

KIC 008043299

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})
008043299-01	OBS	No	0.957408	132.259177	8.5	11.489	8.9	7.2	3.41	7854	1.00	67785.20

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008043299-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED

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

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

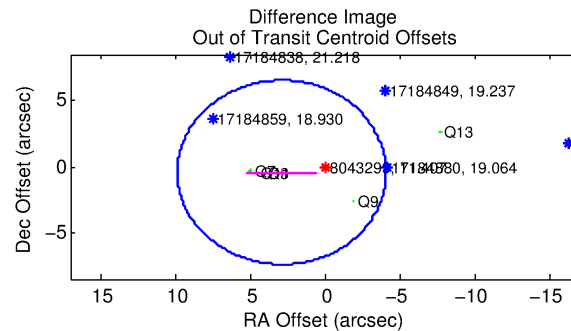
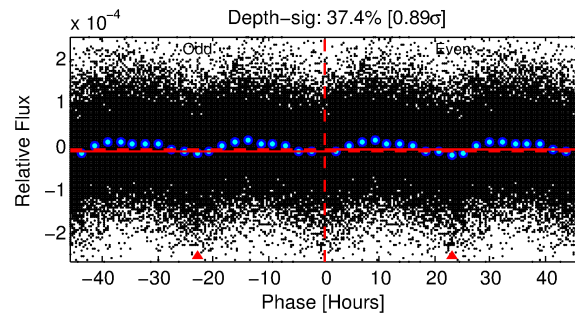
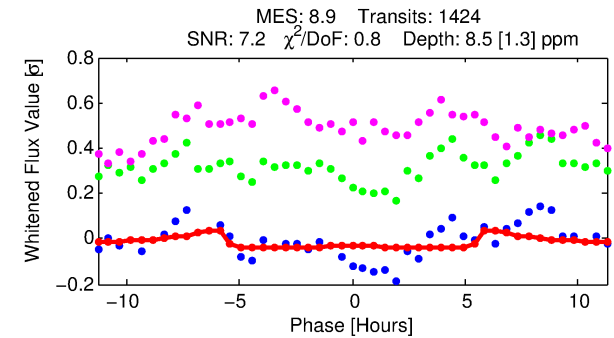
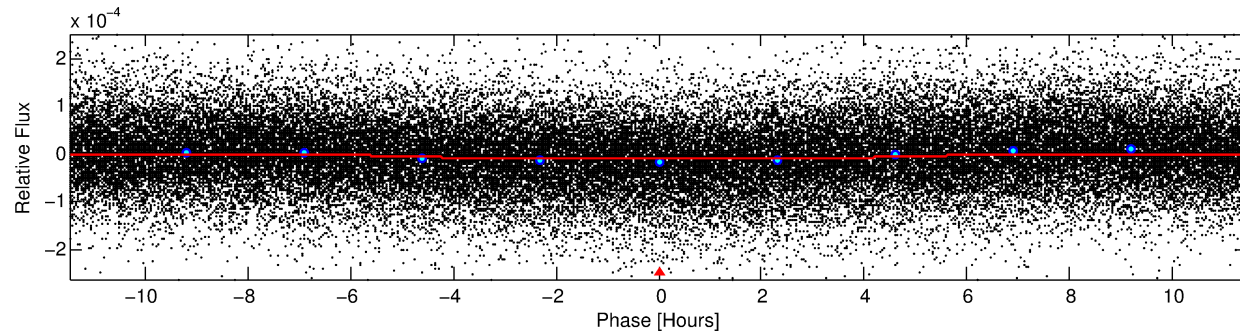
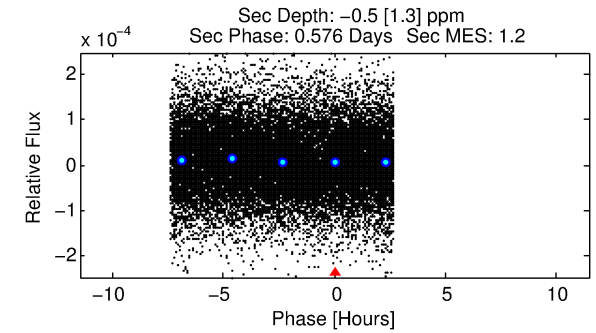
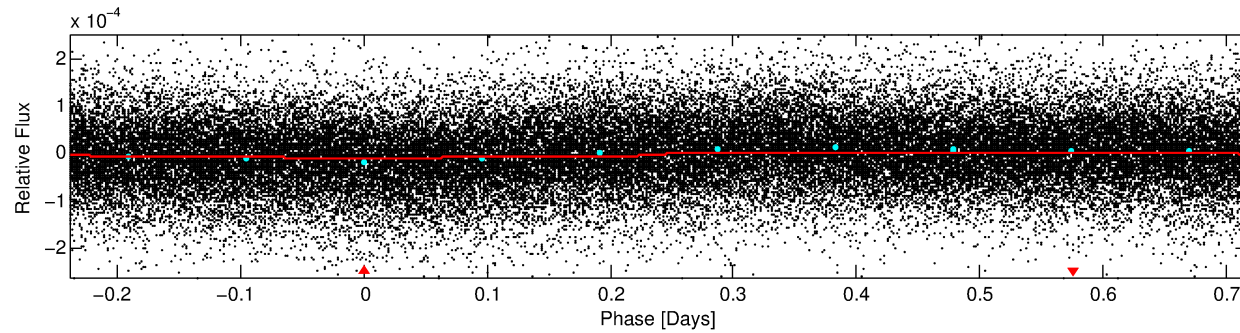
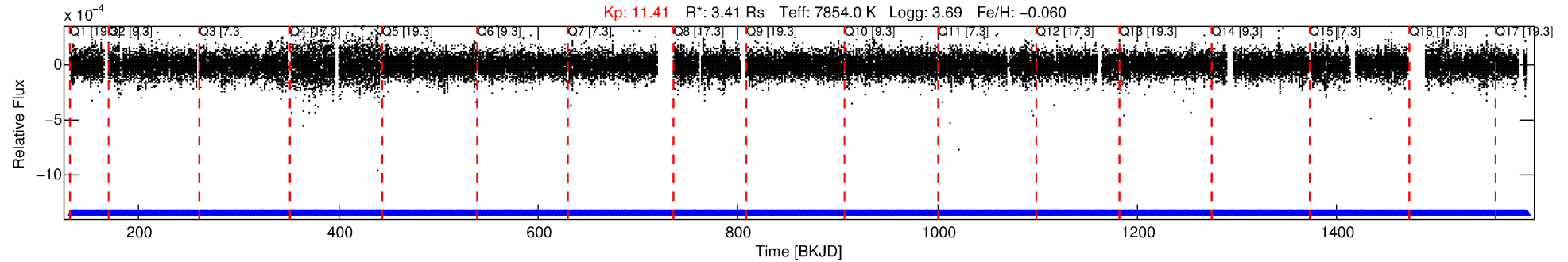
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008043299-01

No Significant Match Found

DV One-Page Summary

KIC: 8043299 Candidate: 1 of 1 Period: 0.957 d



DV Fit Results:

Period = 0.95741 [0.00002] d
Epoch = 132.2592 [0.0055] BKJD
 $R_p/R^* = 0.0027$ [0.0009]
 $a/R^* = 1.00$ [0.00]
 $b = 0.00$ [581.40]
 $\text{Seff} = 67785.19$ [52808.43]
 $T_{\text{eq}} = 4114$ [801] K
 $R_p = 1.00$ [0.58] R_e
 $a = 0.0242$ [0.0113] AU
 $A_g = \text{N/A}$
 $T_{\text{effp}} = \text{N/A}$

