

KIC 008881169

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})
008881169-01	OBS	7106.01	5.018818	132.249263	94.3	1.919	8.8	9.6	1.08	6220	1.28	456.74

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008881169-01	OBS	PC	0.98	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.

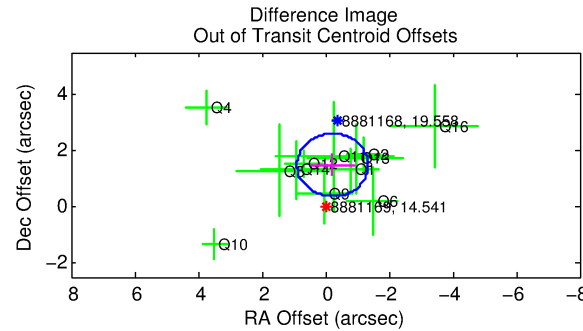
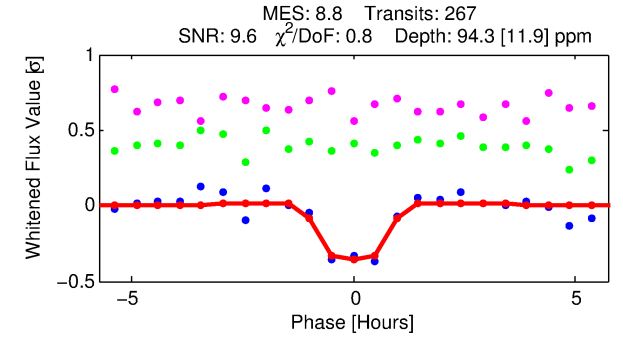
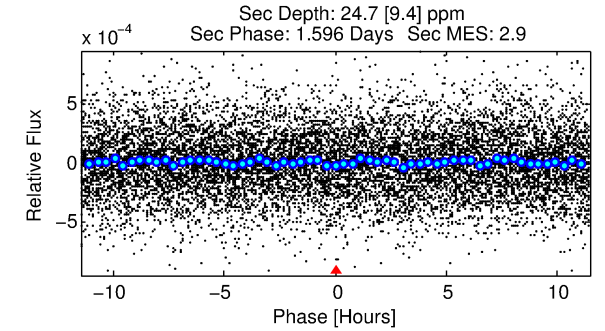
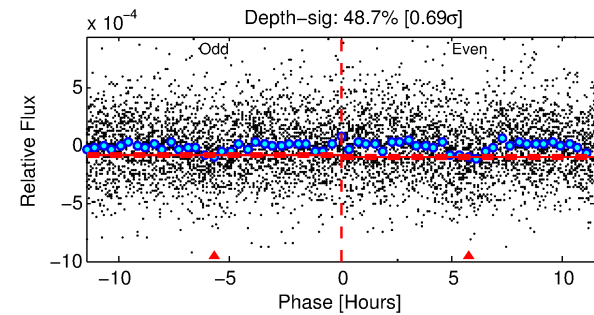
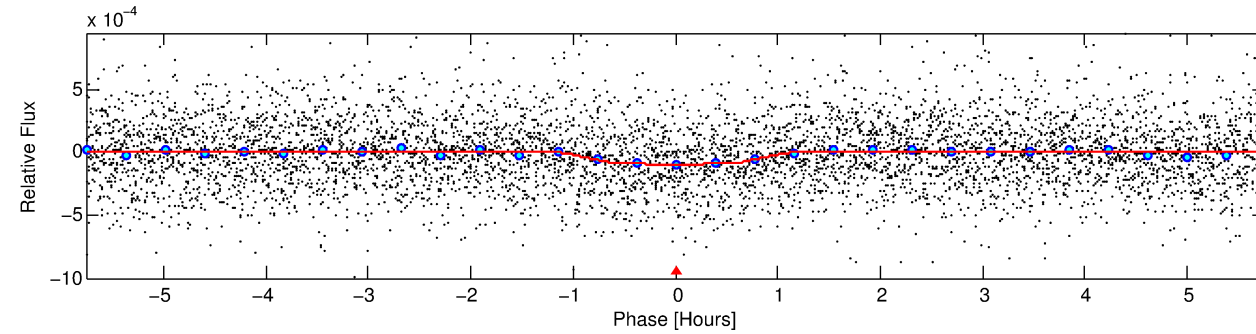
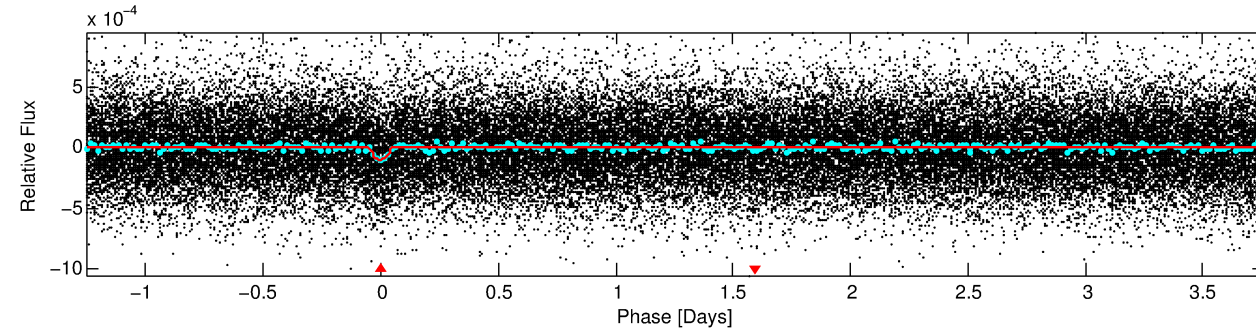
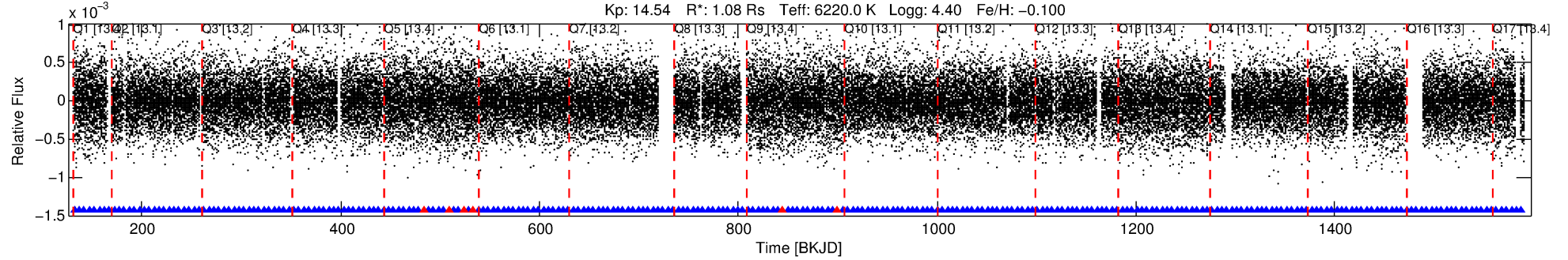
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008881169-01

No Significant Match Found

DV One-Page Summary

KIC: 8881169 Candidate: 1 of 1 Period: 5.019 d
KOI: K07106.01 Corr: 0.987



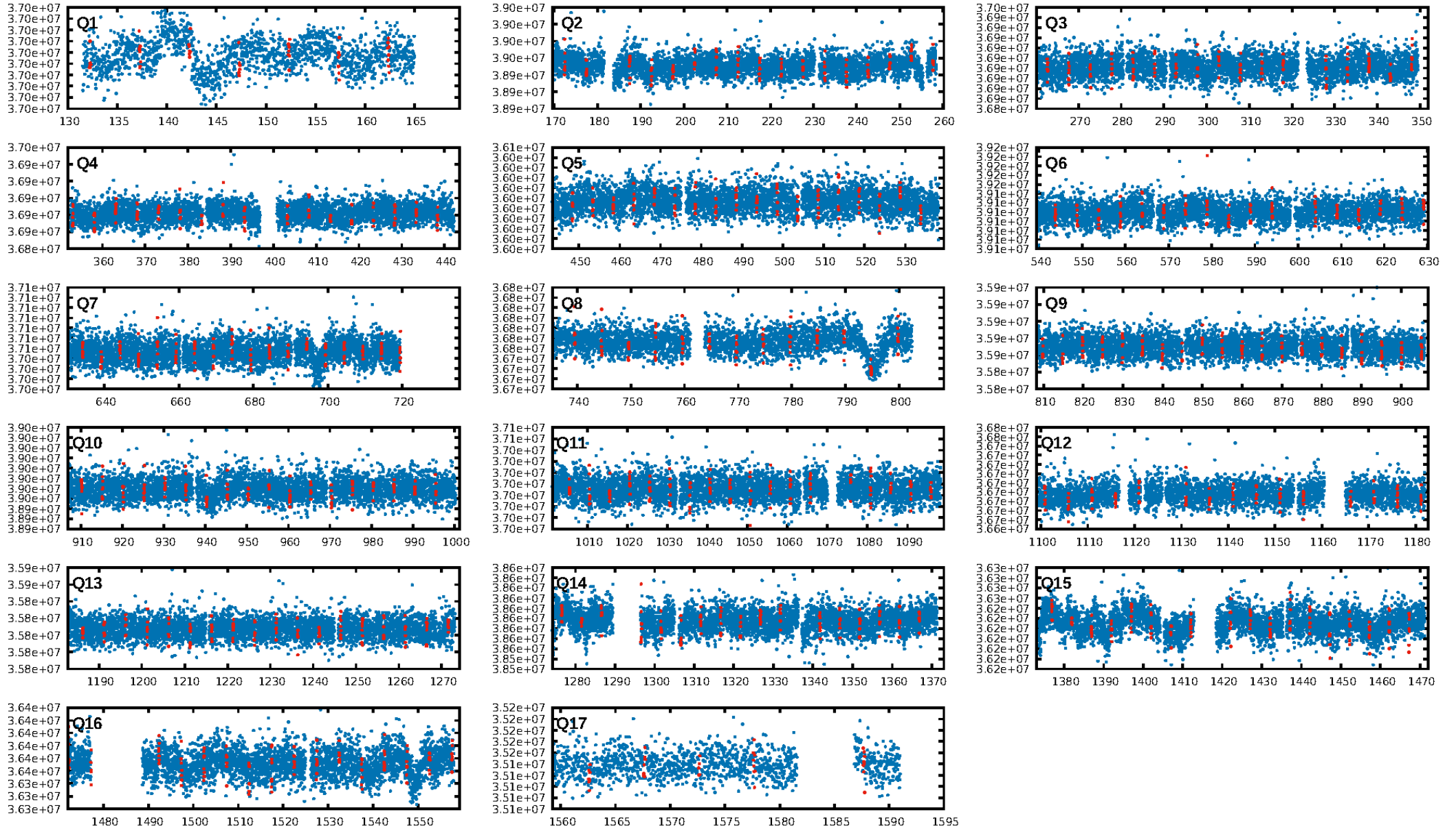
DV Fit Results:

