

KIC 010880041

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})
010880041-01	OBS	No	1.495049	132.915188	0.0	1.160	8.2	0.0	4.35	6534	0.04	31332.55

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010880041-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV

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

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

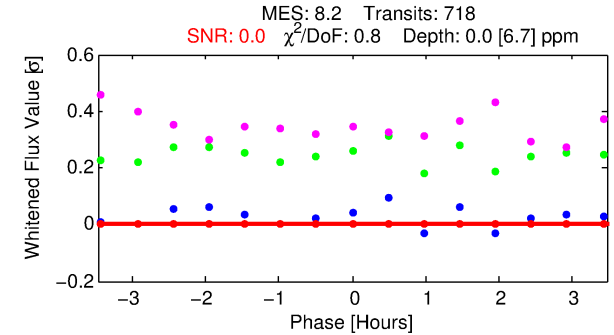
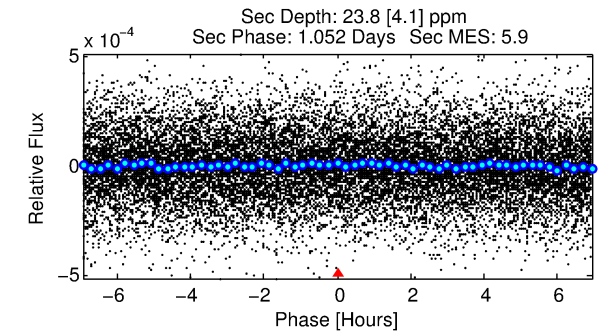
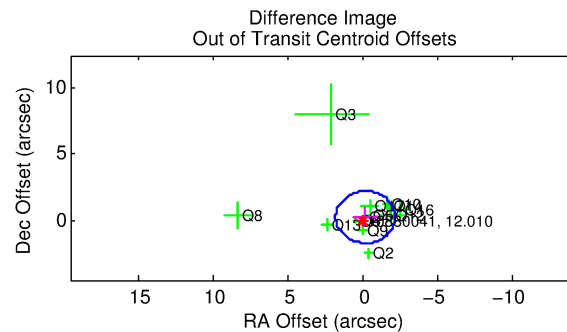
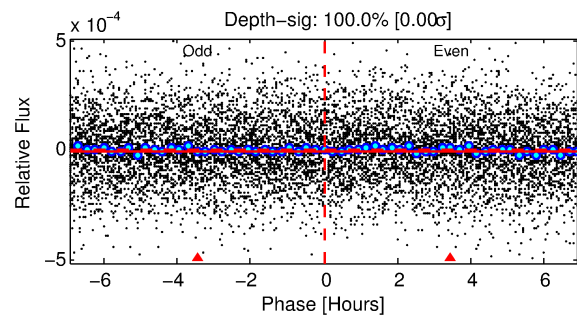
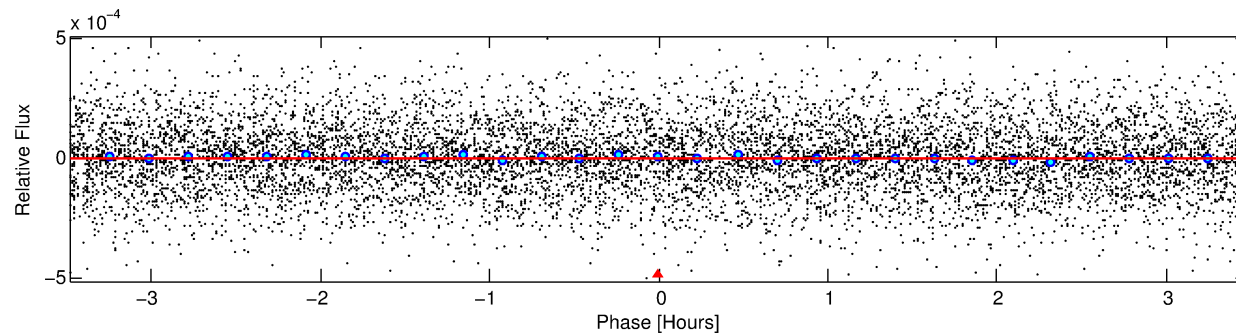
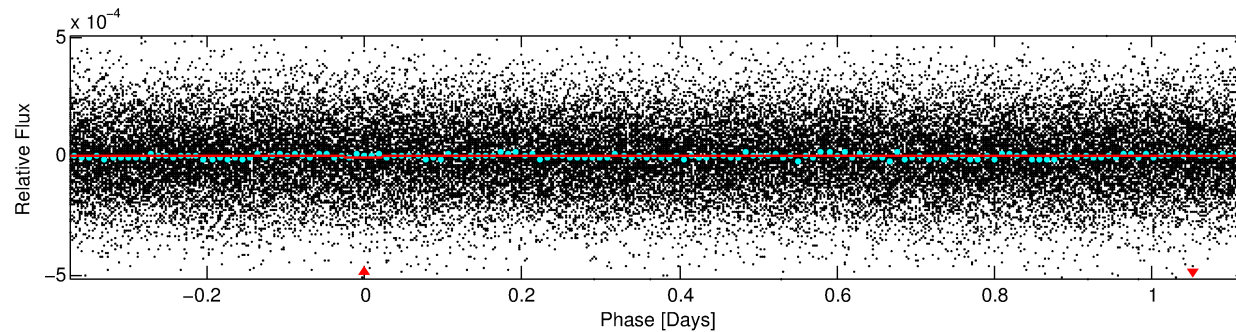
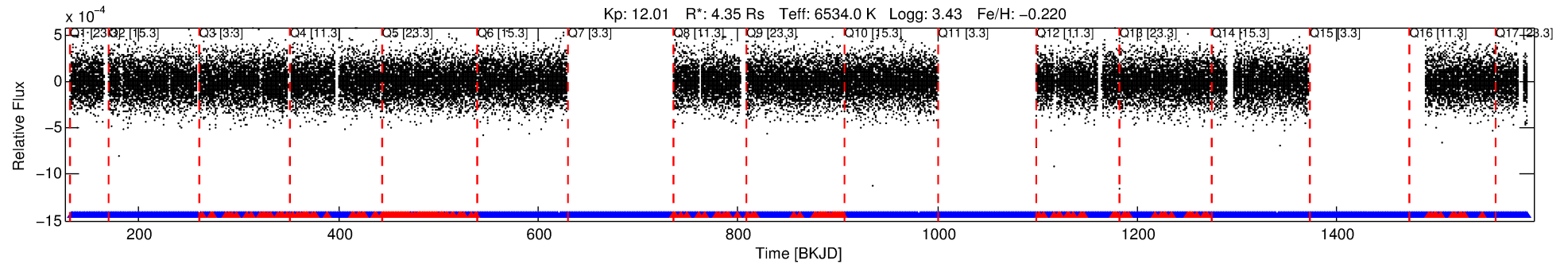
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010880041-01

No Significant Match Found

DV One-Page Summary

KIC: 10880041 Candidate: 1 of 1 Period: 1.495 d



DV Fit Results:

Period = 1.49505 [0.17679] d
Epoch = 132.9152 [26.4608] BKJD
Rp/R* = 0.0001 [0.0895]
a/R* = 1.13 [424.49]
b = 1.00 [5.18]
Seff = 31332.55 [20963.60]
Teq = 3393 [567] K
Rp = 0.04 [42.50] Re
a = 0.0314 [0.0125] AU
Ag = 9994.42 [23621630.62] [0.00σ]
Teffp = 52445 [30989598] K [0.00σ]

