

KIC 005008966

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})
005008966-01	OBS	No	0.705507	132.246518	80.0	7.734	8.0	10.6	57.94	3895	62.30	0.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005008966-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_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.

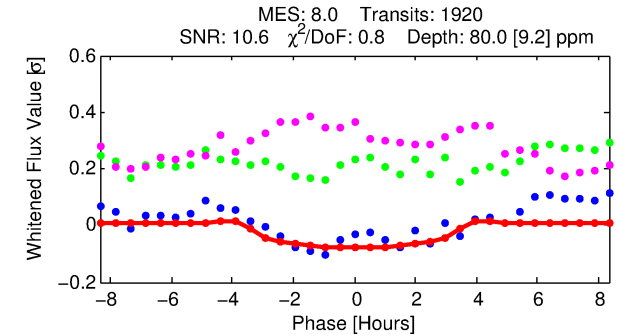
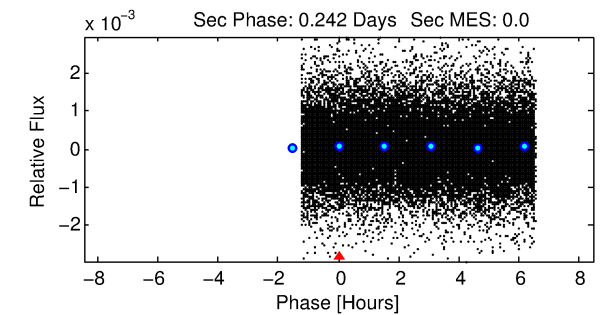
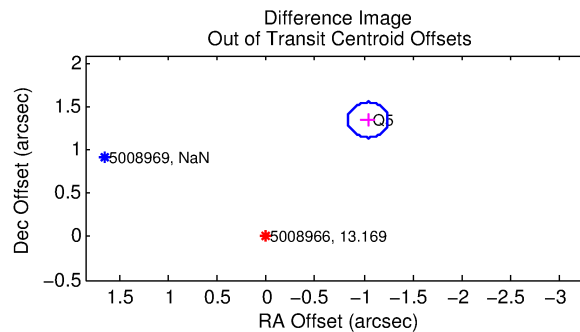
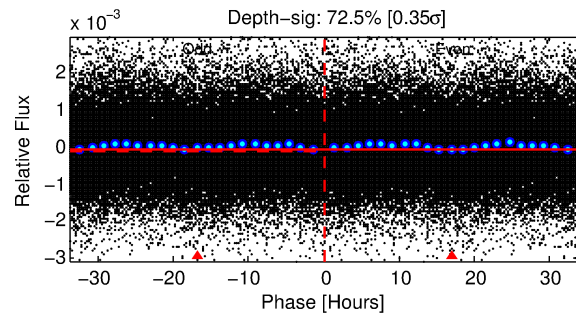
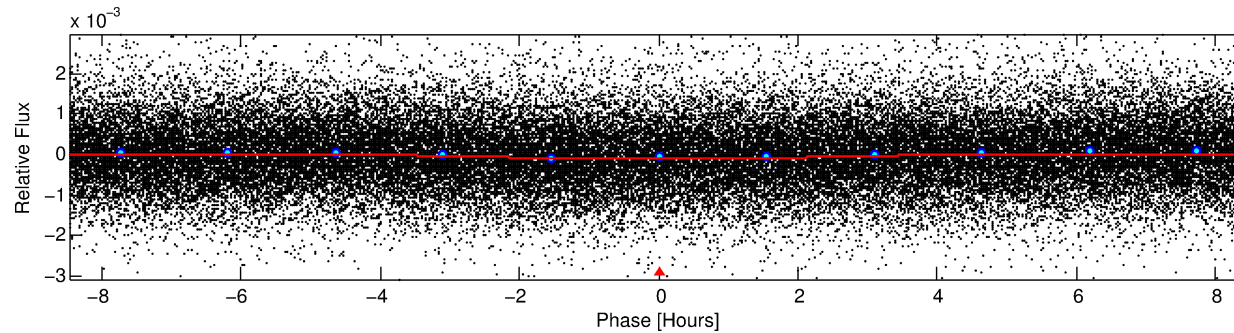
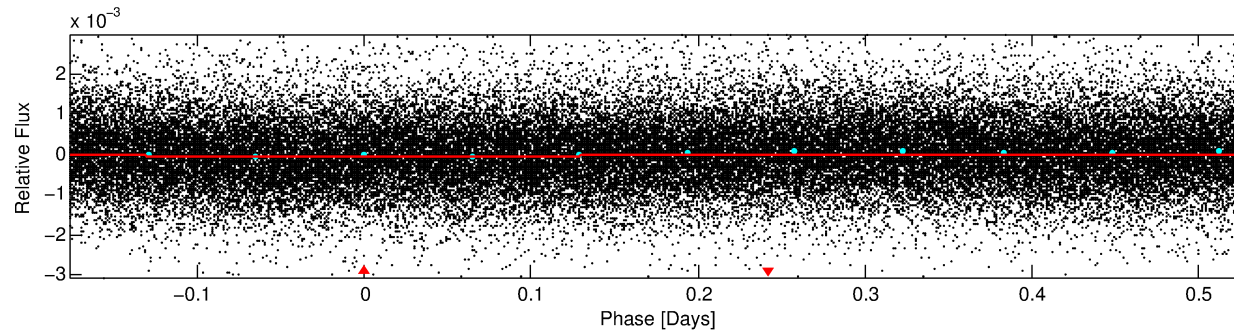
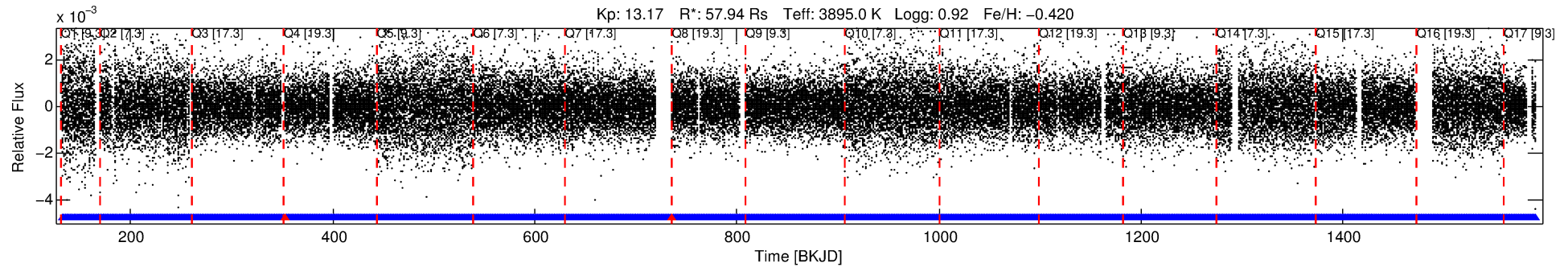
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005008966-01

No Significant Match Found

DV One-Page Summary

KIC: 5008966 Candidate: 1 of 1 Period: 0.706 d



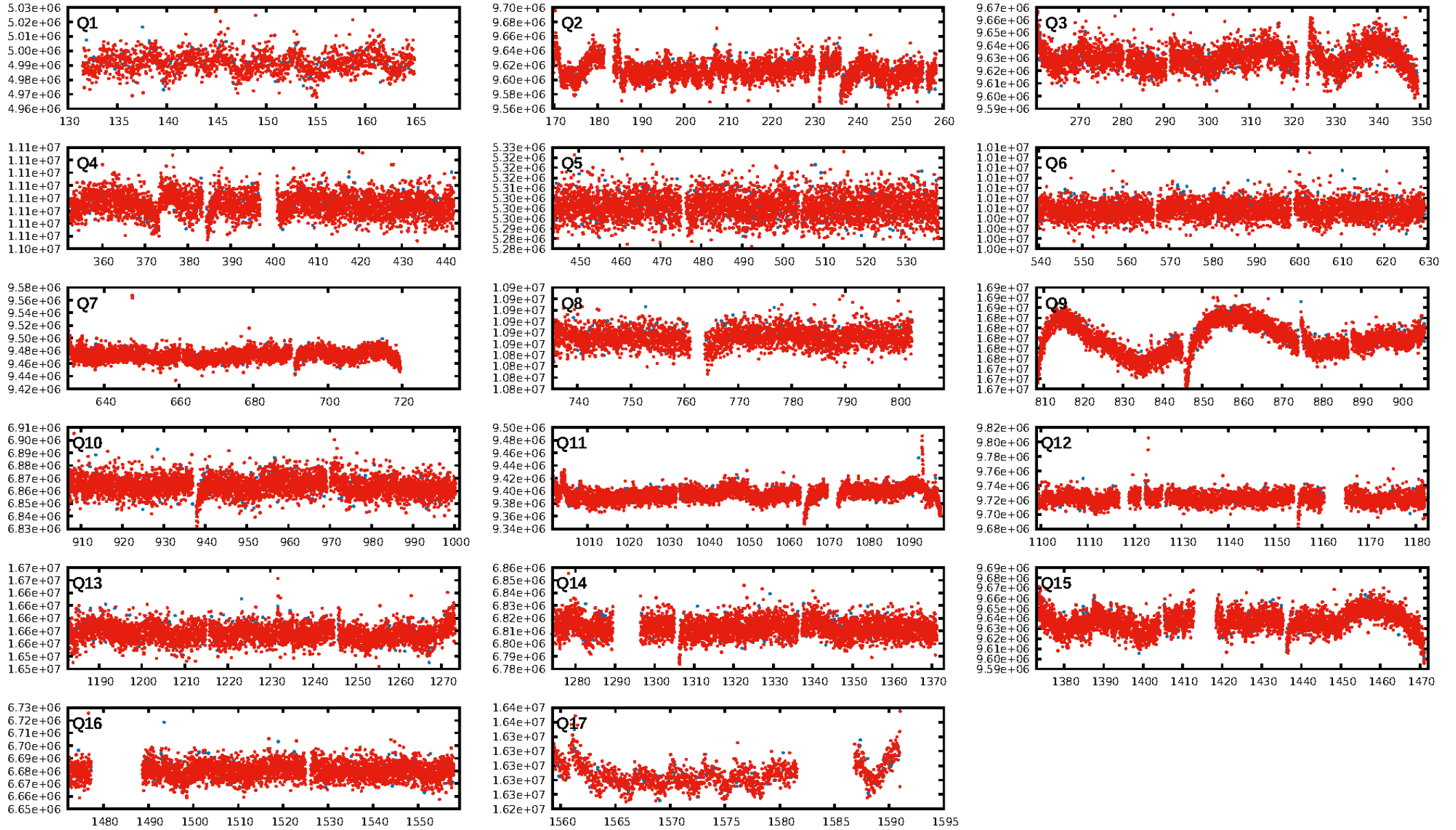
DV Fit Results:

Period = 0.70551 [0.00001] d
Epoch = 132.2465 [0.0076] BKJD
Rp/R* = 0.0099 [0.0027]
a/R* = 1.01 [0.02]
b = 0.86 [0.27]
Seff = N/A
Teq = N/A
Rp = 62.30 [27.17] Re
a = N/A
Ag = N/A
Teff = N/A




DV Diagnostic Results:

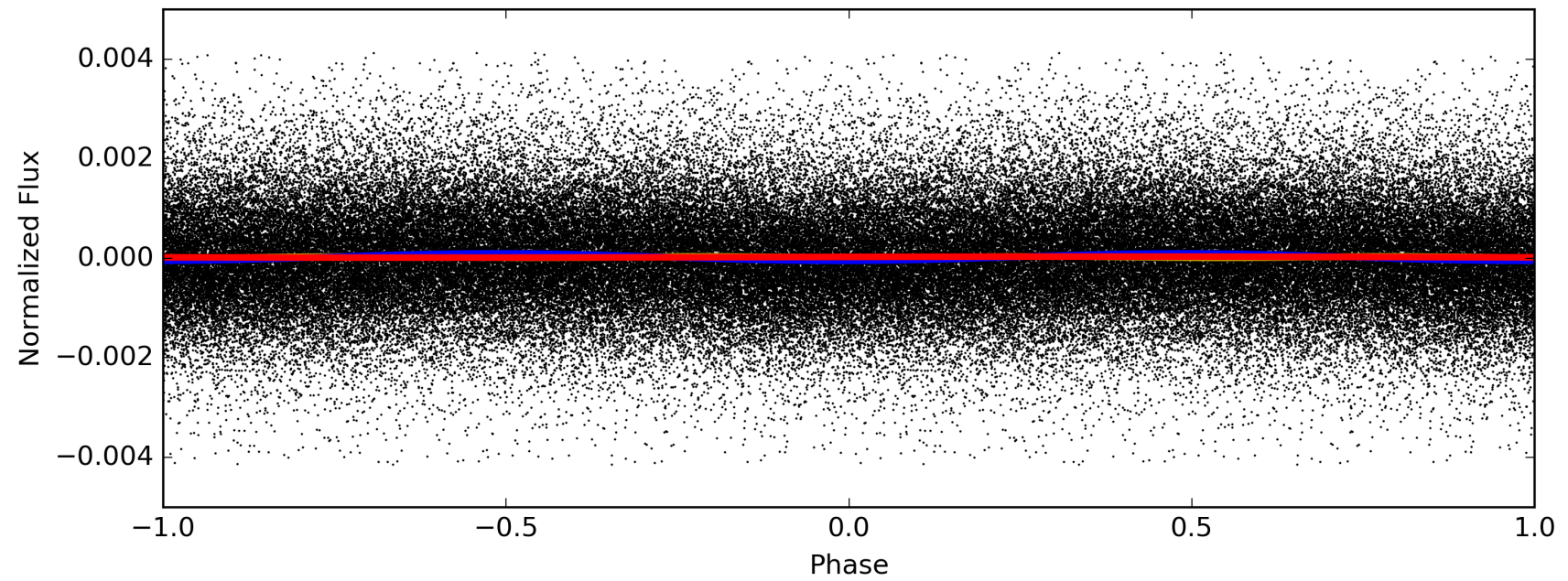
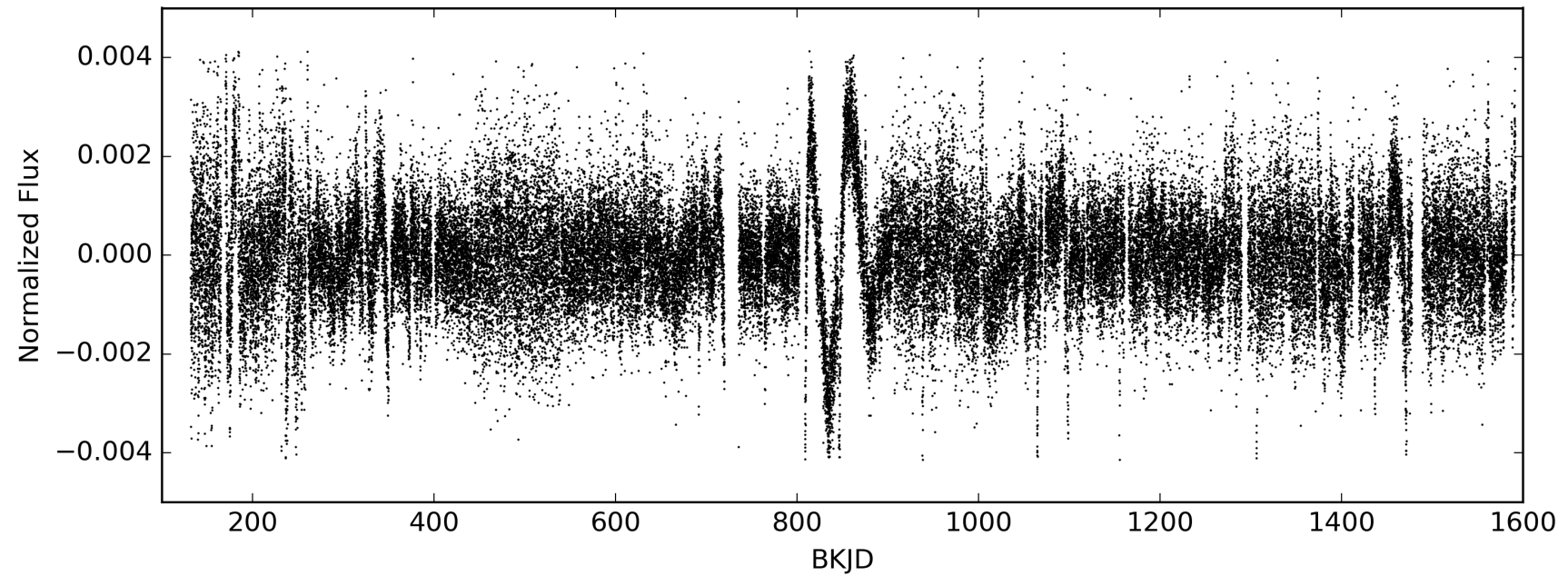
ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1832/1834]
GhostDiagnostic-chr: -1.399
Centroid-sig: 0.0%
Centroid-so: 6.043 arcsec [39.25 σ]
OotOffset-rm: 1.705 arcsec [24.80 σ]
KicOffset-rm: 8.143 arcsec [116.97 σ]
OotOffset-st: 0/0/0/1 [1]
KicOffset-st: 0/0/0/1 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 005008966-01, PDC Light Curves



