

KIC 008914779

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})
008914779-01	OBS	2230.01	0.987327	131.891712	21.9	2.623	19.0	19.8	1.90	6258	1.05	12020.27

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008914779-01	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 008914779-01

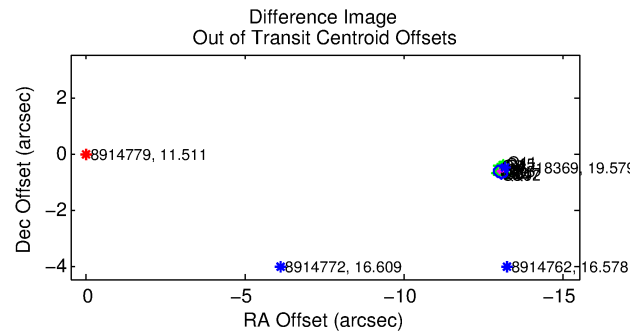
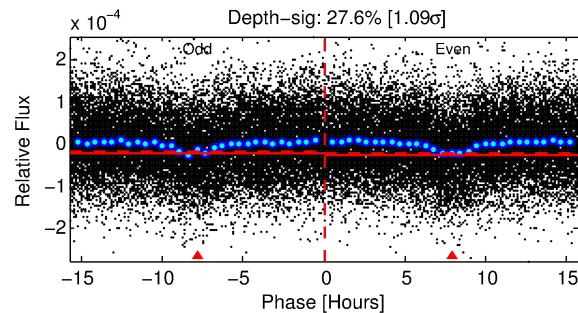
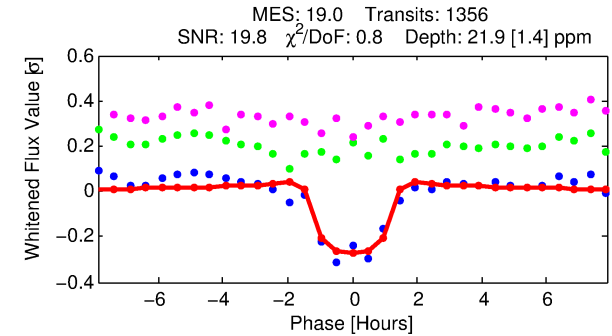
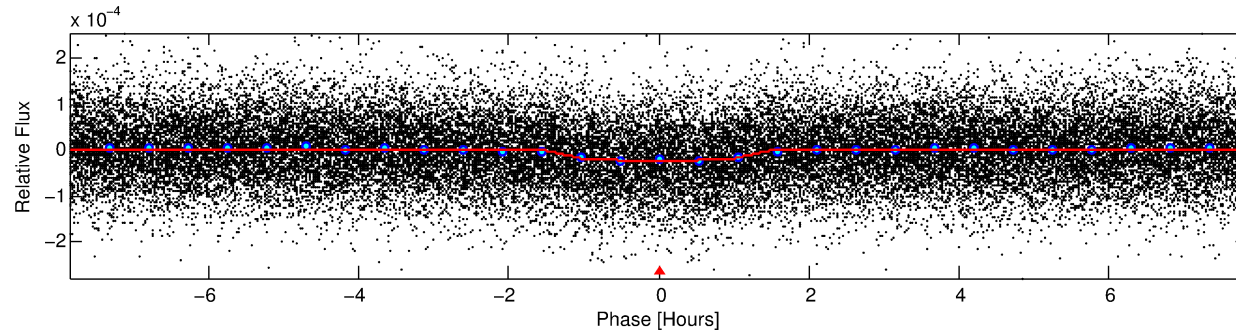
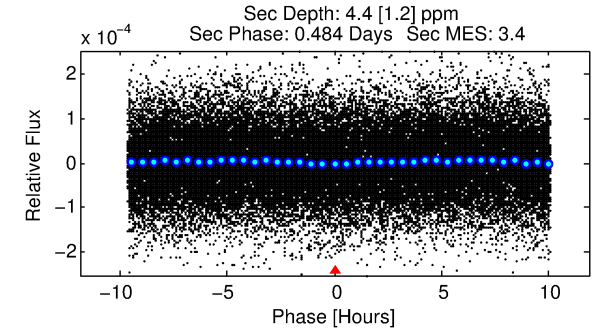
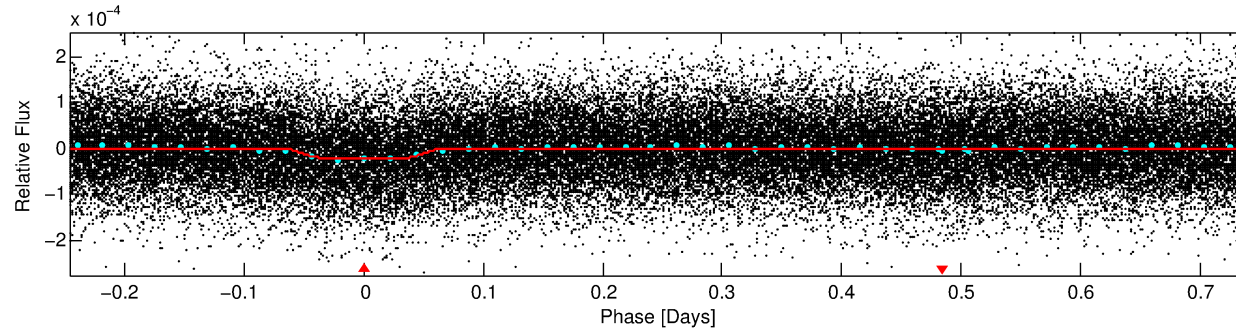
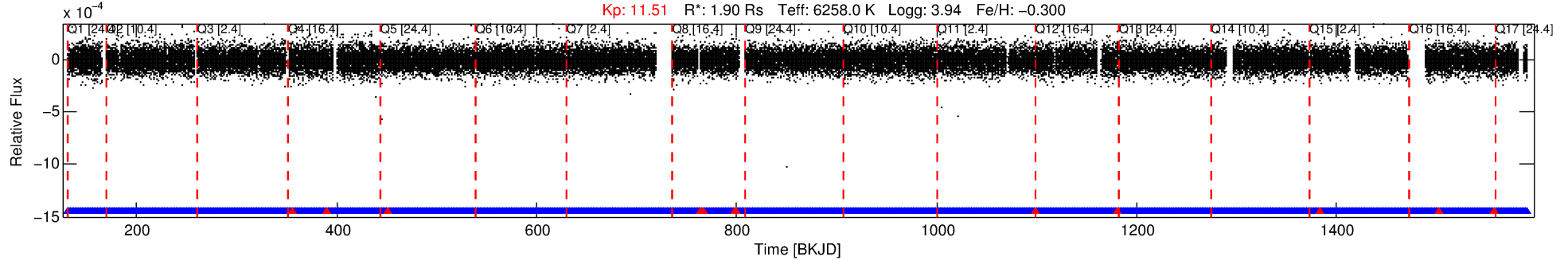
No Significant Match Found

DV One-Page Summary

KIC: 8914779 Candidate: 1 of 1 Period: 0.987 d

KOI: K02230.01 Corr: 0.962

Kp: 11.51 R*: 1.90 Rs Teff: 6258.0 K Logg: 3.94 Fe/H: -0.300



DV Fit Results:

Period = 0.98733 [0.00001] d
Epoch = 131.8917 [0.0015] BKJD
Rp/R* = 0.0051 [0.0008]
a/R* = 1.54 [0.76]
b = 0.91 [0.16]
Seff = 12020.27 [6106.71]
Teq = 2670 [339] K
Rp = 1.05 [0.37] Re
a = 0.0203 [0.0063] AU
Ag = 0.89 [0.57] [-0.19σ]
Teffp = 4014 [420] K [2.49σ]

