

KIC 002304566

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})
002304566-01	OBS	No	0.689480	131.833178	3.8	5.236	8.9	2.6	5.89	7059	1.17	0.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002304566-01	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.

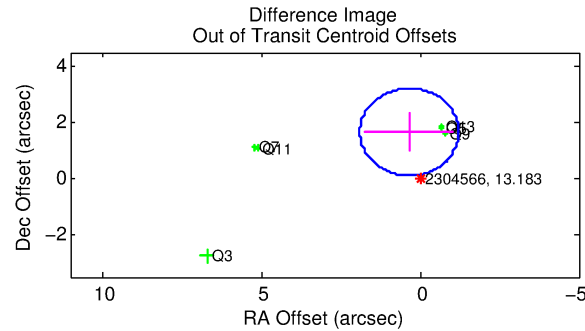
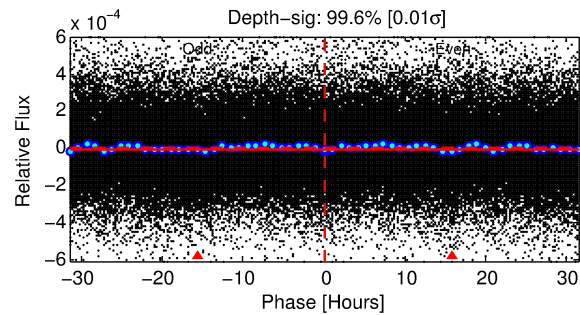
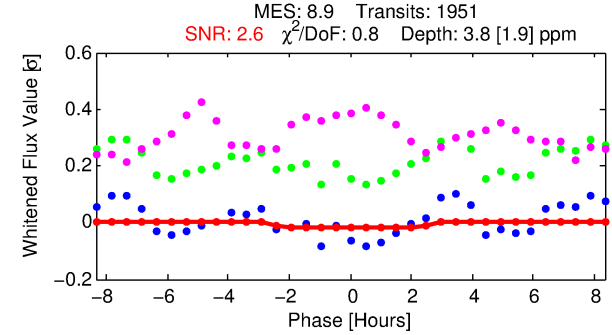
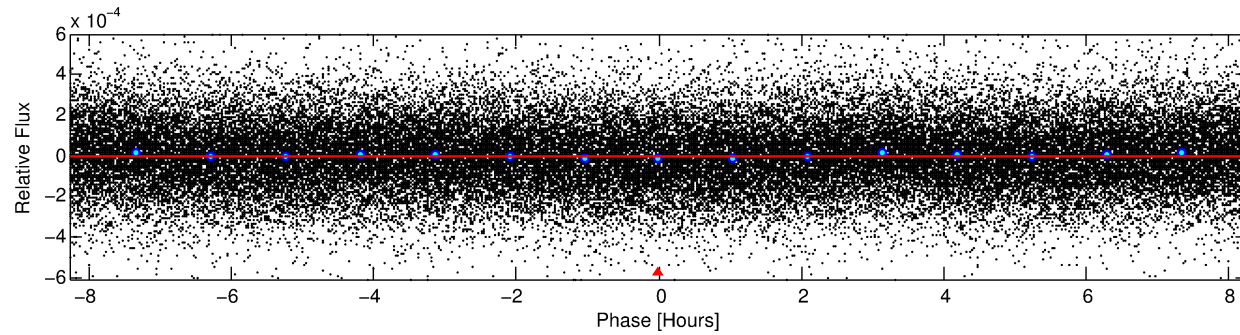
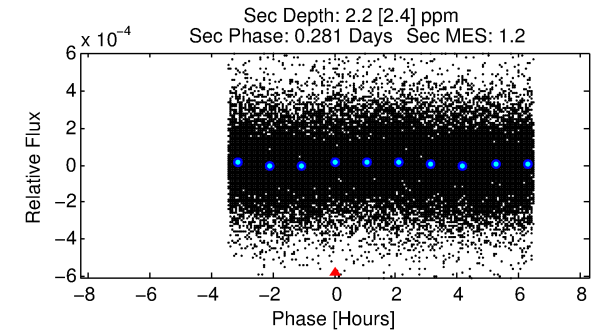
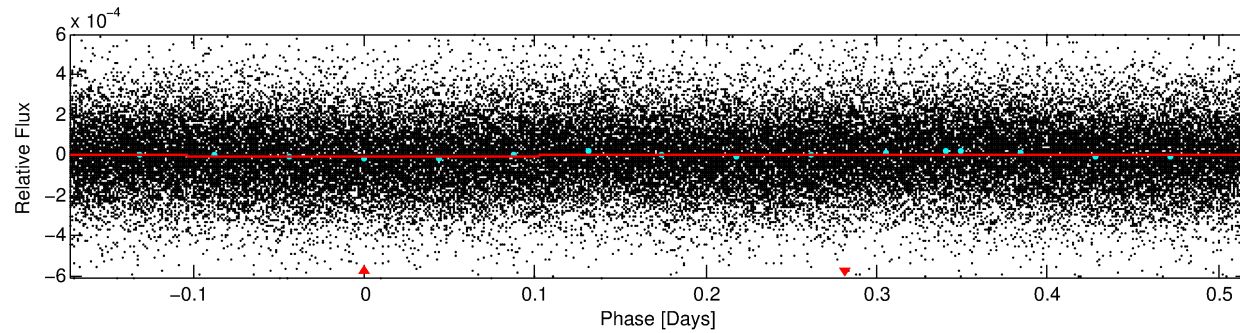
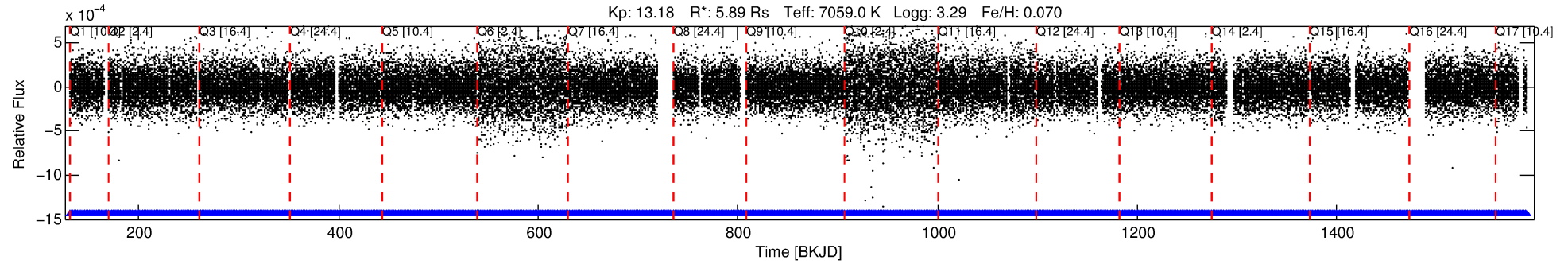
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 002304566-01

No Significant Match Found

DV One-Page Summary

KIC: 2304566 Candidate: 1 of 1 Period: 0.689 d



DV Fit Results:

Period = 0.68948 [0.00005] d
Epoch = 131.8332 [0.0198] BKJD
Rp/R* = 0.0018 [0.0050]
a/R* = 1.18 [5.07]
b = 0.31 [45.49]
Seff = N/A
Teq = N/A
Rp = 1.17 [3.27] Re
a = N/A
Ag = N/A
Teffp = N/A

