

KIC 007661893

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})
007661893-01	OBS	4296.01	2.493848	133.154149	43.5	1.493	10.8	11.9	0.85	5615	0.67	580.87

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007661893-01	OBS	PC	0.99	0	0	0	0	CENT_KIC_POS

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

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

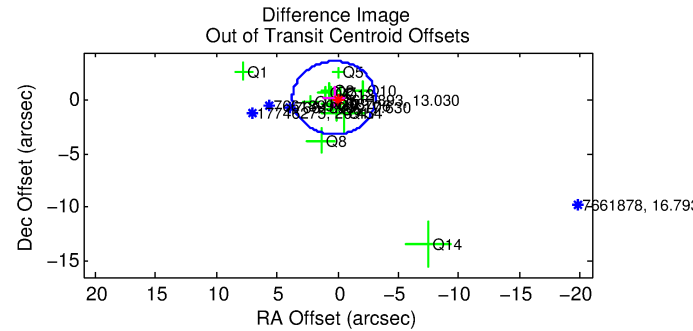
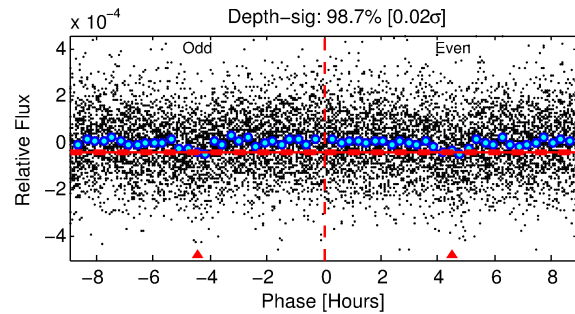
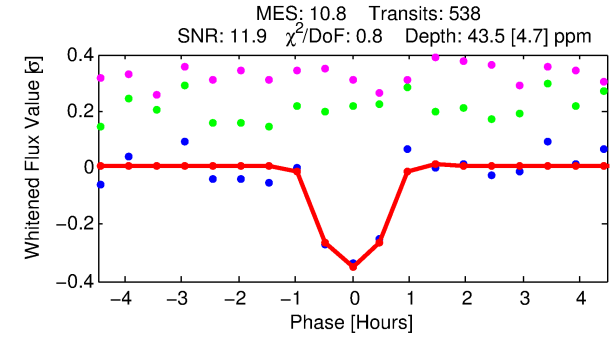
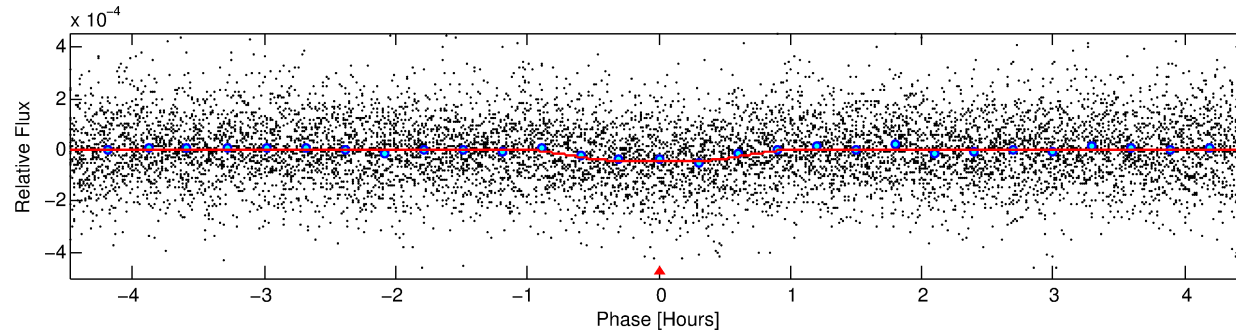
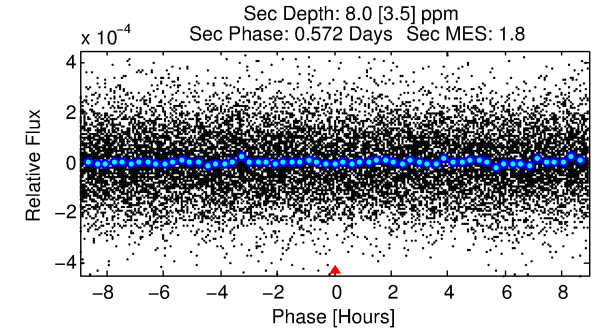
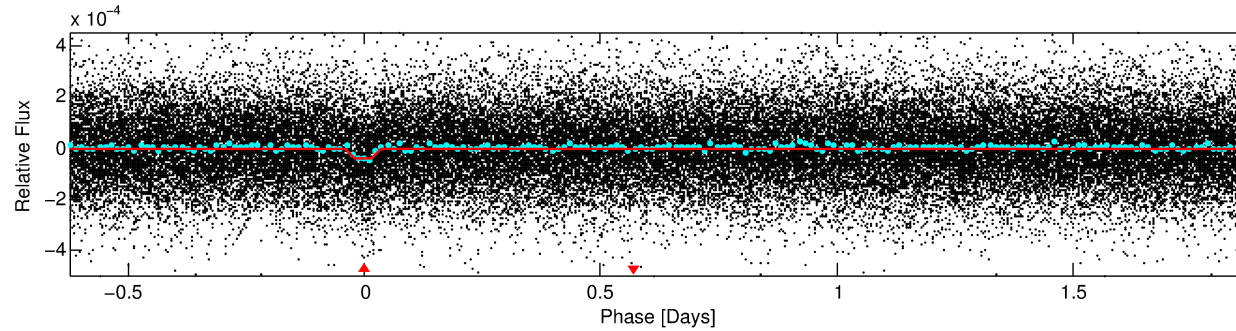
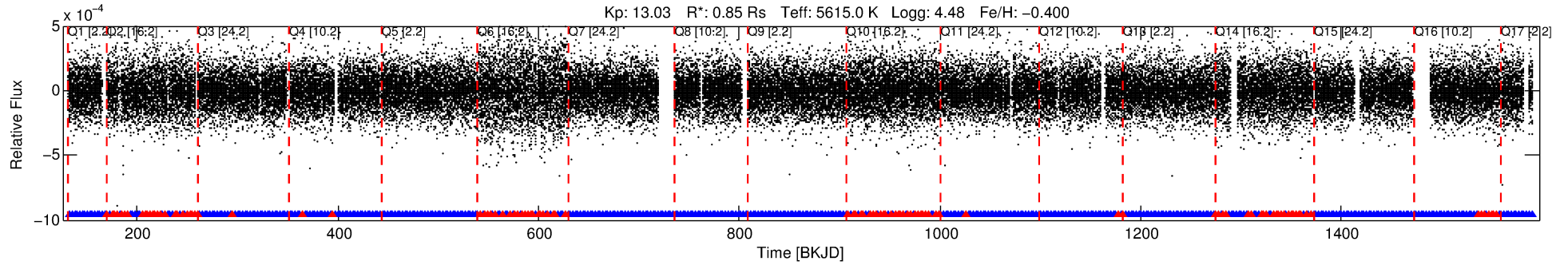
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007661893-01

No Significant Match Found

DV One-Page Summary

KIC: 7661893 Candidate: 1 of 1 Period: 2.494 d
KOI: K04296.01 Corr: 0.961



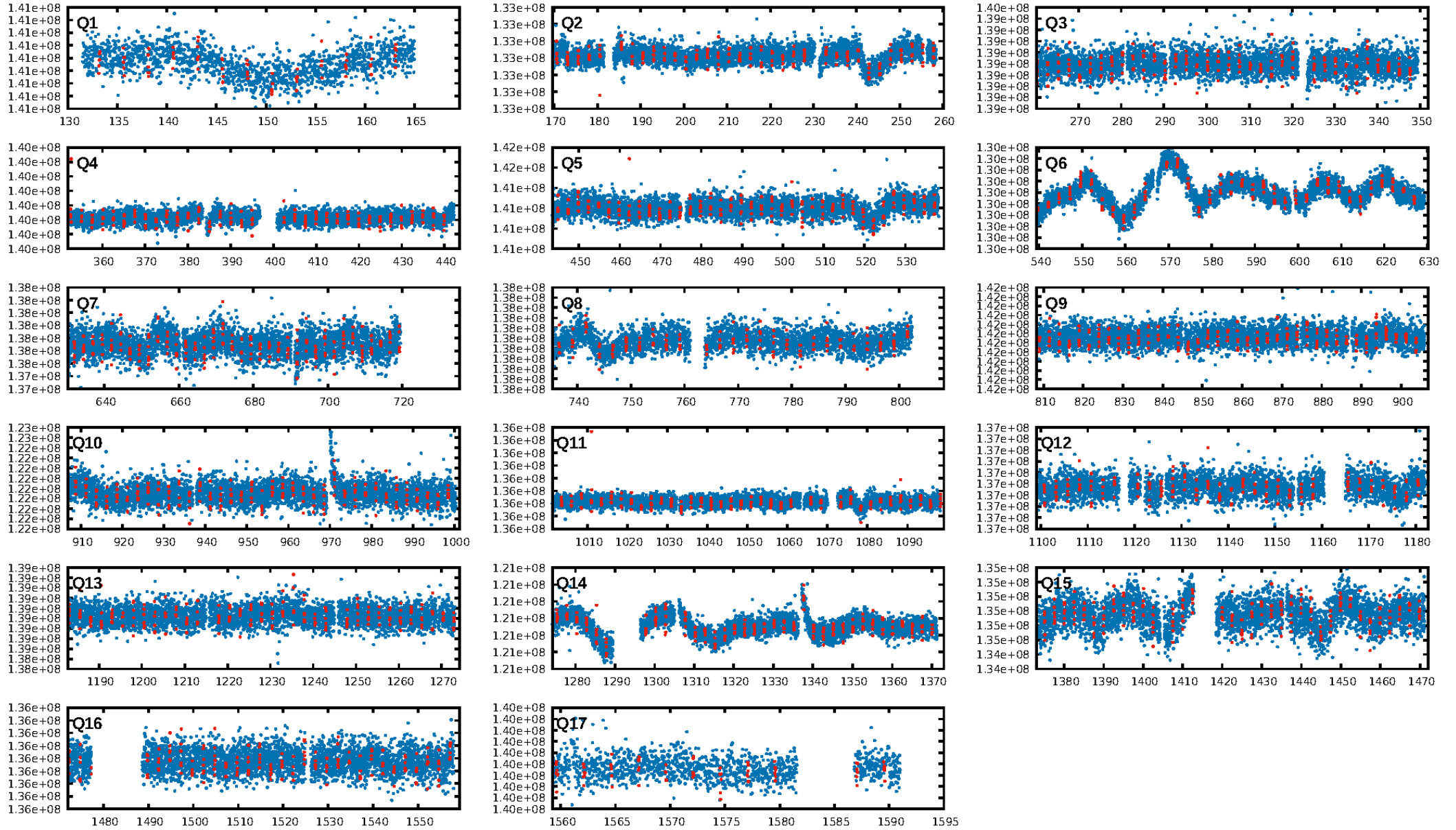
DV Fit Results:

Period = 2.49385 [0.00001] d
Epoch = 133.1541 [0.0022] BKJD
Rp/R* = 0.0072 [0.0033]
a/R* = 5.83 [12.60]
b = 0.90 [0.48]
Seff = 580.87 [99.56]
Teff = 1252 [54] K
Rp = 0.67 [0.32] Re
a = 0.0333 [0.0032] AU
Ag = 10.87 [11.27] [0.88σ]
Teffp = 3515 [904] K [2.50σ]

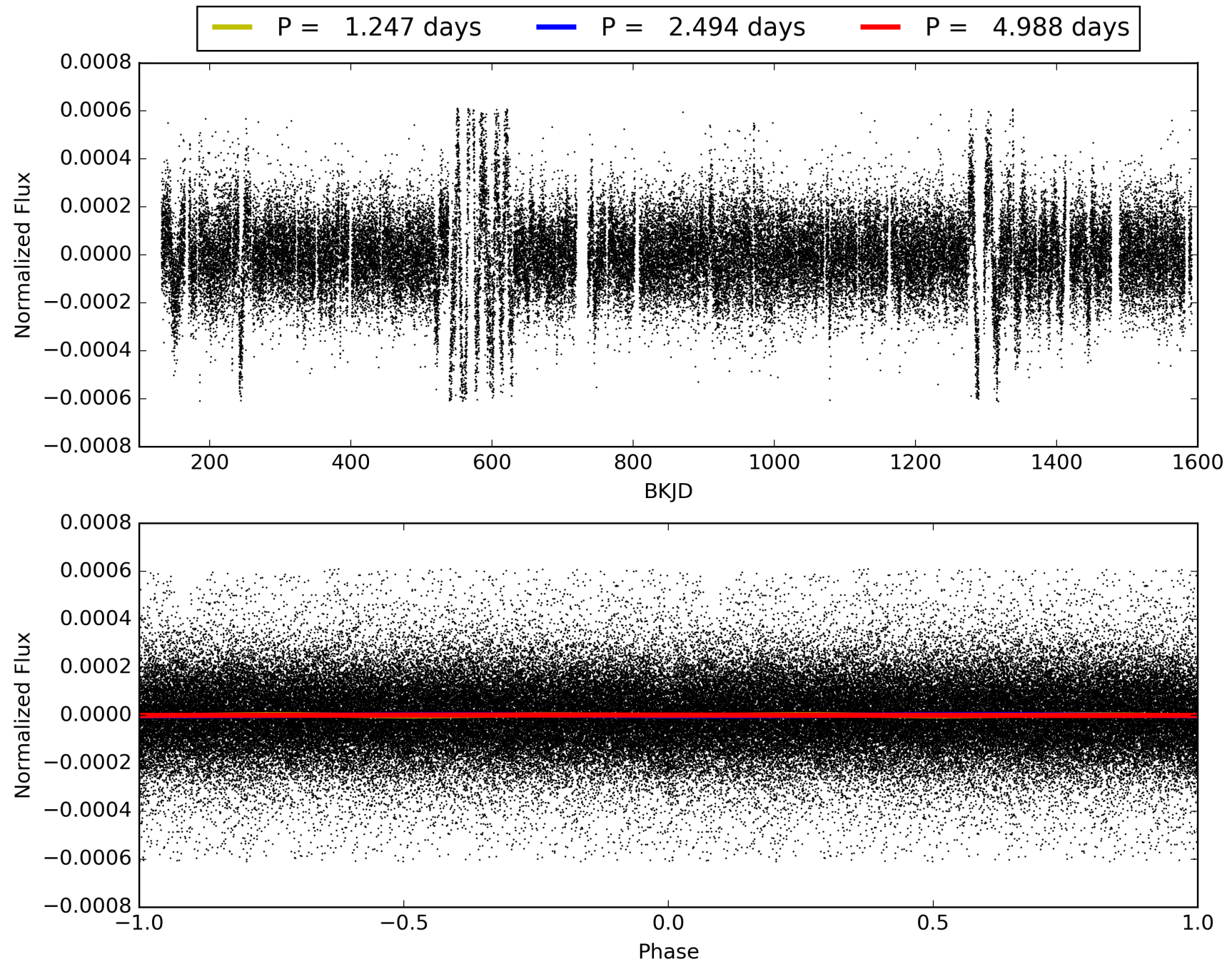
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 5.65e-26
RollingBand-fgt: 0.79 [408/514]
GhostDiagnostic-chr: 1.357
Centroid-sig: 0.0%
Centroid-so: 3.334 arcsec [2.99σ]
OotOffset-rm: 0.387 arcsec [0.34σ]
KicOffset-rm: 1.000 arcsec [1.02σ]
OotOffset-st: 4/3/4/4 [15]
KicOffset-st: 4/3/4/4 [15]
DiffImageQuality-fgm: 0.60 [9/15]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 007661893-01, PDC Light Curves

