

KIC 008046934

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})
008046934-01	OBS	No	0.549410	131.992428	21.6	2.303	11.8	13.2	1.76	7281	0.95	34406.50

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008046934-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

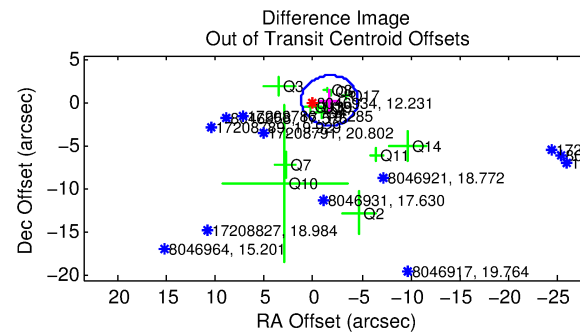
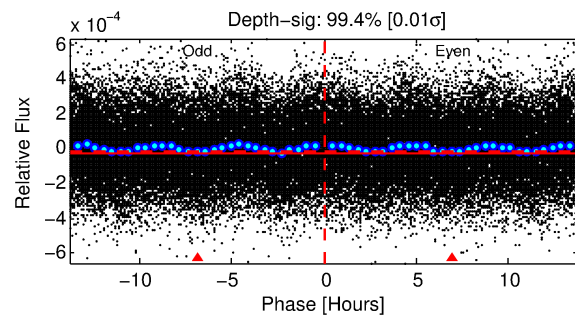
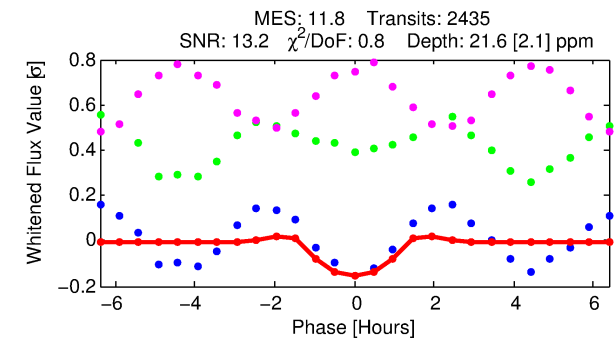
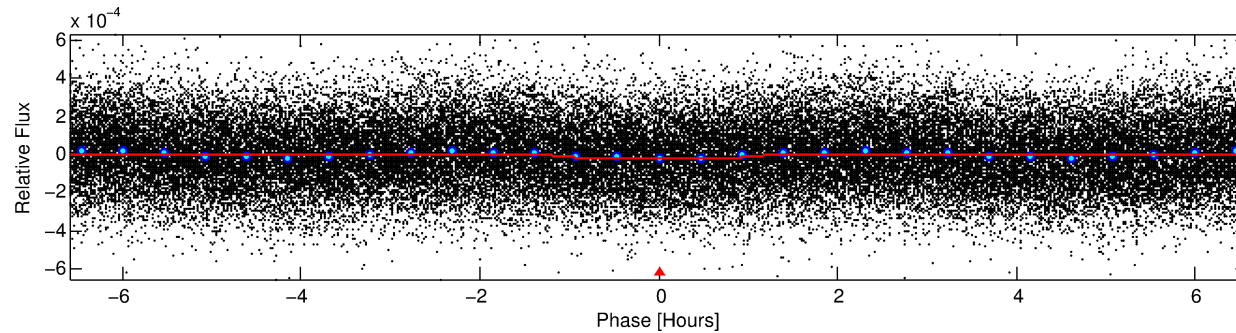
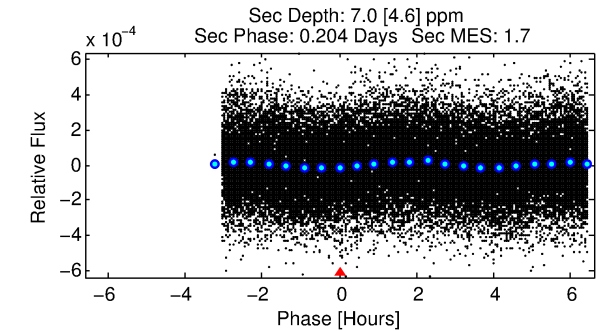
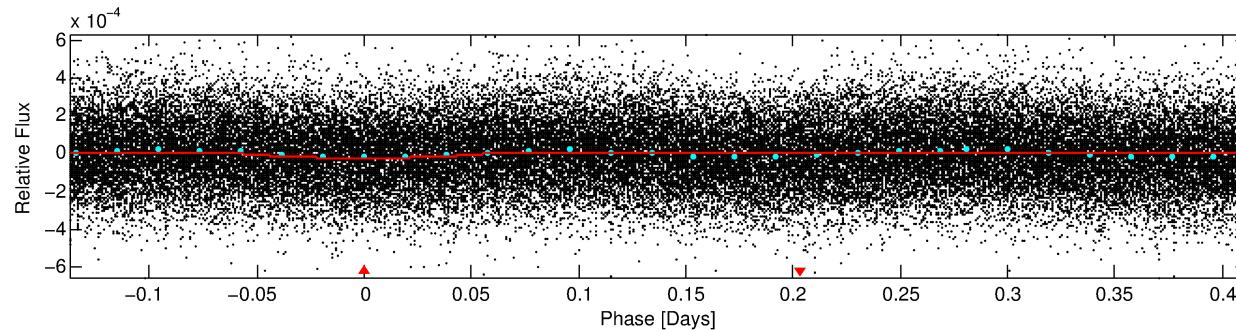
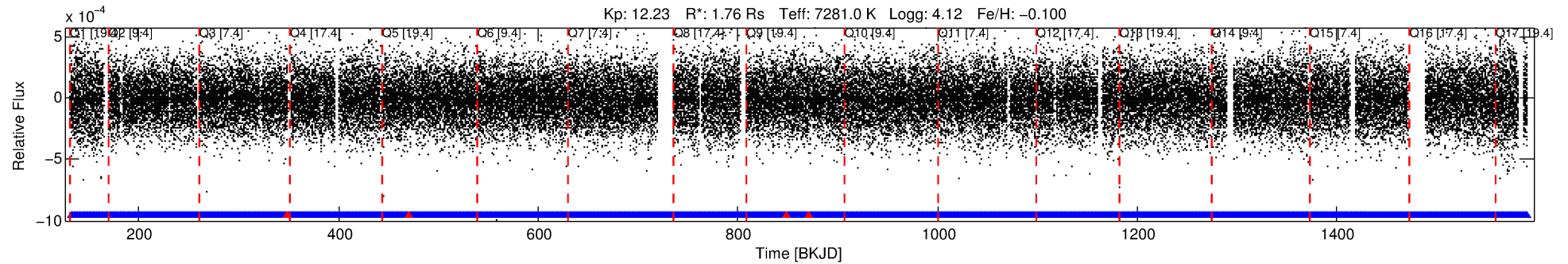
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008046934-01

No Significant Match Found

DV One-Page Summary

KIC: 8046934 Candidate: 1 of 1 Period: 0.549 d



DV Fit Results:

Period = 0.54941 [0.00001] d
Epoch = 131.9924 [0.0022] BKJD
Rp/R* = 0.0049 [0.0018]
a/R* = 1.24 [1.02]
b = 0.90 [0.50]
Seff = 34406.50 [13330.24]
Teq = 3473 [336] K
Rp = 0.95 [0.46] Re
a = 0.0150 [0.0038] AU
Ag = 0.97 [1.00] [-0.03σ]
Teffp = 5323 [1329] K [1.35σ]

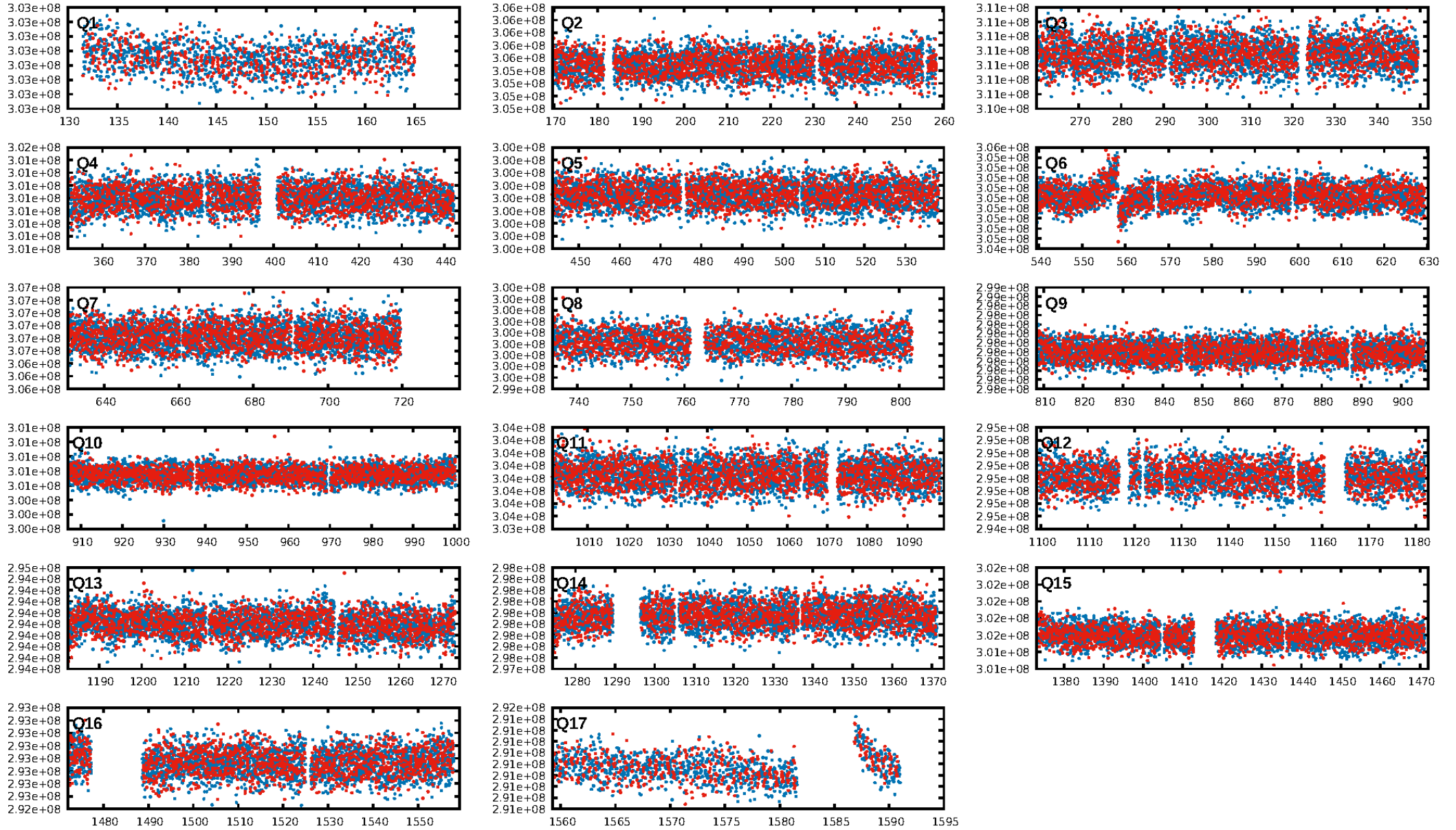
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.01e-31
RollingBand-fgt: 1.00 [2321/2325]
GhostDiagnostic-chr: 5.174
Centroid-sig: 19.3%
Centroid-so: 0.514 arcsec [1.19σ]
OotOffset-rm: 1.685 arcsec [1.74σ]
OotOffset-st: 4/4/2/3 [13]
KicOffset-rm: 1.618 arcsec [1.54σ]
KicOffset-st: 4/4/2/3 [13]
DiffImageQuality-fgm: 0.38 [5/13]
DiffImageOverlap-fno: 1.00 [17/17]

