

KIC 002708156

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})
002708156-01	OBS	6286.01	1.891283	132.675707	32117.9	4.500	23752.7	-1.0	4.66	11287	86.27	153667.21

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002708156-01	OBS	FP	0.00	0	1	0	0	SWEET_EB—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.

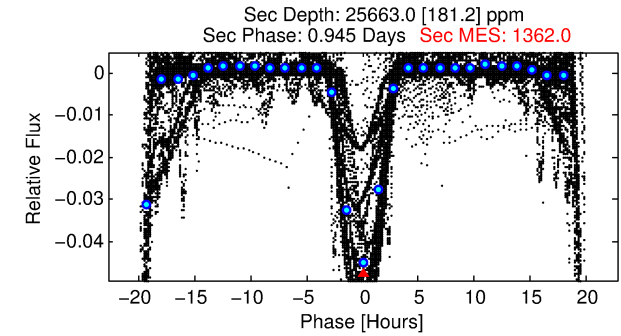
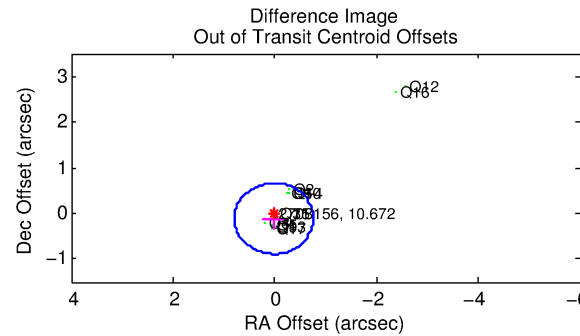
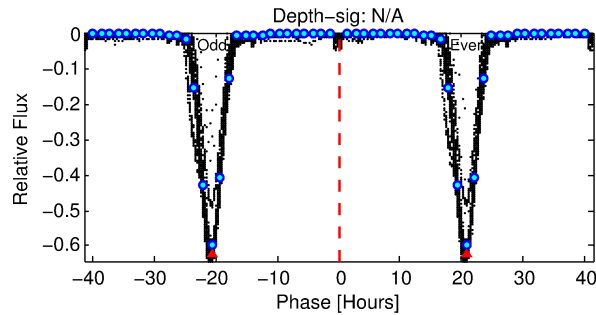
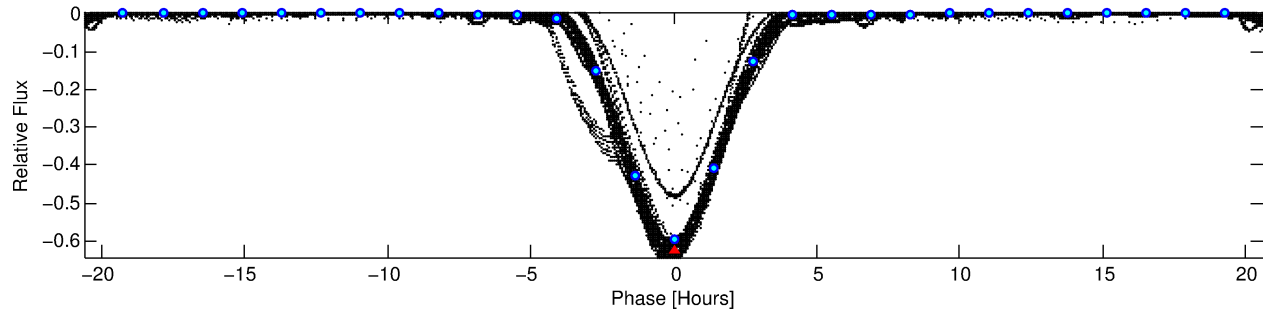
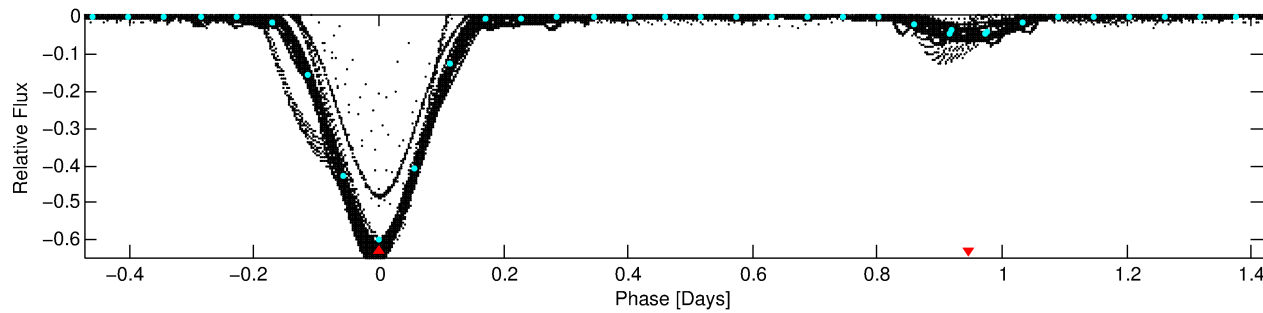
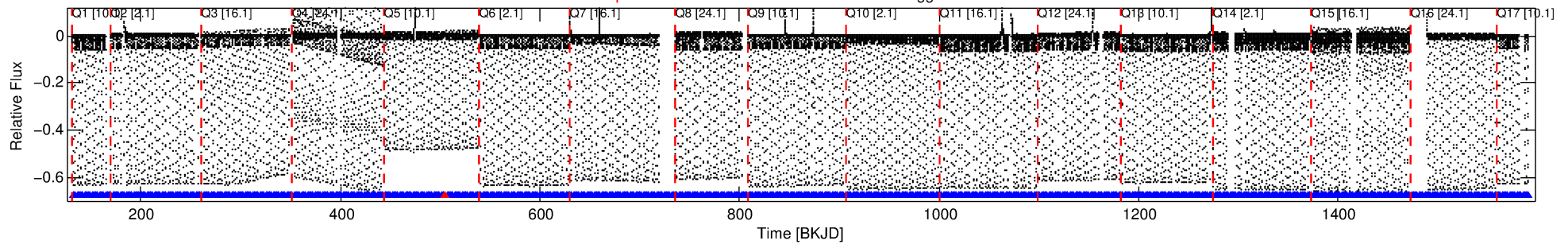
Ephemeris Match Information For 002708156-01

No Significant Match Found

DV One-Page Summary

KIC: 2708156 Candidate: 1 of 1 Period: 1.891 d
KOI: K06286 Corr: No Ephemeris Match

Kp: 10.67 R*: 4.66 Rs Teff: 11287.0 K Logg: 3.64 Fe/H: 0.070



TPS TCE Results:

Period = 1.89128 d
Epoch = 132.6757 BKJD

DV fit results are unavailable

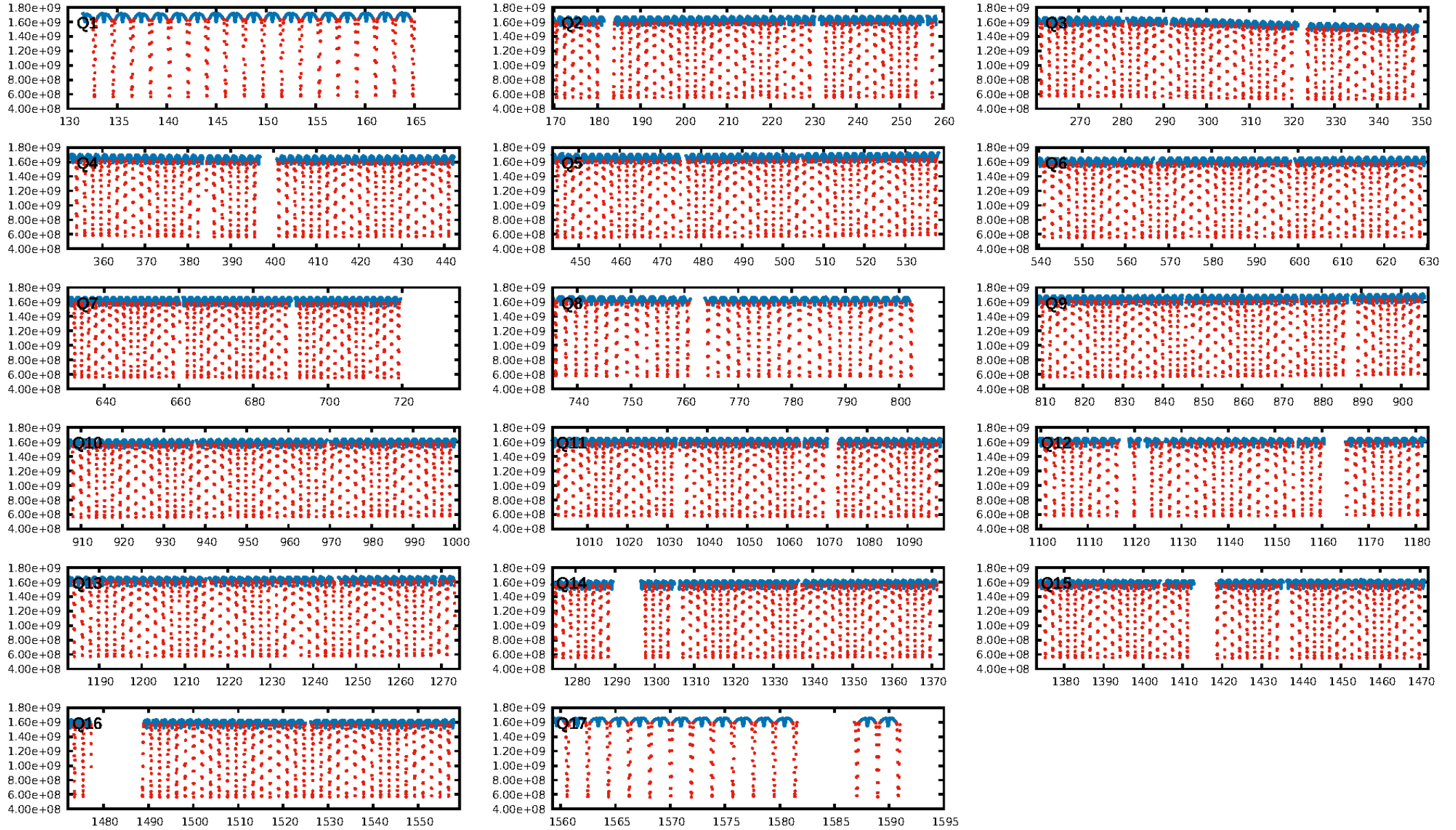
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [680/681]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: 0.446 arcsec [1938.58σ]
OotOffset-rm: 0.115 arcsec [0.44σ]
KicOffset-rm: 0.150 arcsec [0.62σ]
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]