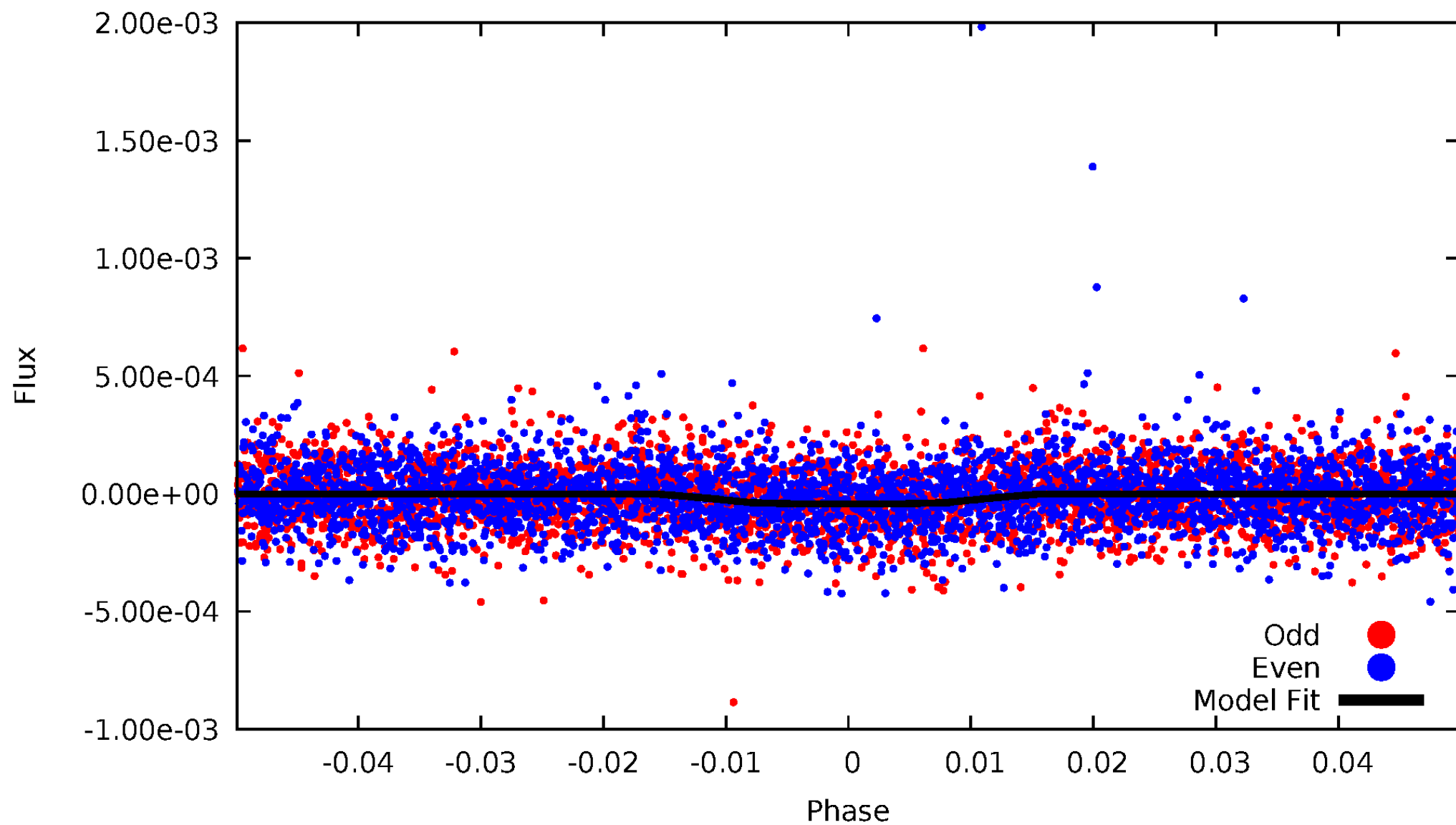


TCE 007661893-01



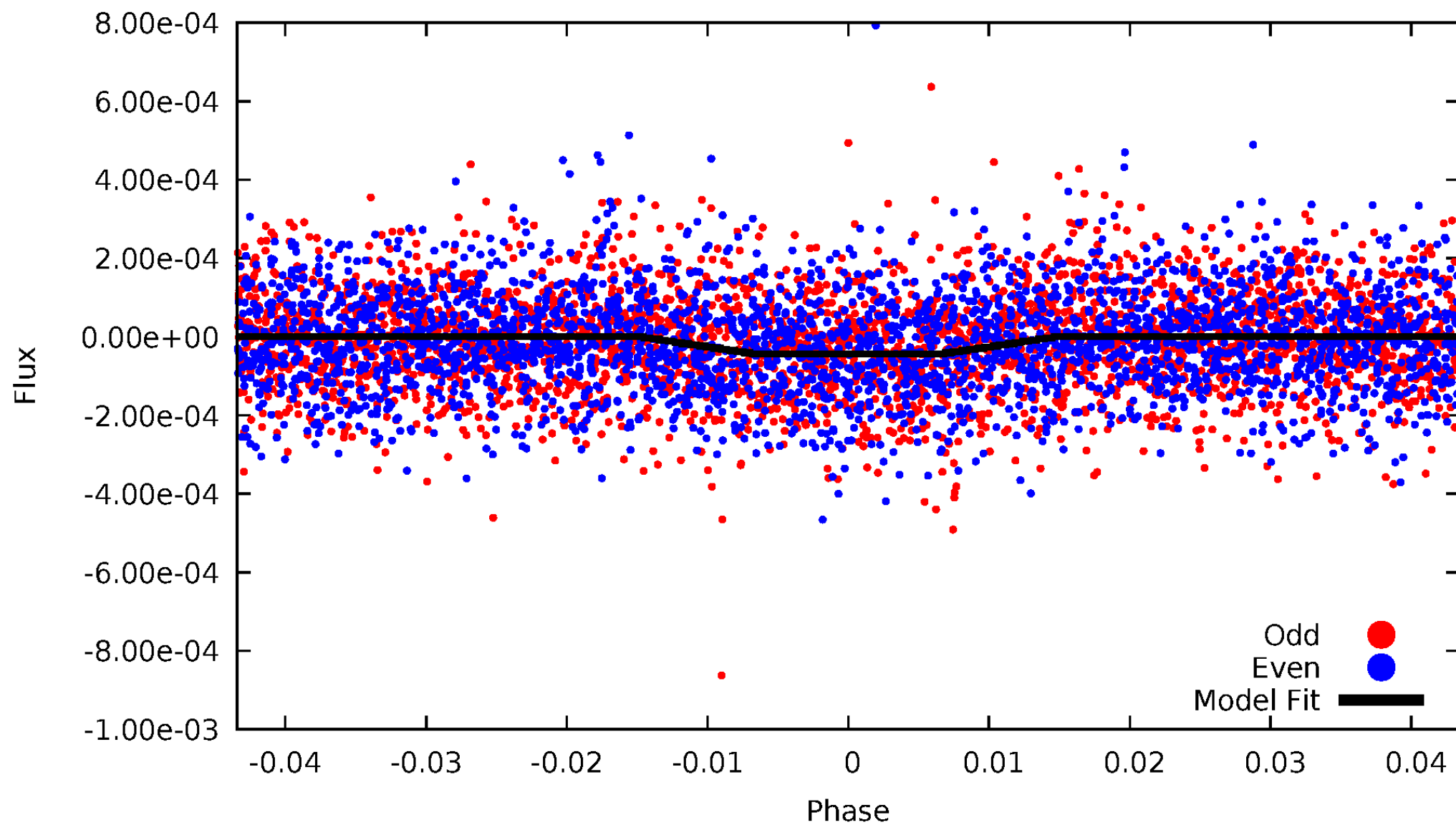
DV Odd/Even

TCE 007661893-01

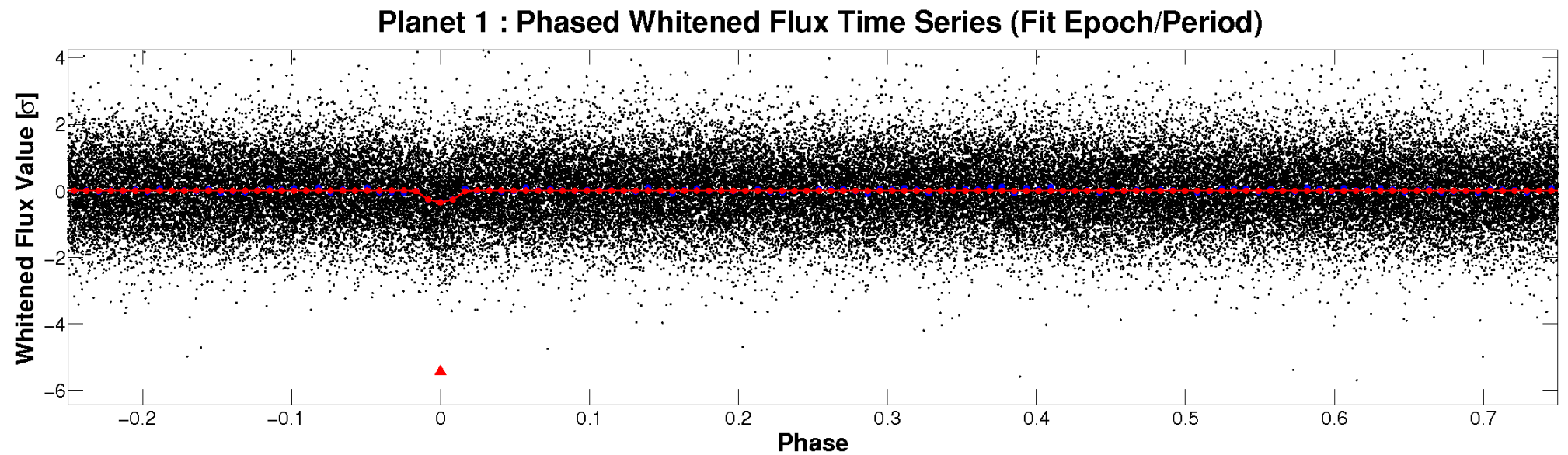
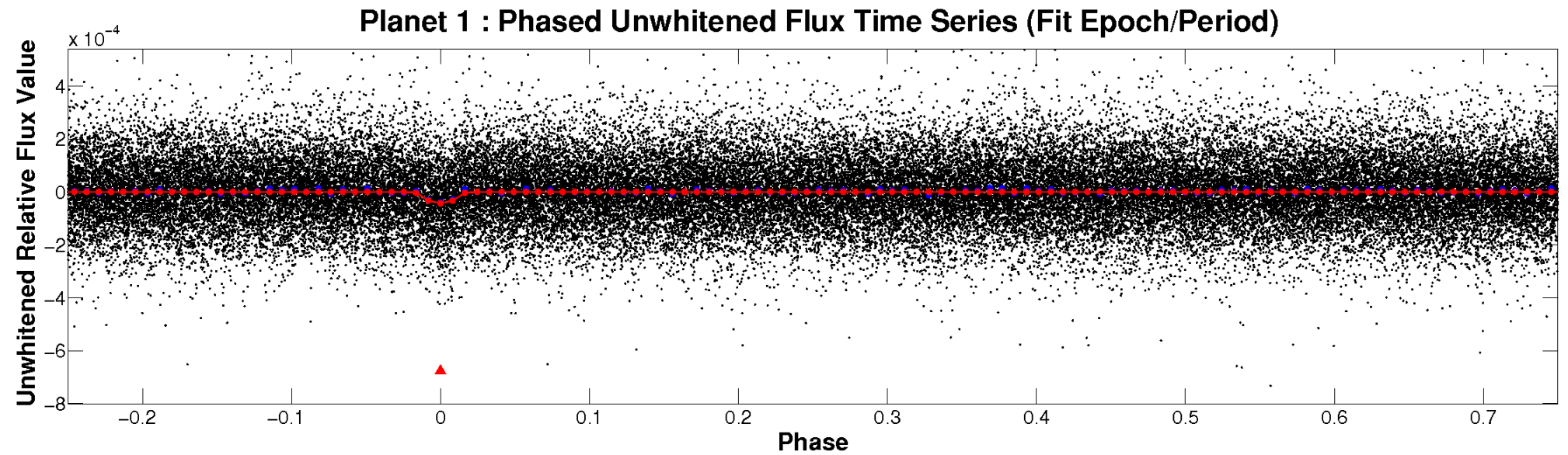


