

KIC 003847138

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})
003847138-01	OBS	0444.01	11.722920	142.150363	492.5	4.310	47.4	51.3	0.95	5550	2.33	81.55

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003847138-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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

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

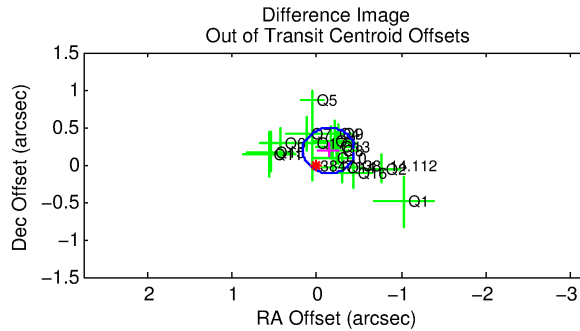
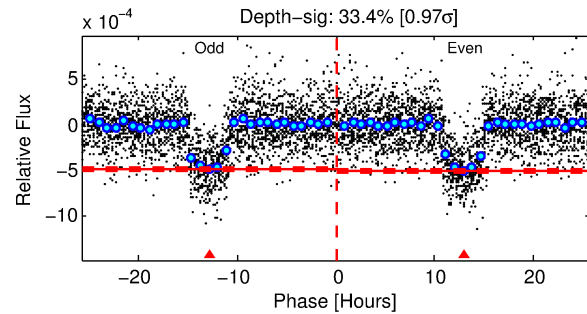
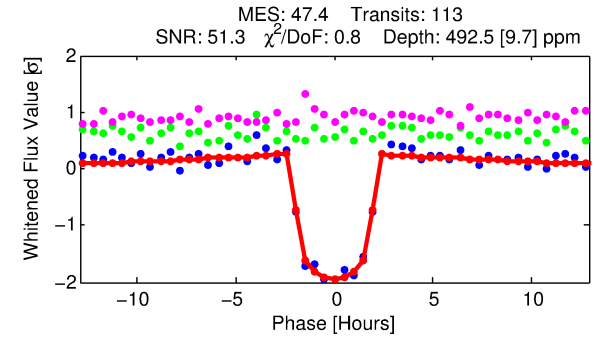
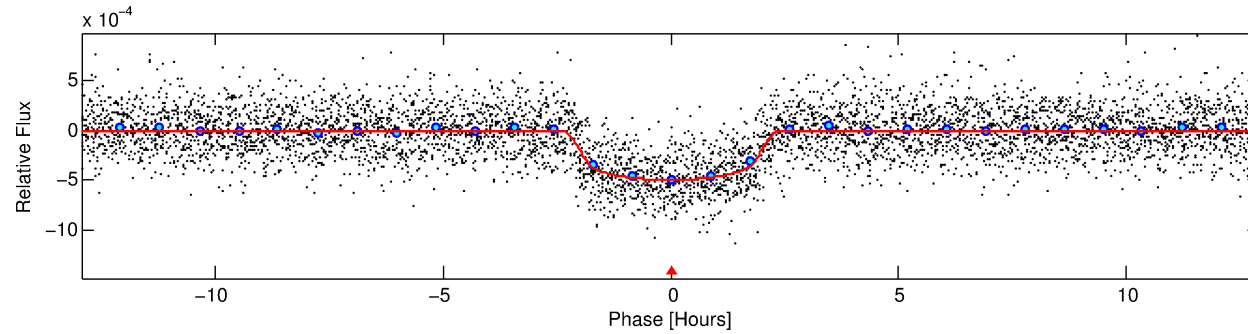
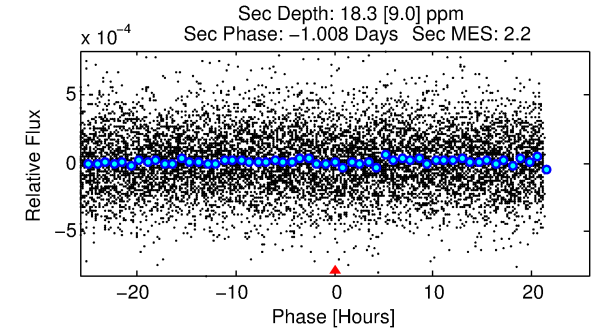
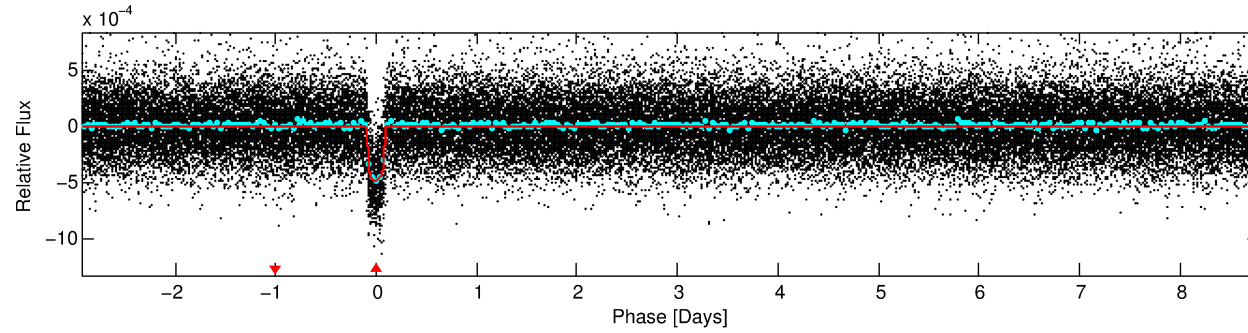
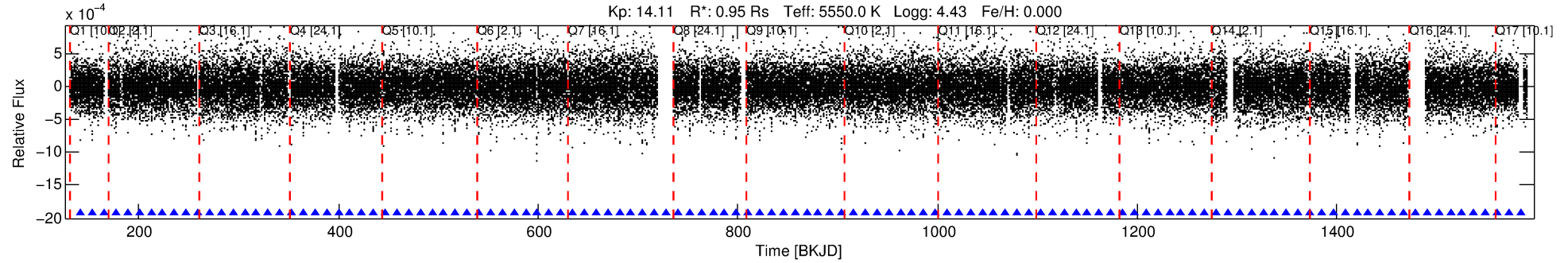
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003847138-01

No Significant Match Found

DV One-Page Summary

KIC: 3847138 Candidate: 1 of 1 Period: 11.723 d
KOI: K00444.01 Corr: 0.985



DV Fit Results:

Period = 11.72292 [0.00002] d
Epoch = 142.1504 [0.0017] BKJD
Rp/R* = 0.0224 [0.0035]
a/R* = 13.87 [9.05]
b = 0.78 [0.34]
Seff = 81.55 [15.17]
Teq = 766 [36] K
Rp = 2.33 [0.47] Re
a = 0.0973 [0.0108] AU
Ag = 17.59 [10.68] [1.55σ]
Teffp = 2426 [357] K [4.63σ]

