

KIC 005217688

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})
005217688-01	OBS	No	0.843876	131.672272	40.3	2.669	11.9	2.0	4.68	4822	3.73	0.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005217688-01	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.

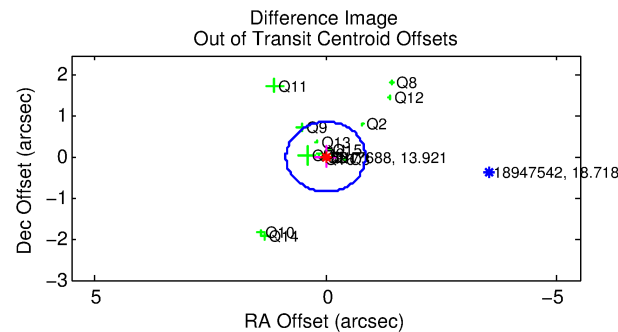
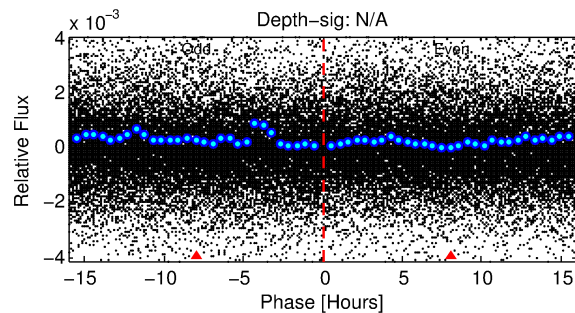
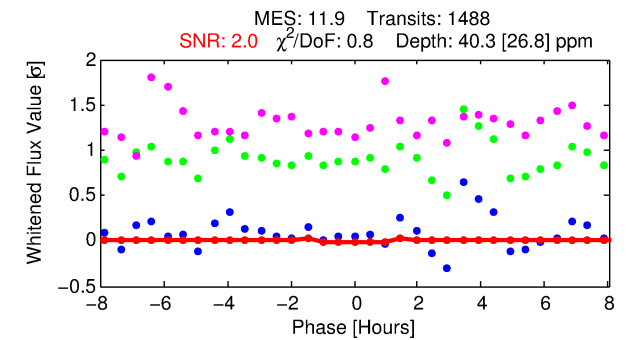
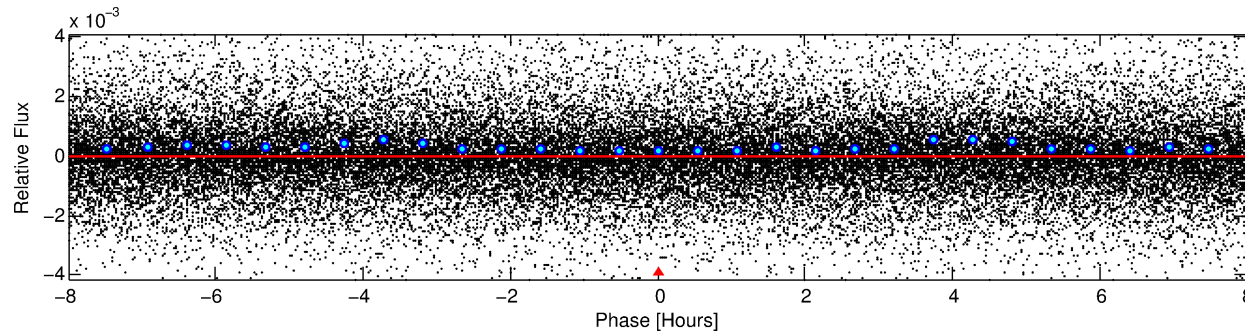
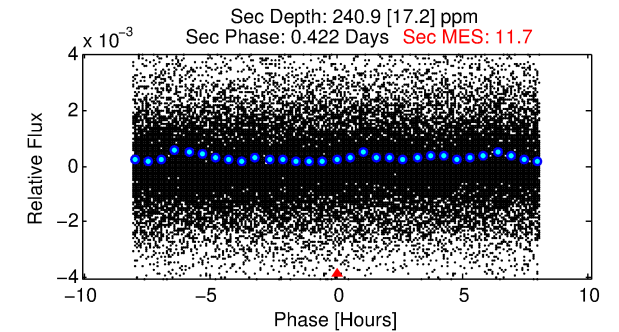
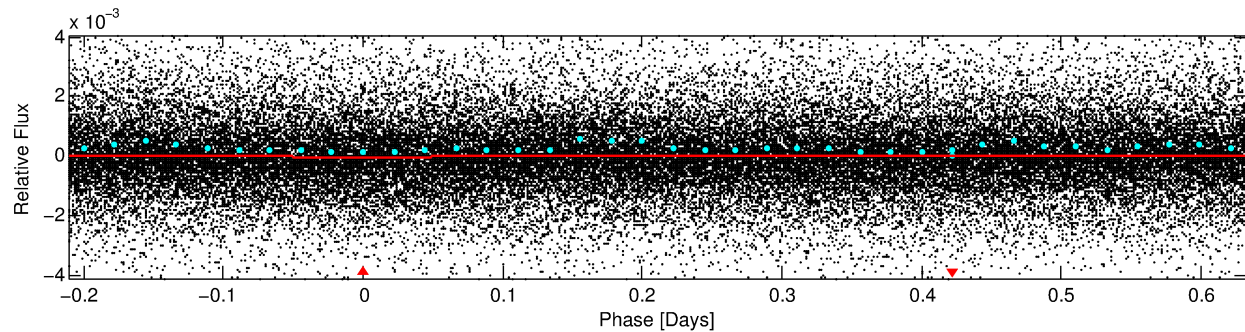
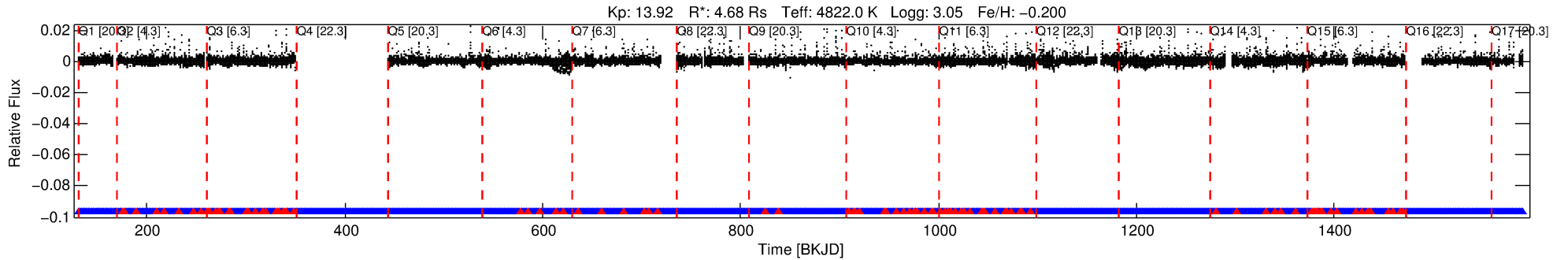
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005217688-01

No Significant Match Found

DV One-Page Summary

KIC: 5217688 Candidate: 1 of 1 Period: 0.844 d



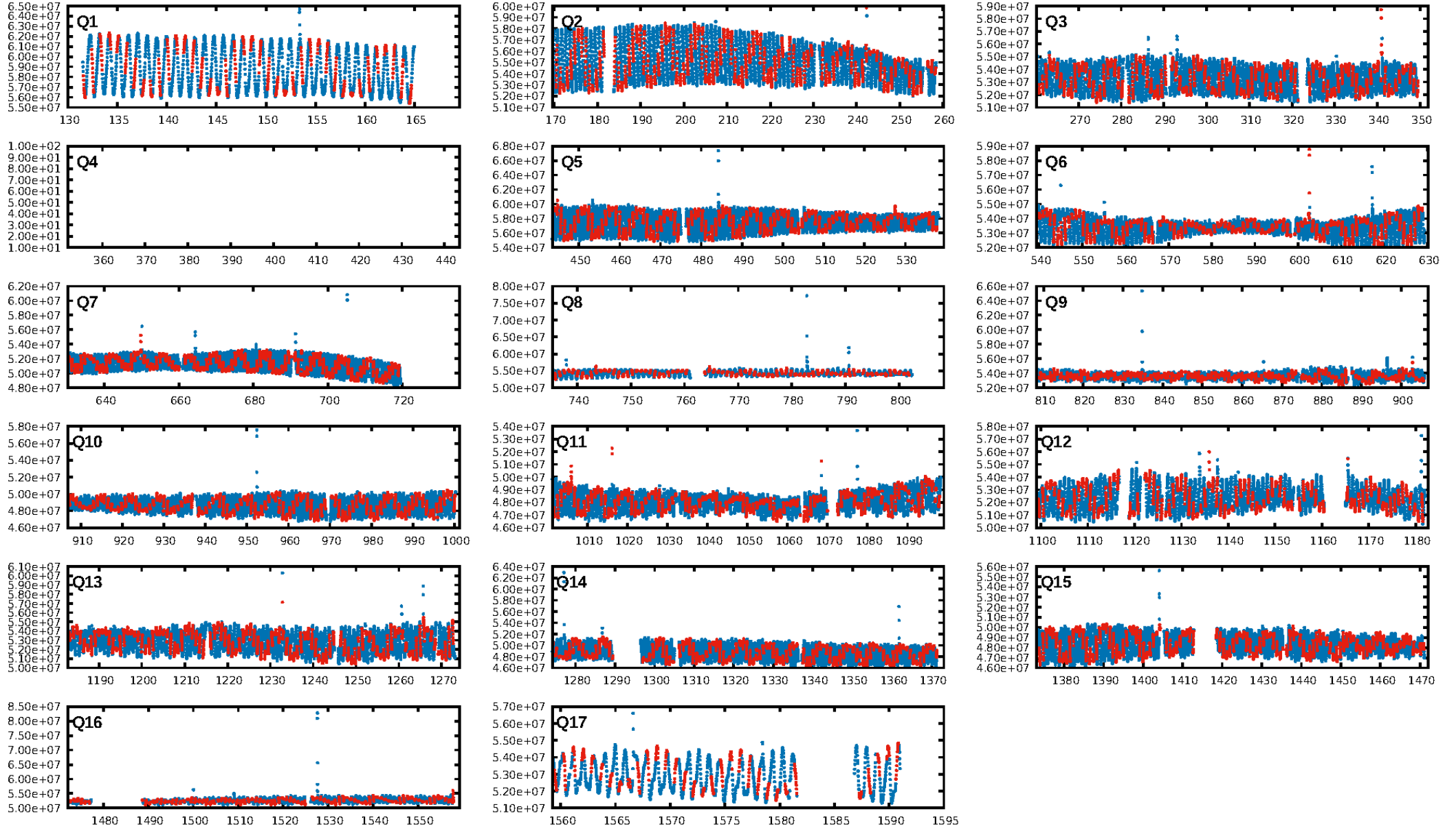
DV Fit Results:

Period = 0.84388 [0.00005] d
Epoch = 131.6723 [0.0069] BKJD
Rp/R* = 0.0073 [0.0089]
a/R* = 1.37 [3.18]
b = 0.92 [0.84]
Seff = N/A
Teq = N/A
Rp = 3.73 [5.12] Re
a = N/A
Ag = N/A
Teffp = N/A

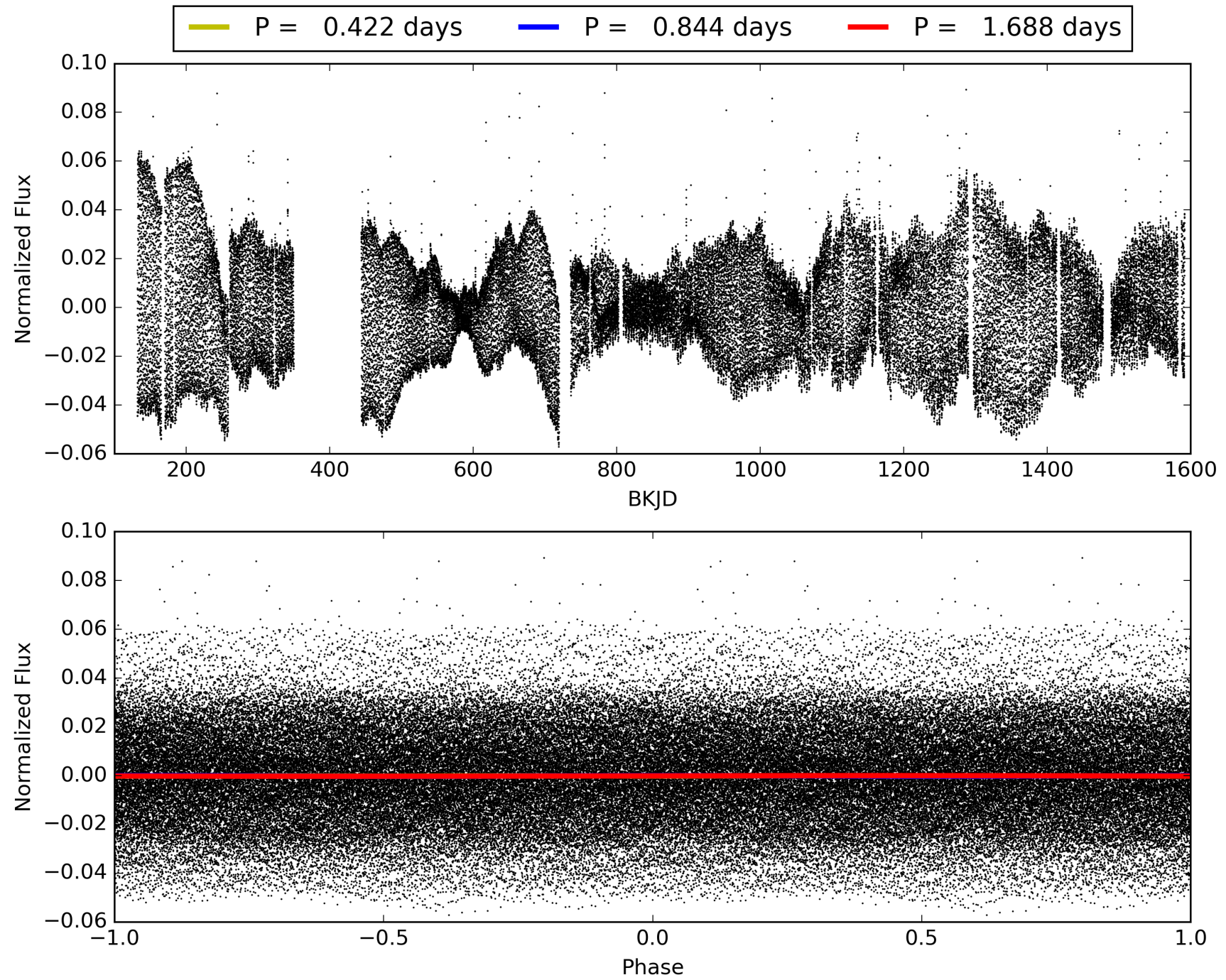
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.36e-25
RollingBand-fgt: 0.93 [1313/1416]
GhostDiagnostic-chr: 68.19
Centroid-sig: 1.3%
Centroid-so: 2.898 arcsec [2.55σ]
OotOffset-rm: 0.017 arcsec [0.06σ]
KicOffset-rm: 0.152 arcsec [0.60σ]
OotOffset-st: 4/4/3/5 [16]
KicOffset-st: 4/4/3/5 [16]
DiffImageQuality-fgm: 0.62 [10/16]
DiffImageOverlap-fno: 1.00 [16/16]

