

KIC 006462033

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})
006462033-01	OBS	No	0.977357	131.807853	25.3	7.989	9.8	6.7	1.77	8592	0.95	26112.92

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006462033-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED

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

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

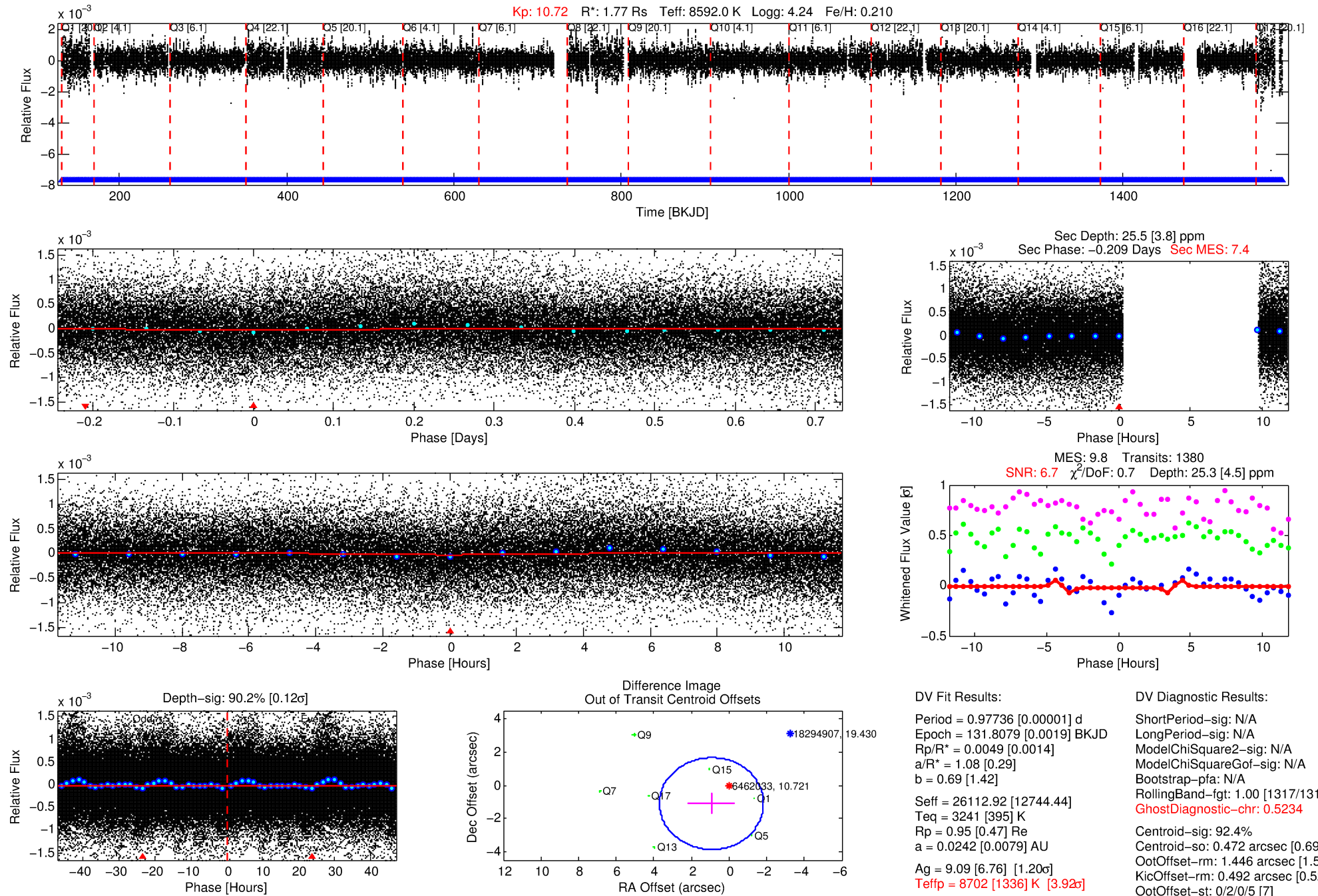
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006462033-01

No Significant Match Found

DV One-Page Summary

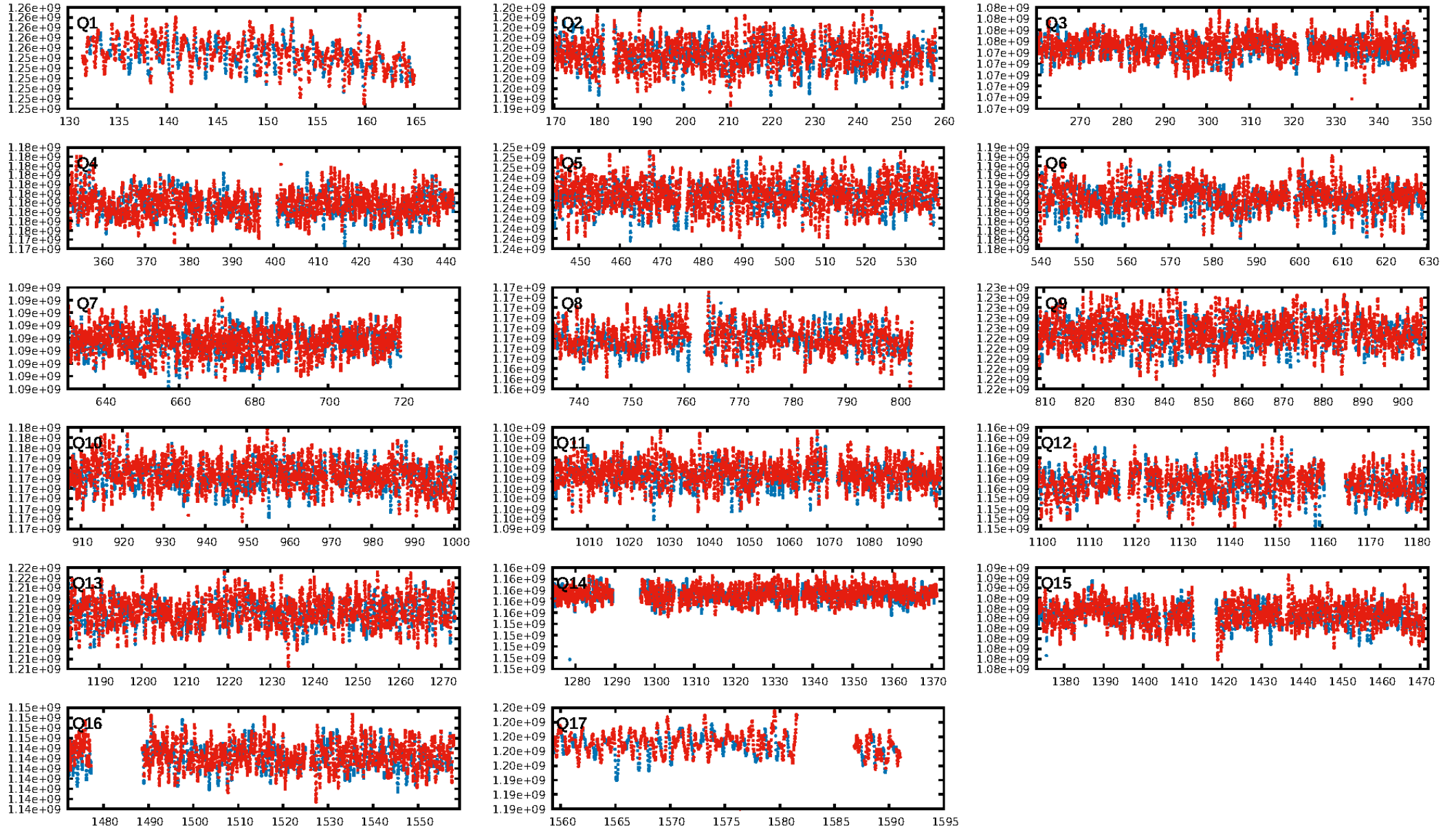
KIC: 6462033 Candidate: 1 of 1 Period: 0.977 d



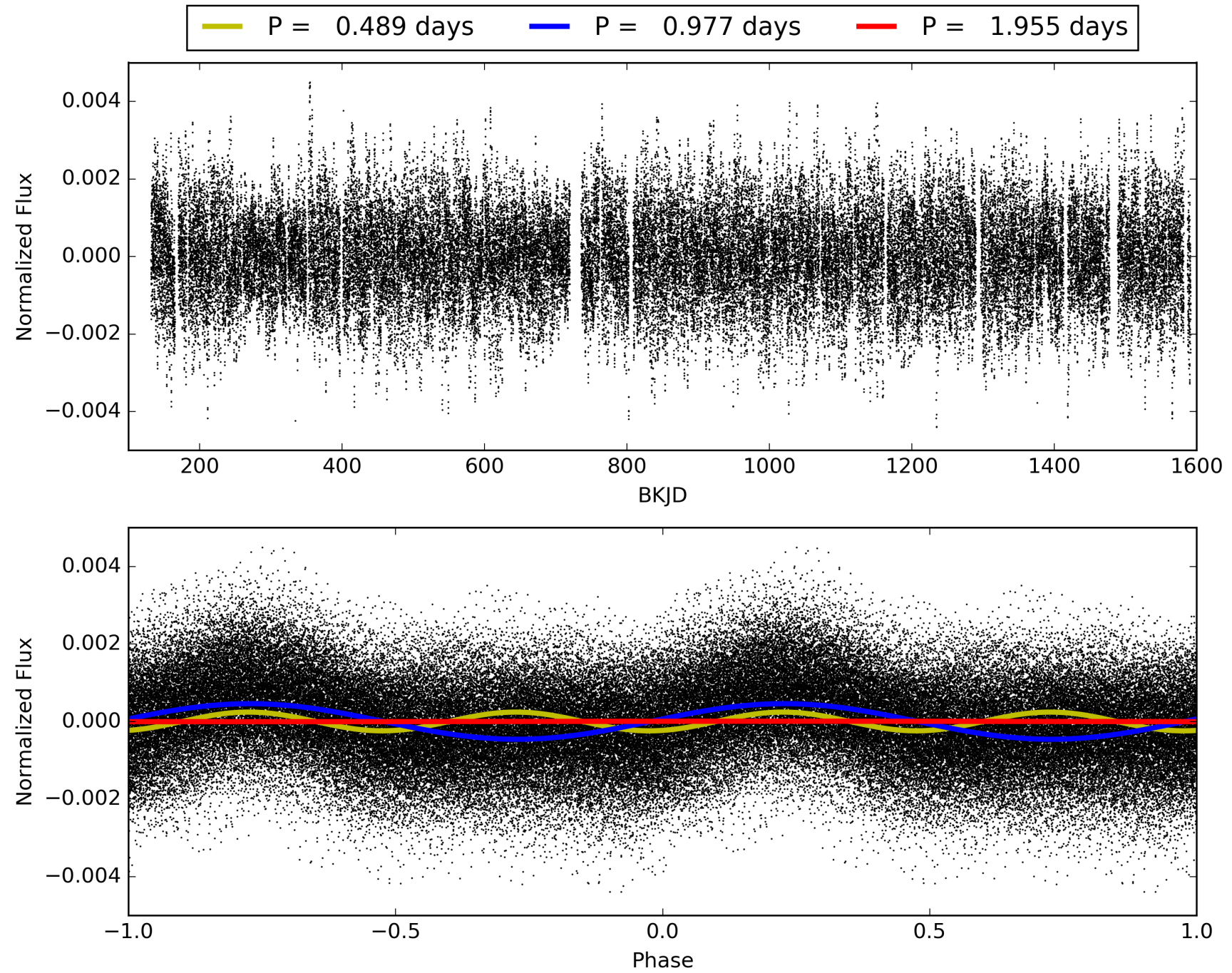
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 20:30:44 Z

