

KIC 003426991

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})
003426991-01	OBS	No	0.552957	131.821161	81.8	6.636	10.5	13.7	2.77	7663	2.54	87517.89

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003426991-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT—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.

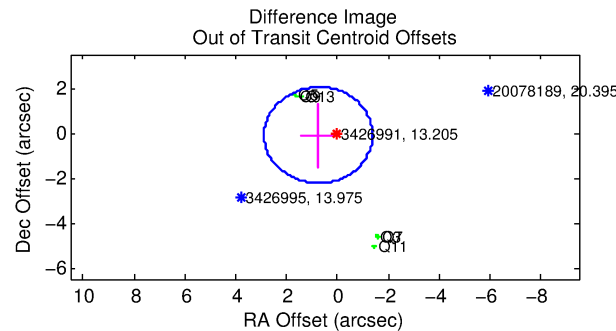
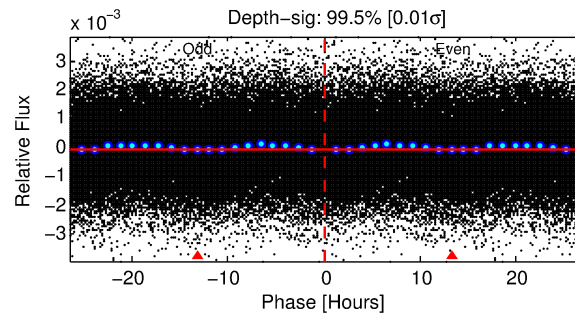
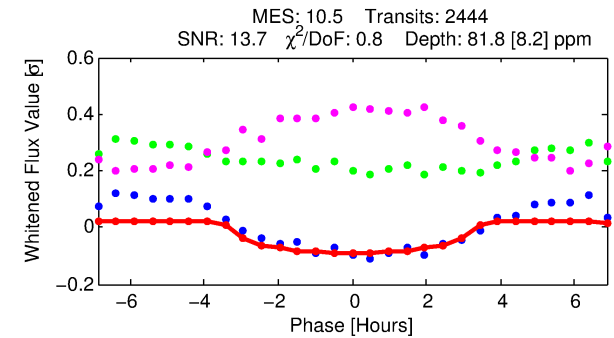
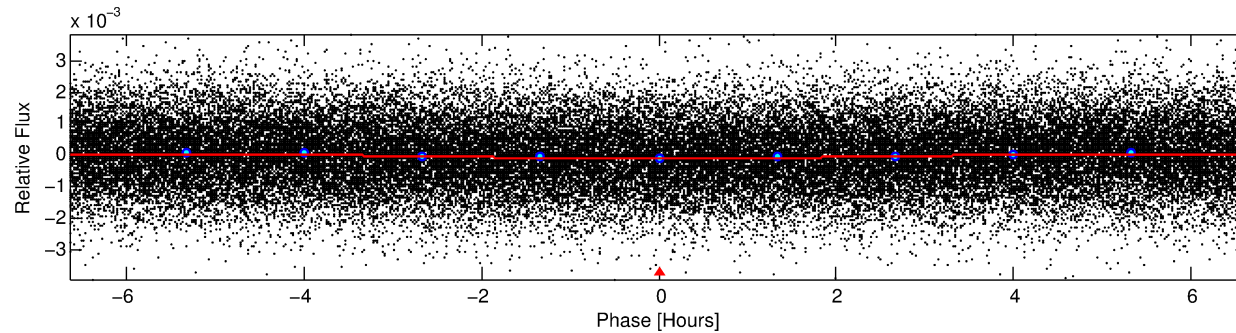
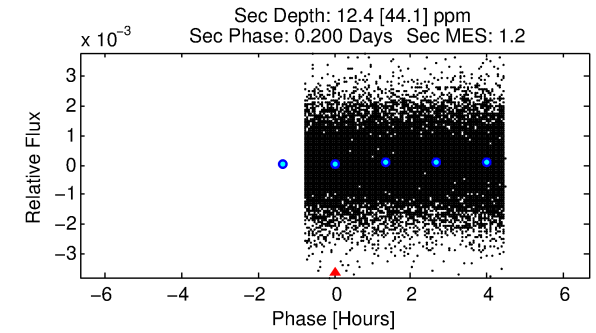
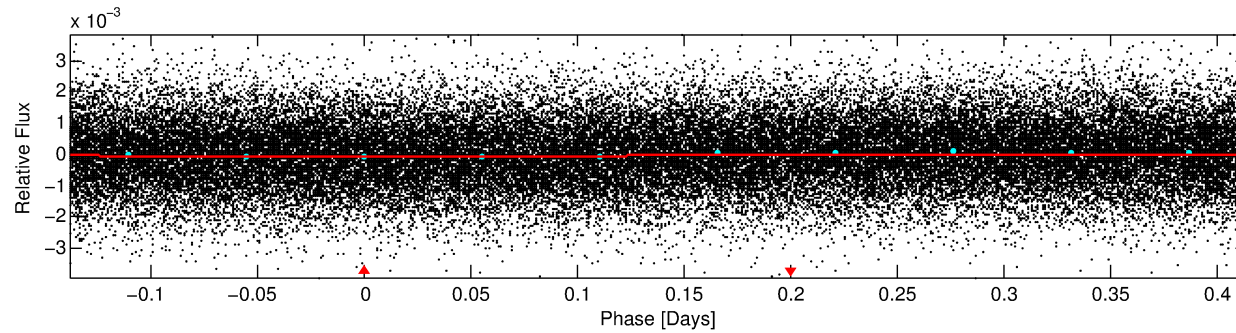
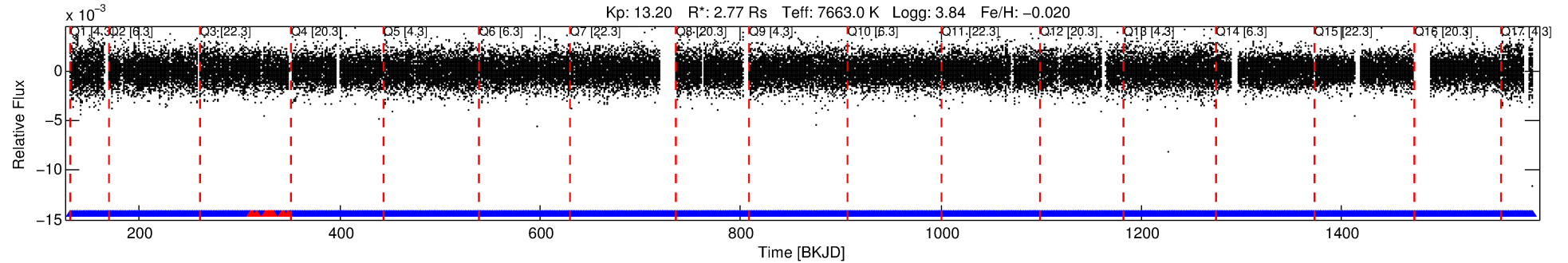
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003426991-01

No Significant Match Found

DV One-Page Summary

KIC: 3426991 Candidate: 1 of 1 Period: 0.553 d



DV Fit Results:

Period = 0.55296 [0.00001] d
Epoch = 131.8212 [0.0054] BKJD
Rp/R* = 0.0084 [0.0050]
a/R* = 1.00 [0.01]
b = 0.01 [282.28]
Seff = 87517.89 [50106.72]
Teff = 4386 [628] K
Rp = 2.54 [1.80] Re
a = 0.0165 [0.0058] AU
Ag = 0.29 [1.09] [-0.66σ]
Teffp = 4965 [4652] K [0.12σ]

