

KIC 006939670

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})
006939670-01	OBS	6792.01	2.119439	133.078197	28222.6	5.152	2959.8	1176.4	0.80	5655	23.25	709.85

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006939670-01	OBS	FP	0.00	0	1	0	0	DEPTH_ODDEVEN_DV—DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_DV—MOD_ODDEVEN_ALT—DEEP_V_SHAPED

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 006939670-01

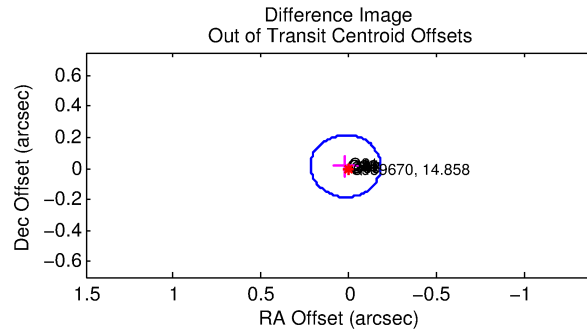
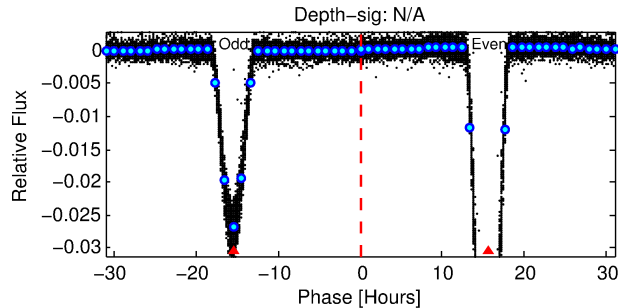
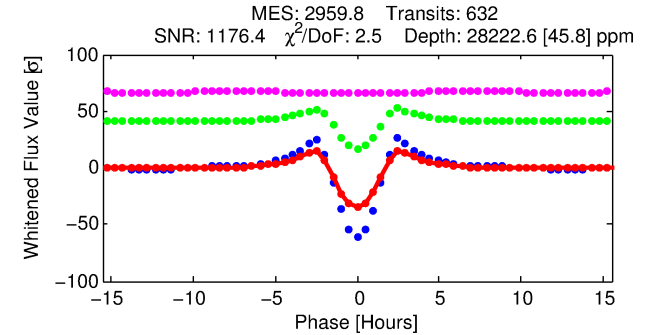
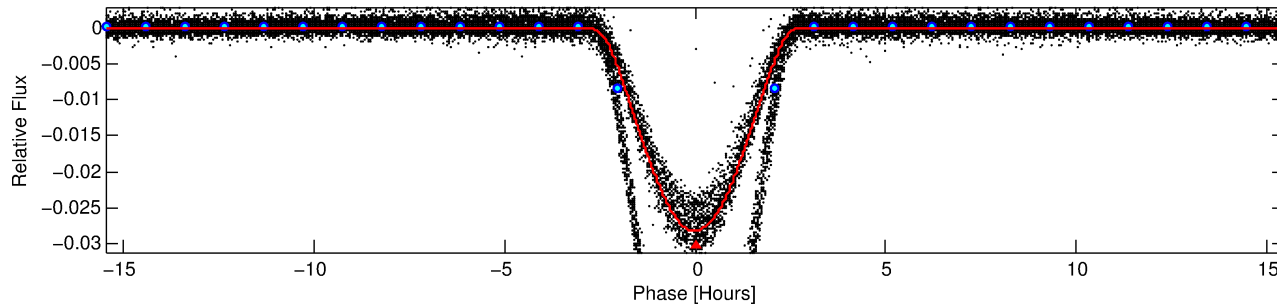
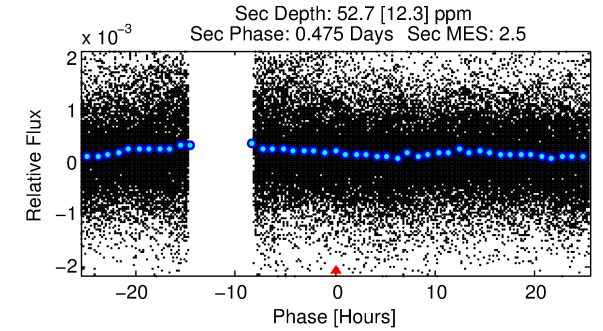
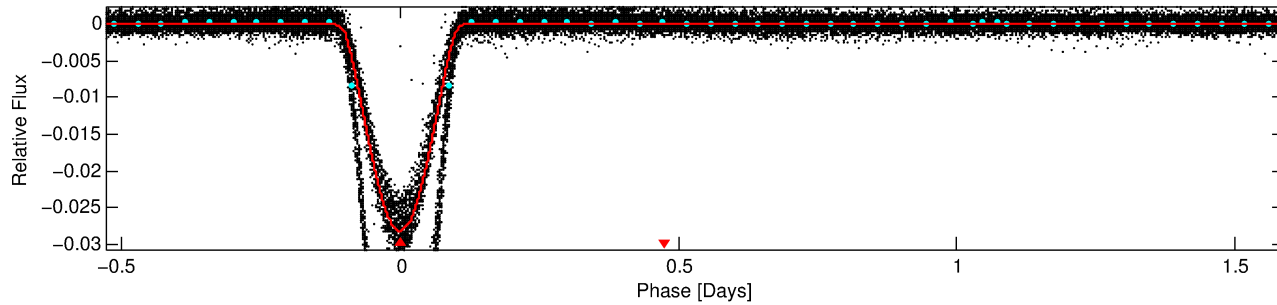
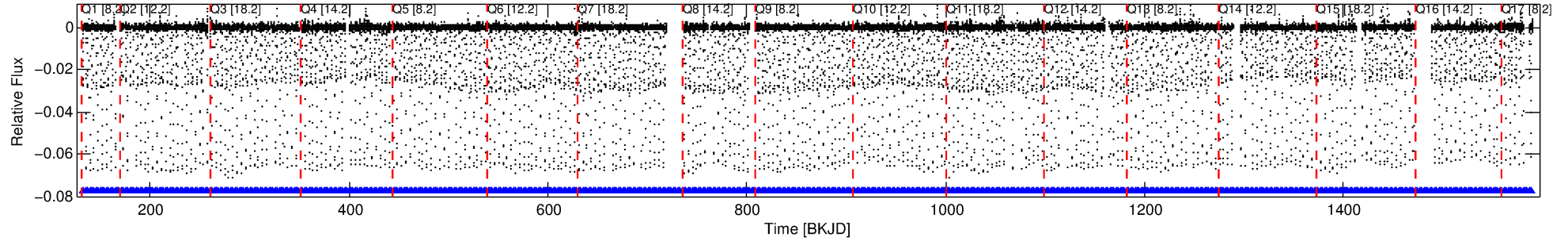
No Significant Match Found

DV One-Page Summary

KIC: 6939670 Candidate: 1 of 1 Period: 2.119 d

KOI: K06792 Corr: No Ephemeris Match

Kp: 14.86 R*: 0.80 Rs Teff: 5655.0 K Logg: 4.48 Fe/H: -0.720



DV Fit Results:

Period = 2.11944 [0.00000] d
Epoch = 133.0782 [0.0001] BKJD
Rp/R* = 0.2651 [0.0099]
a/R* = 2.68 [0.00]
b = 1.00 [0.01]
Seff = 709.85 [189.35]
Teq = 1316 [88] K
Rp = 23.26 [4.26] Re
a = 0.0289 [0.0046] AU
Ag = 0.04 [0.02] [-62.29σ]
Teff = 936 [64] K [-3.51σ]

