

KIC 006520969

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})
006520969-01	OBS	No	1.014028	131.653427	9.5	10.293	7.8	8.0	3.03	8572	0.95	71751.91

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006520969-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_FEW_MEAS

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

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

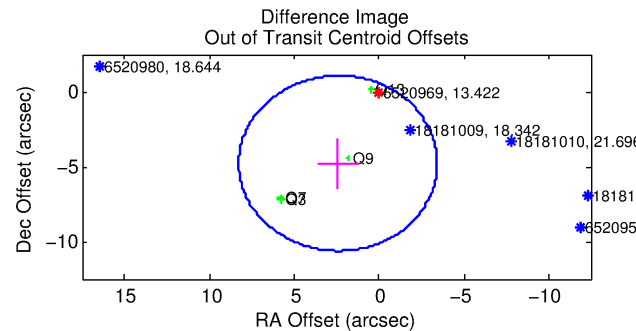
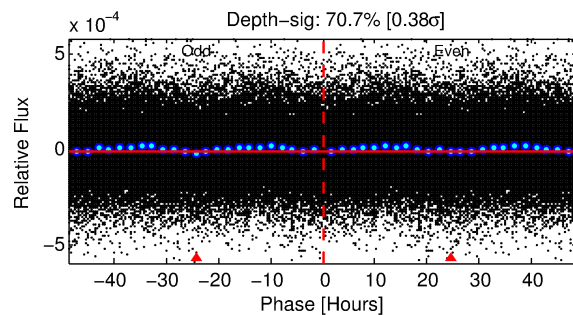
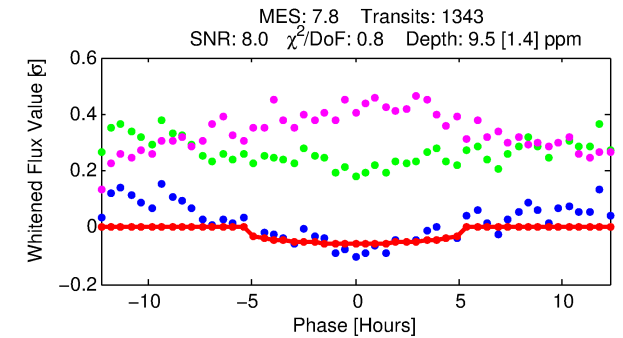
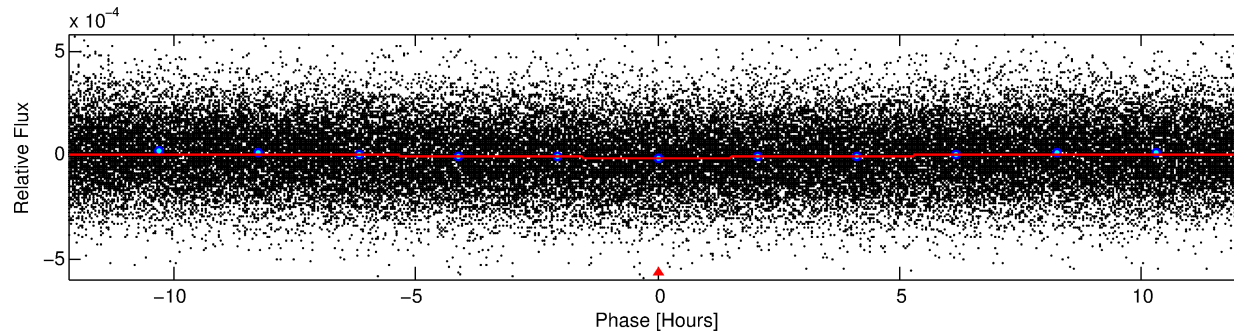
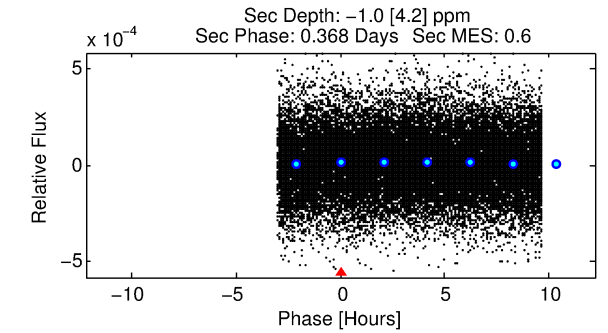
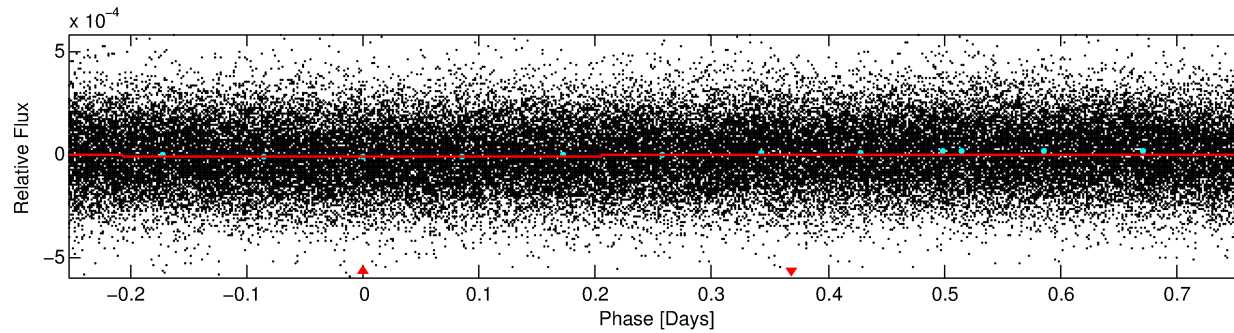
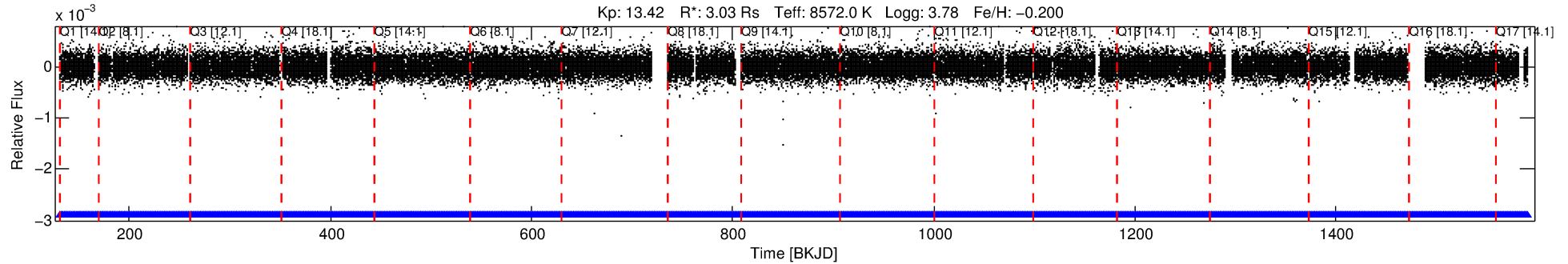
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006520969-01

No Significant Match Found

DV One-Page Summary

KIC: 6520969 Candidate: 1 of 1 Period: 1.014 d



DV Fit Results:

Period = 1.01403 [0.00003] d
Epoch = 131.6534 [0.0113] BKJD
Rp/R* = 0.0029 [0.0028]
a/R* = 1.03 [0.37]
b = 0.03 [197.81]
Teff = 71751.91 [51251.91]
Teq = 4173 [745] K
Rp = 0.95 [1.00] Re
a = 0.0249 [0.0106] AU
Ag = N/A
Teffp = N/A

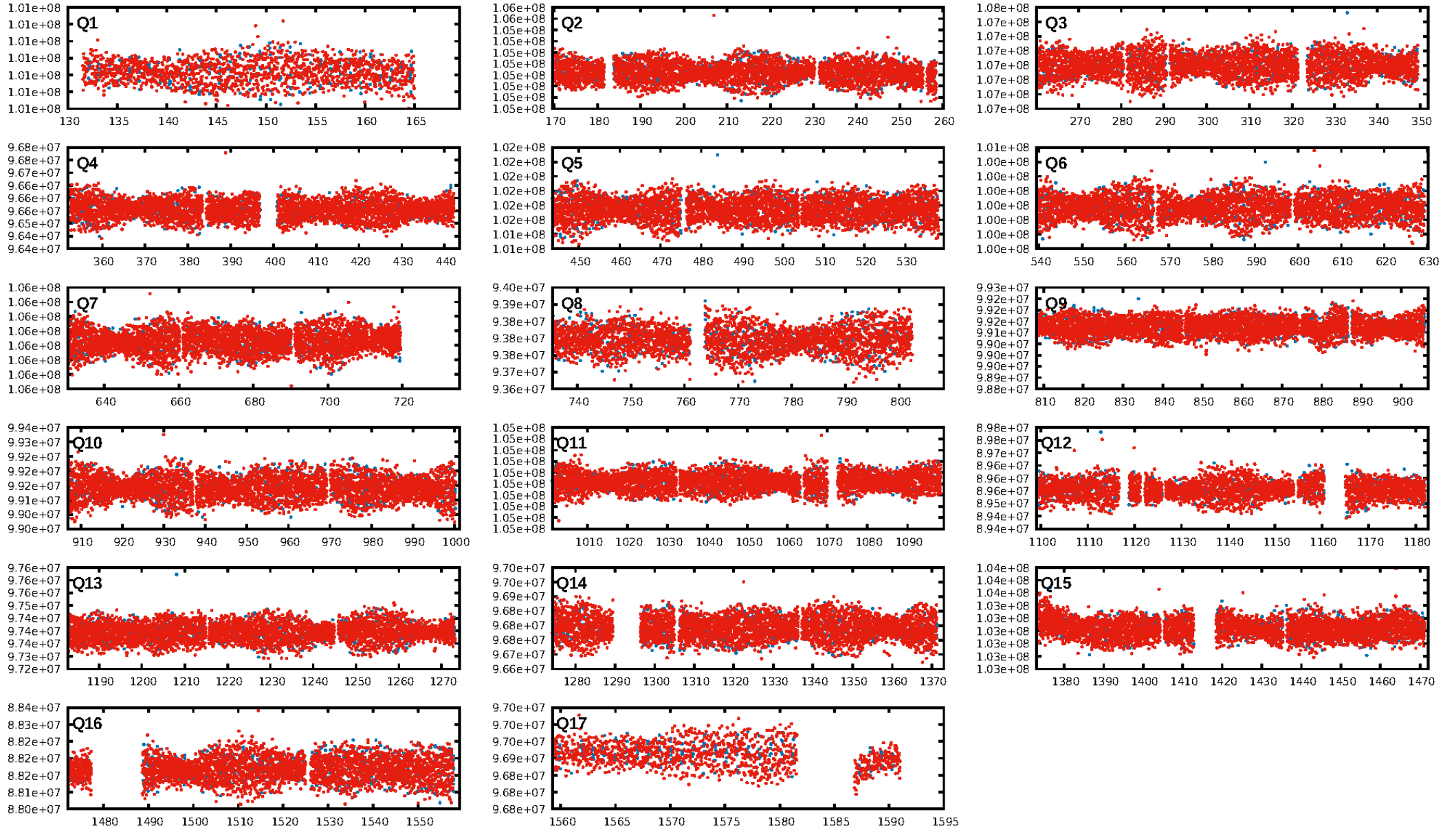
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1281/1281]
GhostDiagnostic-chr: 9.605
Centroid-sig: 41.3%
Centroid-so: 0.674 arcsec [0.57σ]
OotOffset-rm: 5.352 arcsec [2.74σ]
OotOffset-st: 0/2/0/2 [4]
KicOffset-rm: 5.000 arcsec [3.16σ]
KicOffset-st: 0/2/0/2 [4]
DiffImageQuality-fgm: 0.25 [1/4]
DiffImageOverlap-fno: 1.00 [17/17]

