

KIC 005294739

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})
005294739-01	OBS	6556.01	3.735990	135.063028	35248.7	9.000	4352.6	-1.0	4.05	5467	75.34	4292.17

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005294739-01	OBS	FP	0.00	0	1	0	0	SWEET_EB—CENT_NOFITS

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 005294739-01

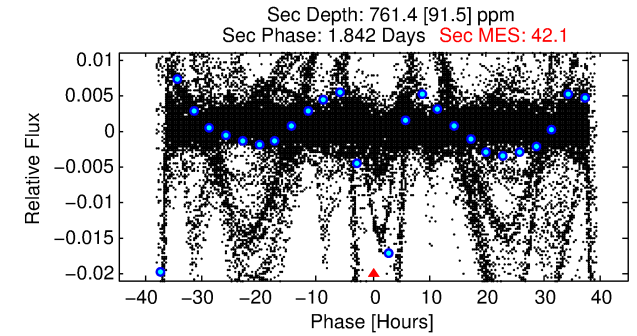
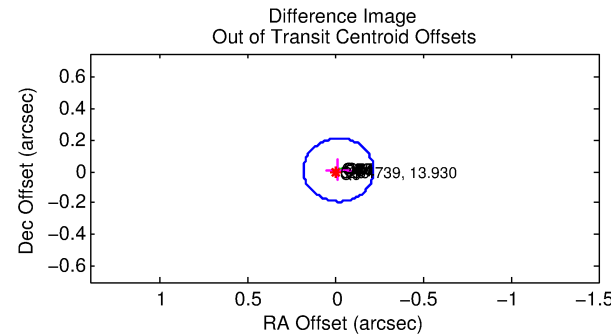
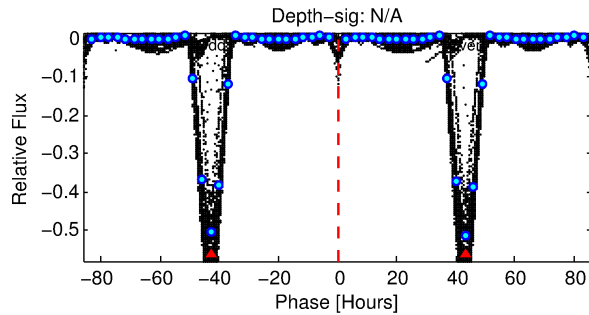
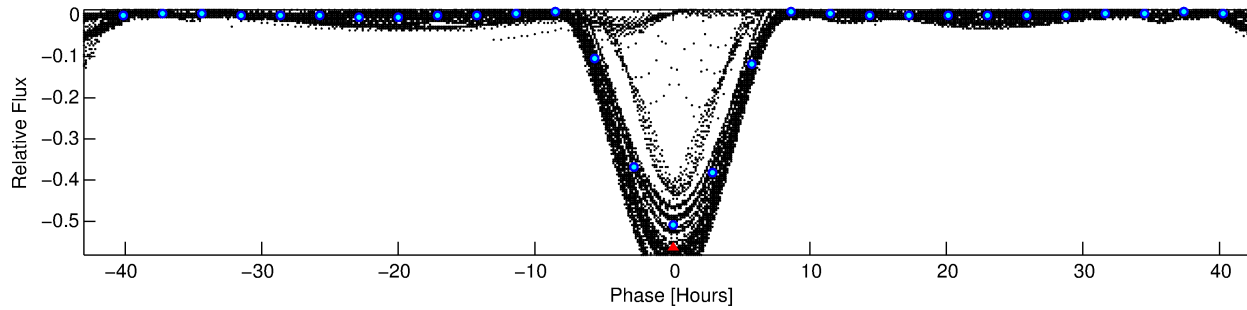
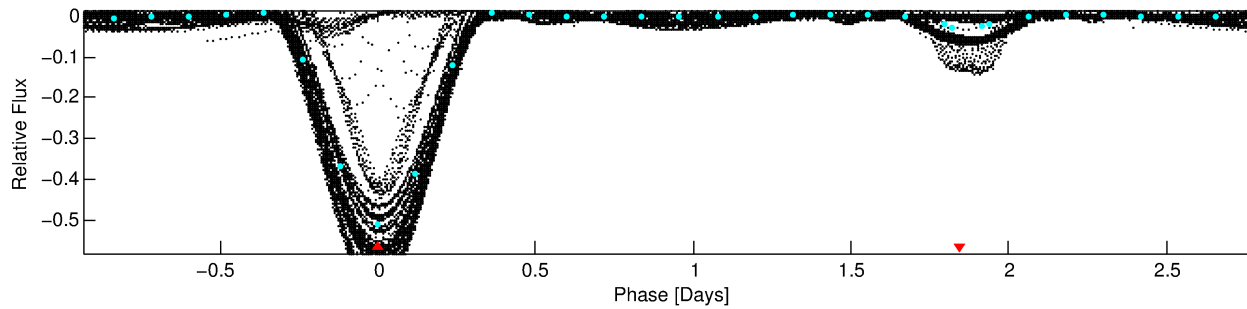
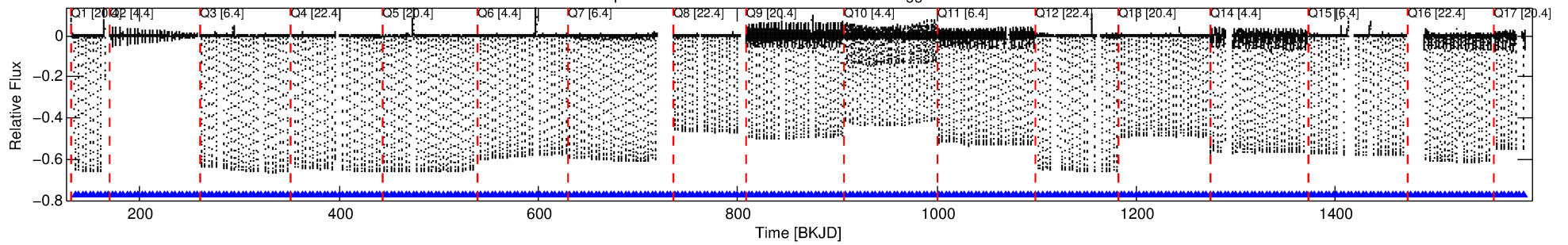
No Significant Match Found

DV One-Page Summary

KIC: 5294739 Candidate: 1 of 1 Period: 3.736 d

KOI: K06556 Corr: No Ephemeris Match

Kp: 13.93 R*: 4.05 Rs Teff: 5467.0 K Logg: 3.43 Fe/H: -0.340



TPS TCE Results:

Period = 3.73599 d
Epoch = 135.0630 BKJD

DV fit results are unavailable

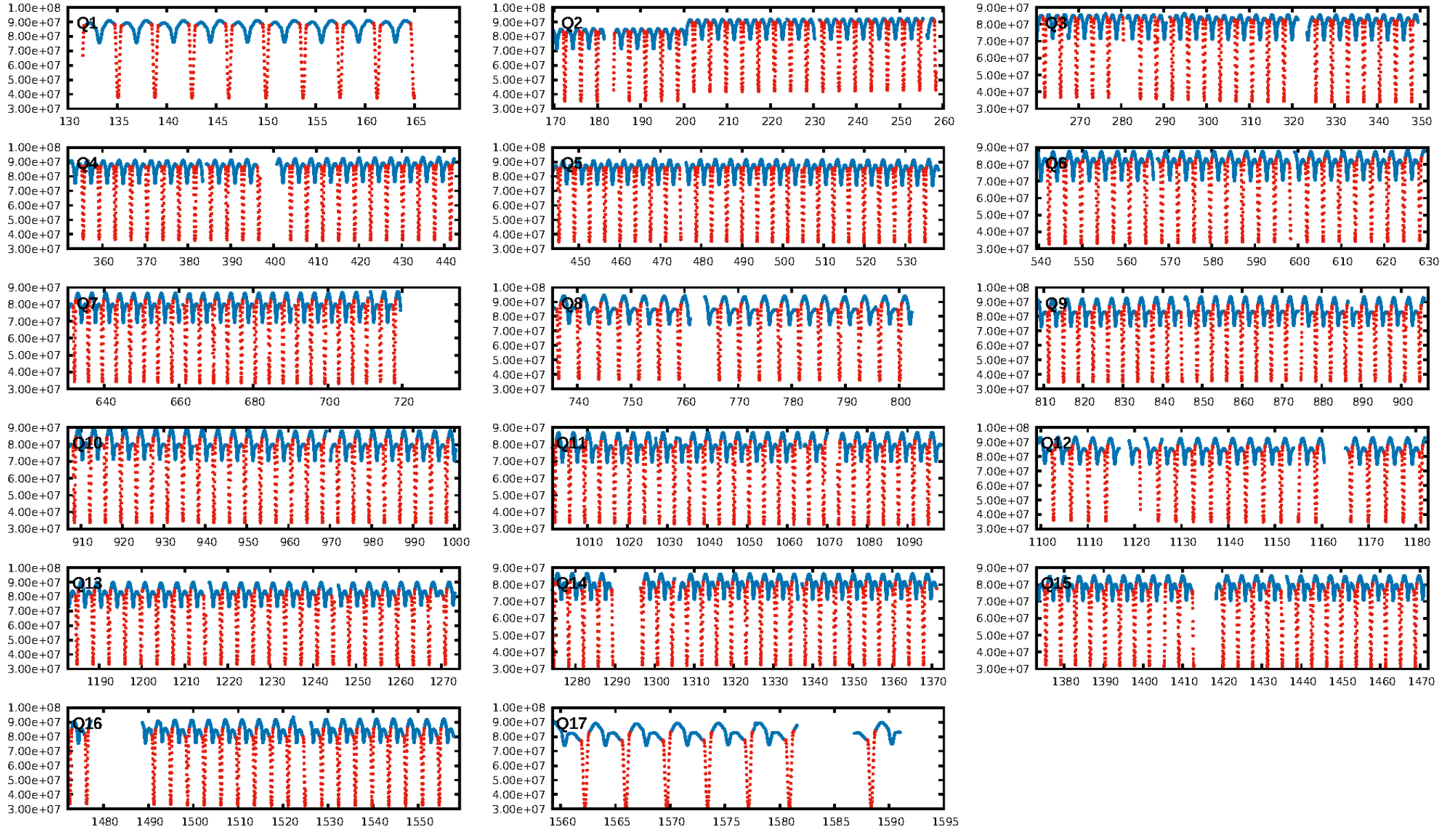
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [349/349]
GhostDiagnostic-chr: 1.635
Centroid-sig: N/A
Centroid-so: 0.263 arcsec [948.96σ]
OotOffset-rm: 0.021 arcsec [0.31σ]
KicOffset-rm: 0.152 arcsec [2.18σ]
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]