Period = 5.01882 [0.00003] d
Epoch = 132.2493 [0.0040] BKJD
Rp/R* = 0.0108 [0.0060]
a/R* = 7.92 [24.01]
b = 0.93 [0.45]
Seff = 456.74 [194.91]
Teff = 1179 [126] K
Rp = 1.28 [0.83] Re
a = 0.0587 [0.0164] AU
Ag = 28.66 [35.38] [0.78 σ]
Teffp = 4217 [1240] K [2.44 σ]

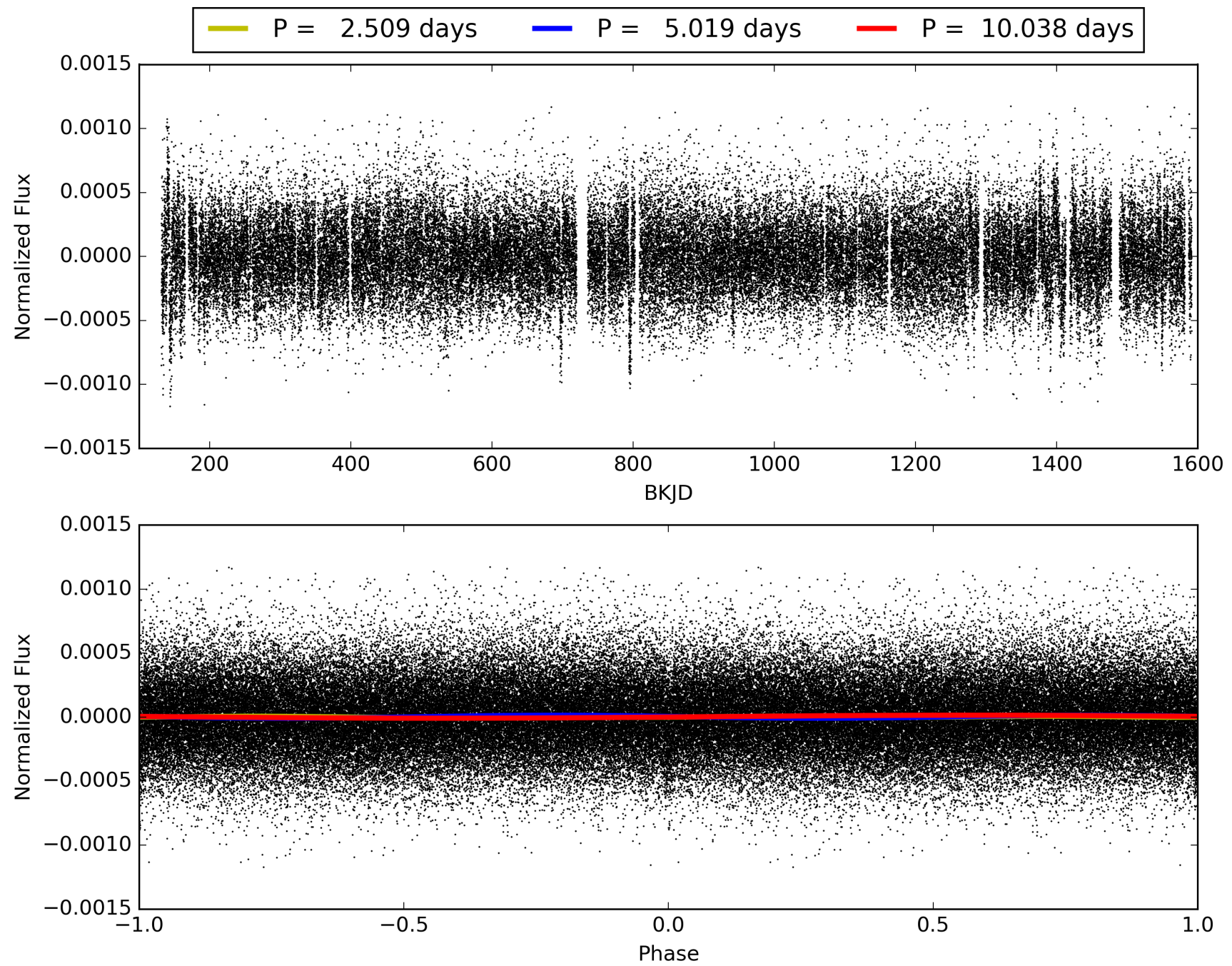
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.09e-18
RollingBand-fgt: 0.98 [249/255]
GhostDiagnostic-chr: -13.95
Centroid-sig: 0.1%
Centroid-so: 2.789 arcsec [2.02 σ]
OotOffset-rm: 1.503 arcsec [4.04 σ]
KicOffset-rm: 1.481 arcsec [3.99 σ]
OotOffset-st: 4/1/3/4 [12]
KicOffset-st: 4/1/3/4 [12]
DiffImageQuality-fgm: 0.83 [10/12]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 008881169-01, PDC Light Curves

