

KIC 010583181

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})
010583181-01	OBS	7344.01	2.696338	132.995833	61711.0	3.500	26729.0	-1.0	1.58	6472	39.60	2568.05

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010583181-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_ALT—CENT_SATURATED

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 010583181-01

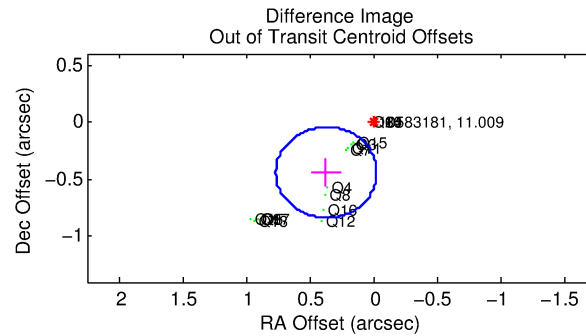
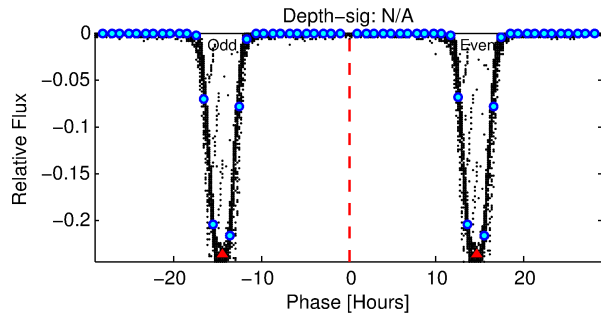
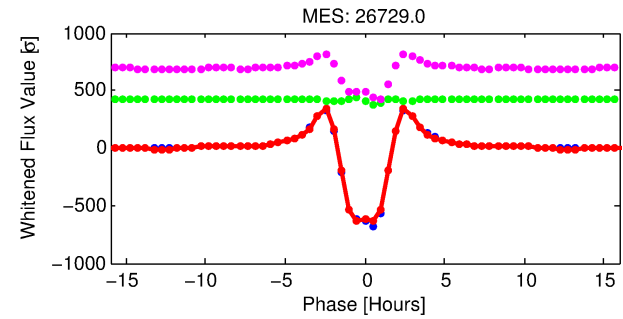
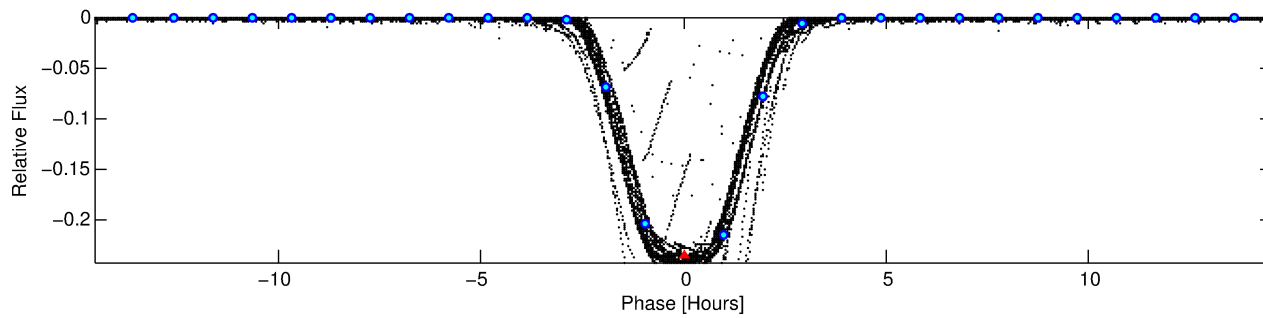
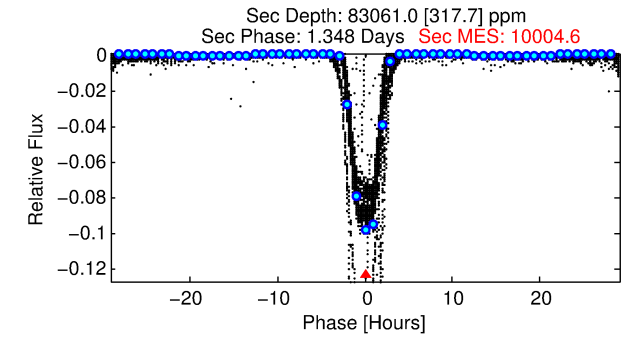
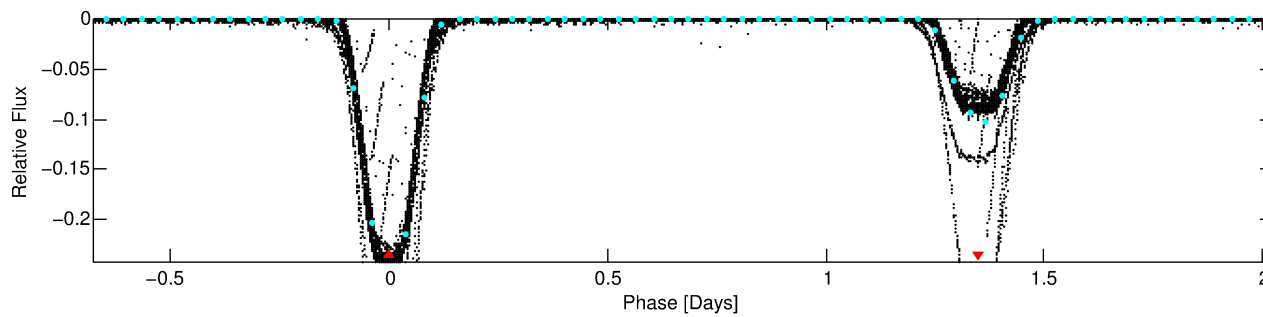
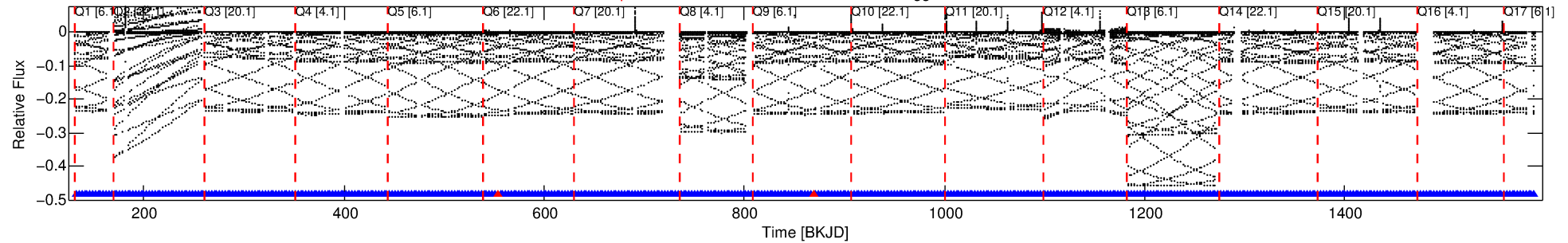
No Significant Match Found

DV One-Page Summary

KIC: 10583181 Candidate: 1 of 1 Period: 2.696 d

KOI: K07344.01 Corr: 0.806

Kp: 11.01 R*: 1.58 Rs Teff: 6472.0 K Logg: 4.08 Fe/H: -0.400



TPS TCE Results:

Period = 2.69634 d
Epoch = 132.9958 BKJD

DV fit results are unavailable

DV Diagnostic Results:

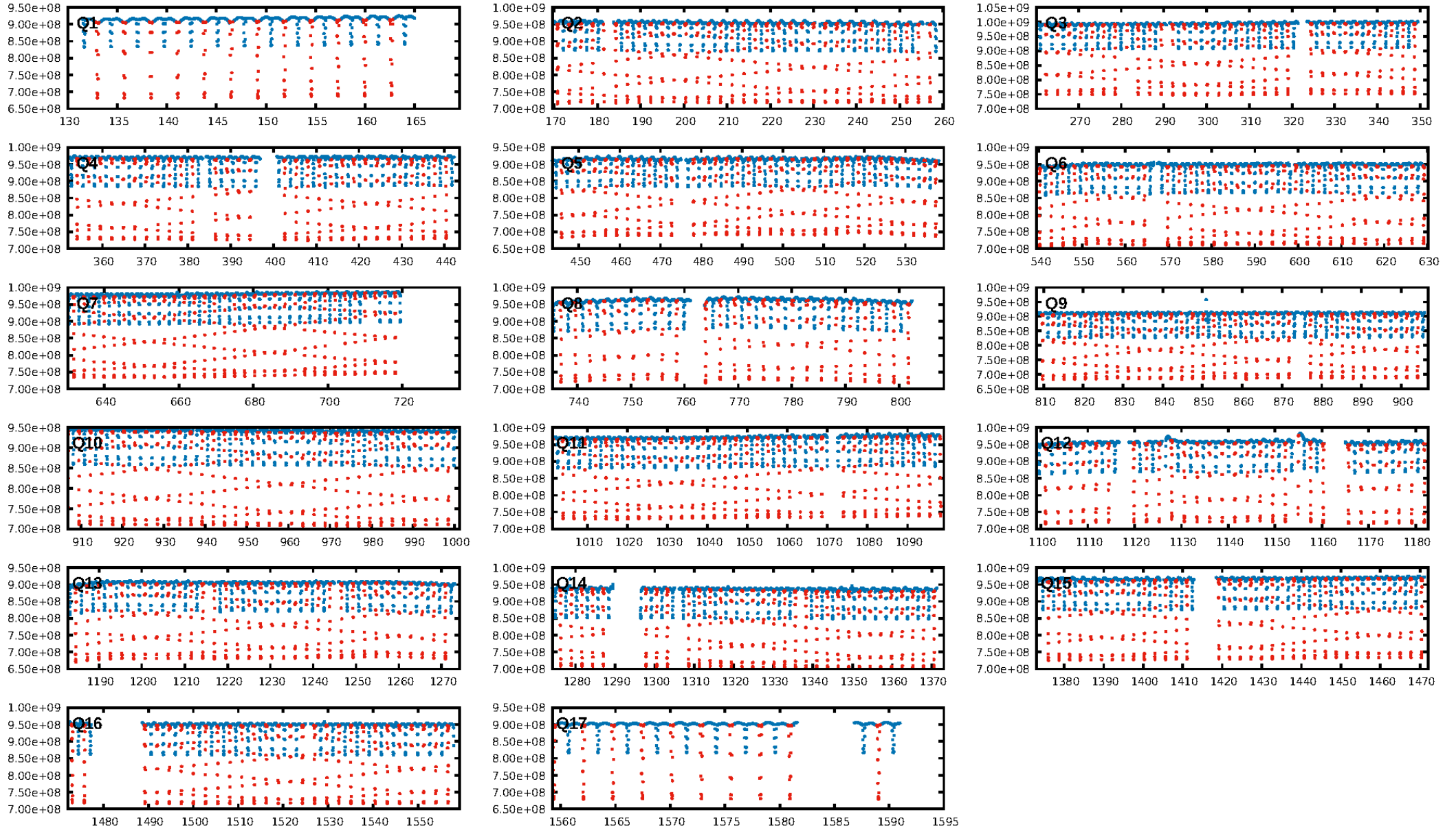
ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [477/479]
GhostDiagnostic-chr: 1.725

Centroid-sig: 0.0%
Centroid-so: 0.073 arcsec [421.18 σ]
OotOffset-rm: 0.575 arcsec [4.34 σ]
KicOffset-rm: 0.826 arcsec [3.79 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

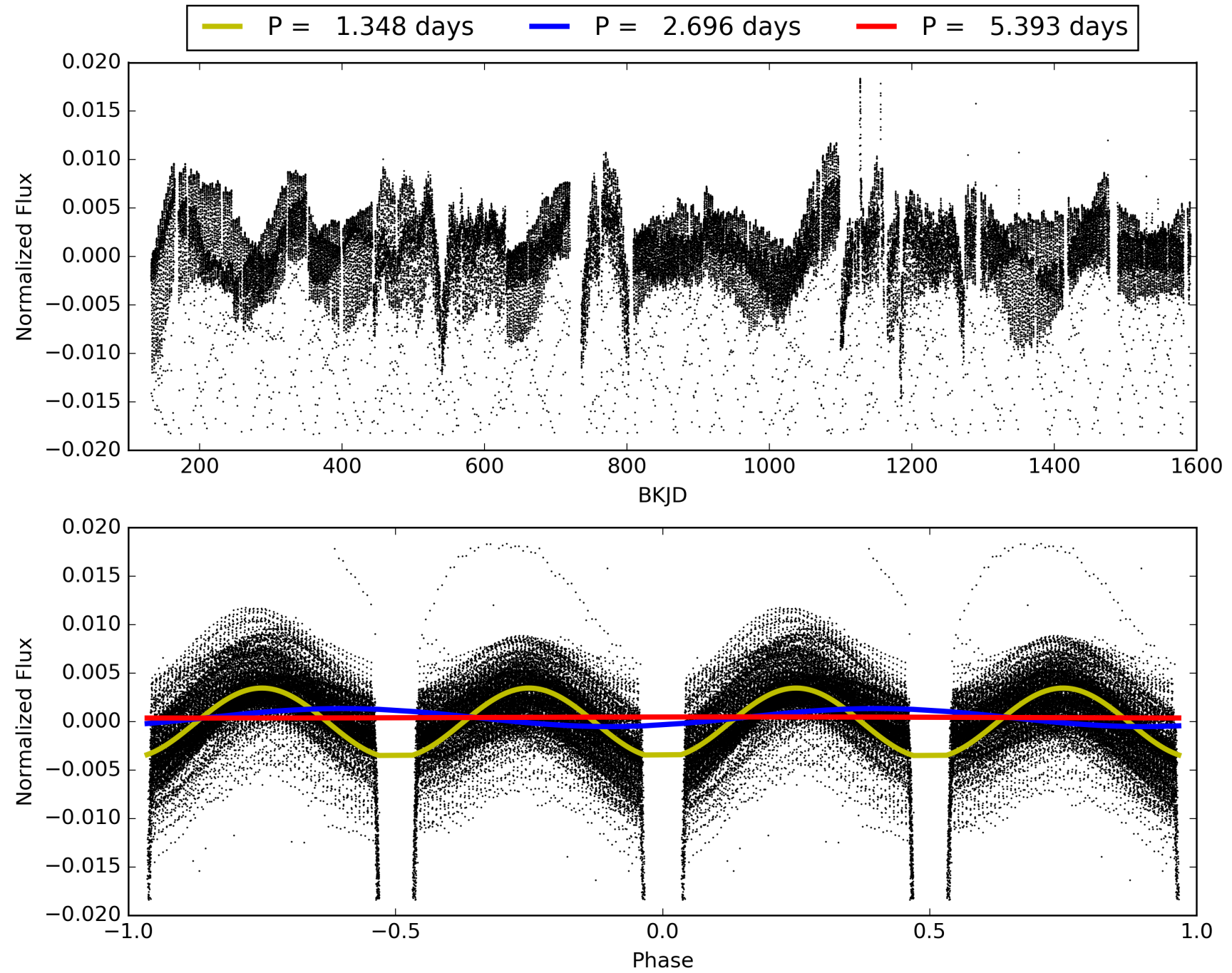
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:21:05 Z

