

KIC 010132832

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})
010132832-01	OBS	2313.01	16.076695	143.392606	478.9	2.446	16.9	18.8	0.97	5957	2.54	64.90

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010132832-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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

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

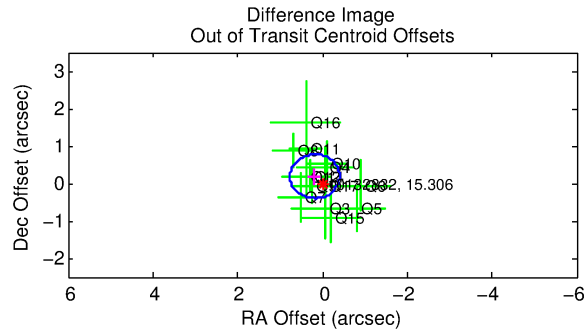
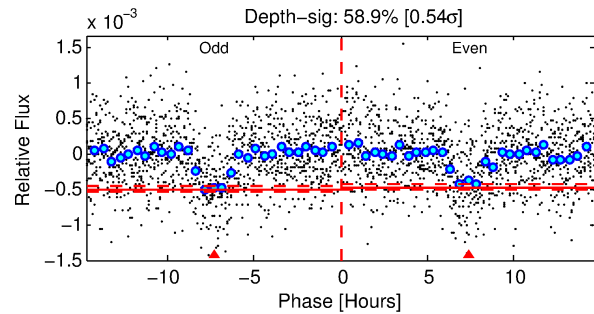
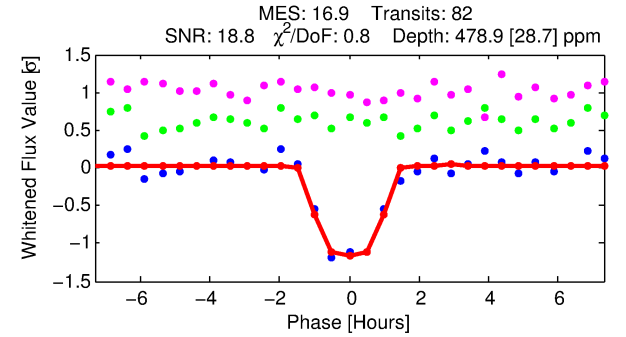
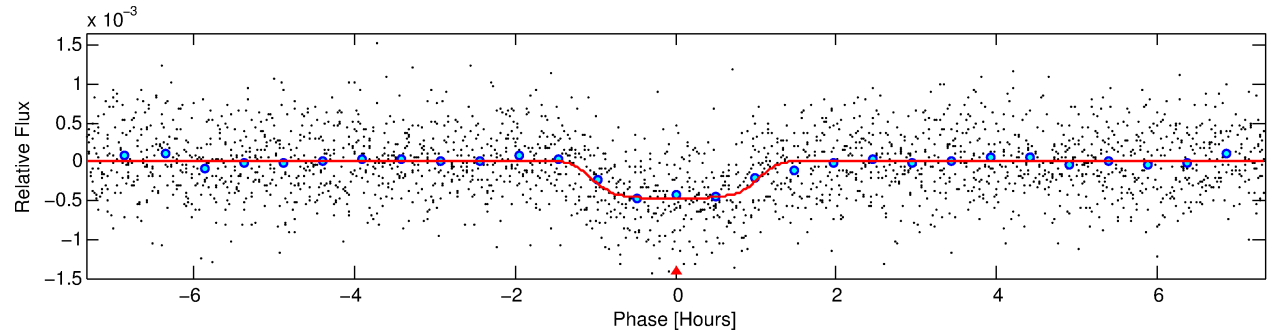
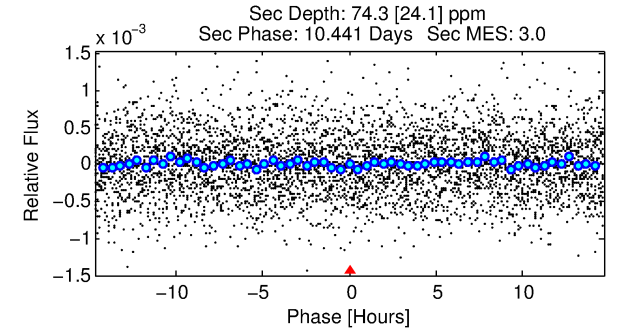
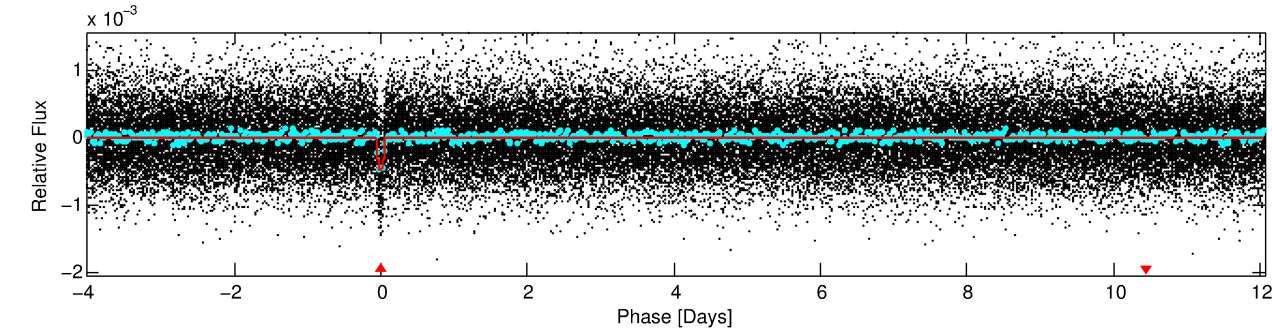
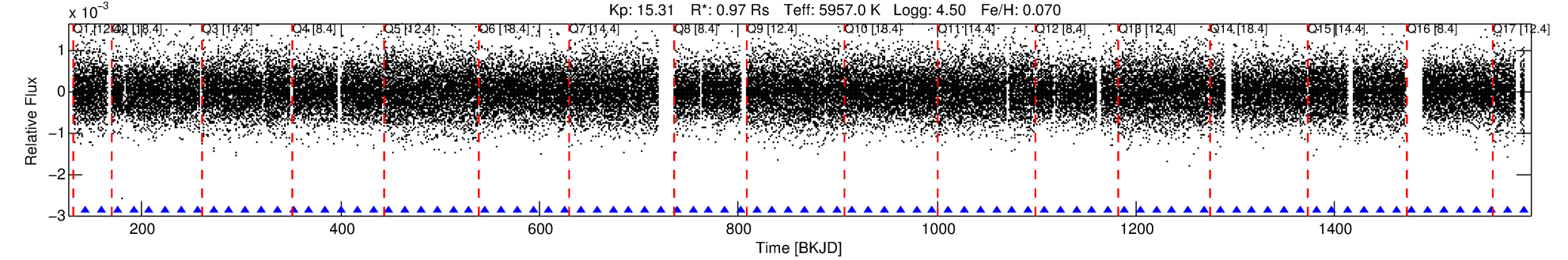
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010132832-01

No Significant Match Found

DV One-Page Summary

KIC: 10132832 Candidate: 1 of 1 Period: 16.077 d
KOI: K02313.01 Corr: 0.956



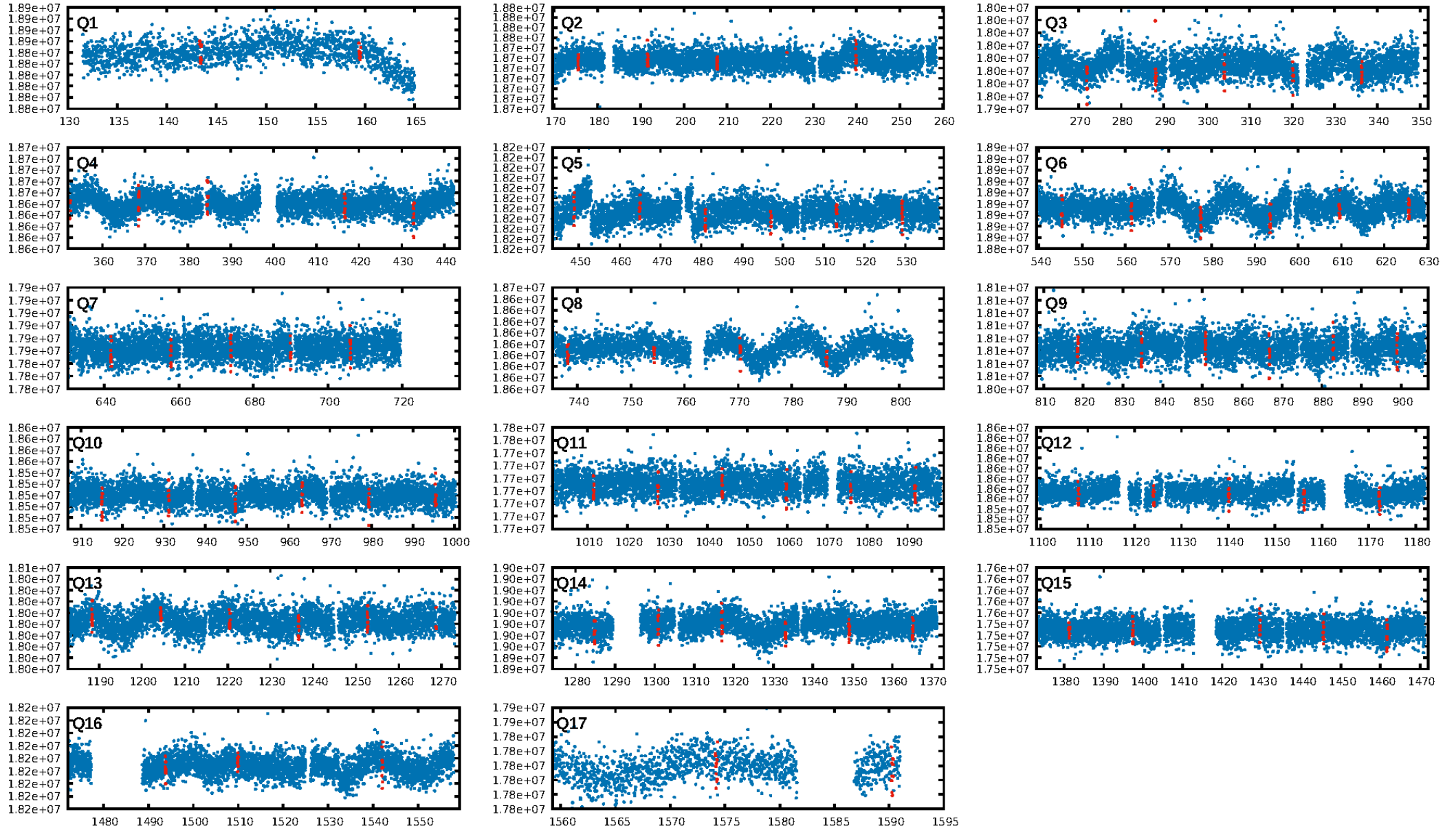
DV Fit Results:

Period = 16.07670 [0.00007] d
Epoch = 143.3926 [0.0033] BKJD
Rp/R* = 0.0240 [0.0044]
a/R* = 23.69 [20.52]
b = 0.91 [0.17]
Seff = 64.90 [27.10]
Teff = 724 [76] K
Rp = 2.54 [0.91] Re
a = 0.1280 [0.0341] AU
Ag = 103.56 [65.33] [1.57σ]
Teffp = 3570 [453] K [6.19σ]

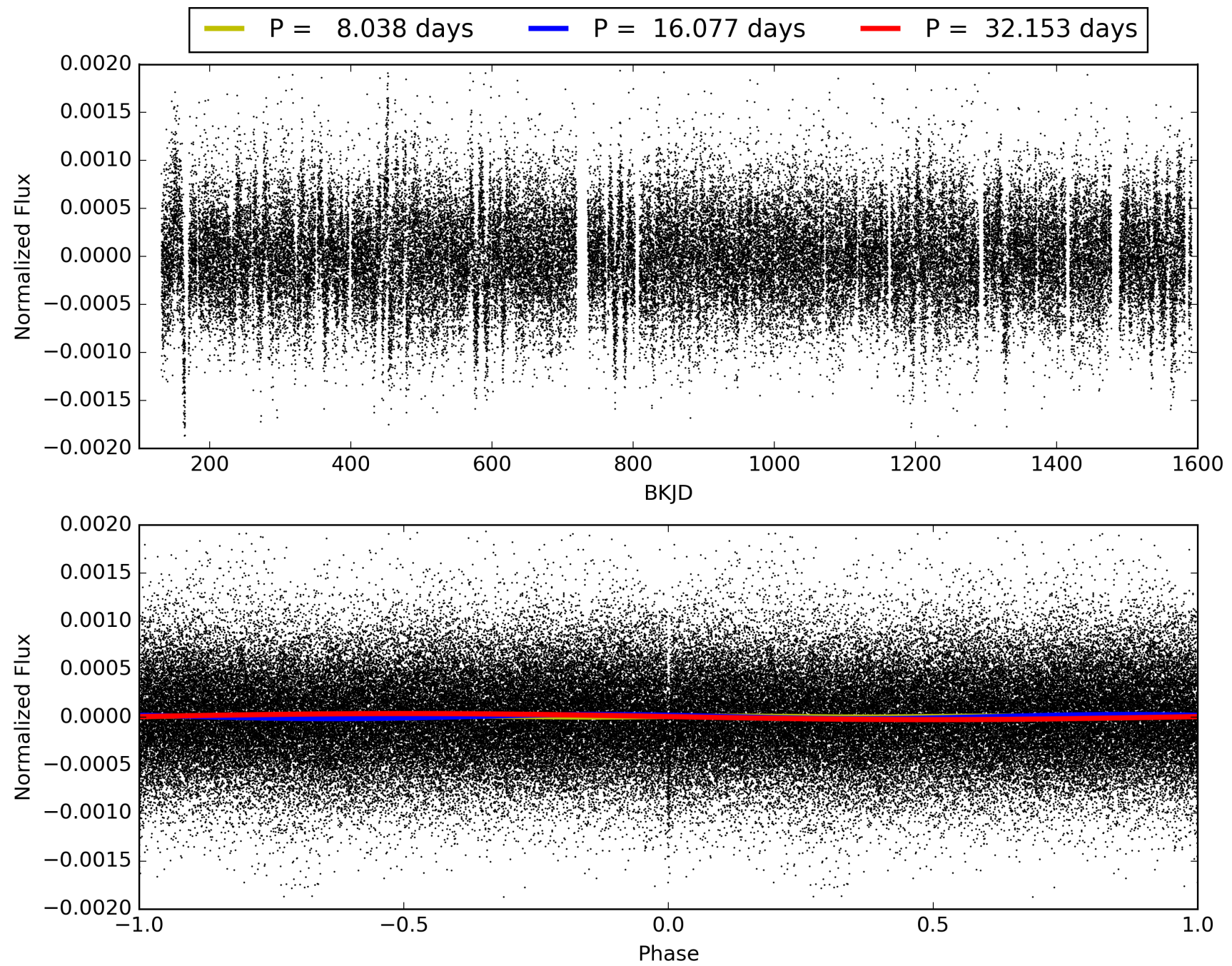
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.62e-64
RollingBand-fgt: 1.00 [78/78]
GhostDiagnostic-chr: 8.756
Centroid-sig: 85.6%
Centroid-so: 0.433 arcsec [0.57σ]
OotOffset-rm: 0.263 arcsec [1.34σ]
KicOffset-rm: 0.325 arcsec [1.46σ]
OotOffset-st: 3/4/4/3 [14]
KicOffset-st: 3/4/4/3 [14]
DiffImageQuality-fgm: 0.93 [13/14]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 010132832-01, PDC Light Curves

