

KIC 003348216

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})
003348216-01	OBS	3448.01	32.510890	136.623252	351.7	3.753	11.9	12.2	1.36	6074	3.14	50.66

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003348216-01	OBS	PC	0.98	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.

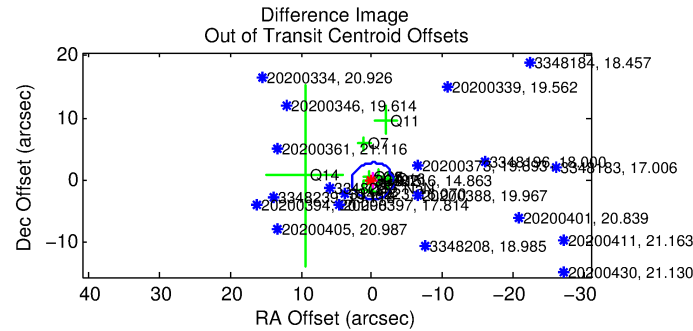
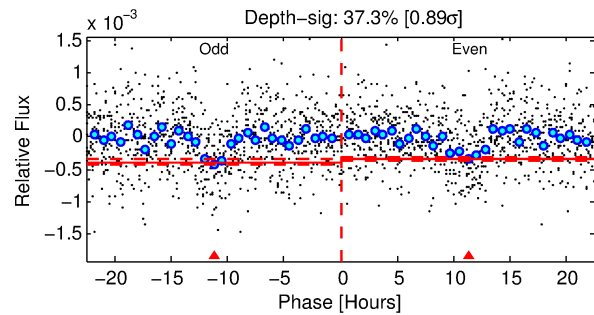
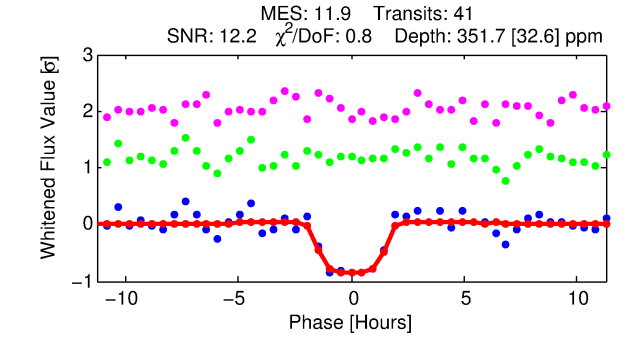
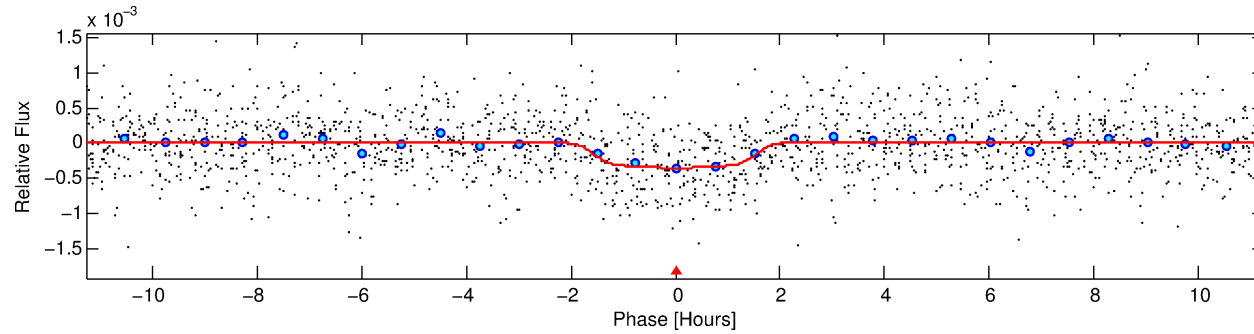
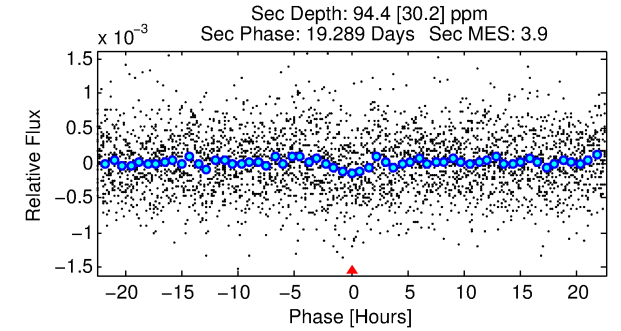
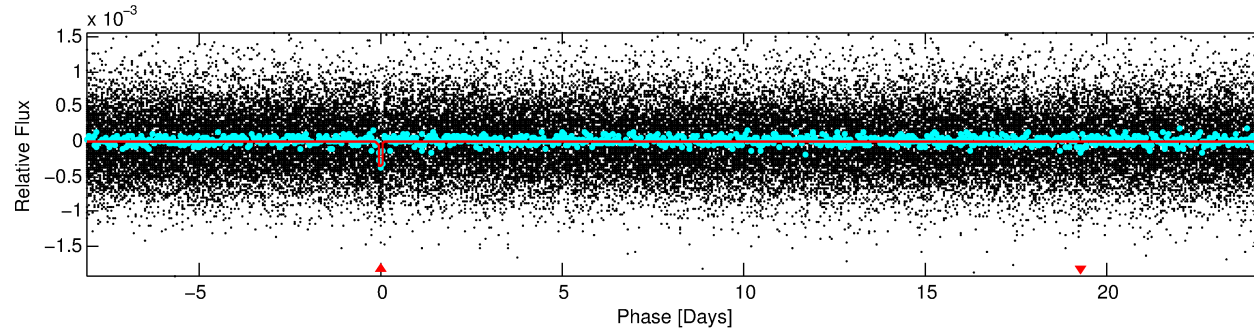
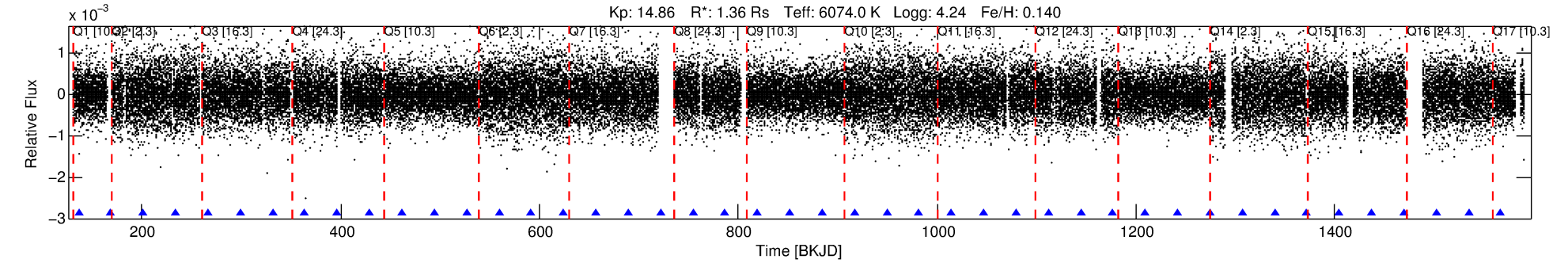
Ephemeris Match Information For 003348216-01

No Significant Match Found

DV One-Page Summary

KIC: 3348216 Candidate: 1 of 1 Period: 32.511 d

KOI: K03448.01 Corr: 0.935



DV Fit Results:

Period = 32.51089 [0.00030] d
Epoch = 136.6233 [0.0074] BKJD
Rp/R* = 0.0212 [0.0030]
a/R* = 26.88 [17.24]
b = 0.94 [0.09]
Seff = 50.66 [11.65]
Teff = 680 [39] K
Rp = 3.14 [0.69] Re
a = 0.2107 [0.0311] AU
Ag = 233.91 [112.47] [2.07σ]
Teffp = 4113 [443] K [7.72σ]

