

KIC 003342952

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})
003342952-01	OBS	3215.01	1.039020	131.560417	16.4	2.201	10.4	10.8	0.98	5689	0.47	2346.96

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003342952-01	OBS	FP	0.01	0	0	1	0	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 003342952-01

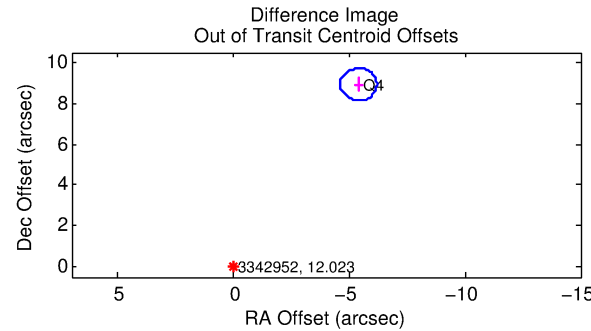
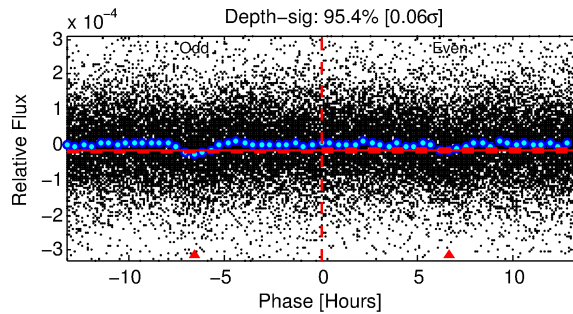
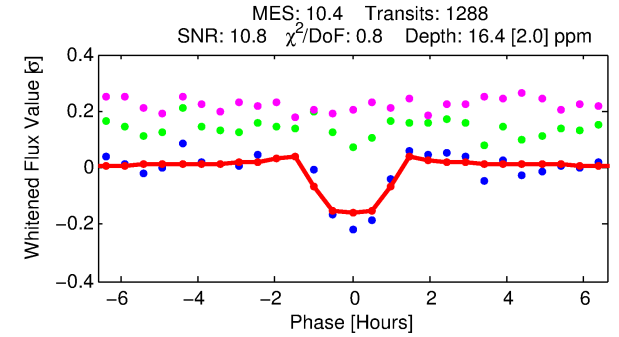
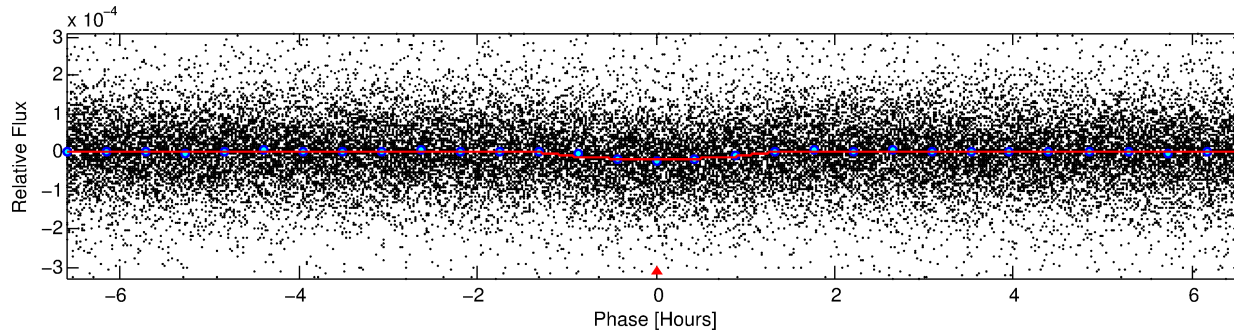
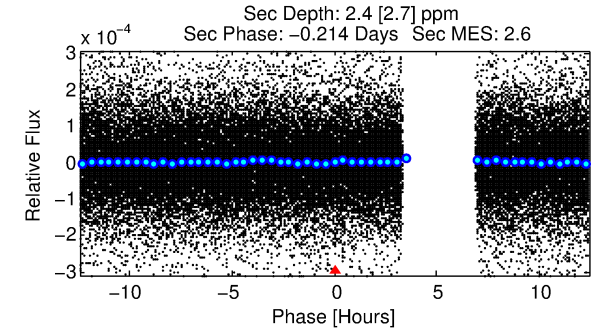
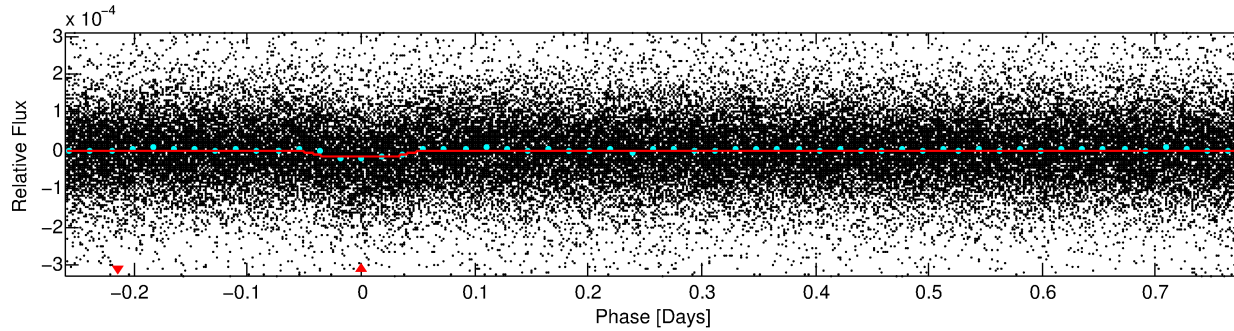
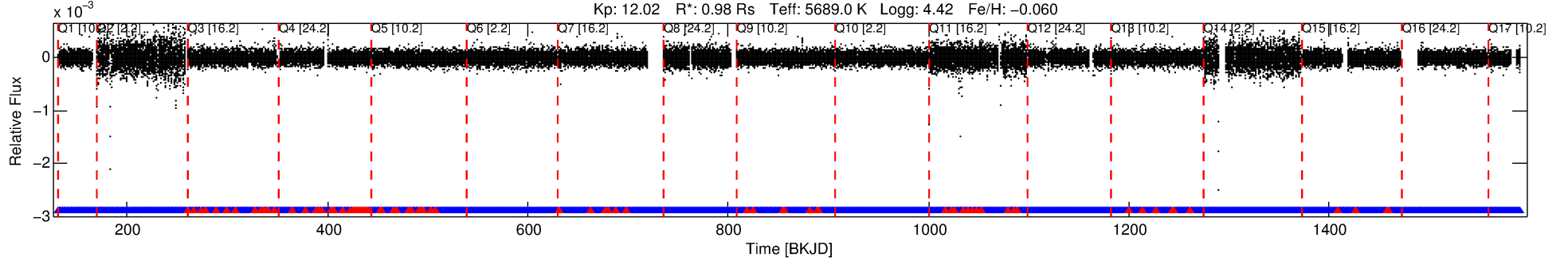
No Significant Match Found

DV One-Page Summary

KIC: 3342952 Candidate: 1 of 1 Period: 1.039 d

KOI: K03215.01 Corr: 0.849

Kp: 12.02 R*: 0.98 Rs Teff: 5689.0 K Logg: 4.42 Fe/H: -0.060



DV Fit Results:

Period = 1.03902 [0.00001] d
Epoch = 131.5604 [0.0023] BKJD
Rp/R* = 0.0044 [0.0014]
a/R* = 1.84 [2.00]
b = 0.90 [0.32]
Seff = 2346.96 [640.18]
Teq = 1775 [121] K
Rp = 0.47 [0.18] Re
a = 0.0195 [0.0033] AU
Ag = 2.28 [3.01] [0.43σ]
Teffp = 3373 [1096] K [1.45σ]

