

KIC 007463044

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})
007463044-01	OBS	No	2.276420	133.745706	68.9	23.786	10.4	13.4	2.18	7334	1.84	7515.49

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007463044-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_FEW_DIFFS

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

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

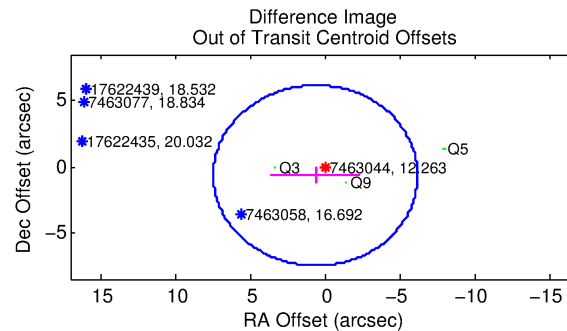
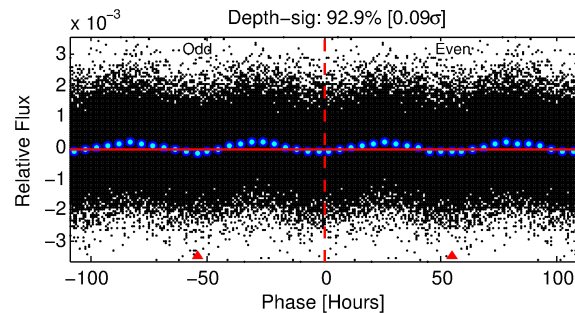
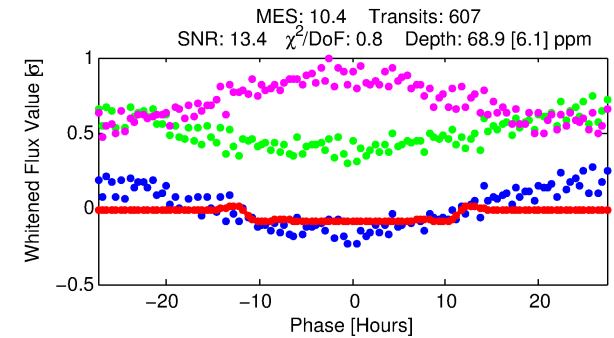
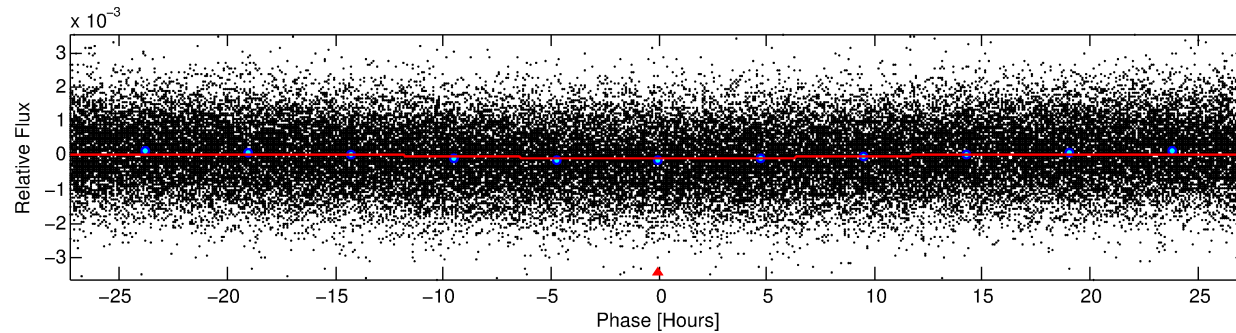
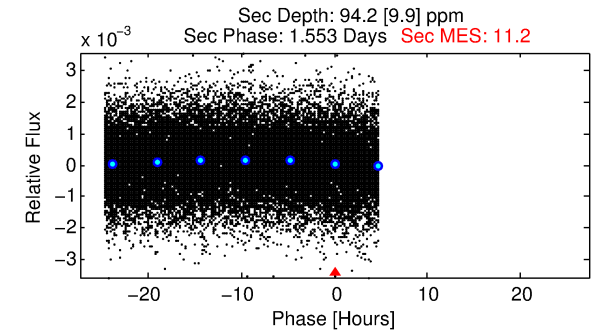
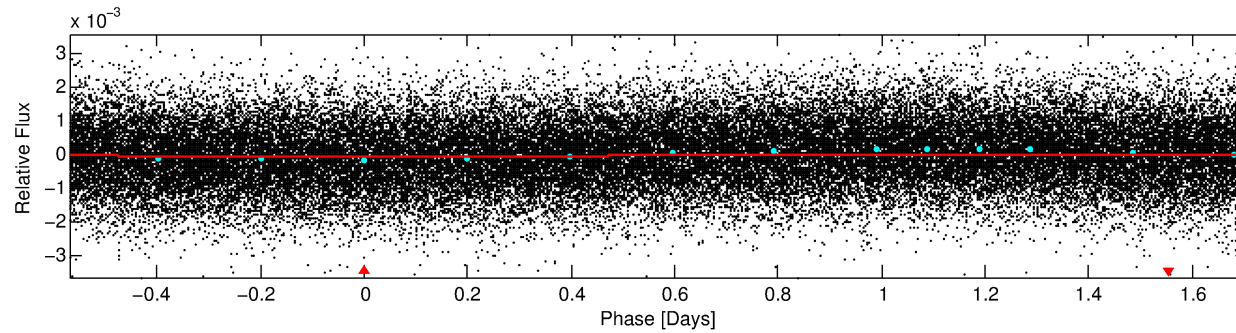
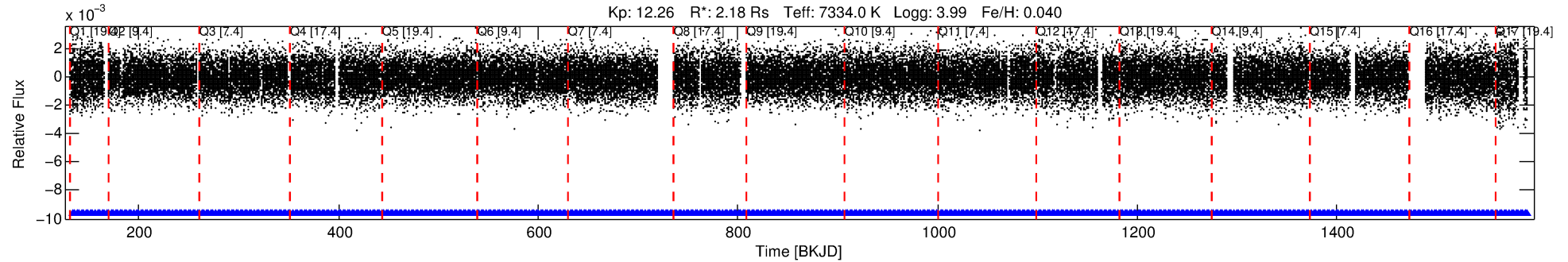
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007463044-01

No Significant Match Found

DV One-Page Summary

KIC: 7463044 Candidate: 1 of 1 Period: 2.276 d



DV Fit Results:

Period = 2.27642 [0.00005] d
Epoch = 133.7457 [0.0145] BKJD
Rp/R* = 0.0077 [0.0036]
a/R* = 1.03 [0.15]
b = 0.01 [359.36]
Seff = 7515.49 [2981.73]
Teff = 2374 [235] K
Rp = 1.84 [0.99] Re
a = 0.0405 [0.0097] AU
Ag = 25.26 [25.25] [0.96σ]
Teffp = 8229 [1957] K [2.97σ]

