

KIC 004954074

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})
004954074-01	OBS	No	0.626284	131.898048	5.6	4.777	8.1	2.1	1.48	6760	0.38	17413.45

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004954074-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_KIC_POS

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

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

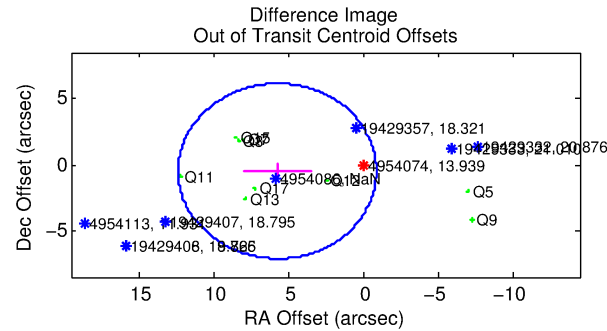
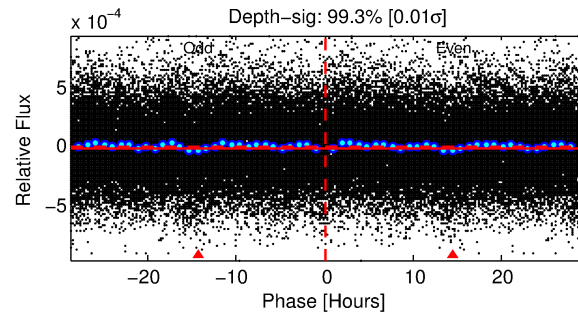
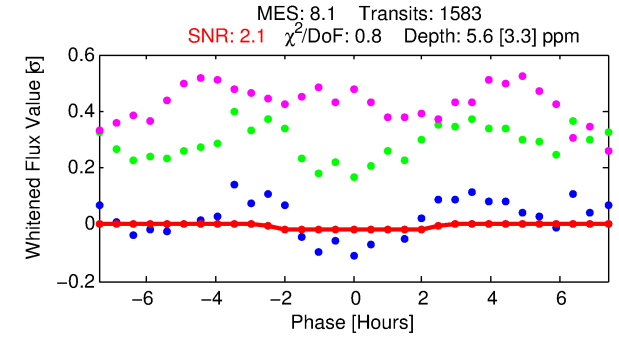
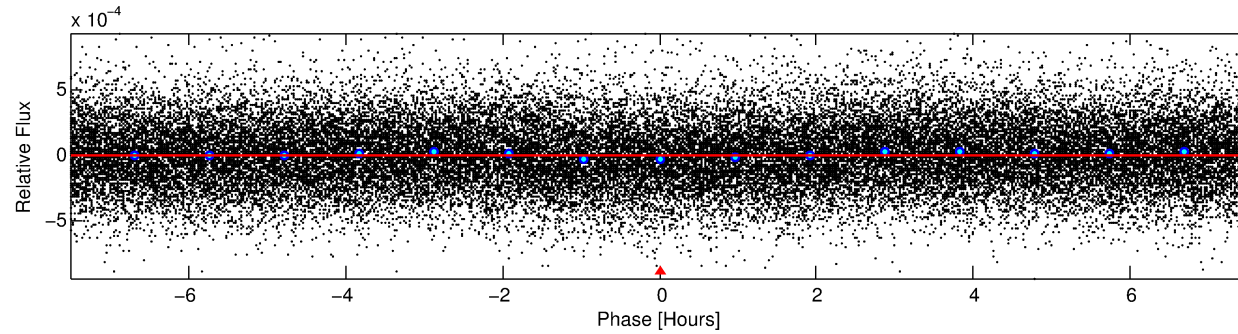
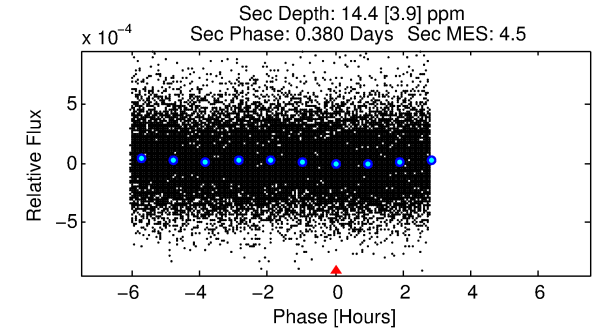
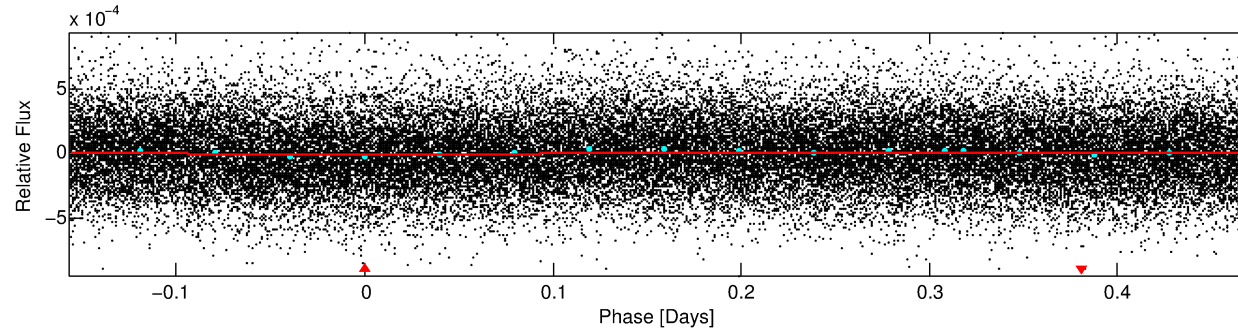
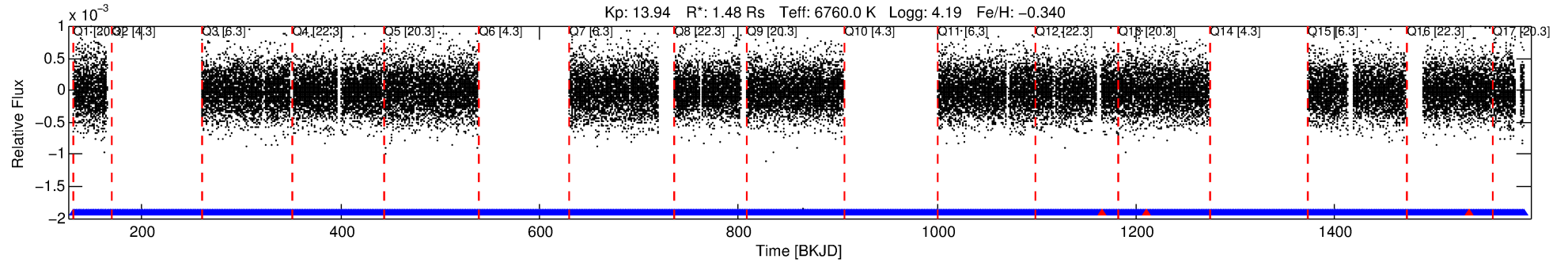
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004954074-01

No Significant Match Found

DV One-Page Summary

KIC: 4954074 Candidate: 1 of 1 Period: 0.626 d



DV Fit Results:

Period = 0.62628 [0.00005] d
Epoch = 131.8980 [0.0221] BKJD
Rp/R* = 0.0023 [0.0045]
a/R* = 1.10 [2.14]
b = 0.71 [7.85]
Seff = 17413.45 [6384.38]
Teff = 2929 [268] K
Rp = 0.38 [0.73] Re
a = 0.0154 [0.0035] AU
Ag = 13.09 [50.39] [0.24σ]
Teffp = 8615 [8266] K [0.69σ]

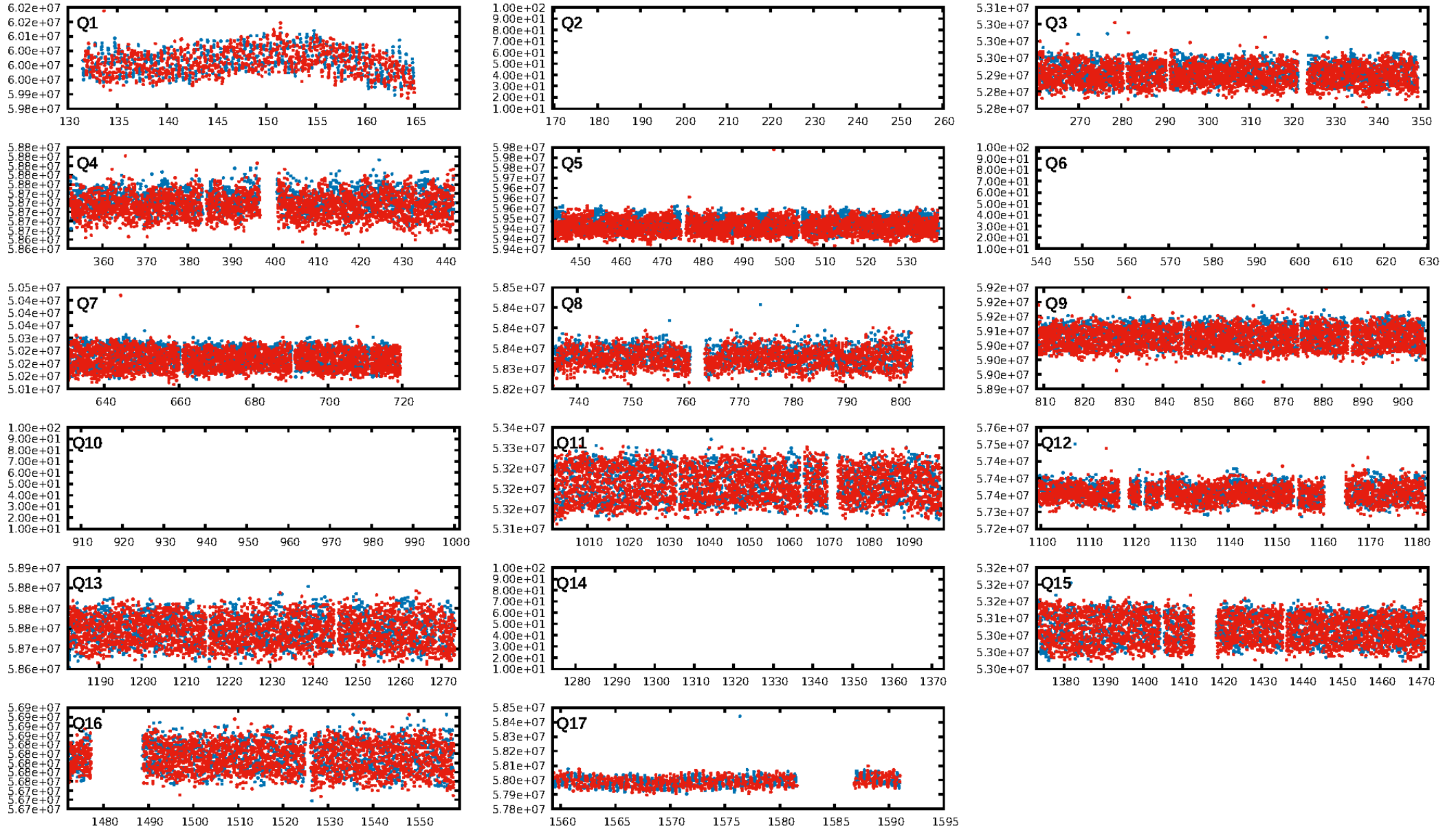
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.94e-14
RollingBand-fgt: 1.00 [1483/1486]
GhostDiagnostic-chr: 2.551
Centroid-sig: 0.0%
Centroid-so: 28.800 arcsec [3.51σ]
OotOffset-rm: 5.737 arcsec [2.60σ]
KicOffset-rm: 7.148 arcsec [3.65σ]
OotOffset-st: 0/4/1/4 [9]
KicOffset-st: 0/4/1/4 [9]
DiffImageQuality-fgm: 0.33 [3/9]
DiffImageOverlap-fno: 1.00 [13/13]

