

KIC 002715487

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})
002715487-01	OBS	No	0.700363	132.012225	1.6	2.140	8.6	0.4	2.48	7677	0.63	55387.79

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002715487-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—SWEET_NTL—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.

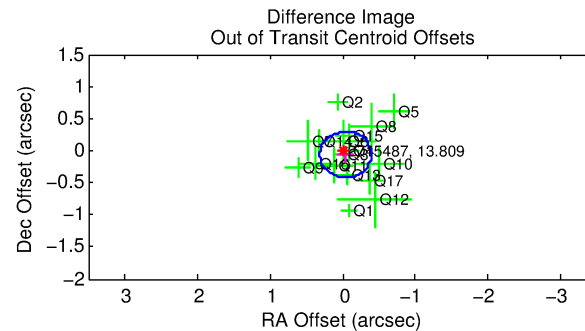
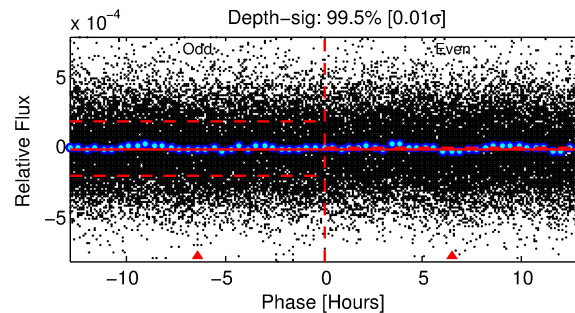
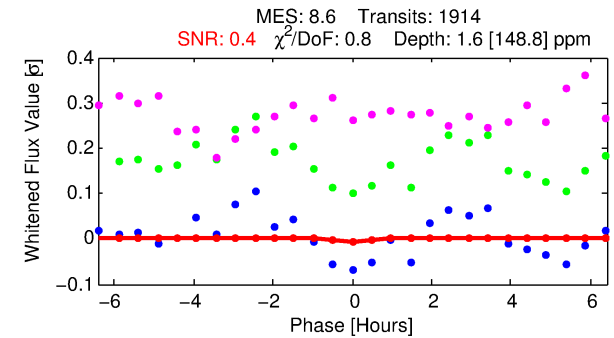
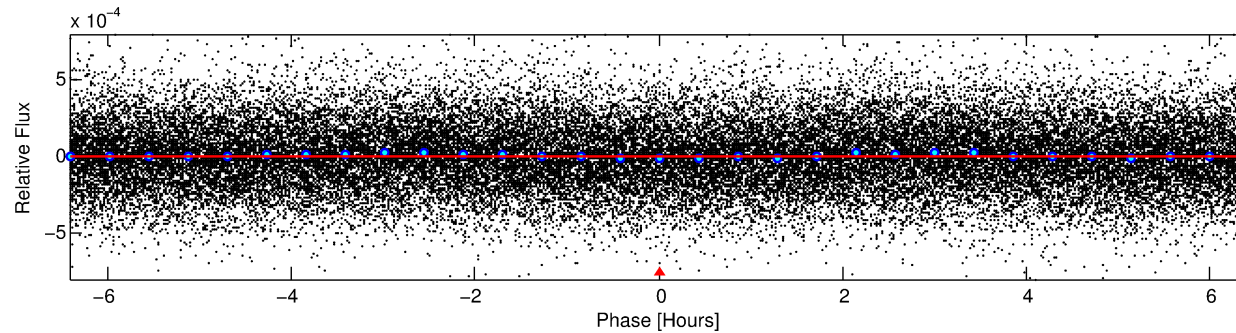
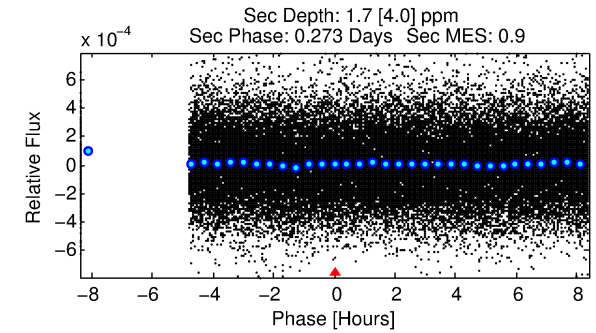
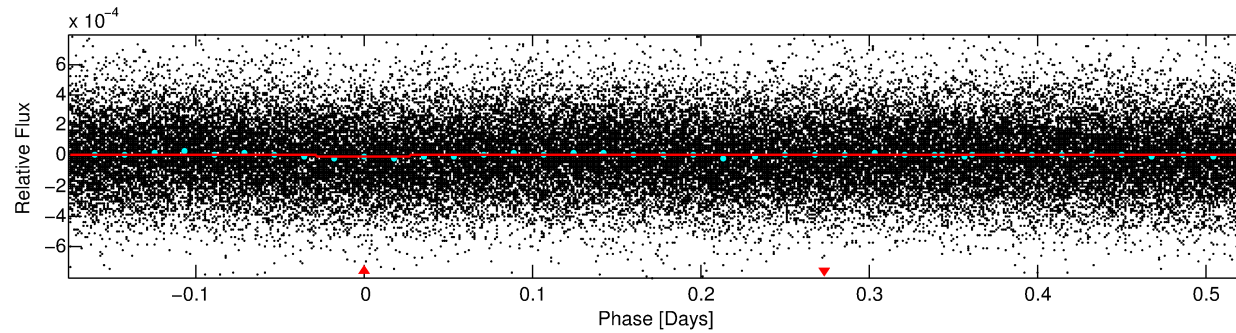
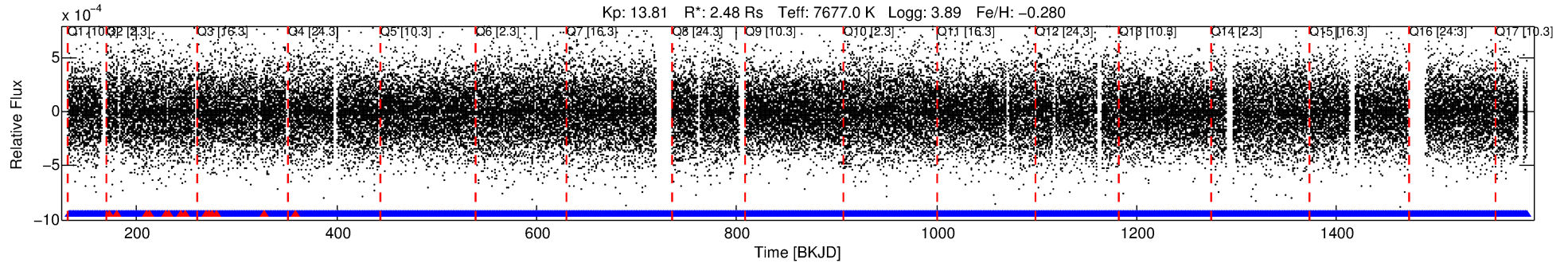
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 002715487-01

