

KIC 007732285

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})
007732285-01	OBS	3023.01	4.390463	134.132714	105.7	3.113	28.3	27.9	1.91	6429	2.30	1702.84

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007732285-01	OBS	FP	0.00	0	0	1	0	CENT_UNRESOLVED_OFFSET

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

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

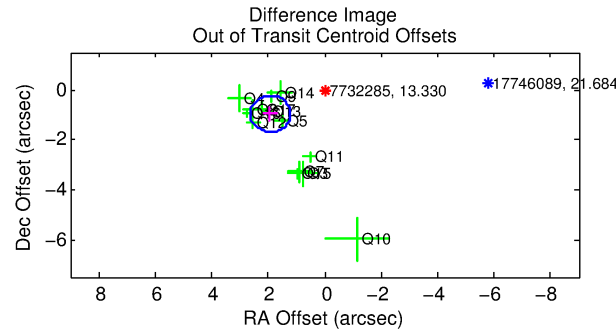
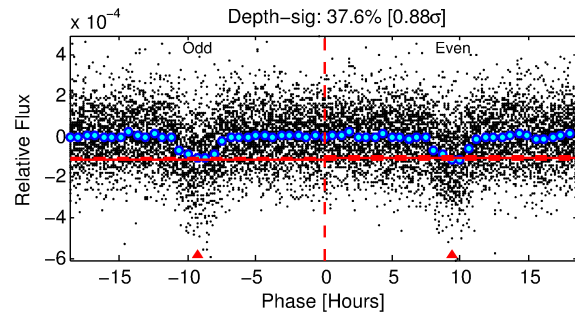
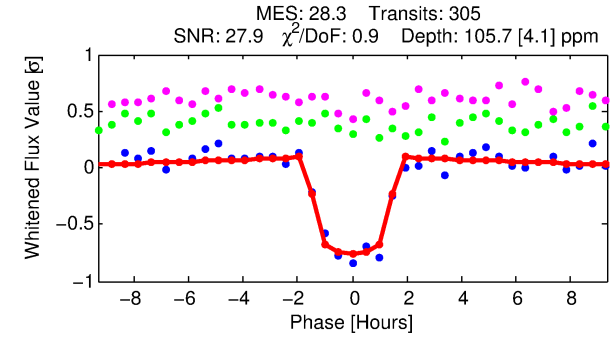
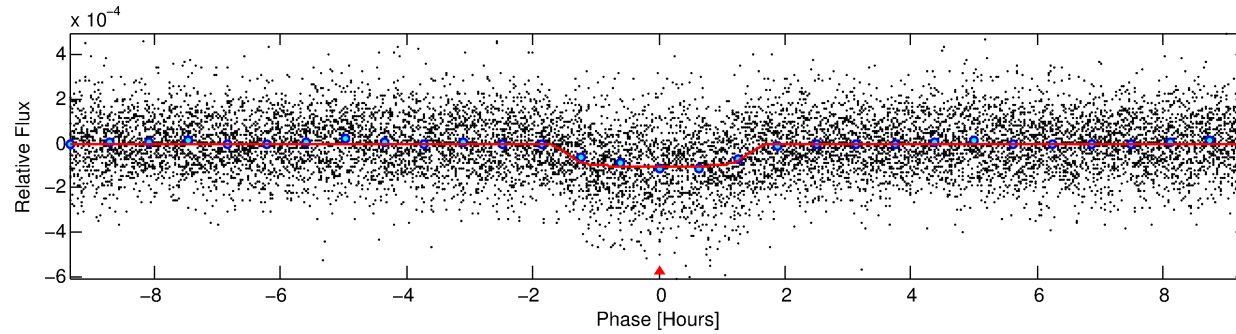
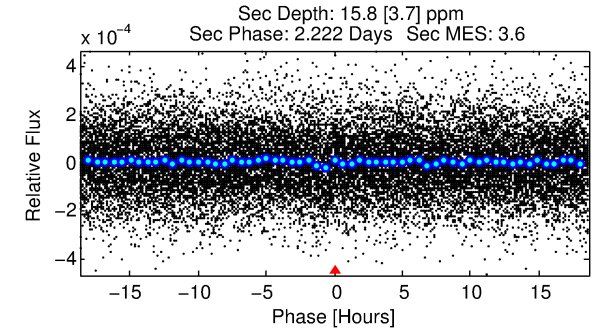
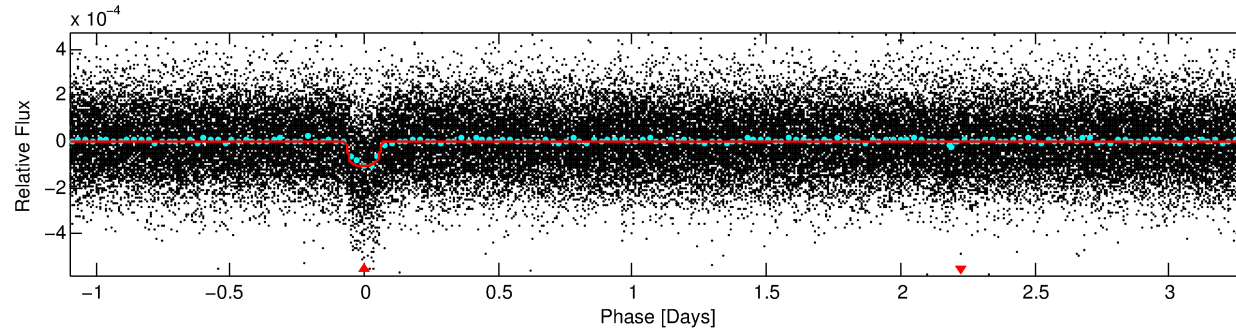
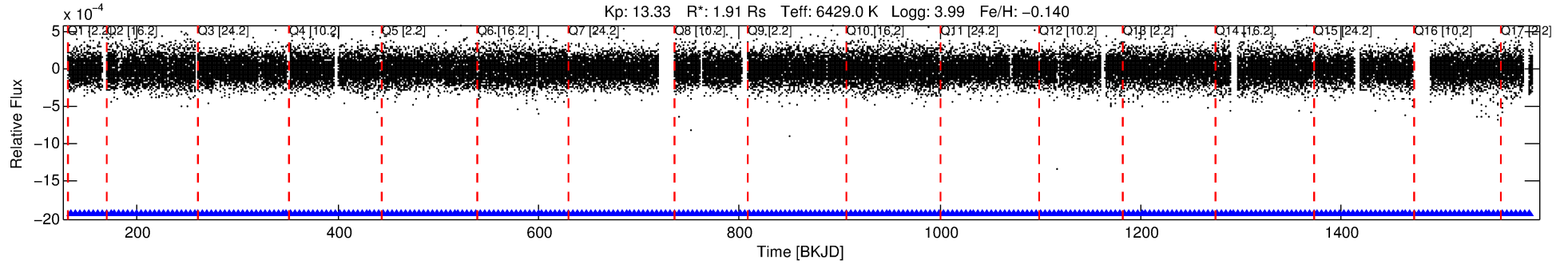
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007732285-01

No Significant Match Found

DV One-Page Summary

KIC: 7732285 Candidate: 1 of 1 Period: 4.390 d
KOI: K03023.01 Corr: 0.971



DV Fit Results:

Period = 4.39046 [0.00001] d
Epoch = 134.1327 [0.0018] BKJD
Rp/R* = 0.0110 [0.0018]
a/R* = 5.03 [4.50]
b = 0.90 [0.20]
Seff = 1702.84 [974.76]
Teq = 1638 [234] K
Rp = 2.30 [0.97] Re
a = 0.0572 [0.0205] AU
Ag = 5.37 [3.69] [1.19σ]
Teffp = 3856 [413] K [4.67σ]