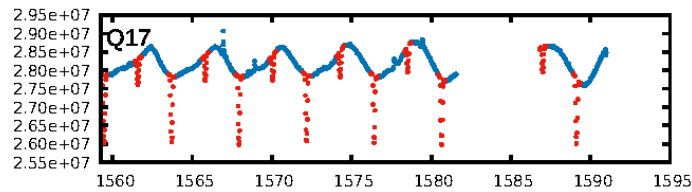
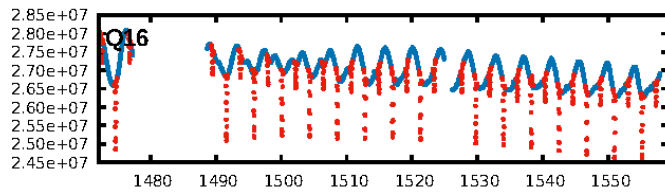
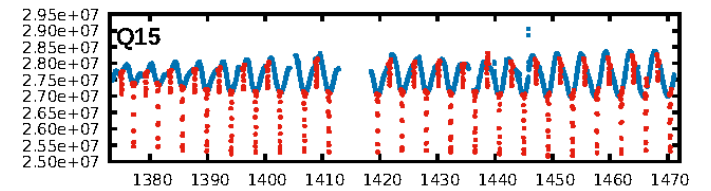
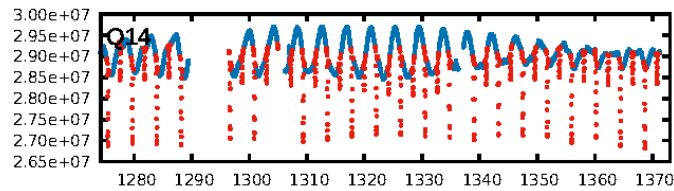
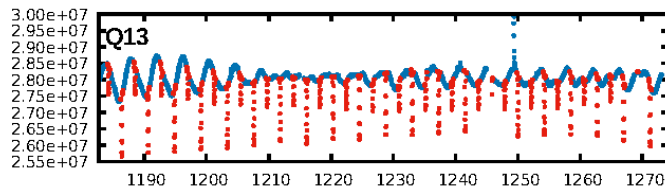
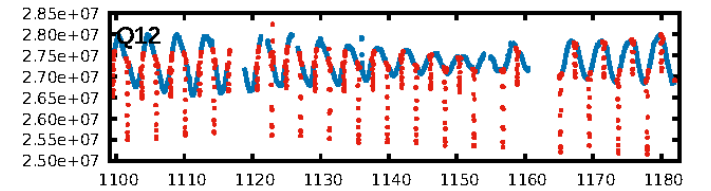
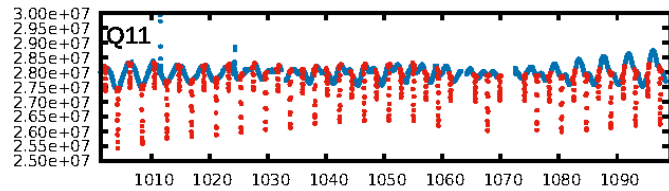
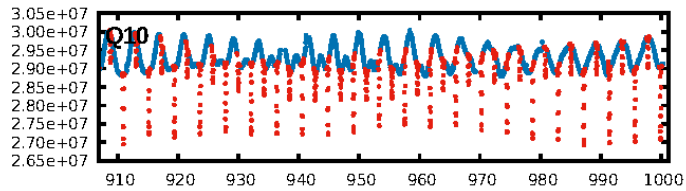
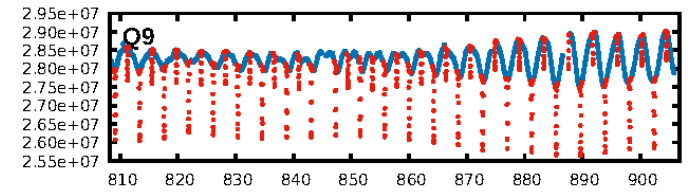
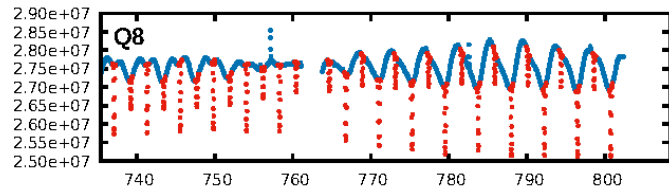
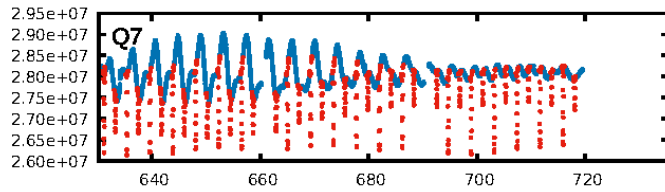
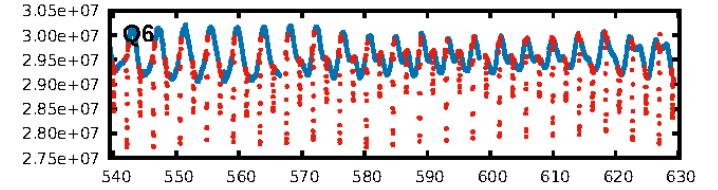
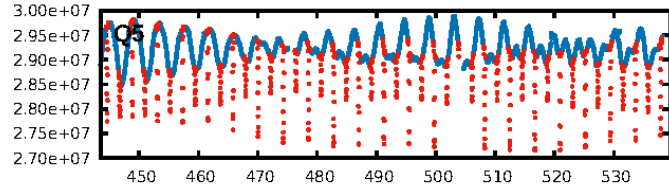
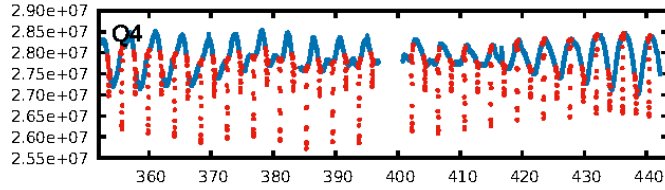
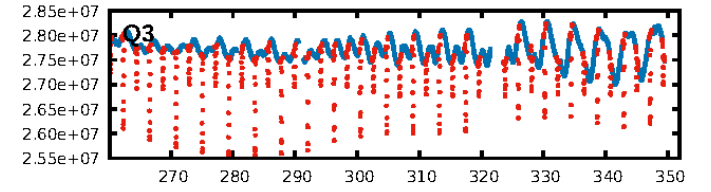
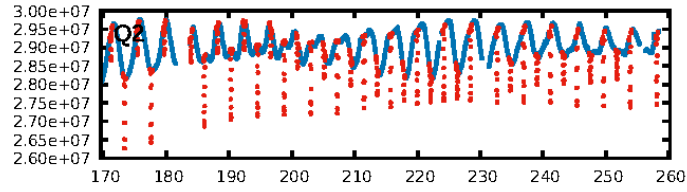
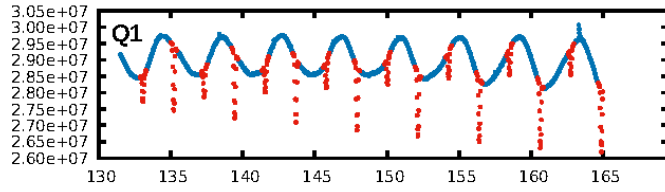
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [603/603]
GhostDiagnostic-chr: 1.317
Centroid-sig: 0.0%
Centroid-so: 0.162 arcsec [48.88σ]
OotOffset-rm: 0.025 arcsec [0.37σ]
KicOffset-rm: 0.108 arcsec [1.59σ]
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]