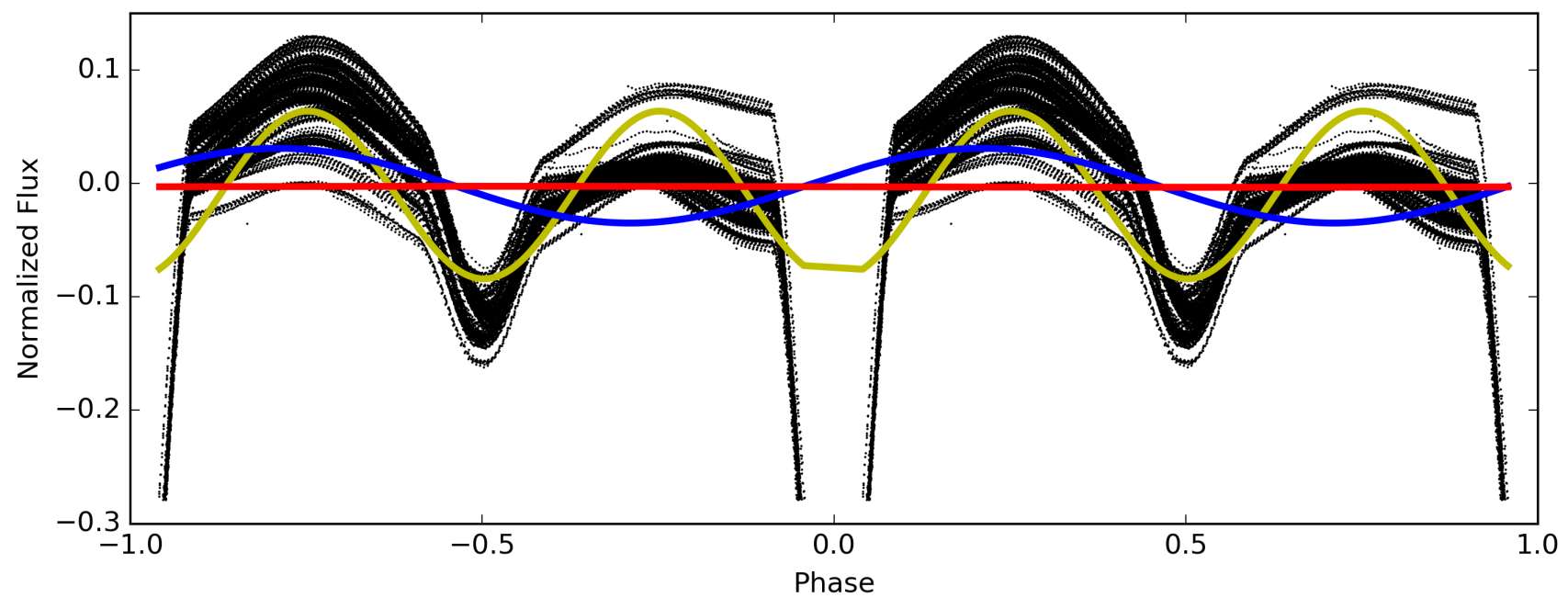
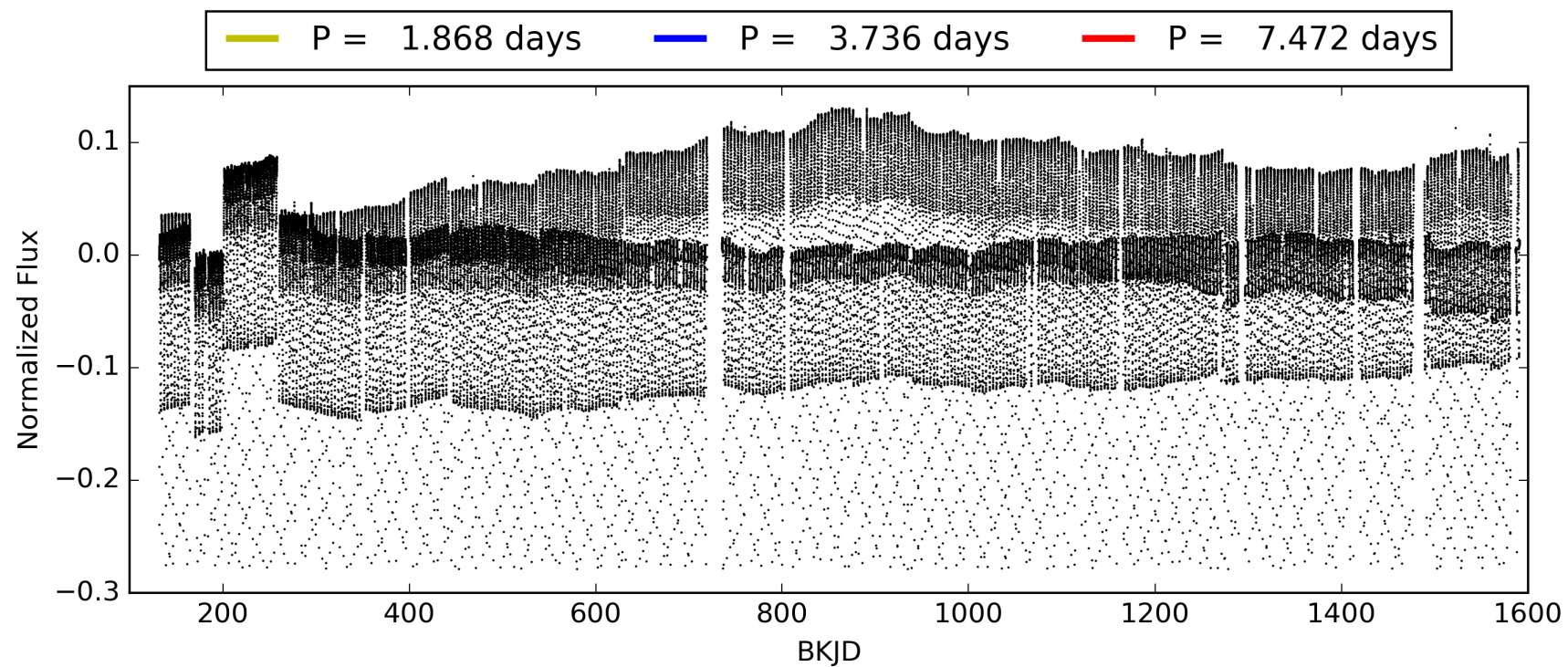
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 16:53:23 Z