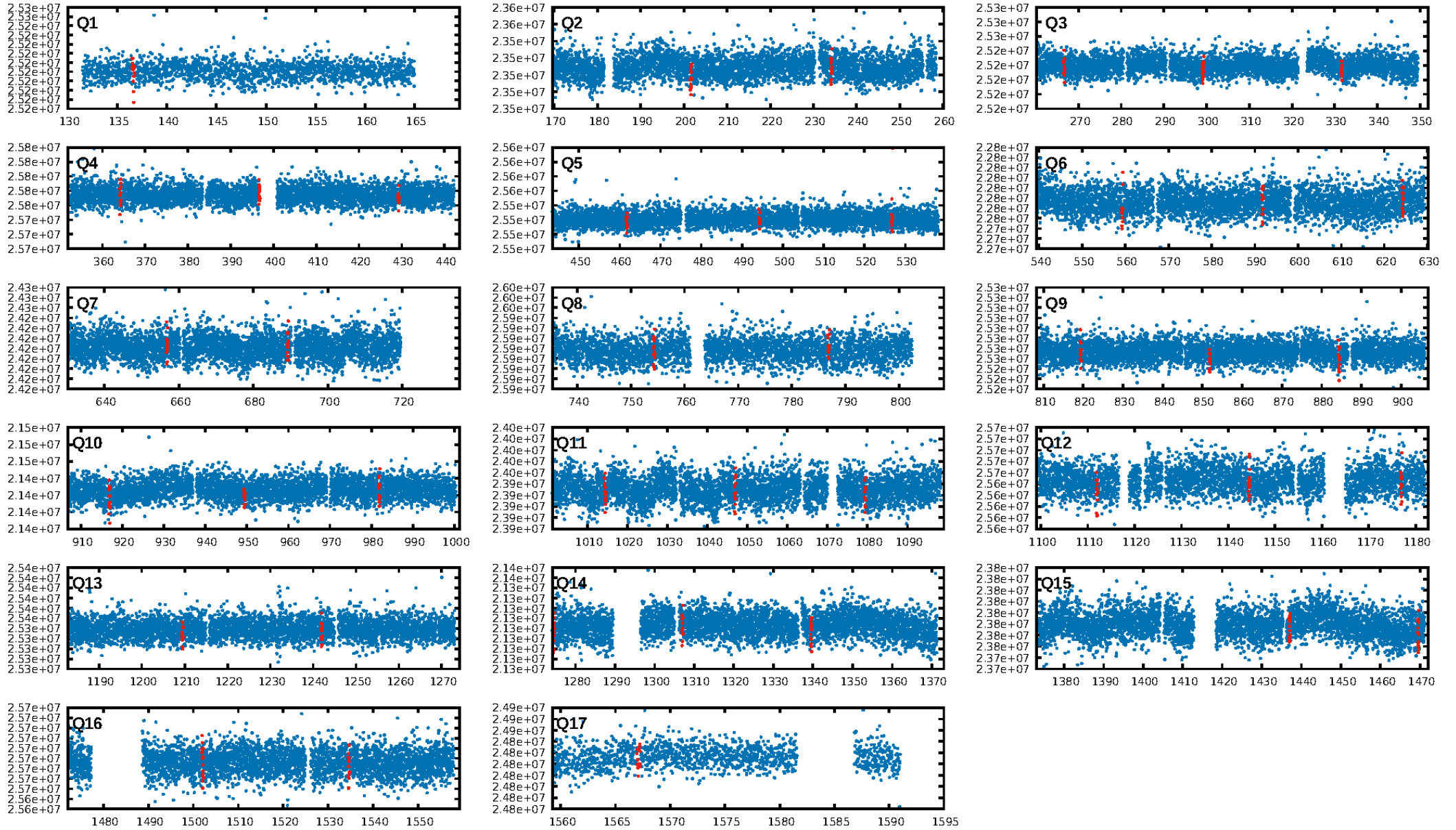
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 90.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.57e-32
RollingBand-fgt: 1.00 [39/39]
GhostDiagnostic-chr: 3.041
Centroid-sig: 33.8%
Centroid-so: 1.188 arcsec [1.05σ]
OotOffset-rm: 0.153 arcsec [0.16σ]
KicOffset-rm: 0.188 arcsec [0.15σ]
OotOffset-st: 3/4/2/3 [12]
KicOffset-st: 3/4/2/3 [12]
DiffImageQuality-fgm: 0.50 [6/12]
DiffImageOverlap-fno: 1.00 [17/17]

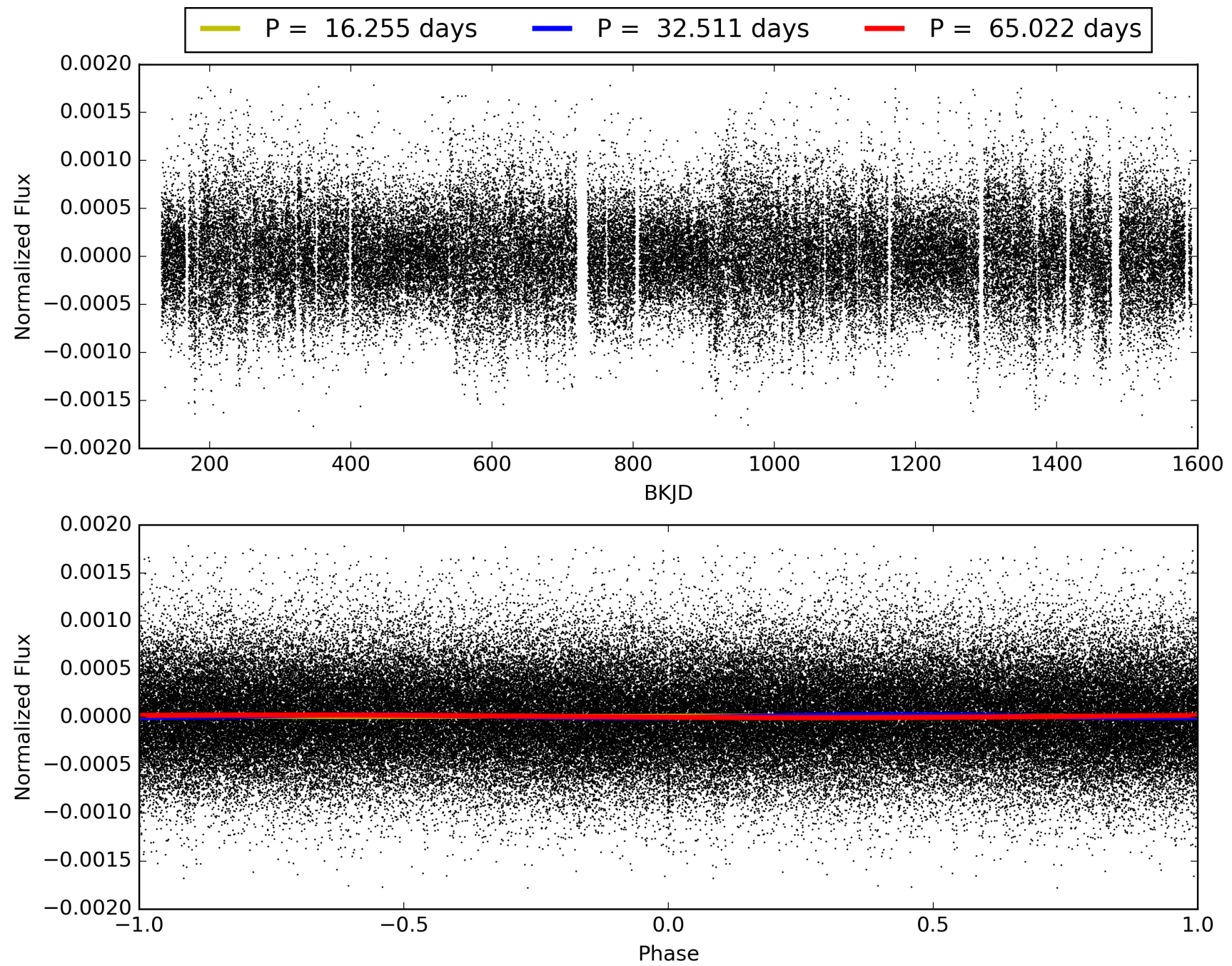
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 19:50:35 Z

