

KIC 005802115

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})
005802115-01	OBS	No	3.980151	131.723363	36.1	20.539	9.3	10.1	1.71	6379	1.09	1709.51

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005802115-01	OBS	FP	0.00	1	0	0	0	LPP_DV

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

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

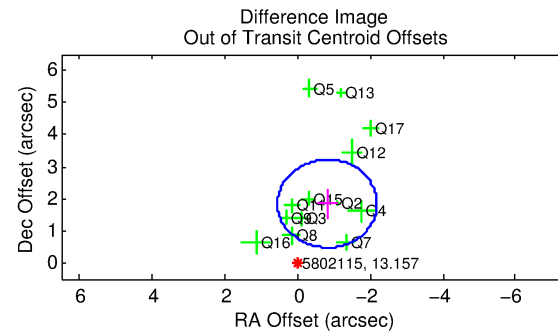
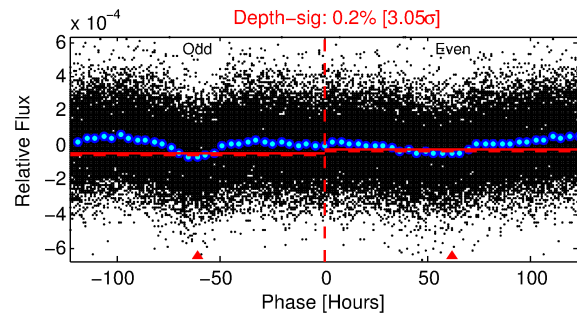
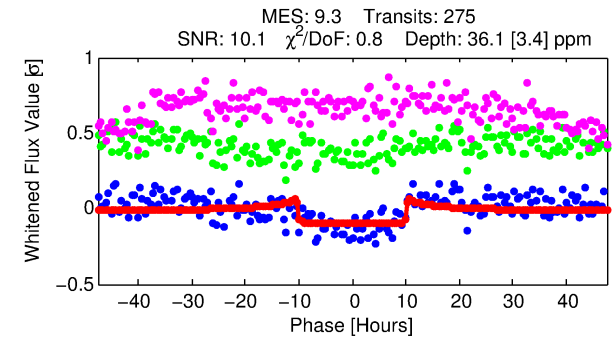
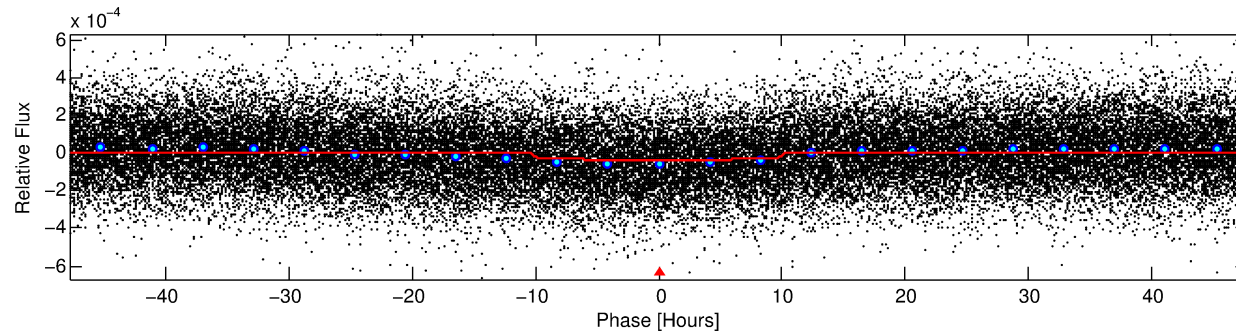
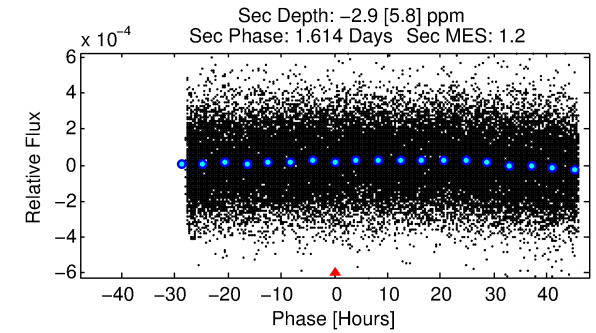
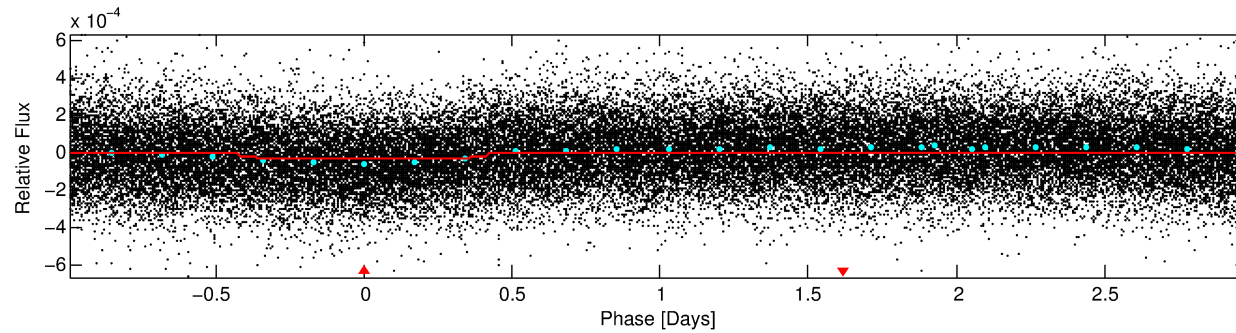
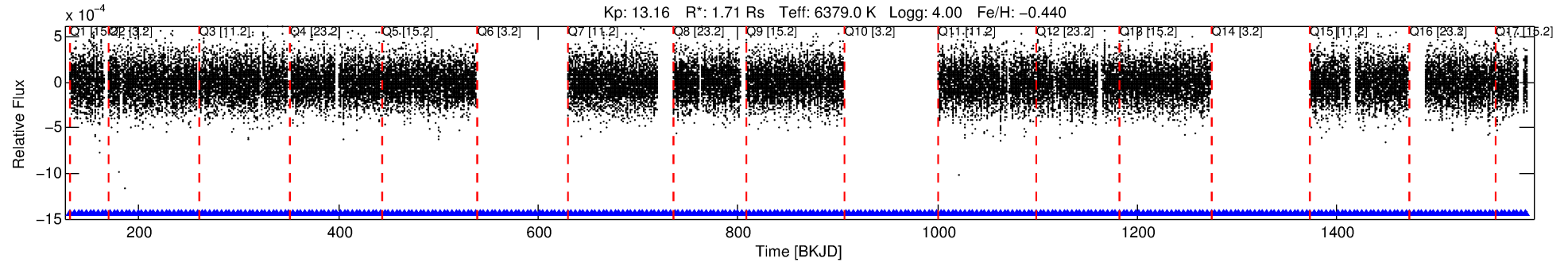
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005802115-01

No Significant Match Found

DV One-Page Summary

KIC: 5802115 Candidate: 1 of 1 Period: 3.980 d



DV Fit Results:

Period = 3.98015 [0.00005] d
Epoch = 131.7234 [0.0085] BKJD
Rp/R* = 0.0059 [0.0014]
a/R* = 1.37 [0.82]
b = 0.68 [1.03]
Seff = 1709.51 [1136.72]
Teq = 1640 [273] K
Rp = 1.09 [0.50] Re
a = 0.0504 [0.0199] AU
Ag = N/A
Teffp = N/A

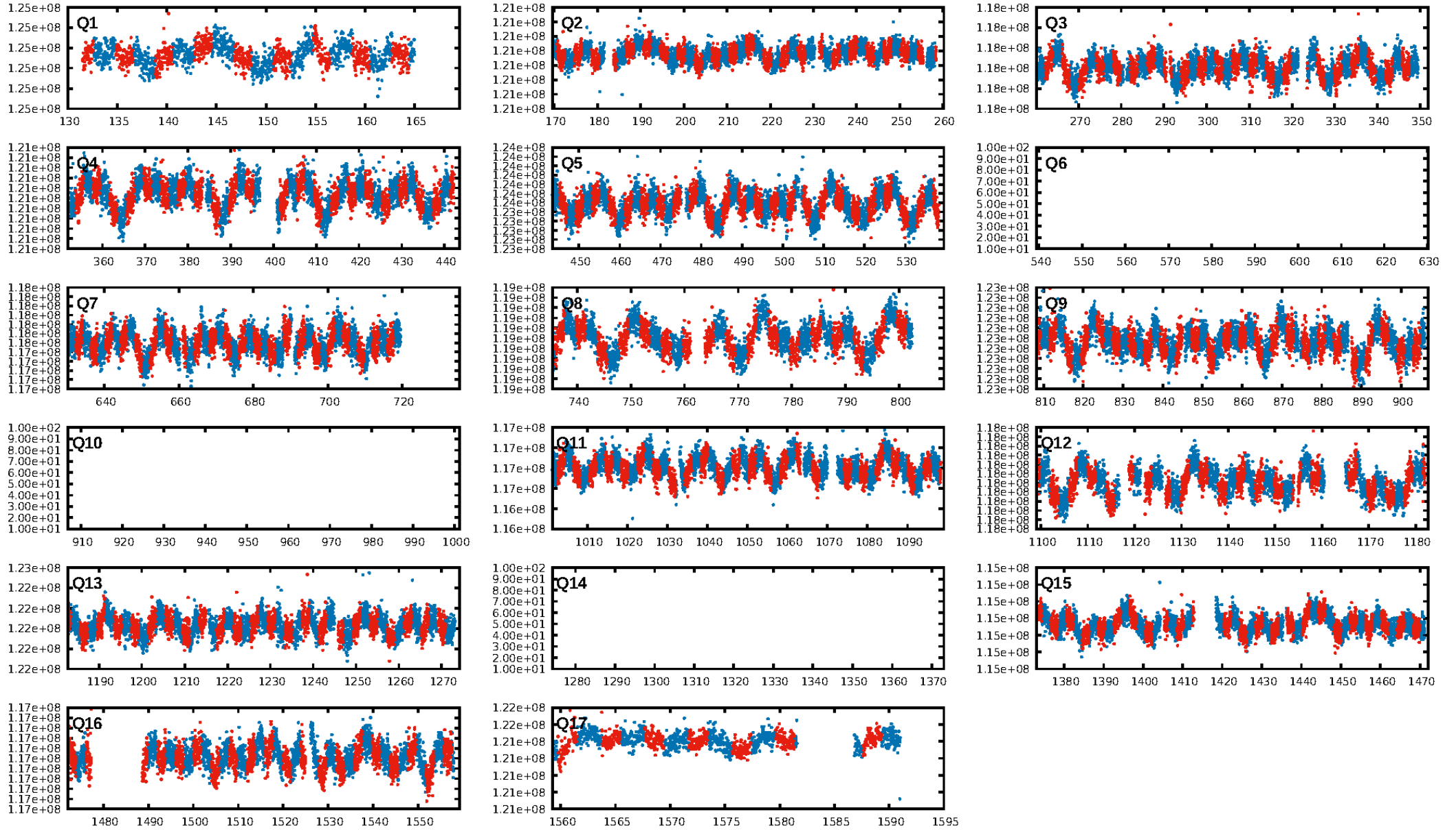
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.96e-23
RollingBand-fgt: 1.00 [259/259]
GhostDiagnostic-chr: 6.407
Centroid-sig: 0.0%
Centroid-so: 1.019 arcsec [1.59σ]
OotOffset-rm: 2.019 arcsec [4.42σ]
KicOffset-rm: 1.322 arcsec [3.65σ]
OotOffset-st: 1/4/4/4 [13]
KicOffset-st: 1/4/4/4 [13]
DiffImageQuality-fgm: 0.62 [8/13]
DiffImageOverlap-fno: 1.00 [14/14]

