

KIC 011614617

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})
011614617-01	OBS	1990.01	24.757745	142.067425	445.5	7.008	31.8	33.4	0.97	6106	2.39	40.83

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011614617-01	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.

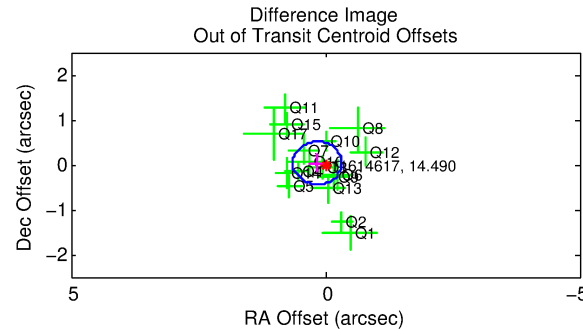
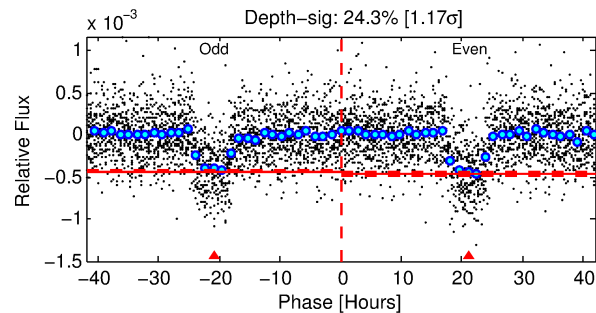
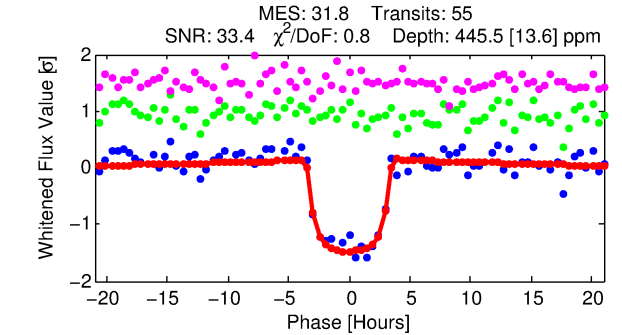
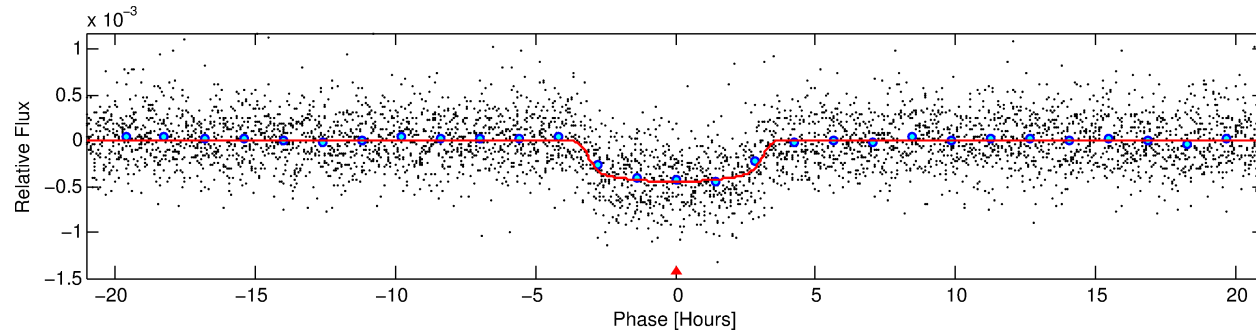
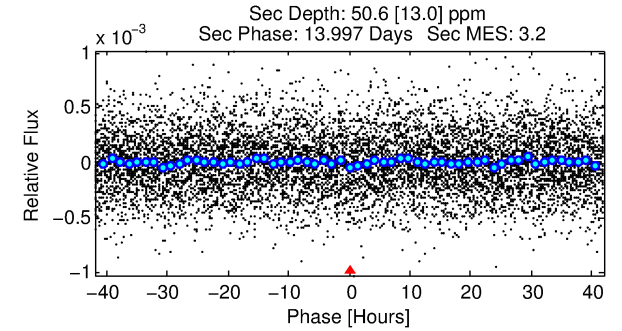
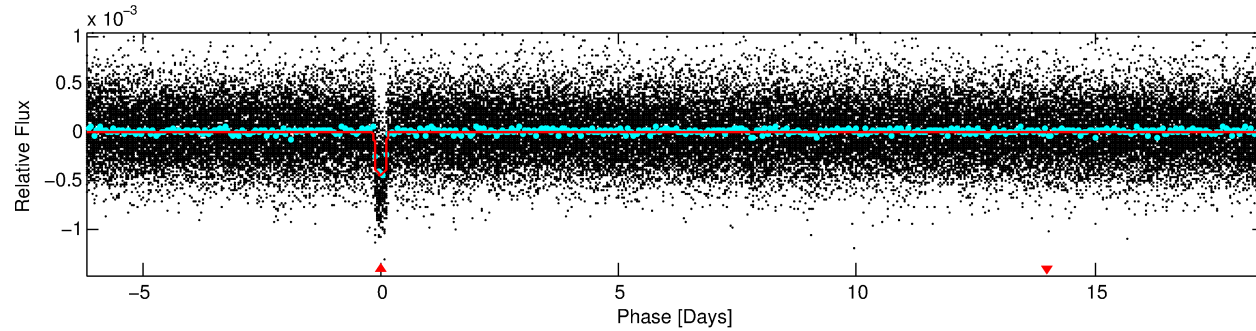
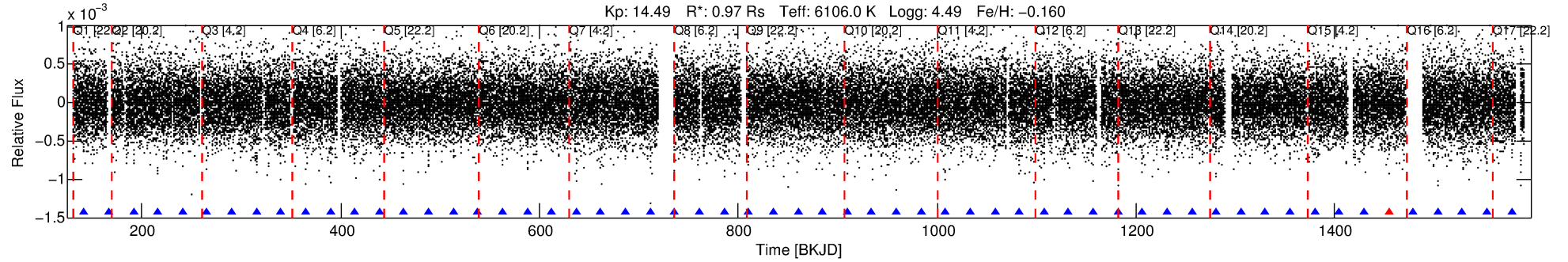
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011614617-01

No Significant Match Found

DV One-Page Summary

KIC: 11614617 Candidate: 1 of 1 Period: 24.758 d
KOI: K01990.01 Corr: 0.976



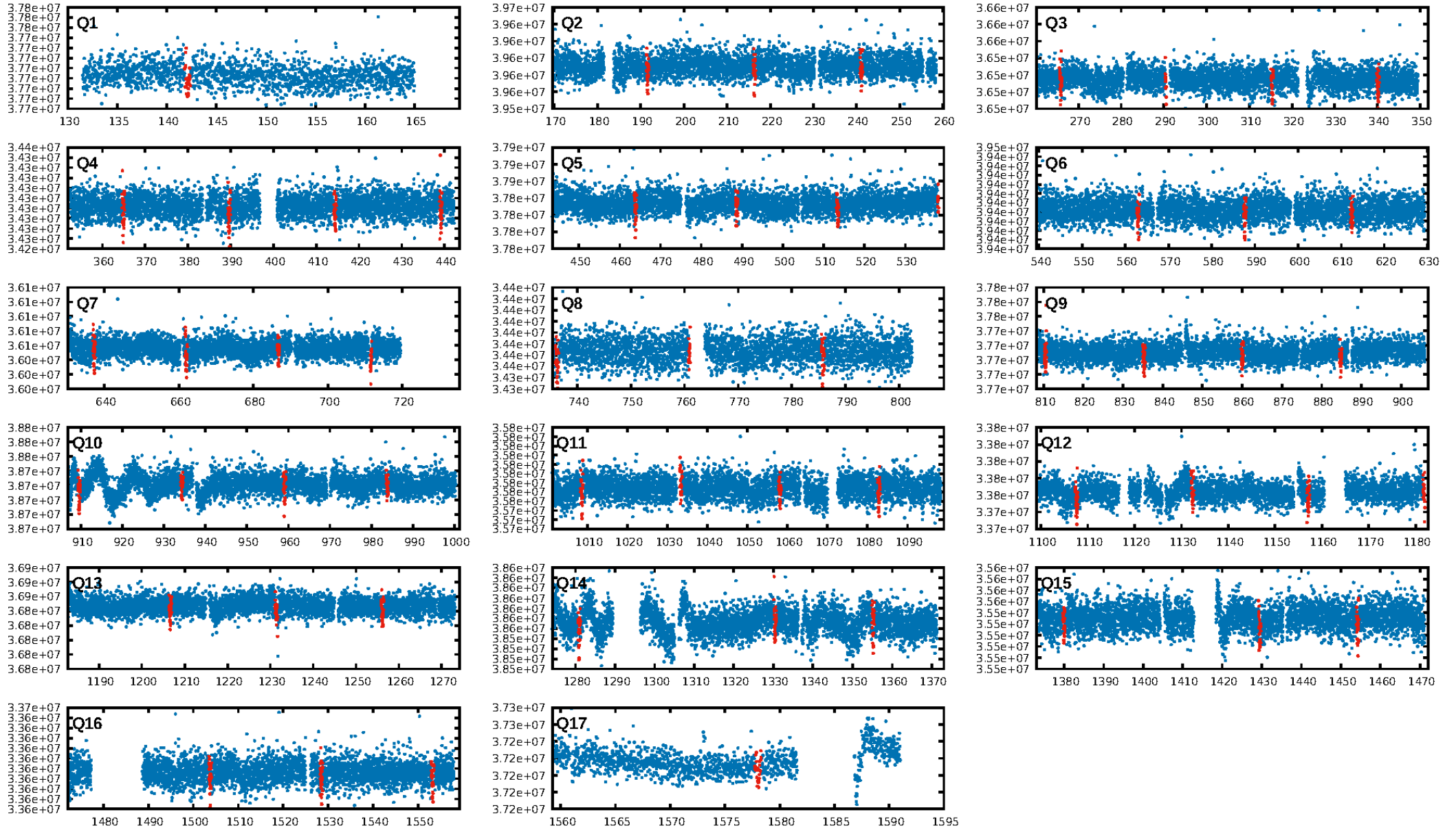
DV Fit Results:

Period = 24.75775 [0.00012] d
Epoch = 142.0674 [0.0040] BKJD
Rp/R* = 0.0227 [0.0010]
a/R* = 13.29 [2.82]
b = 0.90 [0.05]
Seff = 40.83 [15.41]
Teff = 645 [61] K
Rp = 2.39 [0.71] Re
a = 0.1687 [0.0415] AU
Ag = 138.27 [61.74] [2.22 σ]
Teffp = 3417 [257] K [10.48 σ]

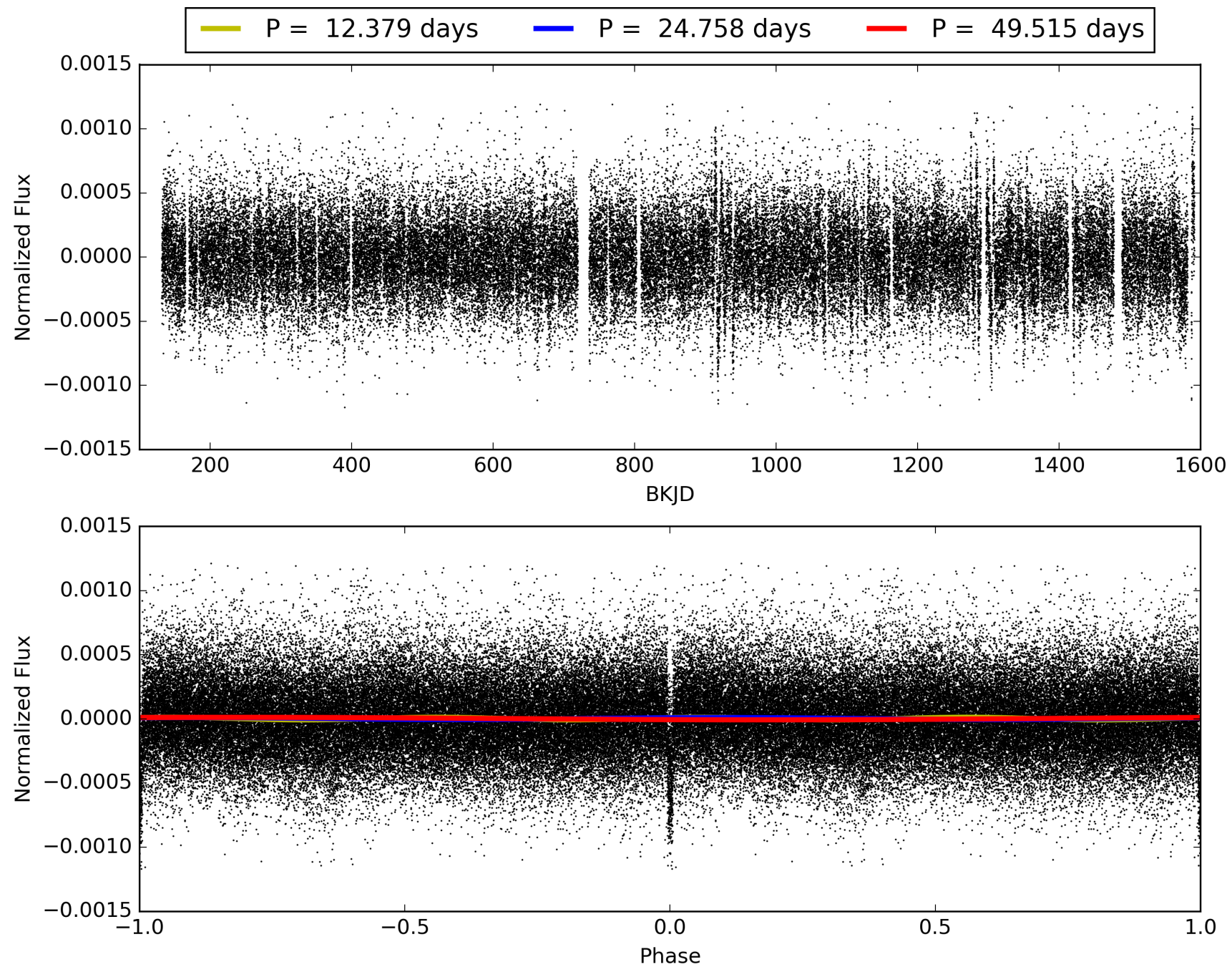
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 62.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.56e-200
RollingBand-fgt: 0.98 [52/53]
GhostDiagnostic-chr: 5.032
Centroid-sig: 54.8%
Centroid-so: 0.451 arcsec [1.13 σ]
OotOffset-rm: 0.166 arcsec [1.04 σ]
KicOffset-rm: 0.103 arcsec [0.57 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.94 [16/17]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 011614617-01, PDC Light Curves

