

KIC 004917014

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})
004917014-01	OBS	6472.01	0.796806	131.979907	29.2	1.148	8.7	9.5	13.50	4897	9.05	0.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004917014-01	OBS	FP	0.00	0	0	1	0	PLANET_IN_STAR—CENT_RESOLVED_OFFSET

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 004917014-01

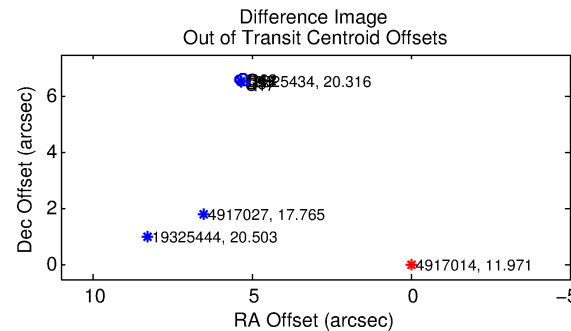
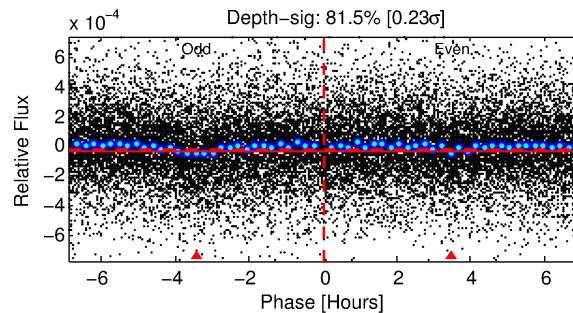
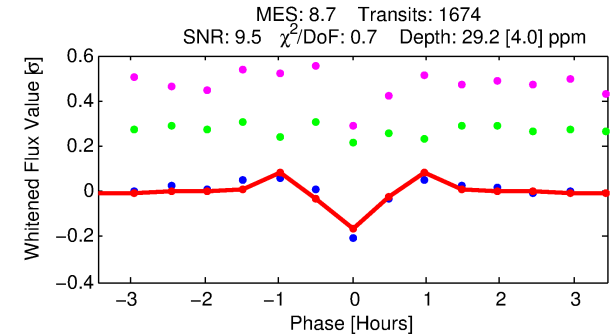
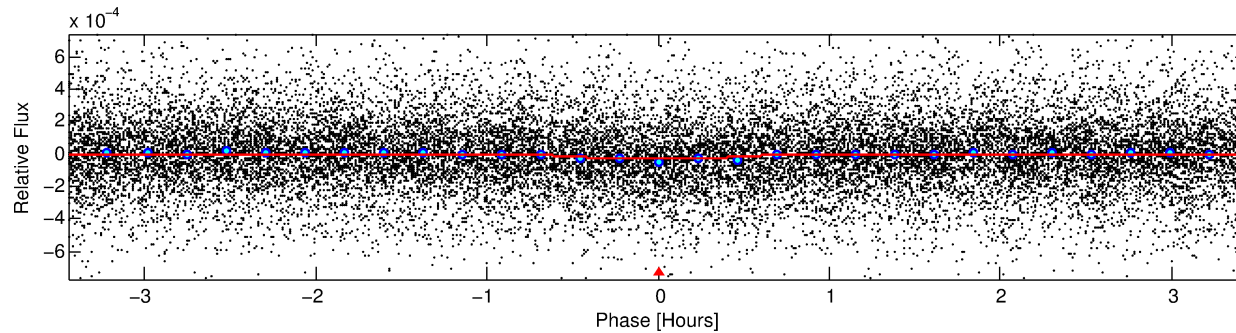
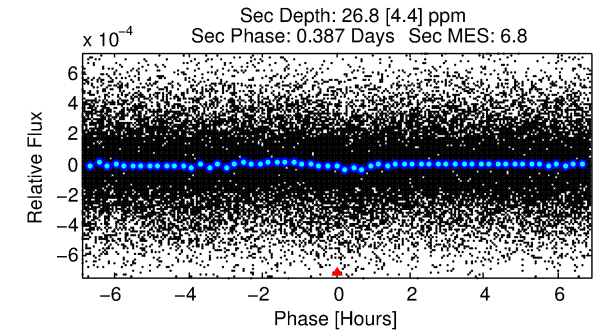
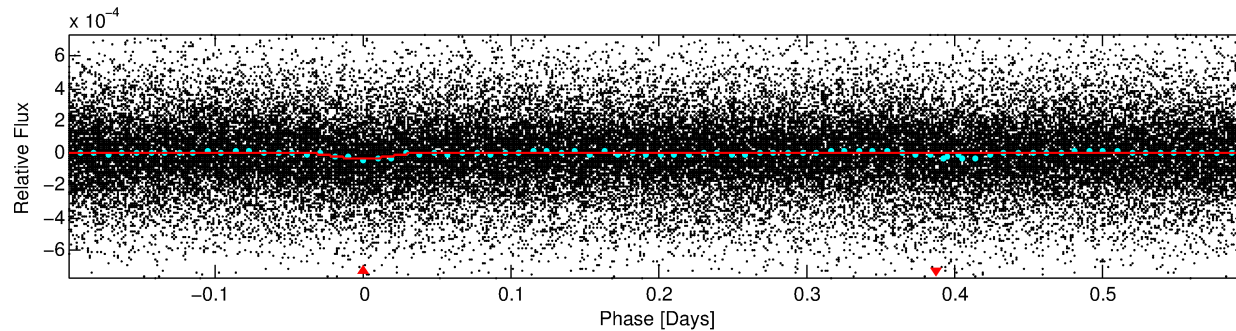
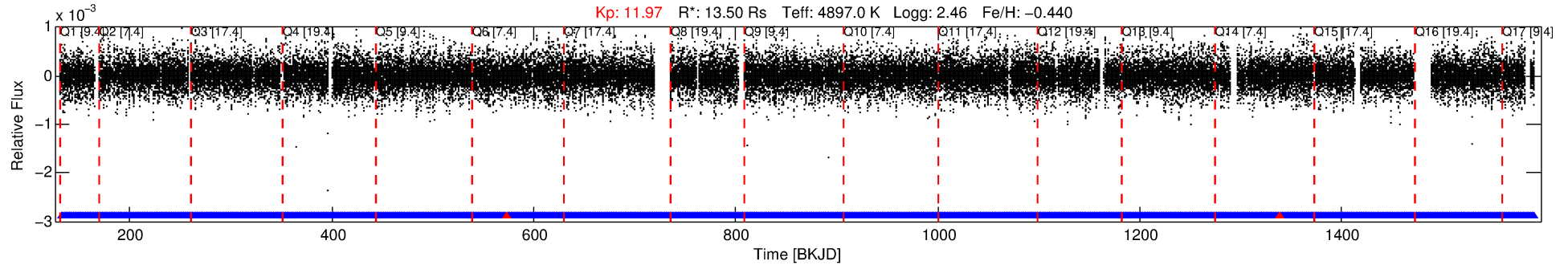
No Significant Match Found

DV One-Page Summary

KIC: 4917014 Candidate: 1 of 1 Period: 0.797 d

KOI: K06472.01 Corr: 0.896

Kp: 11.97 R*: 13.50 Rs Teff: 4897.0 K Logg: 2.46 Fe/H: -0.440



DV Fit Results:

Period = 0.79681 [0.00001] d
Epoch = 131.9799 [0.0011] BKJD
Rp/R* = 0.0061 [0.0014]
a/R* = 2.43 [1.80]
b = 0.91 [0.17]
Seff = N/A
Teq = N/A
Rp = 9.05 [3.47] Re
a = N/A
Ag = N/A
Teff = N/A

