

KIC 009091897

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})
009091897-01	OBS	No	0.959432	132.121019	54.3	2.174	7.9	10.0	0.54	3929	0.48	252.43

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009091897-01	OBS	FP	0.00	1	0	1	1	LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—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.

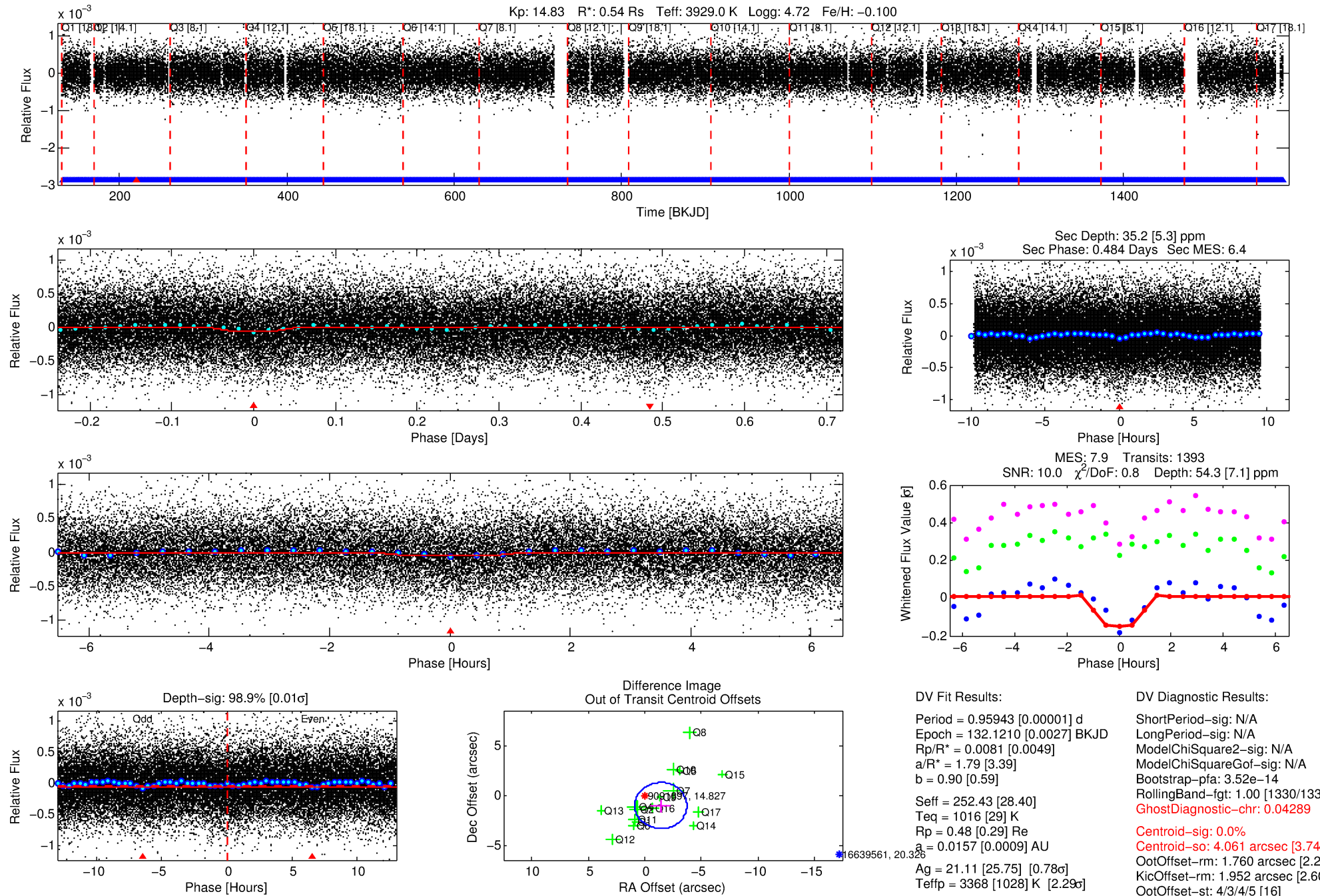
Ephemeris Match Information For 009091897-01

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
009091897-01	9091897	009091810-pri	9091810	2:1	84.9	16	-14	12.76	14.83	8920.40	Direct-PRF	0	2.70	0.62

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

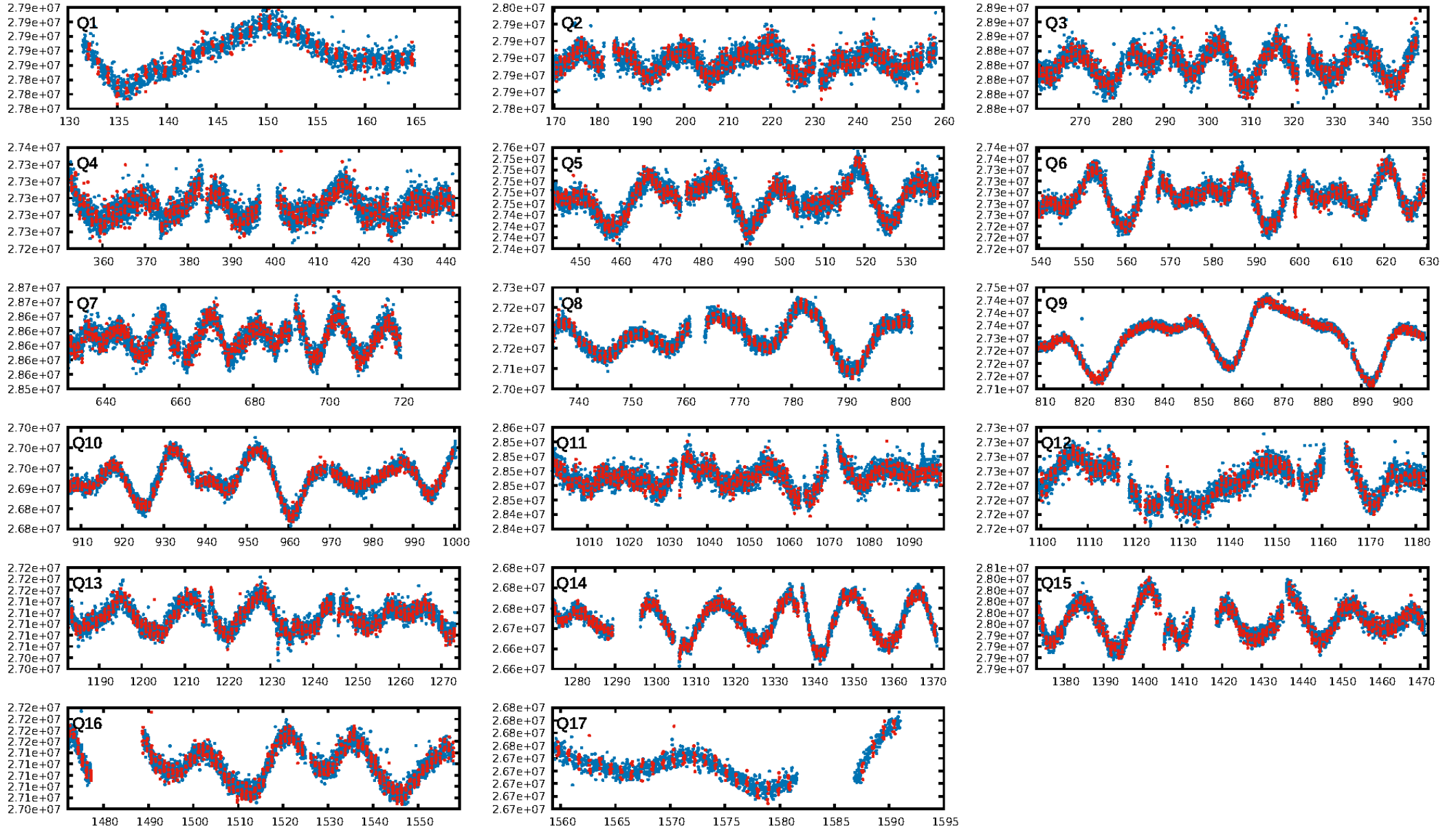
KIC: 9091897 Candidate: 1 of 1 Period: 0.959 d






Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 17:27:40 Z

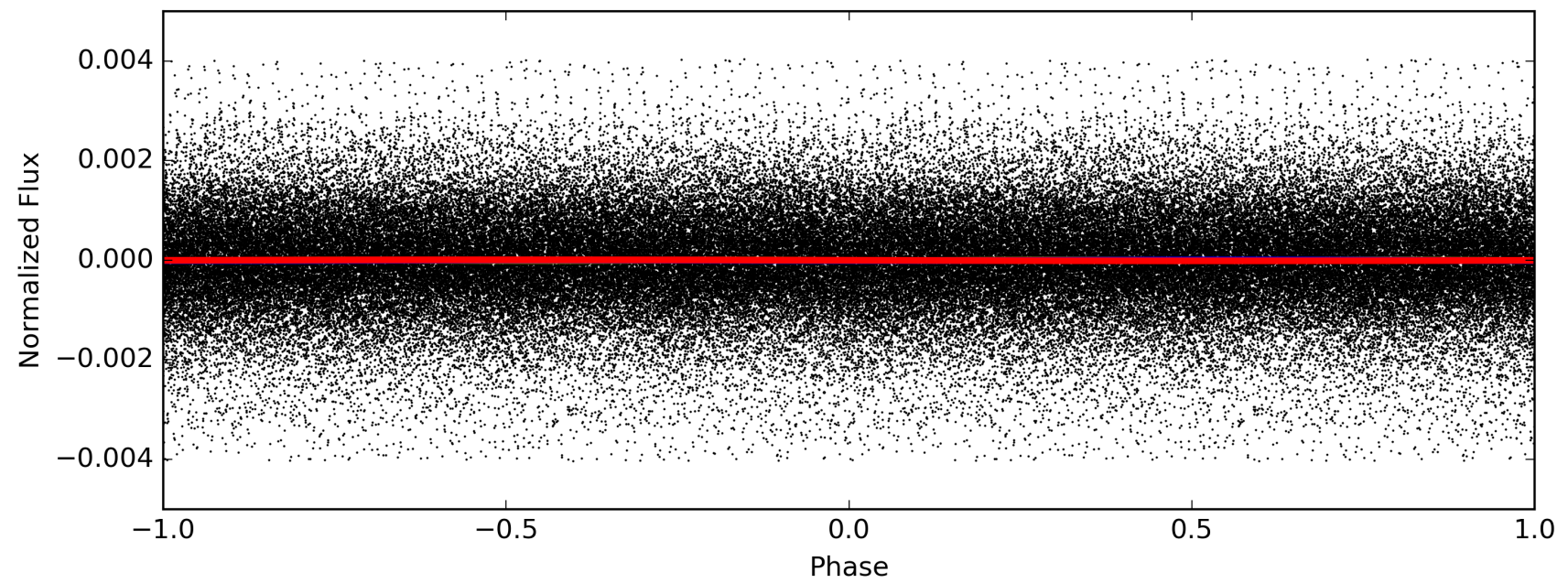
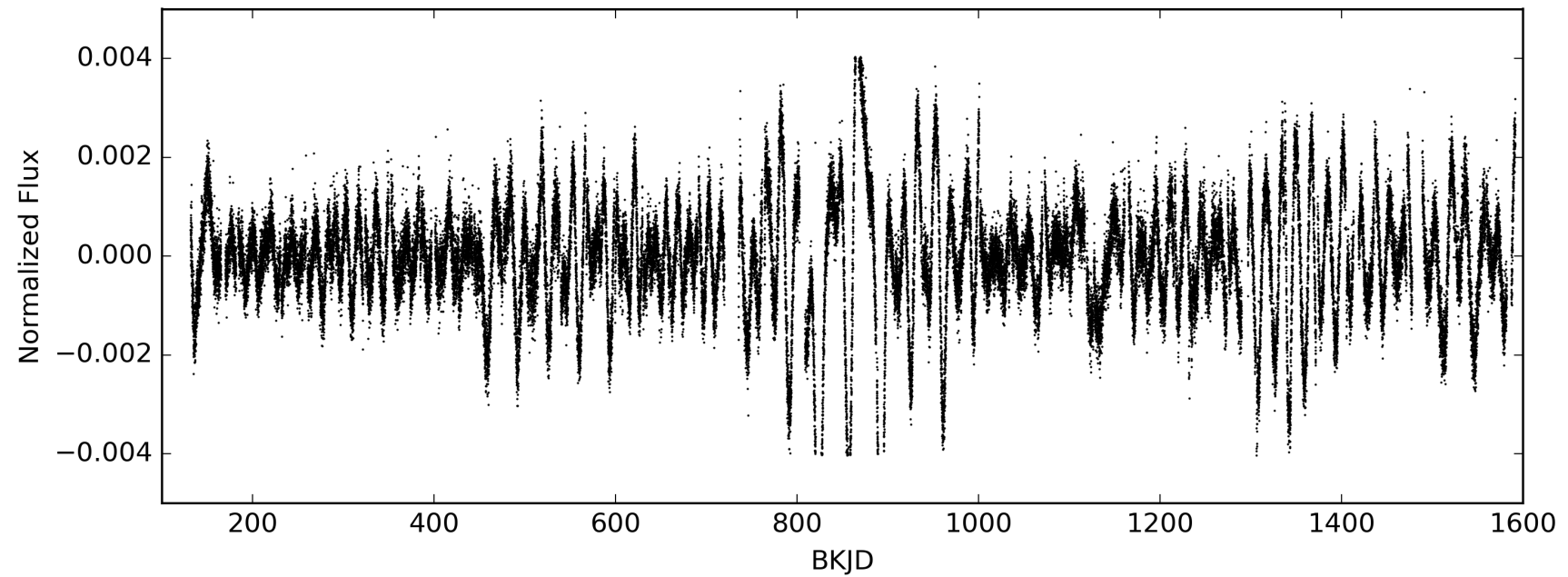
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 009091897-01, PDC Light Curves



