

KIC 004726268

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})
004726268-01	OBS	No	0.841417	131.888309	148.8	9.320	12.3	17.4	1.39	6728	1.70	10488.73

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004726268-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_SATURATED

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

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

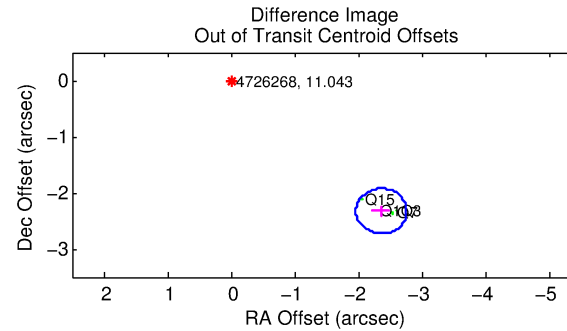
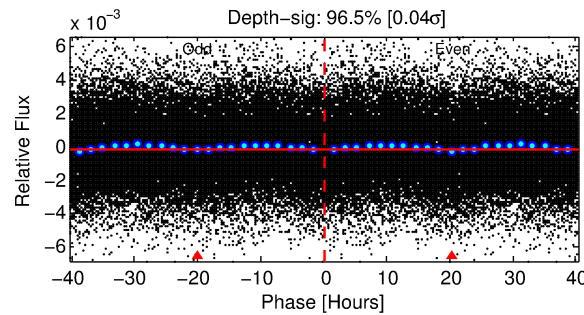
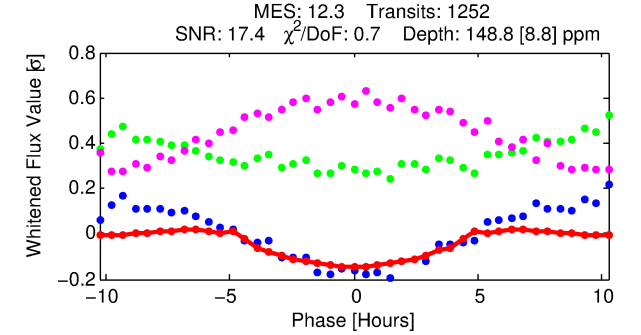
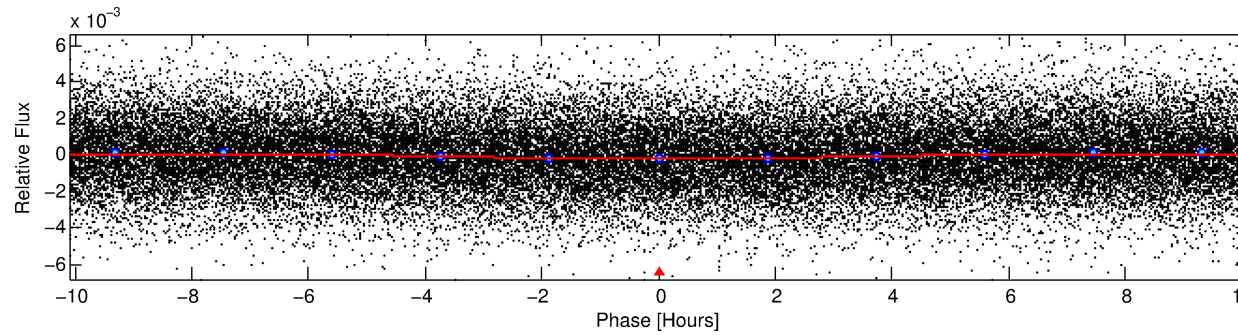
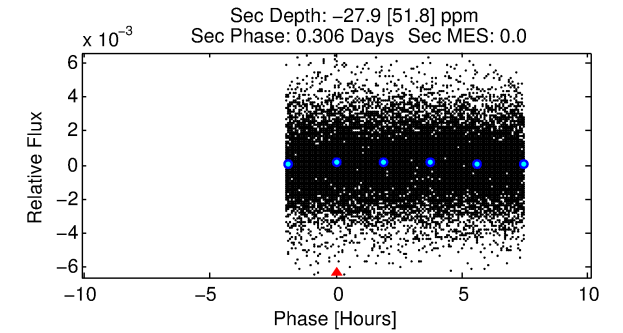
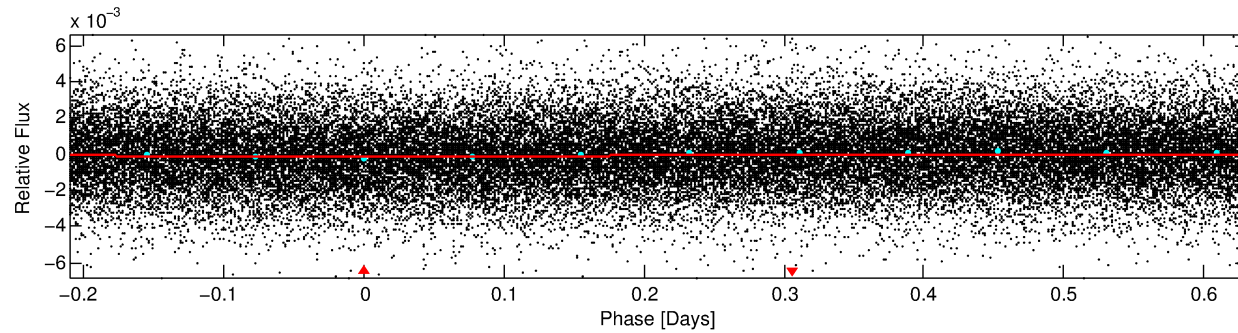
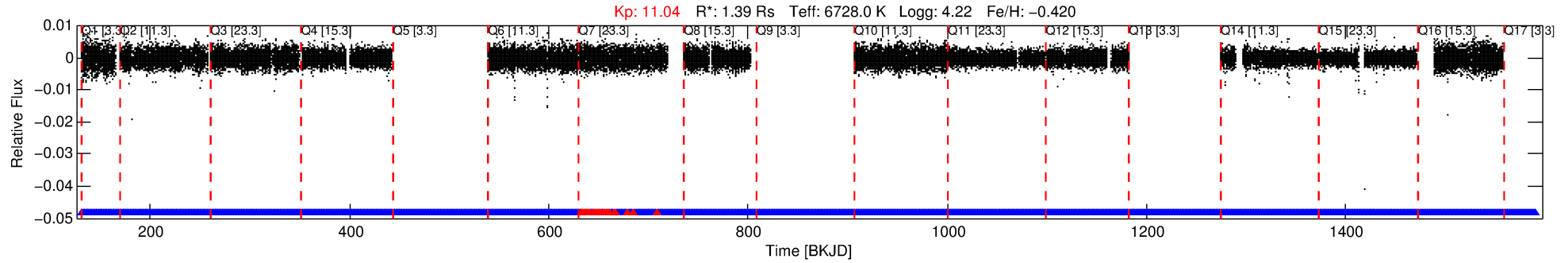
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004726268-01