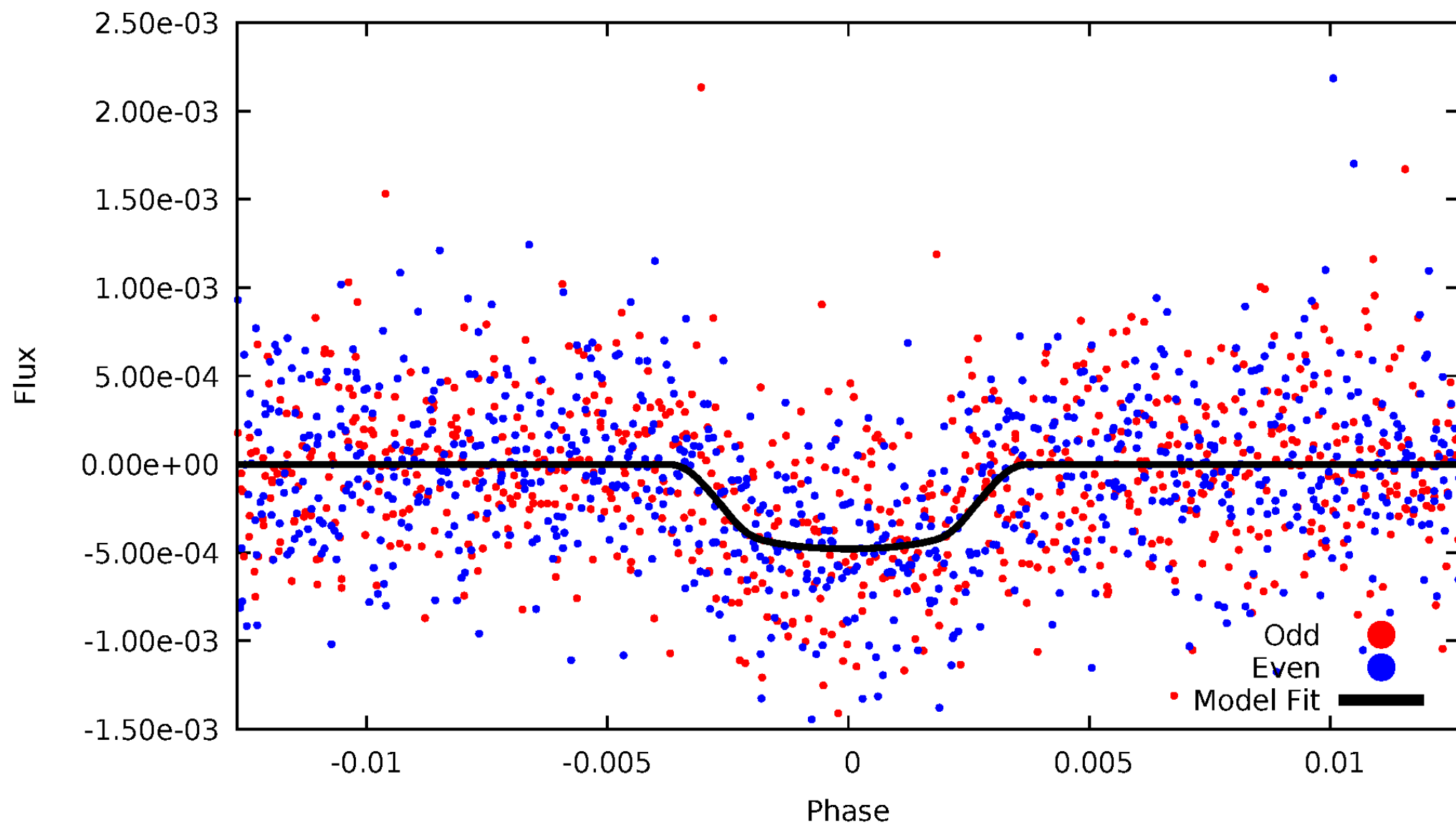


TCE 010132832-01



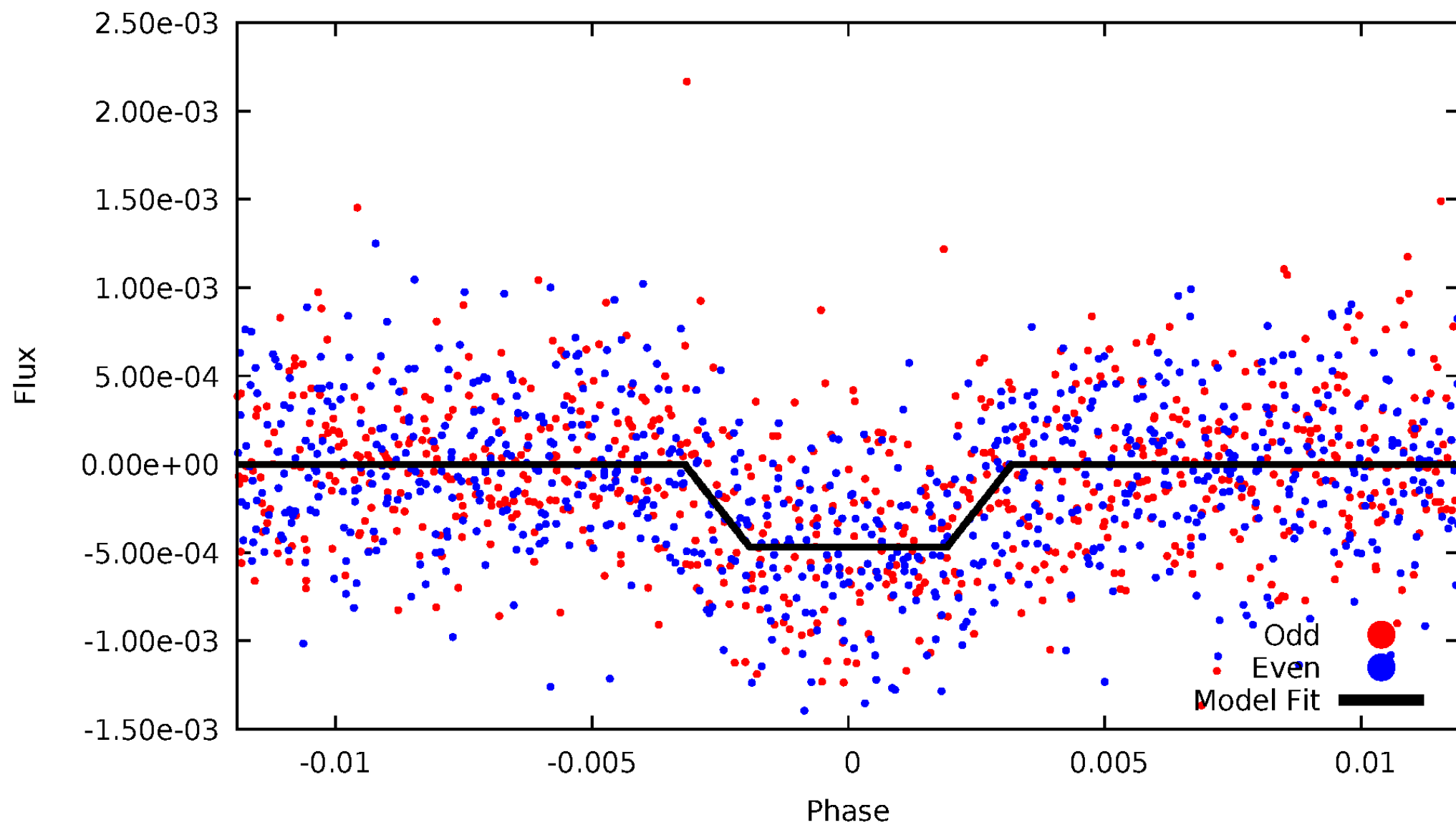
DV Odd/Even

TCE 010132832-01



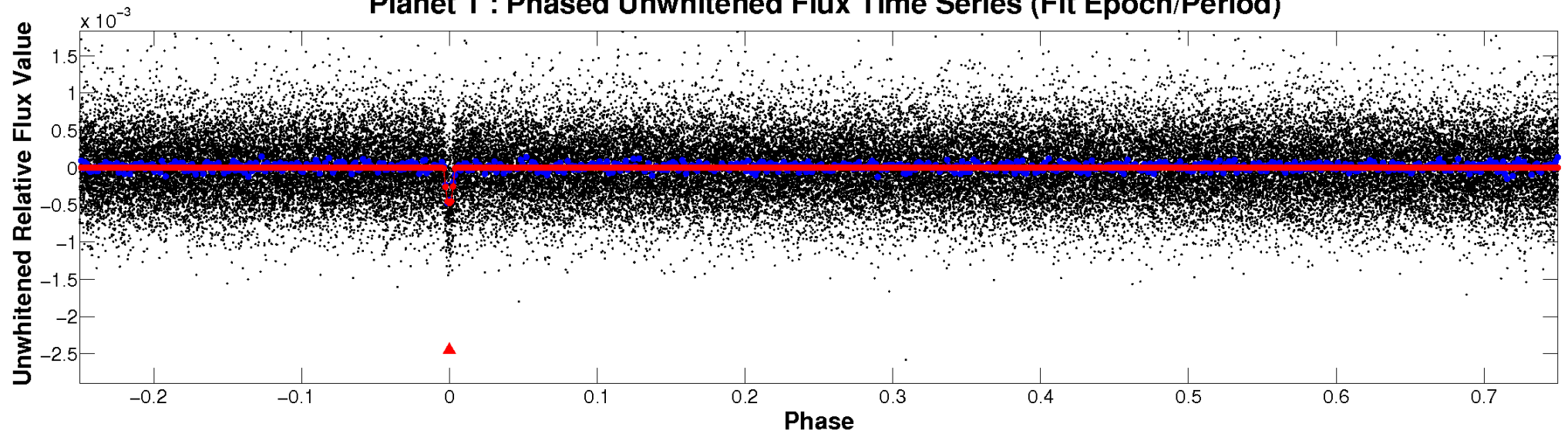
ALT Odd/Even

TCE 010132832-01

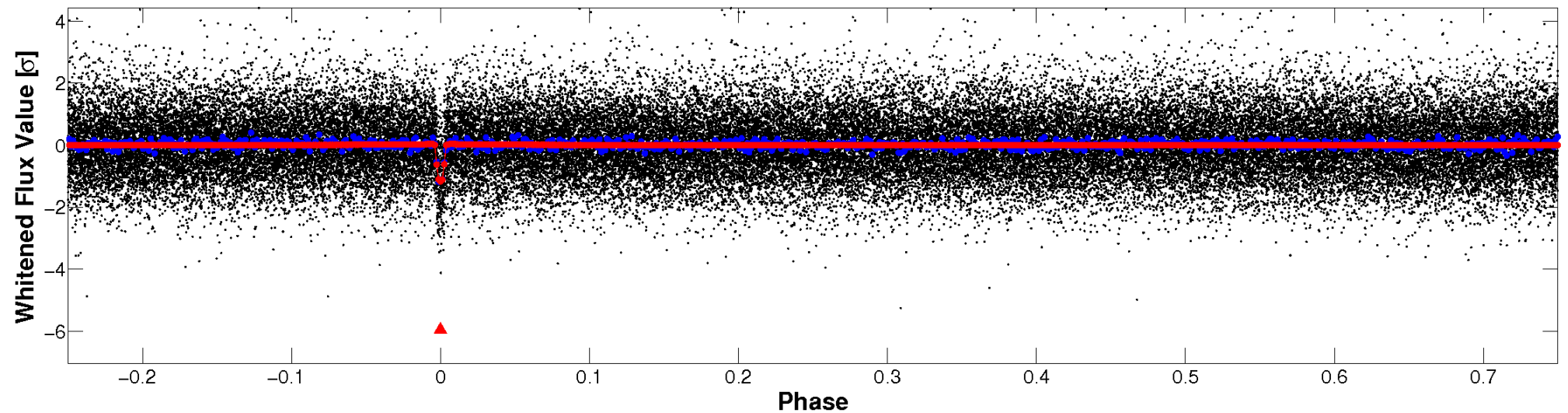


Non-Whitened Vs. Whitened Light Curve

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

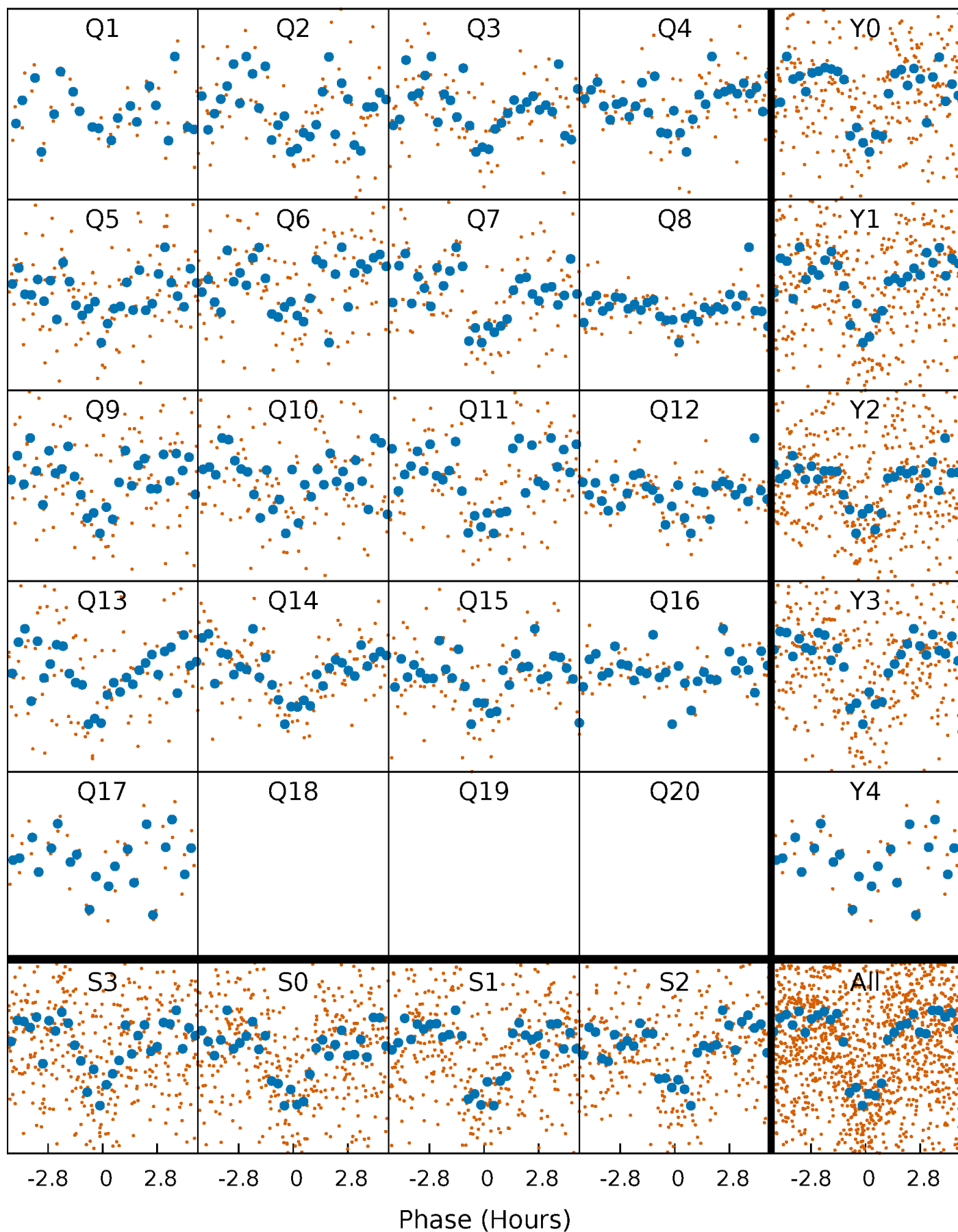


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