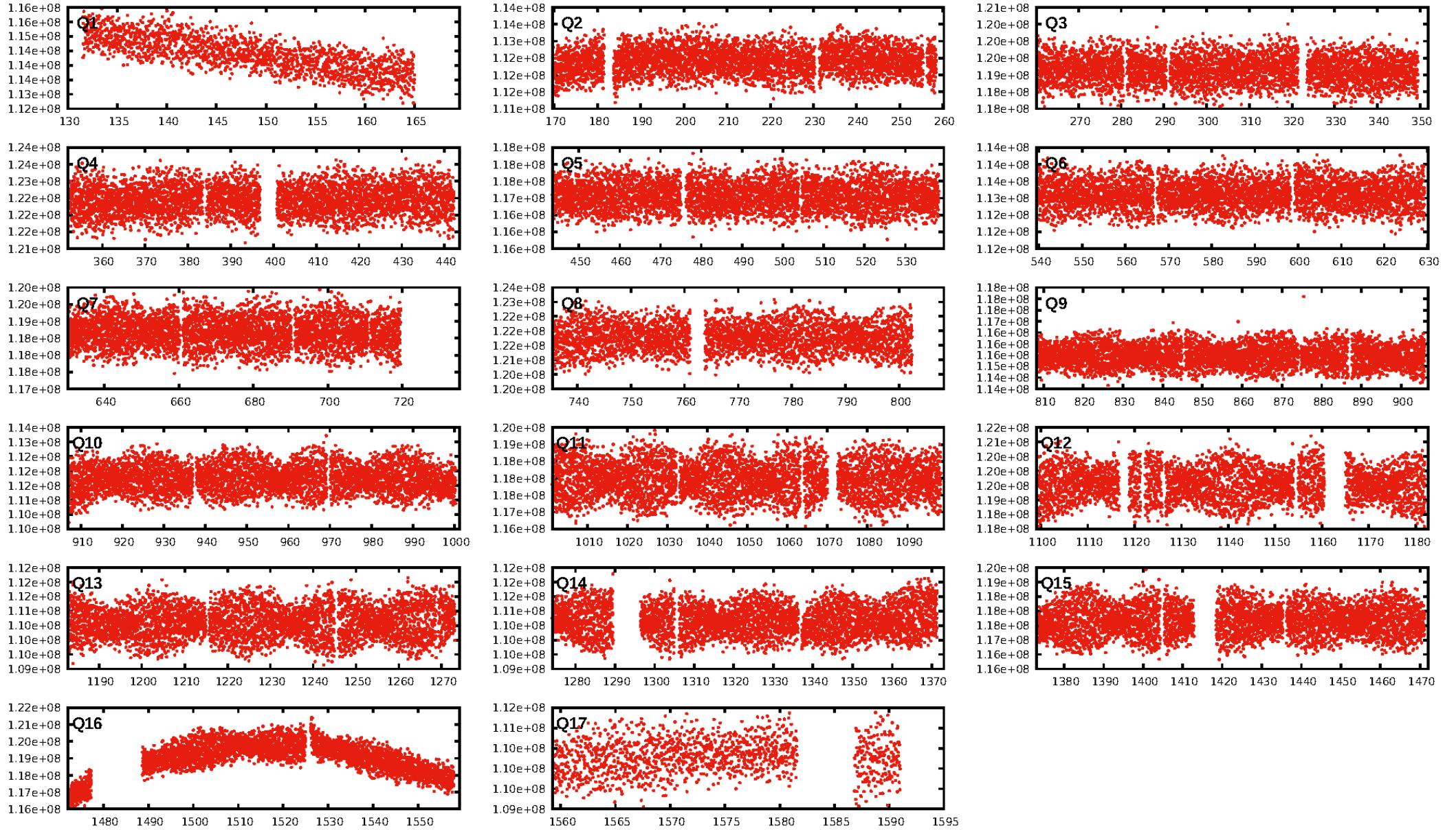
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.99 [2317/2334]
GhostDiagnostic-chr: 2.008
Centroid-sig: 0.0%
Centroid-so: 0.317 arcsec [1.48σ]
OotOffset-rm: 0.756 arcsec [1.06σ]
KicOffset-rm: 1.372 arcsec [1.72σ]
OotOffset-st: 0/3/0/3 [6]
KicOffset-st: 0/3/0/3 [6]
DiffImageQuality-fgm: 0.33 [2/6]
DiffImageOverlap-fno: 1.00 [17/17]

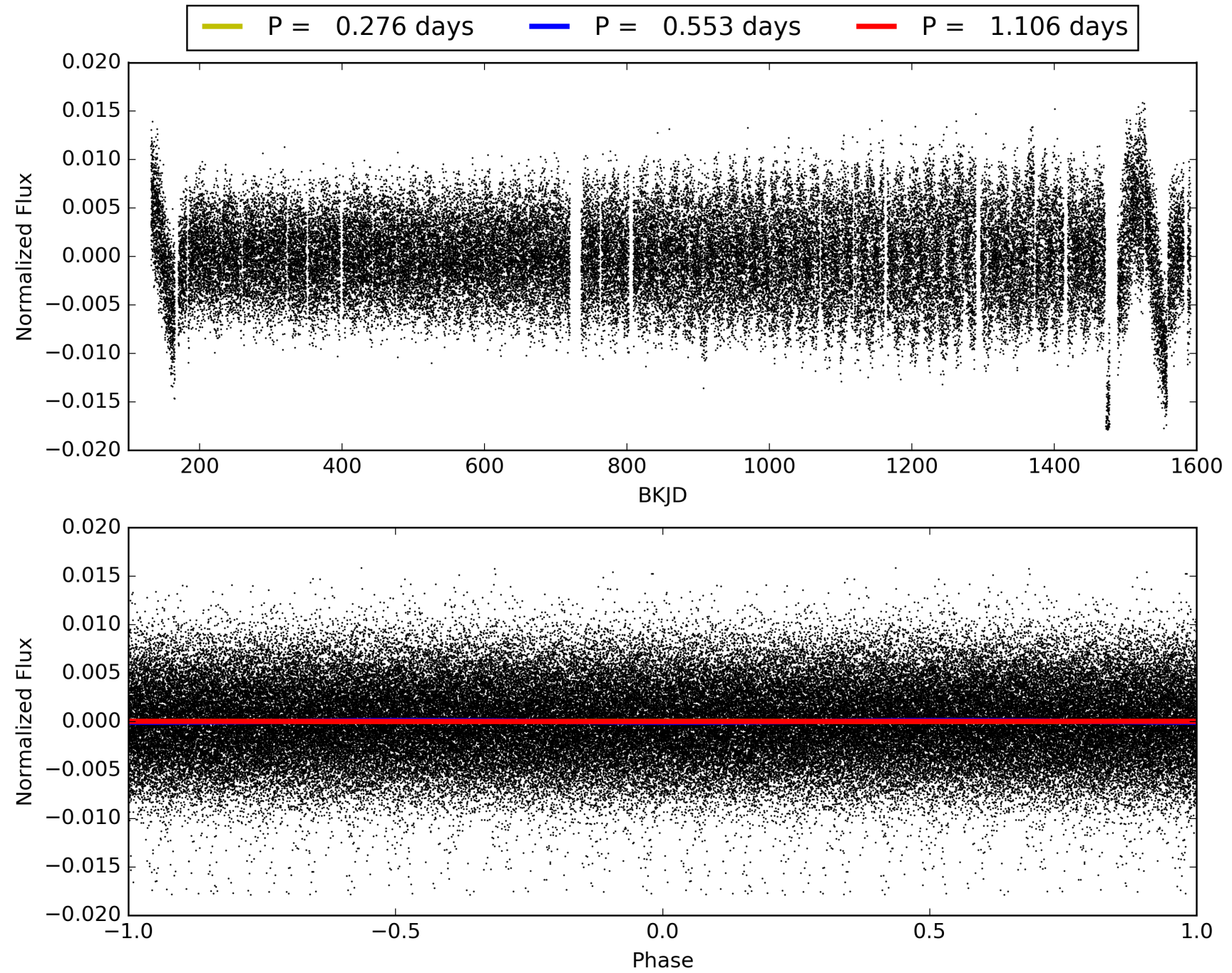
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 18:36:42 Z

