

KIC 002834463

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})
002834463-01	OBS	6293.01	5.888389	136.026621	135.0	1.385	8.0	9.2	1.08	6243	2.28	379.45

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002834463-01	OBS	PC	0.79	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.

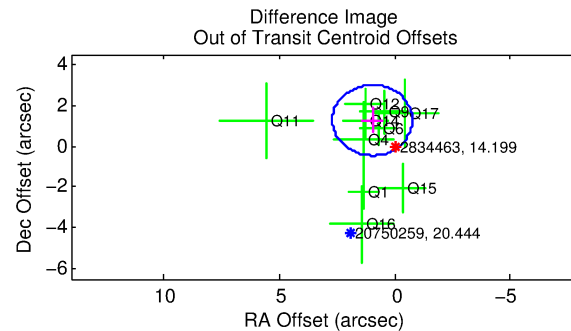
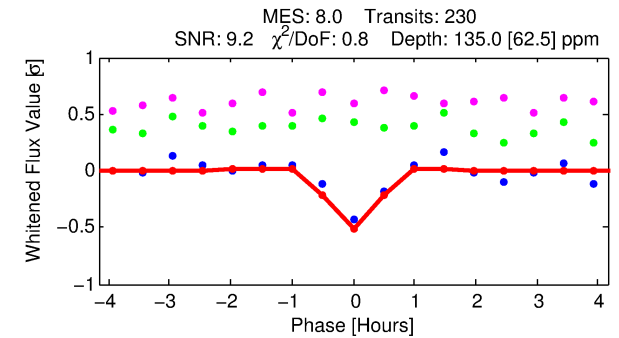
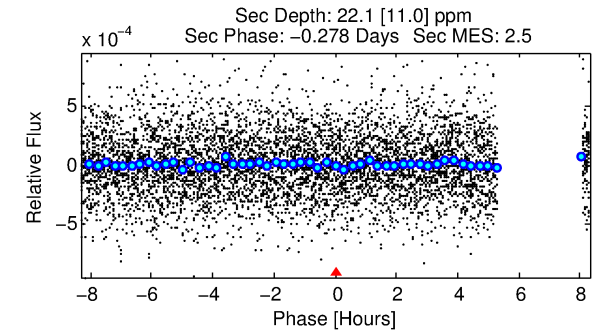
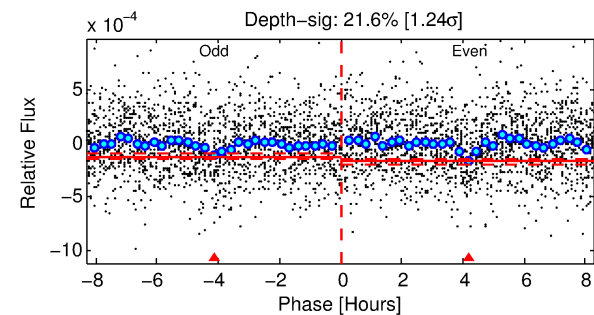
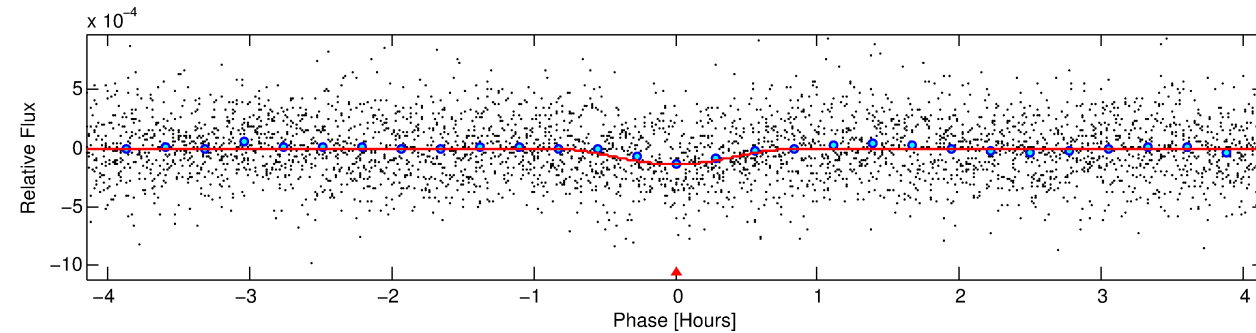
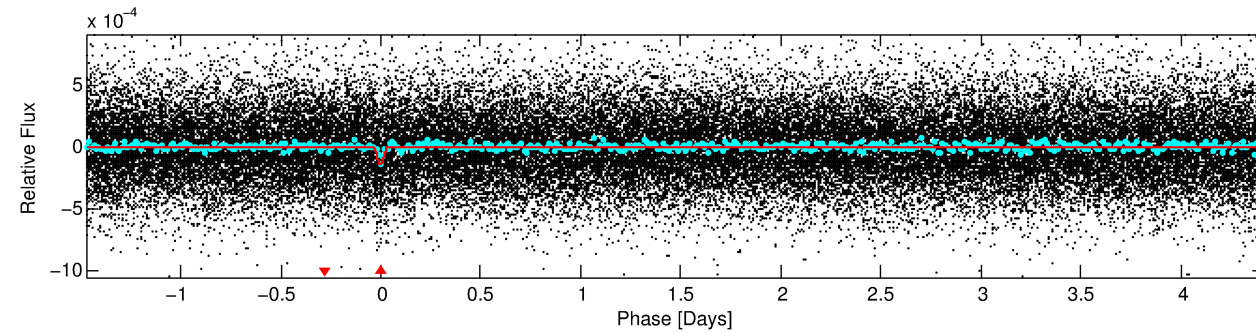
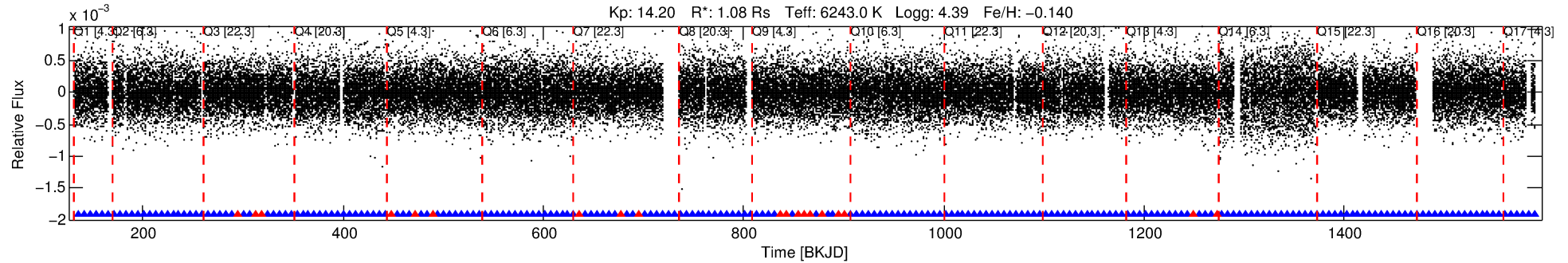
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 002834463-01

No Significant Match Found

DV One-Page Summary

KIC: 2834463 Candidate: 1 of 1 Period: 5.888 d
KOI: K06293.01 Corr: 0.876



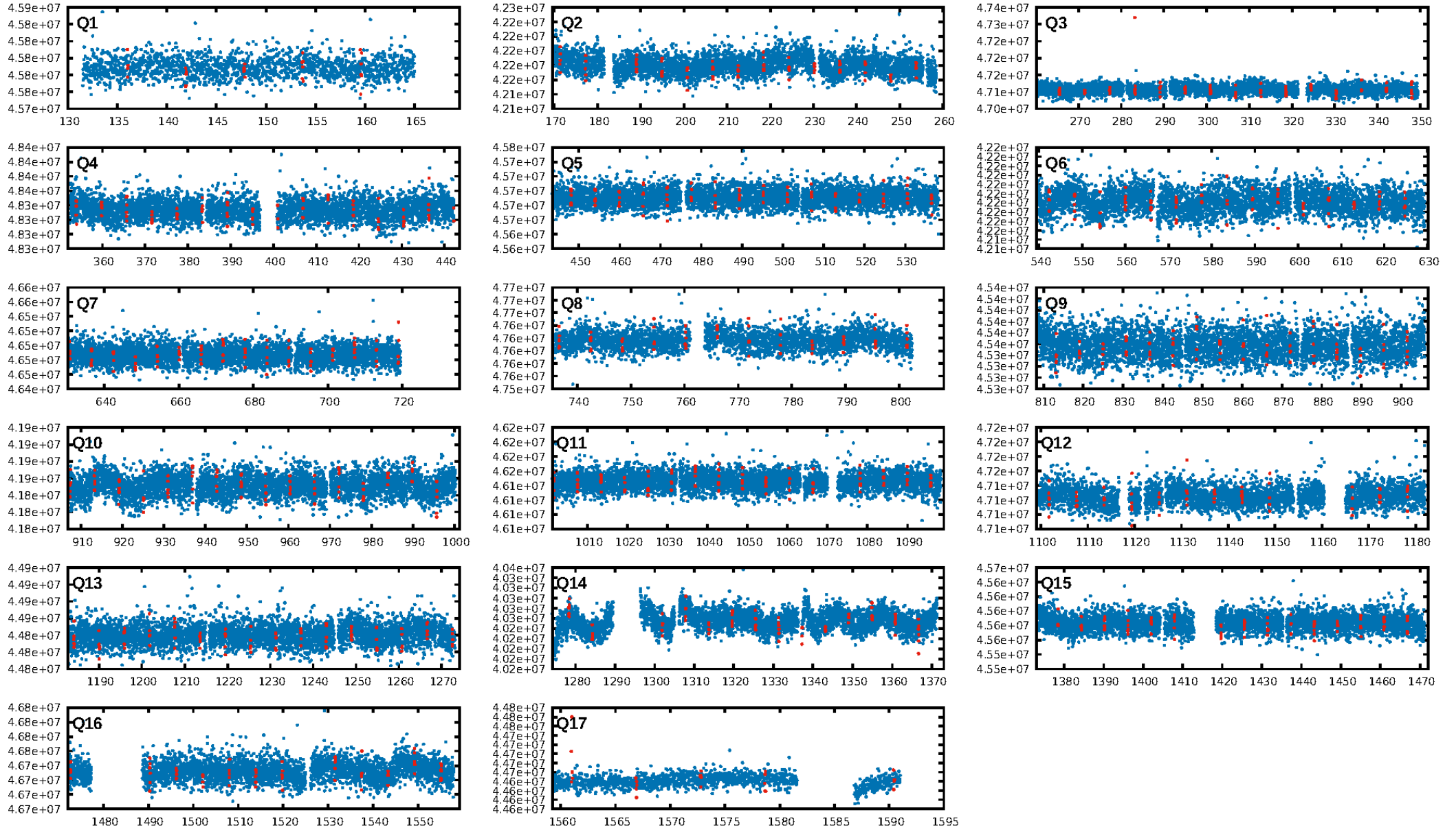
DV Fit Results:

Period = 5.88839 [0.00003] d
Epoch = 136.0266 [0.0033] BKJD
Rp/R* = 0.0193 [0.1184]
a/R* = 7.17 [14.65]
b = 1.00 [0.20]
Seff = 379.45 [152.57]
Teq = 1125 [113] K
Rp = 2.28 [14.03] Re
a = 0.0649 [0.0173] AU
Ag = 9.84 [120.85] [0.07 σ]
Teffp = 3082 [9459] K [0.21 σ]

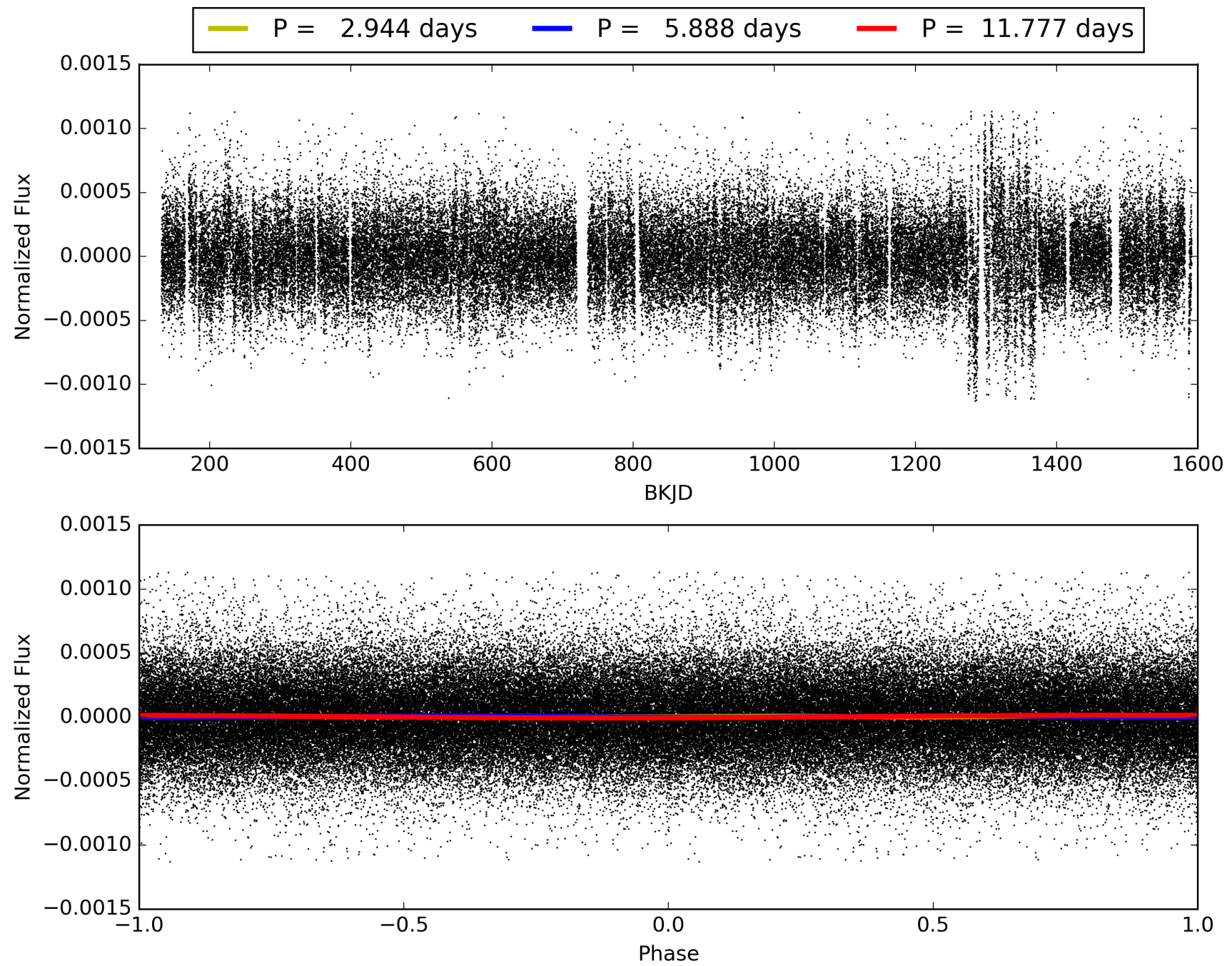
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.50e-15
RollingBand-fgt: 0.91 [201/220]
GhostDiagnostic-chr: -9.322
Centroid-sig: 53.9%
Centroid-so: 0.640 arcsec [0.49 σ]
OotOffset-rm: 1.603 arcsec [2.78 σ]
KicOffset-rm: 1.697 arcsec [2.86 σ]
OotOffset-st: 2/2/3/3 [10]
KicOffset-st: 2/2/3/3 [10]
DiffImageQuality-fgm: 0.30 [3/10]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 002834463-01, PDC Light Curves