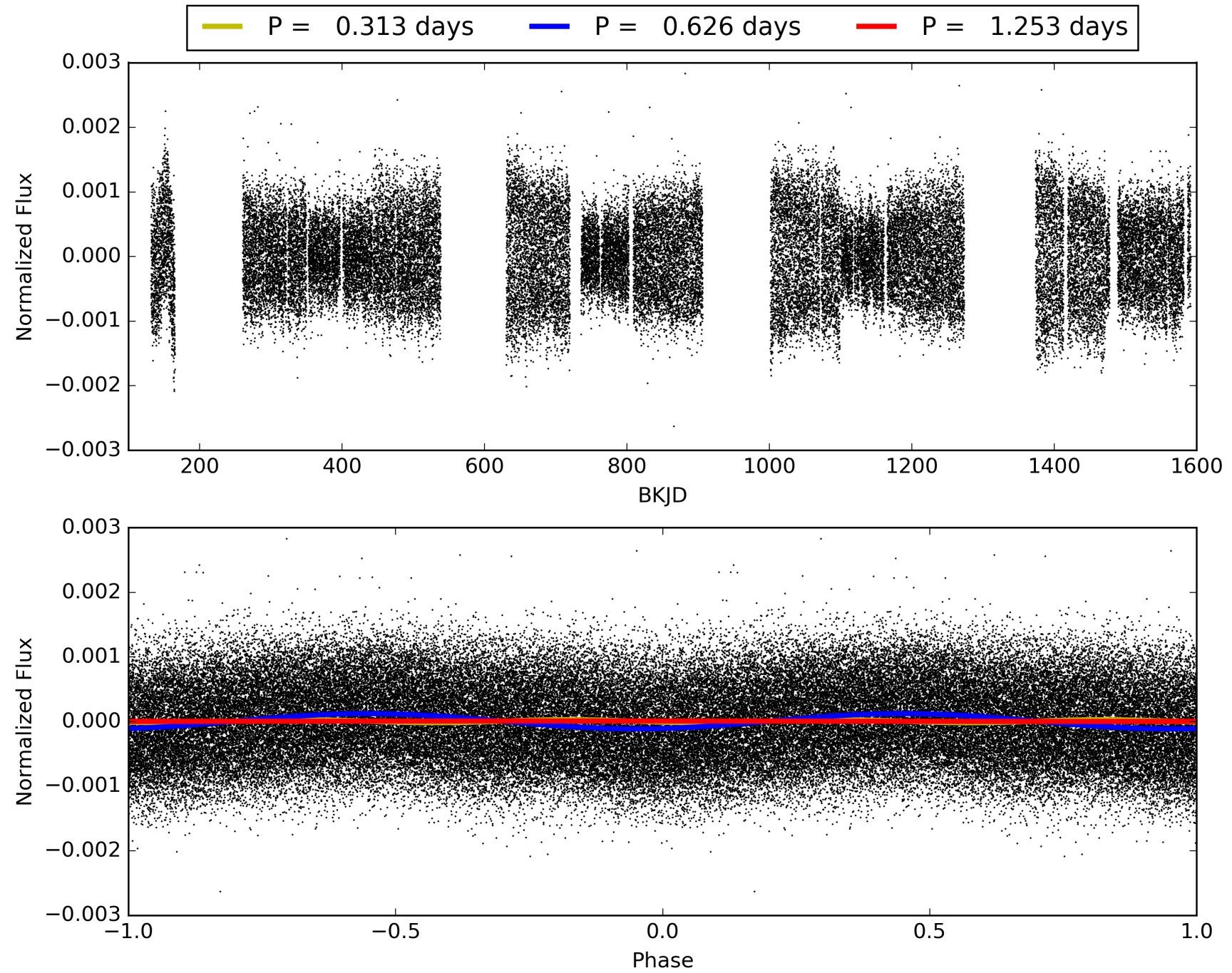
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 11:13:18 Z