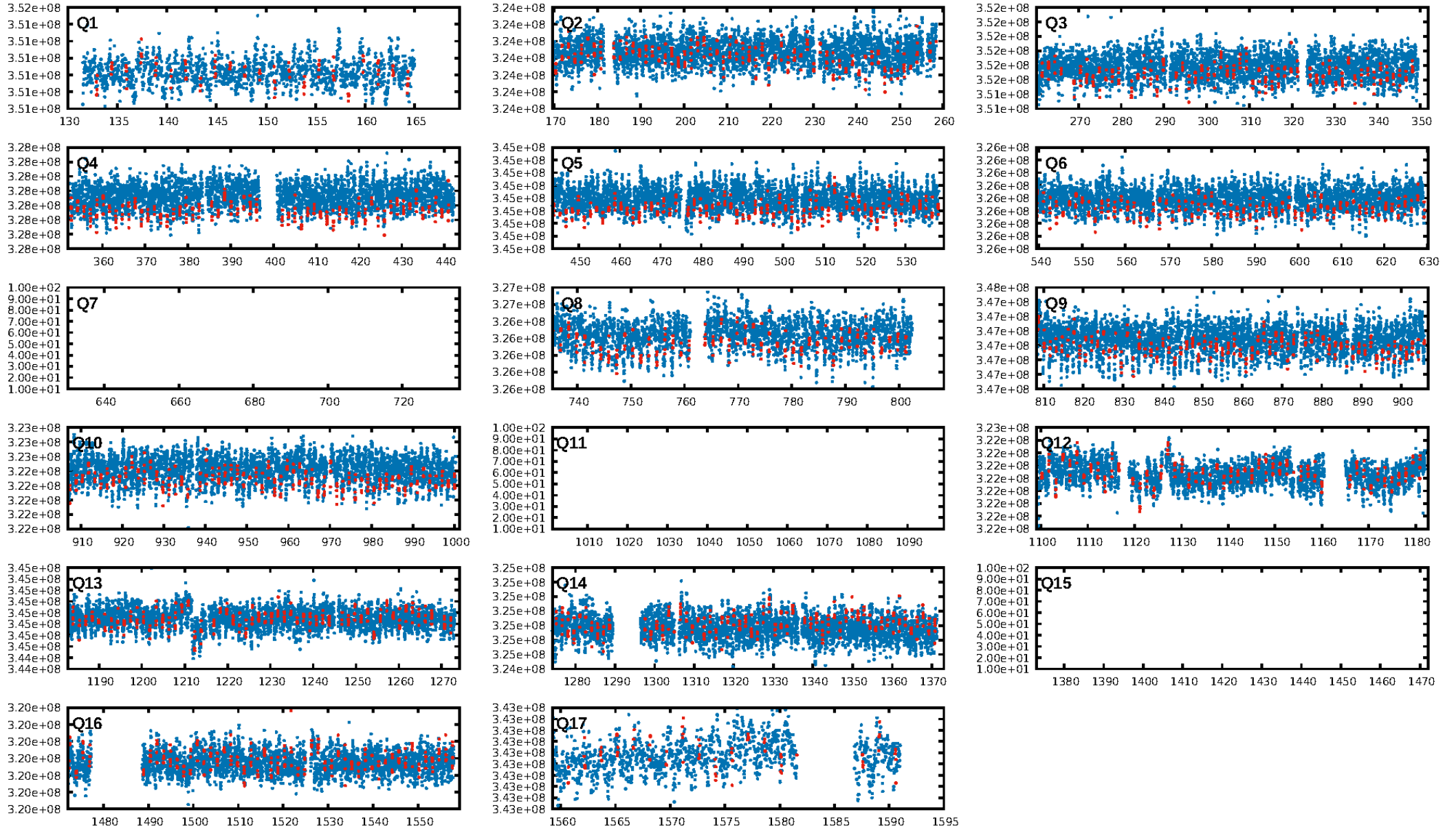
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 5.69e-14
RollingBand-fgt: 0.77 [522/678]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.324 arcsec [0.49σ]
KicOffset-rm: 0.365 arcsec [0.57σ]
OotOffset-st: 4/1/4/4 [13]
KicOffset-st: 4/1/4/4 [13]
DiffImageQuality-fgm: 0.46 [6/13]
DiffImageOverlap-fno: 1.00 [14/14]

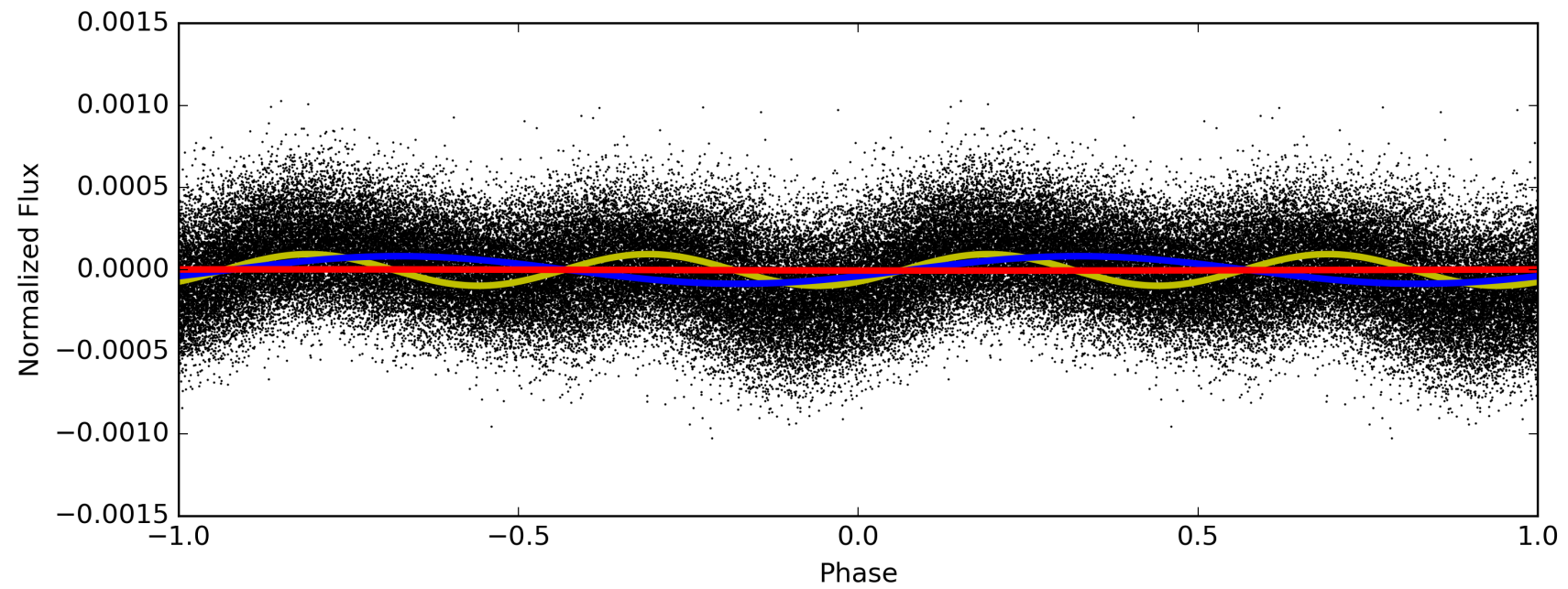
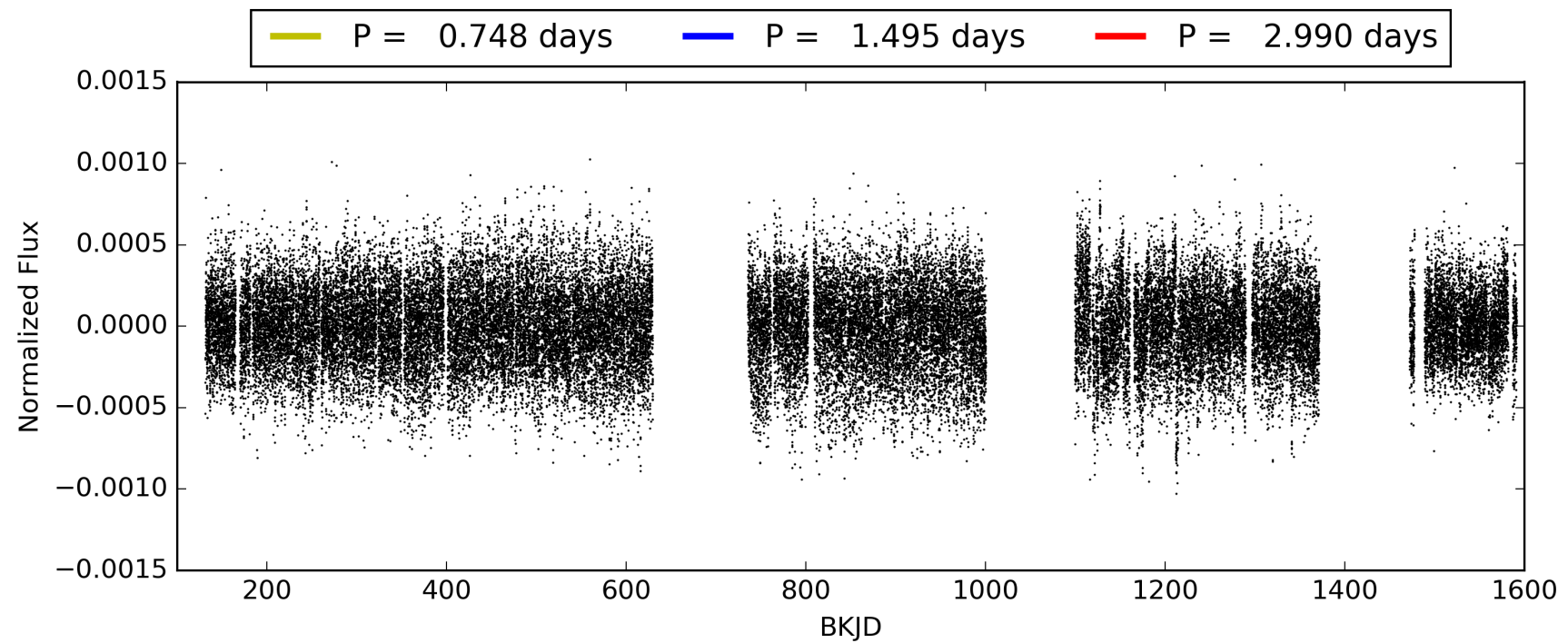
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 03:40:07 Z