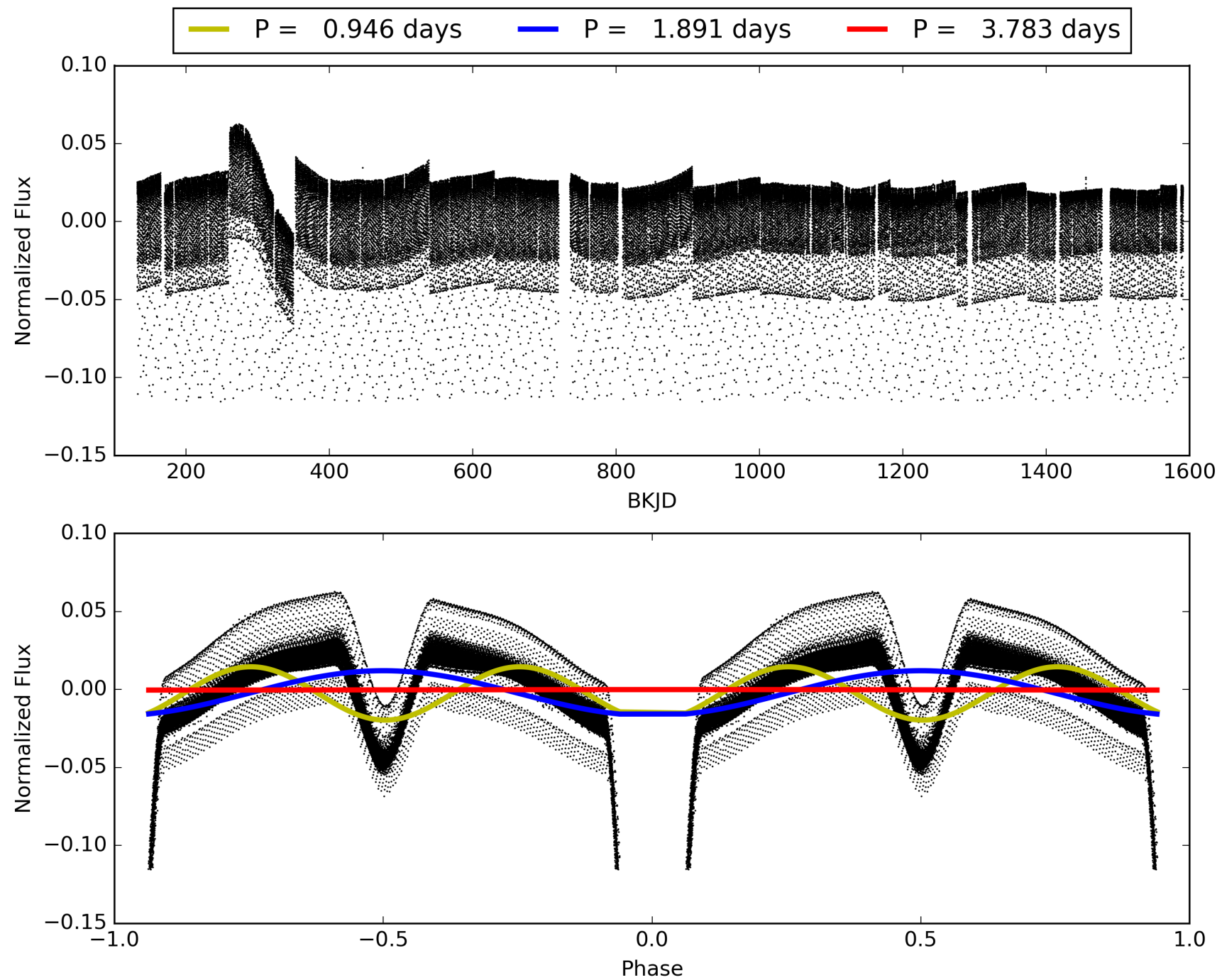
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 08:31:48 Z

