

KIC 008494263

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})
008494263-01	OBS	1255.01	78.925685	192.597868	17730.2	7.524	173.9	165.4	0.88	5750	11.83	5.96

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008494263-01	OBS	FP	0.44	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.

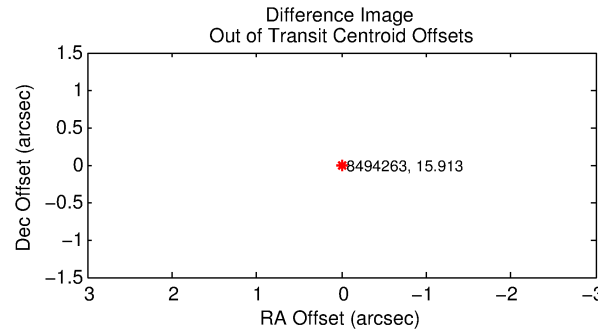
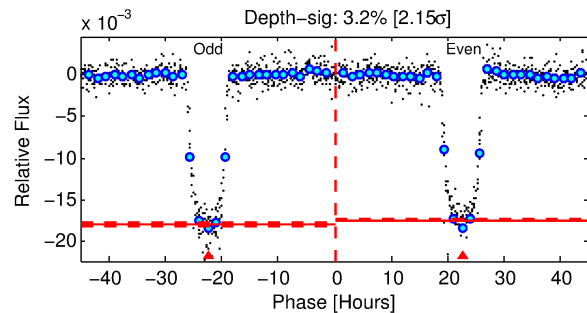
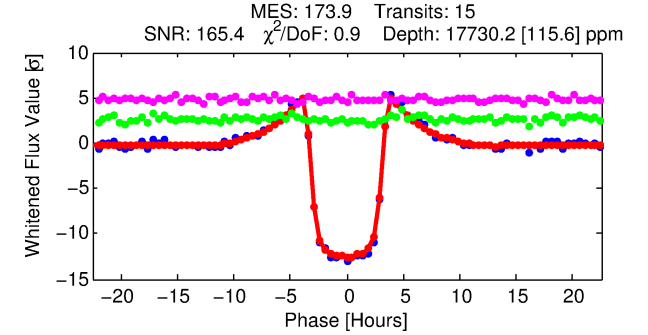
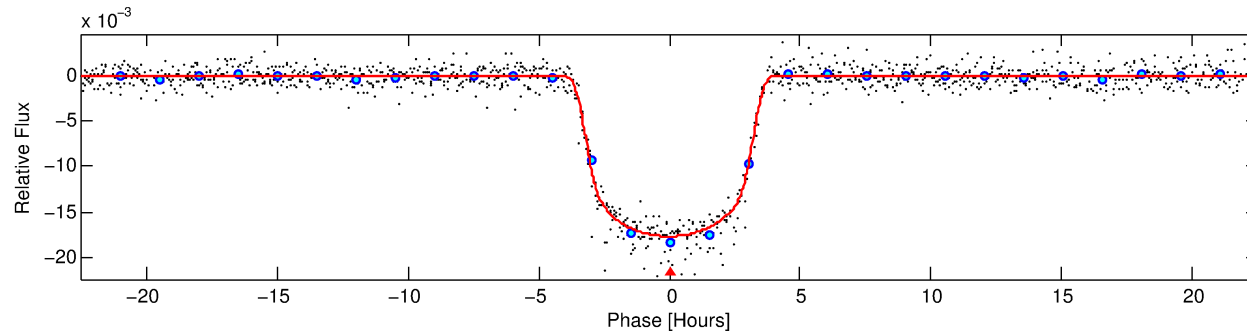
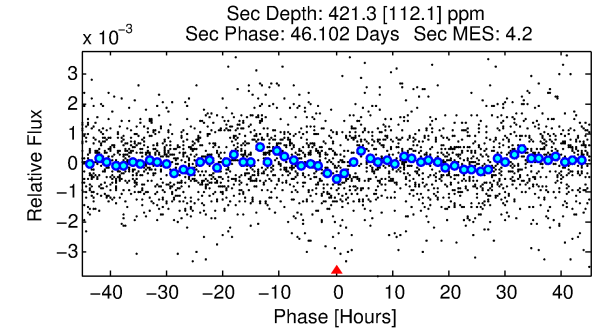
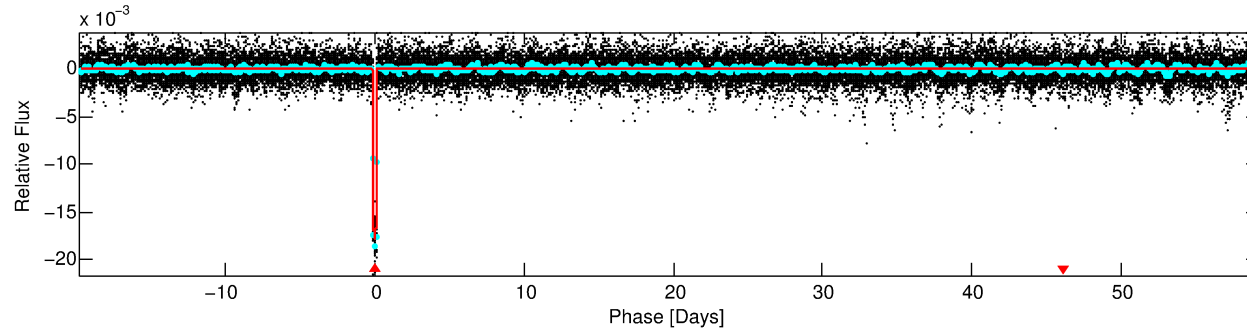
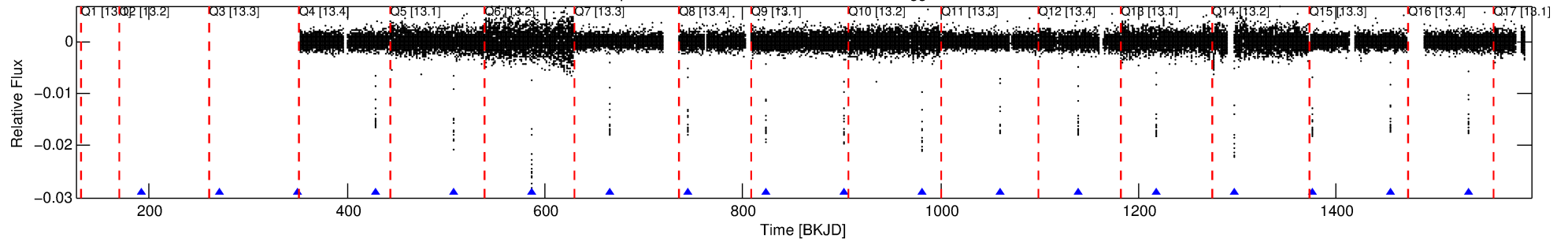
Ephemeris Match Information For 008494263-01

No Significant Match Found

DV One-Page Summary

KIC: 8494263 Candidate: 1 of 1 Period: 78.926 d
KOI: K01255.01 Corr: 0.997

Kp: 15.91 R*: 0.88 Rs Teff: 5750.0 K Logg: 4.54 Fe/H: -0.040



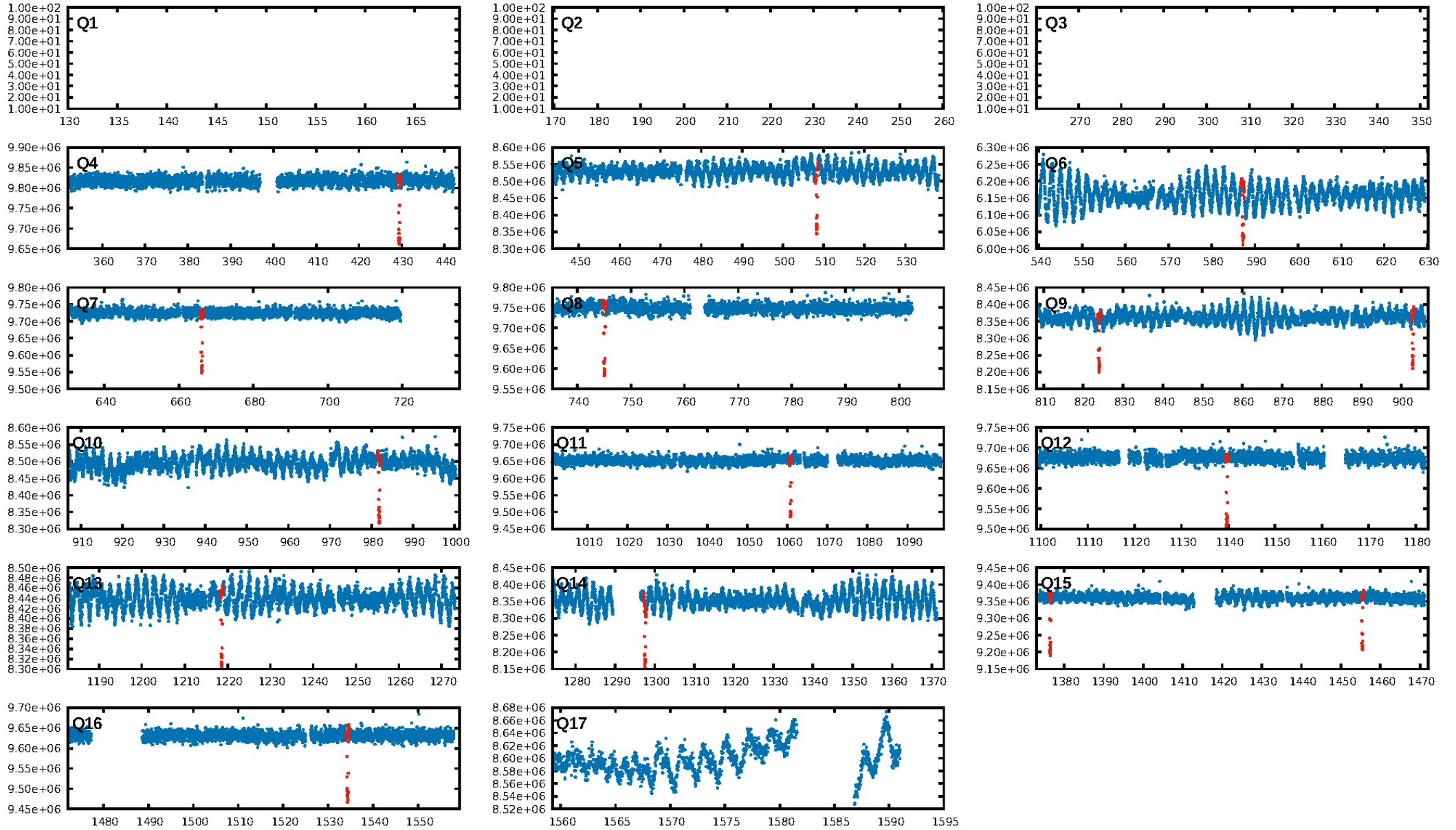
DV Fit Results:

Period = 78.92568 [0.00009] d
Epoch = 192.5979 [0.0010] BKJD
Rp/R* = 0.1230 [0.0011]
a/R* = 84.64 [2.64]
b = 0.38 [0.07]
Seff = 5.96 [2.11]
Teq = 398 [35] K
Rp = 11.83 [3.09] Re
a = 0.3577 [0.0793] AU
Ag = 211.72 [89.04] [2.37σ]
Teffp = 2349 [177] K [10.81σ]

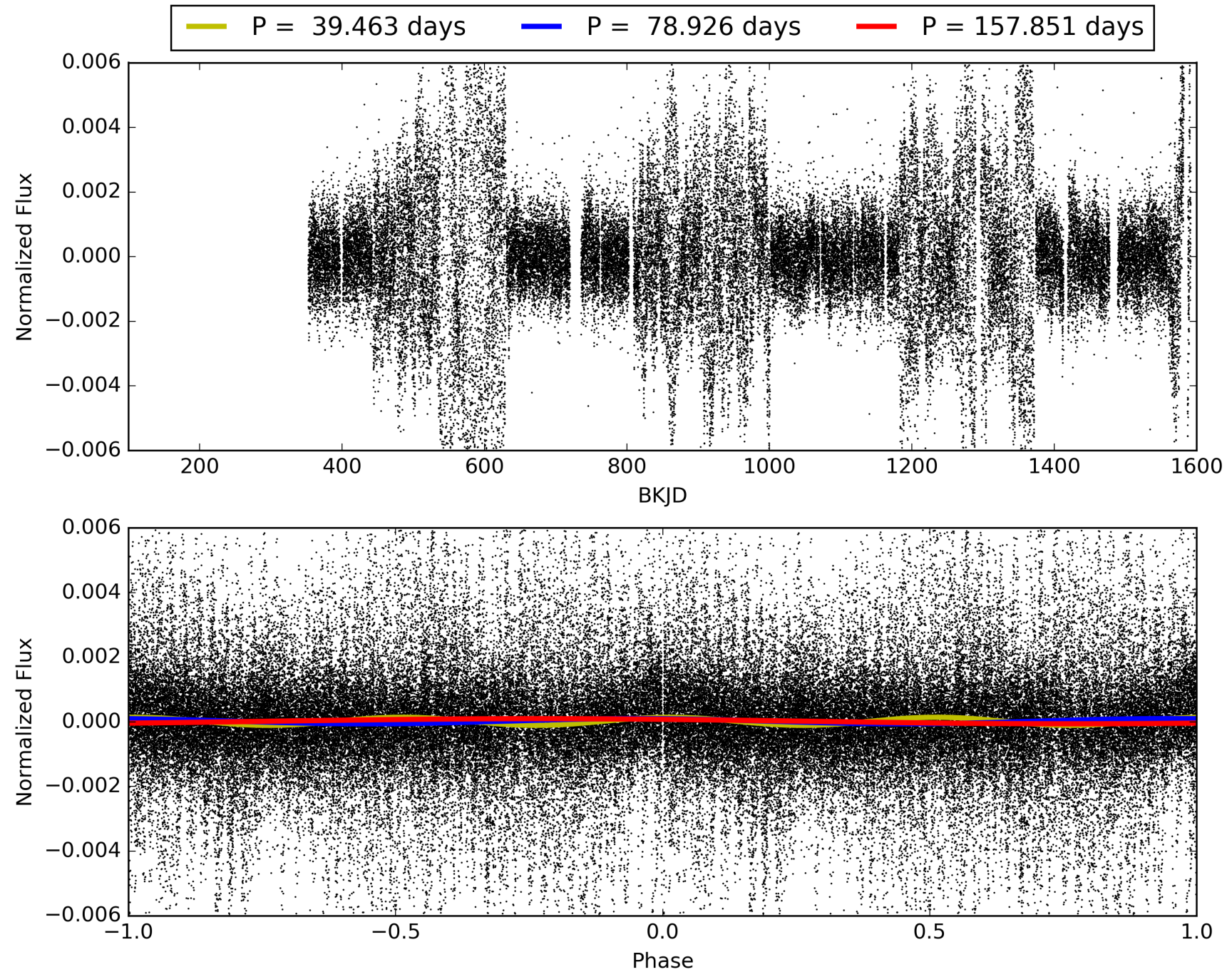
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [15/15]
GhostDiagnostic-chr: 3.539
Centroid-sig: 0.0%
Centroid-so: 4.844 arcsec [274.83σ]
OotOffset-rm: N/A
KicOffset-rm: 0.098 arcsec [0.66σ]
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 1/0/3/0 [4]
DiffImageQuality-fgm: 0.75 [3/4]
DiffImageOverlap-fno: 1.00 [12/12]

