

KIC 008330286

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})
008330286-01	OBS	No	2.425696	131.949682	11.4	20.193	7.1	7.7	1.84	7938	0.63	6624.16

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008330286-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_FEW_DIFFS

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

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

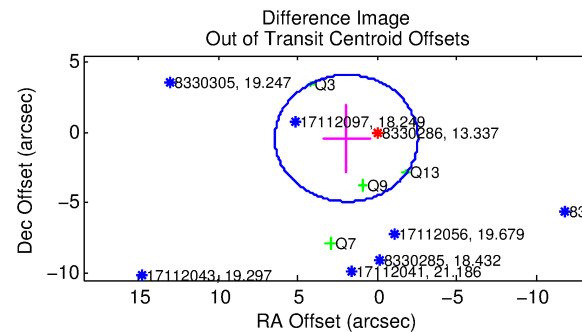
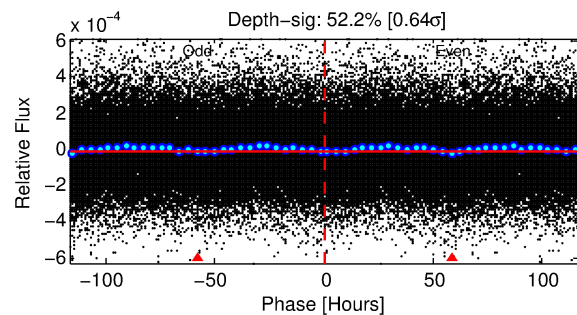
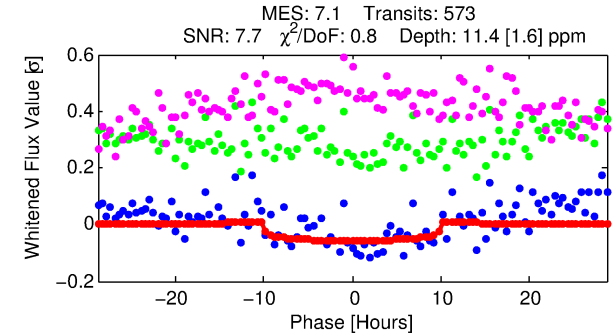
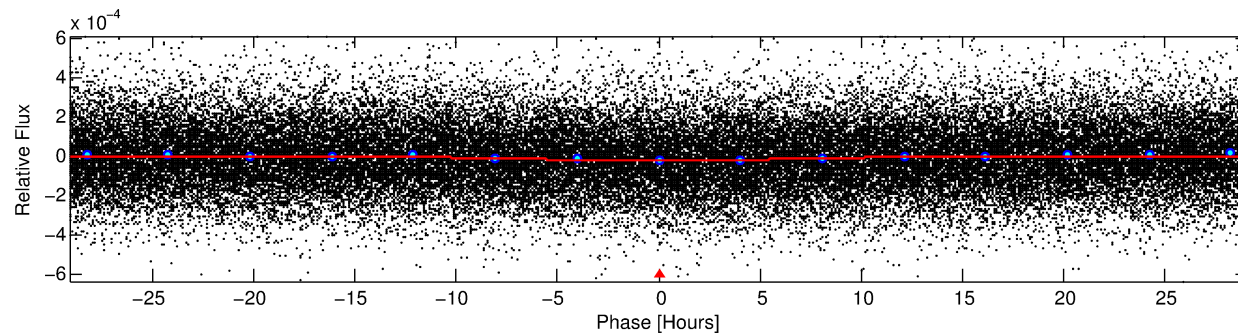
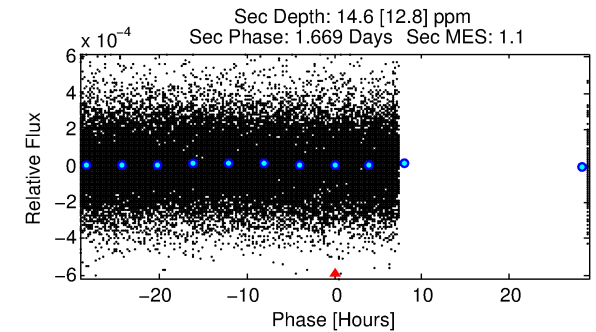
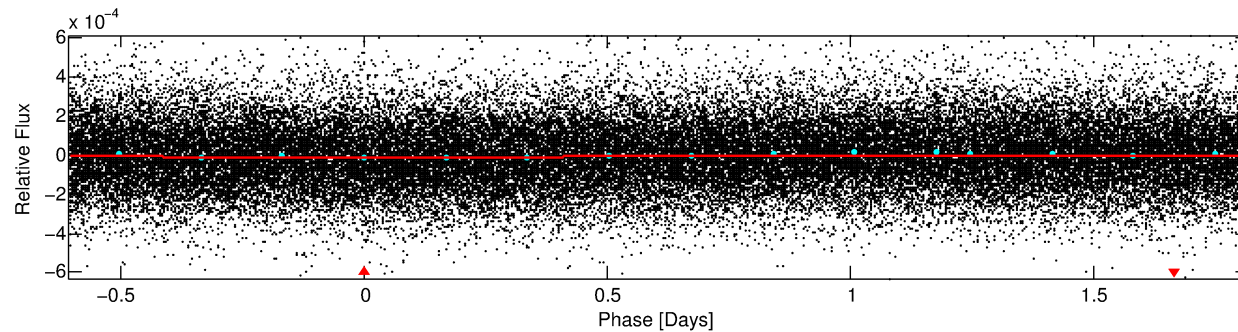
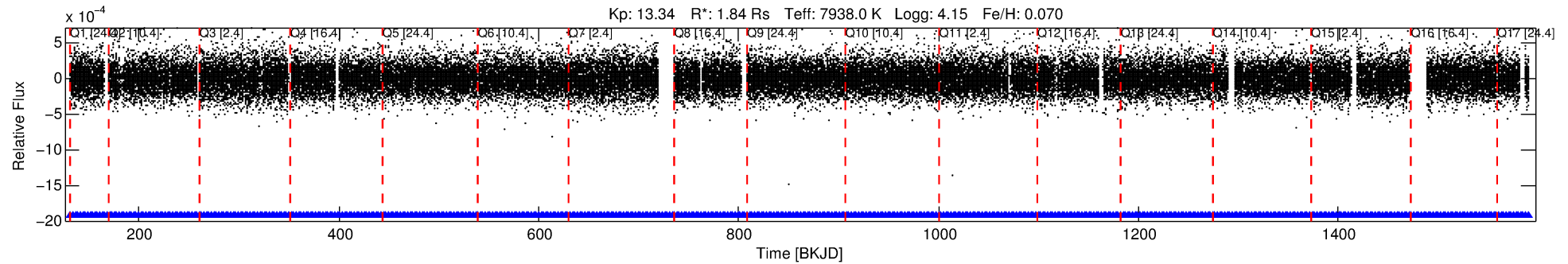
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008330286-01

No Significant Match Found

DV One-Page Summary

KIC: 8330286 Candidate: 1 of 1 Period: 2.426 d



DV Fit Results:

Period = 2.42570 [0.00008] d
Epoch = 131.9497 [0.0184] BKJD
Rp/R* = 0.0031 [0.0046]
a/R* = 1.13 [2.18]
b = 0.01 [1370.04]
Seff = 6624.16 [2462.85]
Teq = 2300 [214] K
Rp = 0.63 [0.94] Re
a = 0.0427 [0.0096] AU
Ag = 36.74 [112.75] [0.32σ]
Teffp = 8757 [6689] K [0.96σ]