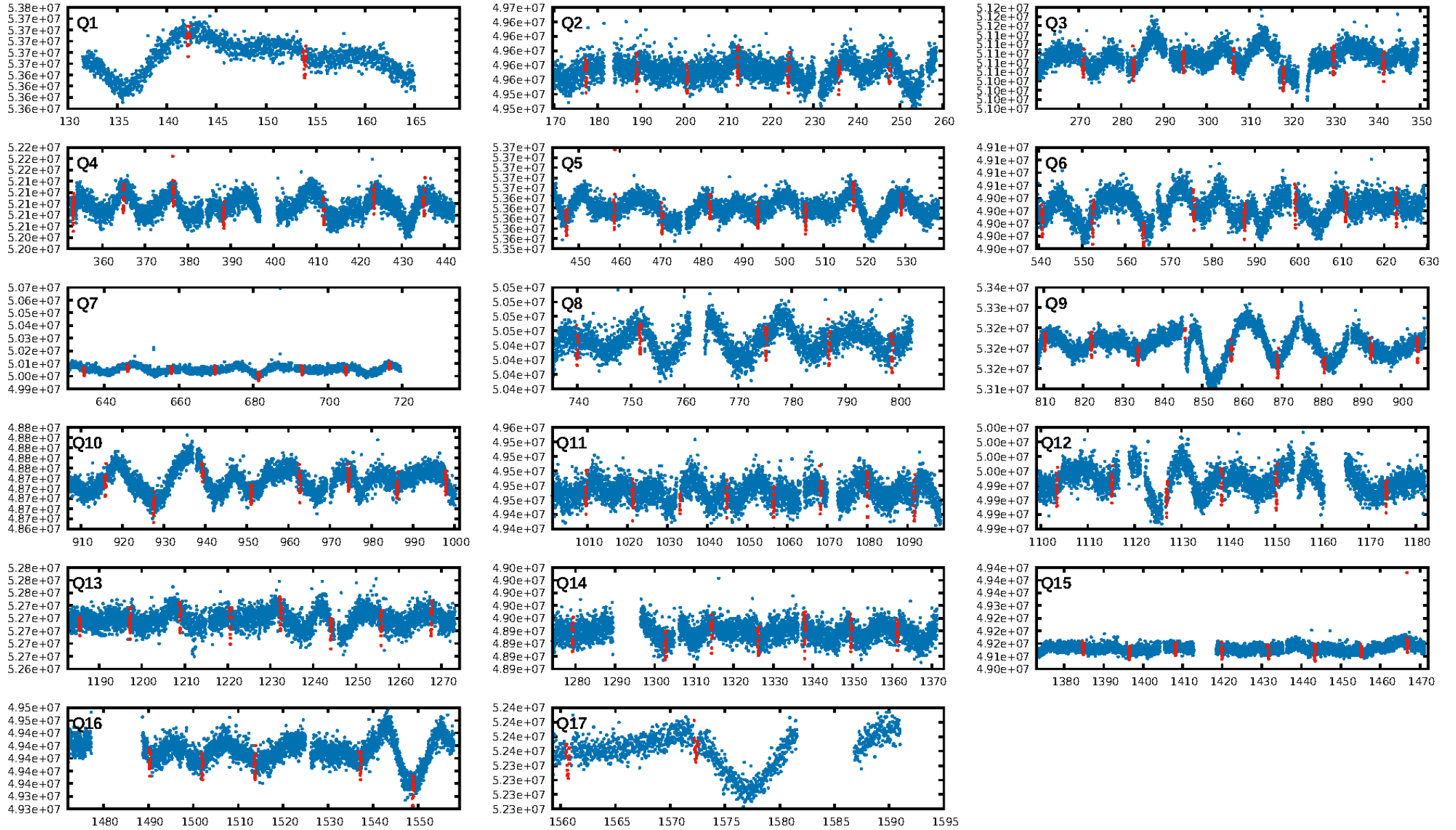
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 98.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [109/109]
GhostDiagnostic-chr: 4.851
Centroid-sig: 79.4%
Centroid-so: 0.096 arcsec [0.39σ]
OotOffset-rm: 0.238 arcsec [2.34σ]
KicOffset-rm: 0.449 arcsec [4.84σ]
OotOffset-st: 4/4/3/5 [16]
KicOffset-st: 4/4/3/5 [16]
DiffImageQuality-fgm: 1.00 [16/16]
DiffImageOverlap-fno: 1.00 [17/17]

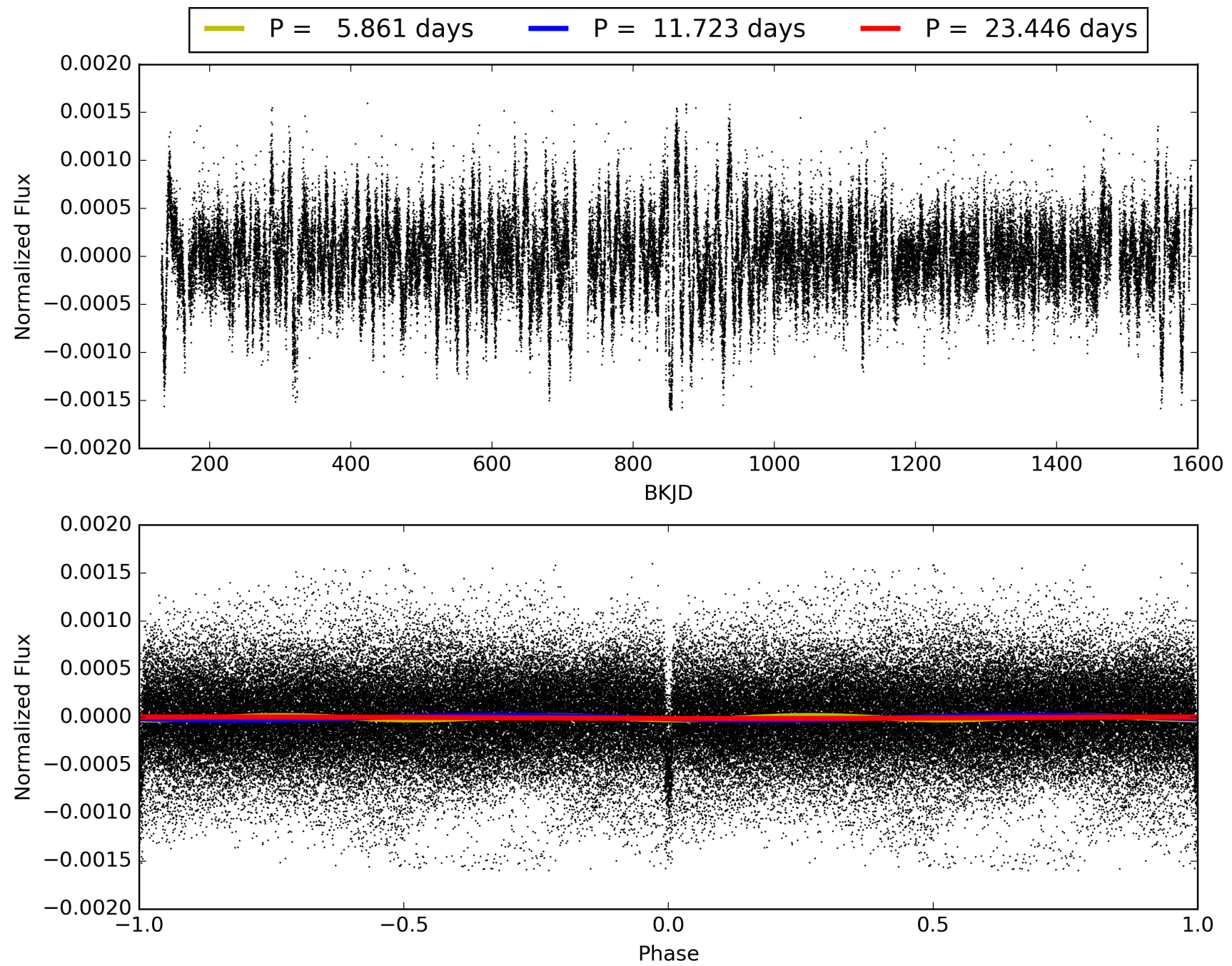
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:11:01 Z