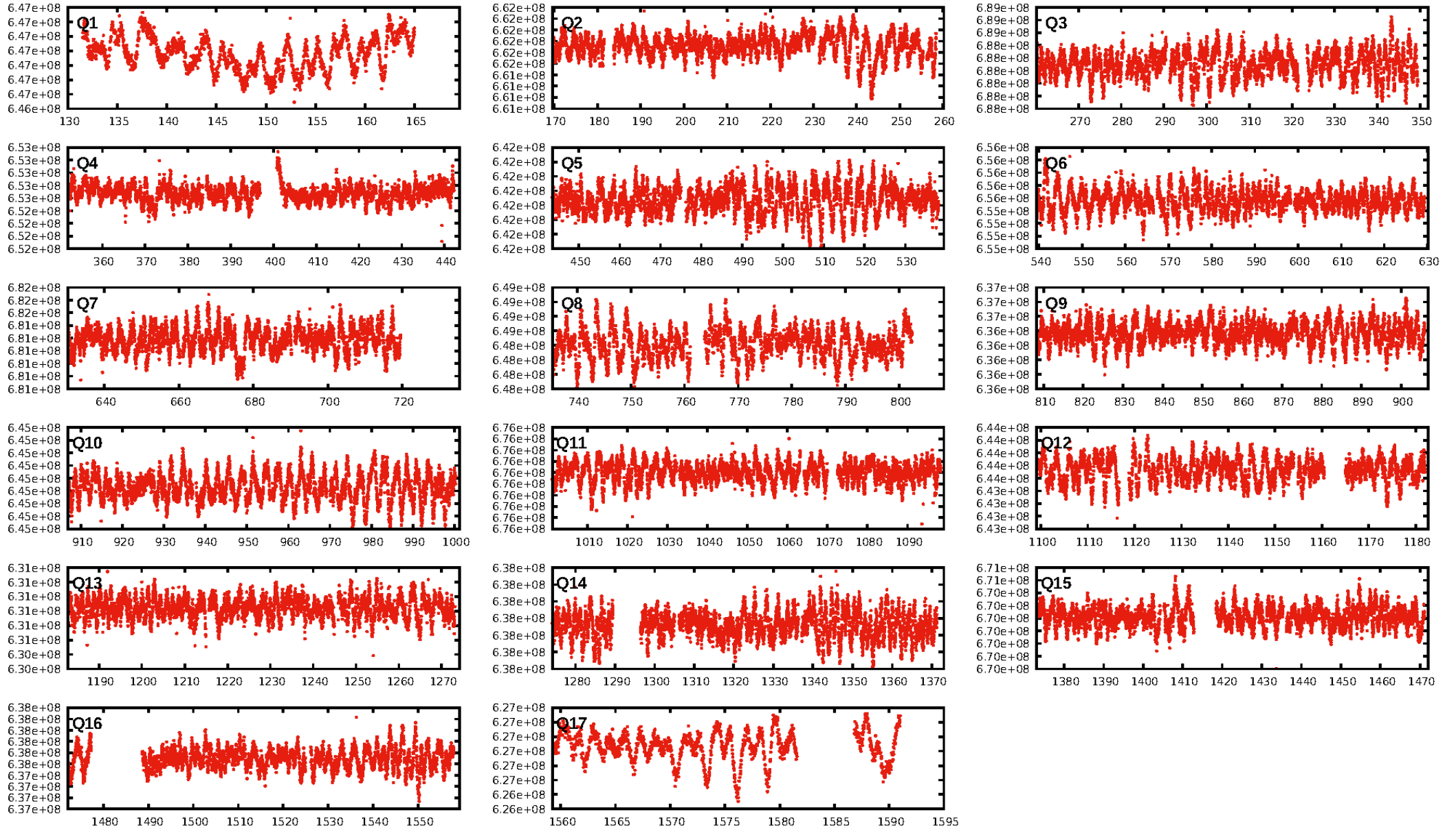
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1360/1360]
GhostDiagnostic-chr: 1.721
Centroid-sig: 0.7%
Centroid-so: 1.528 arcsec [2.20σ]
OotOffset-rm: 2.904 arcsec [1.25σ]
OotOffset-st: 0/3/0/2 [5]
KicOffset-rm: 2.897 arcsec [1.34σ]
KicOffset-st: 0/3/0/2 [5]
DiffImageQuality-fgm: 0.40 [2/5]
DiffImageOverlap-fno: 1.00 [17/17]

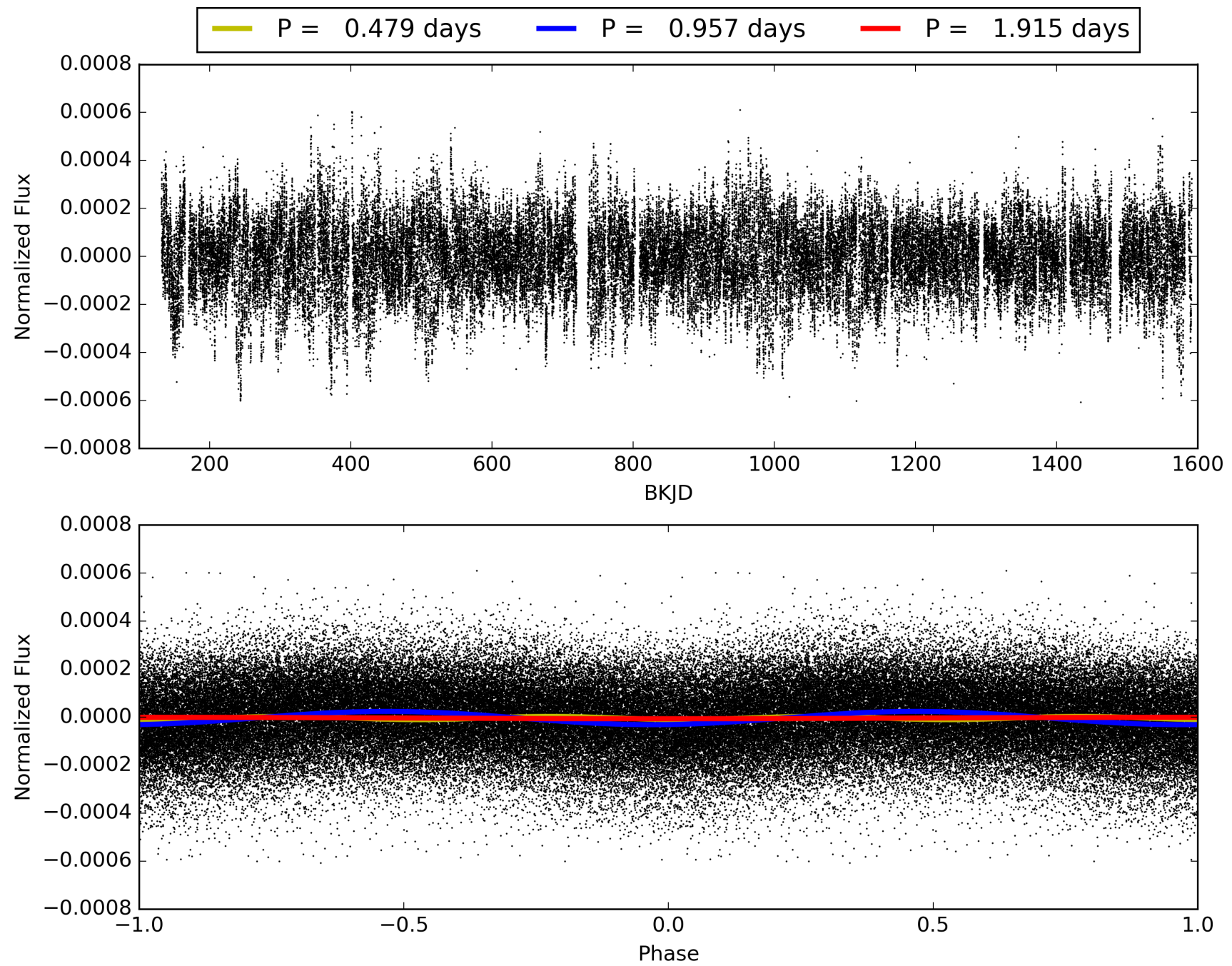
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 16:19:26 Z