No Significant Match Found

DV One-Page Summary

KIC: 4726268 Candidate: 1 of 1 Period: 0.841 d



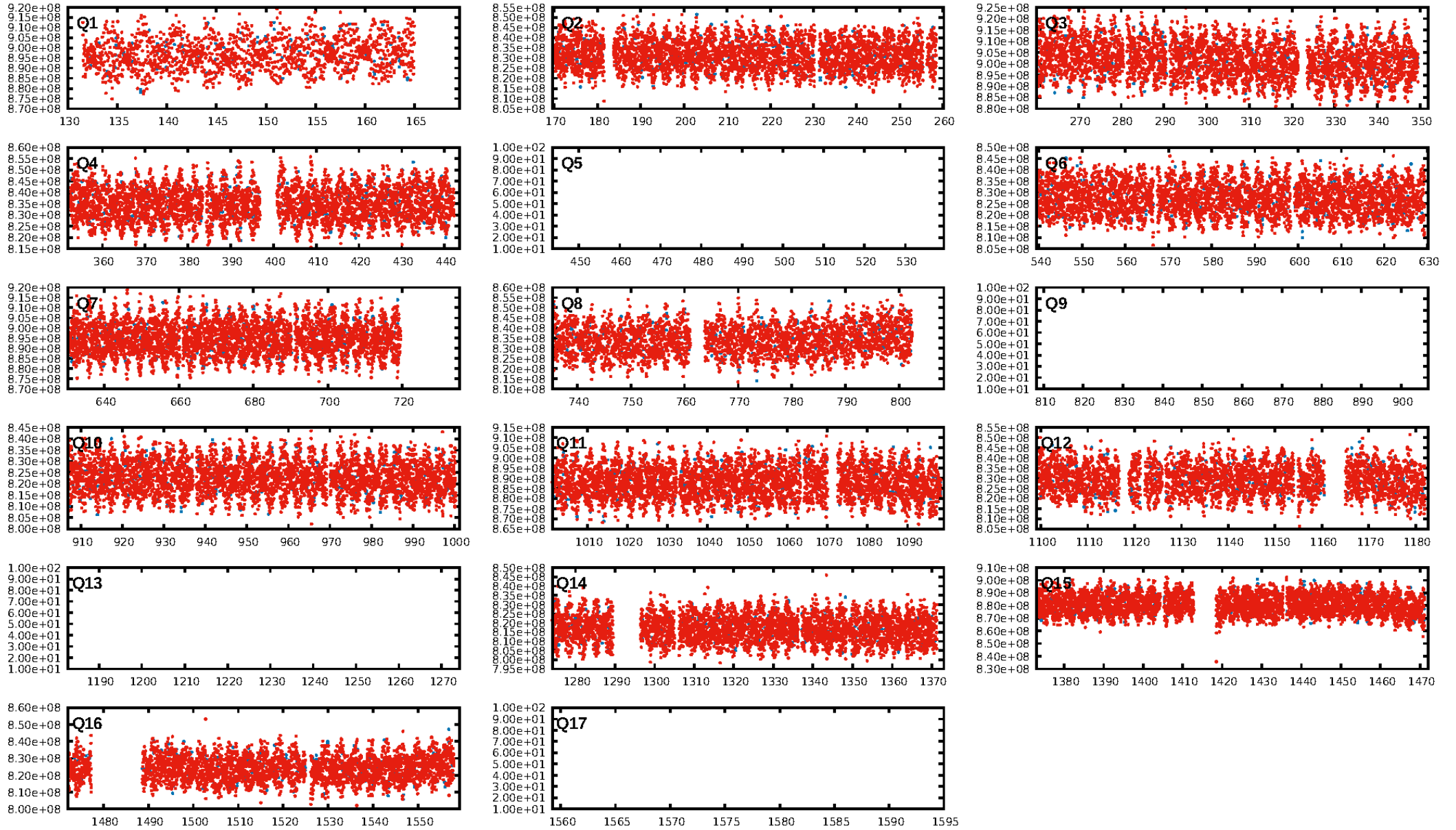
DV Fit Results:

Period = 0.84142 [0.00001] d
Epoch = 131.8883 [0.0057] BKJD
Rp/R* = 0.0113 [0.0031]
a/R* = 1.02 [0.05]
b = 0.02 [61.09]
Seff = 10488.73 [3683.08]
Teff = 2581 [227] K
Rp = 1.70 [0.67] Re
a = 0.0183 [0.0041] AU
Ag = N/A
Teffp = N/A

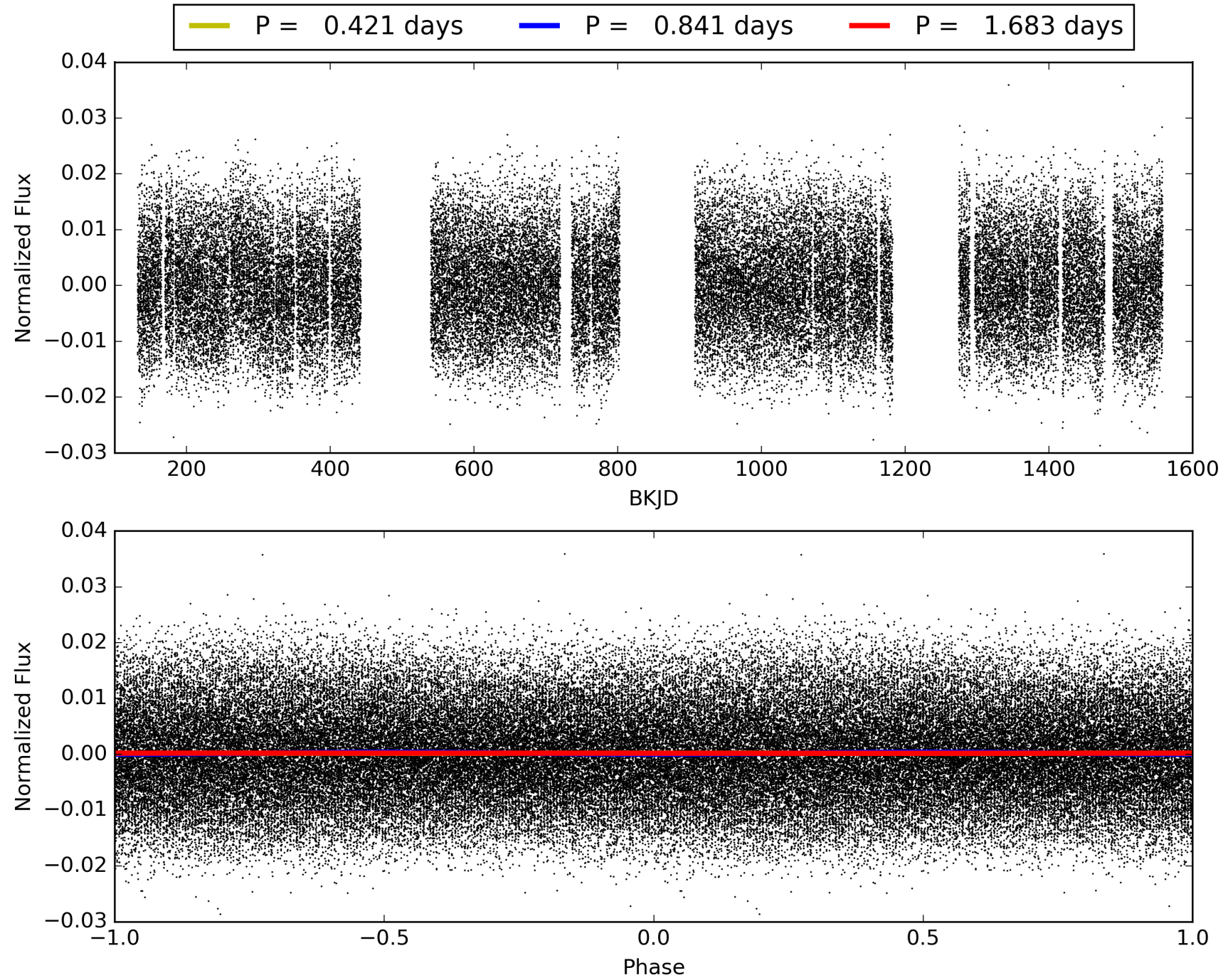
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.97 [1176/1212]
GhostDiagnostic-chr: 1.062
Centroid-sig: 12.8%
Centroid-so: 0.210 arcsec [2.59 σ]
OotOffset-rm: 3.316 arcsec [24.82 σ]
KicOffset-rm: 3.176 arcsec [24.64 σ]
OotOffset-st: 0/4/0/0 [4]
KicOffset-st: 0/4/0/0 [4]
DiffImageQuality-fgm: 0.00 [0/4]
DiffImageOverlap-fno: 1.00 [13/13]

