

KIC 004275191

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})
004275191-01	OBS	0813.01	3.895937	131.568000	8538.6	2.409	375.5	368.6	0.77	5557	7.64	242.07

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004275191-01	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.

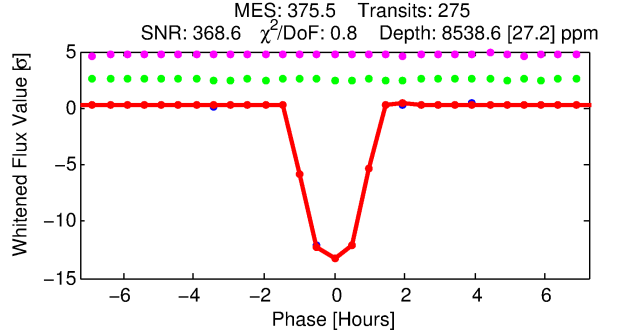
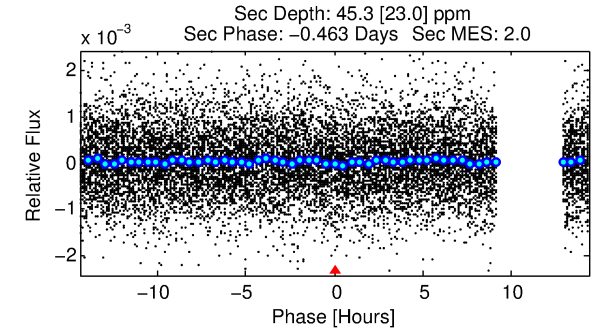
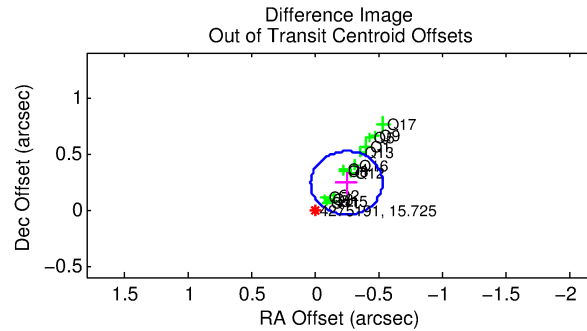
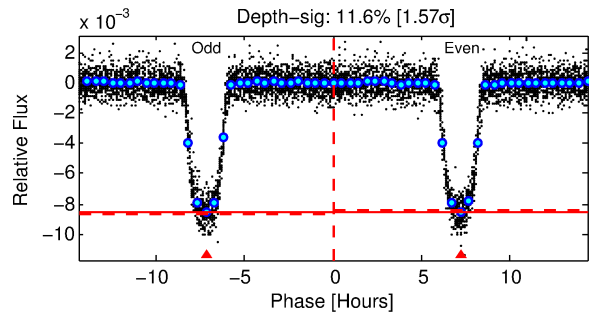
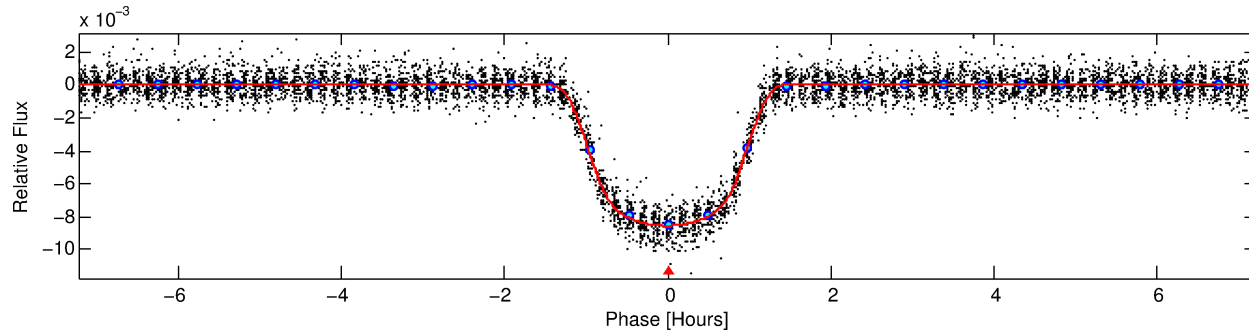
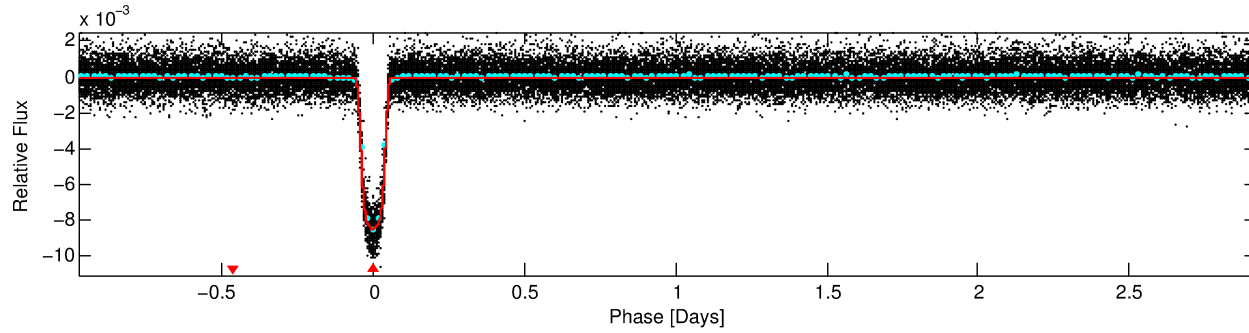
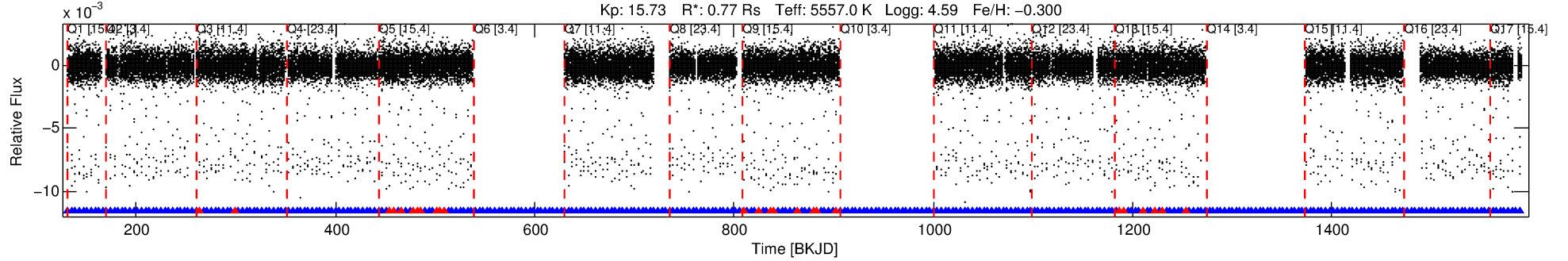
Ephemeris Match Information For 004275191-01

No Significant Match Found

DV One-Page Summary

KIC: 4275191 Candidate: 1 of 1 Period: 3.896 d
KOI: K00813.01 Corr: 0.985

Kp: 15.73 R*: 0.77 Rs Teff: 5557.0 K Logg: 4.59 Fe/H: -0.300



DV Fit Results:

Period = 3.89594 [0.00000] d
Epoch = 131.5680 [0.0001] BKJD
Rp/R* = 0.0904 [0.0008]
a/R* = 10.45 [0.38]
b = 0.69 [0.03]
Seff = 242.07 [67.29]
Teq = 1006 [70] K
Rp = 7.64 [1.59] Re
a = 0.0460 [0.0080] AU
Ag = 0.90 [0.51] [-0.19σ]
Teffp = 1516 [198] K [2.43σ]

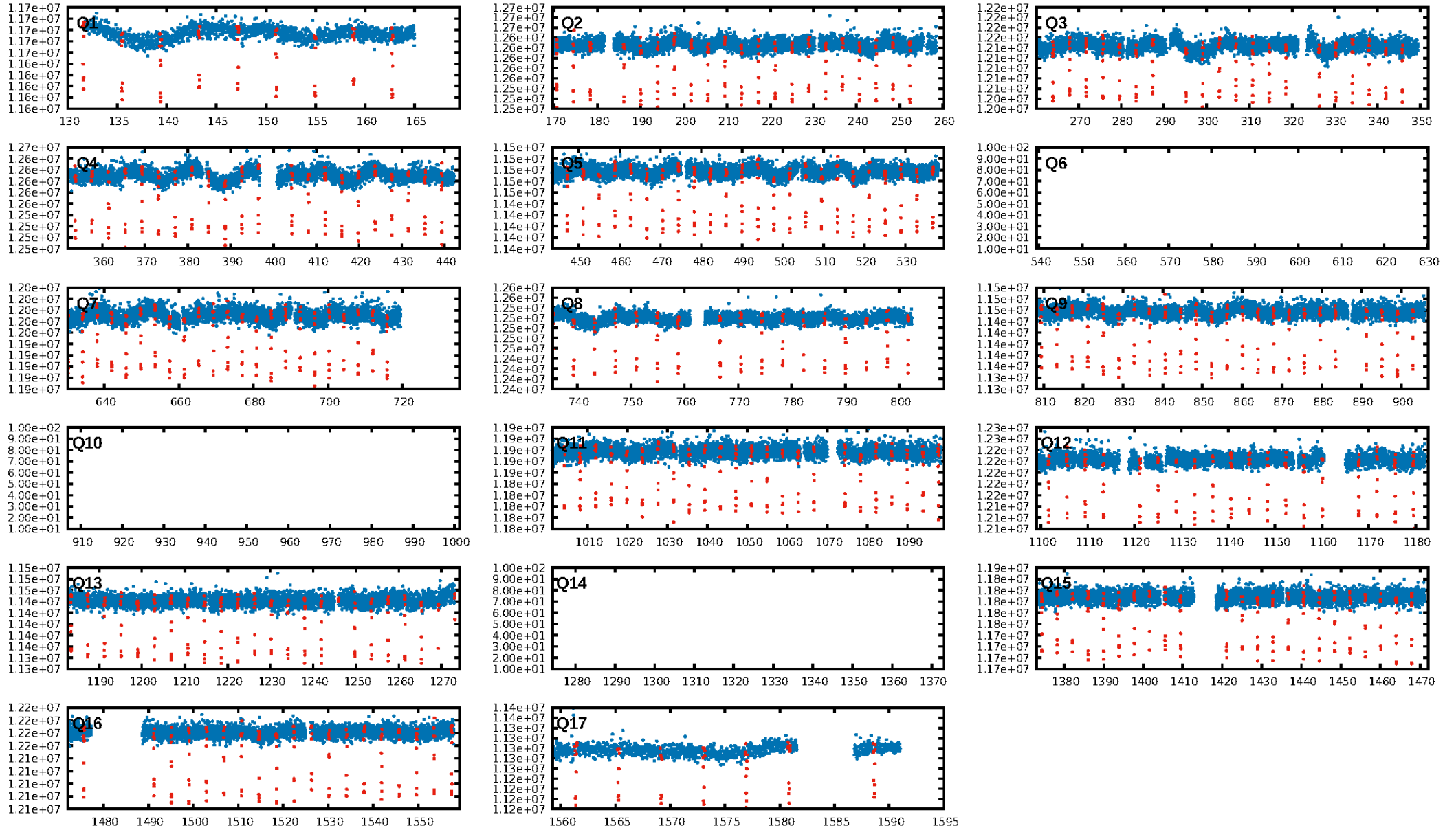
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.90 [234/259]
GhostDiagnostic-chr: 4.912
Centroid-sig: 0.0%
Centroid-so: 0.118 arcsec [2.86σ]
OotOffset-rm: 0.342 arcsec [3.64σ]
KicOffset-rm: 0.016 arcsec [0.23σ]
OotOffset-st: 1/4/4/5 [14]
KicOffset-st: 1/4/4/5 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [14/14]

