

KIC 007091432

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})
007091432-01	OBS	3353.01	11.555312	134.130195	250.8	3.355	14.4	15.0	0.80	5149	1.66	48.97

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007091432-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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.

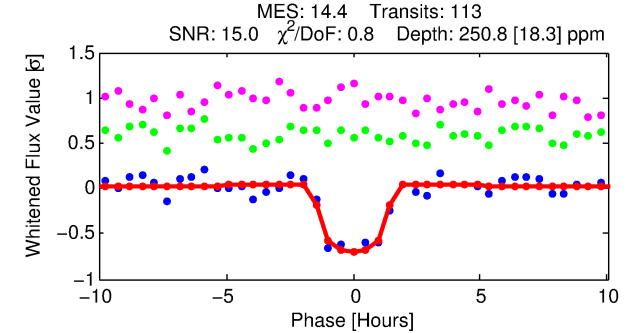
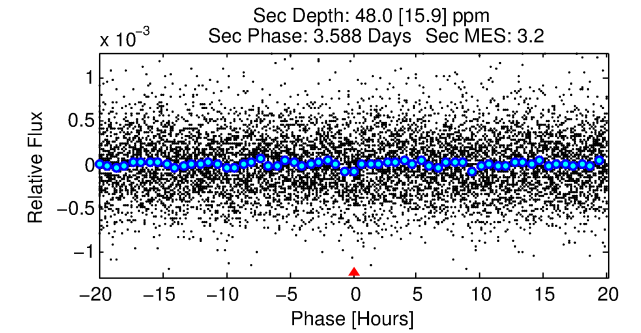
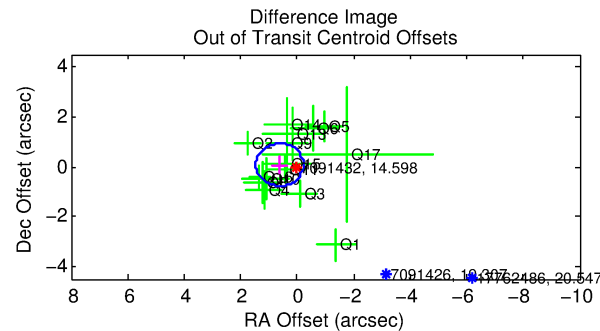
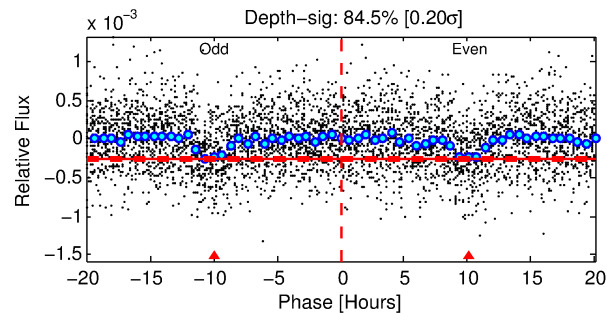
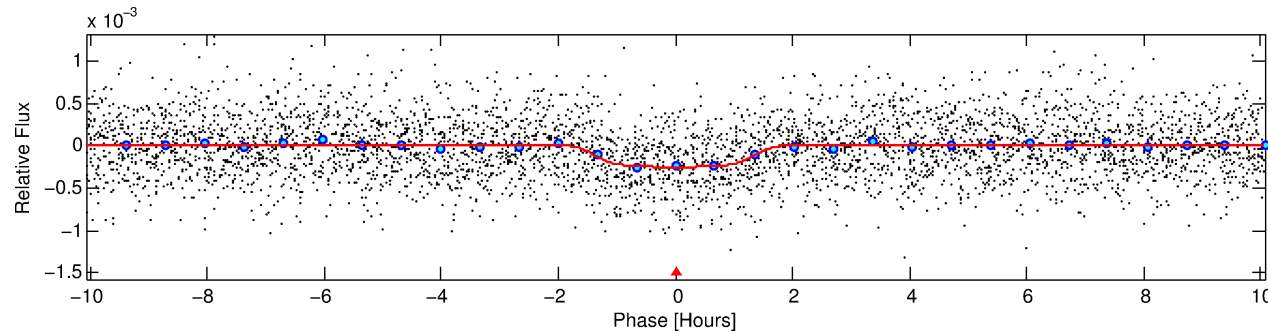
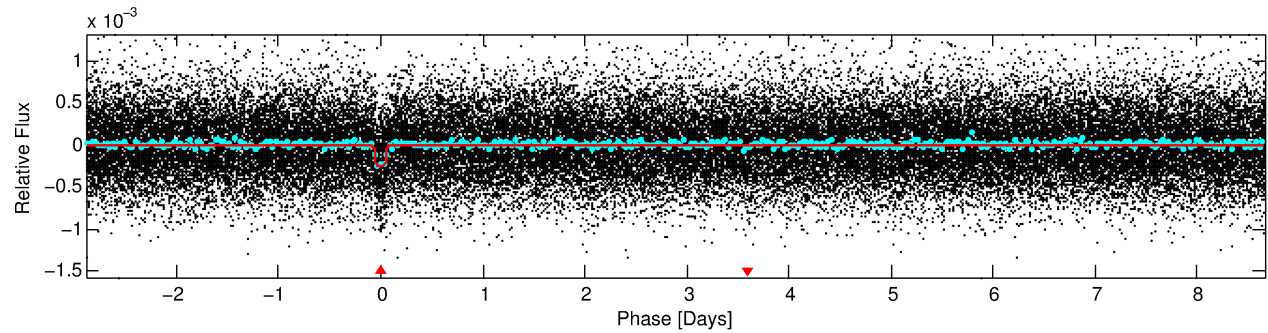
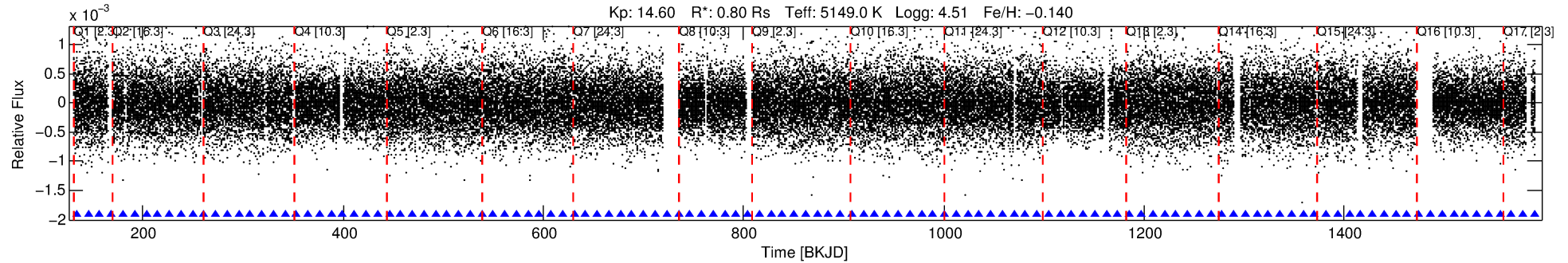
Ephemeris Match Information For 007091432-01

No Significant Match Found

DV One-Page Summary

KIC: 7091432 Candidate: 1 of 1 Period: 11.555 d

KOI: K03353.01 Corr: 0.913



DV Fit Results:

Period = 11.55531 [0.00007] d
Epoch = 134.1302 [0.0050] BKJD
Rp/R* = 0.0189 [0.0022]
a/R* = 9.72 [4.44]
b = 0.95 [0.05]
Seff = 48.97 [9.91]
Teff = 675 [34] K
Rp = 1.66 [0.28] Re
a = 0.0911 [0.0098] AU
Ag = 79.37 [34.46] [2.27 σ]
Teffp = 3113 [326] K [7.43 σ]

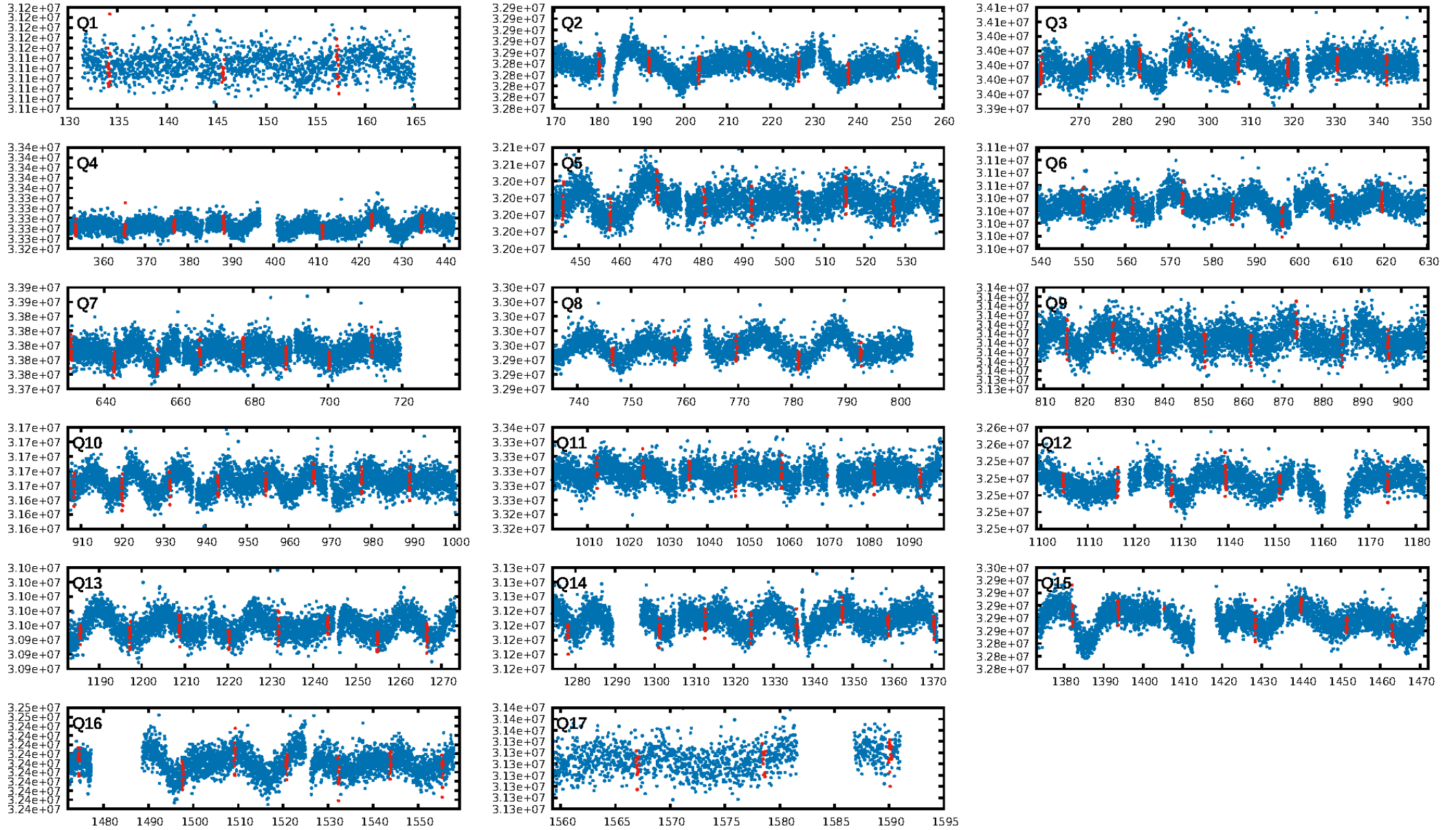
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 100.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.26e-46
RollingBand-fgt: 1.00 [107/107]
GhostDiagnostic-chr: -22.59
Centroid-sig: 14.4%
Centroid-so: 1.899 arcsec [1.99 σ]
OotOffset-rm: 0.630 arcsec [2.22 σ]
KicOffset-rm: 0.561 arcsec [1.93 σ]
OotOffset-st: 4/3/3/5 [15]
KicOffset-st: 4/3/3/5 [15]
DiffImageQuality-fgm: 0.60 [9/15]
DiffImageOverlap-fno: 1.00 [17/17]