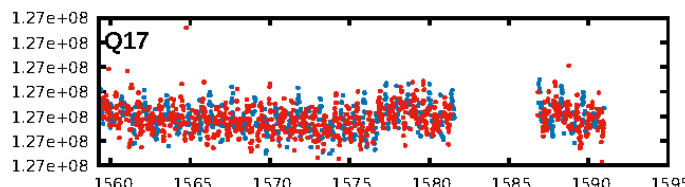
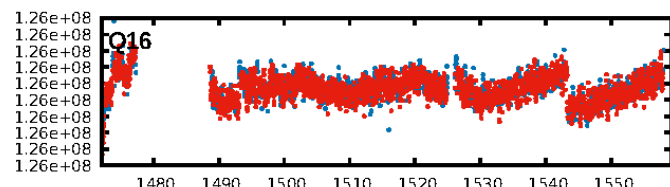
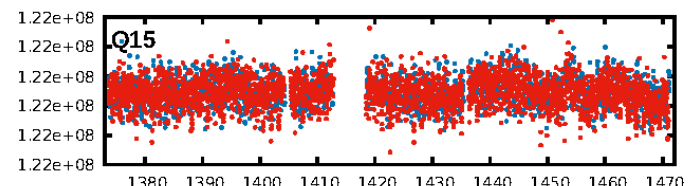
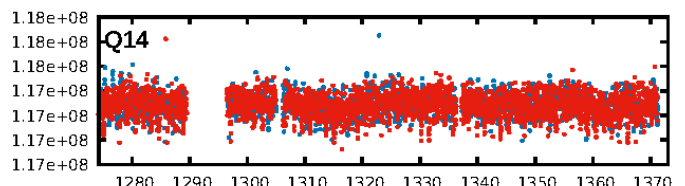
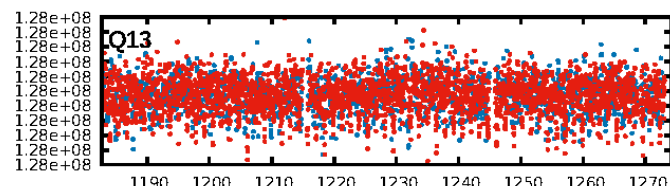
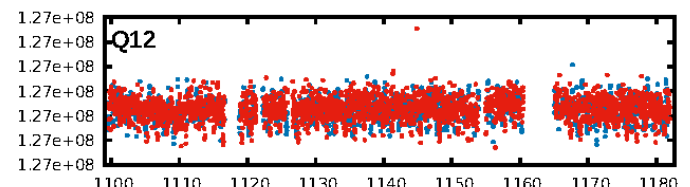
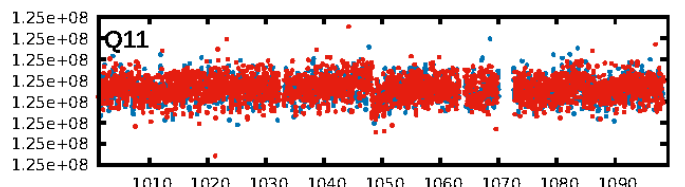
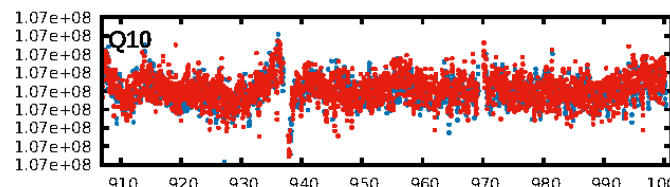
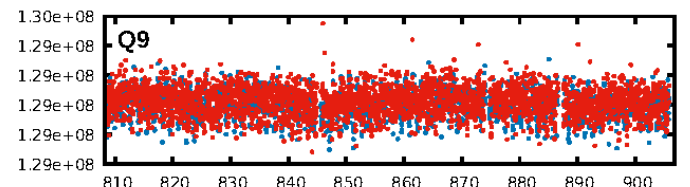
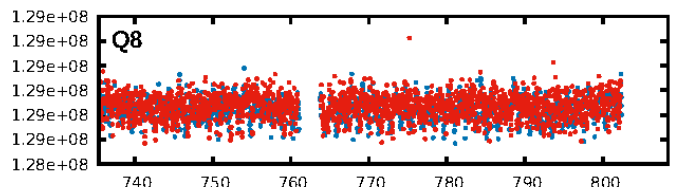
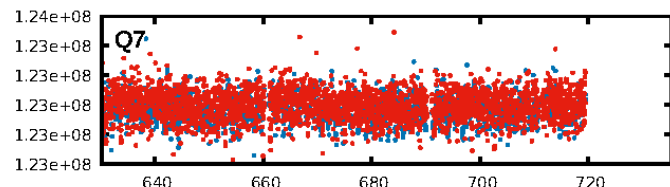
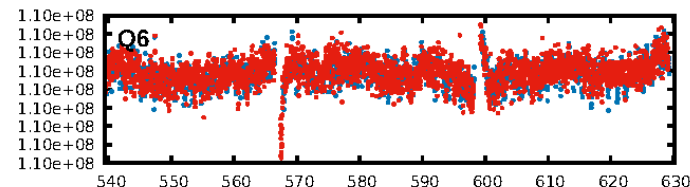
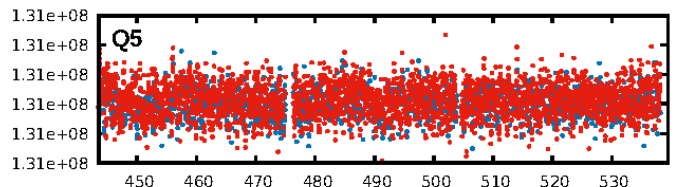
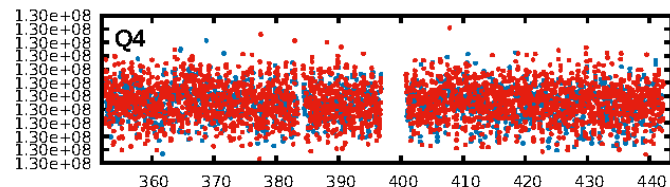
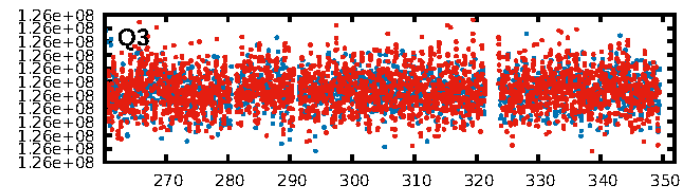
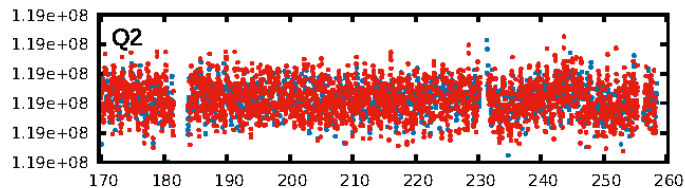
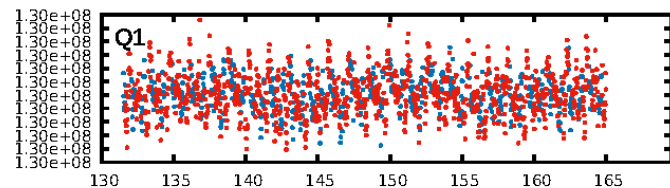
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.50e-15
RollingBand-fgt: 1.00 [1864/1864]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 1.693 arcsec [3.27σ]
KicOffset-rm: 1.639 arcsec [3.85σ]
OotOffset-st: 0/3/0/3 [6]
KicOffset-st: 0/3/0/3 [6]
DiffImageQuality-fgm: 0.50 [3/6]
DiffImageOverlap-fno: 1.00 [17/17]

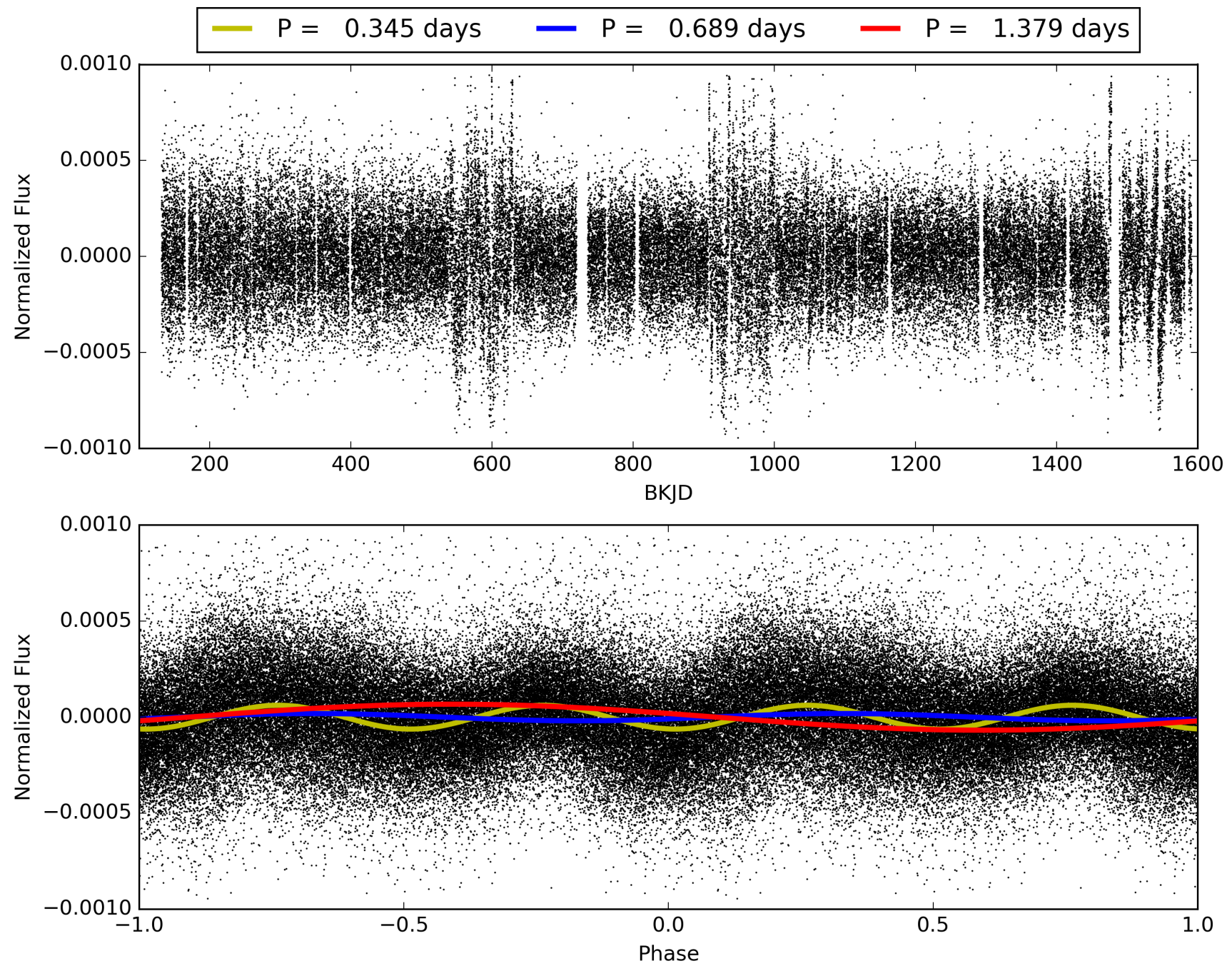
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 19:19:21 Z

