

KIC 004483138

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})
004483138-01	OBS	2910.01	15.362612	145.571990	462.2	3.950	16.0	16.4	0.85	5011	2.19	32.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004483138-01	OBS	PC	0.89	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.

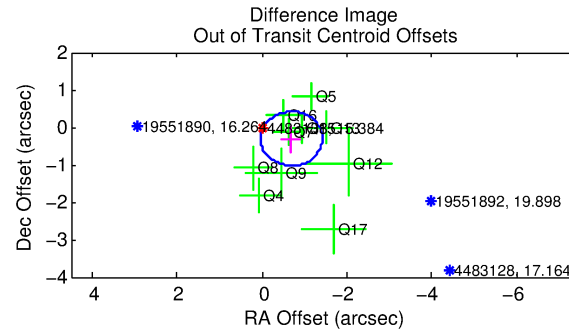
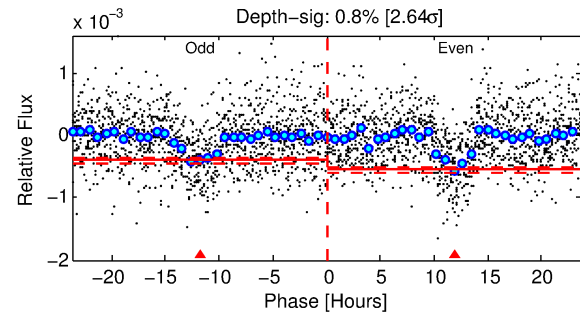
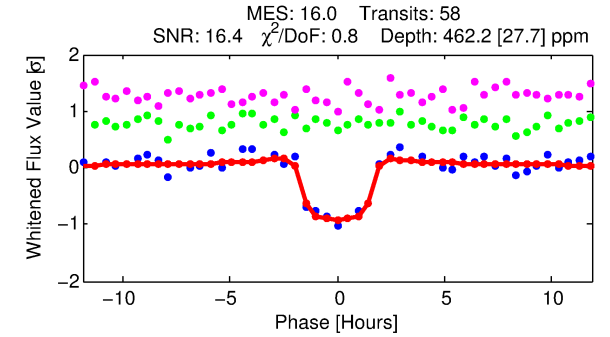
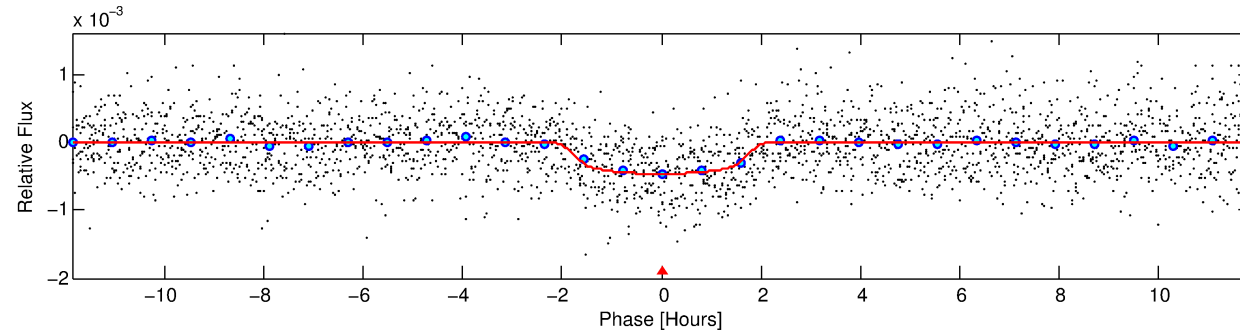
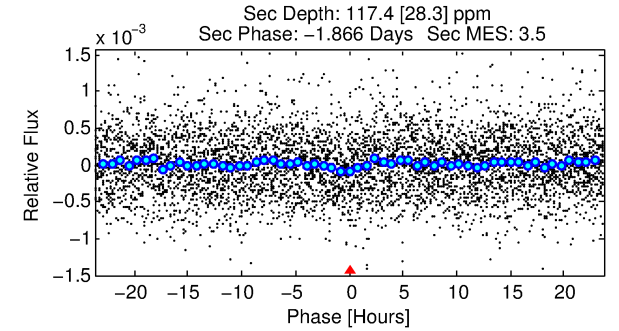
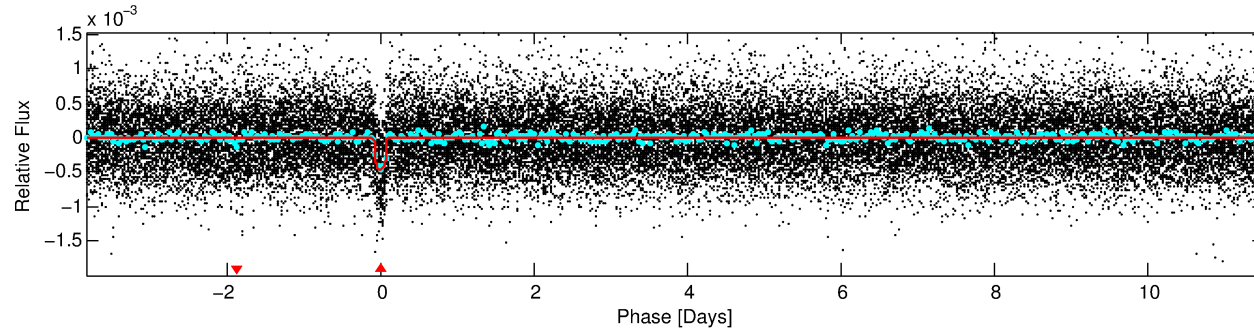
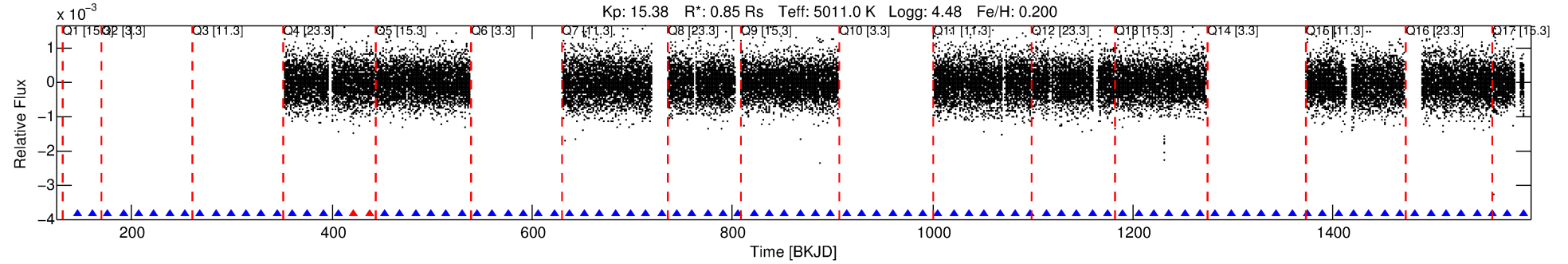
Ephemeris Match Information For 004483138-01

No Significant Match Found

DV One-Page Summary

KIC: 4483138 Candidate: 1 of 1 Period: 15.363 d

KOI: K02910.01 Corr: 0.962



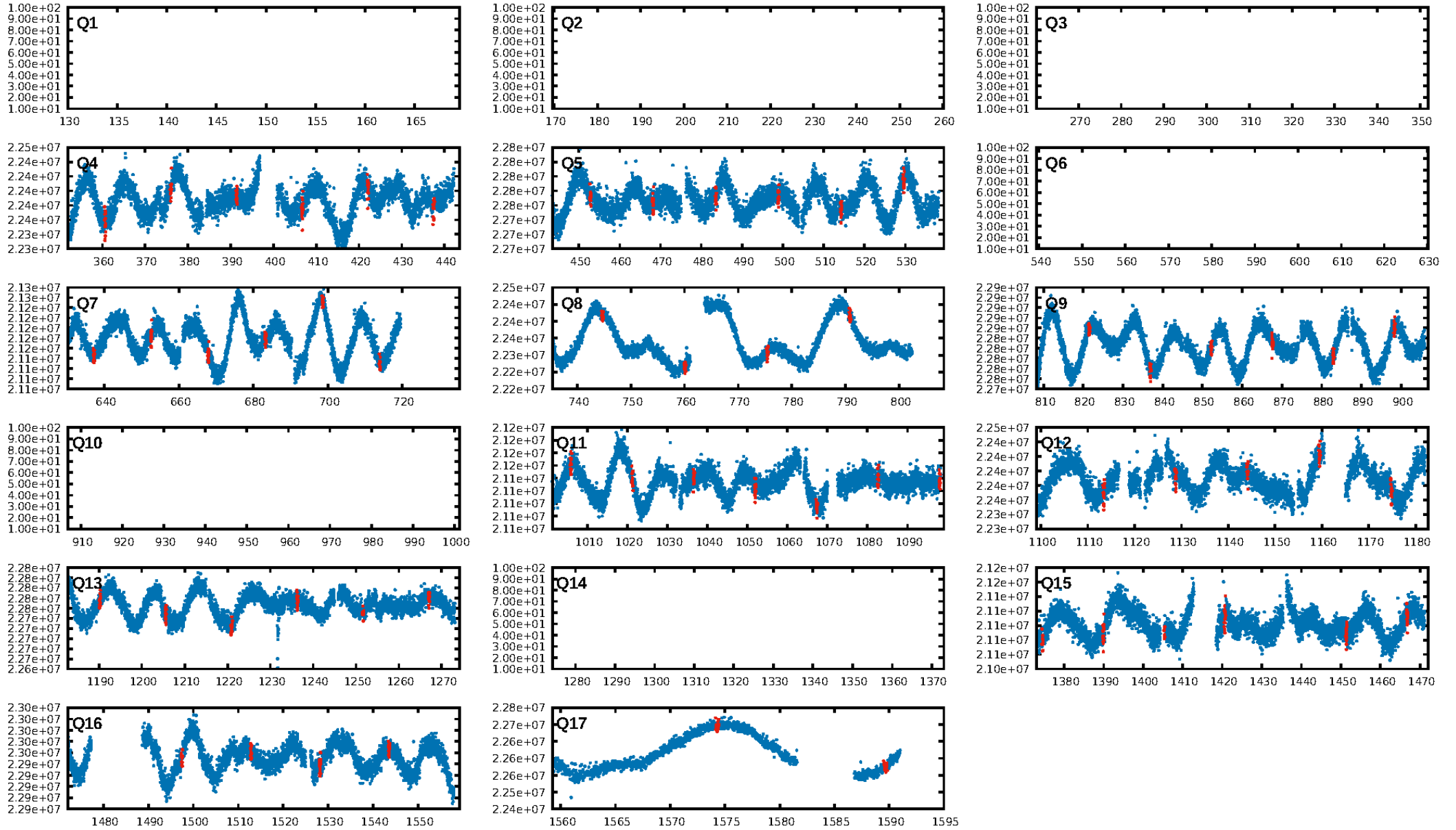
DV Fit Results:

Period = 15.36261 [0.00010] d
Epoch = 145.5720 [0.0055] BKJD
Rp/R* = 0.0236 [0.0053]
a/R* = 15.39 [12.83]
b = 0.88 [0.21]
Seff = 32.30 [7.61]
Teq = 608 [36] K
Rp = 2.19 [0.55] Re
a = 0.1125 [0.0126] AU
Ag = 170.22 [91.51] [1.85σ]
Teffp = 3395 [450] K [6.18σ]

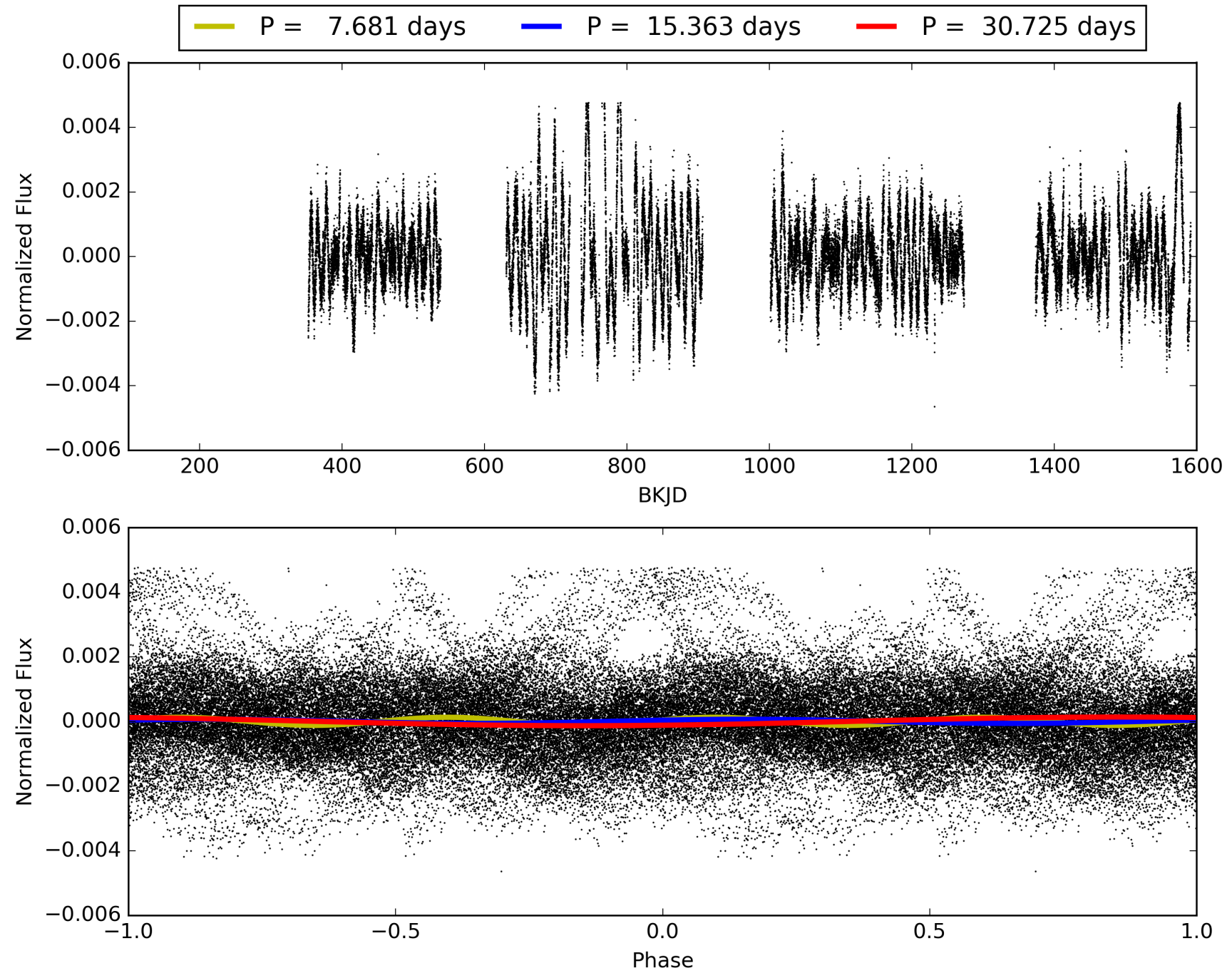
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 92.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.74e-55
RollingBand-fgt: 0.96 [54/56]
GhostDiagnostic-chr: 2.067
Centroid-sig: 0.0%
Centroid-so: 1.562 arcsec [2.62σ]
OotOffset-rm: 0.760 arcsec [3.15σ]
KicOffset-rm: 0.245 arcsec [0.76σ]
OotOffset-st: 0/2/4/4 [10]
KicOffset-st: 0/2/4/4 [10]
DiffImageQuality-fgm: 0.80 [8/10]
DiffImageOverlap-fno: 1.00 [11/11]