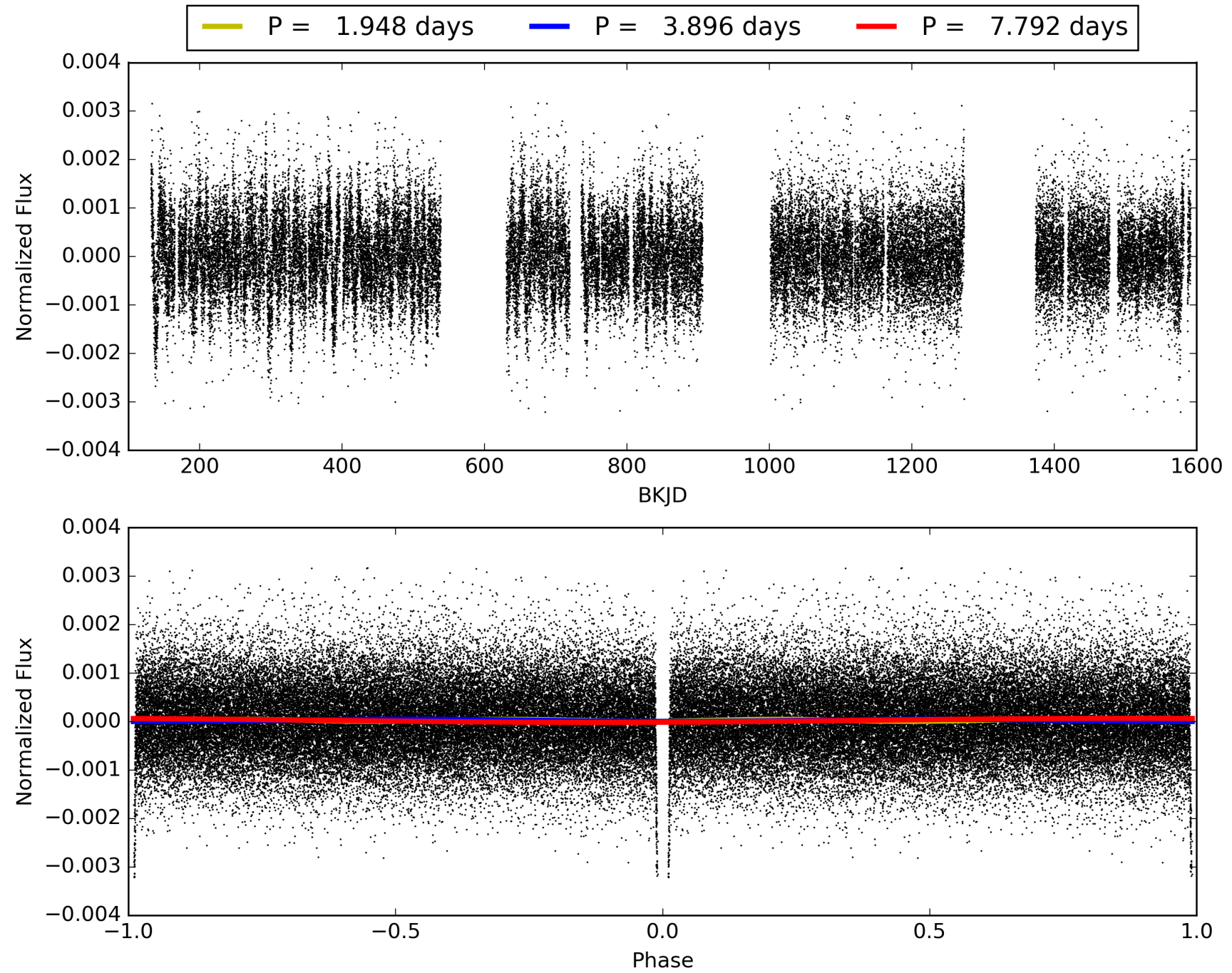
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 17:16:31 Z