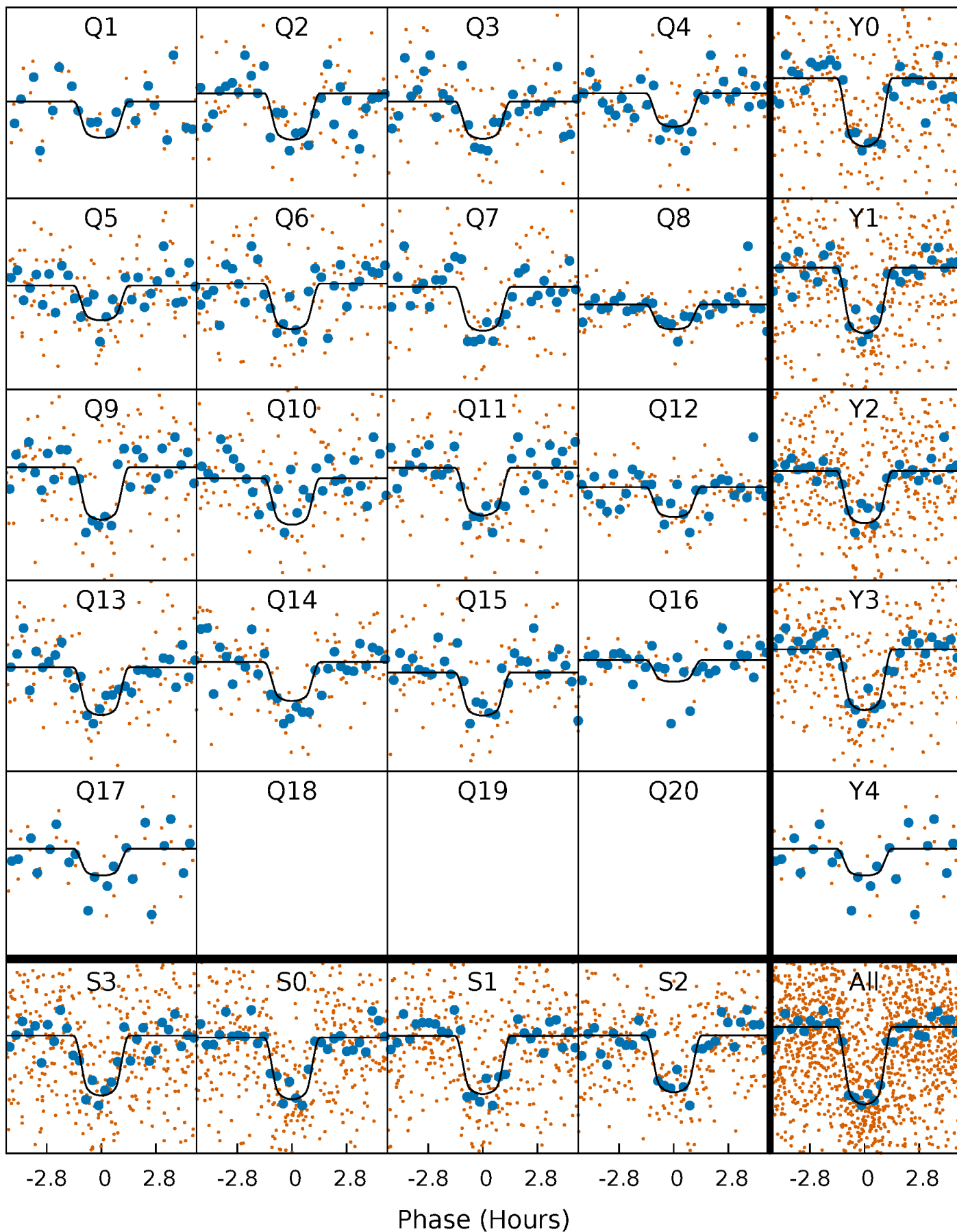
PDC Quarter-Phased Transit Curves

TCE 010132832-01 P= 16.076695 Days $T_0=143.392606$ (BKJD)



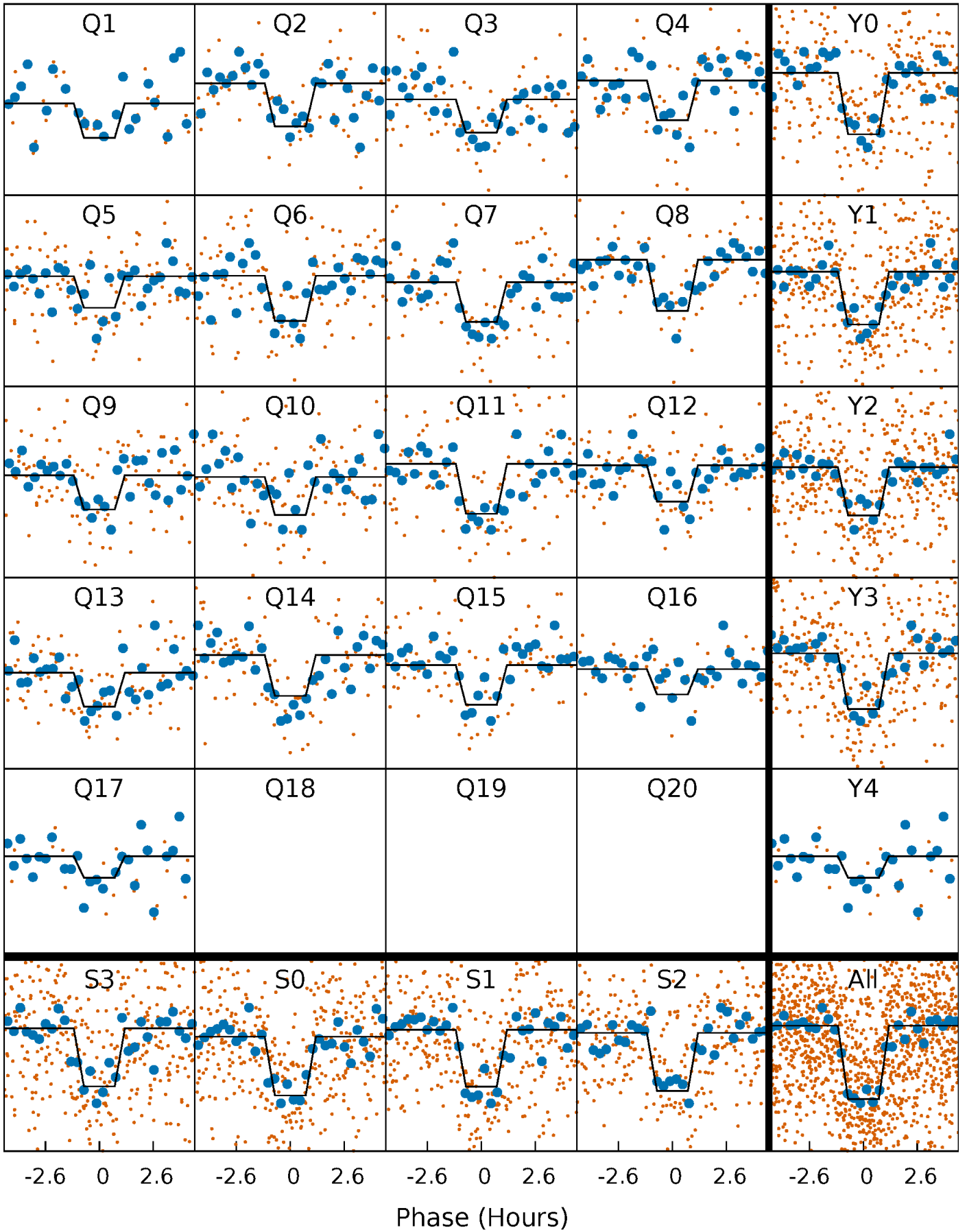
DV Quarter-Phased Transit Curves

TCE 010132832-01 P= 16.076695 Days $T_0=143.392606$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

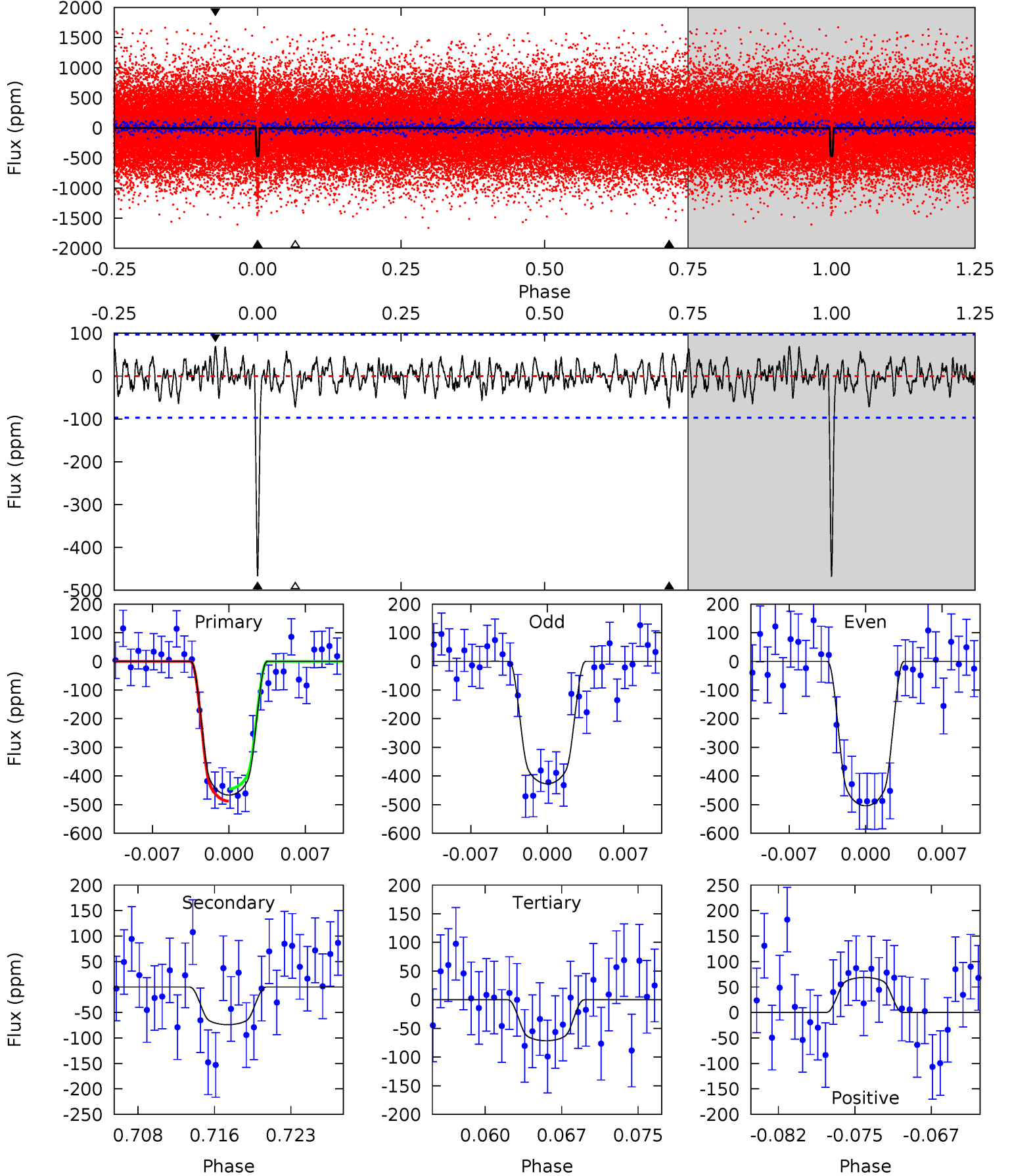
TCE 010132832-01 P= 16.076650 Days $T_0=143.394531$ (BKJD)