TCE 004483138-01, PDC Light Curves

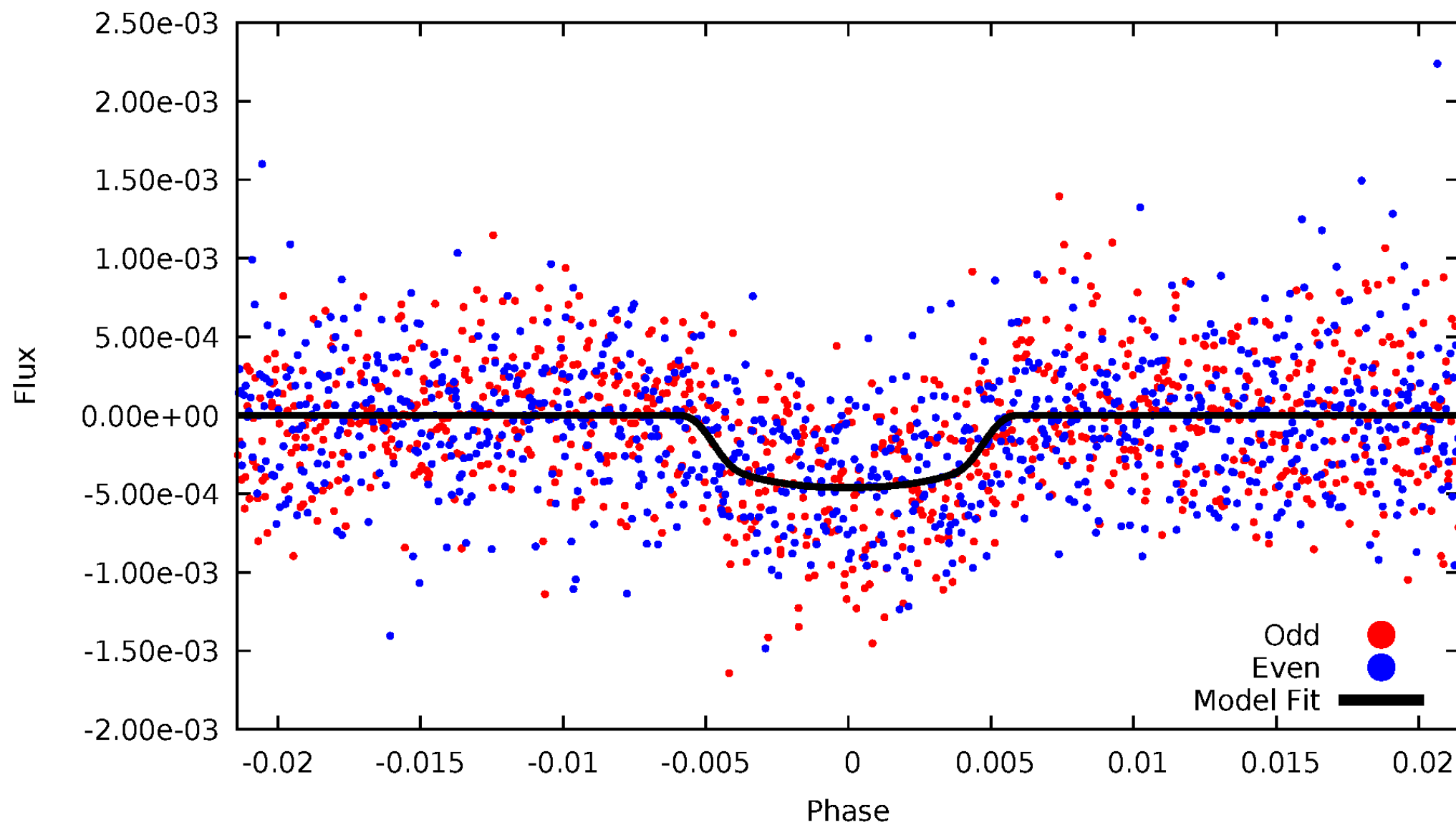


TCE 004483138-01



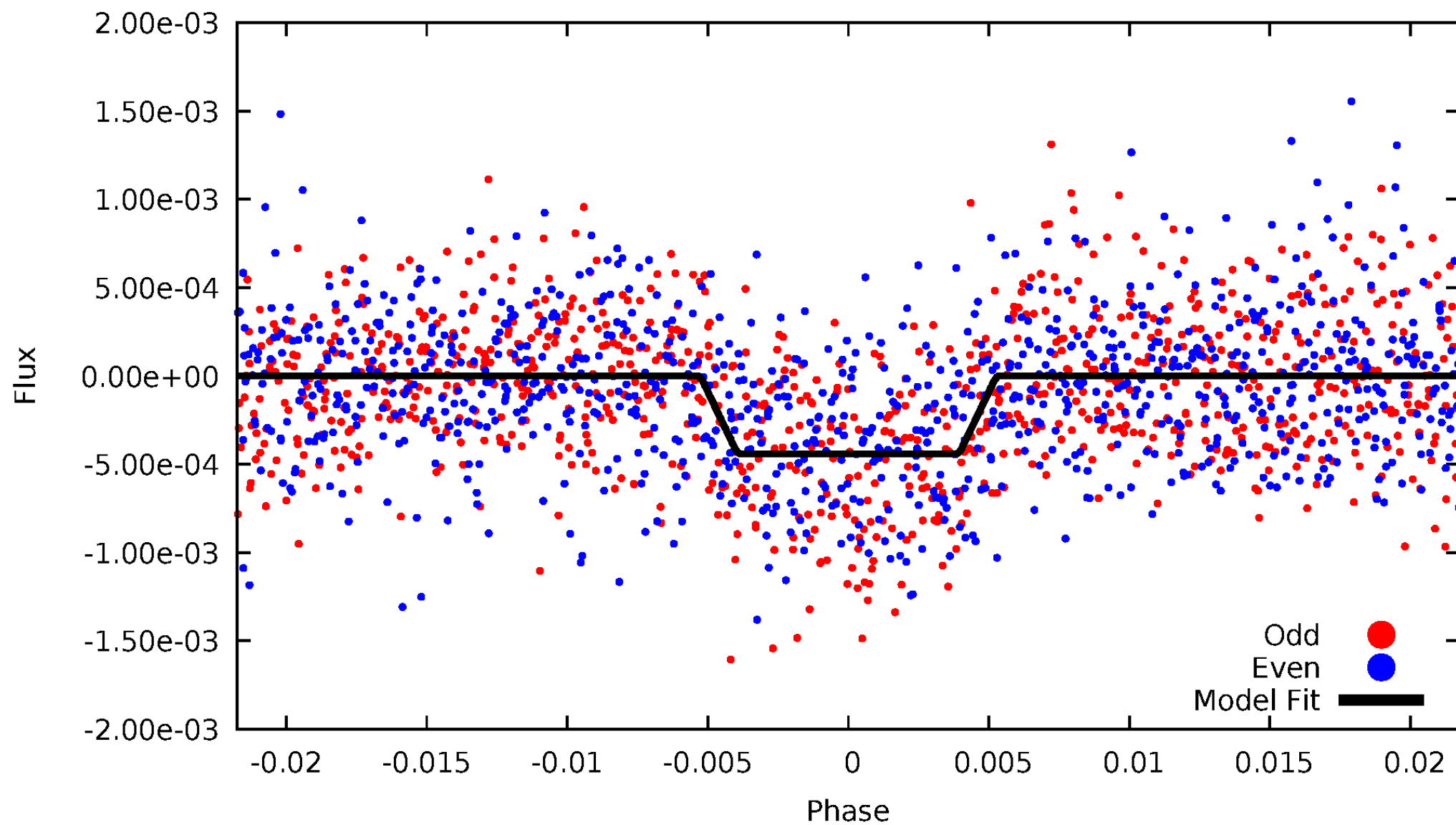
DV Odd/Even

TCE 004483138-01



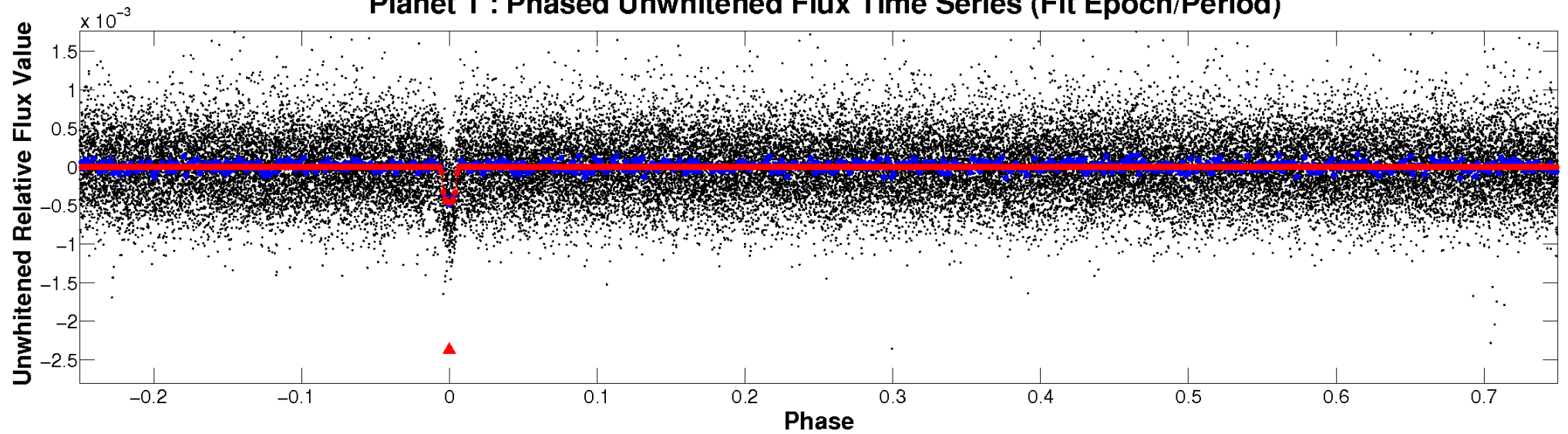
ALT Odd/Even

TCE 004483138-01

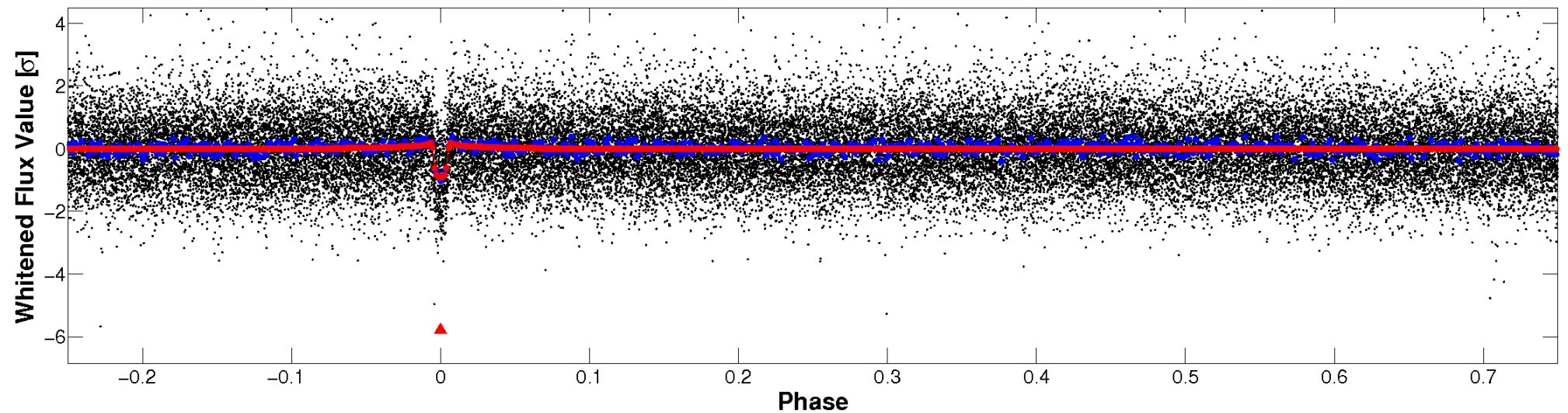


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

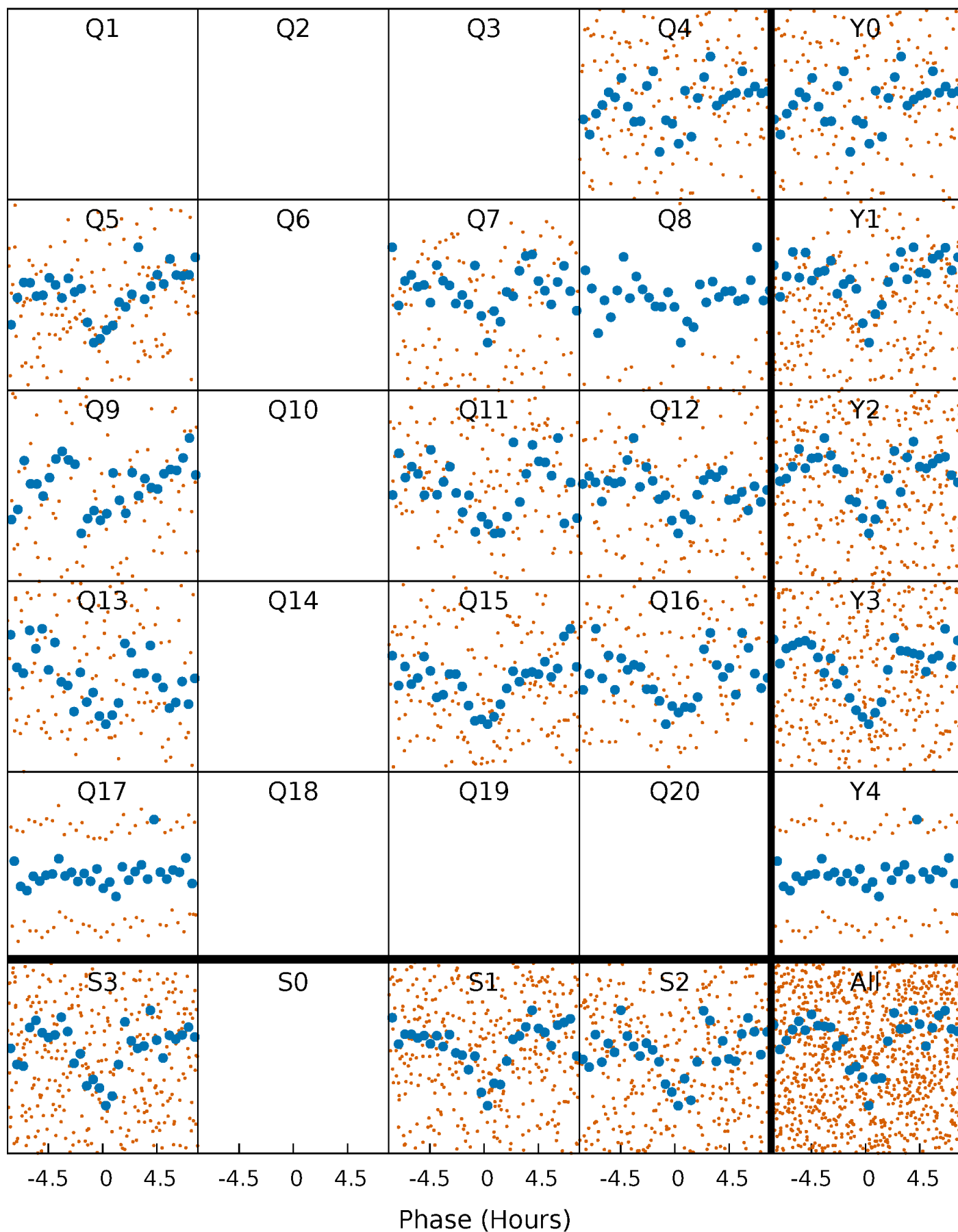


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