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

TCE 004275191-01, PDC Light Curves

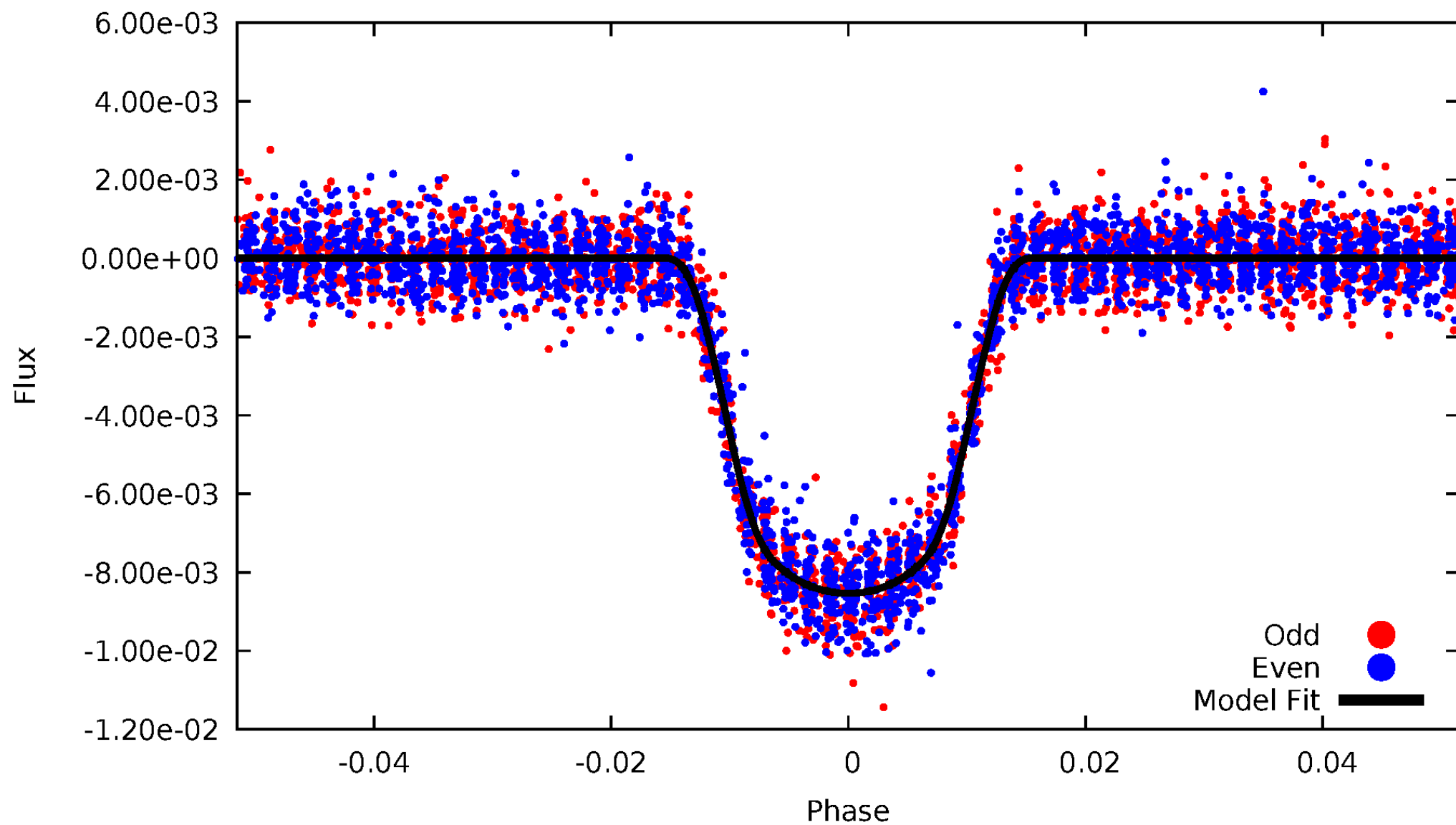


TCE 004275191-01



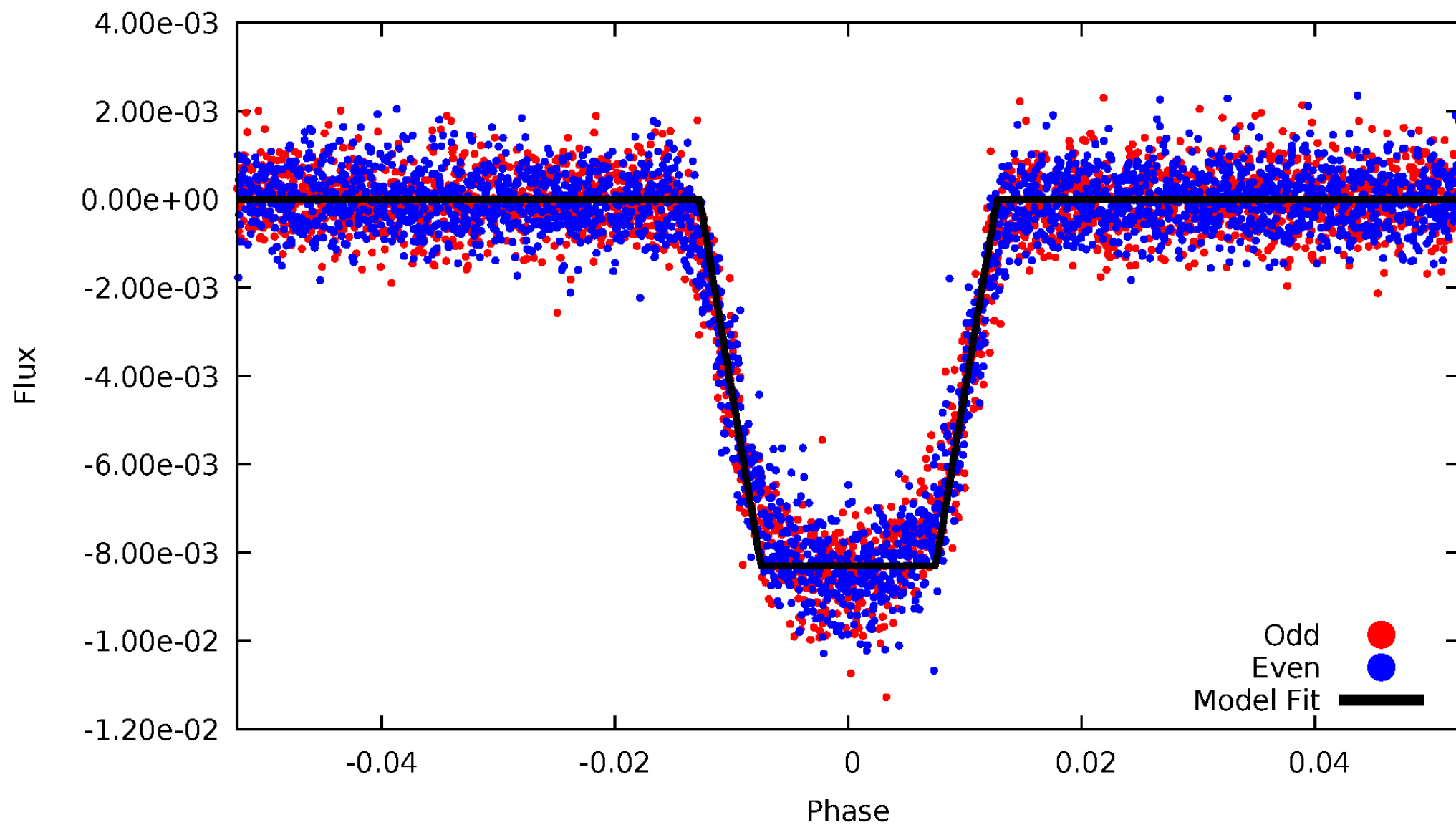
DV Odd/Even

TCE 004275191-01



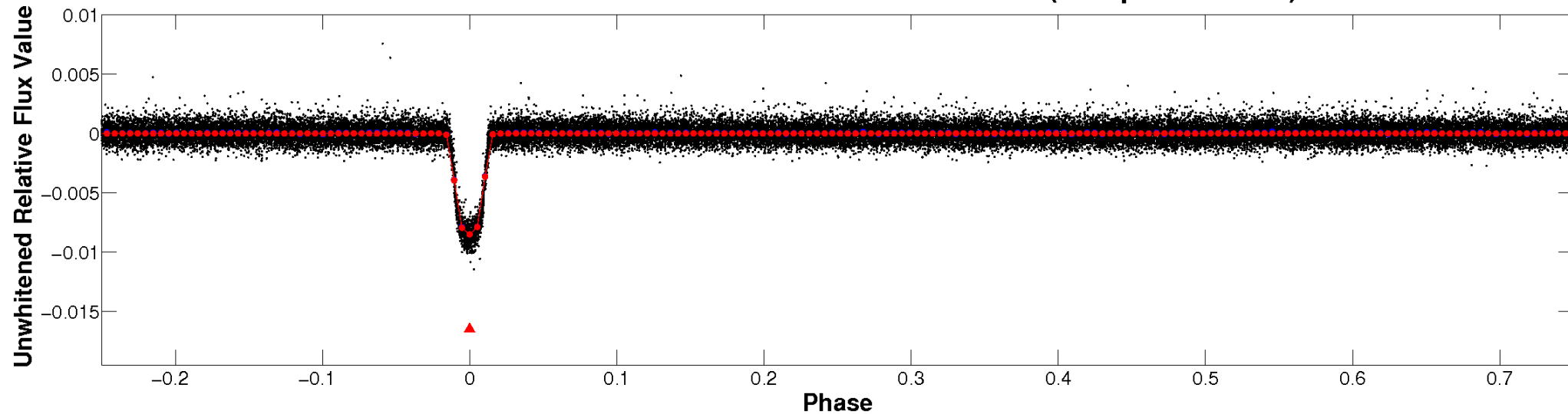
ALT Odd/Even

TCE 004275191-01

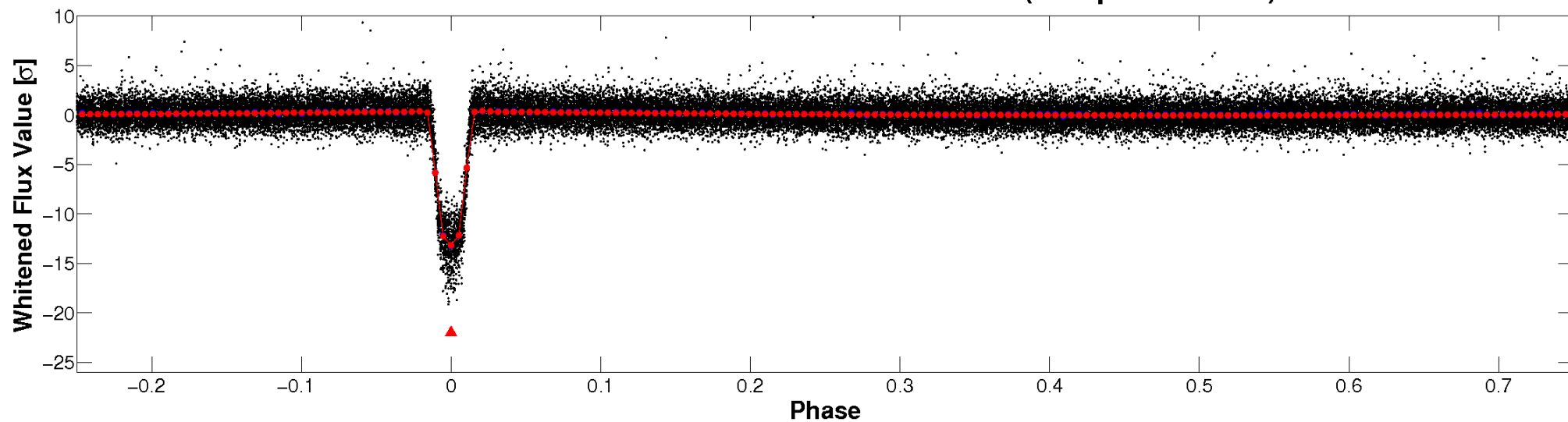


Non-Whitened Vs. Whitened Light Curve

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

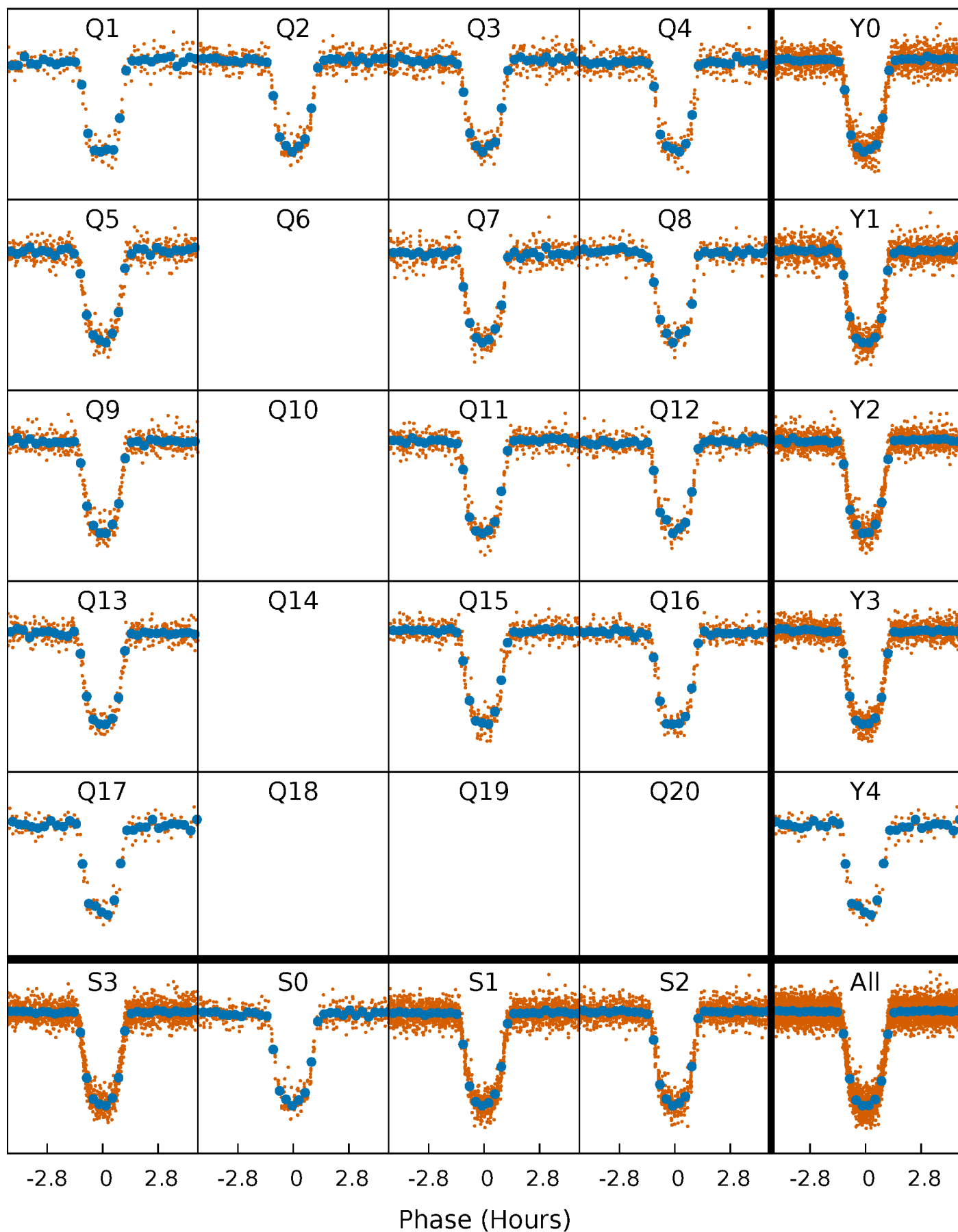


