

KIC 010583761

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})
010583761-01	OBS	2300.01	2.685046	132.605796	241.6	1.067	23.7	29.6	0.83	5266	1.32	396.20

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010583761-01	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.

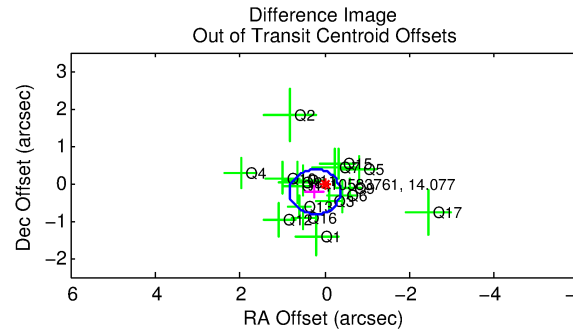
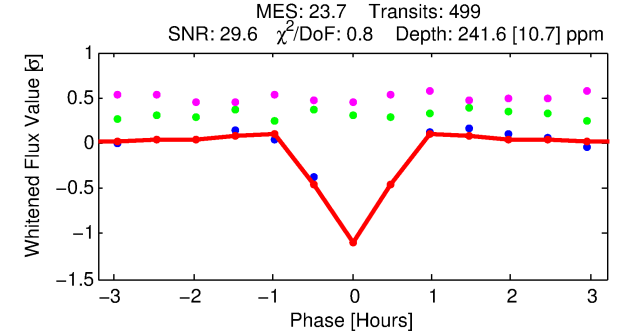
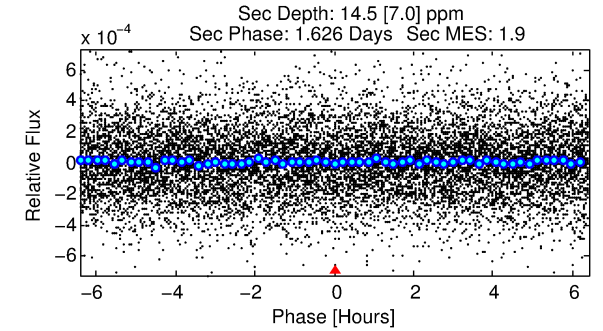
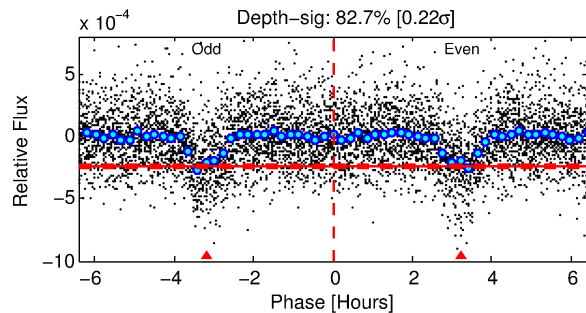
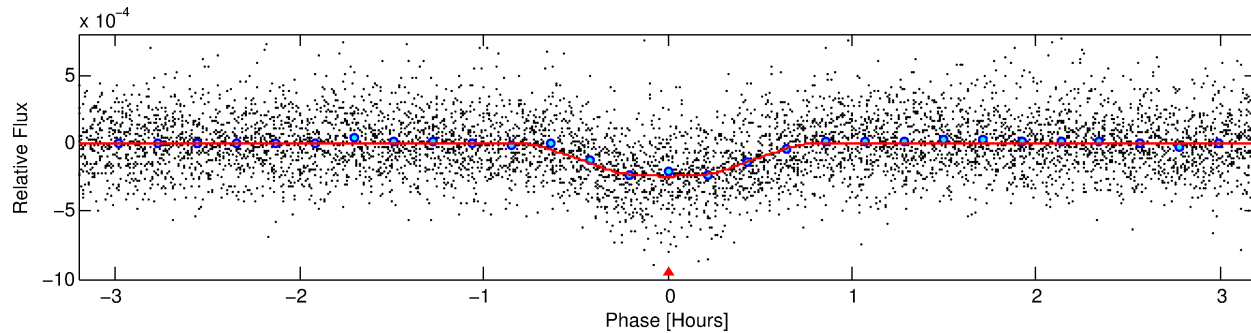
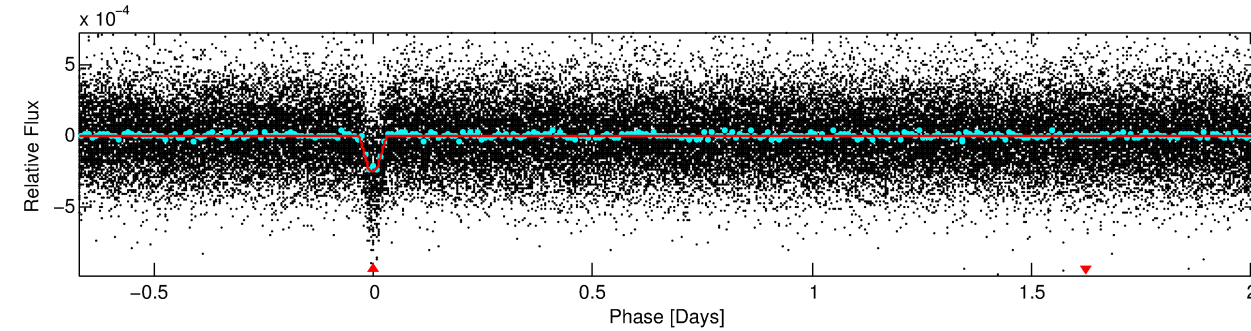
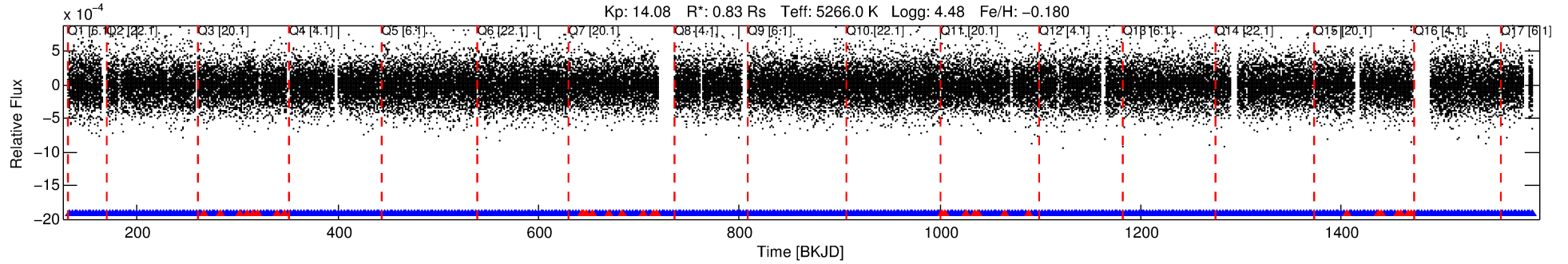
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010583761-01

No Significant Match Found

DV One-Page Summary

KIC: 10583761 Candidate: 1 of 1 Period: 2.685 d
KOI: K02300.01 Corr: 0.956



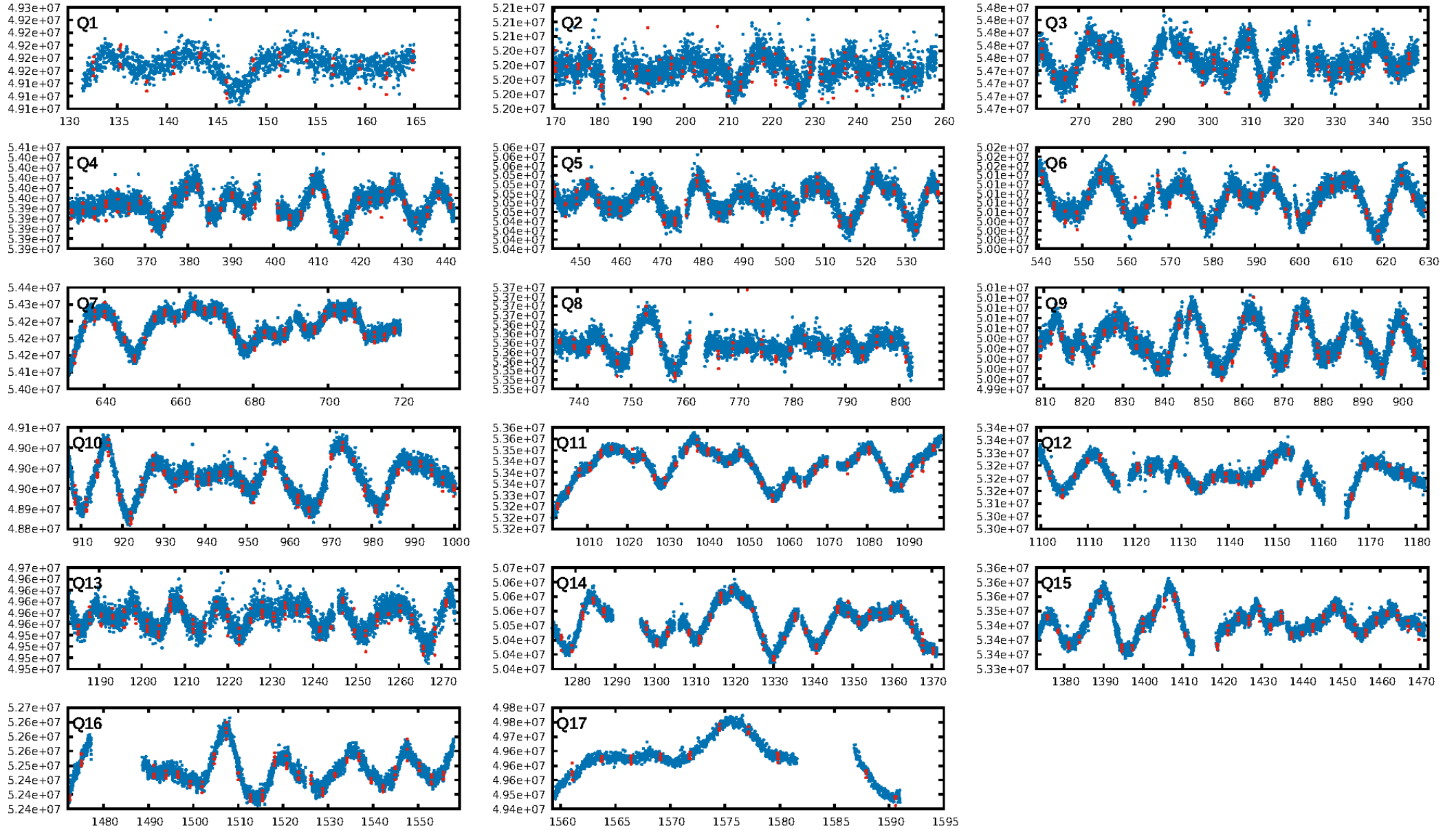
DV Fit Results:

Period = 2.68505 [0.00000] d
Epoch = 132.6058 [0.0007] BKJD
Rp/R* = 0.0146 [0.0048]
a/R* = 17.06 [21.23]
b = 0.49 [1.93]
Seff = 396.20 [129.61]
Teq = 1138 [93] K
Rp = 1.32 [0.49] Re
a = 0.0346 [0.0064] AU
Ag = 5.49 [4.76] [0.94 σ]
Teffp = 2693 [553] K [2.77 σ]

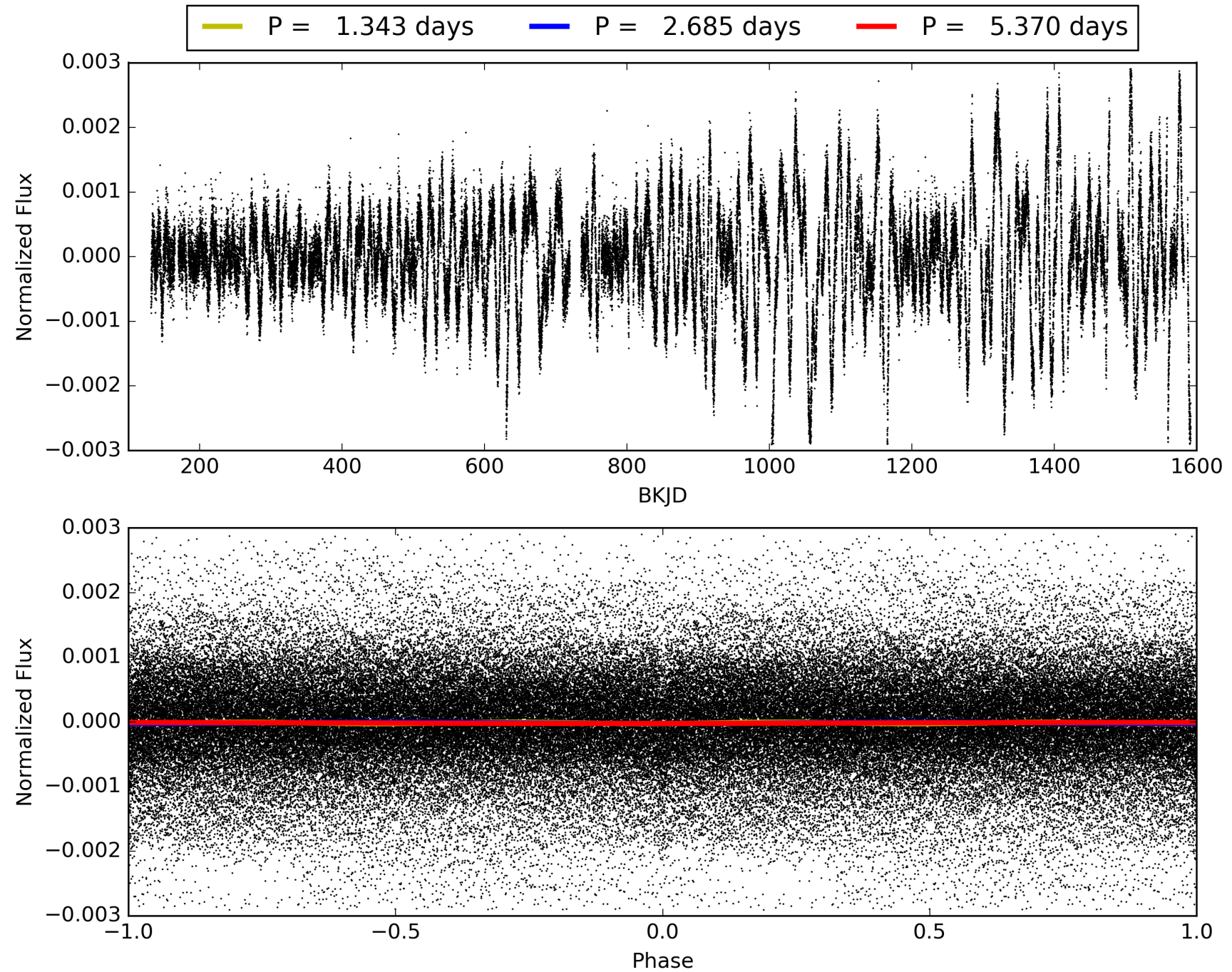
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 5.51e-118
RollingBand-fgt: 0.93 [445/476]
GhostDiagnostic-chr: 2.966
Centroid-sig: 3.1%
Centroid-so: 1.305 arcsec [3.23 σ]
OotOffset-rm: 0.321 arcsec [1.61 σ]
KicOffset-rm: 0.622 arcsec [3.16 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 010583761-01, PDC Light Curves