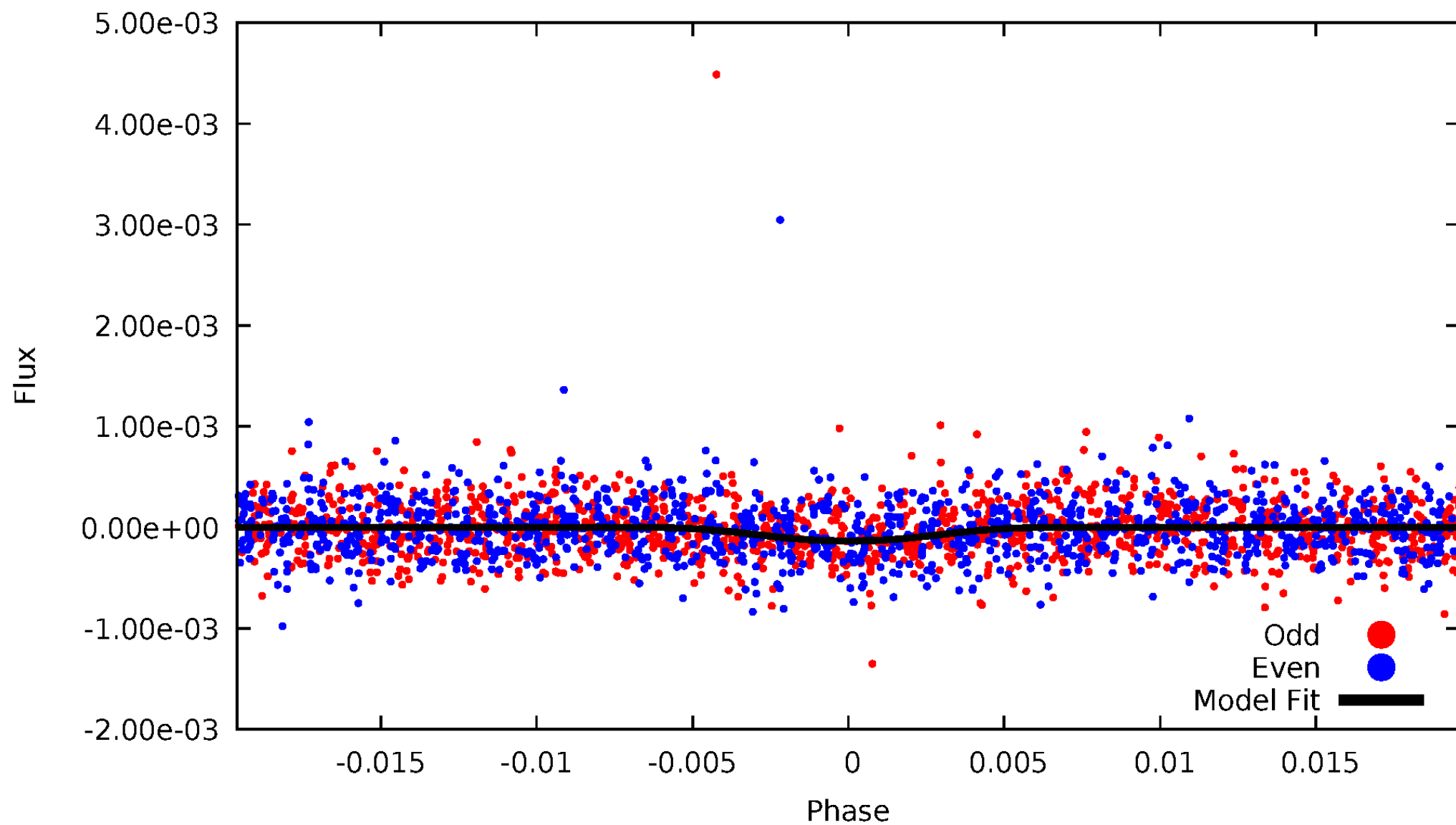


TCE 002834463-01



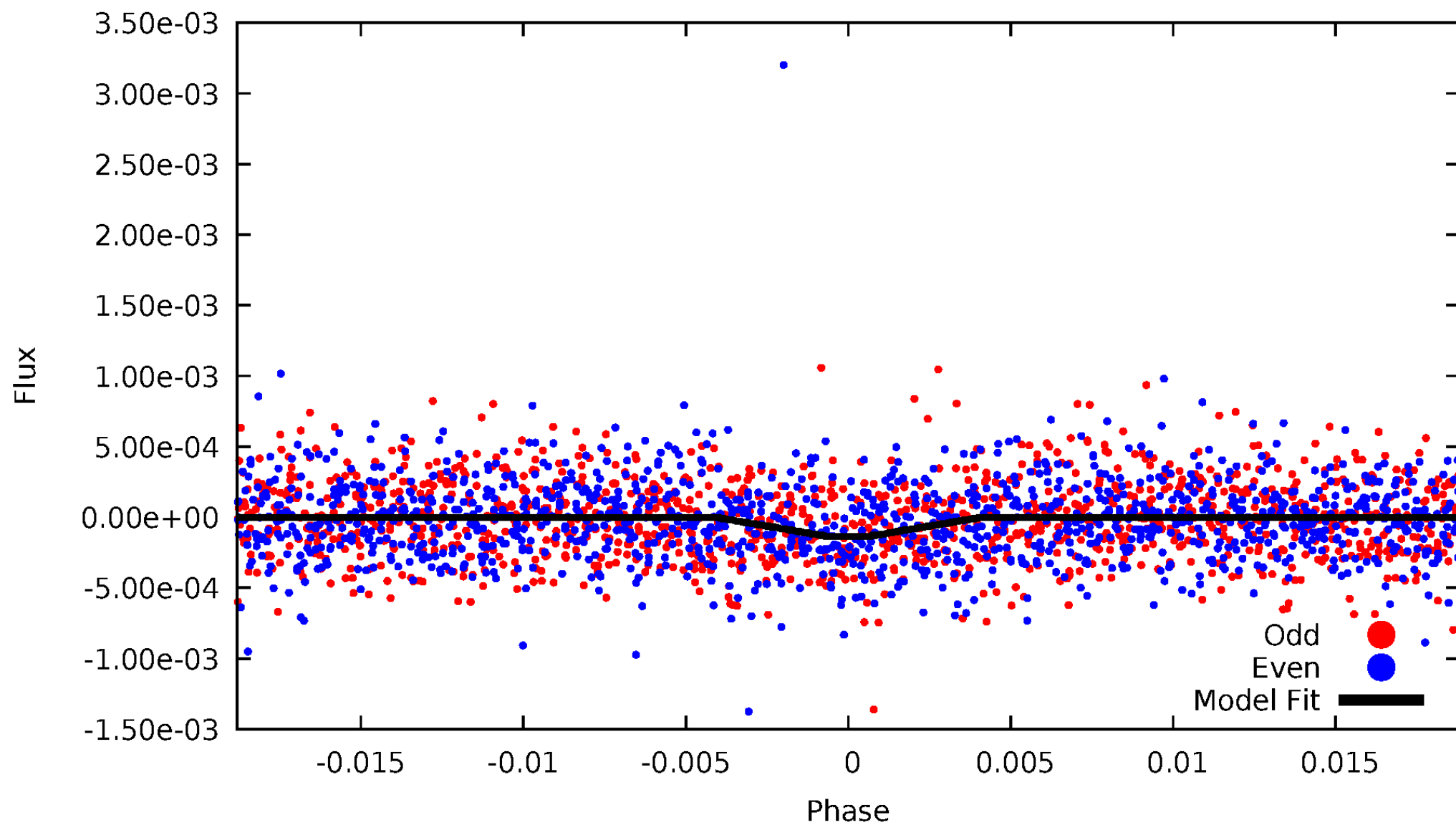
DV Odd/Even

TCE 002834463-01



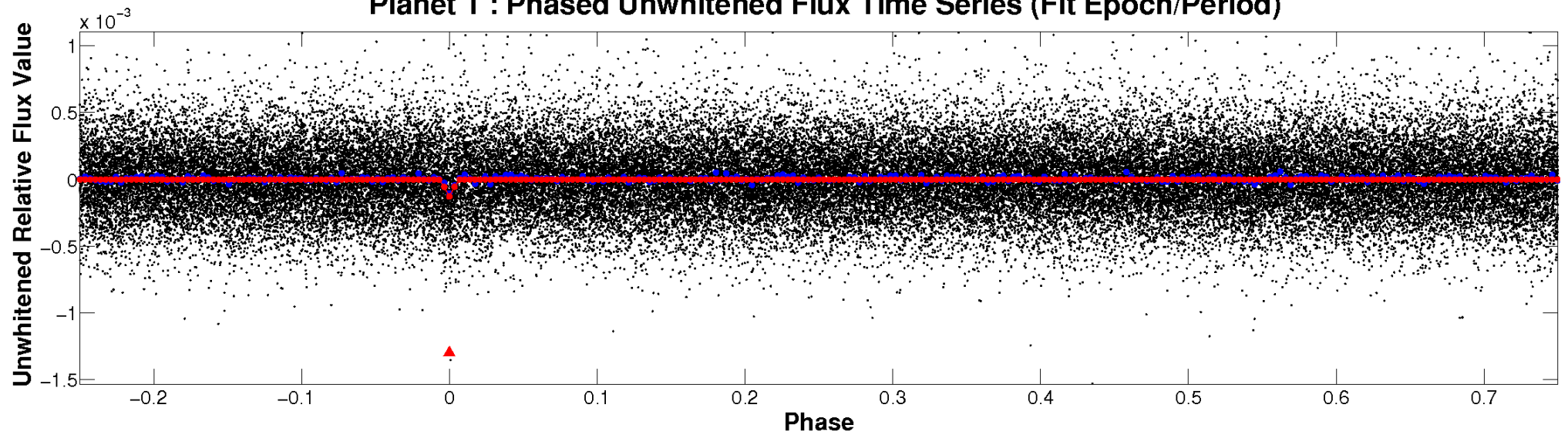
ALT Odd/Even

TCE 002834463-01

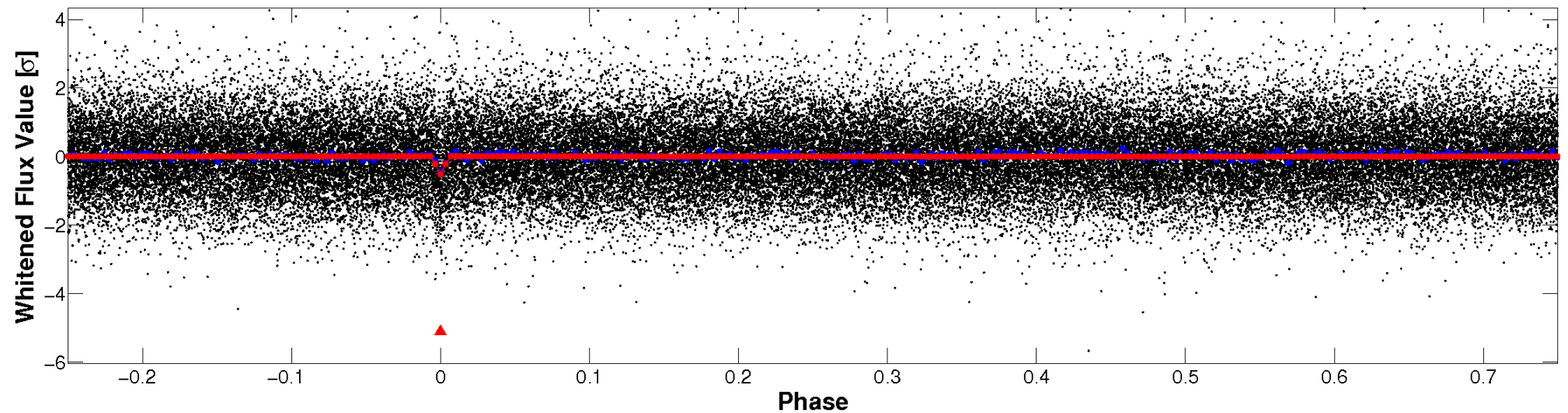


Non-Whitened Vs. Whitened Light Curve

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

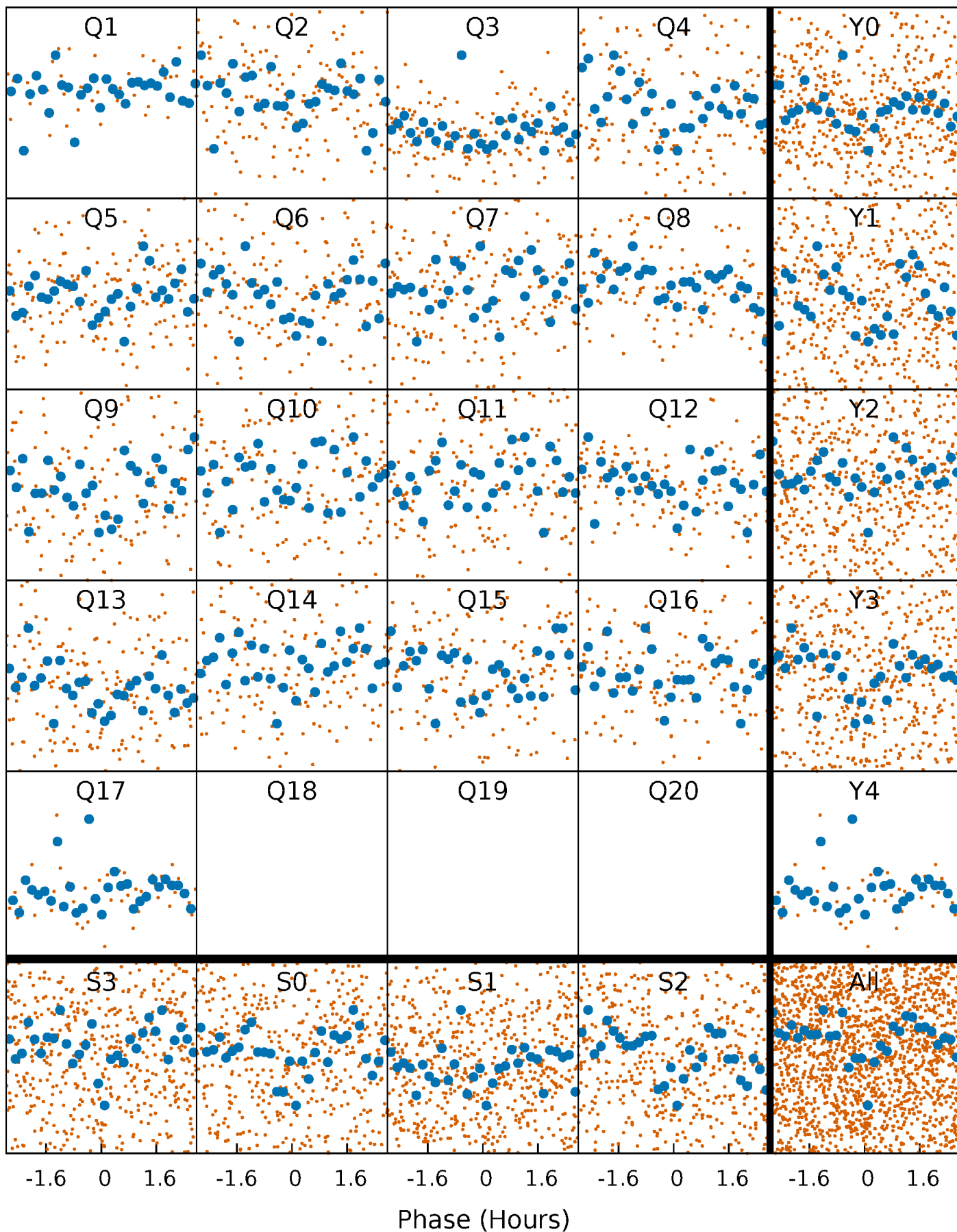


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