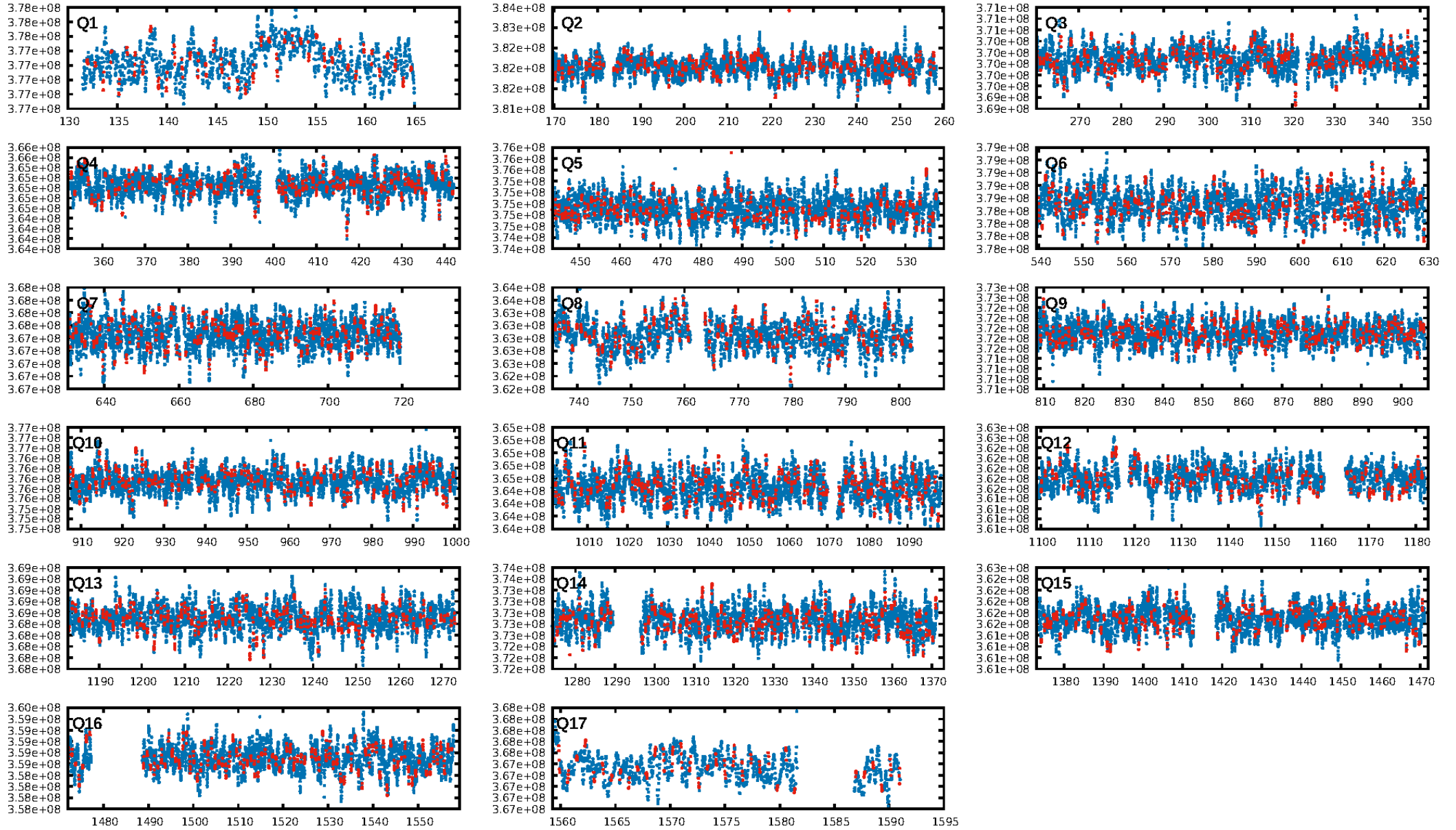
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 5.10e-19
RollingBand-fgt: 1.00 [1596/1598]
GhostDiagnostic-chr: -0.4999
Centroid-sig: 0.0%
Centroid-so: 2.428 arcsec [5.76σ]
OotOffset-rm: 8.452 arcsec [120.68σ]
KicOffset-rm: 8.431 arcsec [117.75σ]
OotOffset-st: 2/0/2/4 [8]
KicOffset-st: 2/0/2/4 [8]
DiffImageQuality-fgm: 1.00 [8/8]
DiffImageOverlap-fno: 1.00 [17/17]

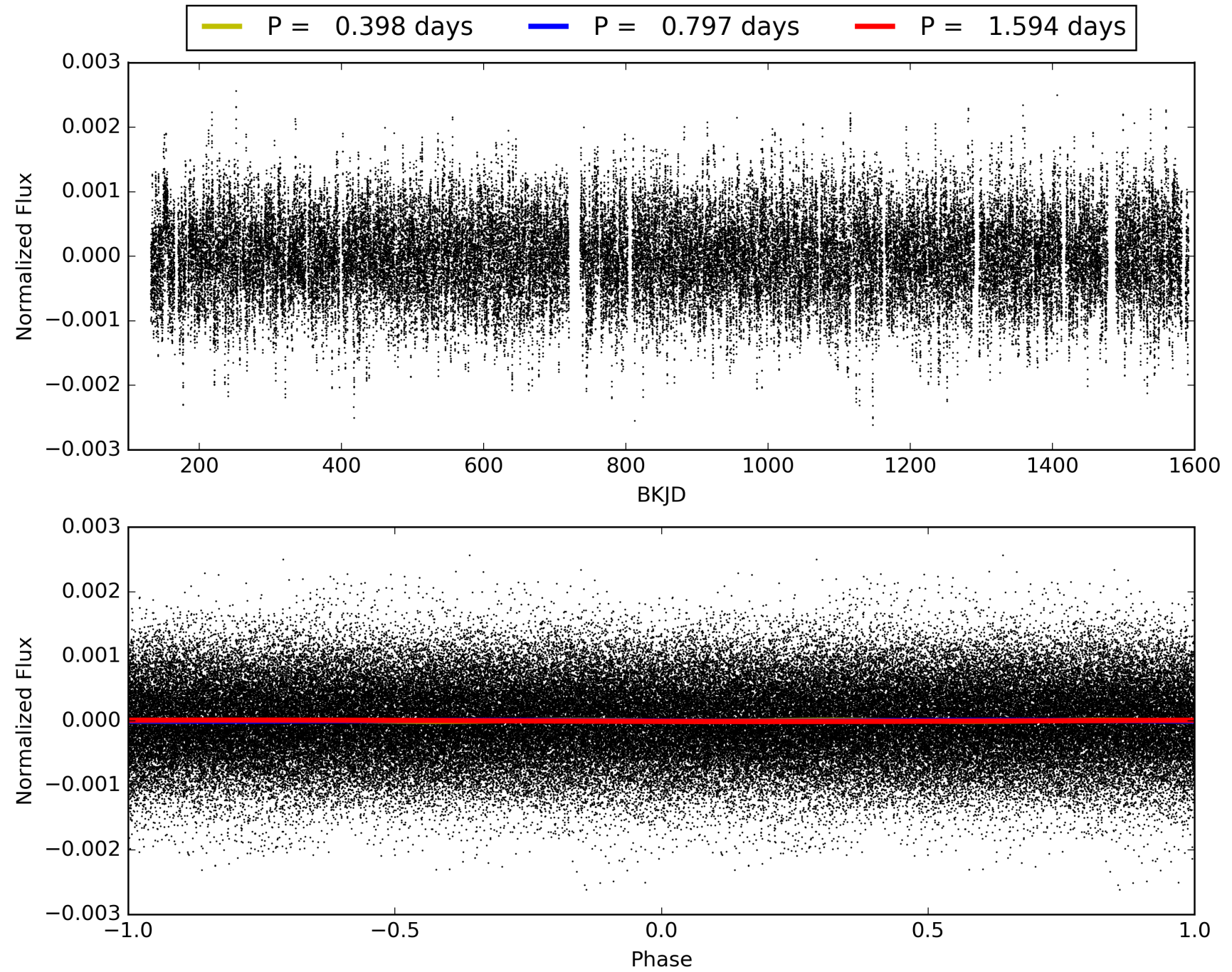
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 00:38:39 Z