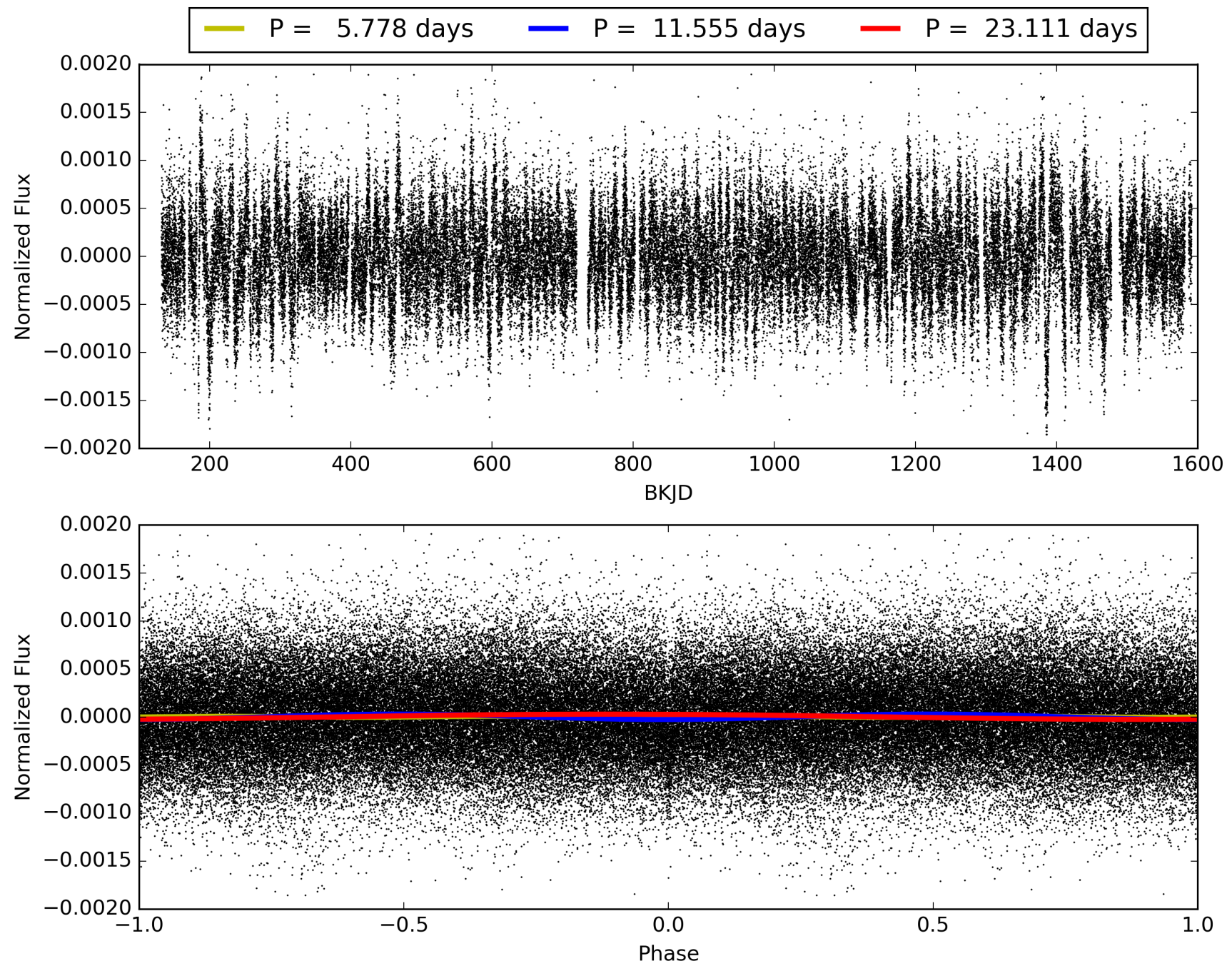
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:29:00 Z