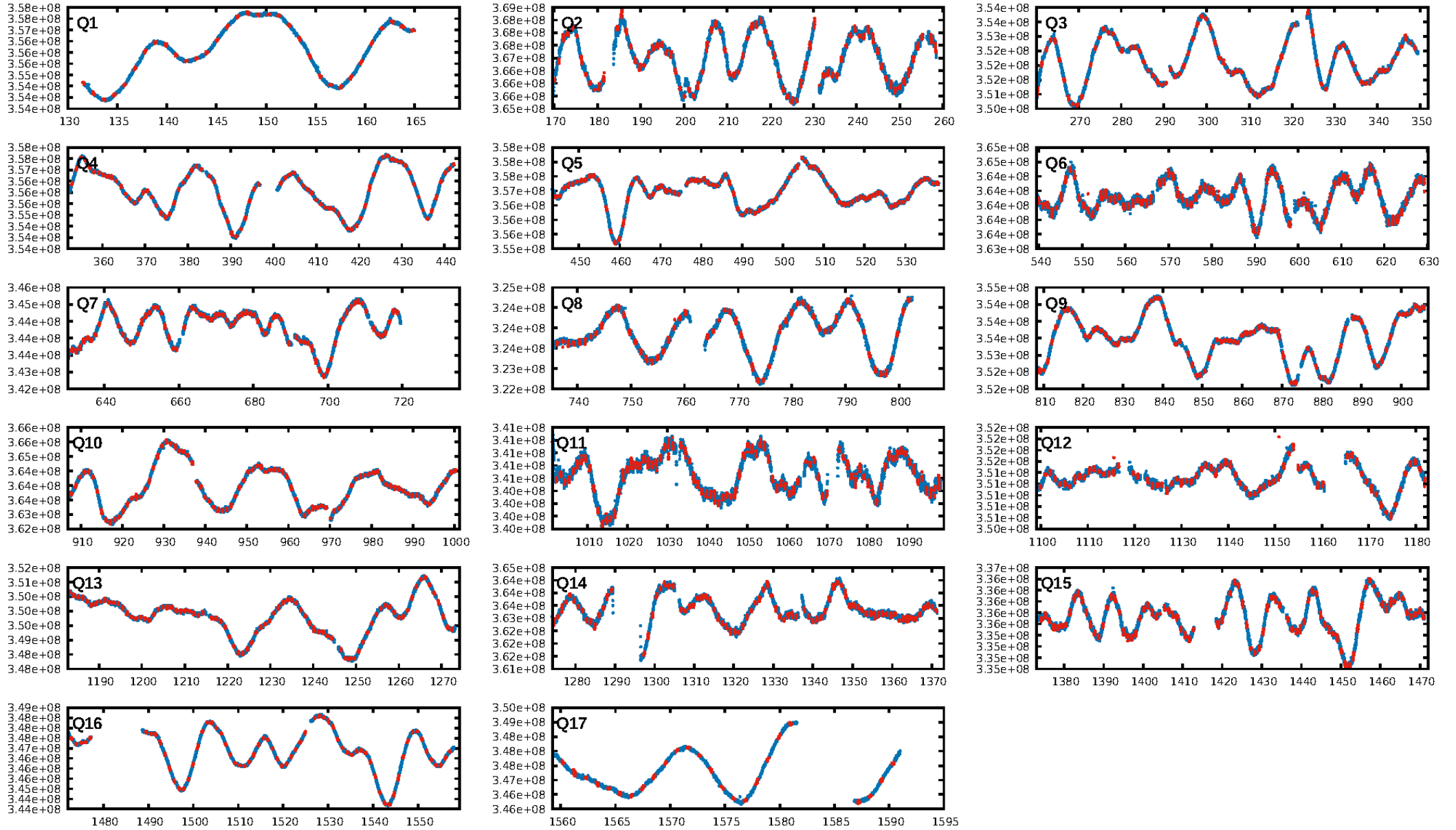
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.90e-23
RollingBand-fgt: 0.93 [1144/1230]
GhostDiagnostic-chr: -0.8111
Centroid-sig: 0.0%
Centroid-so: 8.289 arcsec [7.91σ]
OotOffset-rm: 10.442 arcsec [39.95σ]
KicOffset-rm: 10.526 arcsec [39.60σ]
OotOffset-st: 0/0/1/0 [1]
KicOffset-st: 0/0/1/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [17/17]

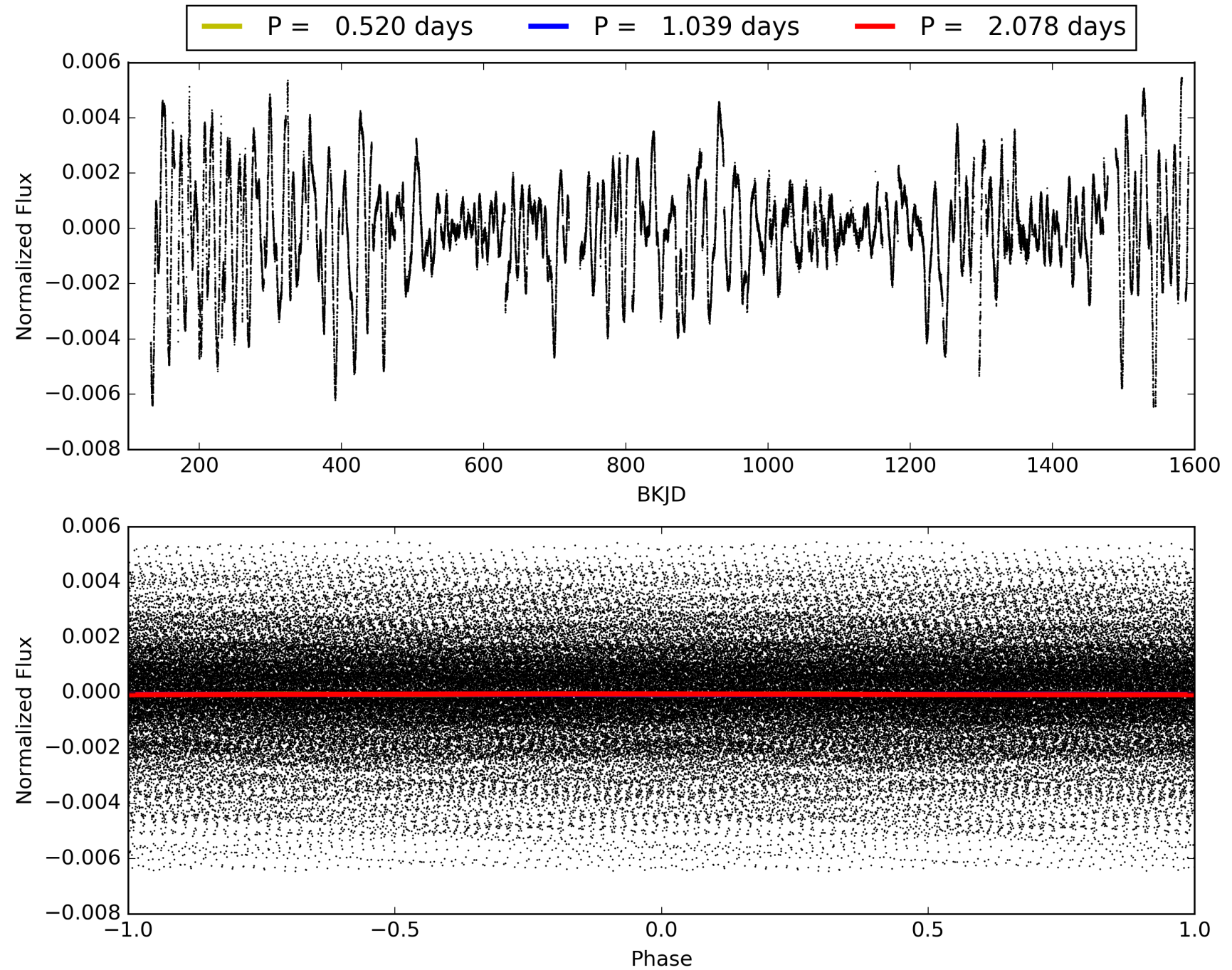
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 02:03:49 Z

