

KIC 004951711

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})
004951711-01	OBS	No	0.661876	131.880903	19.1	6.657	10.8	11.9	1.04	5823	0.47	5303.68

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004951711-01	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.

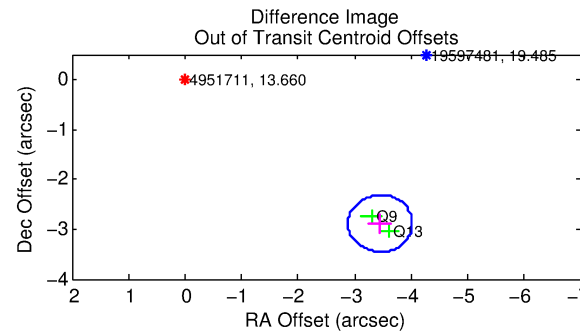
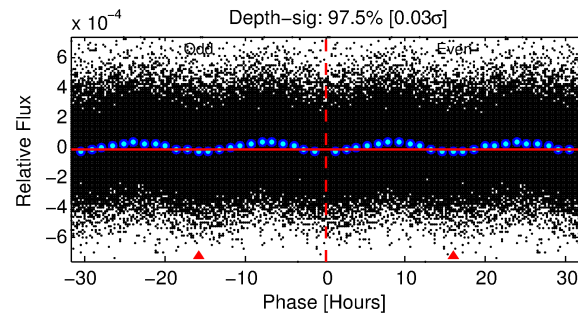
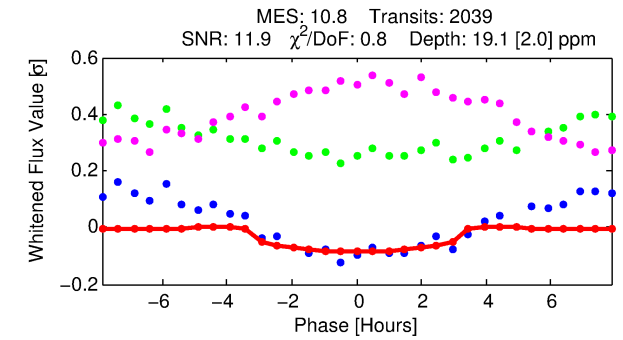
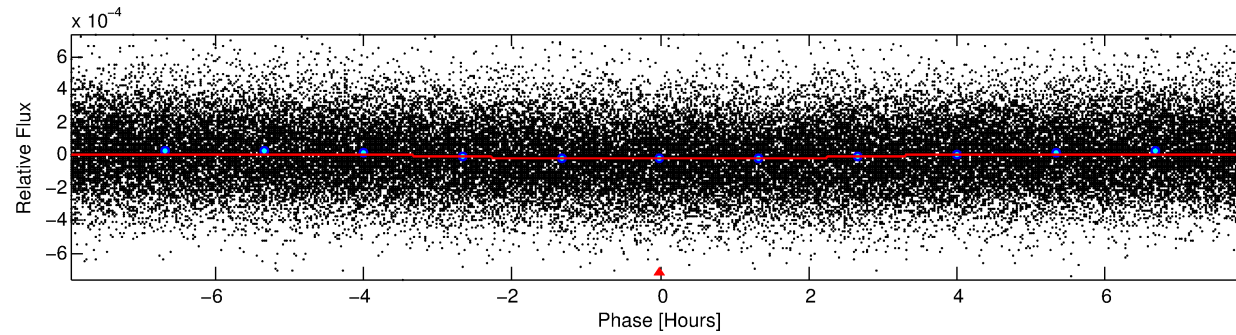
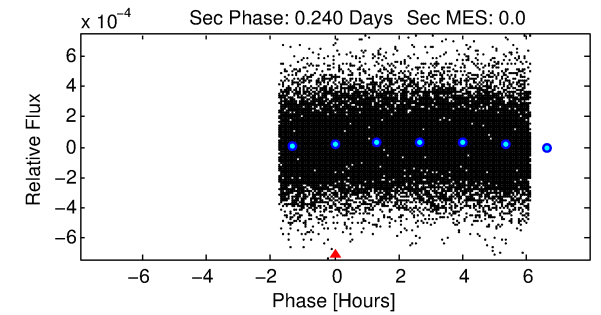
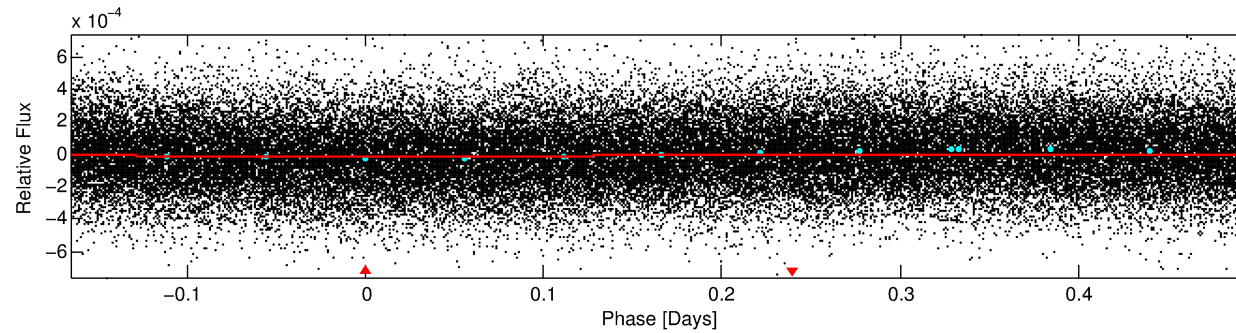
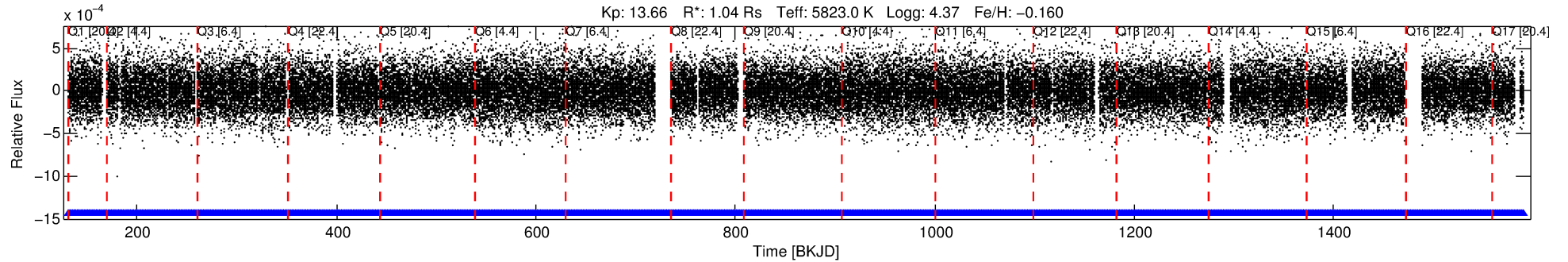
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004951711-01

No Significant Match Found

DV One-Page Summary

KIC: 4951711 Candidate: 1 of 1 Period: 0.662 d



DV Fit Results:

Period = 0.66188 [0.00001] d
Epoch = 131.8809 [0.0058] BKJD
Rp/R* = 0.0041 [0.0031]
a/R* = 1.03 [0.18]
b = 0.56 [4.29]
Seff = 5303.68 [1889.45]
Teq = 2176 [194] K
Rp = 0.47 [0.38] Re
a = 0.0145 [0.0034] AU
Ag = N/A
Teffp = N/A

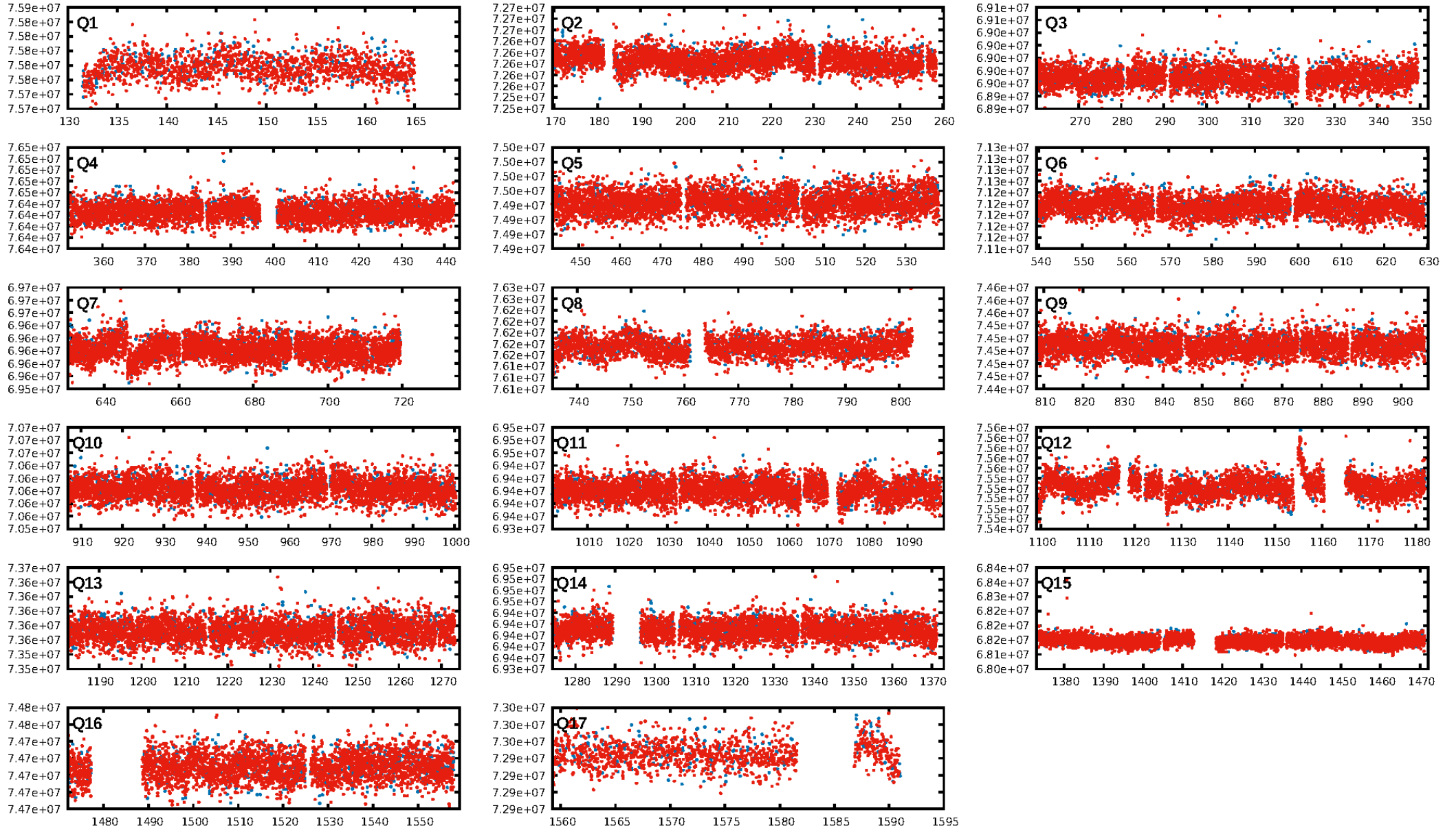
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1947/1947]
GhostDiagnostic-chr: 3.897
Centroid-sig: 3.9%
Centroid-so: 1.624 arcsec [1.45σ]
OotOffset-rm: 4.498 arcsec [23.70σ]
KicOffset-rm: 4.369 arcsec [22.16σ]
OotOffset-st: 0/0/0/2 [2]
KicOffset-st: 0/0/0/2 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [17/17]