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

TCE 003847138-01, PDC Light Curves

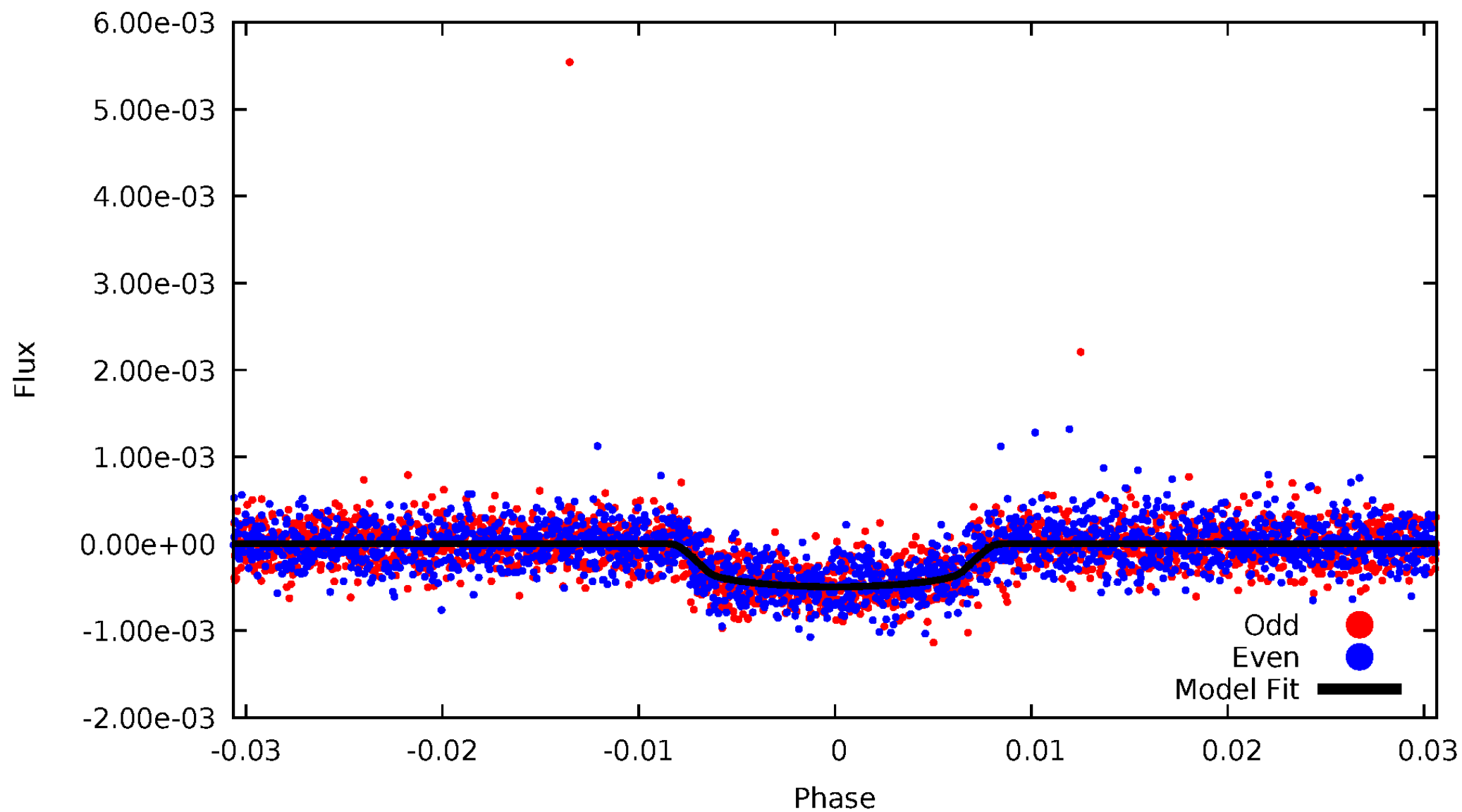


TCE 003847138-01



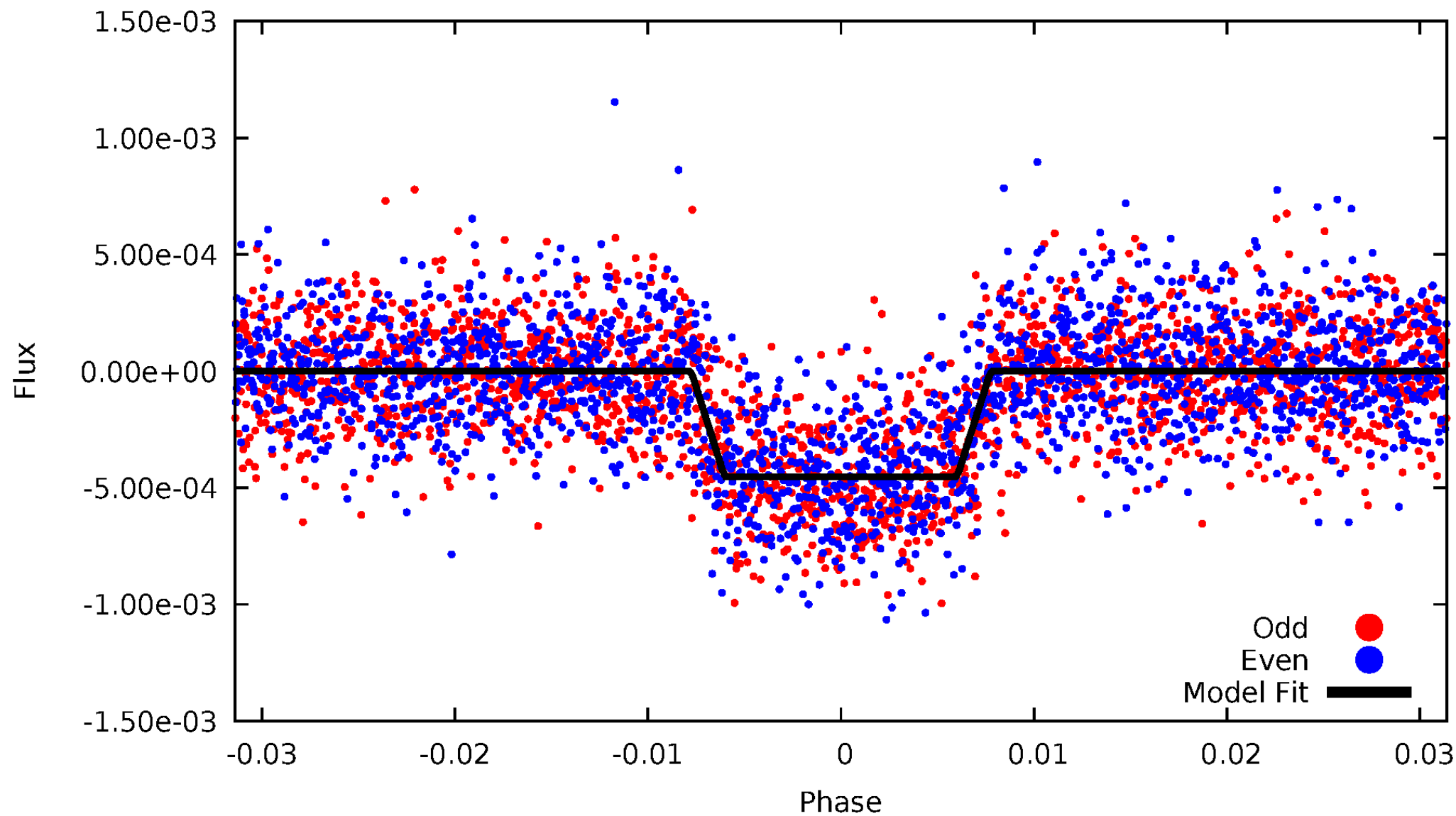
DV Odd/Even

TCE 003847138-01

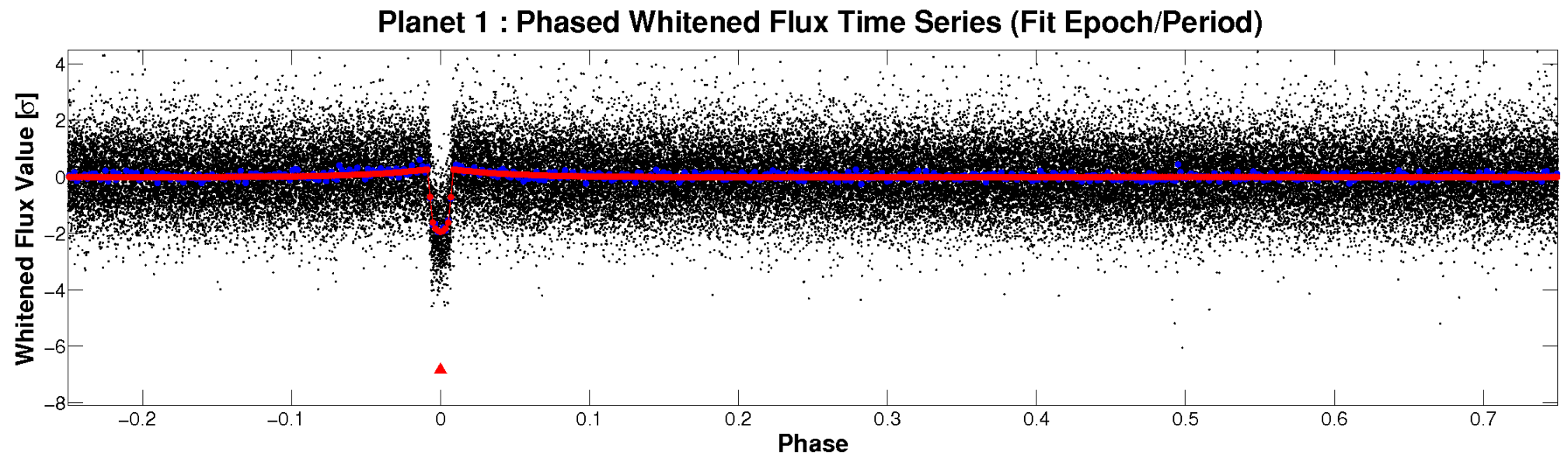
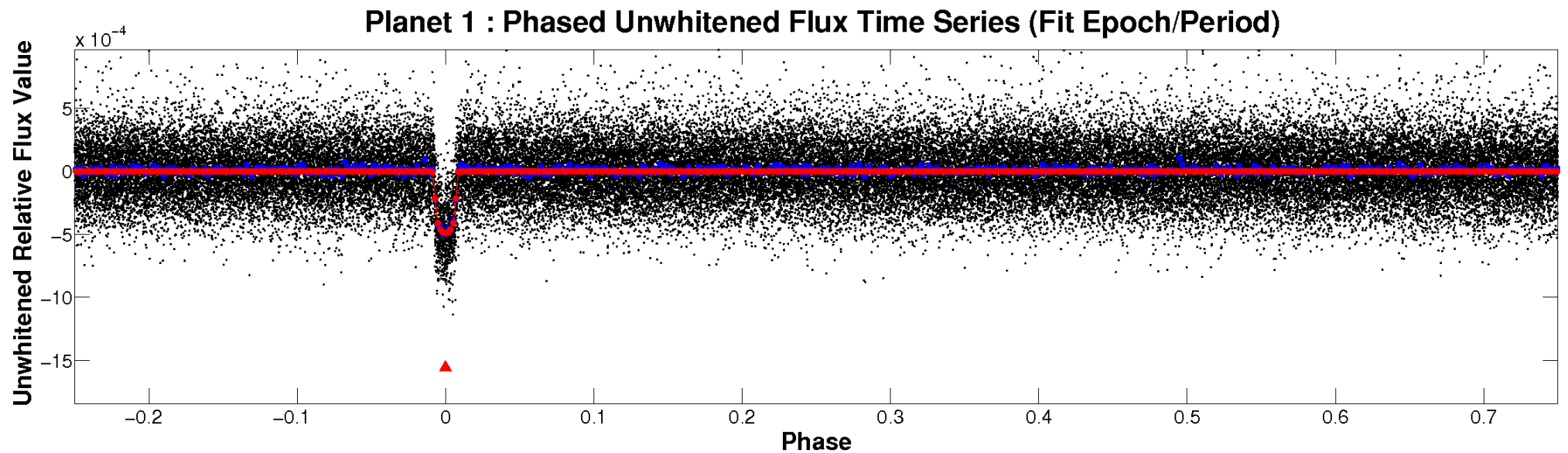