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

TCE 004954074-01, PDC Light Curves

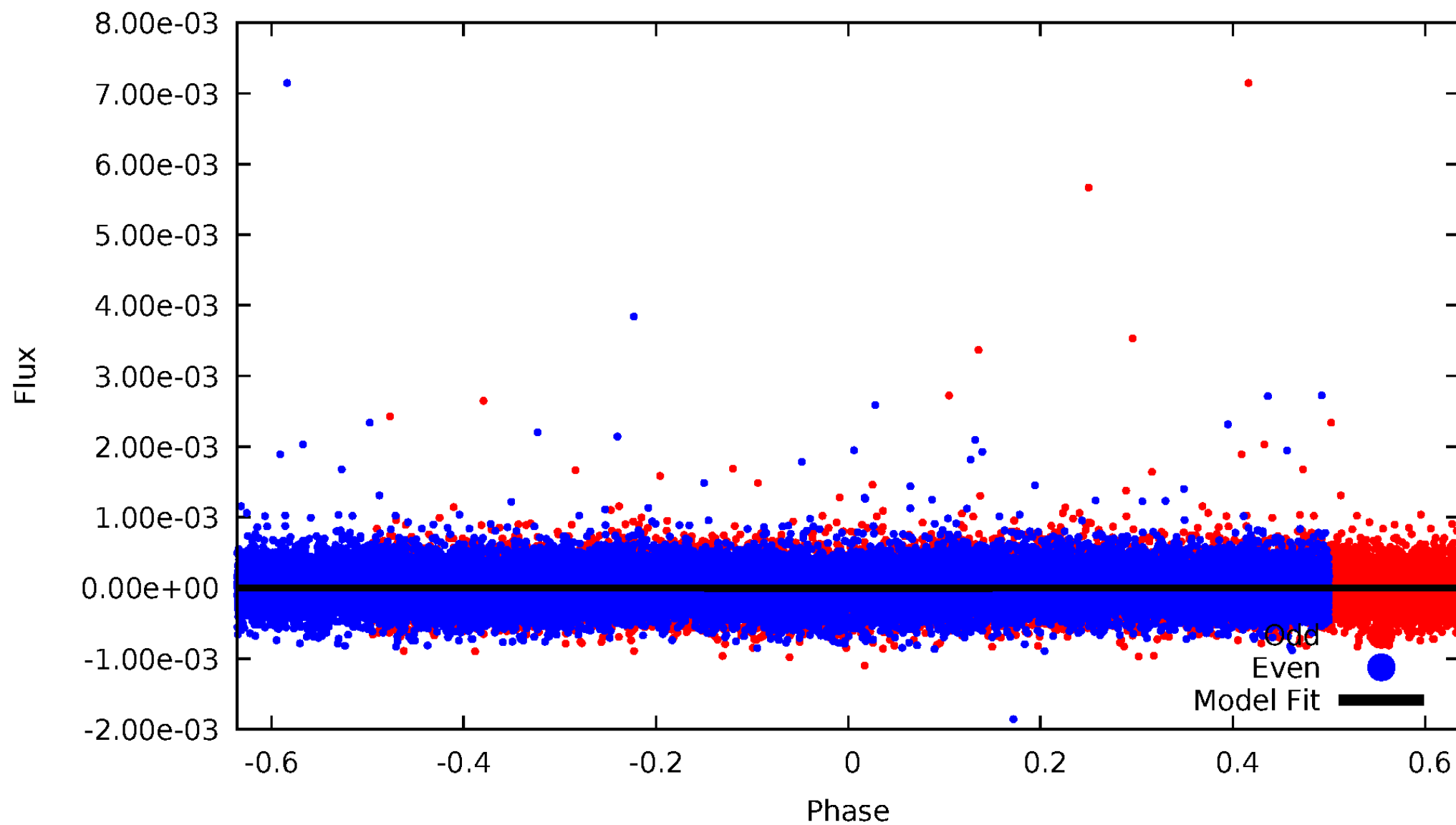


TCE 004954074-01



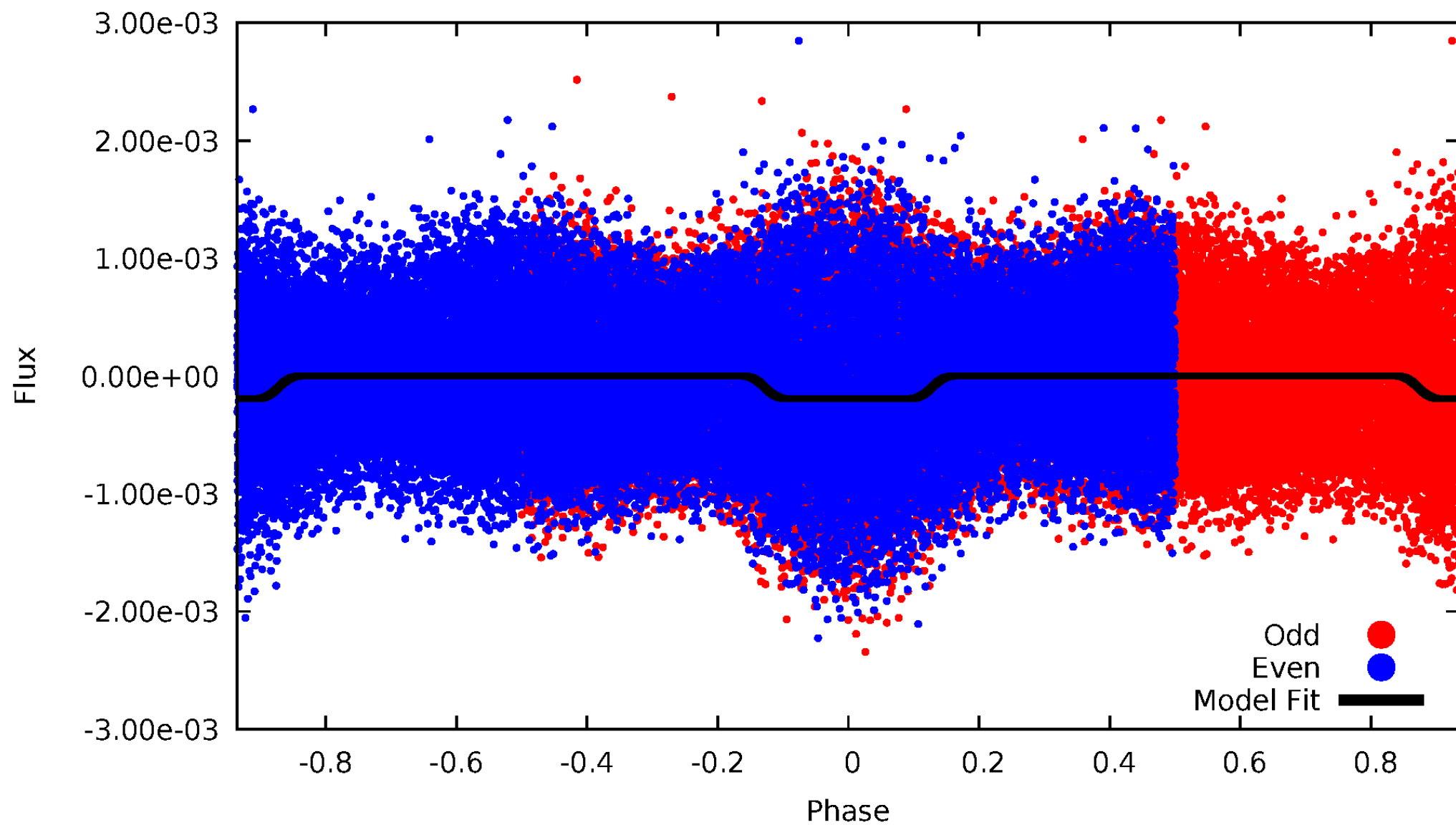
DV Odd/Even

TCE 004954074-01



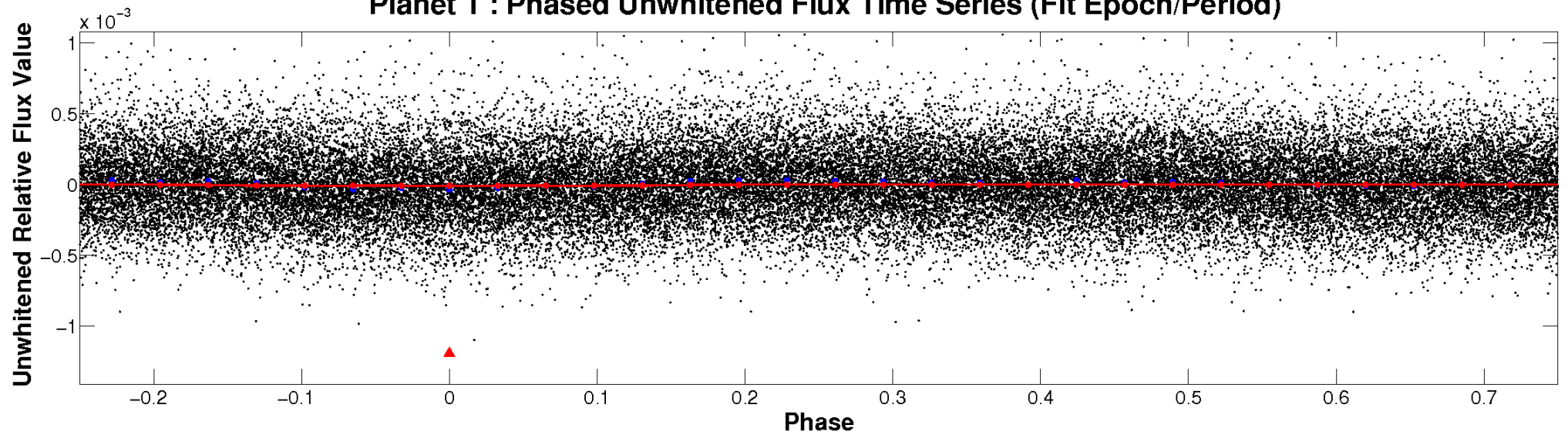
ALT Odd/Even

TCE 004954074-01

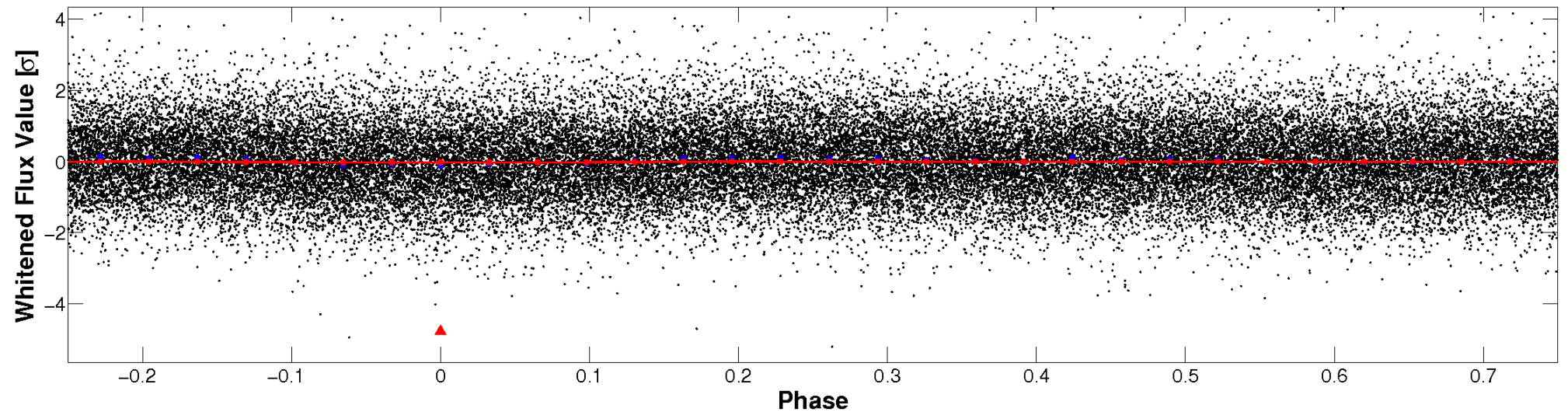


Non-Whitened Vs. Whitened Light Curve

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

