

KIC 008329506

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})
008329506-01	OBS	No	0.556865	131.825896	104.0	1.586	7.3	8.3	0.66	4433	0.68	1115.54

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008329506-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—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.

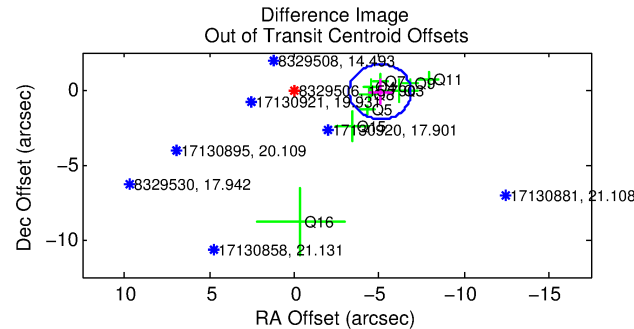
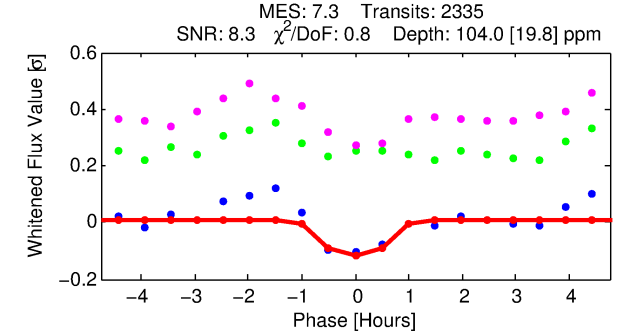
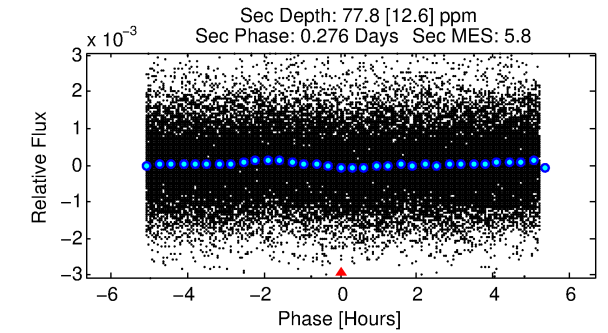
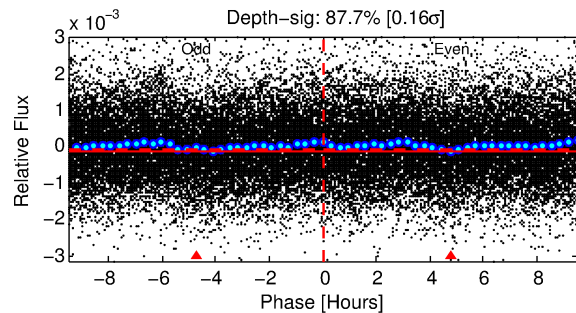
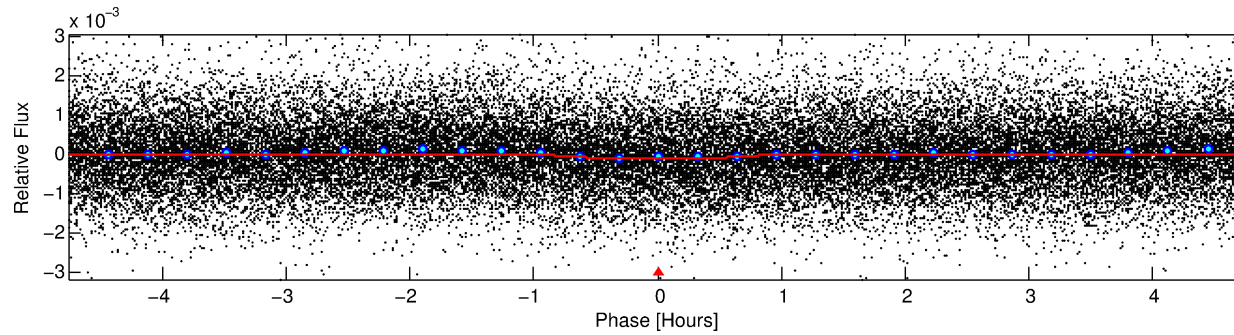
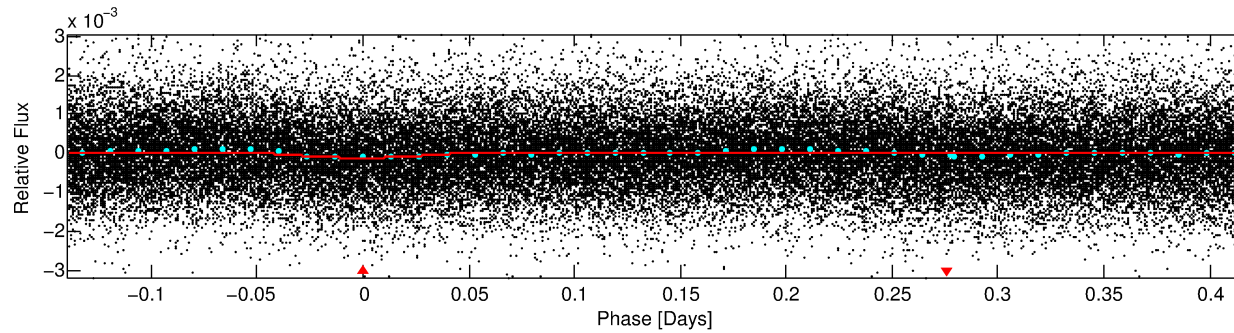
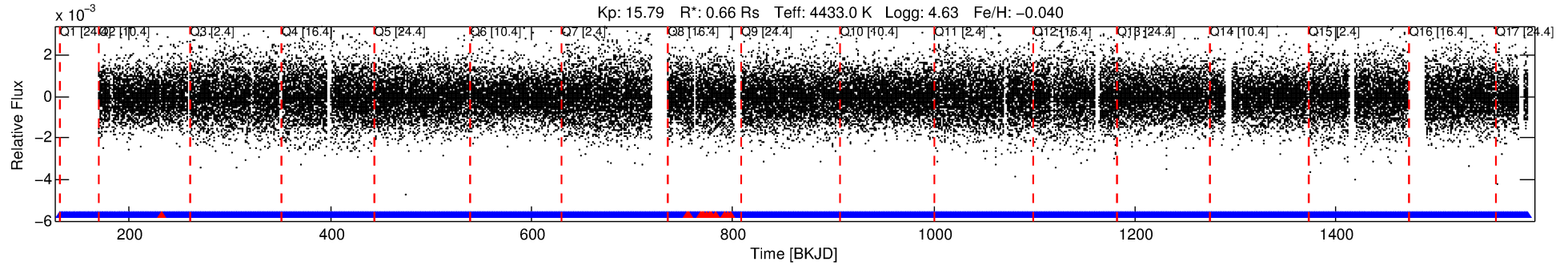
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008329506-01

No Significant Match Found

DV One-Page Summary

KIC: 8329506 Candidate: 1 of 1 Period: 0.557 d



DV Fit Results:

Period = 0.55687 [0.00001] d
Epoch = 131.8259 [0.0027] BKJD
Rp/R* = 0.0094 [0.0103]
a/R* = 2.46 [6.61]
b = 0.50 [4.99]
Seff = 1115.54 [159.84]
Teff = 1474 [53] K
Rp = 0.68 [0.74] Re
a = 0.0116 [0.0007] AU
Ag = 12.60 [27.59] [0.42 σ]
Teffp = 4292 [2353] K [1.20 σ]

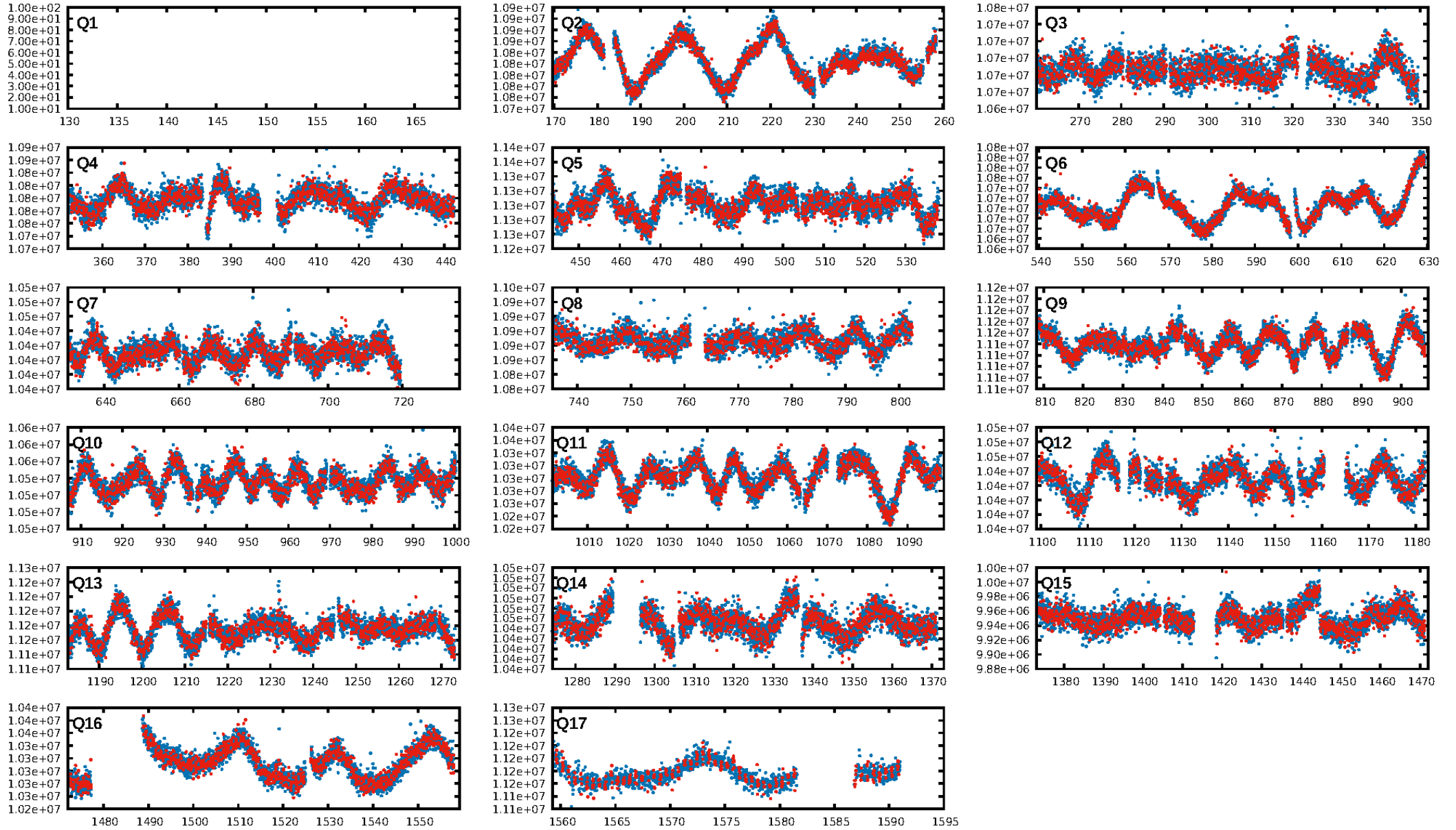
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.43e-14
RollingBand-fgt: 0.99 [2271/2287]
GhostDiagnostic-chr: 0.4947
Centroid-sig: 0.0%
Centroid-so: 2.713 arcsec [2.88 σ]
OotOffset-rm: 5.077 arcsec [8.31 σ]
KicOffset-rm: 3.945 arcsec [3.59 σ]
OotOffset-st: 0/4/3/2 [9]
KicOffset-st: 0/4/3/2 [9]
DiffImageQuality-fgm: 0.78 [7/9]
DiffImageOverlap-fno: 1.00 [16/16]