No Significant Match Found

DV One-Page Summary

KIC: 2715487 Candidate: 1 of 1 Period: 0.700 d



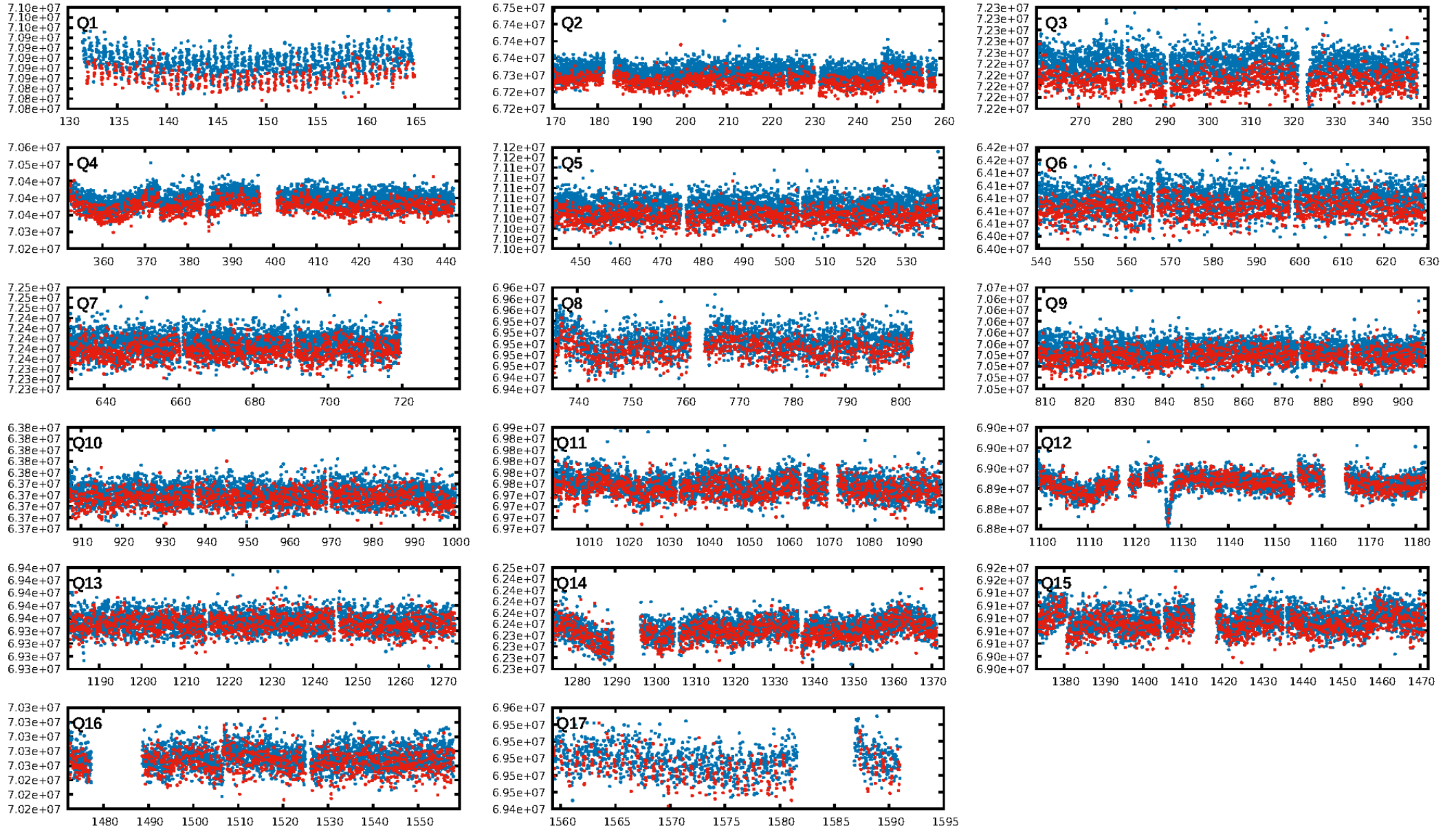
DV Fit Results:

Period = 0.70036 [0.00023] d
Epoch = 132.0122 [0.0615] BKJD
Rp/R* = 0.0023 [0.1414]
a/R* = 1.02 [0.52]
b = 1.00 [0.24]
Seff = 55387.79 [32356.26]
Teq = 3912 [571] K
Rp = 0.63 [38.25] Re
a = 0.0186 [0.0067] AU
Ag = 0.82 [99.32] [-0.00σ]
Teffp = 5754 [174371] K [0.01σ]

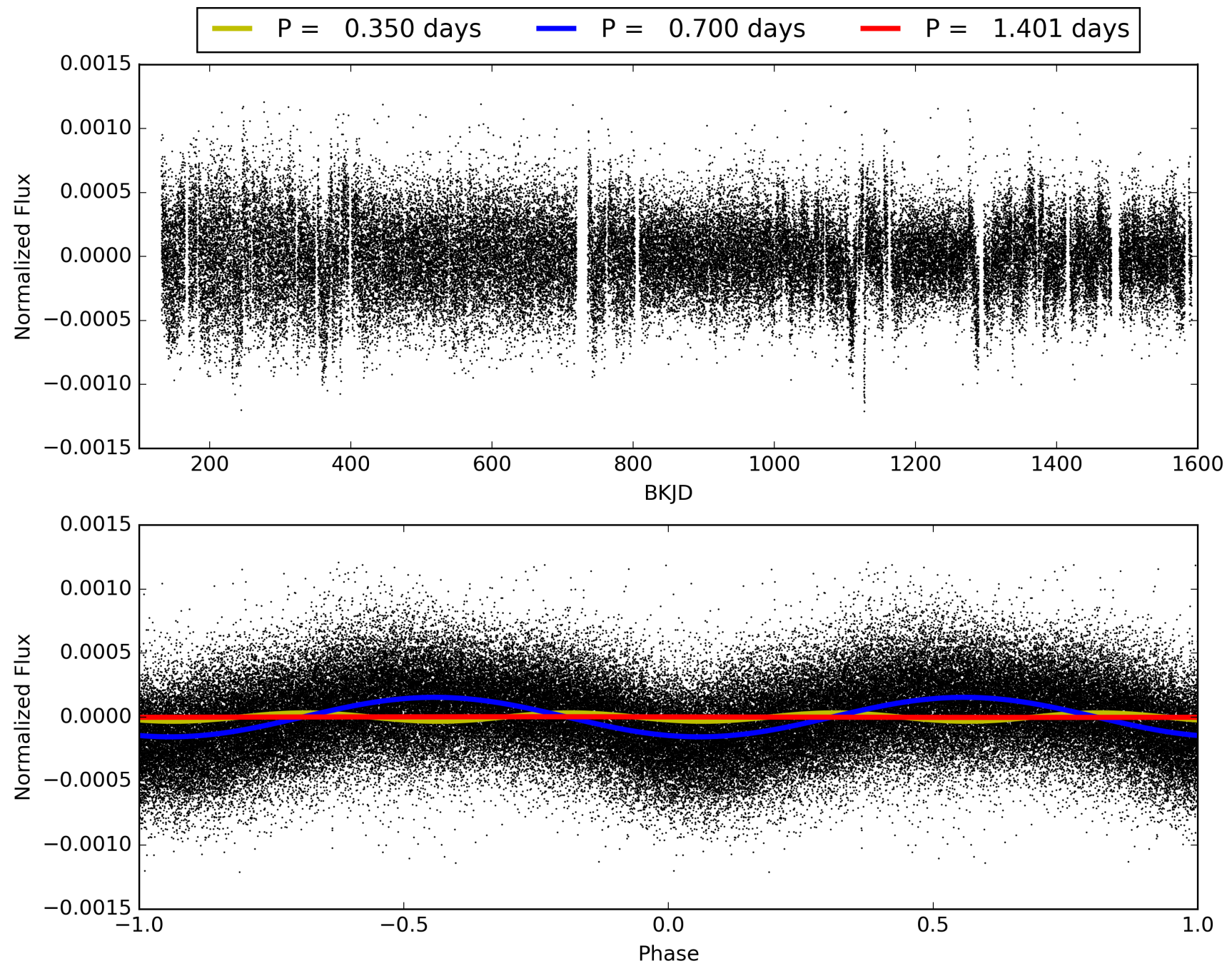
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.70e-16
RollingBand-fgt: 0.99 [1813/1828]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.074 arcsec [0.62σ]
KicOffset-rm: 0.151 arcsec [1.22σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 002715487-01, PDC Light Curves