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

TCE 008043299-01, PDC Light Curves

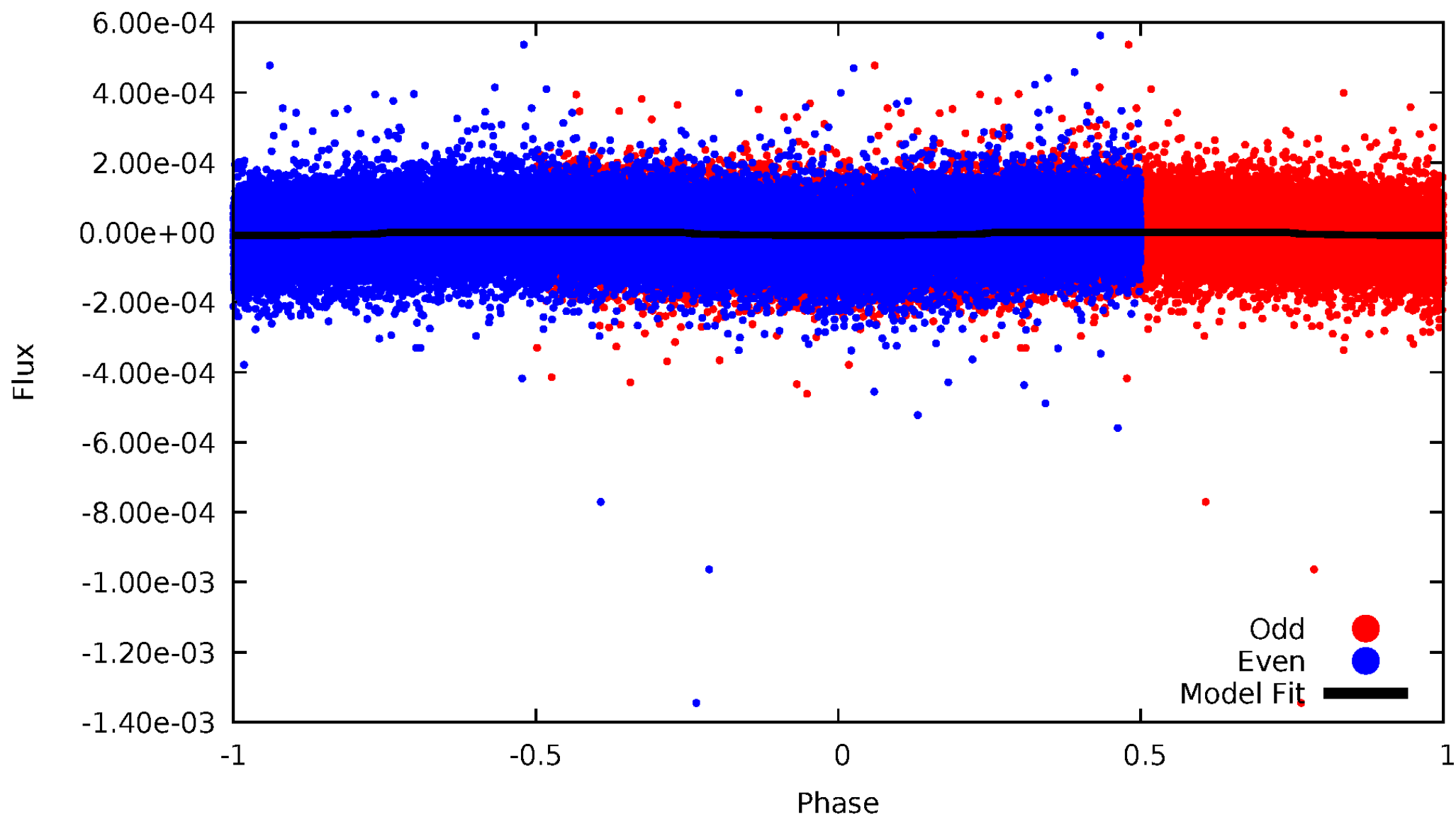


TCE 008043299-01



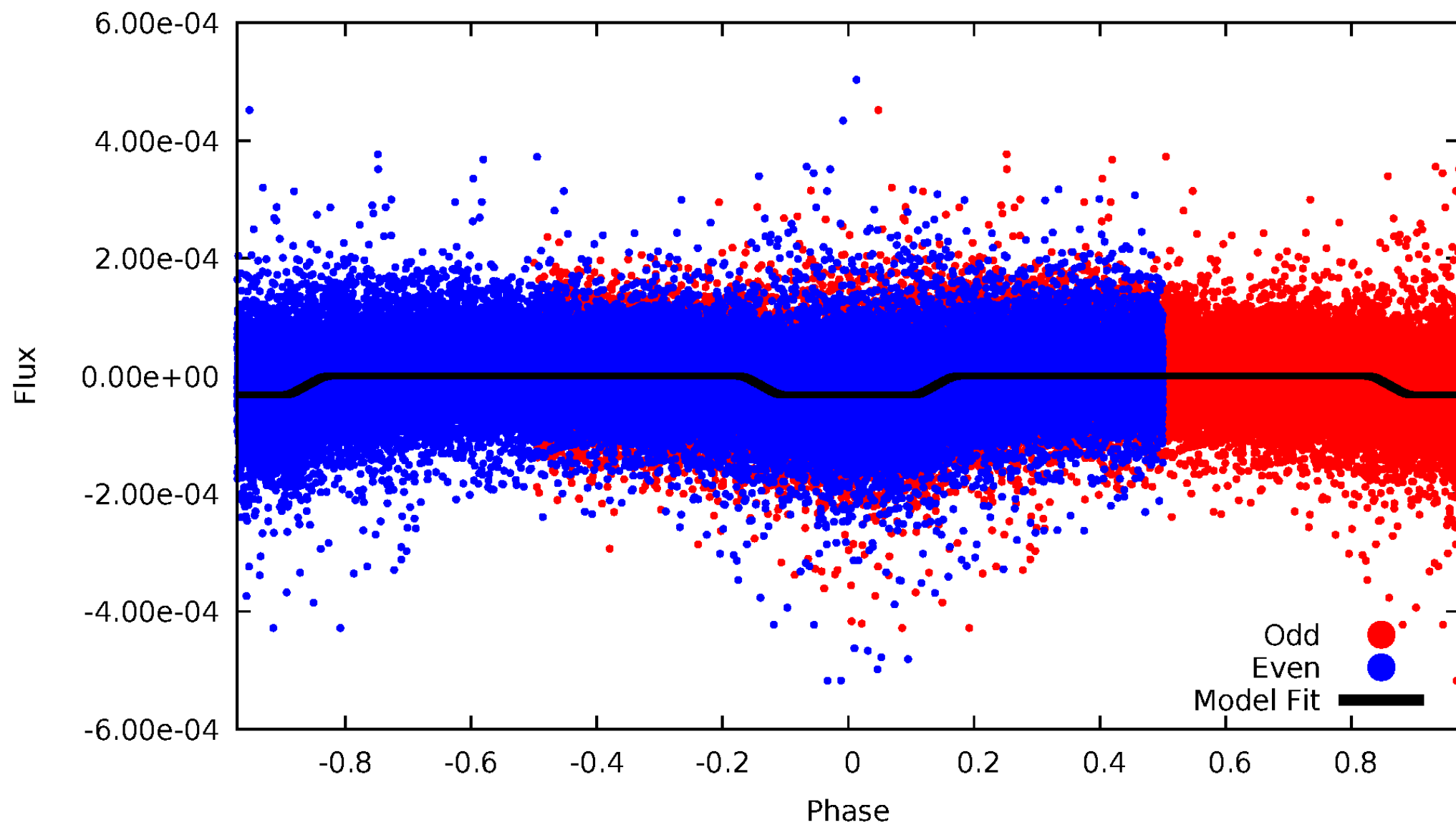
DV Odd/Even

TCE 008043299-01



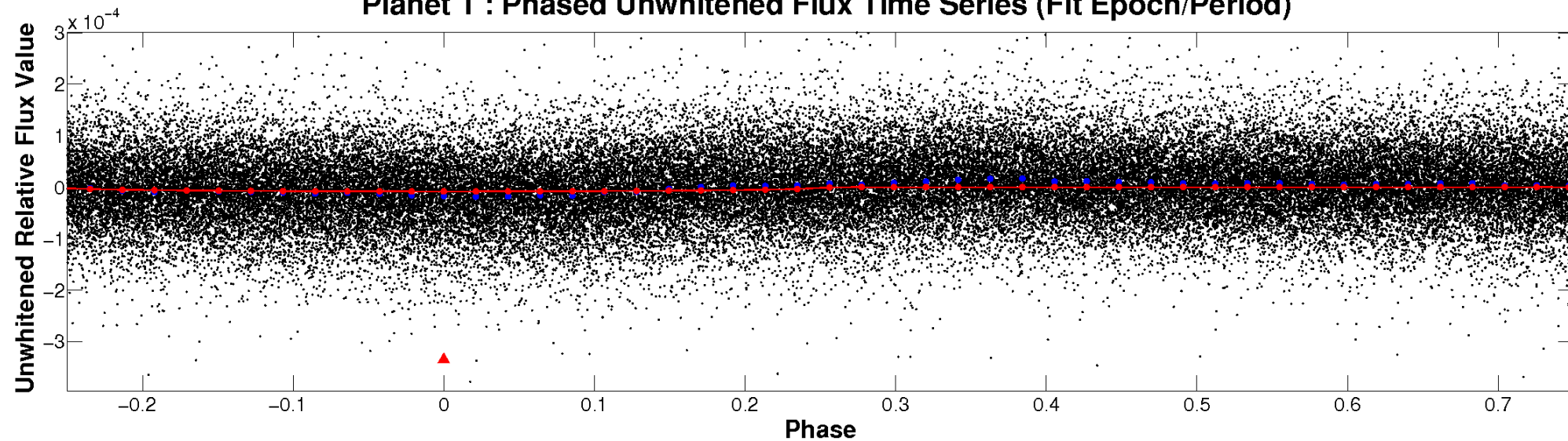
ALT Odd/Even

TCE 008043299-01

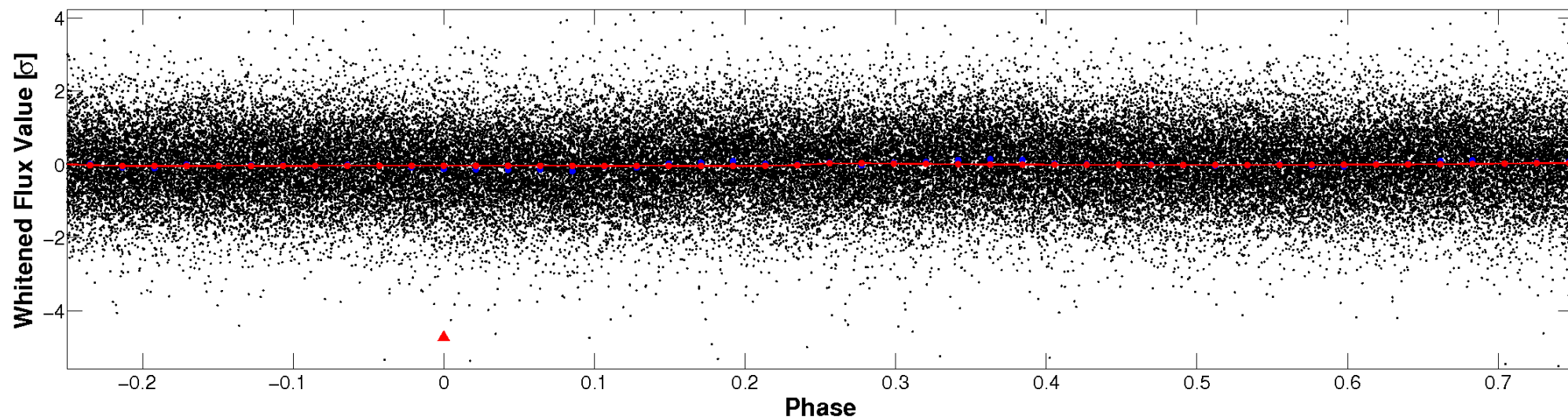