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

TCE 006462033-01, PDC Light Curves

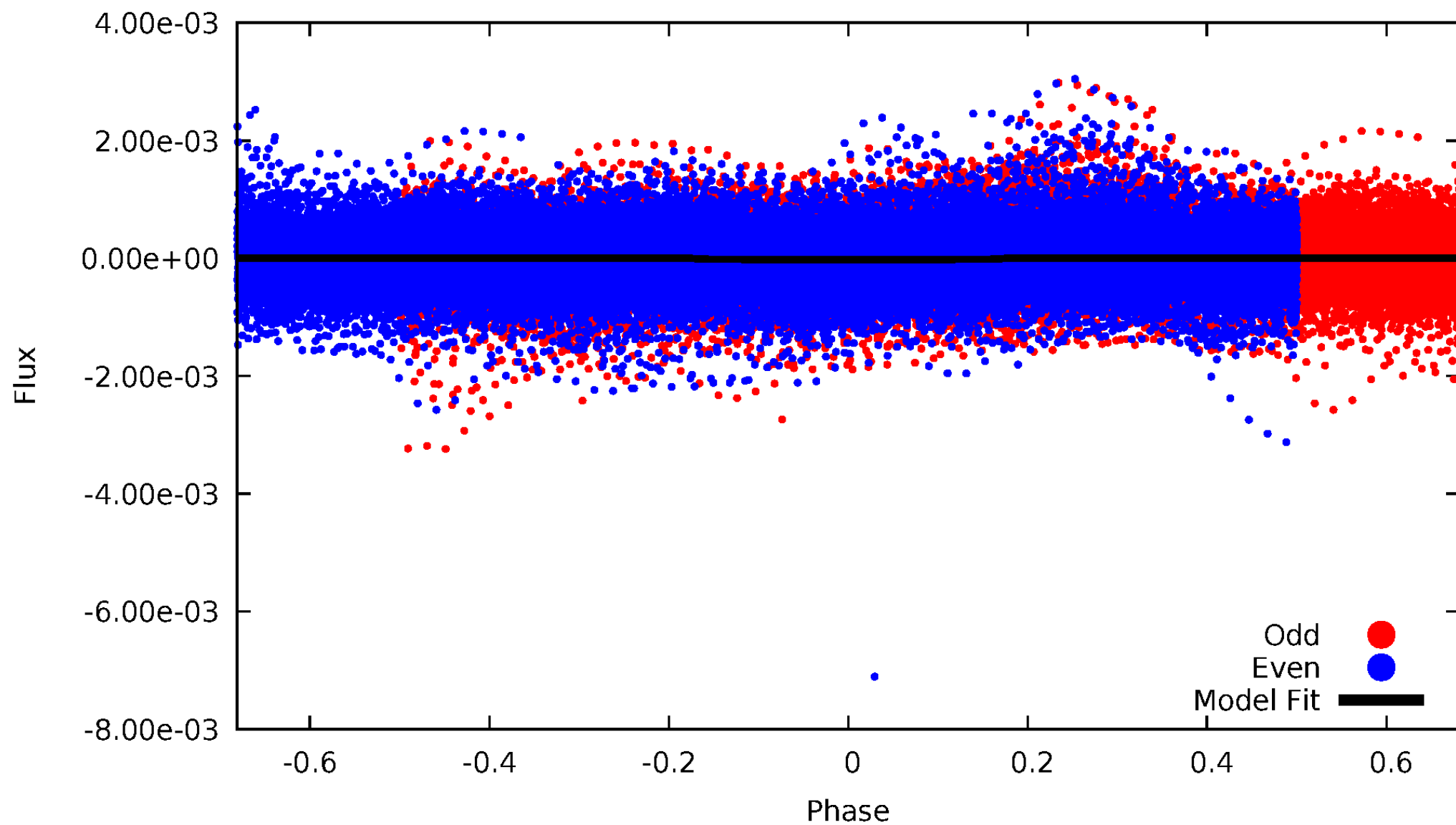


TCE 006462033-01



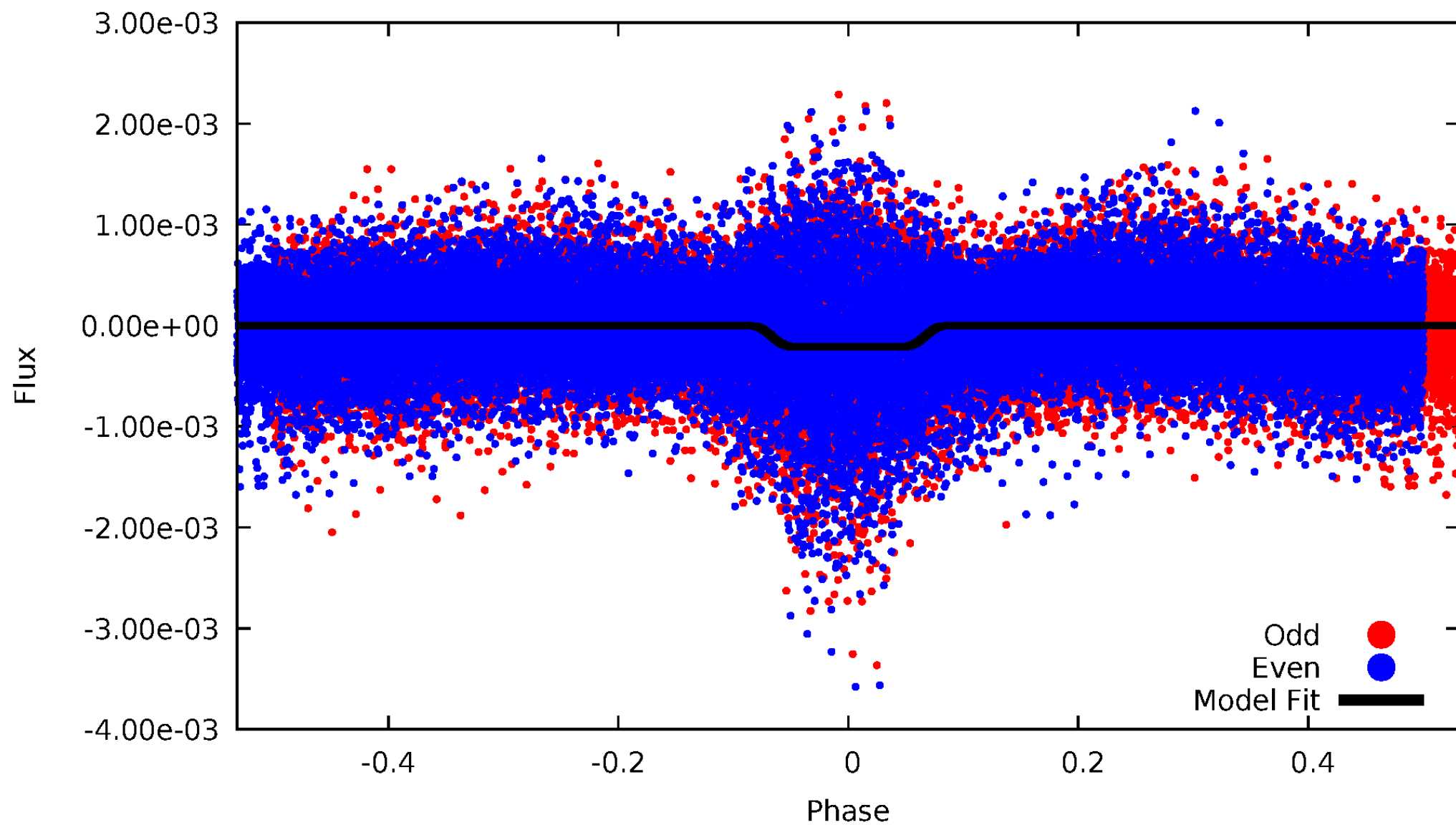
DV Odd/Even

TCE 006462033-01



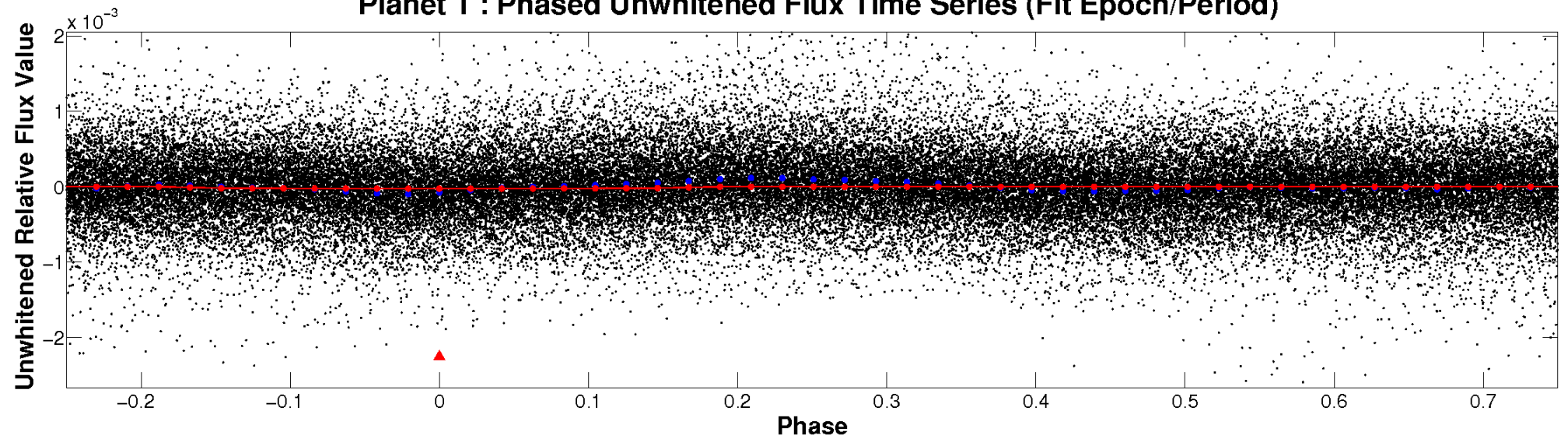
ALT Odd/Even

TCE 006462033-01

