

KIC 008712760

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})
008712760-01	OBS	No	0.600575	131.716417	60.5	1.311	8.0	11.3	4.01	7392	3.25	0.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008712760-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

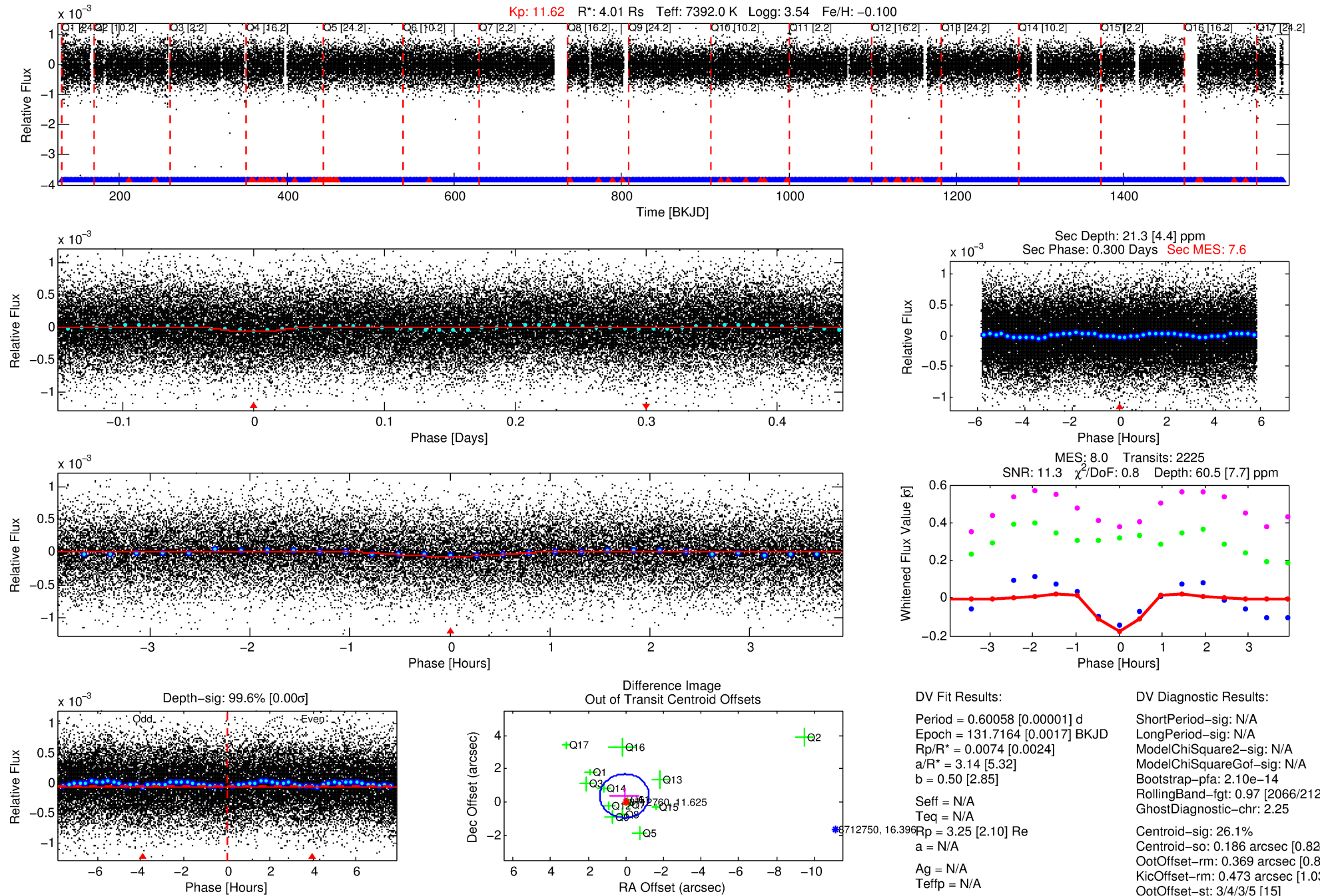
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008712760-01

No Significant Match Found

DV One-Page Summary

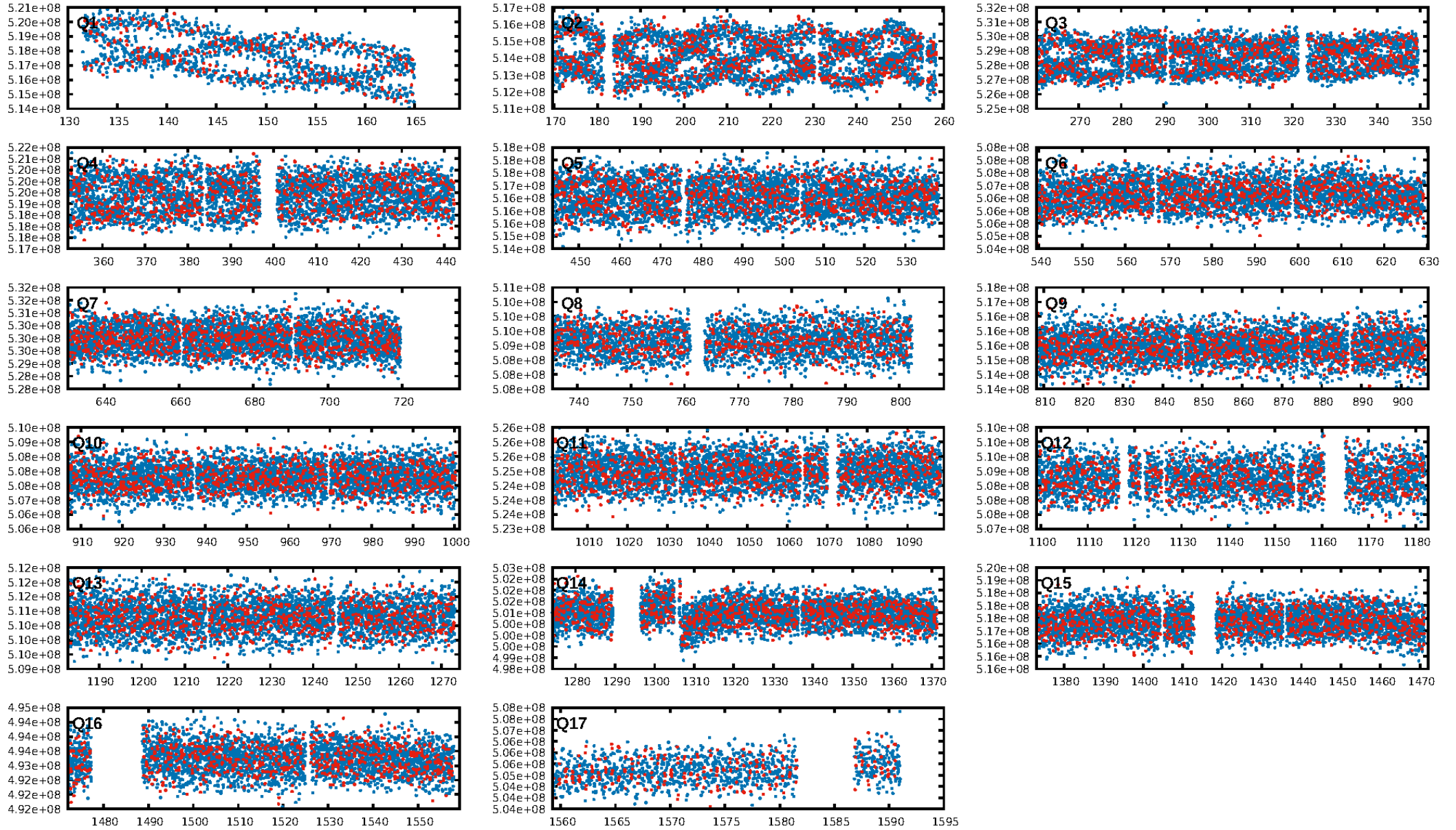
KIC: 8712760 Candidate: 1 of 1 Period: 0.601 d