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

TCE 002304566-01, PDC Light Curves

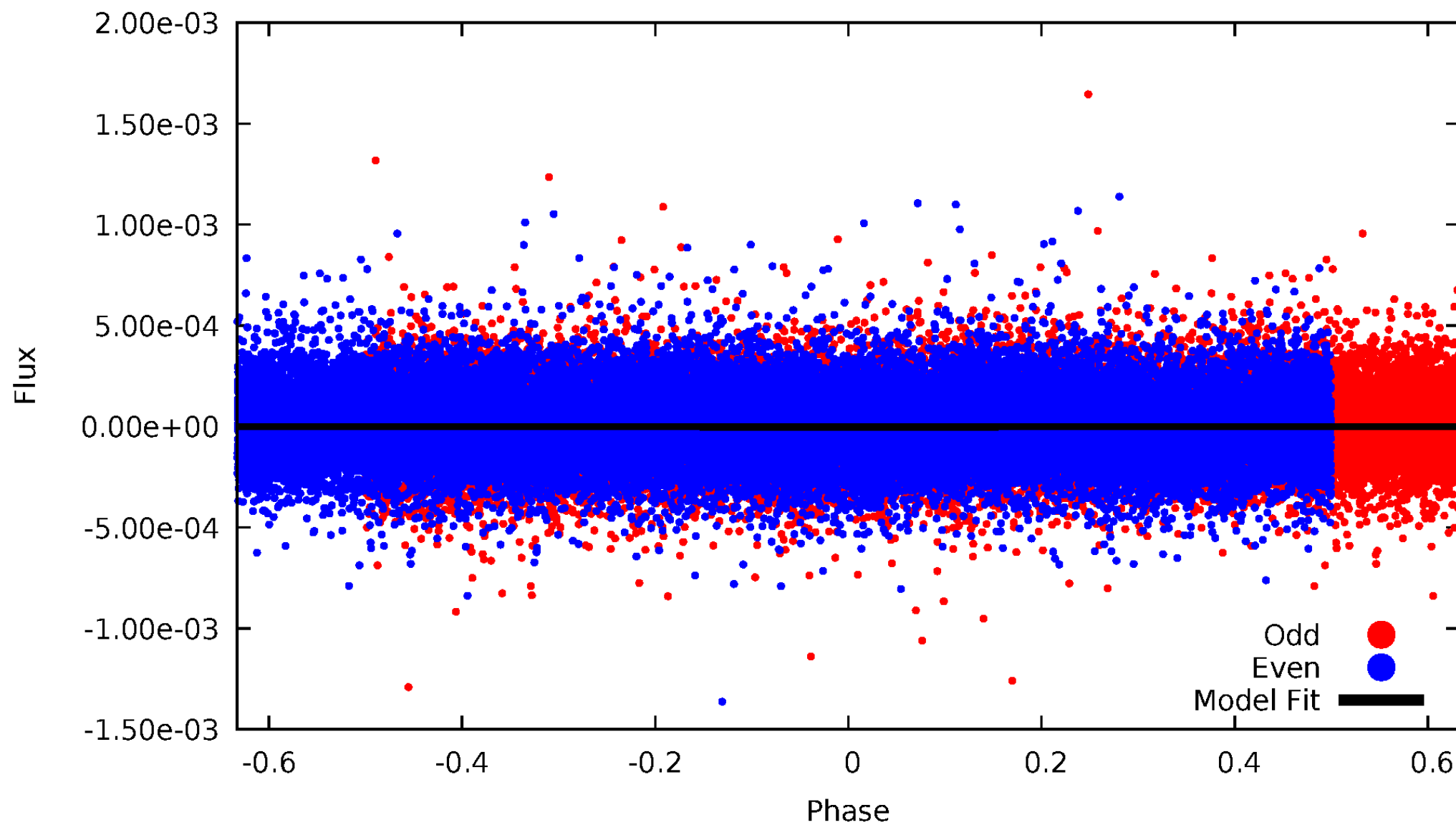


TCE 002304566-01



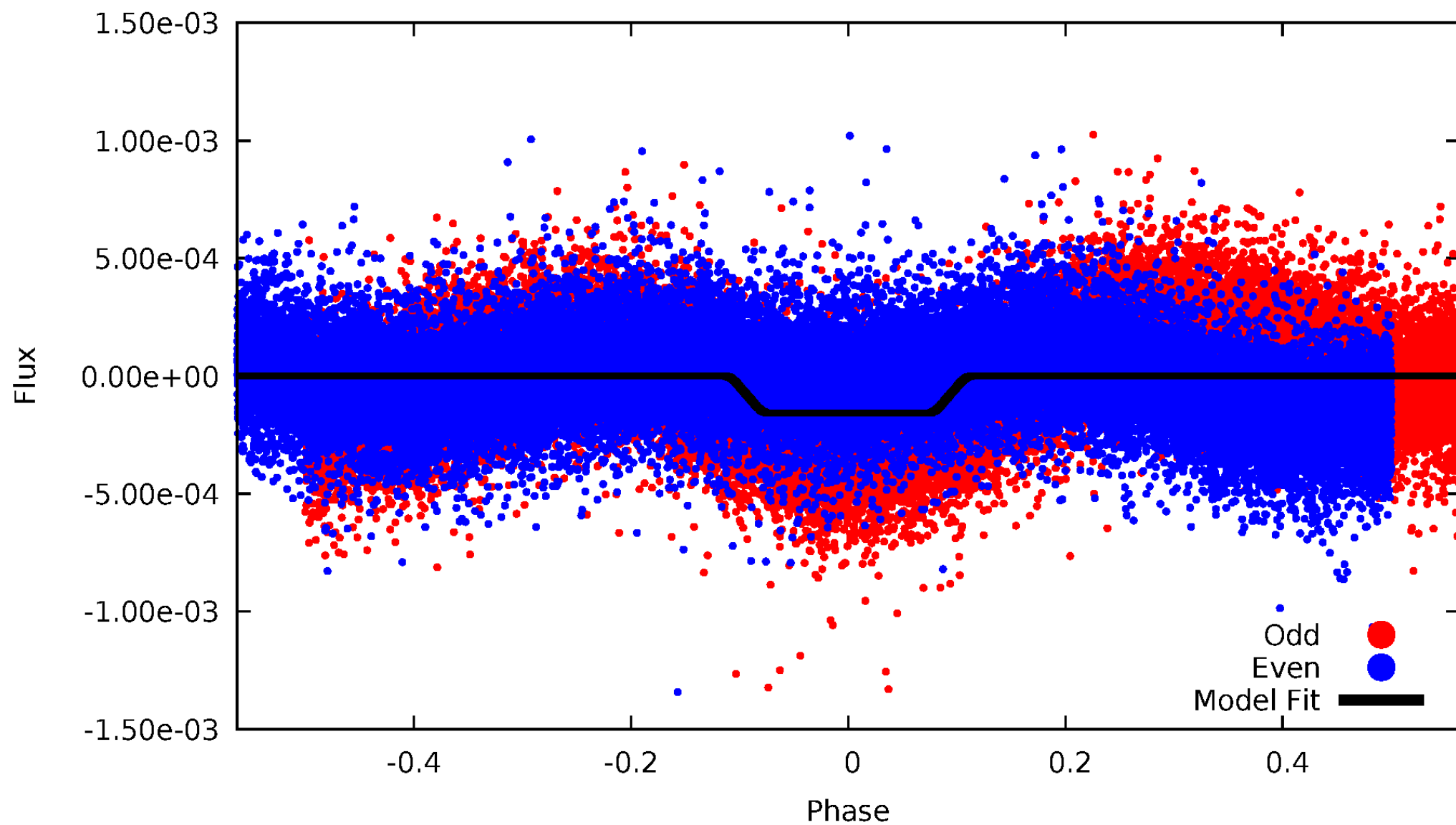
DV Odd/Even

TCE 002304566-01



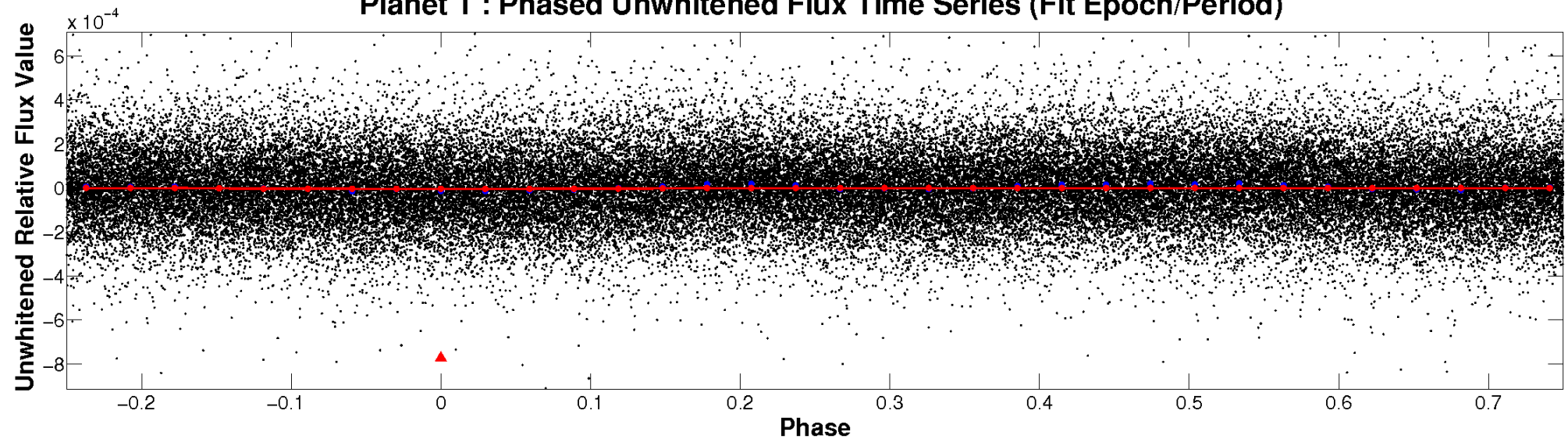
ALT Odd/Even

TCE 002304566-01

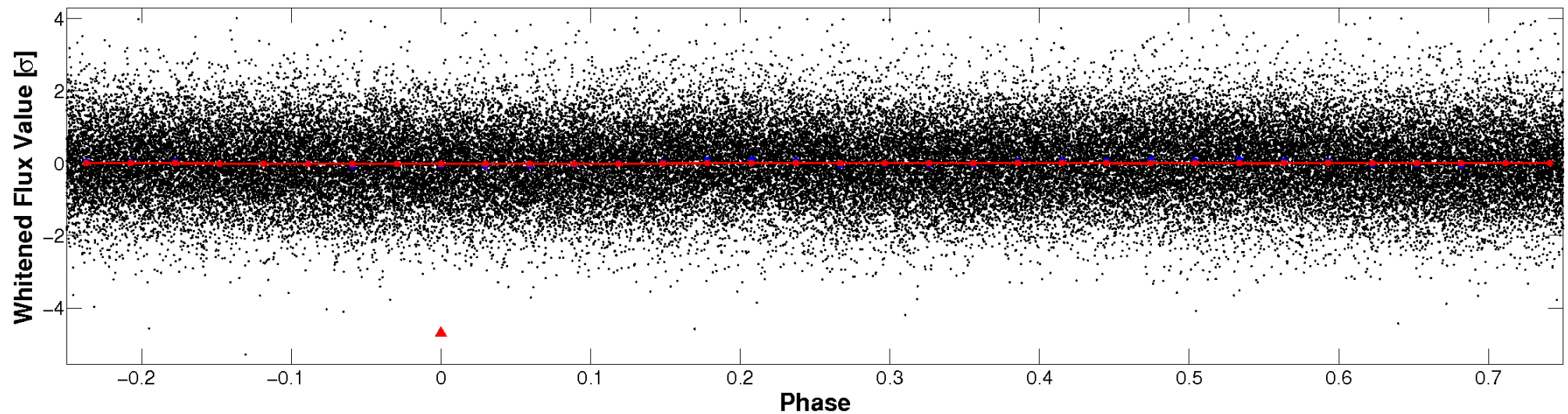