TCE 008494263-01, PDC Light Curves

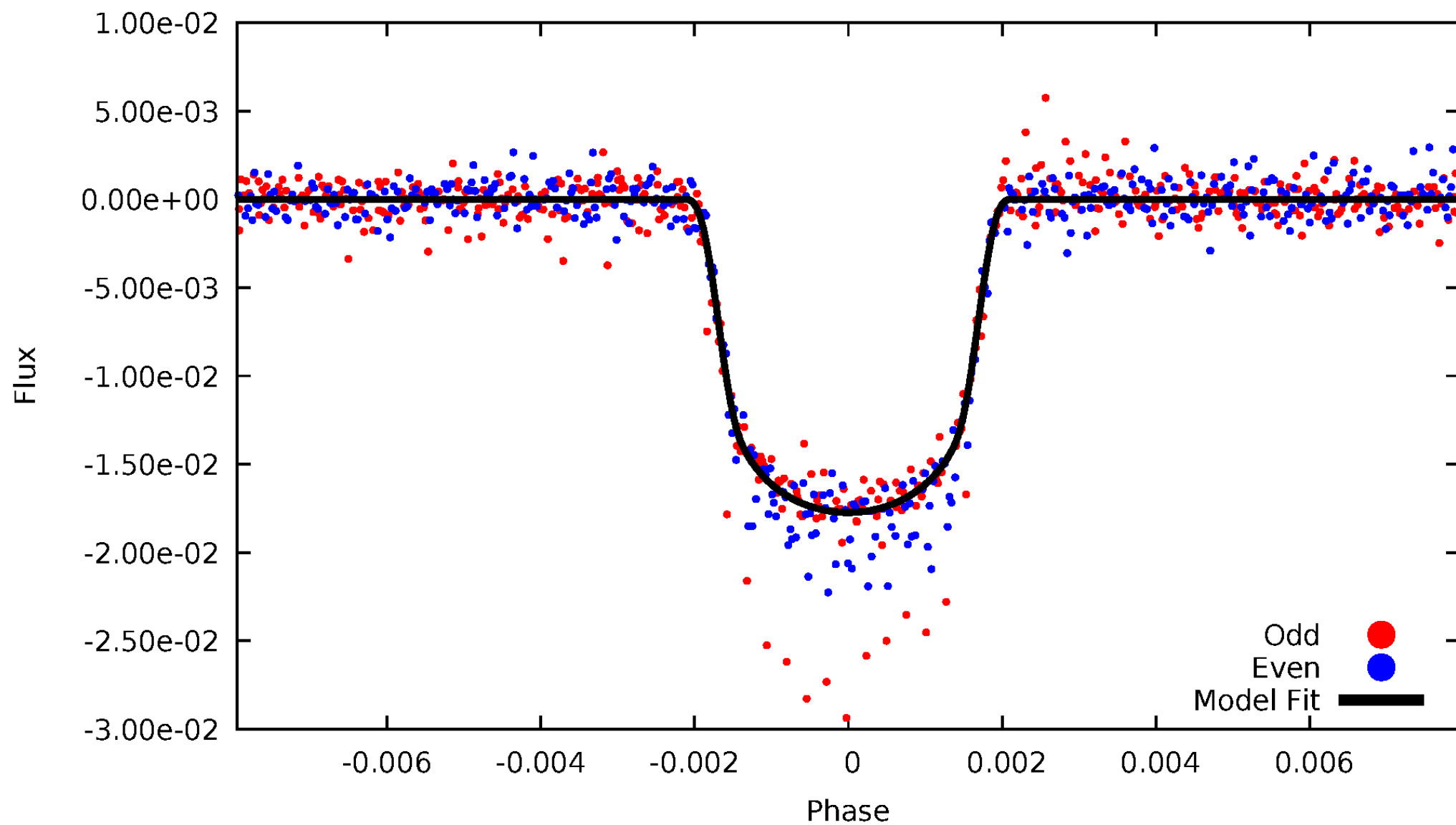


TCE 008494263-01



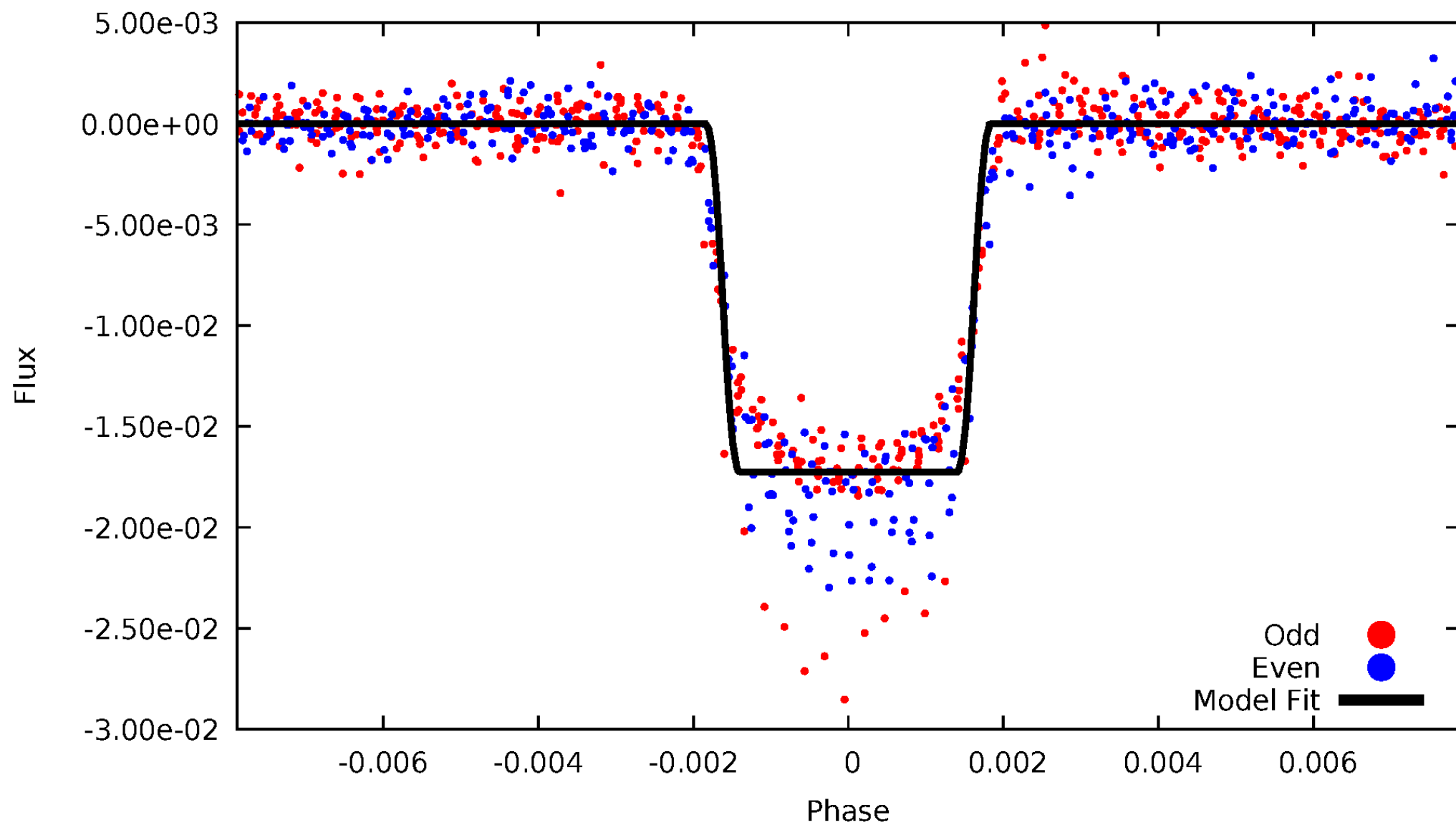
DV Odd/Even

TCE 008494263-01



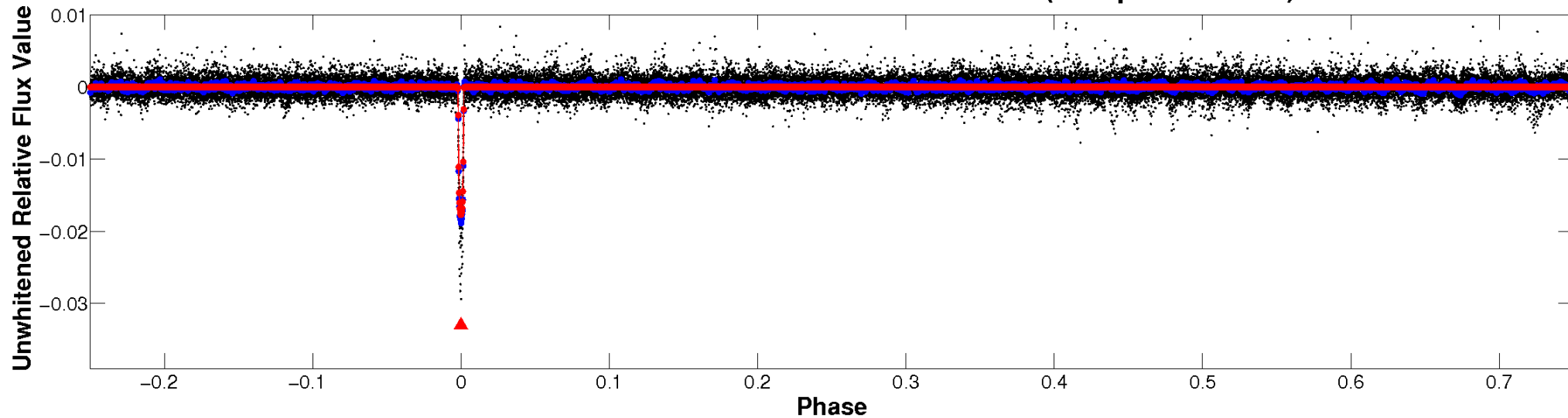
ALT Odd/Even

TCE 008494263-01

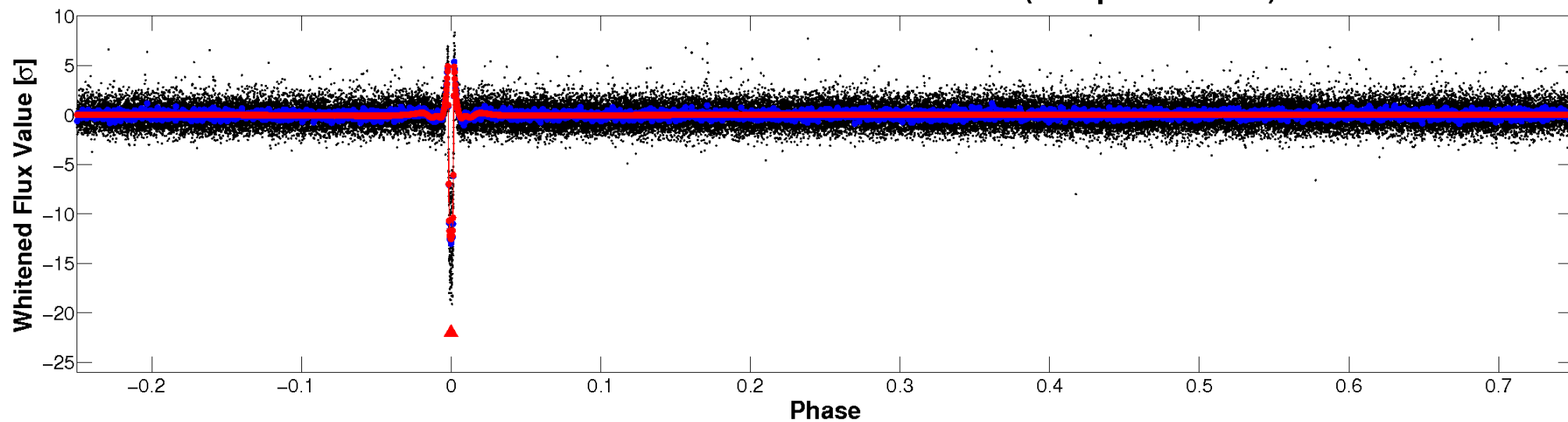


Non-Whitened Vs. Whitened Light Curve

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