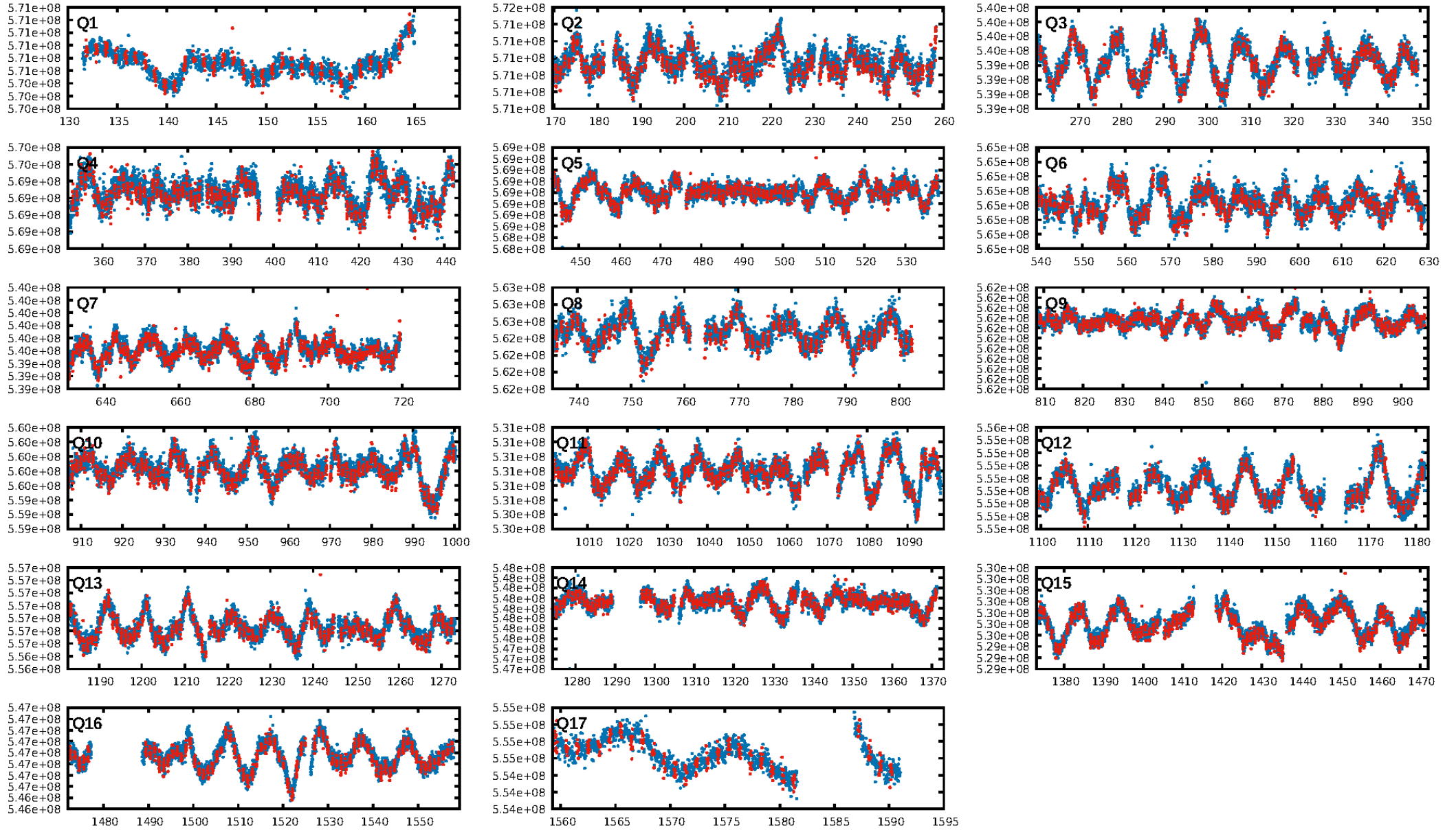
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: 8.57e-69
RollingBand-fgt: 0.99 [1283/1295]
GhostDiagnostic-chr: 0.6248
Centroid-sig: 0.0%
Centroid-so: 7.997 arcsec [11.13σ]
OotOffset-rm: 13.042 arcsec [173.33σ]
KicOffset-rm: 13.205 arcsec [183.43σ]
OotOffset-st: 4/4/4/3 [15]
KicOffset-st: 4/4/4/3 [15]
DiffImageQuality-fgm: 0.87 [13/15]
DiffImageOverlap-fno: 1.00 [17/17]

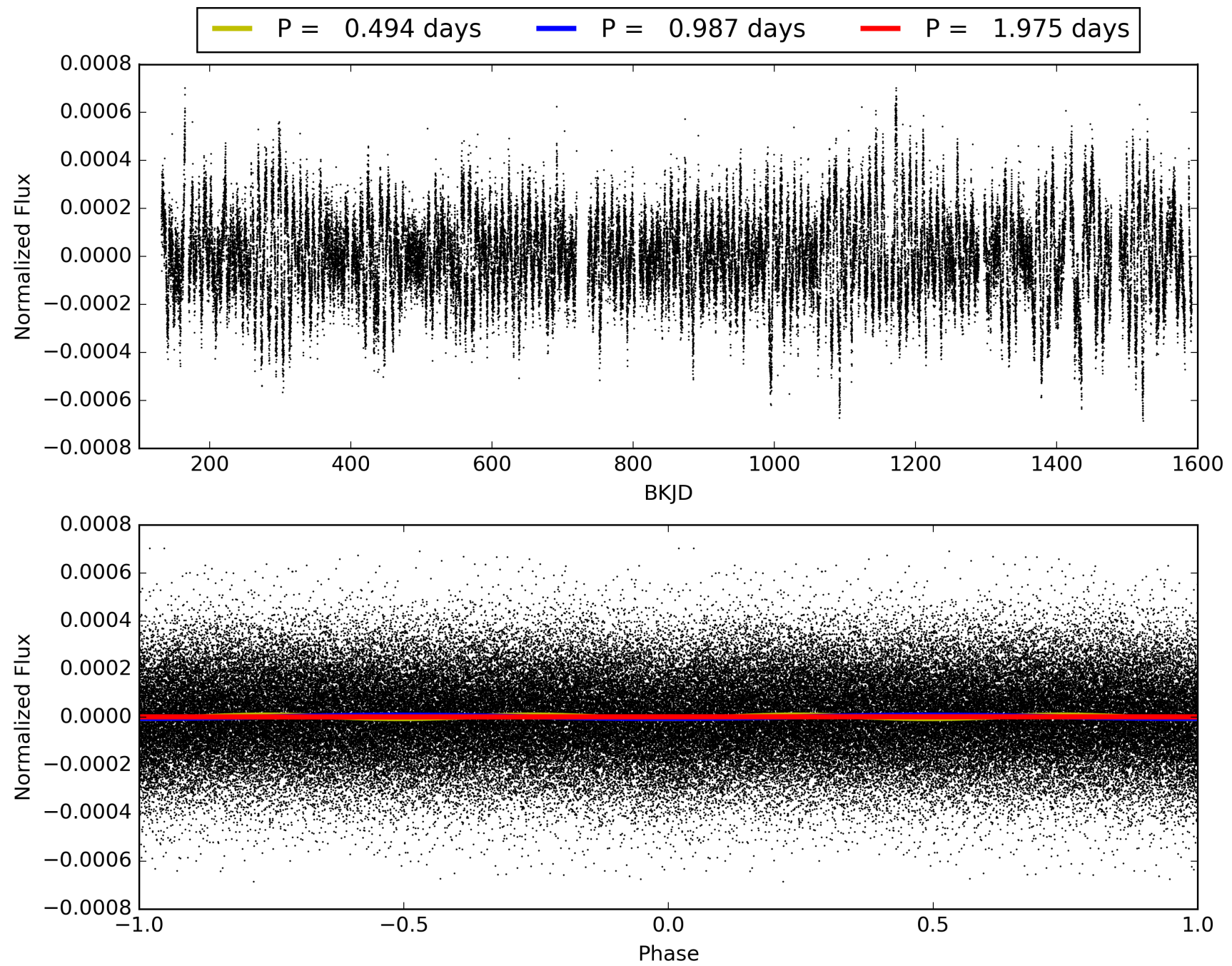
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 02:53:19 Z

