

KIC 004155328

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})
004155328-01	OBS	1335.01	127.833701	165.584316	1902.1	10.918	52.6	49.5	2.17	6505	9.66	22.25

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004155328-01	OBS	PC	1.00	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.

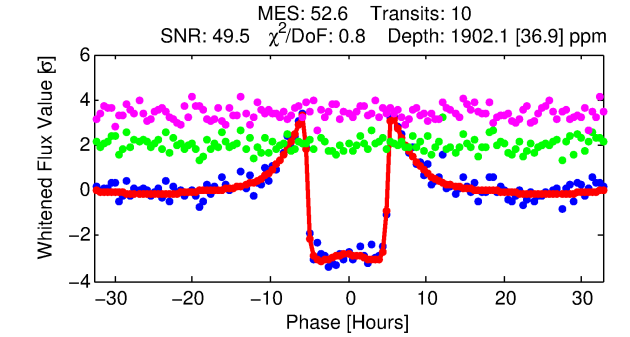
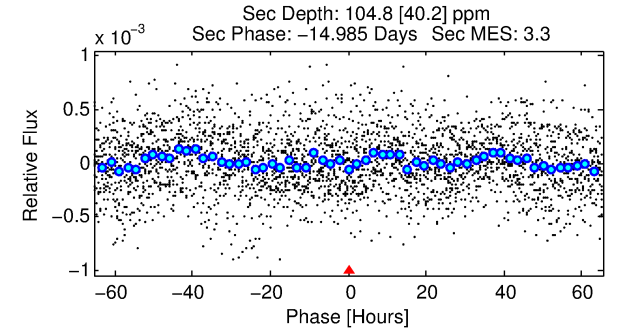
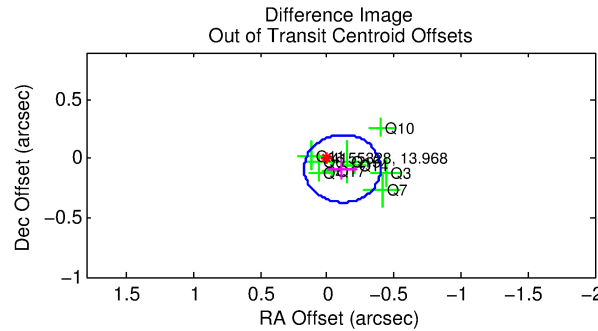
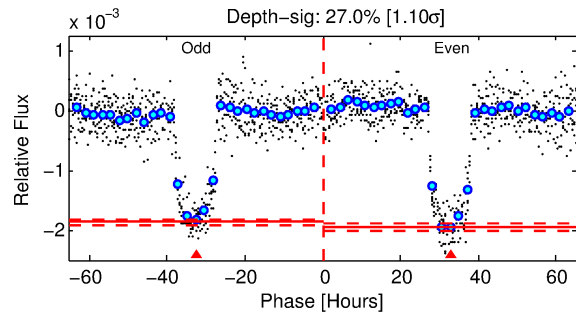
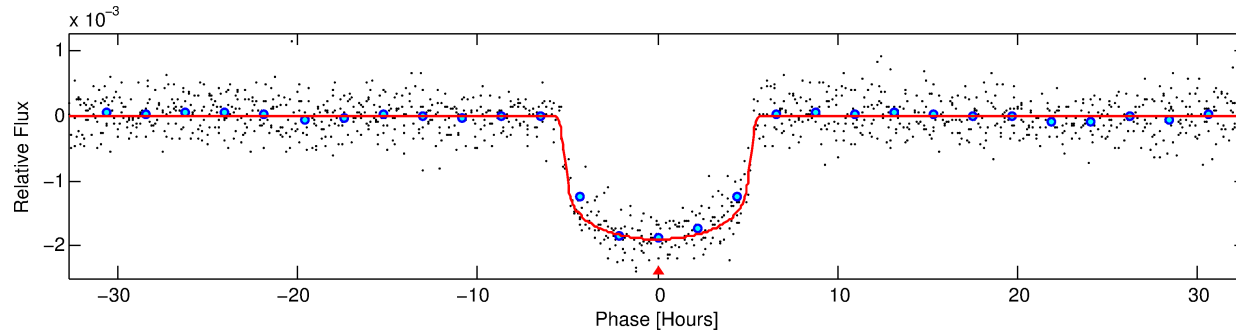
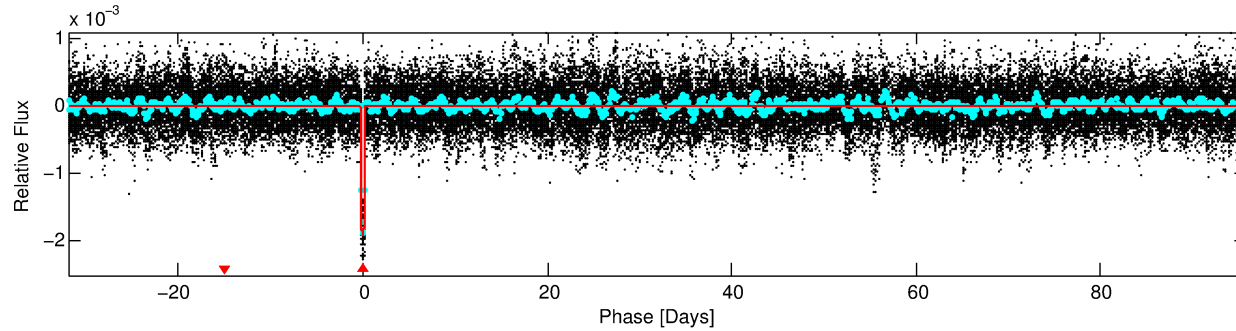
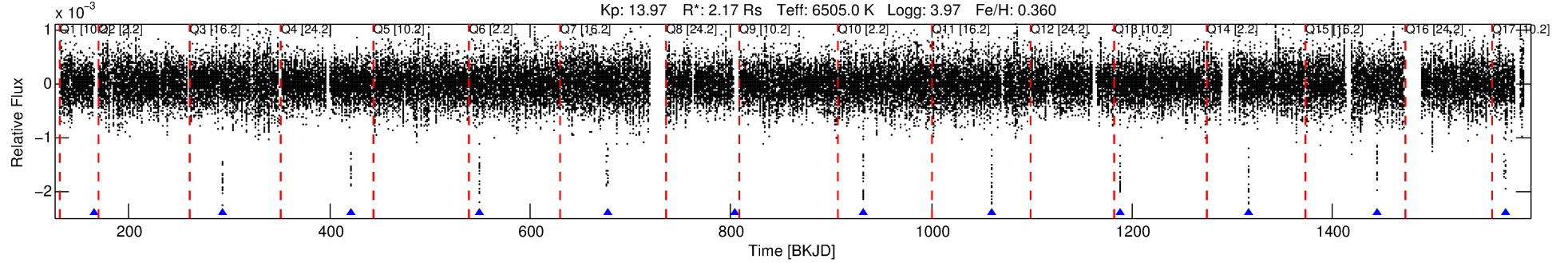
Ephemeris Match Information For 004155328-01

No Significant Match Found

DV One-Page Summary

KIC: 4155328 Candidate: 1 of 1 Period: 127.834 d

KOI: K01335.01 Corr: 0.998



DV Fit Results:

Period = 127.83370 [0.00027] d
Epoch = 165.5843 [0.0018] BKJD
Rp/R* = 0.0408 [0.0015]
a/R* = 85.39 [15.16]
b = 0.41 [0.36]
Seff = 22.25 [7.10]
Teq = 554 [44] K
Rp = 9.66 [2.22] Re
a = 0.5827 [0.1193] AU
Ag = 209.77 [105.28] [1.98 σ]
Teffp = 3259 [321] K [8.35 σ]

