

KIC 003330684

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})
003330684-01	OBS	4533.01	1.261328	132.426350	81.7	1.429	9.9	9.9	0.13	2900	0.14	9.41

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003330684-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET

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

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

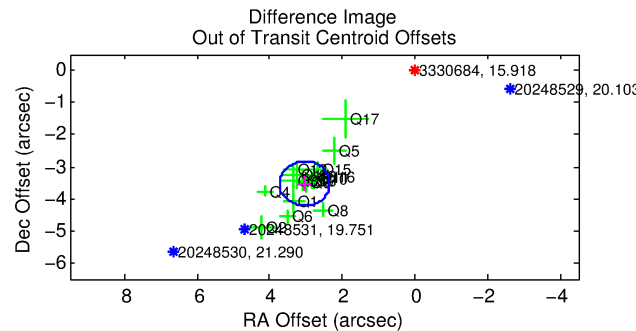
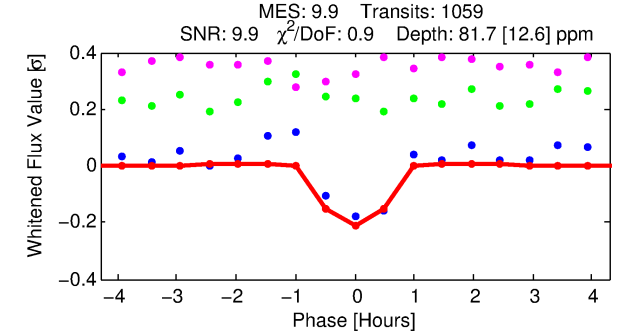
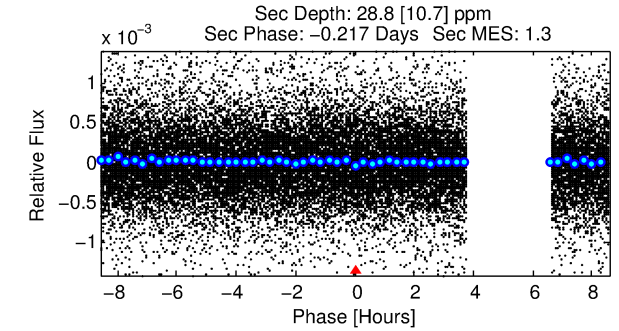
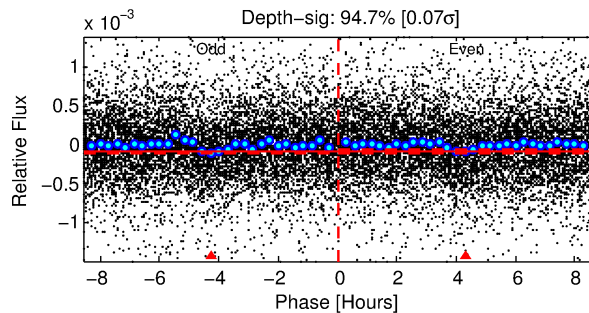
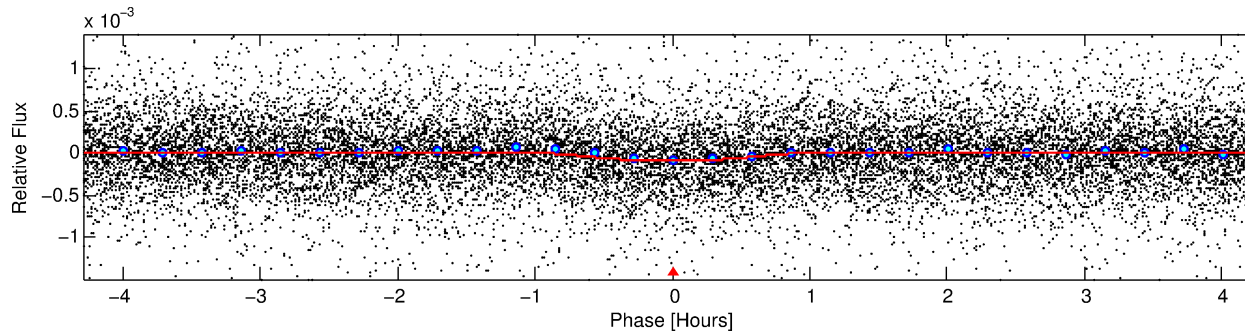
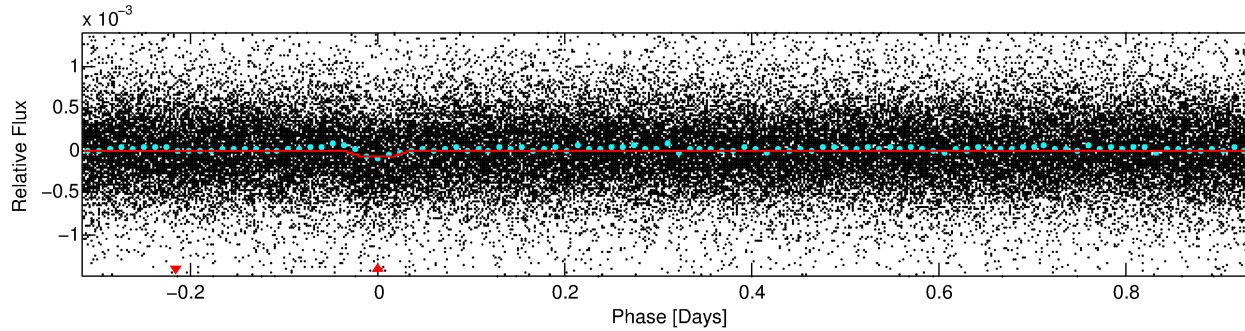
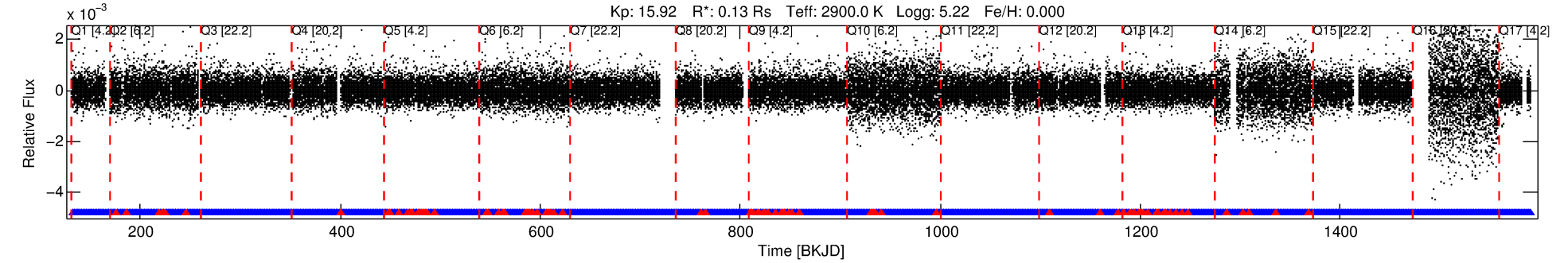
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003330684-01

No Significant Match Found

DV One-Page Summary

KIC: 3330684 Candidate: 1 of 1 Period: 1.261 d
KOI: K04533.01 Corr: 0.974



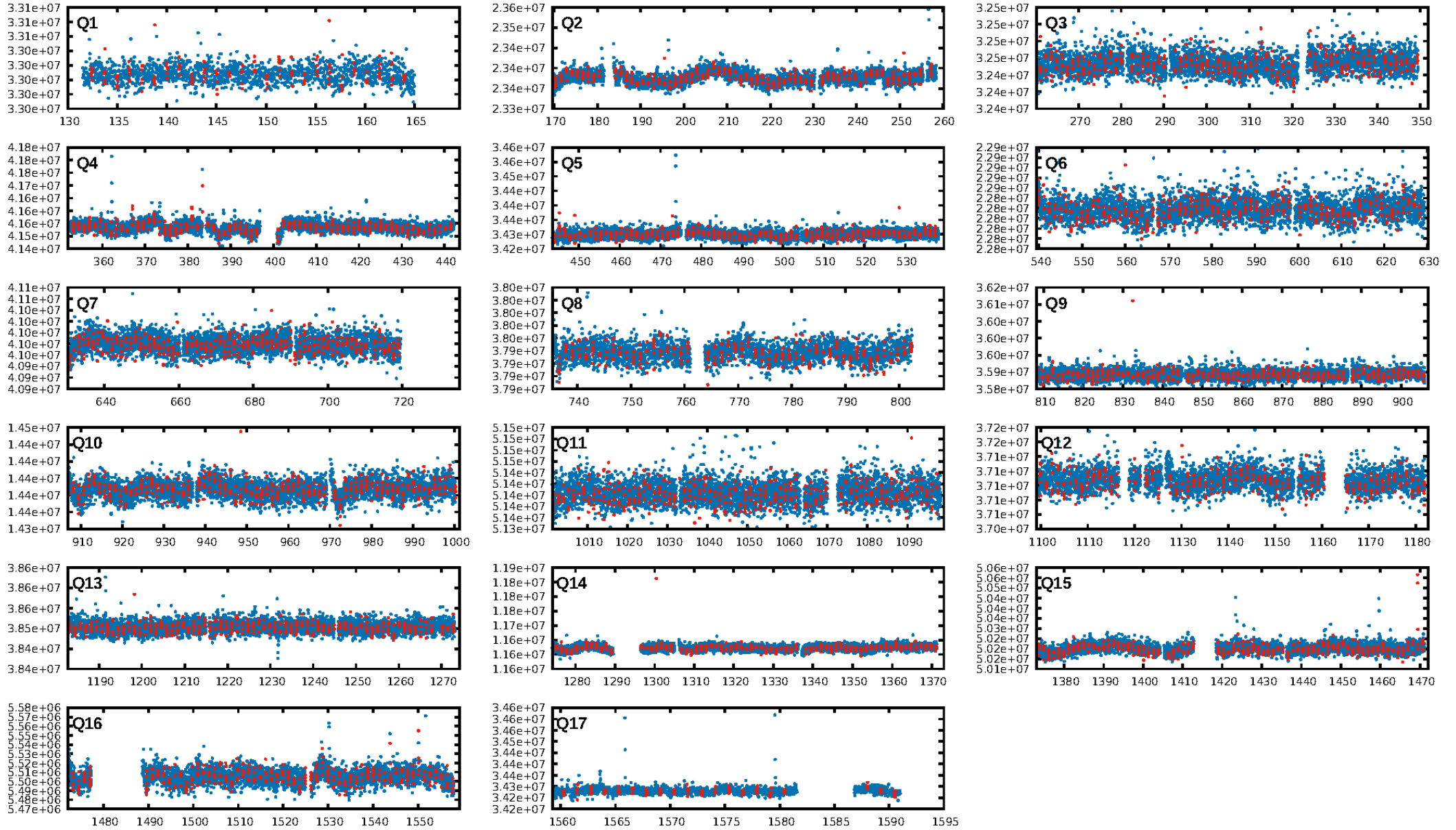
DV Fit Results:

Period = 1.26133 [0.00001] d
Epoch = 132.4263 [0.0024] BKJD
Rp/R* = 0.0099 [0.0092]
a/R* = 3.25 [12.00]
b = 0.90 [0.89]
Seff = 9.41 [0.00]
Teq = 447 [0] K
Rp = 0.14 [0.13] Re
a = 0.0108 [0.0000] AU
Ag = 91.31 [173.94] [0.52σ]
Teffp = 2135 [1017] K [1.66σ]

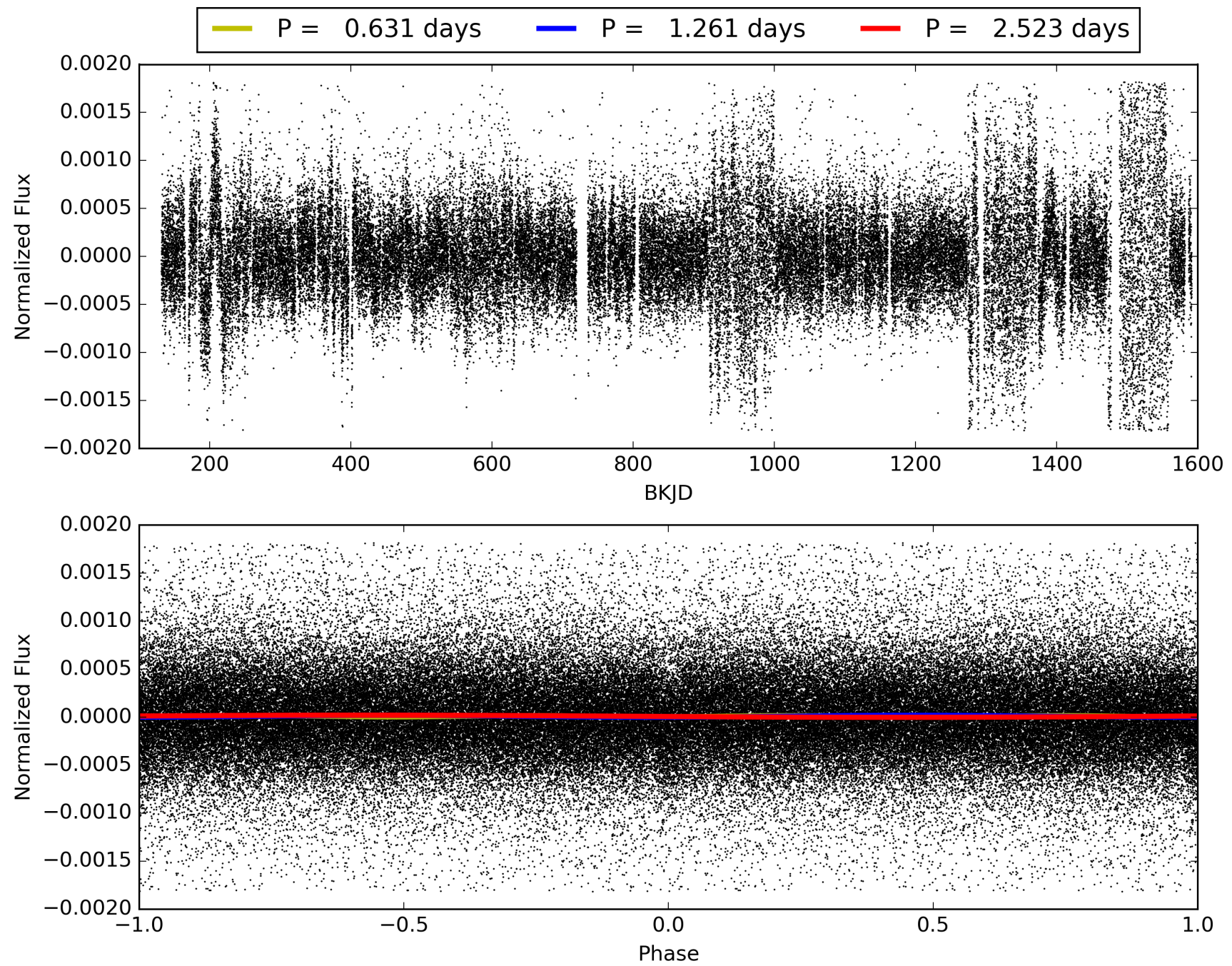
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 5.34e-22
RollingBand-fgt: 0.91 [923/1013]
GhostDiagnostic-chr: 0.3889
Centroid-sig: 0.0%
Centroid-so: 15.474 arcsec [13.96σ]
OotOffset-rm: 4.657 arcsec [20.22σ]
KicOffset-rm: 8.688 arcsec [58.55σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.94 [16/17]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 003330684-01, PDC Light Curves