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

TCE 008914779-01, PDC Light Curves

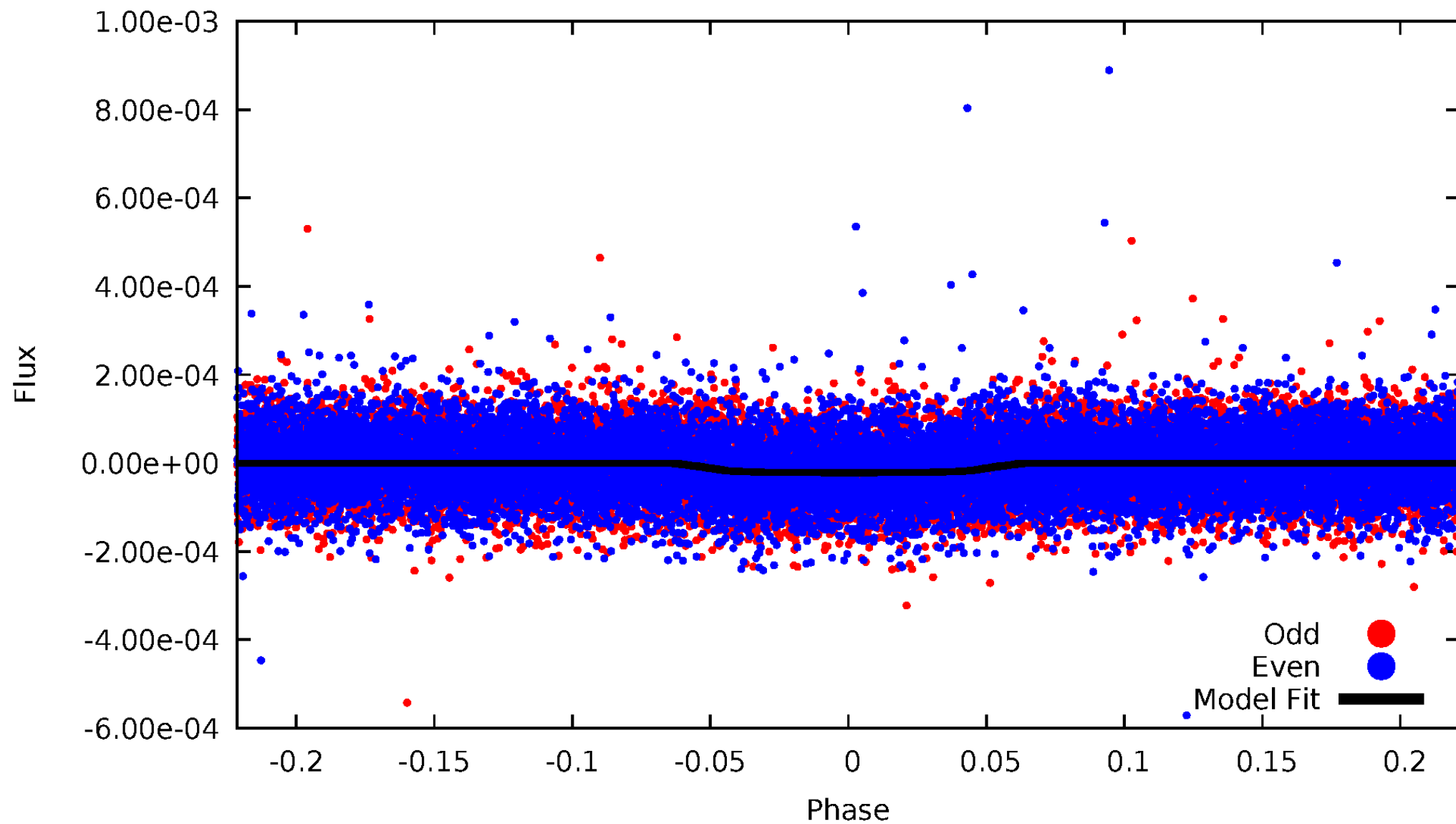


TCE 008914779-01



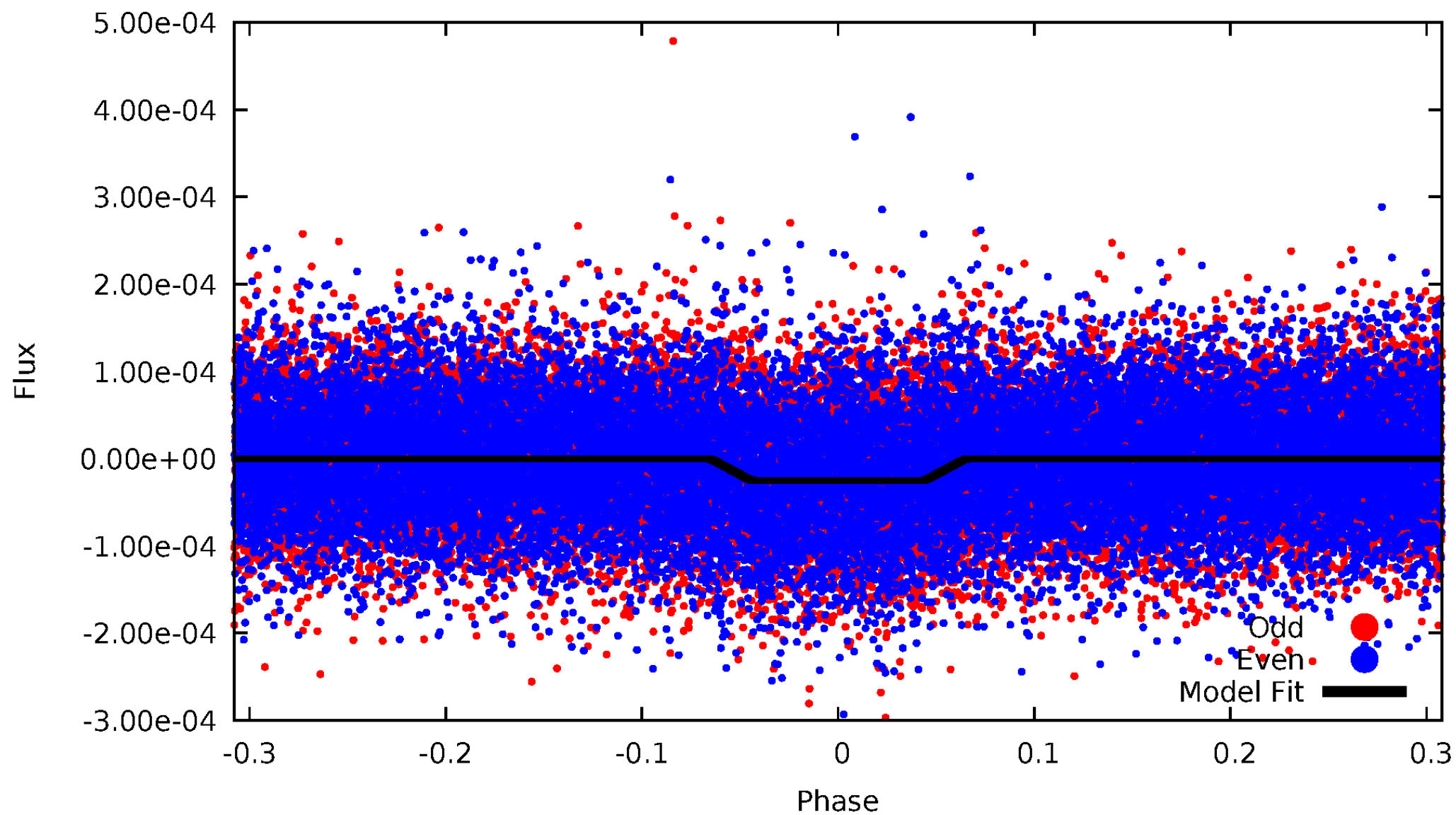
DV Odd/Even

TCE 008914779-01



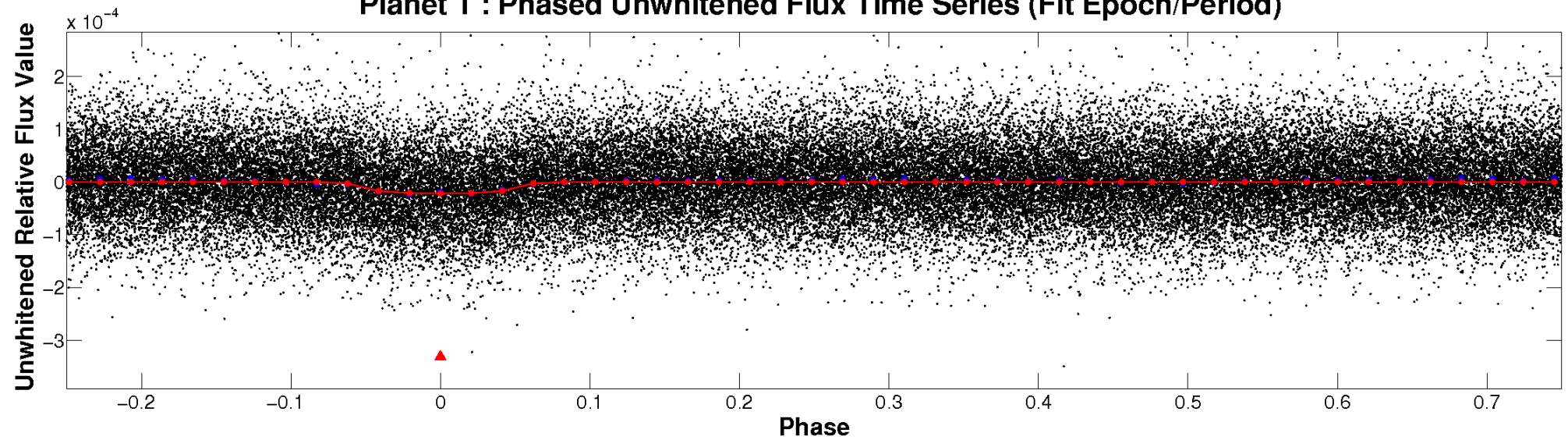
ALT Odd/Even

TCE 008914779-01

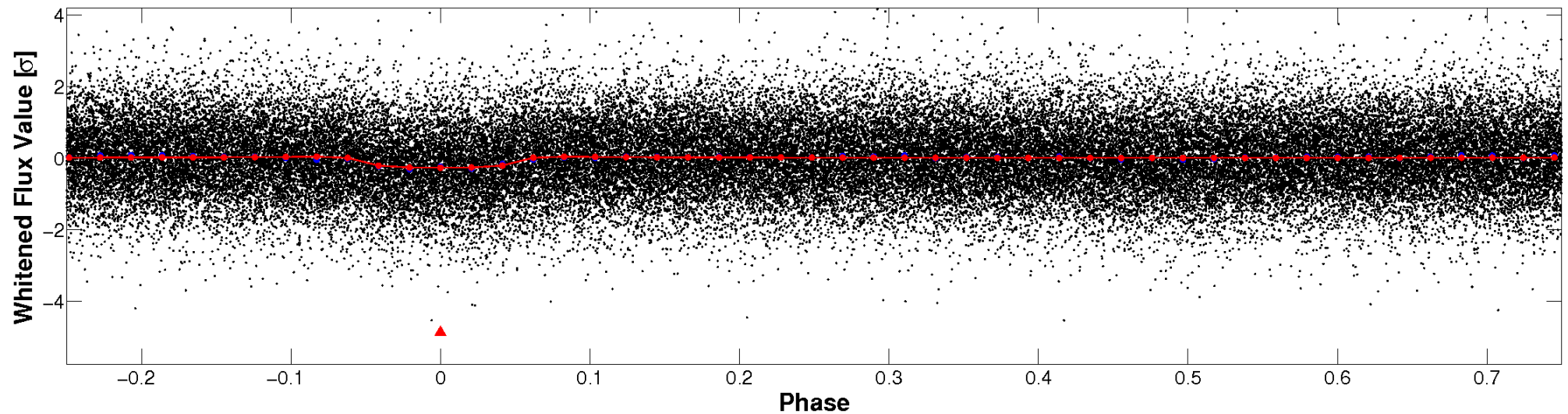


