

KIC 009291275

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})
009291275-01	OBS	No	1.193975	132.642955	115.1	12.059	15.3	25.4	1.86	8171	2.06	20654.28

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009291275-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT

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

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

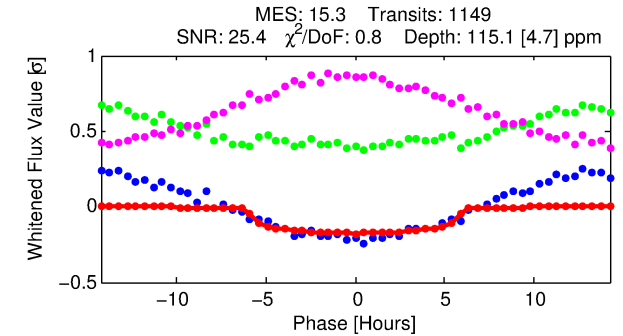
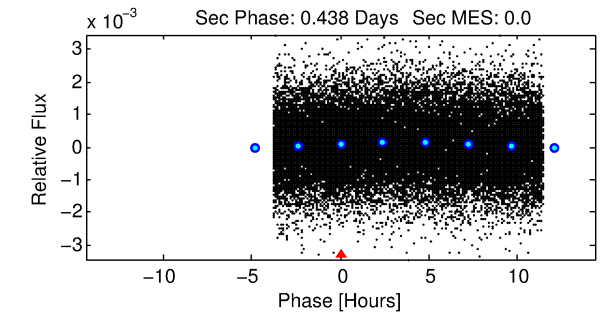
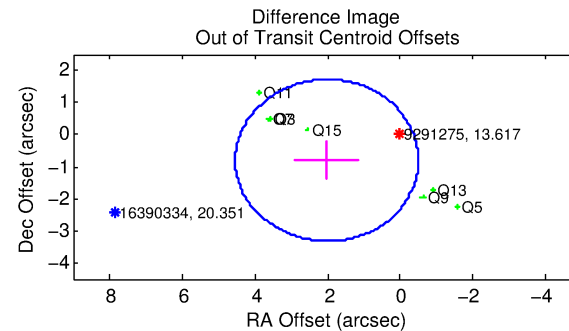
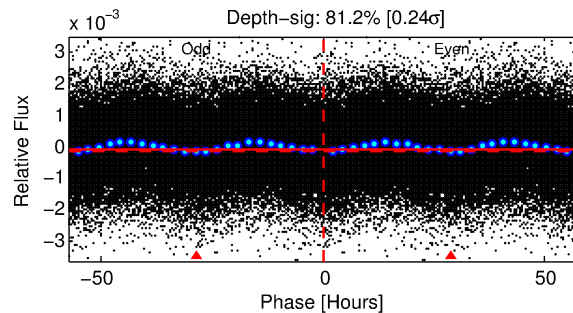
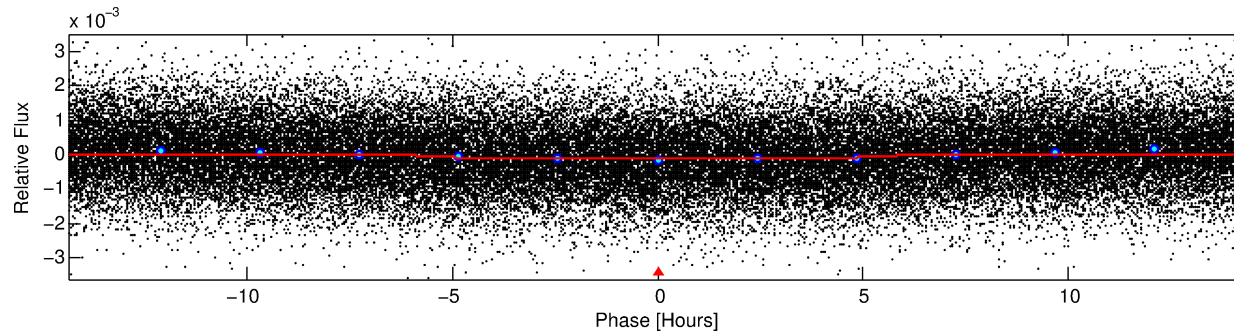
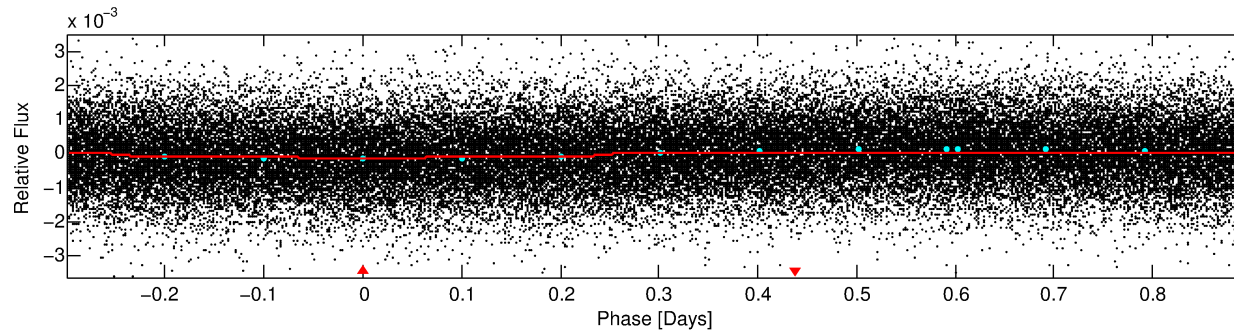
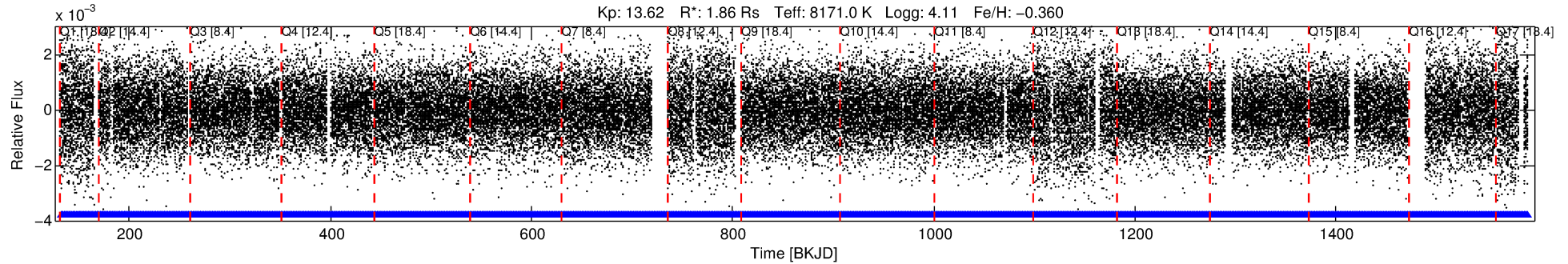
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009291275-01

No Significant Match Found

DV One-Page Summary

KIC: 9291275 Candidate: 1 of 1 Period: 1.194 d



DV Fit Results:

Period = 1.19398 [0.00001] d
Epoch = 132.6430 [0.0055] BKJD
Rp/R* = 0.0101 [0.0037]
a/R* = 1.04 [0.14]
b = 0.45 [3.77]
Seff = 20654.28 [7041.95]
Teq = 3057 [261] K
Rp = 2.06 [0.89] Re
a = 0.0259 [0.0053] AU
Ag = N/A
Teffp = N/A

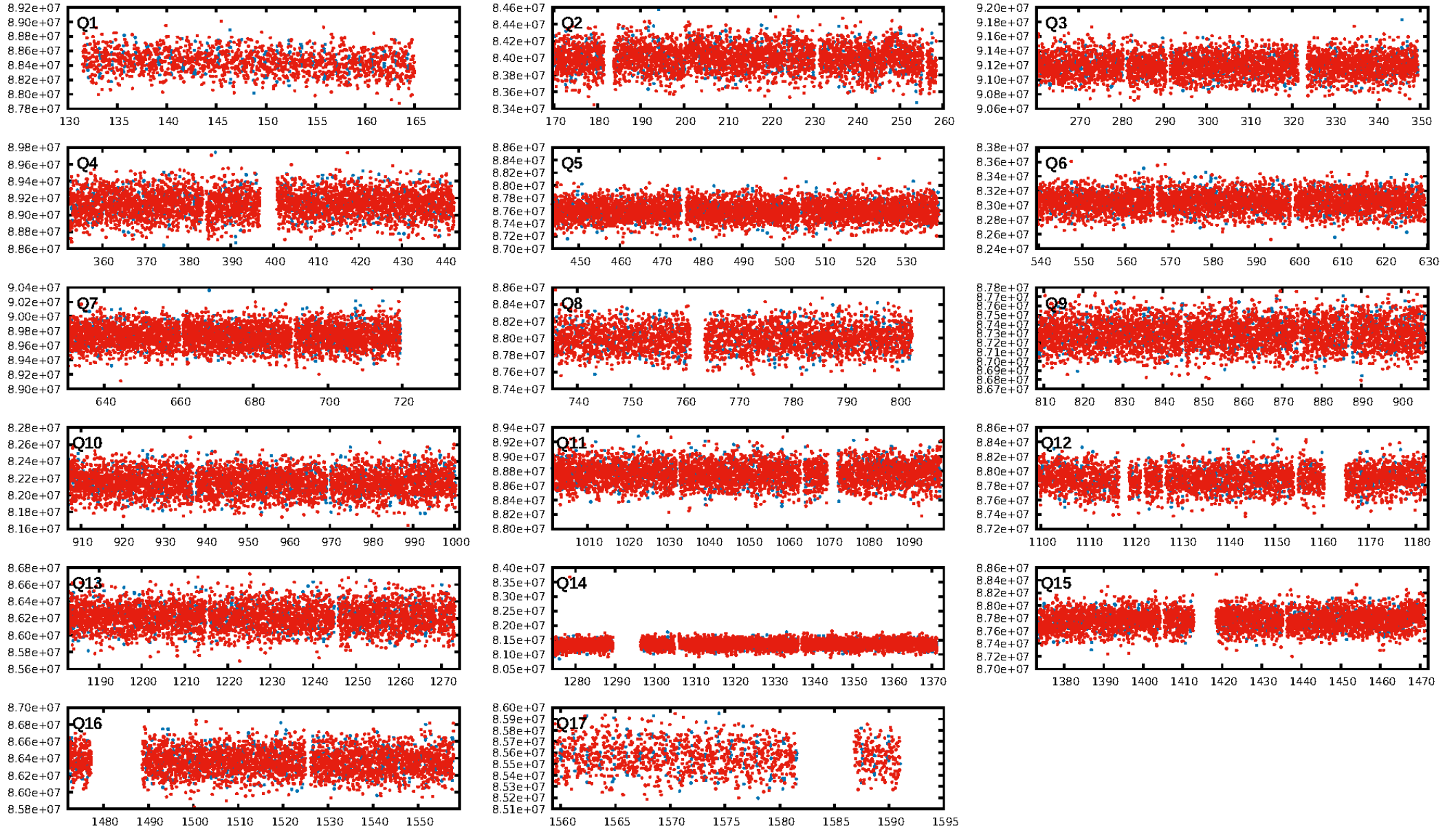
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1097/1097]
GhostDiagnostic-chr: 3.151
Centroid-sig: 7.5%
Centroid-so: 0.259 arcsec [2.16 σ]
OotOffset-rm: 2.171 arcsec [2.59 σ]
KicOffset-rm: 2.060 arcsec [2.47 σ]
OotOffset-st: 0/4/0/3 [7]
KicOffset-st: 0/4/0/3 [7]
DiffImageQuality-fgm: 0.43 [3/7]
DiffImageOverlap-fno: 1.00 [17/17]