TCE 004726268-01, PDC Light Curves

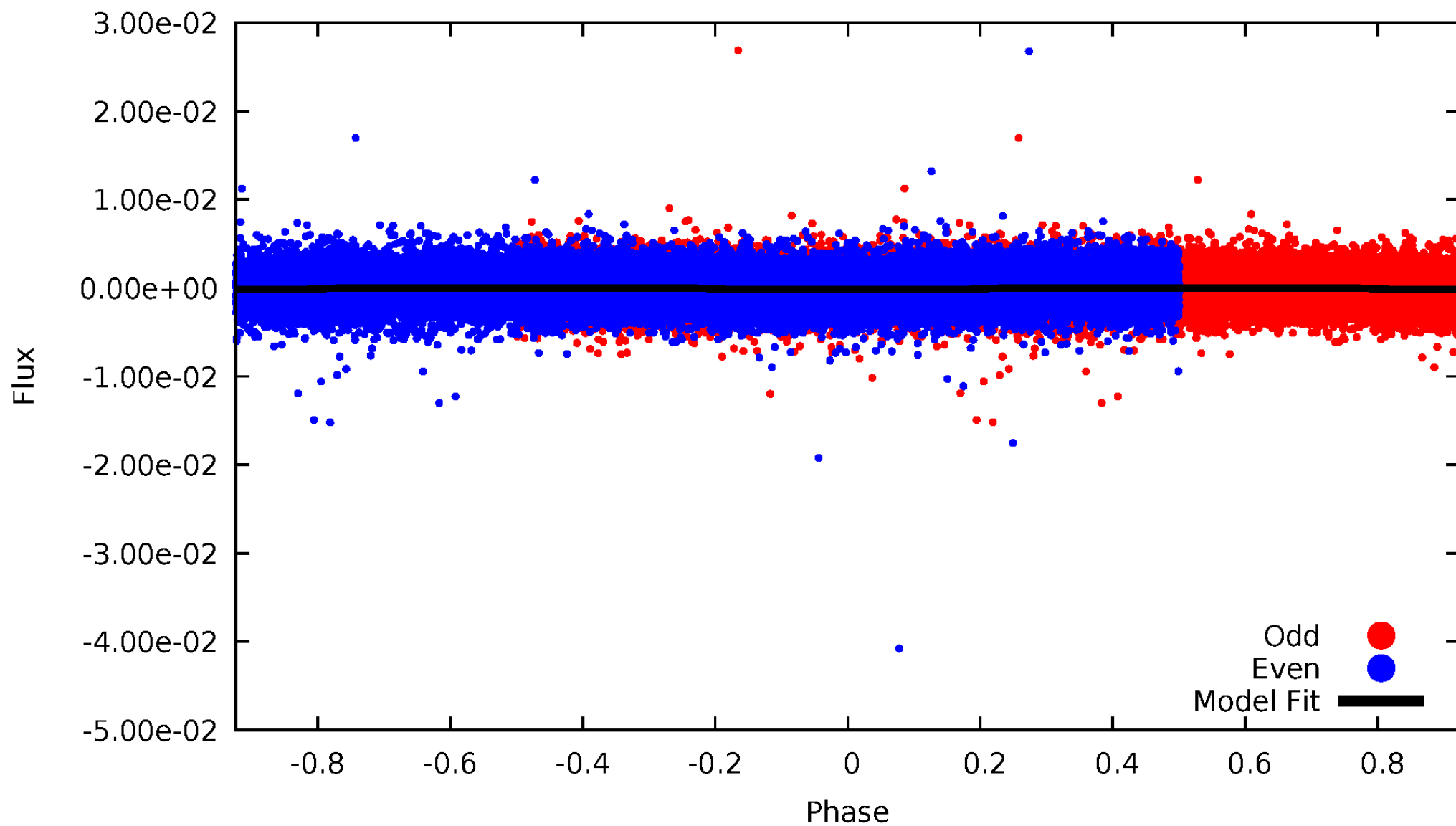


TCE 004726268-01



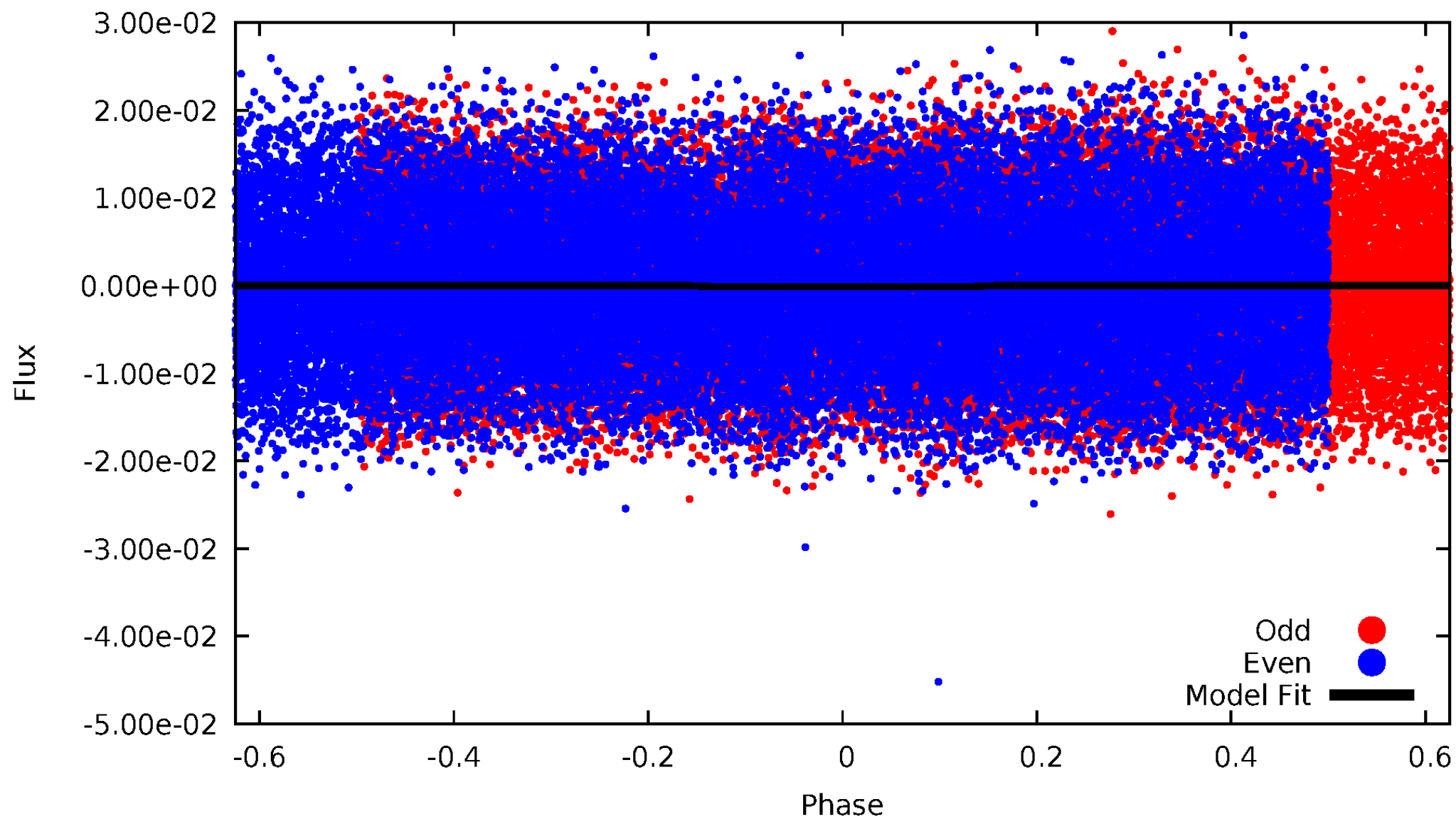
DV Odd/Even

TCE 004726268-01

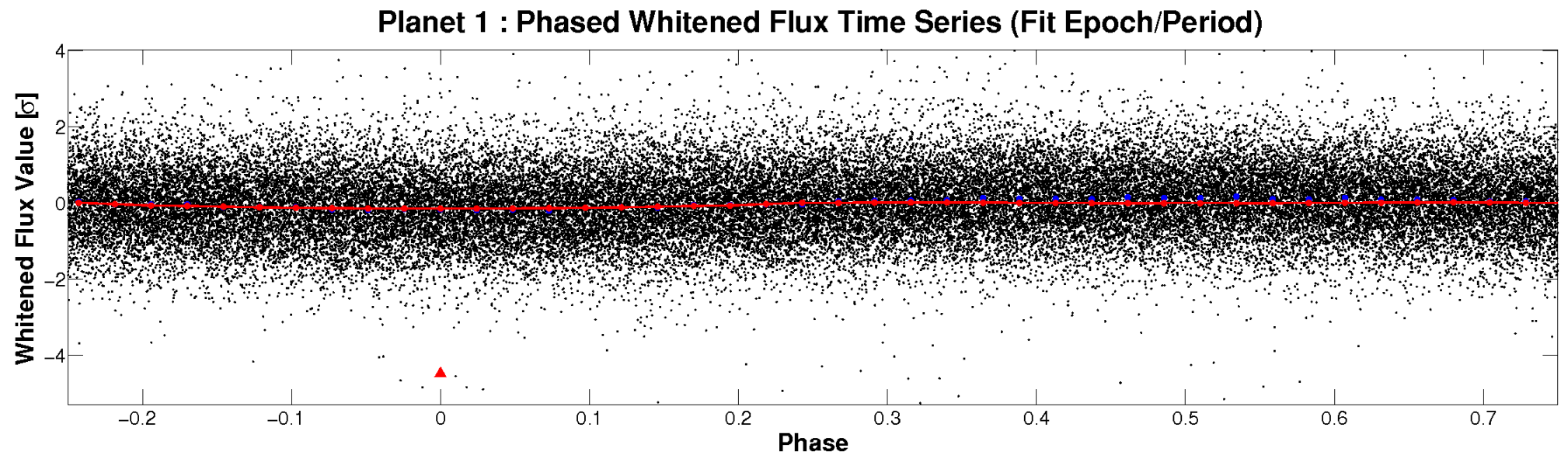
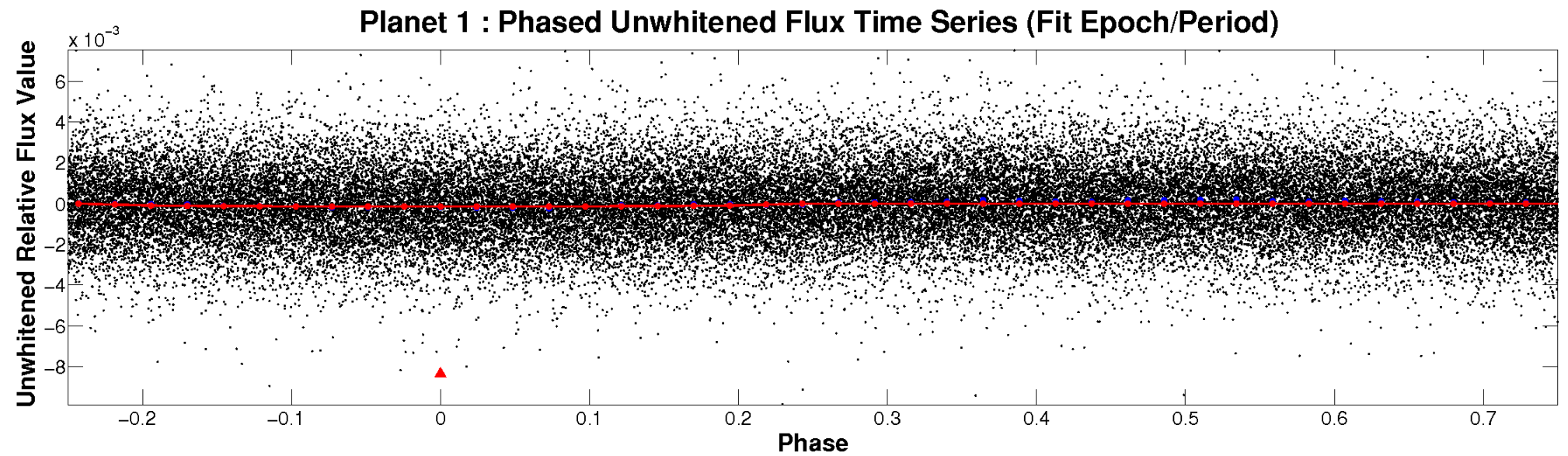


