

KIC 003348285

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})
003348285-01	OBS	3021.01	0.803828	131.804910	50.0	1.374	13.2	13.7	1.05	6242	0.87	4867.10

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003348285-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_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 003348285-01

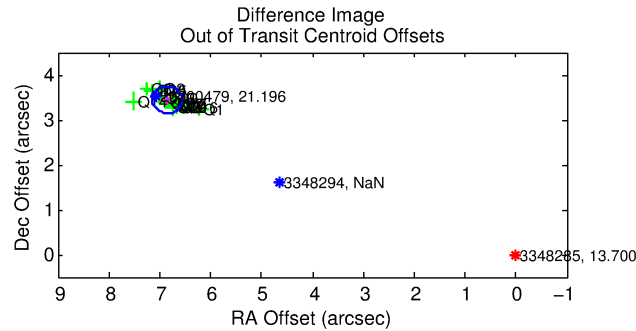
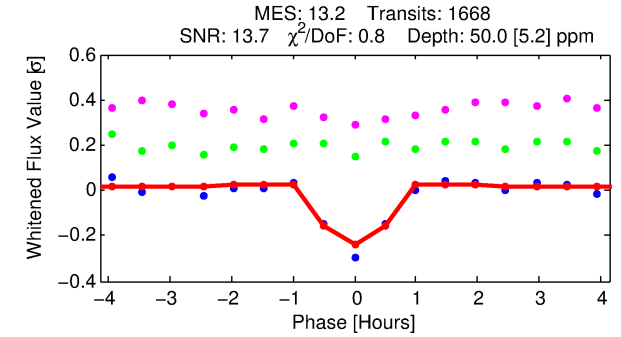
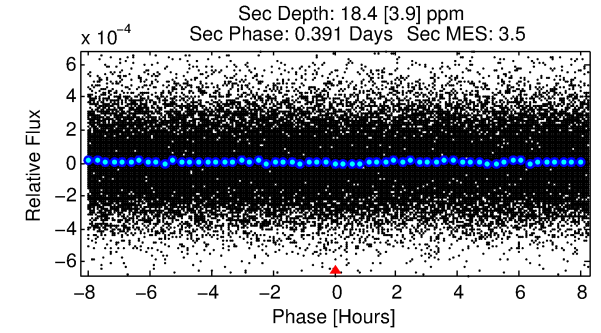
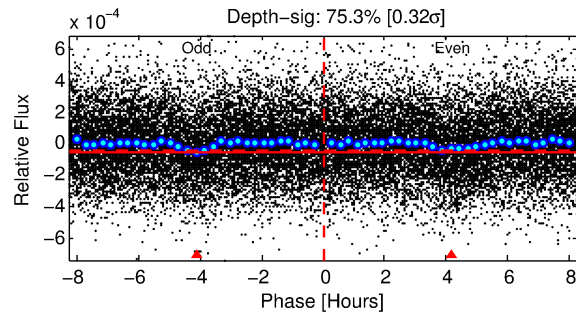
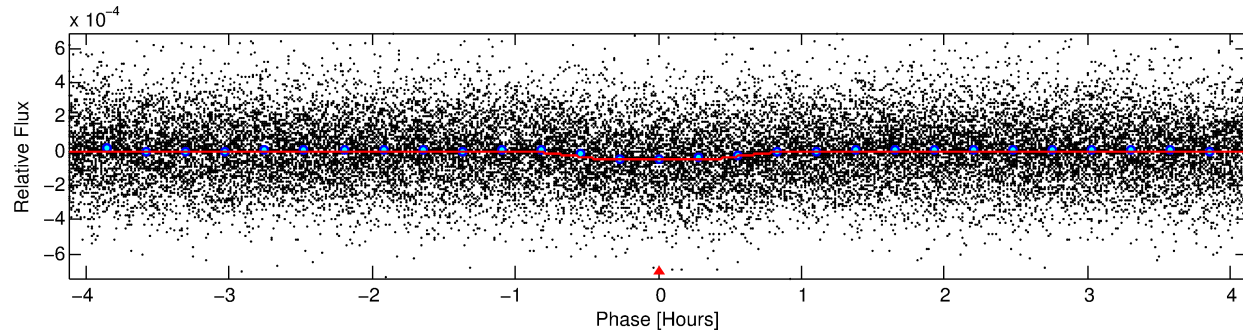
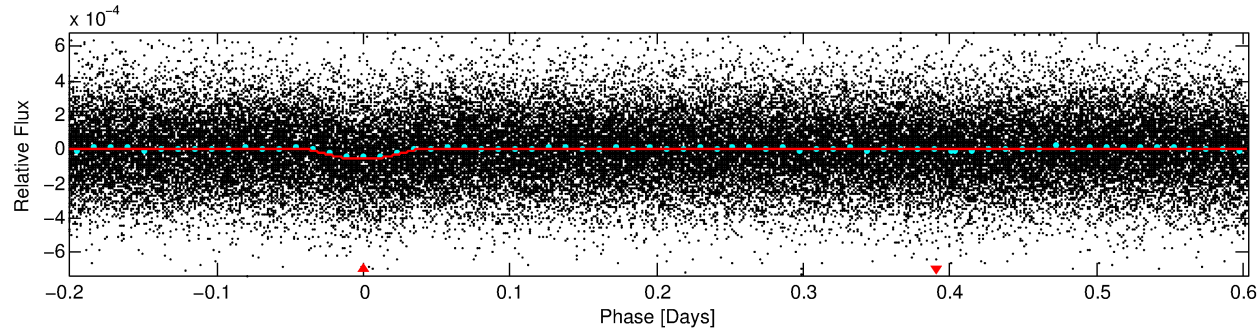
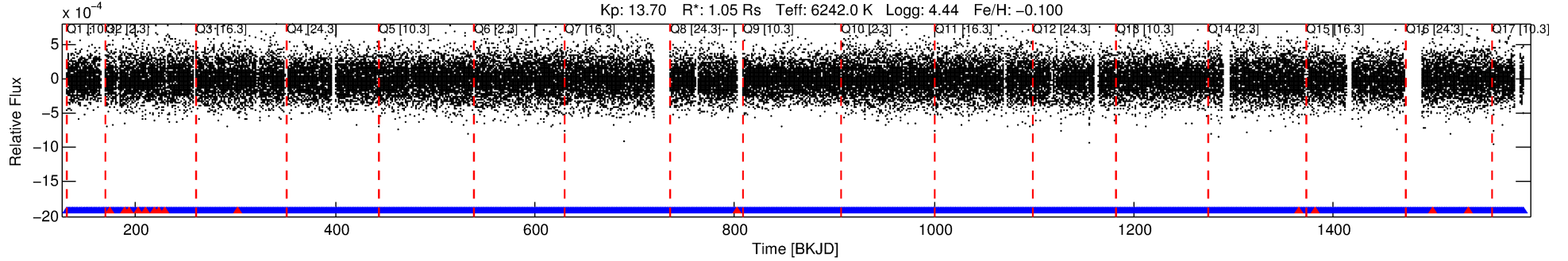
No Significant Match Found

DV One-Page Summary

KIC: 3348285 Candidate: 1 of 1 Period: 0.804 d

KOI: K03021.01 Corr: 0.912

Kp: 13.70 R*: 1.05 Rs Teff: 6242.0 K Logg: 4.44 Fe/H: -0.100



DV Fit Results:

Period = 0.80383 [0.00001] d
Epoch = 131.8049 [0.0014] BKJD
Rp/R* = 0.0076 [0.0026]
a/R* = 2.23 [3.23]
b = 0.90 [0.39]
Seff = 4867.09 [1952.94]
Teq = 2130 [214] K
Rp = 0.87 [0.39] Re
a = 0.0175 [0.0045] AU
Ag = 4.07 [3.24] [0.95σ]
Teffp = 4678 [836] K [2.95σ]