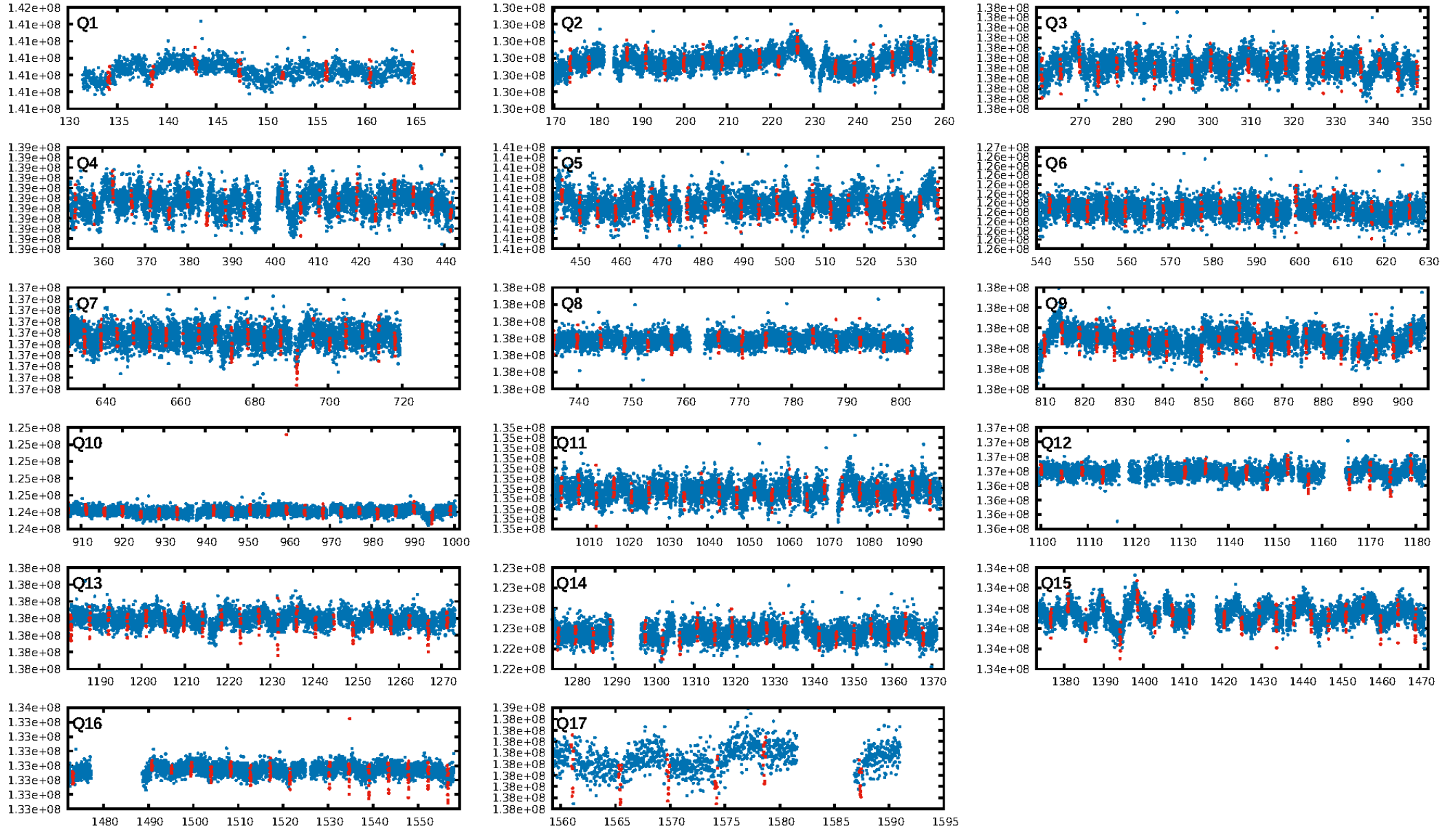
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.82e-168
RollingBand-fgt: 1.00 [291/291]
GhostDiagnostic-chr: 83.42
Centroid-sig: 0.0%
Centroid-so: 2.130 arcsec [5.13σ]
OotOffset-rm: 2.149 arcsec [8.92σ]
KicOffset-rm: 2.189 arcsec [9.08σ]
OotOffset-st: 2/4/4/4 [14]
KicOffset-st: 2/4/4/4 [14]
DiffImageQuality-fgm: 0.93 [13/14]
DiffImageOverlap-fno: 1.00 [17/17]

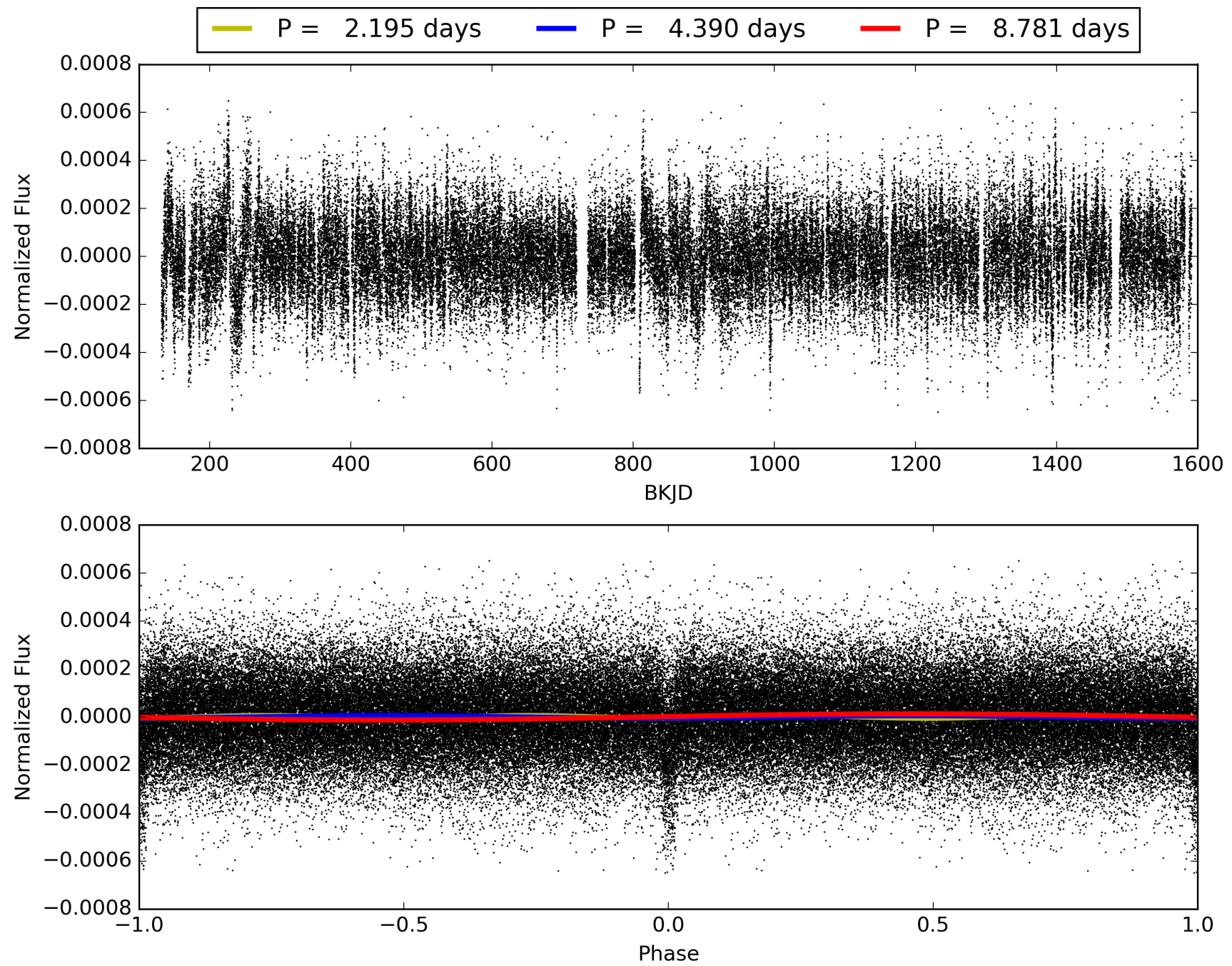
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 01:29:49 Z