Non-Whitened Vs. Whitened Light Curve

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

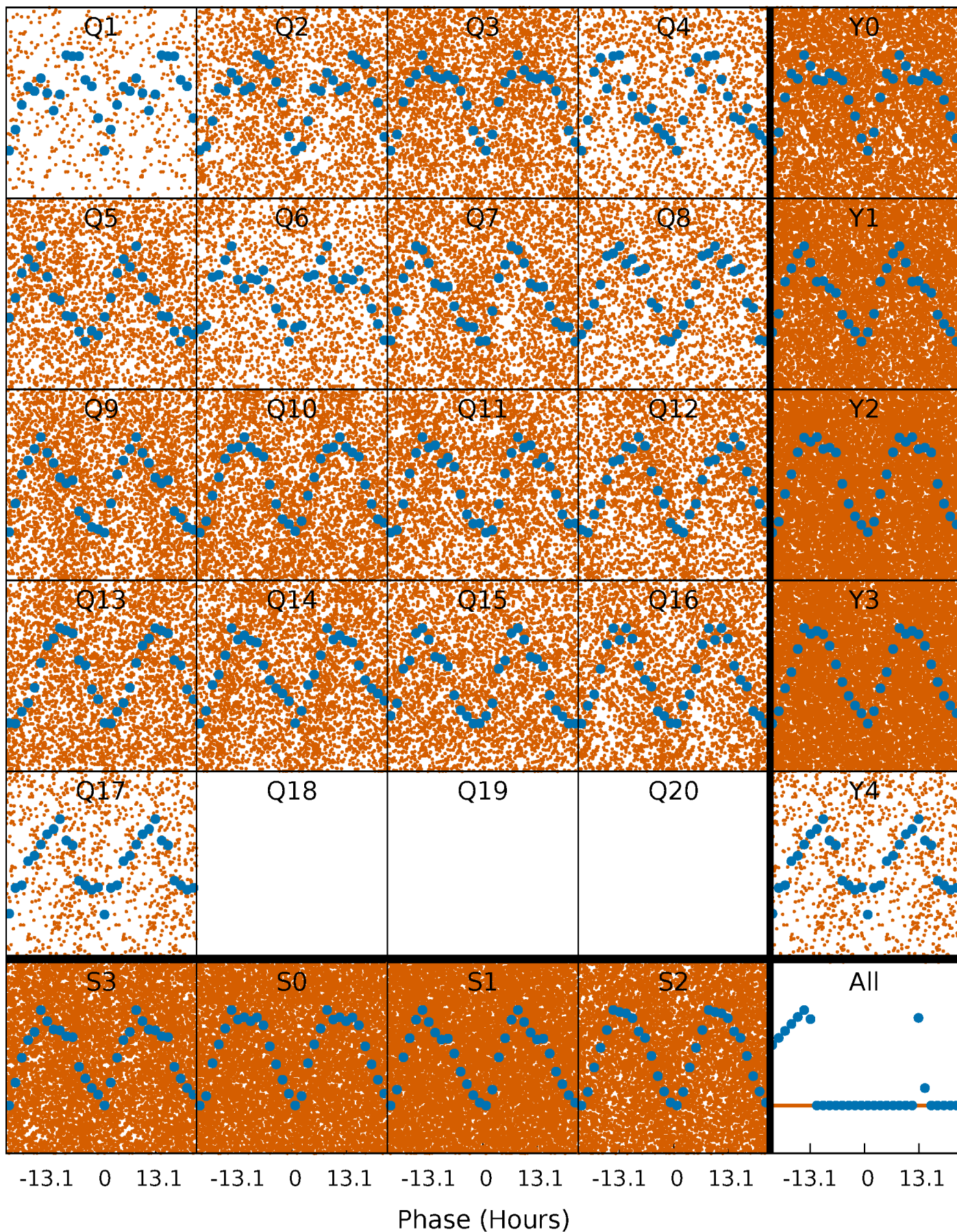


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



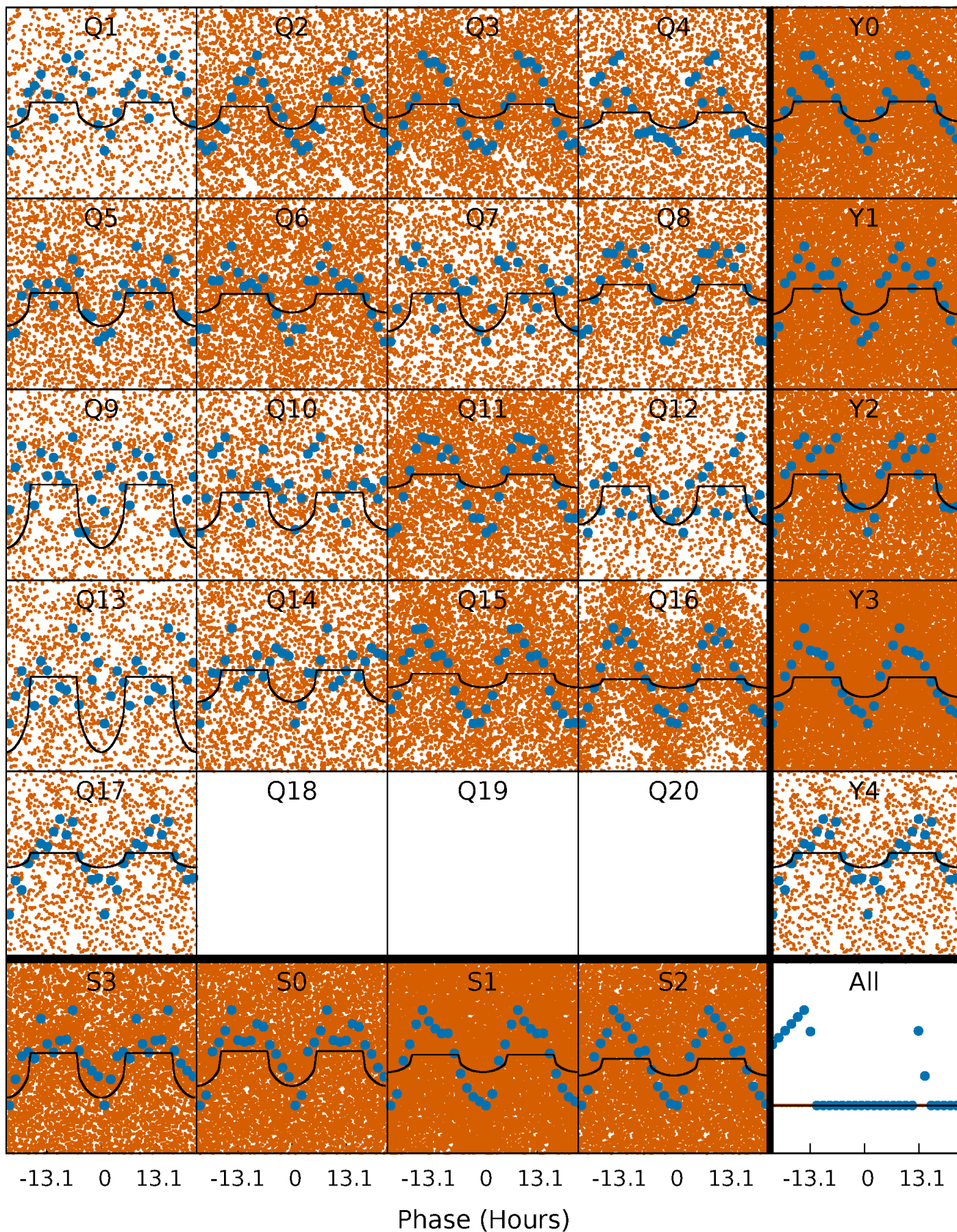
PDC Quarter-Phased Transit Curves

TCE 008043299-01 P= 0.957408 Days $T_0=132.259177$ (BKJD)