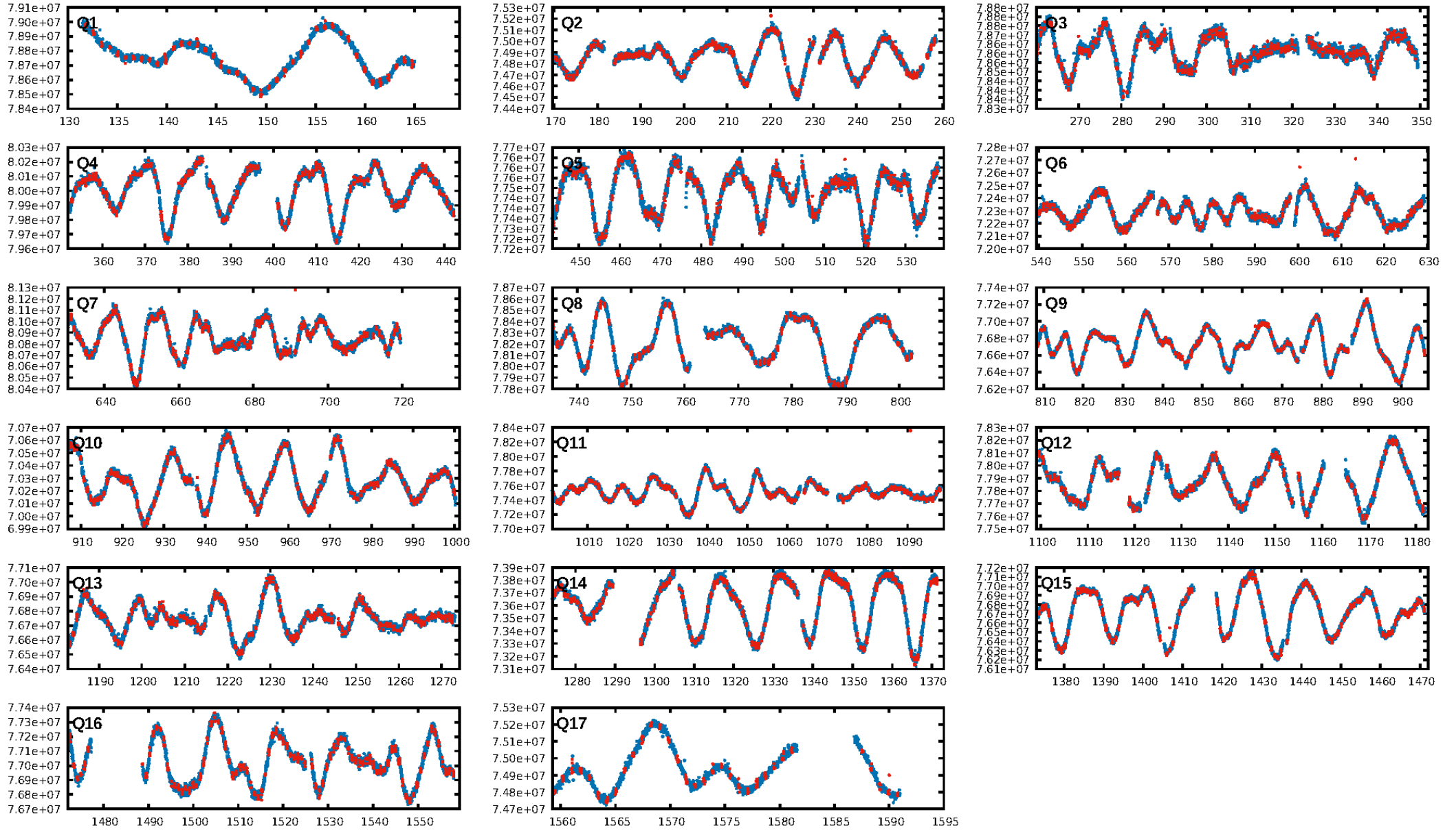
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.11e-37
RollingBand-fgt: 0.99 [1579/1593]
GhostDiagnostic-chr: -0.3042
Centroid-sig: 0.0%
Centroid-so: 14.224 arcsec [14.64σ]
OotOffset-rm: 7.678 arcsec [77.29σ]
KicOffset-rm: 7.943 arcsec [90.01σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

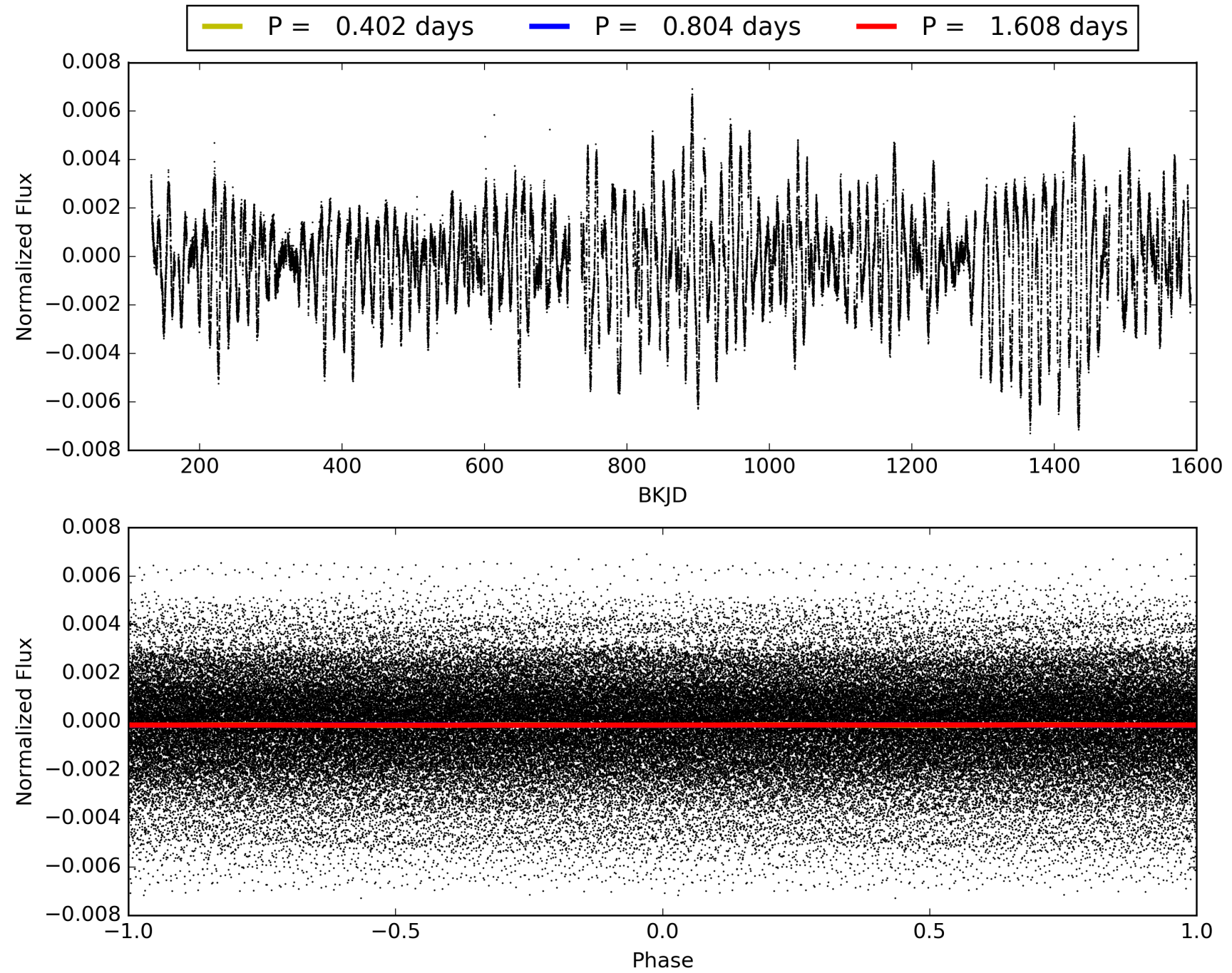
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 23:49:00 Z

