

KIC 009244135

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})
009244135-01	OBS	No	3.162948	133.757131	58.9	24.442	8.5	7.8	0.81	5113	0.61	271.99

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009244135-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET—HALO_GHOST

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

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

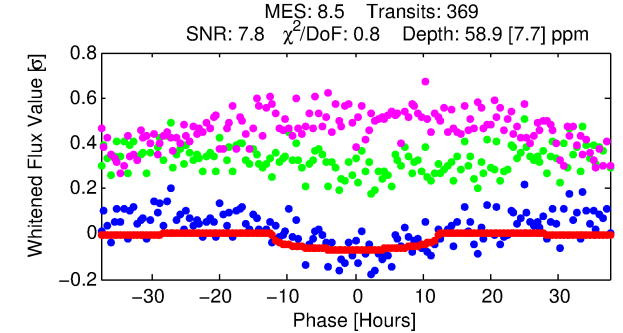
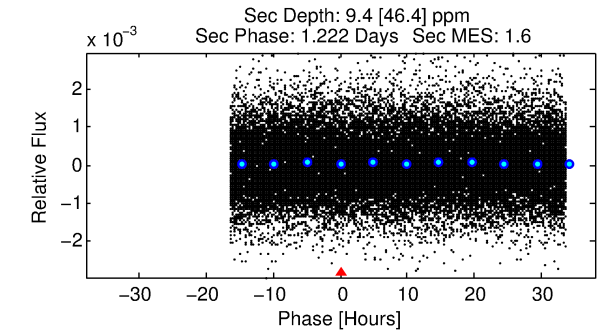
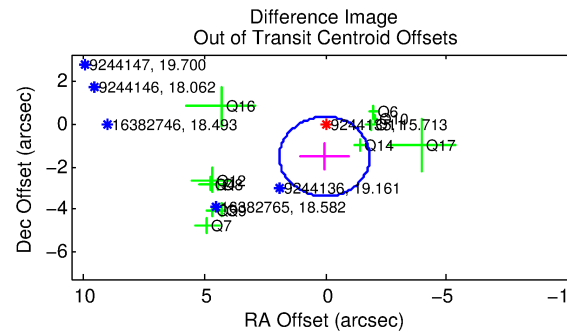
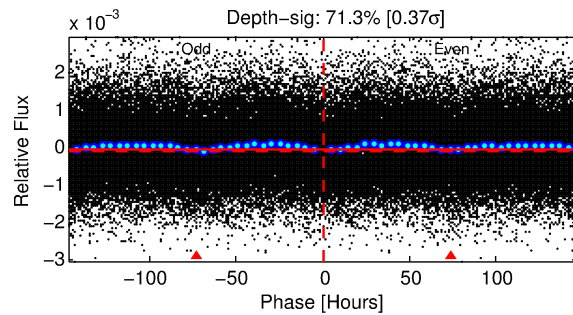
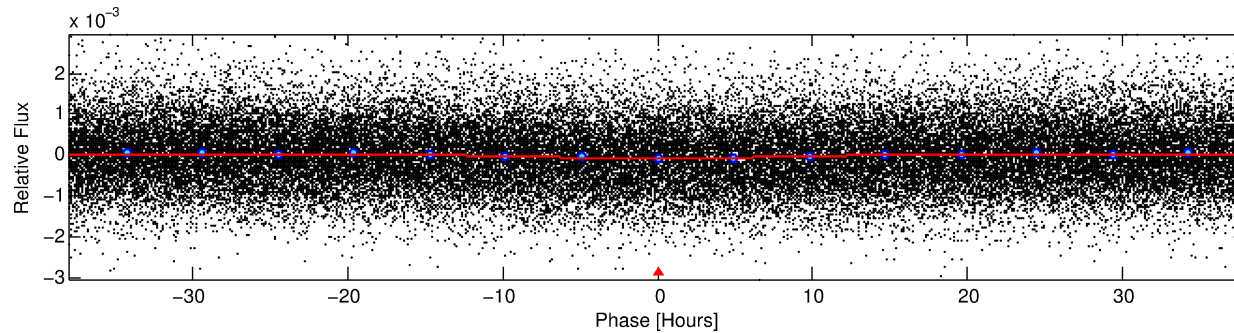
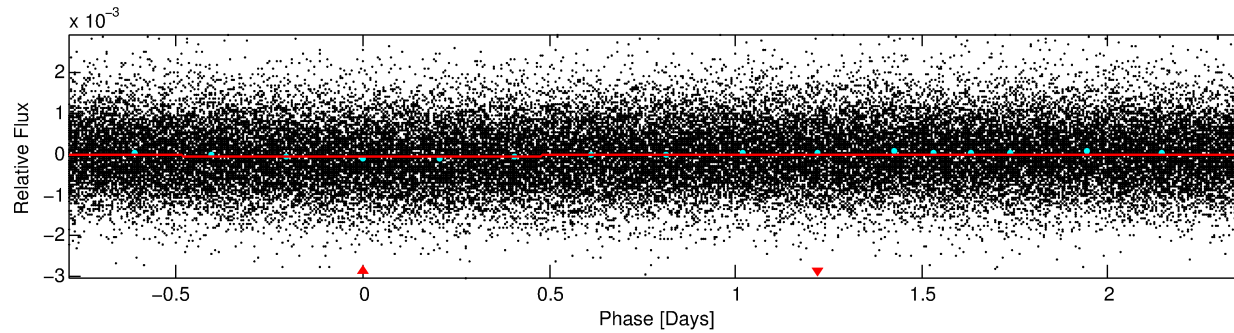
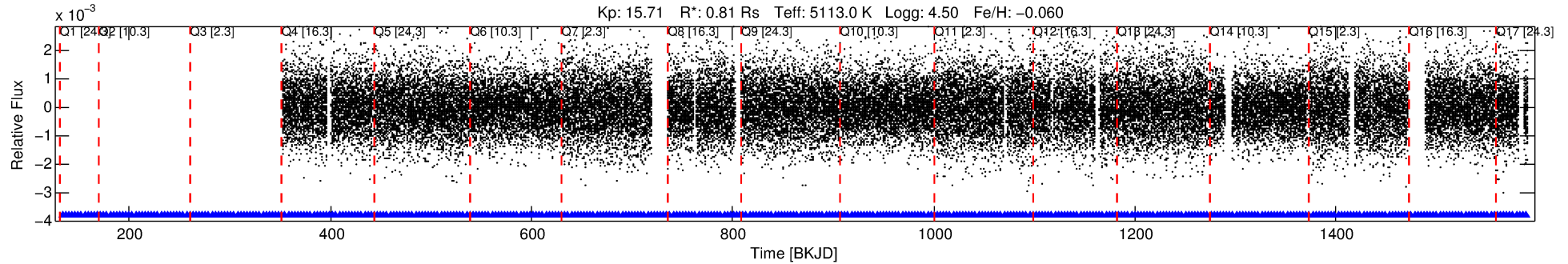
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009244135-01

No Significant Match Found

DV One-Page Summary

KIC: 9244135 Candidate: 1 of 1 Period: 3.163 d



DV Fit Results:

Period = 3.16295 [0.00014] d
Epoch = 133.7571 [0.0330] BKJD
Rp/R* = 0.0068 [0.0086]
a/R* = 1.19 [1.55]
b = 0.01 [329.18]
Seff = 271.99 [60.90]
Teq = 1036 [58] K
Rp = 0.61 [0.77] Re
a = 0.0386 [0.0041] AU
Ag = 21.04 [116.42] [0.17 σ]
Teffp = 3429 [4743] K [0.50 σ]

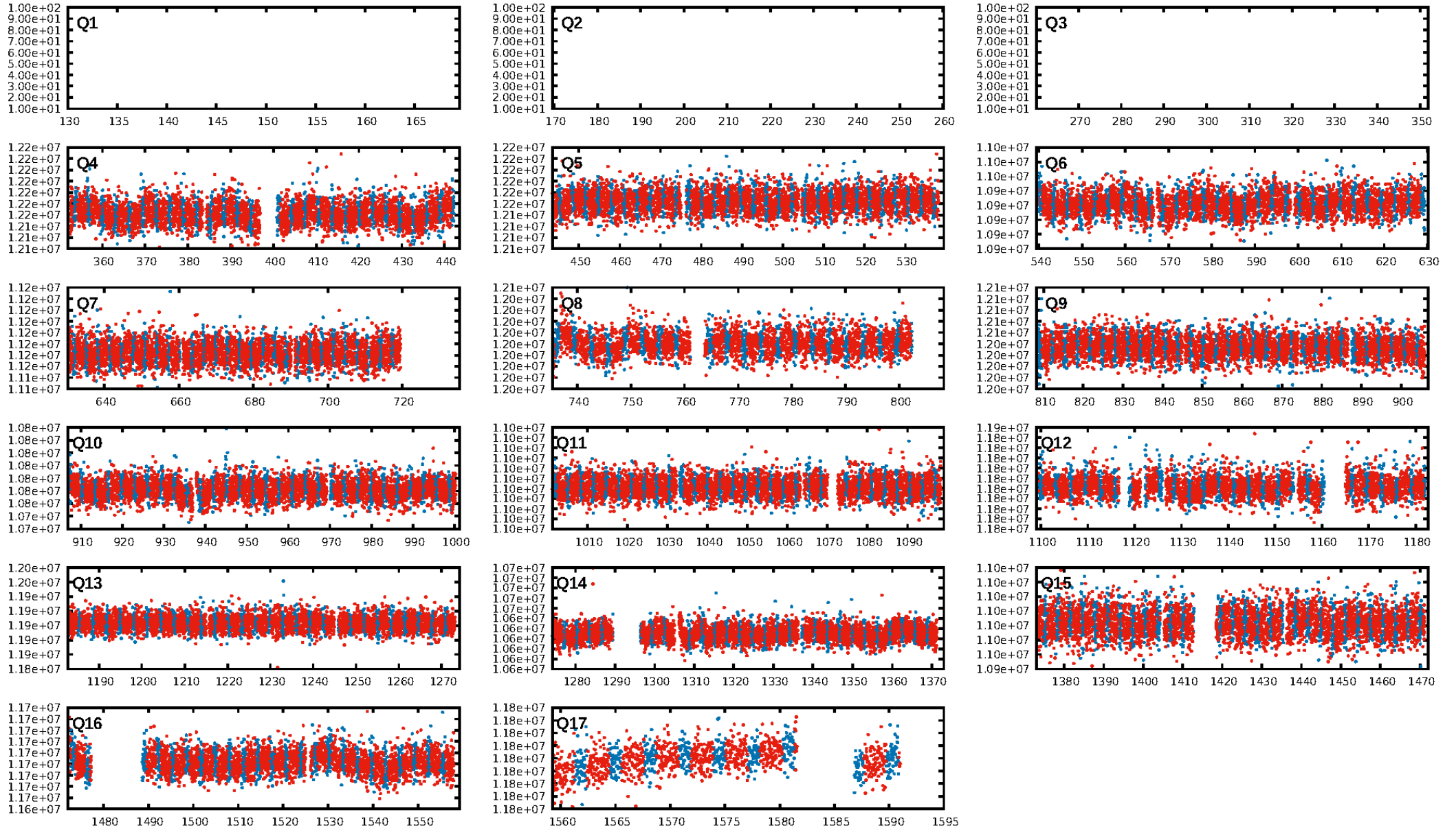
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [361/361]
GhostDiagnostic-chr: 0.2341
Centroid-sig: 0.0%
Centroid-so: 10.298 arcsec [5.34 σ]
OotOffset-rm: 1.525 arcsec [2.46 σ]
KicOffset-rm: 1.663 arcsec [2.83 σ]
OotOffset-st: 3/2/4/3 [12]
KicOffset-st: 3/2/4/3 [12]
DiffImageQuality-fgm: 0.75 [9/12]
DiffImageOverlap-fno: 1.00 [14/14]