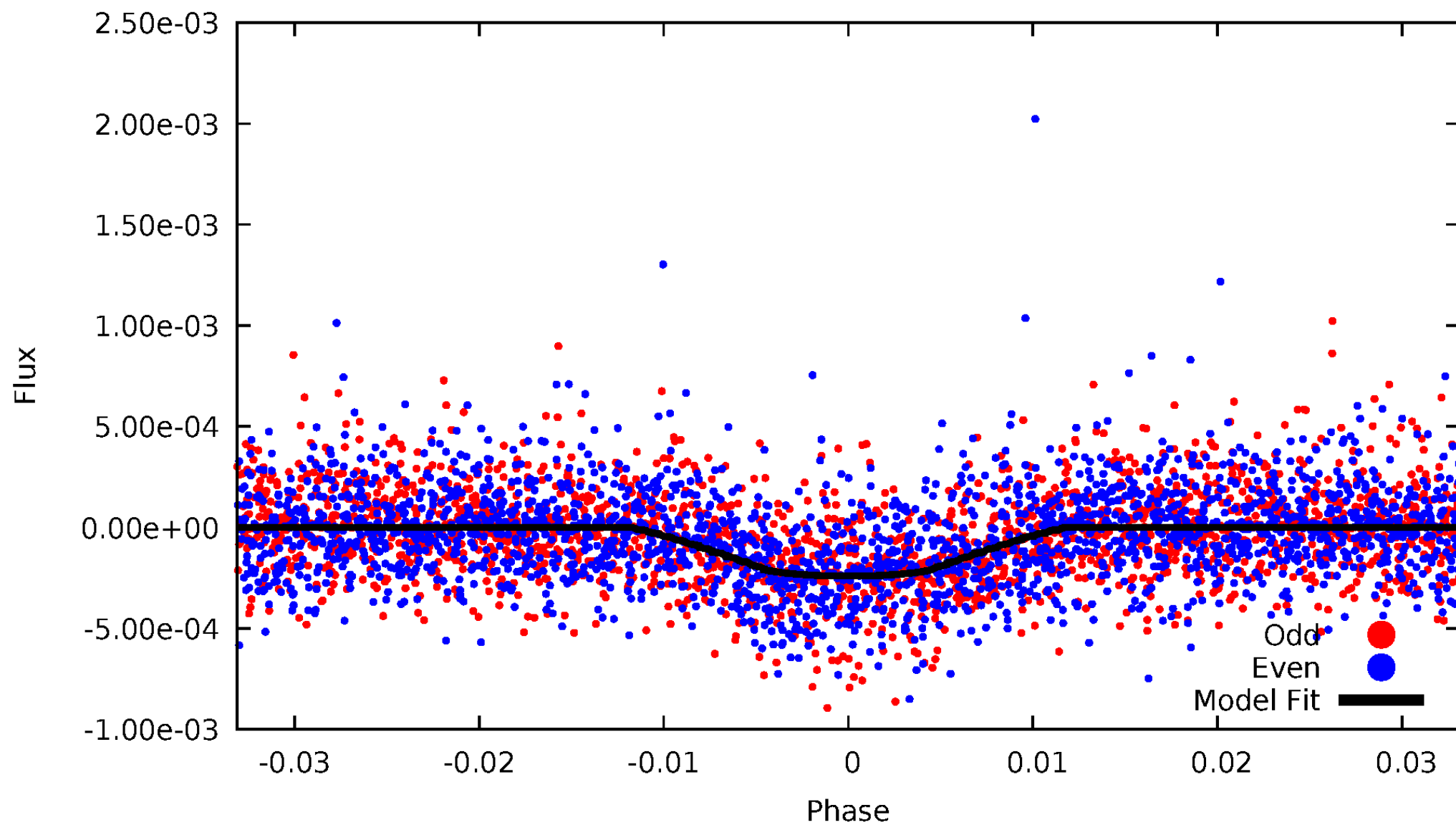


TCE 010583761-01



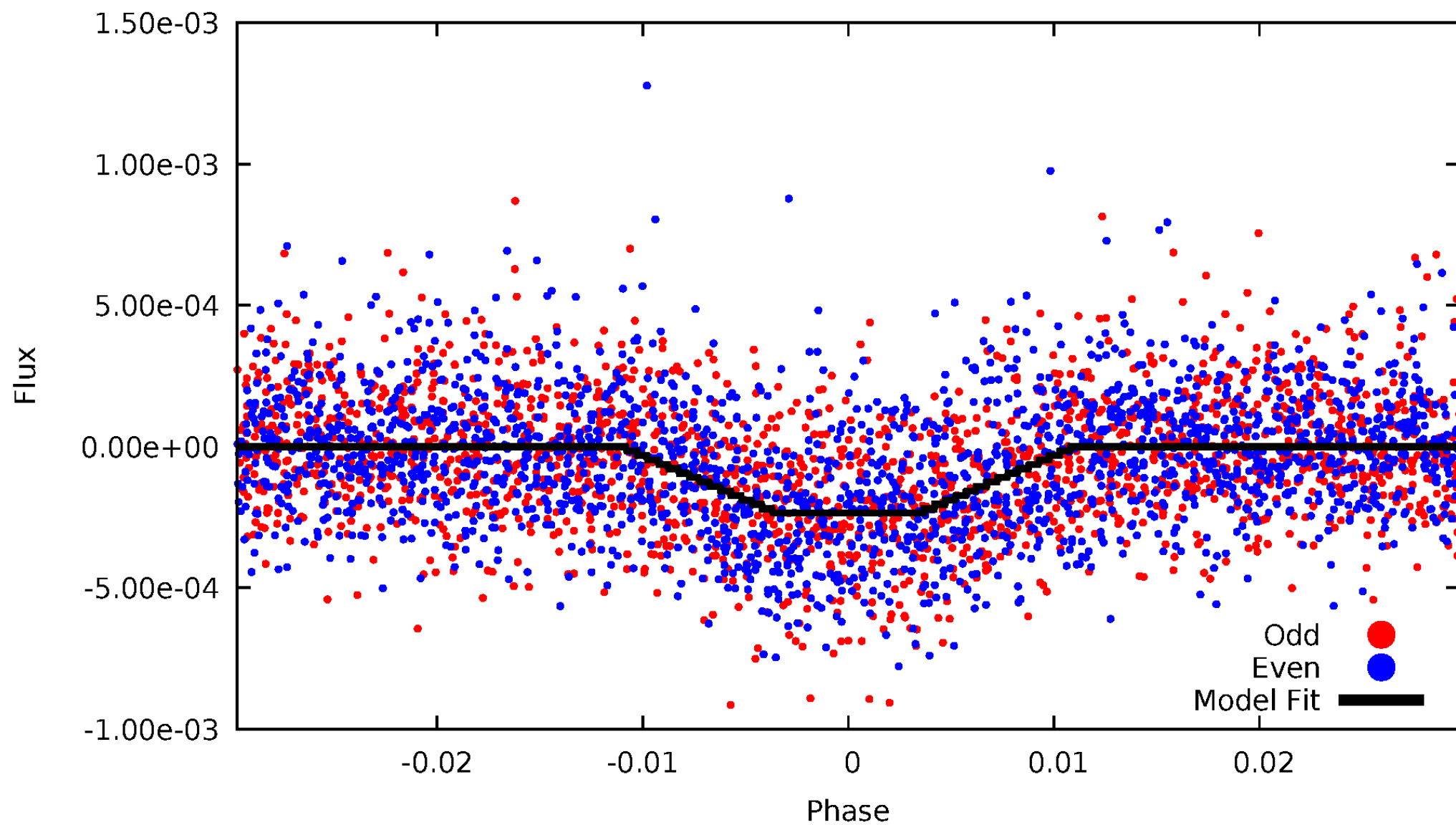
DV Odd/Even

TCE 010583761-01

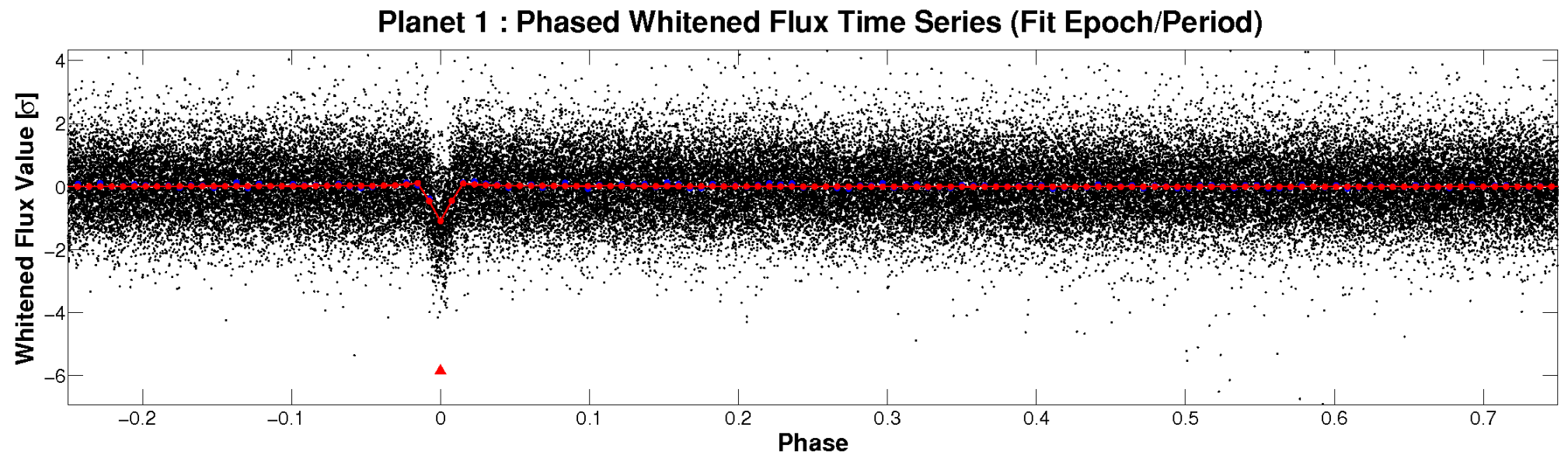
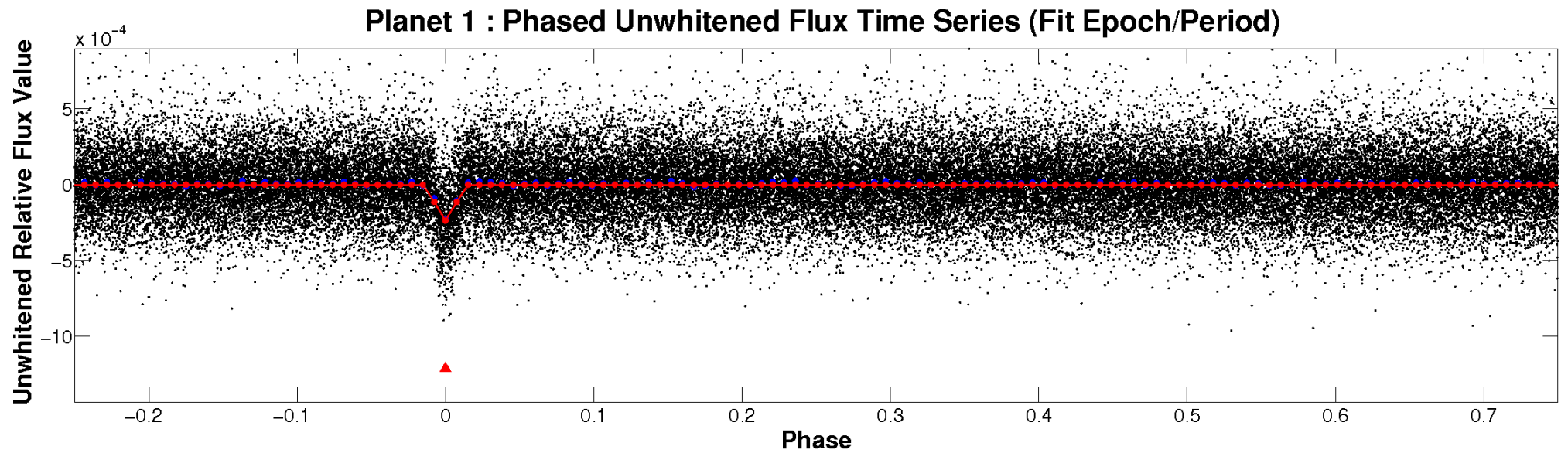