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

TCE 002708156-01, PDC Light Curves

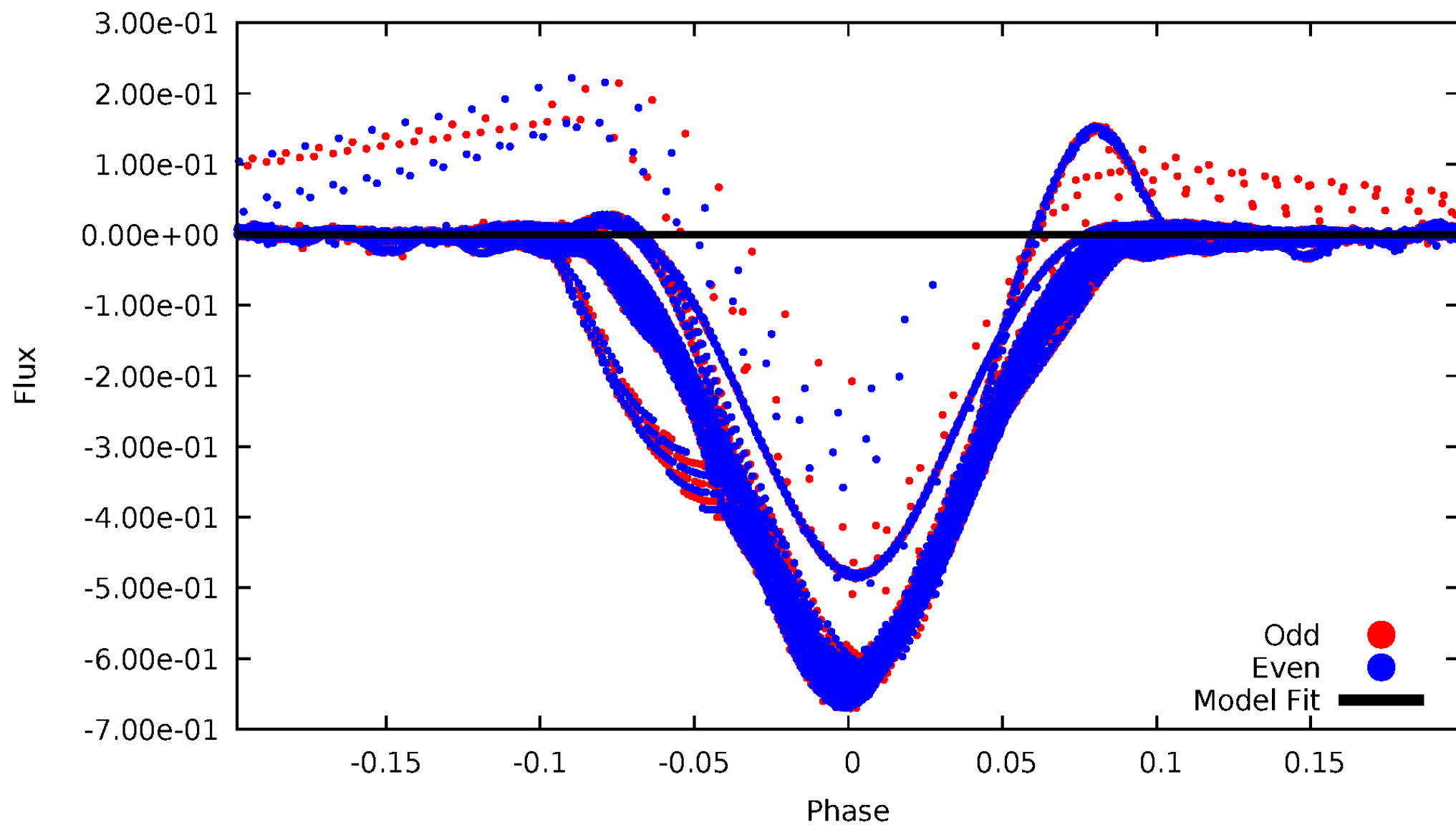


TCE 002708156-01



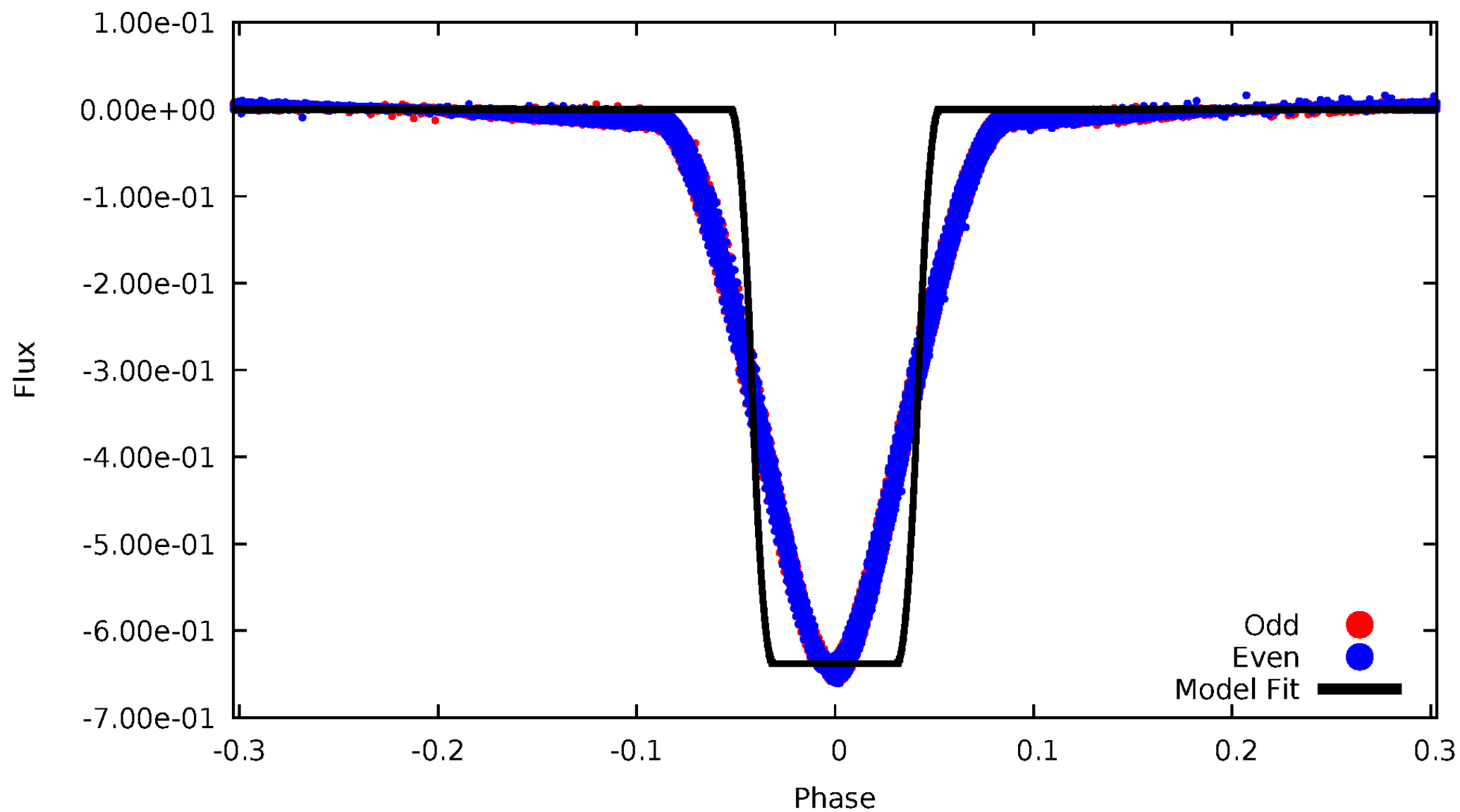
DV Odd/Even

TCE 002708156-01



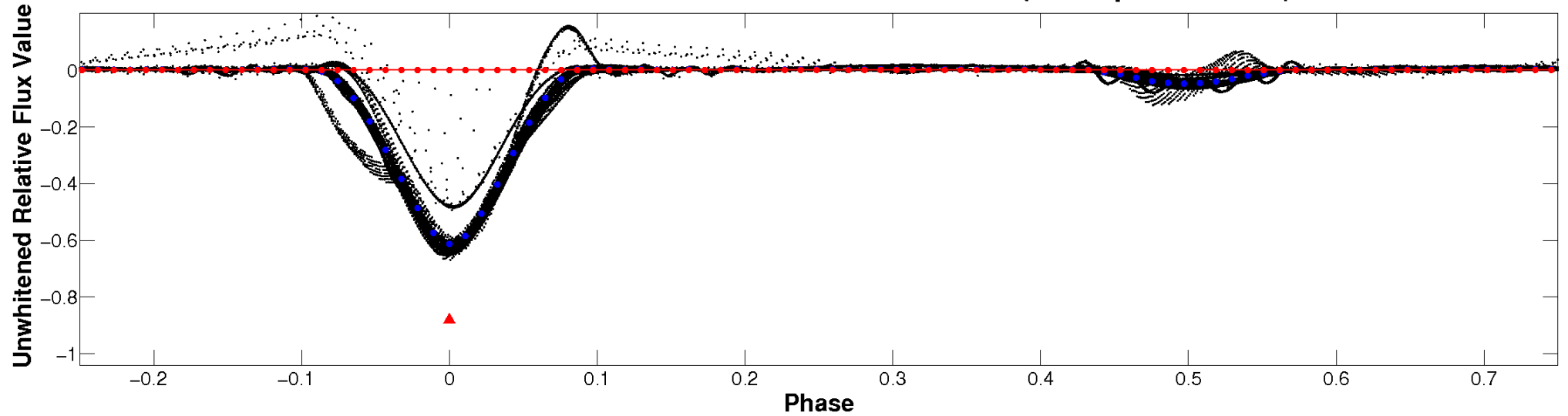
ALT Odd/Even

TCE 002708156-01



Non-Whitened Vs. Whitened Light Curve

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