ALT Odd/Even

TCE 003847138-01

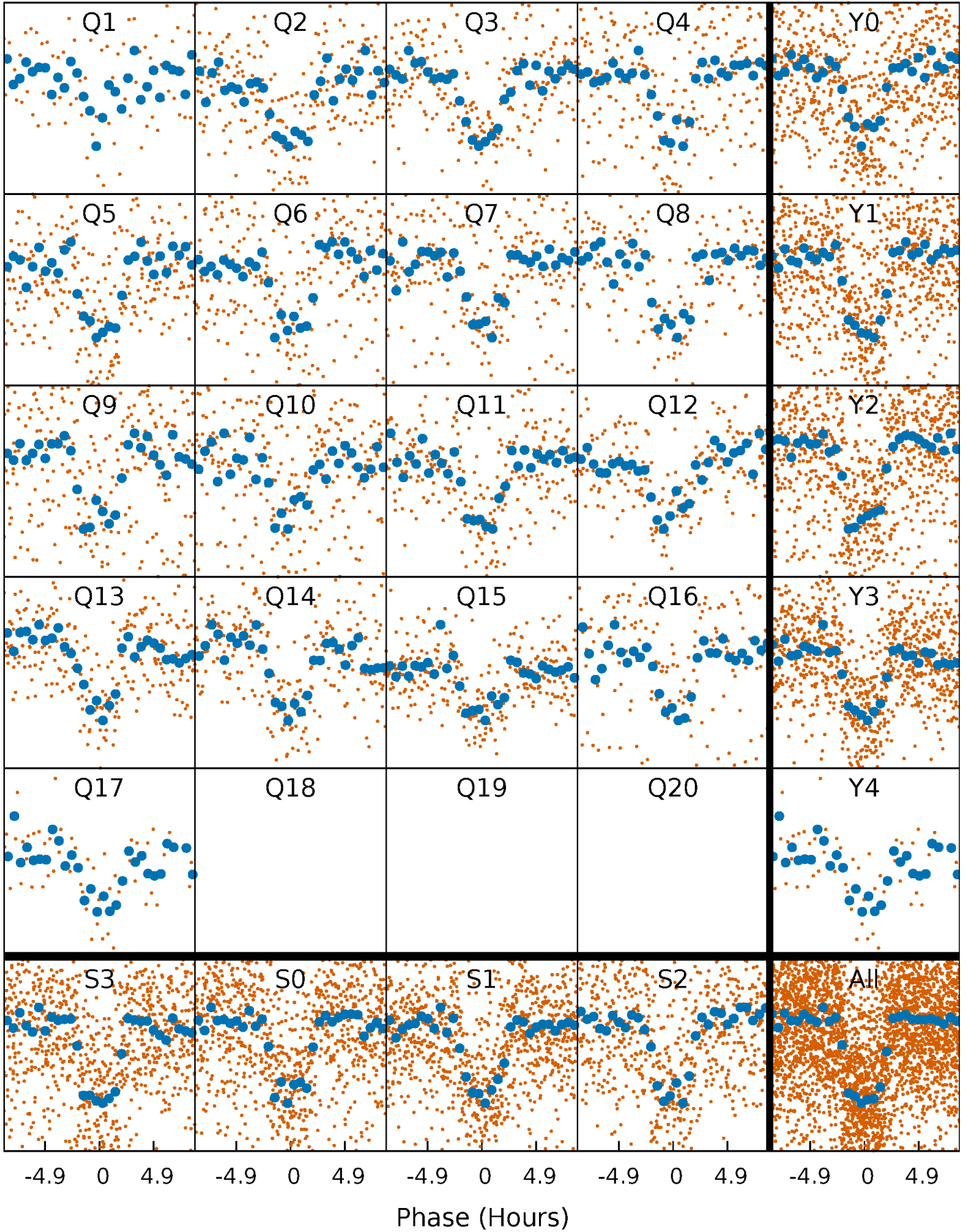


Non-Whitened Vs. Whitened Light Curve



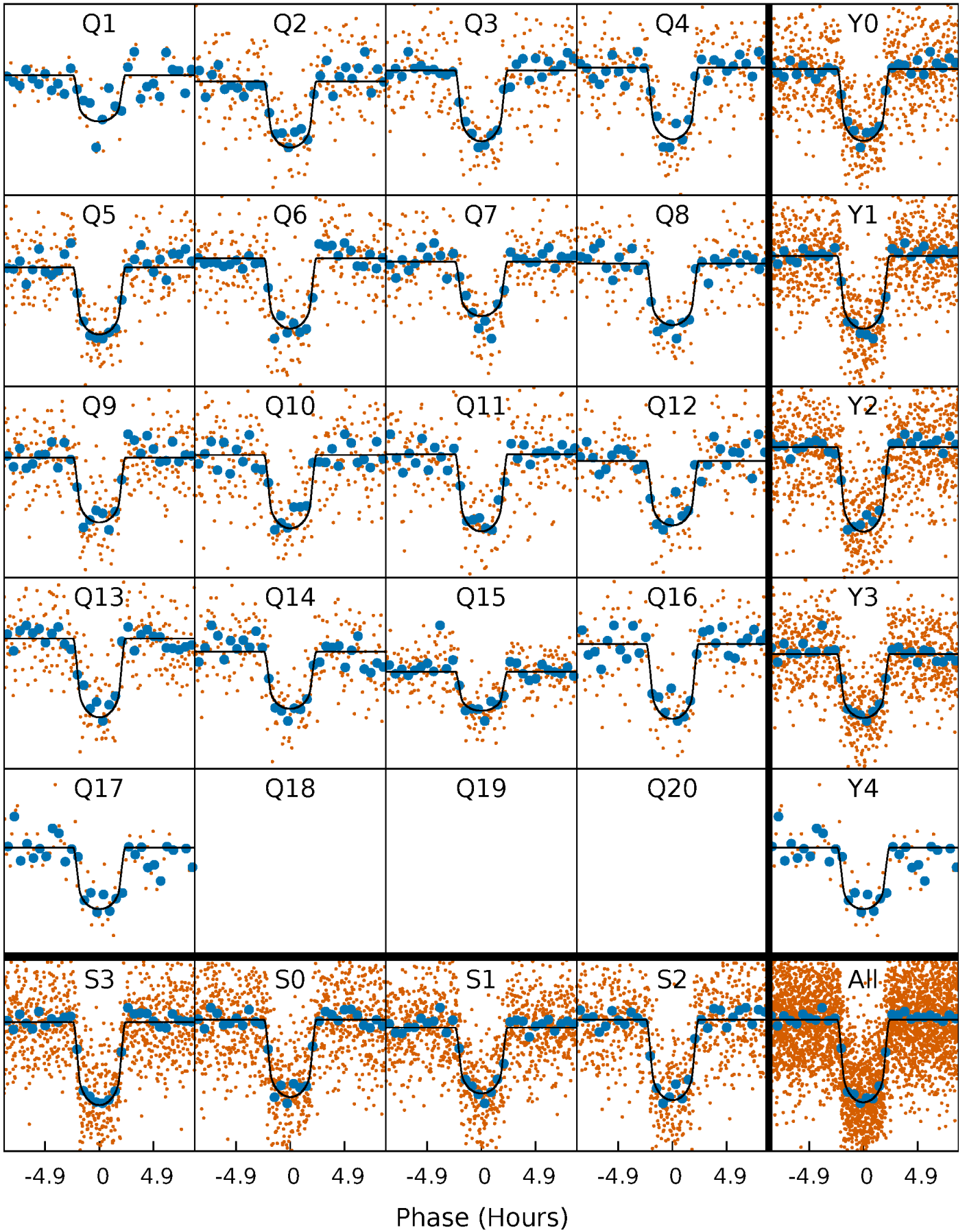
PDC Quarter-Phased Transit Curves

TCE 003847138-01 P= 11.722920 Days $T_0=142.150363$ (BKJD)