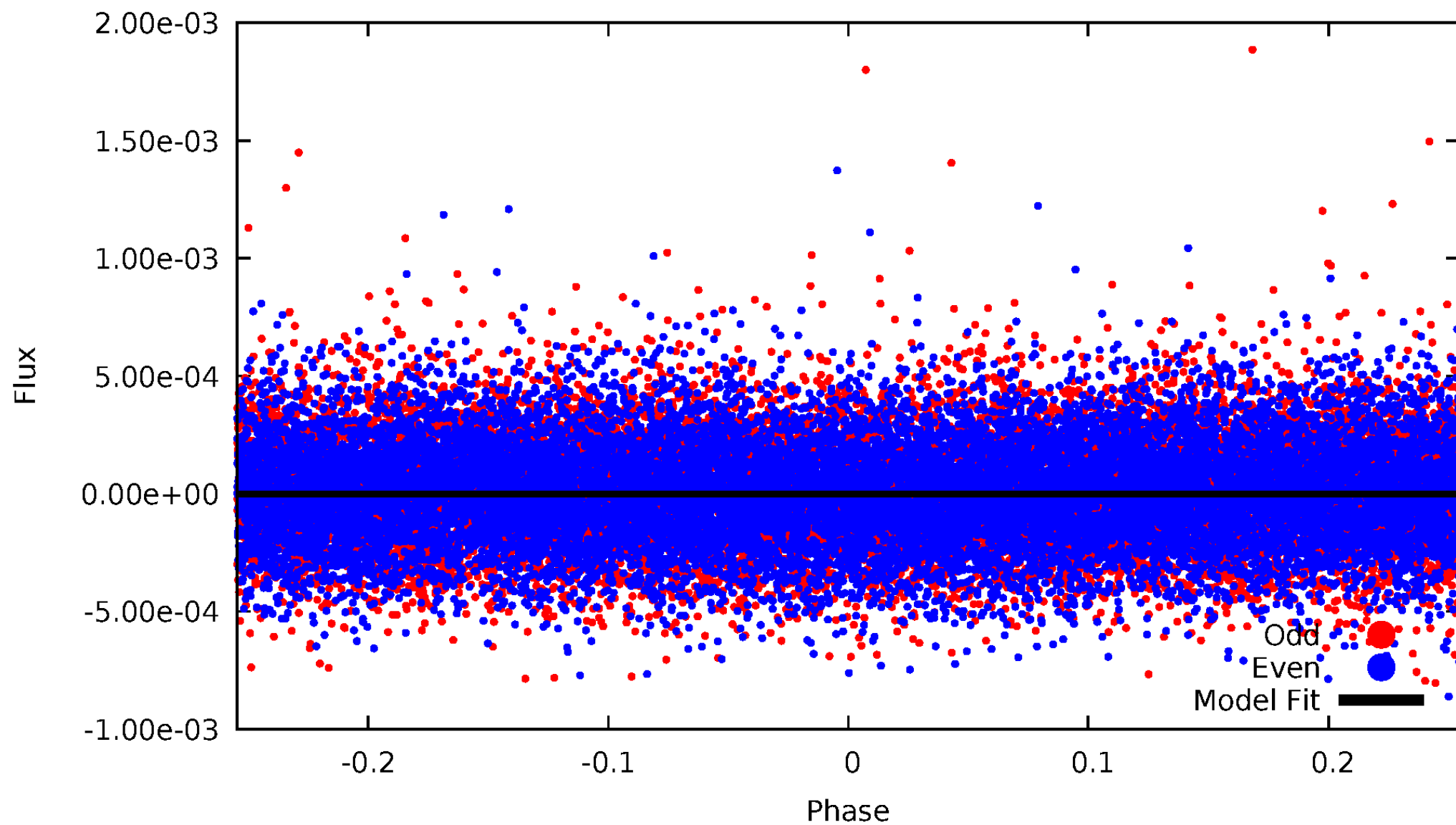


TCE 002715487-01



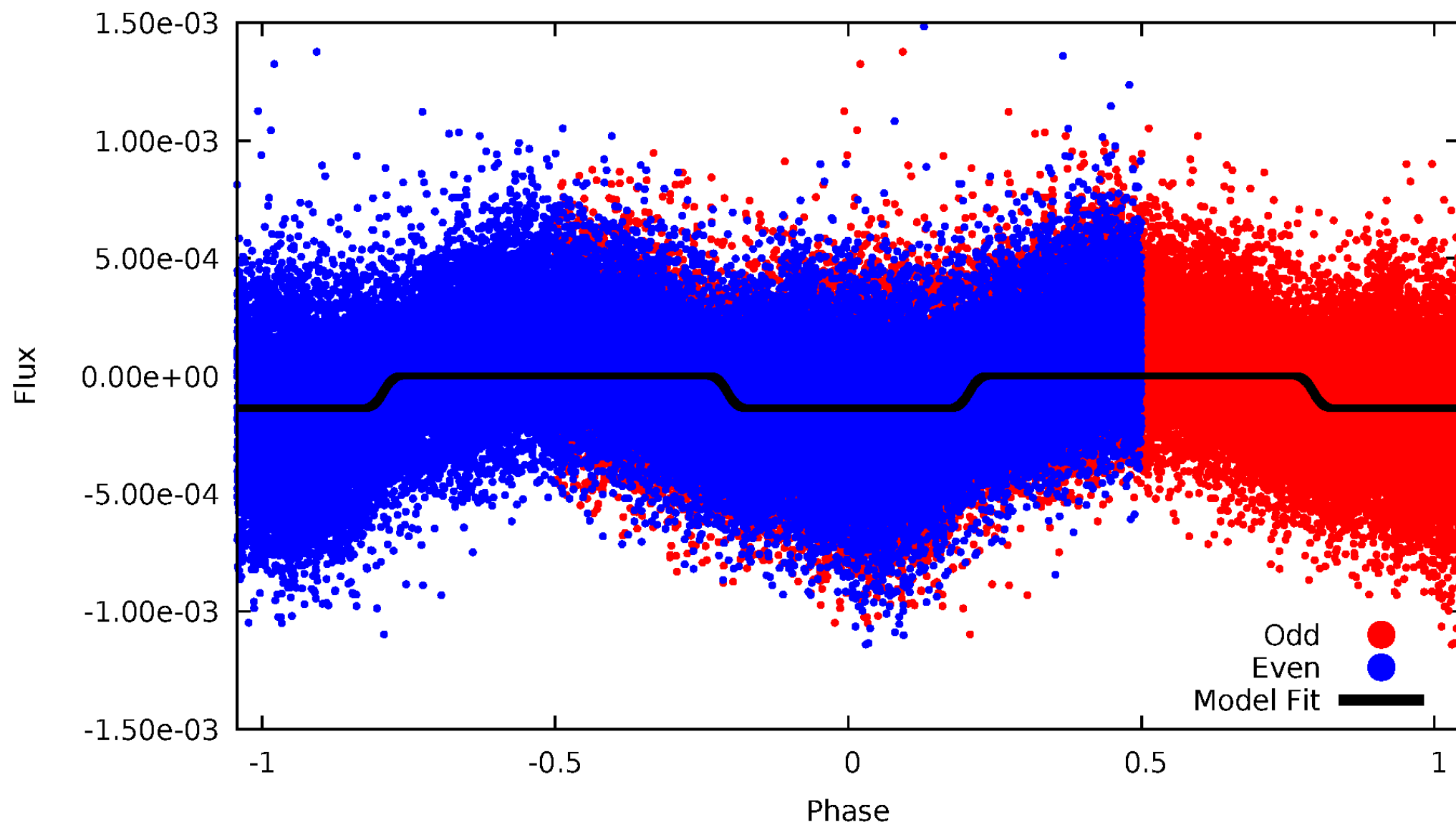
DV Odd/Even

TCE 002715487-01

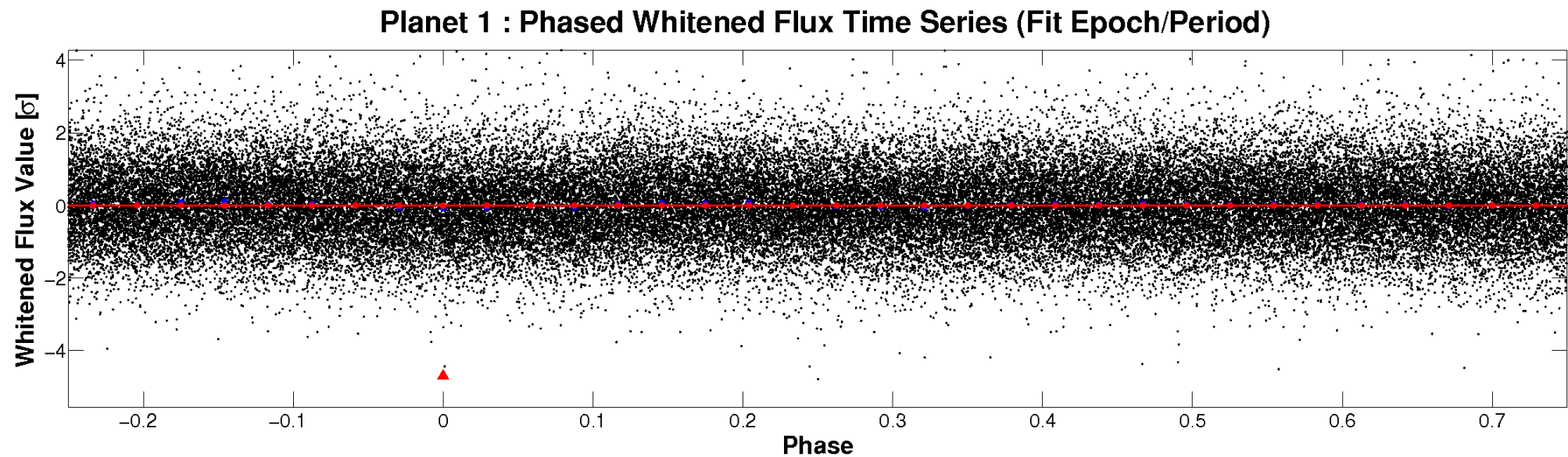
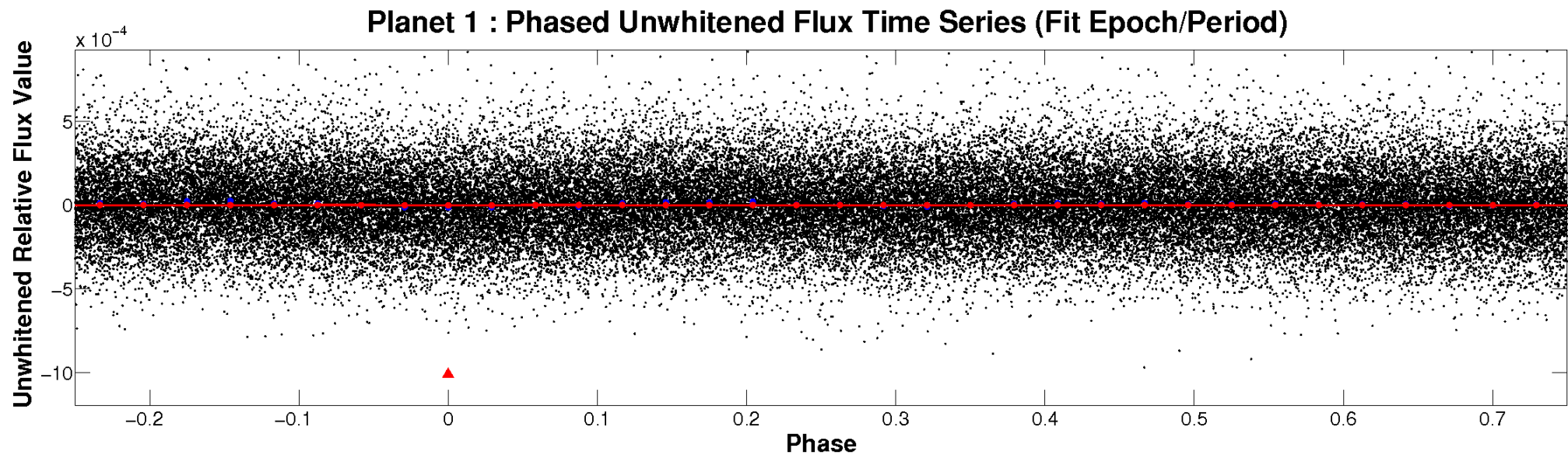