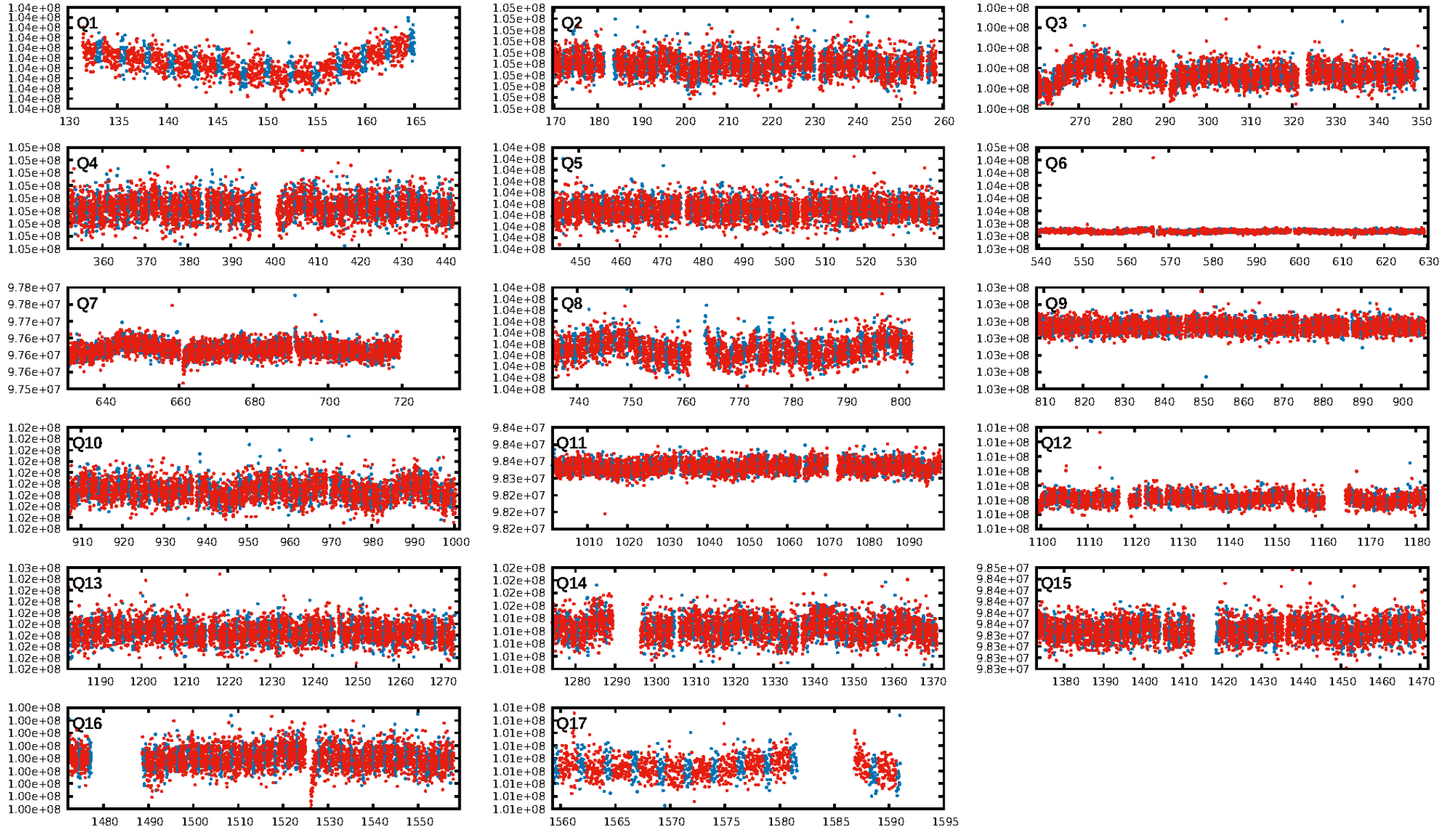
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [548/548]
GhostDiagnostic-chr: 0.9766
Centroid-sig: 1.7%
Centroid-so: 3.184 arcsec [1.74σ]
OotOffset-rm: 1.988 arcsec [1.32σ]
KicOffset-rm: 1.963 arcsec [1.31σ]
OotOffset-st: 0/2/0/2 [4]
KicOffset-st: 0/2/0/2 [4]
DiffImageQuality-fgm: 0.00 [0/4]
DiffImageOverlap-fno: 1.00 [17/17]

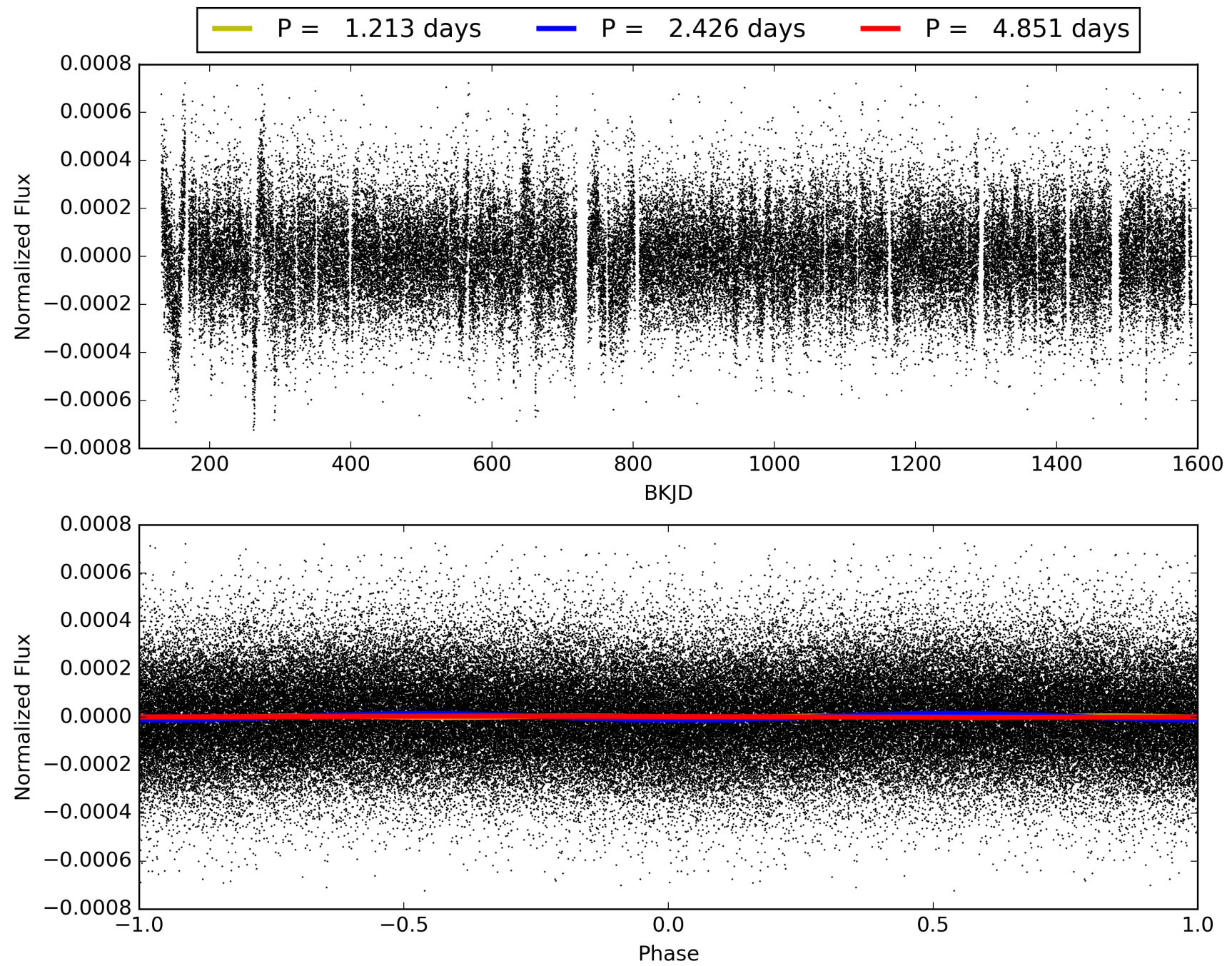
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 21:09:29 Z

