

KIC 004141587

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})
004141587-01	OBS	7684.01	10.224084	135.430785	173.4	1.744	8.9	9.4	16.82	4673	27.25	7396.86

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004141587-01	OBS	FP	0.09	1	0	0	0	LPP_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.

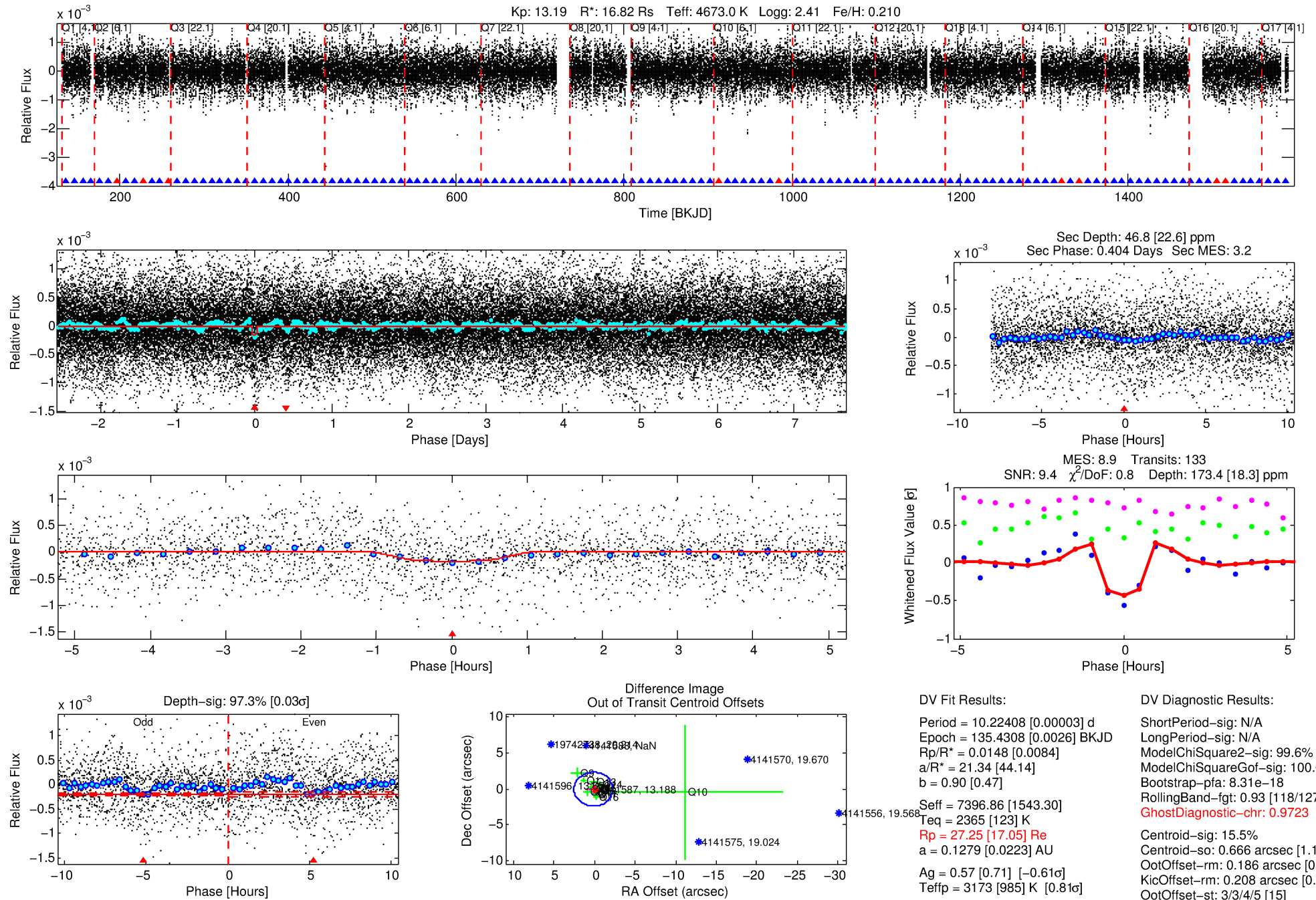
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004141587-01

No Significant Match Found

DV One-Page Summary

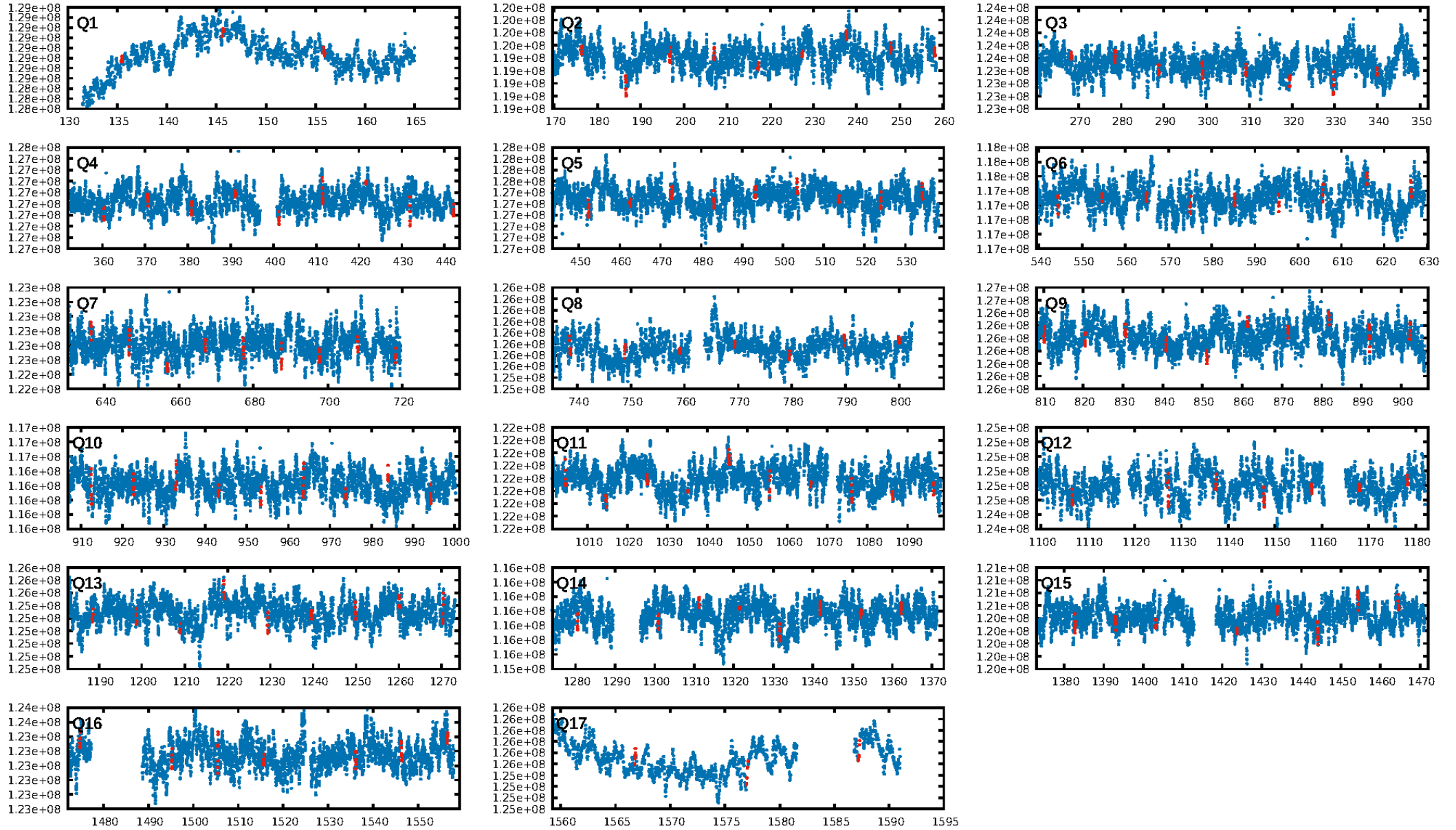
KIC: 4141587 Candidate: 1 of 1 Period: 10.224 d