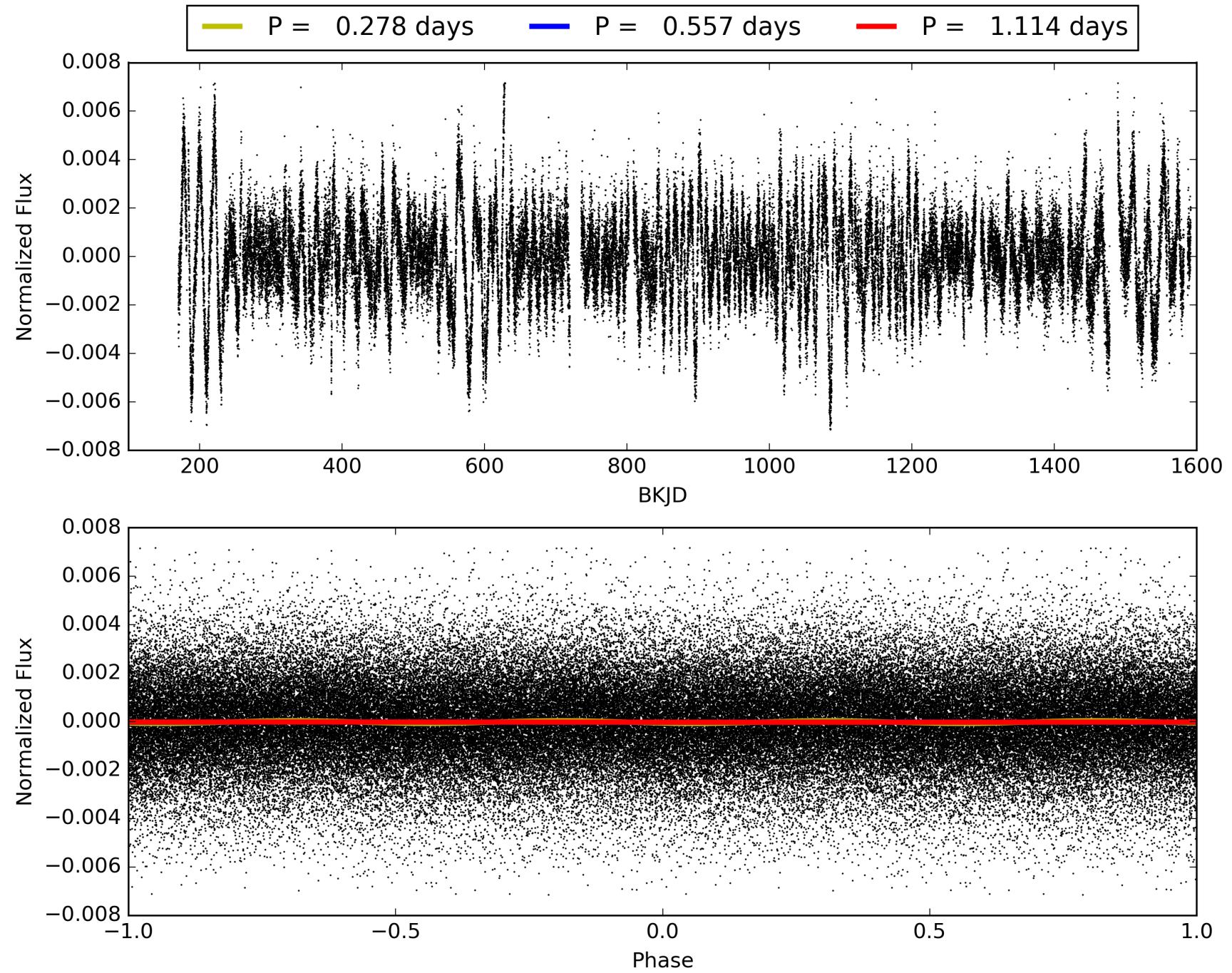
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 04:30:52 Z