TCE 005217688-01, PDC Light Curves

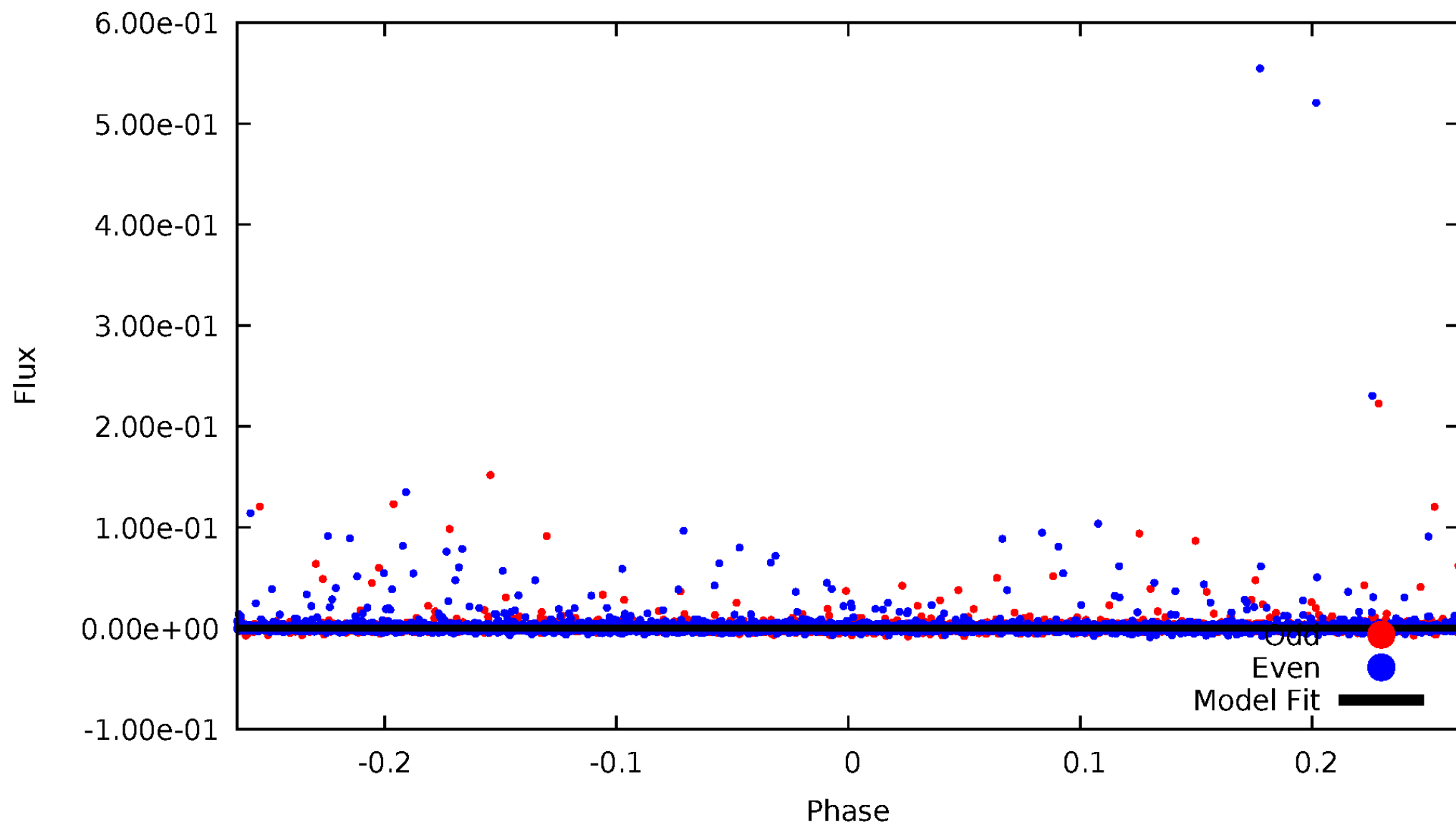


TCE 005217688-01



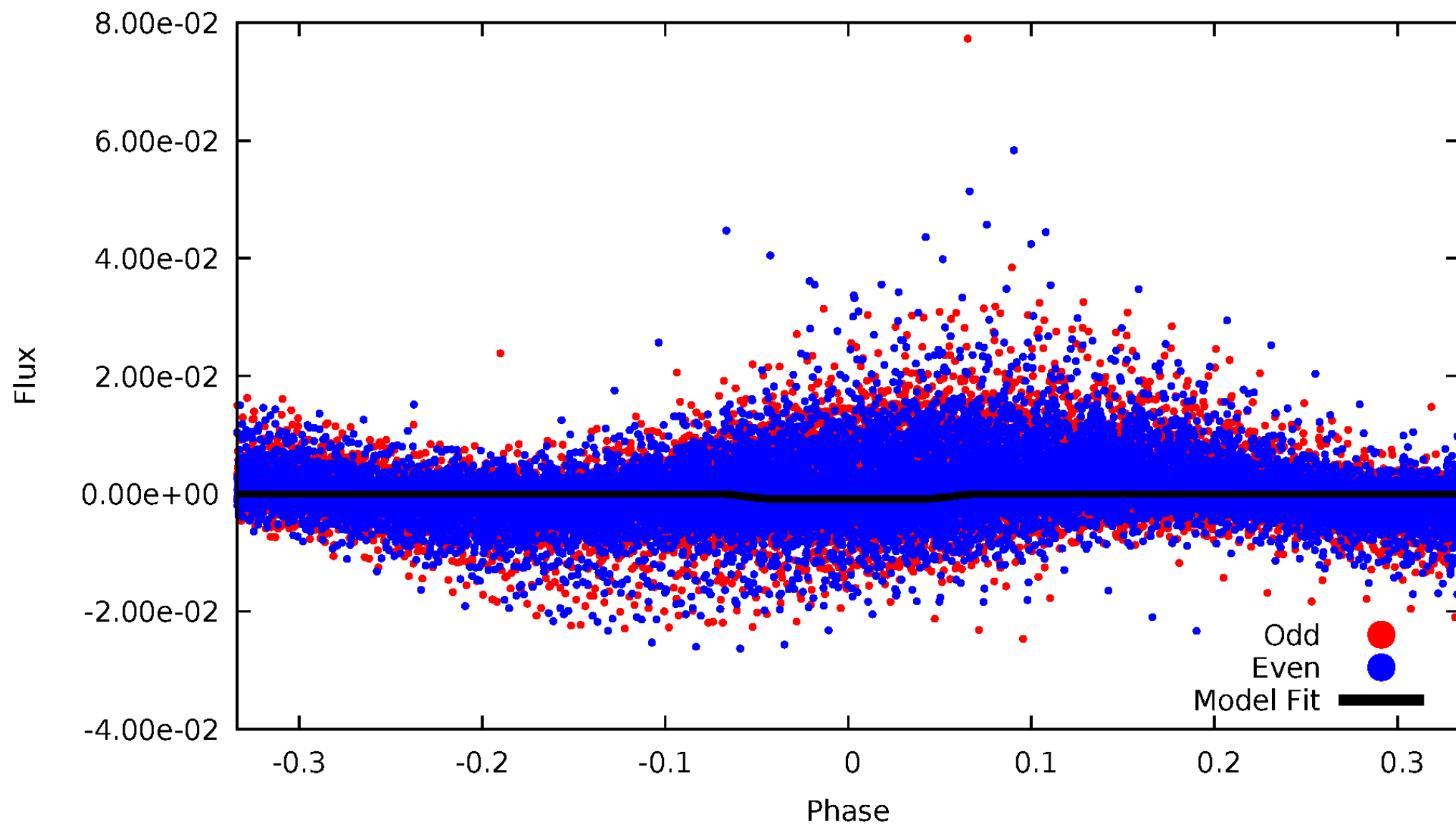
DV Odd/Even

TCE 005217688-01



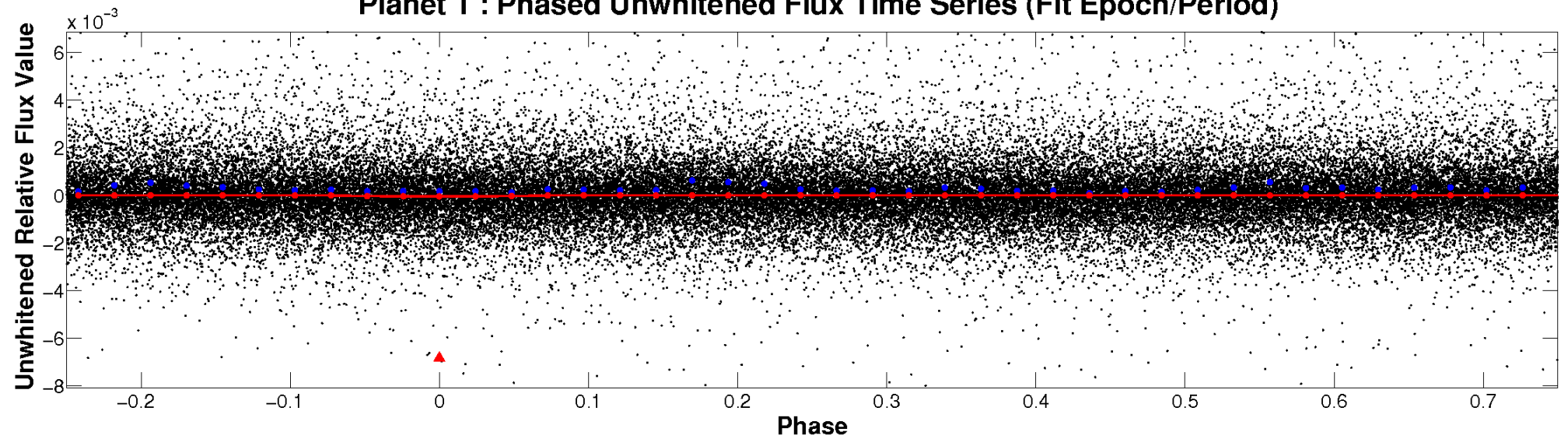
ALT Odd/Even

TCE 005217688-01

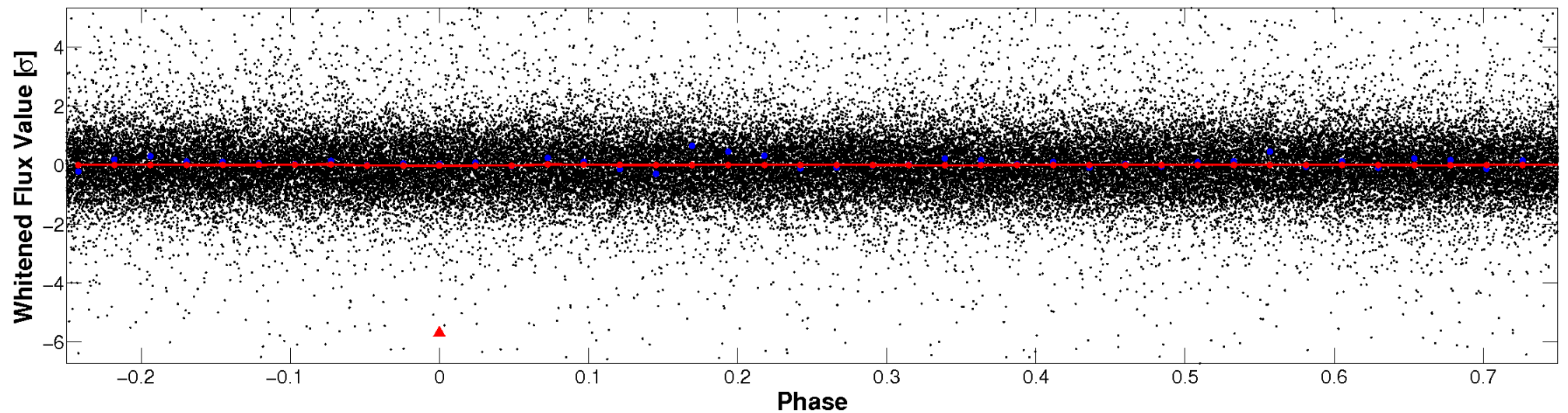


Non-Whitened Vs. Whitened Light Curve

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