ALT Odd/Even

TCE 002715487-01

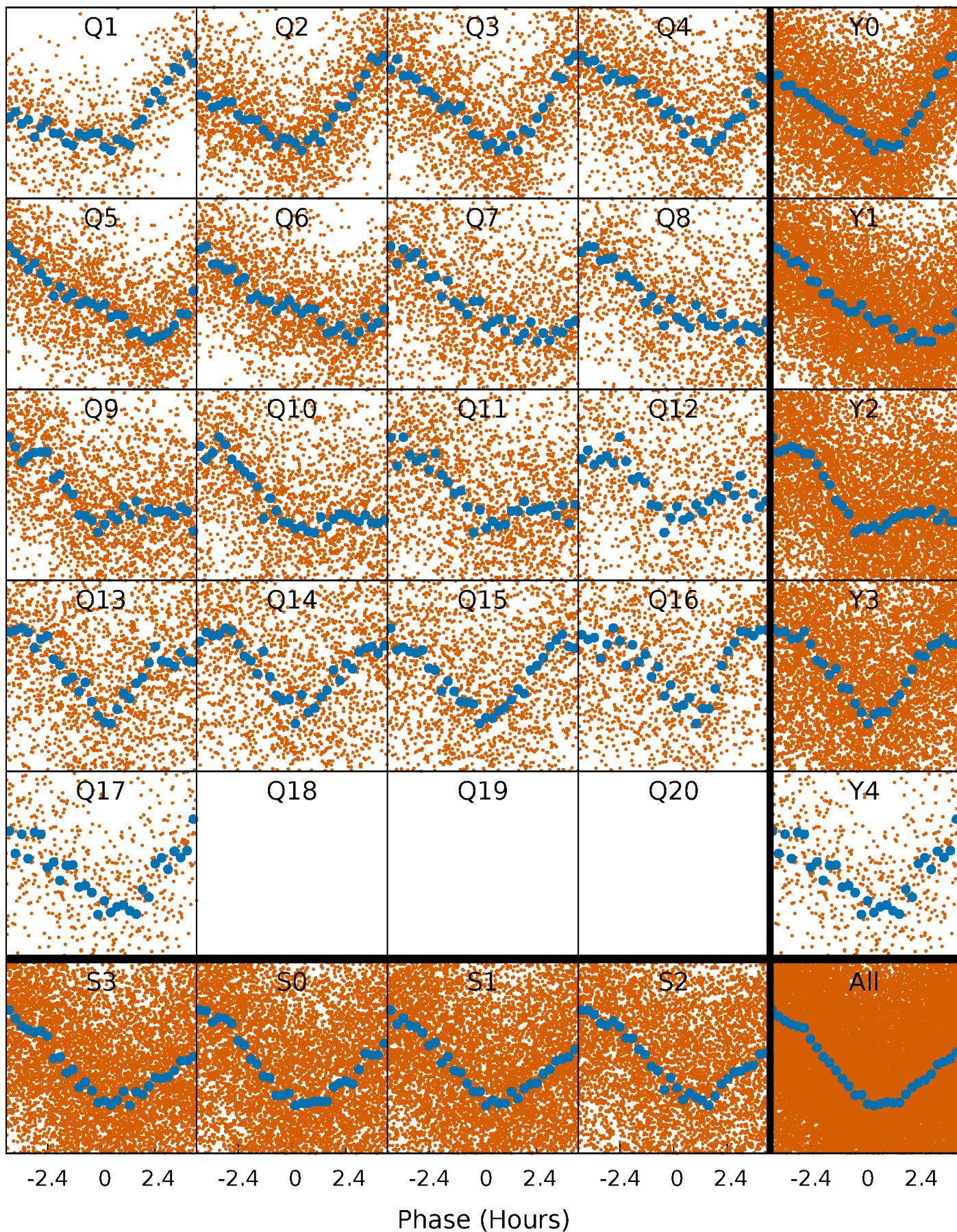


Non-Whitened Vs. Whitened Light Curve



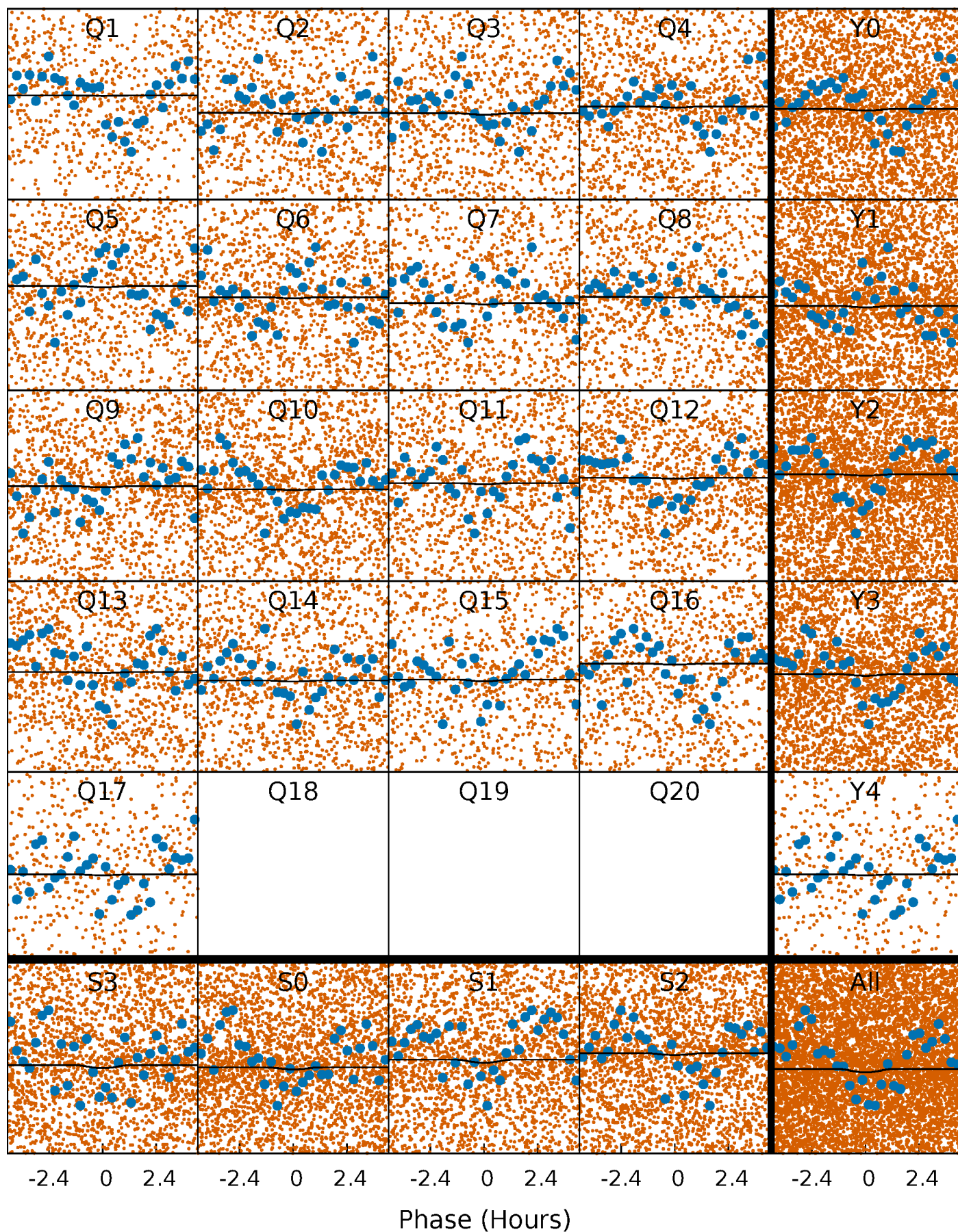
PDC Quarter-Phased Transit Curves

TCE 002715487-01 P= 0.700363 Days $T_0=132.012225$ (BKJD)