ALT Odd/Even

TCE 010583761-01

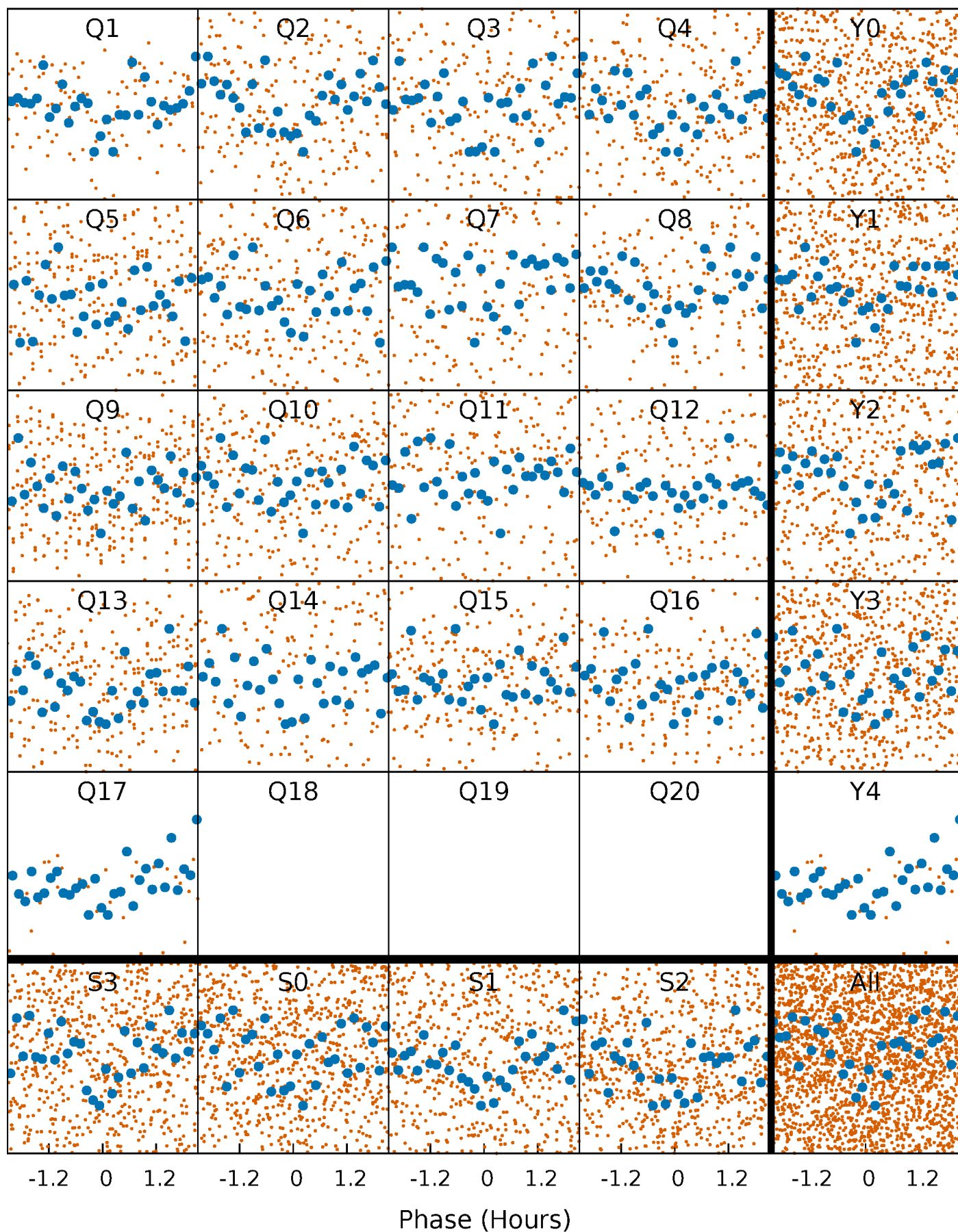


Non-Whitened Vs. Whitened Light Curve



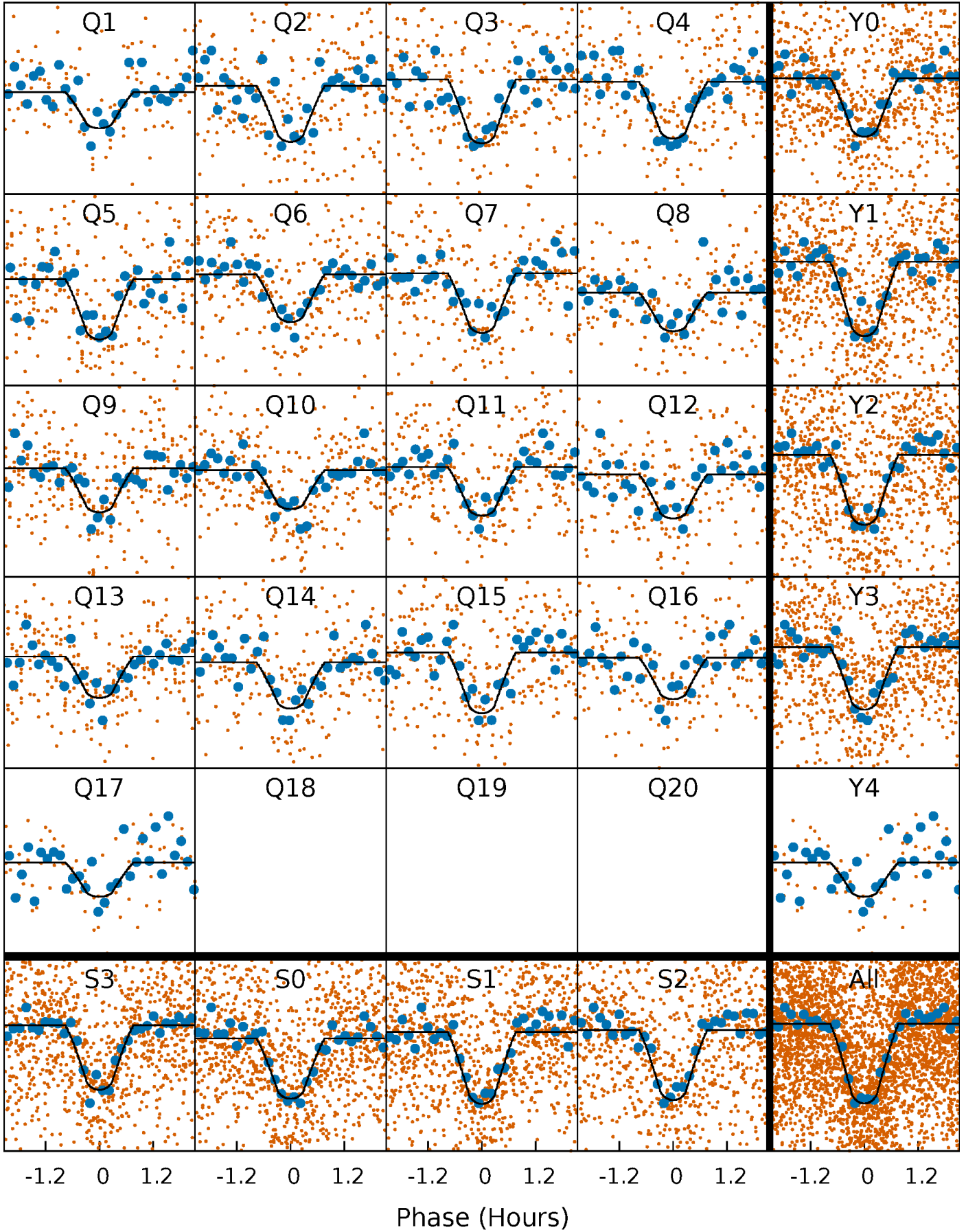
PDC Quarter-Phased Transit Curves

TCE 010583761-01 P= 2.685046 Days $T_0=132.605796$ (BKJD)



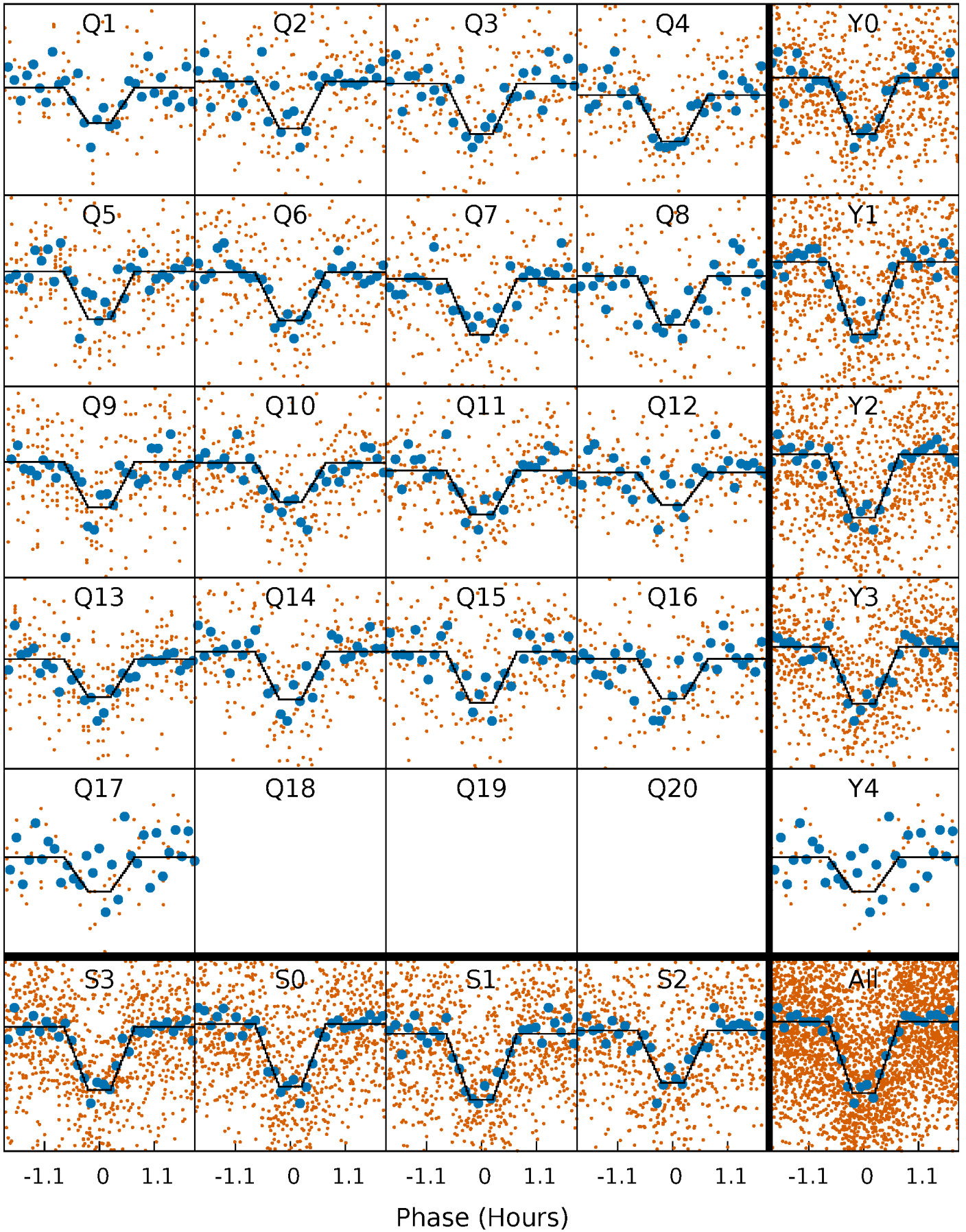
DV Quarter-Phased Transit Curves

TCE 010583761-01 P= 2.685046 Days $T_0=132.605796$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

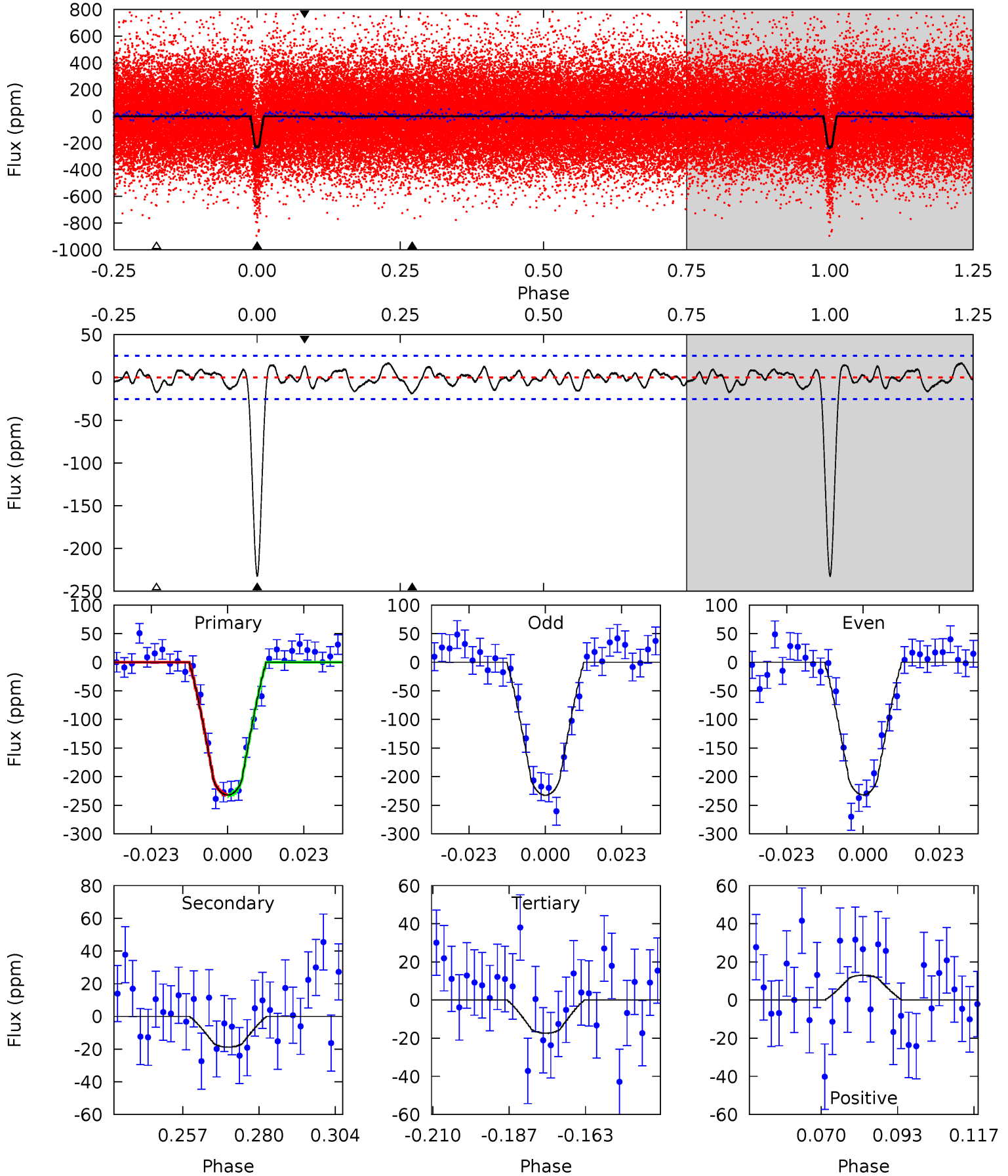
TCE 010583761-01 P= 2.685053 Days $T_0=132.604986$ (BKJD)



