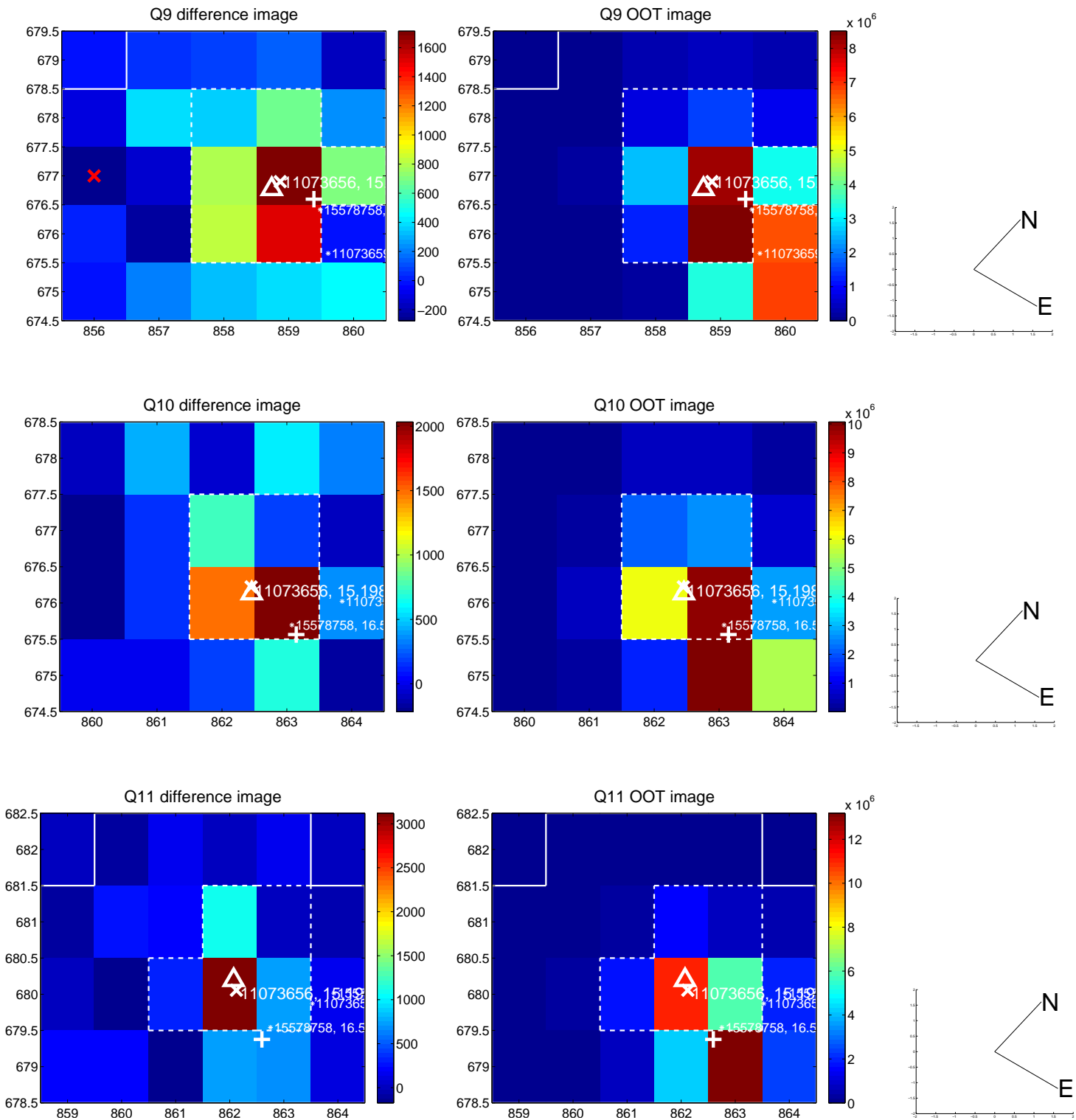
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