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

TCE 007732285-01, PDC Light Curves

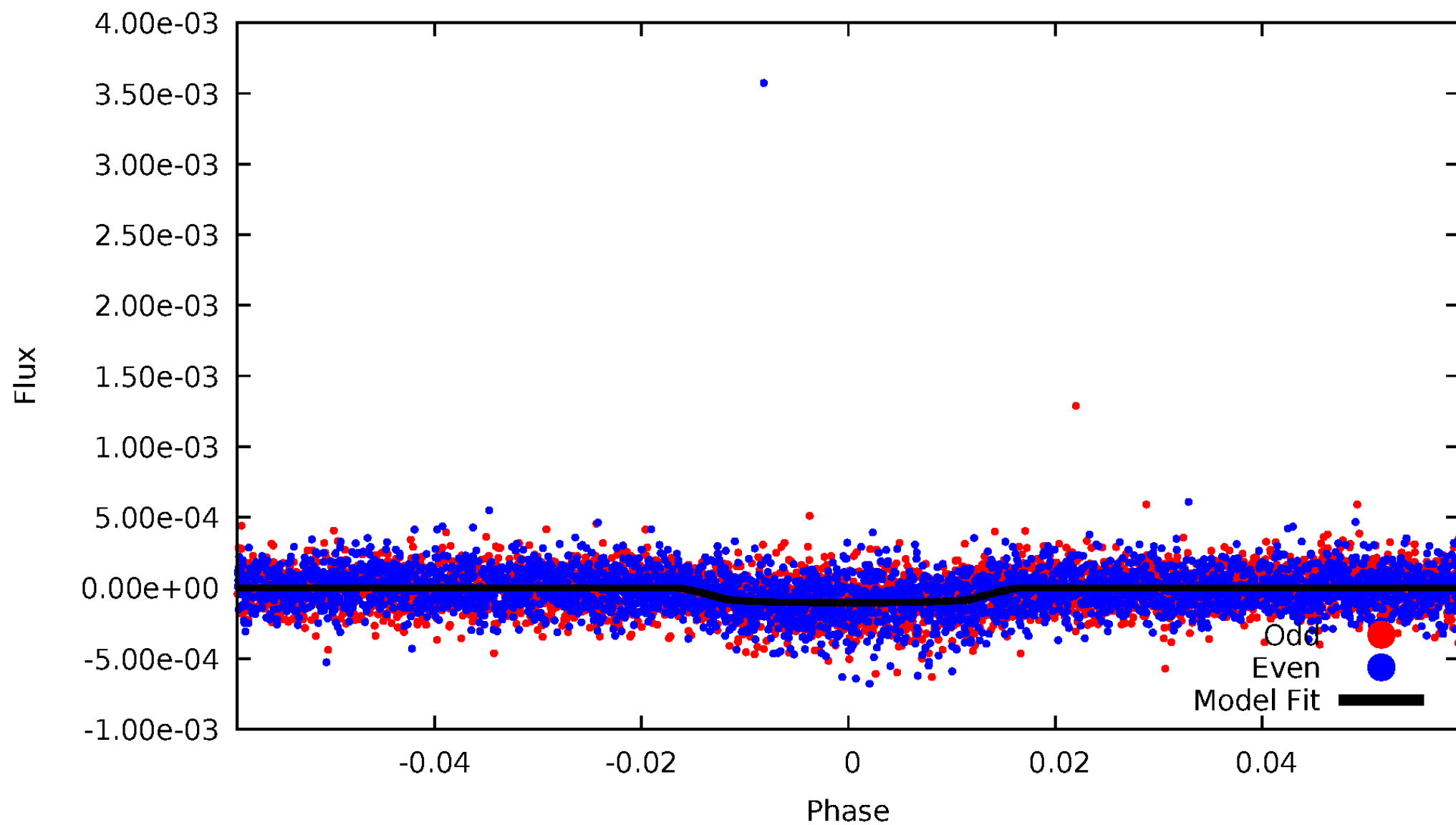


TCE 007732285-01



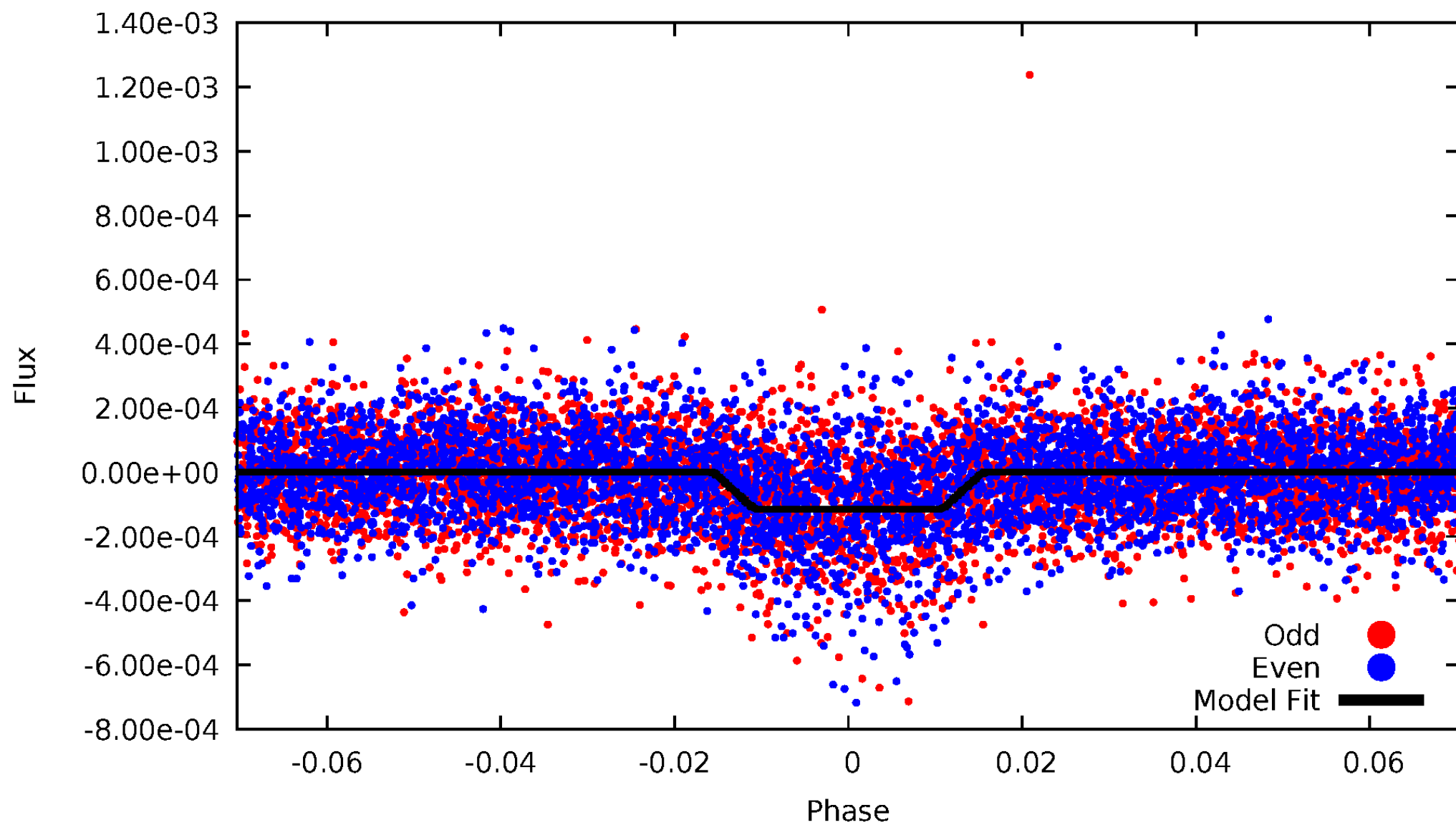
DV Odd/Even

TCE 007732285-01

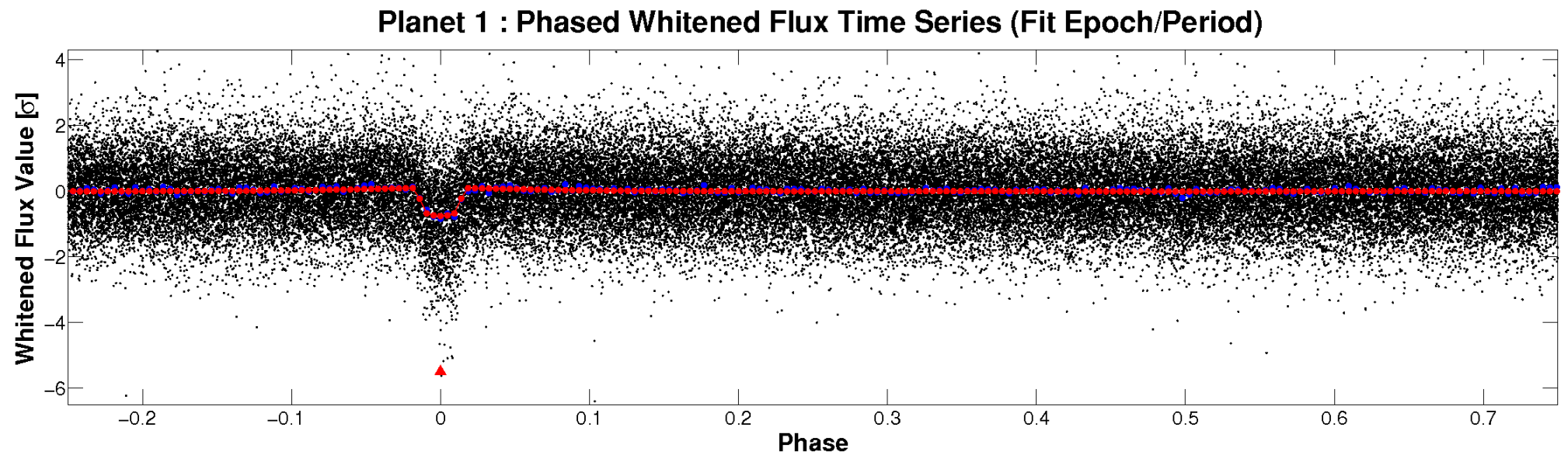
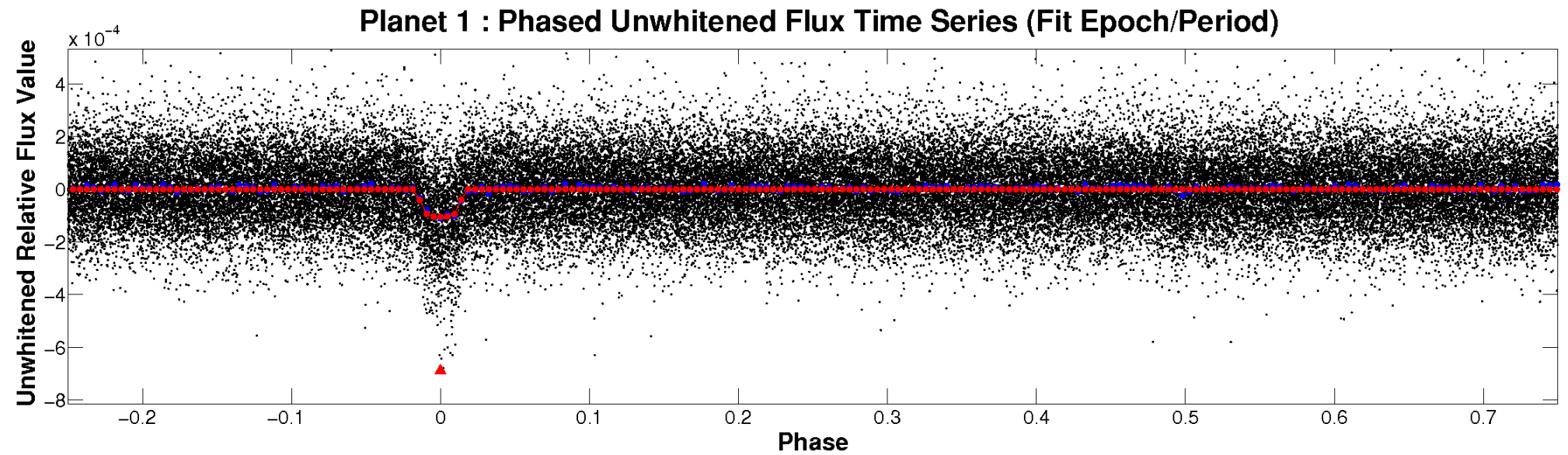