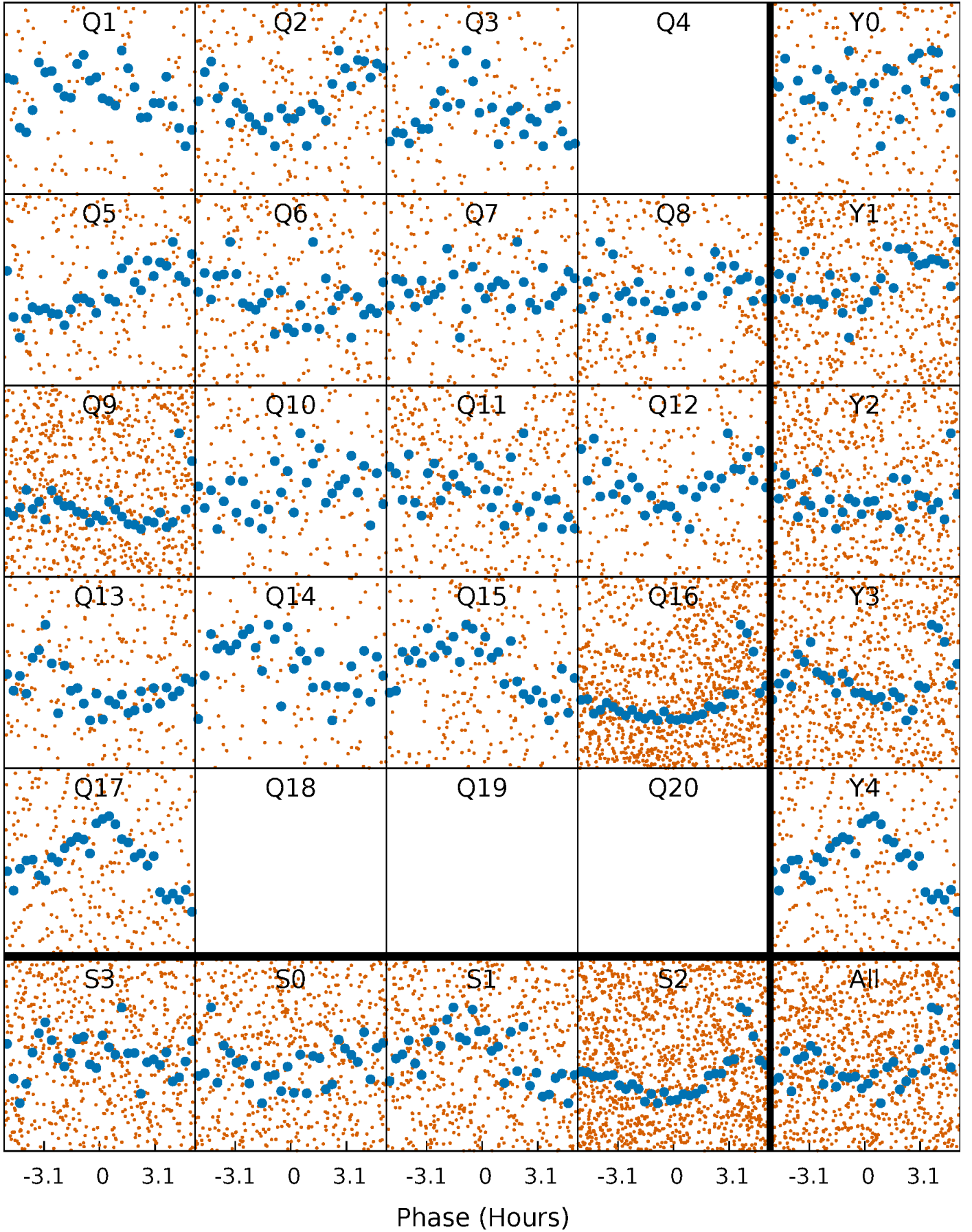


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



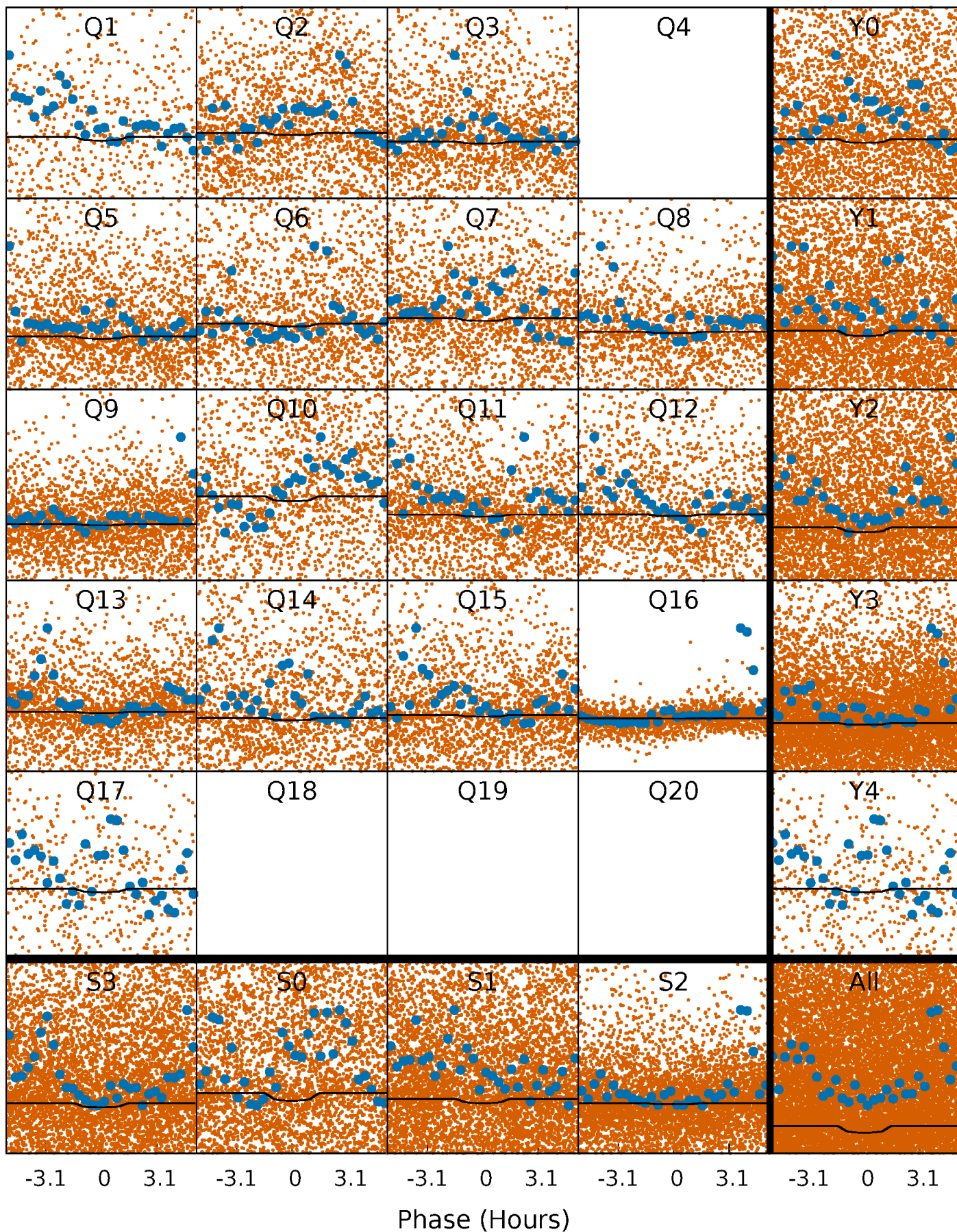
PDC Quarter-Phased Transit Curves

TCE 005217688-01 P= 0.843876 Days $T_0=131.672272$ (BKJD)



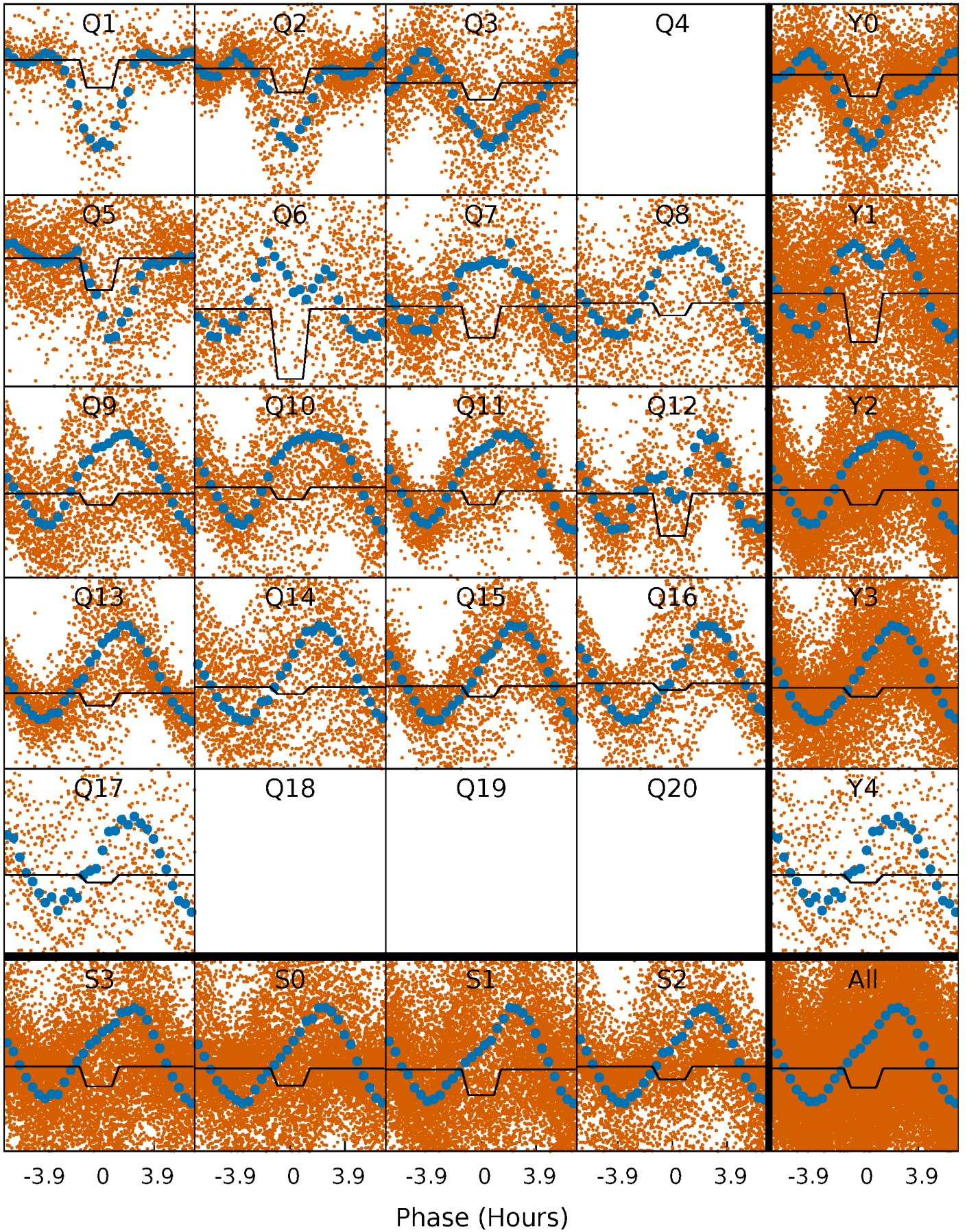
DV Quarter-Phased Transit Curves

TCE 005217688-01 P= 0.843876 Days $T_0=131.672272$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