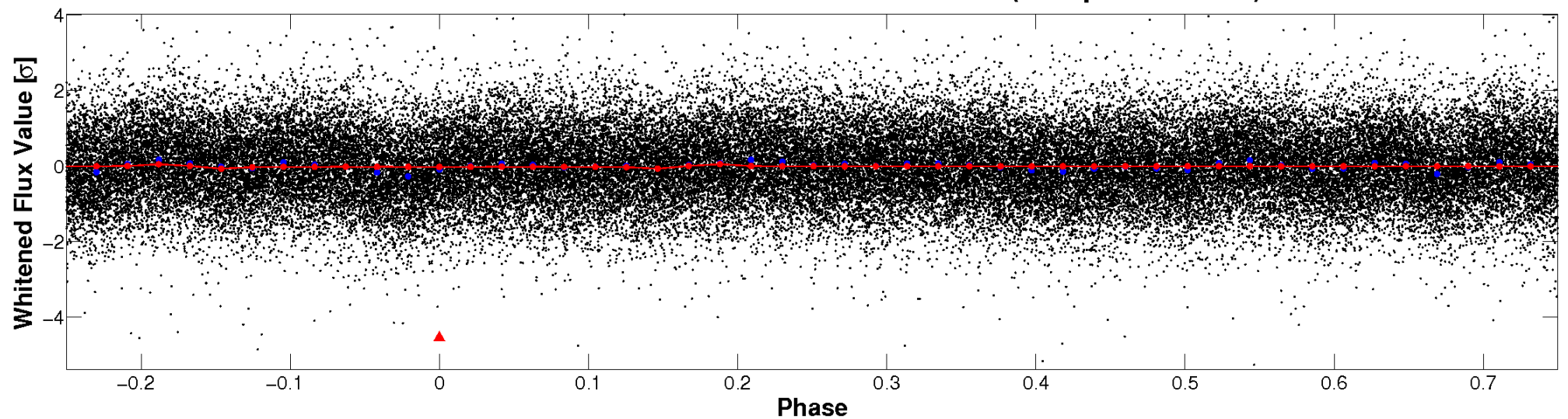


Non-Whitened Vs. Whitened Light Curve

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

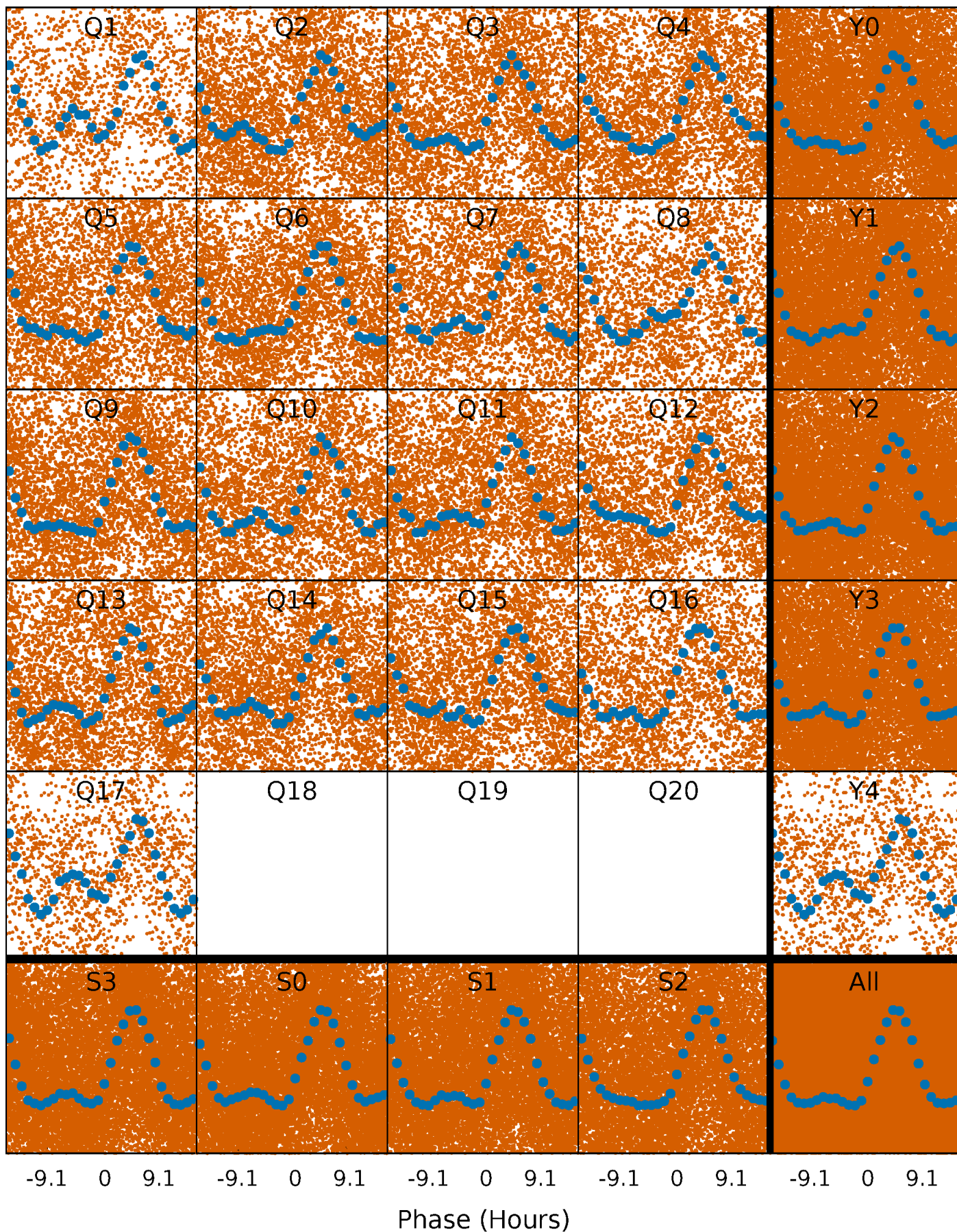


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



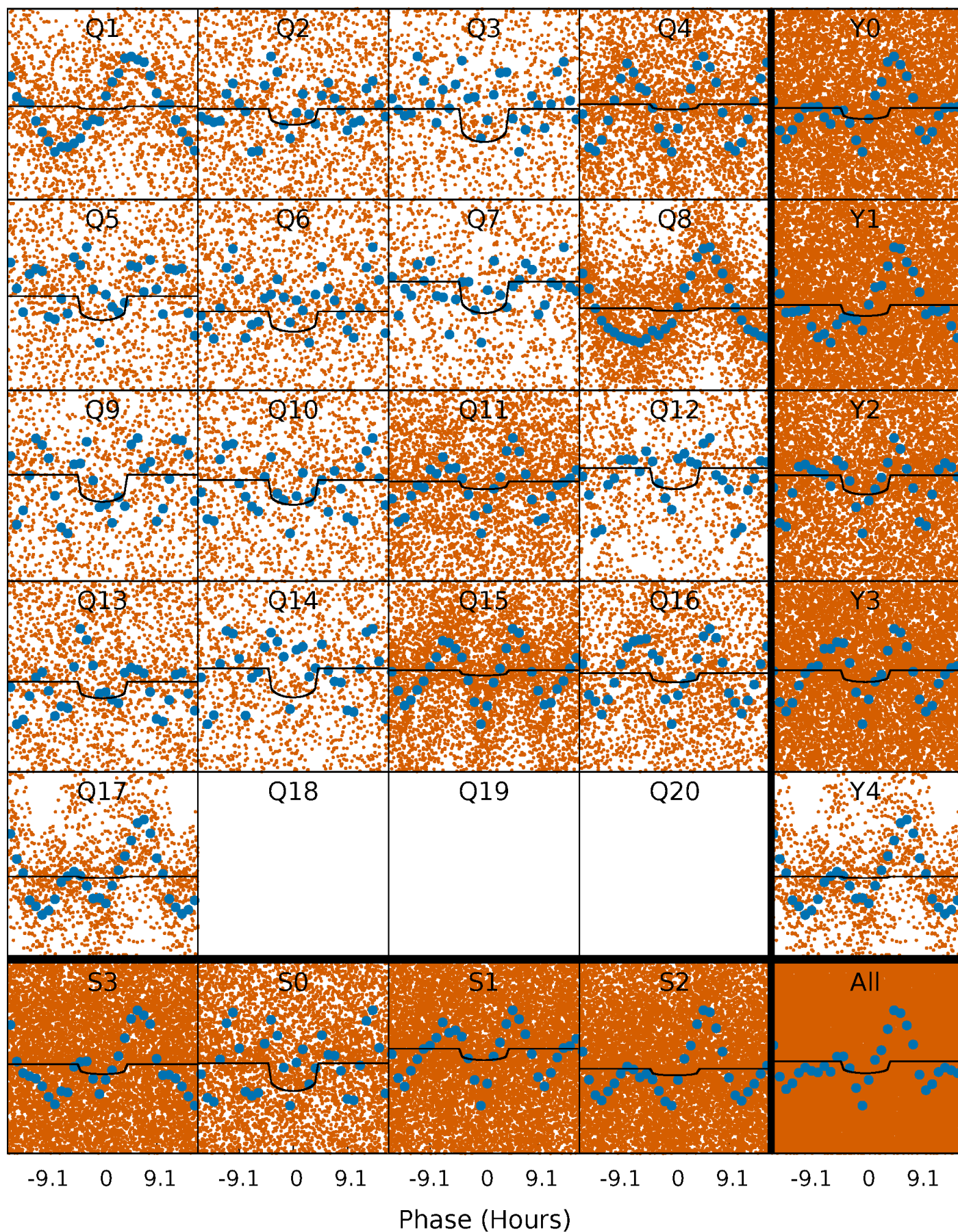
PDC Quarter-Phased Transit Curves

