

KIC 007173839

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})
007173839-01	OBS	No	0.781533	132.184313	46.2	6.095	10.8	15.5	2.45	8285	1.93	56976.68

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007173839-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_FEW_MEAS

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

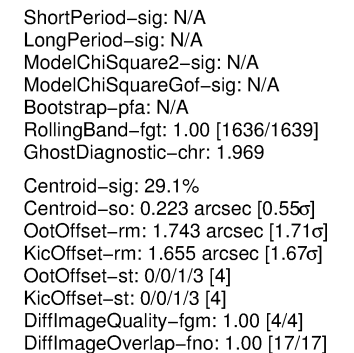
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

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

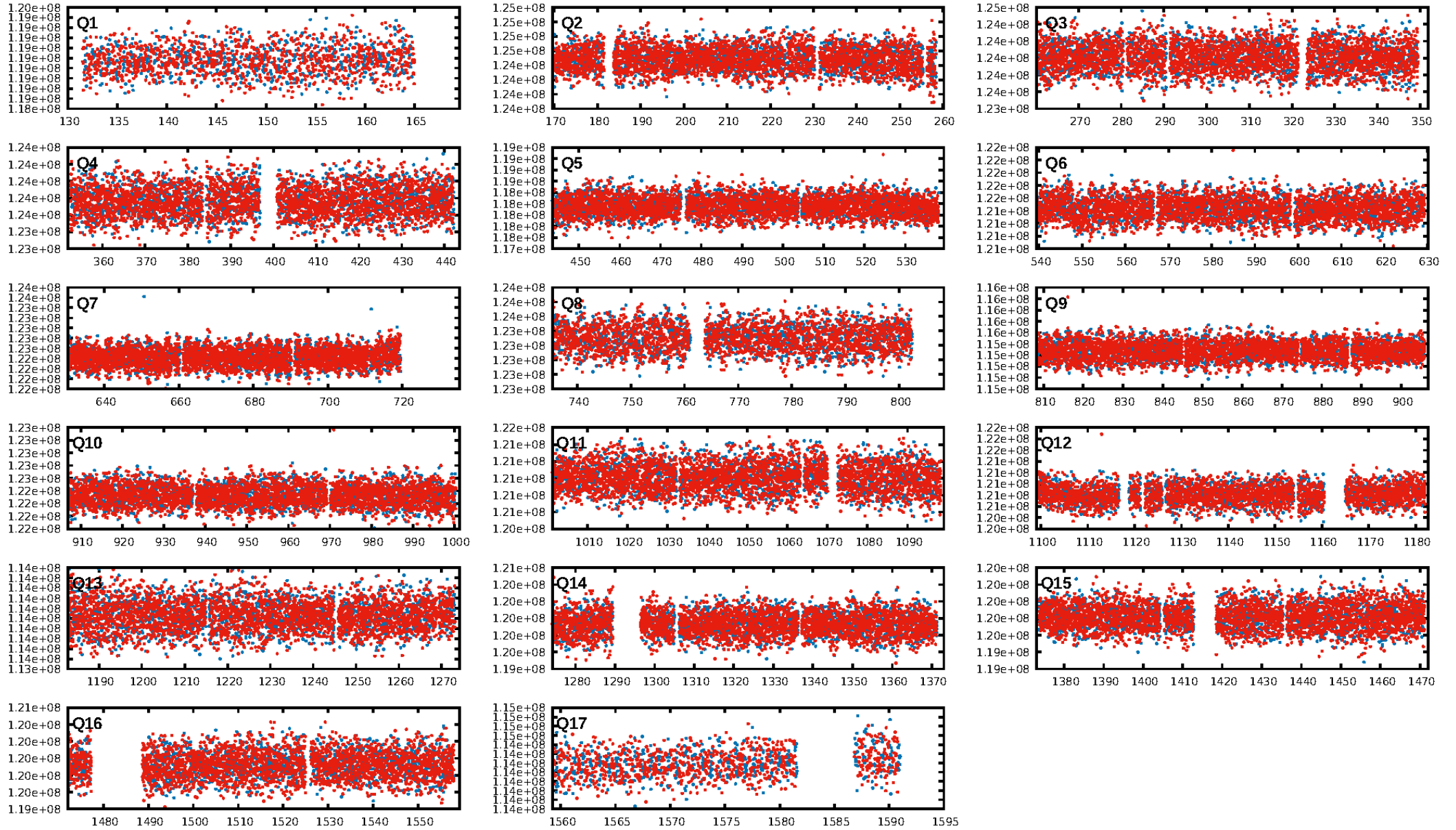
Ephemeris Match Information For 007173839-01

No Significant Match Found

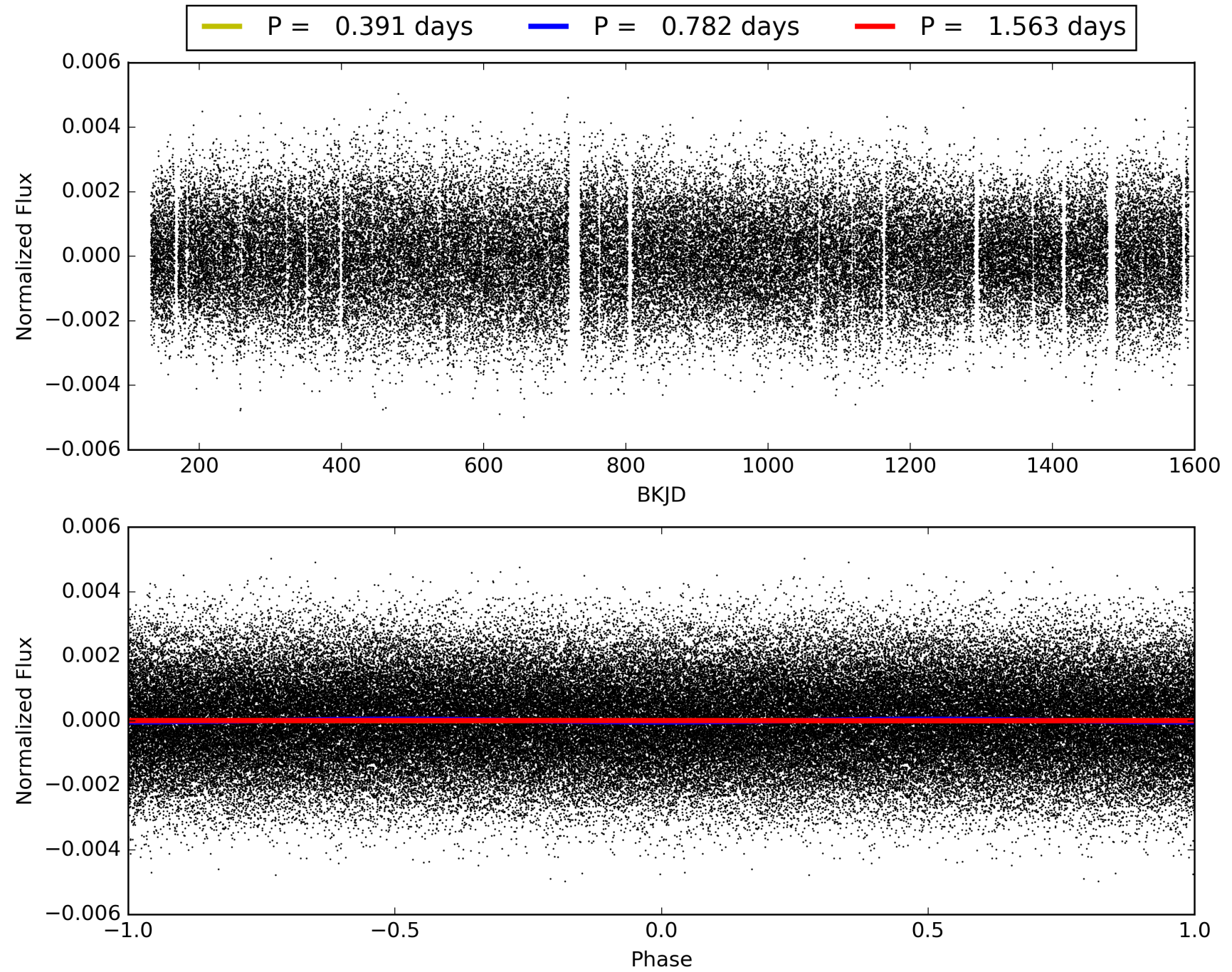
KIC: 7173839 Candidate: 1 of 1 Period: 0.782 d