ALT Odd/Even

TCE 007661893-01

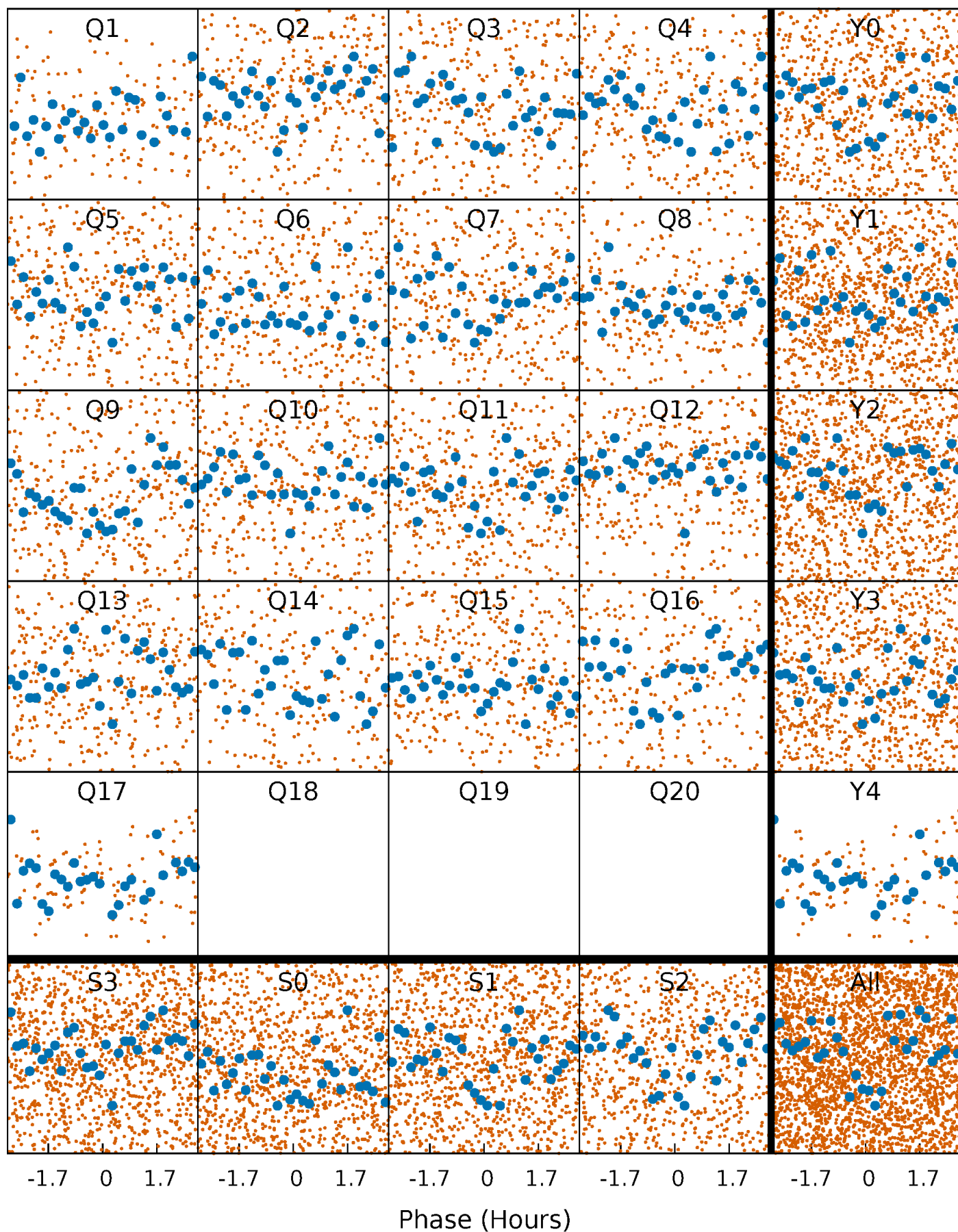


Non-Whitened Vs. Whitened Light Curve



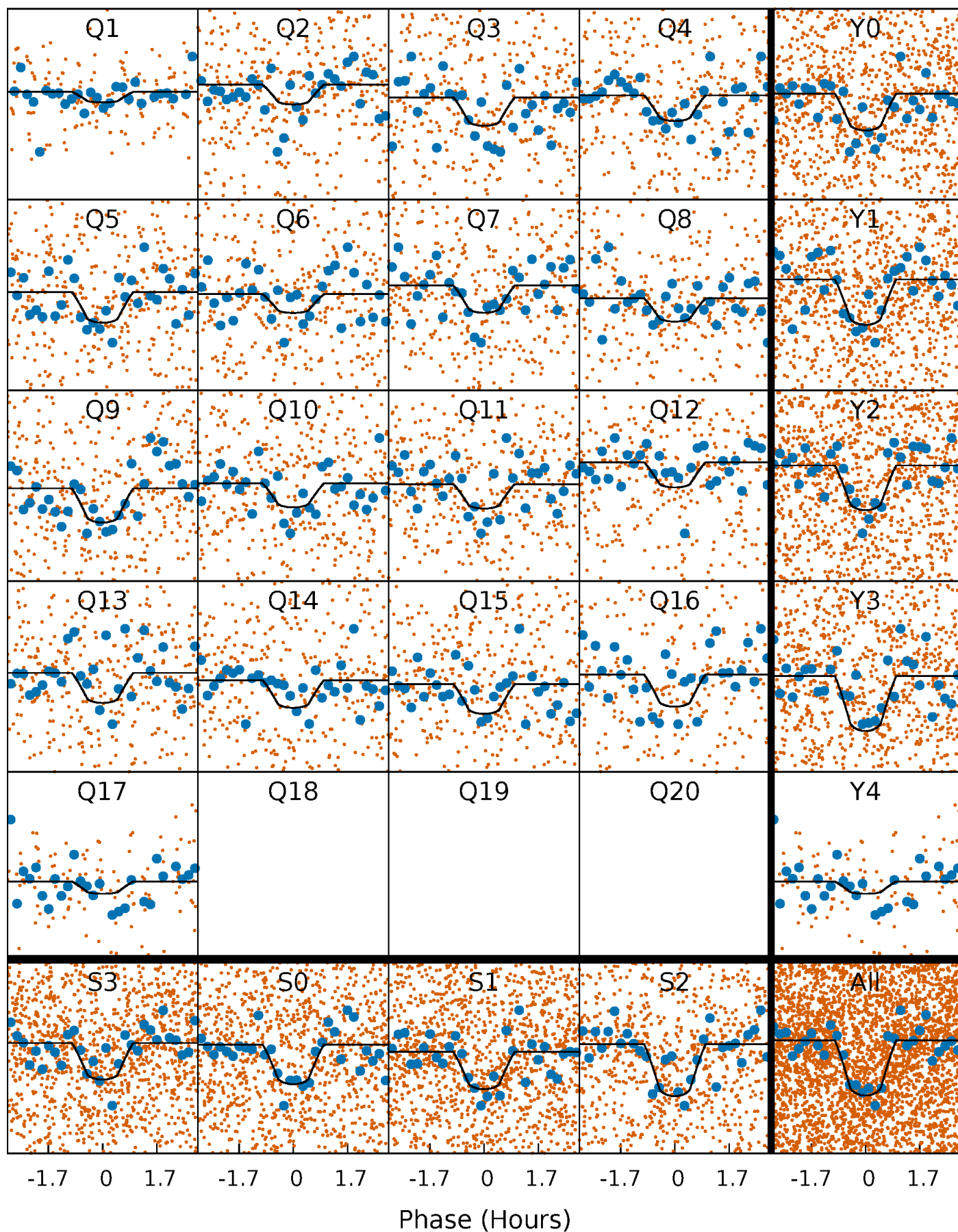
PDC Quarter-Phased Transit Curves

TCE 007661893-01 P= 2.493848 Days $T_0=133.154149$ (BKJD)