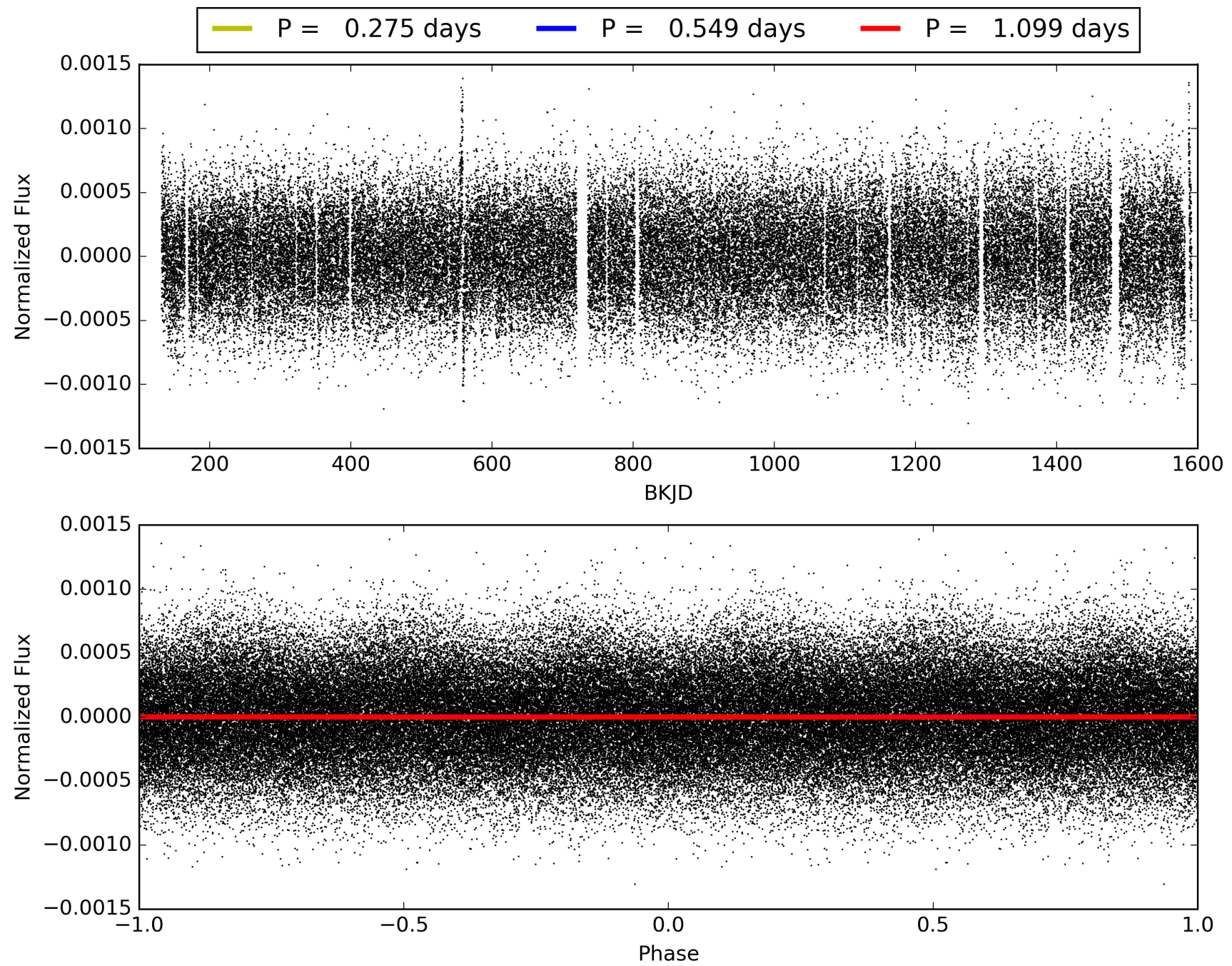
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 07:16:34 Z