Non-Whitened Vs. Whitened Light Curve

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

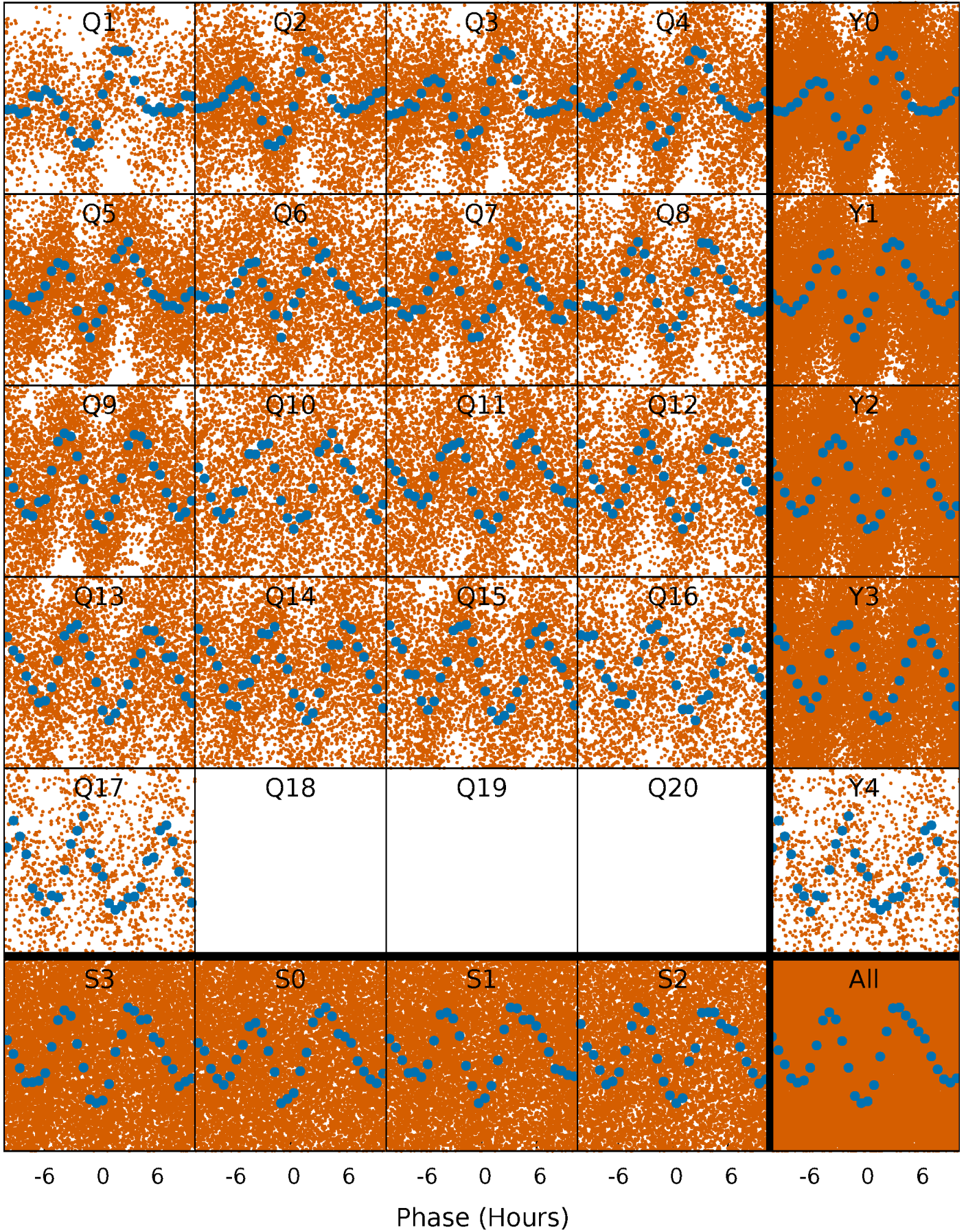


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



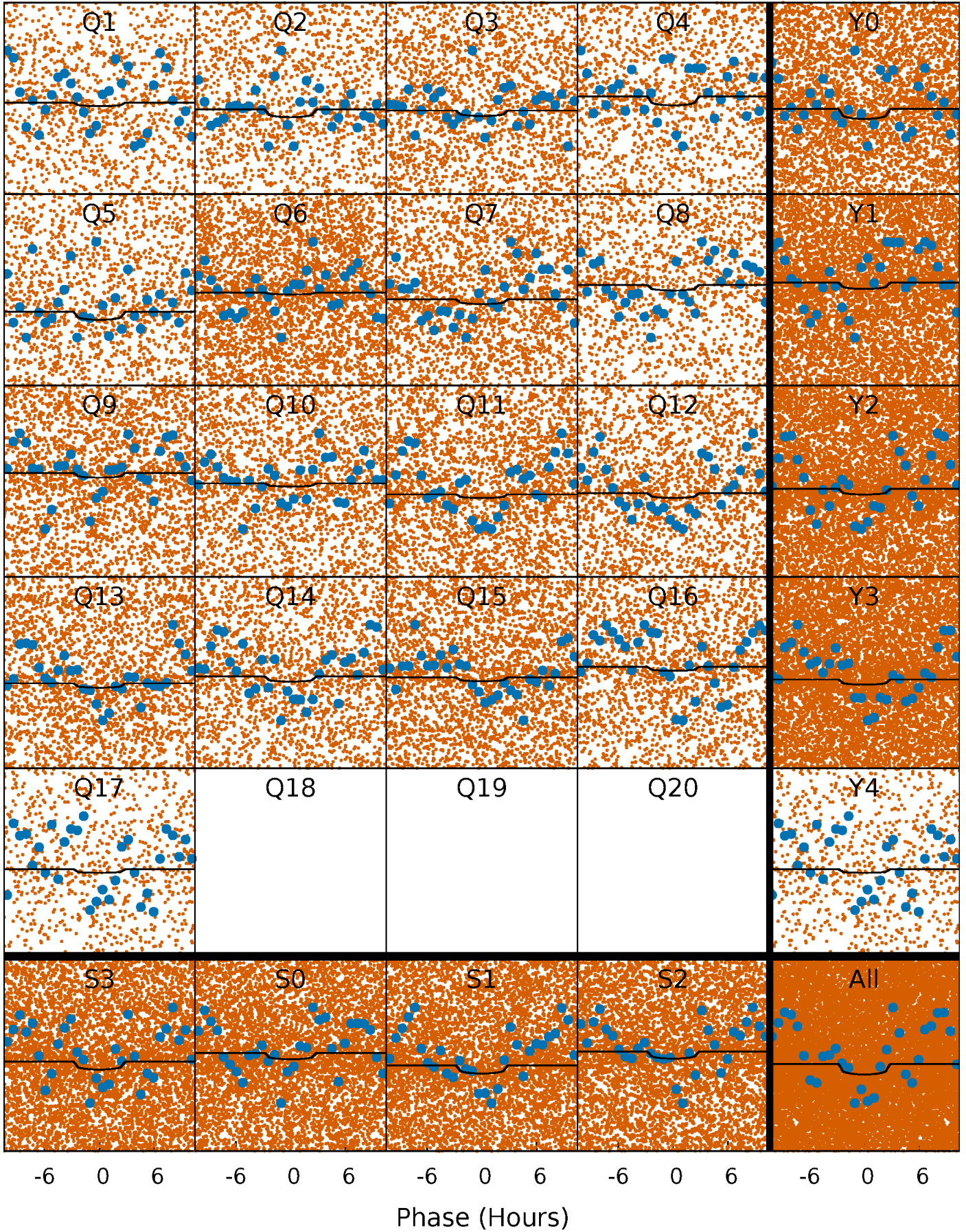
PDC Quarter-Phased Transit Curves

TCE 002304566-01 P= 0.689480 Days $T_0=131.833178$ (BKJD)