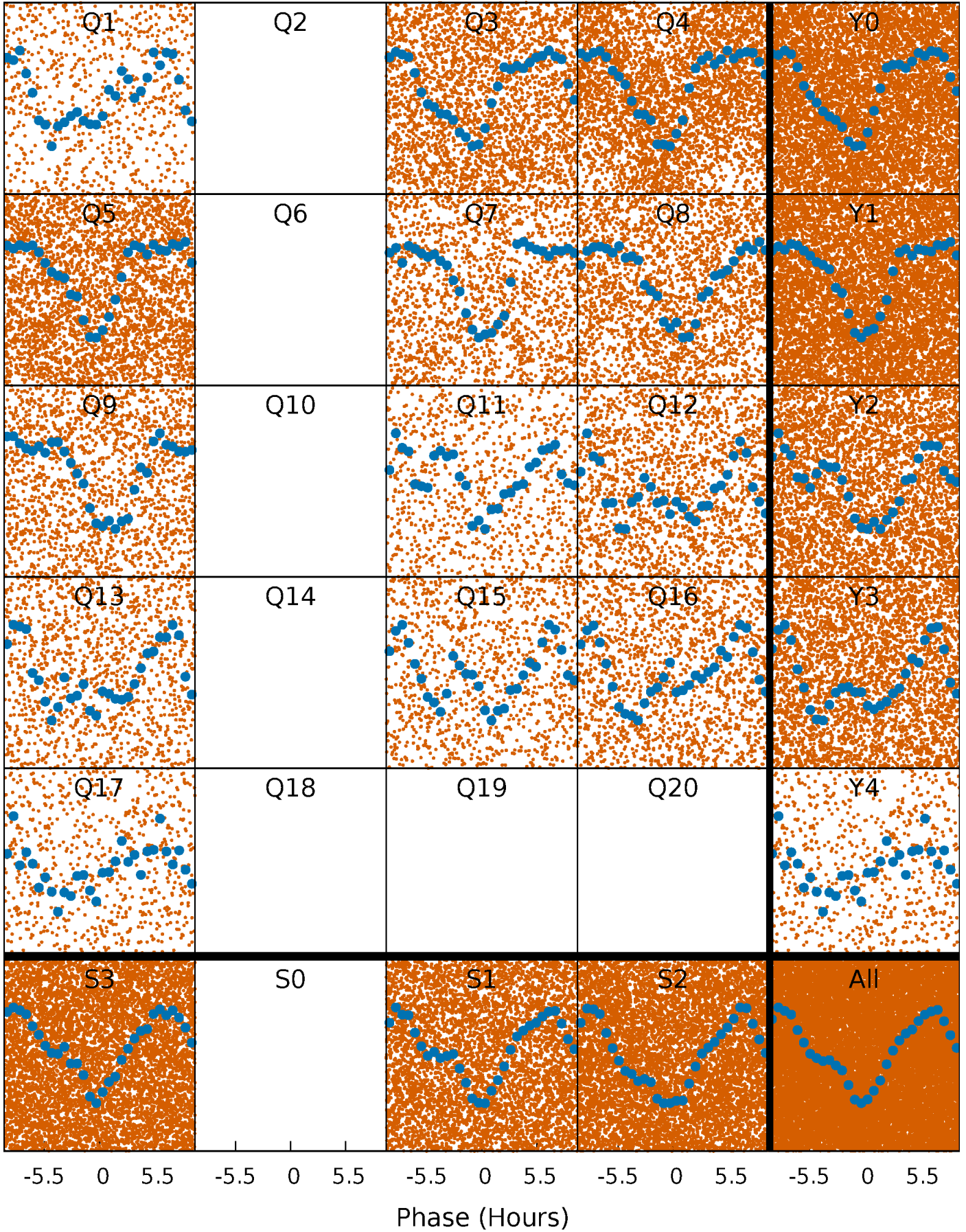


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



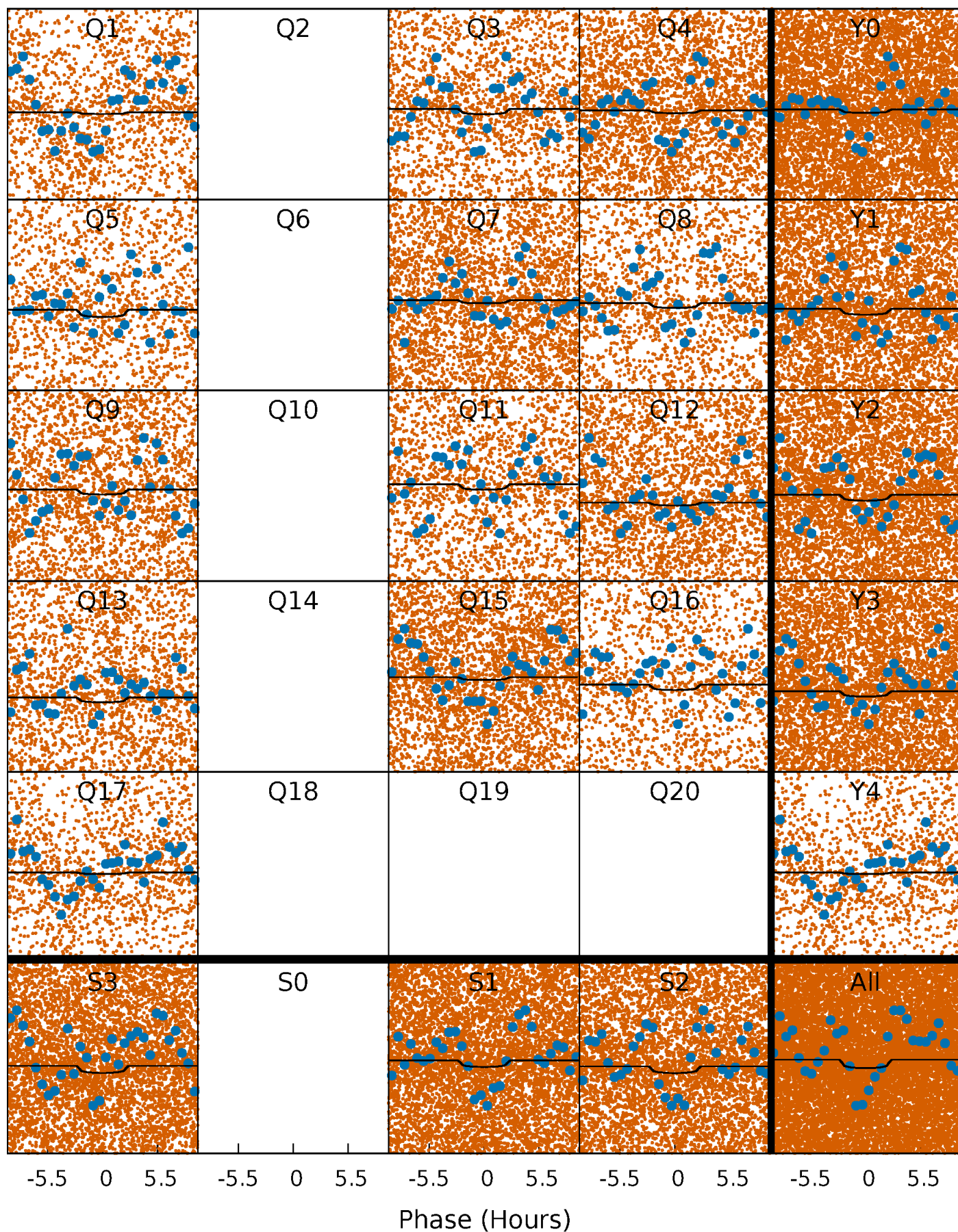
PDC Quarter-Phased Transit Curves

TCE 004954074-01 P= 0.626284 Days $T_0=131.898048$ (BKJD)



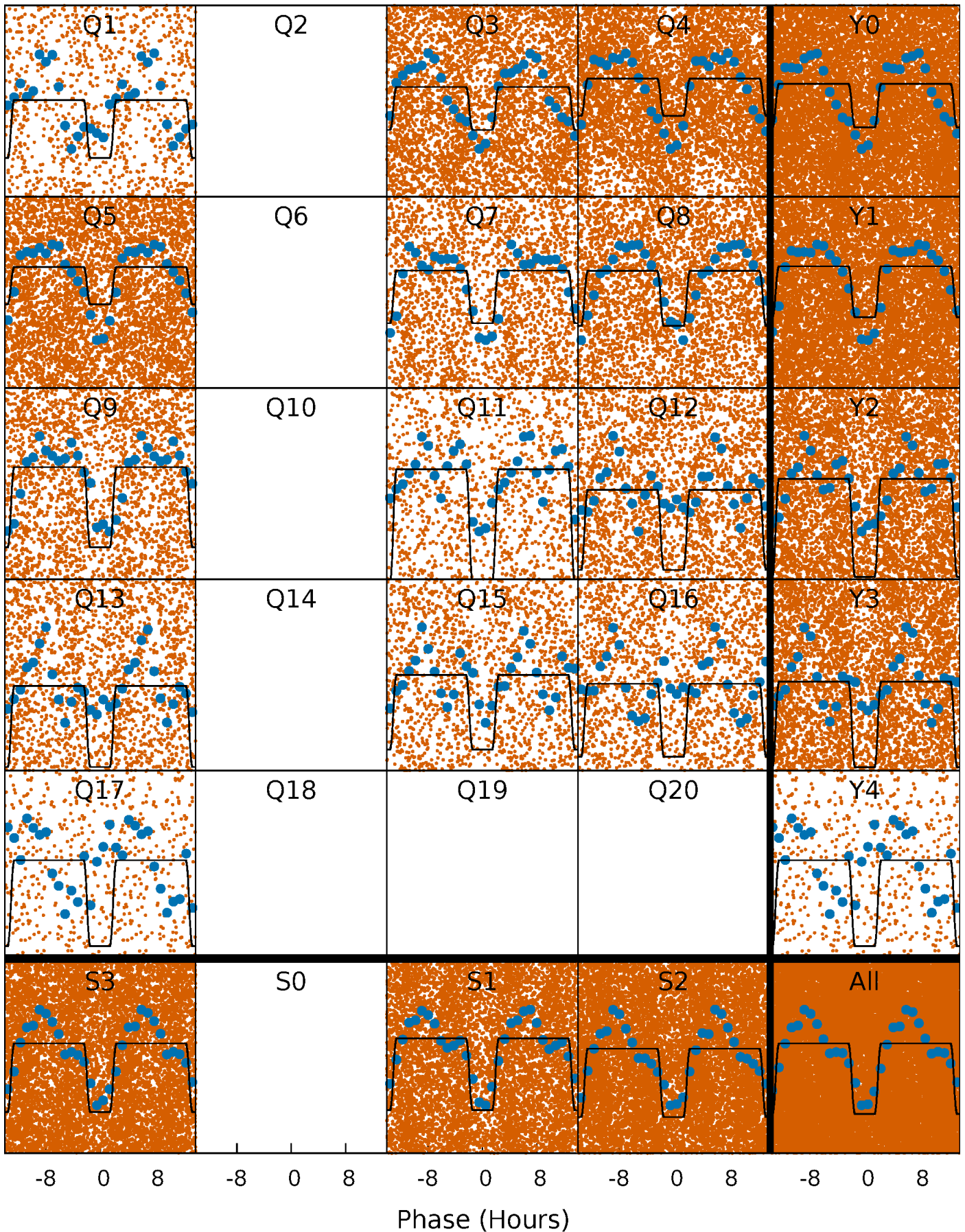
DV Quarter-Phased Transit Curves

TCE 004954074-01 P= 0.626284 Days $T_0=131.898048$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