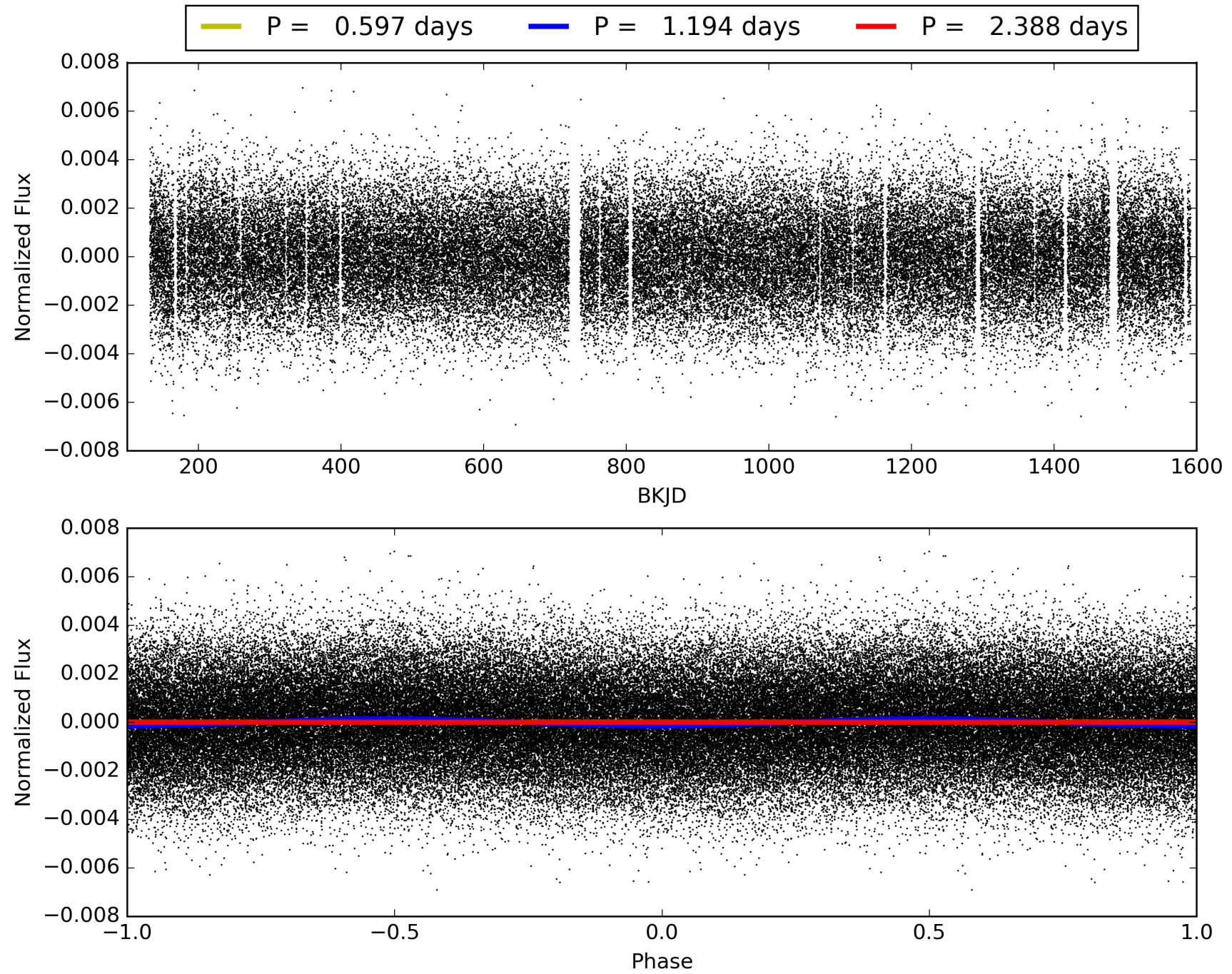
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 11:35:56 Z