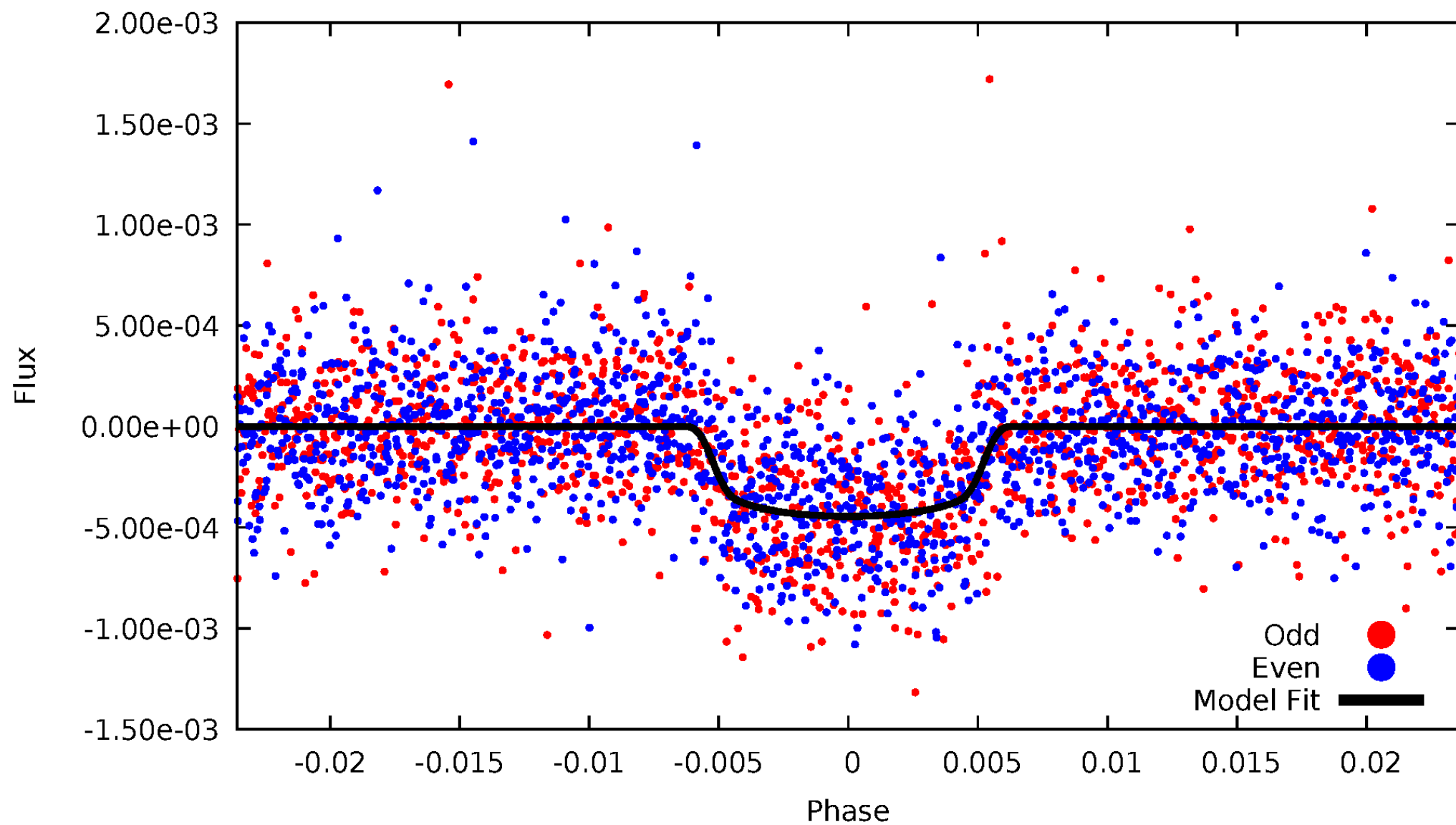


TCE 011614617-01



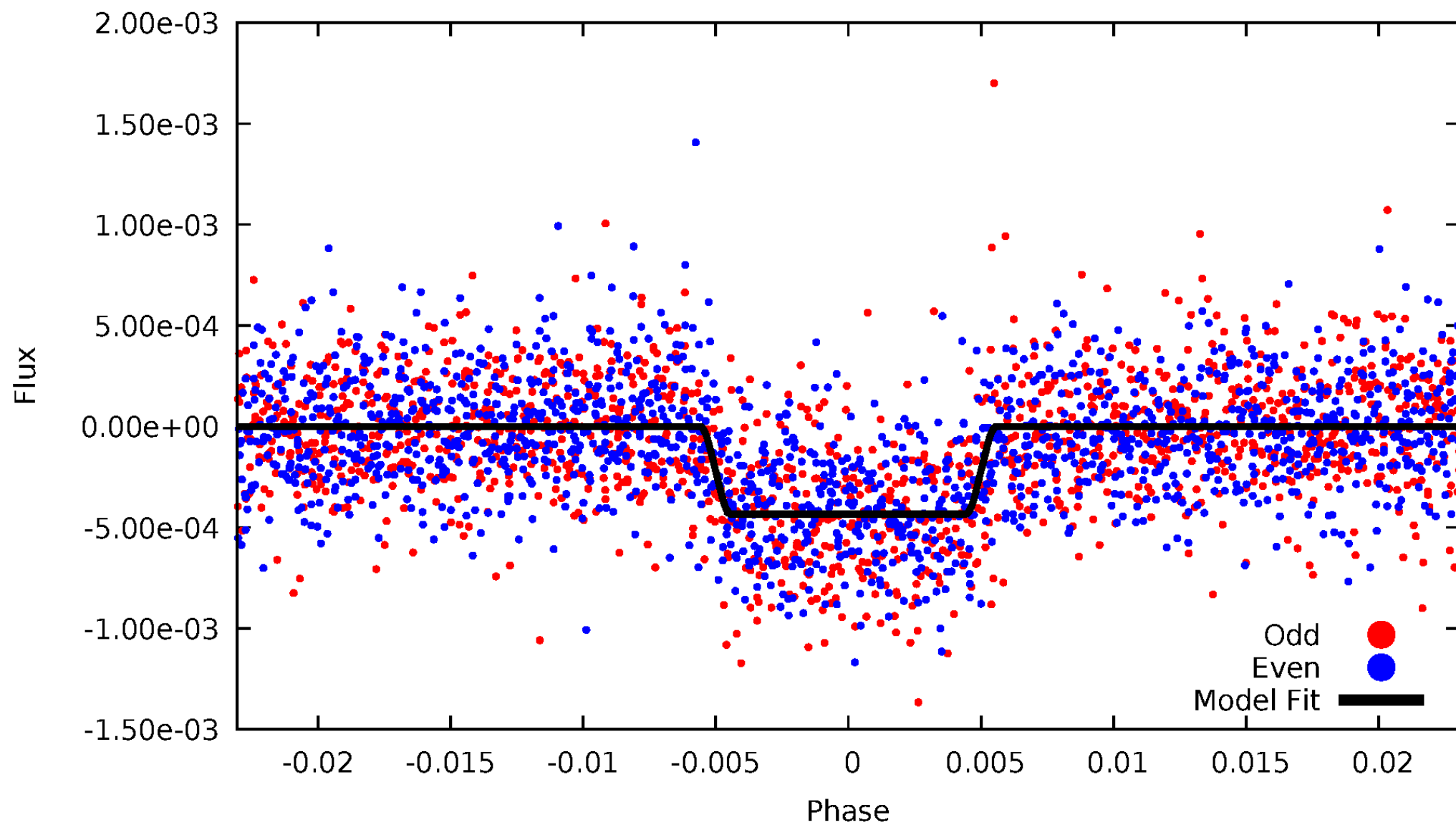
DV Odd/Even

TCE 011614617-01

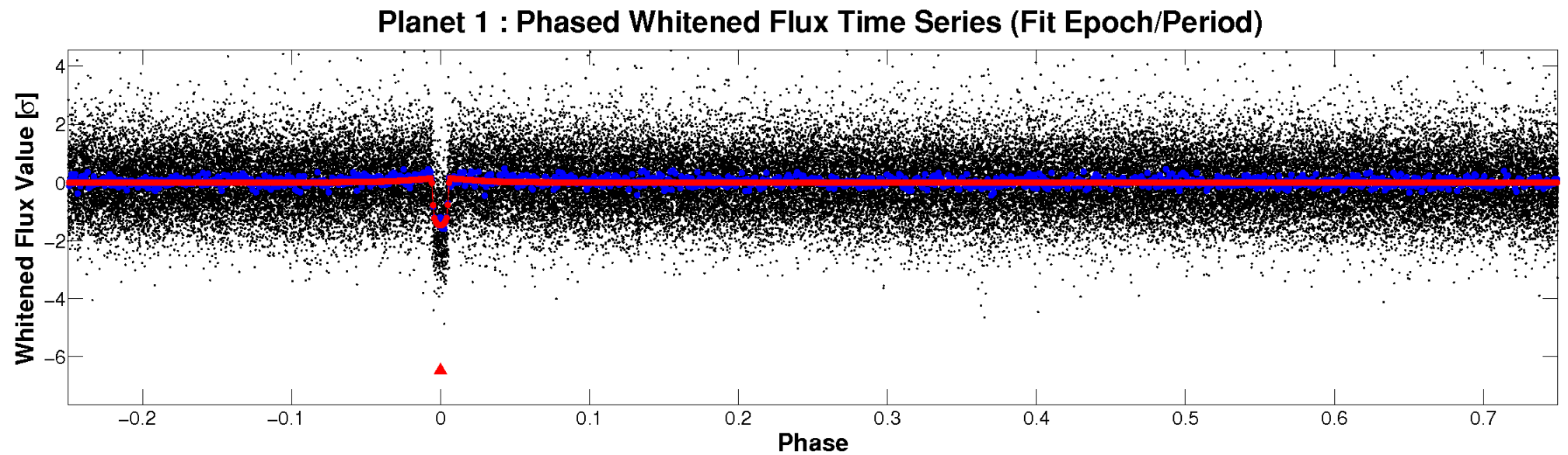
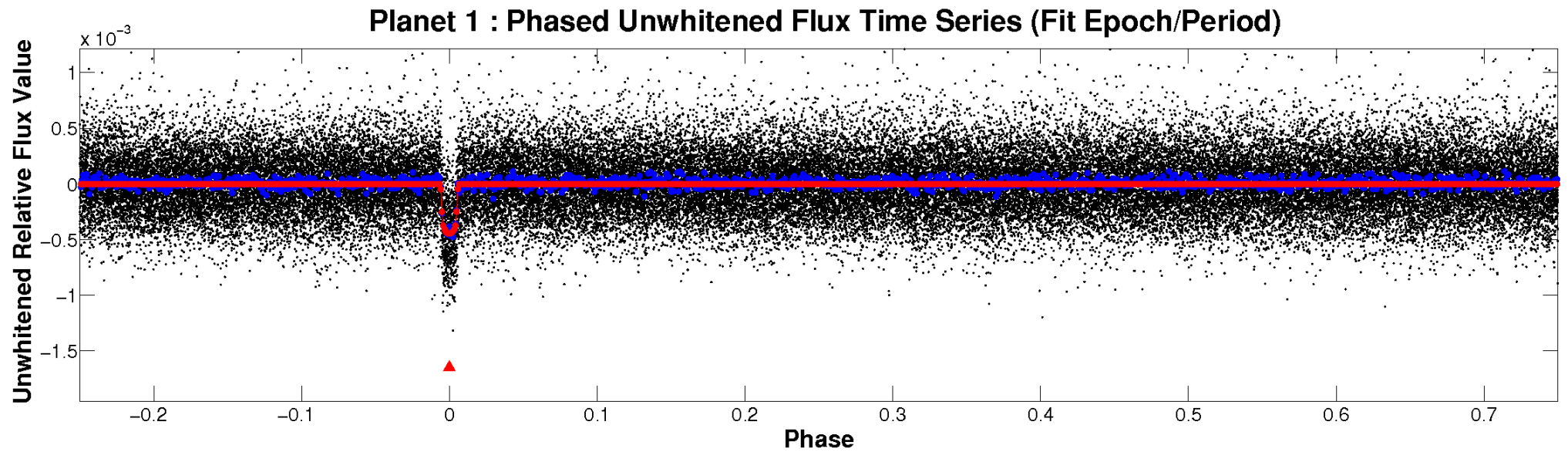