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

TCE 005294739-01, PDC Light Curves

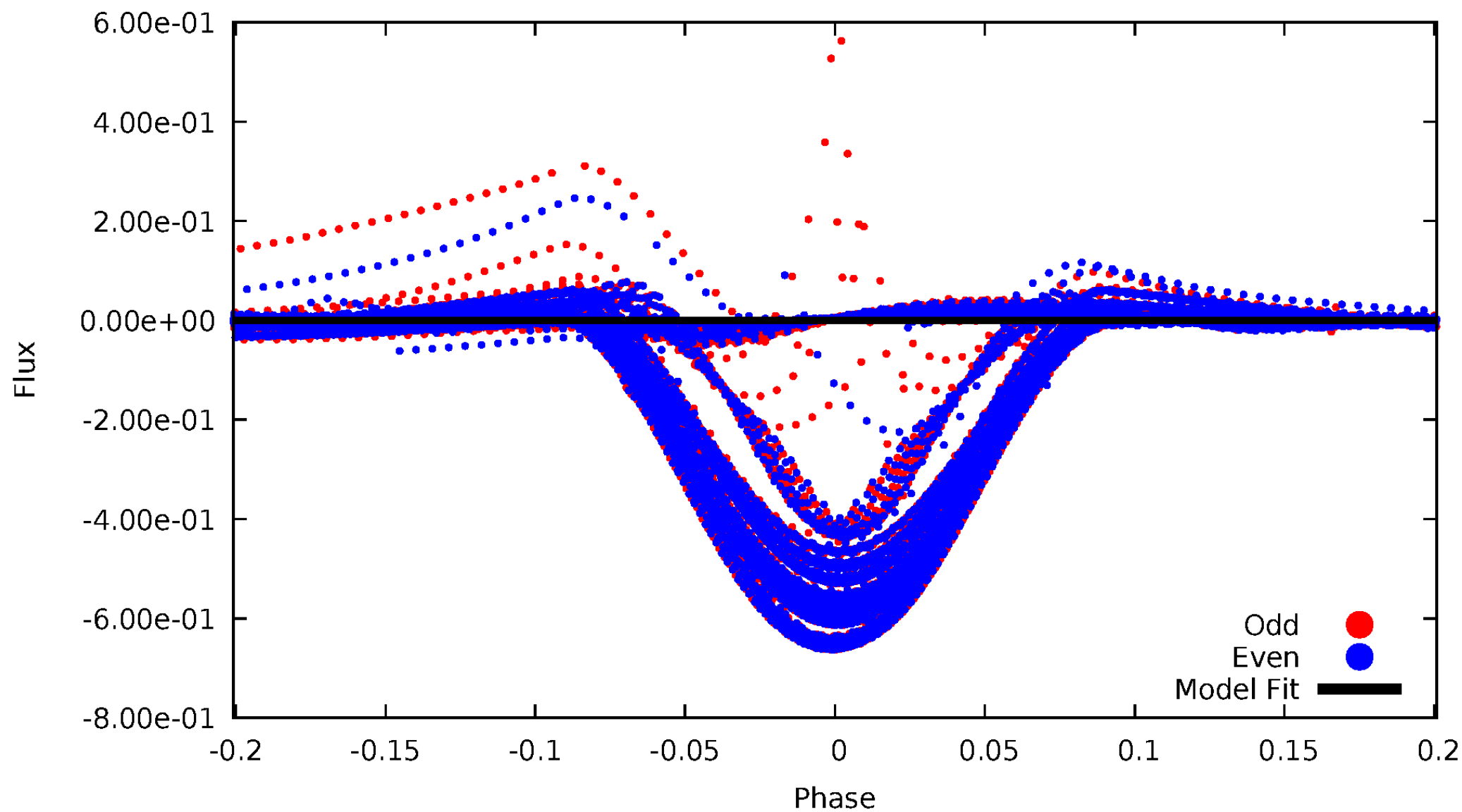


TCE 005294739-01



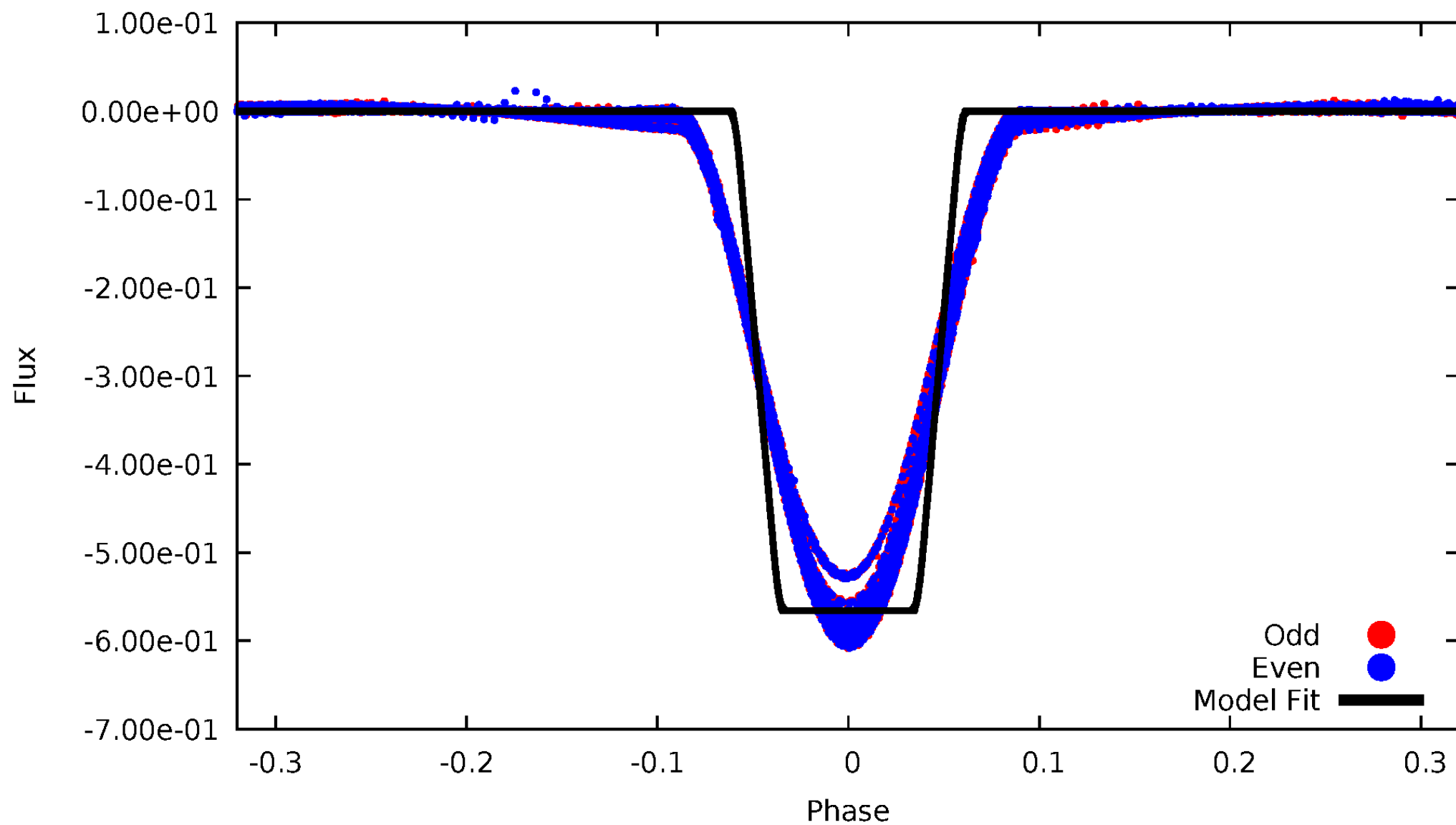
DV Odd/Even

TCE 005294739-01



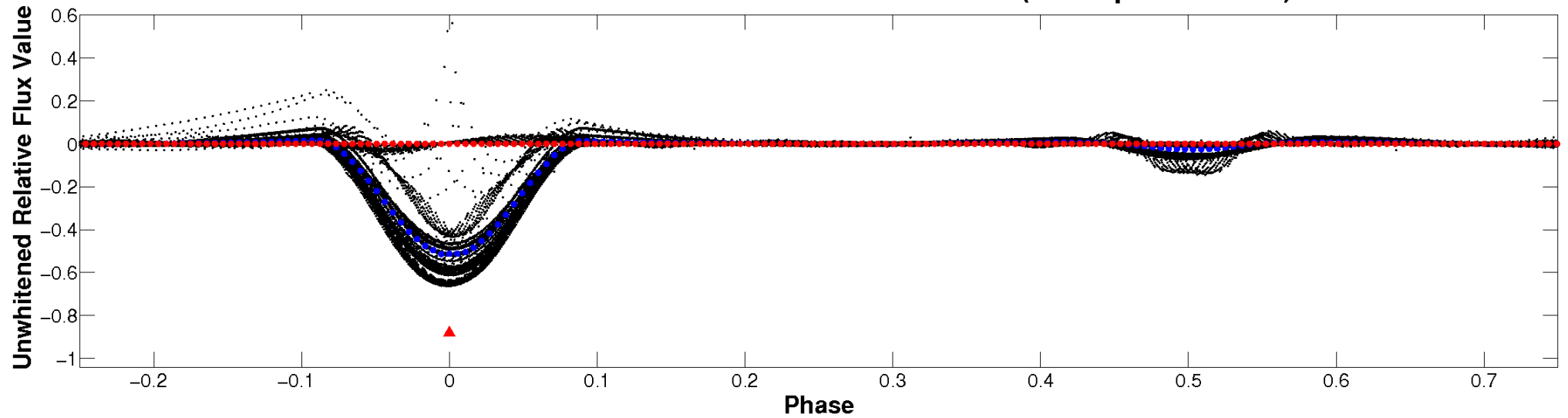
ALT Odd/Even

TCE 005294739-01