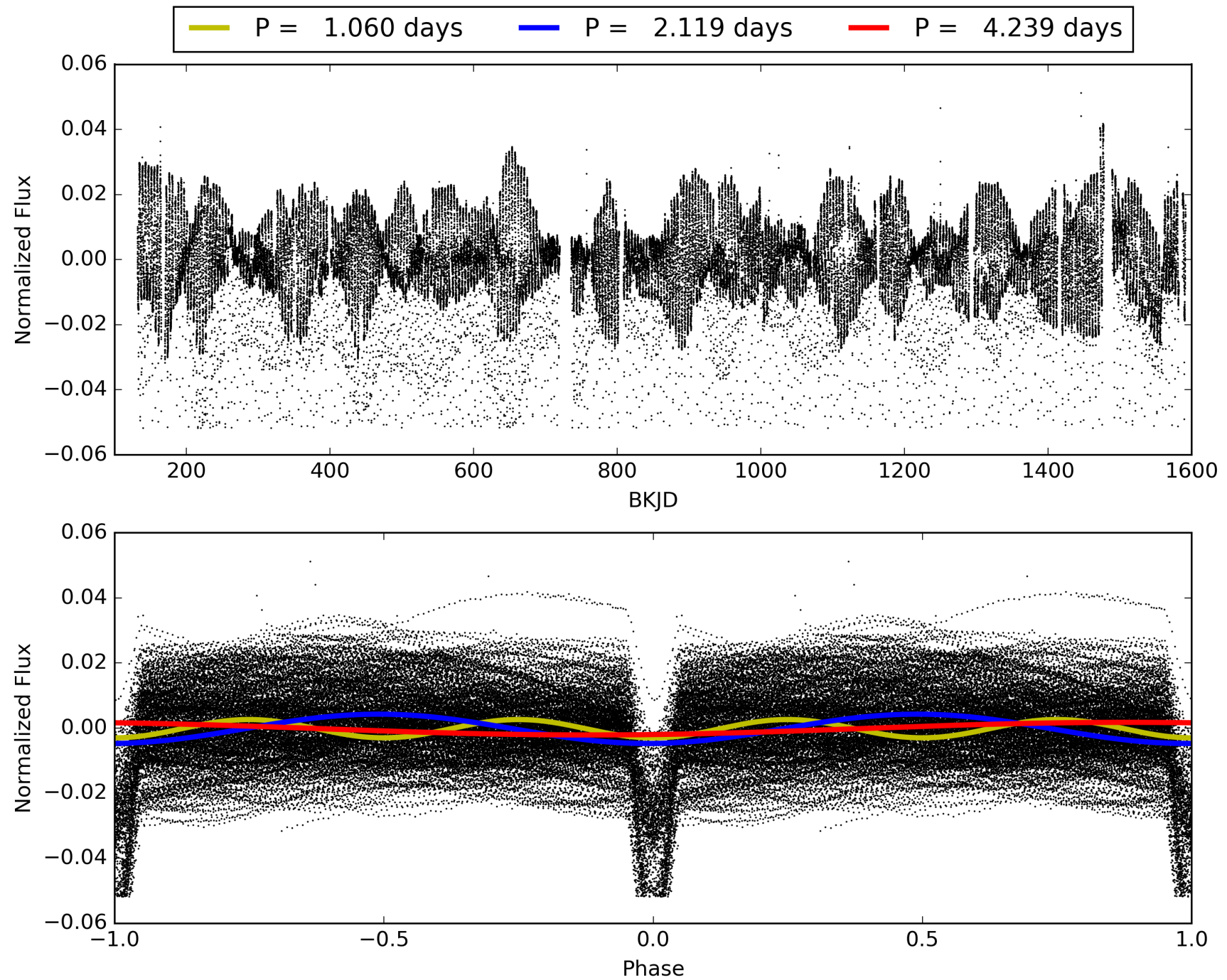
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 00:29:55 Z