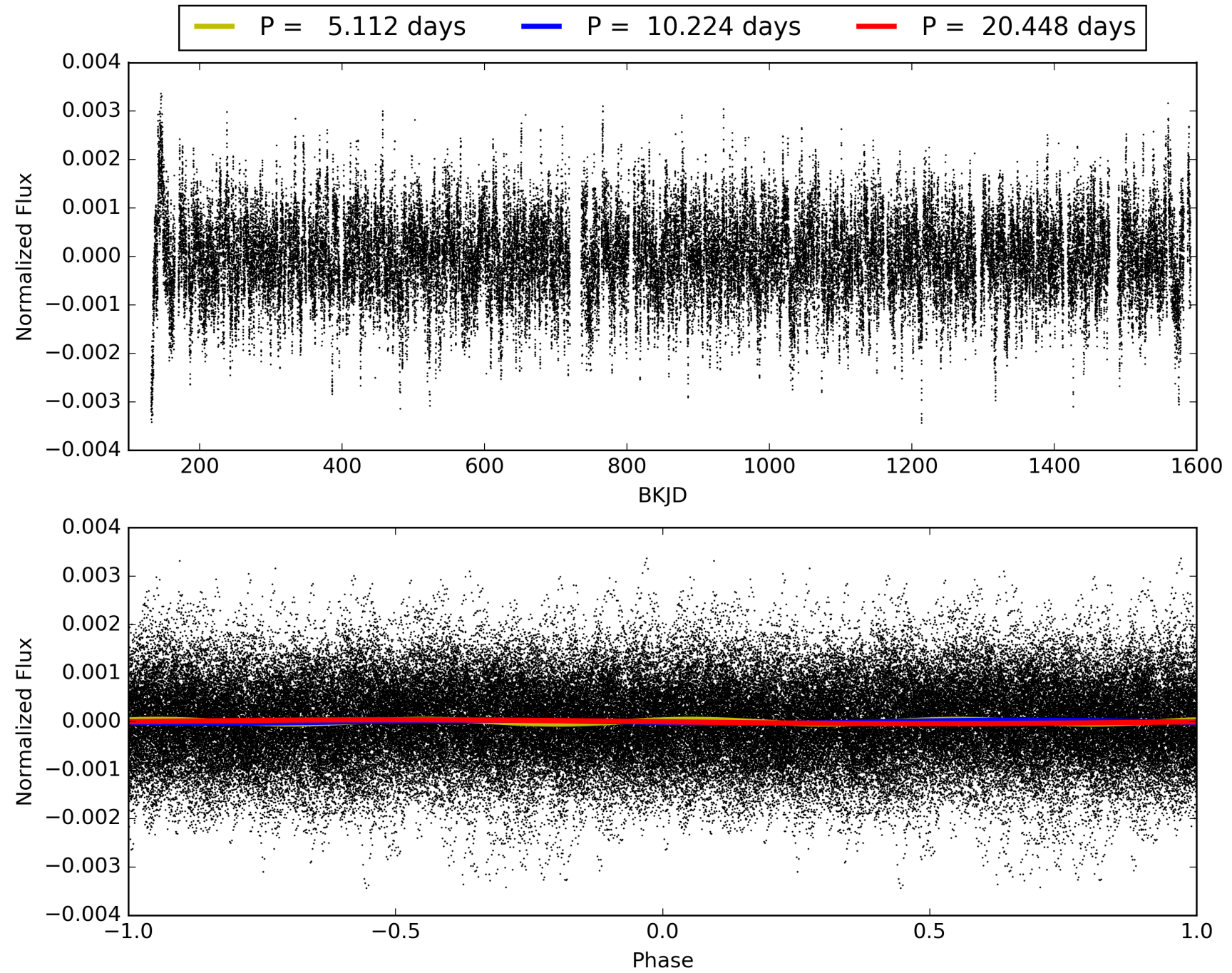
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 01:09:00 Z