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

TCE 008330286-01, PDC Light Curves

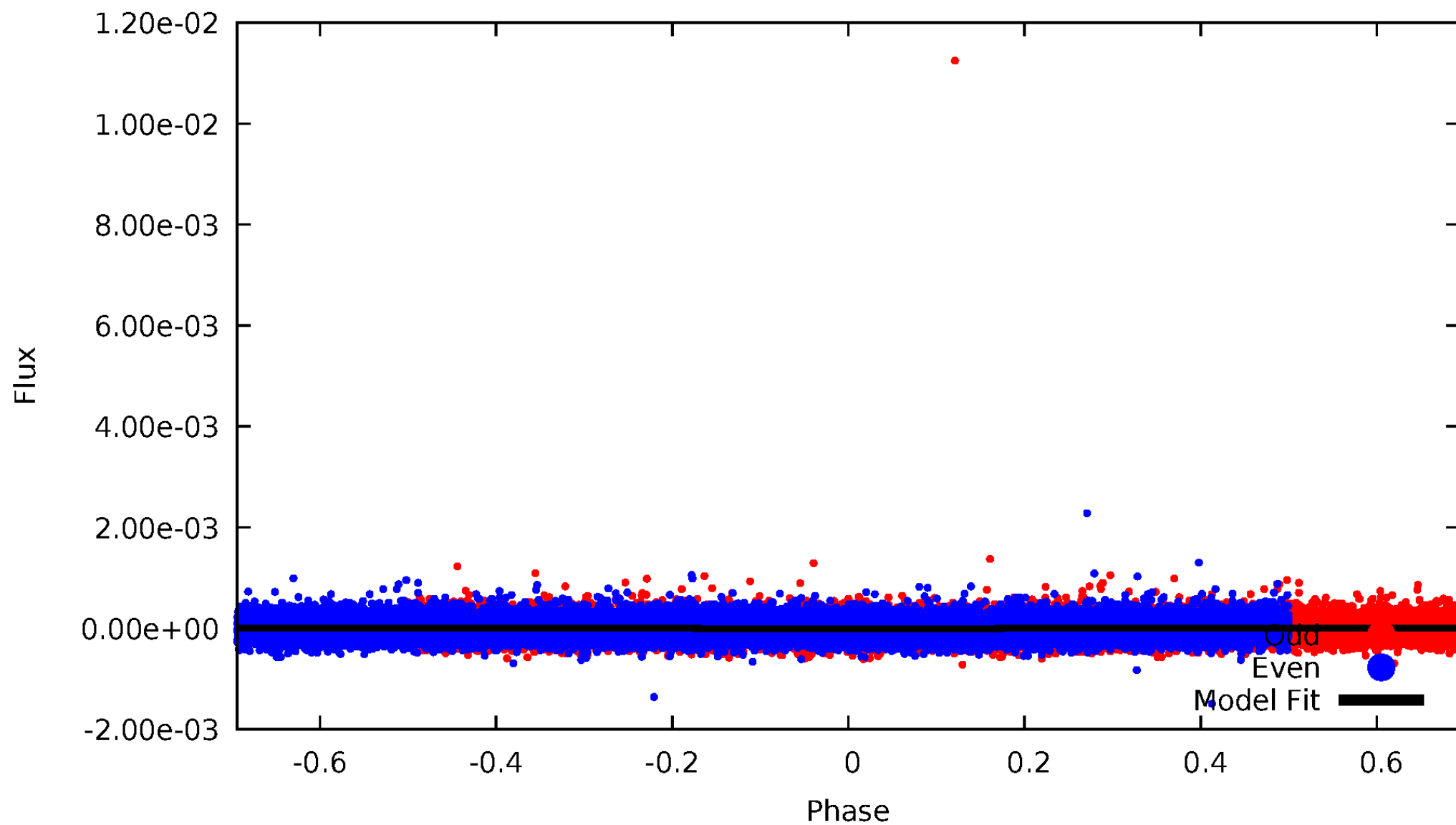


TCE 008330286-01



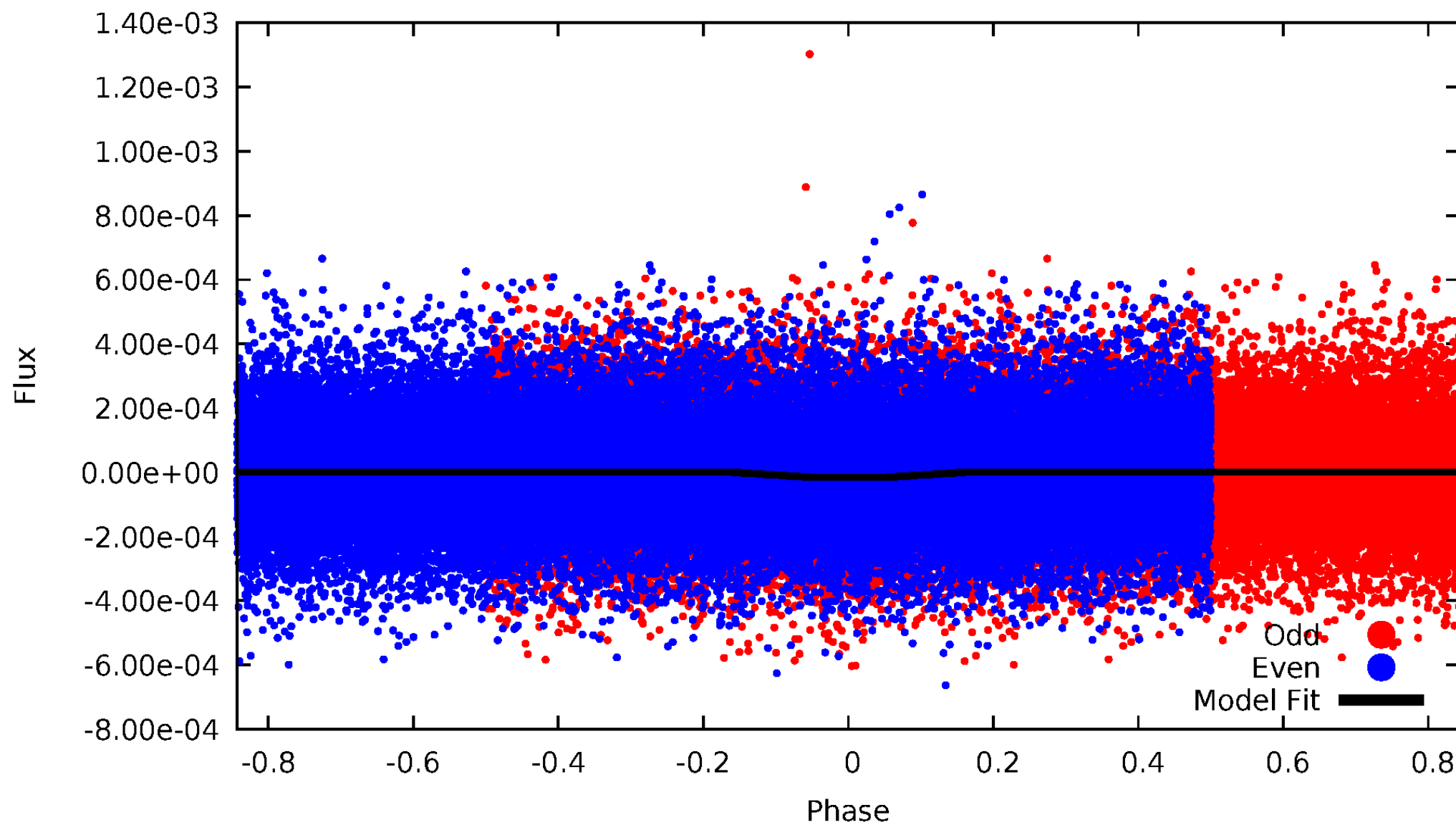
DV Odd/Even

TCE 008330286-01



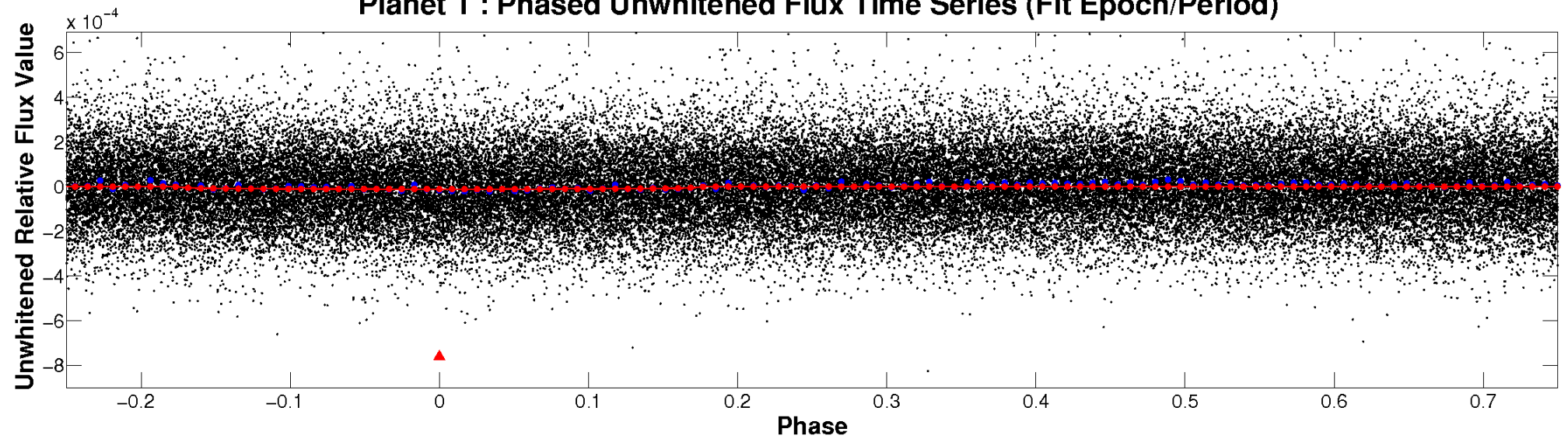
ALT Odd/Even

TCE 008330286-01

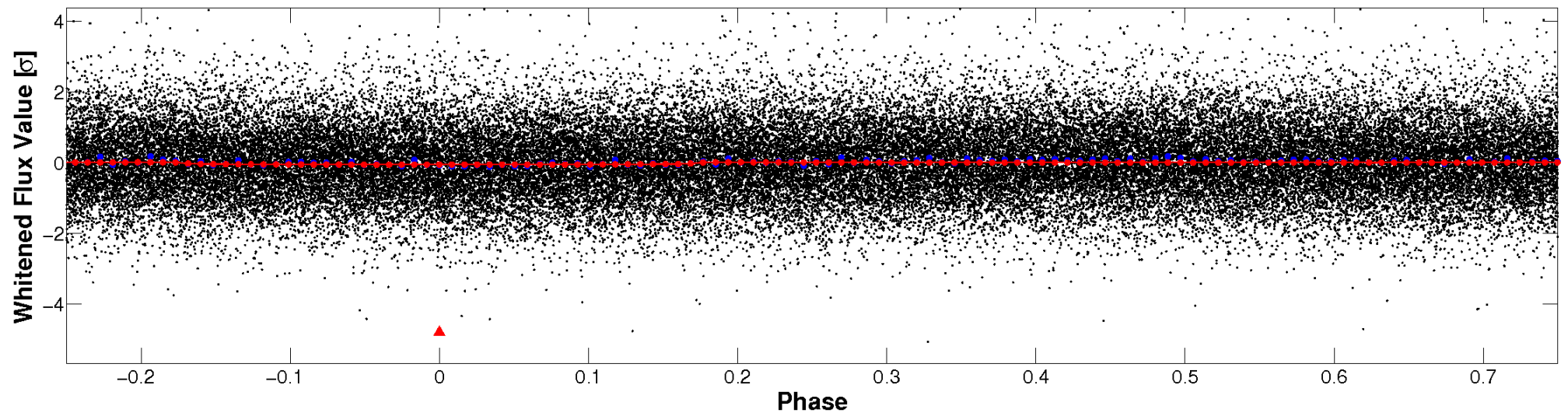