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

TCE 008329506-01, PDC Light Curves

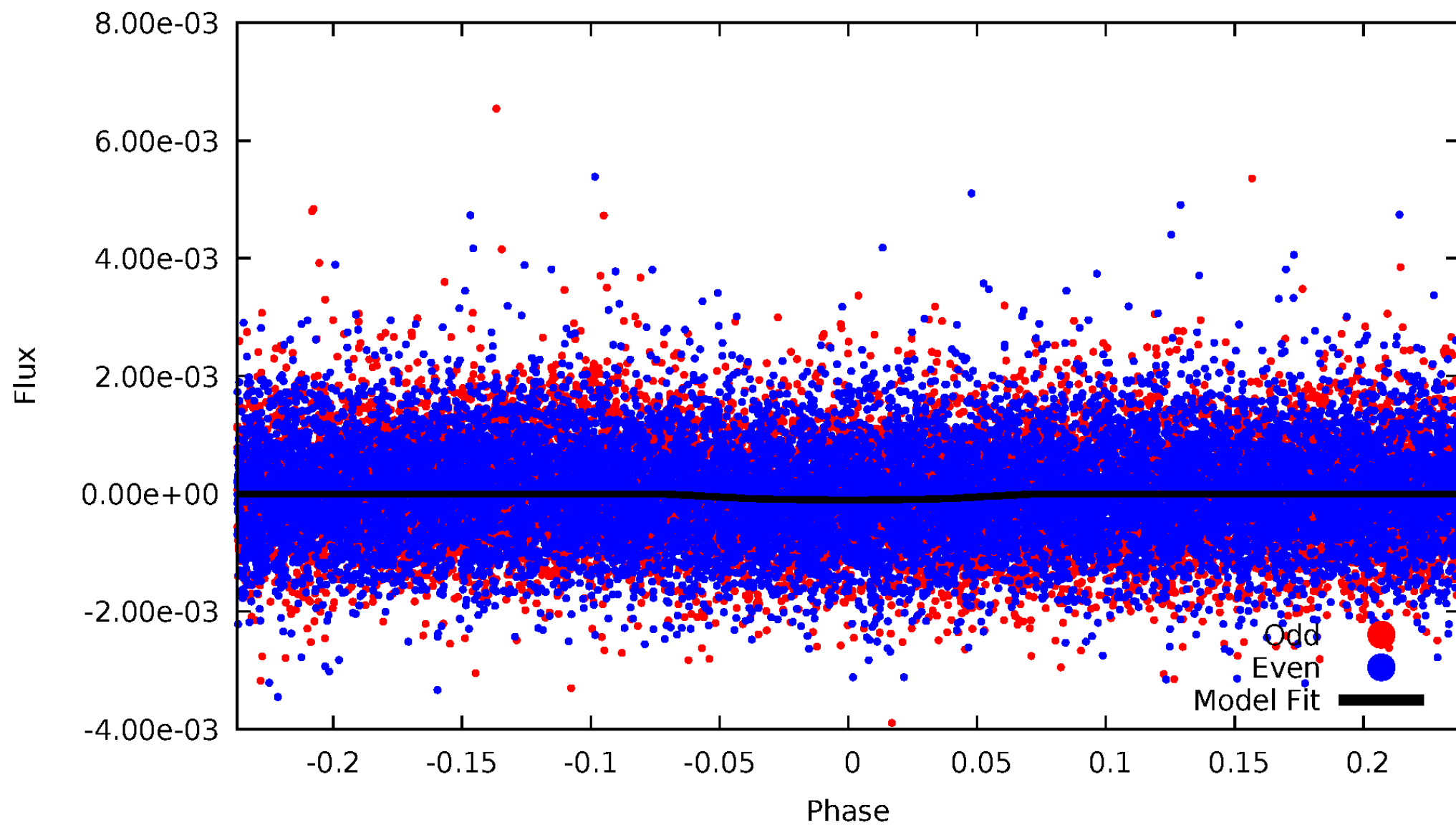


TCE 008329506-01



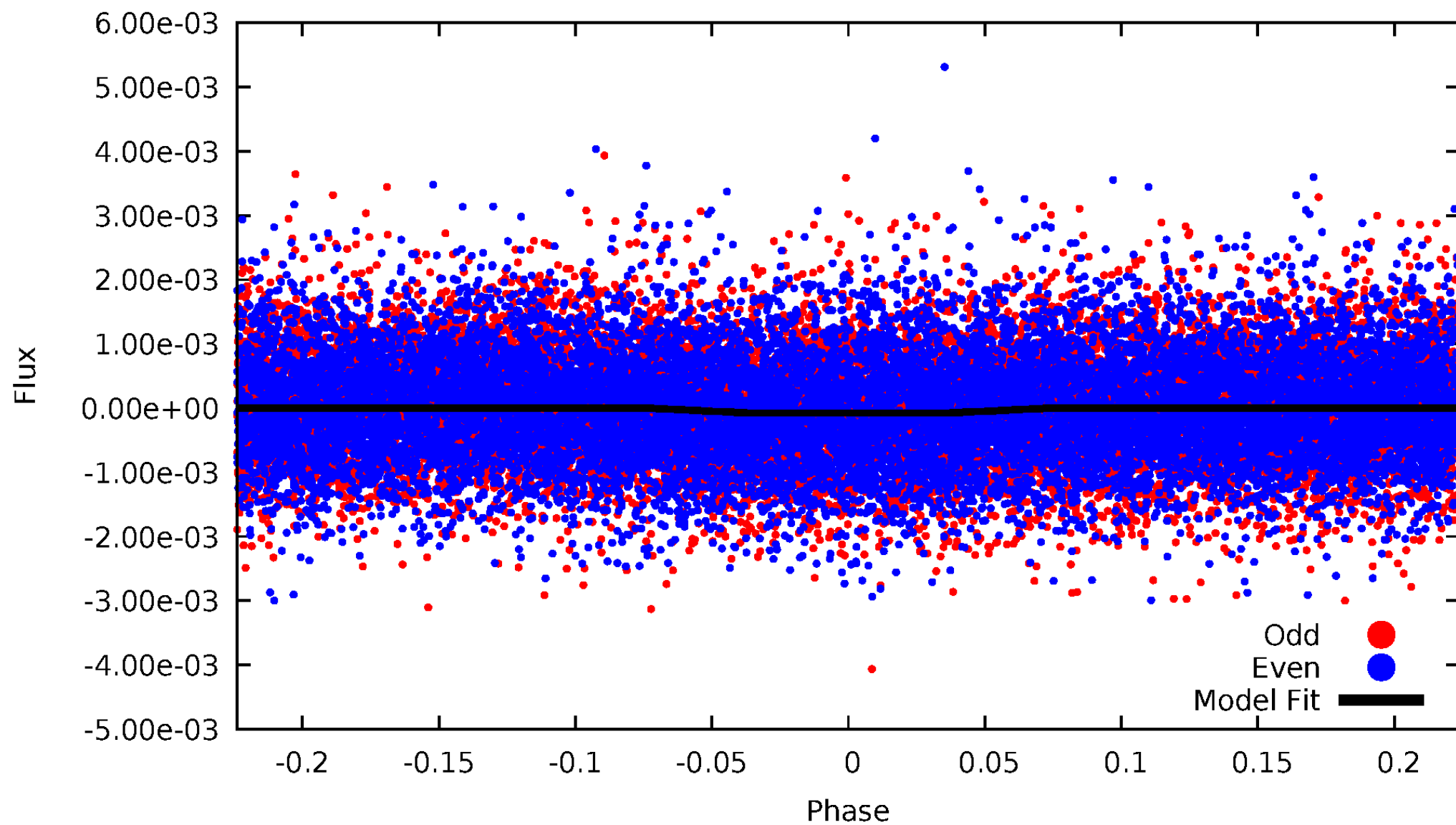
DV Odd/Even

TCE 008329506-01



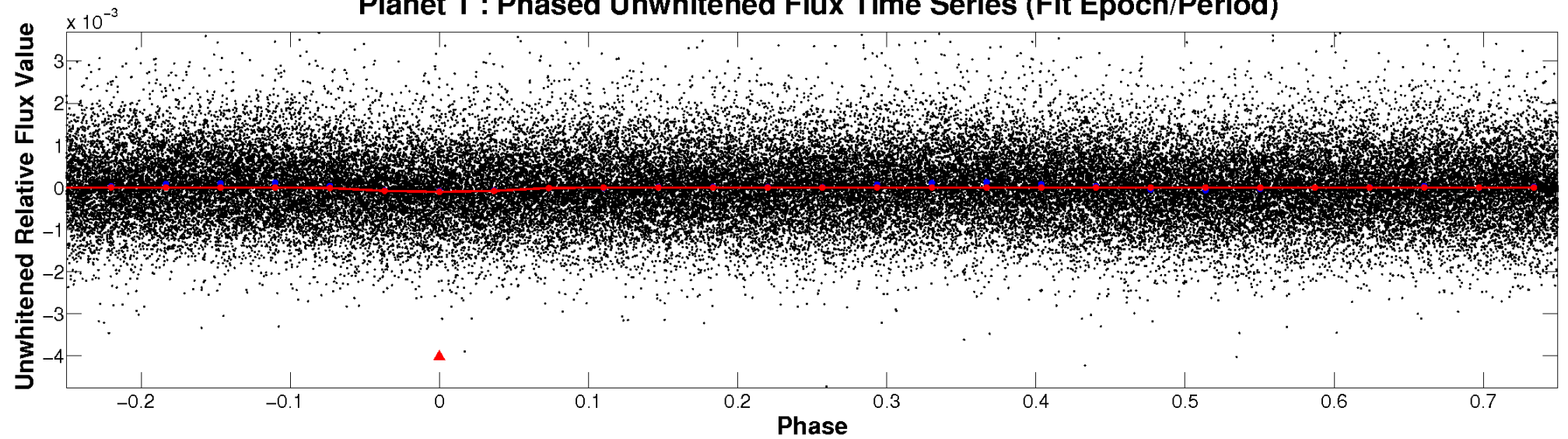
ALT Odd/Even

TCE 008329506-01

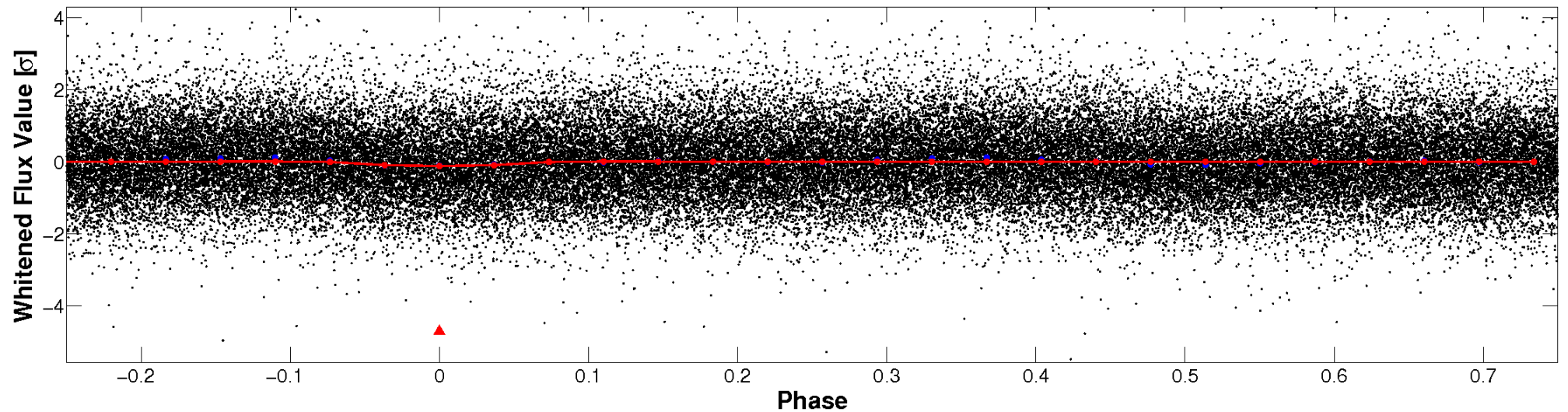


Non-Whitened Vs. Whitened Light Curve

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

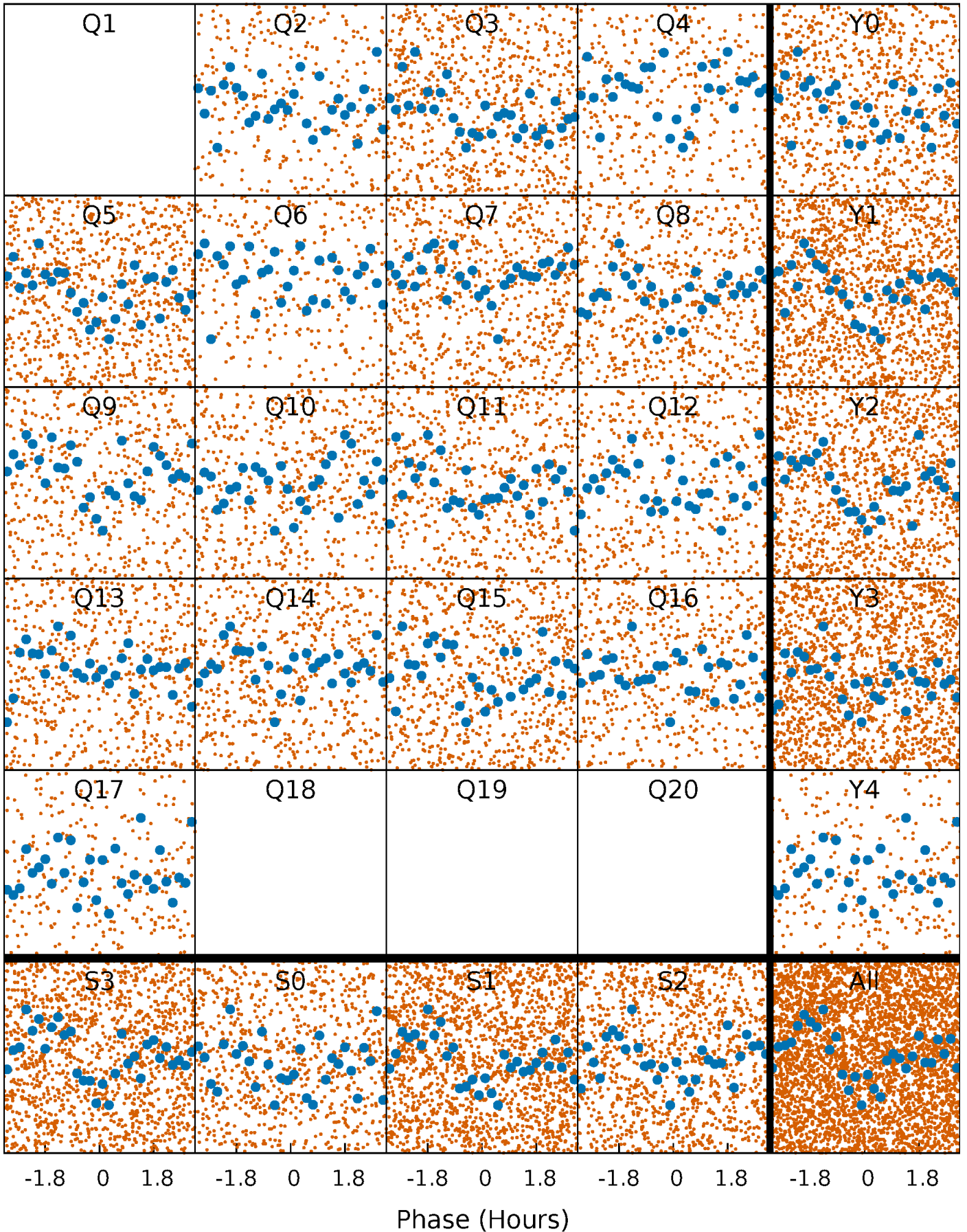