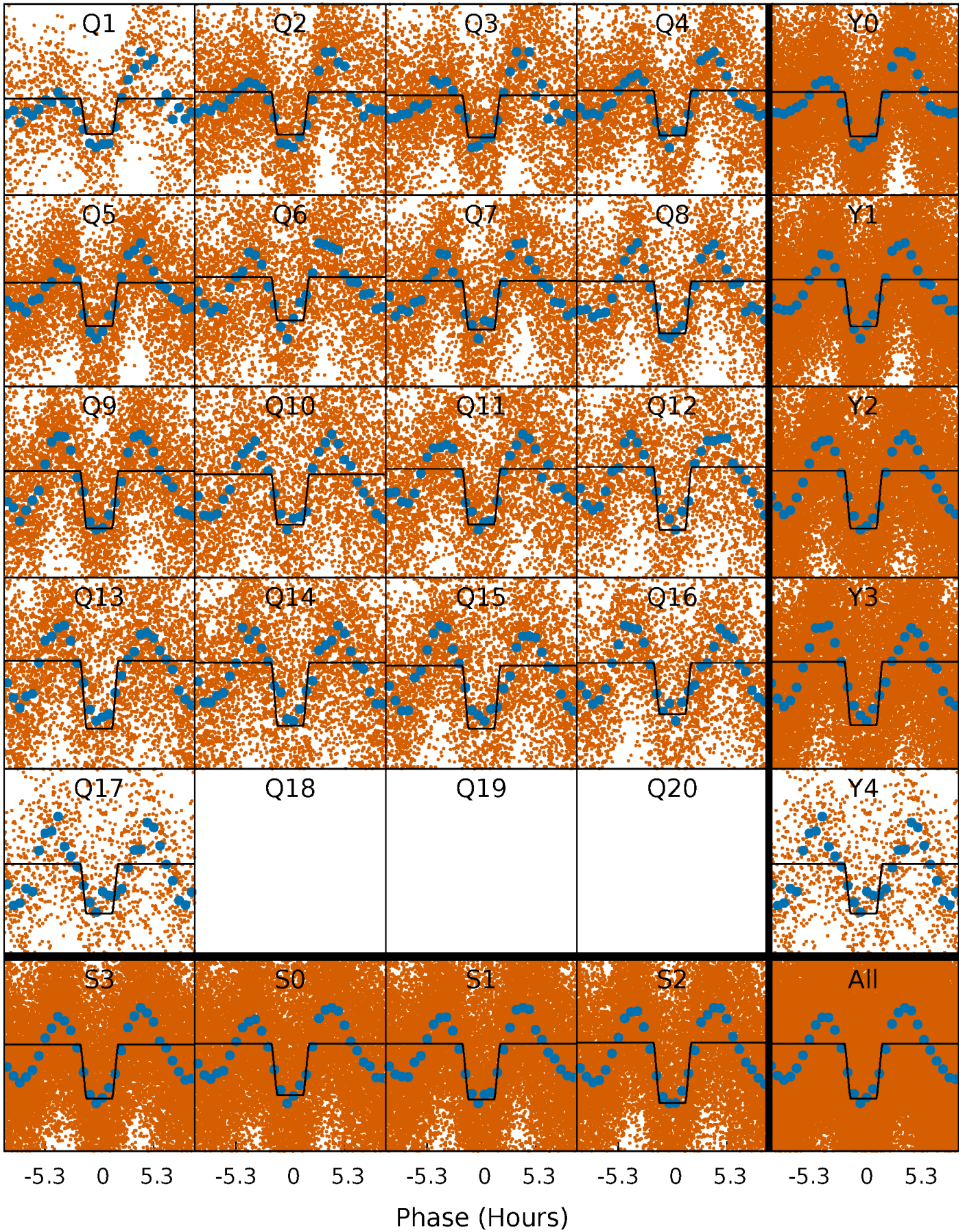
DV Quarter-Phased Transit Curves

TCE 002304566-01 P= 0.689480 Days $T_0=131.833178$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

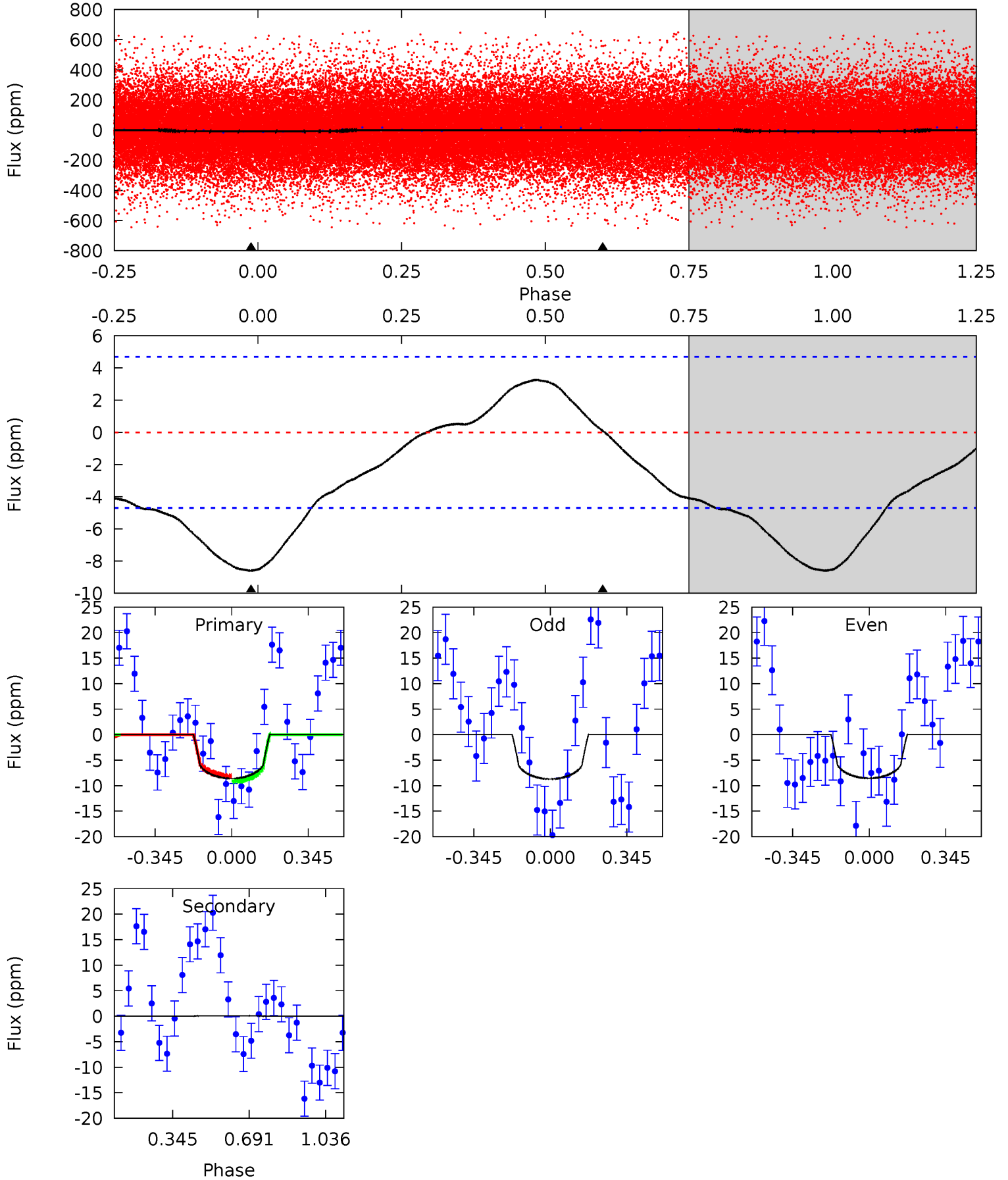
TCE 002304566-01 P= 0.689562 Days $T_0=131.754112$ (BKJD)



DV Model-Shift Uniqueness Test

002304566-01, P = 0.689480 Days, E = 131.143698 Days

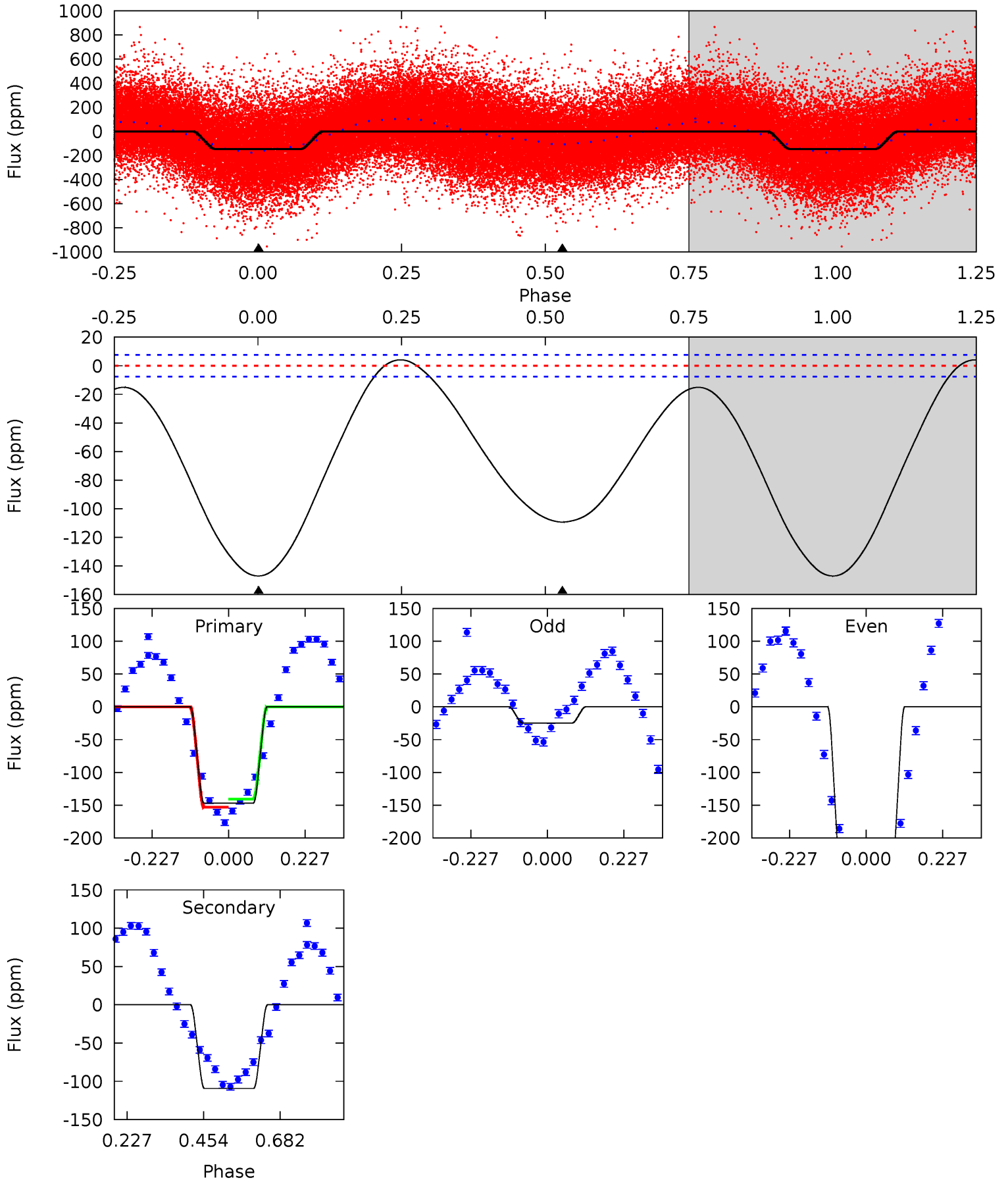
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.87	-0.08	0	0	4.30	0.94	0.46	7.87	7.87	-0.08	-0.08	0.07	1.05	0.28	0.43