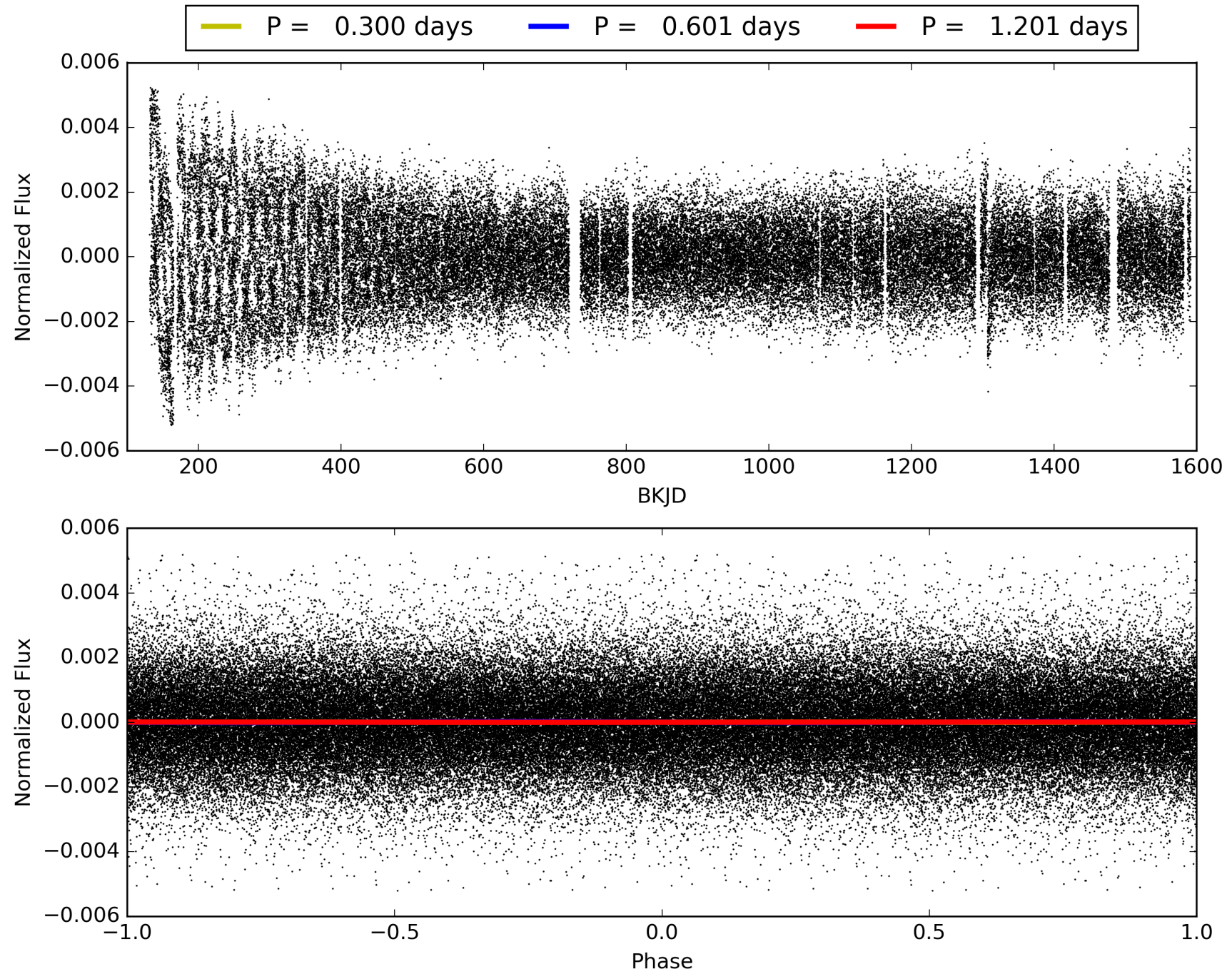
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 19:13:04 Z