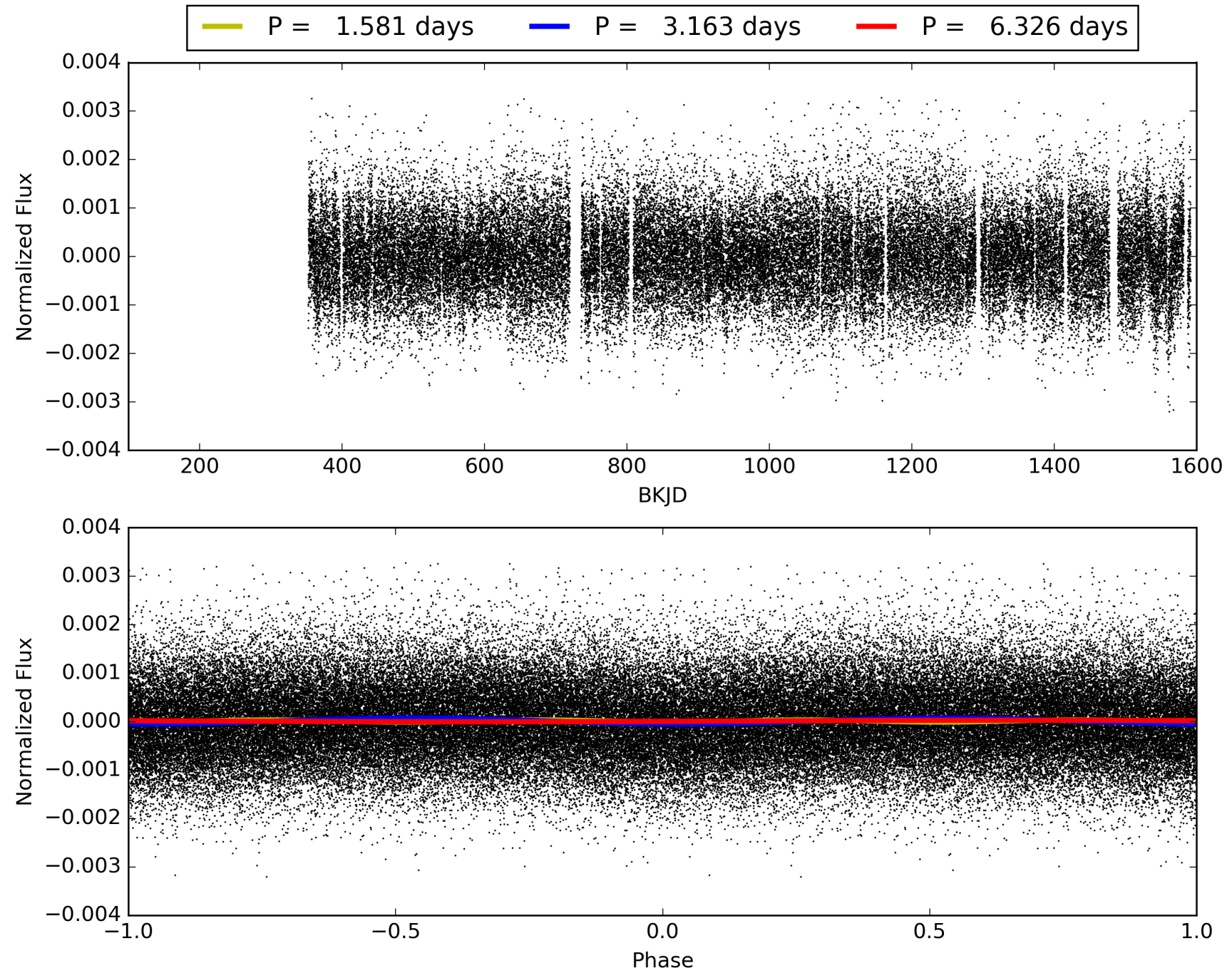
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 03:31:20 Z