DV Model-Shift Uniqueness Test

010583761-01, P = 2.685046 Days, E = 129.920750 Days

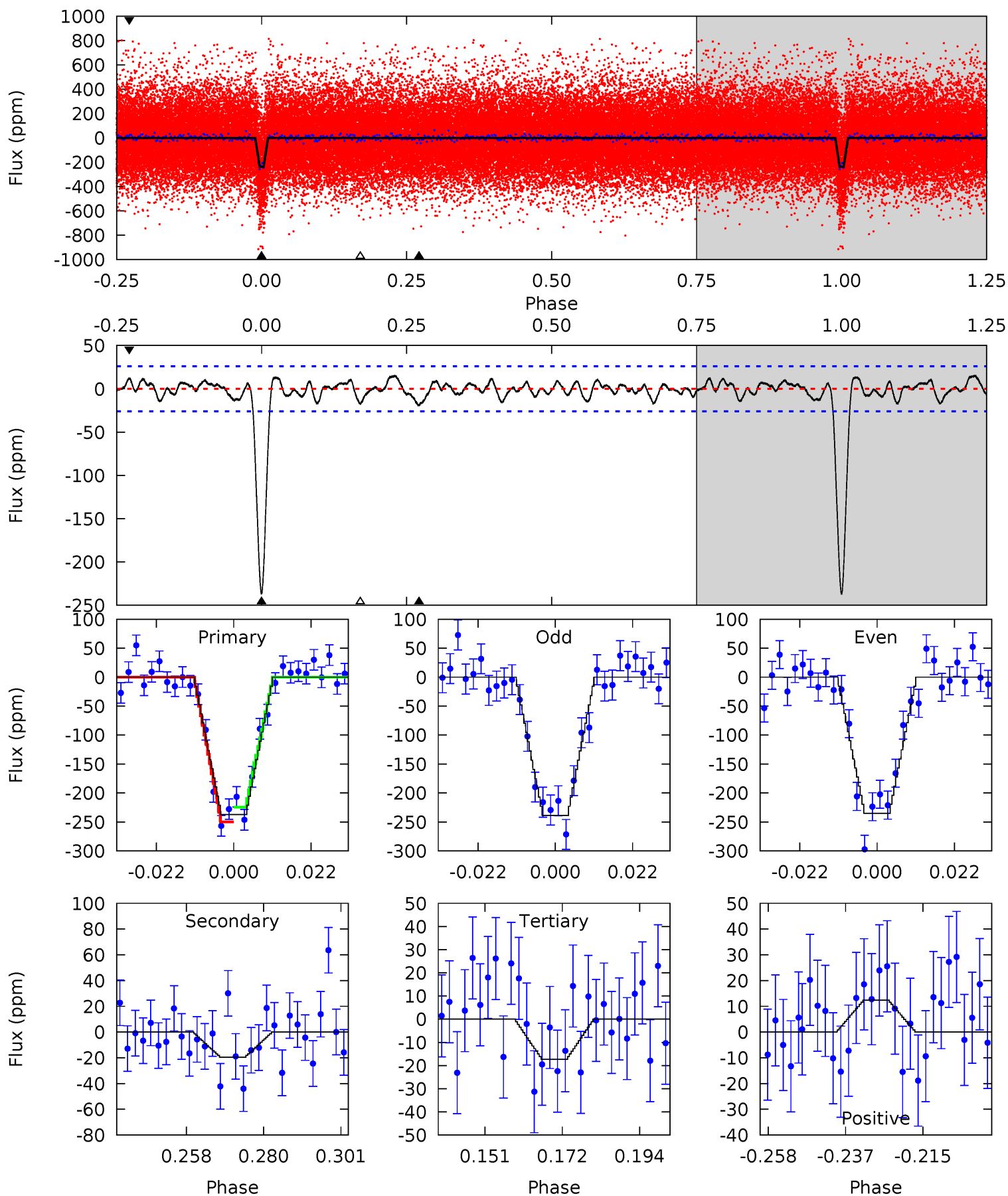
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
44.7	3.63	3.35	2.51	4.86	2.27	1.32	41.4	42.2	0.27	1.12	0.07	0.99	0.07	0.14



Alt Model-Shift Uniqueness Test

010583761-01, P = 2.685053 Days, E = 129.919933 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
44.5	3.66	3.26	2.33	4.88	2.30	1.24	41.3	42.2	0.41	1.34	0.34	0.97	0.06	2.39



Stellar Parameters For KIC 010583761

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5266^{+158}_{-142}	$4.484^{+0.112}_{-0.182}$	$-0.180^{+0.300}_{-0.300}$	$0.829^{+0.150}_{-0.100}$	$0.765^{+0.114}_{-0.057}$	$1.888^{+0.891}_{-0.754}$
	+3%/-3%	+2%/-4%	+167%/-167%	+18%/-12%	+15%/-7%	+47%/-40%
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 010583761-01 / KOI 2300.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-19 ± 5	$1.37^{+0.49}_{-0.48}$	1602^{+101}_{-80}	3331^{+512}_{-365}	$6.561^{+9.266}_{-3.372}$
Alt.	-19 ± 5	$1.41^{+0.47}_{-0.44}$	1600^{+101}_{-77}	3323^{+424}_{-299}	$6.683^{+7.486}_{-3.192}$

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 $A_{obs} \gg 1.0$

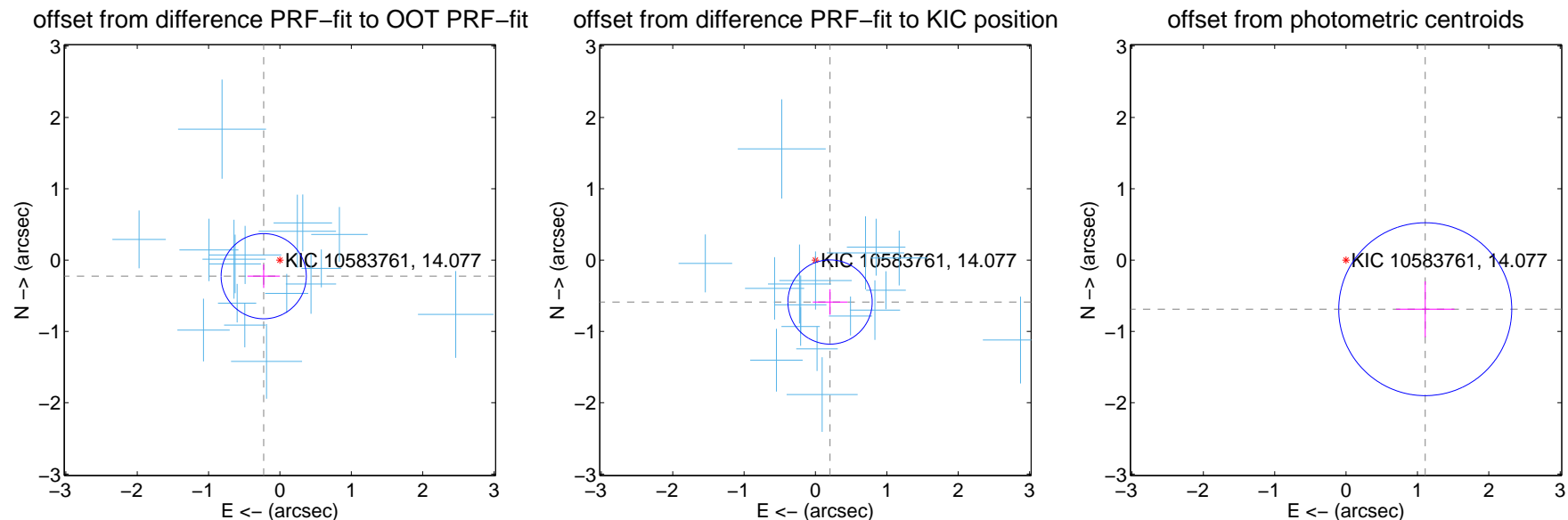
DV Centroid Data

Supplemental centroid analysis for 010583761-01. Kepler magnitude: 14.08. Transit SNR 29.59