ALT Odd/Even

TCE 011614617-01

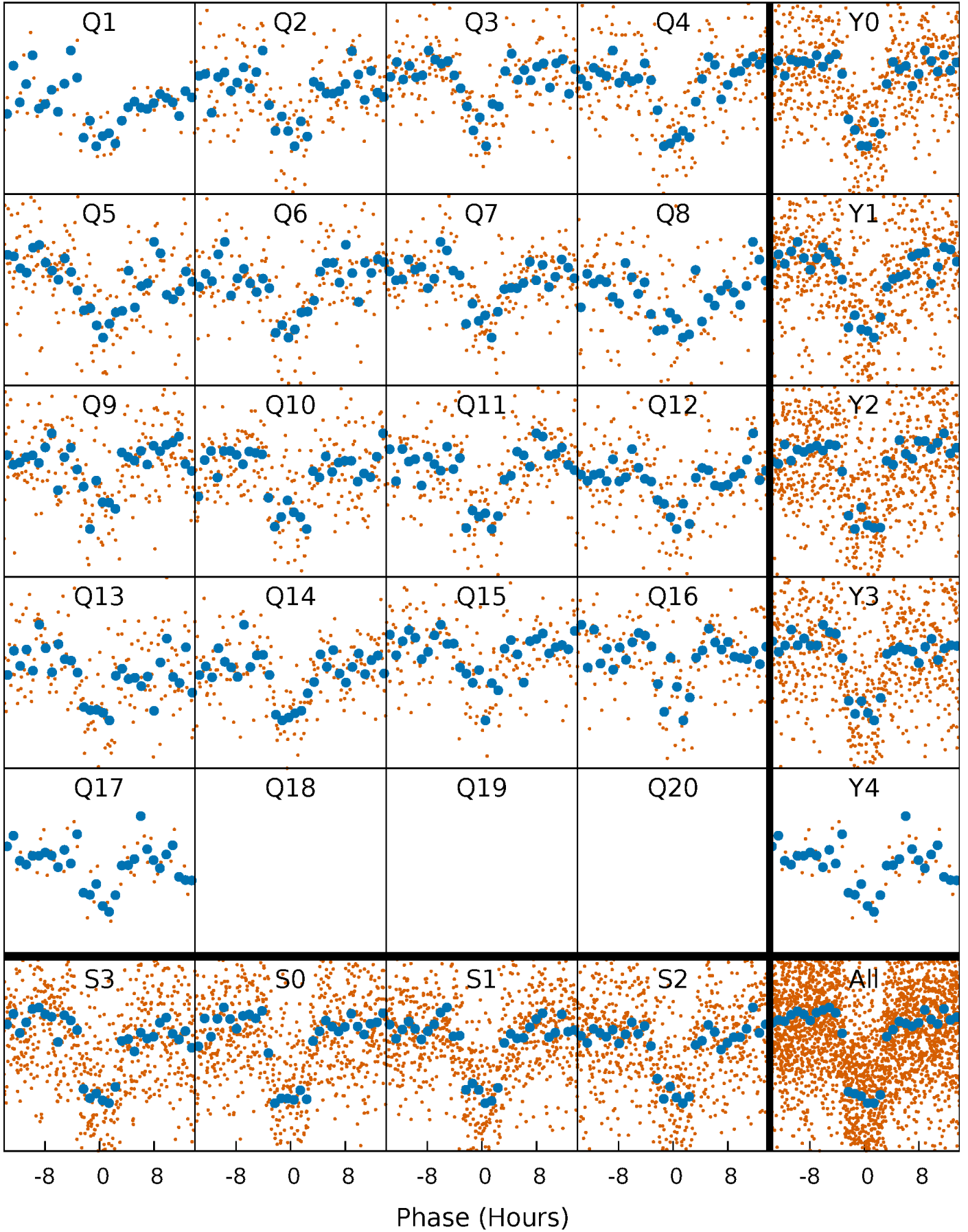


Non-Whitened Vs. Whitened Light Curve



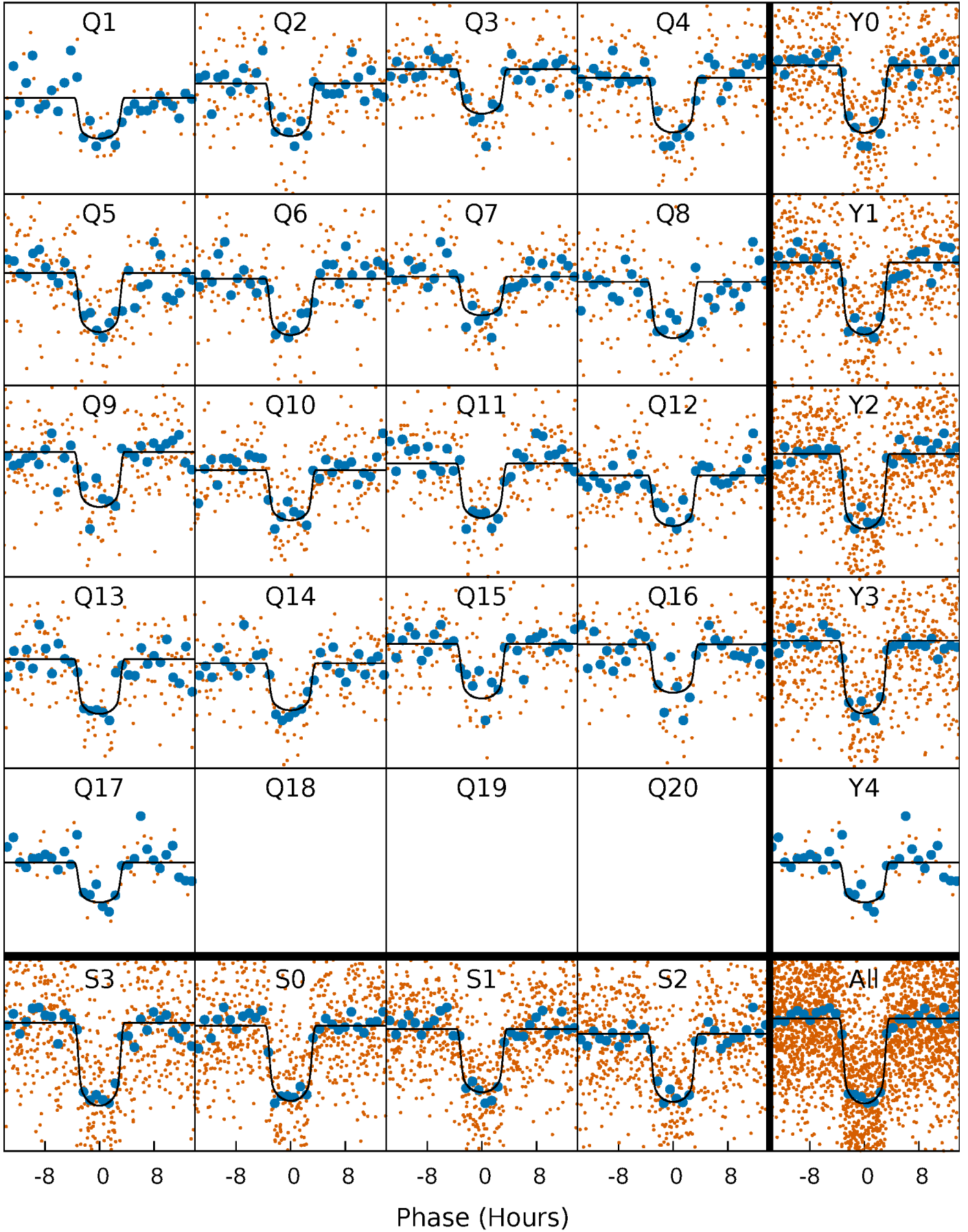
PDC Quarter-Phased Transit Curves

TCE 011614617-01 P= 24.757745 Days $T_0=142.067425$ (BKJD)



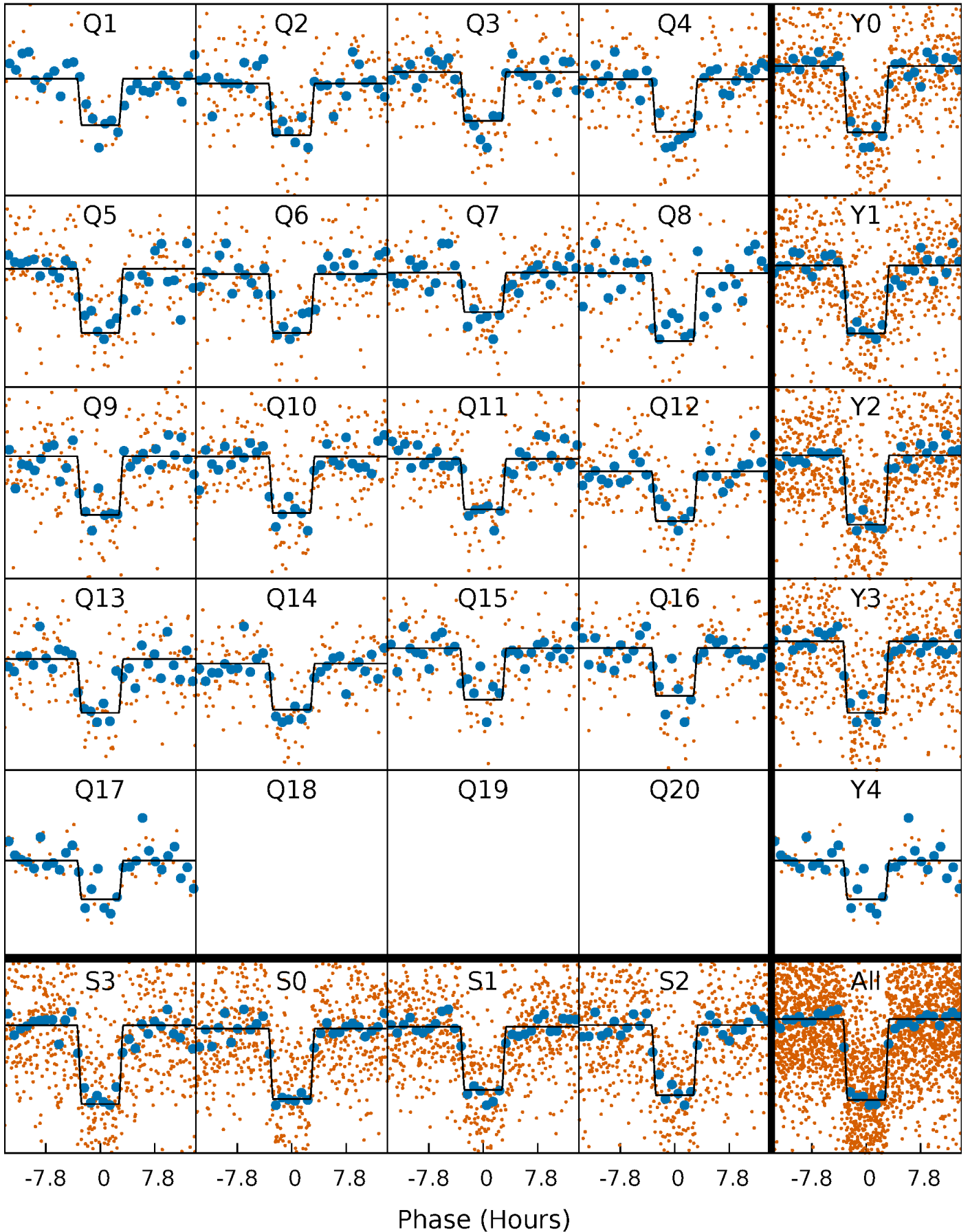
DV Quarter-Phased Transit Curves

TCE 011614617-01 P= 24.757745 Days $T_0=142.067425$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