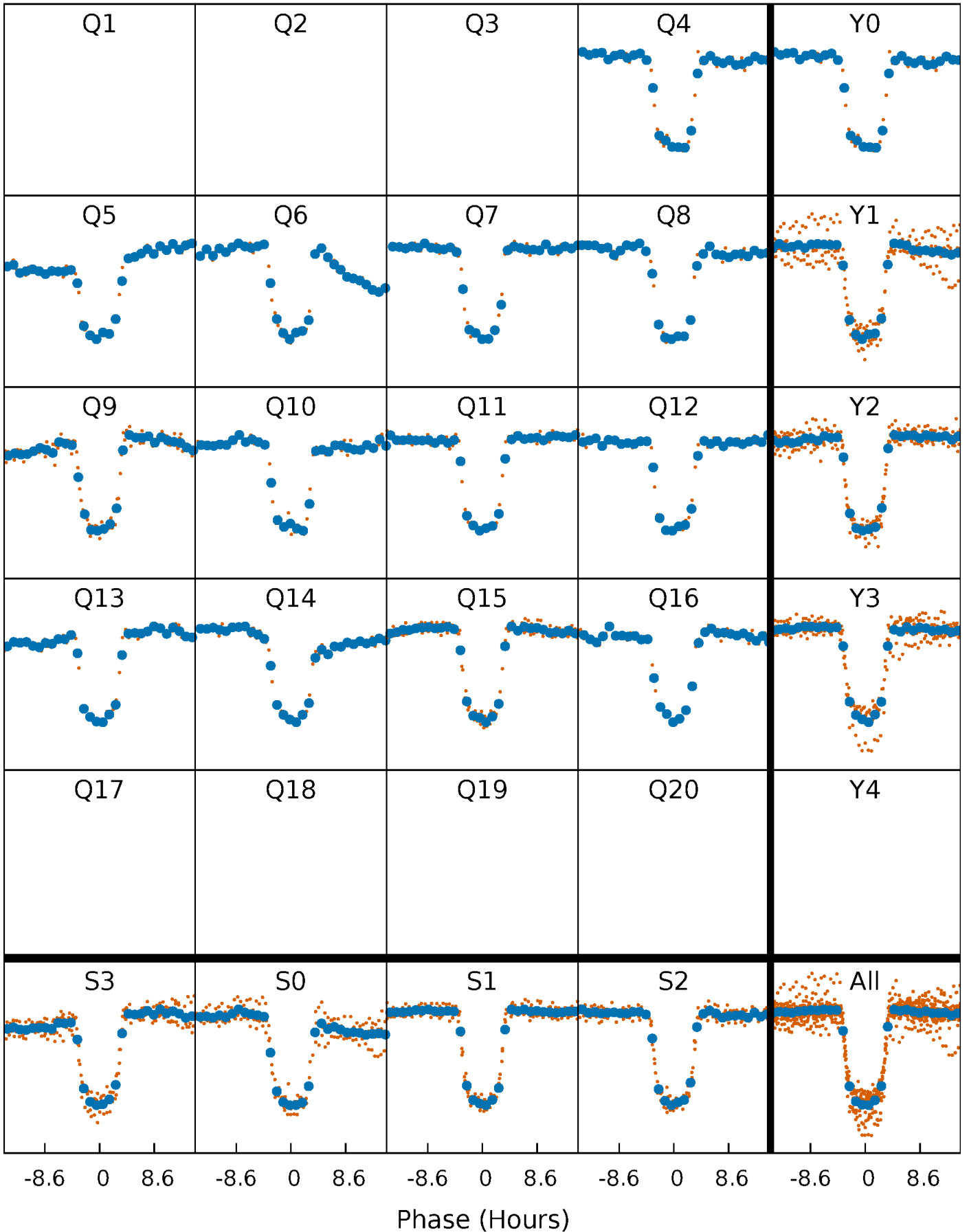


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



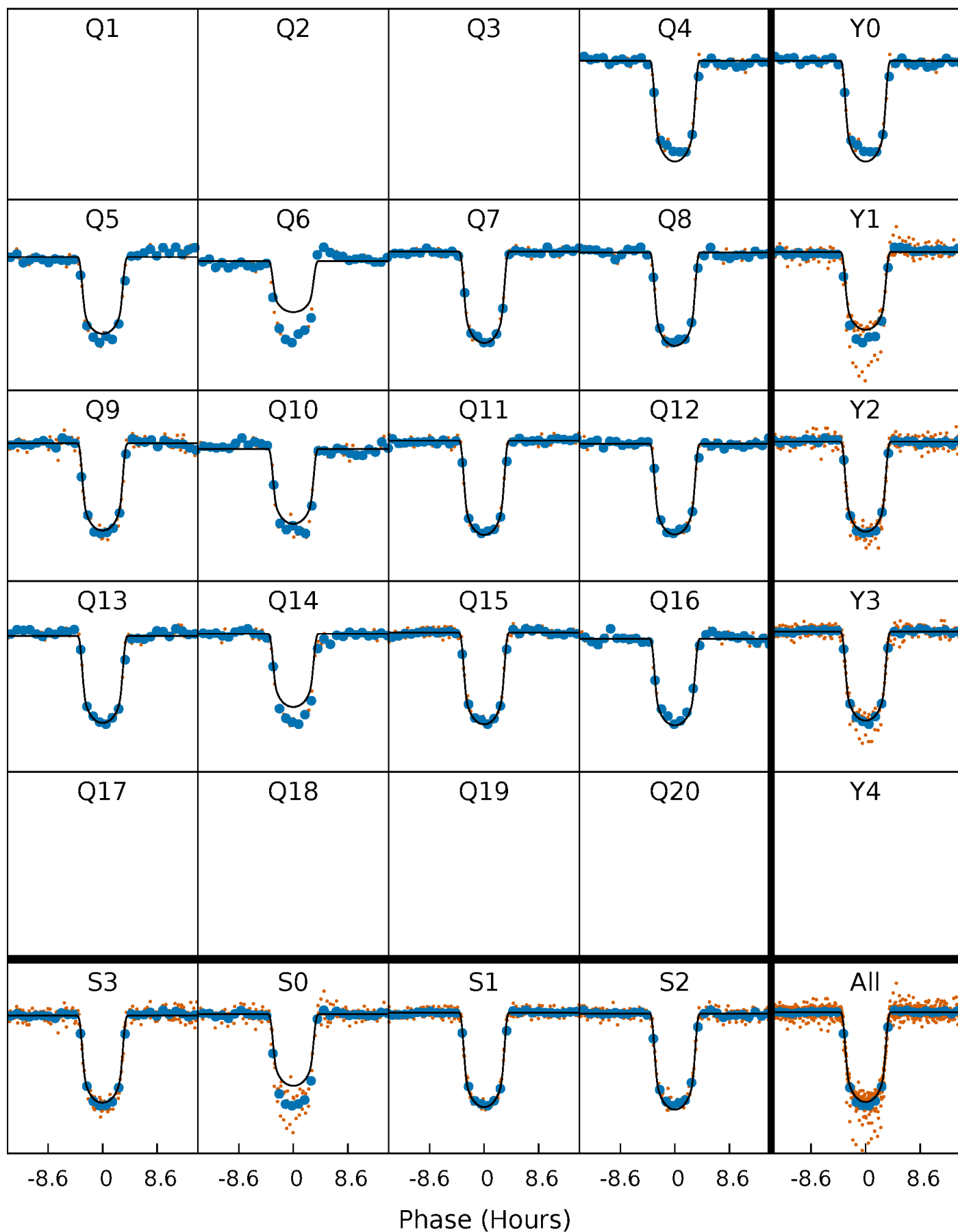
PDC Quarter-Phased Transit Curves

TCE 008494263-01 P= 78.925685 Days $T_0=192.597868$ (BKJD)



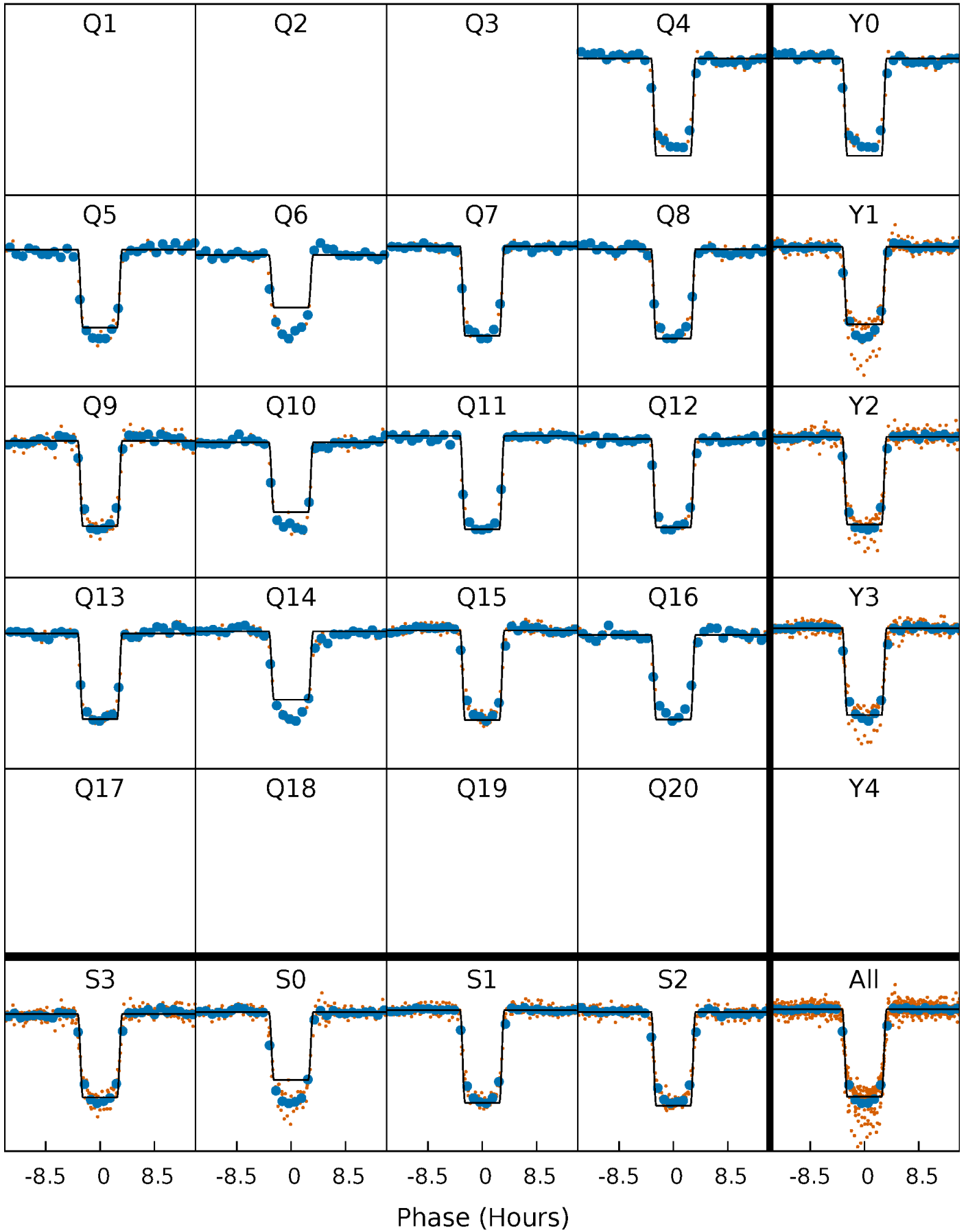
DV Quarter-Phased Transit Curves

TCE 008494263-01 P= 78.925685 Days $T_0=192.597868$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