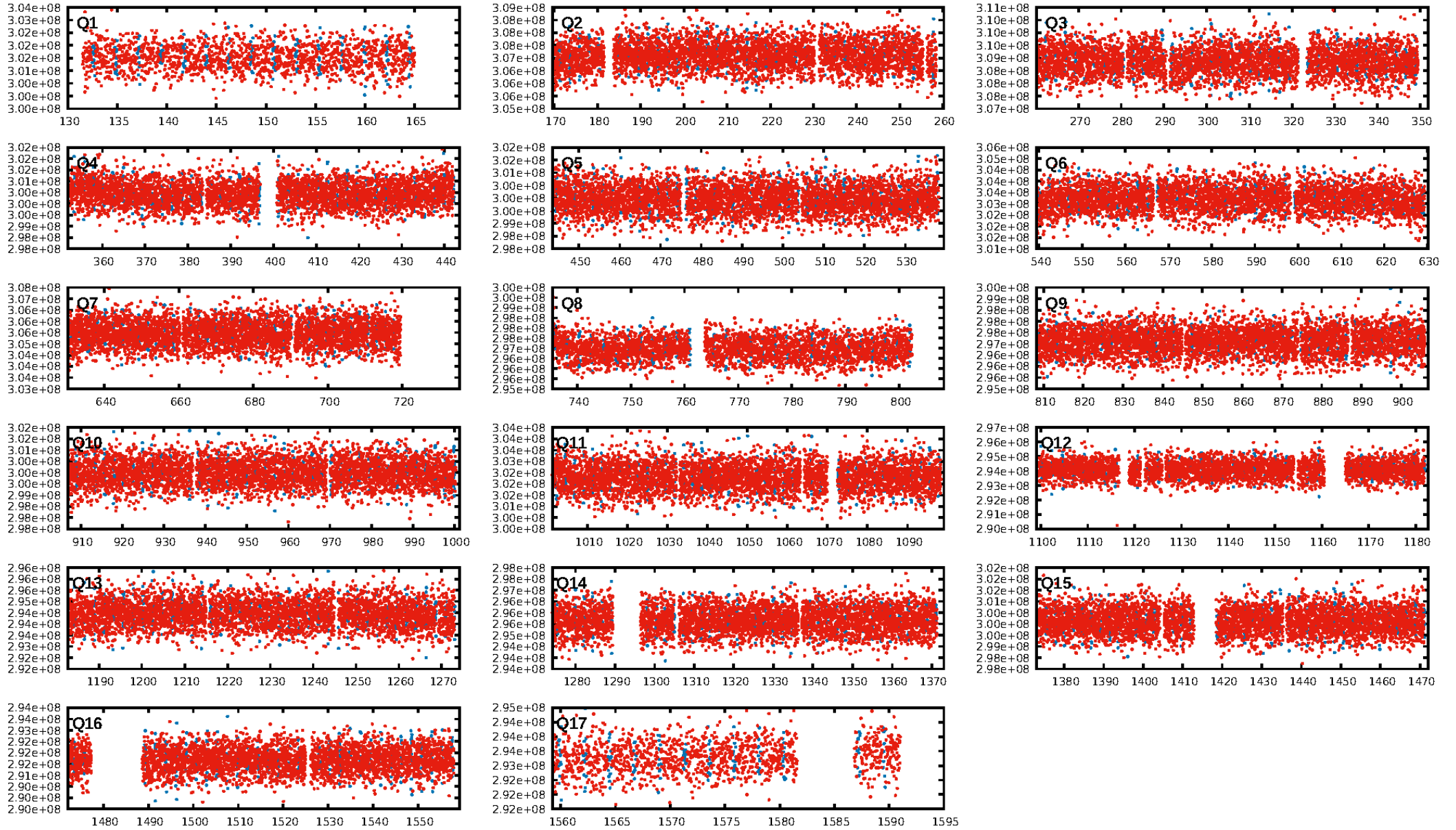
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [579/579]
GhostDiagnostic-chr: 1.664
Centroid-sig: 0.0%
Centroid-so: 0.373 arcsec [3.43σ]
OotOffset-rm: 0.909 arcsec [0.40σ]
KicOffset-rm: 0.908 arcsec [0.37σ]
OotOffset-st: 0/1/0/2 [3]
KicOffset-st: 0/1/0/2 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [17/17]

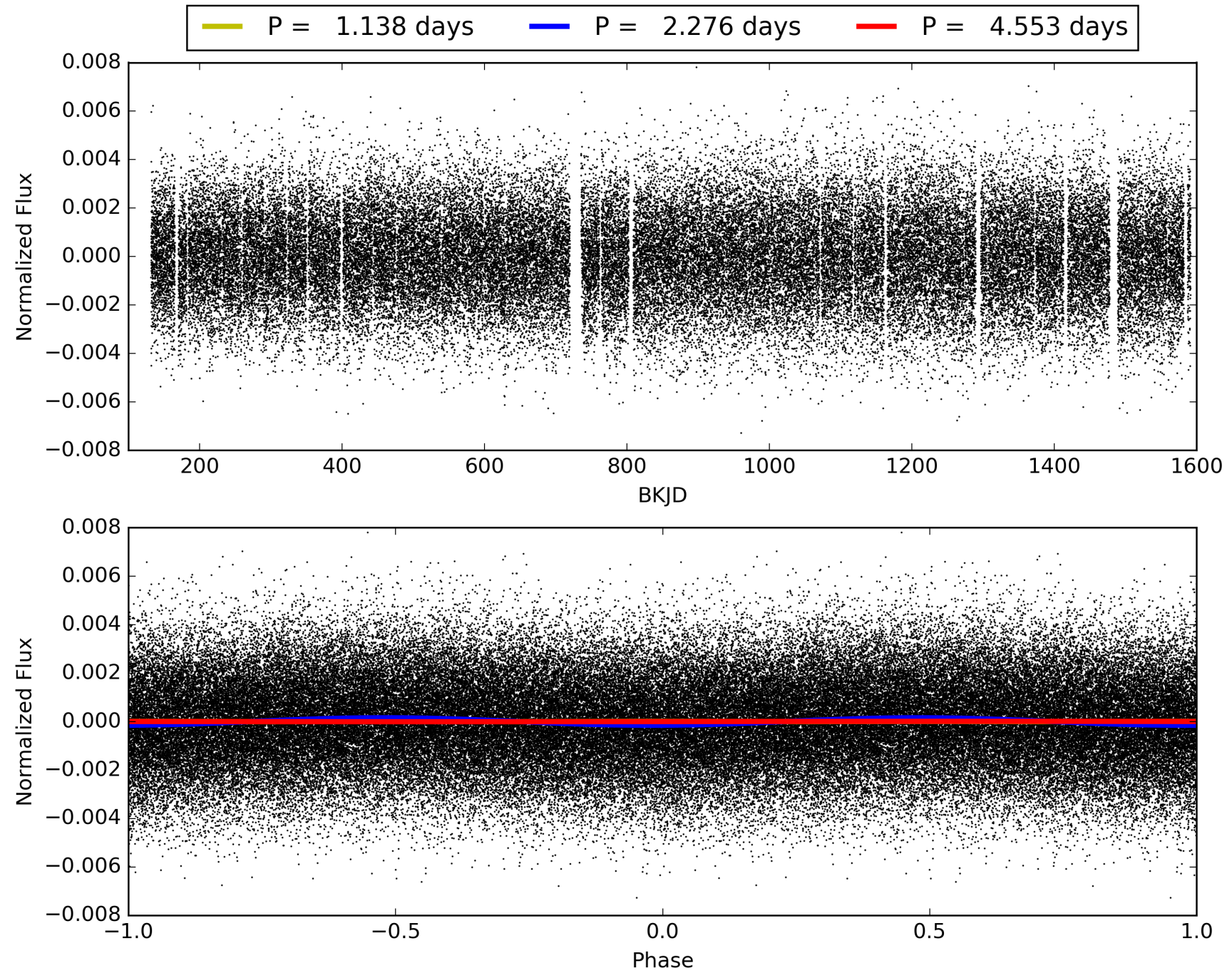
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 21:22:05 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007463044-01, PDC Light Curves