DV Model-Shift Uniqueness Test

010132832-01, $P = 16.076695$ Days, $E = 127.315911$ Days

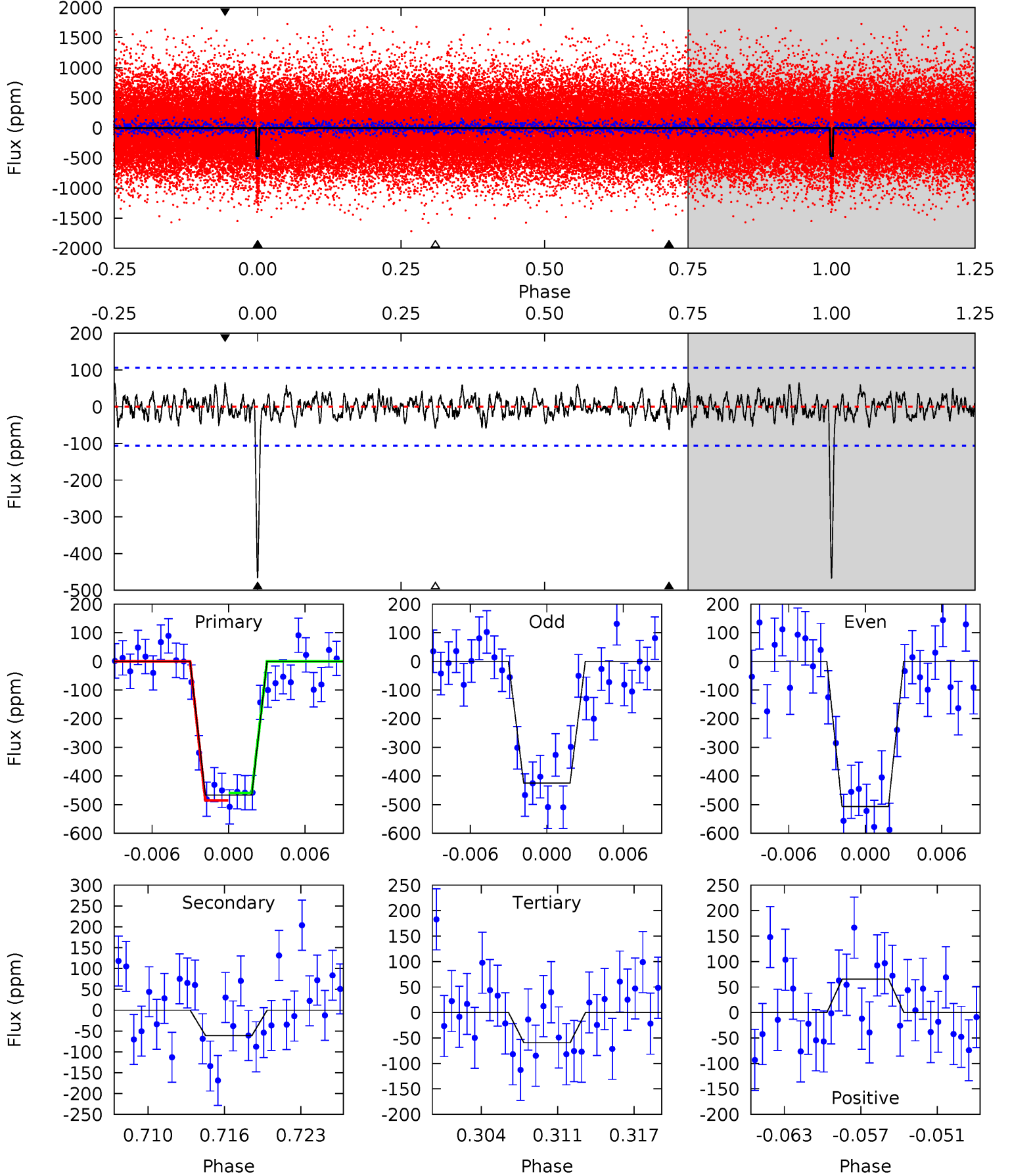
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.5	3.87	3.75	3.60	5.08	2.68	1.21	20.7	20.9	0.12	0.27	2.02	0.97	0.13	1.12



Alt Model-Shift Uniqueness Test

010132832-01, P = 16.076650 Days, E = 127.317881 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.5	2.94	2.85	3.16	5.11	2.73	1.10	19.7	19.4	0.09	-0.22	1.99	0.95	0.12	0.63



Stellar Parameters For KIC 010132832

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5957^{+177}_{-195}	$4.498^{+0.052}_{-0.221}$	$0.070^{+0.250}_{-0.350}$	$0.971^{+0.299}_{-0.100}$	$1.083^{+0.126}_{-0.154}$	$1.665^{+0.361}_{-0.912}$
	+3%/-3%	+1%/-5%	+357%/-500%	+31%/-10%	+12%/-14%	+22%/-55%
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 010132832-01 / KOI 2313.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-74 ± 19	$2.65^{+0.63}_{-0.54}$	1032^{+75}_{-49}	3910^{+371}_{-306}	92^{+58}_{-35}
Alt.	-61 ± 21	$2.44^{+0.57}_{-0.56}$	1039^{+77}_{-54}	3908^{+414}_{-341}	87^{+73}_{-37}

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 $A_{obs} \gg 1.0$

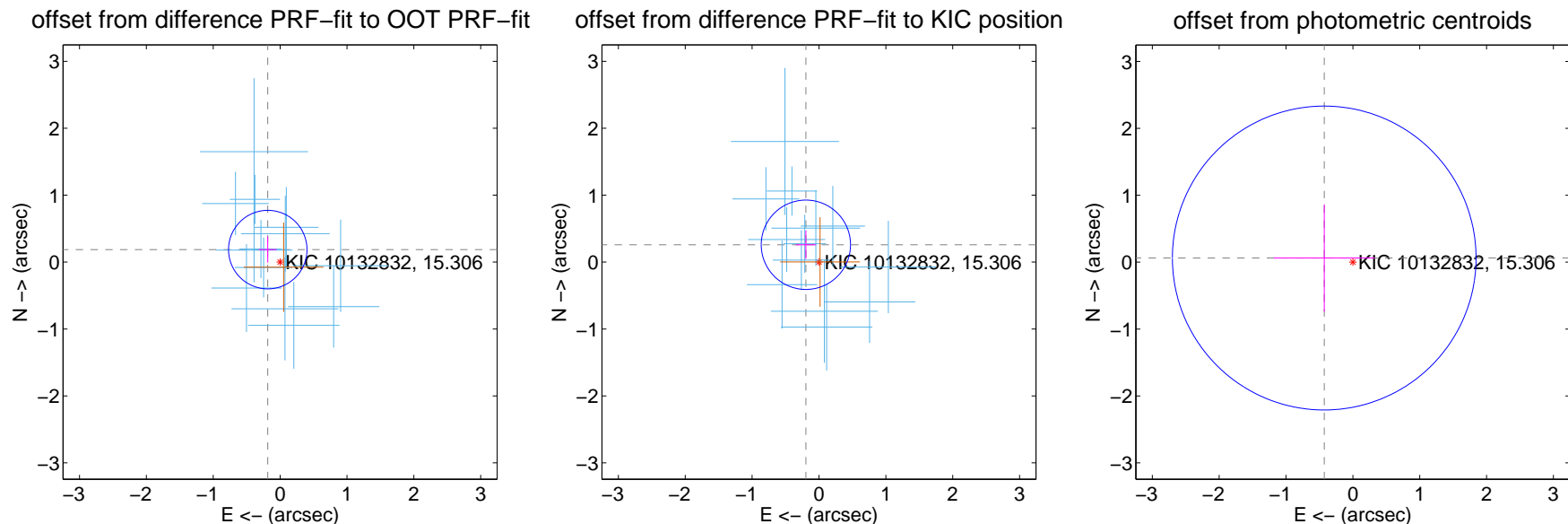
DV Centroid Data

Supplemental centroid analysis for 010132832-01. Kepler magnitude: 15.31. Transit SNR 18.85