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

TCE 008046934-01, PDC Light Curves

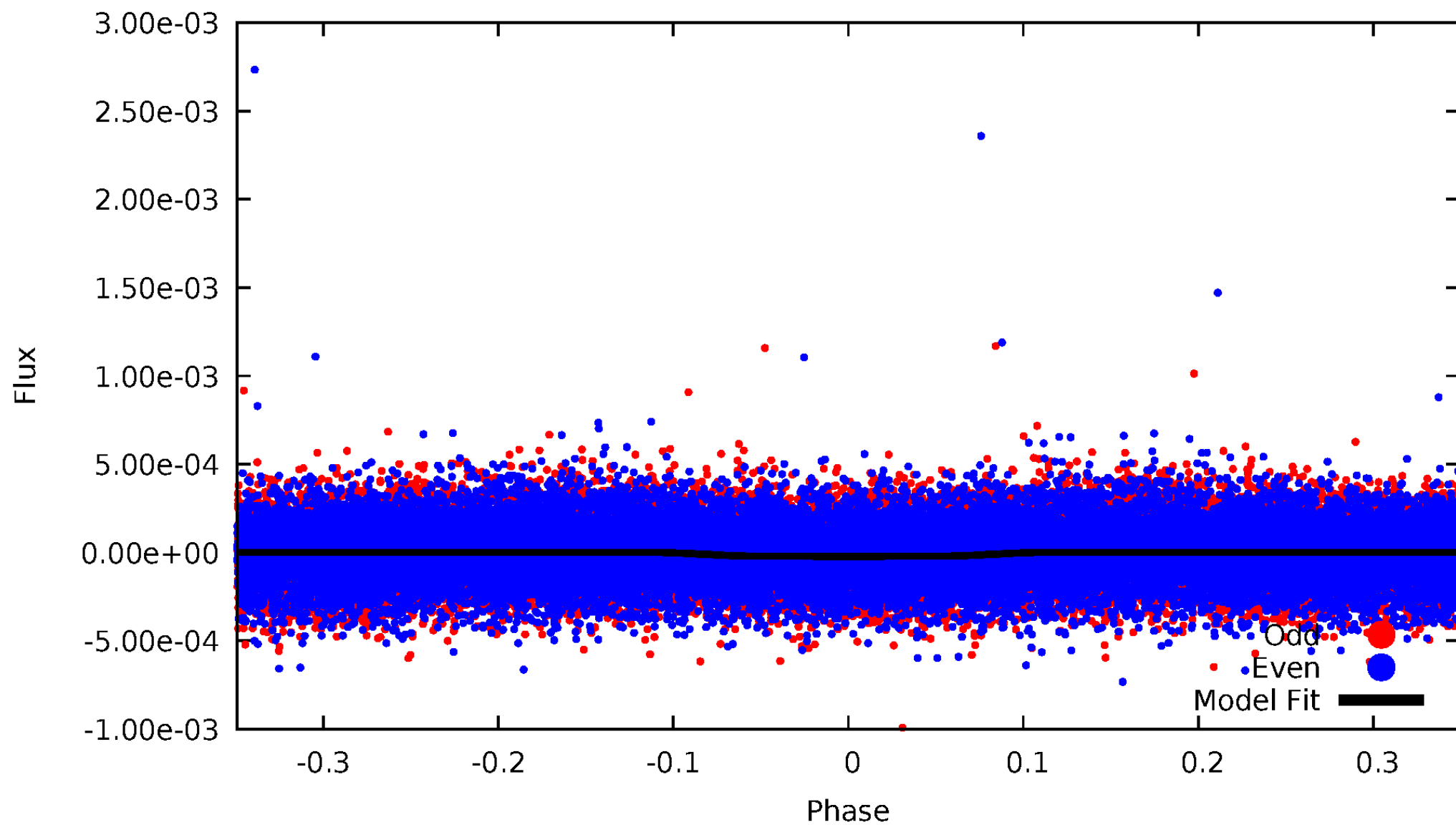


TCE 008046934-01



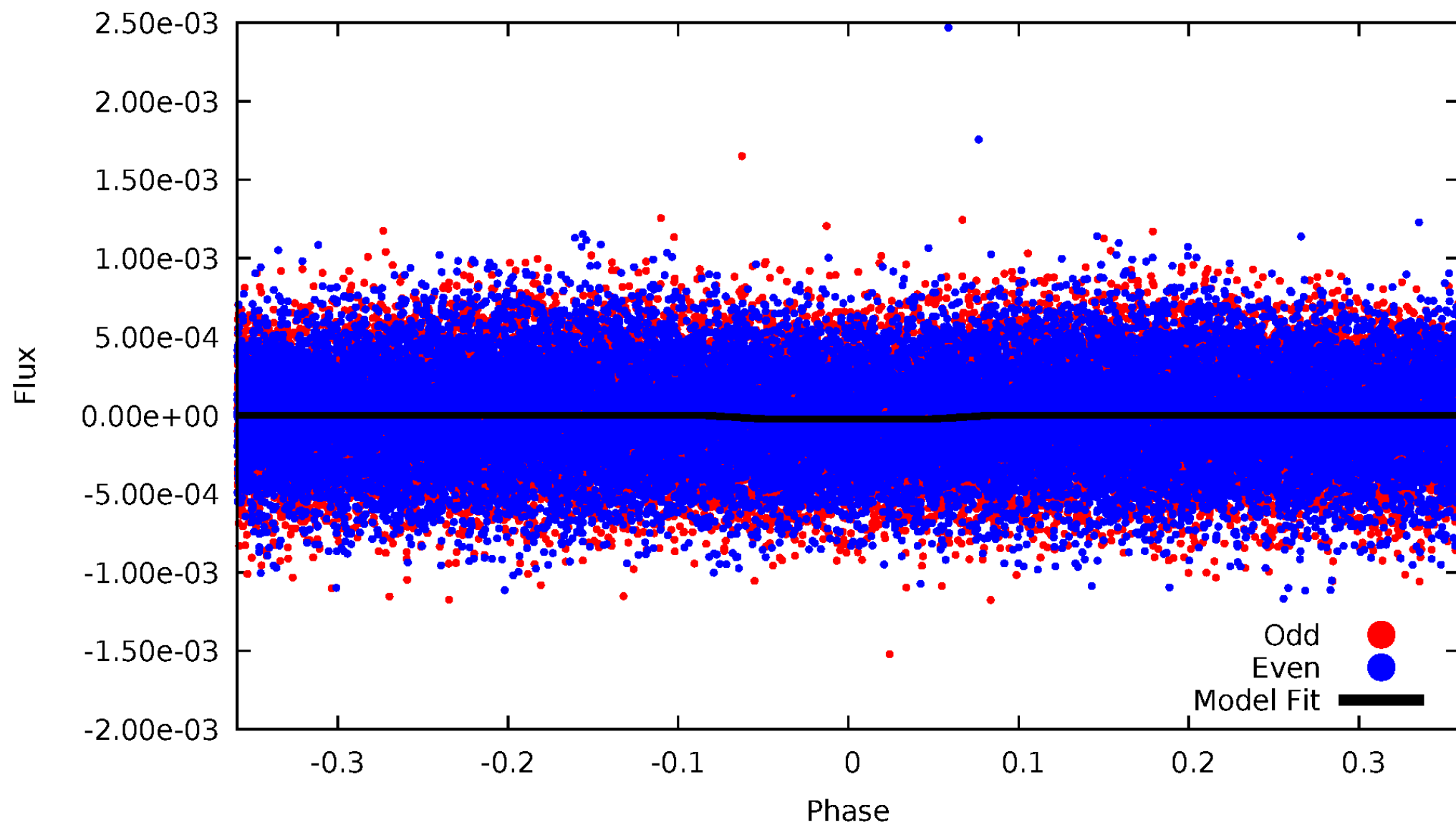
DV Odd/Even

TCE 008046934-01



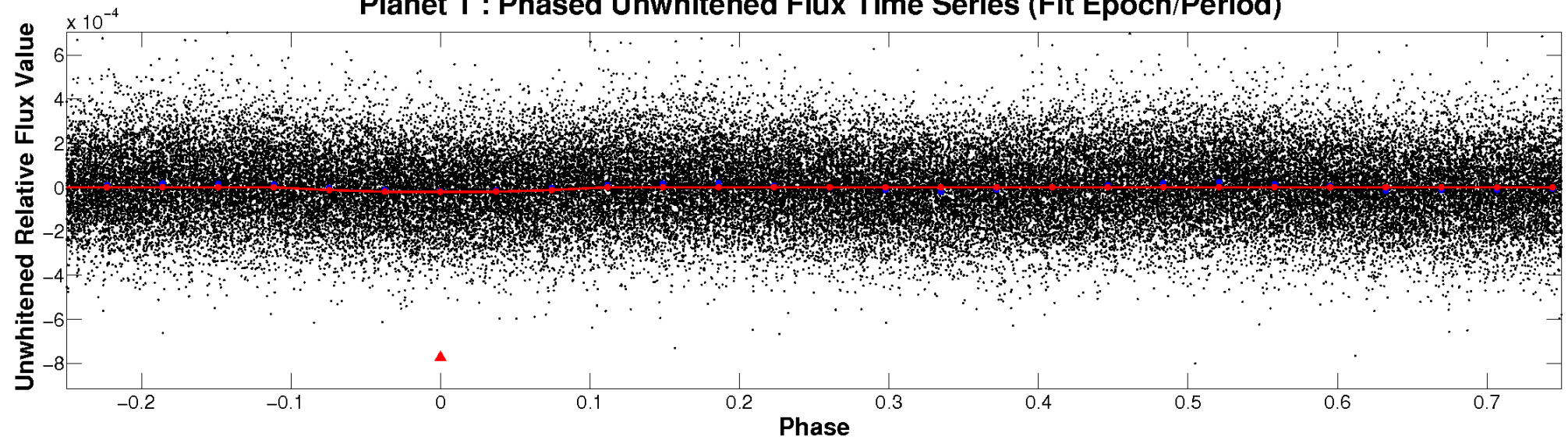
ALT Odd/Even

TCE 008046934-01

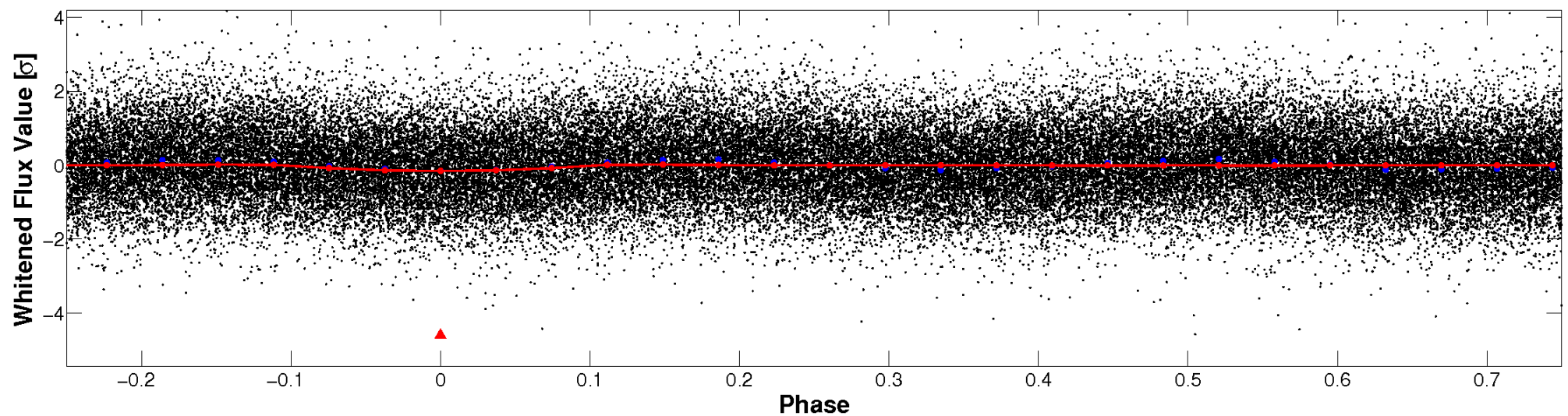


Non-Whitened Vs. Whitened Light Curve

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

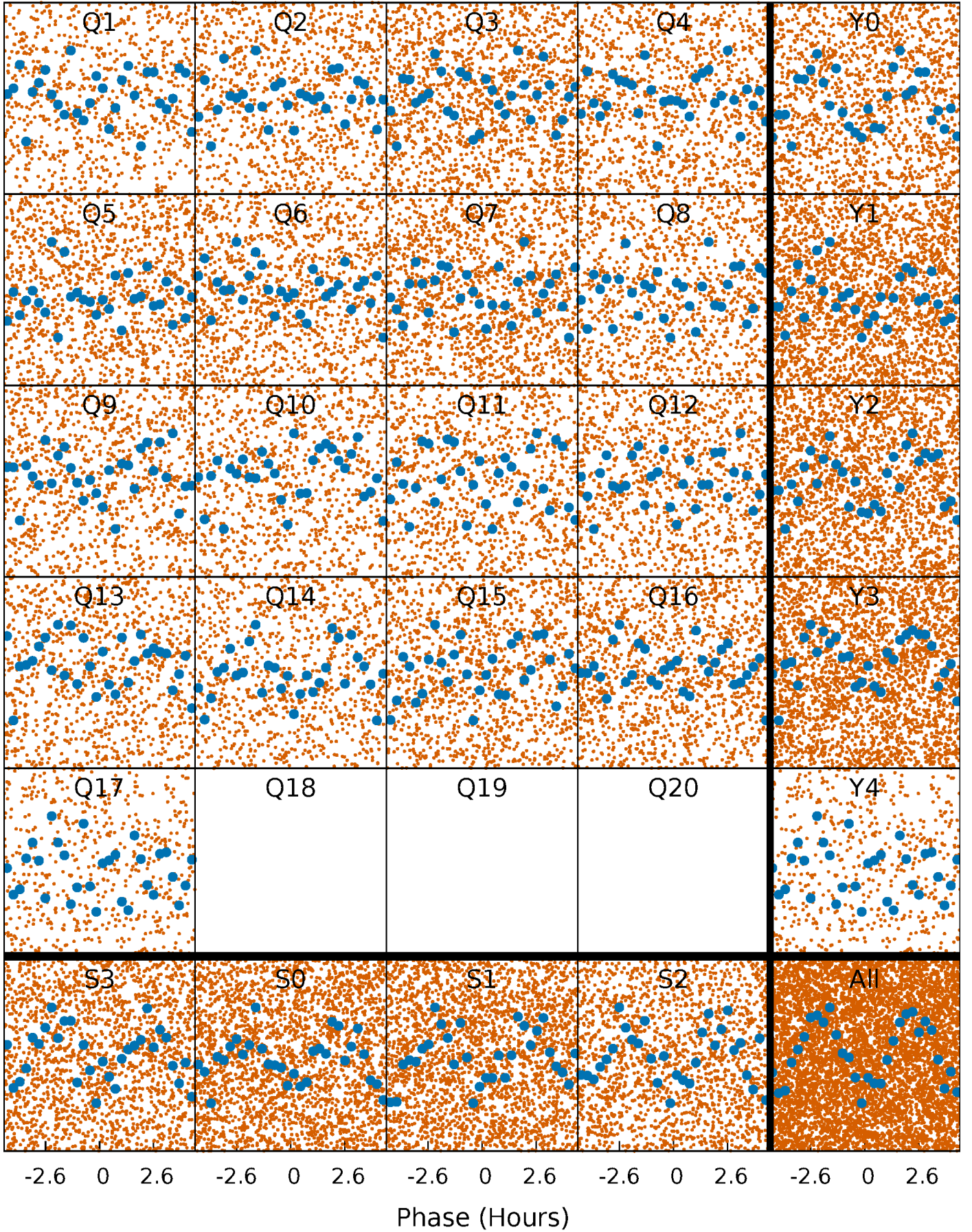


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



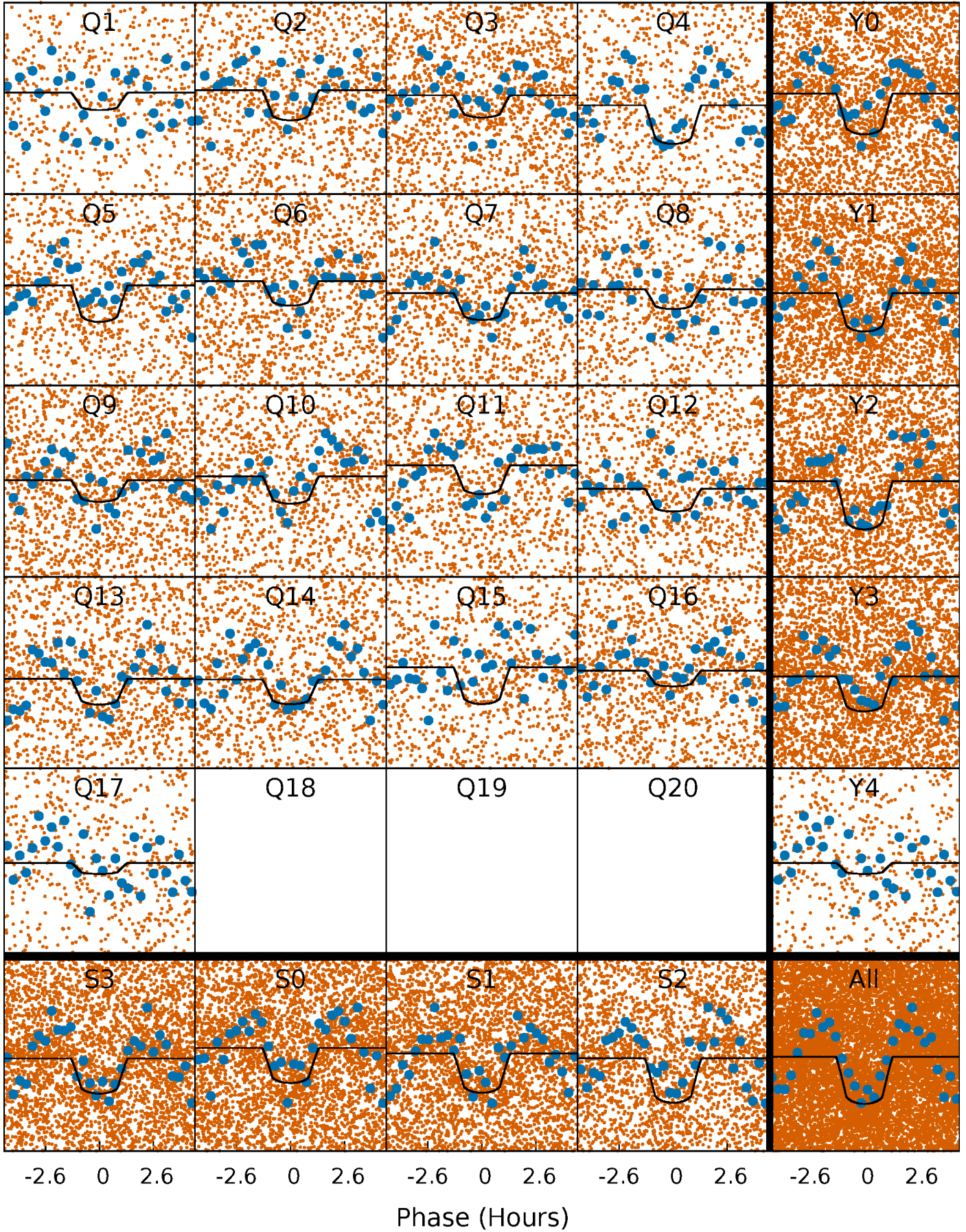
PDC Quarter-Phased Transit Curves

TCE 008046934-01 P= 0.549410 Days $T_0=131.992428$ (BKJD)



