

KIC 007117270

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})
007117270-01	OBS	No	0.566714	131.963389	24.6	3.488	8.5	6.4	0.96	5775	0.47	4929.44

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007117270-01	OBS	FP	0.00	1	0	1	1	LPP_DV—CENT_FEW_DIFFS—HALO_GHOST—EPHEM_MATCH

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.

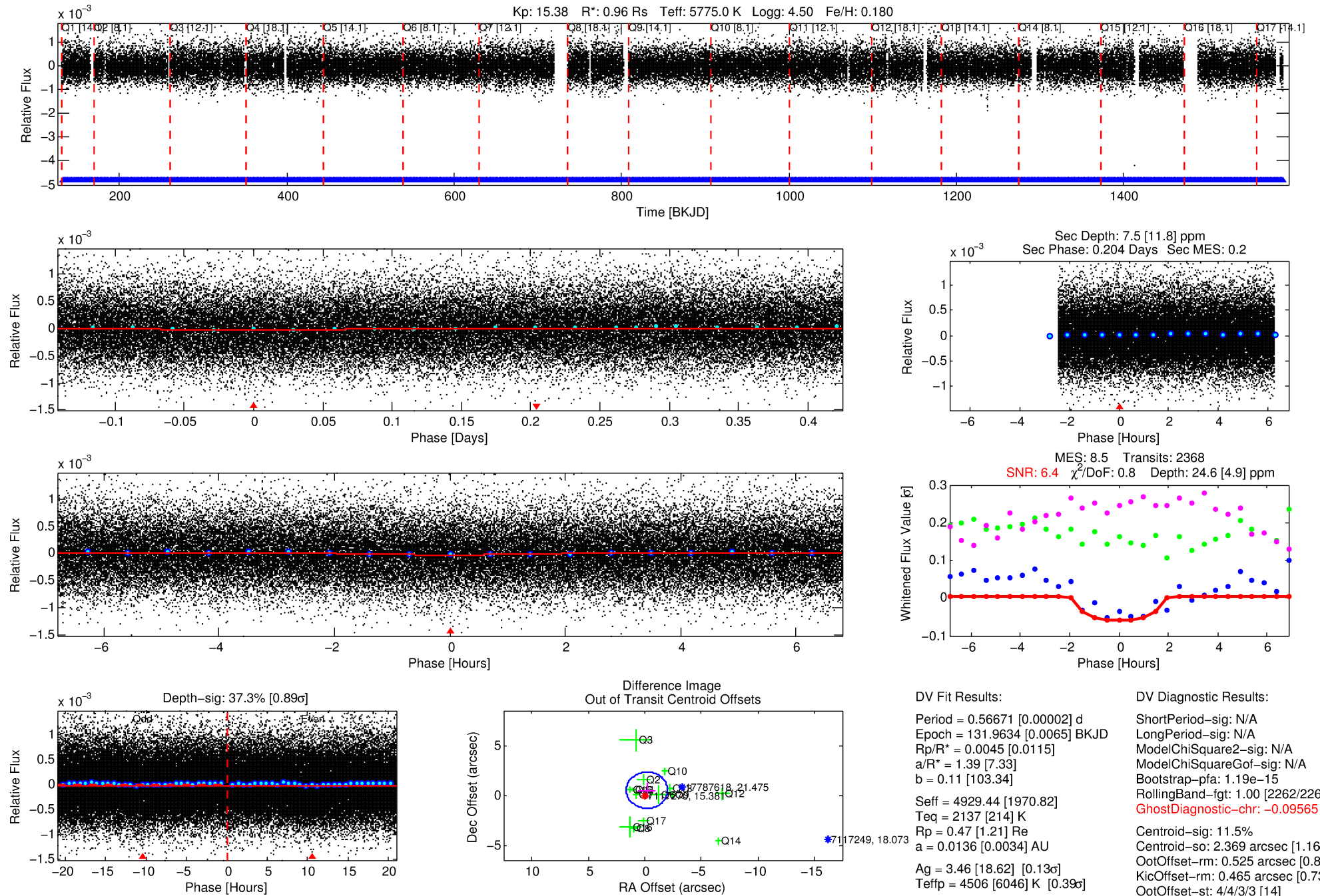
Ephemeris Match Information For 007117270-01

TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist ($''$)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
007117270-01	7117270	RR-Lyr-pri	7198959	1:1	841.2	193	85	7.86	15.38	24932.00	Direct-PRF	0	0.75	6.75

Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

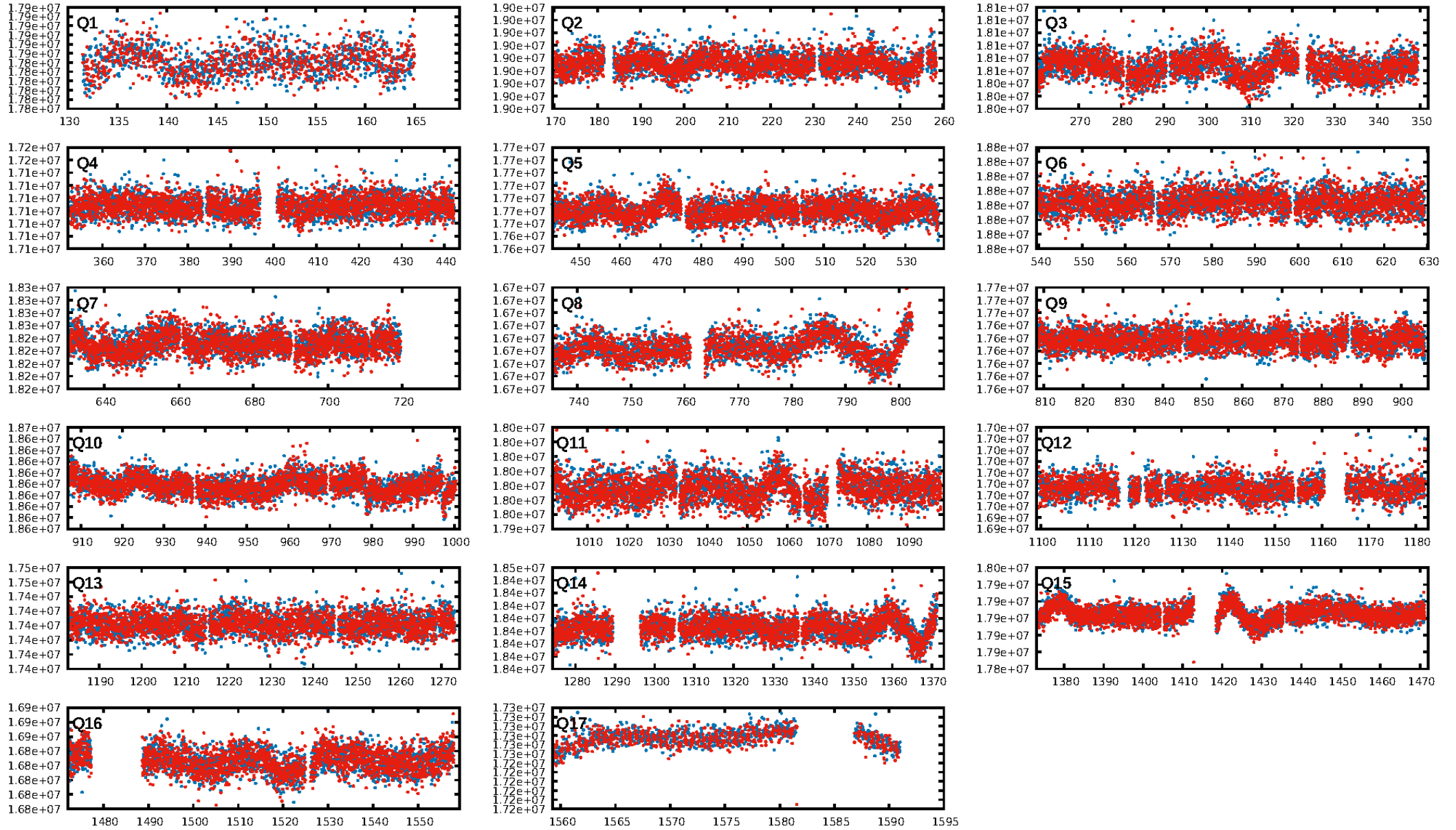
KIC: 7117270 Candidate: 1 of 1 Period: 0.567 d



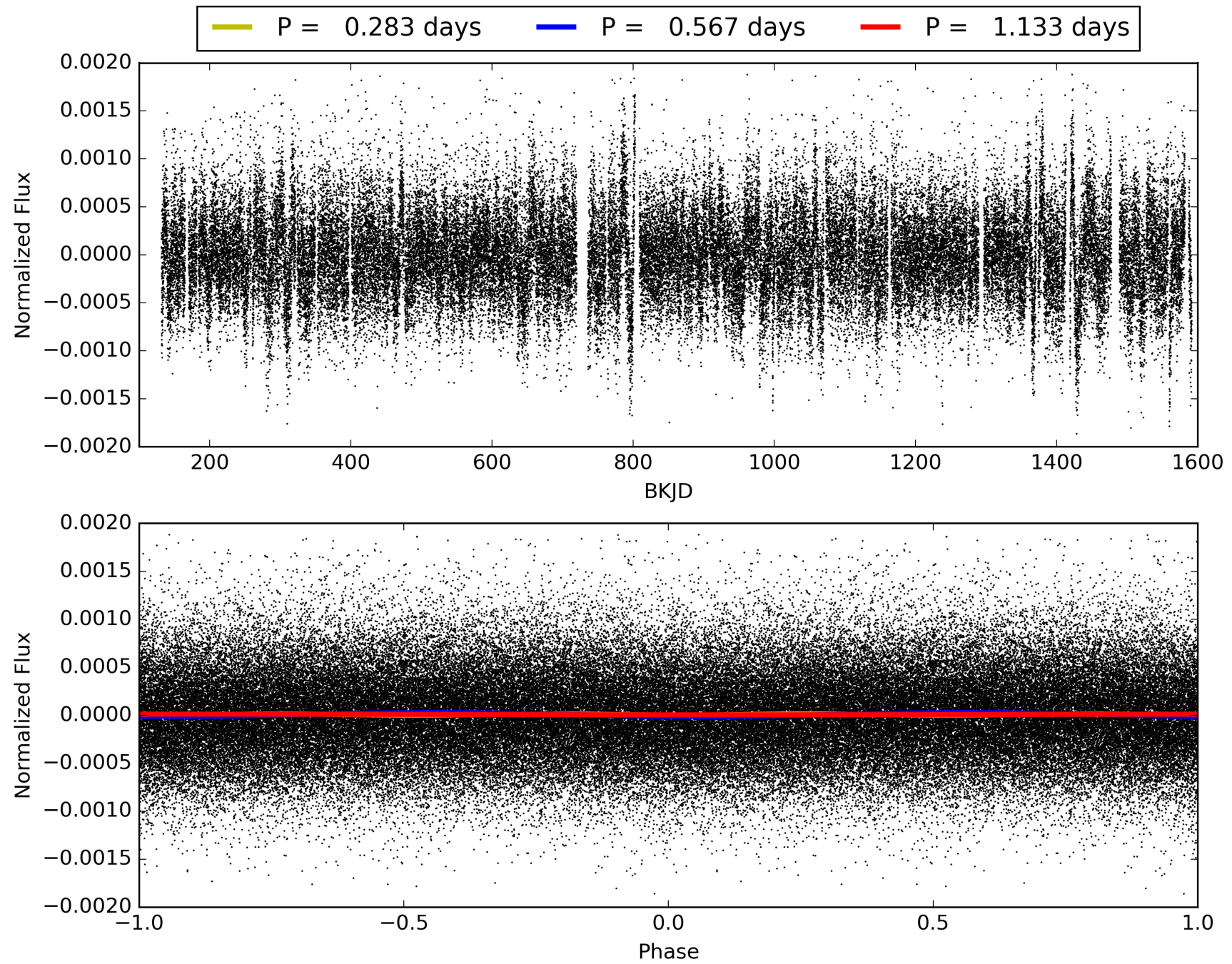
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 12:35:31 Z