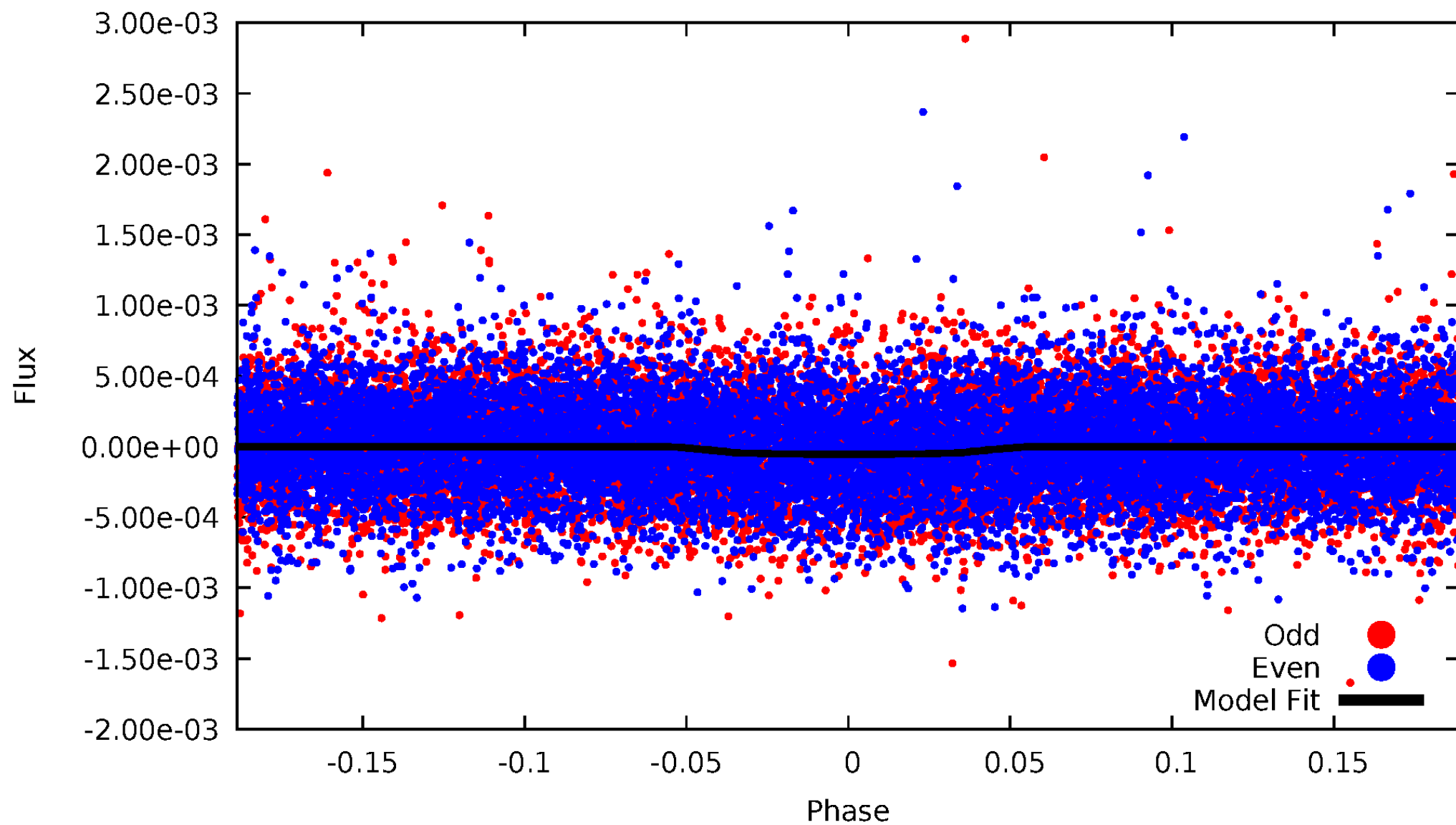
TCE 009091897-01

 P = 0.480 days  P = 0.959 days  P = 1.919 days



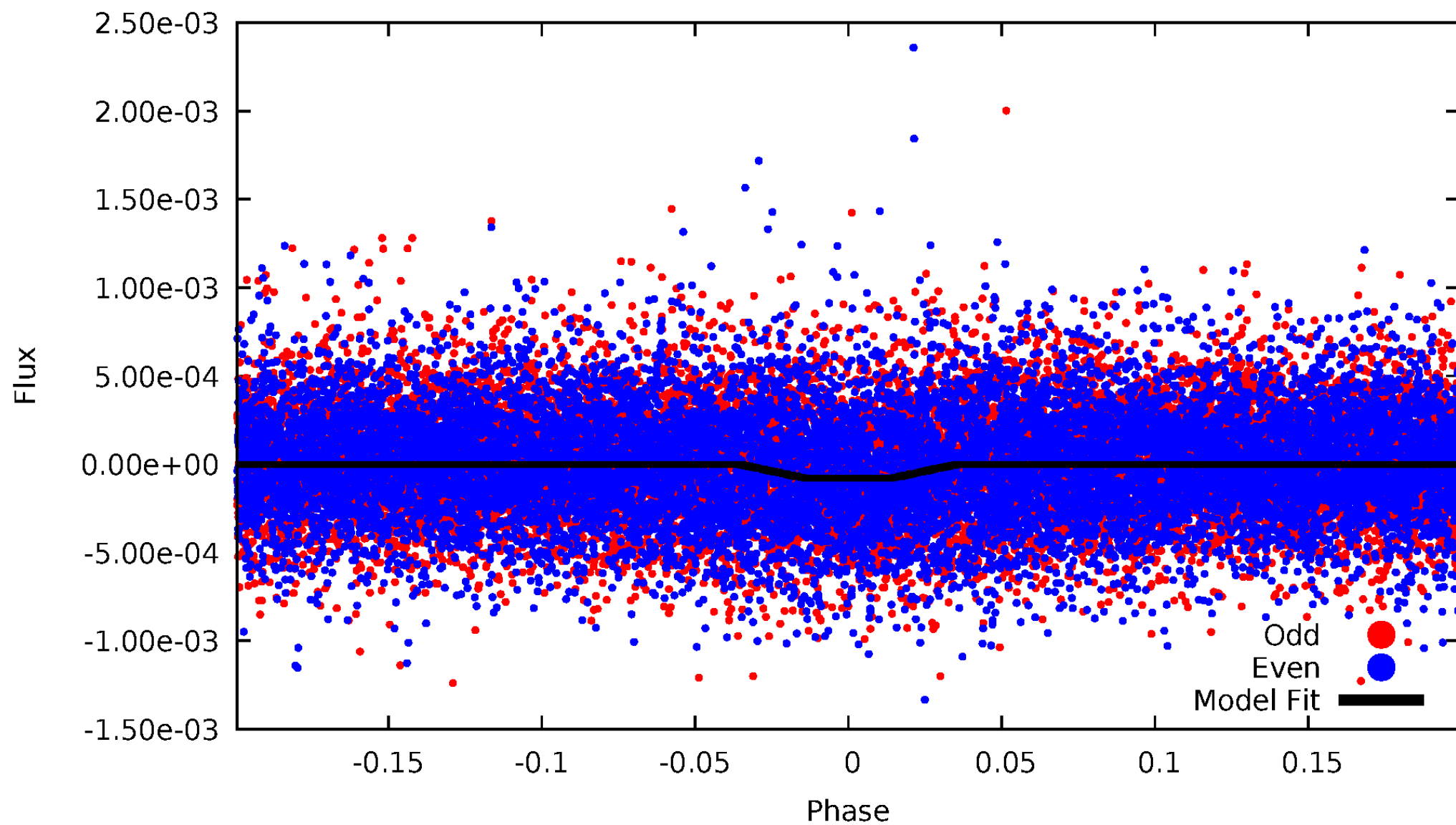
DV Odd/Even

TCE 009091897-01



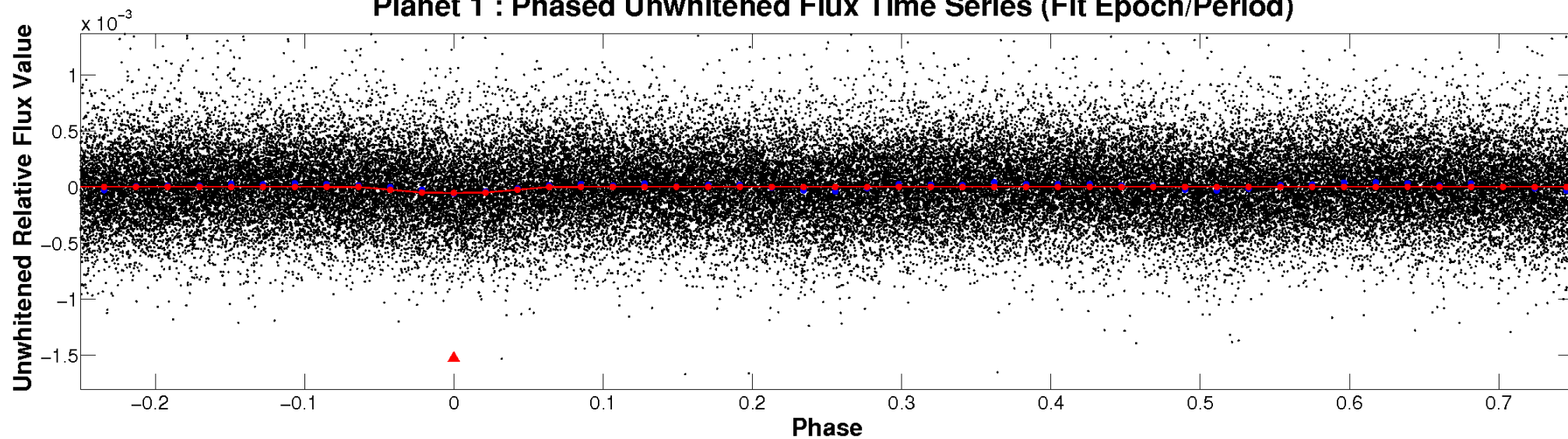
ALT Odd/Even

TCE 009091897-01

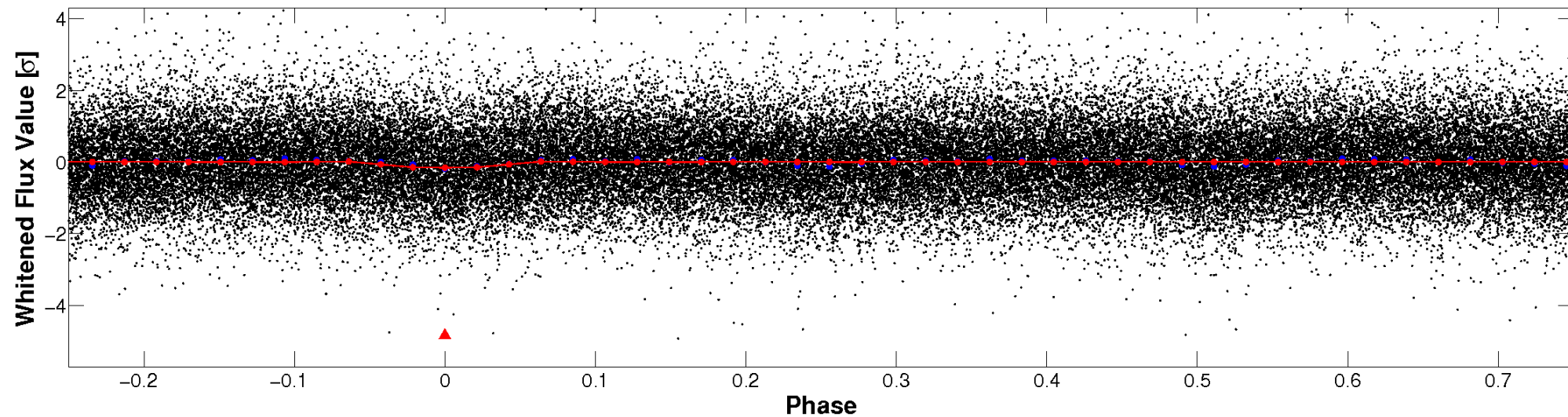


Non-Whitened Vs. Whitened Light Curve

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