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

TCE 010880041-01, PDC Light Curves

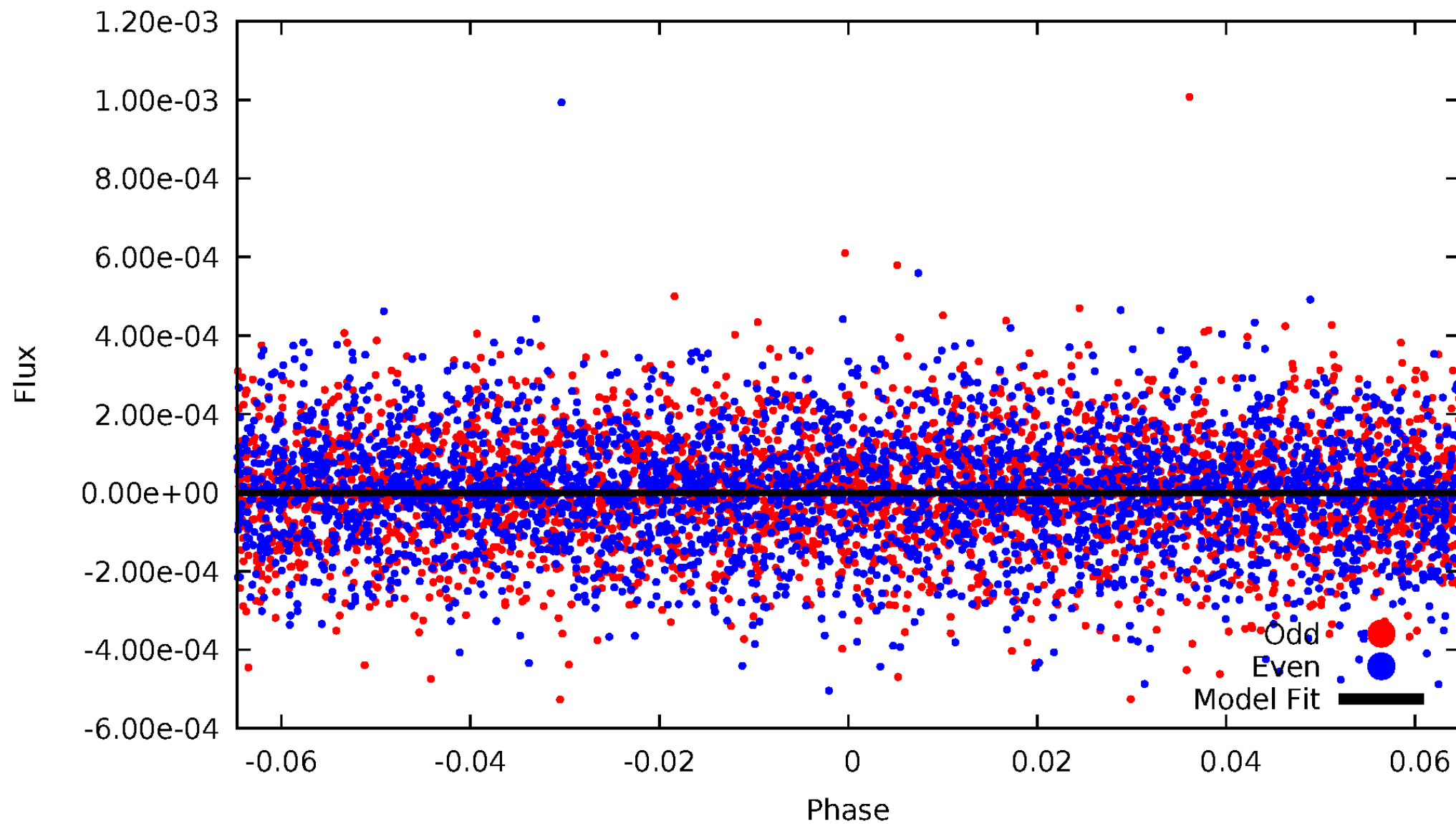


TCE 010880041-01



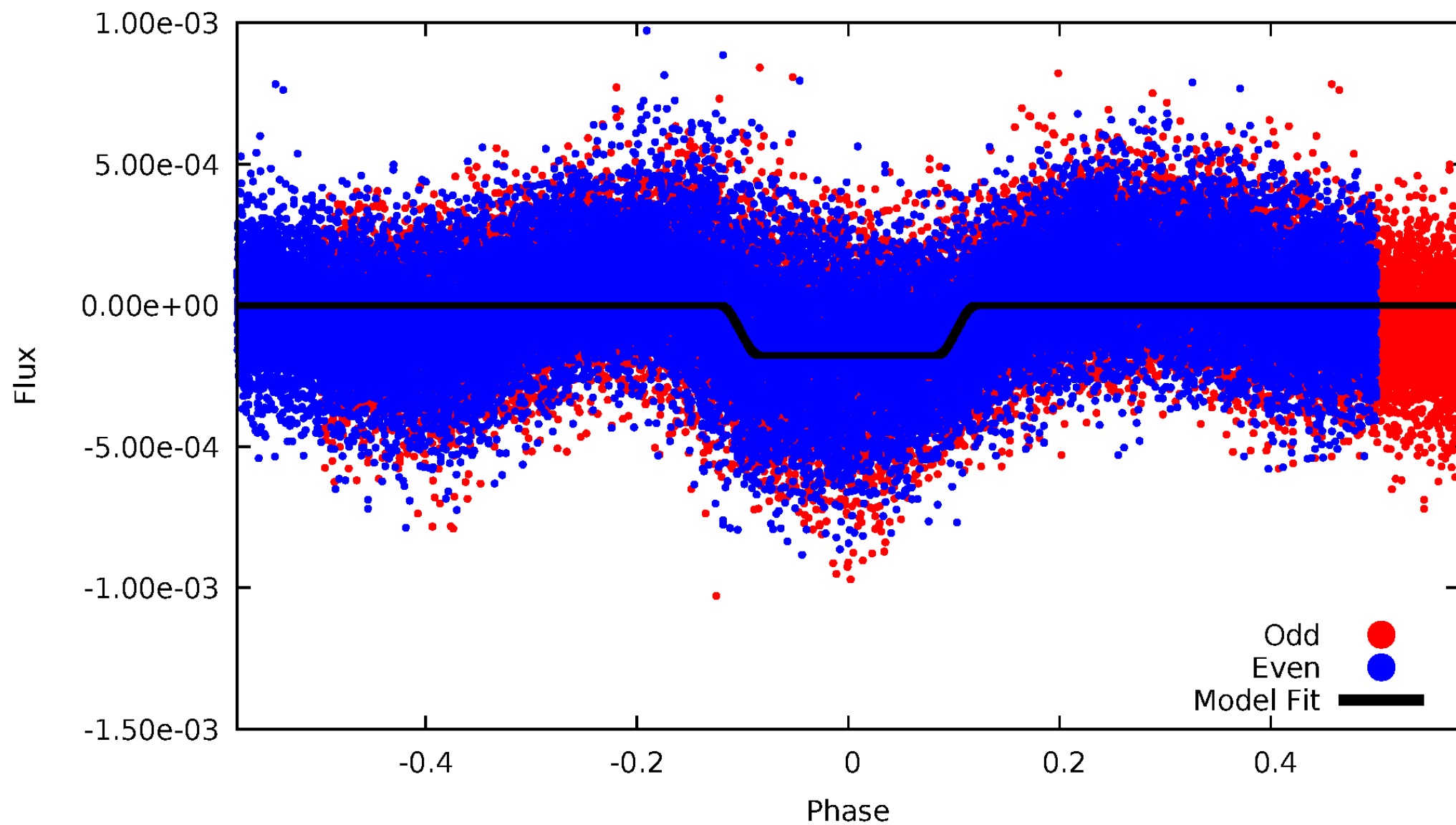
DV Odd/Even

TCE 010880041-01



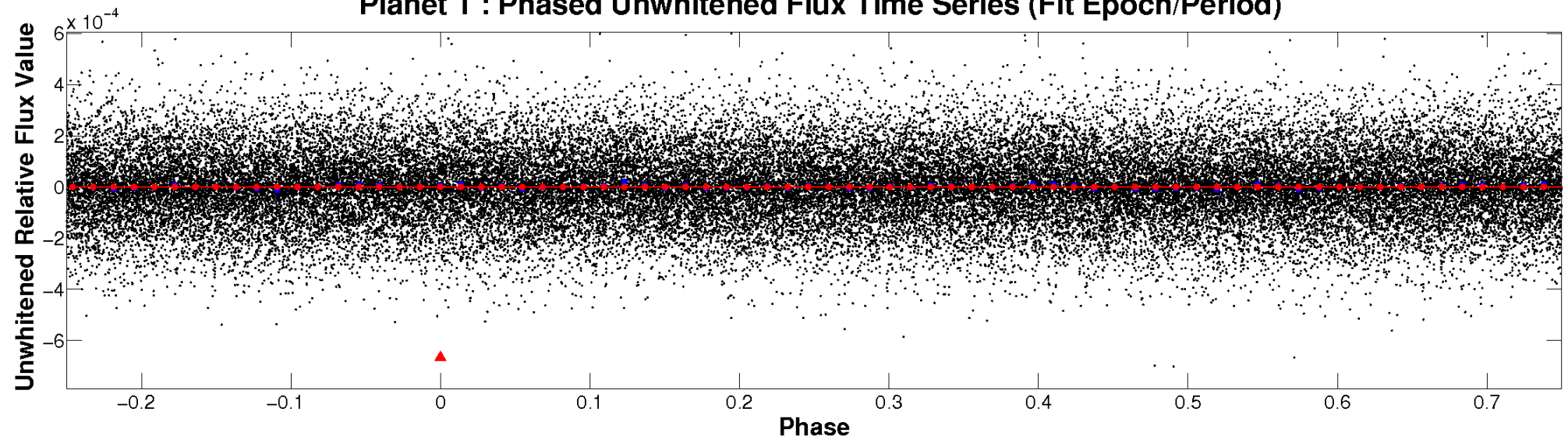
ALT Odd/Even

TCE 010880041-01