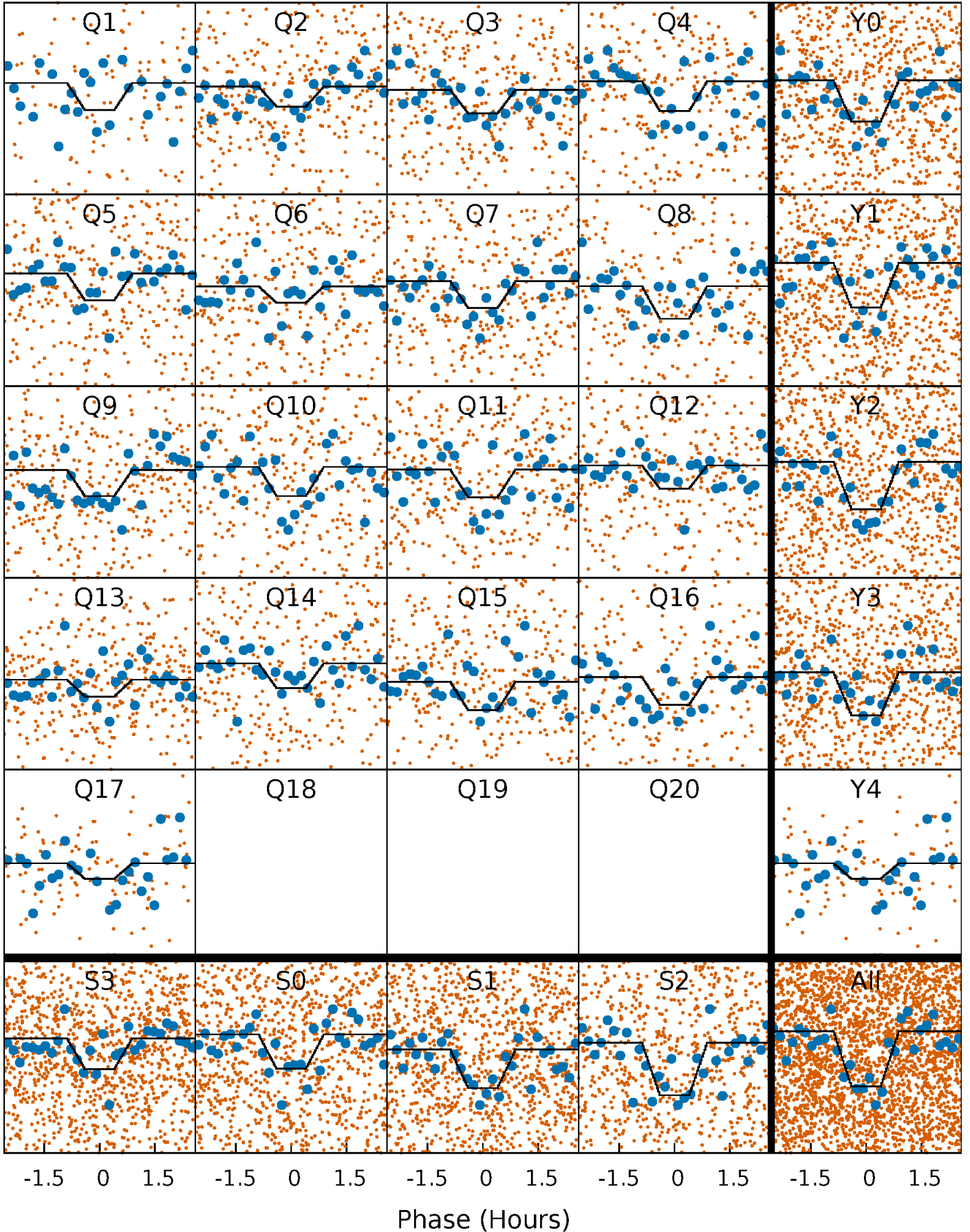
DV Quarter-Phased Transit Curves

TCE 007661893-01 P= 2.493848 Days $T_0=133.154149$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

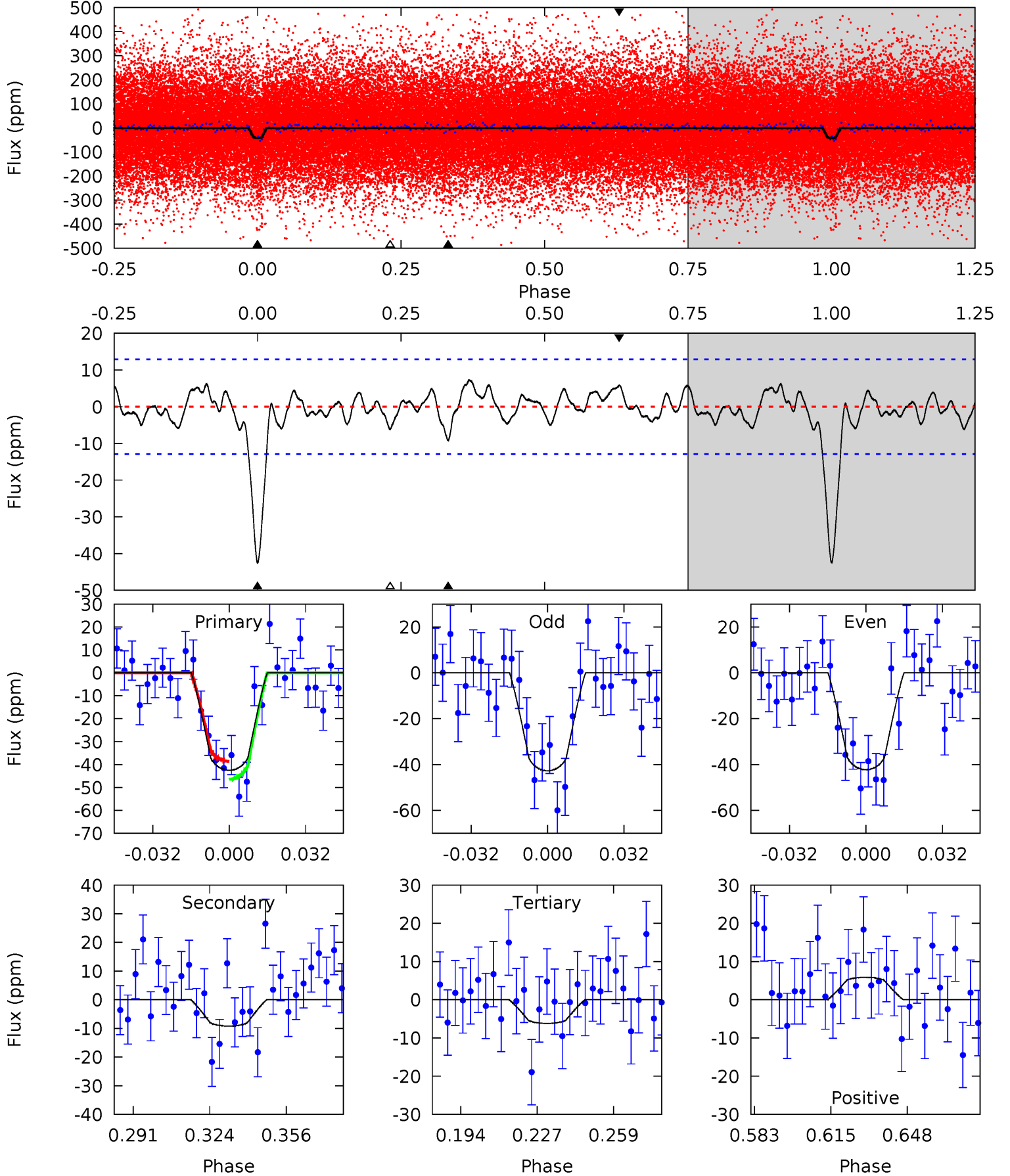
TCE 007661893-01 P= 2.493852 Days $T_0=133.153149$ (BKJD)