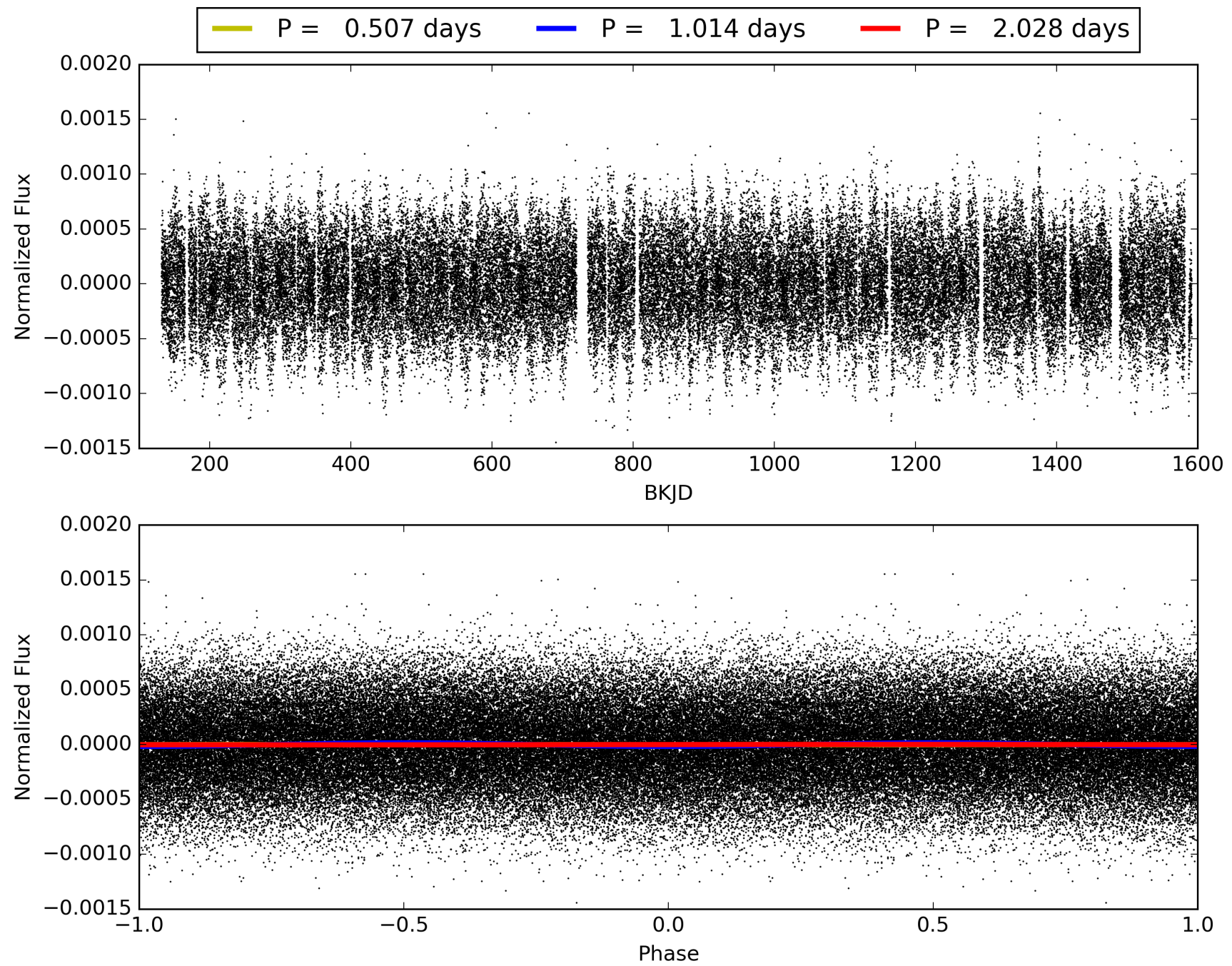
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 07:09:52 Z