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

TCE 003348285-01, PDC Light Curves

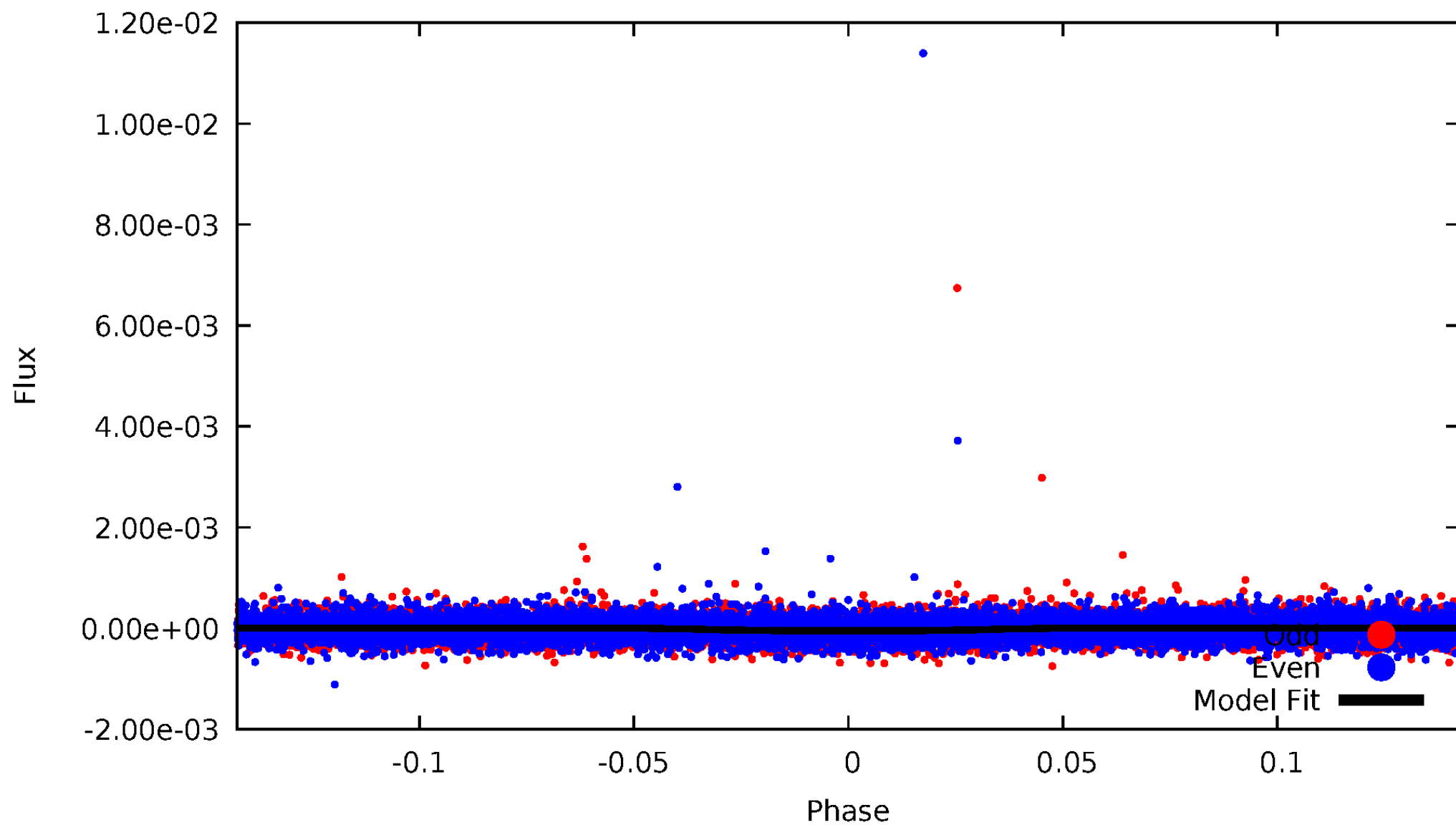


TCE 003348285-01



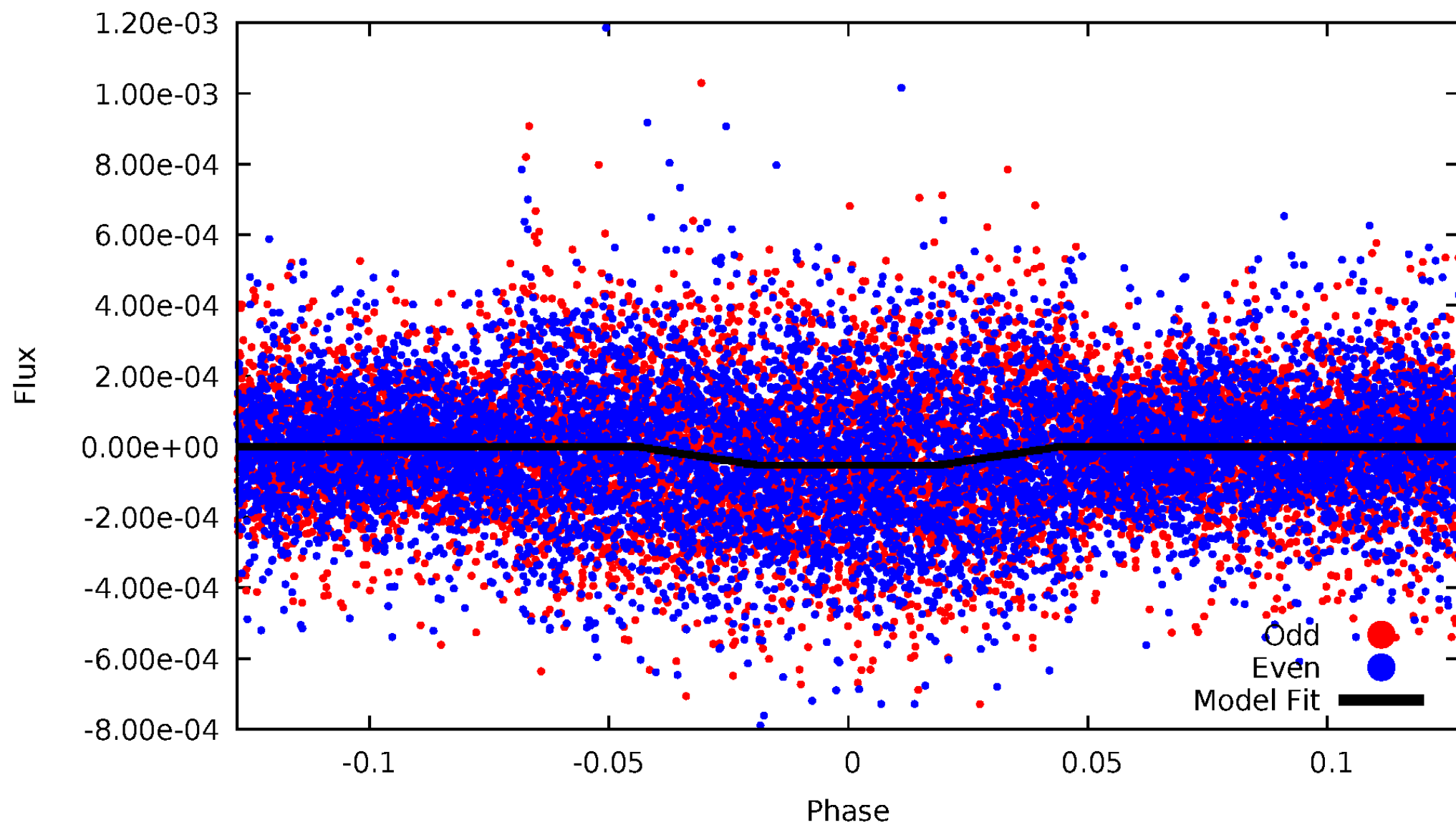
DV Odd/Even

TCE 003348285-01



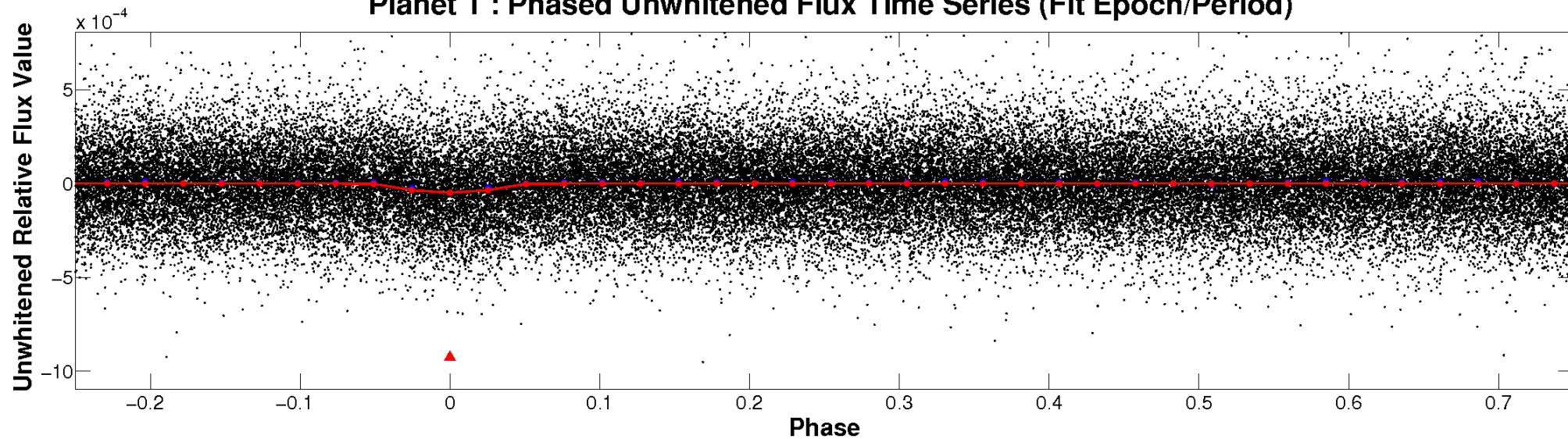
ALT Odd/Even

TCE 003348285-01

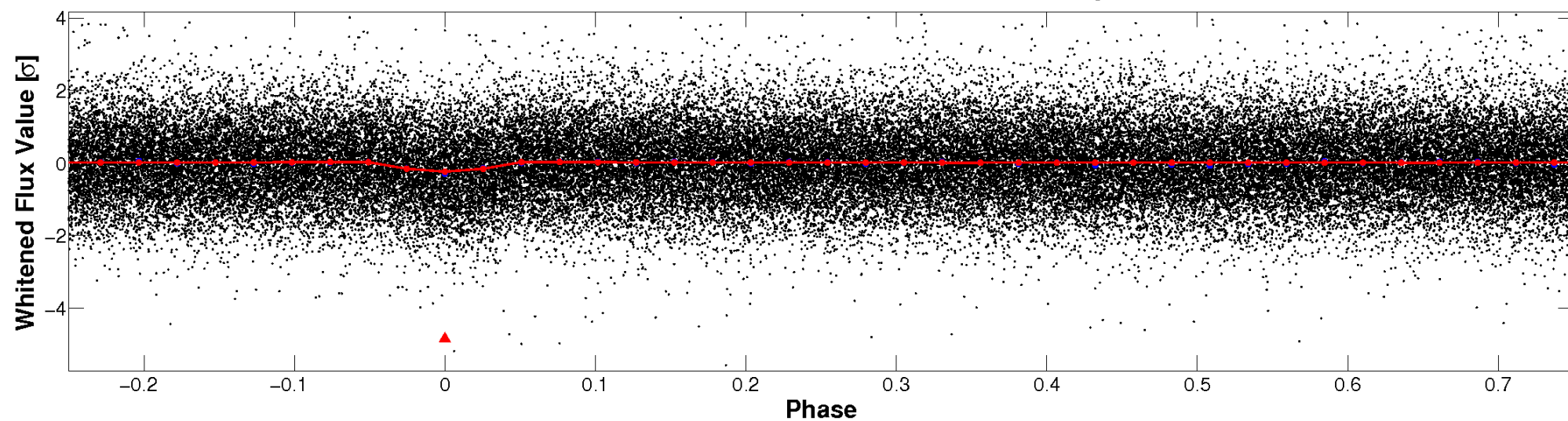