DV Model-Shift Uniqueness Test

007661893-01, P = 2.493848 Days, E = 130.660301 Days

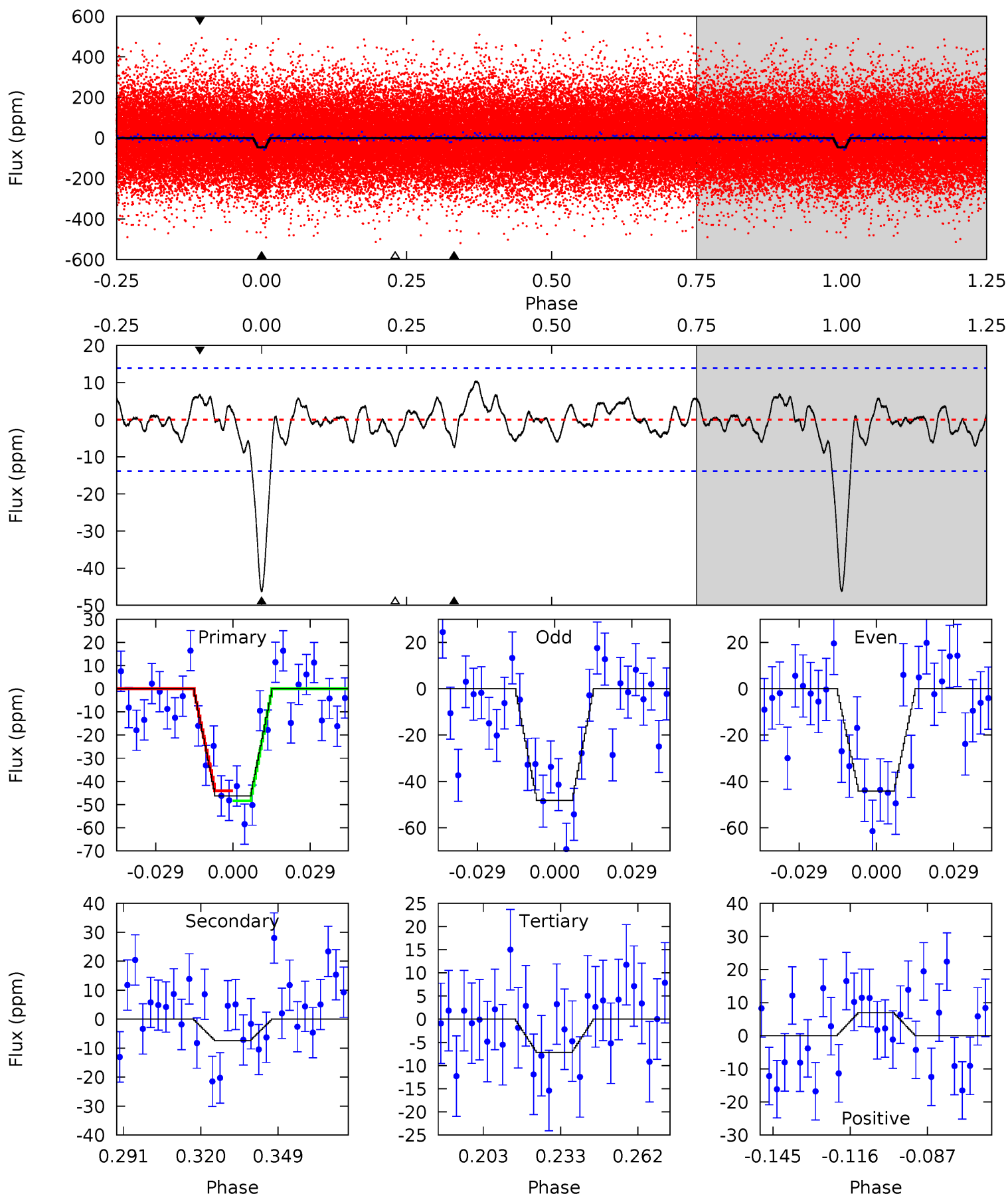
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.8	3.41	2.30	2.18	4.80	2.14	1.11	13.5	13.6	1.12	1.23	0.09	1.02	0.14	1.45



Alt Model-Shift Uniqueness Test

007661893-01, P = 2.493852 Days, E = 130.659297 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.1	2.58	2.48	2.42	4.82	2.18	1.18	13.6	13.6	0.10	0.15	0.71	1.05	0.18	0



Stellar Parameters For KIC 007661893

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5615^{+112}_{-112}	$4.477^{+0.088}_{-0.072}$	$-0.400^{+0.150}_{-0.150}$	$0.850^{+0.088}_{-0.072}$	$0.790^{+0.064}_{-0.035}$	$1.814^{+0.612}_{-0.419}$
	+2%/-2%	+2%/-2%	+37%/-37%	+10%/-8%	+8%/-4%	+34%/-23%
Source	SPE59	SPE59	SPE59	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007661893-01 / KOI 4296.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-9 ± 3	$0.69^{+0.30}_{-0.30}$	1746^{+60}_{-54}	3895^{+952}_{-481}	12^{+26}_{-6}
Alt.	-7 ± 3	$0.63^{+0.29}_{-0.30}$	1747^{+55}_{-59}	3860^{+993}_{-529}	11^{+27}_{-7}

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 $A_{\text{obs}} \gg 1.0$

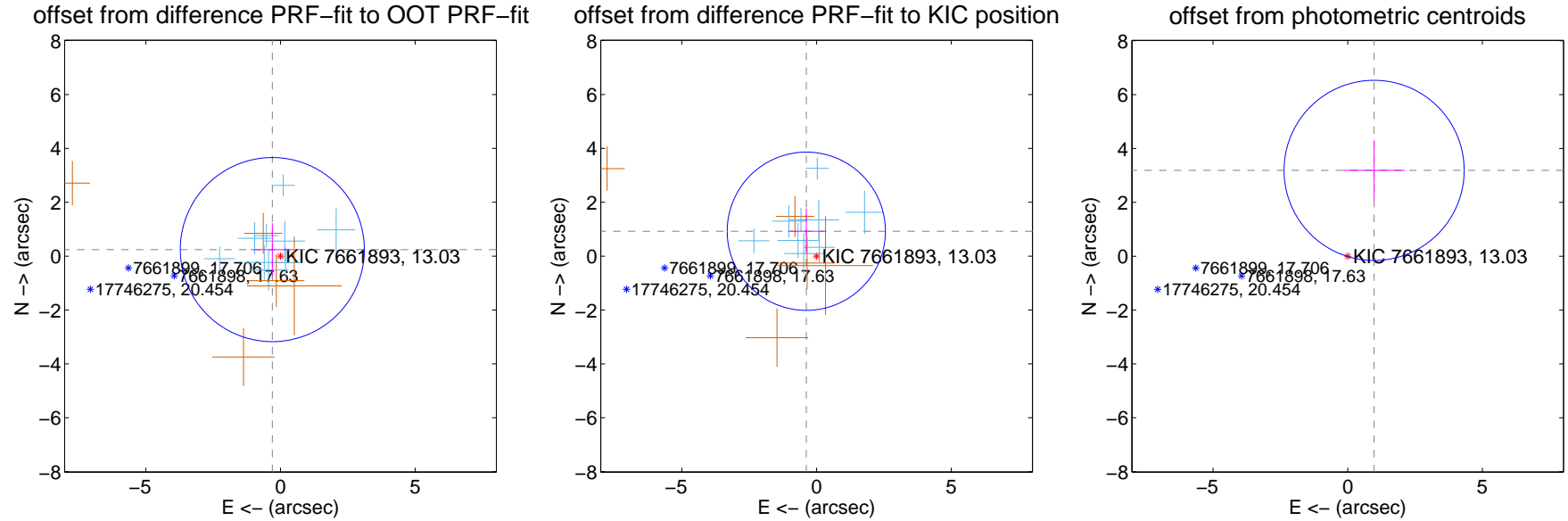
DV Centroid Data

Supplemental centroid analysis for 007661893-01. Kepler magnitude: 13.03. Transit SNR 11.86

There are 9 quarters with good PRF difference image offsets

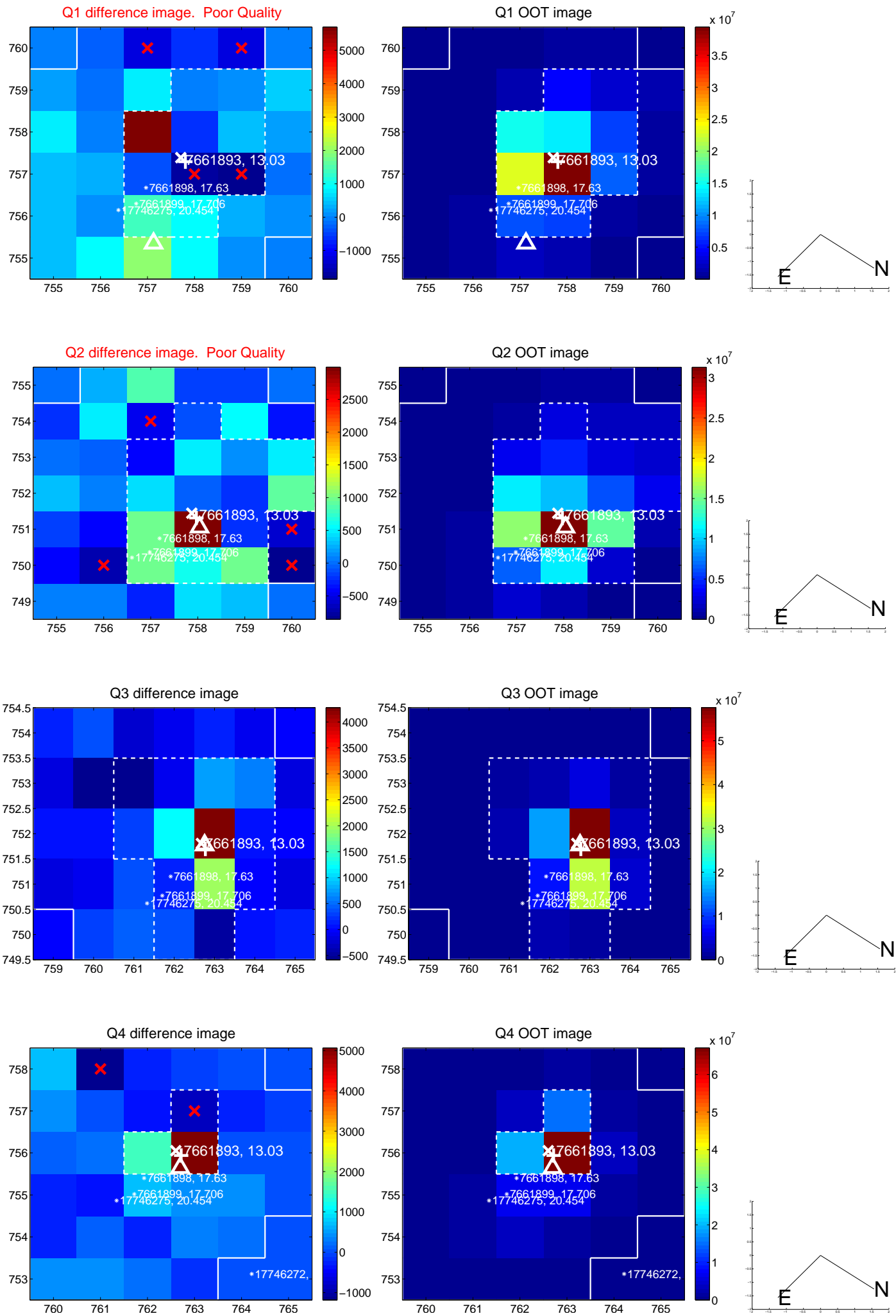
The direct PRF centroid is offset from the target star catalog position by about 0.78 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.387 ± 1.139	0.34	0.302 ± 0.795	0.242 ± 0.980
PRF-fit source offset from KIC position	1.000 ± 0.979	1.02	0.382 ± 0.681	0.924 ± 0.850
photometric centroid source offset	3.33 ± 1.11	2.99	-0.98 ± 1.14	3.19 ± 1.11