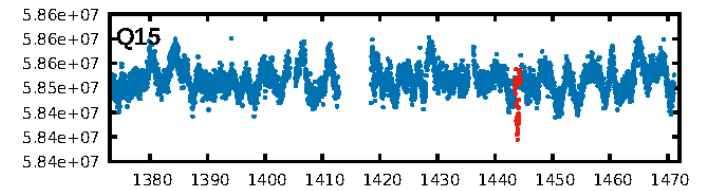
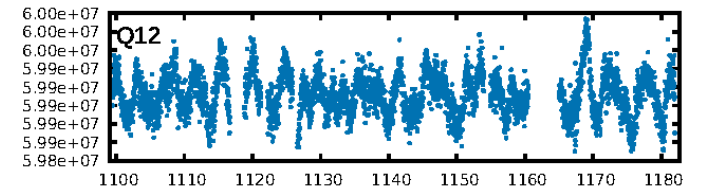
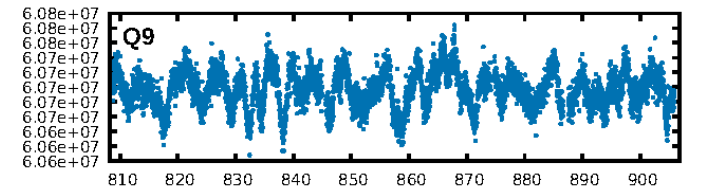
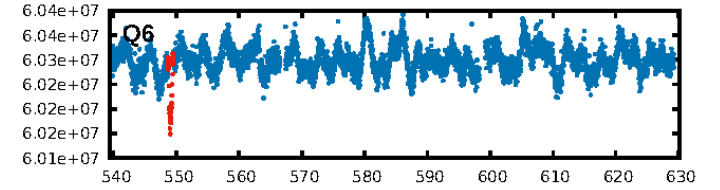
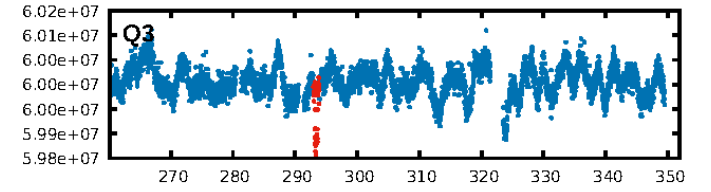
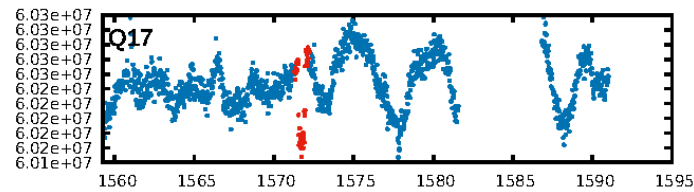
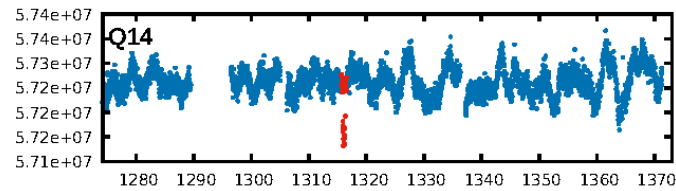
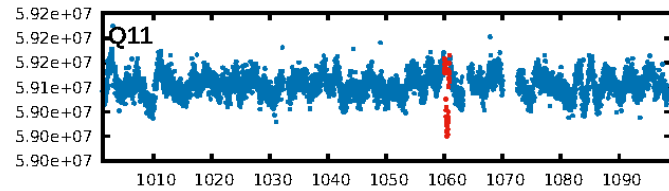
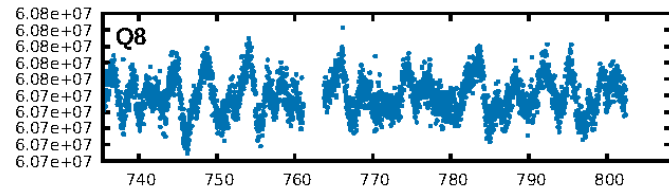
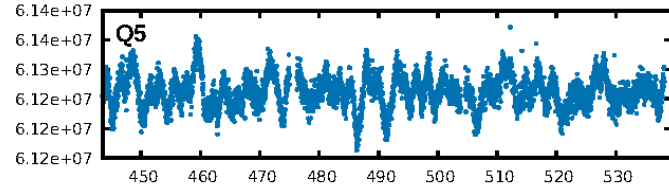
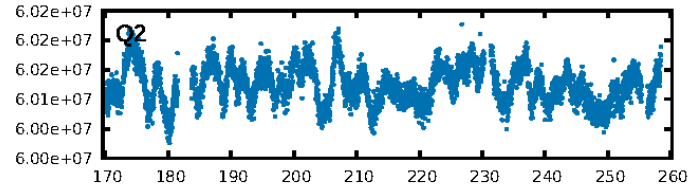
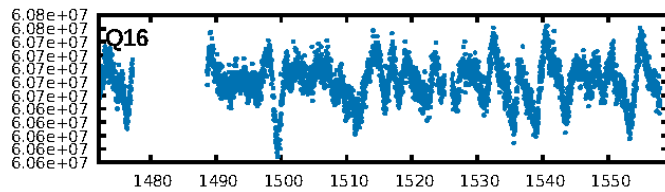
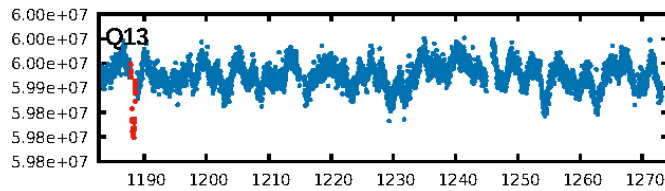
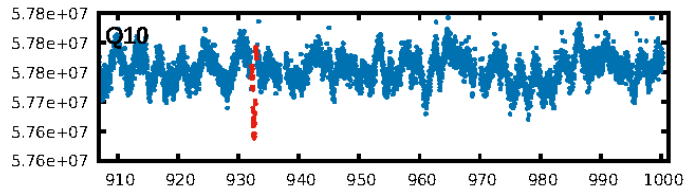
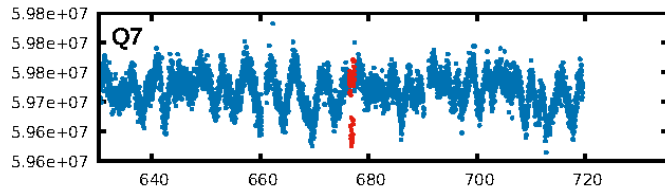
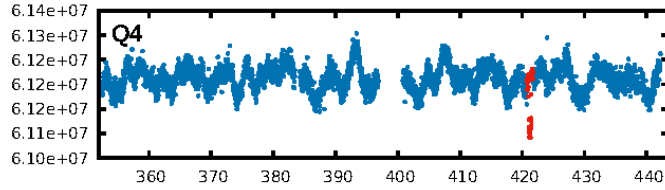
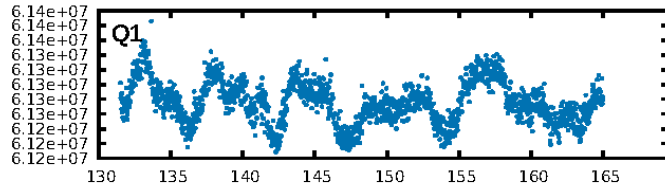
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 92.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [9/9]
GhostDiagnostic-chr: 3.775
Centroid-sig: 24.1%
Centroid-so: 0.261 arcsec [1.78 σ]
OotOffset-rm: 0.141 arcsec [1.48 σ]
KicOffset-rm: 0.267 arcsec [2.70 σ]
OotOffset-st: 3/4/1/1 [9]
KicOffset-st: 3/4/1/1 [9]
DiffImageQuality-fgm: 1.00 [9/9]
DiffImageOverlap-fno: 1.00 [9/9]

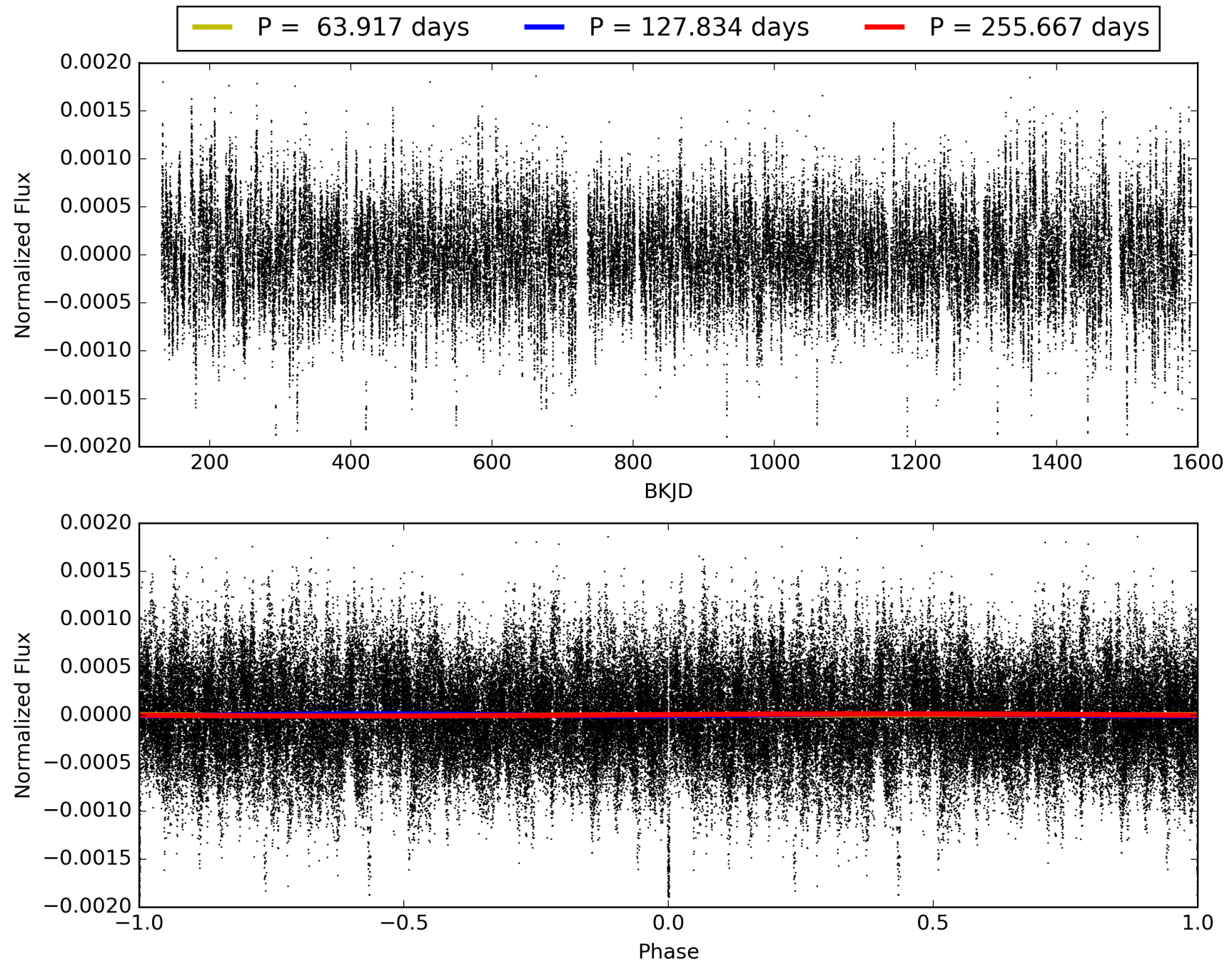
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 20:03:53 Z