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

TCE 006939670-01, PDC Light Curves

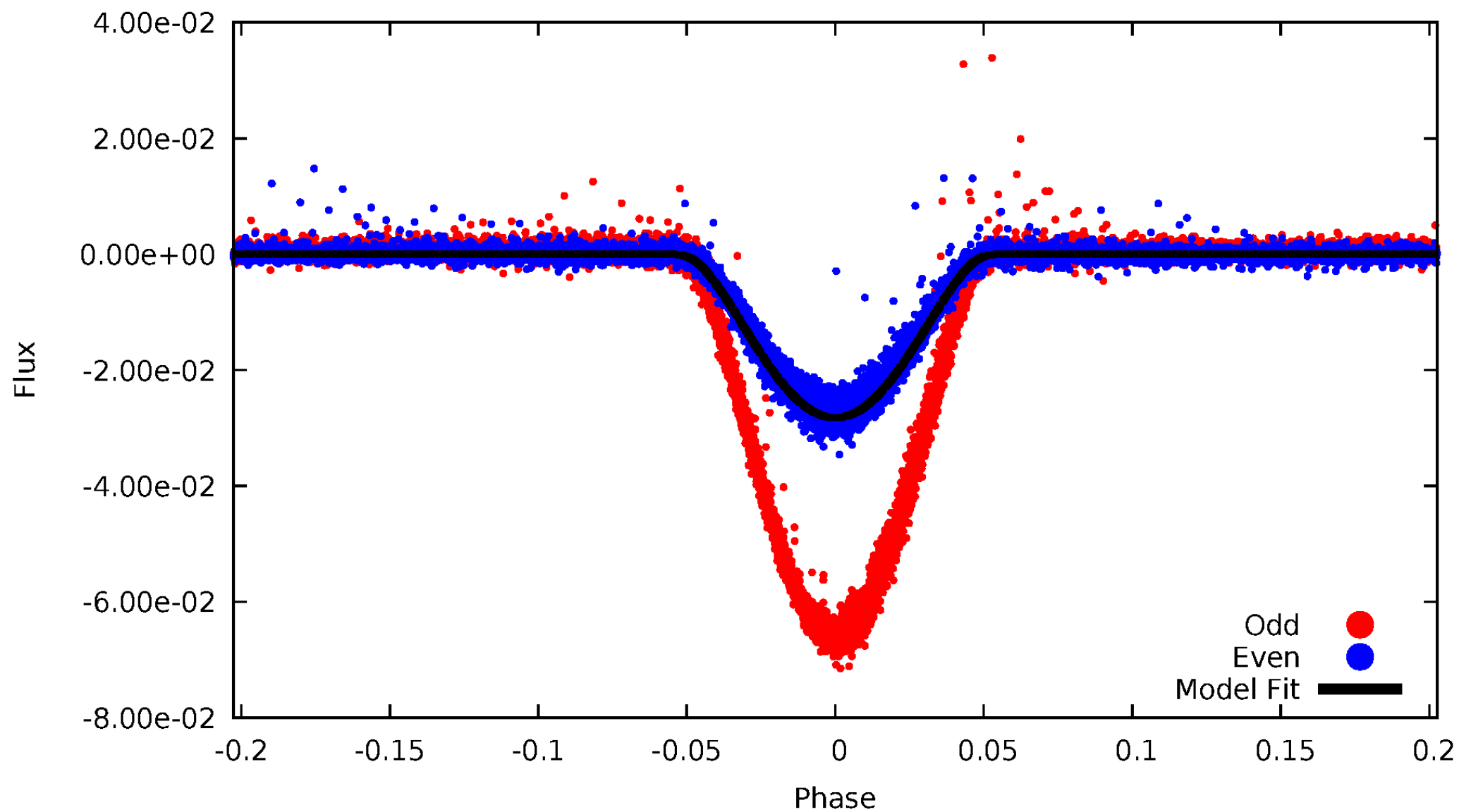


TCE 006939670-01



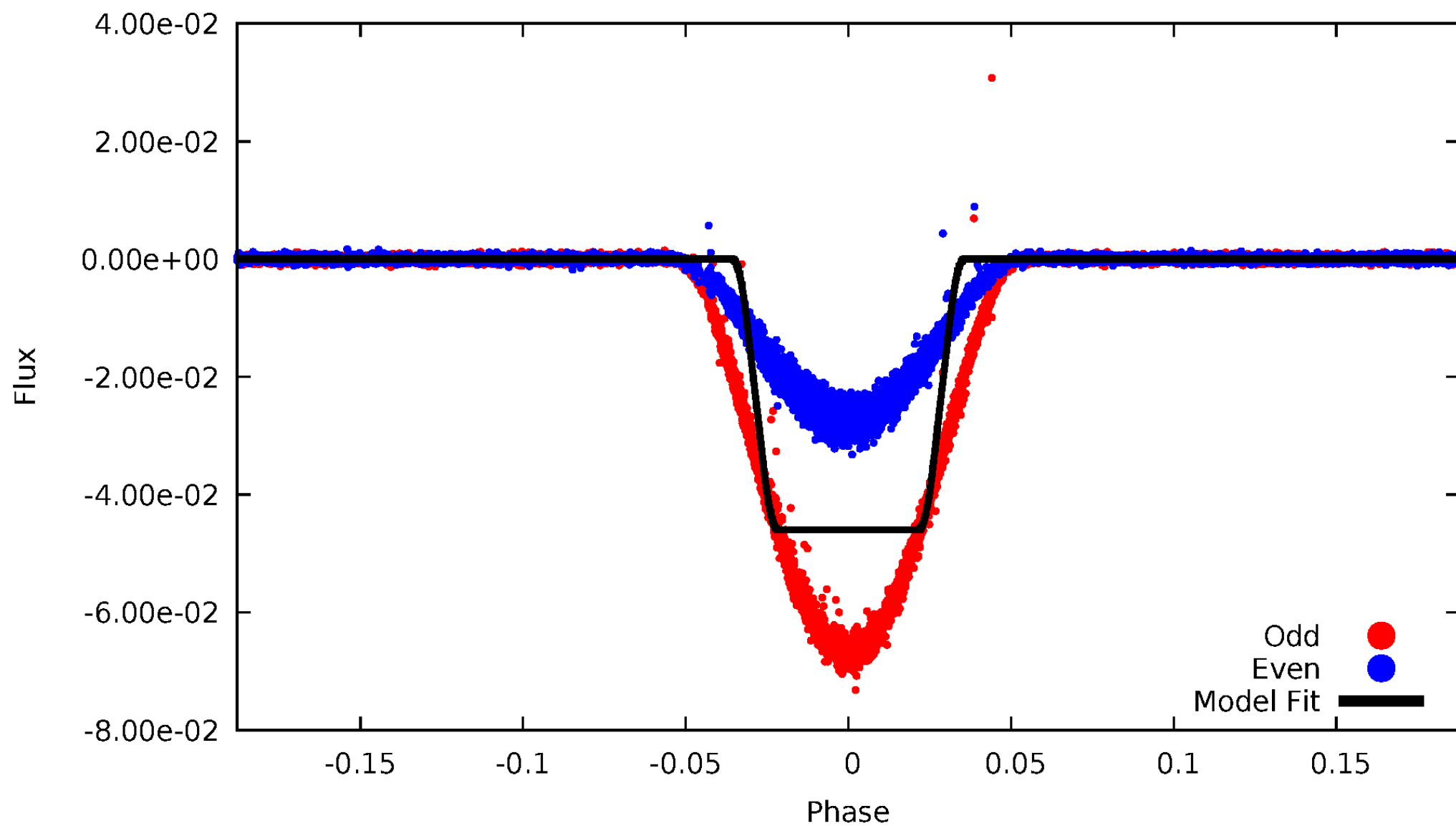
DV Odd/Even

TCE 006939670-01



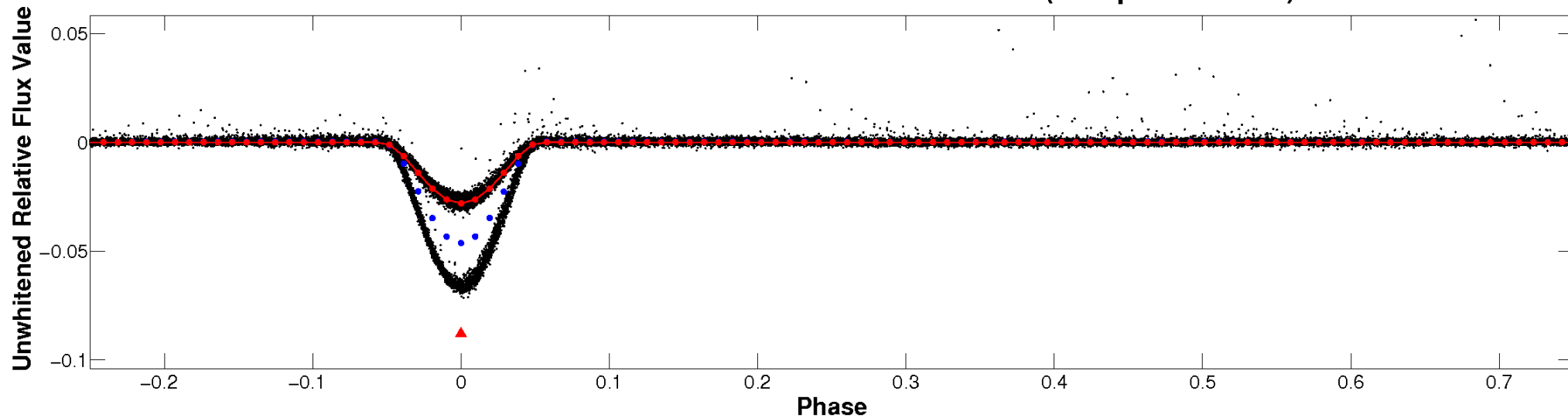
ALT Odd/Even

TCE 006939670-01

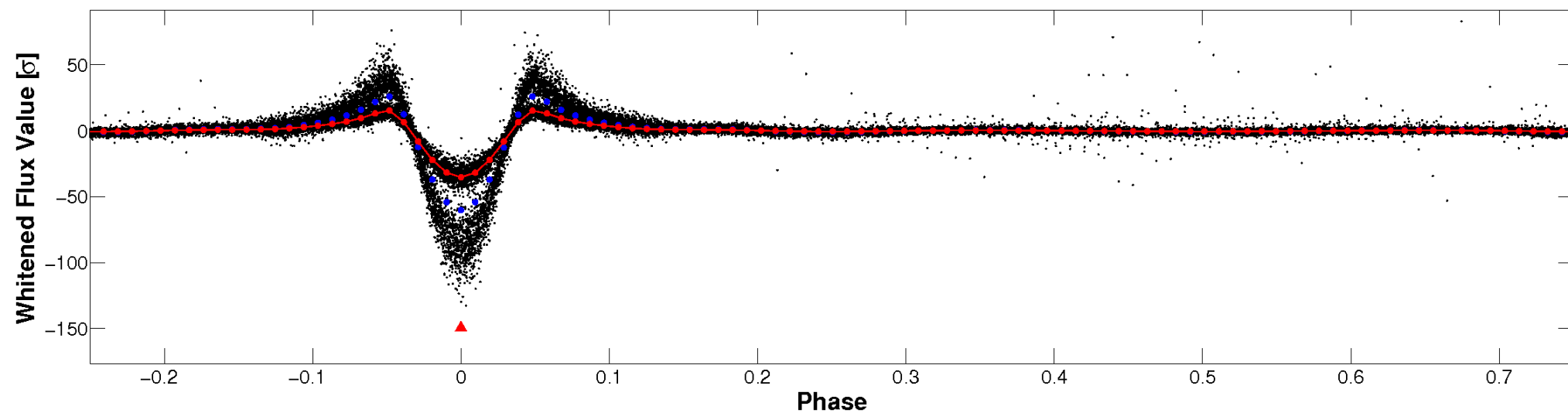