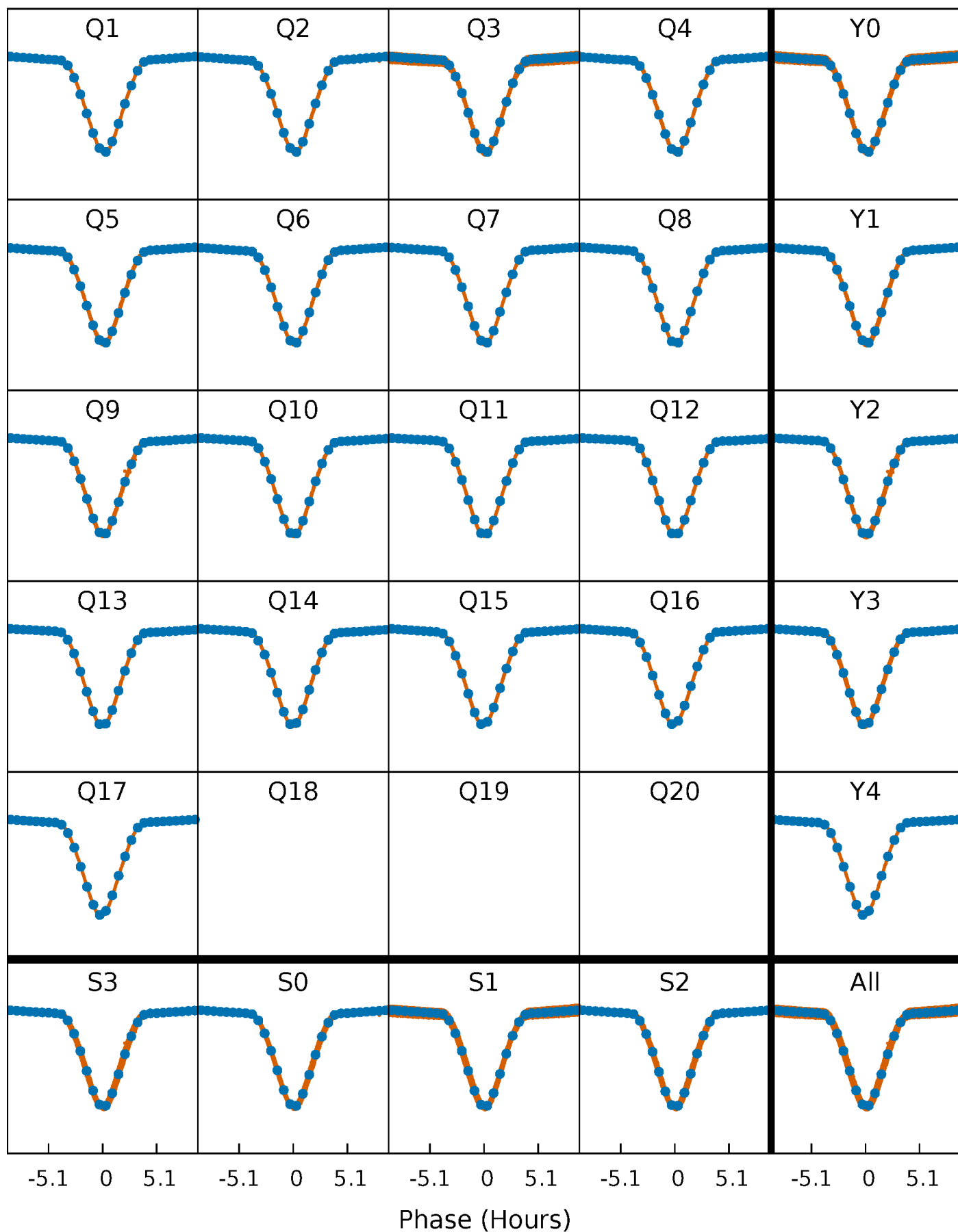


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



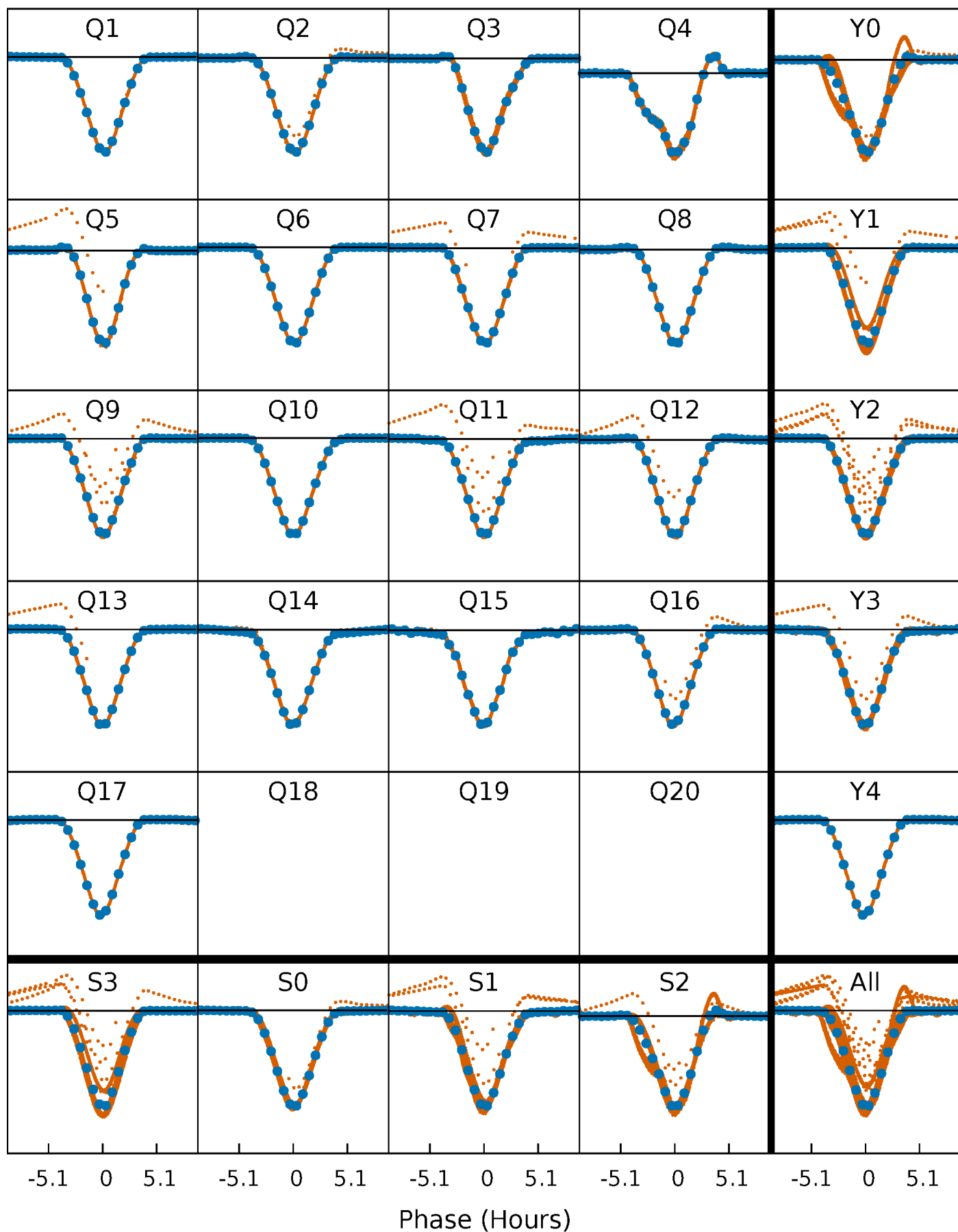
PDC Quarter-Phased Transit Curves

TCE 002708156-01 P= 1.891283 Days $T_0=132.675707$ (BKJD)



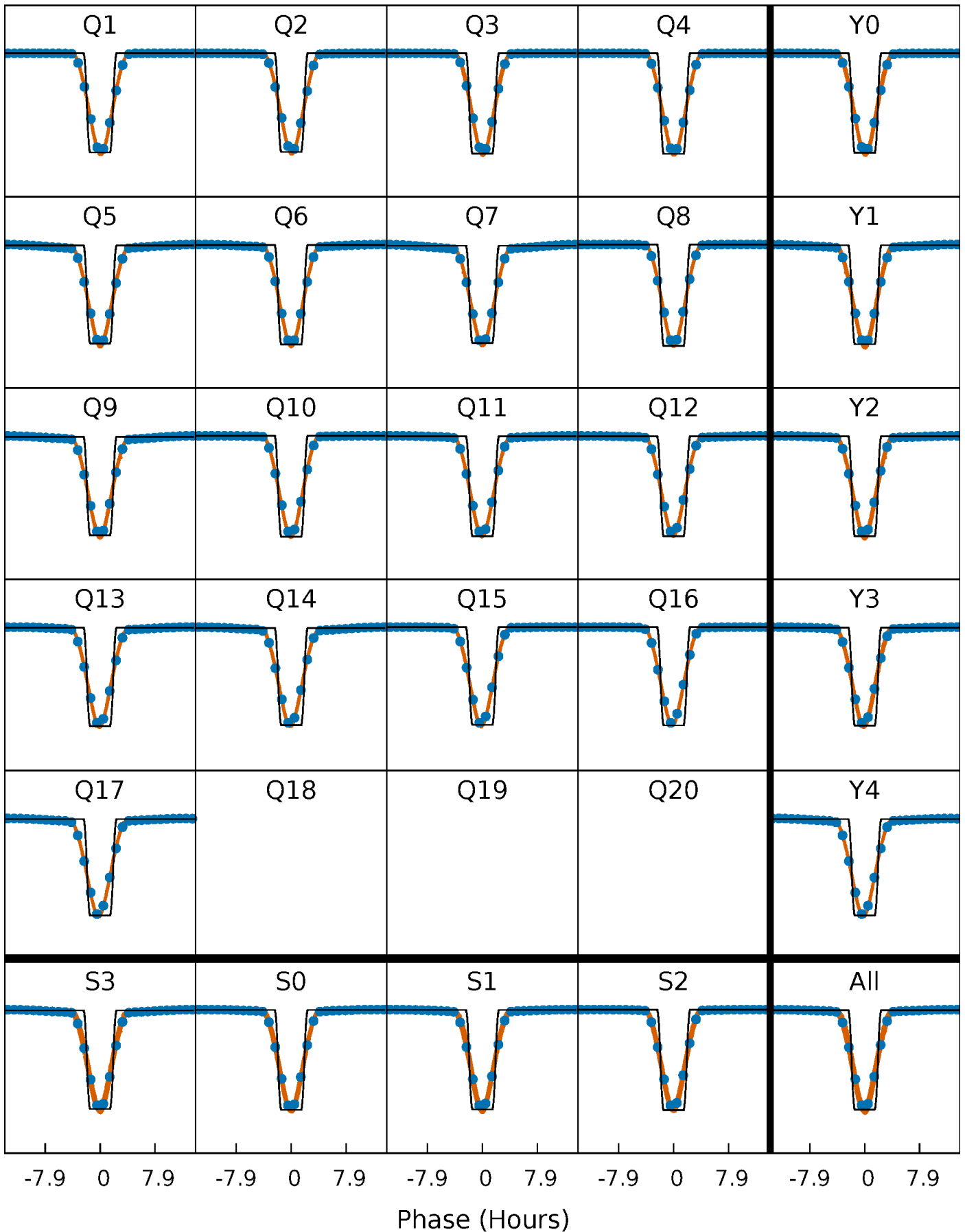
DV Quarter-Phased Transit Curves

TCE 002708156-01 P= 1.891283 Days $T_0=132.675707$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