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

TCE 003348216-01, PDC Light Curves

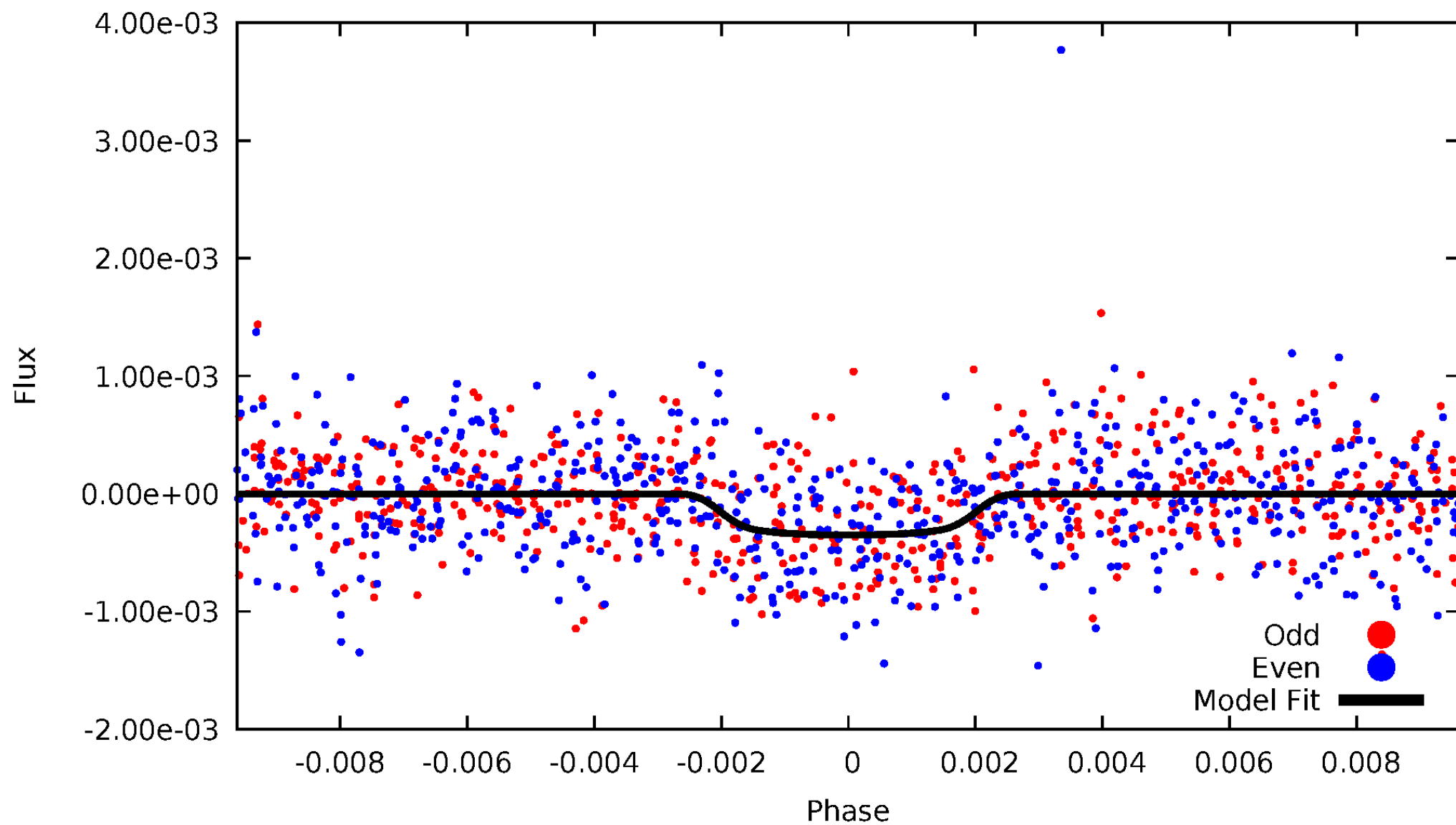


TCE 003348216-01



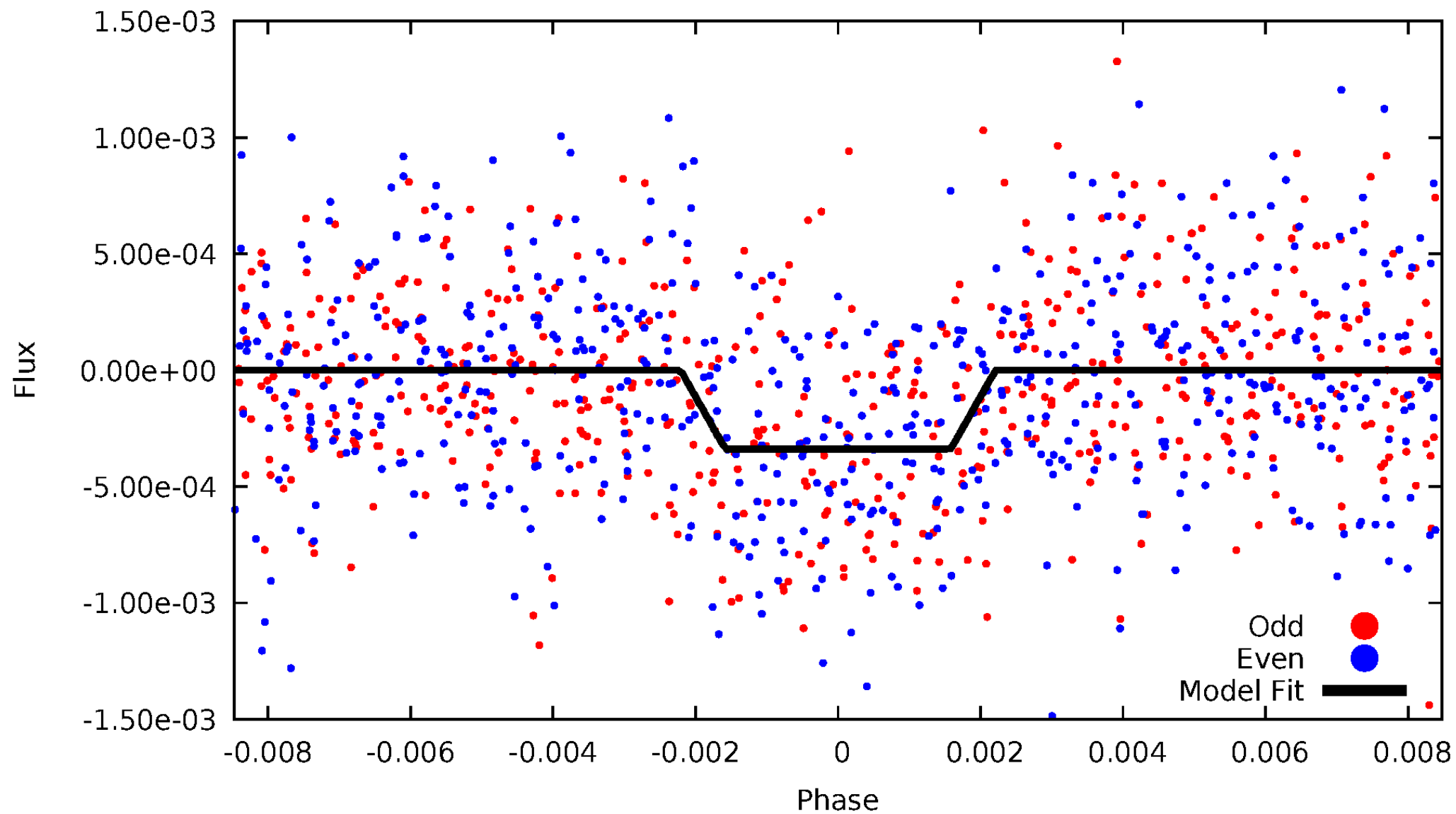
DV Odd/Even

TCE 003348216-01



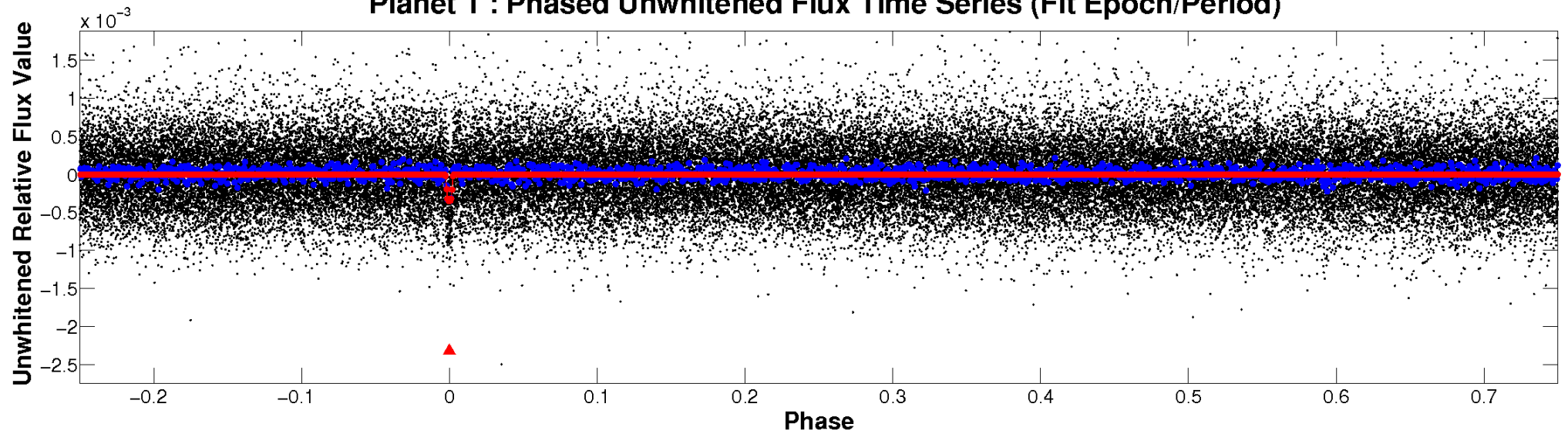
ALT Odd/Even

TCE 003348216-01

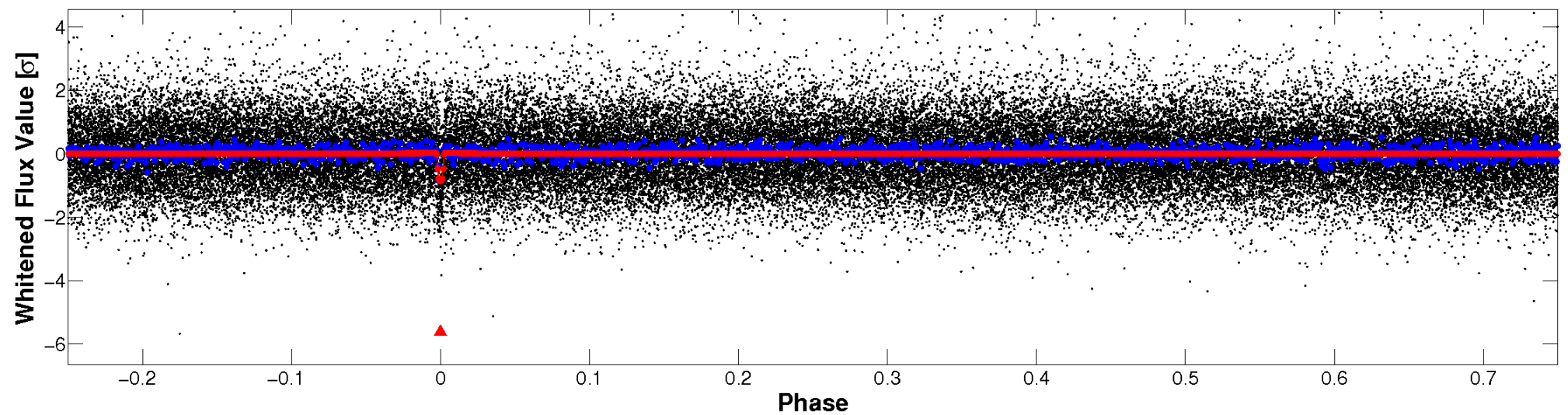


Non-Whitened Vs. Whitened Light Curve

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