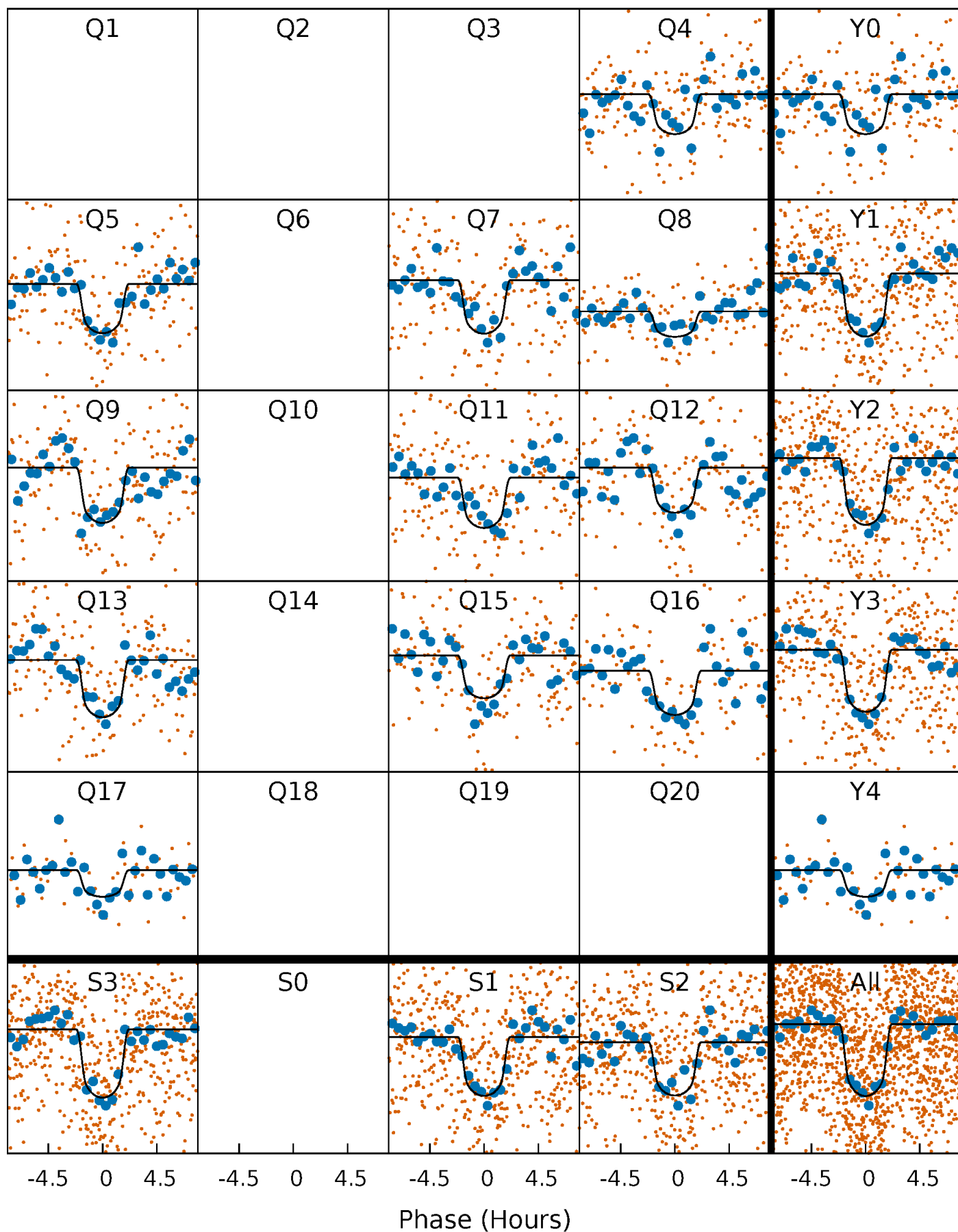
PDC Quarter-Phased Transit Curves

TCE 004483138-01 P= 15.362612 Days $T_0=145.571990$ (BKJD)



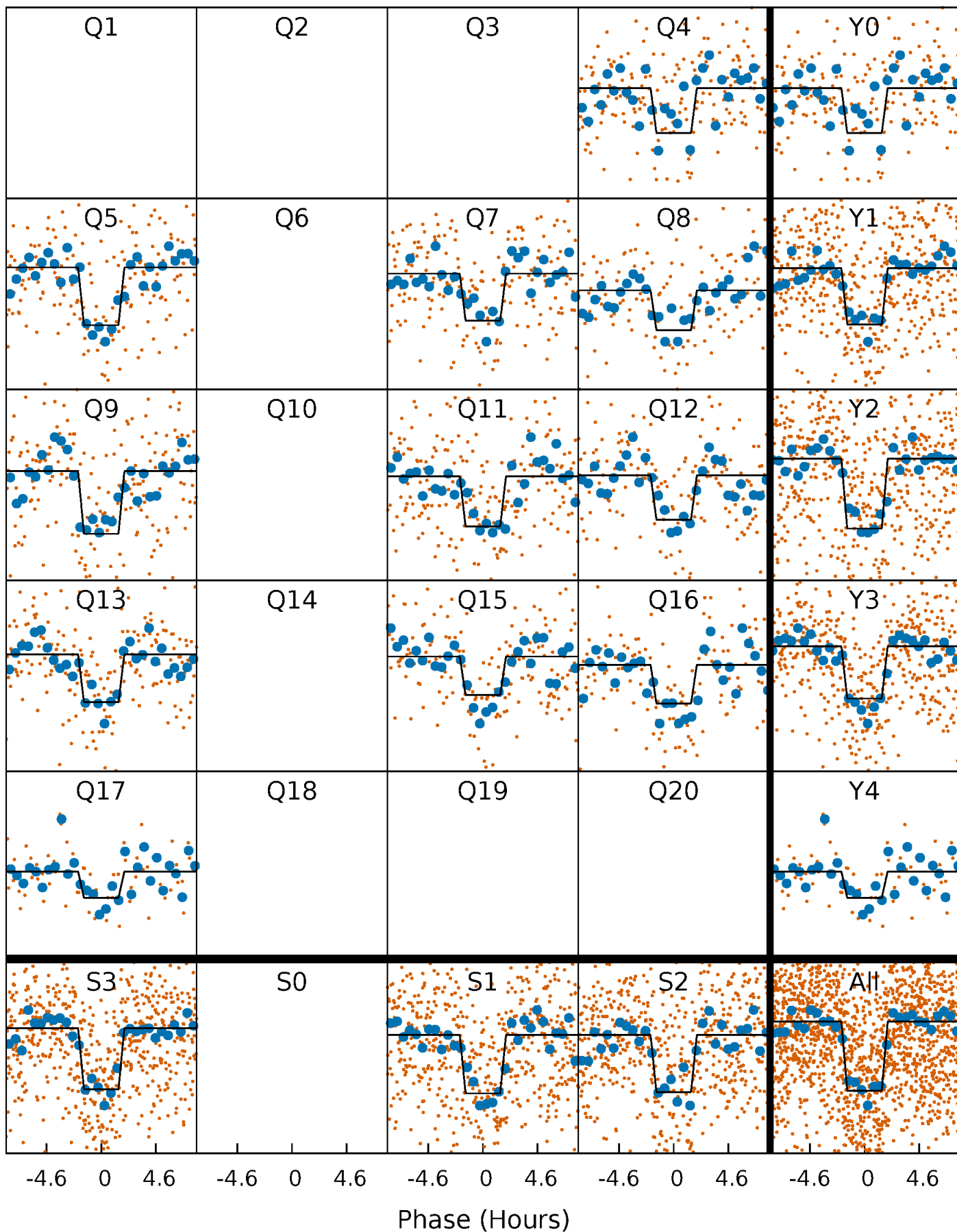
DV Quarter-Phased Transit Curves

TCE 004483138-01 P= 15.362612 Days $T_0=145.571990$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

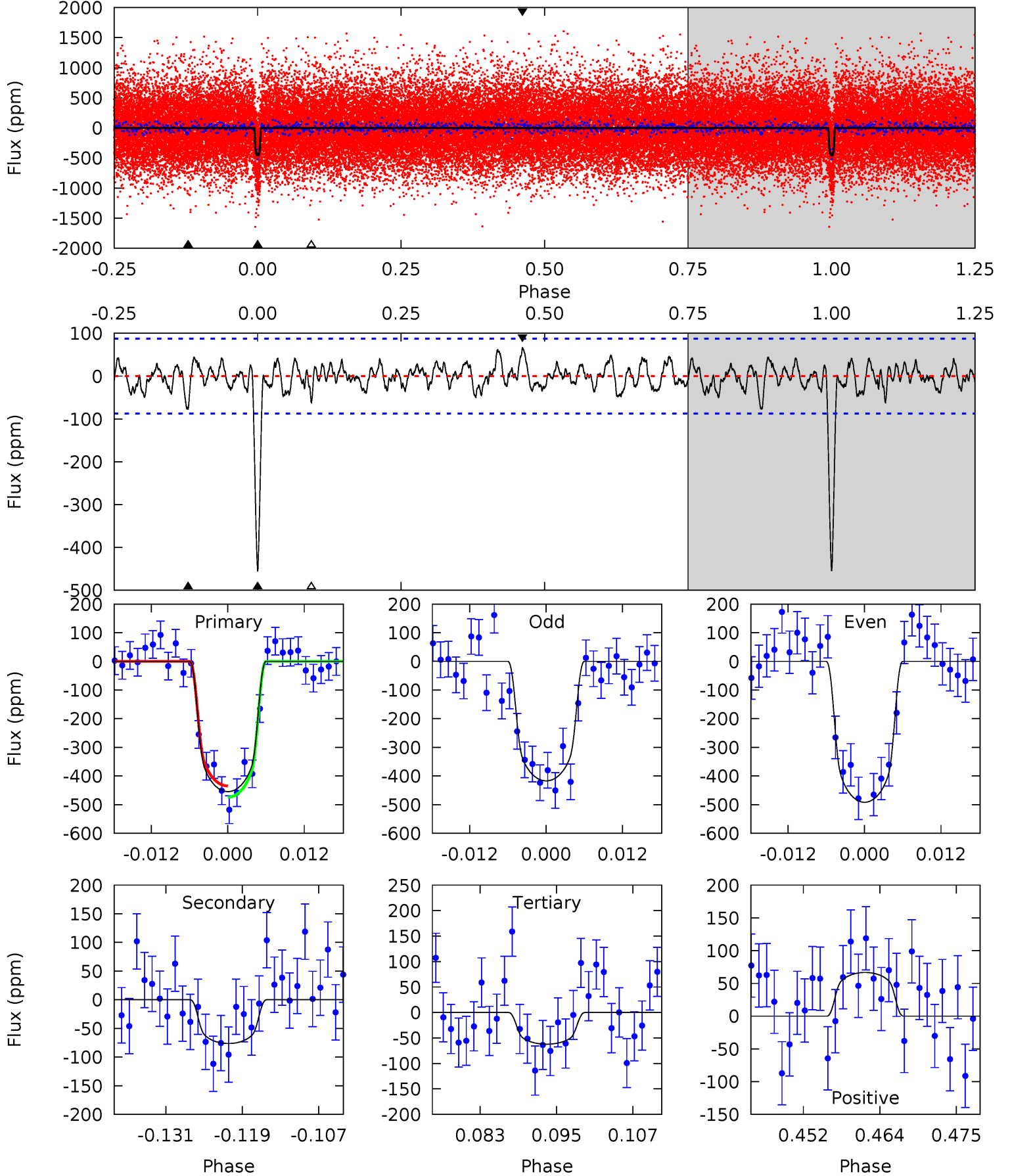
TCE 004483138-01 P= 15.362440 Days $T_0=145.580275$ (BKJD)