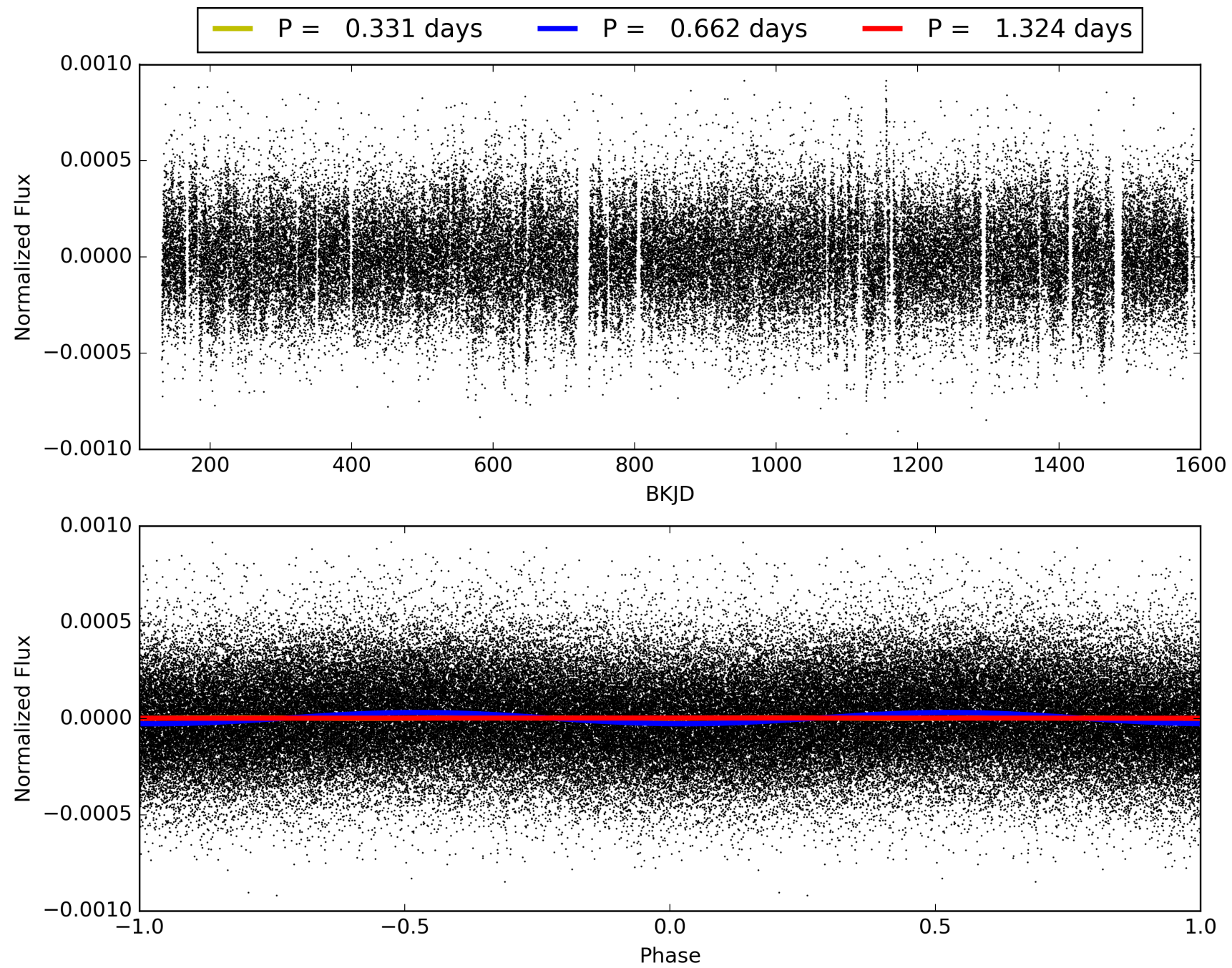
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 14:00:14 Z