Non-Whitened Vs. Whitened Light Curve

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

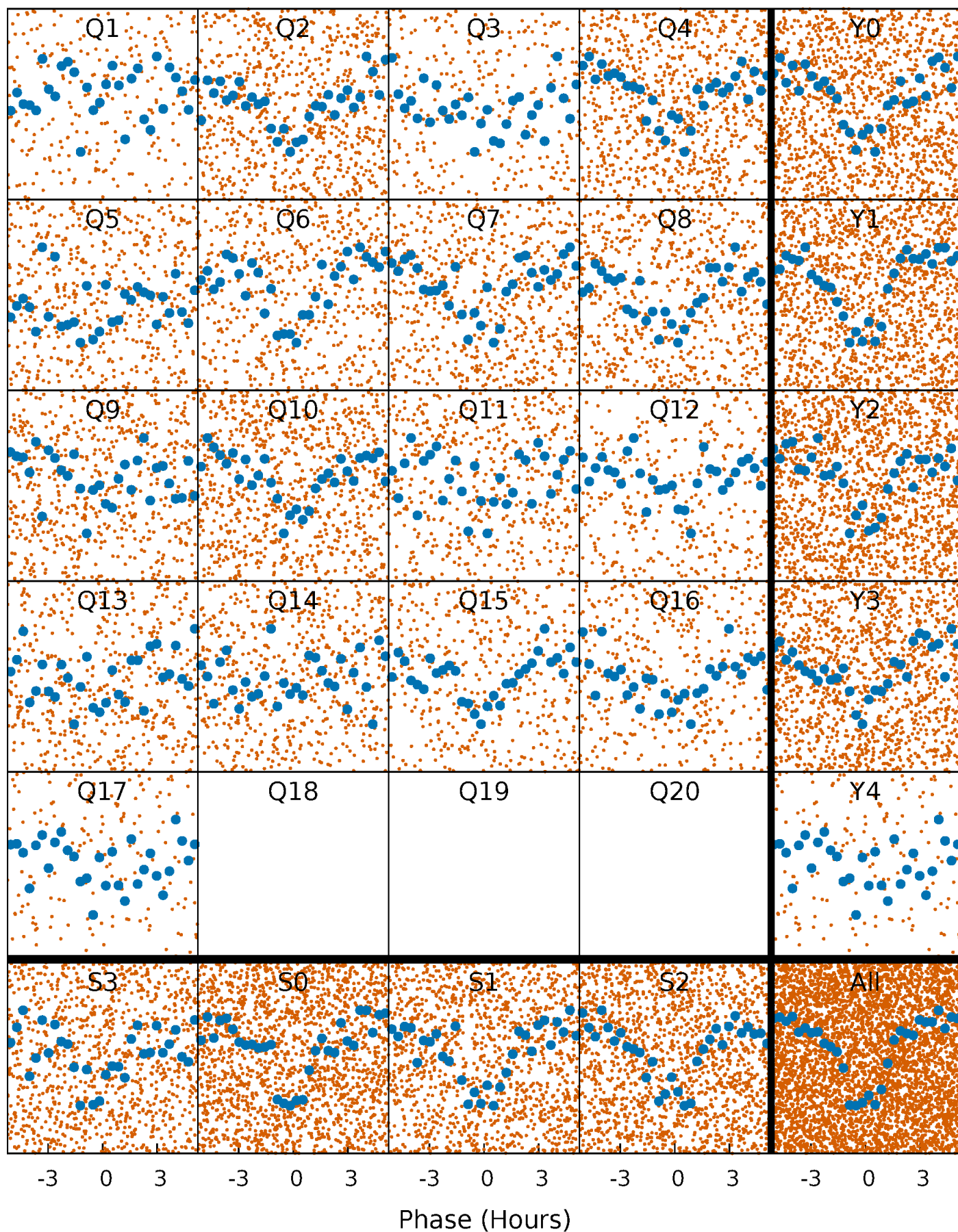


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



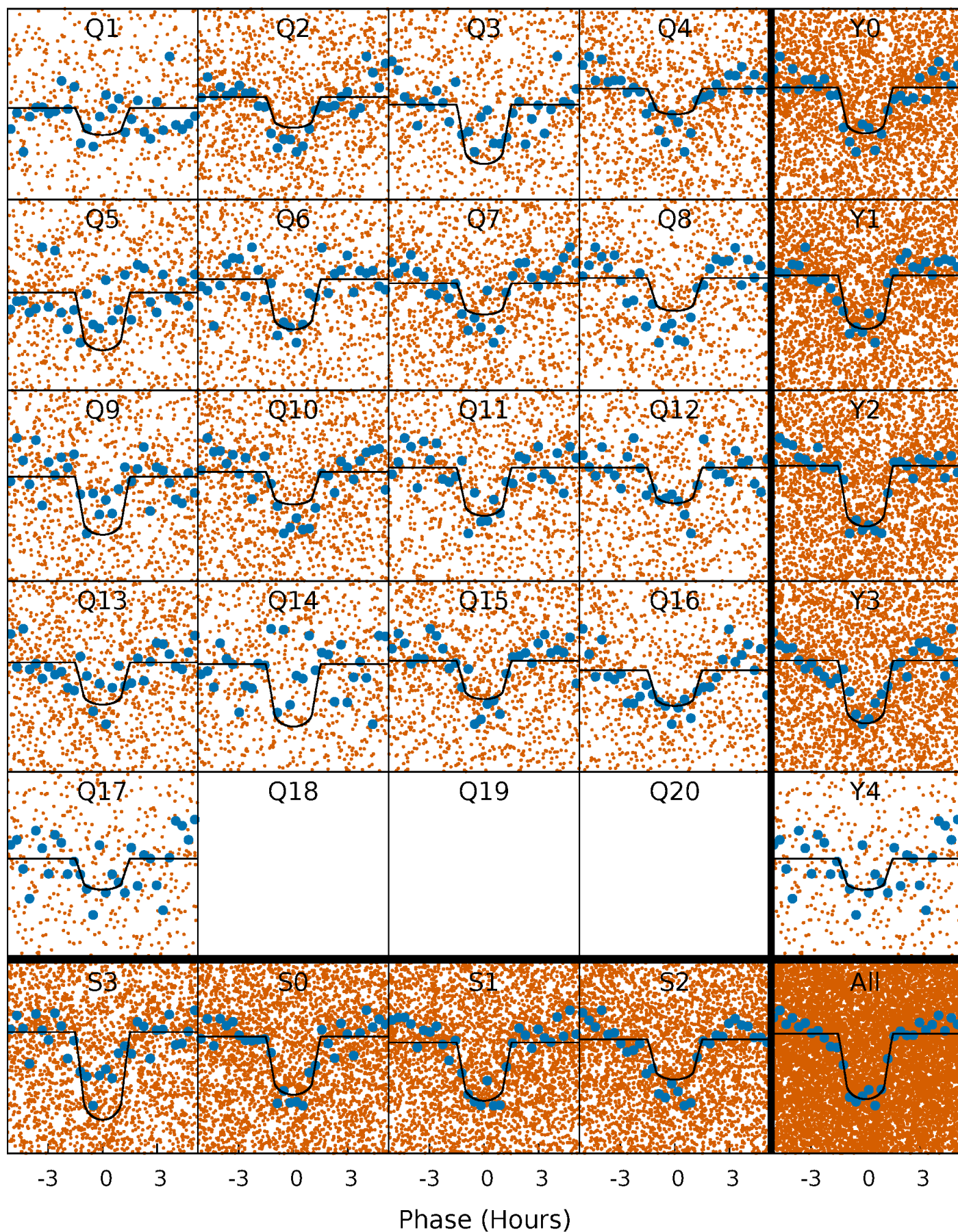
PDC Quarter-Phased Transit Curves

TCE 008914779-01 P= 0.987327 Days $T_0=131.891712$ (BKJD)