TCE 007173839-01, PDC Light Curves

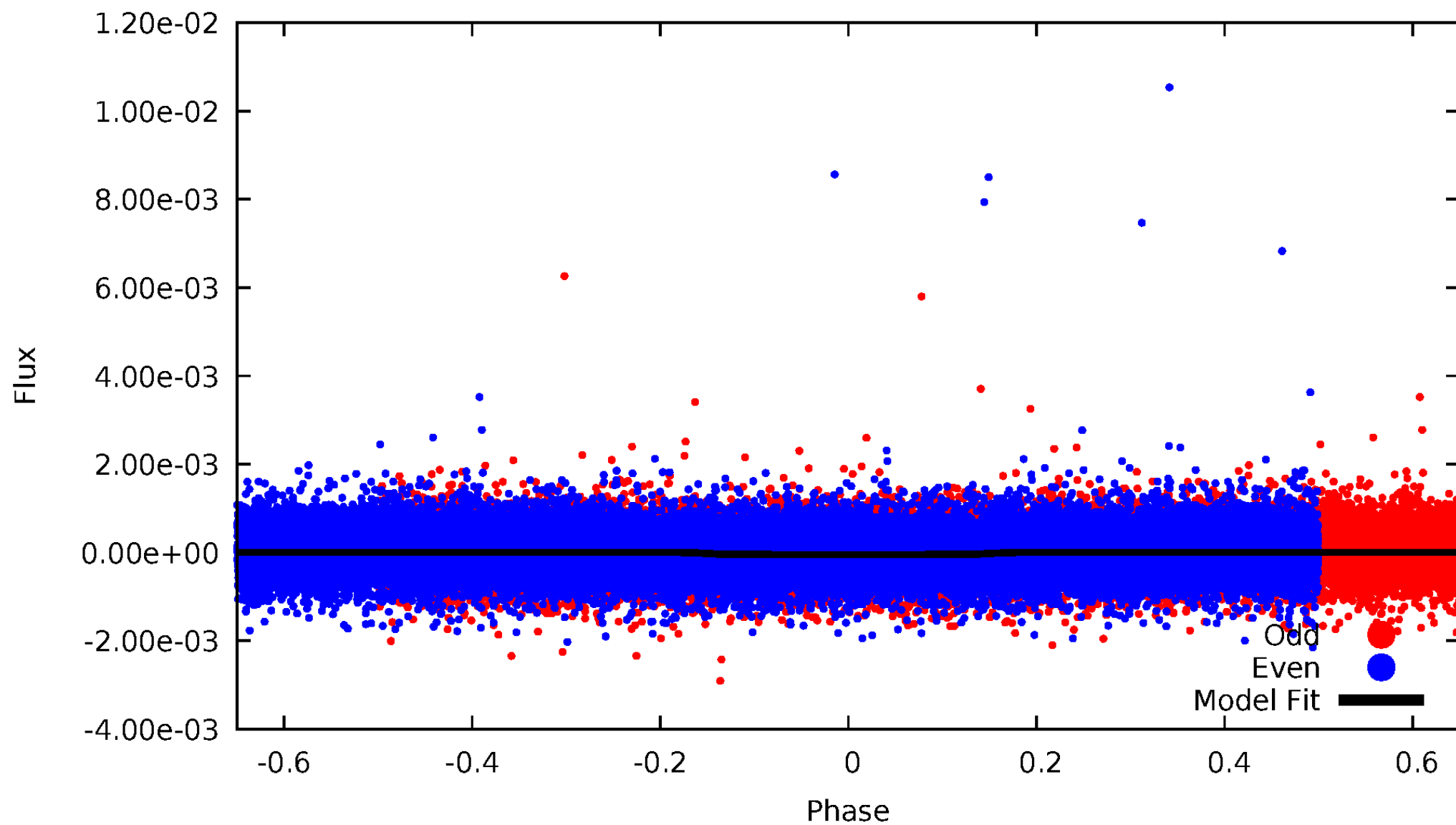


TCE 007173839-01



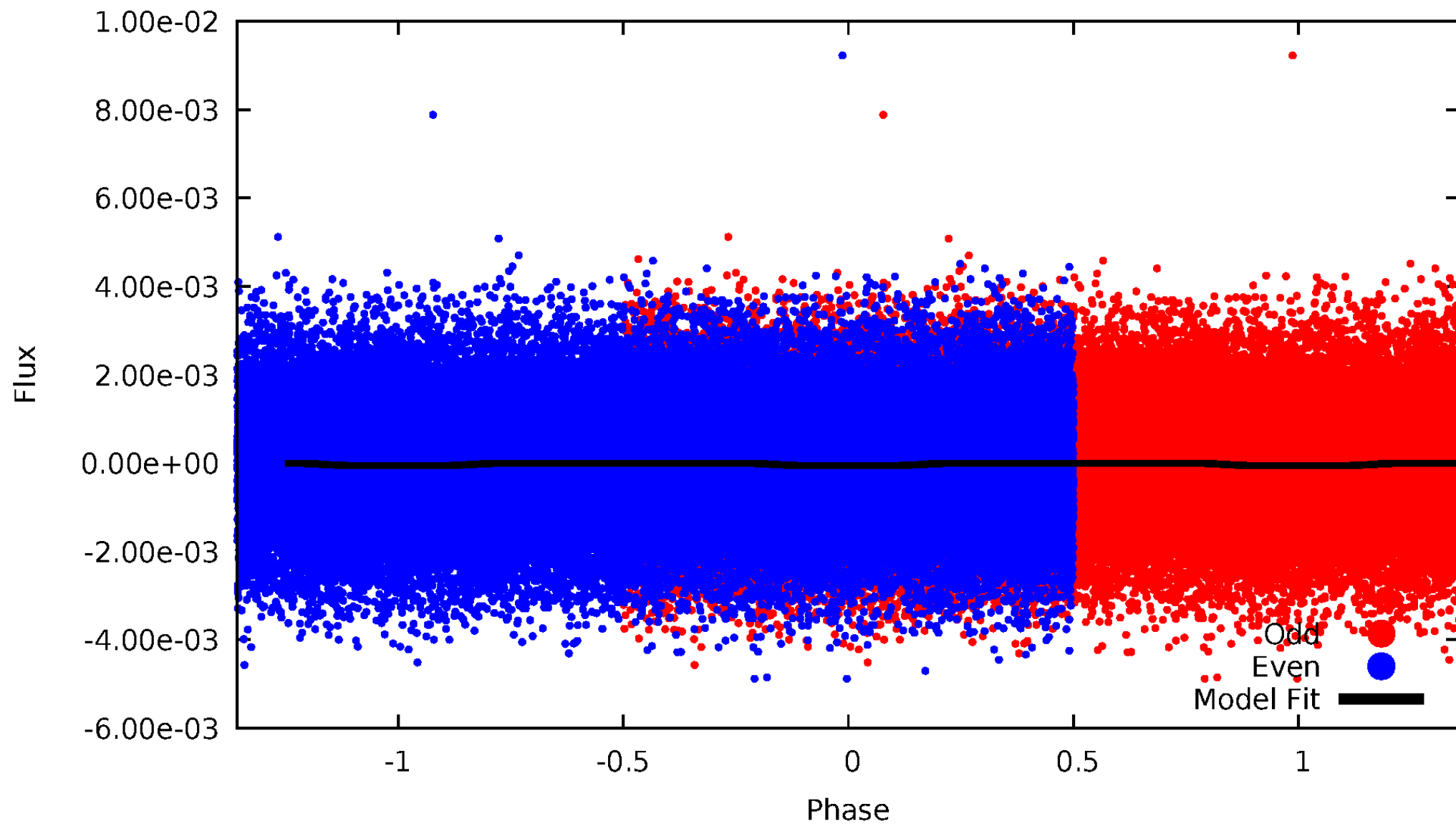
DV Odd/Even

TCE 007173839-01



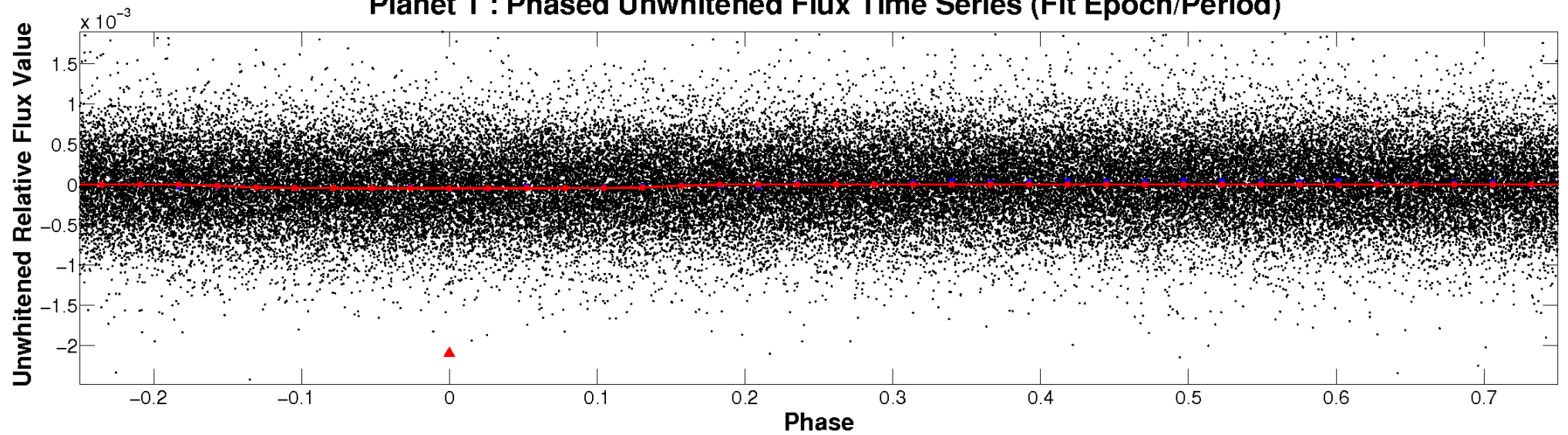
ALT Odd/Even

TCE 007173839-01

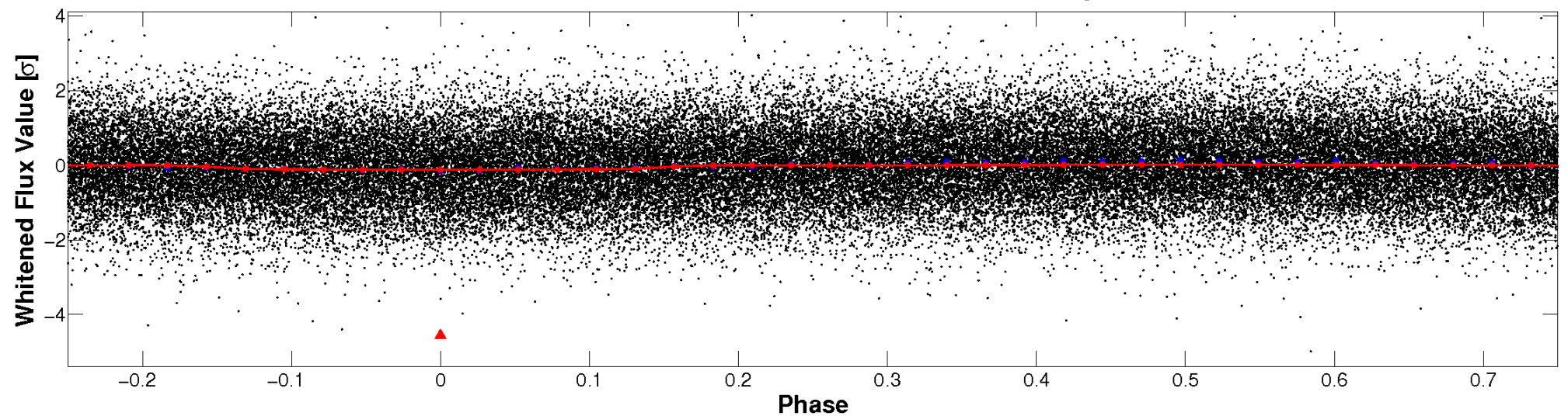