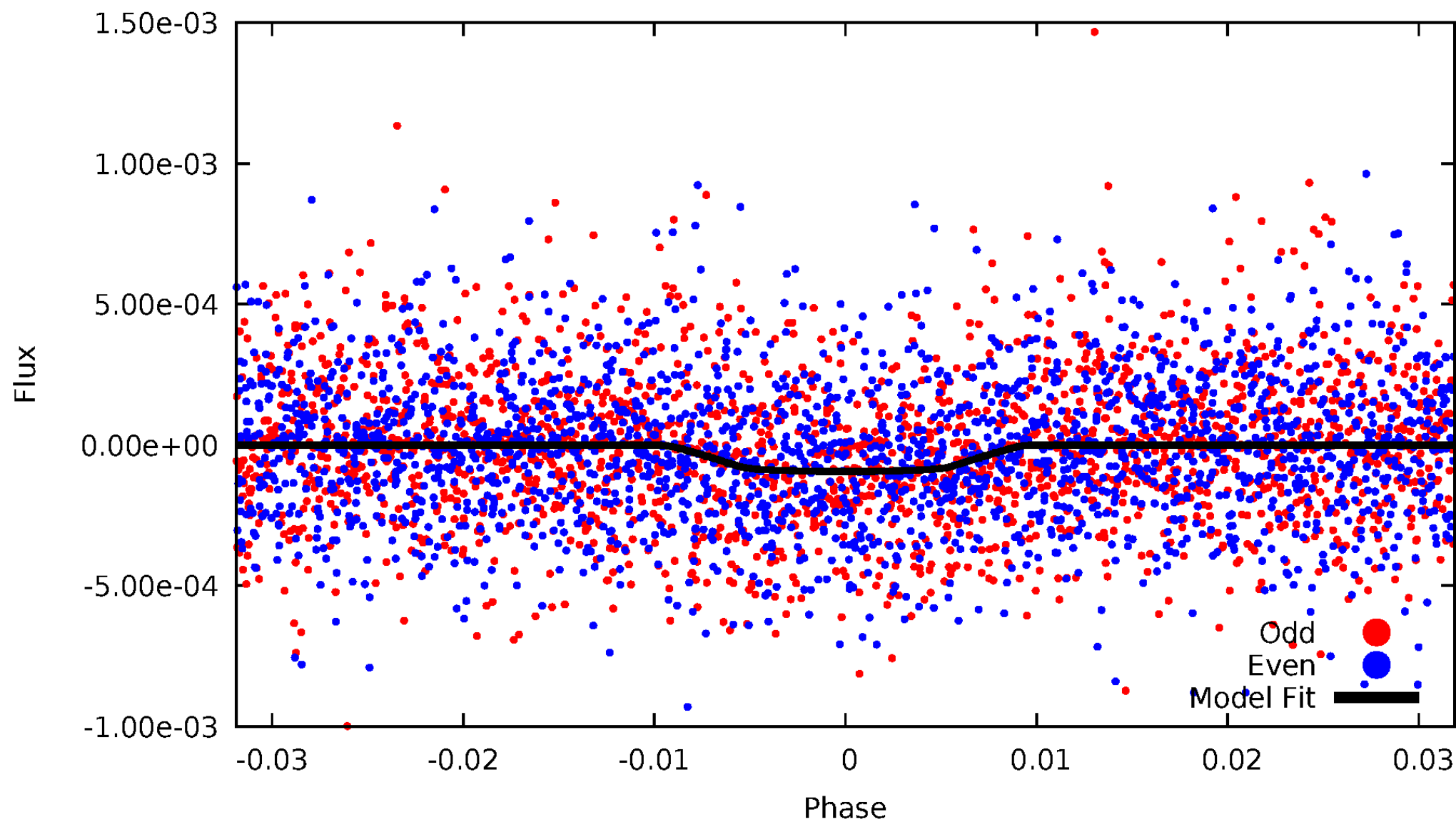


TCE 008881169-01



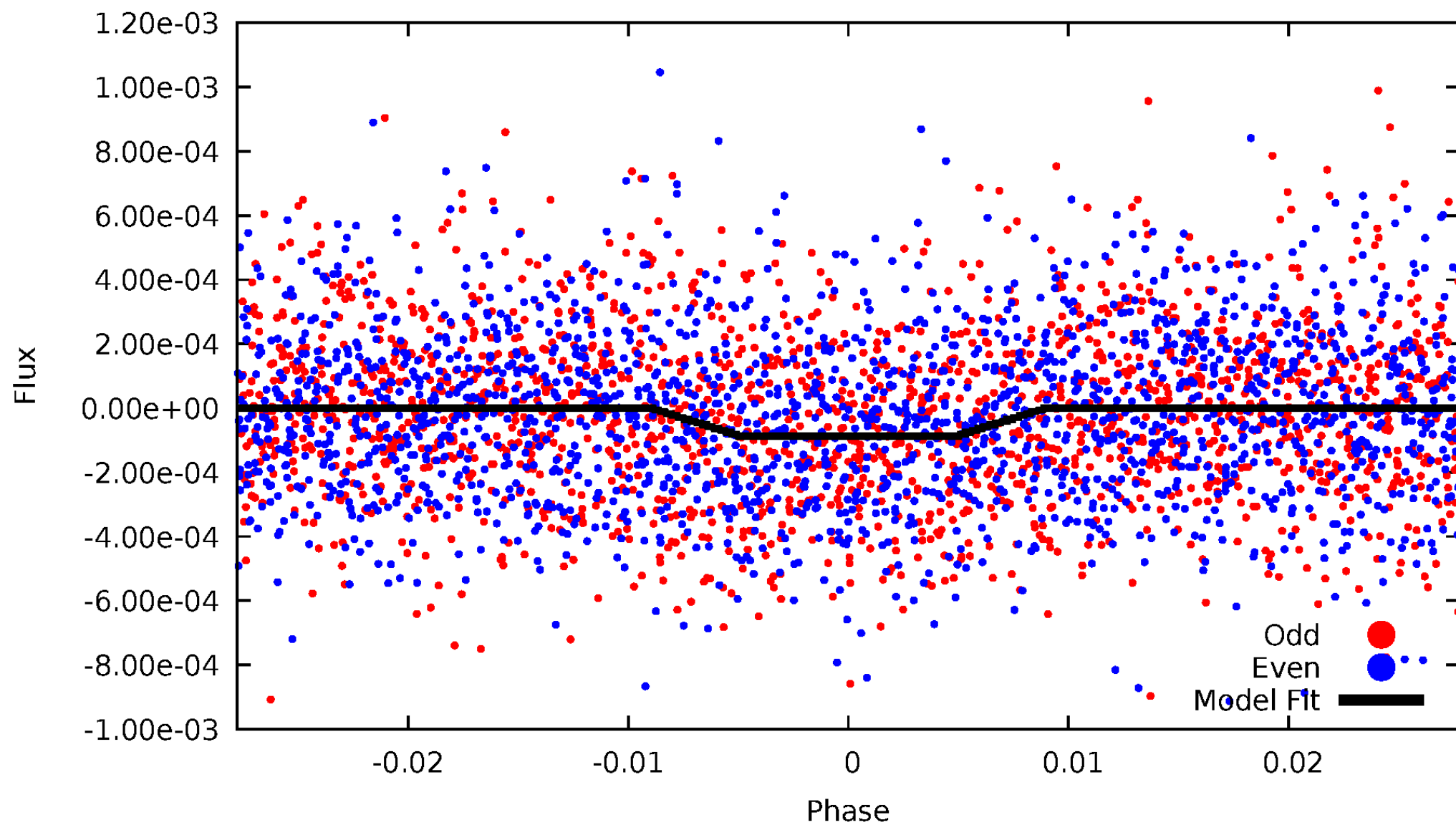
DV Odd/Even

TCE 008881169-01

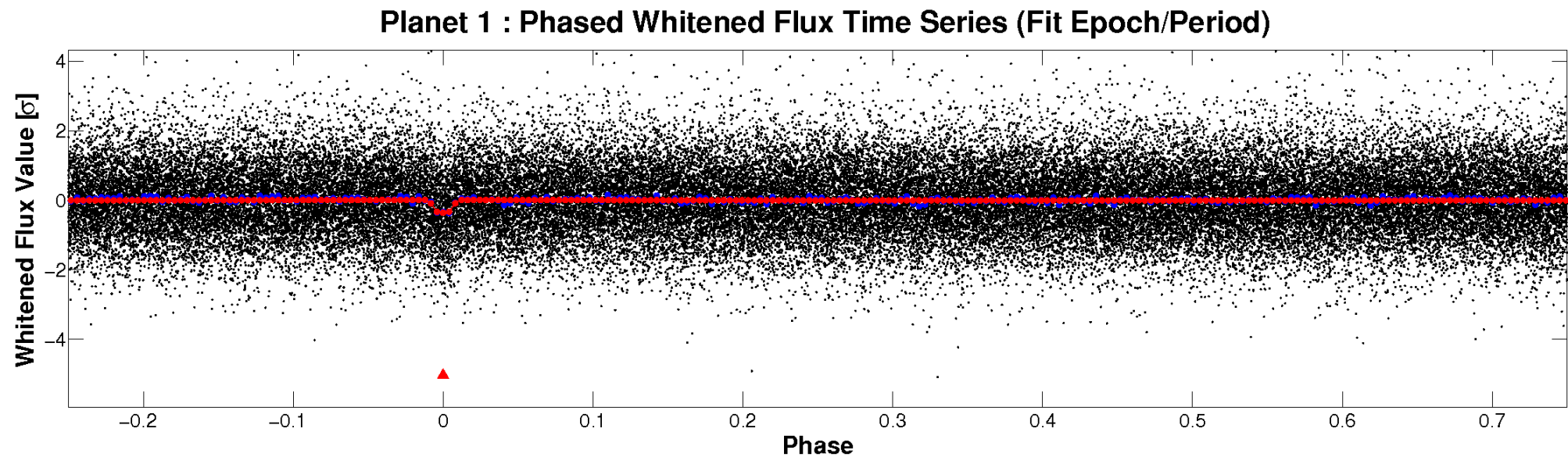
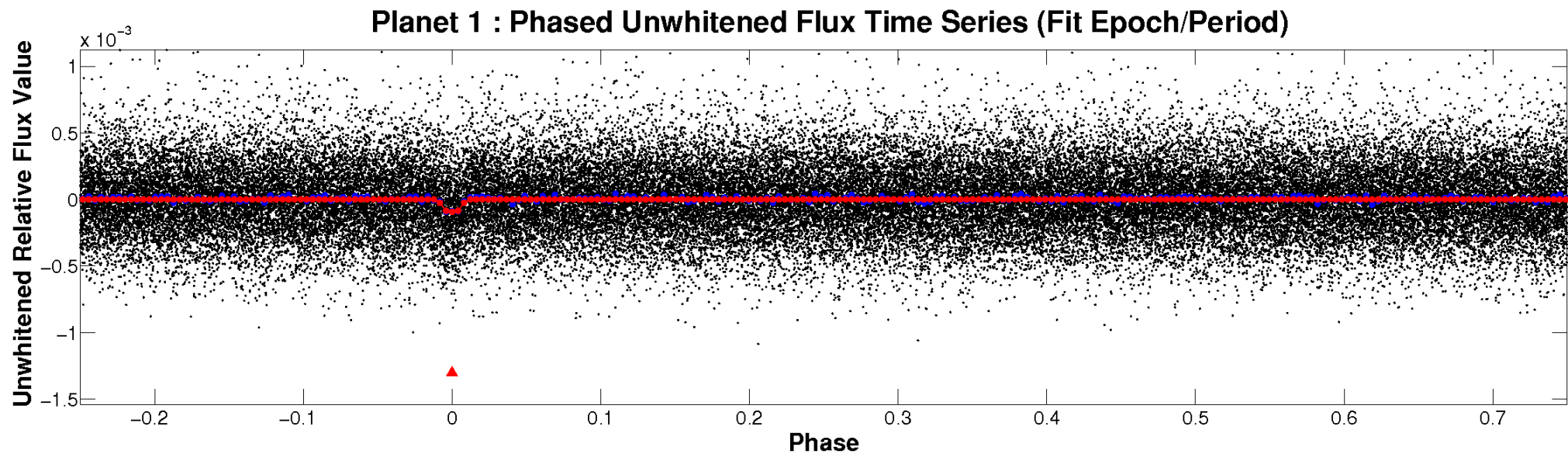