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

TCE 004141587-01, PDC Light Curves

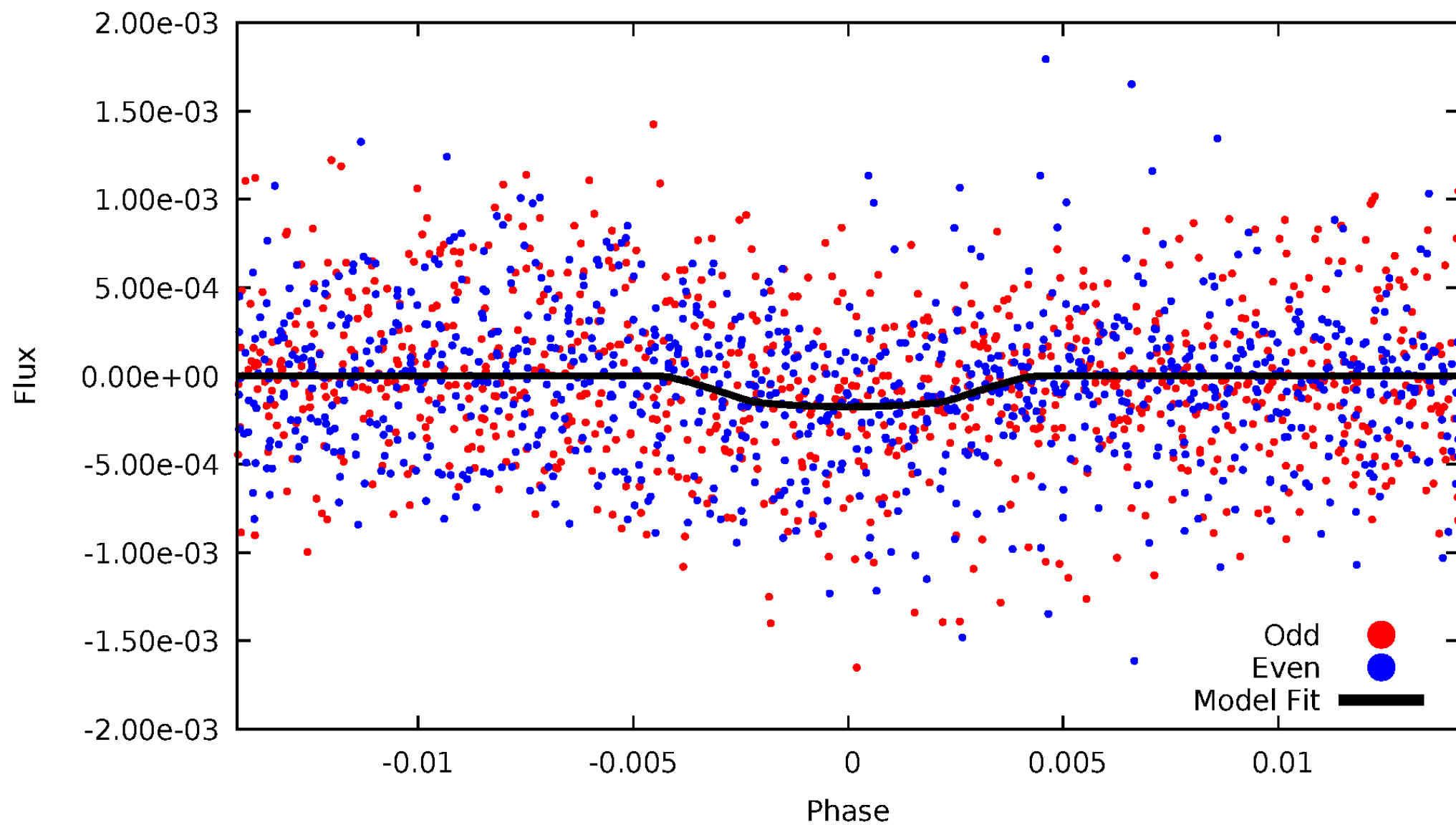


TCE 004141587-01



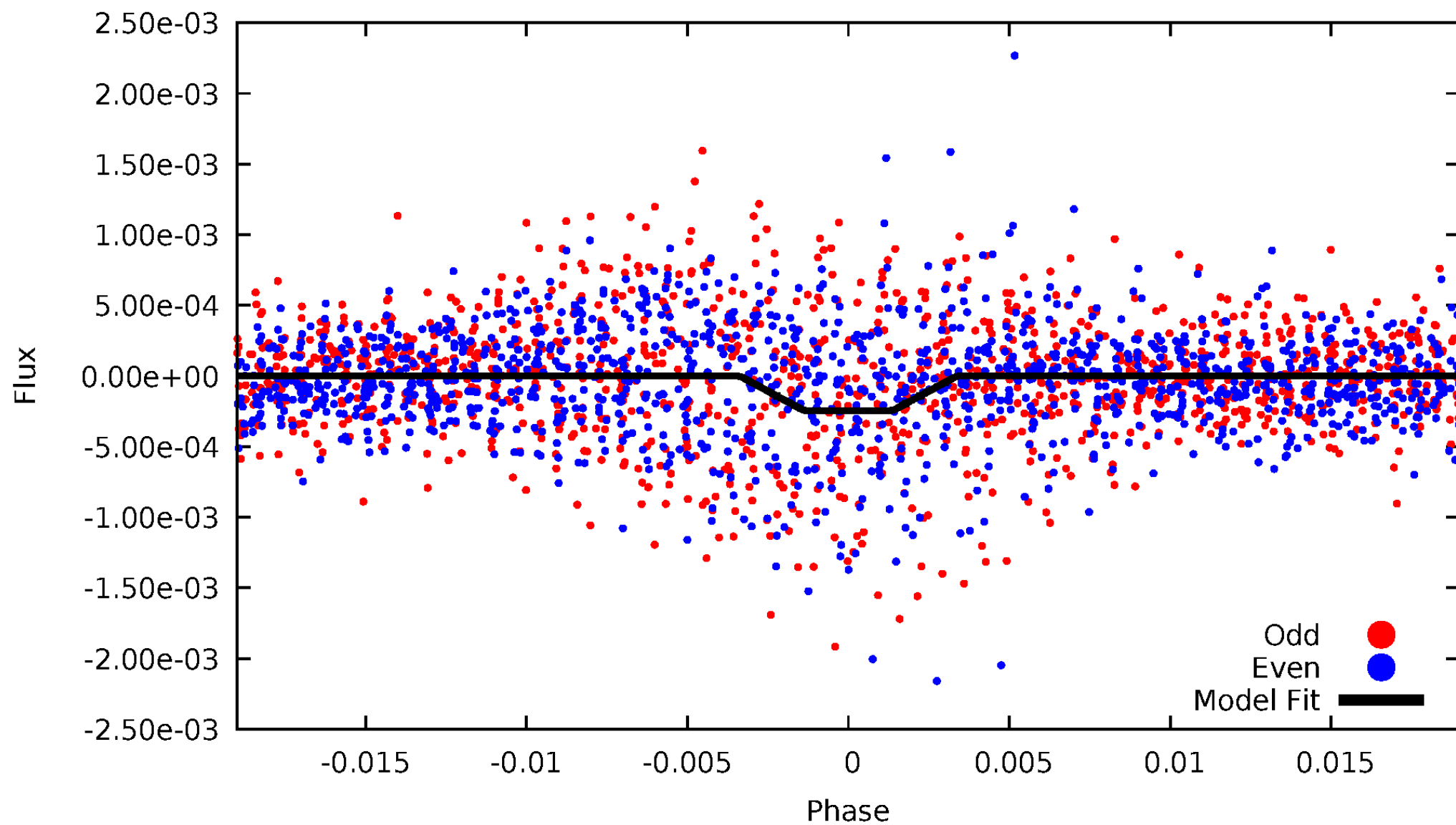
DV Odd/Even

TCE 004141587-01



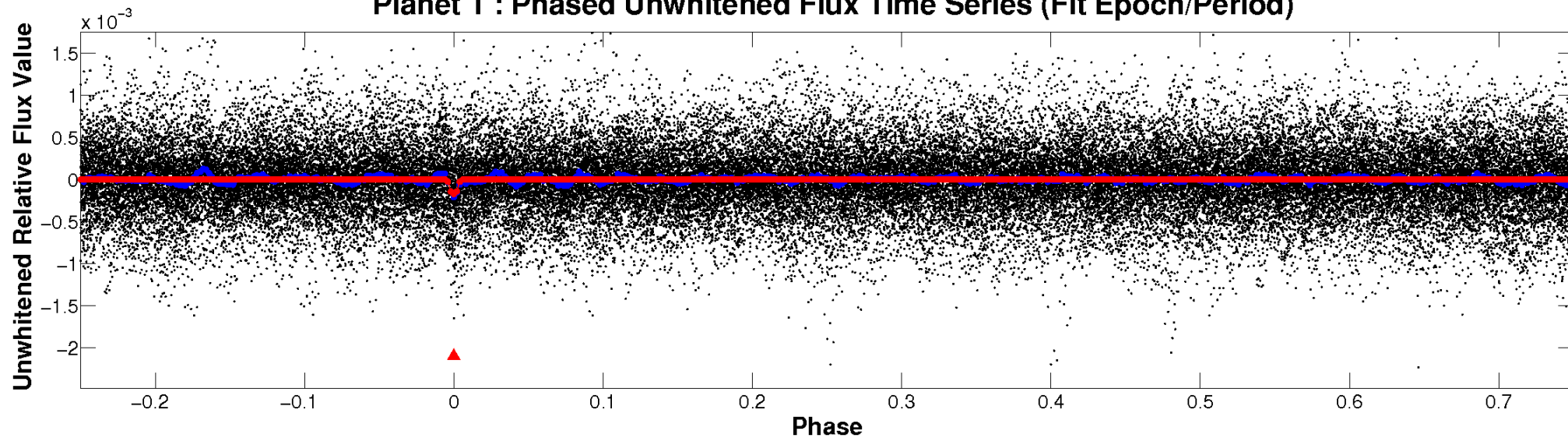
ALT Odd/Even

TCE 004141587-01

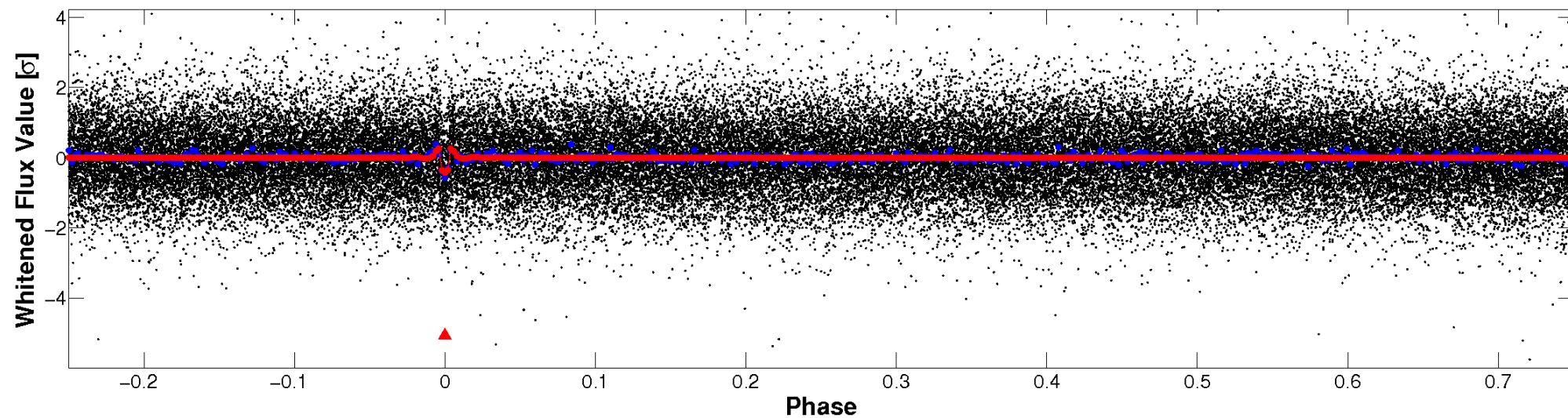


Non-Whitened Vs. Whitened Light Curve

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