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

TCE 003342952-01, PDC Light Curves

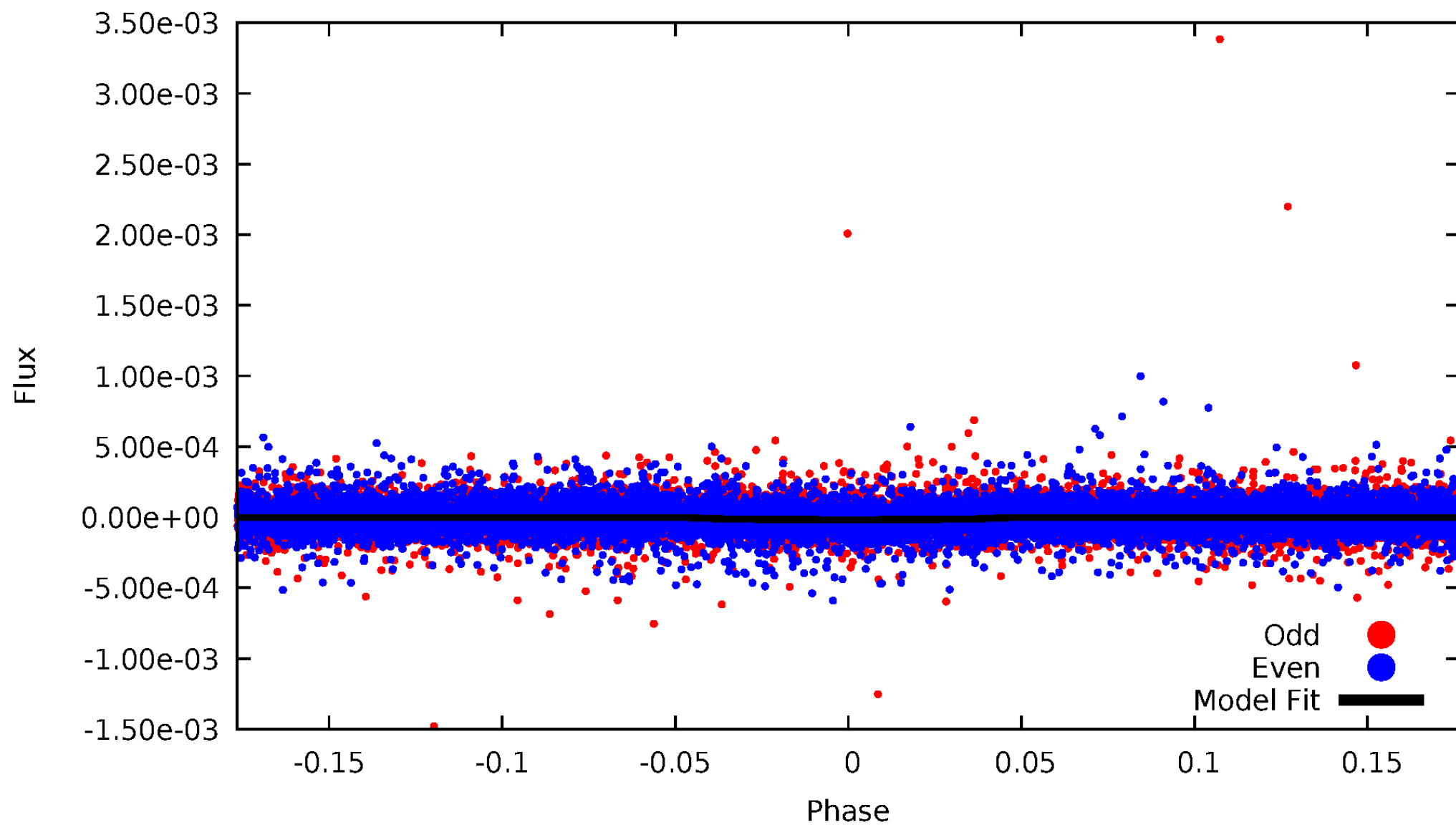


TCE 003342952-01



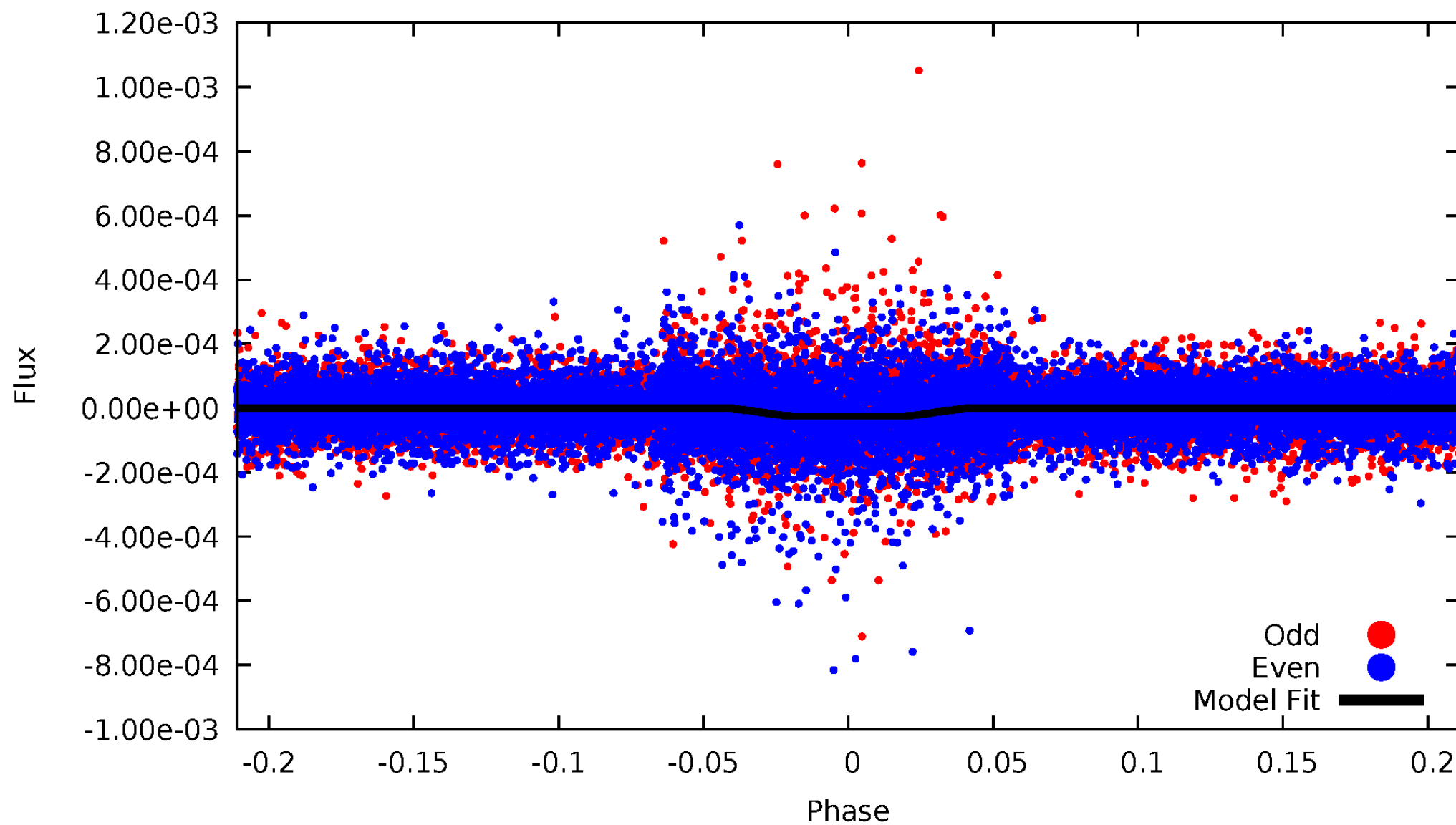
DV Odd/Even

TCE 003342952-01



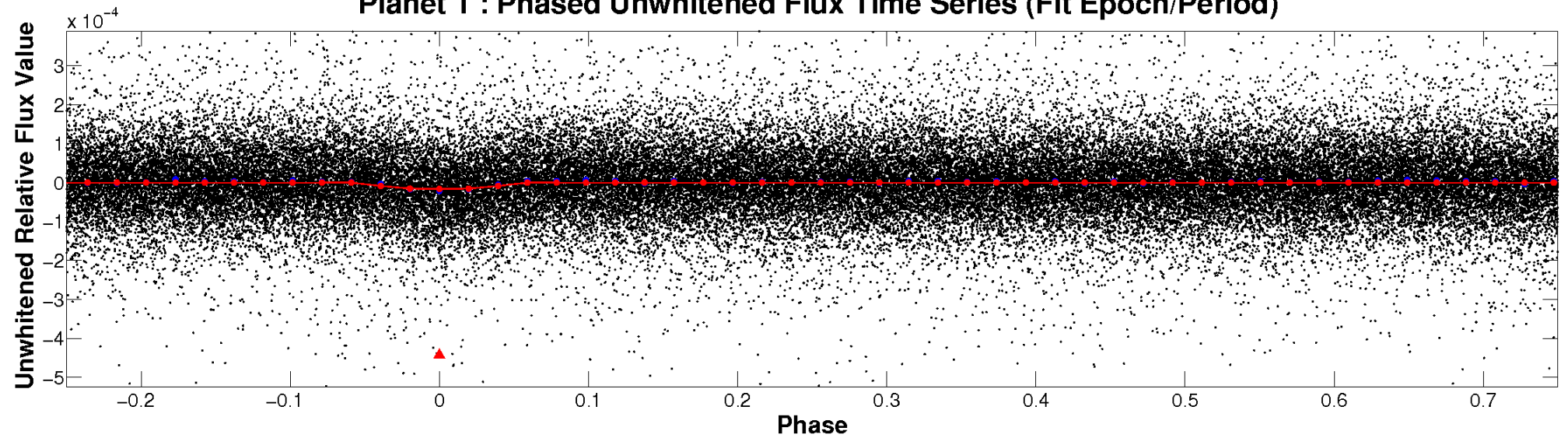
ALT Odd/Even

TCE 003342952-01

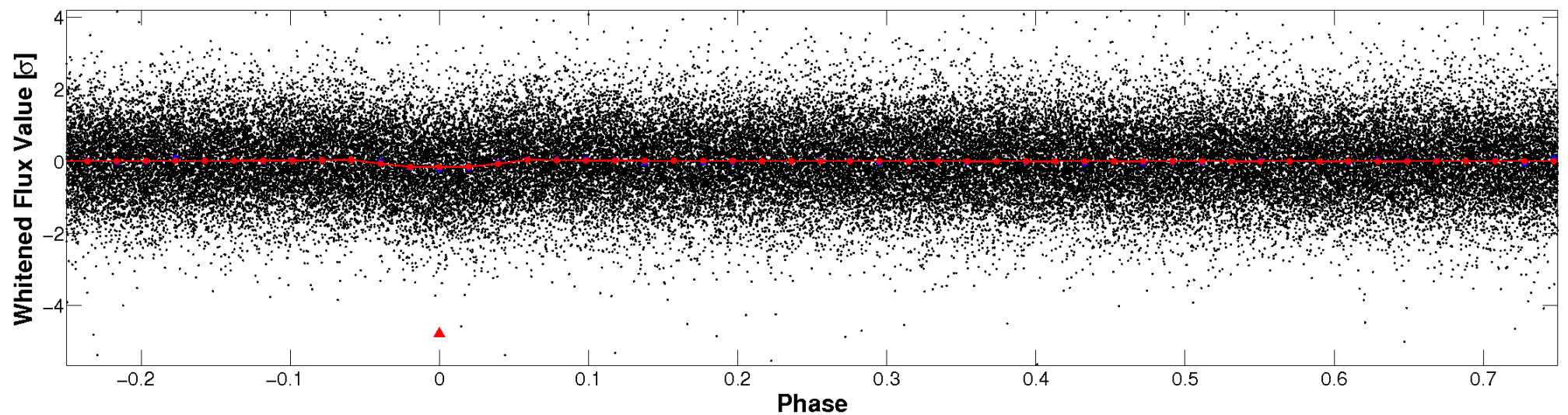


Non-Whitened Vs. Whitened Light Curve

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