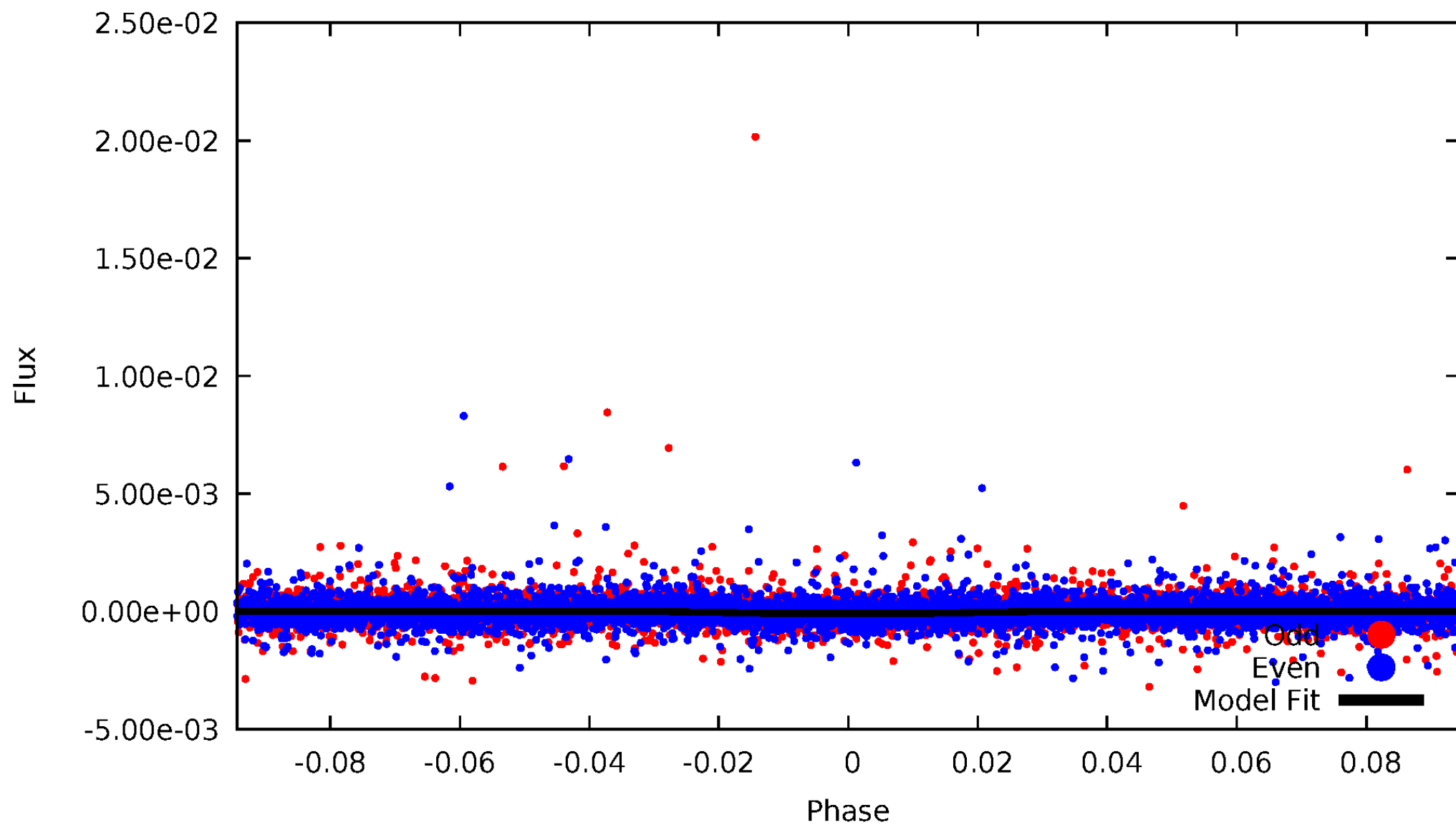


TCE 003330684-01



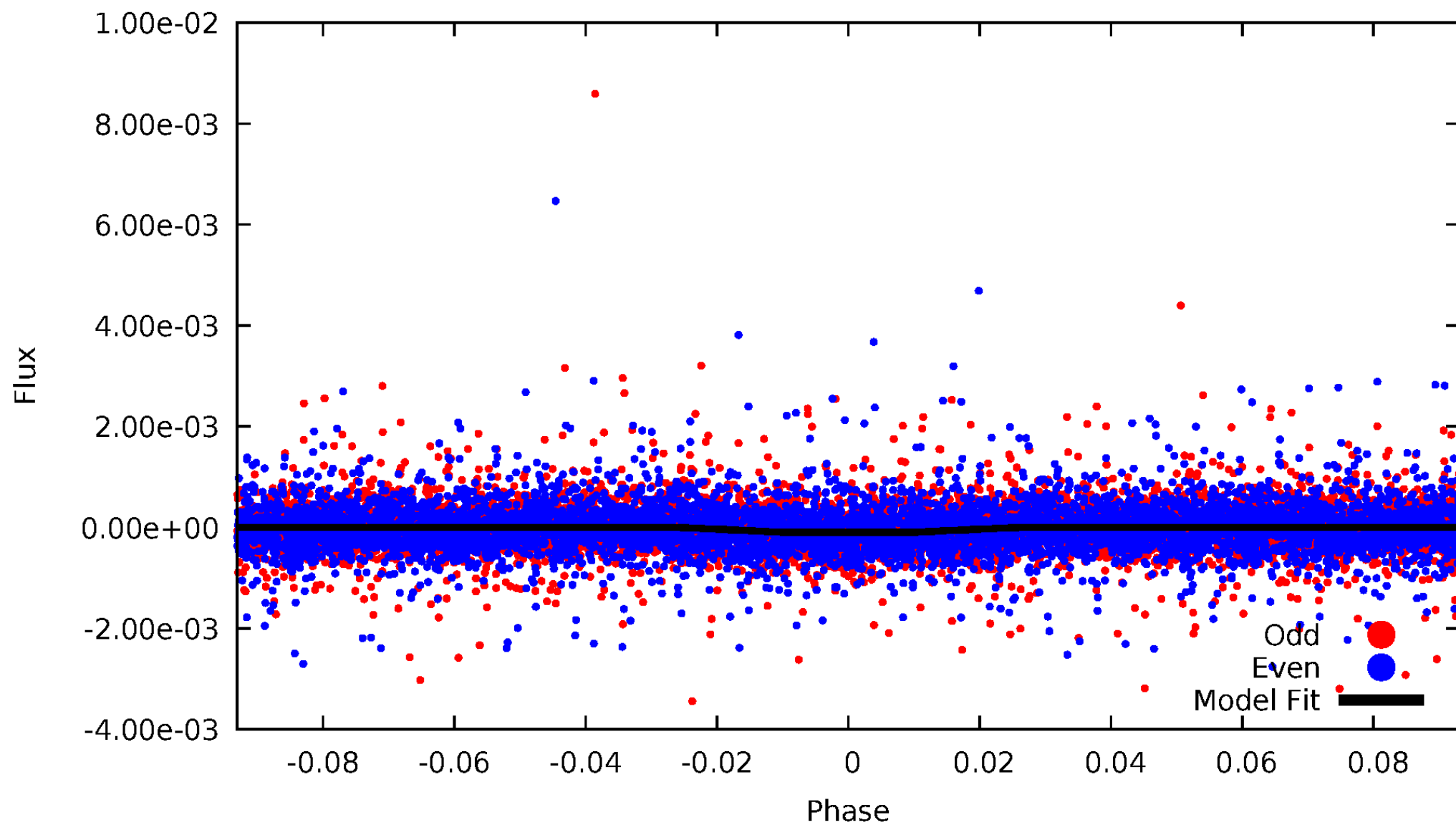
DV Odd/Even

TCE 003330684-01



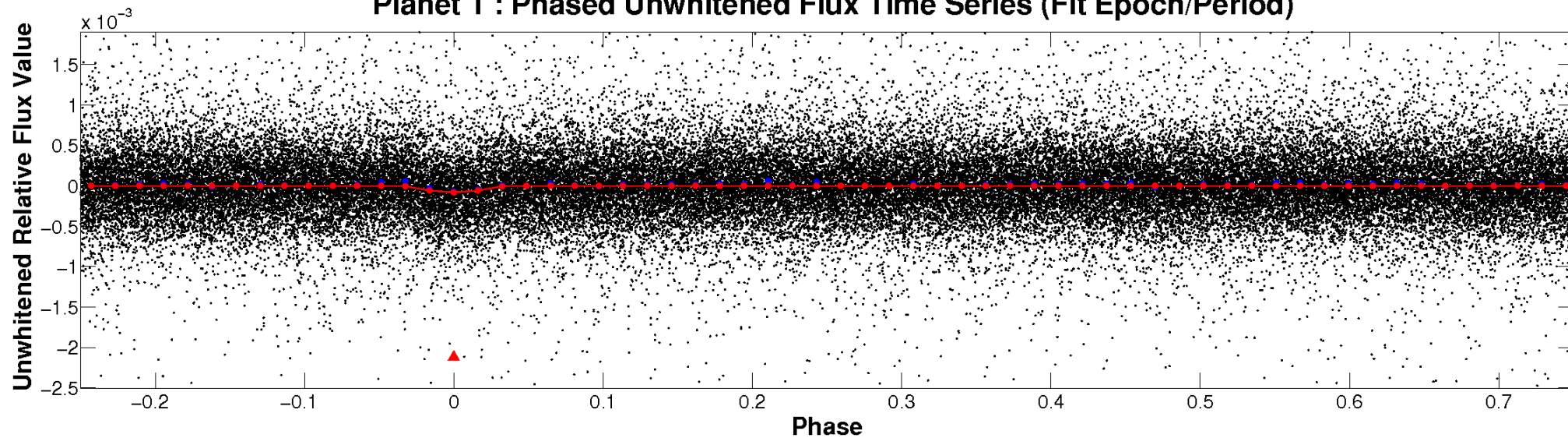
ALT Odd/Even

TCE 003330684-01

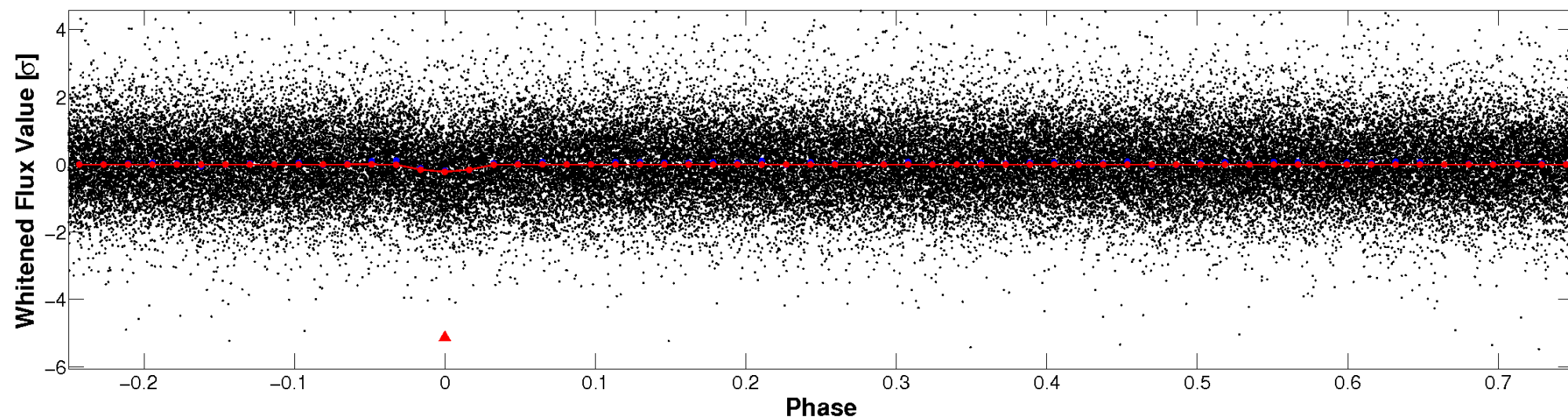


Non-Whitened Vs. Whitened Light Curve

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

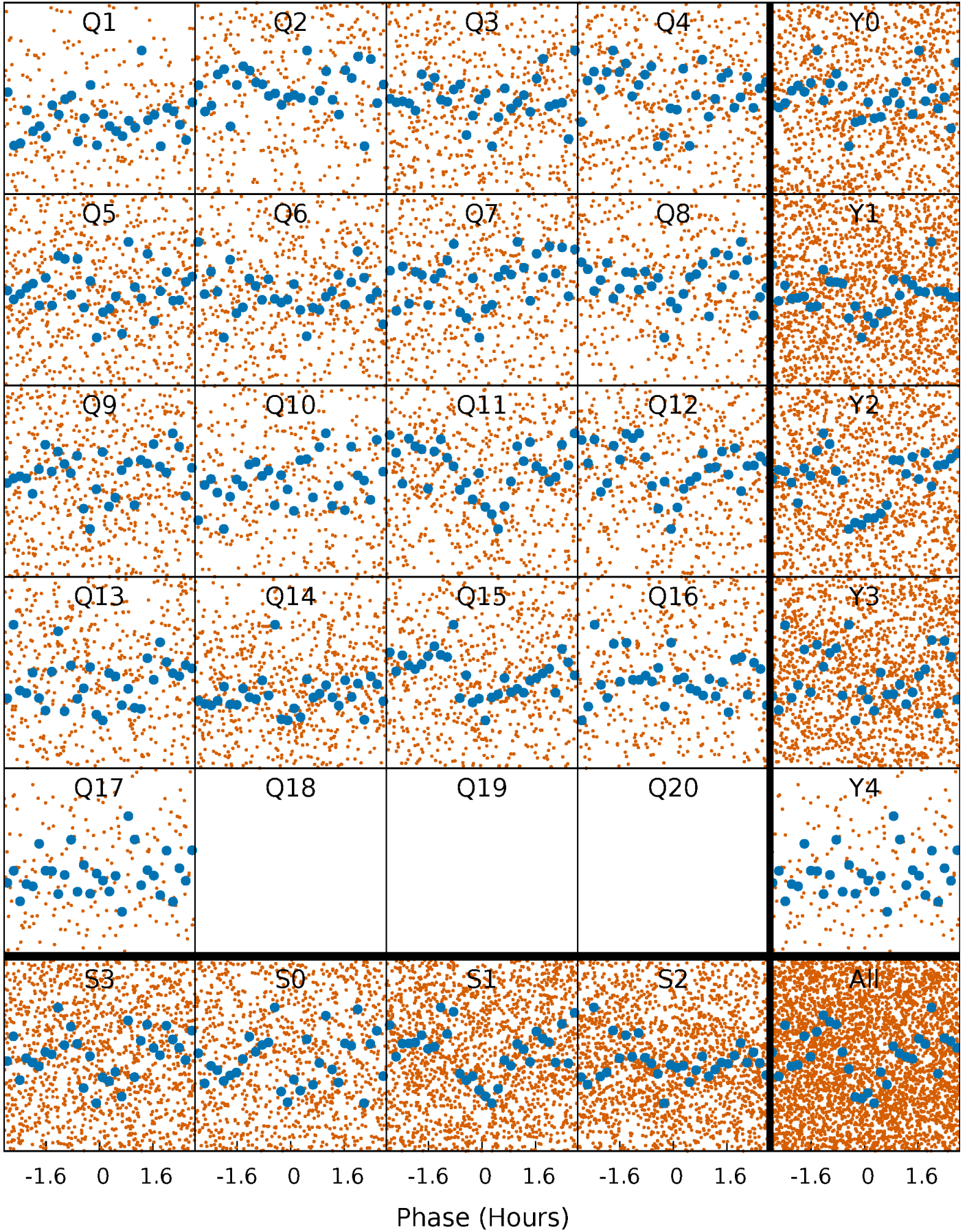