There are 17 quarters with good PRF difference image offsets

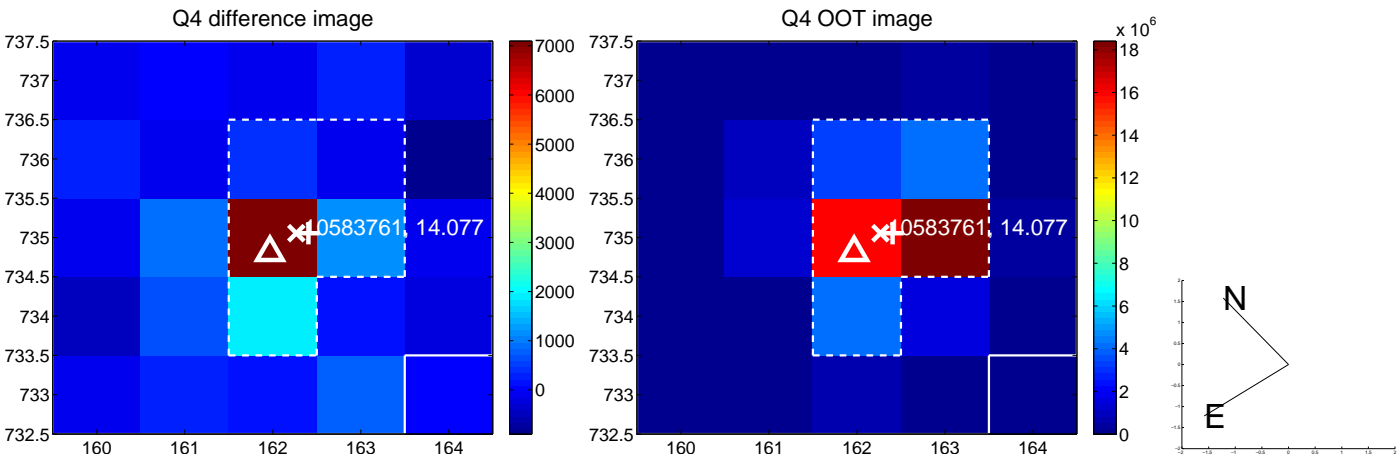
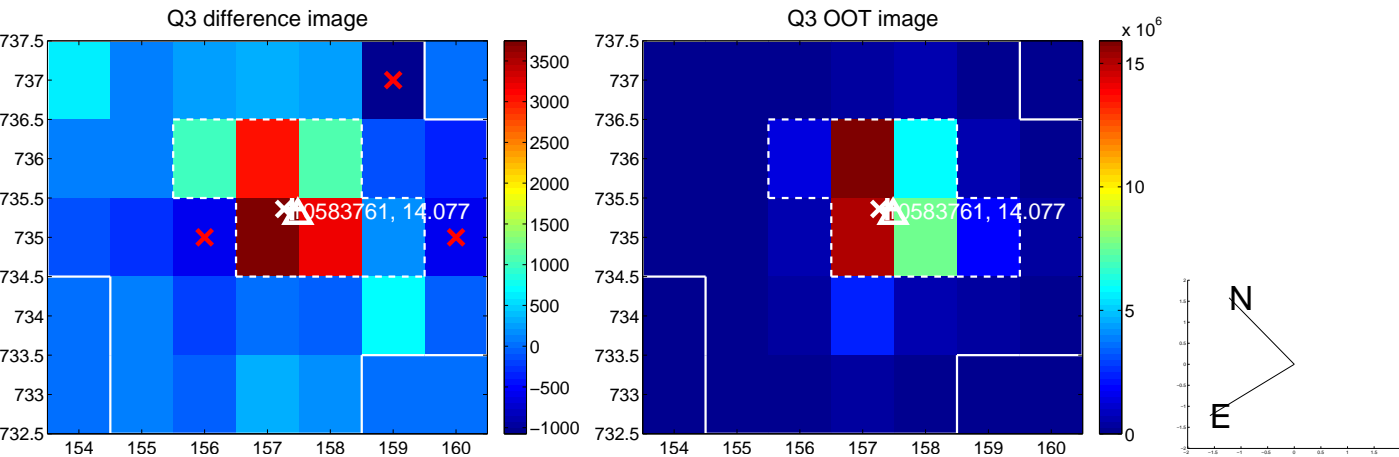
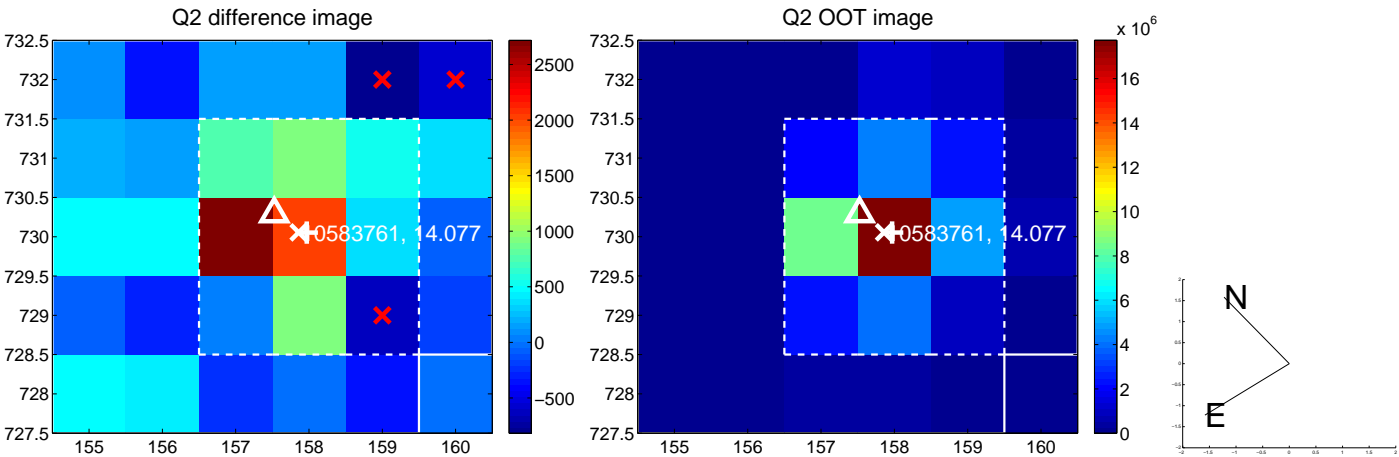
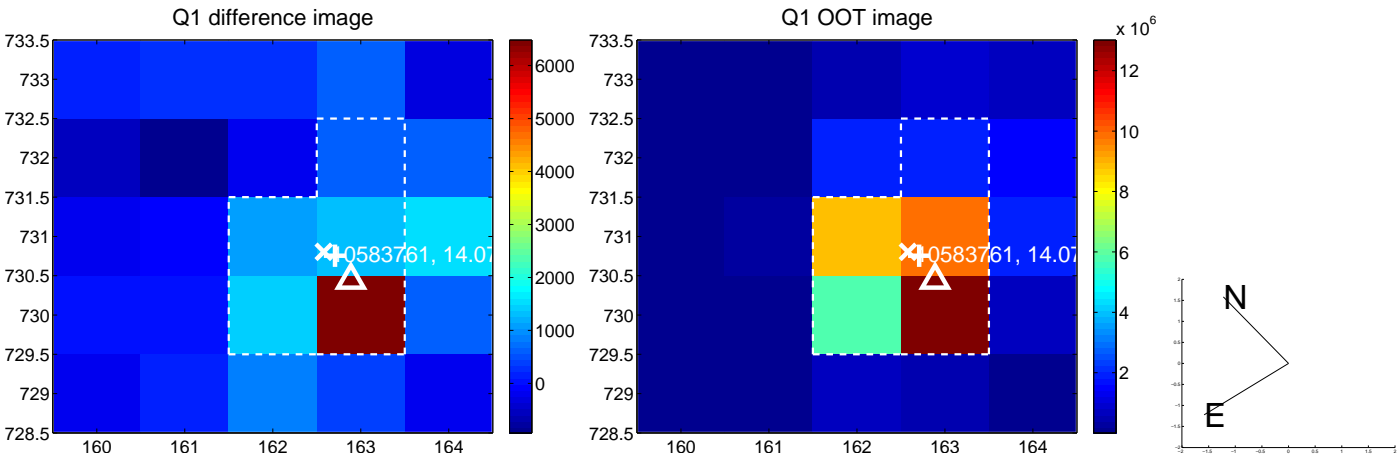
The direct PRF centroid is offset from the target star catalog position by about 0.55 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.321 ± 0.199	1.61	0.228 ± 0.228	-0.226 ± 0.165
PRF-fit source offset from KIC position	0.622 ± 0.197	3.16	-0.204 ± 0.242	-0.588 ± 0.179
photometric centroid source offset	1.31 ± 0.40	3.23	-1.11 ± 0.41	-0.69 ± 0.39