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



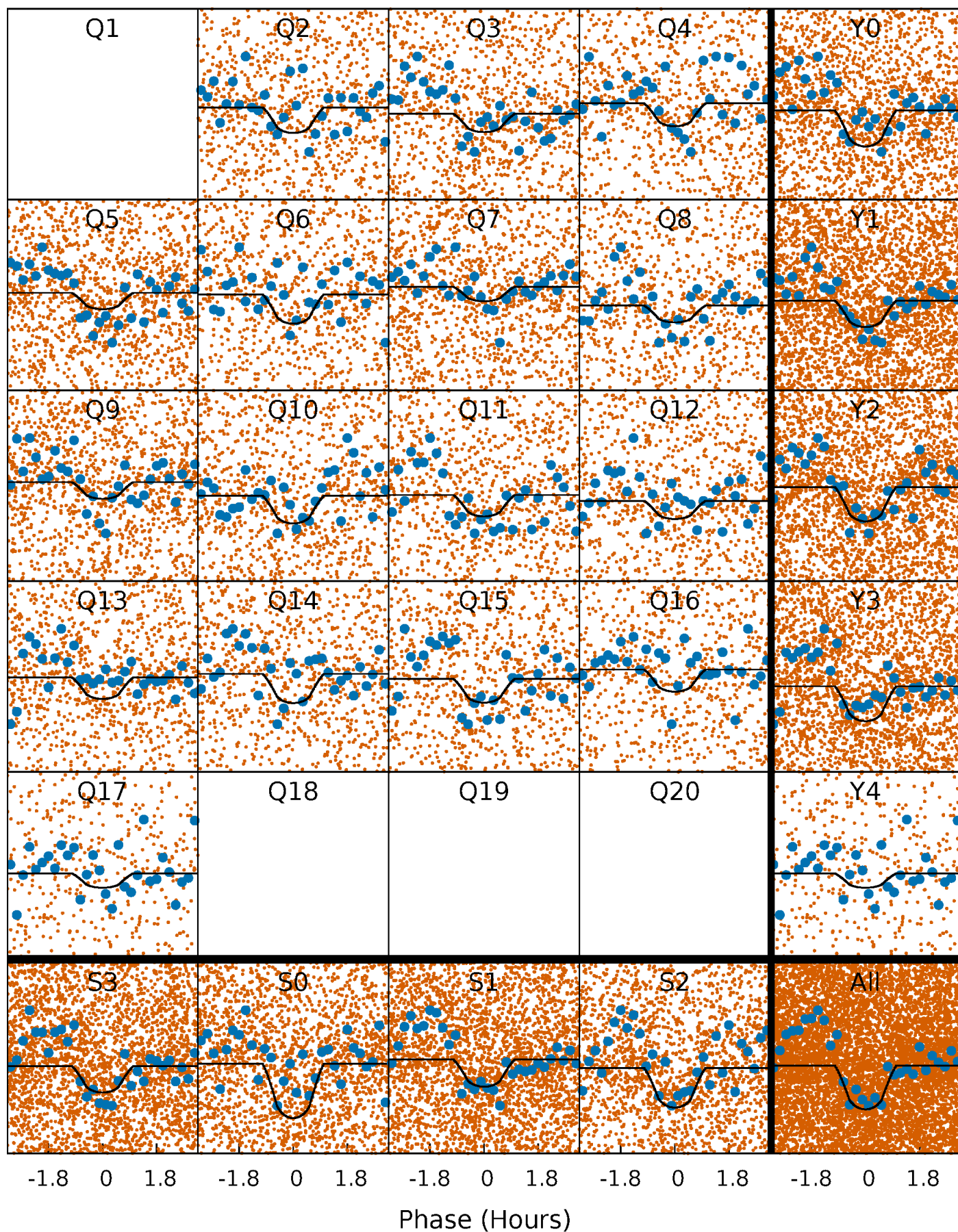
PDC Quarter-Phased Transit Curves

TCE 008329506-01 P= 0.556865 Days $T_0=131.825896$ (BKJD)



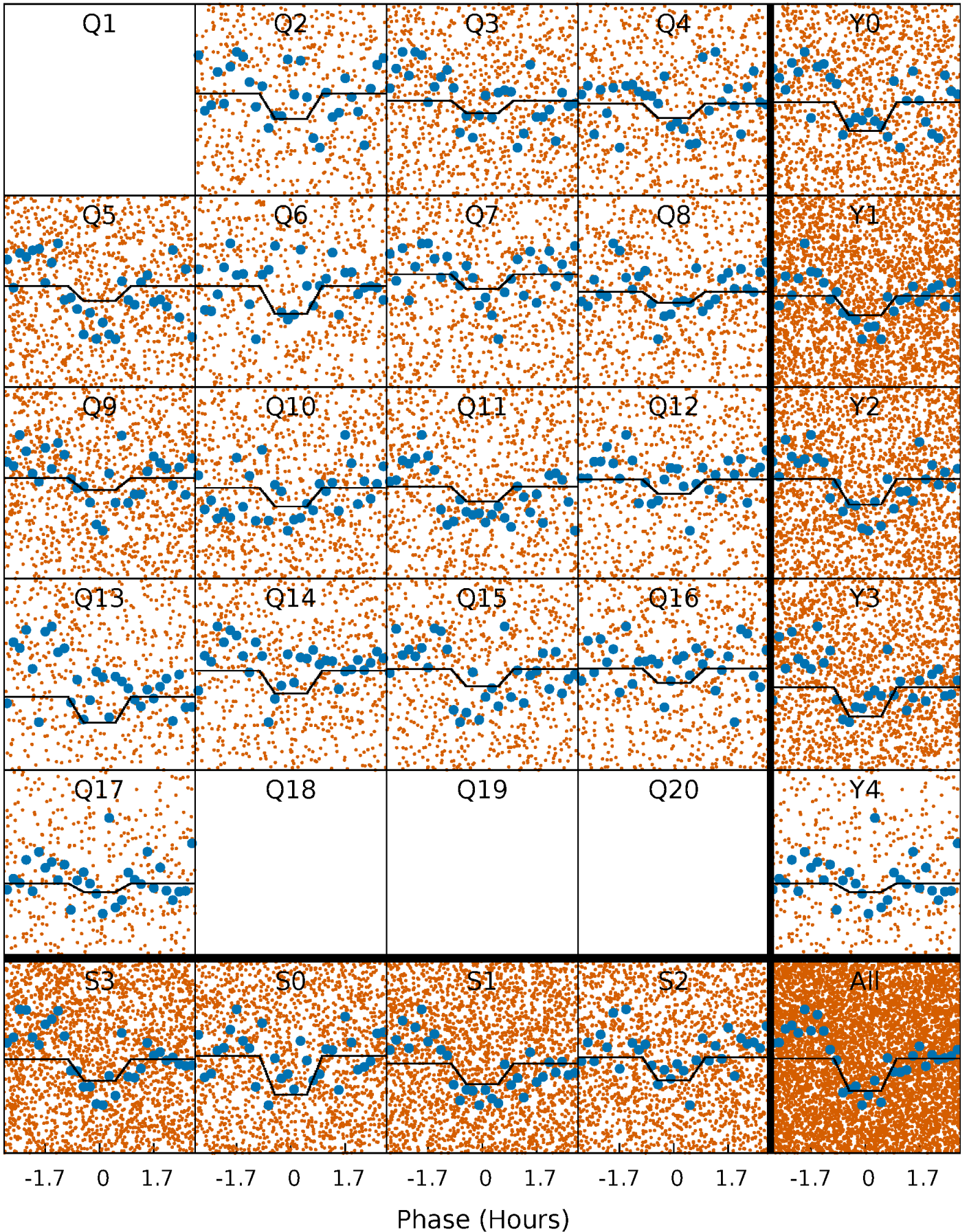
DV Quarter-Phased Transit Curves

TCE 008329506-01 P= 0.556865 Days $T_0=131.825896$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

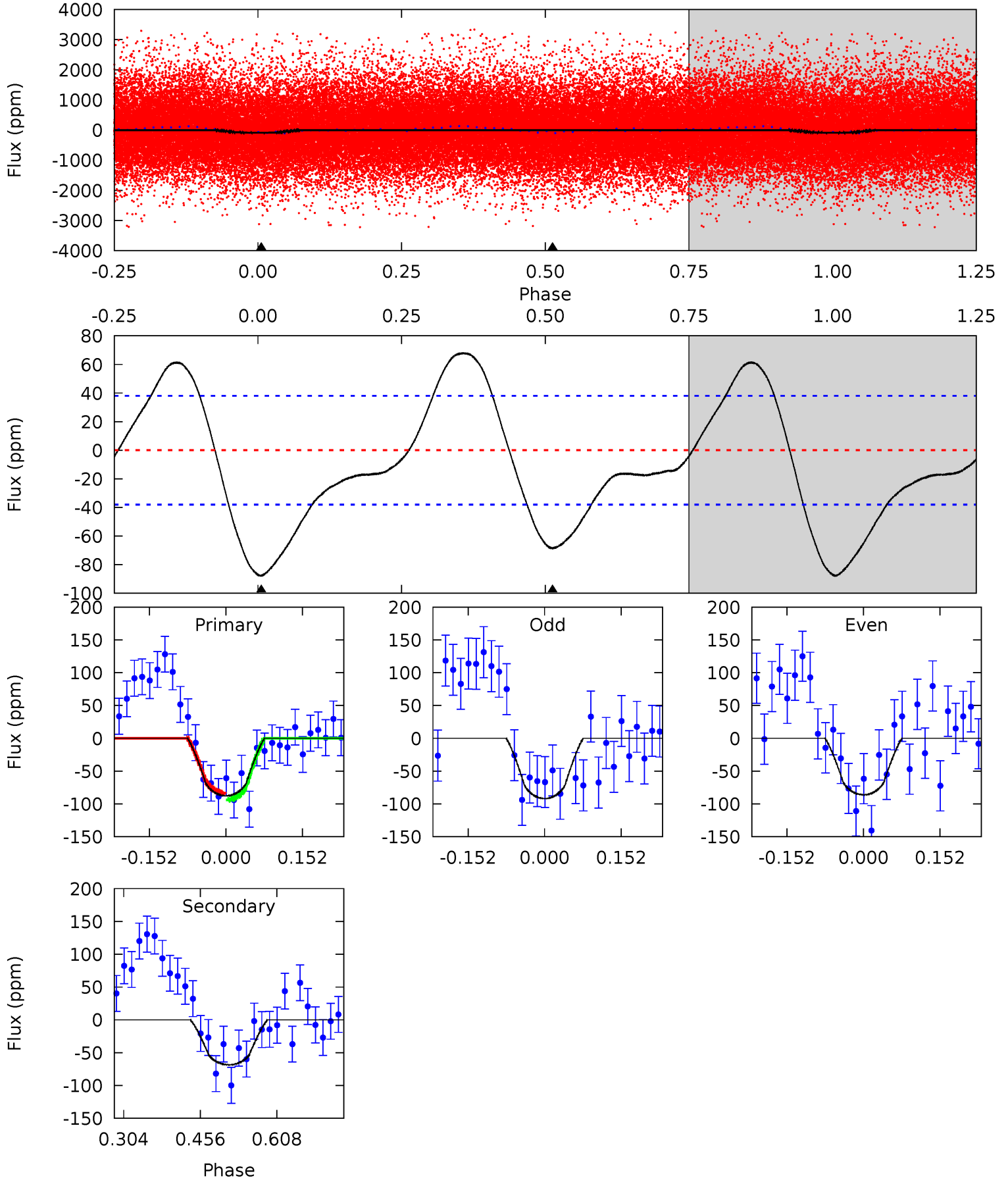
TCE 008329506-01 P= 0.556869 Days $T_0=131.823843$ (BKJD)