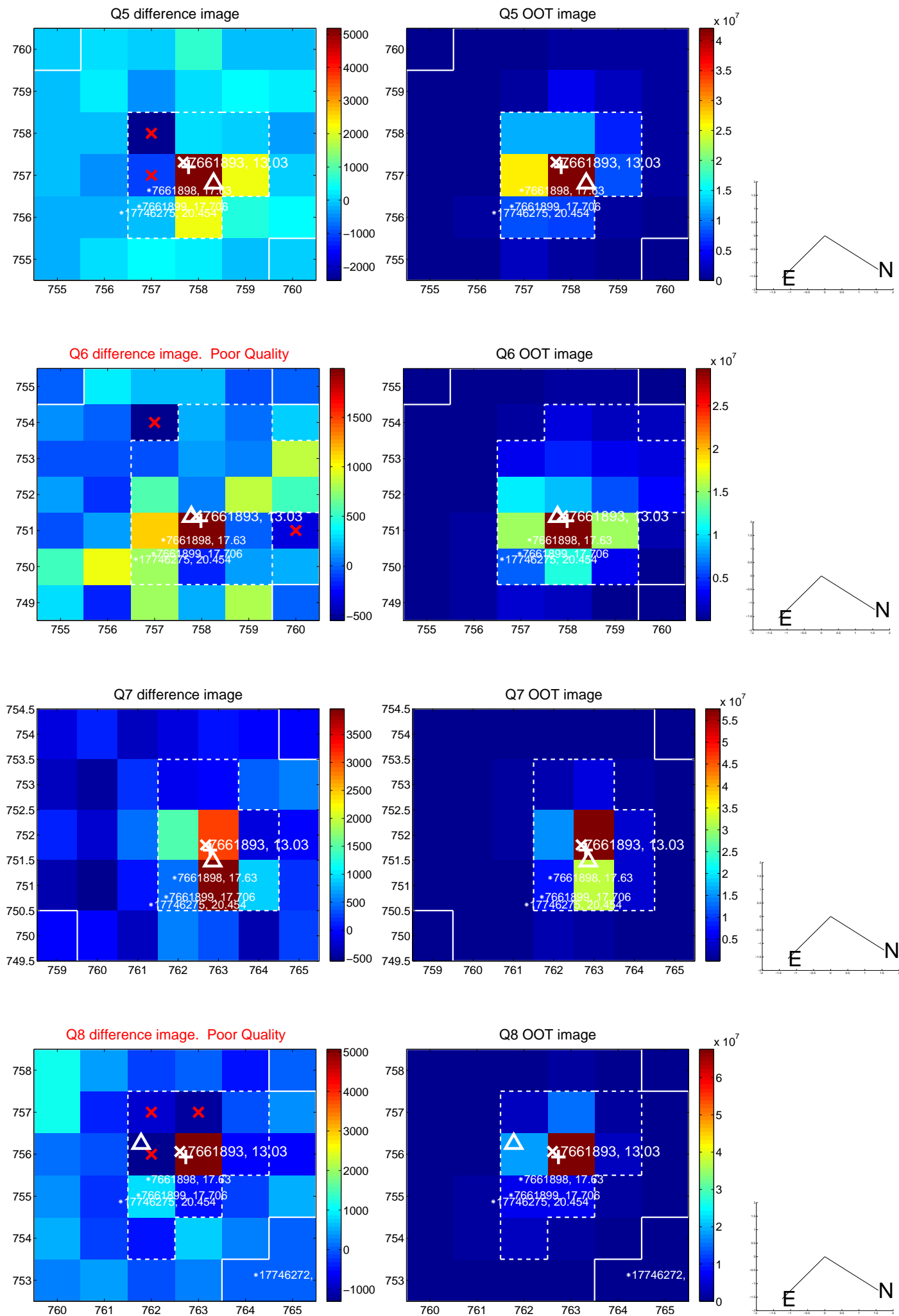


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

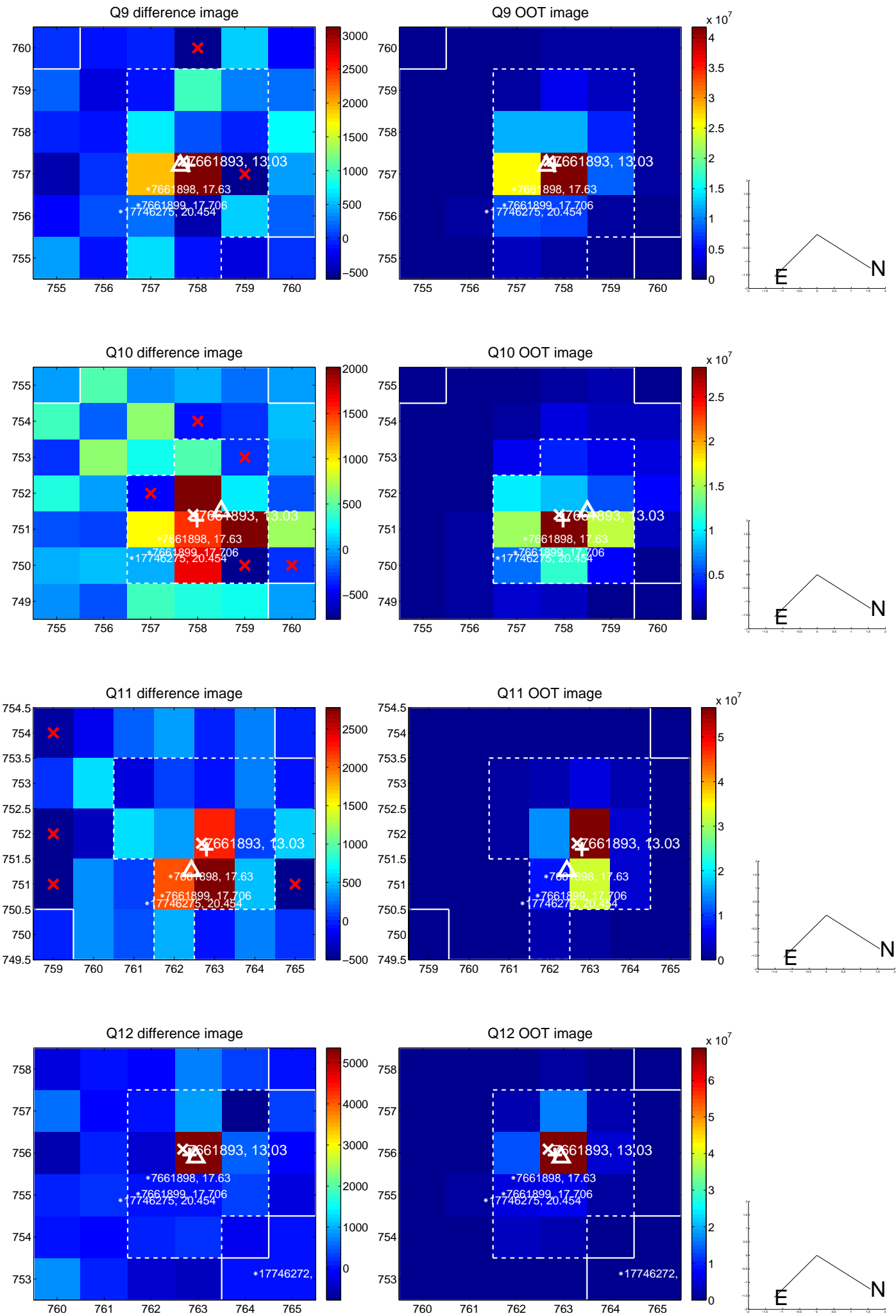
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