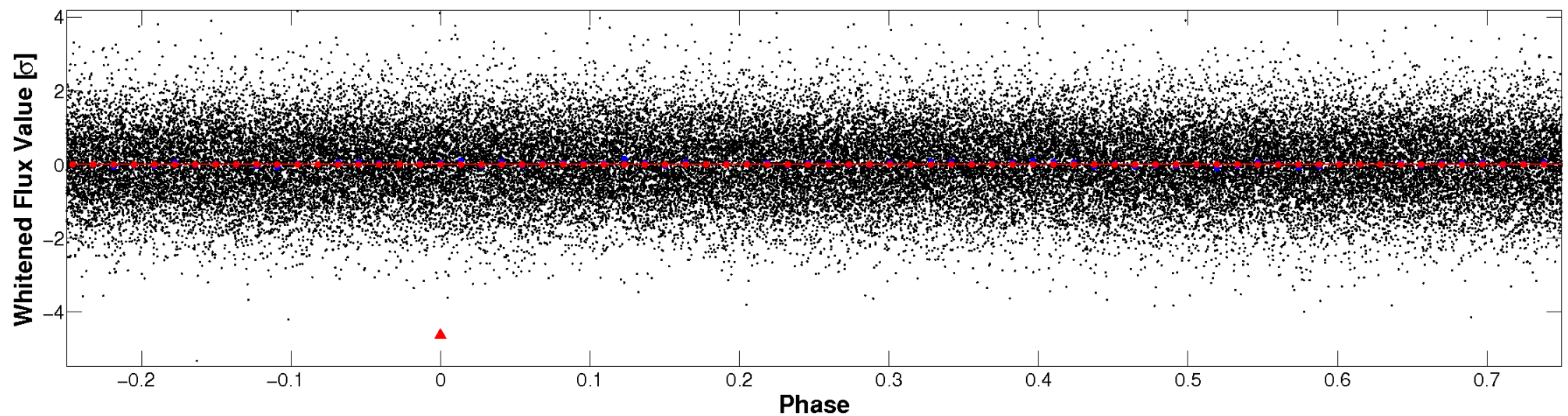


Non-Whitened Vs. Whitened Light Curve

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

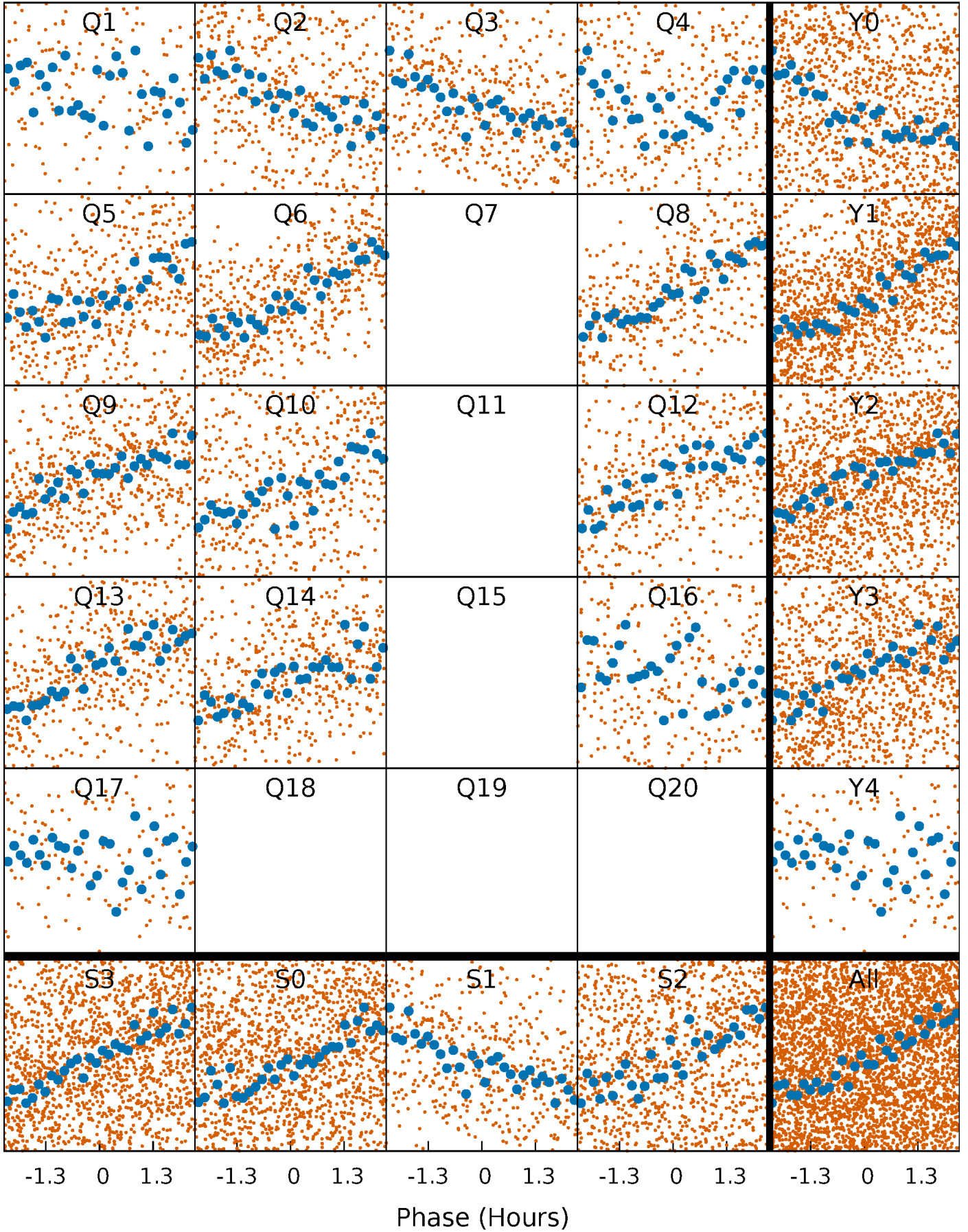


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



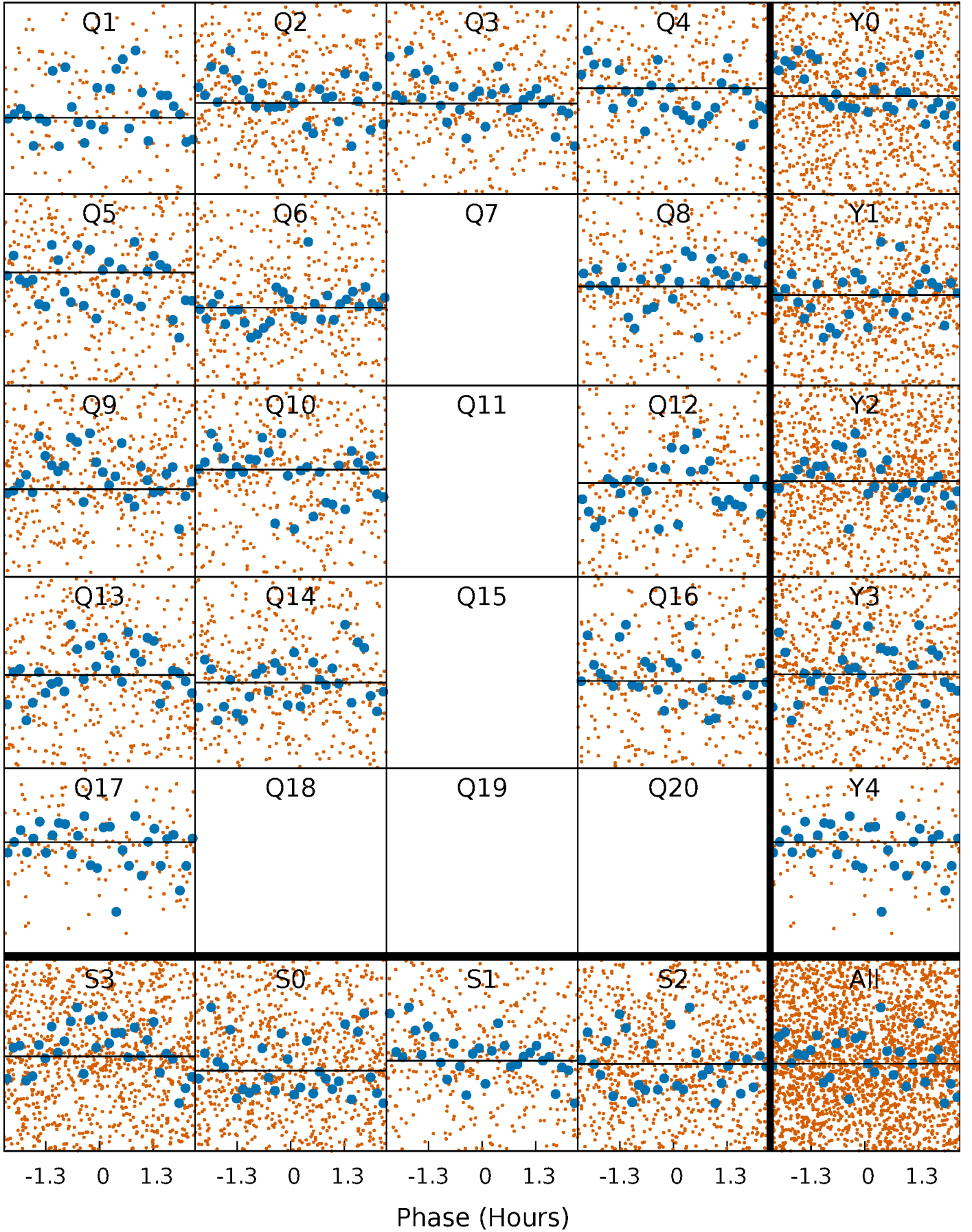
PDC Quarter-Phased Transit Curves