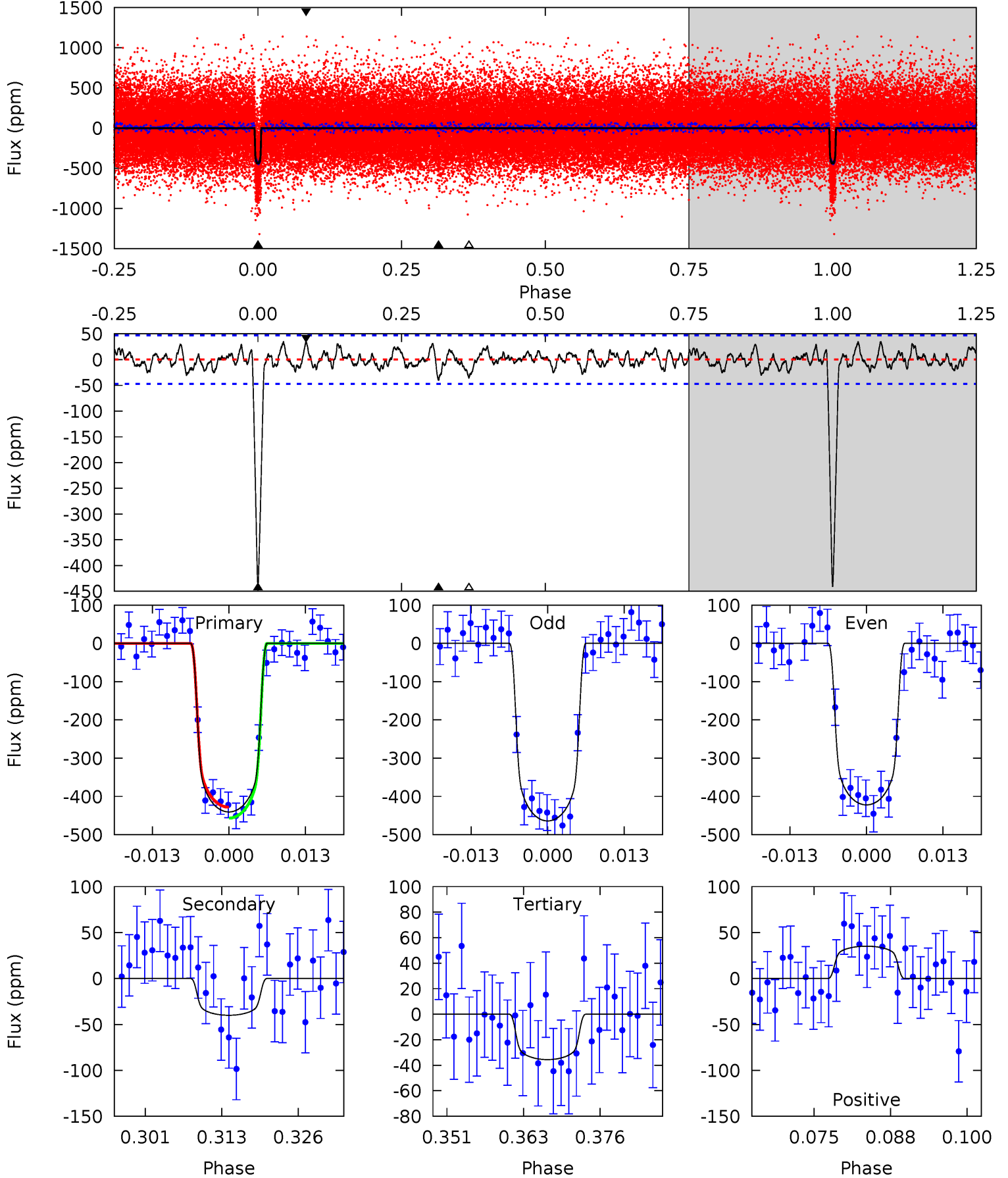
TCE 011614617-01 P= 24.757844 Days $T_0=142.063636$ (BKJD)



DV Model-Shift Uniqueness Test

011614617-01, $P = 24.757745$ Days, $E = 117.309680$ Days

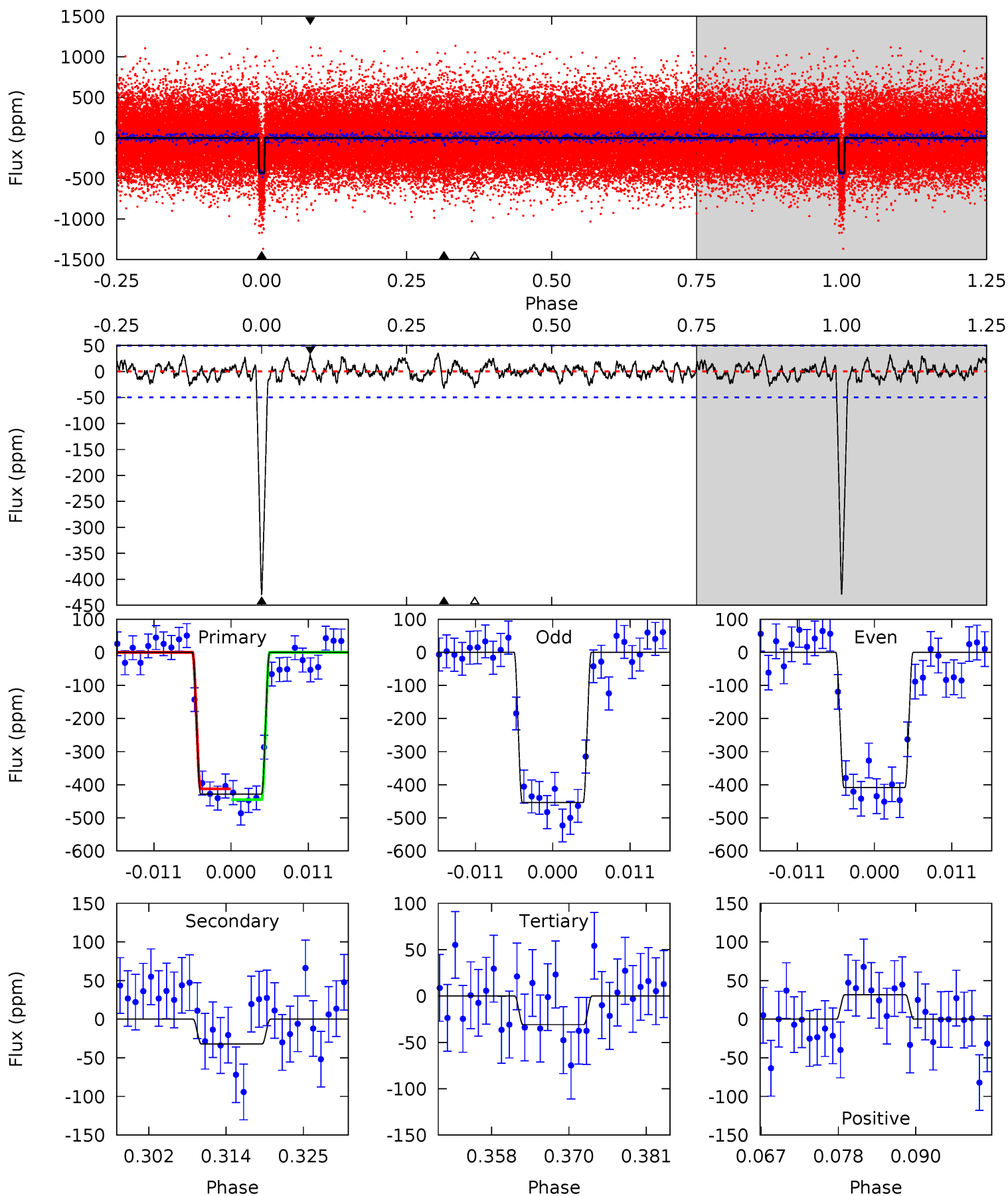
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
46.5	4.23	3.76	3.71	4.98	2.50	1.30	42.8	42.8	0.47	0.52	2.21	1.02	0.07	1.51



Alt Model-Shift Uniqueness Test

011614617-01, $P = 24.757844$ Days, $E = 117.305792$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
43.1	3.22	3.10	3.17	5.00	2.54	1.13	40.0	39.9	0.12	0.05	2.29	1.04	0.08	1.67



Stellar Parameters For KIC 011614617

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6106^{+163}_{-199}	$4.487^{+0.048}_{-0.192}$	$-0.160^{+0.300}_{-0.300}$	$0.966^{+0.285}_{-0.095}$	$1.043^{+0.141}_{-0.128}$	$1.631^{+0.415}_{-0.807}$
	+3%/-3%	+1%/-4%	+188%/-188%	+30%/-10%	+14%/-12%	+25%/-50%
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 011614617-01 / KOI 1990.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-40 ± 9	$2.46^{+0.39}_{-0.20}$	918^{+68}_{-44}	3639^{+161}_{-161}	97^{+31}_{-28}
Alt.	-32 ± 10	$2.27^{+0.35}_{-0.22}$	917^{+58}_{-43}	3614^{+179}_{-240}	92^{+38}_{-33}