ALT Odd/Even

TCE 007732285-01

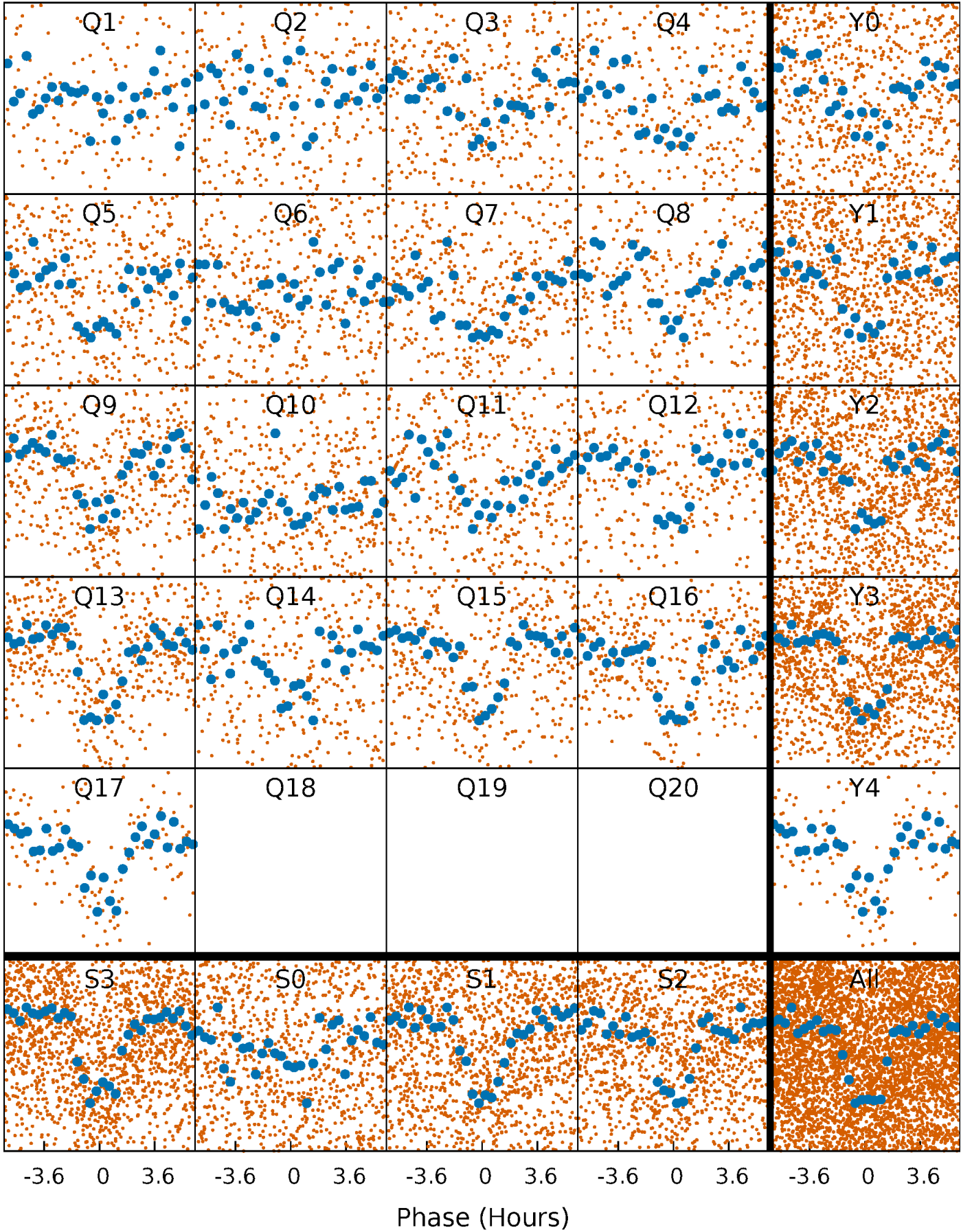


Non-Whitened Vs. Whitened Light Curve



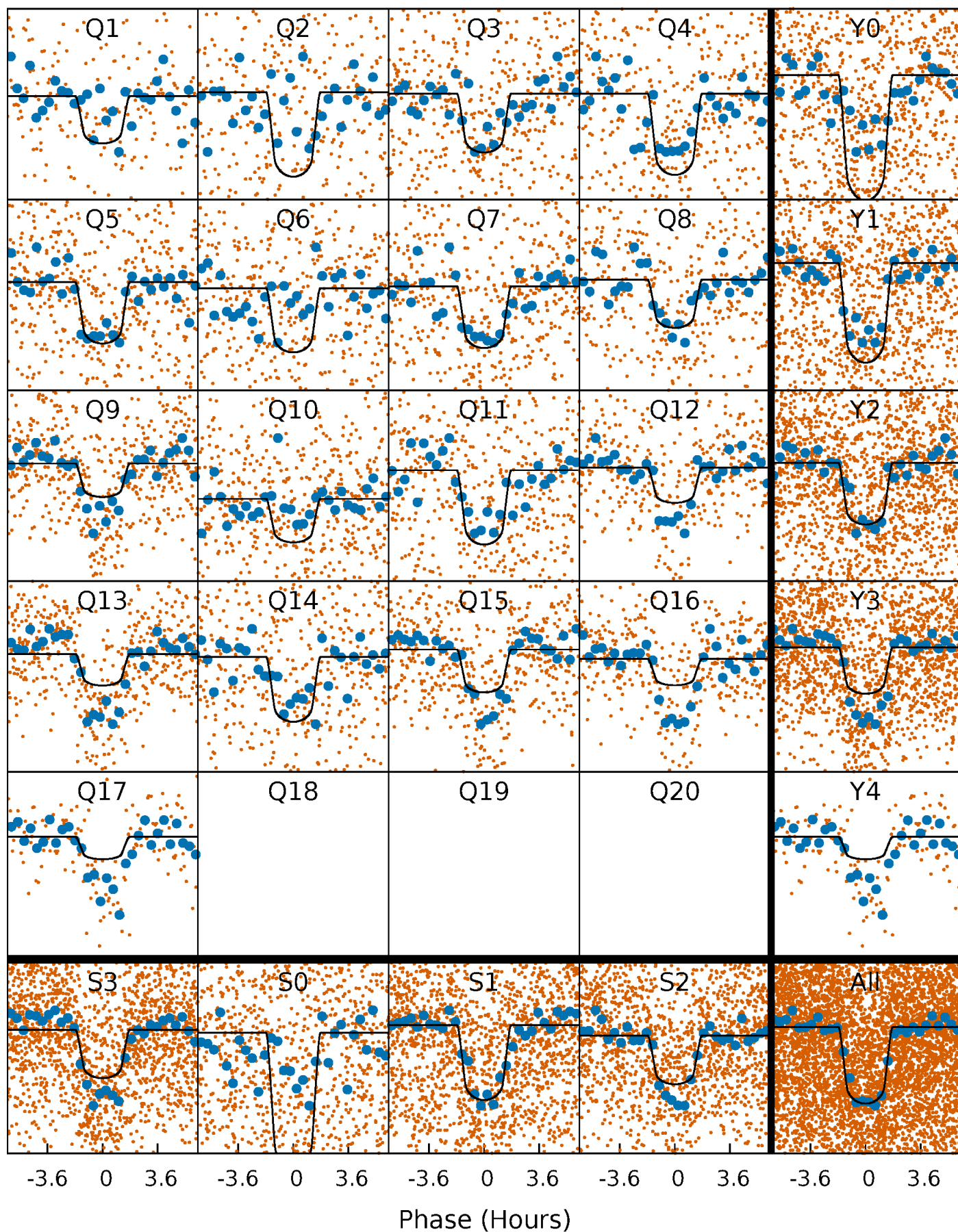
PDC Quarter-Phased Transit Curves

TCE 007732285-01 P= 4.390463 Days $T_0=134.132714$ (BKJD)