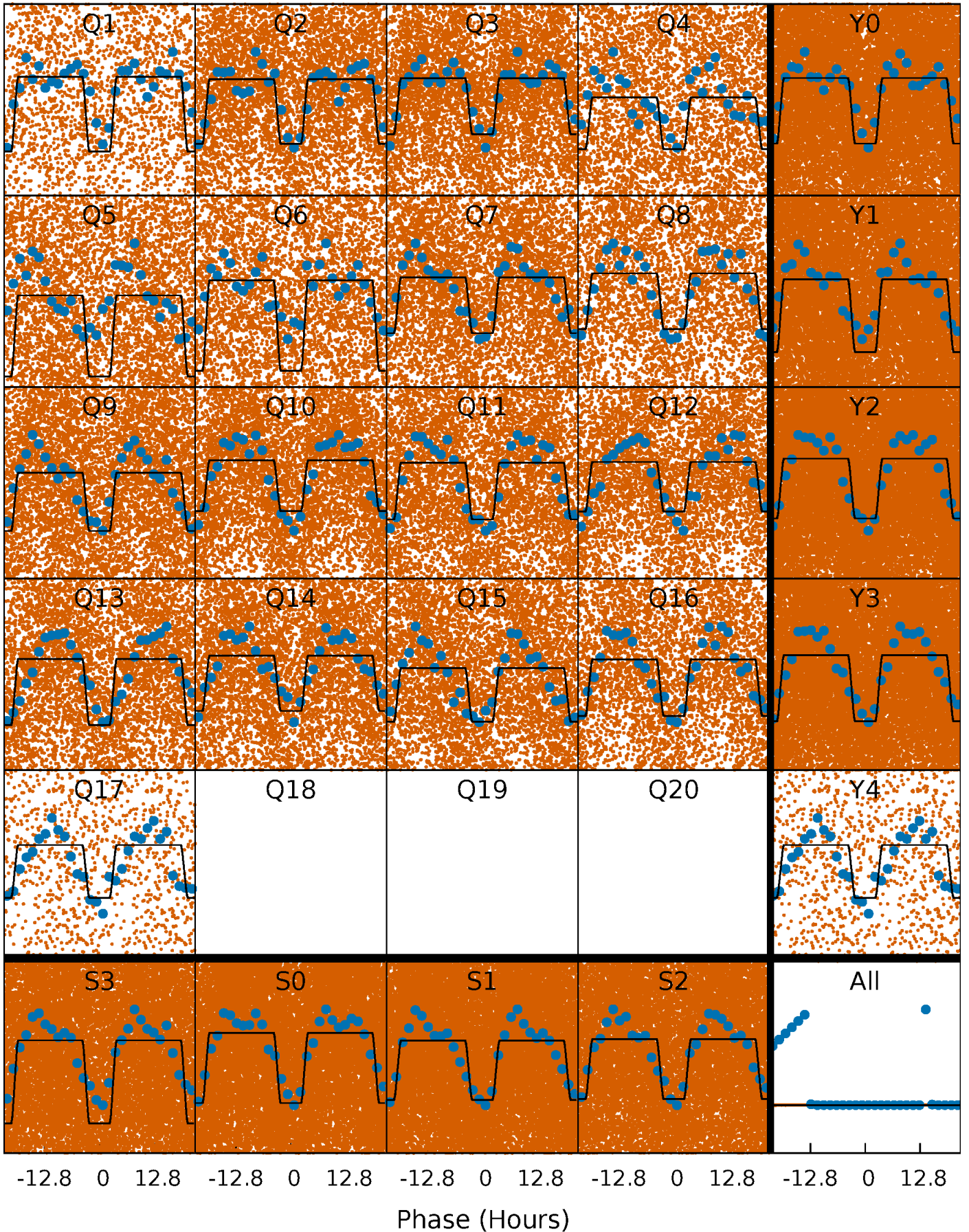
DV Quarter-Phased Transit Curves

TCE 008043299-01 P= 0.957408 Days $T_0=132.259177$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

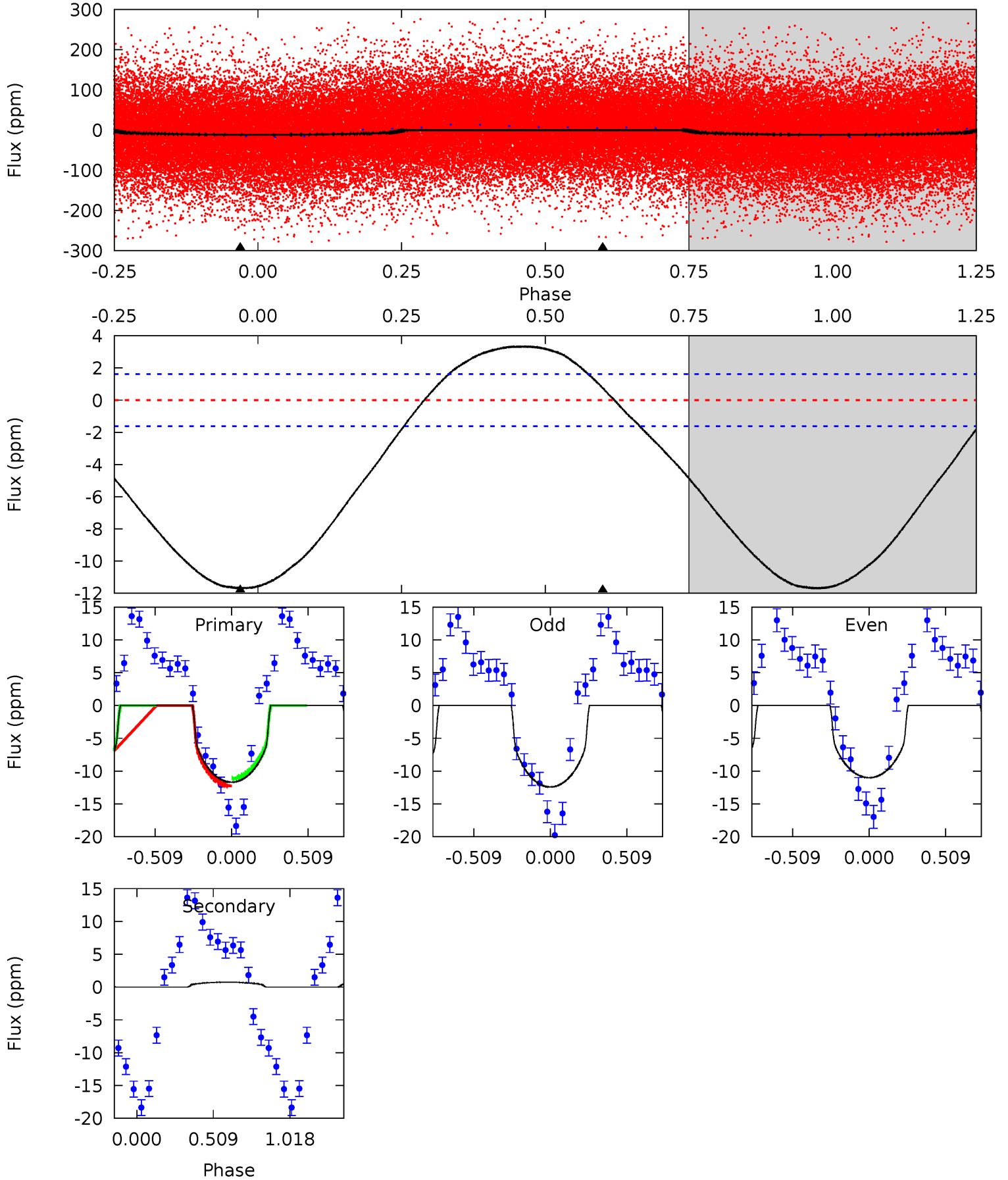
TCE 008043299-01 P= 0.957408 Days $T_0=132.270940$ (BKJD)