Alt Model-Shift Uniqueness Test

002304566-01, P = 0.689562 Days, E = 131.064550 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
85.5	63.6	0	0	4.39	1.21	4.28	85.5	85.5	63.6	63.6	69.5	1.01	0.03	3.71



Stellar Parameters For KIC 002304566

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7059^{+171}_{-269}	$3.287^{+0.435}_{-0.145}$	$0.070^{+0.200}_{-0.250}$	$5.894^{+1.521}_{-2.825}$	$2.453^{+0.157}_{-0.629}$	$0.017^{+0.073}_{-0.007}$
	+2%/-4%	+13%/-4%	+286%/-357%	+26%/-48%	+6%/-26%	+434%/-43%
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 002304566-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1	$2.37^{+2.48}_{-1.65}$	7220^{+580}_{-899}	-5891^{+1103}_{-747}	$-0.000^{+0.073}_{-0.097}$
Alt.	-109 ± 2	$7.23^{+3.70}_{-3.31}$	7133^{+614}_{-831}	5016^{+2801}_{-9592}	$0.472^{+1.094}_{-0.256}$

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 $A_{obs} \gg 1.0$

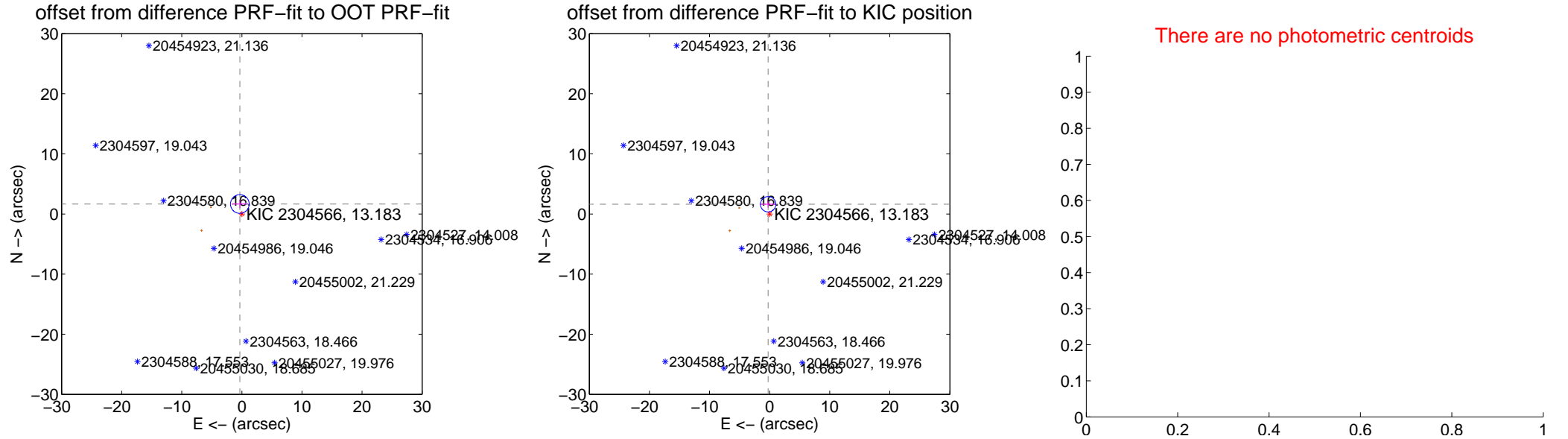
DV Centroid Data

Supplemental centroid analysis for 002304566-01. Kepler magnitude: 13.18. Transit SNR 2.57

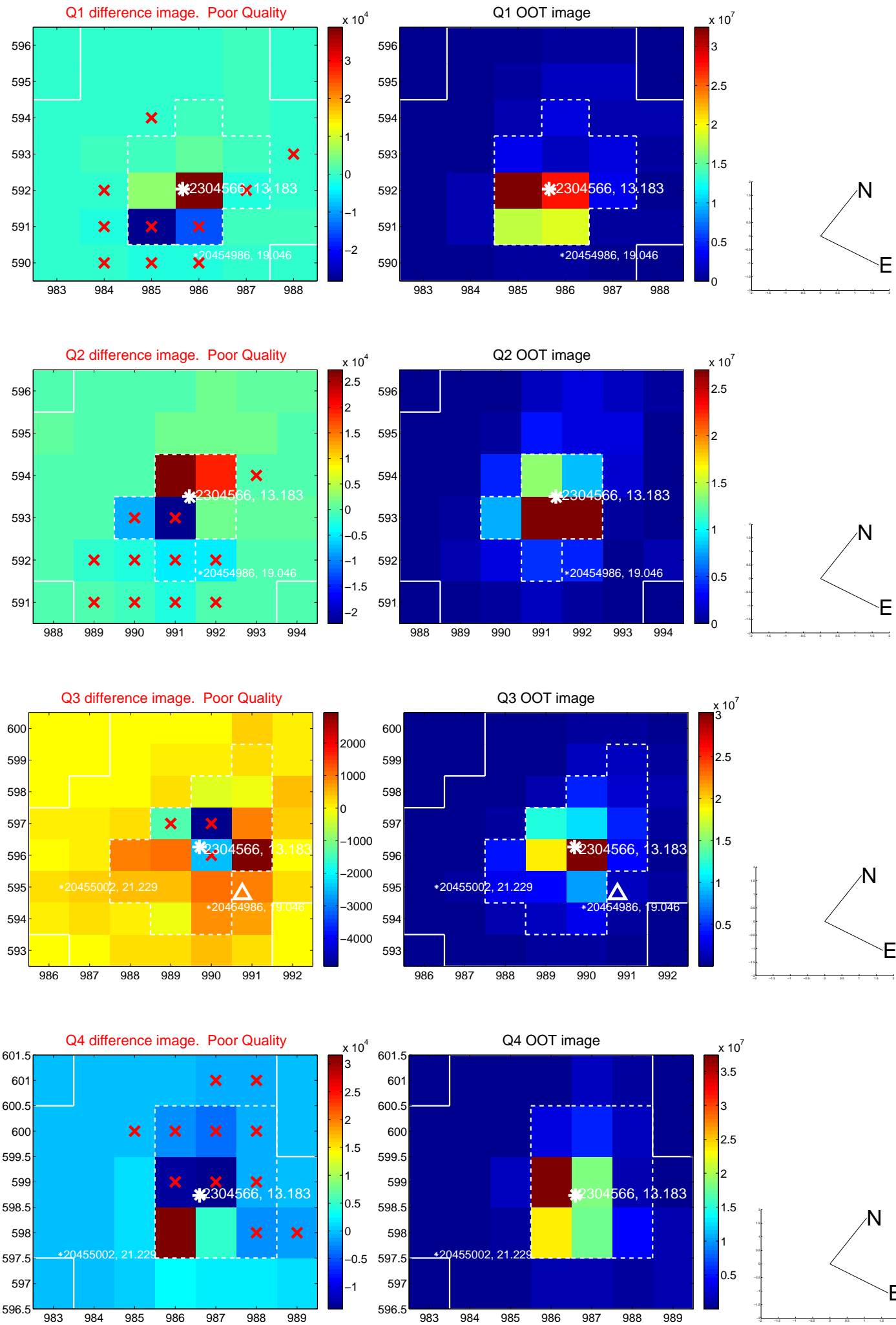
There are 3 quarters with good PRF difference image offsets