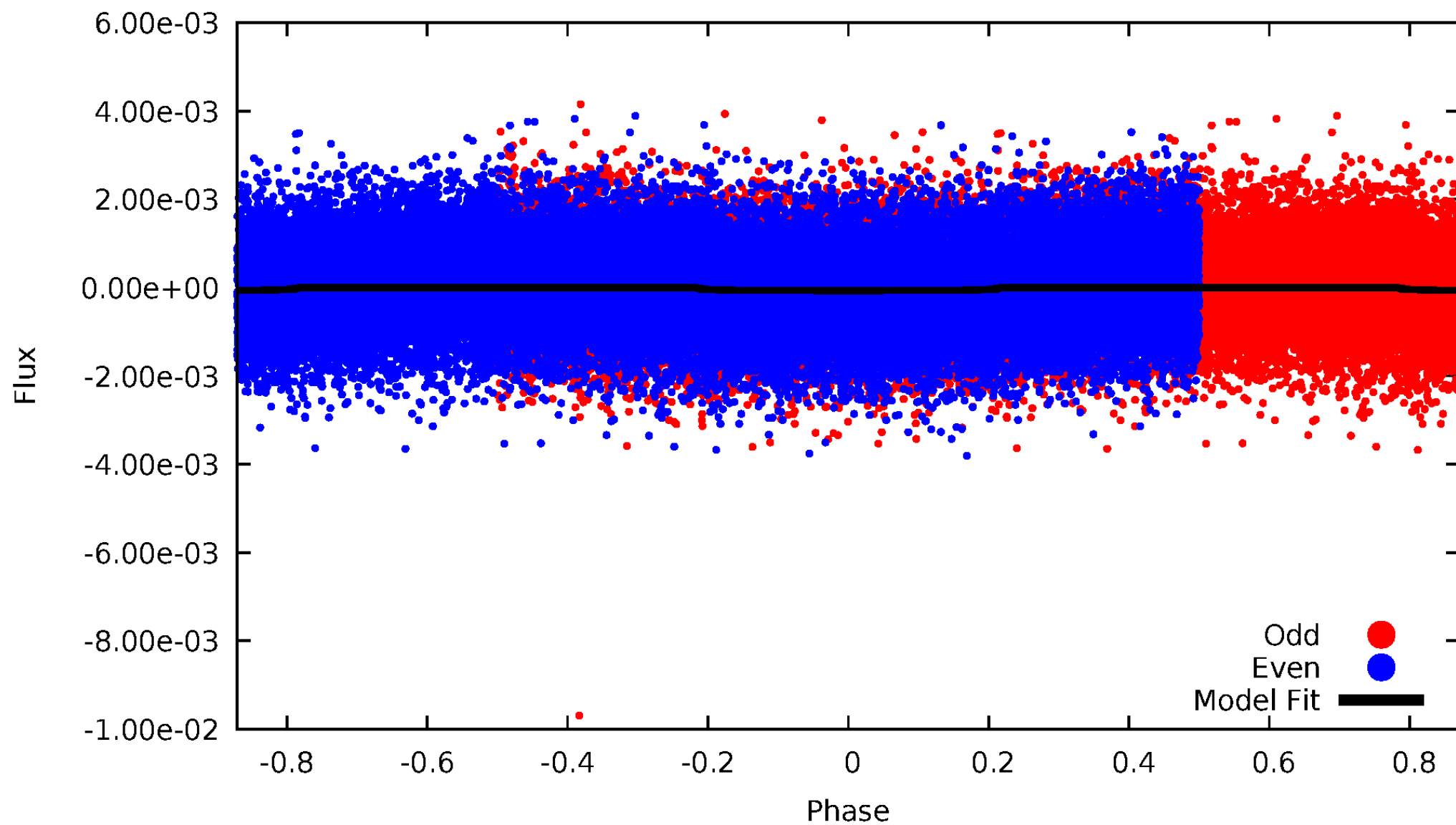


TCE 007463044-01



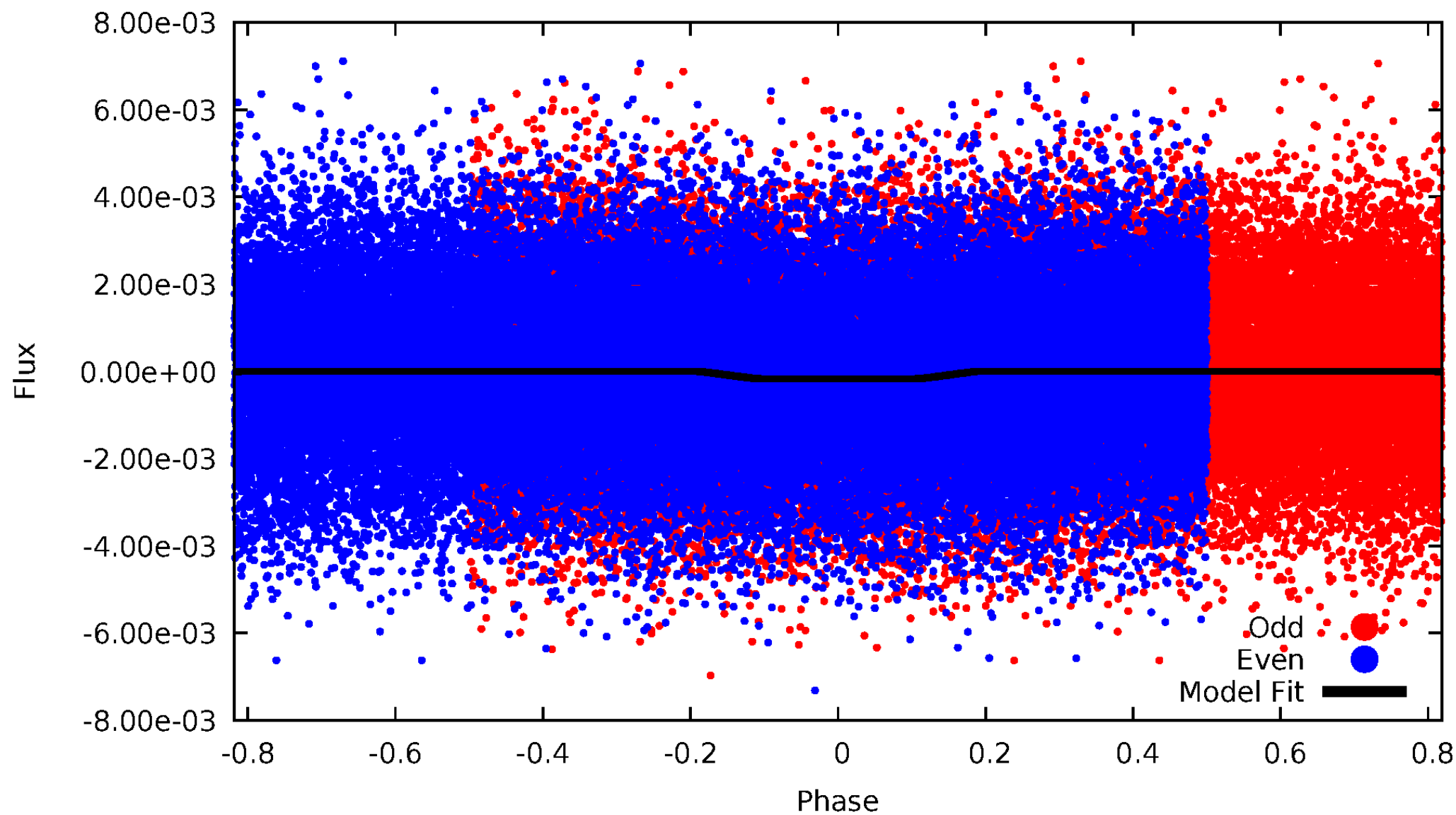
DV Odd/Even

TCE 007463044-01



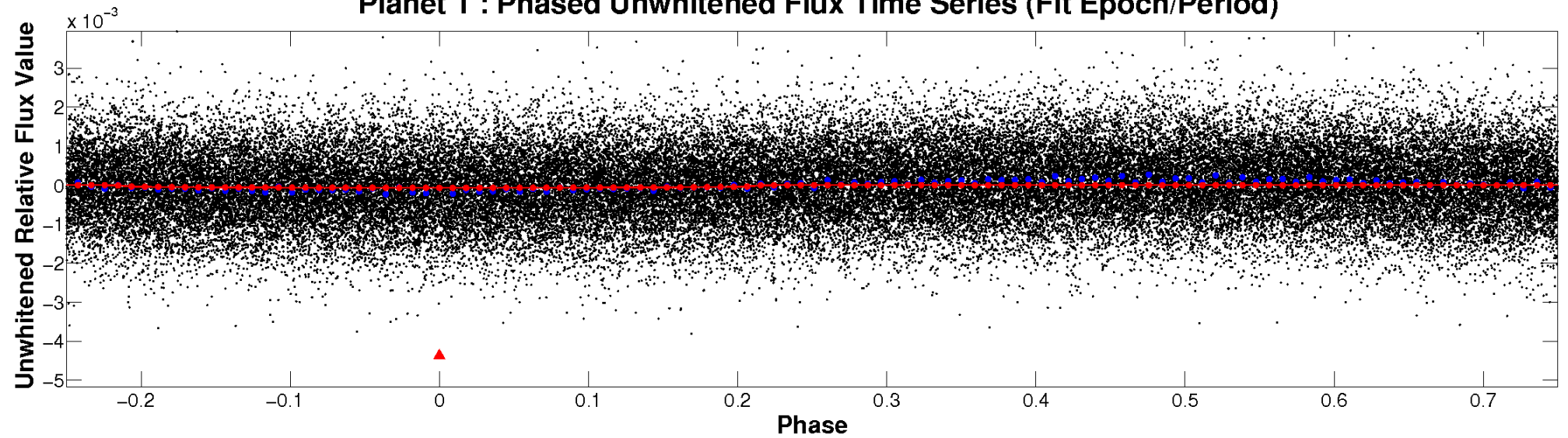
ALT Odd/Even

TCE 007463044-01

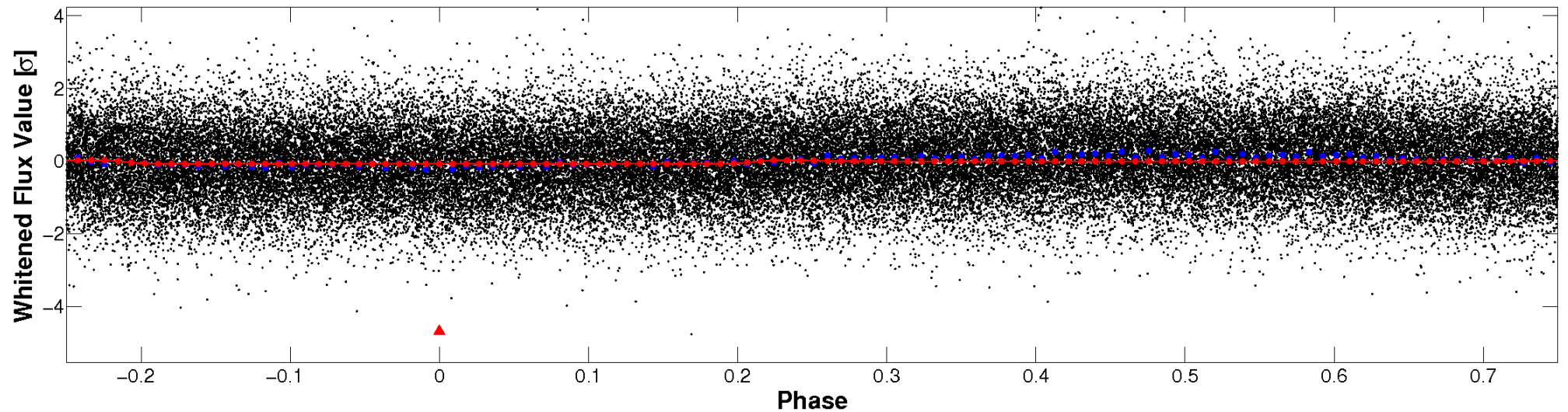


Non-Whitened Vs. Whitened Light Curve