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 $A_{obs} \gg 1.0$

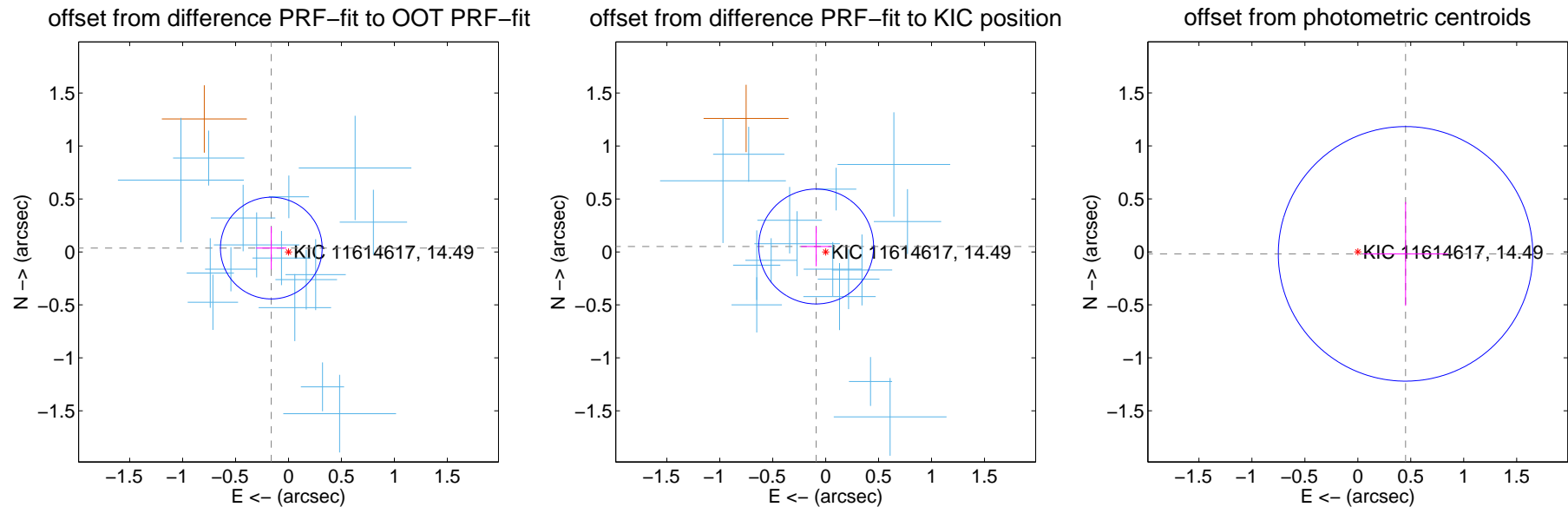
DV Centroid Data

Supplemental centroid analysis for 011614617-01. Kepler magnitude: 14.49. Transit SNR 33.37

There are 16 quarters with good PRF difference image offsets

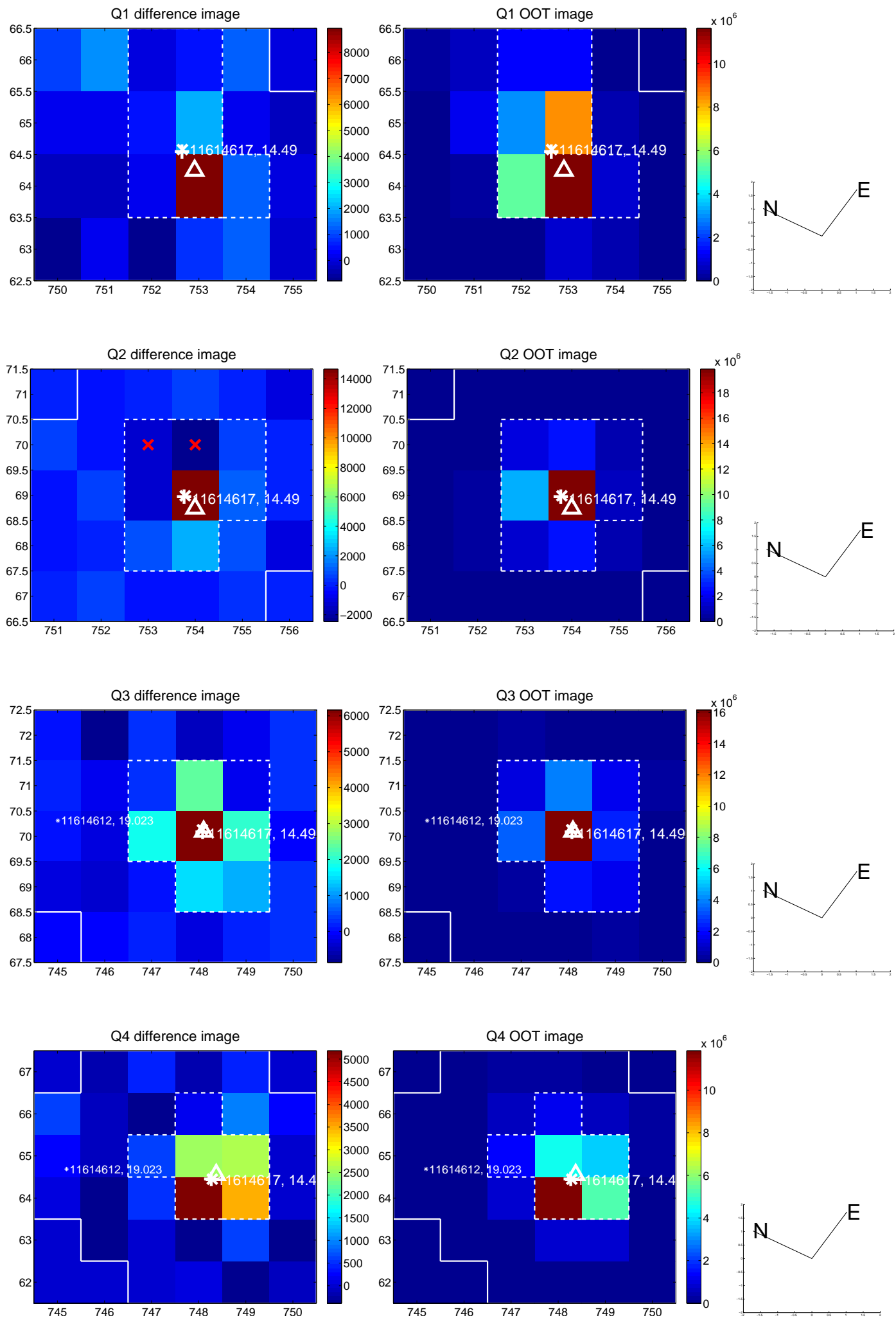
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.166 ± 0.160	1.04	0.162 ± 0.143	0.036 ± 0.202
PRF-fit source offset from KIC position	0.103 ± 0.181	0.57	0.090 ± 0.142	0.051 ± 0.187
photometric centroid source offset	0.45 ± 0.40	1.13	-0.45 ± 0.40	-0.02 ± 0.49