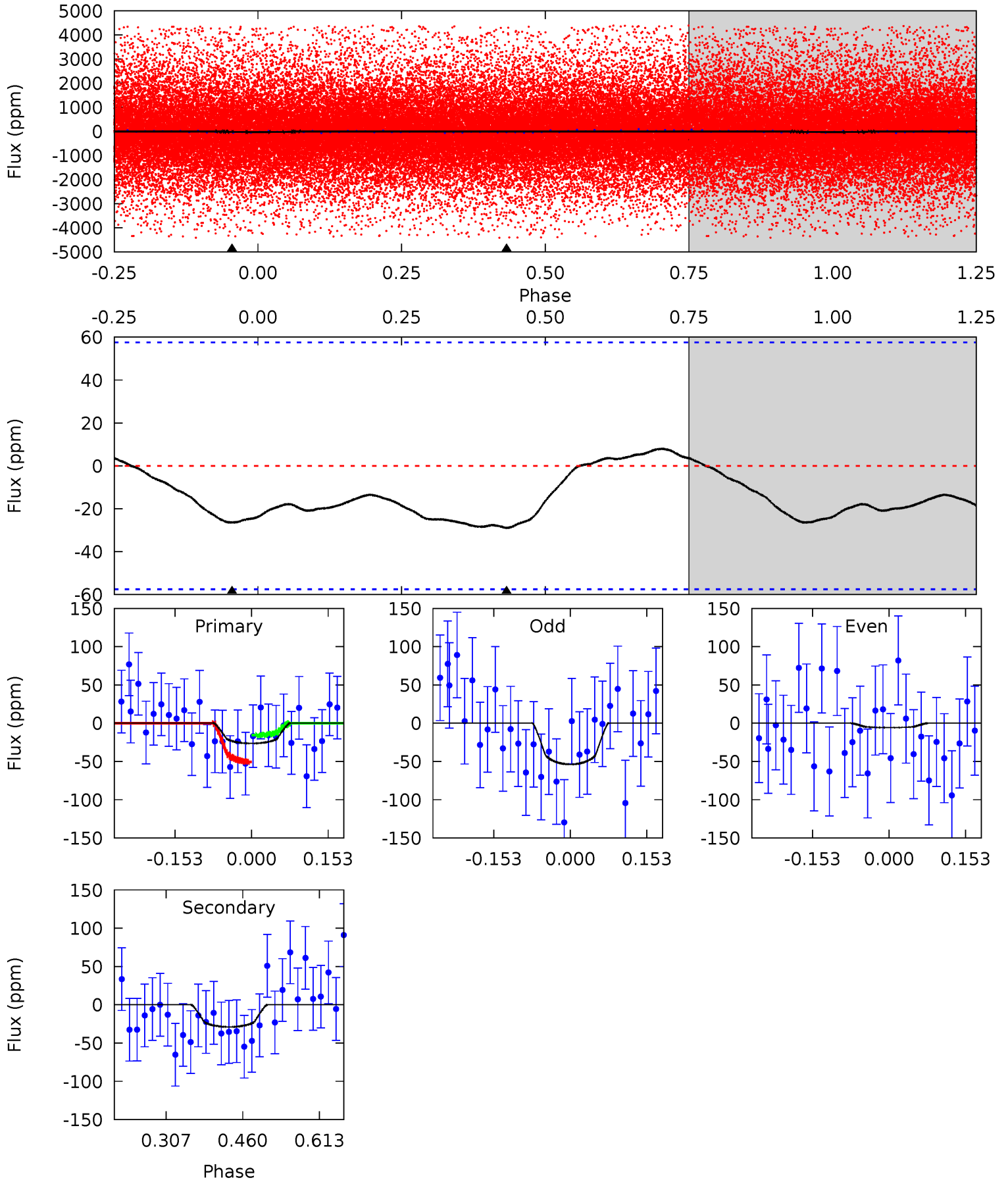
TCE 005217688-01 P= 0.847719 Days $T_0=131.820009$ (BKJD)



DV Model-Shift Uniqueness Test

005217688-01, P = 0.843876 Days, E = 130.828396 Days

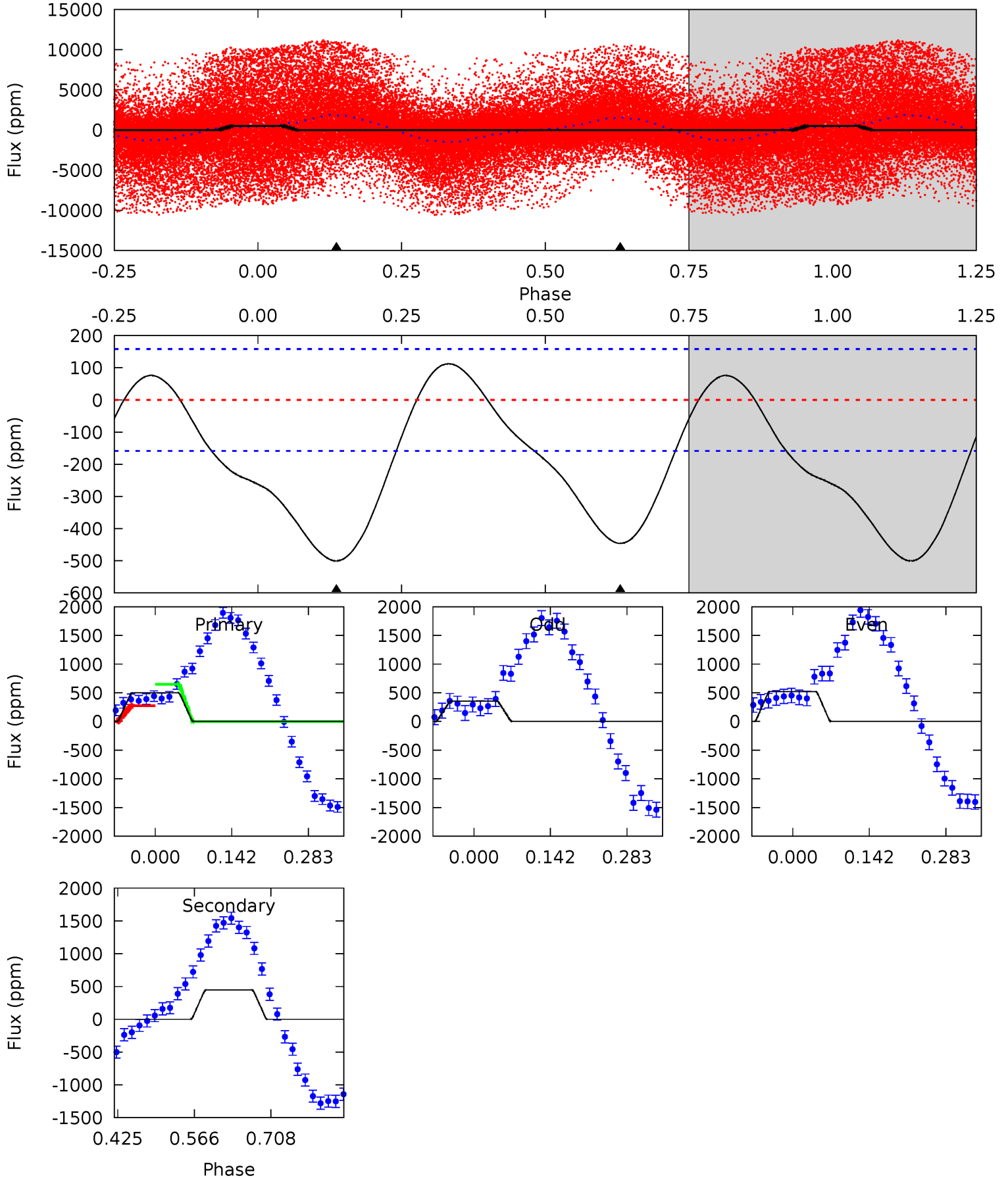
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.06	2.25	0	0	4.47	1.43	0.84	2.06	2.06	2.25	2.25	1.87	-8.23	0.22	1.37



Alt Model-Shift Uniqueness Test

005217688-01, P = 0.847719 Days, E = 130.972290 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.2	12.6	0	0	4.49	1.47	3.22	14.2	14.2	12.6	12.6	2.39	2.67	0.18	5.18



Stellar Parameters For KIC 005217688

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4822^{+146}_{-109}	$3.049^{+0.423}_{-0.346}$	$-0.200^{+0.300}_{-0.200}$	$4.676^{+2.948}_{-1.814}$	$0.892^{+0.326}_{-0.122}$	$0.012^{+0.038}_{-0.010}$
	+3%/-2%	+14%/-11%	+150%/-100%	+63%/-39%	+37%/-14%	+307%/-79%
Source	PHO1	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 005217688-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-29 ± 13	$4.81^{+4.74}_{-3.04}$	4936^{+785}_{-600}	-3402^{+8754}_{-956}	$0.192^{+1.234}_{-0.149}$
Alt.	-446 ± 35	$15.05^{+7.16}_{-5.29}$	4906^{+686}_{-576}	2802^{+1447}_{-6708}	$0.326^{+0.441}_{-0.171}$