Non-Whitened Vs. Whitened Light Curve

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

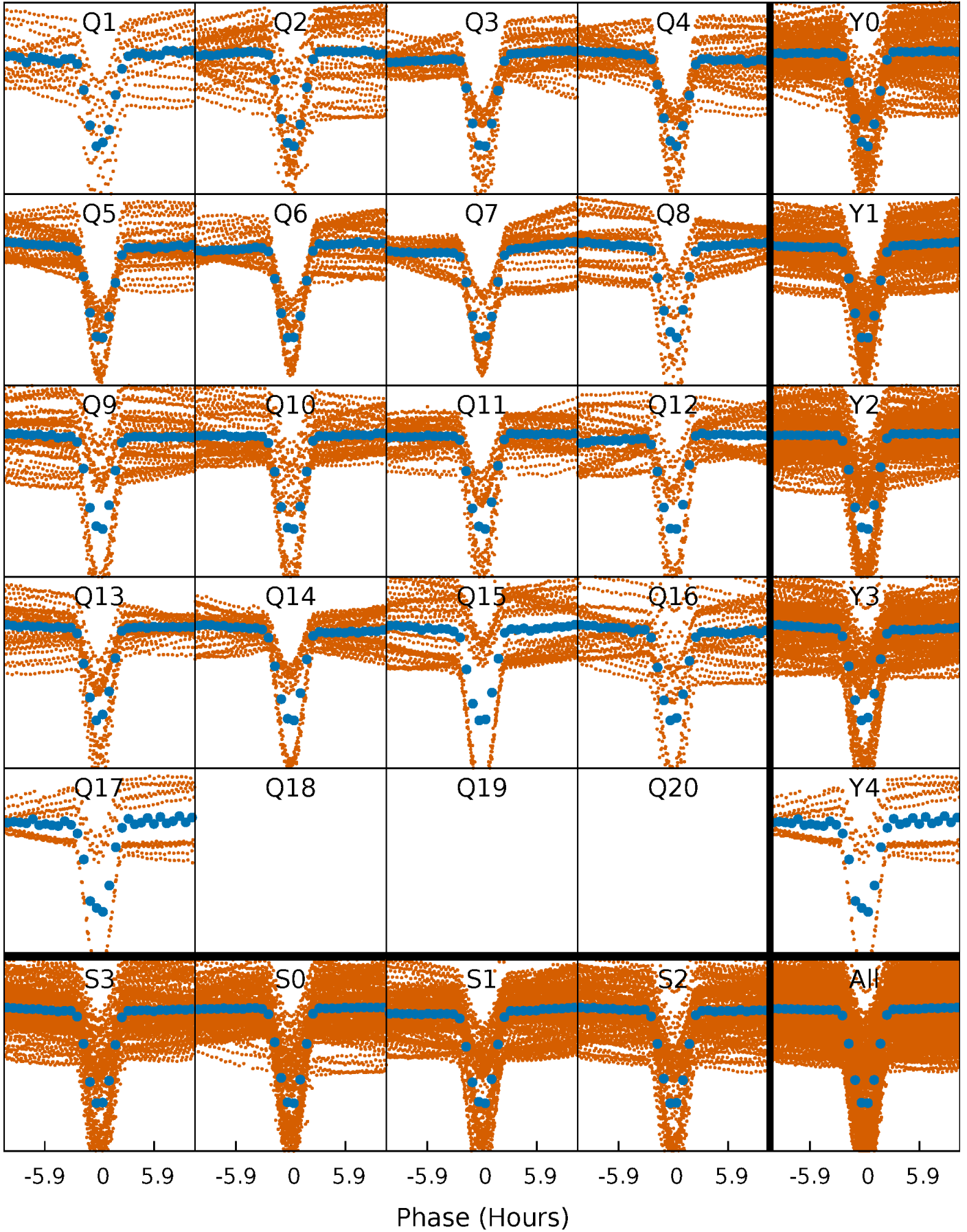


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



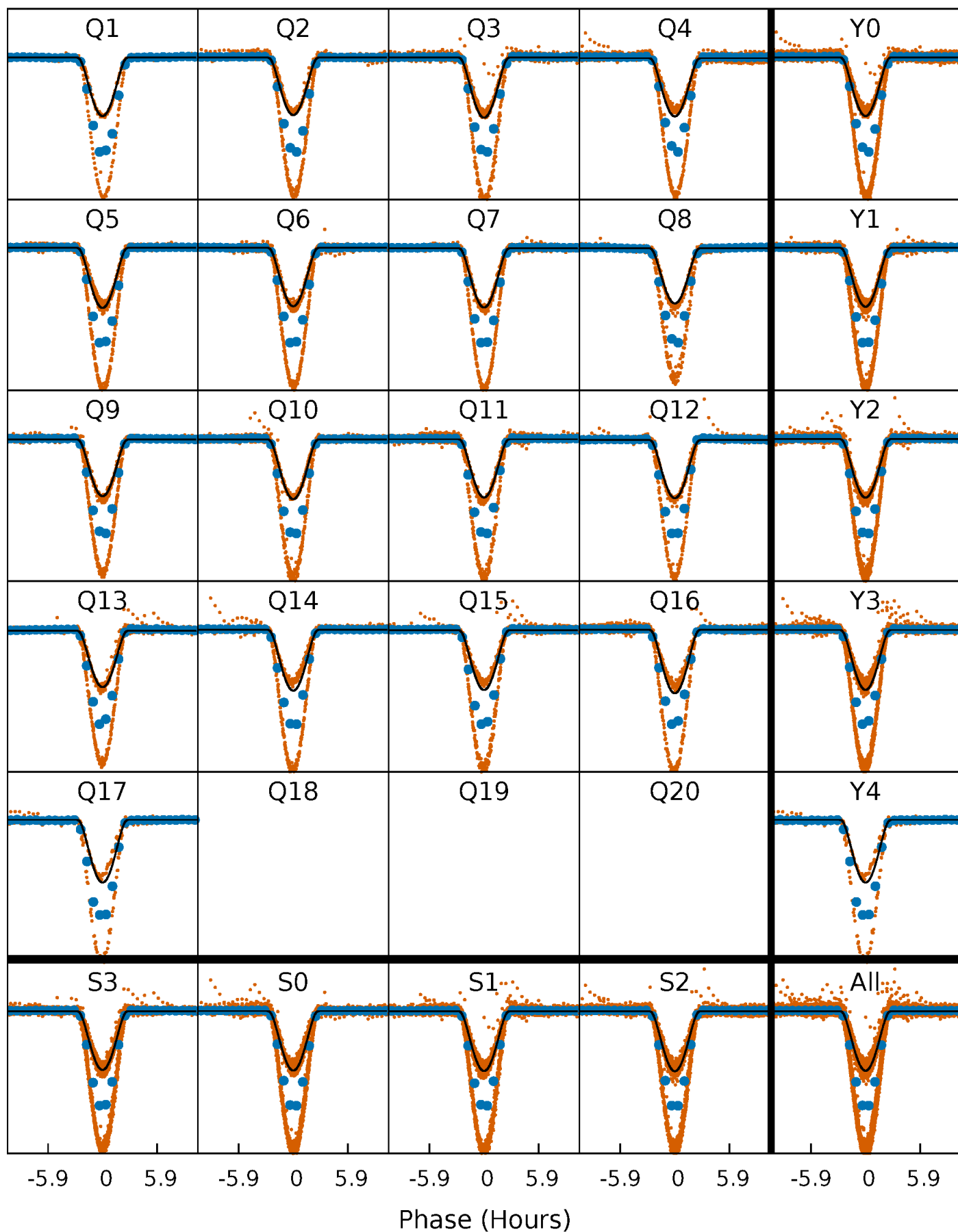
PDC Quarter-Phased Transit Curves

TCE 006939670-01 P= 2.119439 Days $T_0=133.078197$ (BKJD)