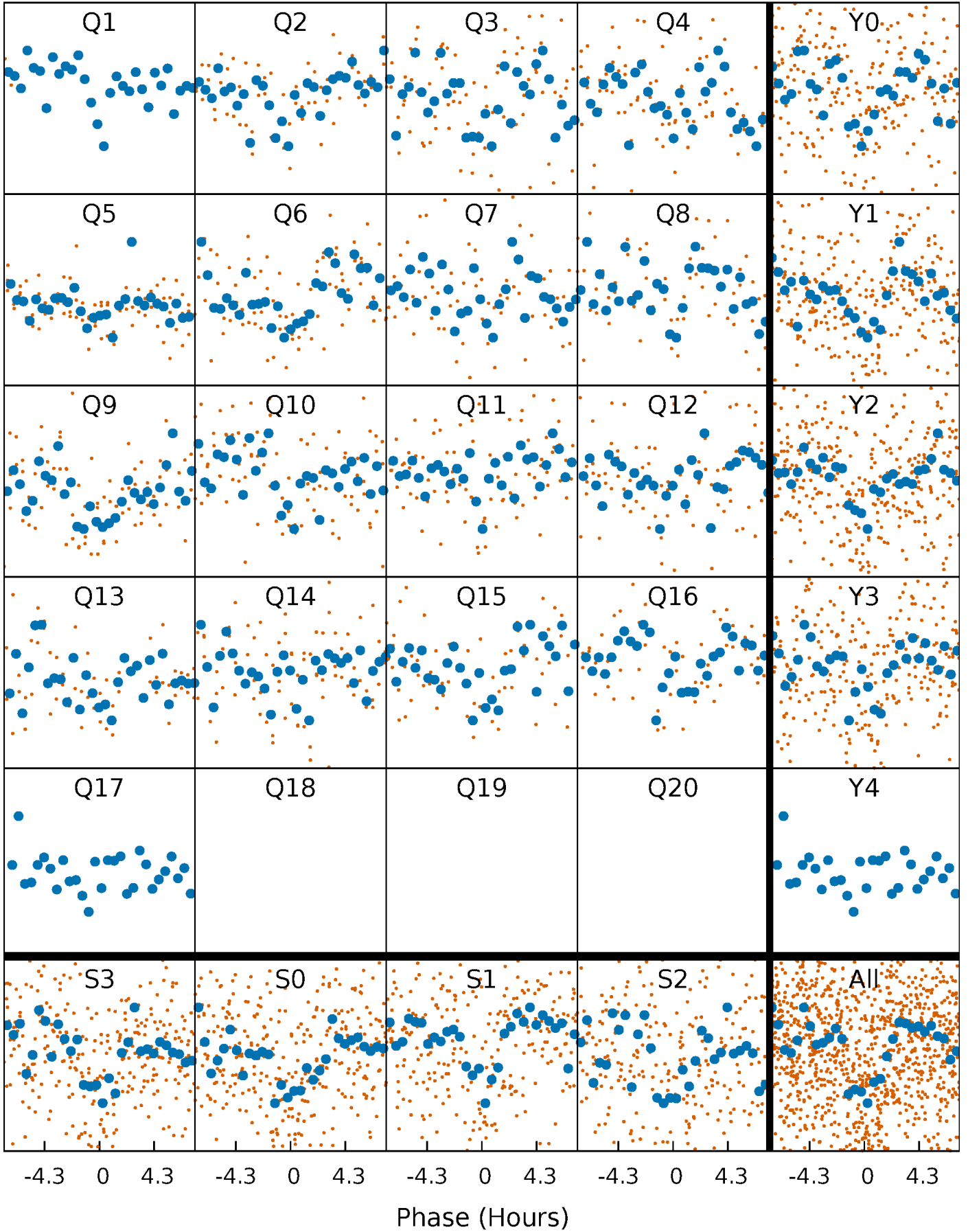


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



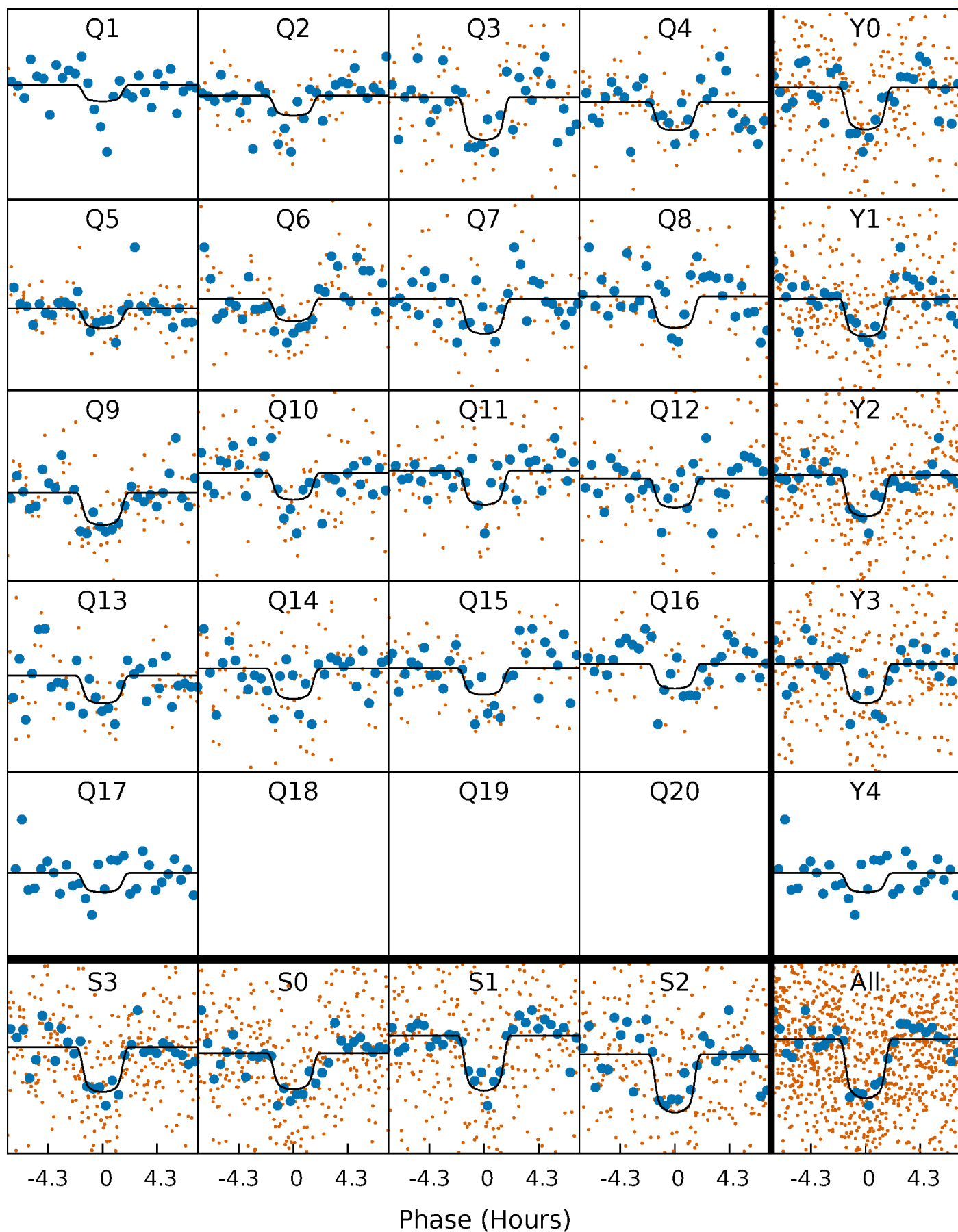
PDC Quarter-Phased Transit Curves

TCE 003348216-01 P= 32.510890 Days $T_0=136.623252$ (BKJD)



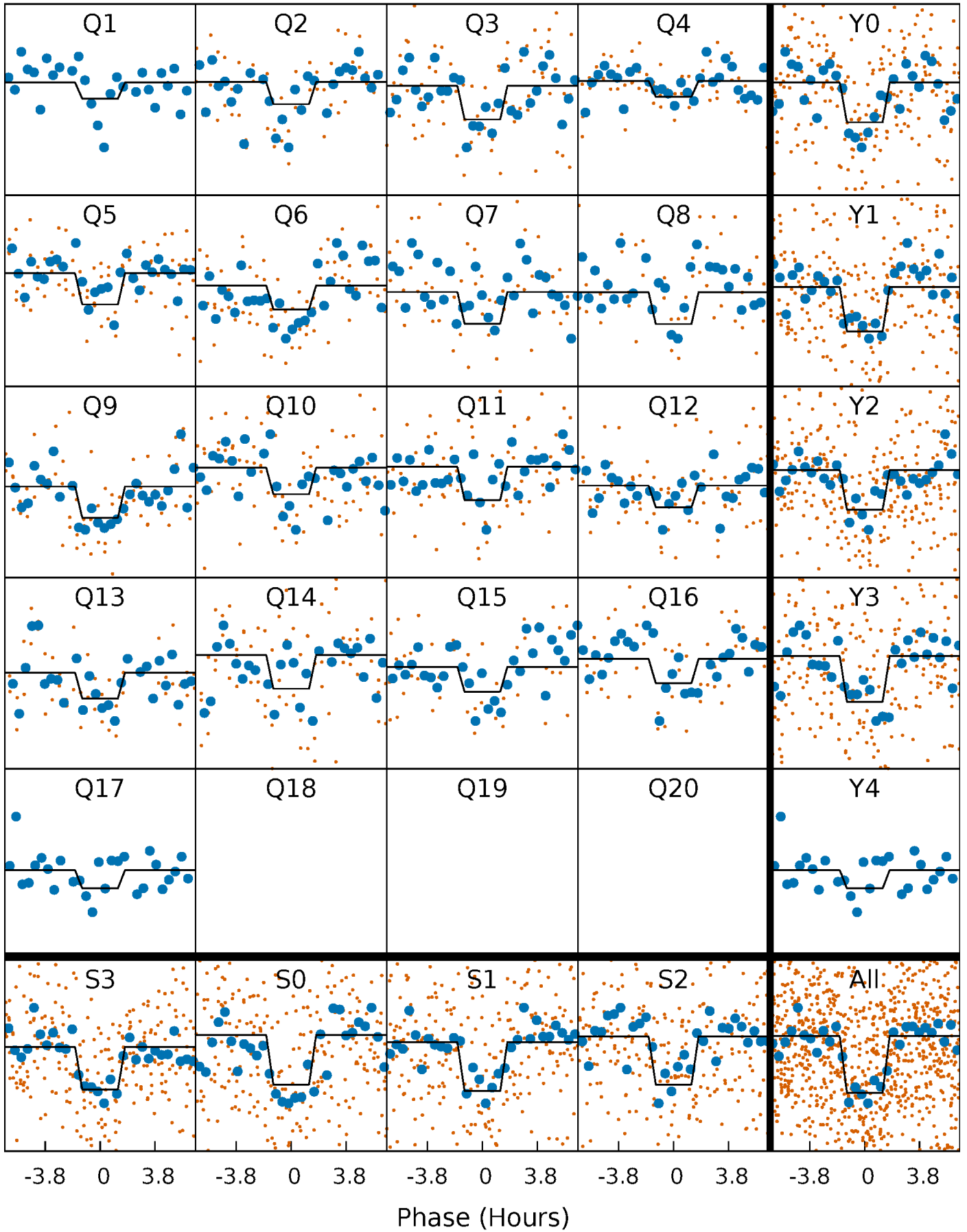
DV Quarter-Phased Transit Curves

TCE 003348216-01 P= 32.510890 Days $T_0=136.623252$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