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

TCE 009244135-01, PDC Light Curves

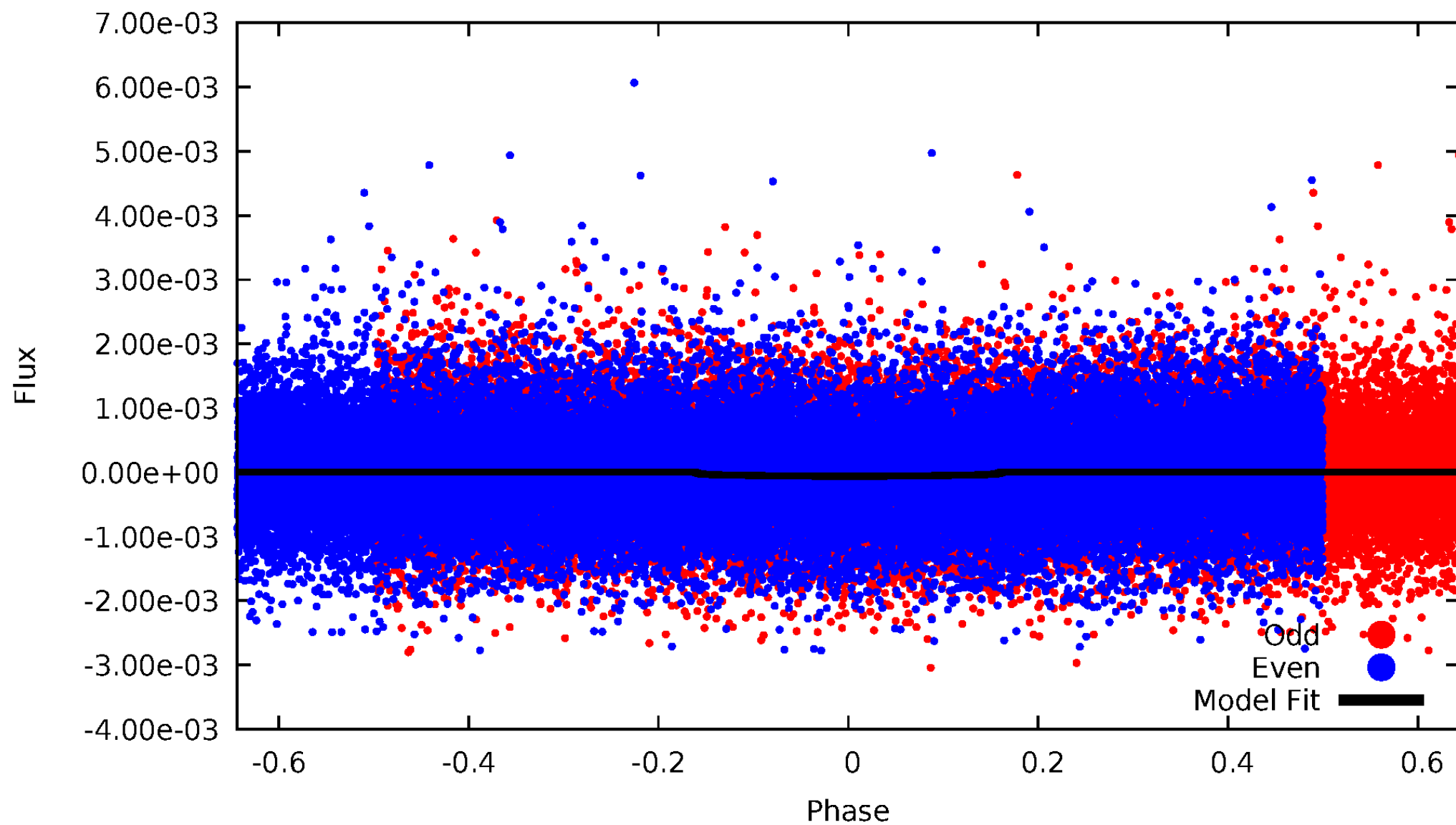


TCE 009244135-01



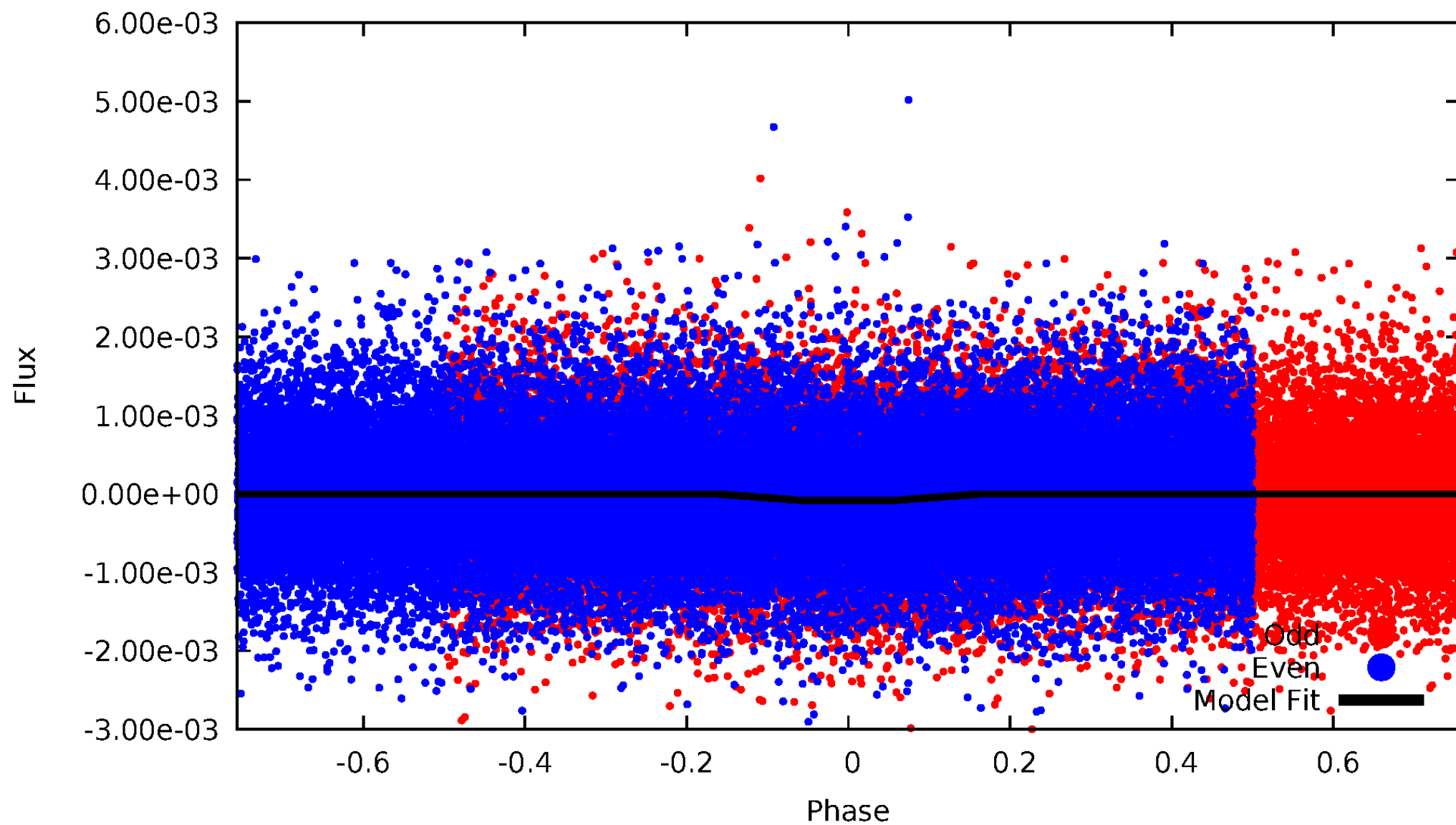
DV Odd/Even

TCE 009244135-01



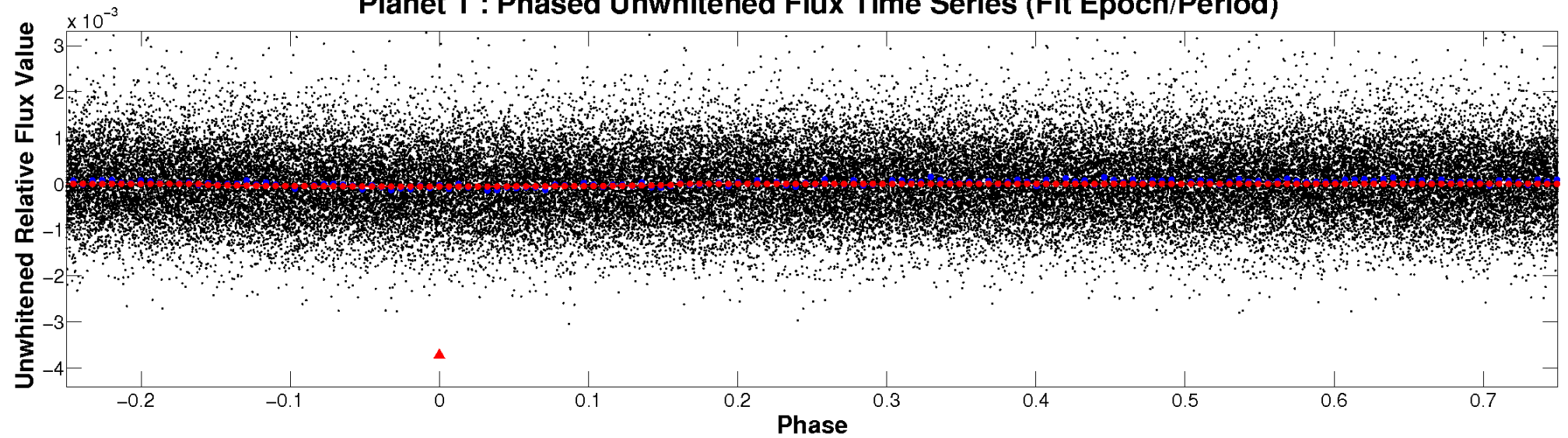
ALT Odd/Even

TCE 009244135-01

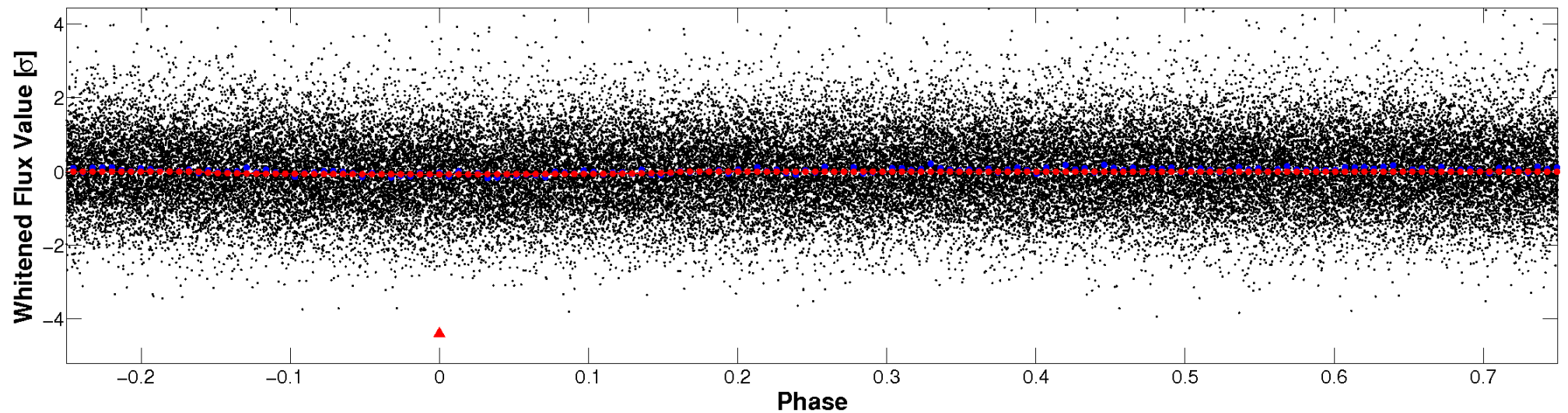


Non-Whitened Vs. Whitened Light Curve

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

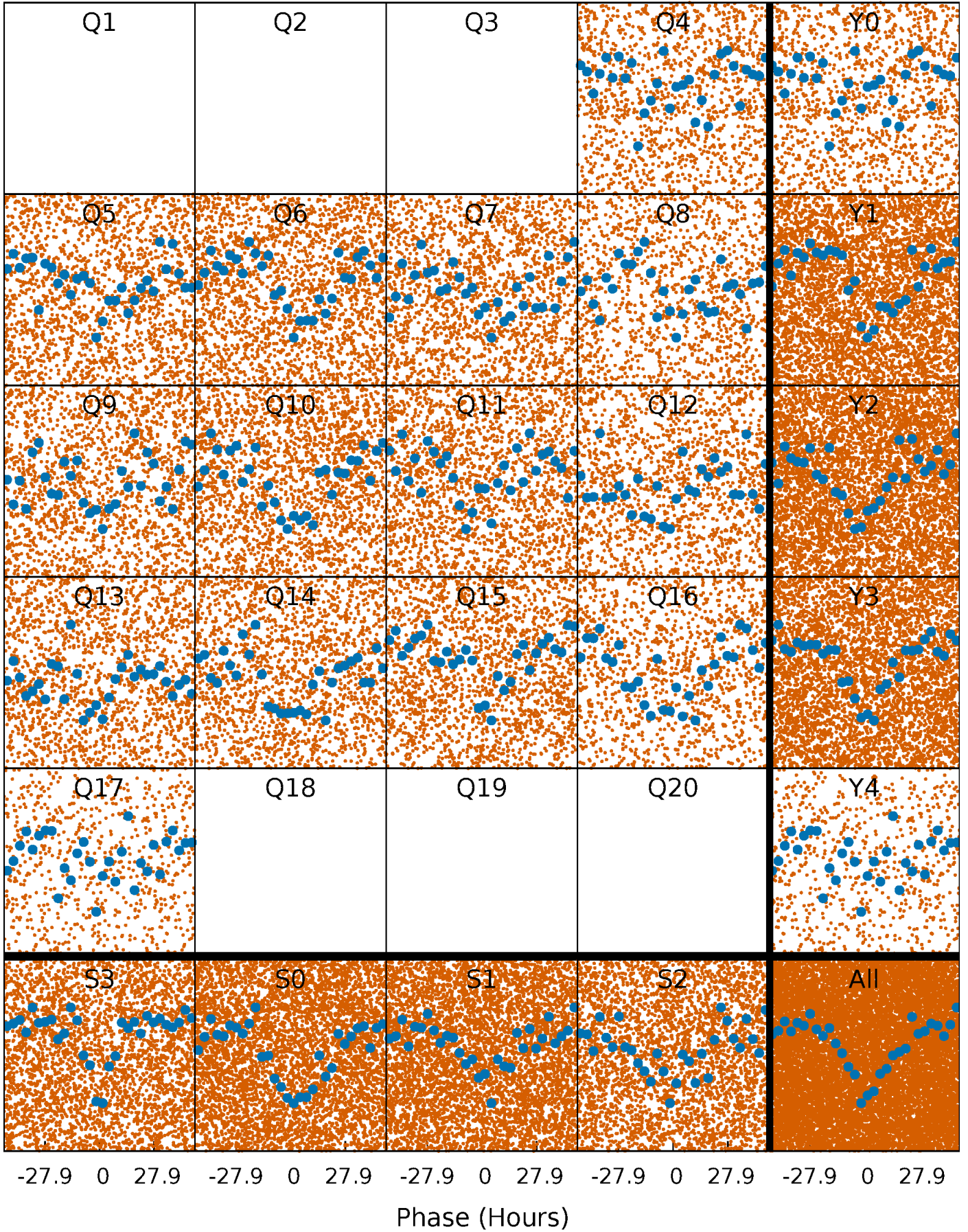