There are 13 quarters with good PRF difference image offsets

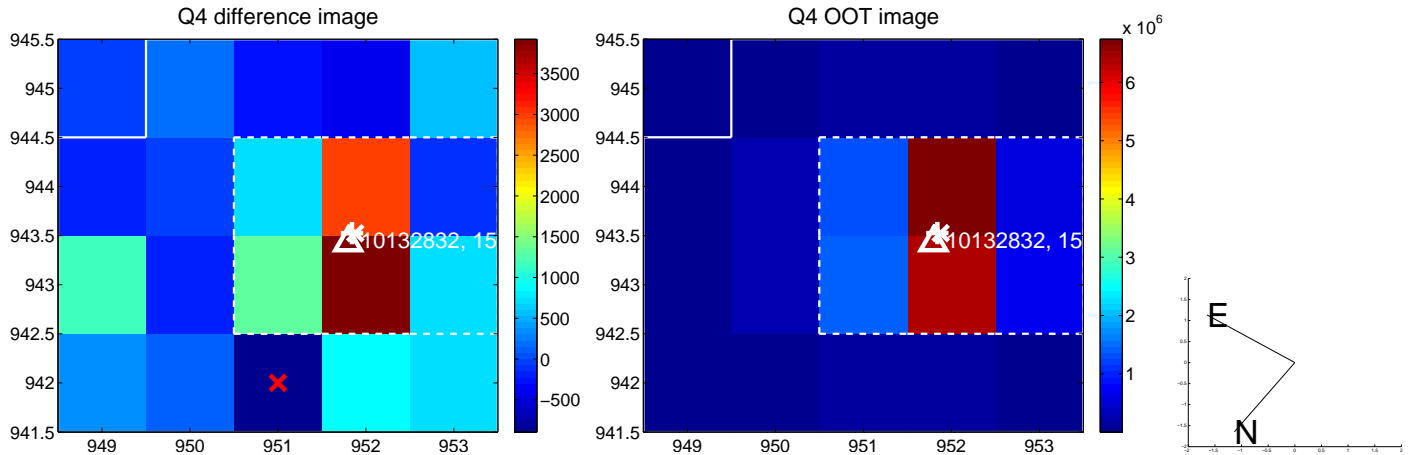
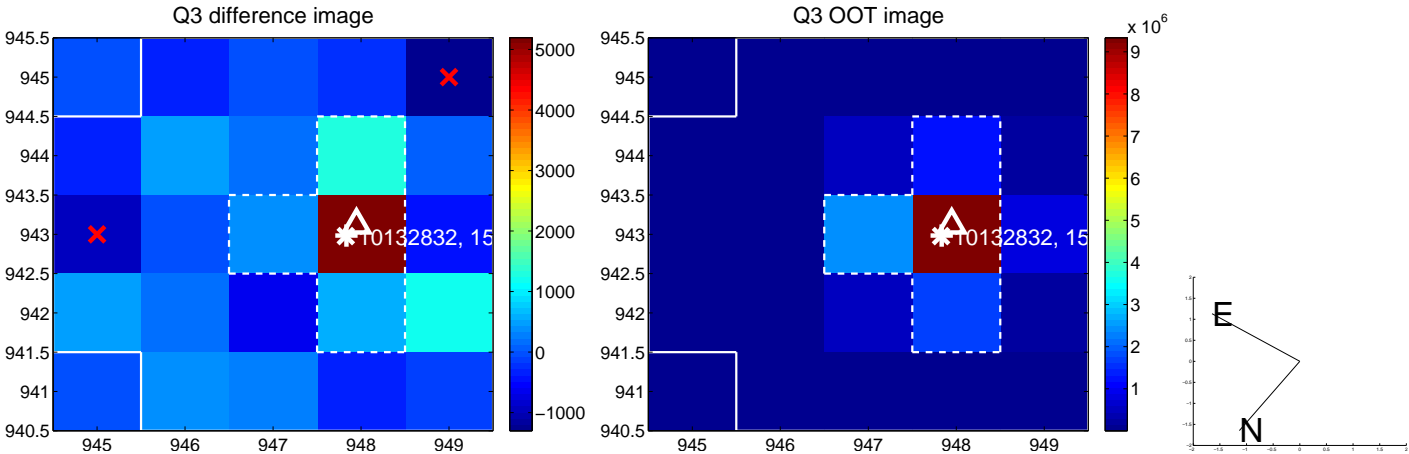
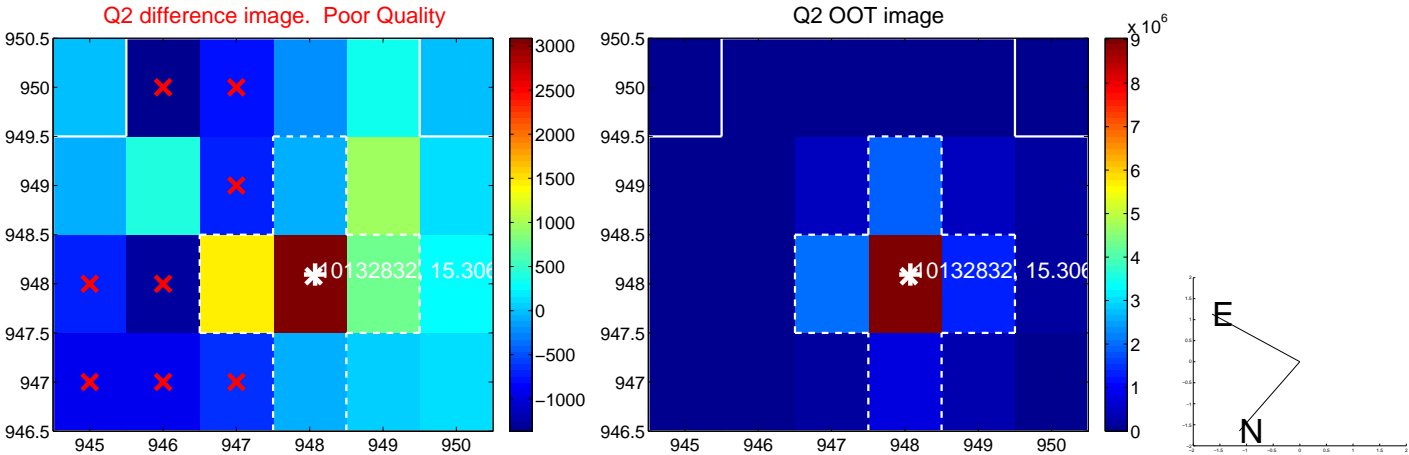
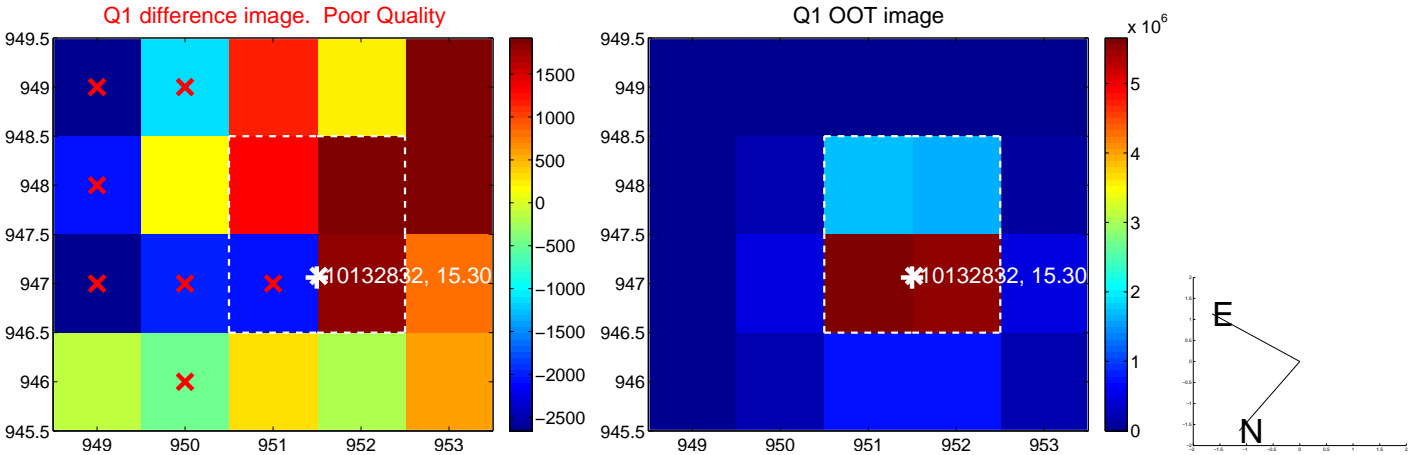
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.263 ± 0.196	1.34	0.185 ± 0.133	0.187 ± 0.196
PRF-fit source offset from KIC position	0.325 ± 0.223	1.46	0.196 ± 0.150	0.259 ± 0.212
photometric centroid source offset	0.43 ± 0.76	0.57	0.43 ± 0.76	0.06 ± 0.80

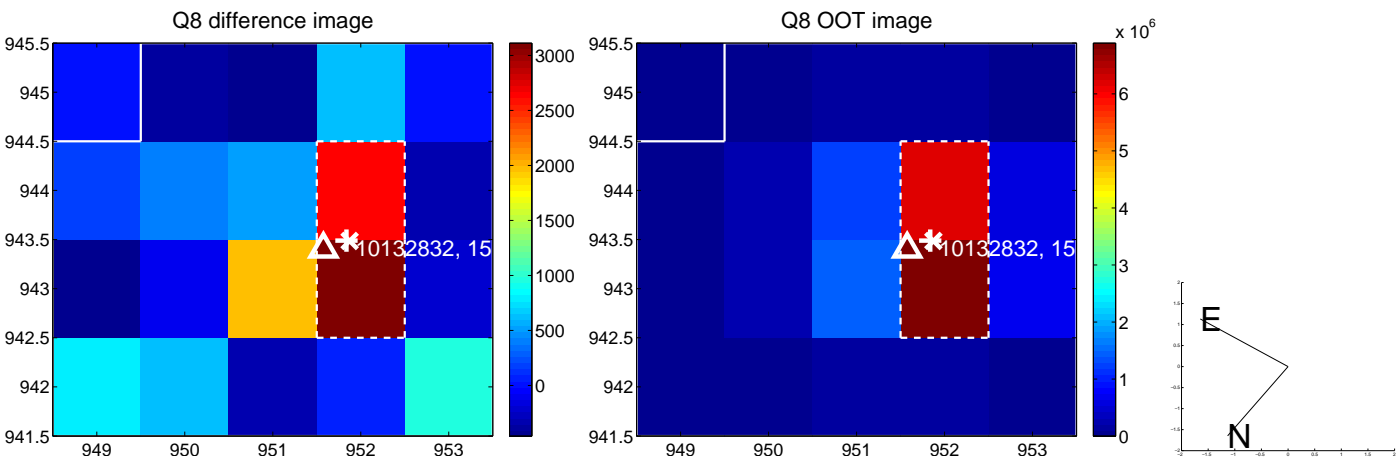
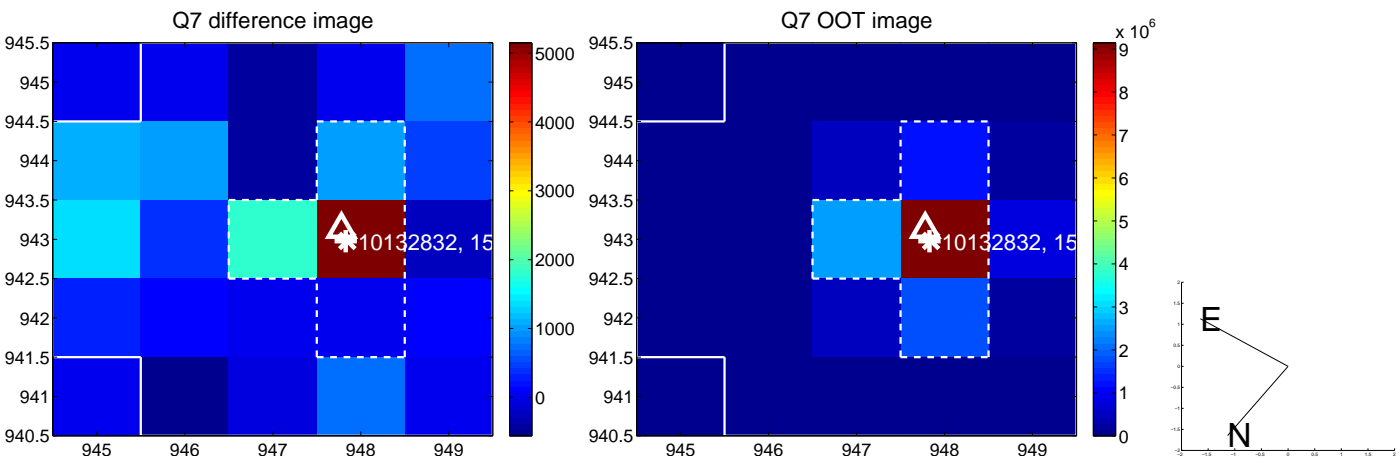
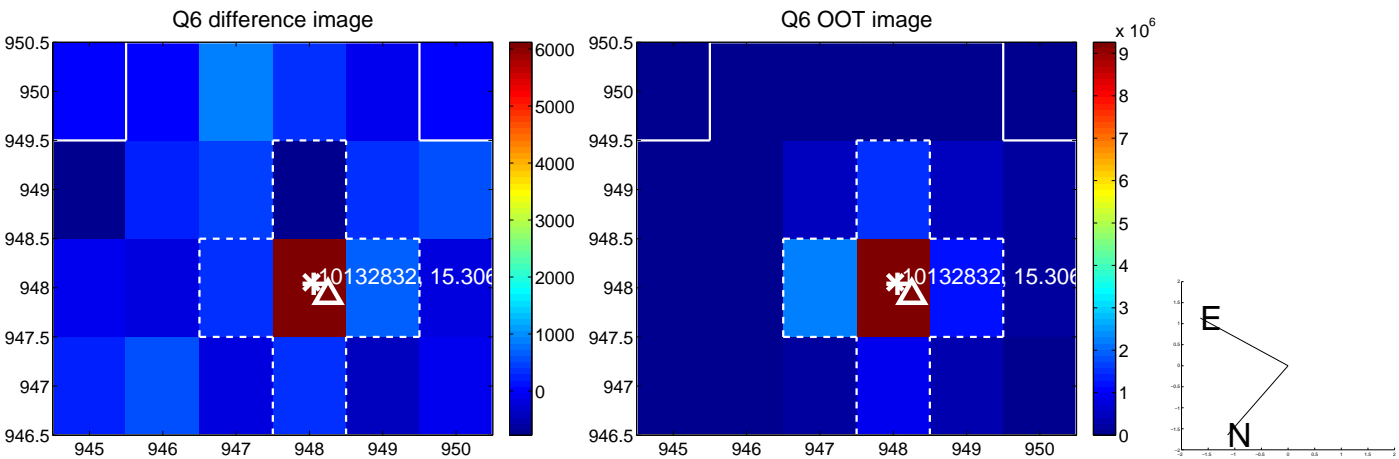
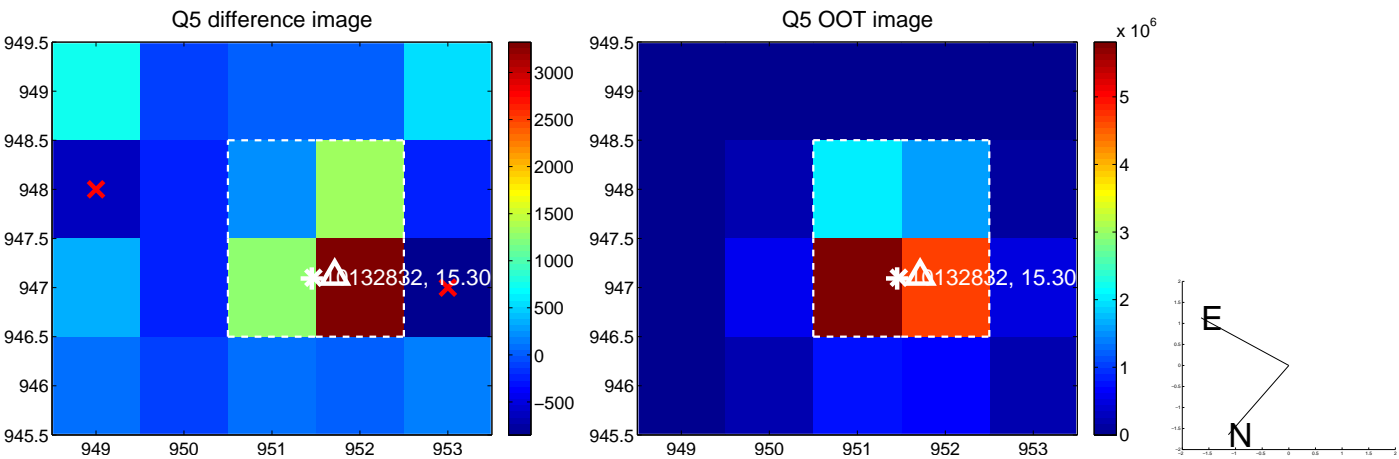