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

TCE 004155328-01, PDC Light Curves

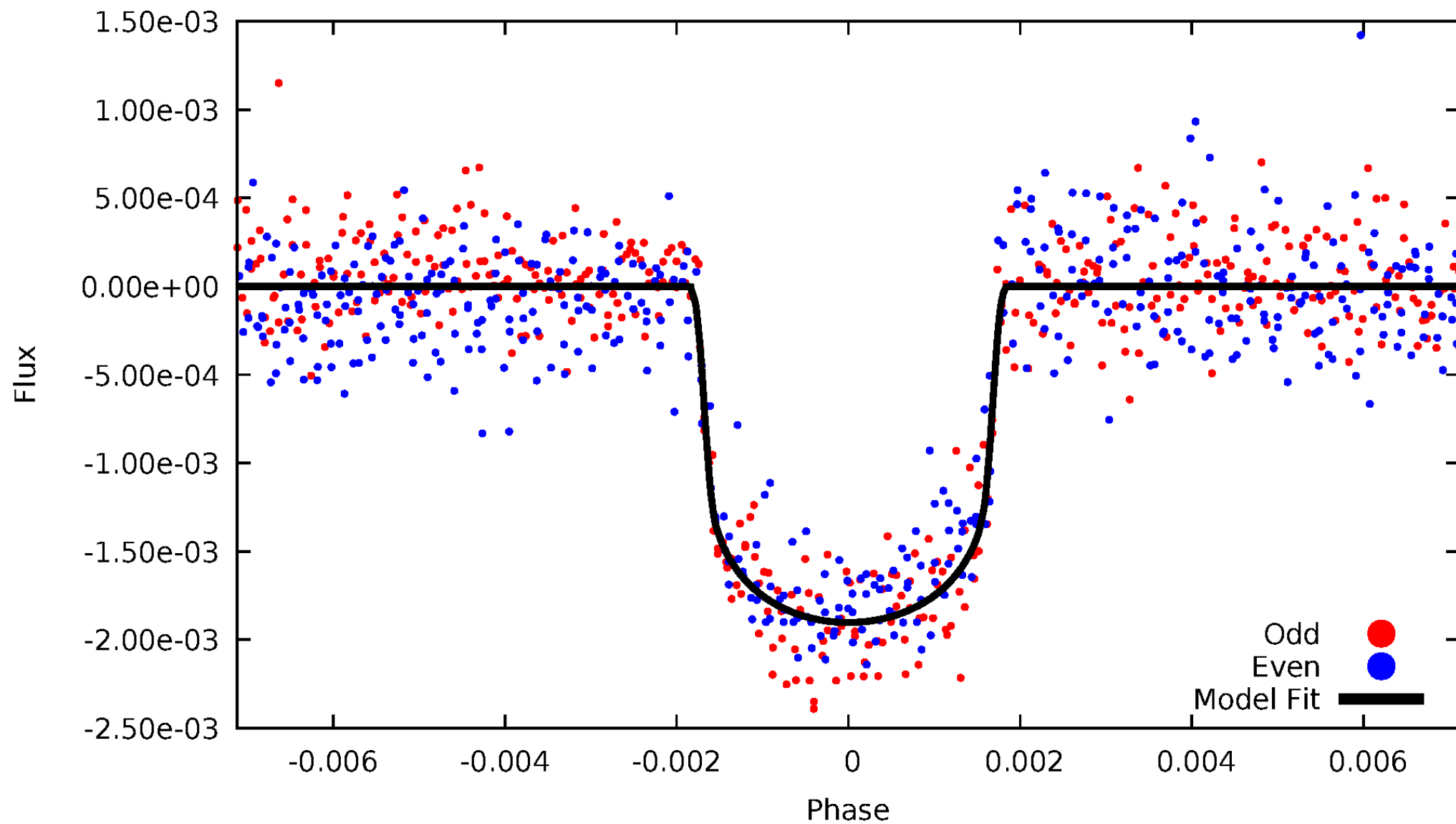


TCE 004155328-01



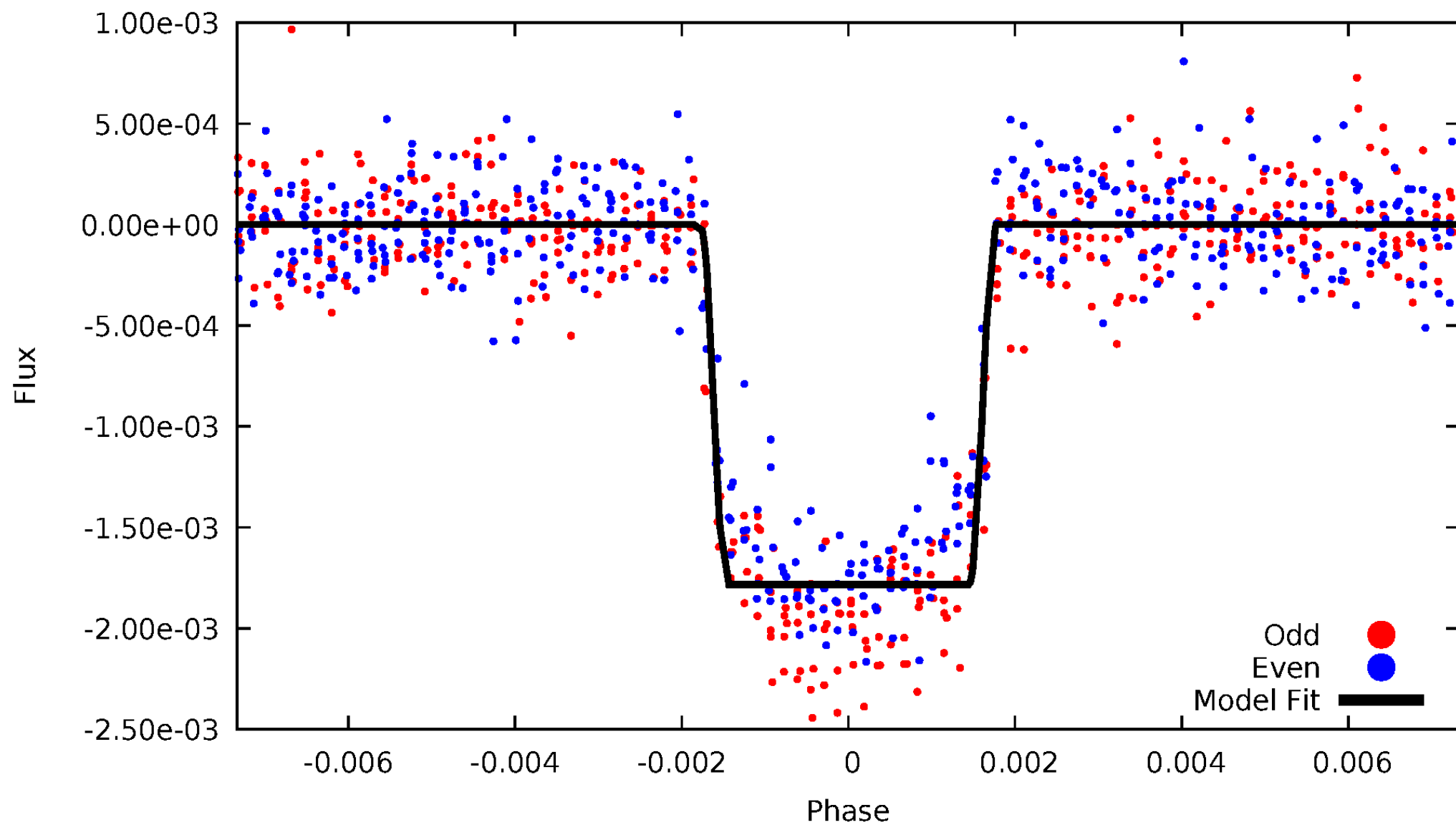
DV Odd/Even

TCE 004155328-01

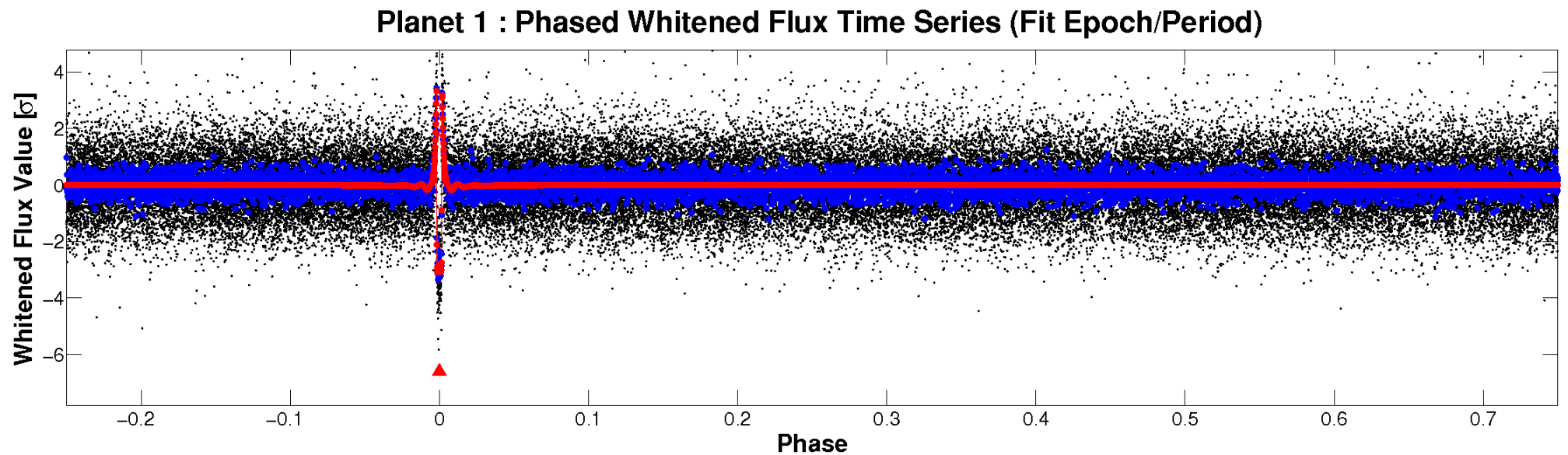
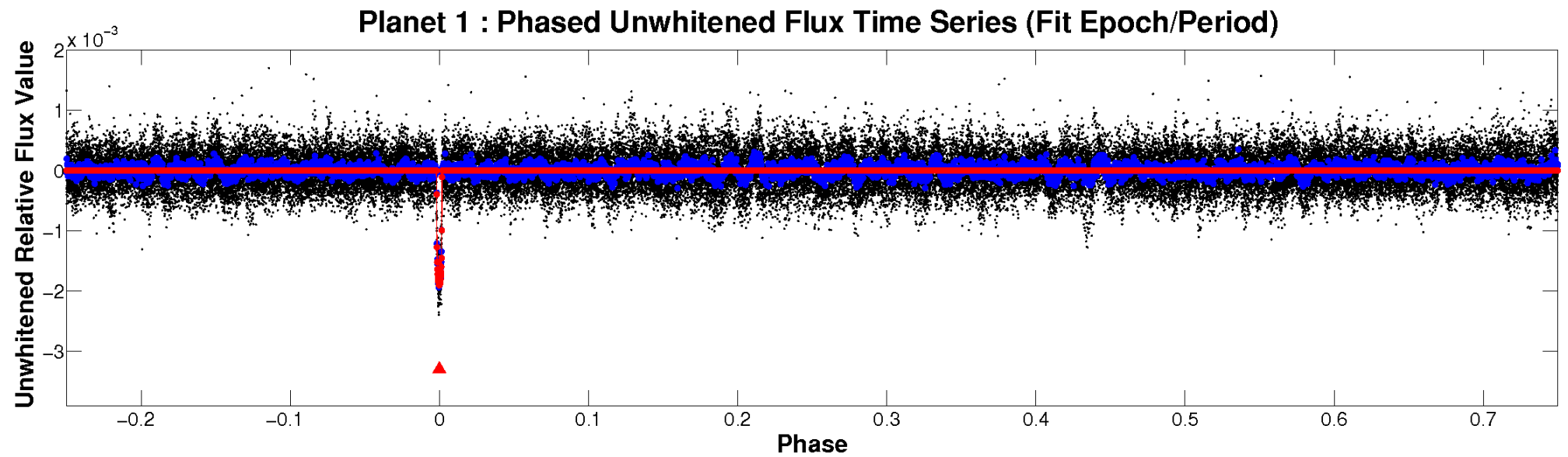