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

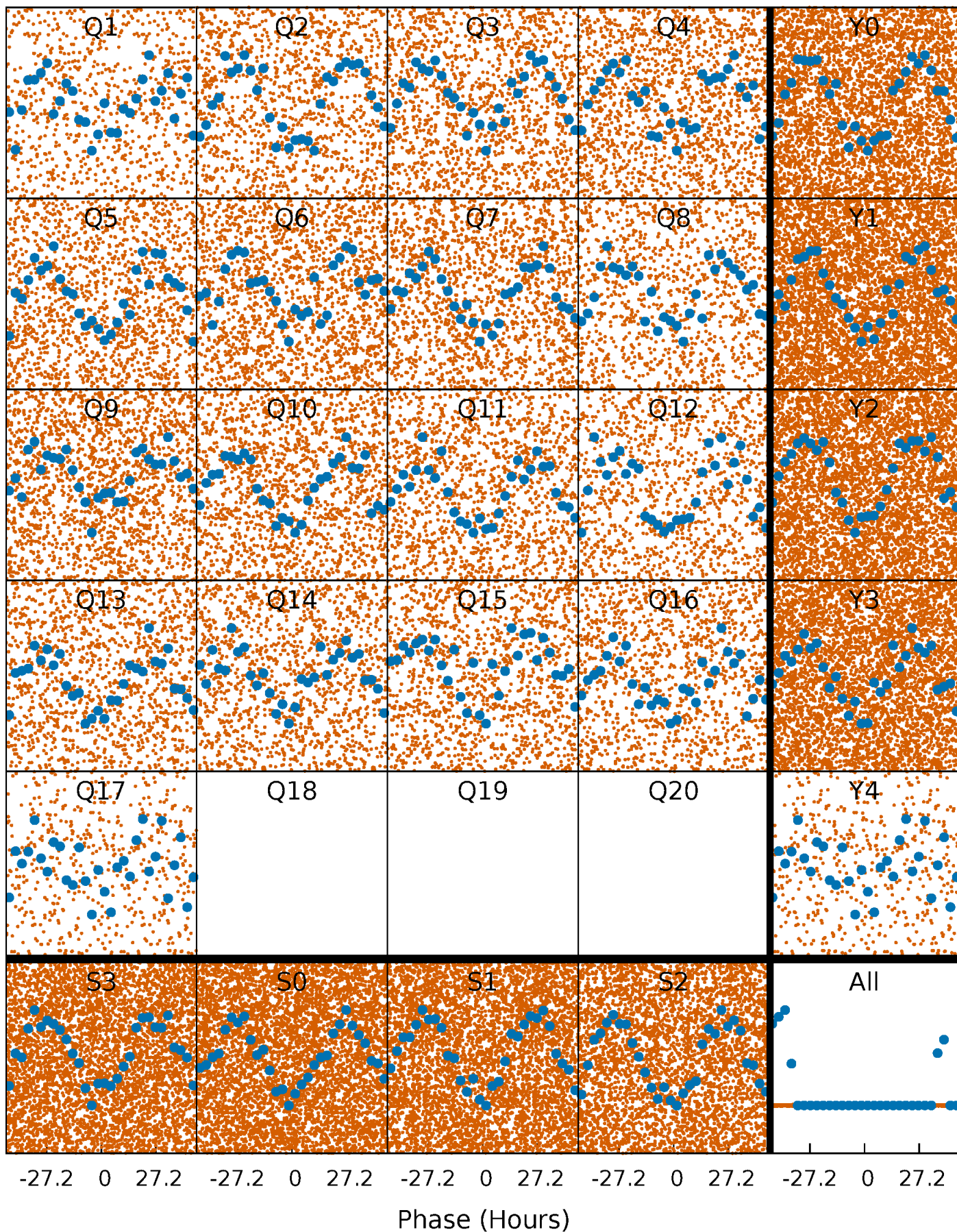


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



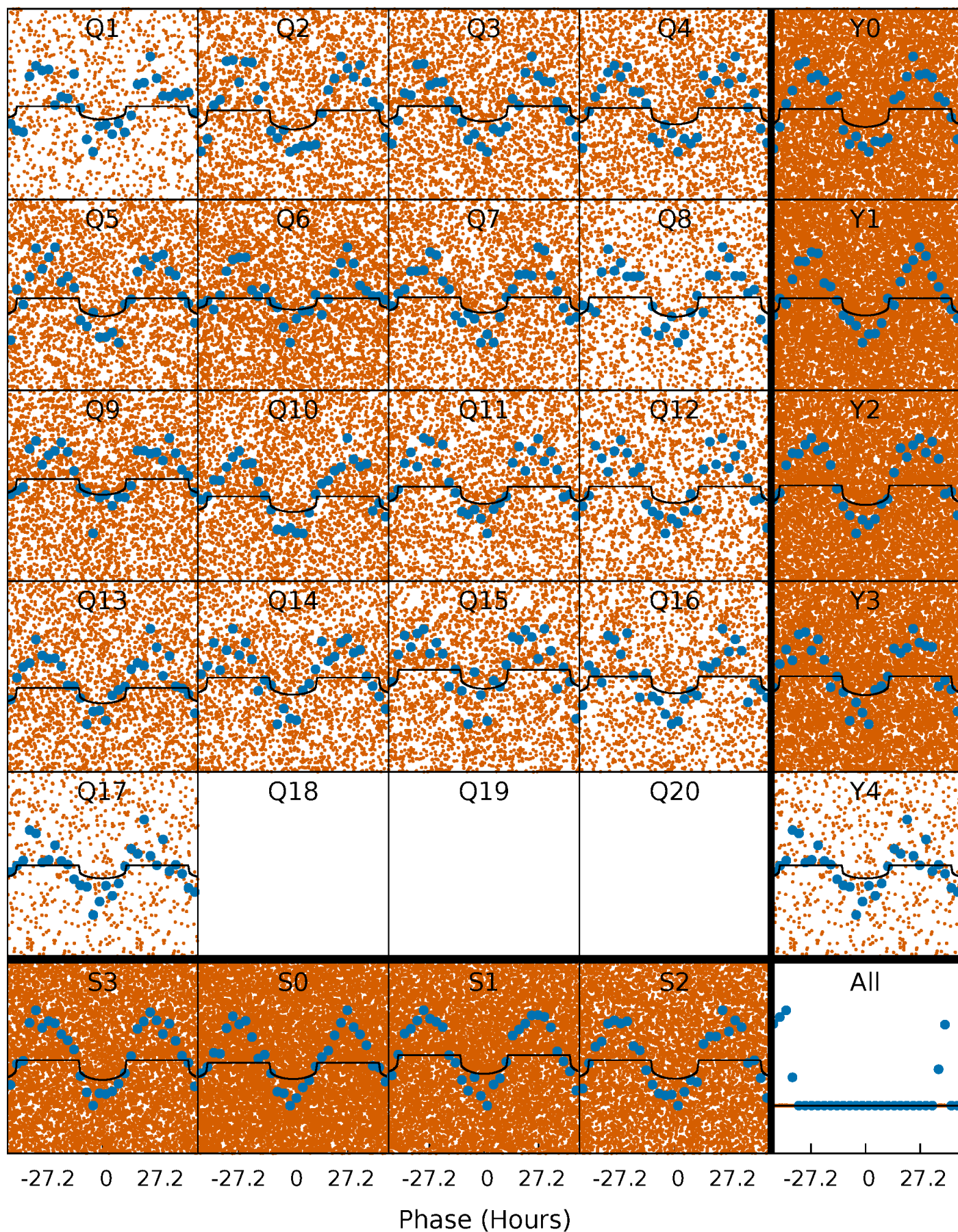
PDC Quarter-Phased Transit Curves

TCE 007463044-01 P= 2.276420 Days $T_0=133.745706$ (BKJD)