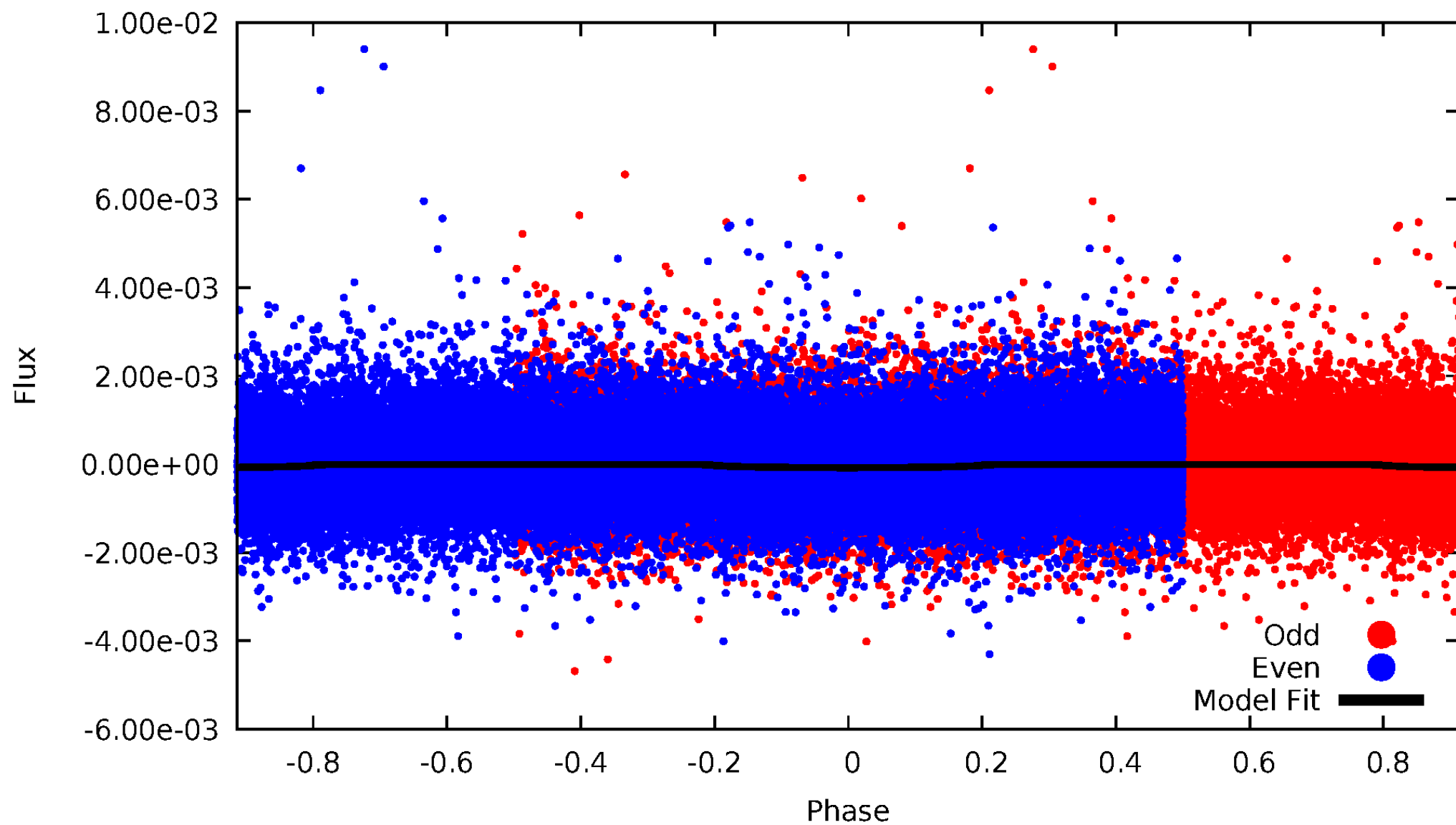
TCE 005008966-01

 P = 0.353 days  P = 0.706 days  P = 1.411 days



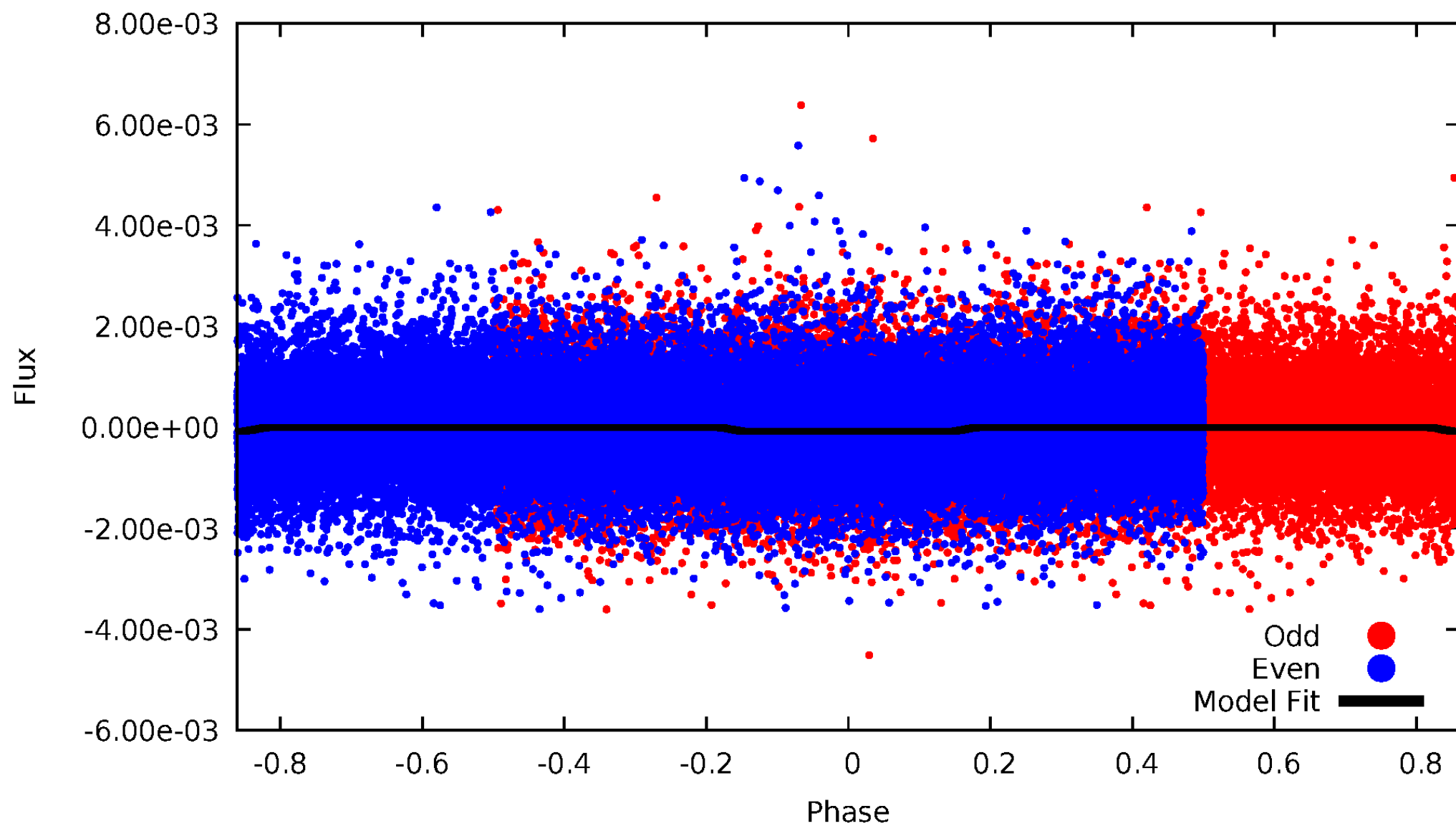
DV Odd/Even

TCE 005008966-01



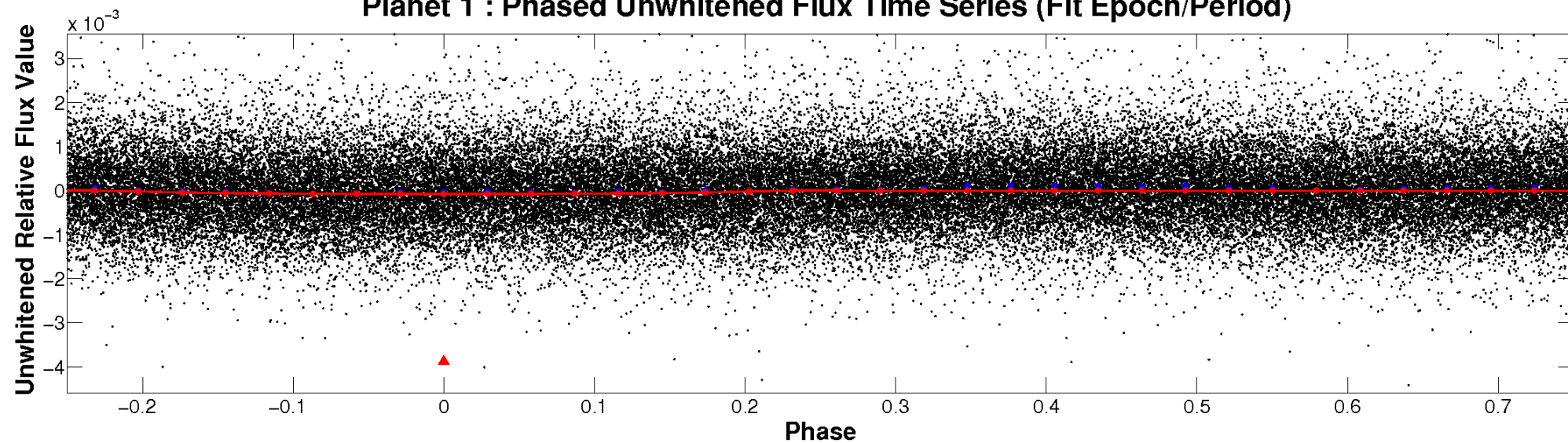
ALT Odd/Even

TCE 005008966-01

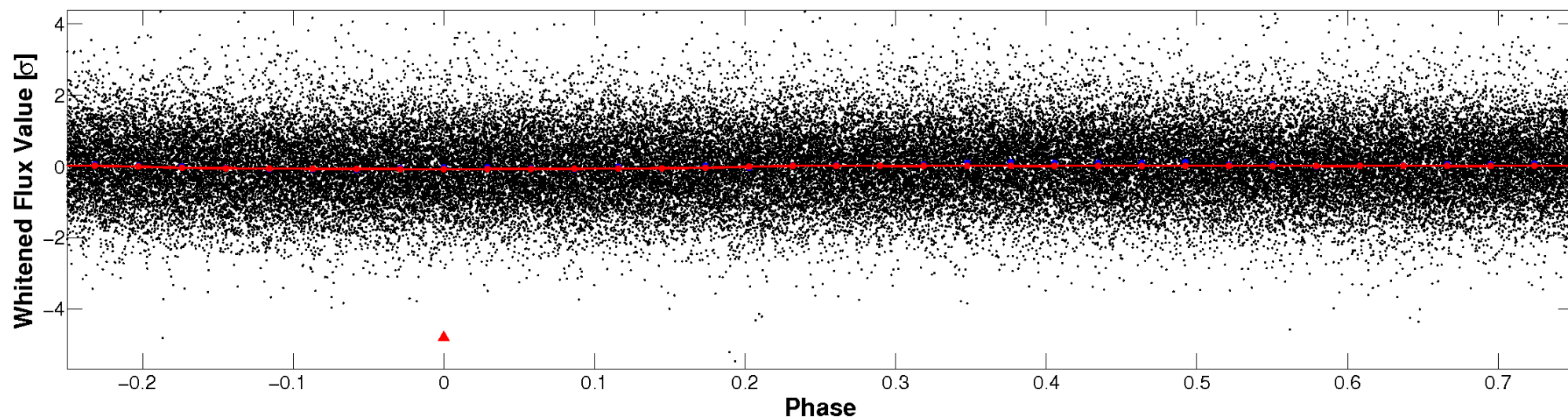


Non-Whitened Vs. Whitened Light Curve

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

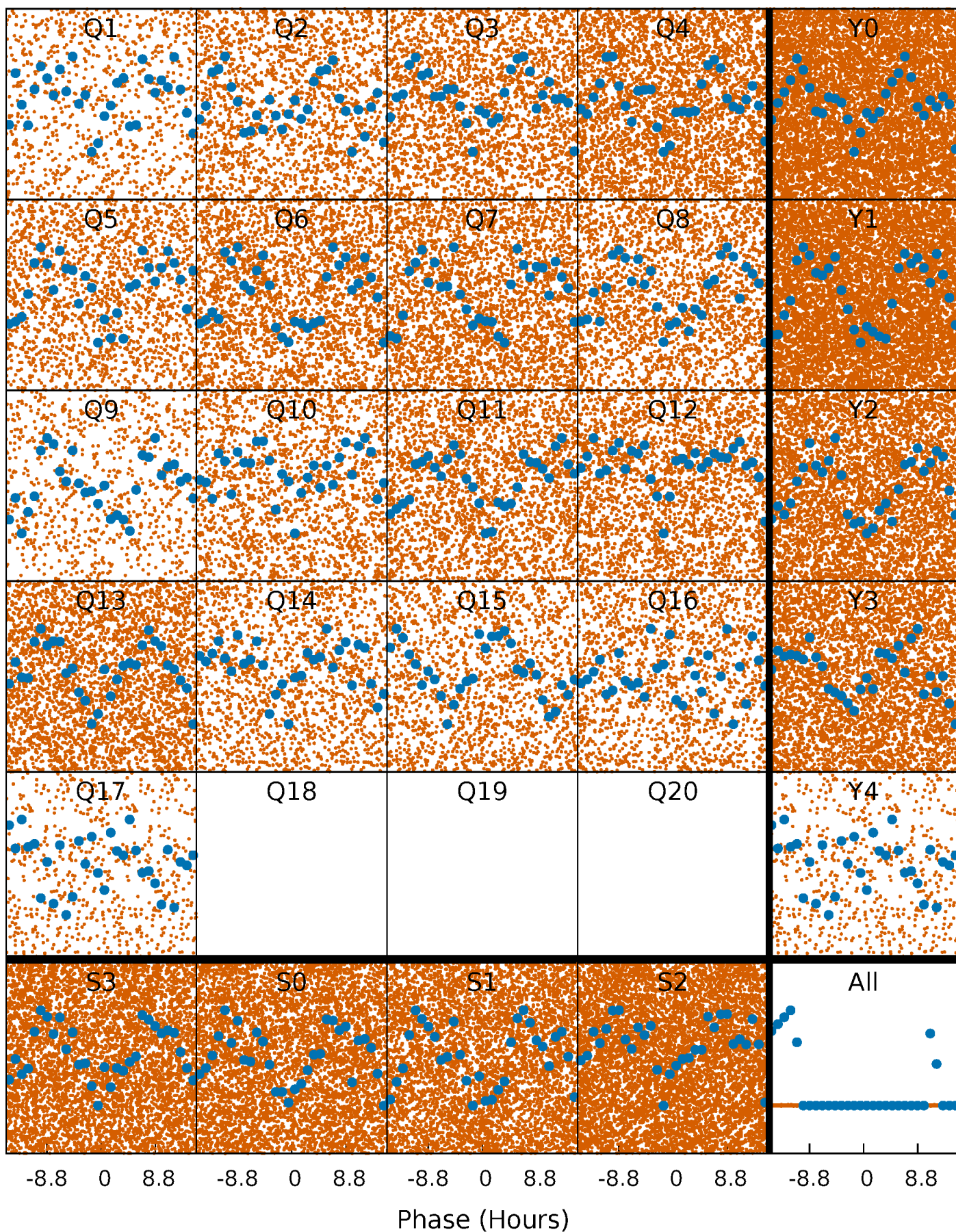