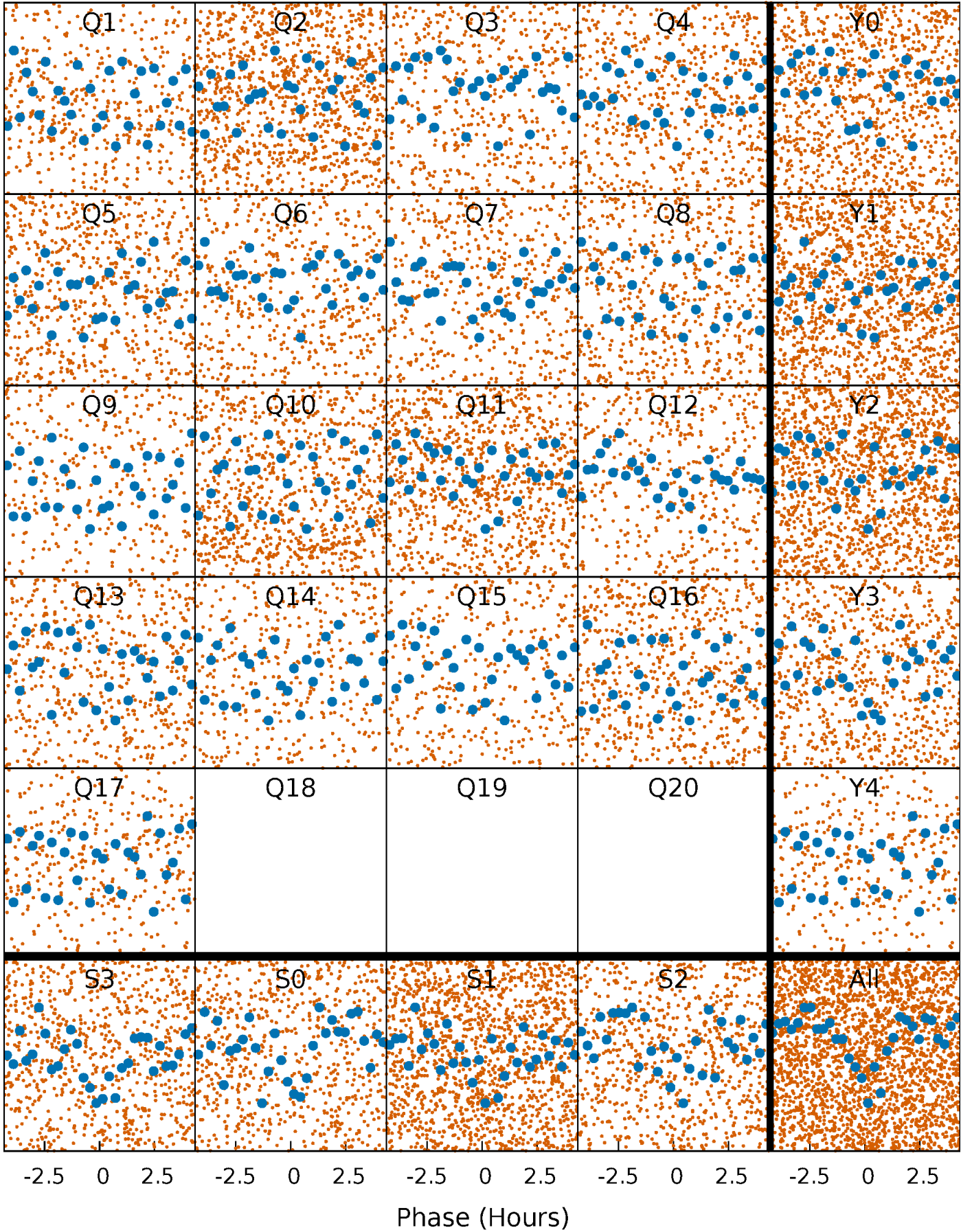


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



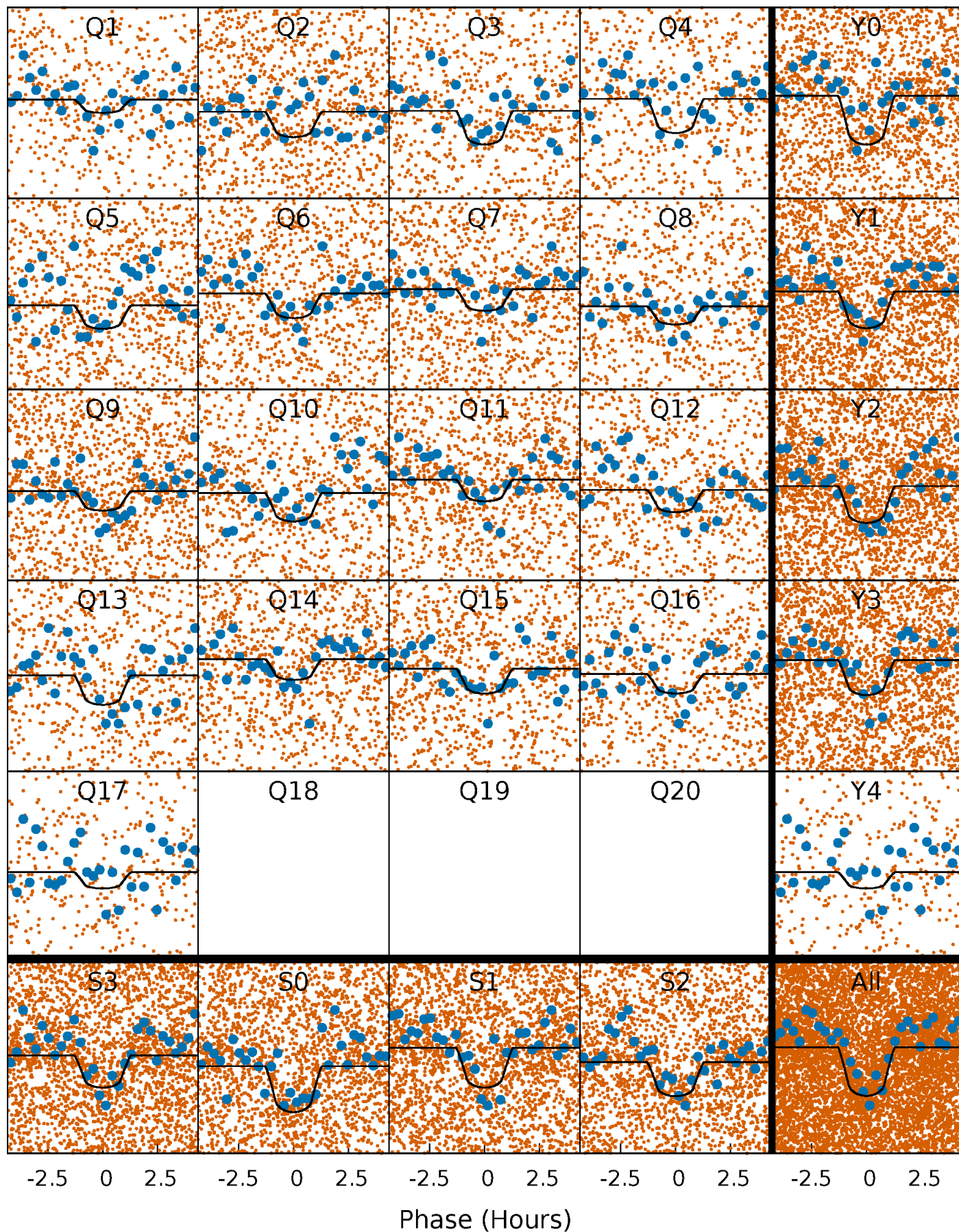
PDC Quarter-Phased Transit Curves

TCE 009091897-01 P= 0.959432 Days $T_0=132.121019$ (BKJD)



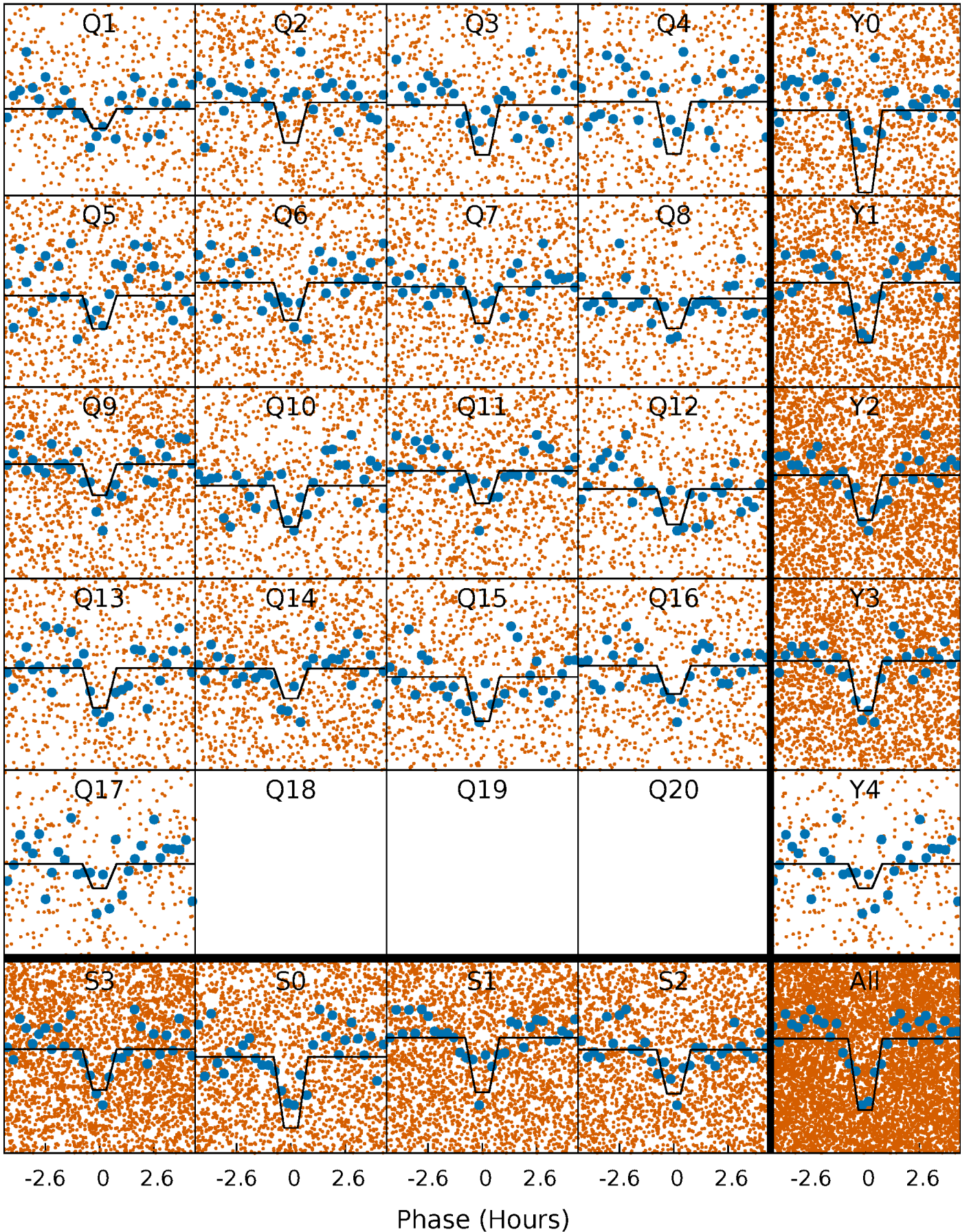
DV Quarter-Phased Transit Curves

TCE 009091897-01 P= 0.959432 Days $T_0=132.121019$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