ALT Odd/Even

TCE 004726268-01

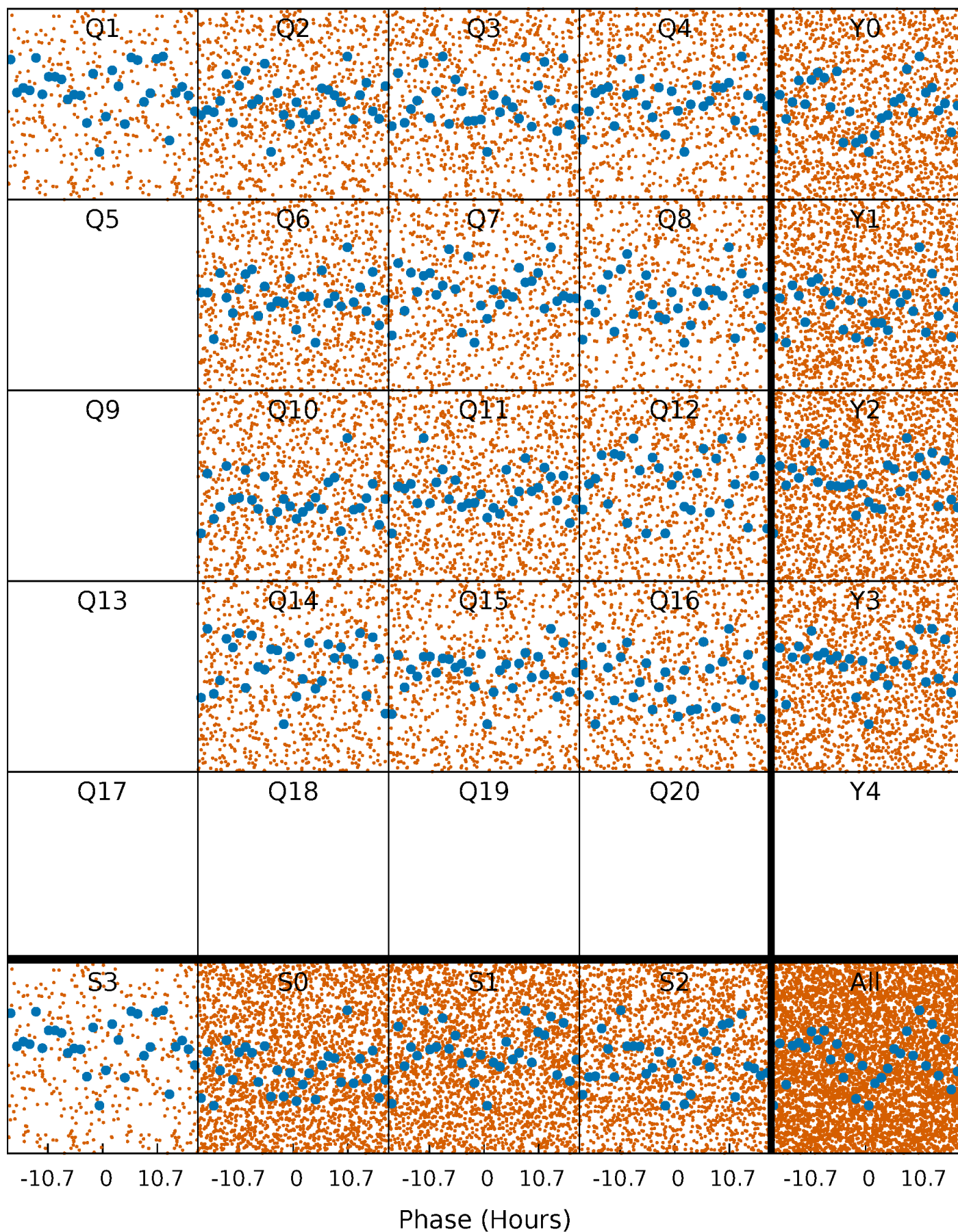


Non-Whitened Vs. Whitened Light Curve



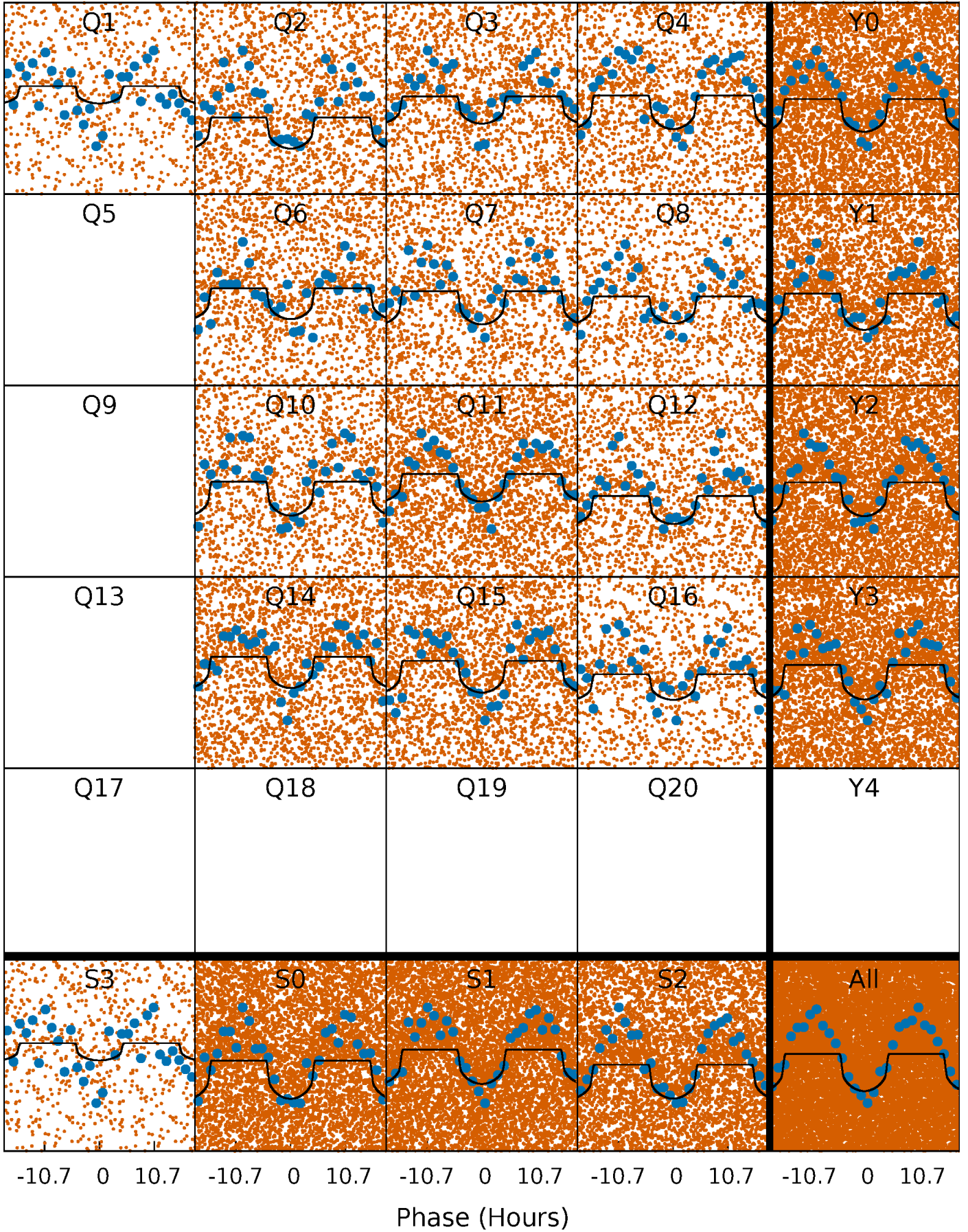
PDC Quarter-Phased Transit Curves

TCE 004726268-01 P= 0.841417 Days $T_0=131.888309$ (BKJD)