DV Model-Shift Uniqueness Test

004483138-01, P = 15.362612 Days, E = 145.571990 Days

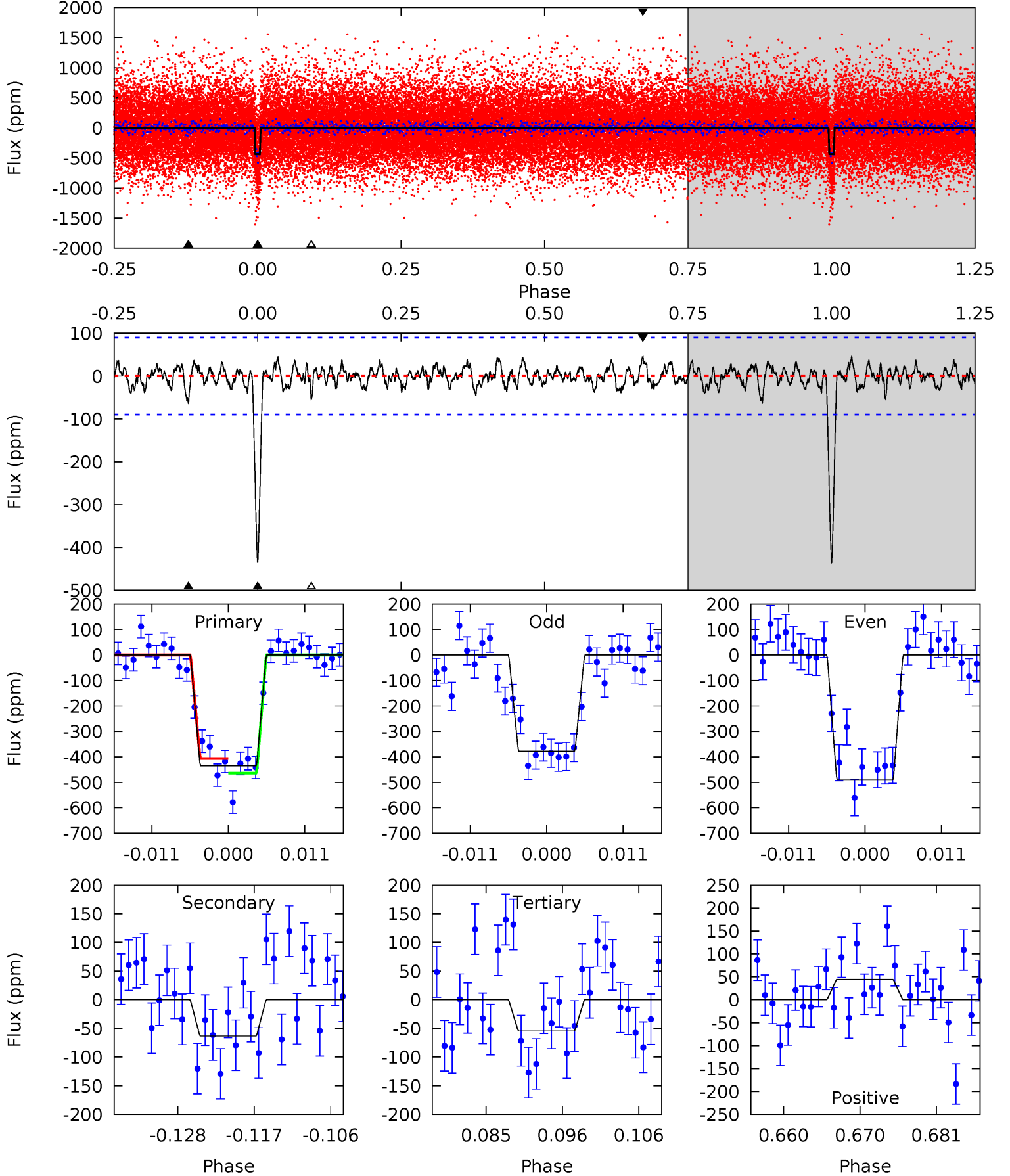
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.0	4.37	3.55	3.81	4.99	2.52	1.30	22.4	22.2	0.81	0.55	2.14	0.98	0.13	1.13



Alt Model-Shift Uniqueness Test

004483138-01, $P = 15.362440$ Days, $E = 145.580275$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.3	3.54	3.04	2.50	5.01	2.55	0.98	21.3	21.8	0.50	1.04	3.15	1.01	0.09	1.60



Stellar Parameters For KIC 004483138

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5011^{+192}_{-174}	$4.484^{+0.105}_{-0.105}$	$0.200^{+0.200}_{-0.300}$	$0.851^{+0.099}_{-0.099}$	$0.806^{+0.074}_{-0.062}$	$1.839^{+0.737}_{-0.482}$
	+4%/-3%	+2%/-2%	+100%/-150%	+12%/-12%	+9%/-8%	+40%/-26%
Source	KIC0	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 004483138-01 / KOI 2910.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-76 ± 17	$2.19^{+0.59}_{-0.48}$	853^{+42}_{-44}	3476^{+338}_{-265}	108^{+77}_{-44}
Alt.	-63 ± 18	$1.95^{+0.50}_{-0.48}$	851^{+49}_{-45}	3499^{+412}_{-293}	114^{+94}_{-49}

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

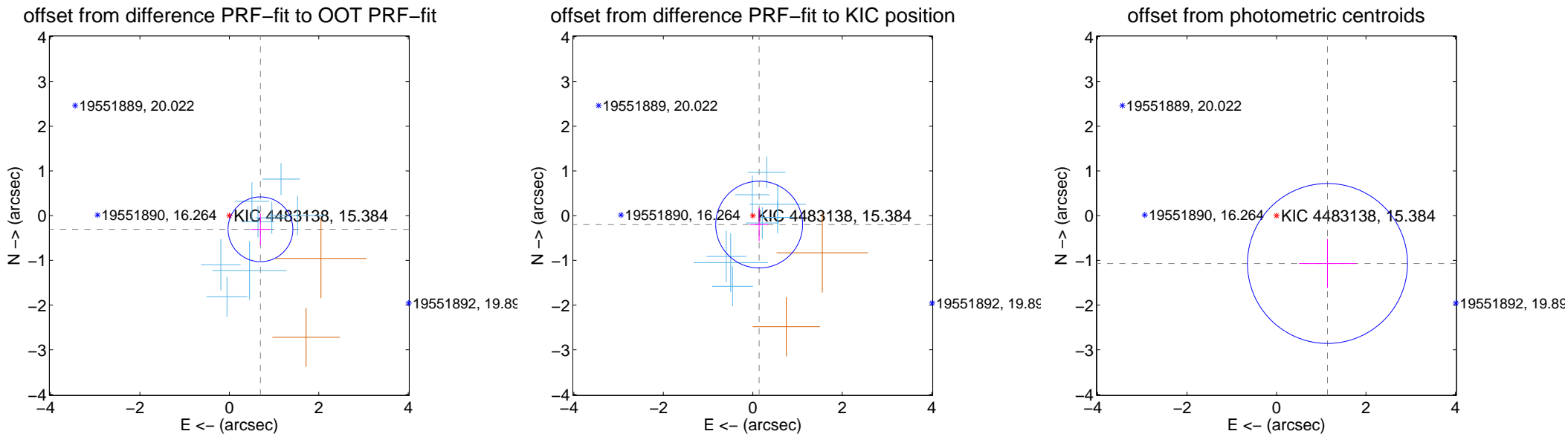
DV Centroid Data

Supplemental centroid analysis for 004483138-01. Kepler magnitude: 15.38. Transit SNR 16.44

There are 8 quarters with good PRF difference image offsets

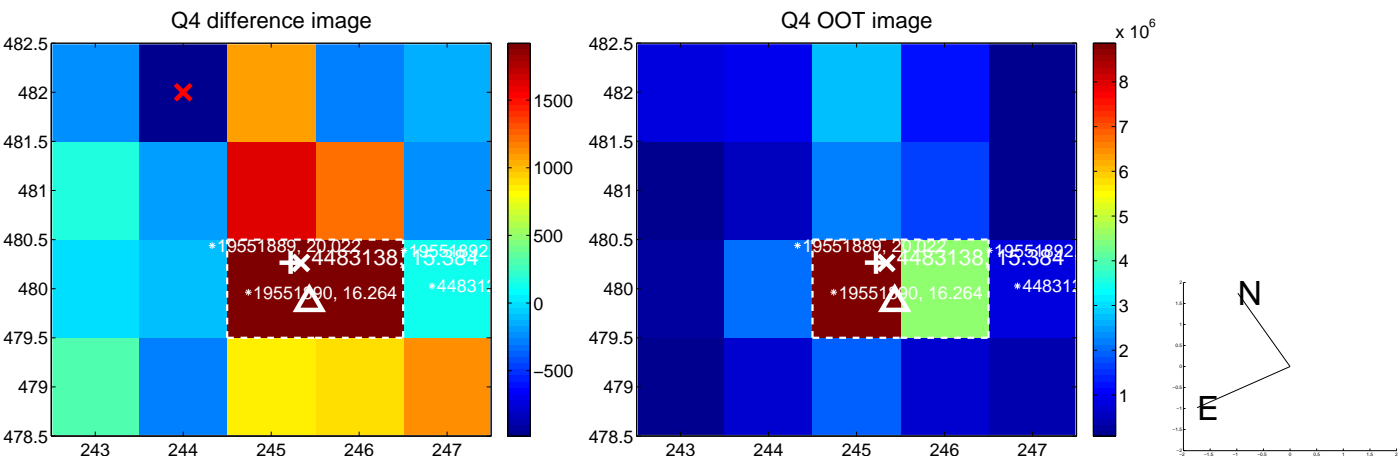
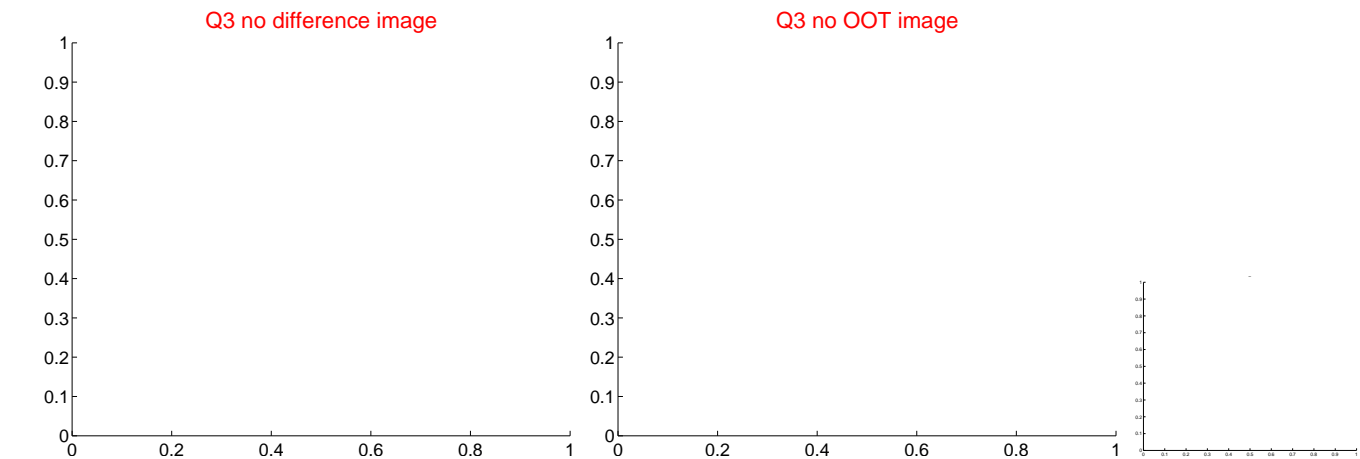
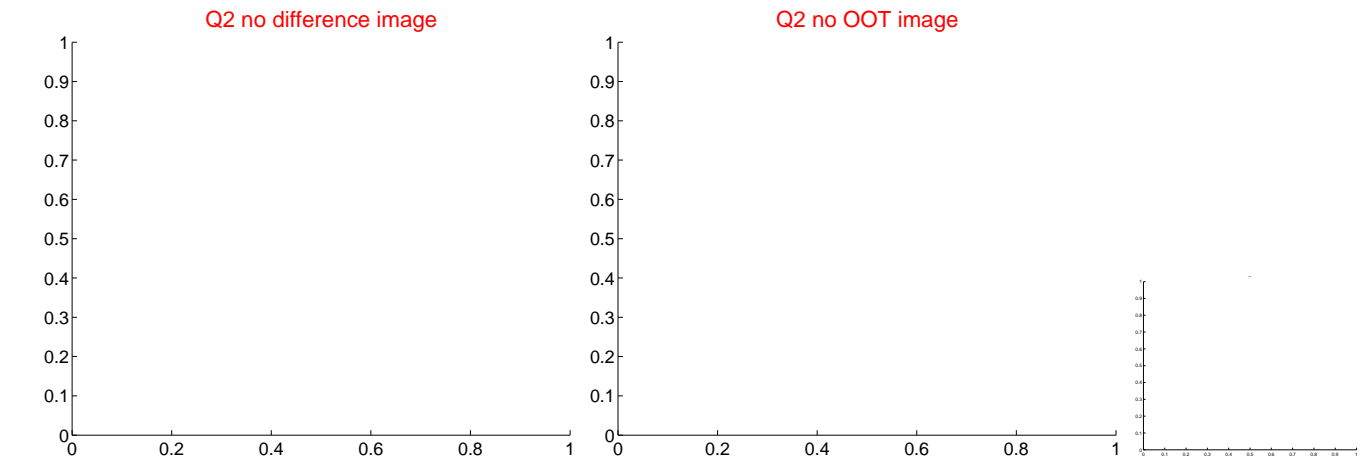
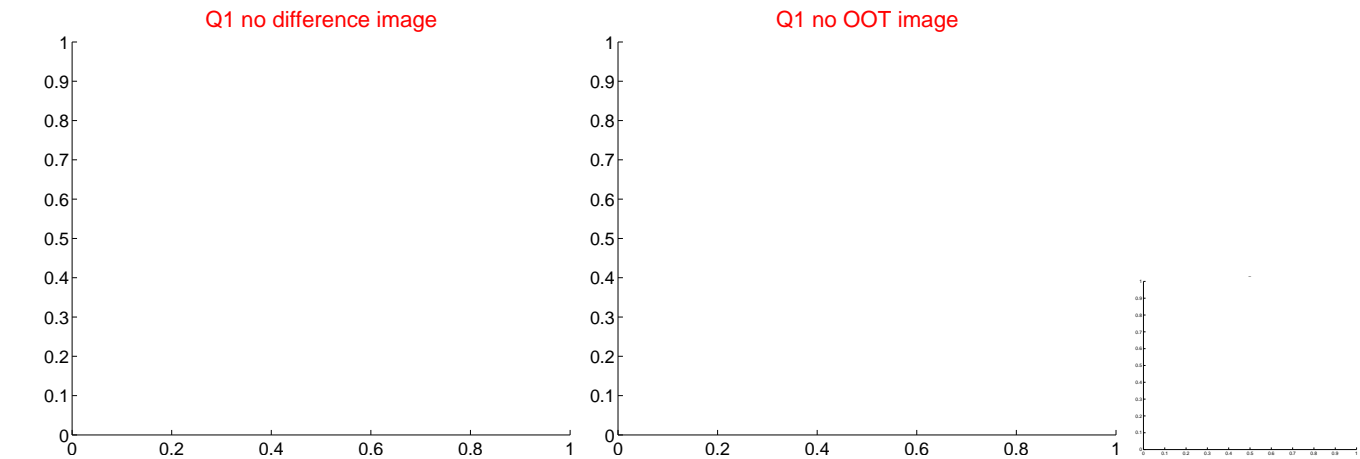
The direct PRF centroid is offset from the target star catalog position by about 1.00 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.760 ± 0.241	3.15	-0.696 ± 0.213	-0.306 ± 0.355
PRF-fit source offset from KIC position	0.245 ± 0.324	0.76	-0.142 ± 0.208	-0.200 ± 0.371
photometric centroid source offset	1.56 ± 0.60	2.62	-1.14 ± 0.64	-1.07 ± 0.55