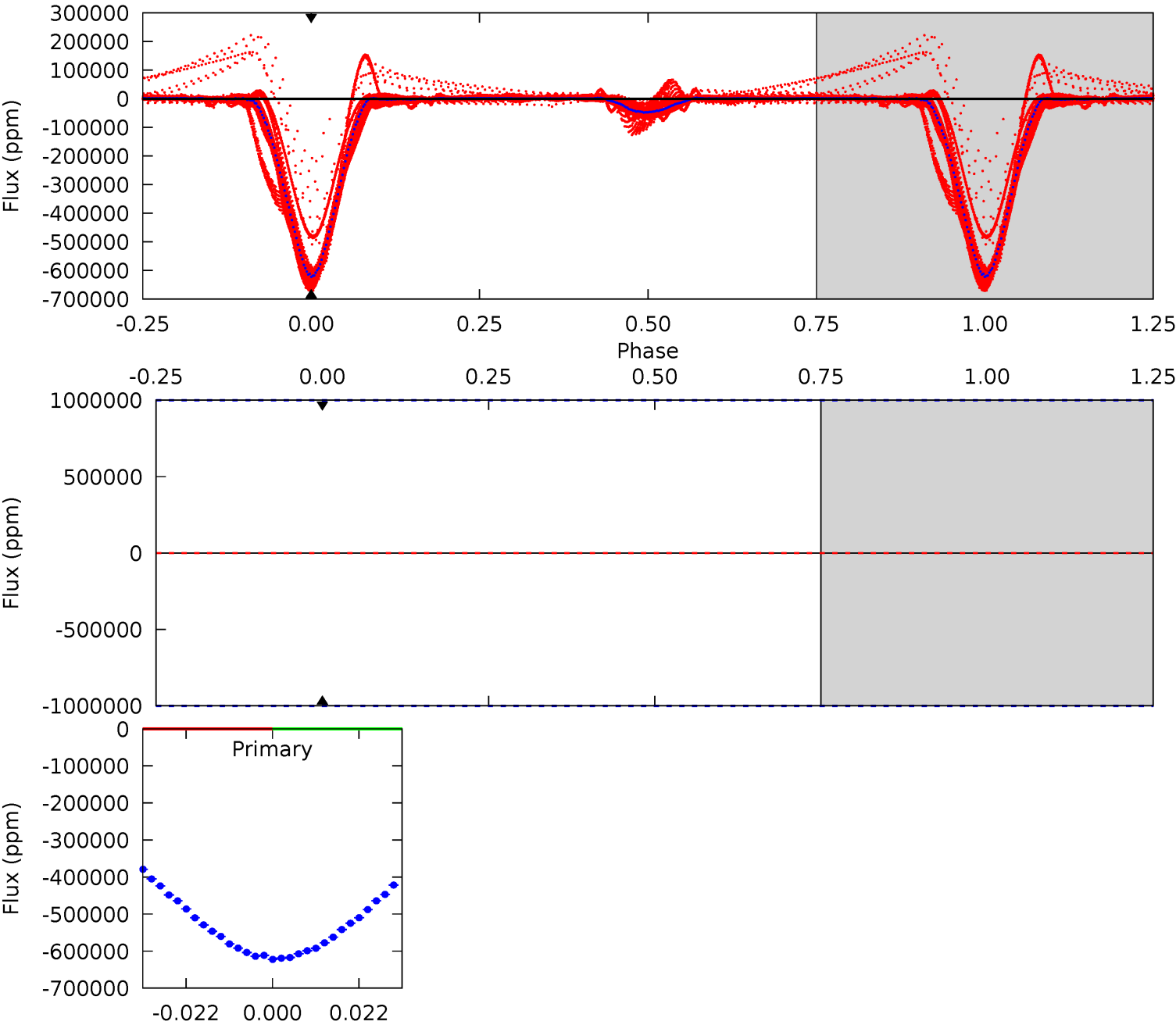
TCE 002708156-01 P= 1.891283 Days $T_0=132.679277$ (BKJD)



DV Model-Shift Uniqueness Test

002708156-01, P = 1.891283 Days, E = 130.784424 Days

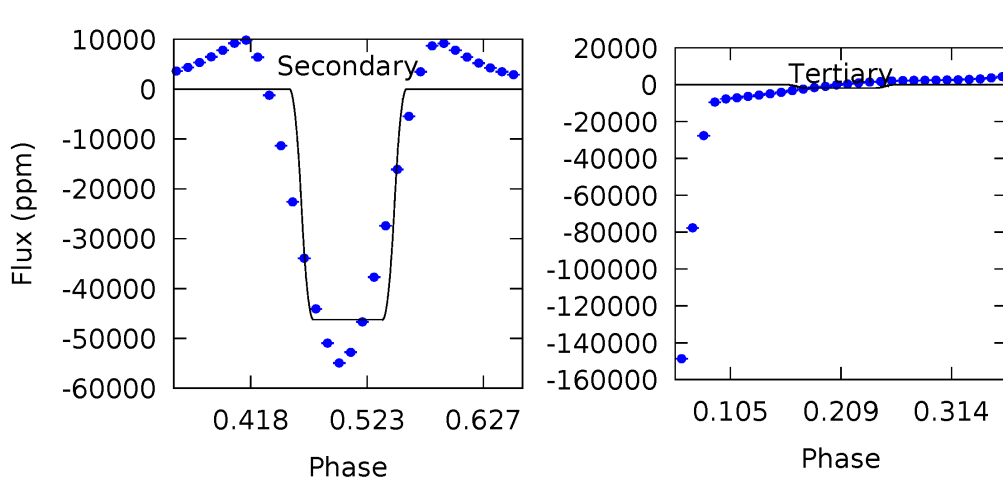
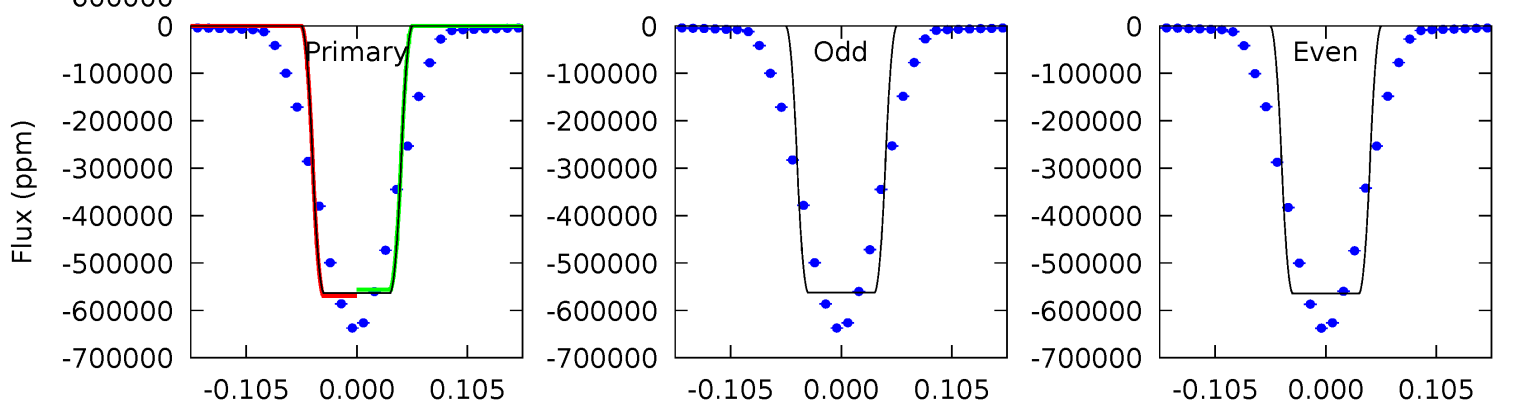
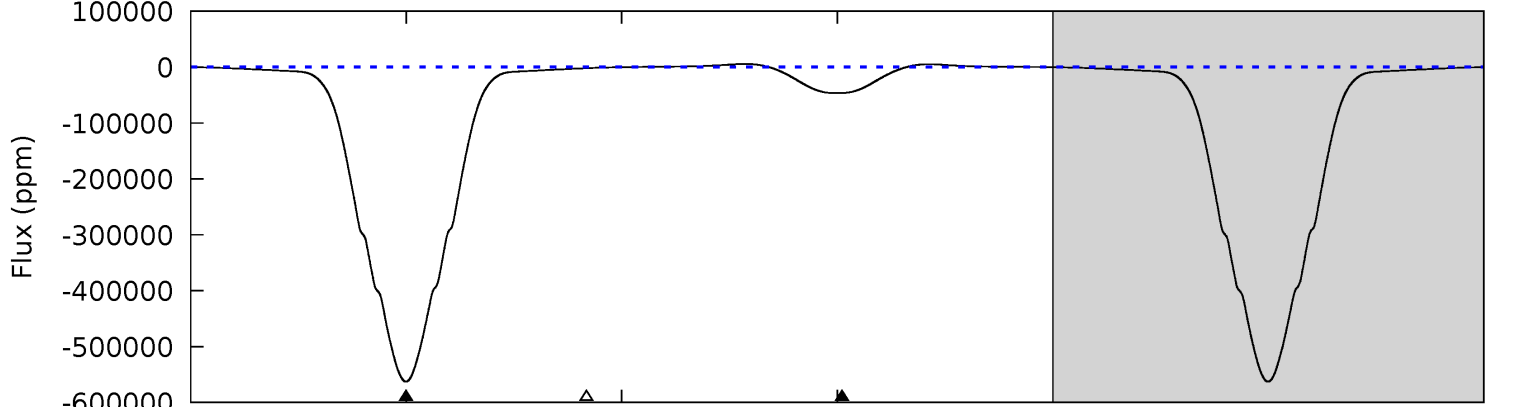
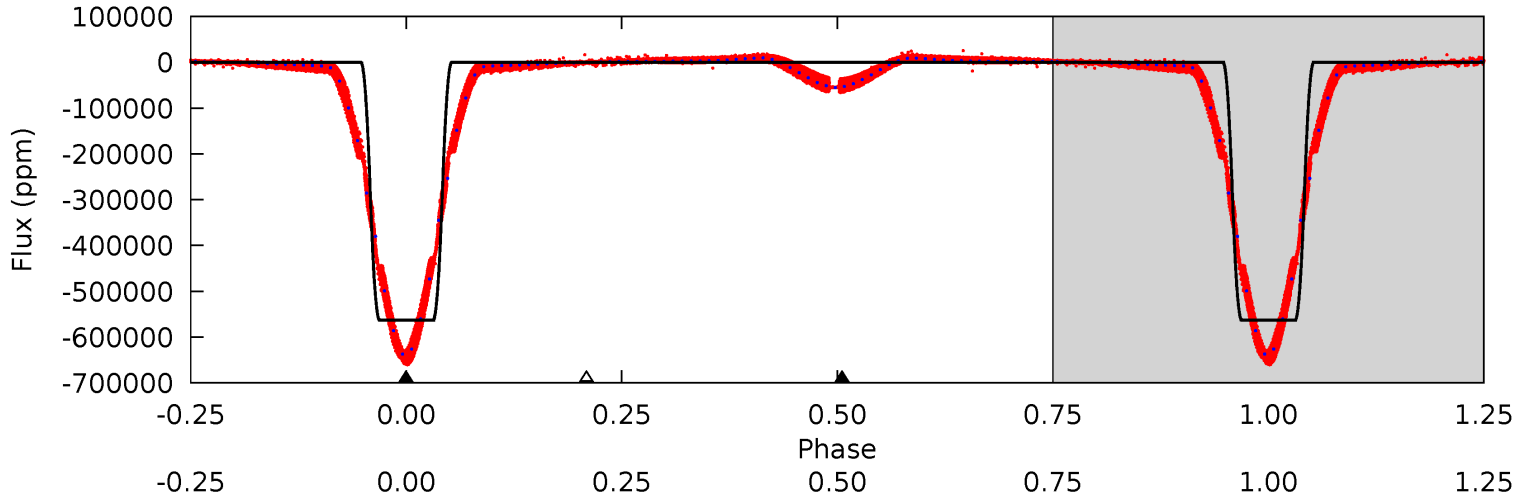
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