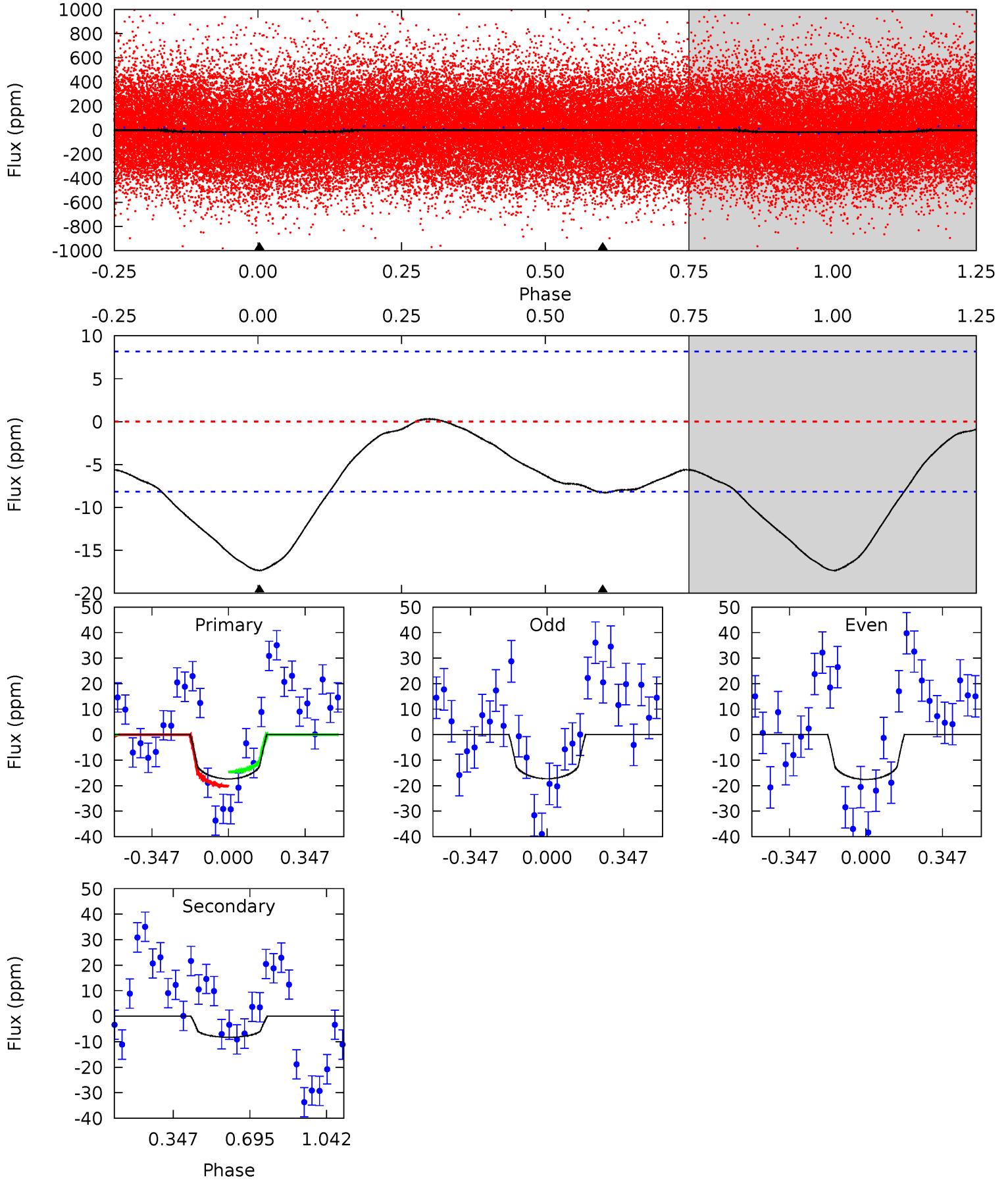
TCE 004954074-01 P= 0.626313 Days $T_0=131.863022$ (BKJD)



DV Model-Shift Uniqueness Test

004954074-01, P = 0.626284 Days, E = 131.271764 Days

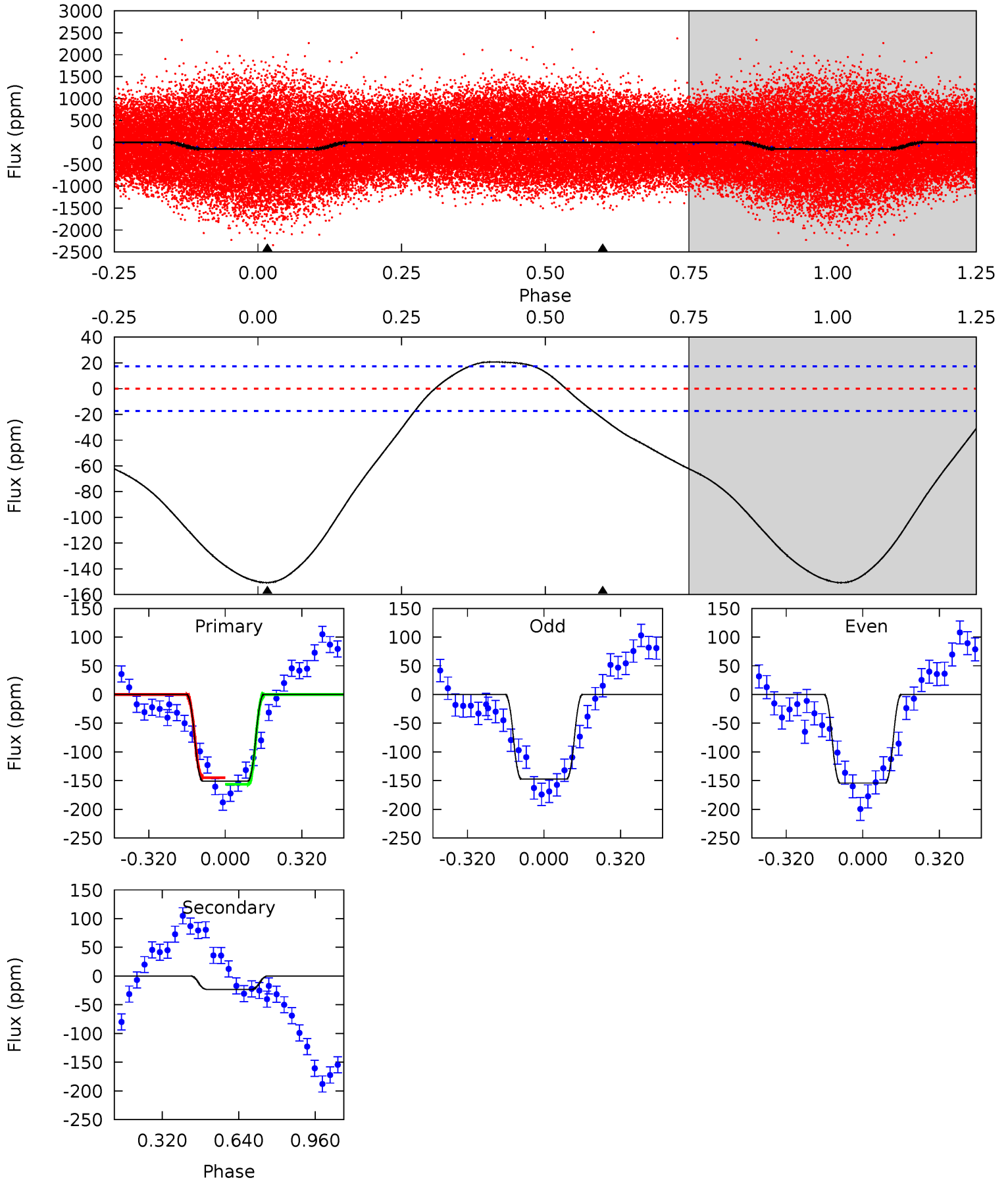
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.12	4.35	0	0	4.30	0.94	0.18	9.12	9.12	4.35	4.35	0.07	0.83	0.02	1.44



Alt Model-Shift Uniqueness Test

004954074-01, P = 0.626313 Days, E = 131.236709 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
37.5	5.76	0	0	4.31	0.99	2.99	37.5	37.5	5.76	5.76	0.85	0.88	0.12	1.52



Stellar Parameters For KIC 004954074

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6760^{+189}_{-284}	$4.187^{+0.175}_{-0.175}$	$-0.340^{+0.250}_{-0.300}$	$1.482^{+0.410}_{-0.336}$	$1.237^{+0.189}_{-0.189}$	$0.536^{+0.500}_{-0.260}$
	+3%/-4%	+4%/-4%	+74%/-88%	+28%/-23%	+15%/-15%	+93%/-48%
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 004954074-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-8 ± 2	$0.66^{+0.69}_{-0.45}$	4069^{+326}_{-309}	5360^{+5722}_{-1689}	$2.395^{+20.587}_{-1.828}$
Alt.	-23 ± 4	$2.21^{+0.88}_{-0.72}$	4097^{+292}_{-295}	3718^{+909}_{-1661}	$0.596^{+0.789}_{-0.293}$

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 $A_{\text{obs}} \gg 1.0$

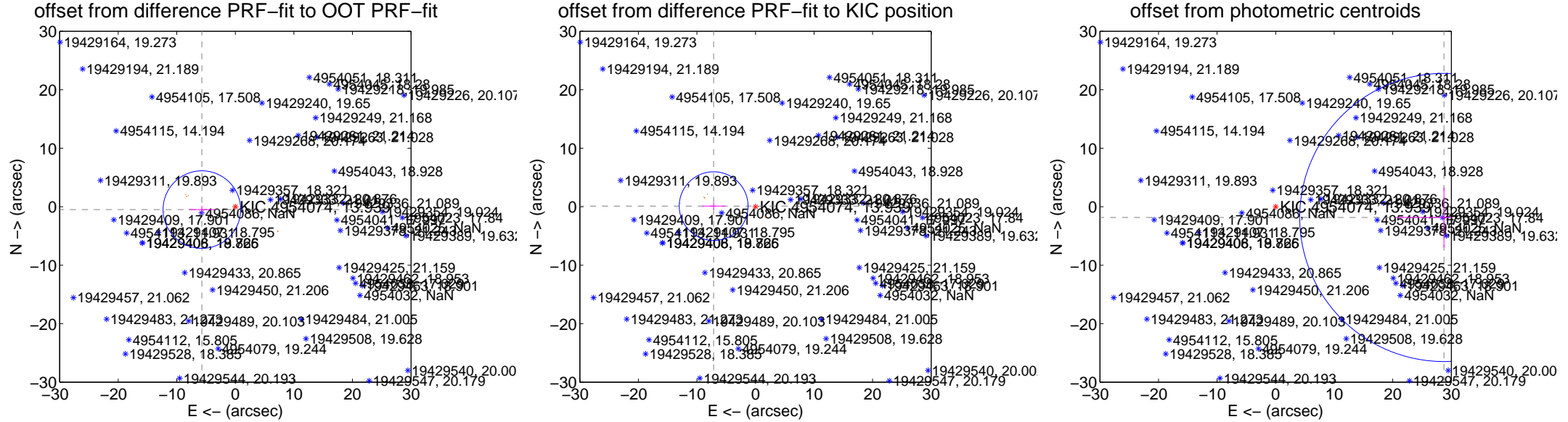
DV Centroid Data

Supplemental centroid analysis for 004954074-01. Kepler magnitude: 13.94. Transit SNR 2.06