DV Model-Shift Uniqueness Test

008329506-01, P = 0.556865 Days, E = 131.825896 Days

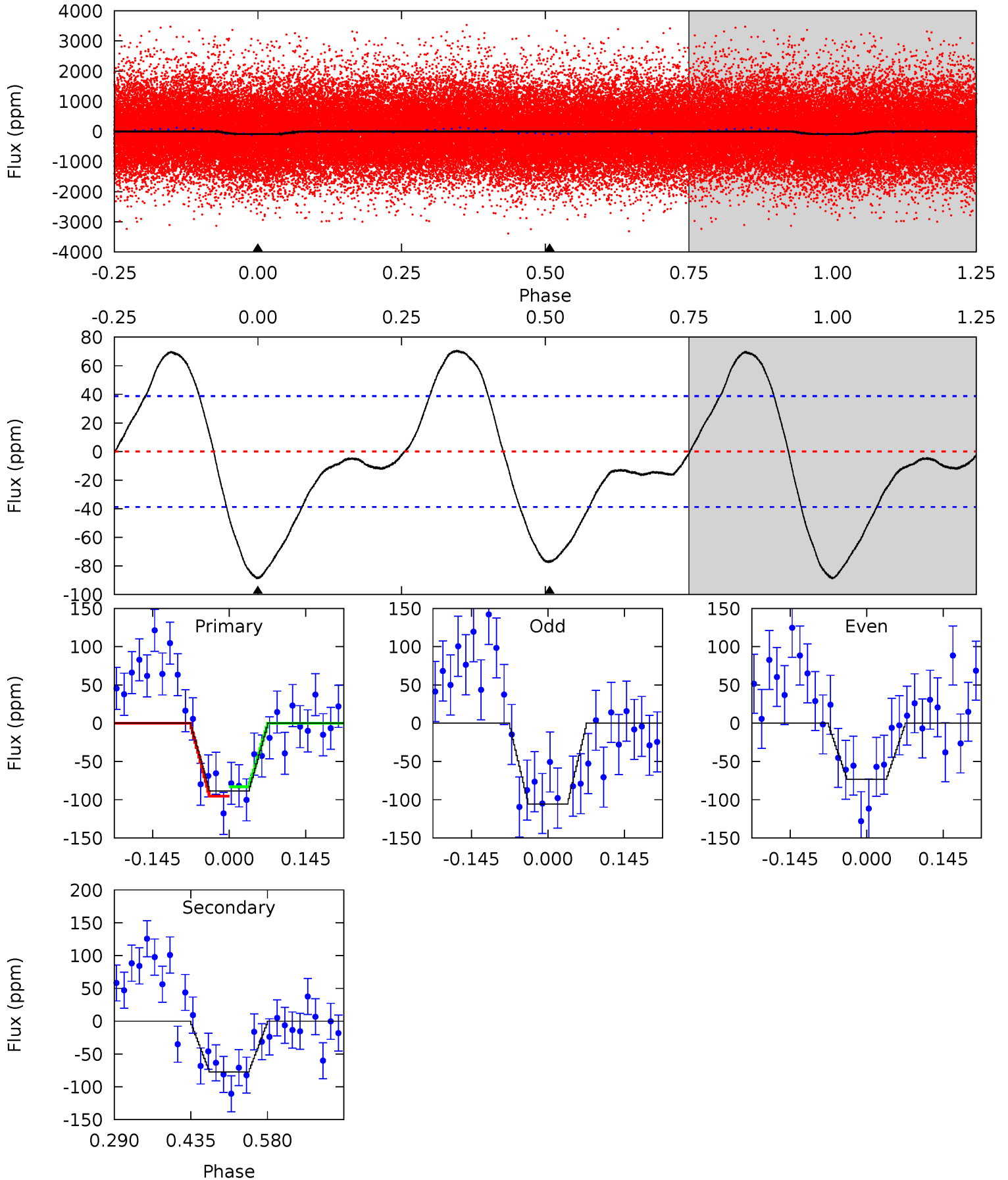
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.3	8.06	0	0	4.48	1.43	3.48	10.3	10.3	8.06	8.06	0.33	1.06	0.44	0.60



Alt Model-Shift Uniqueness Test

008329506-01, P = 0.556869 Days, E = 131.823843 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.3	8.94	0	0	4.49	1.46	3.58	10.3	10.3	8.94	8.94	1.86	0.91	0.44	0.71



Stellar Parameters For KIC 008329506

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4433^{+121}_{-134}	$4.629^{+0.036}_{-0.030}$	$-0.040^{+0.300}_{-0.300}$	$0.661^{+0.043}_{-0.053}$	$0.679^{+0.054}_{-0.060}$	$3.307^{+0.595}_{-0.419}$
	+3%/-3%	+1%/-1%	+750%/-750%	+7%/-8%	+8%/-9%	+18%/-13%
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 008329506-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-69 ± 9	$0.86^{+0.63}_{-0.54}$	2055^{+69}_{-68}	3851^{+1825}_{-687}	$6.976^{+40.017}_{-4.712}$
Alt.	-77 ± 9	$0.80^{+0.64}_{-0.54}$	2057^{+70}_{-67}	4037^{+2407}_{-751}	$8.927^{+71.627}_{-6.202}$

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

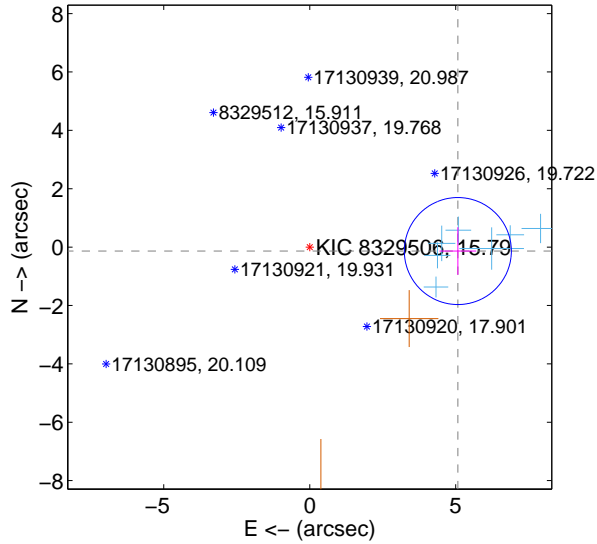
Supplemental centroid analysis for 008329506-01. Kepler magnitude: 15.79. Transit SNR 8.29

There are 7 quarters with good PRF difference image offsets

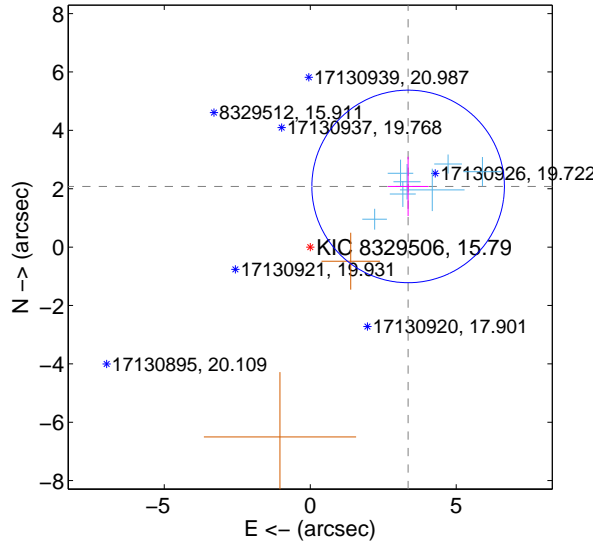
The OOT PRF centroid is offset from the target star catalog position by about 2.69 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.077 ± 0.611	8.31	-5.075 ± 0.630	-0.135 ± 0.817
PRF-fit source offset from KIC position	3.945 ± 1.099	3.59	-3.354 ± 0.698	2.078 ± 1.016
photometric centroid source offset	2.71 ± 0.94	2.88	-2.32 ± 0.92	1.40 ± 1.00

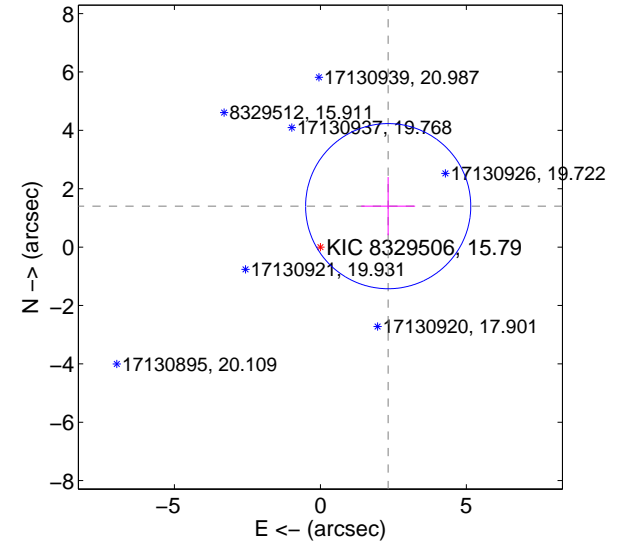
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