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

TCE 009291275-01, PDC Light Curves

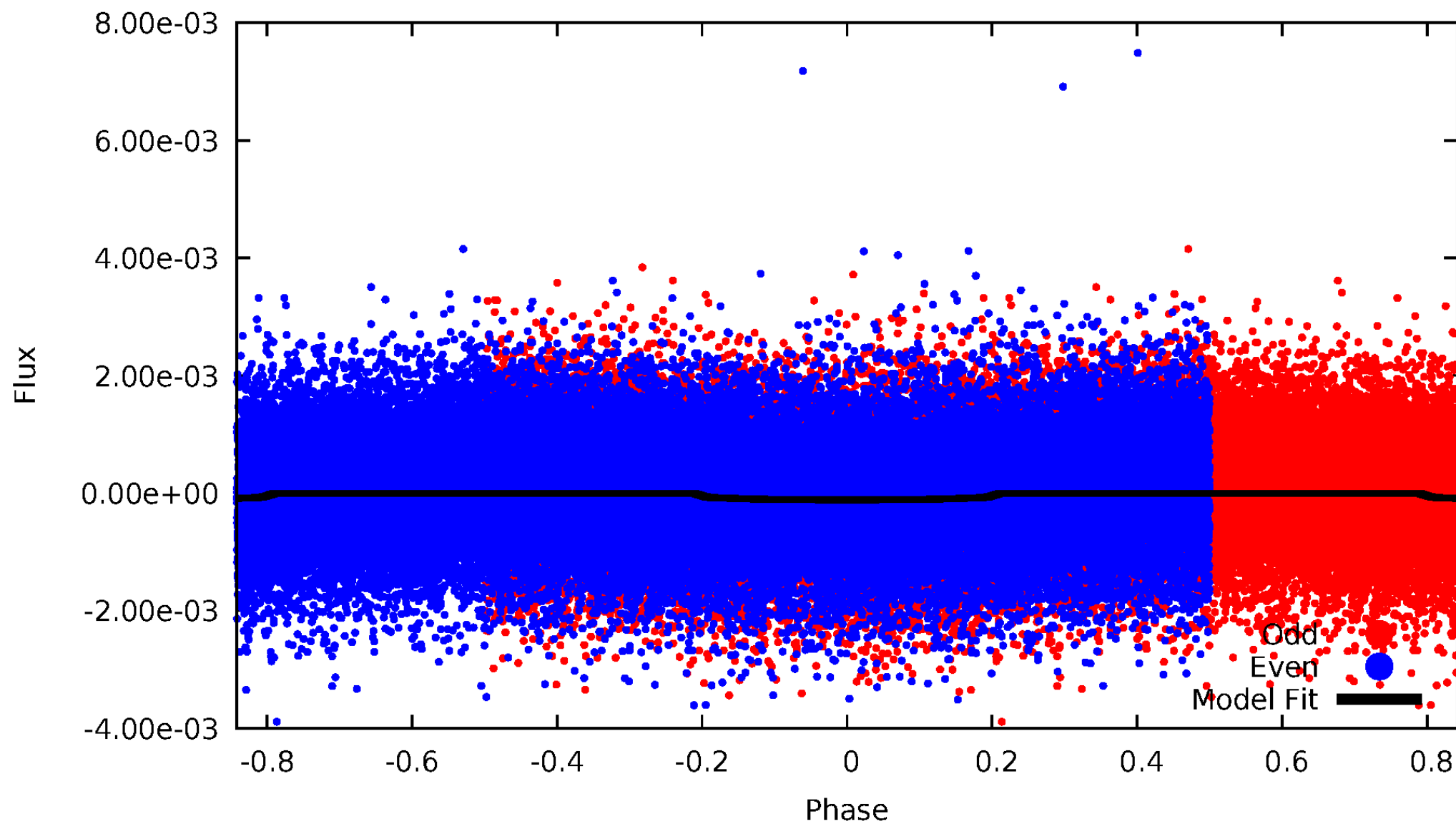


TCE 009291275-01



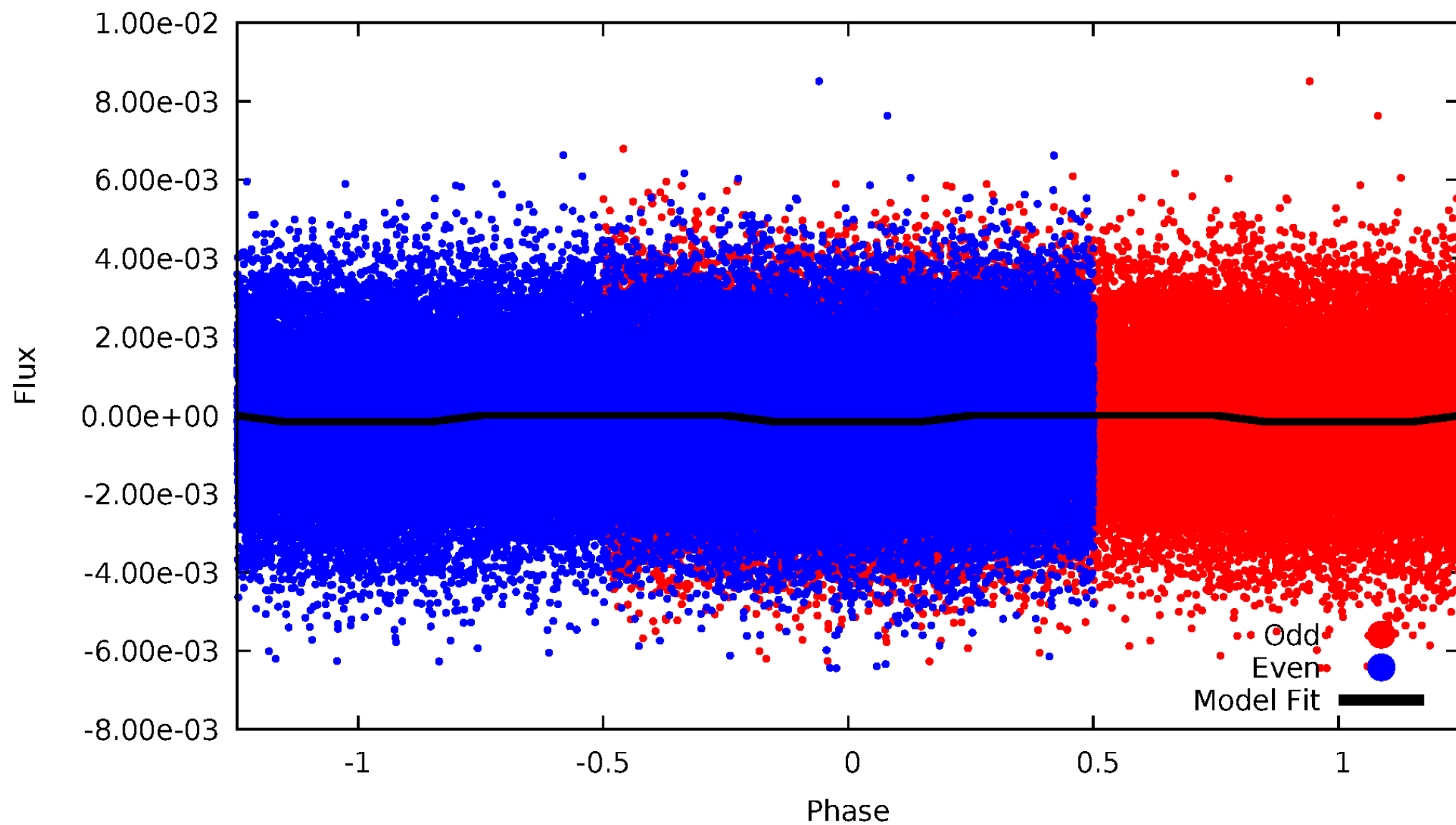
DV Odd/Even

TCE 009291275-01



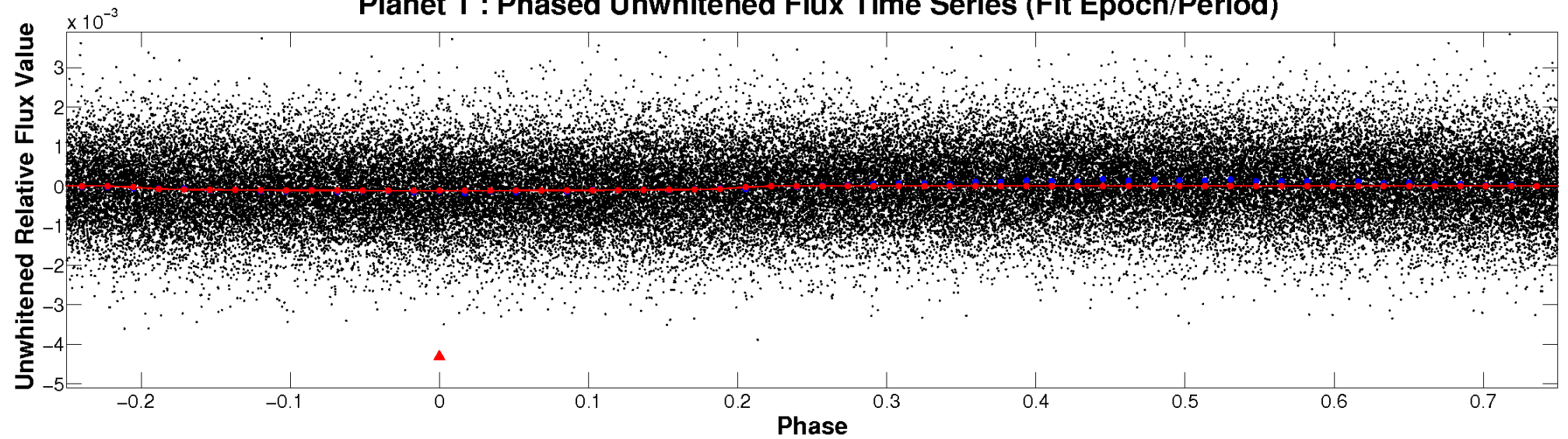
ALT Odd/Even

TCE 009291275-01

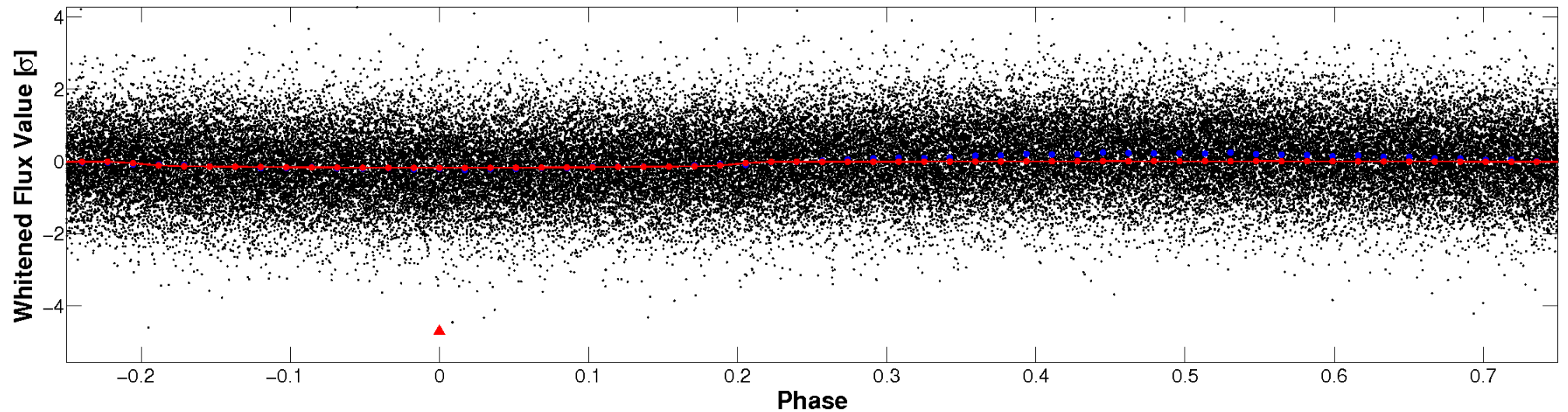


Non-Whitened Vs. Whitened Light Curve

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

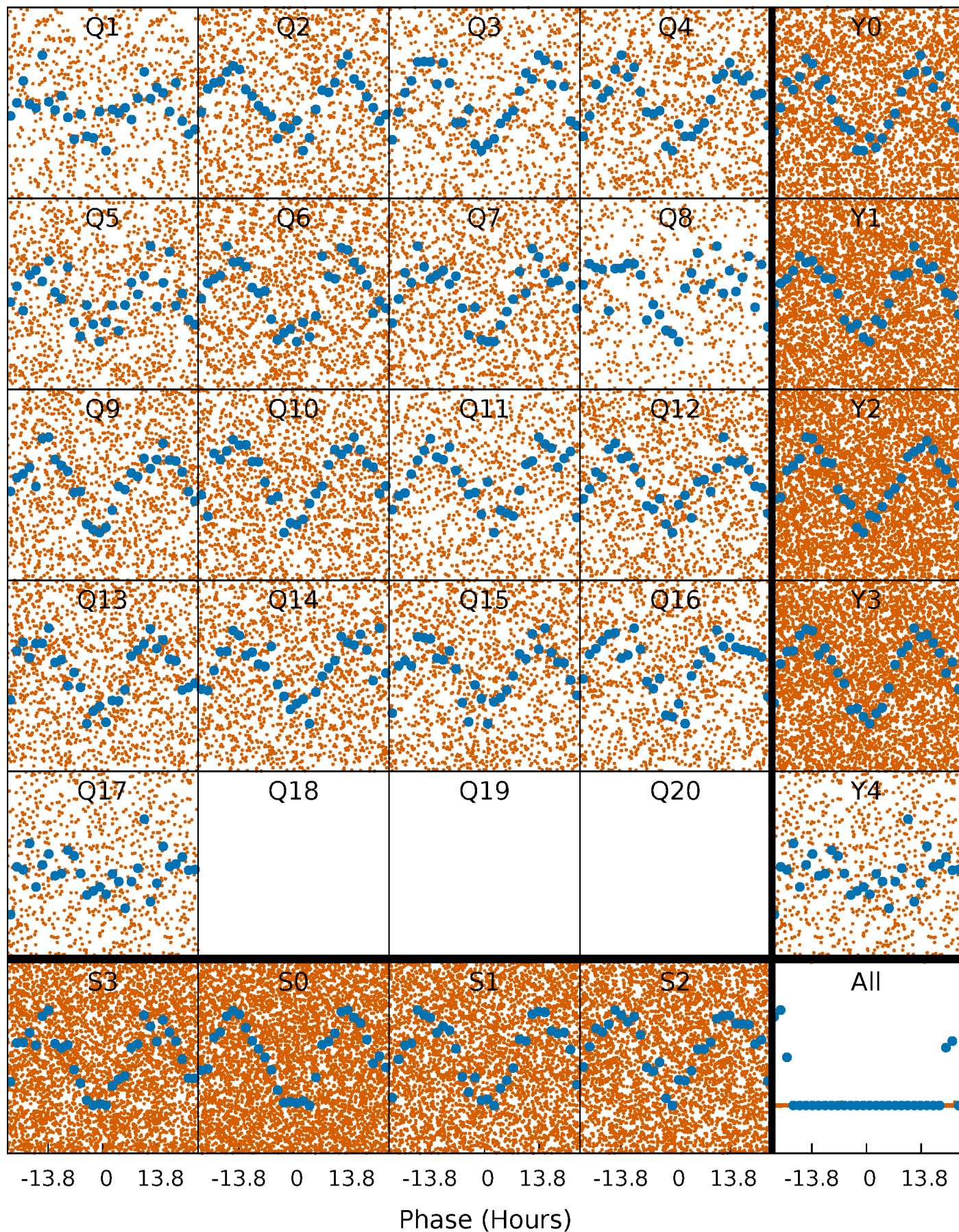