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

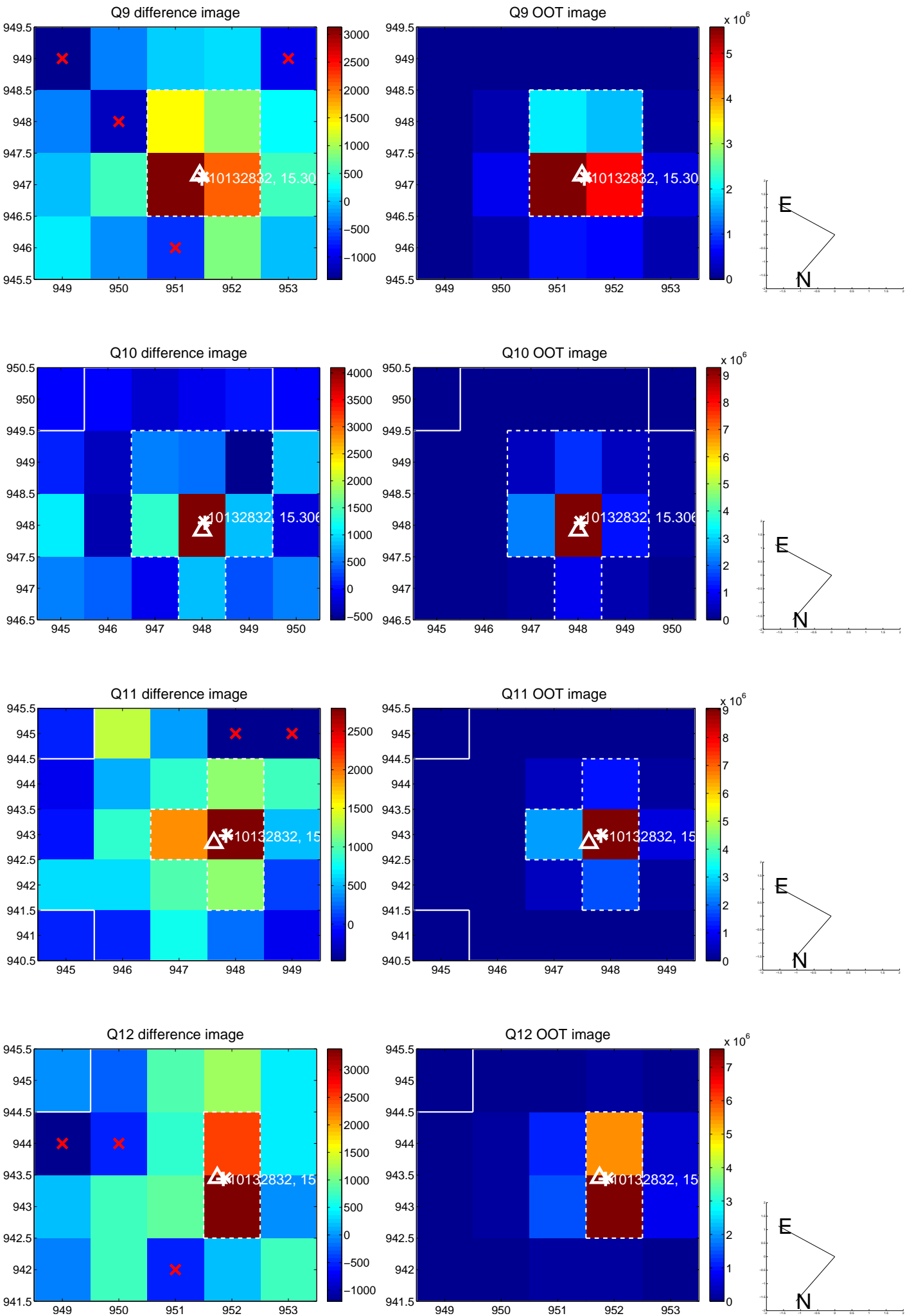
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