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

TCE 007091432-01, PDC Light Curves

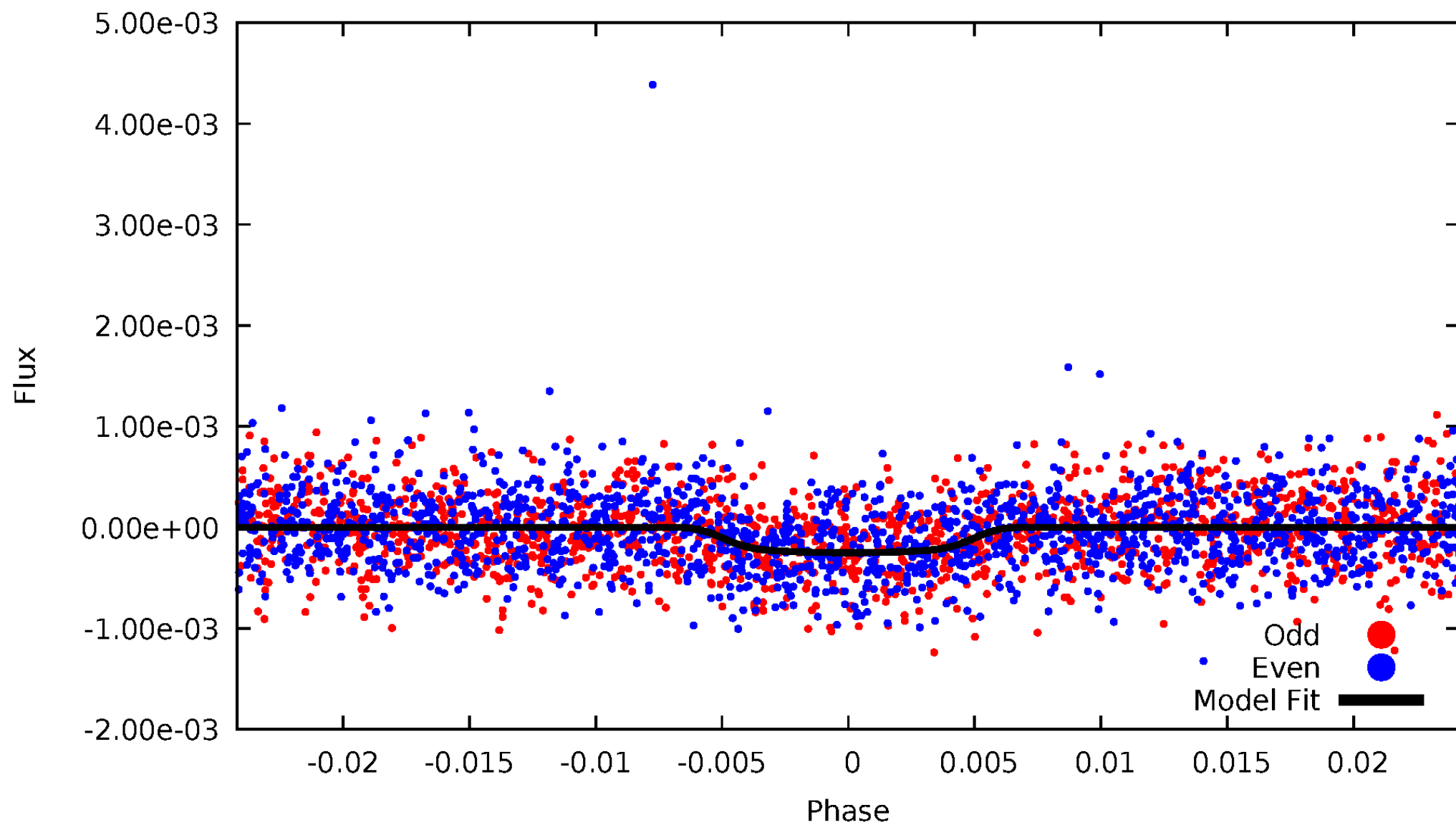


TCE 007091432-01



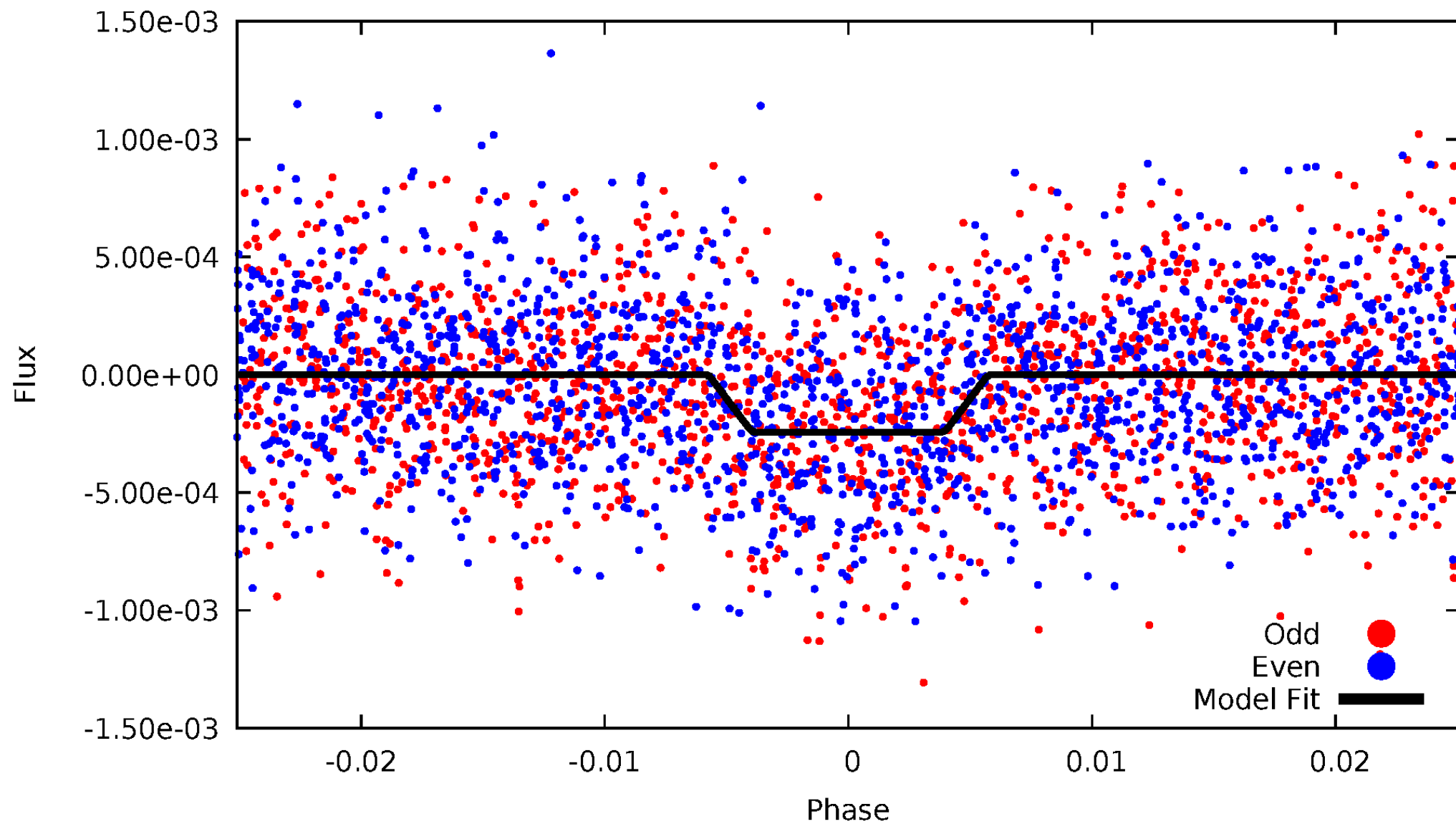
DV Odd/Even

TCE 007091432-01



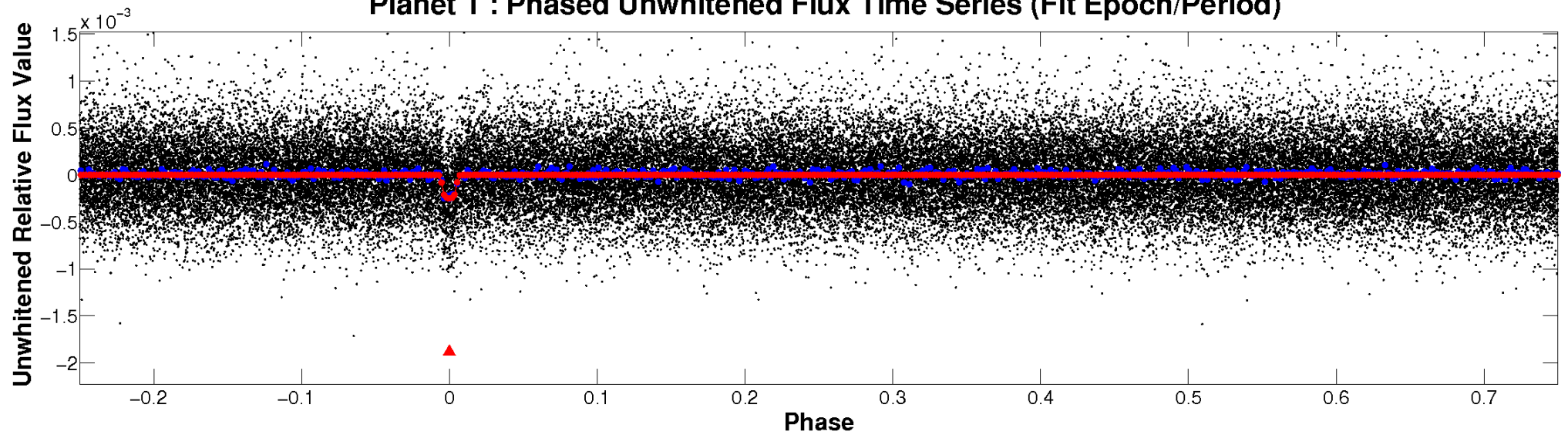
ALT Odd/Even

TCE 007091432-01

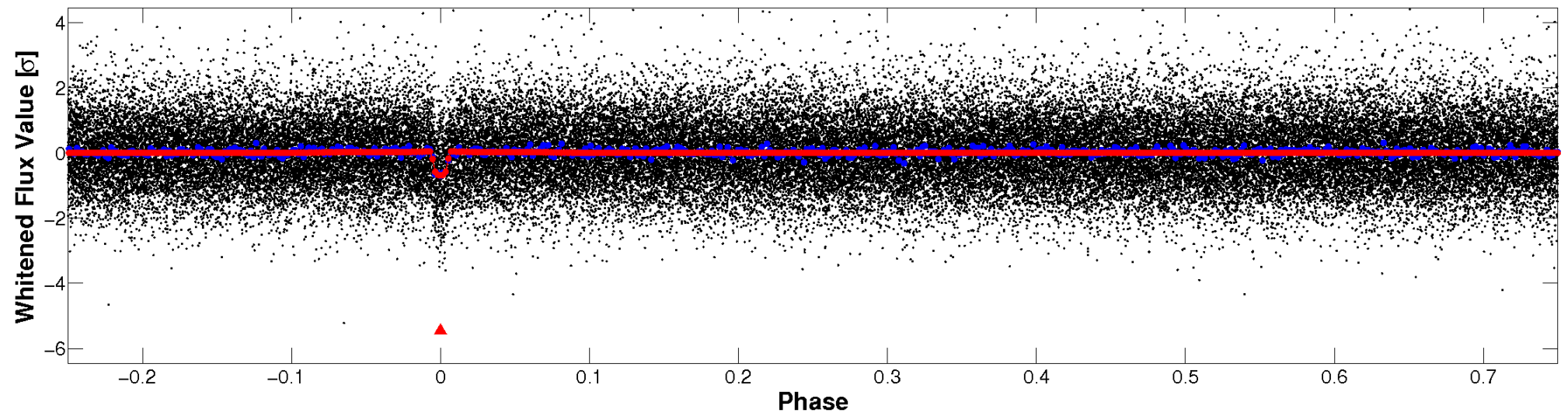


Non-Whitened Vs. Whitened Light Curve

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

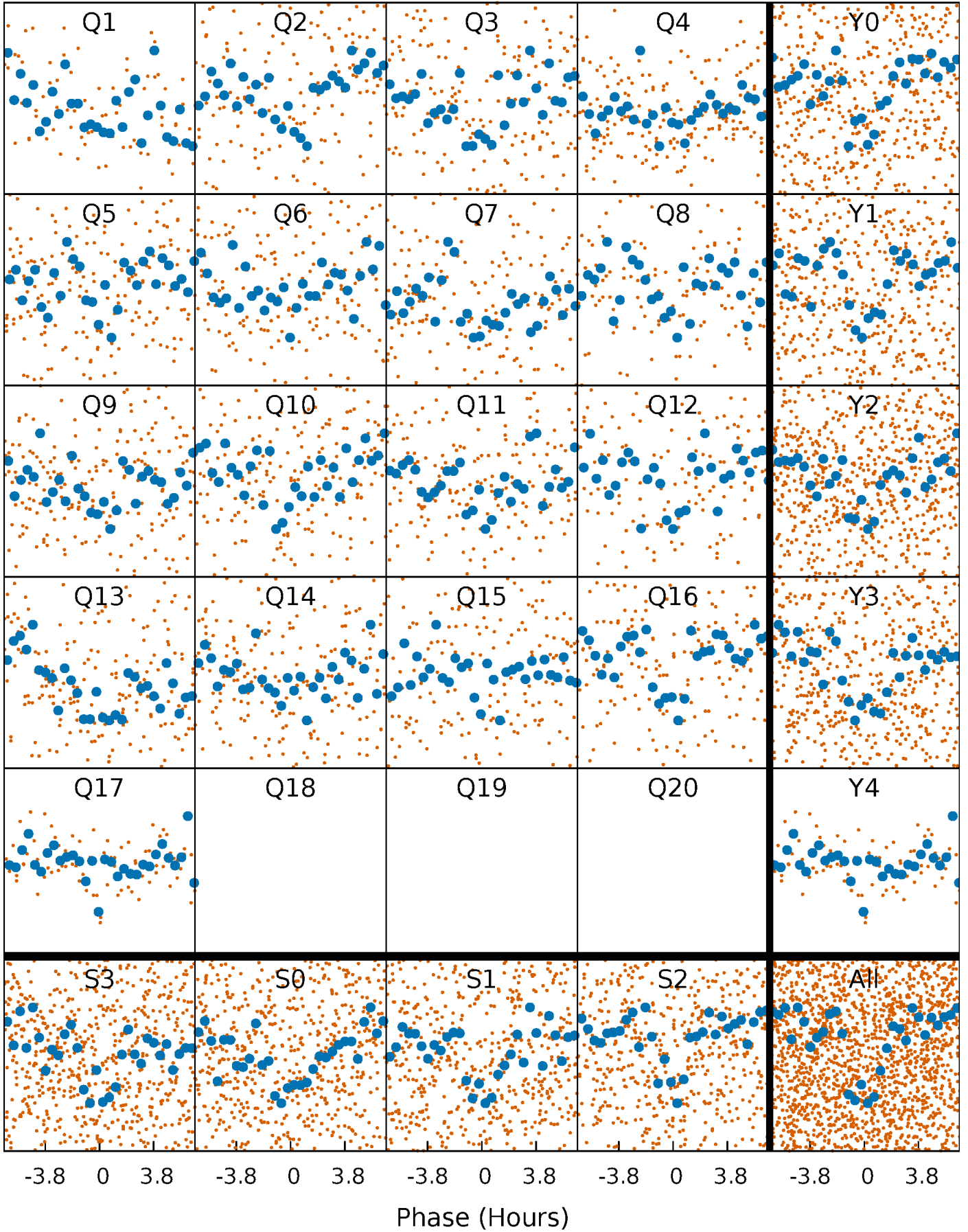


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



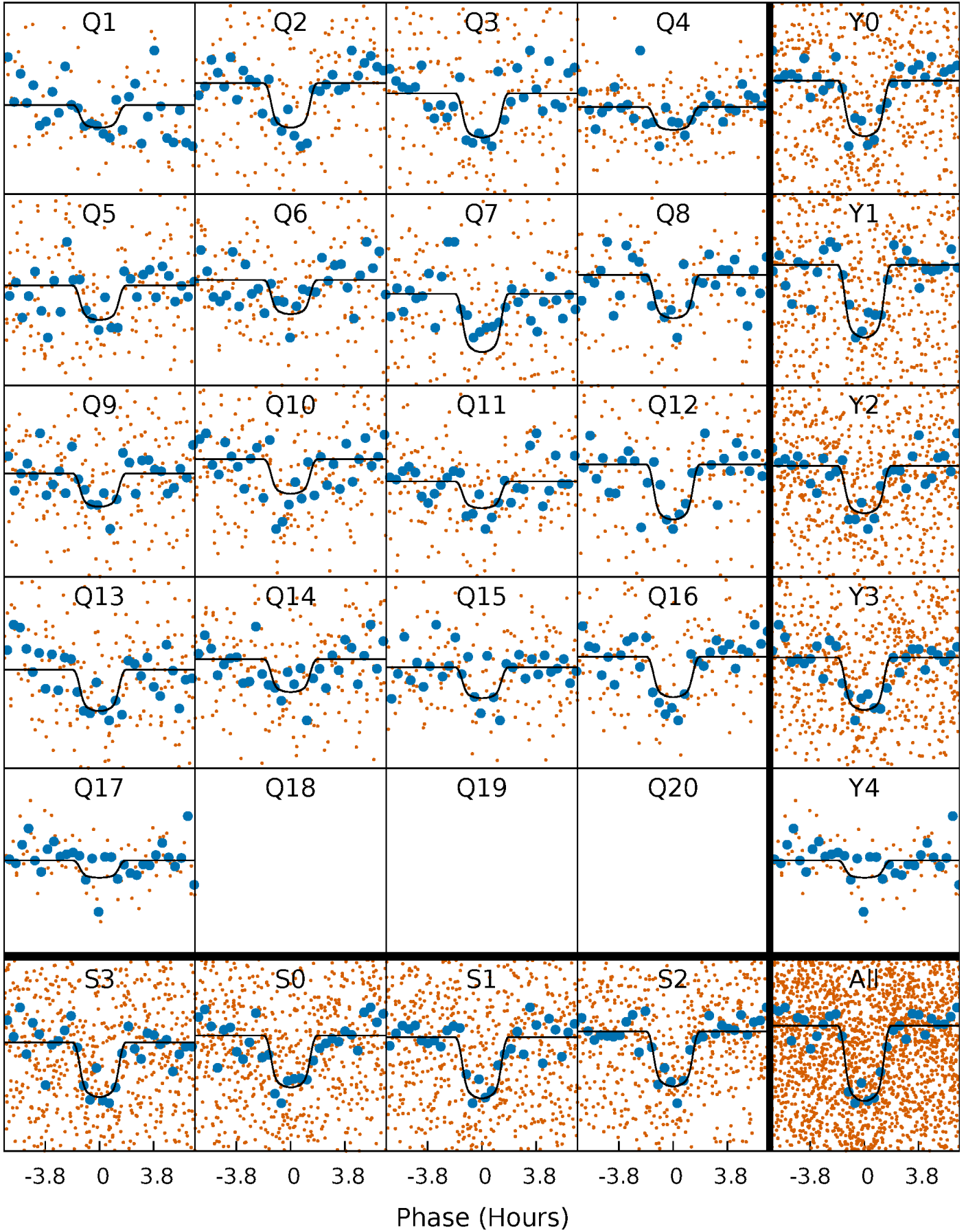
PDC Quarter-Phased Transit Curves

TCE 007091432-01 P= 11.555312 Days $T_0=134.130195$ (BKJD)