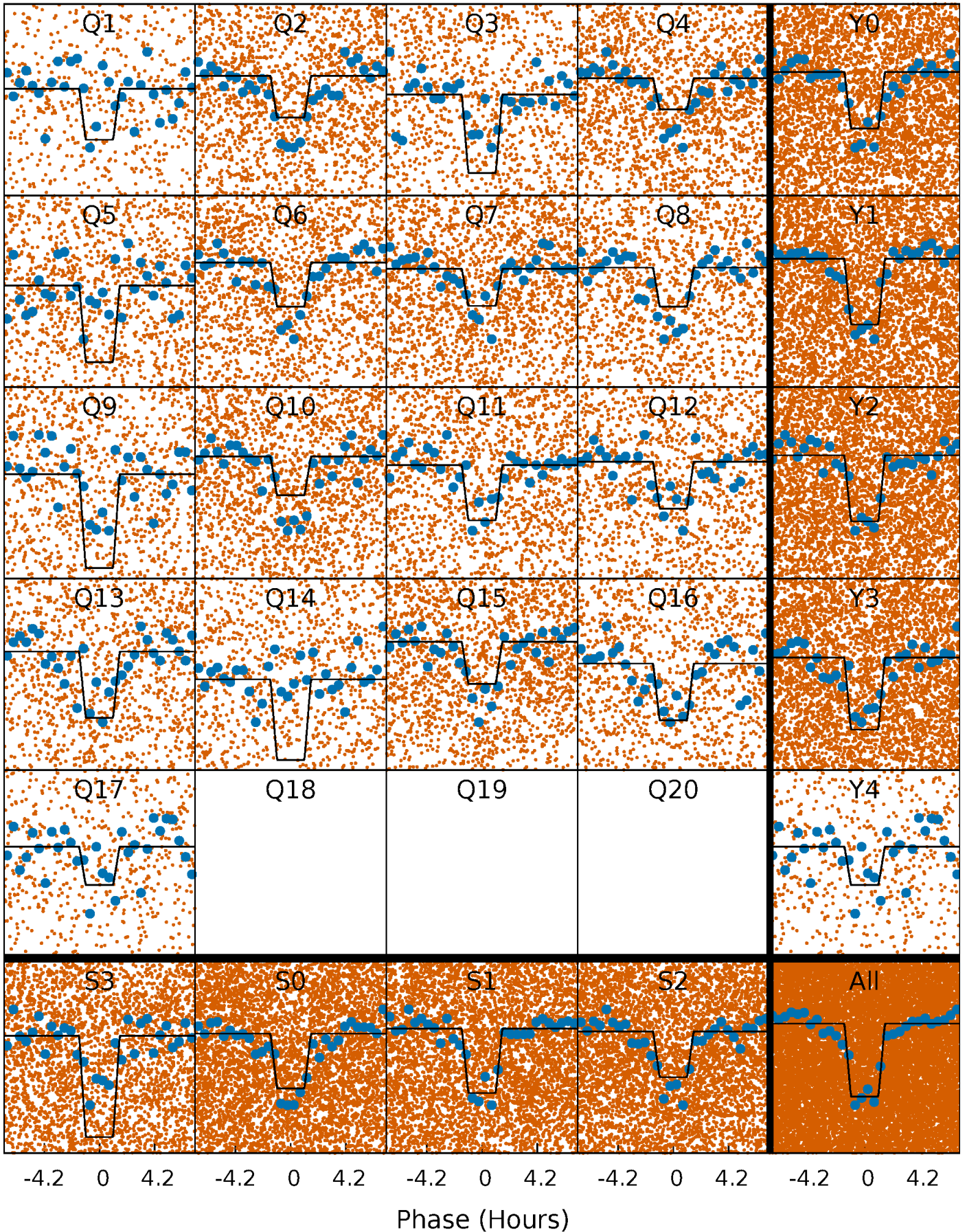
DV Quarter-Phased Transit Curves

TCE 008914779-01 P= 0.987327 Days $T_0=131.891712$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

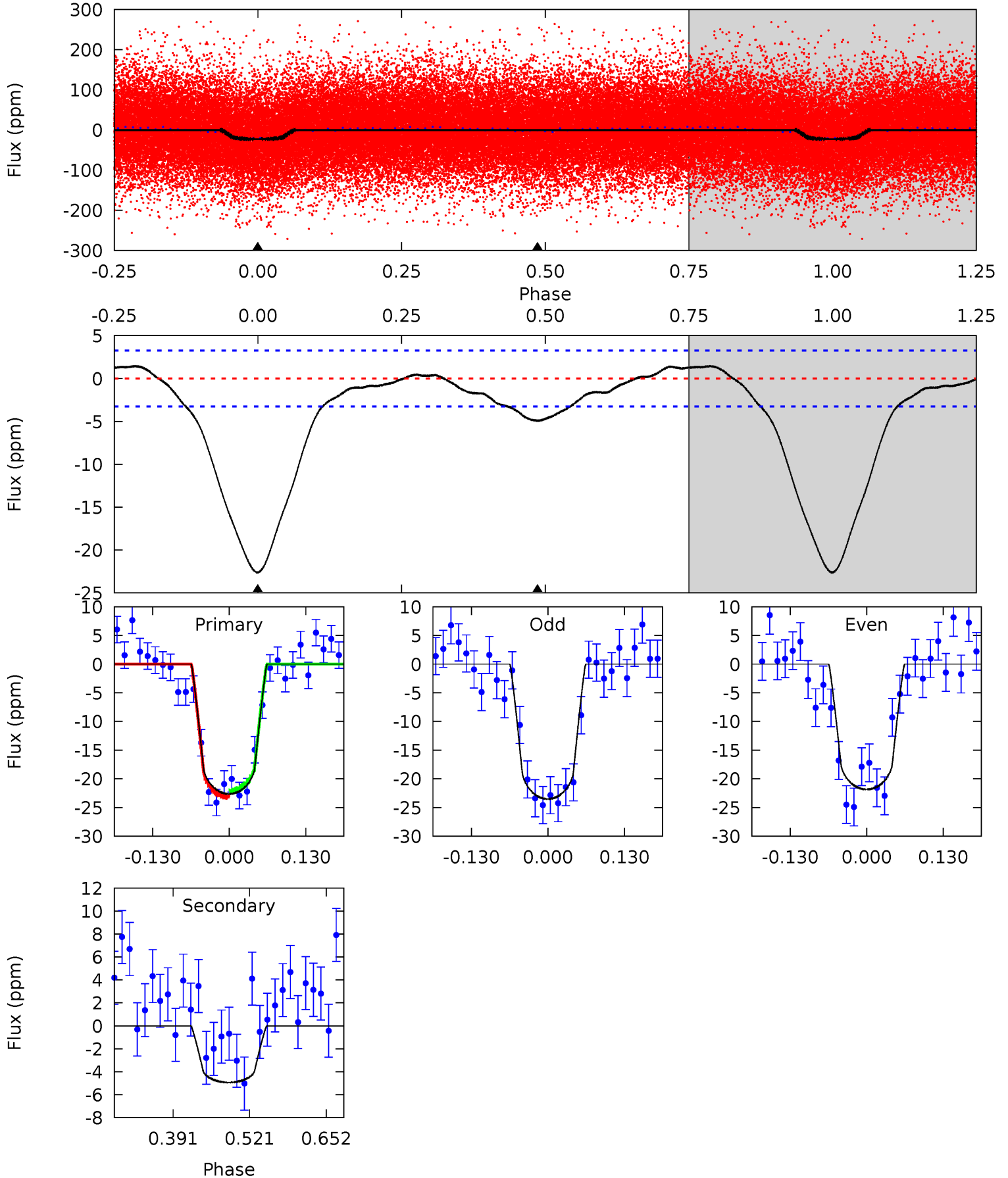
TCE 008914779-01 P= 0.987331 Days $T_0=131.885761$ (BKJD)