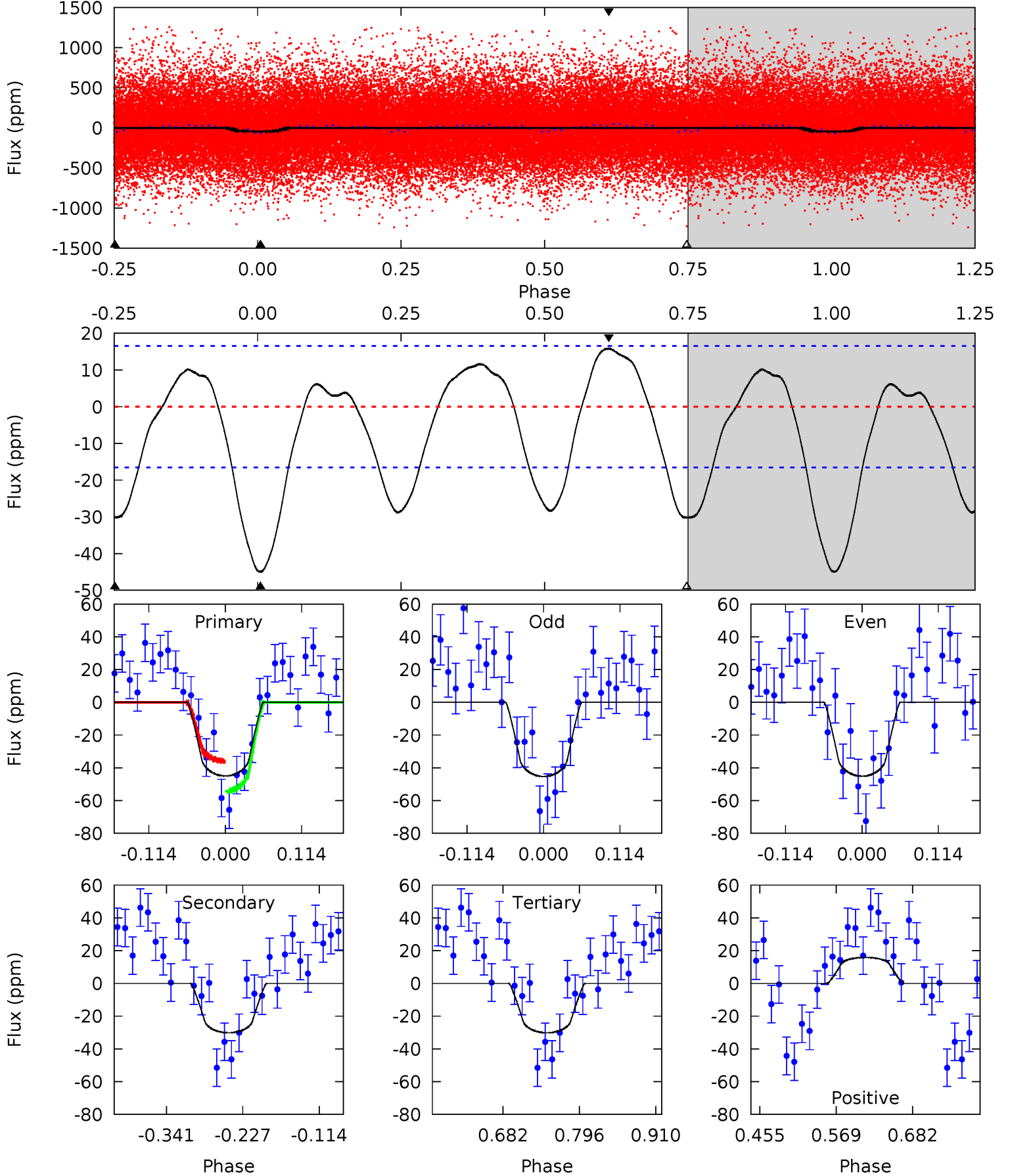
TCE 009091897-01 P= 0.959440 Days $T_0=132.120526$ (BKJD)



DV Model-Shift Uniqueness Test

009091897-01, P = 0.959432 Days, E = 131.161587 Days

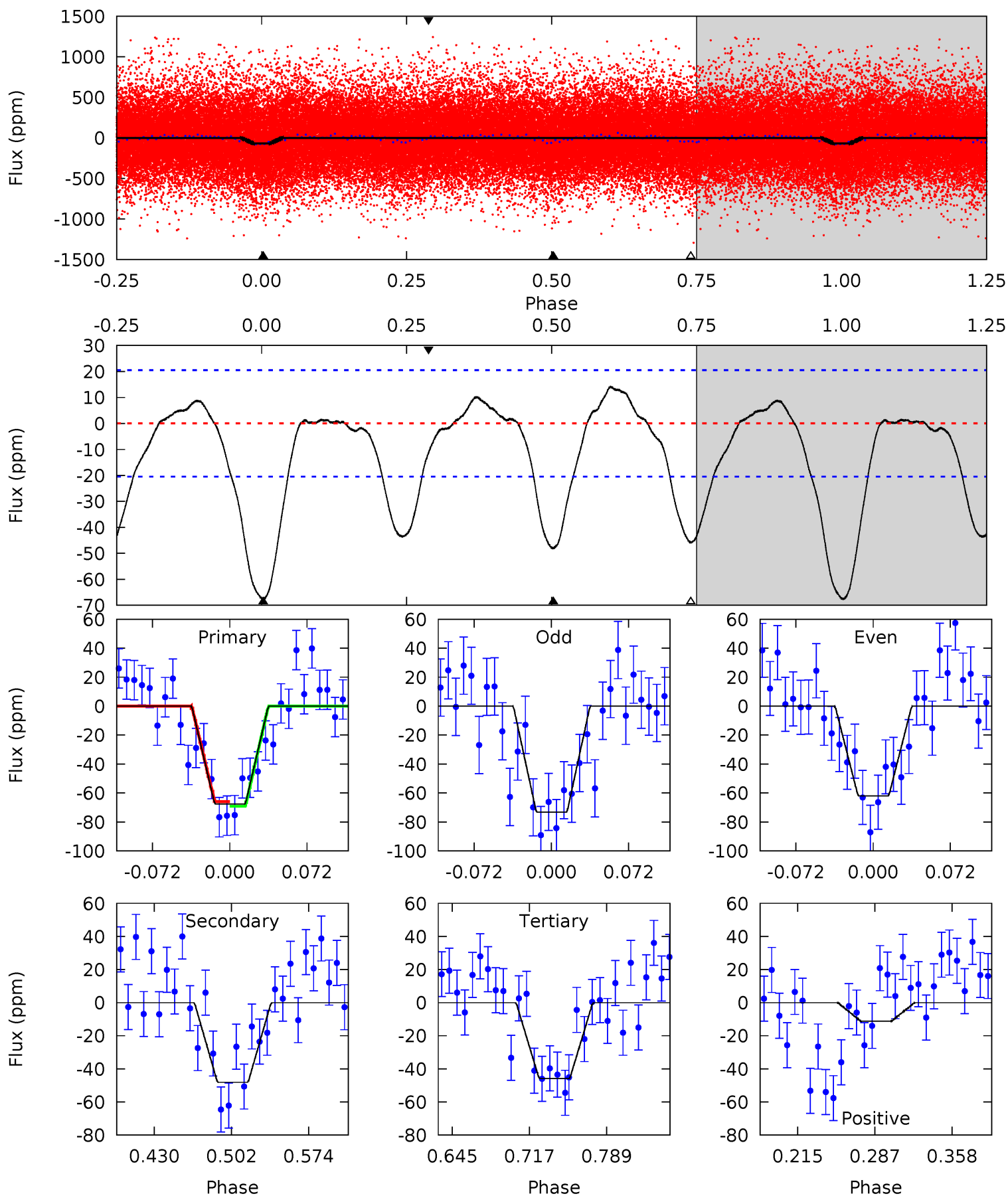
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.3	8.27	8.26	4.34	4.54	1.58	3.99	4.06	7.99	0.00	3.93	0.03	0.87	0.26	2.51



Alt Model-Shift Uniqueness Test

009091897-01, P = 0.959440 Days, E = 131.161086 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.3	10.9	10.4	-2.55	4.63	1.80	3.70	4.92	17.8	0.51	13.4	1.27	0.86	0.17	0.36



Stellar Parameters For KIC 009091897

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3929^{+78}_{-86}	$4.723^{+0.030}_{-0.033}$	$-0.100^{+0.200}_{-0.200}$	$0.541^{+0.036}_{-0.040}$	$0.564^{+0.032}_{-0.045}$	$5.022^{+0.749}_{-0.652}$
	+2%/-2%	+1%/-1%	+200%/-200%	+7%/-7%	+6%/-8%	+15%/-13%
Source	PHO2	PHO2	PHO2	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 009091897-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-30 ± 4	$0.51^{+0.30}_{-0.27}$	1421^{+35}_{-39}	3384^{+990}_{-449}	16^{+55}_{-10}
Alt.	-48 ± 4	$0.55^{+0.28}_{-0.28}$	1420^{+36}_{-34}	3546^{+965}_{-427}	21^{+65}_{-12}

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 $A_{obs} \gg 1.0$

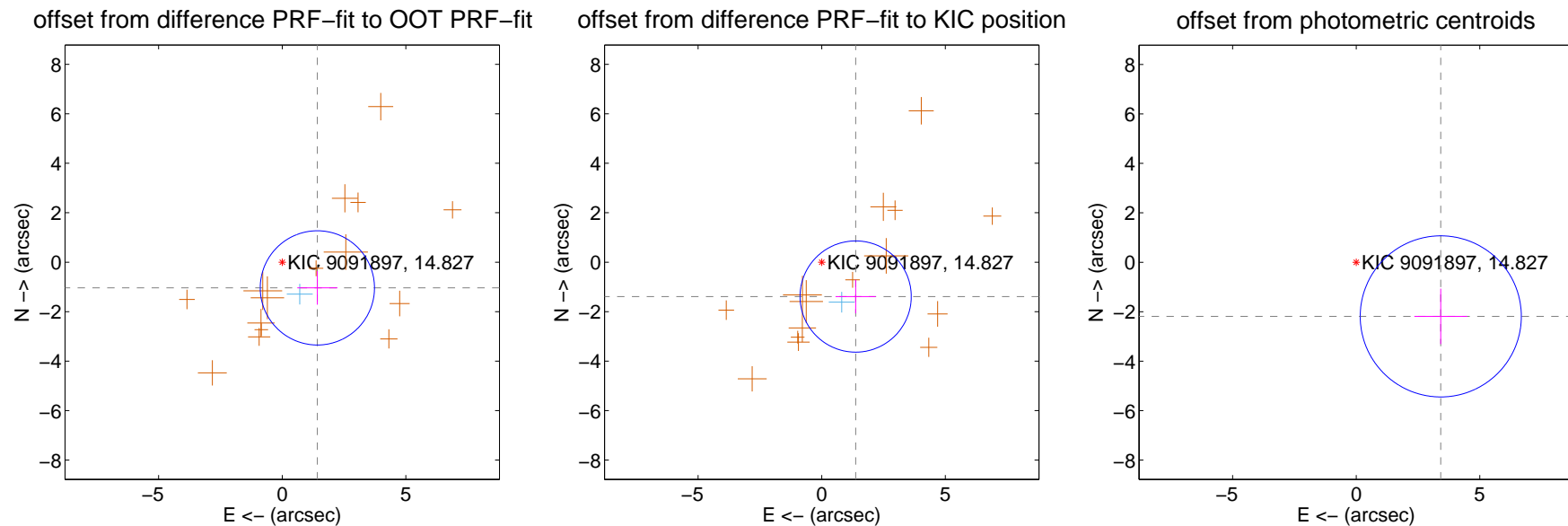
DV Centroid Data

Supplemental centroid analysis for 009091897-01. Kepler magnitude: 14.83. Transit SNR 10.00