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



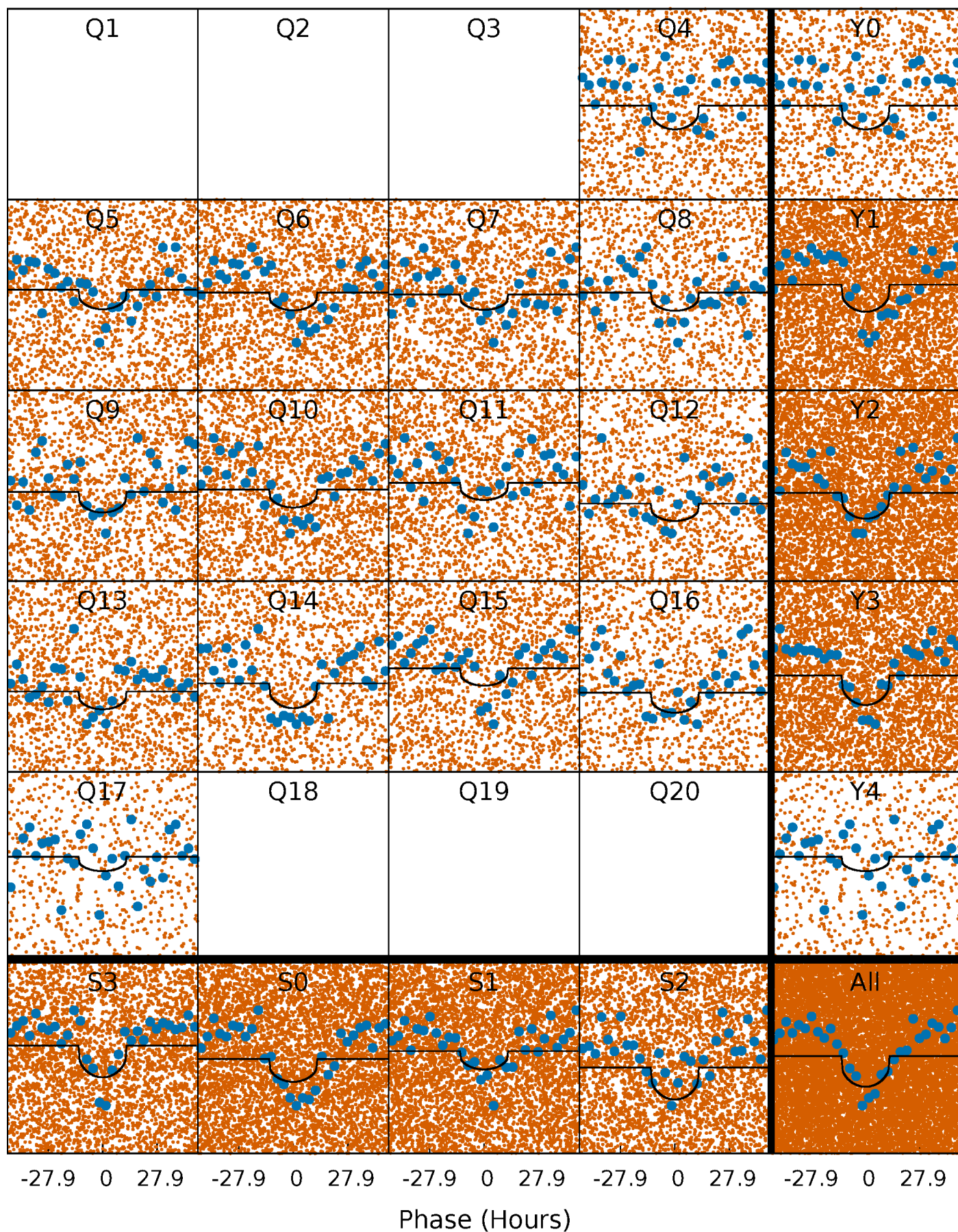
PDC Quarter-Phased Transit Curves

TCE 009244135-01 P= 3.162948 Days $T_0=133.757131$ (BKJD)



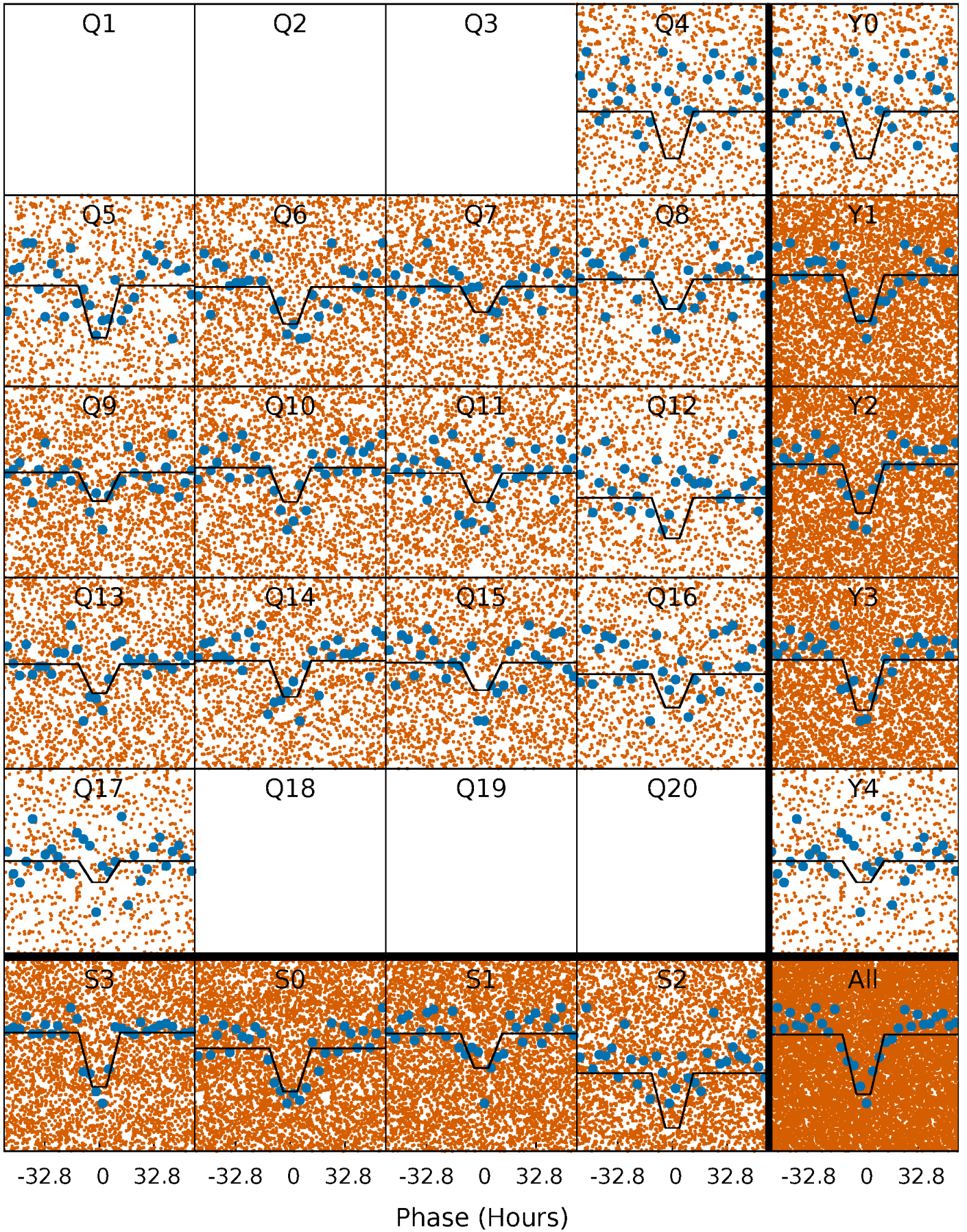
DV Quarter-Phased Transit Curves

TCE 009244135-01 P= 3.162948 Days $T_0=133.757131$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

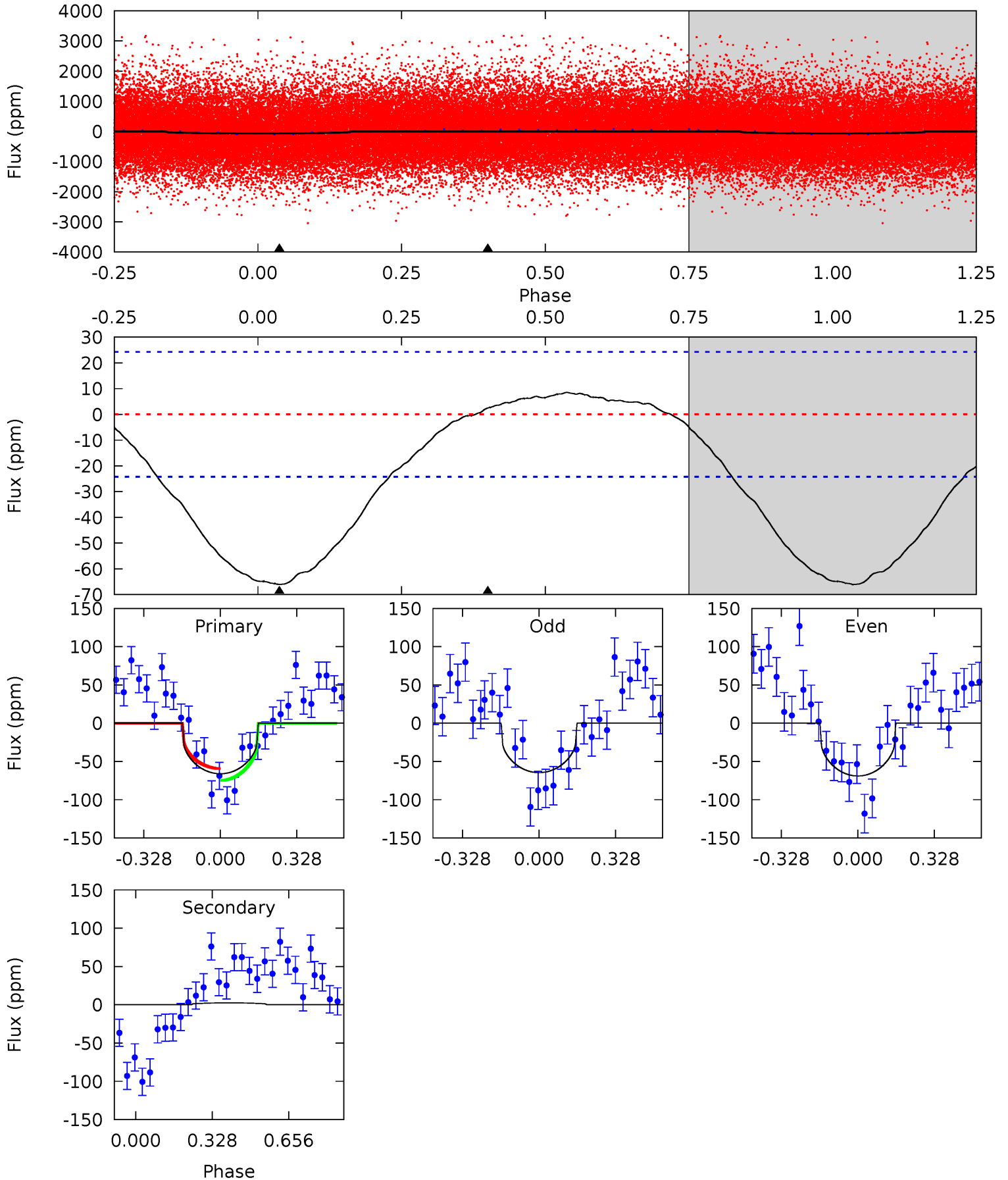
TCE 009244135-01 P= 3.162871 Days $T_0=133.822814$ (BKJD)