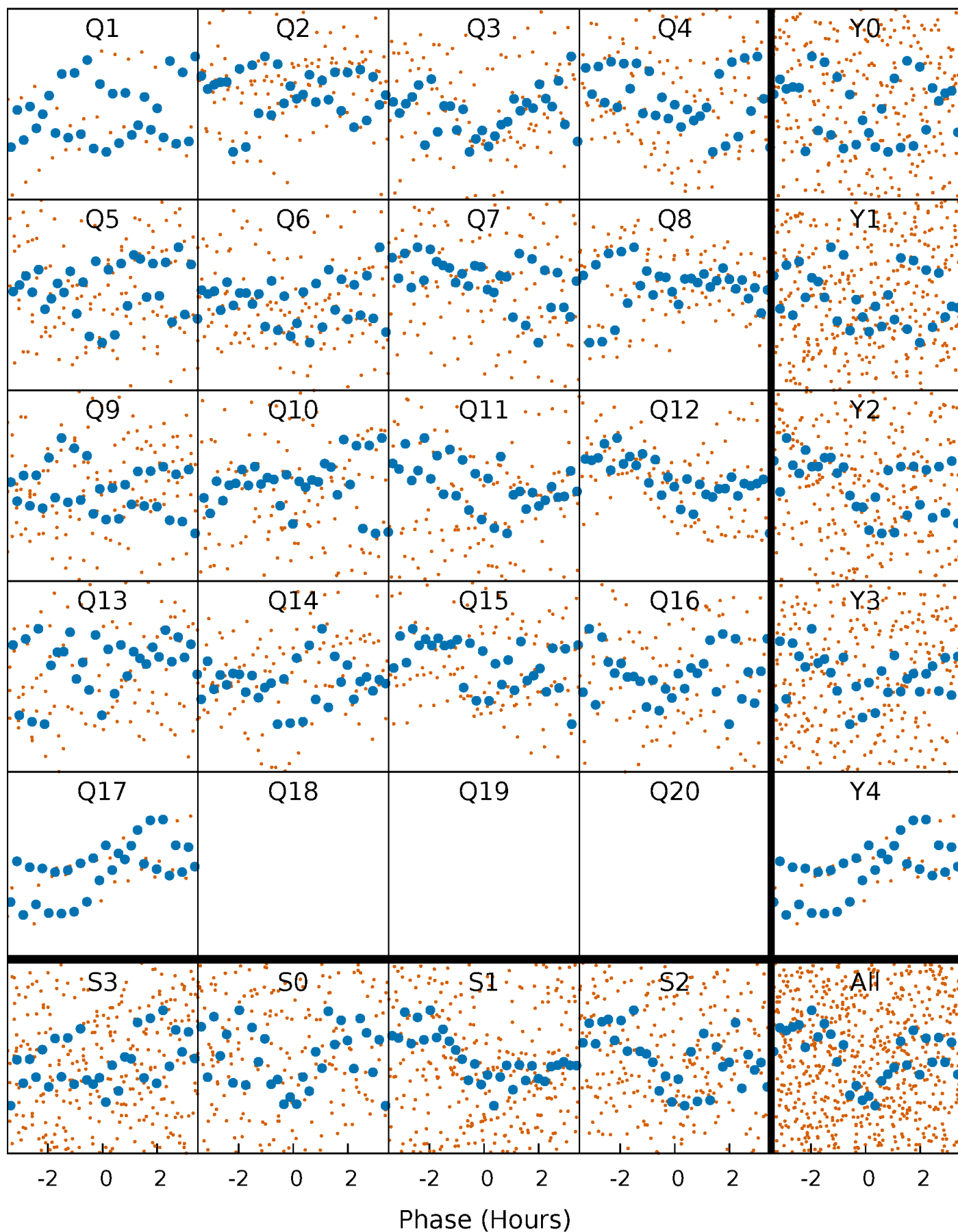


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



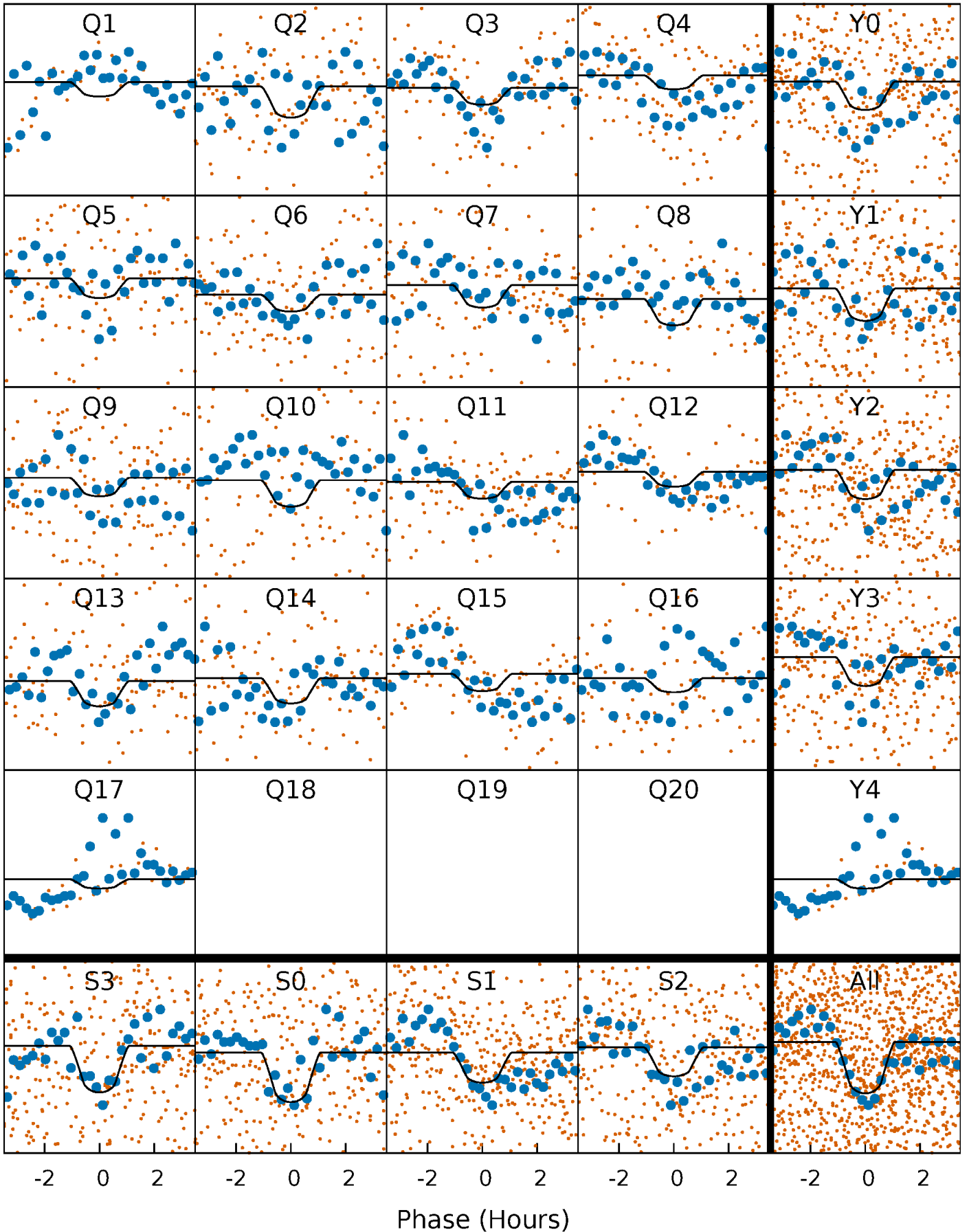
PDC Quarter-Phased Transit Curves

TCE 004141587-01 P= 10.224084 Days $T_0=135.430785$ (BKJD)



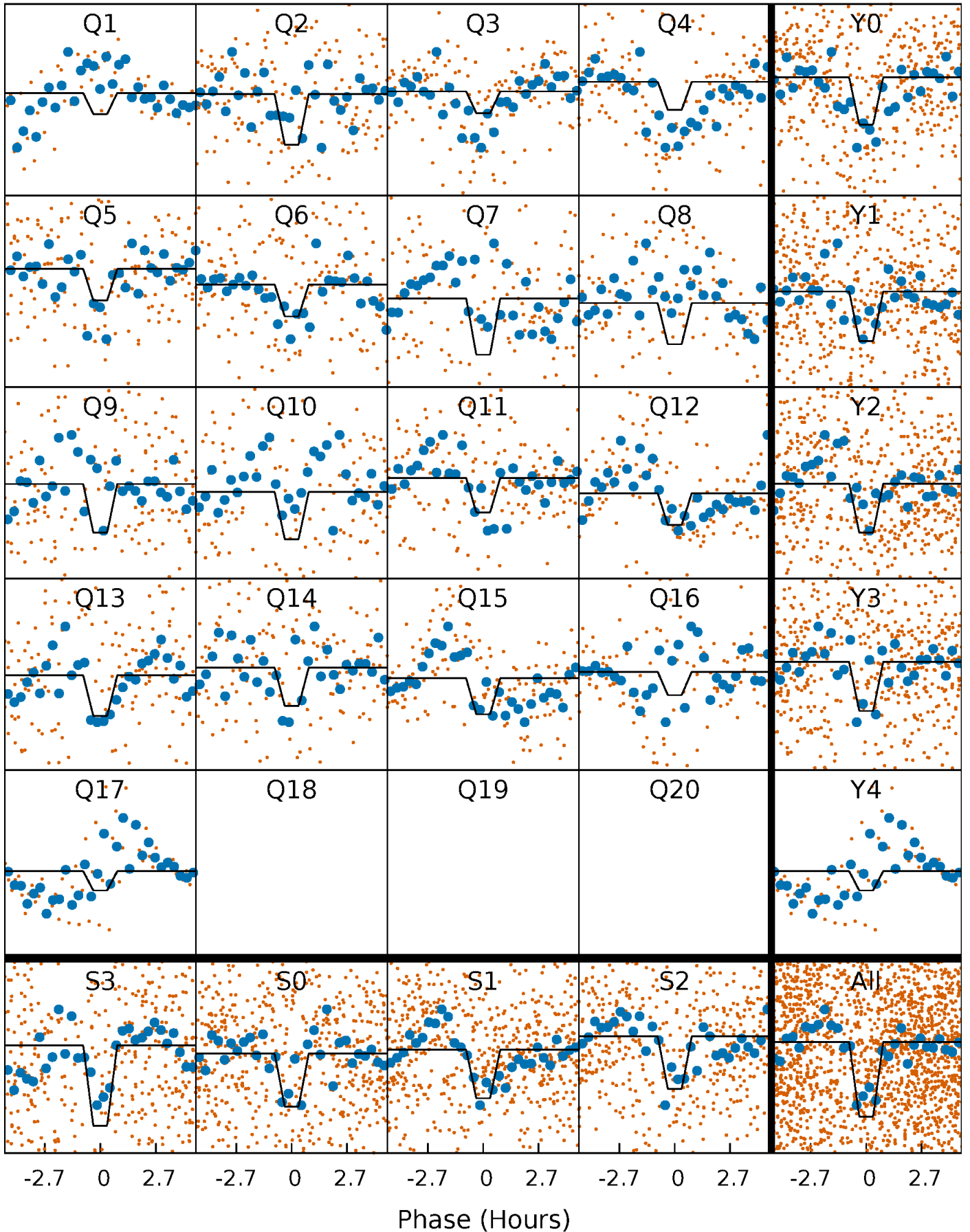
DV Quarter-Phased Transit Curves

TCE 004141587-01 P= 10.224084 Days $T_0=135.430785$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