002708156-01, P = 1.891283 Days, E = 130.787994 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8780	721.0	29.2	0	4.56	1.62	66.6	8751	8780	691.8	721.0	12.0	1.00	0.01	105.2



Stellar Parameters For KIC 002708156

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	11287^{+313}_{-469}	$3.642^{+0.522}_{-0.058}$	$0.070^{+0.150}_{-0.700}$	$4.662^{+0.290}_{-2.606}$	$3.471^{+0.069}_{-1.142}$	$0.048^{+0.294}_{-0.009}$
	+3%/-4%	+14%/-2%	+214%/-1000%	+6%/-56%	+2%/-33%	+608%/-19%
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 002708156-01 / KOI 6286.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$80.76^{+49.86}_{-43.65}$	6825^{+444}_{-905}	4475^{+19096}_{-25810}	$0.457^{+25.408}_{-20.931}$
Alt.	-46234 ± 64	$370.84^{+72.62}_{-106.11}$	6799^{+439}_{-930}	3966^{+890}_{-7219}	$0.389^{+0.333}_{-0.112}$

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 $A_{obs} \gg 1.0$

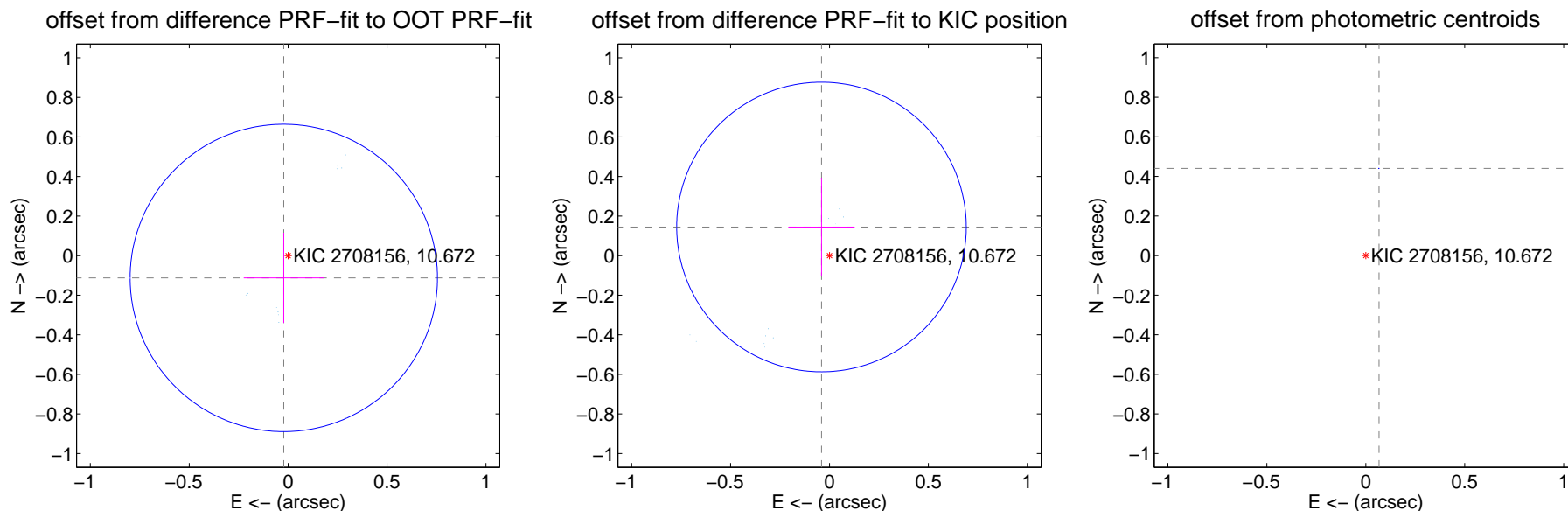
DV Centroid Data

Supplemental centroid analysis for 002708156-01. **Kepler magnitude: 10.67.** Transit SNR -1.00