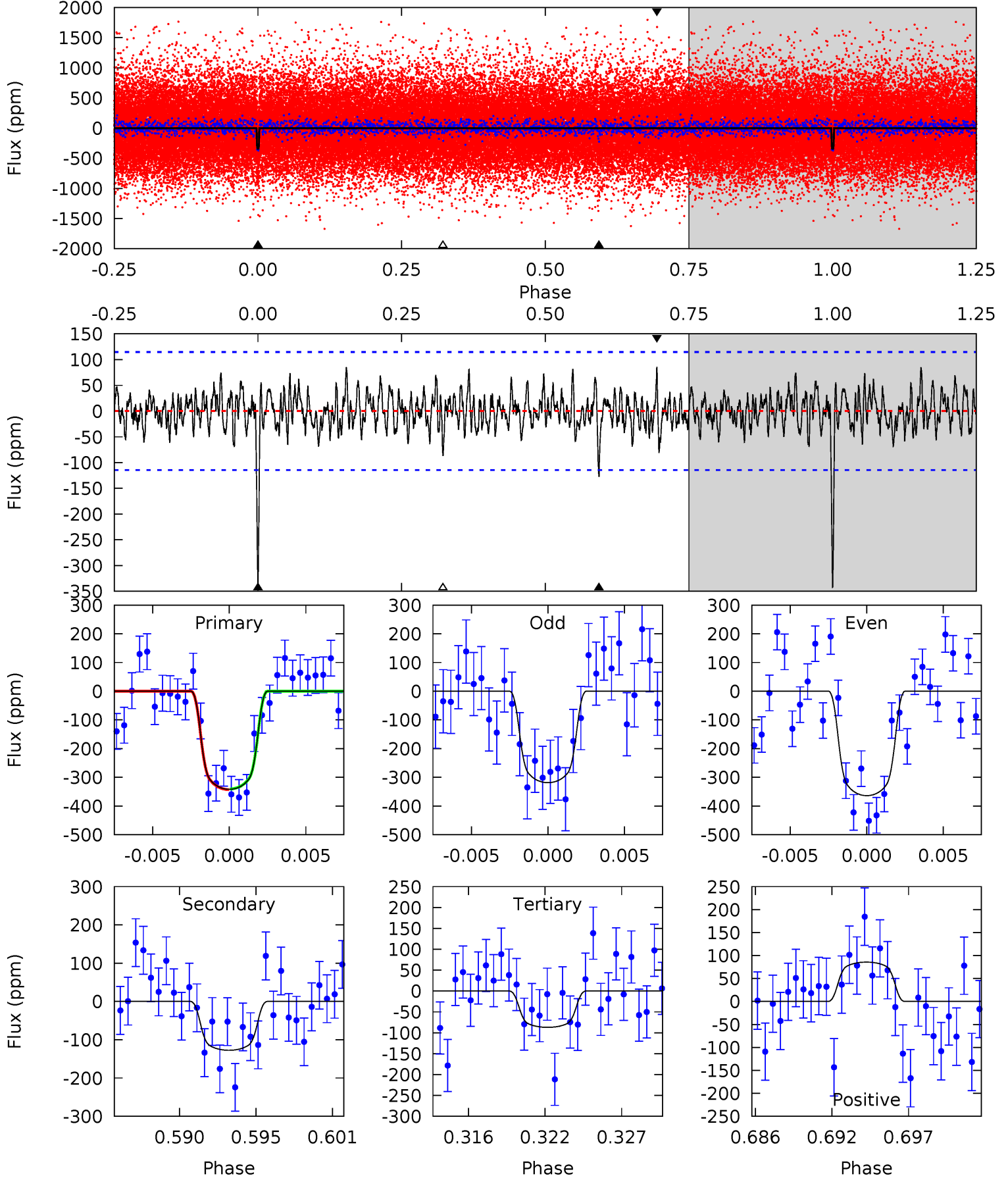
TCE 003348216-01 P= 32.510650 Days $T_0=136.628424$ (BKJD)



DV Model-Shift Uniqueness Test

003348216-01, P = 32.510890 Days, E = 104.112362 Days

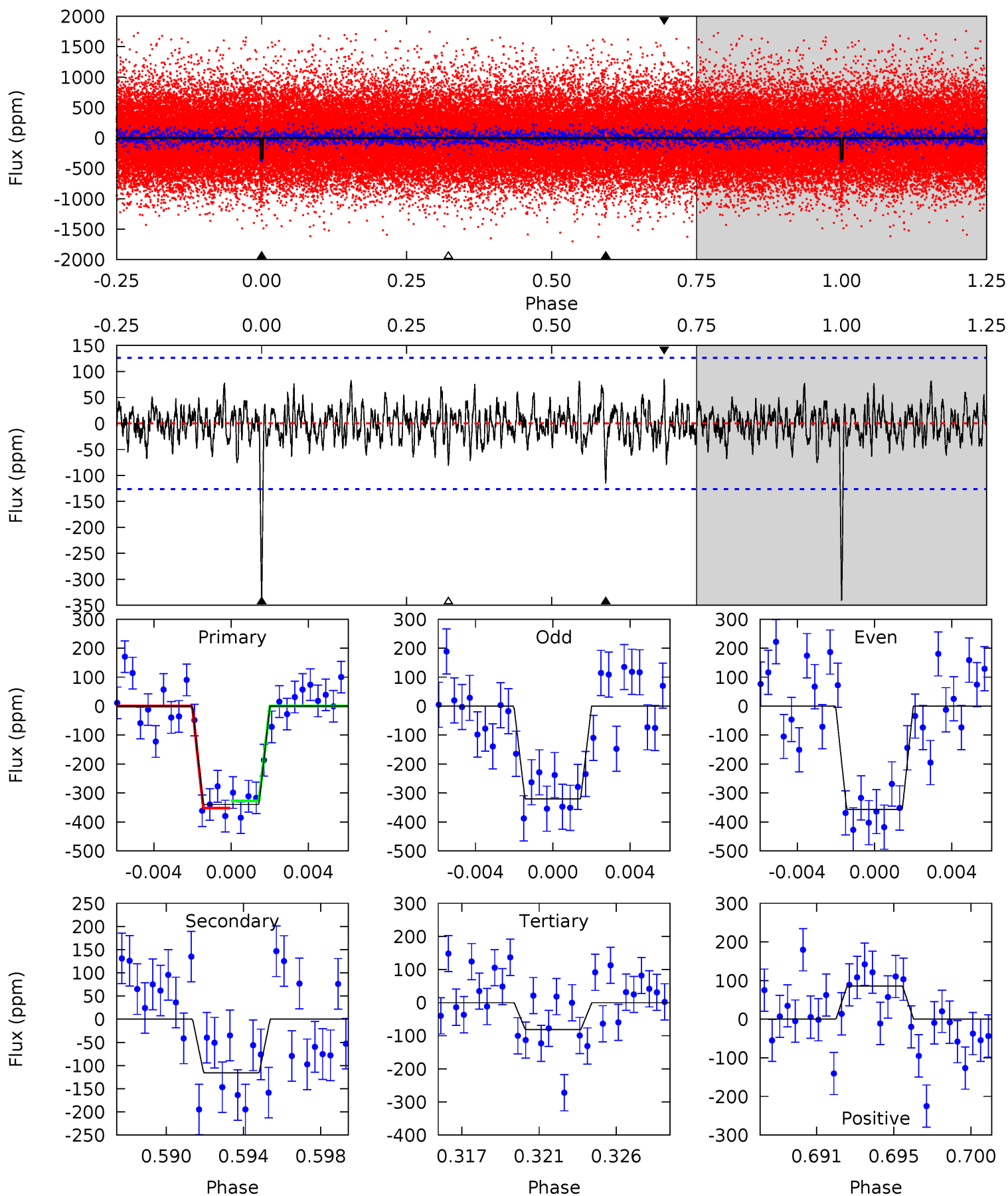
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.4	5.73	3.91	3.85	5.14	2.78	1.25	11.4	11.5	1.82	1.88	1.02	0.94	0.20	0.05



Alt Model-Shift Uniqueness Test

003348216-01, P = 32.510650 Days, E = 104.117774 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.9	4.74	3.34	3.51	5.18	2.85	1.09	10.6	10.4	1.40	1.23	0.74	0.90	0.20	0.51



Stellar Parameters For KIC 003348216

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6074^{+81}_{-90}	$4.244^{+0.125}_{-0.125}$	$0.140^{+0.150}_{-0.150}$	$1.358^{+0.228}_{-0.205}$	$1.183^{+0.081}_{-0.097}$	$0.666^{+0.378}_{-0.241}$
	+1%/-1%	+3%/-3%	+107%/-107%	+17%/-15%	+7%/-8%	+57%/-36%
Source	SPE90	SPE90	SPE90	DSEP		

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

Secondary Eclipse Parameters for KIC 003348216-01 / KOI 3448.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-128 ± 22	$3.13^{+0.56}_{-0.52}$	952^{+46}_{-44}	4603^{+347}_{-293}	317^{+146}_{-103}
Alt.	-116 ± 24	$2.73^{+0.55}_{-0.49}$	952^{+44}_{-47}	4762^{+425}_{-335}	376^{+200}_{-133}