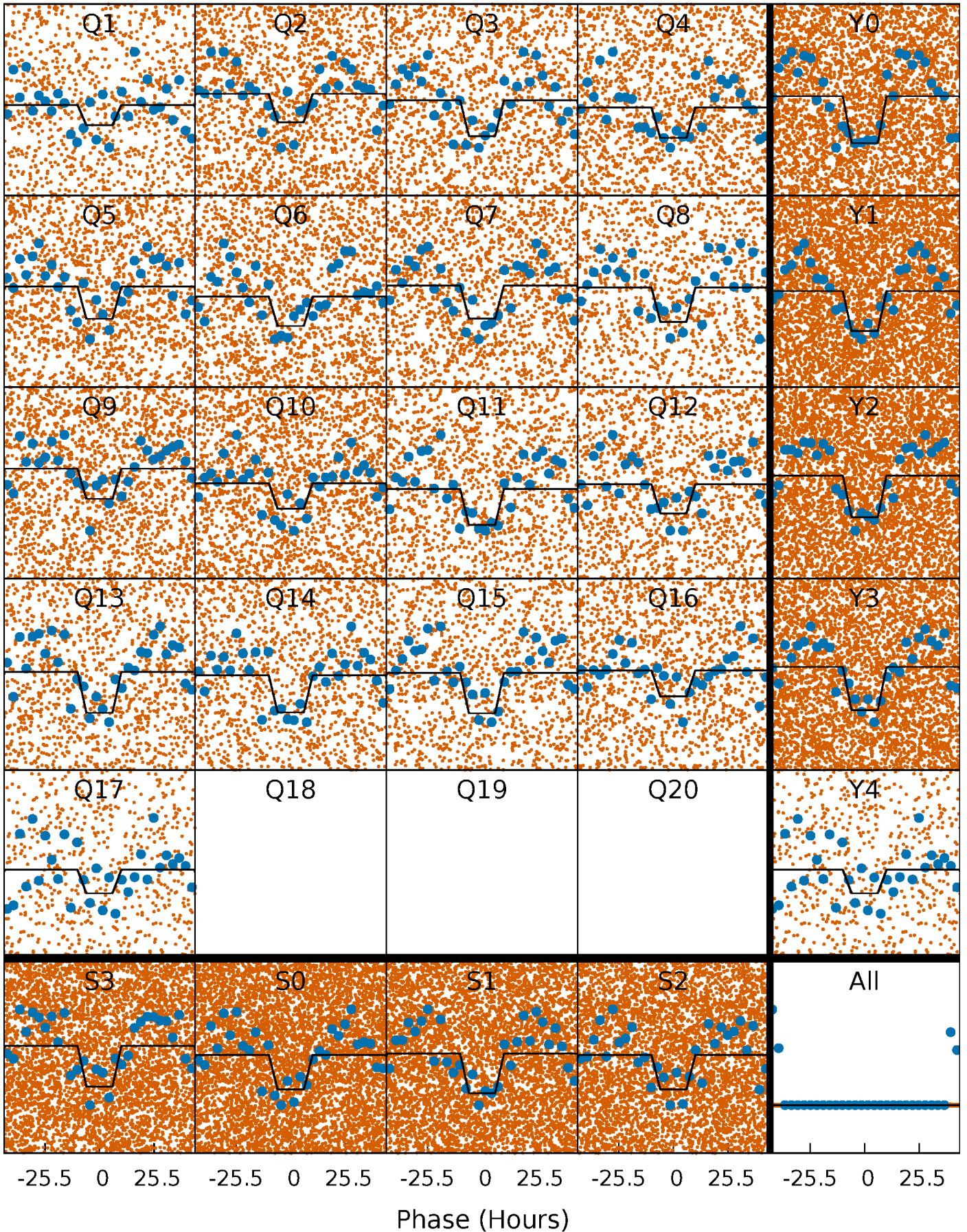
DV Quarter-Phased Transit Curves

TCE 007463044-01 P= 2.276420 Days $T_0=133.745706$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

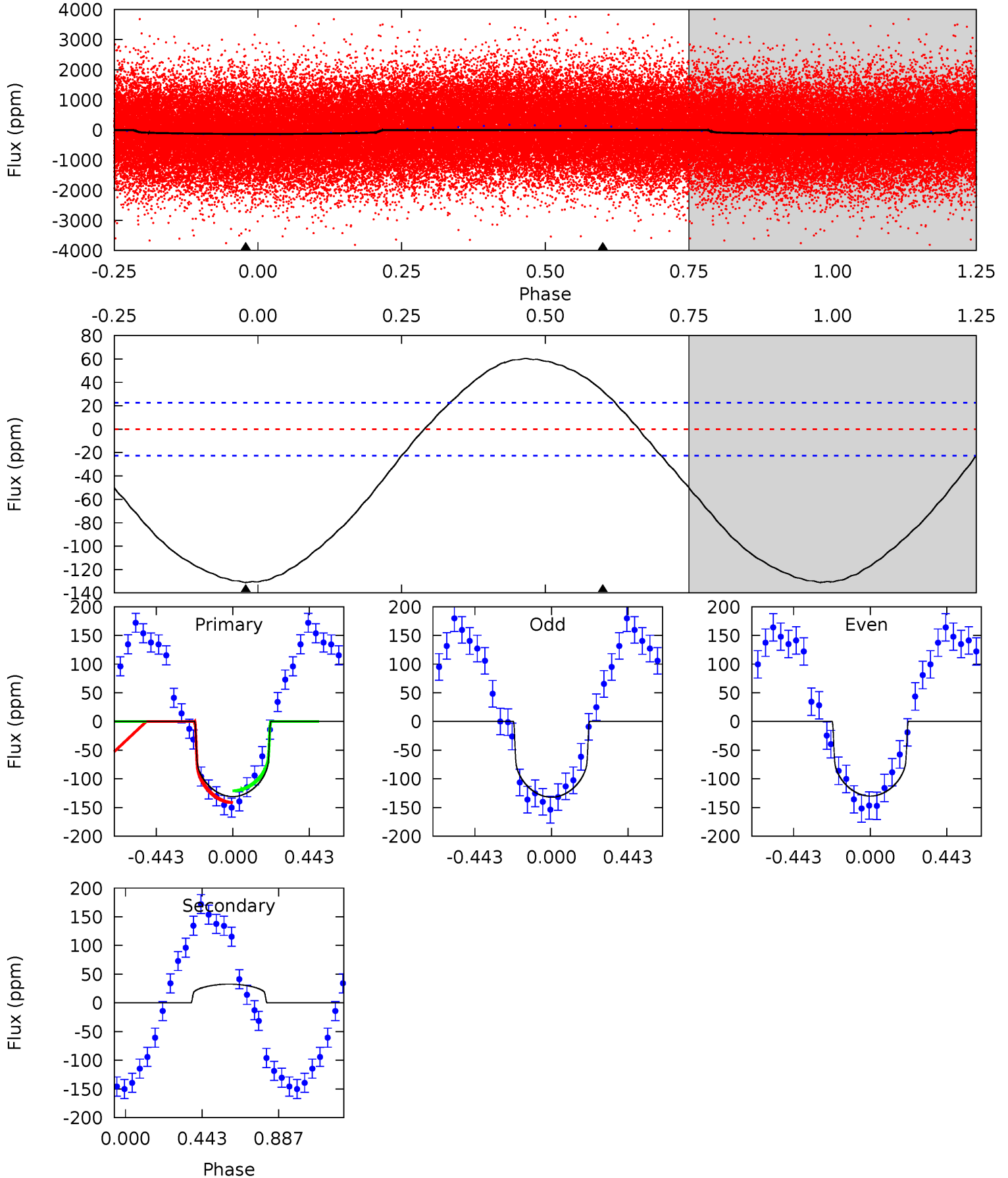
TCE 007463044-01 P= 2.275635 Days $T_0=131.714270$ (BKJD)



DV Model-Shift Uniqueness Test

007463044-01, P = 2.276420 Days, E = 131.469286 Days

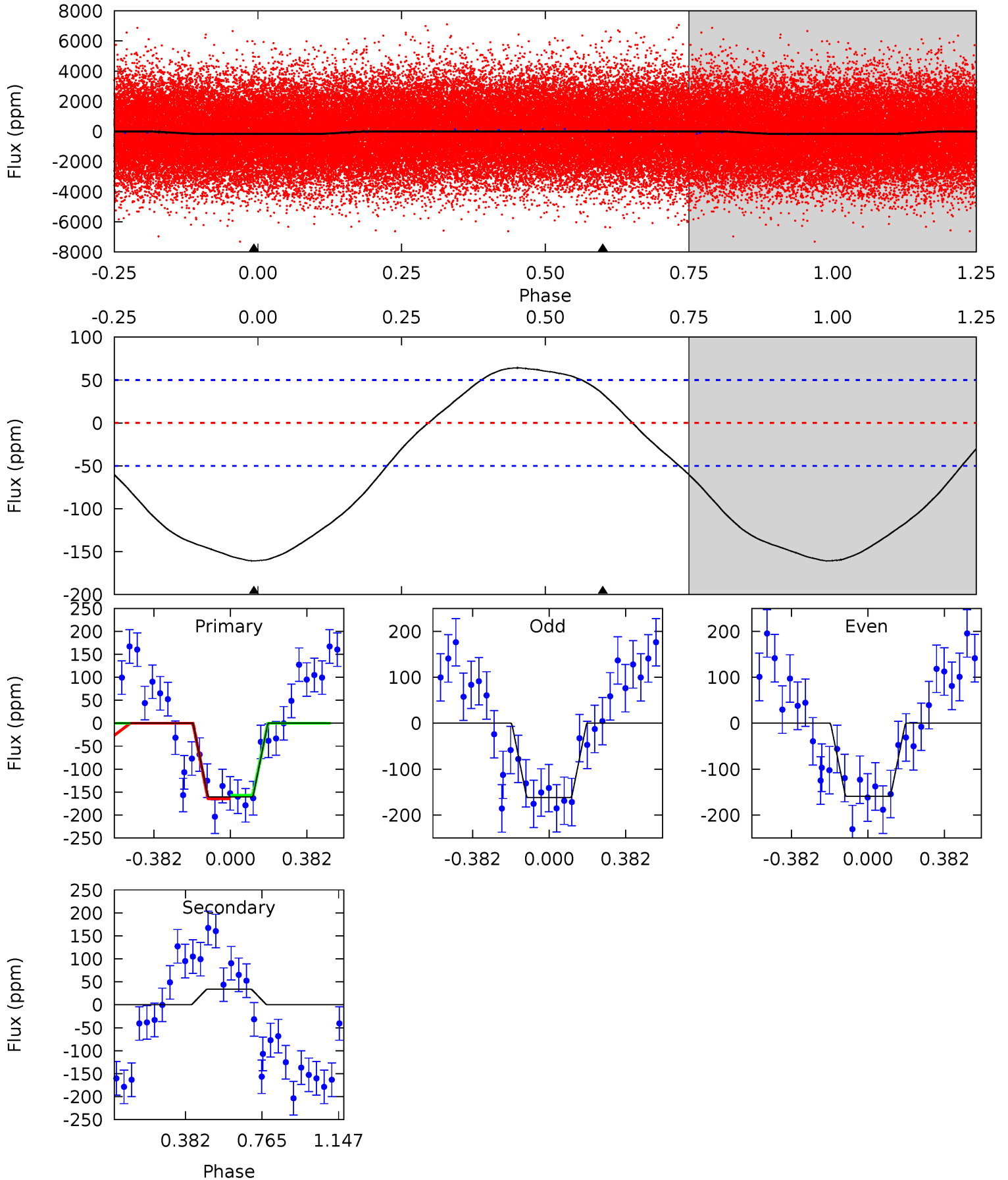
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.5	-6.11	0	0	4.24	0.77	3.02	24.5	24.5	-6.11	-6.11	0.18	0.89	0.32	1.92