DV Model-Shift Uniqueness Test

009244135-01, P = 3.162948 Days, E = 133.757131 Days

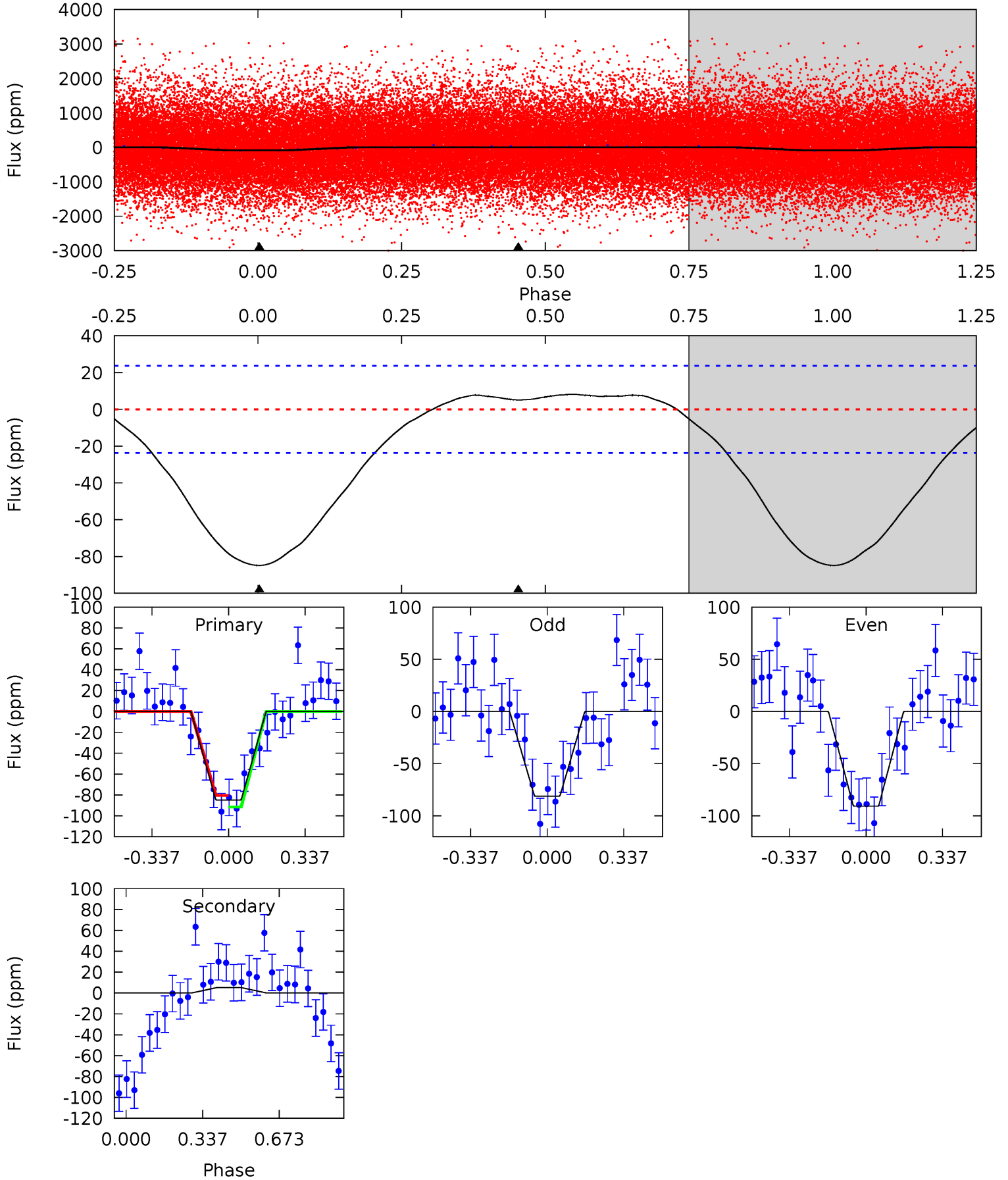
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.7	-0.44	0	0	4.31	0.98	0.69	11.7	11.7	-0.44	-0.44	0.38	0.81	0.11	1.35



Alt Model-Shift Uniqueness Test

009244135-01, P = 3.162871 Days, E = 133.822814 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.4	-0.93	0	0	4.30	0.96	1.12	15.4	15.4	-0.93	-0.93	0.86	1.01	0.09	1.01



Stellar Parameters For KIC 009244135

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	5113^{+196}_{-179}	$4.502^{+0.094}_{-0.085}$	$-0.060^{+0.300}_{-0.300}$	$0.814^{+0.093}_{-0.093}$	$0.767^{+0.098}_{-0.057}$	$2.002^{+0.741}_{-0.496}$
	+4%/-4%	+2%/-2%	+500%/-500%	+11%/-11%	+13%/-7%	+37%/-25%
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 009244135-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	2 ± 6	$0.79^{+0.68}_{-0.49}$	1447^{+77}_{-69}	-2745^{+5727}_{-1053}	$-2.151^{+6.873}_{-20.186}$
Alt.	5 ± 6	$0.92^{+0.77}_{-0.52}$	1448^{+72}_{-69}	-2929^{+837}_{-1054}	$-3.525^{+3.567}_{-27.635}$

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 $A_{obs} \gg 1.0$

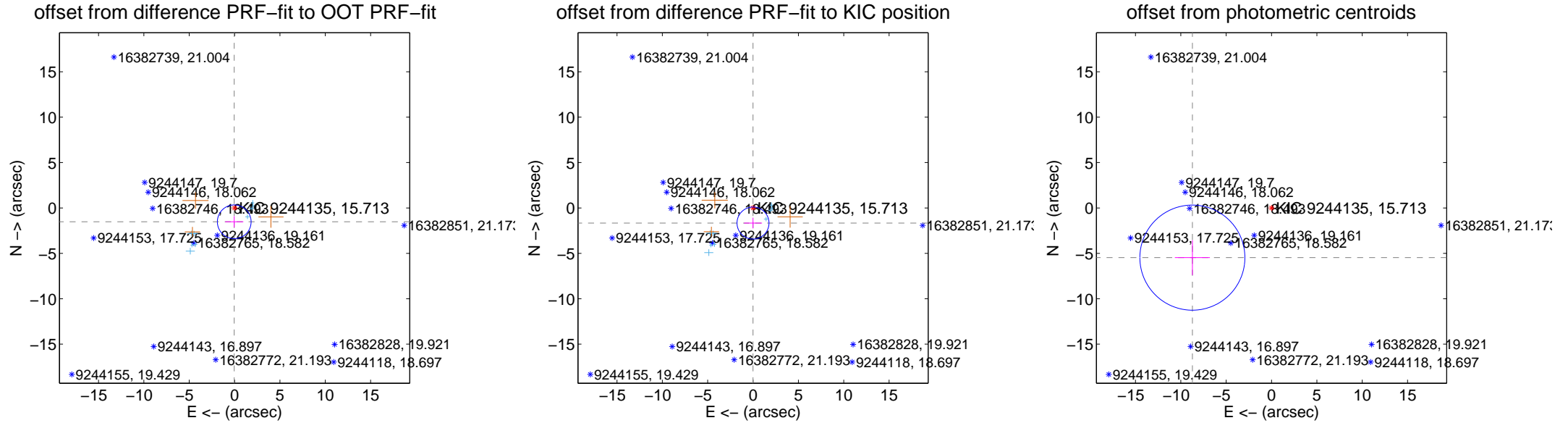
DV Centroid Data

Supplemental centroid analysis for 009244135-01. Kepler magnitude: 15.71. Transit SNR 7.78

There are 9 quarters with good PRF difference image offsets

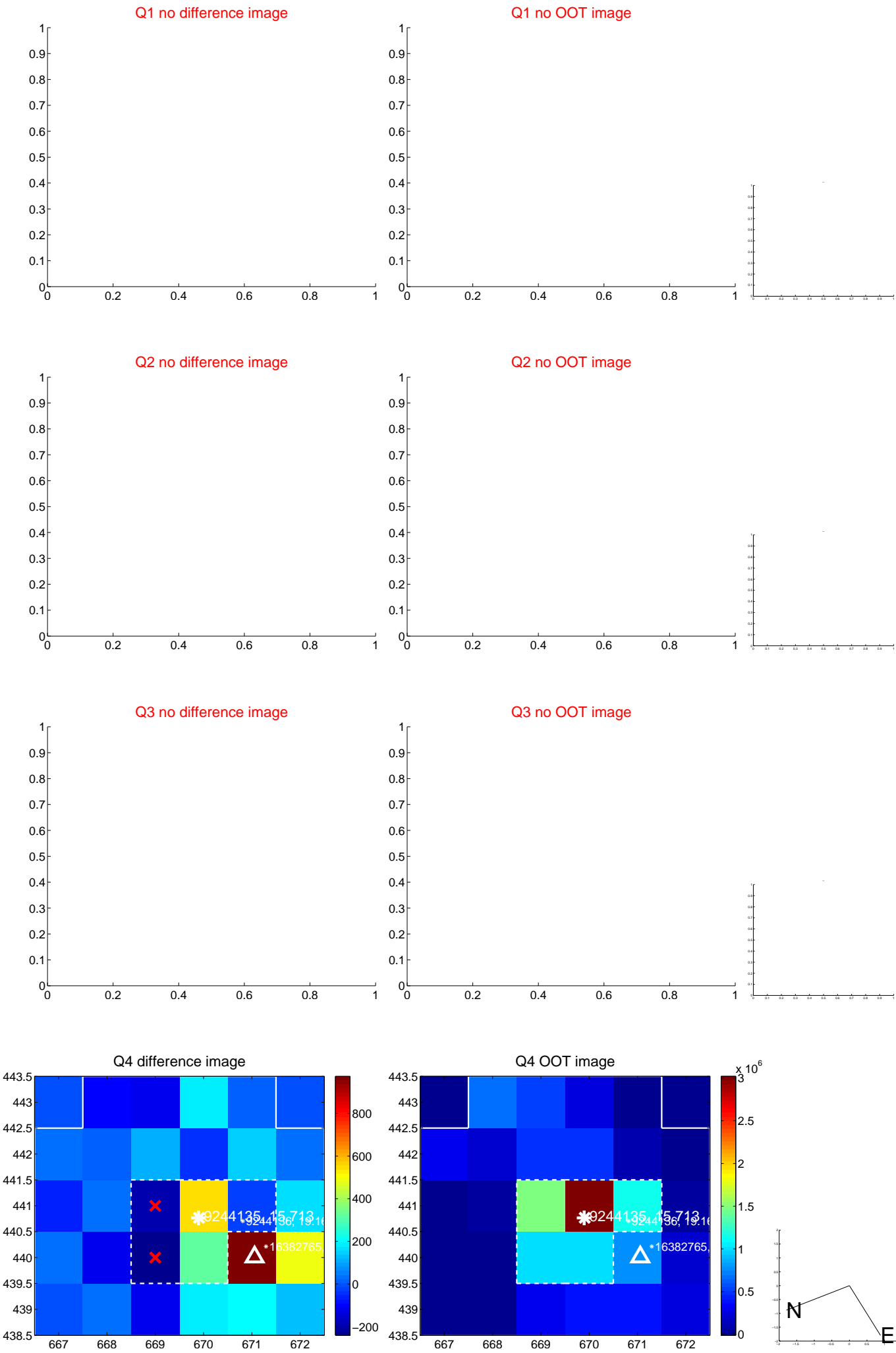
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.525 ± 0.620	2.46	0.037 ± 1.002	-1.524 ± 0.619
PRF-fit source offset from KIC position	1.663 ± 0.588	2.83	0.005 ± 0.999	-1.663 ± 0.588
photometric centroid source offset	10.30 ± 1.93	5.34	8.72 ± 1.93	-5.47 ± 1.92