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



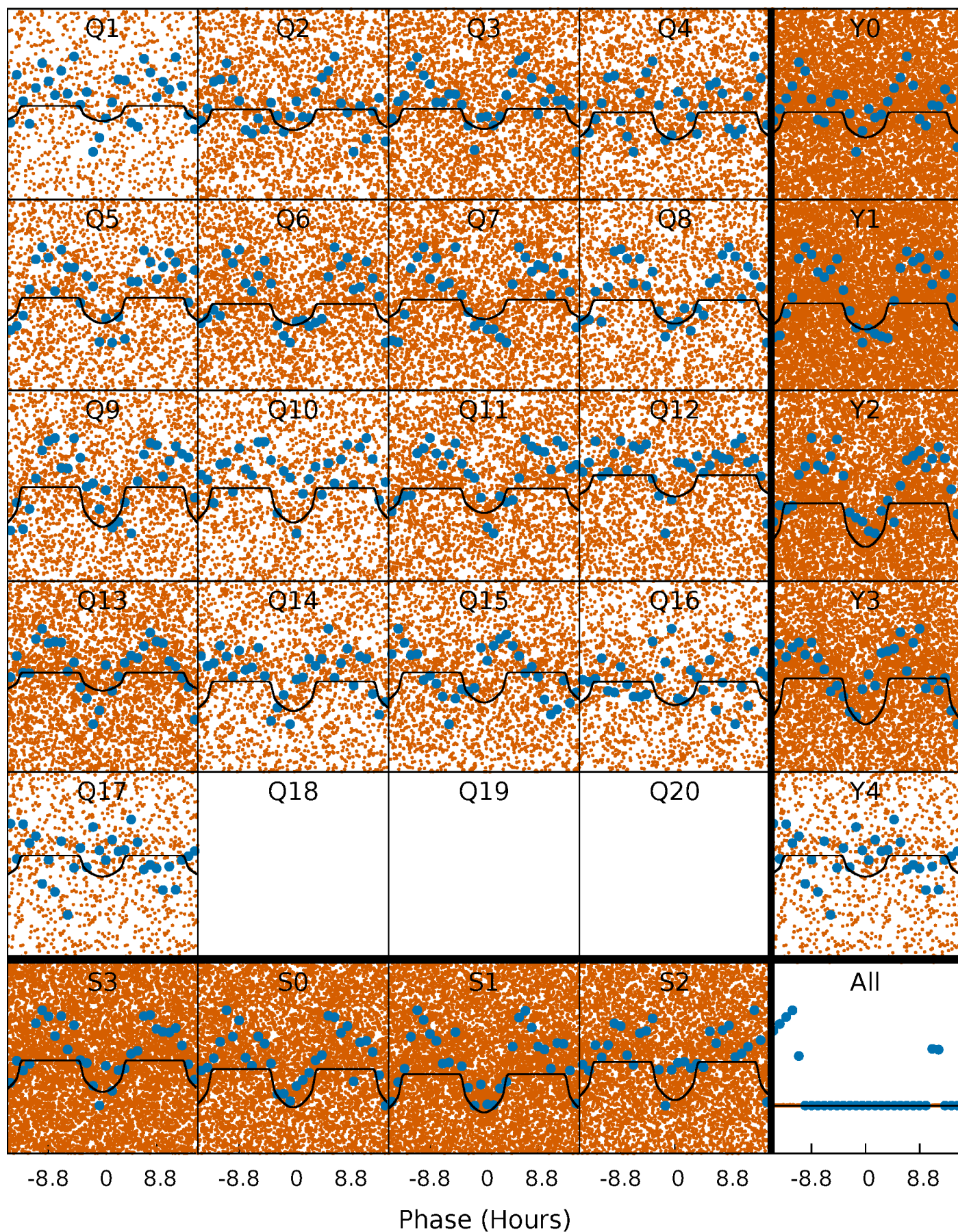
PDC Quarter-Phased Transit Curves

TCE 005008966-01 P= 0.705507 Days $T_0=132.246518$ (BKJD)



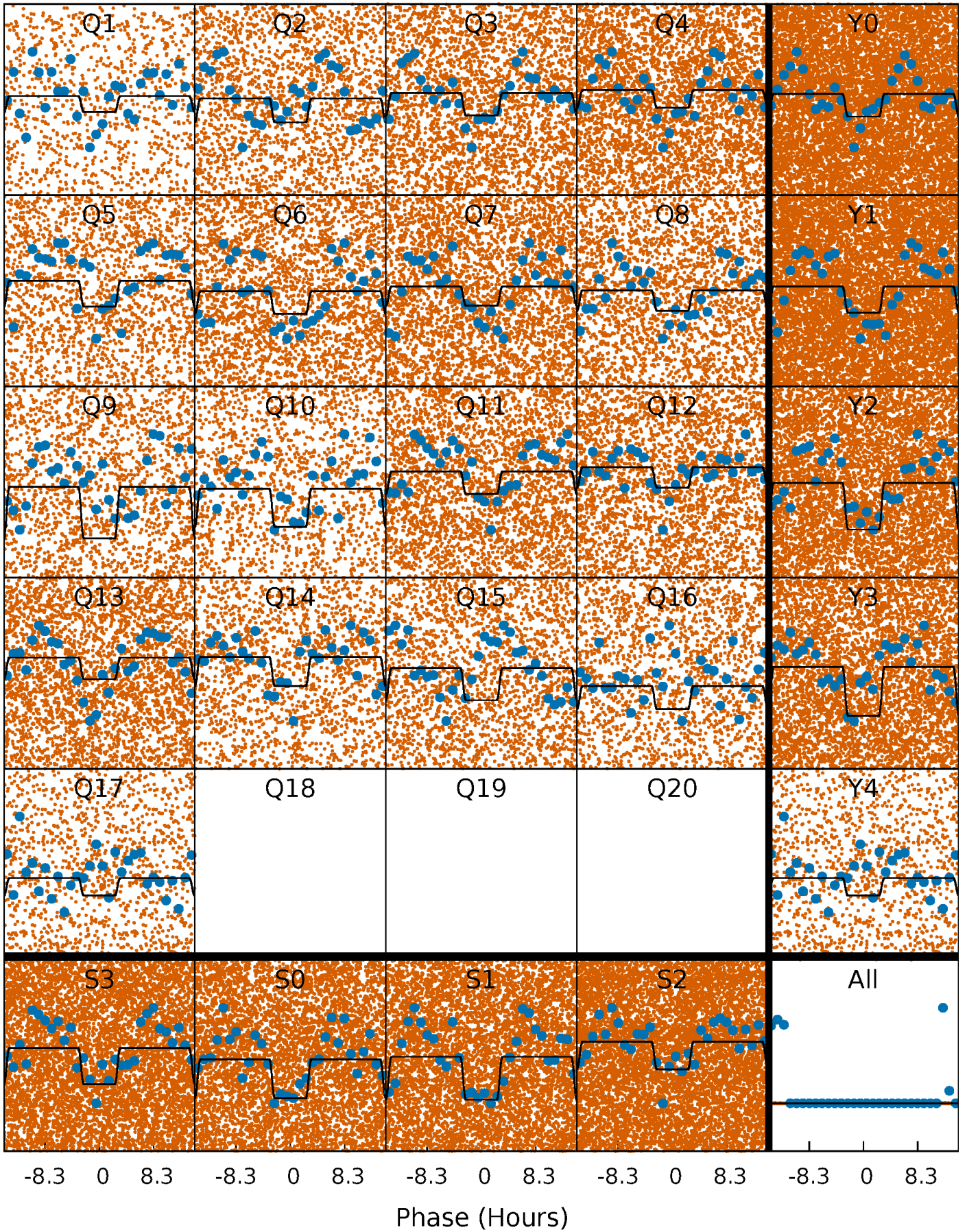
DV Quarter-Phased Transit Curves

TCE 005008966-01 P= 0.705507 Days $T_0=132.246518$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

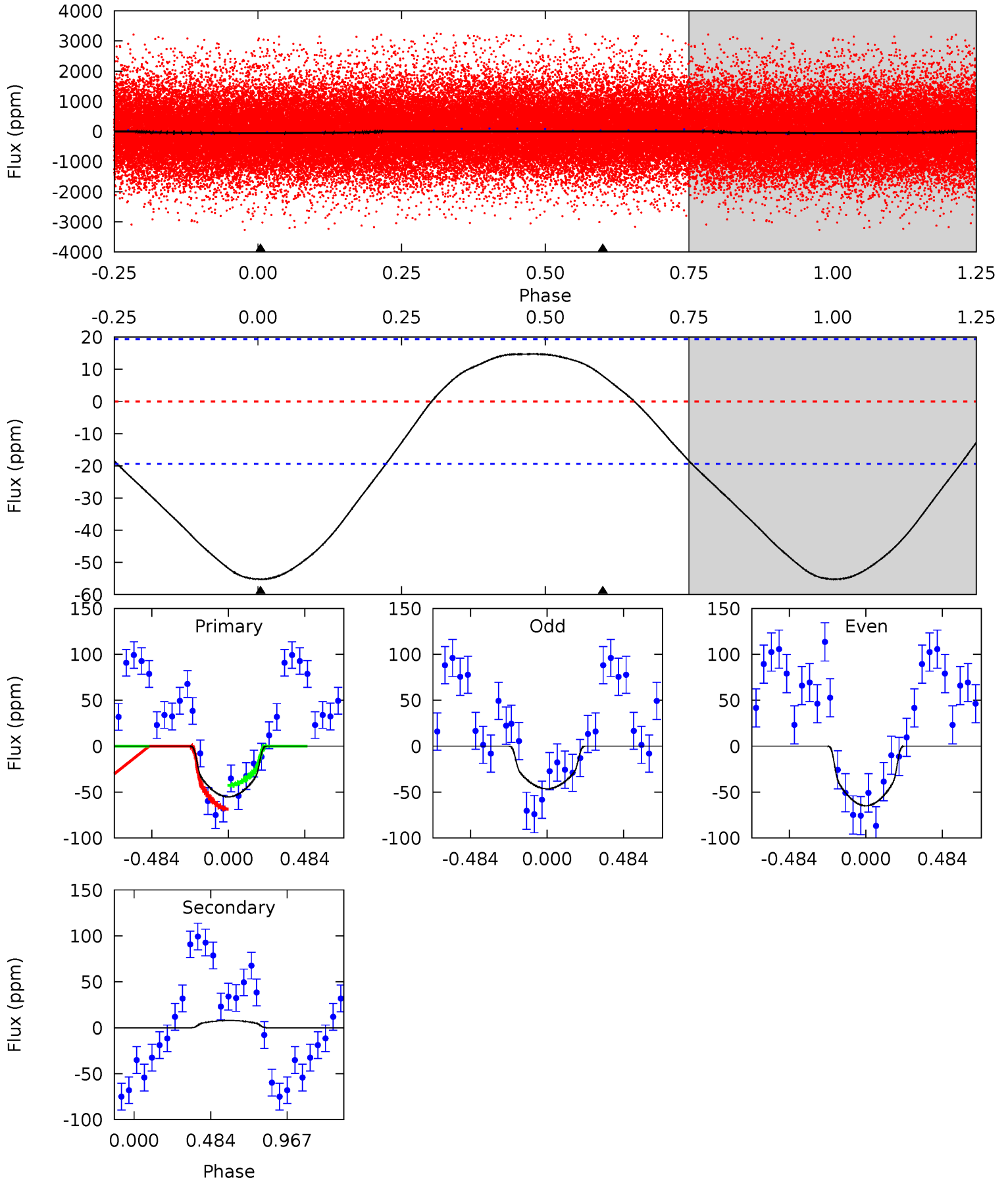
TCE 005008966-01 P= 0.705498 Days $T_0=132.244973$ (BKJD)