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

TCE 003426991-01, PDC Light Curves

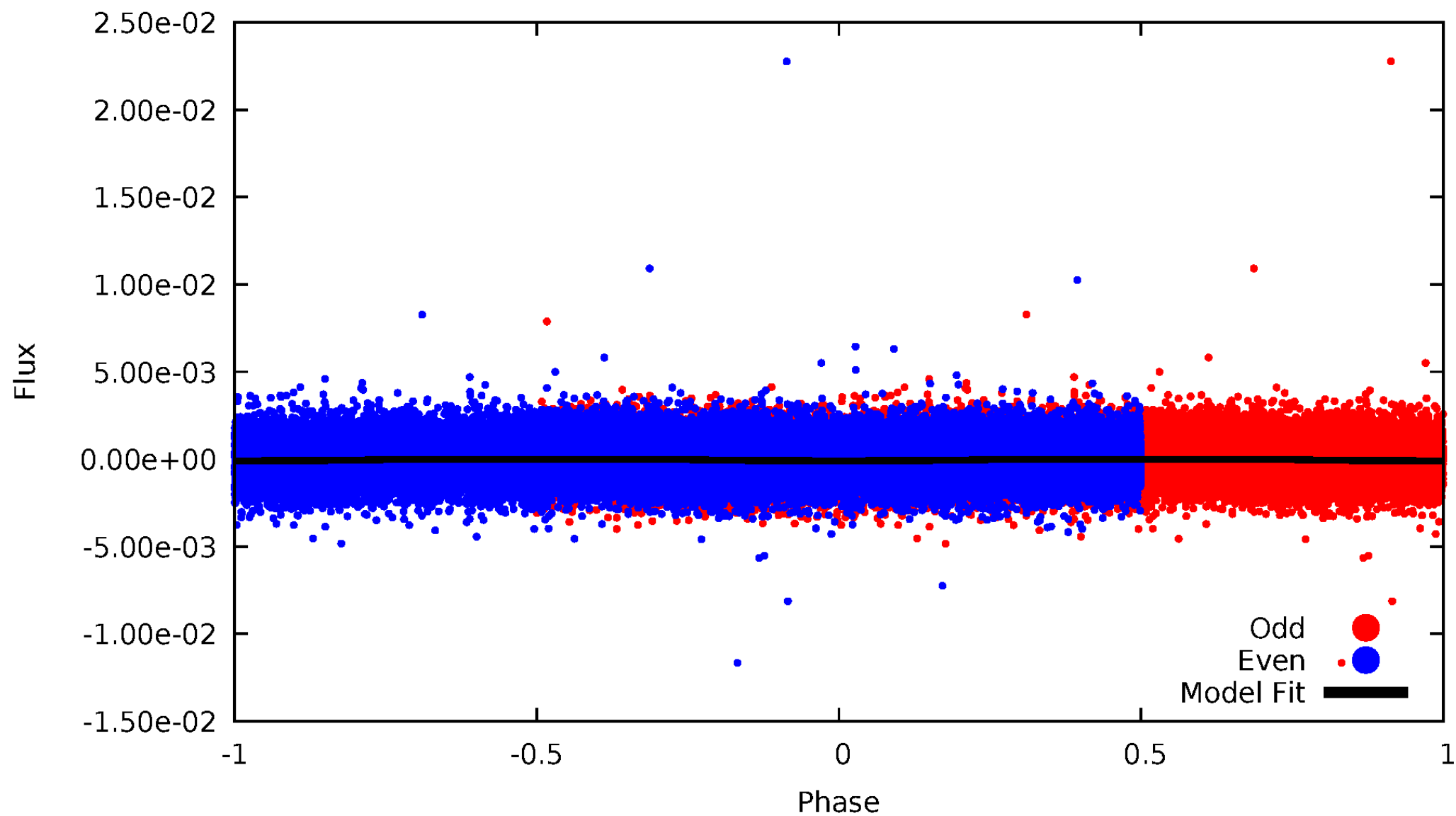


TCE 003426991-01



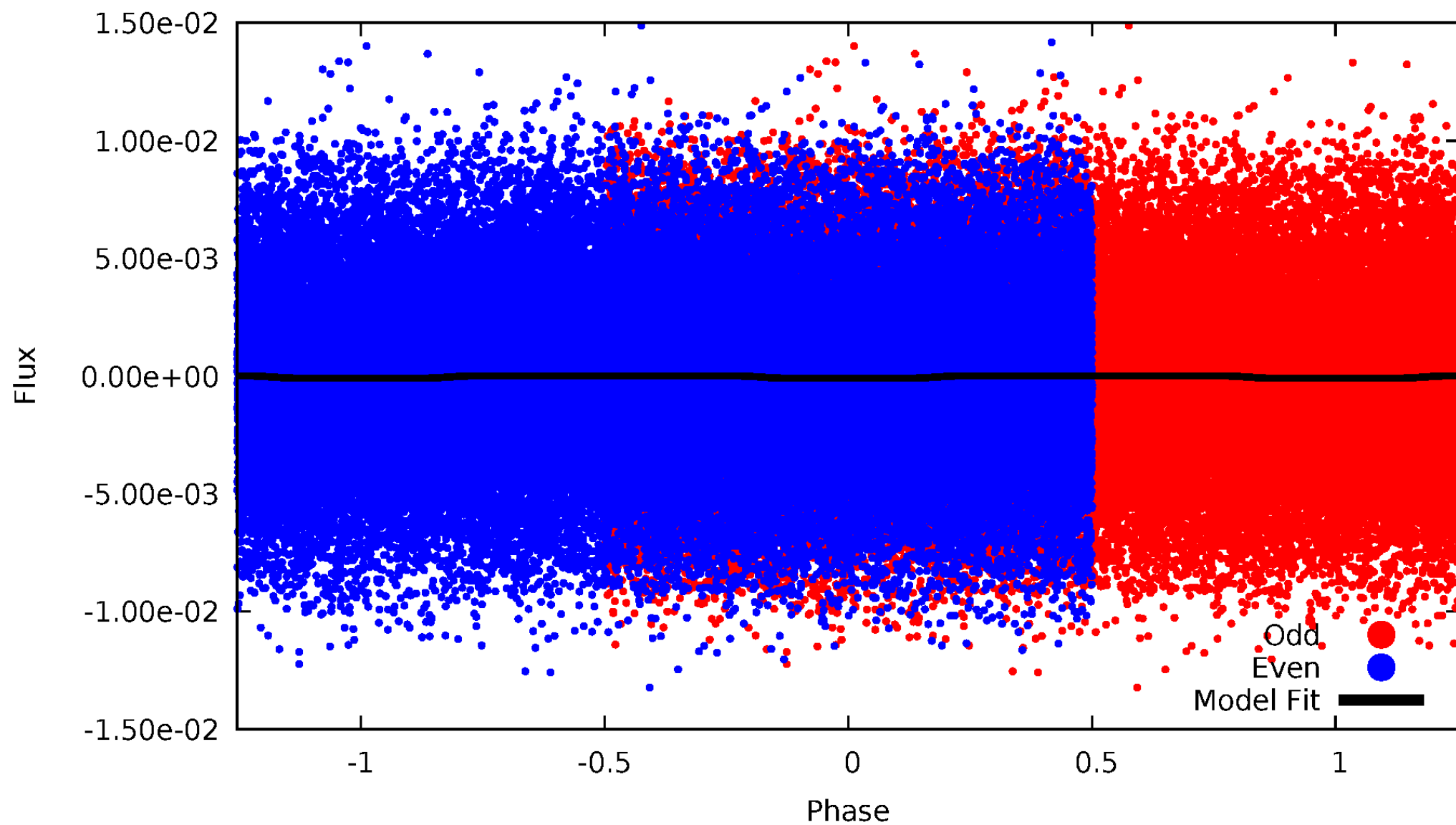
DV Odd/Even

TCE 003426991-01



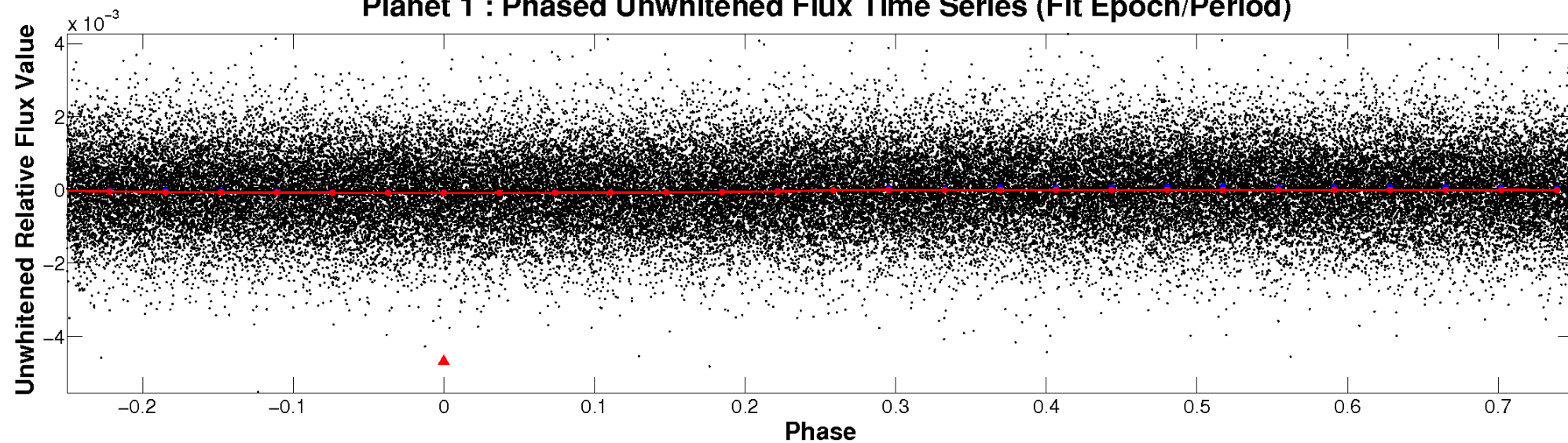
ALT Odd/Even

TCE 003426991-01

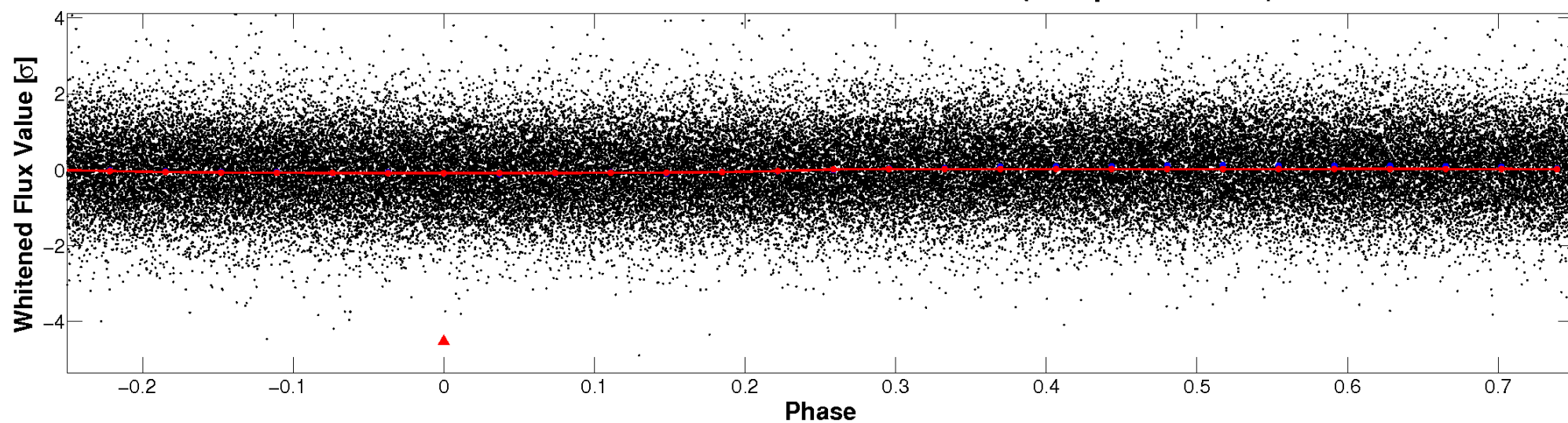