ALT Odd/Even

TCE 008881169-01

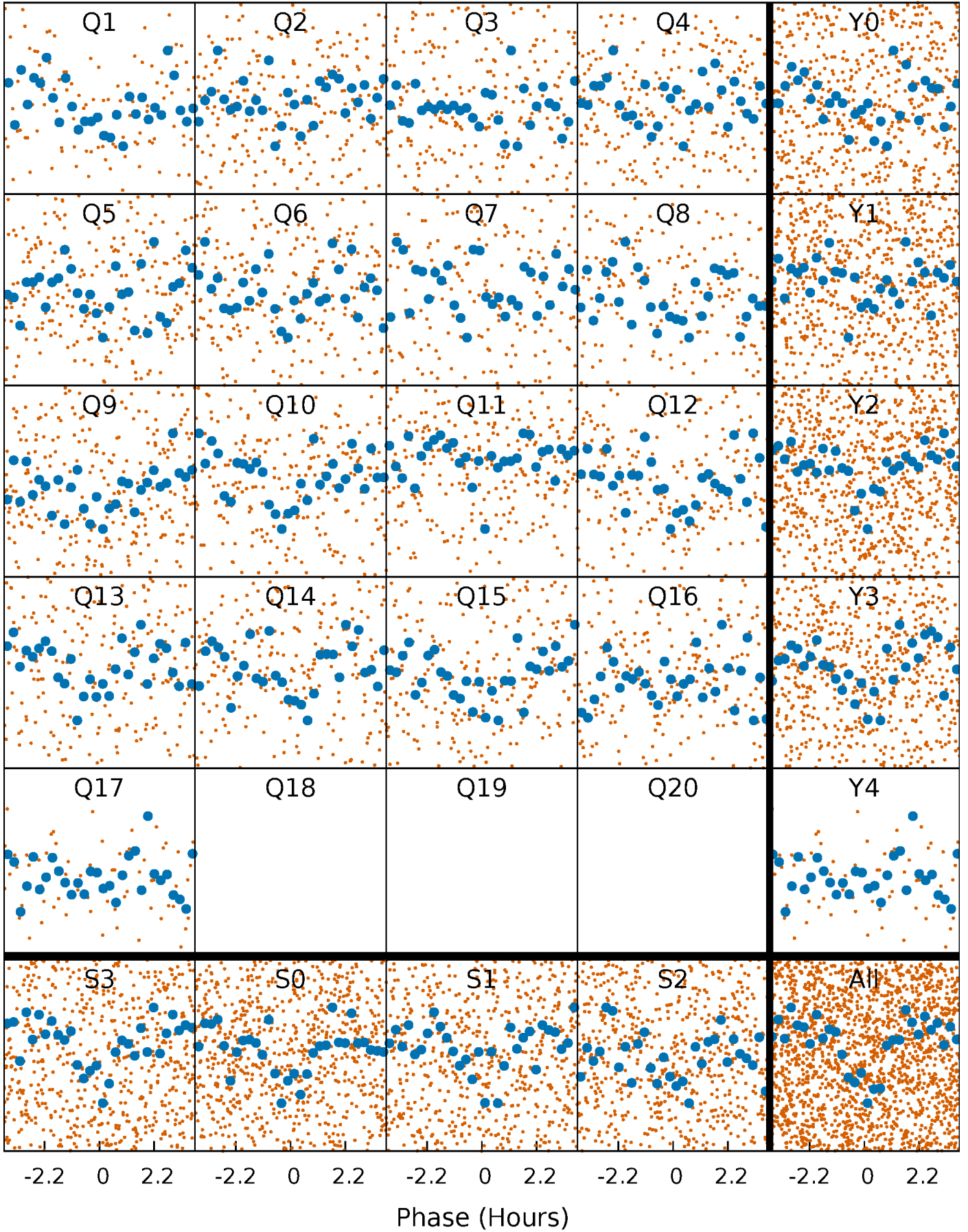


Non-Whitened Vs. Whitened Light Curve



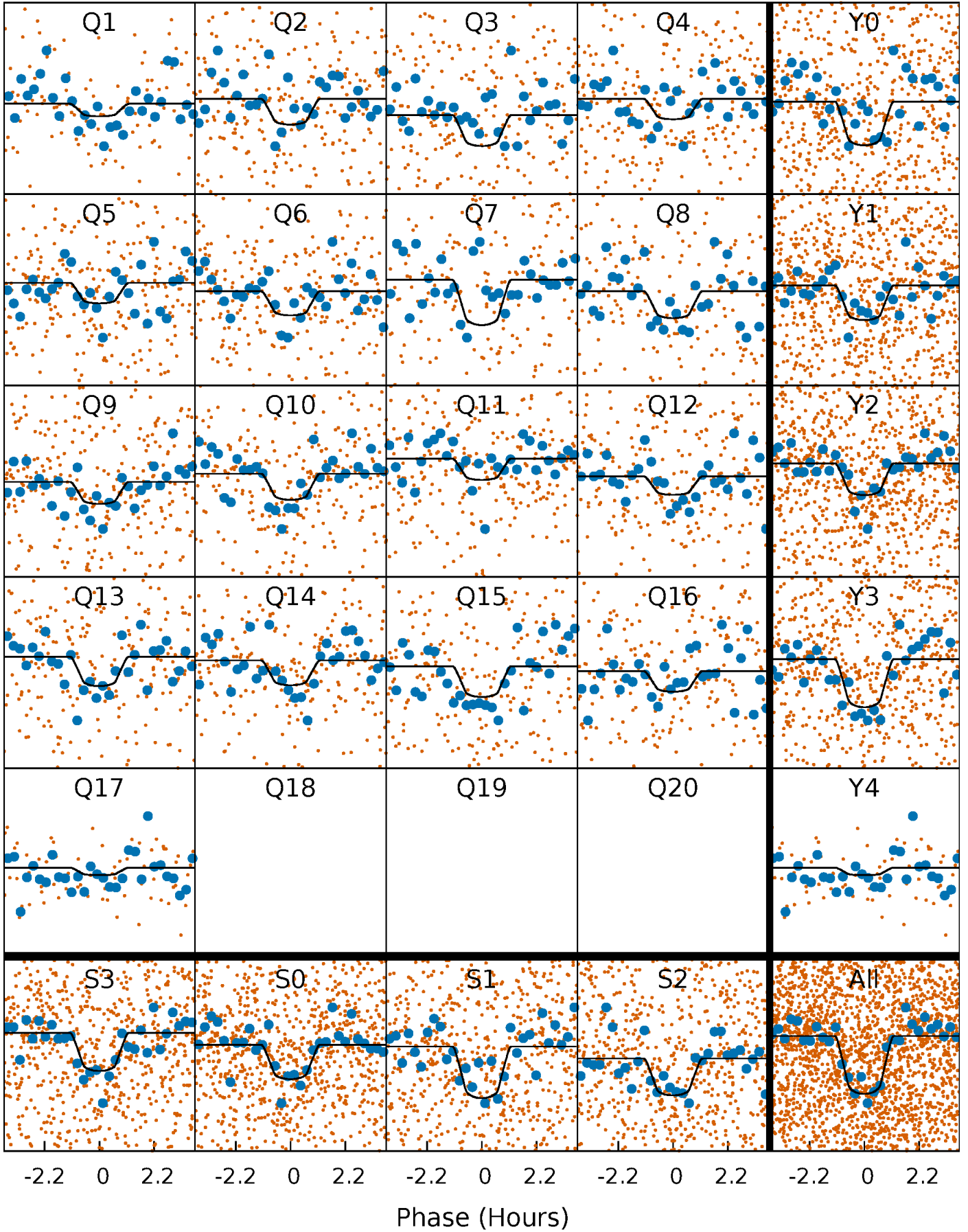
PDC Quarter-Phased Transit Curves

TCE 008881169-01 P= 5.018818 Days $T_0=132.249263$ (BKJD)



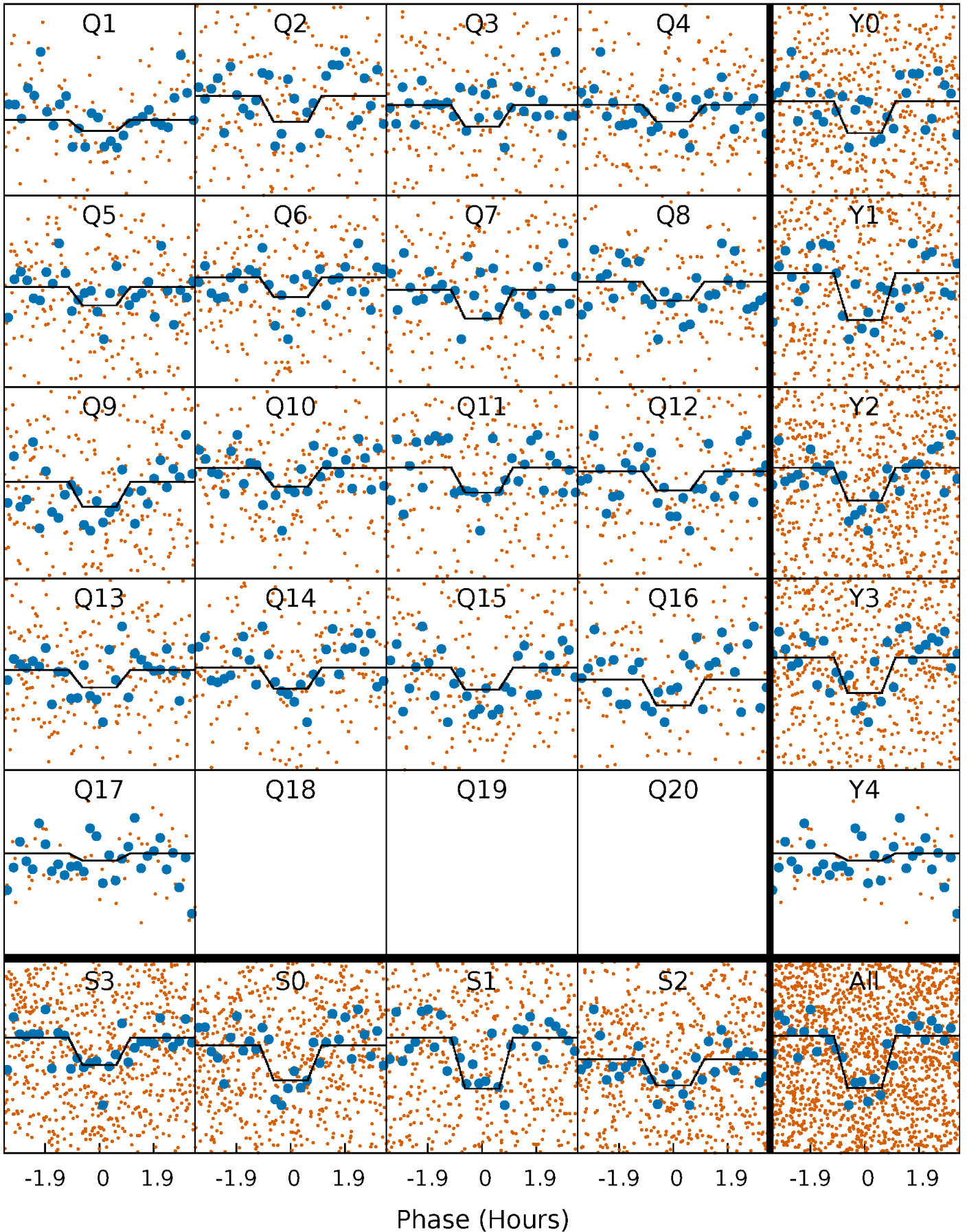
DV Quarter-Phased Transit Curves

TCE 008881169-01 P= 5.018818 Days $T_0=132.249263$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