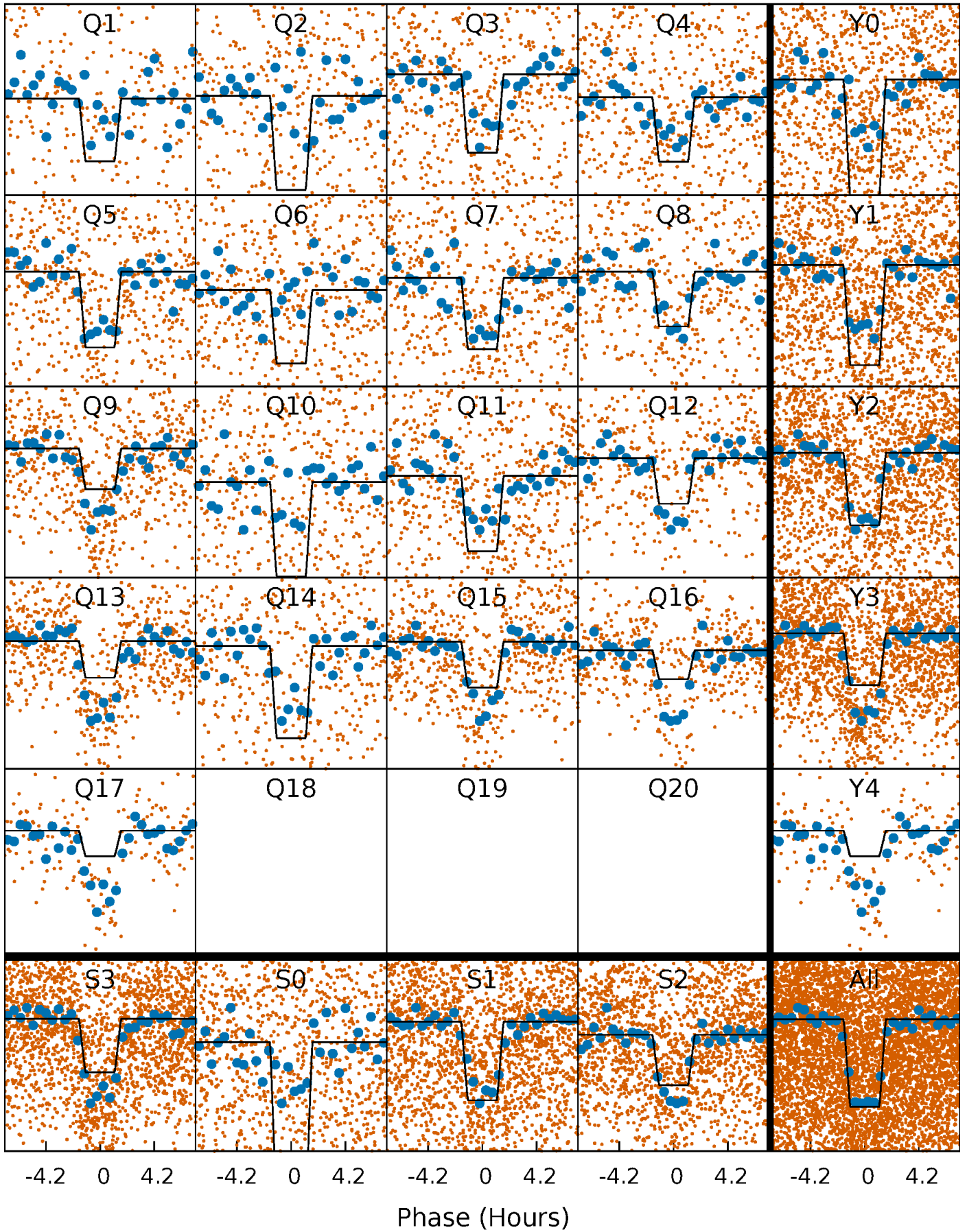
DV Quarter-Phased Transit Curves

TCE 007732285-01 P= 4.390463 Days $T_0=134.132714$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

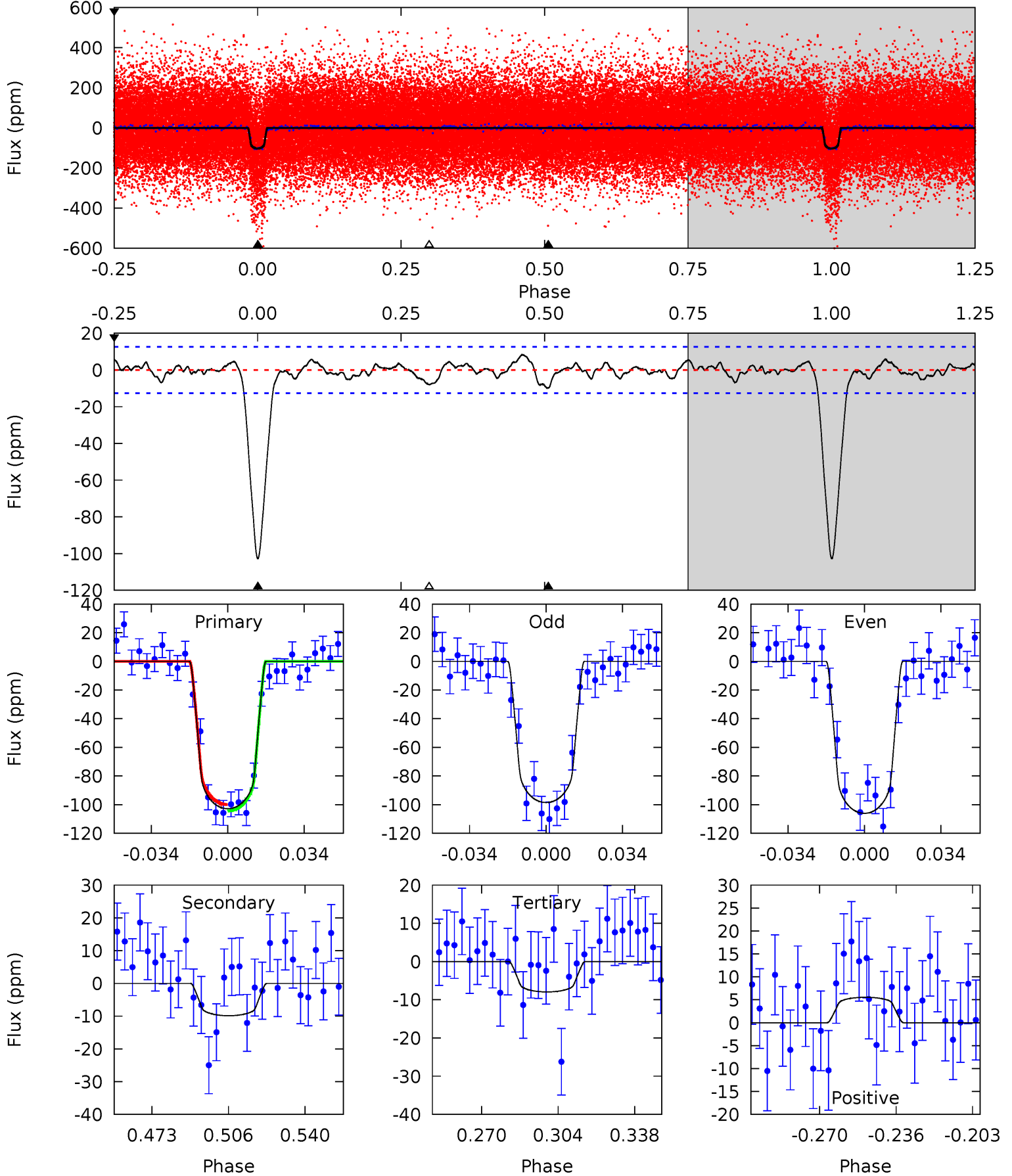
TCE 007732285-01 P= 4.390491 Days $T_0=134.128969$ (BKJD)