DV Model-Shift Uniqueness Test

008914779-01, P = 0.987327 Days, E = 130.904385 Days

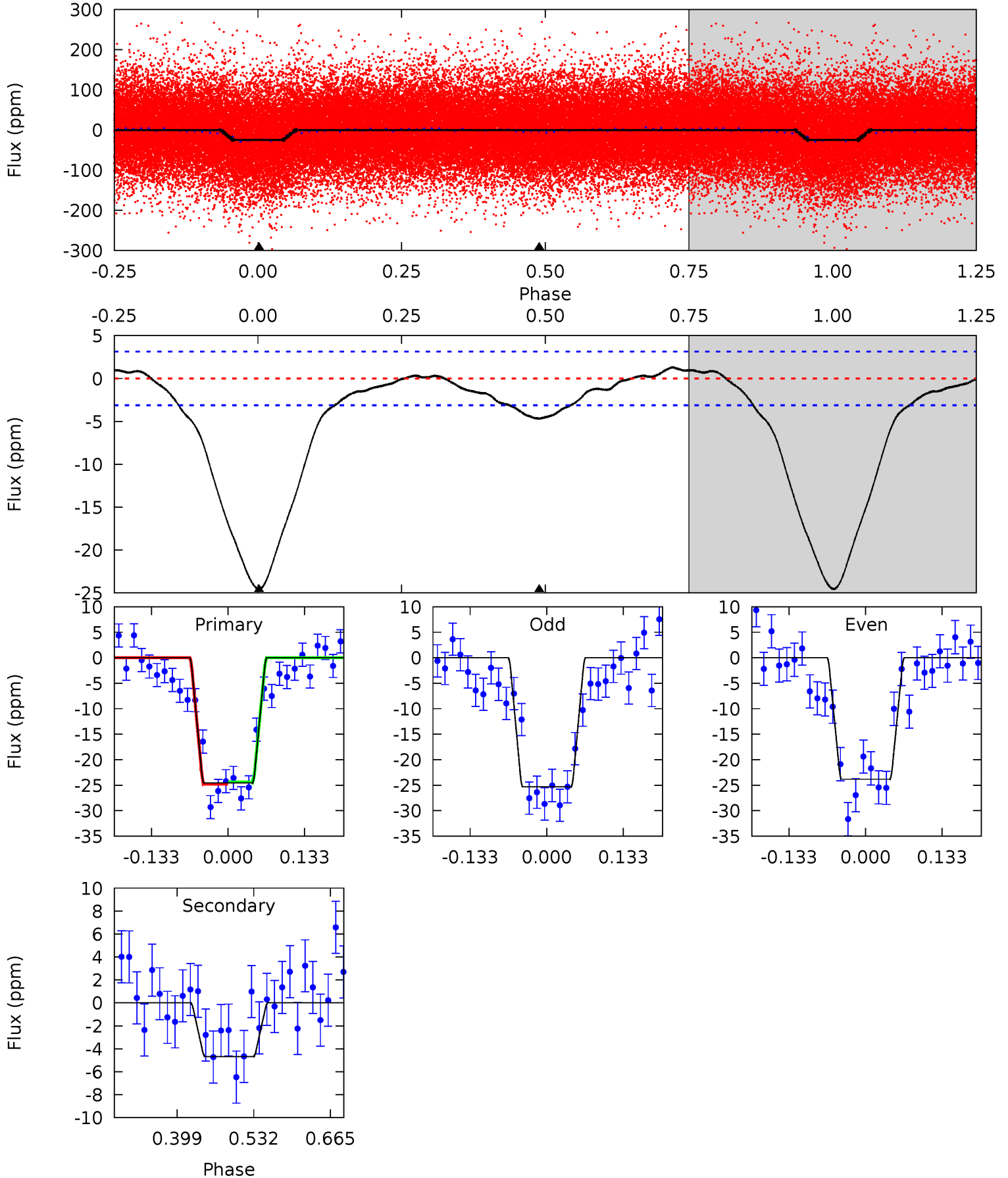
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
31.3	6.81	0	0	4.51	1.51	1.40	31.3	31.3	6.81	6.81	1.16	0.98	0.06	0.70



Alt Model-Shift Uniqueness Test

008914779-01, P = 0.987331 Days, E = 130.898430 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
35.3	6.73	0	0	4.50	1.50	1.55	35.3	35.3	6.73	6.73	1.07	1.02	0.05	0.30



Stellar Parameters For KIC 008914779

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6258^{+173}_{-173}	$3.939^{+0.292}_{-0.117}$	$-0.300^{+0.300}_{-0.250}$	$1.896^{+0.402}_{-0.603}$	$1.140^{+0.212}_{-0.173}$	$0.236^{+0.441}_{-0.086}$
	+3%/-3%	+7%/-3%	+100%/-83%	+21%/-32%	+19%/-15%	+187%/-37%
Source	PHO1	FLK73	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 008914779-01 / KOI 2230.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-5 ± 1	$1.02^{+0.21}_{-0.24}$	3680^{+247}_{-320}	4123^{+395}_{-372}	$1.120^{+0.715}_{-0.381}$
Alt.	-5 ± 1	$1.00^{+0.24}_{-0.22}$	3690^{+227}_{-308}	4067^{+416}_{-366}	$1.064^{+0.716}_{-0.380}$

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

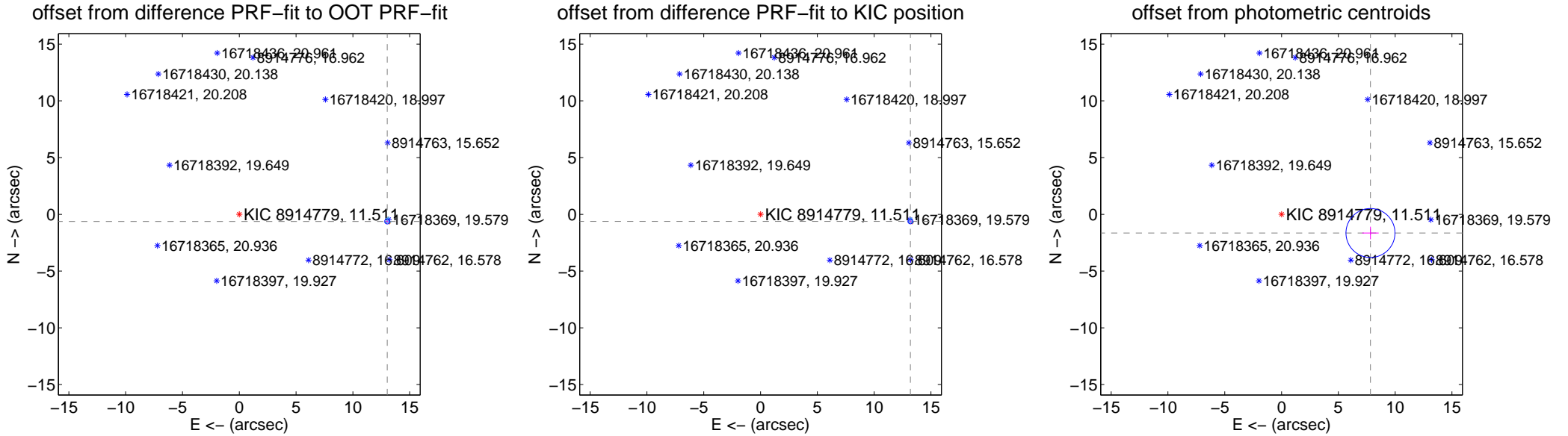
DV Centroid Data

Supplemental centroid analysis for 008914779-01. **Kepler magnitude: 11.51.** Transit SNR 19.75

There are 13 quarters with good PRF difference image offsets

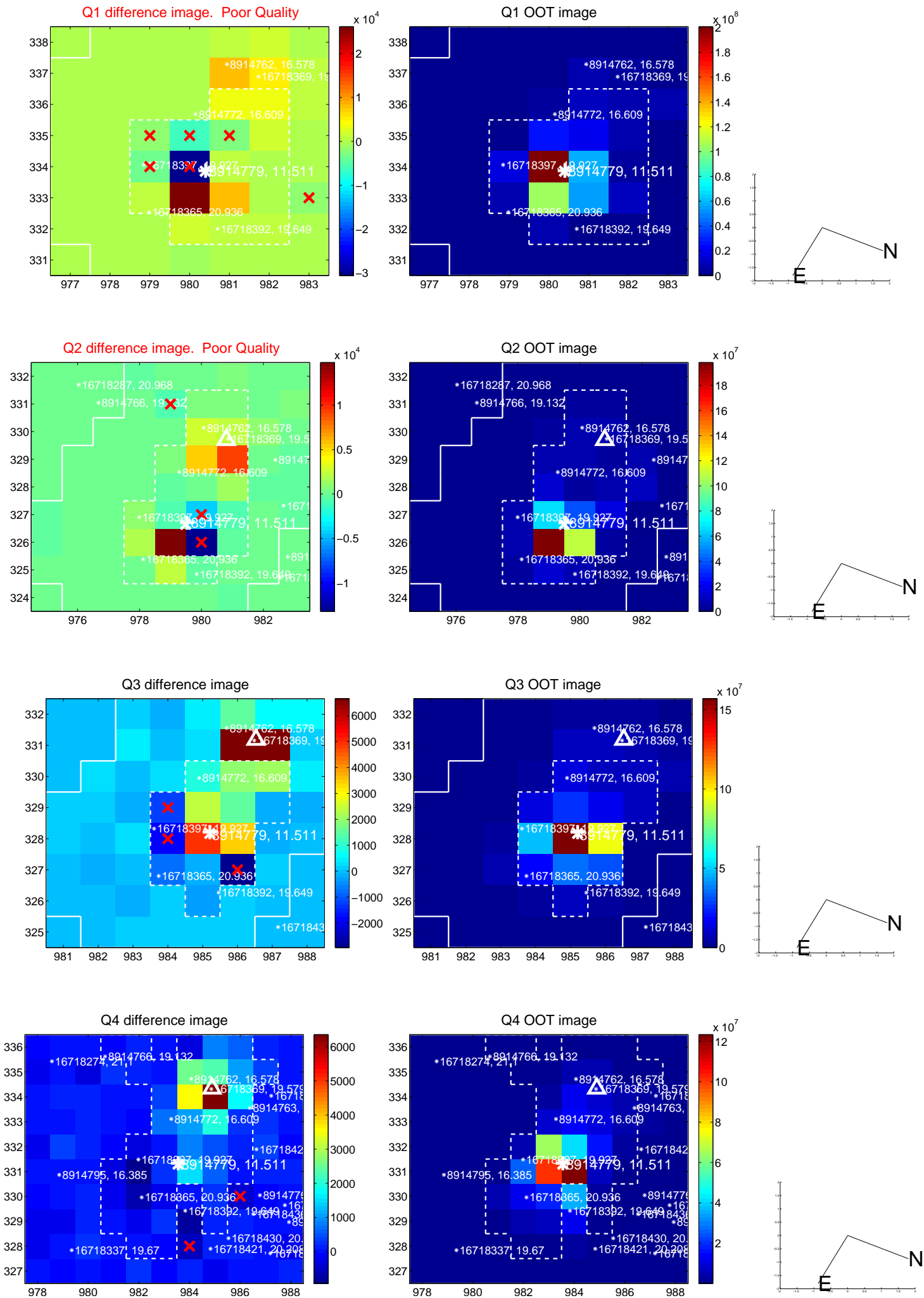
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	13.042 \pm 0.075	173.33	-13.027 \pm 0.075	-0.625 \pm 0.076
PRF-fit source offset from KIC position	13.205 \pm 0.072	183.43	-13.191 \pm 0.072	-0.623 \pm 0.071
photometric centroid source offset	8.00 \pm 0.72	11.13	-7.83 \pm 0.73	-1.64 \pm 0.55