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

TCE 006520969-01, PDC Light Curves

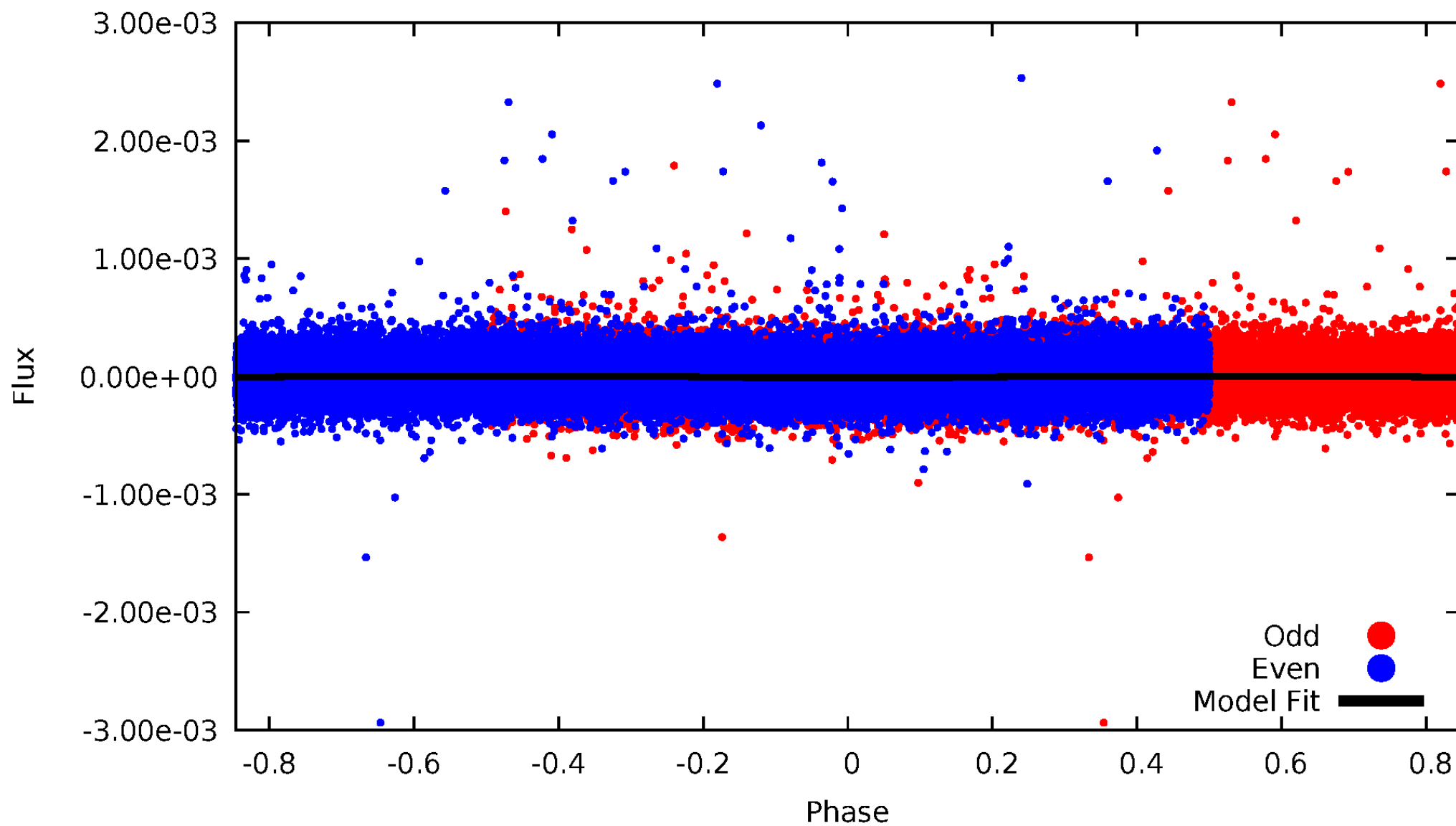


TCE 006520969-01



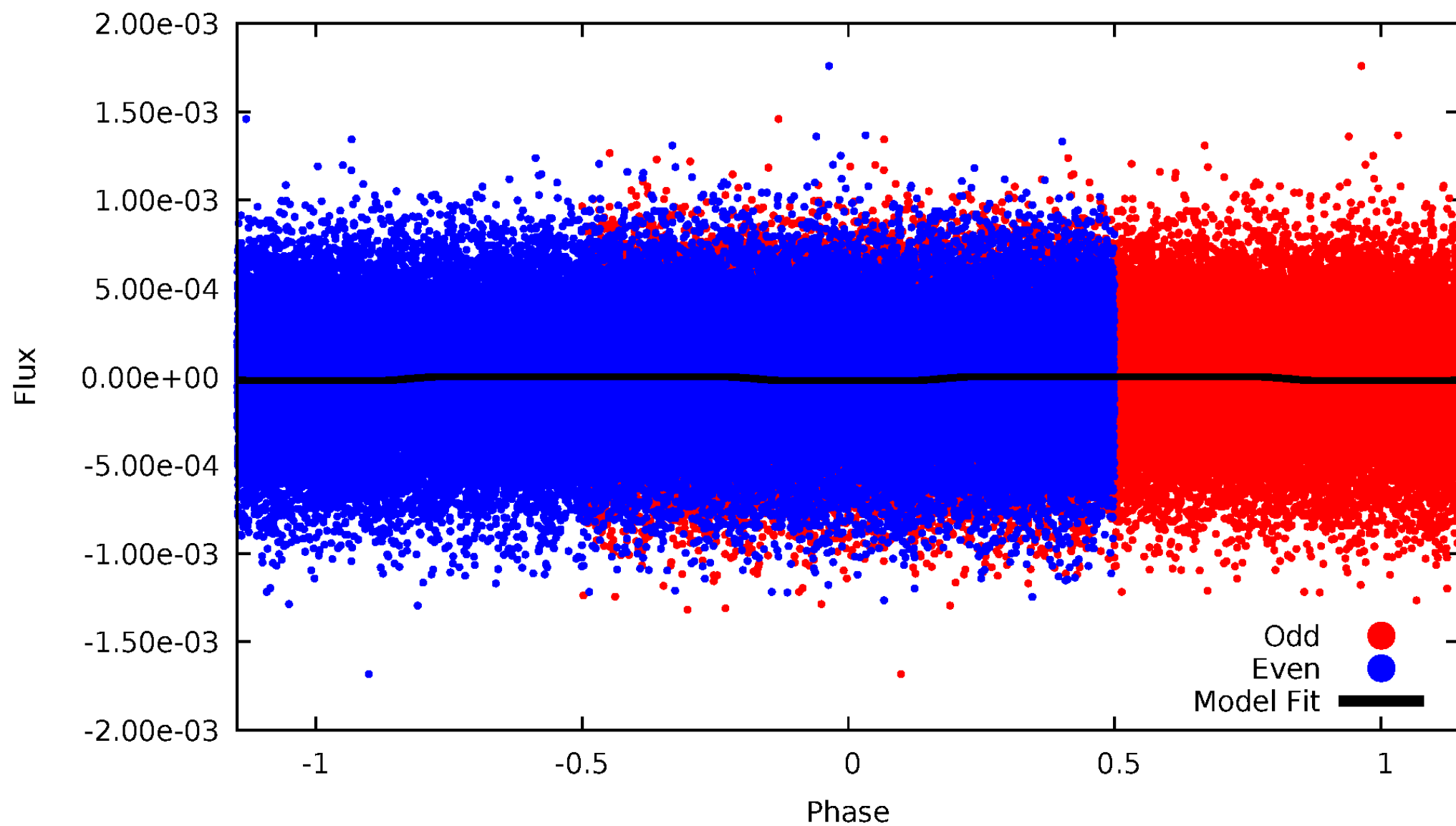
DV Odd/Even

TCE 006520969-01



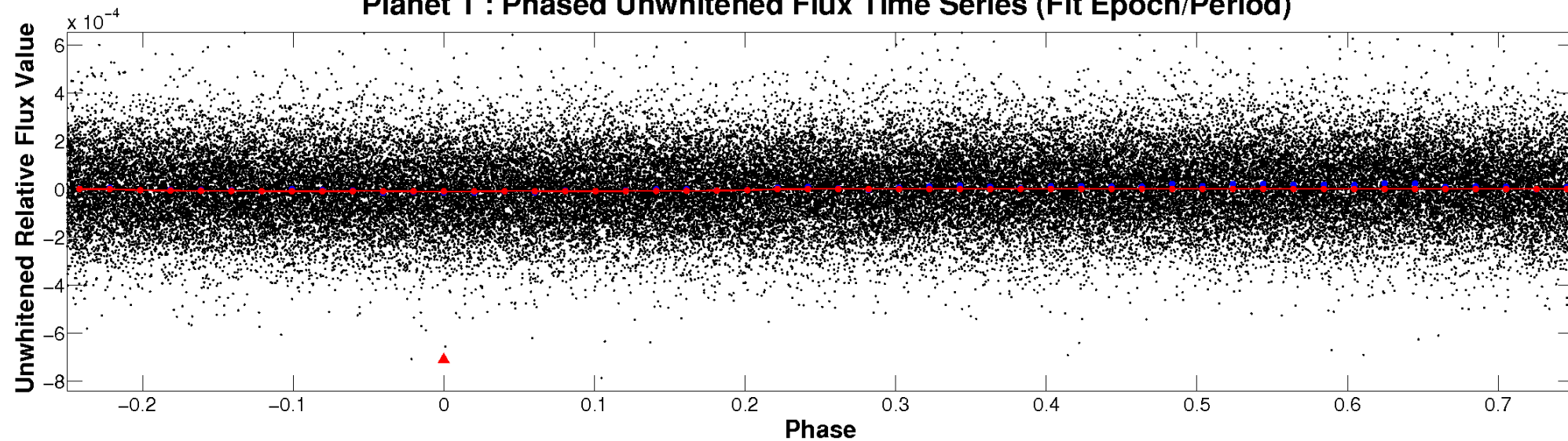
ALT Odd/Even

TCE 006520969-01

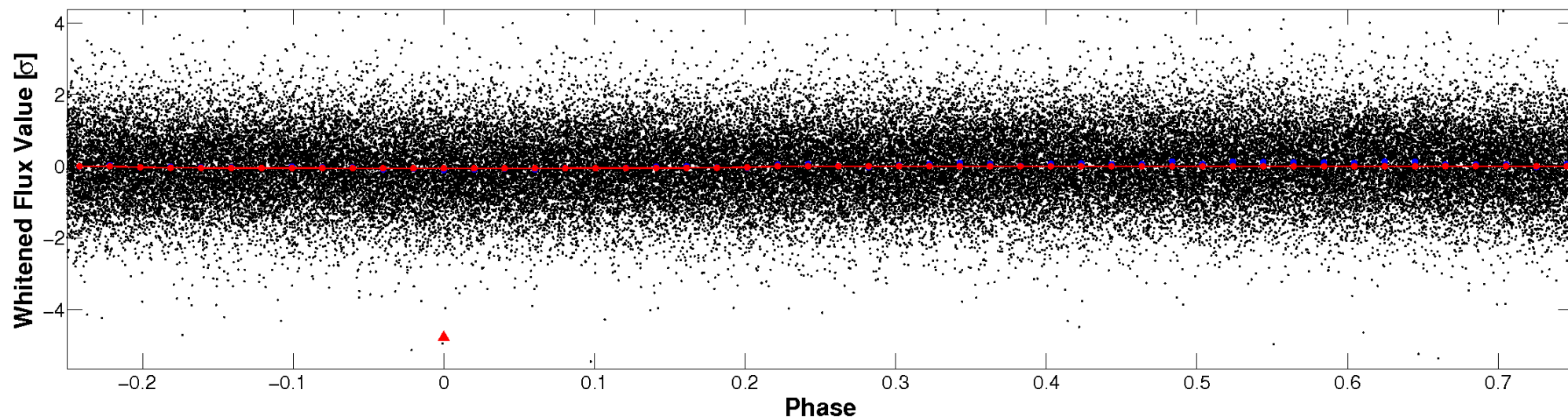


Non-Whitened Vs. Whitened Light Curve

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

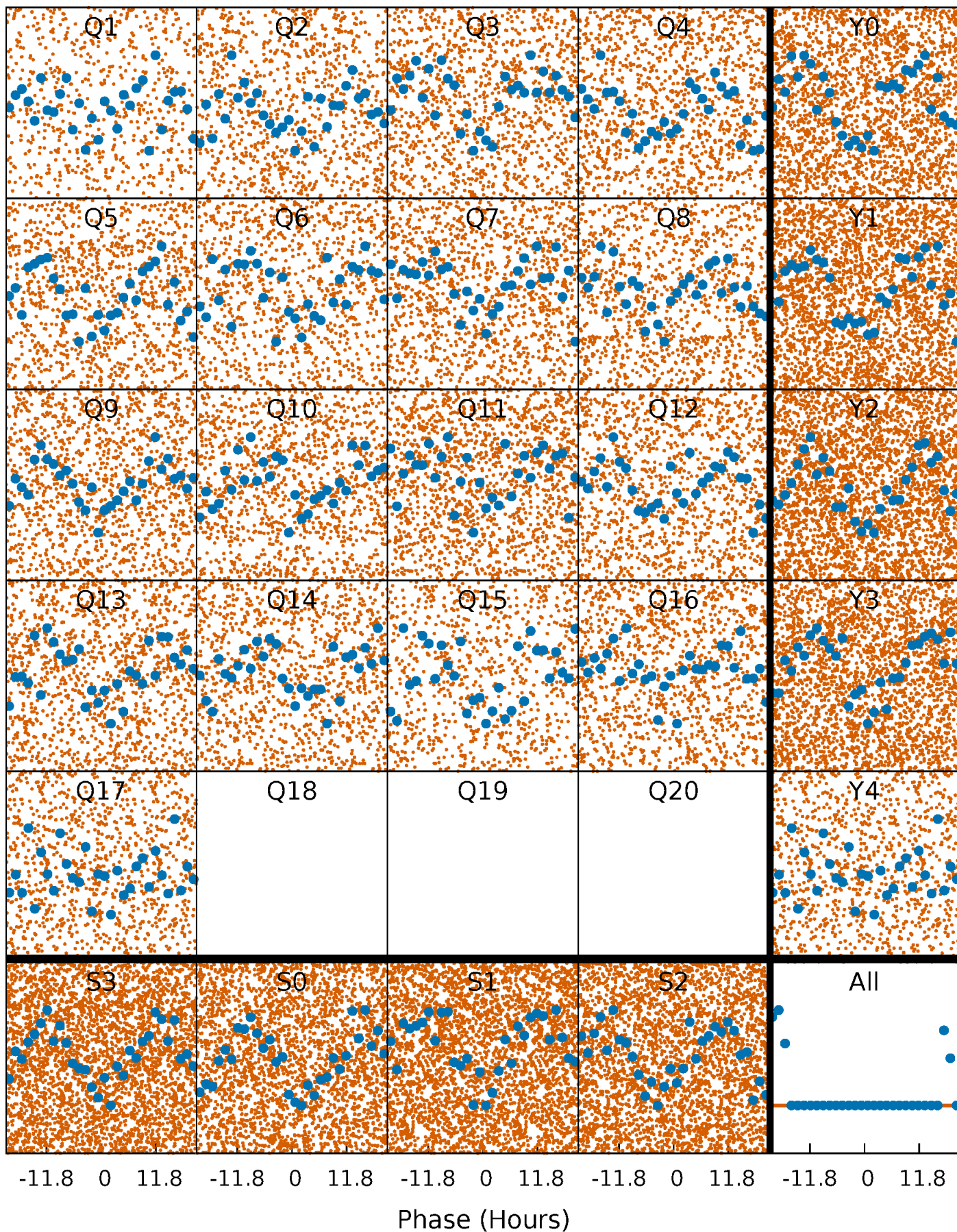