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

TCE 004917014-01, PDC Light Curves

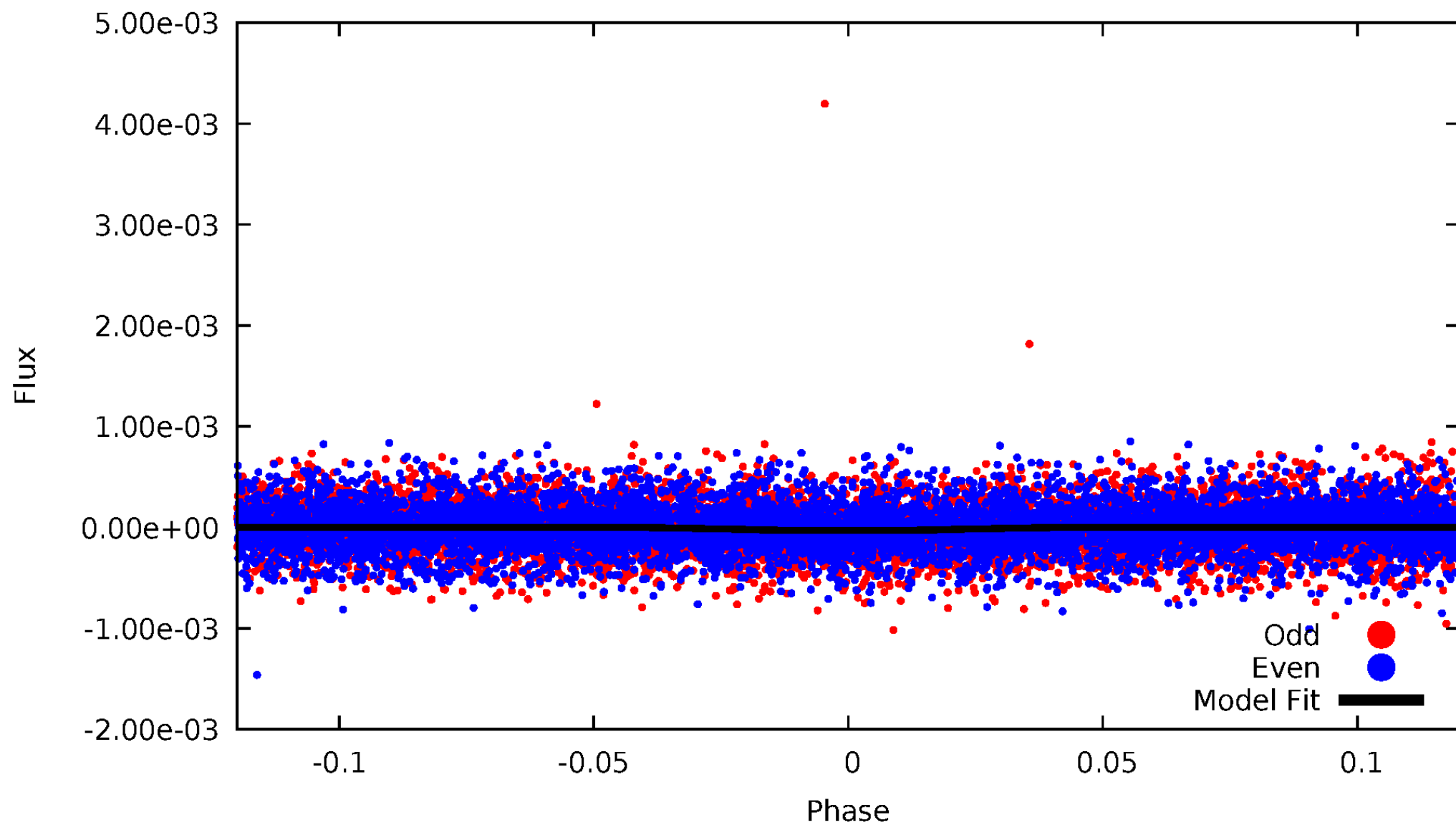


TCE 004917014-01



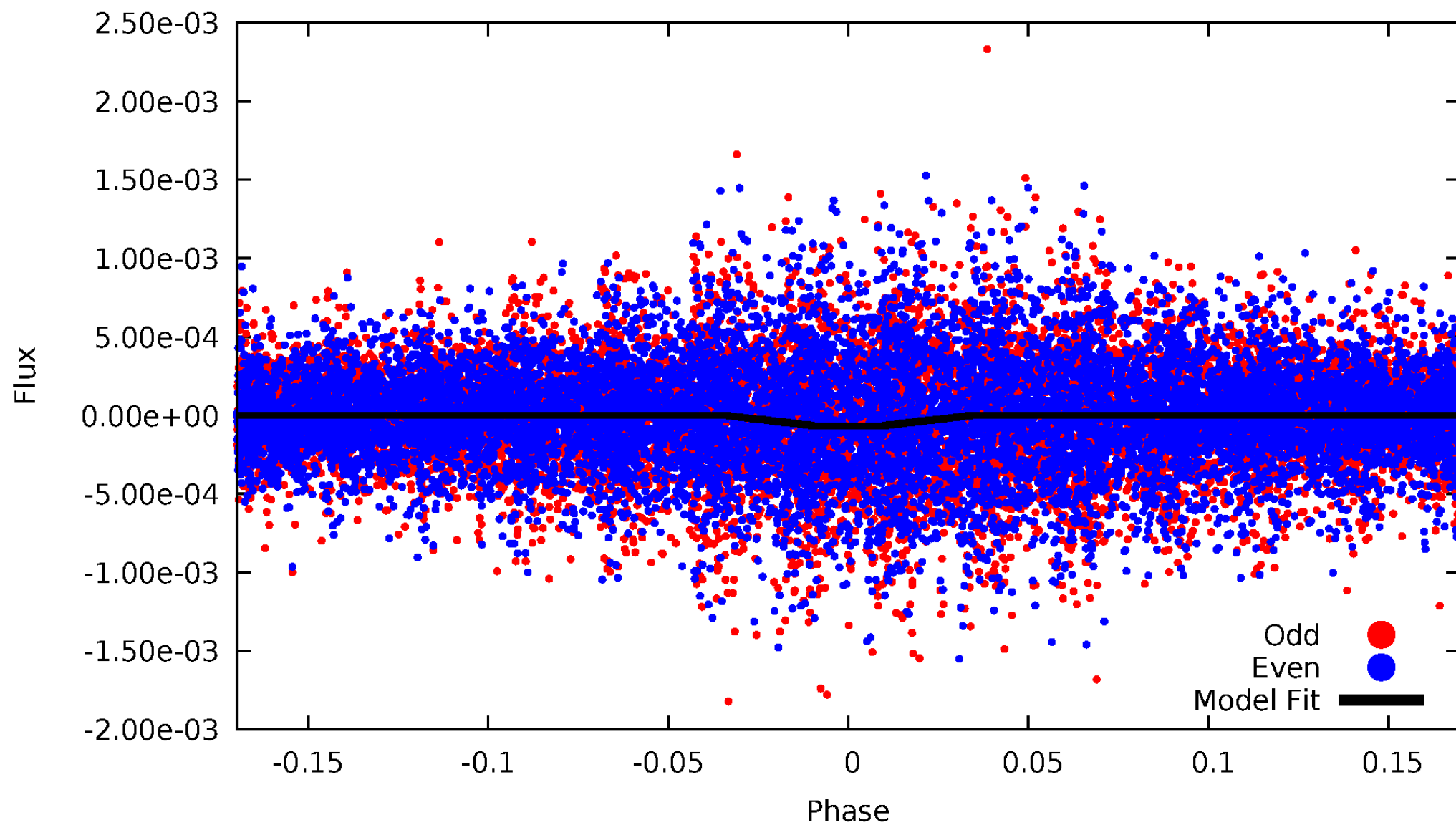
DV Odd/Even

TCE 004917014-01

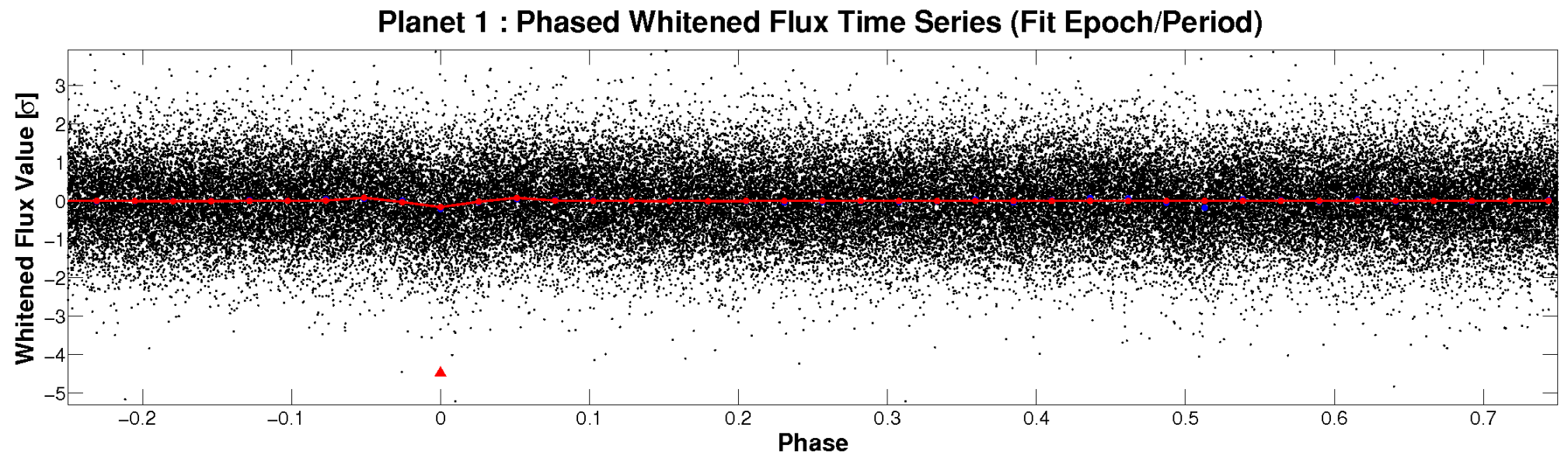
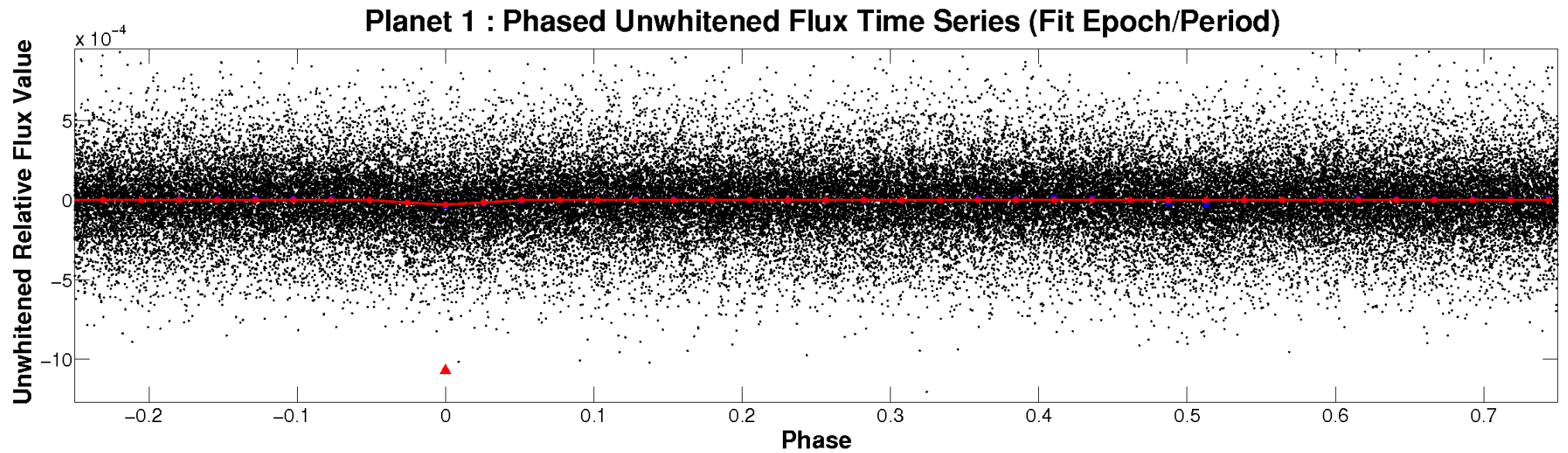