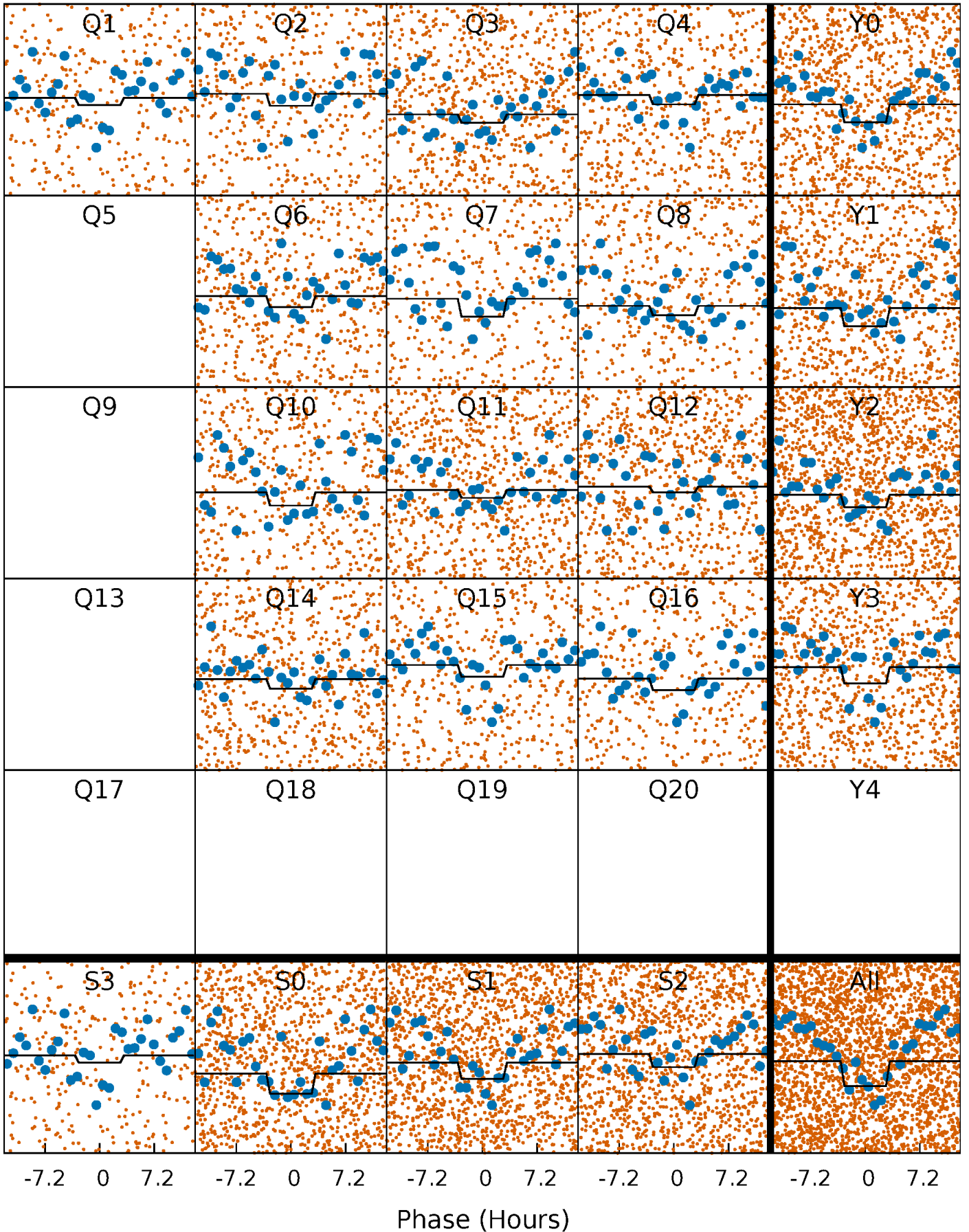
DV Quarter-Phased Transit Curves

TCE 004726268-01 P= 0.841417 Days $T_0=131.888309$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

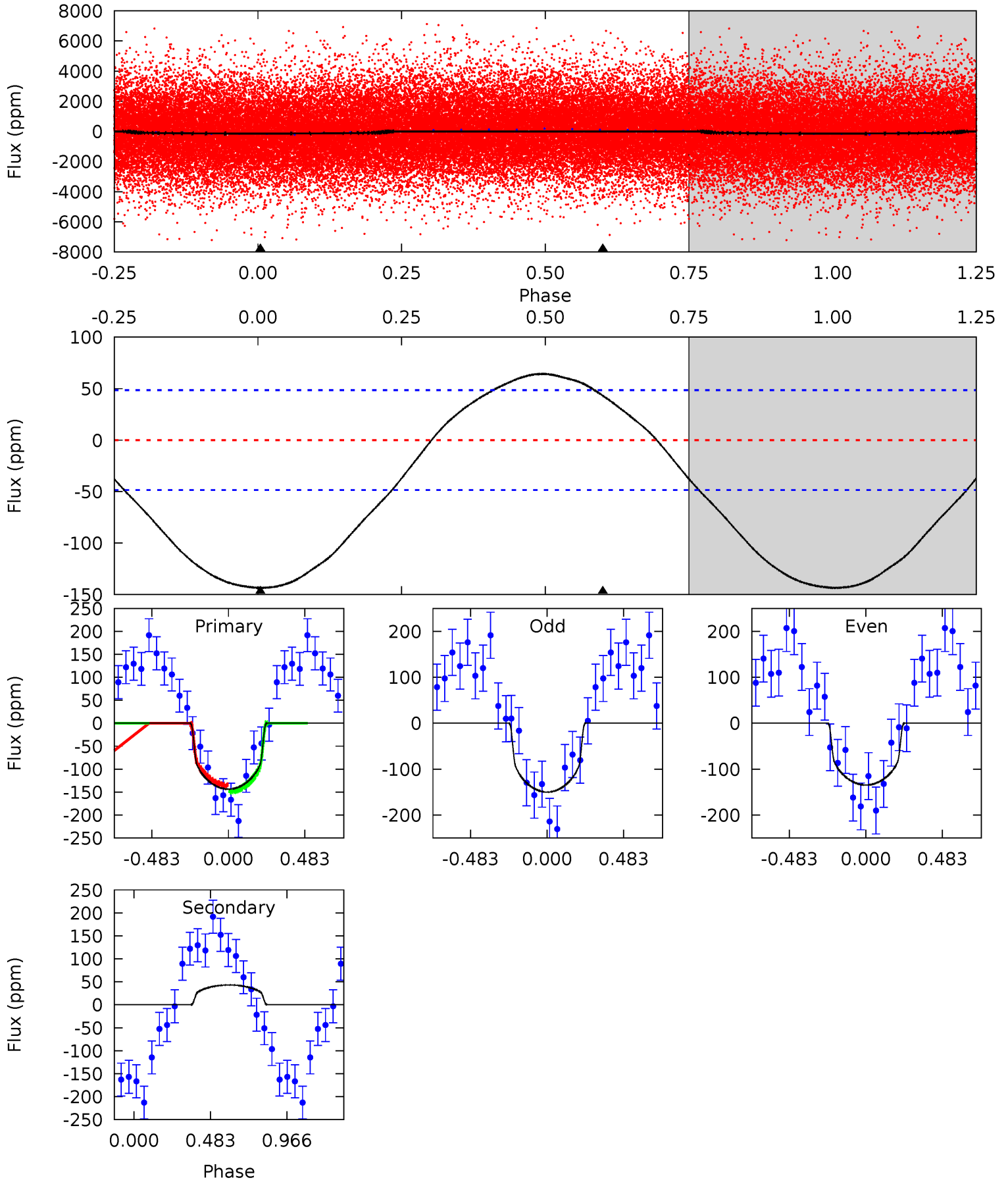
TCE 004726268-01 P= 0.841408 Days $T_0=131.884281$ (BKJD)