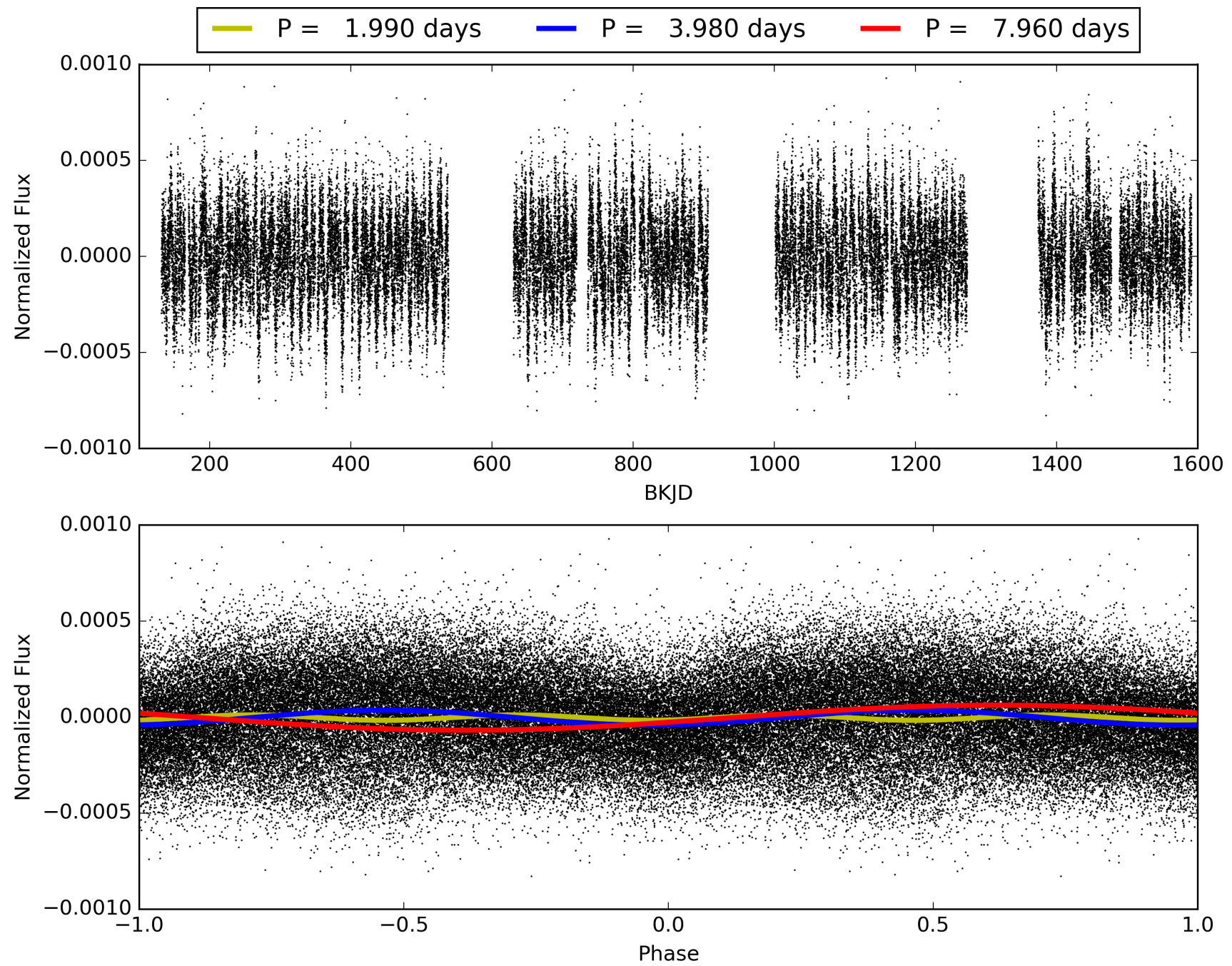
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 19:53:40 Z