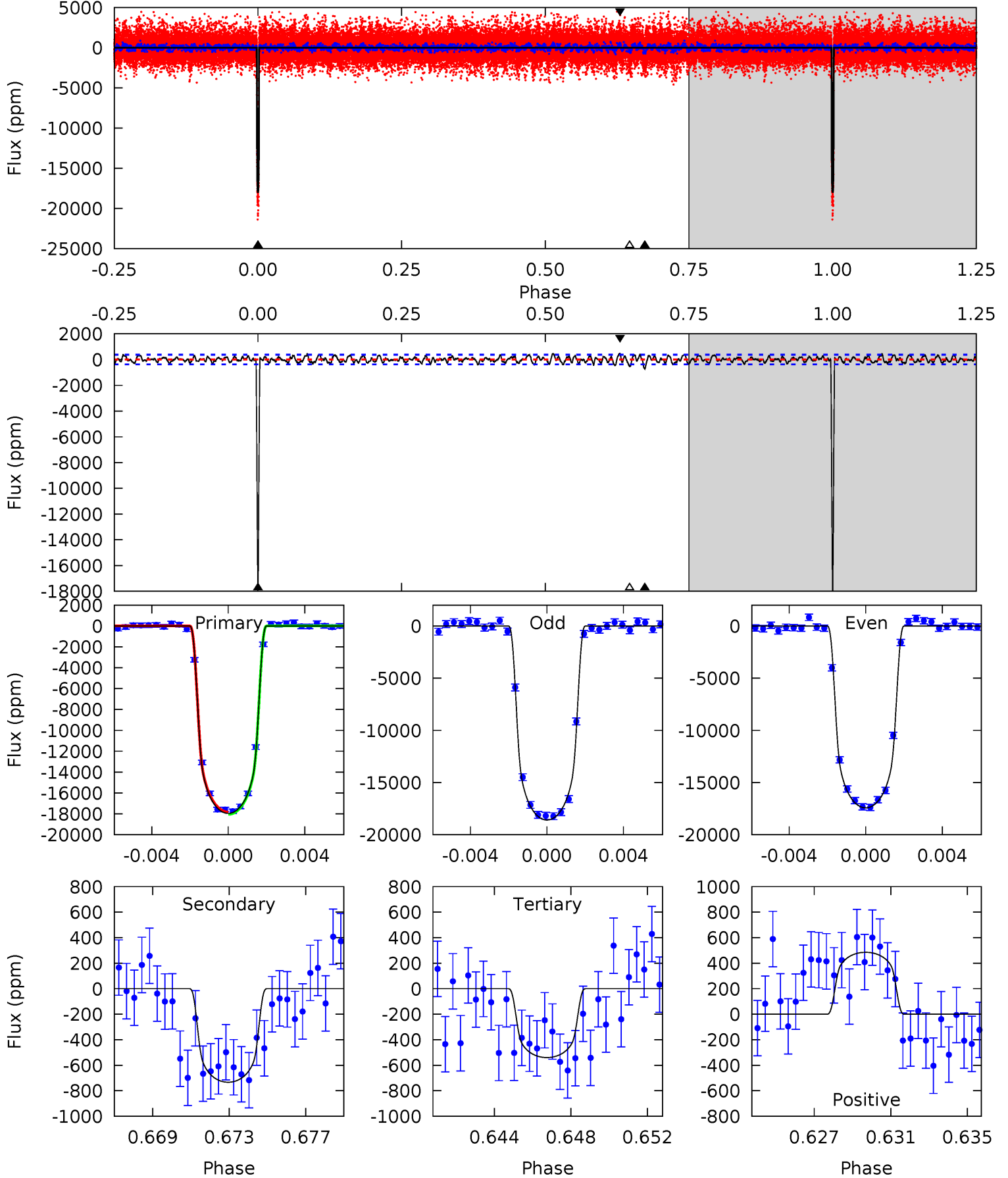
TCE 008494263-01 P= 78.925354 Days $T_0=192.601378$ (BKJD)



DV Model-Shift Uniqueness Test

008494263-01, P = 78.925685 Days, E = 192.597868 Days

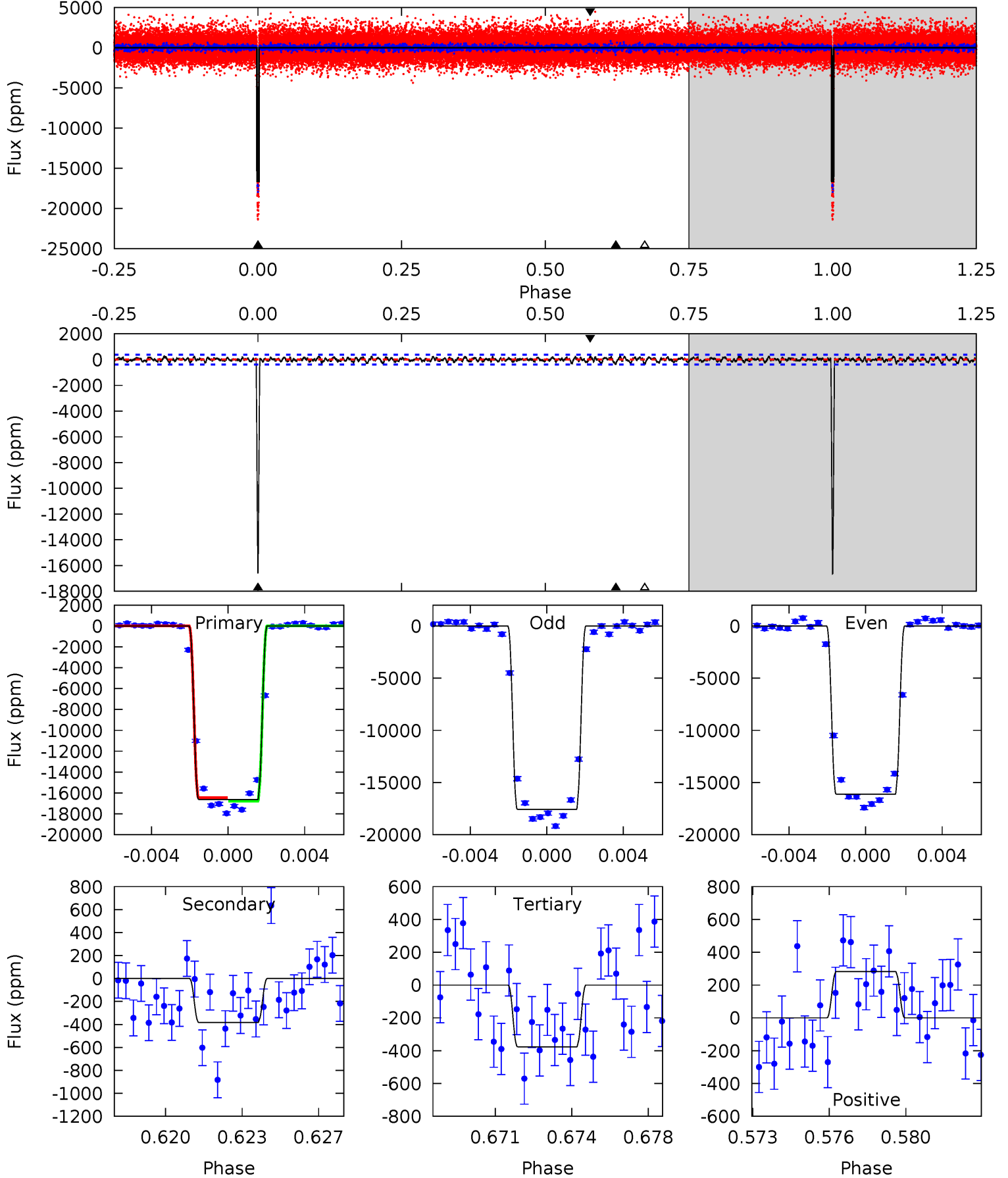
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
248.2	10.1	7.46	6.71	5.19	2.86	2.45	240.8	241.5	2.67	3.42	8.08	1.05	0.03	1.53



Alt Model-Shift Uniqueness Test

008494263-01, $P = 78.925354$ Days, $E = 192.601378$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
225.8	5.20	5.11	3.84	5.22	2.91	1.43	220.7	222.0	0.09	1.37	10.0	1.06	0.02	2.23



Stellar Parameters For KIC 008494263

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5750^{+161}_{-202}	$4.538^{+0.042}_{-0.179}$	$-0.040^{+0.250}_{-0.300}$	$0.882^{+0.230}_{-0.077}$	$0.980^{+0.102}_{-0.125}$	$2.011^{+0.447}_{-0.951}$
	+3%/-4%	+1%/-4%	+625%/-750%	+26%/-9%	+10%/-13%	+22%/-47%
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 008494263-01 / KOI 1255.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-733 ± 72	$12.04^{+1.79}_{-0.78}$	567^{+36}_{-27}	3262^{+76}_{-92}	340^{+62}_{-74}
Alt.	-383 ± 74	$12.96^{+1.72}_{-0.88}$	566^{+38}_{-26}	2907^{+94}_{-99}	154^{+36}_{-40}