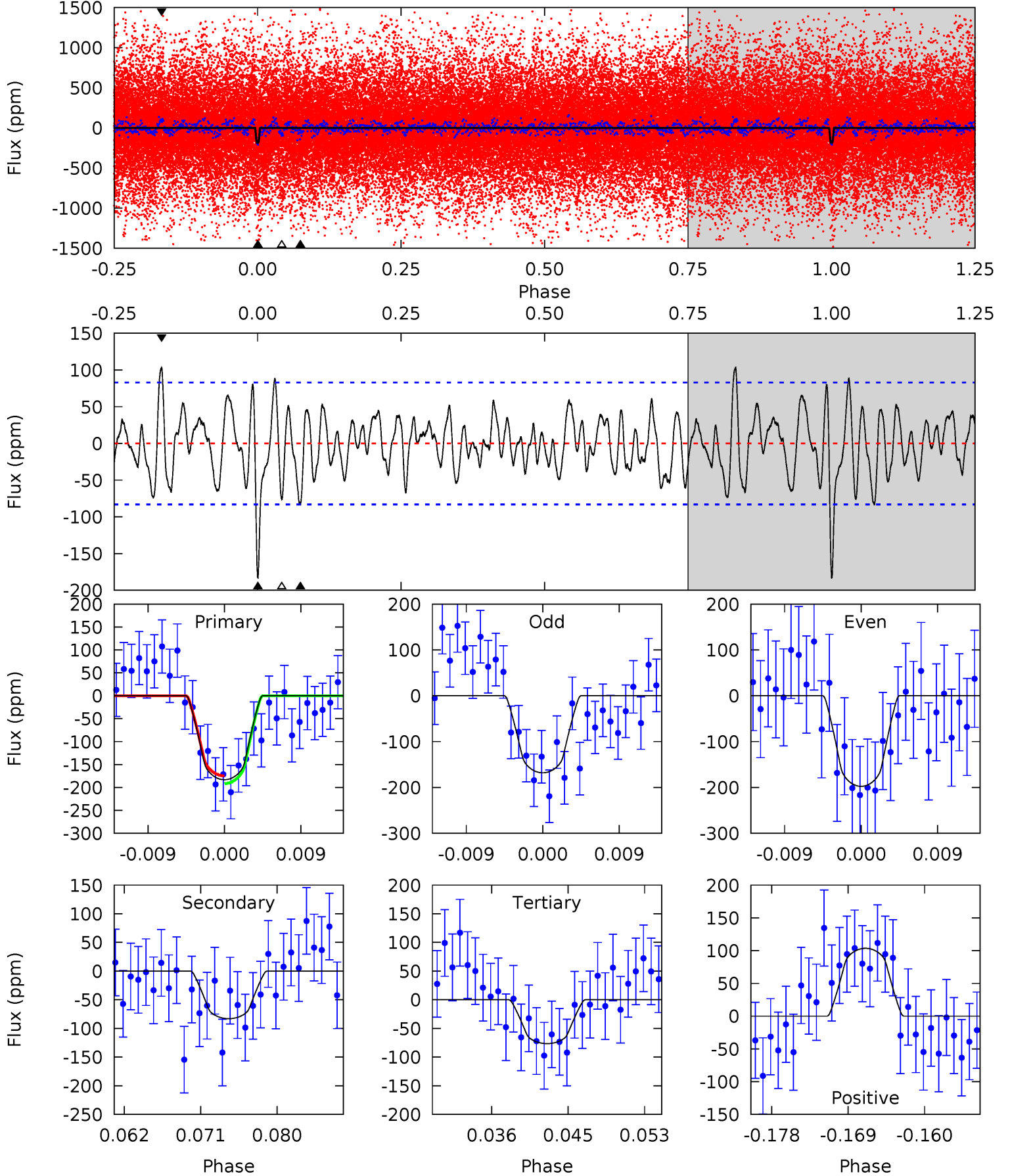
TCE 004141587-01 P= 10.223967 Days $T_0=135.440555$ (BKJD)



DV Model-Shift Uniqueness Test

004141587-01, P = 10.224084 Days, E = 125.206701 Days

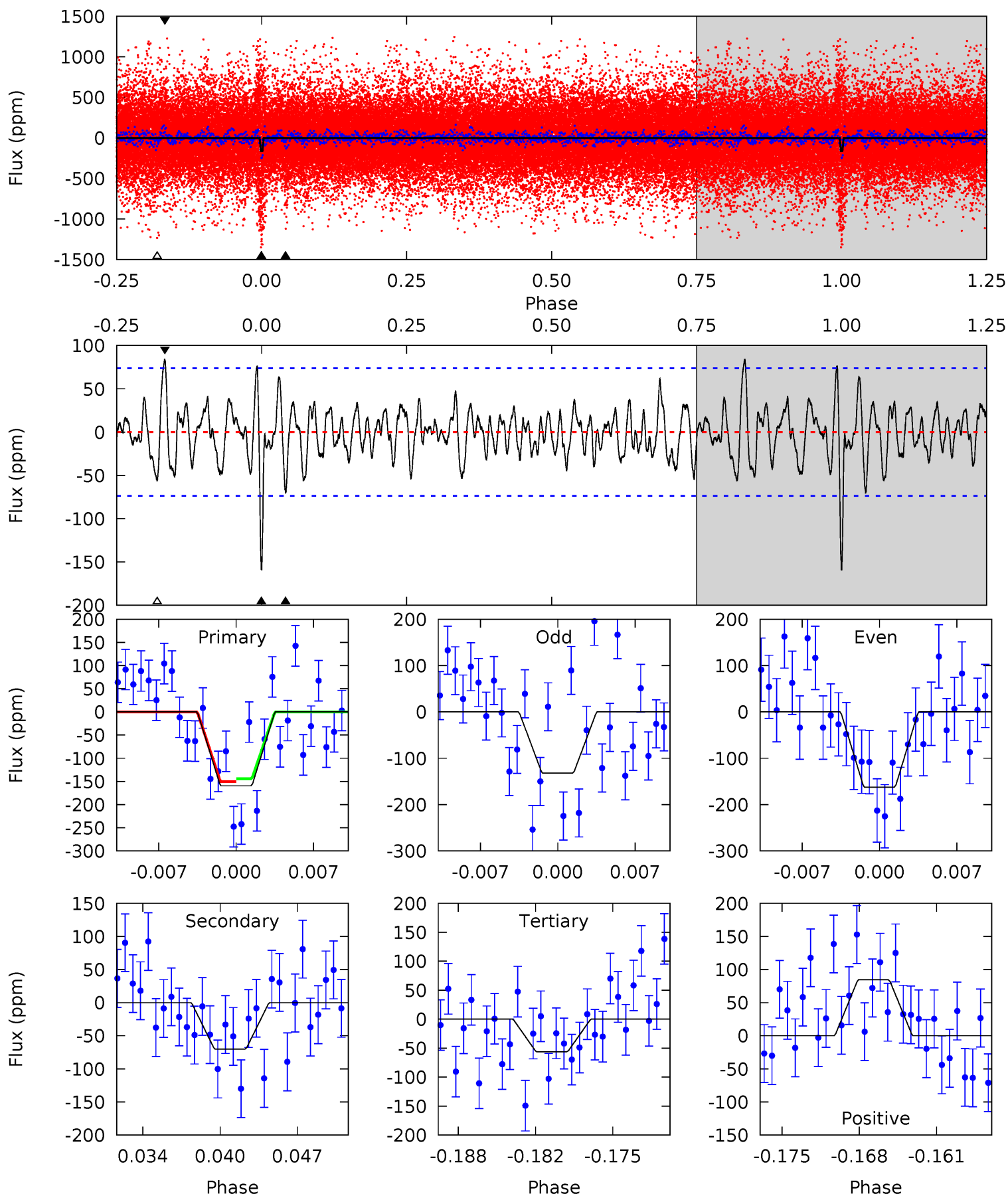
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.1	5.05	4.65	6.29	5.05	2.62	1.97	6.48	4.84	0.39	-1.25	0.90	1.19	0.36	0.52