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

TCE 005802115-01, PDC Light Curves

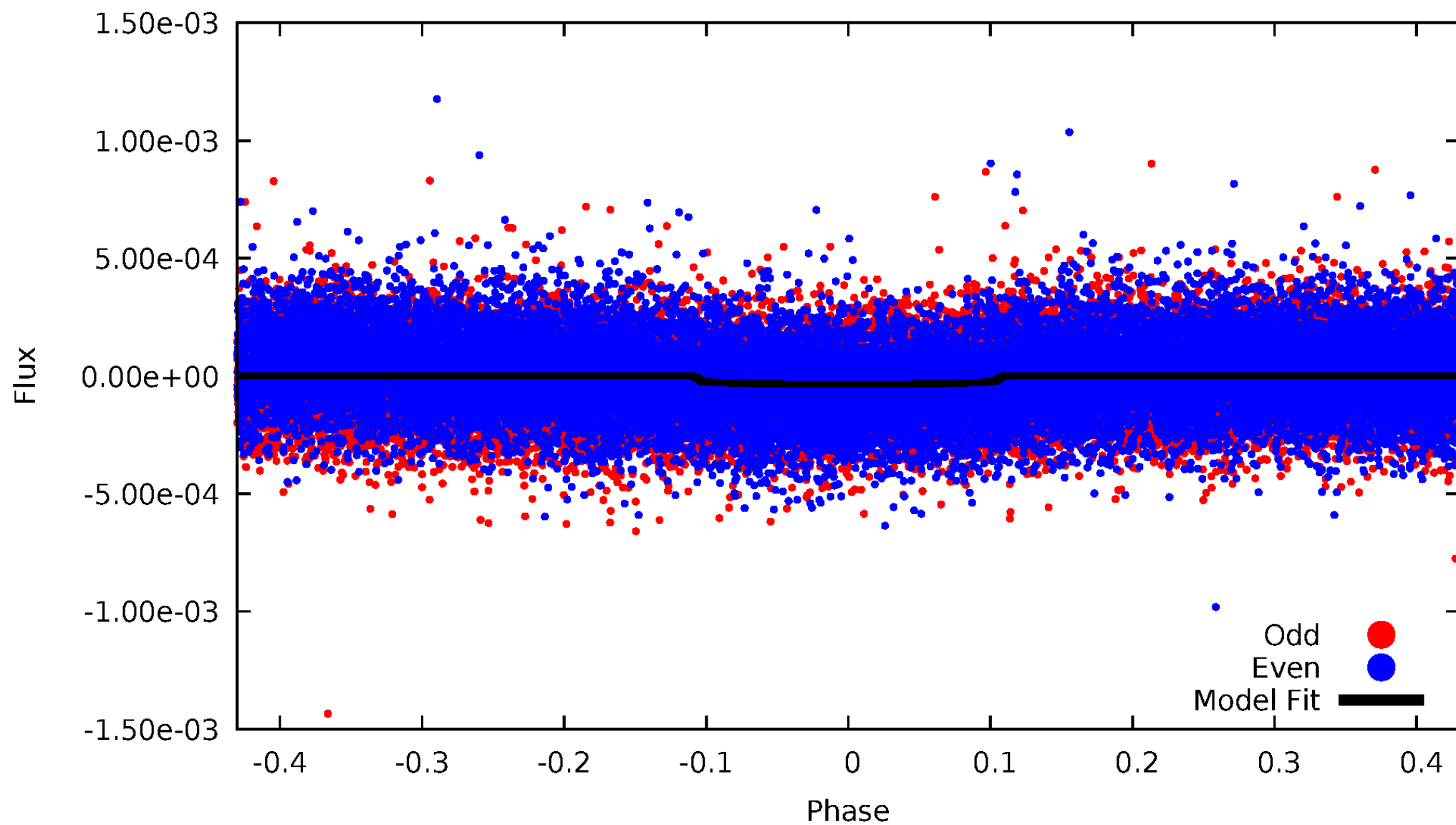


TCE 005802115-01



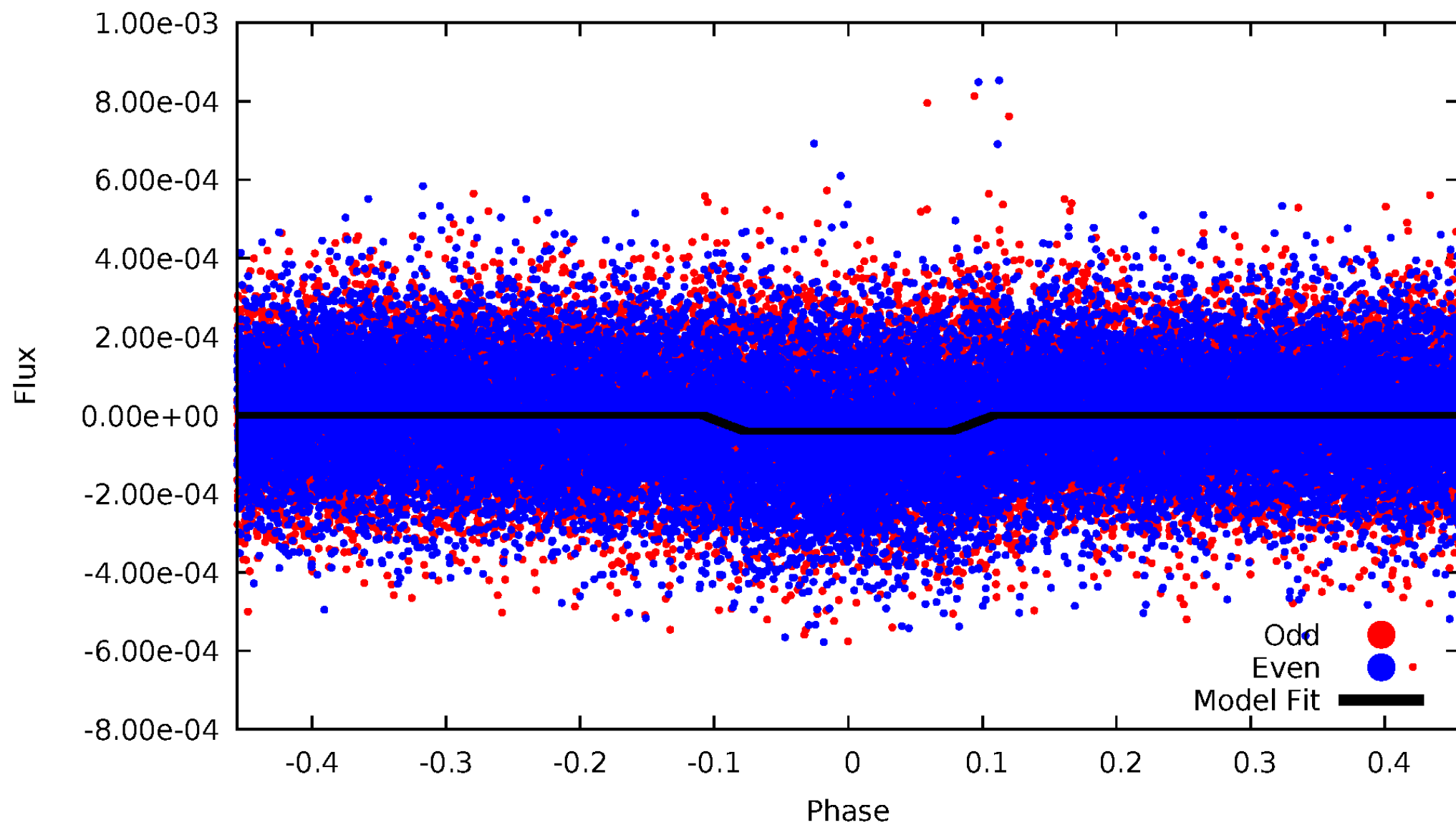
DV Odd/Even

TCE 005802115-01



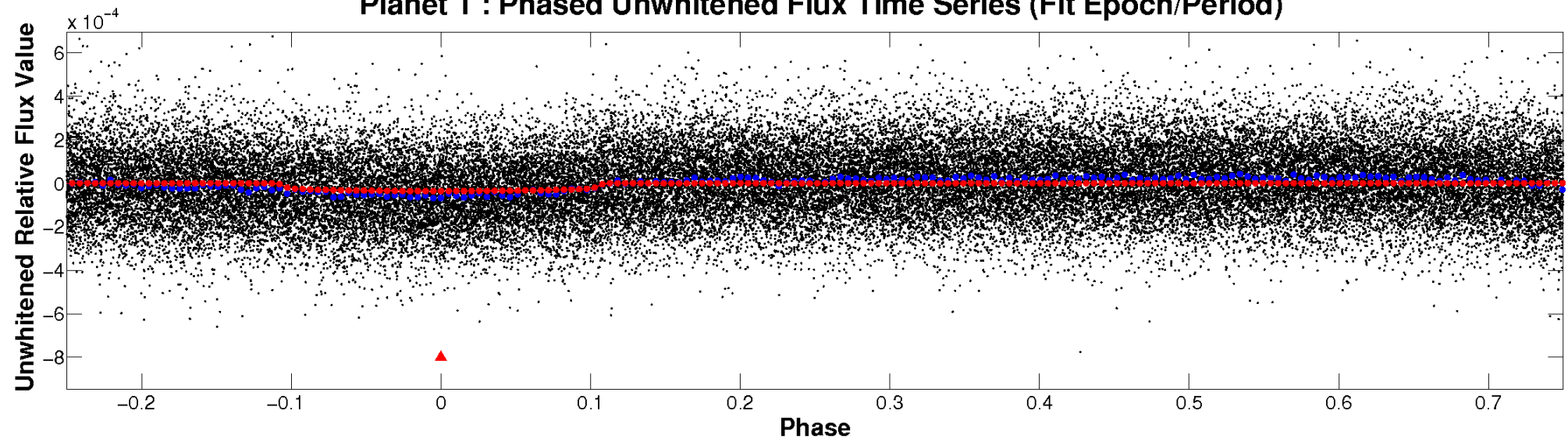
ALT Odd/Even

TCE 005802115-01

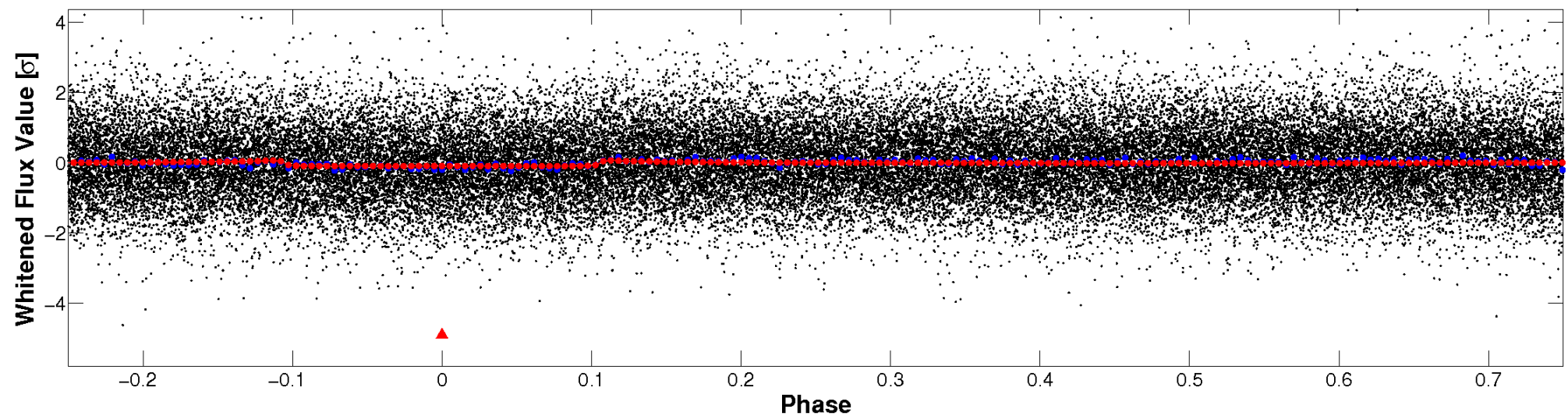


Non-Whitened Vs. Whitened Light Curve

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

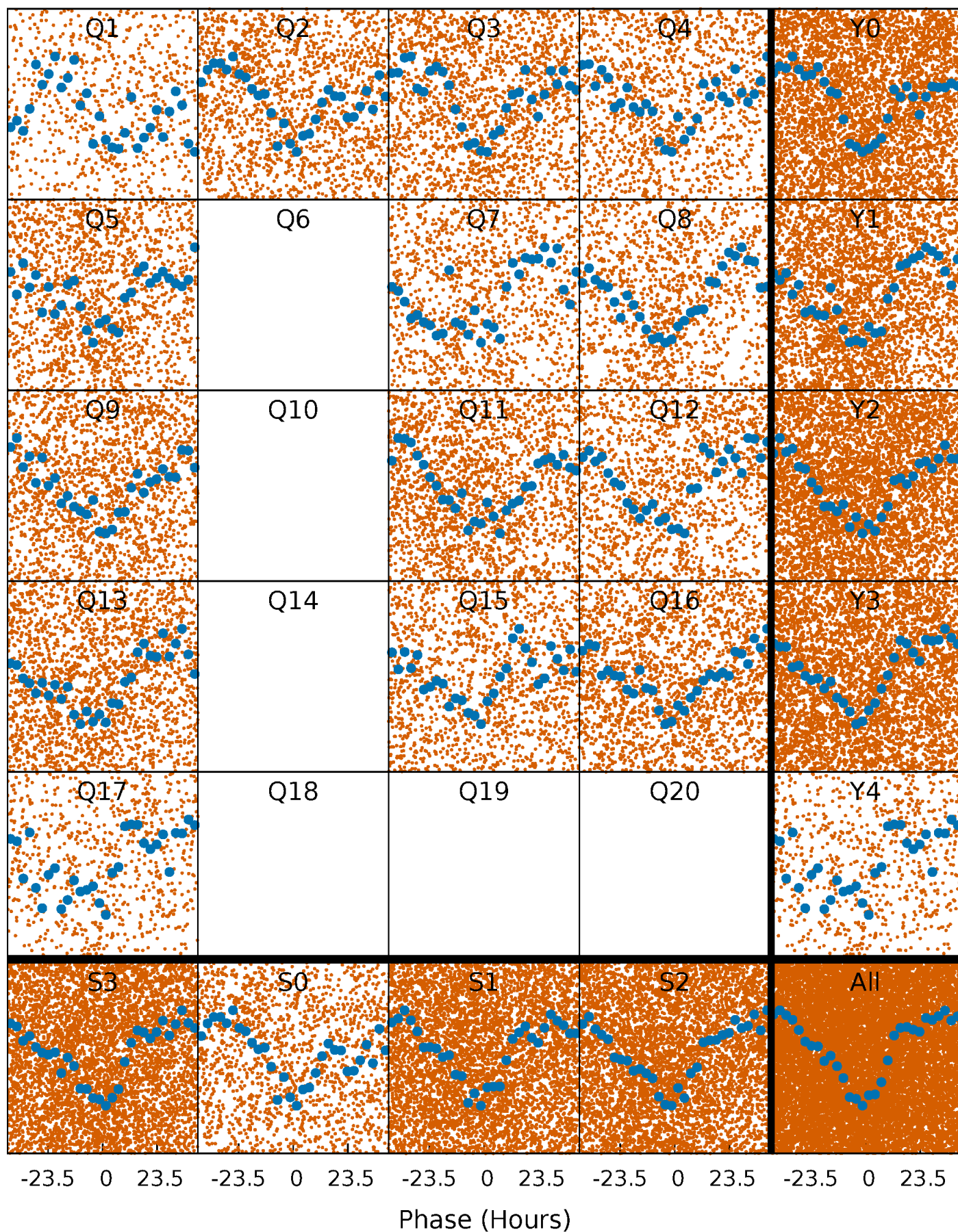