Non-Whitened Vs. Whitened Light Curve

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

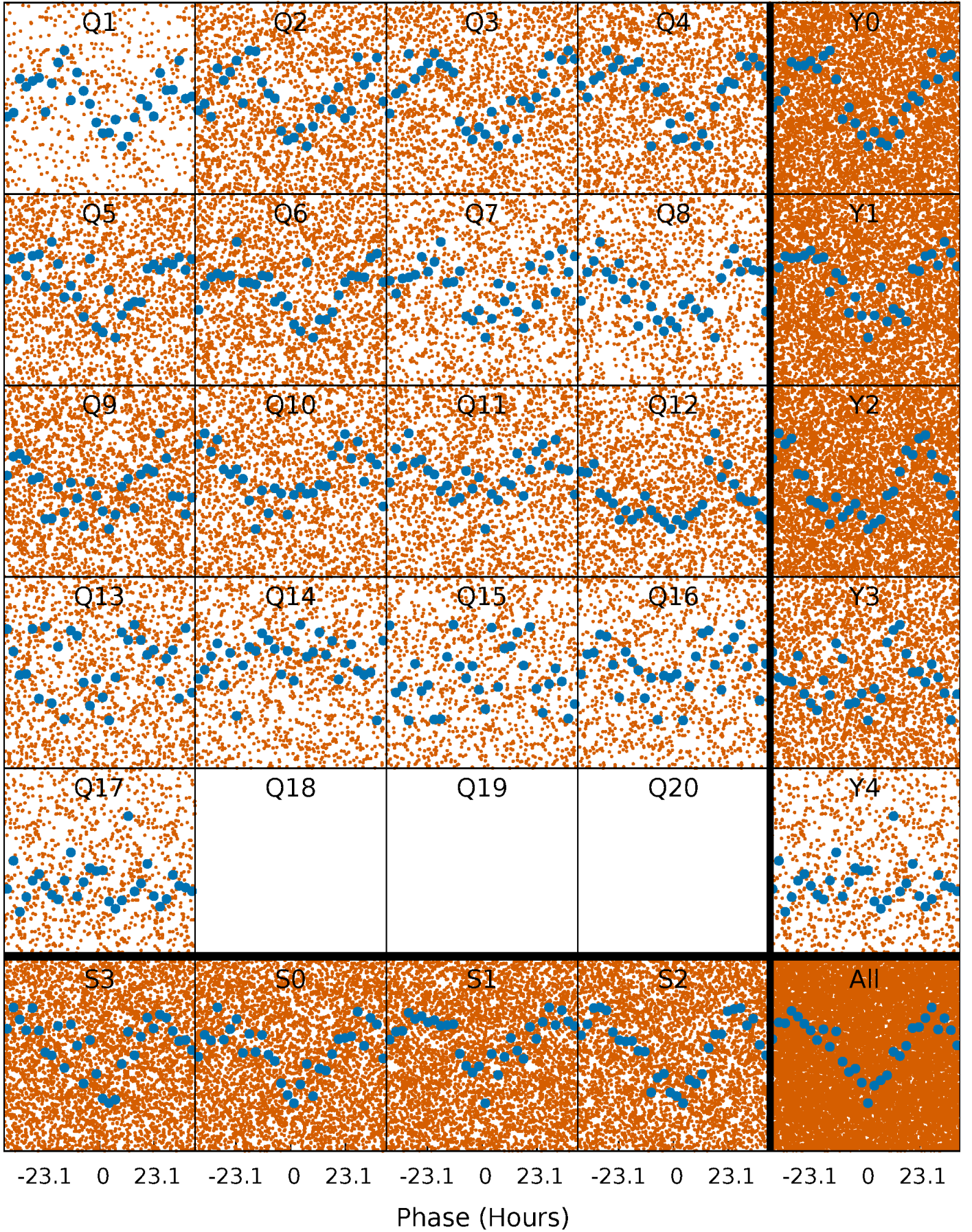


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



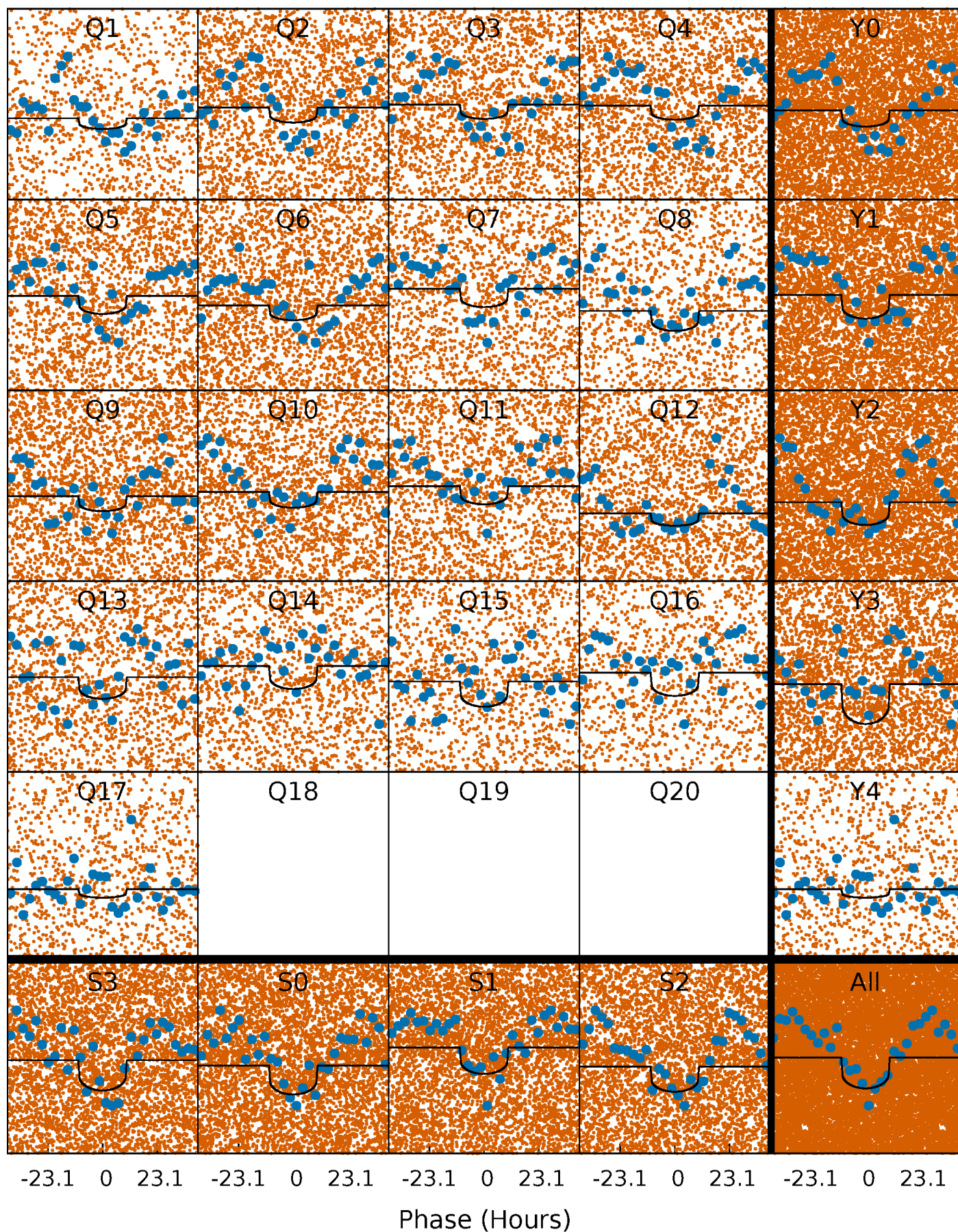
PDC Quarter-Phased Transit Curves

TCE 008330286-01 P= 2.425696 Days $T_0=131.949682$ (BKJD)