DV Model-Shift Uniqueness Test

008043299-01, P = 0.957408 Days, E = 131.301769 Days

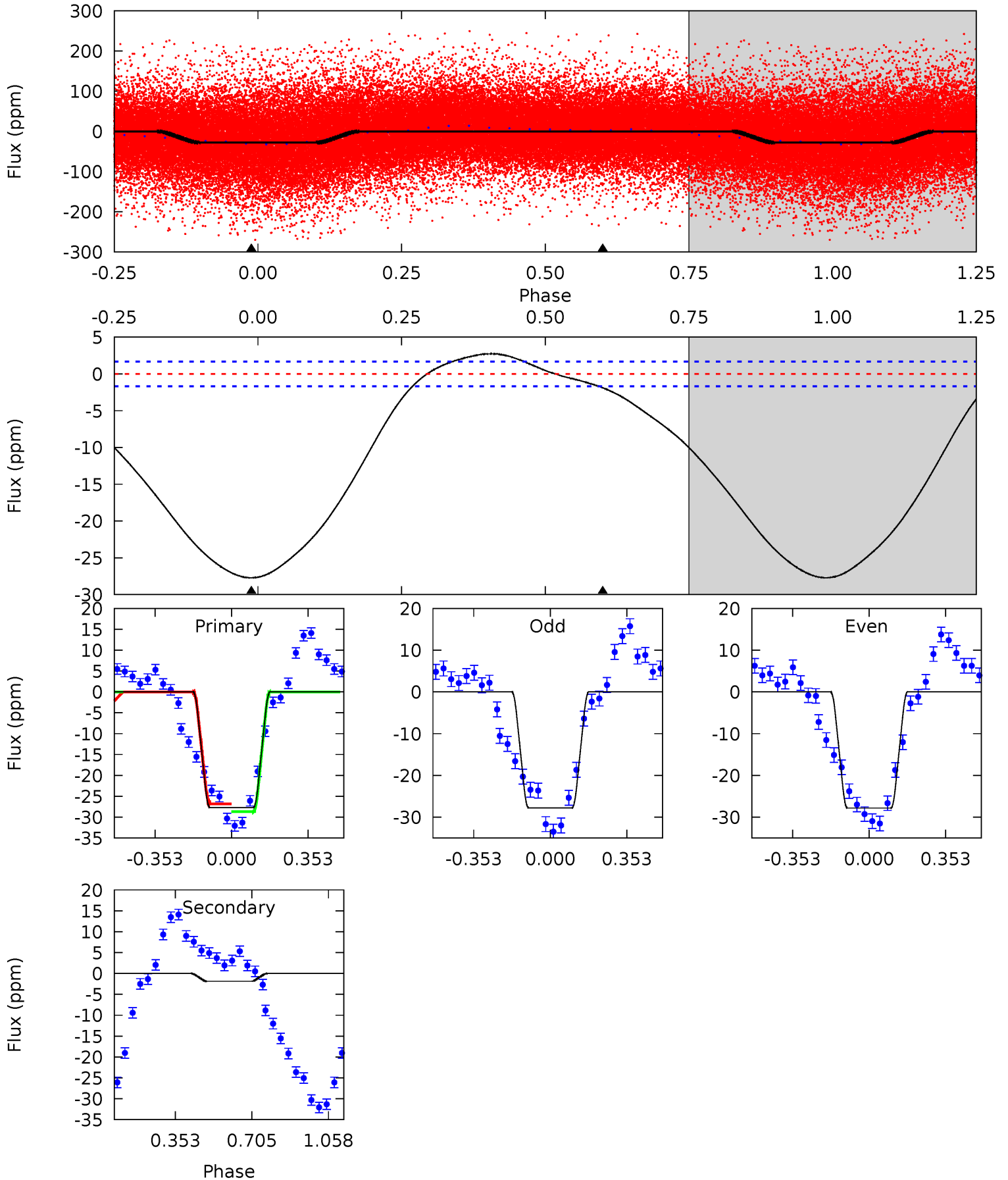
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
30.4	-1.93	0	0	4.21	0.66	3.20	30.4	30.4	-1.93	-1.93	1.84	1.39	0.22	1.51



Alt Model-Shift Uniqueness Test

008043299-01, P = 0.957408 Days, E = 131.313532 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
71.1	4.84	0	0	4.29	0.93	4.29	71.1	71.1	4.84	4.84	0.08	1.05	0.09	2.21



Stellar Parameters For KIC 008043299

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	ρ_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7854^{+217}_{-326}	$3.686^{+0.451}_{-0.106}$	$-0.060^{+0.200}_{-0.350}$	$3.412^{+0.694}_{-1.619}$	$2.060^{+0.329}_{-0.535}$	$0.073^{+0.297}_{-0.024}$
	+3%/-4%	+12%/-3%	+333%/-583%	+20%/-47%	+16%/-26%	+406%/-33%
Source	KIC0	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 008043299-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	1 ± 0	$0.90^{+0.40}_{-0.34}$	5537^{+451}_{-656}	-5265^{+511}_{-678}	$-0.280^{+0.184}_{-0.475}$
Alt.	-2 ± 0	$1.95^{+0.46}_{-0.51}$	5526^{+471}_{-606}	-4004^{+1394}_{-448}	$0.157^{+0.128}_{-0.057}$

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

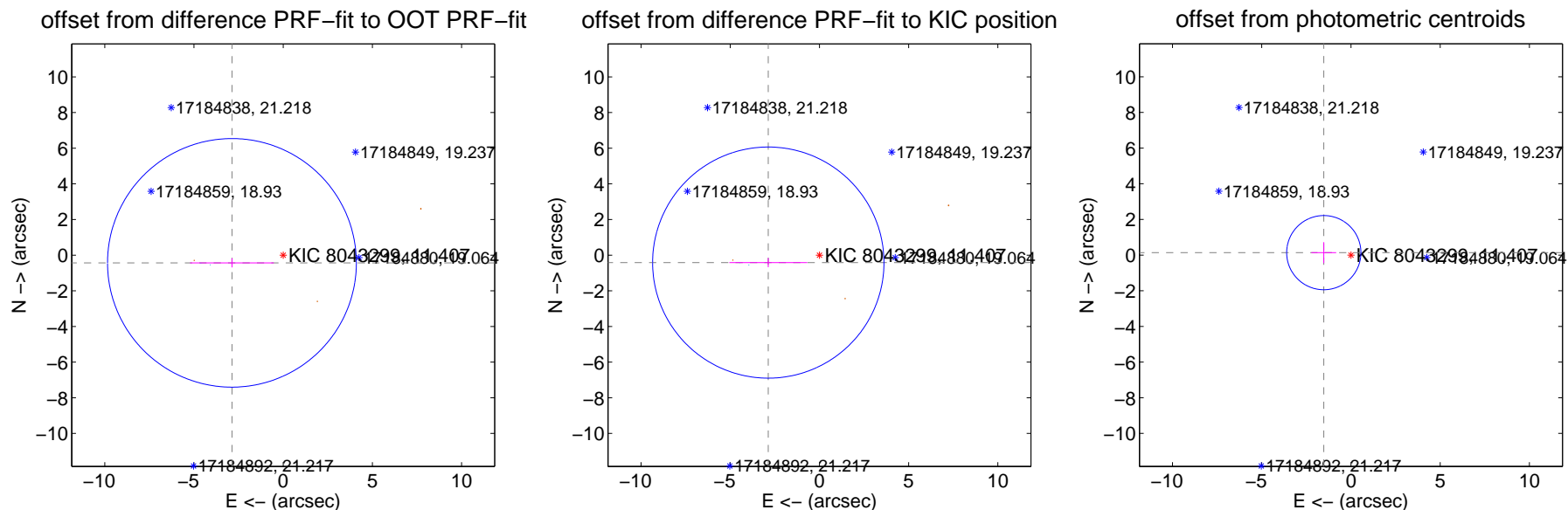
DV Centroid Data

Supplemental centroid analysis for 008043299-01. **Kepler magnitude: 11.41.** Transit SNR 7.19