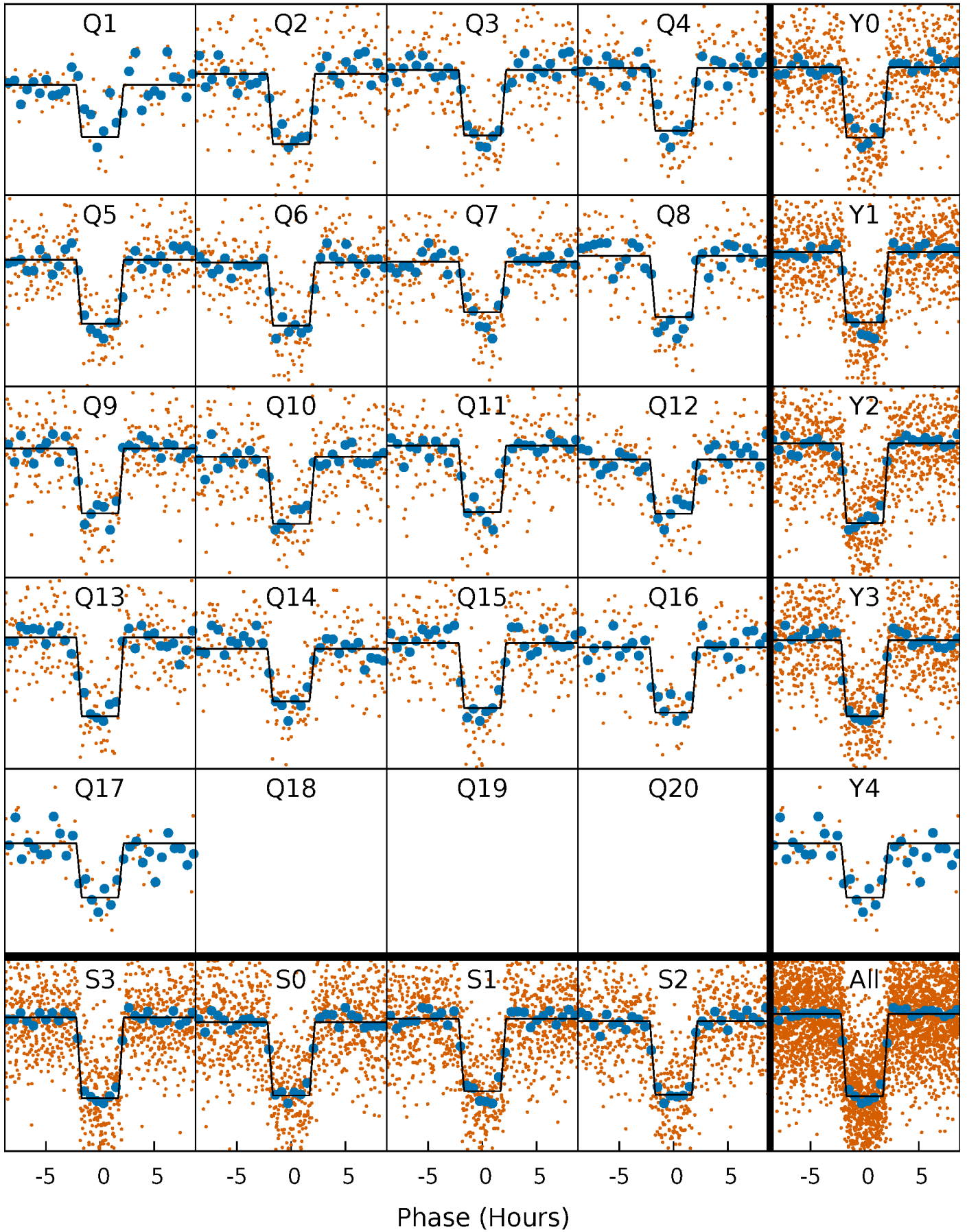
DV Quarter-Phased Transit Curves

TCE 003847138-01 P= 11.722920 Days $T_0=142.150363$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

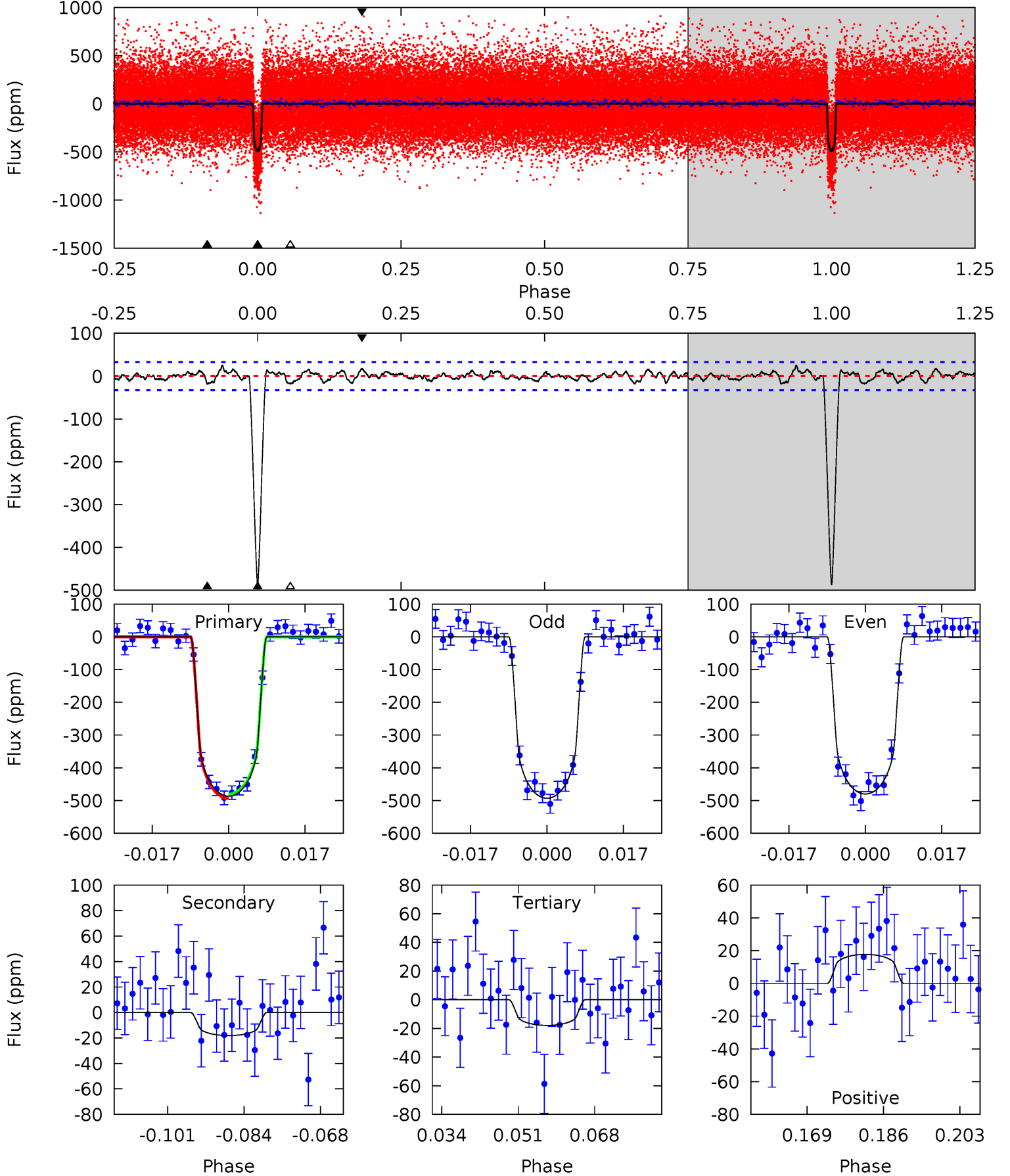
TCE 003847138-01 P= 11.723034 Days $T_0=142.143672$ (BKJD)