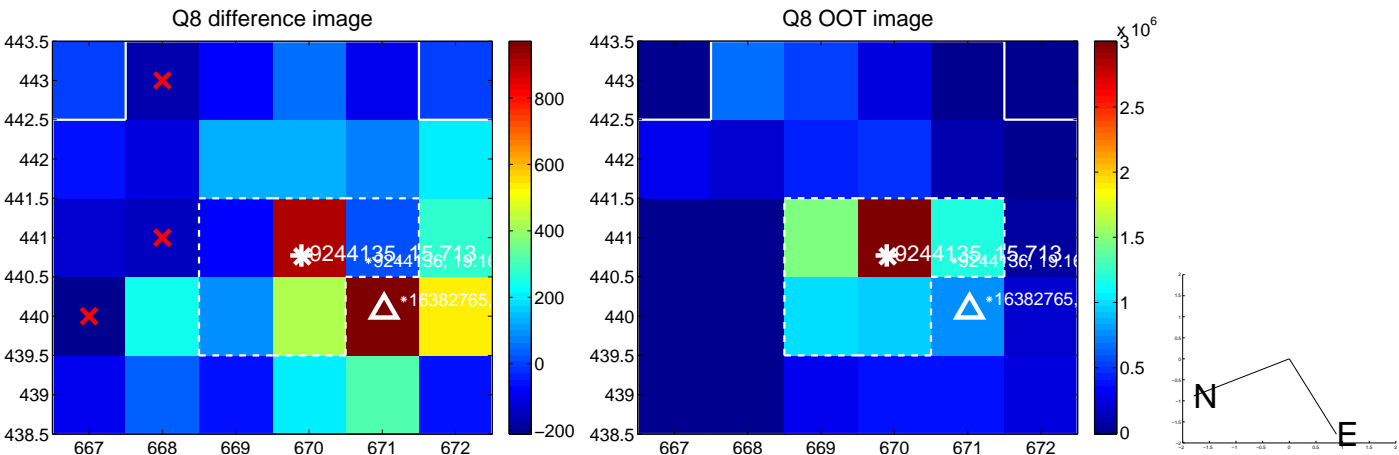
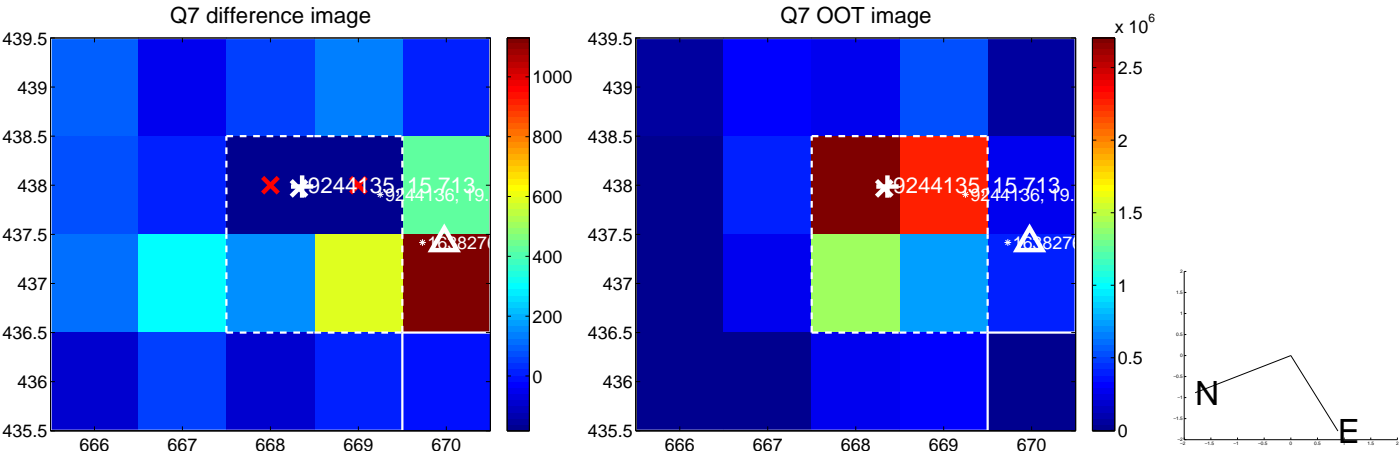
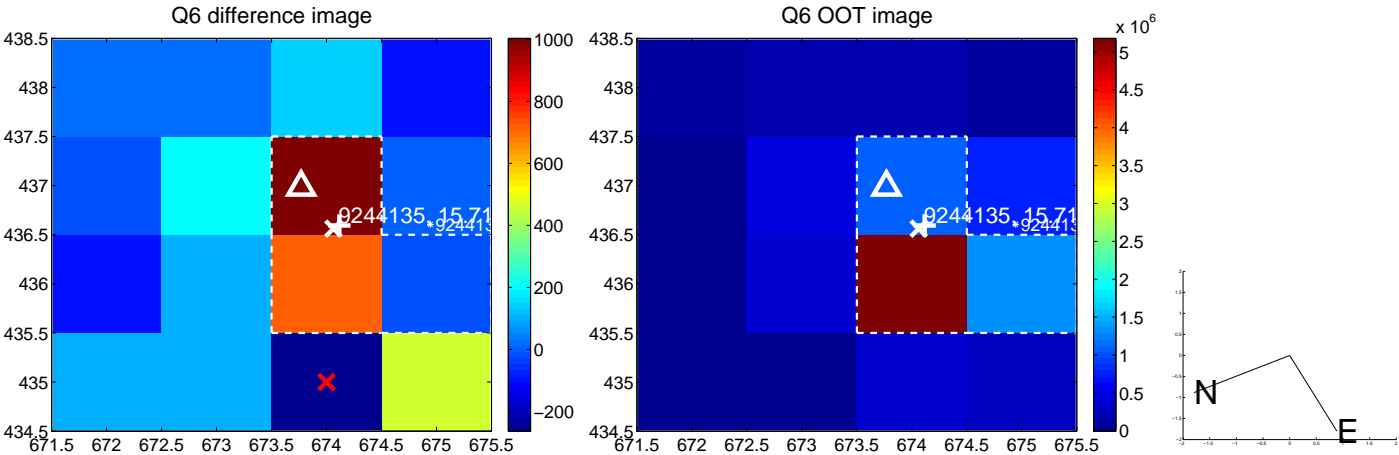
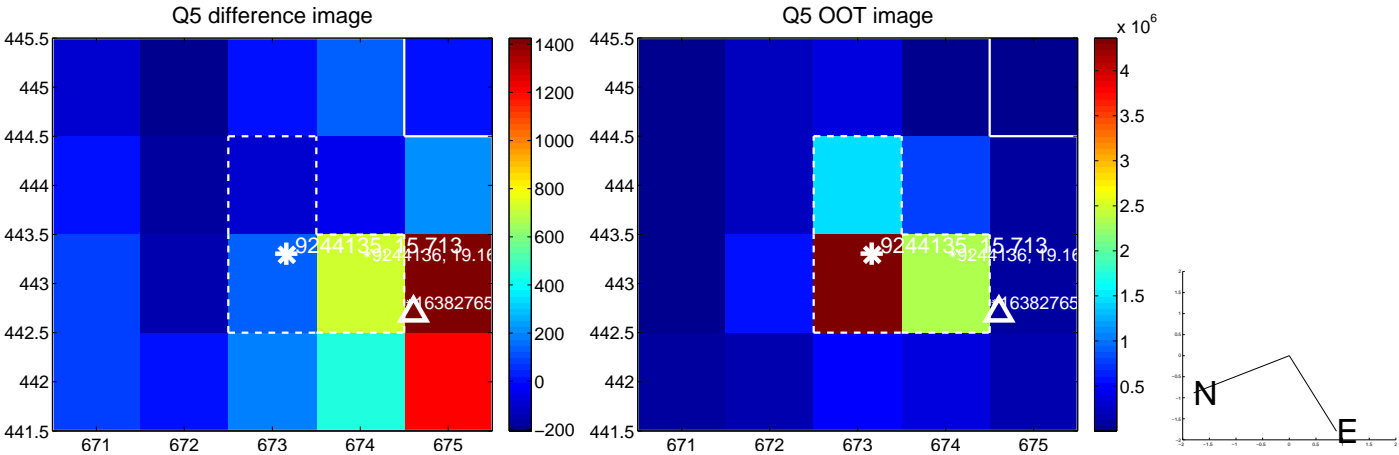