Non-Whitened Vs. Whitened Light Curve

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

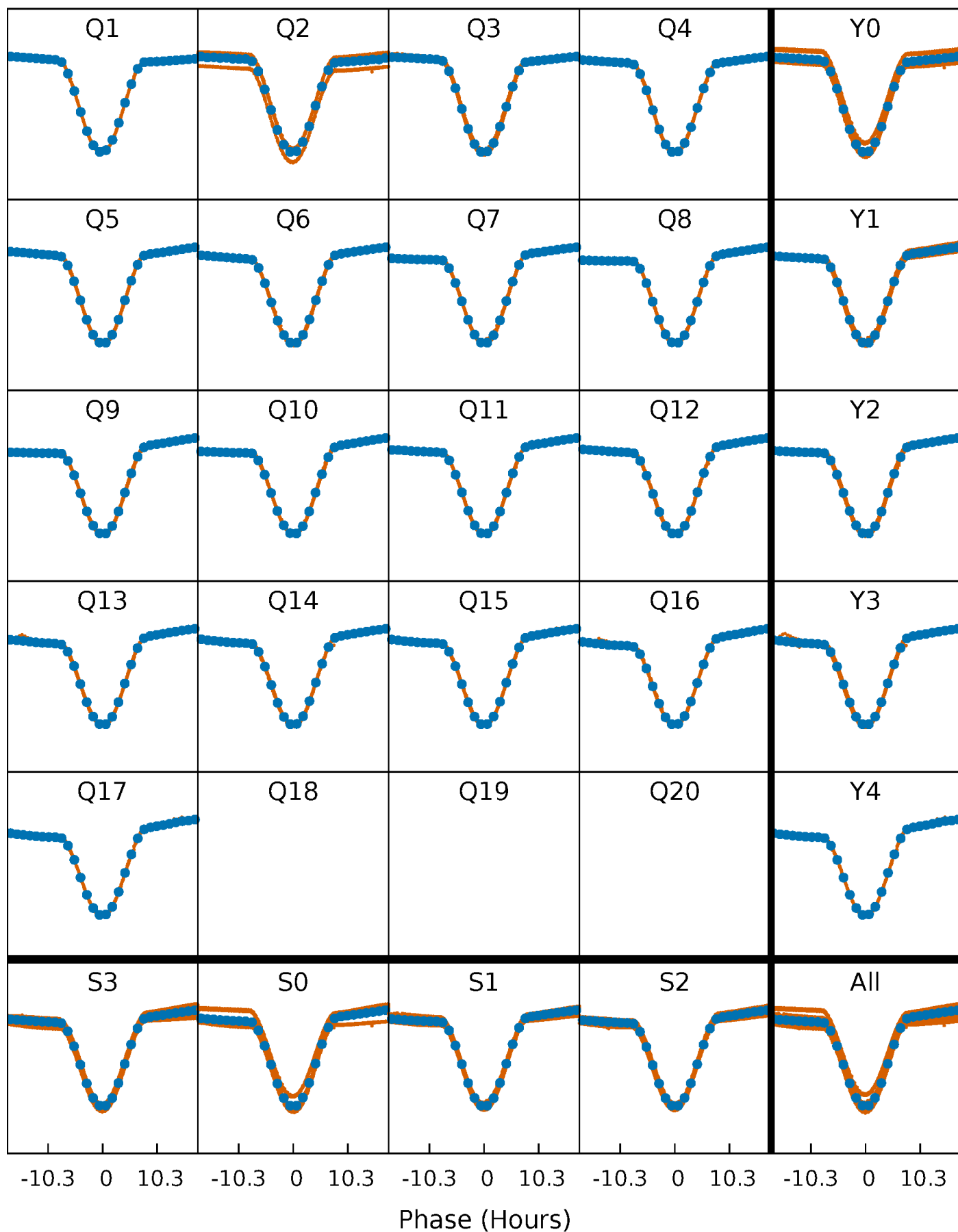


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



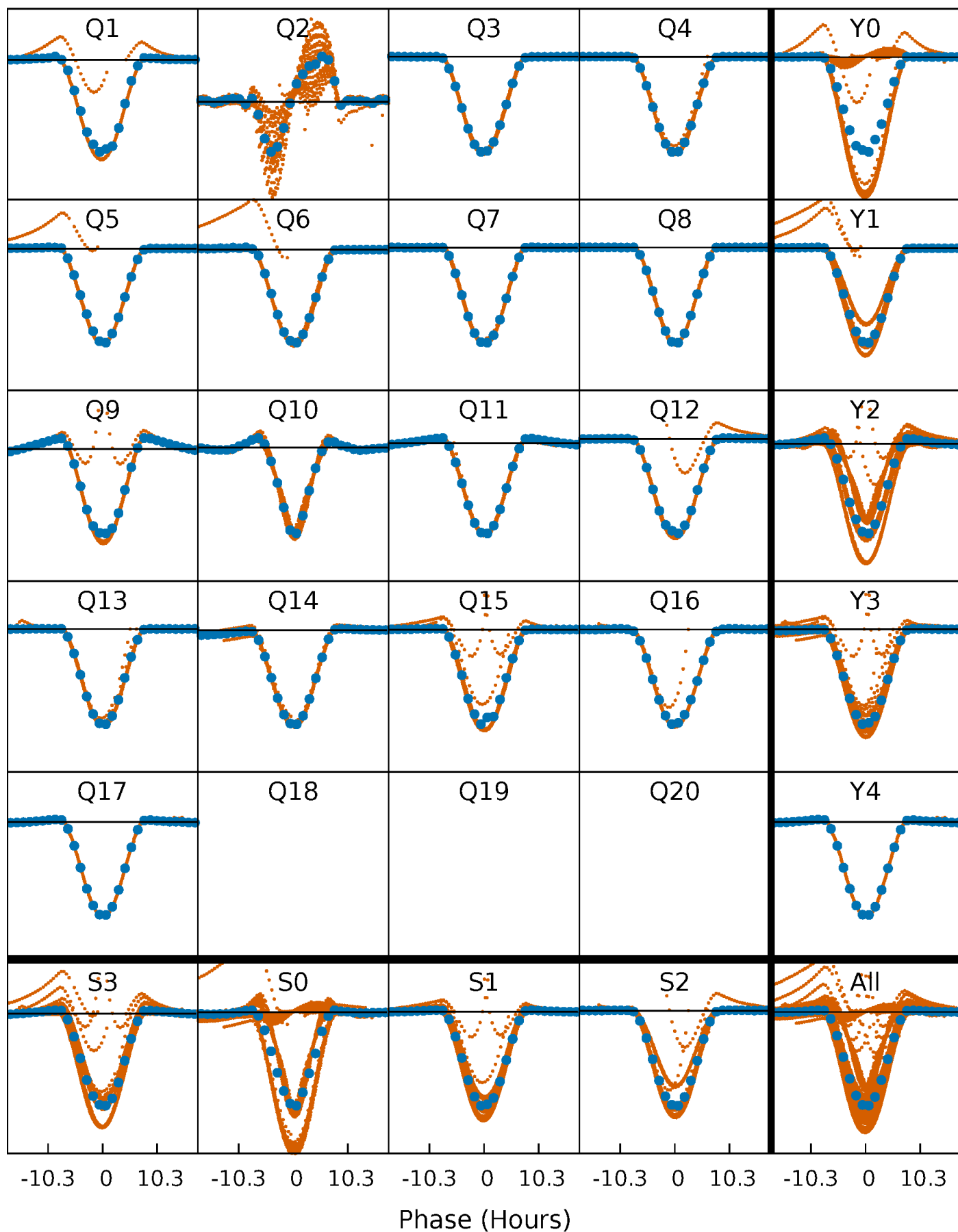
PDC Quarter-Phased Transit Curves

TCE 005294739-01 P= 3.735990 Days $T_0=135.063028$ (BKJD)