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

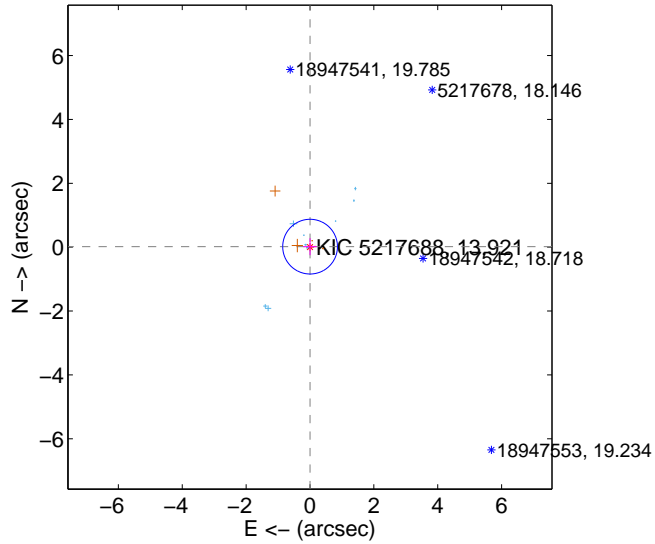
Supplemental centroid analysis for 005217688-01. Kepler magnitude: 13.92. Transit SNR 2.04

There are 10 quarters with good PRF difference image offsets

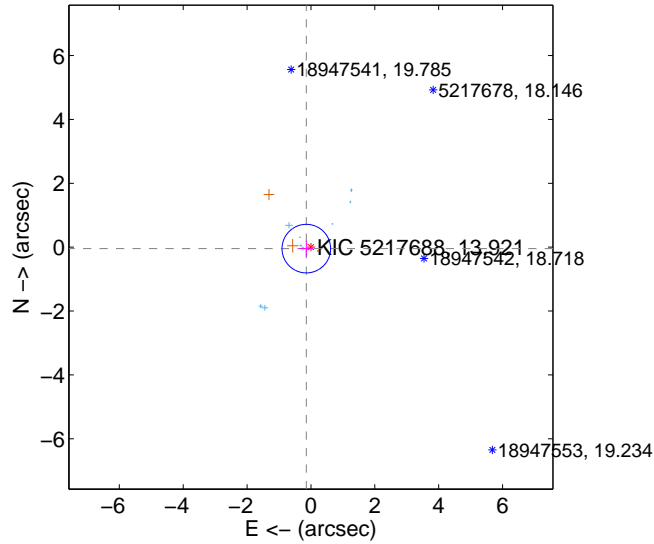
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.017 ± 0.286	0.06	-0.003 ± 0.211	0.016 ± 0.266
PRF-fit source offset from KIC position	0.152 ± 0.253	0.60	0.145 ± 0.211	-0.046 ± 0.248
photometric centroid source offset	2.90 ± 1.14	2.55	2.87 ± 1.14	0.40 ± 1.24

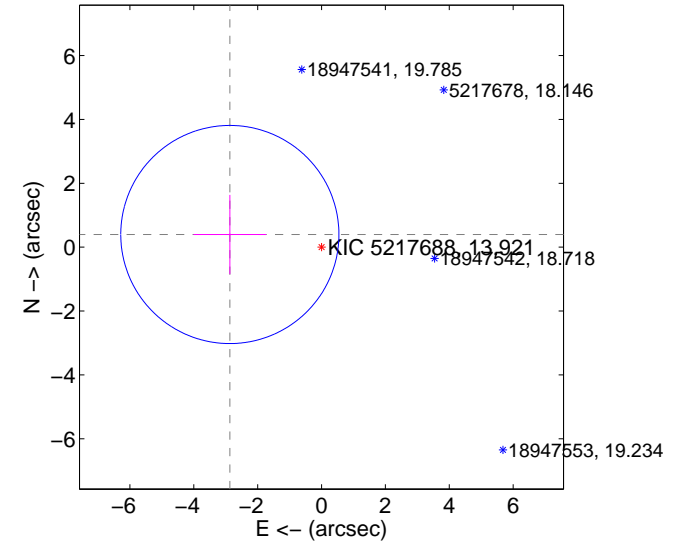
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

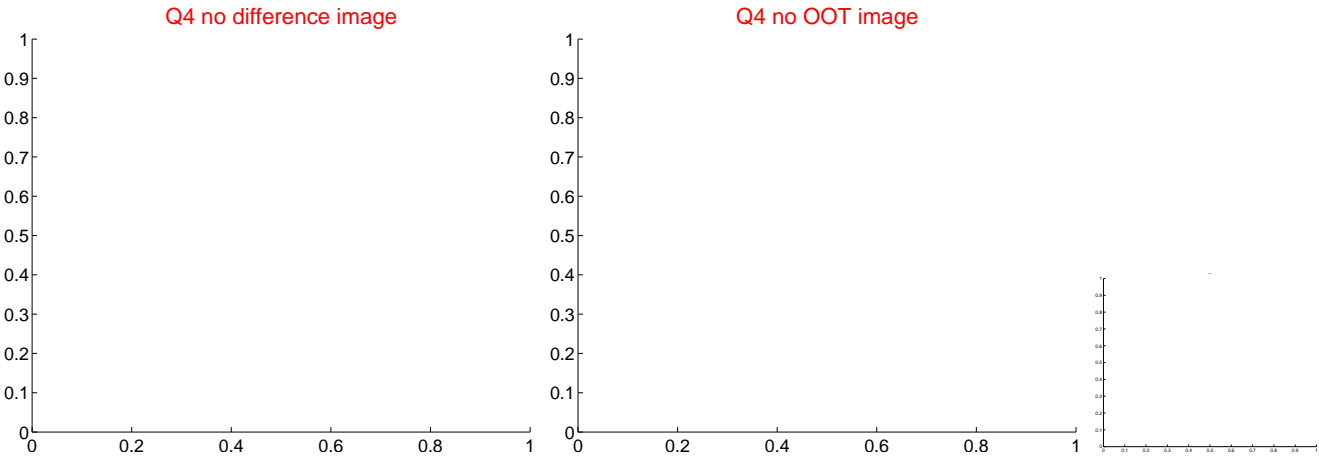
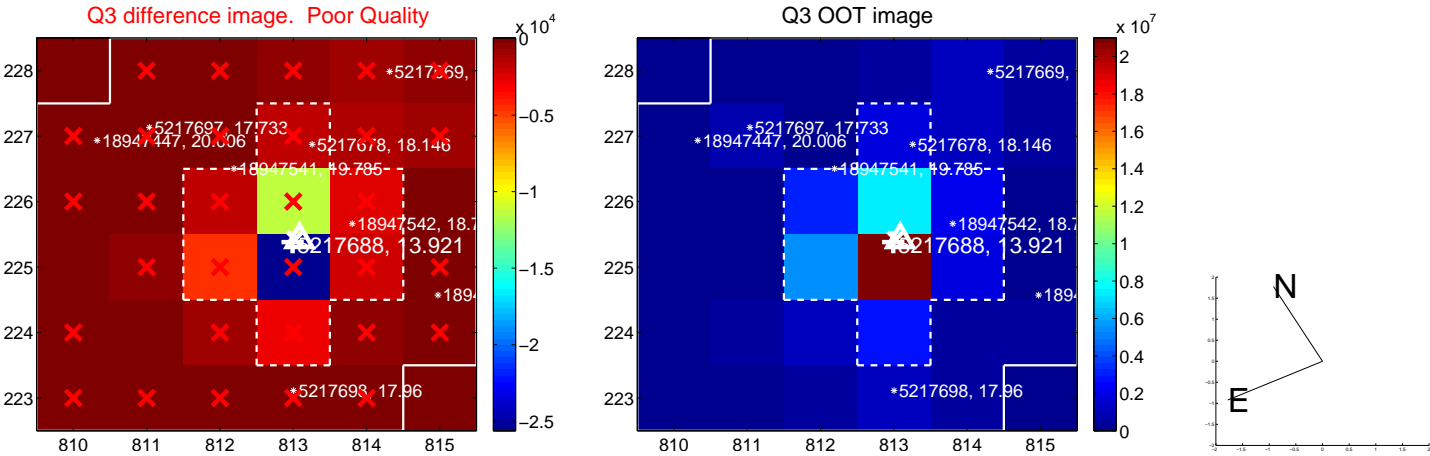
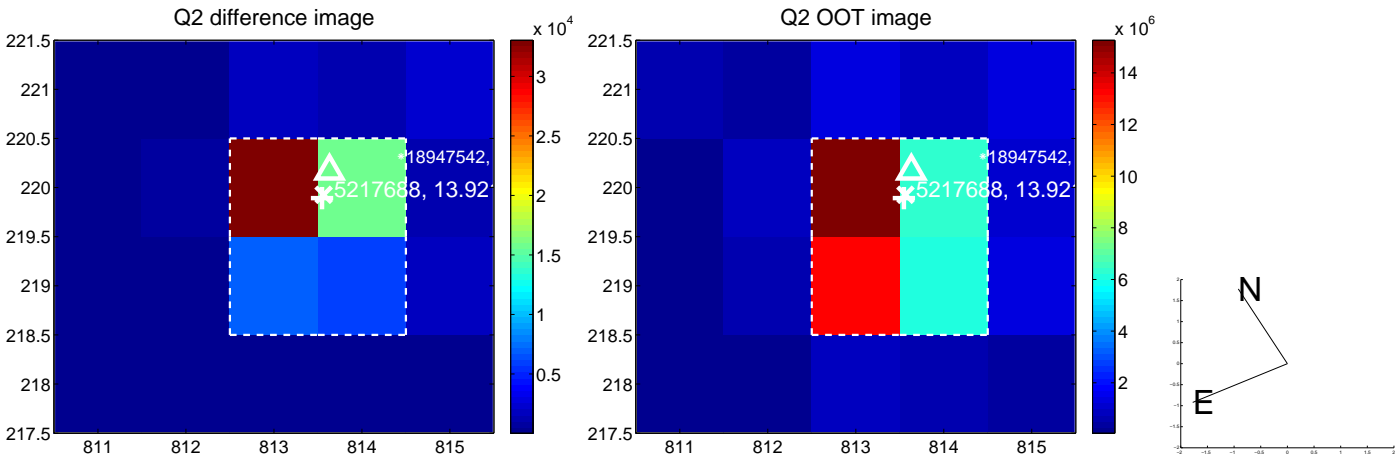
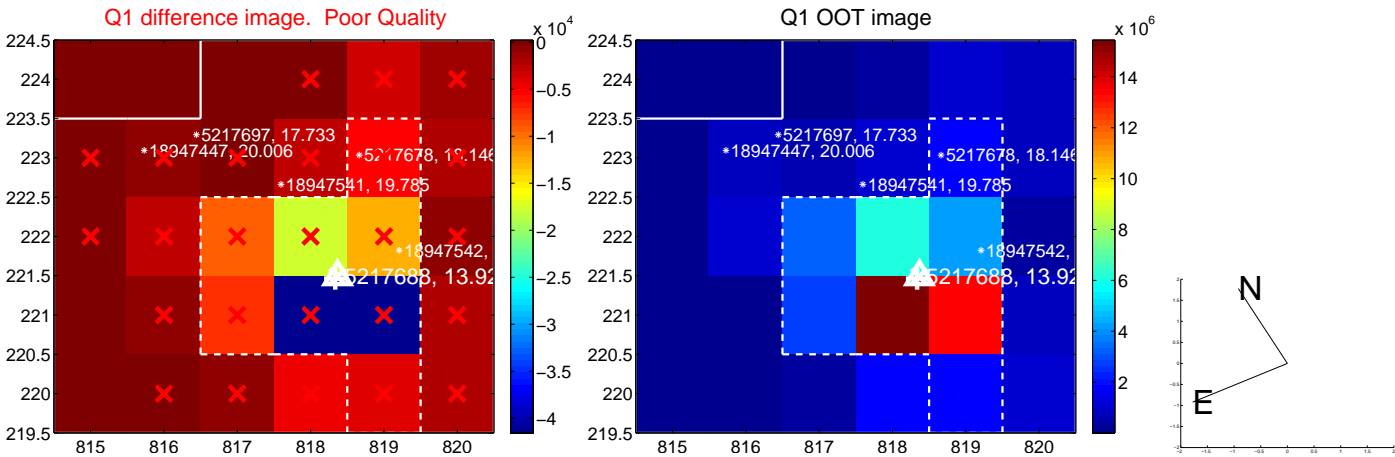