DV Model-Shift Uniqueness Test

003847138-01, P = 11.722920 Days, E = 130.427443 Days

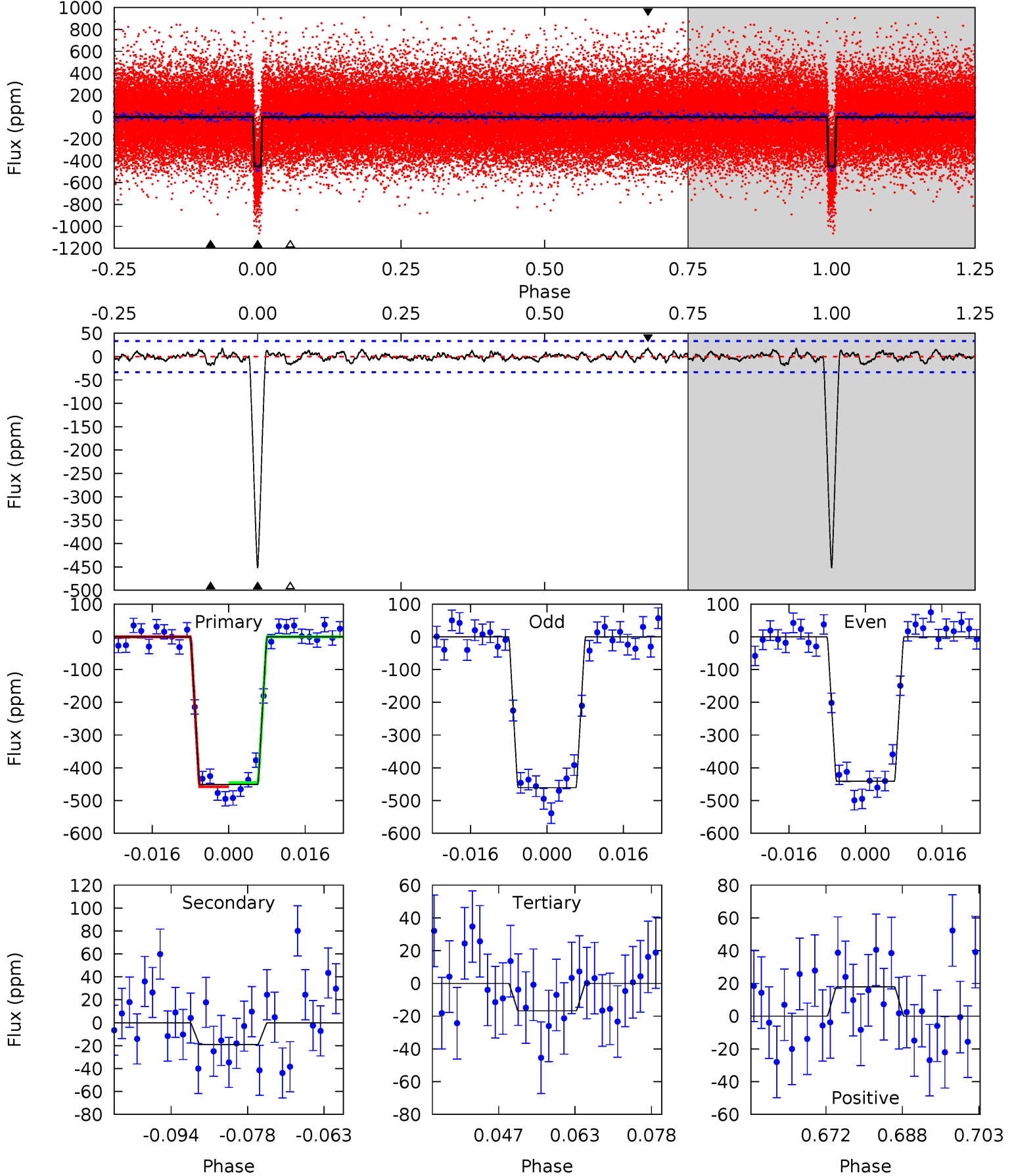
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
73.2	2.72	2.69	2.66	4.92	2.39	1.09	70.5	70.5	0.03	0.06	0.98	0.99	0.05	0.97



Alt Model-Shift Uniqueness Test

003847138-01, P = 11.723034 Days, E = 130.420638 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
66.6	2.82	2.47	2.63	4.94	2.42	0.88	64.1	64.0	0.35	0.19	1.43	1.00	0.04	0.90



Stellar Parameters For KIC 003847138

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5550^{+110}_{-110}	$4.431^{+0.095}_{-0.095}$	$0.000^{+0.150}_{-0.150}$	$0.953^{+0.120}_{-0.098}$	$0.894^{+0.067}_{-0.044}$	$1.454^{+0.552}_{-0.400}$
	+2%/-2%	+2%/-2%	+inf%/-inf%	+13%/-10%	+7%/-5%	+38%/-27%
Source	SPE57	SPE57	SPE57	DSEP		

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

Secondary Eclipse Parameters for KIC 003847138-01 / KOI 0444.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-18 ± 7	$2.31^{+0.43}_{-0.37}$	1068^{+42}_{-40}	3055^{+215}_{-235}	17^{+11}_{-7}
Alt.	-19 ± 7	$2.20^{+0.42}_{-0.38}$	1070^{+45}_{-39}	3105^{+231}_{-223}	20^{+13}_{-8}

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 $A_{obs} \gg 1.0$

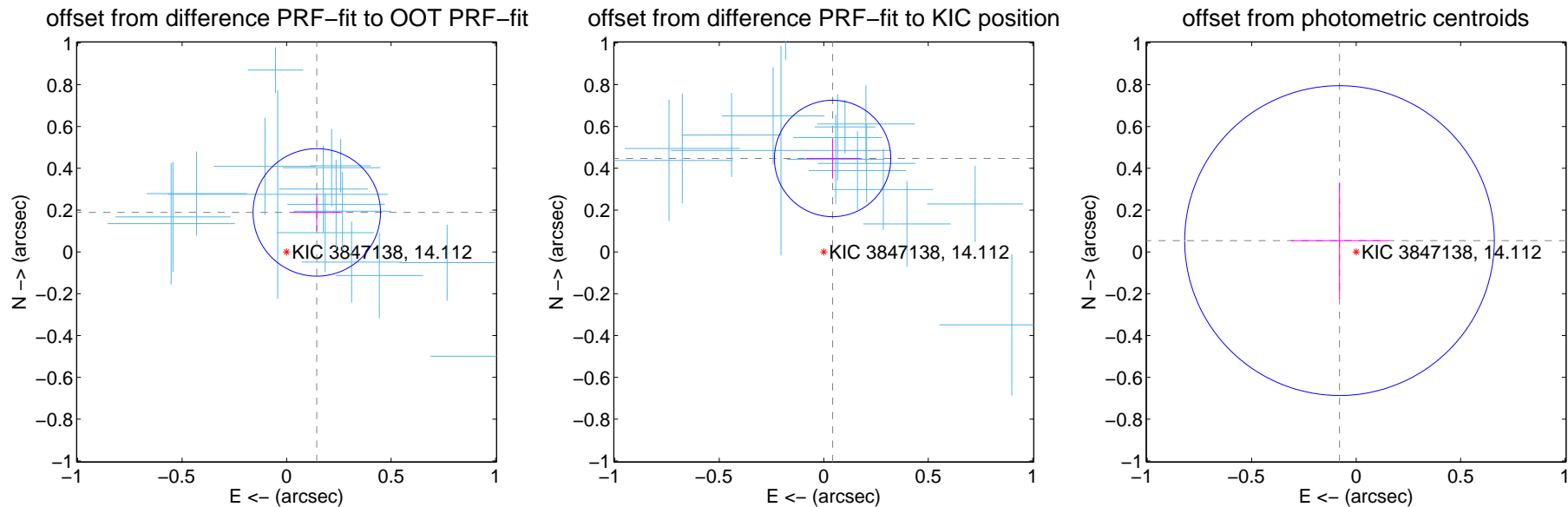
DV Centroid Data

Supplemental centroid analysis for 003847138-01. Kepler magnitude: 14.11. Transit SNR 51.31