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

TCE 010583181-01, PDC Light Curves

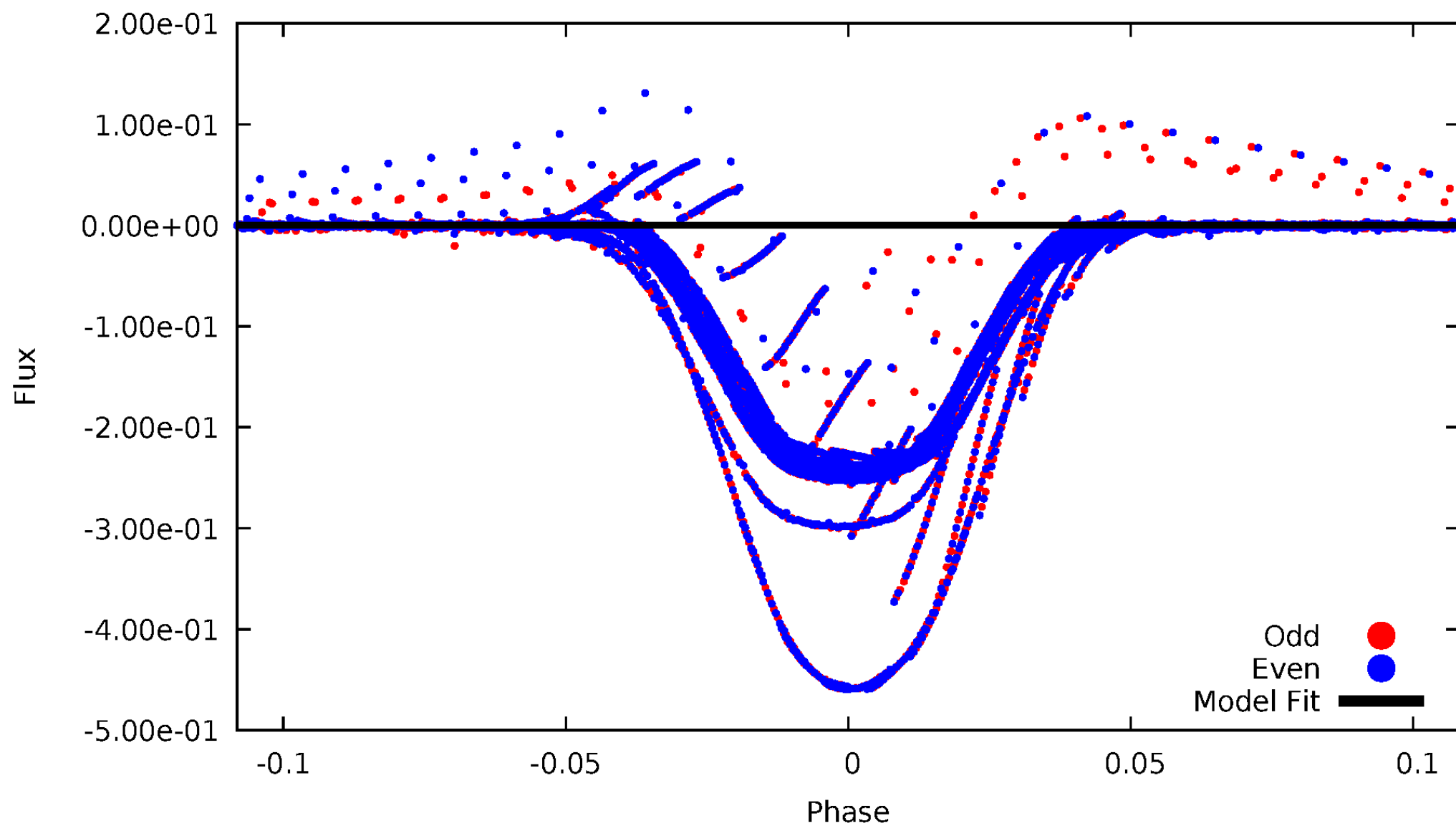


TCE 010583181-01



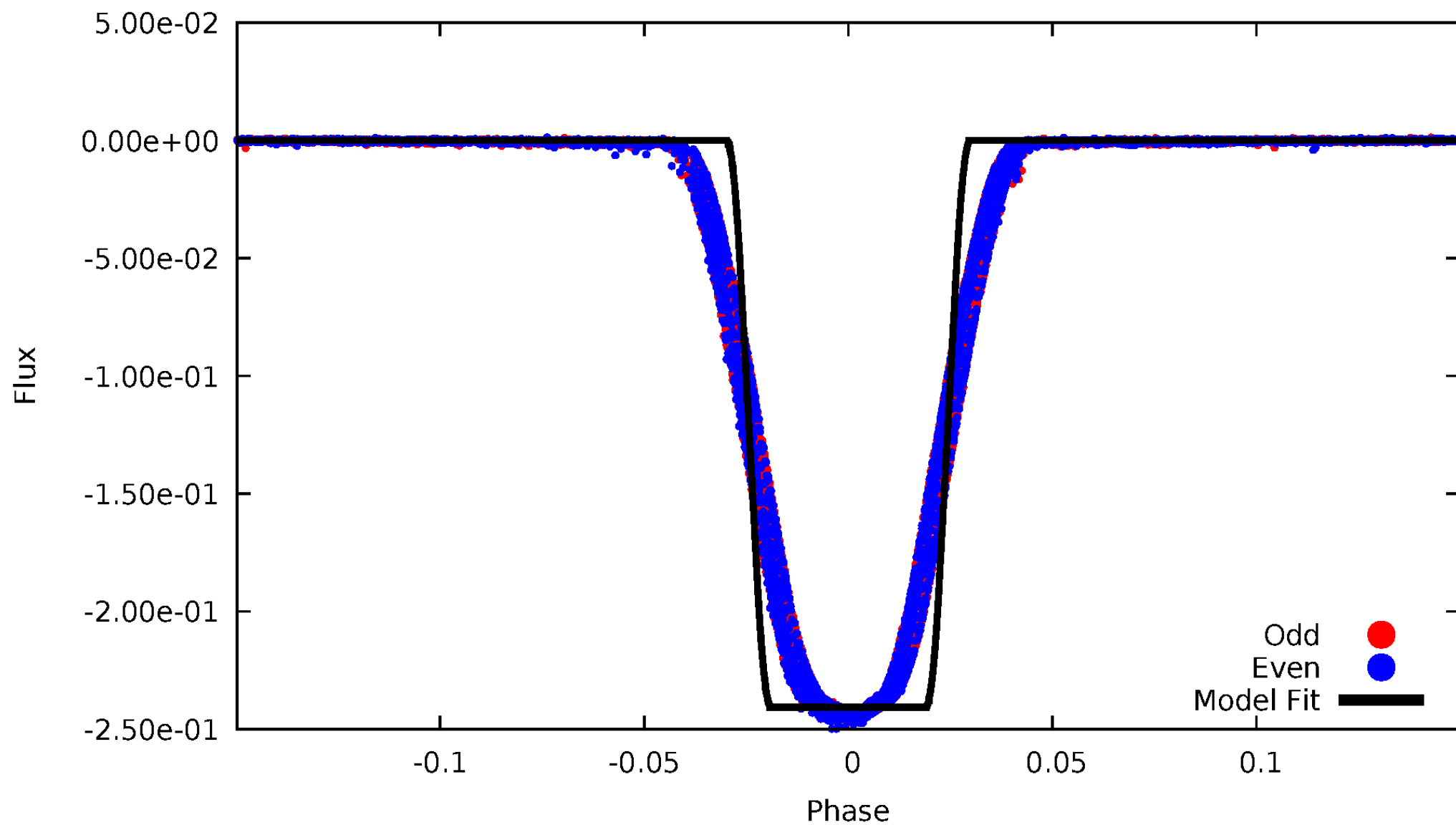
DV Odd/Even

TCE 010583181-01



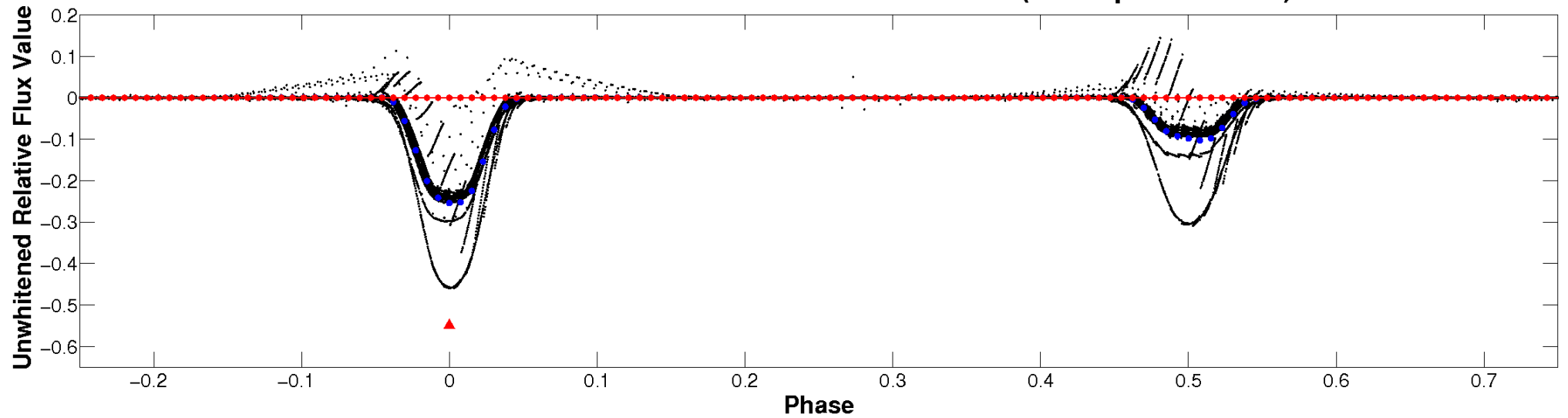
ALT Odd/Even

TCE 010583181-01