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

TCE 007117270-01, PDC Light Curves

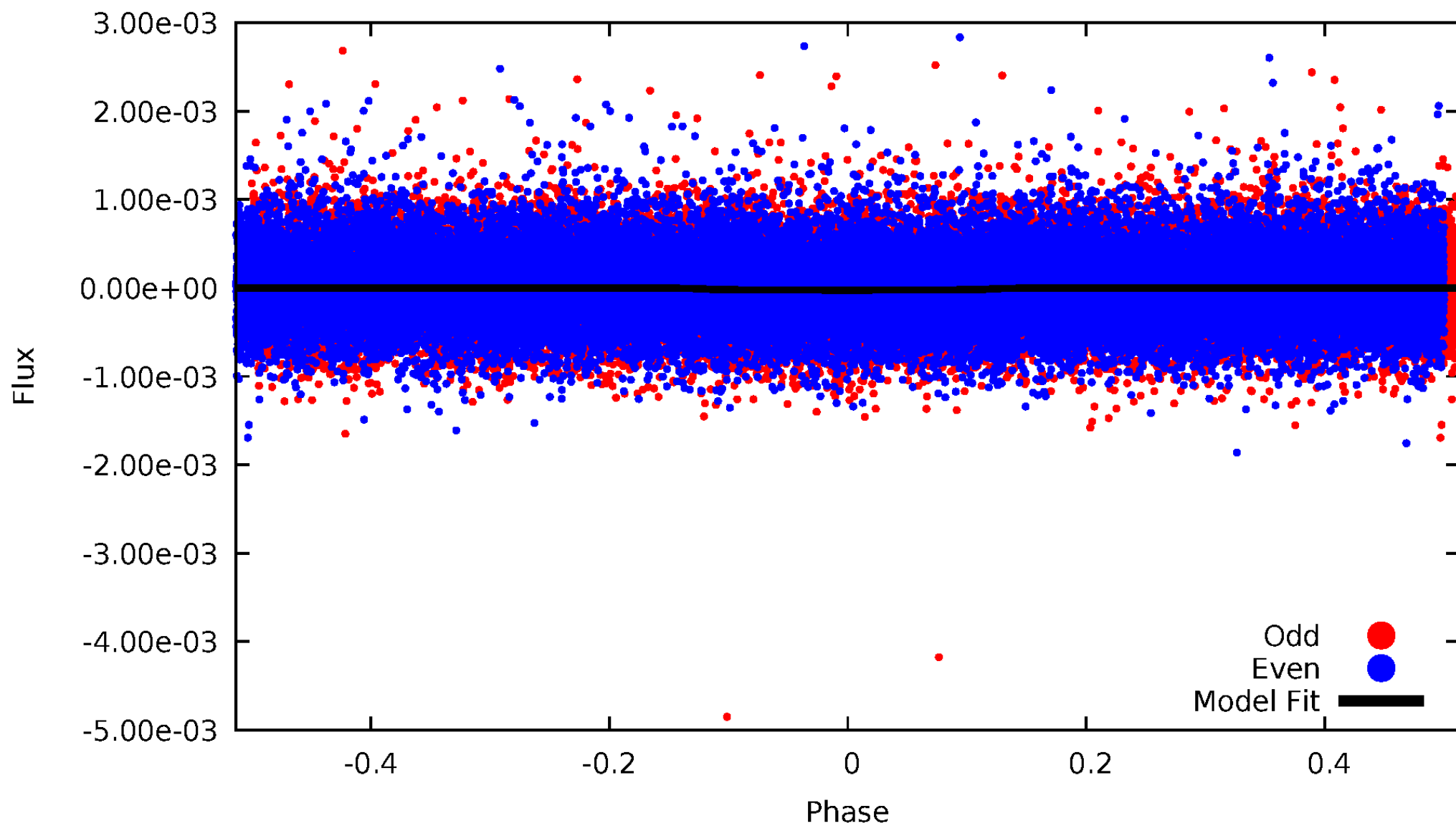


TCE 007117270-01



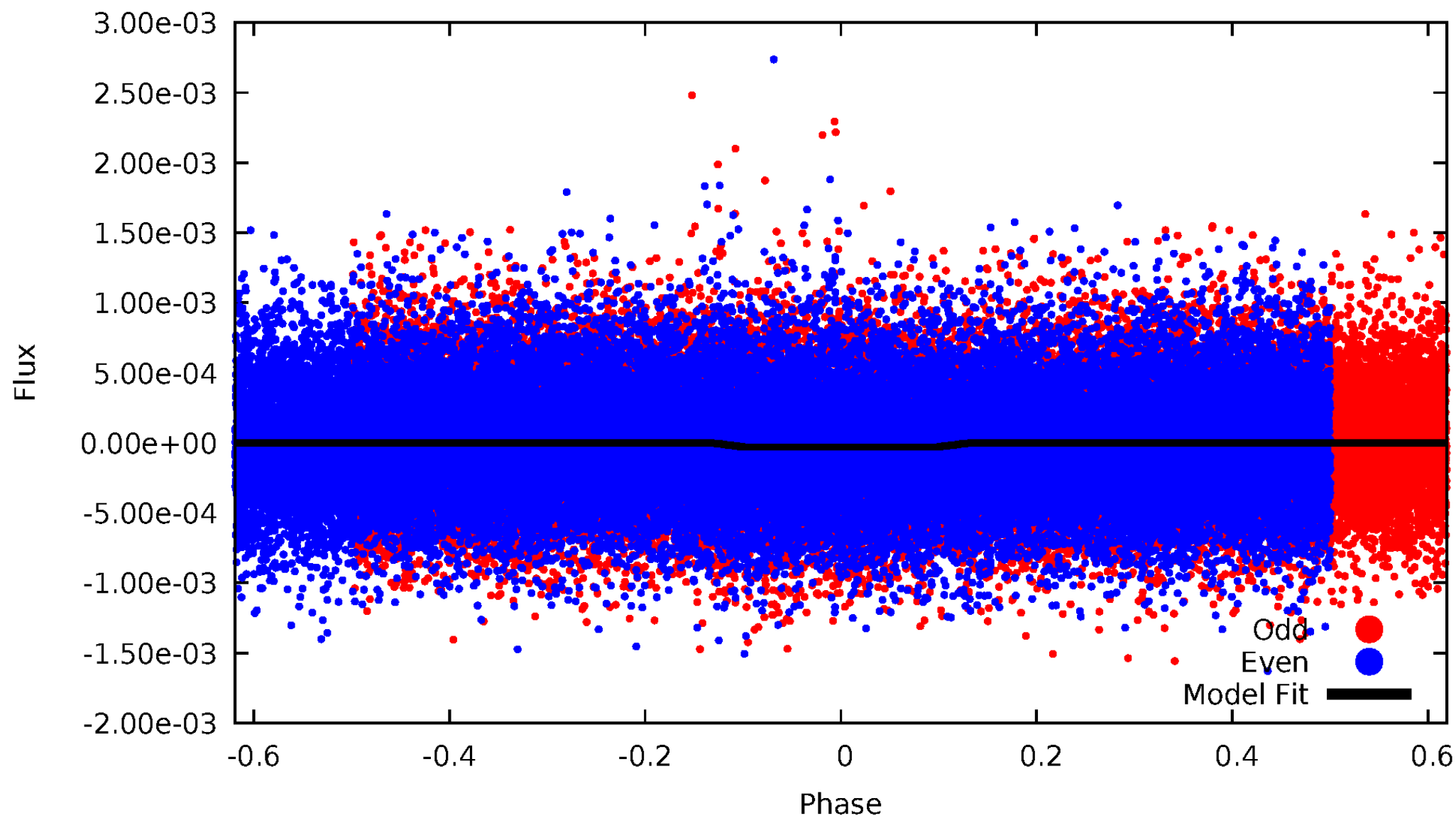
DV Odd/Even

TCE 007117270-01



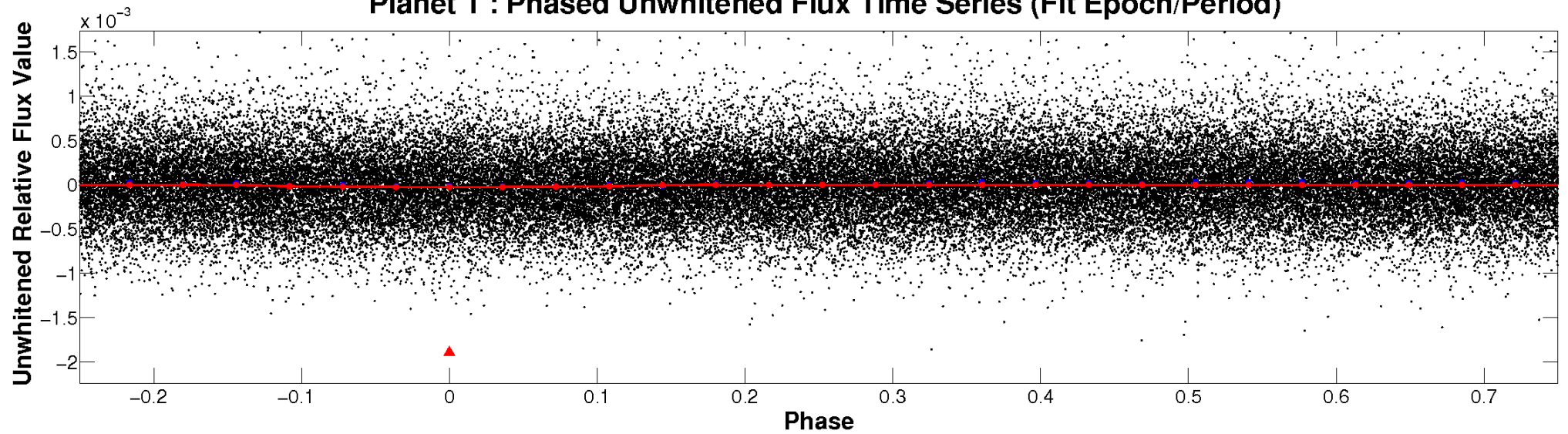
ALT Odd/Even

TCE 007117270-01

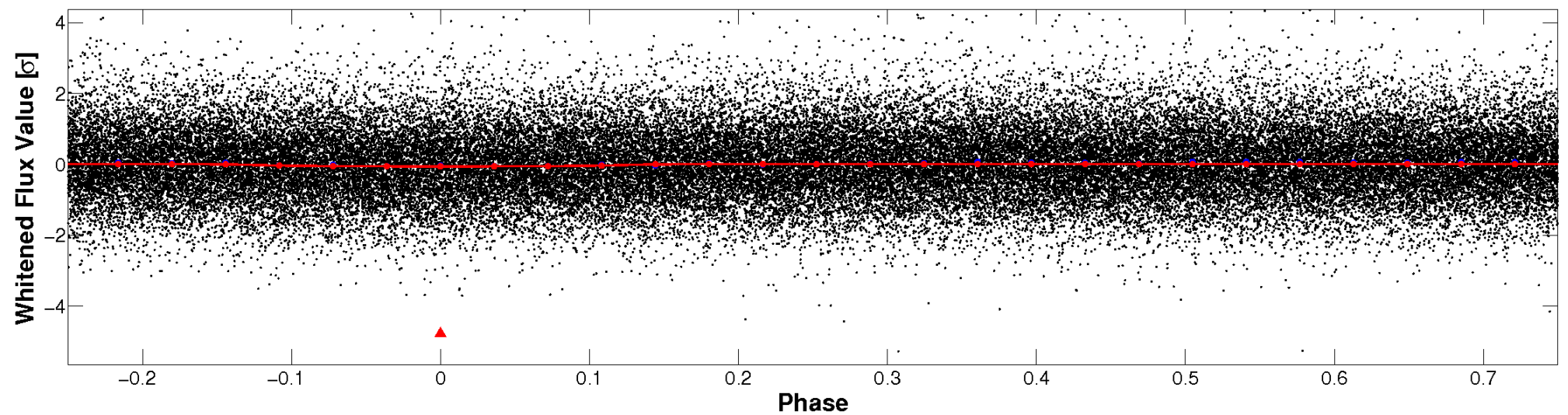