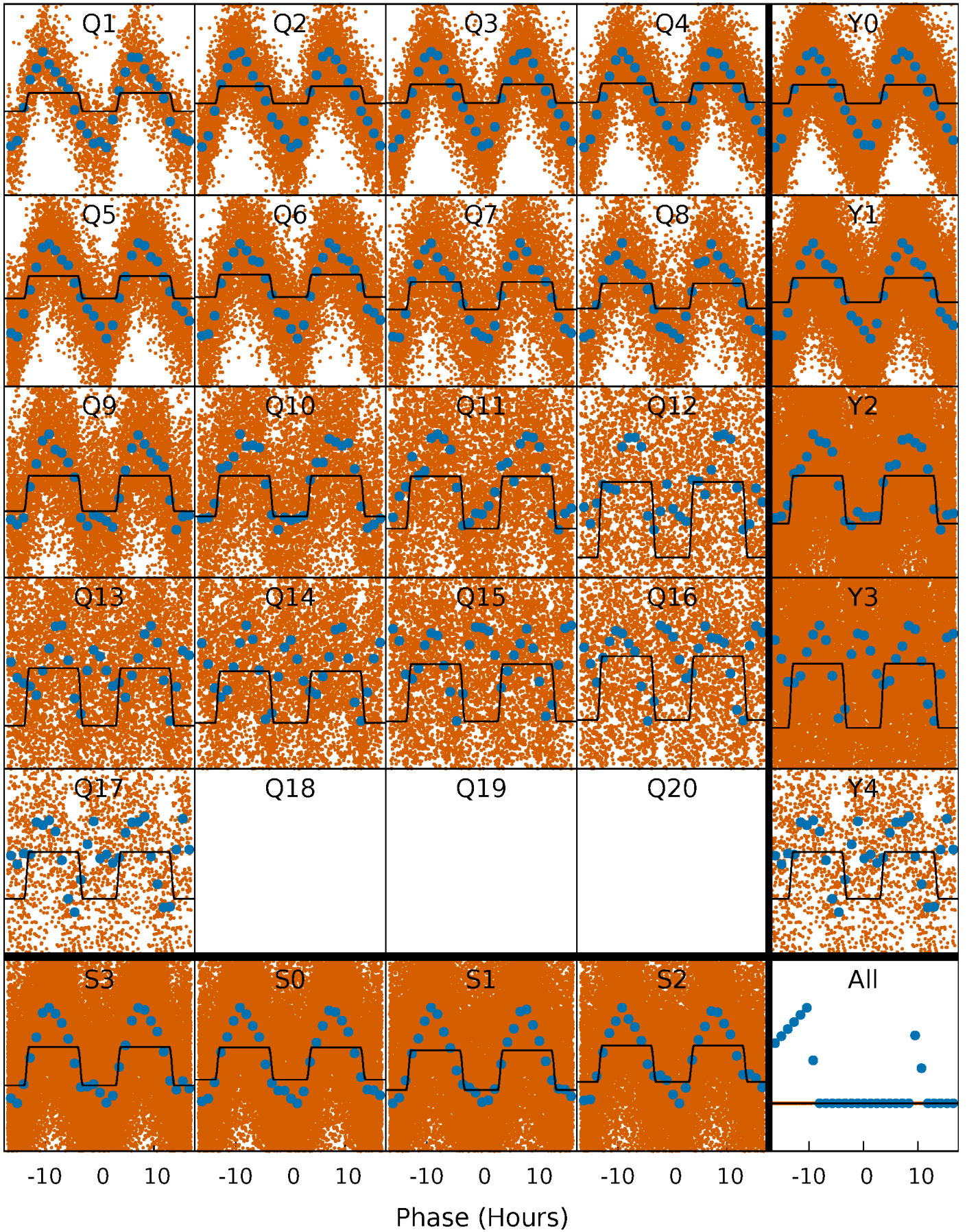
DV Quarter-Phased Transit Curves

TCE 002715487-01 P= 0.700363 Days $T_0=132.012225$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

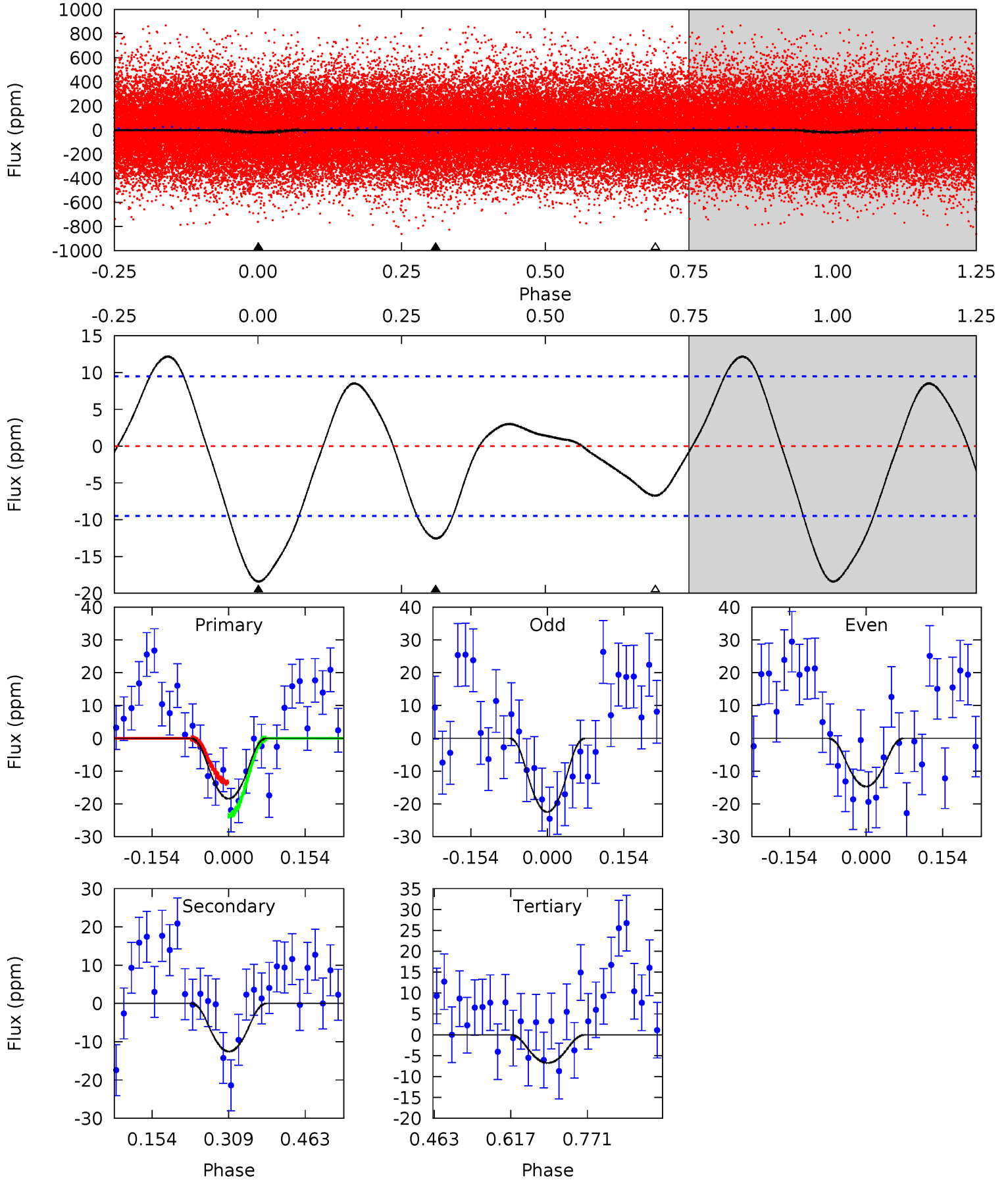
TCE 002715487-01 P= 0.700482 Days $T_0=131.991641$ (BKJD)