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



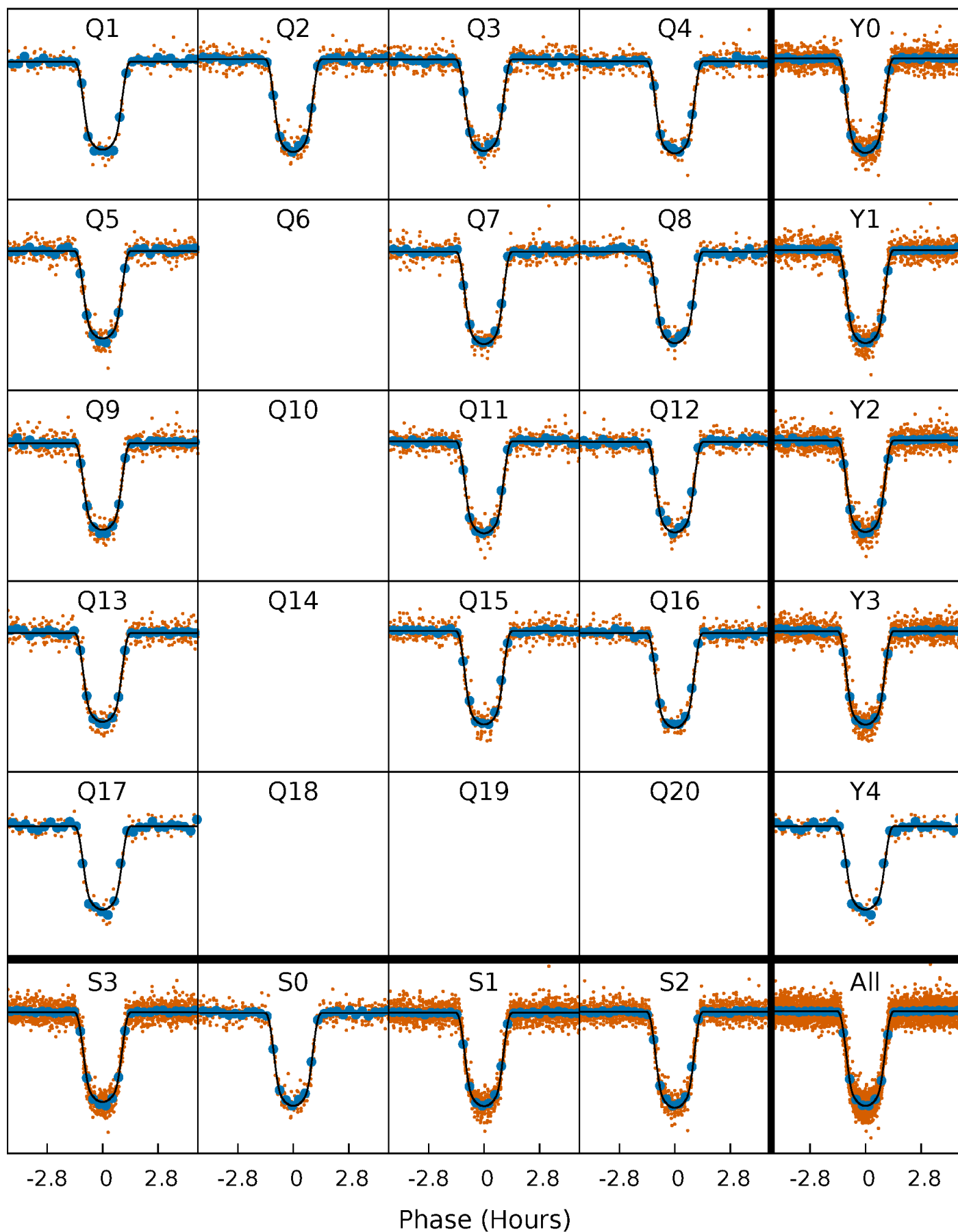
PDC Quarter-Phased Transit Curves

TCE 004275191-01 P= 3.895937 Days $T_0=131.568000$ (BKJD)



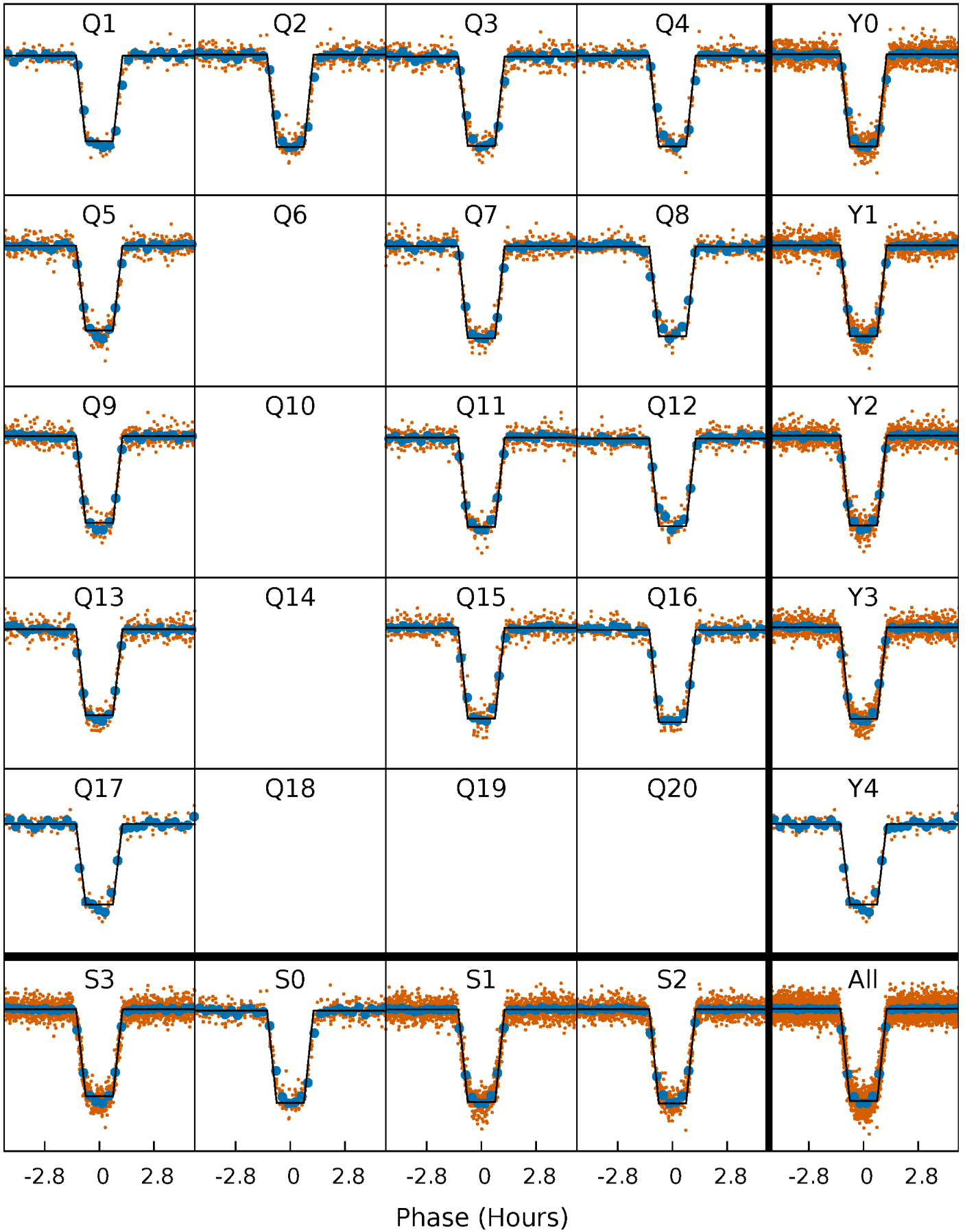
DV Quarter-Phased Transit Curves

TCE 004275191-01 P= 3.895937 Days $T_0=131.568000$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

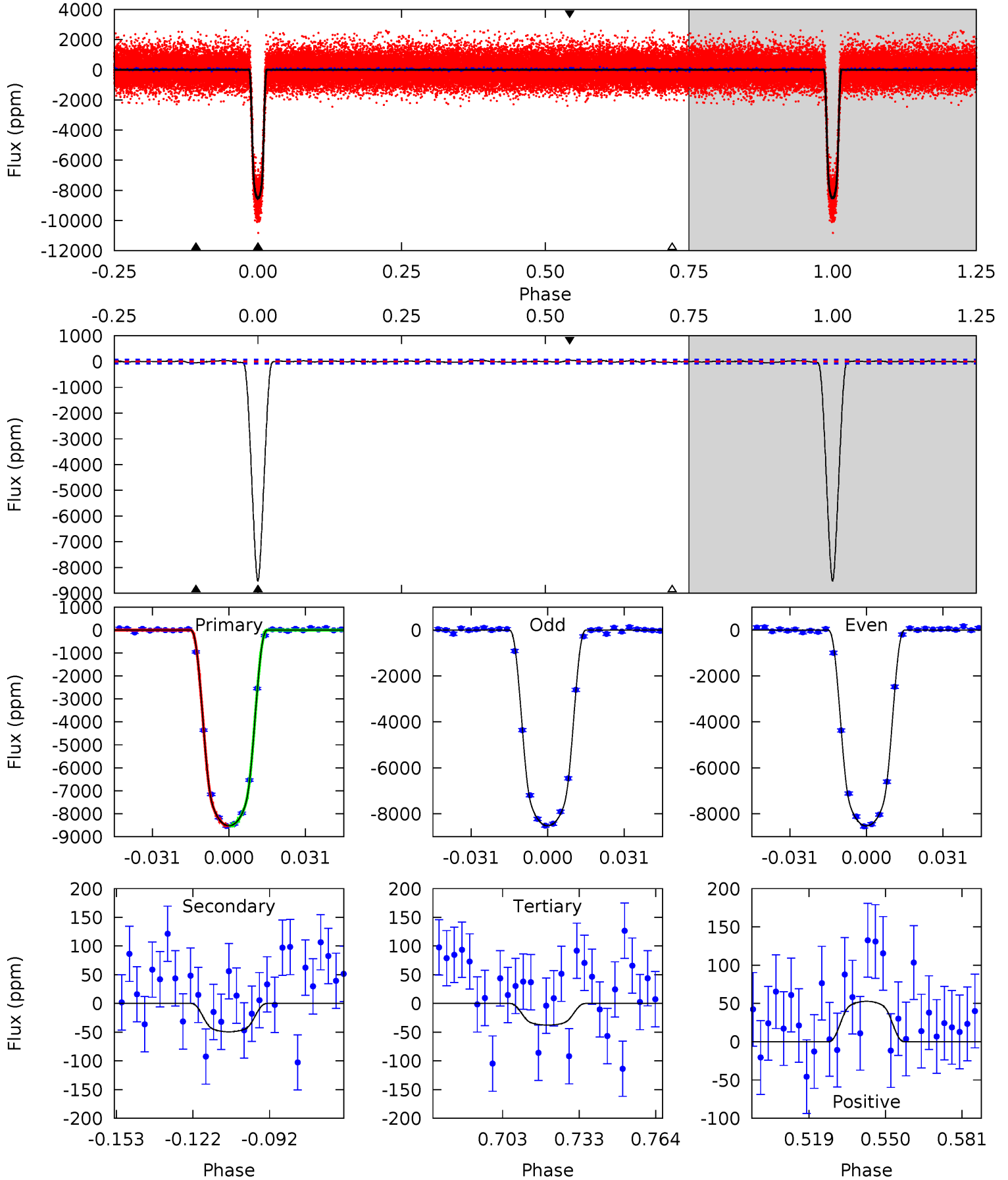
TCE 004275191-01 $P = 3.895951$ Days $T_0 = 131.565674$ (BKJD)