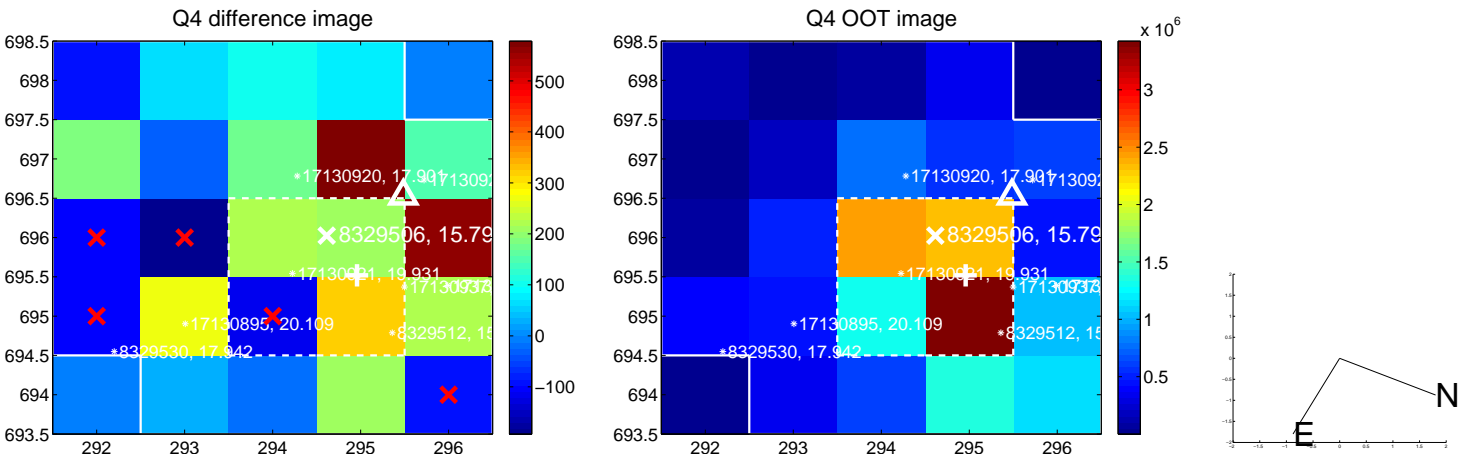
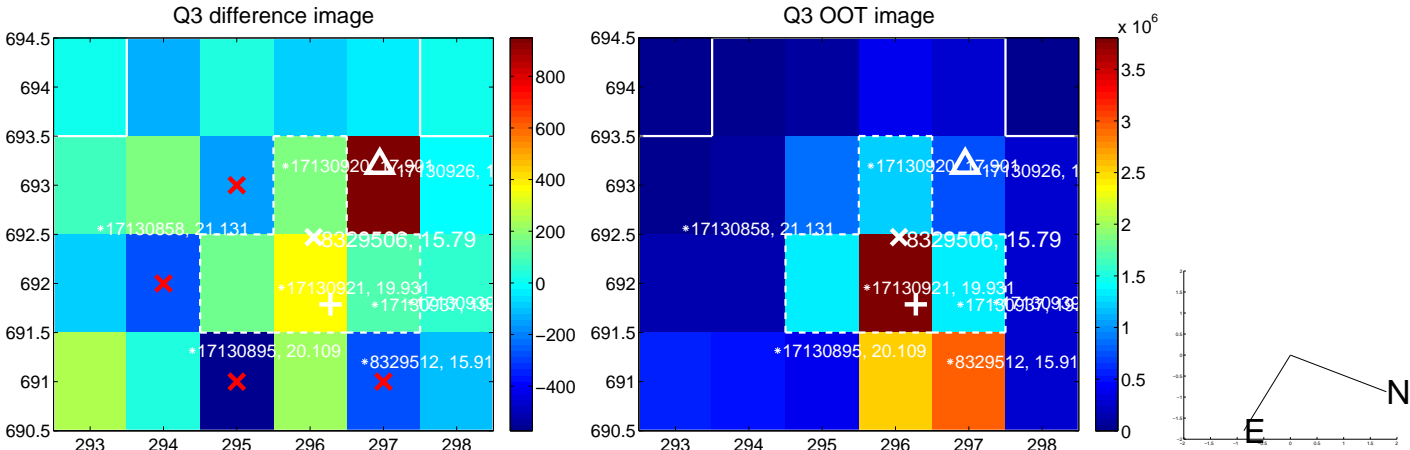
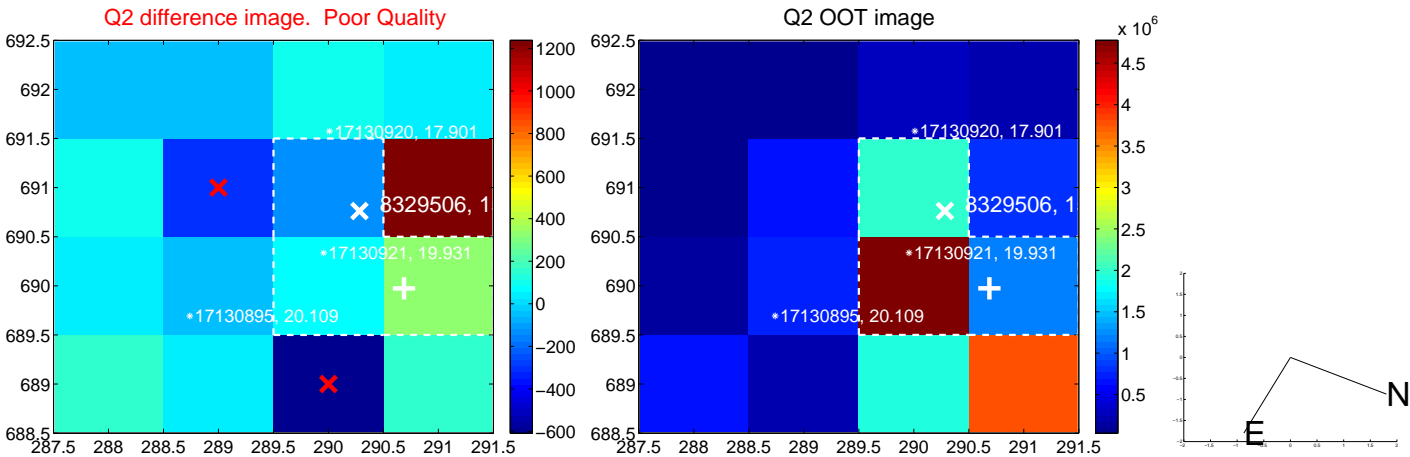
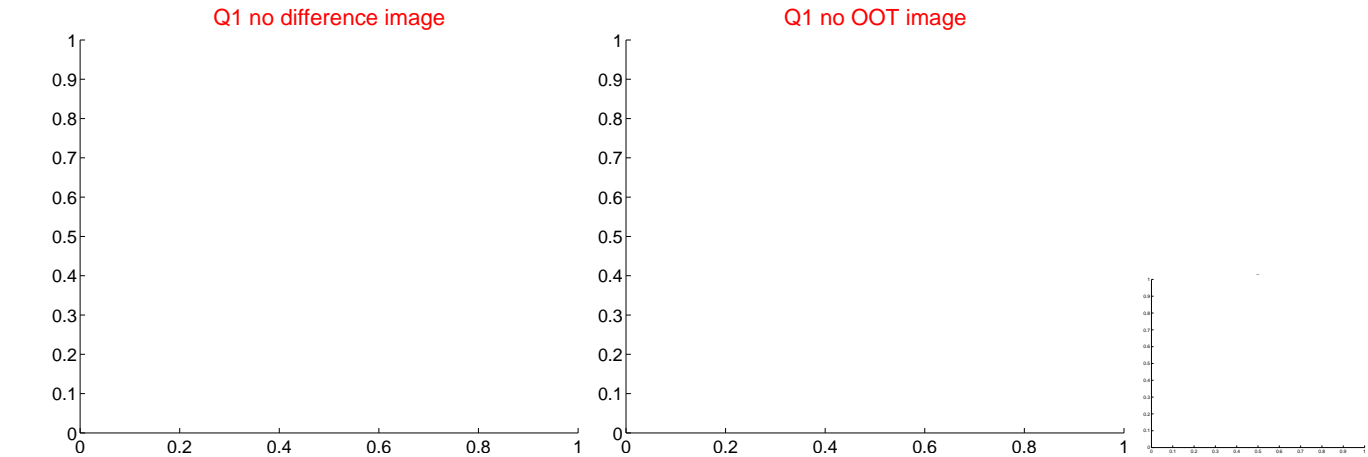