ALT Odd/Even

TCE 004155328-01

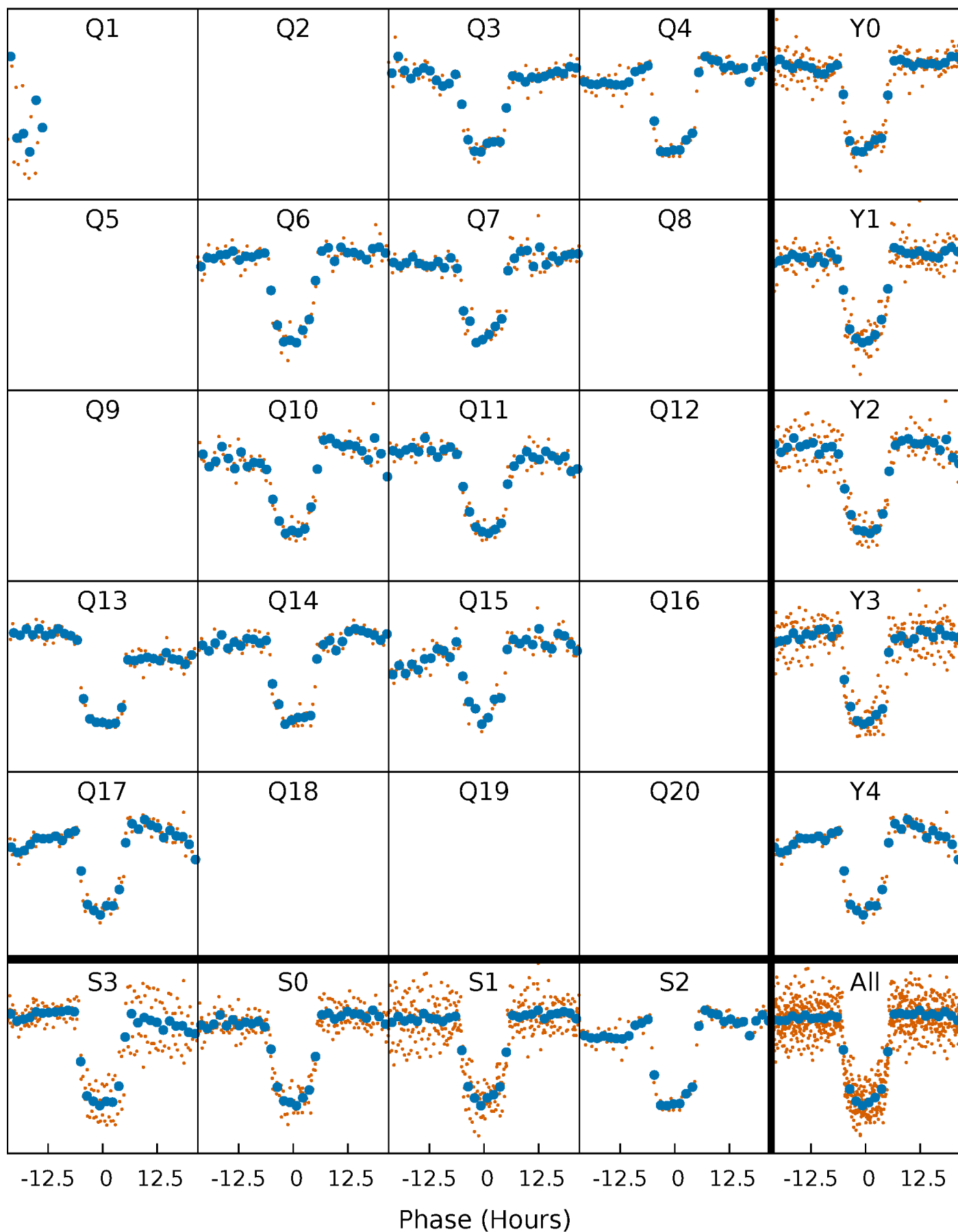


Non-Whitened Vs. Whitened Light Curve



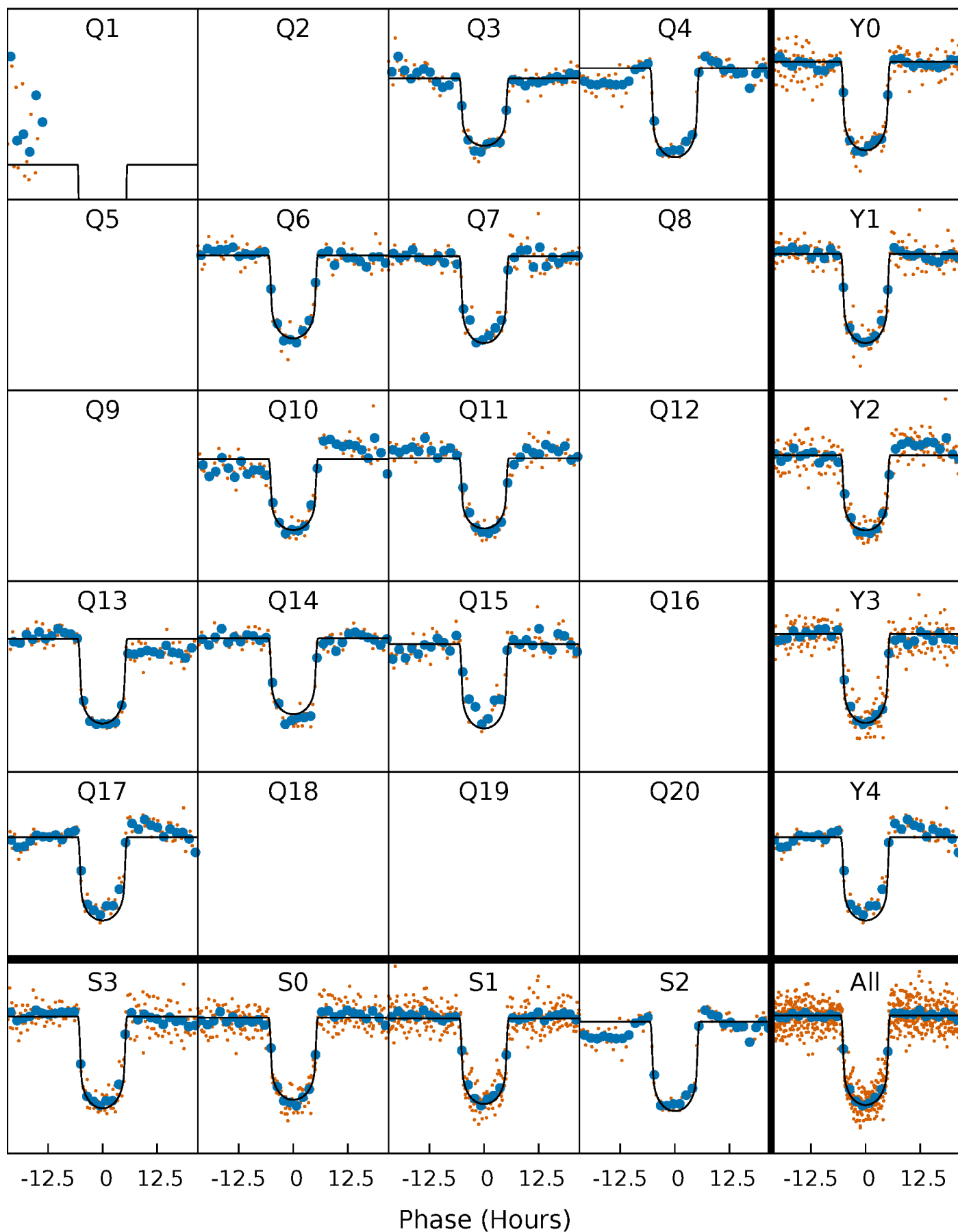
PDC Quarter-Phased Transit Curves

TCE 004155328-01 P=127.833701 Days $T_0=165.584316$ (BKJD)