DV Model-Shift Uniqueness Test

007732285-01, P = 4.390463 Days, E = 129.742251 Days

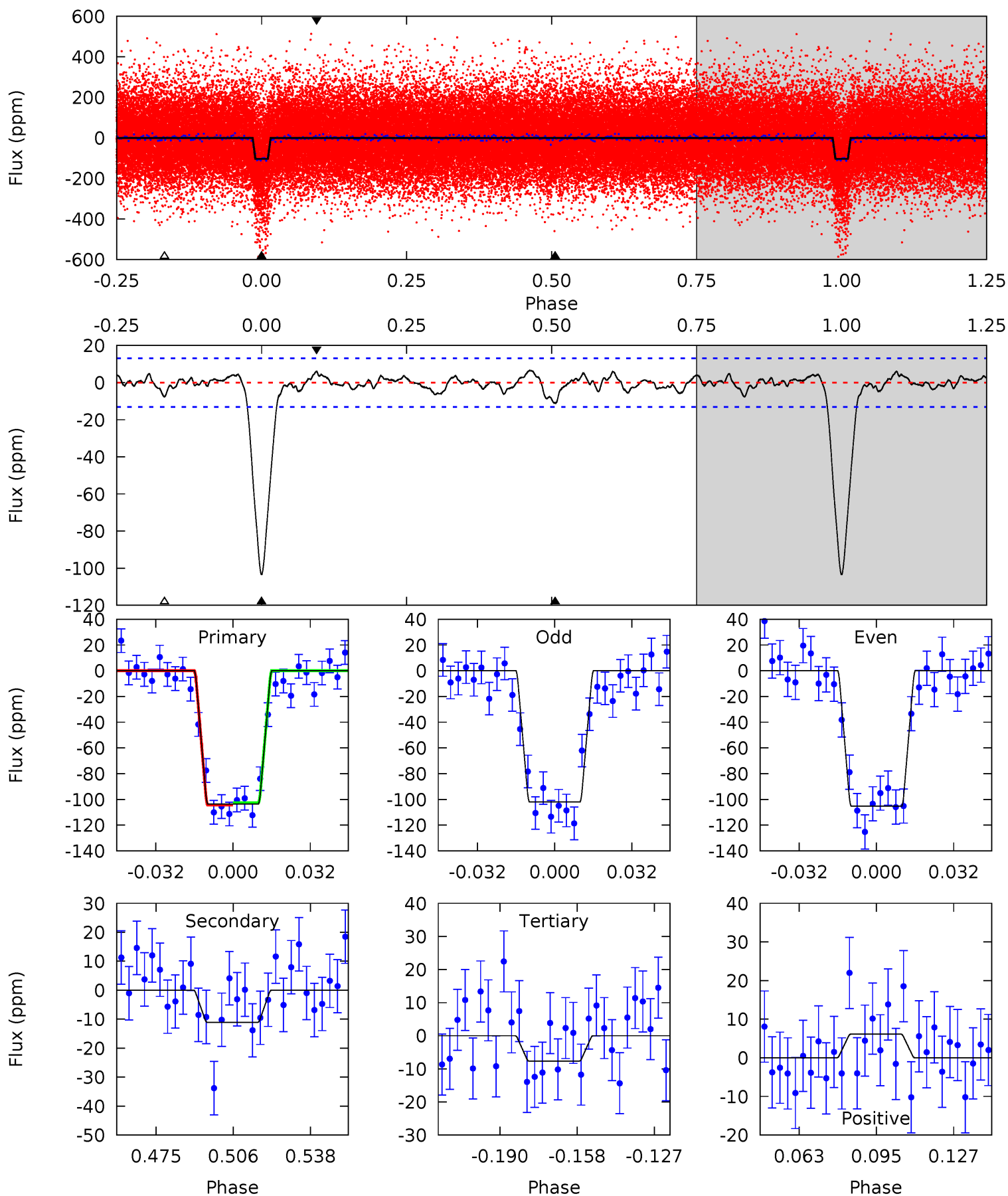
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
39.0	3.75	3.02	2.10	4.79	2.12	1.12	36.0	36.9	0.73	1.64	1.43	1.06	0.07	0.84



Alt Model-Shift Uniqueness Test

007732285-01, P = 4.390491 Days, E = 129.738478 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
37.8	4.06	2.79	2.24	4.80	2.15	1.01	35.0	35.6	1.27	1.83	0.59	1.14	0.06	0.34



Stellar Parameters For KIC 007732285

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6429^{+181}_{-227}	$3.989^{+0.319}_{-0.147}$	$-0.140^{+0.250}_{-0.300}$	$1.908^{+0.559}_{-0.746}$	$1.298^{+0.182}_{-0.251}$	$0.263^{+0.679}_{-0.110}$
	+3%/-4%	+8%/-4%	+179%/-214%	+29%/-39%	+14%/-19%	+258%/-42%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 007732285-01 / KOI 3023.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-10 ± 3	$2.23^{+0.53}_{-0.53}$	2263^{+174}_{-211}	3725^{+328}_{-315}	$3.452^{+2.803}_{-1.480}$
Alt.	-11 ± 3	$2.13^{+0.53}_{-0.55}$	2252^{+168}_{-223}	3893^{+338}_{-304}	$4.475^{+3.773}_{-1.883}$

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

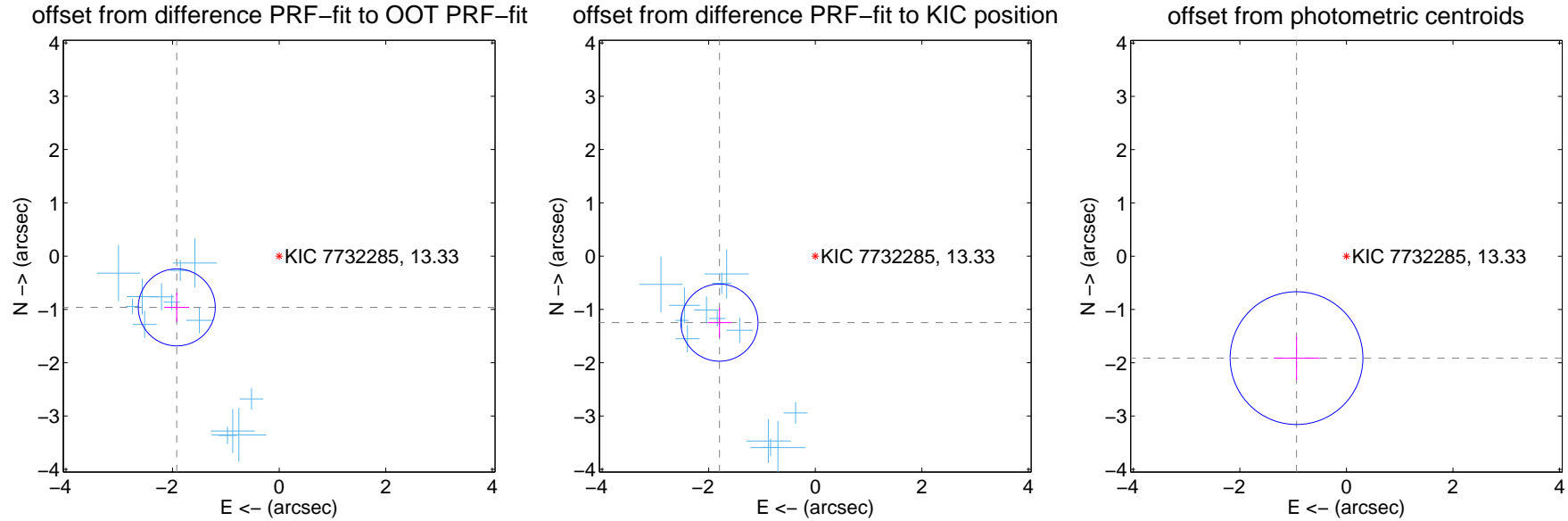
DV Centroid Data

Supplemental centroid analysis for 007732285-01. Kepler magnitude: 13.33. Transit SNR 27.87

There are 13 quarters with good PRF difference image offsets

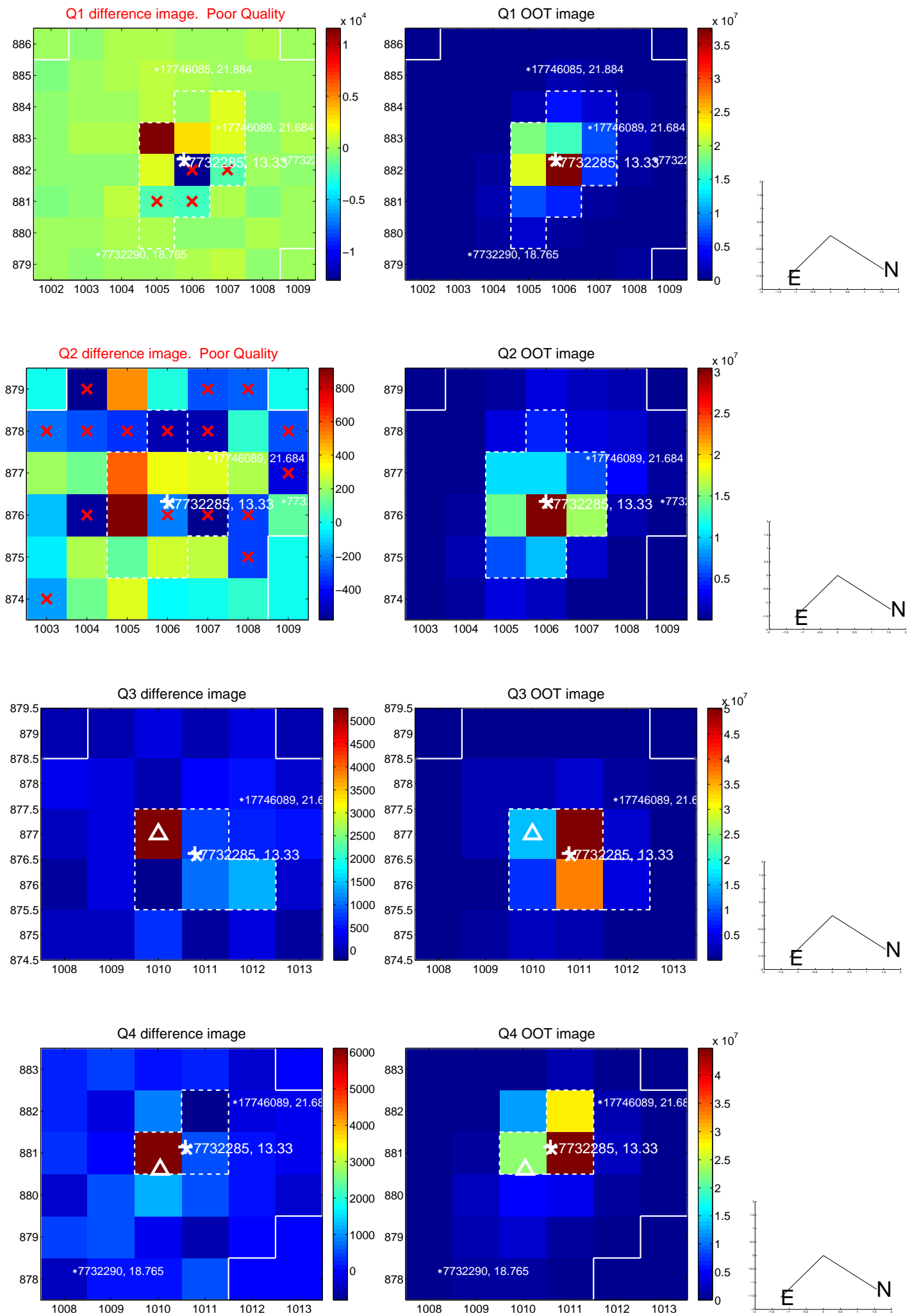
The direct PRF centroid is offset from the target star catalog position by about 0.30 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.149 ± 0.241	8.92	1.921 ± 0.231	-0.962 ± 0.276
PRF-fit source offset from KIC position	2.189 ± 0.241	9.08	1.799 ± 0.221	-1.248 ± 0.279
photometric centroid source offset	2.13 ± 0.42	5.13	0.94 ± 0.43	-1.91 ± 0.41