Non-Whitened Vs. Whitened Light Curve

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

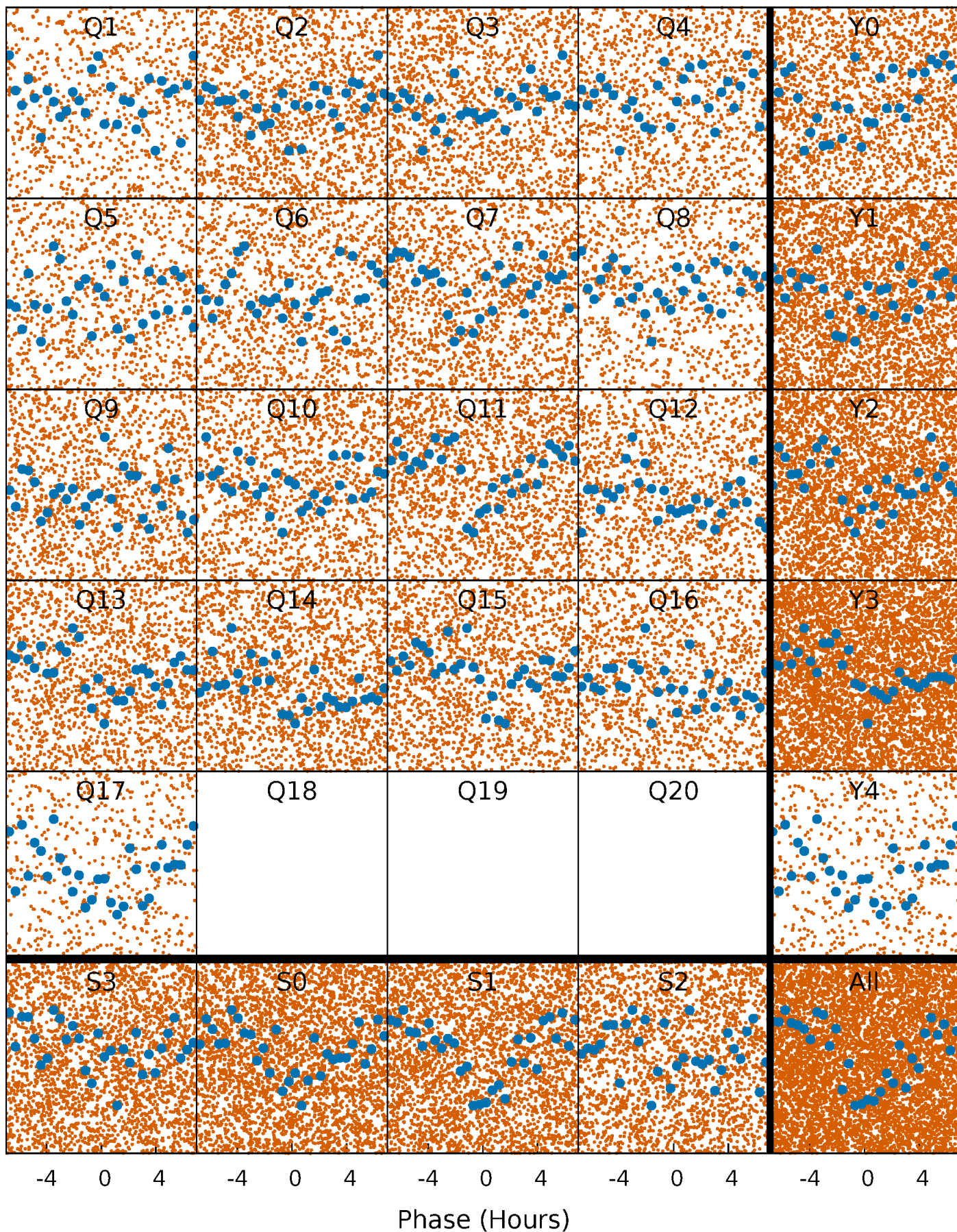


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



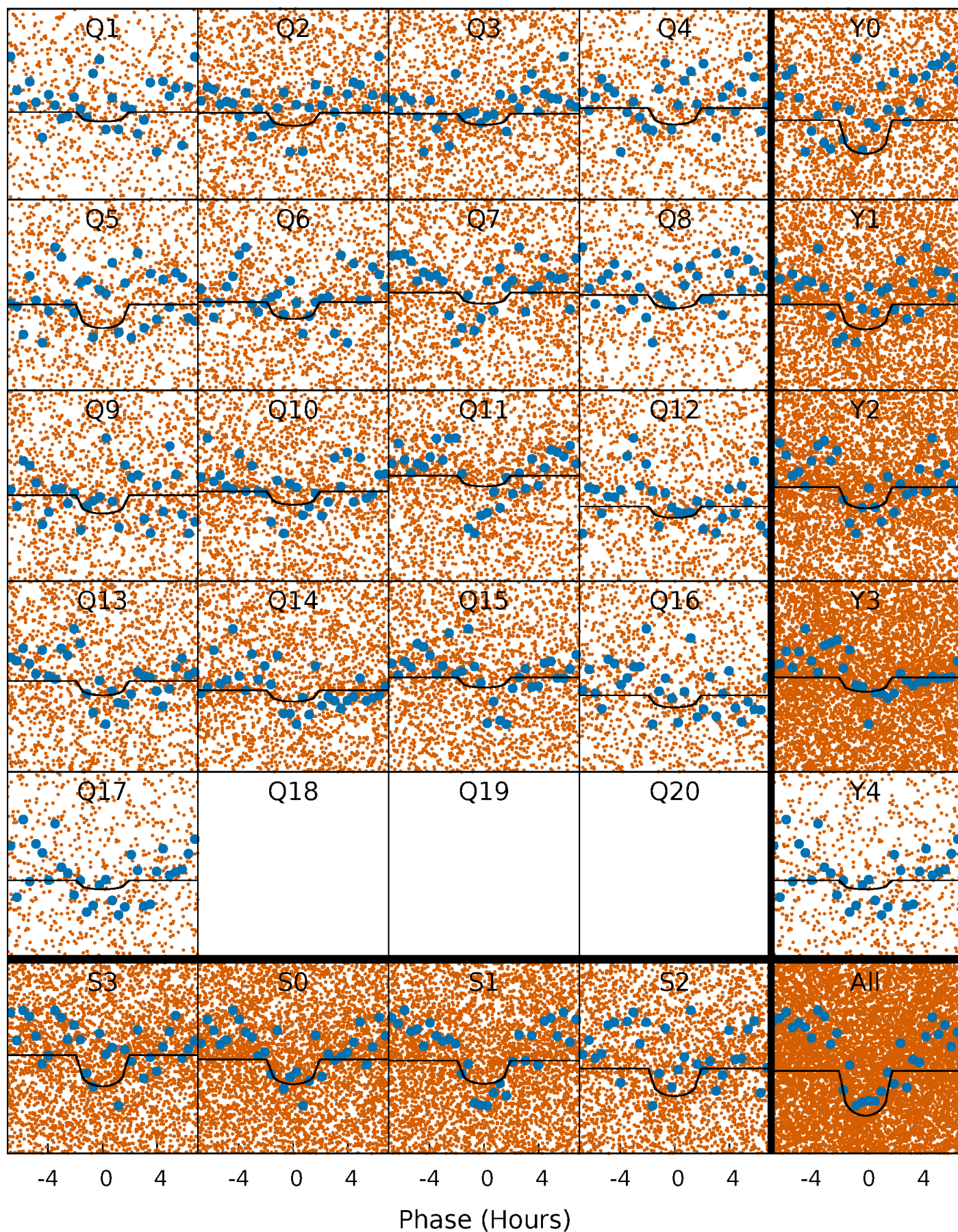
PDC Quarter-Phased Transit Curves

TCE 007117270-01 P= 0.566714 Days $T_0=131.963389$ (BKJD)