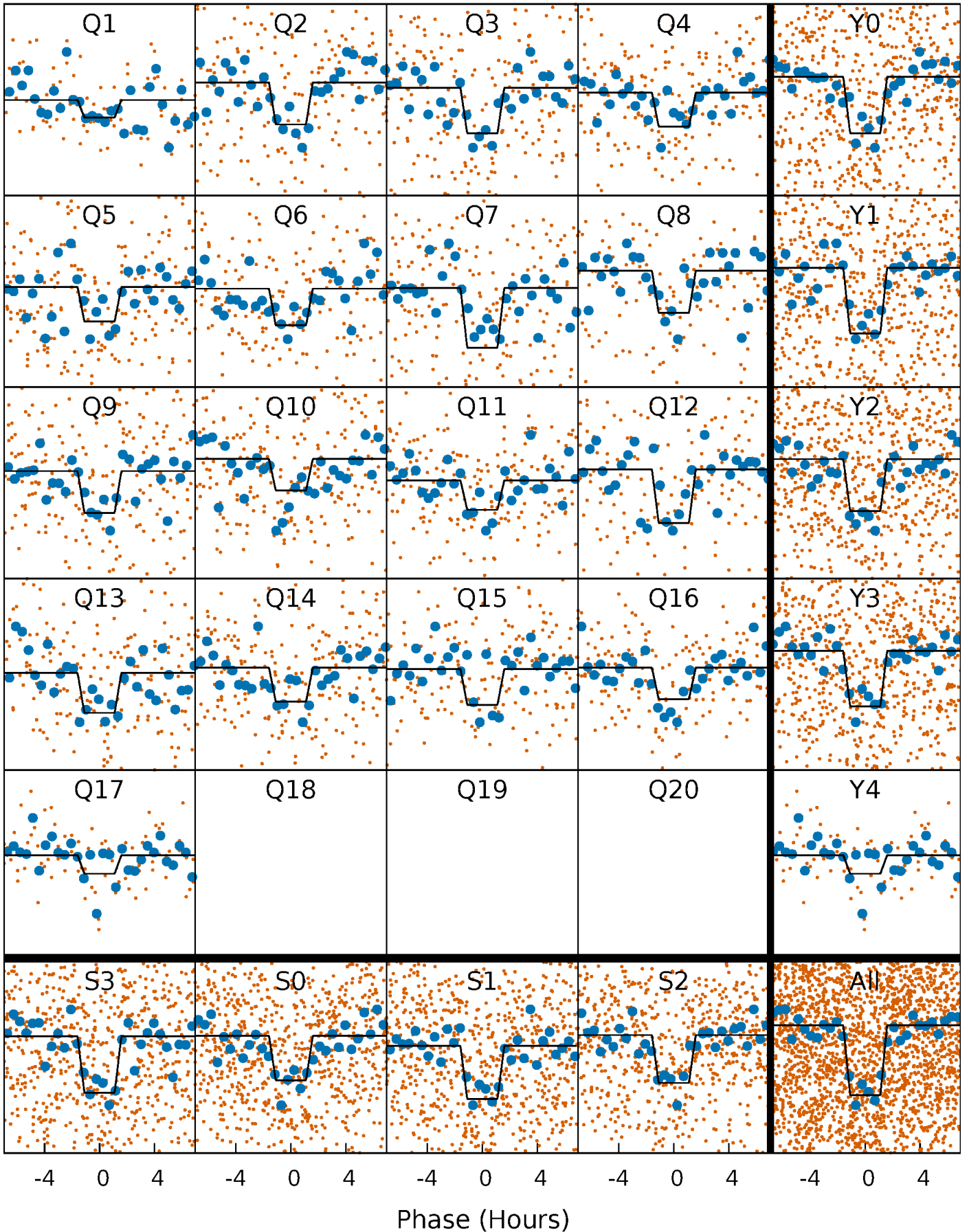
DV Quarter-Phased Transit Curves

TCE 007091432-01 P= 11.555312 Days $T_0=134.130195$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

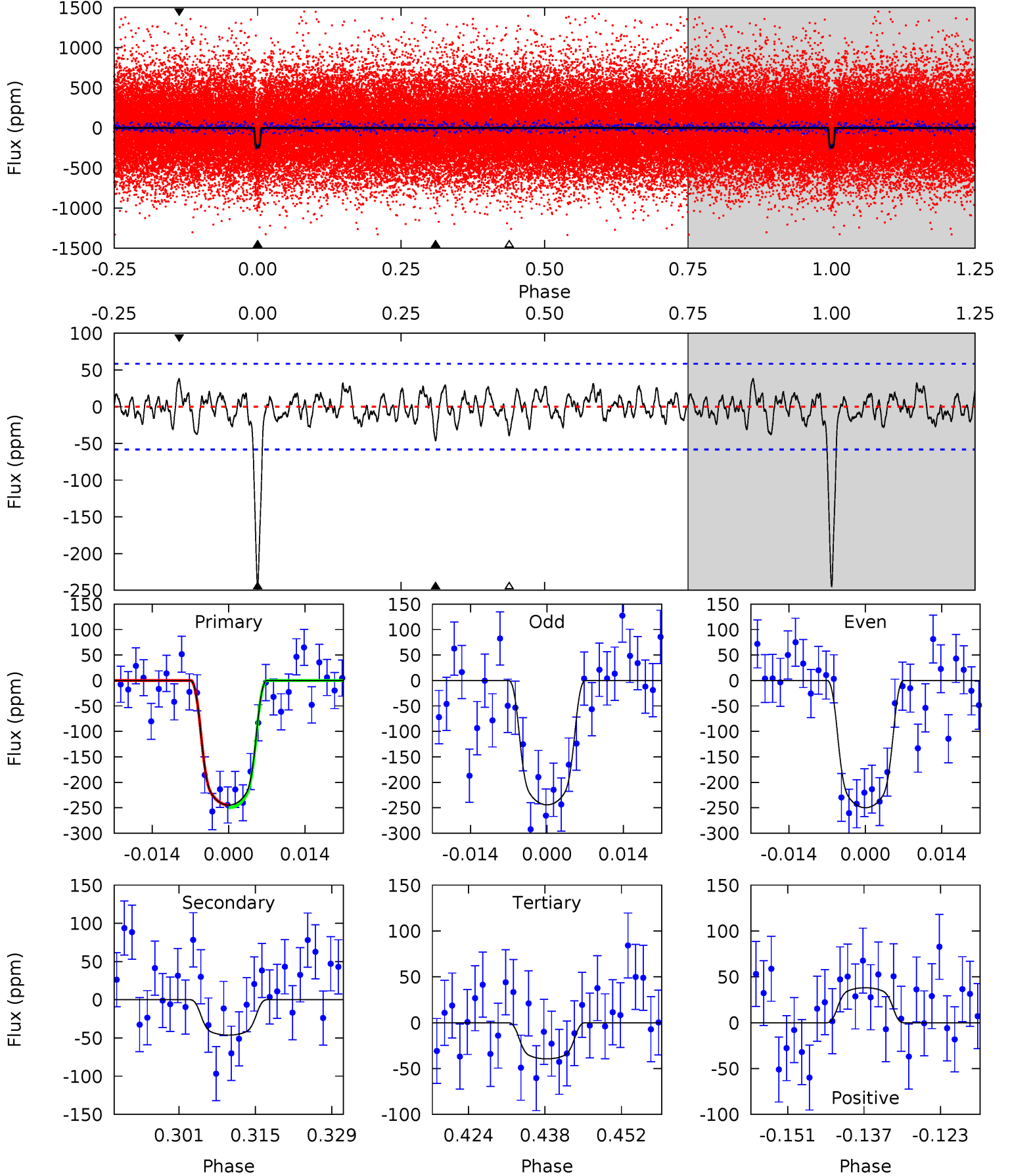
TCE 007091432-01 P= 11.555398 Days $T_0=134.125291$ (BKJD)



DV Model-Shift Uniqueness Test

007091432-01, P = 11.555312 Days, E = 122.574883 Days

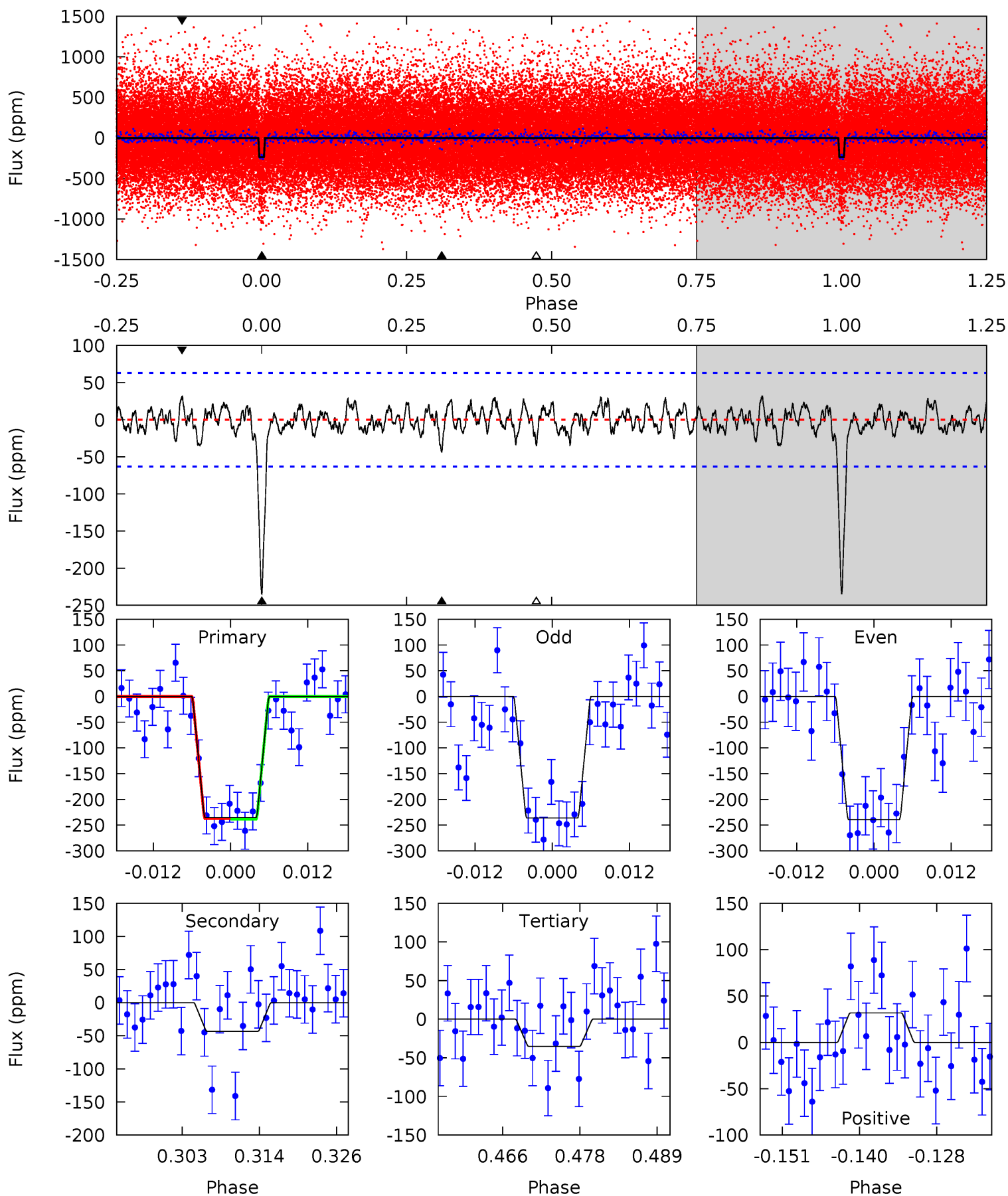
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.8	3.94	3.36	3.24	4.97	2.47	1.20	17.4	17.6	0.58	0.70	0.24	1.01	0.13	0.23