There are 16 quarters with good PRF difference image offsets

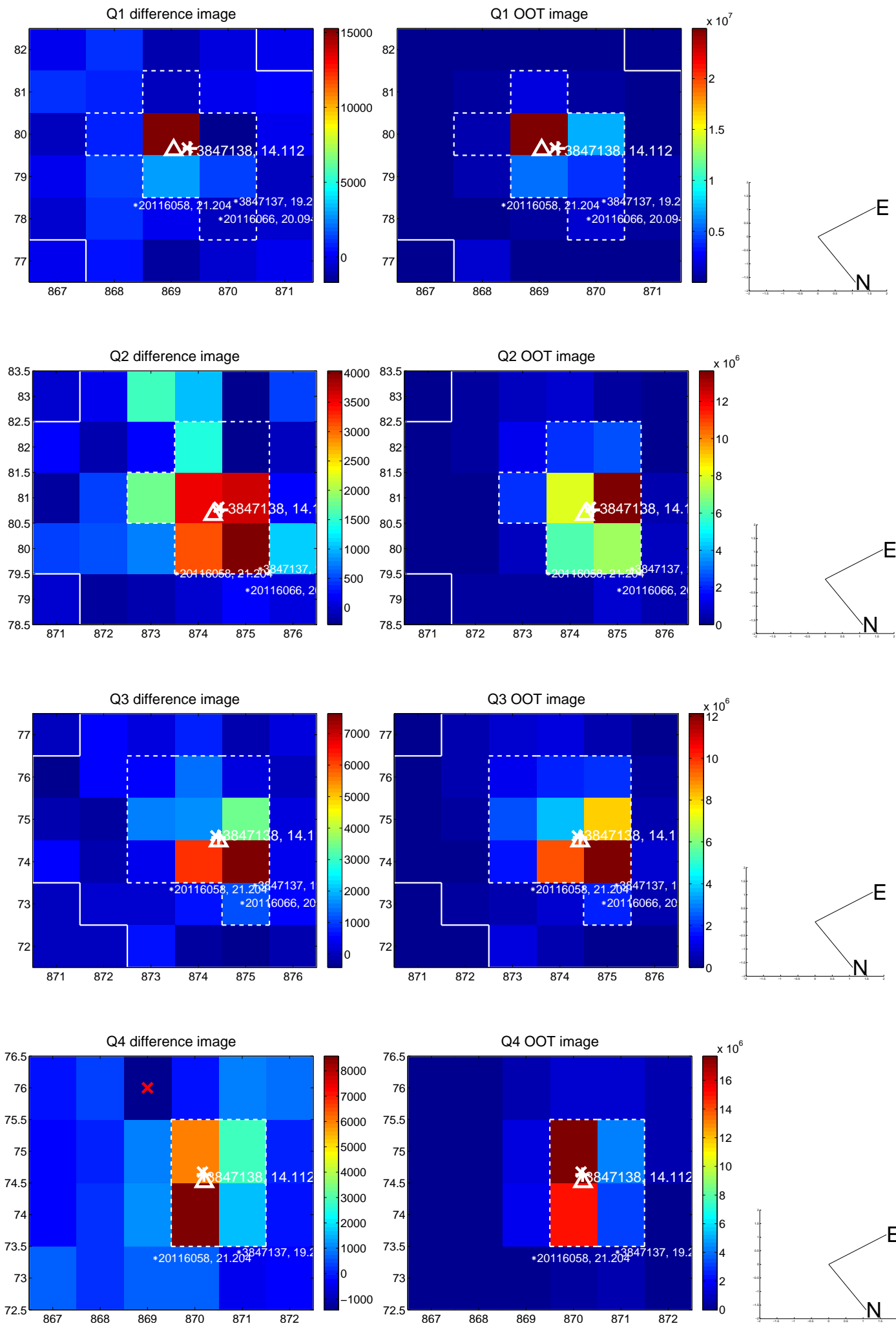
The direct PRF centroid is offset from the target star catalog position by about 0.26 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.238 ± 0.102	2.34	-0.144 ± 0.121	0.189 ± 0.089
PRF-fit source offset from KIC position	0.449 ± 0.093	4.84	-0.042 ± 0.128	0.447 ± 0.097
photometric centroid source offset	0.10 ± 0.25	0.39	0.08 ± 0.23	0.05 ± 0.28

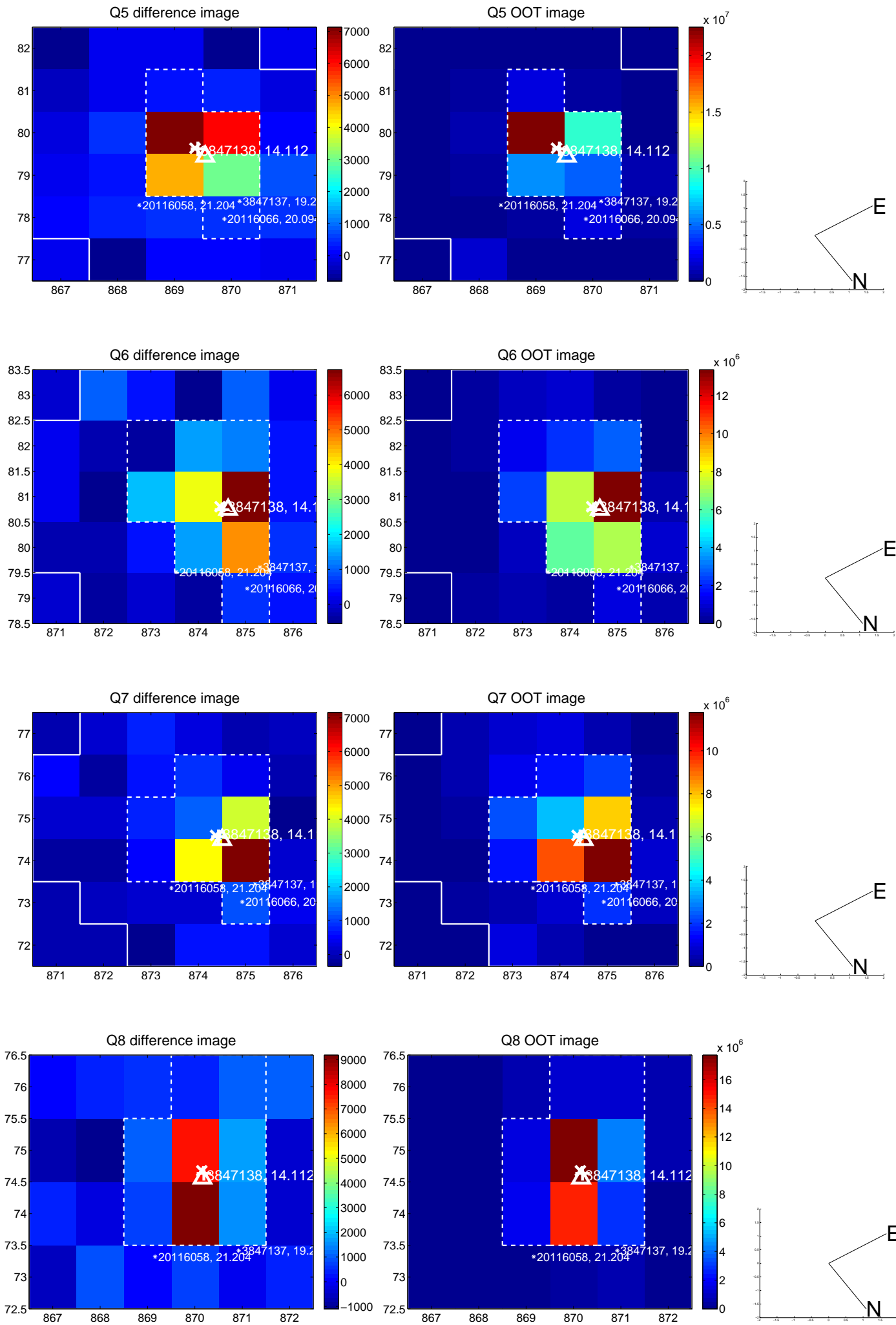


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

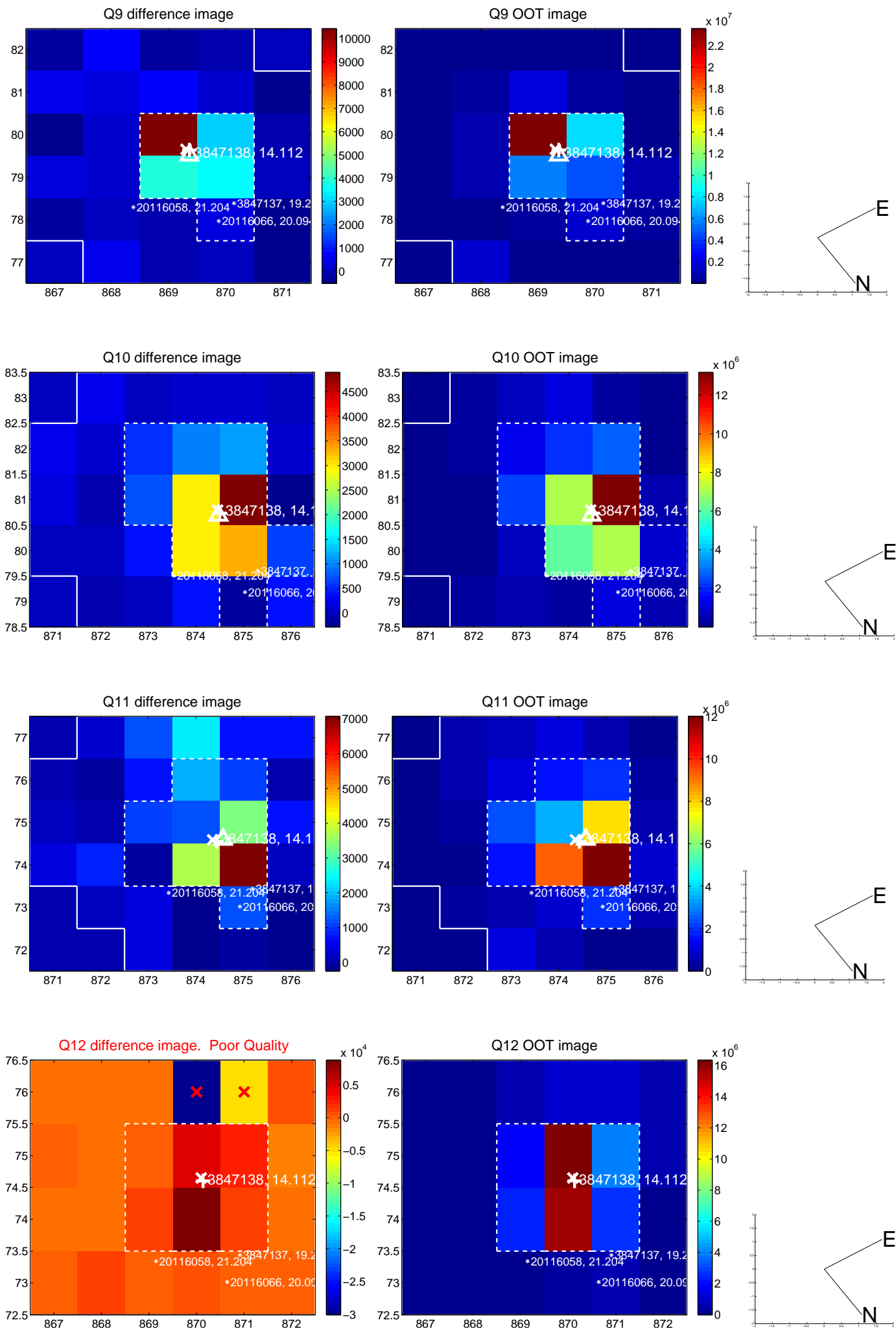
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