DV Model-Shift Uniqueness Test

004726268-01, P = 0.841417 Days, E = 131.046892 Days

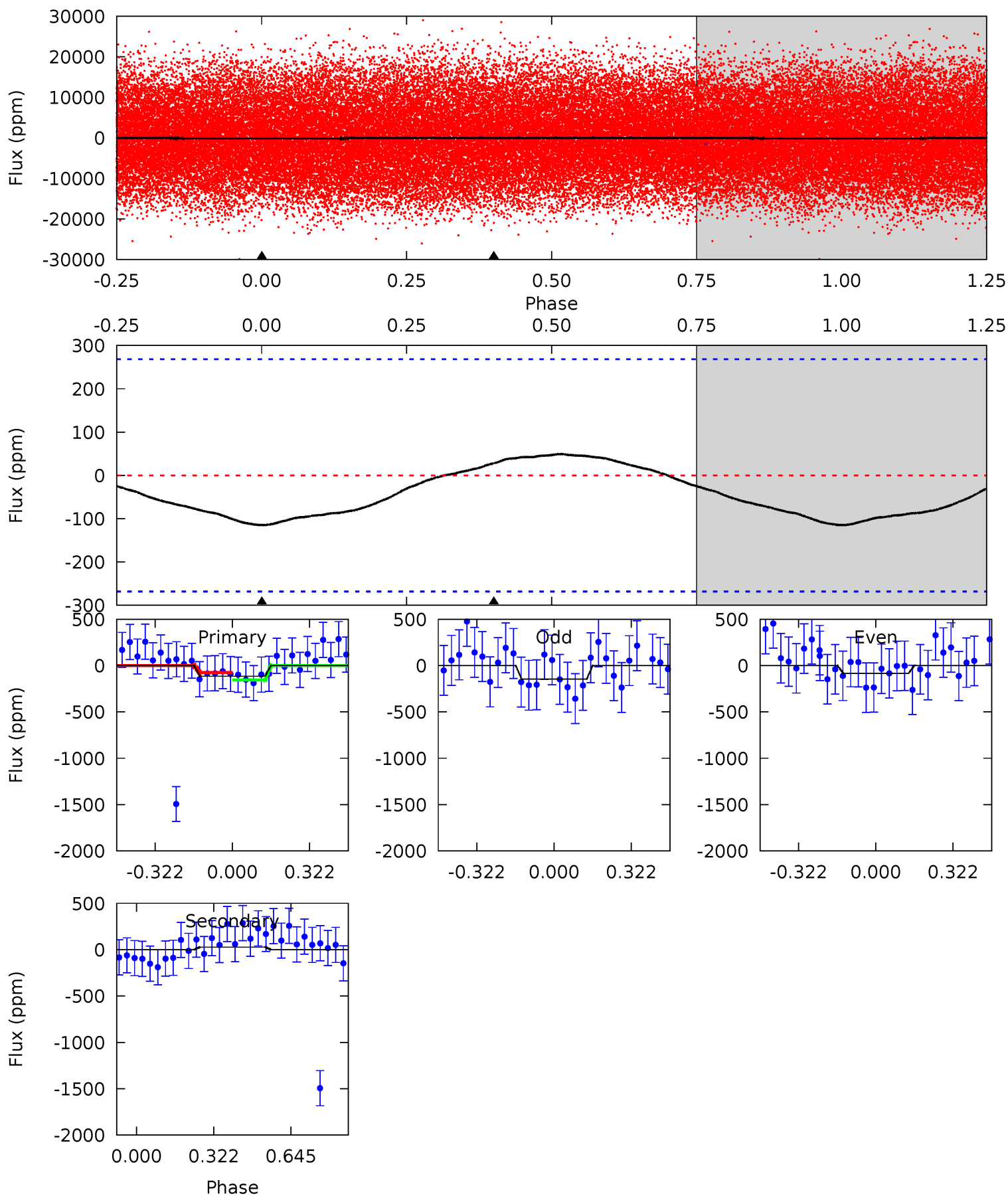
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.5	-3.76	0	0	4.22	0.70	1.69	12.5	12.5	-3.76	-3.76	0.67	1.02	0.31	0.60



Alt Model-Shift Uniqueness Test

004726268-01, P = 0.841408 Days, E = 131.042873 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.85	-0.44	0	0	4.31	0.99	0.22	1.85	1.85	-0.44	-0.44	0.50	1.32	0.30	0.61



Stellar Parameters For KIC 004726268

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6728^{+183}_{-245}	$4.219^{+0.170}_{-0.170}$	$-0.420^{+0.250}_{-0.300}$	$1.385^{+0.383}_{-0.278}$	$1.160^{+0.176}_{-0.158}$	$0.616^{+0.468}_{-0.289}$
	+3%/-4%	+4%/-4%	+60%/-71%	+28%/-20%	+15%/-14%	+76%/-47%
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 004726268-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	43 ± 11	$1.71^{+0.57}_{-0.47}$	3608^{+246}_{-256}	-5274^{+548}_{-781}	$-2.763^{+1.390}_{-2.460}$
Alt.	28 ± 62	$1.62^{+0.59}_{-0.47}$	3606^{+274}_{-254}	-4741^{+9729}_{-1762}	$-1.432^{+3.819}_{-5.611}$

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

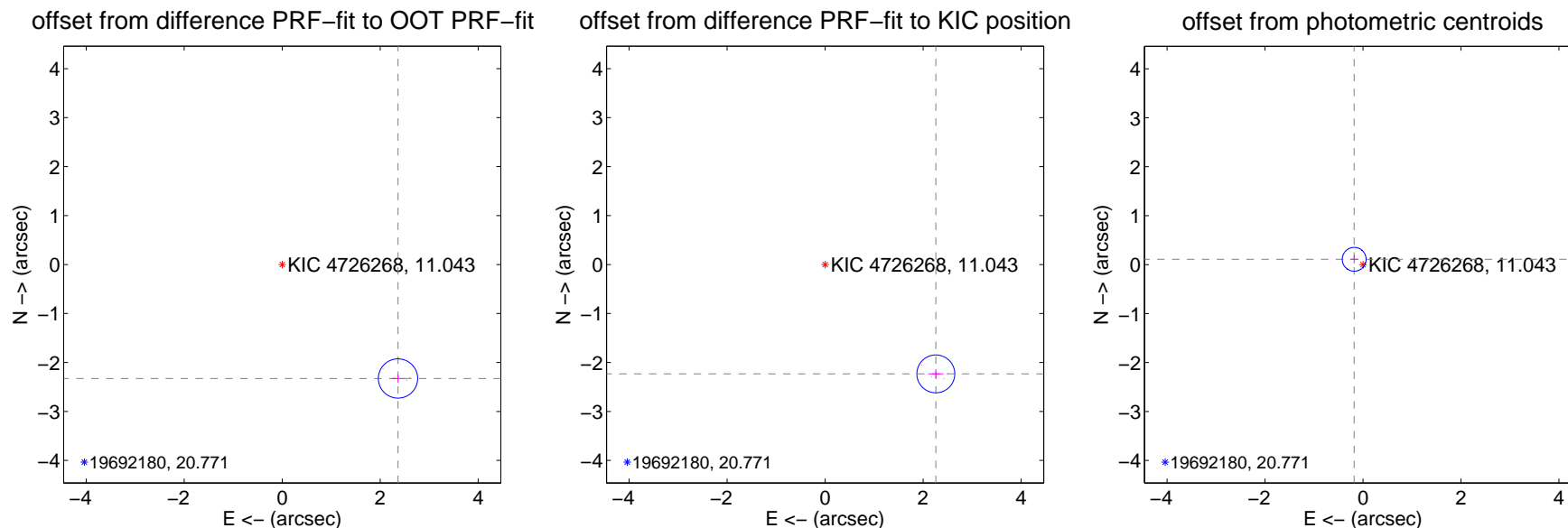
DV Centroid Data

Supplemental centroid analysis for 004726268-01. **Kepler magnitude: 11.04.** Transit SNR 17.36