There are 1 quarters with good PRF difference image offsets

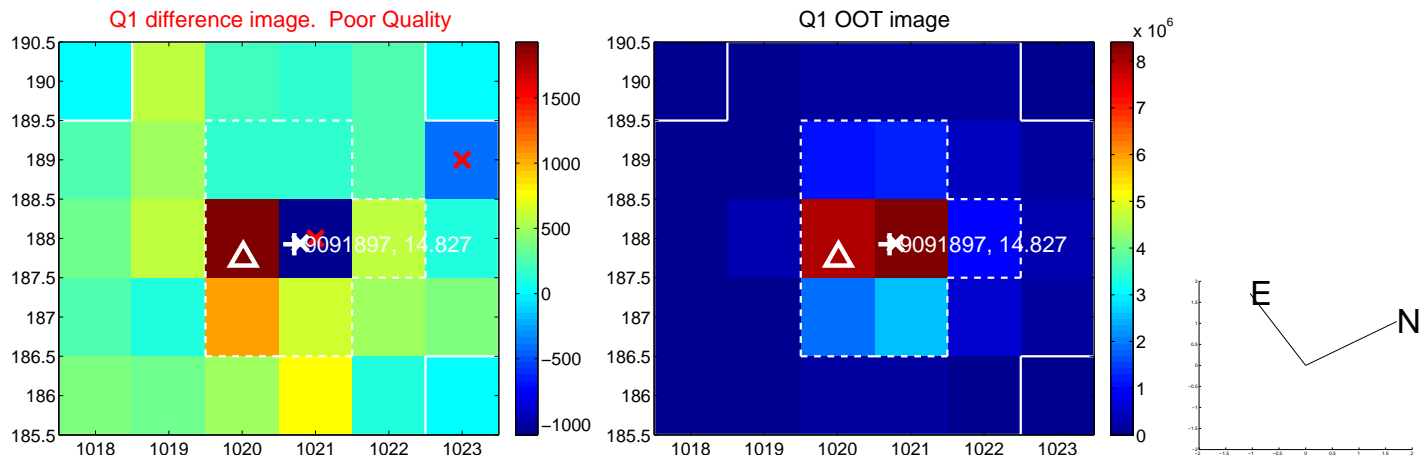
The direct PRF centroid is offset from the target star catalog position by about 0.42 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.760 ± 0.770	2.29	-1.421 ± 0.813	-1.039 ± 0.681
PRF-fit source offset from KIC position	1.952 ± 0.750	2.60	-1.372 ± 0.814	-1.389 ± 0.680
photometric centroid source offset	4.06 ± 1.09	3.74	-3.42 ± 1.07	-2.19 ± 1.12

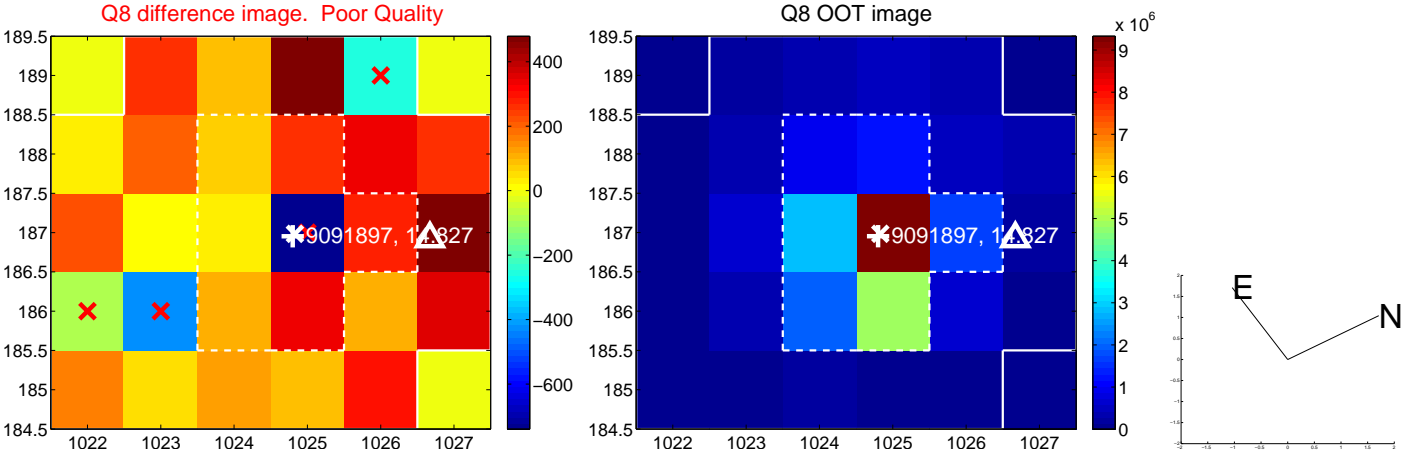
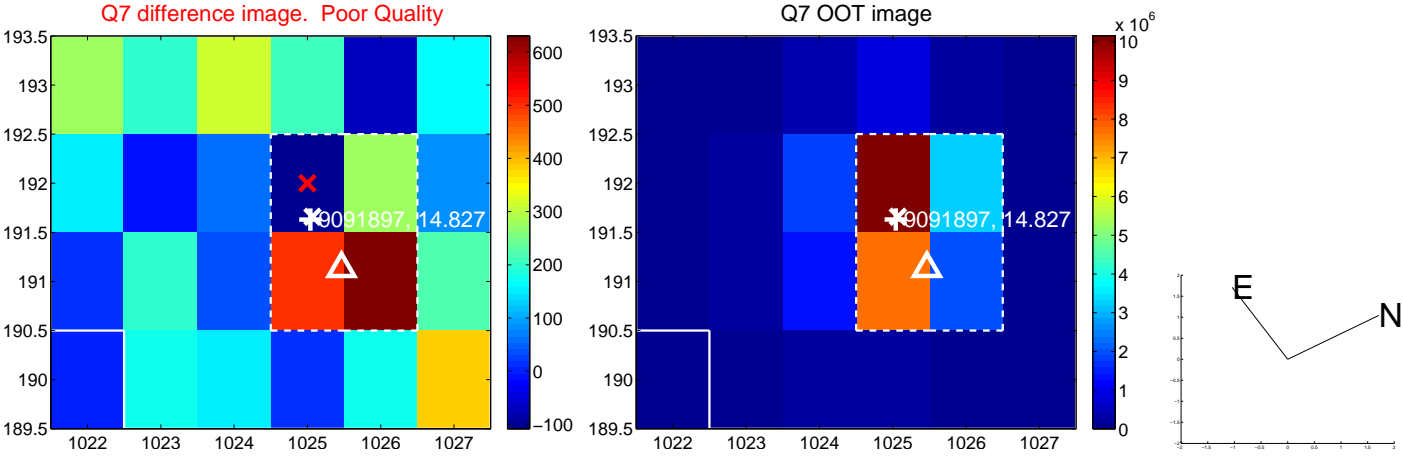
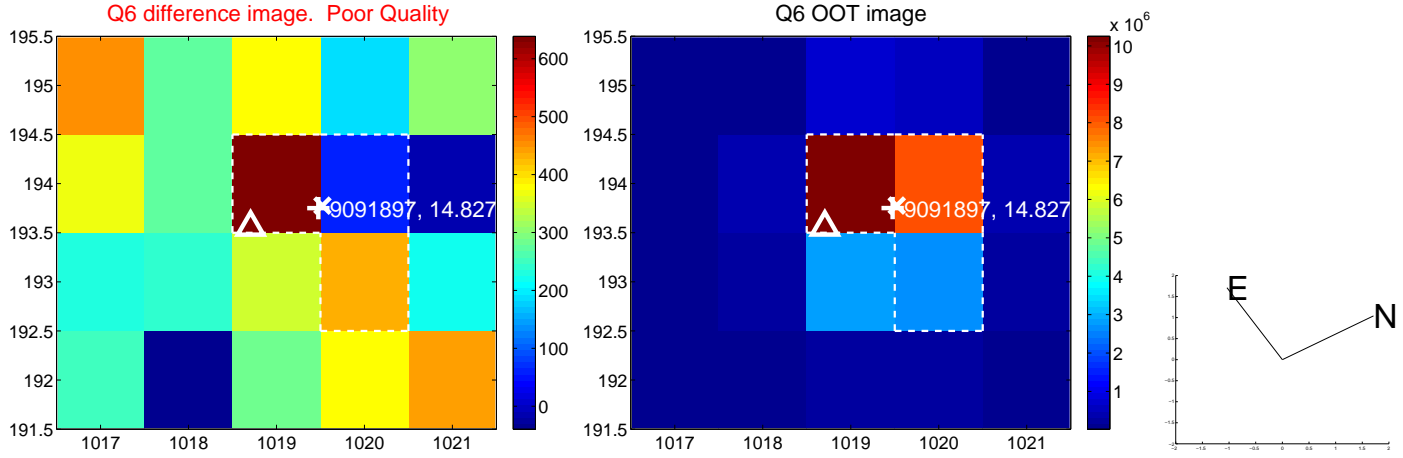
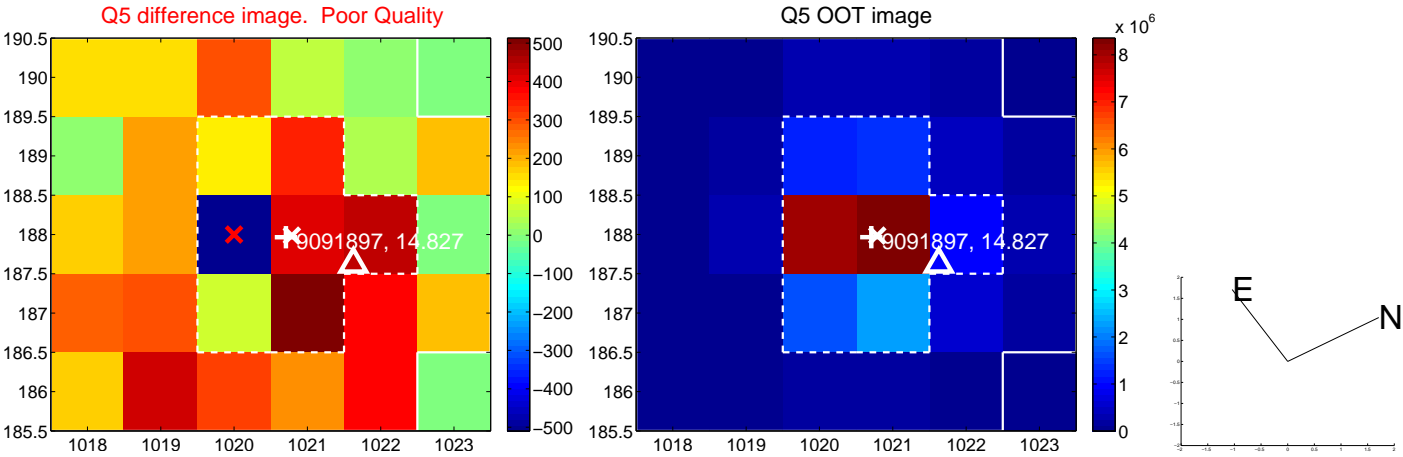