DV Model-Shift Uniqueness Test

005008966-01, $P = 0.705507$ Days, $E = 130.835504$ Days

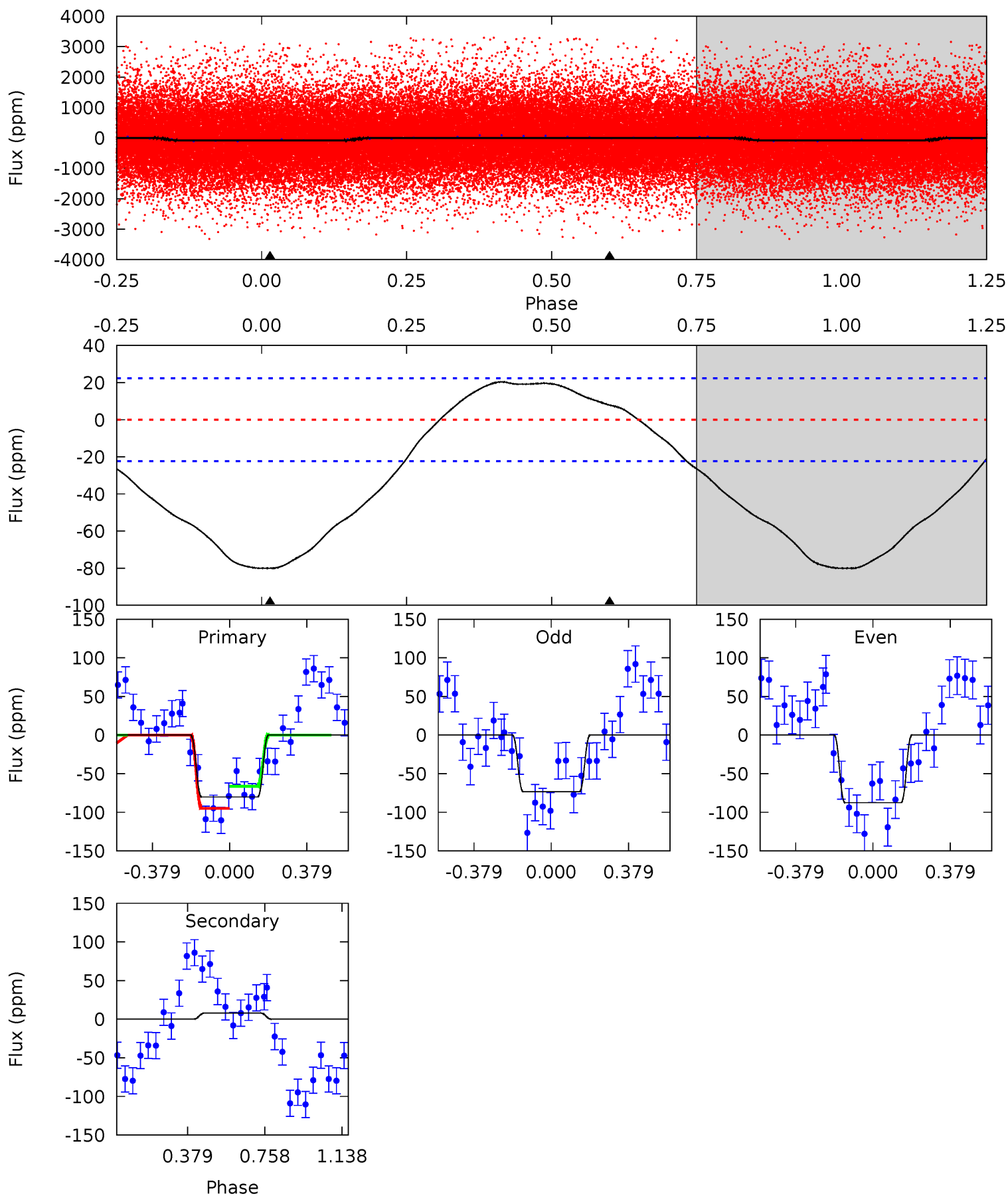
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.0	-1.74	0	0	4.22	0.70	1.37	12.0	12.0	-1.74	-1.74	2.04	0.80	0.21	2.88



Alt Model-Shift Uniqueness Test

005008966-01, P = 0.705498 Days, E = 130.833977 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.4	-1.51	0	0	4.28	0.88	1.68	15.4	15.4	-1.51	-1.51	1.38	0.93	0.20	2.75



Stellar Parameters For KIC 005008966

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3895^{+140}_{-105}	$0.922^{+0.291}_{-0.238}$	$-0.420^{+0.300}_{-0.250}$	$57.937^{+19.752}_{-14.365}$	$1.022^{+0.450}_{-0.113}$	$0.000^{+0.000}_{-0.000}$
	+4%/-3%	+32%/-26%	+71%/-60%	+34%/-25%	+44%/-11%	+158%/-53%
Source	PHO54	PHO54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 005008966-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	8 ± 5	$63.08^{+22.86}_{-19.22}$	14679^{+1456}_{-1356}	-13156^{+2067}_{-2755}	$-0.000^{+0.000}_{-0.000}$
Alt.	8 ± 5	$57.16^{+20.57}_{-17.92}$	14510^{+1441}_{-1202}	-12993^{+1882}_{-2682}	$-0.000^{+0.000}_{-0.001}$

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 $A_{obs} \gg 1.0$

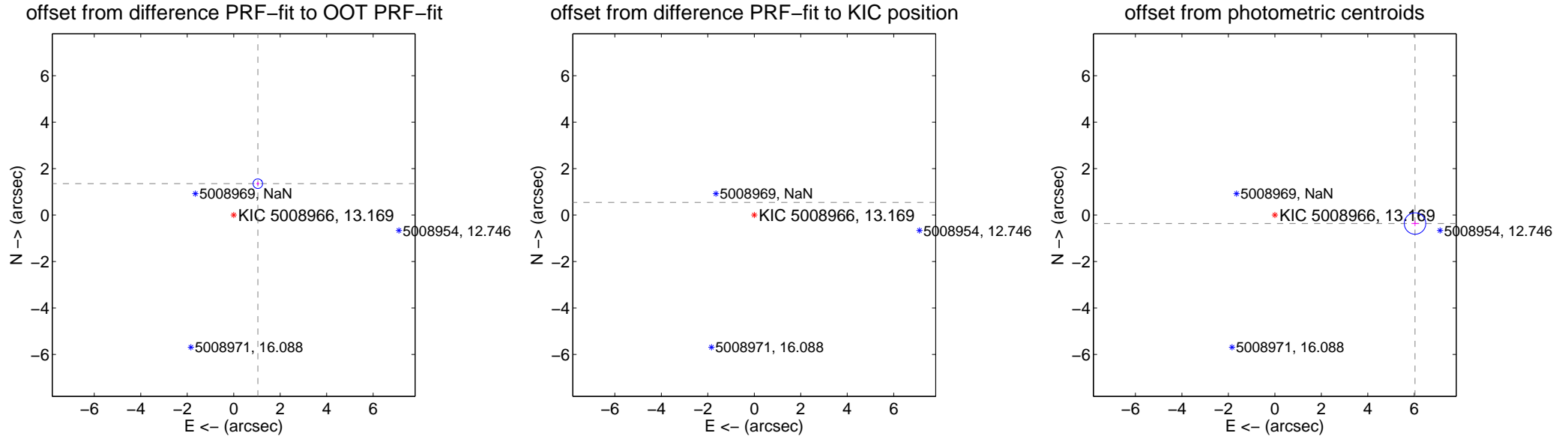
DV Centroid Data

Supplemental centroid analysis for 005008966-01. Kepler magnitude: 13.17. Transit SNR 10.55