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



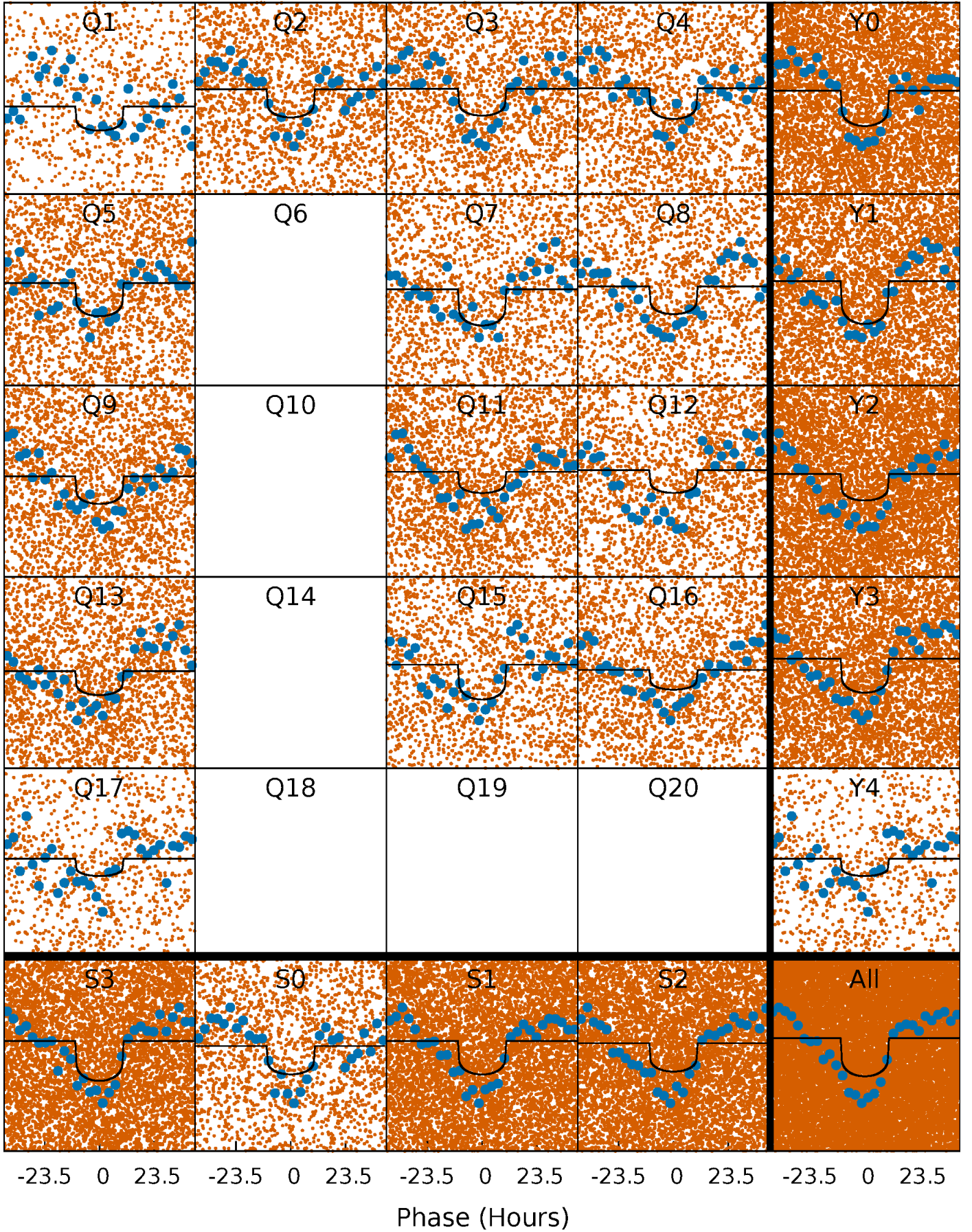
PDC Quarter-Phased Transit Curves

TCE 005802115-01 P= 3.980151 Days $T_0=131.723363$ (BKJD)



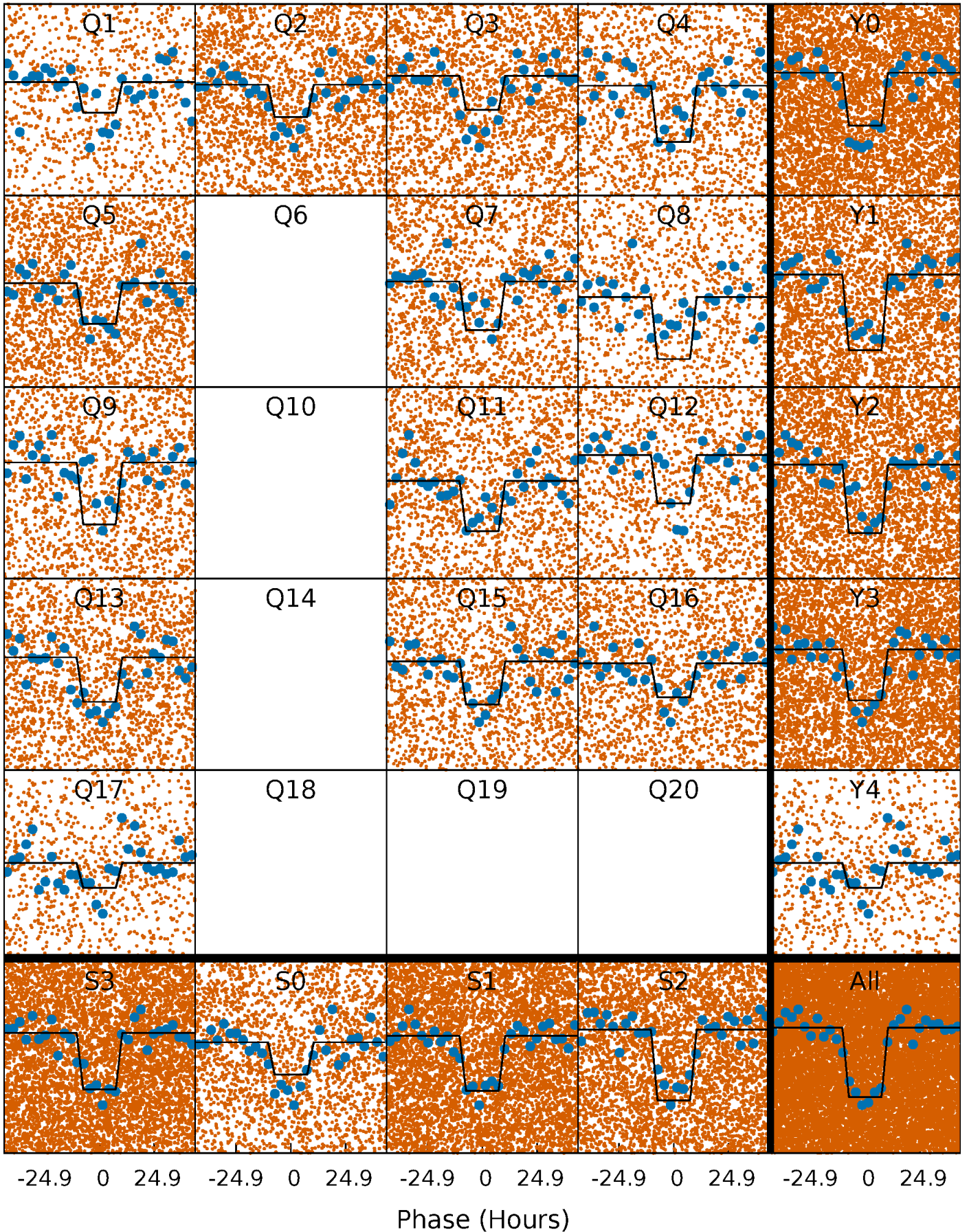
DV Quarter-Phased Transit Curves

TCE 005802115-01 P= 3.980151 Days $T_0=131.723363$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

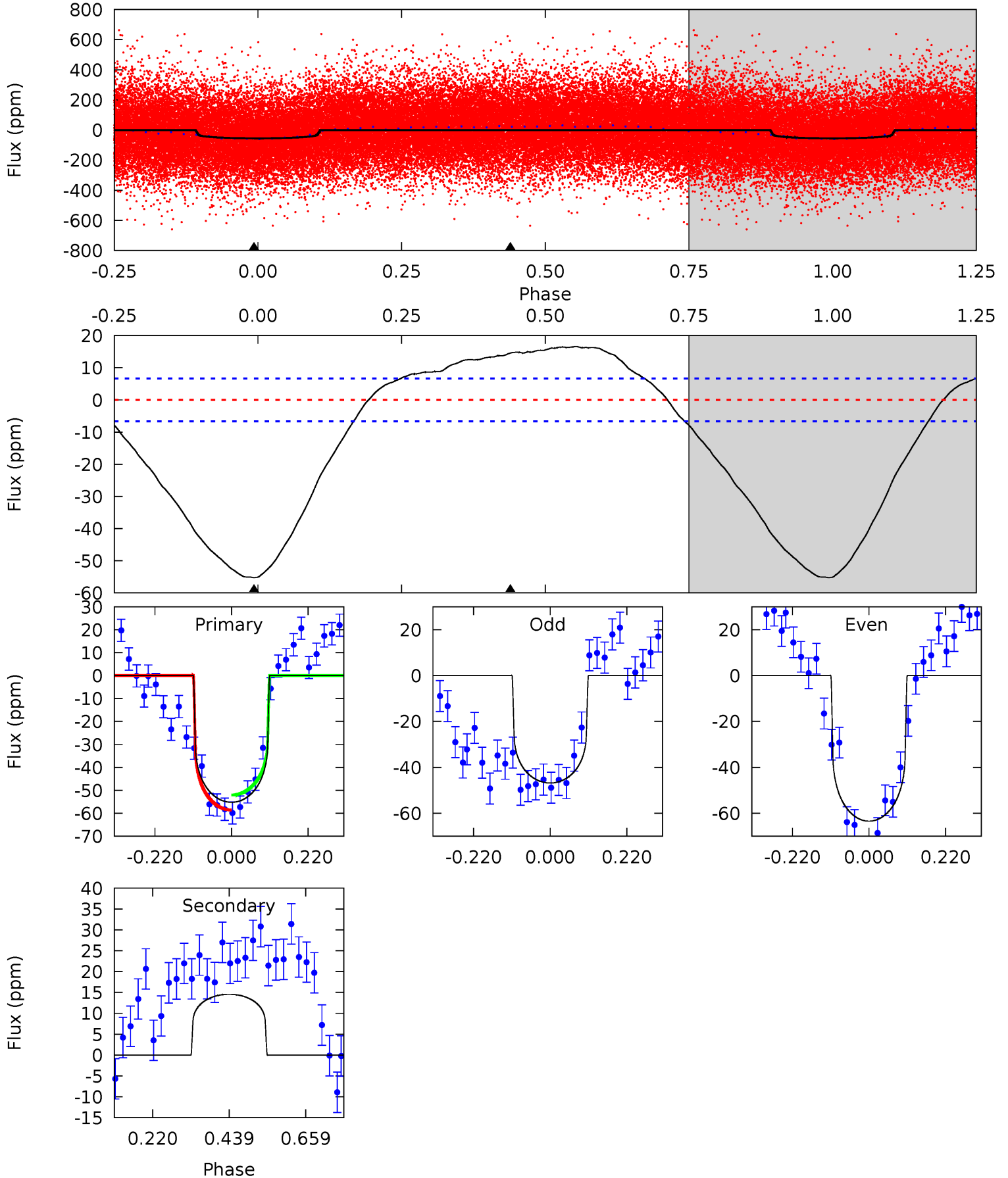
TCE 005802115-01 P= 3.980105 Days $T_0=131.748438$ (BKJD)