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

TCE 004951711-01, PDC Light Curves

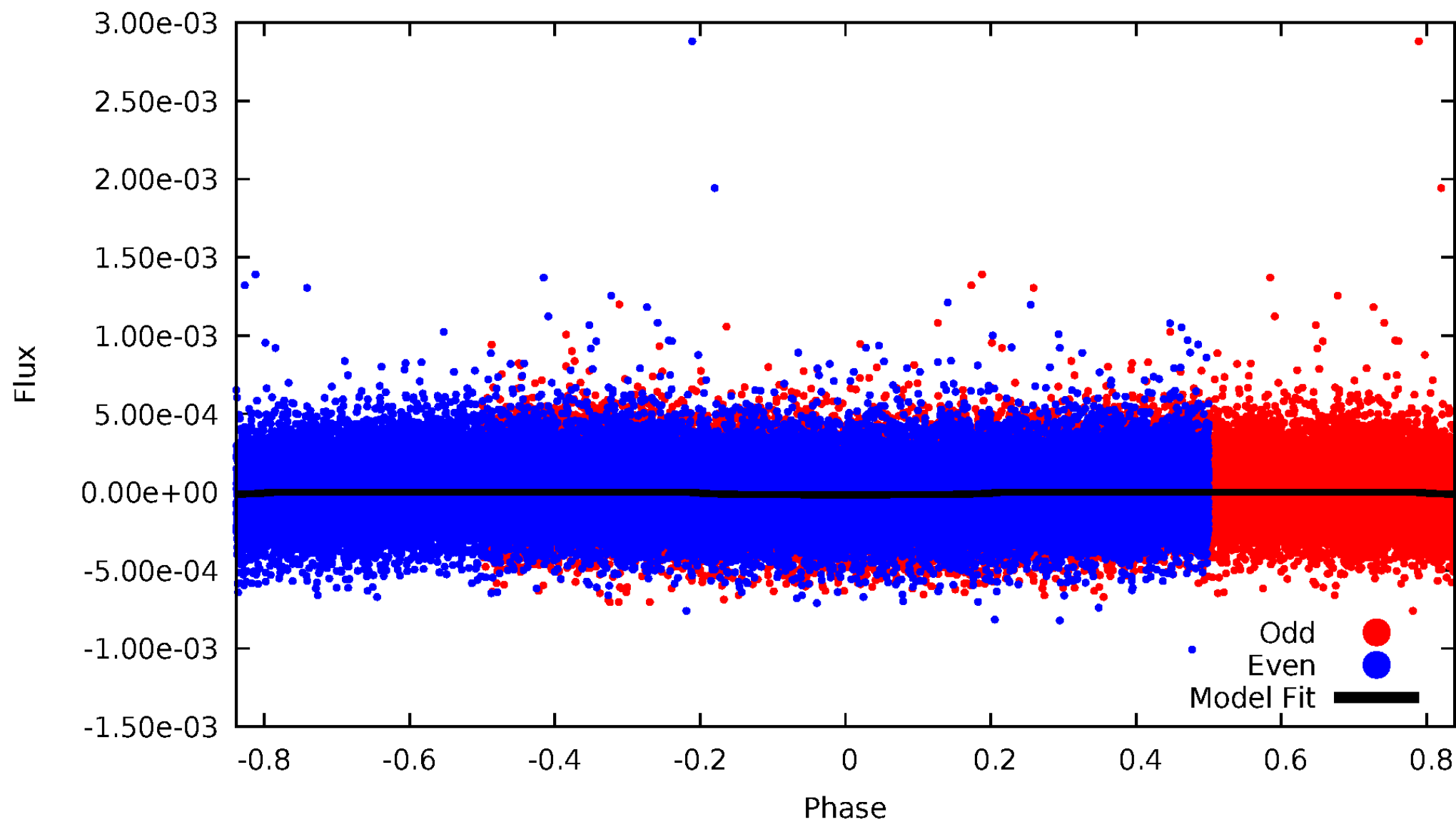


TCE 004951711-01



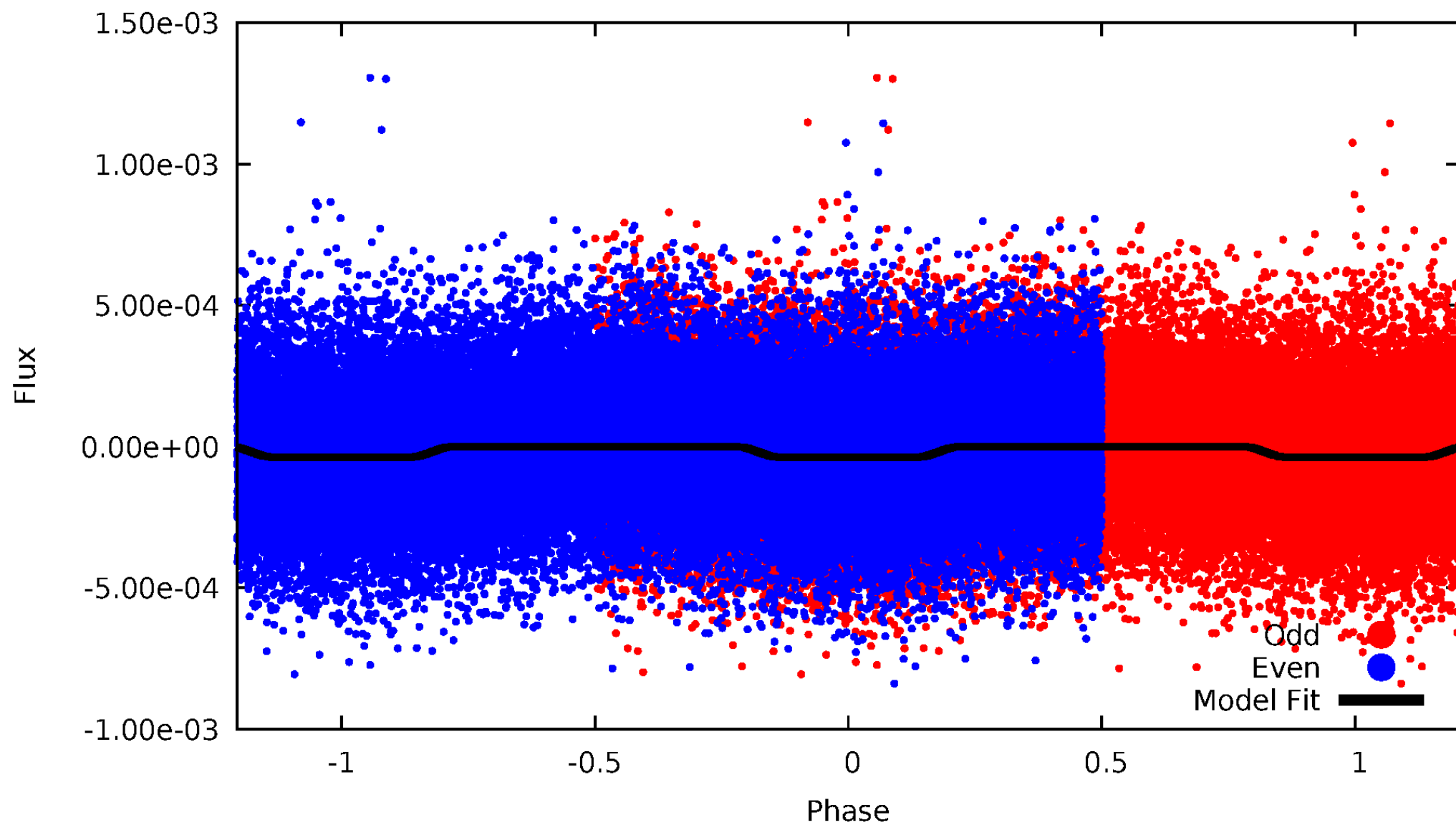
DV Odd/Even

TCE 004951711-01

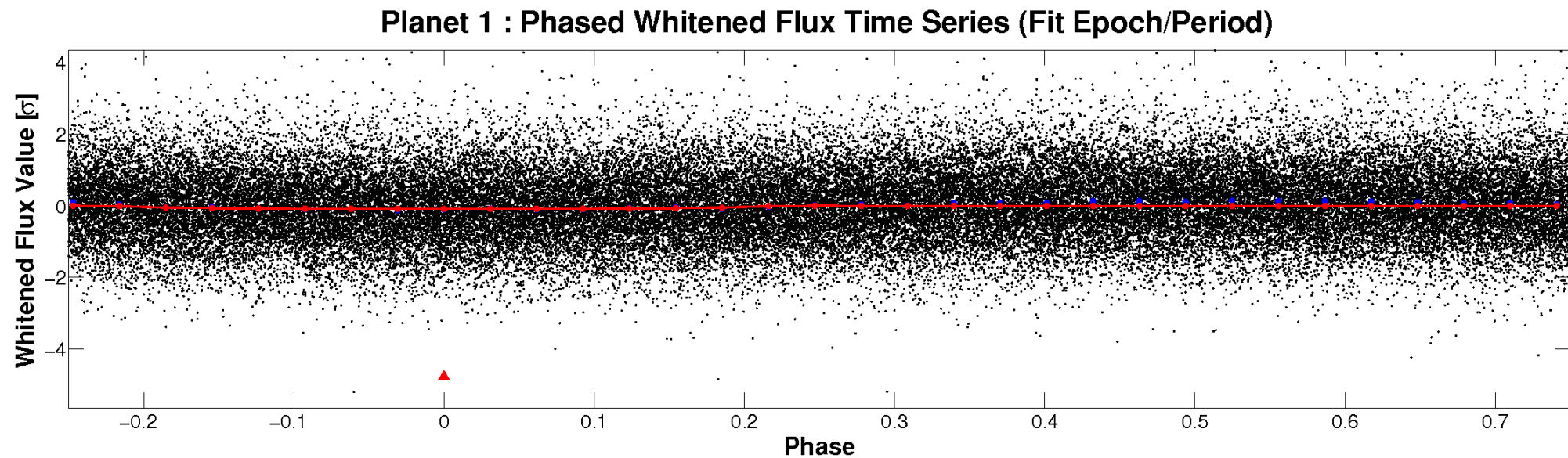
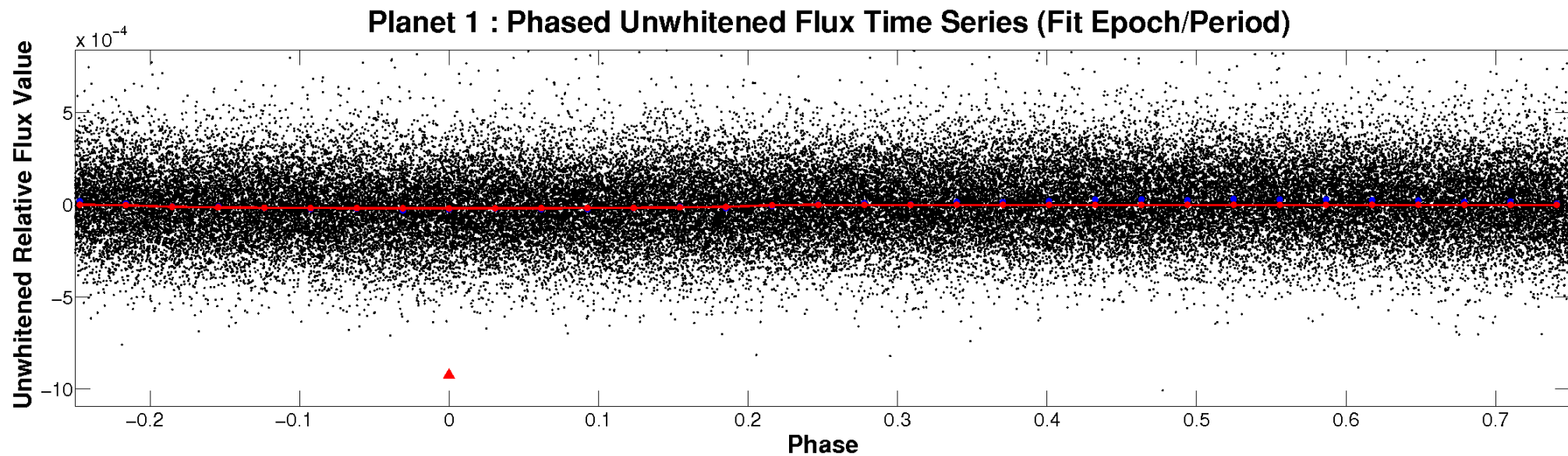