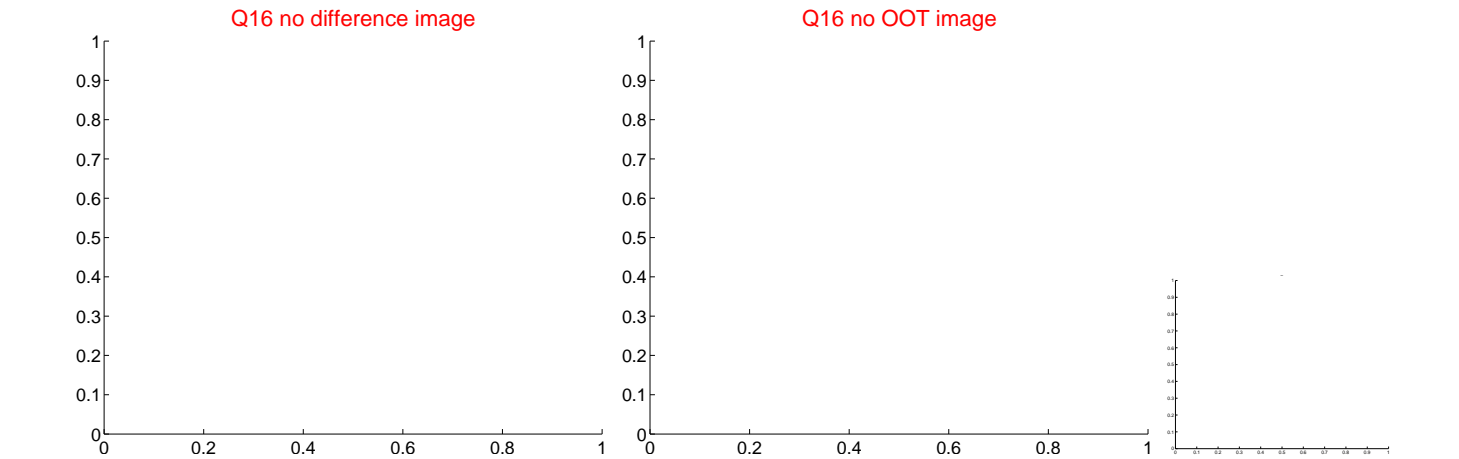
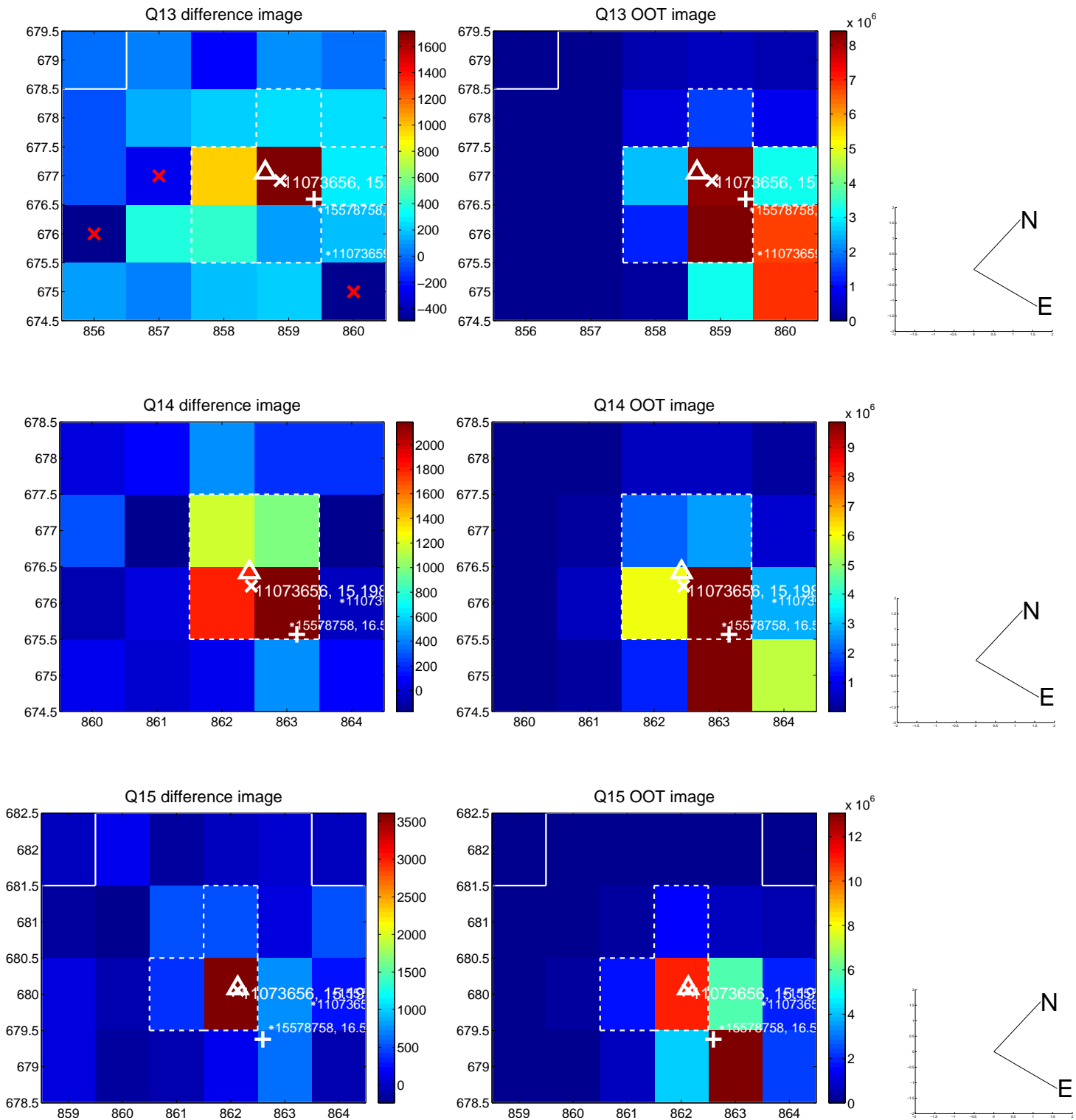