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

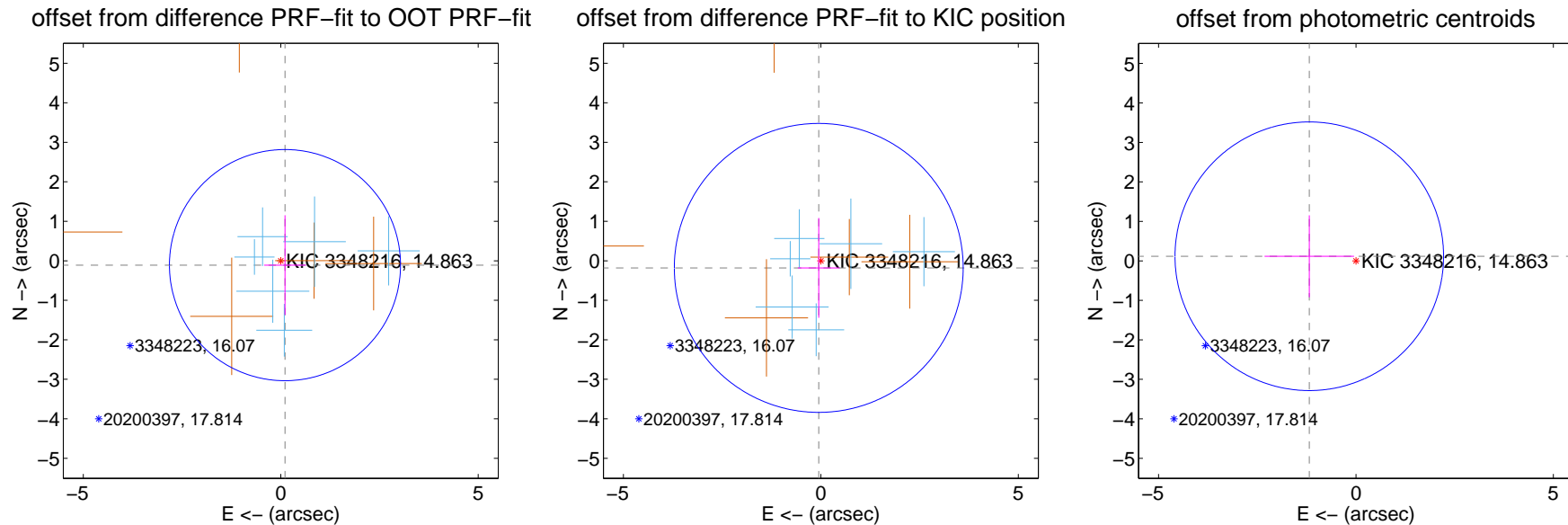
DV Centroid Data

Supplemental centroid analysis for 003348216-01. Kepler magnitude: 14.86. Transit SNR 12.21

There are 6 quarters with good PRF difference image offsets

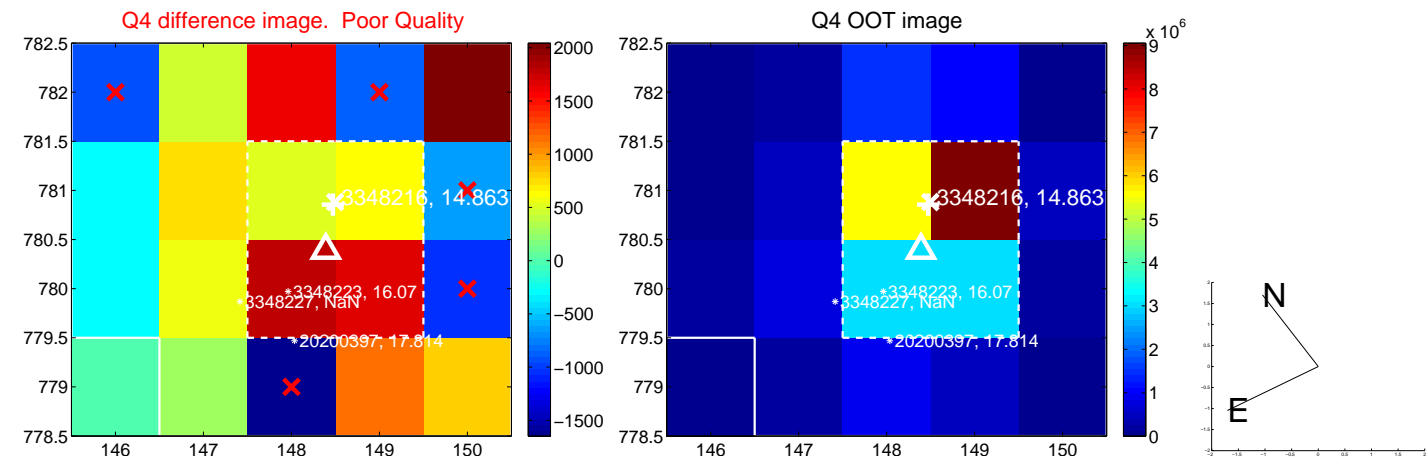
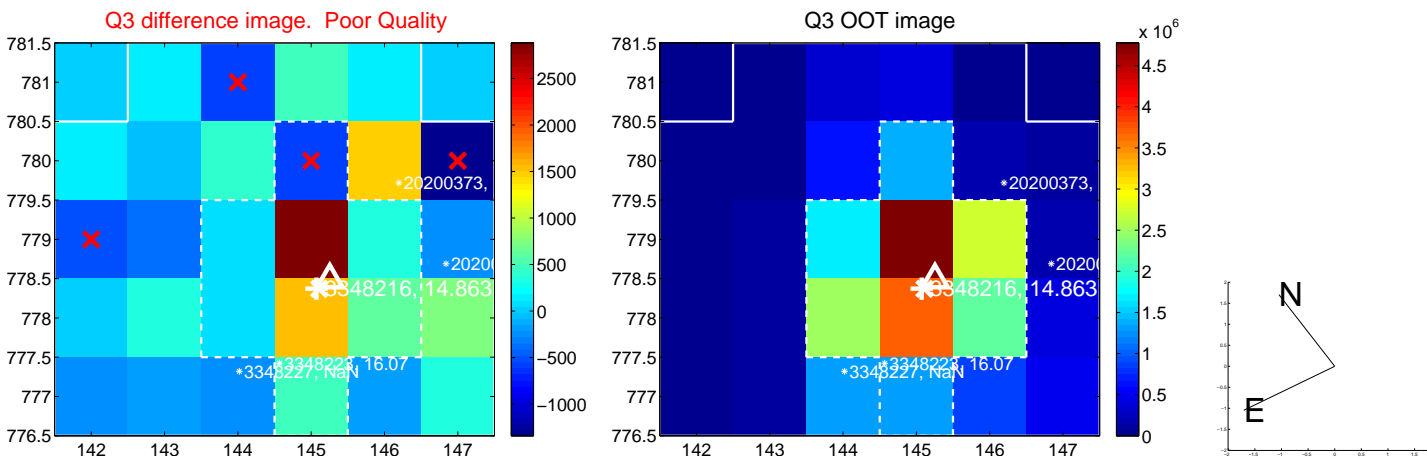
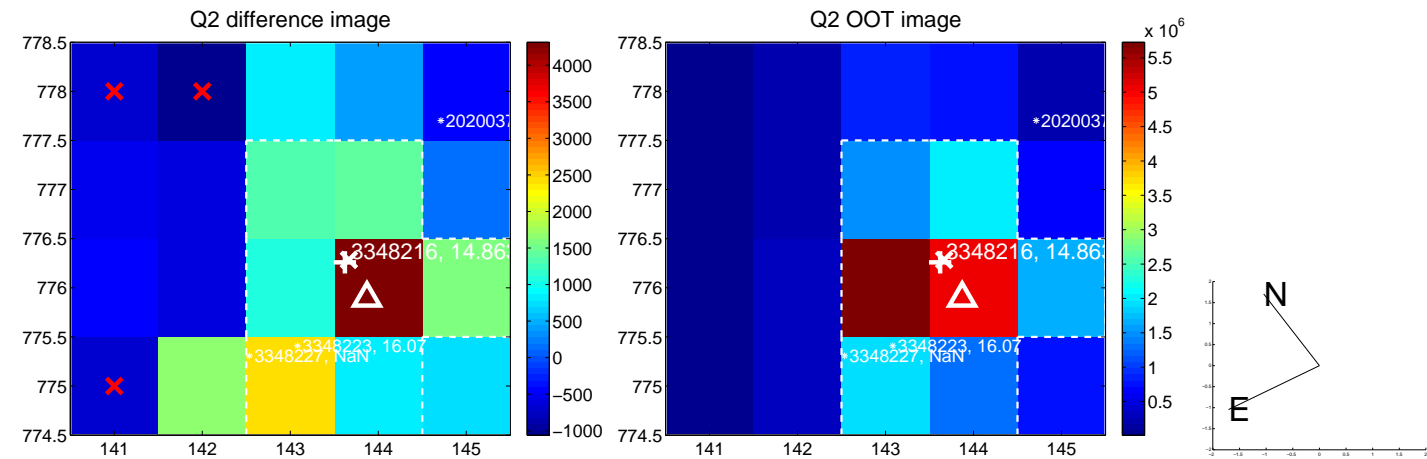
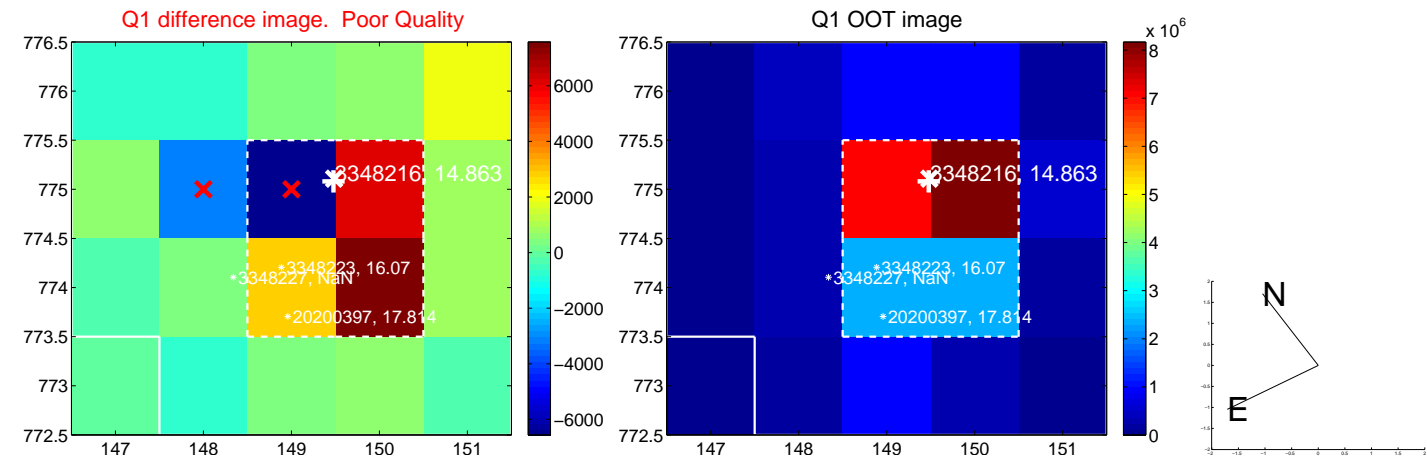
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.153 ± 0.975	0.16	-0.107 ± 0.529	-0.110 ± 1.262
PRF-fit source offset from KIC position	0.188 ± 1.219	0.15	0.053 ± 0.529	-0.180 ± 1.262
photometric centroid source offset	1.19 ± 1.13	1.05	1.18 ± 1.13	0.12 ± 1.04