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



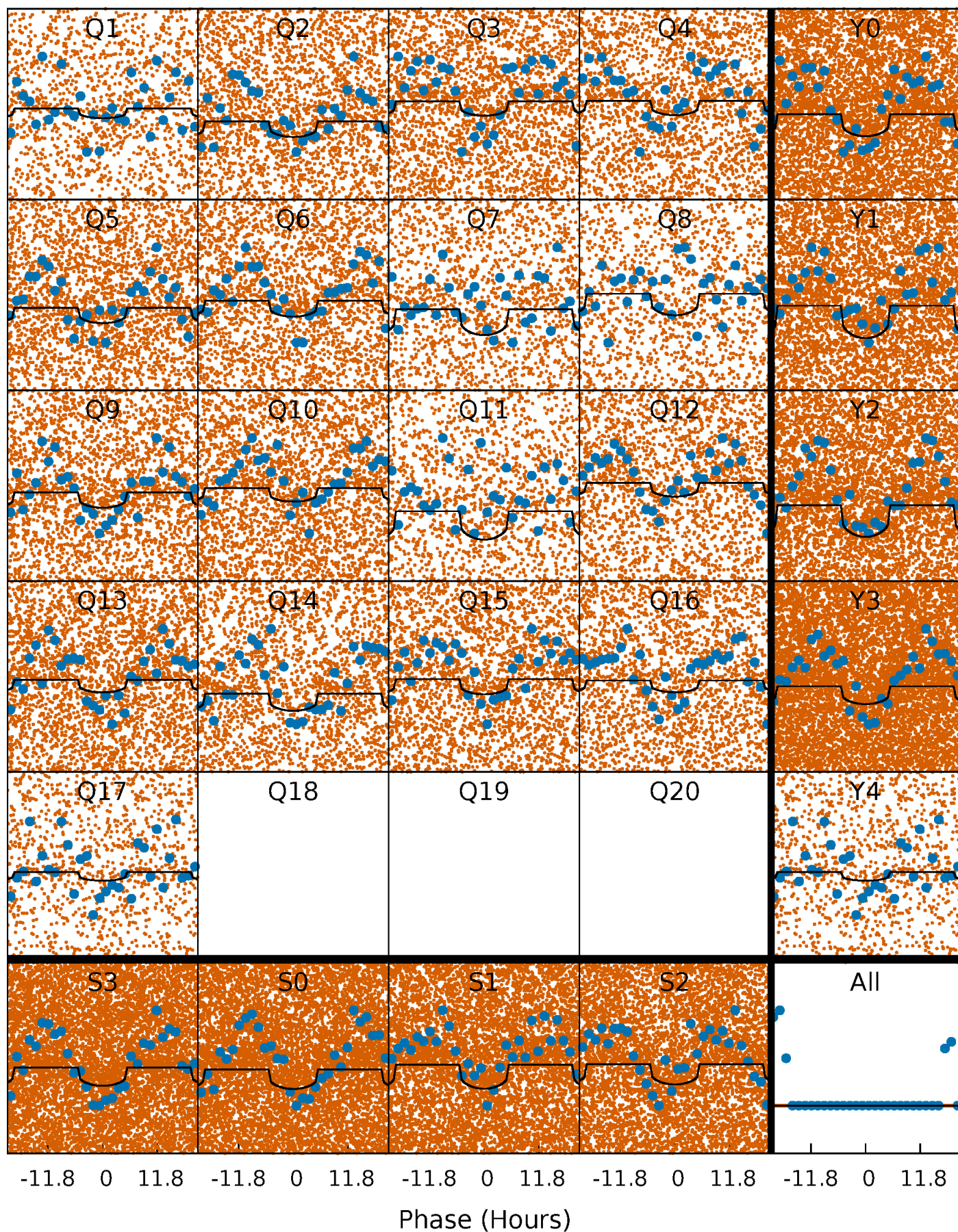
PDC Quarter-Phased Transit Curves

TCE 006520969-01 P= 1.014028 Days $T_0=131.653427$ (BKJD)



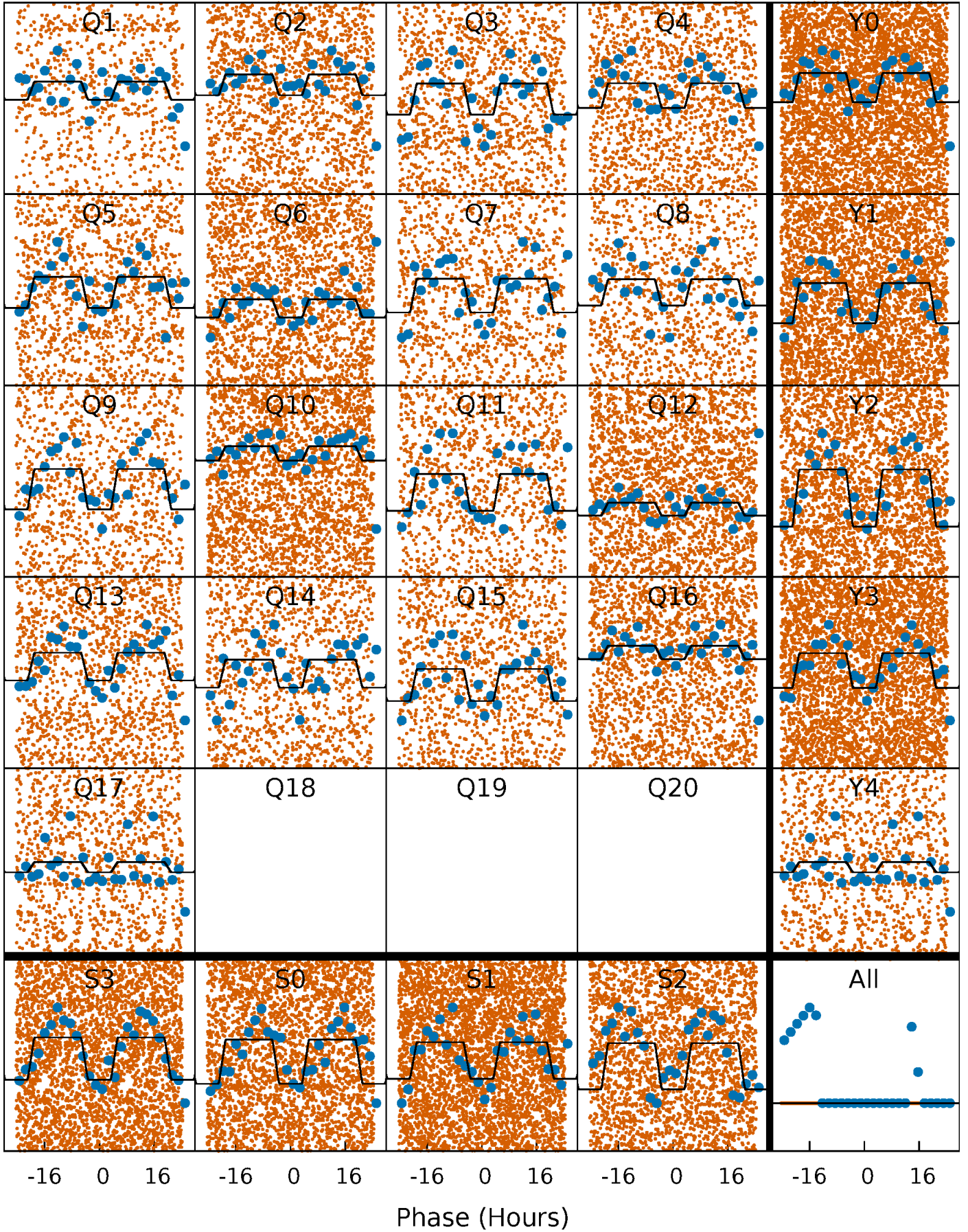
DV Quarter-Phased Transit Curves

TCE 006520969-01 P= 1.014028 Days $T_0=131.653427$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

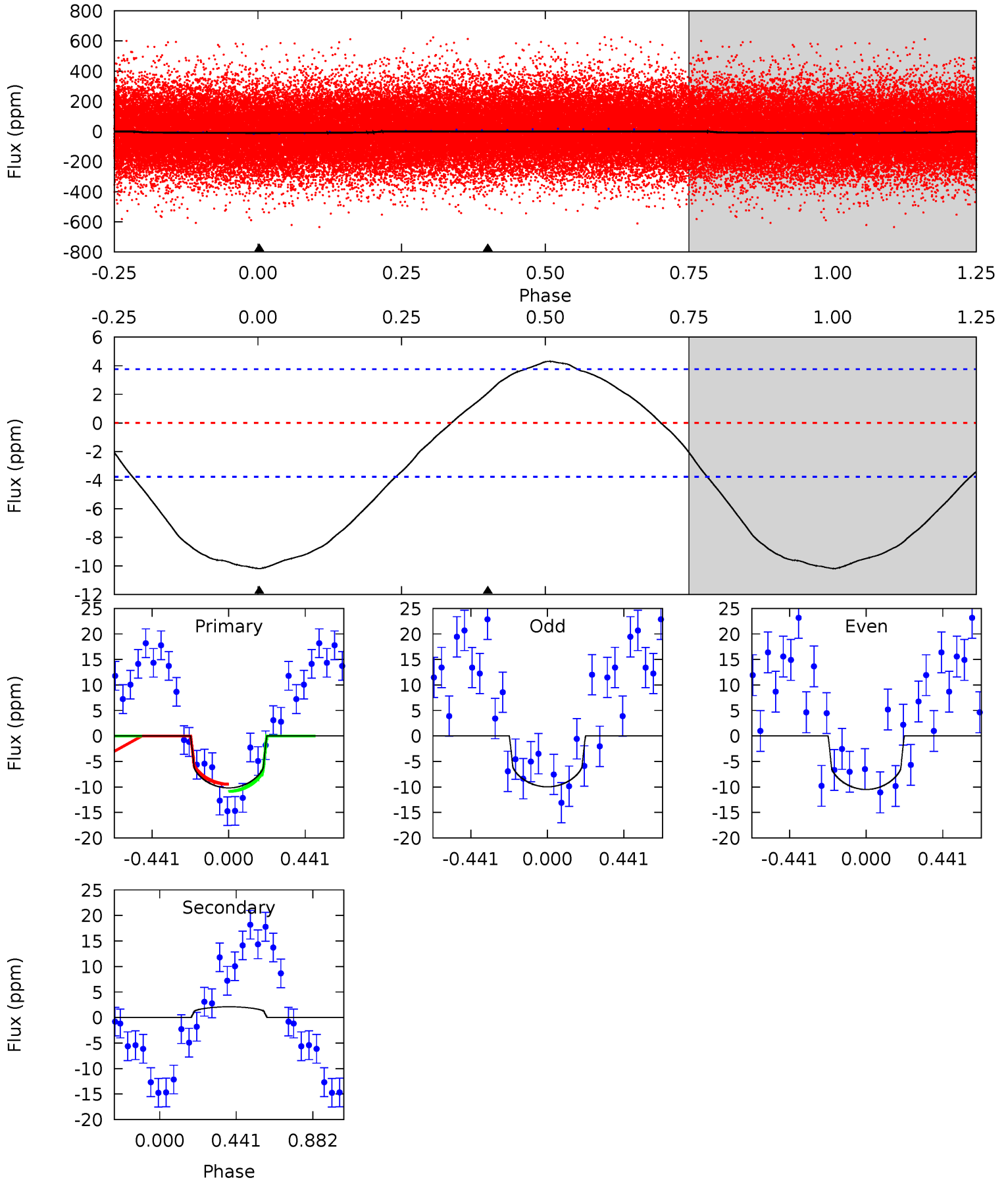
TCE 006520969-01 P= 1.014046 Days $T_0=131.636130$ (BKJD)