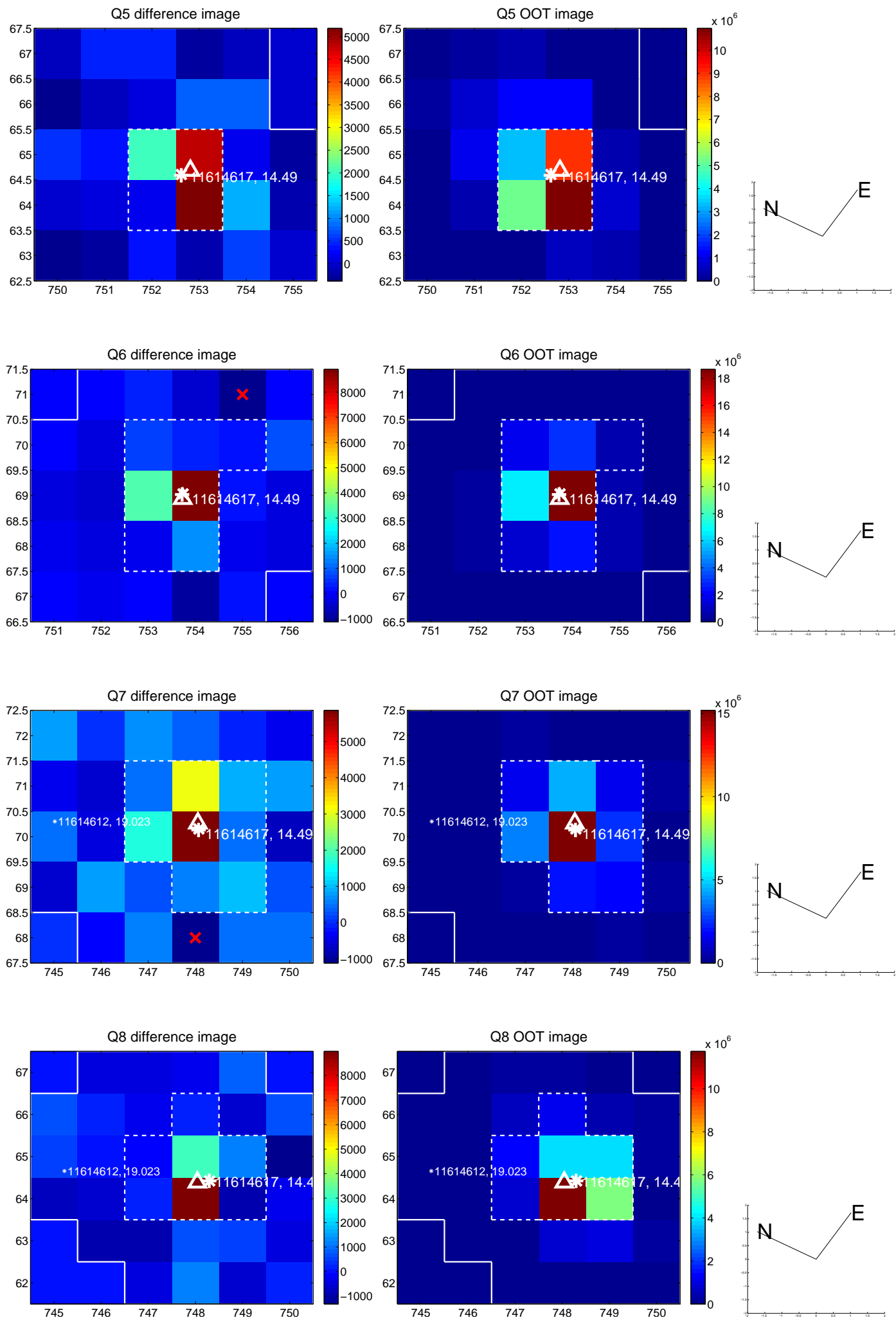


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

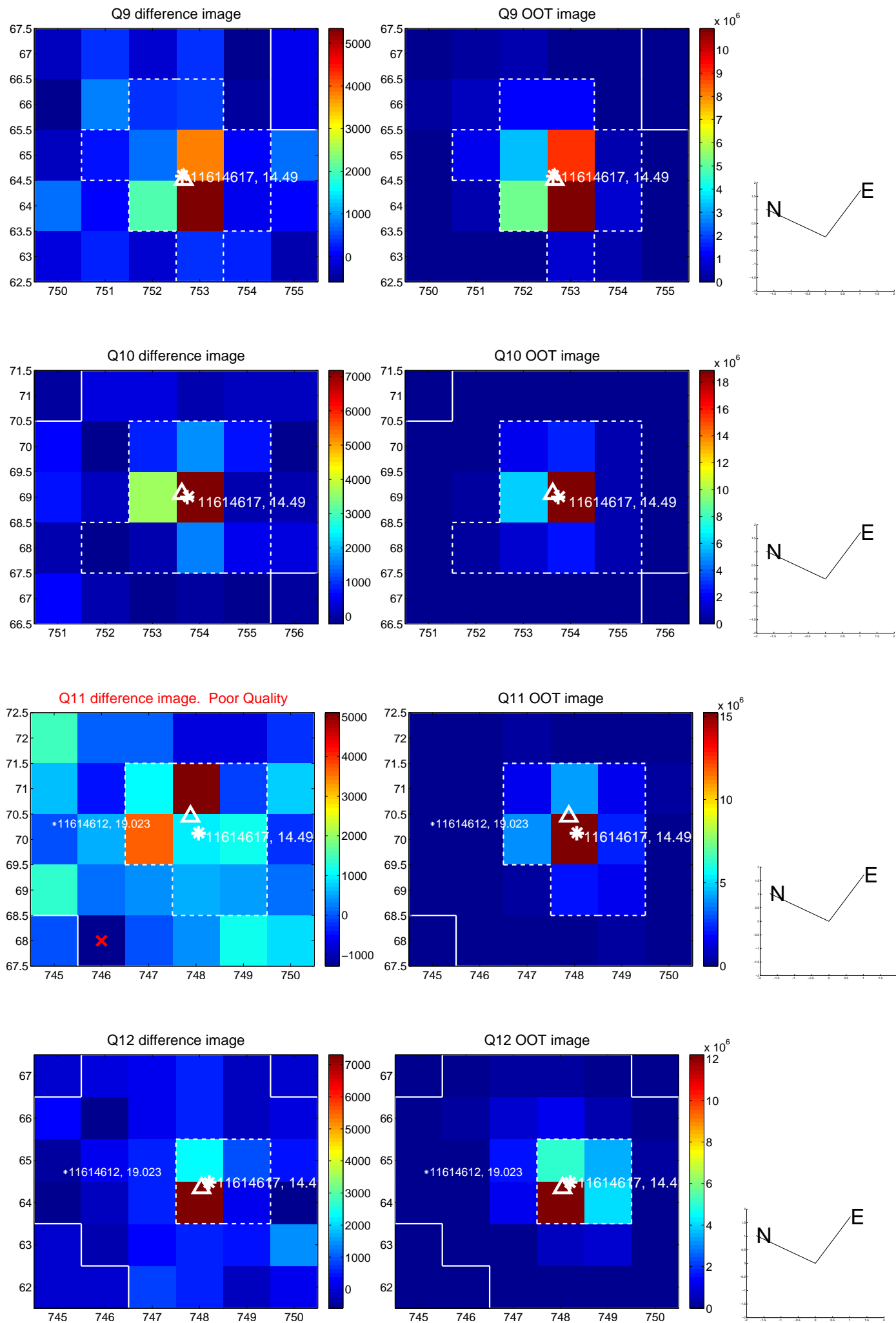
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



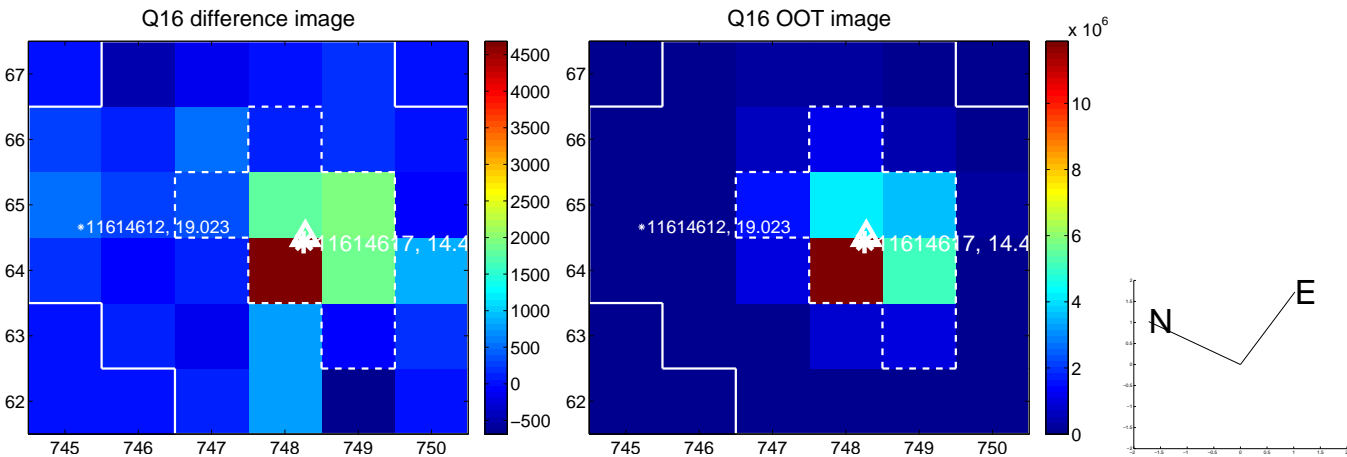
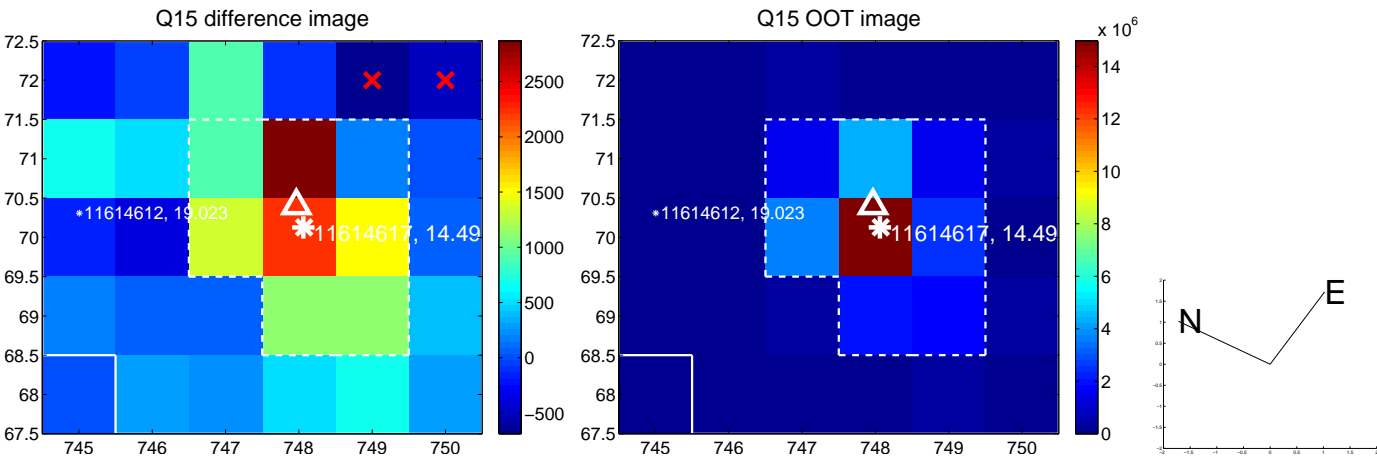
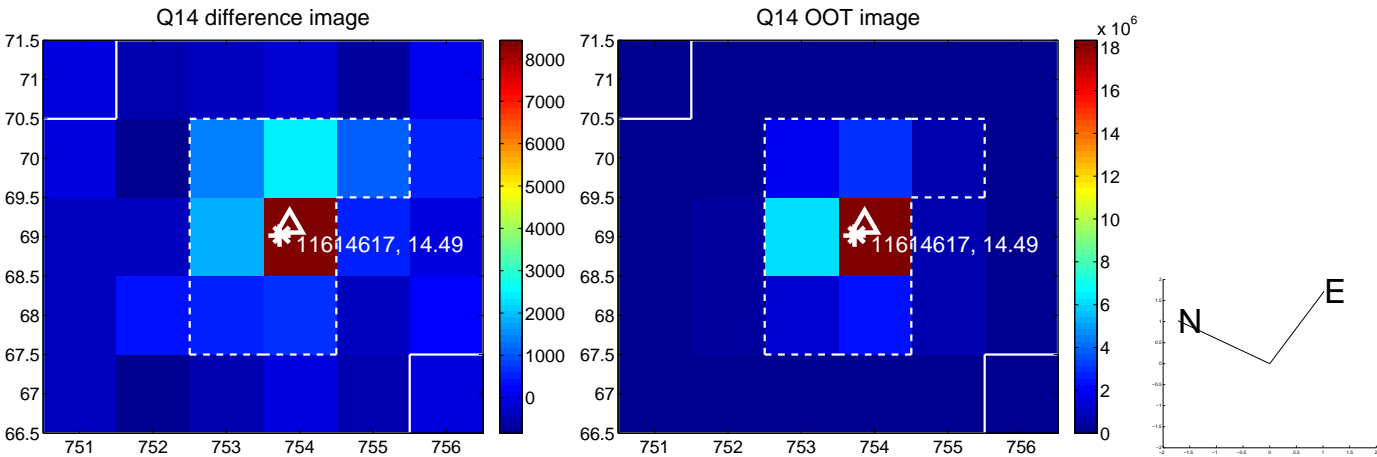
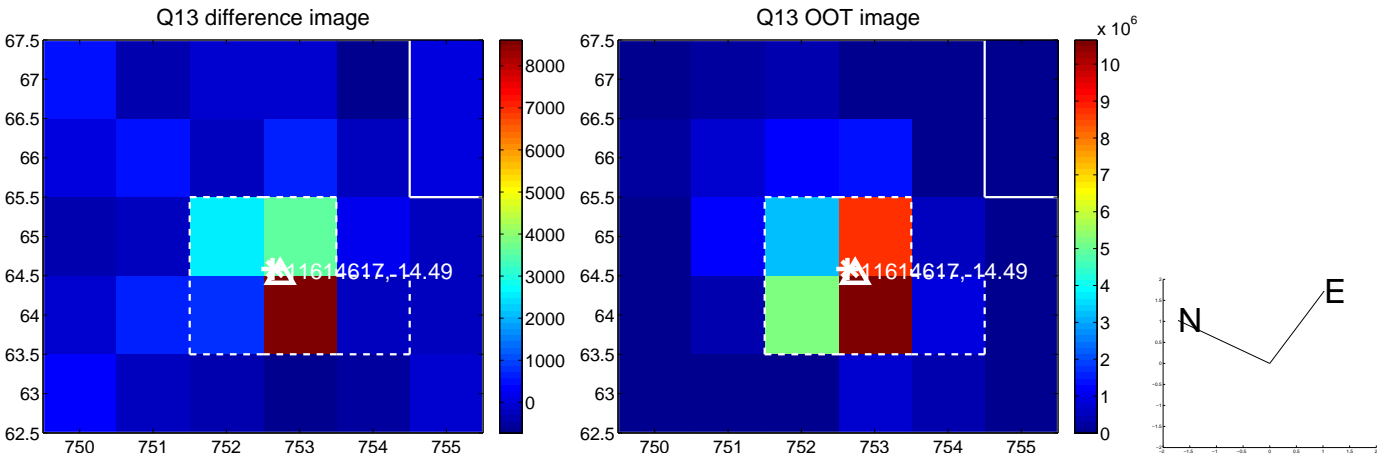
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