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

TCE 008712760-01, PDC Light Curves

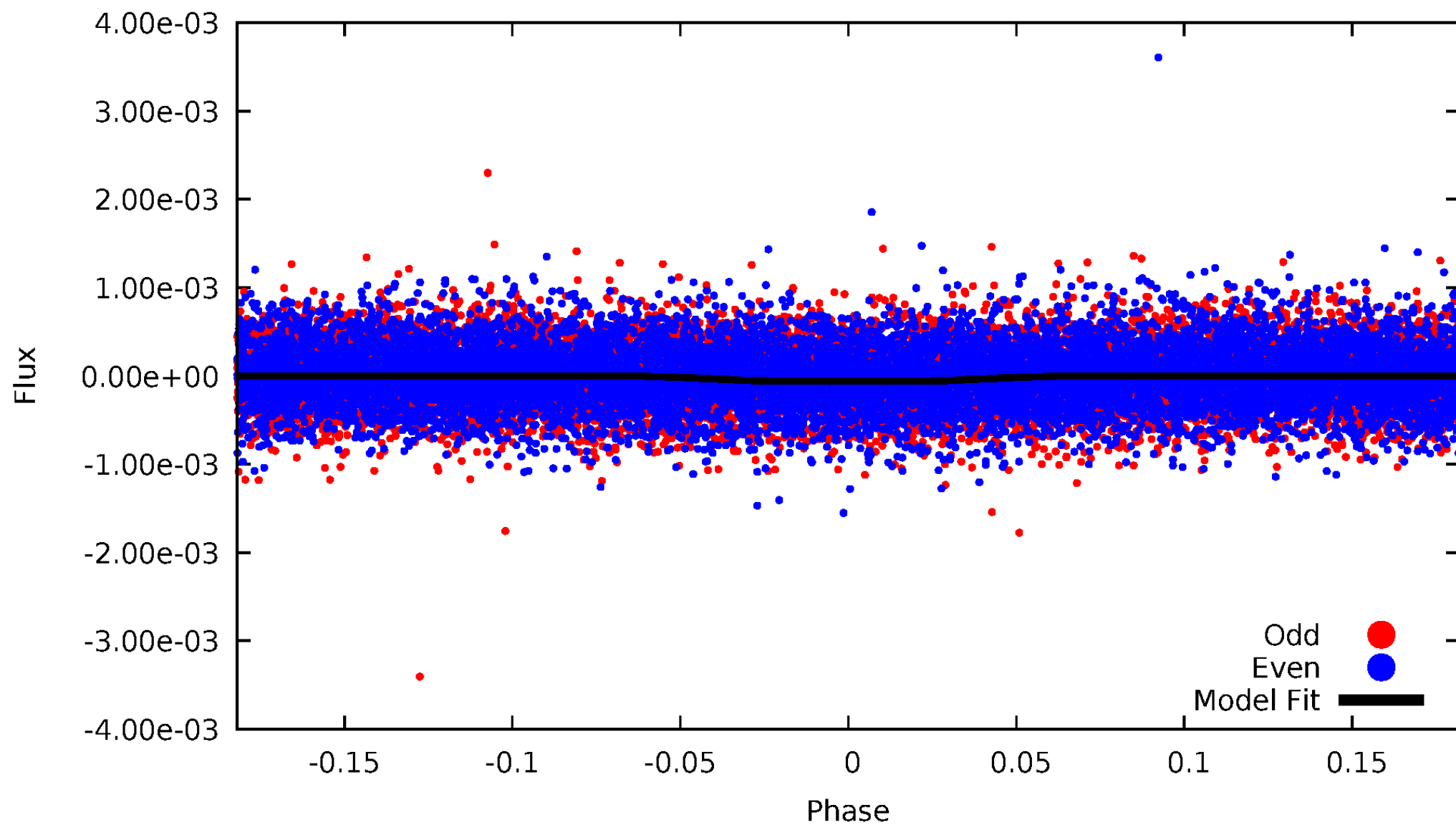


TCE 008712760-01



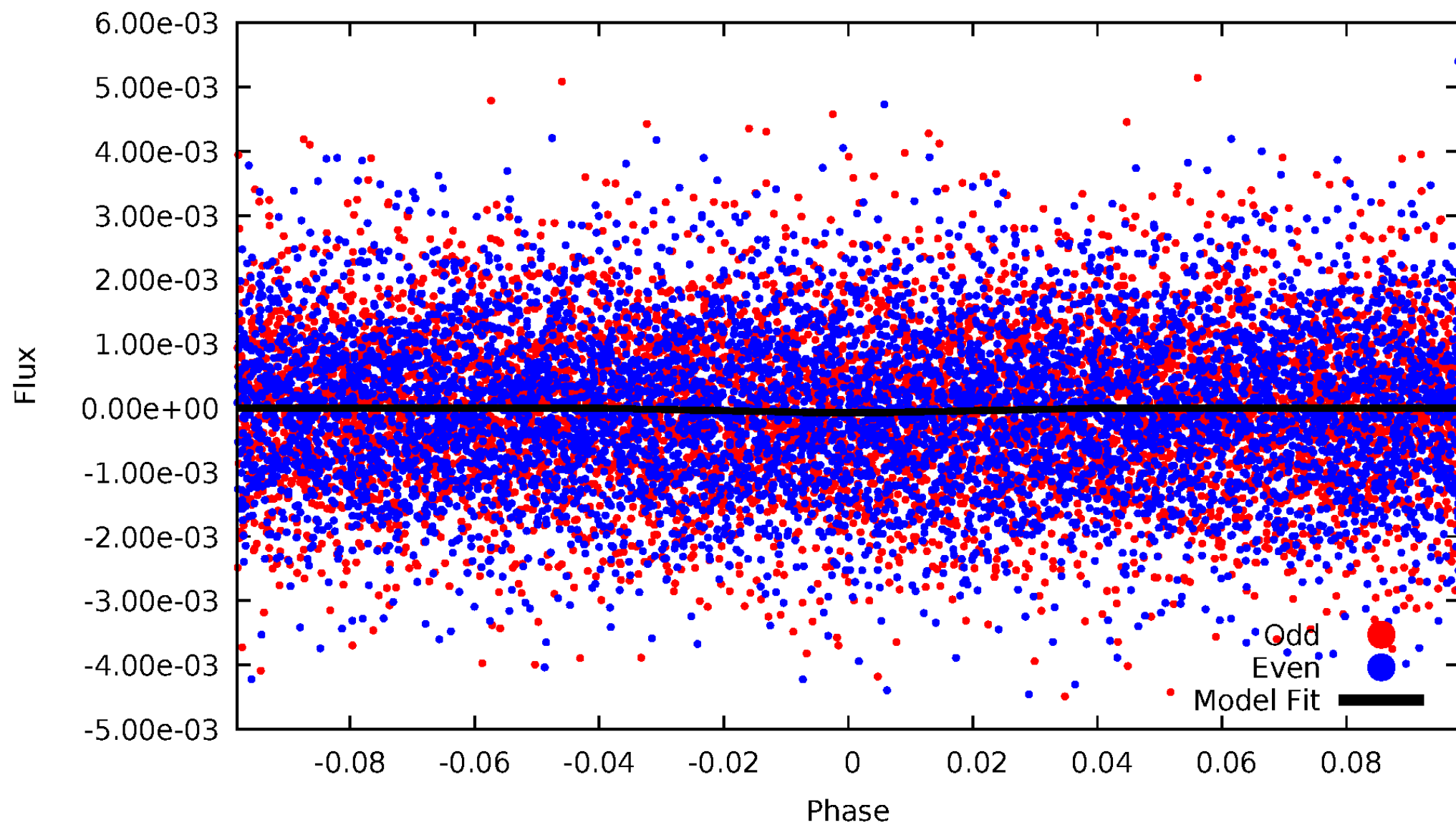
DV Odd/Even

TCE 008712760-01



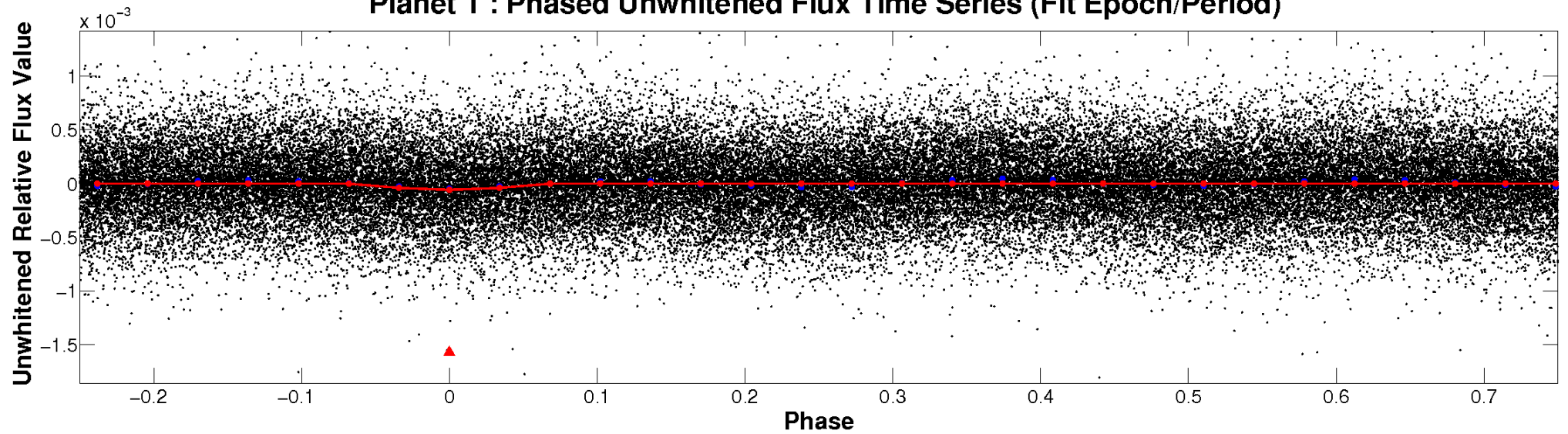
ALT Odd/Even

TCE 008712760-01

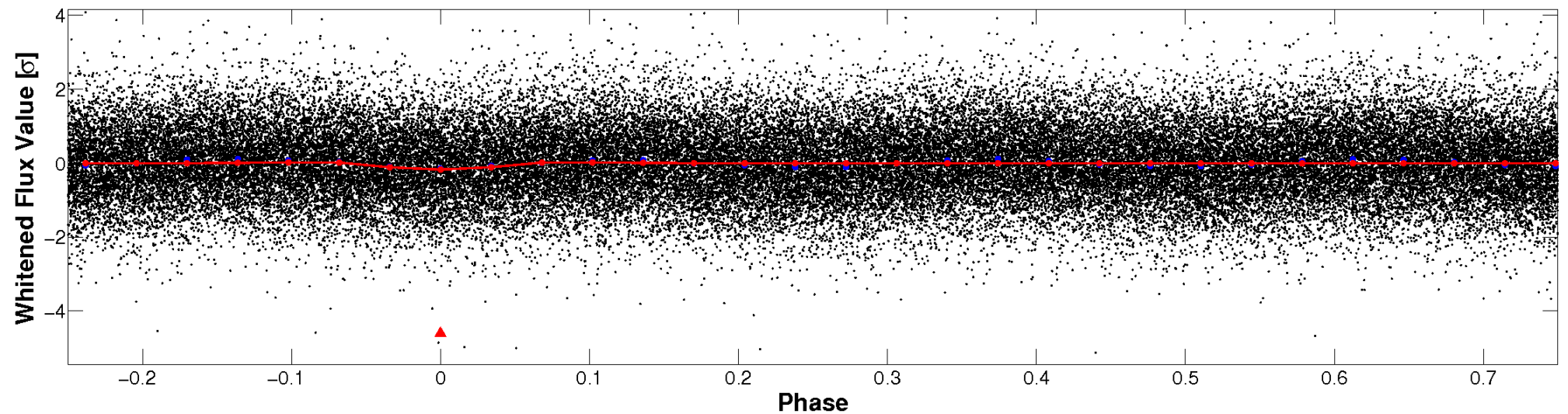


Non-Whitened Vs. Whitened Light Curve

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