There are 2 quarters with good PRF difference image offsets

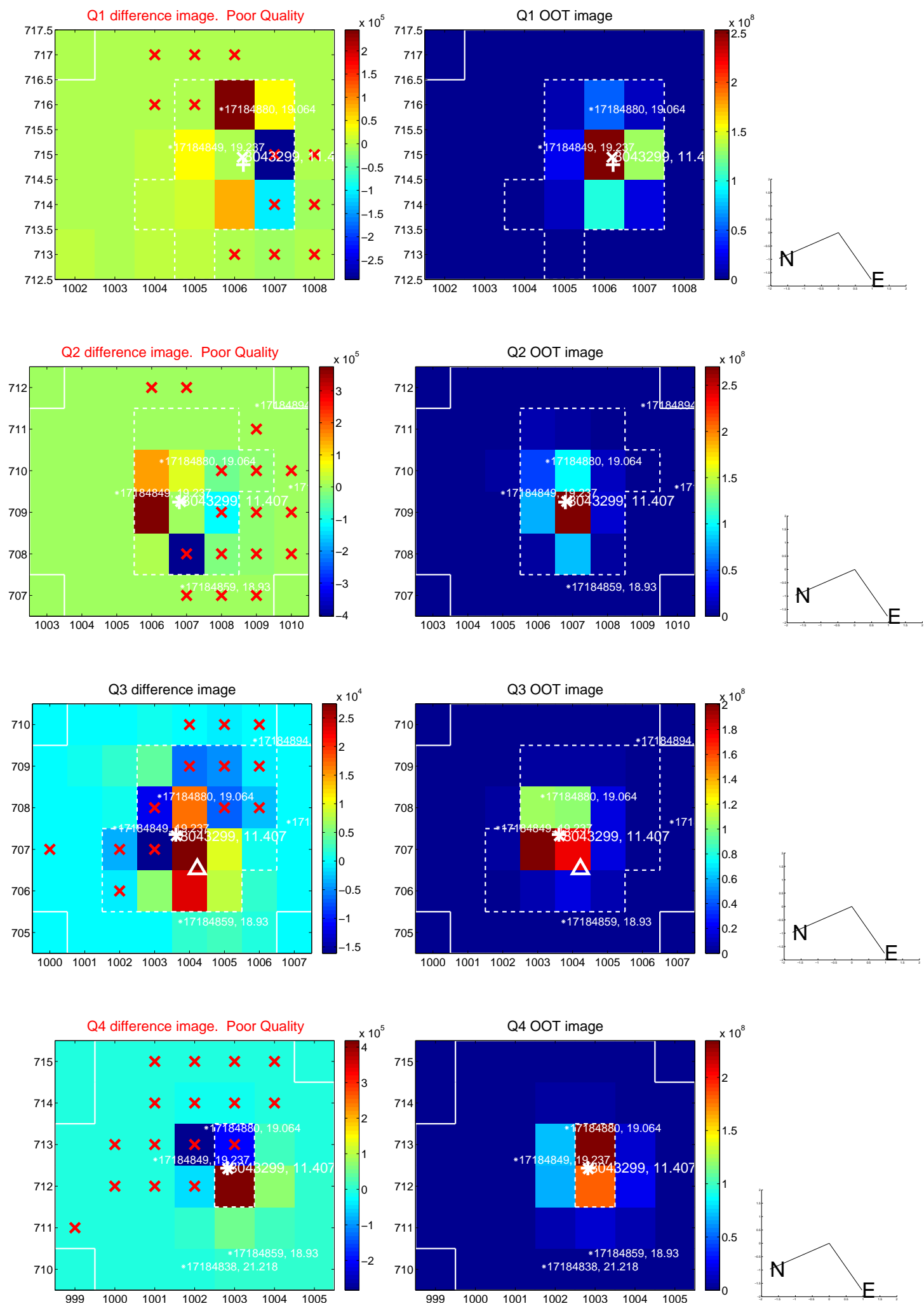
The direct PRF centroid is offset from the target star catalog position by about 0.51 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.904 ± 2.324	1.25	2.872 ± 2.350	-0.432 ± 0.255
PRF-fit source offset from KIC position	2.897 ± 2.161	1.34	2.867 ± 2.183	-0.417 ± 0.257
photometric centroid source offset	1.53 ± 0.69	2.20	1.52 ± 0.69	0.14 ± 0.59

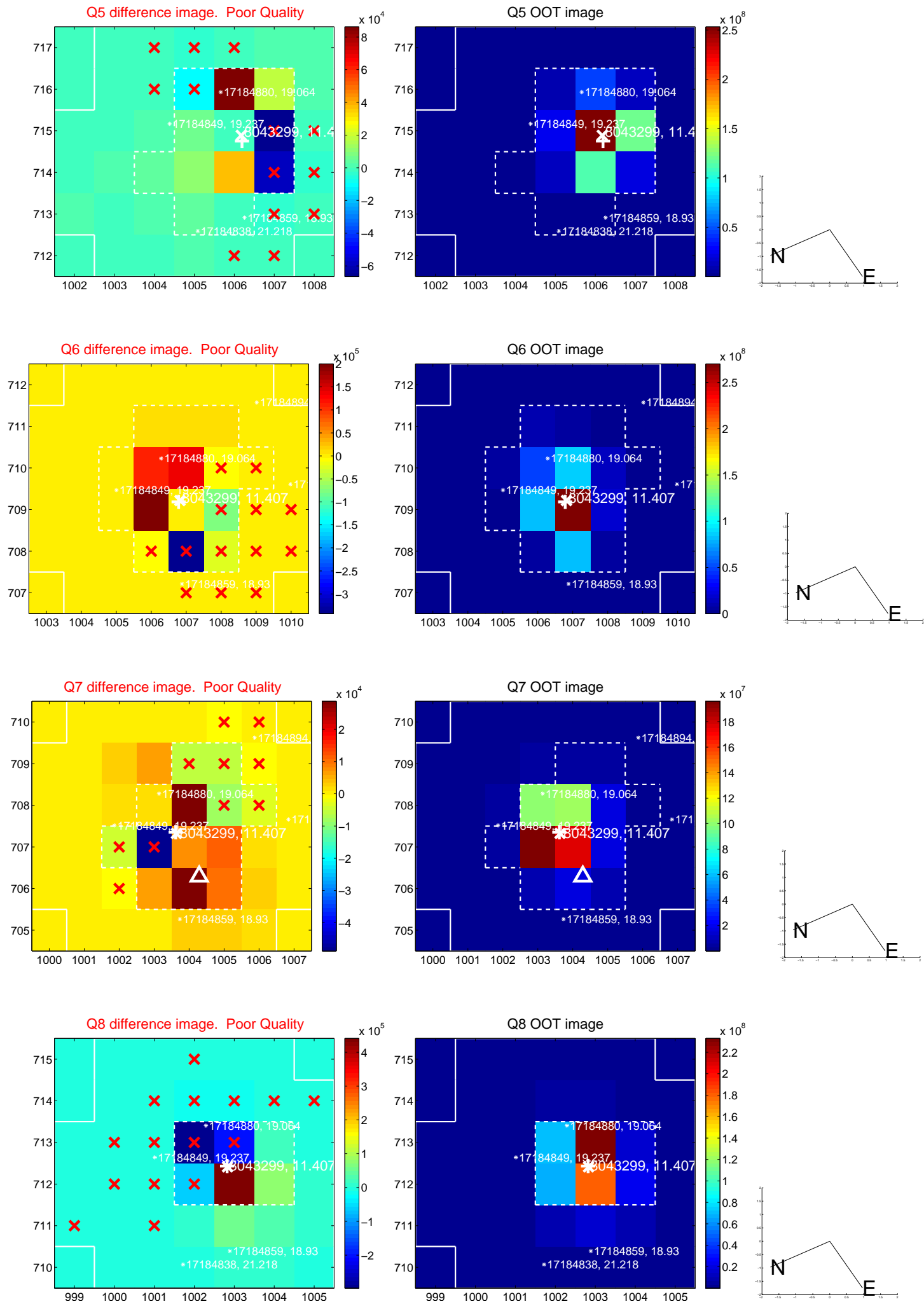


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

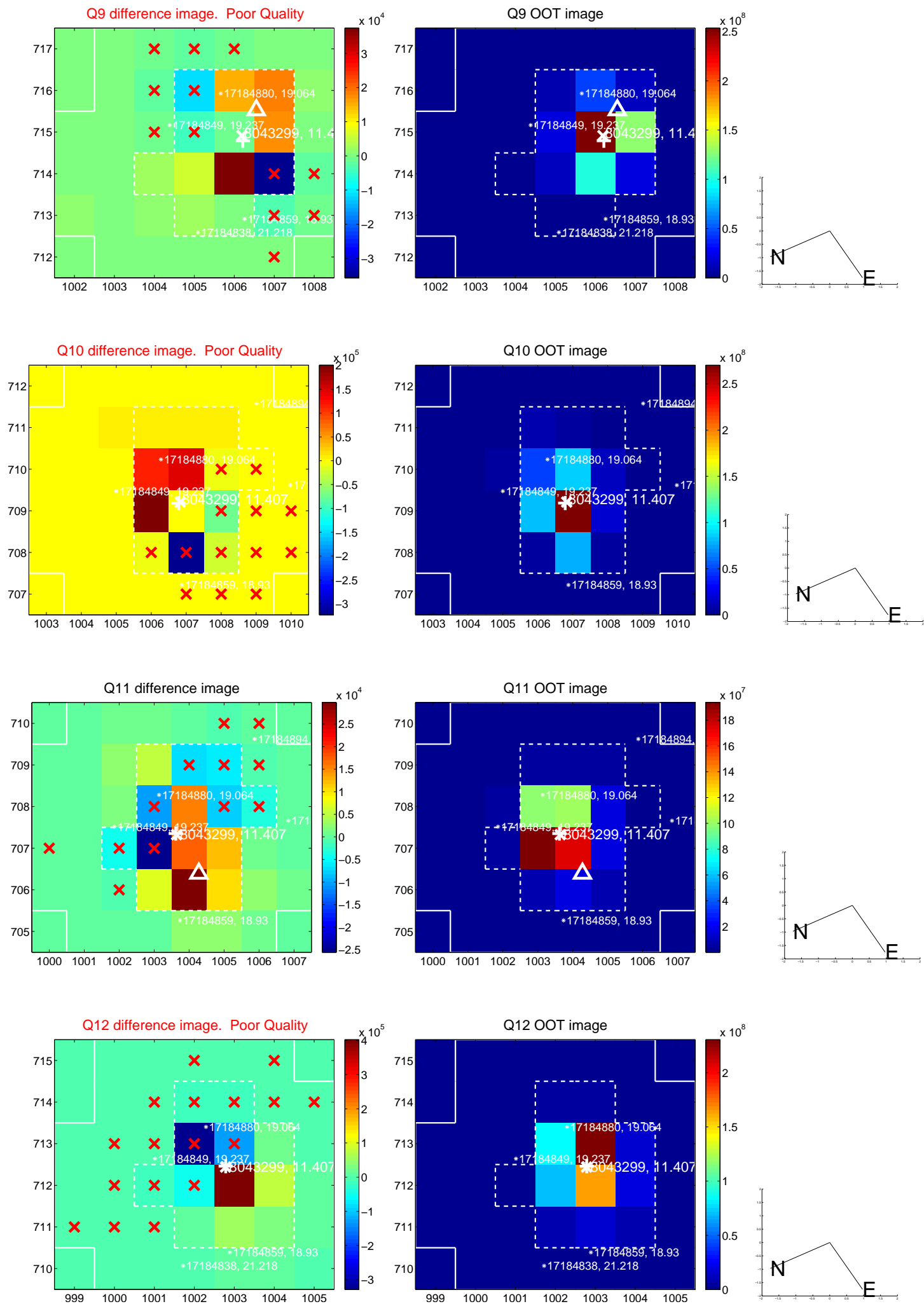
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