ALT Odd/Even

TCE 004917014-01

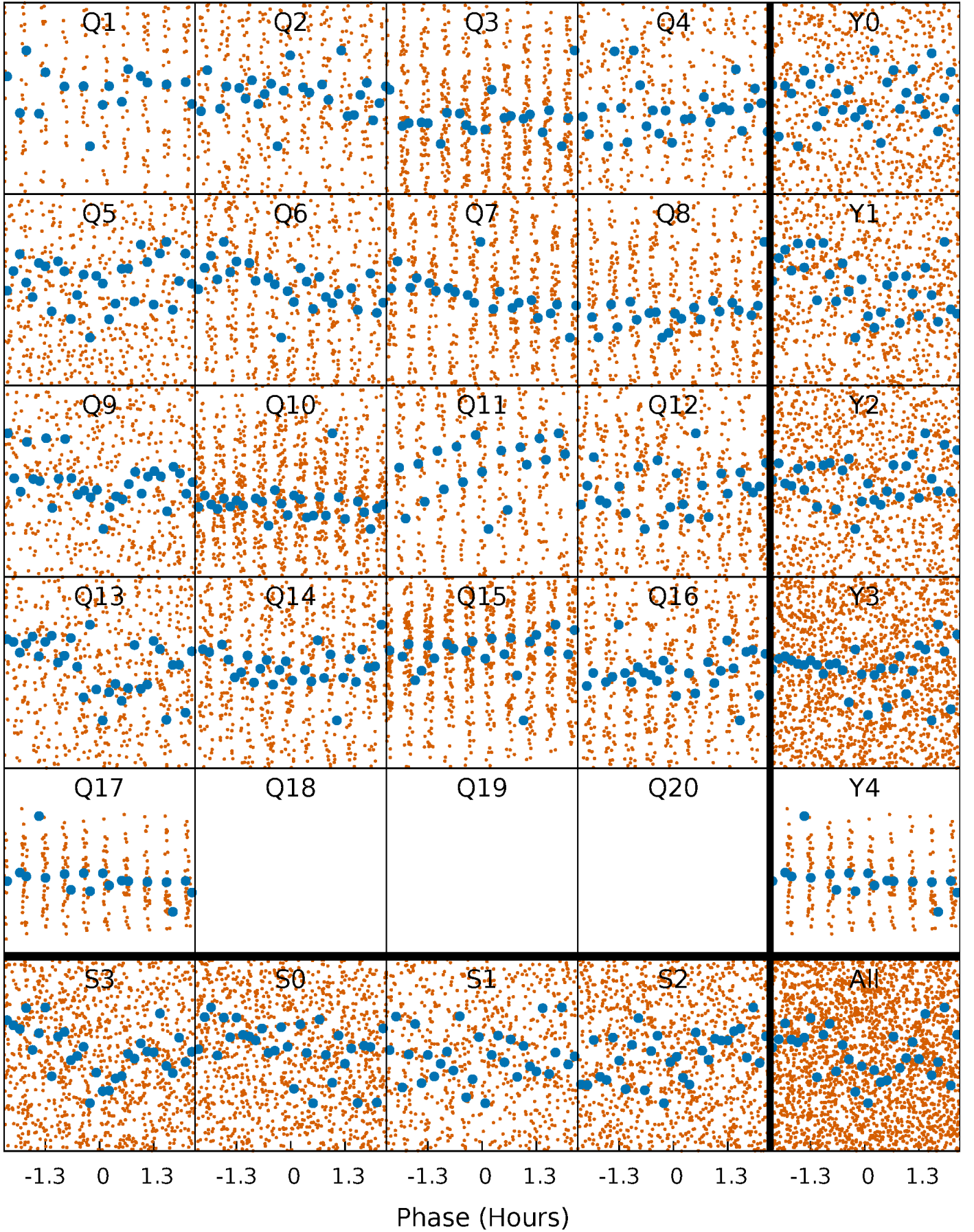


Non-Whitened Vs. Whitened Light Curve



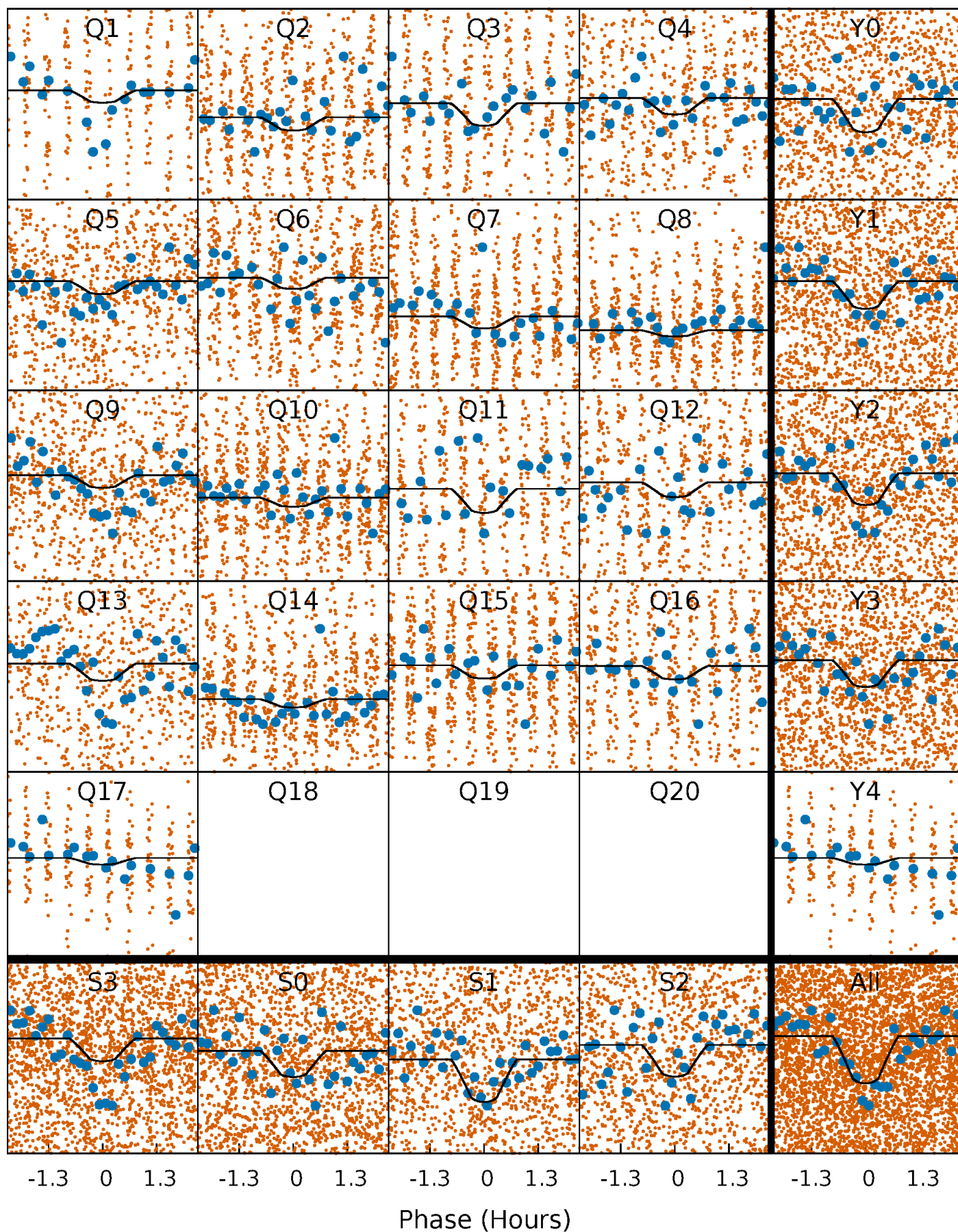
PDC Quarter-Phased Transit Curves

TCE 004917014-01 P= 0.796806 Days $T_0=131.979907$ (BKJD)