DV Model-Shift Uniqueness Test

005802115-01, P = 3.980151 Days, E = 127.743212 Days

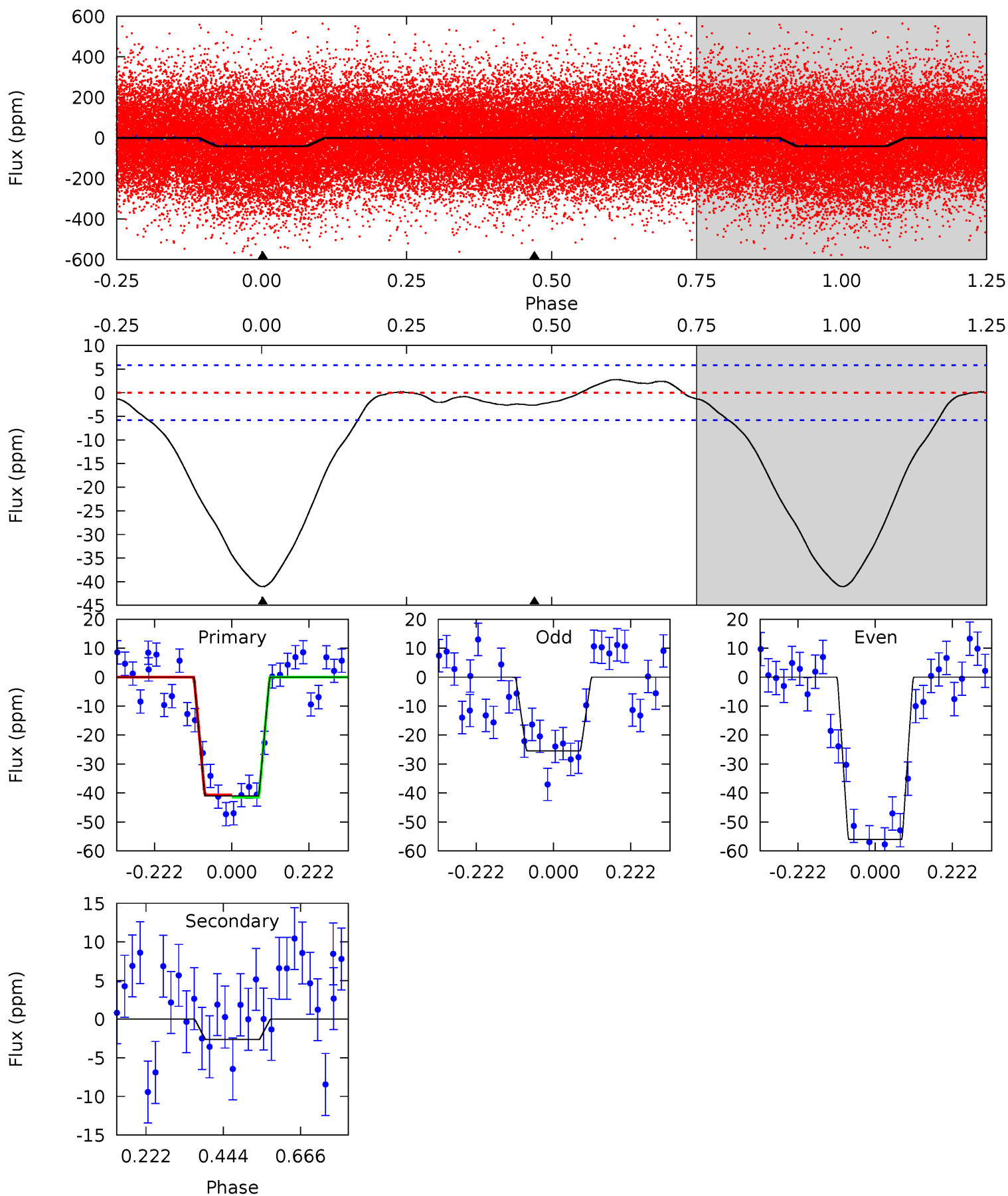
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
36.6	-9.66	0	0	4.40	1.23	4.22	36.6	36.6	-9.66	-9.66	5.64	1.05	0.23	2.16



Alt Model-Shift Uniqueness Test

005802115-01, P = 3.980105 Days, E = 127.768333 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
31.0	1.99	0	0	4.39	1.22	1.12	31.0	31.0	1.99	1.99	11.5	0.89	0.06	0.31



Stellar Parameters For KIC 005802115

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6379^{+175}_{-214}	$4.004^{+0.390}_{-0.156}$	$-0.440^{+0.300}_{-0.300}$	$1.711^{+0.439}_{-0.658}$	$1.078^{+0.161}_{-0.161}$	$0.303^{+0.850}_{-0.134}$
	+3%/-3%	+10%/-4%	+68%/-68%	+26%/-38%	+15%/-15%	+280%/-44%
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 005802115-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	15 ± 2	$1.03^{+0.35}_{-0.32}$	2247^{+179}_{-221}	-5224^{+472}_{-742}	$-19.140^{+8.294}_{-22.443}$
Alt.	-3 ± 1	$1.12^{+0.37}_{-0.32}$	2245^{+181}_{-228}	3570^{+493}_{-479}	$2.868^{+3.385}_{-1.698}$

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

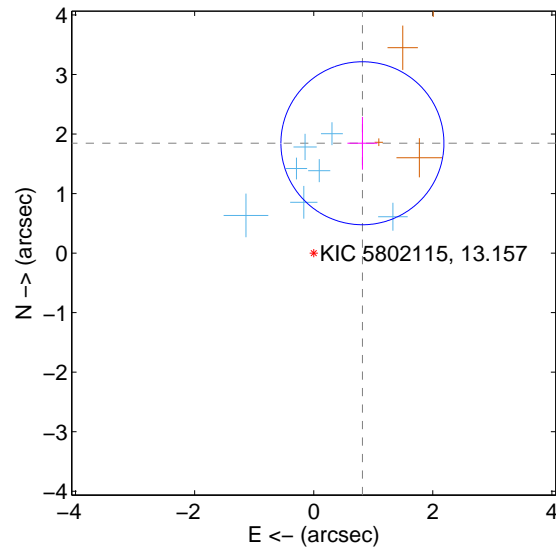
Supplemental centroid analysis for 005802115-01. Kepler magnitude: 13.16. Transit SNR 10.12

There are 8 quarters with good PRF difference image offsets

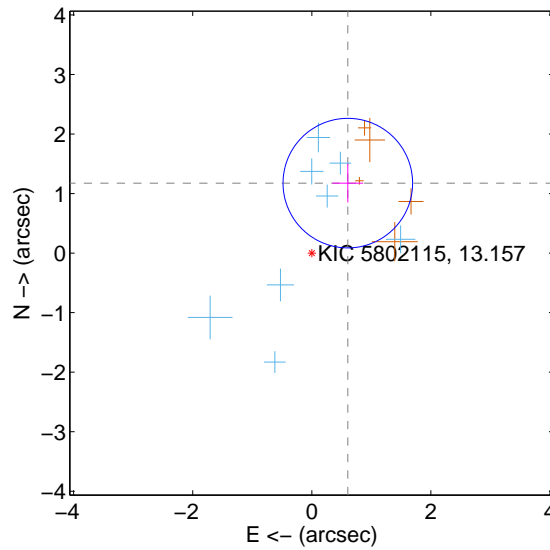
The OOT PRF centroid is offset from the target star catalog position by about 3.34 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.019 ± 0.456	4.42	-0.818 ± 0.252	1.845 ± 0.444
PRF-fit source offset from KIC position	1.322 ± 0.363	3.65	-0.605 ± 0.258	1.176 ± 0.323
photometric centroid source offset	1.02 ± 0.64	1.59	-0.12 ± 0.38	-1.01 ± 0.64

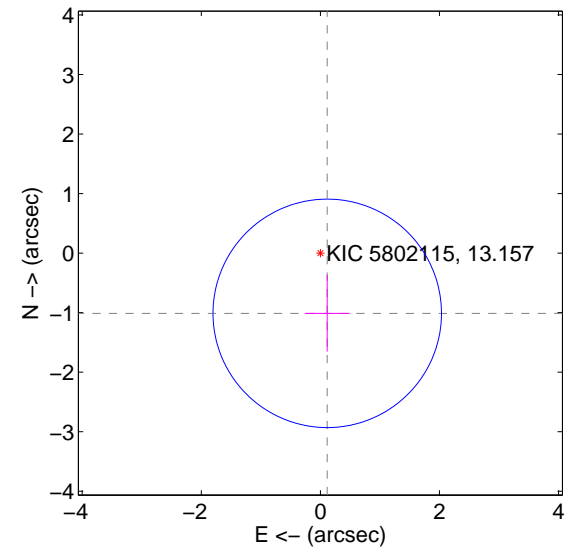
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