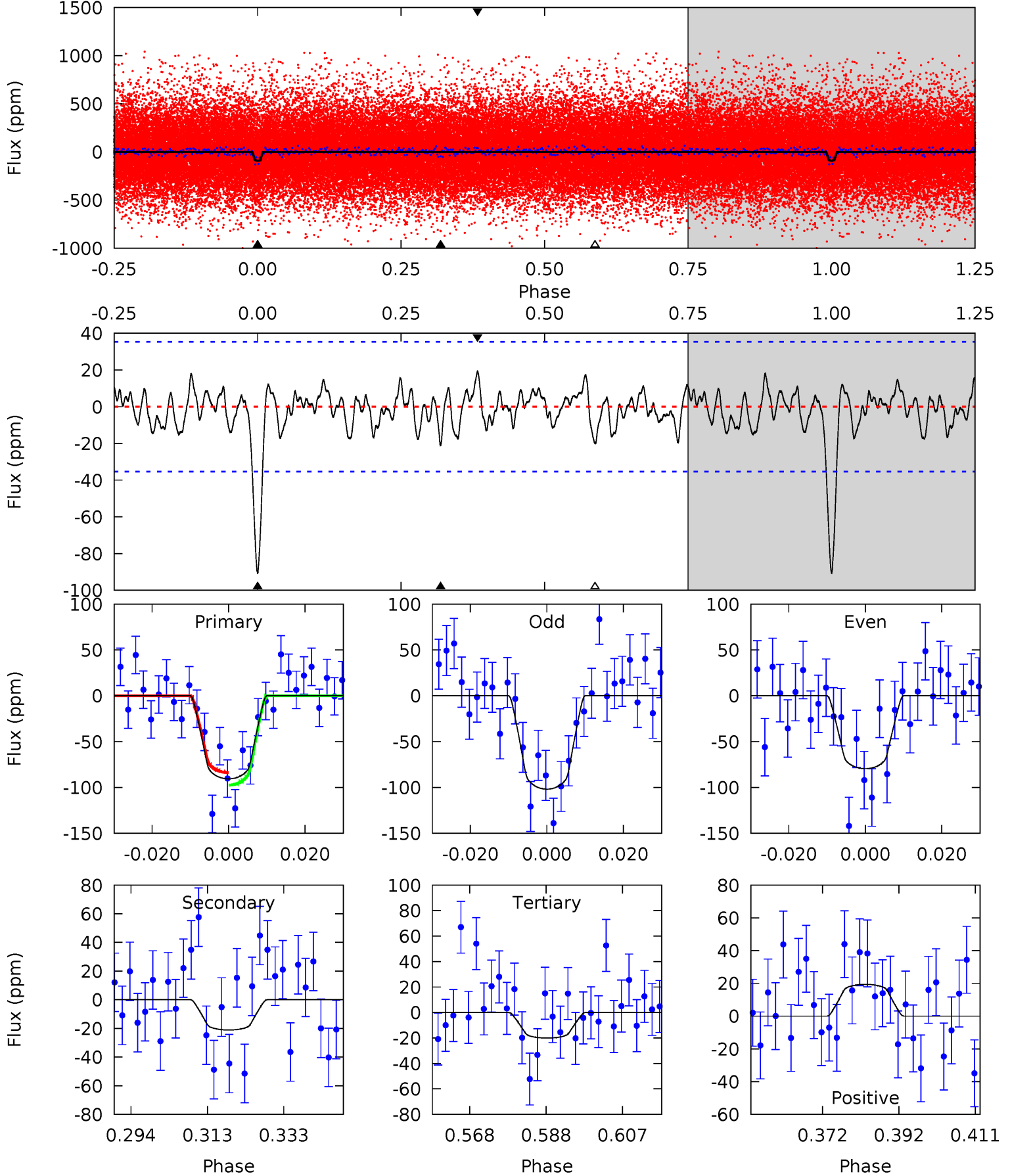
TCE 008881169-01 P= 5.018838 Days $T_0=132.248837$ (BKJD)



DV Model-Shift Uniqueness Test

008881169-01, P = 5.018818 Days, E = 127.230445 Days

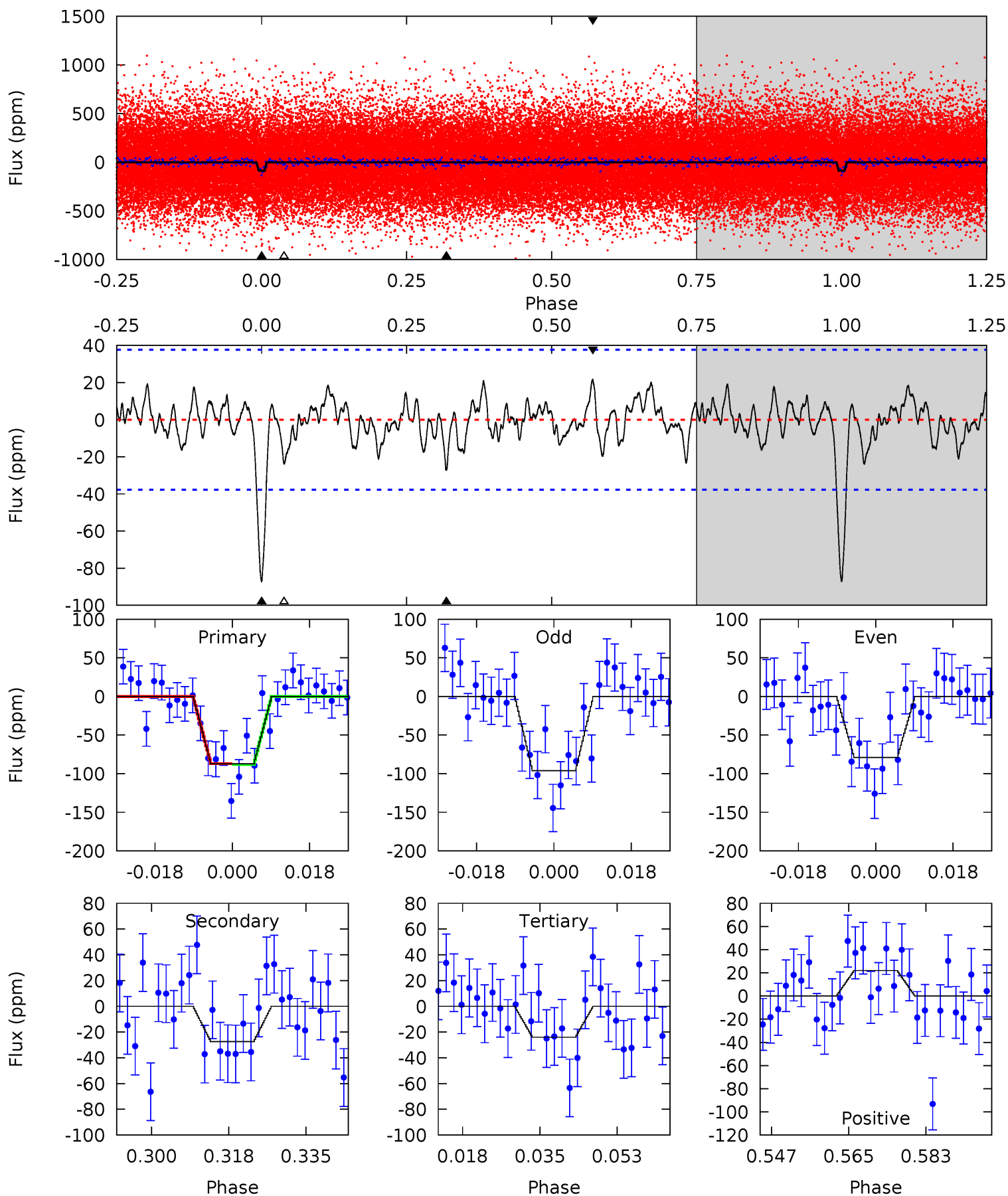
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.5	2.92	2.78	2.68	4.90	2.33	1.09	9.77	9.86	0.14	0.24	1.55	0.97	0.18	0.94



Alt Model-Shift Uniqueness Test

008881169-01, P = 5.018838 Days, E = 127.229999 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.4	3.58	3.13	2.86	4.92	2.37	1.12	8.26	8.53	0.44	0.71	1.11	1.05	0.20	0.08



Stellar Parameters For KIC 008881169

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6220^{+166}_{-222}	$4.398^{+0.072}_{-0.217}$	$-0.100^{+0.250}_{-0.300}$	$1.083^{+0.366}_{-0.147}$	$1.064^{+0.169}_{-0.127}$	$1.180^{+0.447}_{-0.619}$
	+3%/-4%	+2%/-5%	+250%/-300%	+34%/-14%	+16%/-12%	+38%/-52%
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 008881169-01 / KOI 7106.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-21 ± 7	$1.32^{+0.82}_{-0.64}$	1675^{+129}_{-91}	4270^{+1318}_{-715}	22^{+63}_{-14}
Alt.	-27 ± 8	$1.23^{+0.75}_{-0.69}$	1668^{+146}_{-84}	4641^{+2191}_{-781}	34^{+147}_{-22}