DV Model-Shift Uniqueness Test

002715487-01, P = 0.700363 Days, E = 131.311862 Days

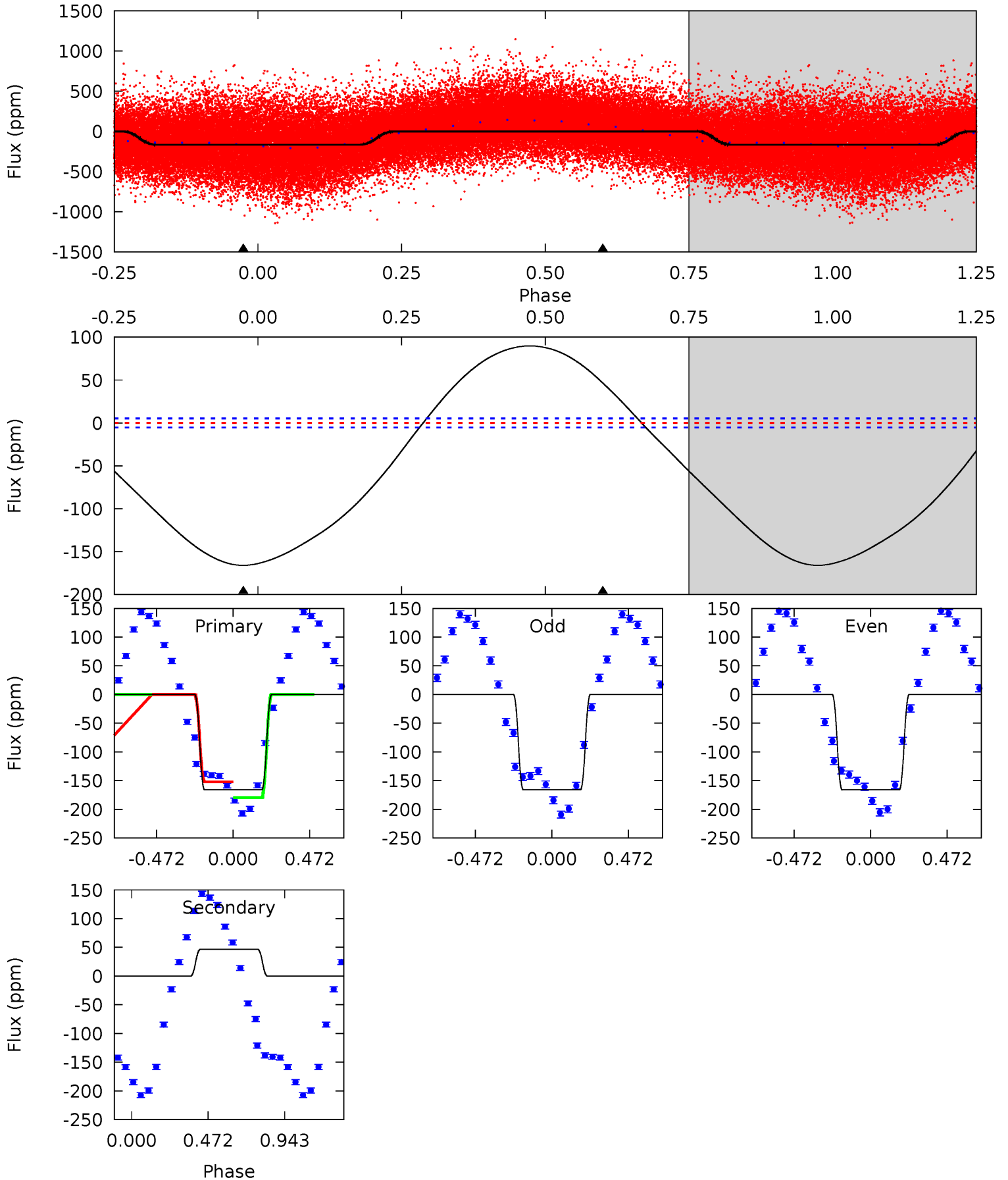
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.69	5.93	3.18	0	4.47	1.42	2.37	5.51	8.69	2.74	5.93	1.83	1.14	0.40	2.36



Alt Model-Shift Uniqueness Test

002715487-01, P = 0.700482 Days, E = 131.291159 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
131.5	-36.9	0	0	4.23	0.72	19.6	131.5	131.5	-36.9	-36.9	0.02	0.94	0.35	10.4



Stellar Parameters For KIC 002715487

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7677^{+239}_{-319}	$3.891^{+0.322}_{-0.107}$	$-0.280^{+0.250}_{-0.350}$	$2.479^{+0.420}_{-0.979}$	$1.743^{+0.170}_{-0.397}$	$0.161^{+0.389}_{-0.054}$
	+3%/-4%	+8%/-3%	+89%/-125%	+17%/-39%	+10%/-23%	+242%/-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 002715487-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-13 ± 2	$24.78^{+27.58}_{-17.28}$	5355^{+365}_{-485}	-4449^{+452}_{-236}	$0.004^{+0.041}_{-0.003}$
Alt.	47 ± 1	$25.89^{+27.06}_{-18.88}$	5335^{+380}_{-548}	-4584^{+329}_{-408}	$-0.013^{+0.010}_{-0.166}$

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 $A_{obs} \gg 1.0$

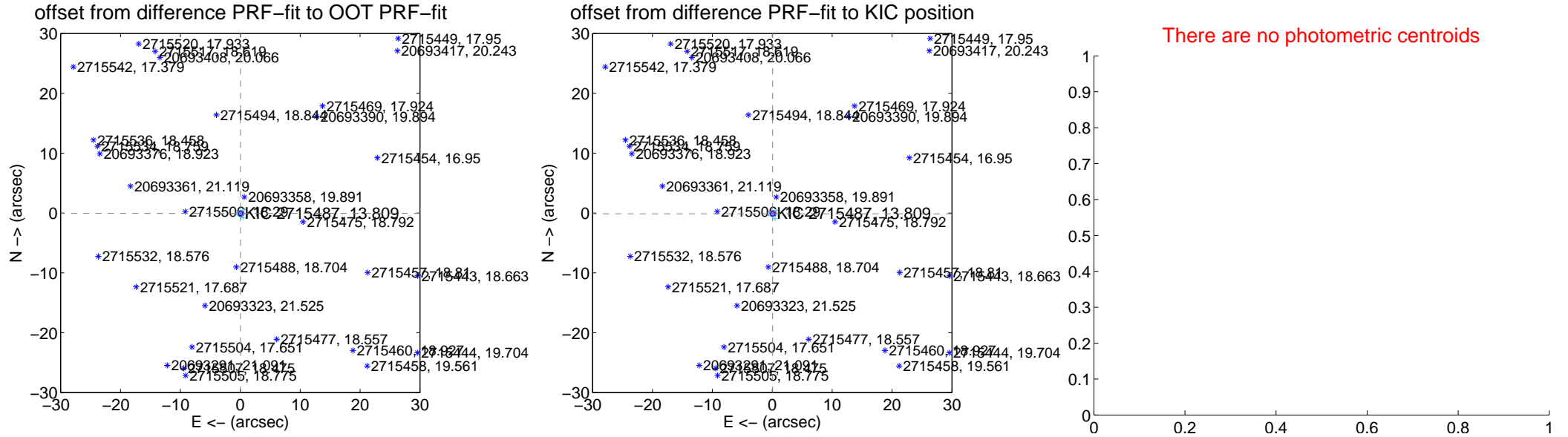
DV Centroid Data

Supplemental centroid analysis for 002715487-01. Kepler magnitude: 13.81. Transit SNR 0.43