There are 0 quarters with good PRF difference image offsets

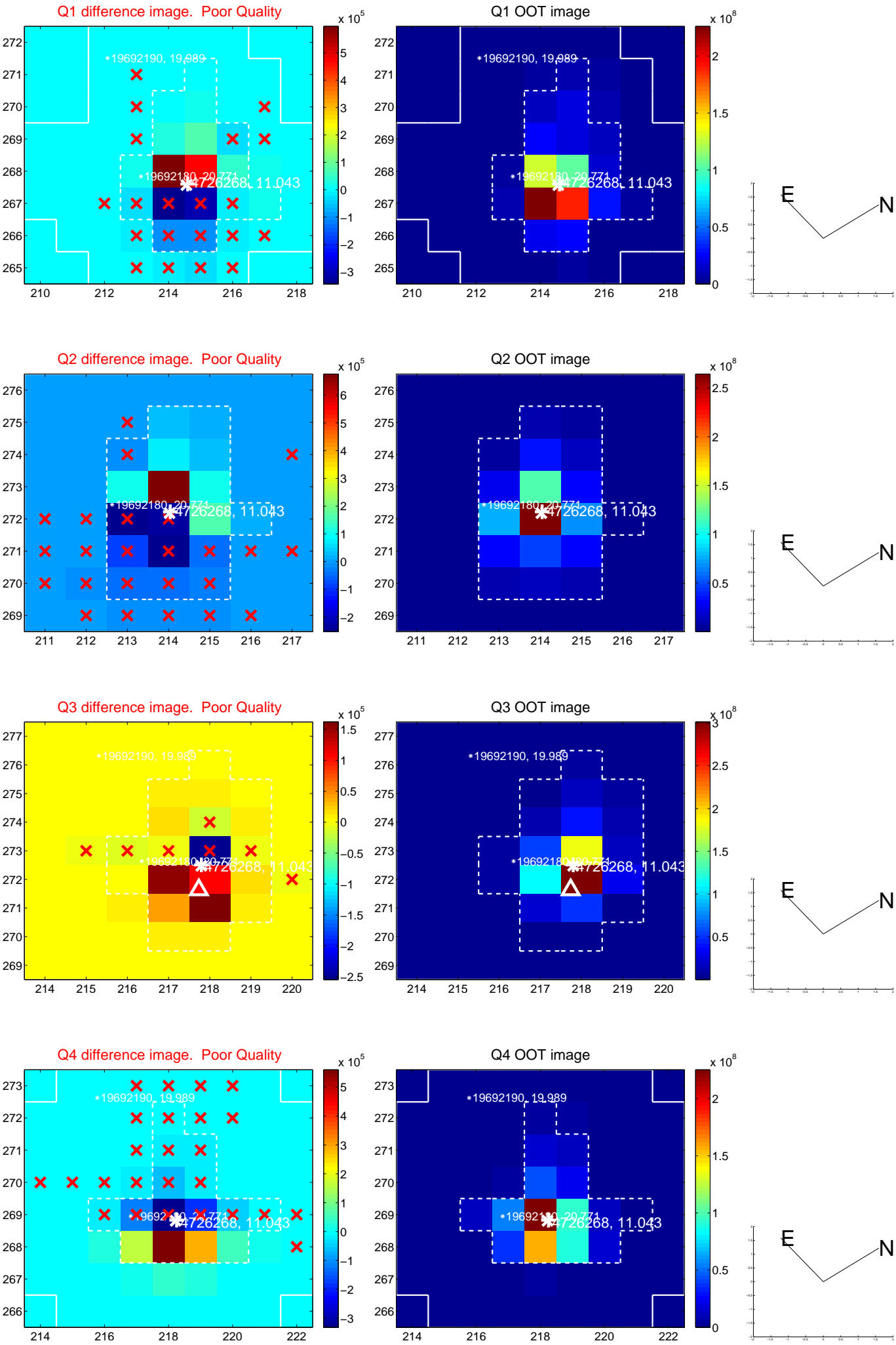
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.316 ± 0.134	24.82	-2.363 ± 0.133	-2.327 ± 0.086
PRF-fit source offset from KIC position	3.176 ± 0.129	24.64	-2.259 ± 0.155	-2.233 ± 0.096
photometric centroid source offset	0.21 ± 0.08	2.59	0.18 ± 0.08	0.11 ± 0.08

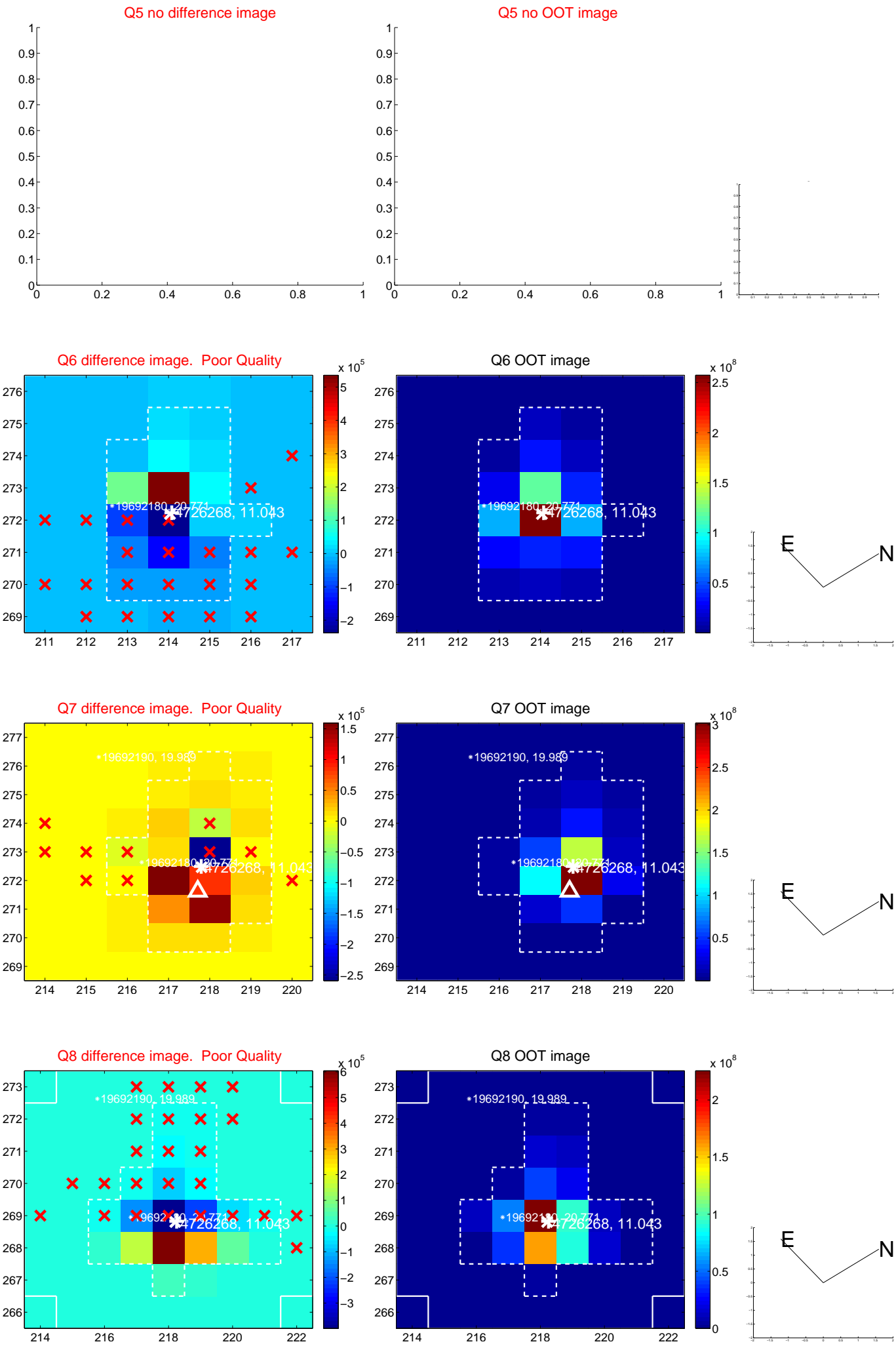


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

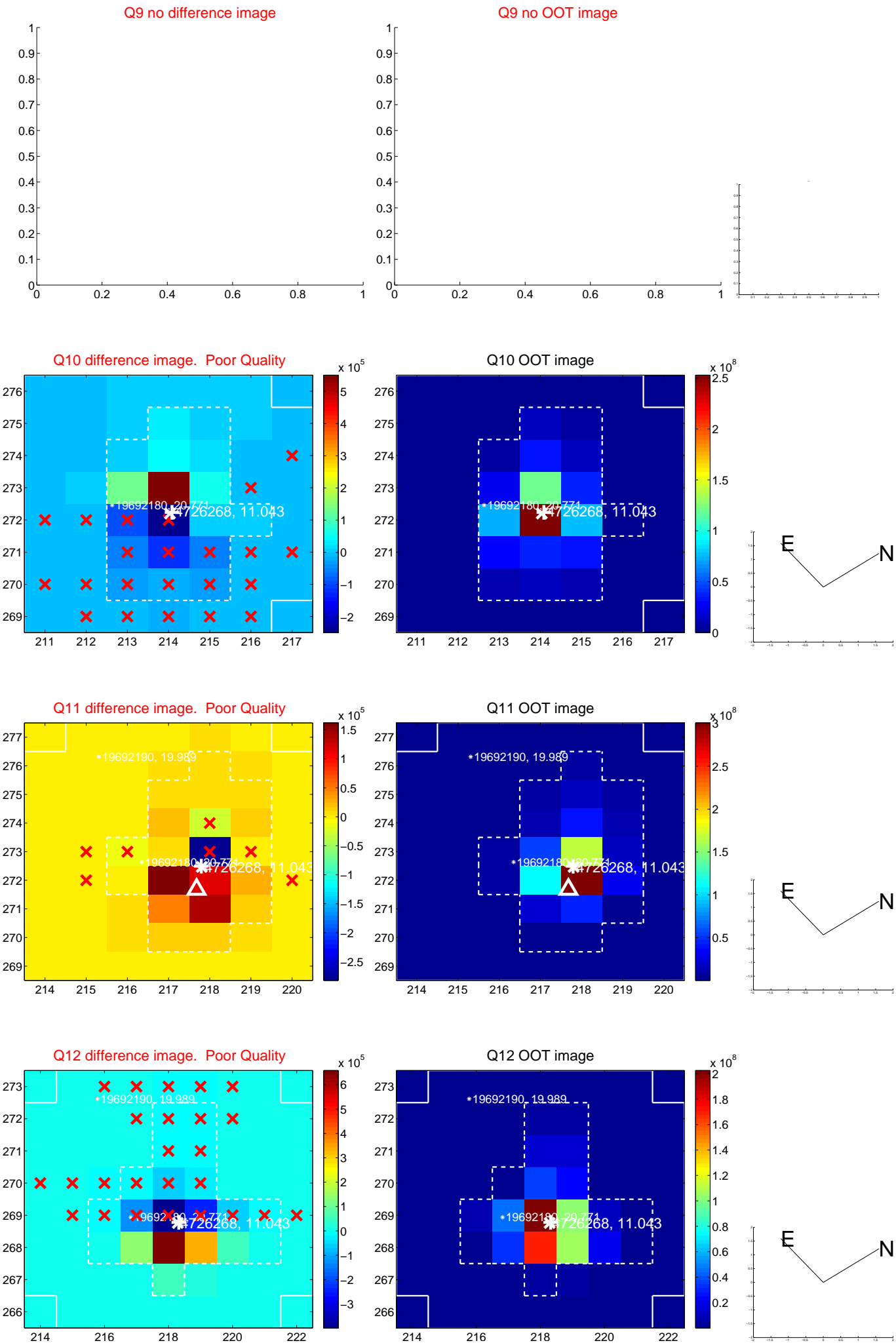
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