Non-Whitened Vs. Whitened Light Curve

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

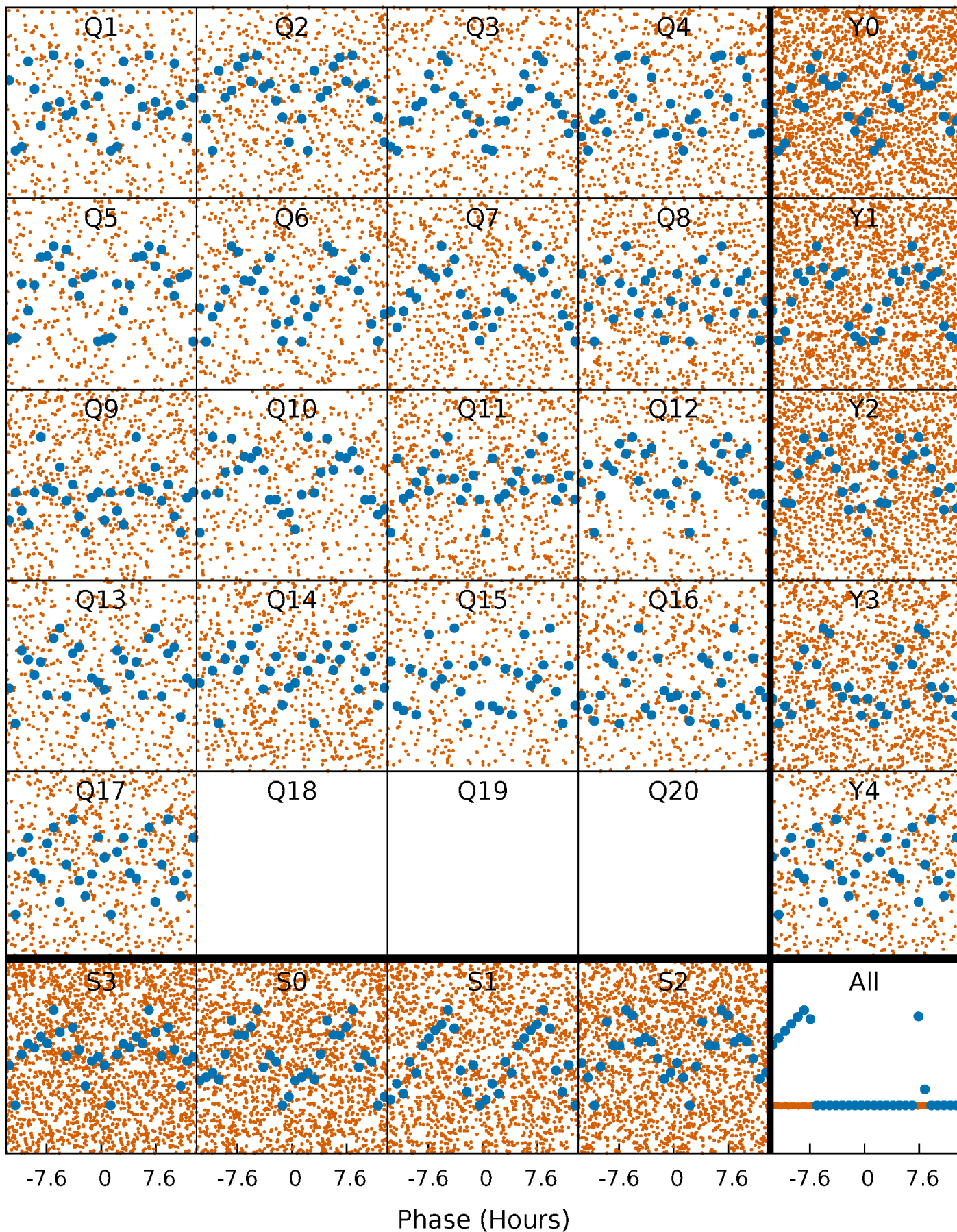


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



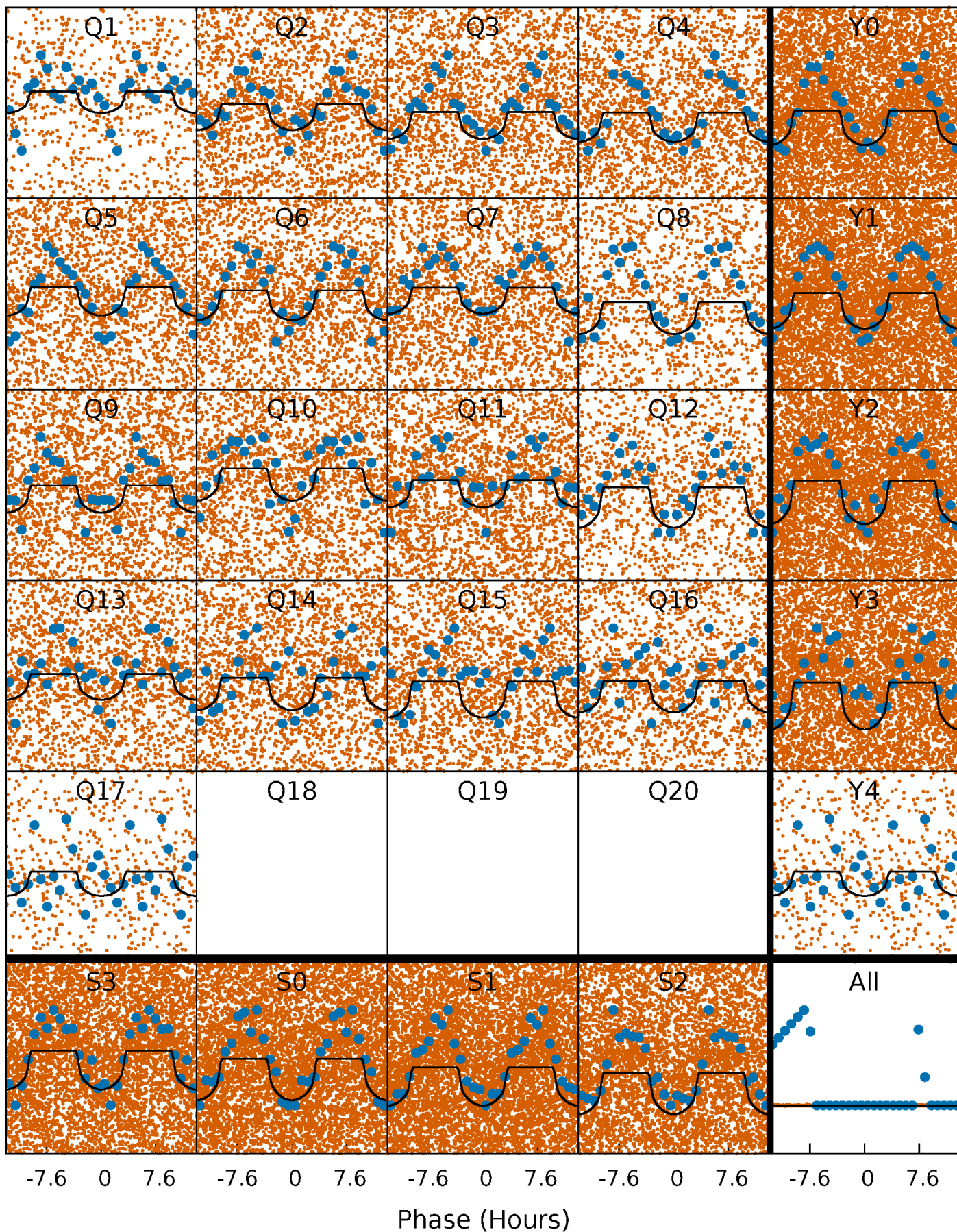
PDC Quarter-Phased Transit Curves

TCE 003426991-01 P= 0.552957 Days $T_0=131.821161$ (BKJD)