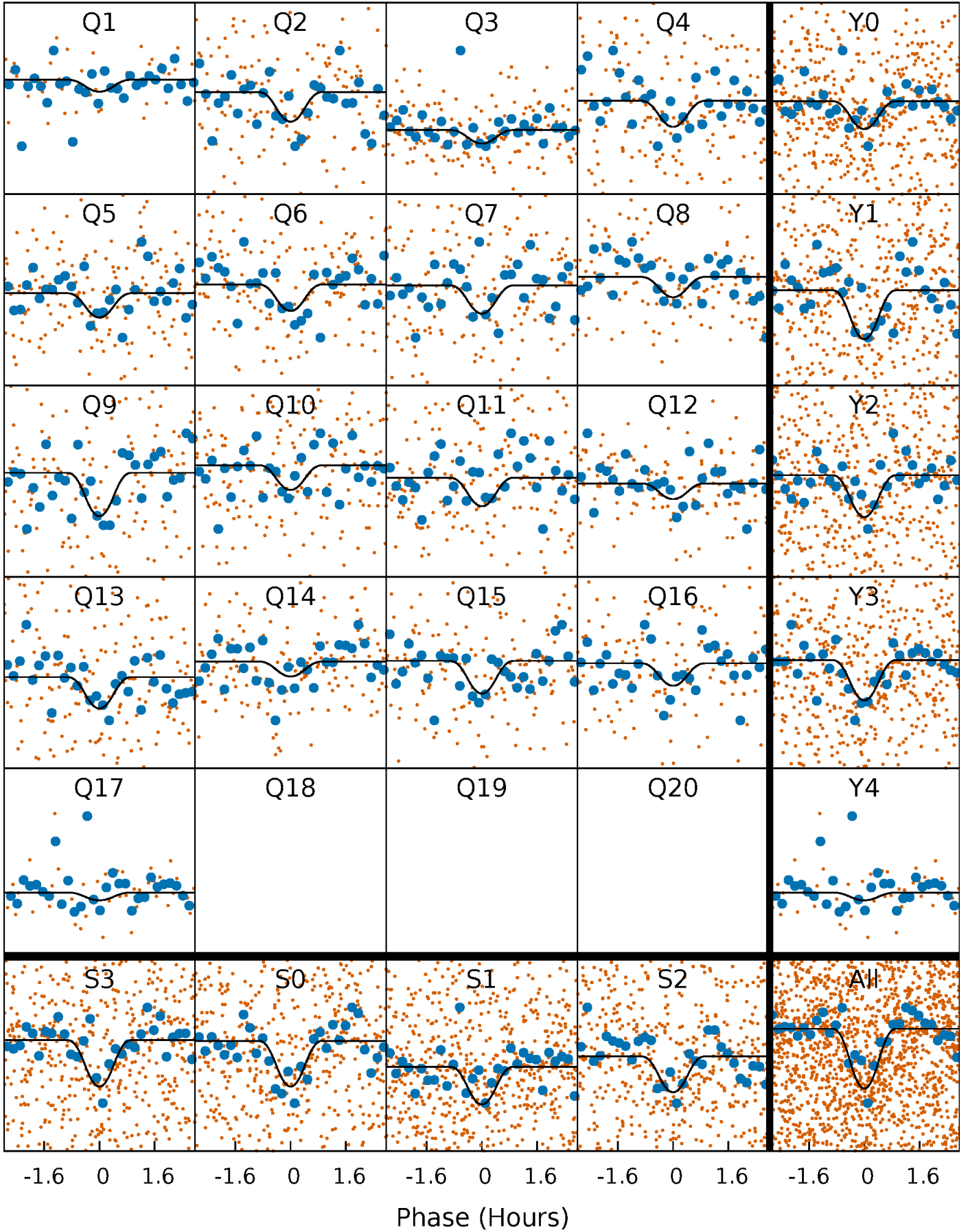
PDC Quarter-Phased Transit Curves

TCE 002834463-01 P= 5.888389 Days $T_0=136.026621$ (BKJD)



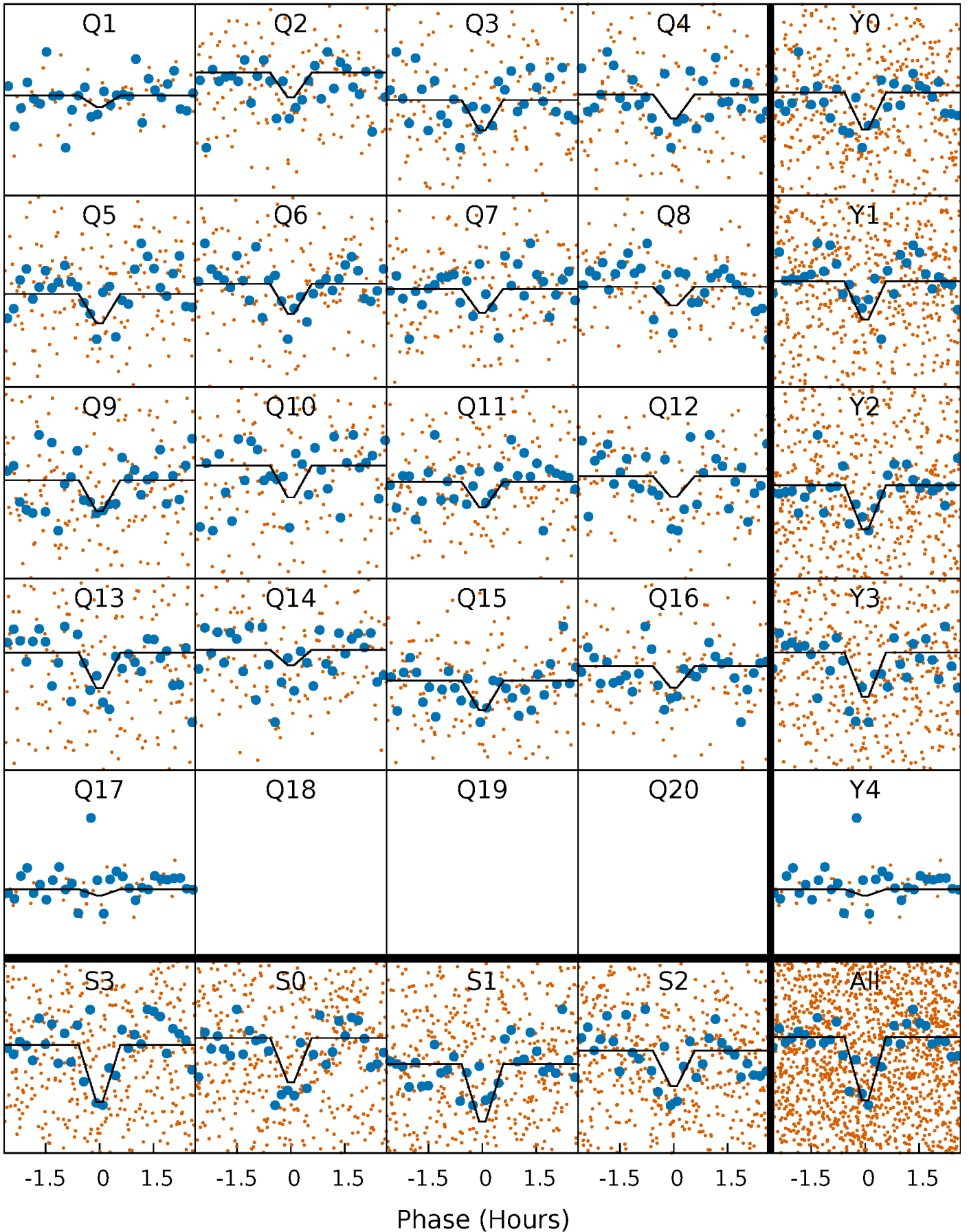
DV Quarter-Phased Transit Curves

TCE 002834463-01 P= 5.888389 Days $T_0=136.026621$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

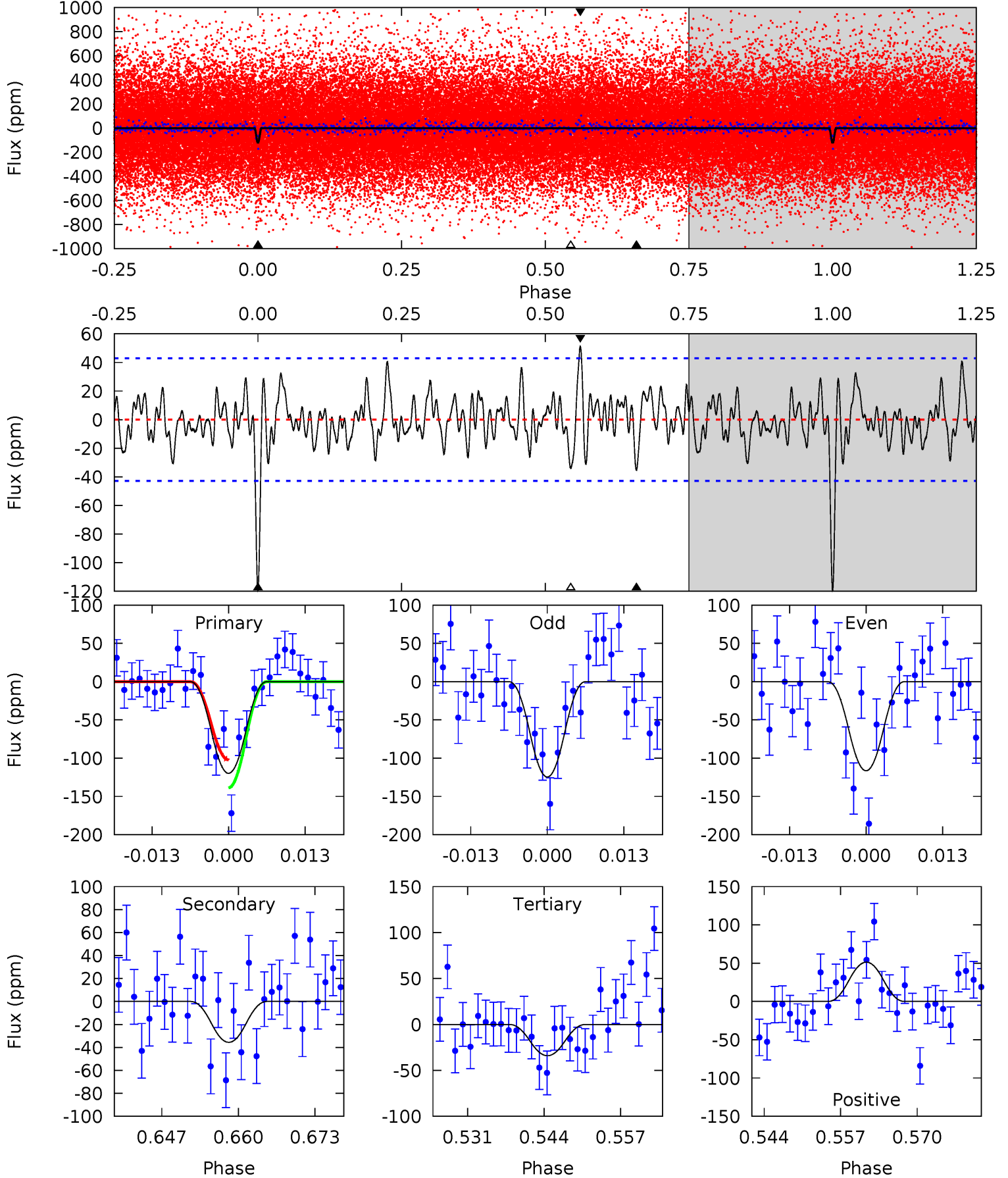
TCE 002834463-01 P= 5.888359 Days $T_0=136.032874$ (BKJD)