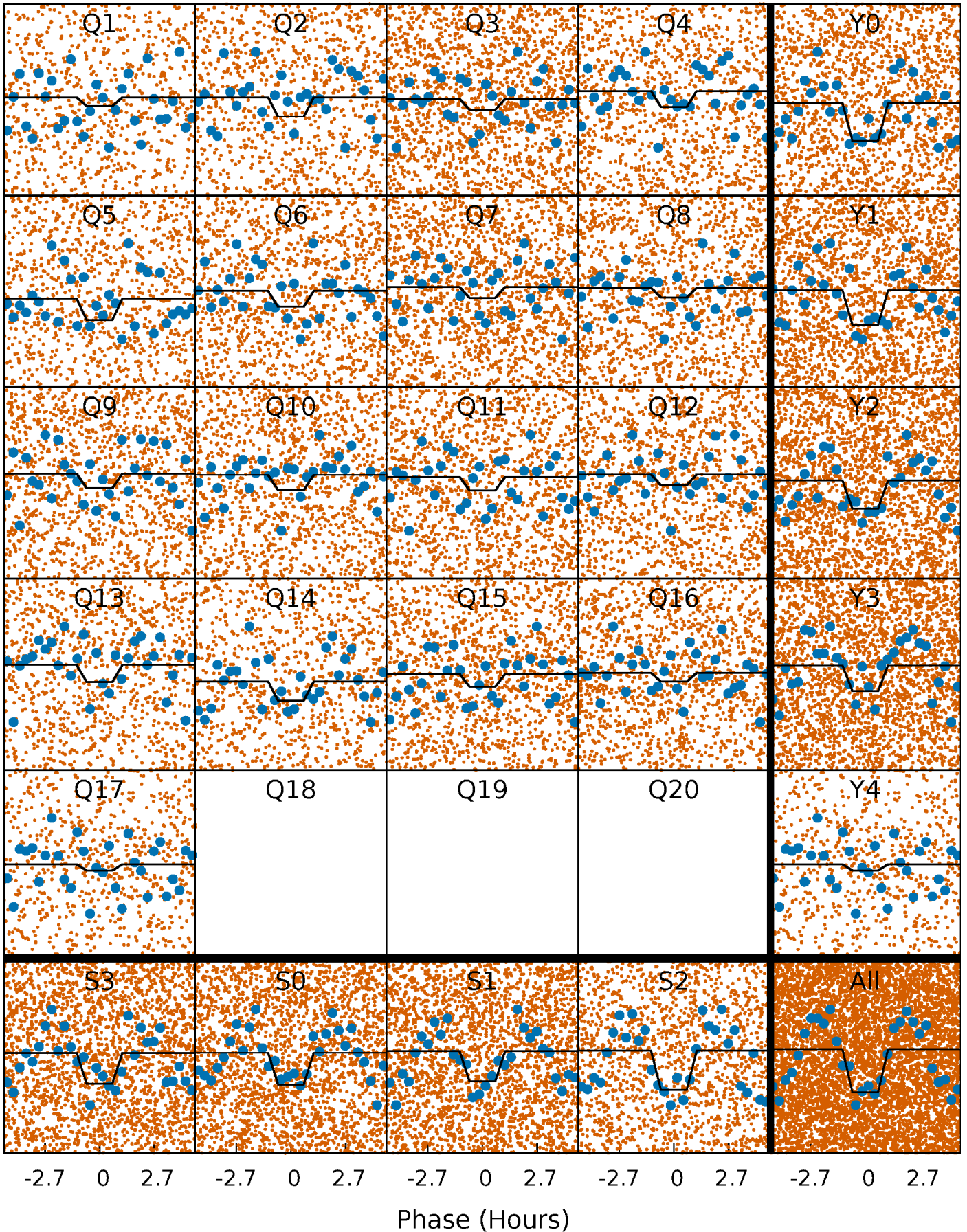
DV Quarter-Phased Transit Curves

TCE 008046934-01 P= 0.549410 Days $T_0=131.992428$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

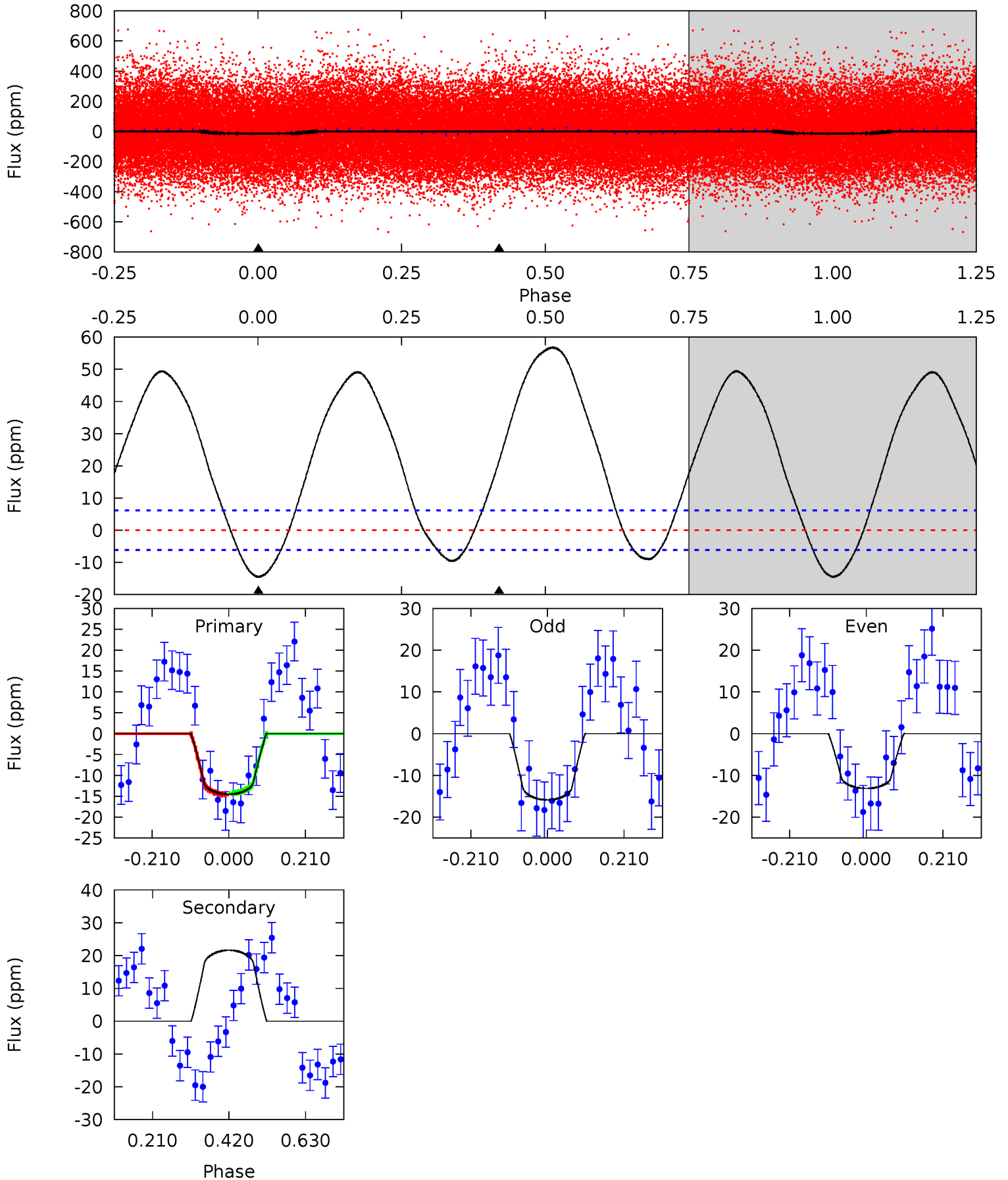
TCE 008046934-01 P= 0.549413 Days $T_0=131.993179$ (BKJD)



DV Model-Shift Uniqueness Test

008046934-01, P = 0.549410 Days, E = 131.443018 Days

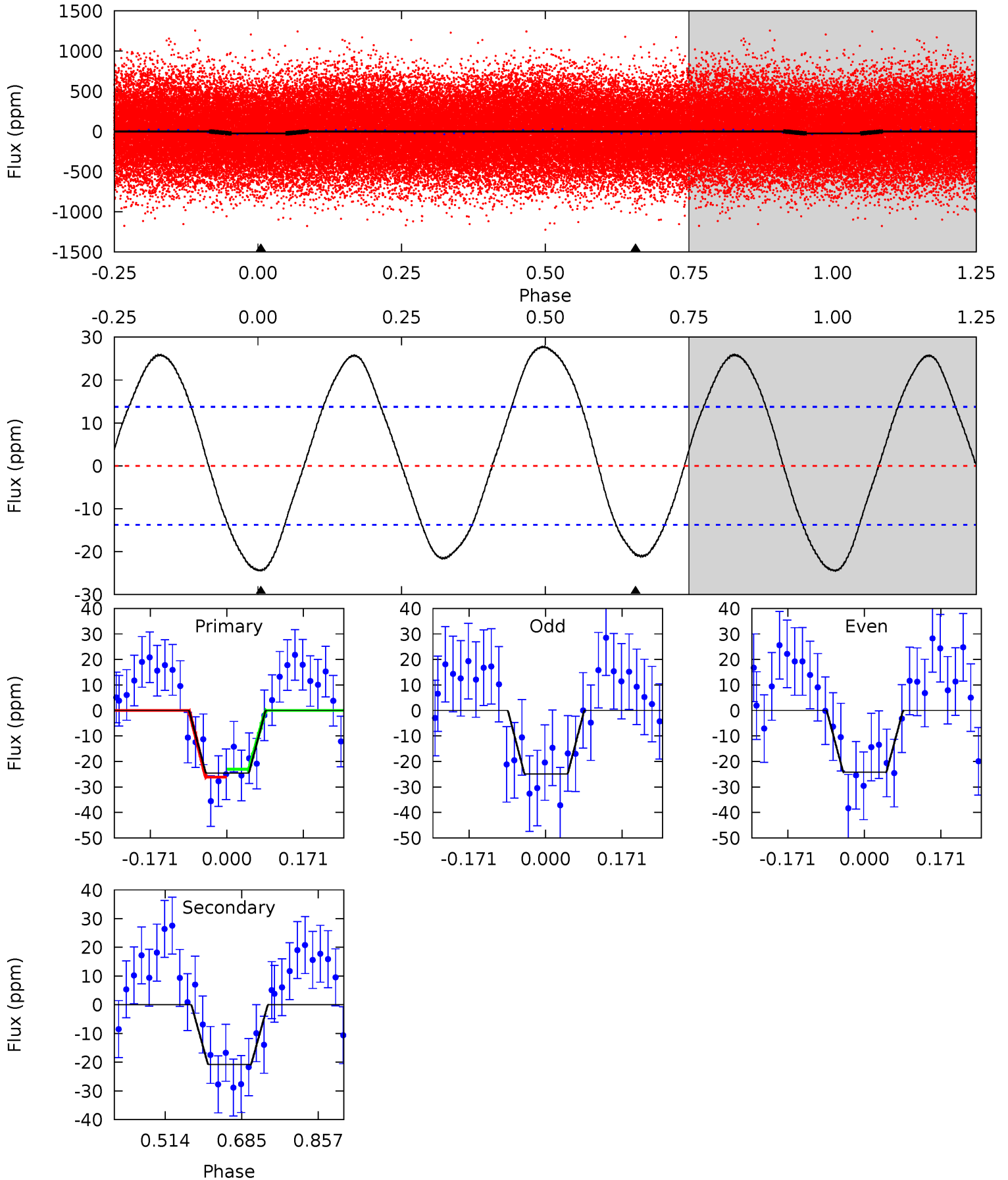
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.4	-15.5	0	0	4.41	1.25	10.5	10.4	10.4	-15.5	-15.5	0.99	1.01	0.80	0.14