offset from photometric centroids

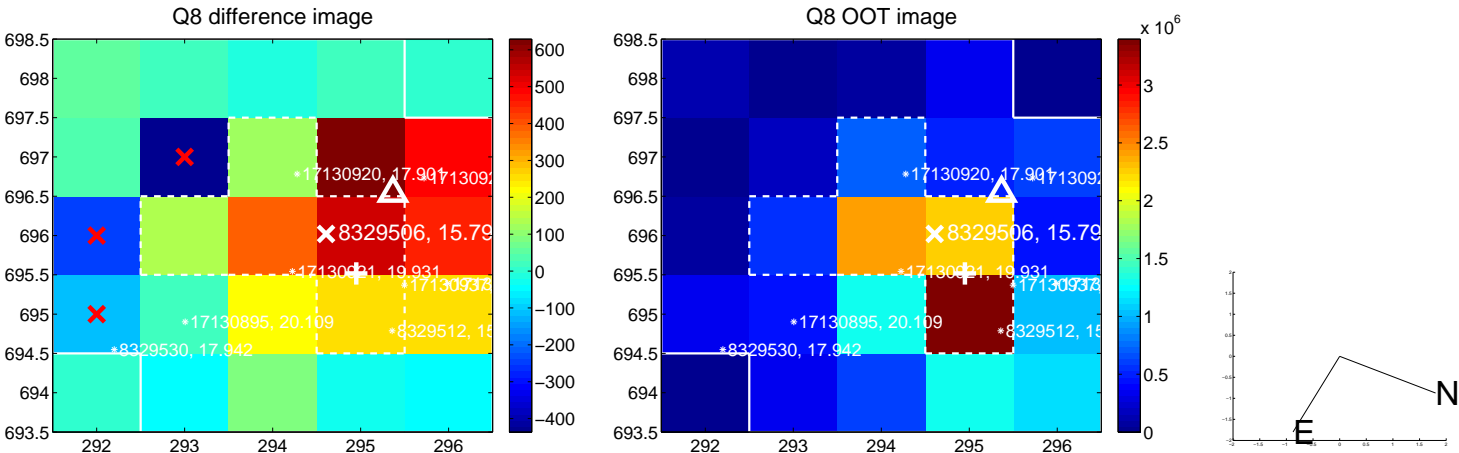
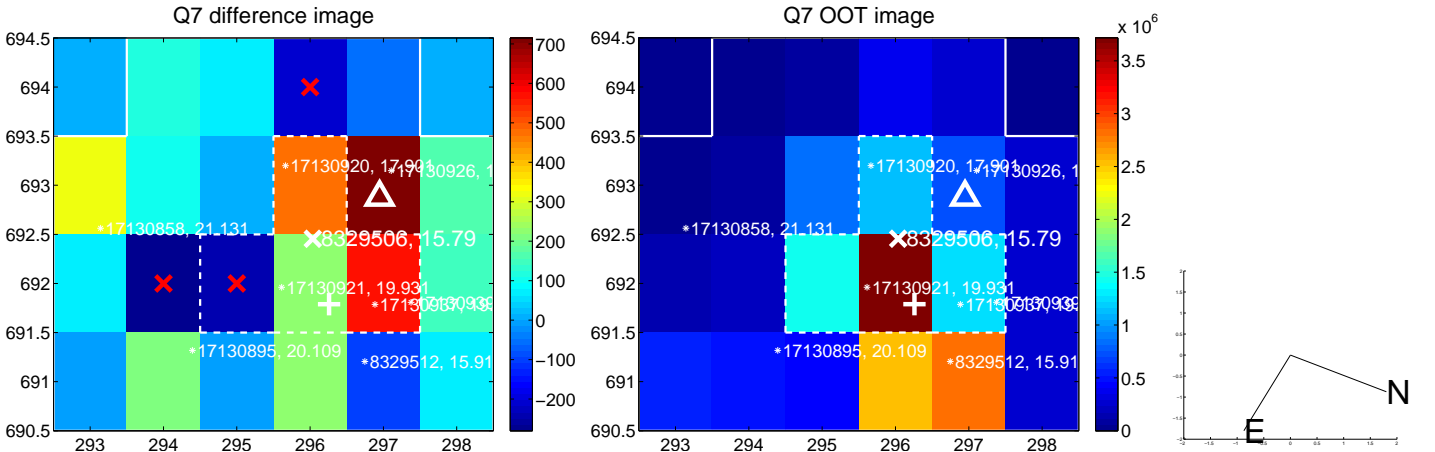
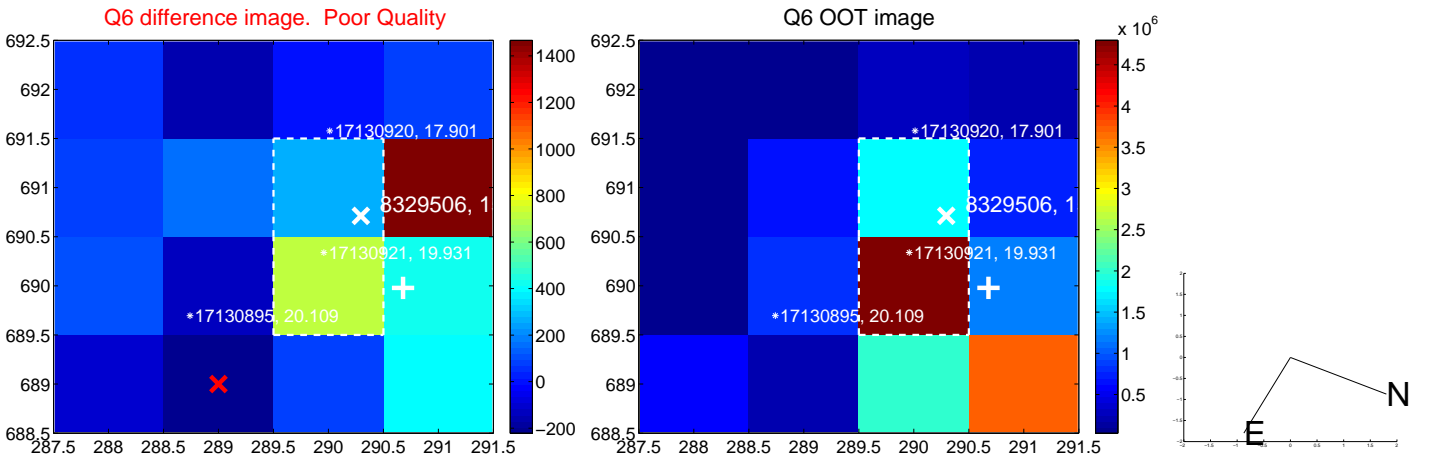
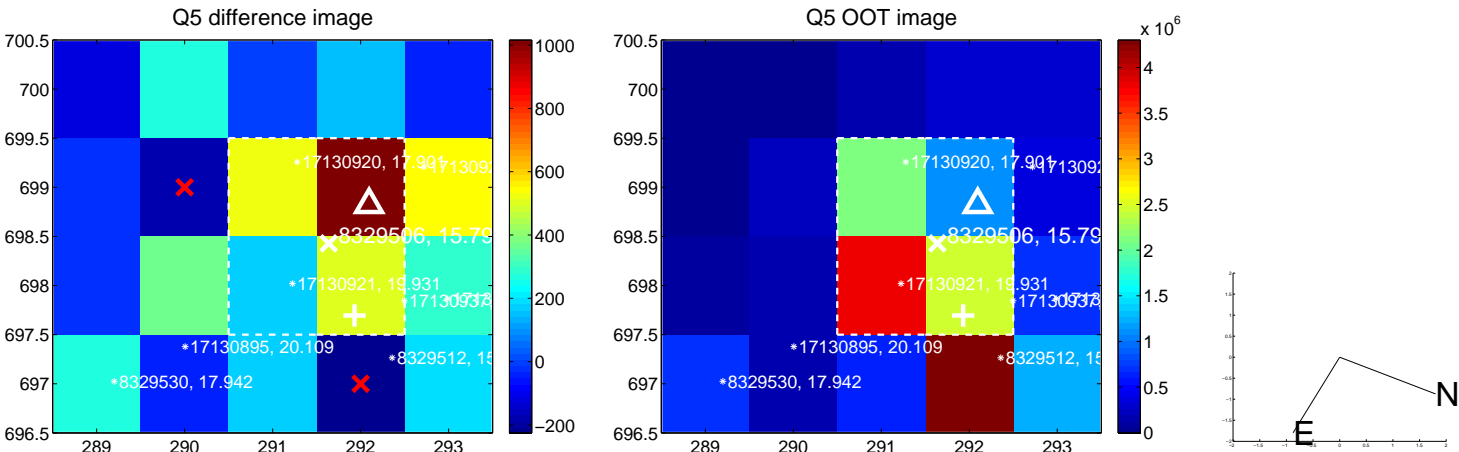