TCE 006462033-01 P= 0.977357 Days $T_0=131.807853$ (BKJD)



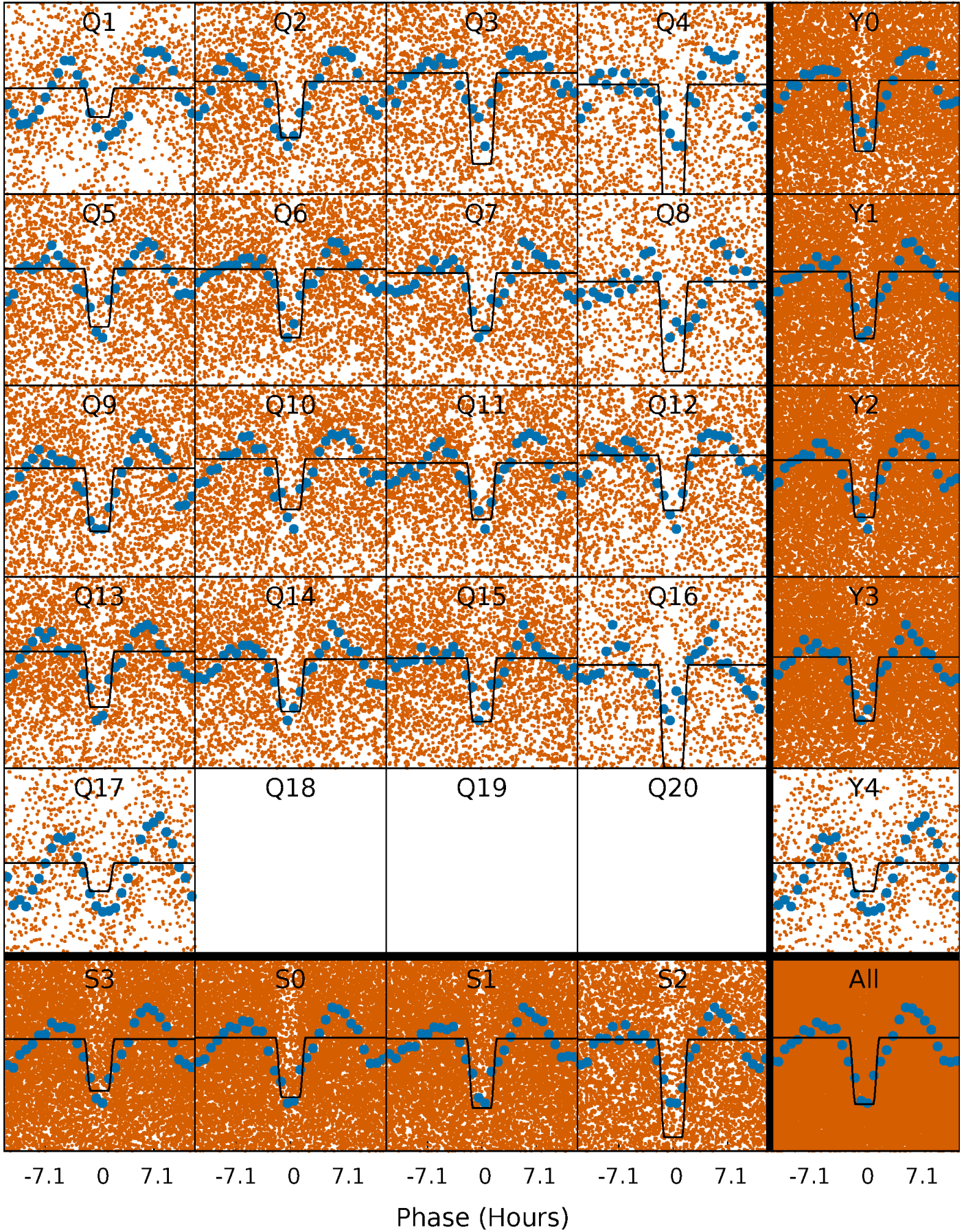
DV Quarter-Phased Transit Curves

TCE 006462033-01 P= 0.977357 Days $T_0=131.807853$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

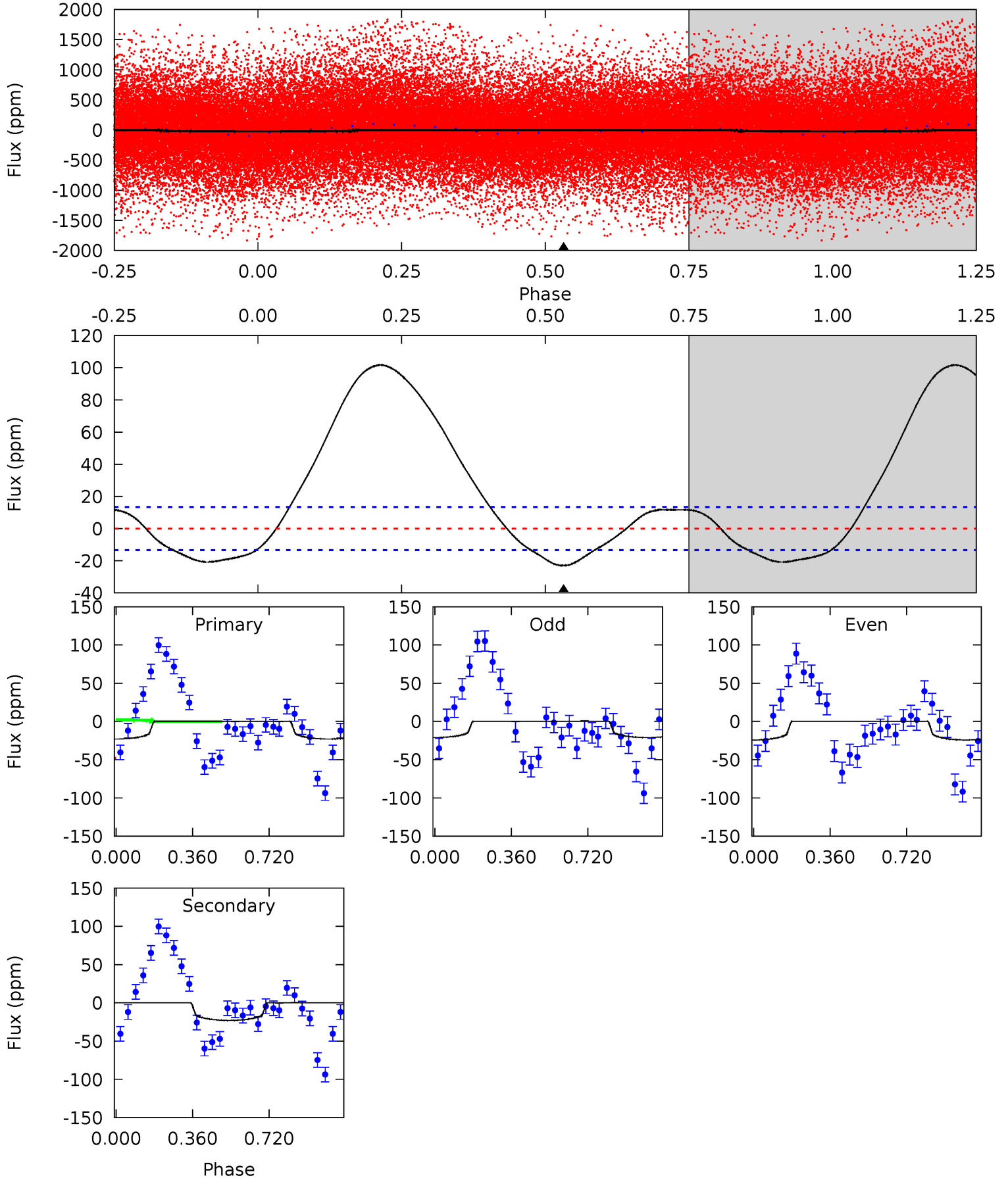
TCE 006462033-01 P= 0.977353 Days $T_0=131.785403$ (BKJD)