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 $A_{obs} \gg 1.0$

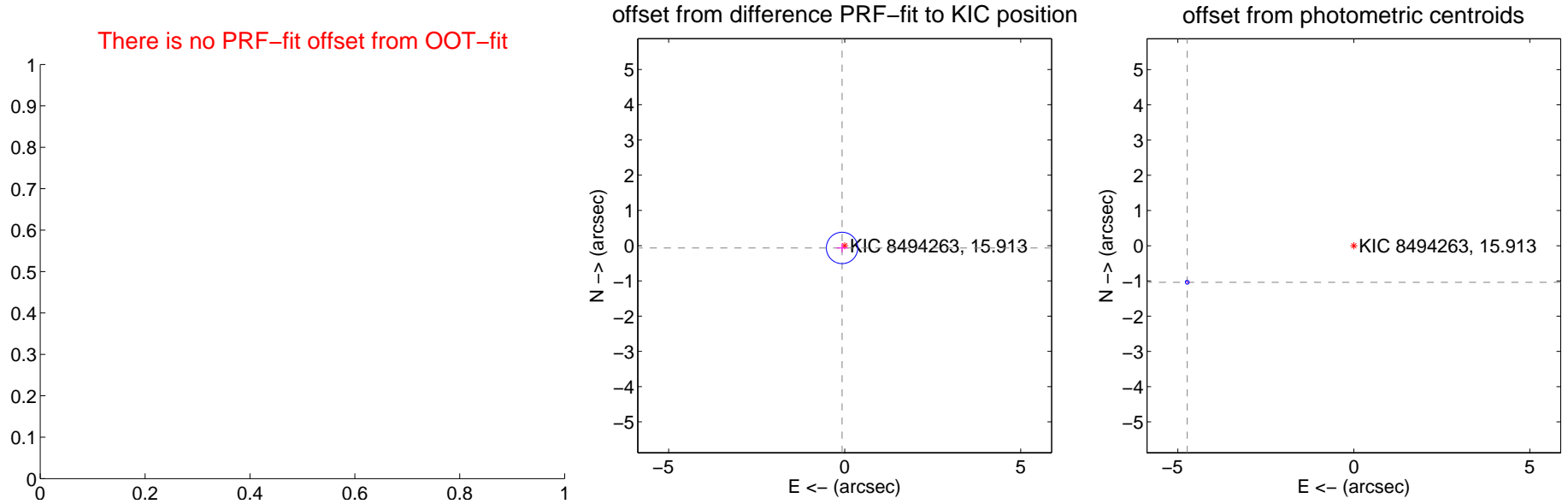
DV Centroid Data

Supplemental centroid analysis for 008494263-01. Kepler magnitude: 15.91. Transit SNR 165.36

There are 3 quarters with good PRF difference image offsets

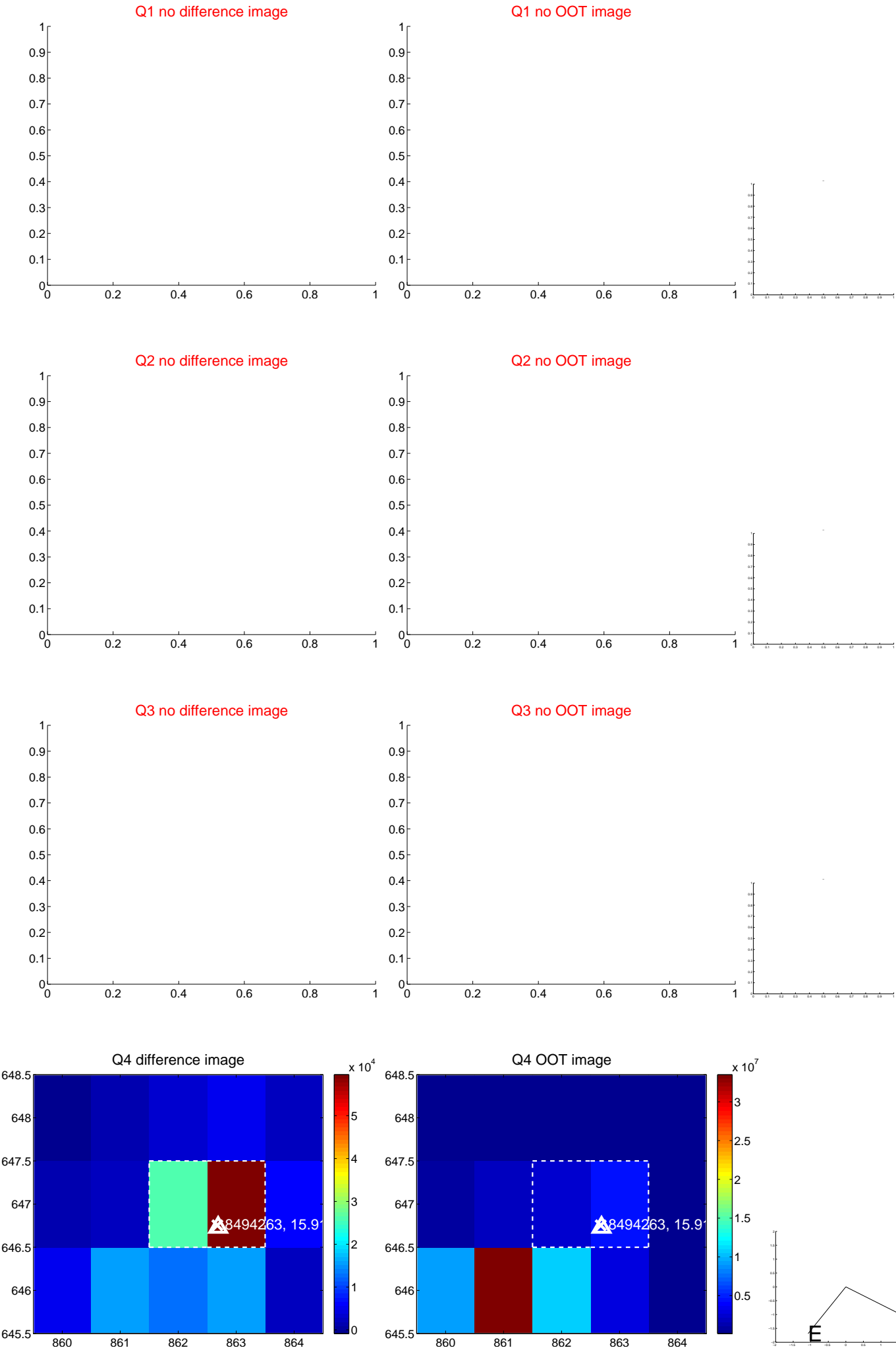
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	0.098 ± 0.149	0.66	0.074 ± 0.161	-0.064 ± 0.129
photometric centroid source offset	4.84 ± 0.02	274.82	4.73 ± 0.02	-1.04 ± 0.01

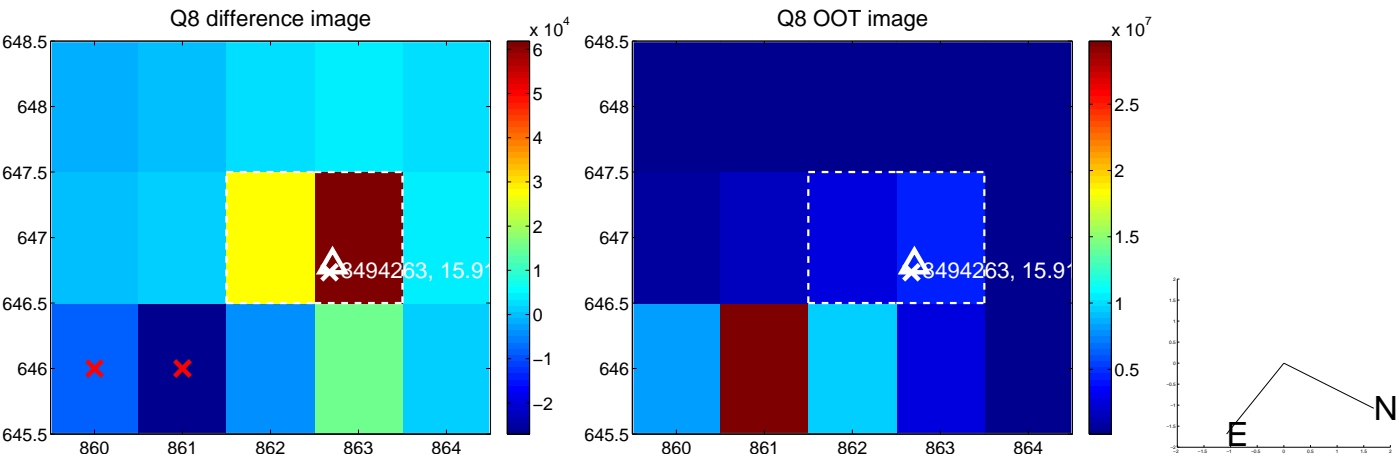
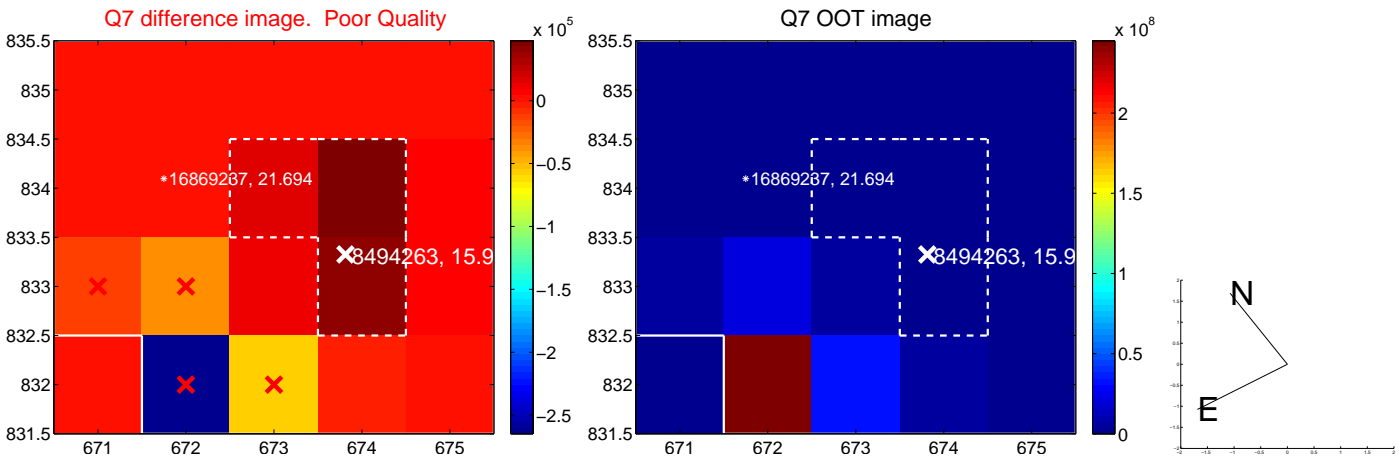
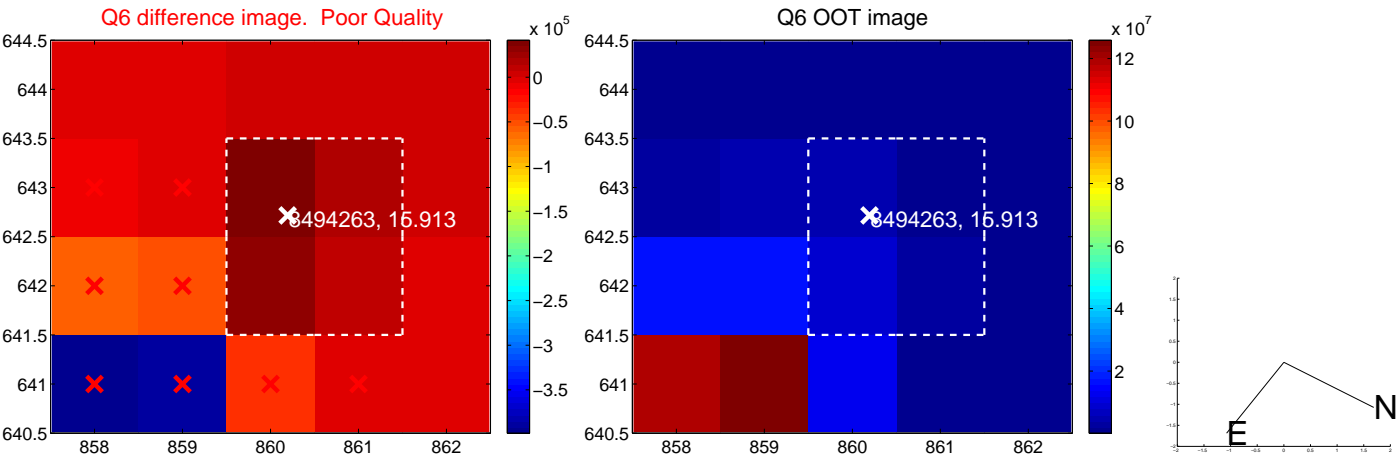
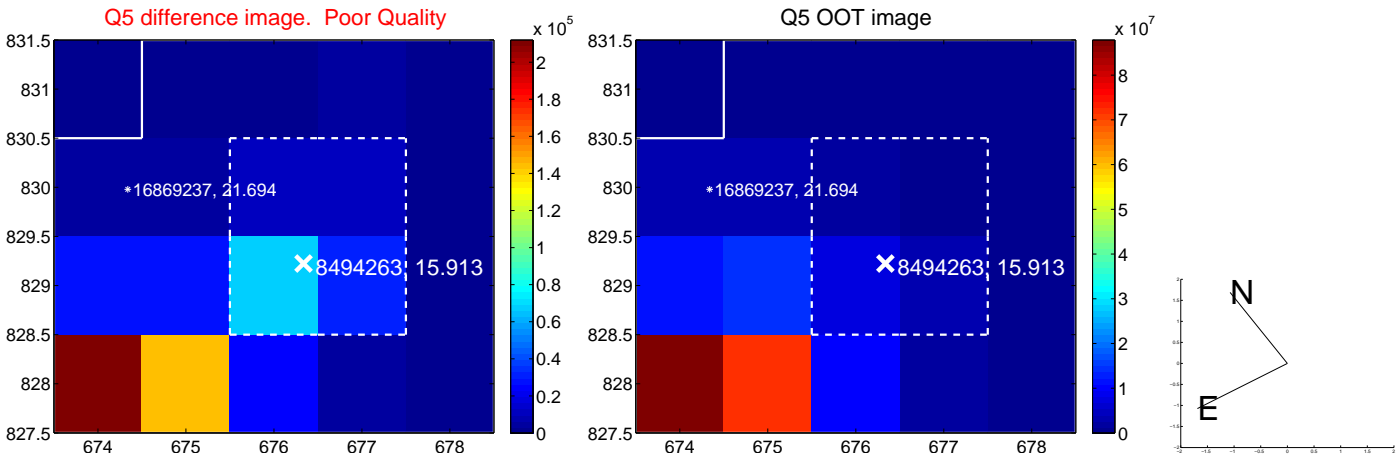