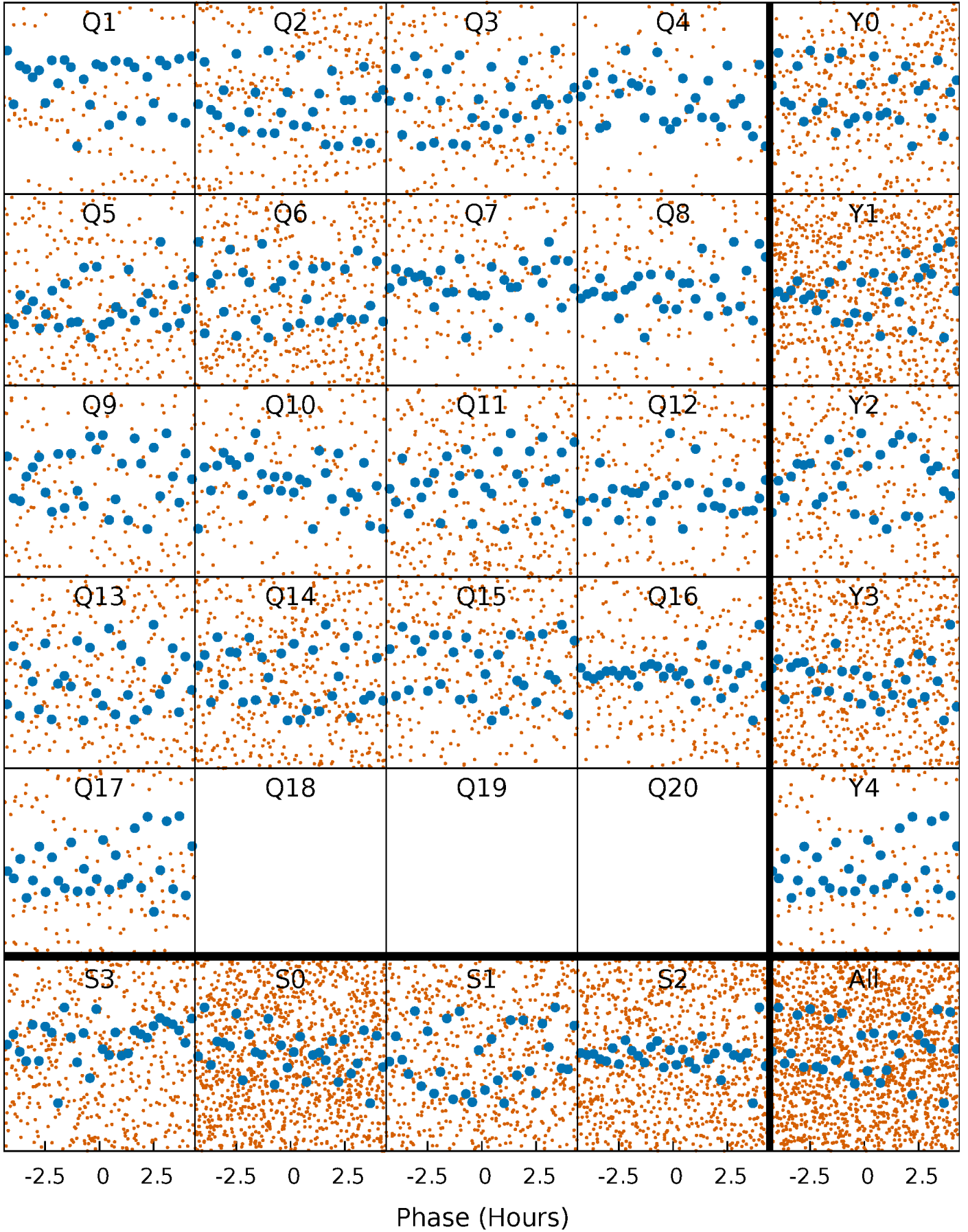


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



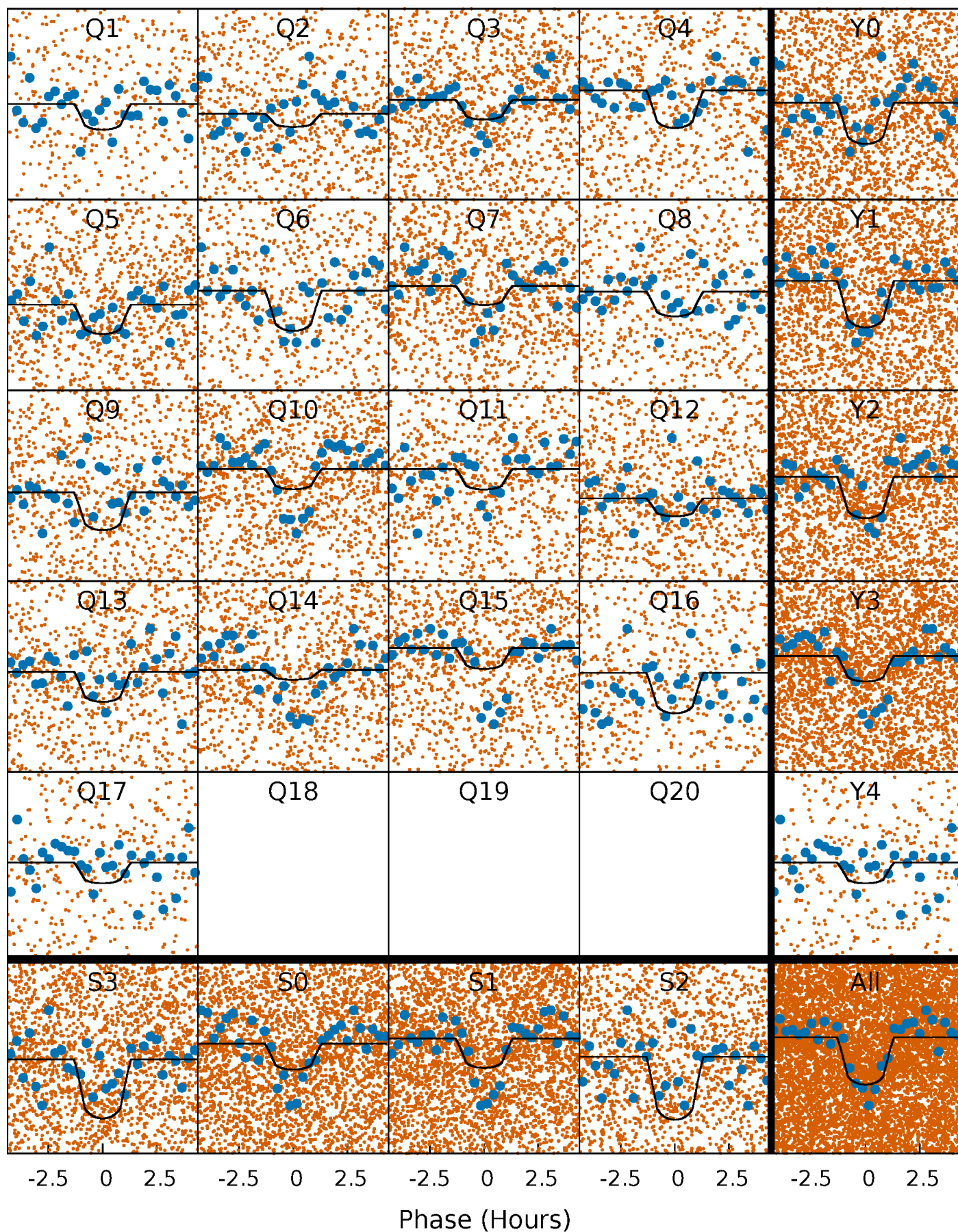
PDC Quarter-Phased Transit Curves

TCE 003342952-01 P= 1.039020 Days $T_0=131.560417$ (BKJD)



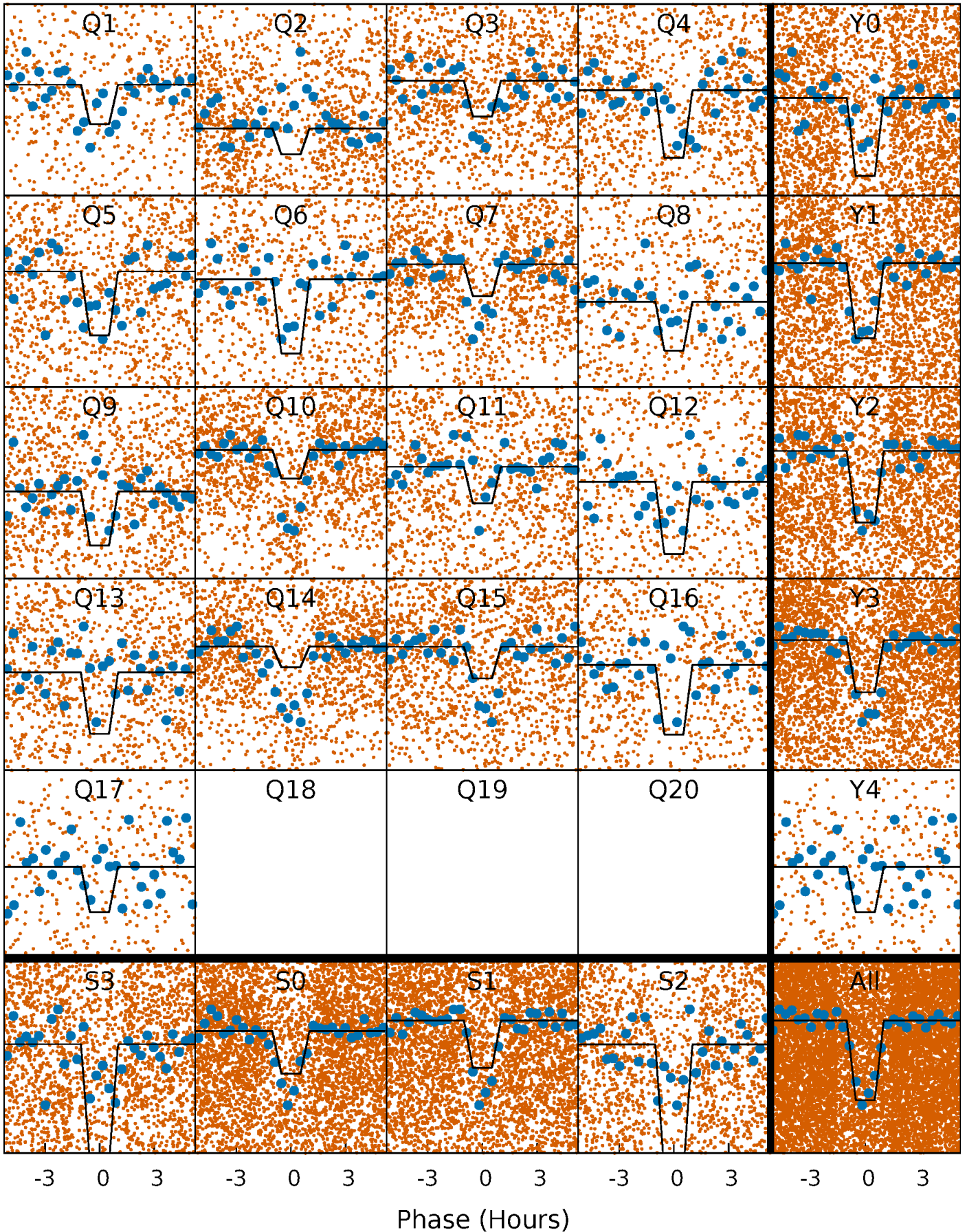
DV Quarter-Phased Transit Curves

TCE 003342952-01 P= 1.039020 Days $T_0=131.560417$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