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



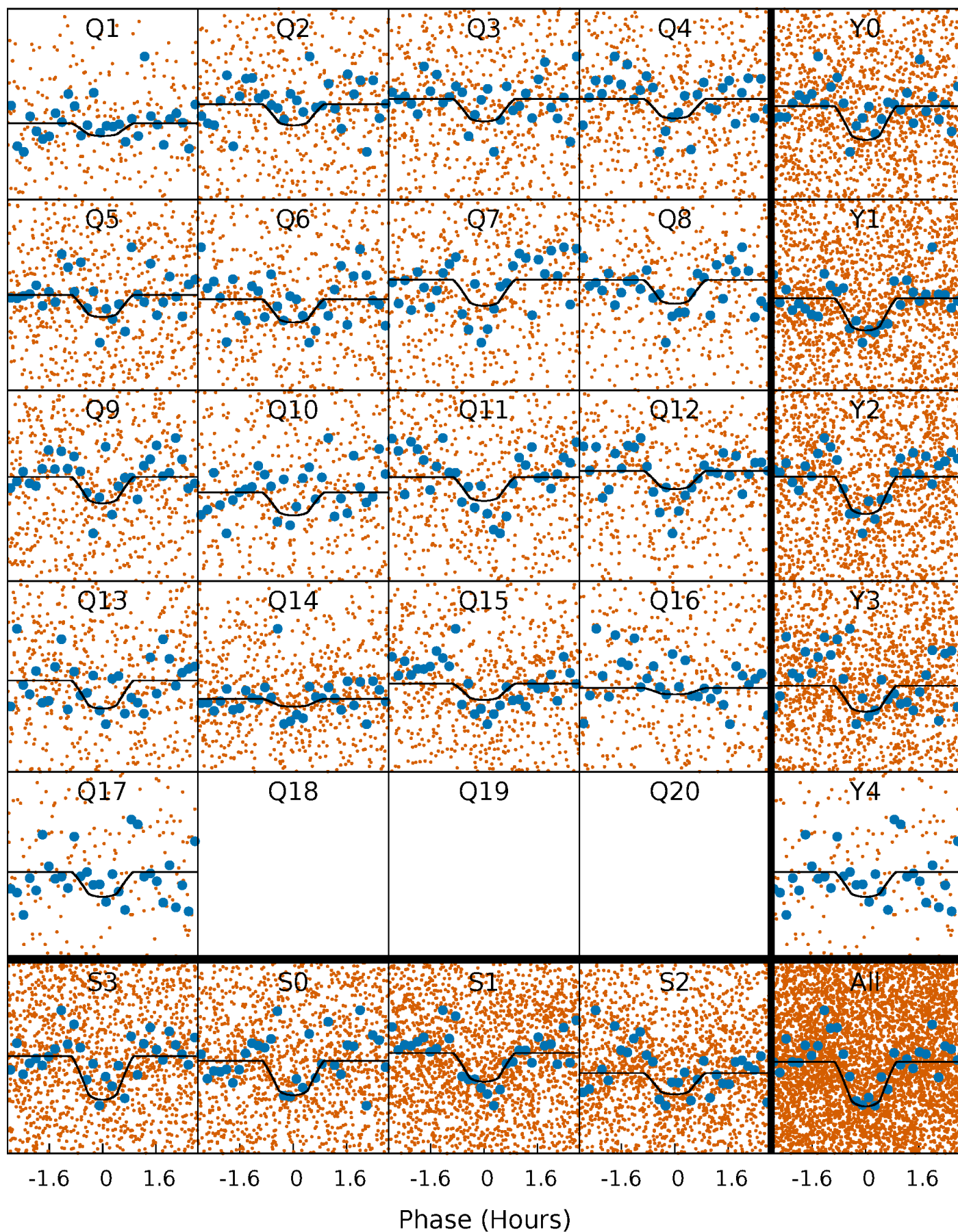
PDC Quarter-Phased Transit Curves

TCE 003330684-01 P= 1.261328 Days $T_0=132.426350$ (BKJD)



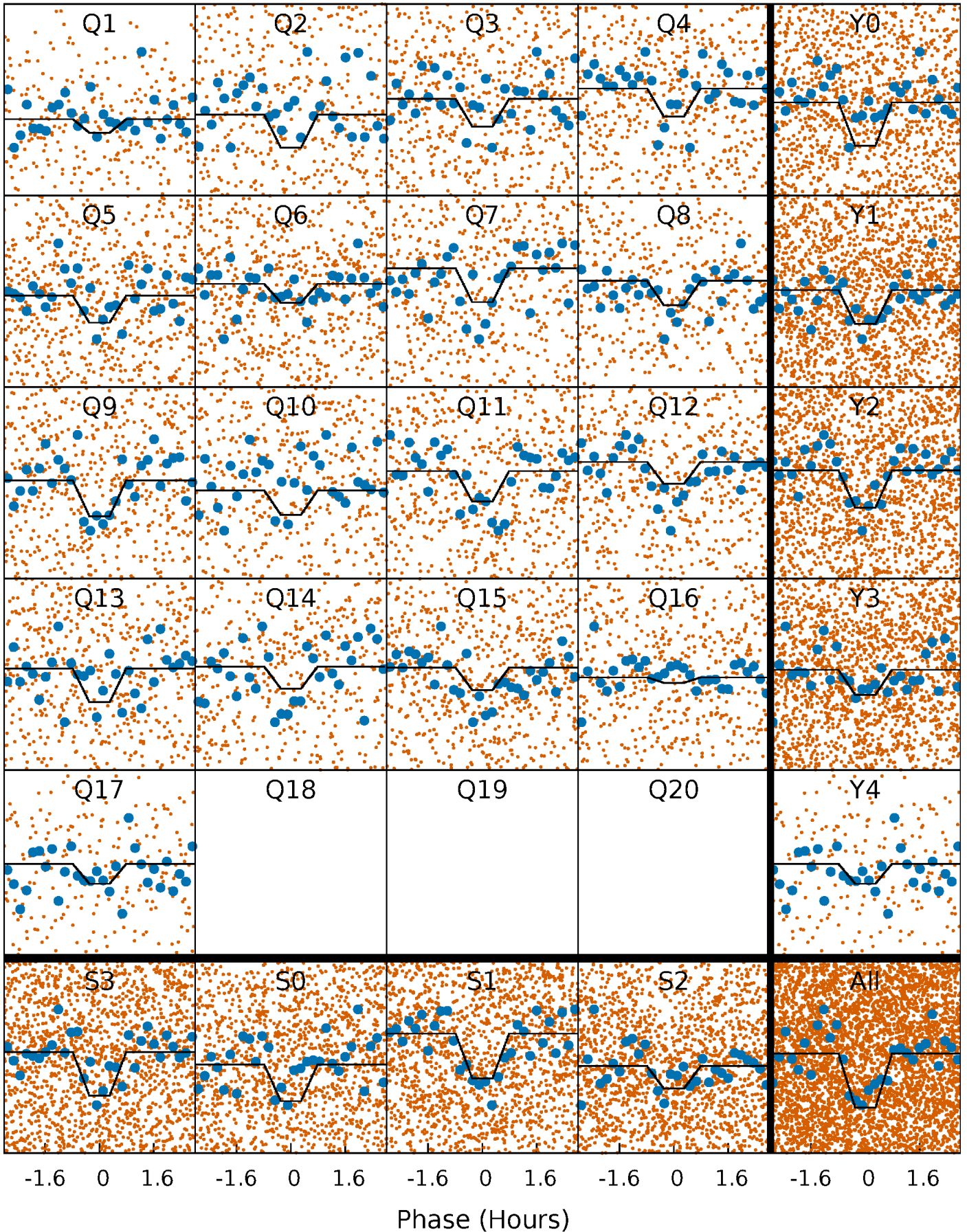
DV Quarter-Phased Transit Curves

TCE 003330684-01 P= 1.261328 Days $T_0=132.426350$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