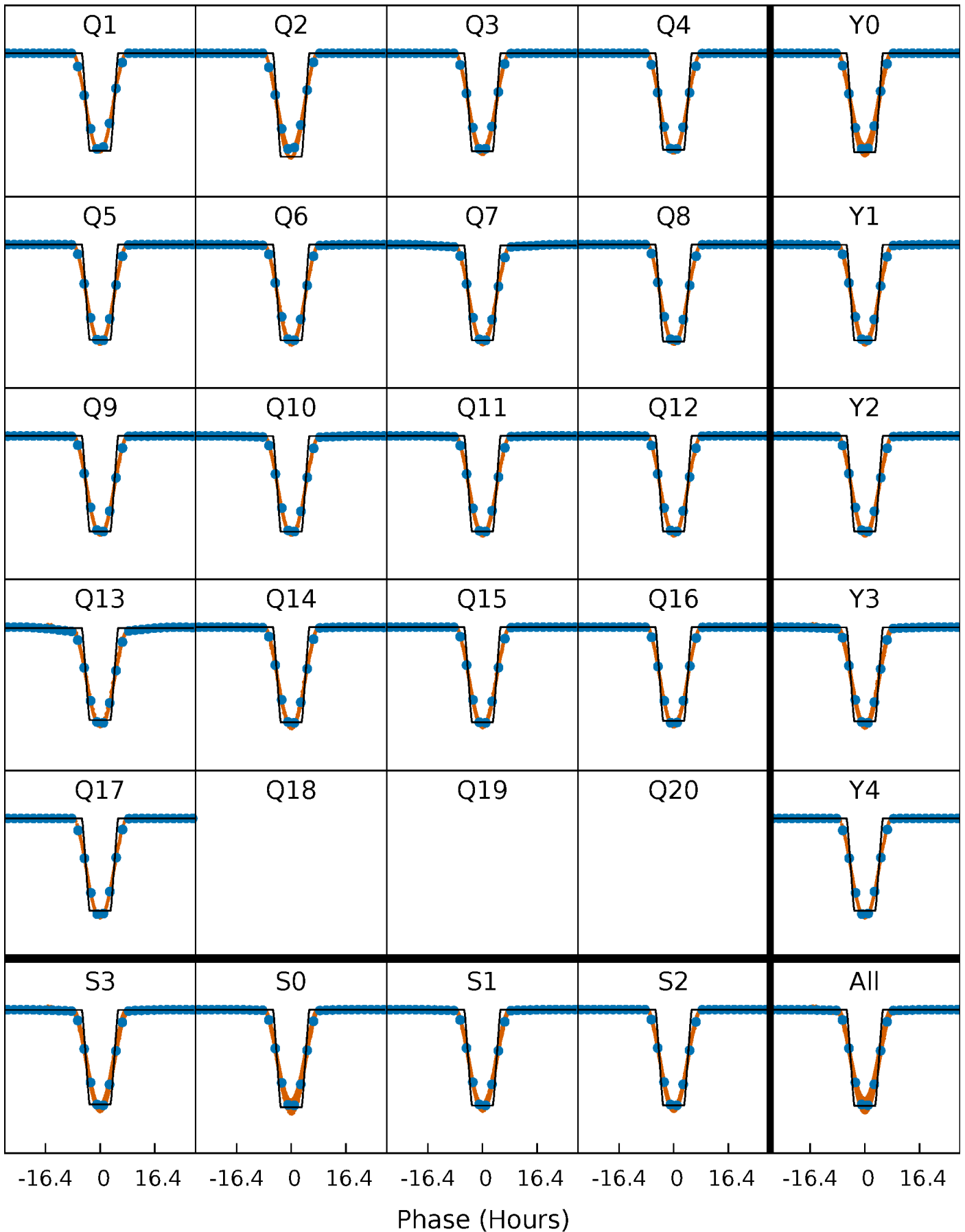
DV Quarter-Phased Transit Curves

TCE 005294739-01 P= 3.735990 Days $T_0=135.063028$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

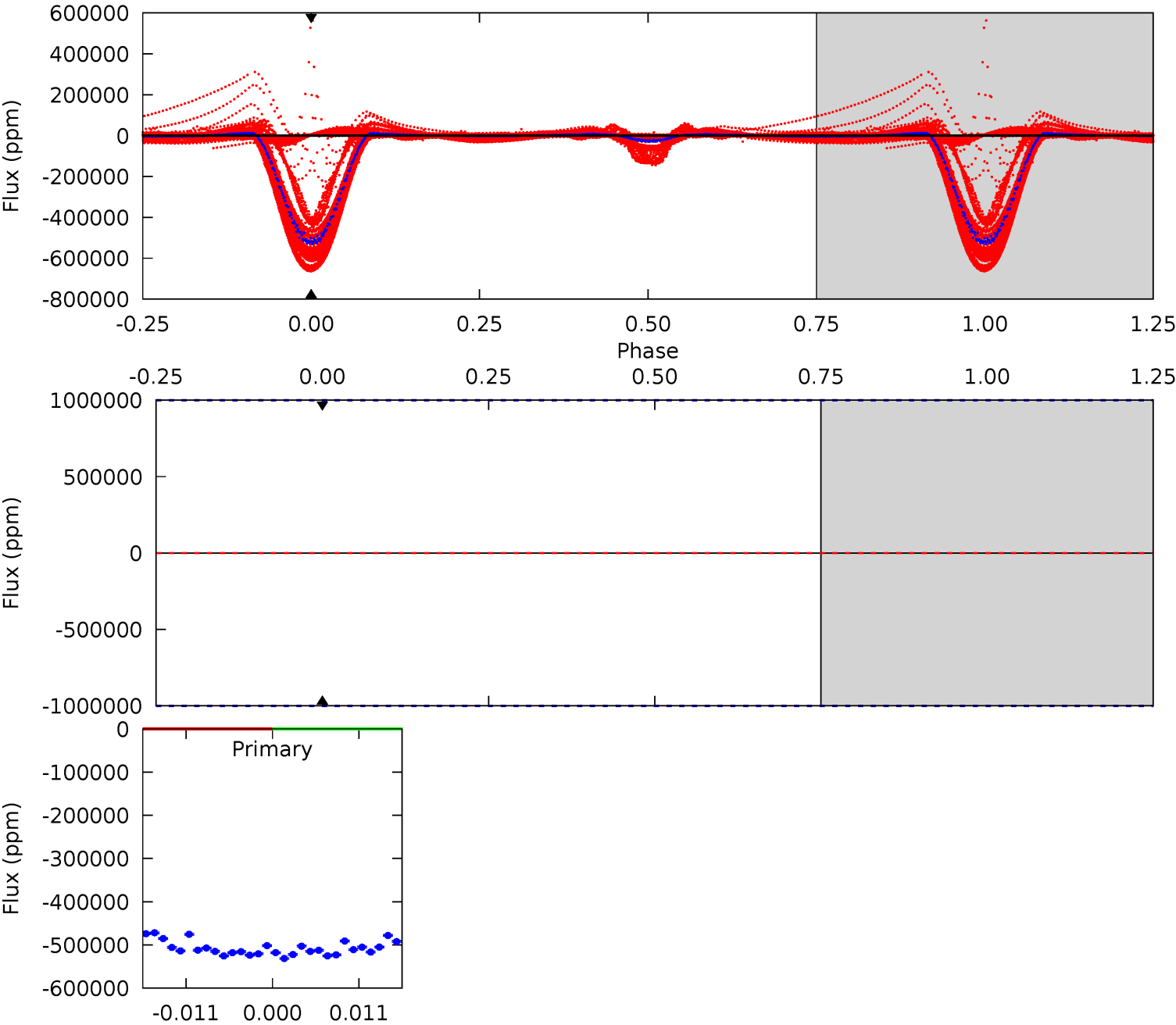
TCE 005294739-01 P= 3.735990 Days $T_0=135.061726$ (BKJD)



DV Model-Shift Uniqueness Test

005294739-01, P = 3.735990 Days, E = 131.327038 Days

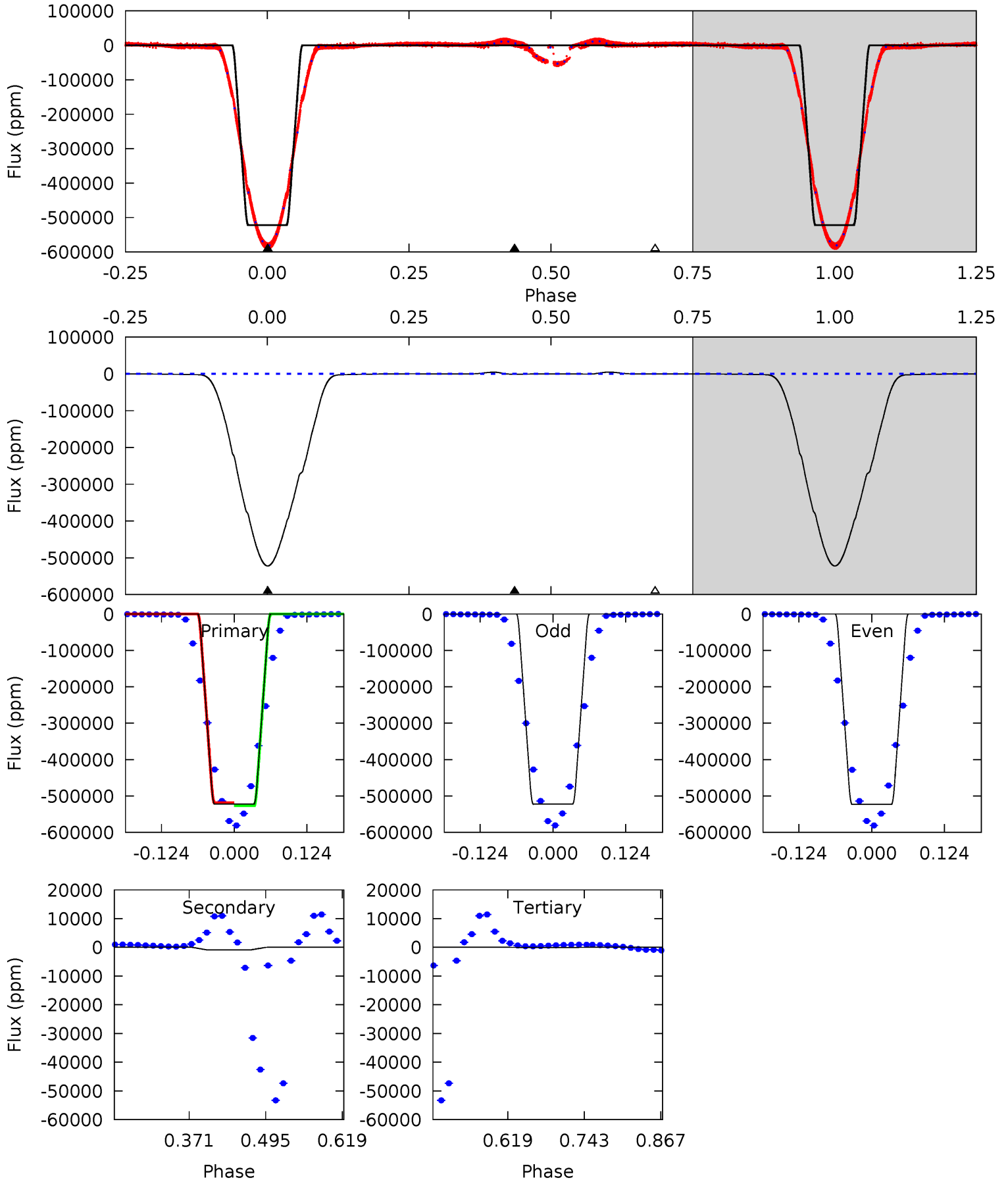
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