DV Model-Shift Uniqueness Test

002834463-01, P = 5.888389 Days, E = 130.138232 Days

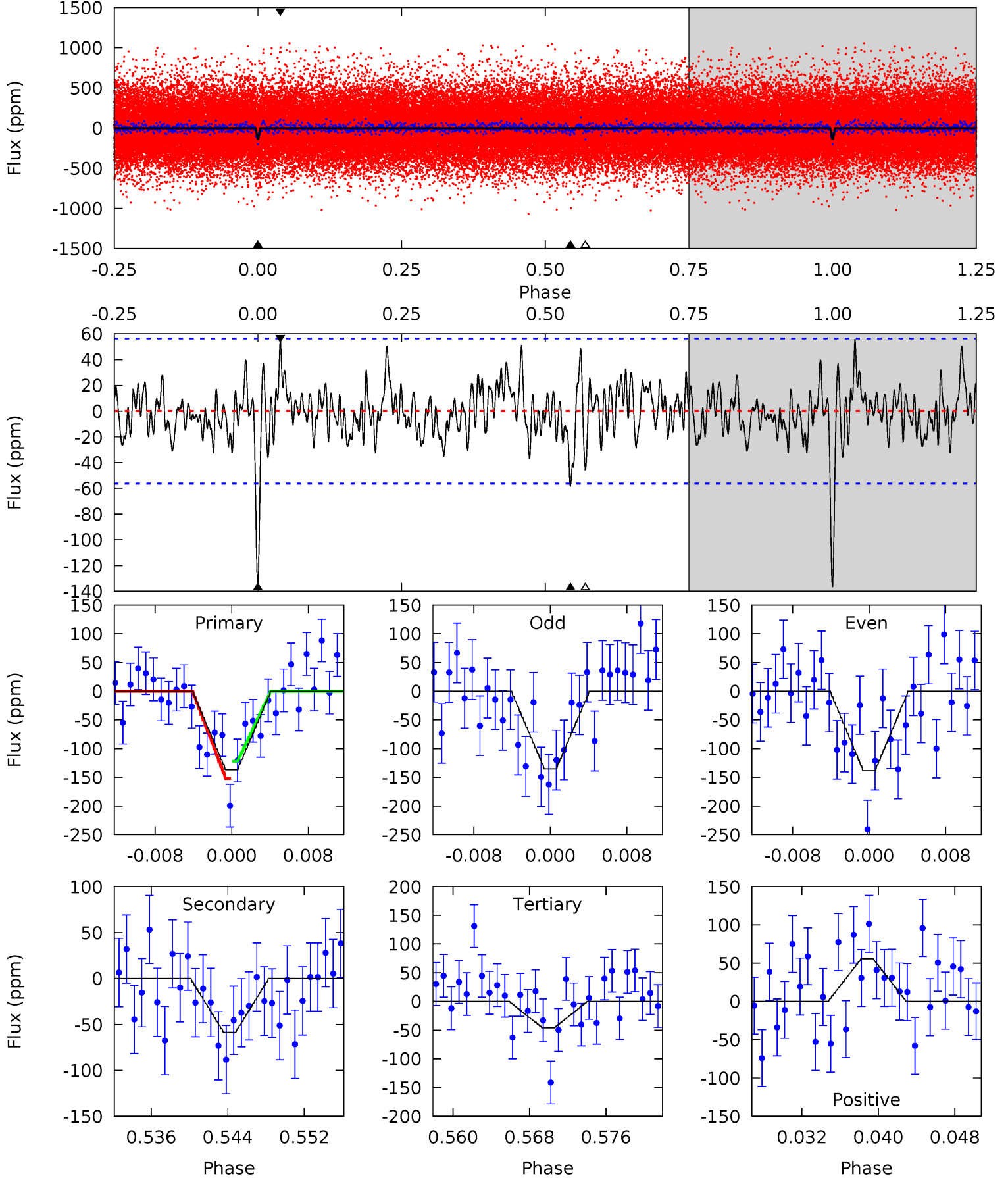
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.9	4.13	3.95	5.96	4.98	2.49	1.54	9.95	7.94	0.18	-1.83	0.47	1.10	0.30	2.12



Alt Model-Shift Uniqueness Test

002834463-01, P = 5.888359 Days, E = 130.144515 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.3	5.27	4.14	5.02	5.07	2.65	1.46	8.19	7.31	1.13	0.25	0.16	0.97	0.29	1.34



Stellar Parameters For KIC 002834463

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6243^{+169}_{-206}	$4.390^{+0.087}_{-0.203}$	$-0.140^{+0.250}_{-0.300}$	$1.084^{+0.353}_{-0.126}$	$1.048^{+0.169}_{-0.123}$	$1.160^{+0.440}_{-0.609}$
	+3%/-3%	+2%/-5%	+179%/-214%	+33%/-12%	+16%/-12%	+38%/-52%
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 002834463-01 / KOI 6293.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-36 ± 9	$11.15^{+10.82}_{-7.29}$	1594^{+128}_{-87}	2317^{+922}_{-4388}	$0.674^{+4.411}_{-0.515}$
Alt.	-59 ± 11	$10.23^{+11.16}_{-7.25}$	1585^{+119}_{-87}	2563^{+1303}_{-4256}	$1.252^{+14.596}_{-0.968}$

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

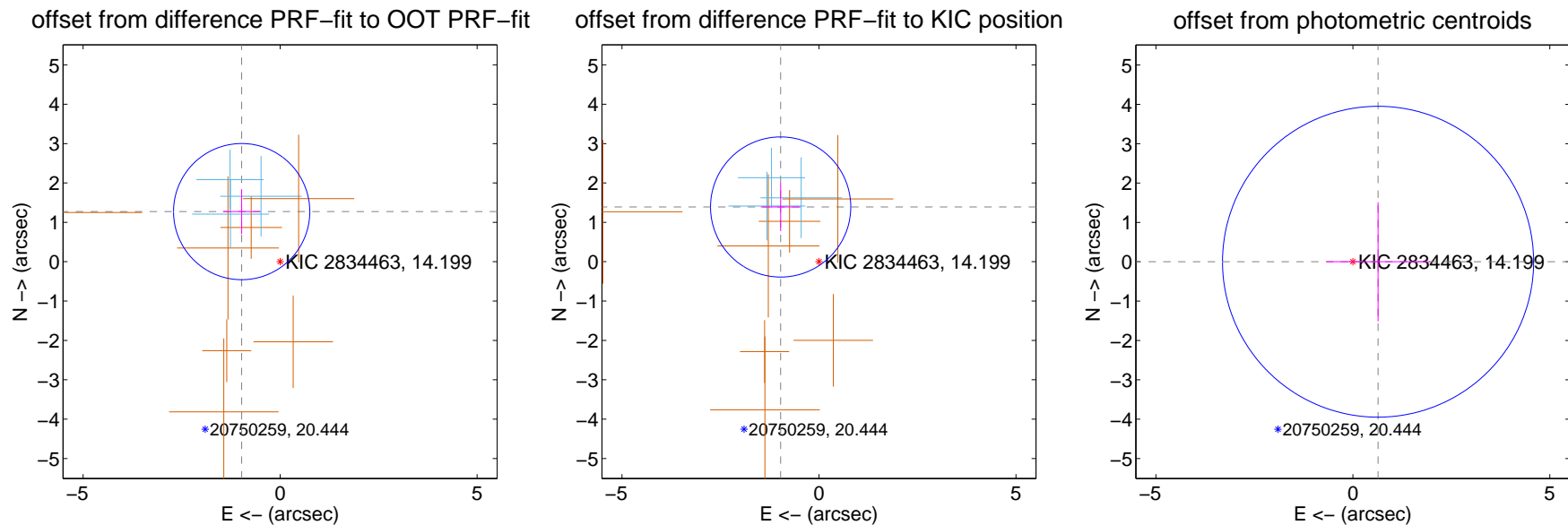
DV Centroid Data

Supplemental centroid analysis for 002834463-01. Kepler magnitude: 14.20. Transit SNR 9.21

There are 3 quarters with good PRF difference image offsets

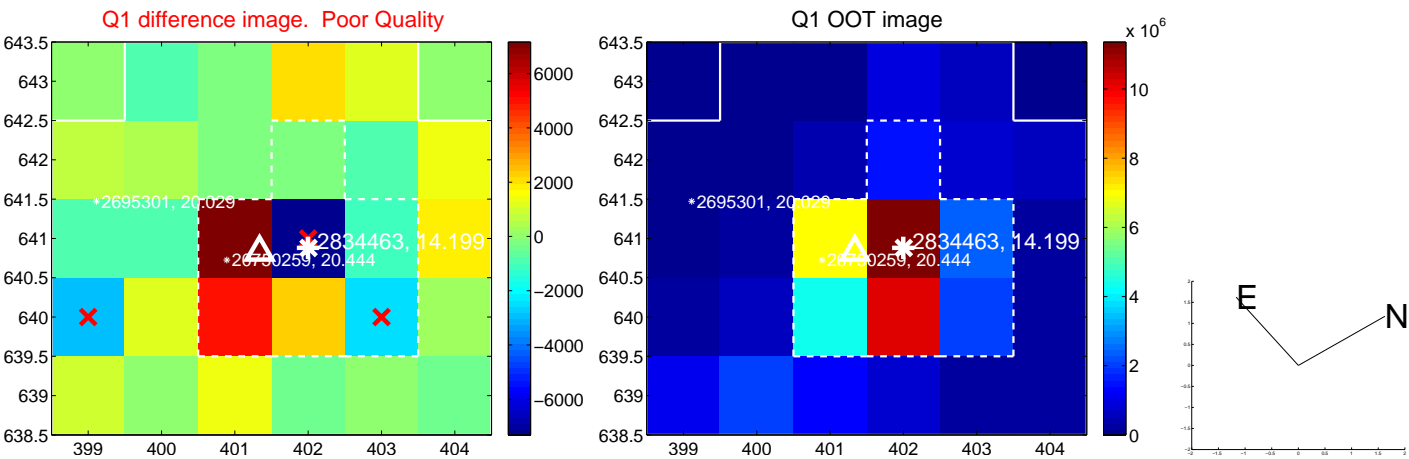
The direct PRF centroid is offset from the target star catalog position by about 0.01 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.603 ± 0.577	2.78	0.976 ± 0.474	1.272 ± 0.571
PRF-fit source offset from KIC position	1.697 ± 0.593	2.86	0.973 ± 0.503	1.390 ± 0.614
photometric centroid source offset	0.64 ± 1.32	0.49	-0.64 ± 1.32	0.00 ± 1.51