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

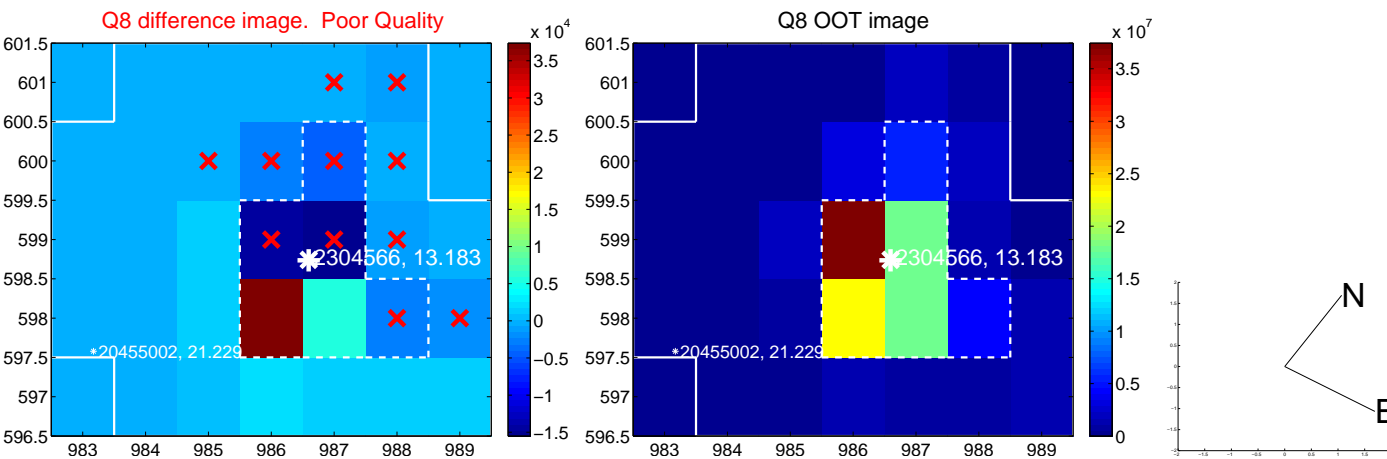
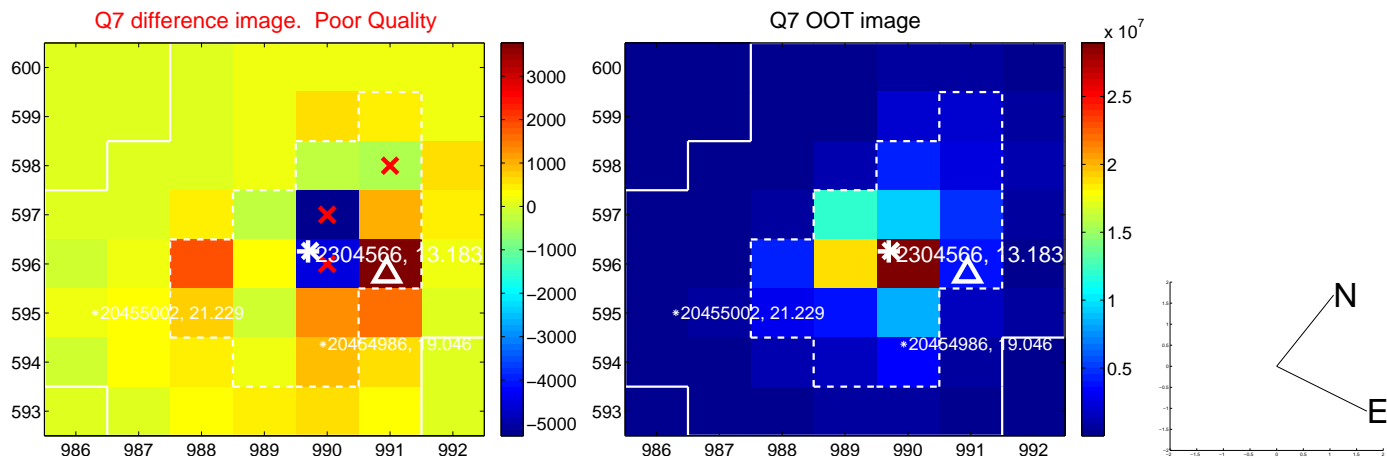
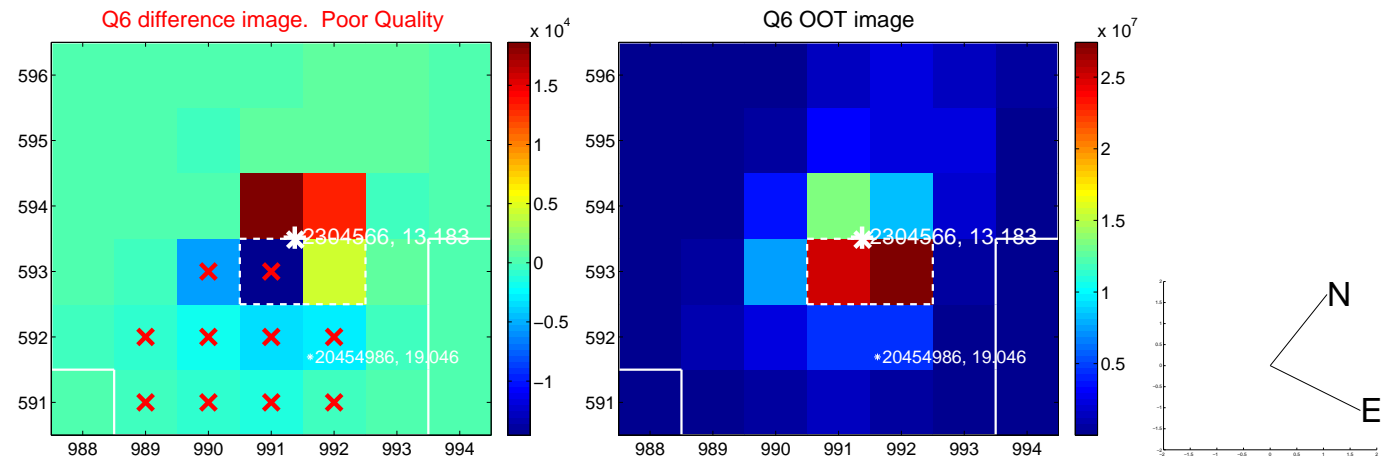
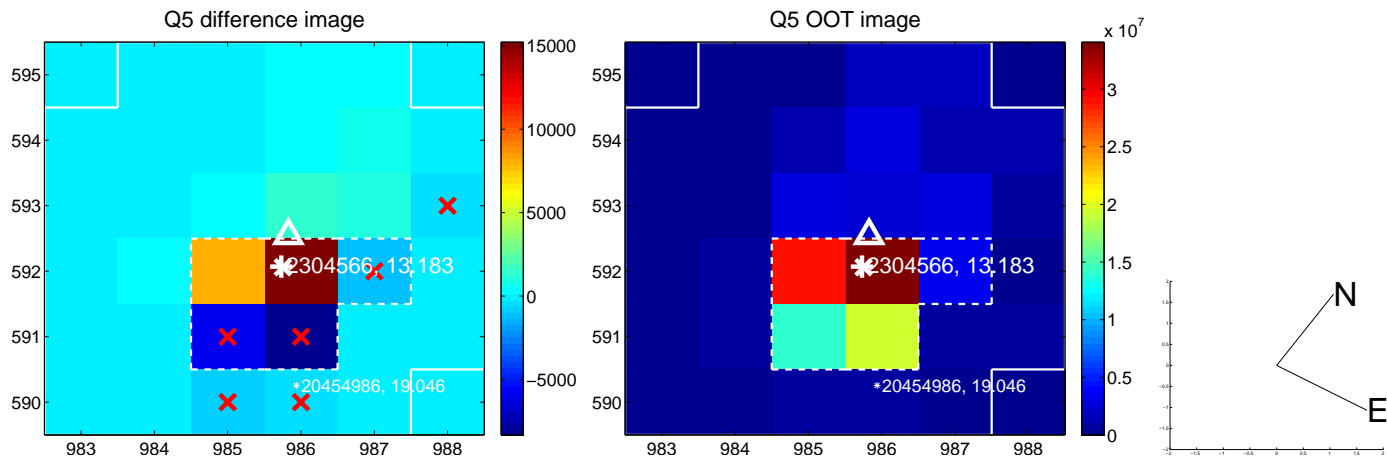
	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.693 ± 0.518	3.27	0.340 ± 1.372	1.658 ± 0.688
PRF-fit source offset from KIC position	1.639 ± 0.426	3.85	0.246 ± 1.237	1.621 ± 0.542
photometric centroid source offset	—	—	—	—



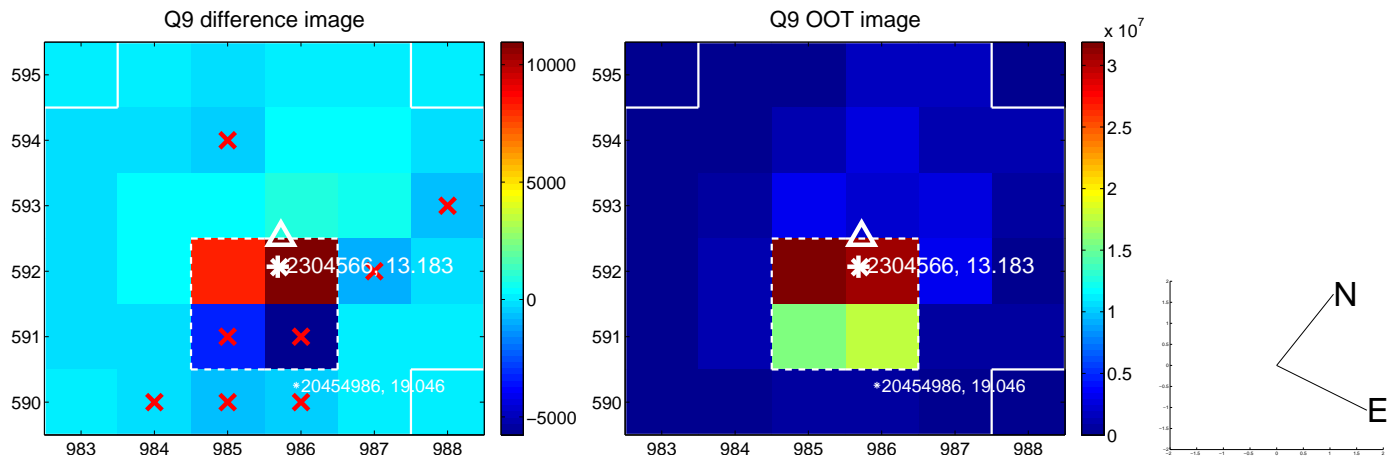
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