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

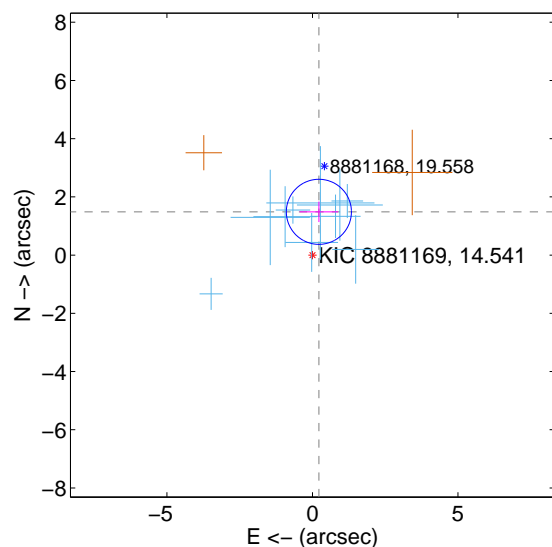
Supplemental centroid analysis for 008881169-01. Kepler magnitude: 14.54. Transit SNR 9.64

There are 10 quarters with good PRF difference image offsets

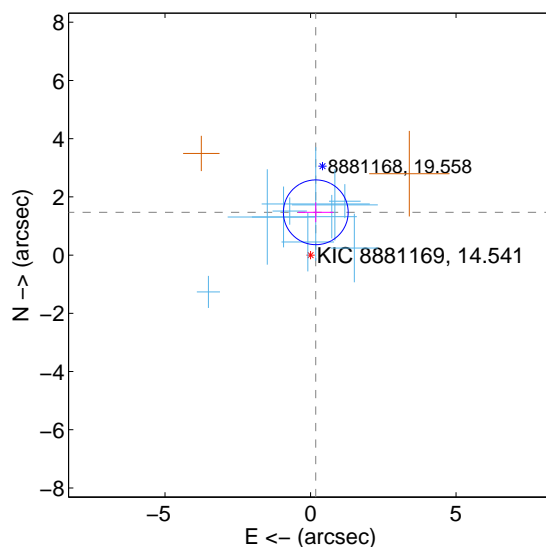
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.503 ± 0.373	4.04	-0.221 ± 0.663	1.487 ± 0.353
PRF-fit source offset from KIC position	1.481 ± 0.371	3.99	-0.181 ± 0.608	1.470 ± 0.340
photometric centroid source offset	2.79 ± 1.38	2.02	1.04 ± 1.32	-2.59 ± 1.39

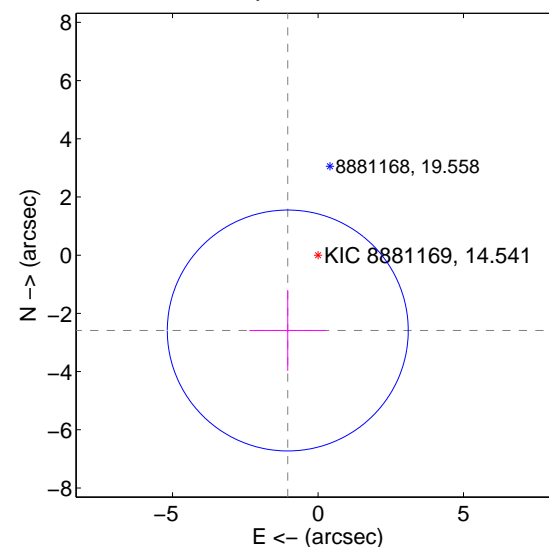
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