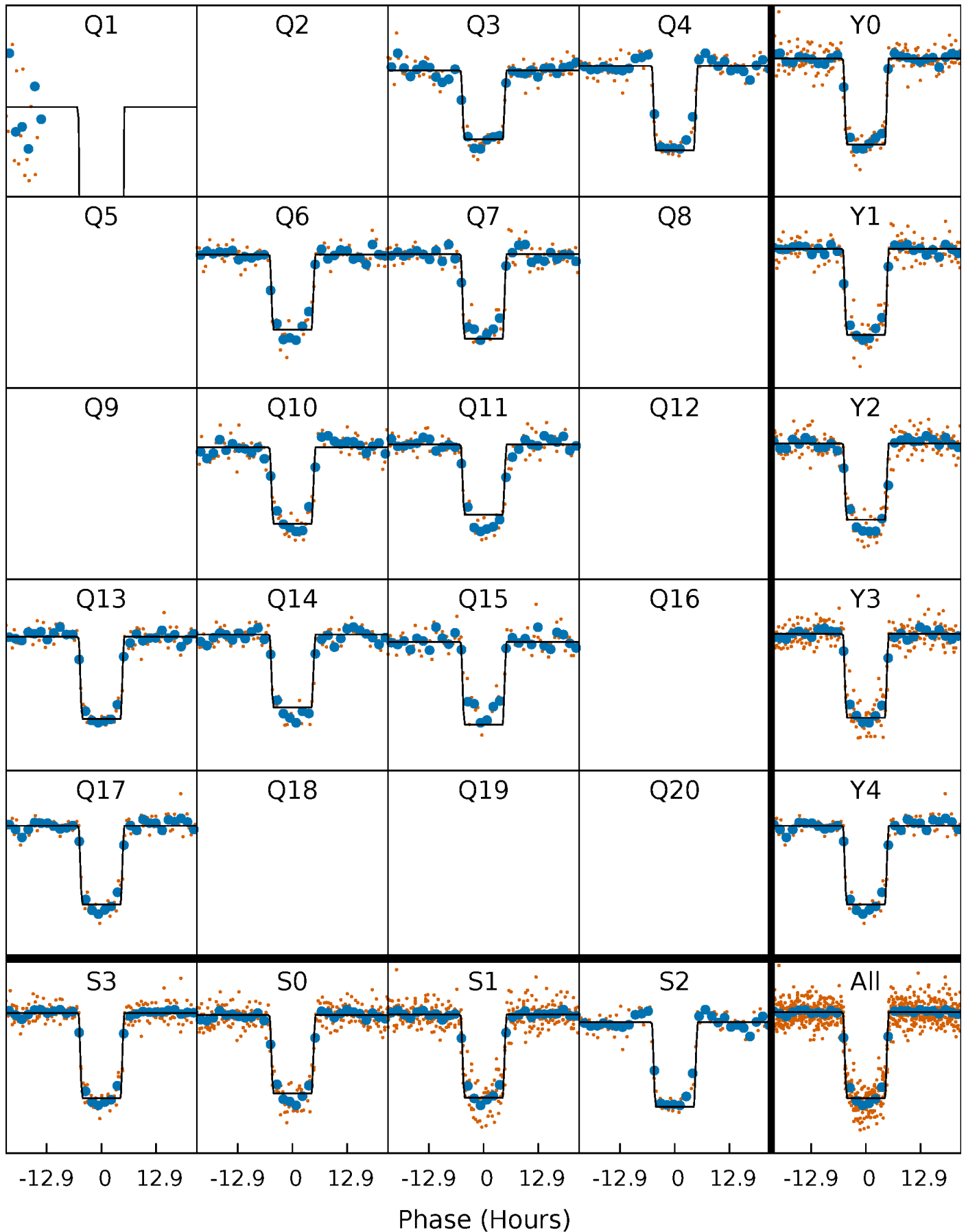
DV Quarter-Phased Transit Curves

TCE 004155328-01 P=127.833701 Days $T_0=165.584316$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

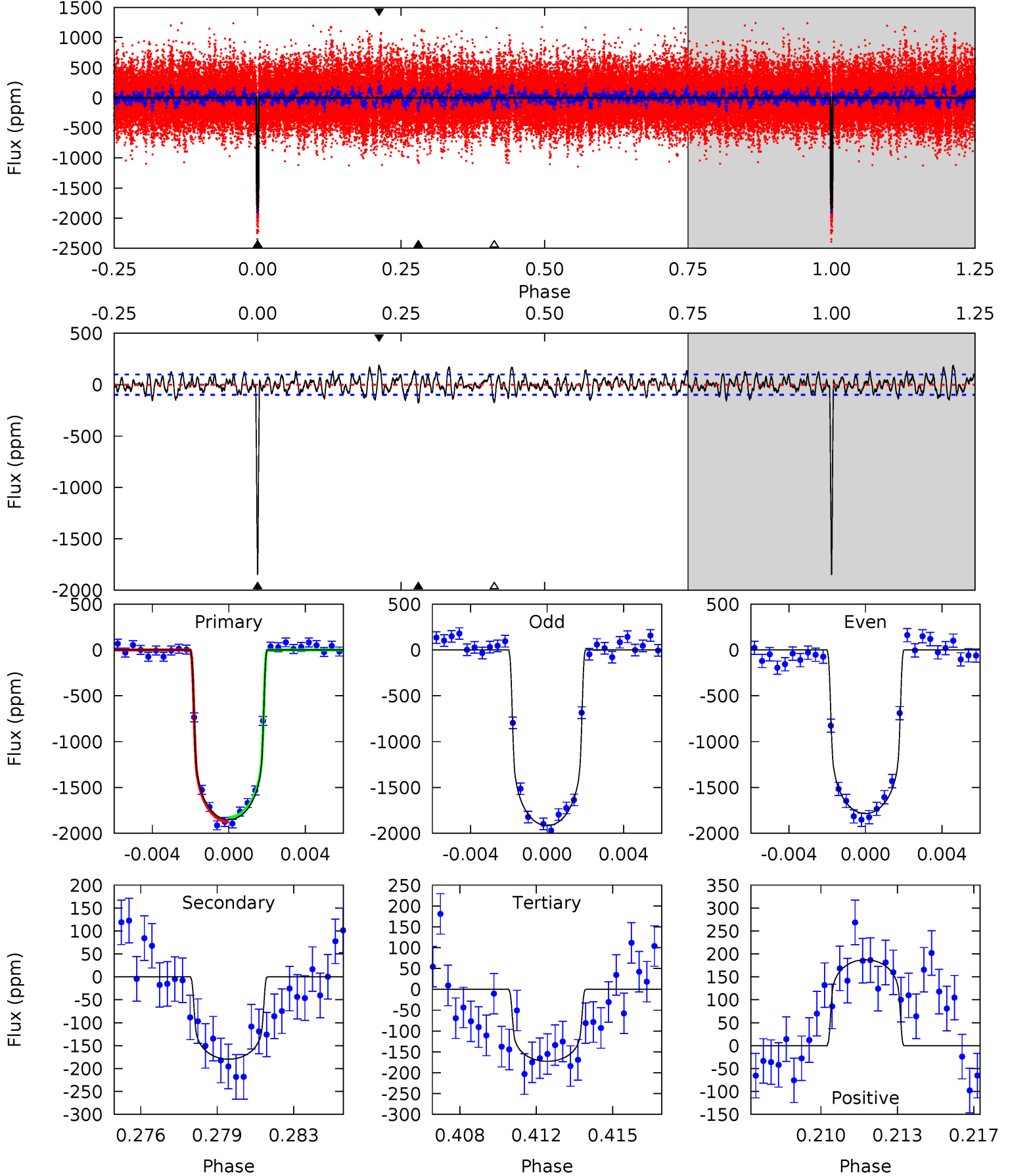
TCE 004155328-01 P=127.832351 Days $T_0=165.592275$ (BKJD)