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

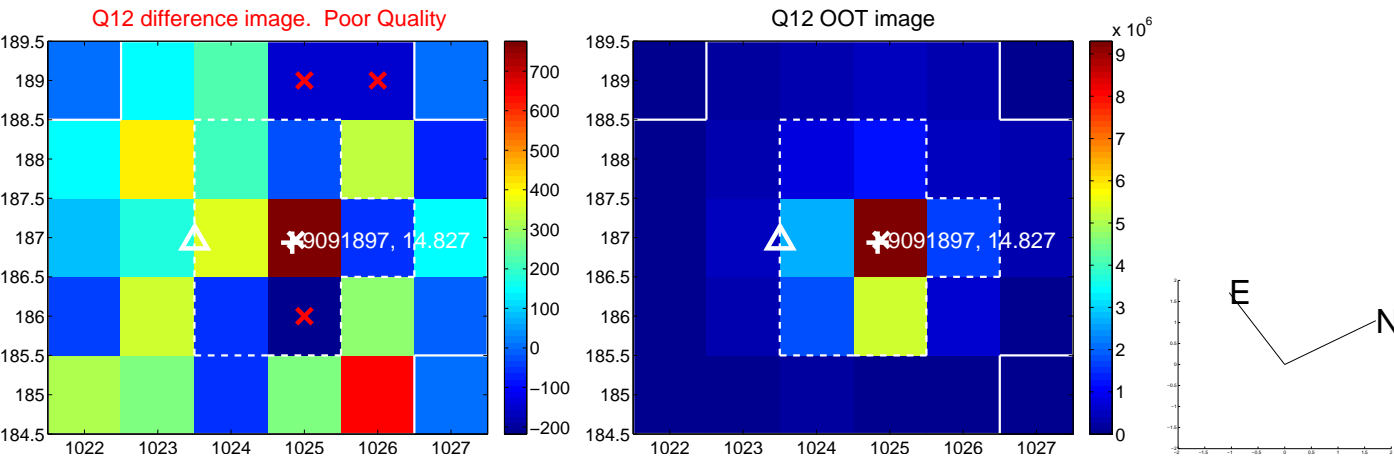
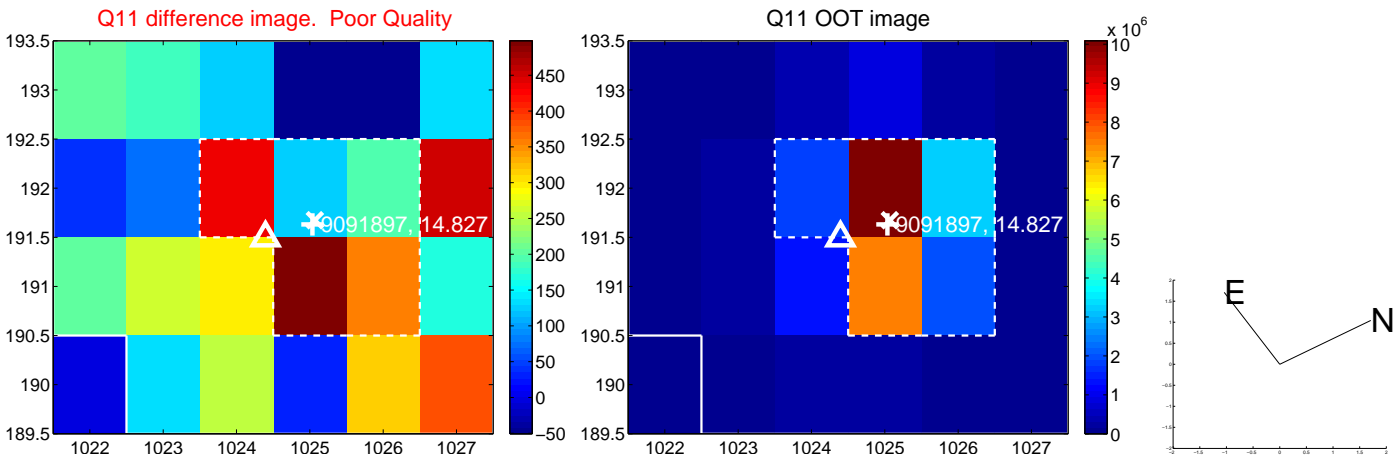
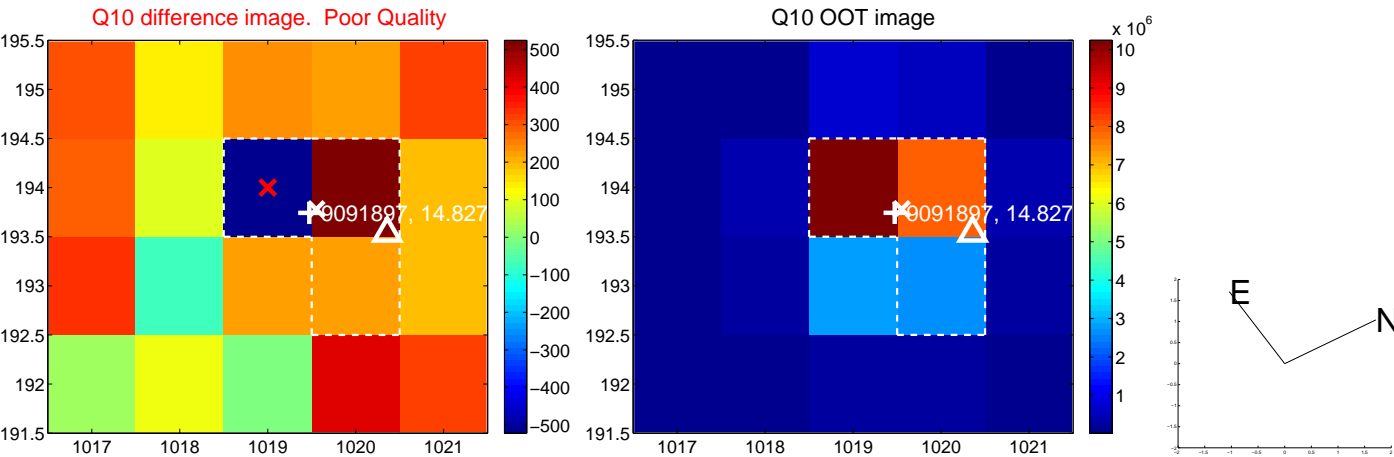
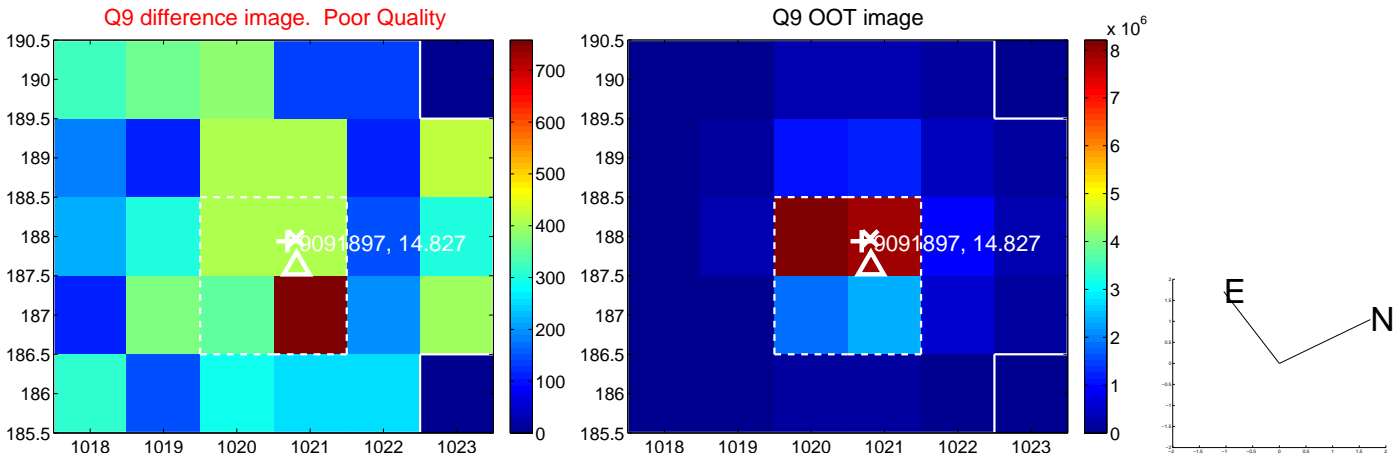
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