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



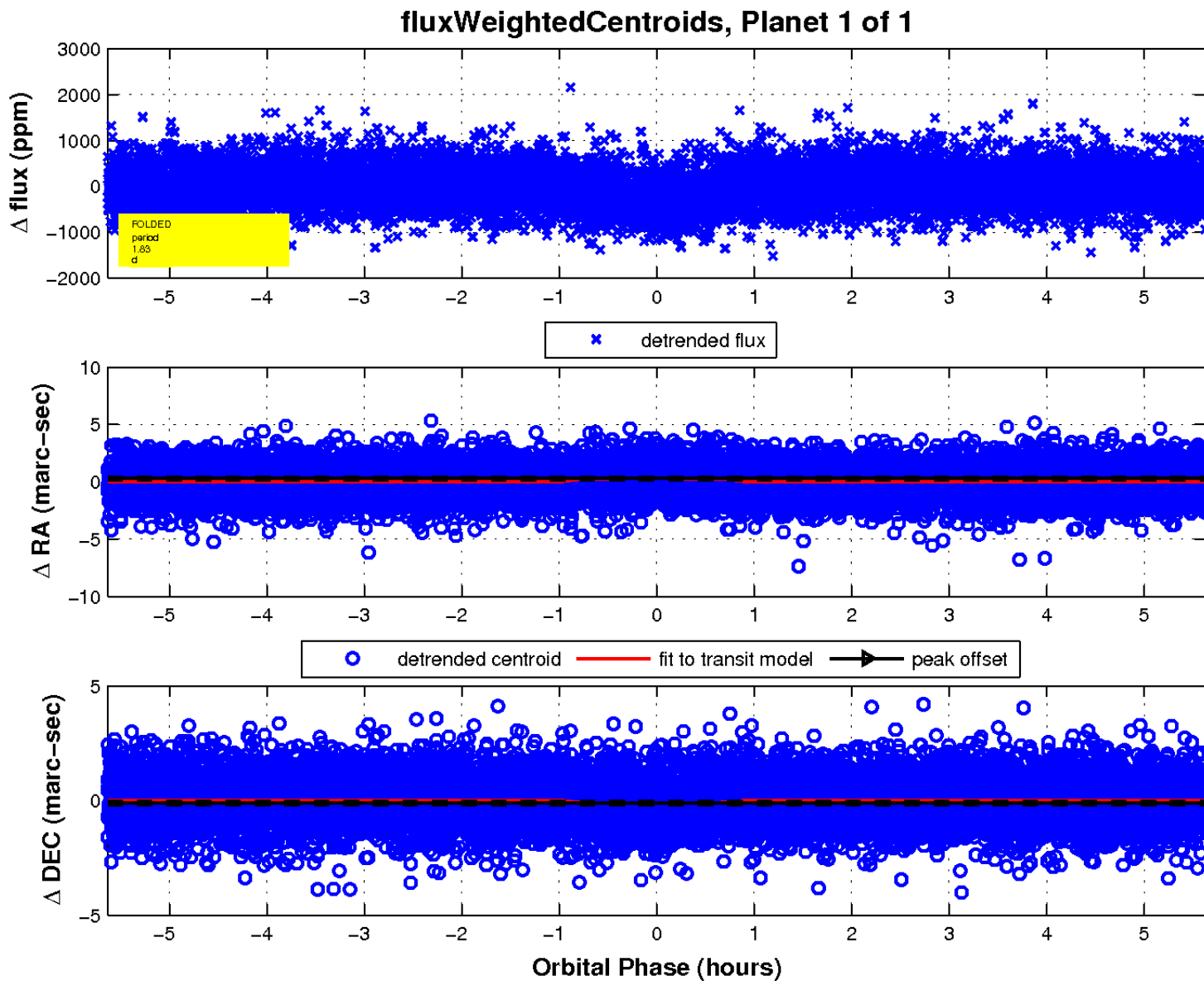