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



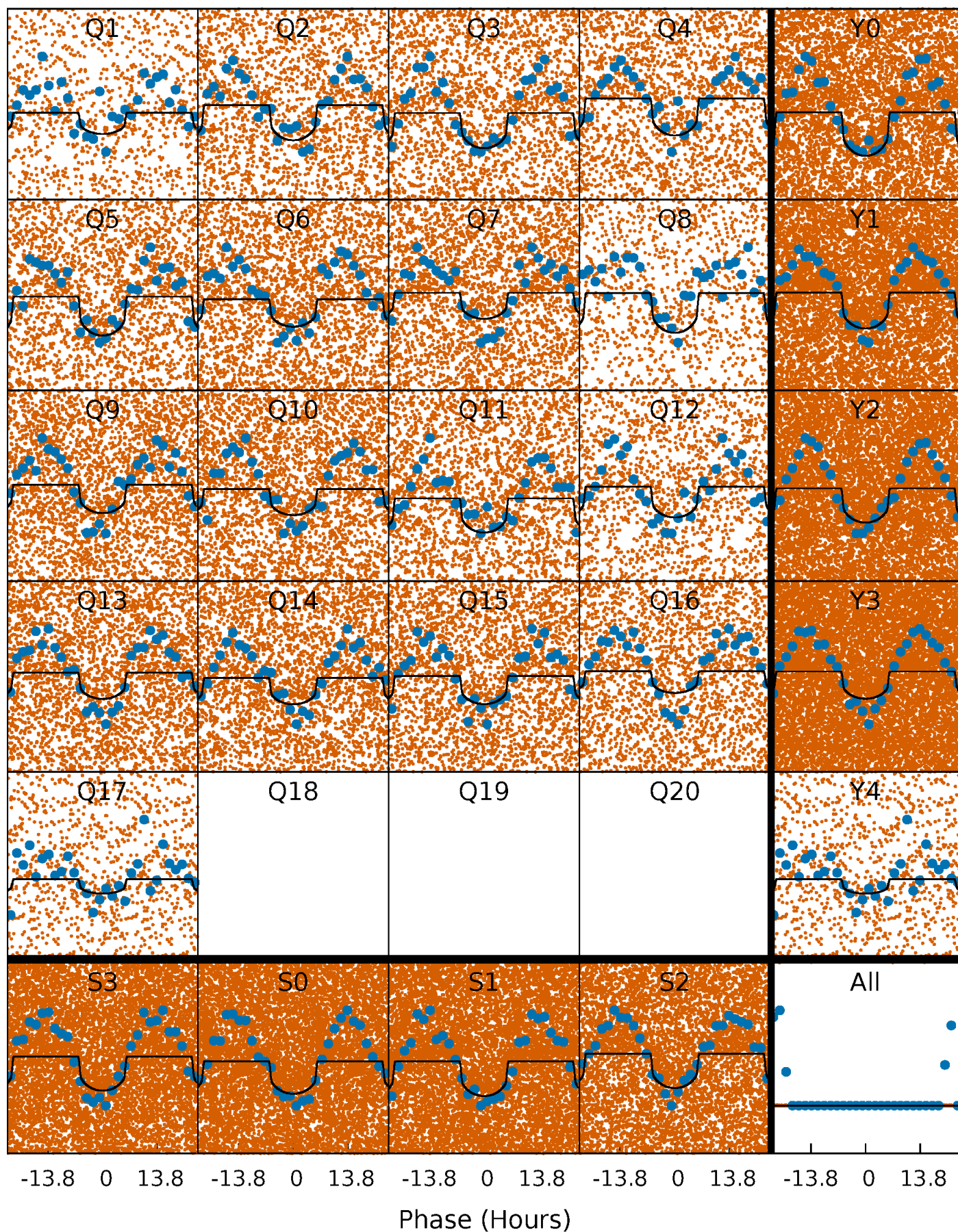
PDC Quarter-Phased Transit Curves

TCE 009291275-01 P= 1.193975 Days $T_0=132.642955$ (BKJD)



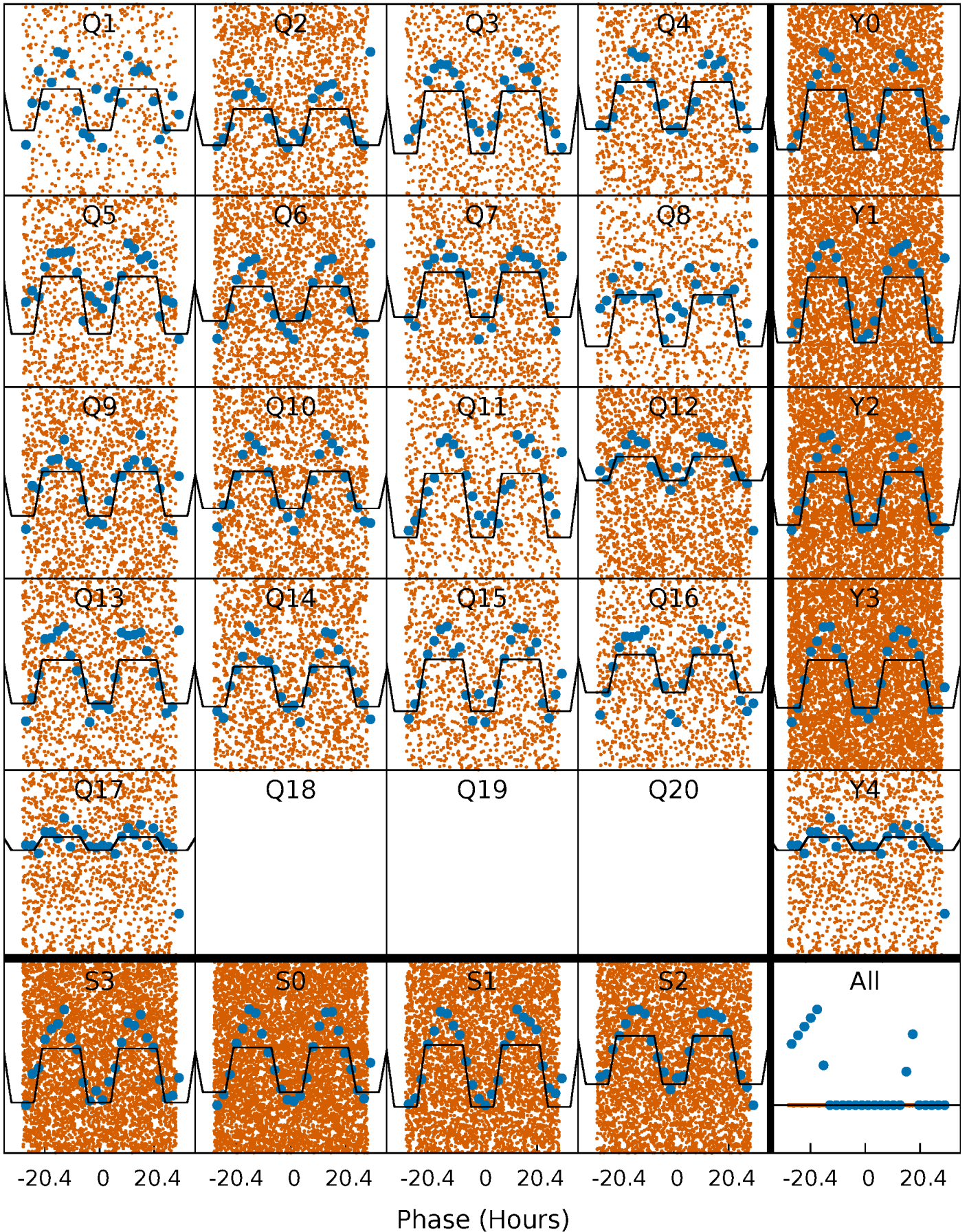
DV Quarter-Phased Transit Curves

TCE 009291275-01 P= 1.193975 Days $T_0=132.642955$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

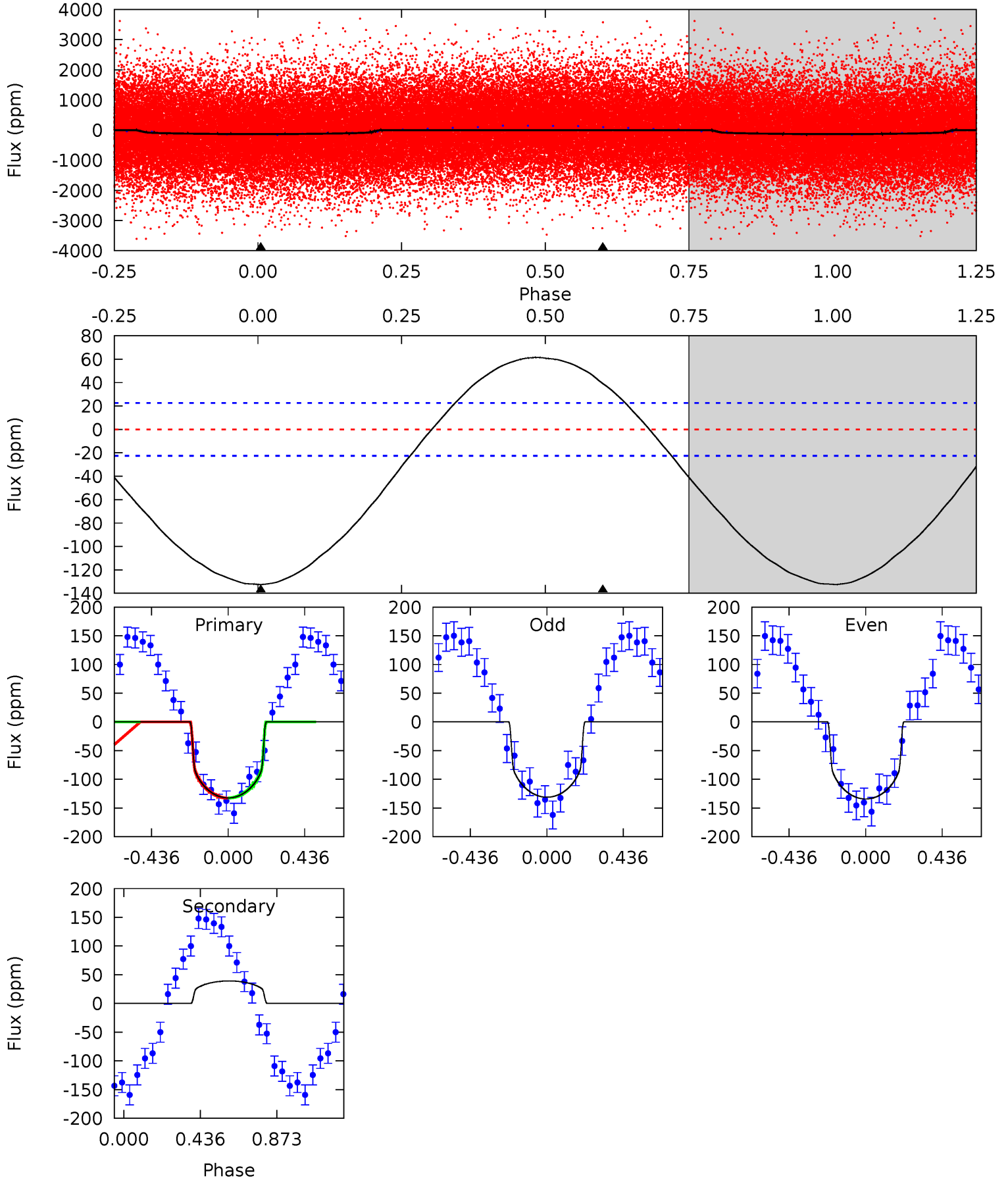
TCE 009291275-01 P= 1.193992 Days $T_0=132.623427$ (BKJD)