Non-Whitened Vs. Whitened Light Curve

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

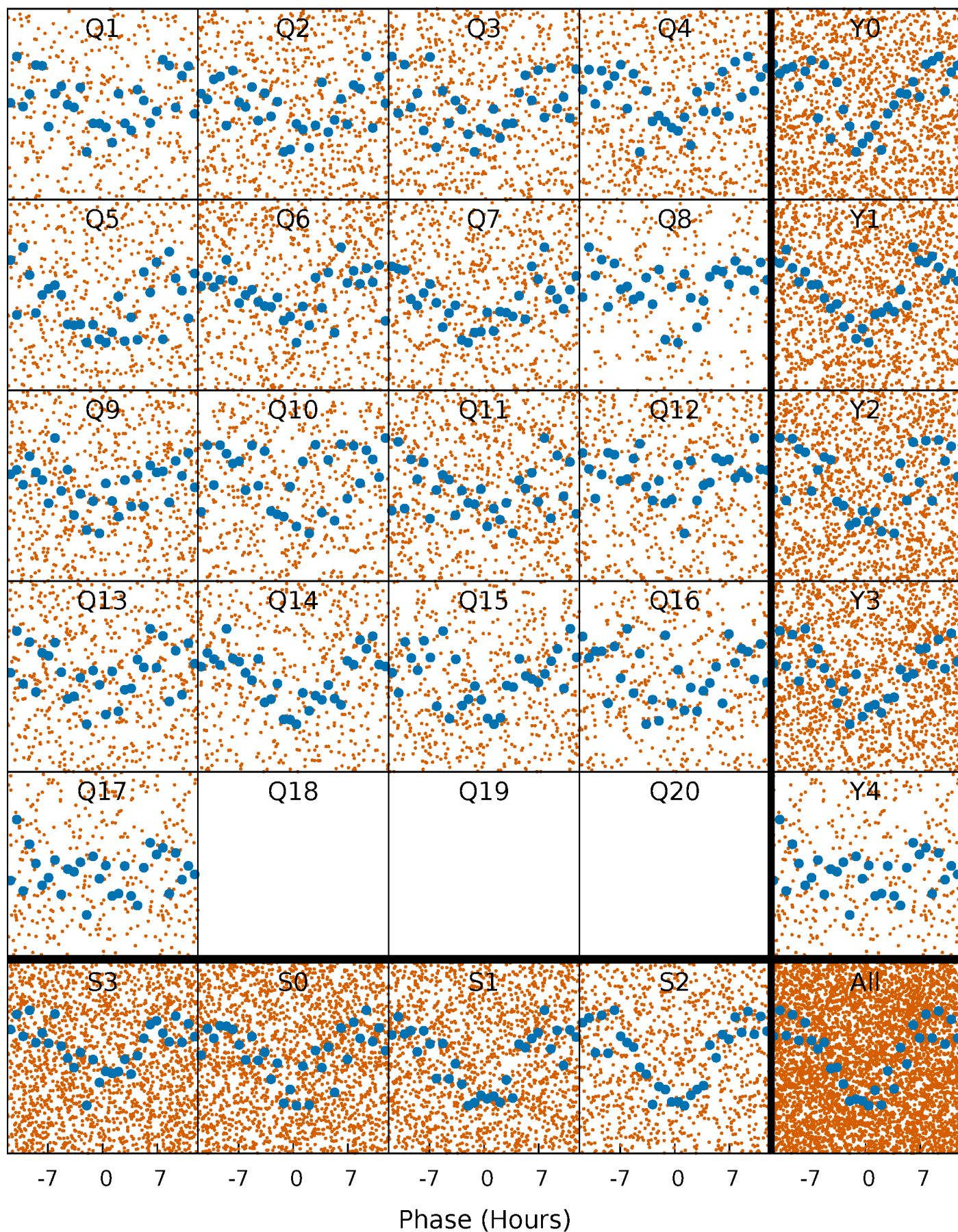


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



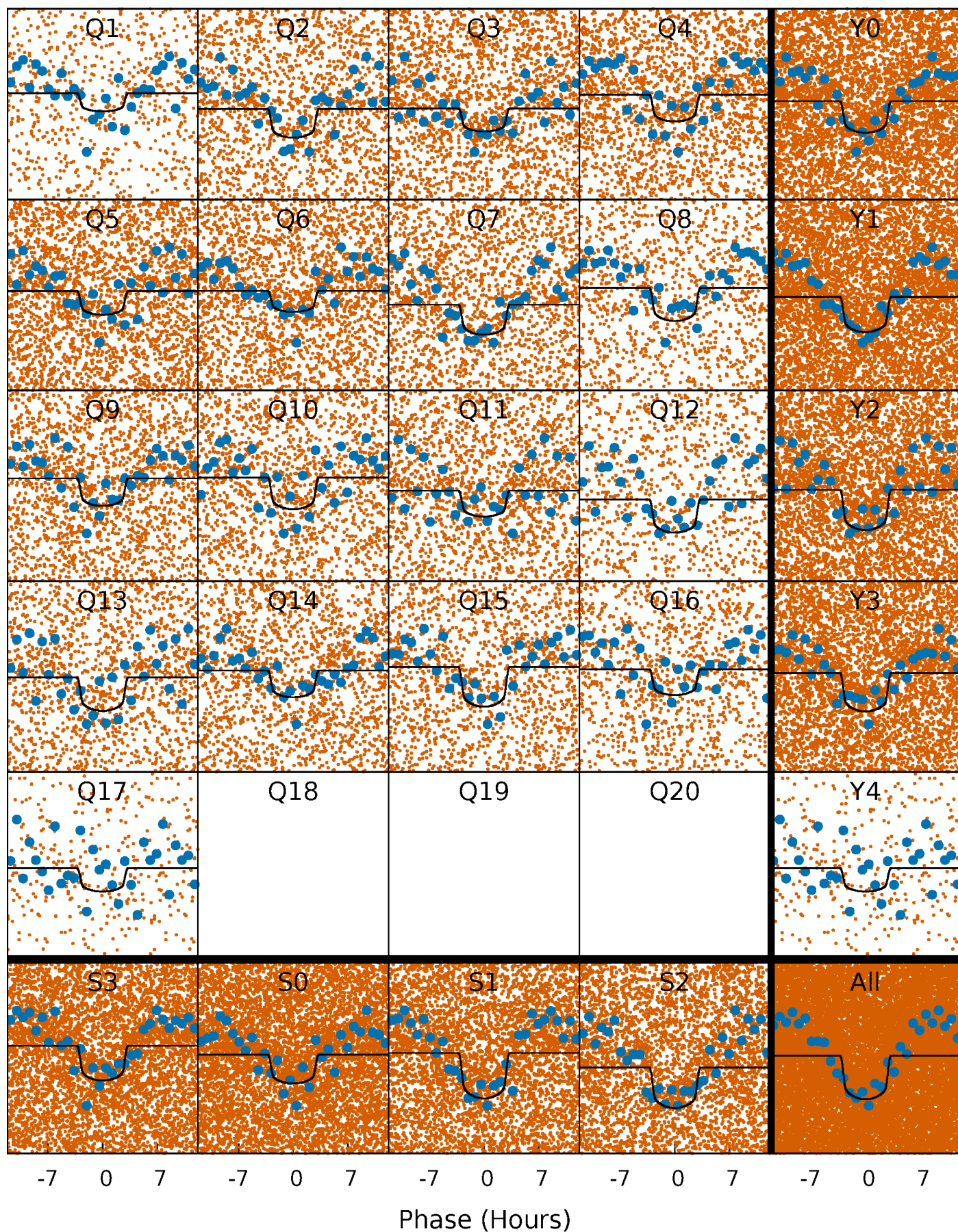
PDC Quarter-Phased Transit Curves

TCE 007173839-01 P= 0.781533 Days $T_0=132.184313$ (BKJD)