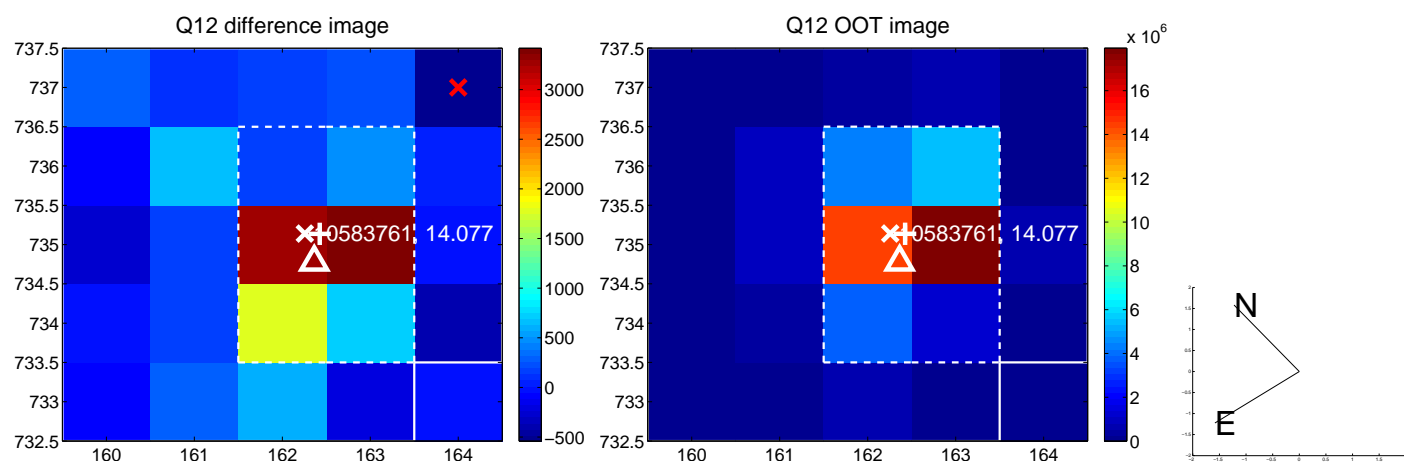
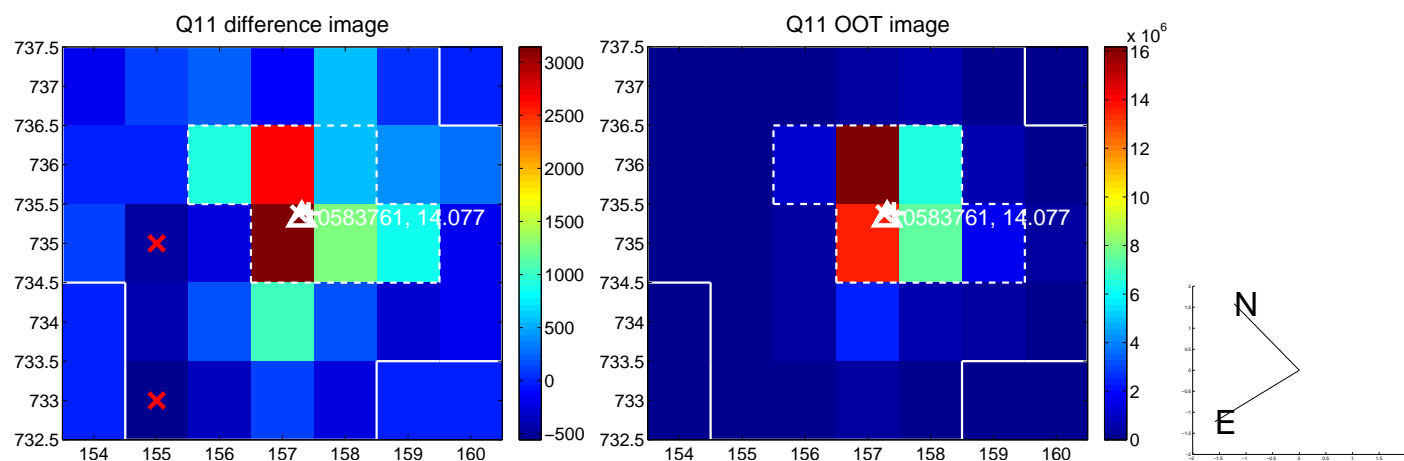
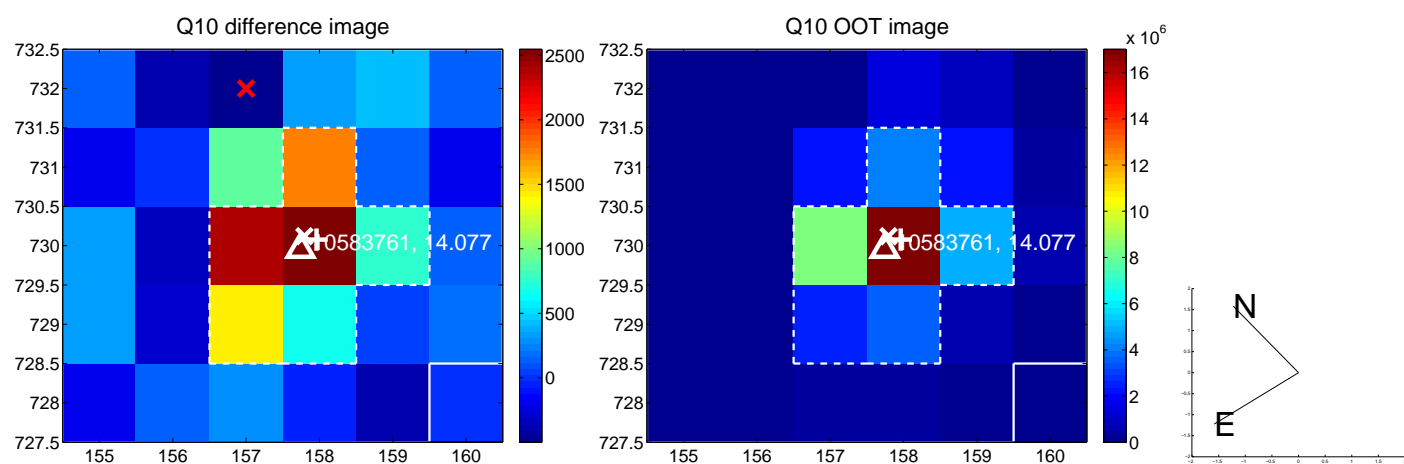
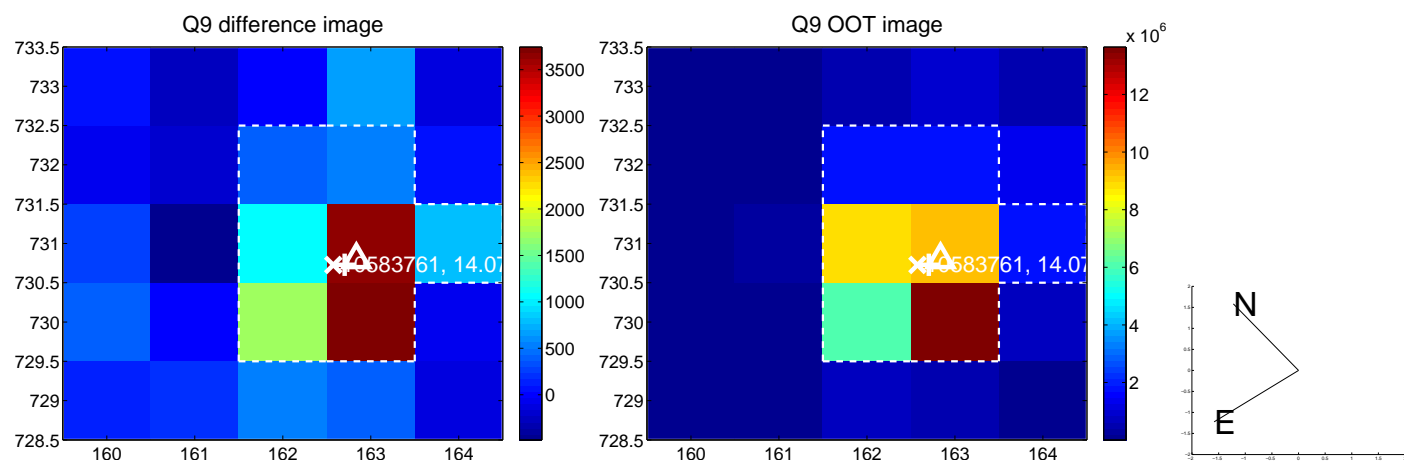