DV Model-Shift Uniqueness Test

009291275-01, P = 1.193975 Days, E = 131.448980 Days

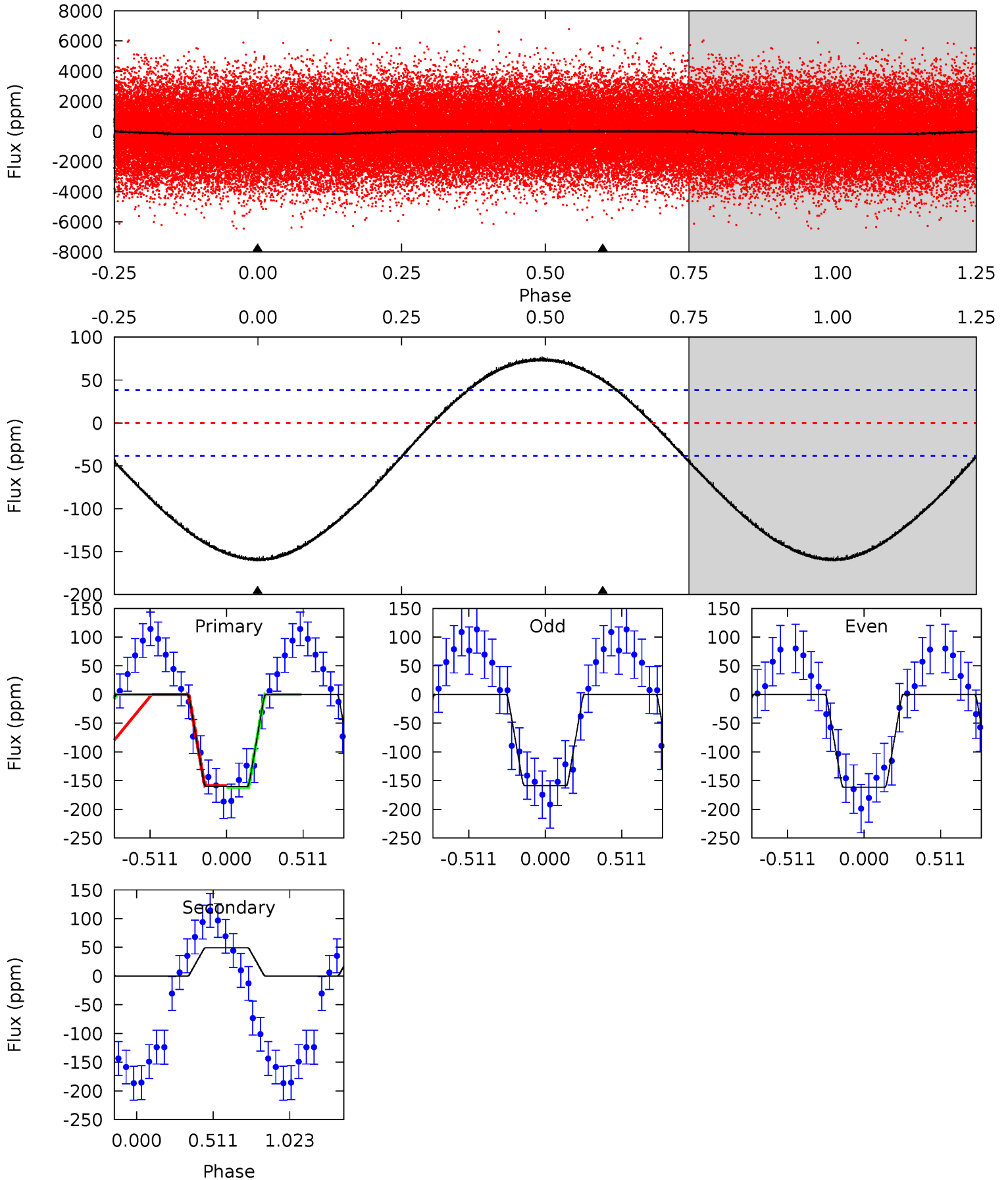
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.9	-7.39	0	0	4.25	0.78	3.19	24.9	24.9	-7.39	-7.39	0.29	1.00	0.32	0.03



Alt Model-Shift Uniqueness Test

009291275-01, P = 1.193992 Days, E = 131.429435 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.6	-5.42	0	0	4.21	0.66	2.27	17.6	17.6	-5.42	-5.42	0.15	0.91	0.33	0.19



Stellar Parameters For KIC 009291275

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8171^{+253}_{-310}	$4.108^{+0.171}_{-0.155}$	$-0.360^{+0.150}_{-0.300}$	$1.860^{+0.435}_{-0.435}$	$1.614^{+0.189}_{-0.231}$	$0.354^{+0.293}_{-0.149}$
	+3%/-4%	+4%/-4%	+42%/-83%	+23%/-23%	+12%/-14%	+83%/-42%
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 009291275-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	39 ± 5	$2.04^{+0.86}_{-0.75}$	4272^{+315}_{-305}	-6420^{+916}_{-1716}	$-3.446^{+1.730}_{-5.292}$
Alt.	49 ± 9	$2.58^{+0.93}_{-0.78}$	4253^{+296}_{-295}	-5994^{+621}_{-1029}	$-2.694^{+1.268}_{-2.884}$

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

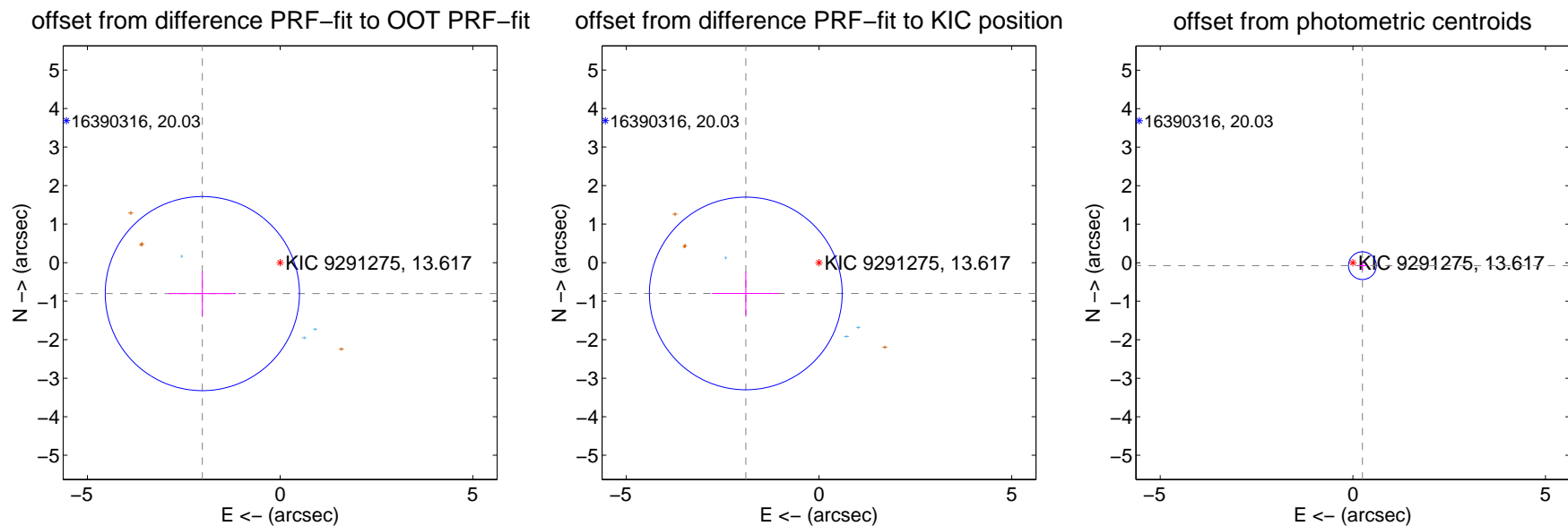
DV Centroid Data

Supplemental centroid analysis for 009291275-01. Kepler magnitude: 13.62. Transit SNR 25.42