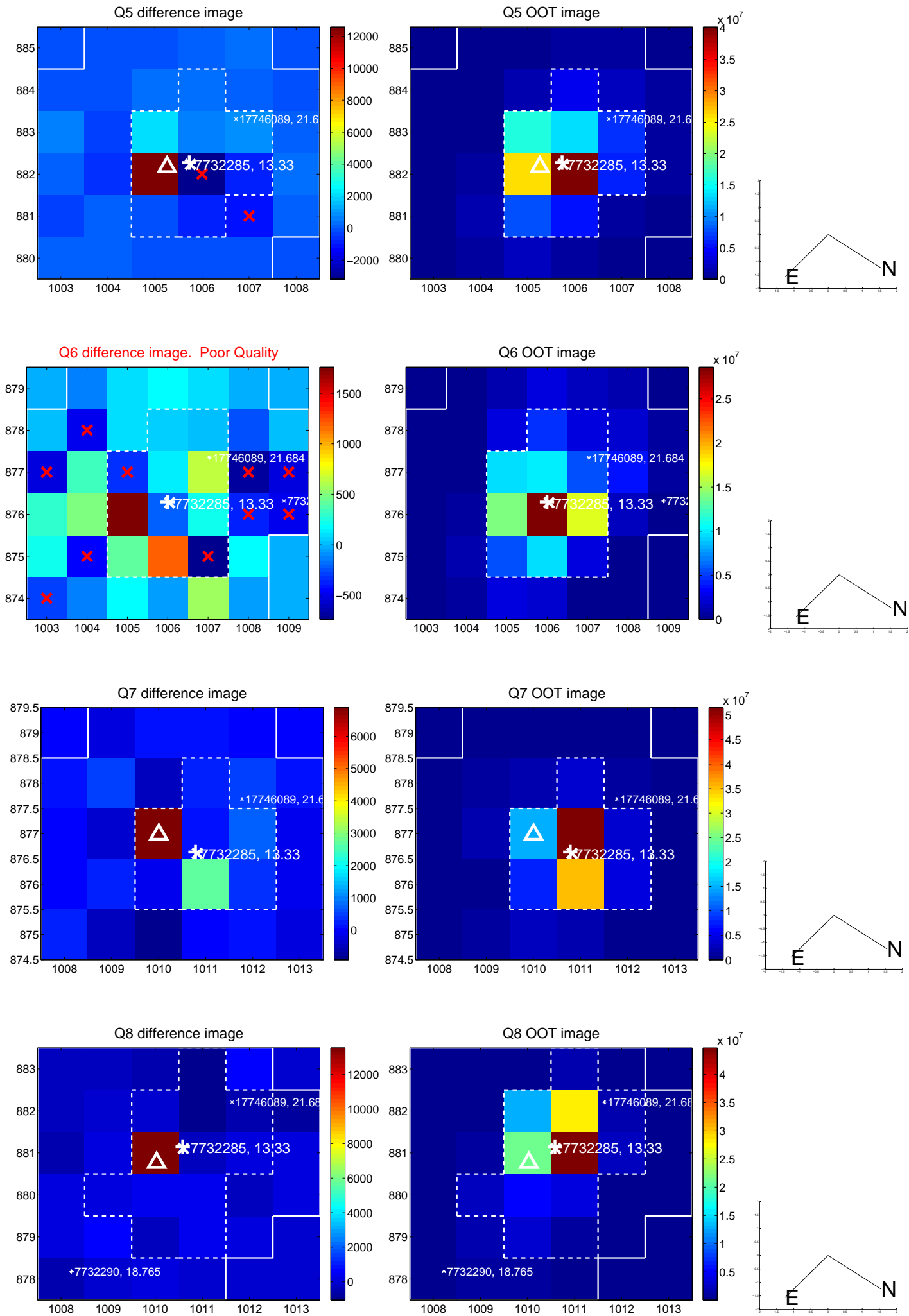


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

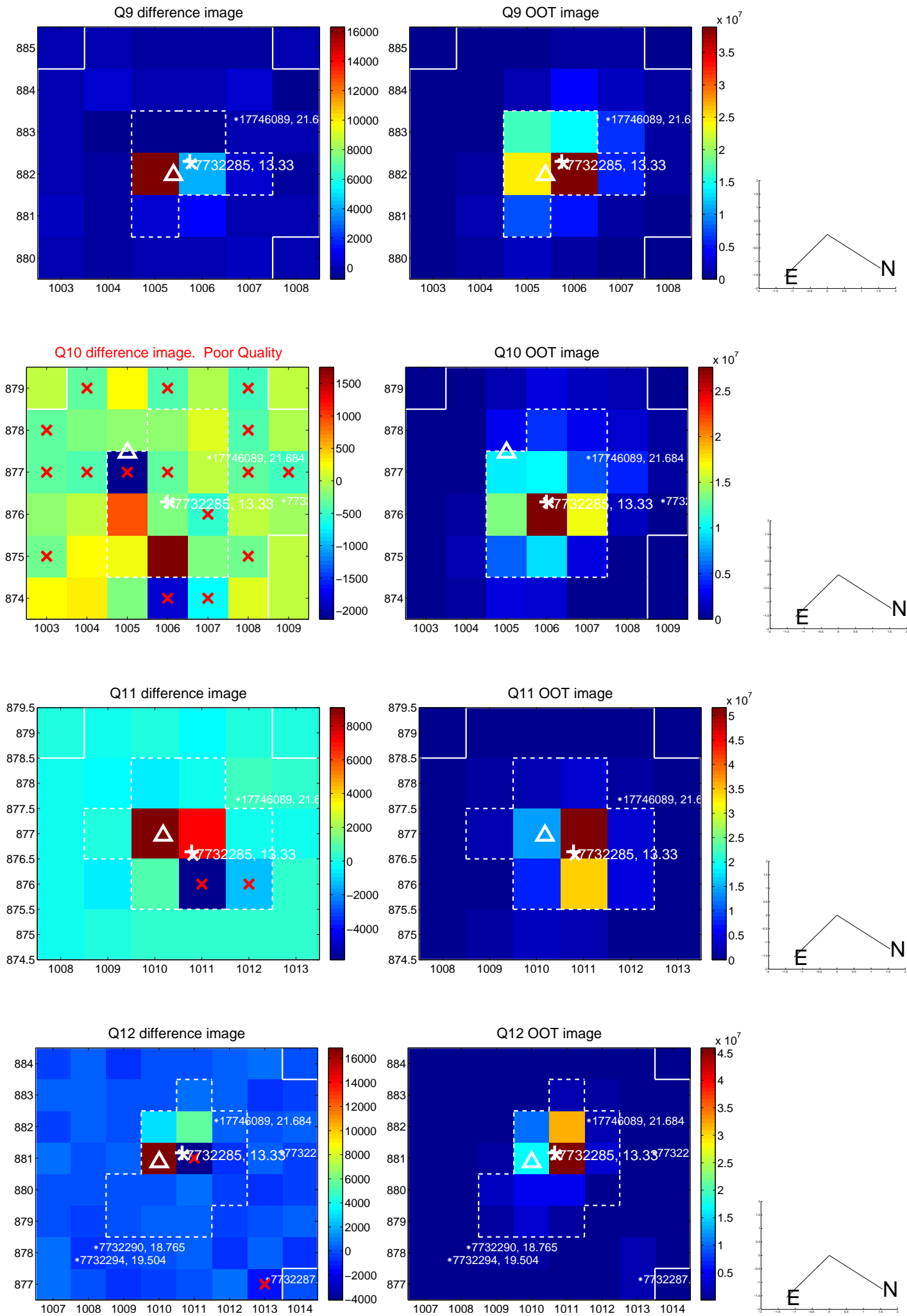
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