Alt Model-Shift Uniqueness Test

008046934-01, P = 0.549413 Days, E = 131.443766 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.94	6.73	0	0	4.45	1.37	5.20	7.94	7.94	6.73	6.73	0.11	0.97	0.53	0.51



Stellar Parameters For KIC 008046934

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7281^{+228}_{-330}	$4.125^{+0.144}_{-0.176}$	$-0.100^{+0.250}_{-0.350}$	$1.759^{+0.555}_{-0.370}$	$1.505^{+0.234}_{-0.234}$	$0.389^{+0.296}_{-0.196}$
	+3%/-5%	+3%/-4%	+250%/-350%	+32%/-21%	+16%/-16%	+76%/-50%
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 008046934-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	22 ± 1	$0.93^{+0.42}_{-0.33}$	4850^{+380}_{-316}	-7243^{+1037}_{-2194}	$-3.050^{+1.560}_{-4.367}$
Alt.	-21 ± 3	$0.95^{+0.41}_{-0.35}$	4875^{+360}_{-348}	6682^{+2467}_{-1191}	$2.786^{+4.452}_{-1.407}$

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 $A_{obs} \gg 1.0$

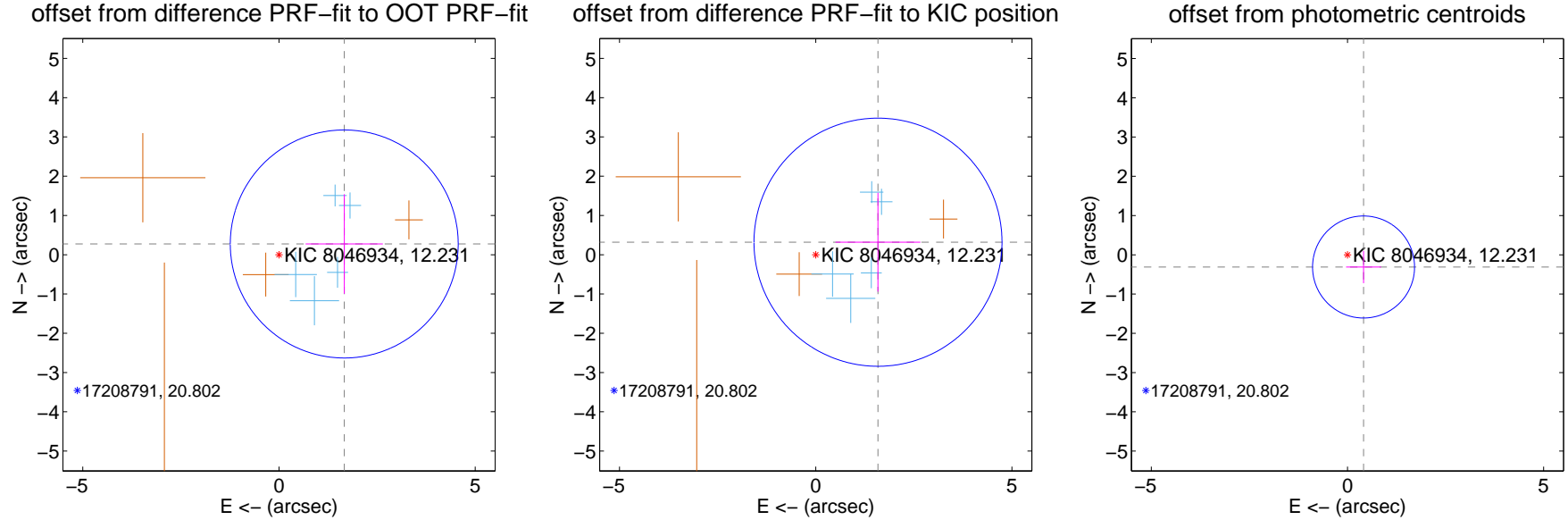
DV Centroid Data

Supplemental centroid analysis for 008046934-01. Kepler magnitude: 12.23. Transit SNR 13.25

There are 5 quarters with good PRF difference image offsets

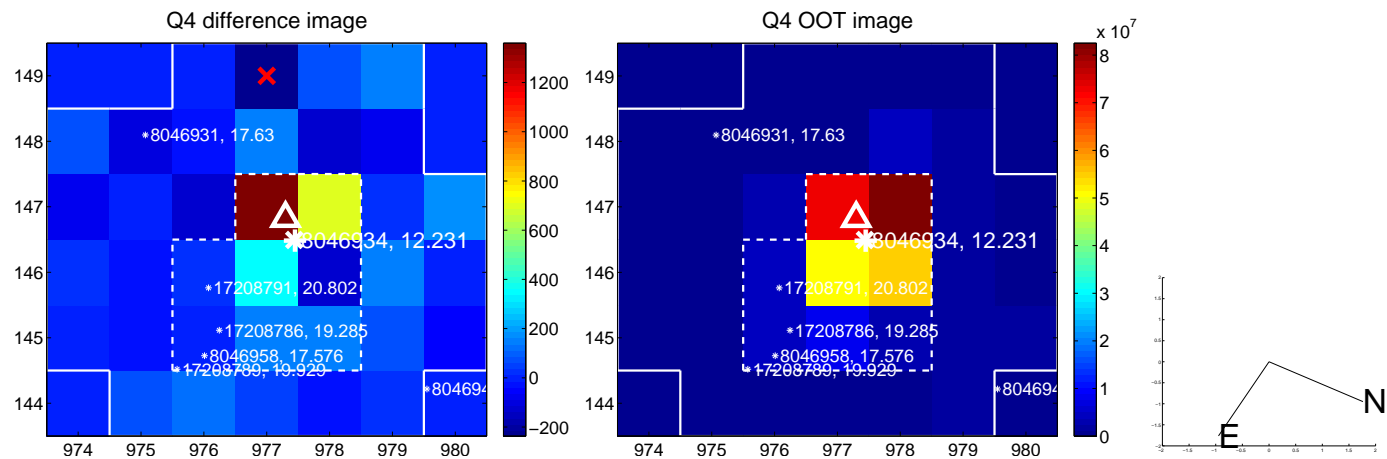
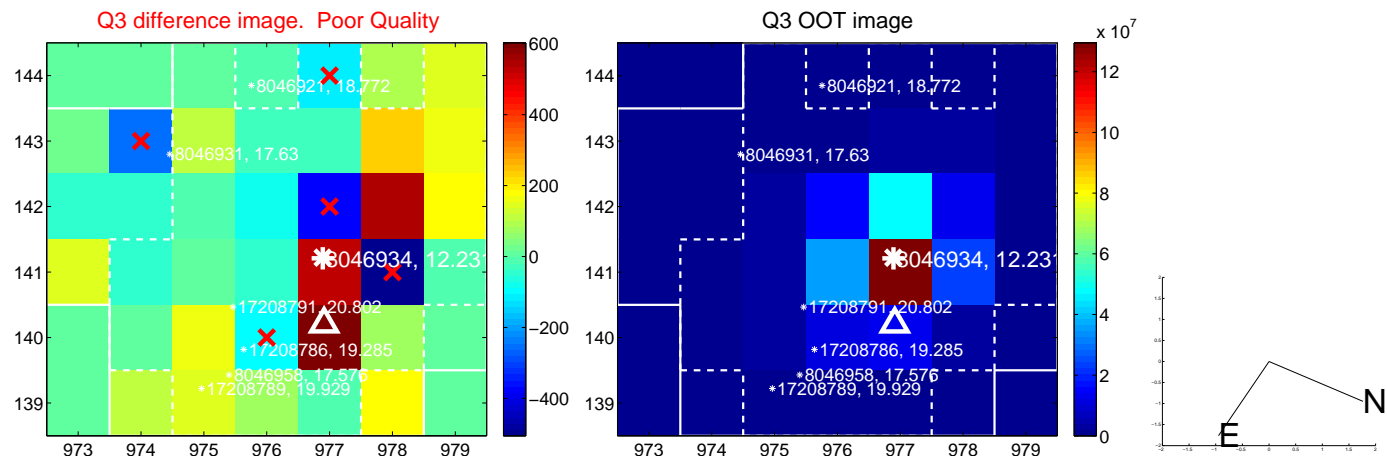
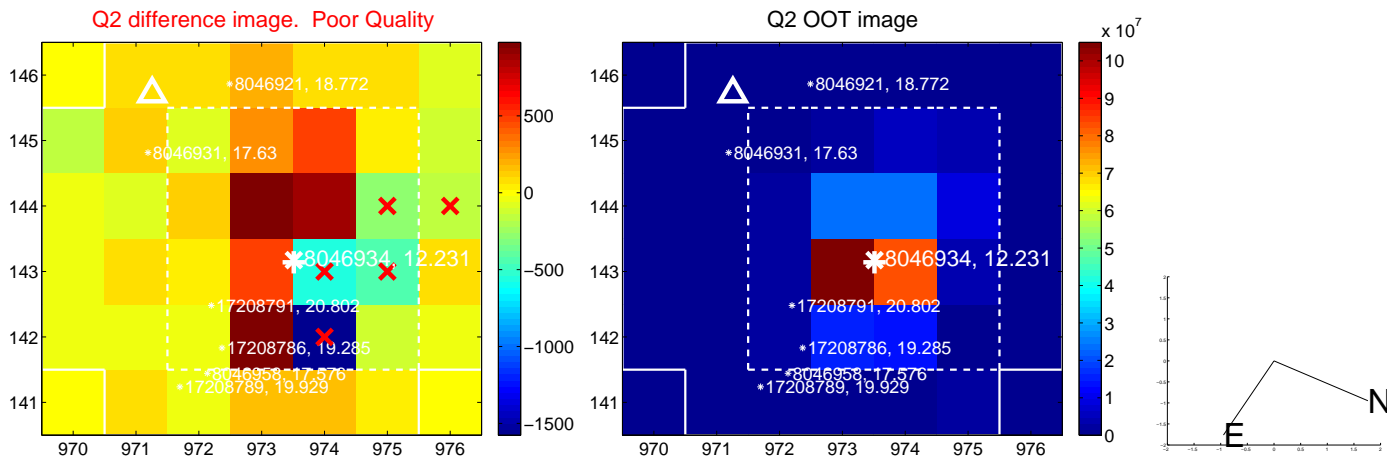
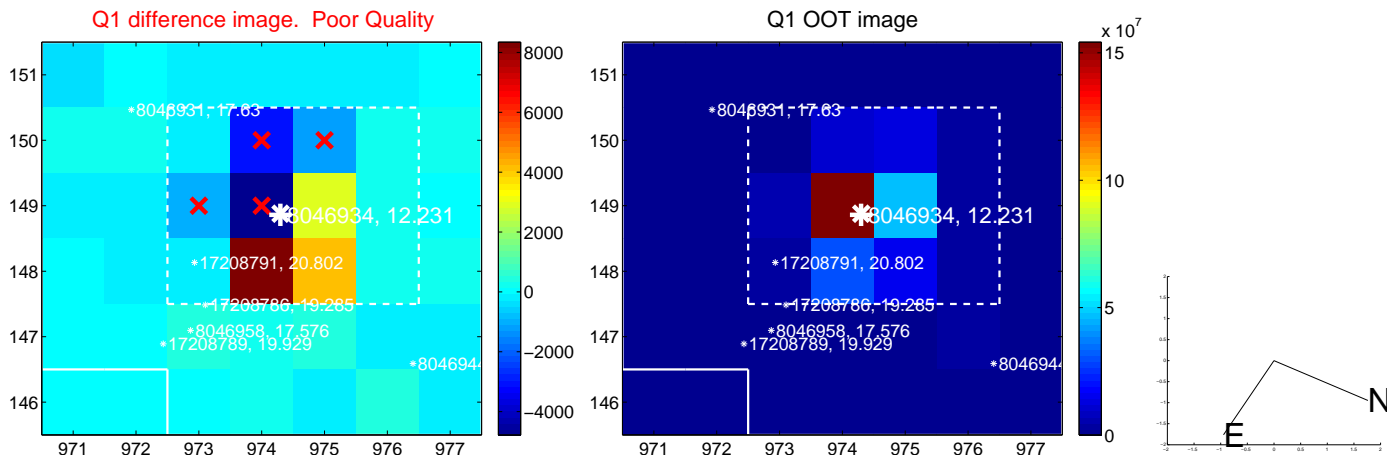
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.685 ± 0.968	1.74	-1.663 ± 0.984	0.274 ± 1.268
PRF-fit source offset from KIC position	1.618 ± 1.053	1.54	-1.587 ± 1.081	0.319 ± 1.259
photometric centroid source offset	0.51 ± 0.43	1.19	-0.41 ± 0.45	-0.31 ± 0.41