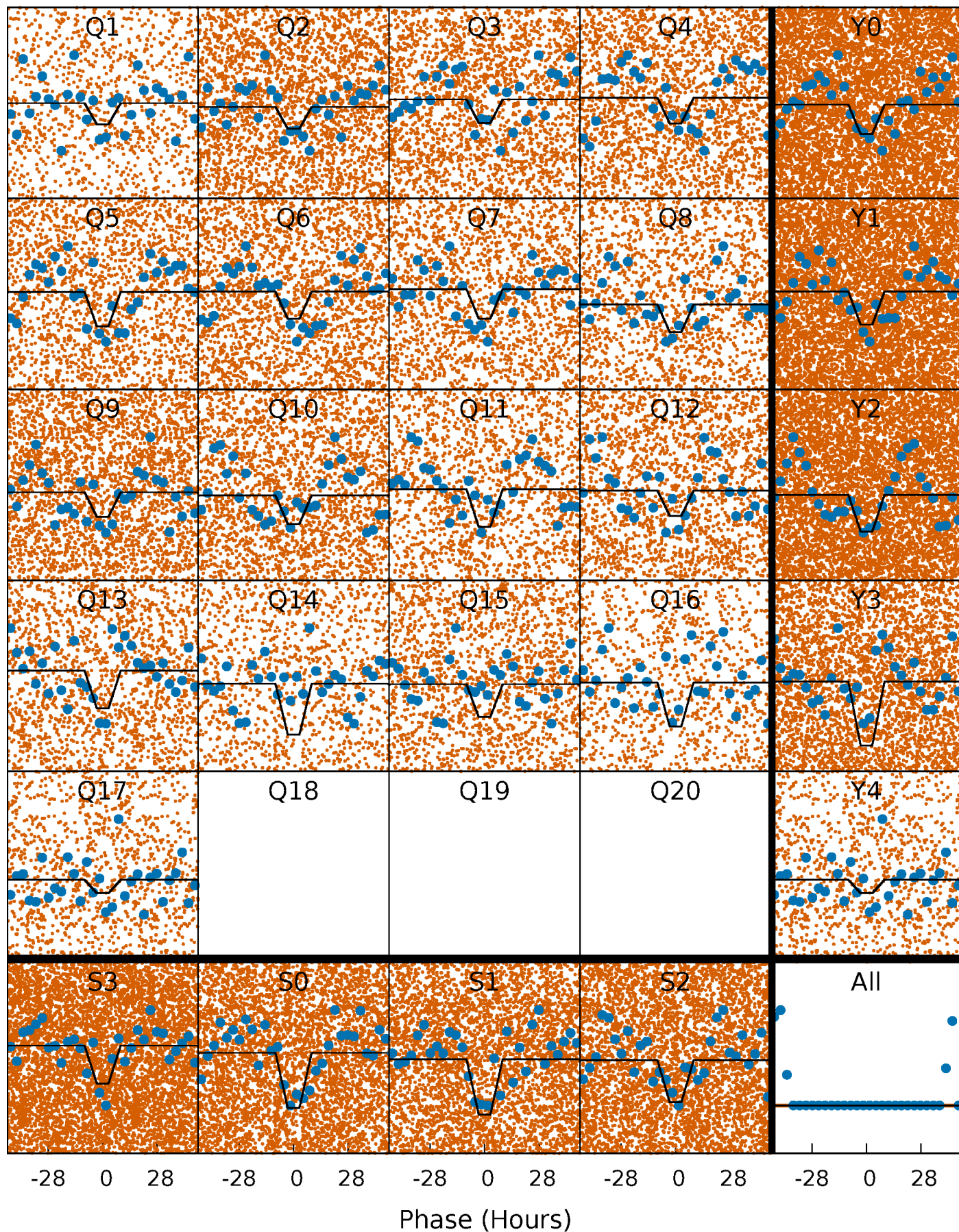
DV Quarter-Phased Transit Curves

TCE 008330286-01 P= 2.425696 Days $T_0=131.949682$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

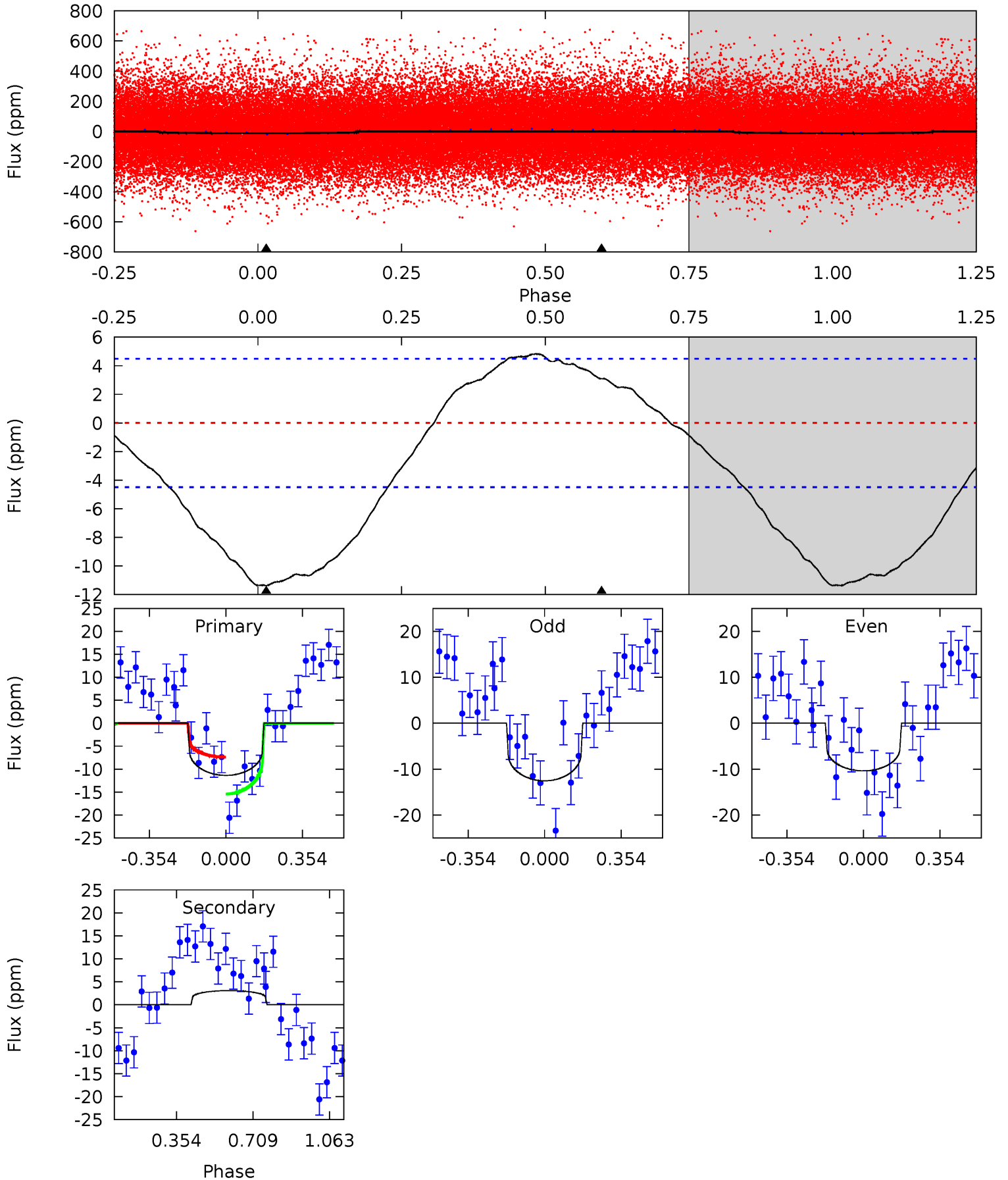
TCE 008330286-01 P= 2.426110 Days $T_0=131.893468$ (BKJD)



DV Model-Shift Uniqueness Test

008330286-01, P = 2.425696 Days, E = 129.523986 Days

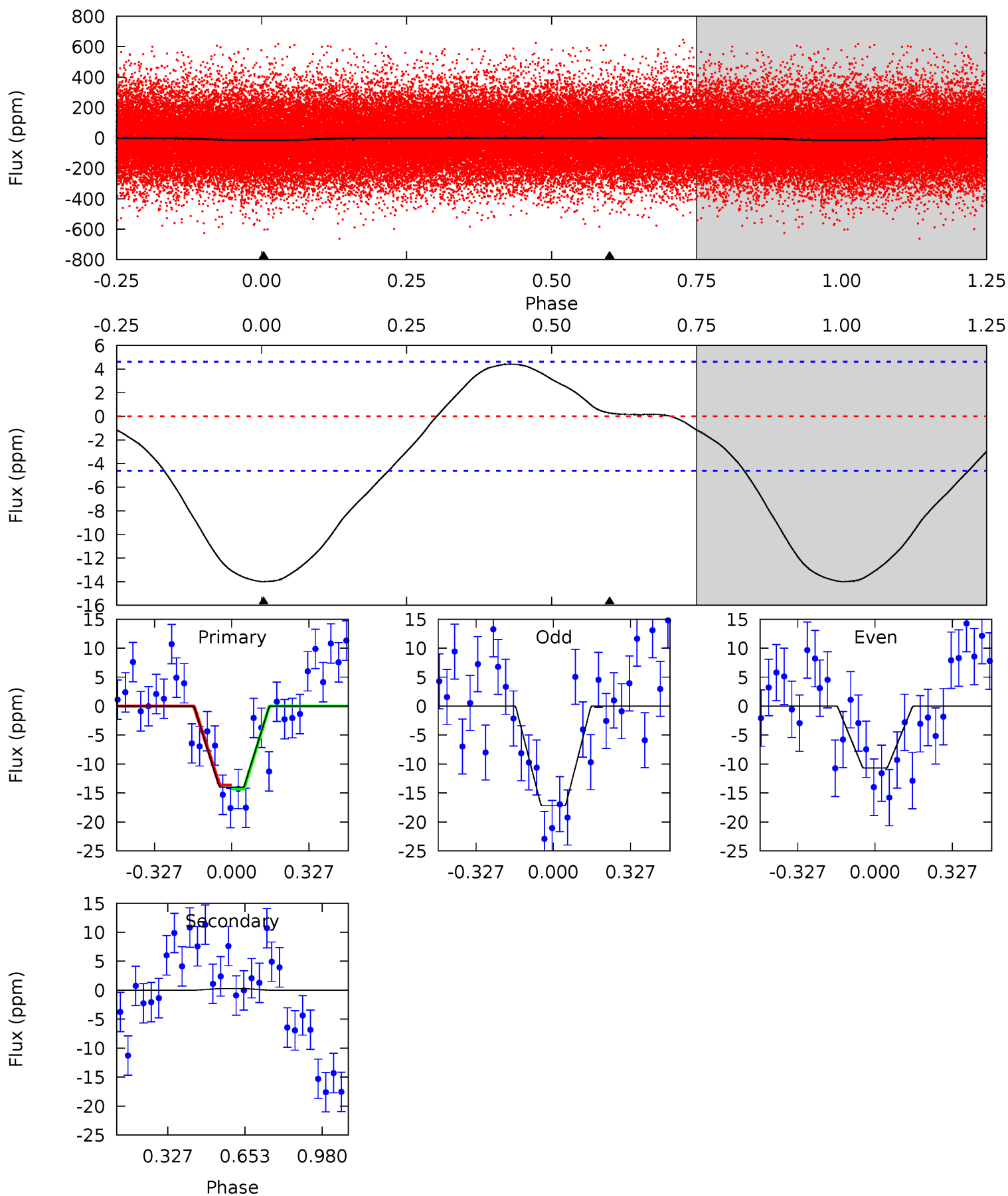
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.9	-2.95	0	0	4.29	0.93	1.59	10.9	10.9	-2.95	-2.95	1.04	0.79	0.30	3.79