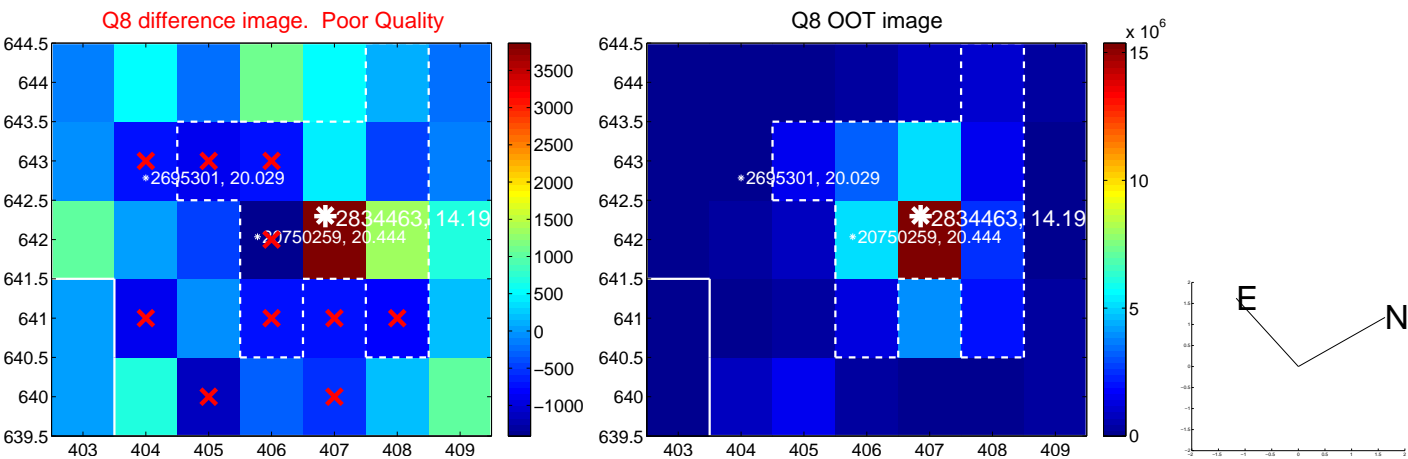
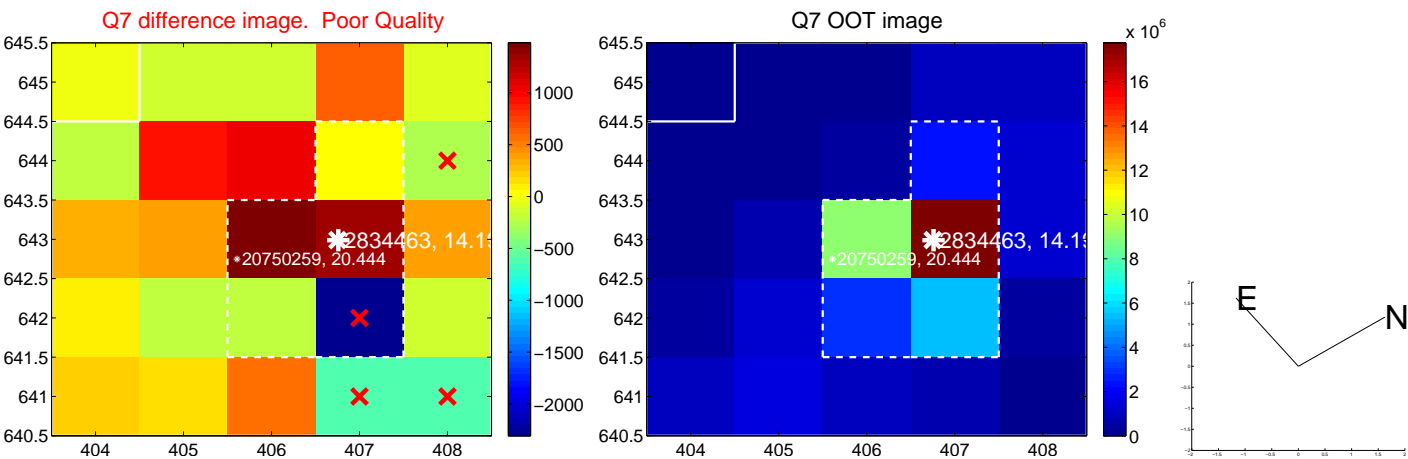
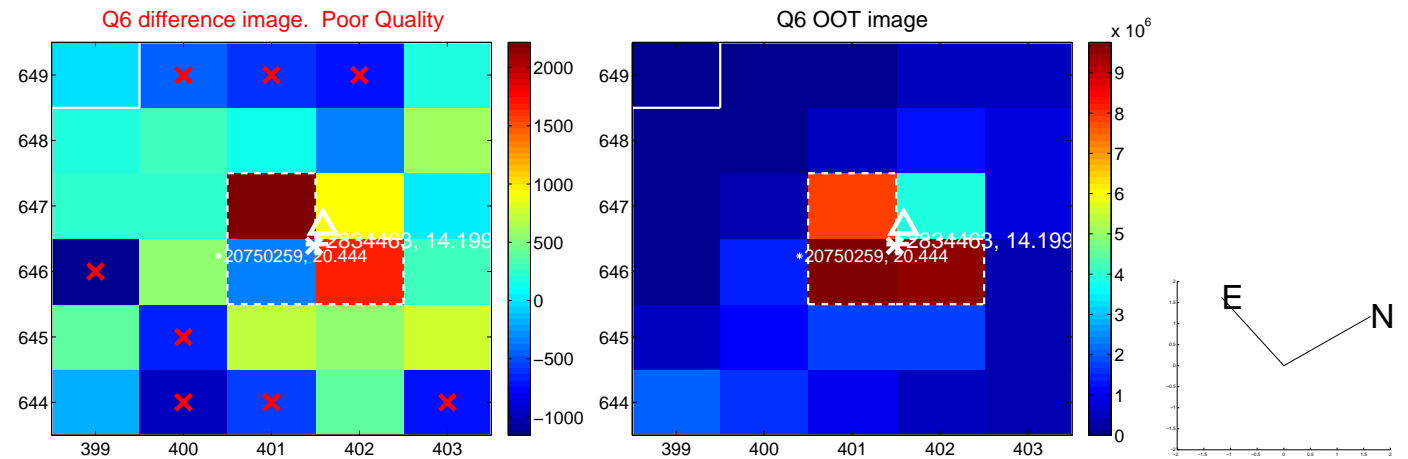
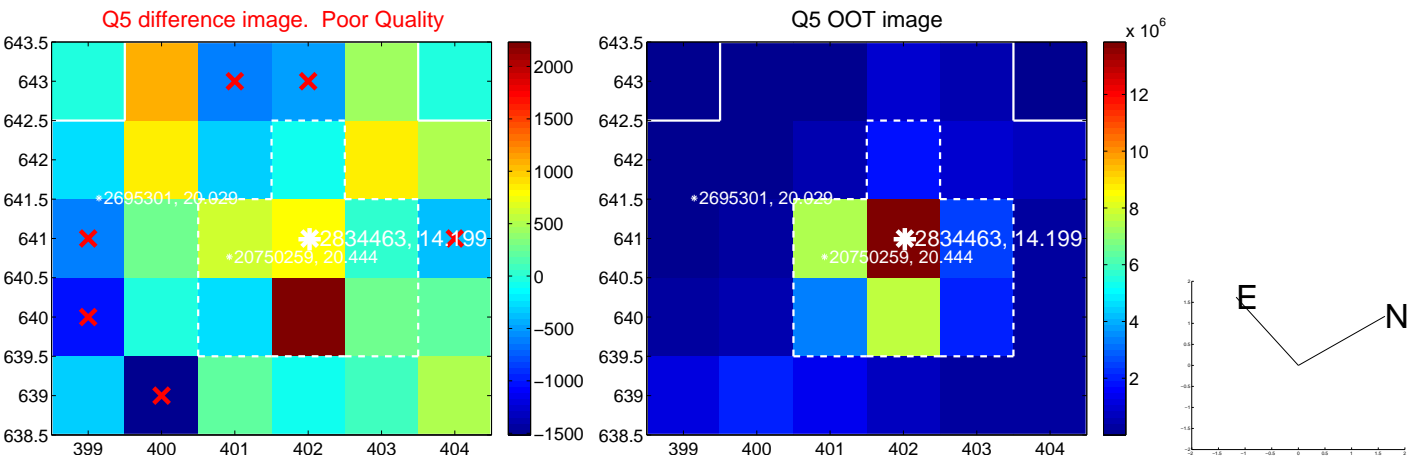