TCE 010880041-01 P= 1.495049 Days $T_0=132.915188$ (BKJD)



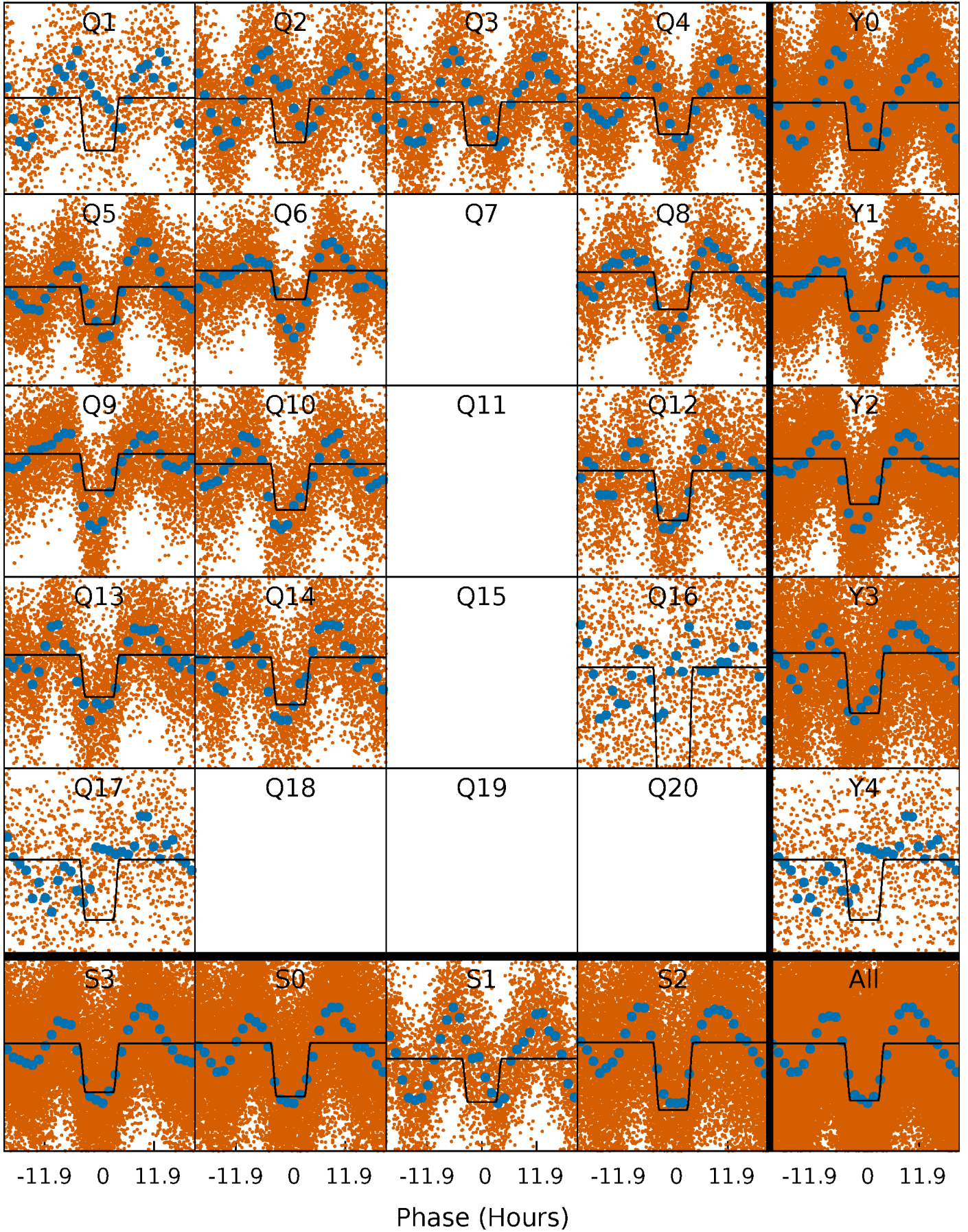
DV Quarter-Phased Transit Curves

TCE 010880041-01 P= 1.495049 Days $T_0=132.915188$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

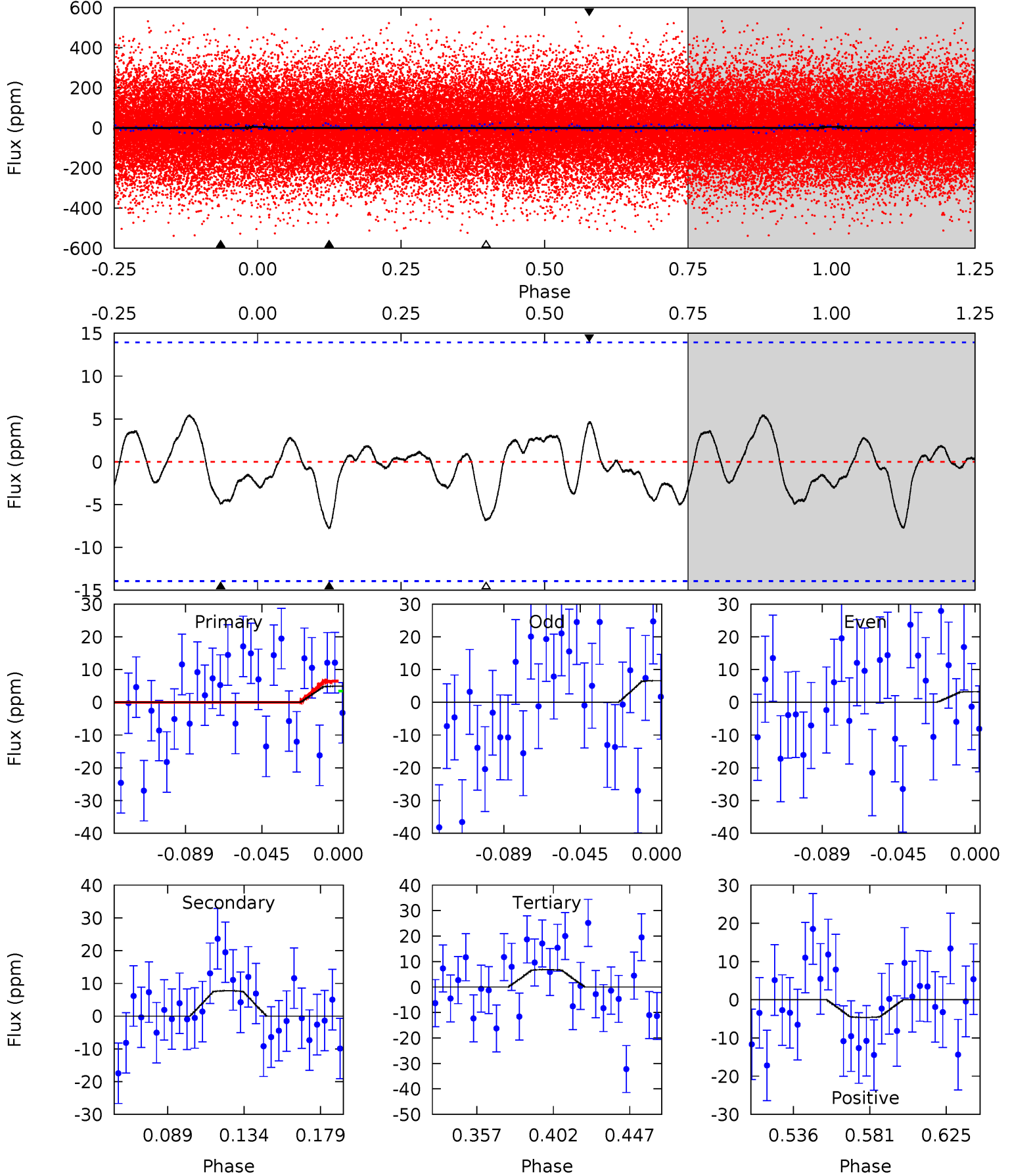
TCE 010880041-01 P= 1.494822 Days $T_0=132.880807$ (BKJD)