Alt Model-Shift Uniqueness Test

008330286-01, P = 2.426110 Days, E = 129.467358 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.1	-0.26	0	0	4.31	0.98	1.56	13.1	13.1	-0.26	-0.26	3.03	0.98	0.24	0.34



Stellar Parameters For KIC 008330286

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7938^{+216}_{-339}	$4.154^{+0.098}_{-0.182}$	$0.070^{+0.250}_{-0.400}$	$1.844^{+0.487}_{-0.325}$	$1.767^{+0.183}_{-0.275}$	$0.397^{+0.200}_{-0.180}$
	+3%/-4%	+2%/-4%	+357%/-571%	+26%/-18%	+10%/-16%	+50%/-45%
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 008330286-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	3 ± 1	$0.99^{+0.80}_{-0.68}$	3238^{+240}_{-192}	-4864^{+889}_{-3694}	$-2.991^{+2.117}_{-28.023}$
Alt.	0 ± 1	$1.09^{+0.87}_{-0.68}$	3233^{+221}_{-194}	-3391^{+6927}_{-1026}	$-0.137^{+1.005}_{-1.812}$

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

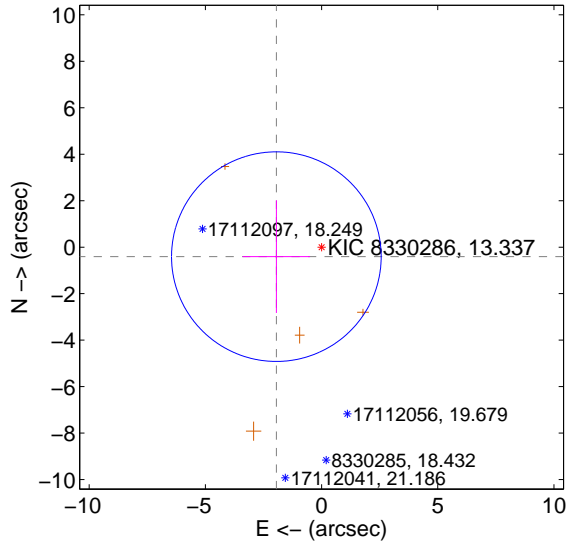
Supplemental centroid analysis for 008330286-01. Kepler magnitude: 13.34. Transit SNR 7.67

There are 0 quarters with good PRF difference image offsets

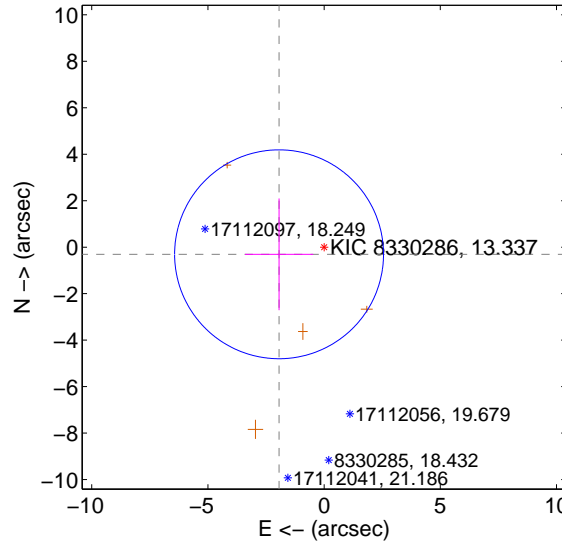
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.988 ± 1.504	1.32	1.946 ± 1.450	-0.407 ± 2.426
PRF-fit source offset from KIC position	1.963 ± 1.498	1.31	1.939 ± 1.469	-0.306 ± 2.404
photometric centroid source offset	3.18 ± 1.83	1.74	-3.02 ± 1.83	0.99 ± 1.87

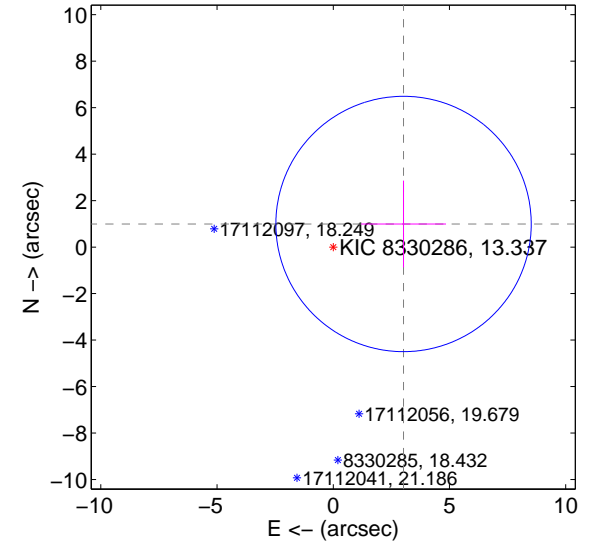
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

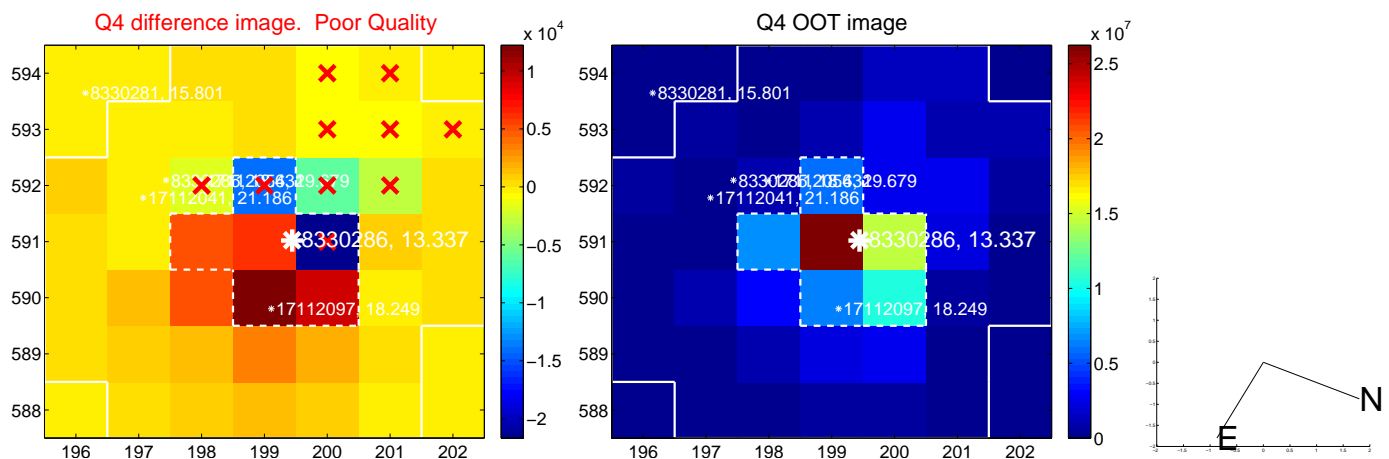
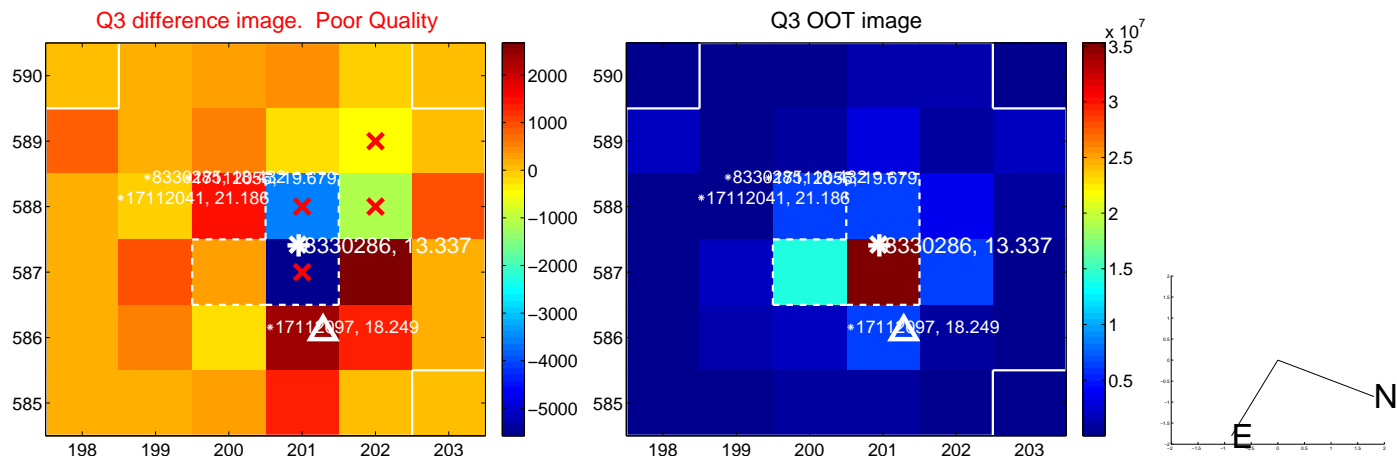
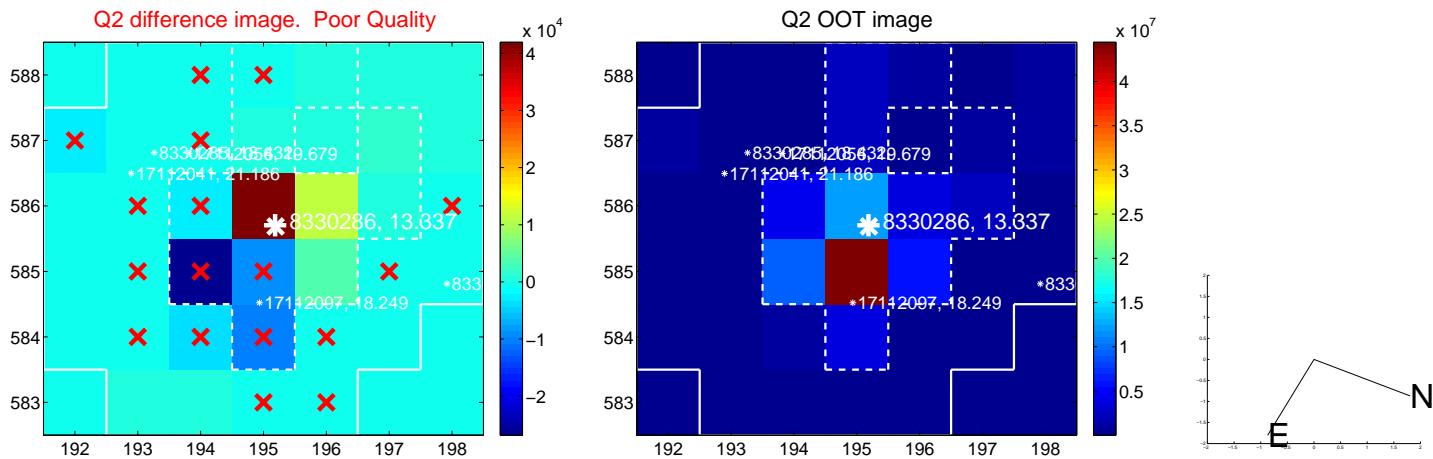
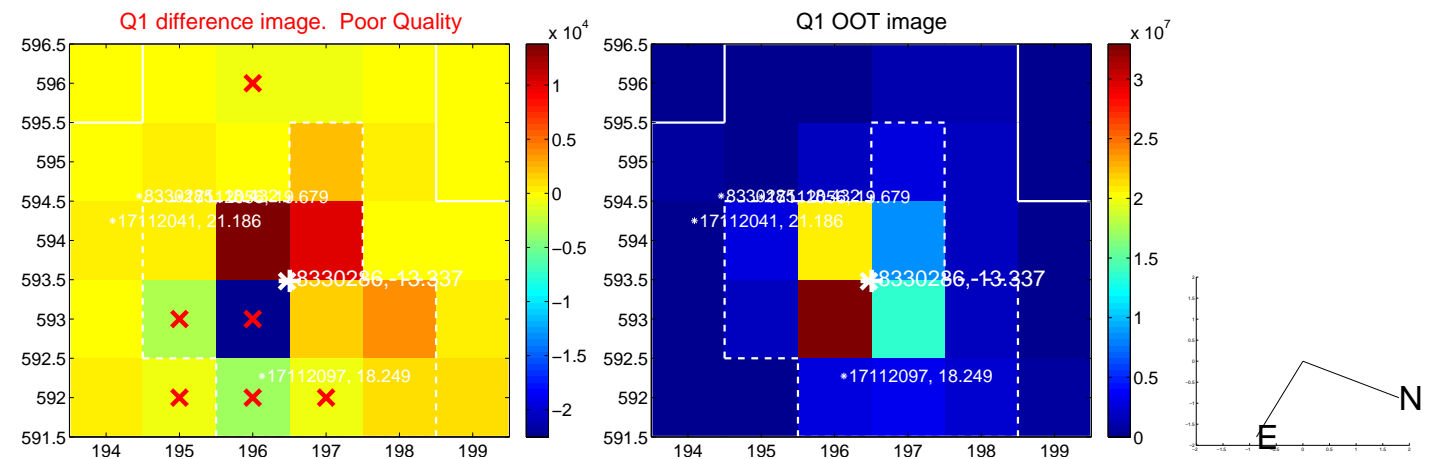