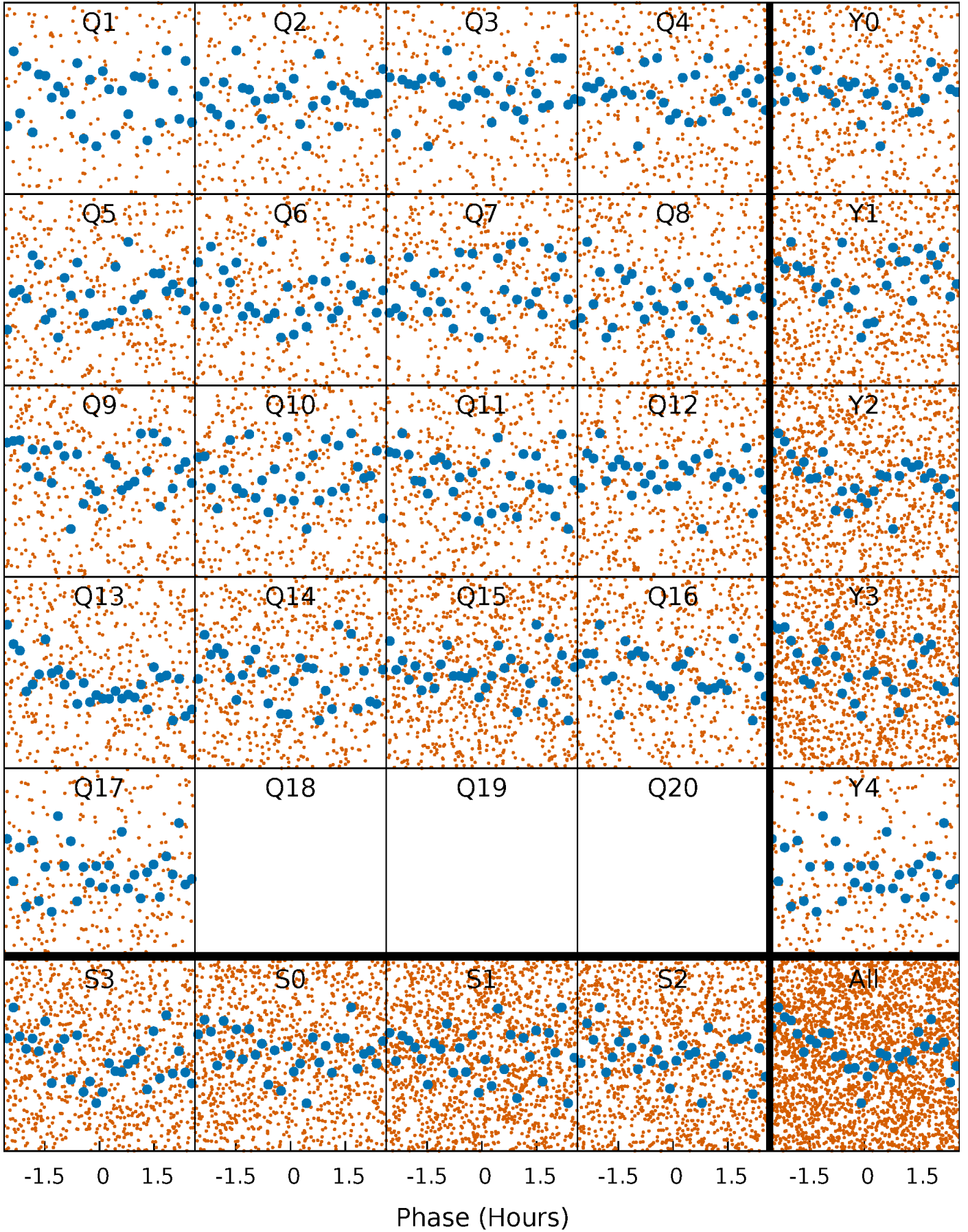


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



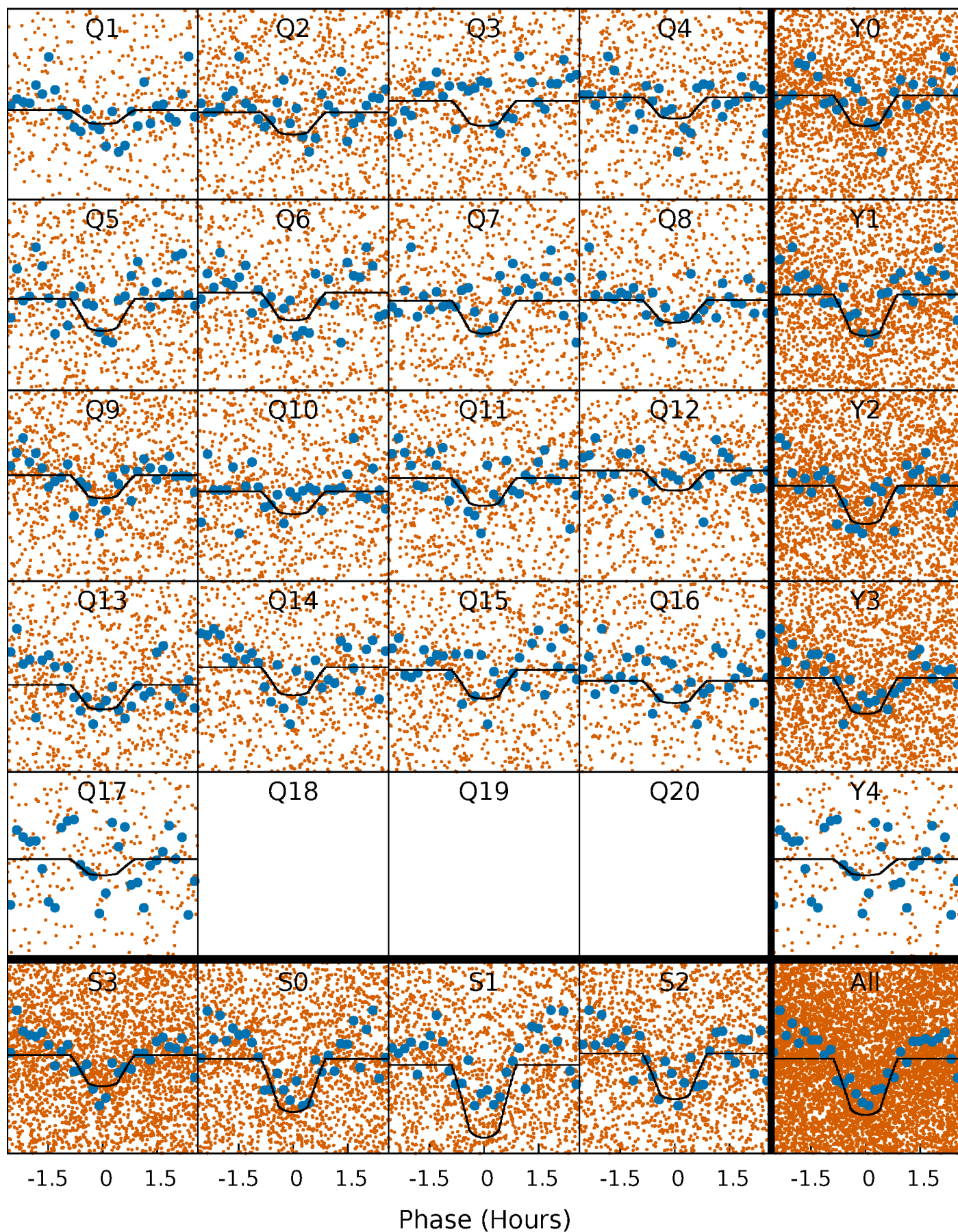
PDC Quarter-Phased Transit Curves

TCE 008712760-01 P= 0.600575 Days $T_0=131.716417$ (BKJD)



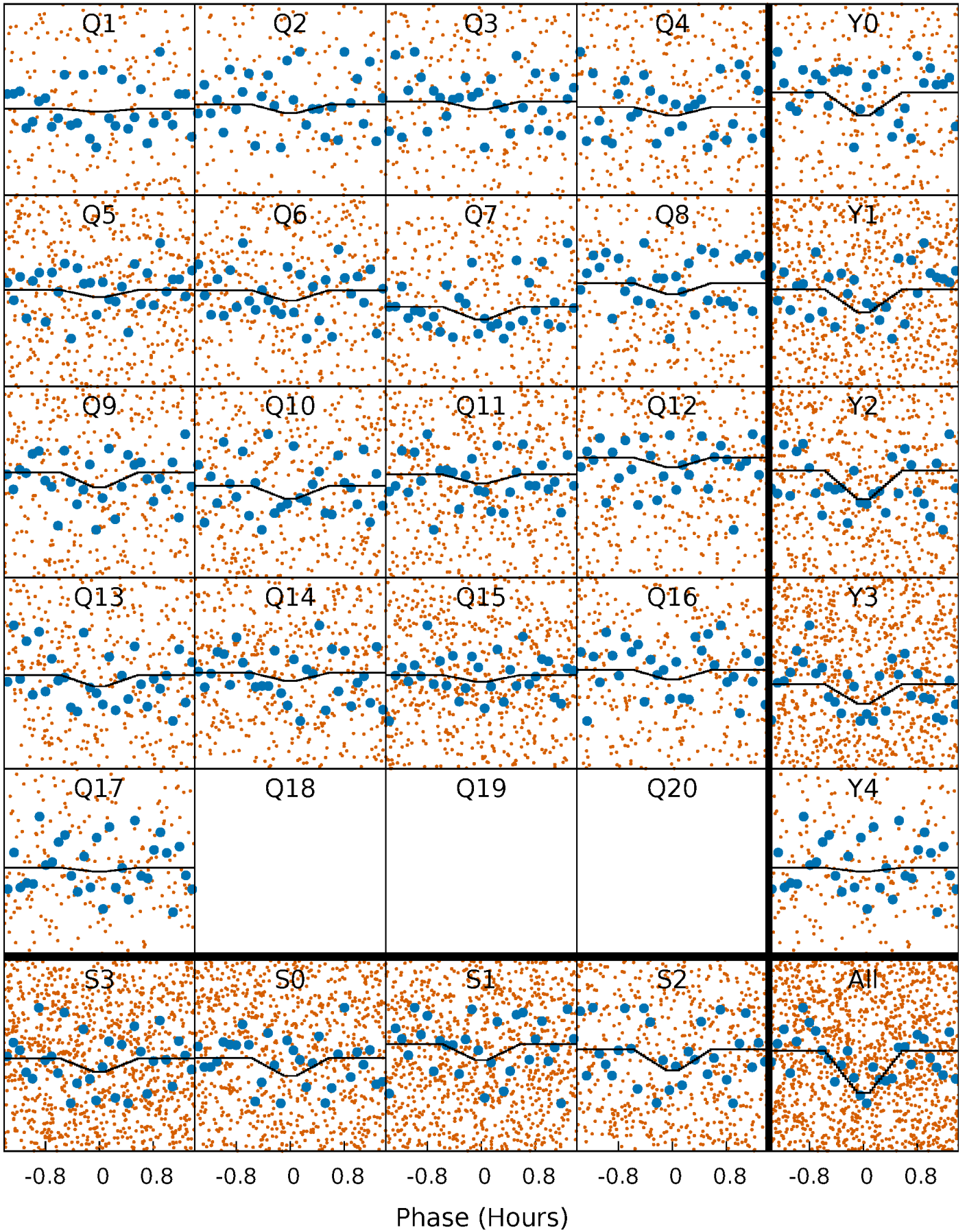
DV Quarter-Phased Transit Curves

TCE 008712760-01 P= 0.600575 Days $T_0=131.716417$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