There are 3 quarters with good PRF difference image offsets

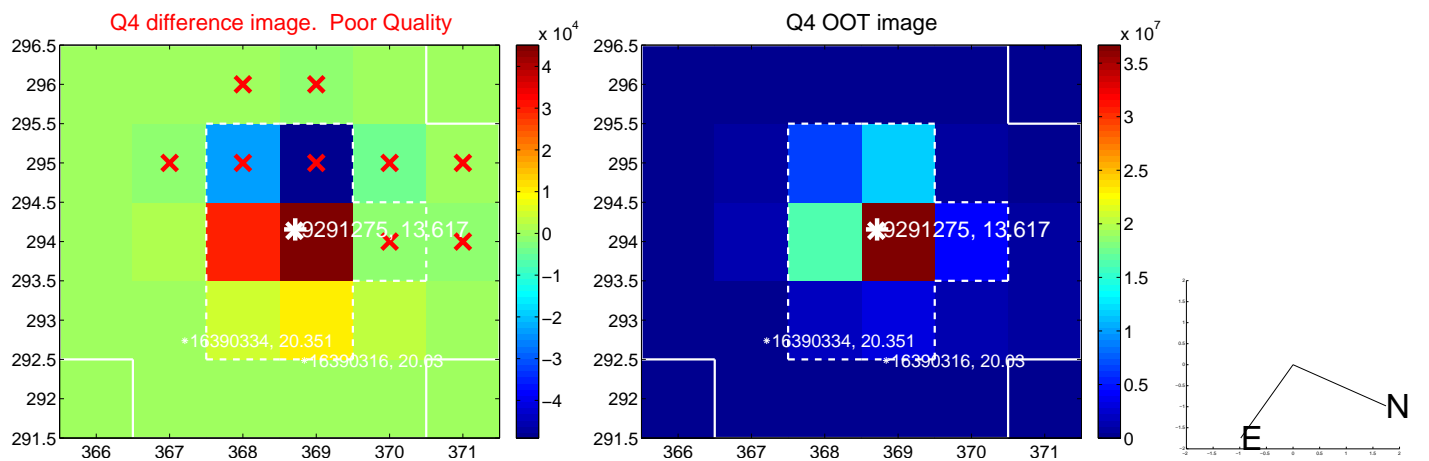
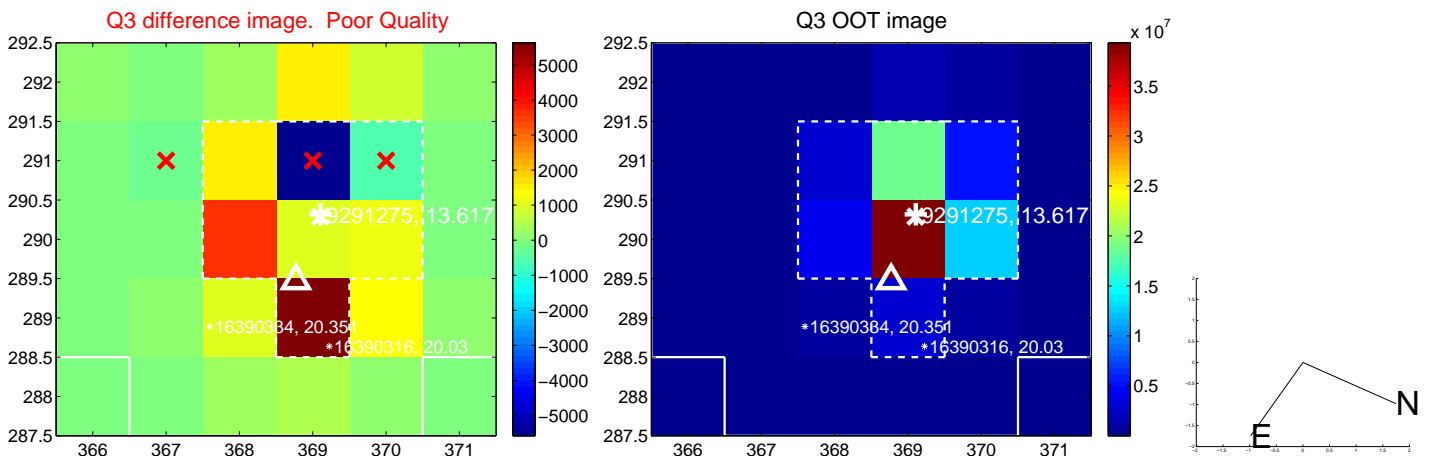
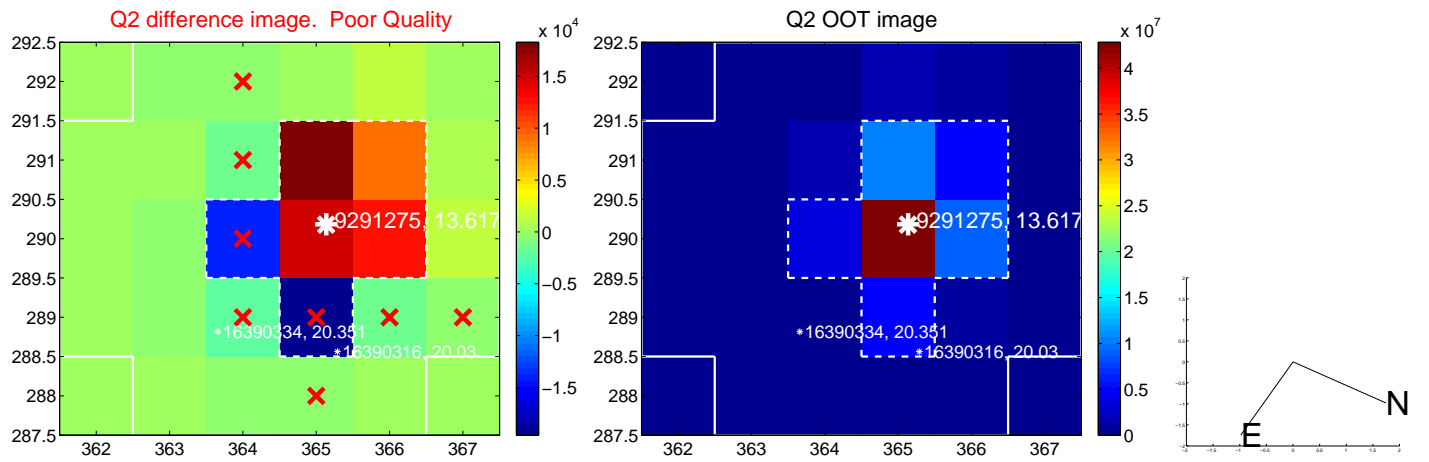
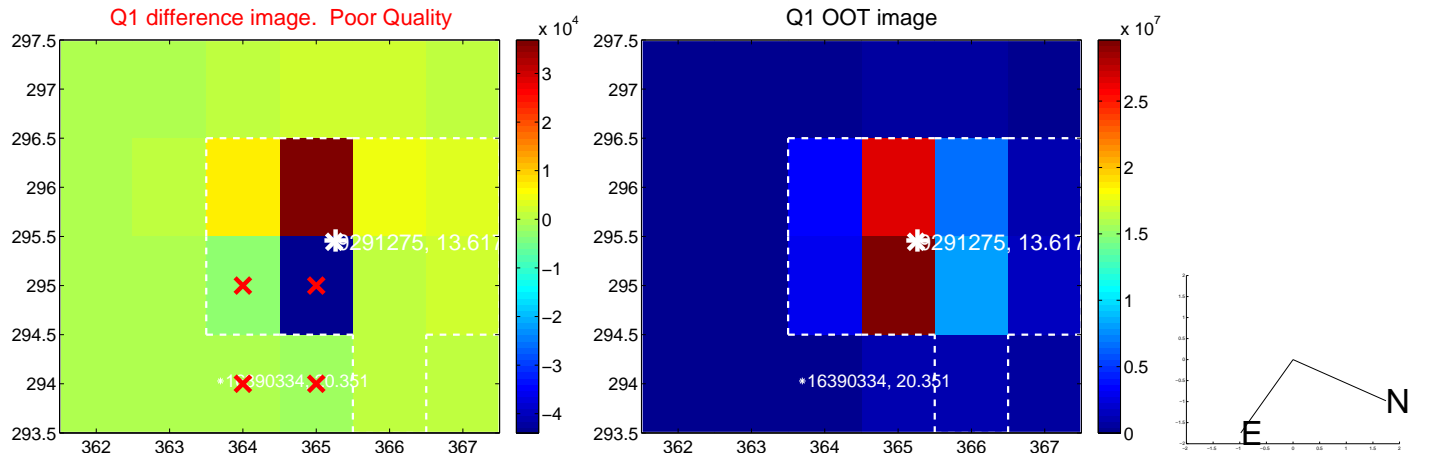
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.171 ± 0.840	2.59	2.017 ± 0.874	-0.803 ± 0.583
PRF-fit source offset from KIC position	2.060 ± 0.834	2.47	1.899 ± 0.872	-0.799 ± 0.566
photometric centroid source offset	0.26 ± 0.12	2.16	-0.25 ± 0.12	-0.08 ± 0.13