There are 3 quarters with good PRF difference image offsets

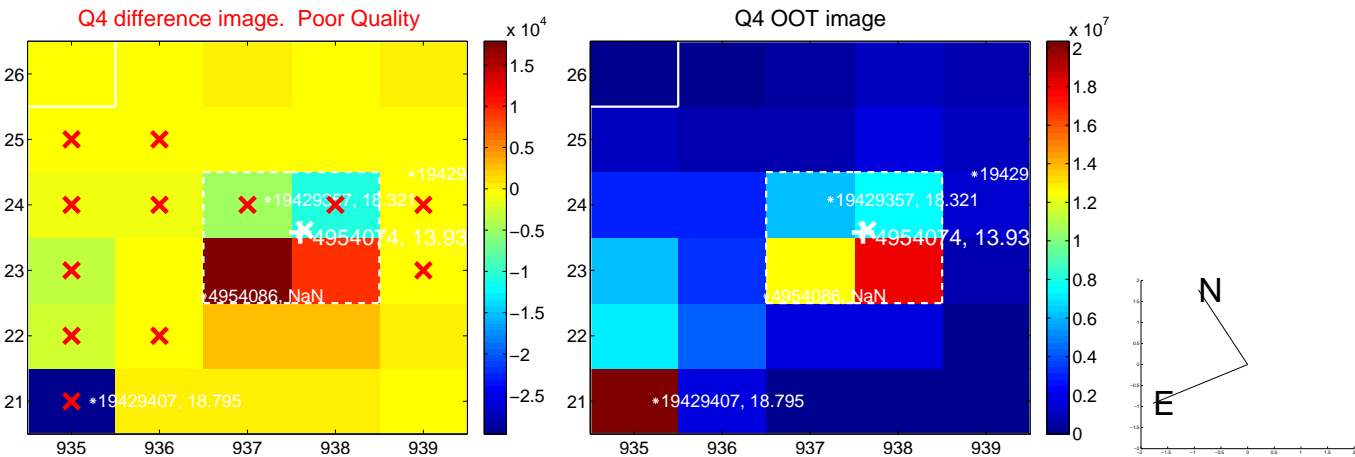
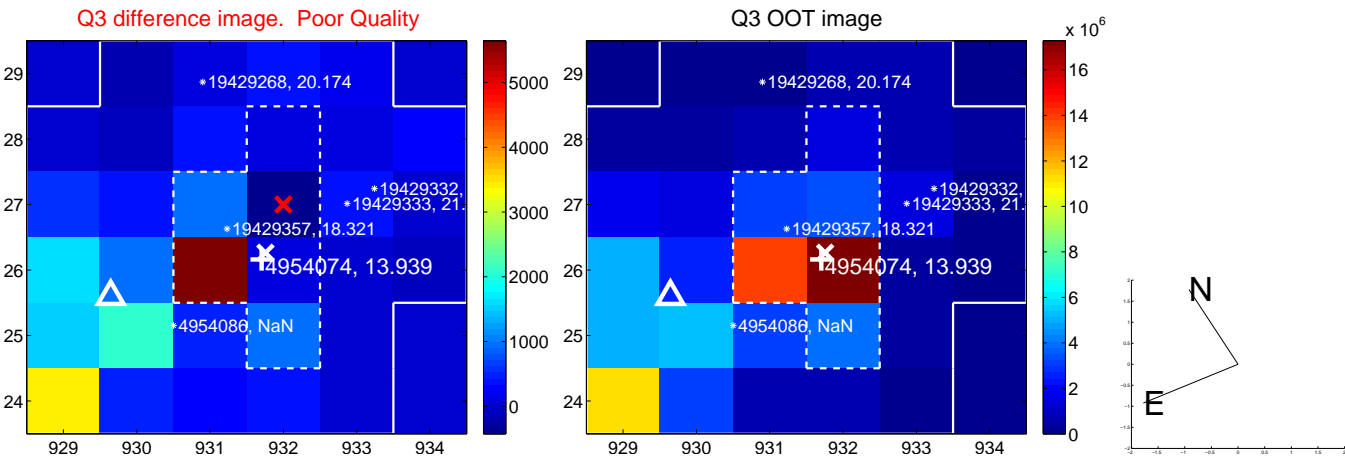
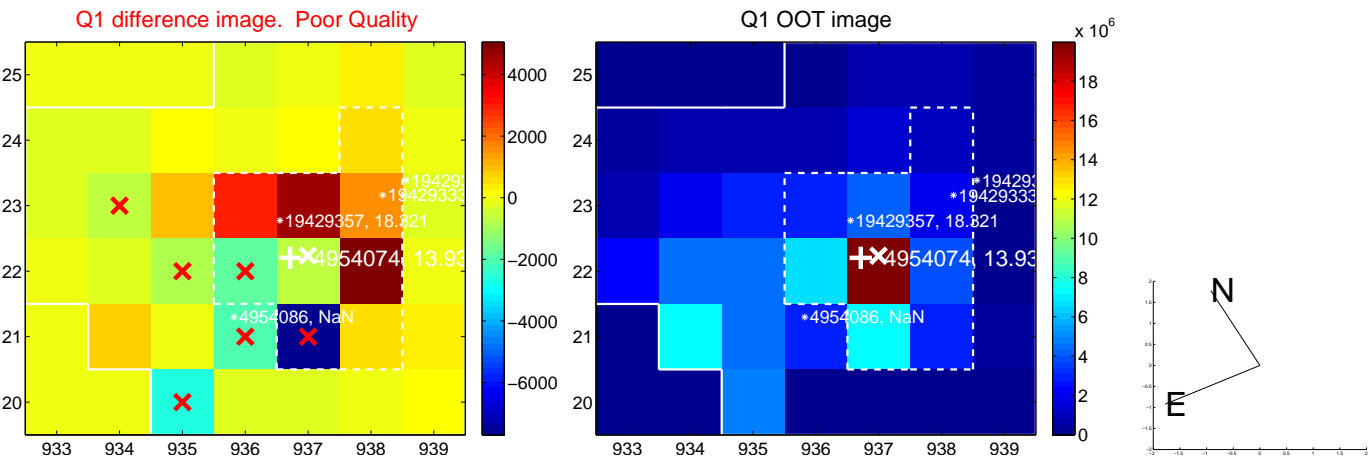
The OOT PRF centroid is offset from the target star catalog position by about 6.12 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.737 ± 2.208	2.60	5.717 ± 2.247	-0.488 ± 0.618
PRF-fit source offset from KIC position	7.148 ± 1.958	3.65	7.147 ± 1.958	0.100 ± 0.562
photometric centroid source offset	28.80 ± 8.21	3.51	-28.74 ± 8.22	-1.84 ± 5.13