Non-Whitened Vs. Whitened Light Curve

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

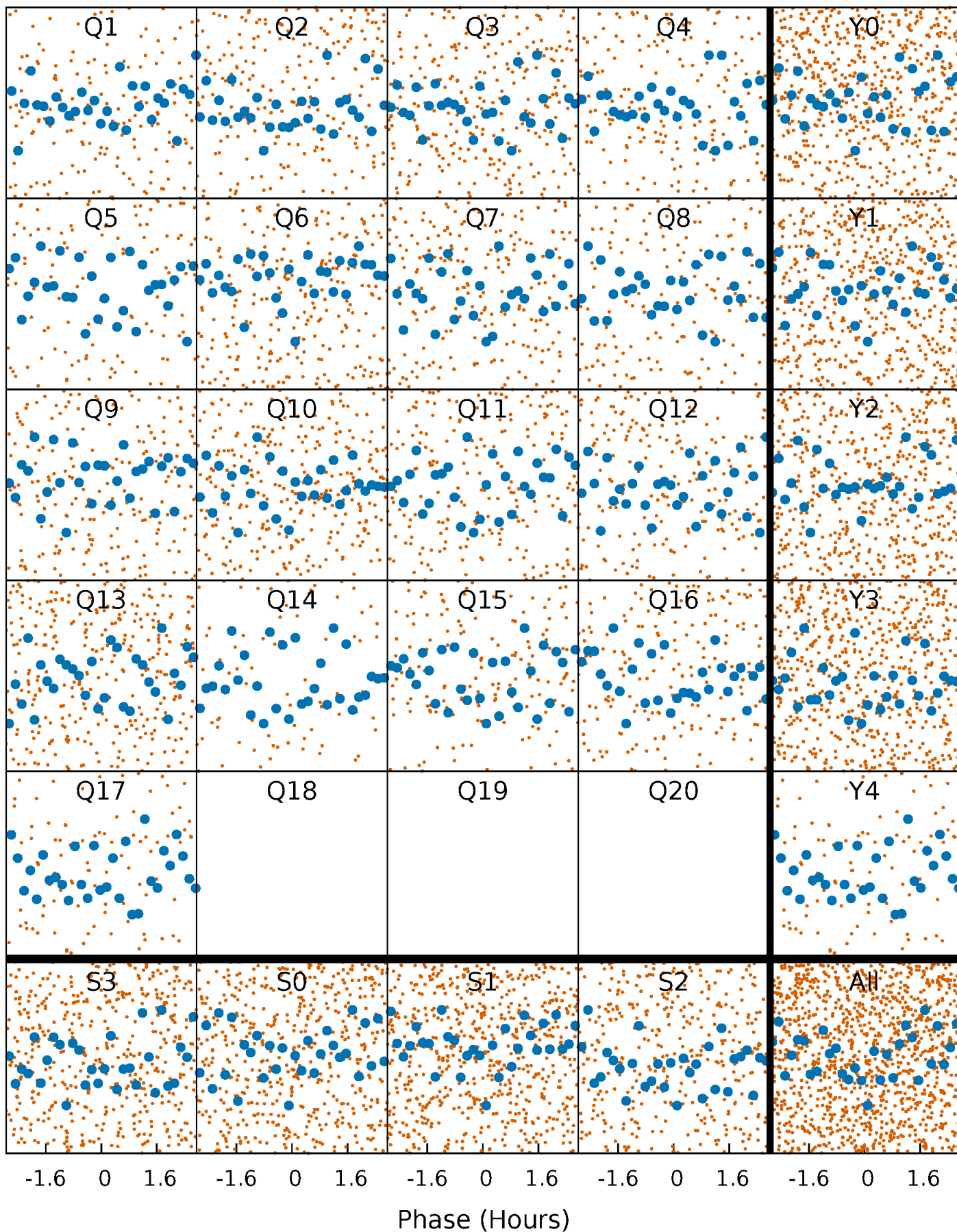


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



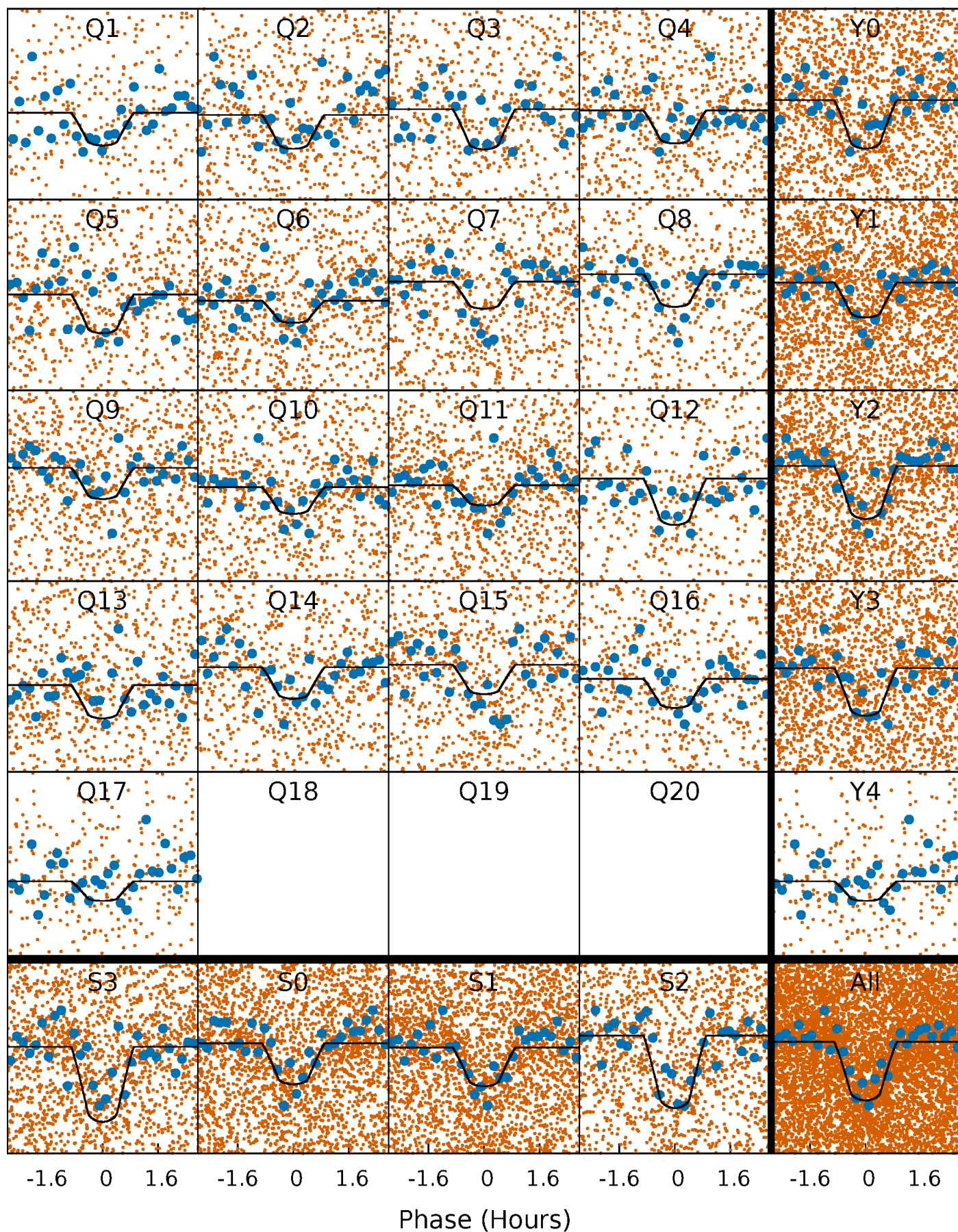
PDC Quarter-Phased Transit Curves

TCE 003348285-01 P= 0.803828 Days $T_0=131.804910$ (BKJD)