There are 17 quarters with good PRF difference image offsets

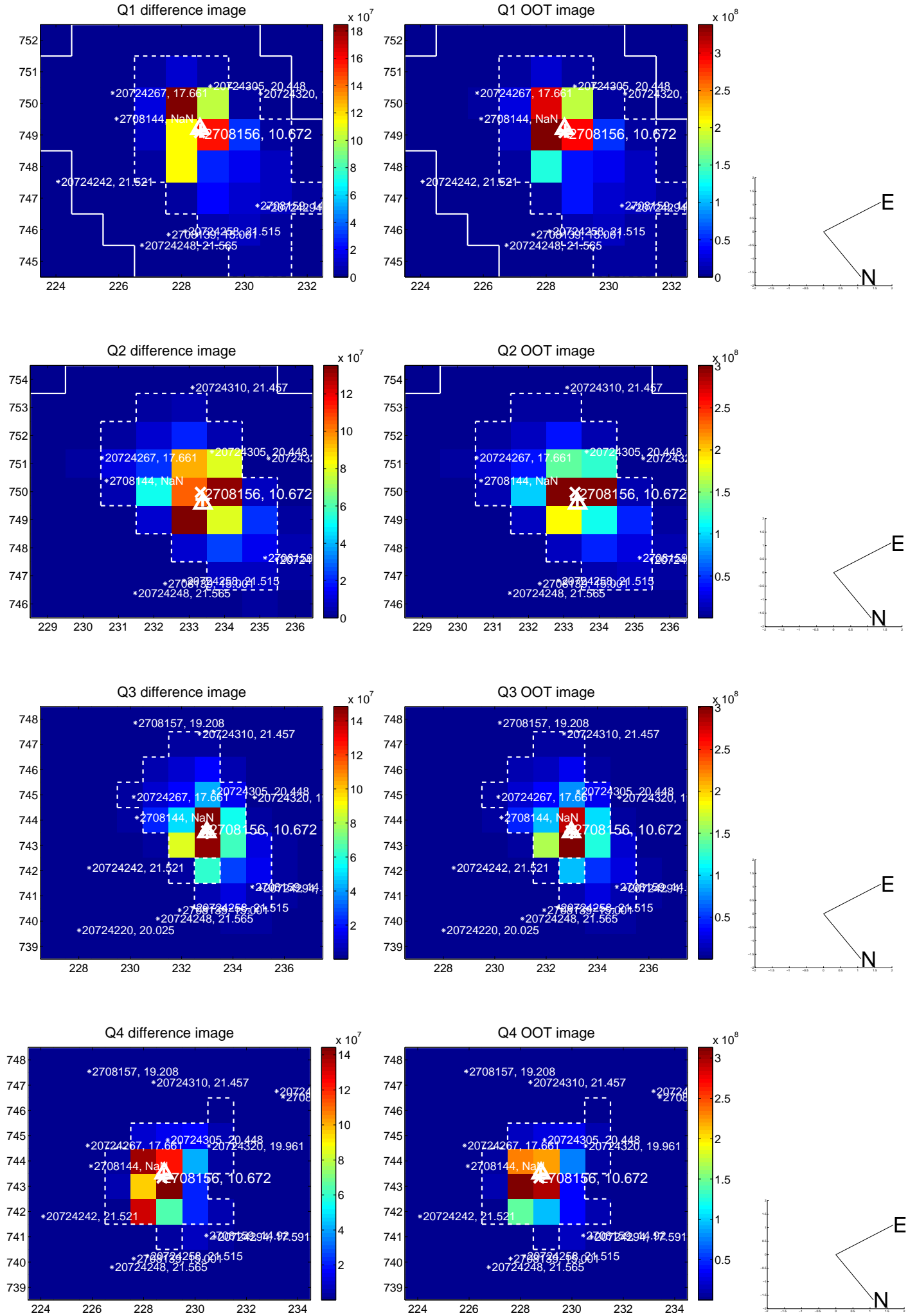
The direct PRF centroid is offset from the target star catalog position by about 0.31 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.115 ± 0.259	0.44	0.022 ± 0.202	-0.113 ± 0.228
PRF-fit source offset from KIC position	0.150 ± 0.244	0.62	0.040 ± 0.168	0.145 ± 0.249
photometric centroid source offset	0.45 ± 0.00	1938.58	-0.07 ± 0.00	0.44 ± 0.00

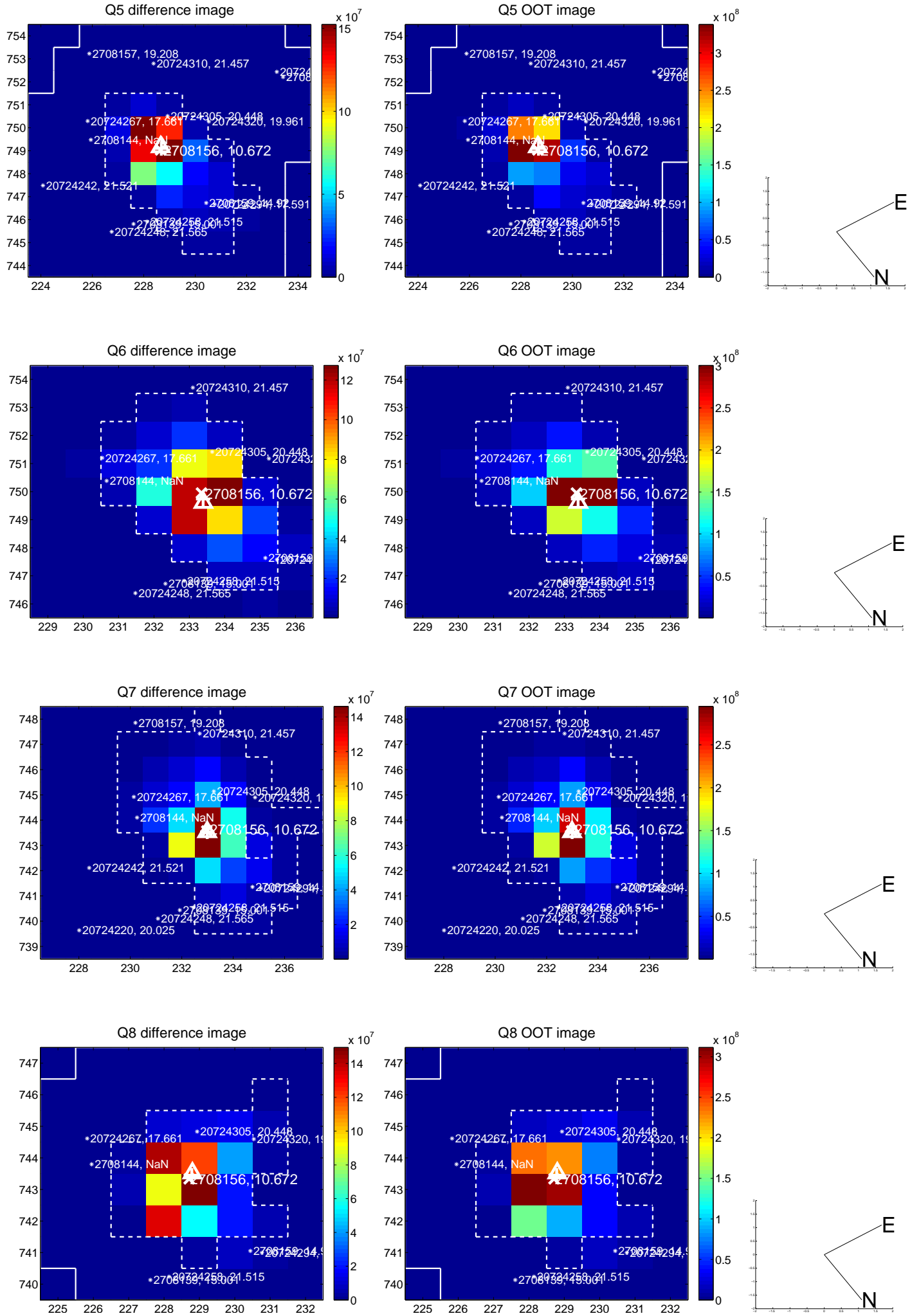


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

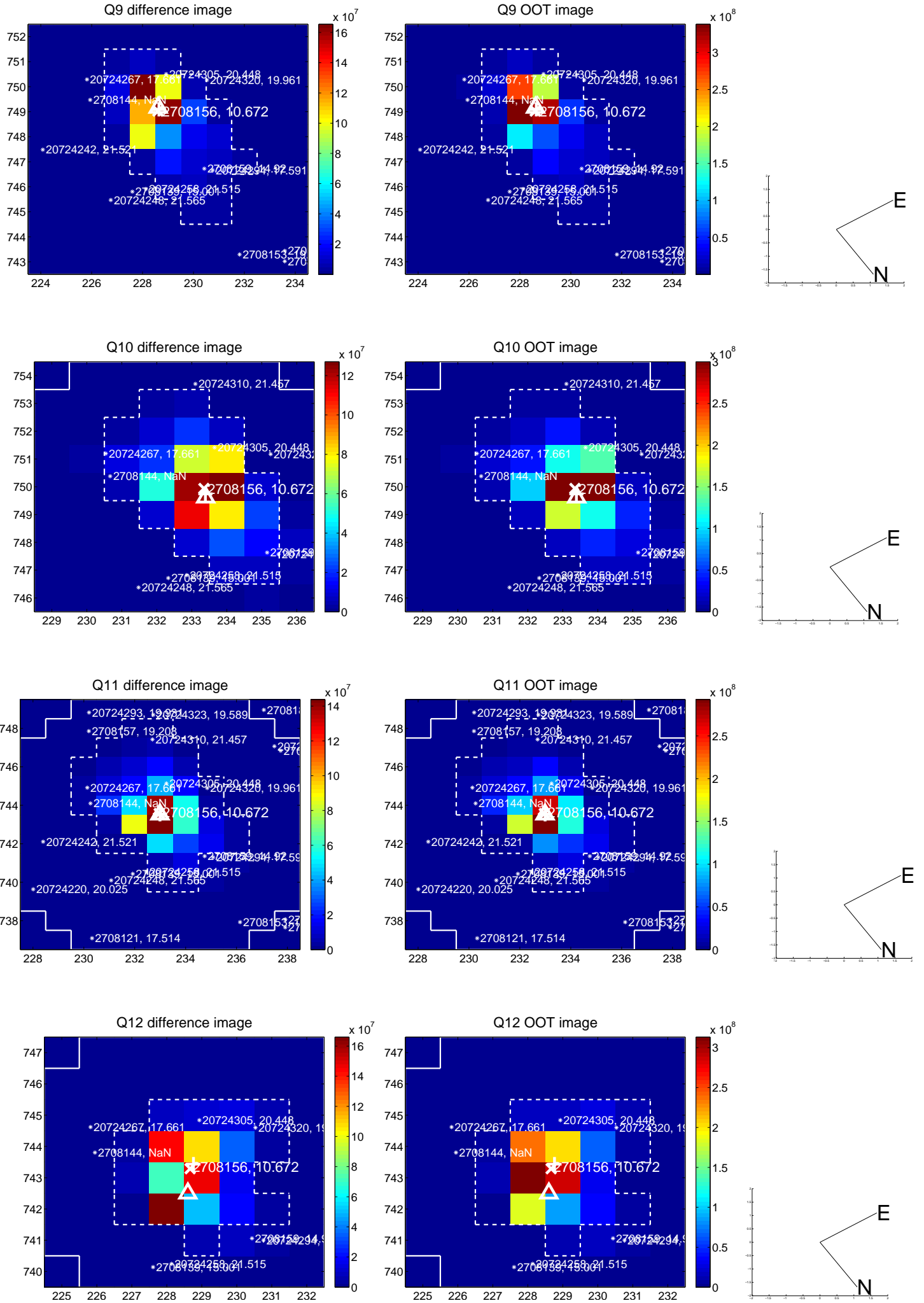
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