DV Model-Shift Uniqueness Test

004155328-01, P = 127.833701 Days, E = 37.750615 Days

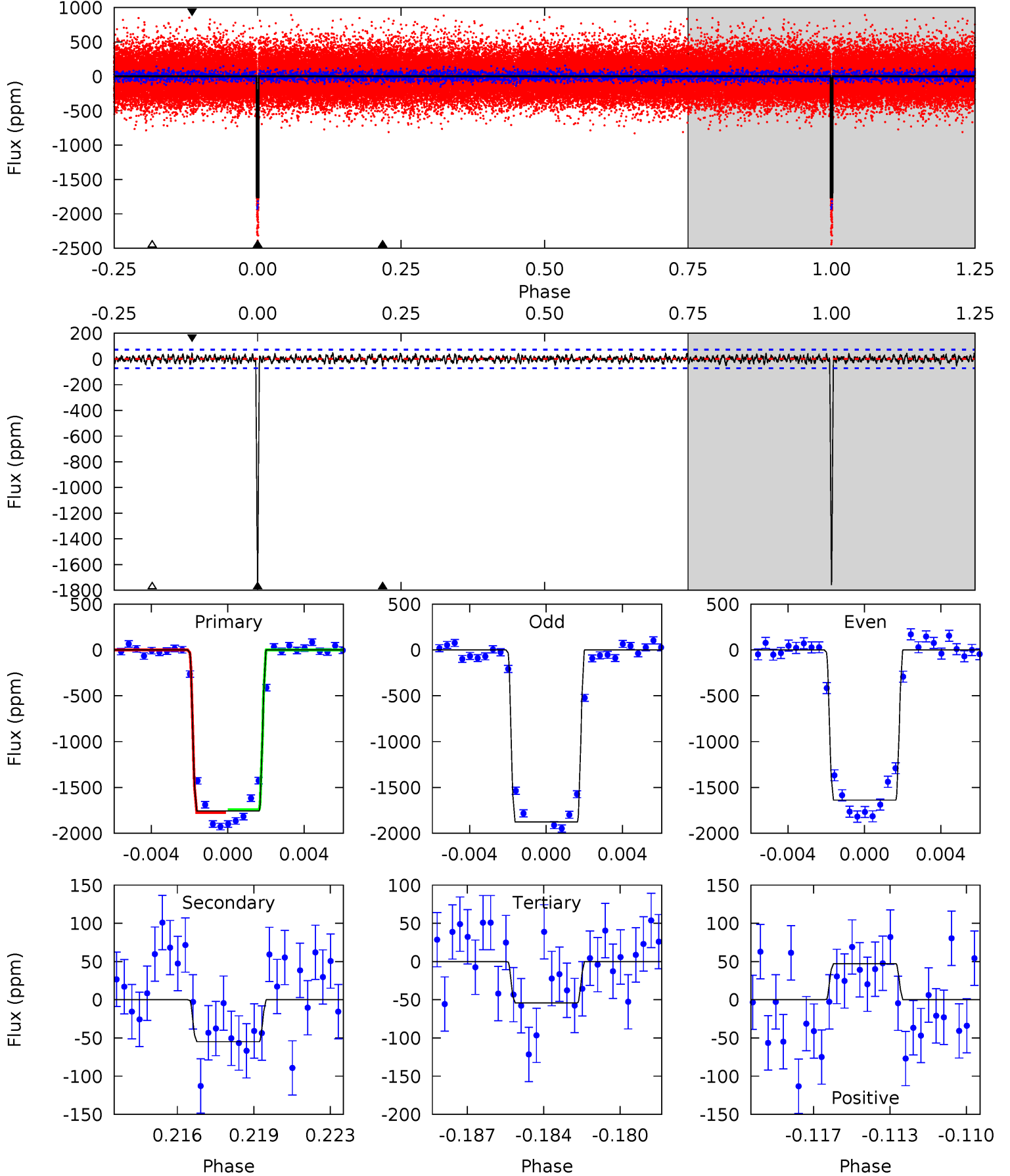
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
97.5	9.46	9.09	9.86	5.22	2.90	3.10	88.4	87.6	0.36	-0.40	3.47	0.98	0.09	1.36



Alt Model-Shift Uniqueness Test

004155328-01, $P = 127.832351$ Days, $E = 37.759924$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
126.5	3.95	3.89	3.40	5.22	2.92	1.16	122.7	123.2	0.07	0.56	8.58	0.99	0.03	1.17



Stellar Parameters For KIC 004155328

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6505^{+71}_{-84}	$3.973^{+0.180}_{-0.105}$	$0.360^{+0.100}_{-0.150}$	$2.170^{+0.357}_{-0.492}$	$1.613^{+0.122}_{-0.183}$	$0.222^{+0.223}_{-0.069}$
	+1%/-1%	+5%/-3%	+28%/-42%	+16%/-23%	+8%/-11%	+100%/-31%
Source	SPE90	SPE90	SPE90	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 004155328-01 / KOI 1335.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-180 ± 19	$9.62^{+0.96}_{-1.22}$	771^{+35}_{-43}	4033^{+107}_{-96}	365^{+110}_{-72}
Alt.	-55 ± 14	$9.90^{+1.02}_{-1.26}$	771^{+34}_{-45}	3292^{+115}_{-156}	105^{+42}_{-33}

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

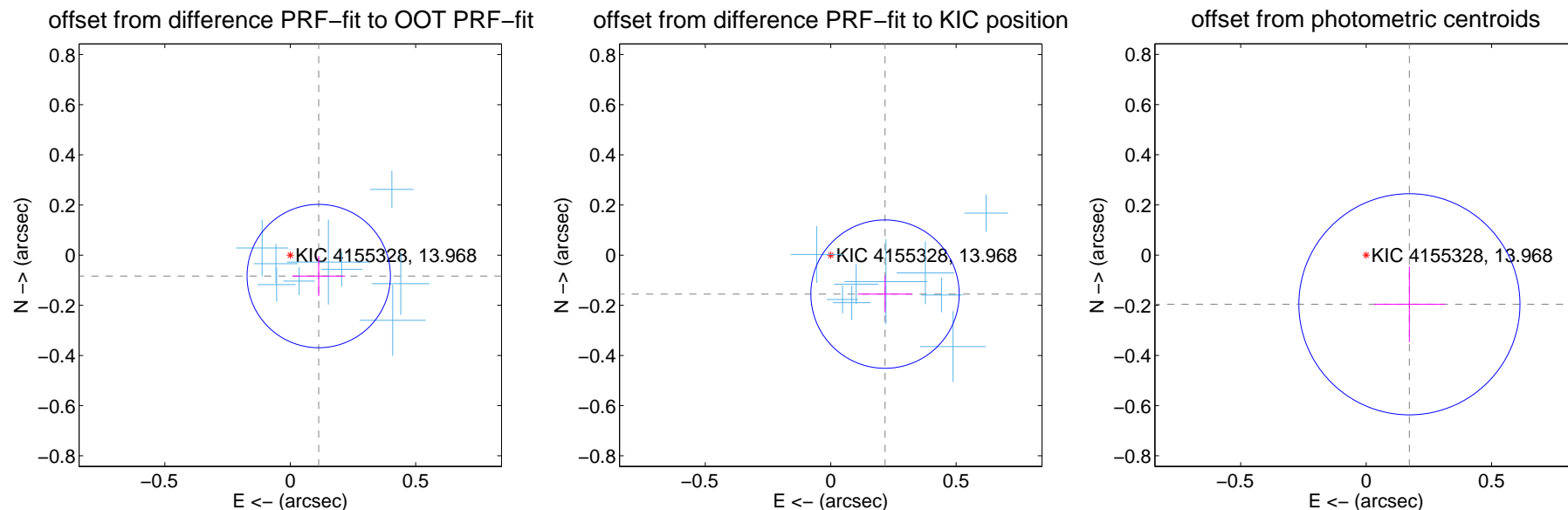
DV Centroid Data

Supplemental centroid analysis for 004155328-01. Kepler magnitude: 13.97. Transit SNR 49.54