Alt Model-Shift Uniqueness Test

004141587-01, P = 10.223967 Days, E = 125.216588 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.0	4.86	3.90	5.85	5.10	2.71	1.67	7.15	5.20	0.96	-0.99	1.04	1.45	0.35	0.22



Stellar Parameters For KIC 004141587

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4673^{+68}_{-125}	$2.412^{+0.030}_{-0.027}$	$0.210^{+0.150}_{-0.250}$	$16.823^{+1.747}_{-4.368}$	$2.666^{+0.398}_{-1.195}$	$0.001^{+0.000}_{-0.000}$
	+1%/-3%	+1%/-1%	+71%/-119%	+10%/-26%	+15%/-45%	+40%/-13%
Source	SPE74	AST71	SPE74	DSEP		

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

Secondary Eclipse Parameters for KIC 004141587-01 / KOI 7684.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-83 ± 16	$28.08^{+16.62}_{-14.18}$	3301^{+82}_{-97}	3586^{+1214}_{-979}	$0.918^{+2.524}_{-0.552}$
Alt.	-70 ± 14	$29.25^{+15.82}_{-14.94}$	3300^{+81}_{-99}	3393^{+1267}_{-1283}	$0.743^{+2.260}_{-0.432}$

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 $A_{obs} \gg 1.0$

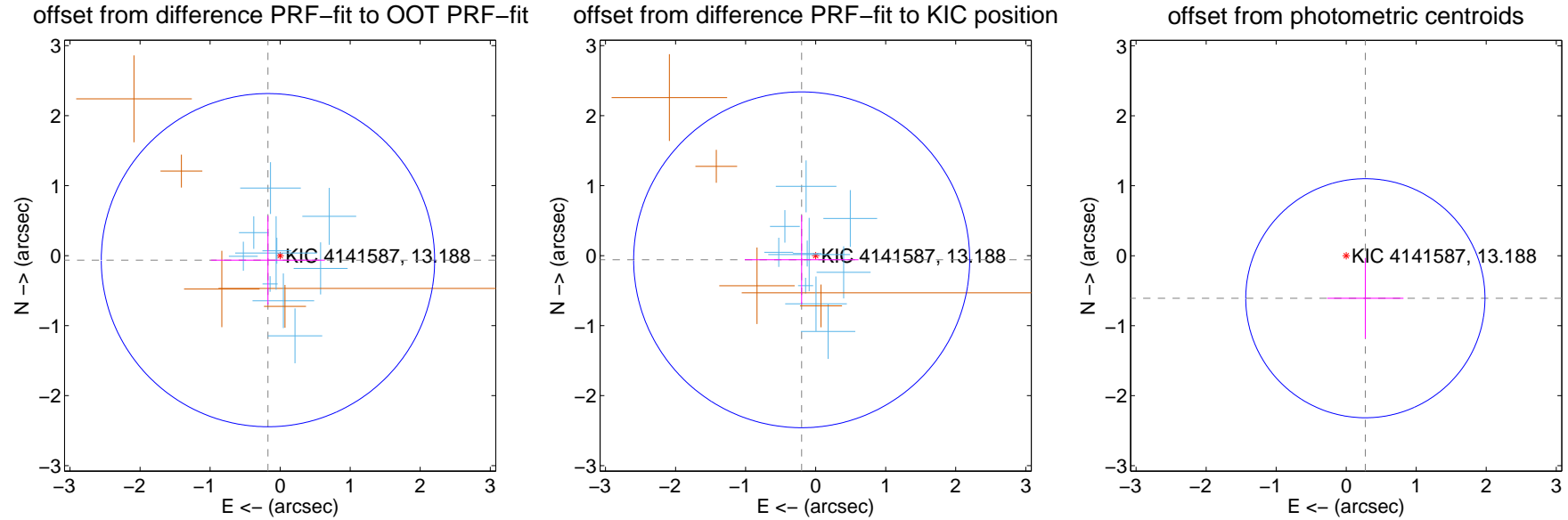
DV Centroid Data

Supplemental centroid analysis for 004141587-01. Kepler magnitude: 13.19. Transit SNR 9.42

There are 10 quarters with good PRF difference image offsets

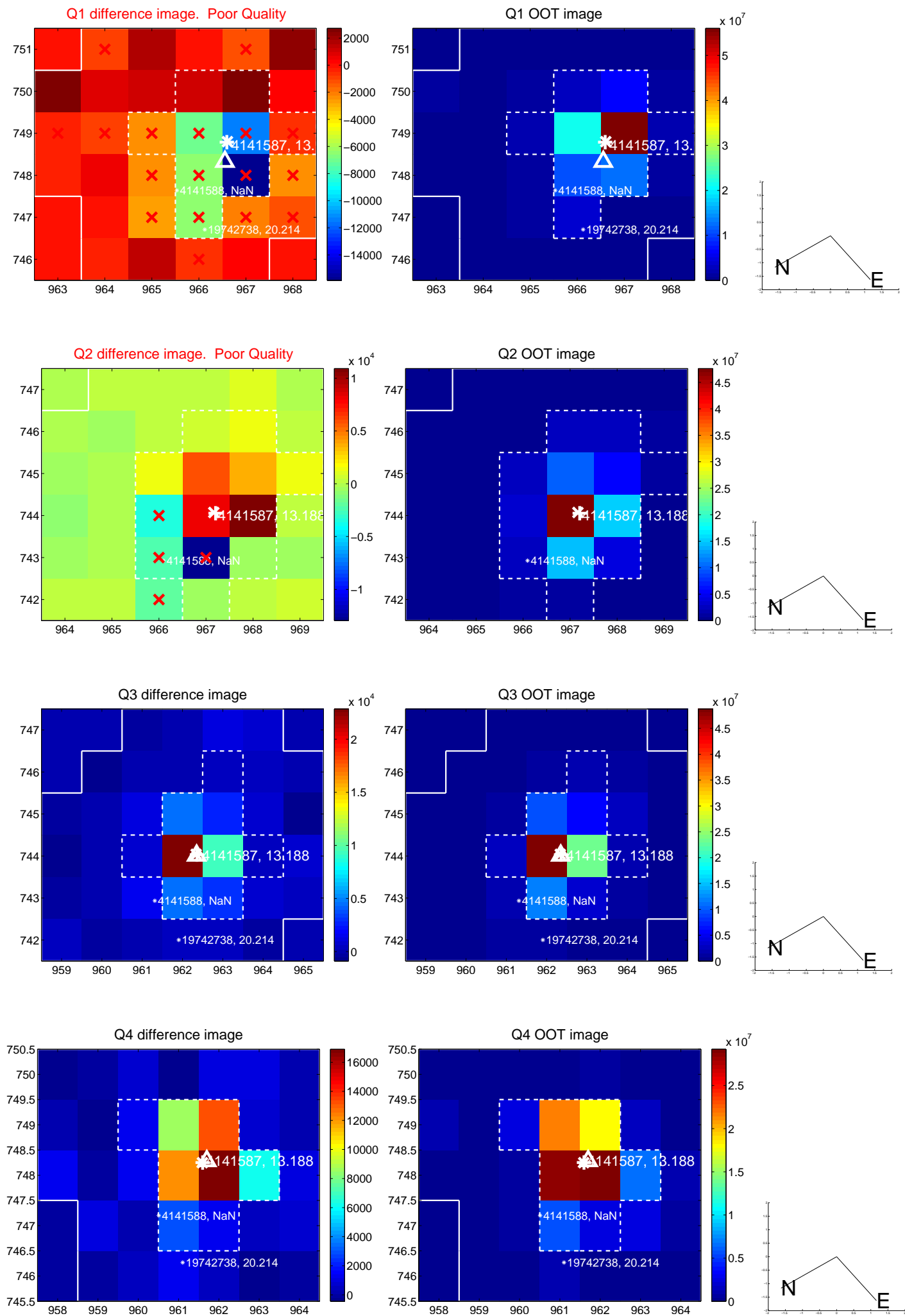
The direct PRF centroid is offset from the target star catalog position by about 0.01 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.186 ± 0.793	0.23	0.174 ± 0.813	-0.064 ± 0.635
PRF-fit source offset from KIC position	0.208 ± 0.800	0.26	0.200 ± 0.813	-0.060 ± 0.635
photometric centroid source offset	0.67 ± 0.57	1.17	-0.27 ± 0.54	-0.61 ± 0.57