DV Model-Shift Uniqueness Test

004275191-01, P = 3.895937 Days, E = 127.672063 Days

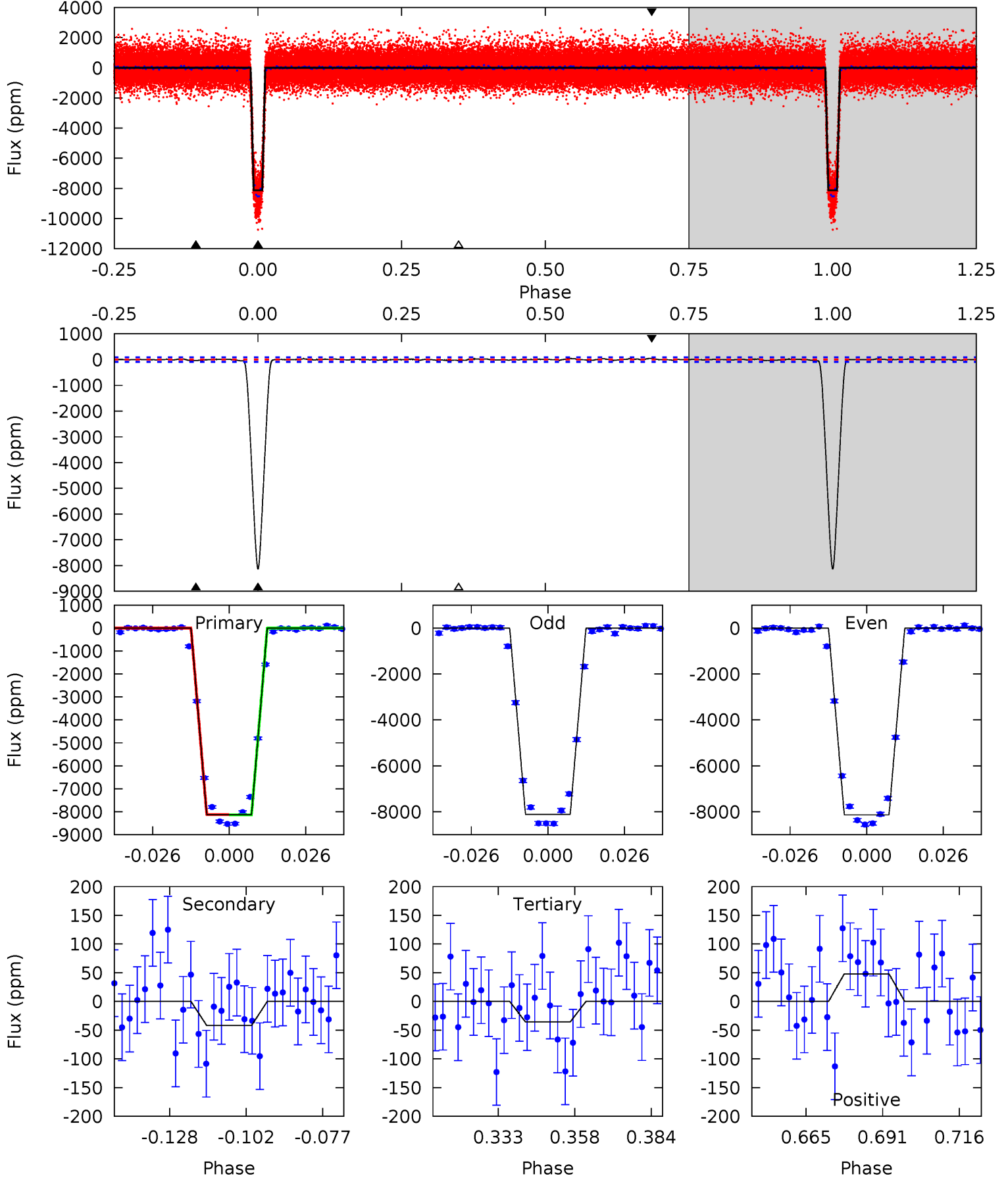
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
517.9	3.00	2.29	3.21	4.81	2.16	1.05	515.6	514.7	0.71	-0.21	0.26	1.00	0.01	0.11



Alt Model-Shift Uniqueness Test

004275191-01, P = 3.895951 Days, E = 127.669723 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
454.8	2.35	1.99	2.68	4.84	2.23	0.86	452.8	452.1	0.35	-0.34	0.31	1.00	0.01	0.20



Stellar Parameters For KIC 004275191

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5557^{+167}_{-167}	$4.592^{+0.034}_{-0.136}$	$-0.300^{+0.300}_{-0.300}$	$0.774^{+0.161}_{-0.069}$	$0.866^{+0.082}_{-0.100}$	$2.632^{+0.481}_{-1.097}$
	+3%/-3%	+1%/-3%	+100%/-100%	+21%/-9%	+9%/-12%	+18%/-42%
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 004275191-01 / KOI 0813.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-49 ± 16	$7.87^{+0.81}_{-0.49}$	1430^{+72}_{-54}	2303^{+130}_{-183}	$0.894^{+0.350}_{-0.320}$
Alt.	-42 ± 18	$7.91^{+0.78}_{-0.52}$	1430^{+74}_{-59}	2239^{+150}_{-321}	$0.753^{+0.364}_{-0.341}$

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

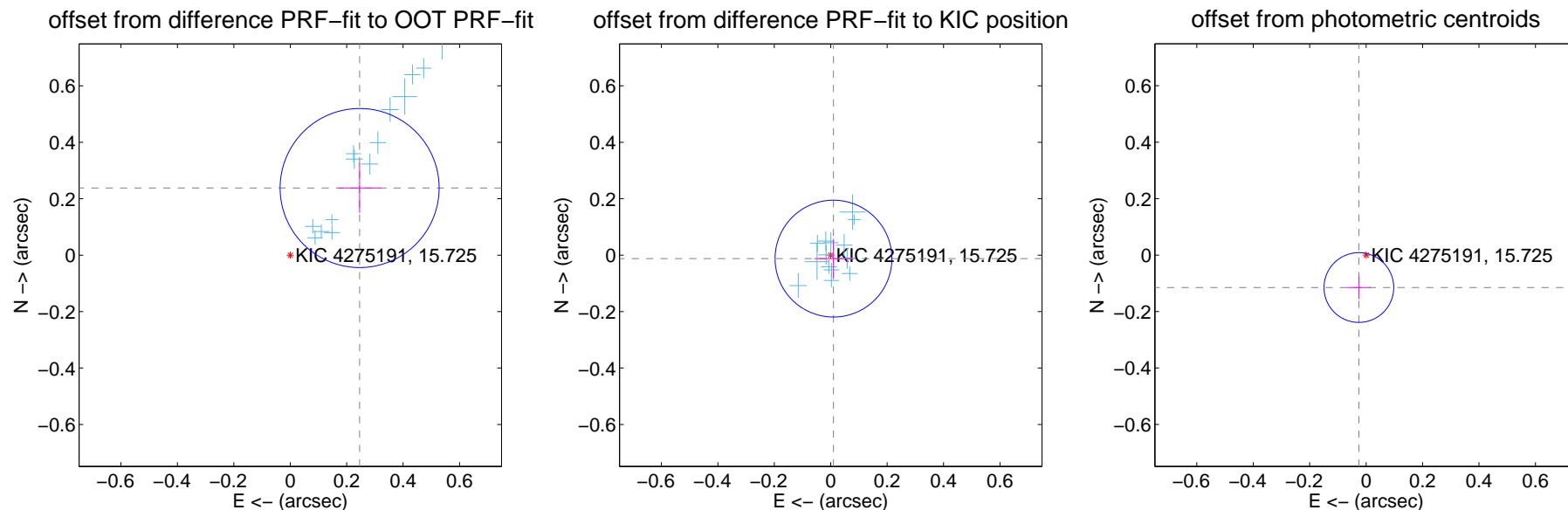
DV Centroid Data

Supplemental centroid analysis for 004275191-01. Kepler magnitude: 15.72. Transit SNR 368.58