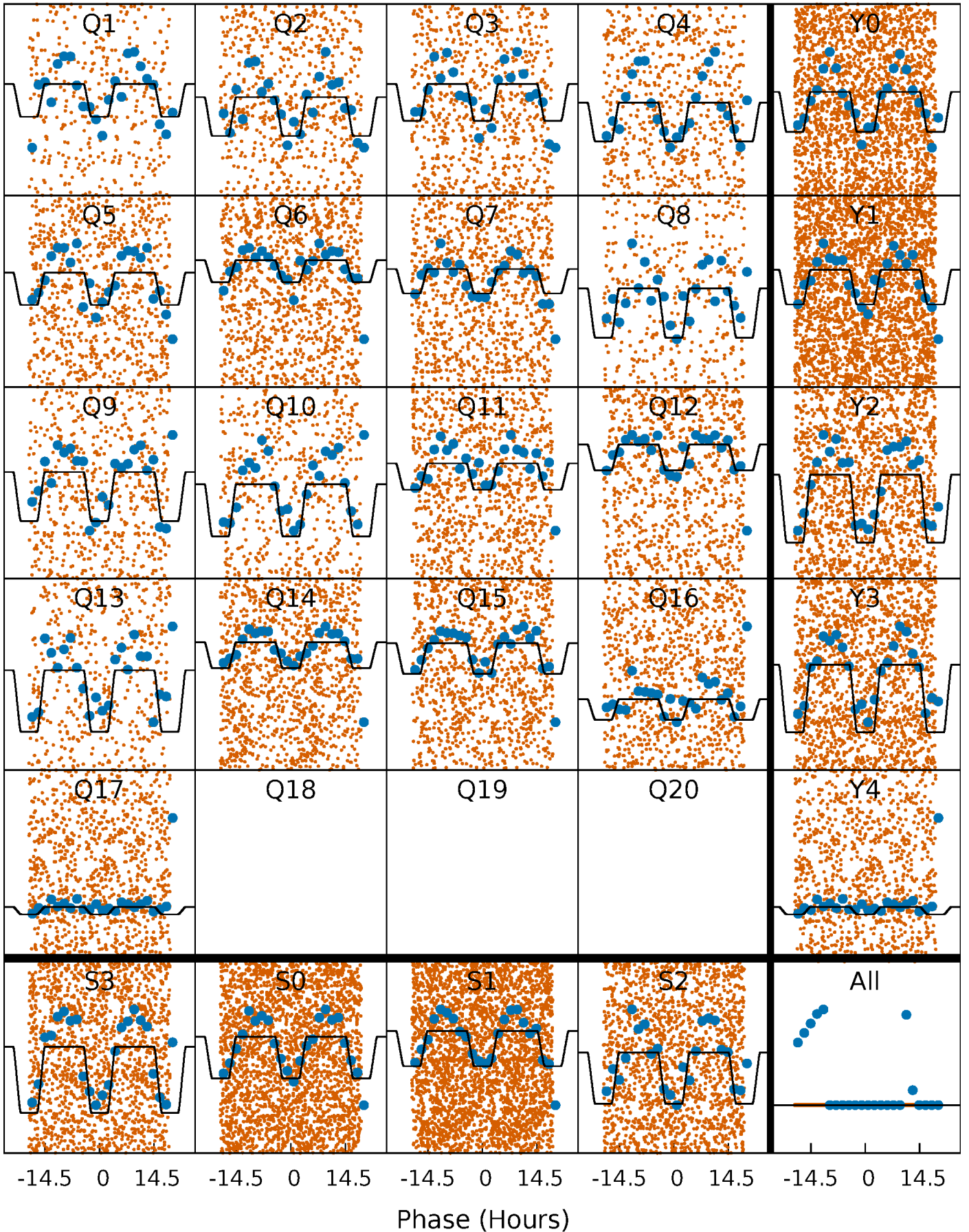
DV Quarter-Phased Transit Curves

TCE 007173839-01 P= 0.781533 Days $T_0=132.184313$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

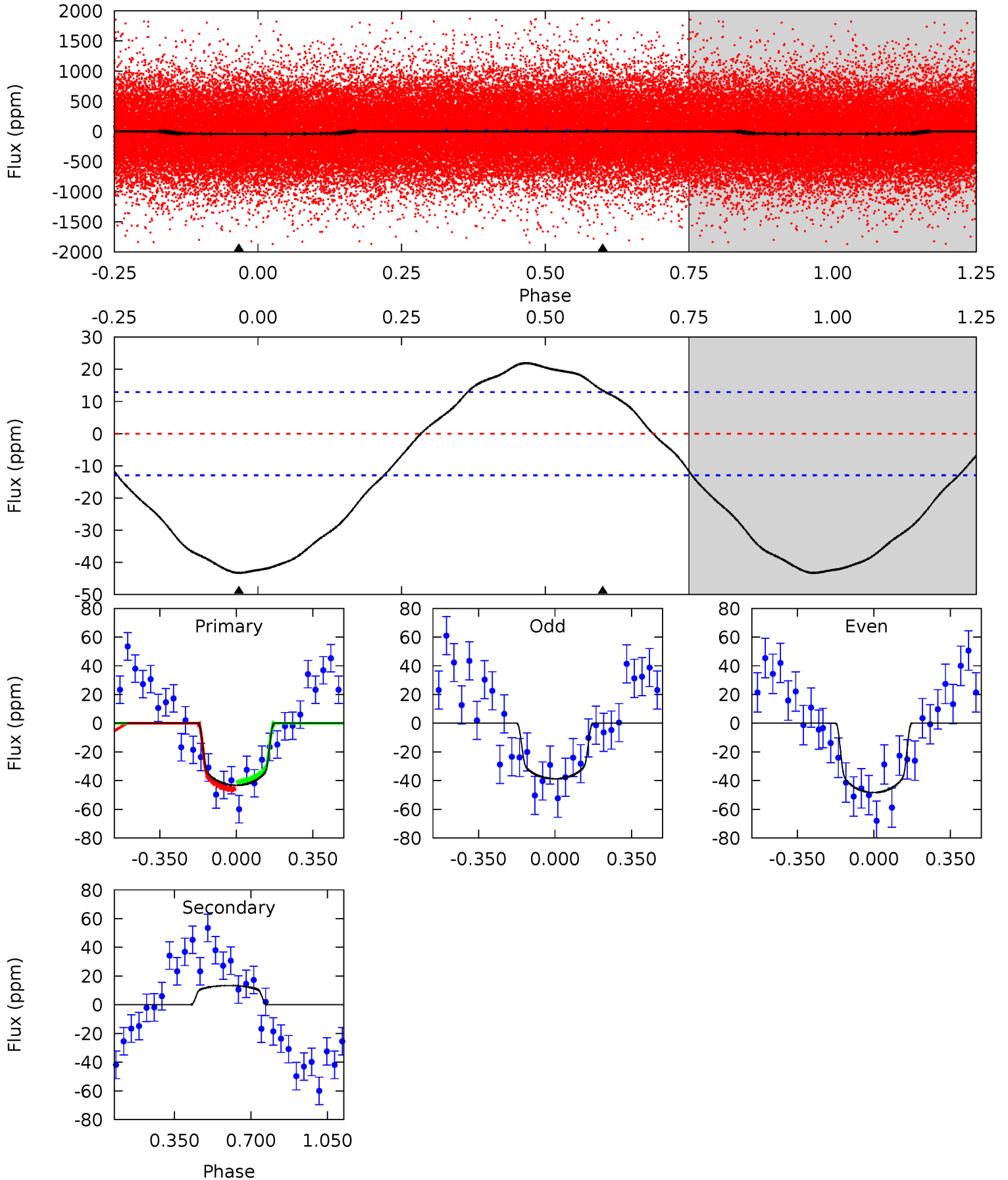
TCE 007173839-01 P= 0.781531 Days $T_0=132.185090$ (BKJD)