offset from photometric centroids

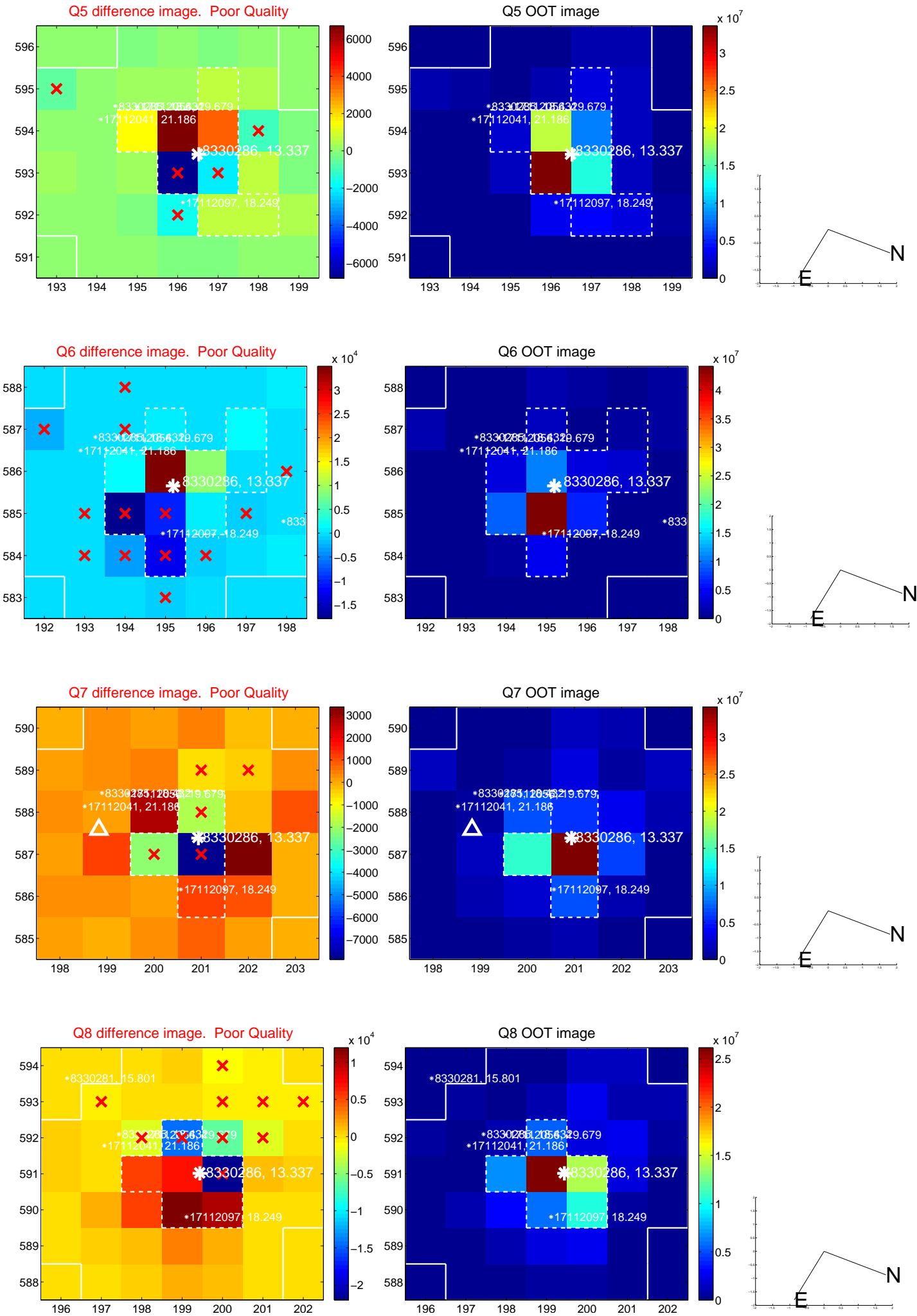


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

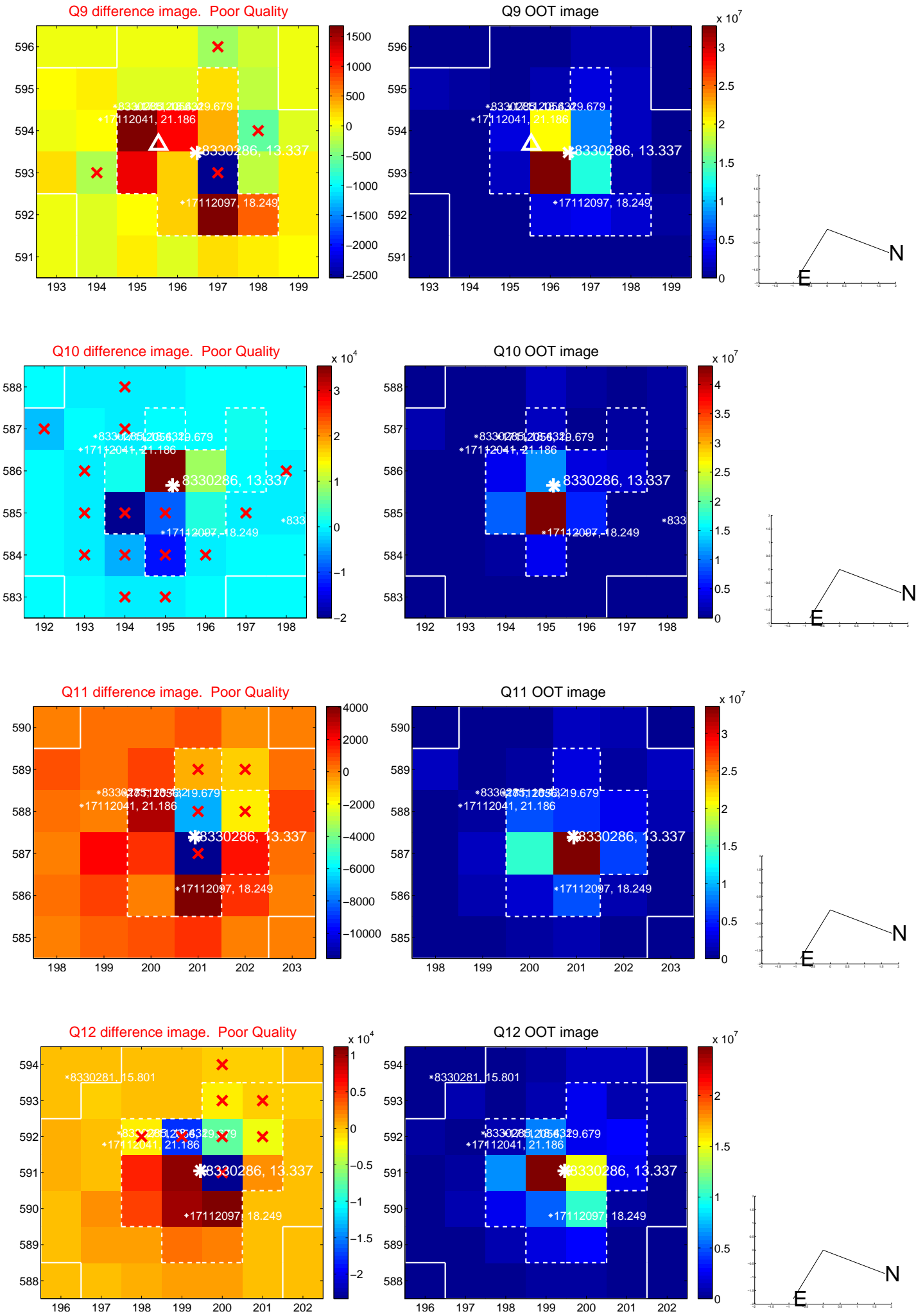
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