DV Model-Shift Uniqueness Test

010880041-01, P = 1.495049 Days, E = 131.420139 Days

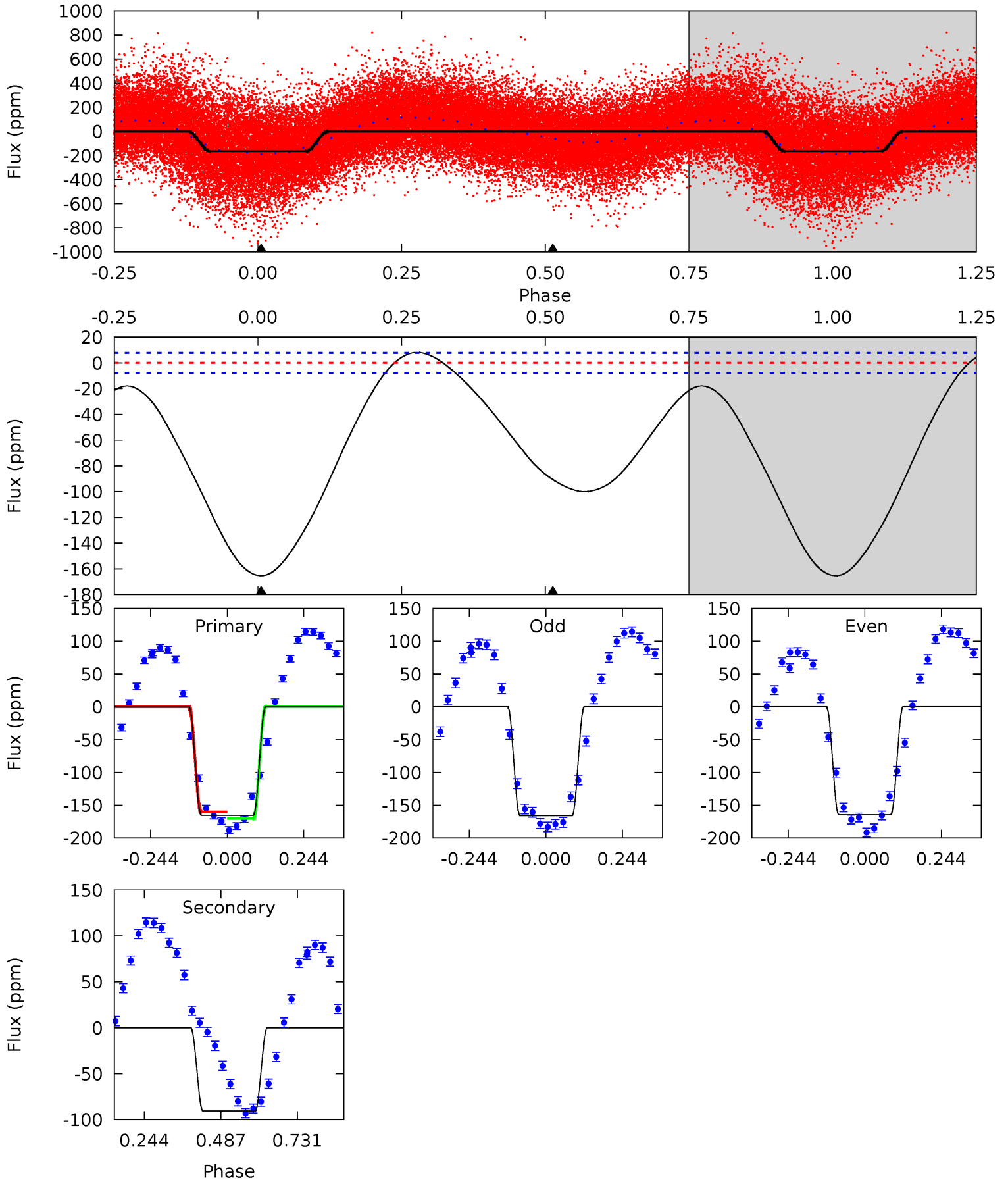
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.67	2.63	2.32	1.57	4.73	2.01	0.87	-0.65	0.10	0.31	1.06	0.57	0.93	0.41	0.52



Alt Model-Shift Uniqueness Test

010880041-01, P = 1.494822 Days, E = 131.385985 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
93.2	51.1	0	0	4.37	1.17	7.23	93.2	93.2	51.1	51.1	0.49	1.01	0.05	2.86



Stellar Parameters For KIC 010880041

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6534^{+158}_{-177}	$3.428^{+0.382}_{-0.090}$	$-0.220^{+0.350}_{-0.300}$	$4.354^{+0.605}_{-1.693}$	$1.852^{+0.135}_{-0.406}$	$0.032^{+0.094}_{-0.009}$
	+2%/-3%	+11%/-3%	+159%/-136%	+14%/-39%	+7%/-22%	+296%/-29%
Source	PHO1	FLK73	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 010880041-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-8 ± 3	$25.54^{+27.99}_{-18.17}$	4601^{+342}_{-559}	-3994^{+475}_{-251}	$0.006^{+0.061}_{-0.005}$
Alt.	-91 ± 2	$26.77^{+28.01}_{-17.57}$	4610^{+351}_{-488}	-3775^{+7684}_{-372}	$0.067^{+0.497}_{-0.051}$

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

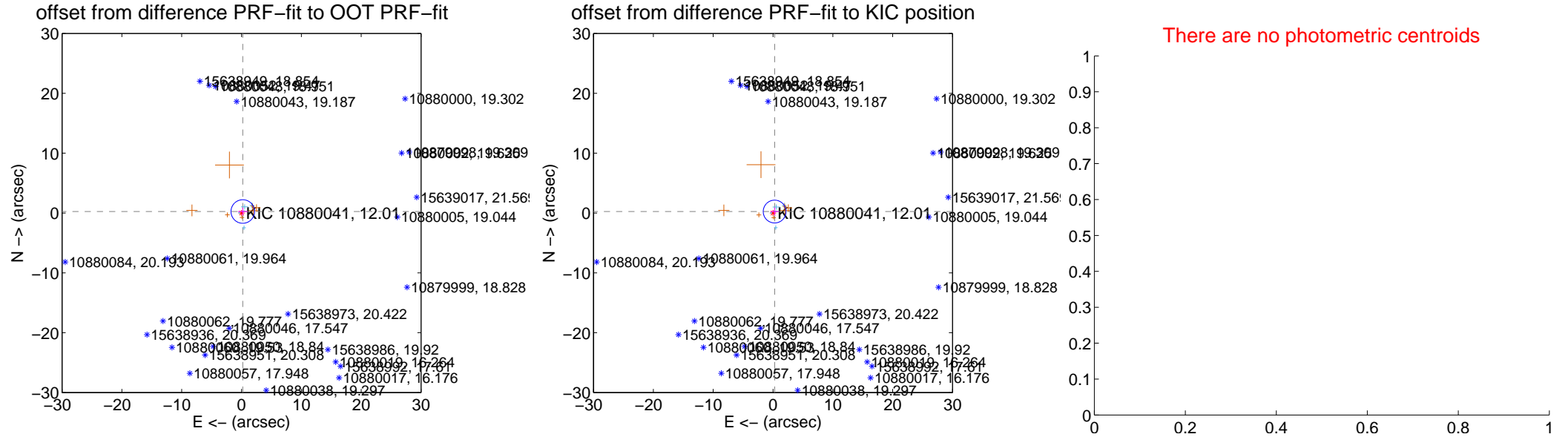
DV Centroid Data

Supplemental centroid analysis for 010880041-01. Kepler magnitude: 12.01. Transit SNR 0.00