Alt Model-Shift Uniqueness Test

007463044-01, P = 2.275635 Days, E = 129.438635 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.7	-2.90	0	0	4.27	0.87	1.50	13.7	13.7	-2.90	-2.90	0.10	0.99	0.29	0.31



Stellar Parameters For KIC 007463044

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7334^{+206}_{-324}	$3.994^{+0.198}_{-0.162}$	$0.040^{+0.200}_{-0.300}$	$2.183^{+0.547}_{-0.602}$	$1.713^{+0.197}_{-0.271}$	$0.232^{+0.266}_{-0.110}$
	+3%/-4%	+5%/-4%	+500%/-750%	+25%/-28%	+12%/-16%	+115%/-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 007463044-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	33 ± 5	$1.85^{+0.88}_{-0.86}$	3308^{+230}_{-241}	-6196^{+988}_{-2432}	$-8.513^{+4.596}_{-20.522}$
Alt.	34 ± 12	$3.04^{+0.92}_{-0.97}$	3302^{+235}_{-252}	-5077^{+594}_{-858}	$-3.331^{+1.727}_{-3.909}$

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

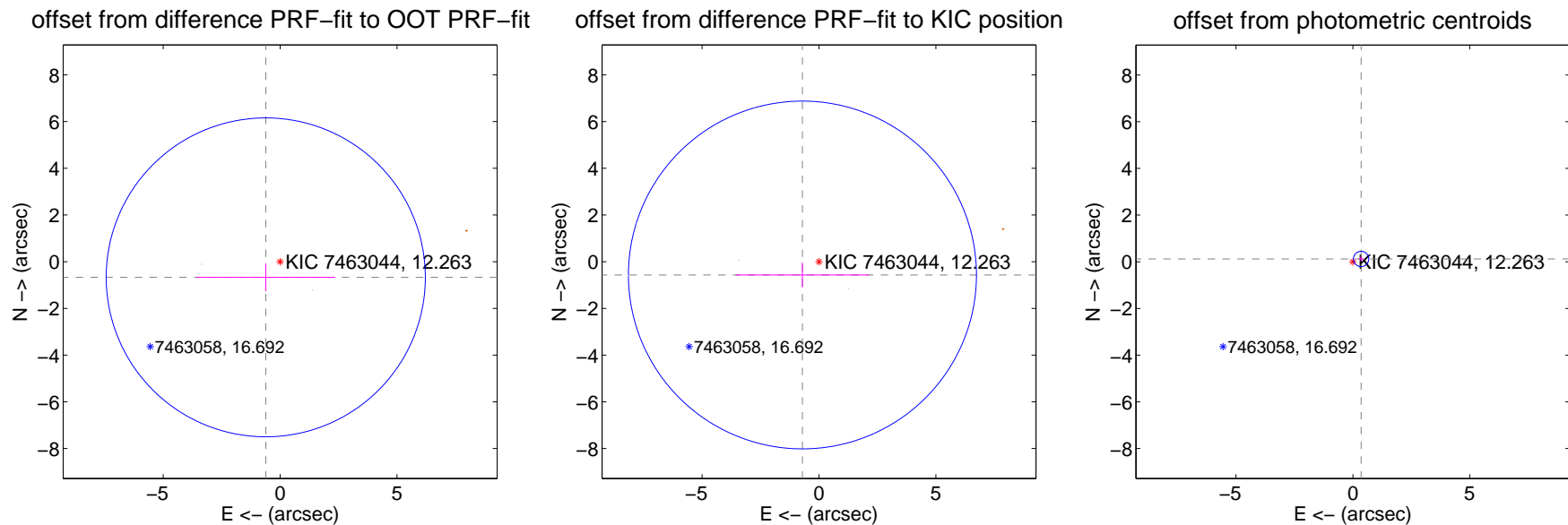
DV Centroid Data

Supplemental centroid analysis for 007463044-01. Kepler magnitude: 12.26. Transit SNR 13.36

There are 1 quarters with good PRF difference image offsets

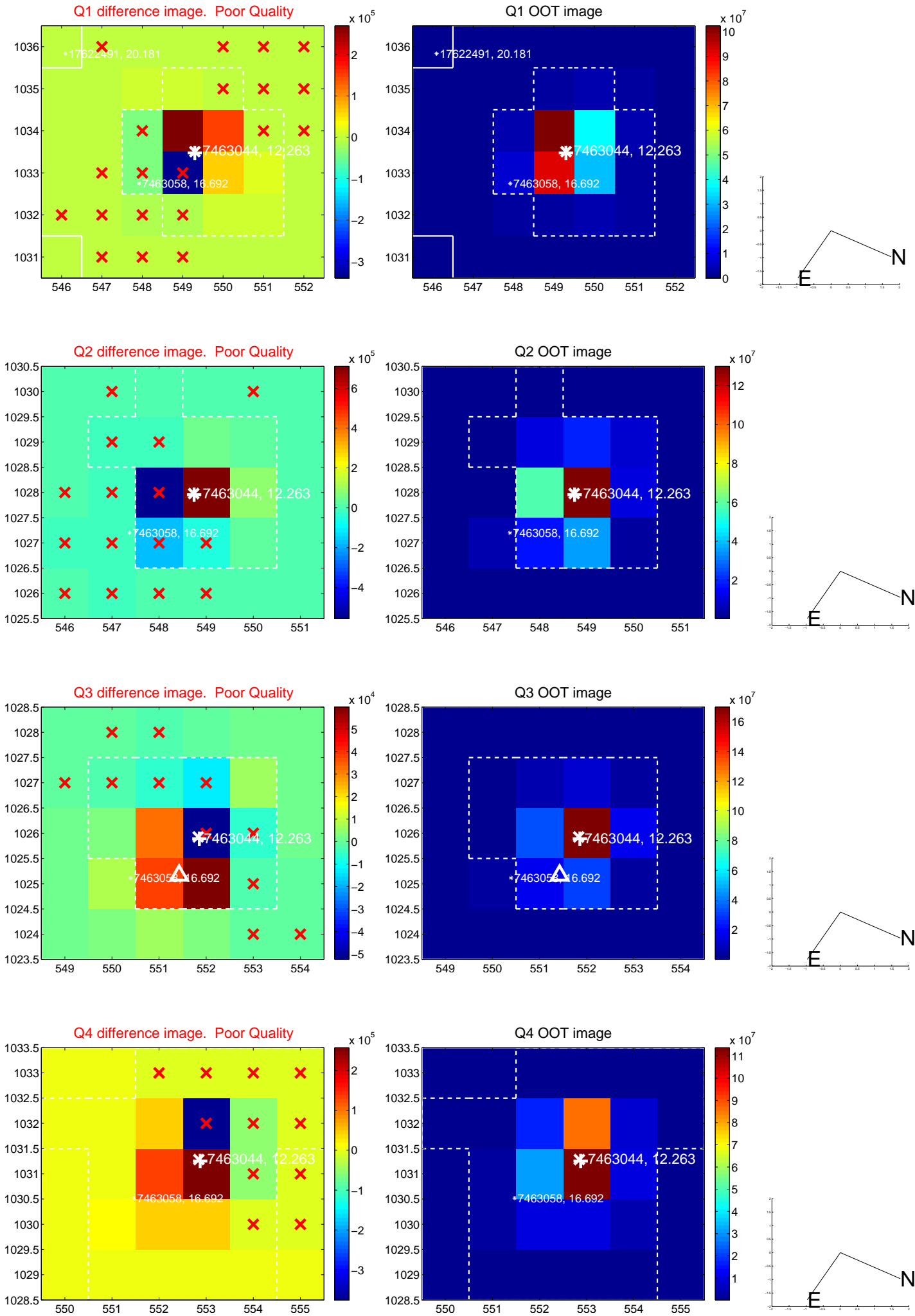
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.909 ± 2.276	0.40	0.613 ± 2.968	-0.671 ± 0.594
PRF-fit source offset from KIC position	0.908 ± 2.482	0.37	0.708 ± 2.853	-0.569 ± 0.531
photometric centroid source offset	0.37 ± 0.11	3.43	-0.35 ± 0.11	0.12 ± 0.11