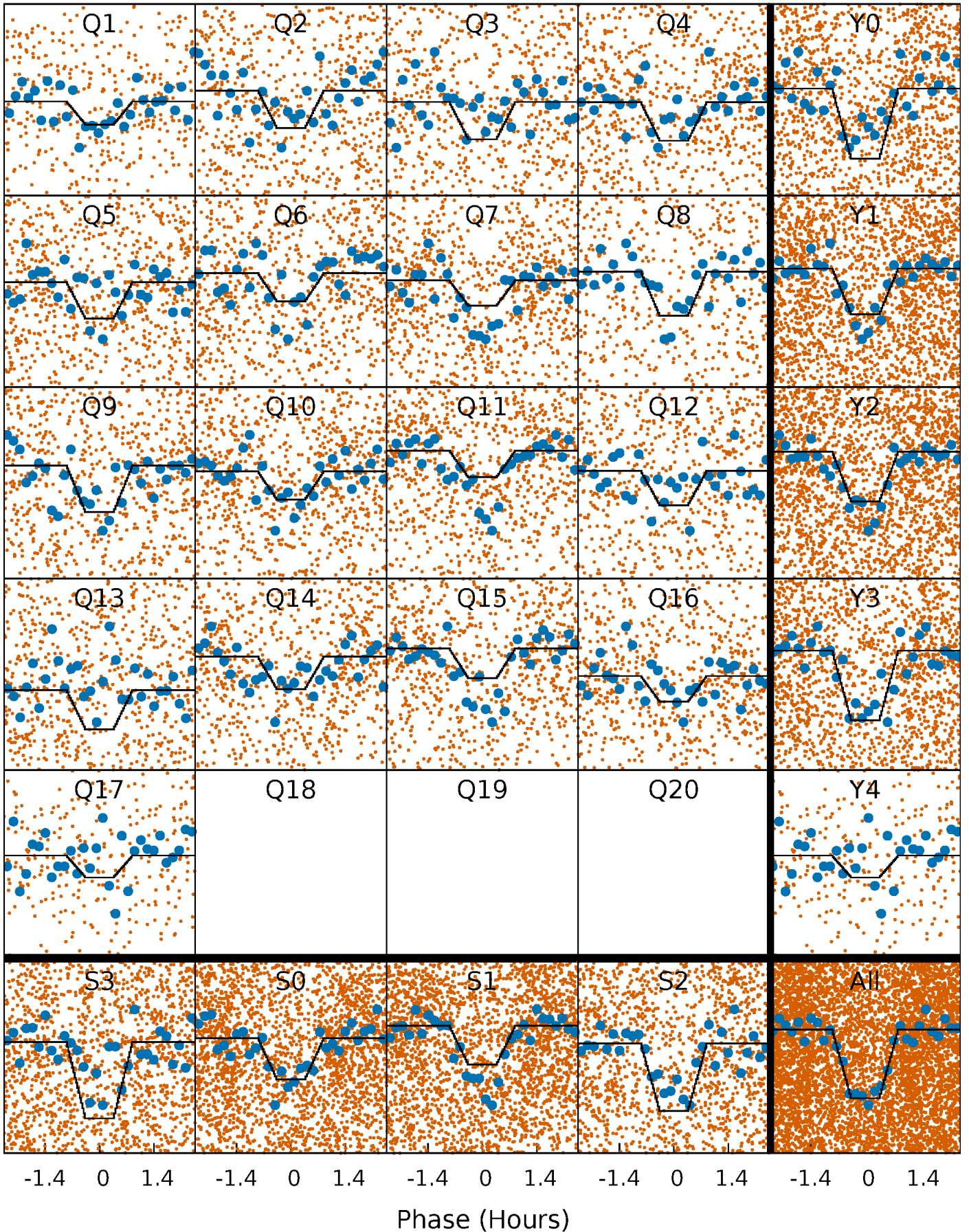
DV Quarter-Phased Transit Curves

TCE 003348285-01 P= 0.803828 Days $T_0=131.804910$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

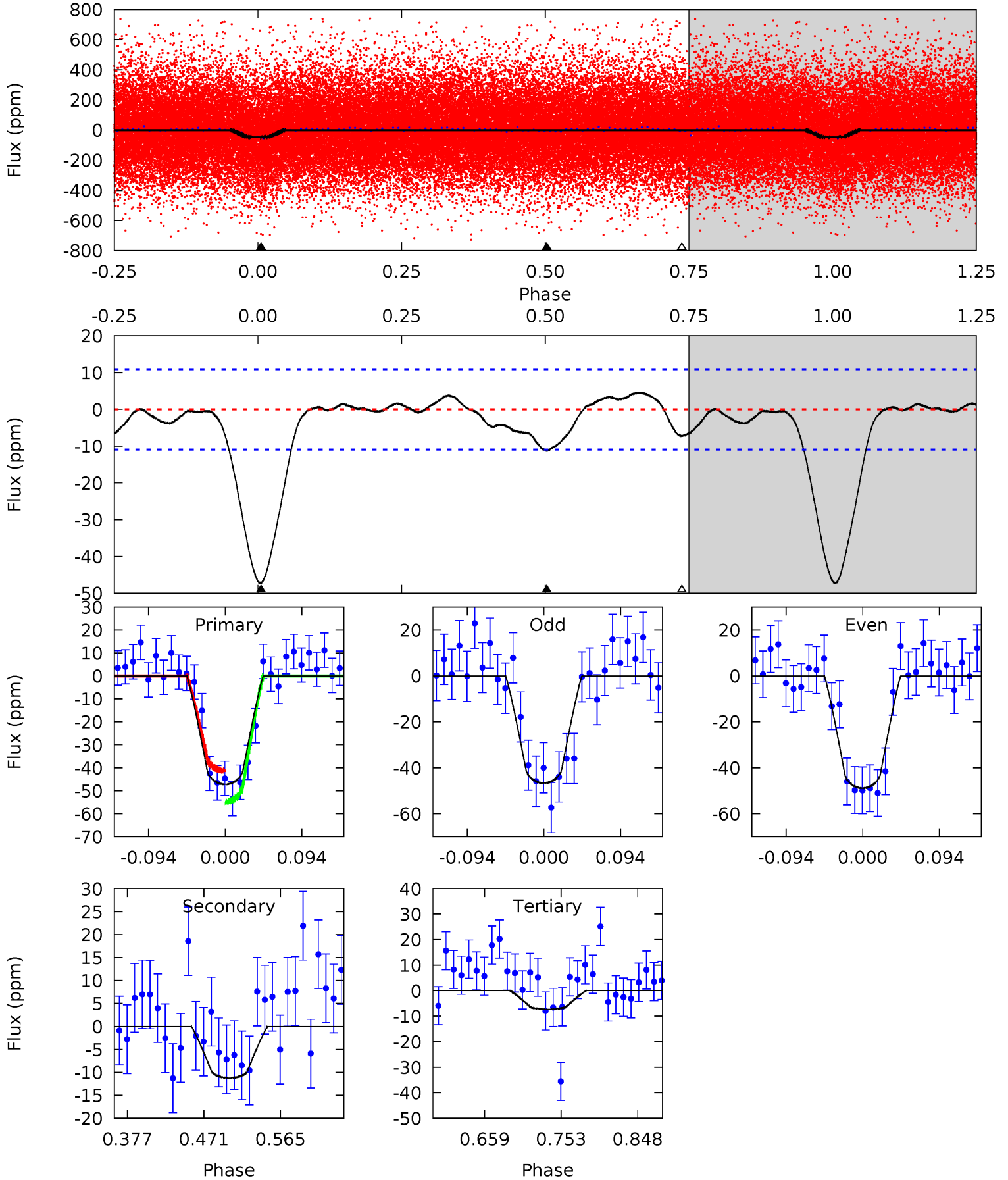
TCE 003348285-01 P= 0.803830 Days $T_0=131.807208$ (BKJD)