Alt Model-Shift Uniqueness Test

007091432-01, P = 11.555398 Days, E = 122.569893 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.6	3.43	2.79	2.52	5.00	2.52	1.04	15.9	16.1	0.65	0.92	0.13	1.06	0.12	0.04



Stellar Parameters For KIC 007091432

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5149^{+153}_{-153}	$4.506^{+0.093}_{-0.085}$	$-0.140^{+0.300}_{-0.300}$	$0.803^{+0.097}_{-0.088}$	$0.755^{+0.106}_{-0.057}$	$2.053^{+0.754}_{-0.505}$
	+3%/-3%	+2%/-2%	+214%/-214%	+12%/-11%	+14%/-8%	+37%/-25%
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 007091432-01 / KOI 3353.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-46 ± 12	$1.67^{+0.24}_{-0.21}$	941^{+41}_{-38}	3515^{+216}_{-203}	76^{+33}_{-24}
Alt.	-43 ± 13	$1.37^{+0.22}_{-0.21}$	944^{+40}_{-40}	3717^{+272}_{-279}	107^{+53}_{-40}

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 $A_{obs} \gg 1.0$

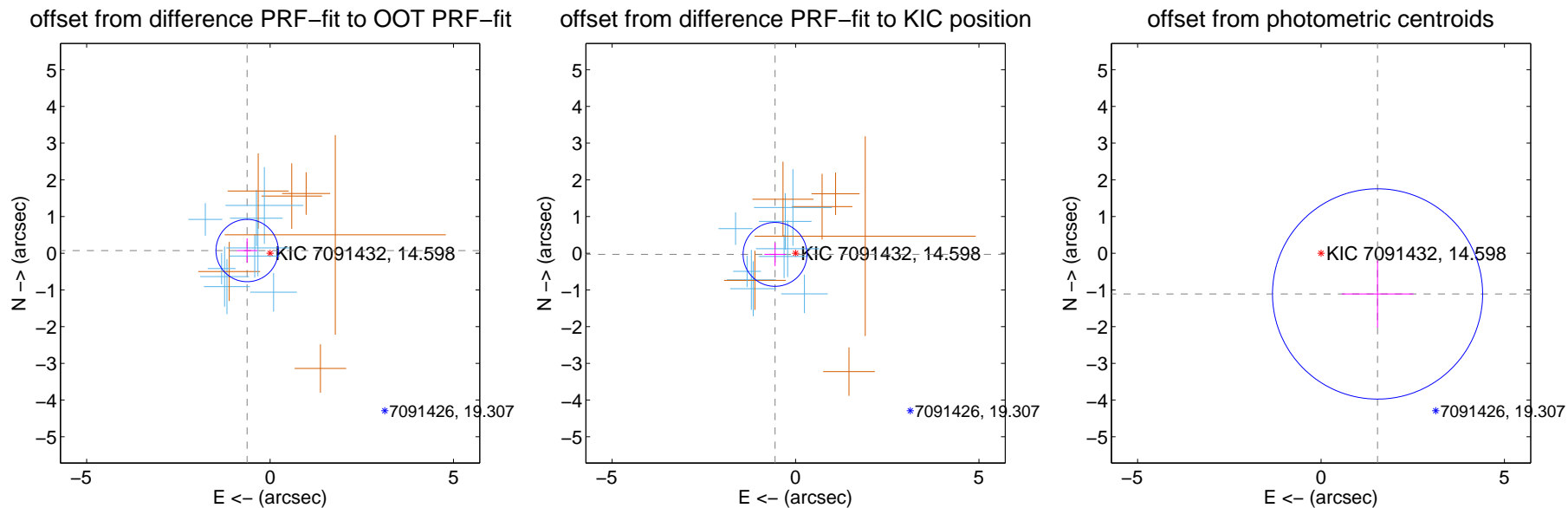
DV Centroid Data

Supplemental centroid analysis for 007091432-01. Kepler magnitude: 14.60. Transit SNR 14.98

There are 9 quarters with good PRF difference image offsets

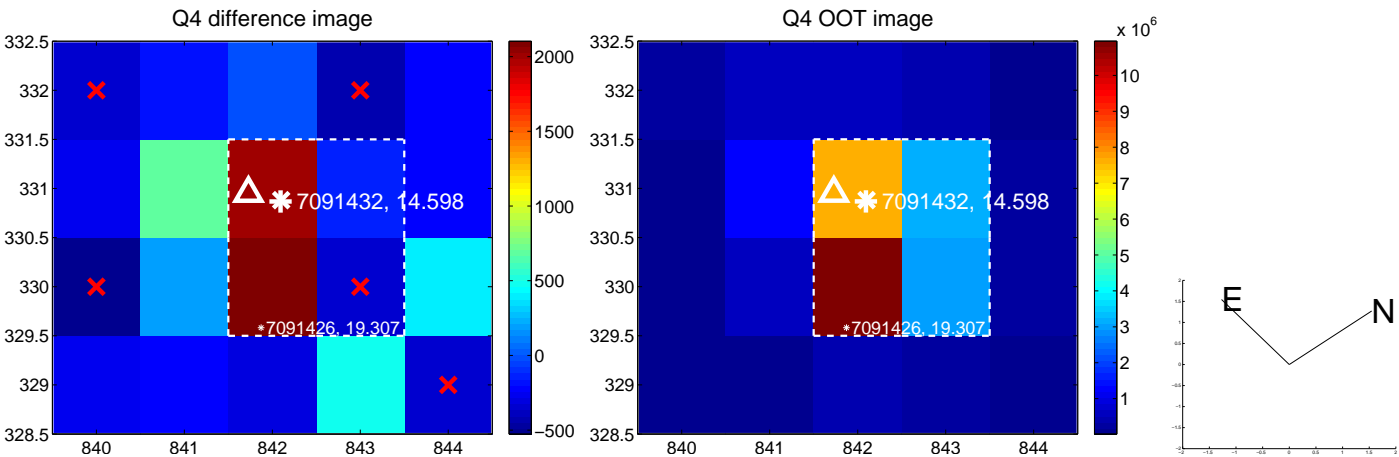
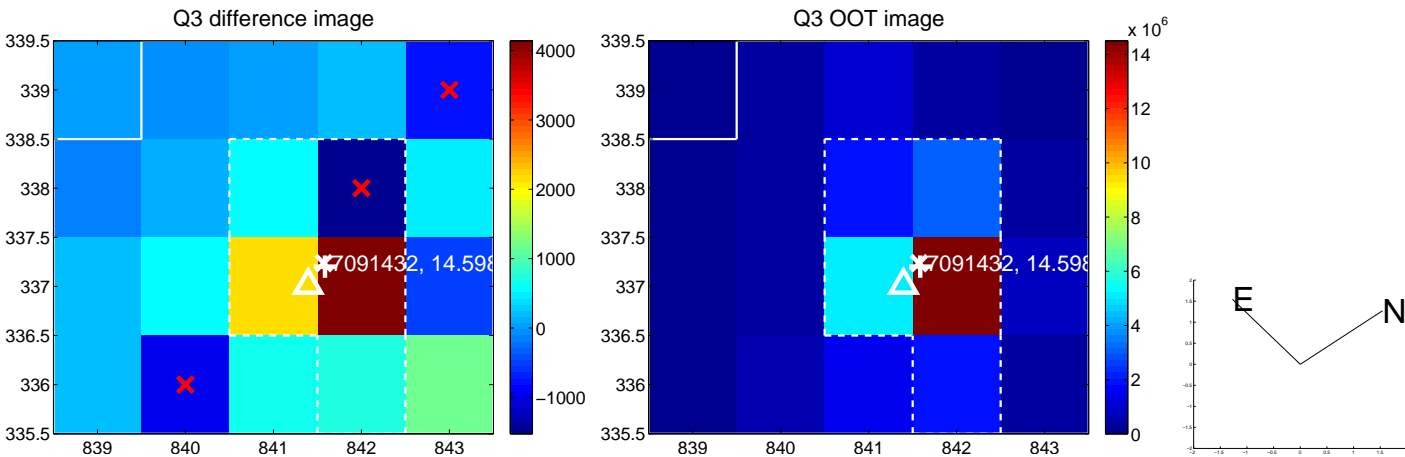
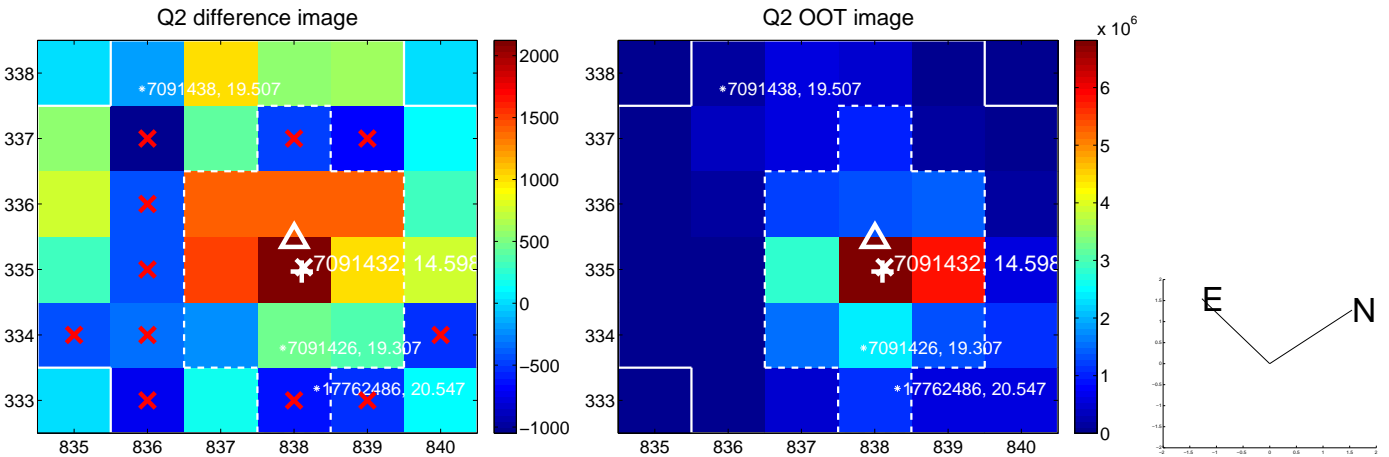
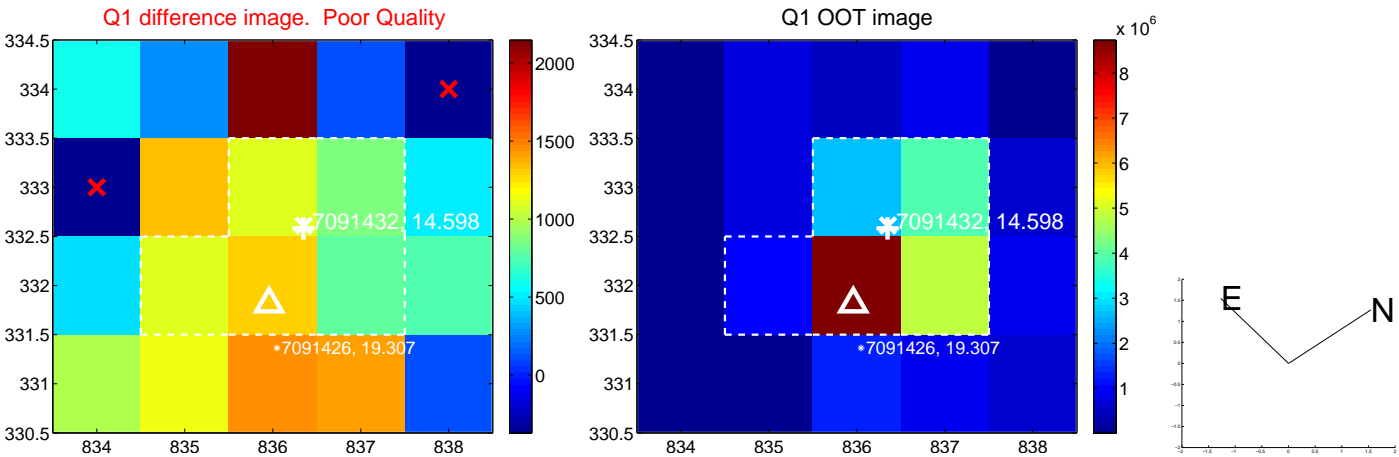
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.630 ± 0.283	2.22	0.625 ± 0.282	0.073 ± 0.331
PRF-fit source offset from KIC position	0.561 ± 0.290	1.93	0.560 ± 0.290	-0.031 ± 0.319
photometric centroid source offset	1.90 ± 0.95	1.99	-1.54 ± 0.98	-1.11 ± 0.91