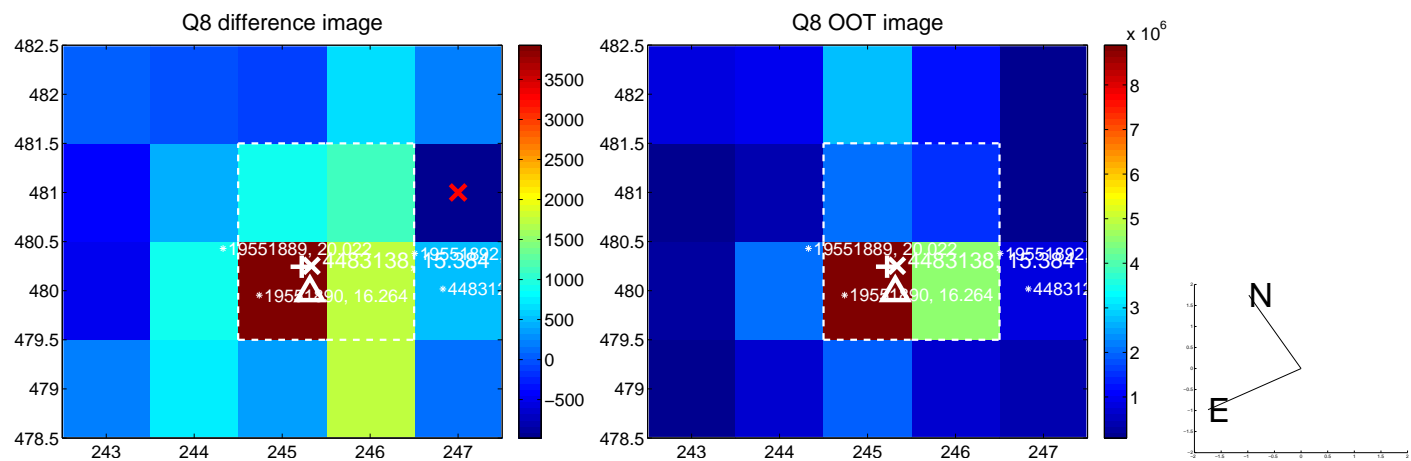
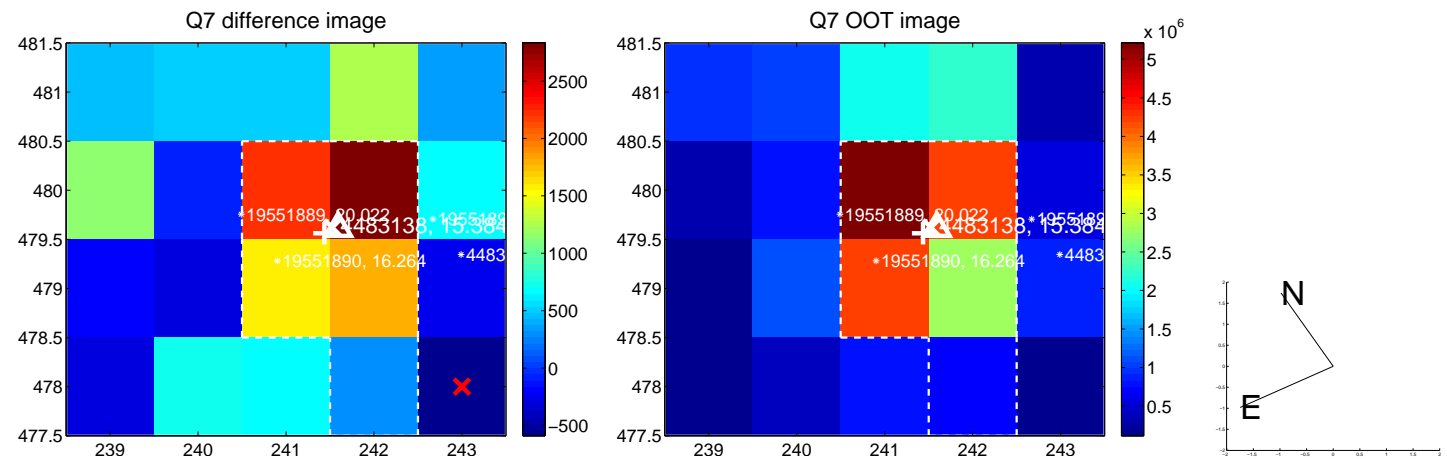
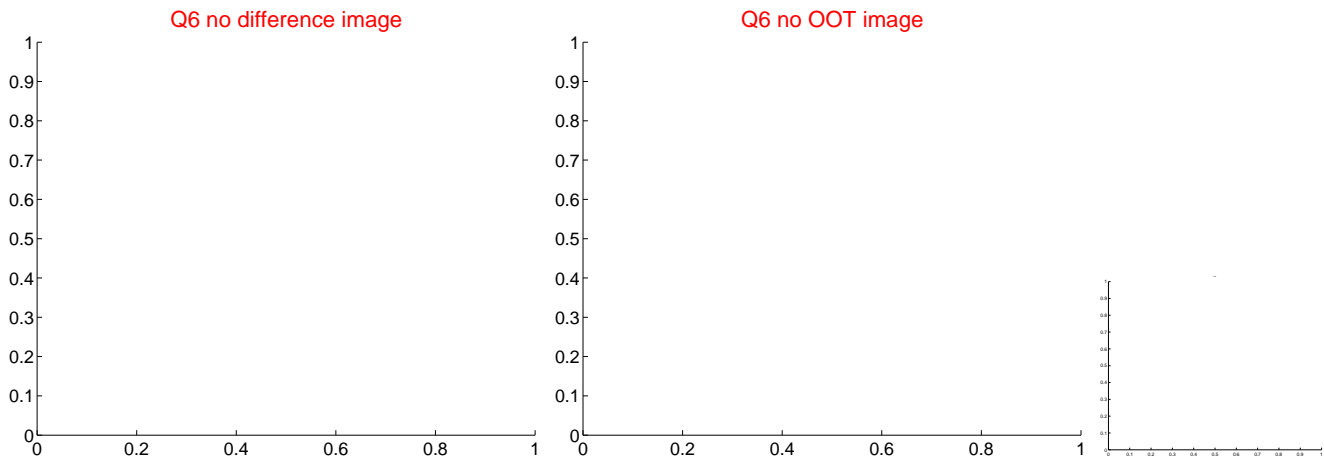
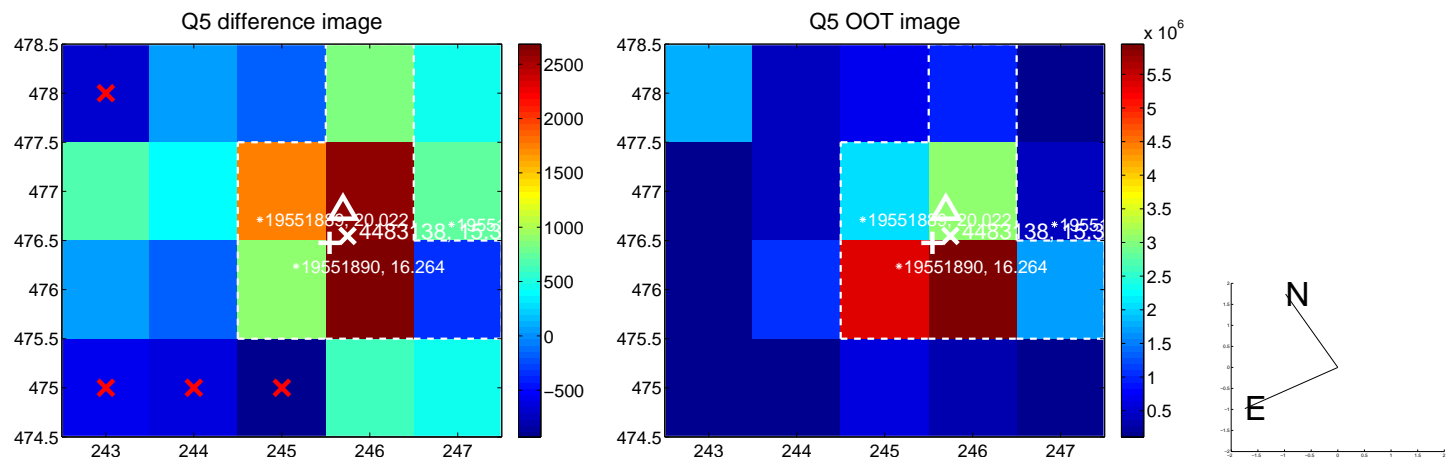