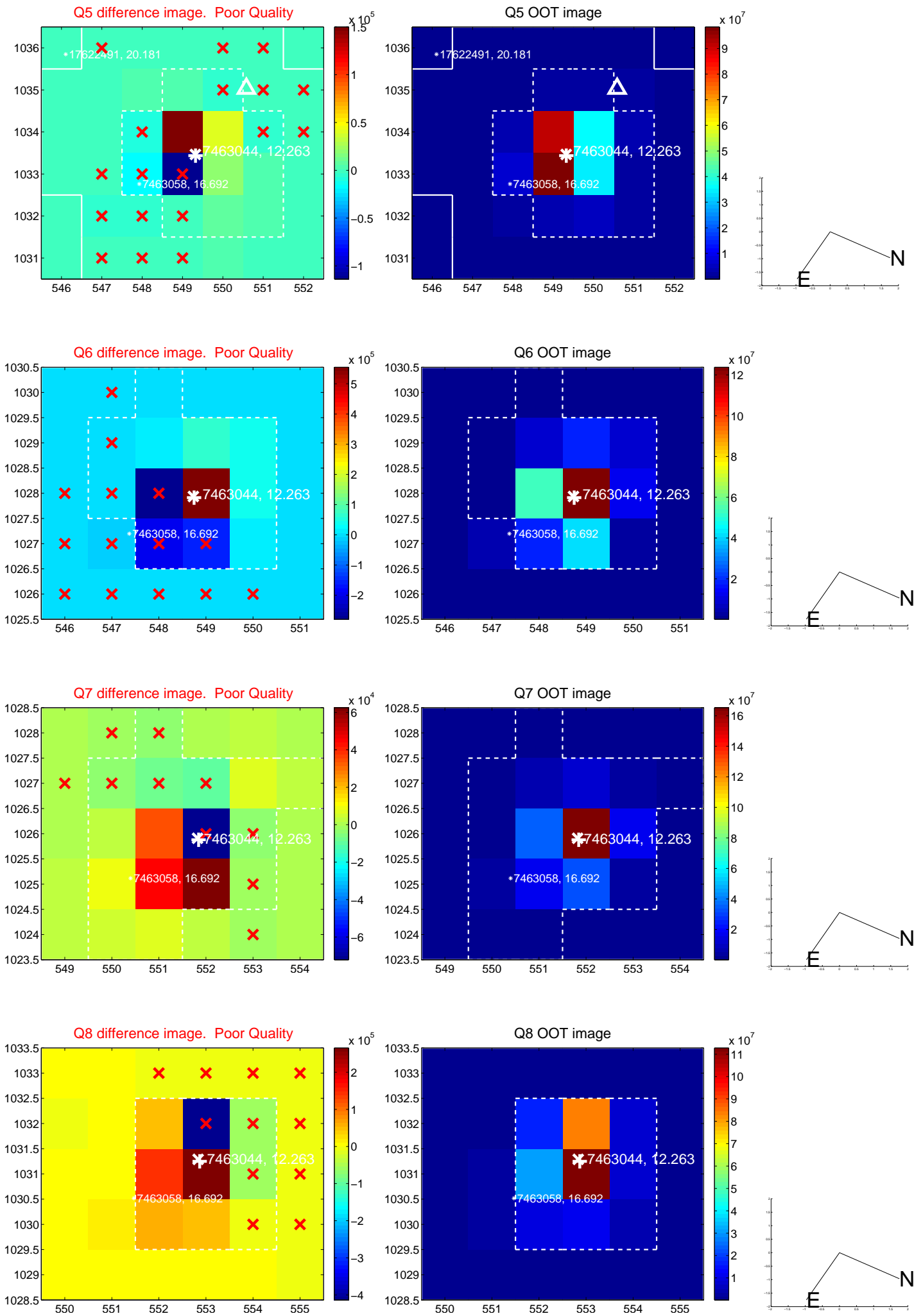


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

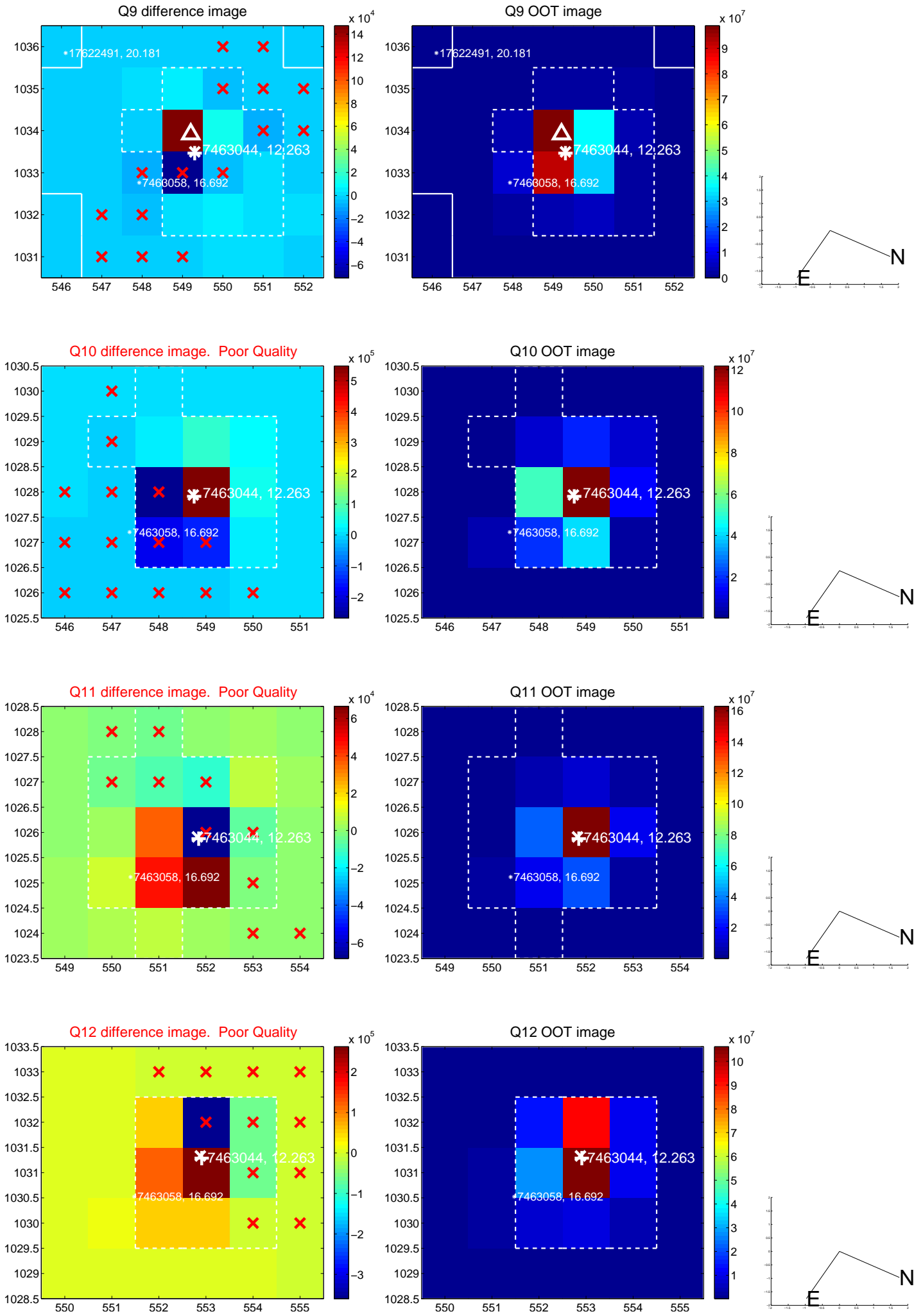
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