Non-Whitened Vs. Whitened Light Curve

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

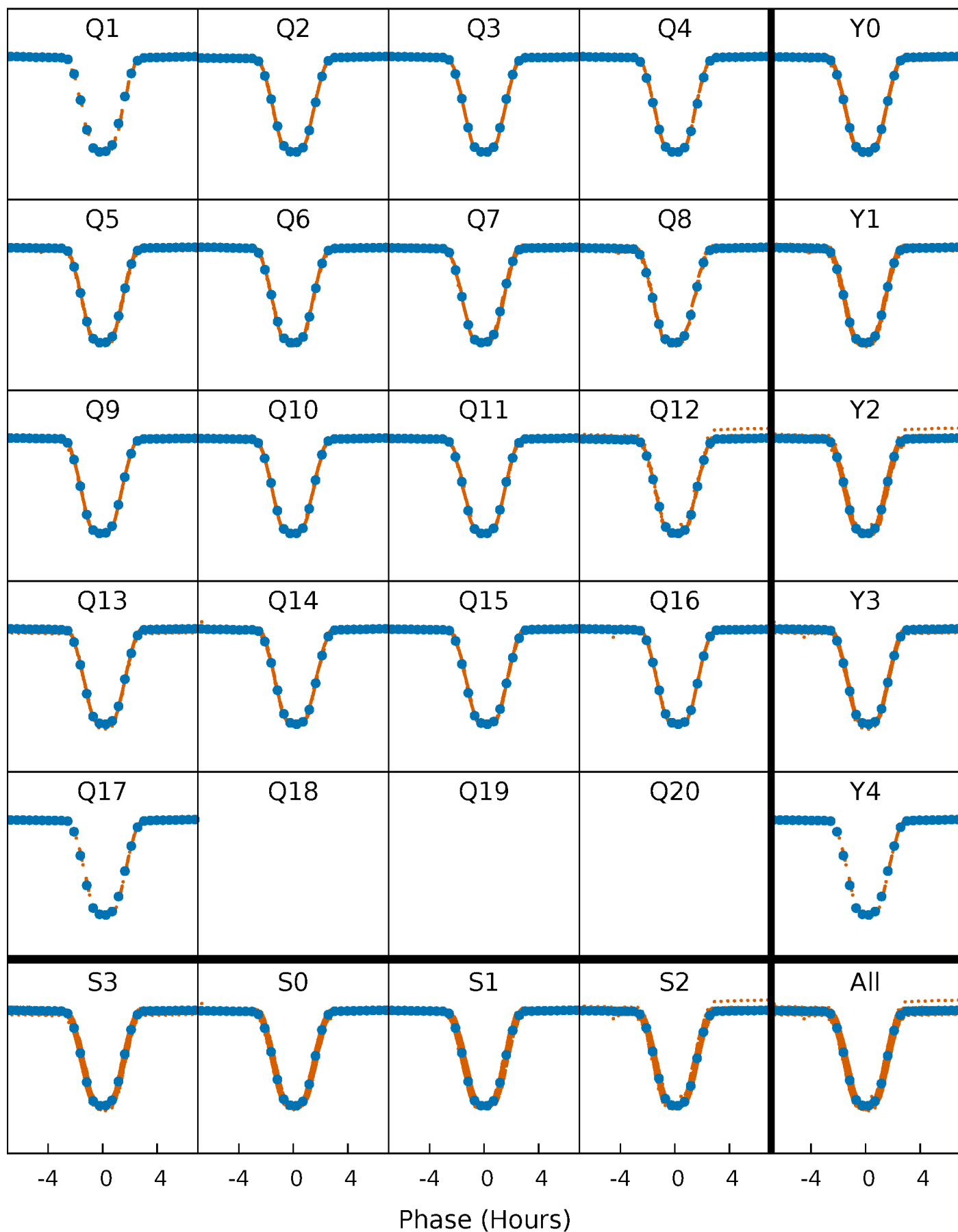


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



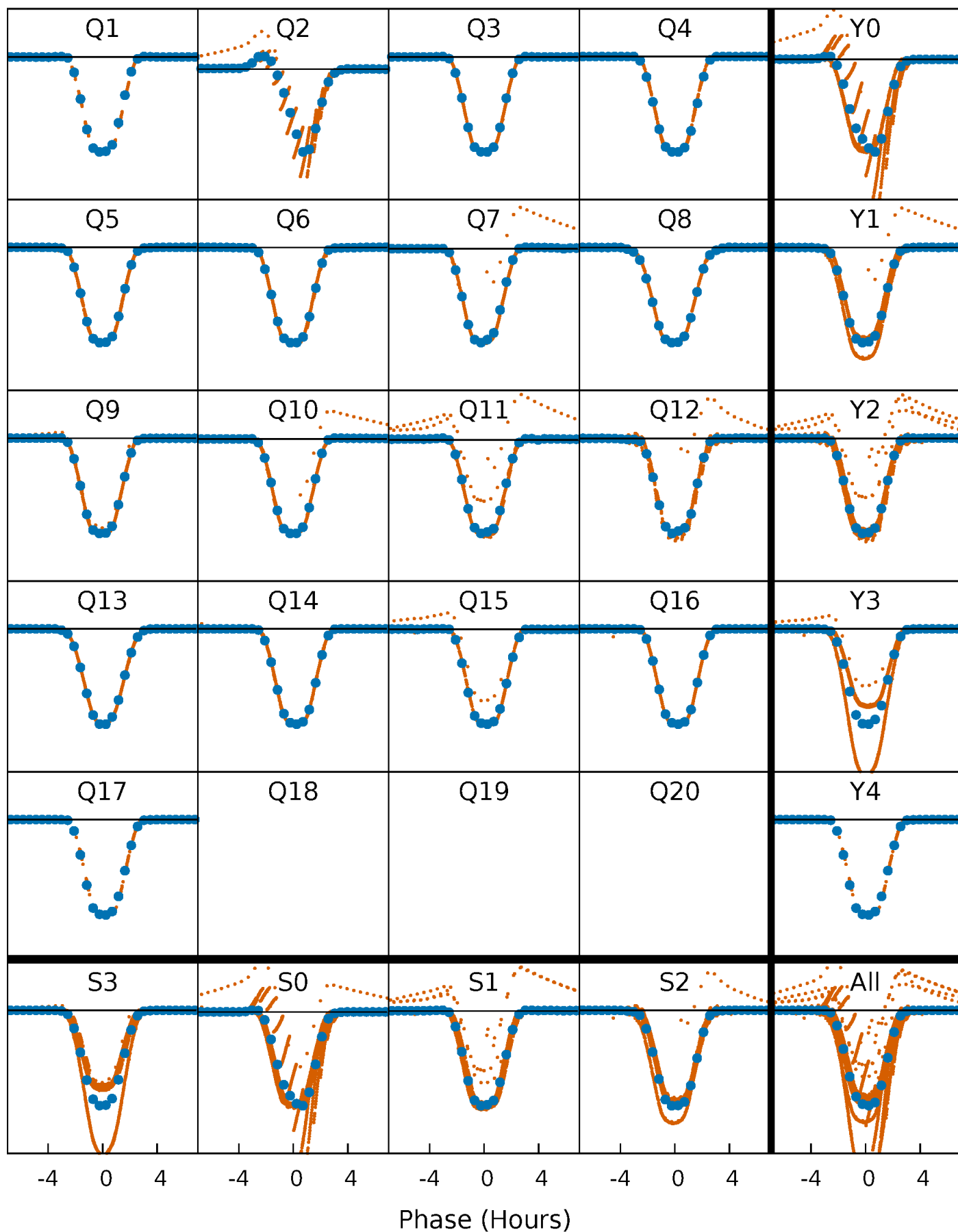
PDC Quarter-Phased Transit Curves

TCE 010583181-01 P= 2.696338 Days $T_0=132.995833$ (BKJD)