There are 17 quarters with good PRF difference image offsets

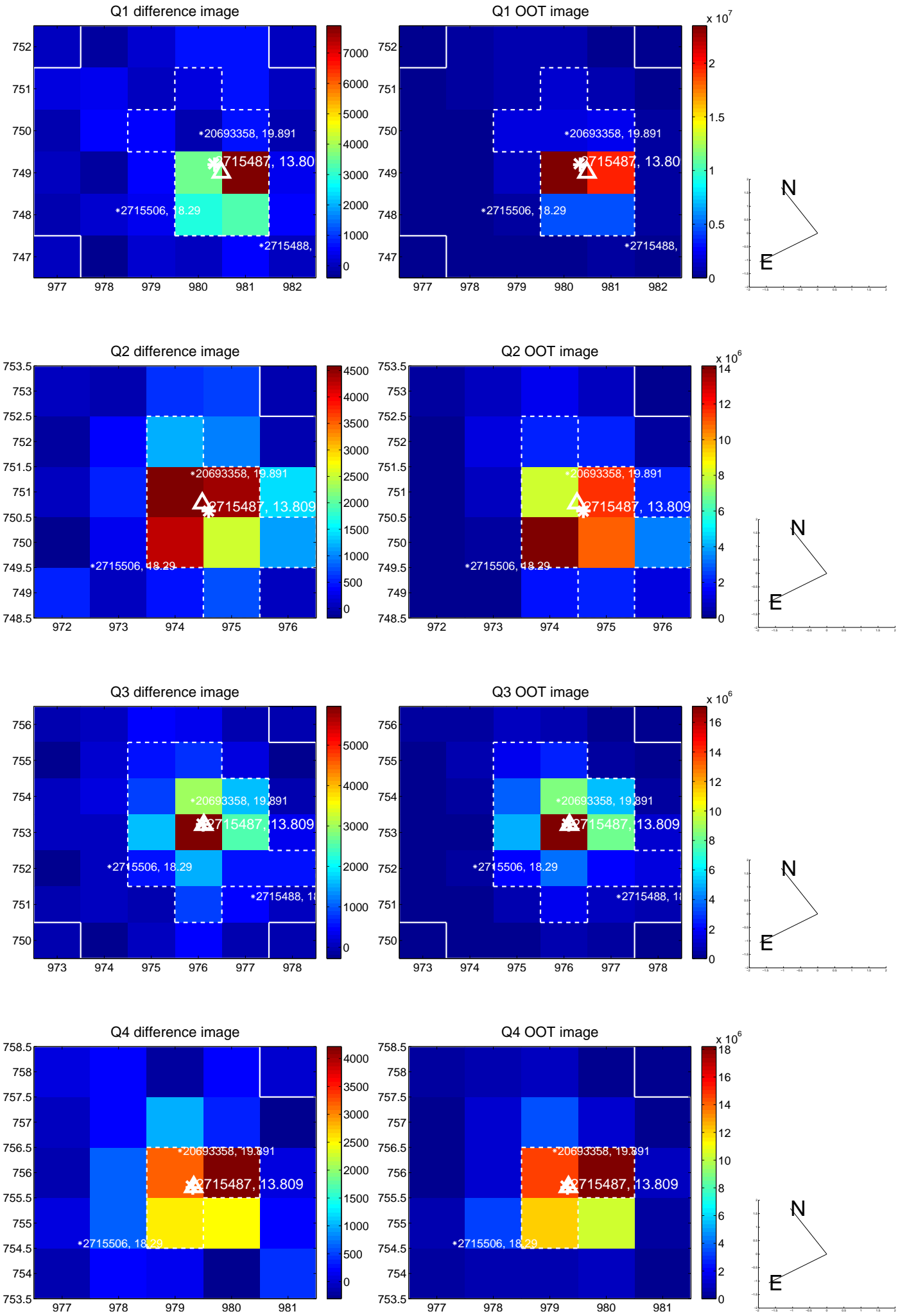
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.074 ± 0.119	0.62	-0.041 ± 0.104	-0.061 ± 0.126
PRF-fit source offset from KIC position	0.151 ± 0.123	1.22	-0.066 ± 0.105	-0.136 ± 0.126
photometric centroid source offset	—	—	—	—