DV Model-Shift Uniqueness Test

006520969-01, P = 1.014028 Days, E = 130.639399 Days

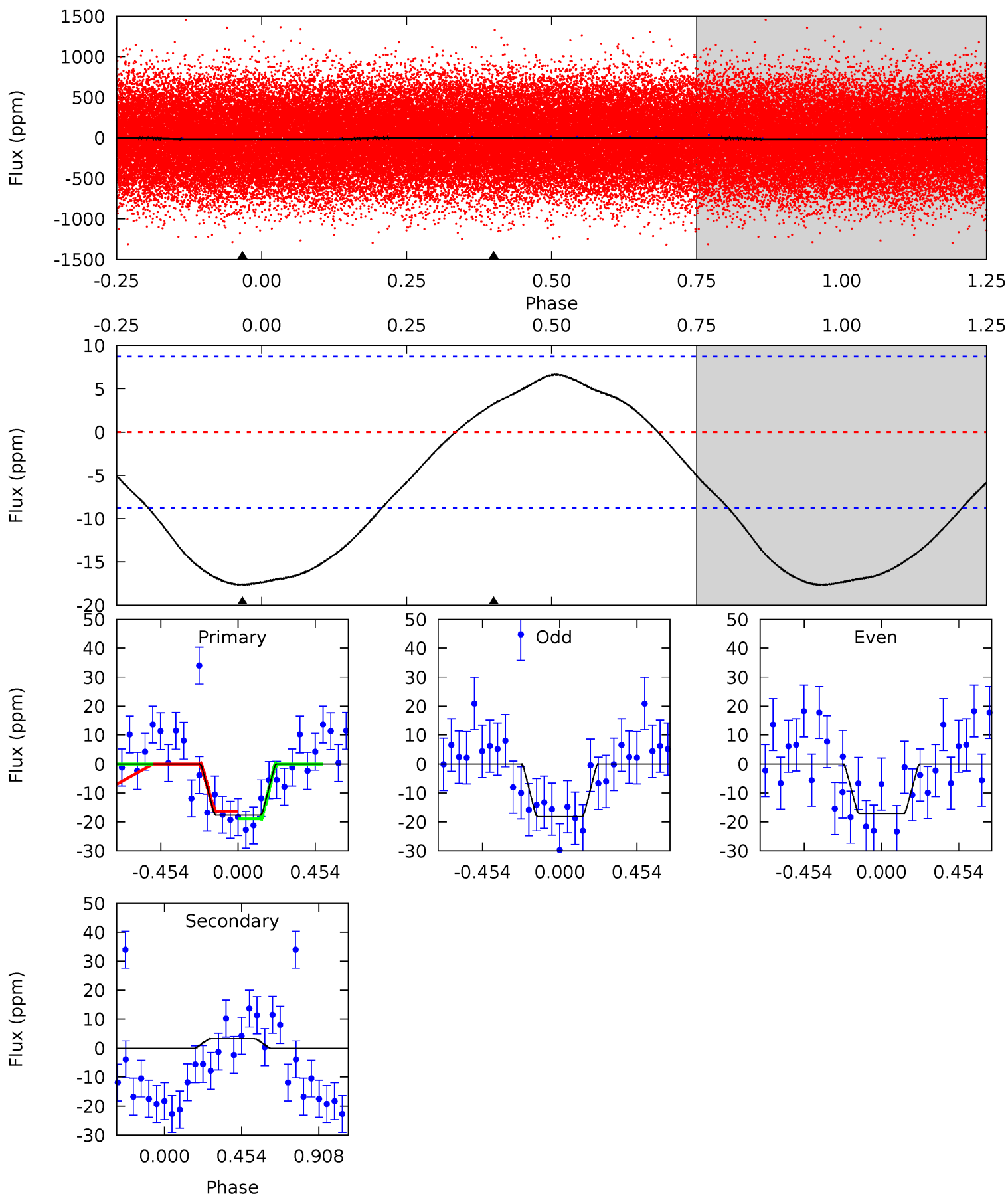
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.5	-2.38	0	0	4.24	0.77	1.30	11.5	11.5	-2.38	-2.38	0.29	0.95	0.30	0.78



Alt Model-Shift Uniqueness Test

006520969-01, P = 1.014046 Days, E = 130.622084 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.57	-1.58	0	0	4.24	0.75	1.01	8.57	8.57	-1.58	-1.58	0.25	0.92	0.27	0.62



Stellar Parameters For KIC 006520969

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	8572^{+236}_{-372}	$3.776^{+0.412}_{-0.137}$	$-0.200^{+0.400}_{-0.350}$	$3.034^{+0.751}_{-1.288}$	$2.009^{+0.371}_{-0.495}$	$0.101^{+0.399}_{-0.043}$
	+3%/-4%	+11%/-4%	+200%/-175%	+25%/-42%	+18%/-25%	+394%/-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 006520969-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	2 ± 1	$1.04^{+0.81}_{-0.63}$	5675^{+452}_{-588}	-5795^{+722}_{-3208}	$-0.608^{+0.444}_{-3.642}$
Alt.	3 ± 2	$1.36^{+0.91}_{-0.71}$	5614^{+463}_{-678}	-5632^{+754}_{-2244}	$-0.528^{+0.405}_{-2.171}$

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 $A_{obs} \gg 1.0$

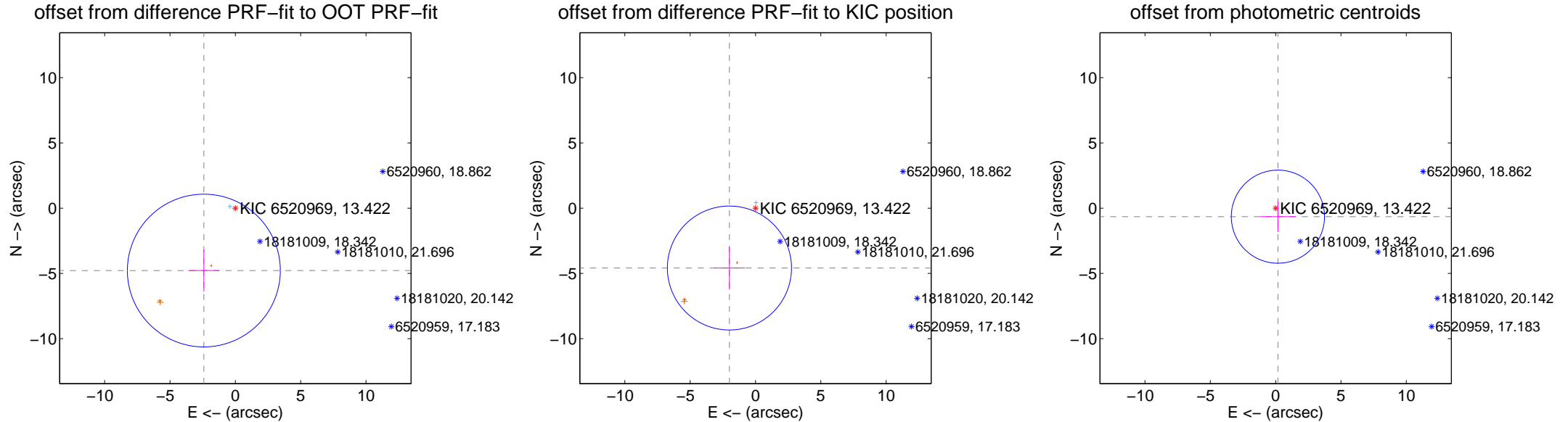
DV Centroid Data

Supplemental centroid analysis for 006520969-01. Kepler magnitude: 13.42. Transit SNR 7.97