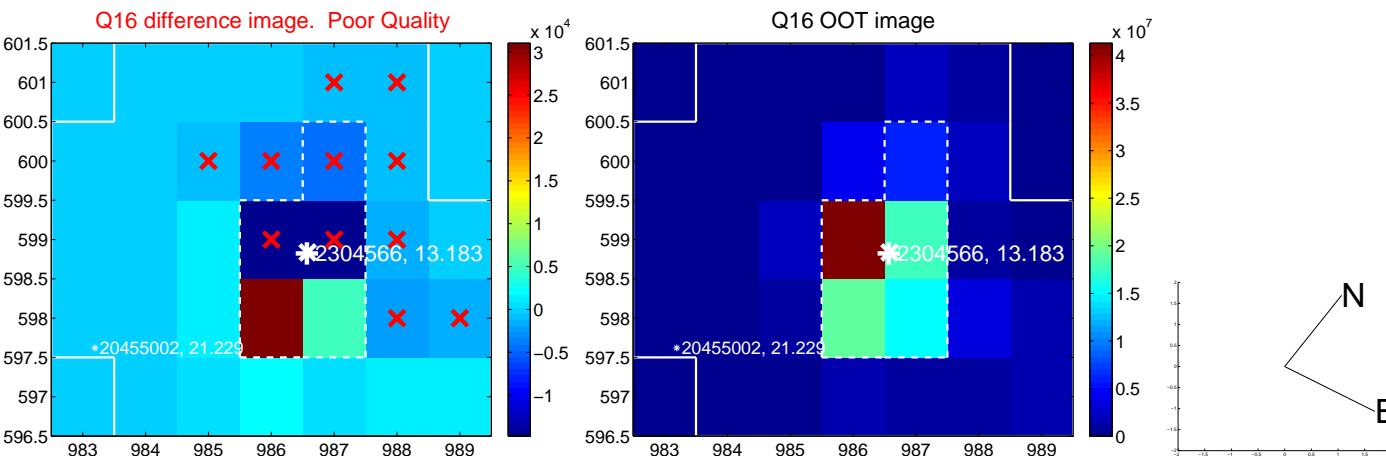
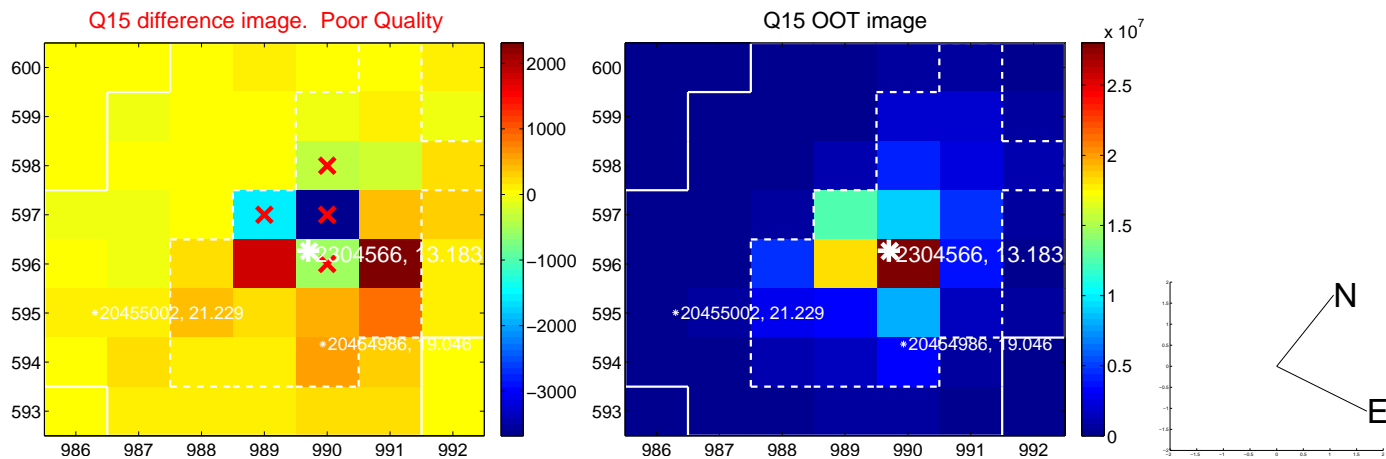
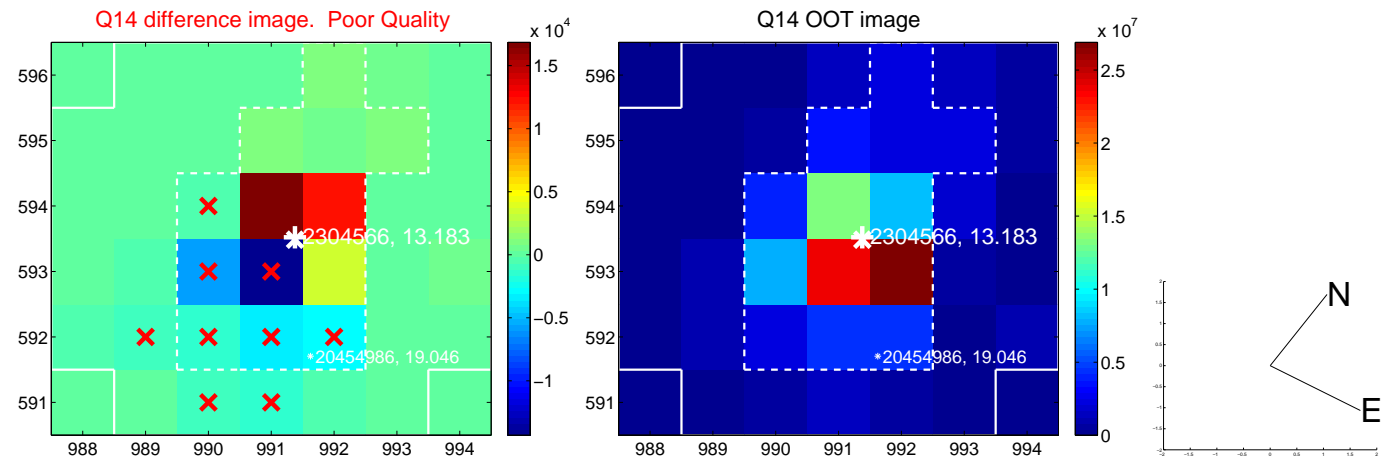
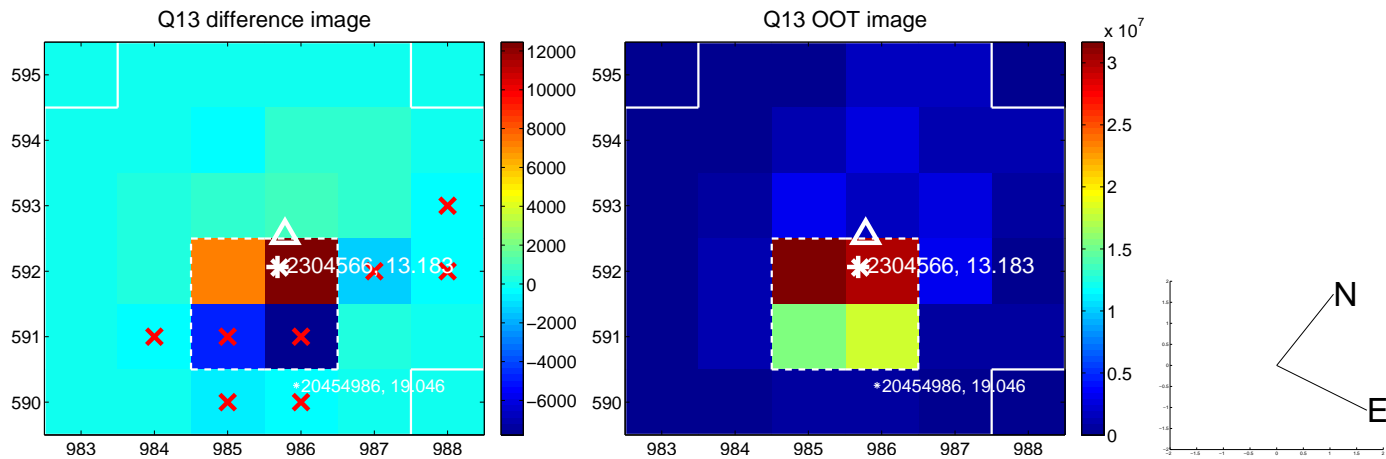
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



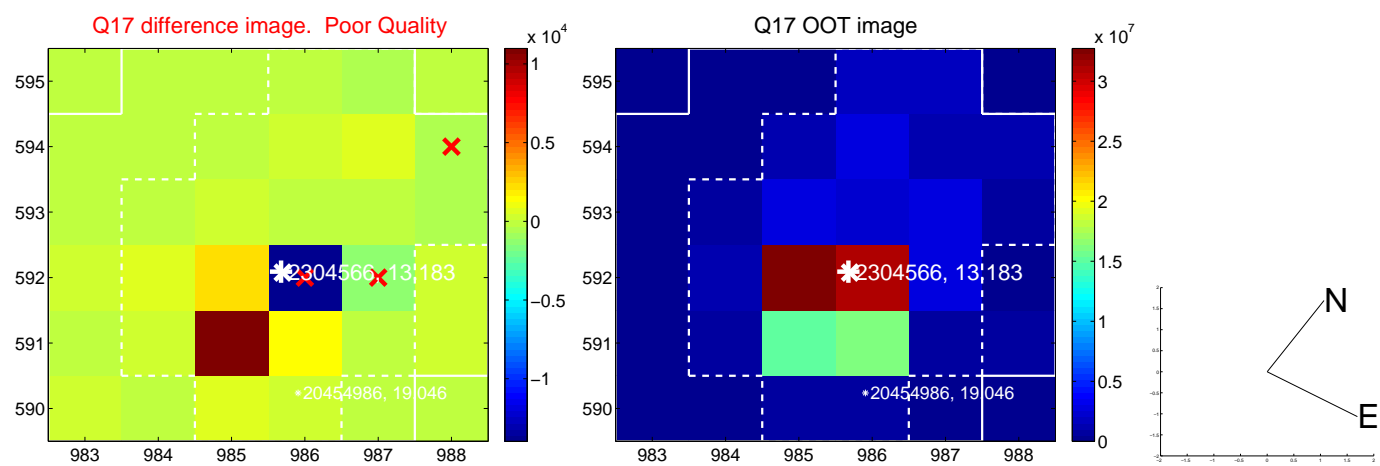
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



folded centroid time series figure for this object.

UKIRT Image

Declination