DV Model-Shift Uniqueness Test

007173839-01, P = 0.781533 Days, E = 131.402780 Days

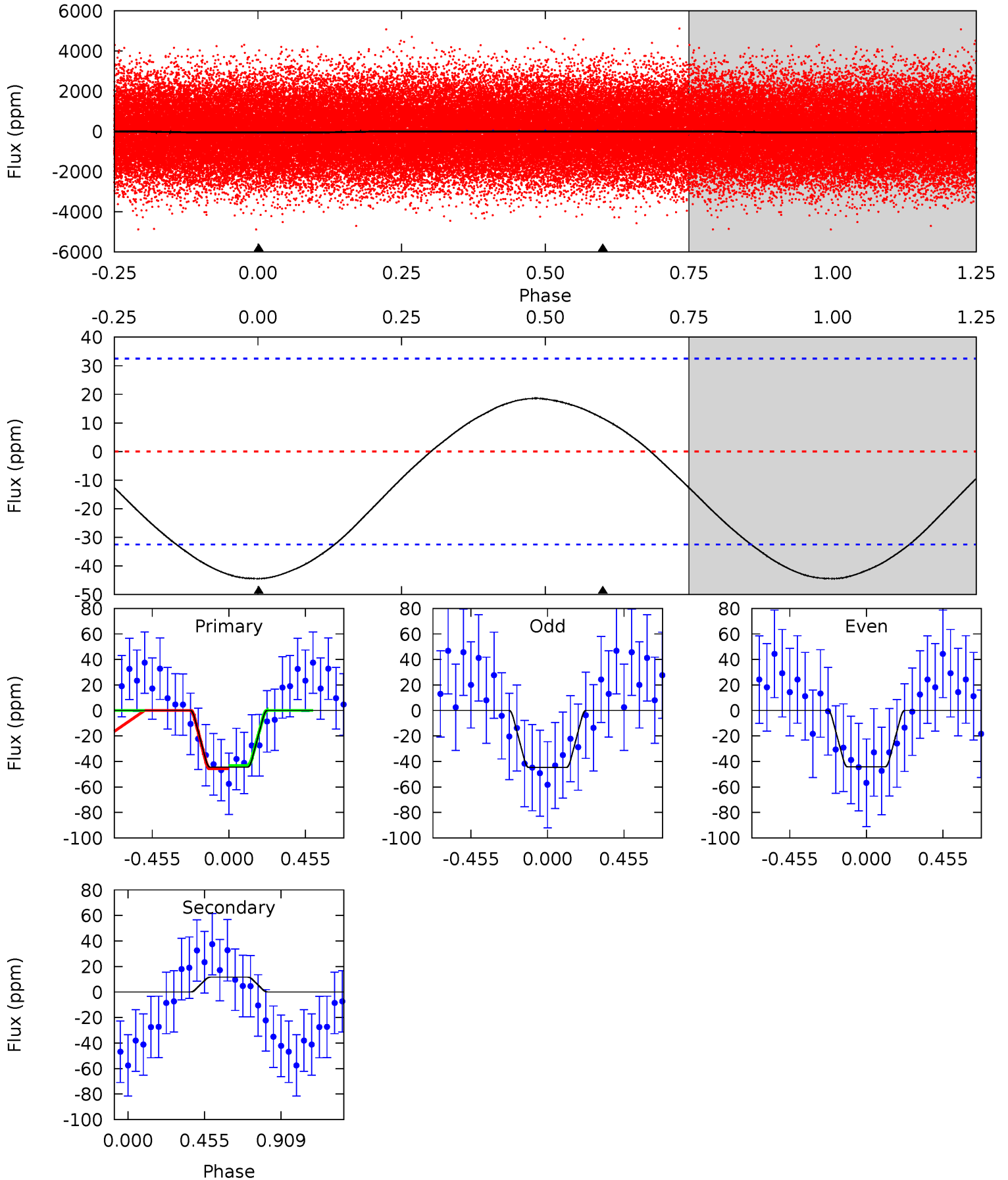
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.4	-4.45	0	0	4.29	0.93	1.70	14.4	14.4	-4.45	-4.45	1.61	1.06	0.34	0.90



Alt Model-Shift Uniqueness Test

007173839-01, P = 0.781531 Days, E = 131.403559 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.79	-1.51	0	0	4.24	0.75	0.66	5.79	5.79	-1.51	-1.51	0.03	1.19	0.30	0.16



Stellar Parameters For KIC 007173839

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8285^{+231}_{-346}	$3.971^{+0.228}_{-0.123}$	$0.070^{+0.250}_{-0.550}$	$2.451^{+0.427}_{-0.793}$	$2.050^{+0.321}_{-0.522}$	$0.196^{+0.308}_{-0.065}$
	+3%/-4%	+6%/-3%	+357%/-786%	+17%/-32%	+16%/-25%	+157%/-33%
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 007173839-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	13 ± 3	$1.86^{+0.68}_{-0.64}$	5464^{+330}_{-484}	-6123^{+619}_{-1203}	$-0.931^{+0.456}_{-1.345}$
Alt.	12 ± 8	$1.86^{+0.68}_{-0.62}$	5441^{+360}_{-455}	-5805^{+886}_{-1241}	$-0.734^{+0.550}_{-1.248}$

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 $A_{obs} \gg 1.0$

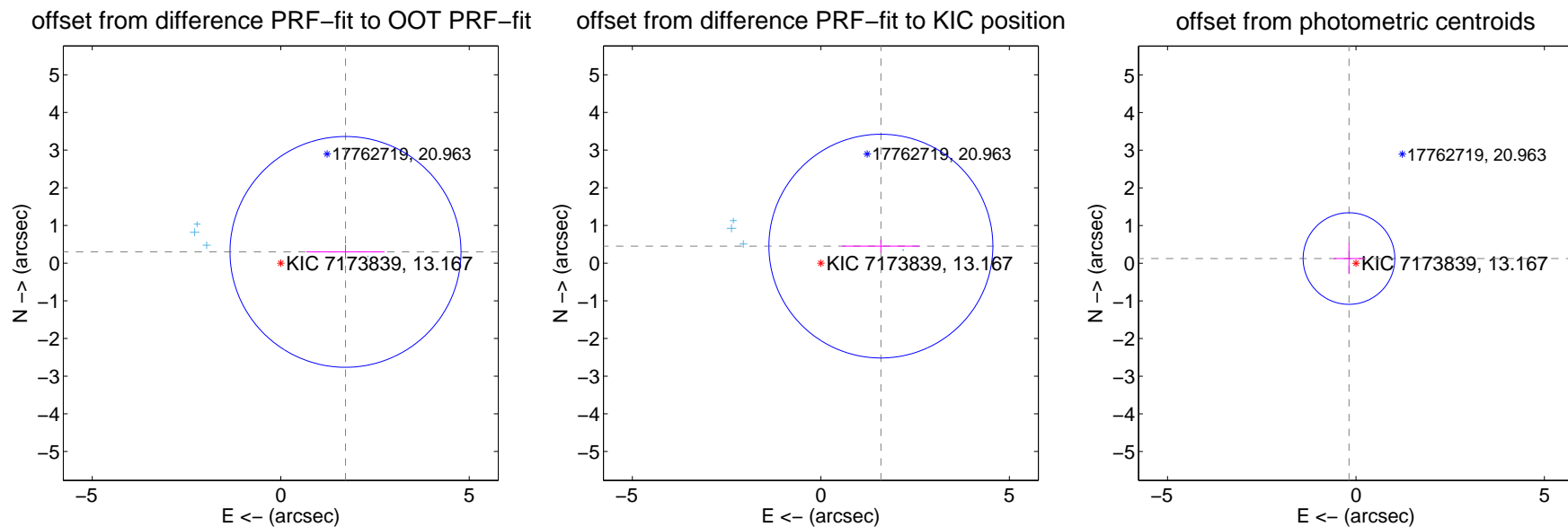
DV Centroid Data

Supplemental centroid analysis for 007173839-01. Kepler magnitude: 13.17. Transit SNR 15.54