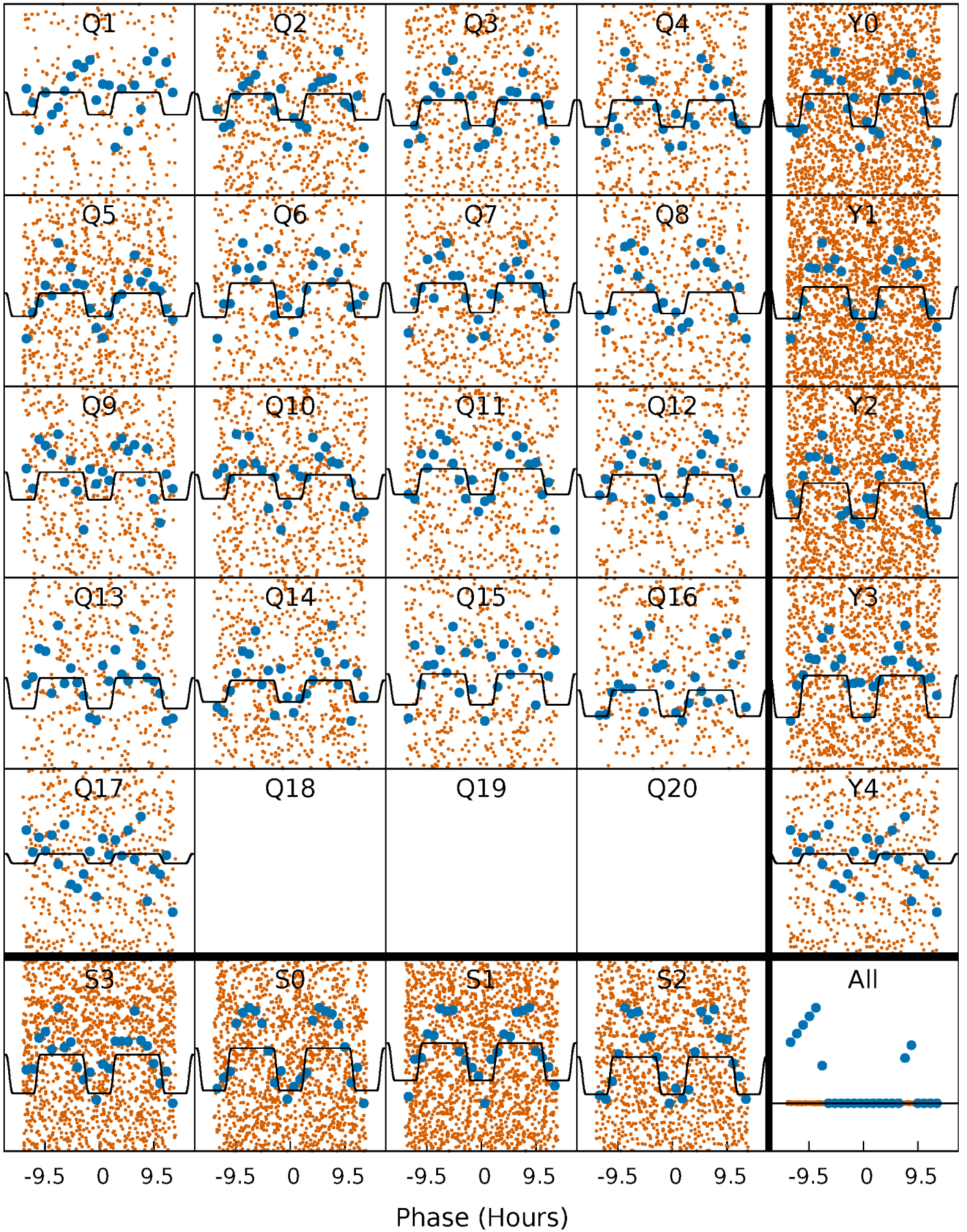
DV Quarter-Phased Transit Curves

TCE 003426991-01 P= 0.552957 Days $T_0=131.821161$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

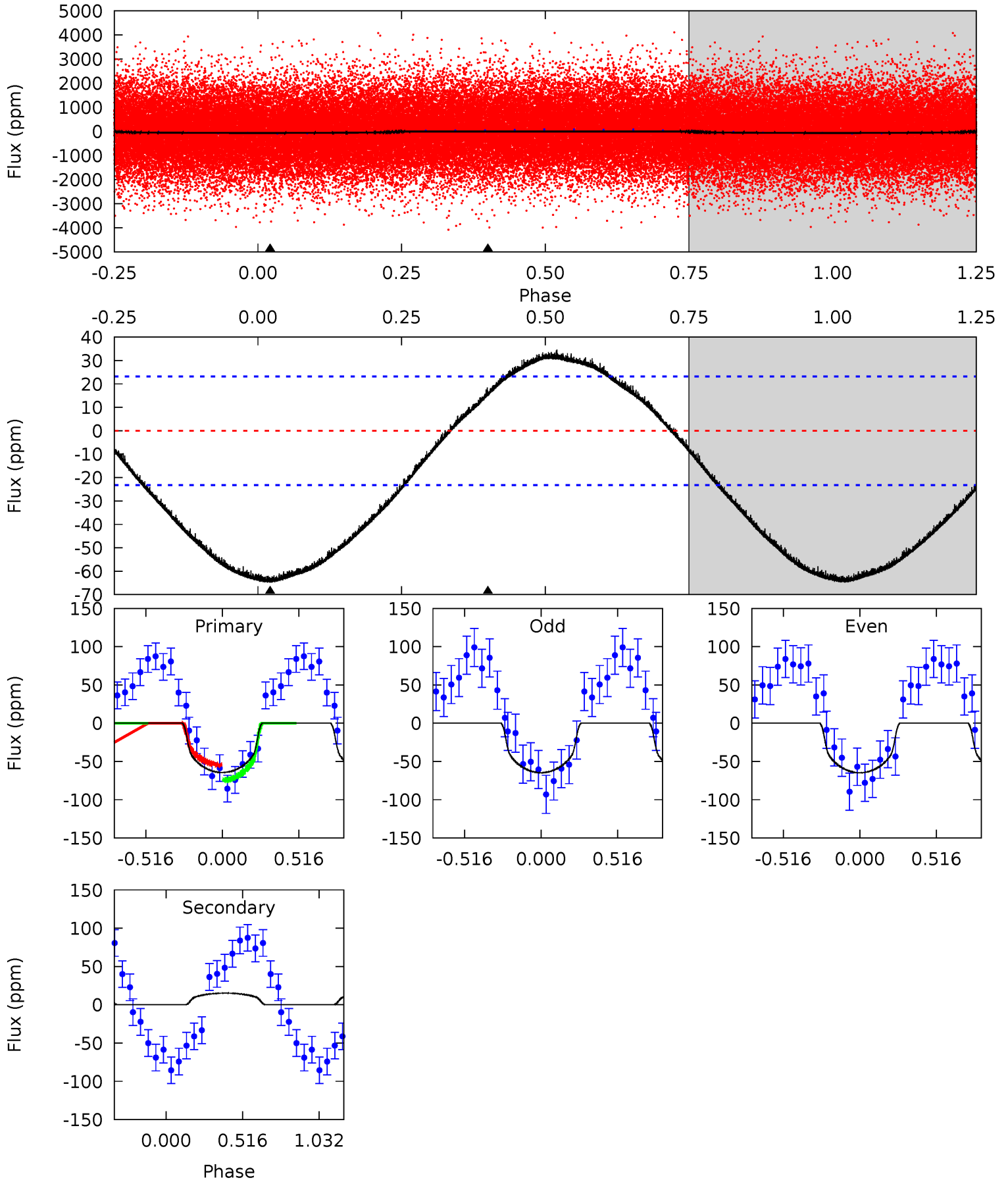
TCE 003426991-01 P= 0.552988 Days $T_0=131.811280$ (BKJD)