There are 6 quarters with good PRF difference image offsets

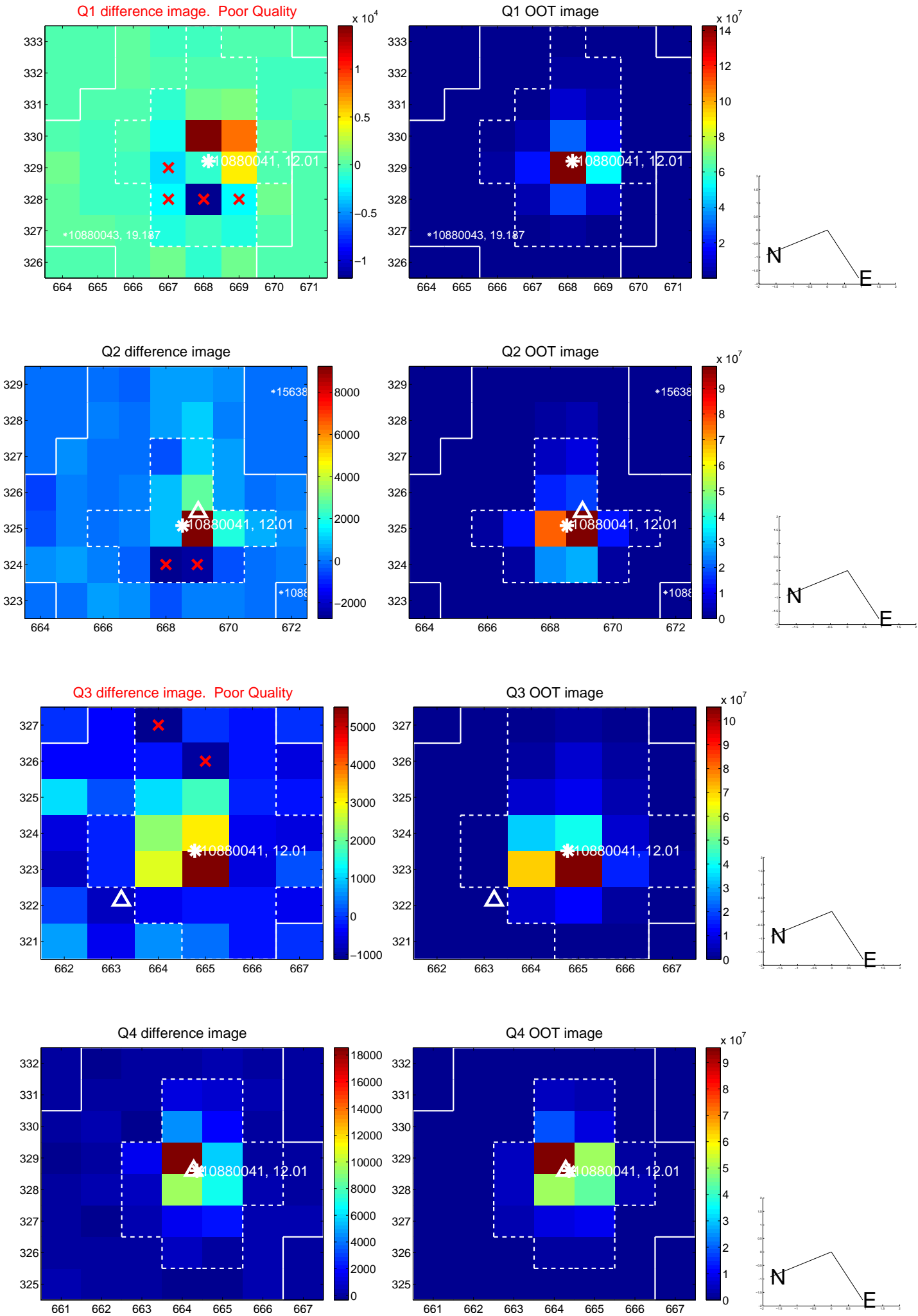
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.324 ± 0.656	0.49	-0.205 ± 0.797	0.251 ± 0.641
PRF-fit source offset from KIC position	0.365 ± 0.635	0.57	-0.271 ± 0.702	0.244 ± 0.666
photometric centroid source offset	—	—	—	—