There are 14 quarters with good PRF difference image offsets

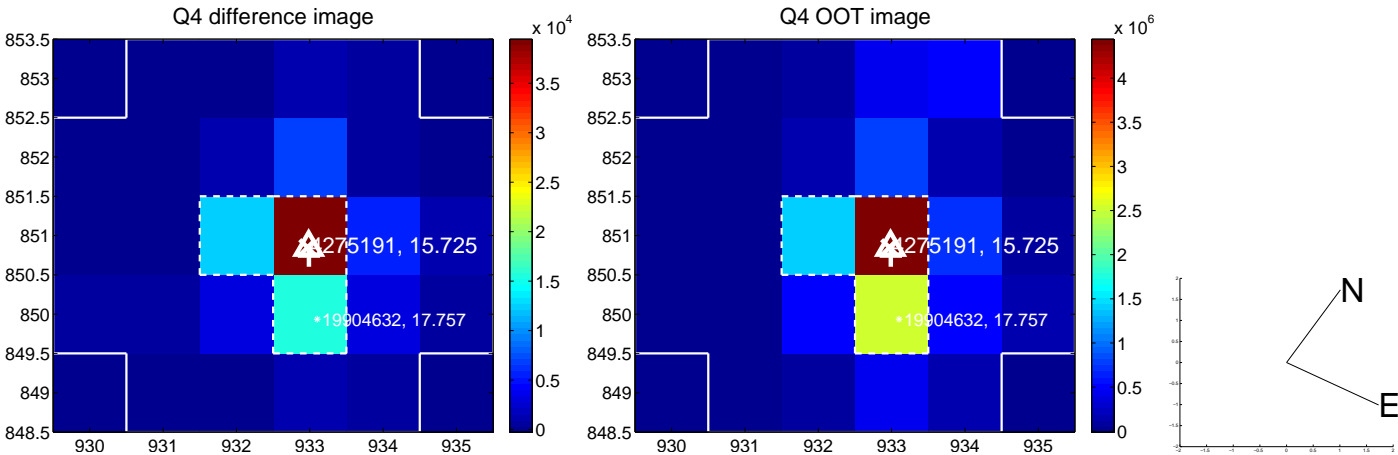
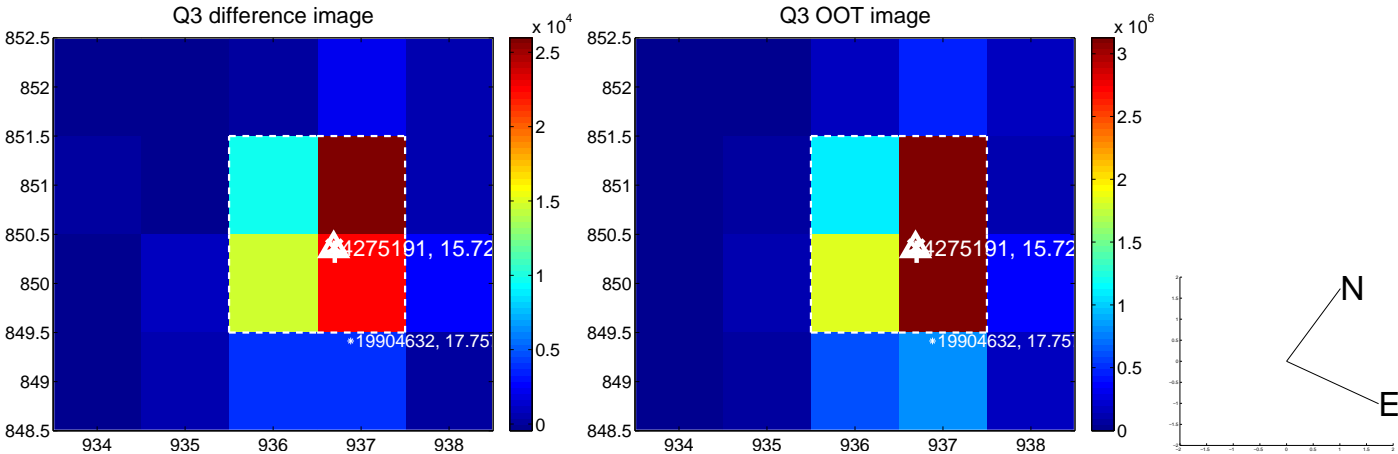
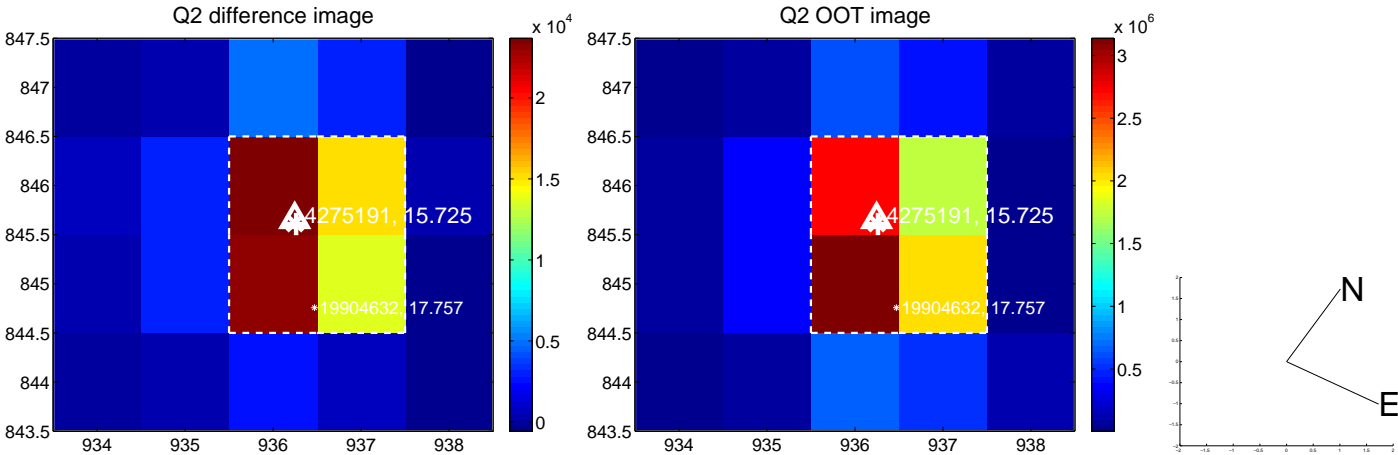
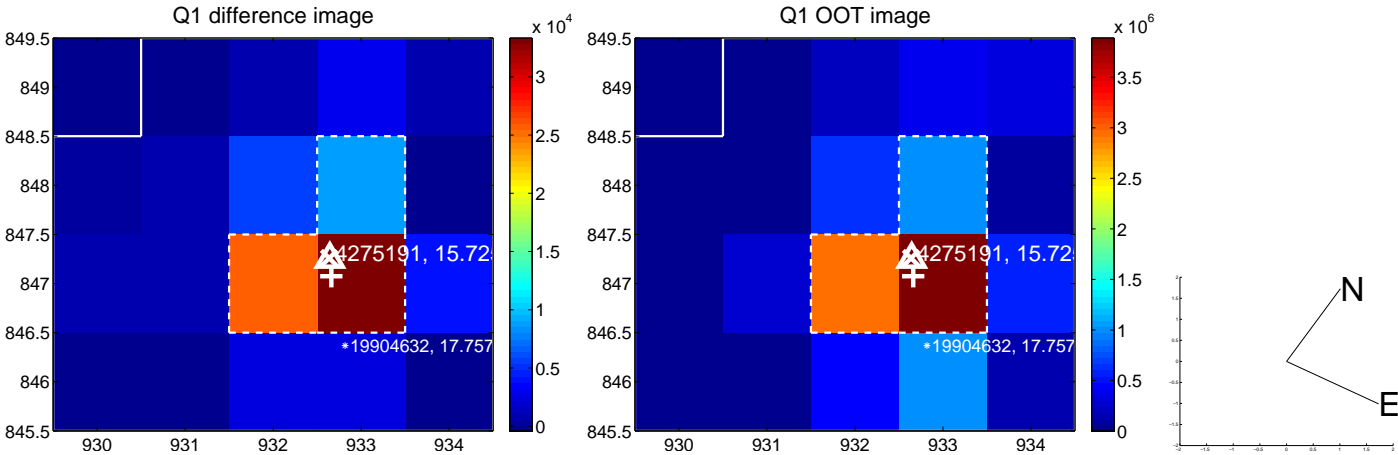
The direct PRF centroid is offset from the target star catalog position by about 0.76 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.342 ± 0.094	3.64	-0.246 ± 0.076	0.238 ± 0.088
PRF-fit source offset from KIC position	0.016 ± 0.069	0.23	-0.010 ± 0.068	-0.012 ± 0.069
photometric centroid source offset	0.12 ± 0.04	2.86	0.03 ± 0.04	-0.11 ± 0.04

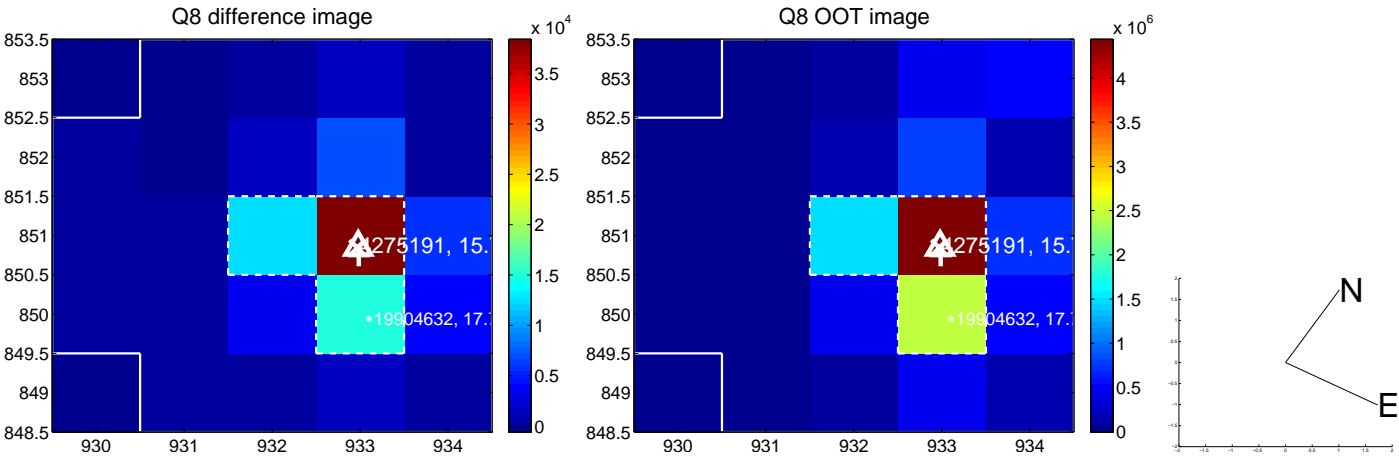
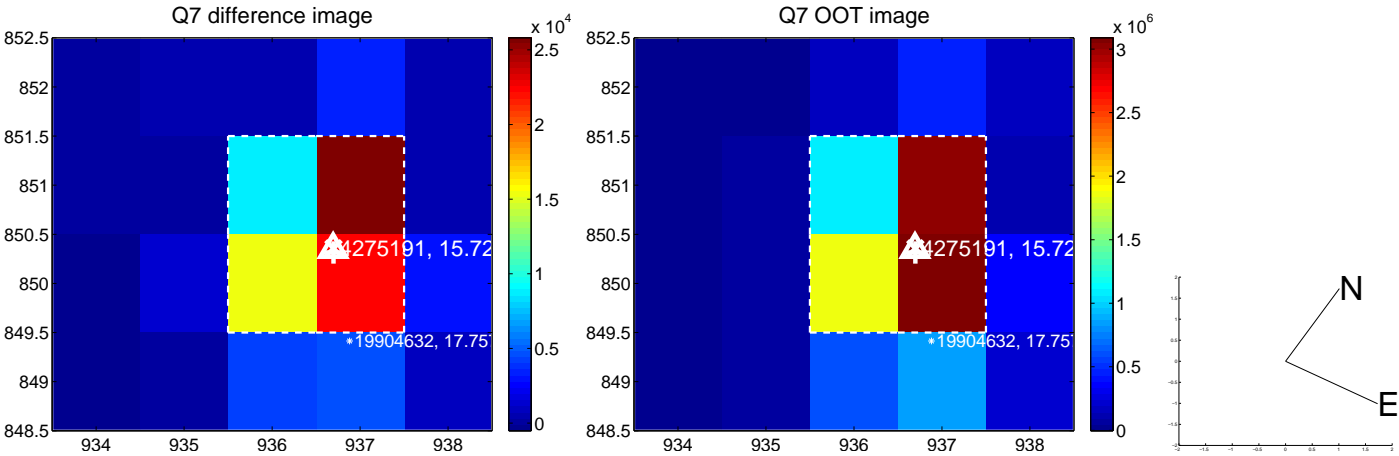
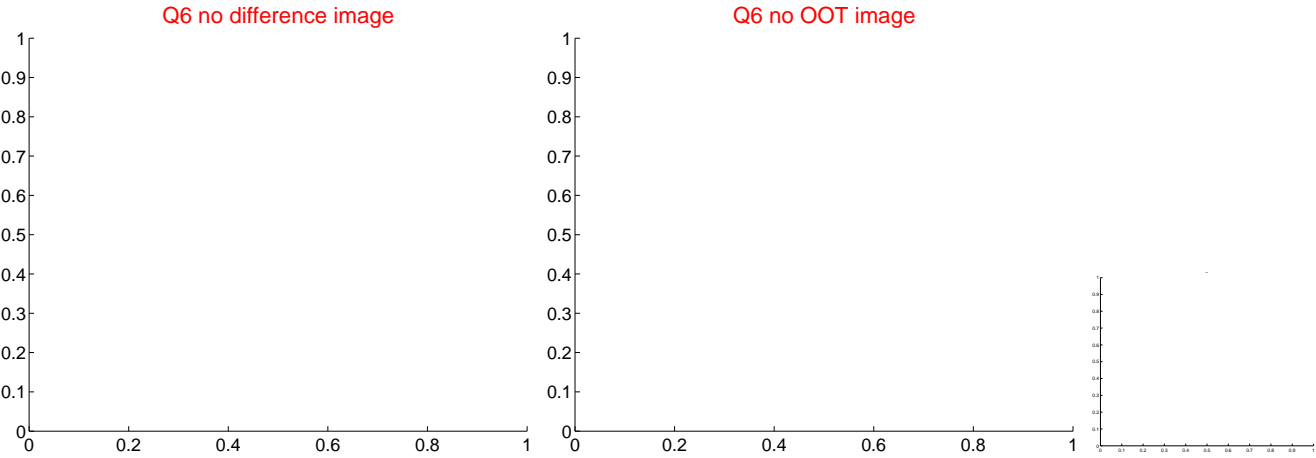
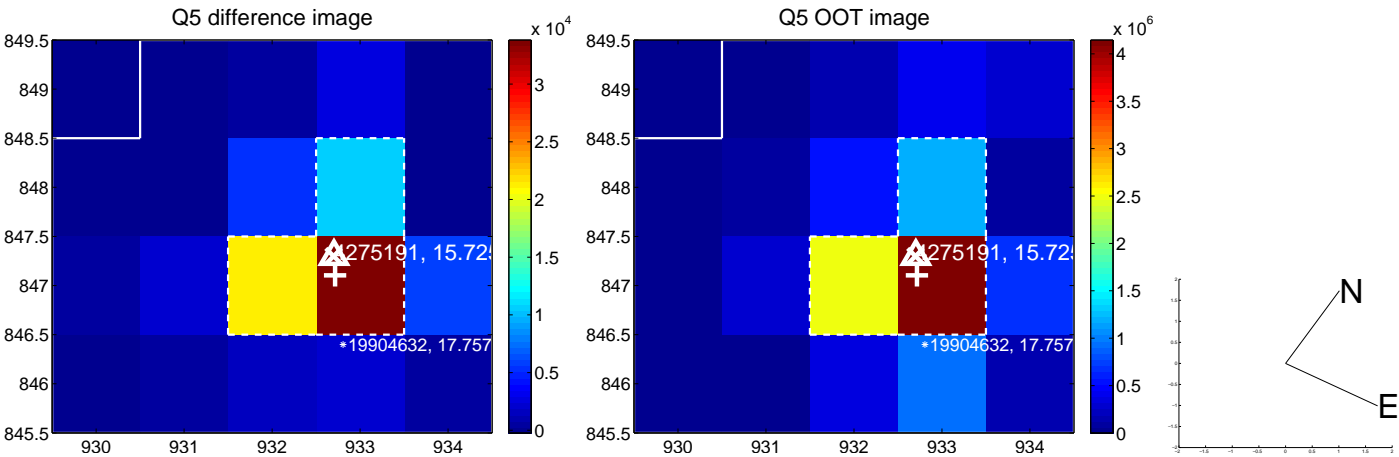