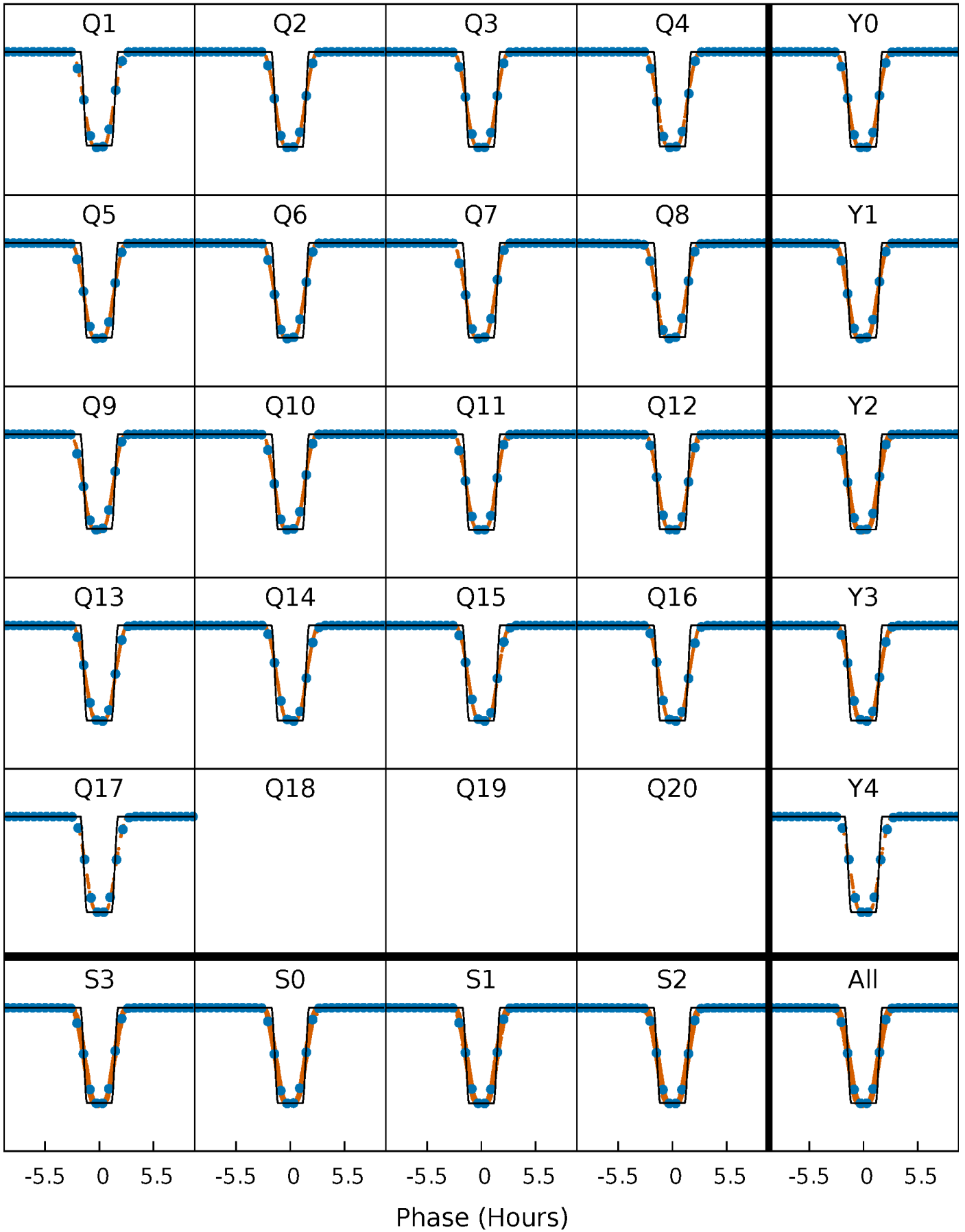
DV Quarter-Phased Transit Curves

TCE 010583181-01 P= 2.696338 Days $T_0=132.995833$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

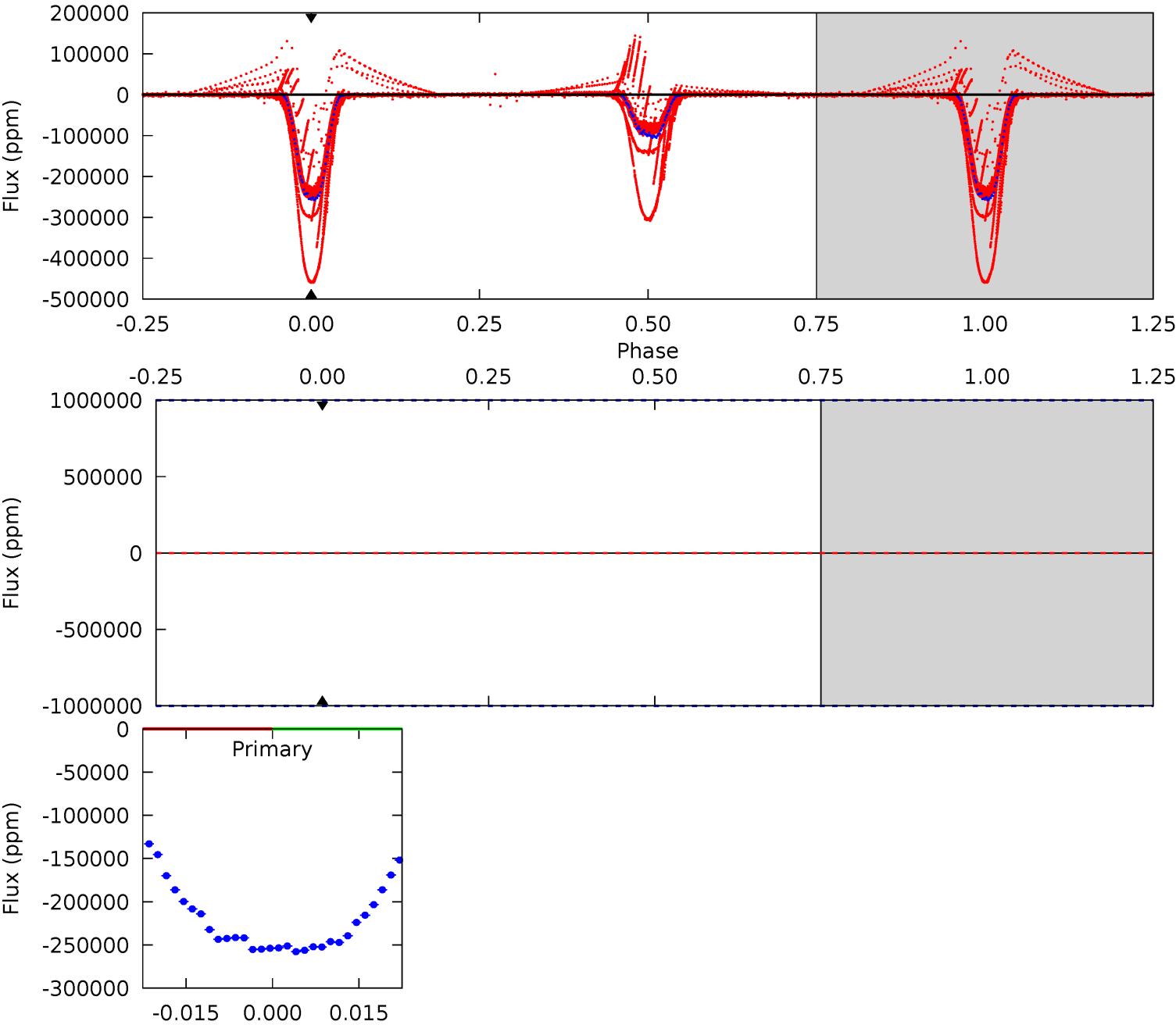
TCE 010583181-01 P= 2.696338 Days $T_0=132.997510$ (BKJD)



DV Model-Shift Uniqueness Test

010583181-01, P = 2.696338 Days, E = 130.299495 Days

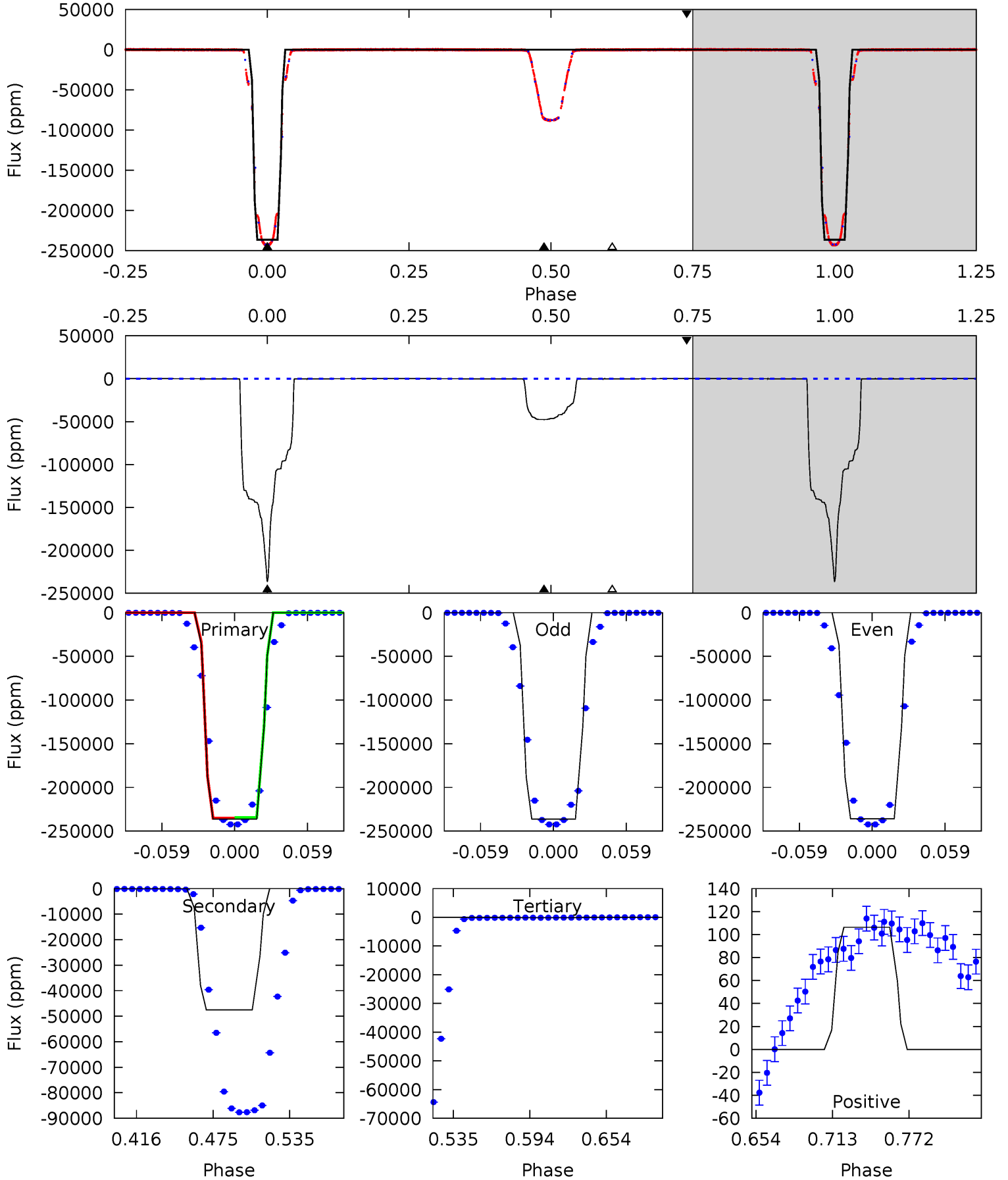
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