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

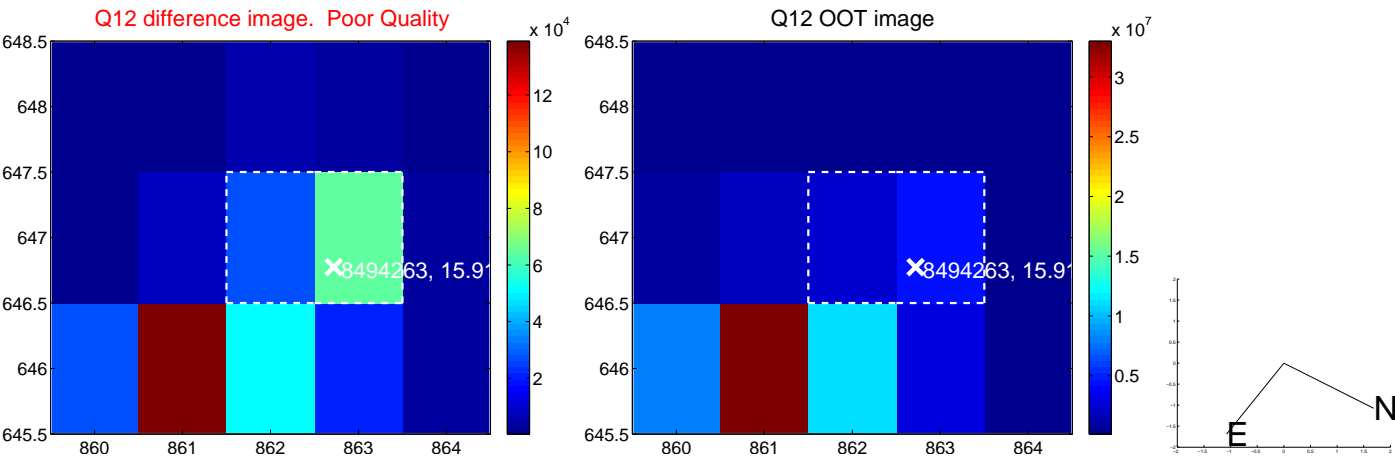
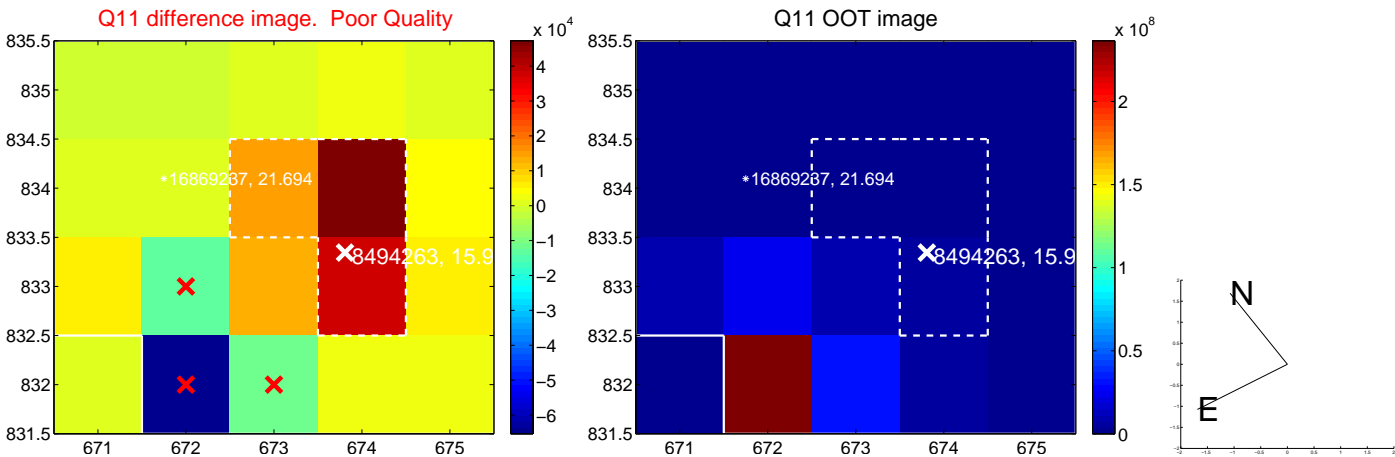
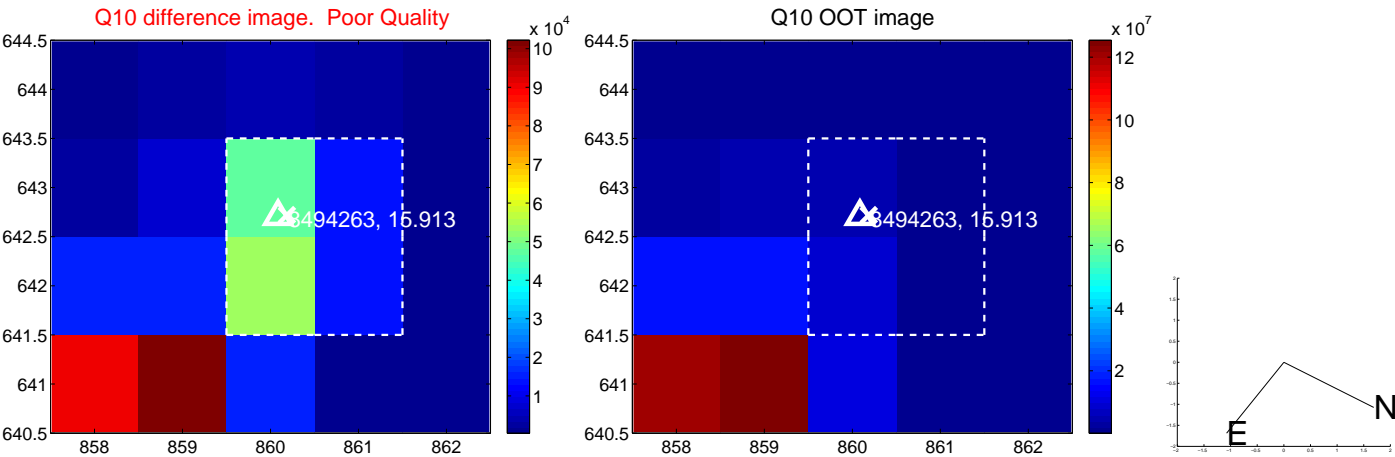
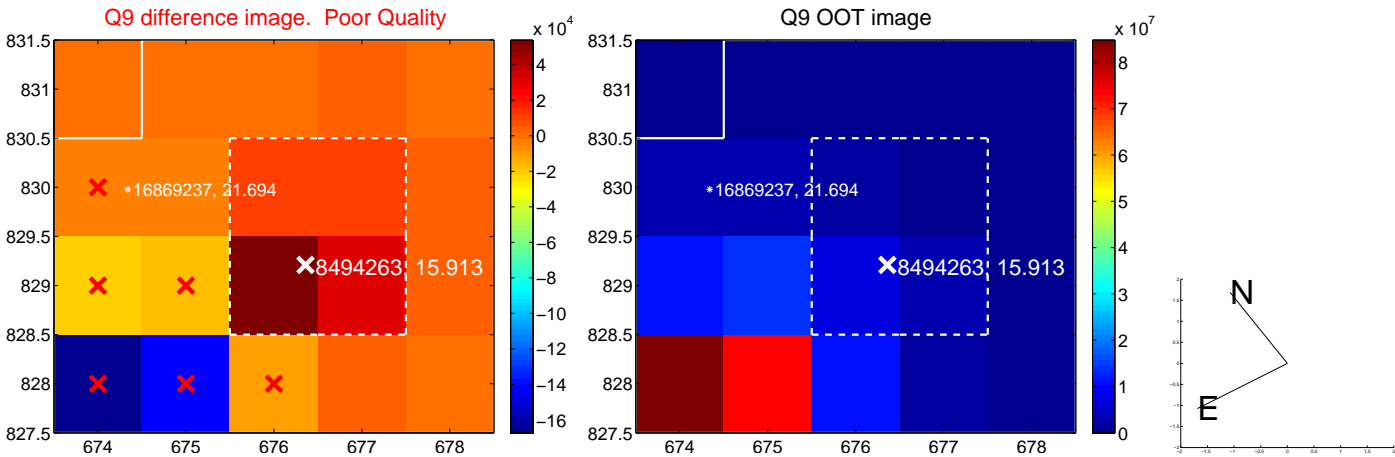
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