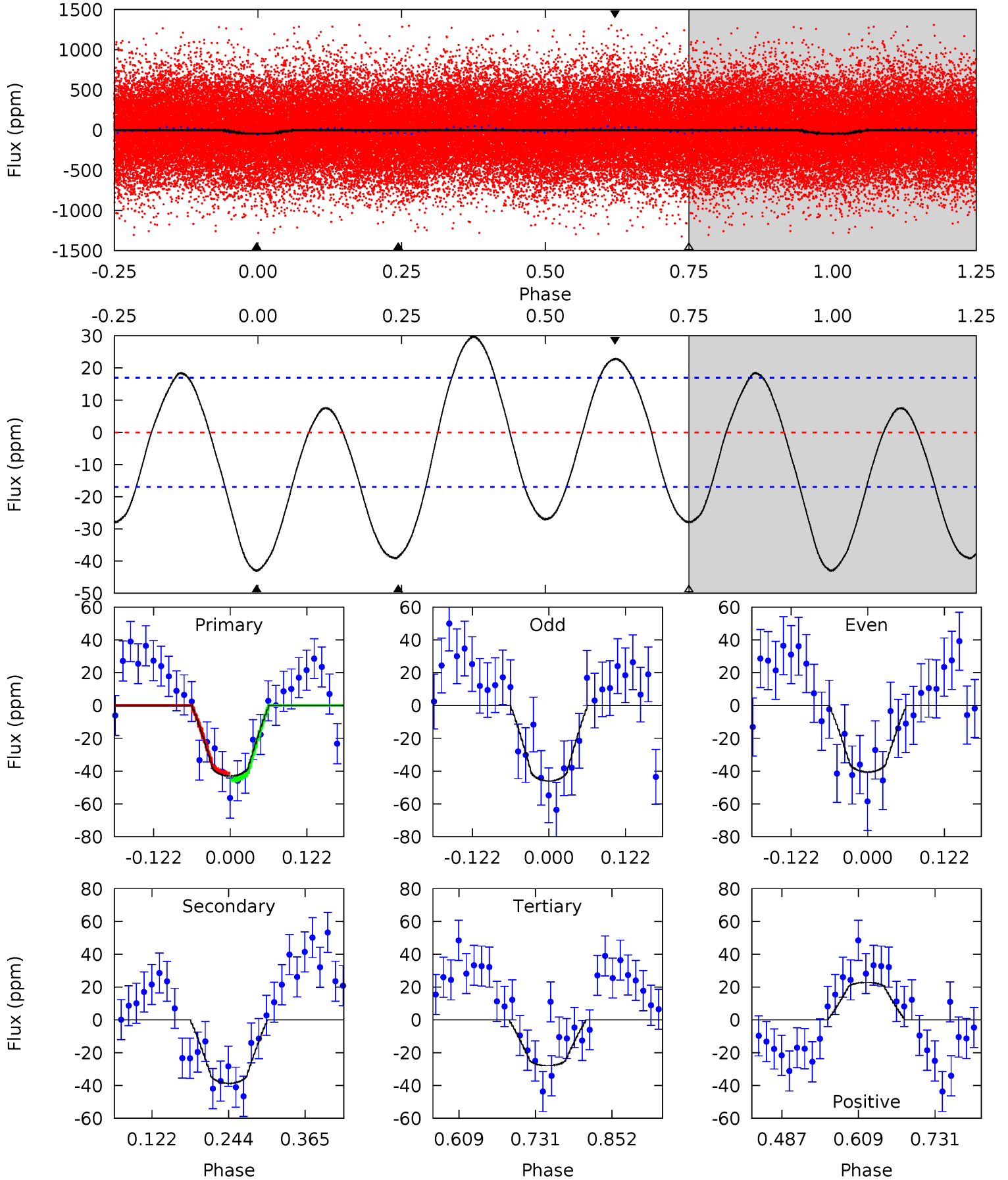
TCE 008712760-01 P= 0.600571 Days $T_0=131.715651$ (BKJD)



DV Model-Shift Uniqueness Test

008712760-01, P = 0.600575 Days, E = 131.115842 Days

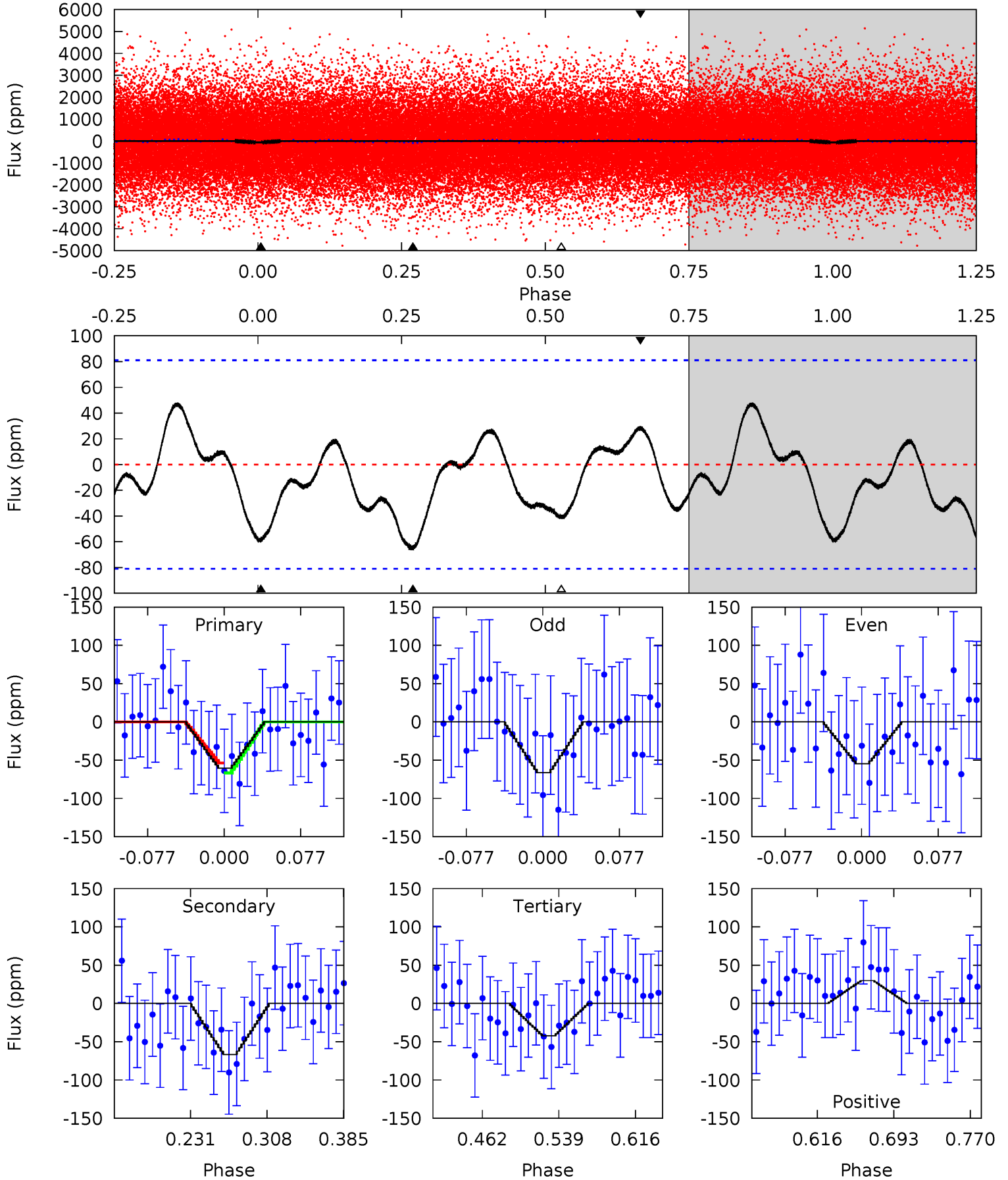
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.5	10.3	7.47	6.11	4.52	1.55	4.95	4.02	5.39	2.87	4.23	0.74	0.98	0.41	0.54