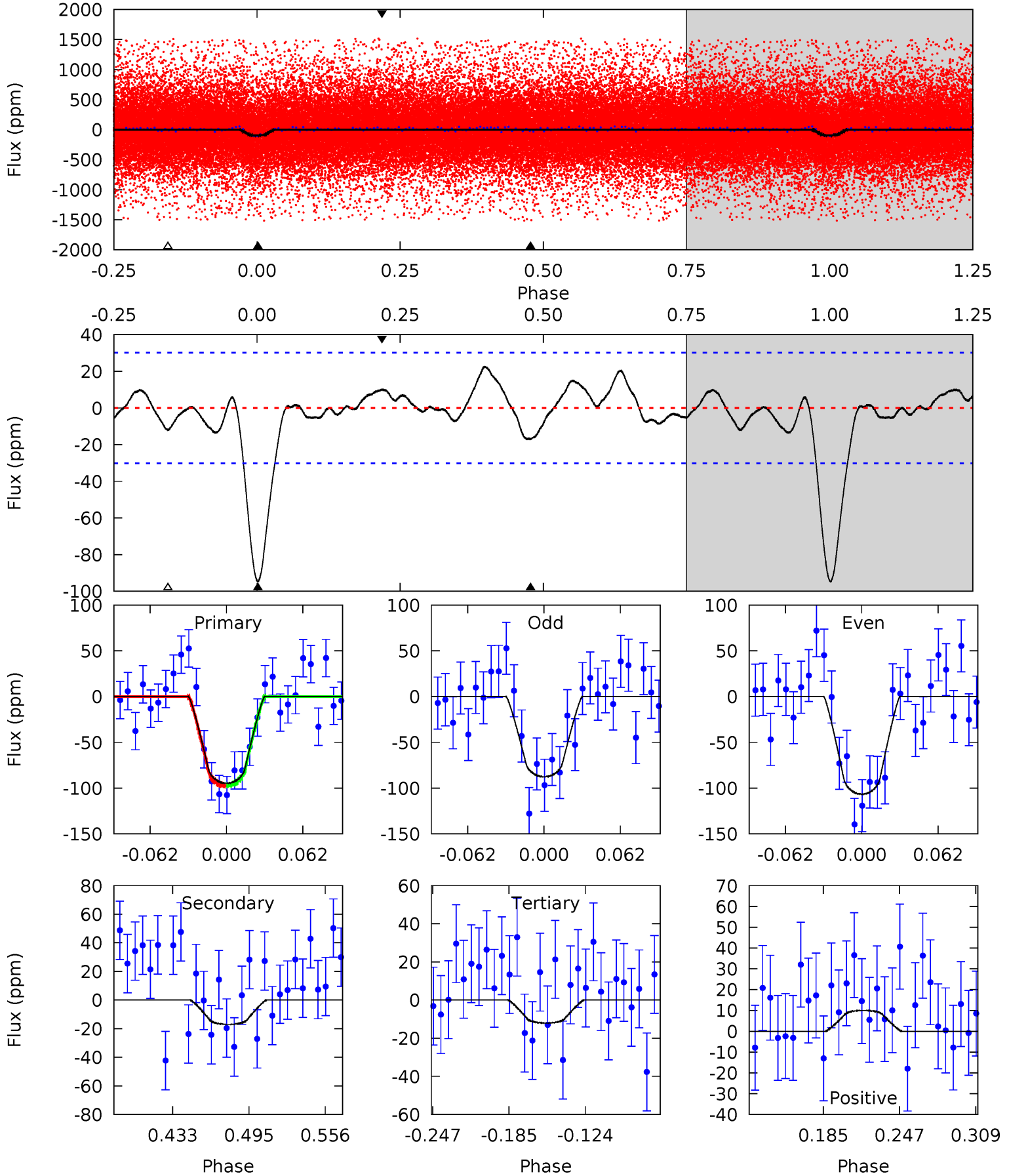
TCE 003330684-01 P= 1.261330 Days $T_0=132.426350$ (BKJD)



DV Model-Shift Uniqueness Test

003330684-01, P = 1.261328 Days, E = 131.165022 Days

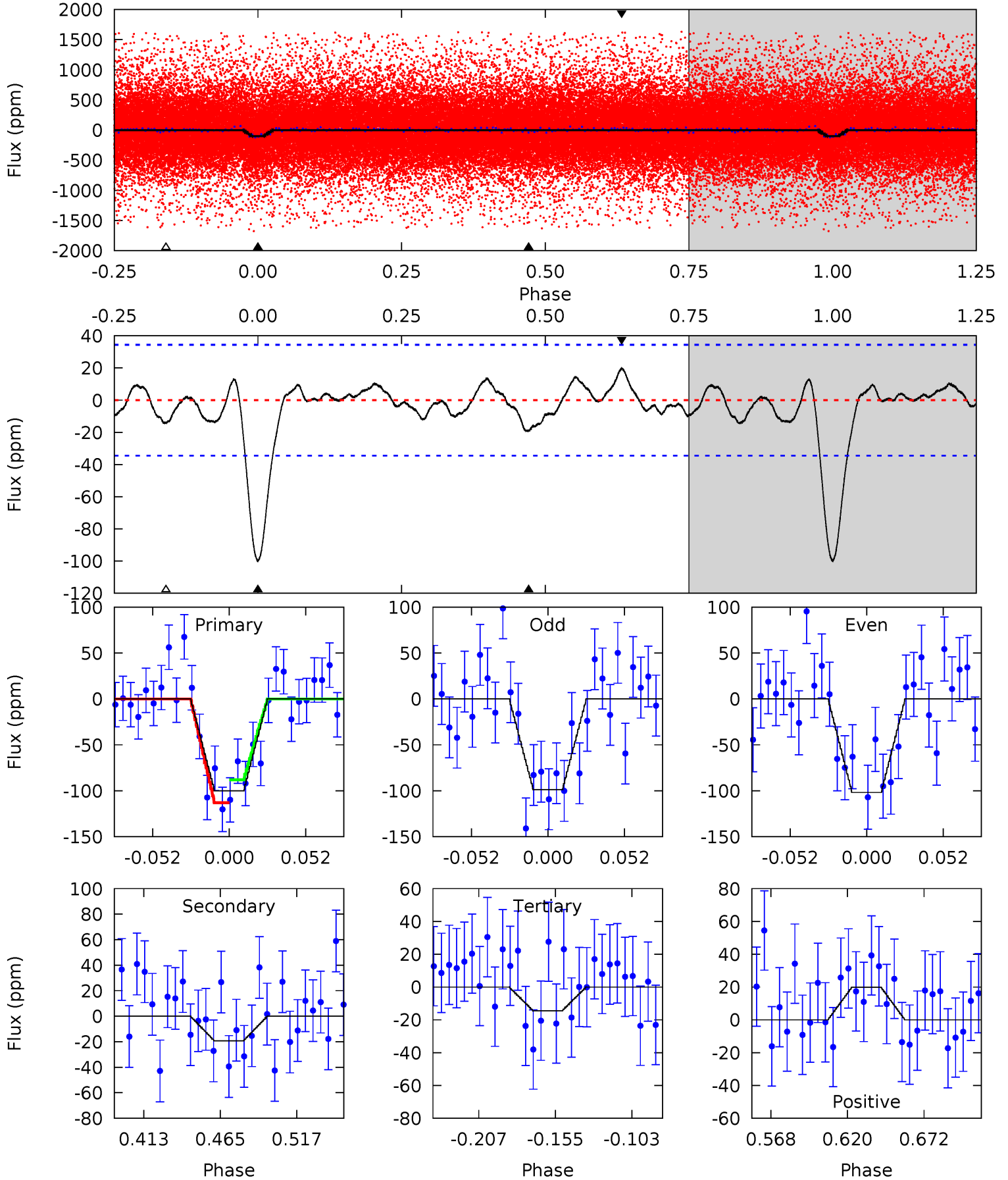
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.6	2.64	1.86	1.55	4.66	1.87	1.22	12.8	13.1	0.77	1.09	1.48	0.70	0.19	0.04



Alt Model-Shift Uniqueness Test

003330684-01, P = 1.261330 Days, E = 131.165020 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.6	2.63	1.97	2.71	4.70	1.95	0.99	11.7	10.9	0.66	-0.08	0.20	0.72	0.17	1.71



Stellar Parameters For KIC 003330684

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	2900^{+1}_{-1}	$5.224^{+-1.000}_{-1.000}$	$0.000^{+-1.000}_{-1.000}$	$0.132^{+-1.000}_{-1.000}$	$0.107^{+-1.000}_{-1.000}$	$65.020^{+-1.000}_{-1.000}$
	+0%/-0%	+19%/-19%	+inf%/-inf%	+758%/-758%	+935%/-935%	+2%/-2%
Source	SPE17	SPE17	SPE17	BTSL		

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

Secondary Eclipse Parameters for KIC 003330684-01 / KOI 4533.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-17 ± 6	$0.19^{+0.16}_{-0.12}$	636^{+64}_{-58}	2219^{+607}_{-299}	34^{+201}_{-24}
Alt.	-19 ± 7	$0.19^{+0.16}_{-0.12}$	639^{+65}_{-64}	2264^{+639}_{-306}	37^{+217}_{-25}

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 $A_{obs} \gg 1.0$

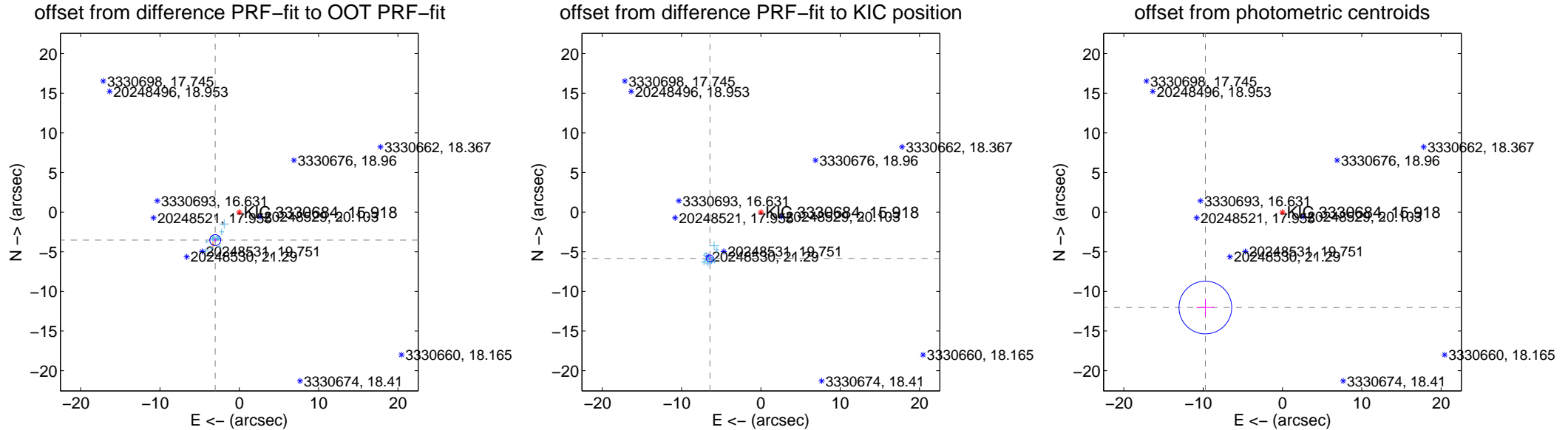
DV Centroid Data

Supplemental centroid analysis for 003330684-01. Kepler magnitude: 15.92. Transit SNR 9.92