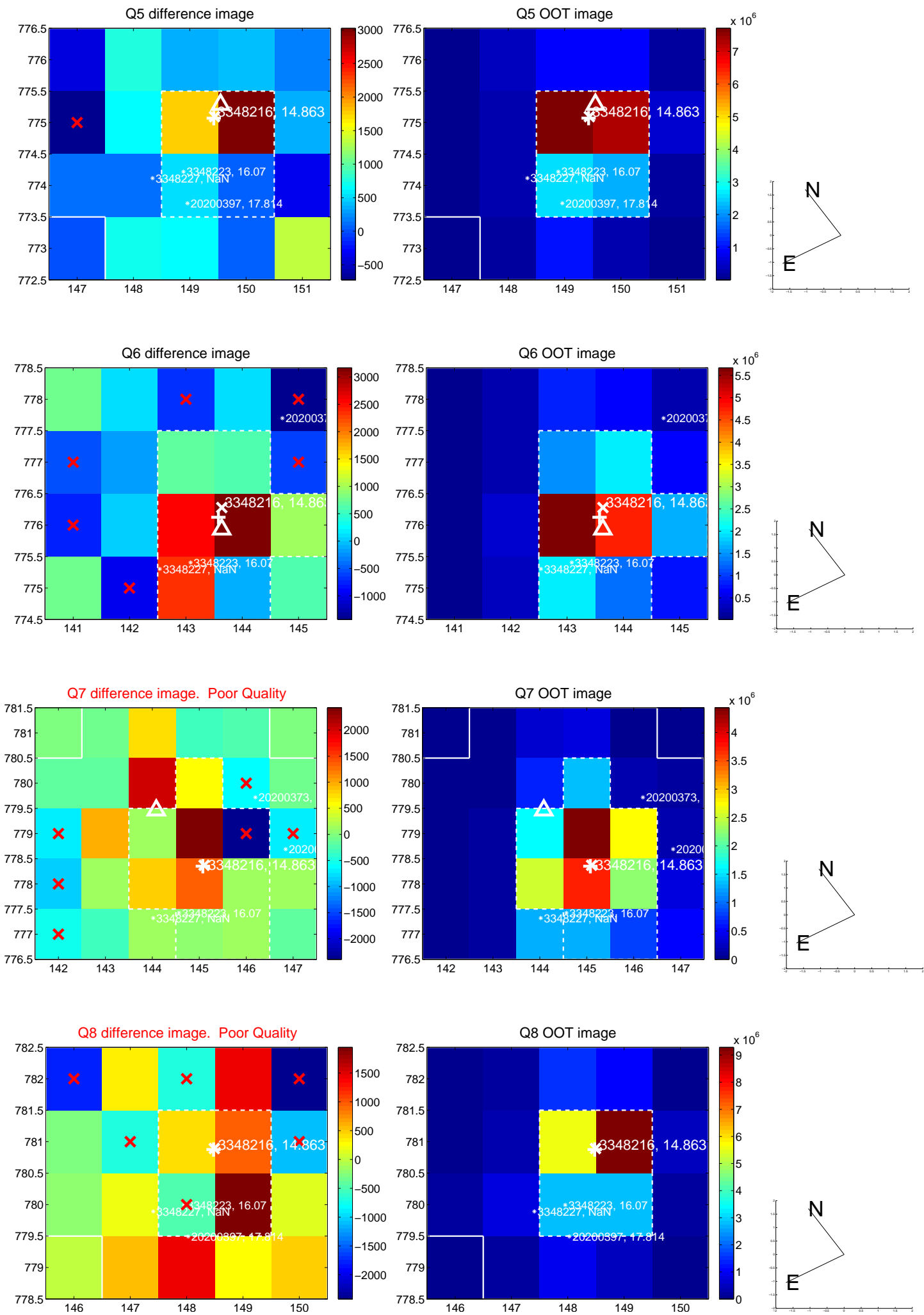


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

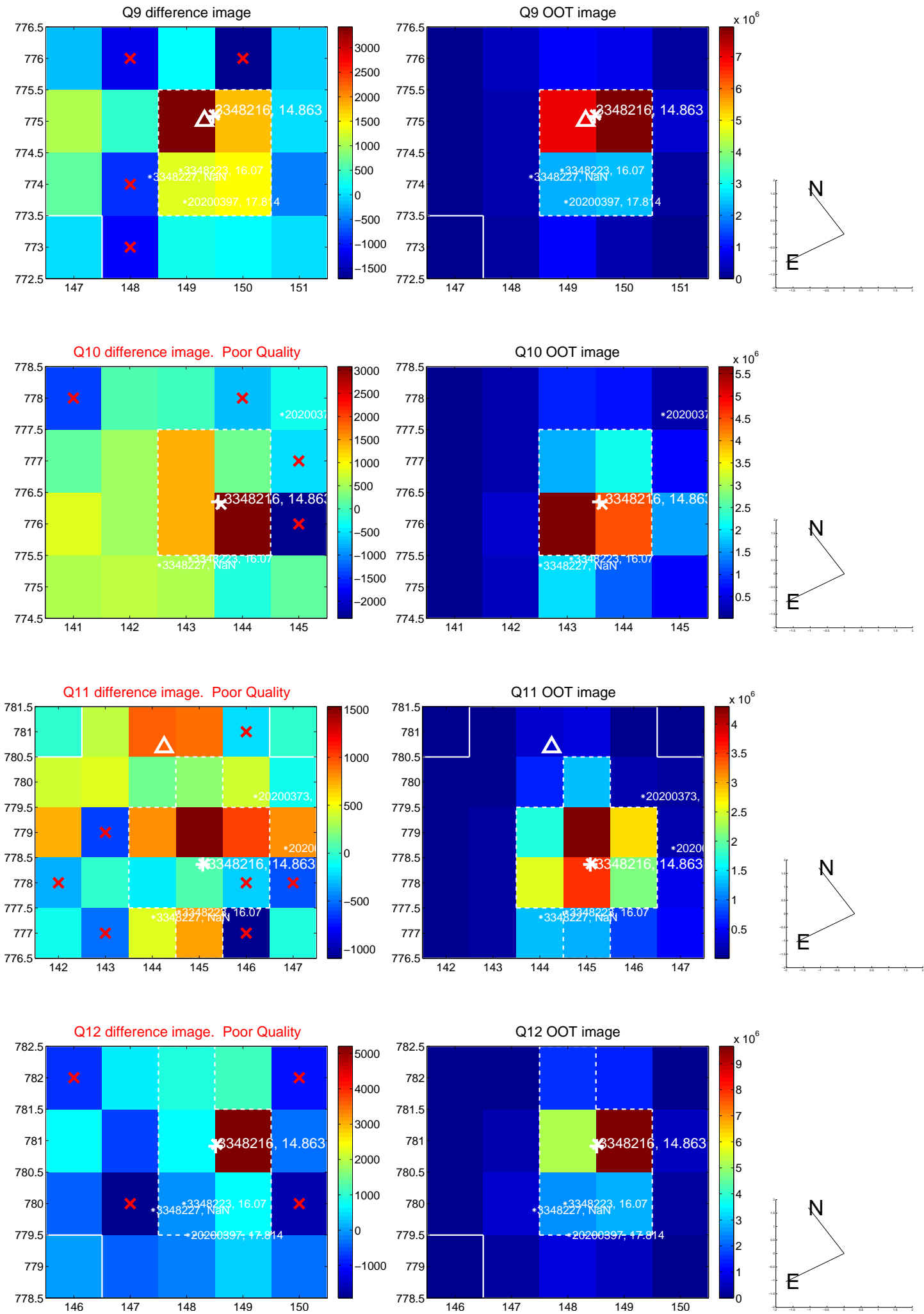
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