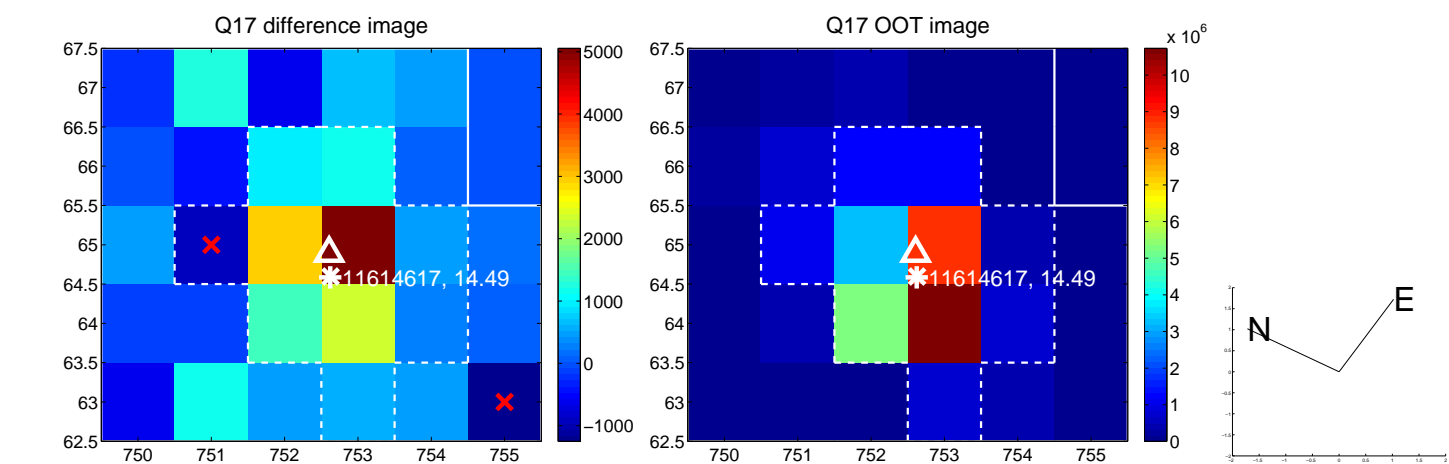
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



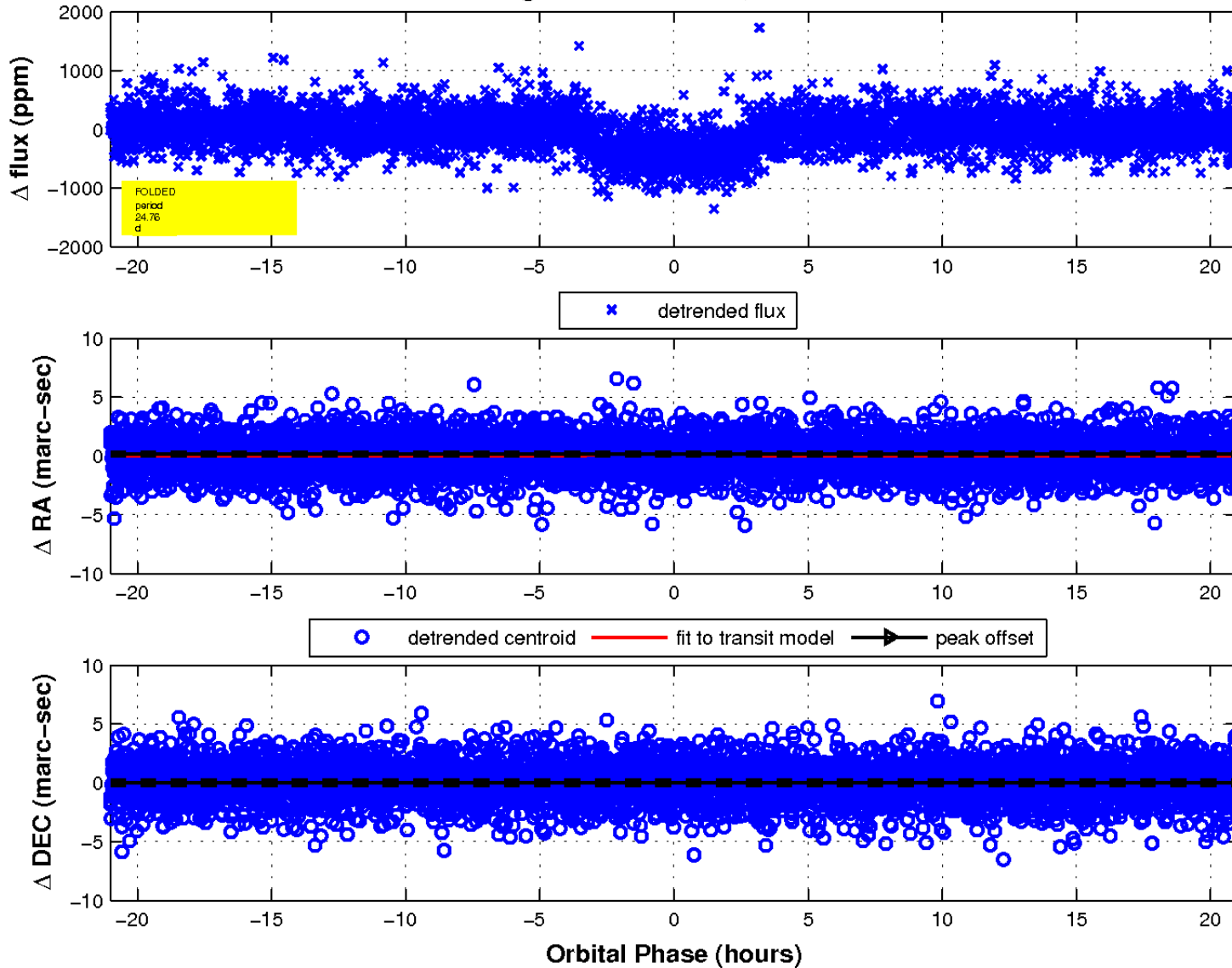
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