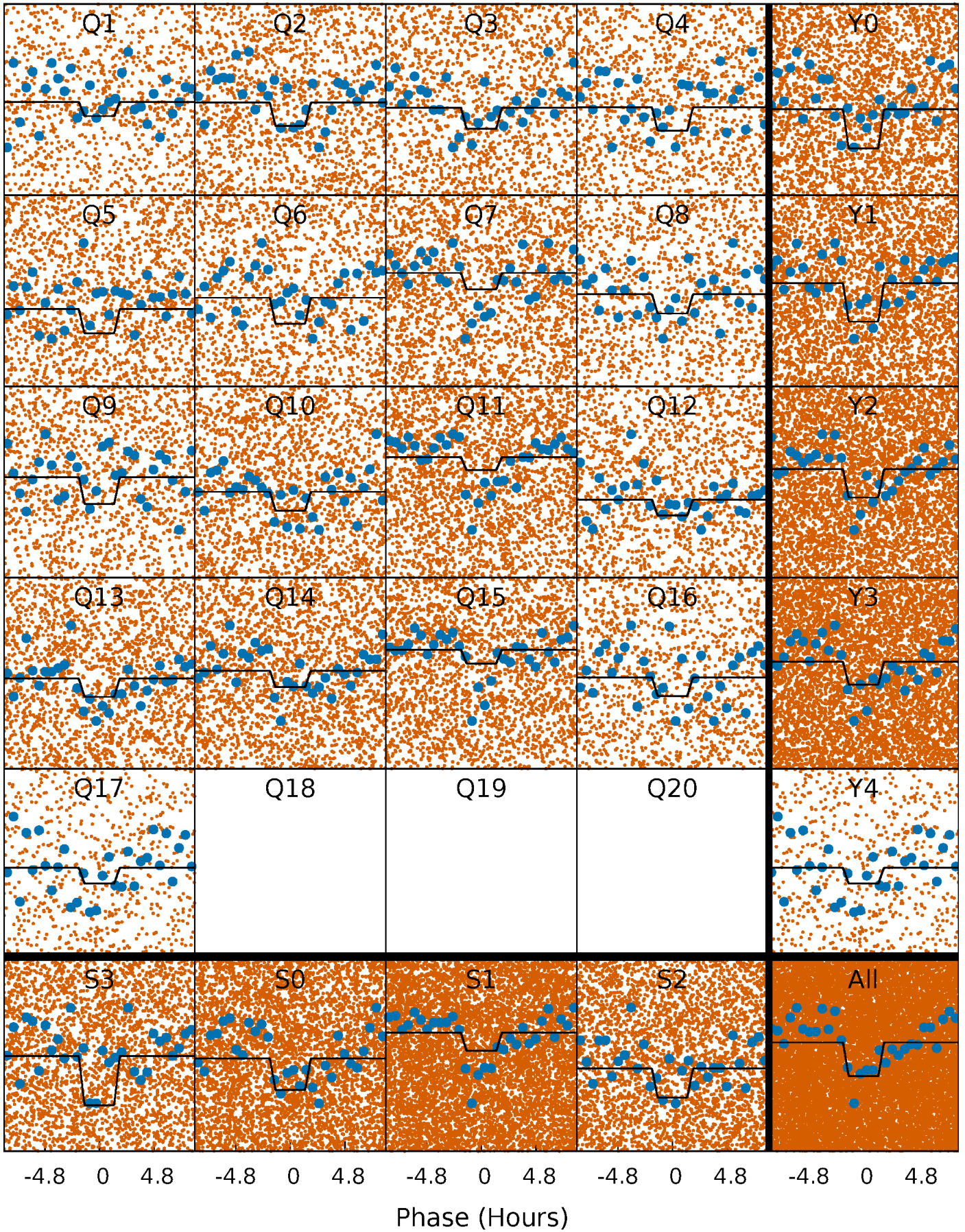
DV Quarter-Phased Transit Curves

TCE 007117270-01 P= 0.566714 Days $T_0=131.963389$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

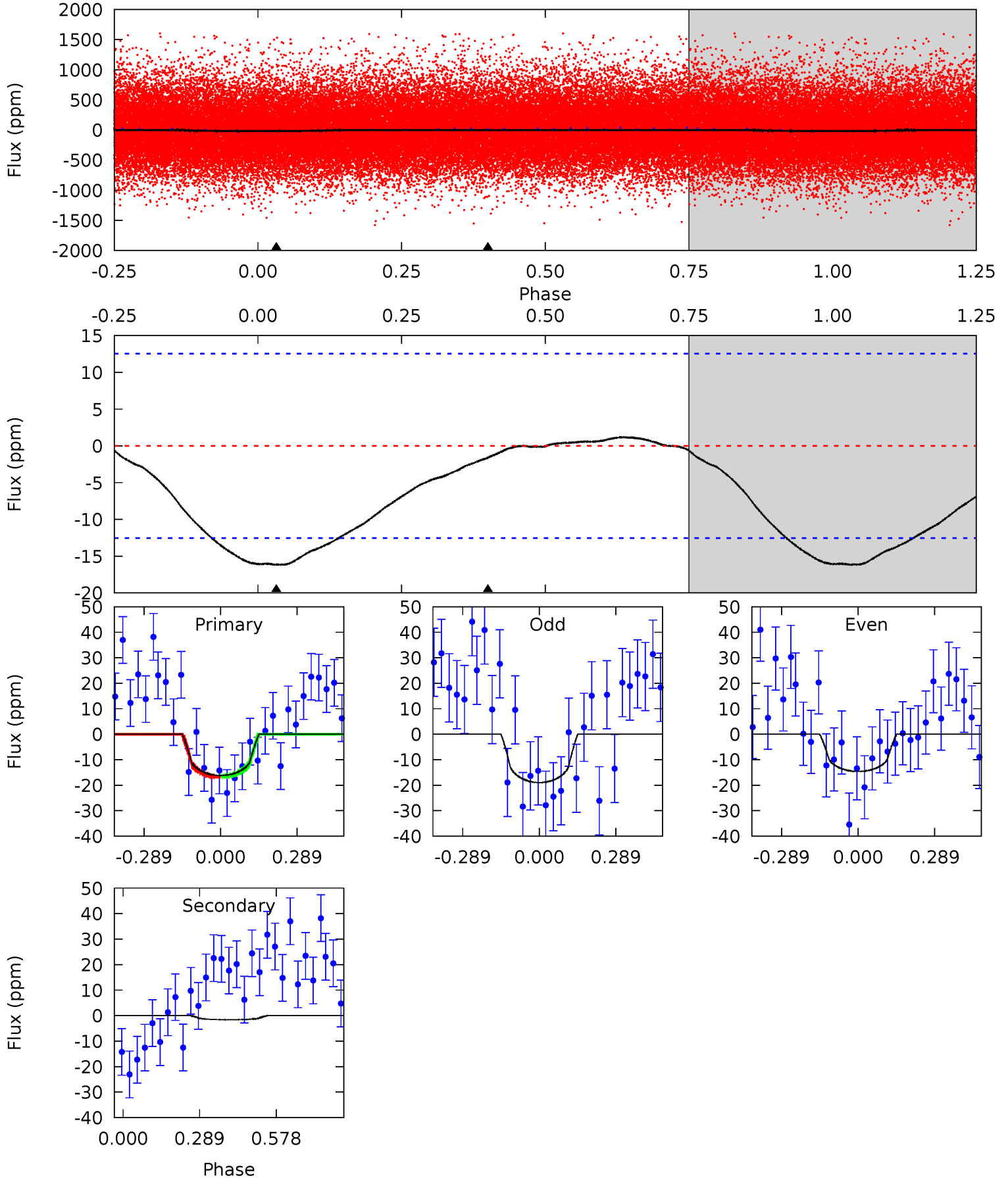
TCE 007117270-01 P= 0.566788 Days $T_0=131.846219$ (BKJD)



DV Model-Shift Uniqueness Test

007117270-01, P = 0.566714 Days, E = 131.396675 Days

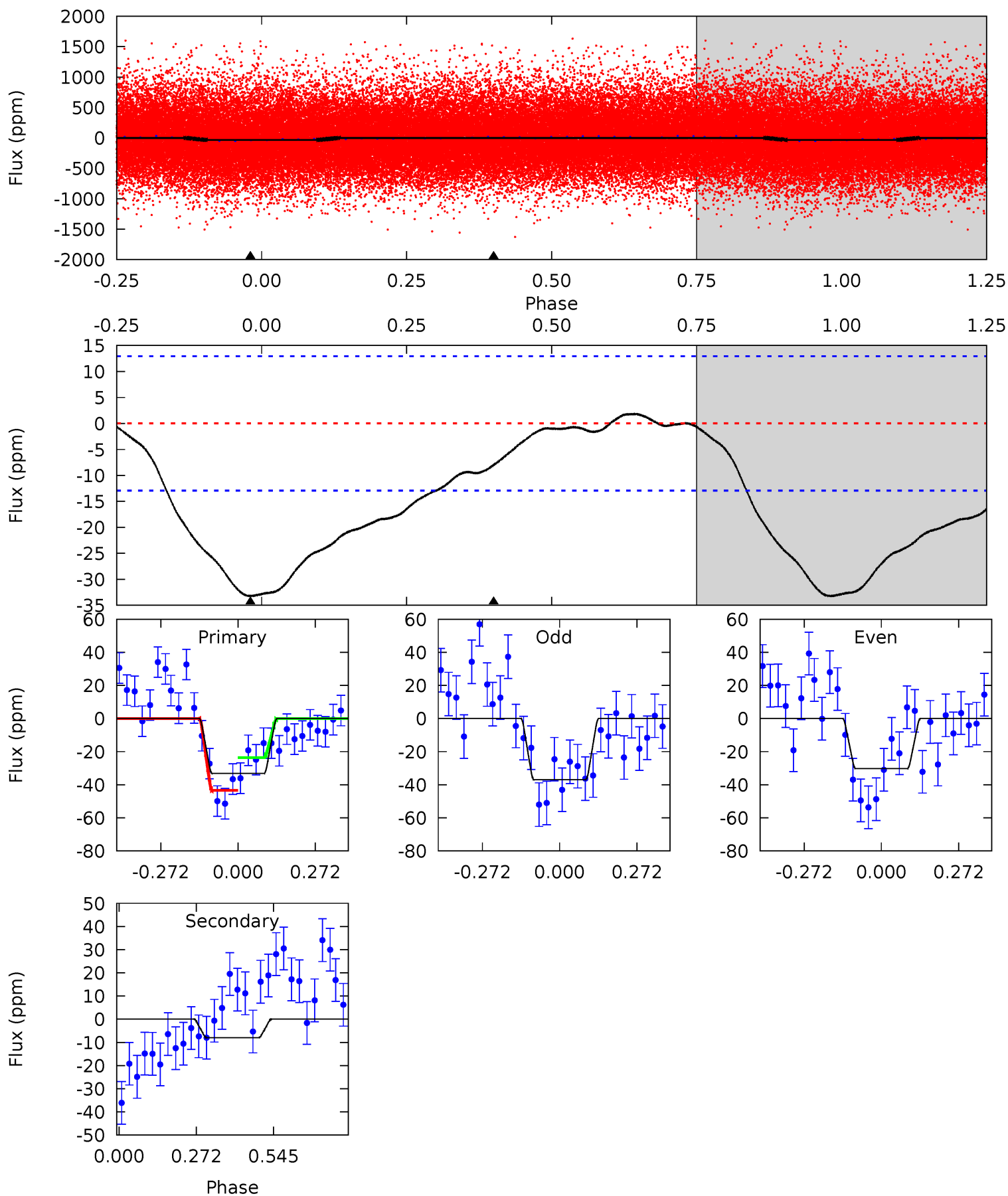
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.59	0.55	0	0	4.34	1.06	0.22	5.59	5.59	0.55	0.55	0.76	0.83	0.07	0.04