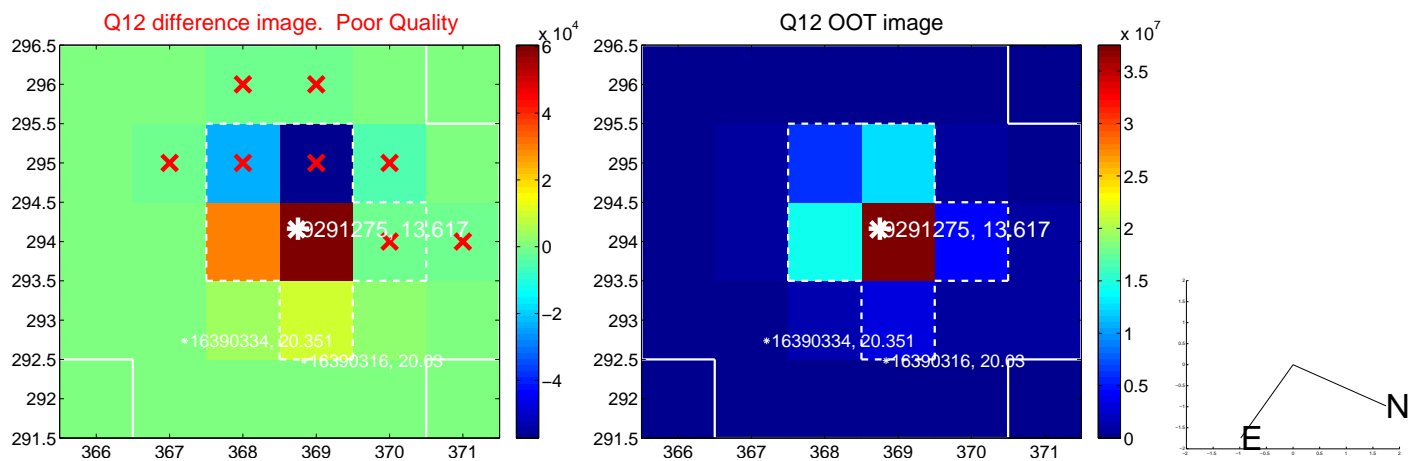
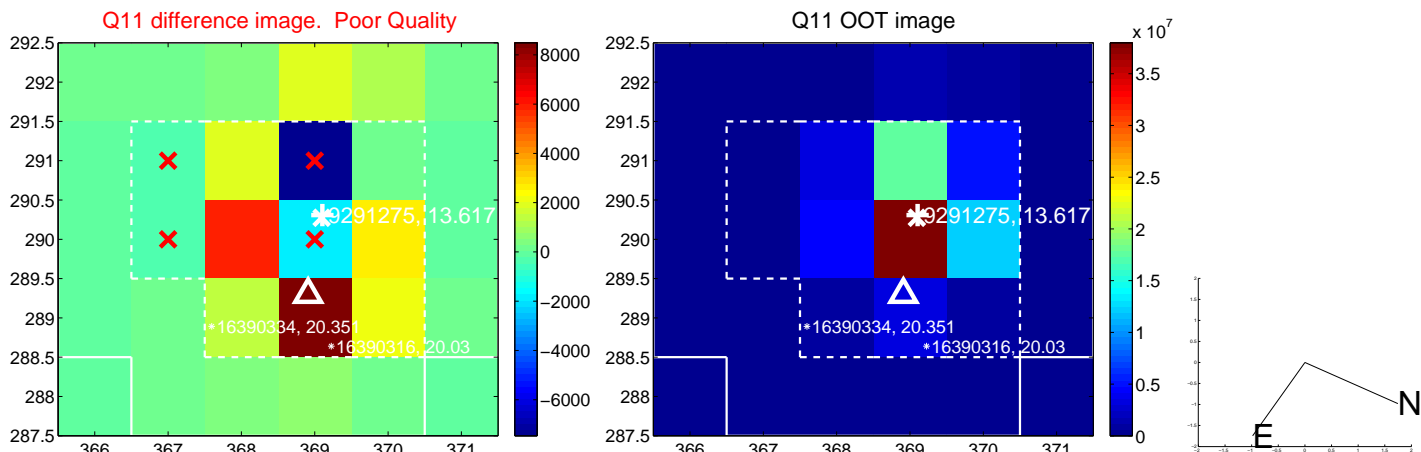
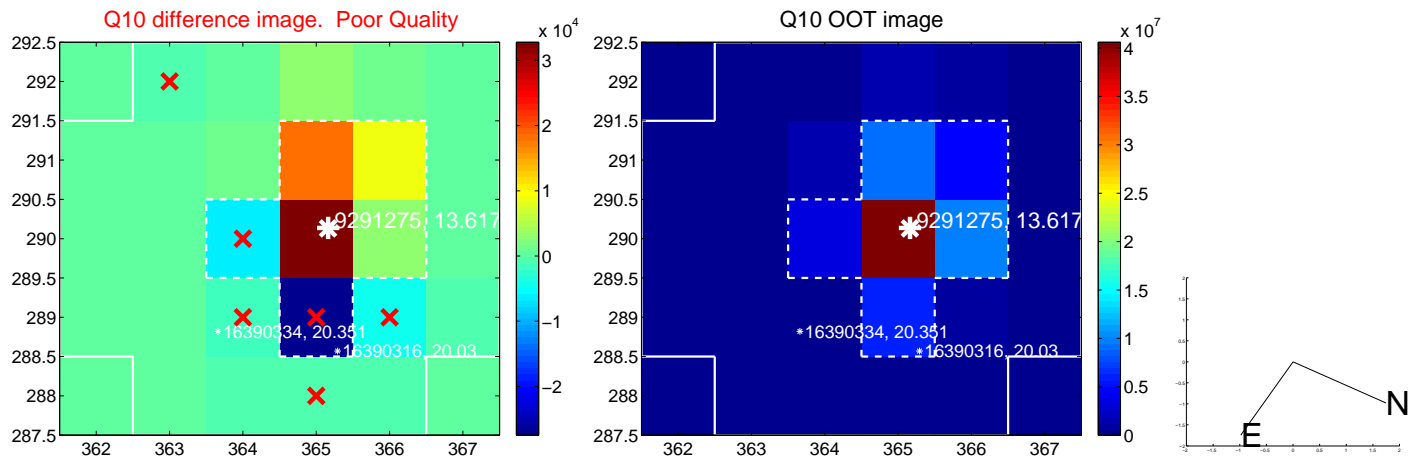
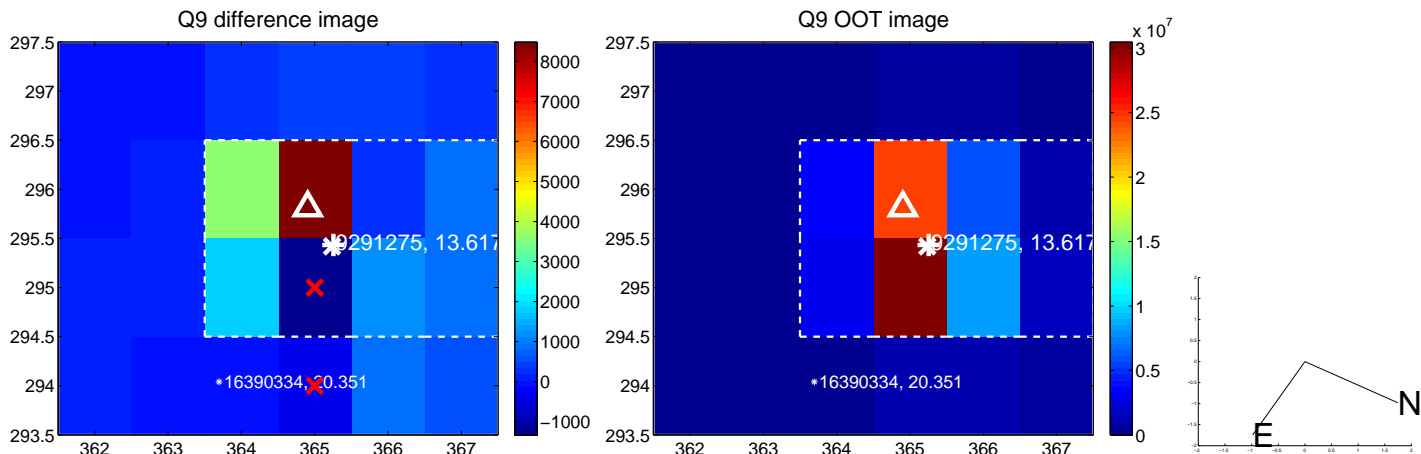