Alt Model-Shift Uniqueness Test

008712760-01, P = 0.600571 Days, E = 131.115080 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.45	3.80	2.41	1.71	4.62	1.77	1.27	1.04	1.74	1.39	2.09	0.33	0.66	0.42	0.37



Stellar Parameters For KIC 008712760

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7392^{+206}_{-310}	$3.543^{+0.540}_{-0.060}$	$-0.100^{+0.250}_{-0.300}$	$4.007^{+0.393}_{-2.227}$	$2.047^{+0.141}_{-0.563}$	$0.045^{+0.287}_{-0.009}$
	+3%/-4%	+15%/-2%	+250%/-300%	+10%/-56%	+7%/-28%	+640%/-20%
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 008712760-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-39 ± 4	$2.81^{+1.33}_{-1.09}$	6570^{+453}_{-887}	5897^{+2094}_{-1716}	$0.824^{+1.296}_{-0.440}$
Alt.	-67 ± 18	$3.11^{+1.30}_{-1.09}$	6545^{+464}_{-840}	6644^{+2144}_{-1460}	$1.143^{+1.490}_{-0.599}$

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 $A_{obs} \gg 1.0$

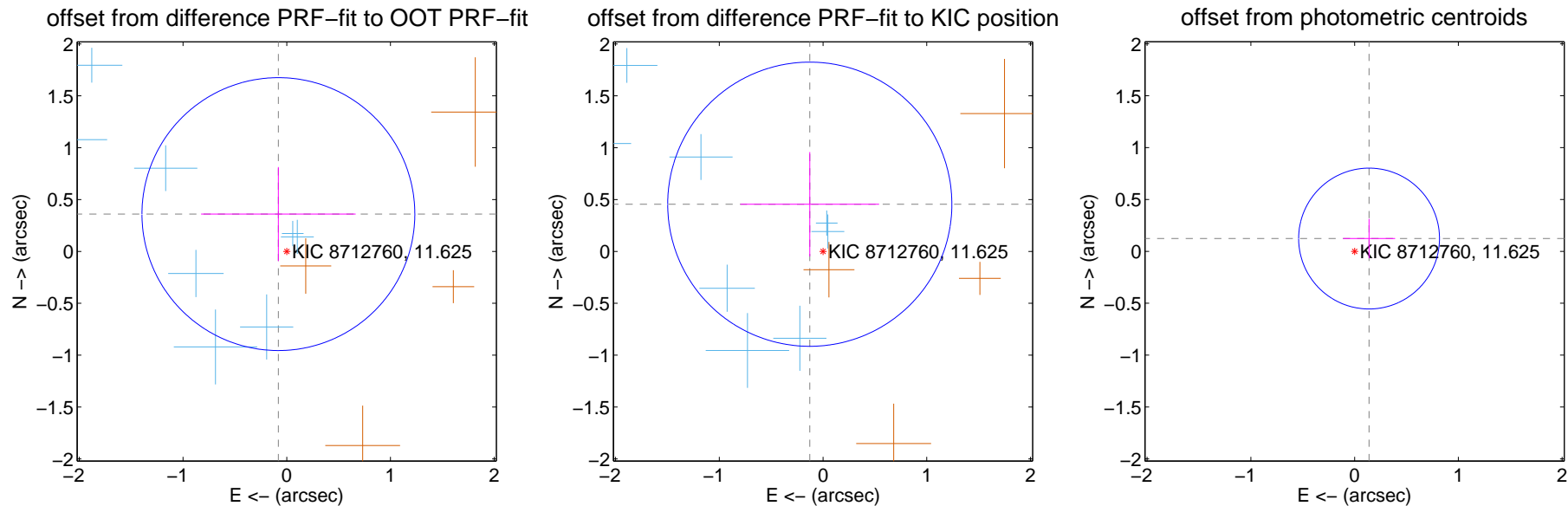
DV Centroid Data

Supplemental centroid analysis for 008712760-01. **Kepler magnitude: 11.62.** Transit SNR 11.34

There are 8 quarters with good PRF difference image offsets

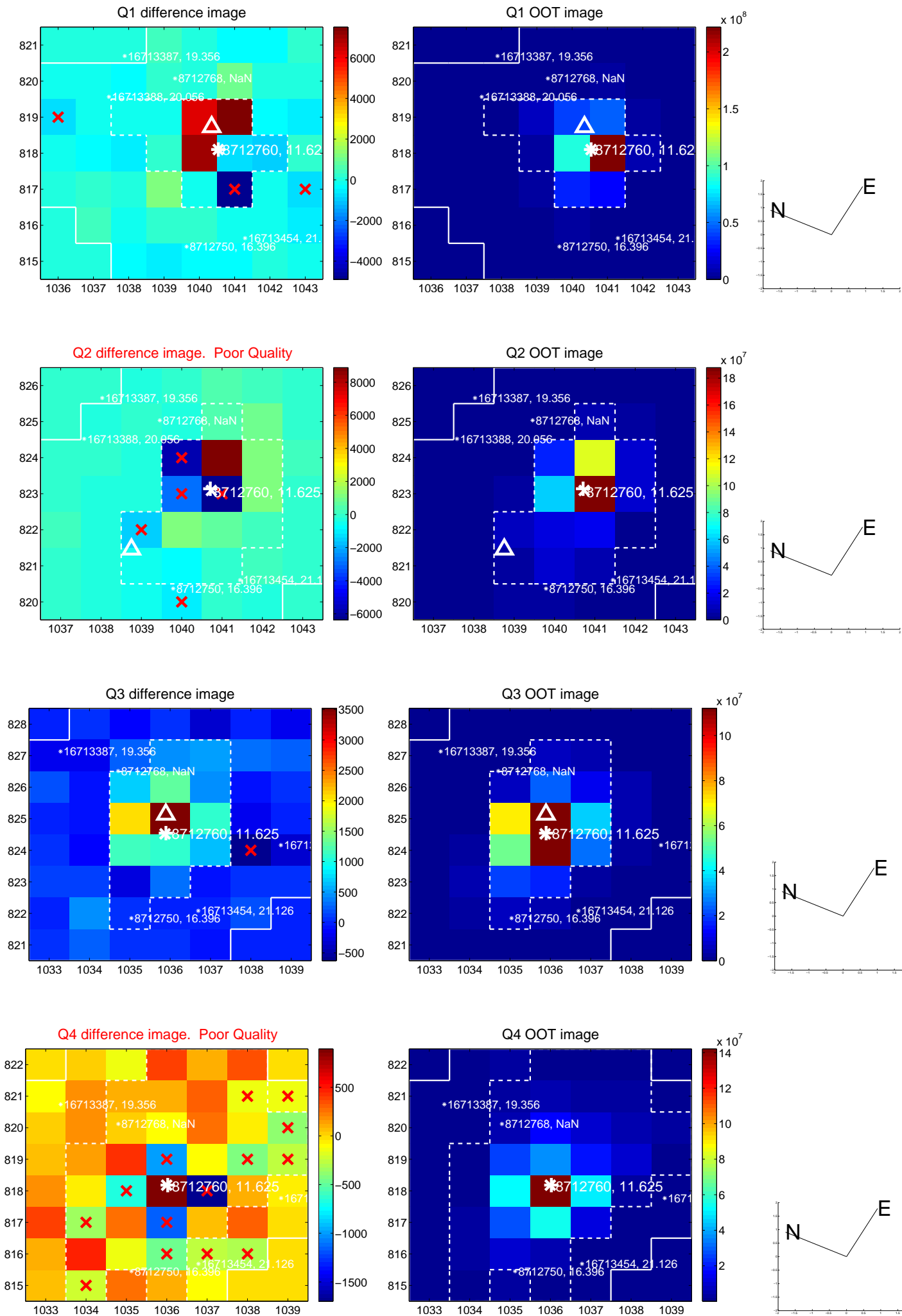
The direct PRF centroid is offset from the target star catalog position by about 0.03 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.369 ± 0.438	0.84	0.081 ± 0.745	0.360 ± 0.453
PRF-fit source offset from KIC position	0.473 ± 0.457	1.03	0.128 ± 0.669	0.455 ± 0.502
photometric centroid source offset	0.19 ± 0.23	0.82	-0.14 ± 0.25	0.12 ± 0.19