There are 9 quarters with good PRF difference image offsets

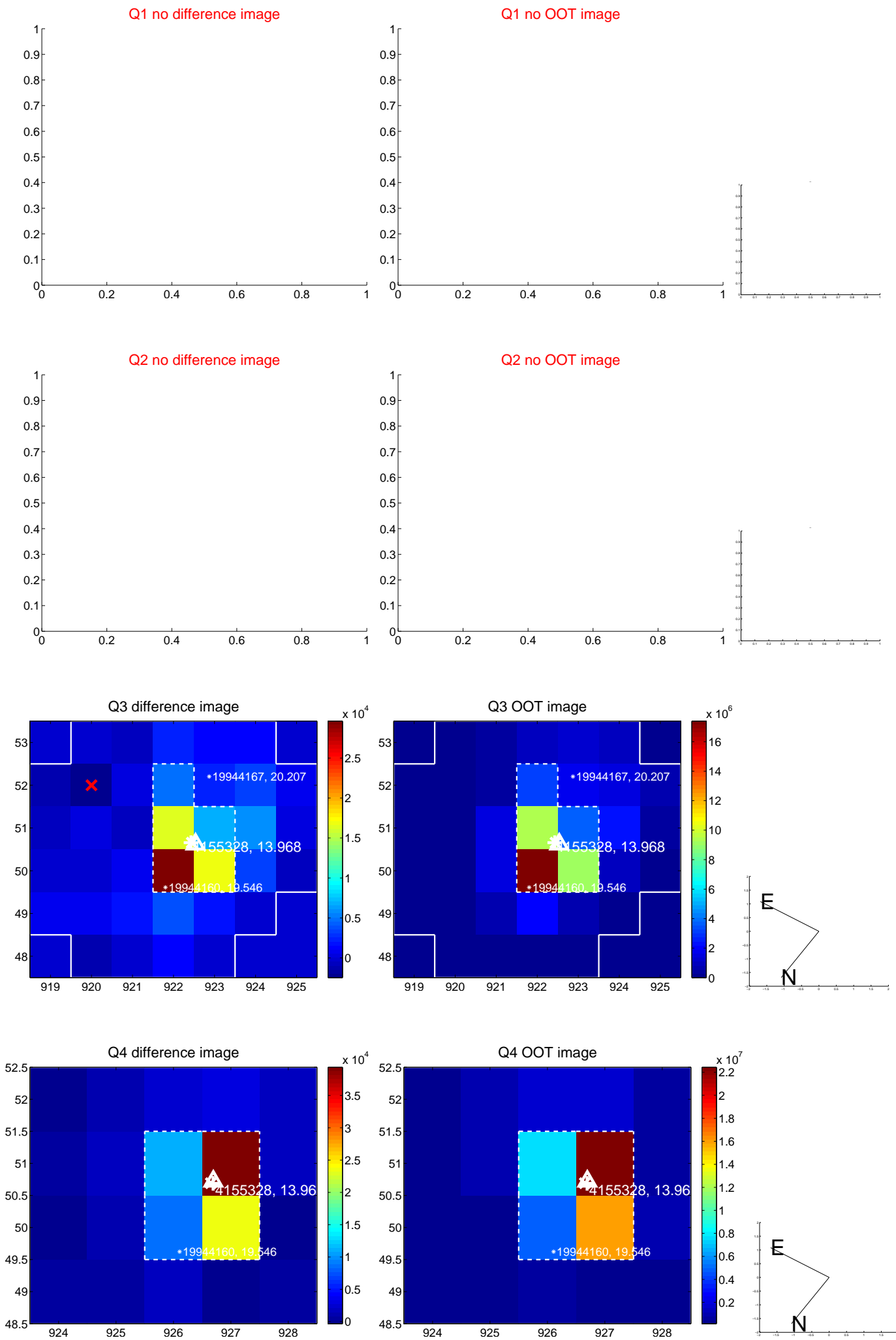
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.141 ± 0.095	1.48	-0.114 ± 0.105	-0.083 ± 0.080
PRF-fit source offset from KIC position	0.267 ± 0.099	2.70	-0.217 ± 0.109	-0.155 ± 0.073
photometric centroid source offset	0.26 ± 0.15	1.78	-0.17 ± 0.14	-0.20 ± 0.15

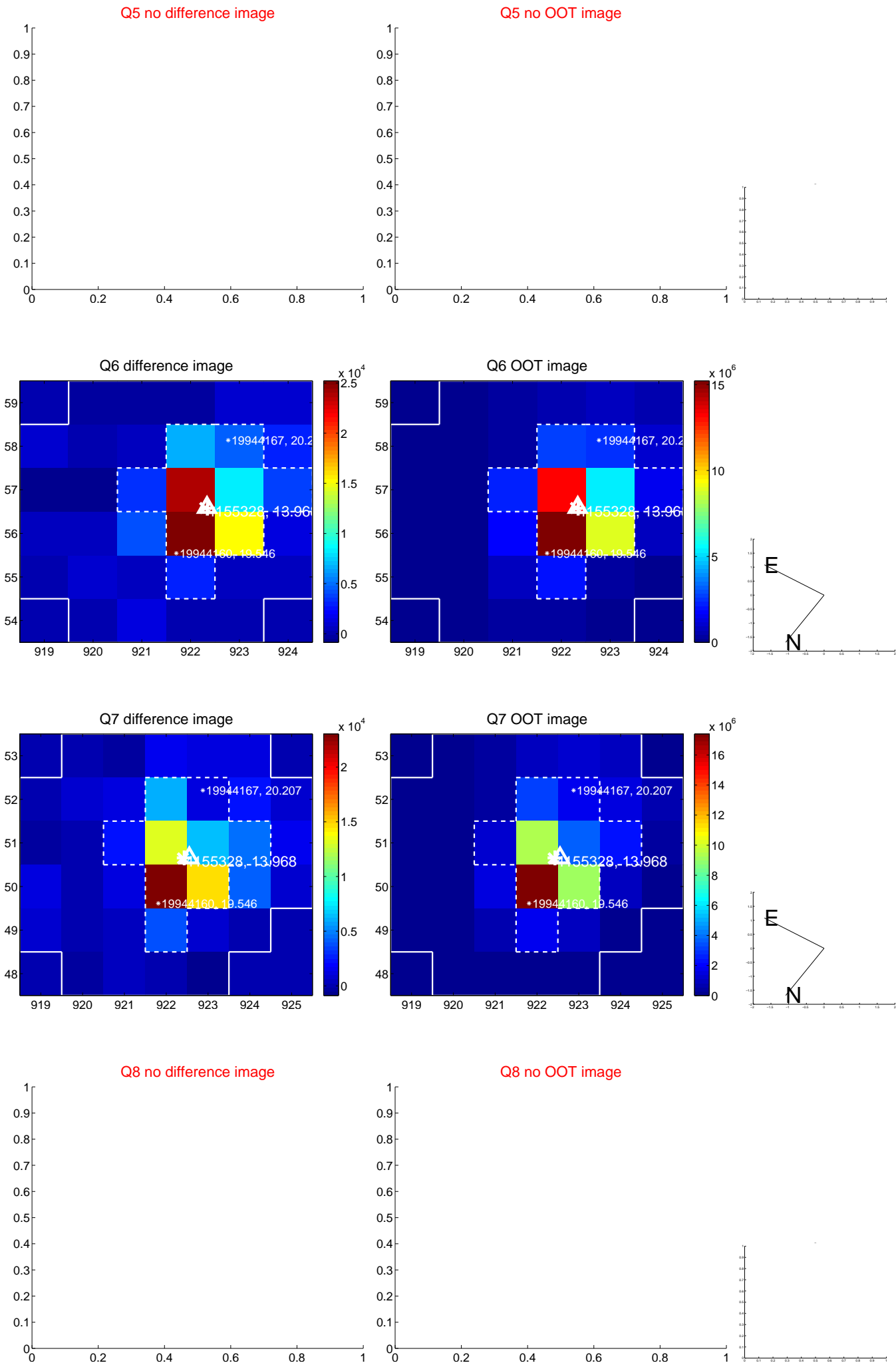


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

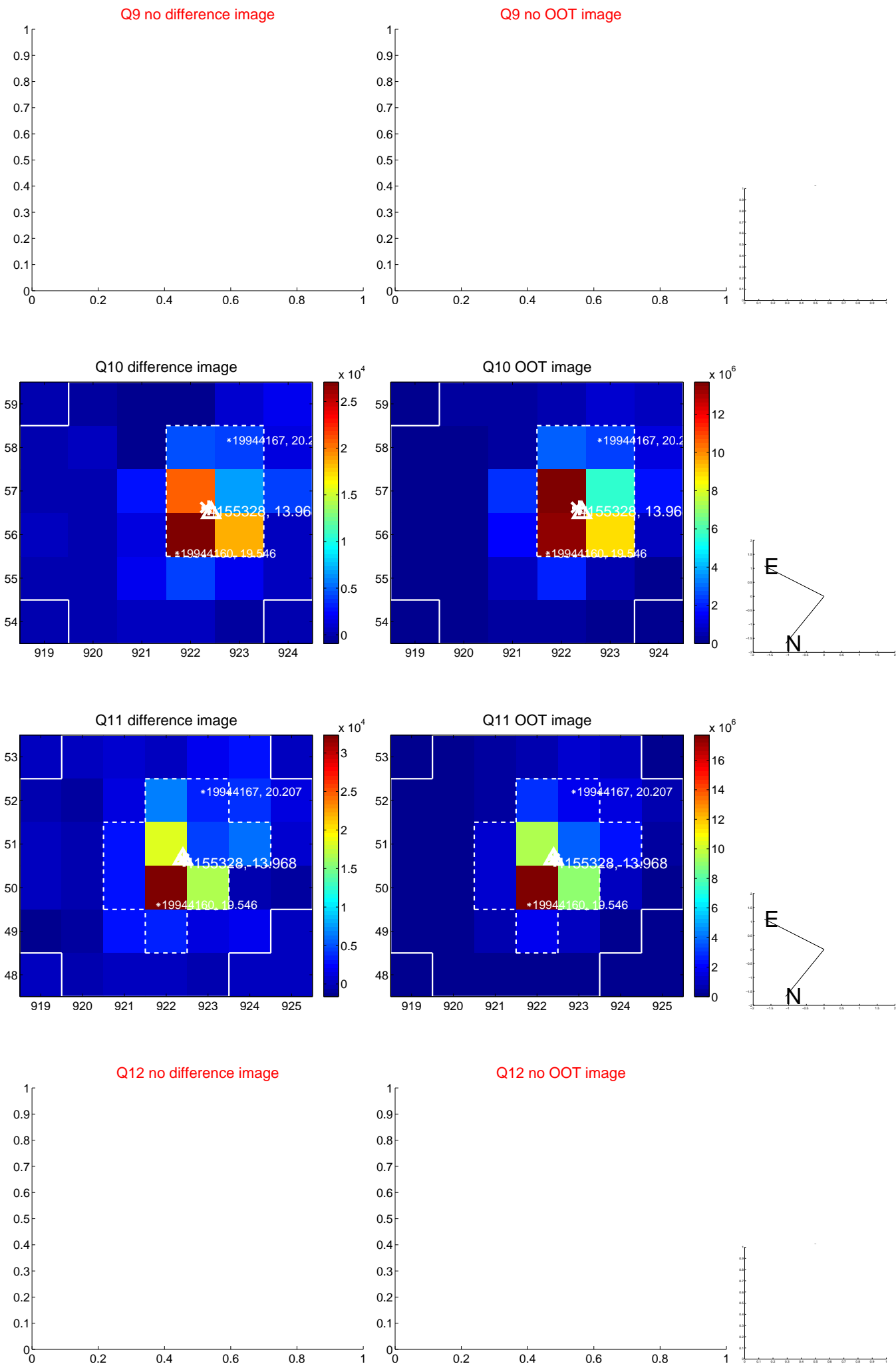
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