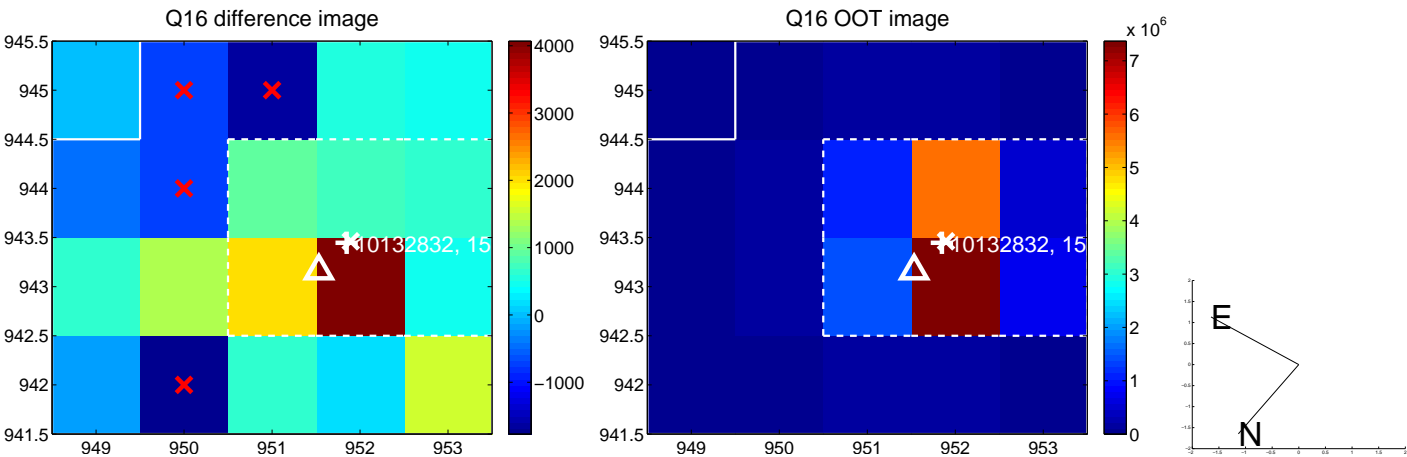
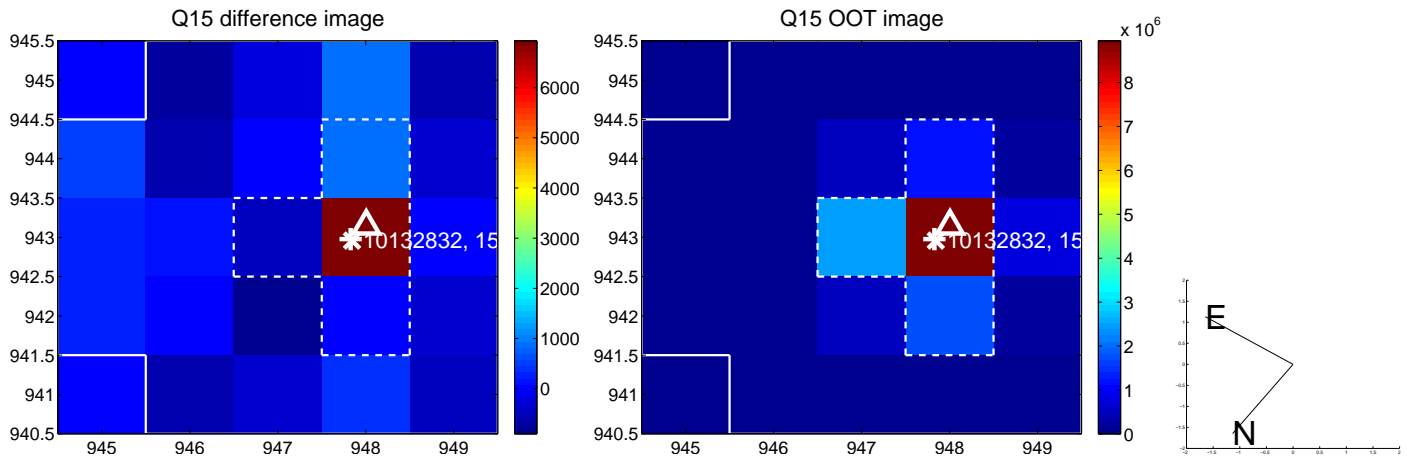
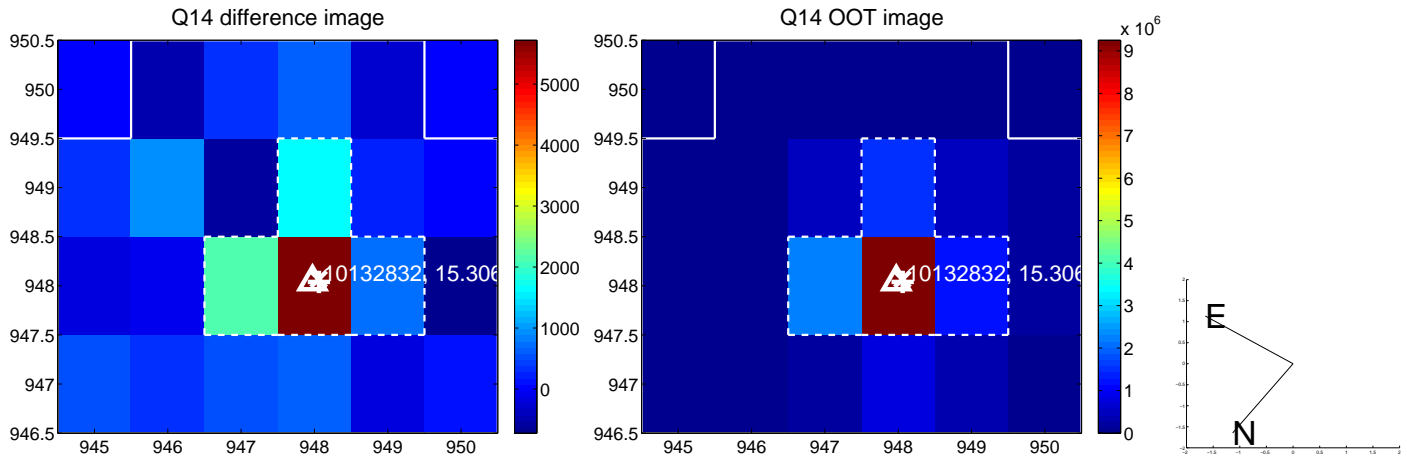
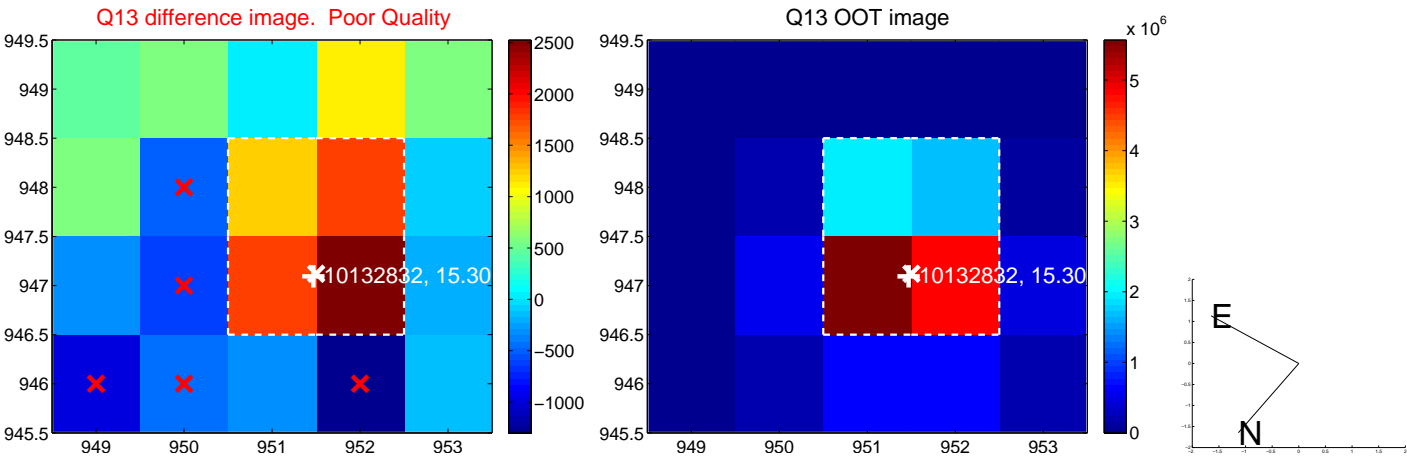
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



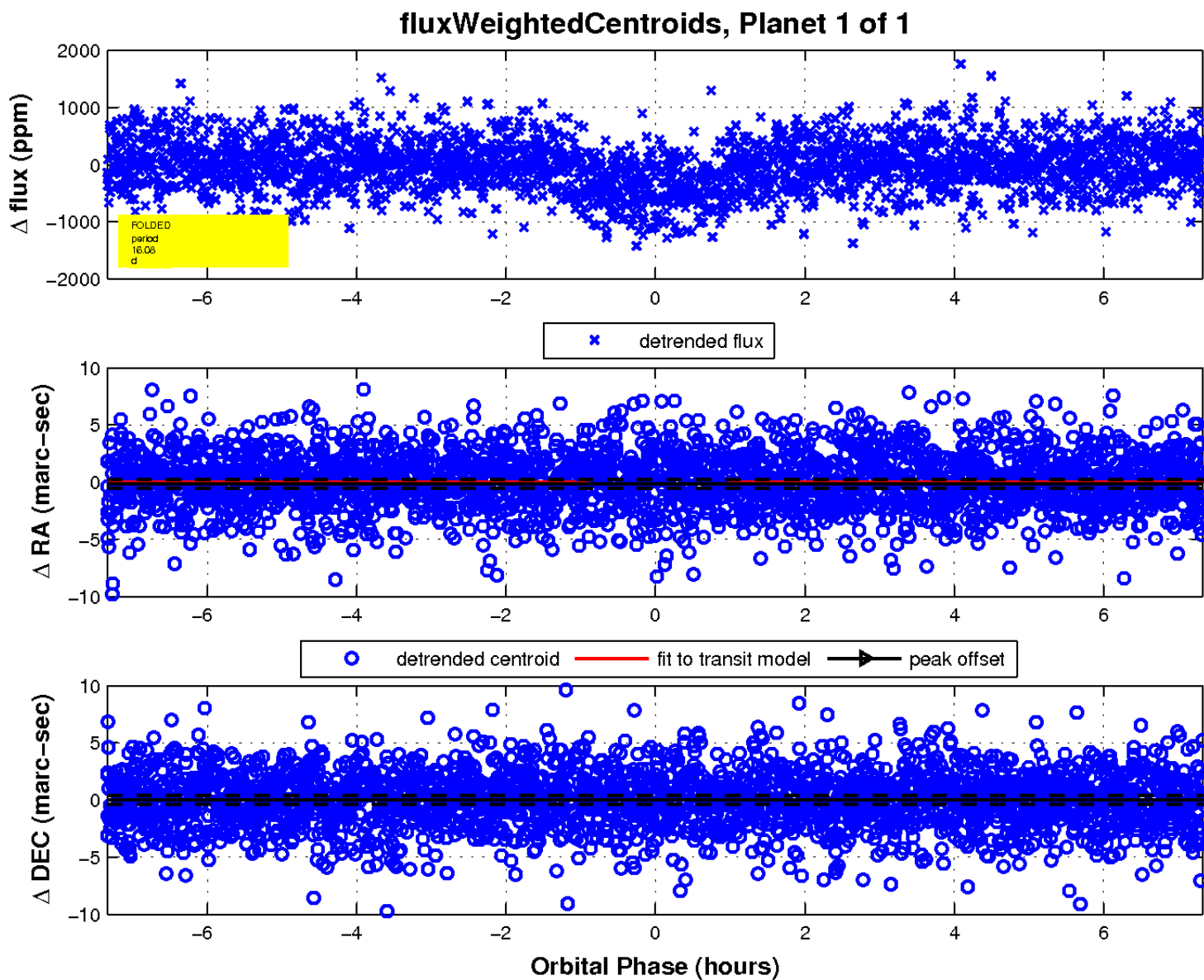
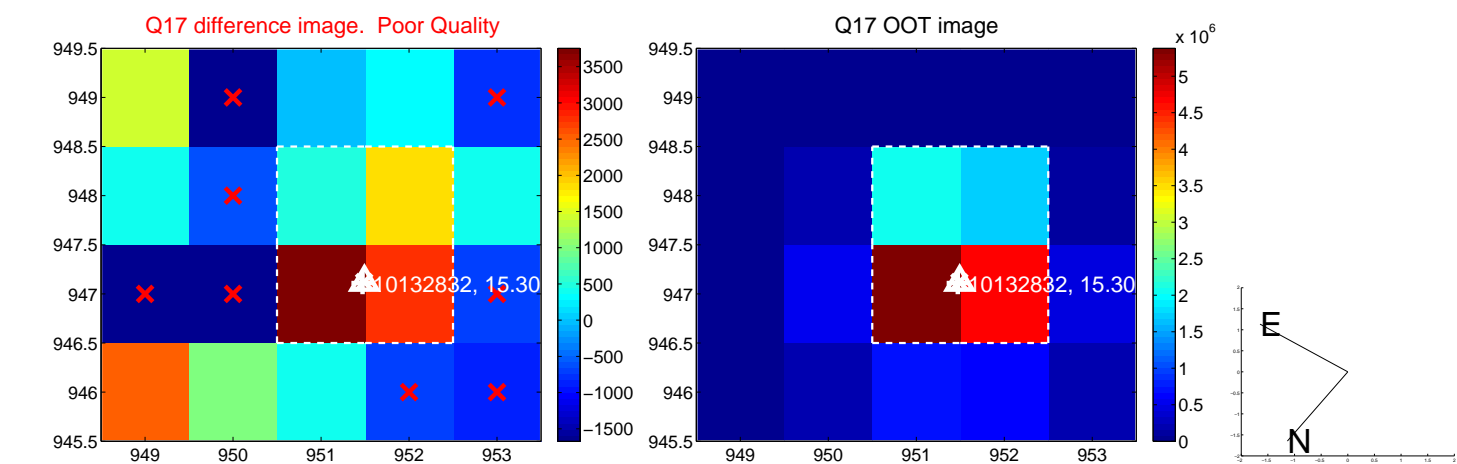
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