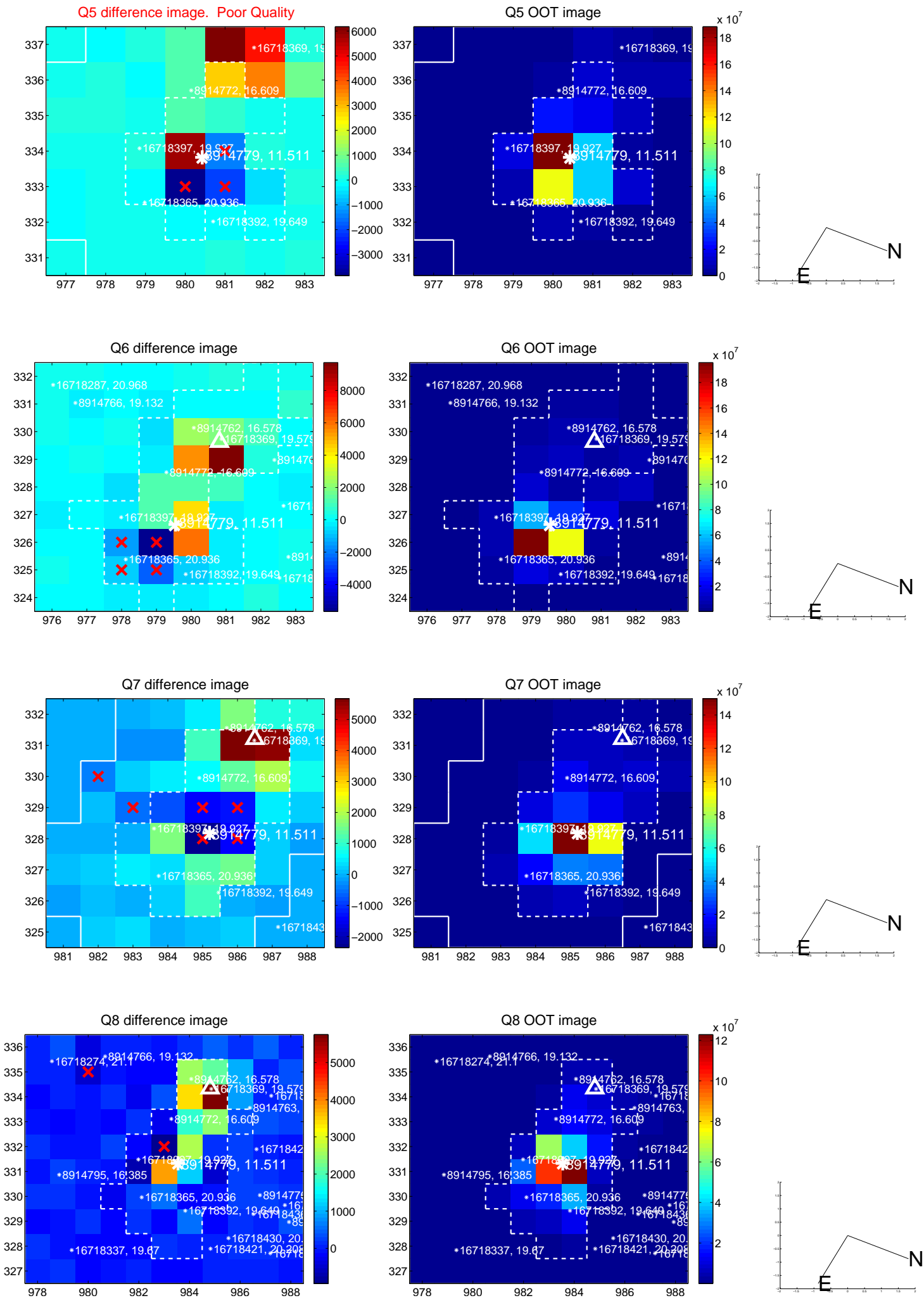


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

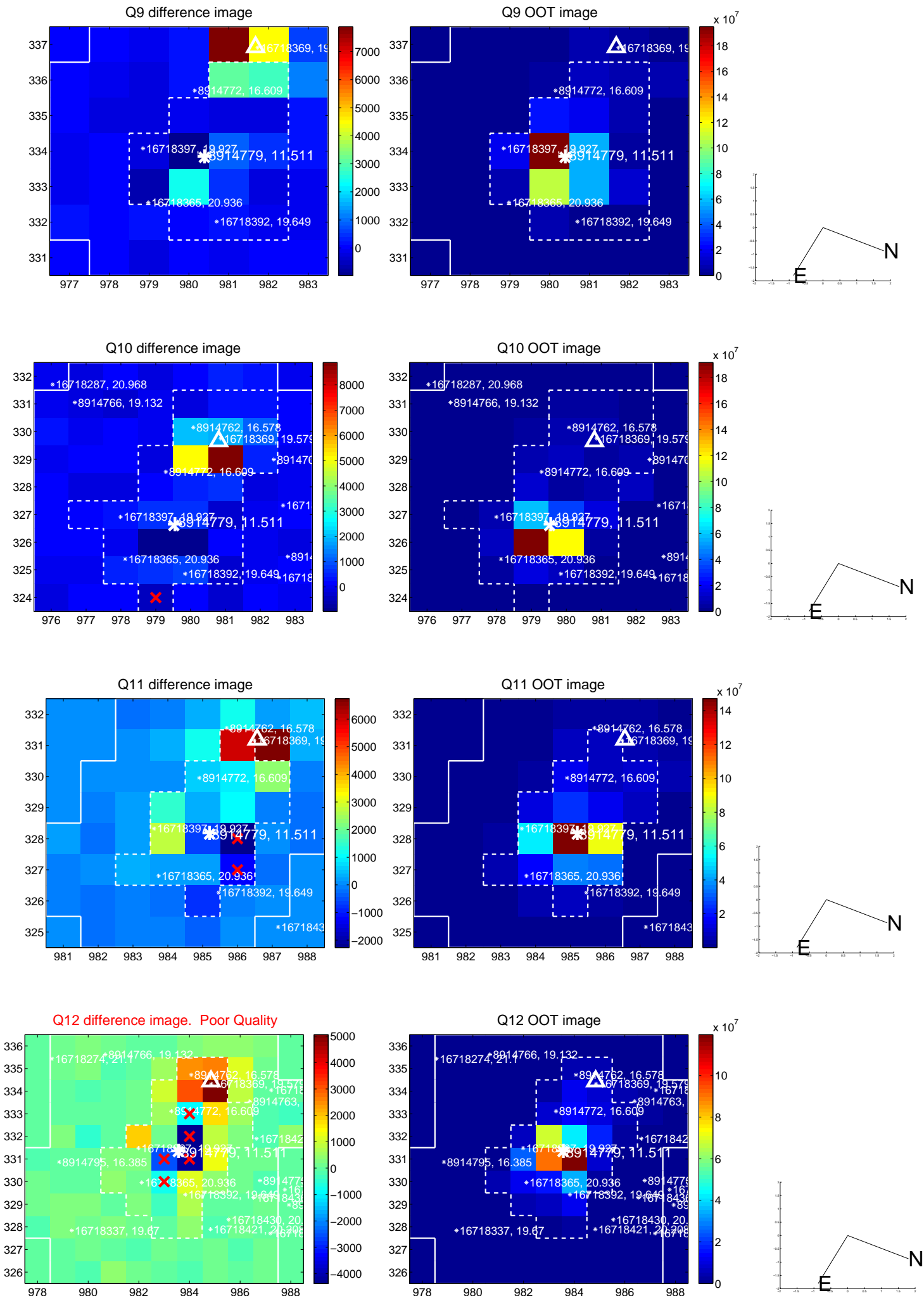
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