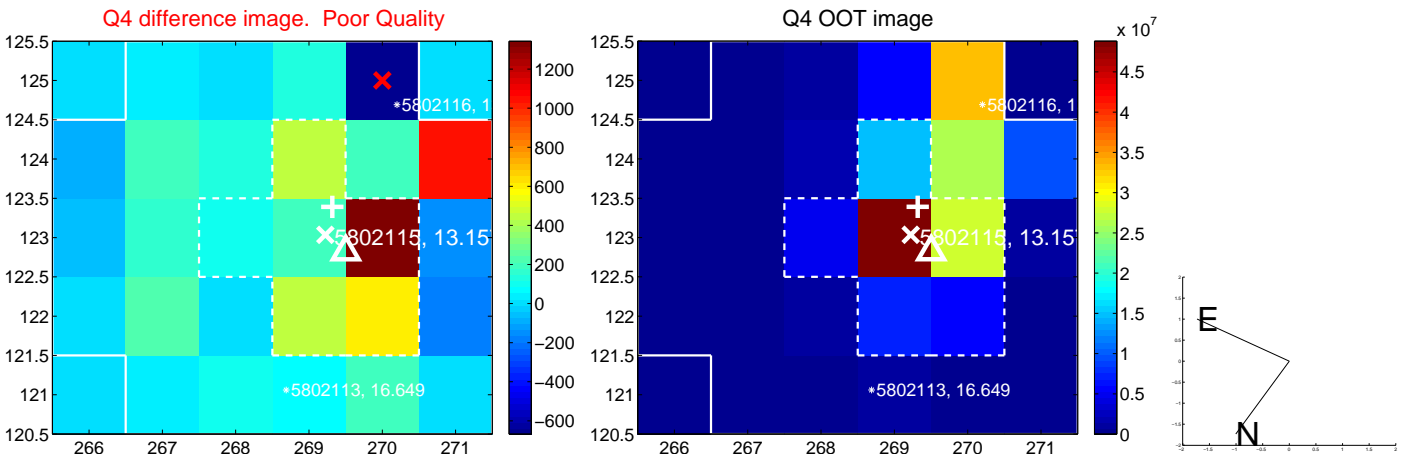
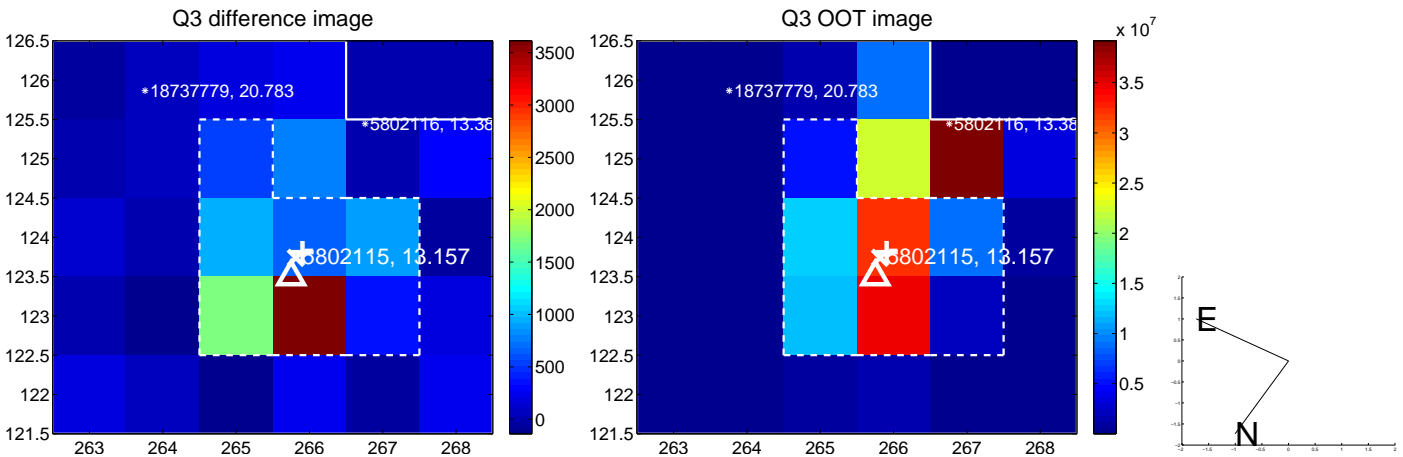
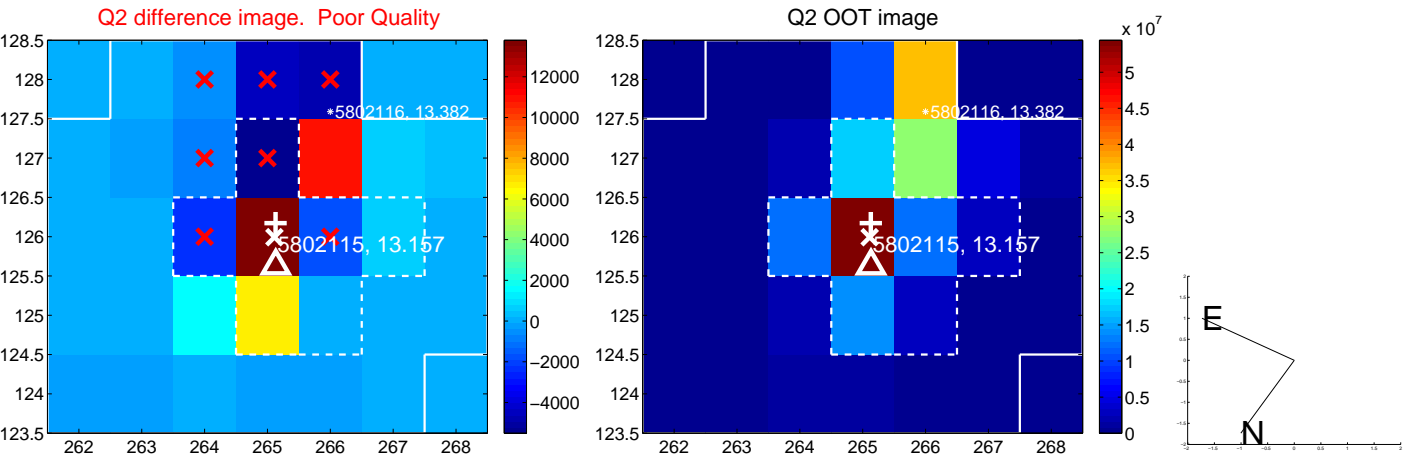
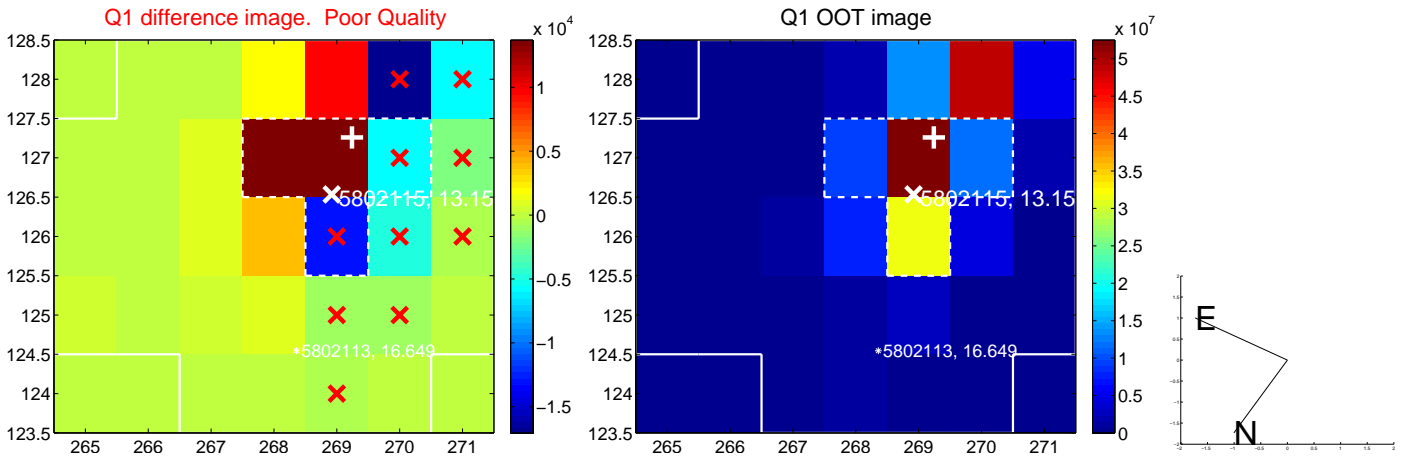


offset from photometric centroids

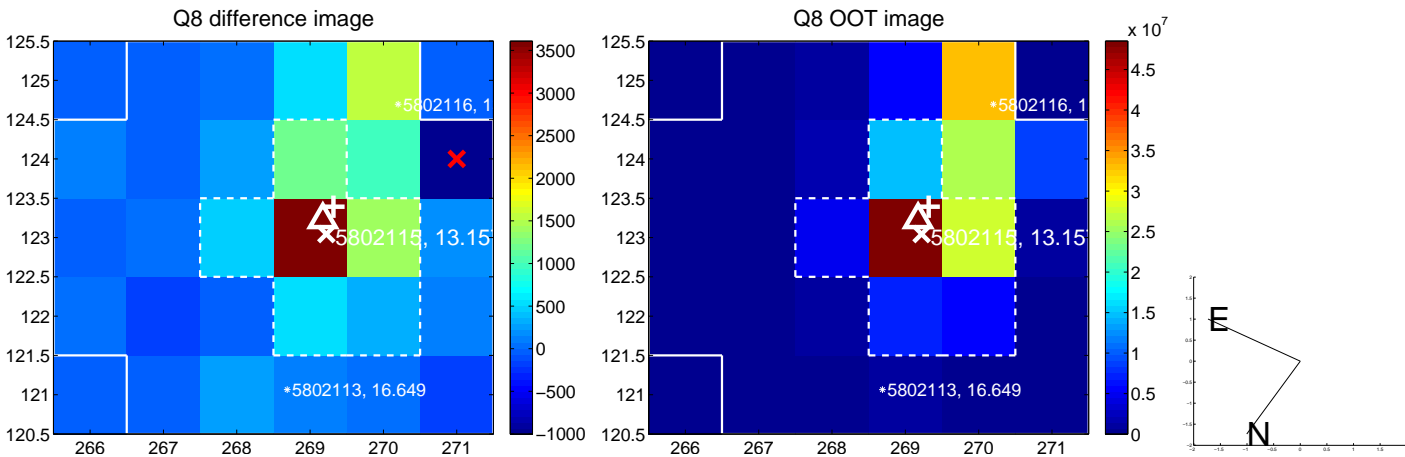
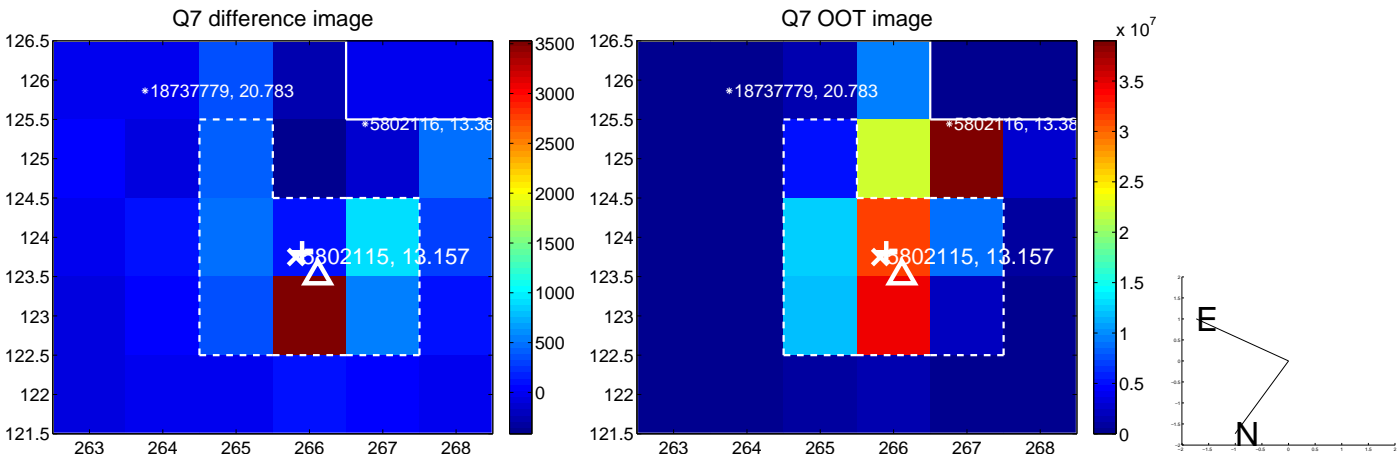
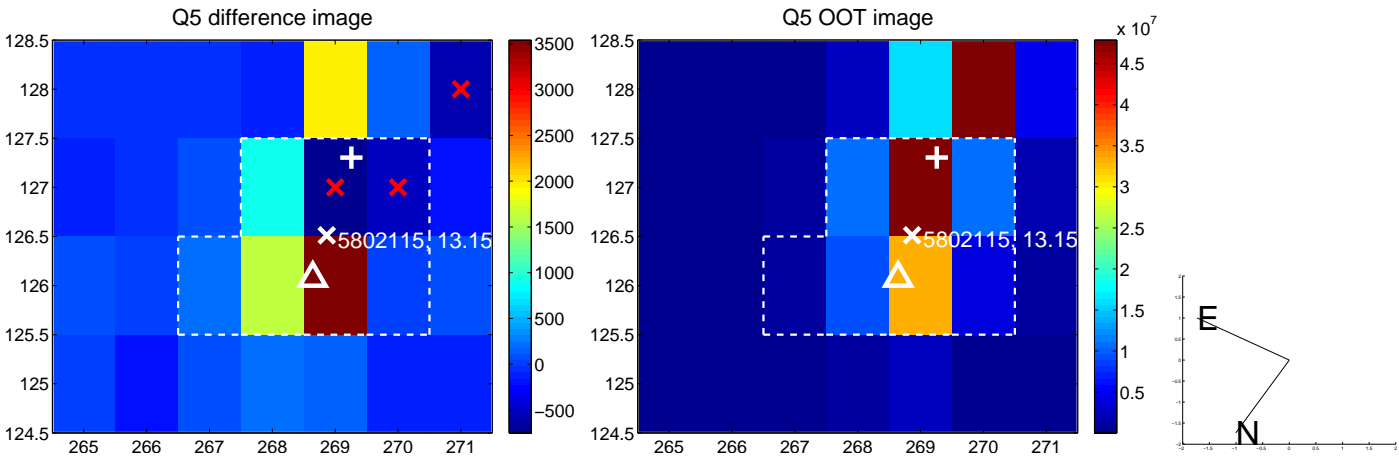