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

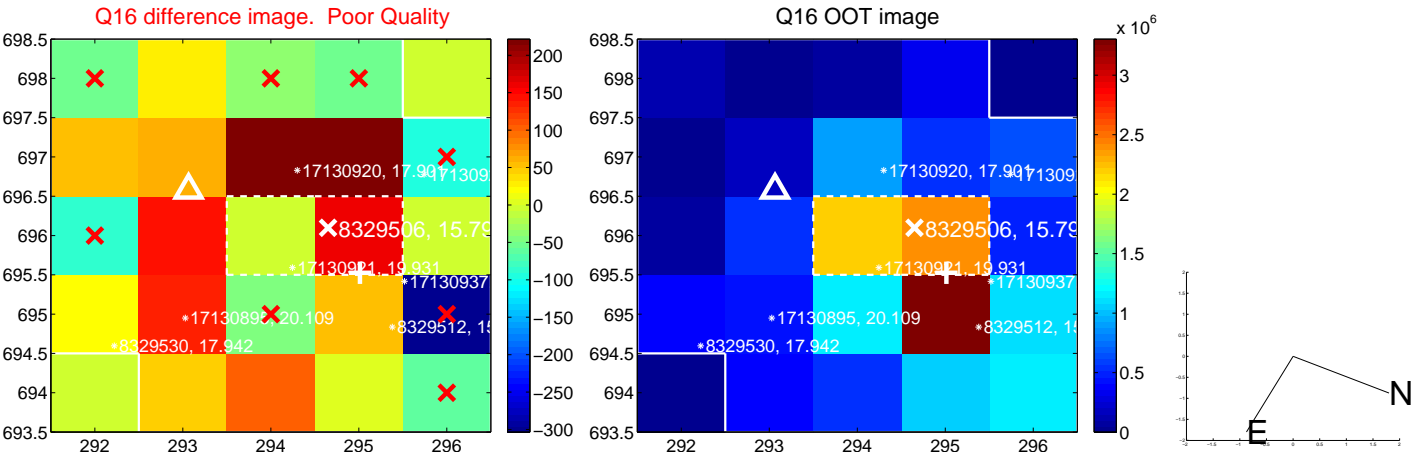
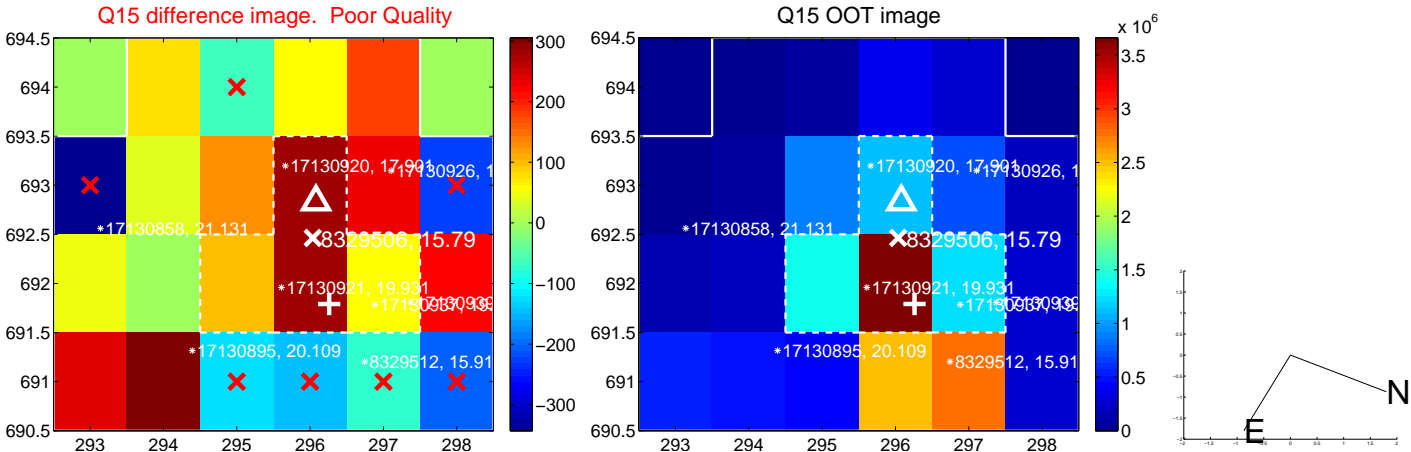
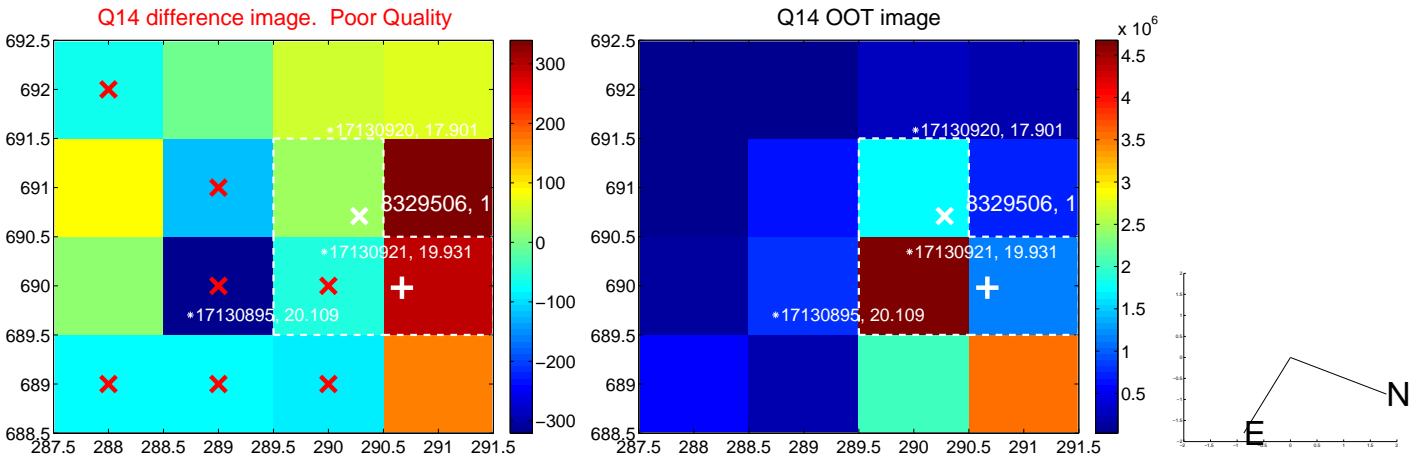
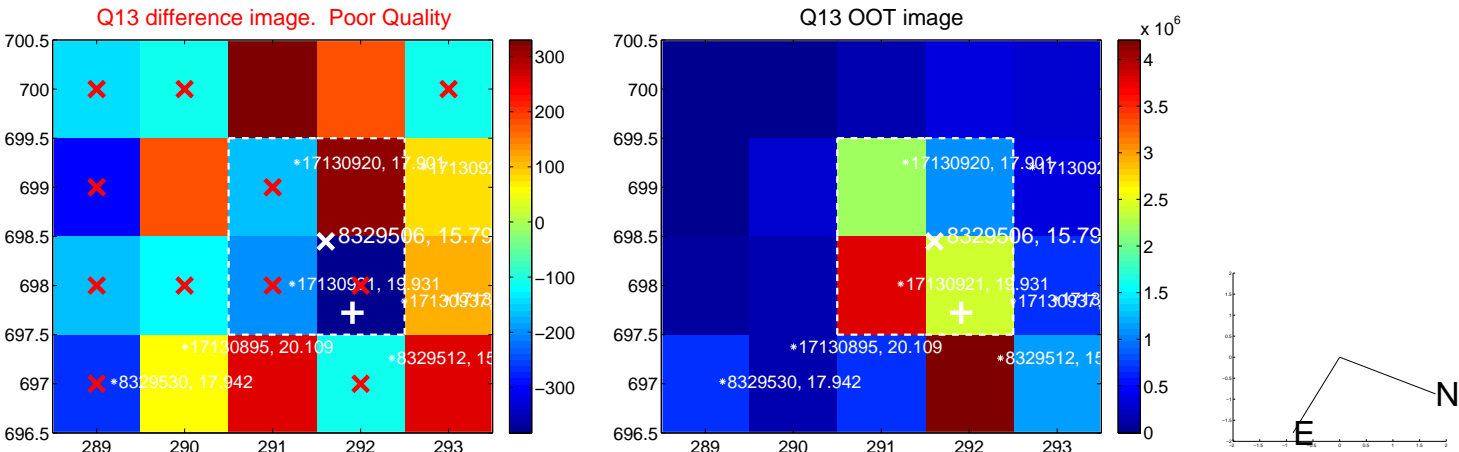
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



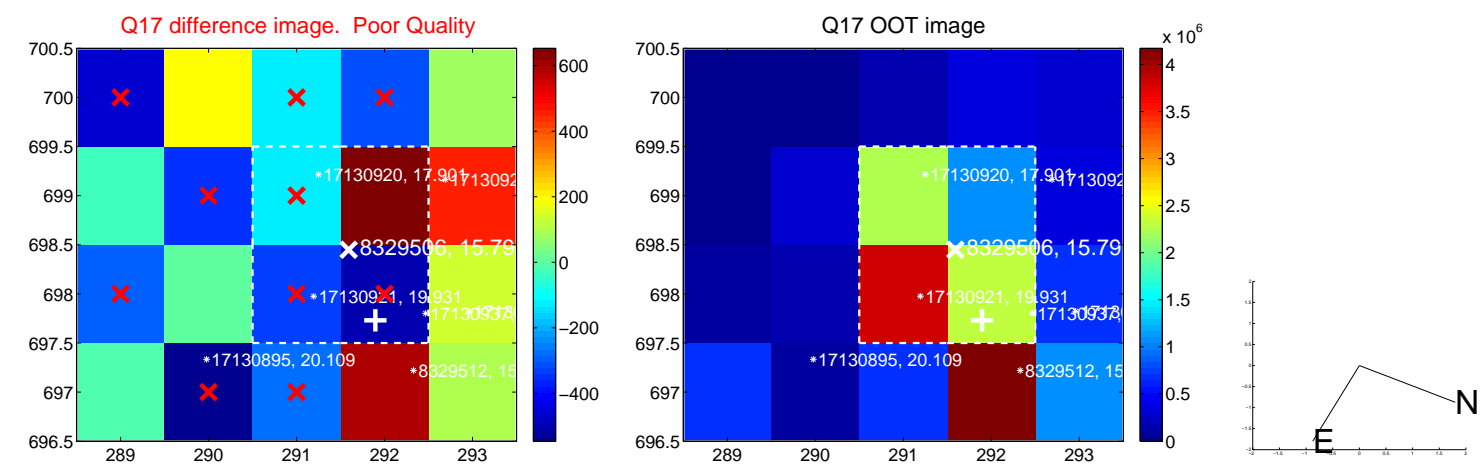
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



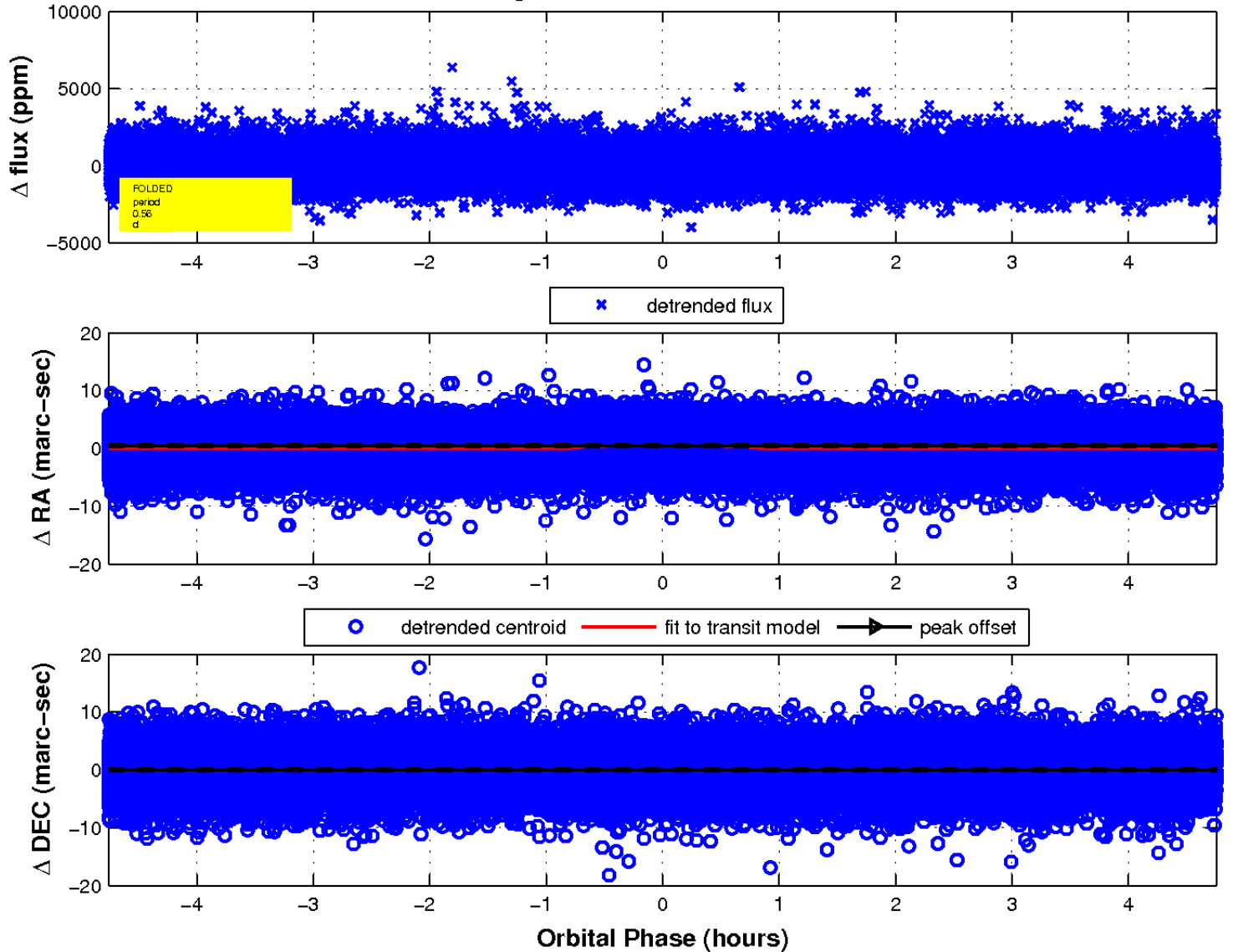
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