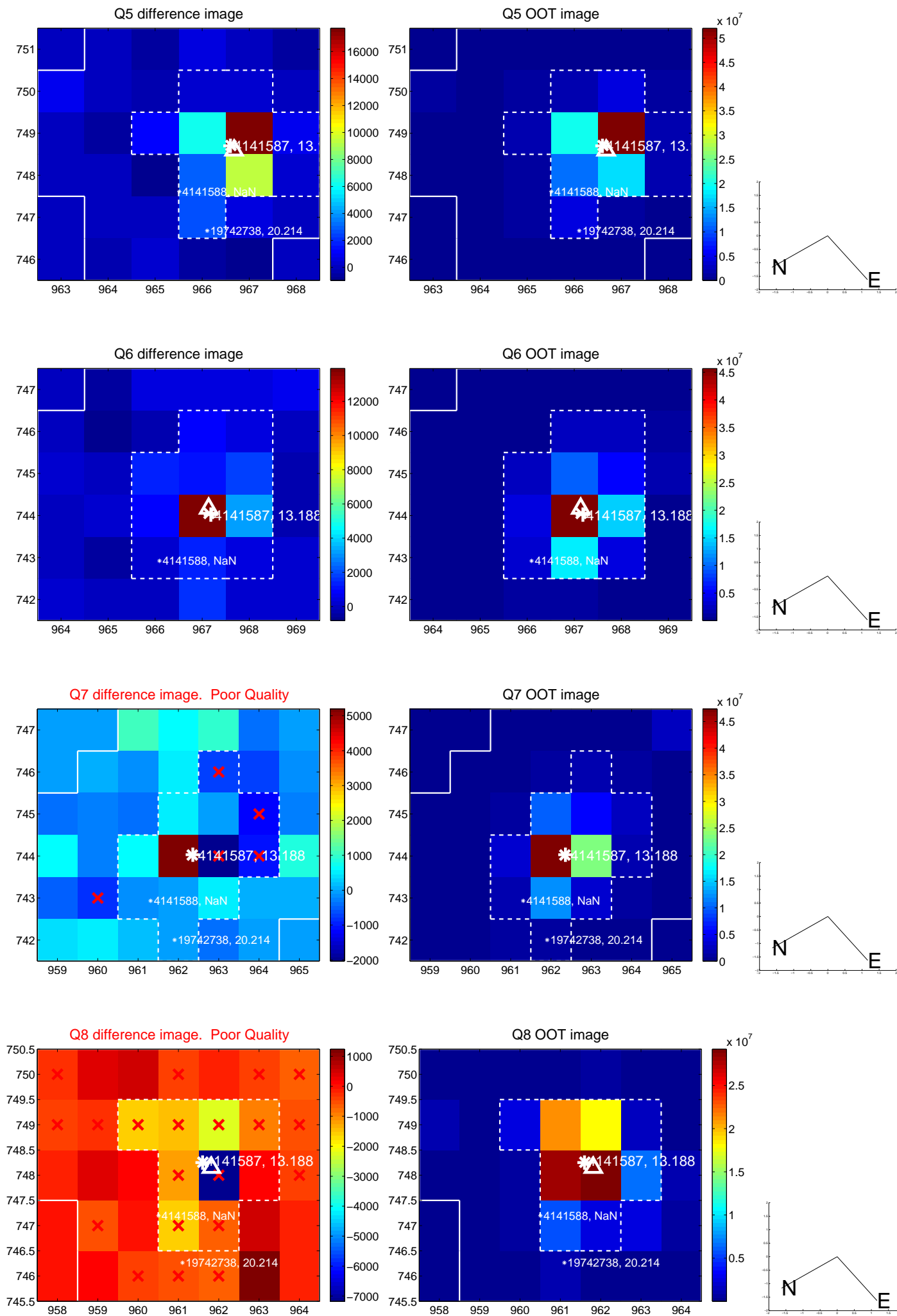


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

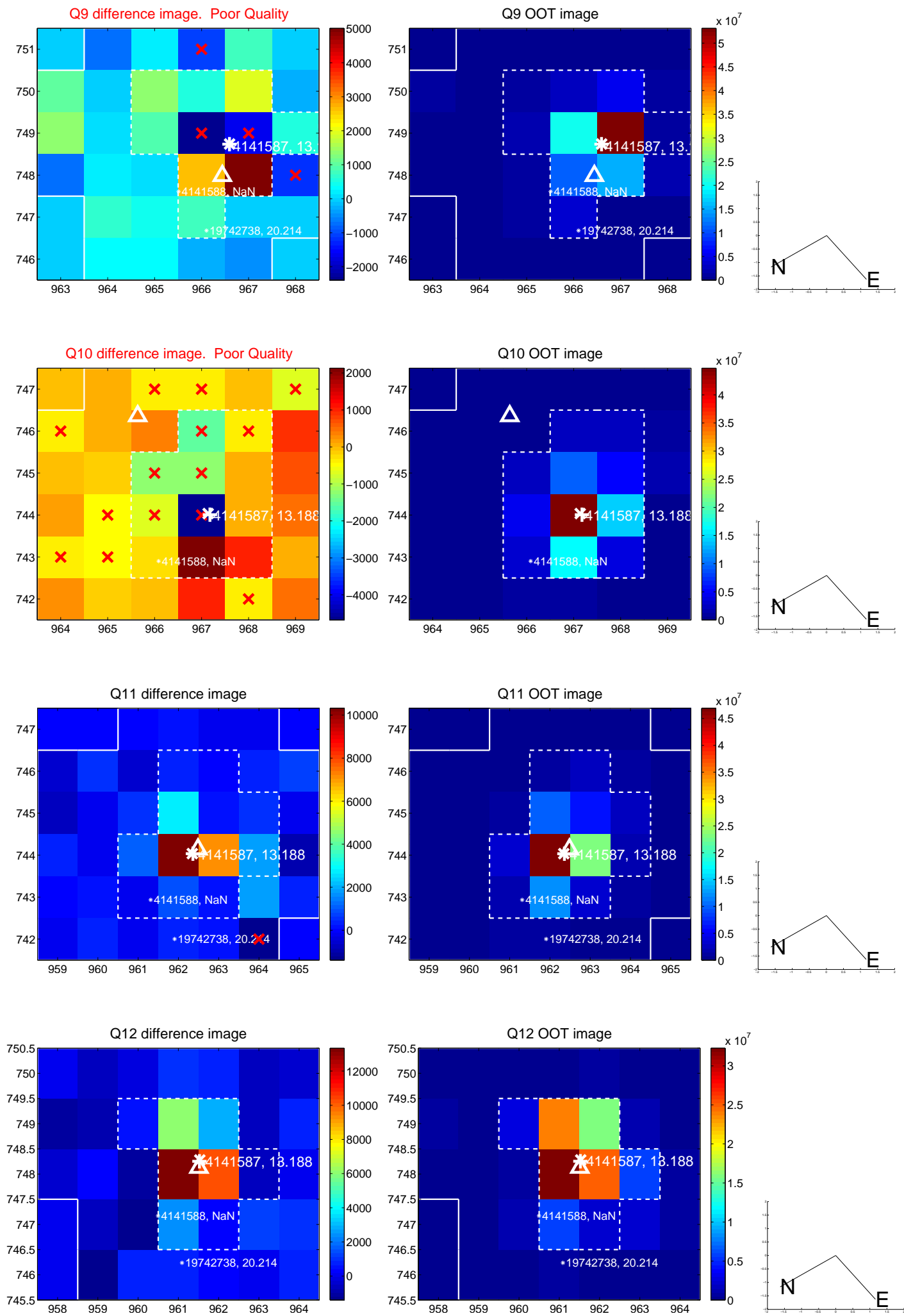
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