ALT Odd/Even

TCE 004951711-01

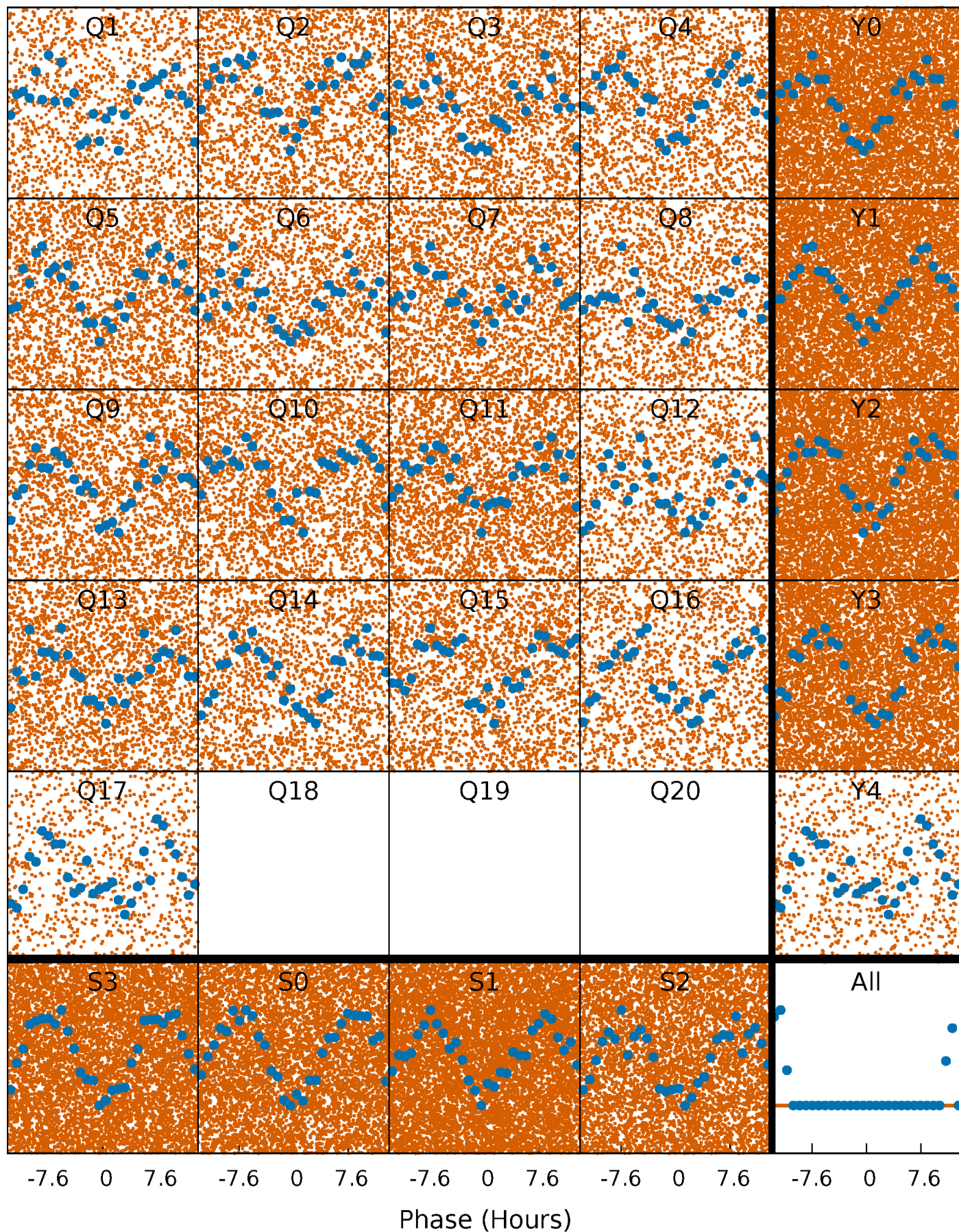


Non-Whitened Vs. Whitened Light Curve



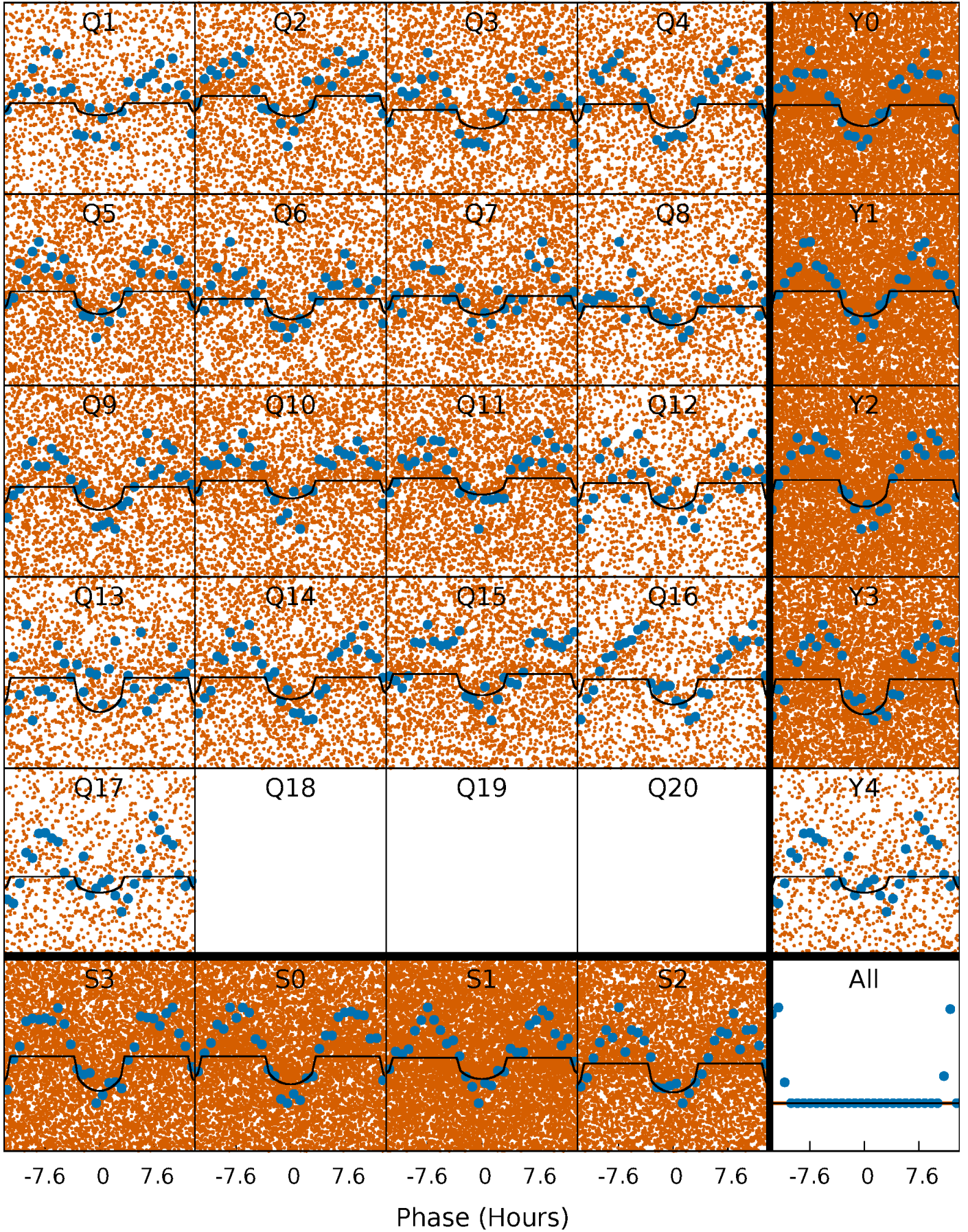
PDC Quarter-Phased Transit Curves

TCE 004951711-01 P= 0.661876 Days $T_0=131.880903$ (BKJD)



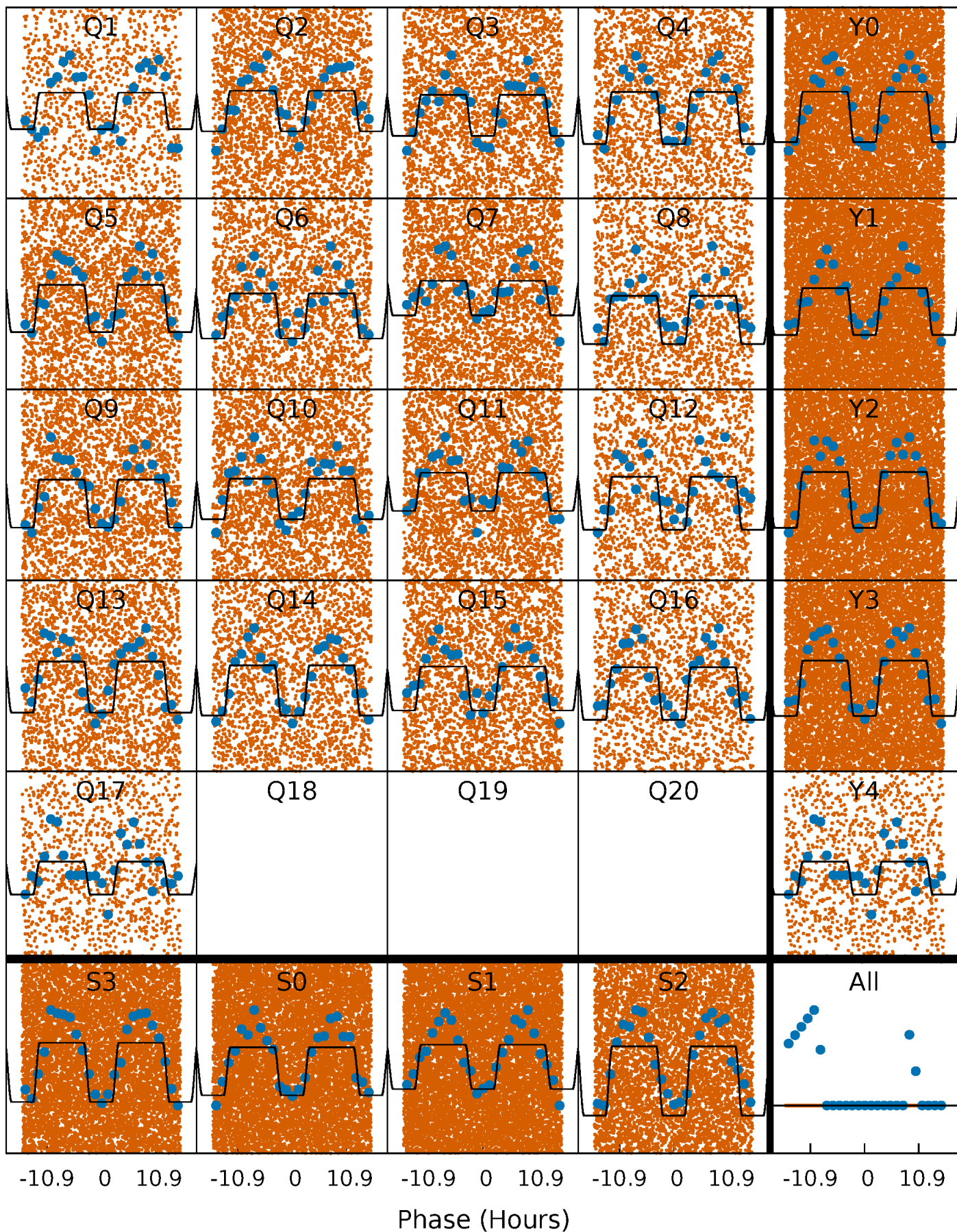
DV Quarter-Phased Transit Curves

TCE 004951711-01 P= 0.661876 Days $T_0=131.880903$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