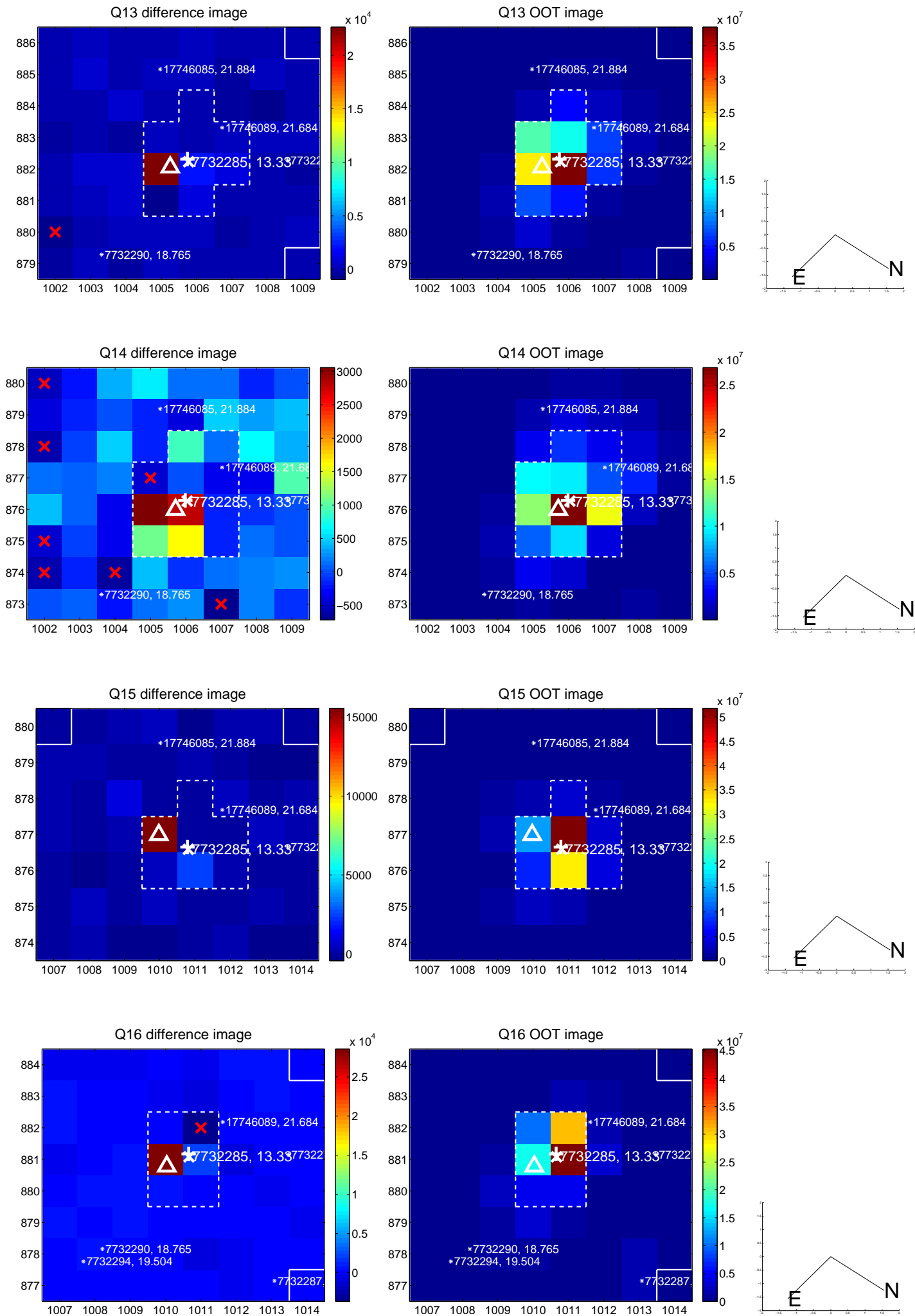
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



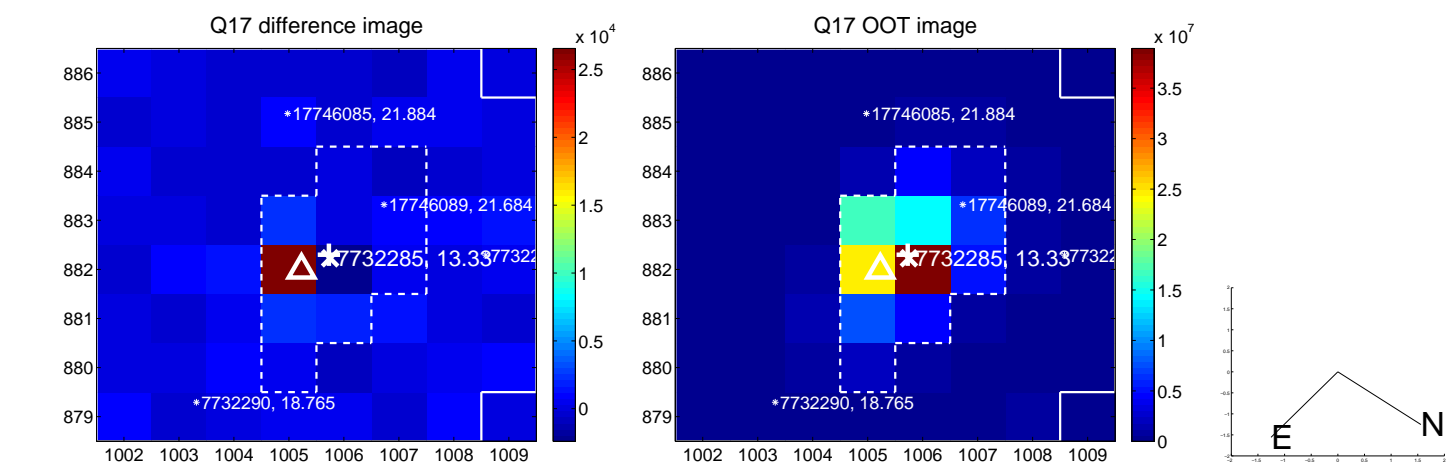
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



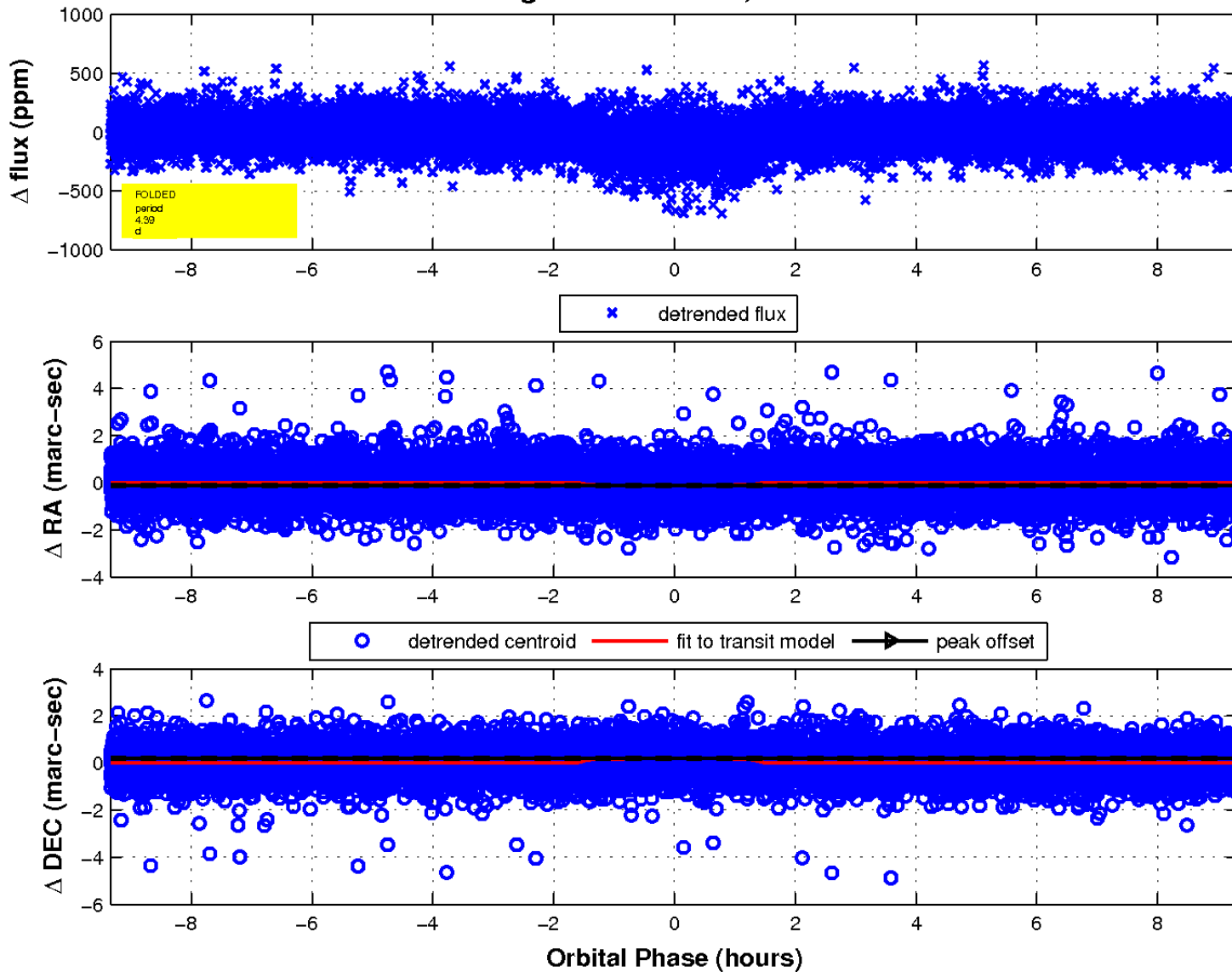
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