005294739-01, P = 3.735990 Days, E = 131.325736 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11851	19.8	1.64	0	4.52	1.54	29.9	11849	11851	18.2	19.8	6.40	1.00	0.01	0



Stellar Parameters For KIC 005294739

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5467^{+267}_{-297}	$3.432^{+0.808}_{-0.202}$	$-0.340^{+0.350}_{-0.300}$	$4.055^{+1.156}_{-2.889}$	$1.620^{+0.230}_{-0.690}$	$0.034^{+0.631}_{-0.018}$
	+5%/-5%	+24%/-6%	+103%/-88%	+29%/-71%	+14%/-43%	+1843%/-53%
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 005294739-01 / KOI 6556.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$65.10^{+52.87}_{-36.06}$	2818^{+308}_{-529}	3707^{+5019}_{-11537}	$1.592^{+71.683}_{-48.618}$
Alt.	-873 ± 44	$309.30^{+92.56}_{-111.82}$	2799^{+351}_{-489}	-2939^{+317}_{-223}	$0.015^{+0.019}_{-0.006}$

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 $A_{obs} \gg 1.0$

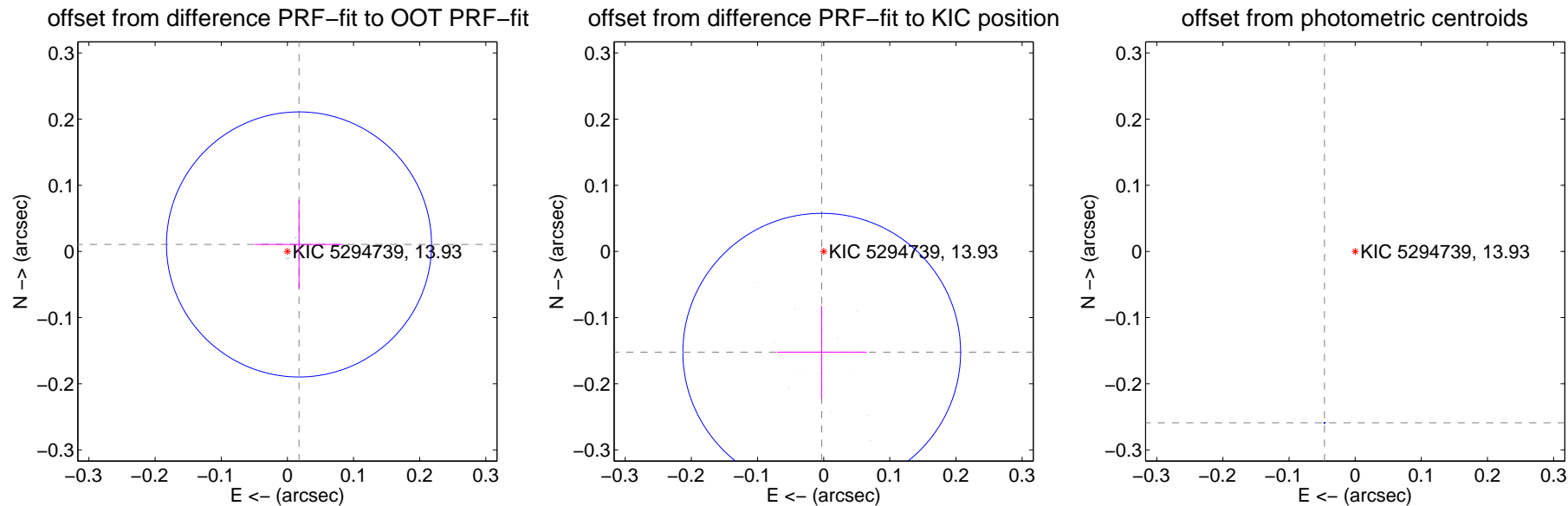
DV Centroid Data

Supplemental centroid analysis for 005294739-01. Kepler magnitude: 13.93. Transit SNR -1.00

There are 17 quarters with good PRF difference image offsets

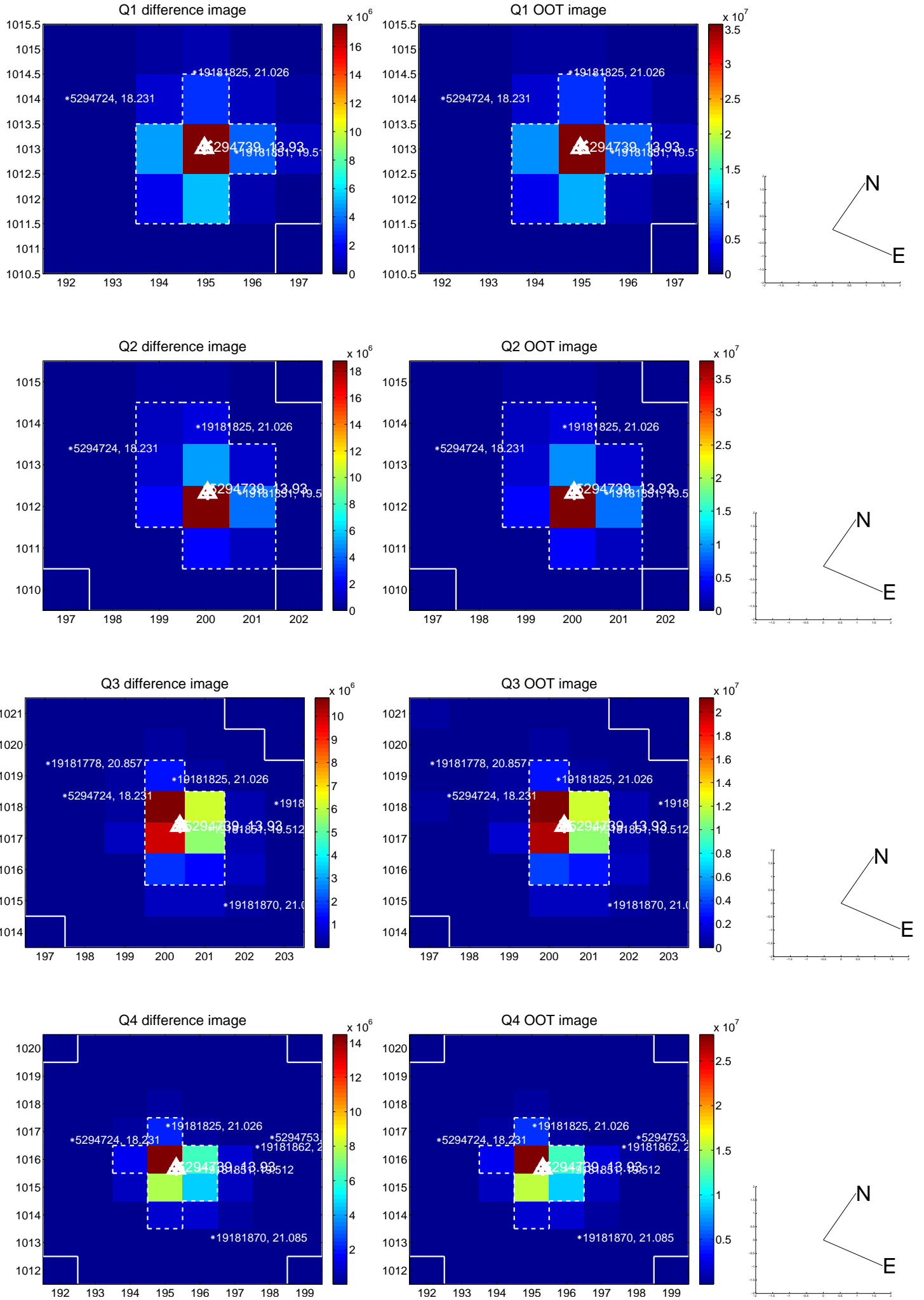
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.021 ± 0.067	0.31	-0.018 ± 0.067	0.011 ± 0.067
PRF-fit source offset from KIC position	0.152 ± 0.070	2.18	0.003 ± 0.068	-0.152 ± 0.070
photometric centroid source offset	0.26 ± 0.00	948.96	0.05 ± 0.00	-0.26 ± 0.00