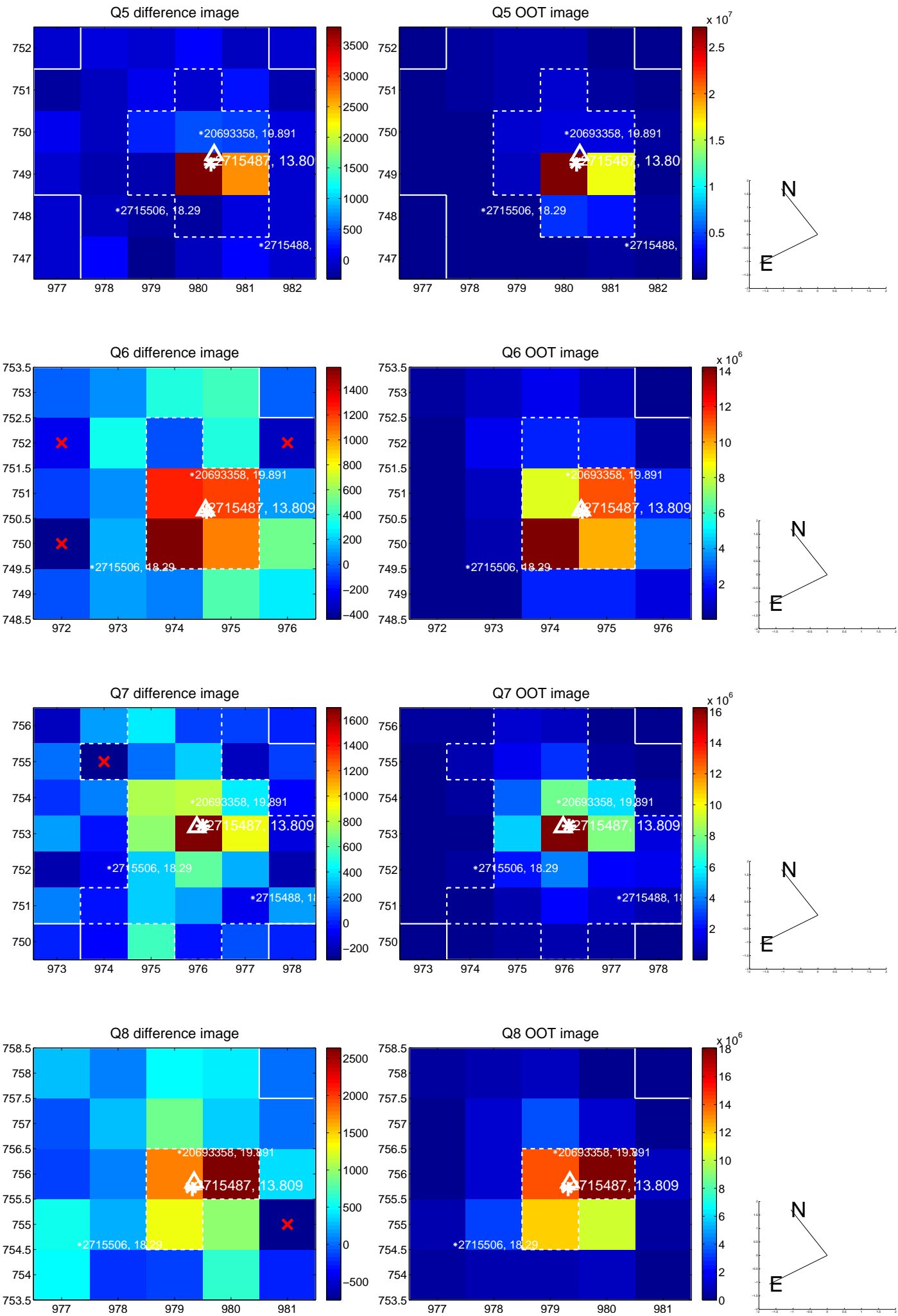


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

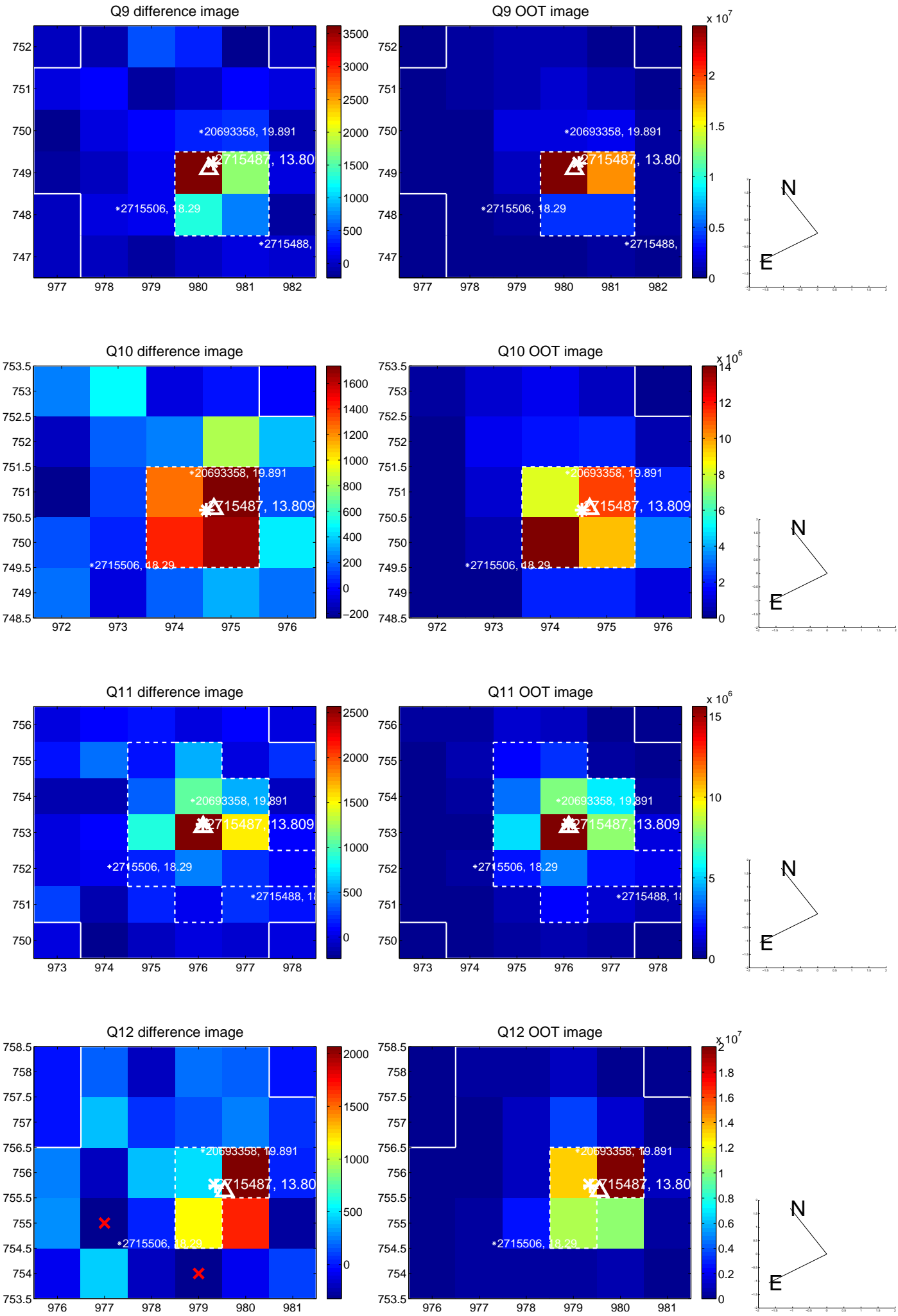
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



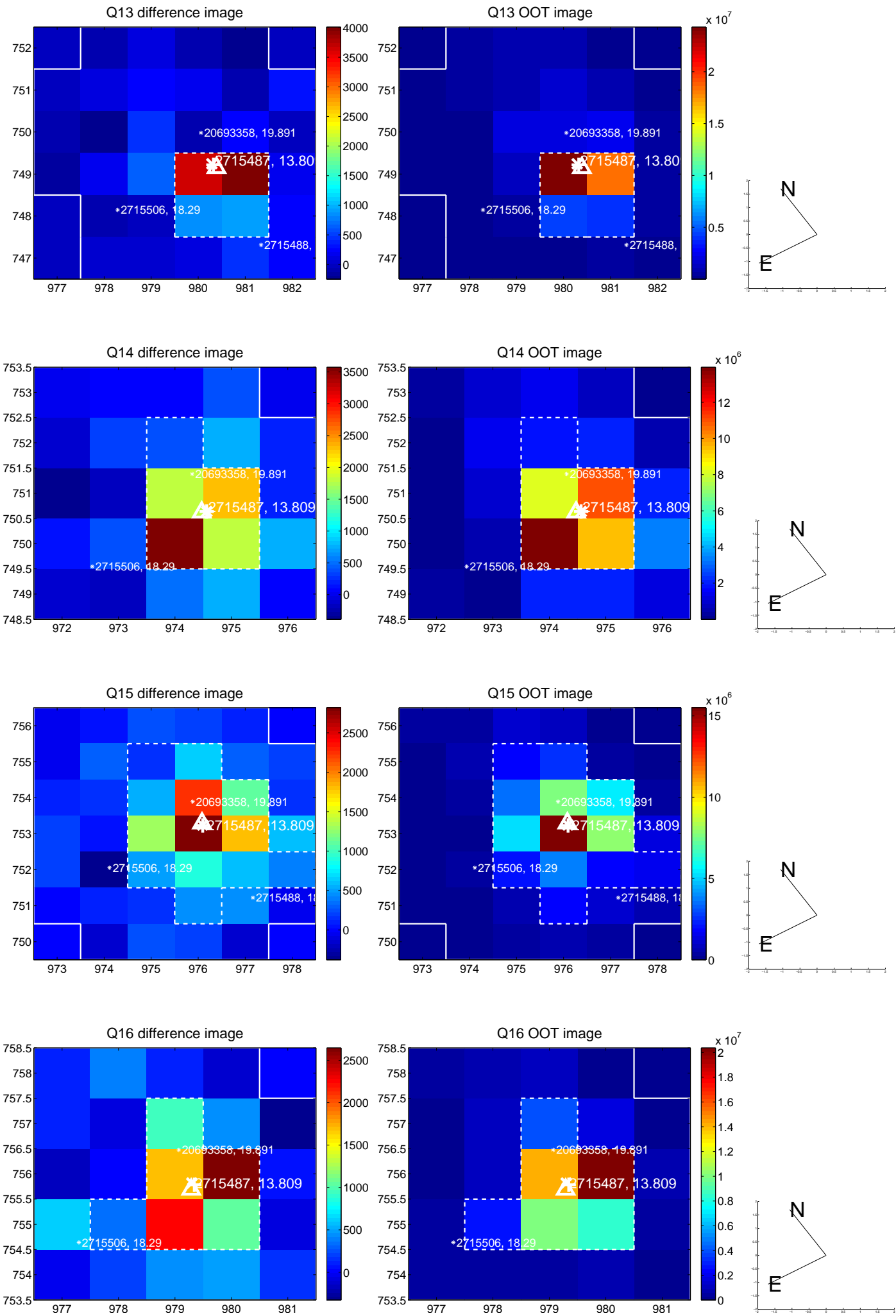
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



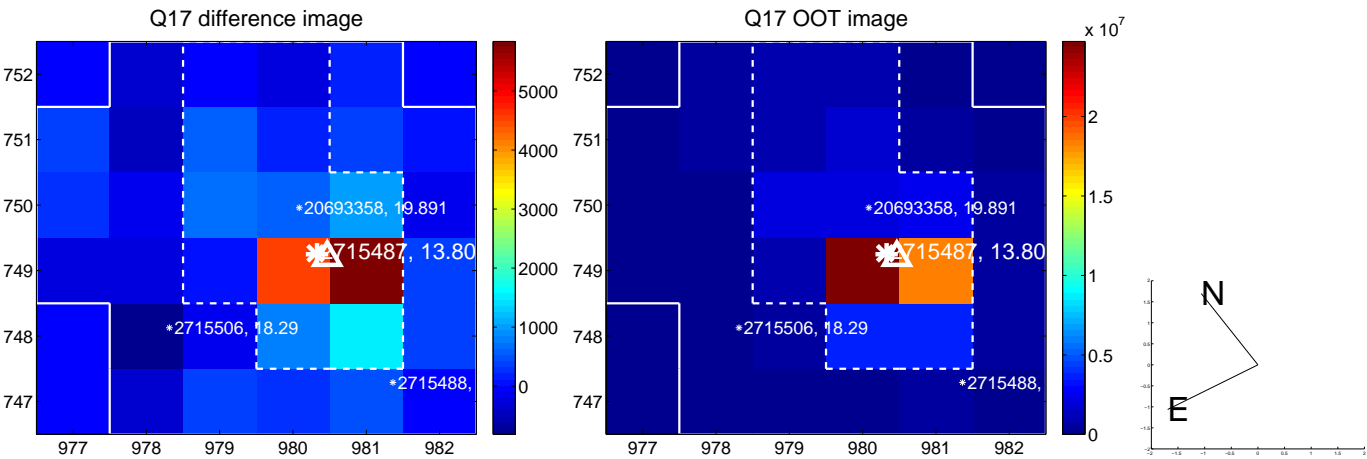
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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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