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

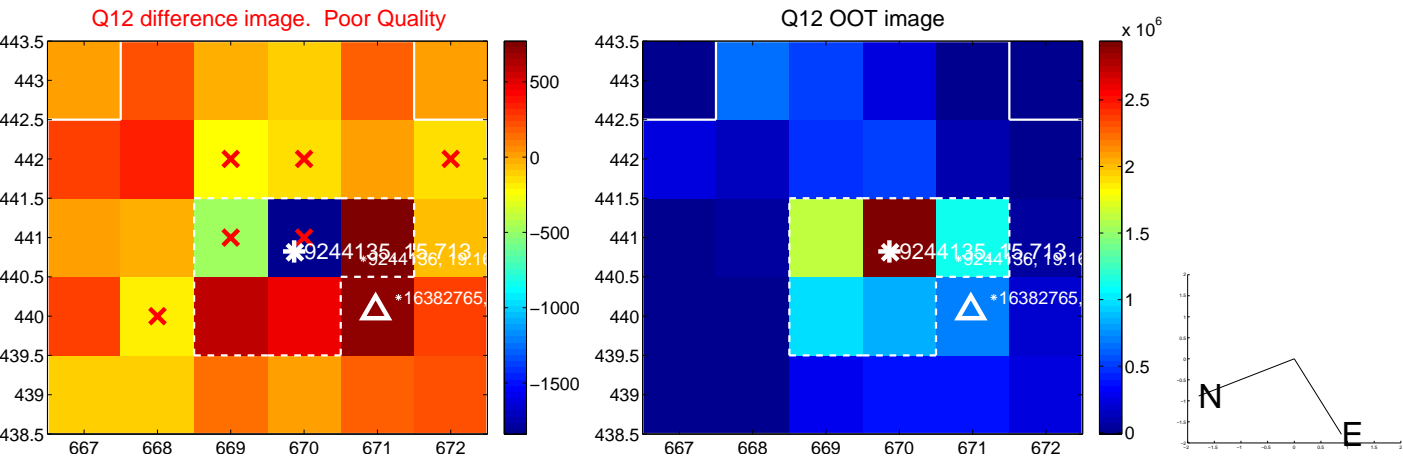
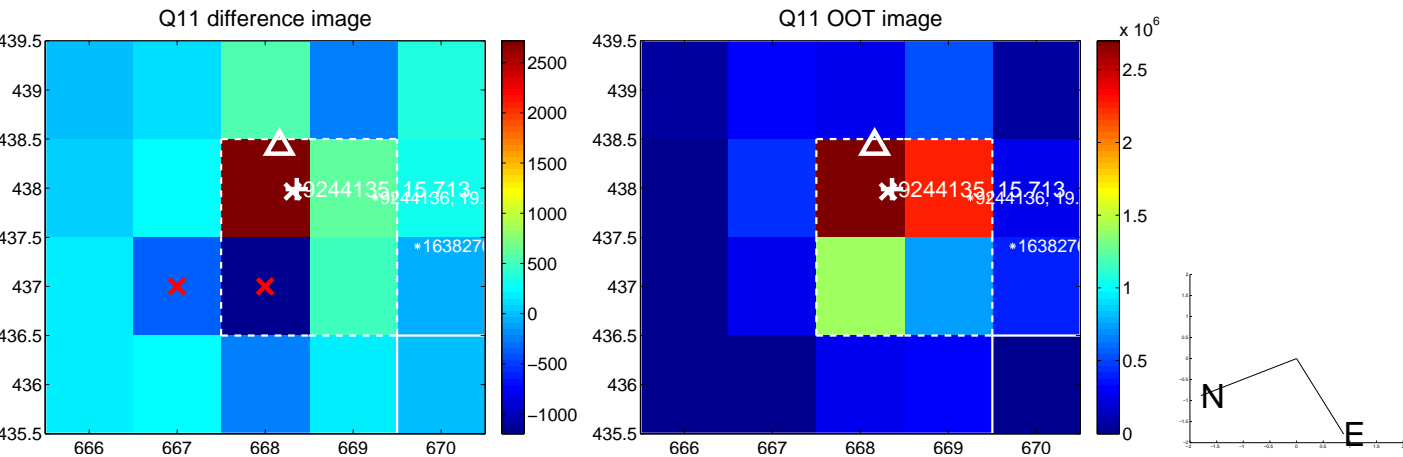
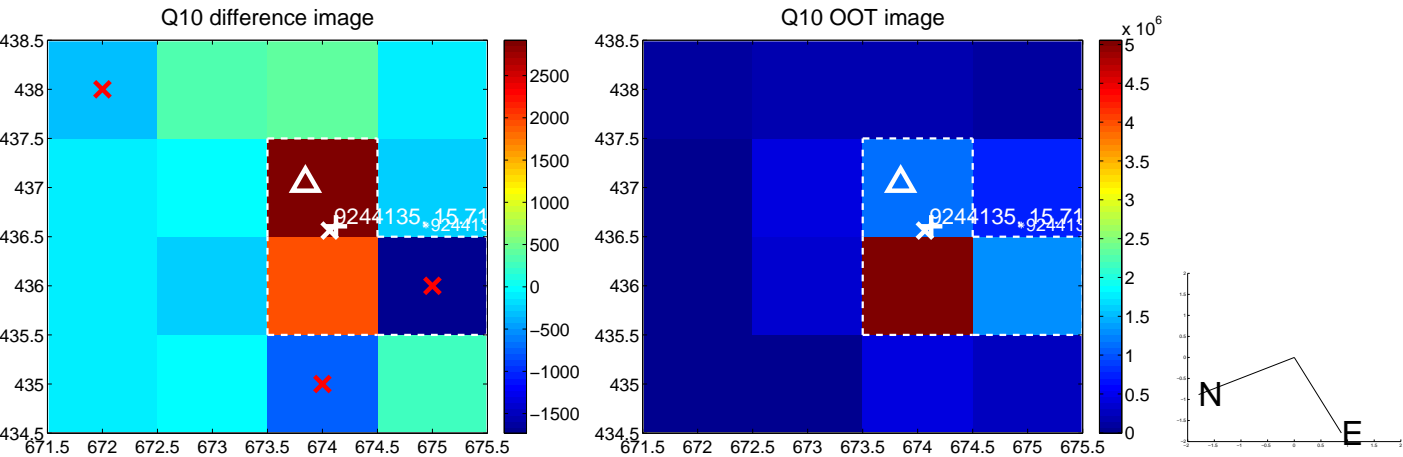
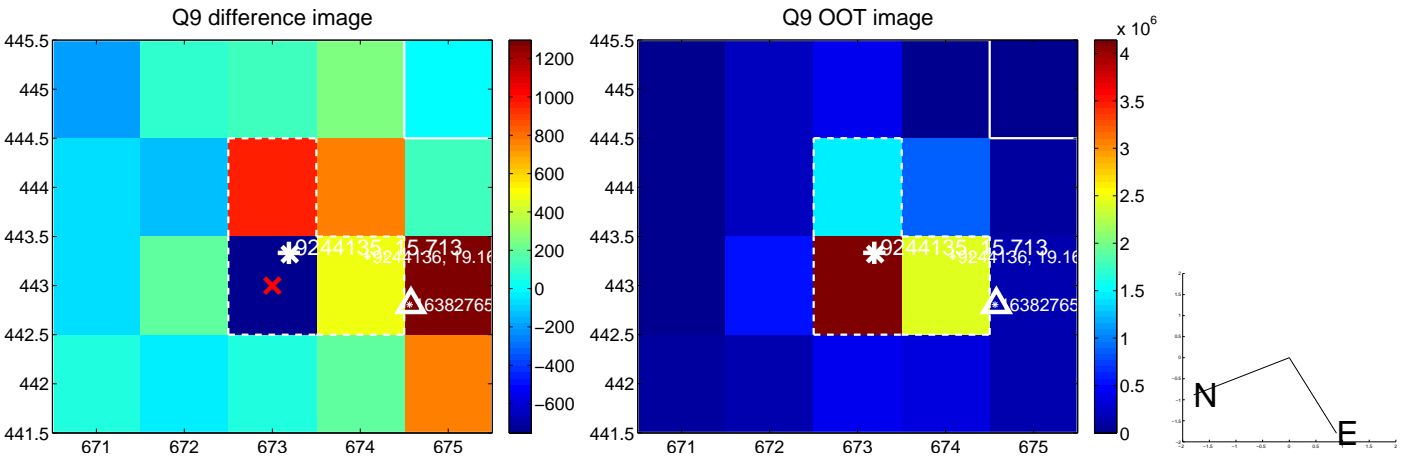
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