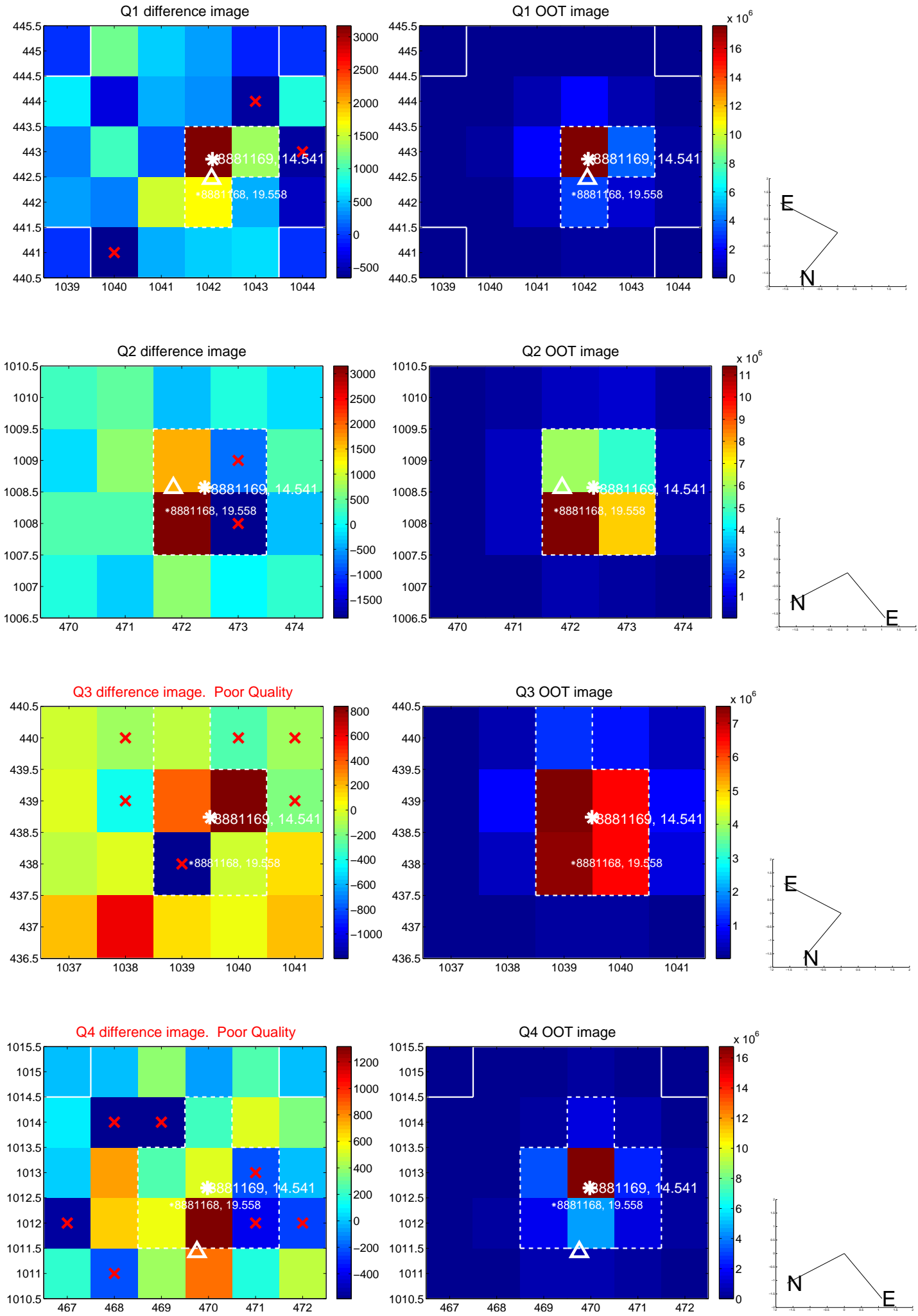


offset from photometric centroids

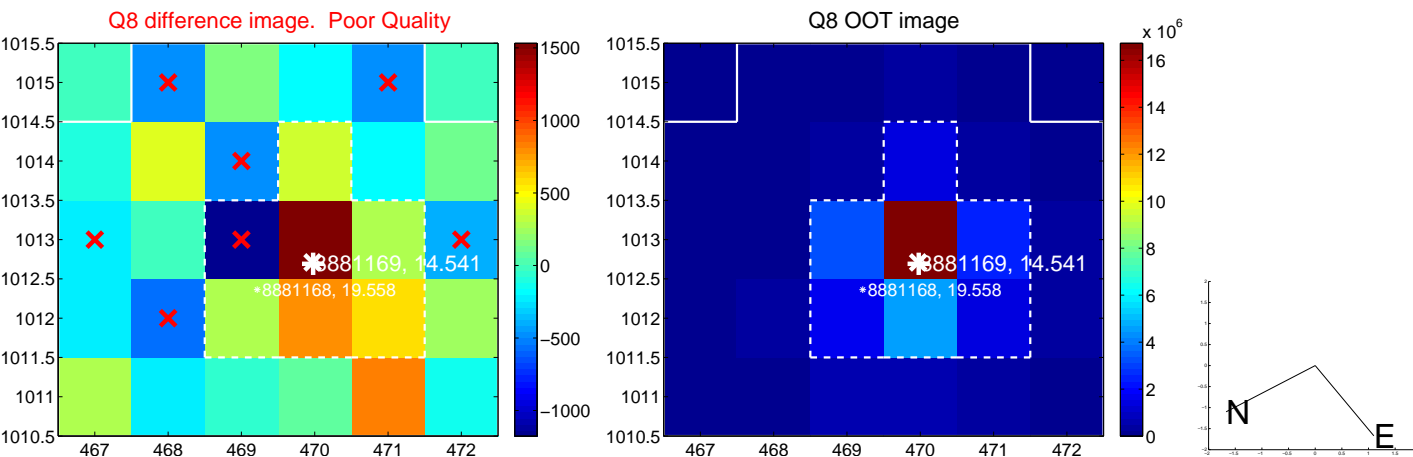
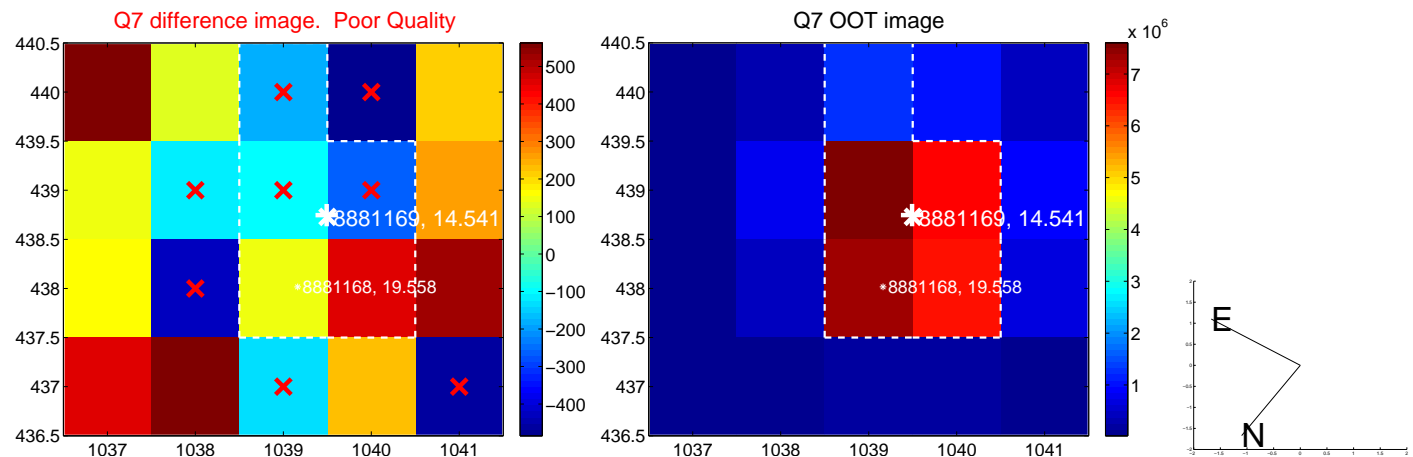
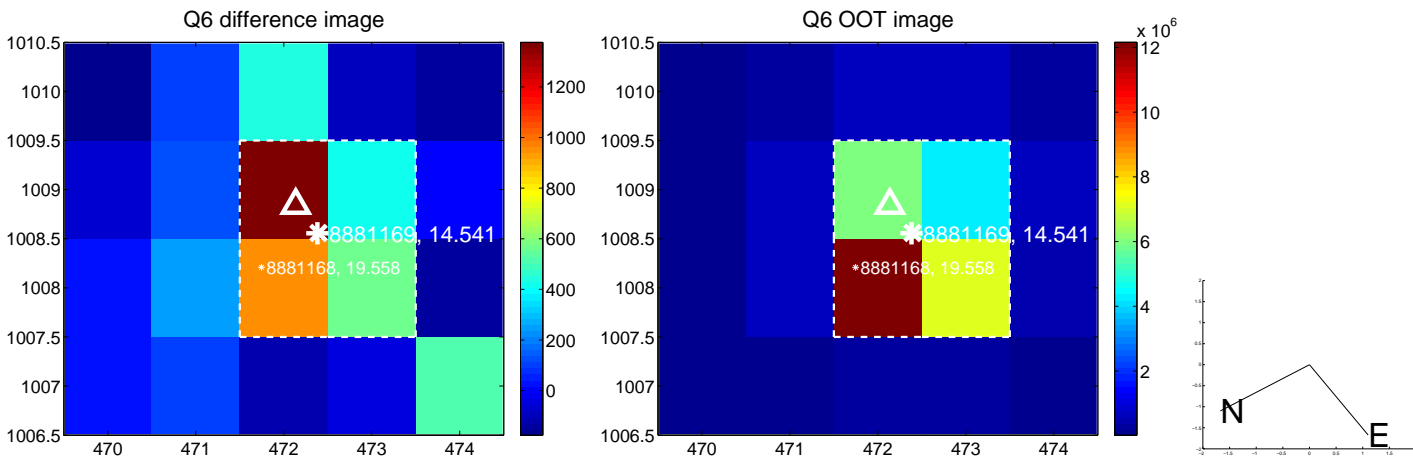
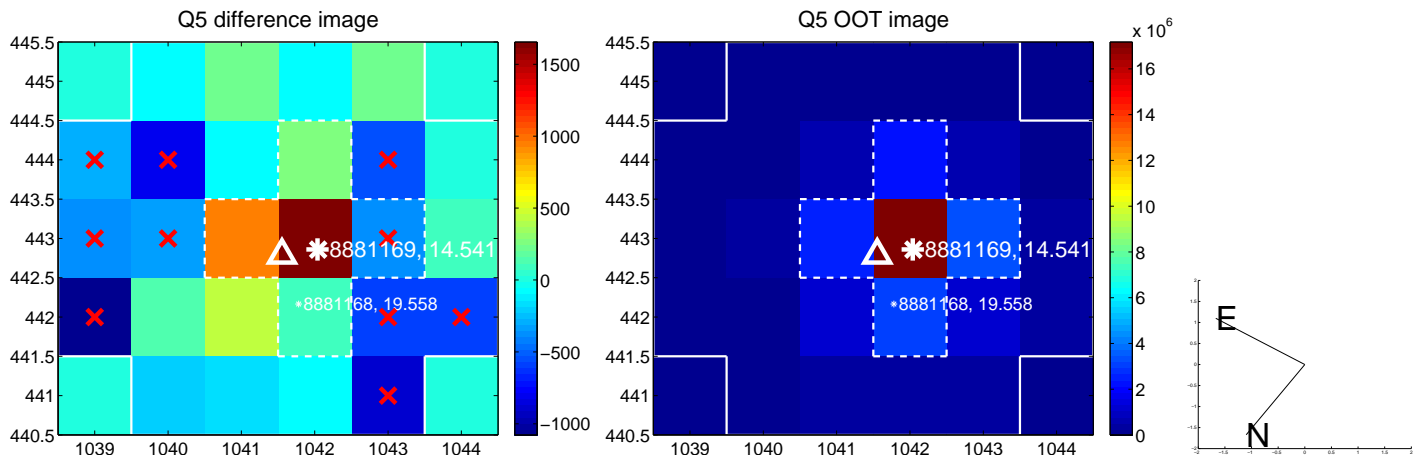


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

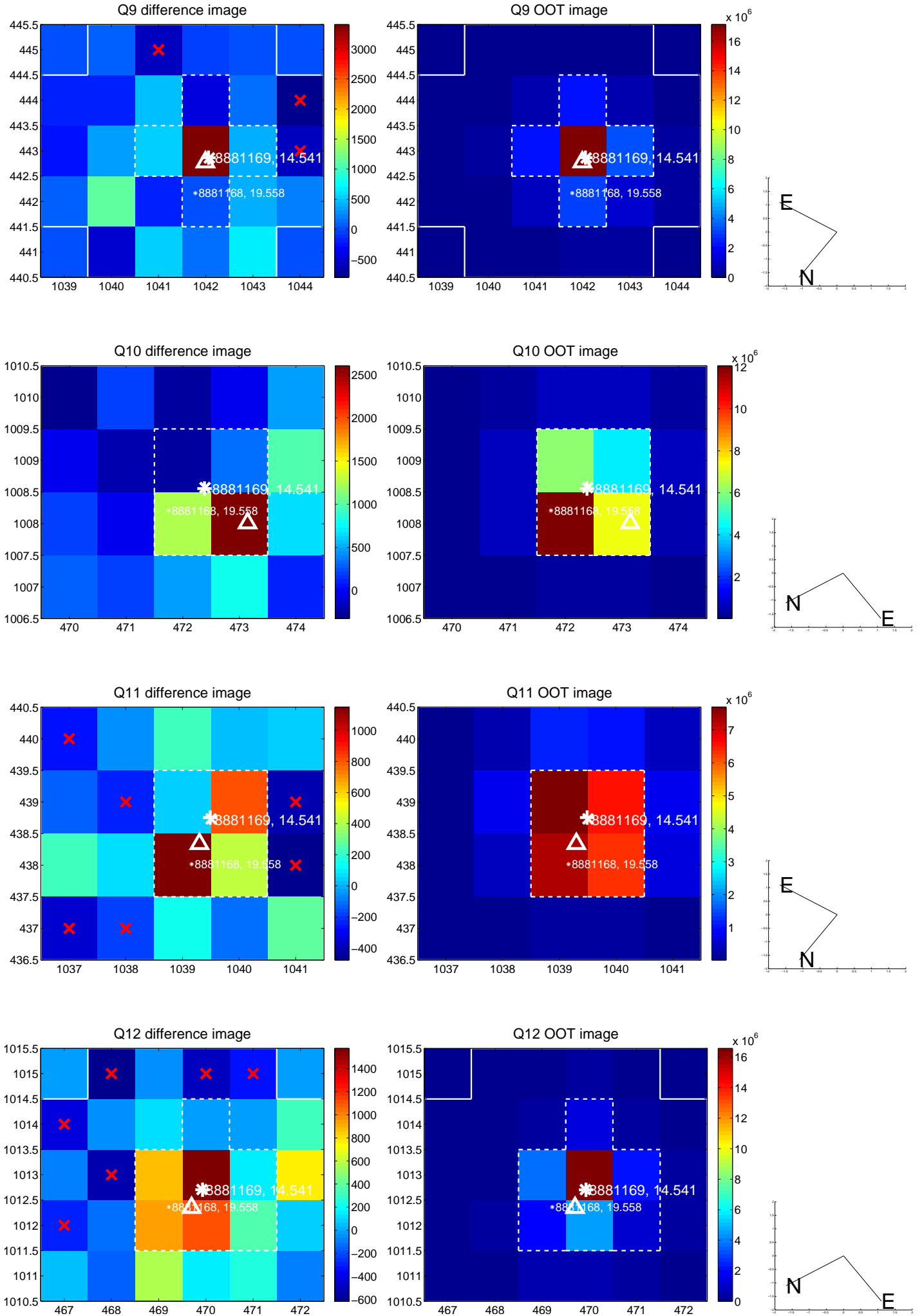
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