There are 1 quarters with good PRF difference image offsets

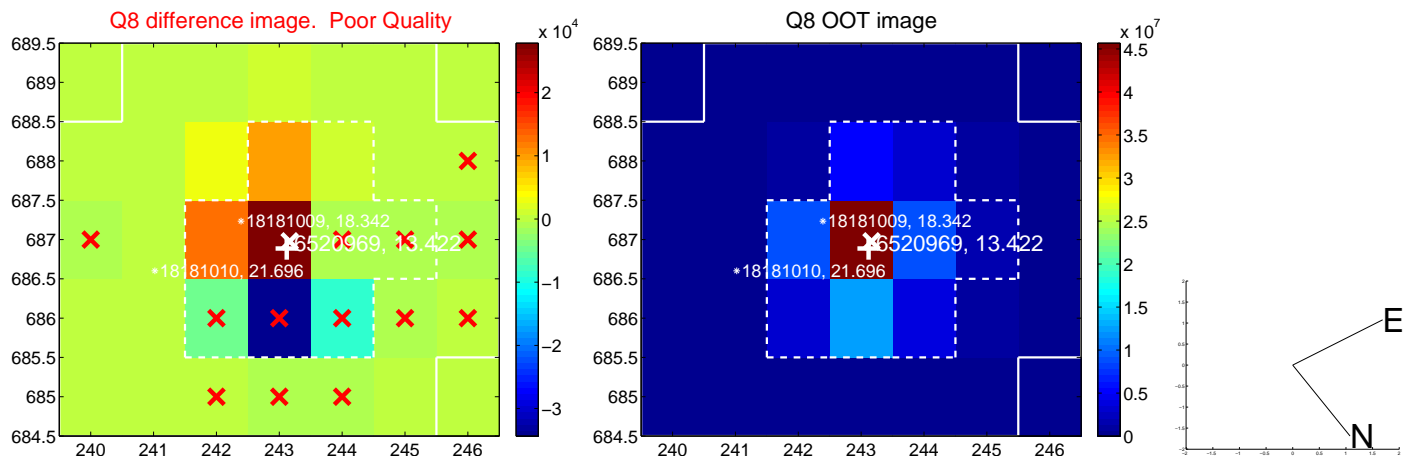
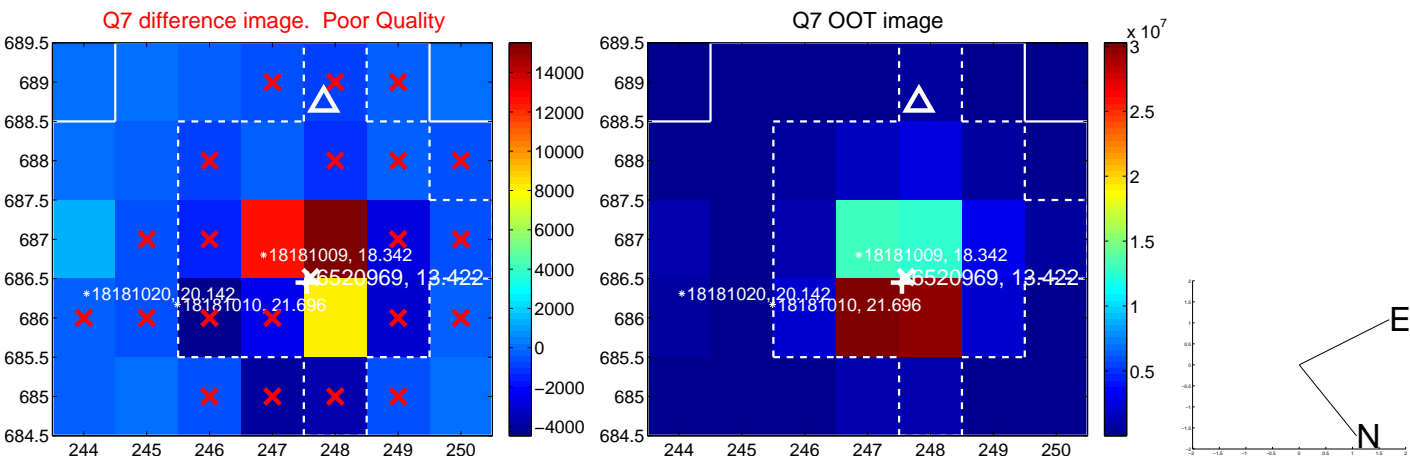
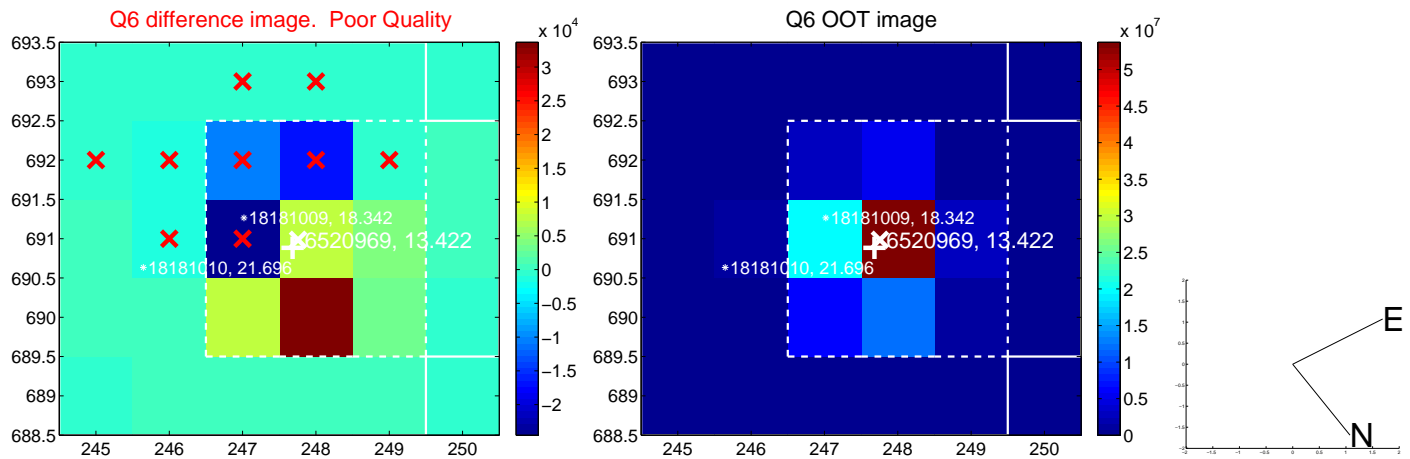
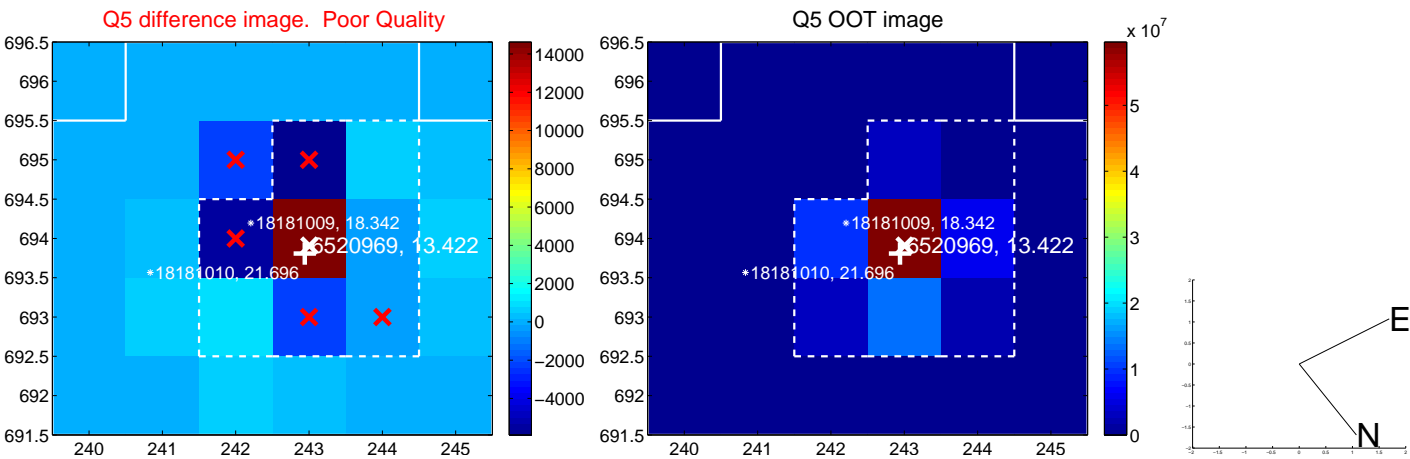
The direct PRF centroid is offset from the target star catalog position by about 0.54 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.352 ± 1.950	2.74	2.410 ± 1.186	-4.778 ± 1.602
PRF-fit source offset from KIC position	5.000 ± 1.583	3.16	1.993 ± 1.203	-4.585 ± 1.645
photometric centroid source offset	0.67 ± 1.19	0.57	-0.17 ± 1.38	-0.65 ± 1.17