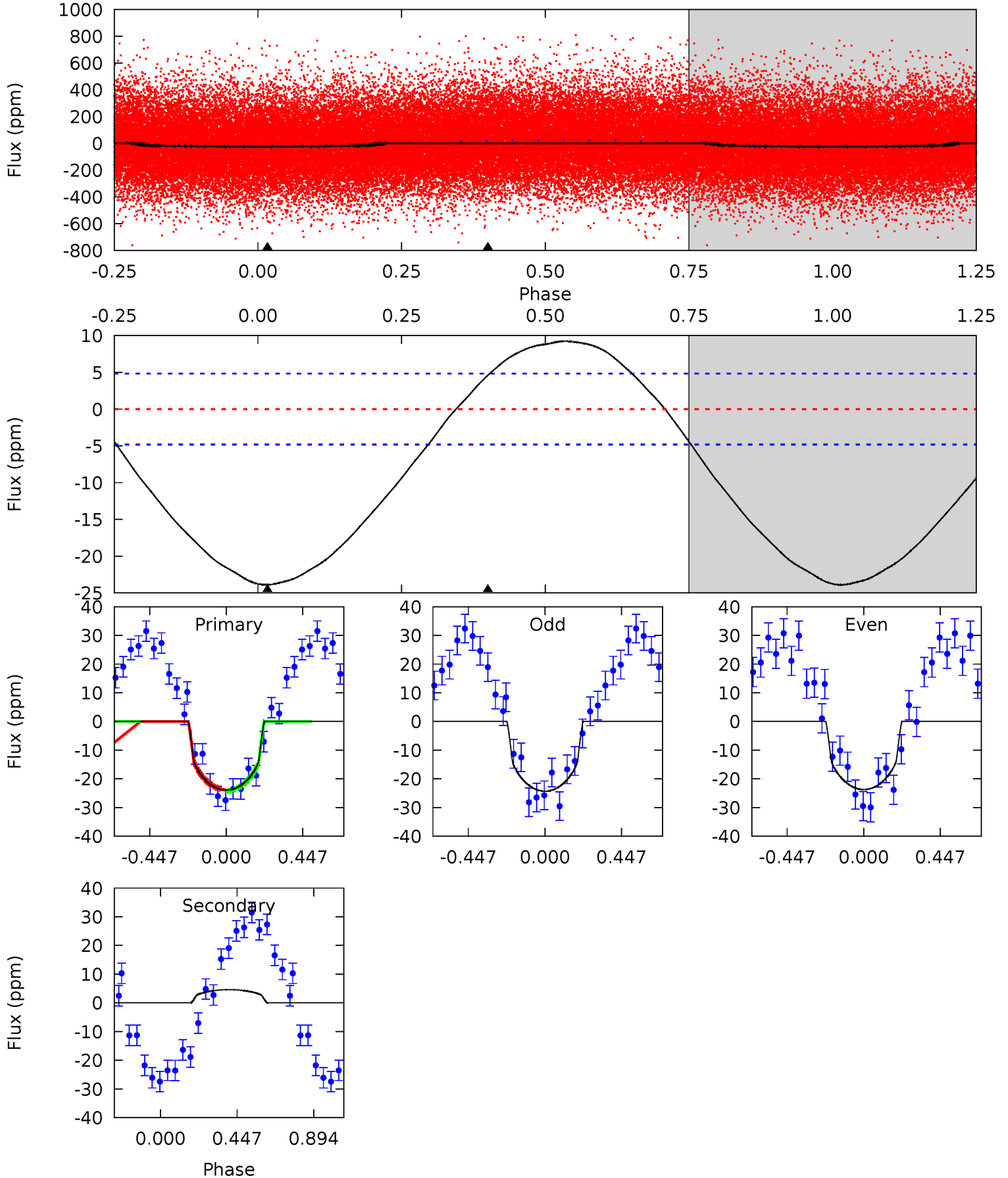
TCE 004951711-01 P= 0.661947 Days $T_0=131.818642$ (BKJD)



DV Model-Shift Uniqueness Test

004951711-01, P = 0.661876 Days, E = 131.219027 Days

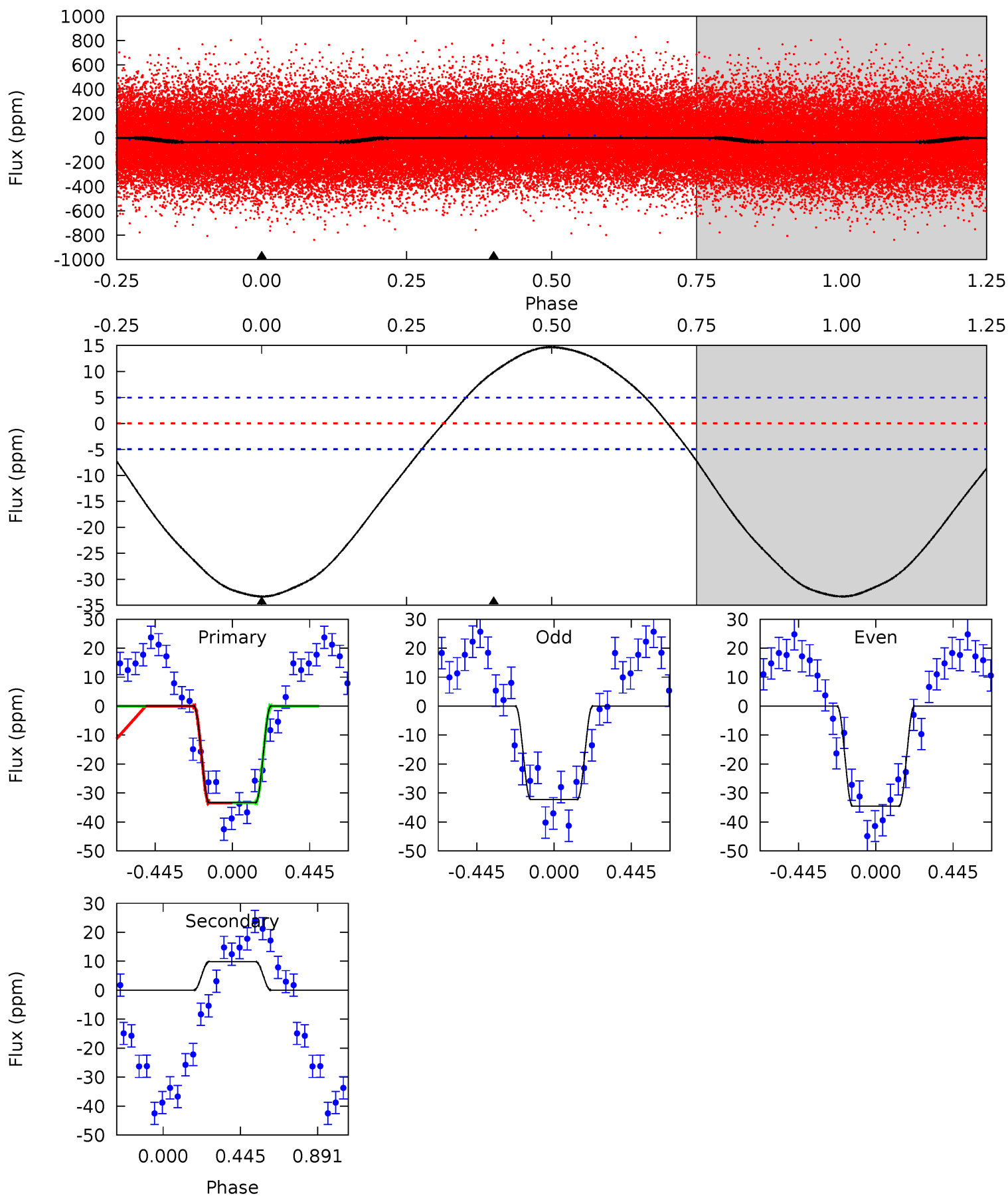
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.0	-4.04	0	0	4.24	0.76	2.50	21.0	21.0	-4.04	-4.04	0.26	1.02	0.28	0.18



Alt Model-Shift Uniqueness Test

004951711-01, P = 0.661947 Days, E = 131.156695 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
28.5	-8.43	0	0	4.24	0.76	3.40	28.5	28.5	-8.43	-8.43	0.97	0.93	0.31	0.05



Stellar Parameters For KIC 004951711

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5823^{+146}_{-161}	$4.370^{+0.149}_{-0.182}$	$-0.160^{+0.300}_{-0.300}$	$1.038^{+0.298}_{-0.183}$	$0.922^{+0.133}_{-0.088}$	$1.160^{+0.802}_{-0.583}$
	+3%/-3%	+3%/-4%	+188%/-188%	+29%/-18%	+14%/-10%	+69%/-50%
Source	PHO1	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 004951711-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	5 ± 1	$0.53^{+0.35}_{-0.29}$	3045^{+225}_{-187}	-4341^{+587}_{-1631}	$-1.944^{+1.331}_{-6.806}$
Alt.	10 ± 1	$0.72^{+0.38}_{-0.35}$	3034^{+217}_{-178}	-4468^{+545}_{-1319}	$-2.280^{+1.353}_{-5.983}$