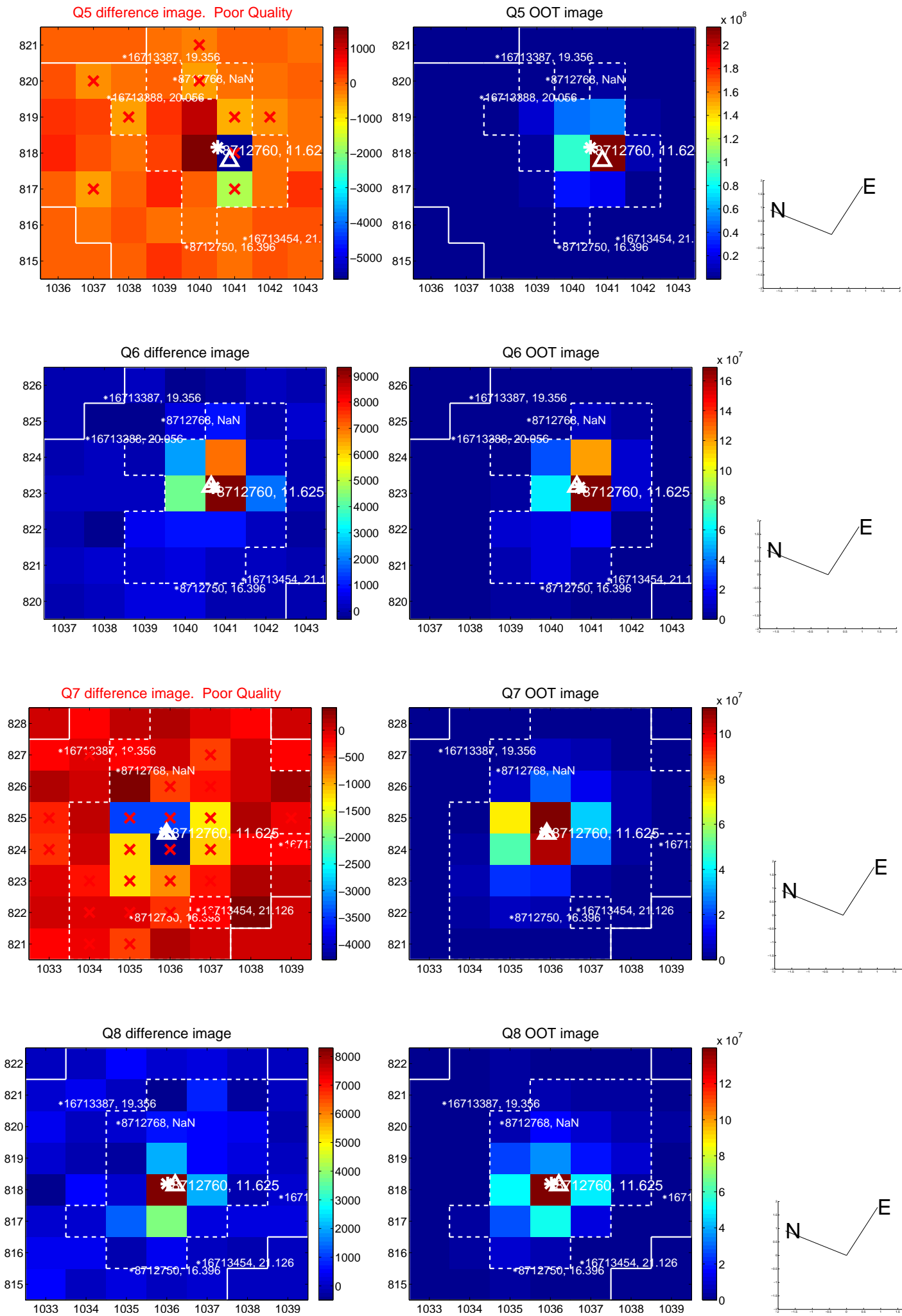


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

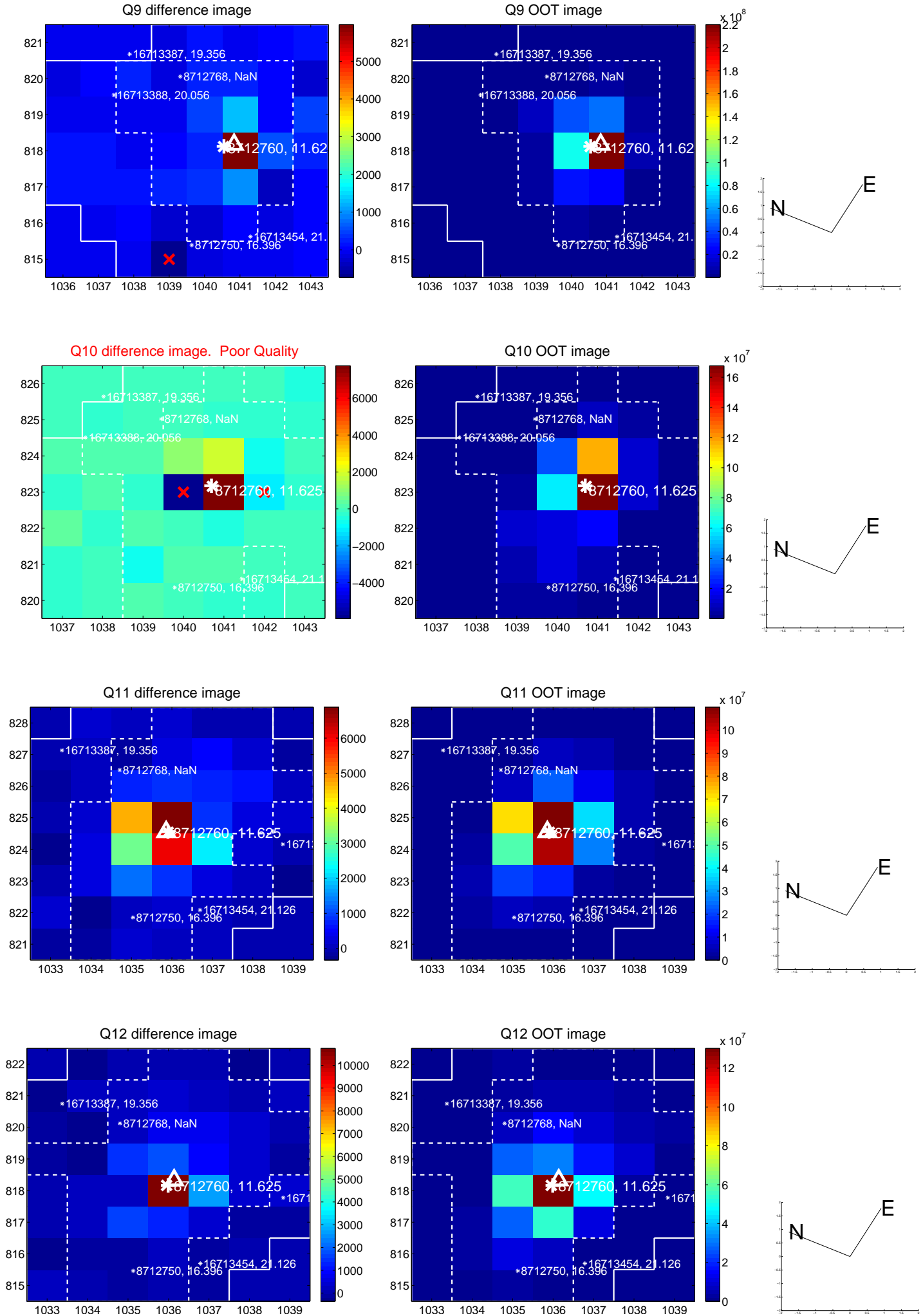
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