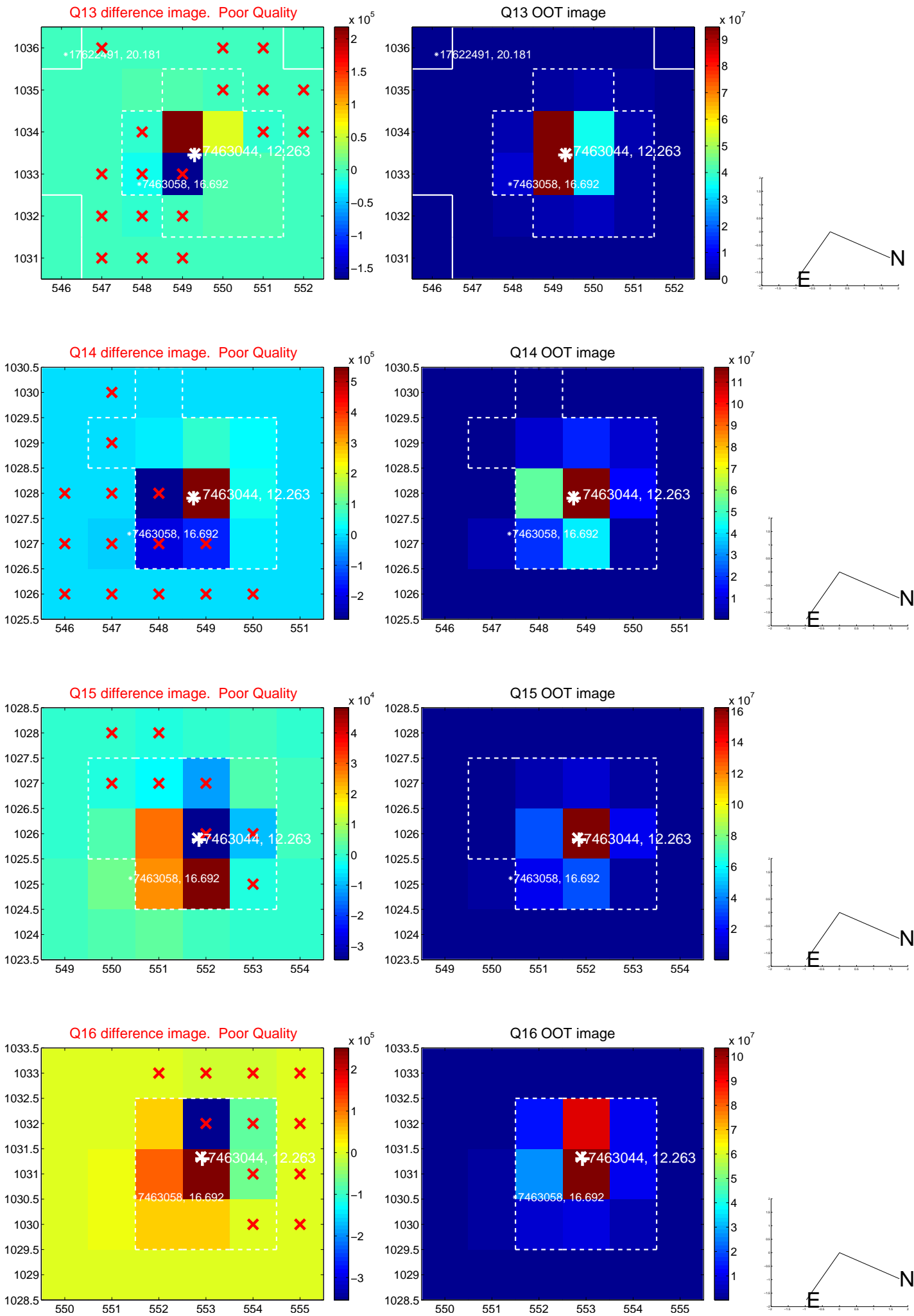
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



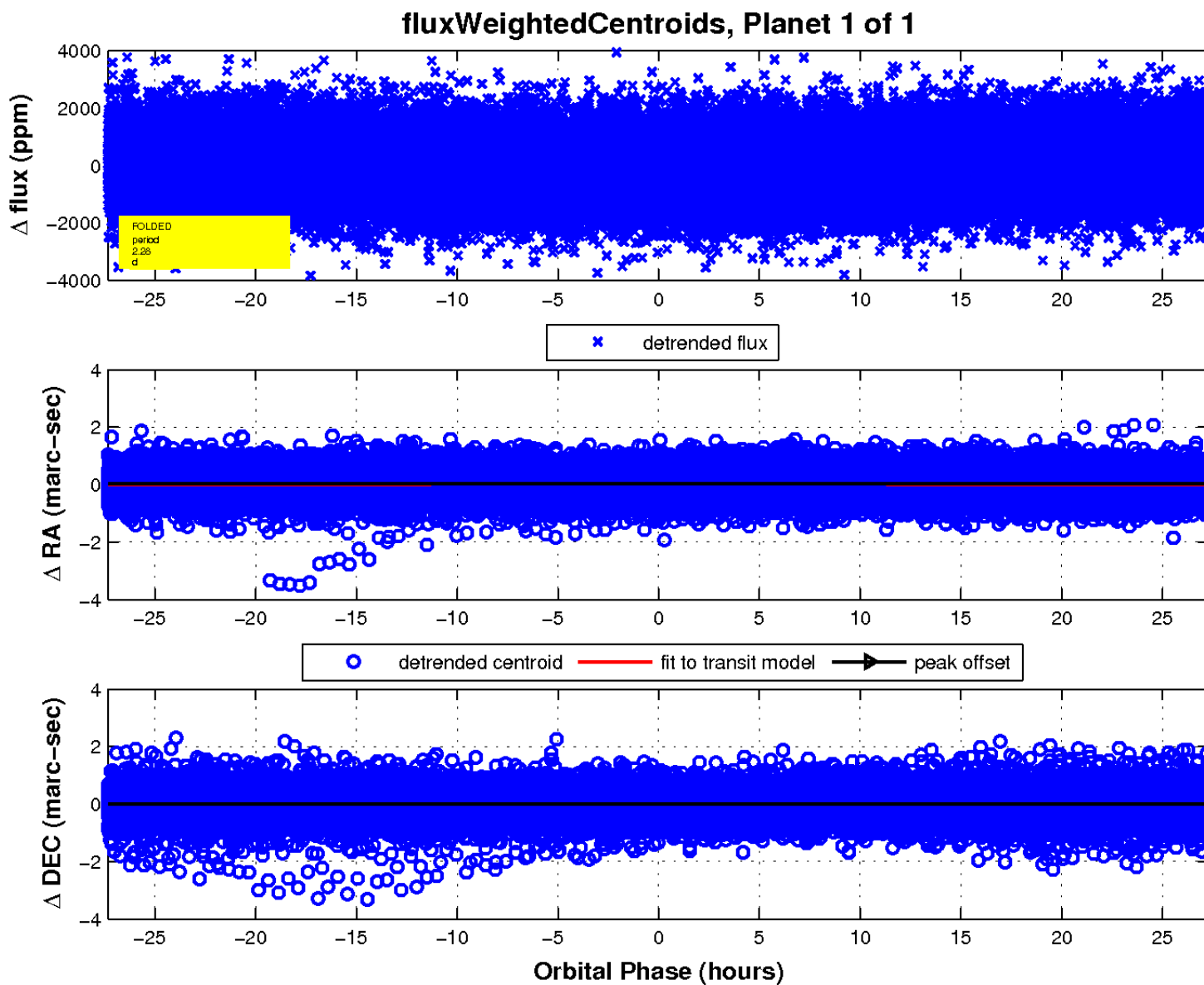
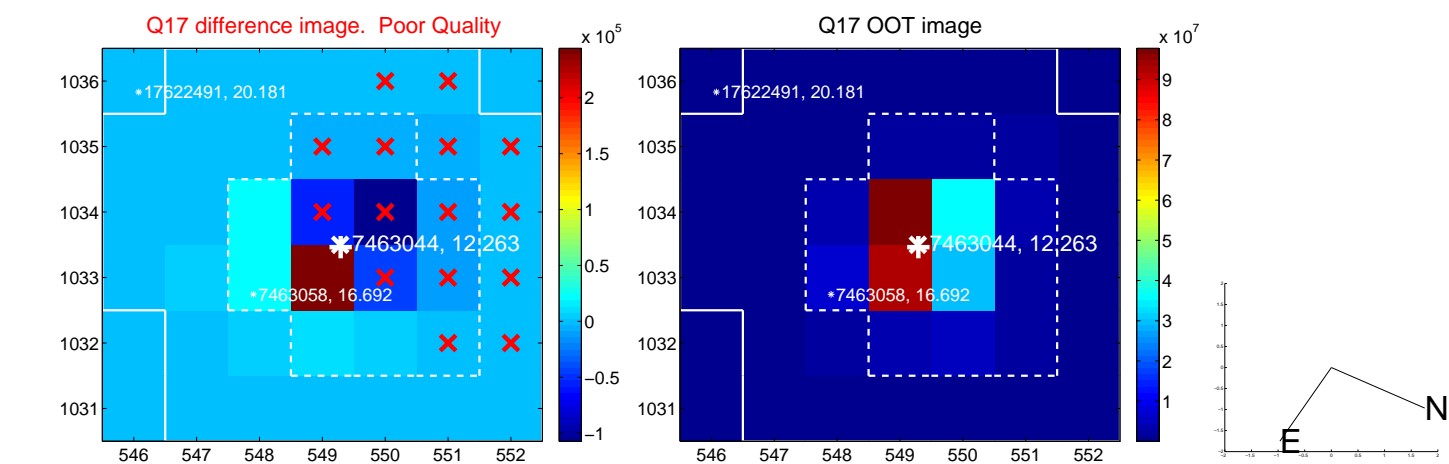
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