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

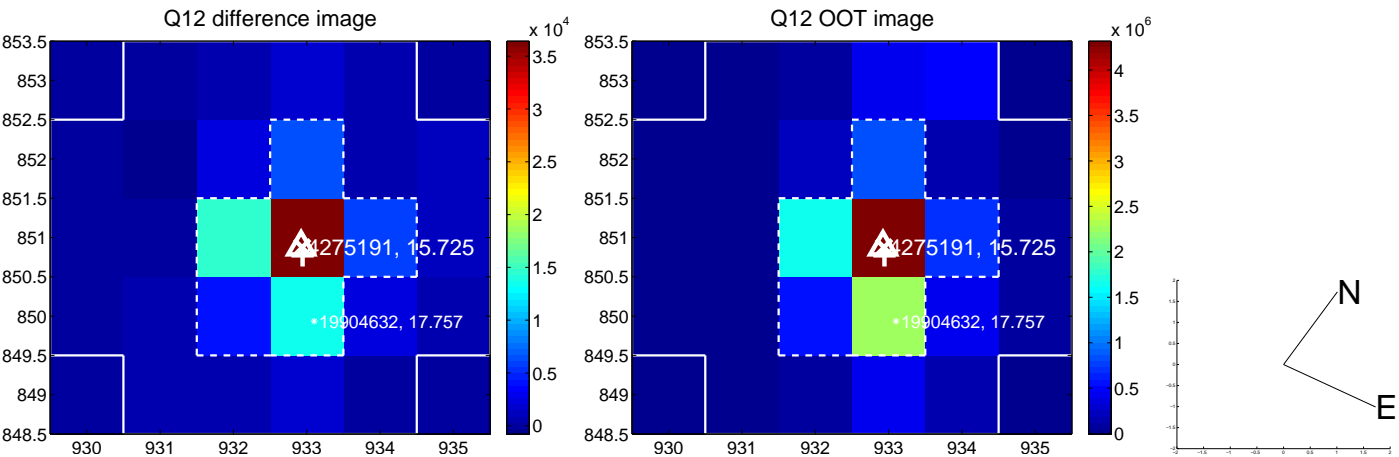
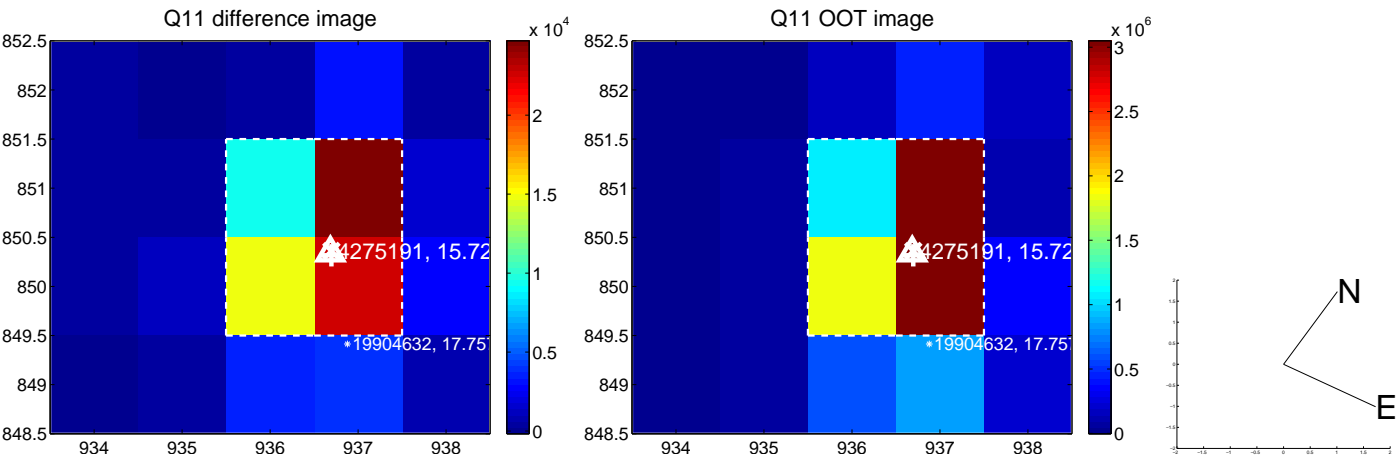
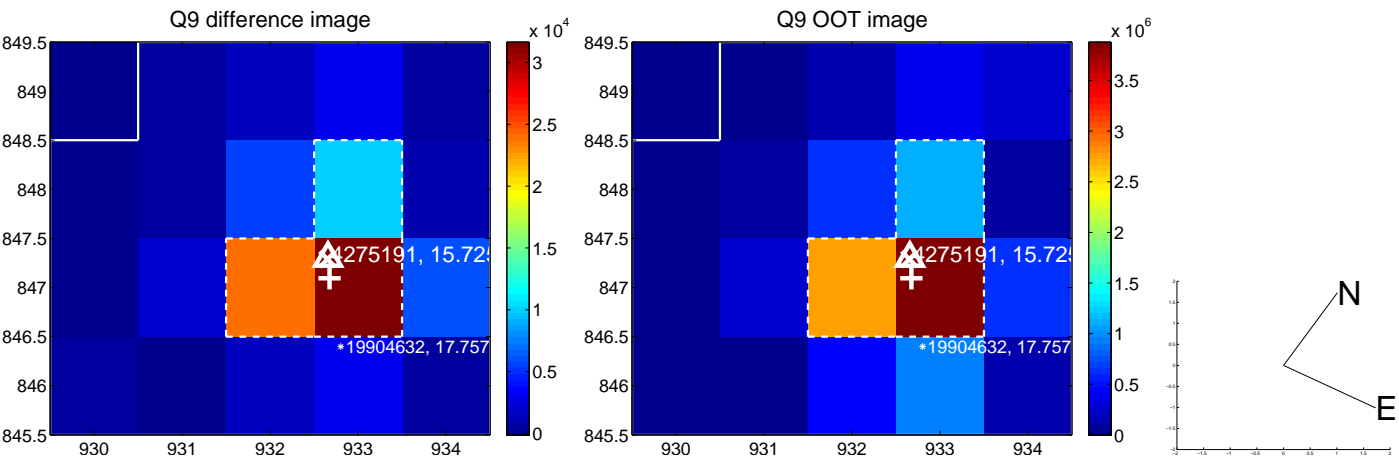
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