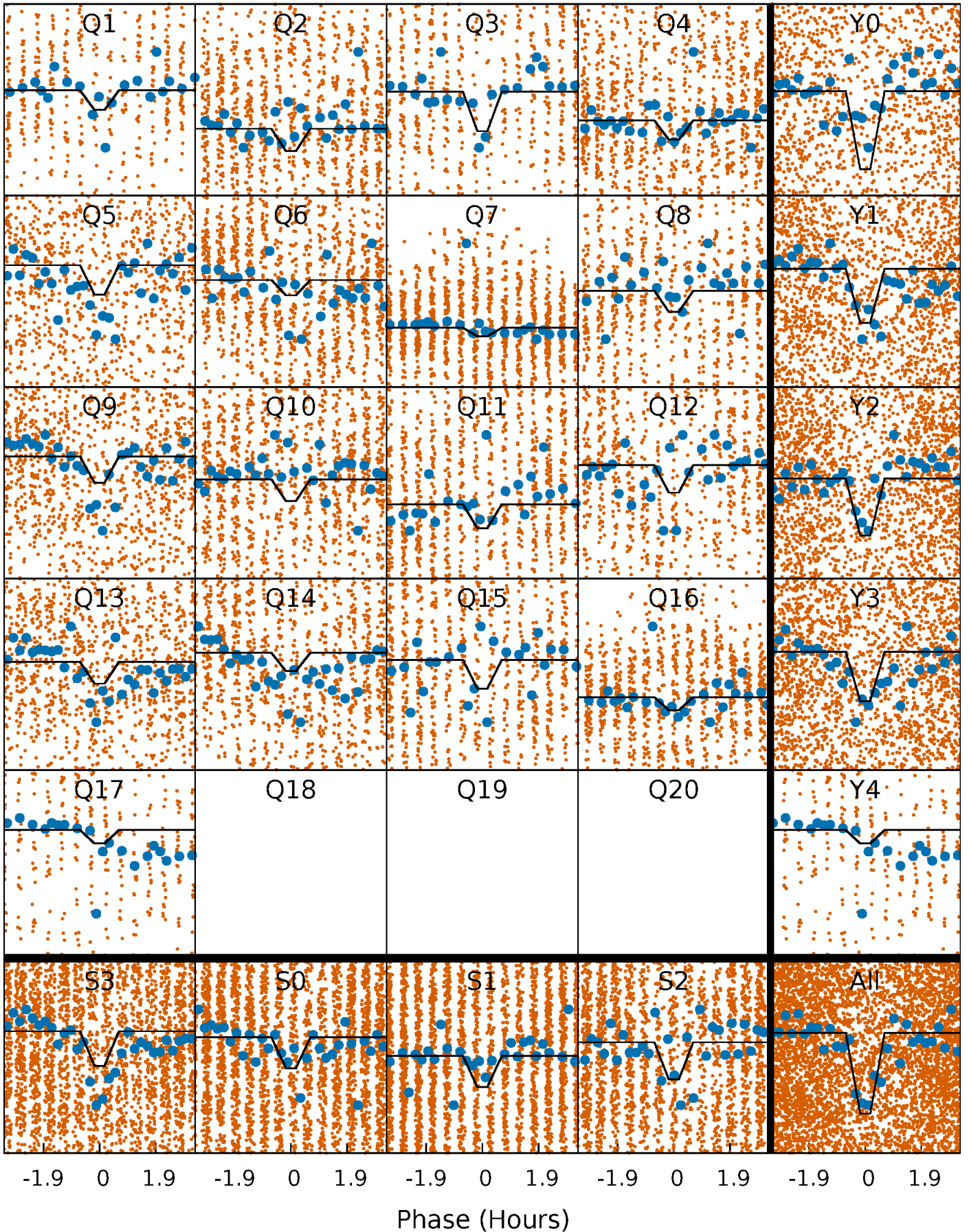
DV Quarter-Phased Transit Curves

TCE 004917014-01 P= 0.796806 Days $T_0=131.979907$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

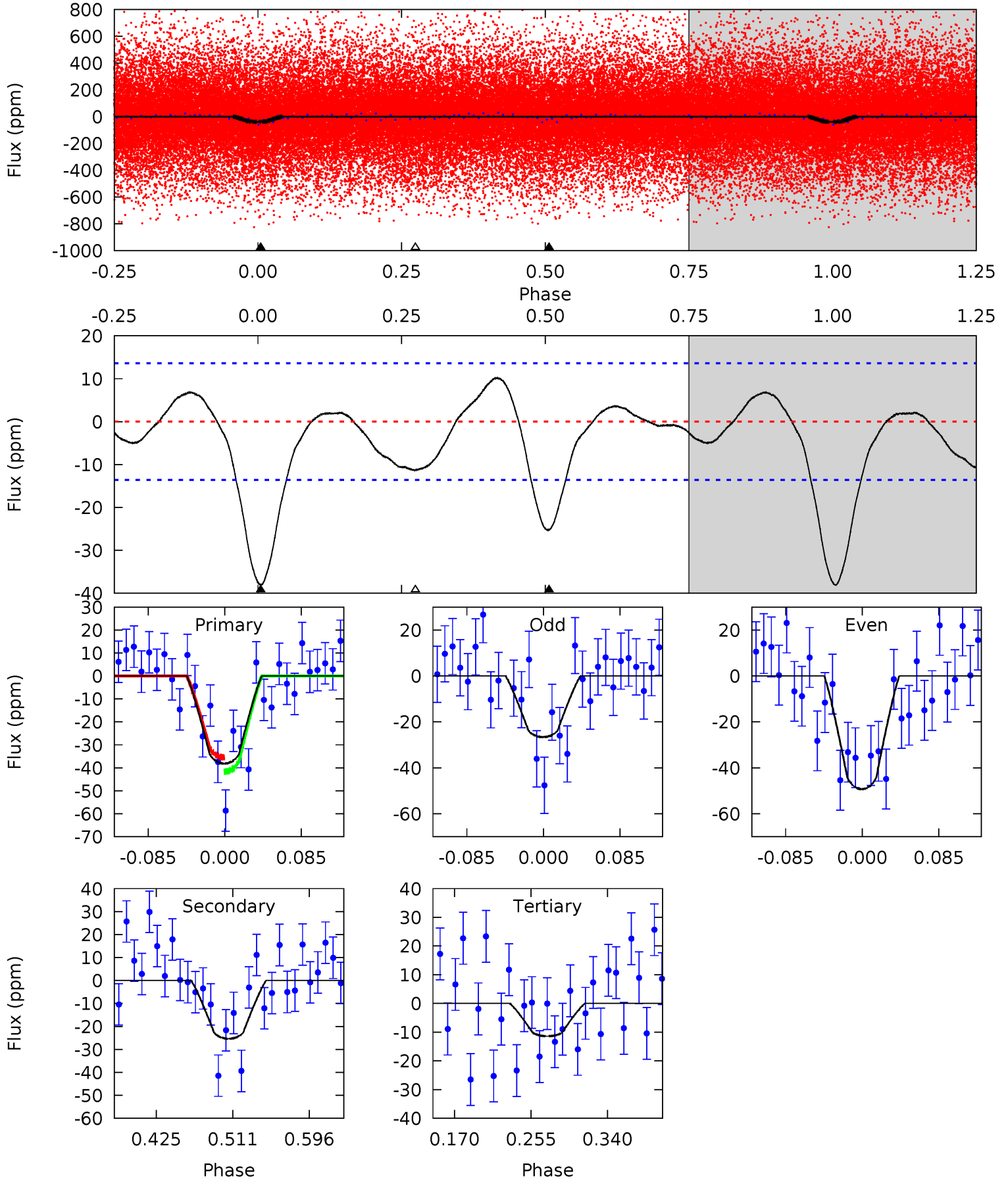
TCE 004917014-01 P= 0.796820 Days $T_0=131.970922$ (BKJD)