There are 4 quarters with good PRF difference image offsets

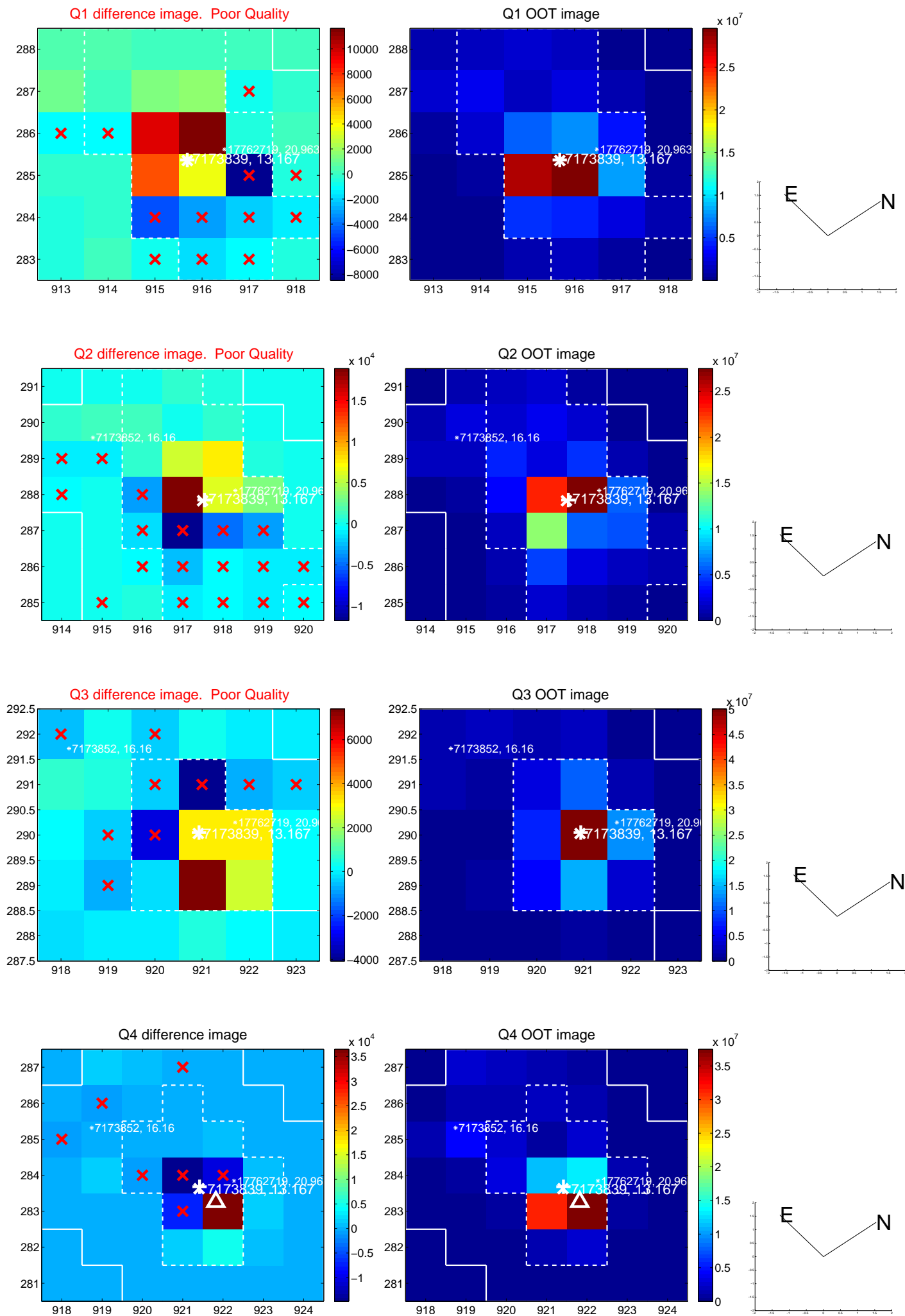
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.743 ± 1.021	1.71	-1.717 ± 1.036	0.298 ± 0.189
PRF-fit source offset from KIC position	1.655 ± 0.990	1.67	-1.592 ± 1.028	0.452 ± 0.169
photometric centroid source offset	0.22 ± 0.41	0.55	0.19 ± 0.40	0.12 ± 0.41

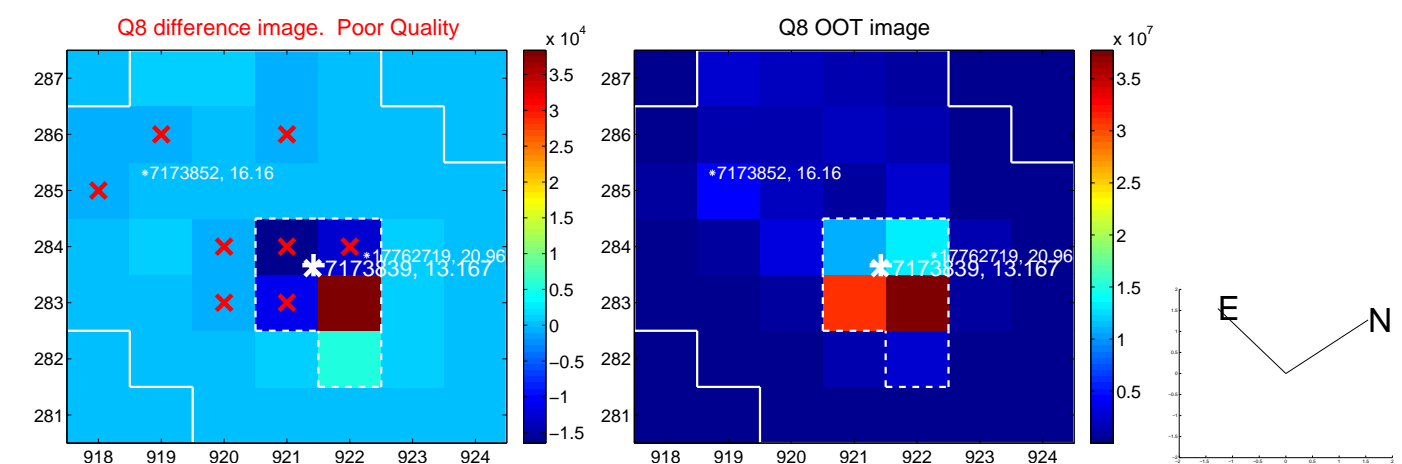
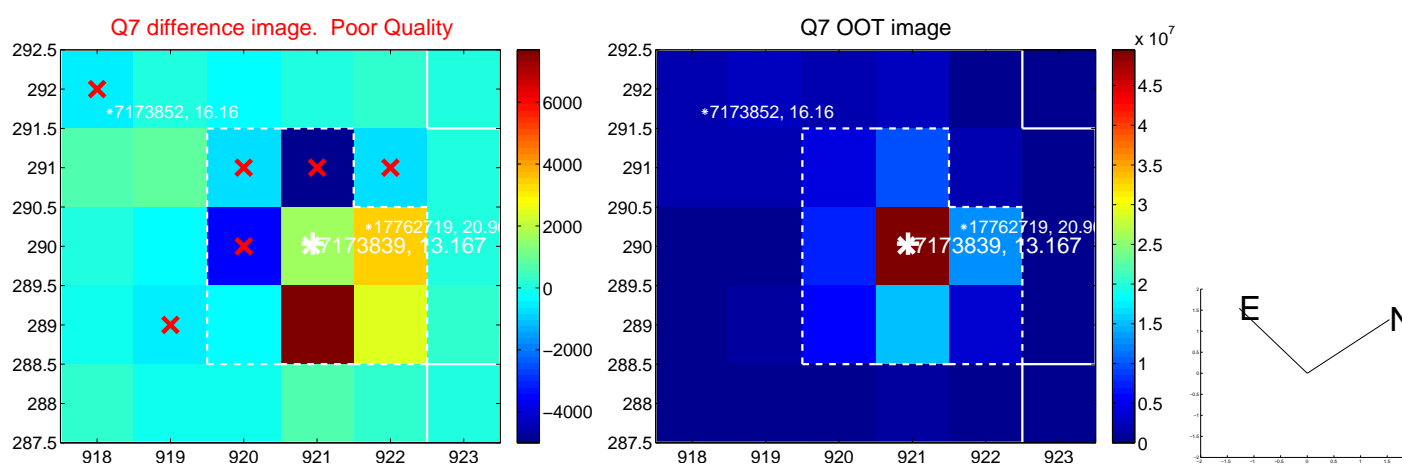
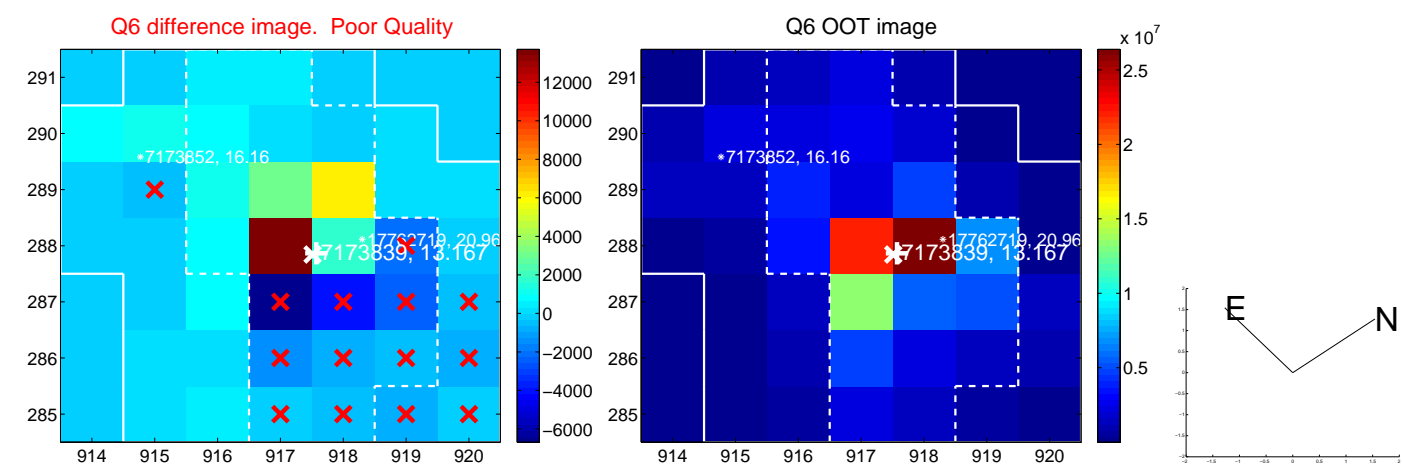
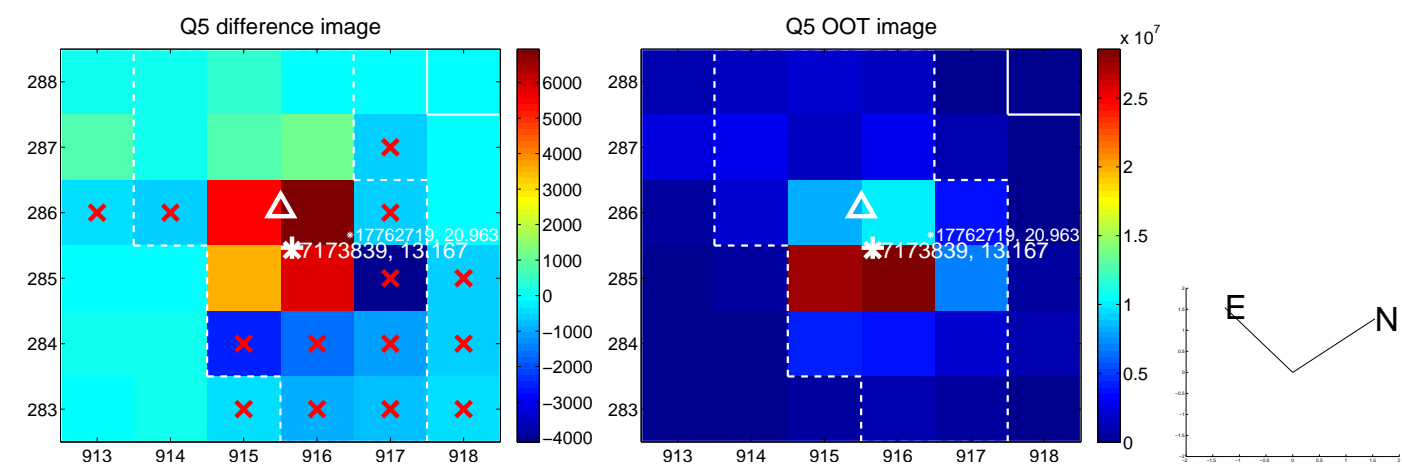