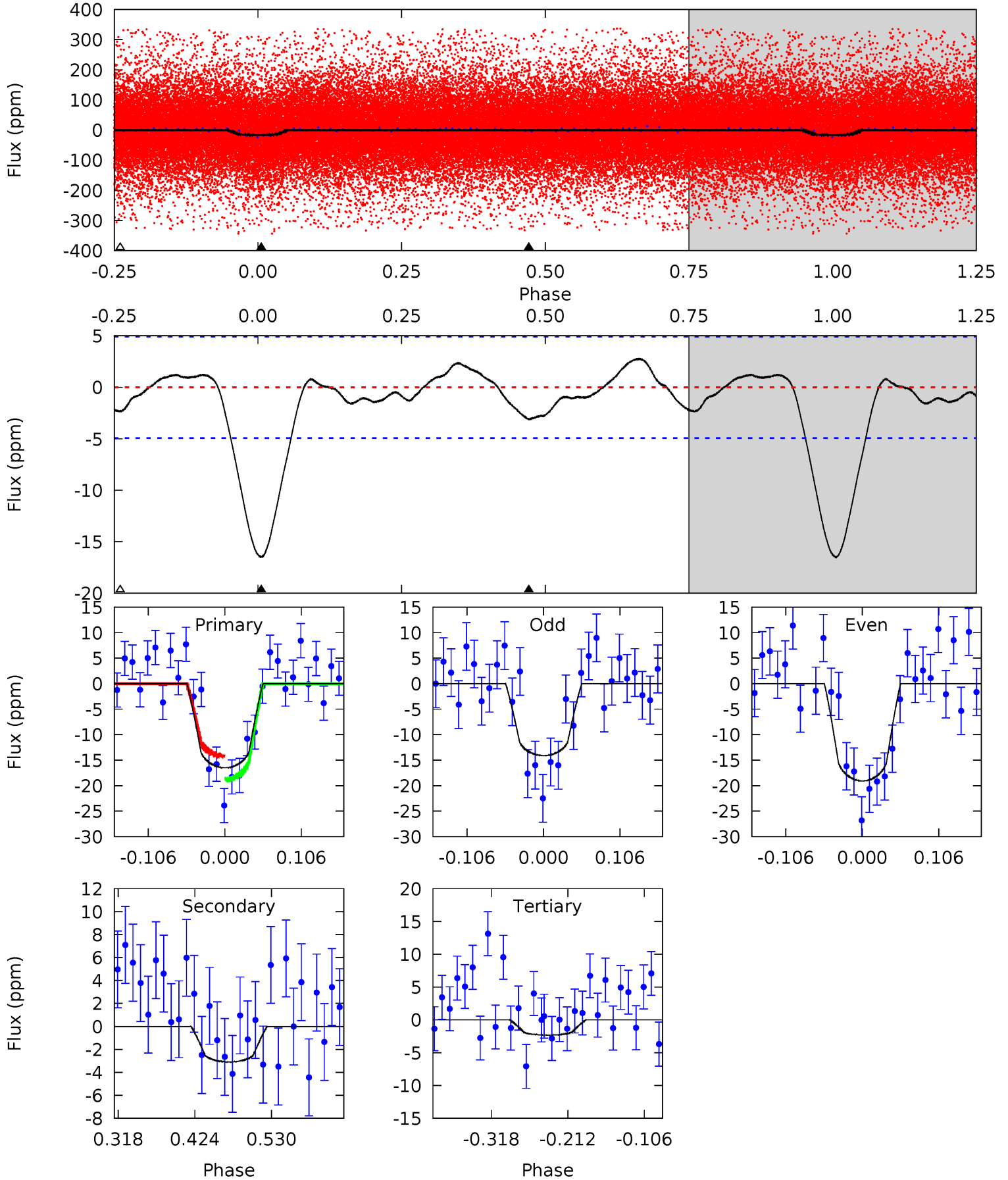
TCE 003342952-01 P= 1.039028 Days $T_0=131.557722$ (BKJD)



DV Model-Shift Uniqueness Test

003342952-01, P = 1.039020 Days, E = 130.521397 Days

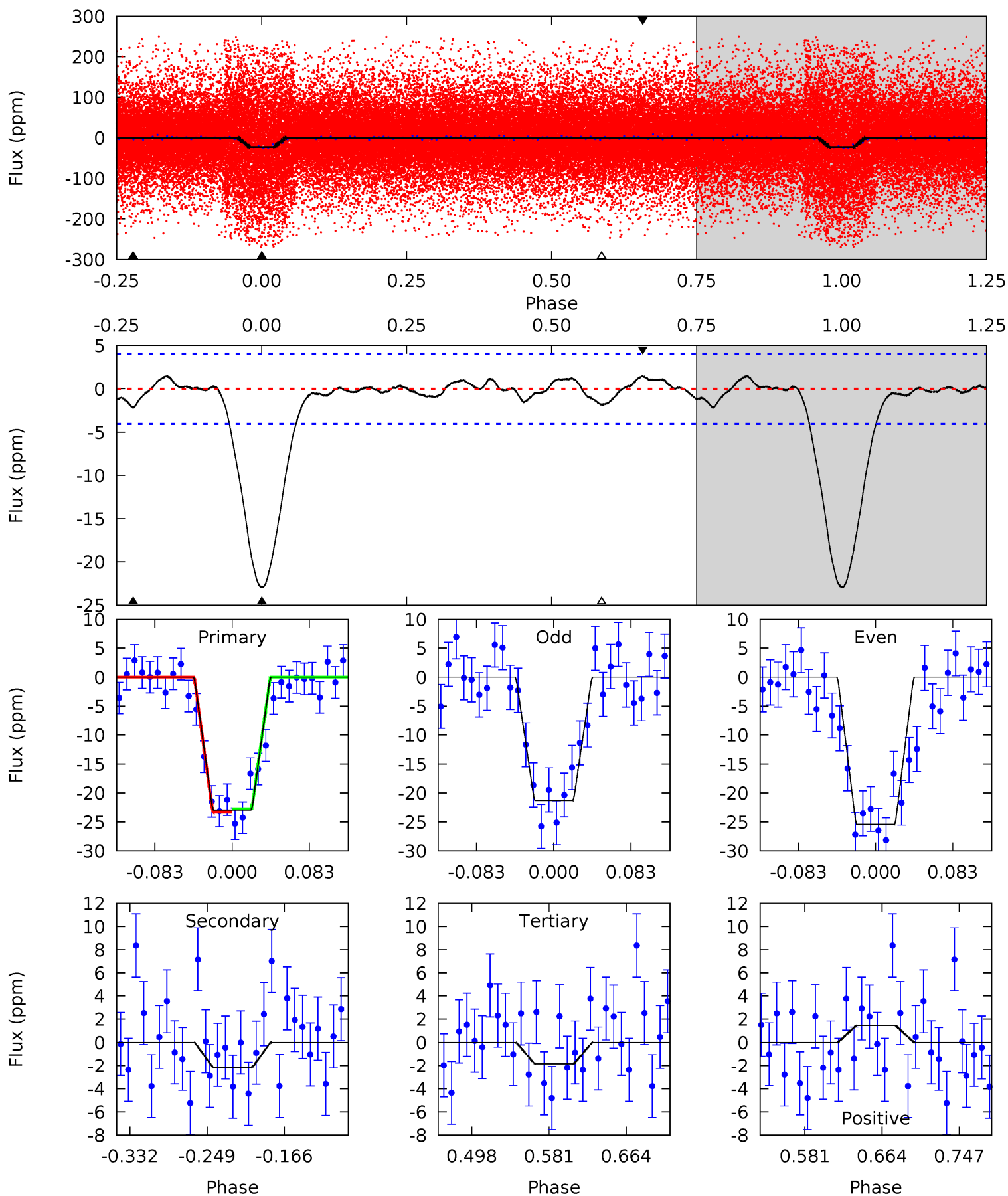
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.2	2.86	2.14	0	4.55	1.62	1.22	13.1	15.2	0.72	2.86	2.32	1.04	0.14	2.15



Alt Model-Shift Uniqueness Test

003342952-01, P = 1.039028 Days, E = 130.518694 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.0	2.46	2.10	1.66	4.60	1.73	0.83	23.9	24.3	0.36	0.80	2.35	0.93	0.06	0.33



Stellar Parameters For KIC 003342952

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5689^{+152}_{-152}	$4.422^{+0.104}_{-0.138}$	$-0.060^{+0.250}_{-0.300}$	$0.976^{+0.197}_{-0.131}$	$0.918^{+0.104}_{-0.083}$	$1.391^{+0.642}_{-0.514}$
	+3%/-3%	+2%/-3%	+417%/-500%	+20%/-13%	+11%/-9%	+46%/-37%
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 003342952-01 / KOI 3215.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-3 ± 1	$0.48^{+0.17}_{-0.16}$	2498^{+124}_{-119}	3841^{+685}_{-508}	$2.787^{+3.669}_{-1.460}$
Alt.	-2 ± 1	$0.54^{+0.17}_{-0.16}$	2490^{+139}_{-118}	3436^{+528}_{-493}	$1.569^{+1.786}_{-0.839}$