Alt Model-Shift Uniqueness Test

007117270-01, P = 0.566788 Days, E = 131.279431 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.2	2.69	0	0	4.35	1.10	0.26	11.2	11.2	2.69	2.69	1.14	1.05	0.05	3.37



Stellar Parameters For KIC 007117270

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5775^{+154}_{-206}	$4.497^{+0.039}_{-0.208}$	$0.180^{+0.200}_{-0.300}$	$0.960^{+0.279}_{-0.093}$	$1.057^{+0.110}_{-0.134}$	$1.680^{+0.346}_{-0.883}$
	+3%/-4%	+1%/-5%	+111%/-167%	+29%/-10%	+10%/-13%	+21%/-53%
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 007117270-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-2 ± 3	$1.07^{+1.05}_{-0.71}$	3054^{+205}_{-154}	-2971^{+6684}_{-350}	$0.091^{+1.111}_{-0.186}$
Alt.	-8 ± 3	$1.12^{+1.10}_{-0.77}$	3057^{+198}_{-141}	3152^{+2241}_{-6013}	$0.623^{+5.518}_{-0.483}$

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 $A_{obs} \gg 1.0$

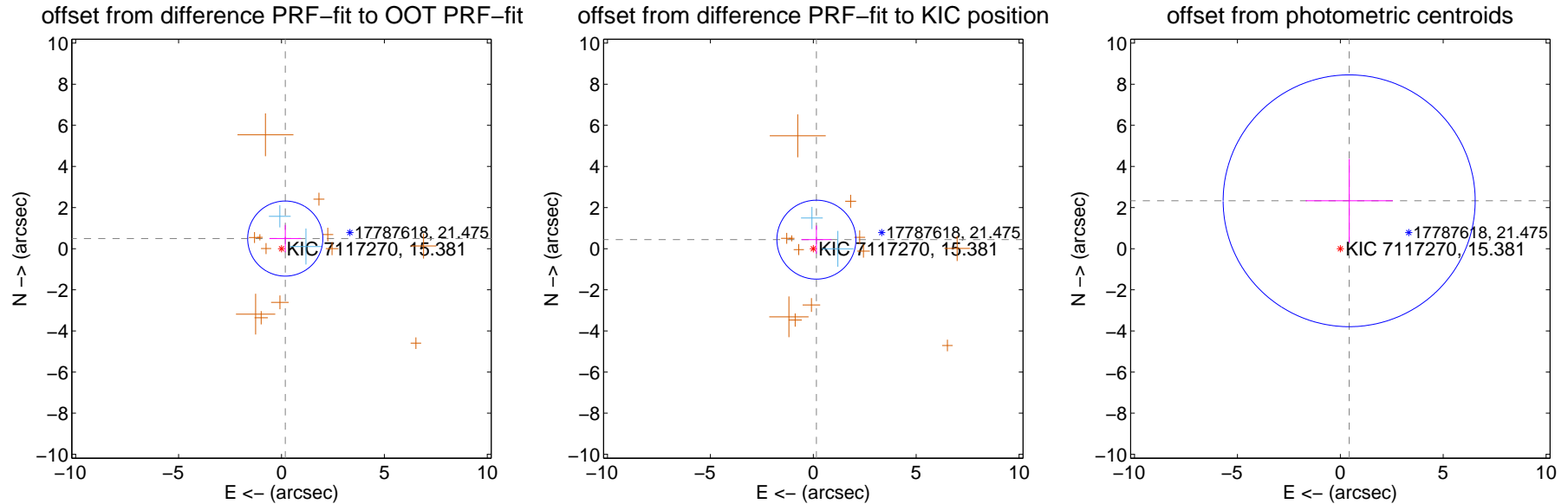
DV Centroid Data

Supplemental centroid analysis for 007117270-01. Kepler magnitude: 15.38. Transit SNR 6.44

There are 2 quarters with good PRF difference image offsets

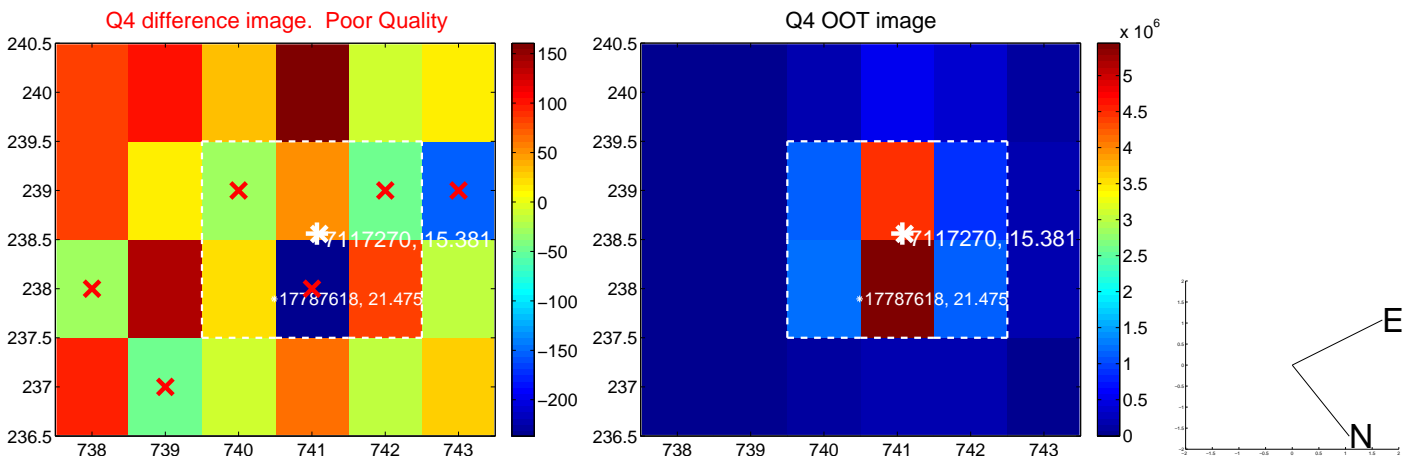
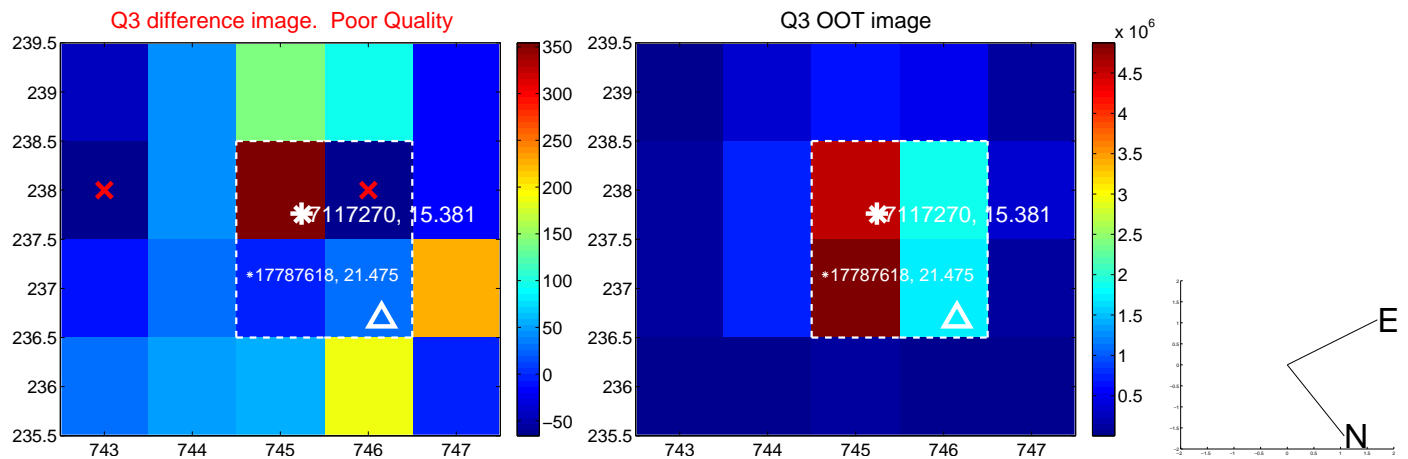
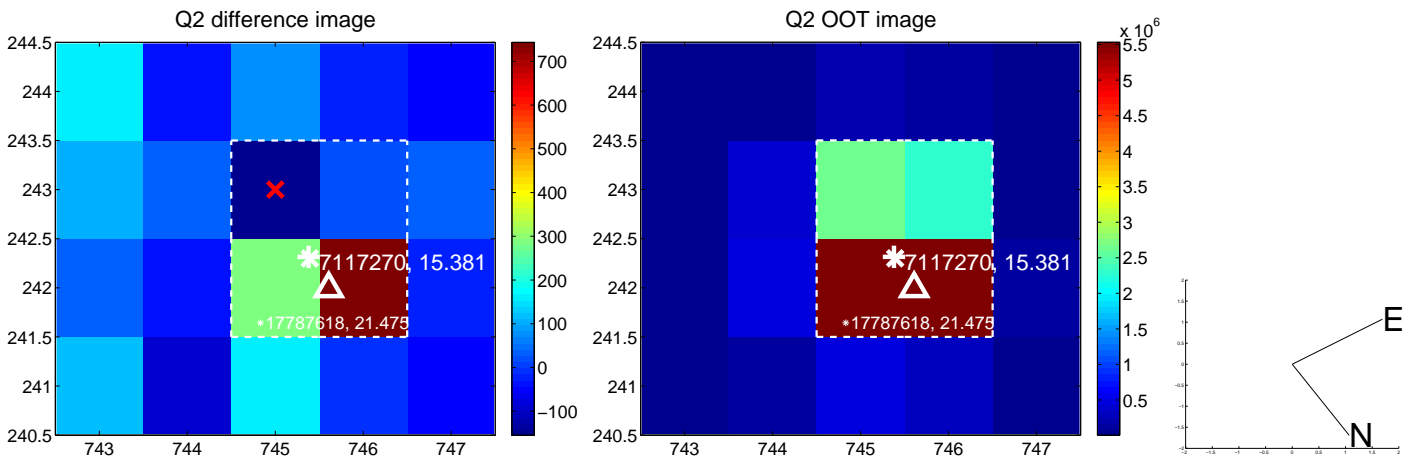
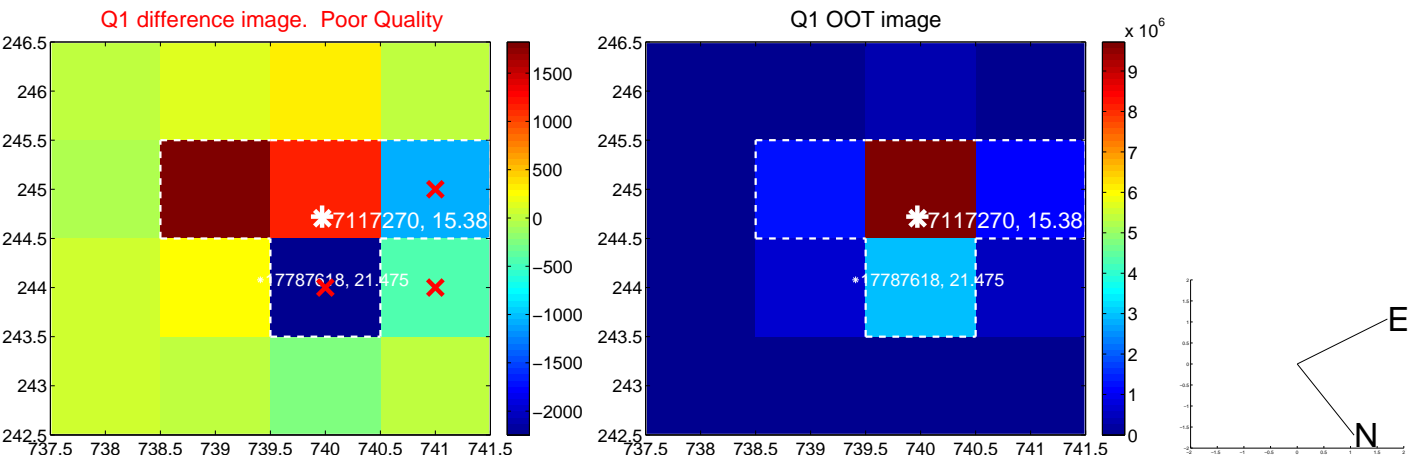
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.525 ± 0.609	0.86	-0.184 ± 0.771	0.492 ± 0.663
PRF-fit source offset from KIC position	0.465 ± 0.640	0.73	-0.152 ± 0.730	0.439 ± 0.689
photometric centroid source offset	2.37 ± 2.04	1.16	-0.43 ± 2.12	2.33 ± 2.04