There are 1 quarters with good PRF difference image offsets

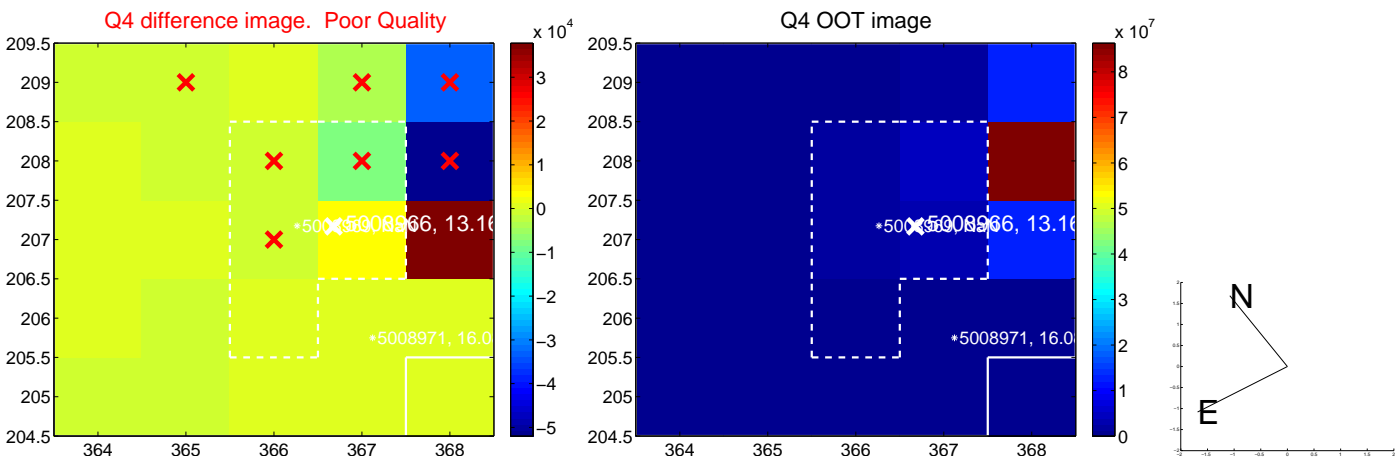
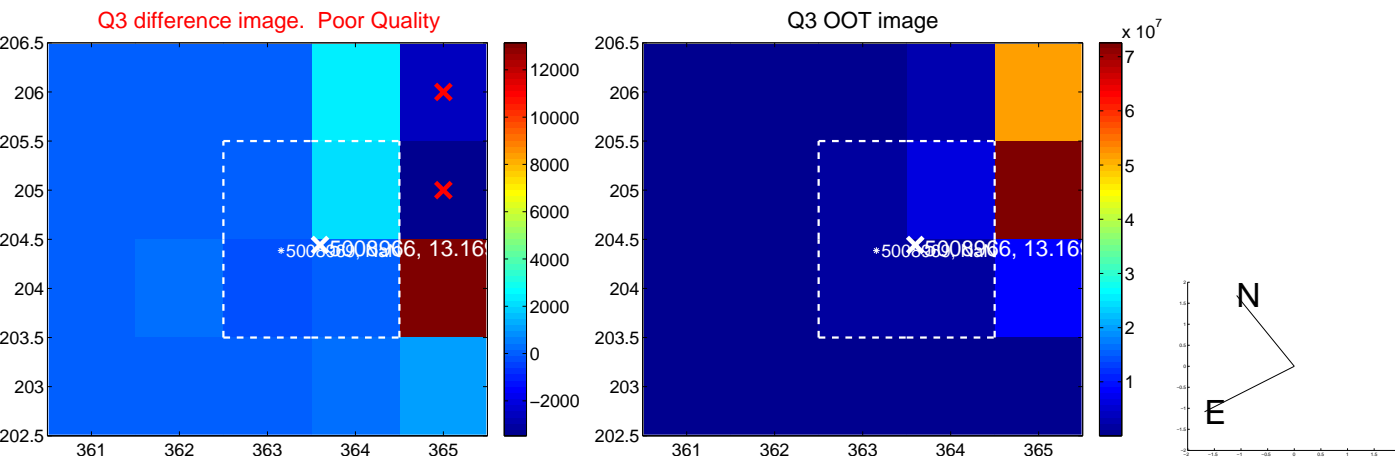
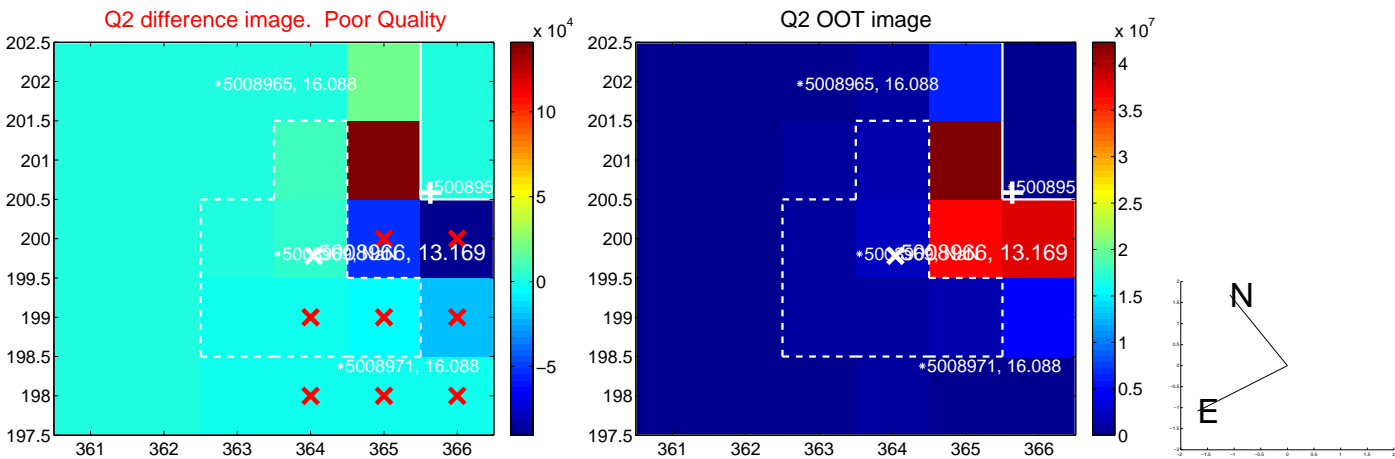
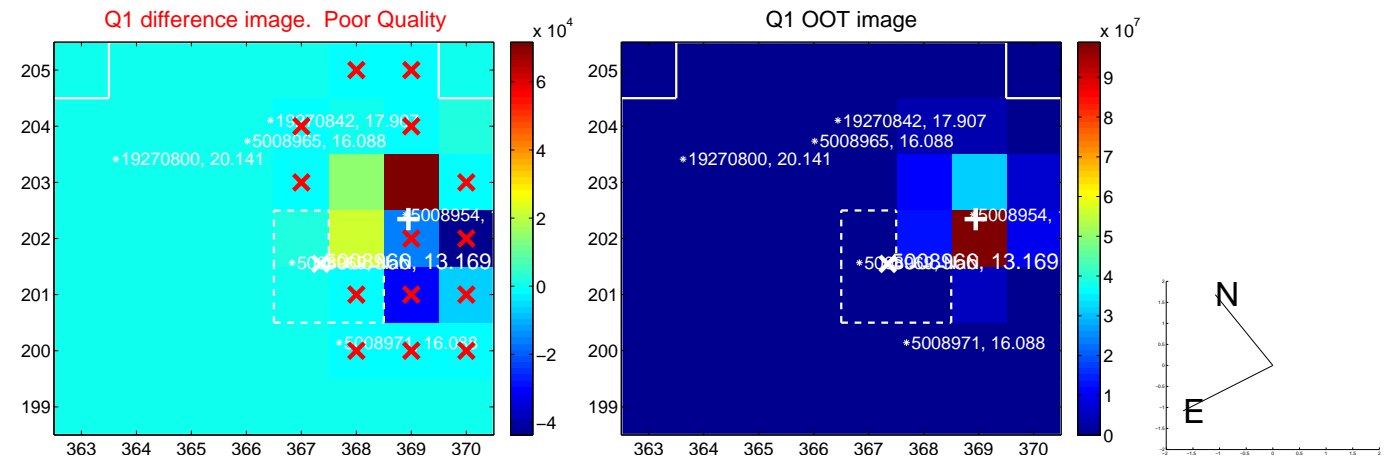
The OOT PRF centroid is offset from the target star catalog position by about 7.13 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.705 ± 0.069	24.80	-1.038 ± 0.070	1.352 ± 0.068
PRF-fit source offset from KIC position	8.143 ± 0.070	116.97	-8.125 ± 0.070	0.546 ± 0.068
photometric centroid source offset	6.04 ± 0.15	39.25	-6.03 ± 0.15	-0.36 ± 0.12