offset from photometric centroids

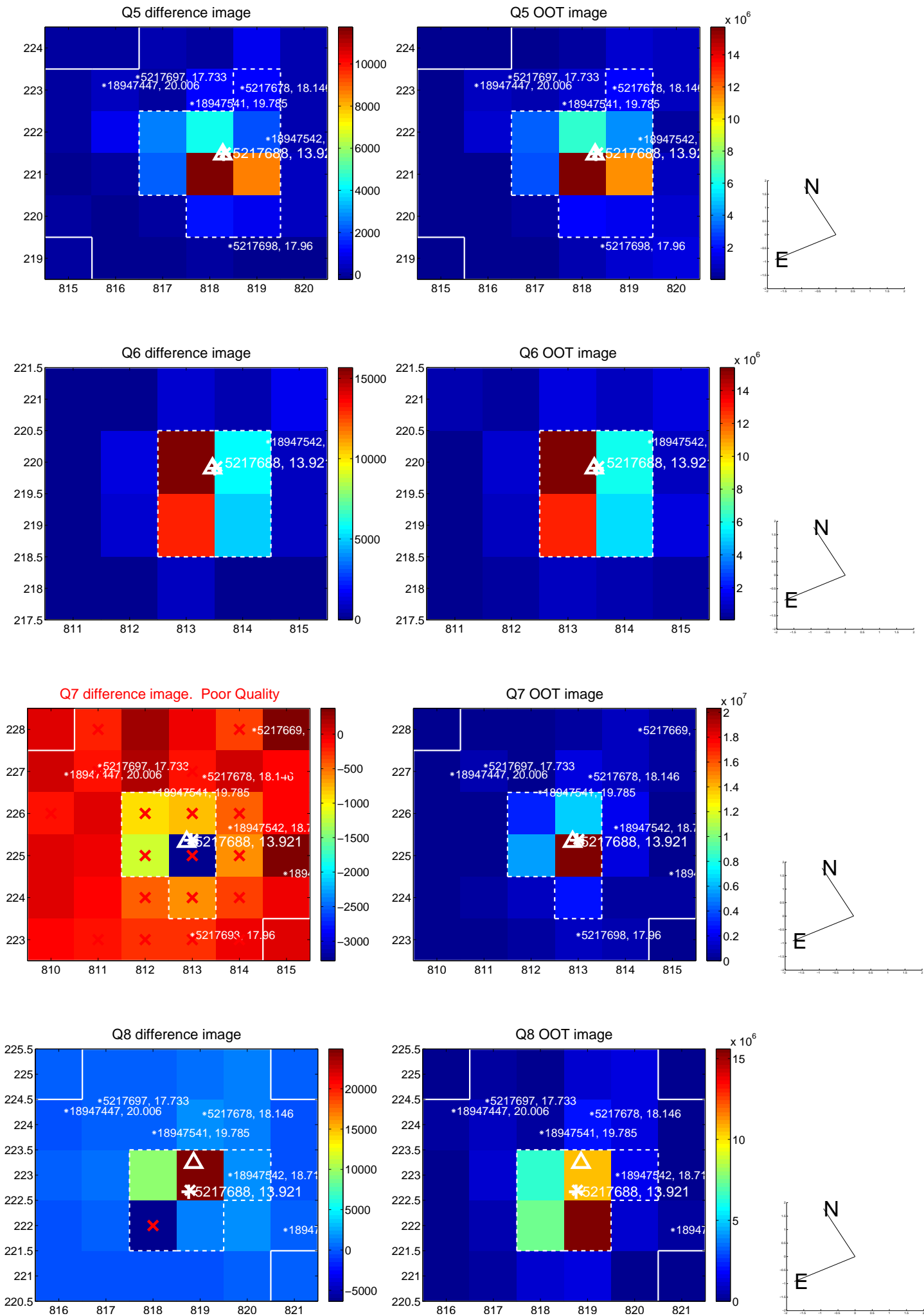


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

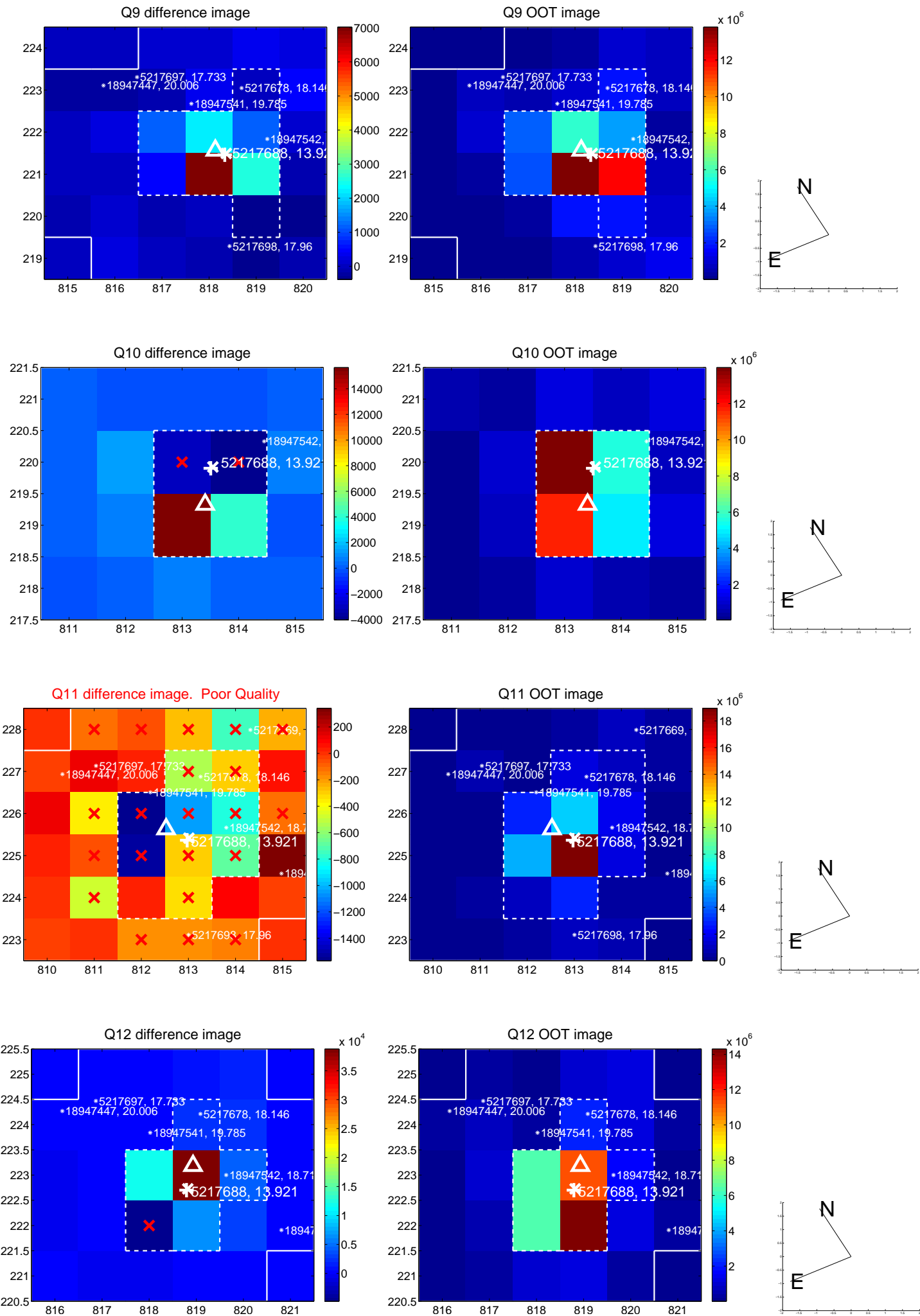
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