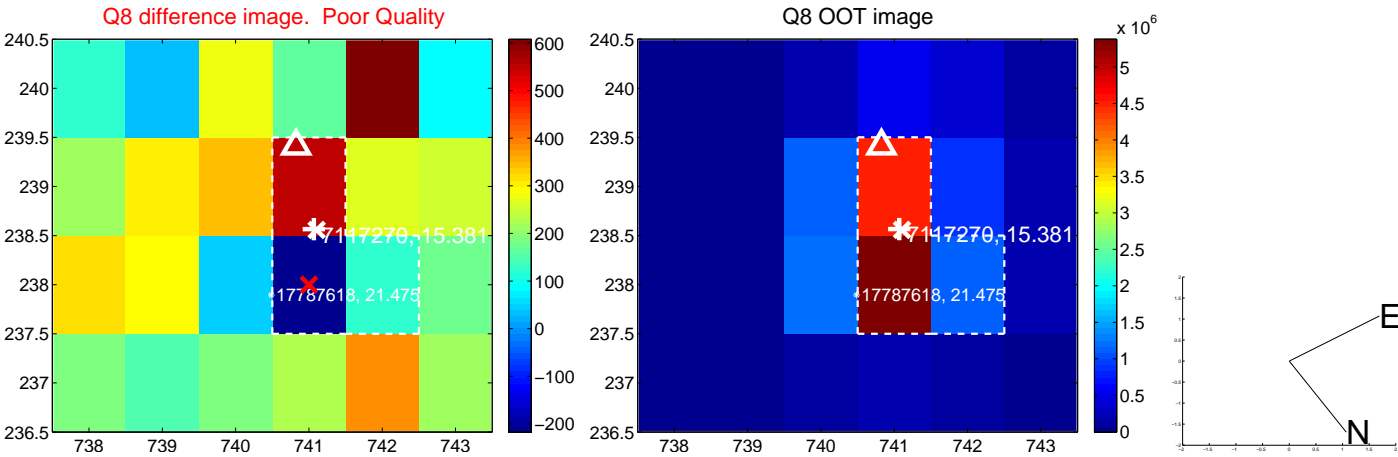
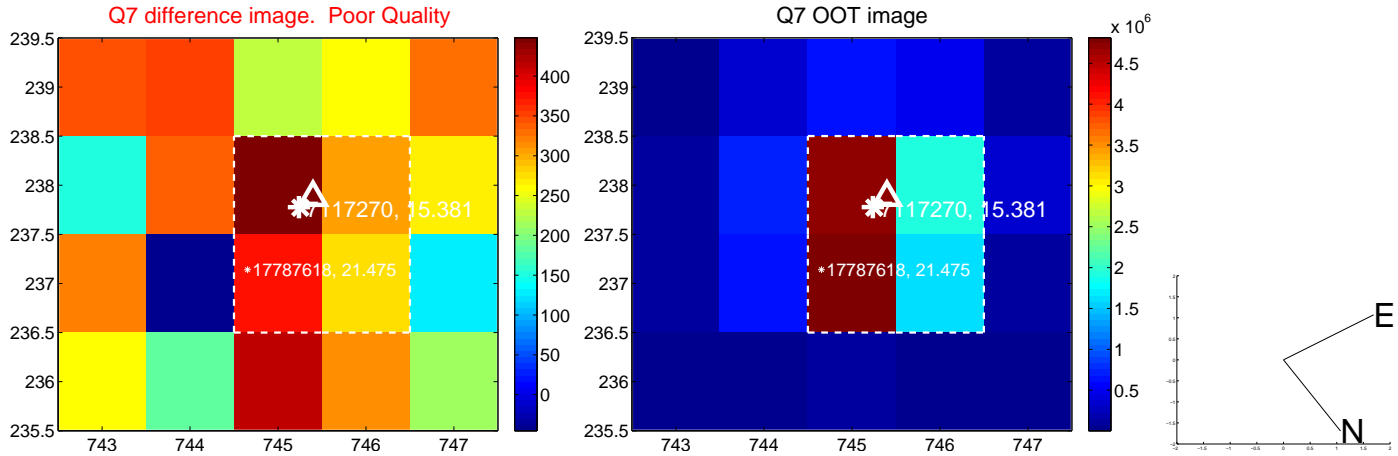
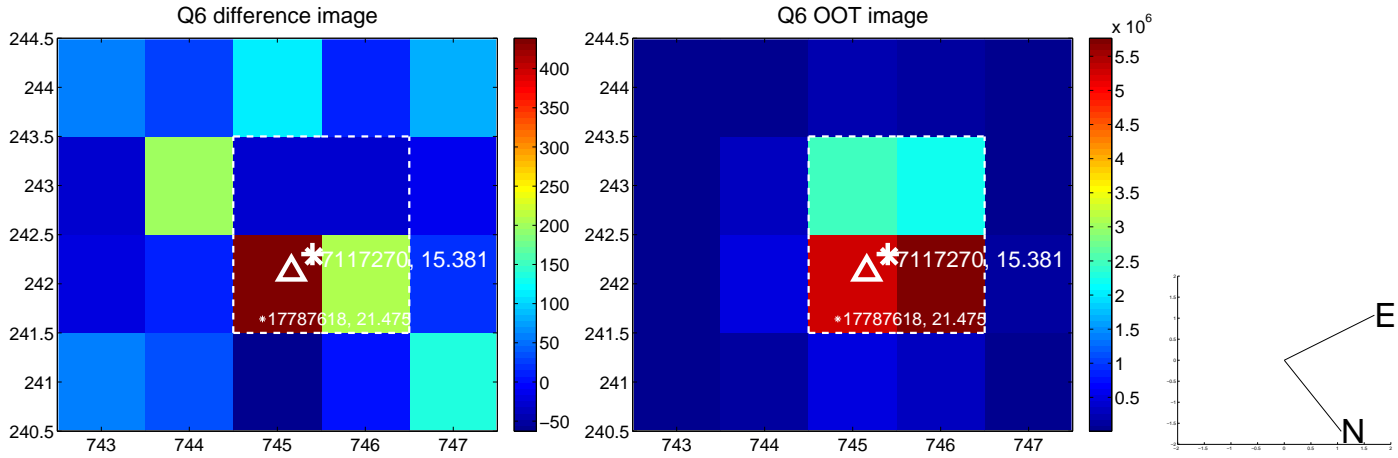
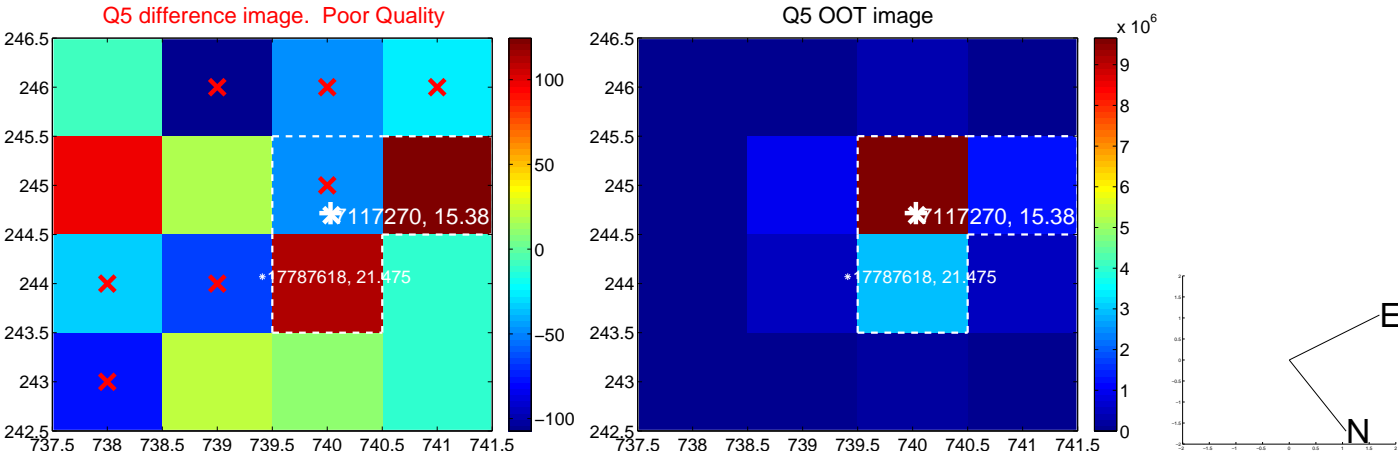