There are 16 quarters with good PRF difference image offsets

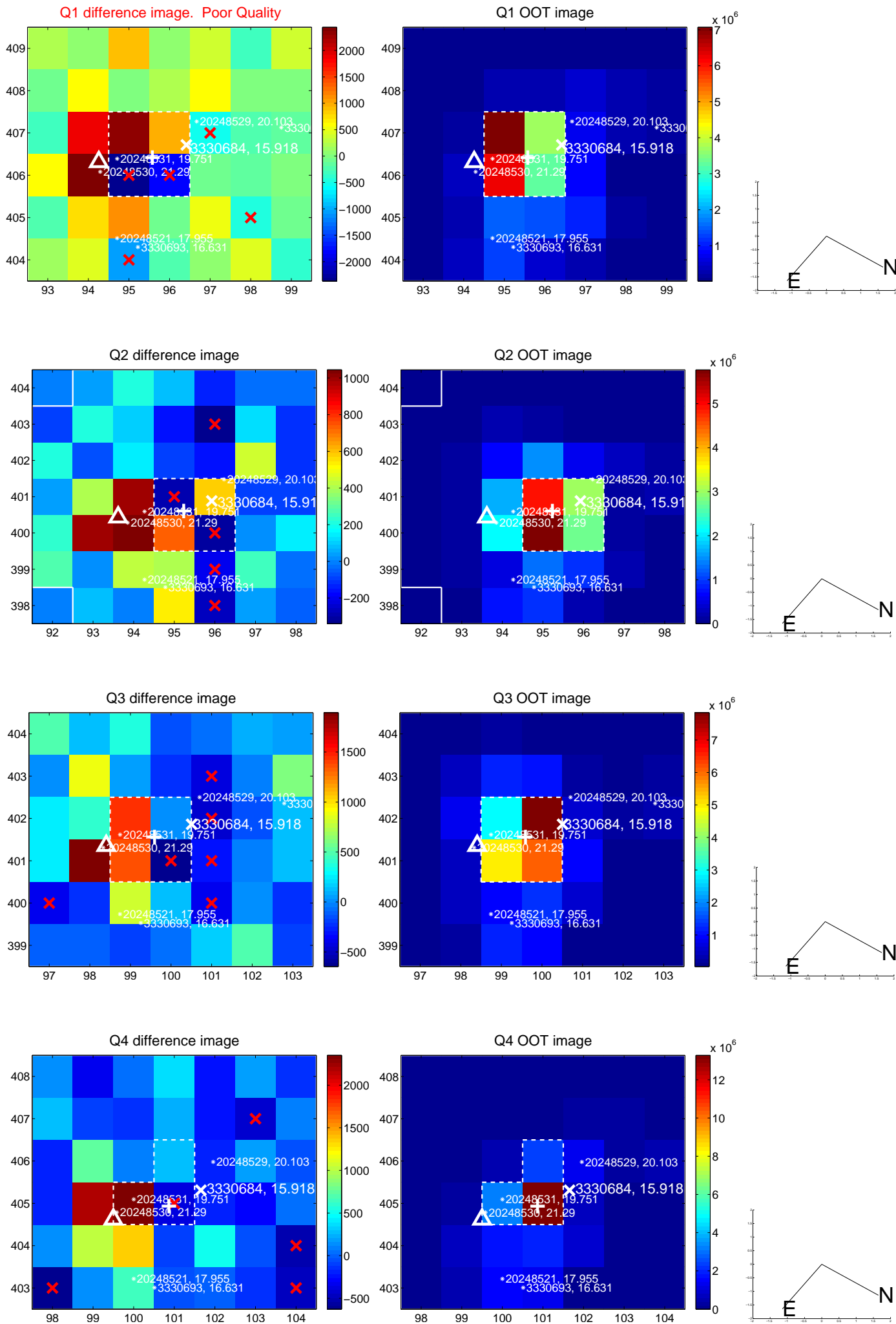
The OOT PRF centroid is offset from the target star catalog position by about 4.84 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.657 \pm 0.230	20.22	3.038 \pm 0.158	-3.530 \pm 0.201
PRF-fit source offset from KIC position	8.688 \pm 0.148	58.55	6.427 \pm 0.123	-5.846 \pm 0.146
photometric centroid source offset	15.47 \pm 1.11	13.96	9.72 \pm 1.12	-12.04 \pm 1.10