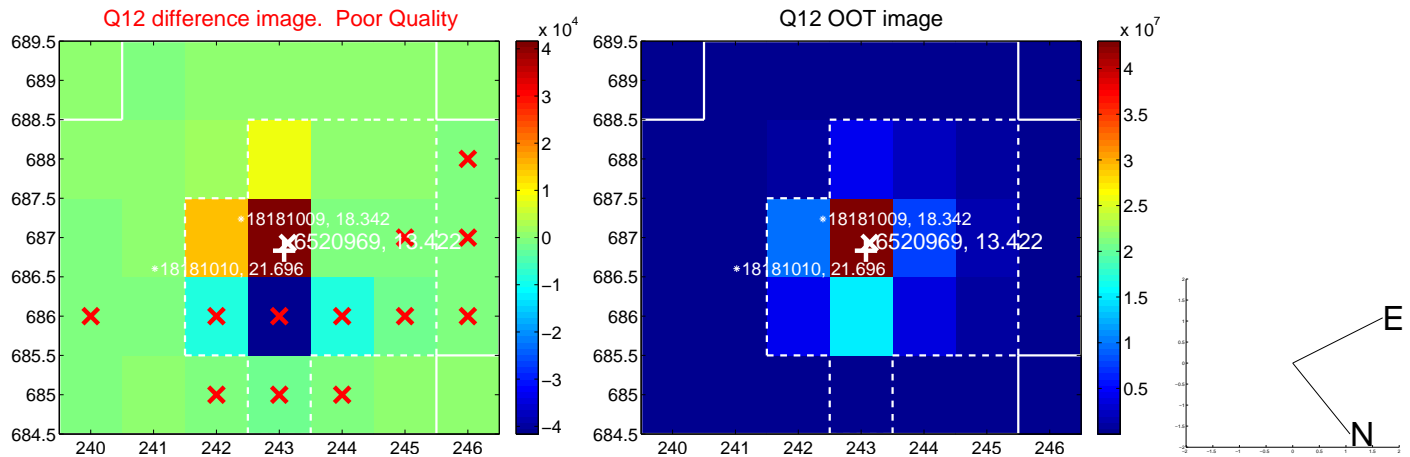
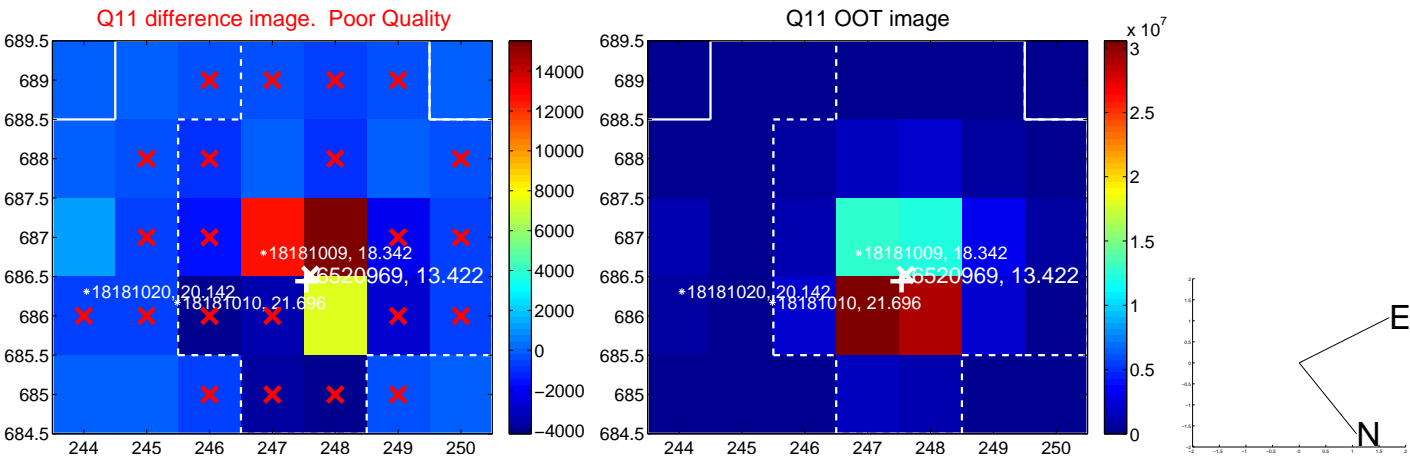
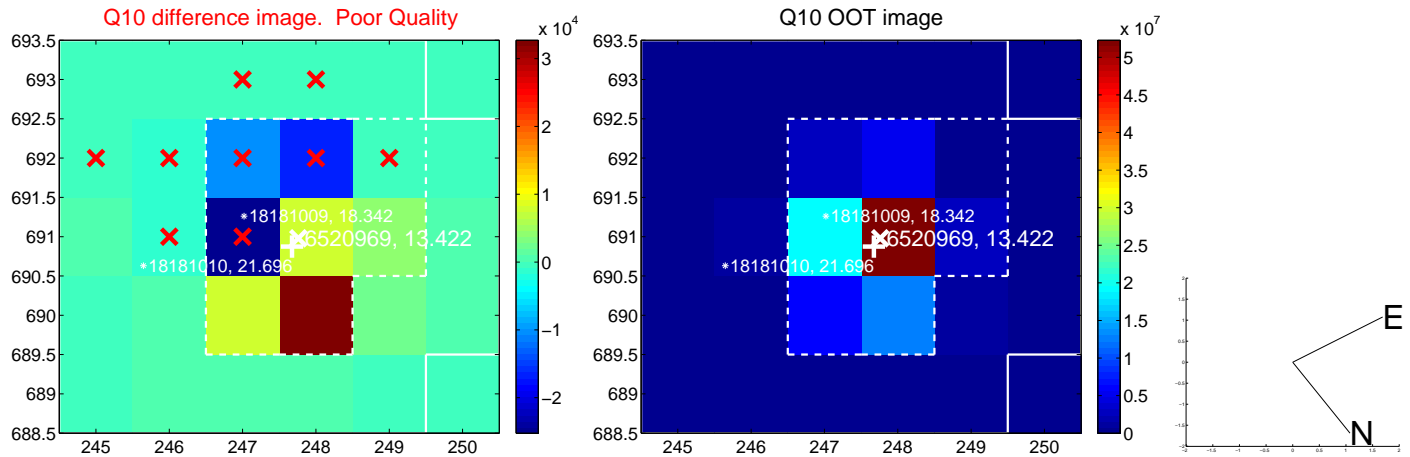
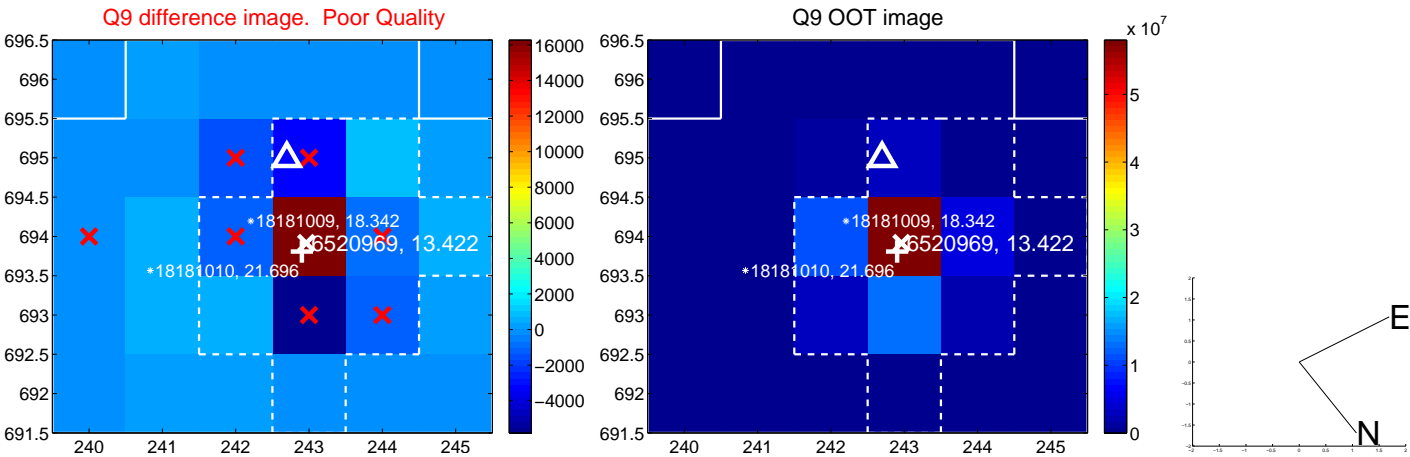