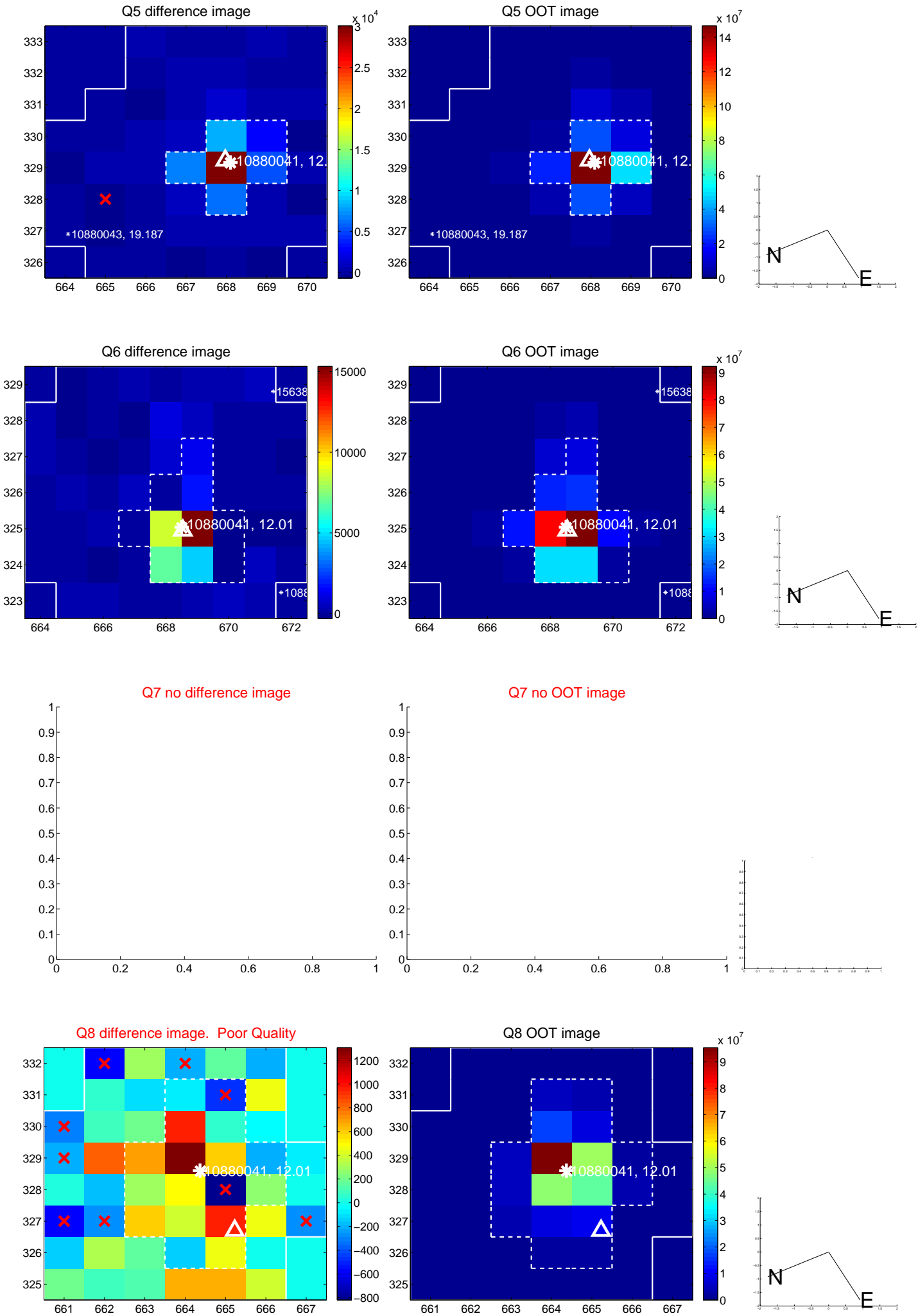


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

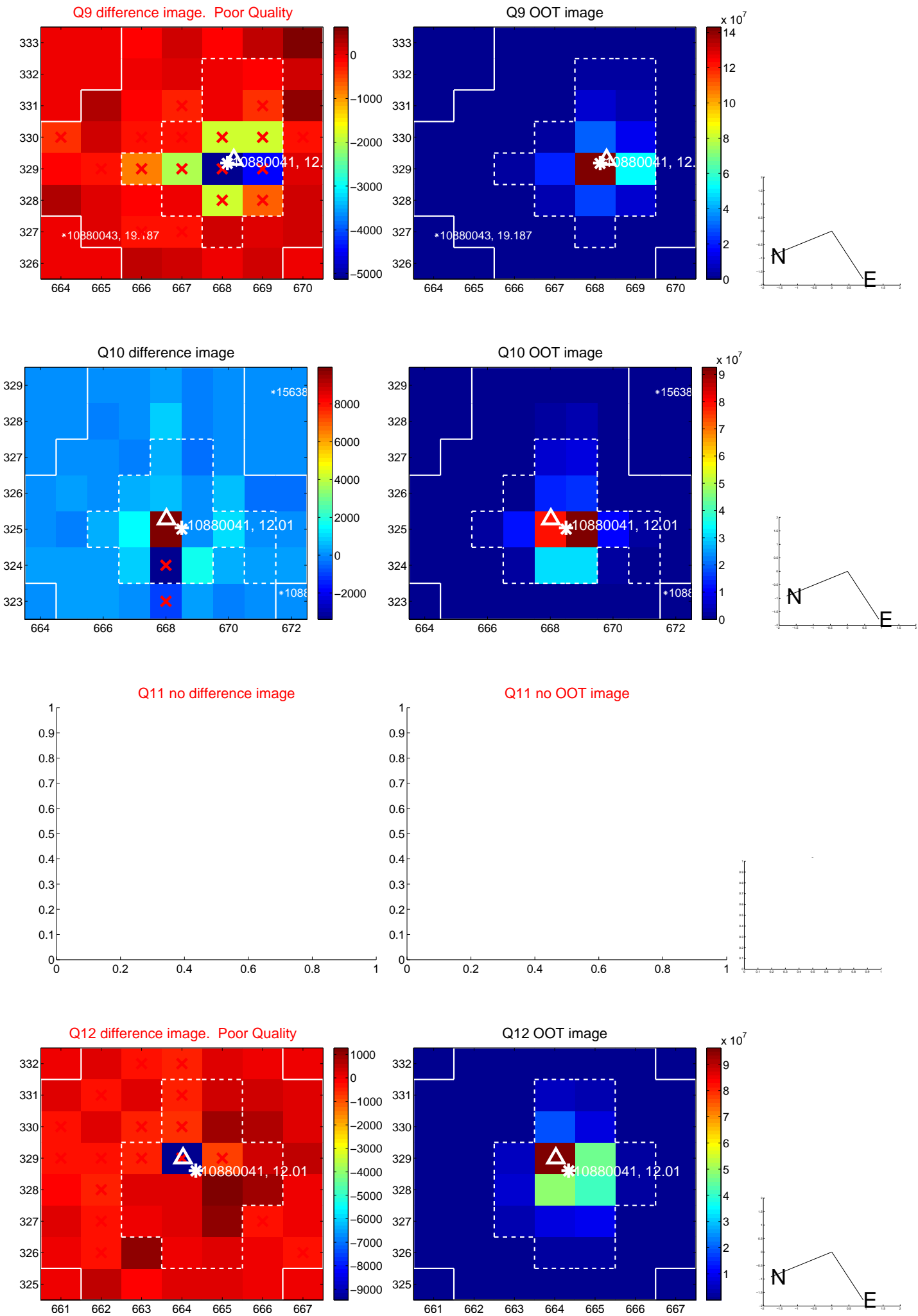
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



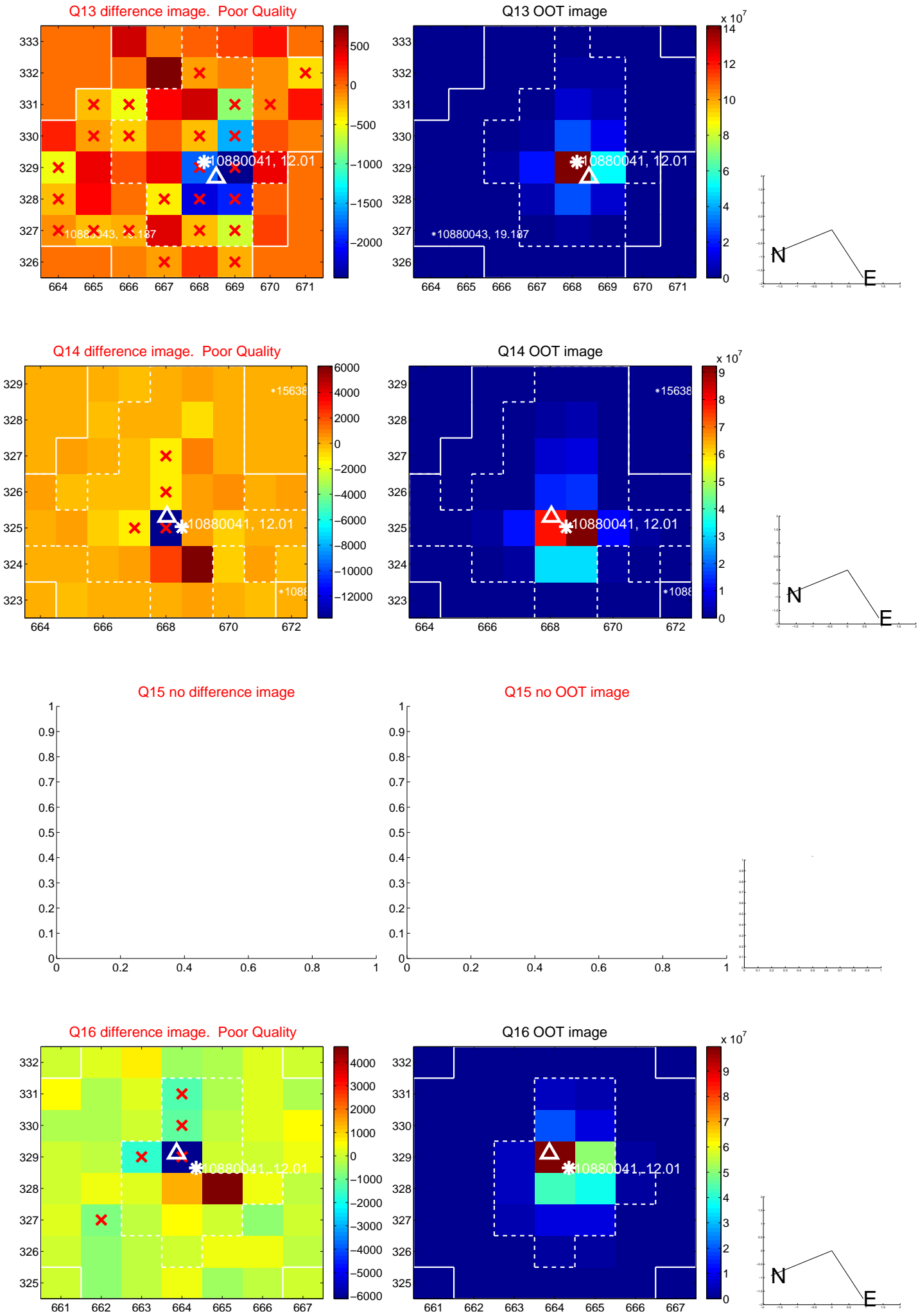
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



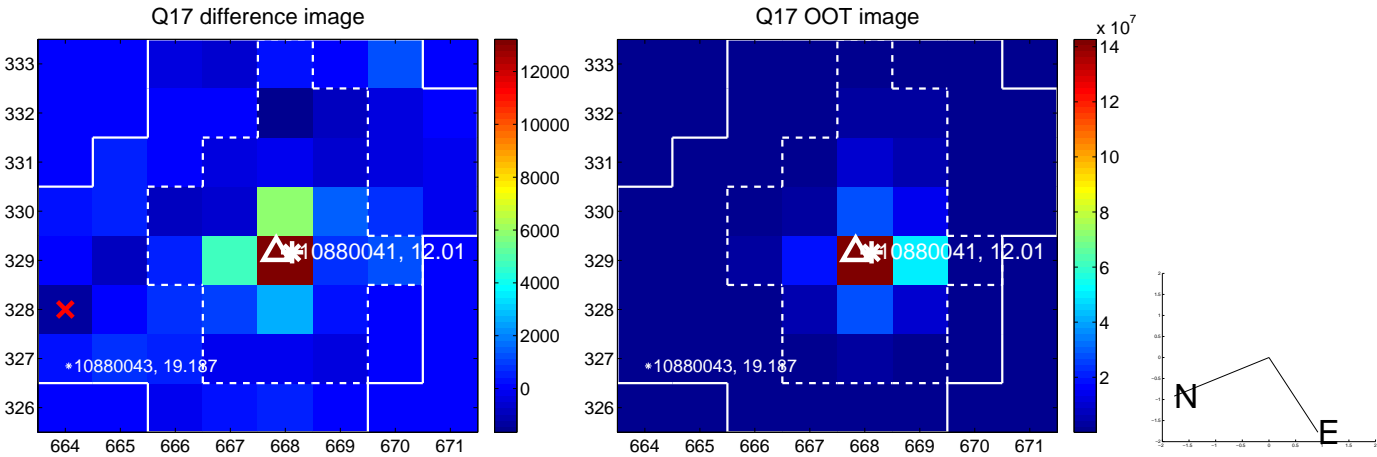
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



folded centroid time series figure for this object.

UKIRT Image

Declination