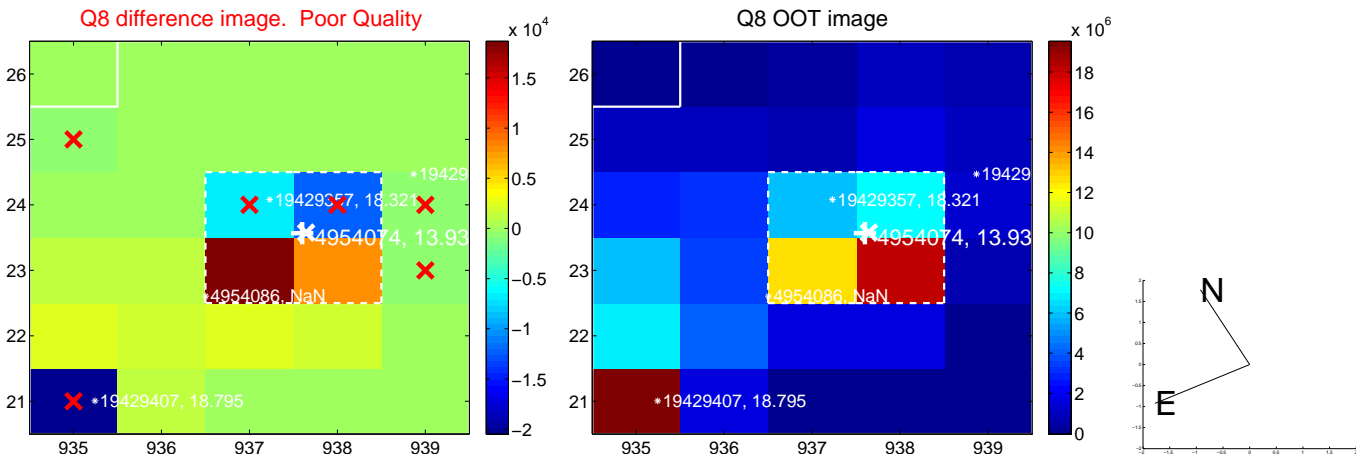
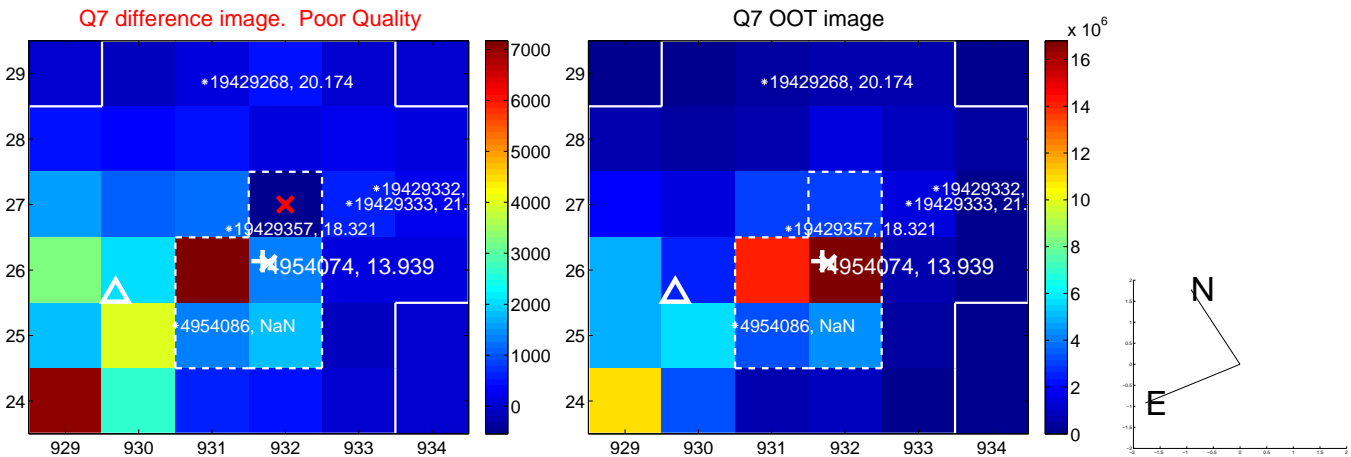
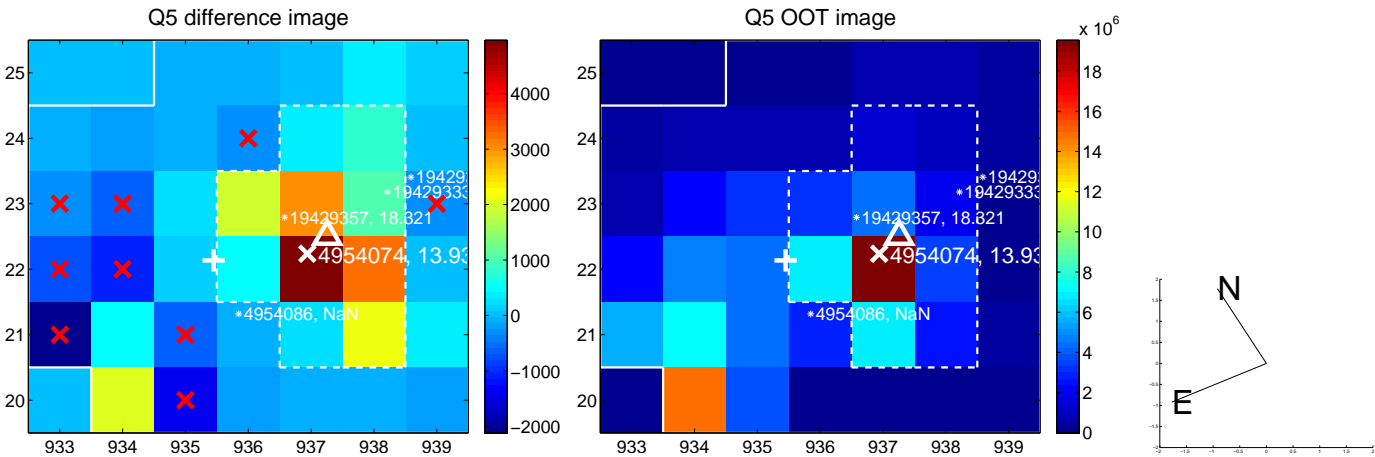


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

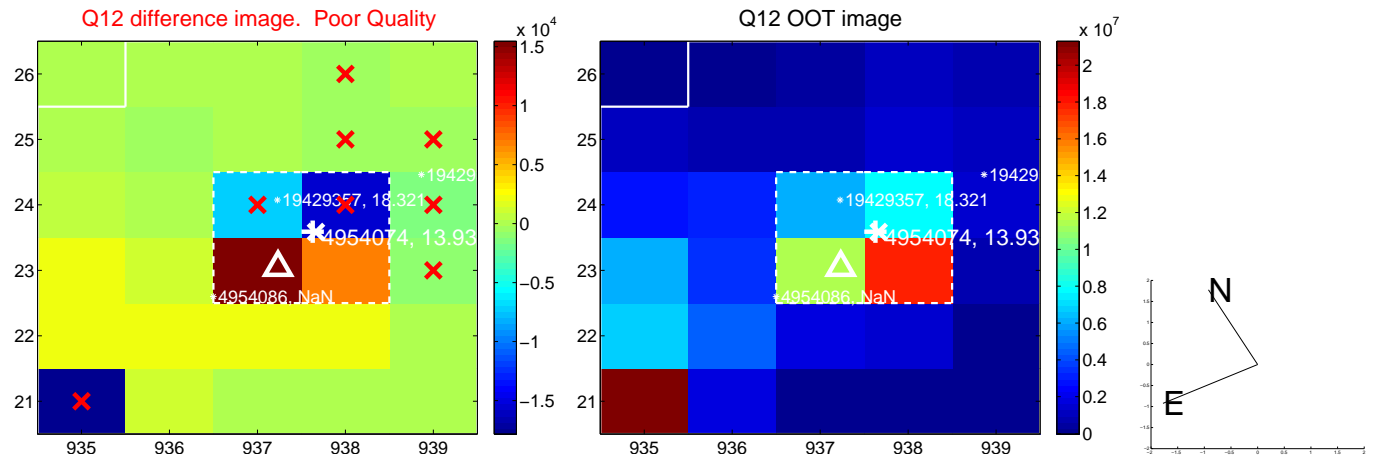
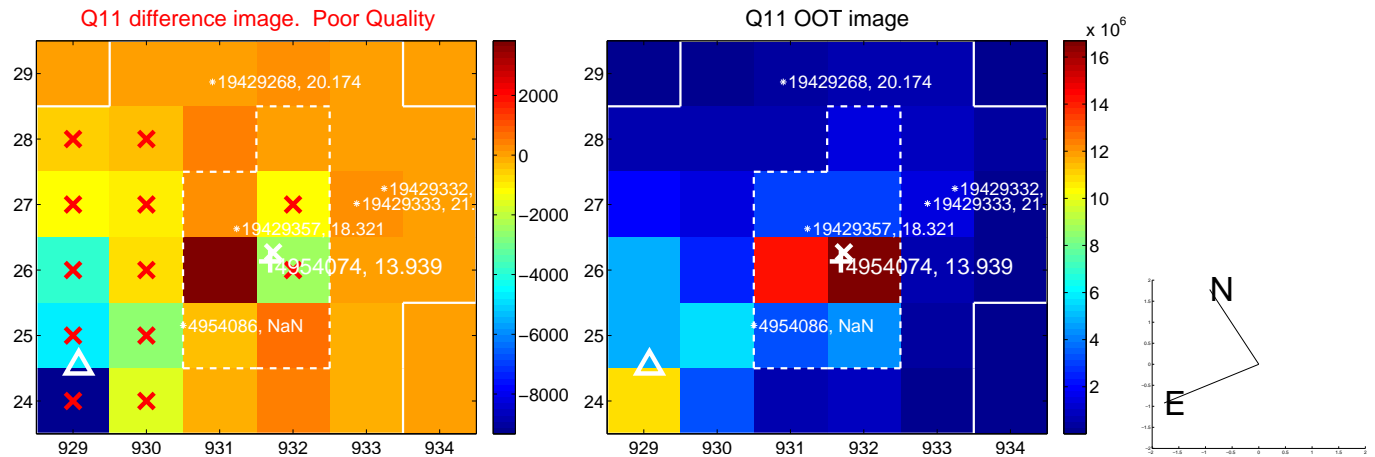
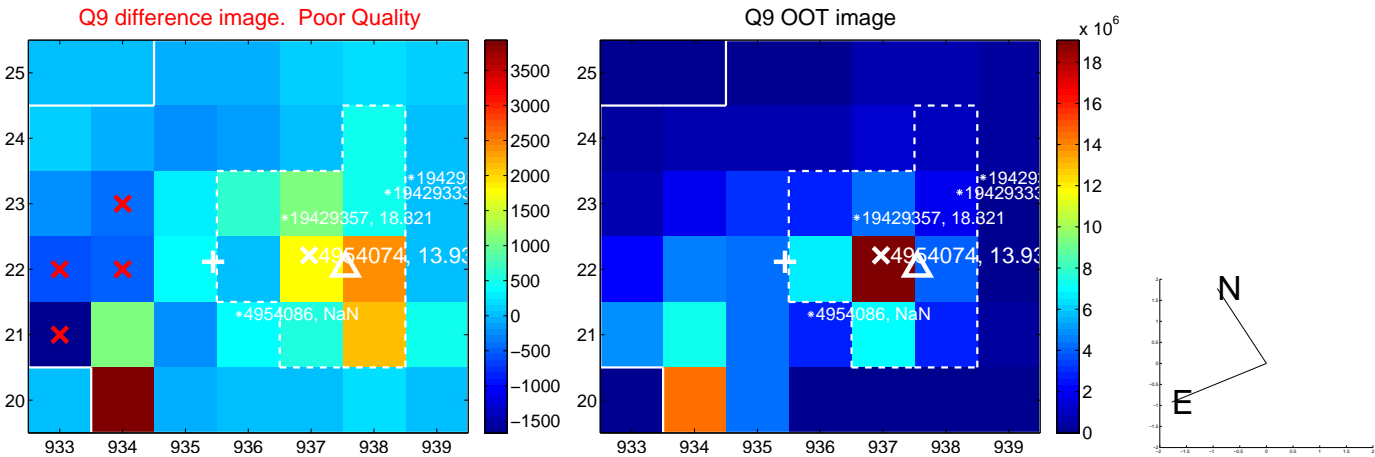
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