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

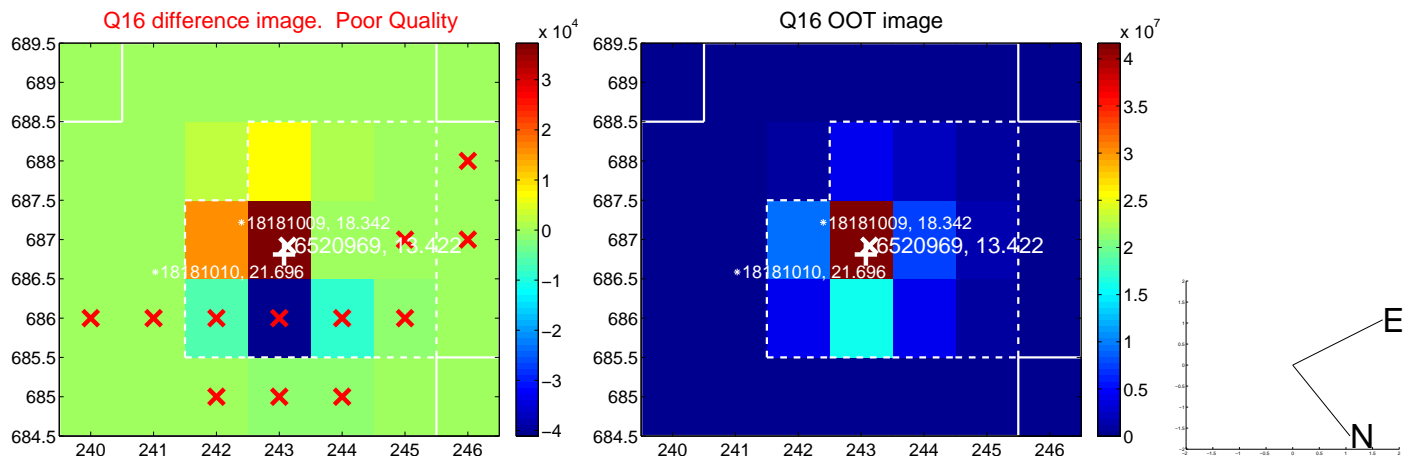
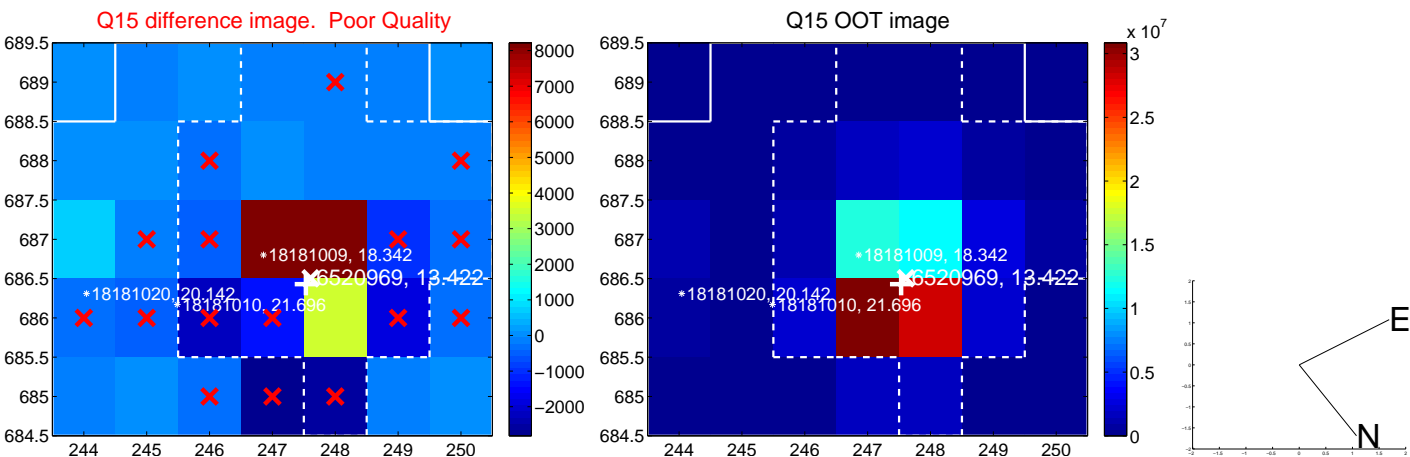
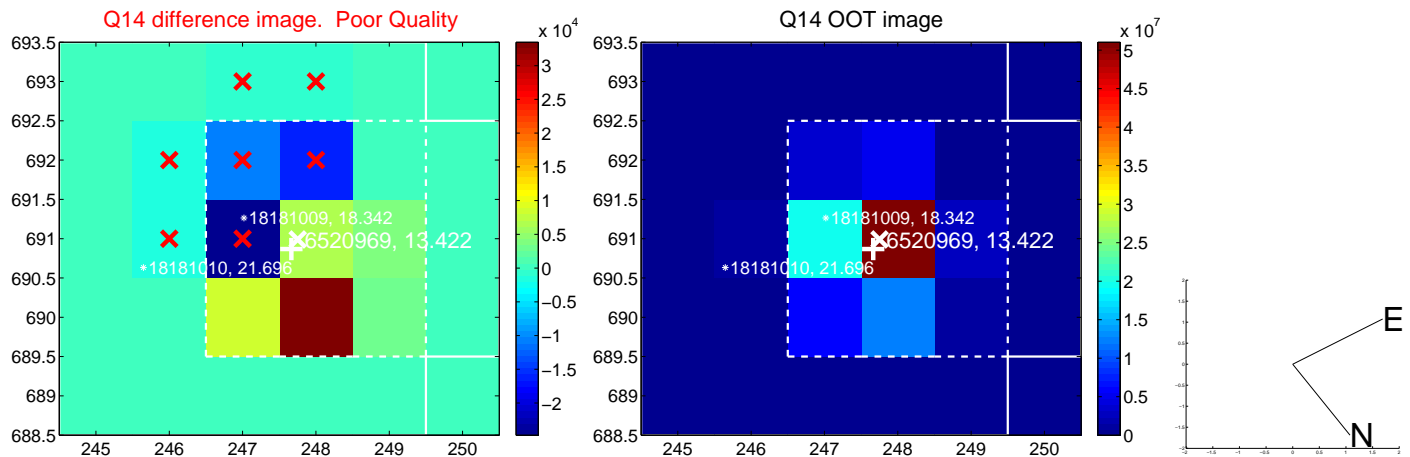
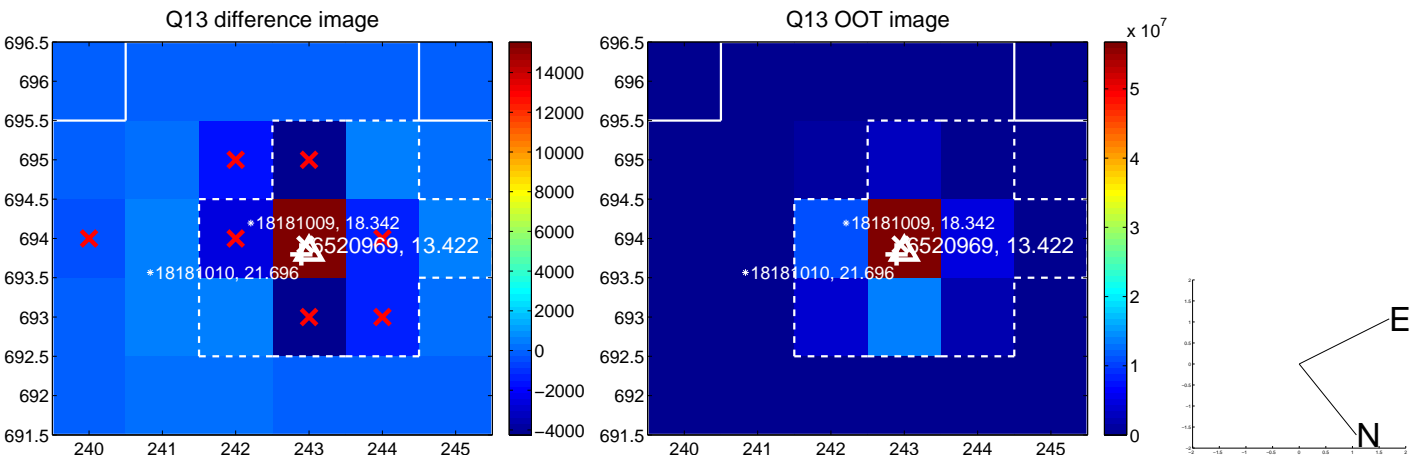
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



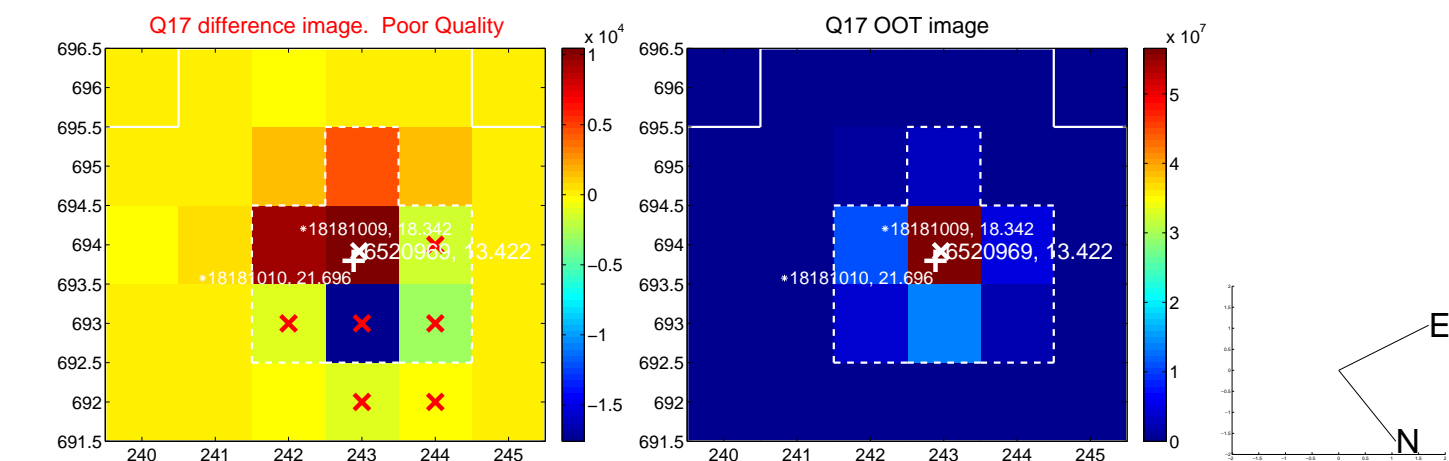
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



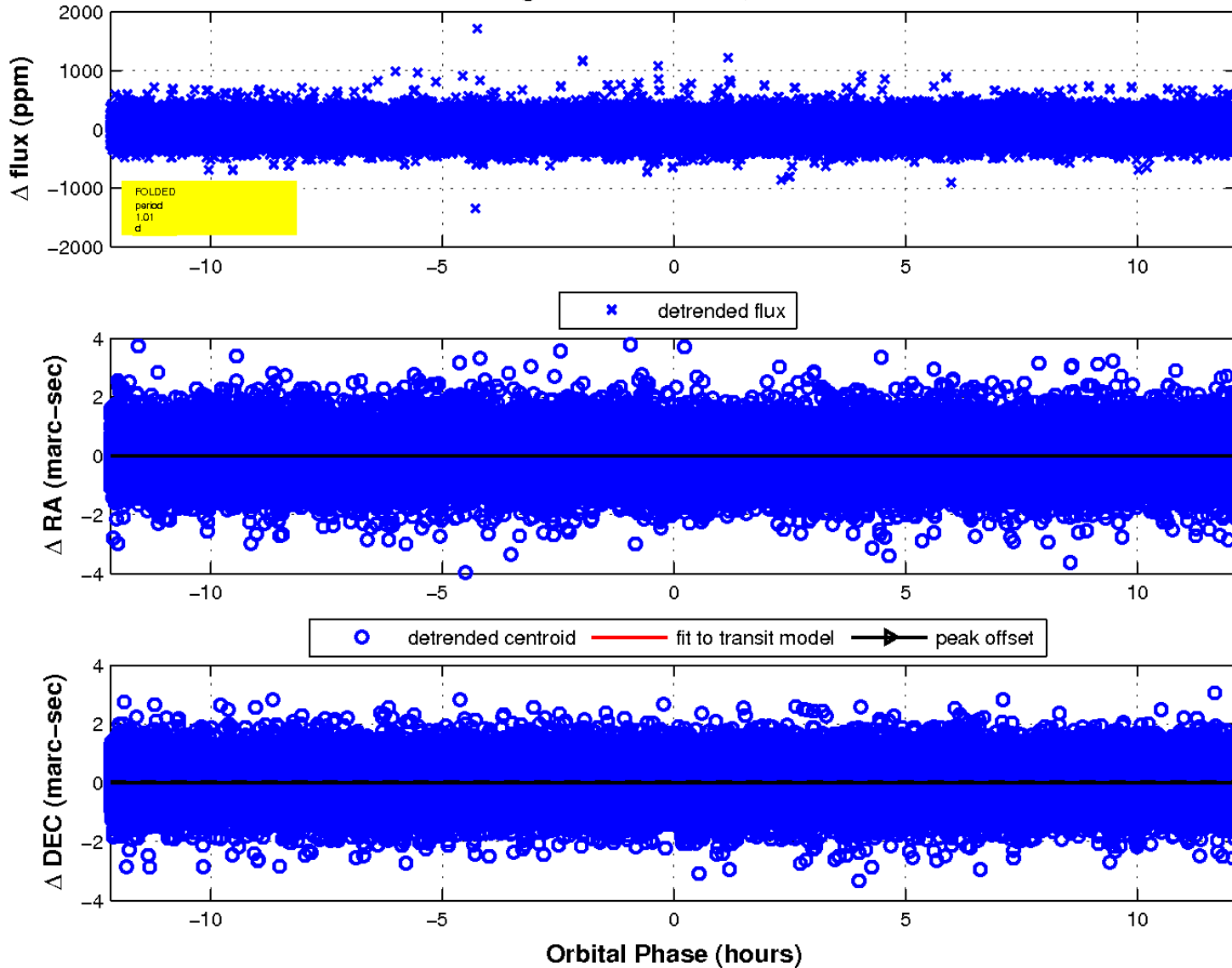
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