DV Model-Shift Uniqueness Test

003426991-01, P = 0.552957 Days, E = 131.268204 Days

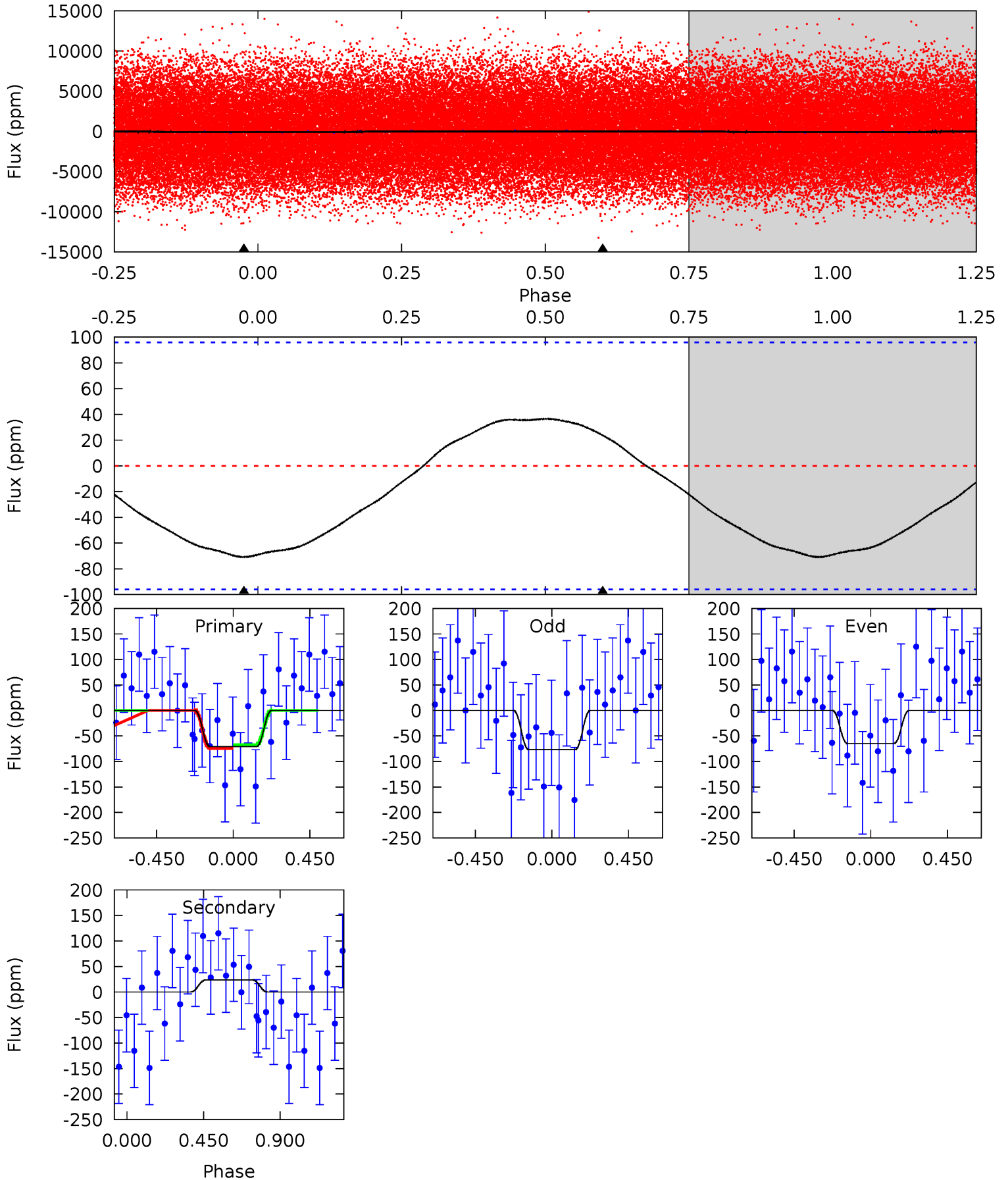
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.7	-2.75	0	0	4.21	0.65	1.47	11.7	11.7	-2.75	-2.75	0.01	0.90	0.35	1.81



Alt Model-Shift Uniqueness Test

003426991-01, P = 0.552988 Days, E = 131.258292 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.13	-1.04	0	0	4.24	0.76	0.47	3.13	3.13	-1.04	-1.04	0.26	0.89	0.34	0.16



Stellar Parameters For KIC 003426991

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	7663^{+214}_{-322}	$3.842^{+0.315}_{-0.105}$	$-0.020^{+0.200}_{-0.350}$	$2.772^{+0.457}_{-1.066}$	$1.950^{+0.110}_{-0.439}$	$0.129^{+0.300}_{-0.043}$
	+3%/-4%	+8%/-3%	+1000%/-1750%	+16%/-38%	+6%/-23%	+233%/-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 003426991-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	15 ± 6	$2.36^{+1.57}_{-1.28}$	5999^{+404}_{-619}	-5889^{+640}_{-1965}	$-0.383^{+0.261}_{-1.445}$
Alt.	24 ± 23	$2.59^{+1.61}_{-1.27}$	6003^{+403}_{-543}	-5997^{+1100}_{-2203}	$-0.424^{+0.402}_{-1.703}$

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 $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

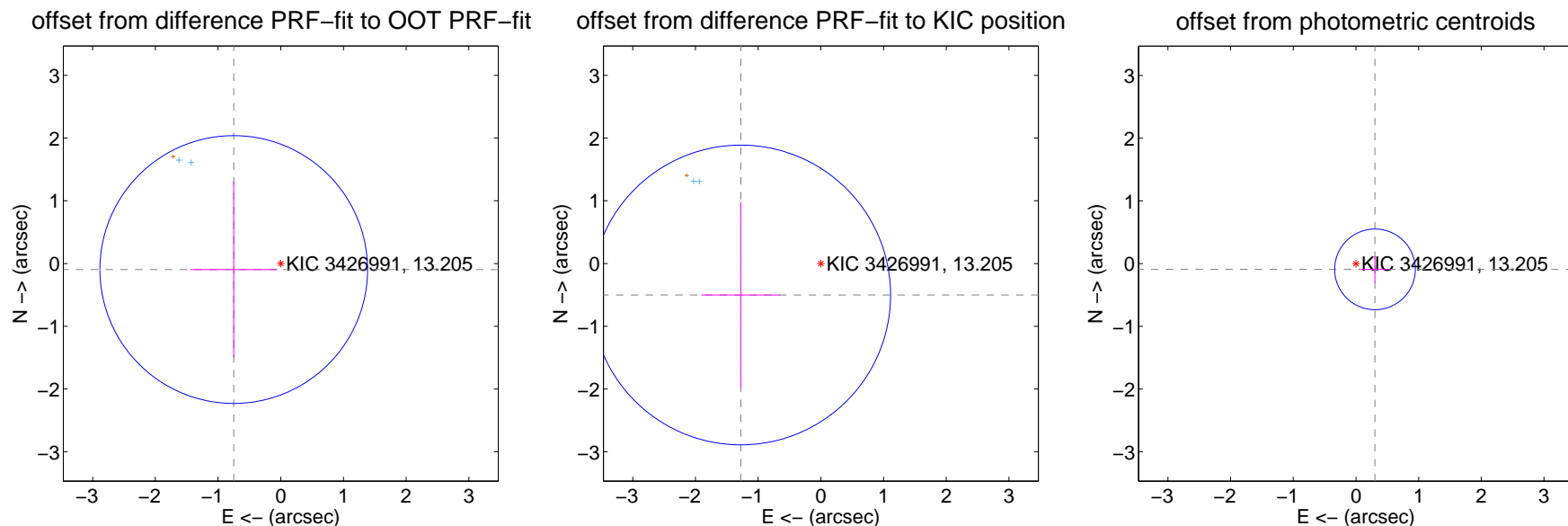
DV Centroid Data

Supplemental centroid analysis for 003426991-01. Kepler magnitude: 13.21. Transit SNR 13.68

There are 2 quarters with good PRF difference image offsets

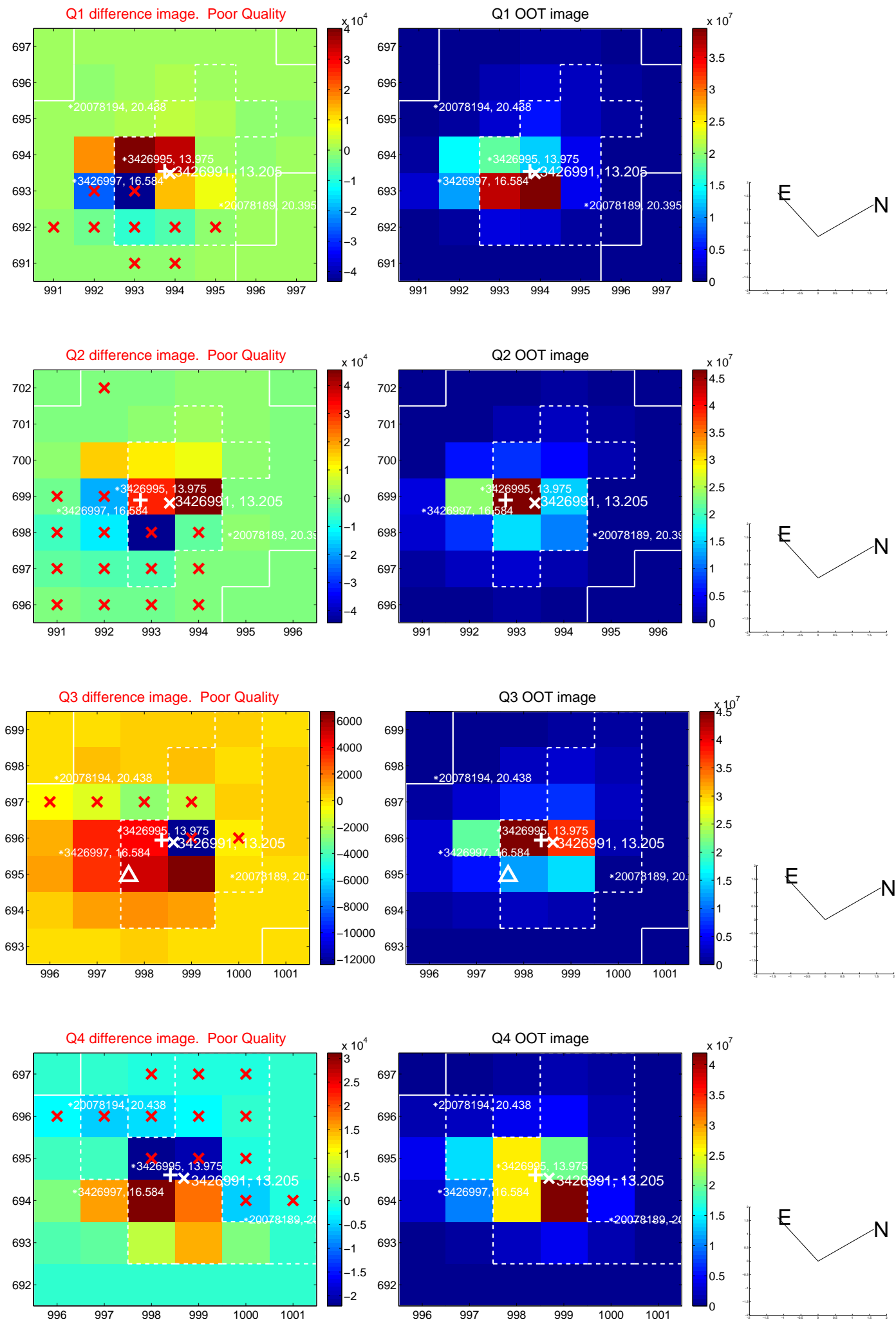
The direct PRF centroid is offset from the target star catalog position by about 0.59 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.756 ± 0.711	1.06	0.750 ± 0.695	-0.096 ± 1.405
PRF-fit source offset from KIC position	1.372 ± 0.796	1.72	1.277 ± 0.627	-0.501 ± 1.481
photometric centroid source offset	0.32 ± 0.21	1.48	-0.30 ± 0.21	-0.09 ± 0.21