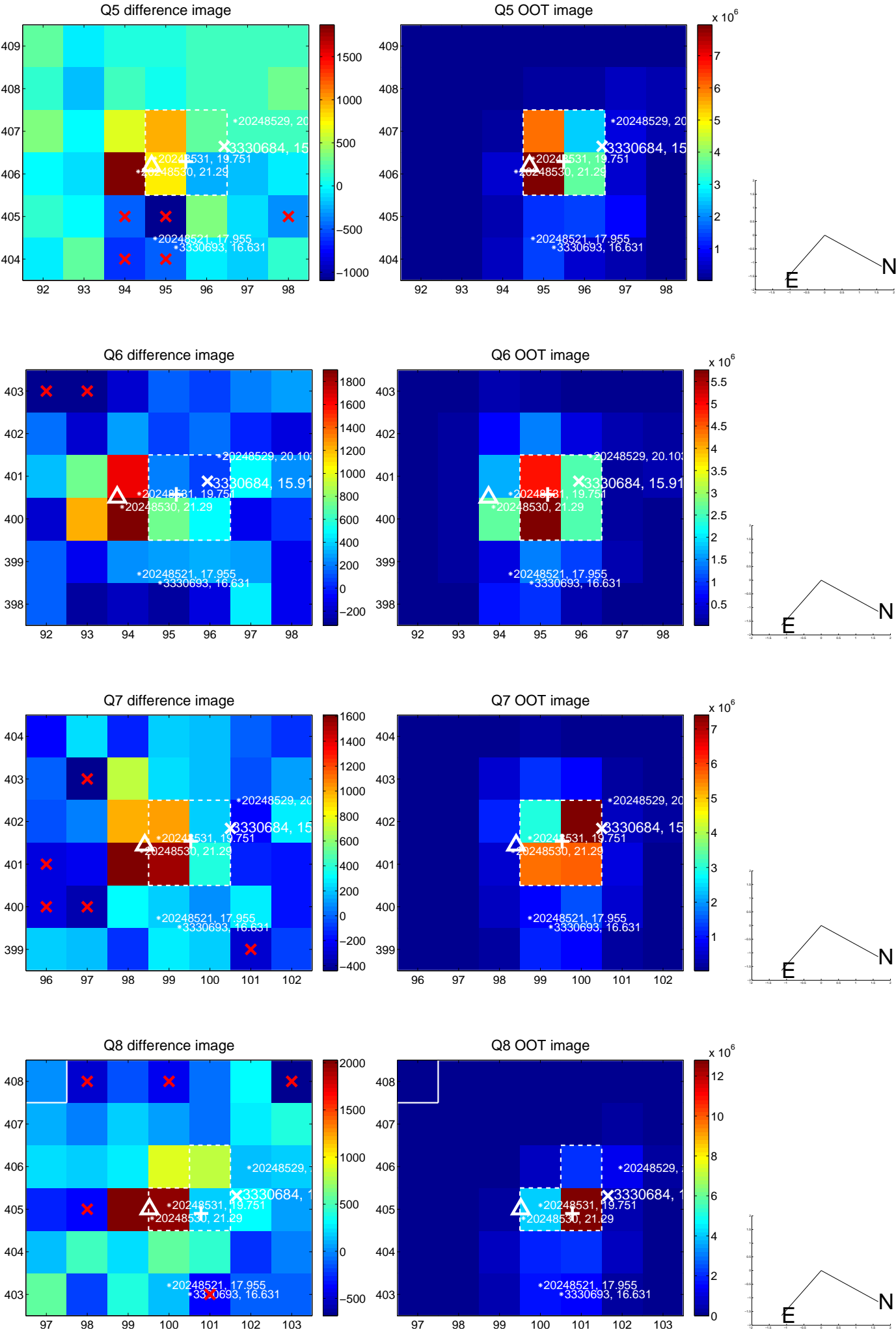


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

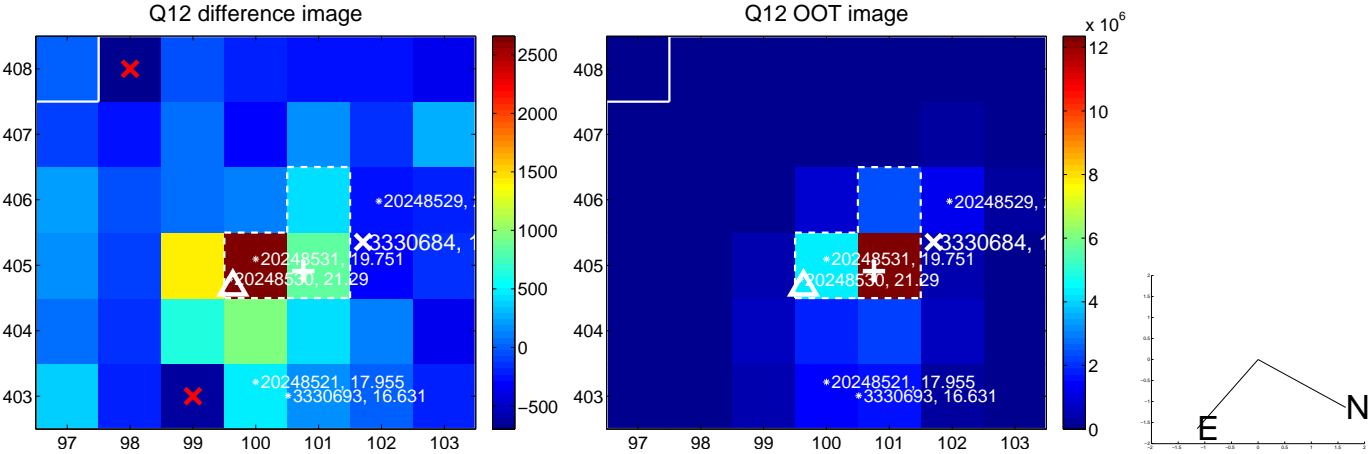
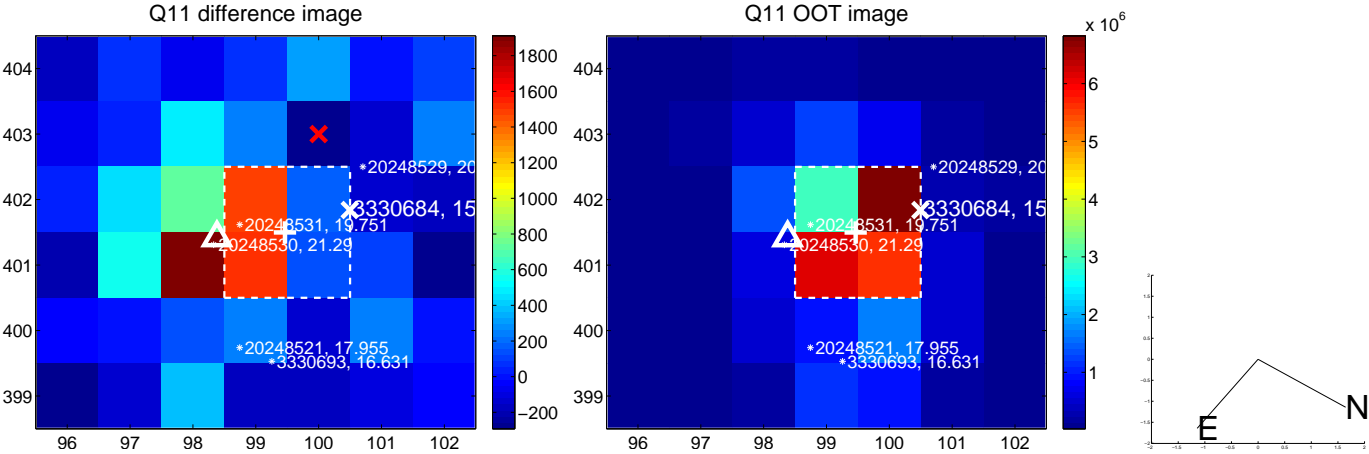
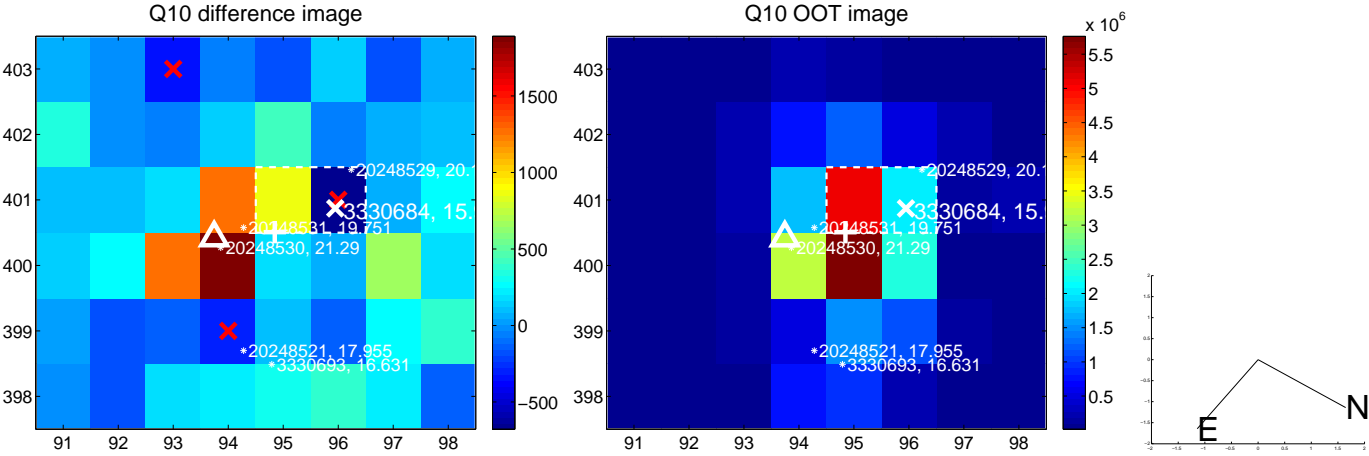
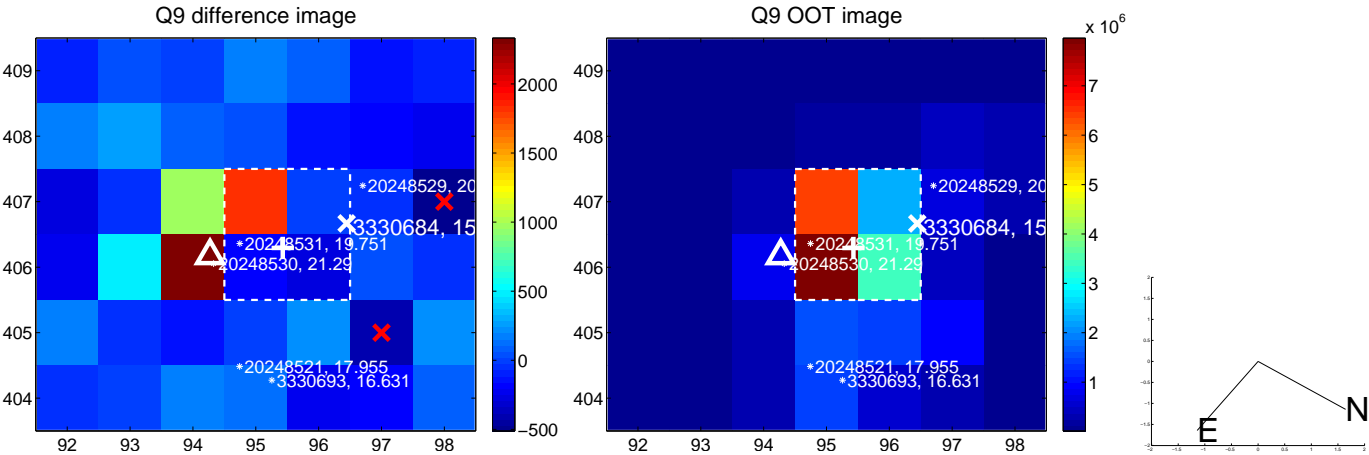
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