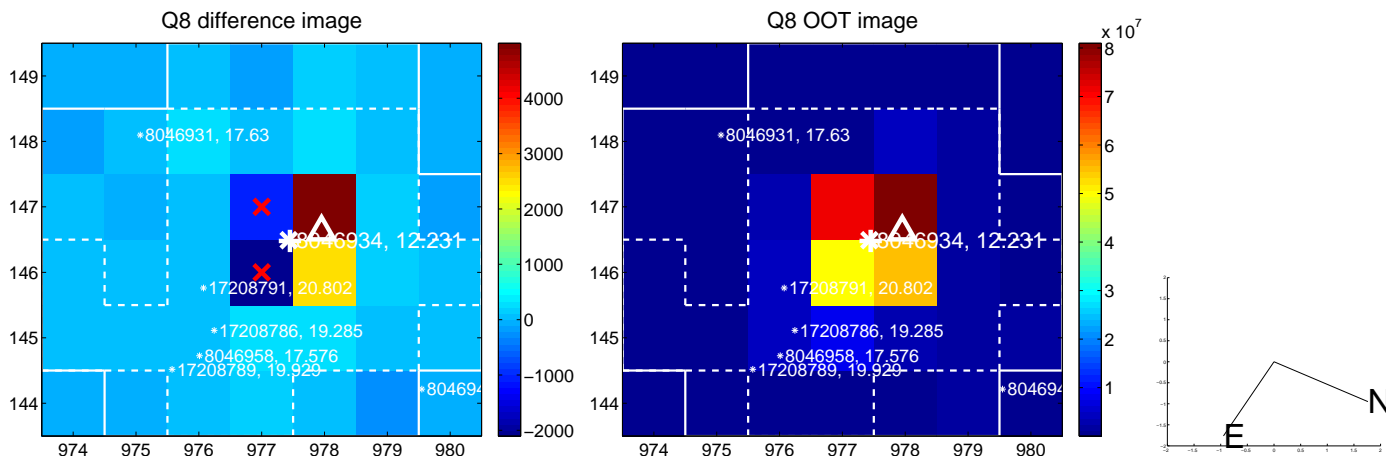
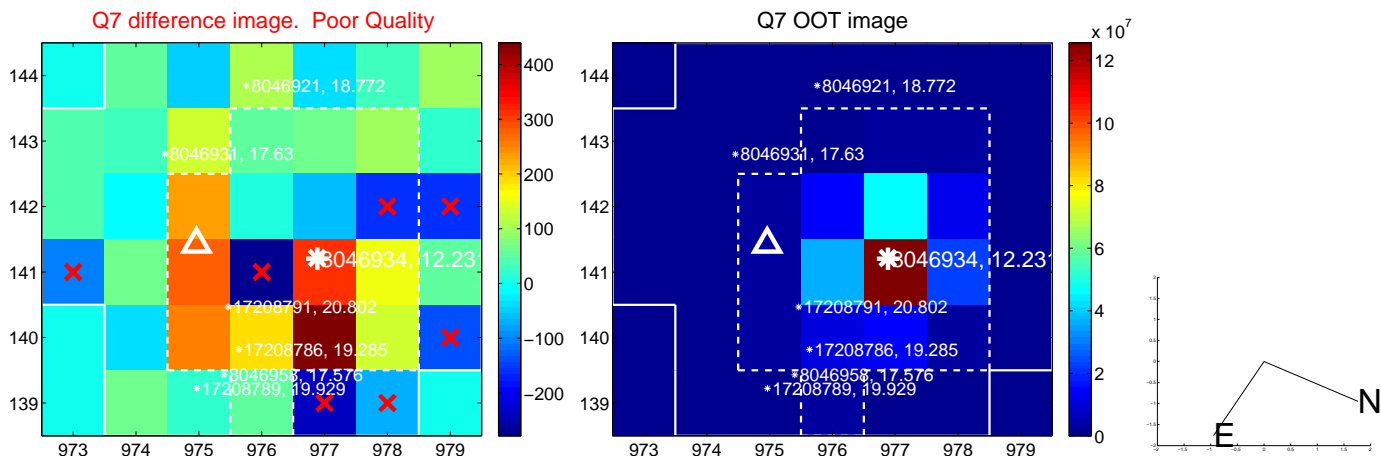
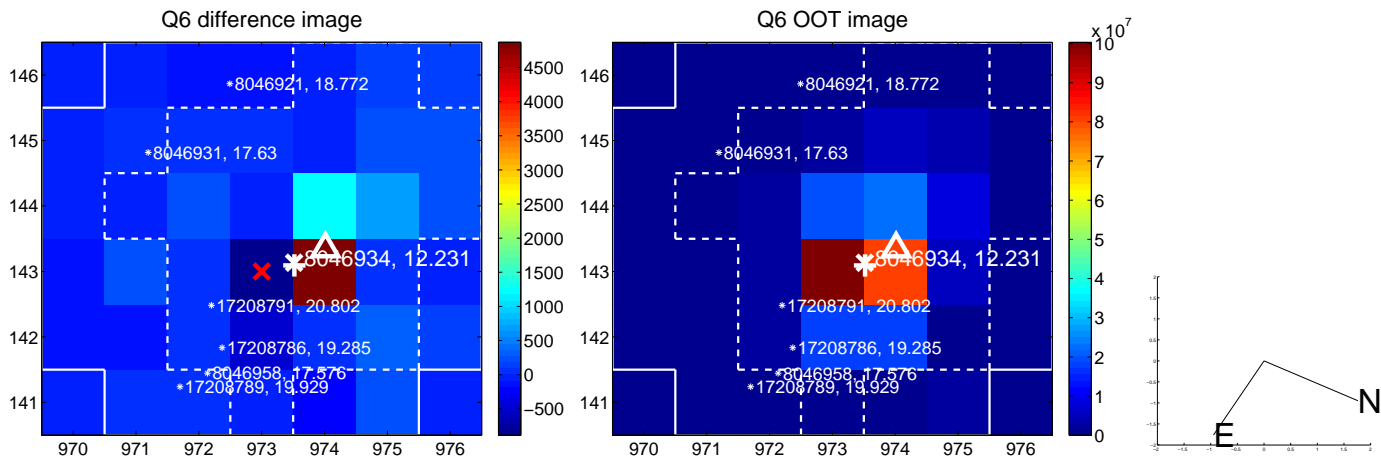
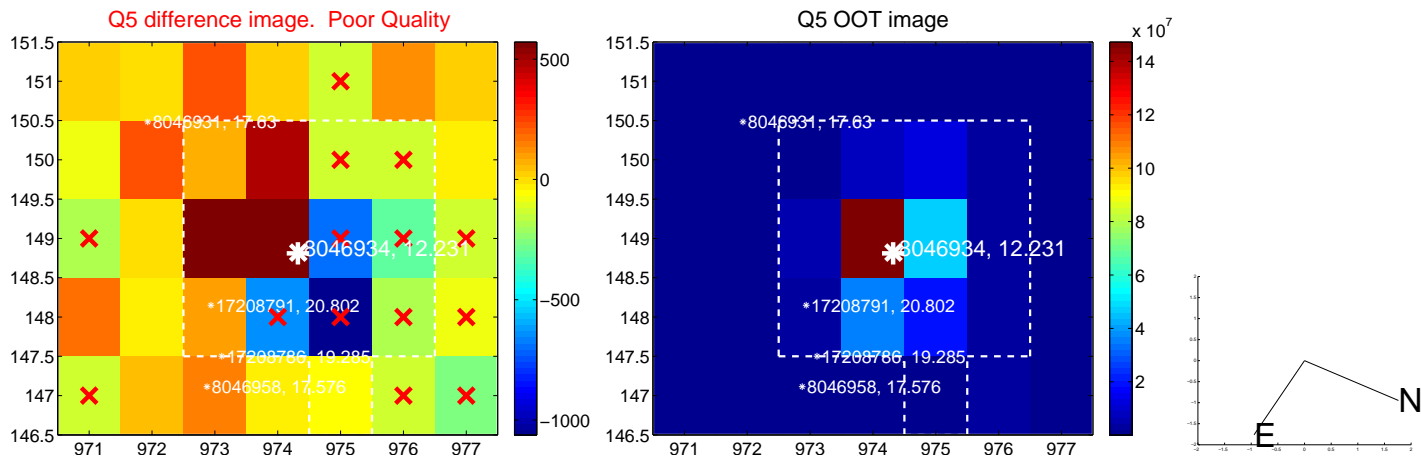