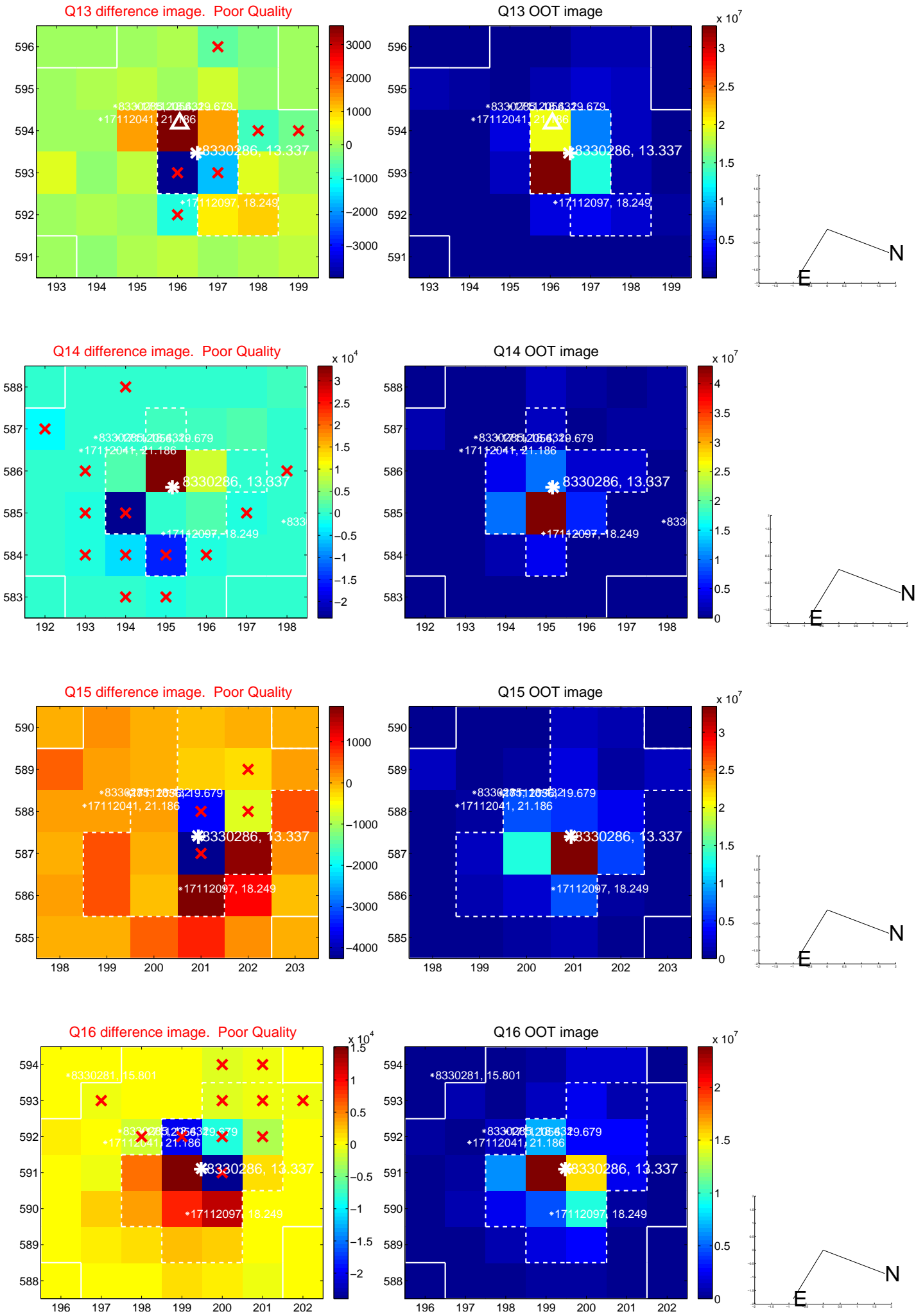
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



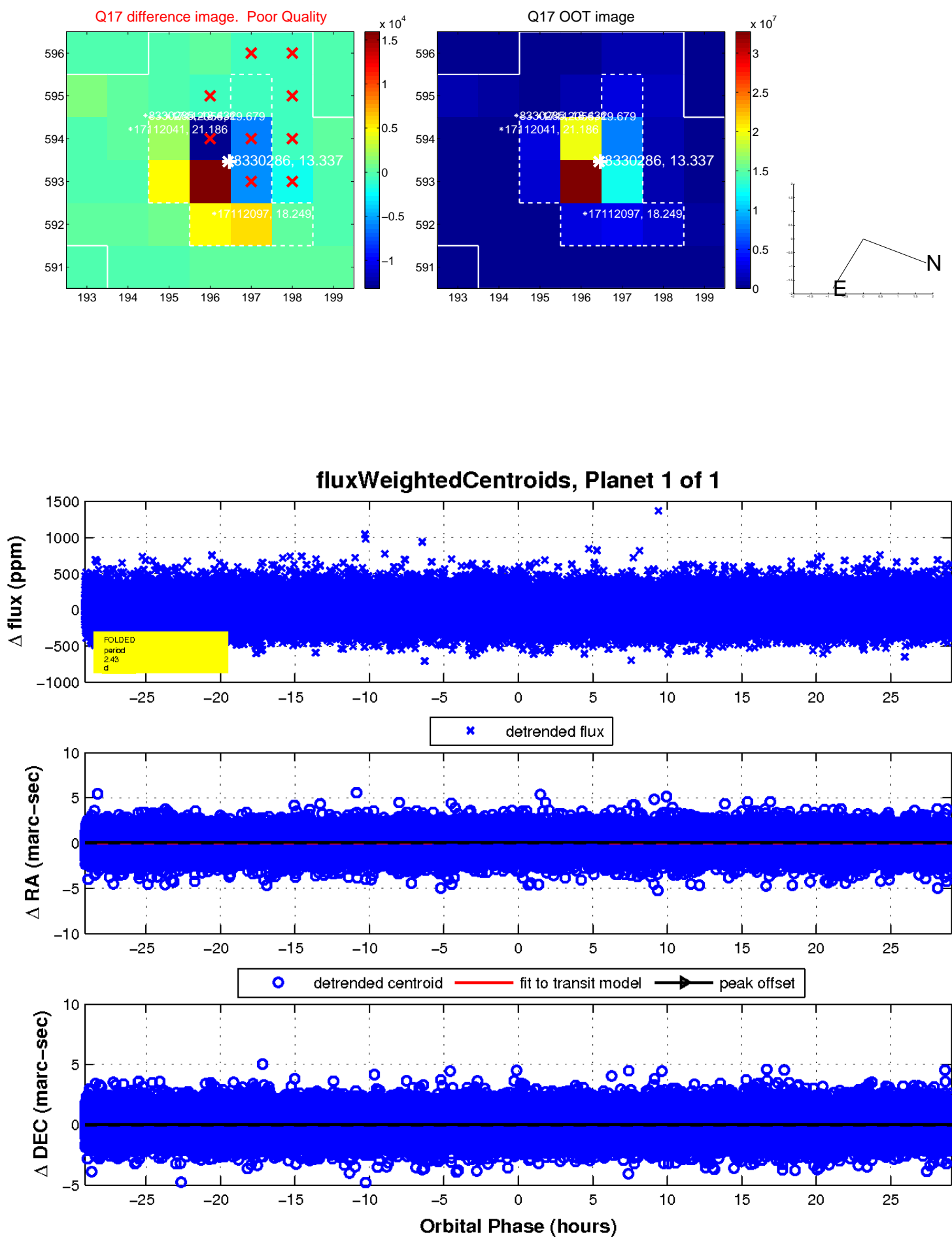
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