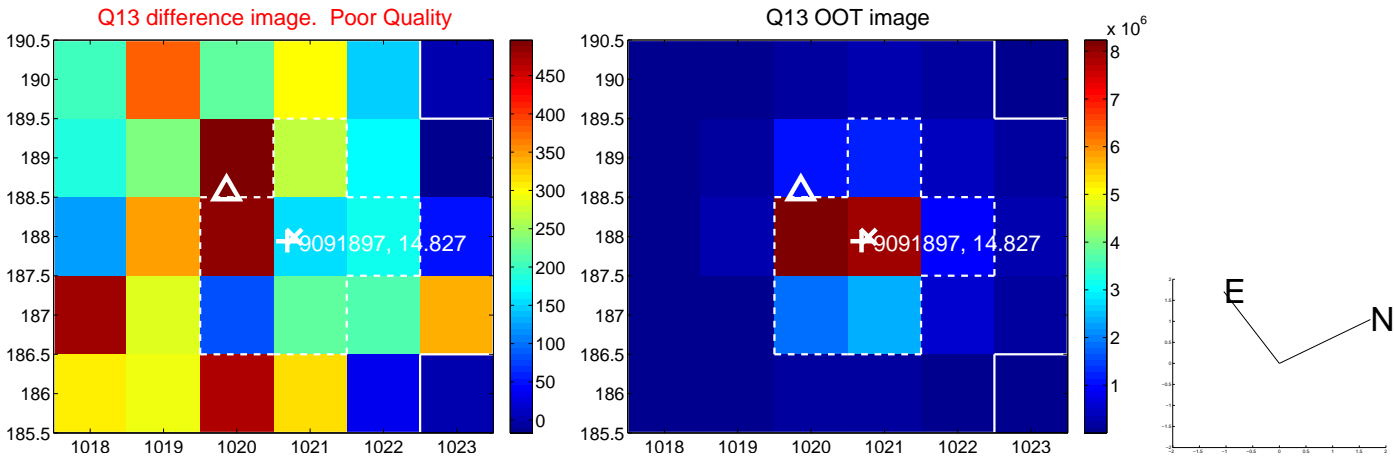
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



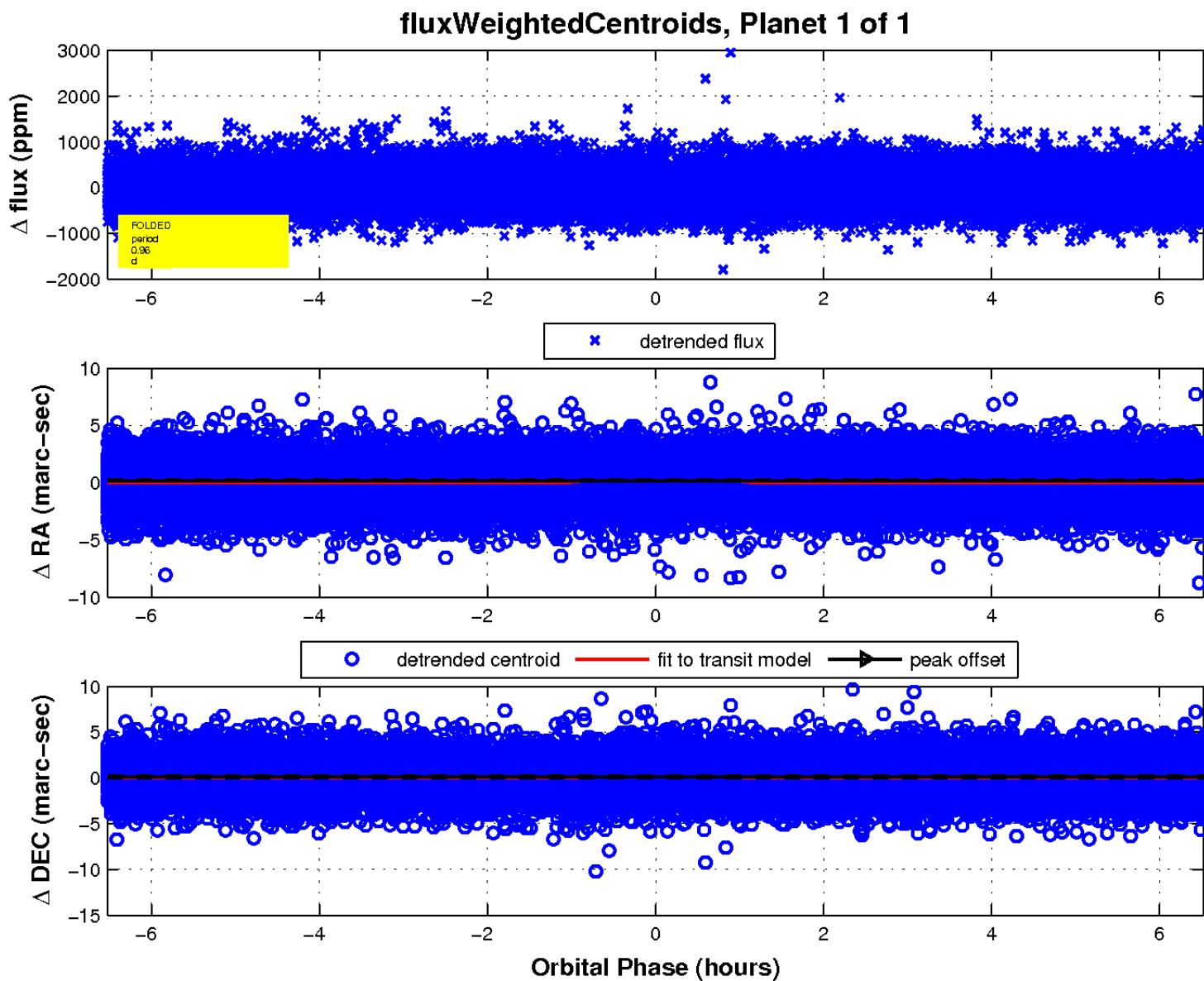
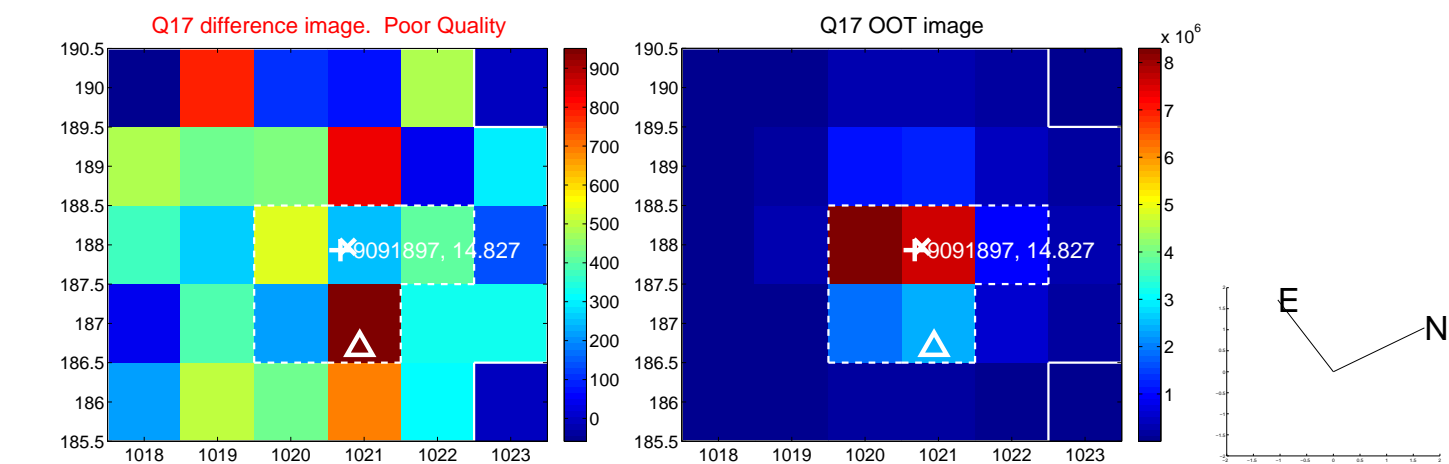
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UKIRT Image

Declination