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

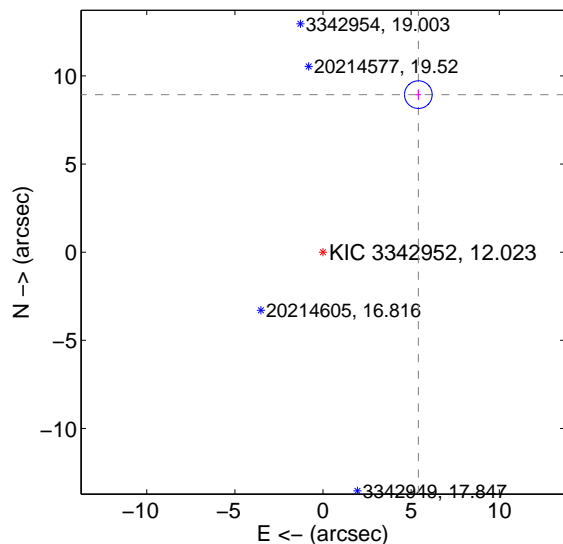
Supplemental centroid analysis for 003342952-01. Kepler magnitude: 12.02. Transit SNR 10.83

There are 1 quarters with good PRF difference image offsets

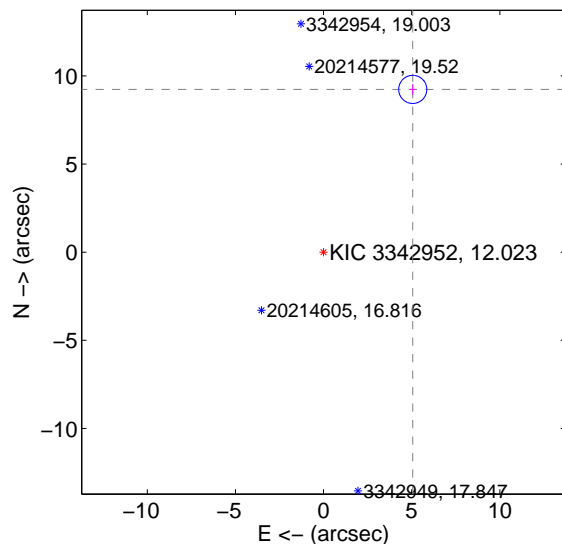
The direct PRF centroid is offset from the target star catalog position by about 0.46 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	10.442 \pm 0.261	39.95	-5.405 \pm 0.149	8.935 \pm 0.292
PRF-fit source offset from KIC position	10.526 \pm 0.266	39.60	-5.057 \pm 0.149	9.231 \pm 0.292
photometric centroid source offset	8.29 \pm 1.05	7.91	-5.81 \pm 0.94	5.91 \pm 1.14

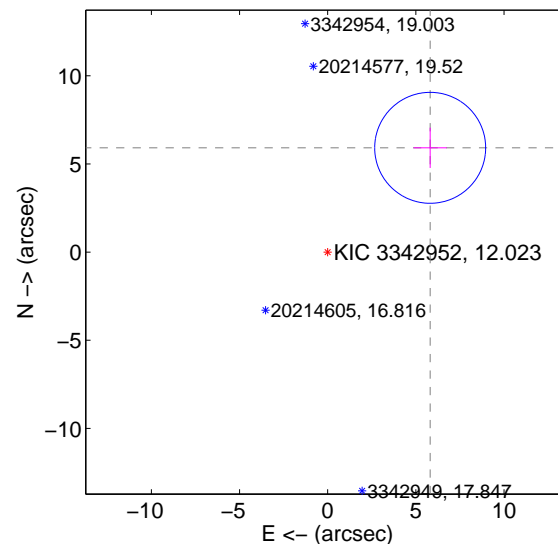
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