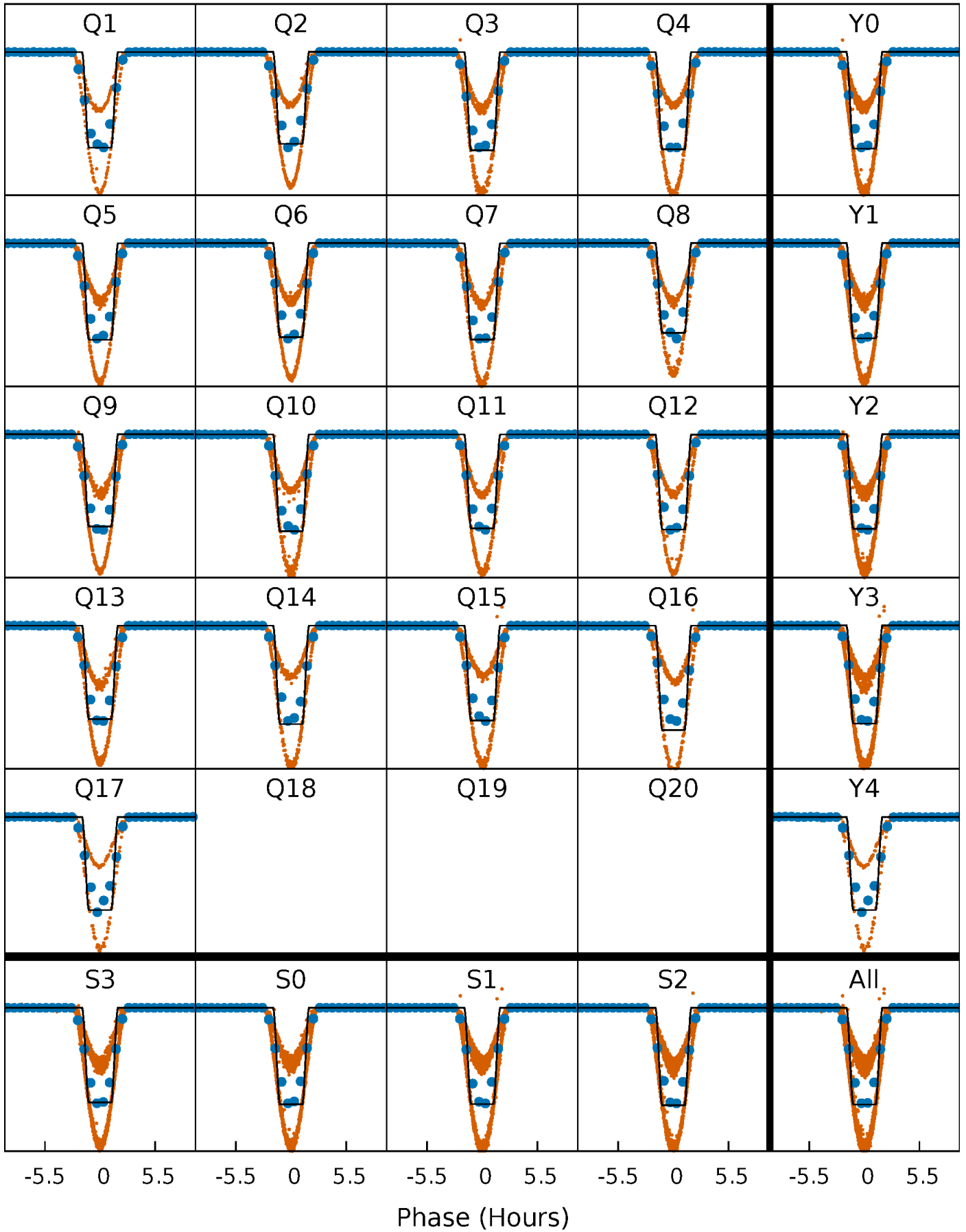
DV Quarter-Phased Transit Curves

TCE 006939670-01 P= 2.119439 Days $T_0=133.078197$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

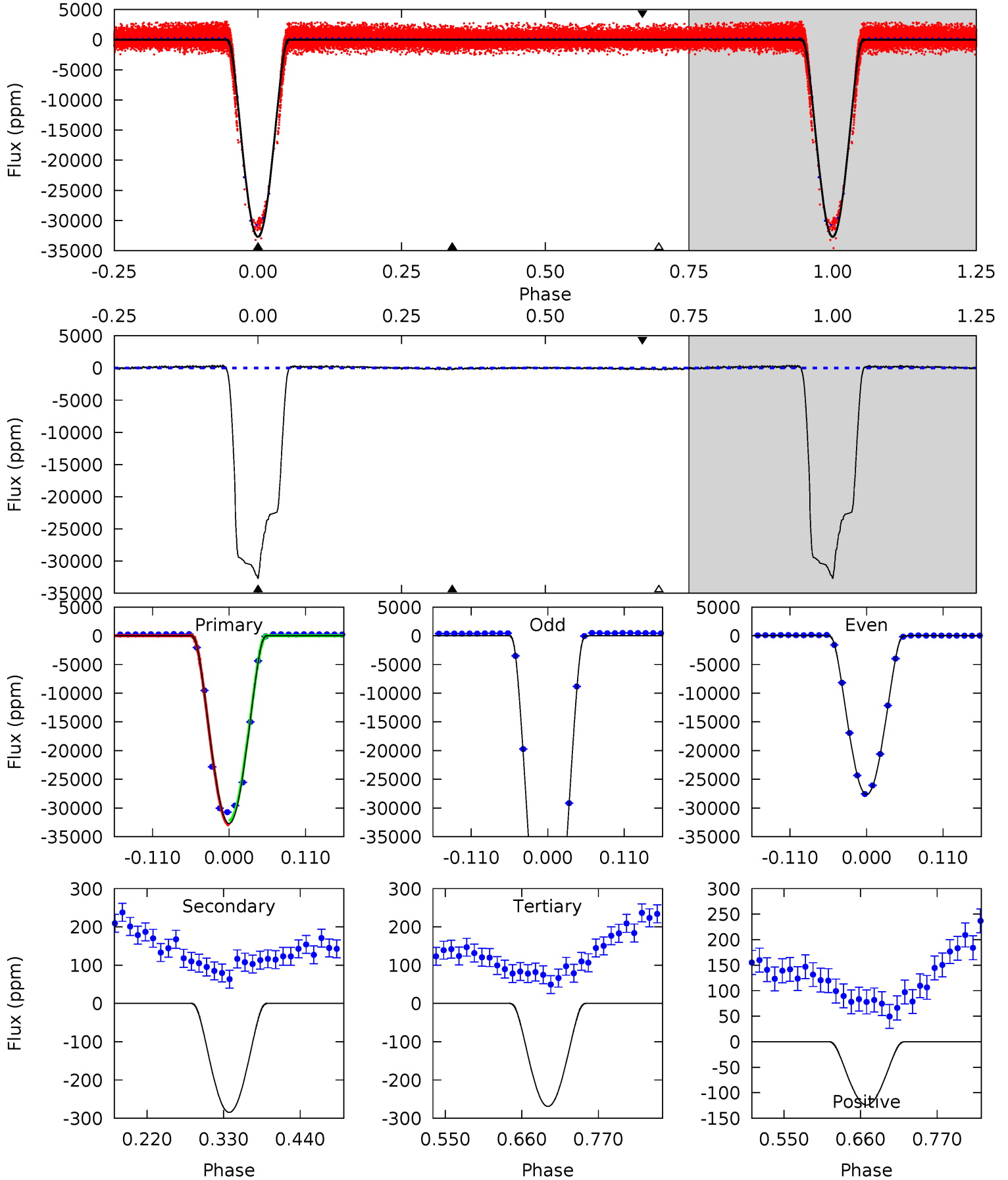
TCE 006939670-01 P= 2.119422 Days $T_0=133.084036$ (BKJD)