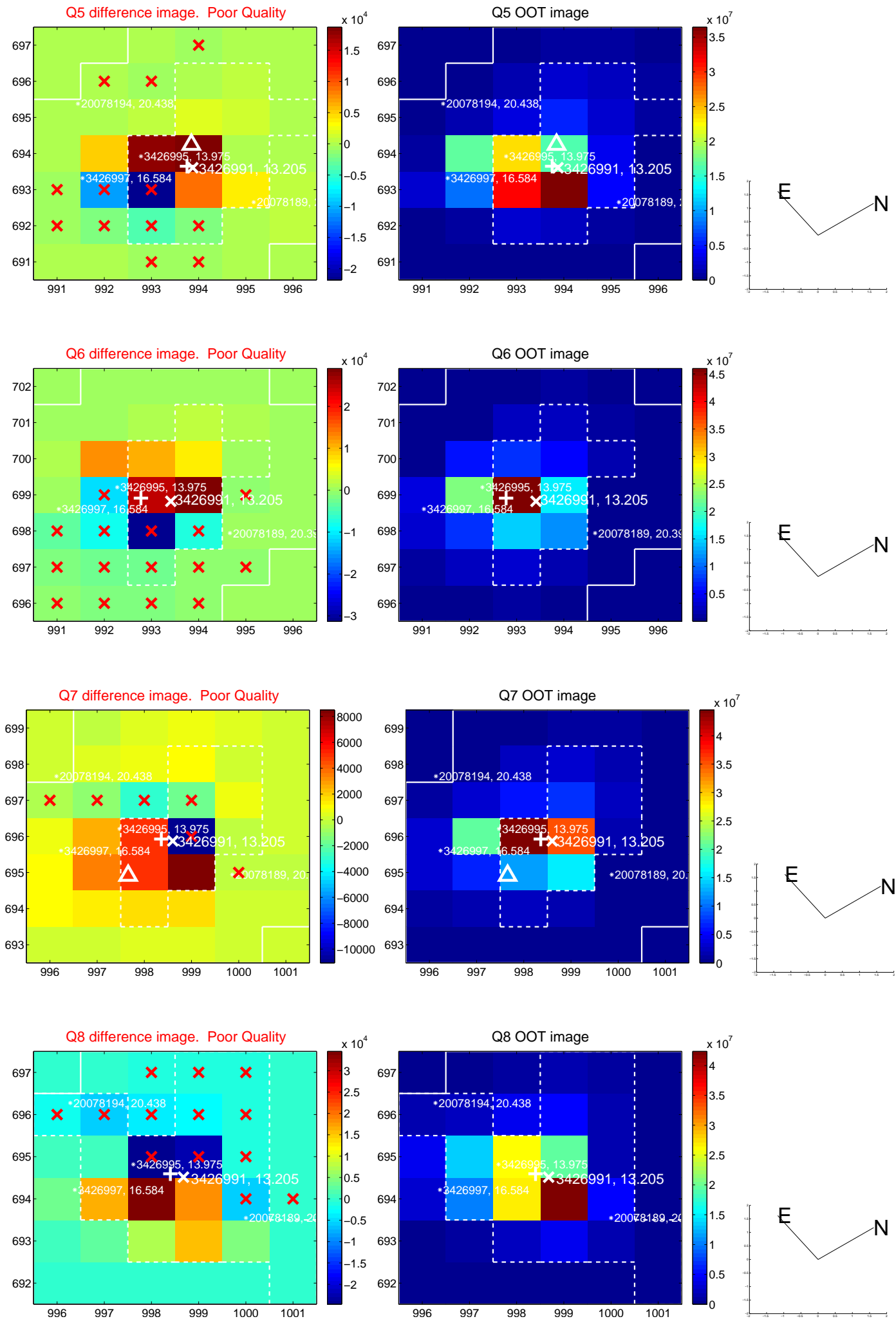


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

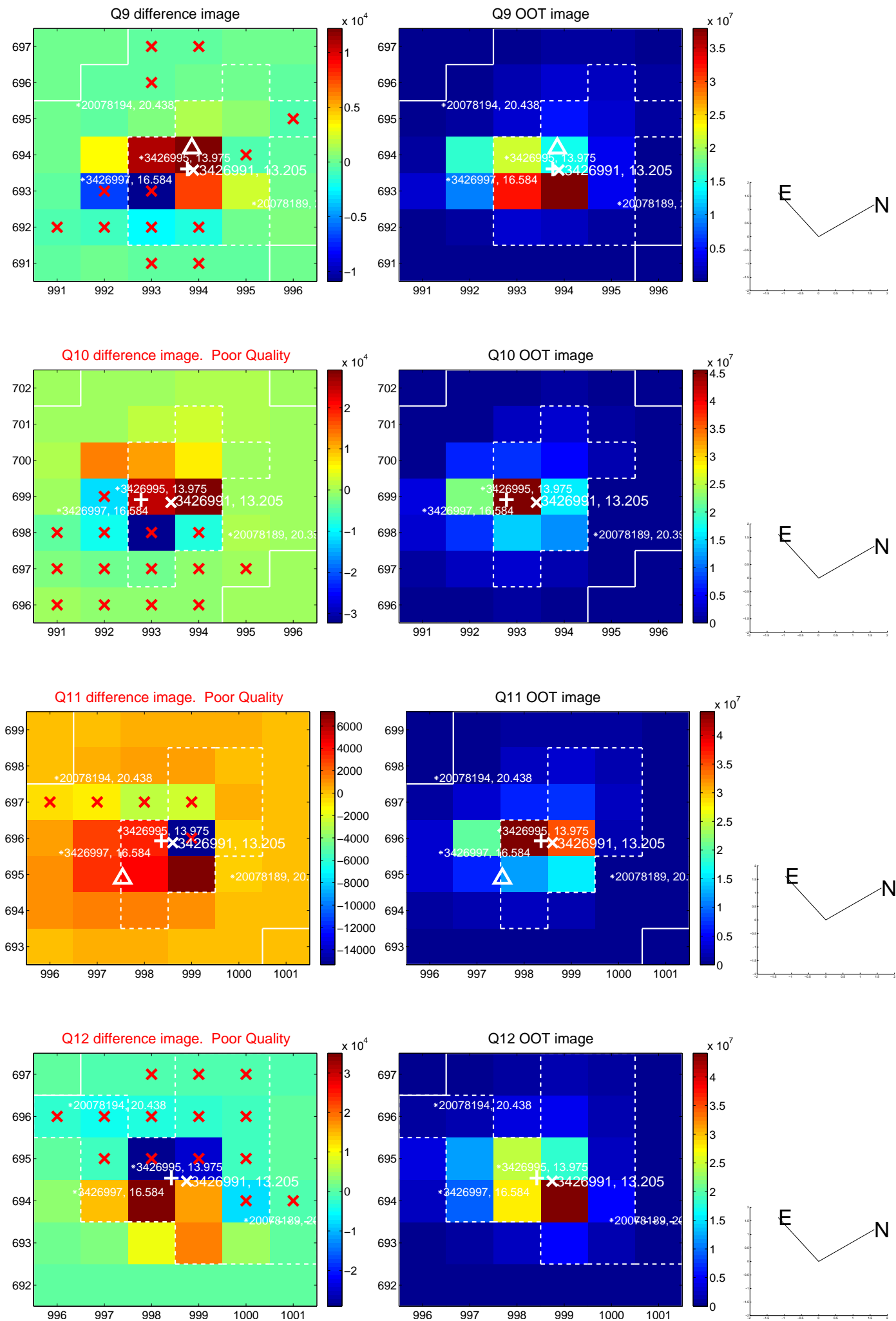
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