DV Model-Shift Uniqueness Test

003348285-01, P = 0.803828 Days, E = 131.001082 Days

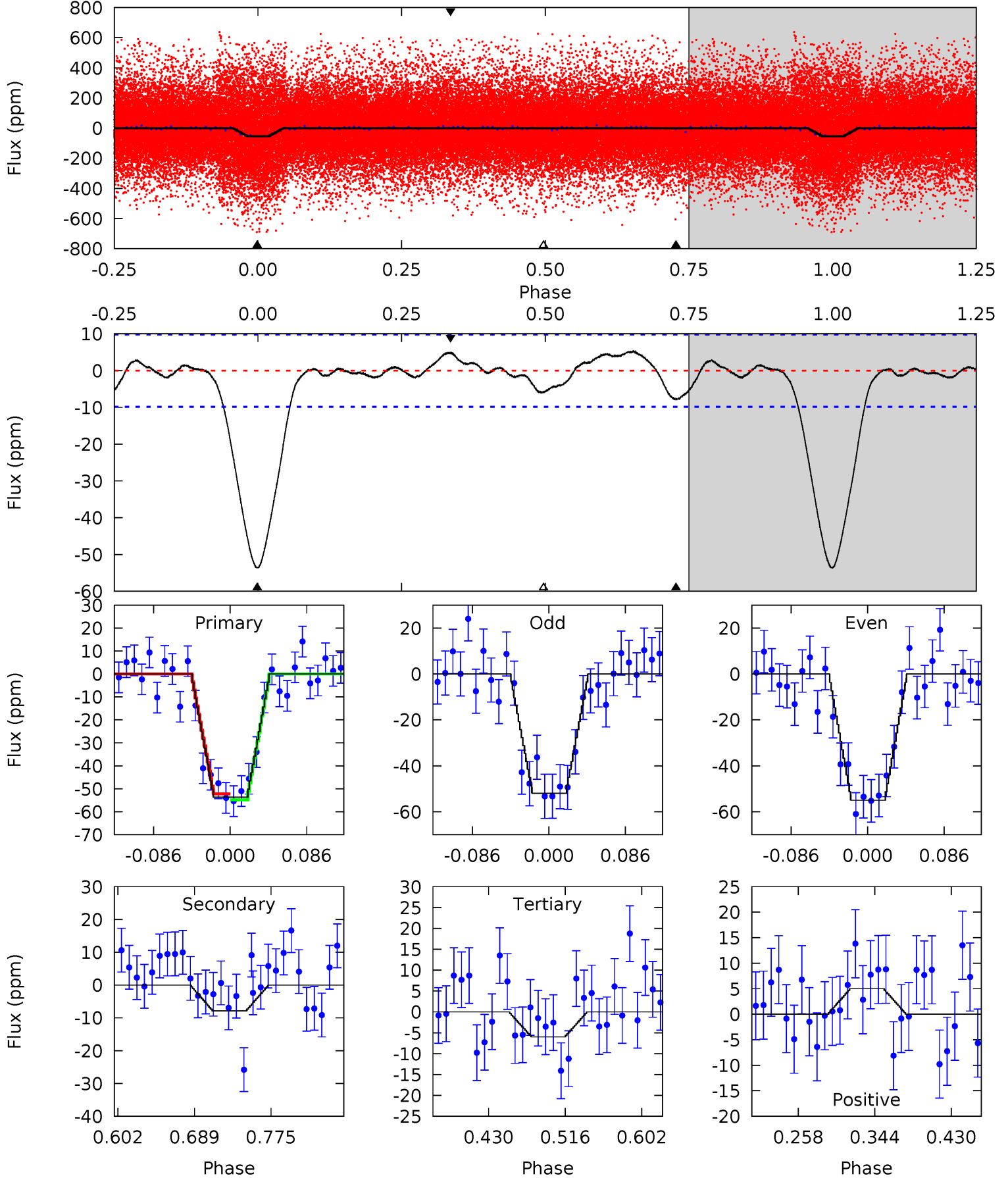
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.8	4.70	3.04	0	4.58	1.67	1.14	16.7	19.8	1.66	4.70	0.46	0.91	0.09	2.85



Alt Model-Shift Uniqueness Test

003348285-01, P = 0.803830 Days, E = 131.003378 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.1	3.68	2.80	2.33	4.60	1.72	1.11	22.3	22.7	0.88	1.34	0.71	1.04	0.09	0.60



Stellar Parameters For KIC 003348285

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6242^{+174}_{-217}	$4.442^{+0.052}_{-0.208}$	$-0.100^{+0.250}_{-0.350}$	$1.047^{+0.313}_{-0.112}$	$1.104^{+0.145}_{-0.145}$	$1.354^{+0.387}_{-0.722}$
	+3%/-3%	+1%/-5%	+250%/-350%	+30%/-11%	+13%/-13%	+29%/-53%
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 003348285-01 / KOI 3021.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-11 ± 2	$0.90^{+0.34}_{-0.32}$	3037^{+218}_{-142}	4241^{+889}_{-555}	$2.309^{+2.934}_{-1.142}$
Alt.	-8 ± 2	$0.88^{+0.36}_{-0.33}$	3043^{+235}_{-146}	3964^{+978}_{-629}	$1.649^{+2.947}_{-0.905}$

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

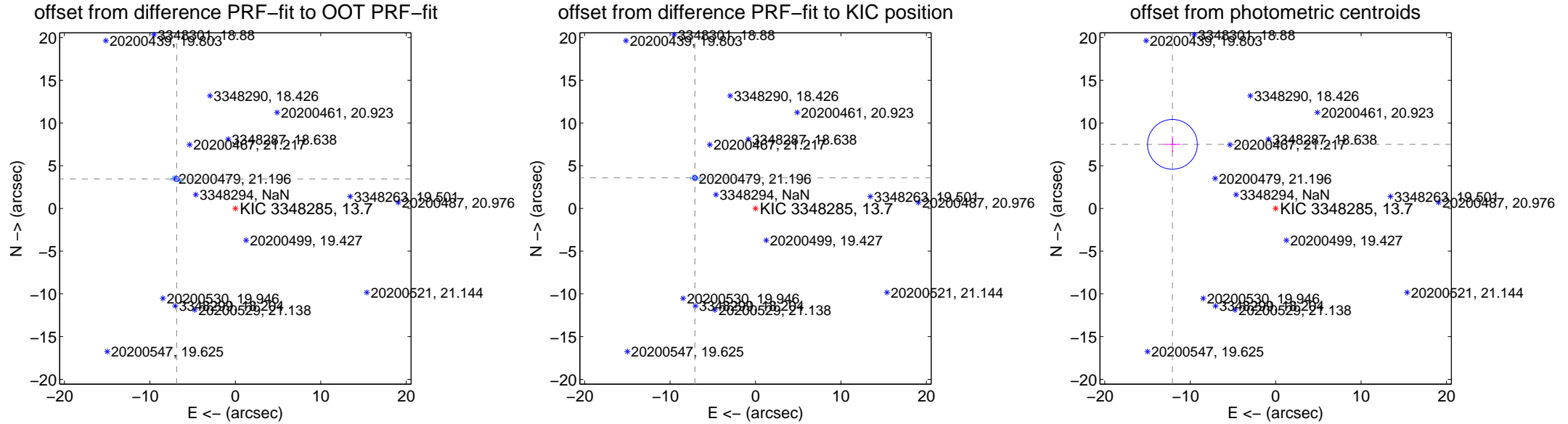
DV Centroid Data

Supplemental centroid analysis for 003348285-01. Kepler magnitude: 13.70. Transit SNR 13.67