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

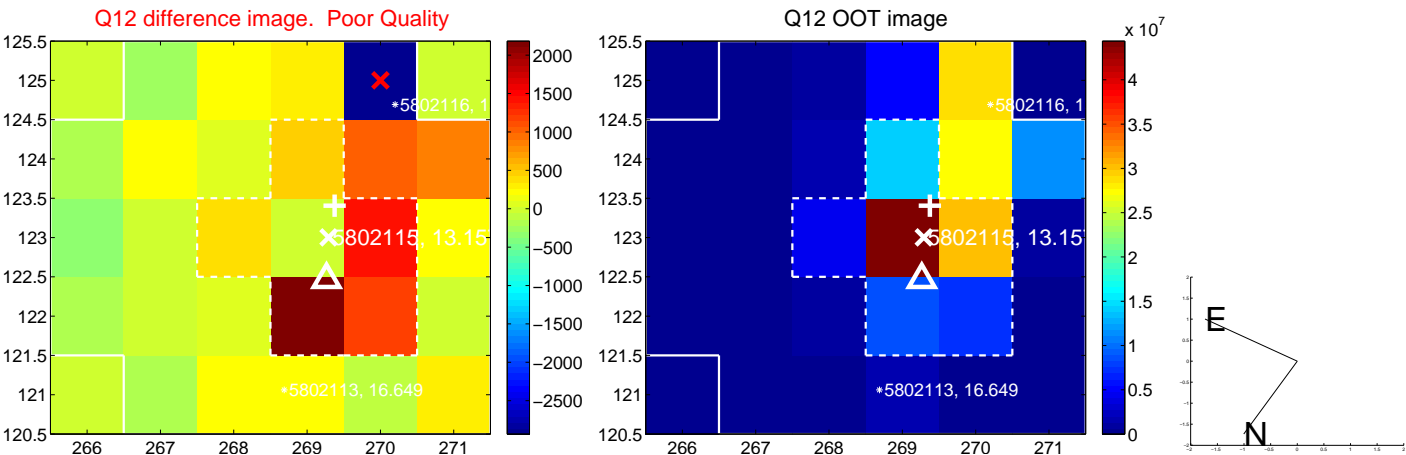
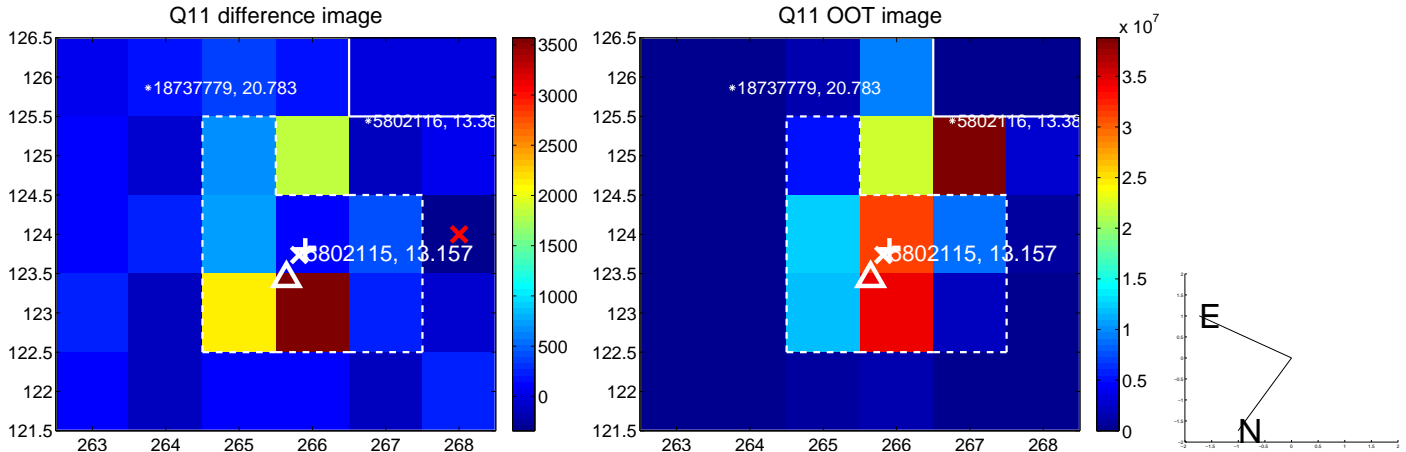
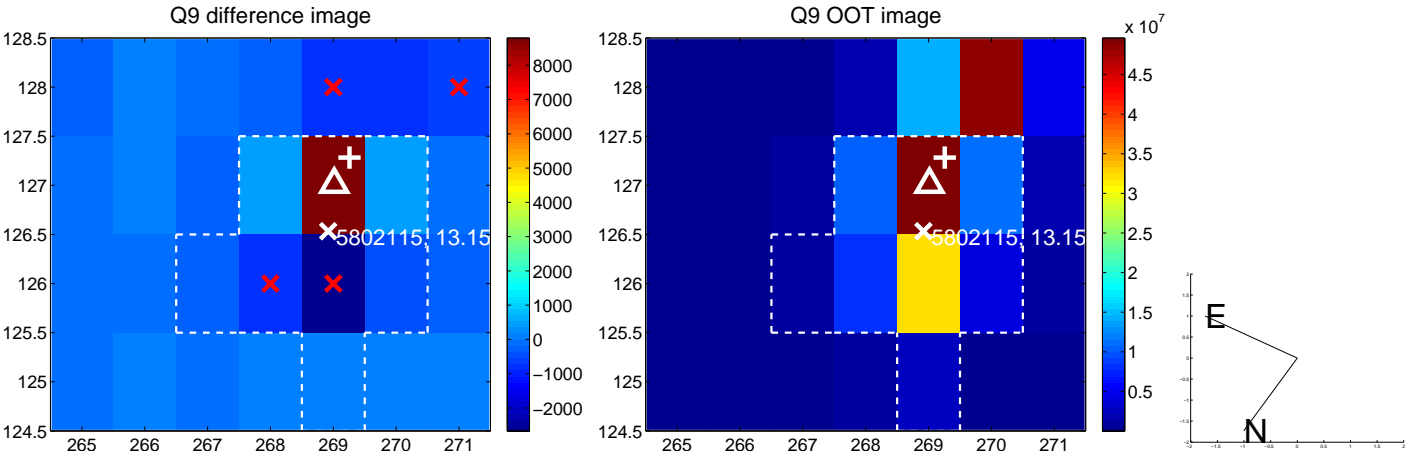
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