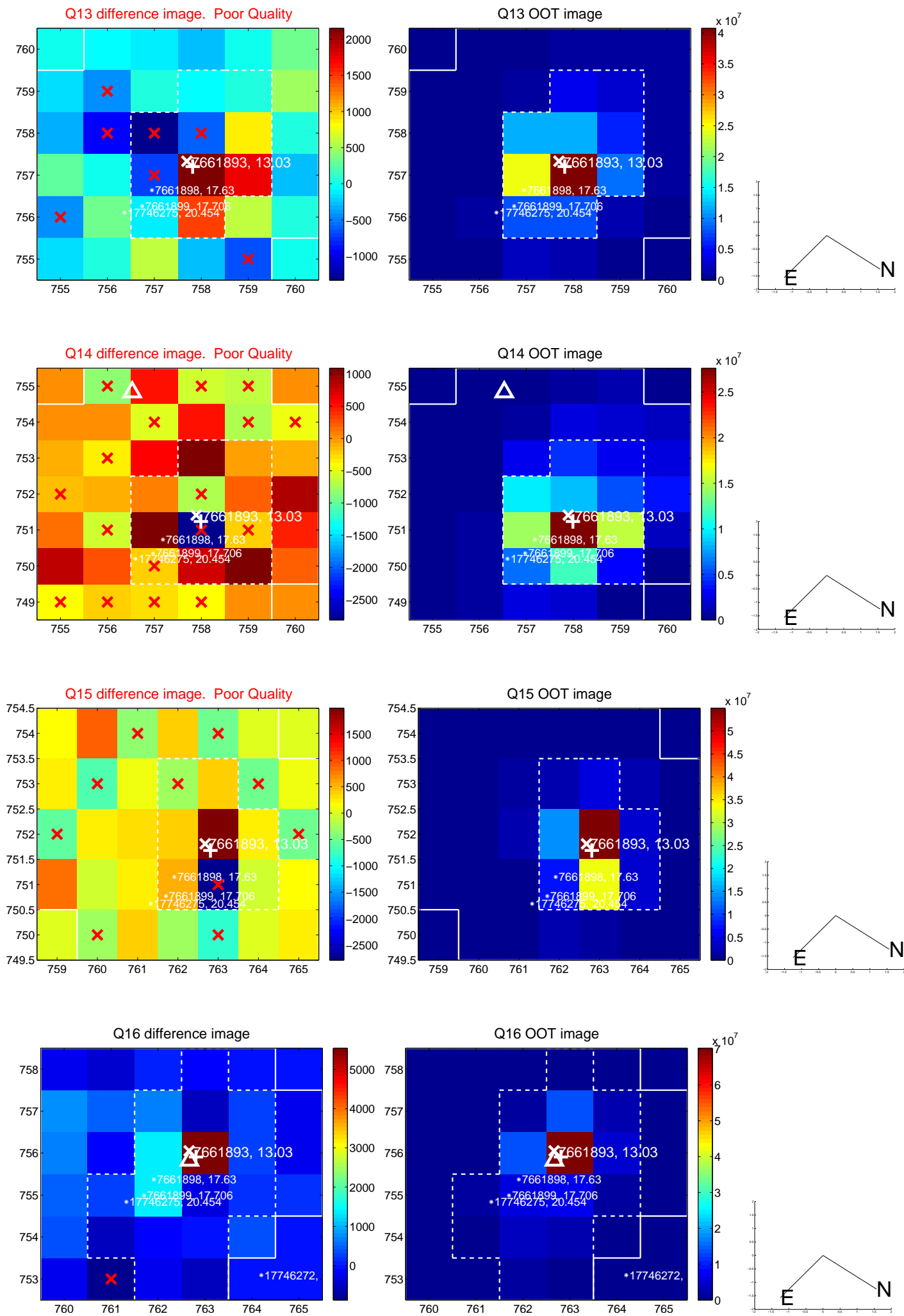
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



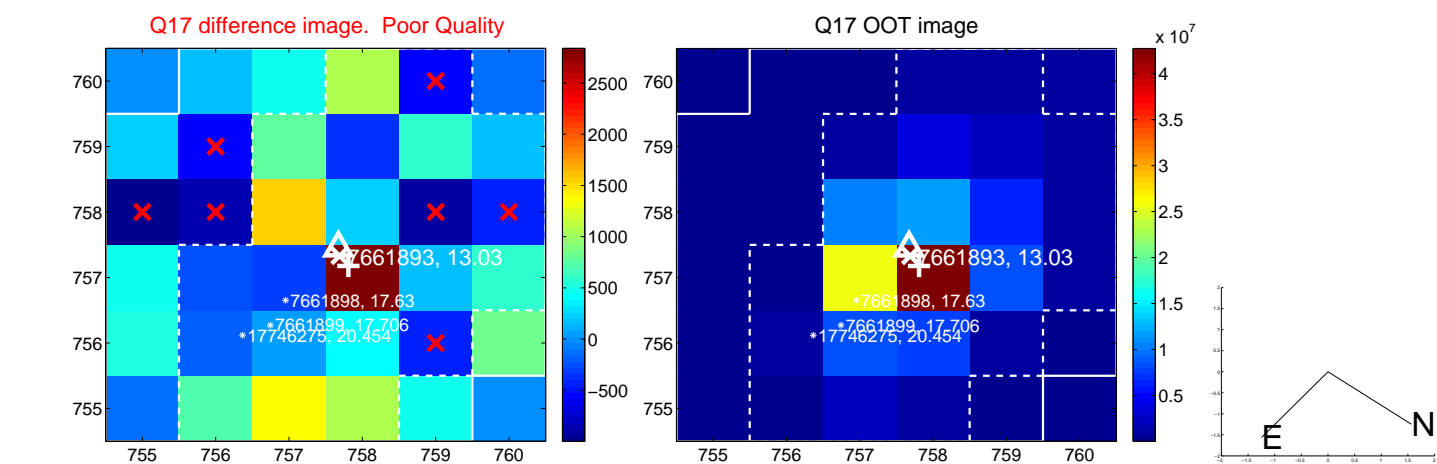
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



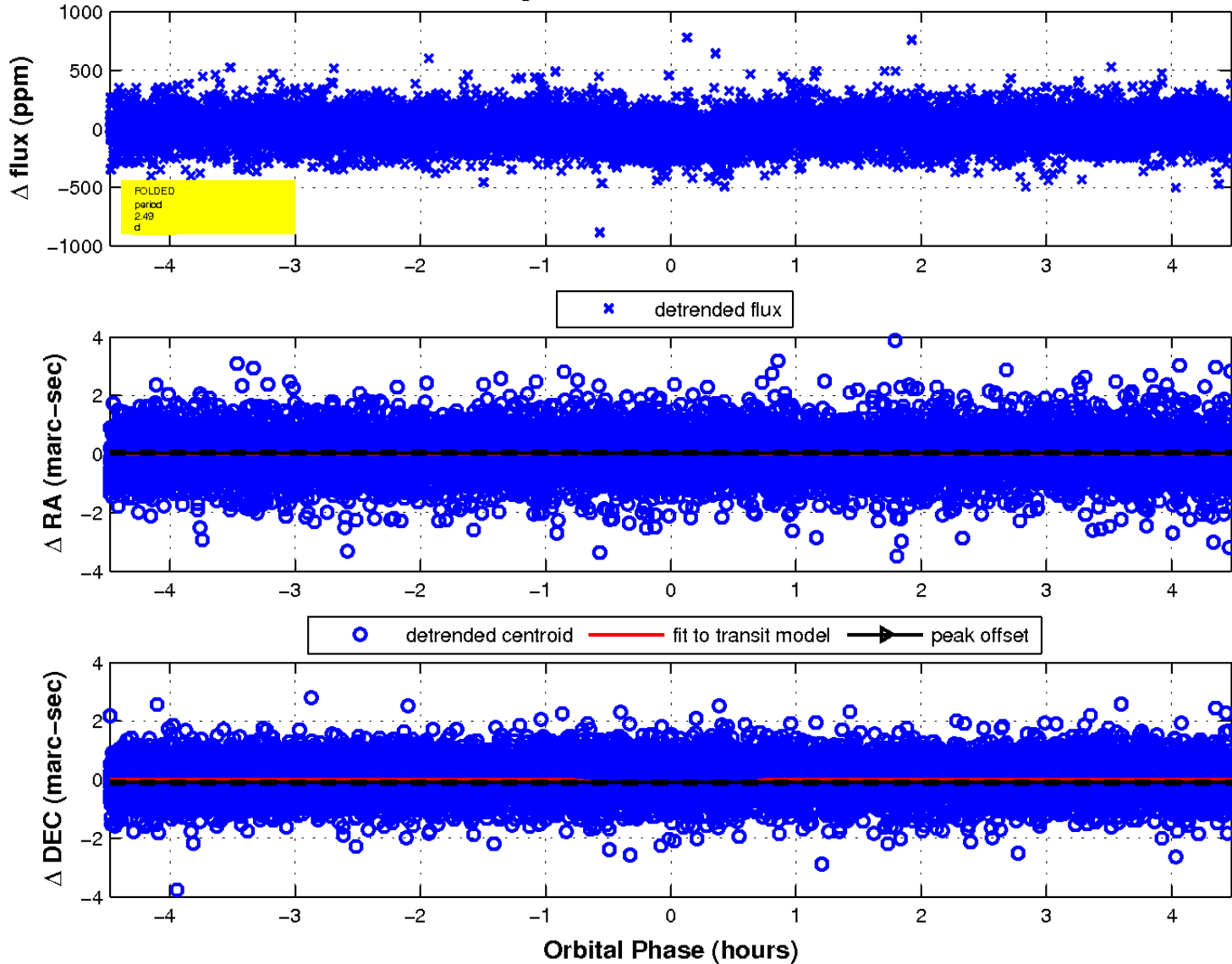
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