There are 17 quarters with good PRF difference image offsets

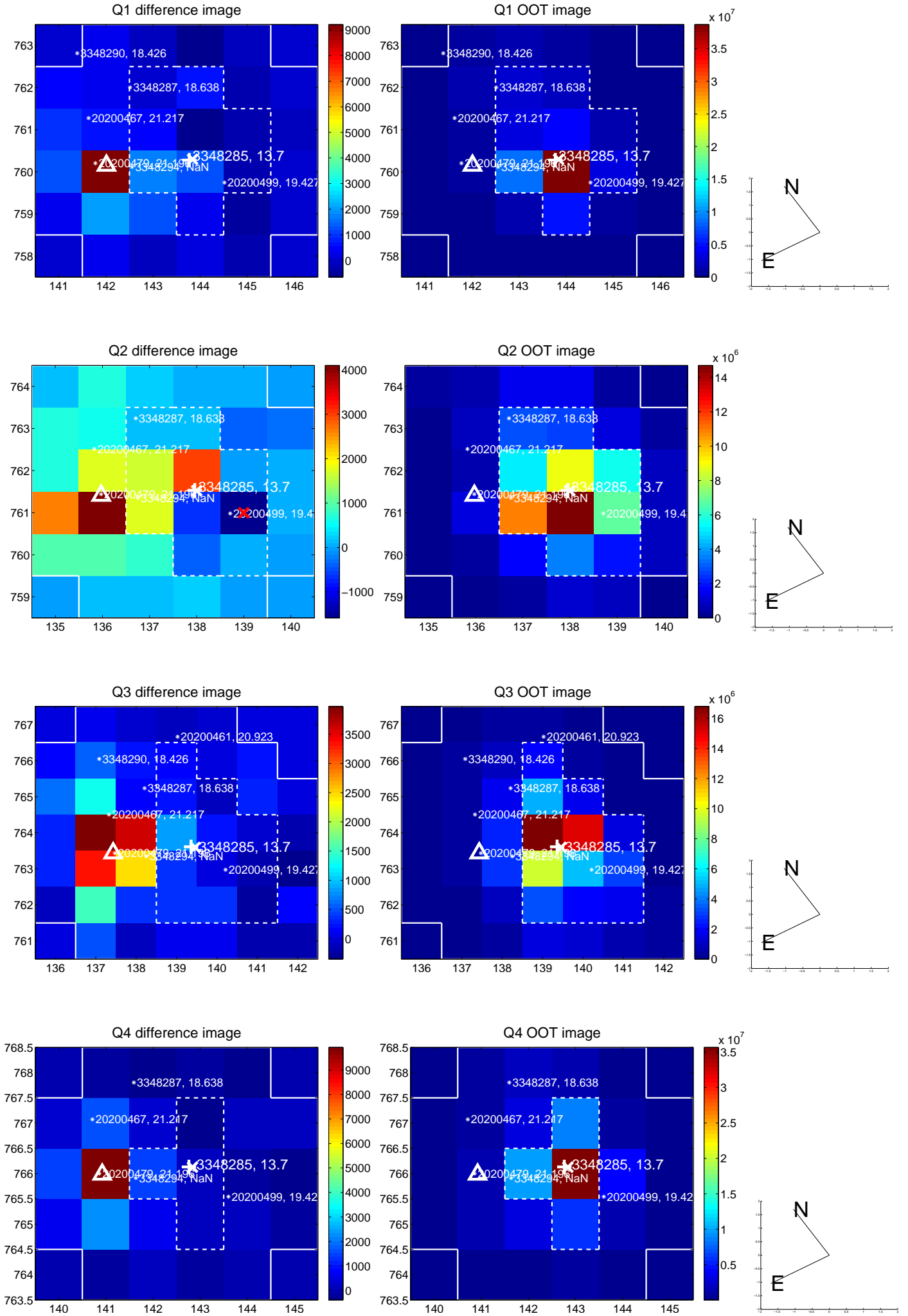
The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.678 \pm 0.099	77.29	6.862 \pm 0.096	3.445 \pm 0.076
PRF-fit source offset from KIC position	7.943 \pm 0.088	90.01	7.087 \pm 0.086	3.586 \pm 0.074
photometric centroid source offset	14.22 \pm 0.97	14.64	12.08 \pm 0.98	7.50 \pm 0.94

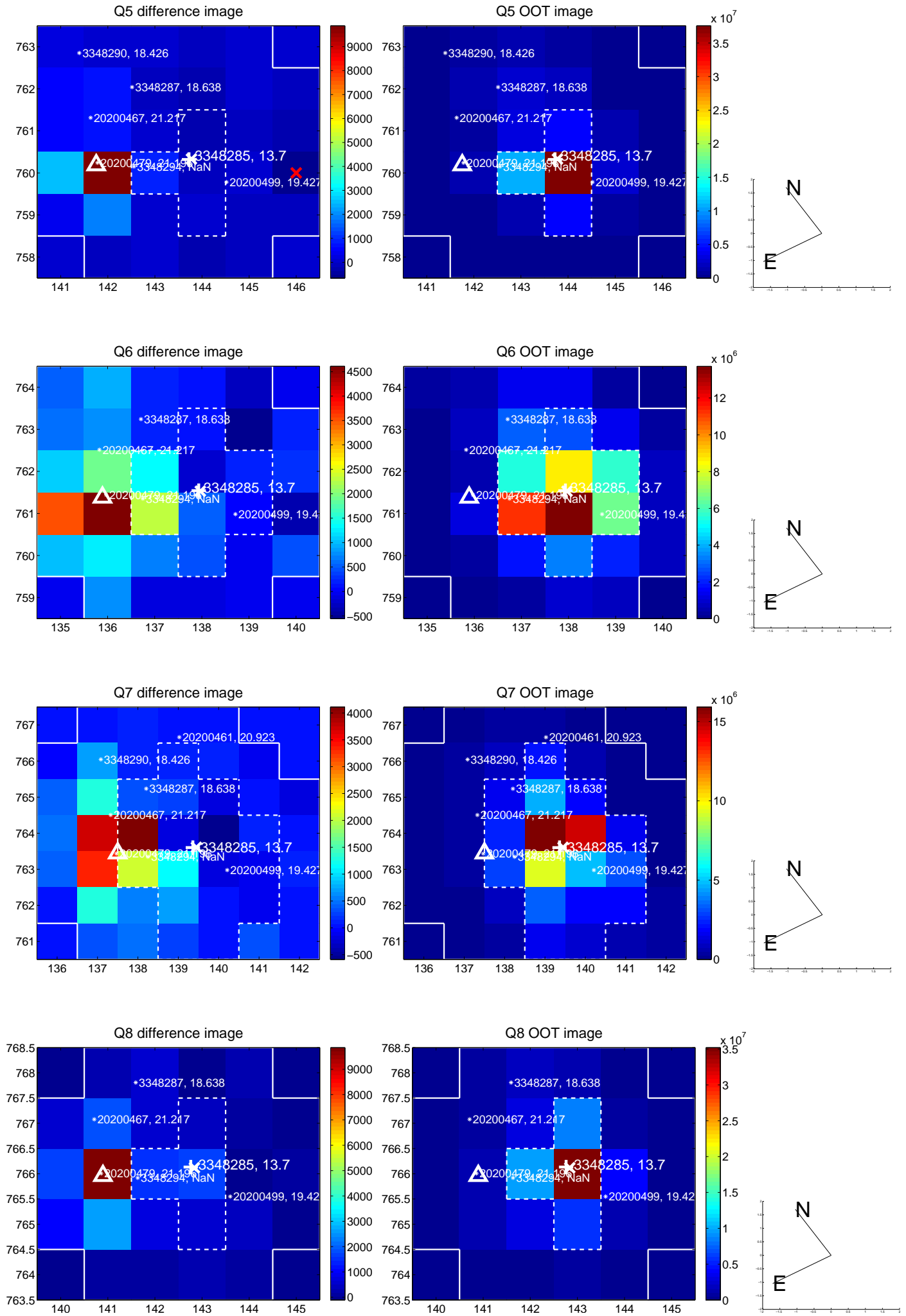


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

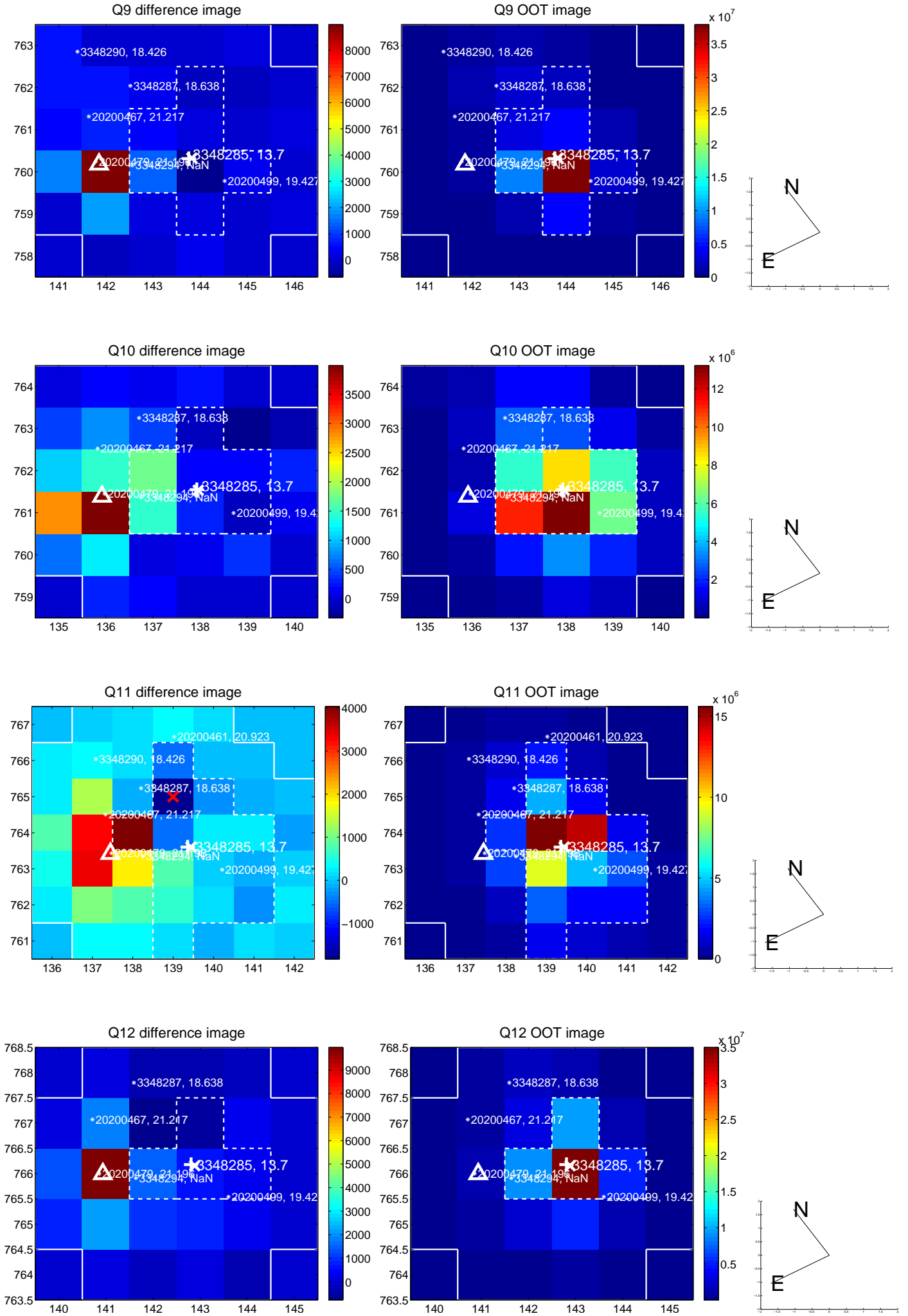
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