DV Model-Shift Uniqueness Test

006462033-01, P = 0.977357 Days, E = 130.830496 Days

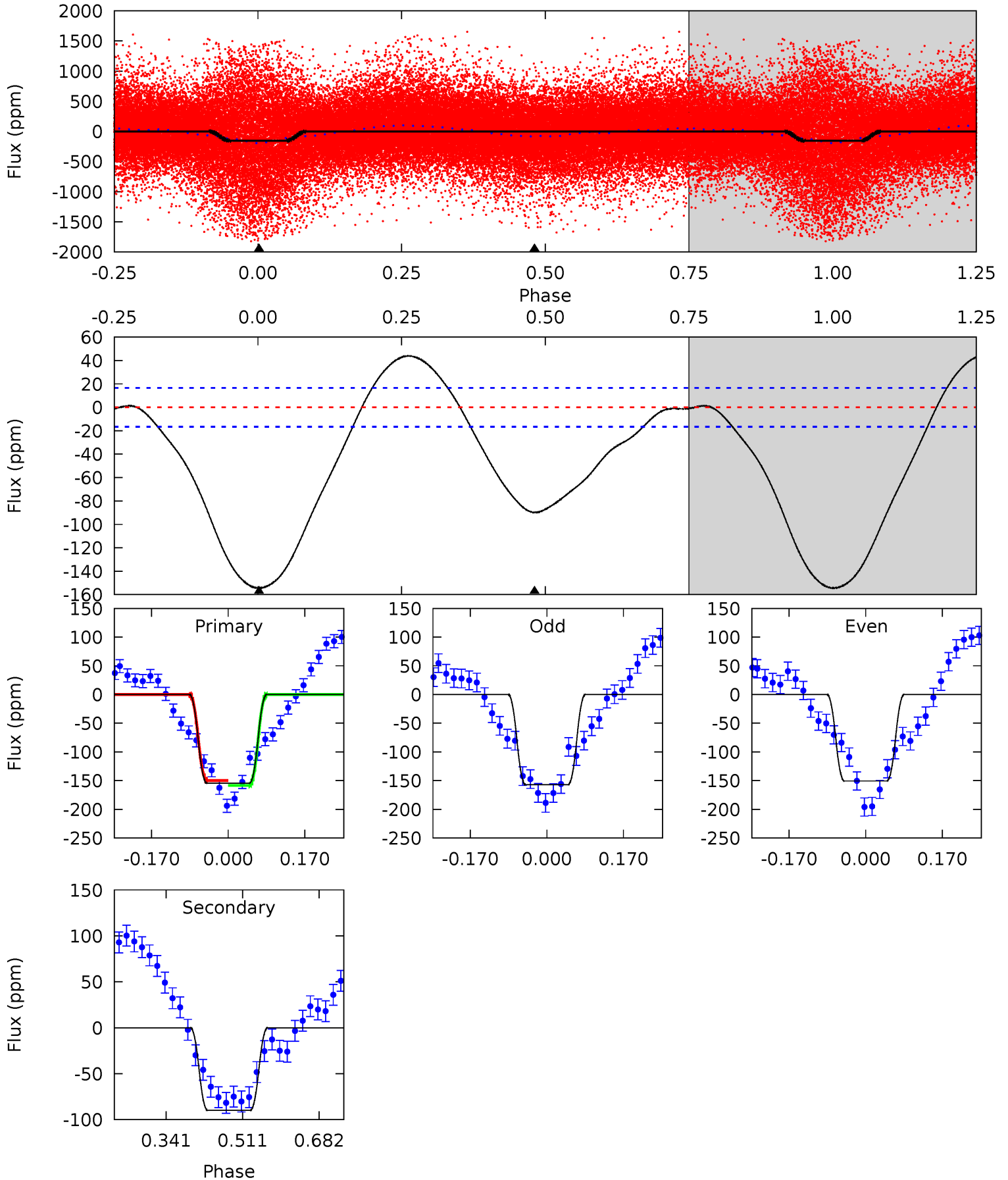
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.37	7.37	0	0	4.29	0.91	11.7	7.37	7.37	7.37	7.37	0.50	1.67	0.82	7.46



Alt Model-Shift Uniqueness Test

006462033-01, P = 0.977353 Days, E = 130.808050 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
41.4	24.1	0	0	4.45	1.37	5.67	41.4	41.4	24.1	24.1	0.86	1.17	0.22	1.16



Stellar Parameters For KIC 006462033

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	8592^{+274}_{-377}	$4.238^{+0.042}_{-0.238}$	$0.210^{+0.150}_{-0.500}$	$1.768^{+0.721}_{-0.180}$	$1.972^{+0.360}_{-0.324}$	$0.503^{+0.119}_{-0.285}$
	+3%/-4%	+1%/-6%	+71%/-238%	+41%/-10%	+18%/-16%	+24%/-57%
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 006462033-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-23 ± 3	$1.01^{+0.35}_{-0.30}$	4661^{+393}_{-257}	8325^{+2278}_{-1309}	$7.020^{+7.888}_{-3.152}$
Alt.	-90 ± 4	$2.95^{+0.64}_{-0.41}$	4671^{+382}_{-282}	6460^{+447}_{-386}	$3.170^{+1.040}_{-0.884}$

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 $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

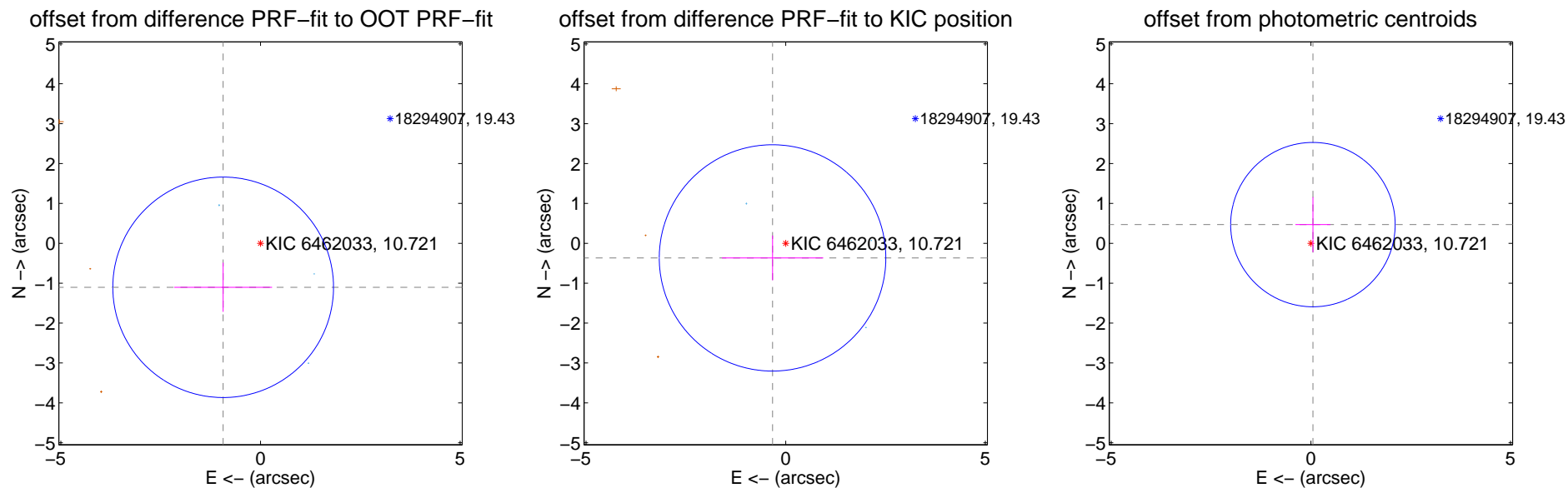
DV Centroid Data

Supplemental centroid analysis for 006462033-01. **Kepler magnitude: 10.72.** Transit SNR 6.66