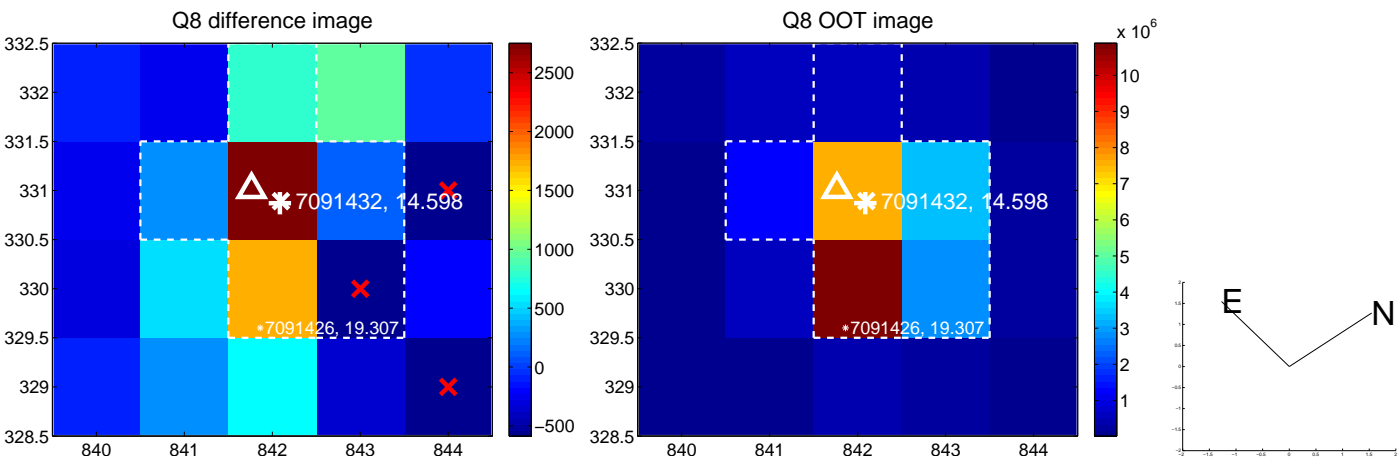
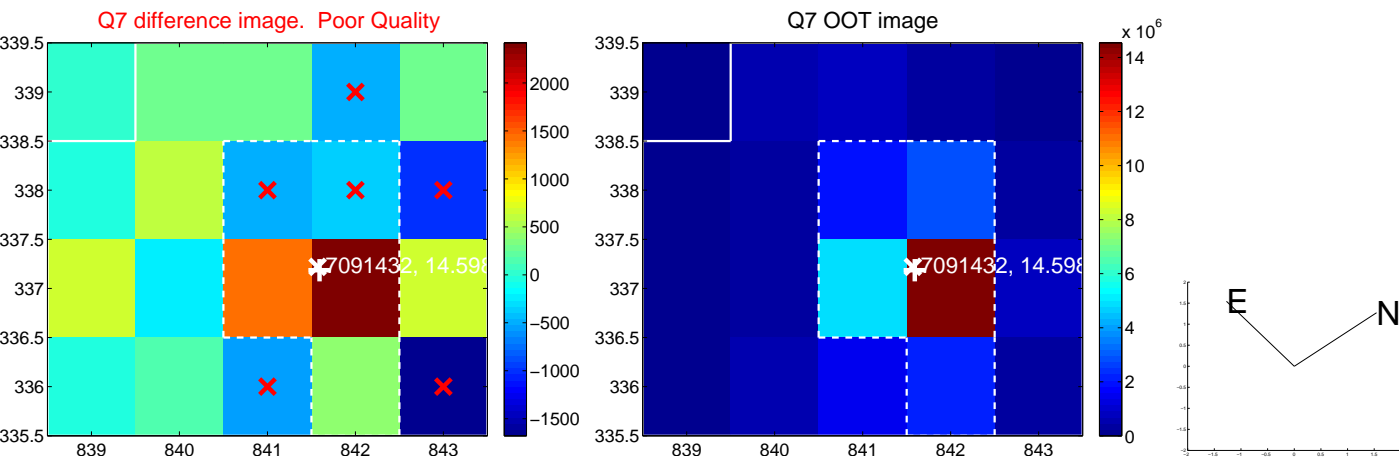
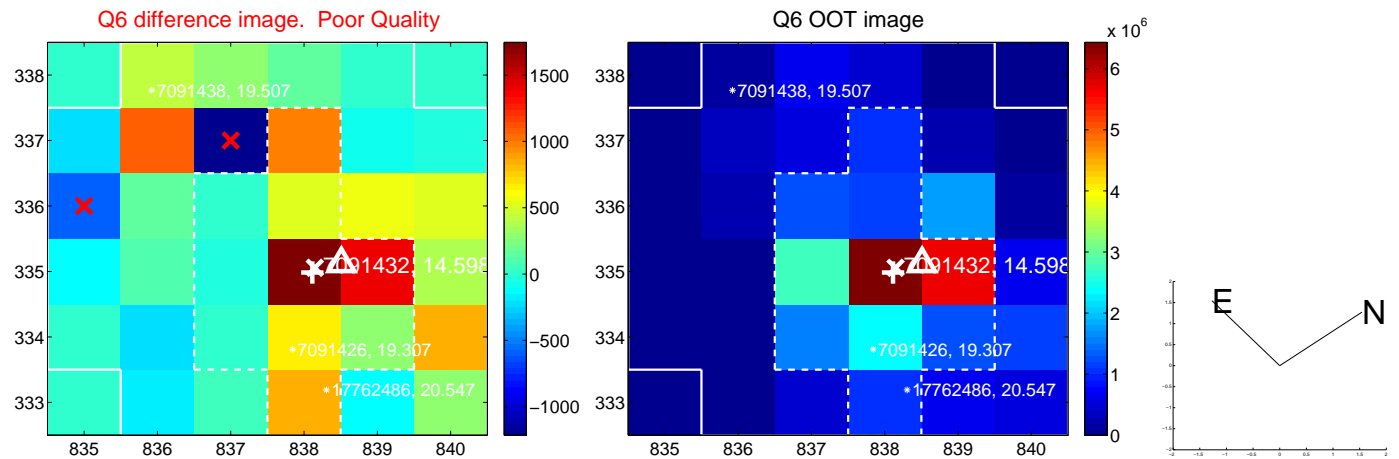
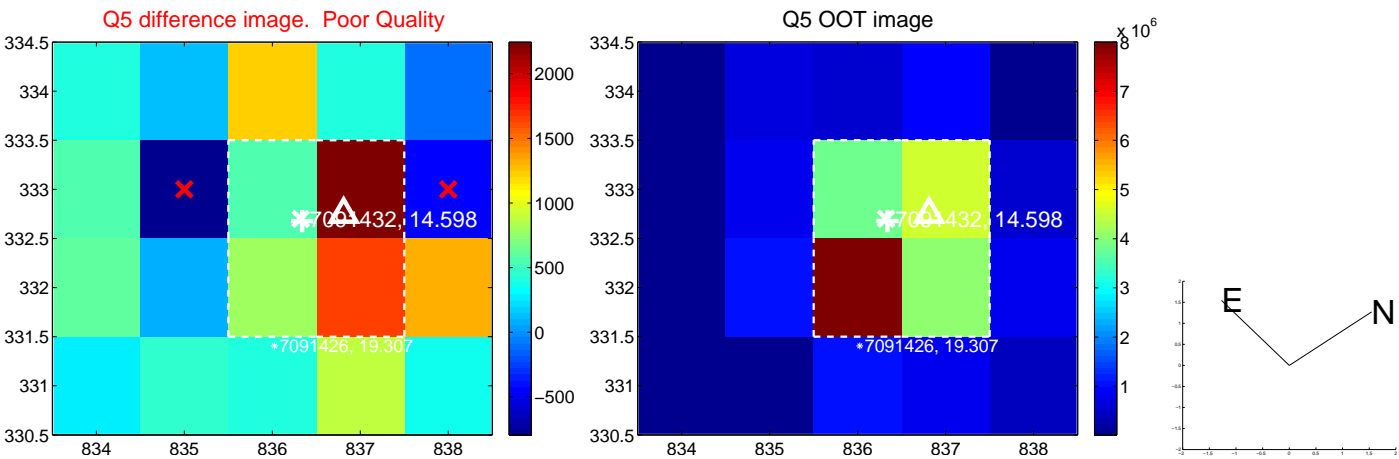