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 $A_{obs} \gg 1.0$

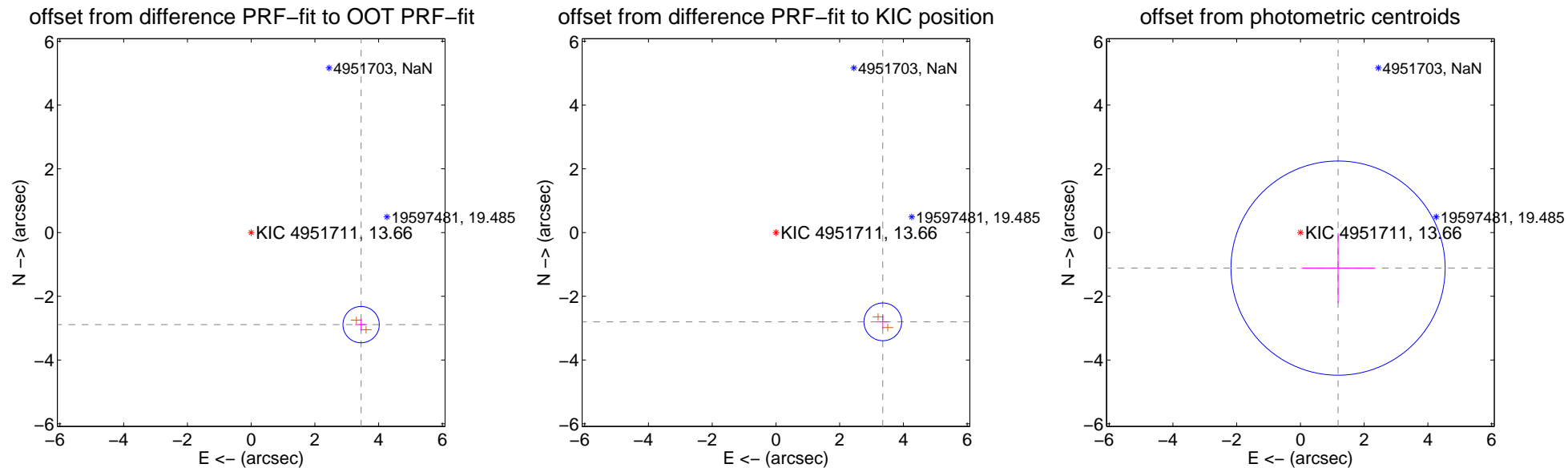
DV Centroid Data

Supplemental centroid analysis for 004951711-01. Kepler magnitude: 13.66. Transit SNR 11.92

There are 0 quarters with good PRF difference image offsets

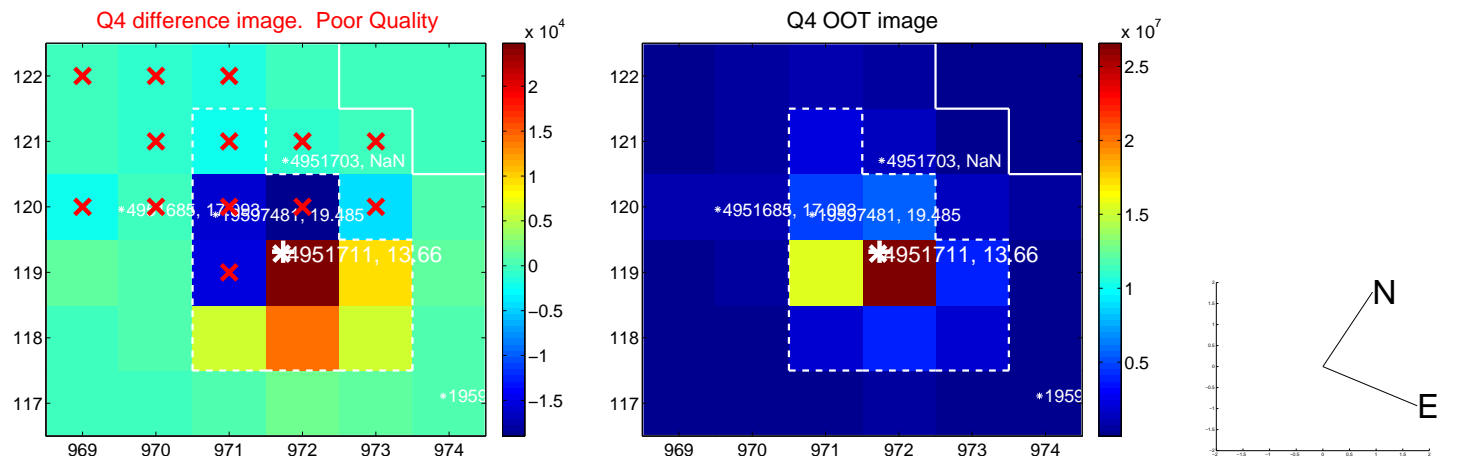
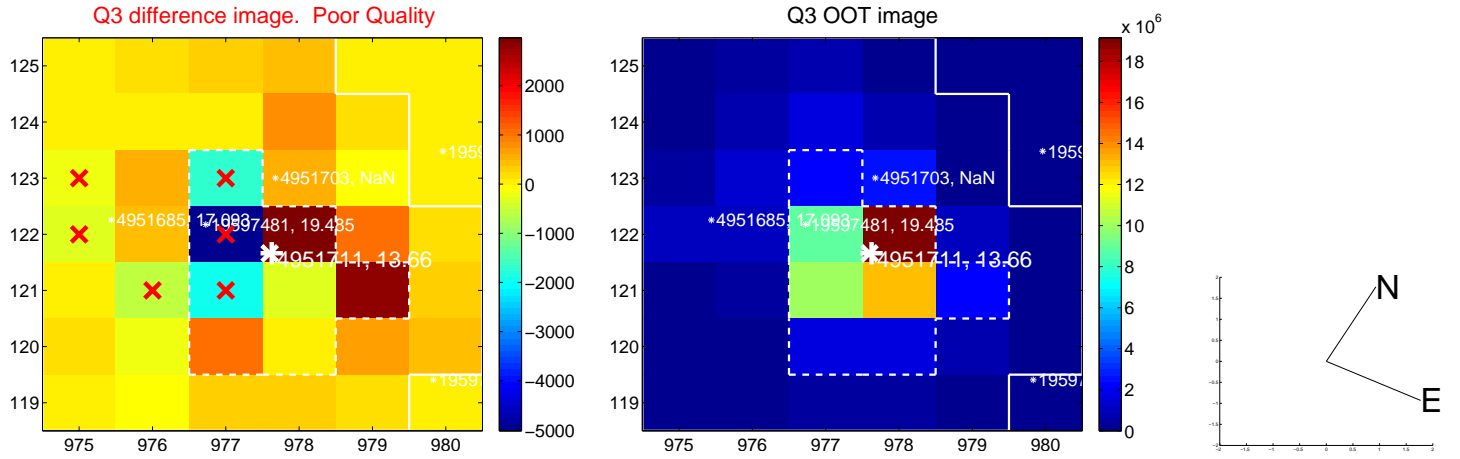
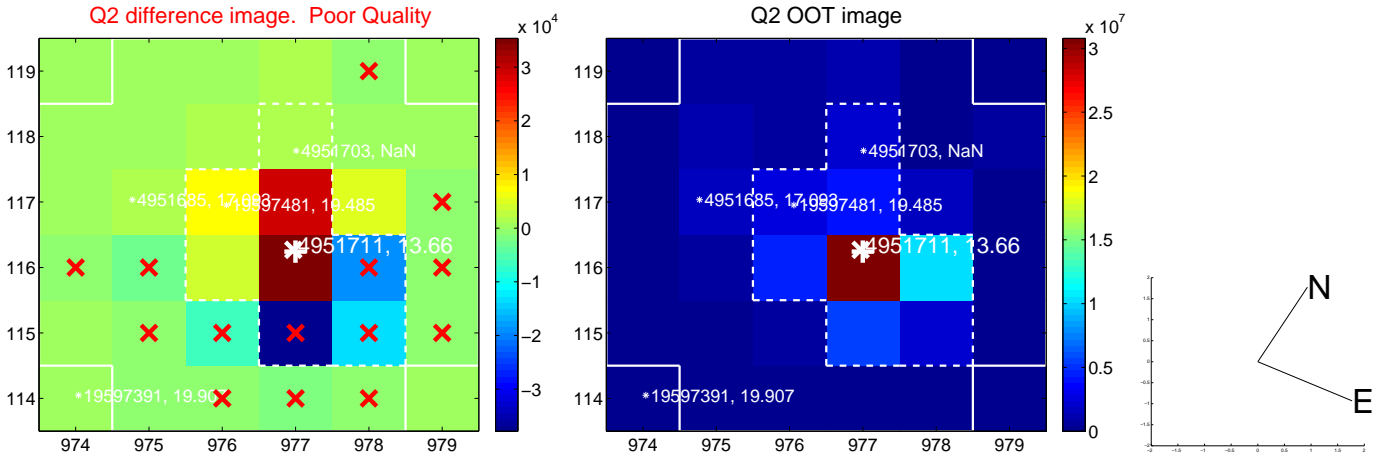
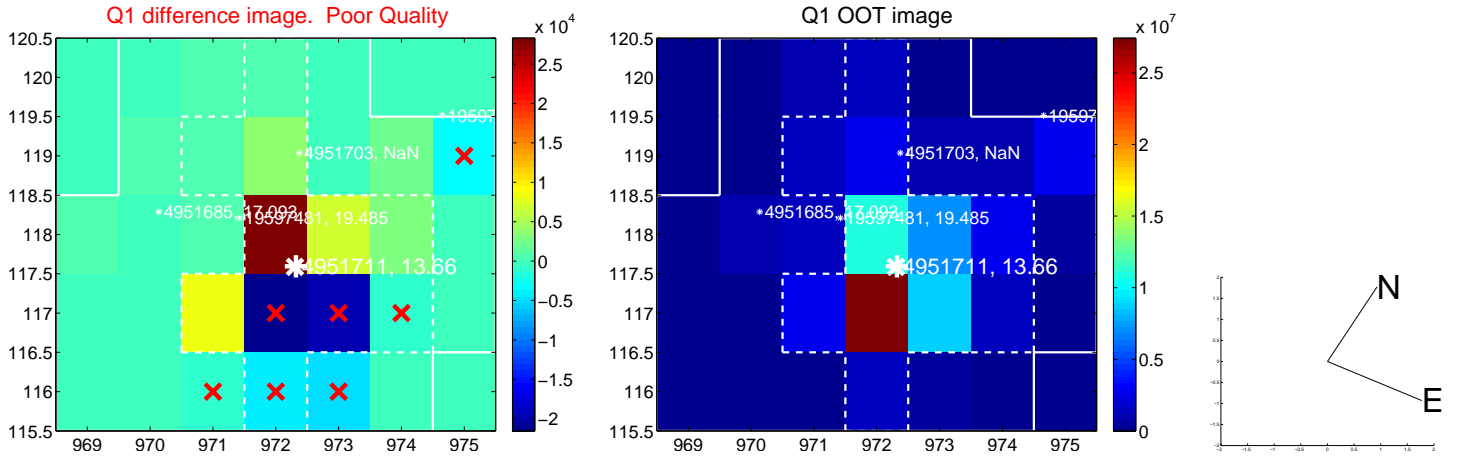
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.498 ± 0.190	23.70	-3.449 ± 0.191	-2.888 ± 0.188
PRF-fit source offset from KIC position	4.369 ± 0.197	22.16	-3.353 ± 0.190	-2.801 ± 0.207
photometric centroid source offset	1.62 ± 1.12	1.45	-1.18 ± 1.14	-1.12 ± 1.10