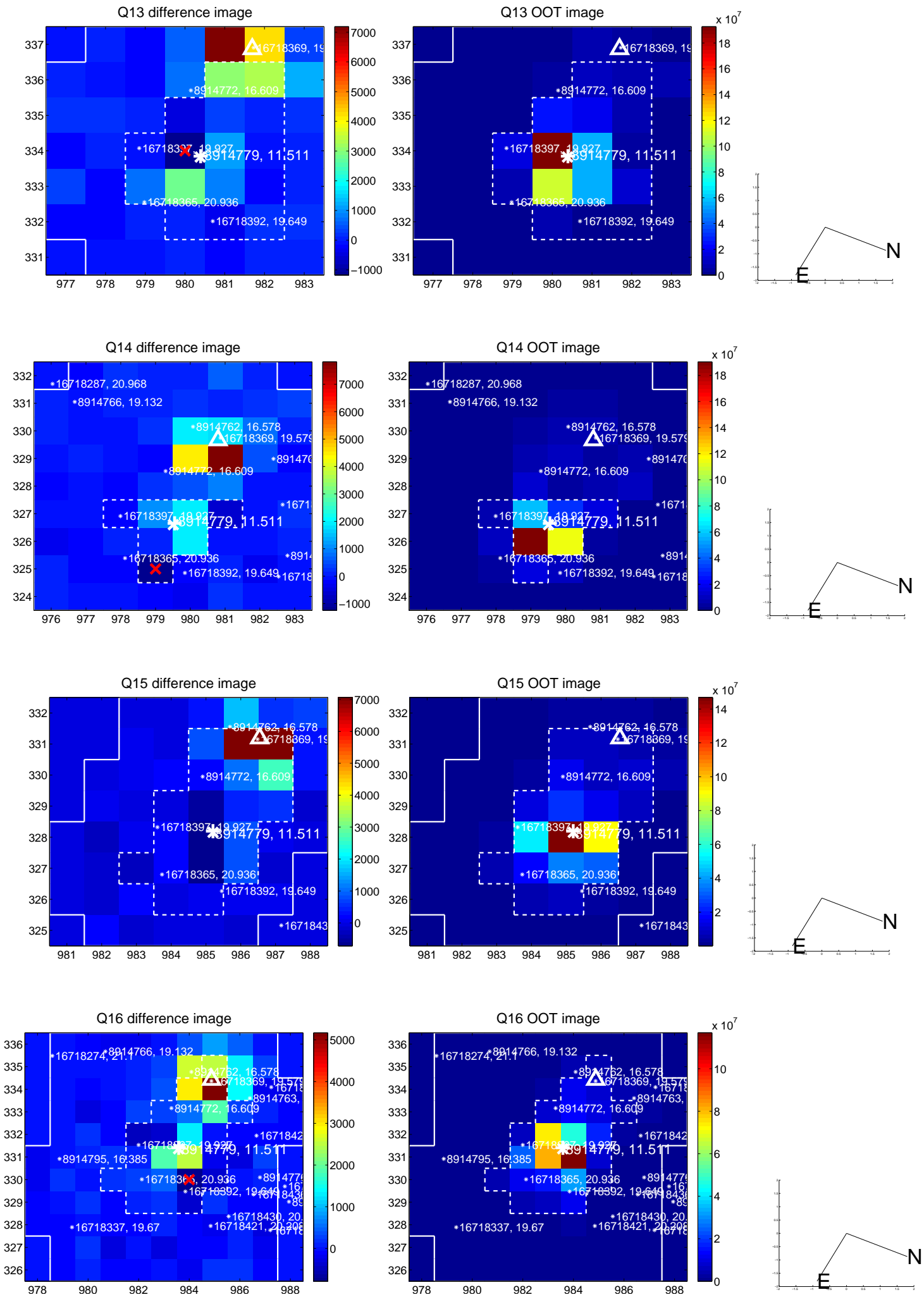
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



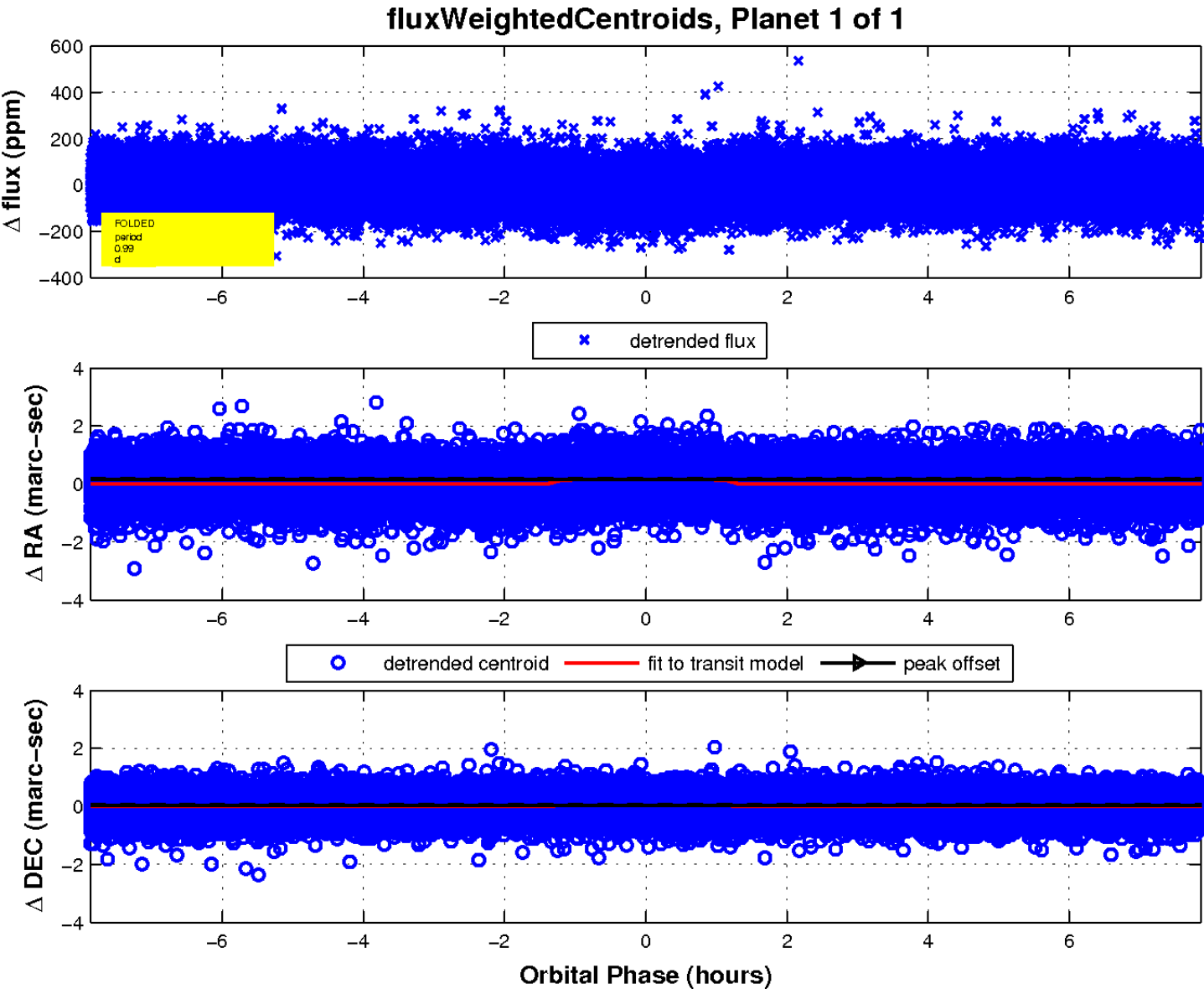
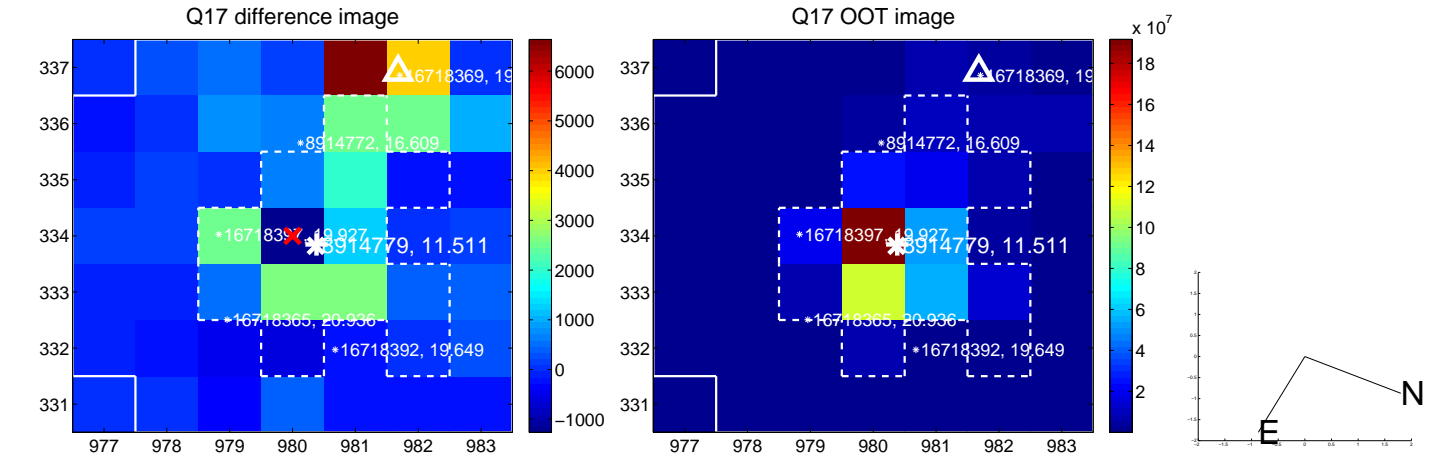
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