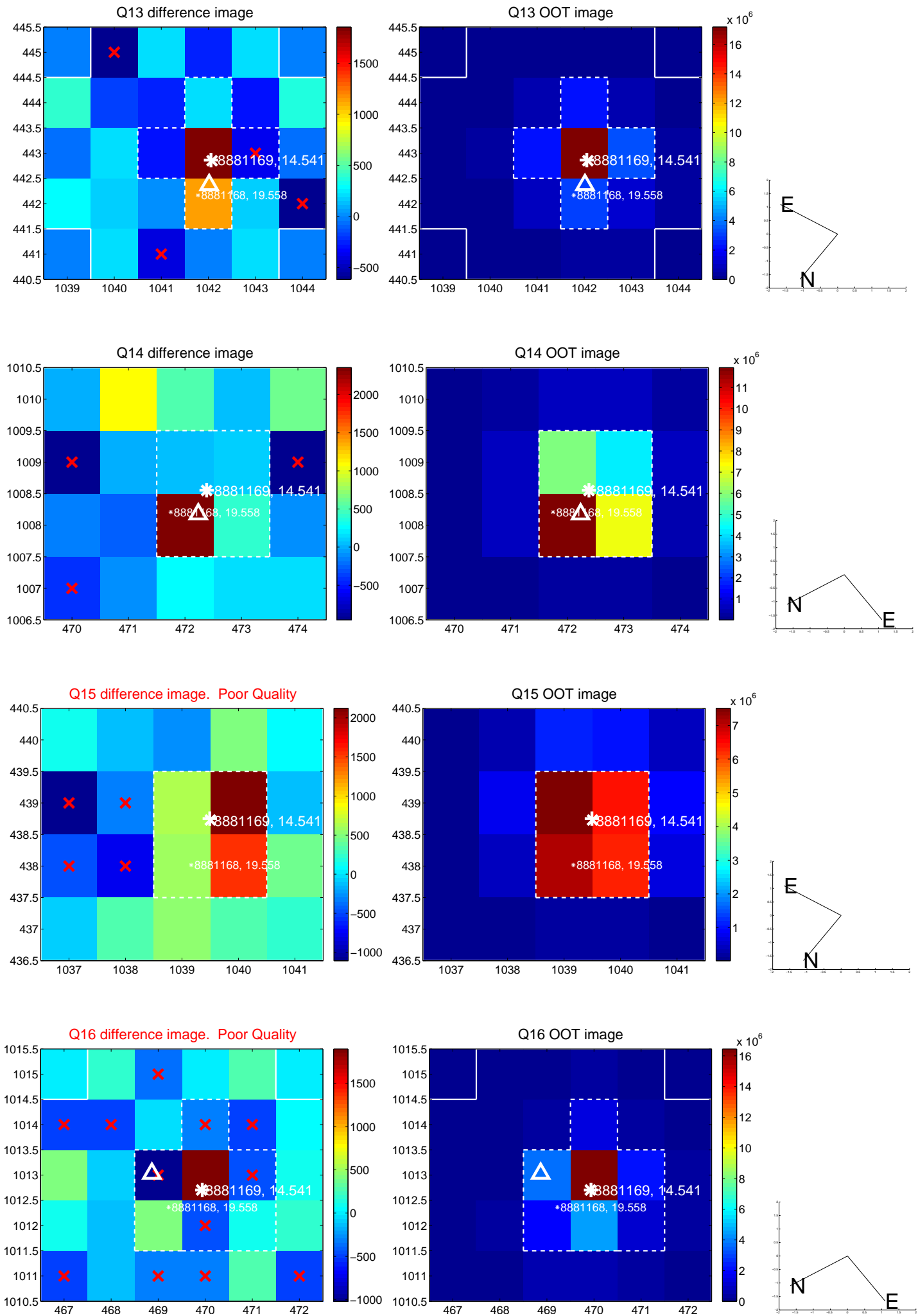
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



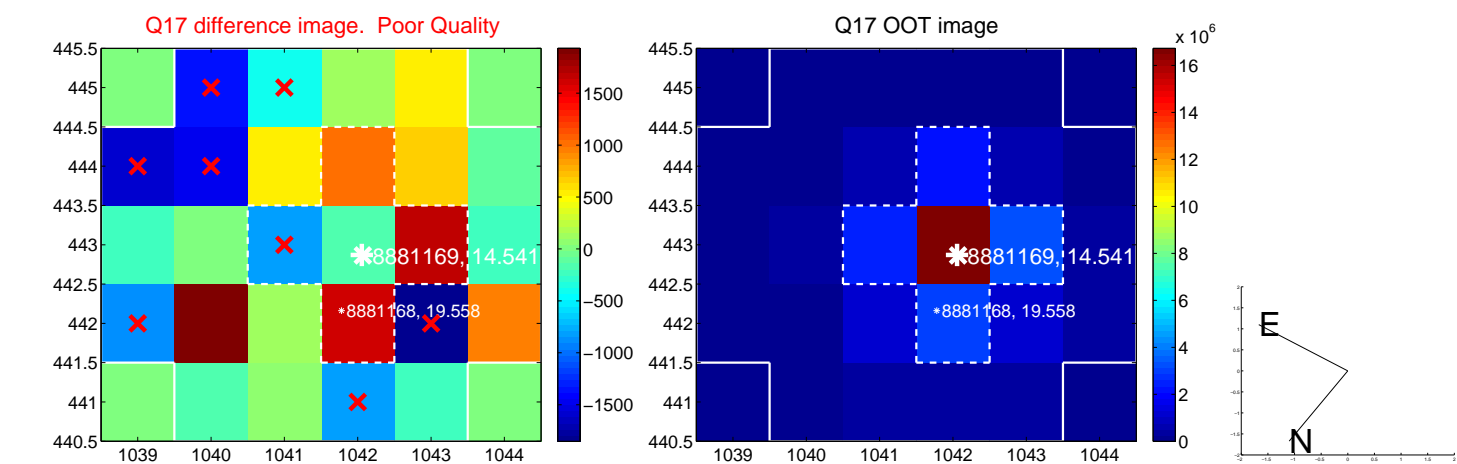
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



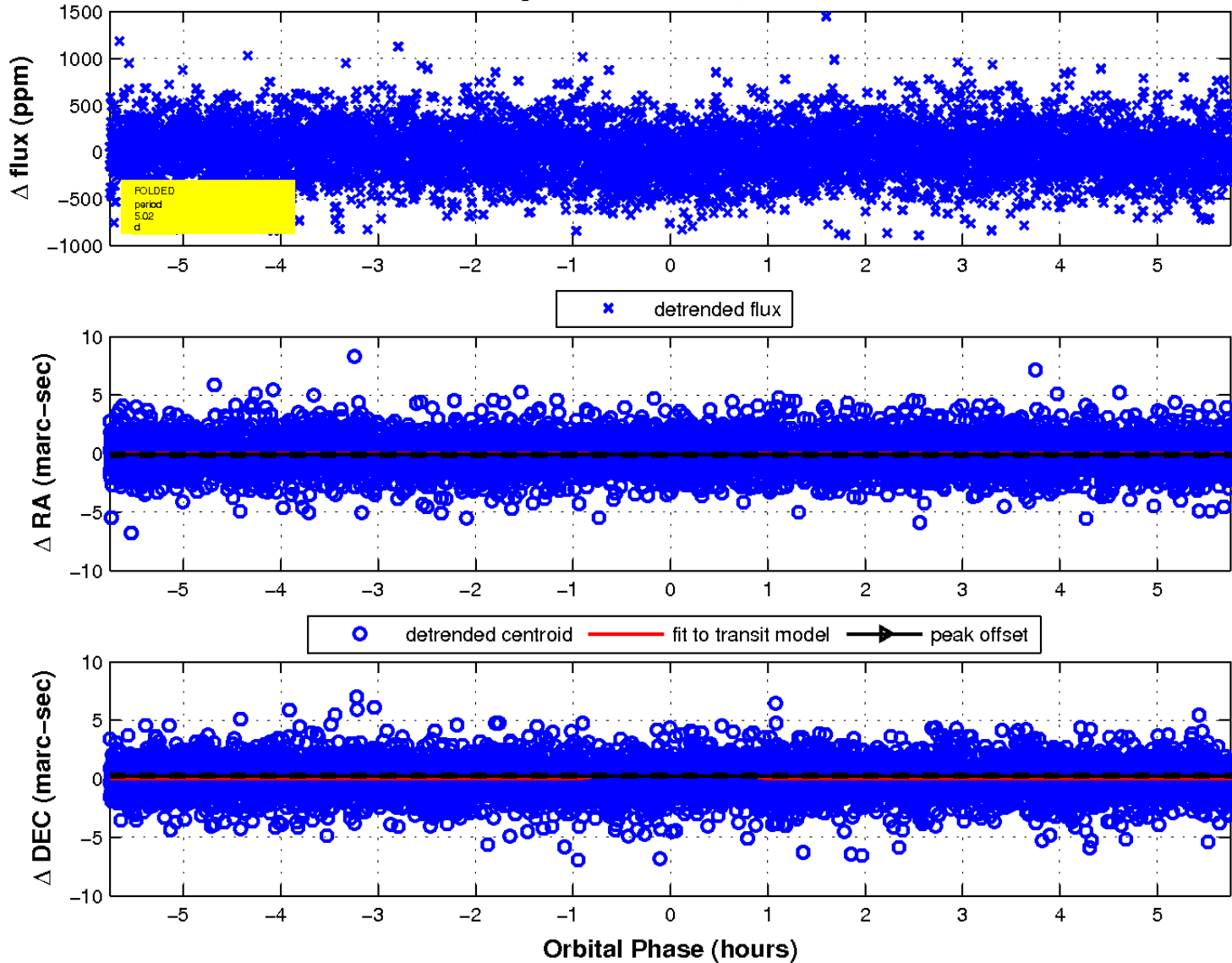
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