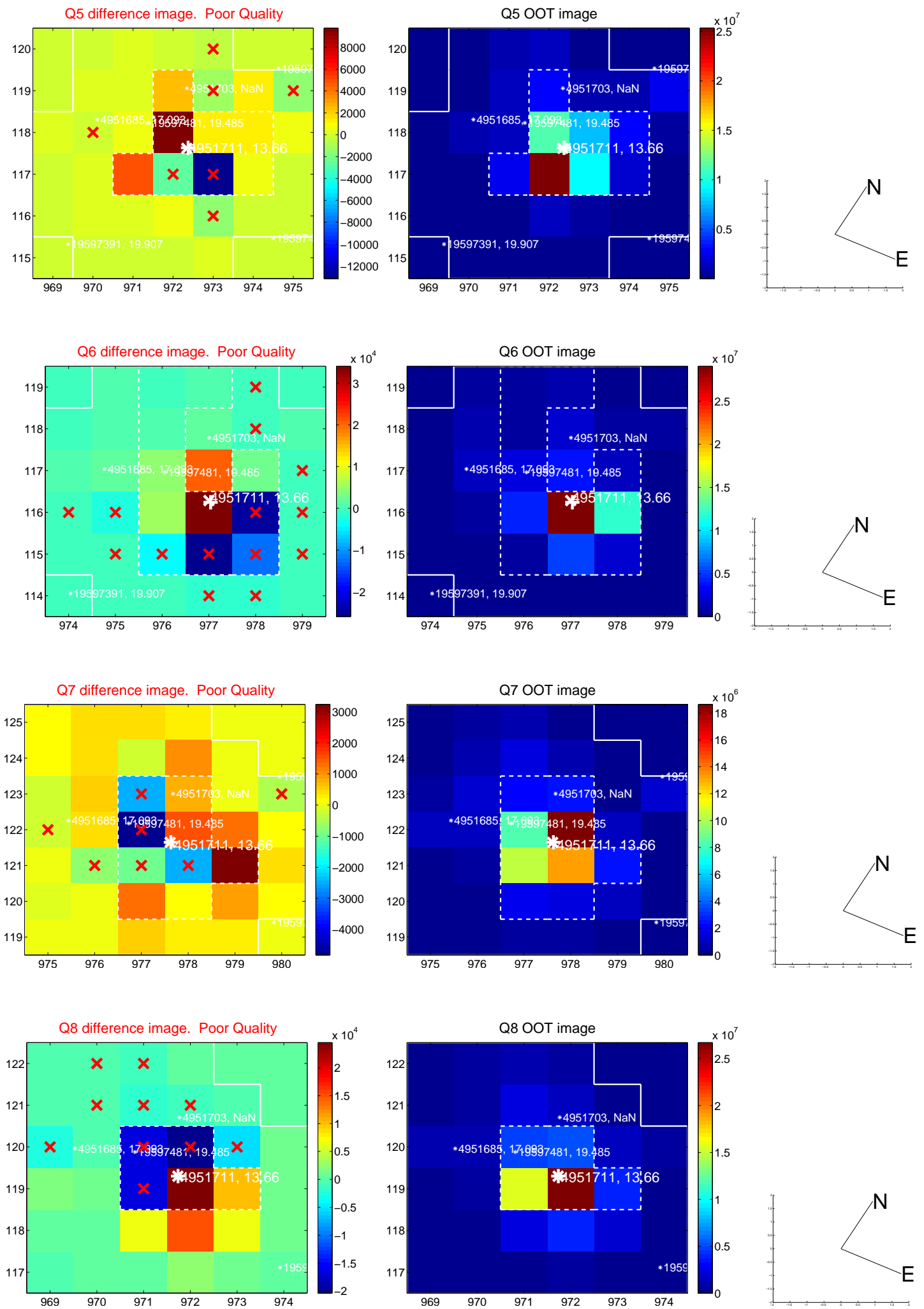


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

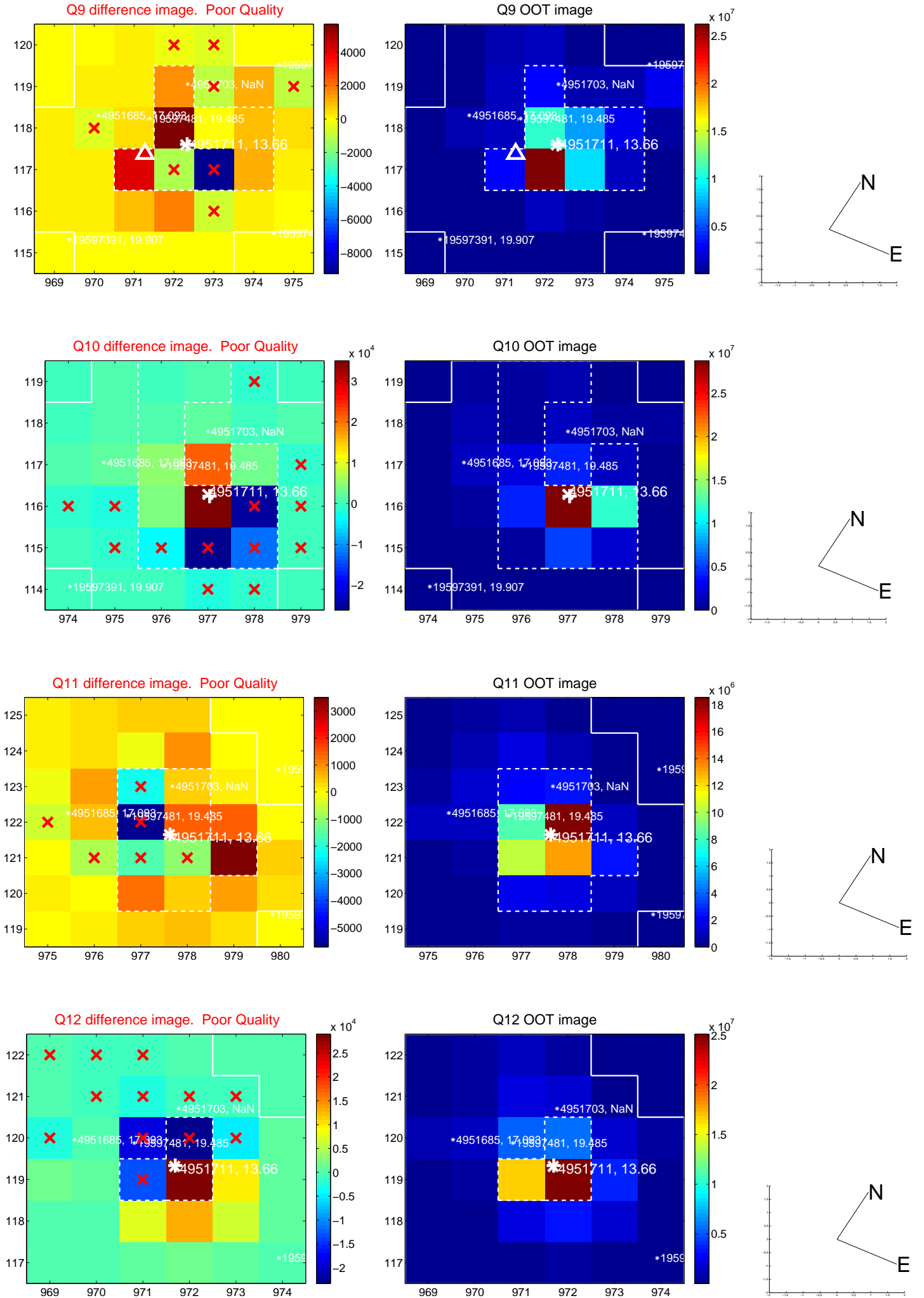
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