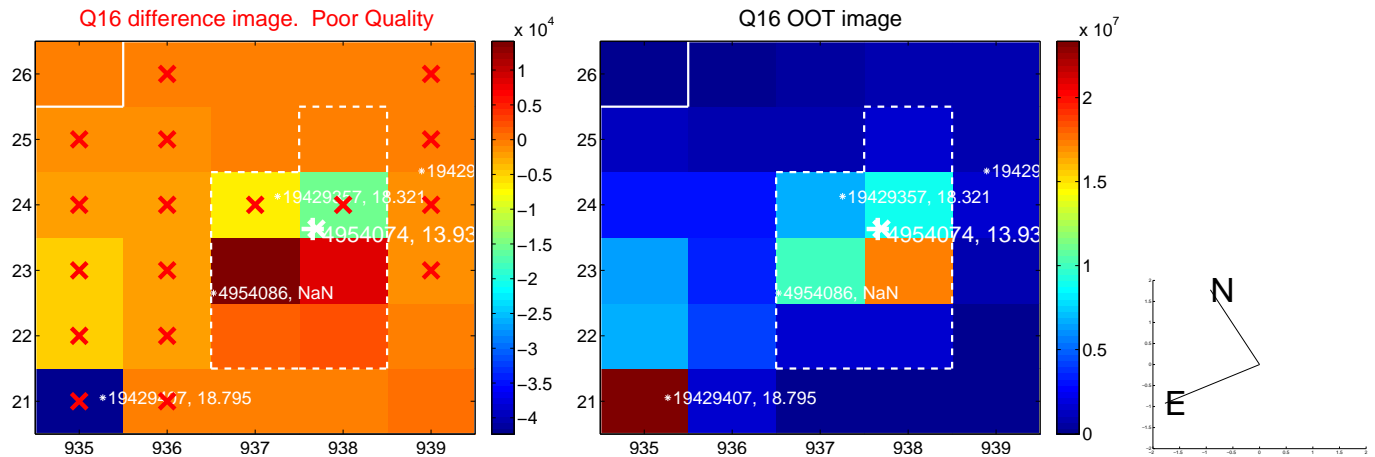
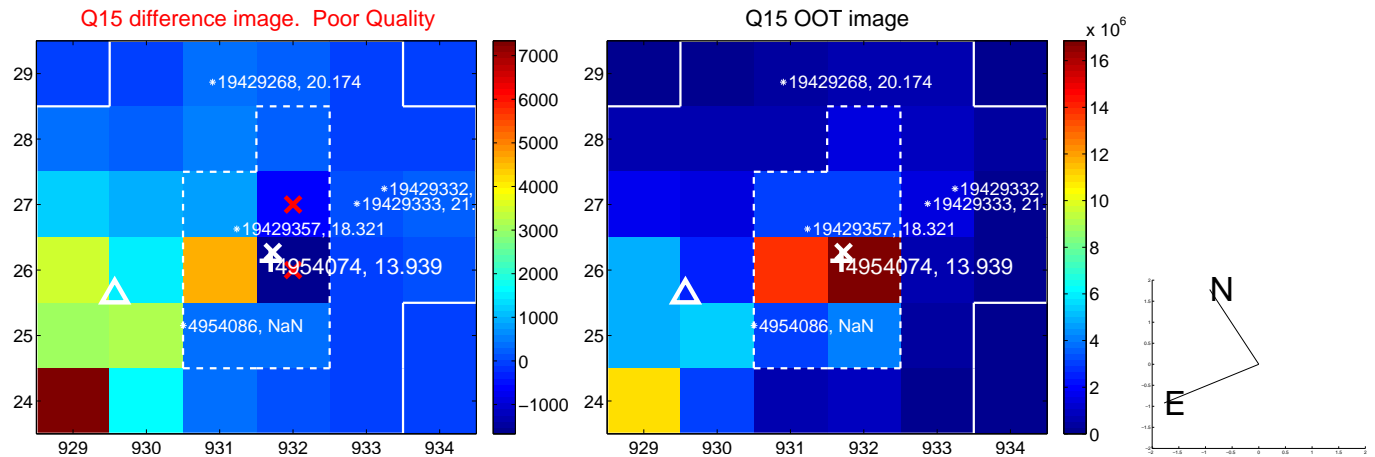
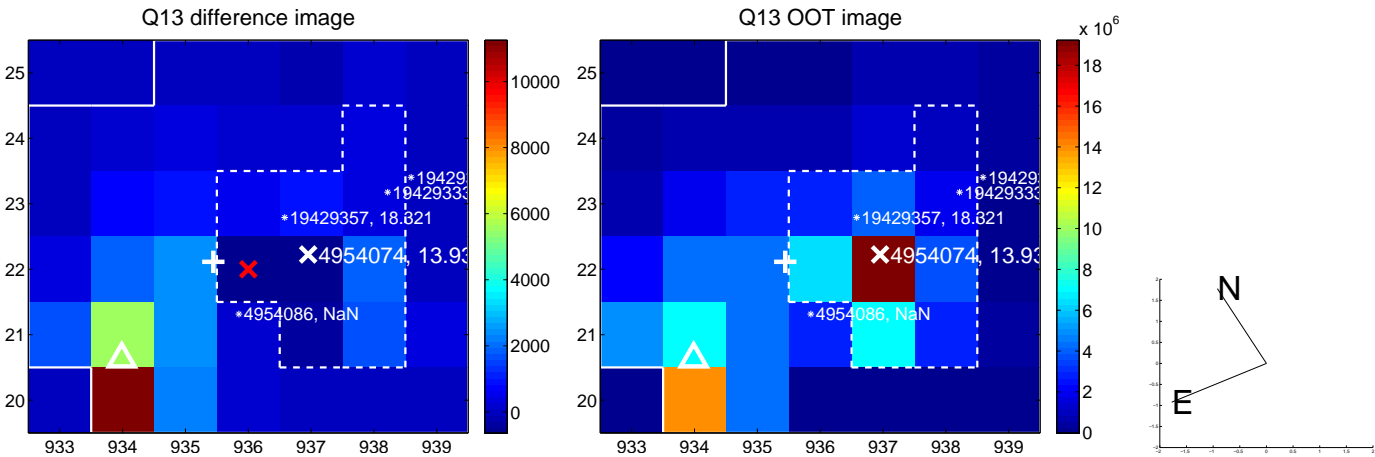
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



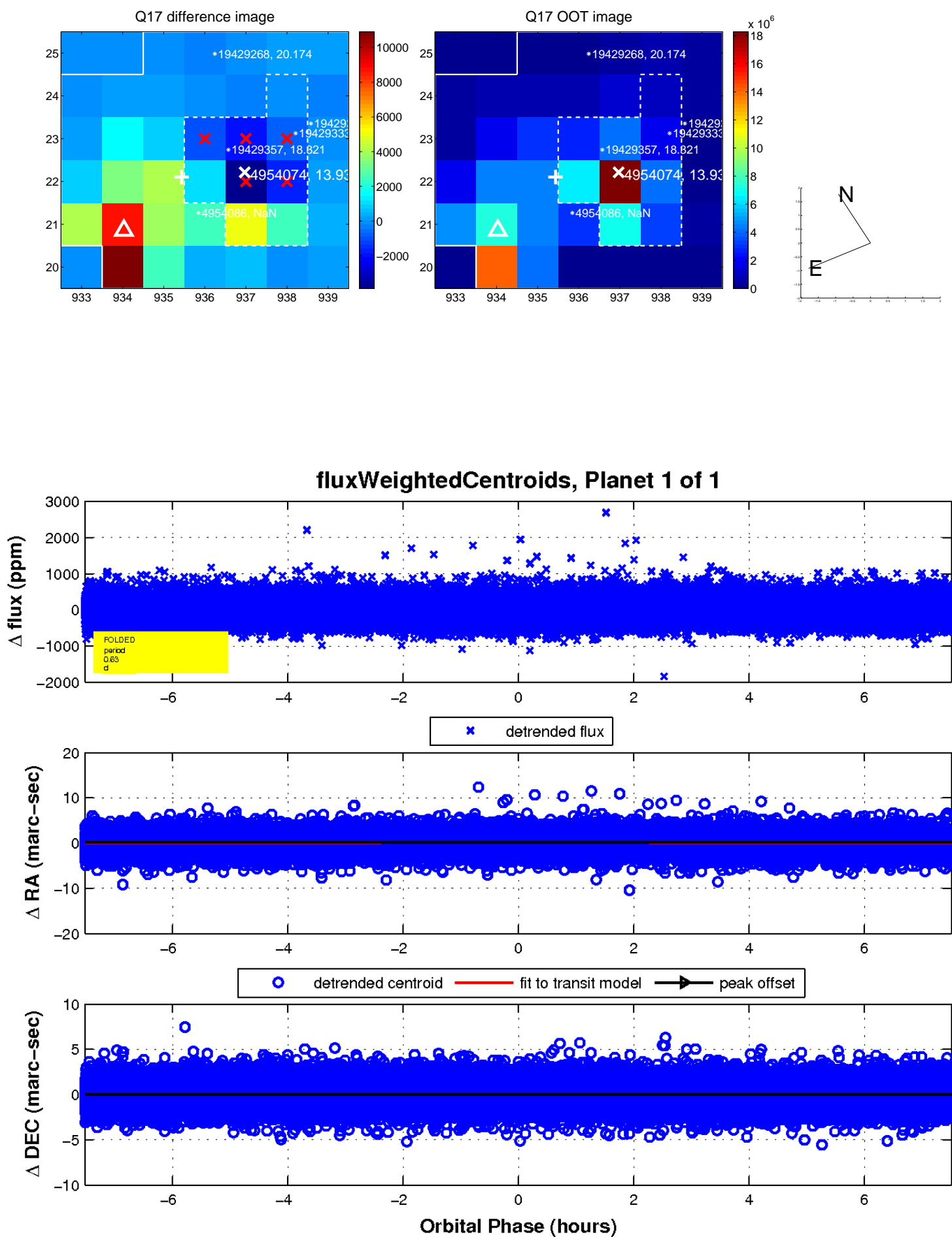
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