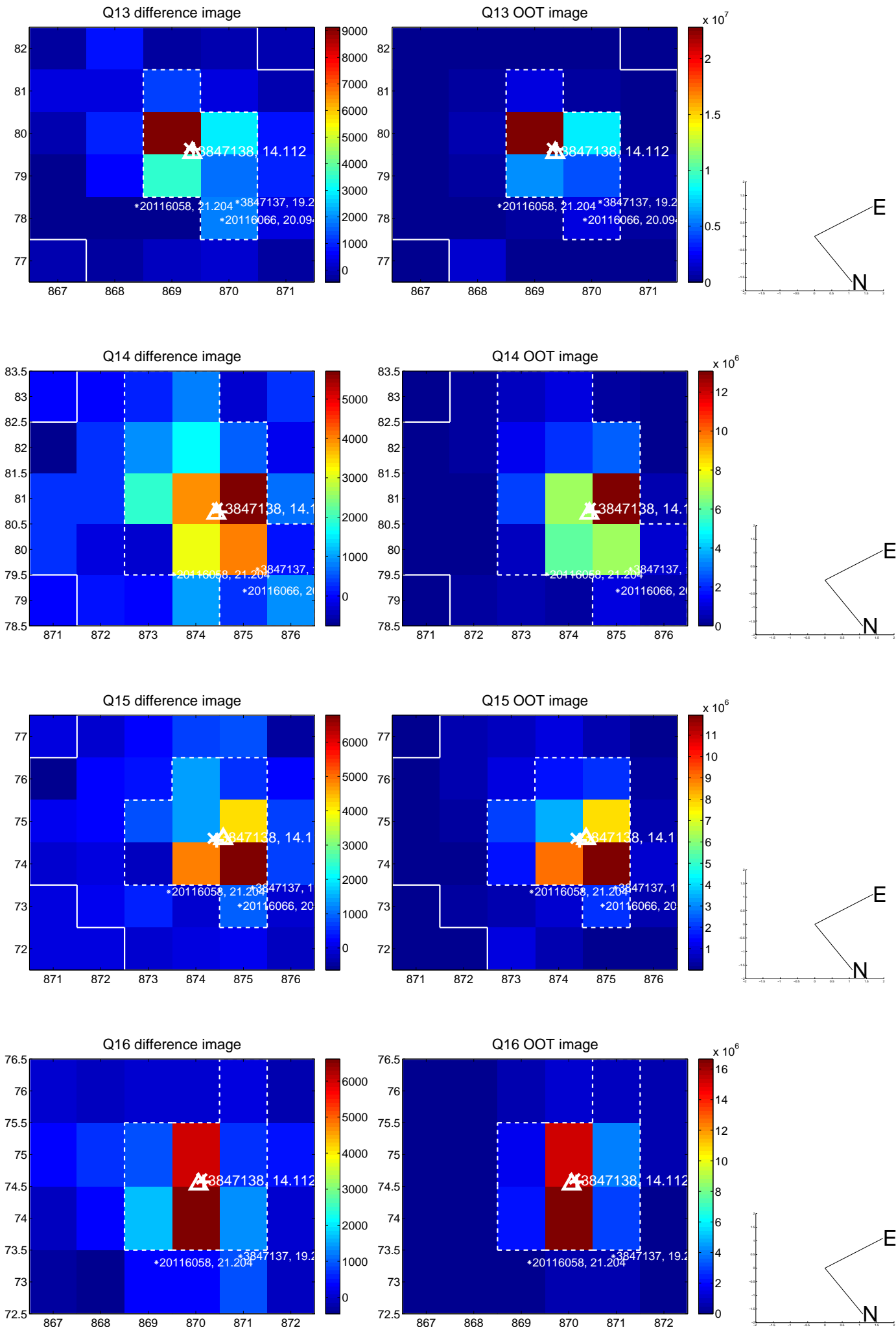
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



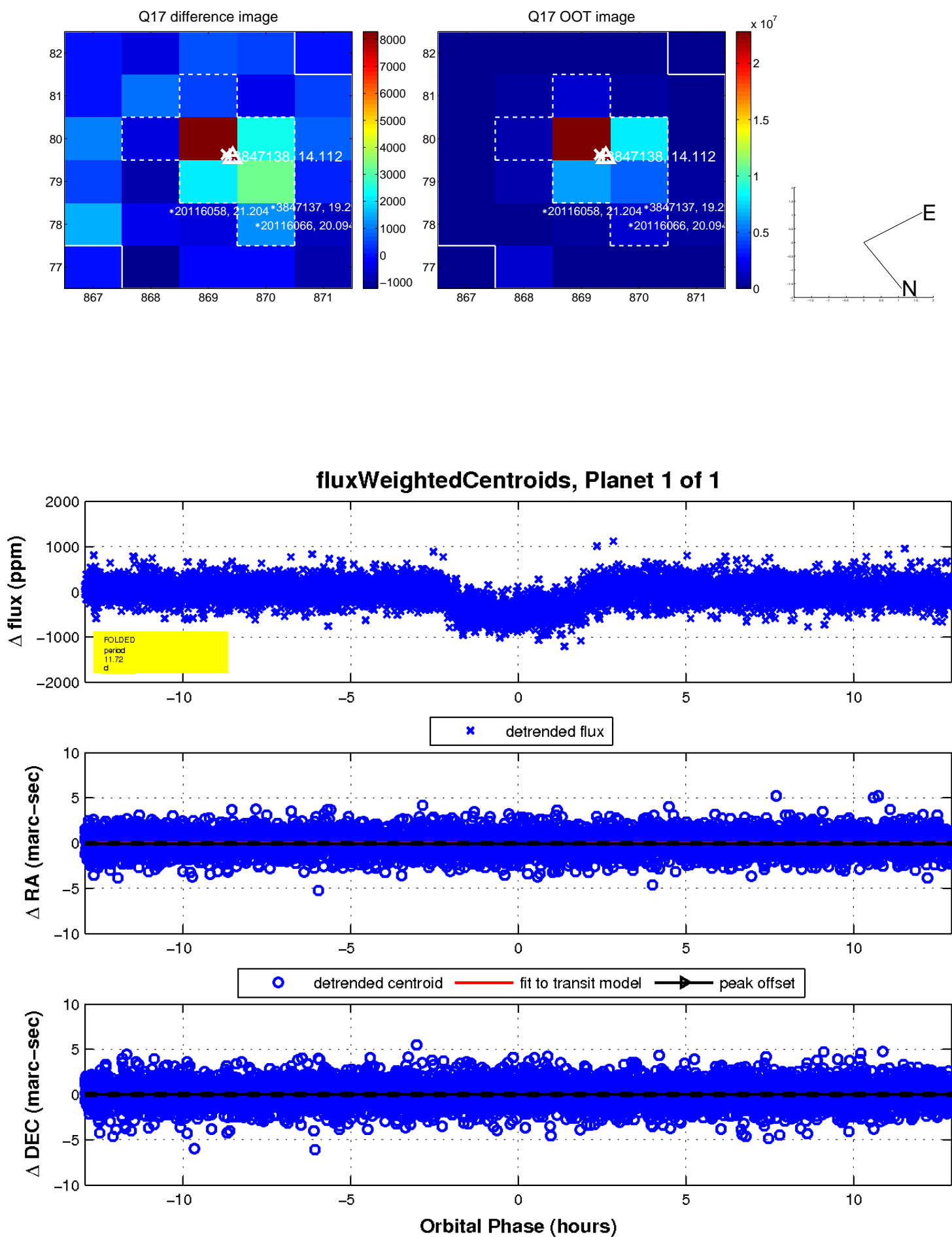
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