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

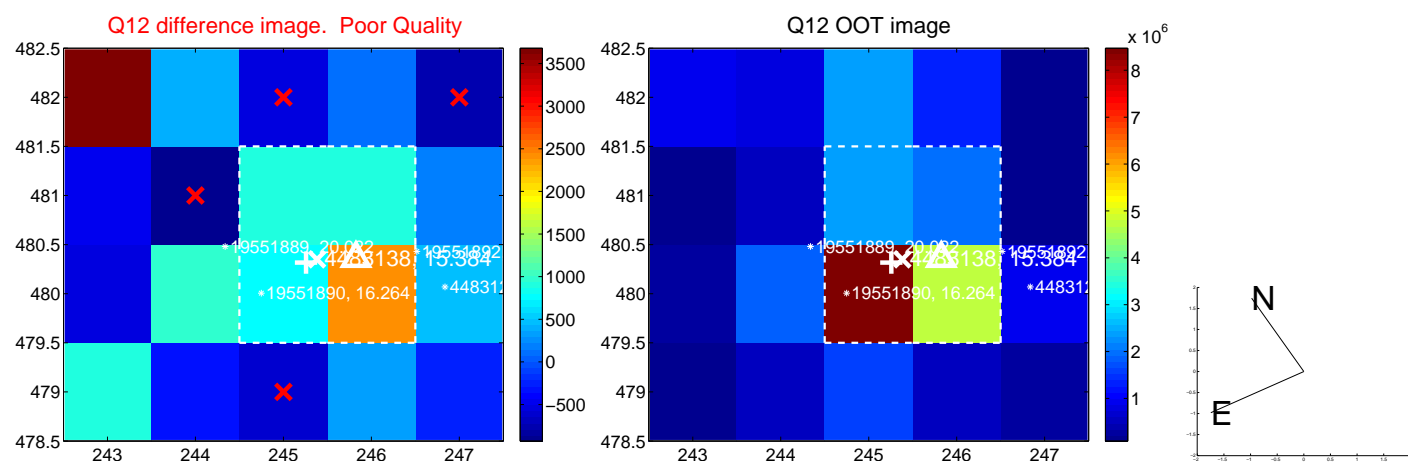
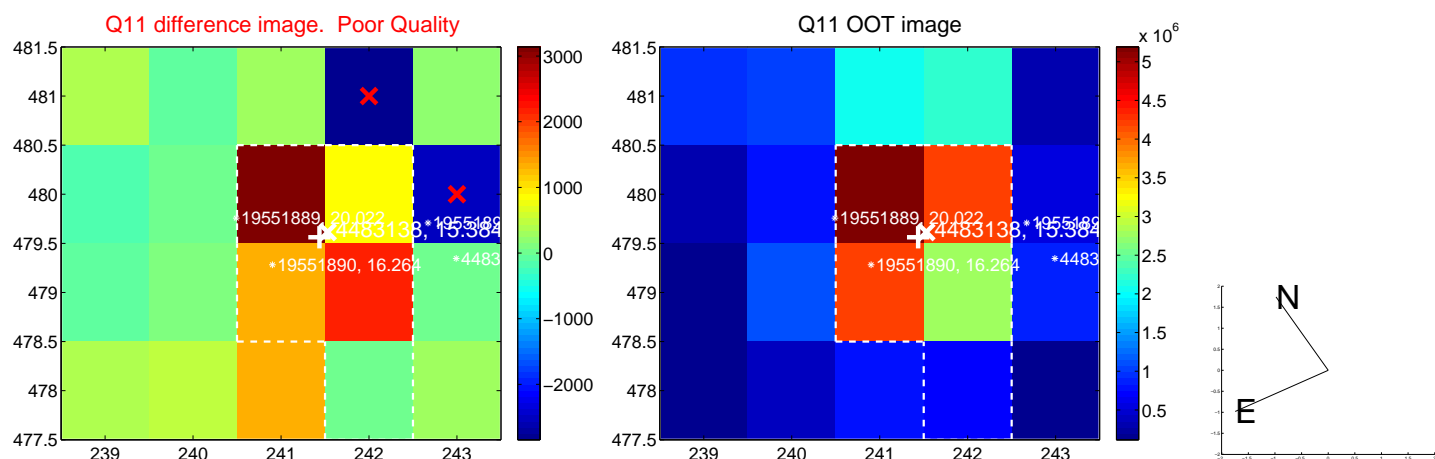
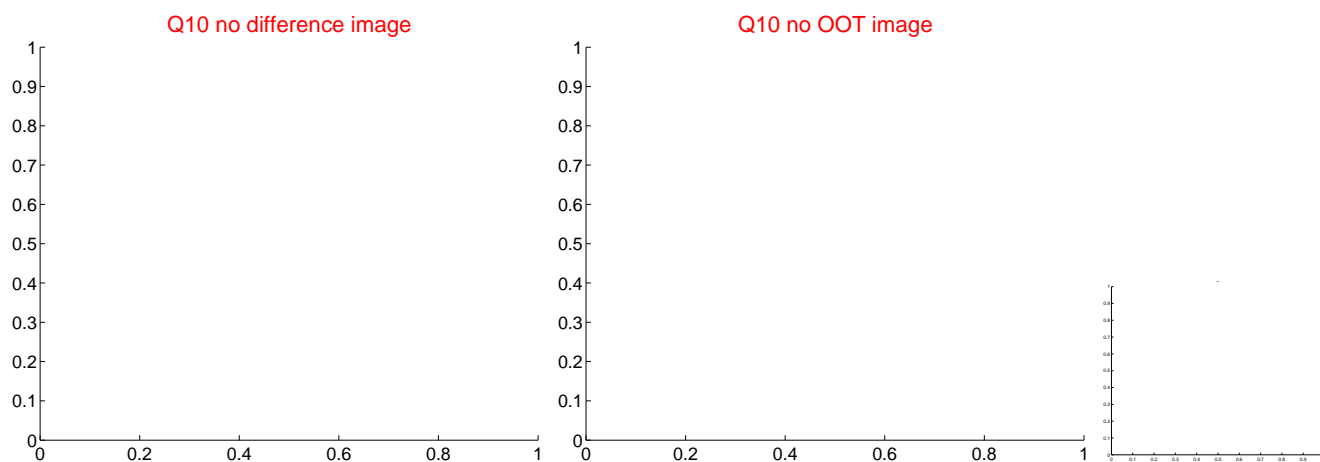
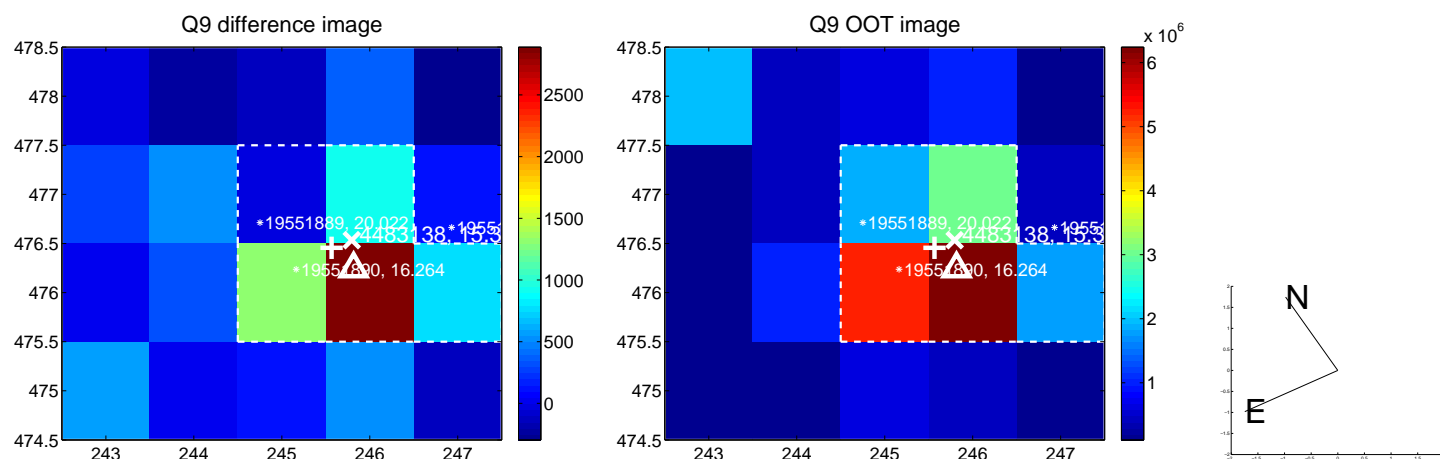
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