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

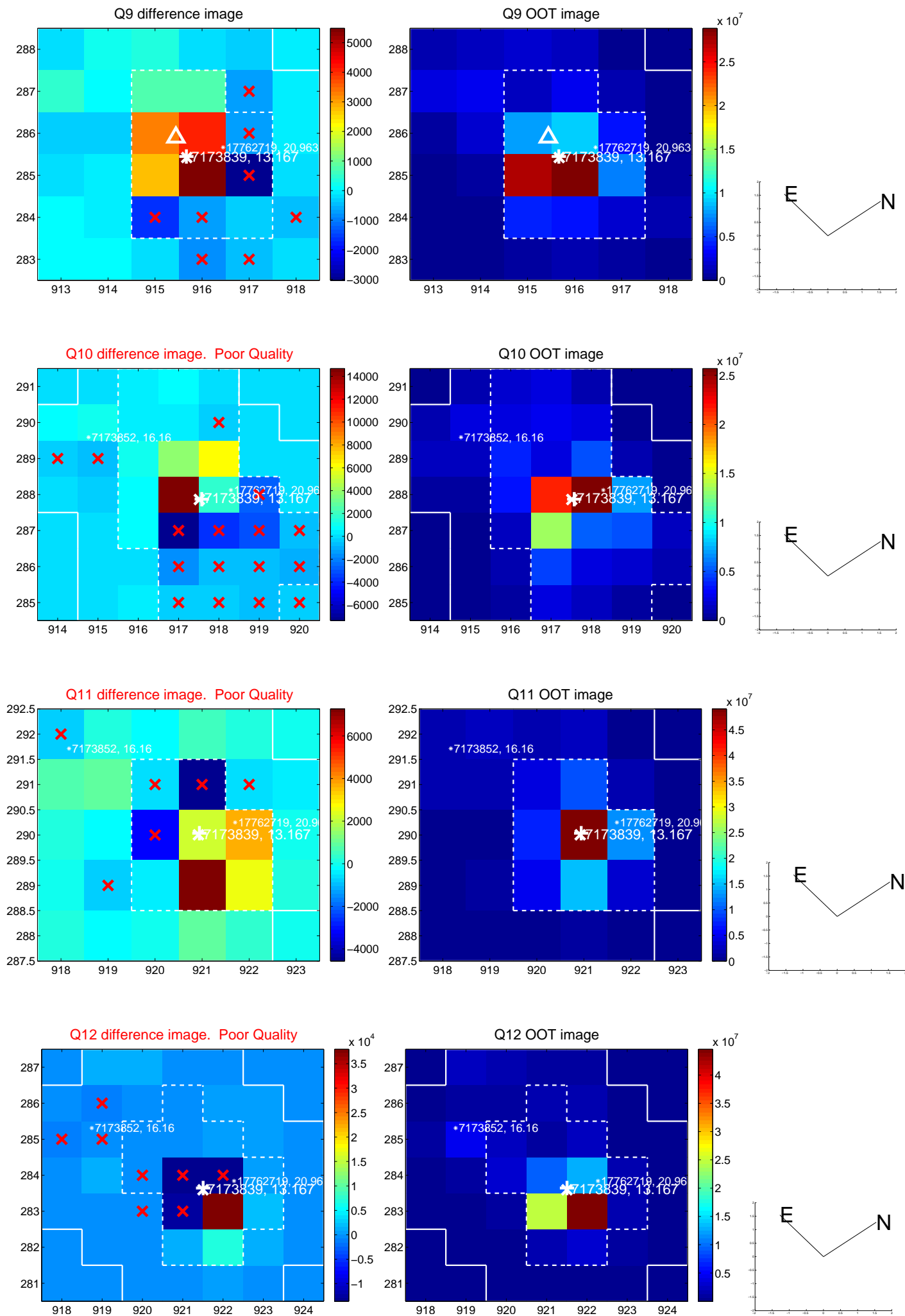
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