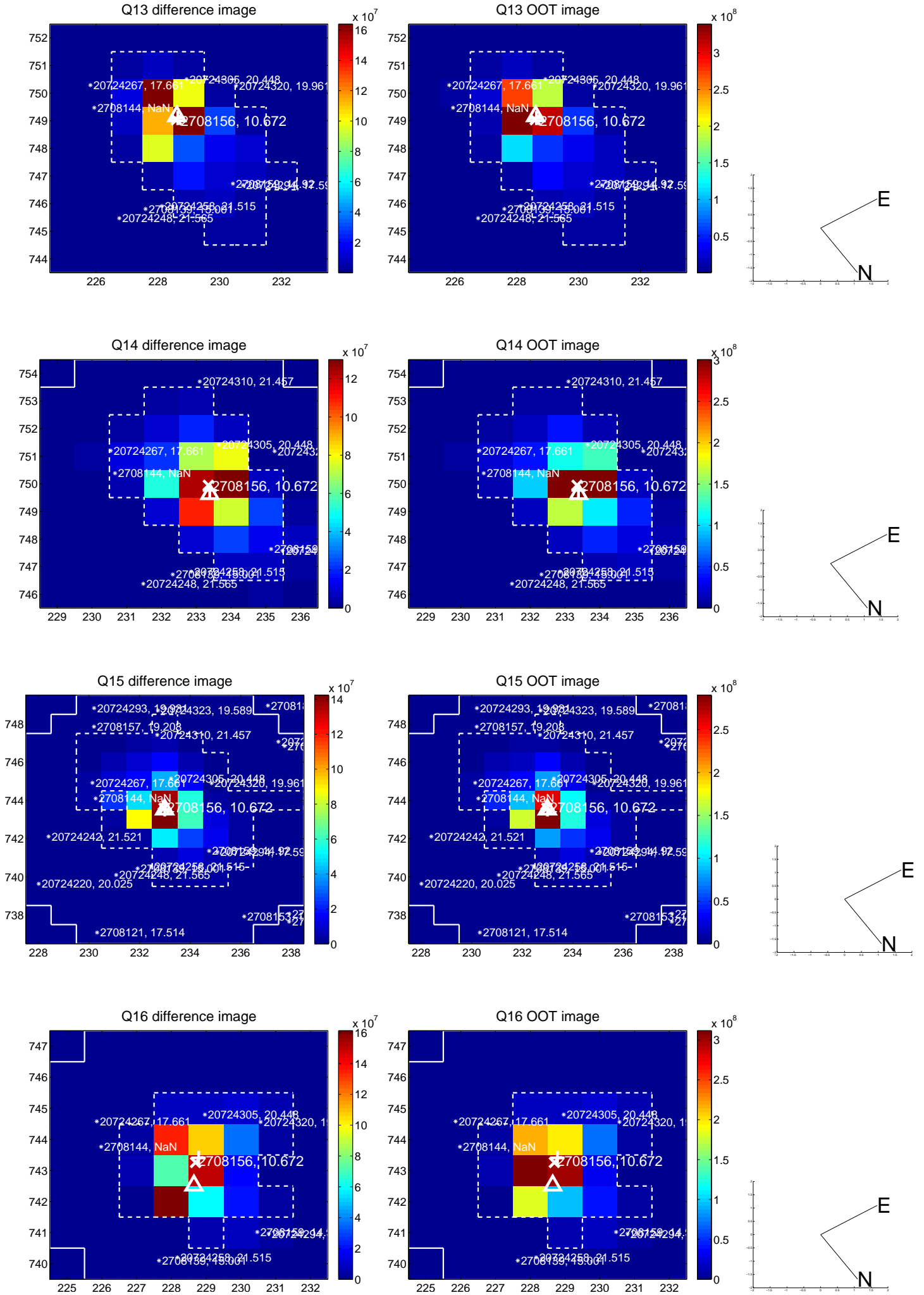
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



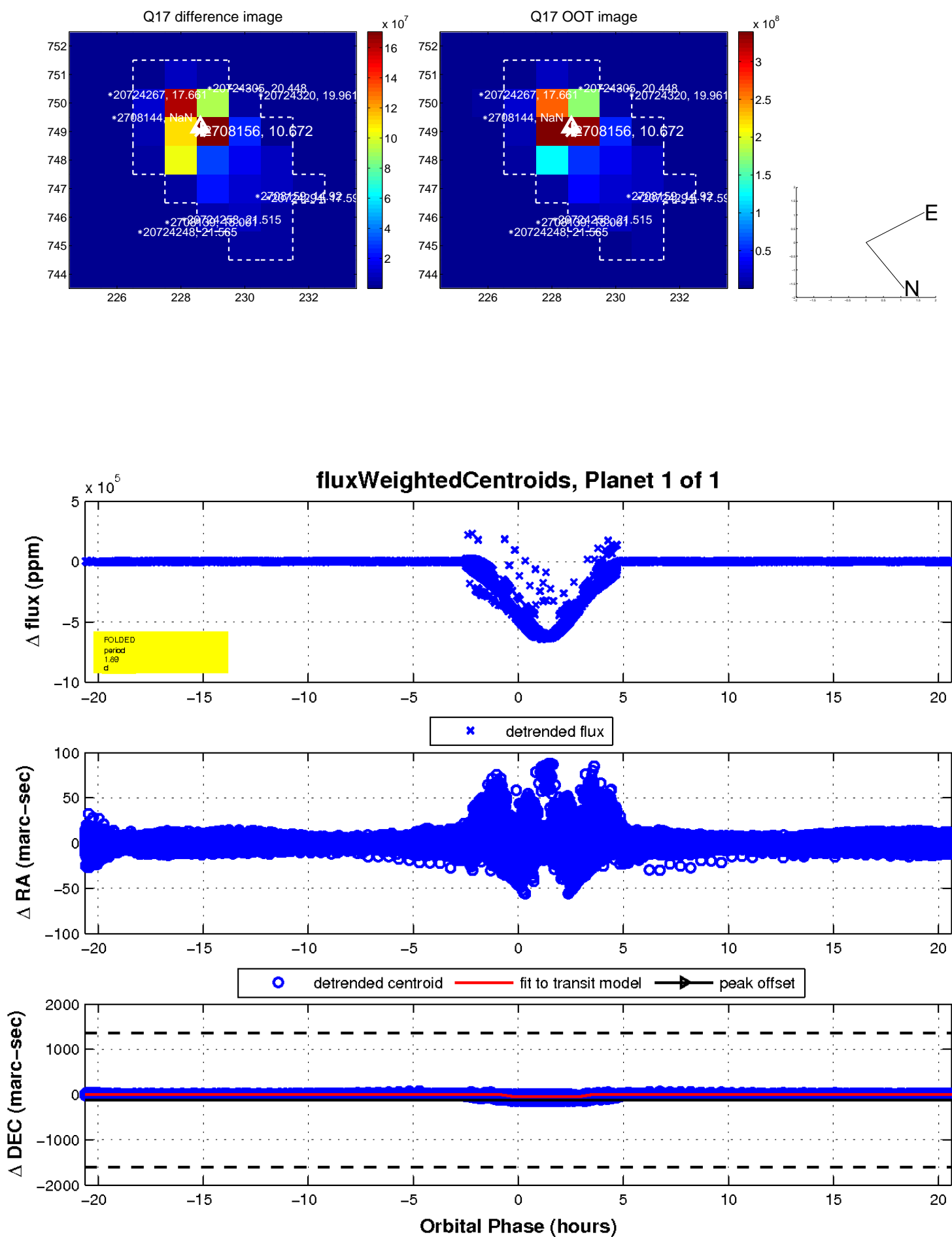
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