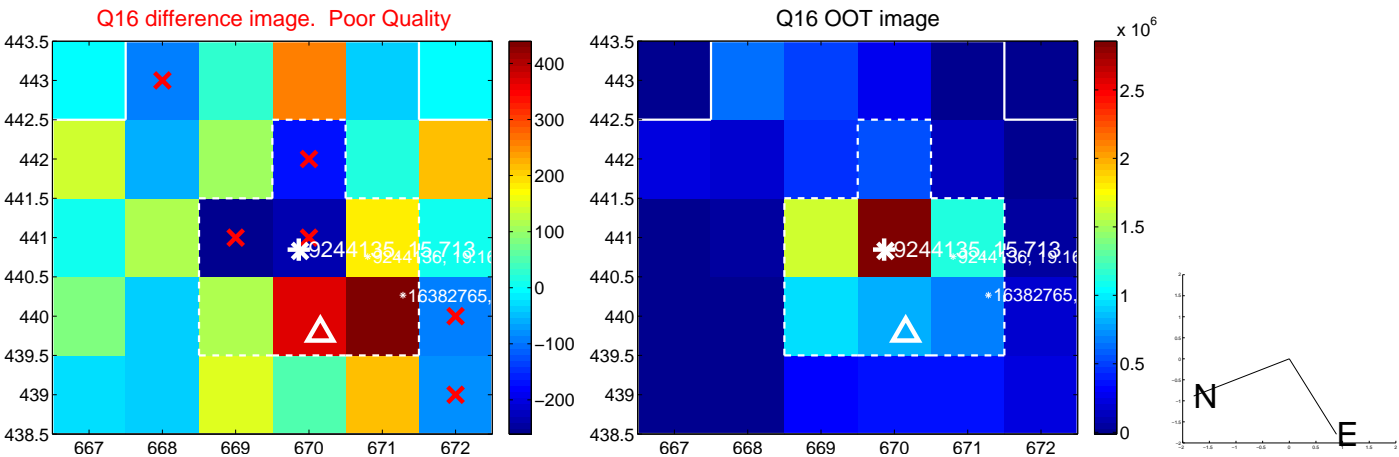
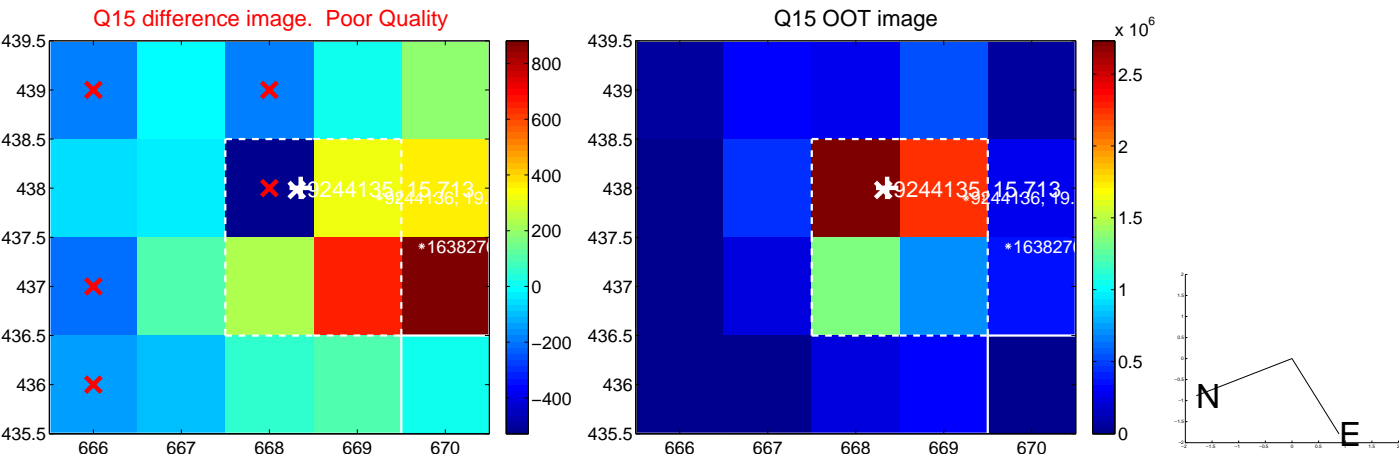
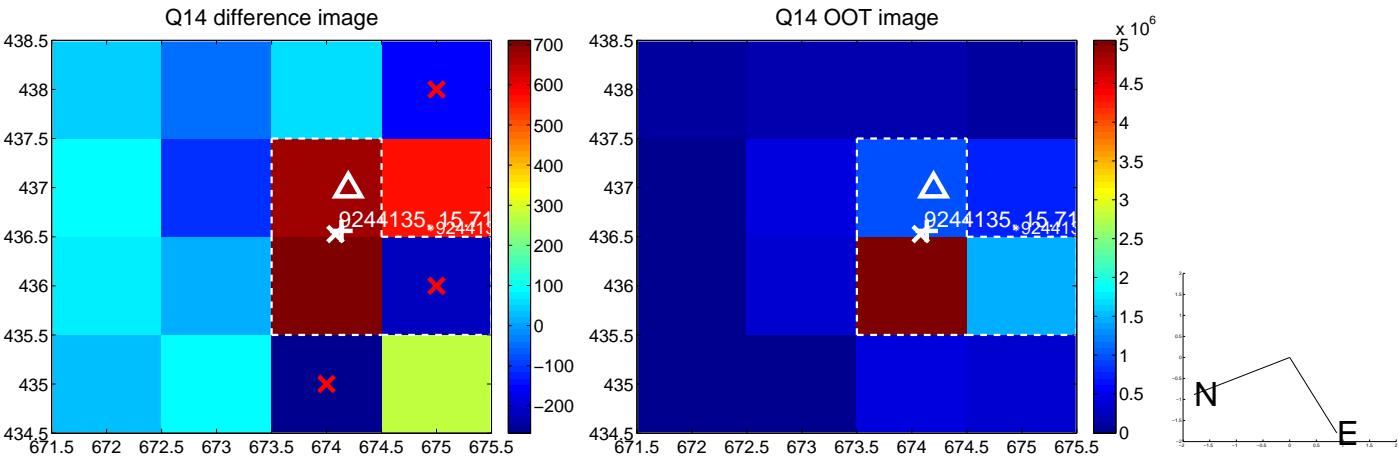
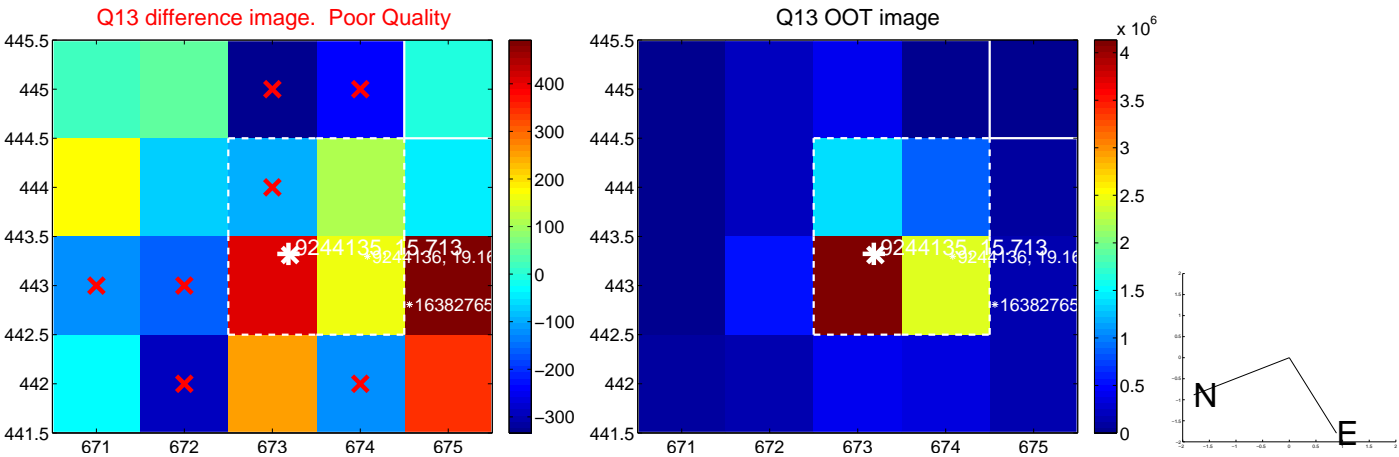
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



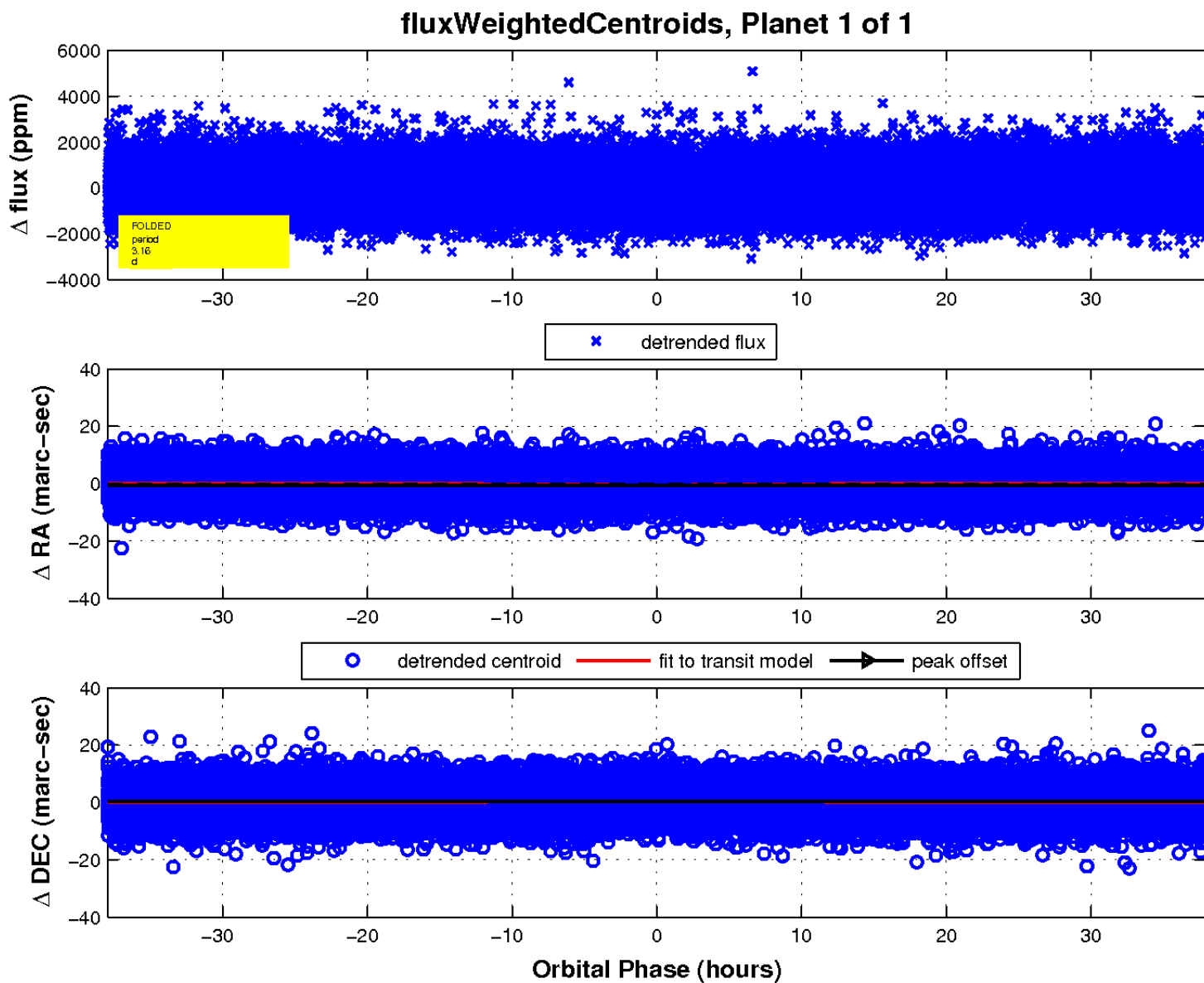
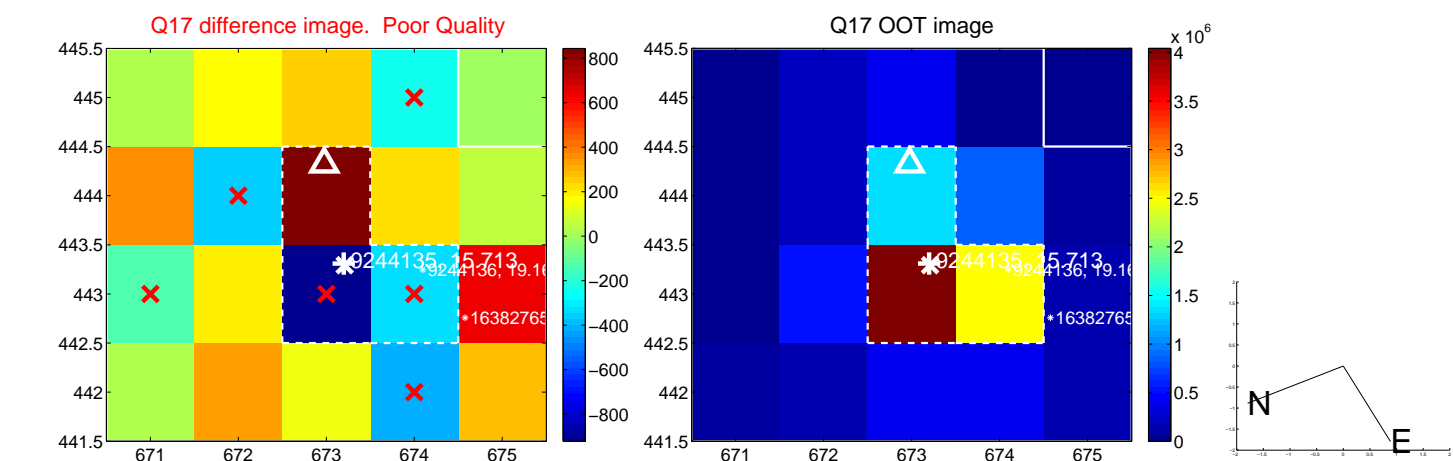
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