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

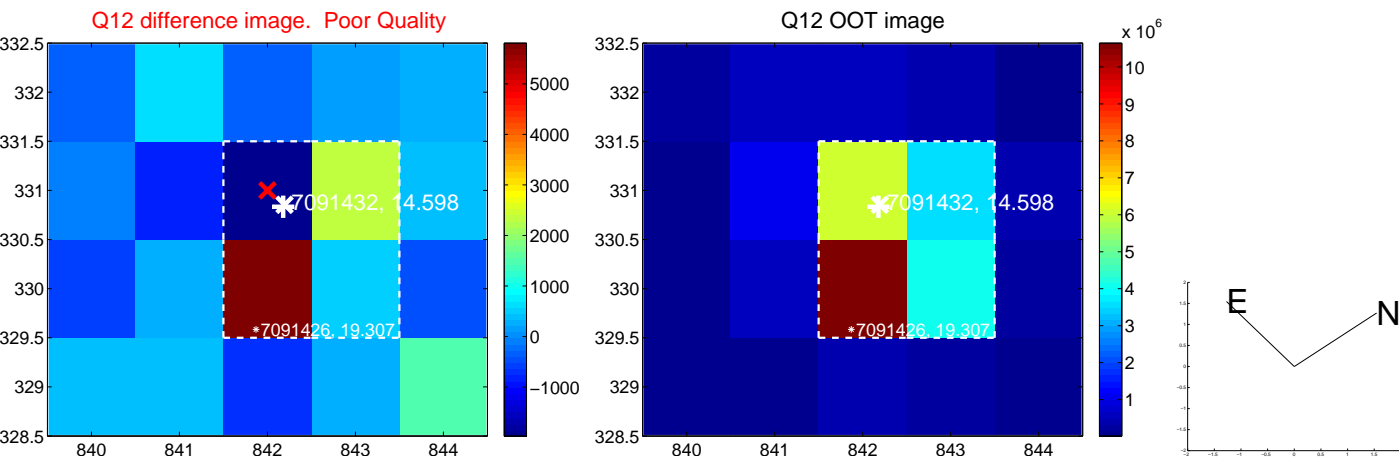
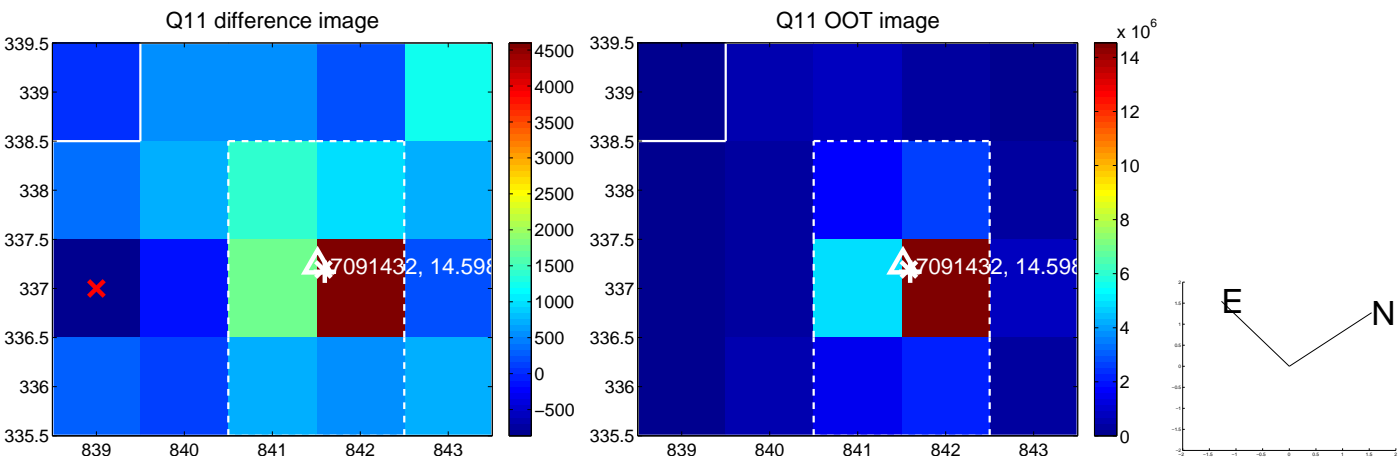
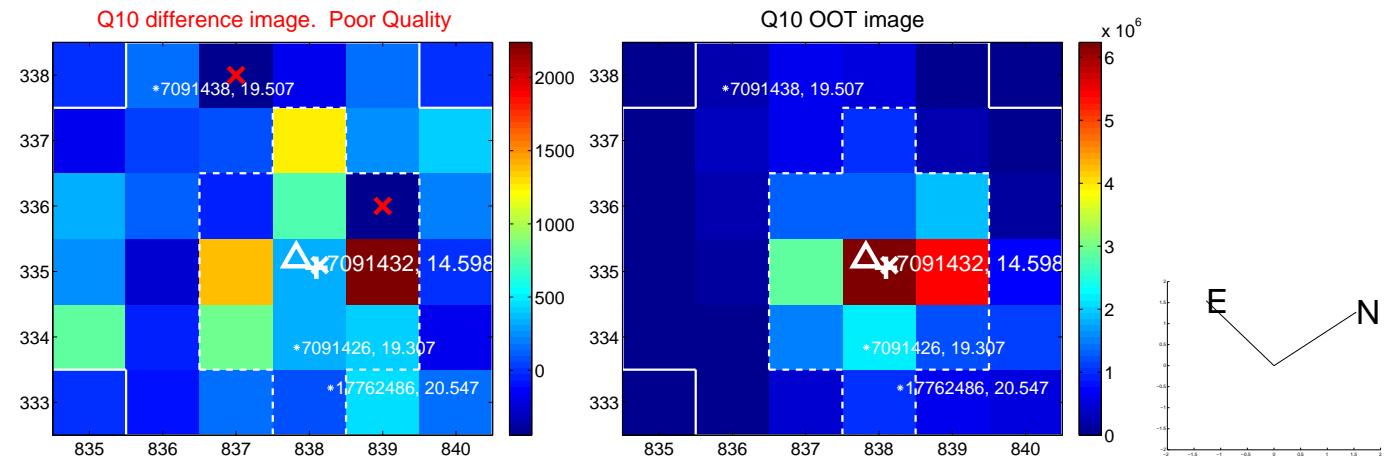
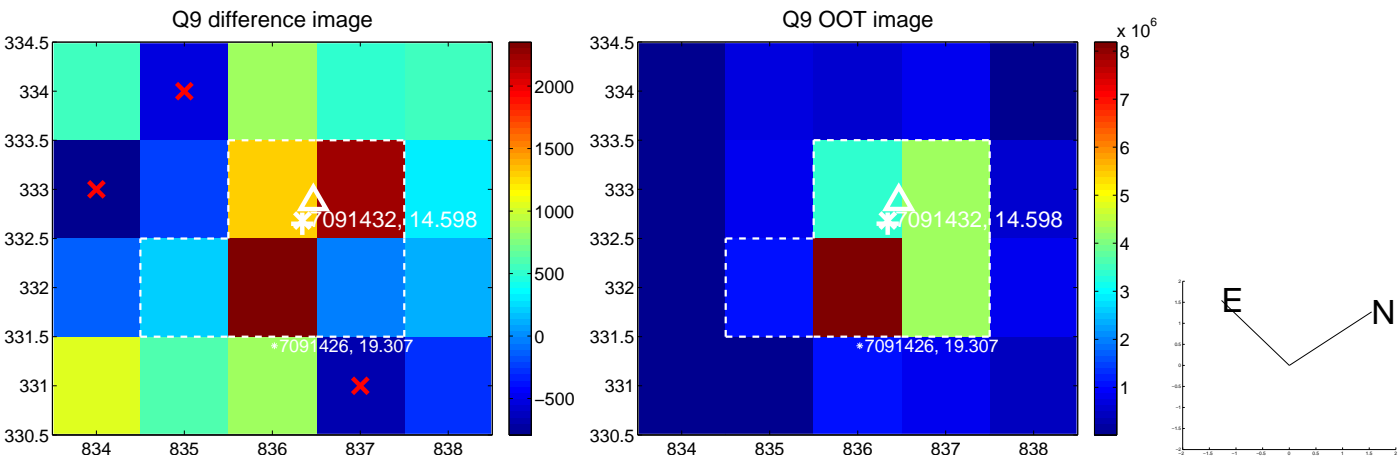
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