There are 3 quarters with good PRF difference image offsets

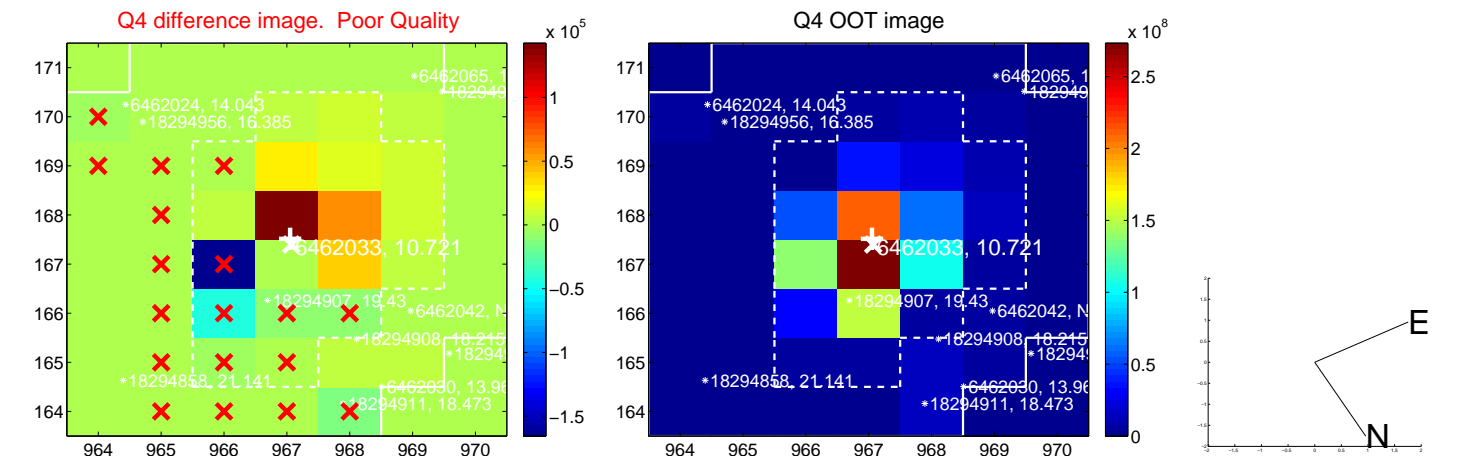
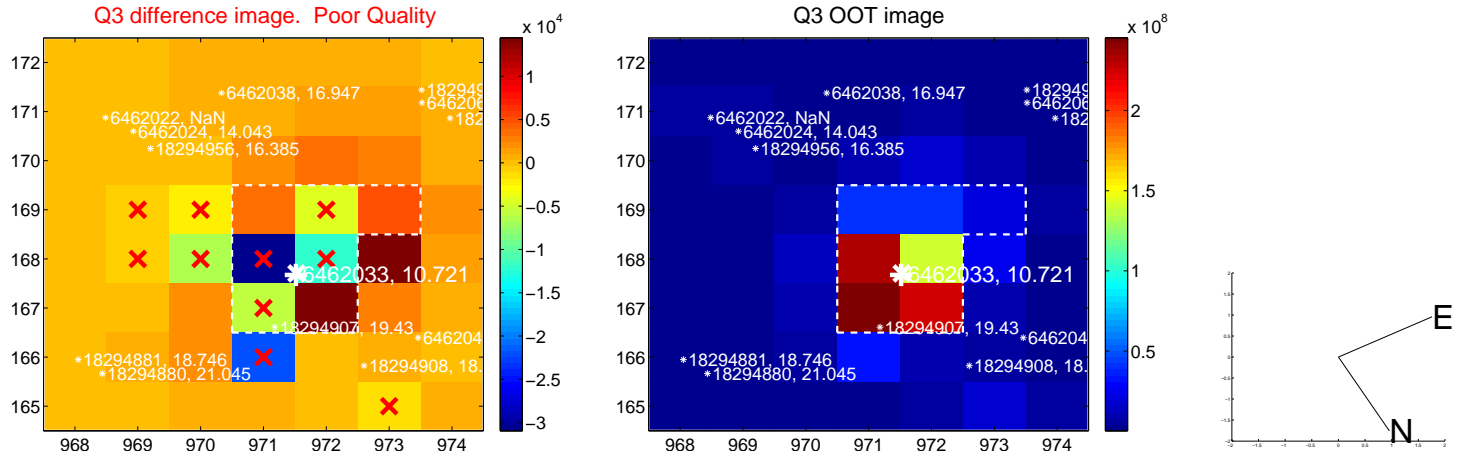
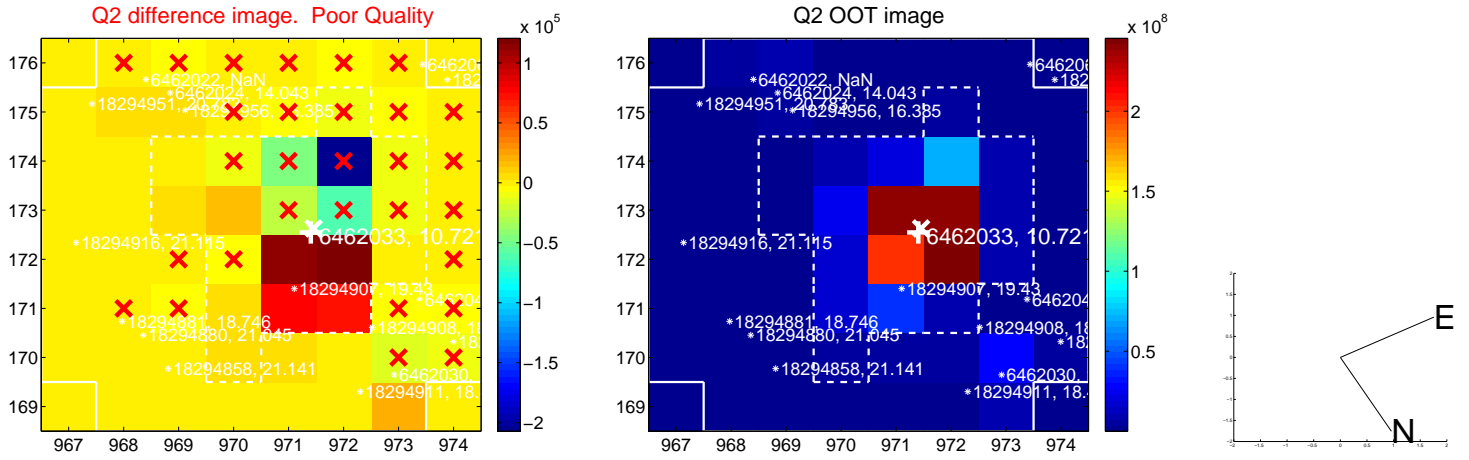
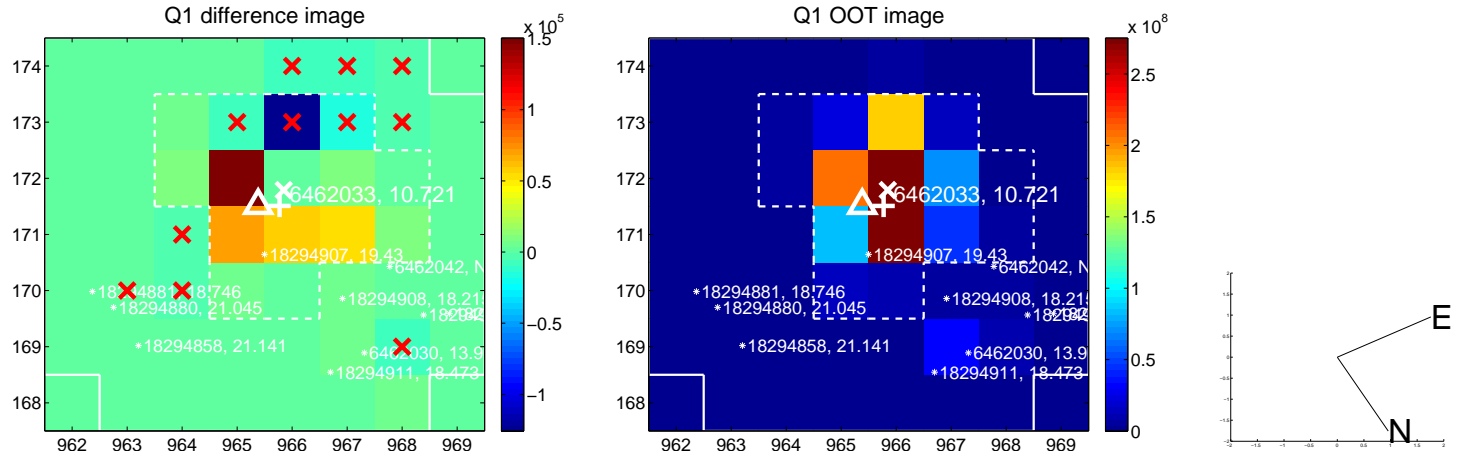
The direct PRF centroid is offset from the target star catalog position by about 1.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.446 ± 0.921	1.57	0.935 ± 1.226	-1.103 ± 0.616
PRF-fit source offset from KIC position	0.492 ± 0.946	0.52	0.329 ± 1.269	-0.366 ± 0.560
photometric centroid source offset	0.47 ± 0.69	0.69	-0.05 ± 0.44	0.47 ± 0.69