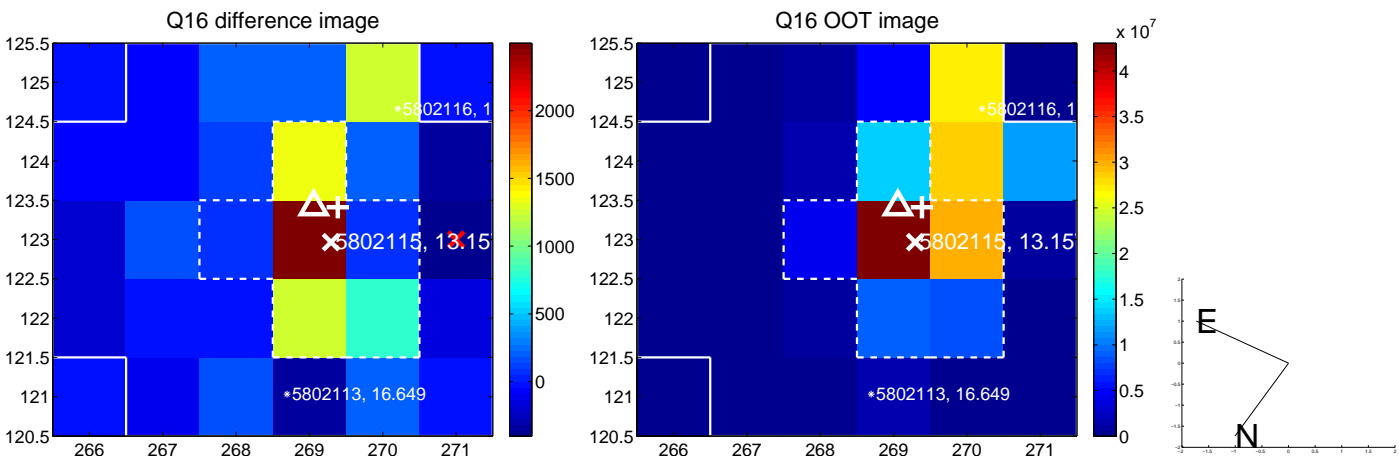
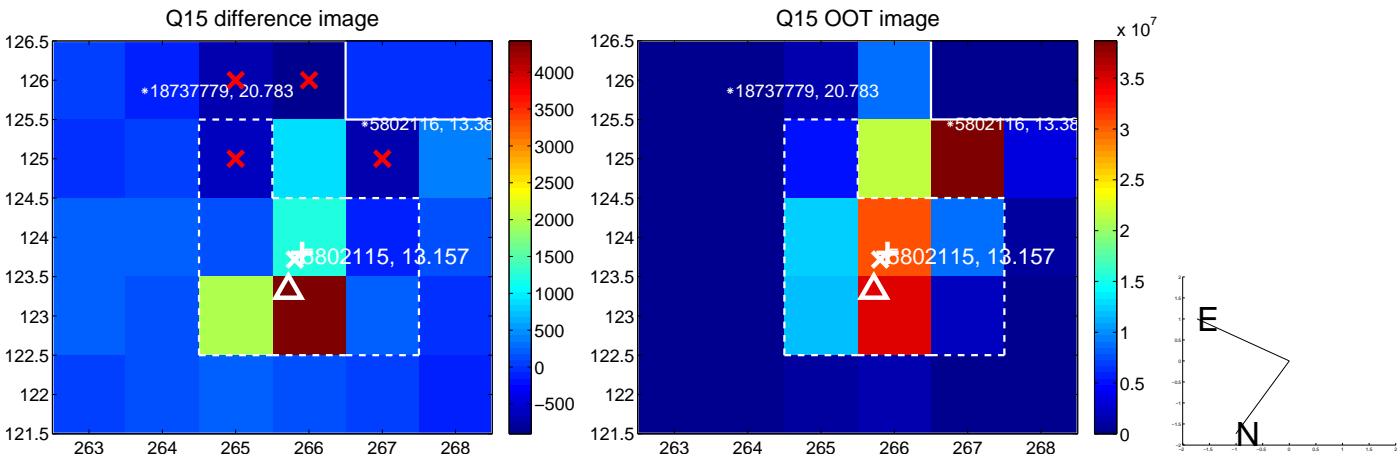
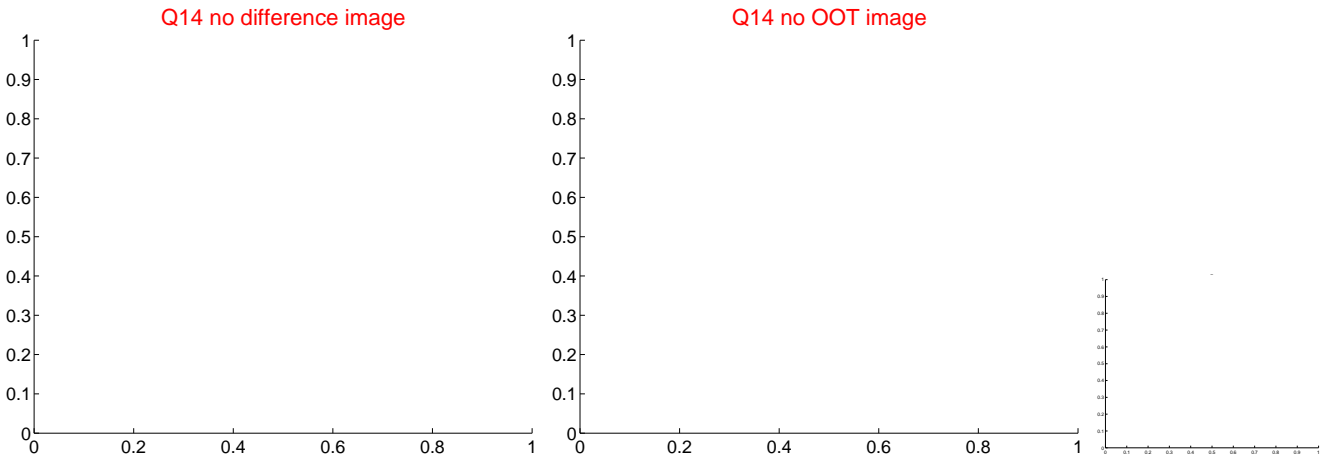
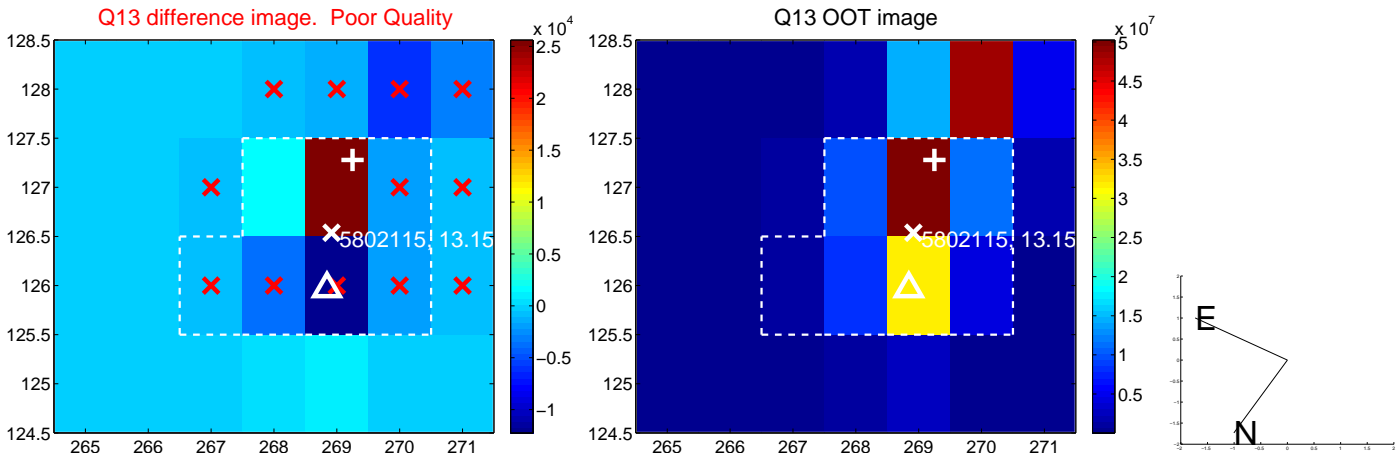
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



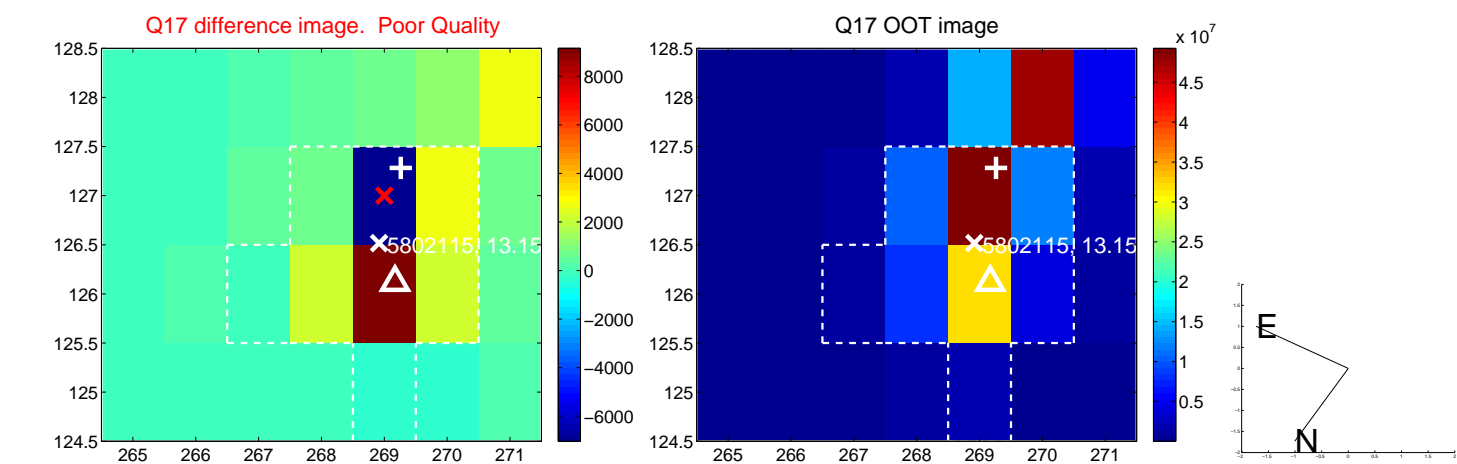
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



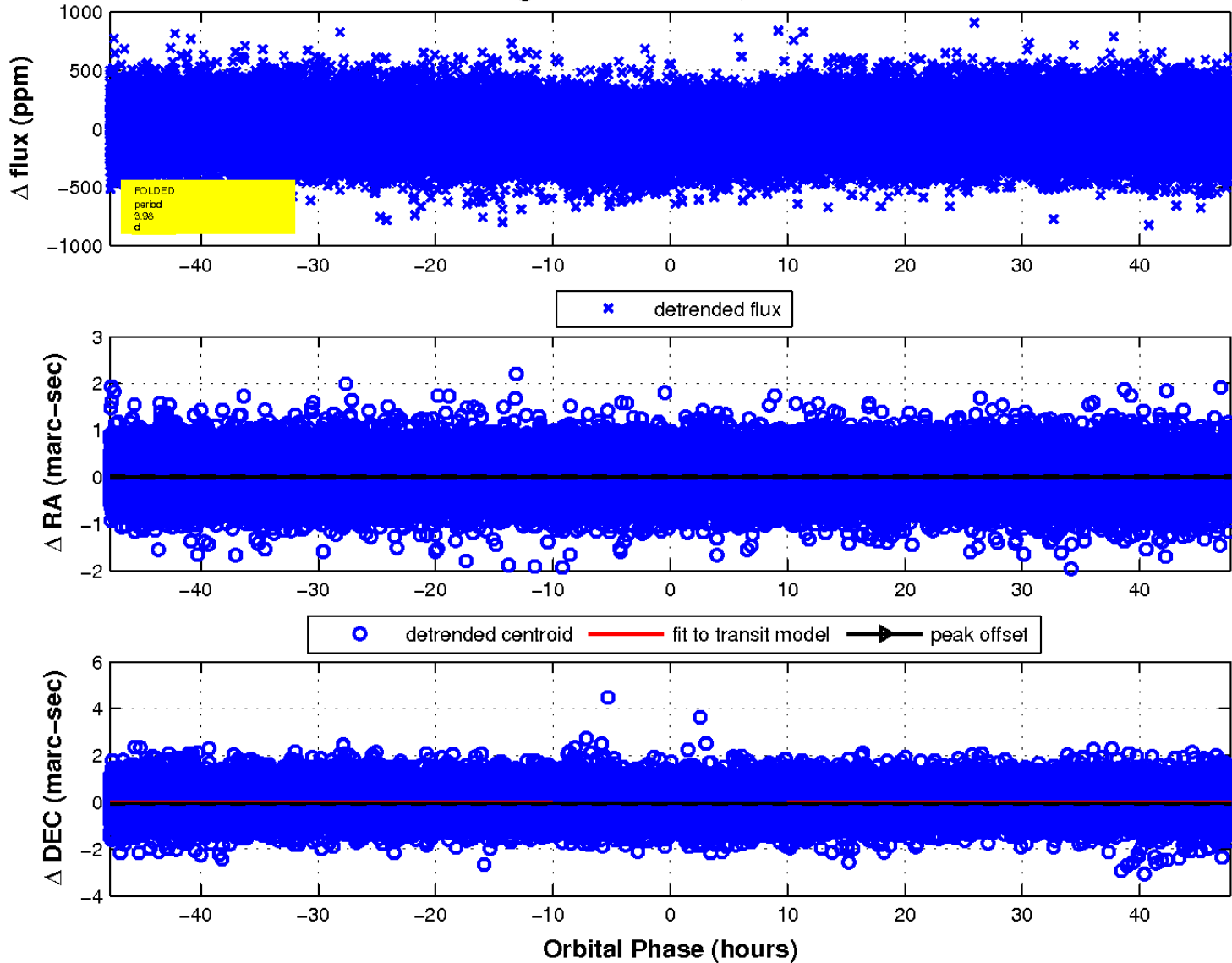
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