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

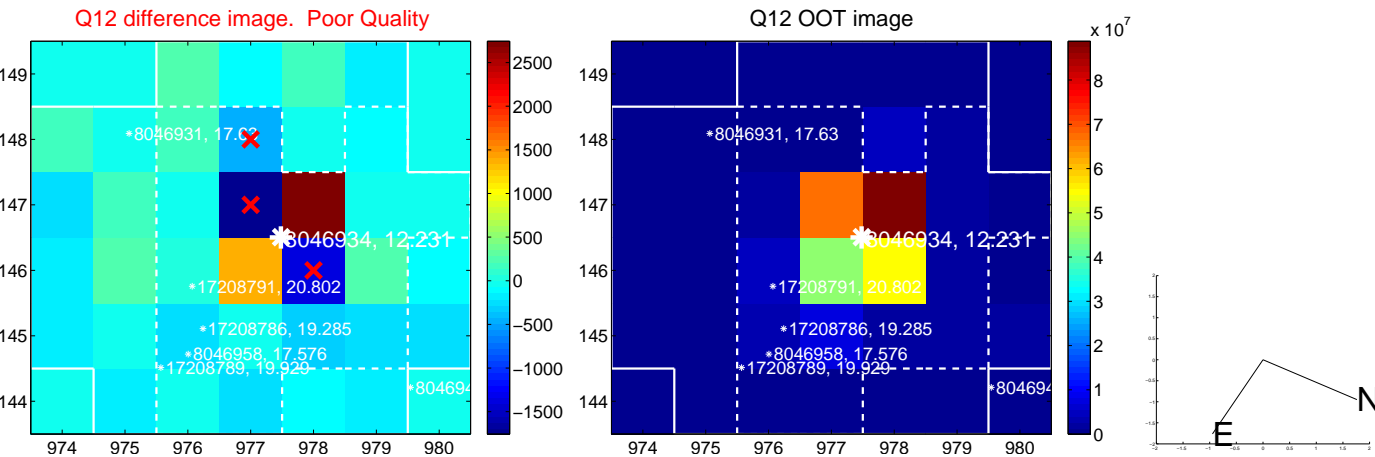
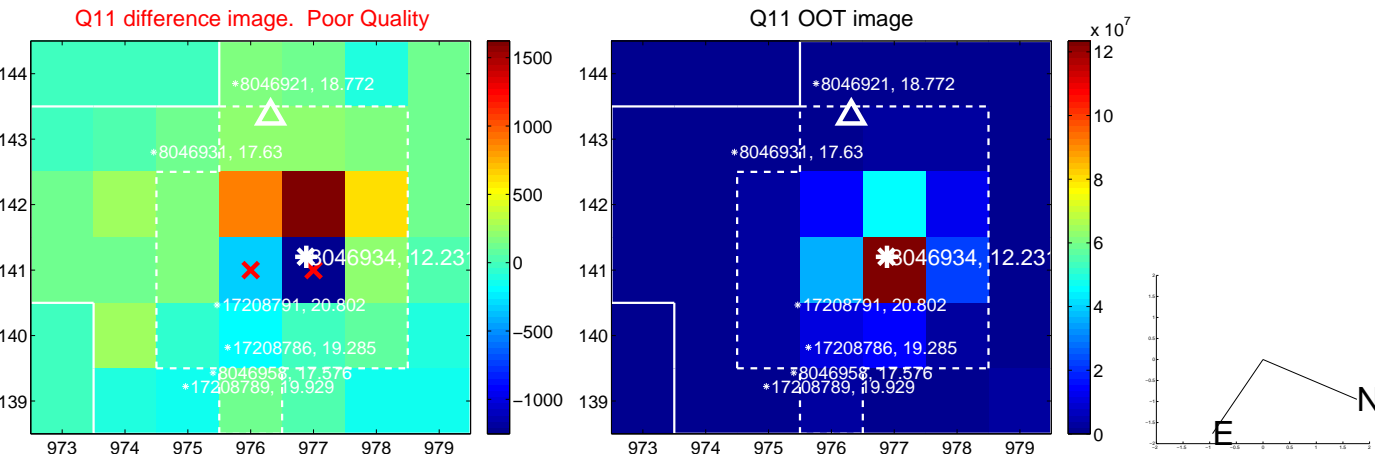
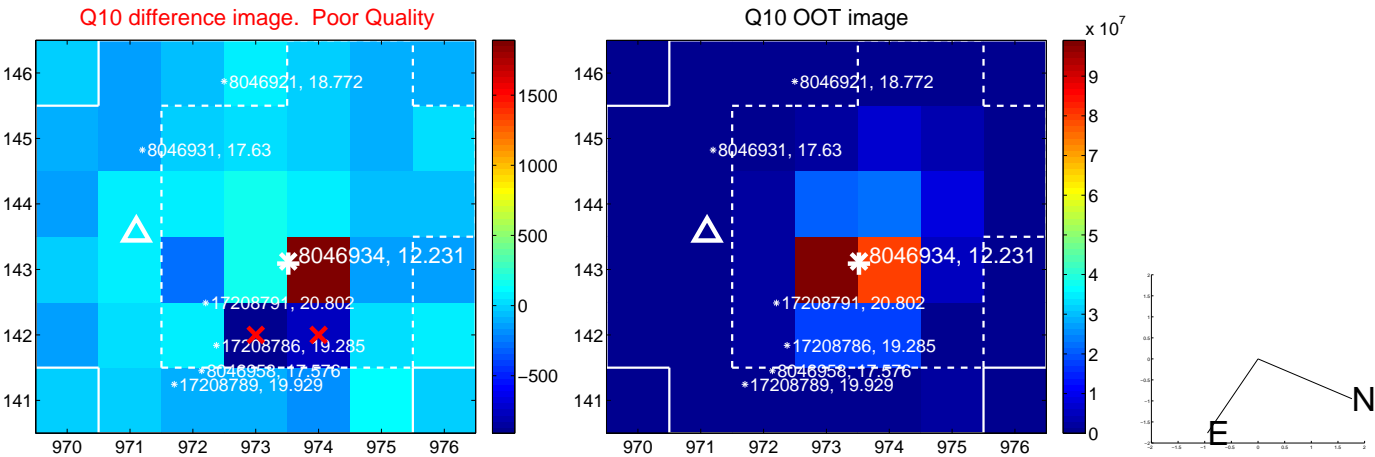
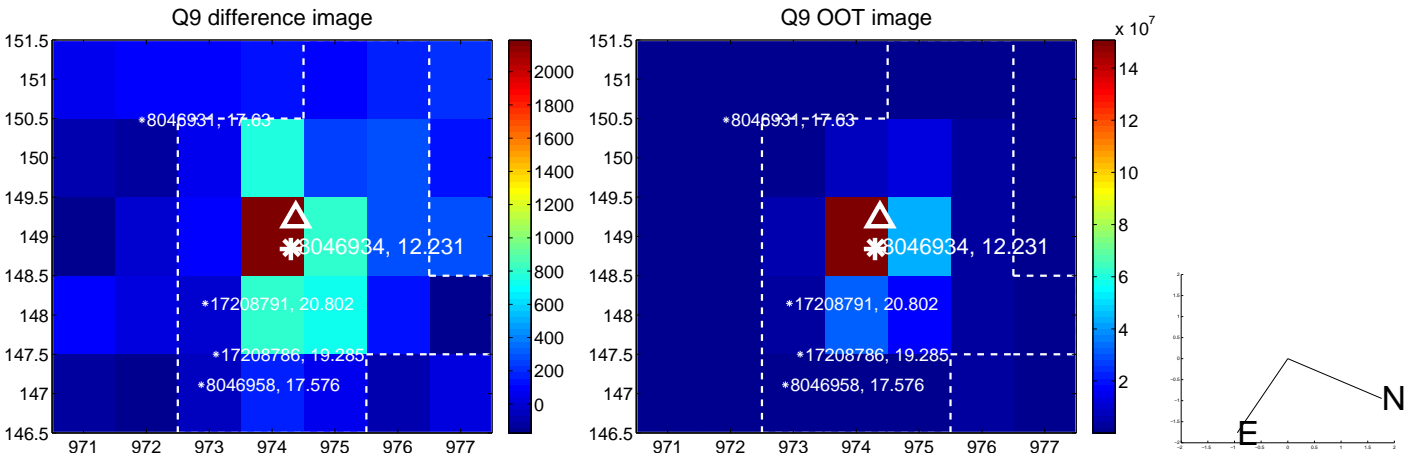
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