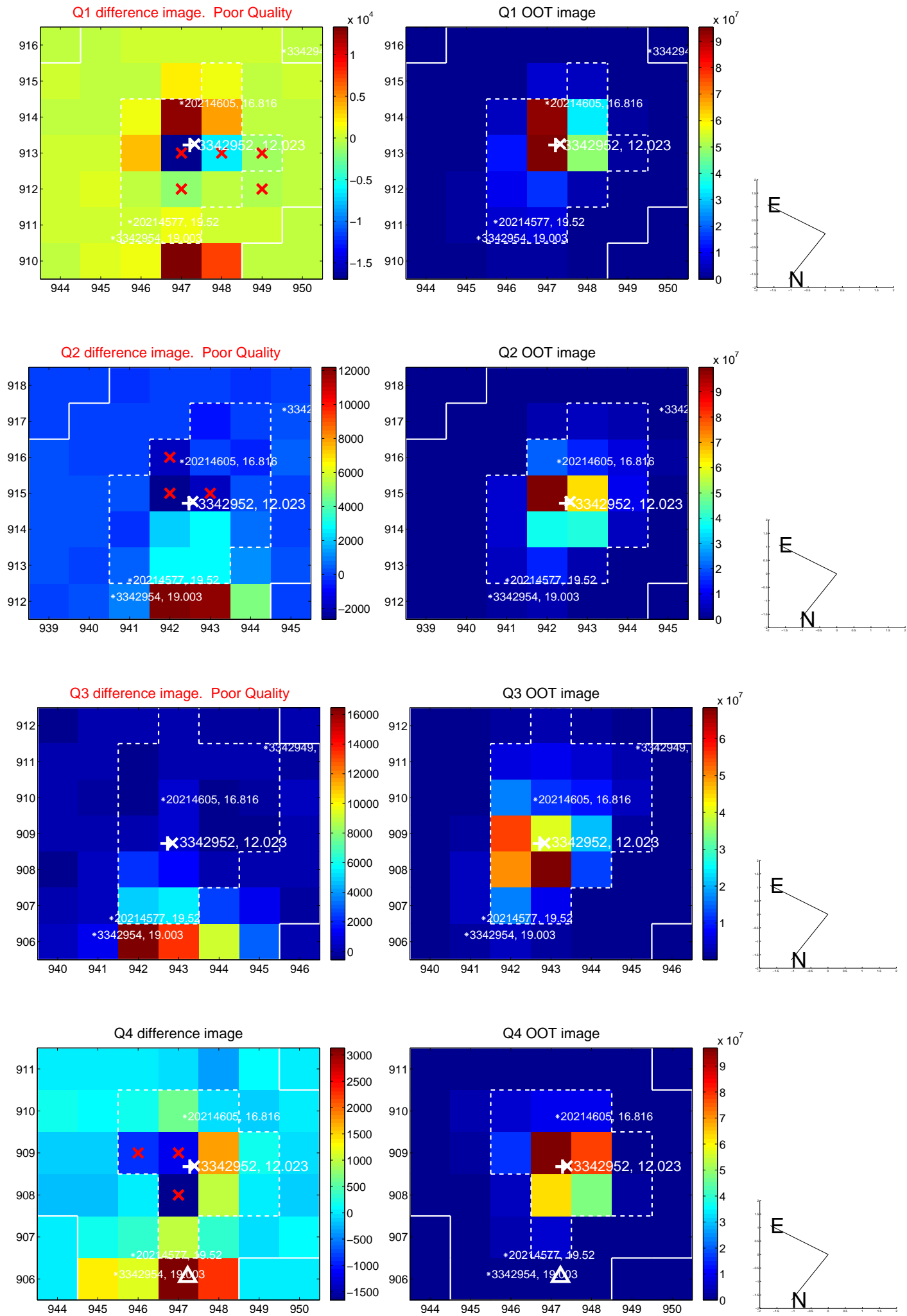


offset from photometric centroids

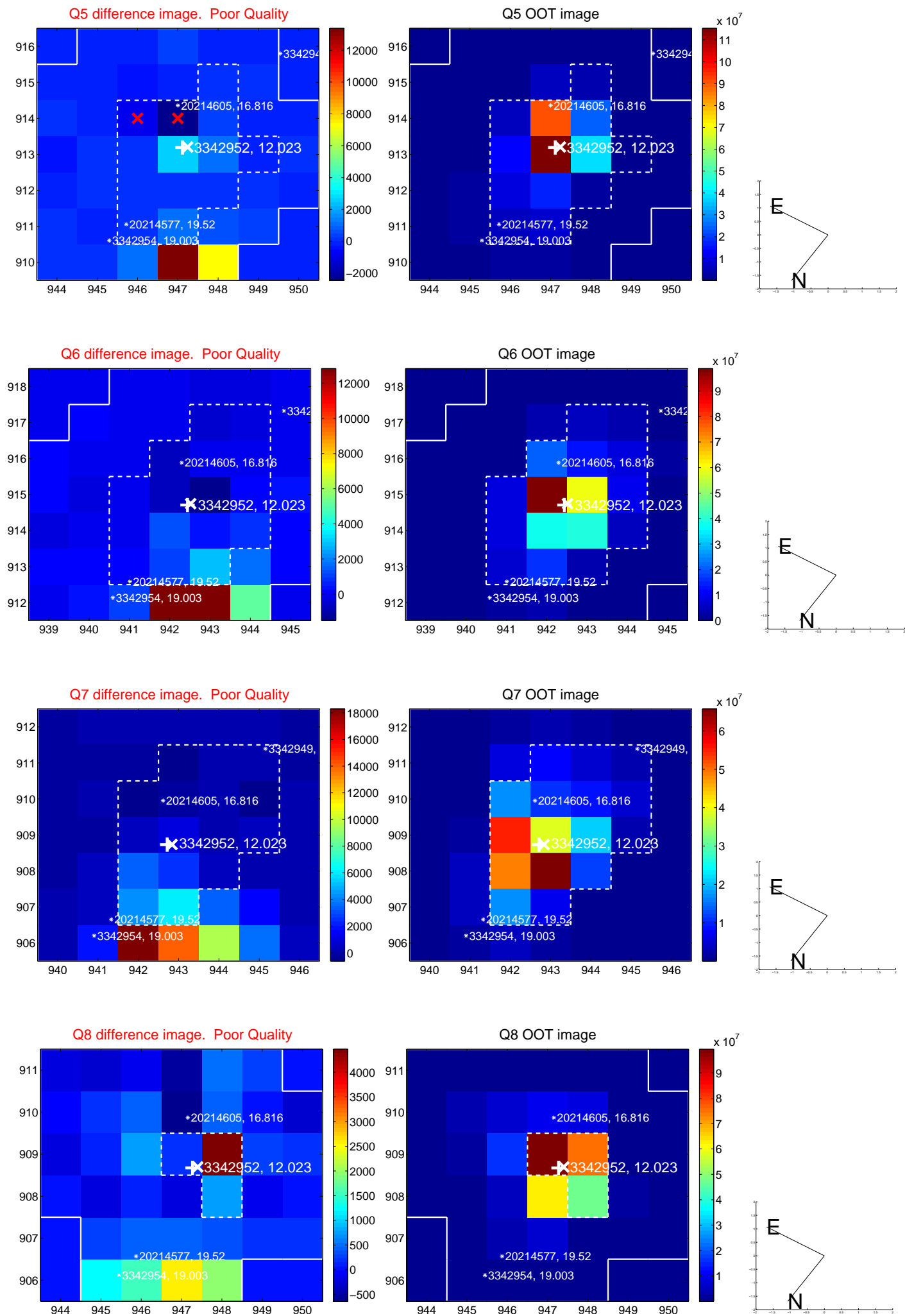


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

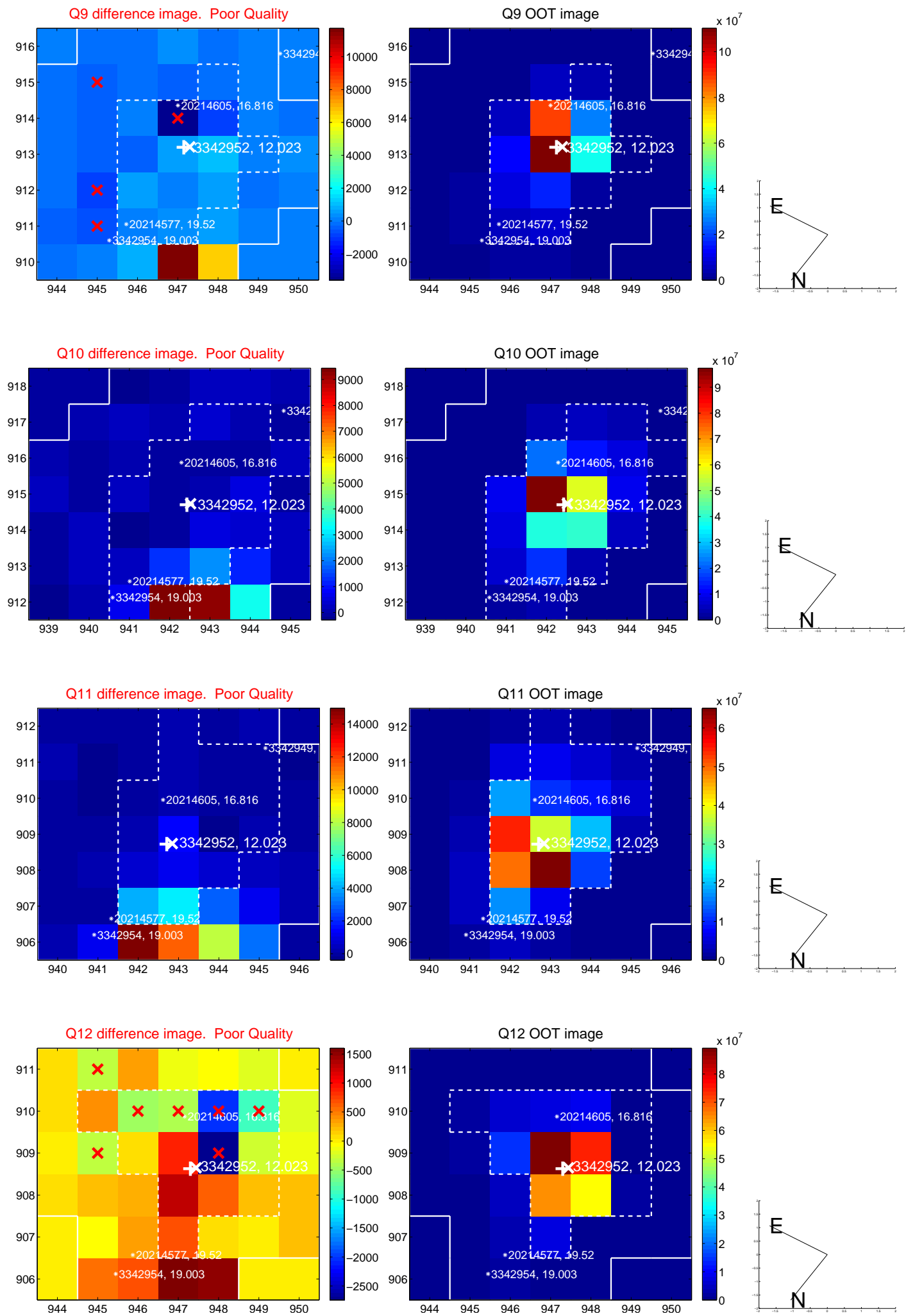
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



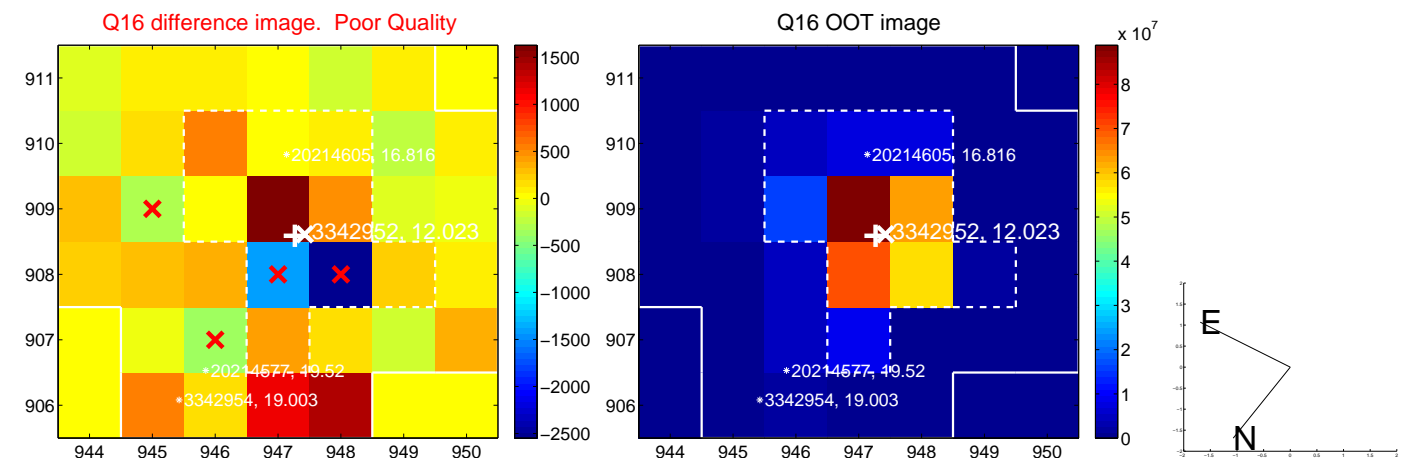
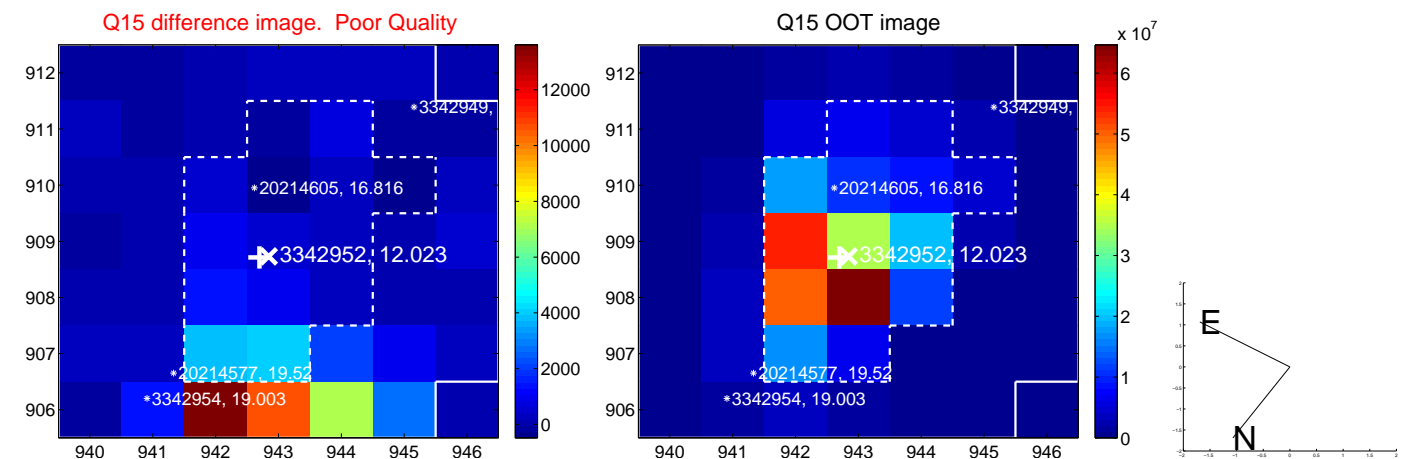
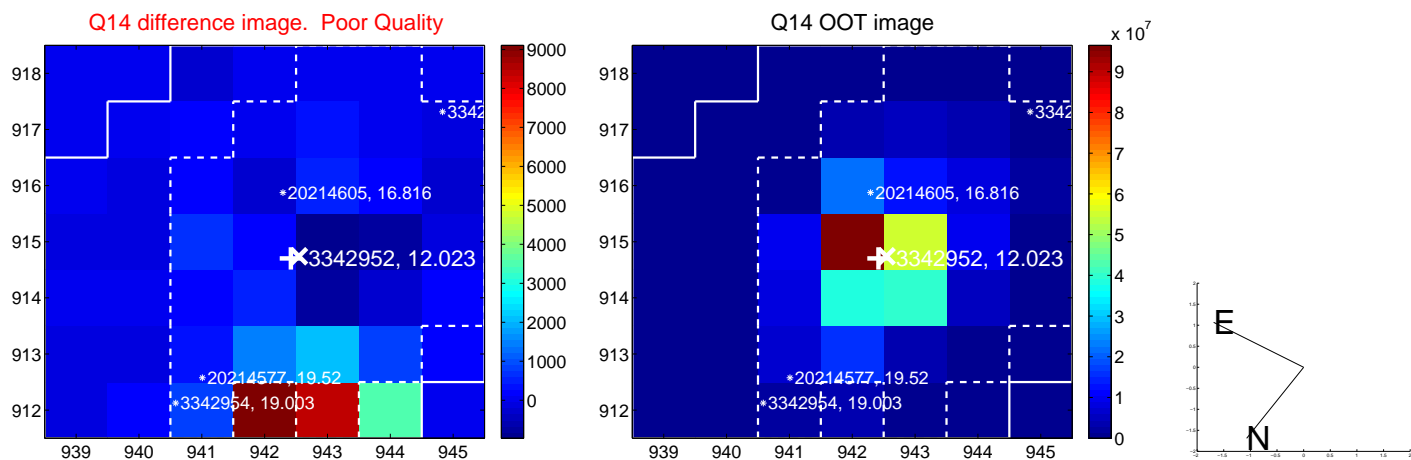
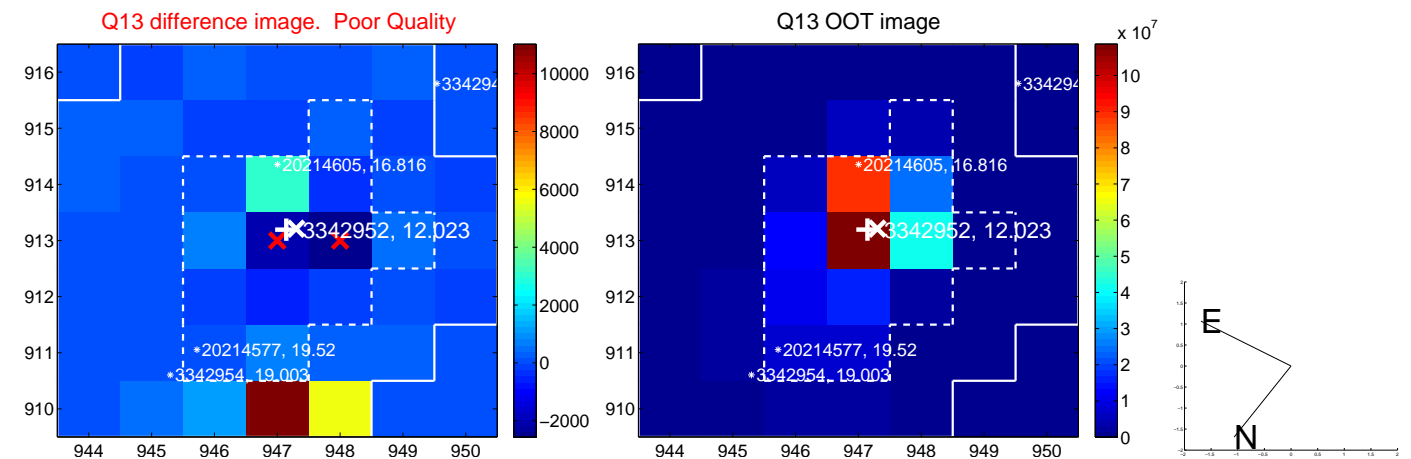
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