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

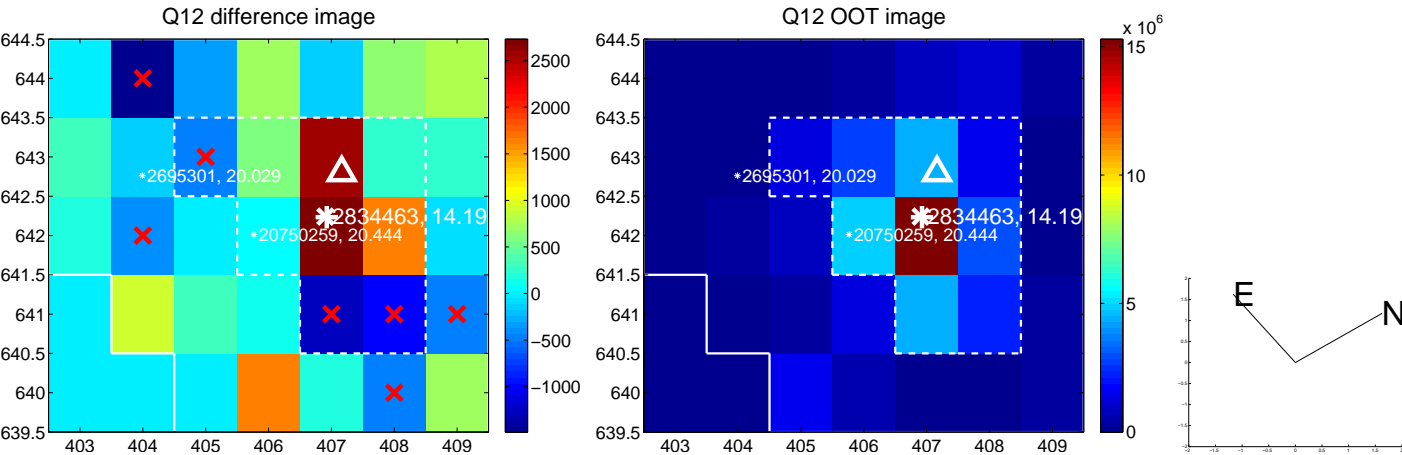
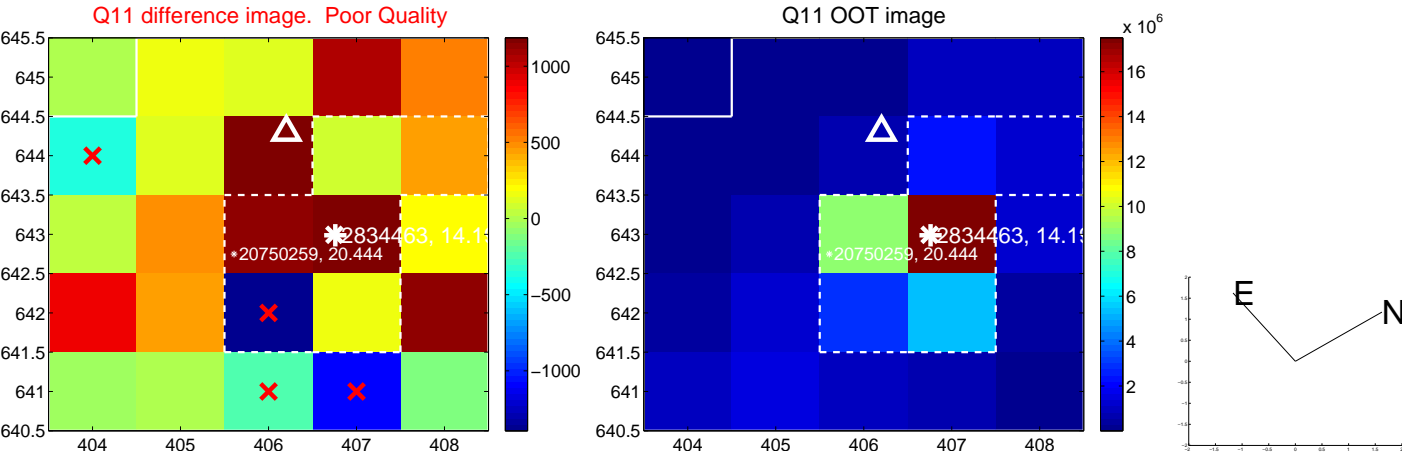
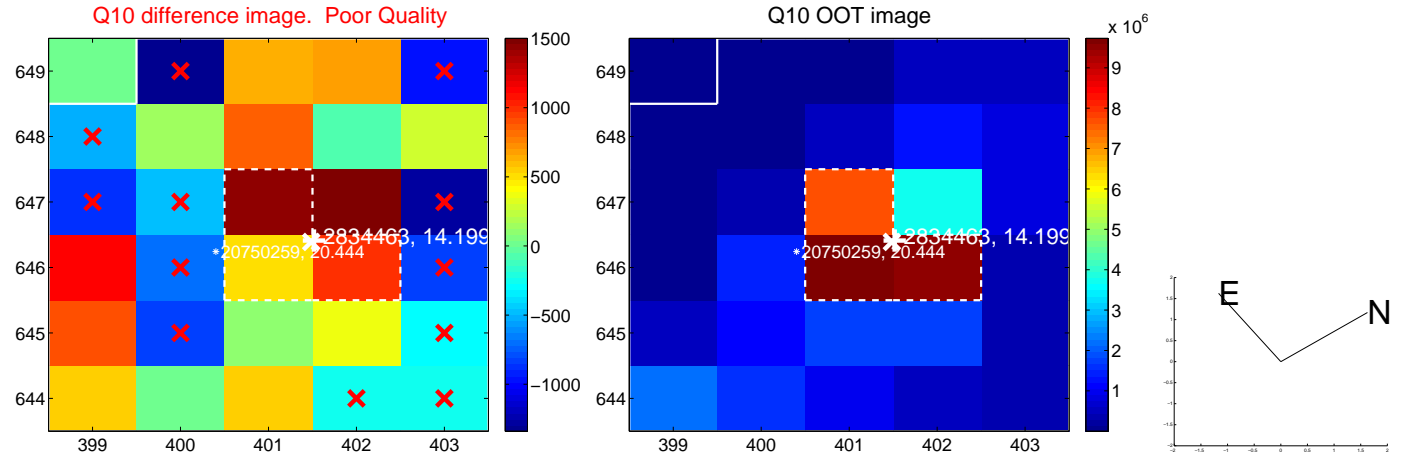
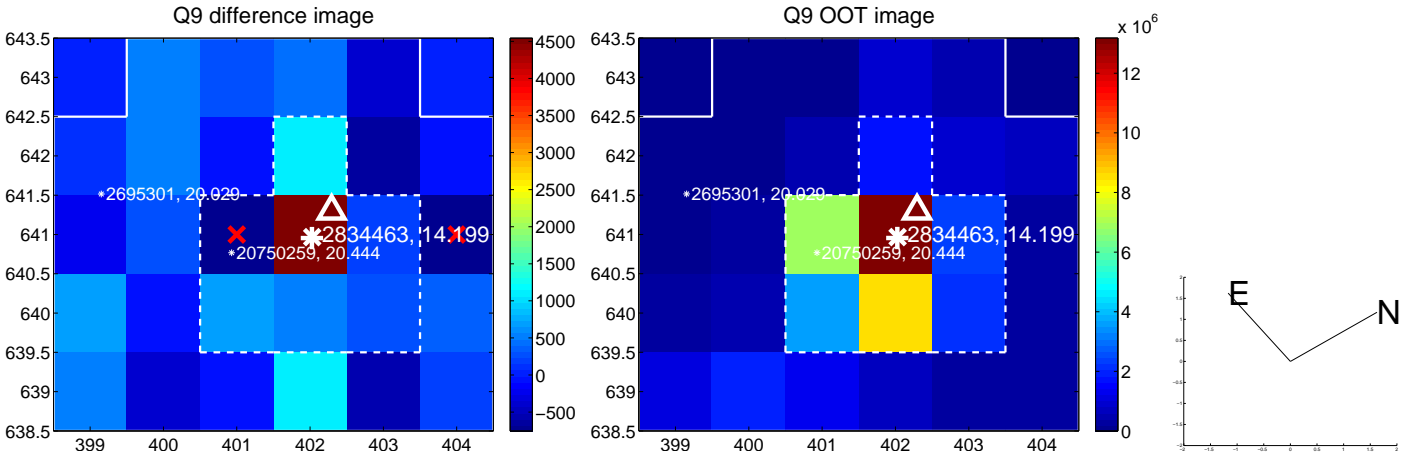
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