DV Model-Shift Uniqueness Test

006939670-01, P = 2.119439 Days, E = 130.958758 Days

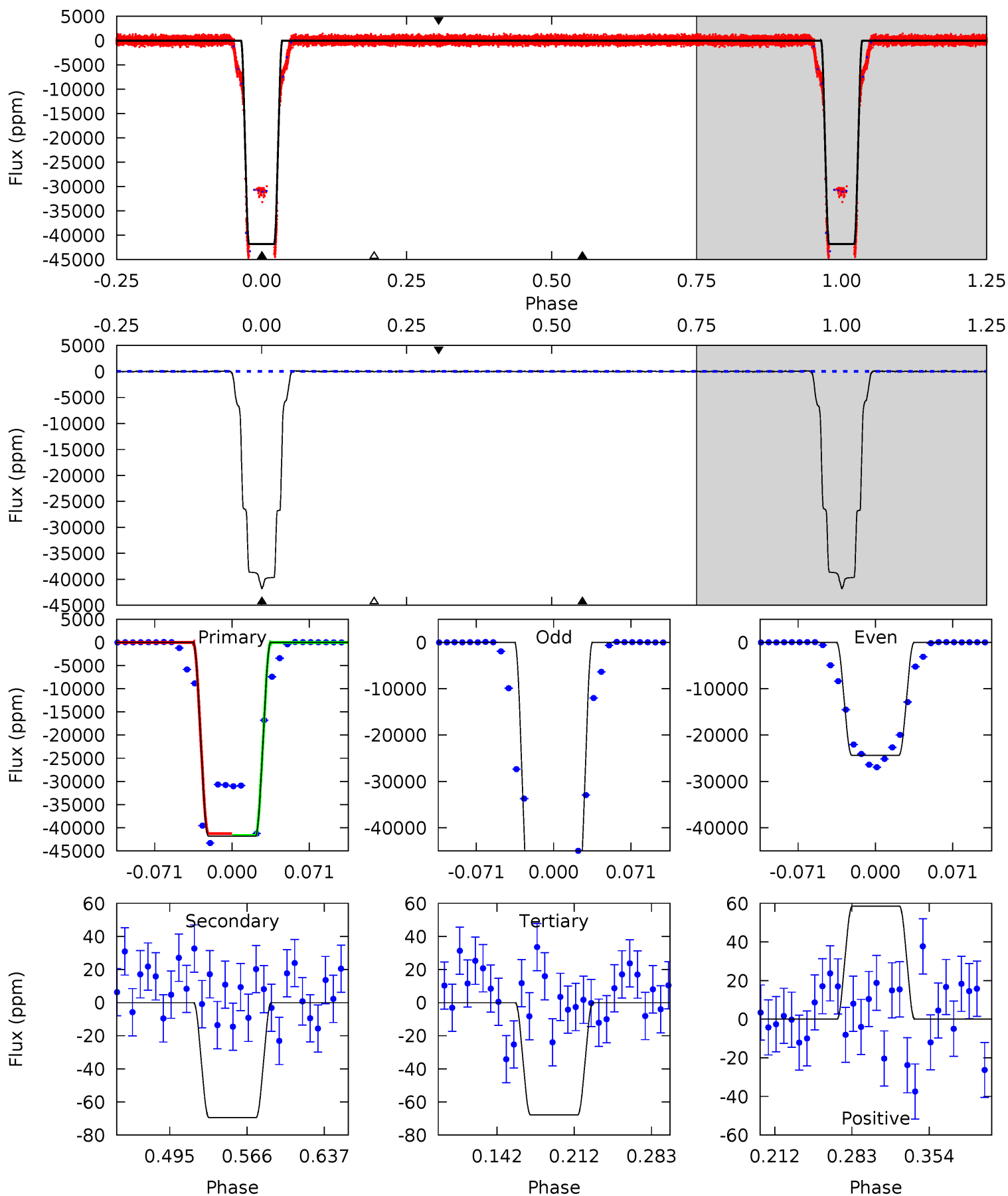
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2160	18.8	17.8	-8.19	4.54	1.60	8.07	2142	2168	1.02	27.0	2228	1.42	0.01	0



Alt Model-Shift Uniqueness Test

006939670-01, P = 2.119422 Days, E = 130.964614 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2549	4.23	4.14	3.57	4.64	1.81	1.57	2545	2545	0.09	0.66	2408	1.46	0.00	0



Stellar Parameters For KIC 006939670

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5655^{+167}_{-167}	$4.482^{+0.135}_{-0.135}$	$-0.720^{+0.300}_{-0.300}$	$0.804^{+0.144}_{-0.118}$	$0.716^{+0.098}_{-0.033}$	$1.937^{+1.127}_{-0.766}$
	+3%/-3%	+3%/-3%	+42%/-42%	+18%/-15%	+14%/-5%	+58%/-40%
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 006939670-01 / KOI 6792.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-285 ± 15	$23.39^{+2.65}_{-2.26}$	1837^{+100}_{-99}	-1994^{+510}_{-171}	$0.243^{+0.054}_{-0.048}$
Alt.	-69 ± 16	$18.95^{+2.40}_{-1.82}$	1842^{+98}_{-102}	-2298^{+89}_{-81}	$0.090^{+0.031}_{-0.026}$

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

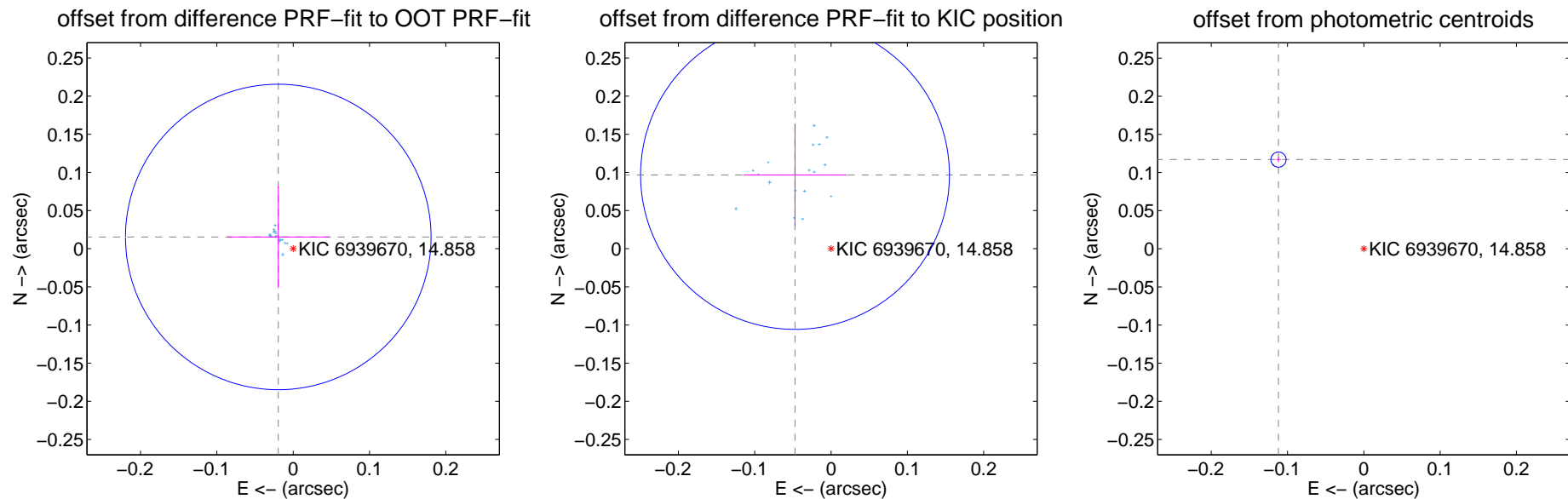
DV Centroid Data

Supplemental centroid analysis for 006939670-01. Kepler magnitude: 14.86. Transit SNR 1176.41