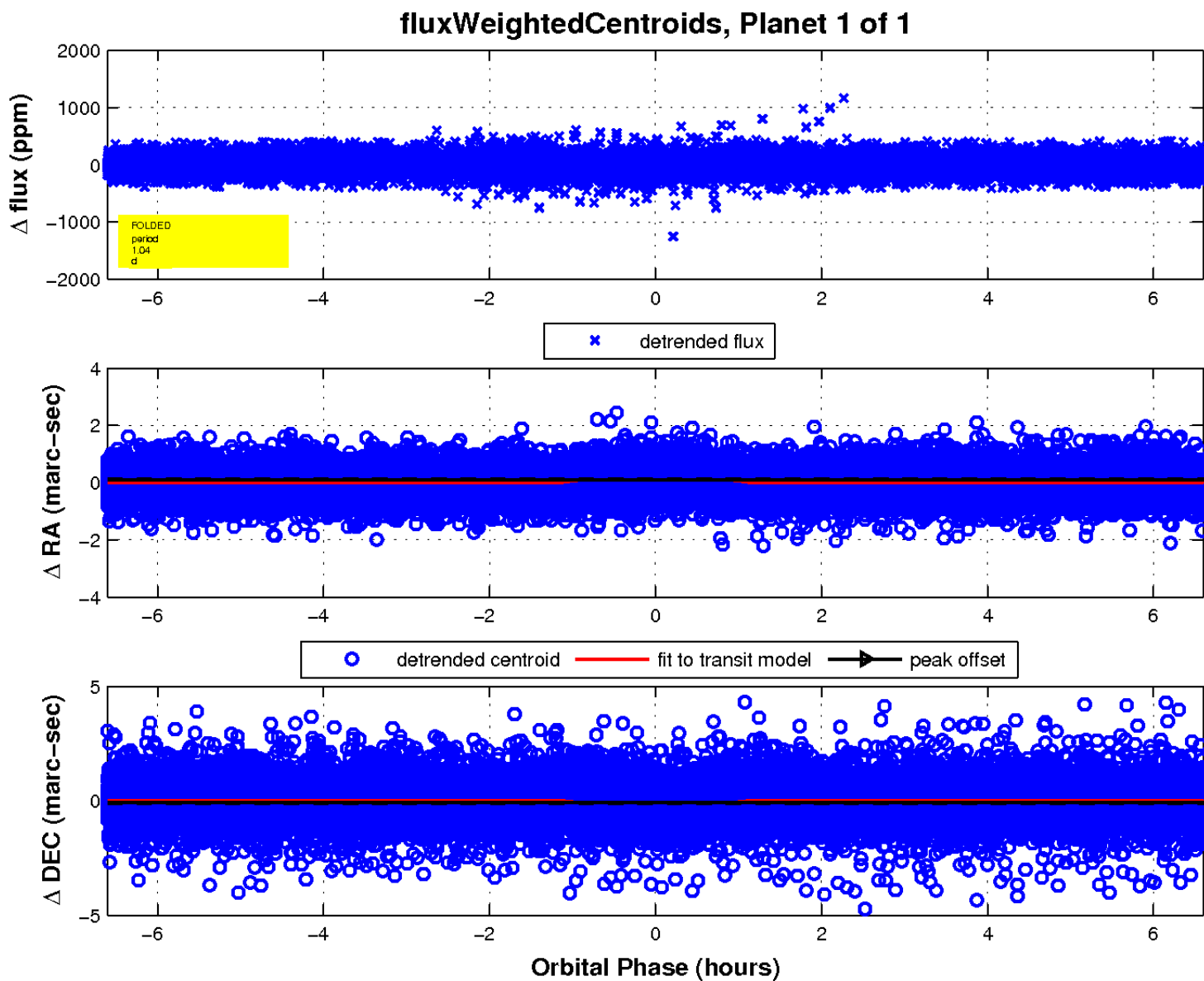
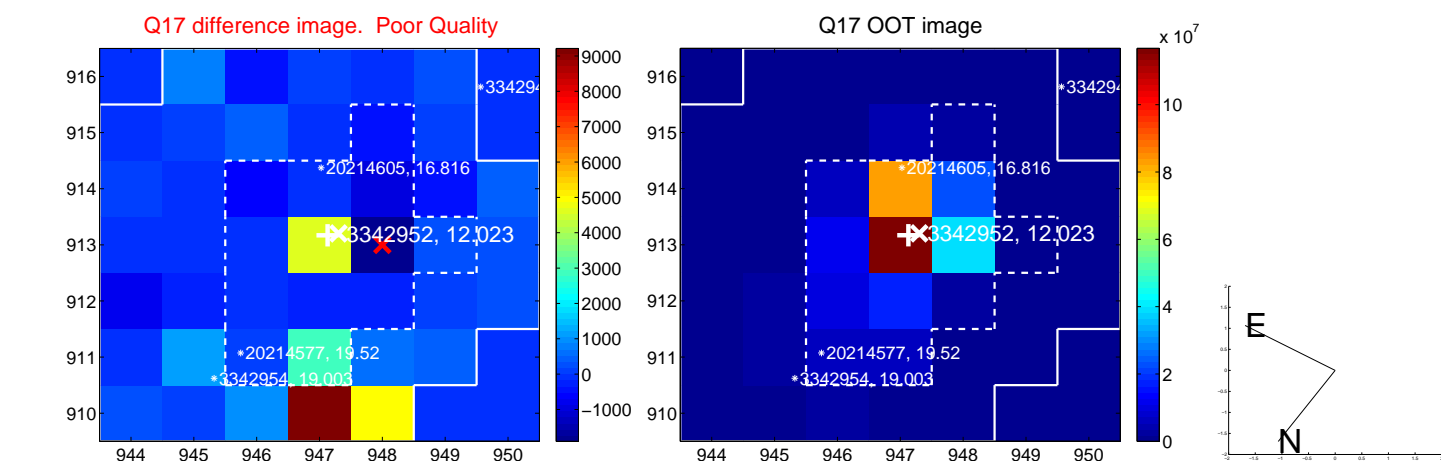
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UKIRT Image

Declination