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

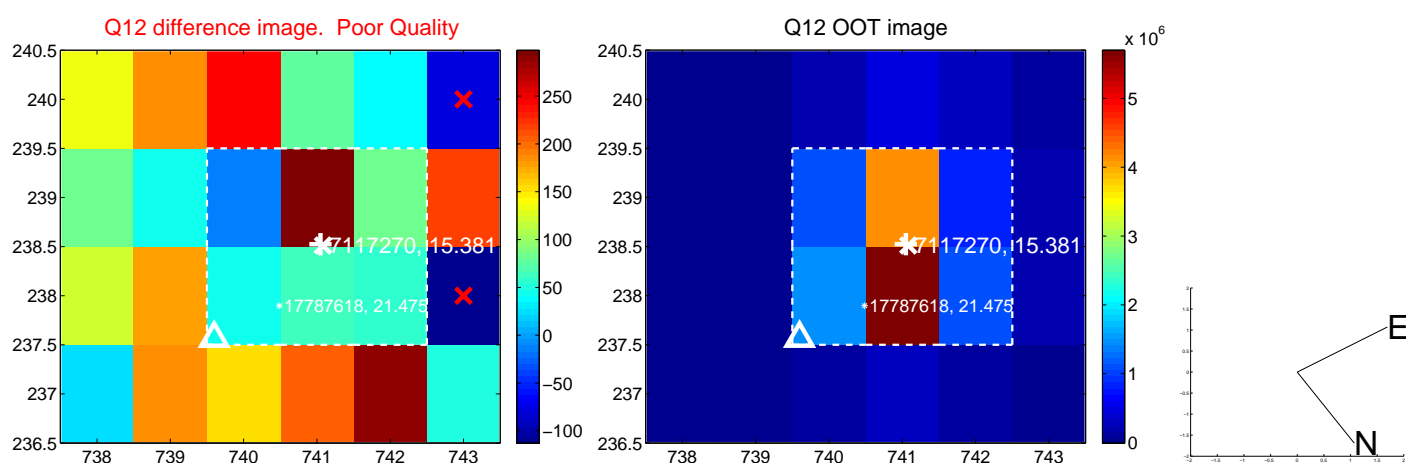
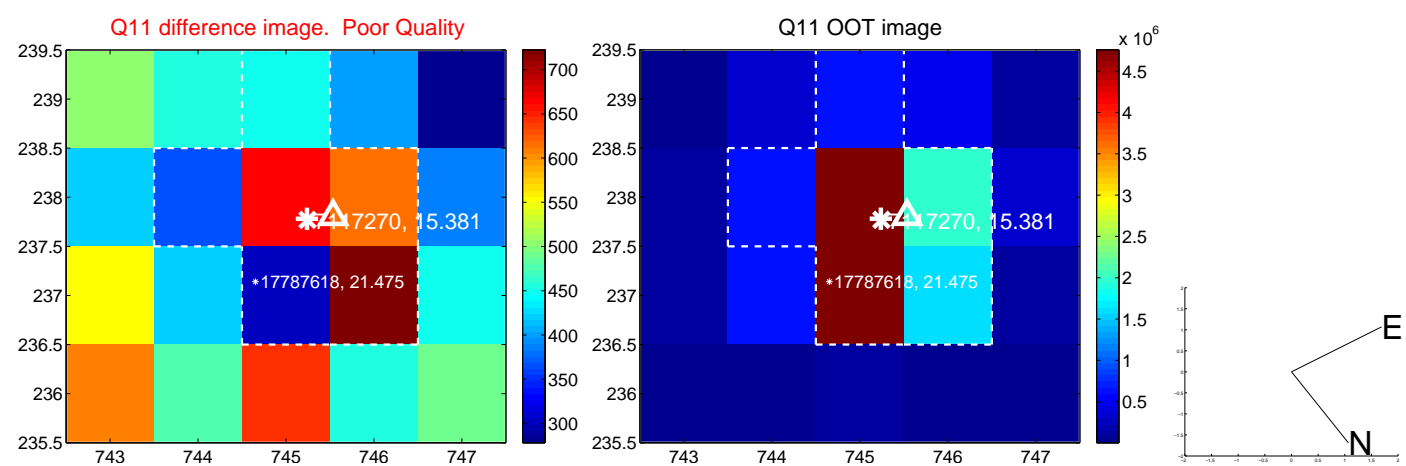
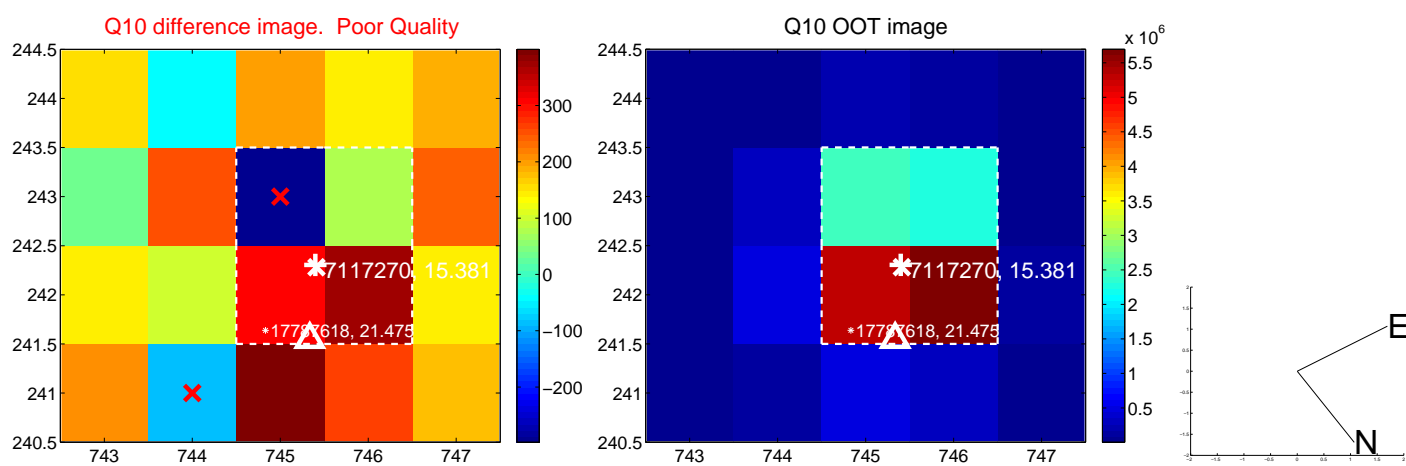
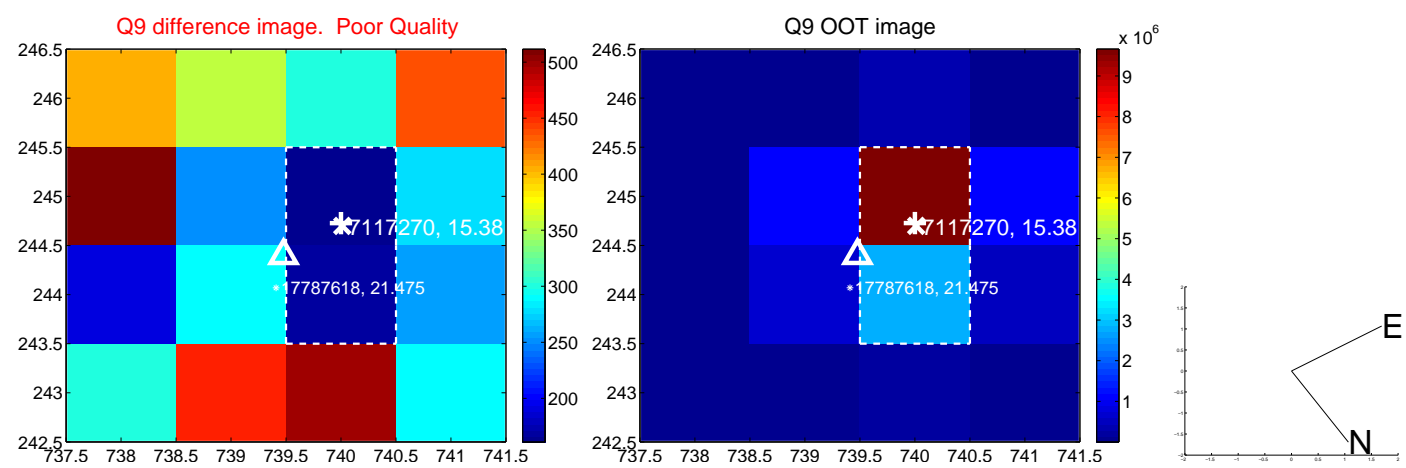
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