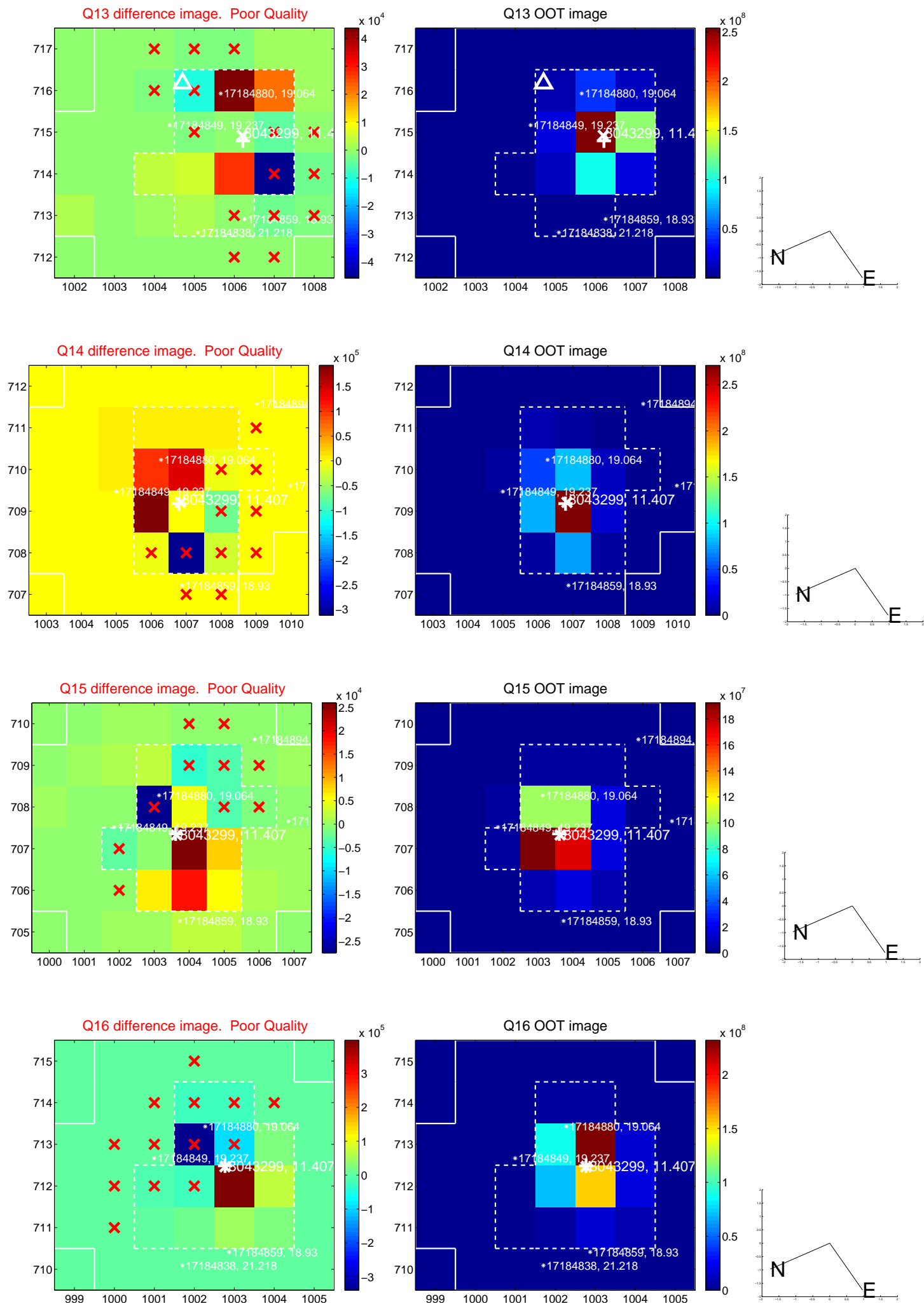
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



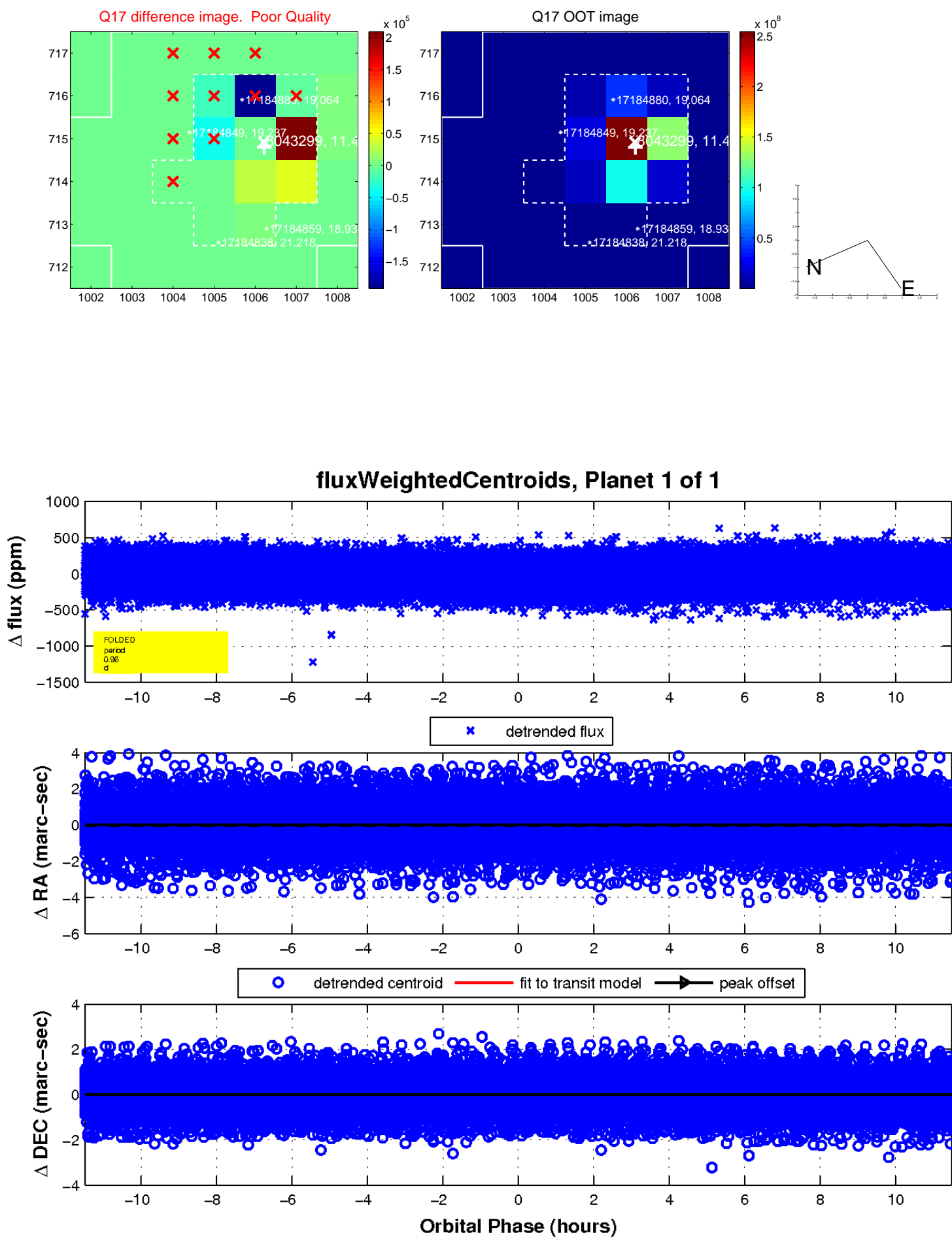
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