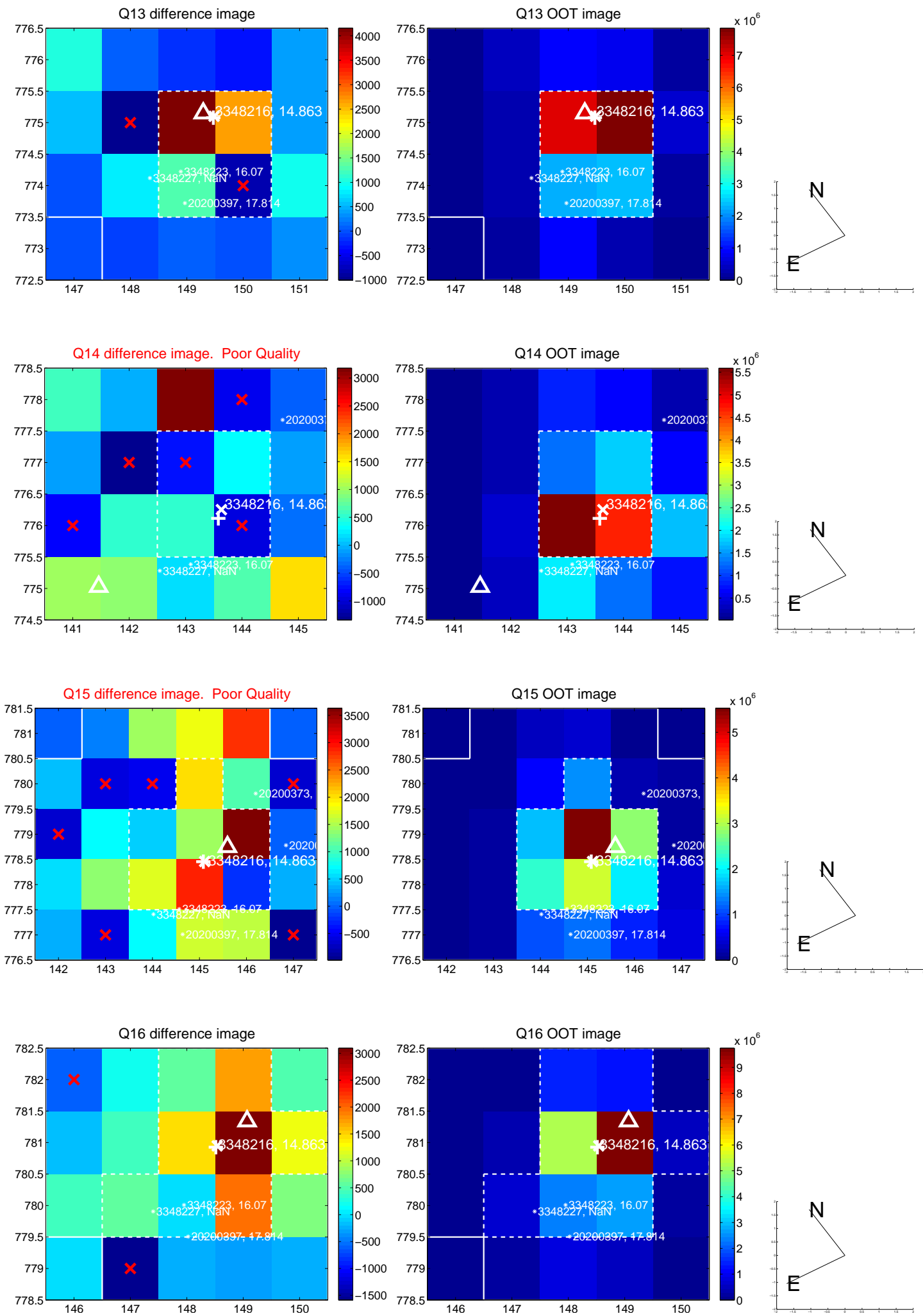
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



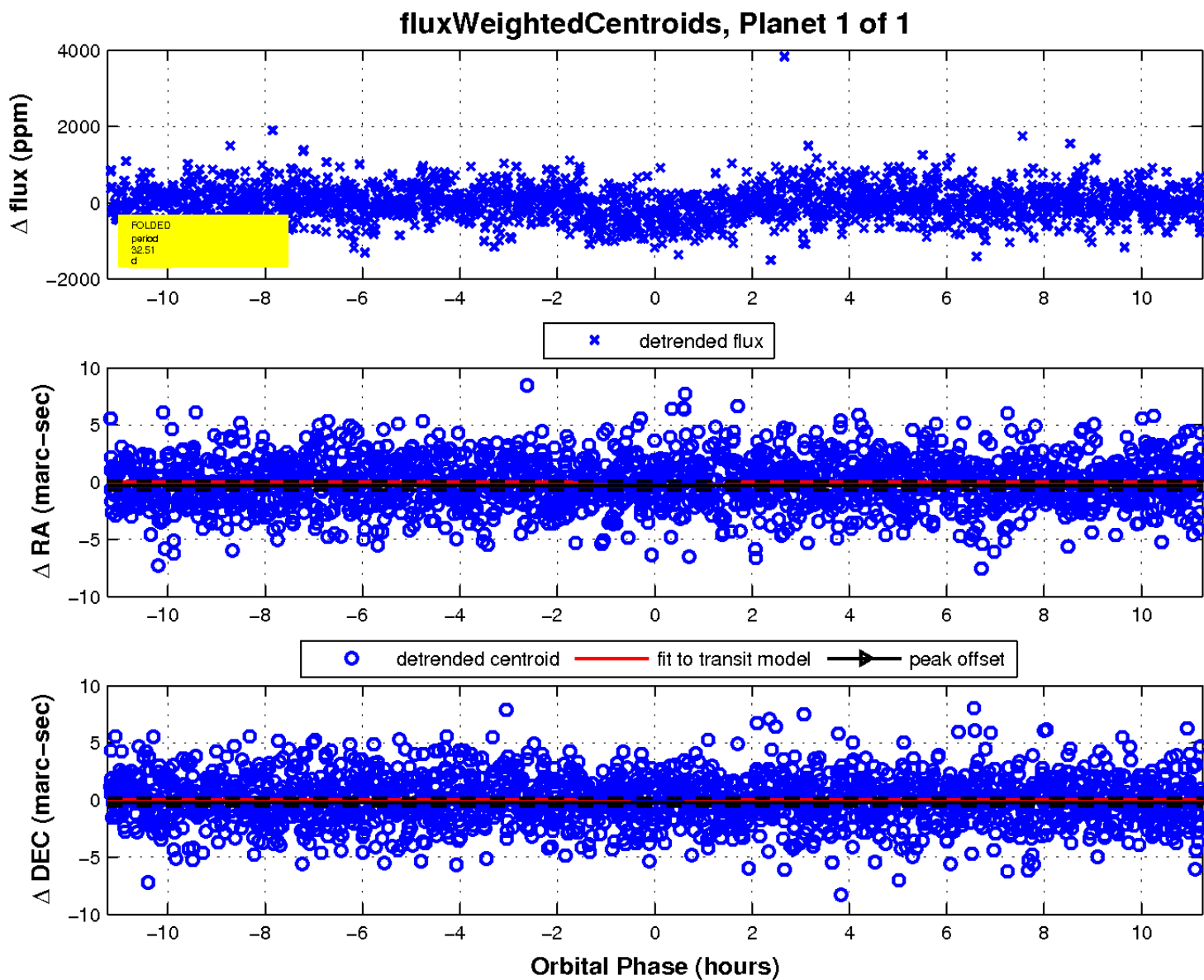
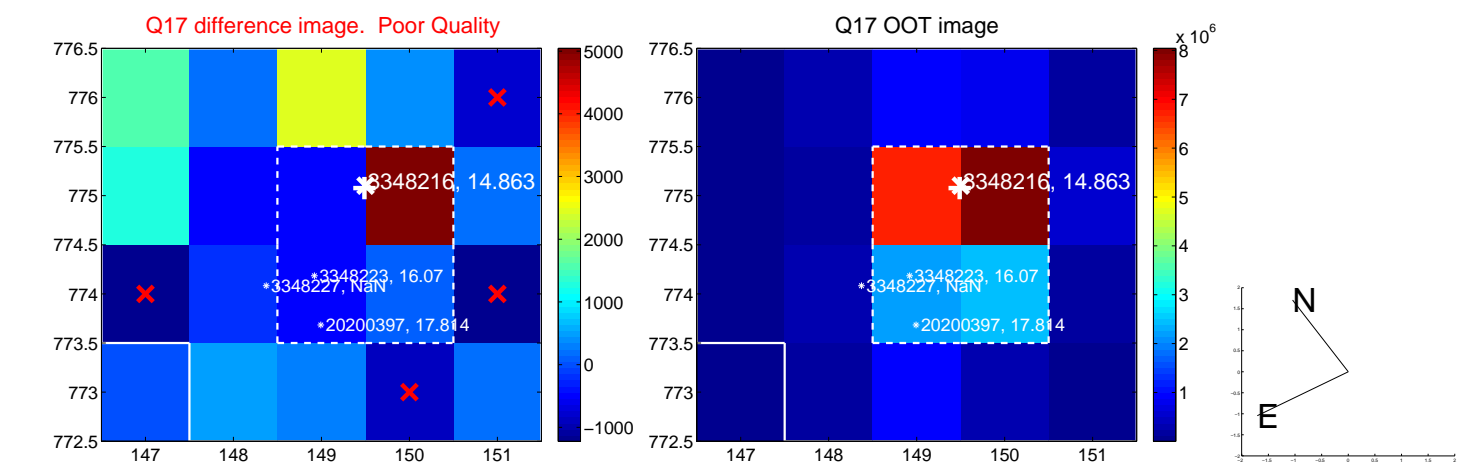
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