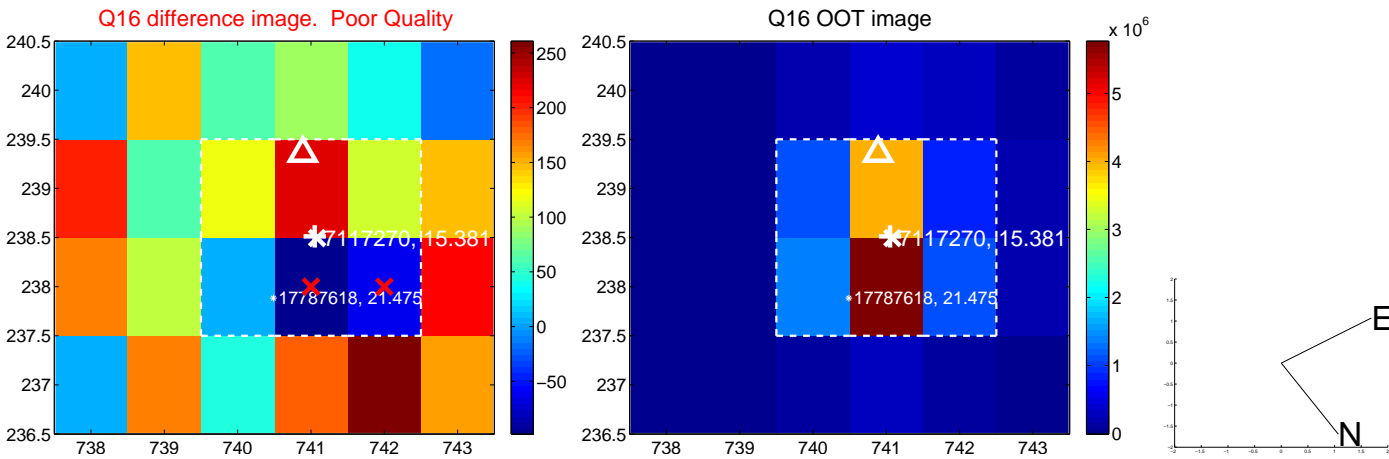
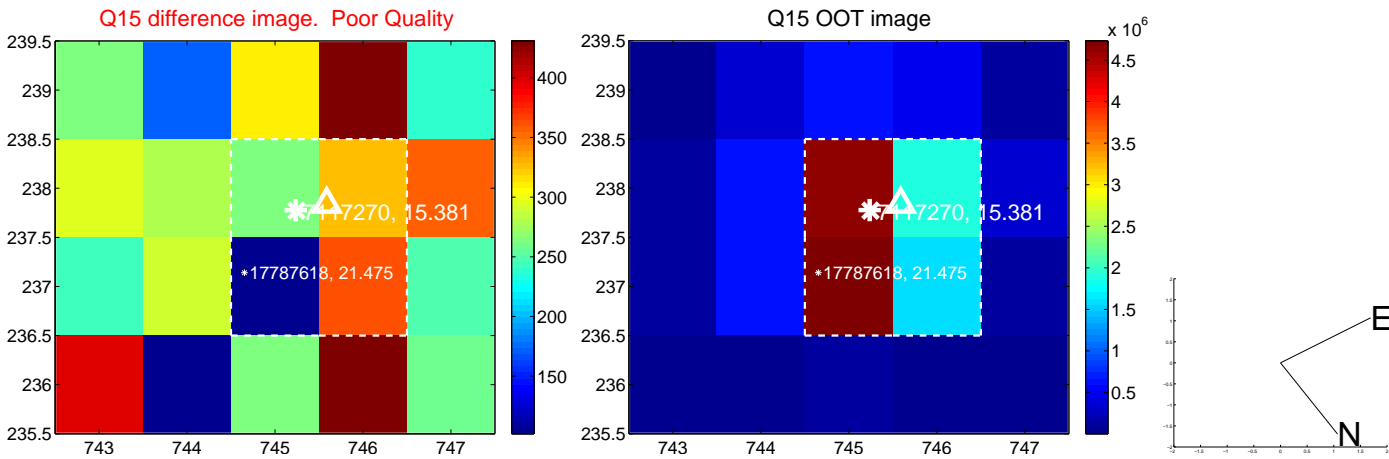
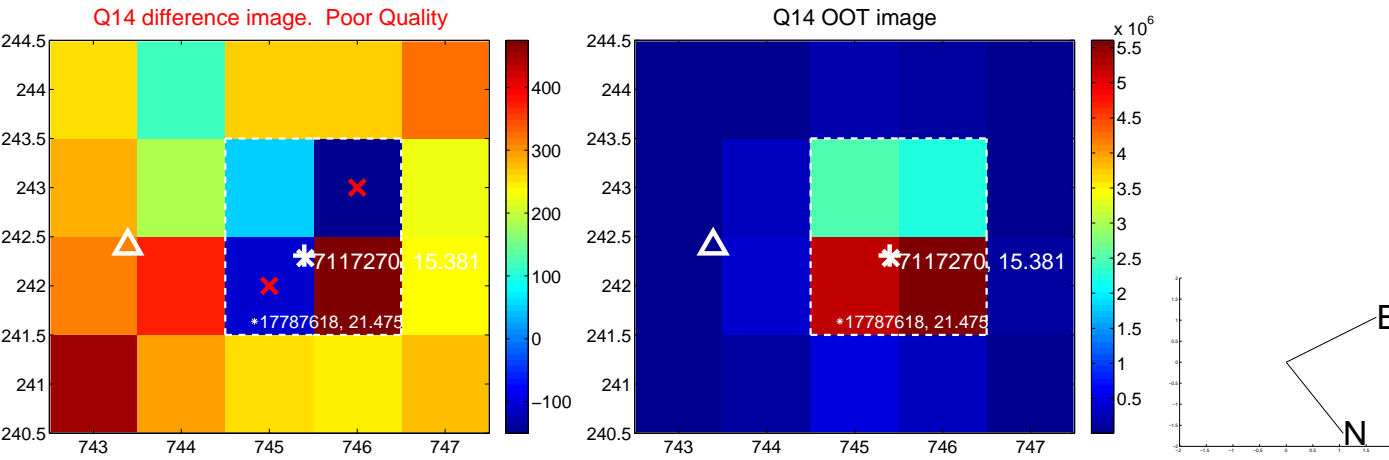
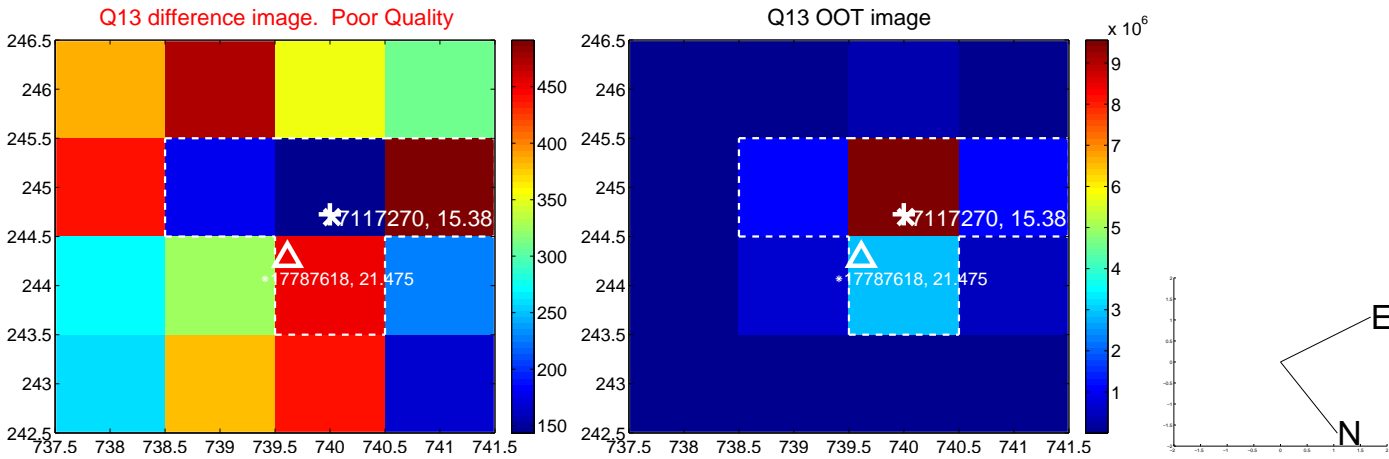
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



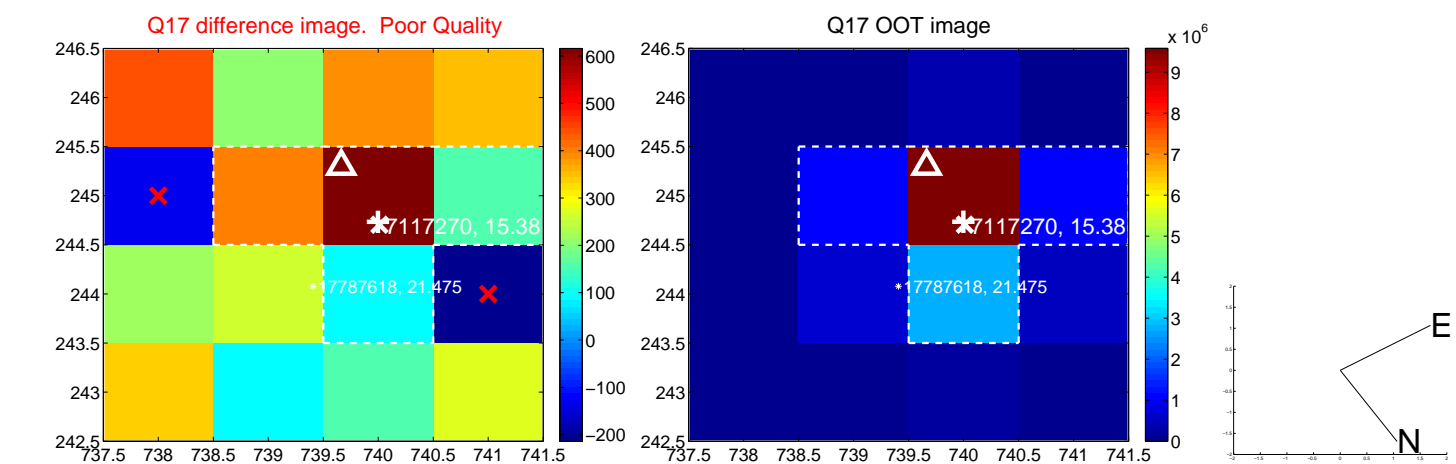
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



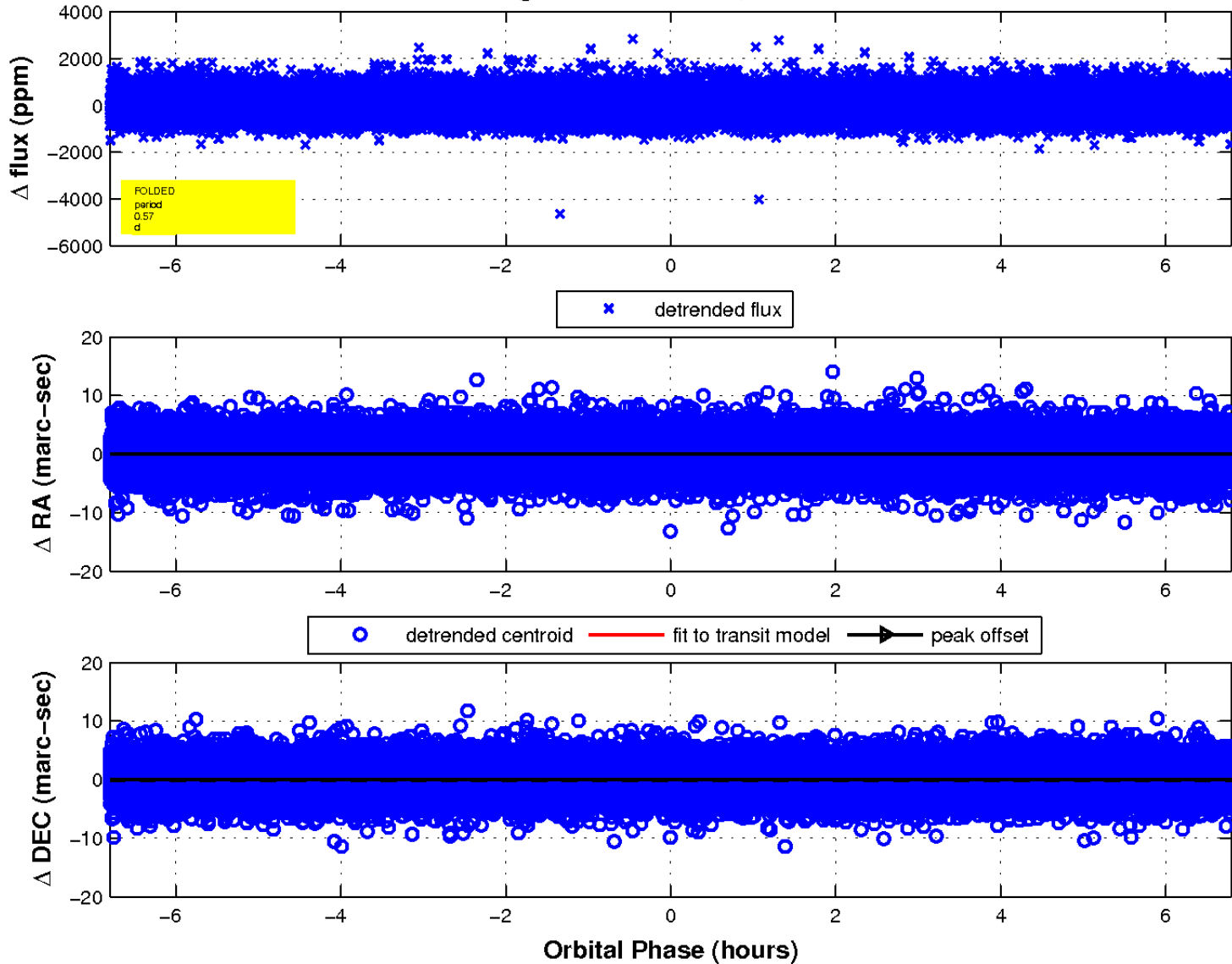
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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