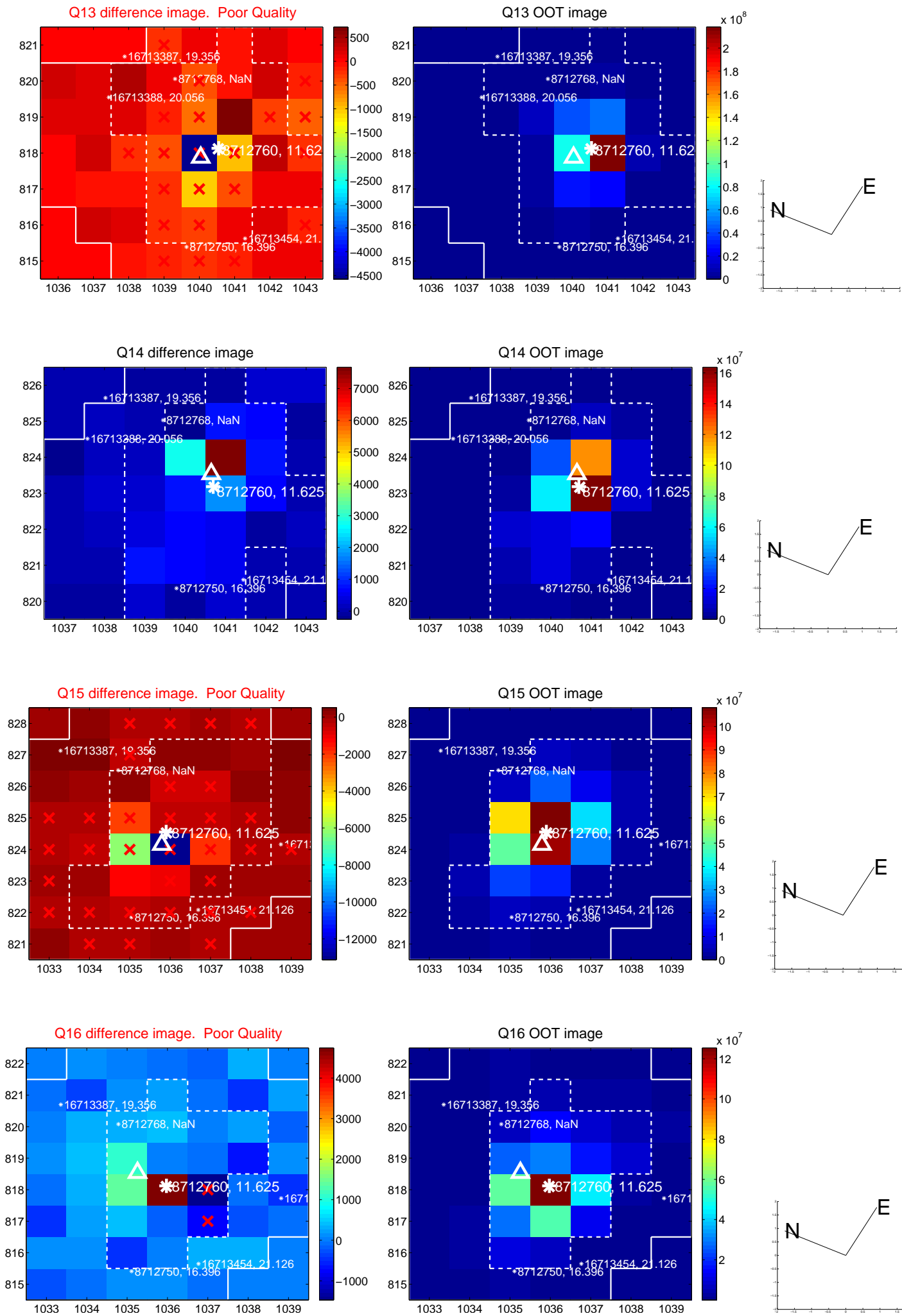
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



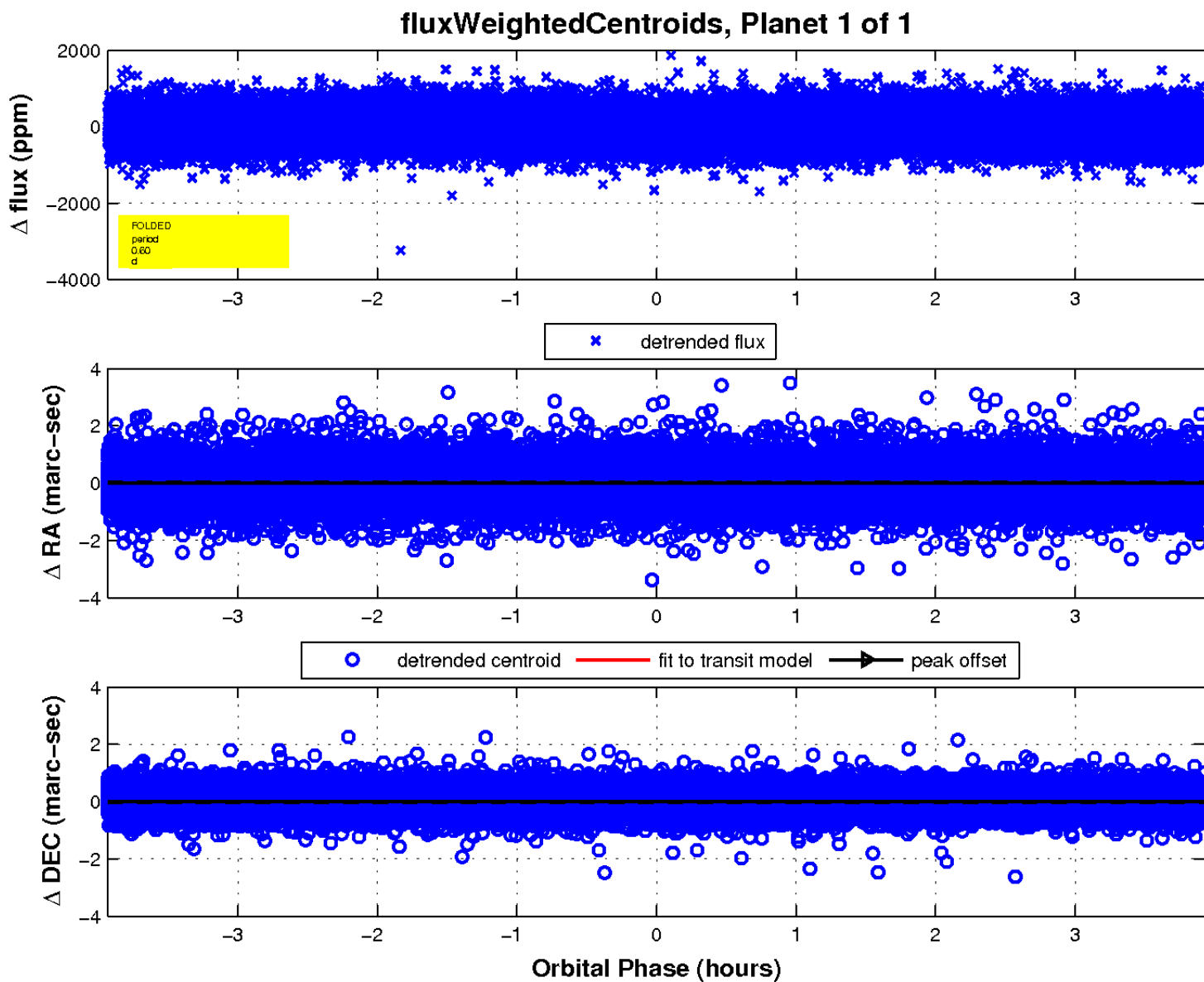
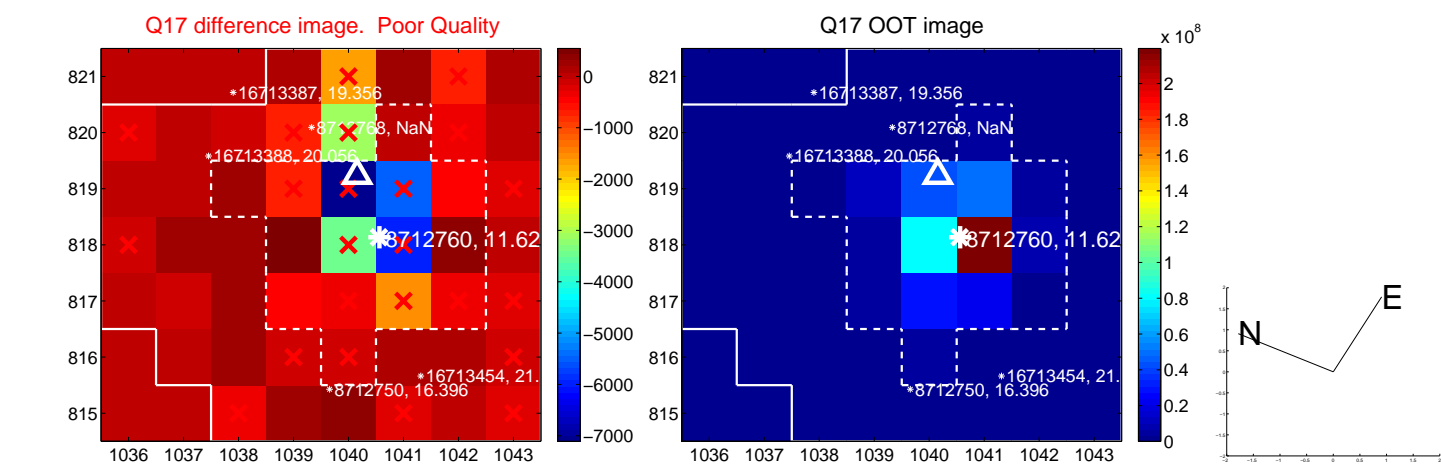
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