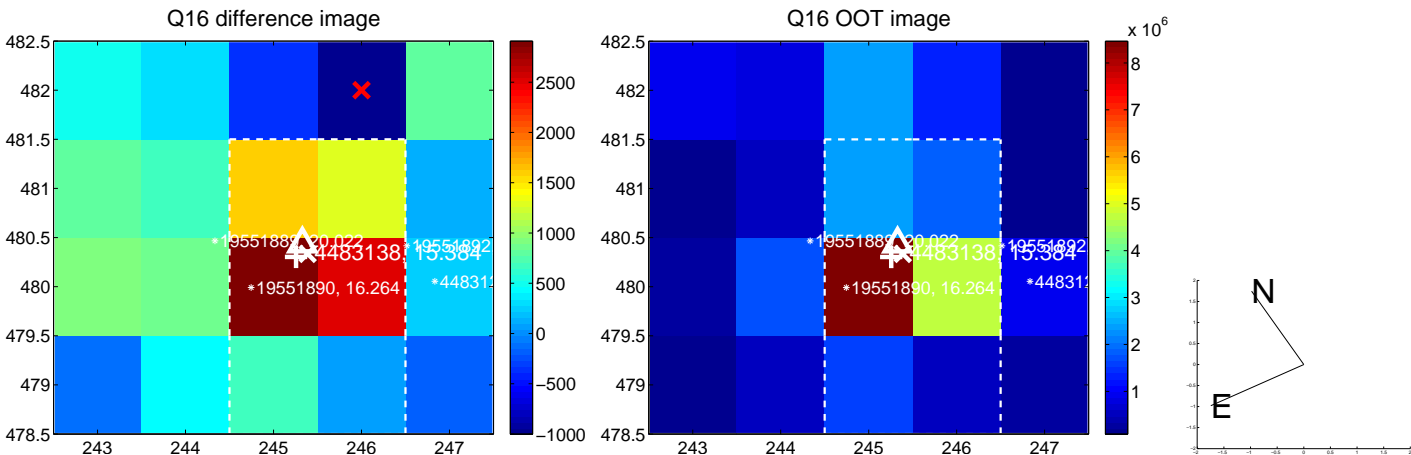
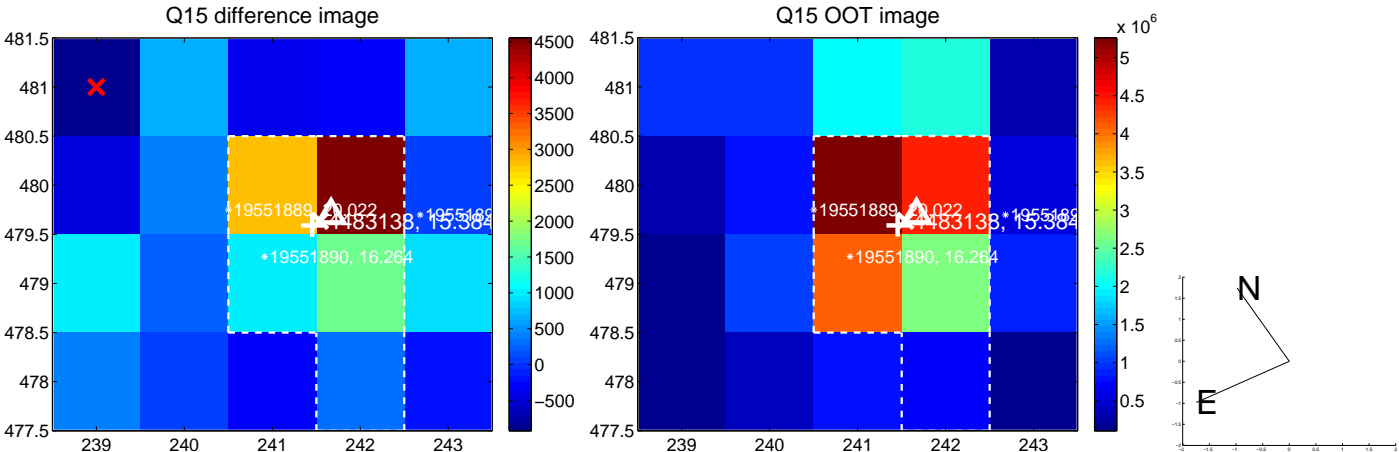
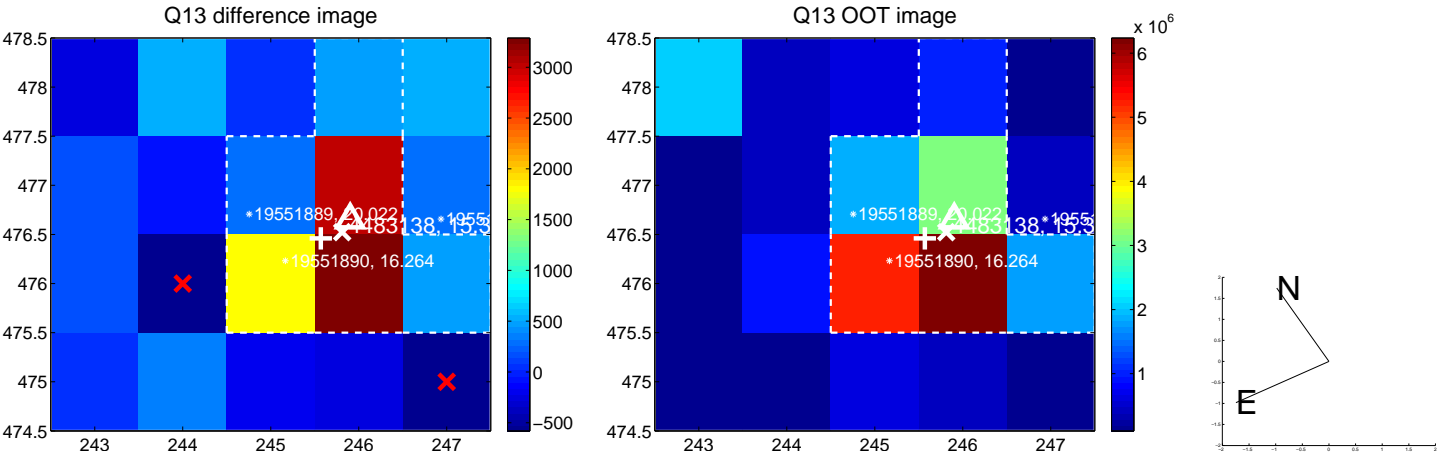
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



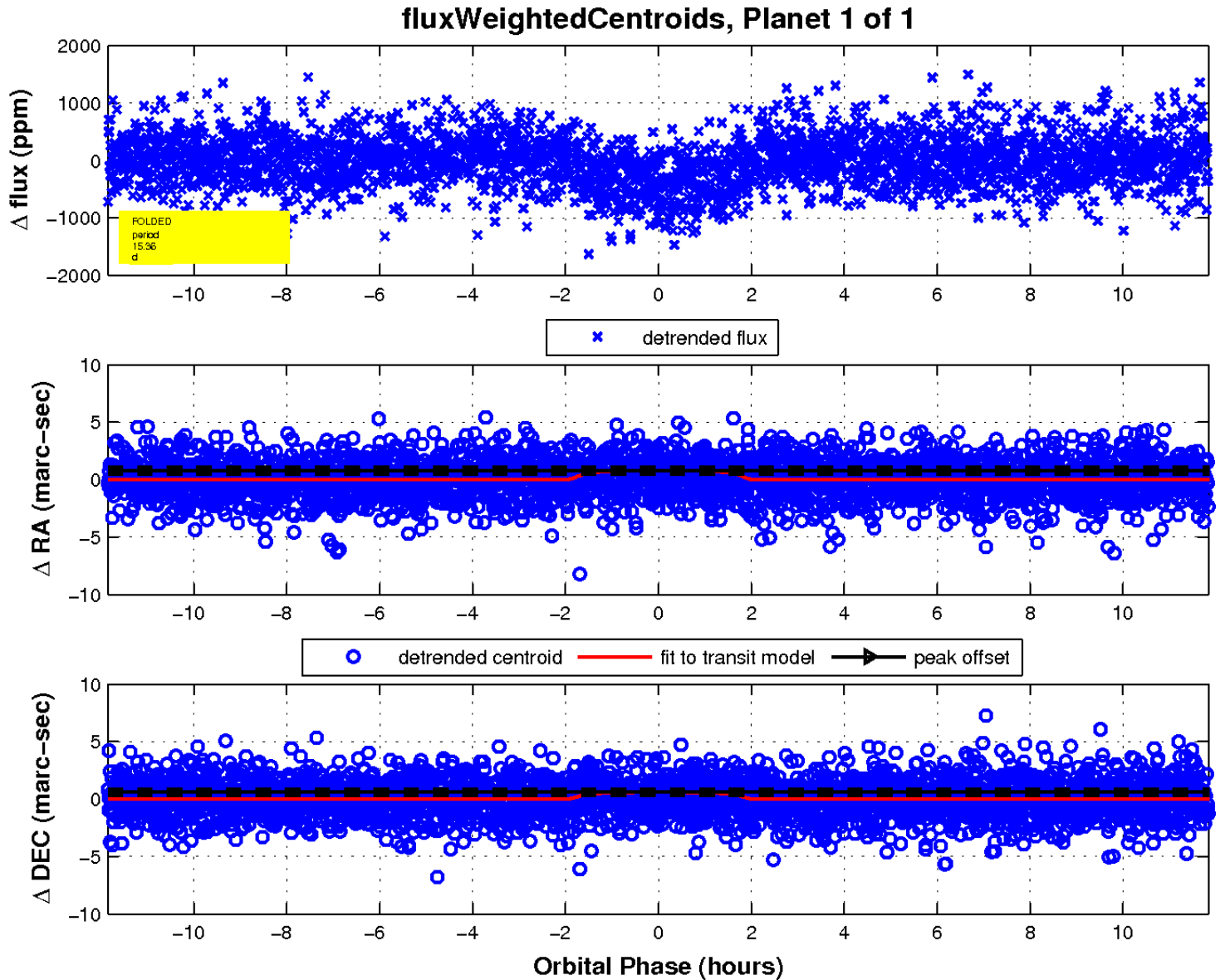
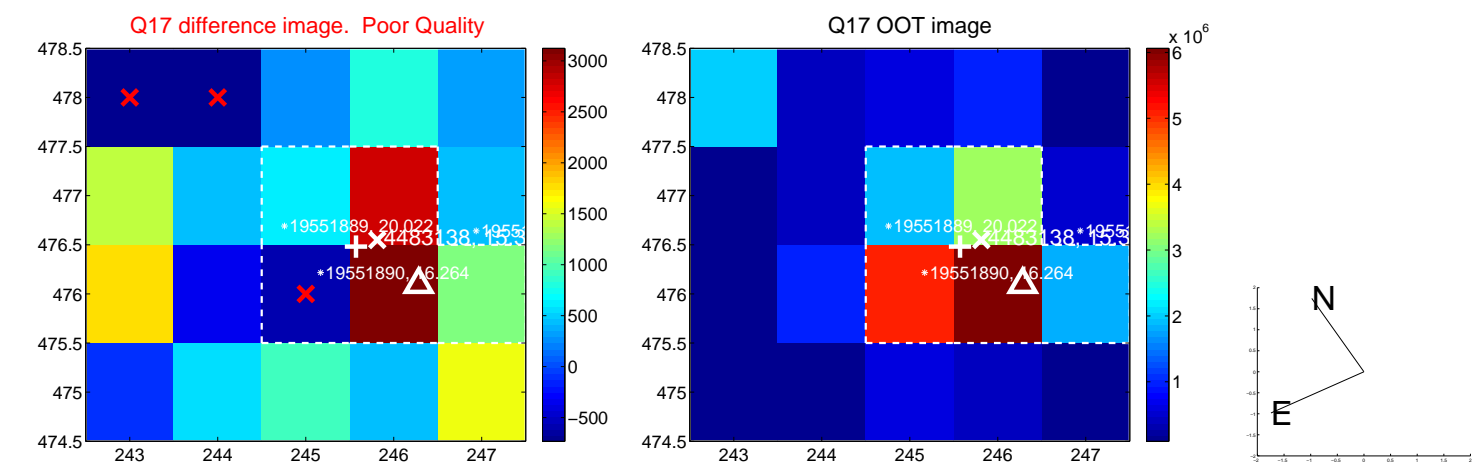
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