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

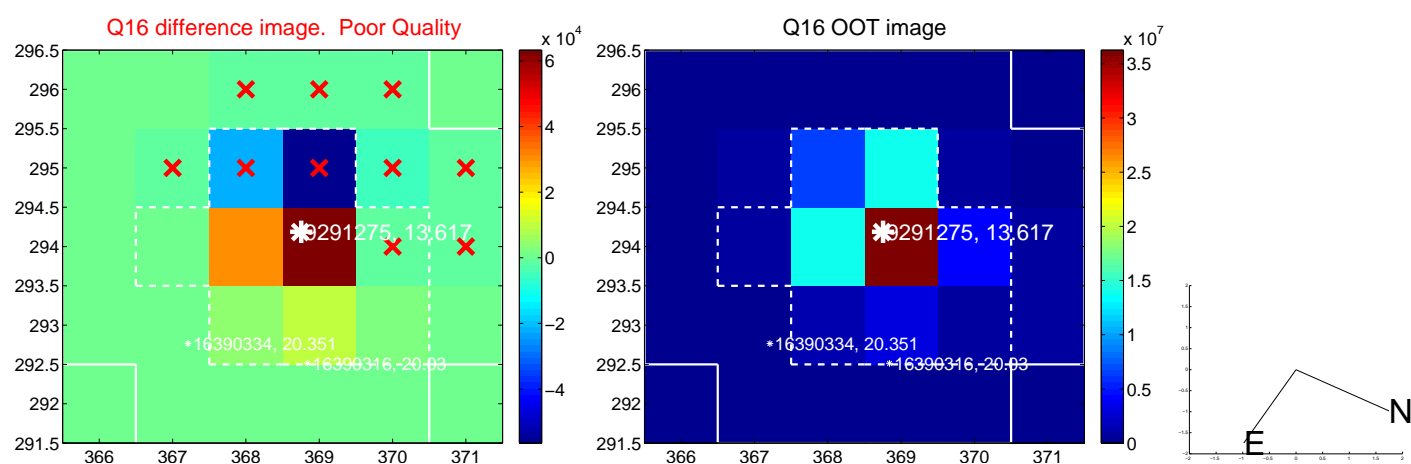
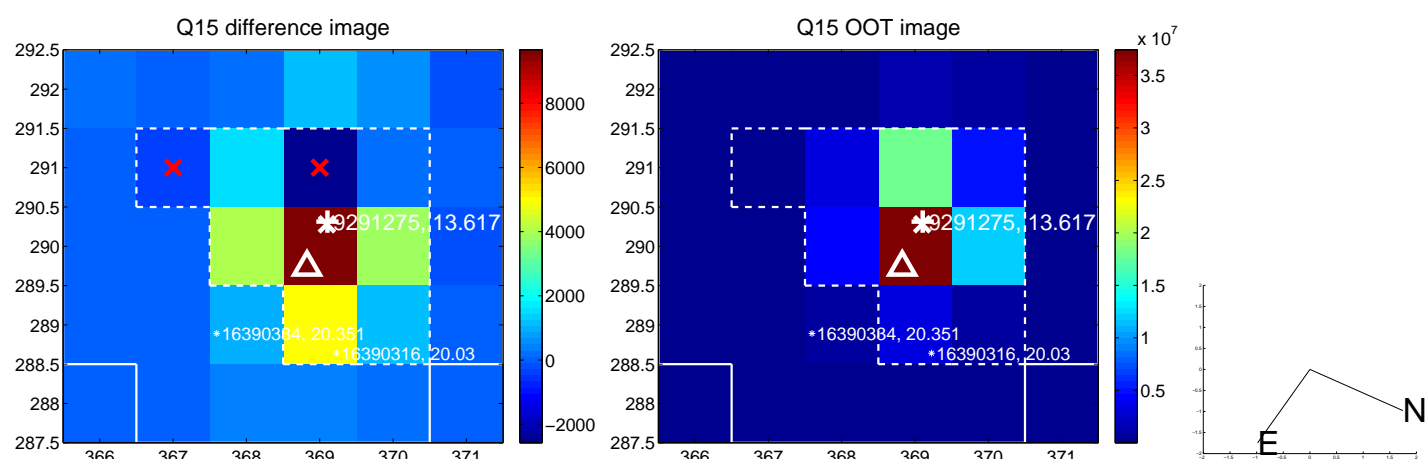
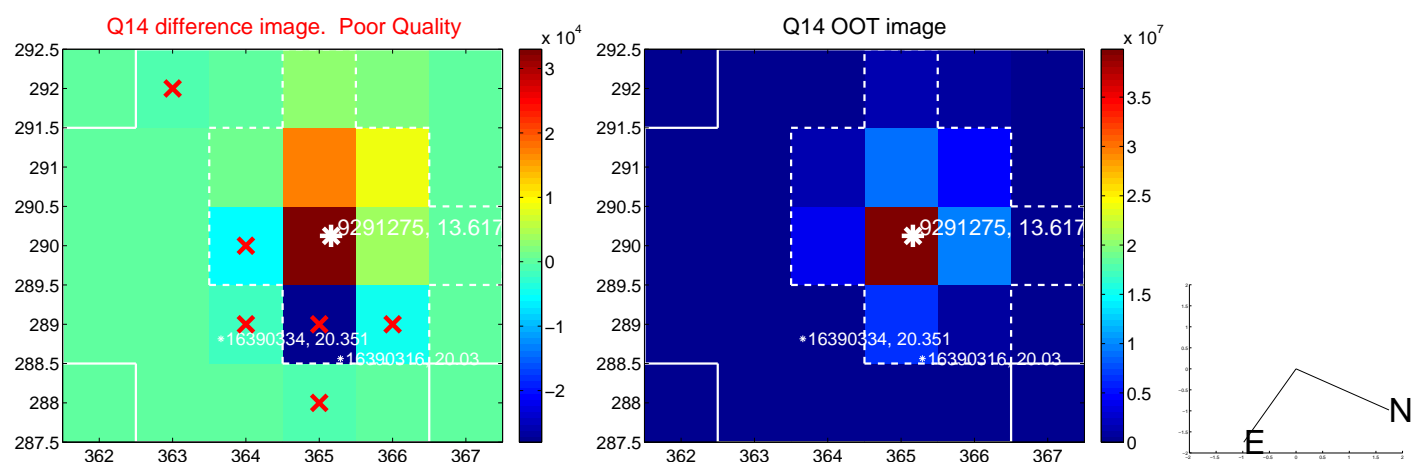
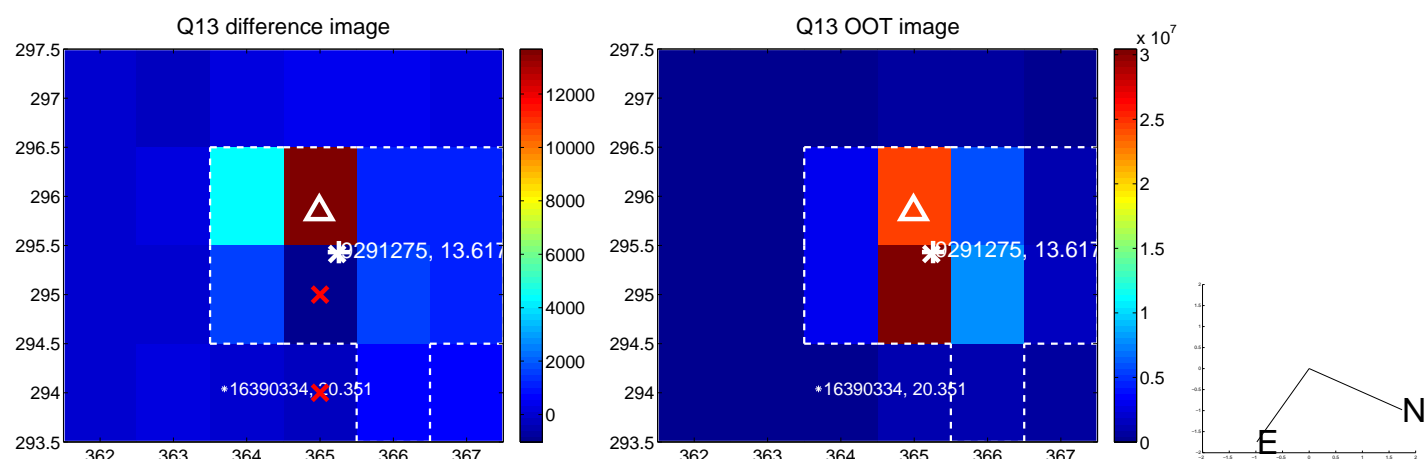
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



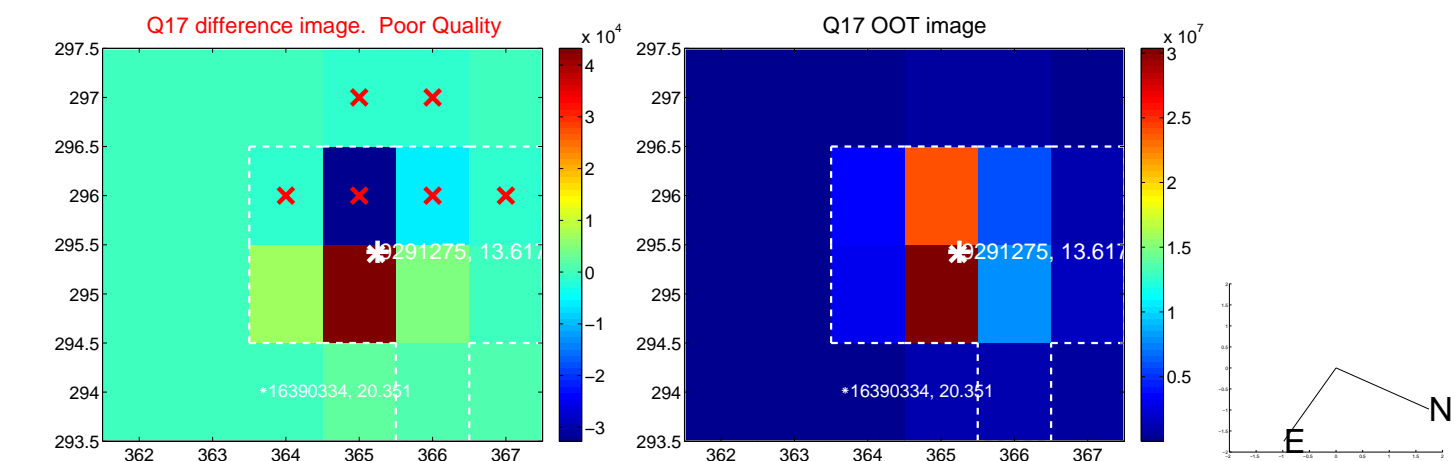
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



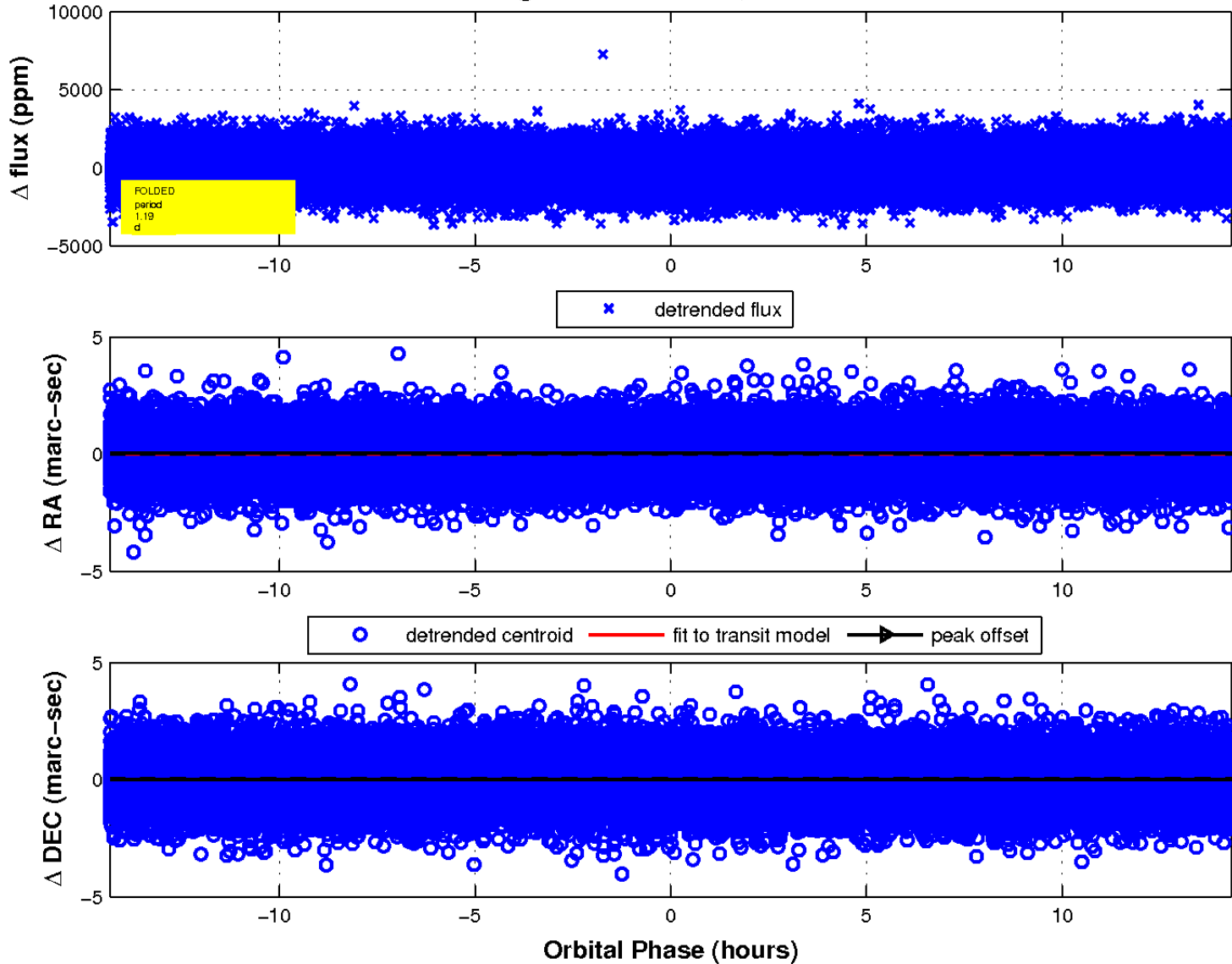
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