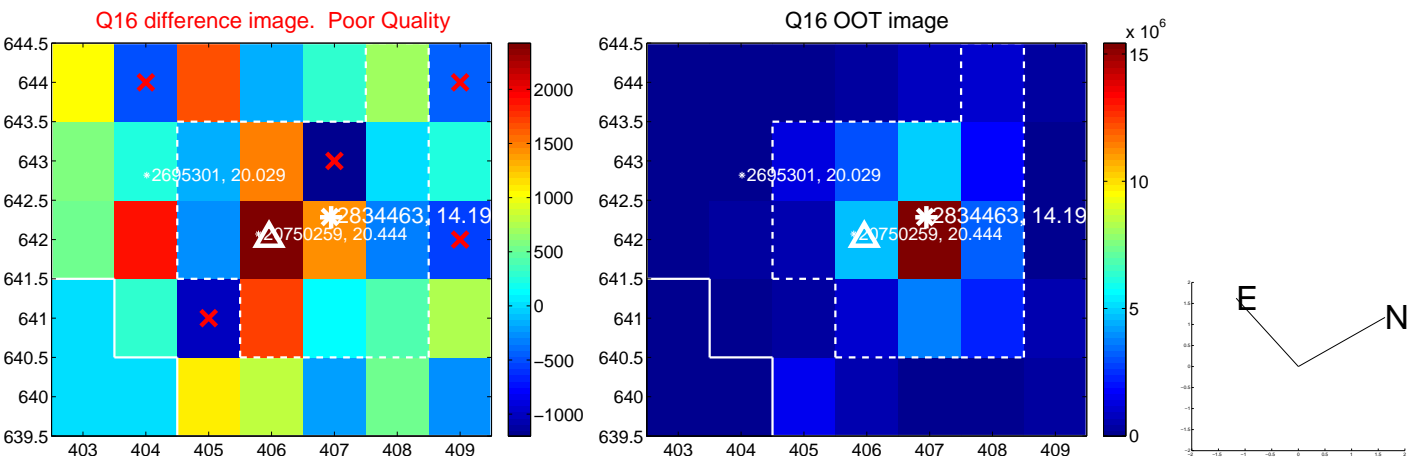
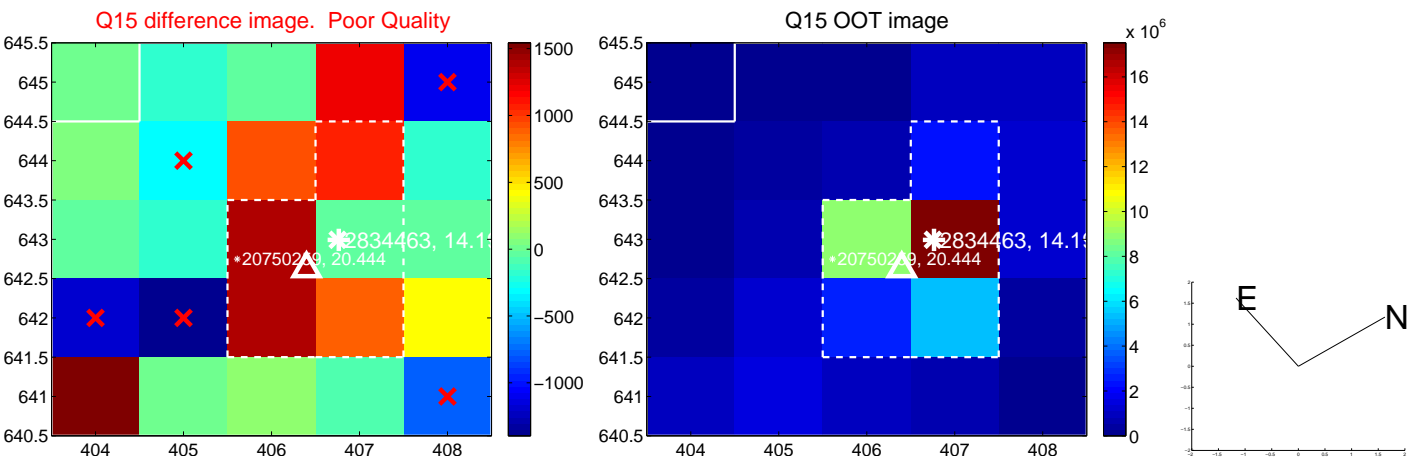
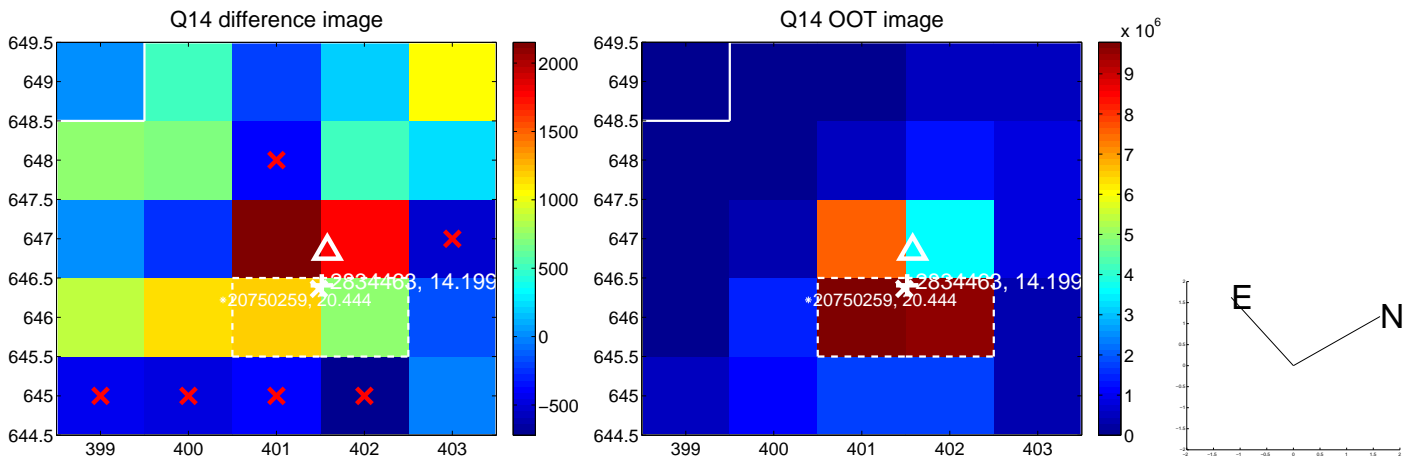
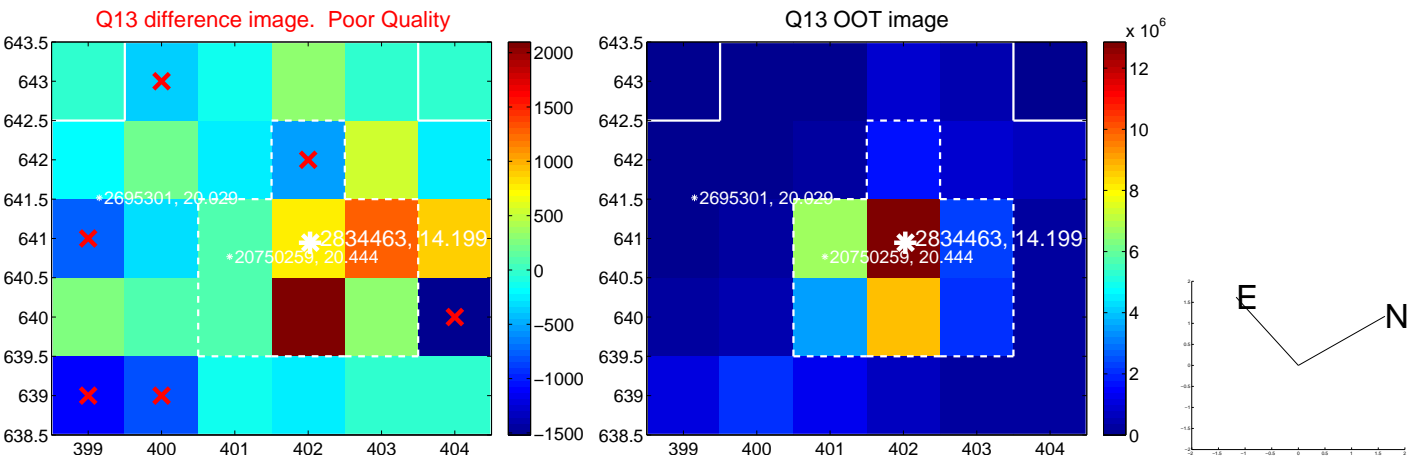
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



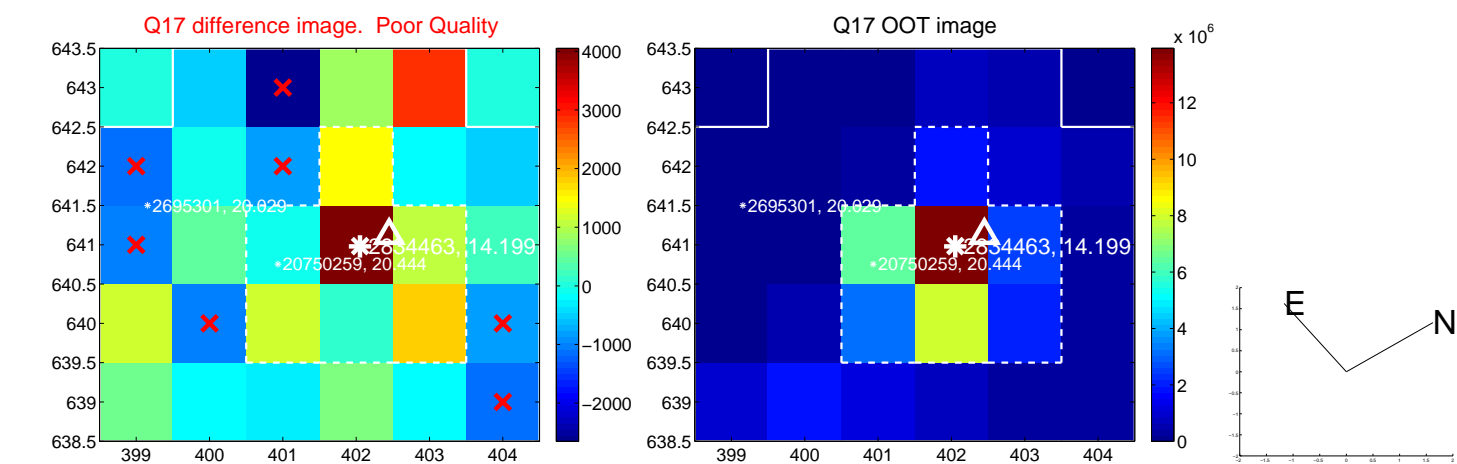
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



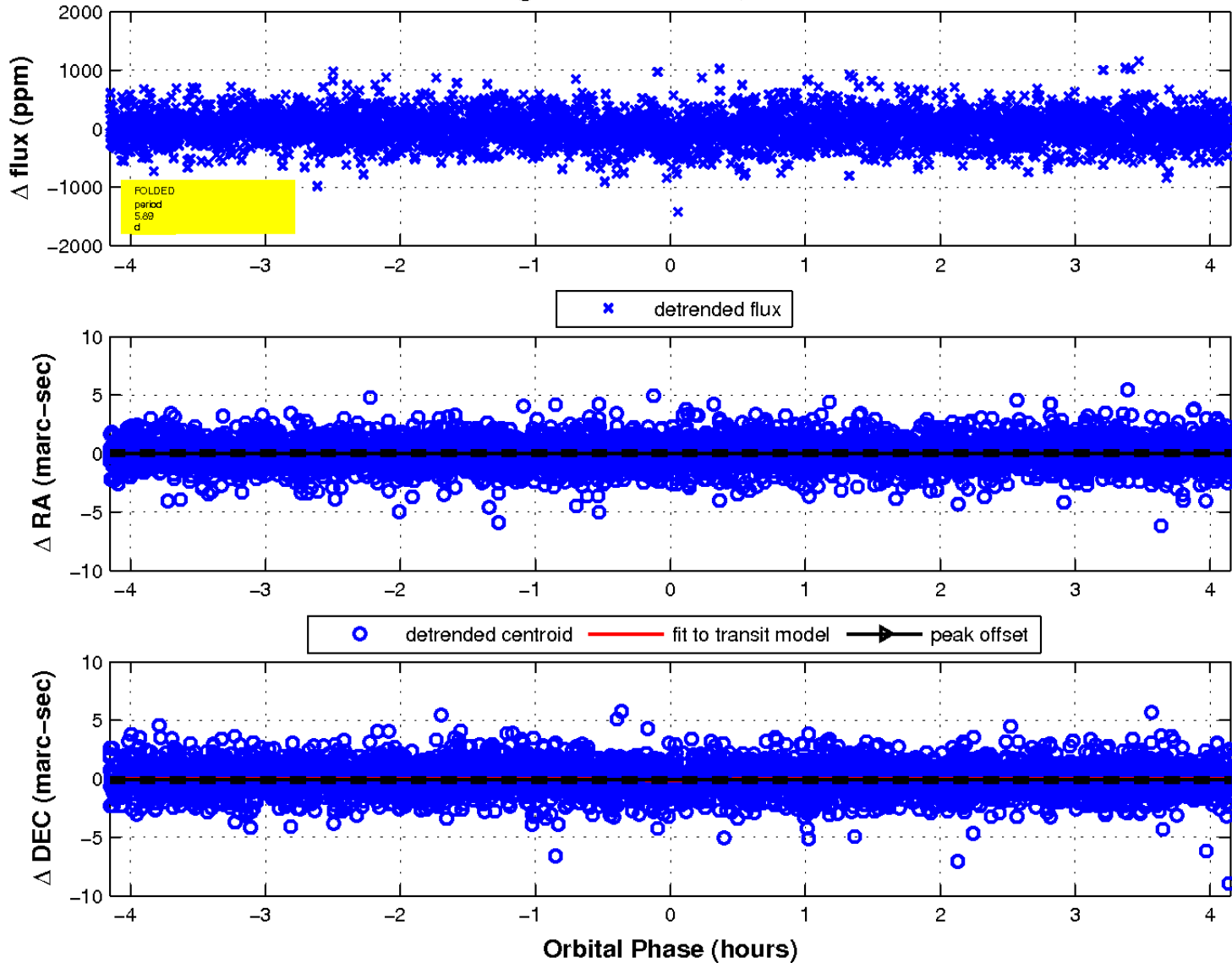
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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