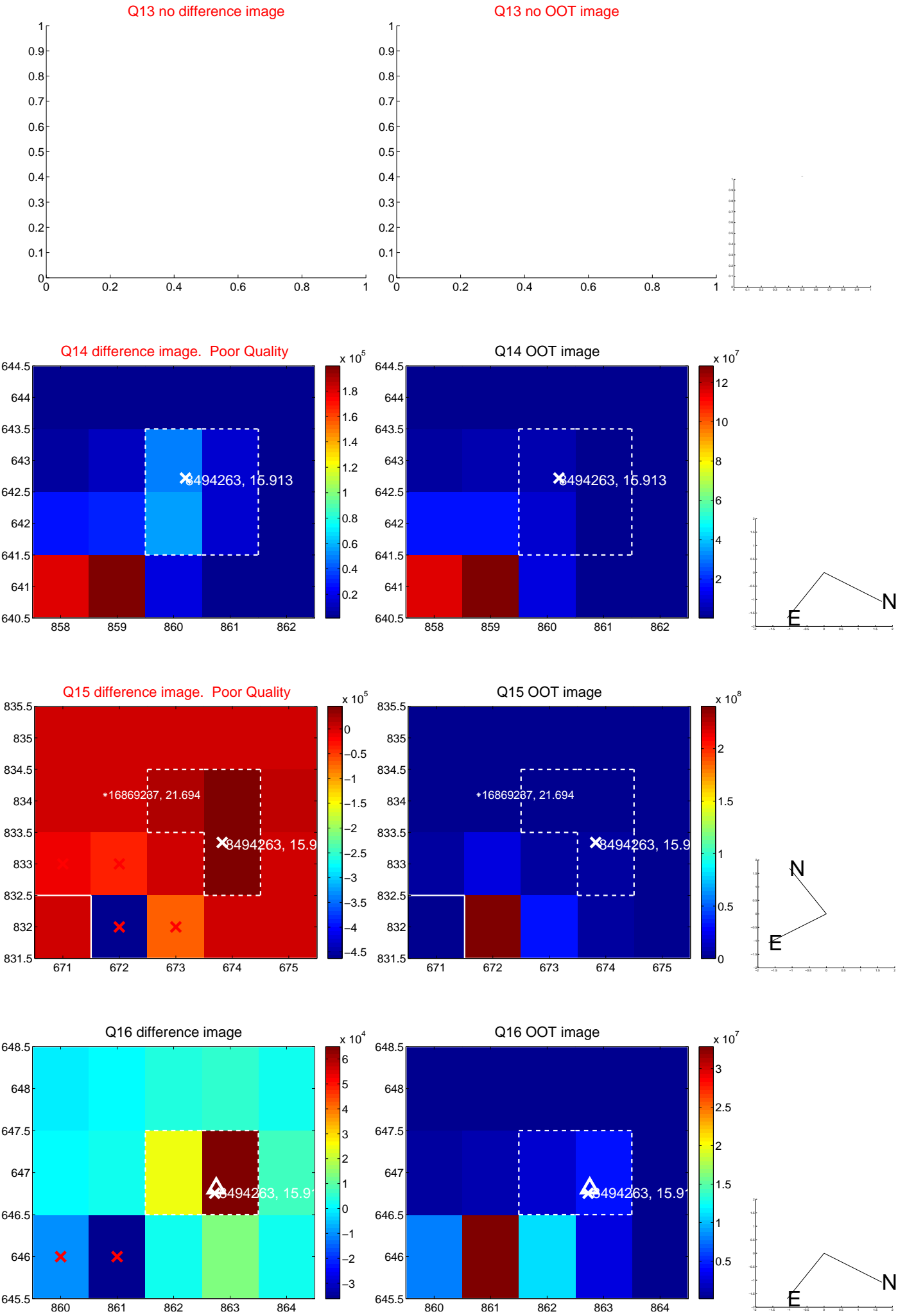
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



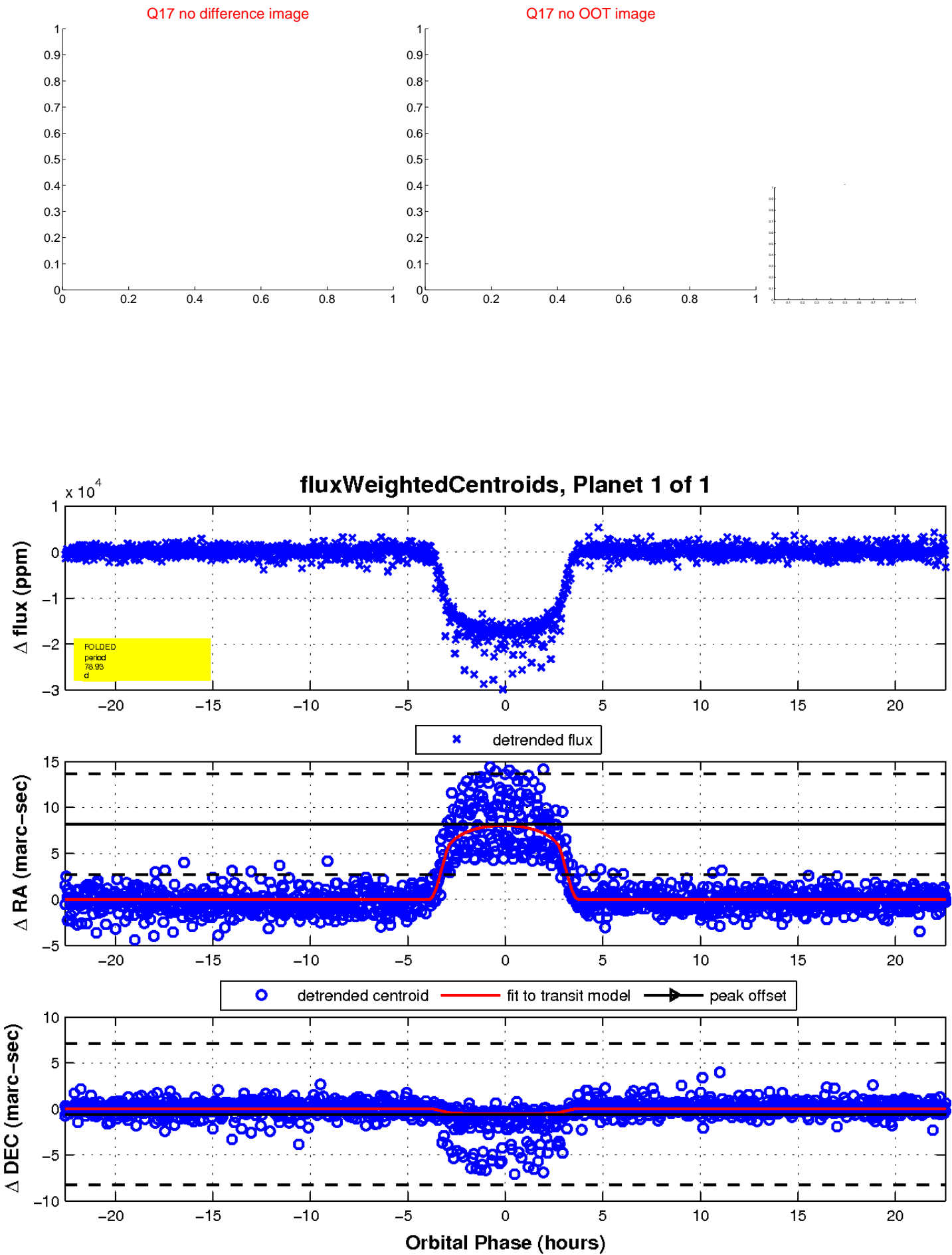
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