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

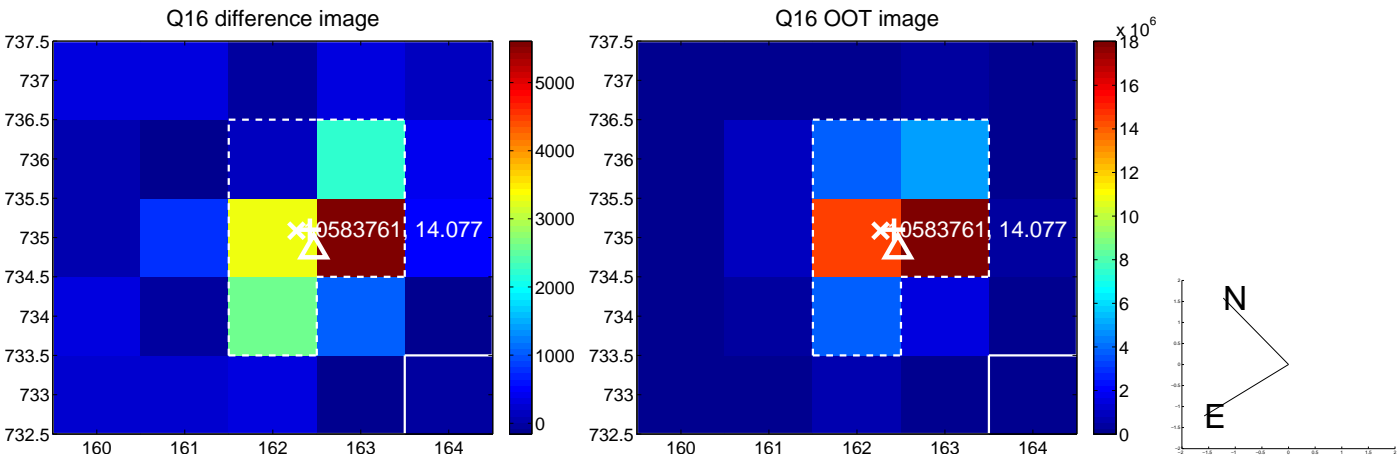
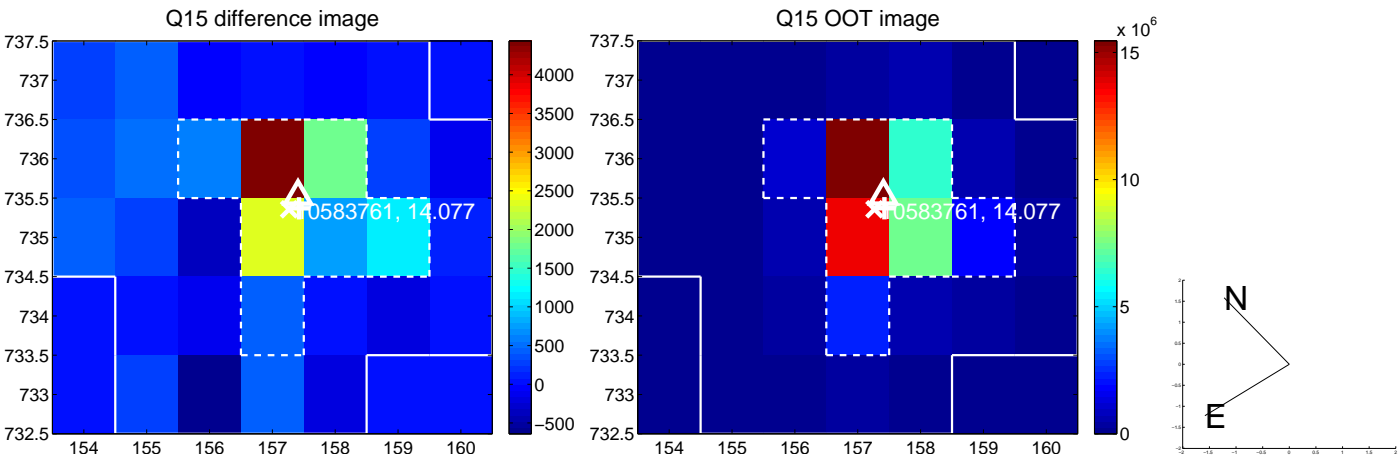
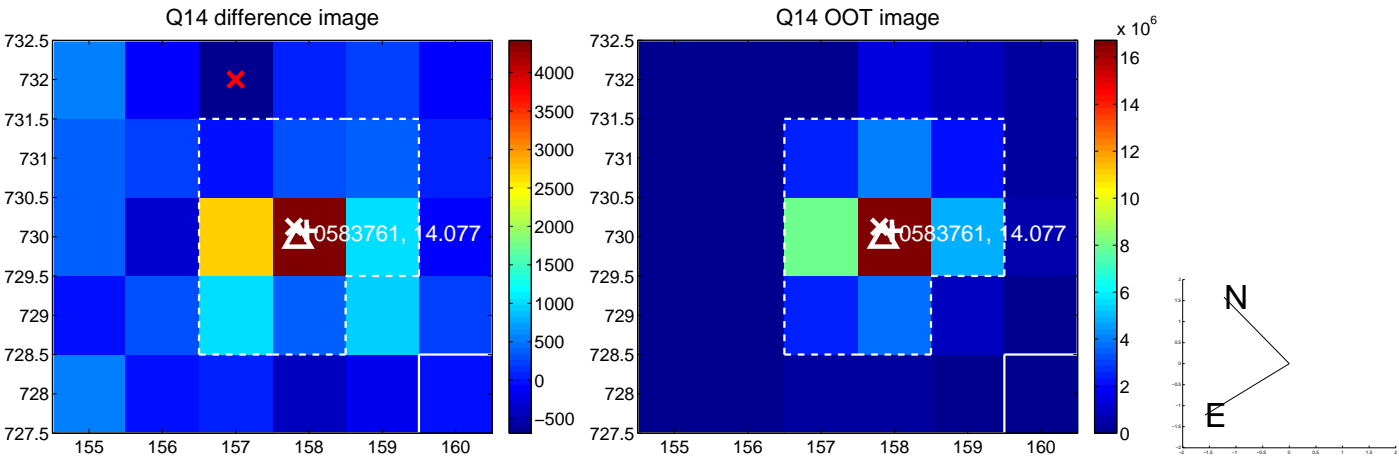
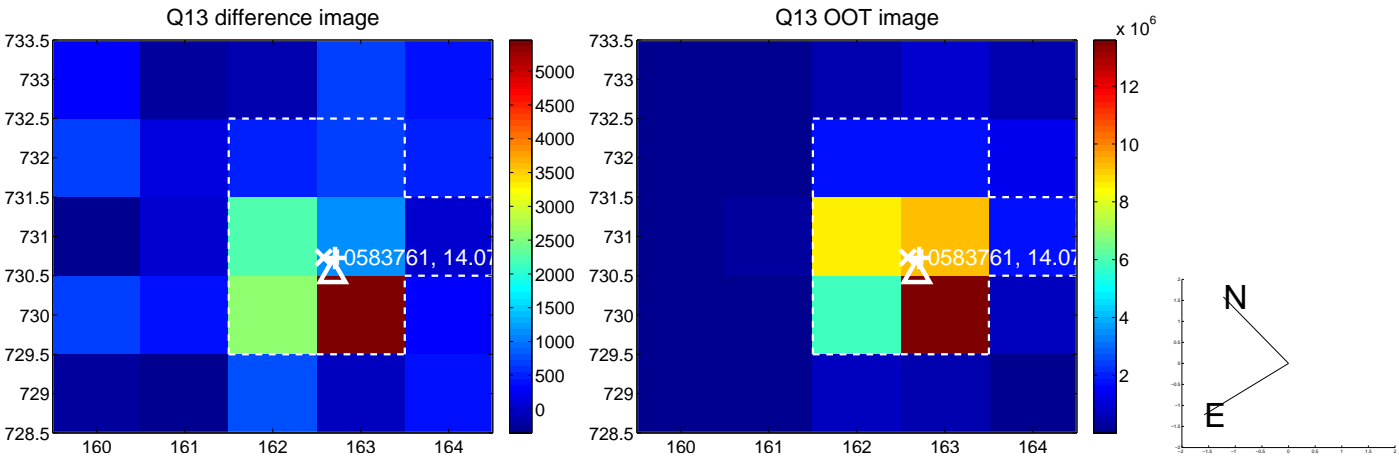
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



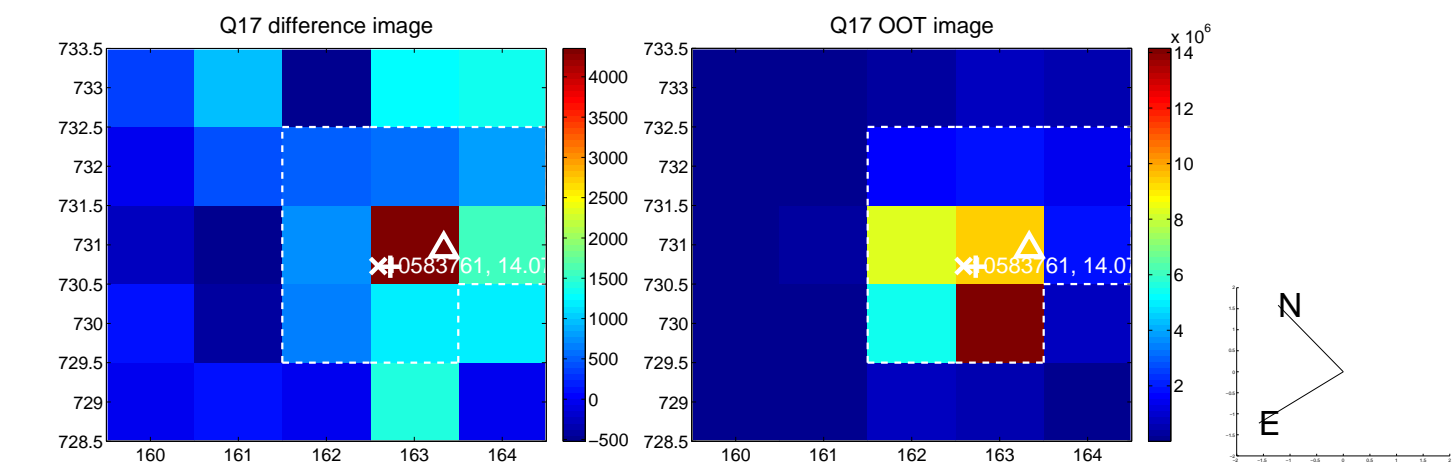
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



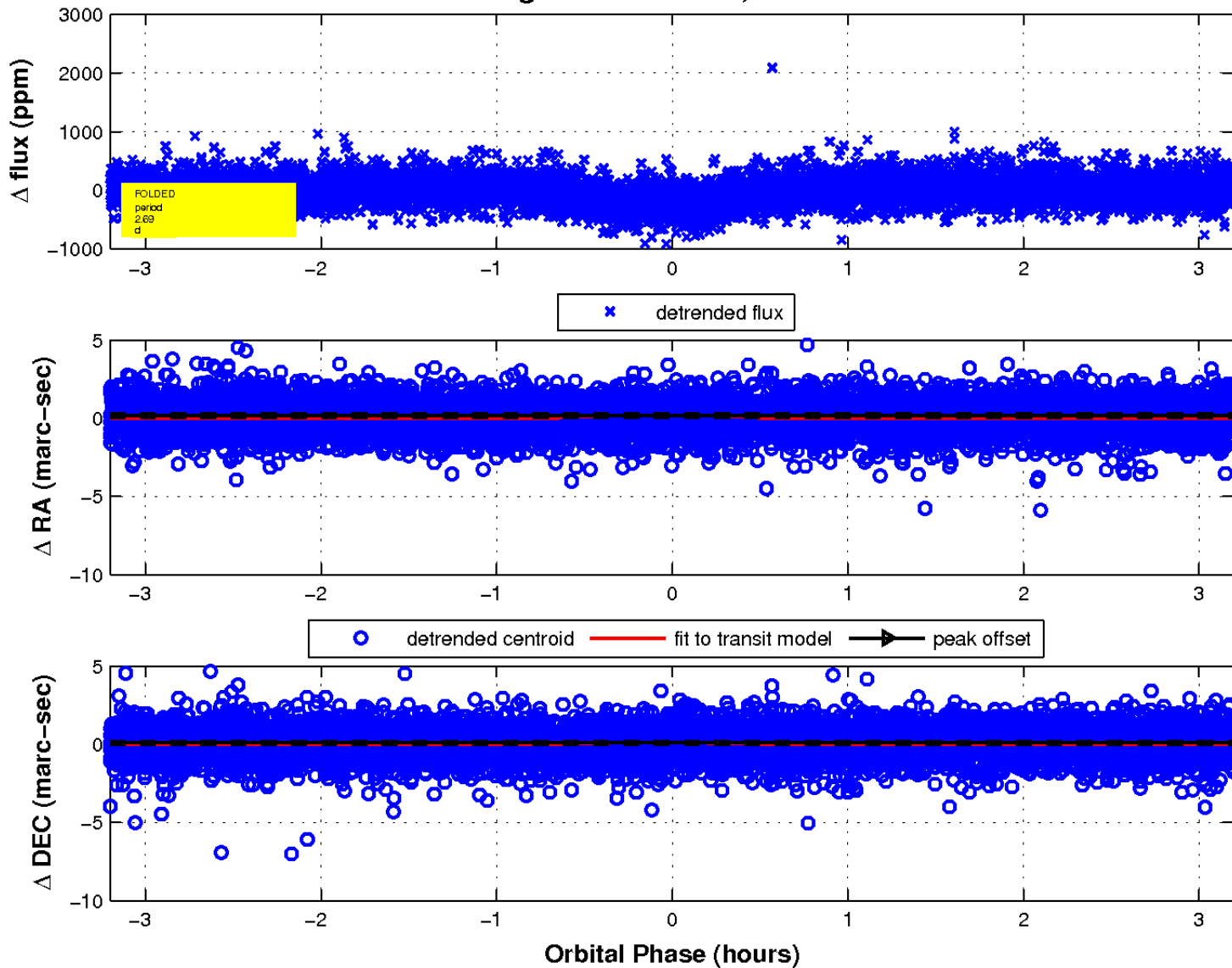
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