010583181-01, P = 2.696338 Days, E = 130.301172 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21780	4382	14.0	9.80	4.67	1.89	8.59	21766	21770	4368	4372	12.6	1.00	0.00	0



Stellar Parameters For KIC 010583181

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6472^{+146}_{-178}	$4.080^{+0.293}_{-0.158}$	$-0.400^{+0.300}_{-0.300}$	$1.579^{+0.428}_{-0.475}$	$1.093^{+0.177}_{-0.133}$	$0.392^{+0.673}_{-0.176}$
	+2%/-3%	+7%/-4%	+75%/-75%	+27%/-30%	+16%/-12%	+172%/-45%
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 010583181-01 / KOI 7344.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$38.67^{+18.86}_{-17.38}$	2512^{+173}_{-238}	-4106^{+12446}_{-4360}	$-3.514^{+78.238}_{-80.645}$
Alt.	-47546 ± 11	$83.79^{+22.21}_{-21.89}$	2512^{+186}_{-226}	4461^{+482}_{-328}	$6.165^{+4.881}_{-2.411}$

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 $A_{obs} \gg 1.0$

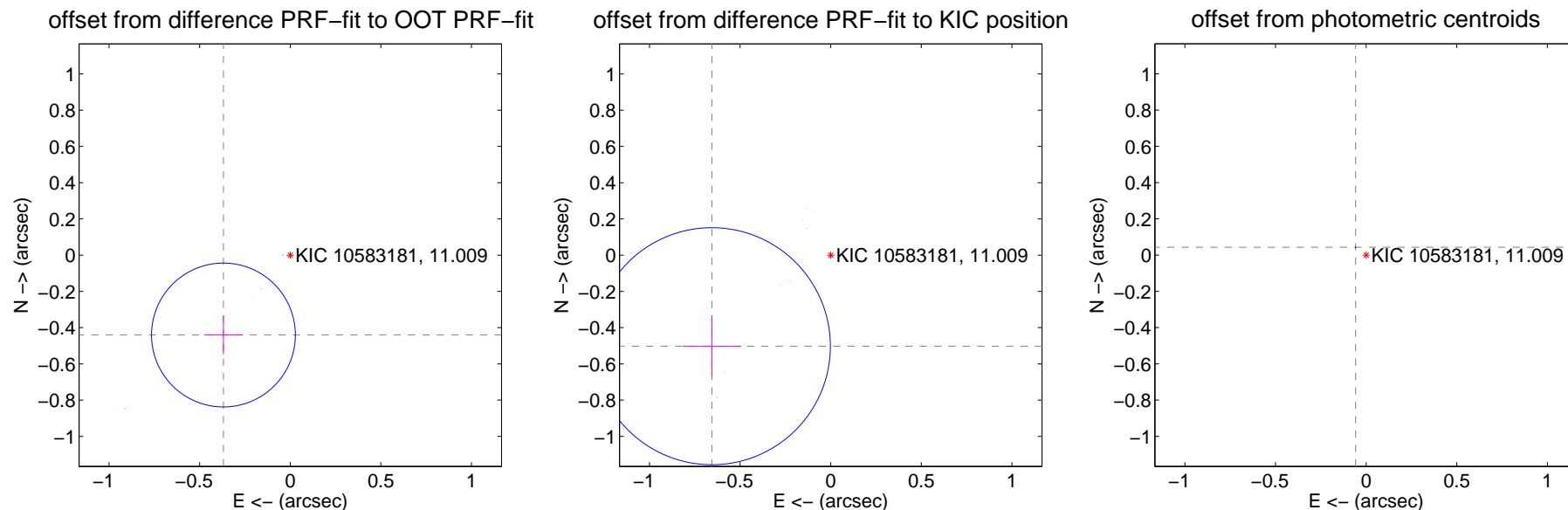
DV Centroid Data

Supplemental centroid analysis for 010583181-01. **Kepler magnitude: 11.01.** Transit SNR -1.00

There are 17 quarters with good PRF difference image offsets

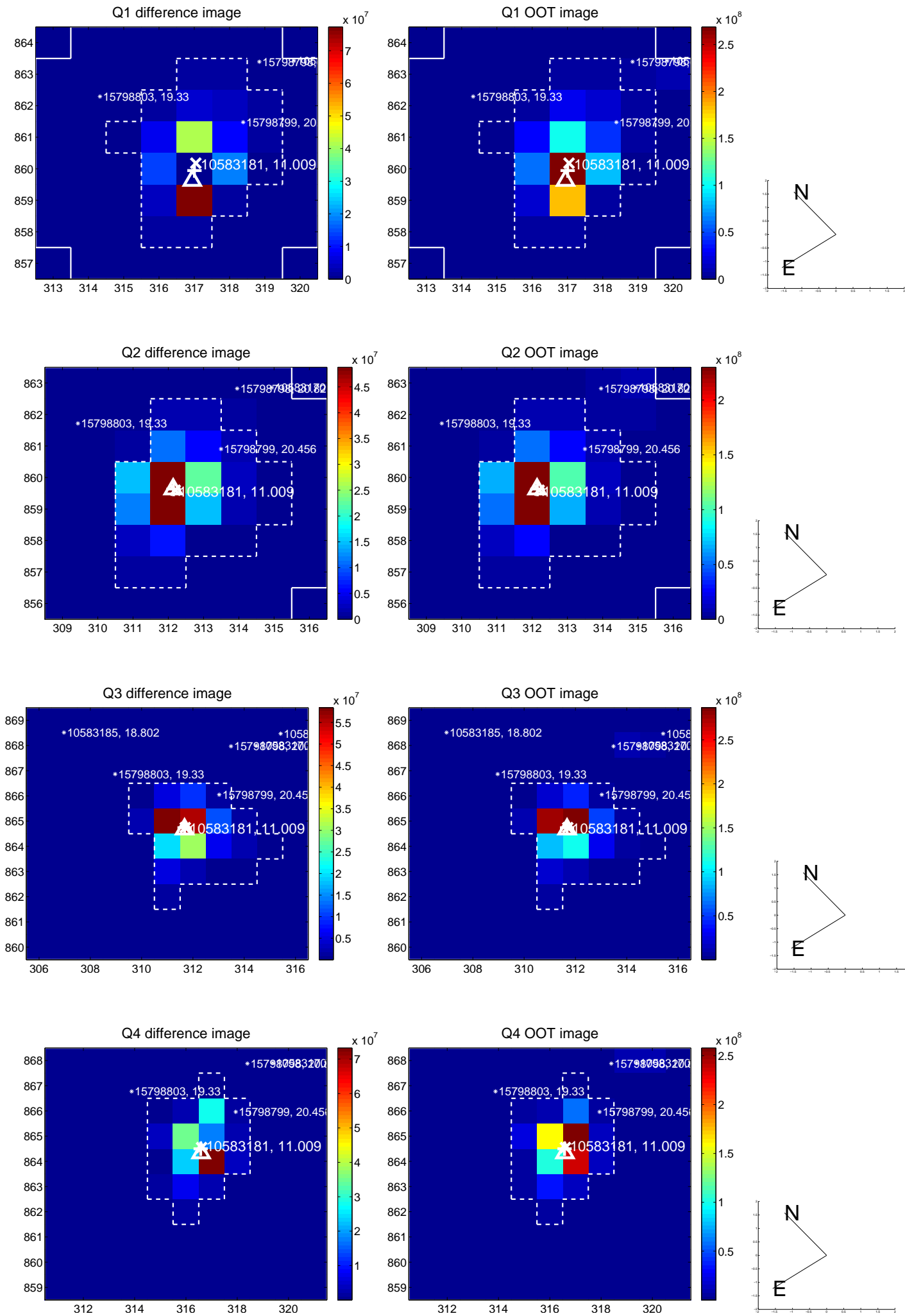
The direct PRF centroid is offset from the target star catalog position by about 0.77 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.575 ± 0.132	4.34	0.369 ± 0.107	-0.441 ± 0.107
PRF-fit source offset from KIC position	0.826 ± 0.218	3.79	0.656 ± 0.162	-0.503 ± 0.168
photometric centroid source offset	0.07 ± 0.00	421.18	0.06 ± 0.00	0.04 ± 0.00