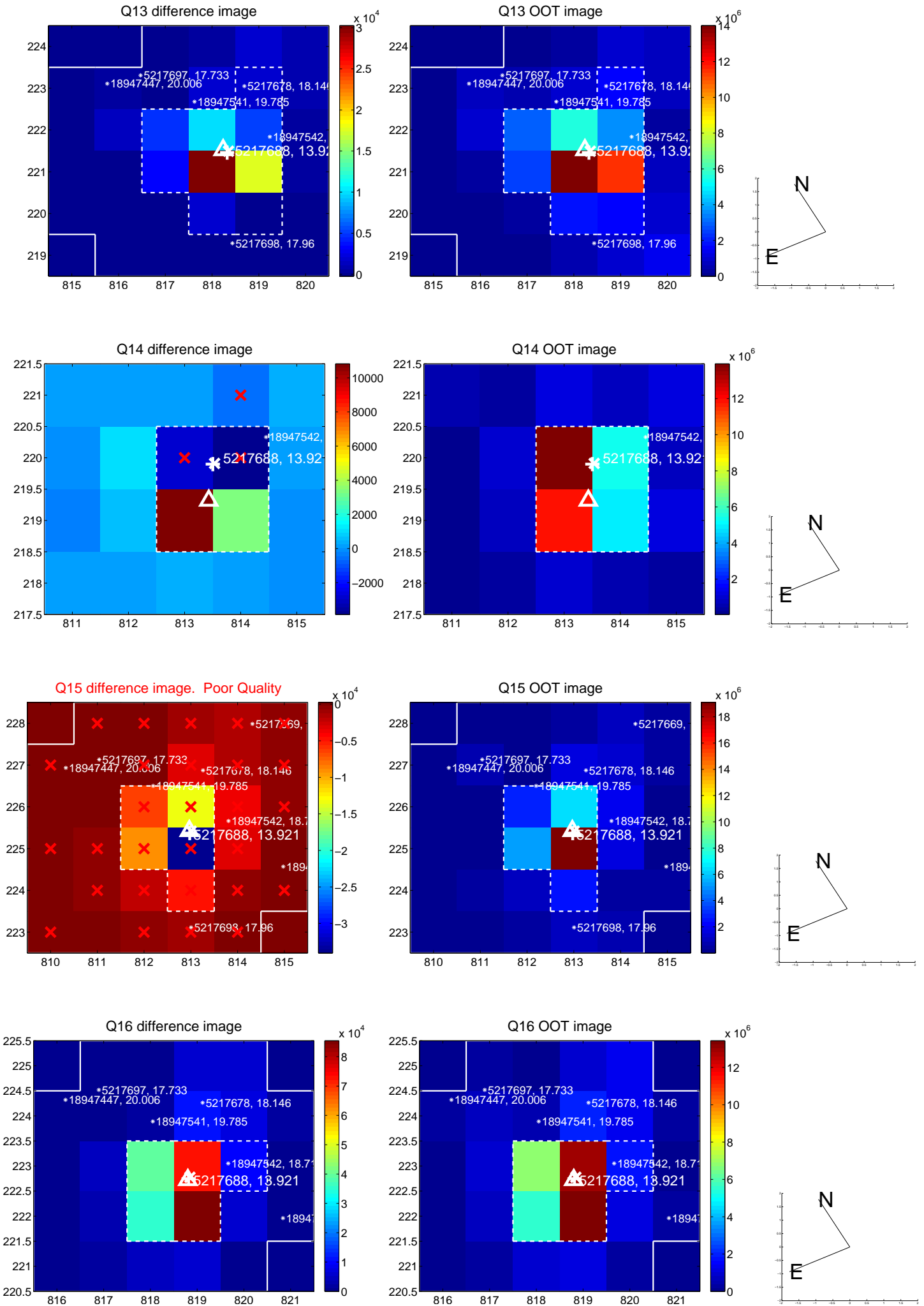
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



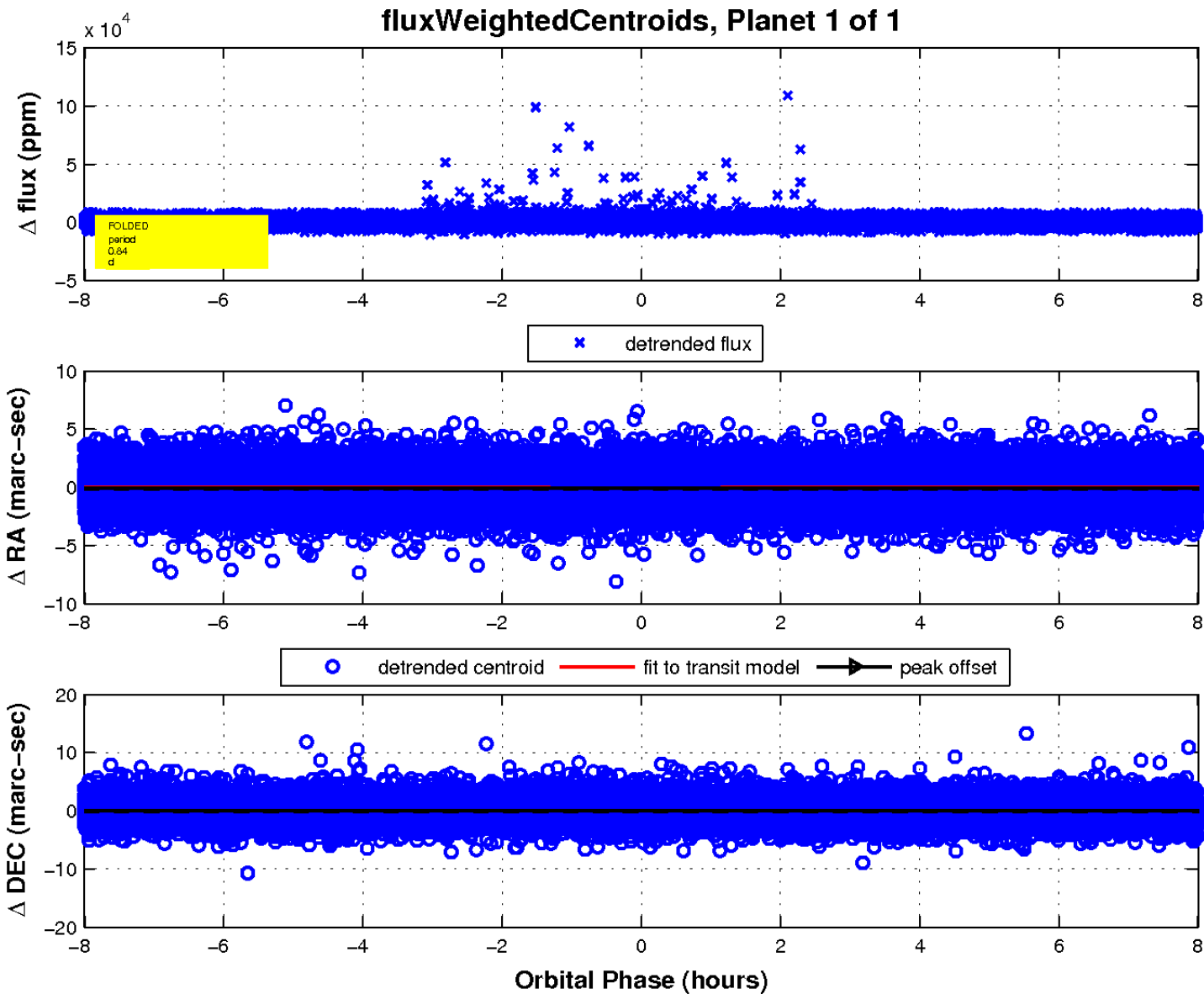
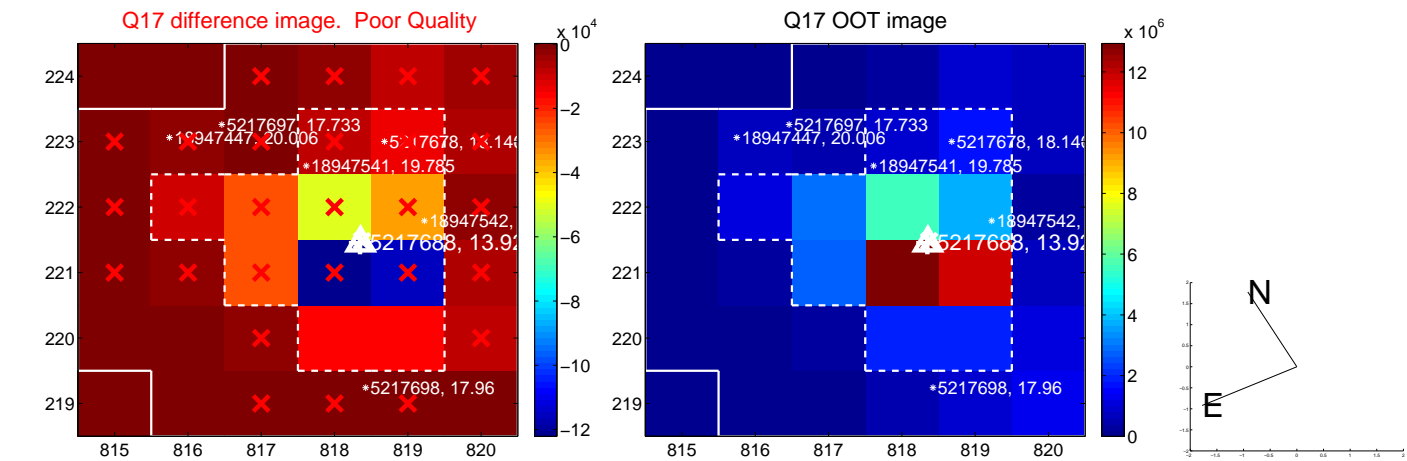
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UKIRT Image