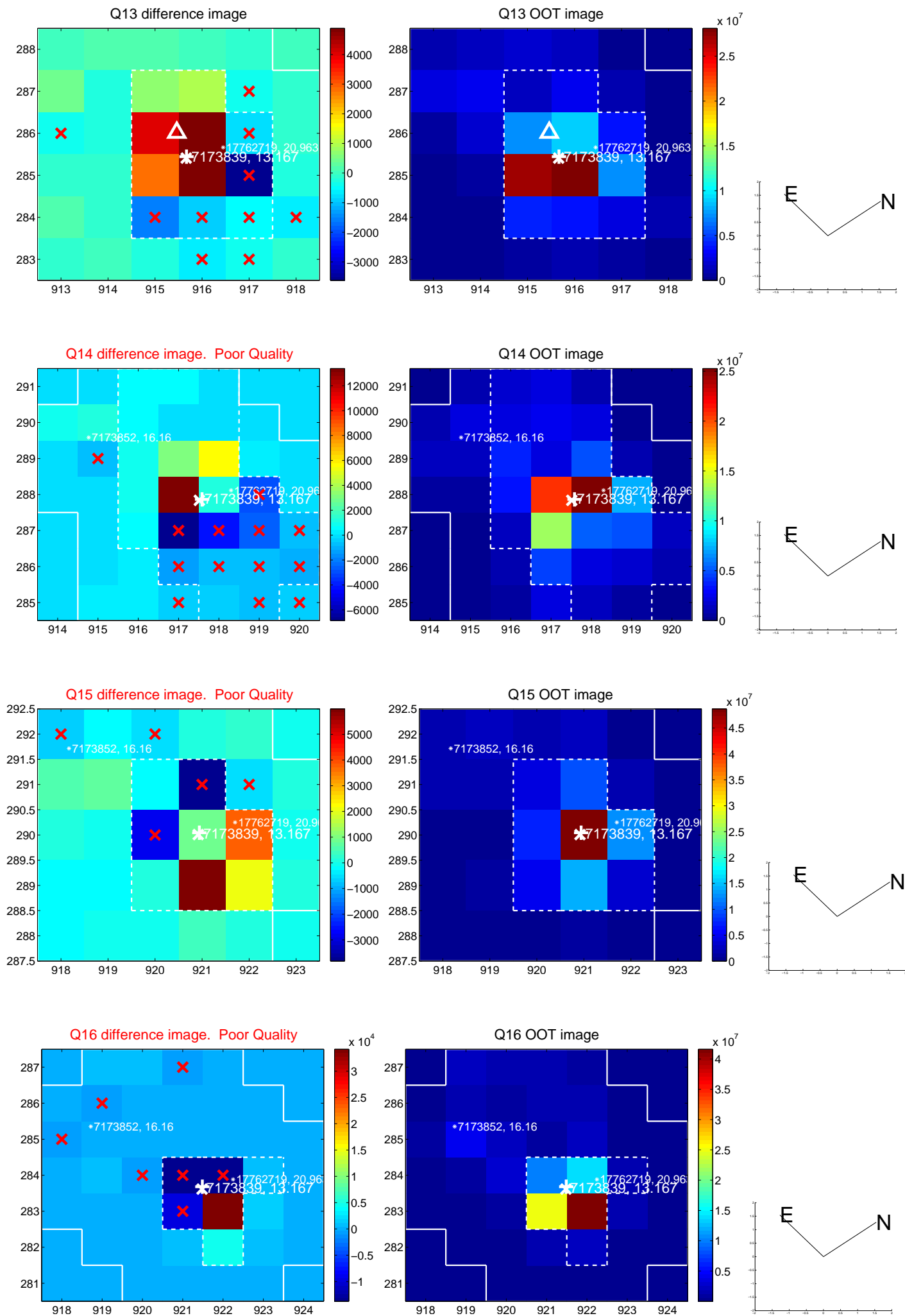
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



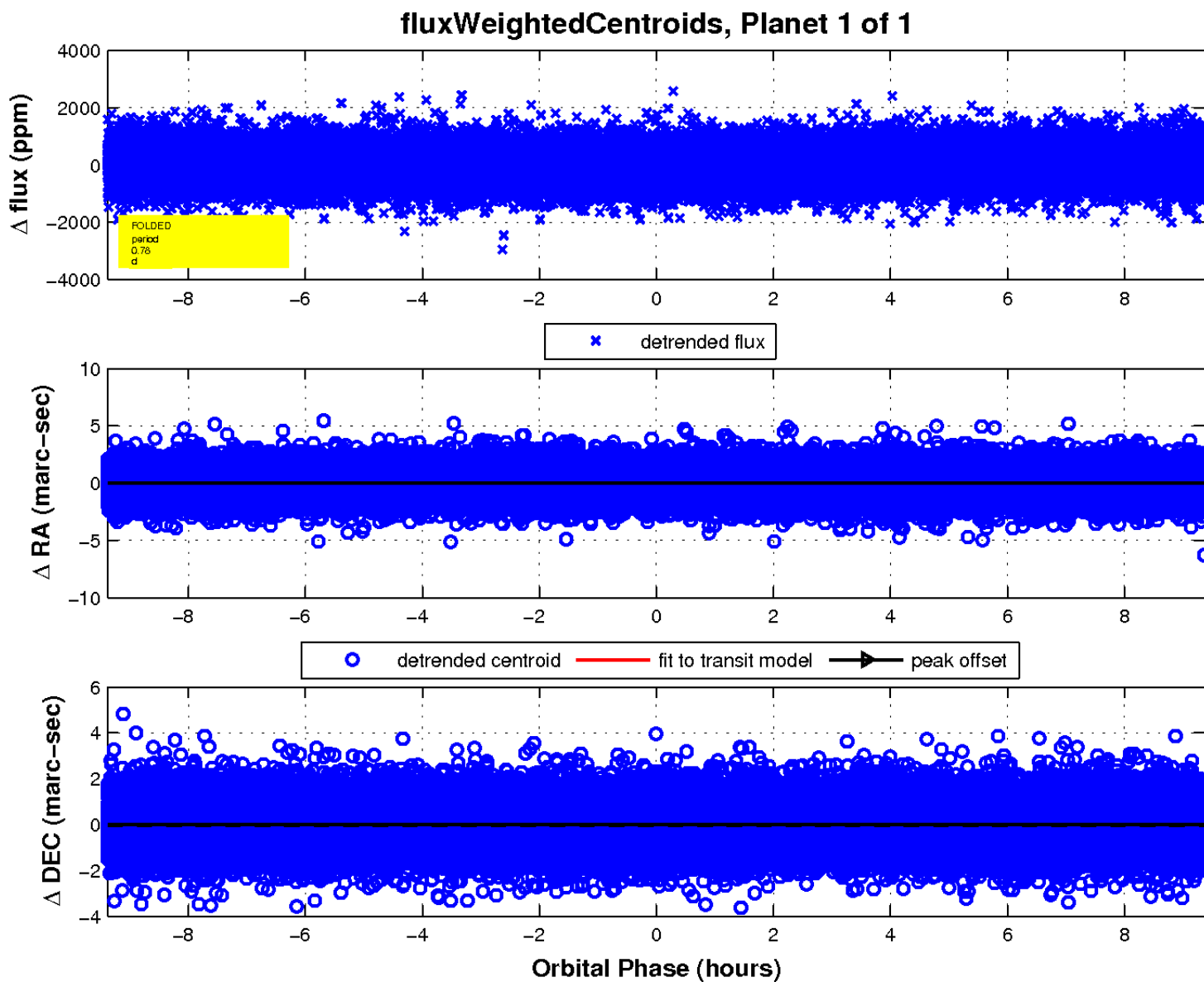
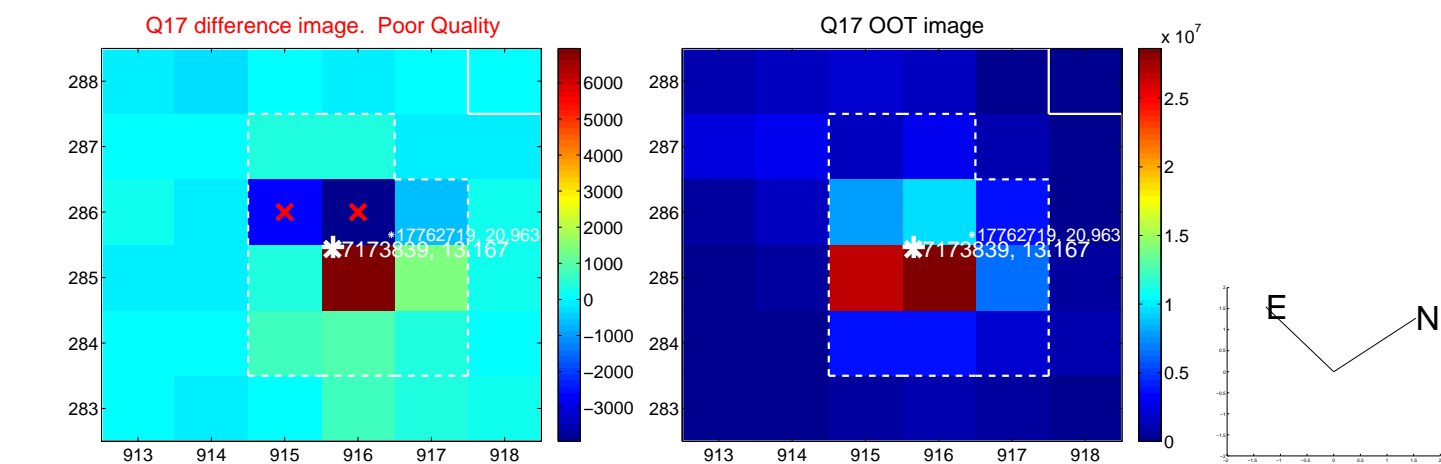
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UKIRT Image