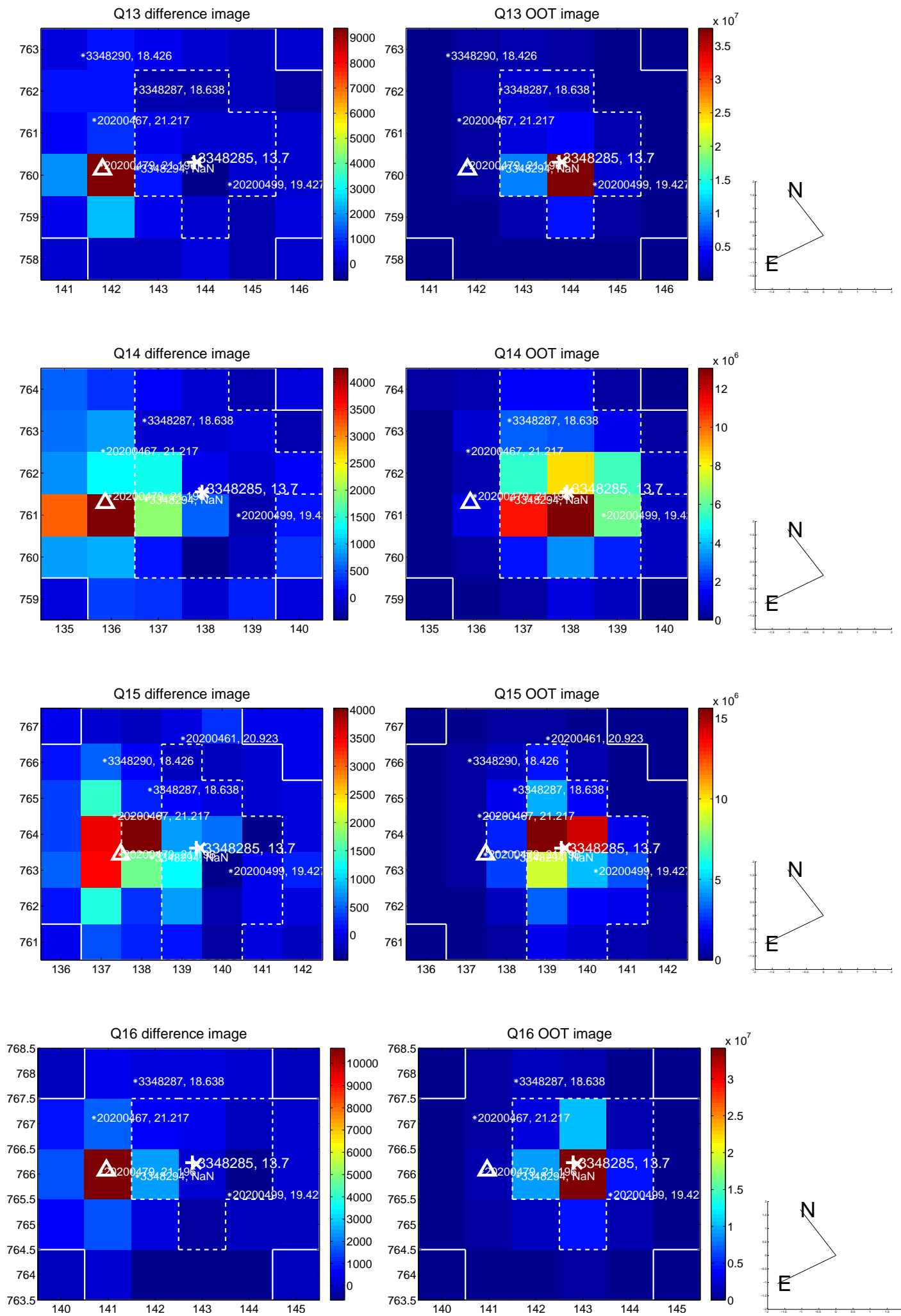
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



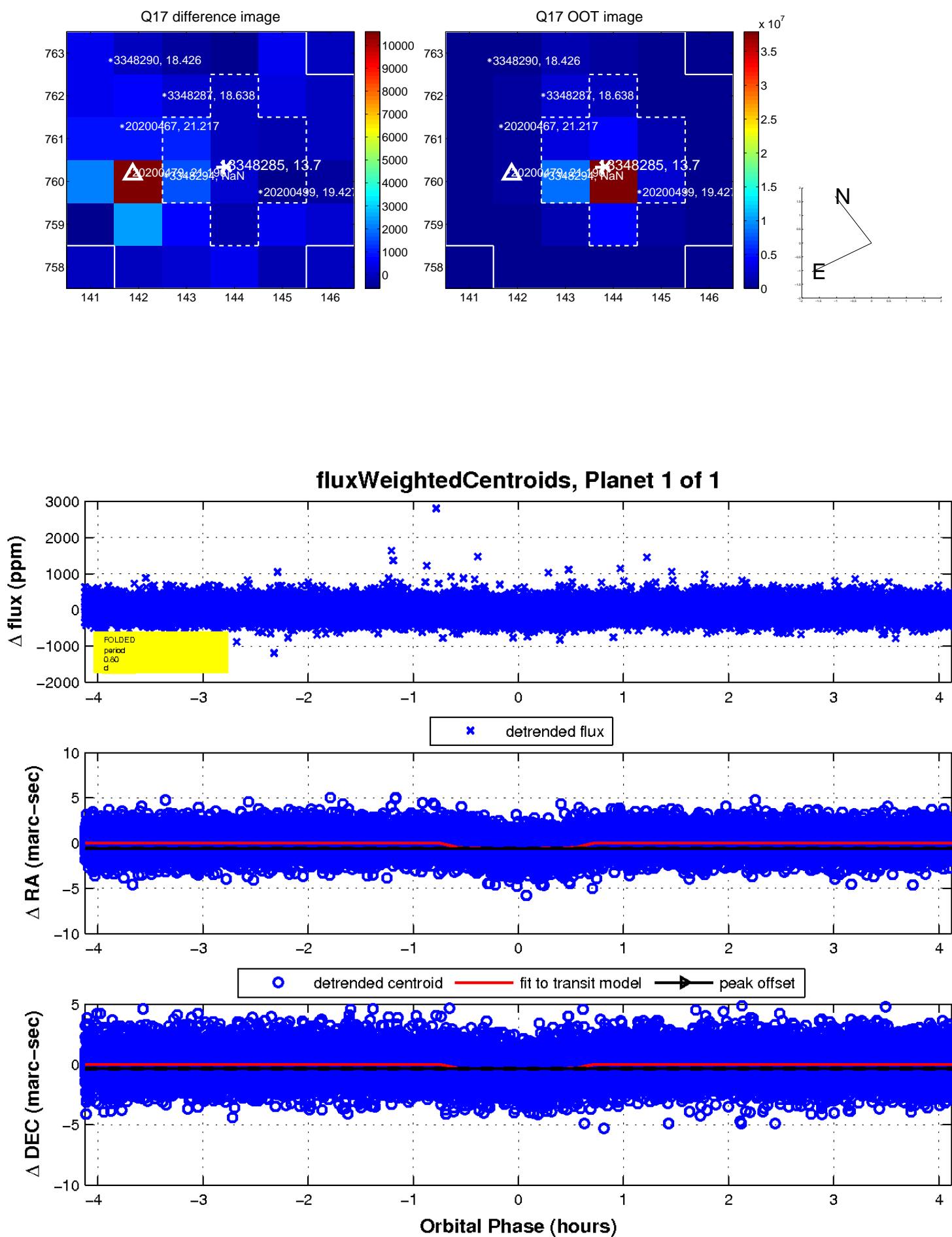
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