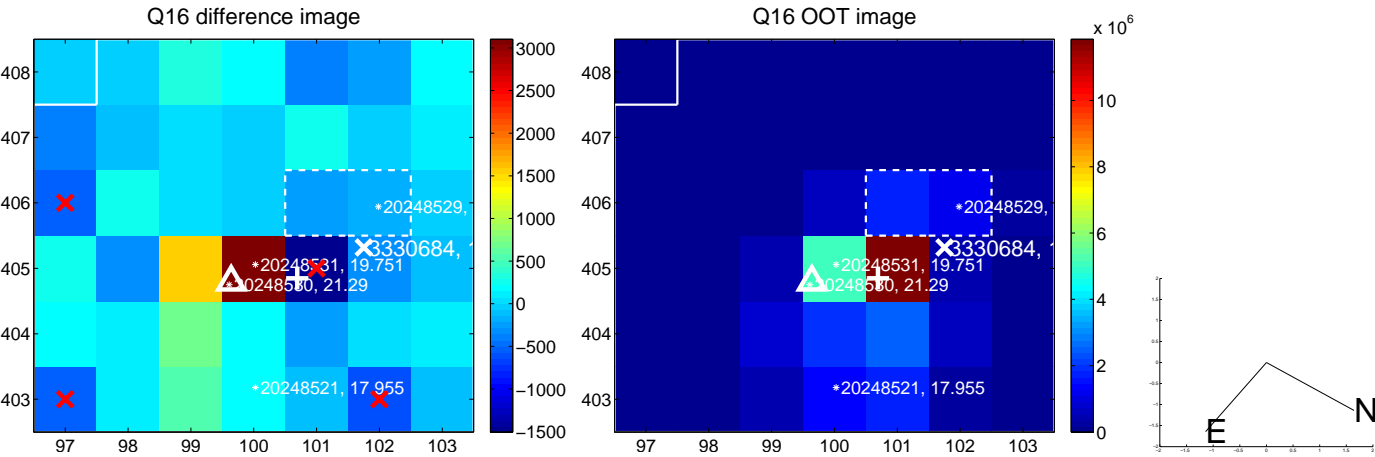
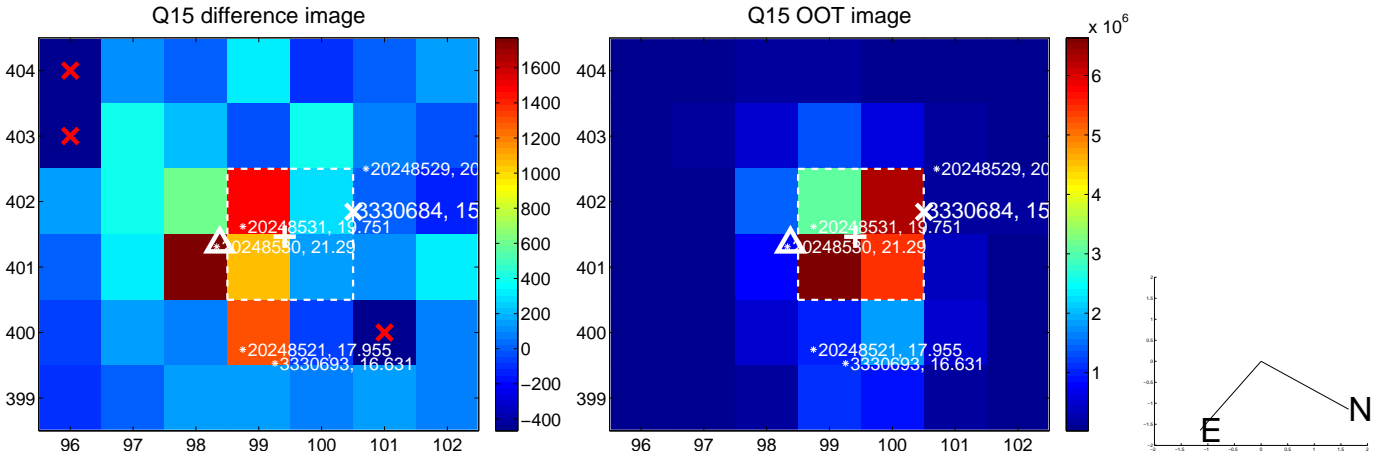
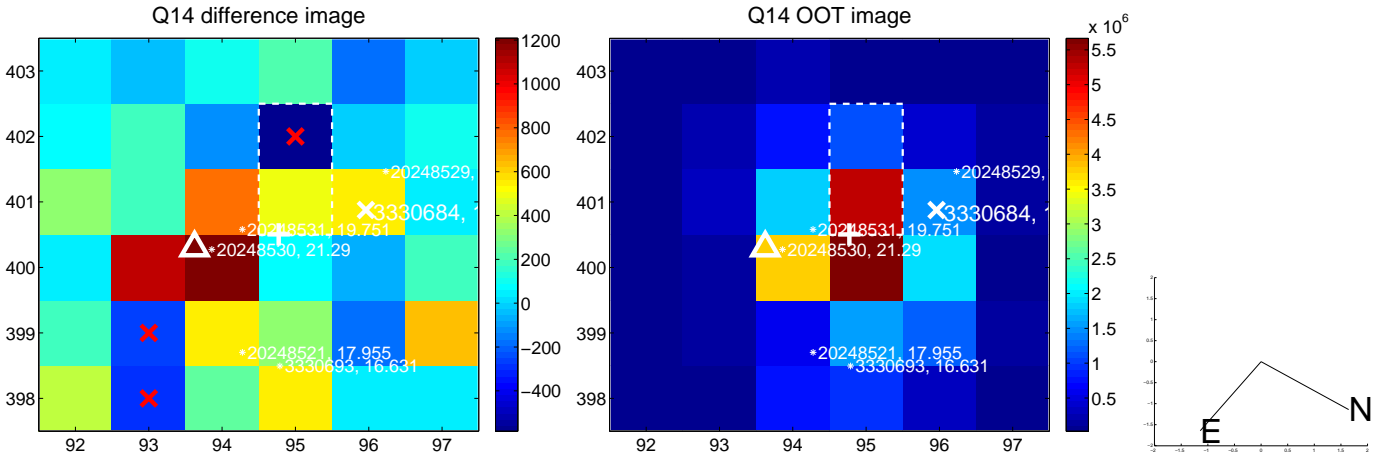
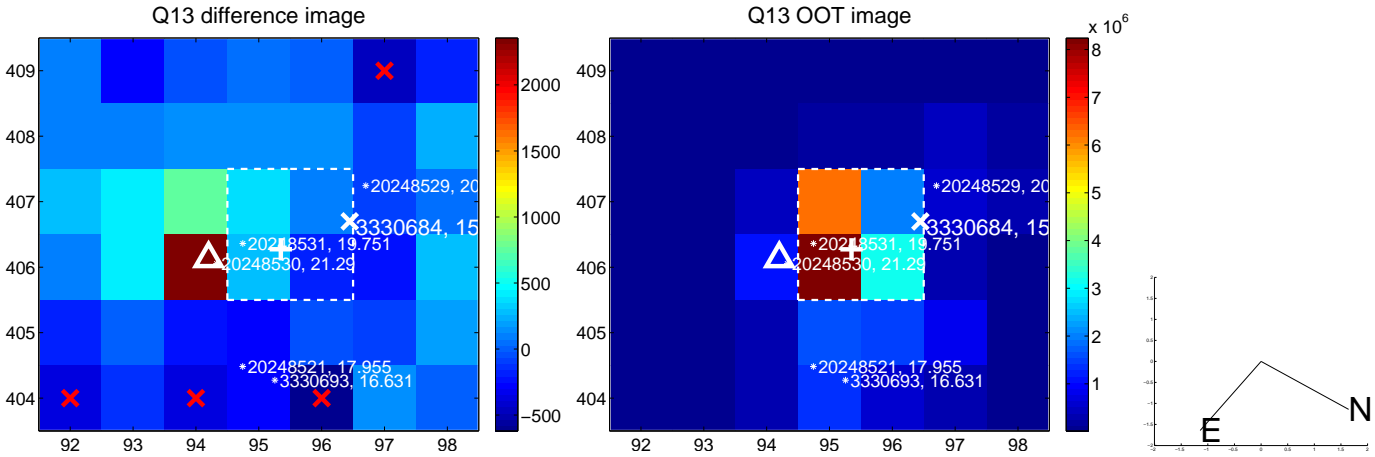
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



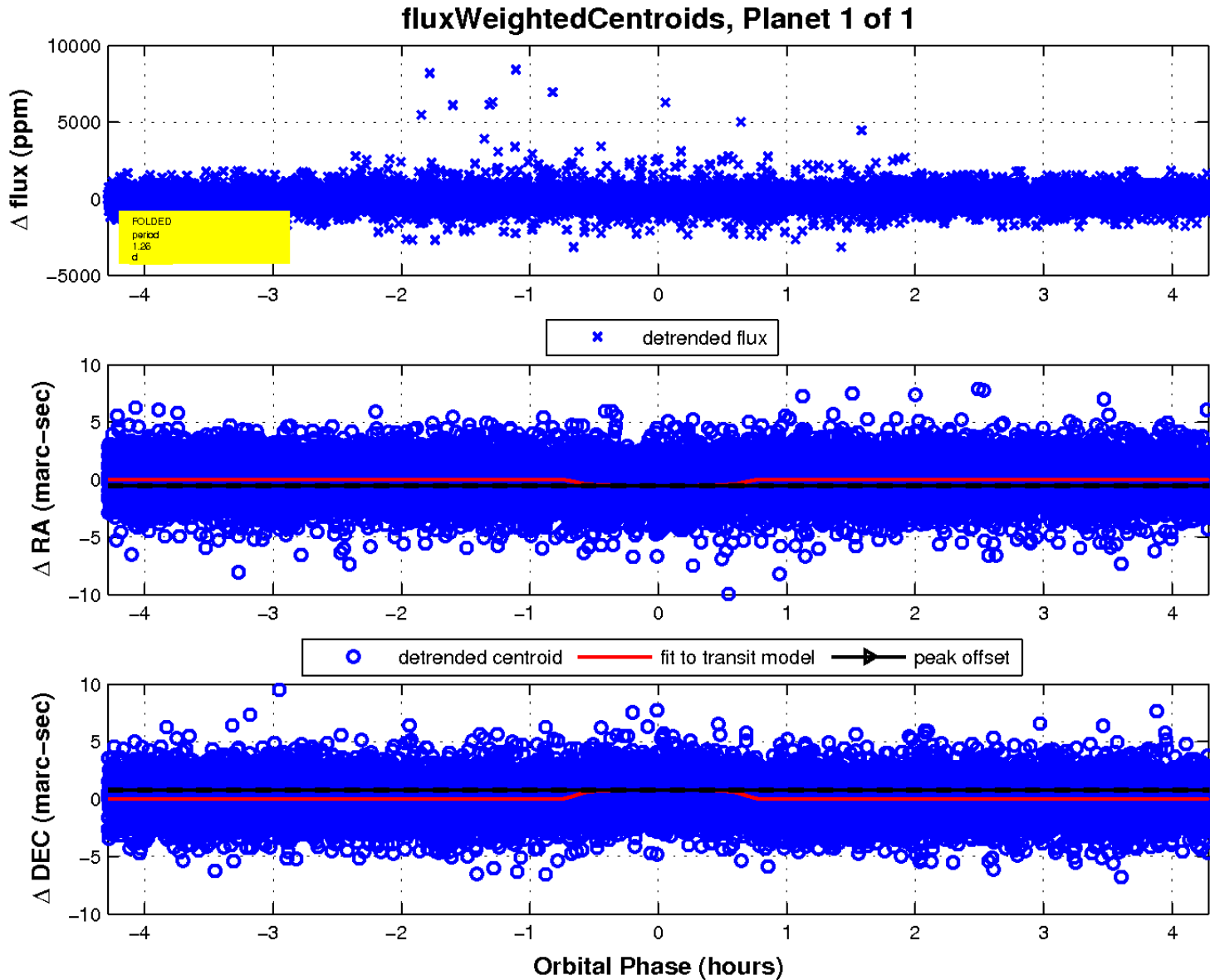
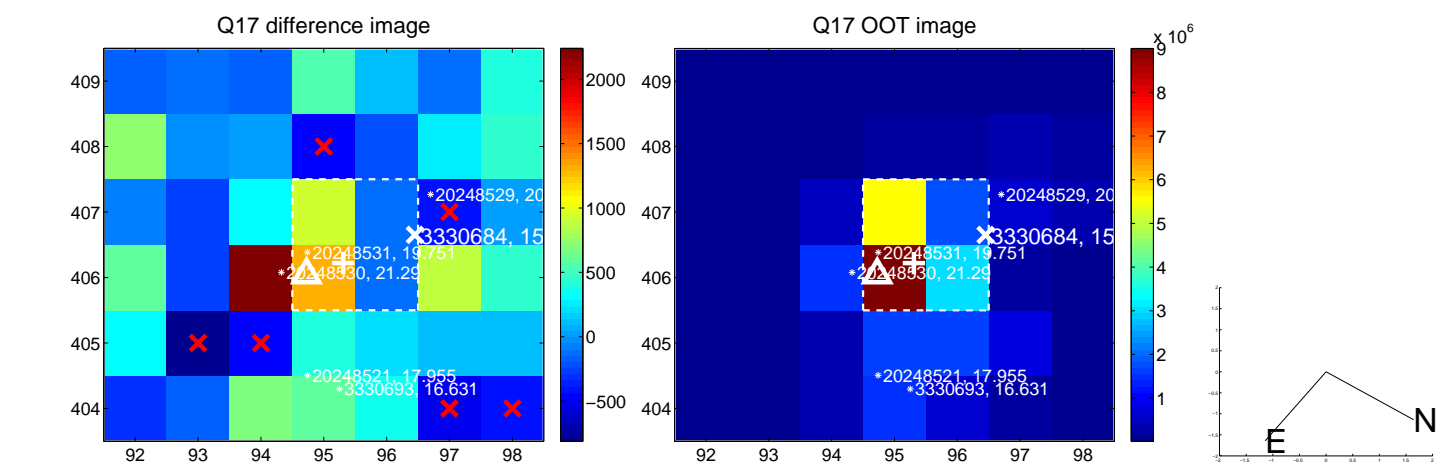
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UKIRT Image