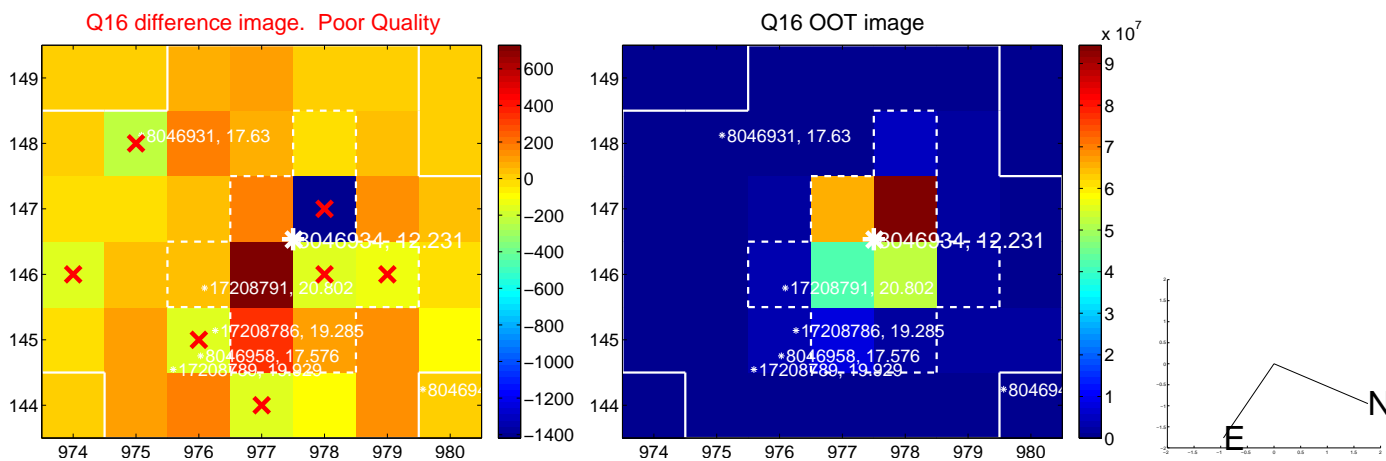
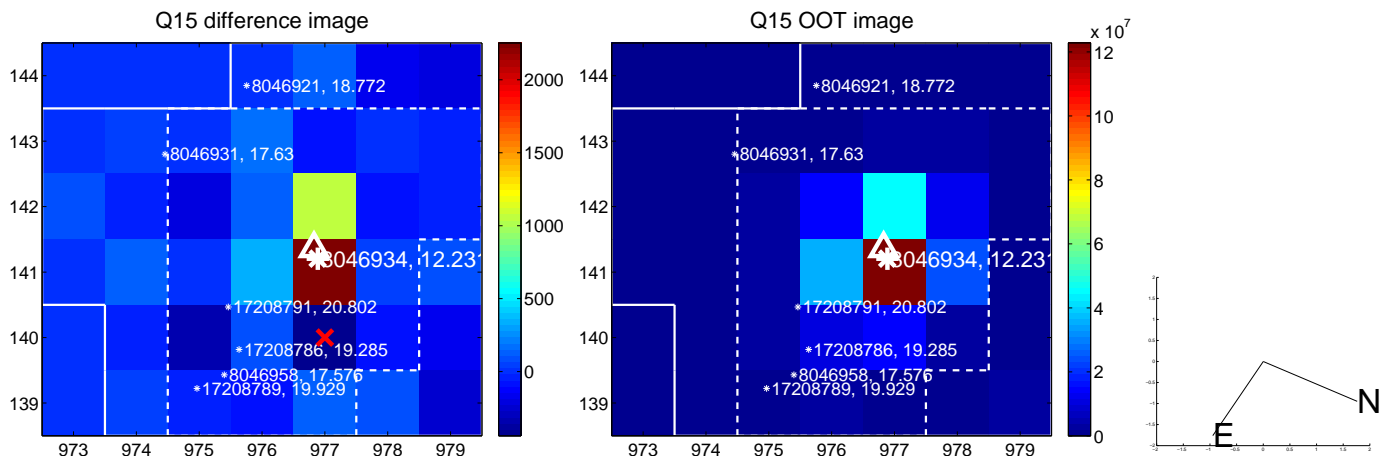
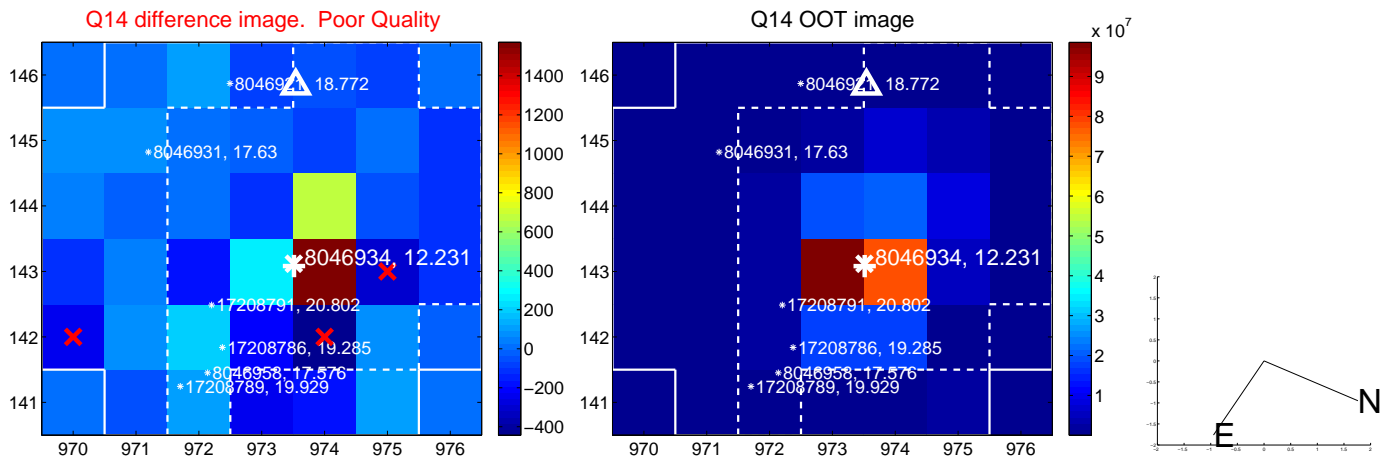
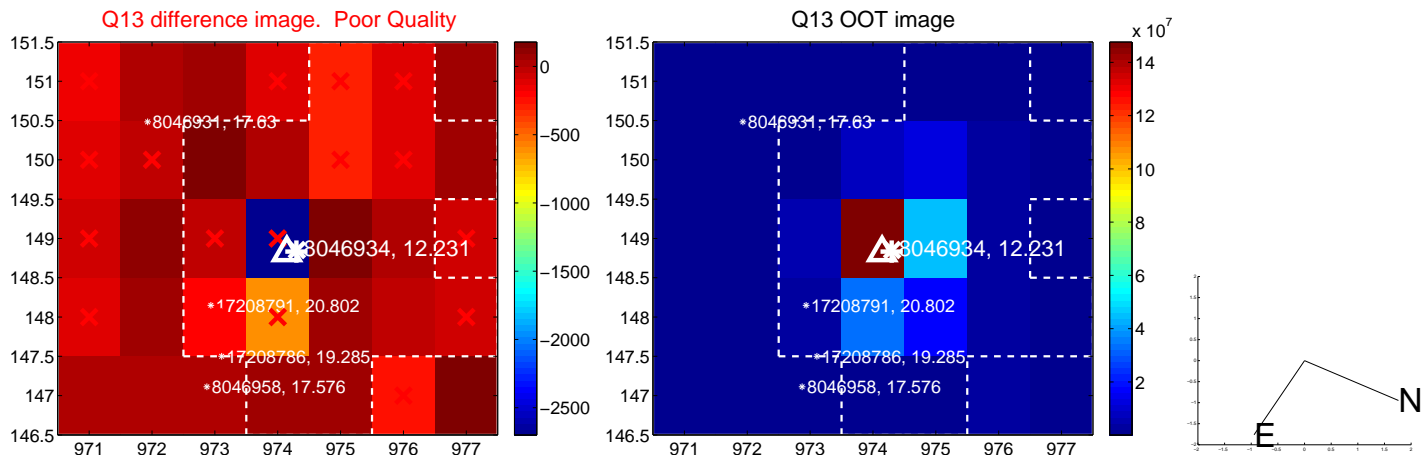
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



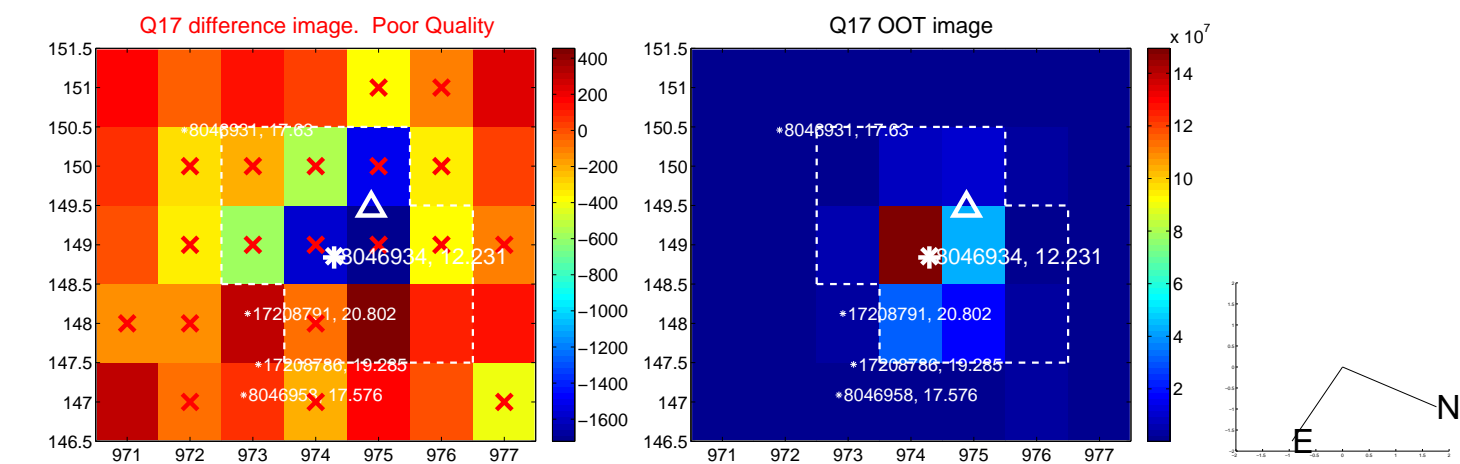
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



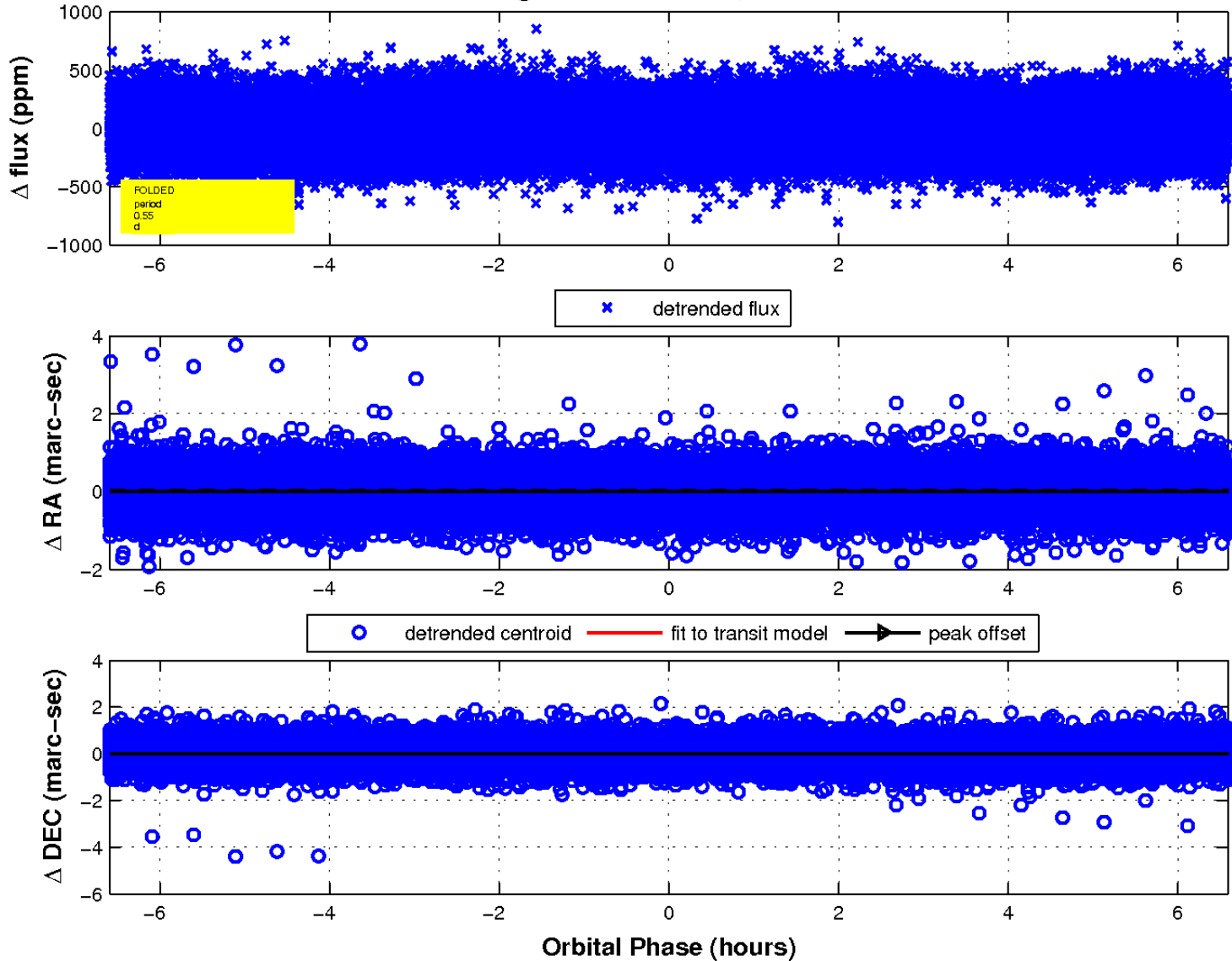
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