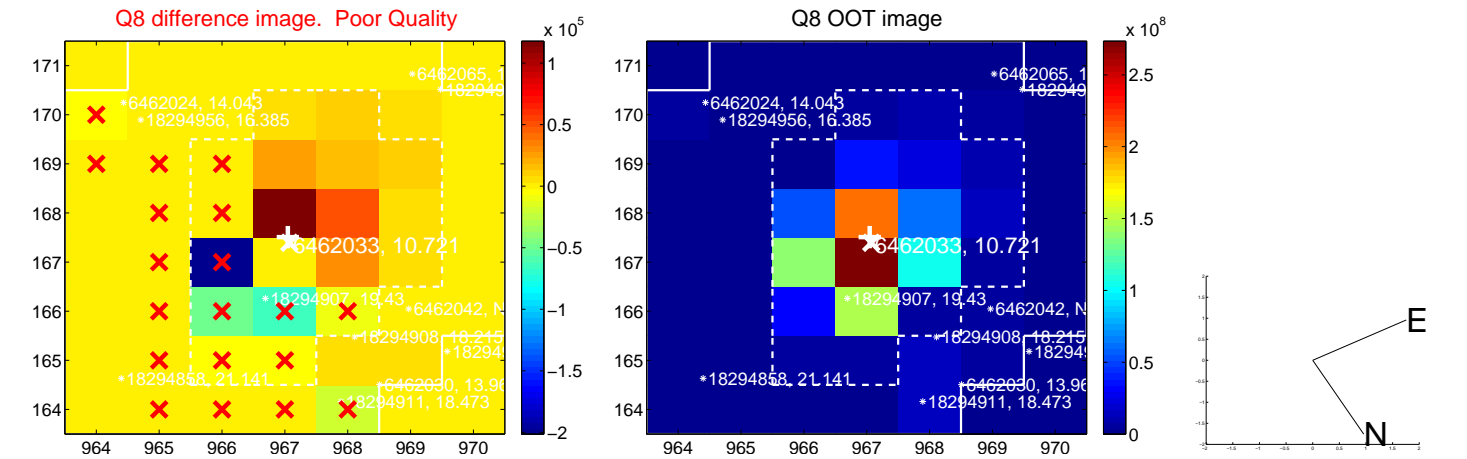
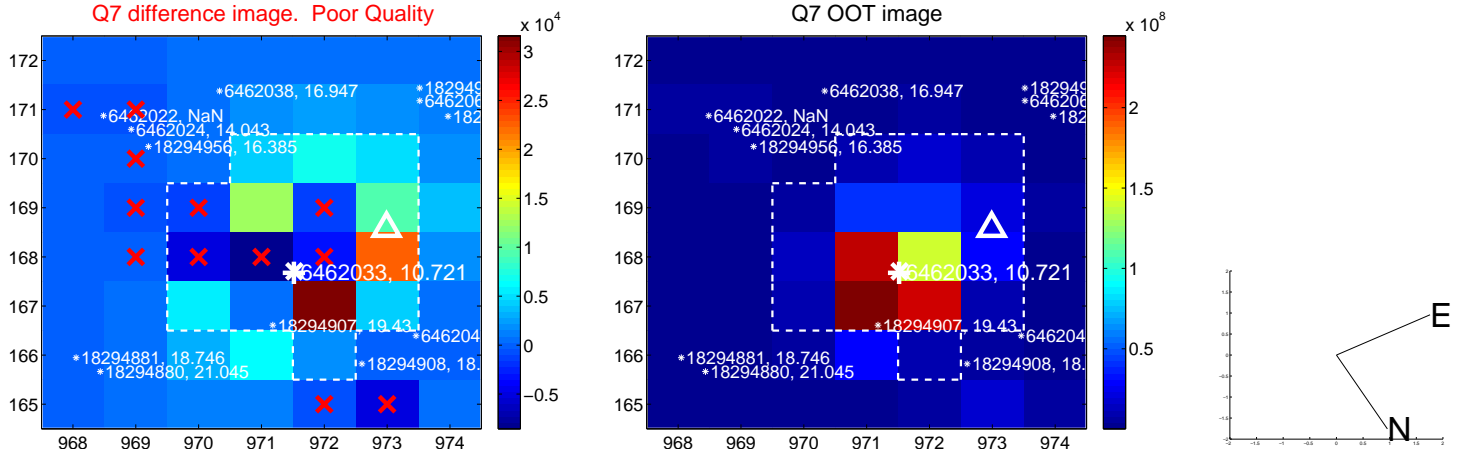
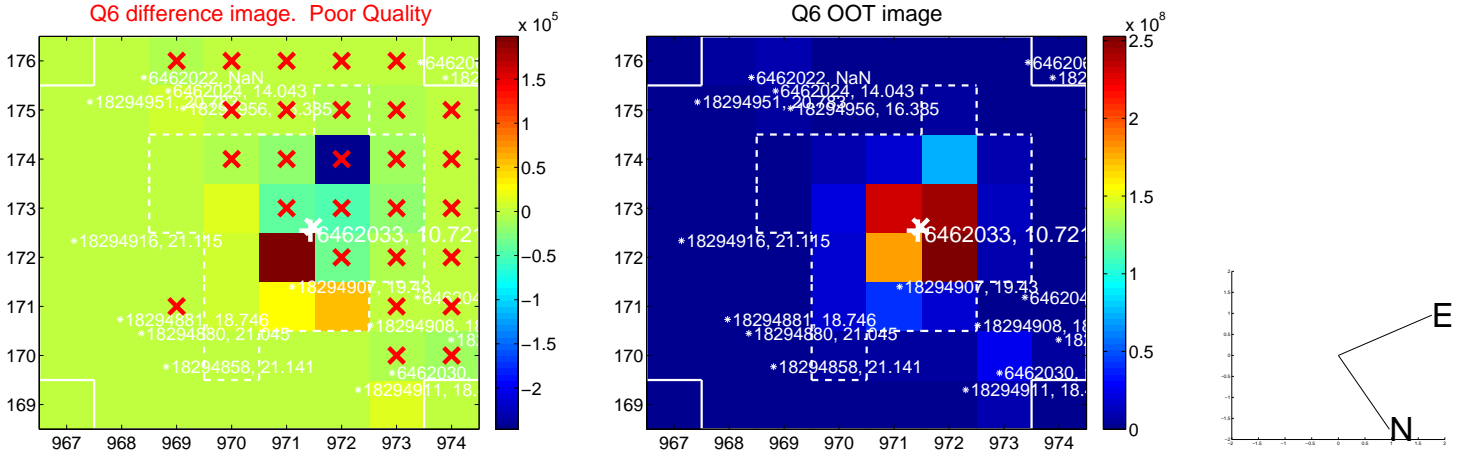
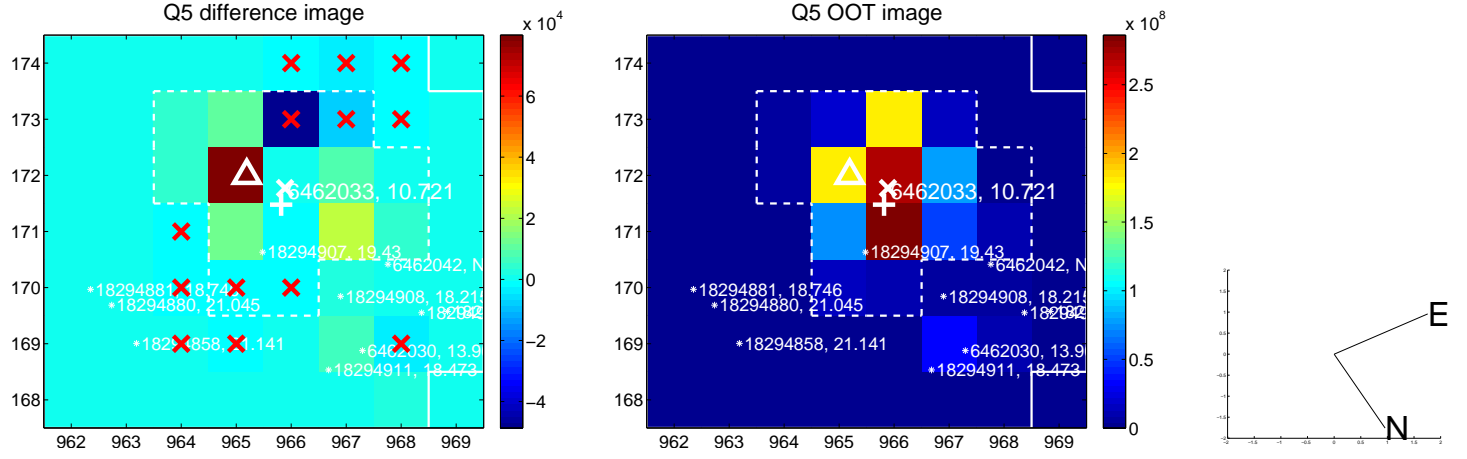


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

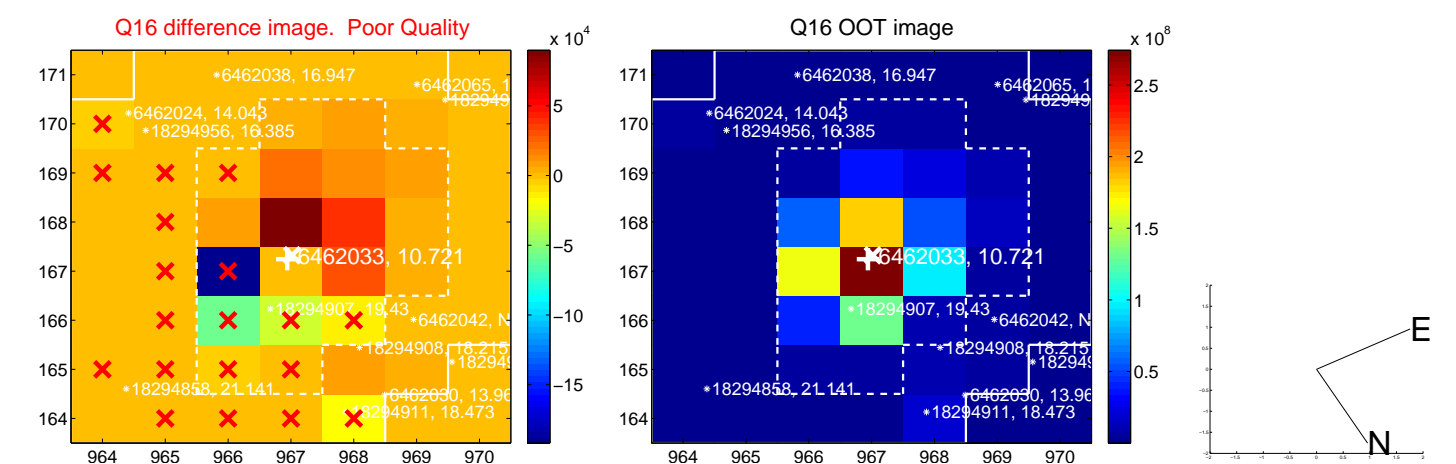
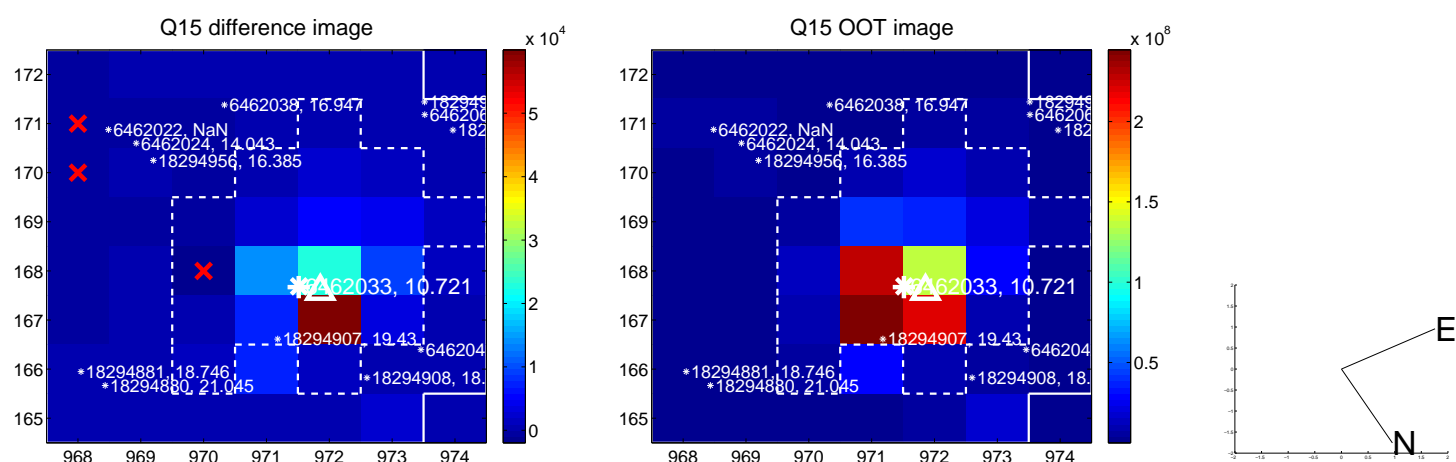
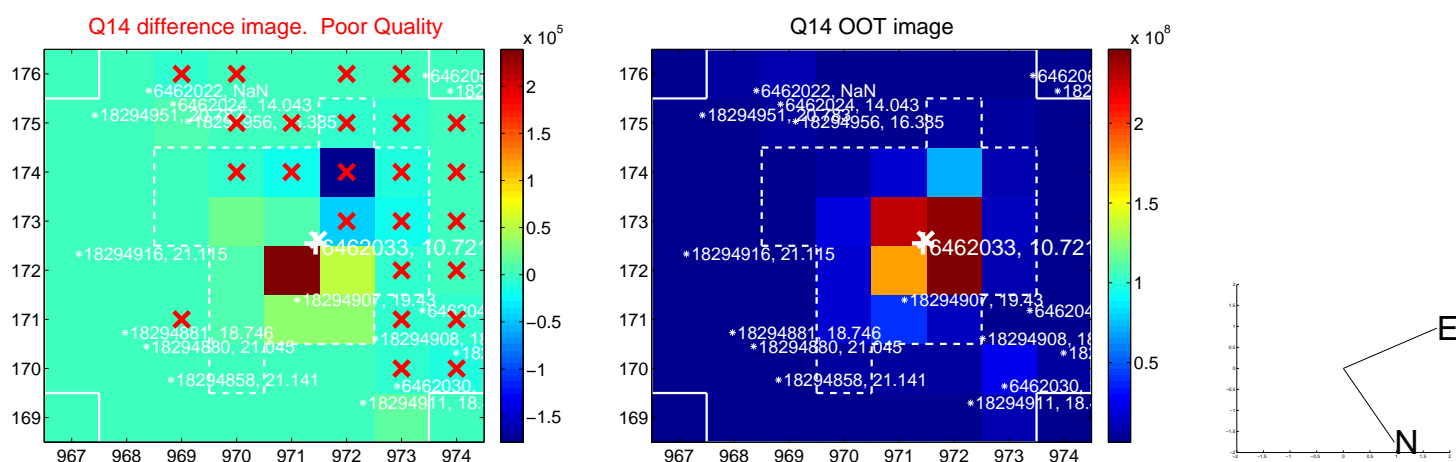
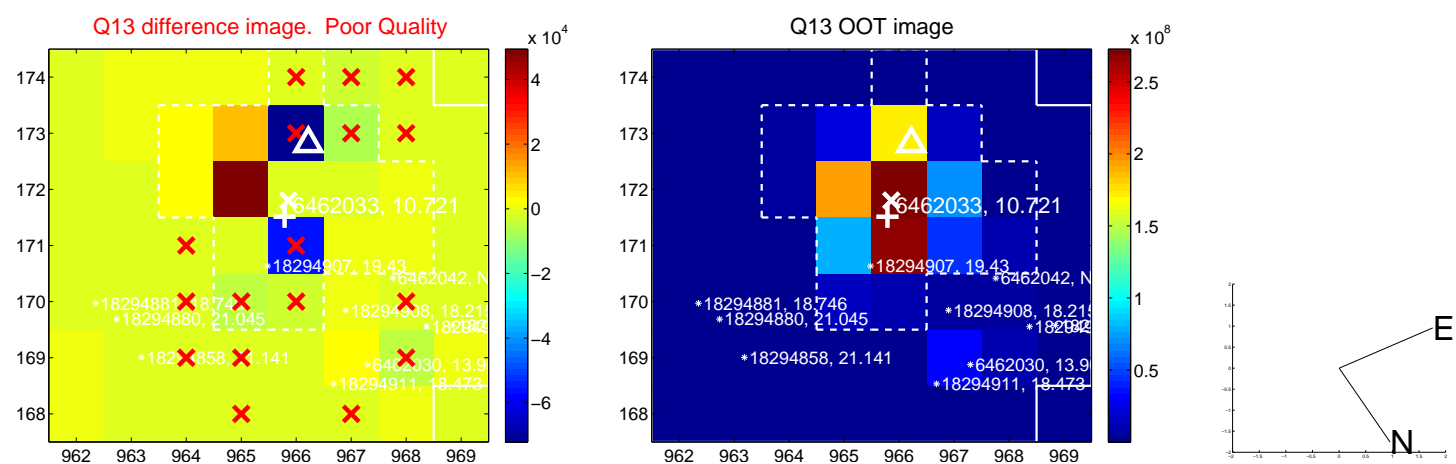
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