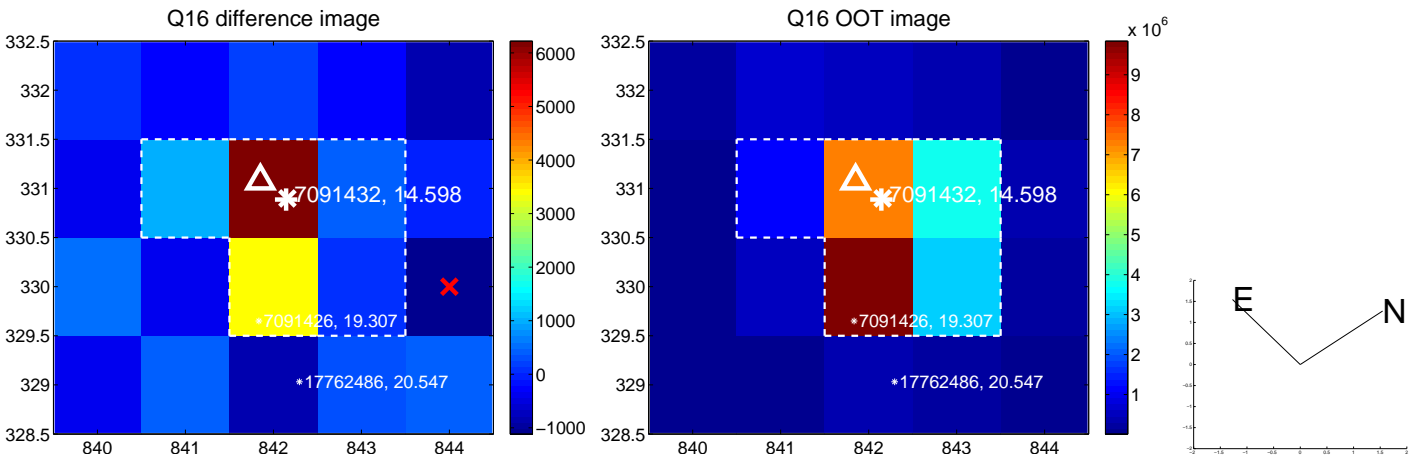
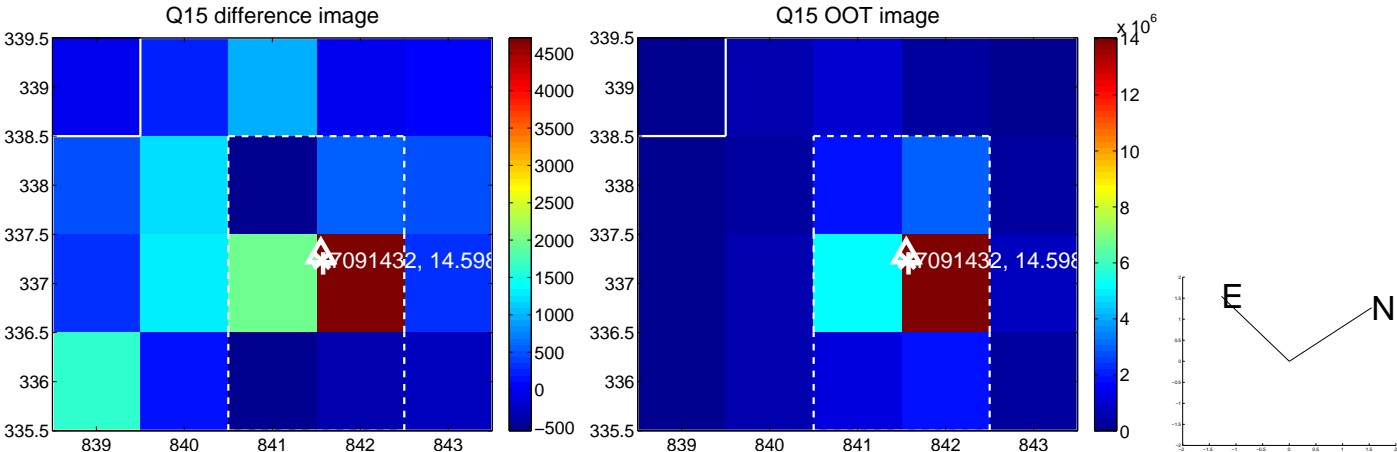
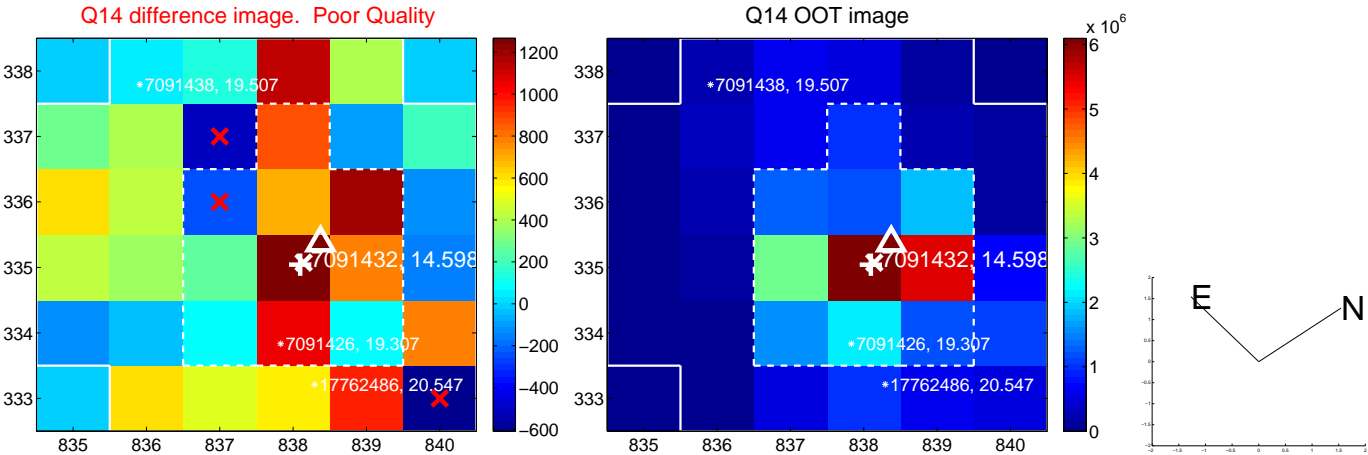
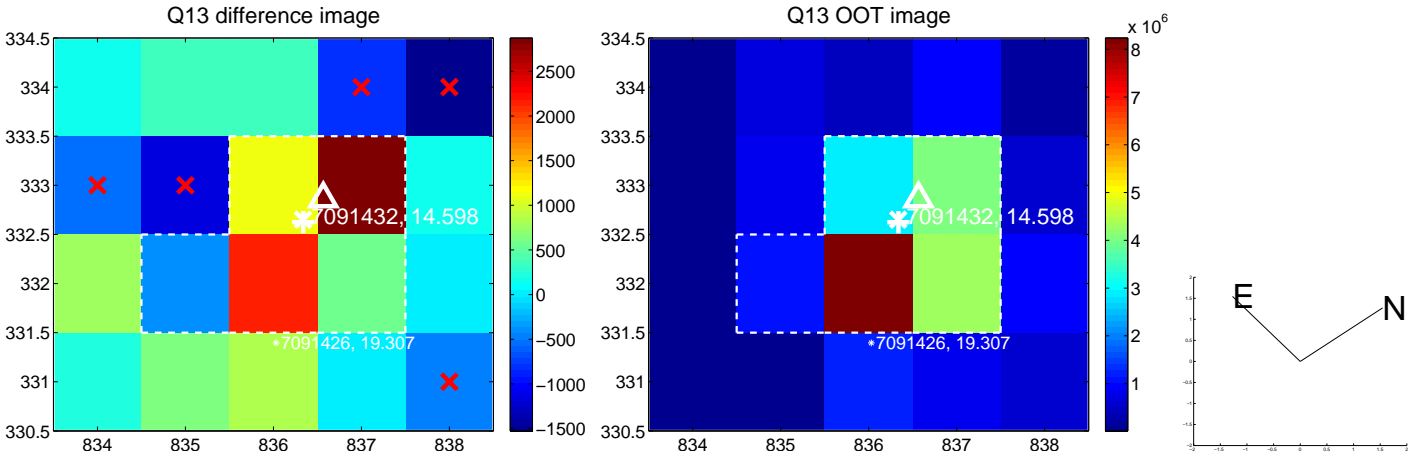
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



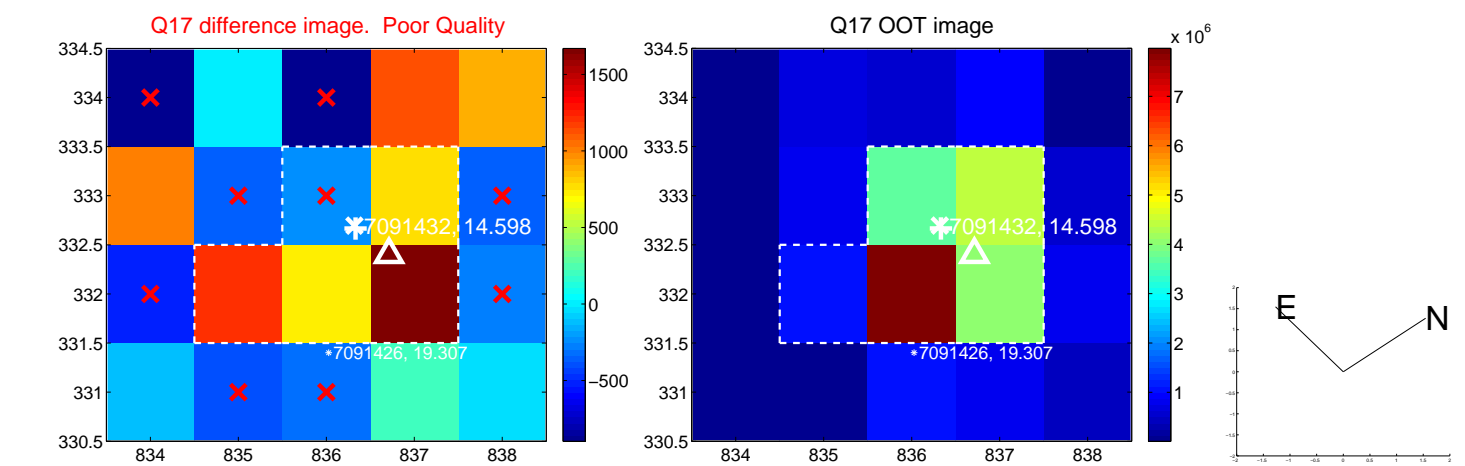
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



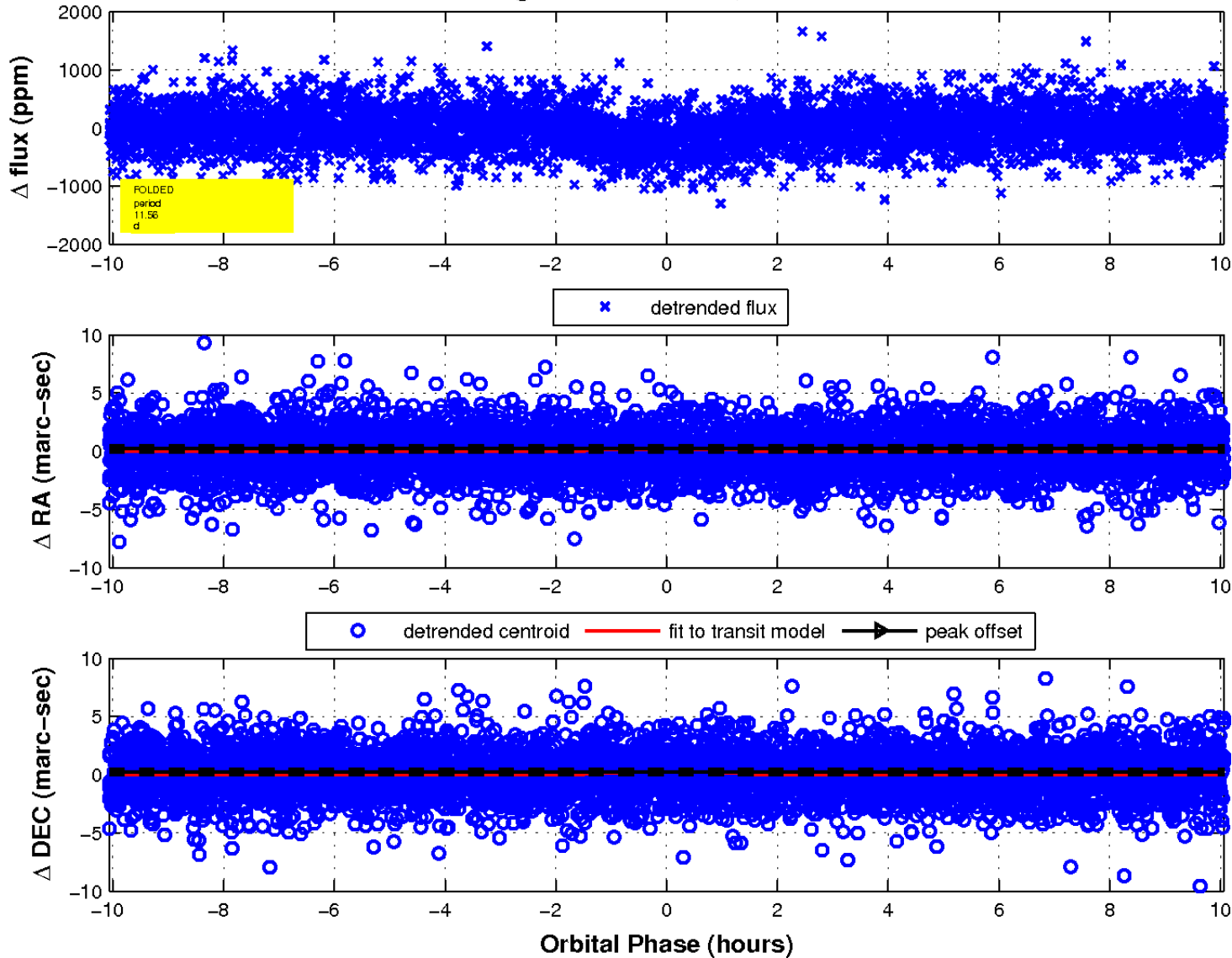
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