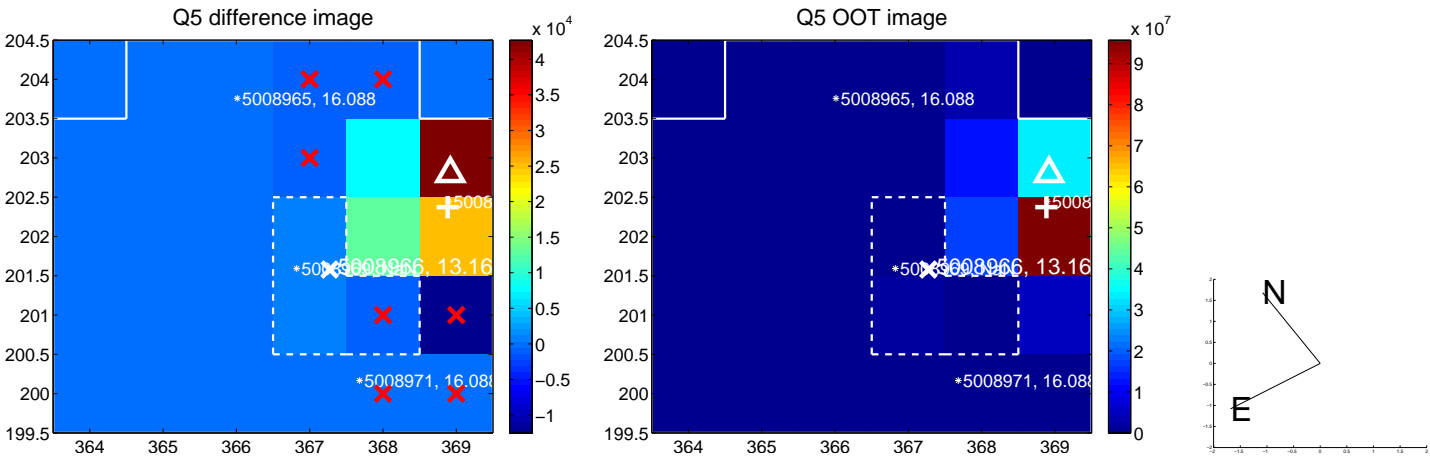


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

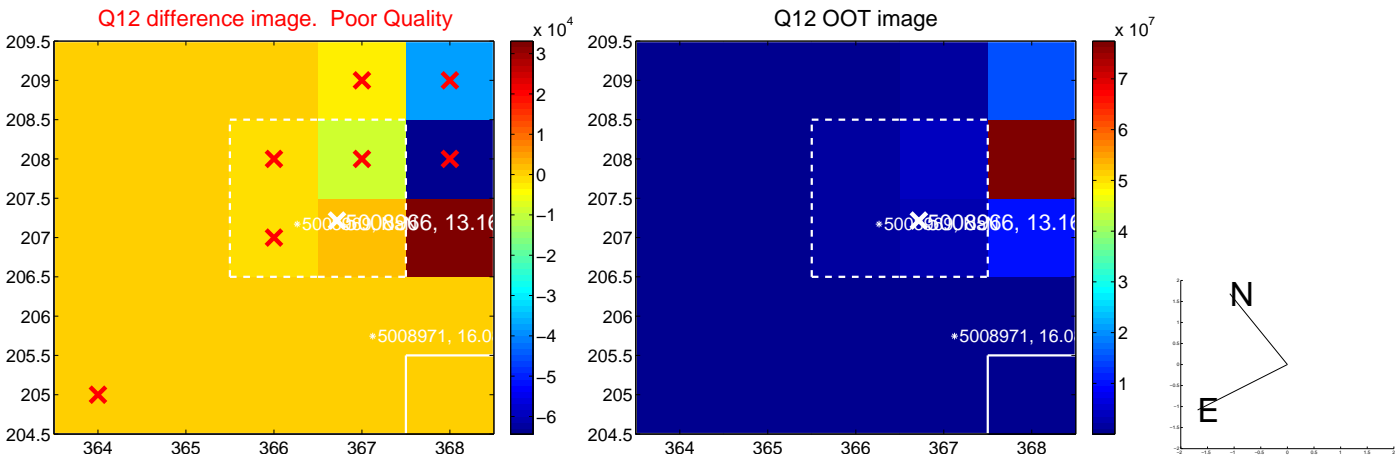
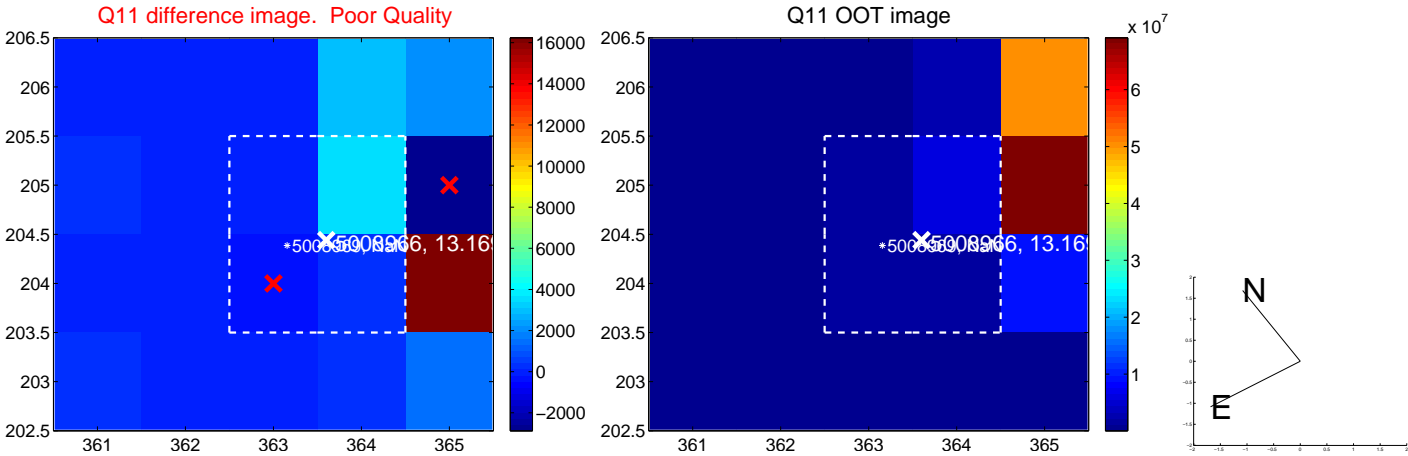
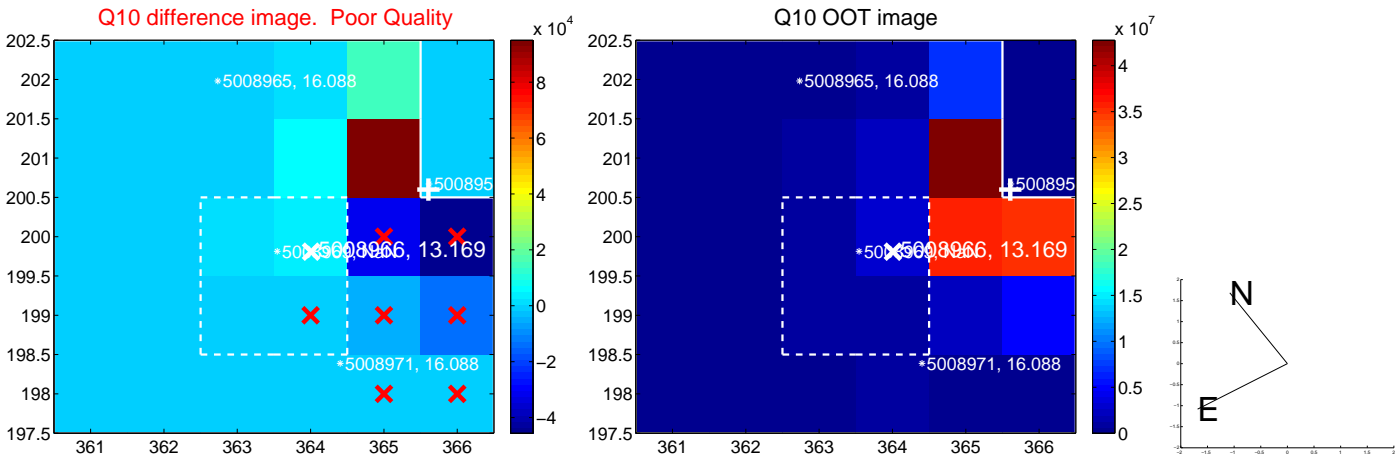
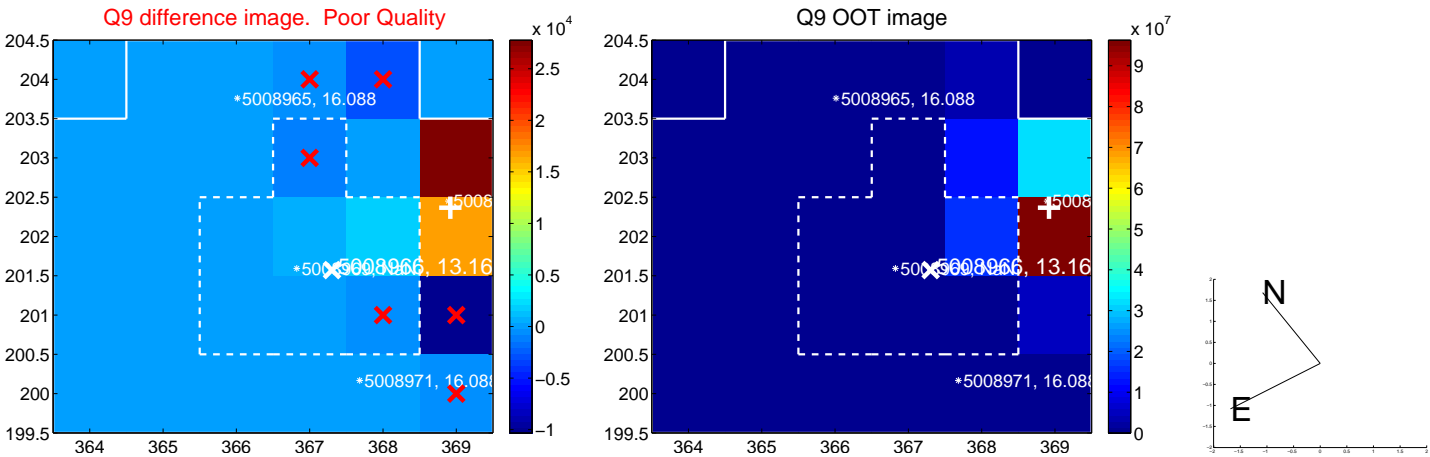
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