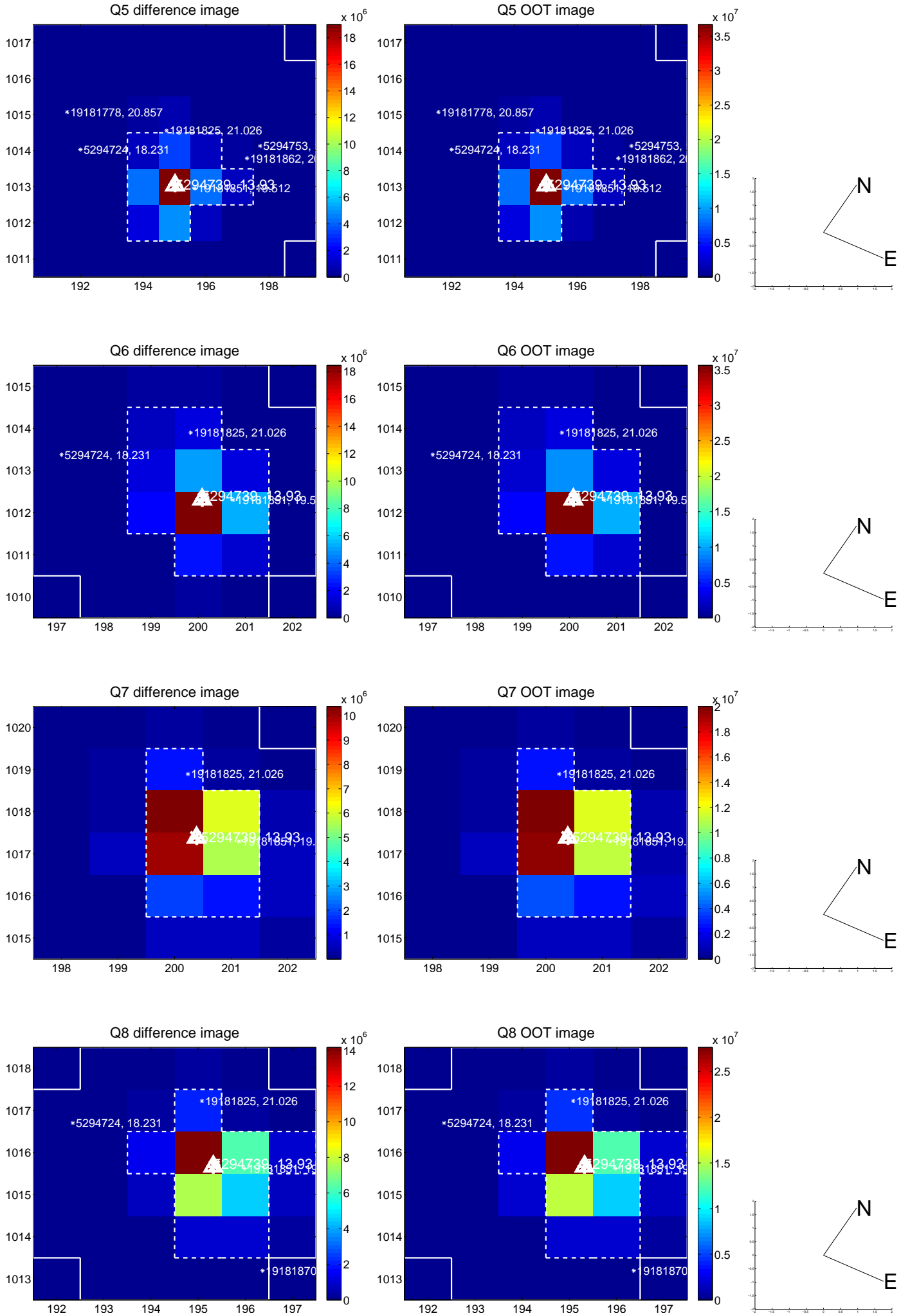


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

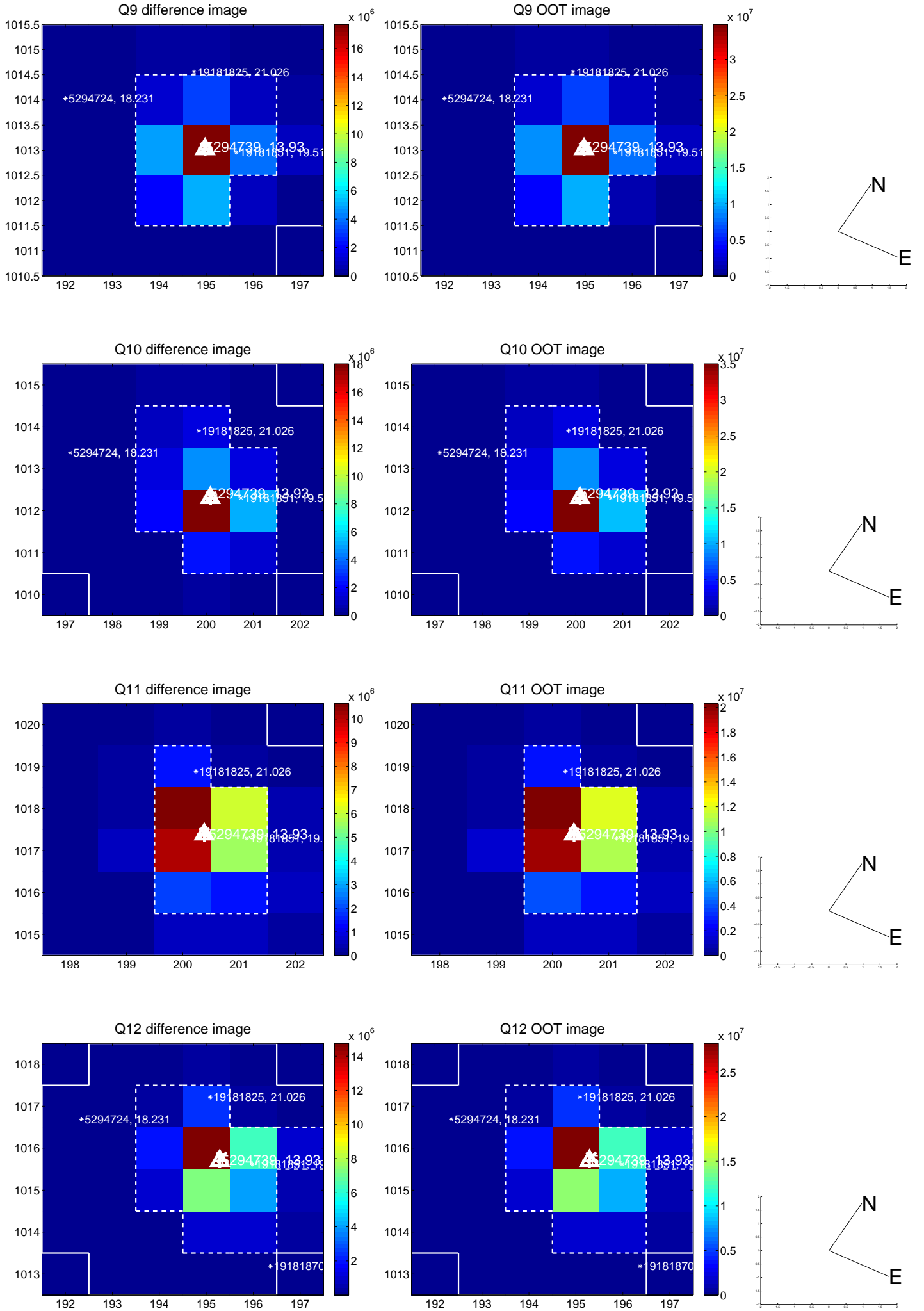
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