DV Model-Shift Uniqueness Test

004917014-01, P = 0.796806 Days, E = 131.183101 Days

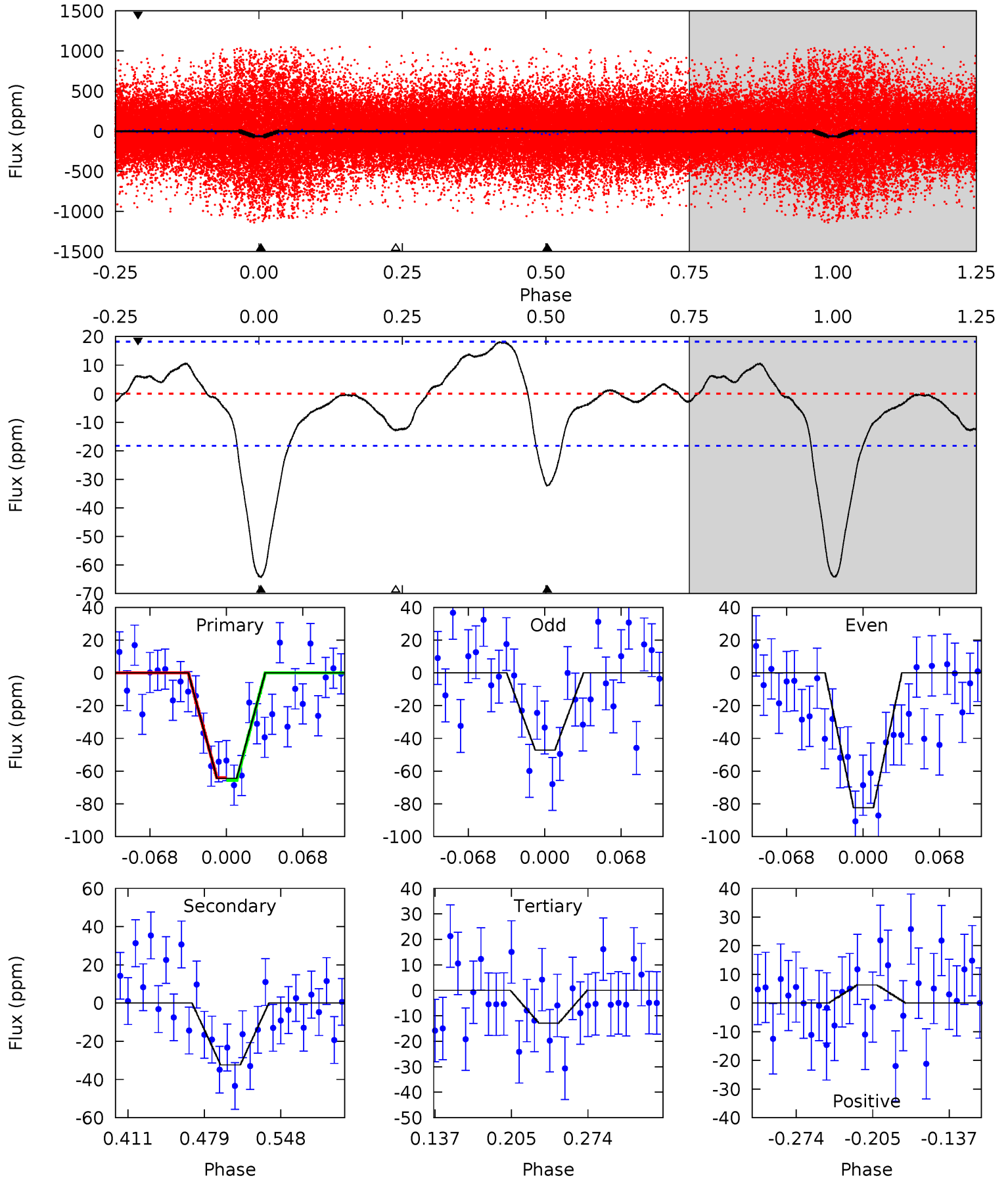
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.9	8.58	3.86	0	4.60	1.72	1.81	9.04	12.9	4.72	8.58	3.85	1.01	0.21	1.06



Alt Model-Shift Uniqueness Test

004917014-01, P = 0.796820 Days, E = 131.174102 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.4	8.24	3.29	1.61	4.64	1.82	1.81	13.1	14.8	4.95	6.63	4.49	0.79	0.22	0.21



Stellar Parameters For KIC 004917014

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4897^{+58}_{-95}	$2.464^{+0.168}_{-0.126}$	$-0.440^{+0.100}_{-0.150}$	$13.499^{+2.119}_{-4.238}$	$1.935^{+0.691}_{-0.830}$	$0.001^{+0.001}_{-0.000}$
	+1%/-2%	+7%/-5%	+23%/-34%	+16%/-31%	+36%/-43%	+111%/-27%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 004917014-01 / KOI 6472.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-25 ± 3	$8.88^{+2.59}_{-2.34}$	7609^{+384}_{-437}	-5590^{+564}_{-444}	$0.080^{+0.064}_{-0.031}$
Alt.	-32 ± 4	$12.25^{+2.78}_{-2.84}$	7629^{+373}_{-449}	-5789^{+429}_{-383}	$0.055^{+0.030}_{-0.018}$

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

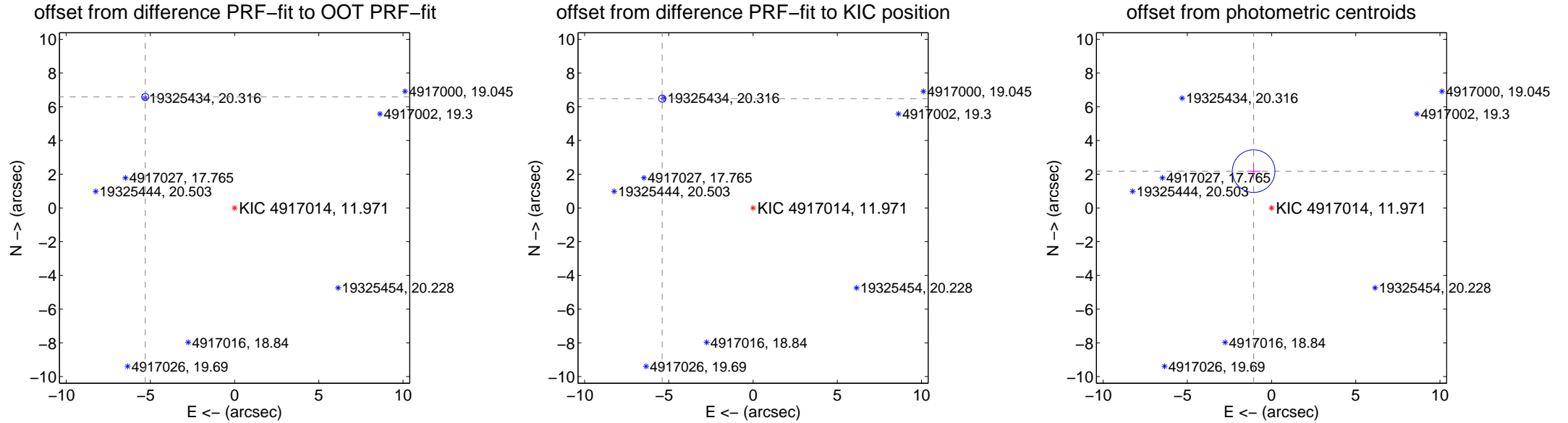
DV Centroid Data

Supplemental centroid analysis for 004917014-01. **Kepler magnitude: 11.97.** Transit SNR 9.52

There are 8 quarters with good PRF difference image offsets

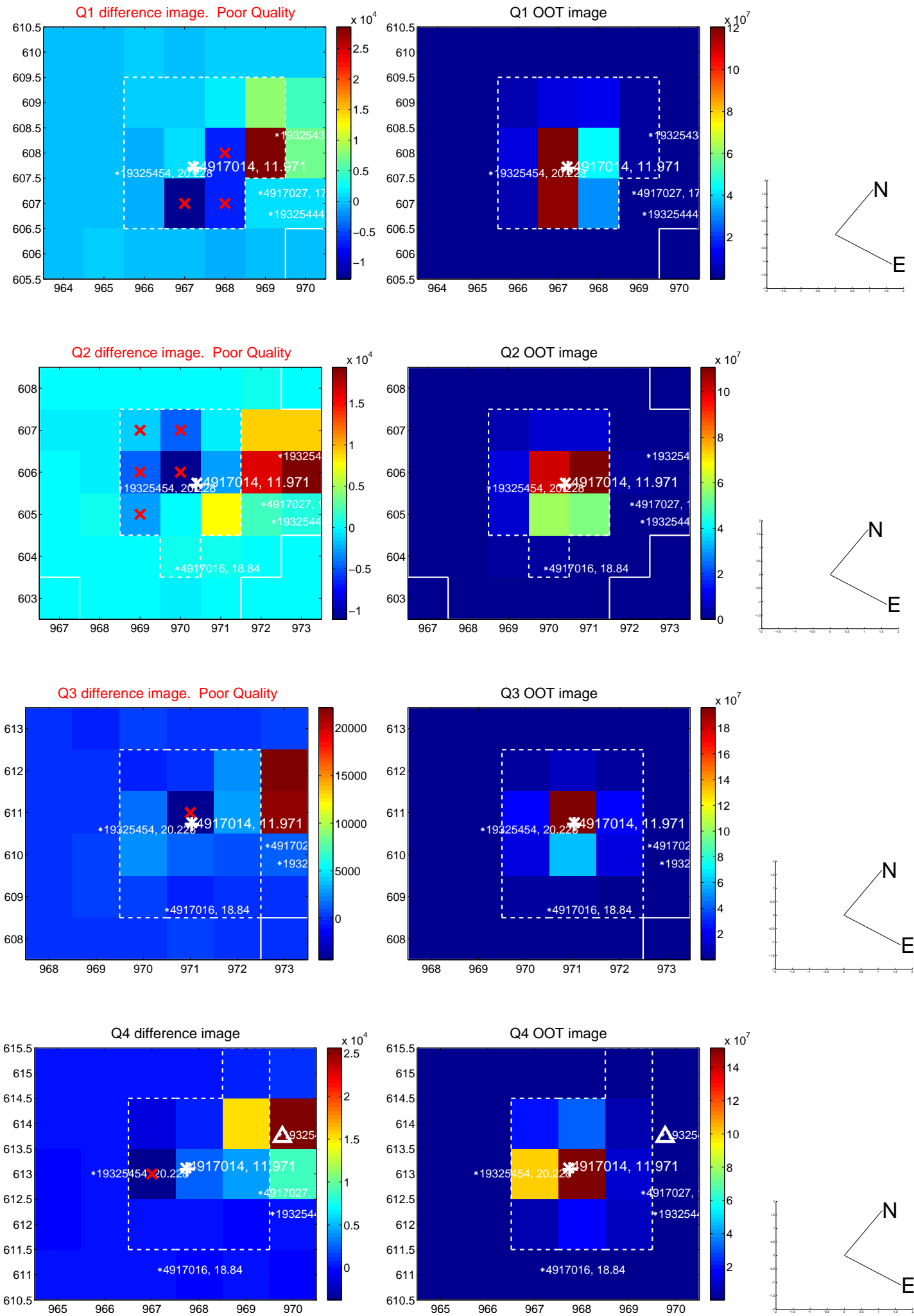
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	8.452 ± 0.070	120.68	5.301 ± 0.068	6.583 ± 0.072
PRF-fit source offset from KIC position	8.431 ± 0.072	117.75	5.393 ± 0.068	6.480 ± 0.074
photometric centroid source offset	2.43 ± 0.42	5.76	1.06 ± 0.40	2.18 ± 0.43