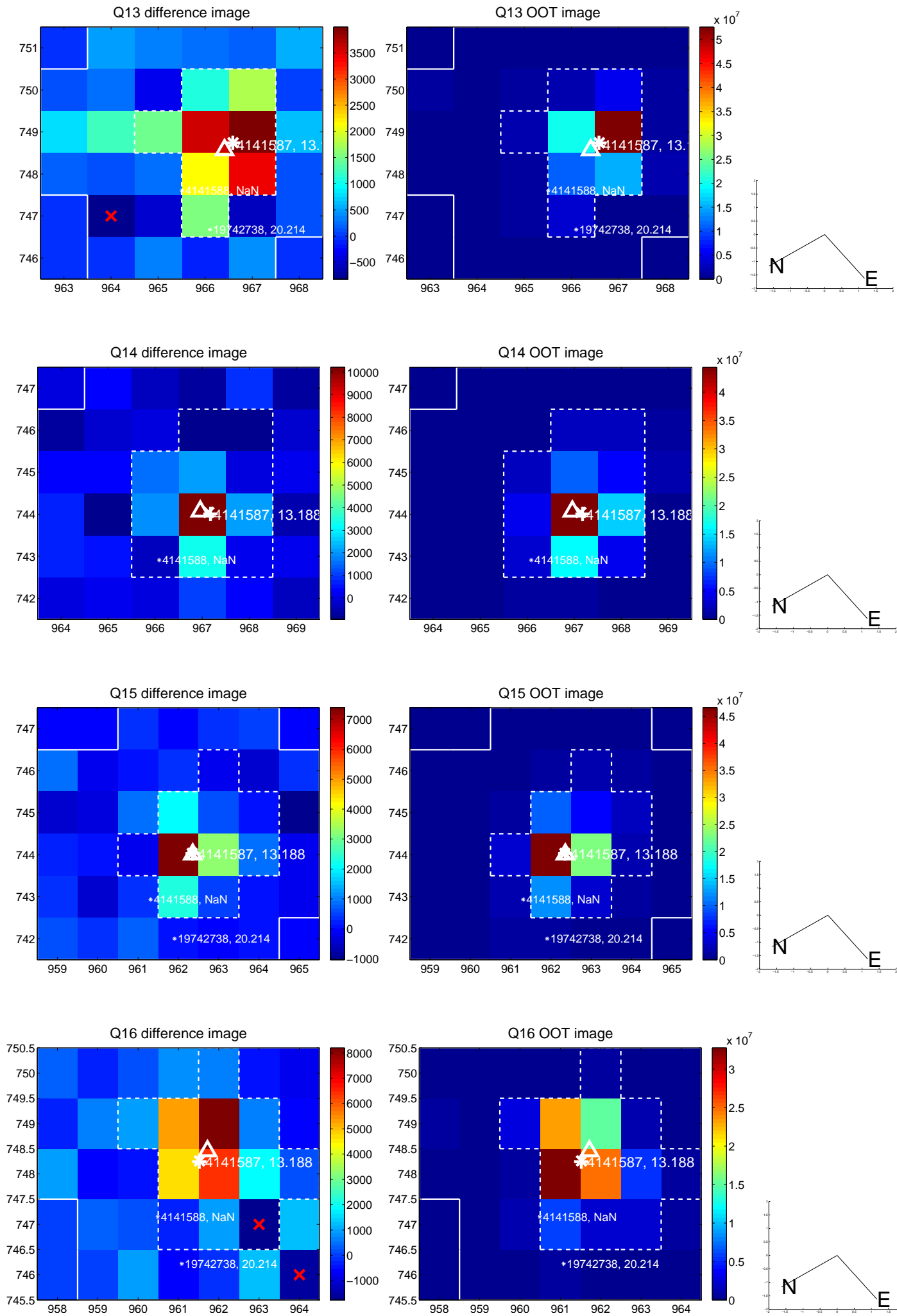
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



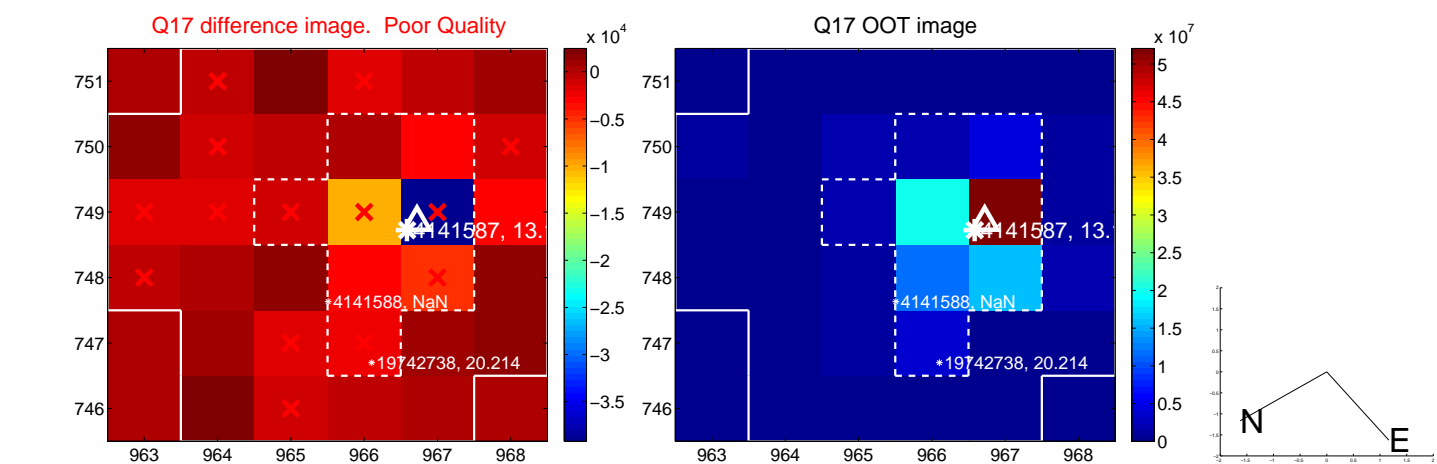
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



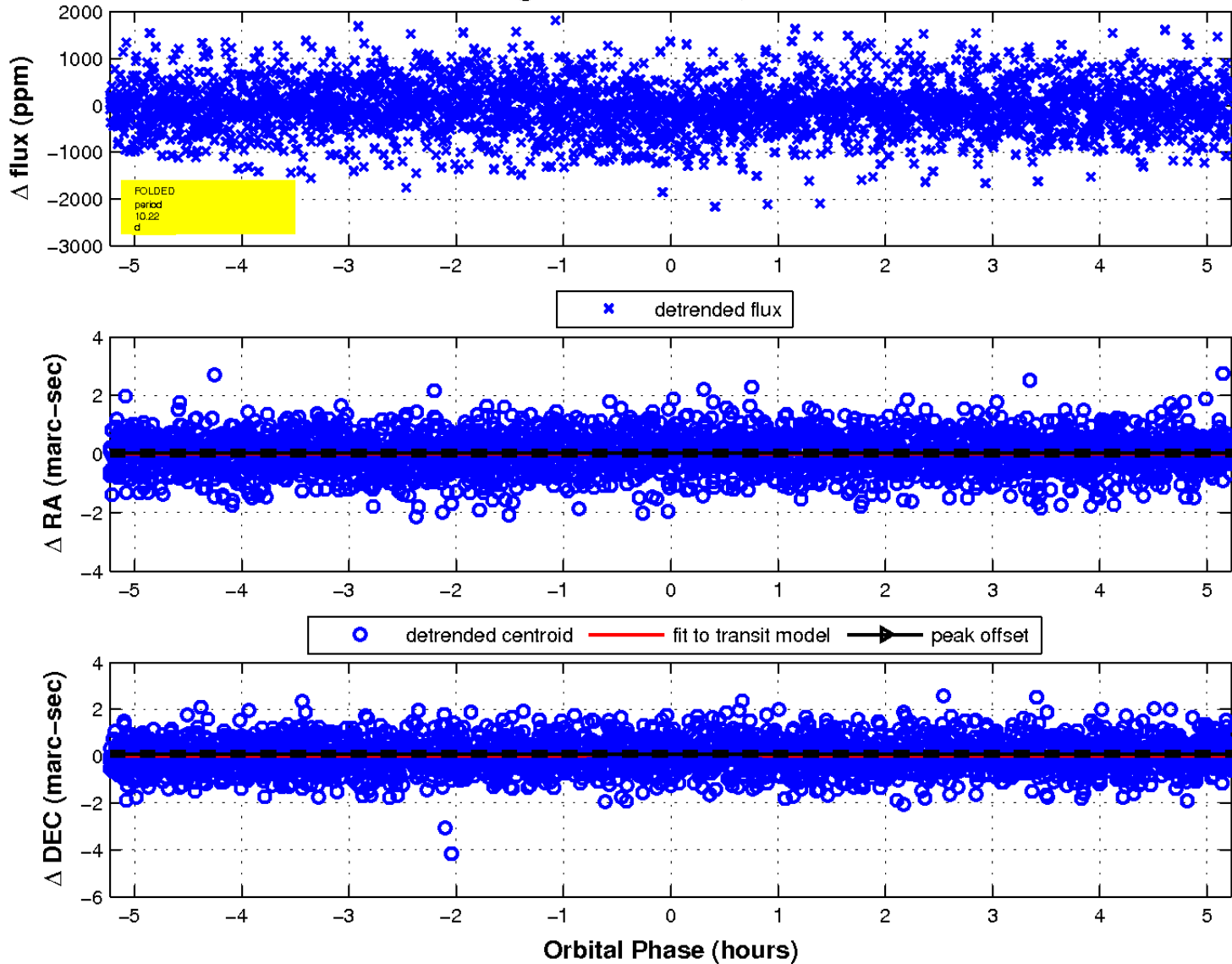
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