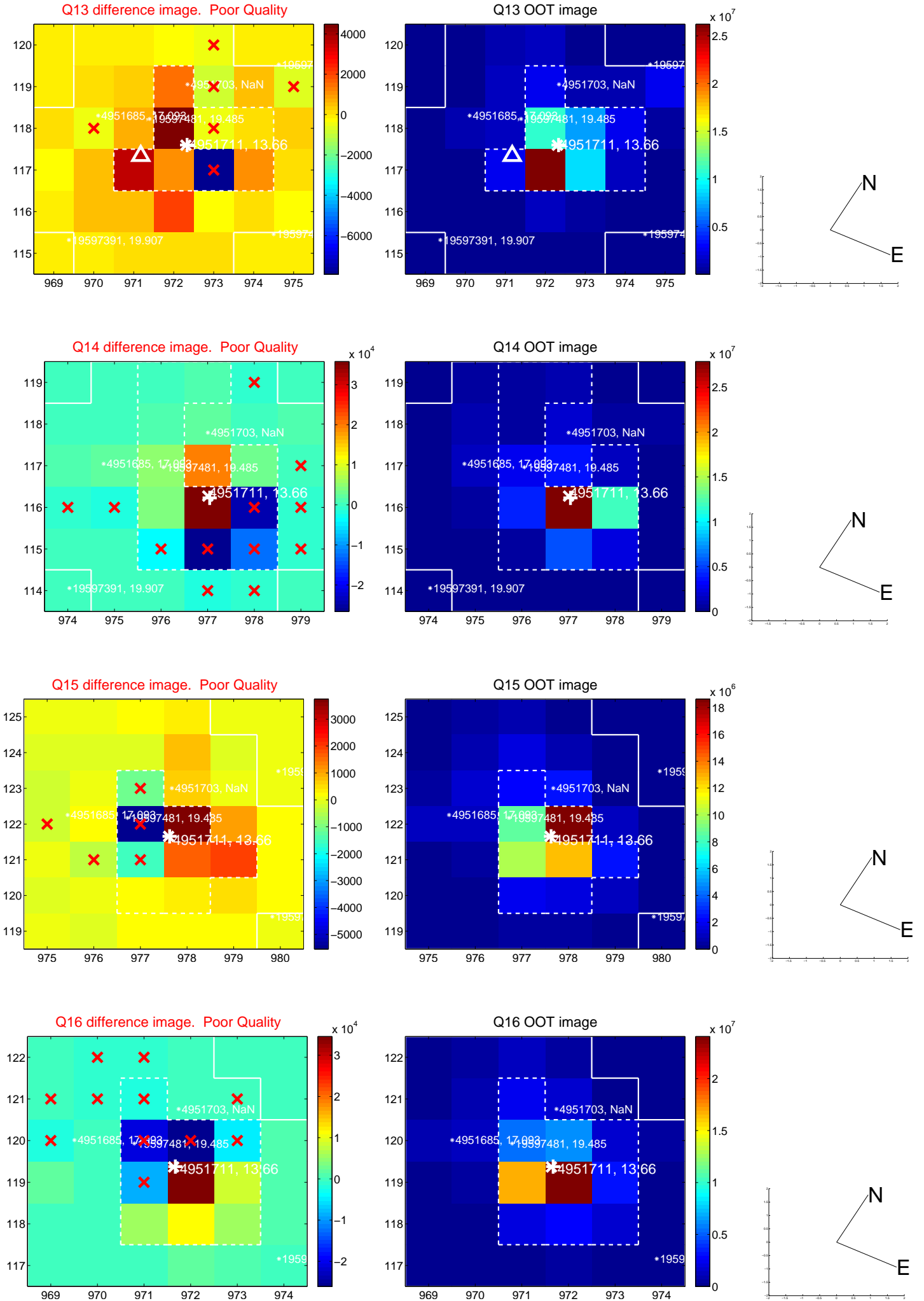
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



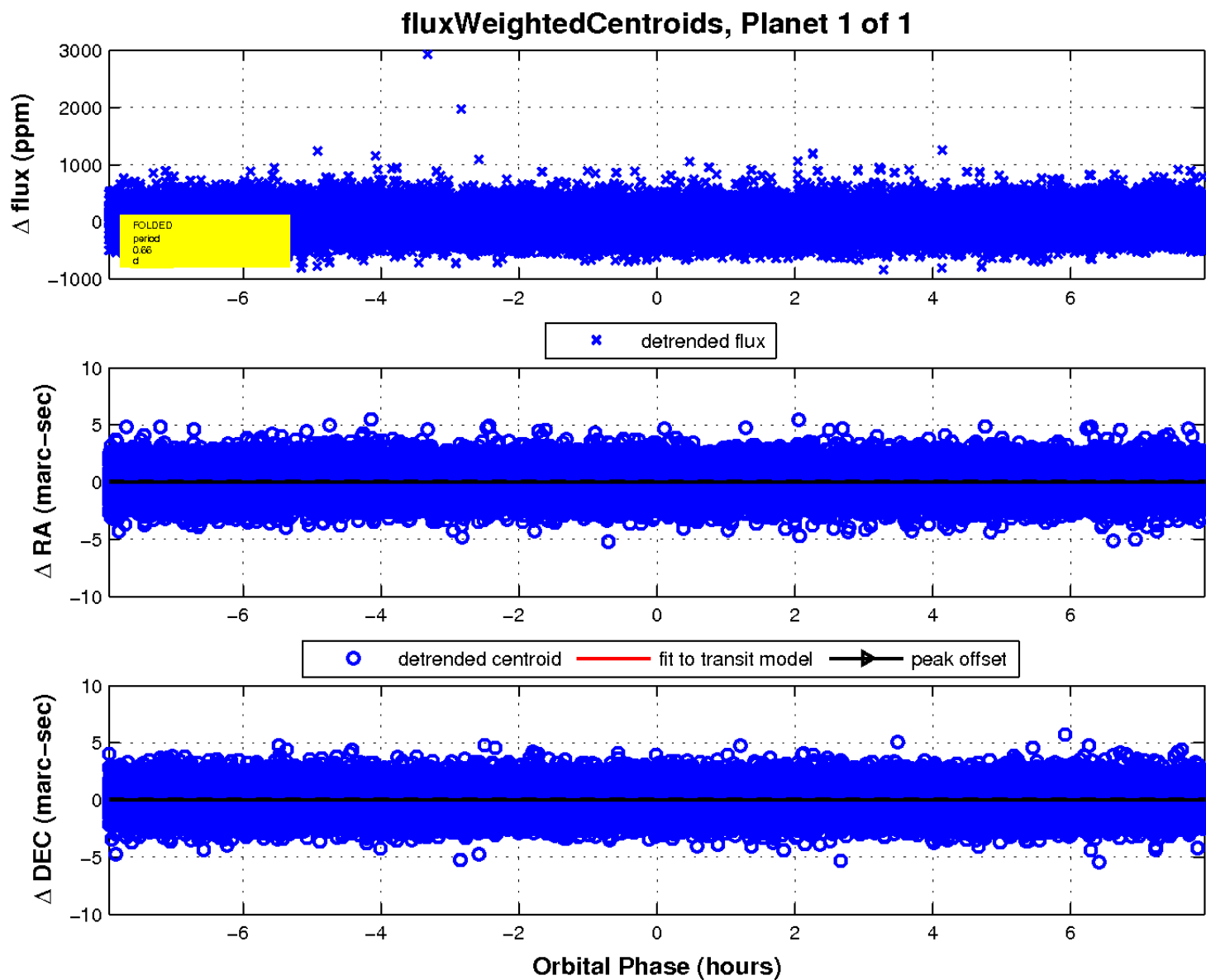
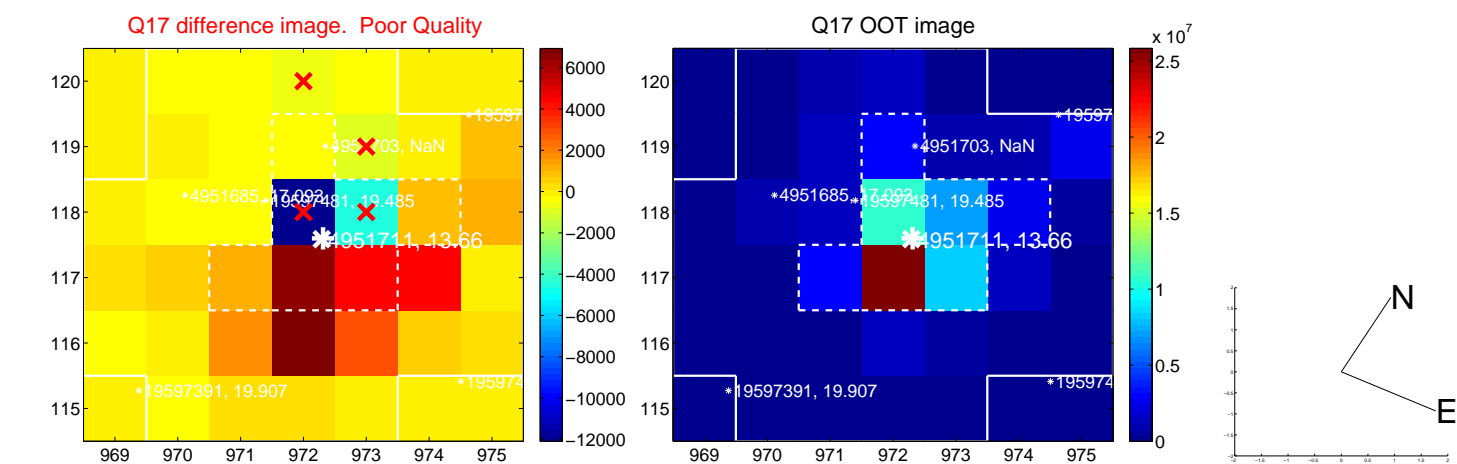
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UKIRT Image

Declination