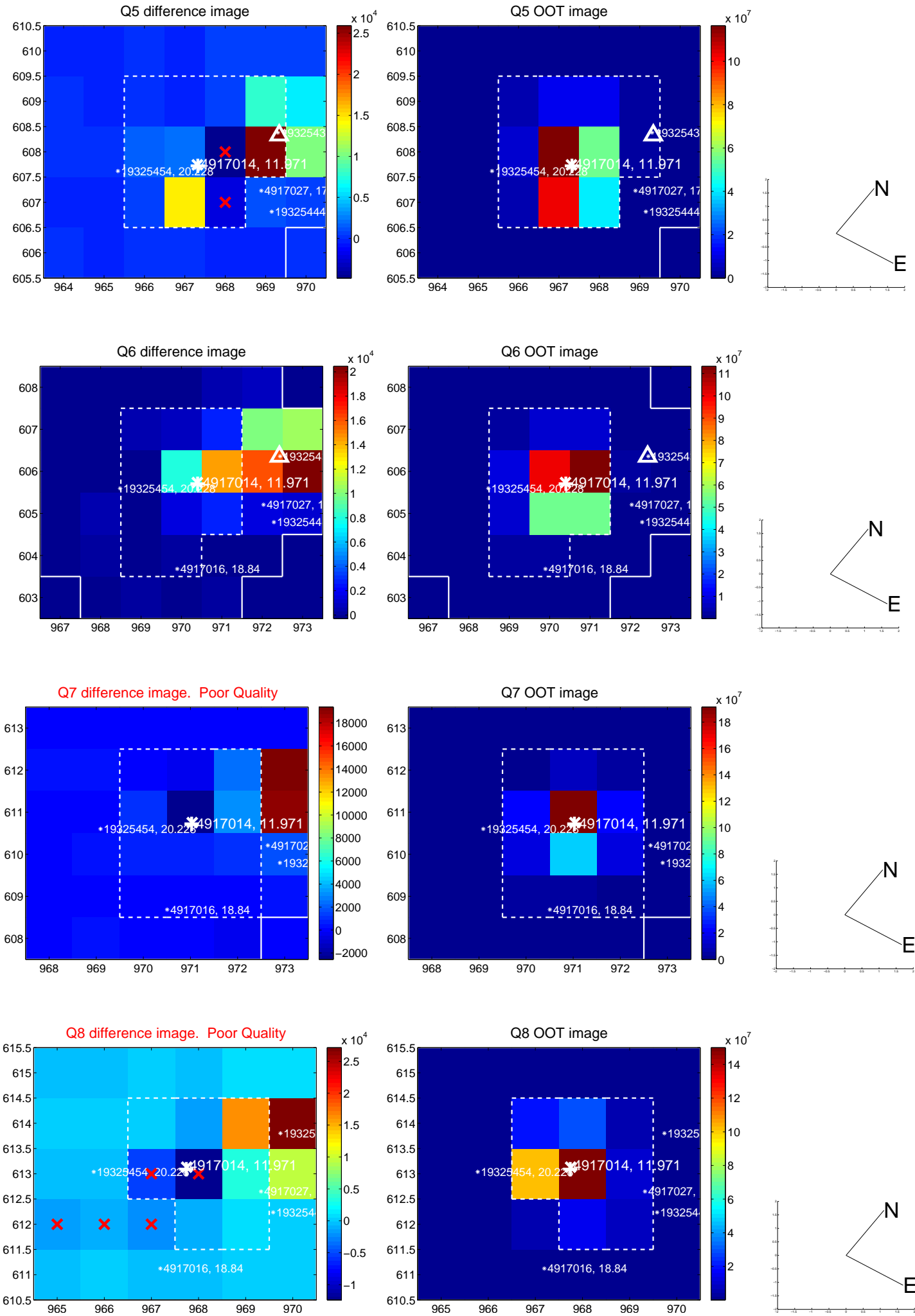


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

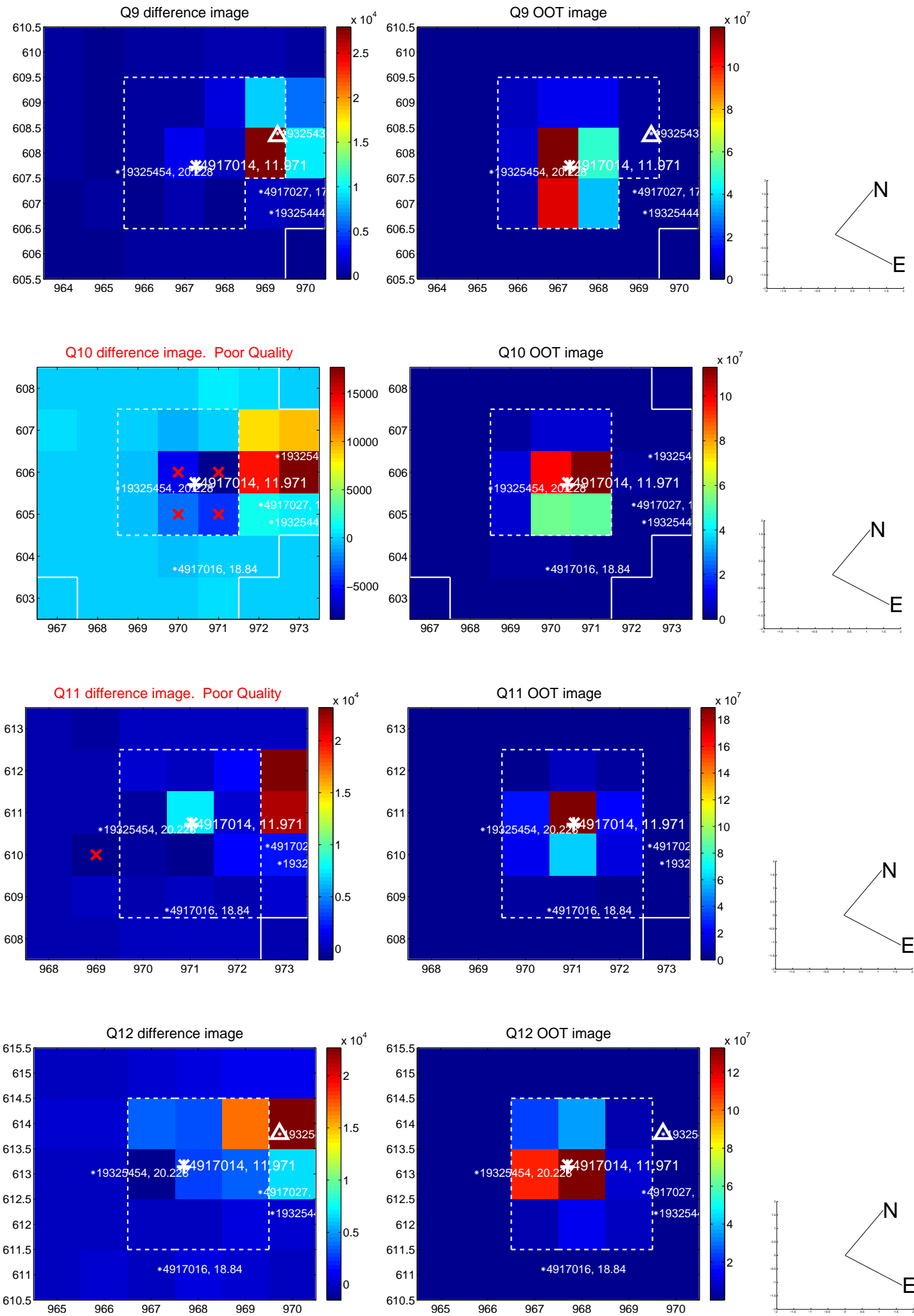
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