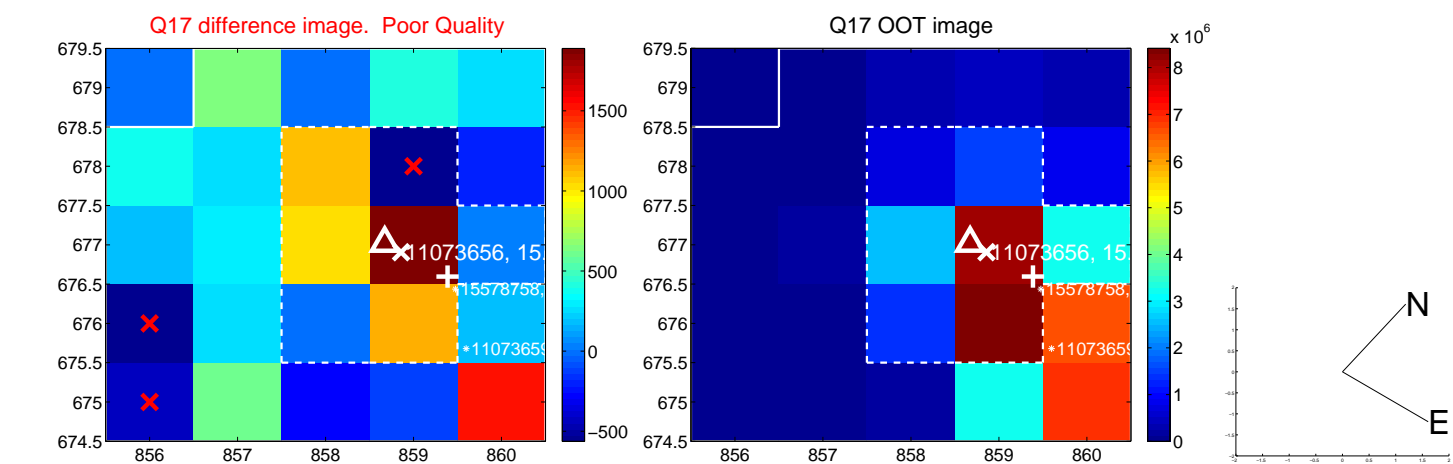
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