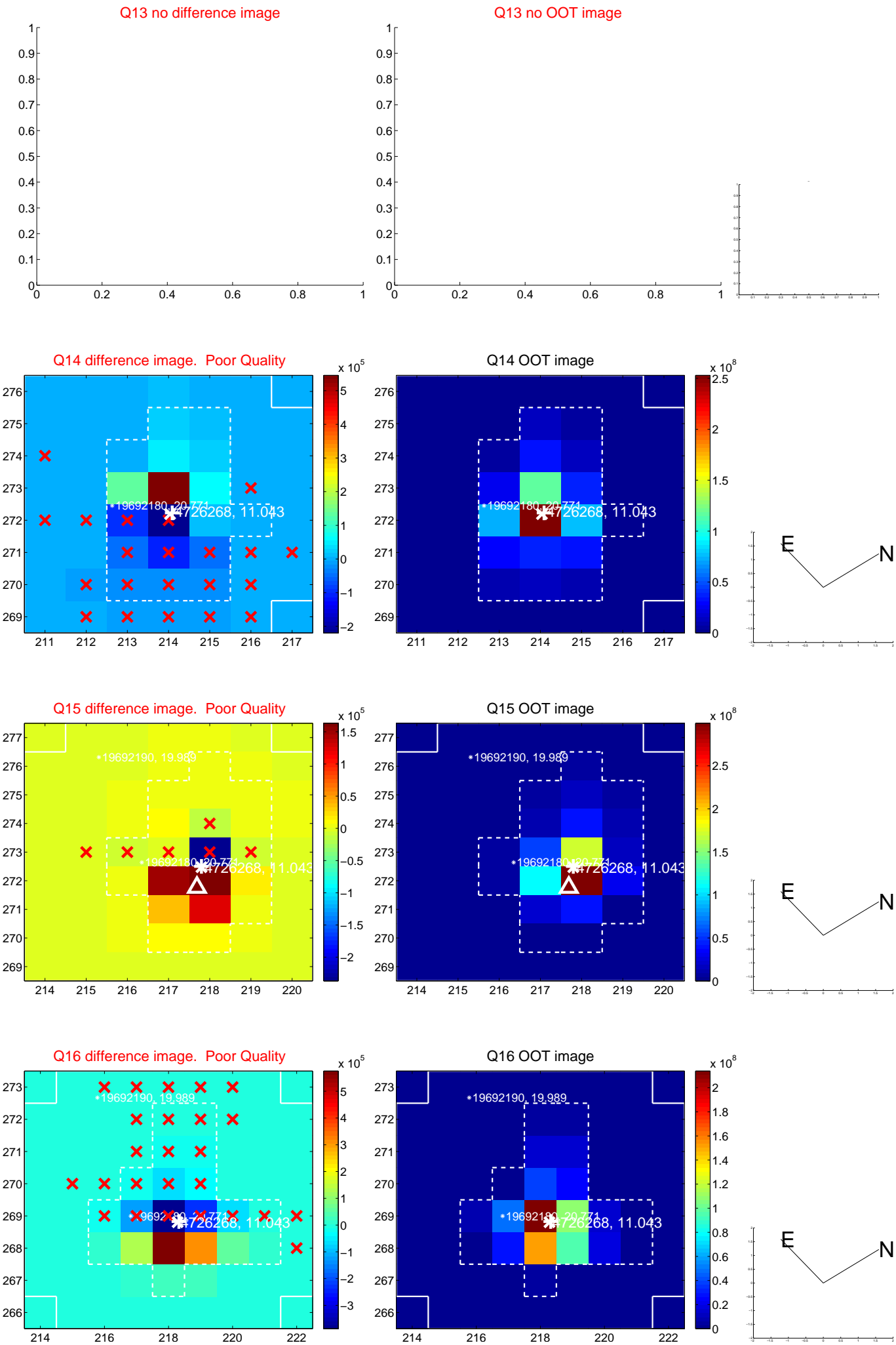
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



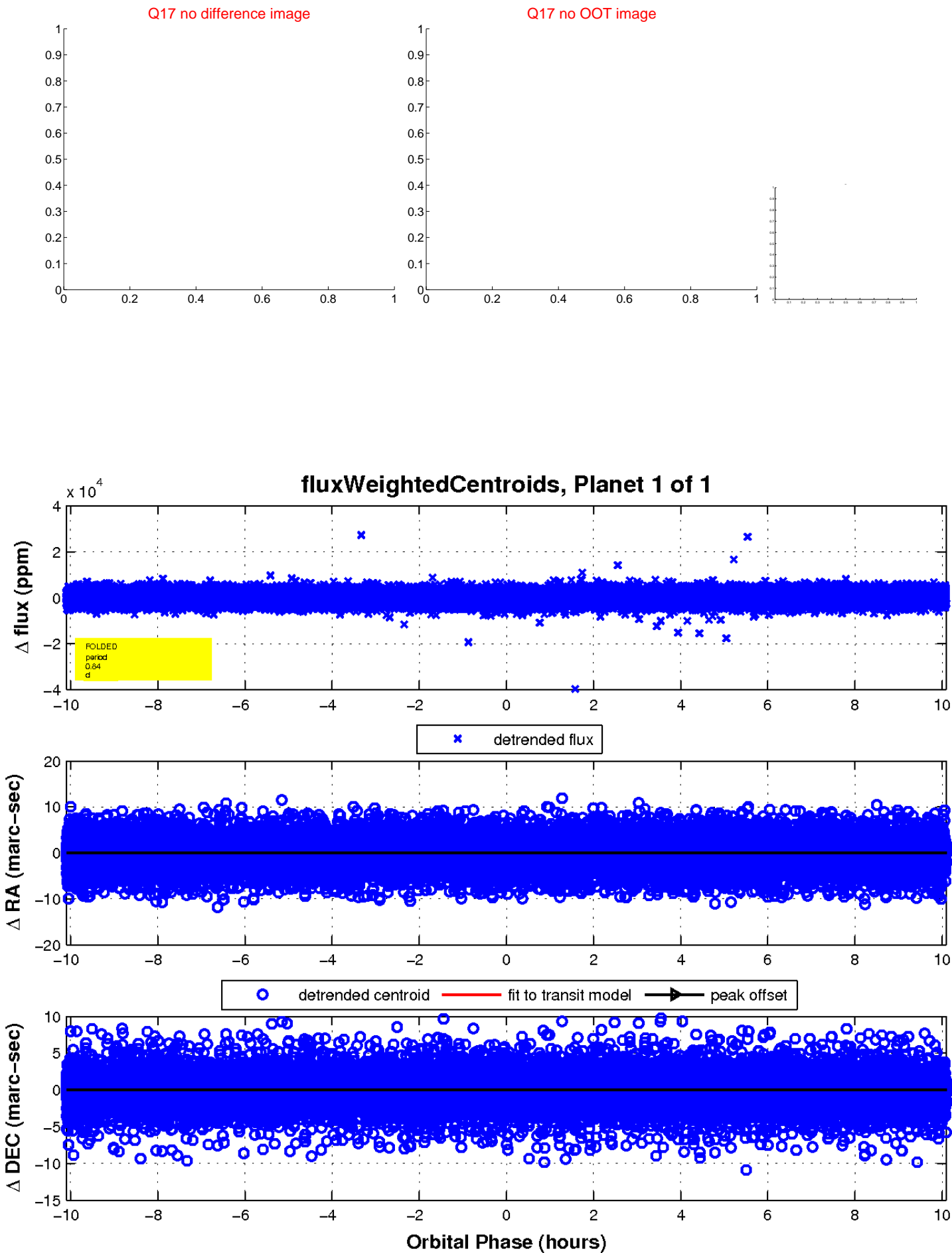
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