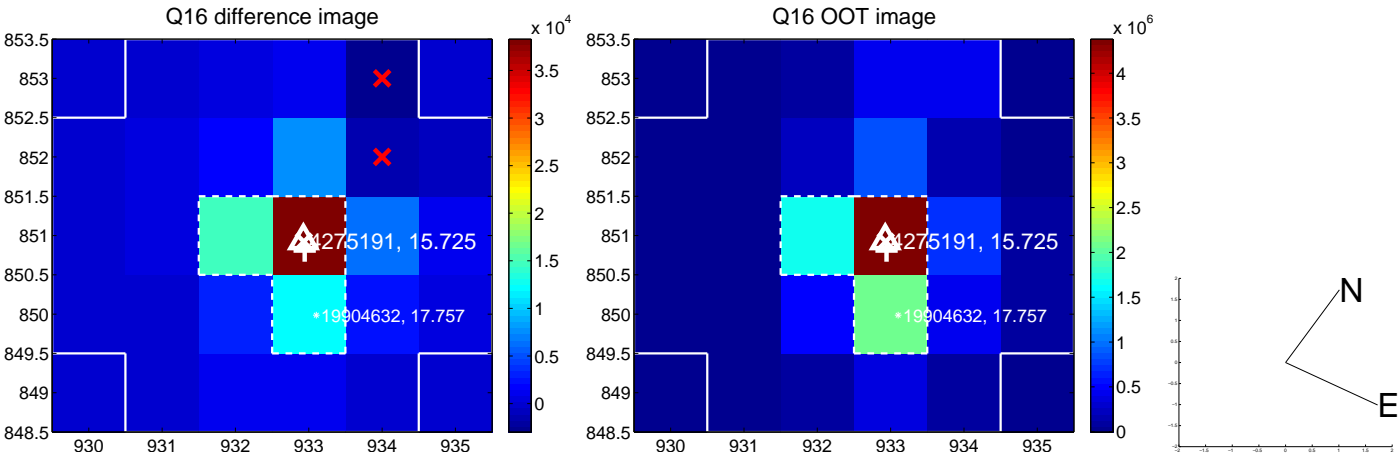
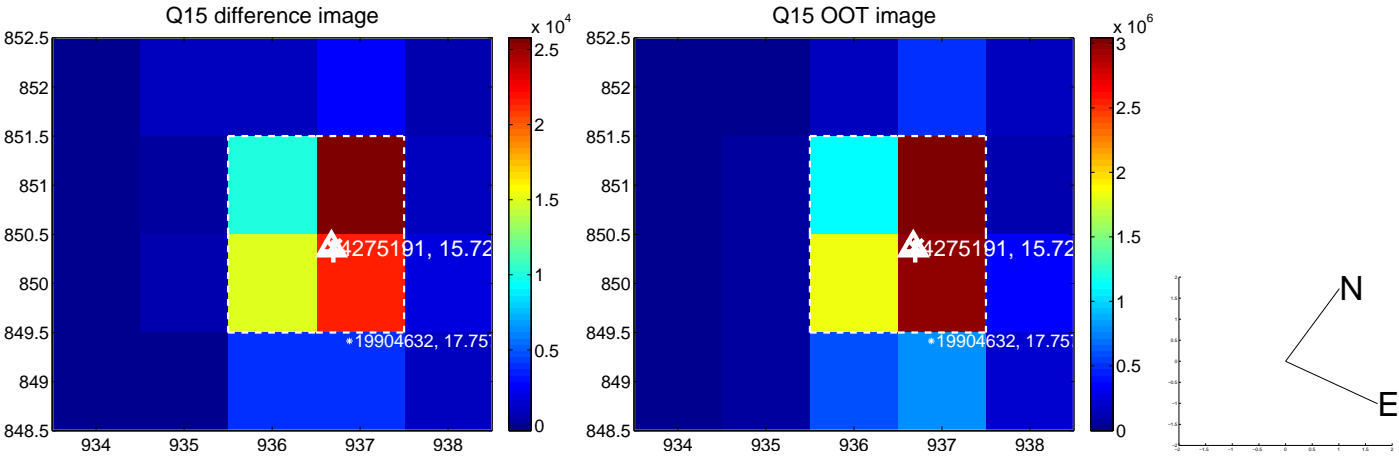
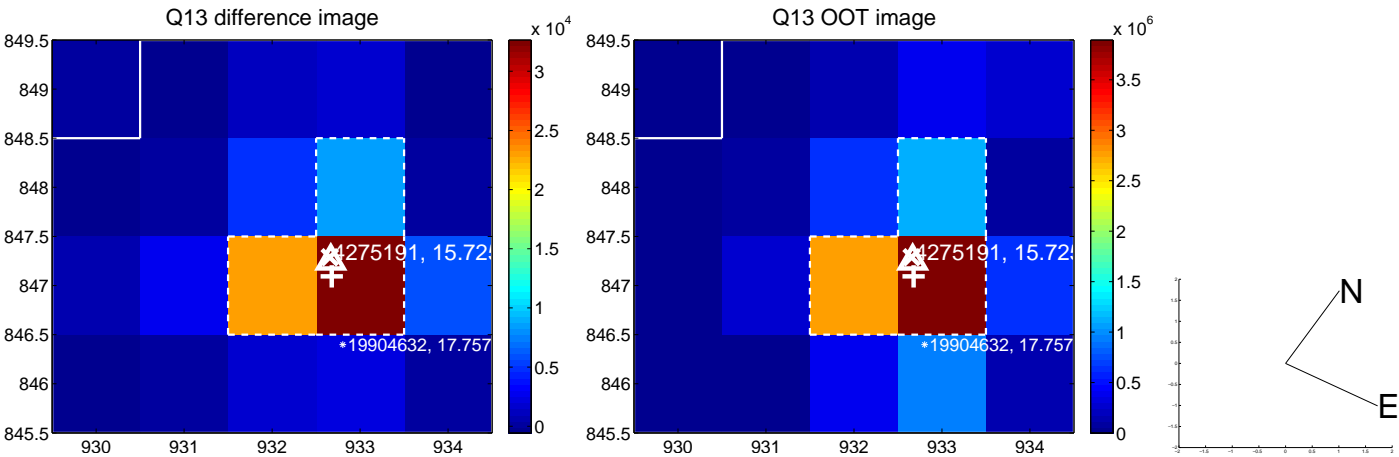
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



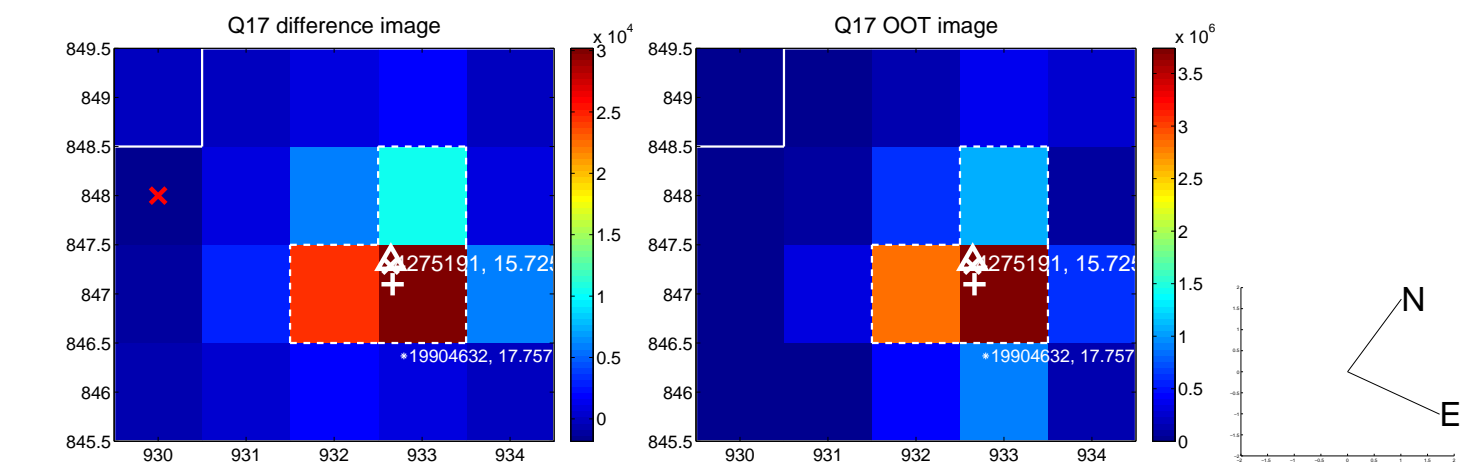
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



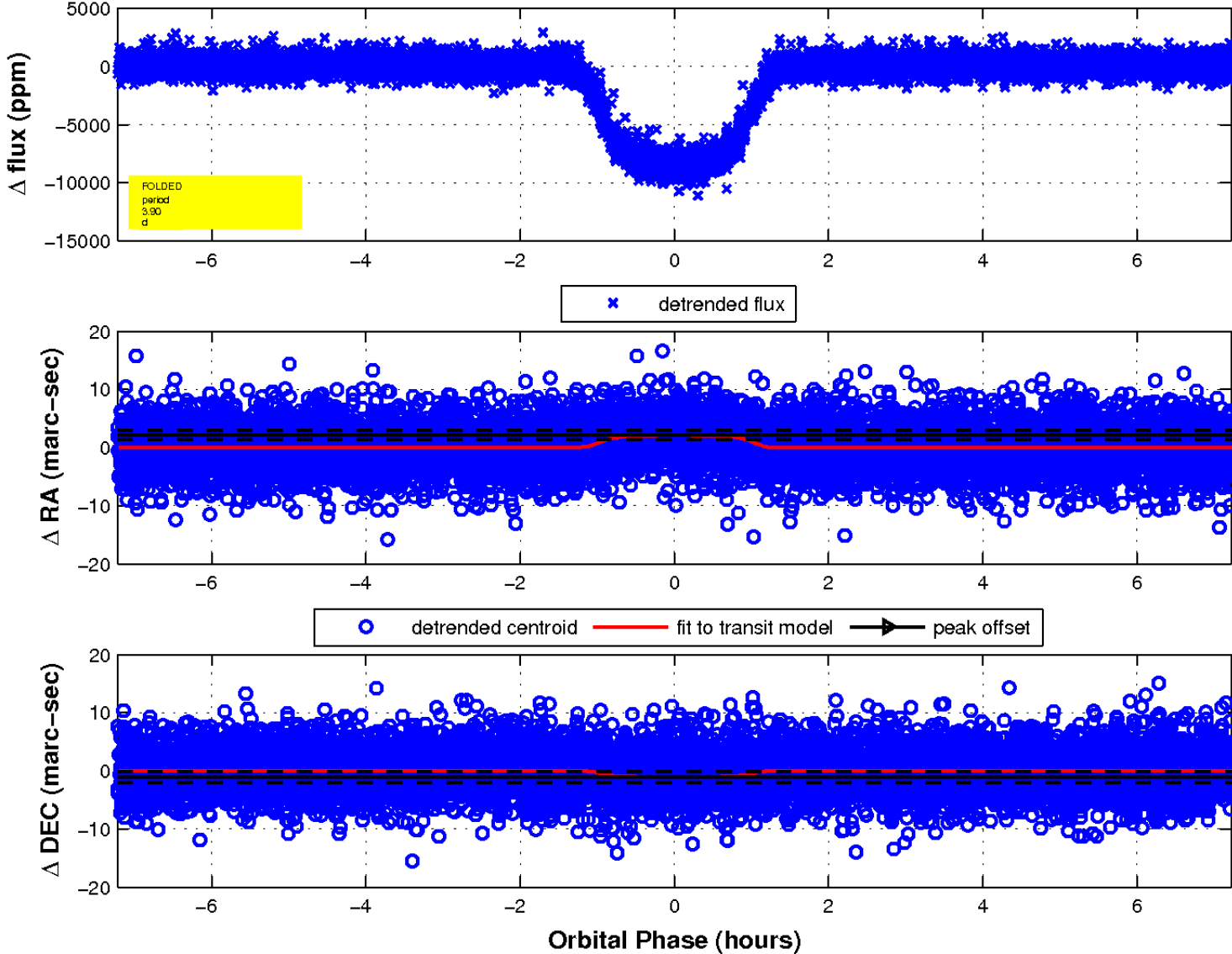
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