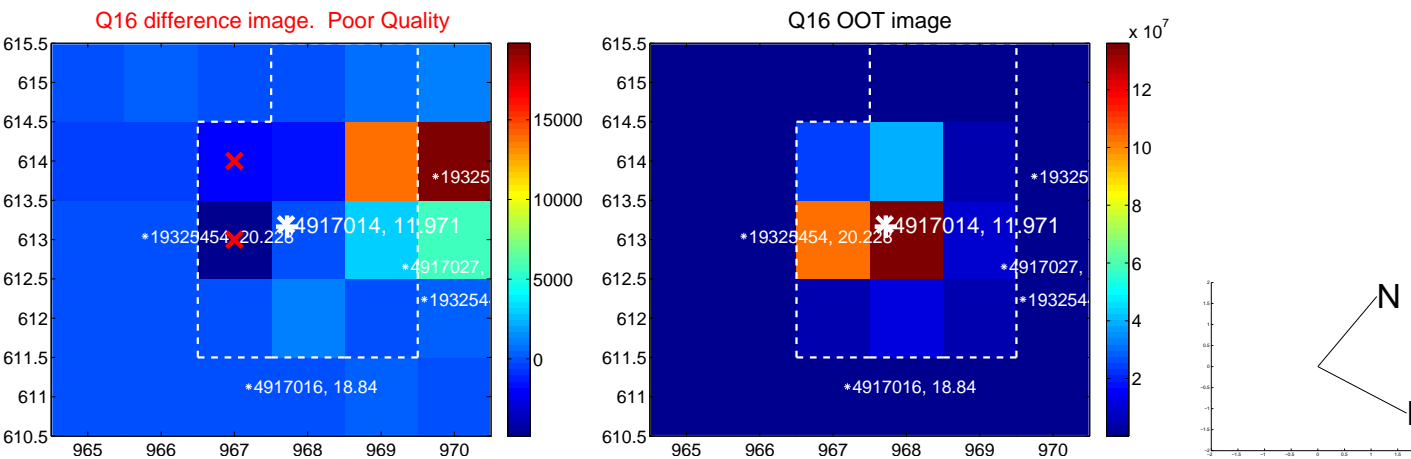
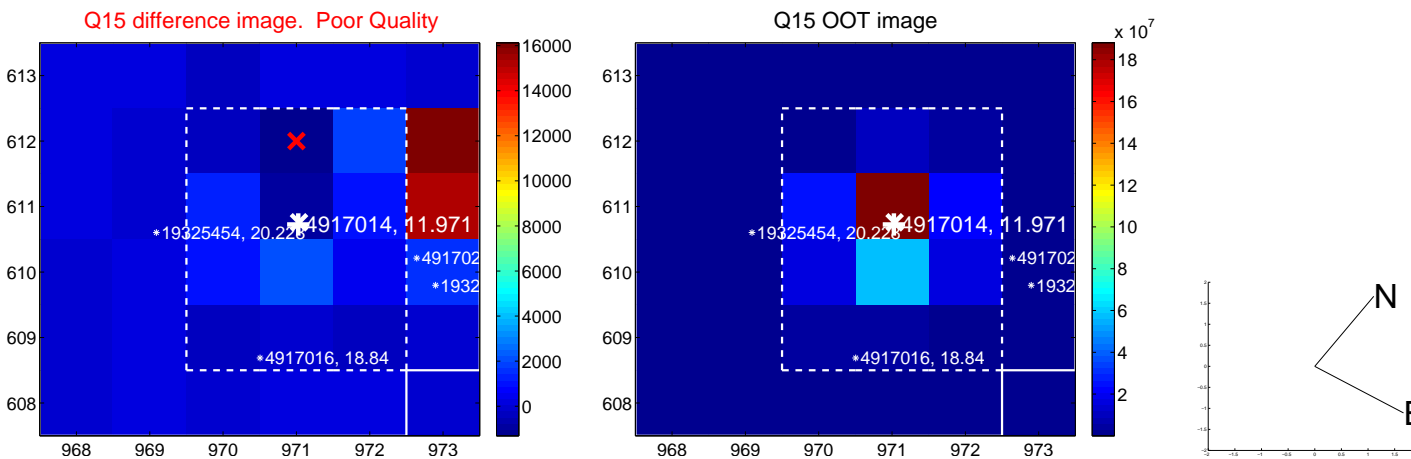
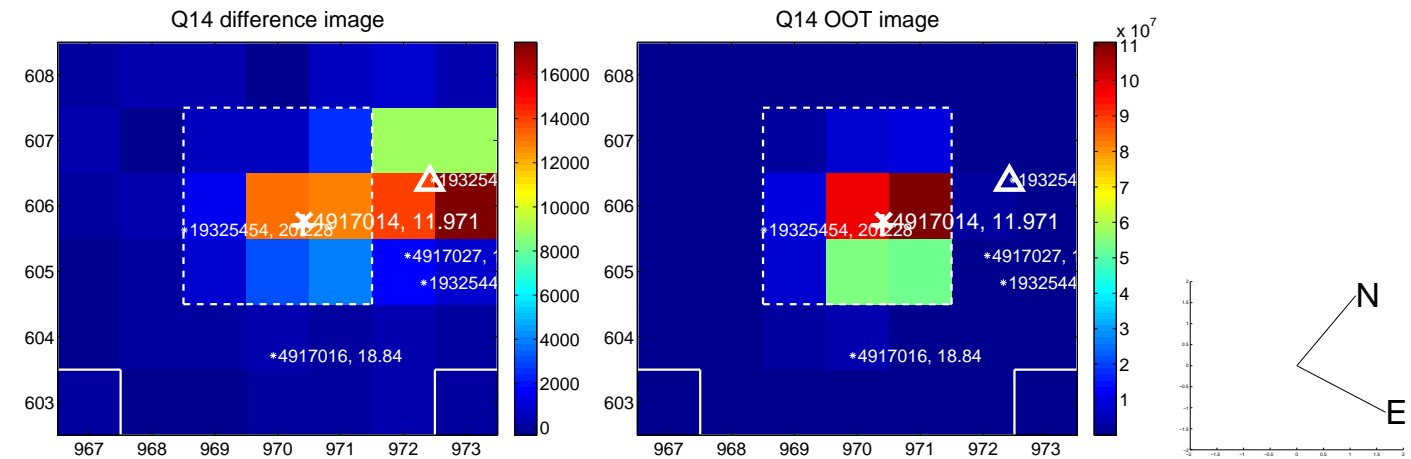
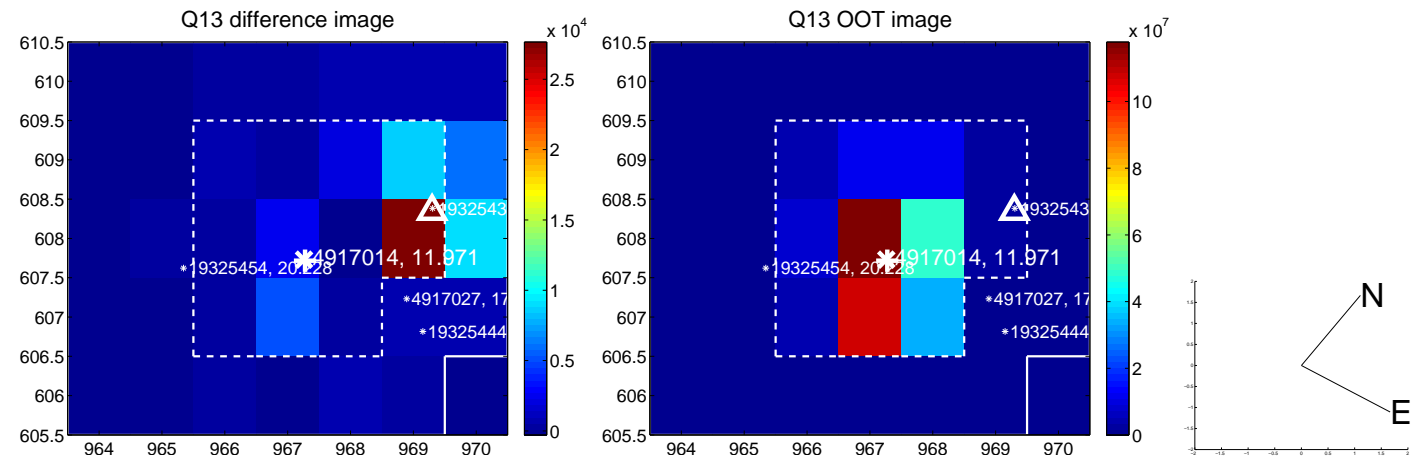
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