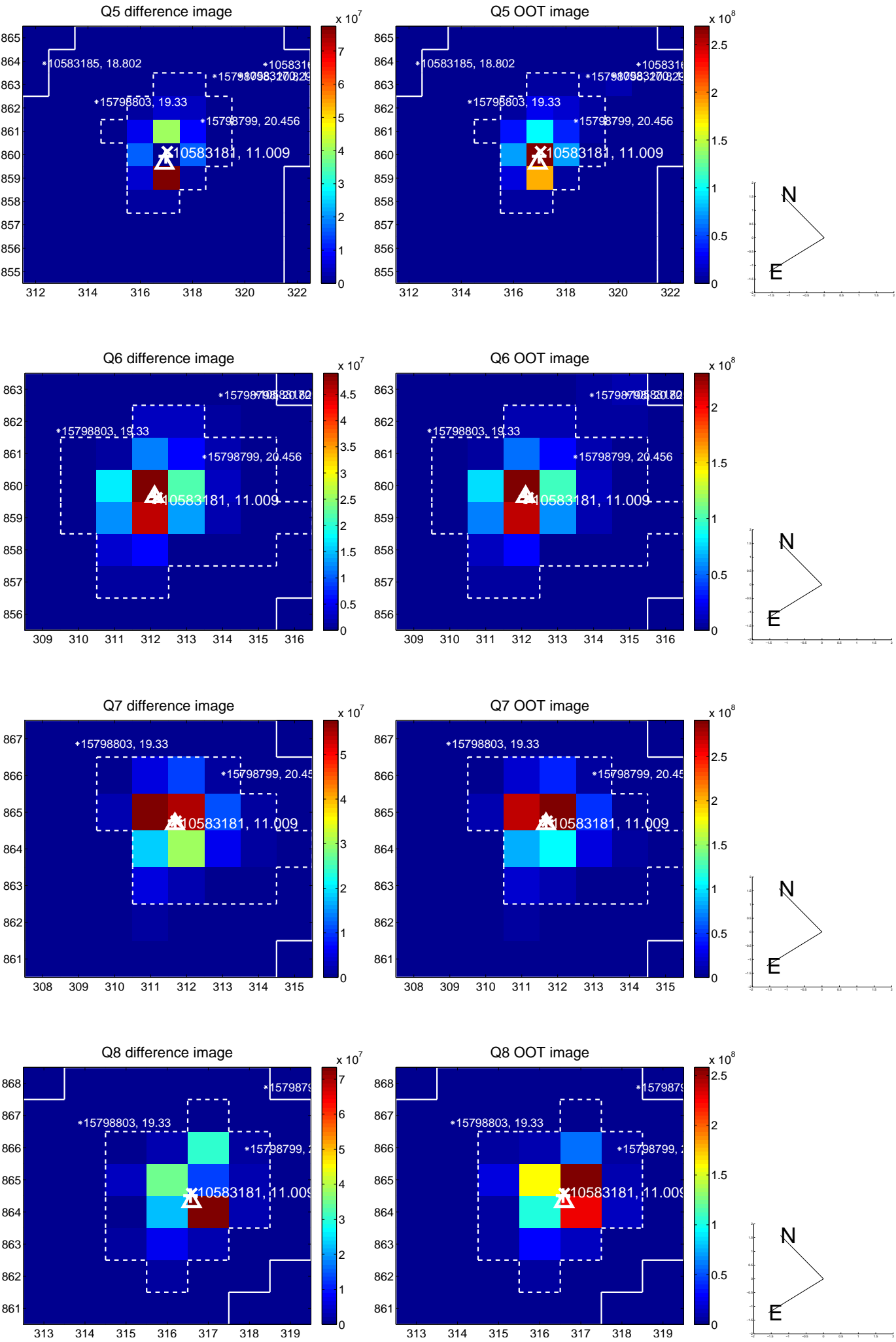


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

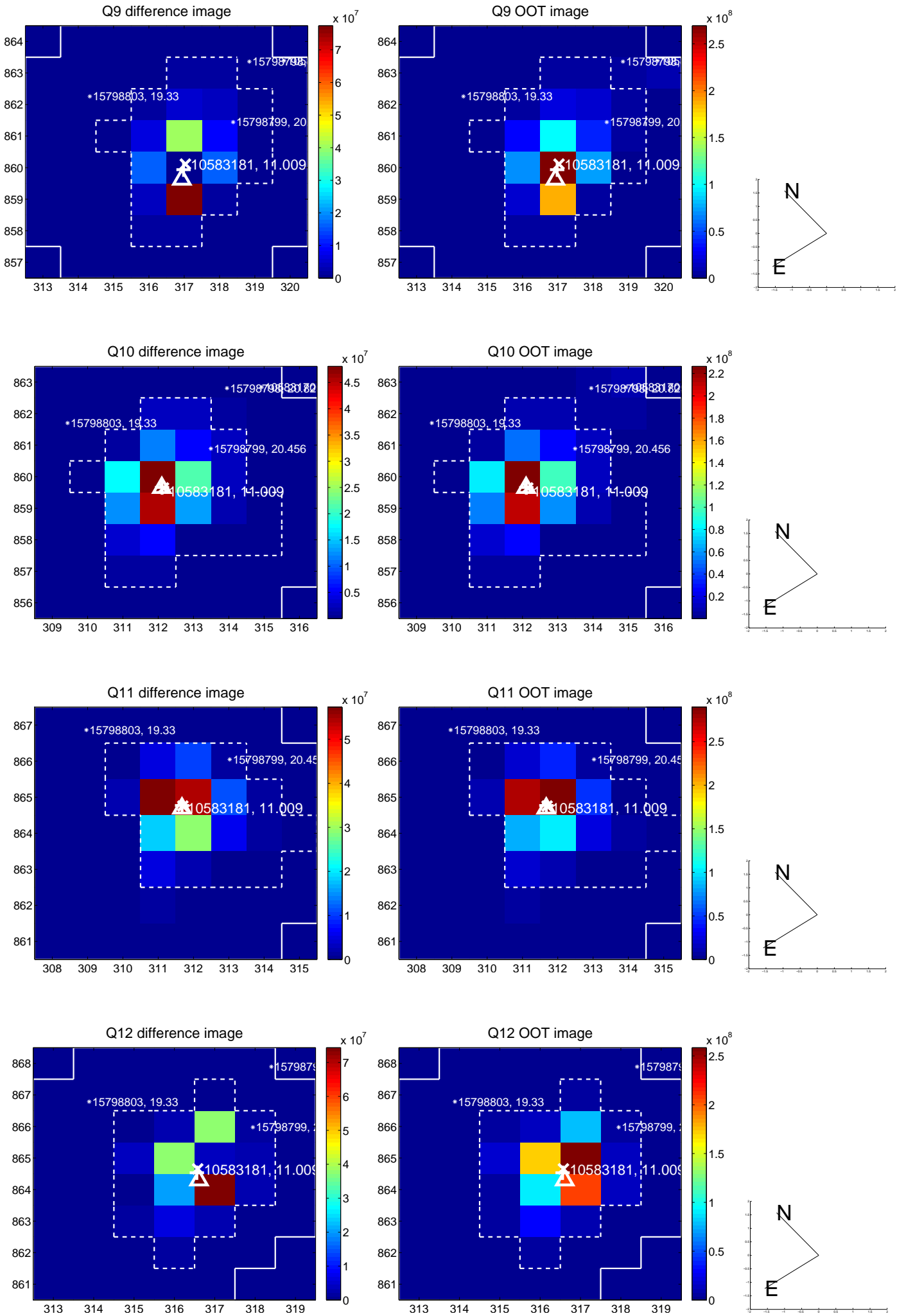
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