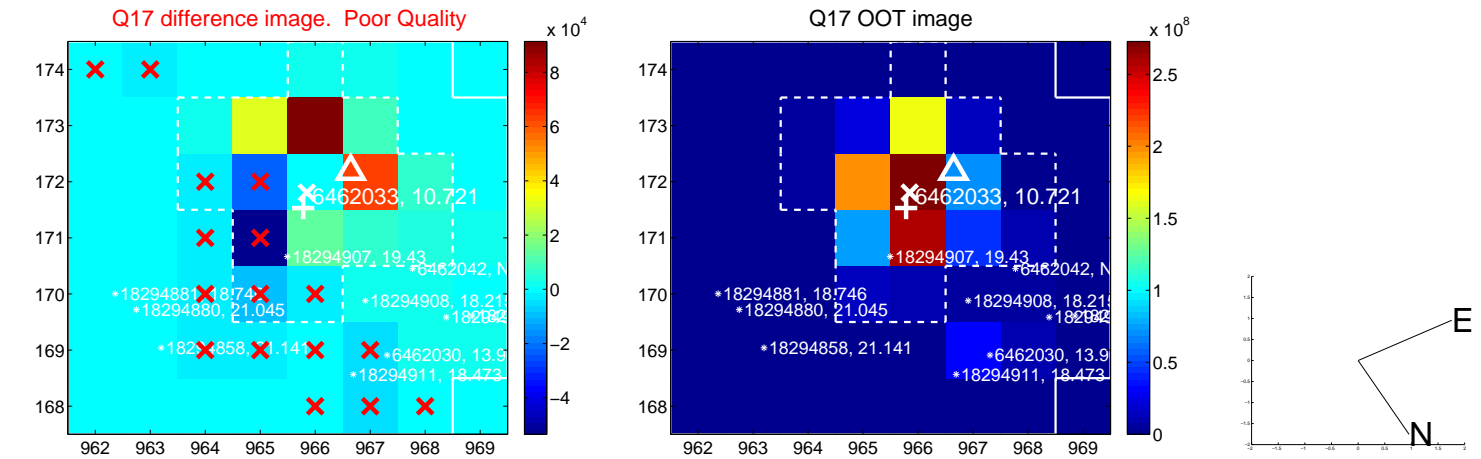
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



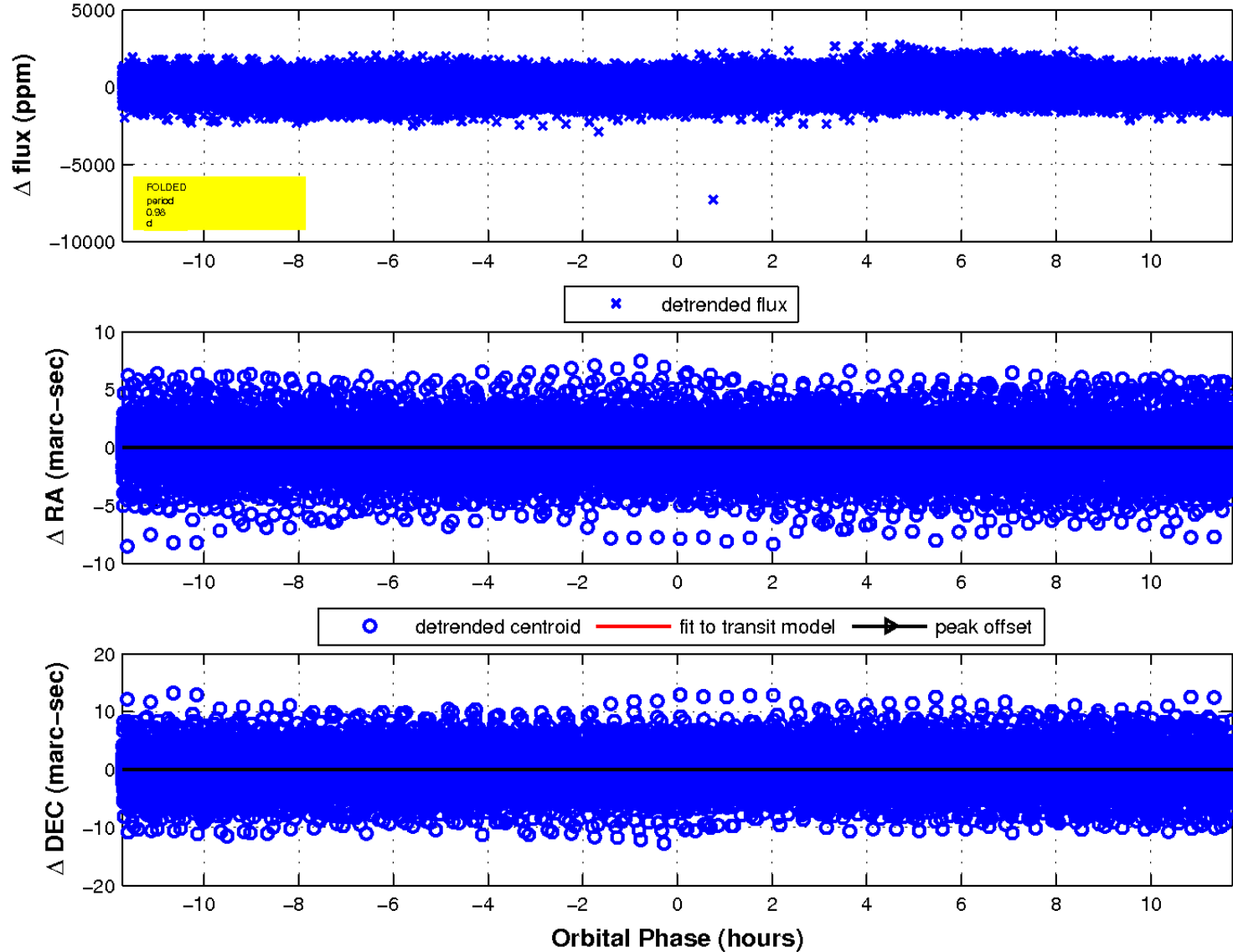
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