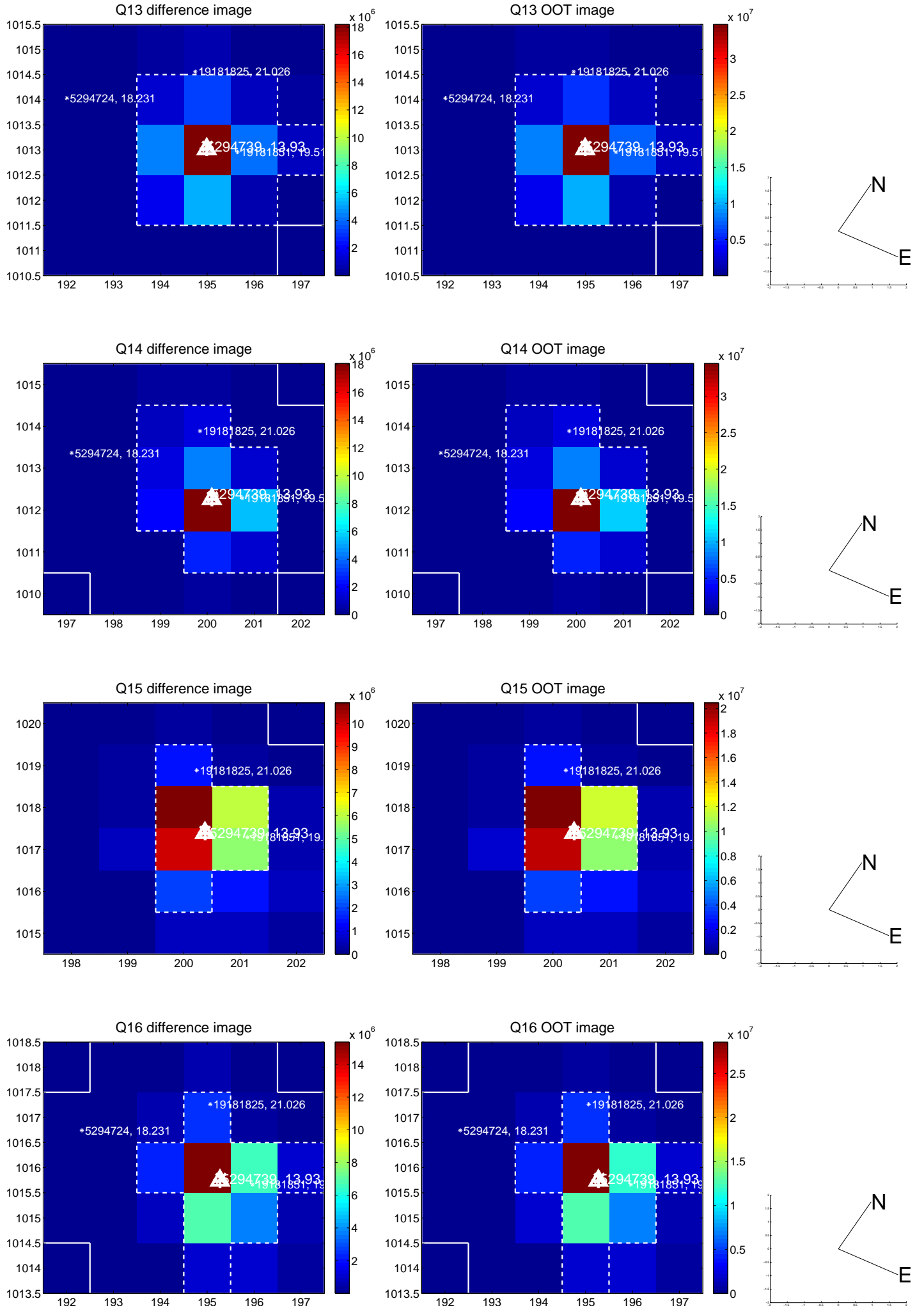
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



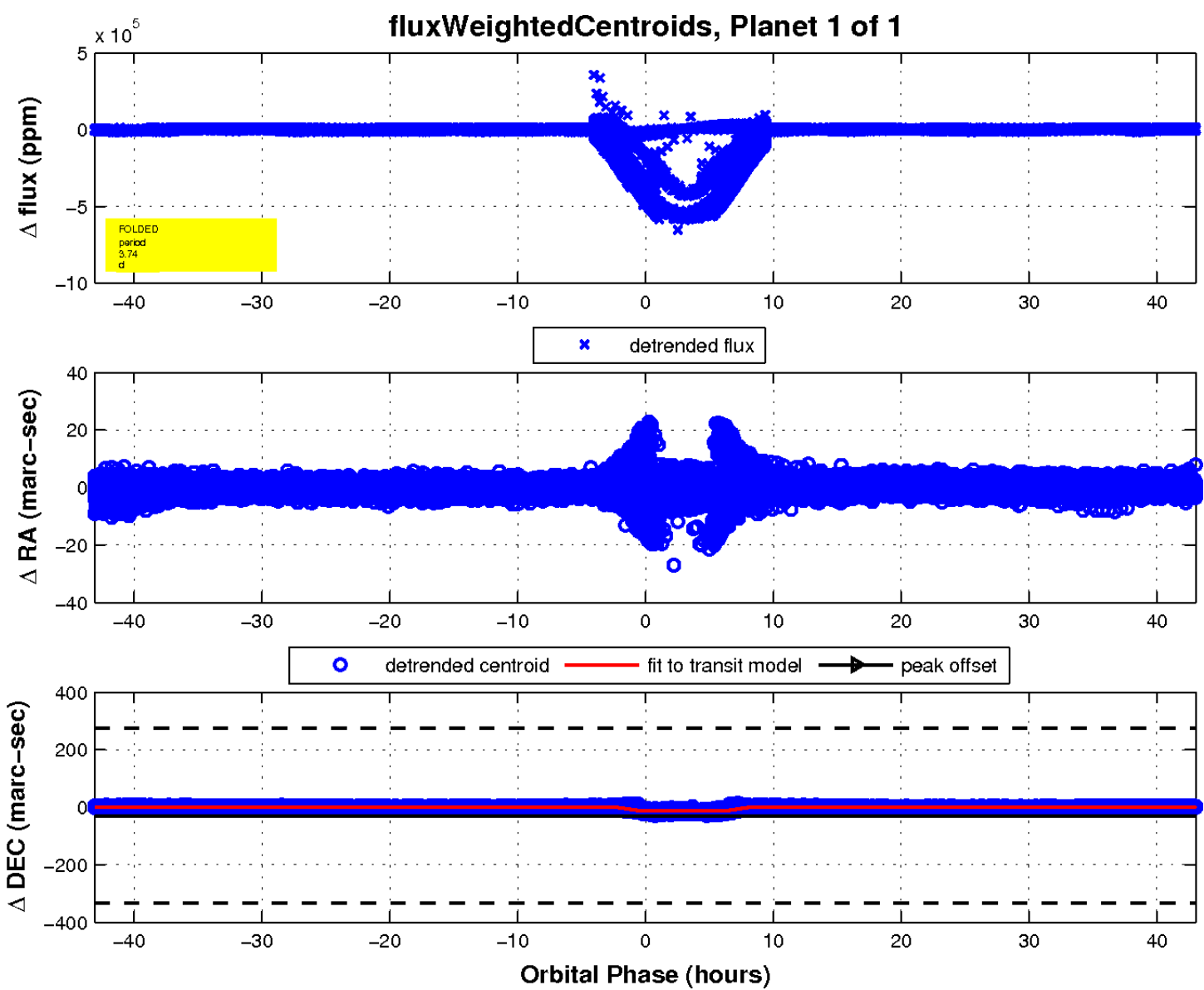
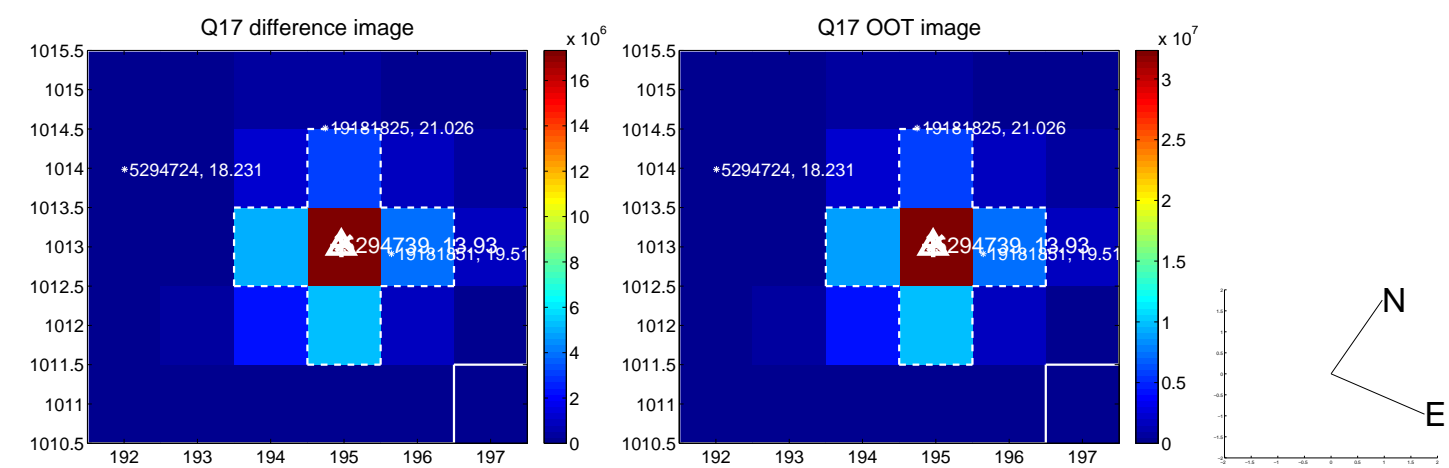
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