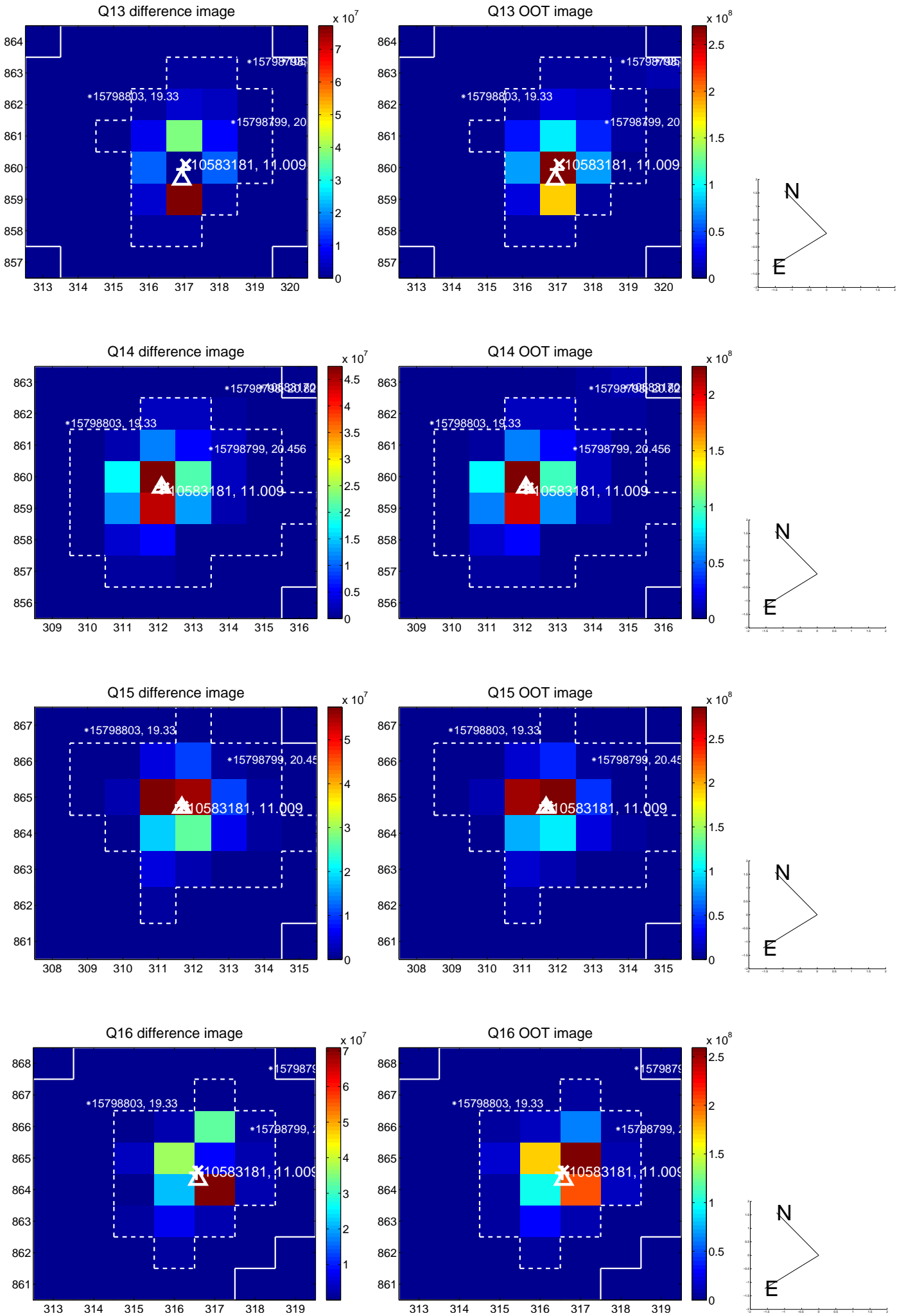
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



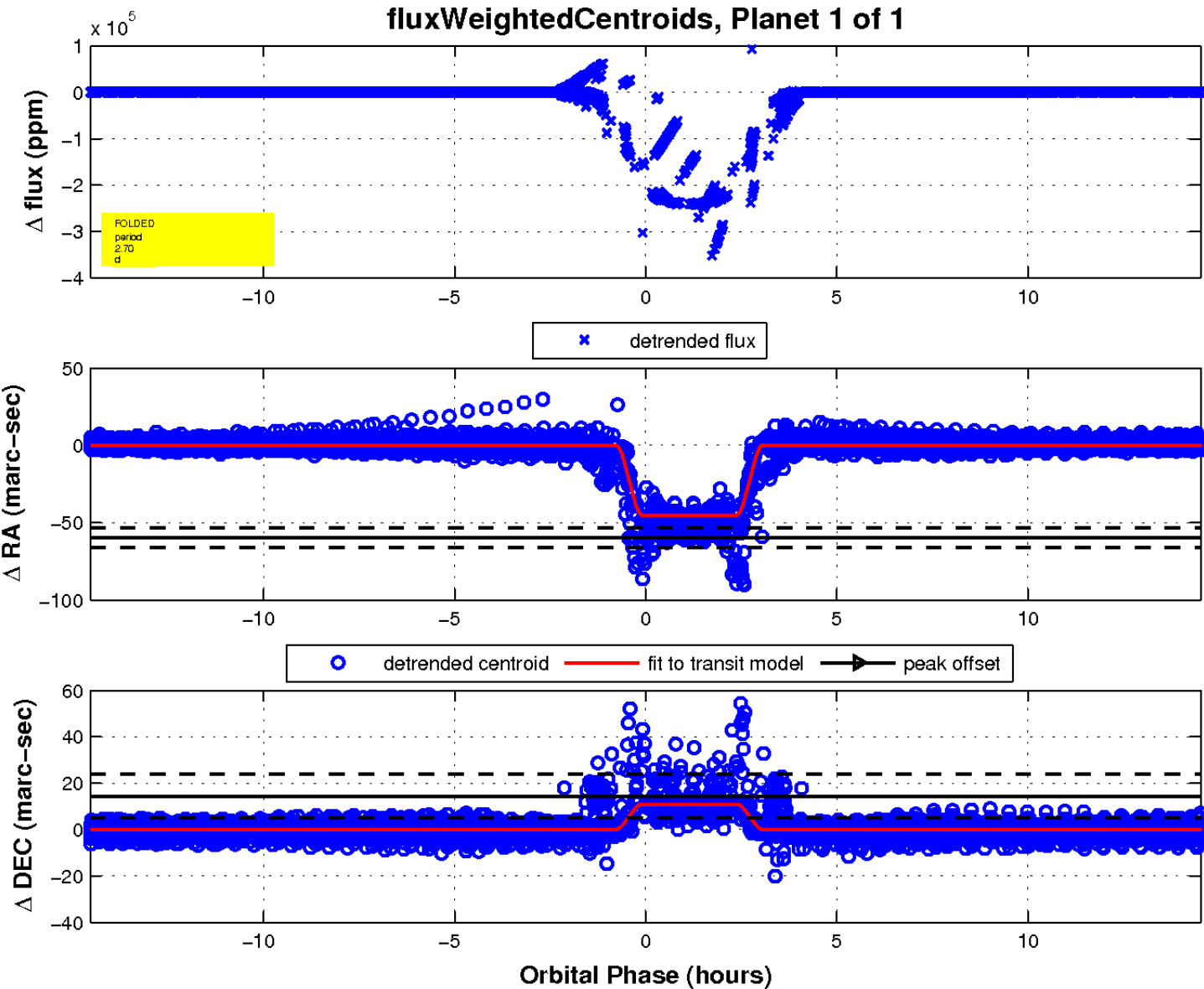
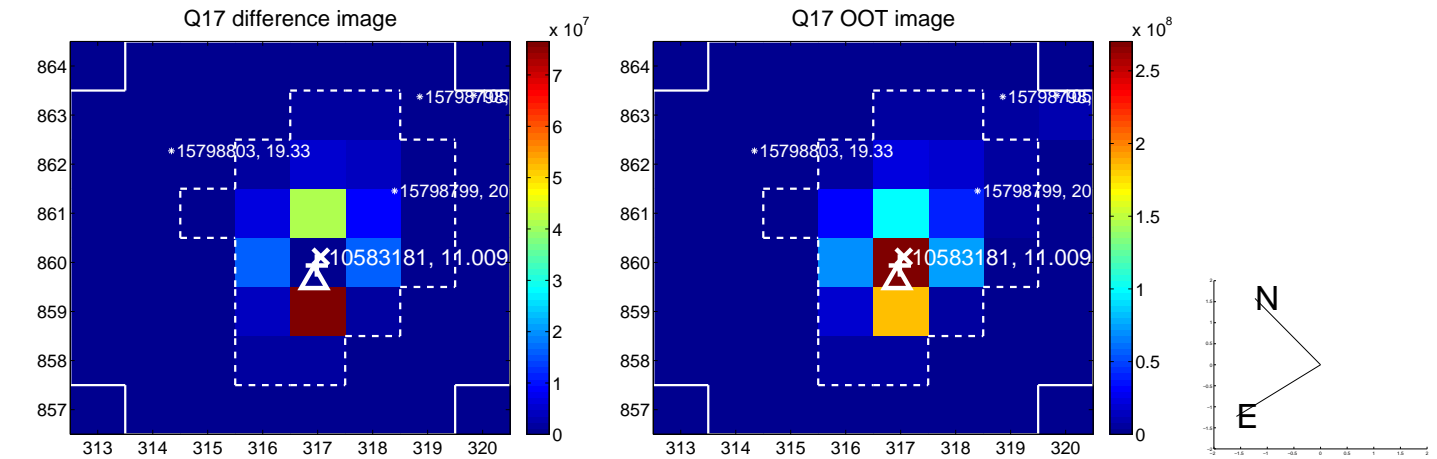
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