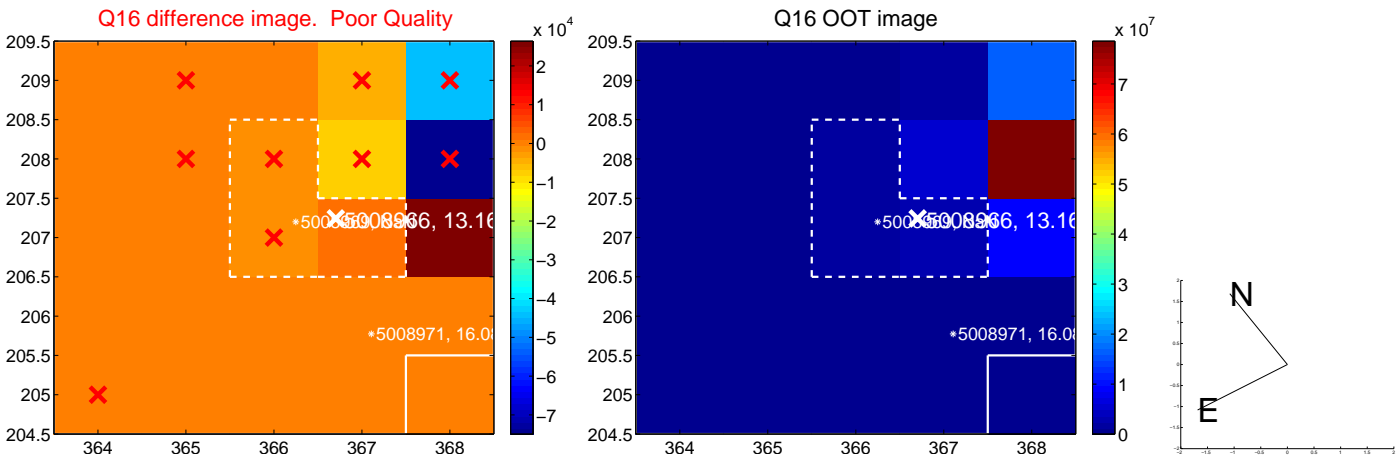
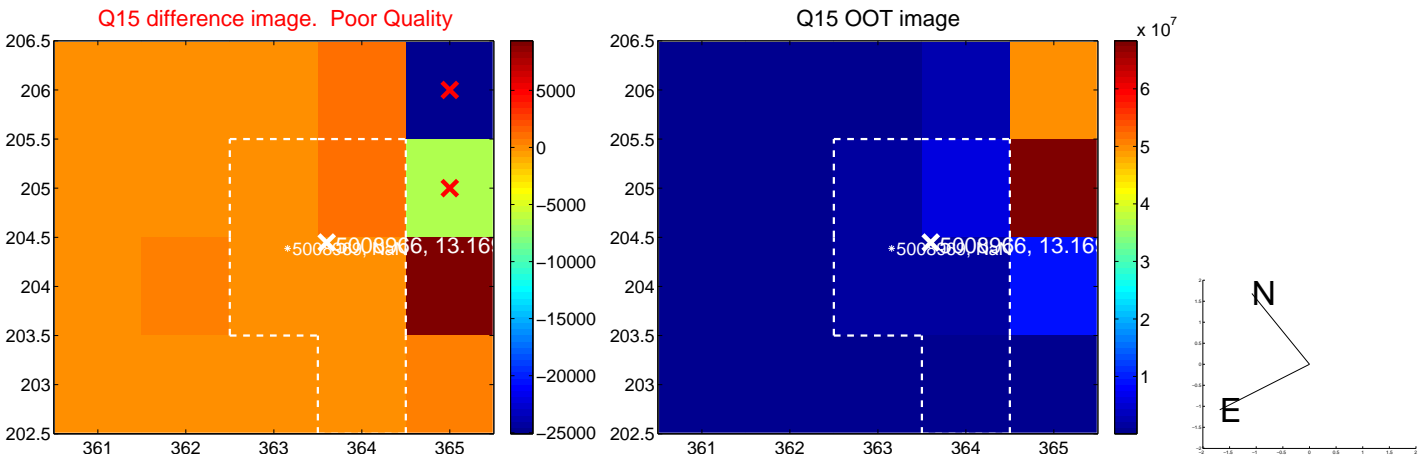
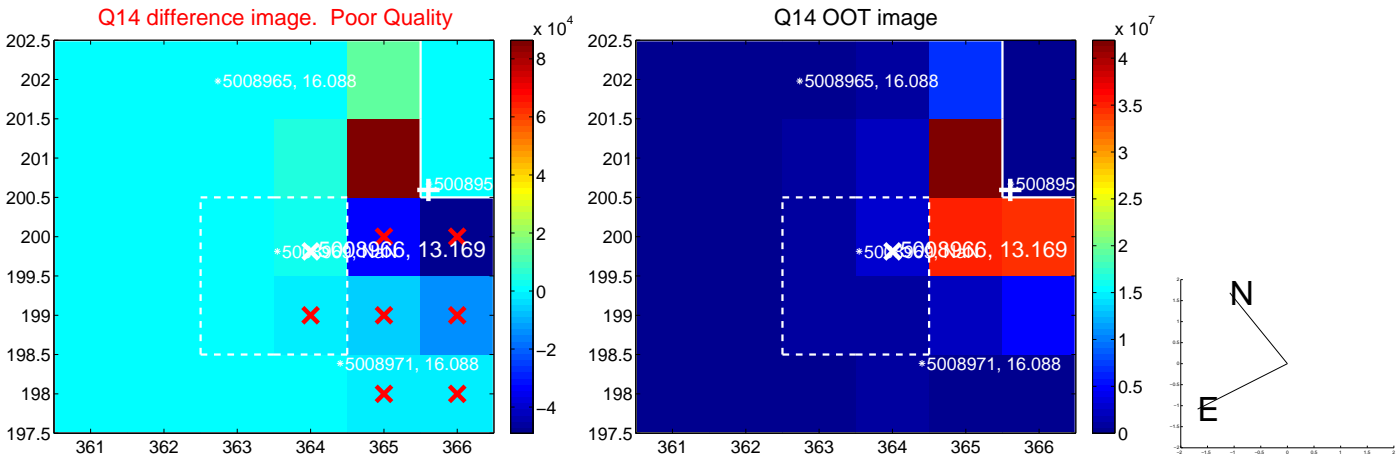
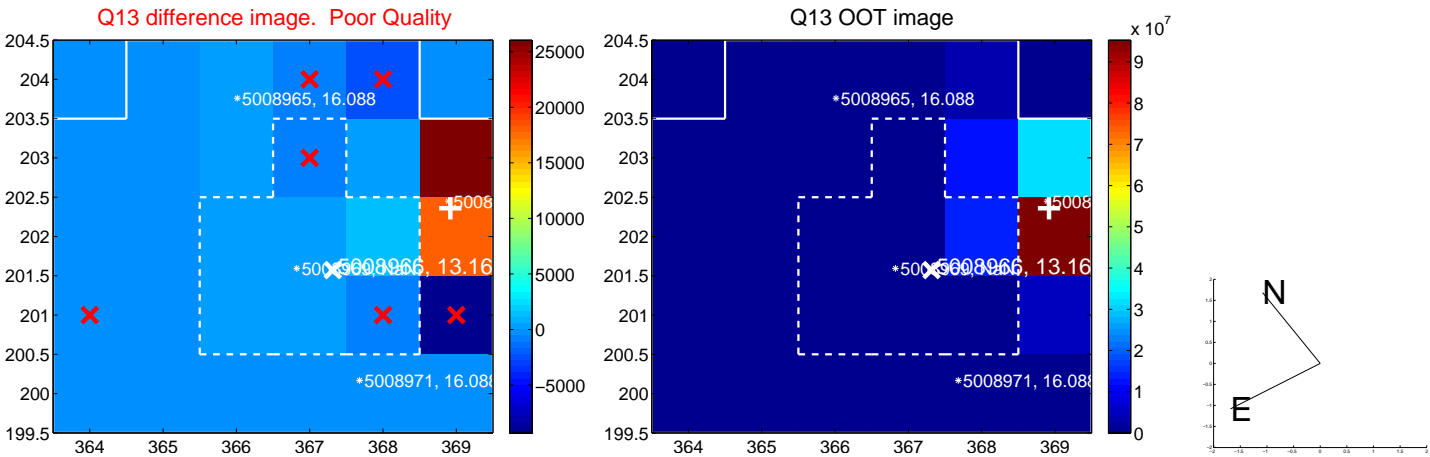
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



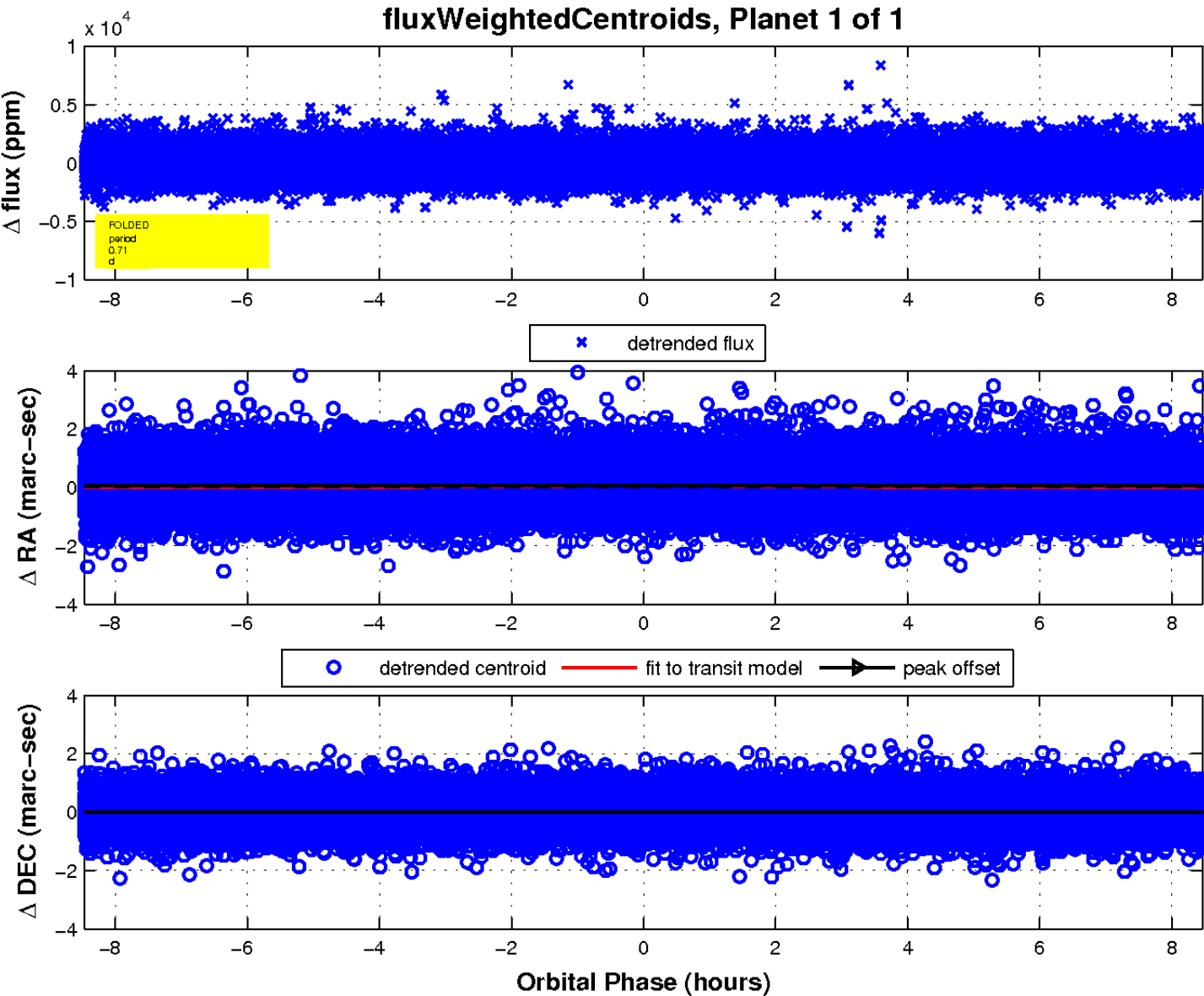
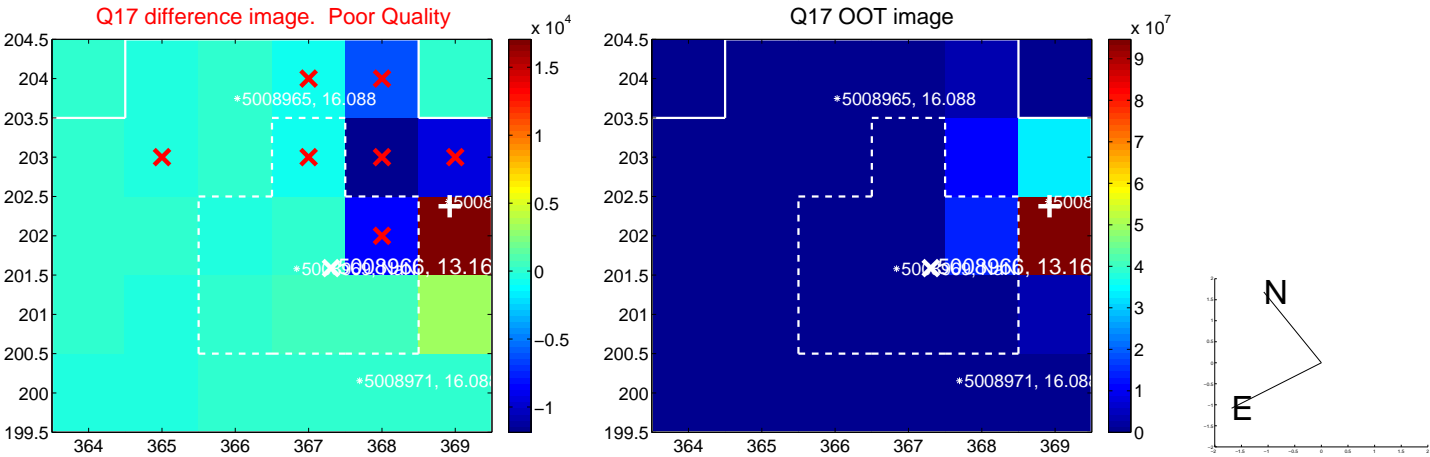
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UKIRT Image