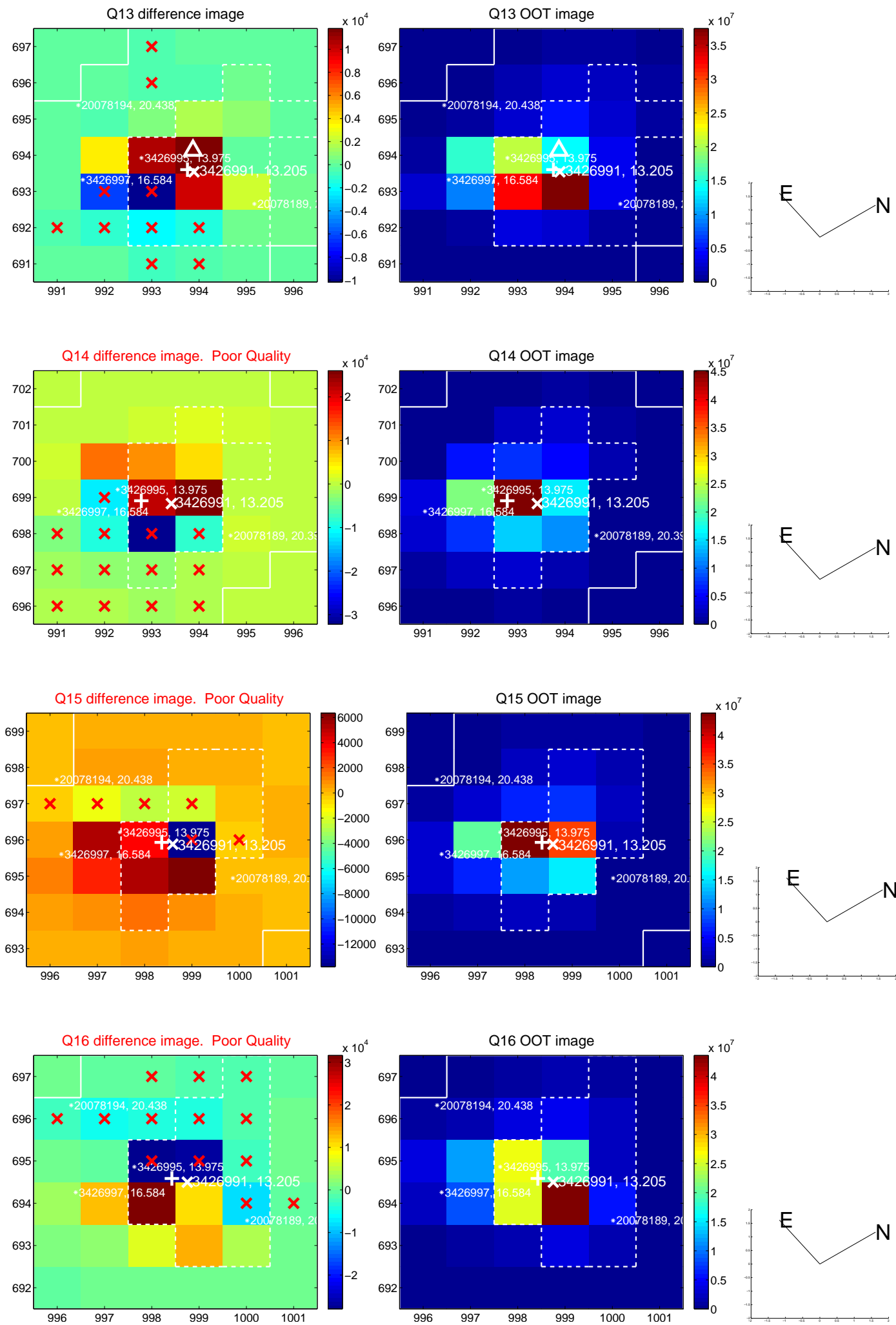
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



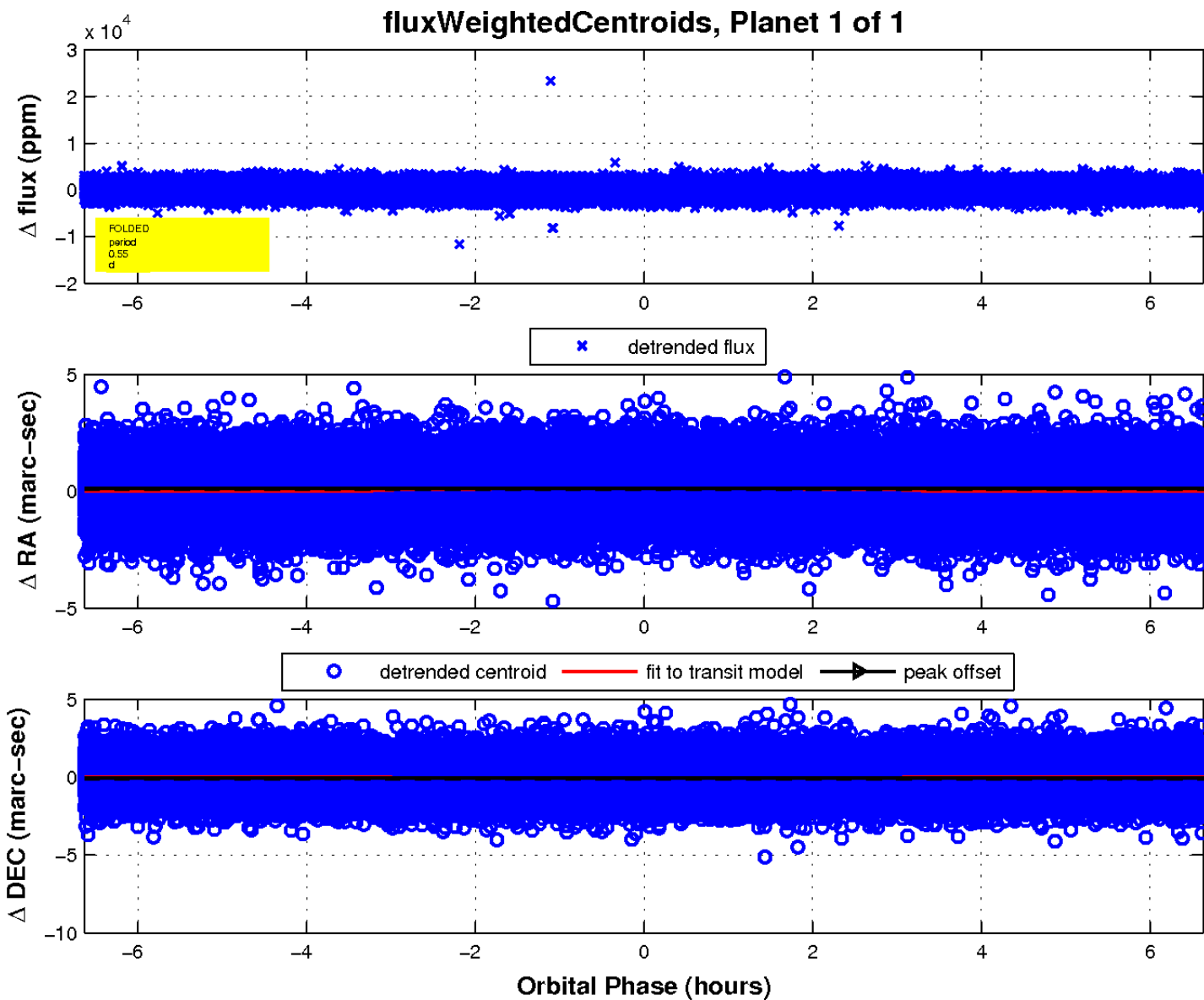
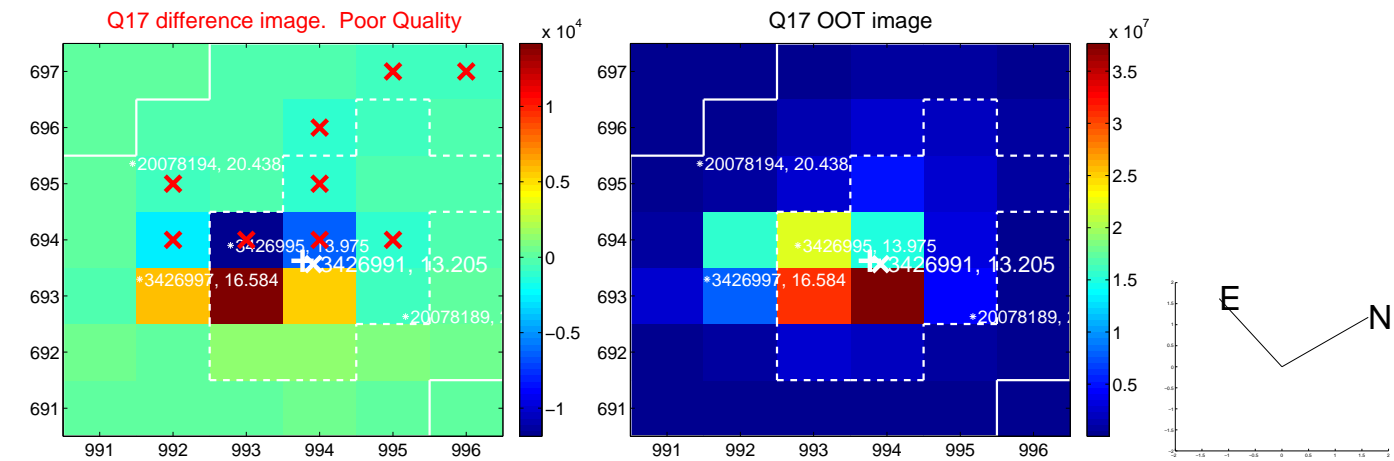
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