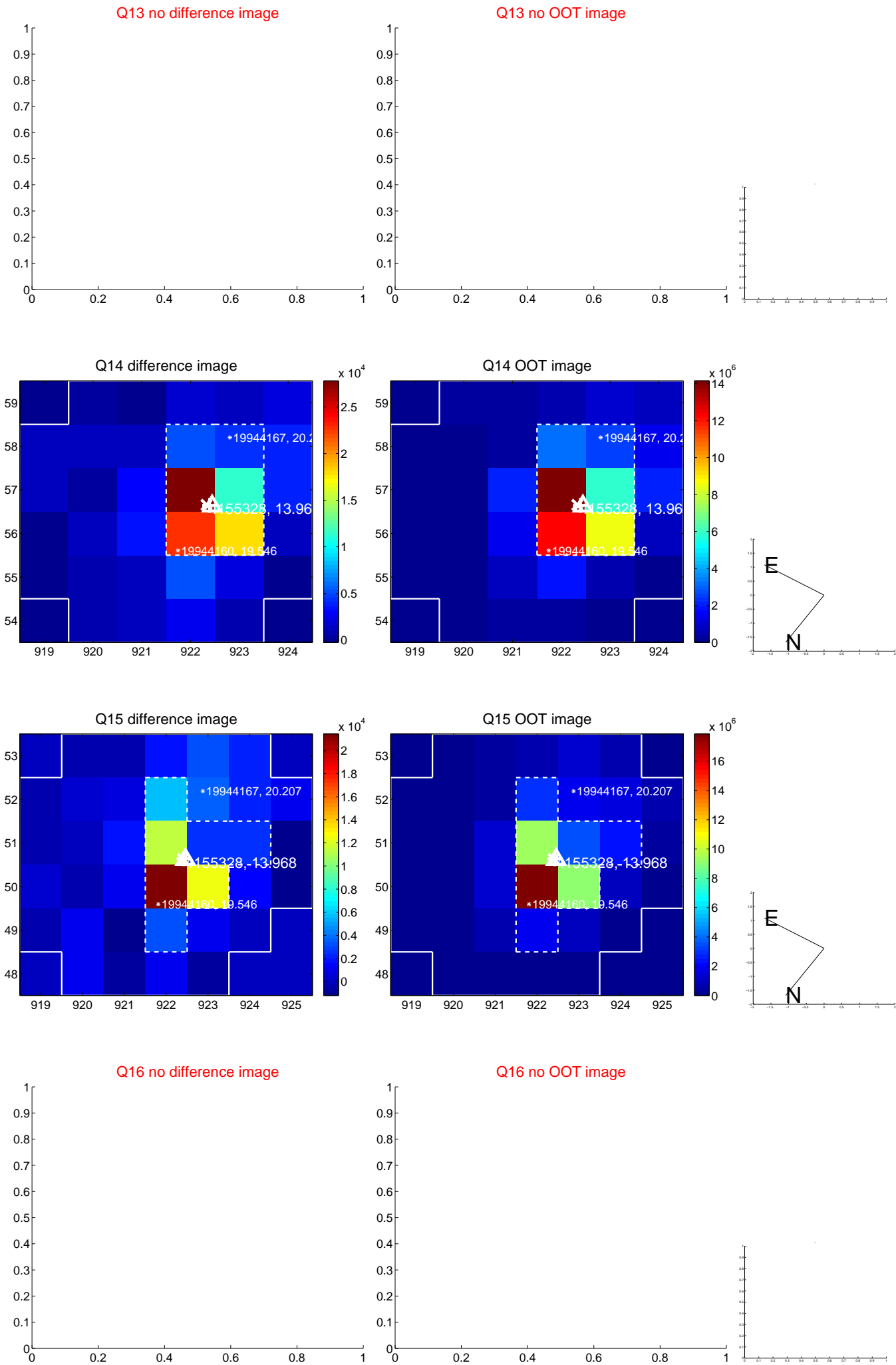
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



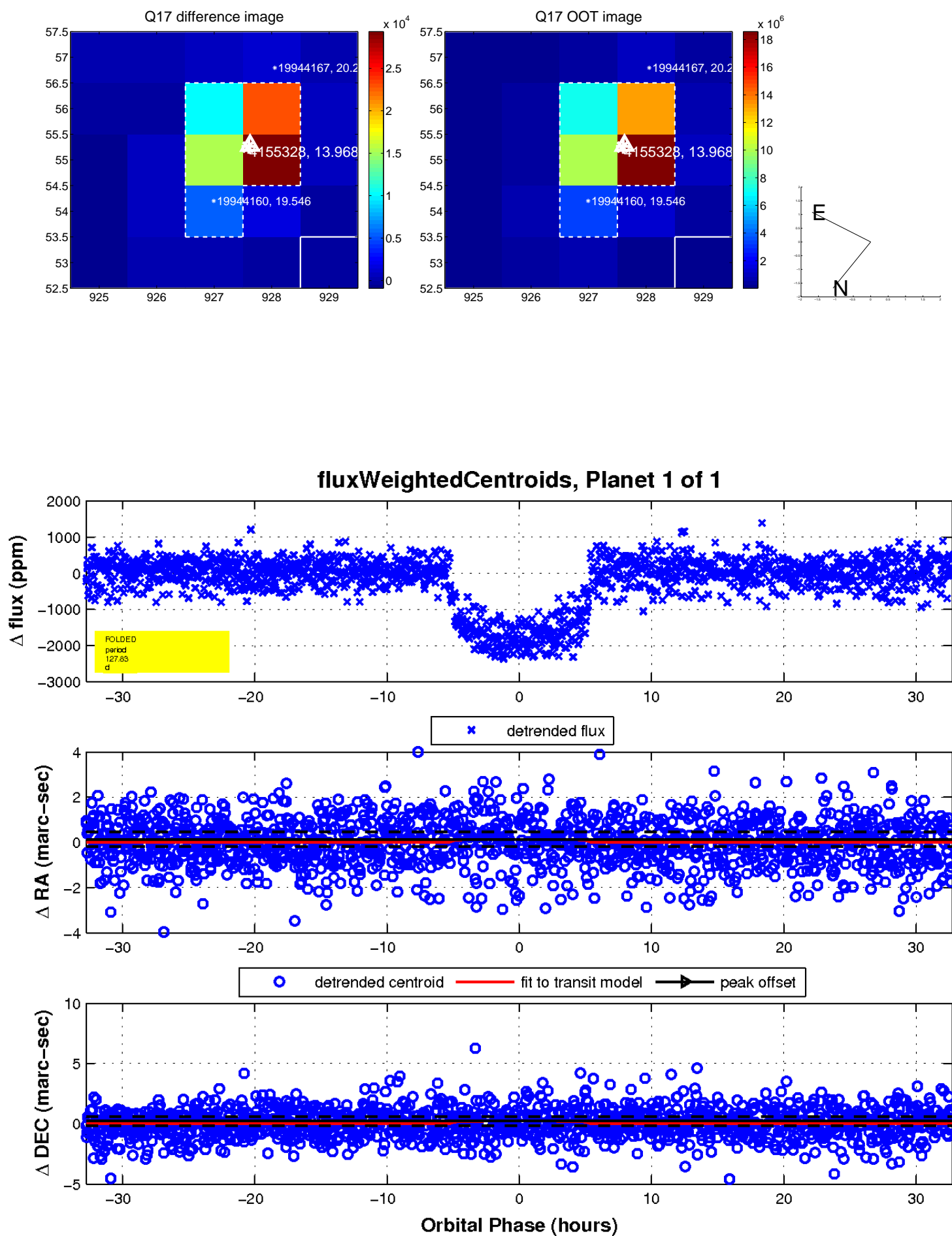
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