There are 17 quarters with good PRF difference image offsets

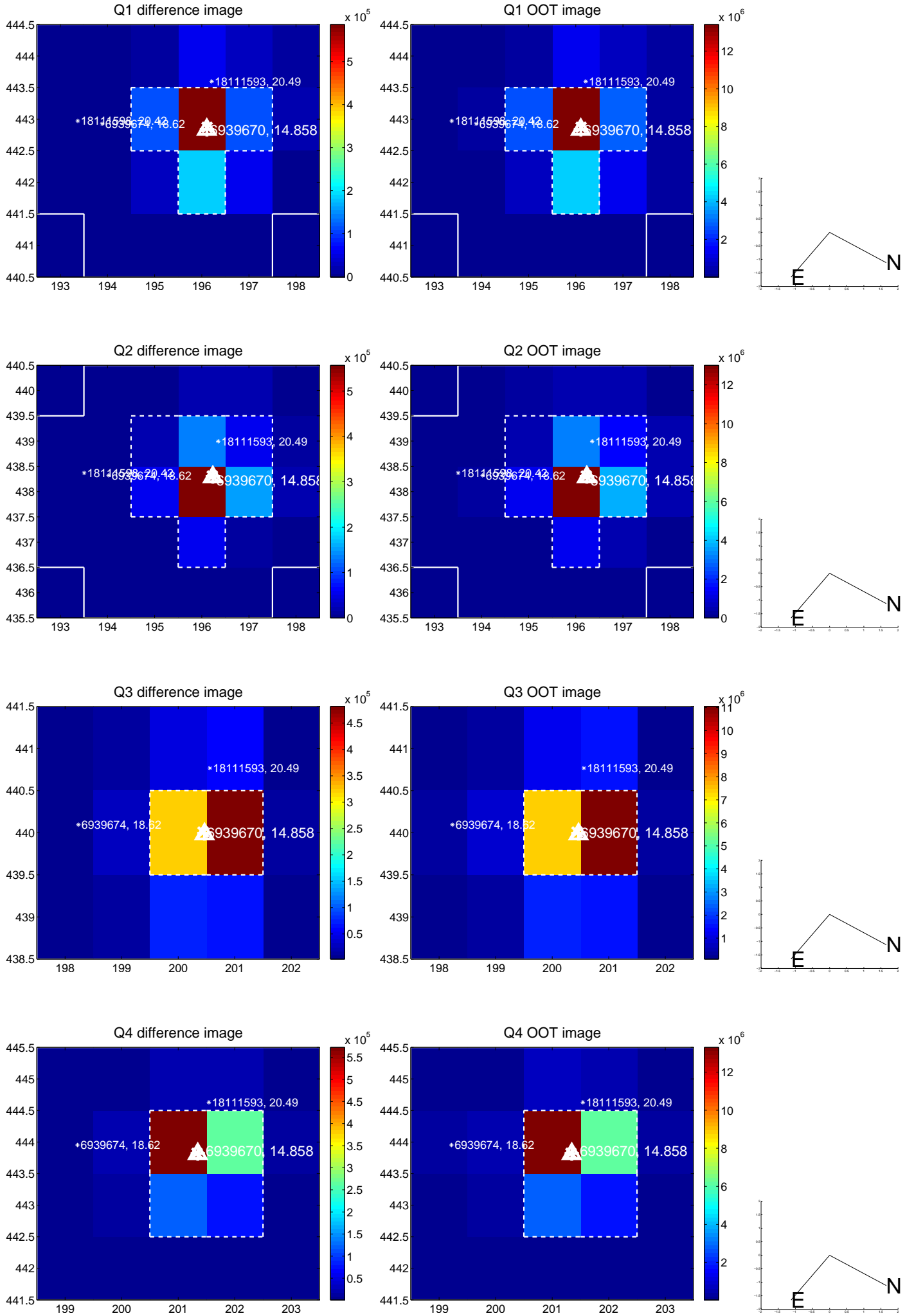
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.025 ± 0.067	0.37	0.020 ± 0.067	0.015 ± 0.067
PRF-fit source offset from KIC position	0.108 ± 0.067	1.59	0.047 ± 0.068	0.097 ± 0.067
photometric centroid source offset	0.16 ± 0.00	48.88	0.11 ± 0.00	0.12 ± 0.00

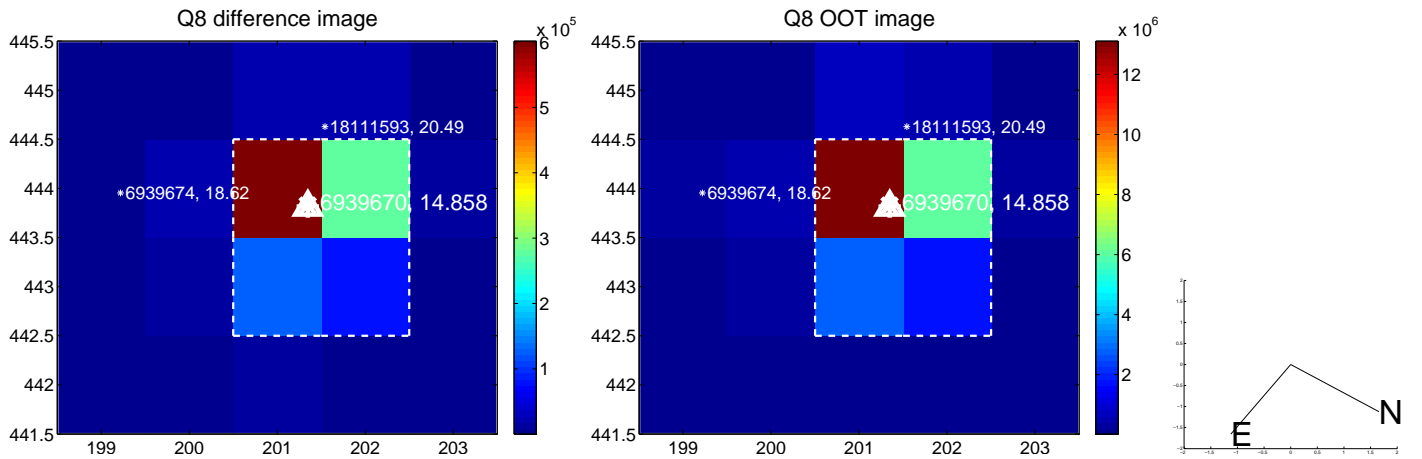
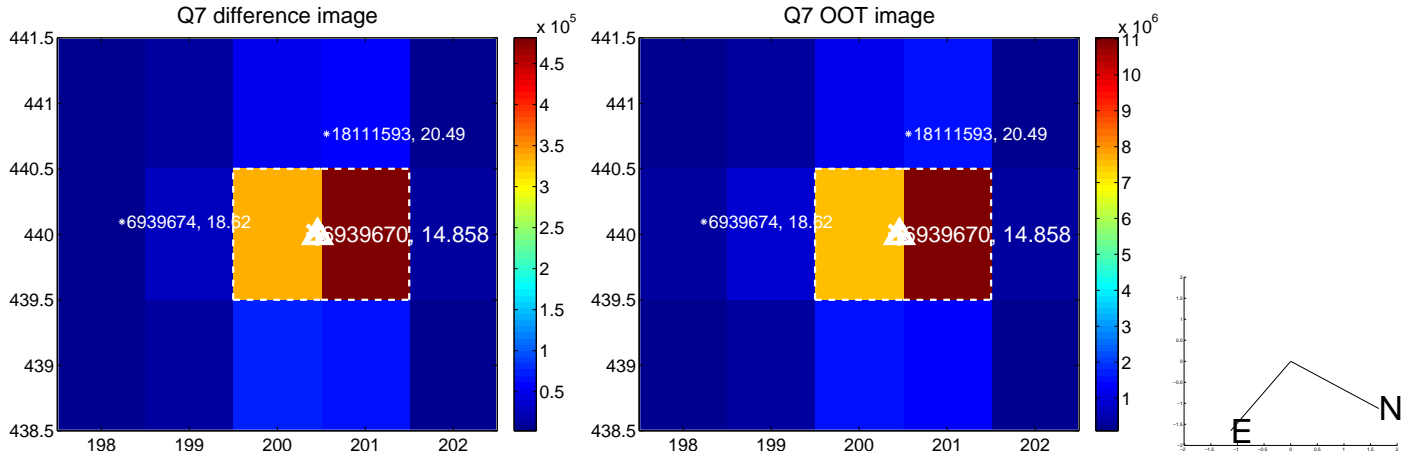
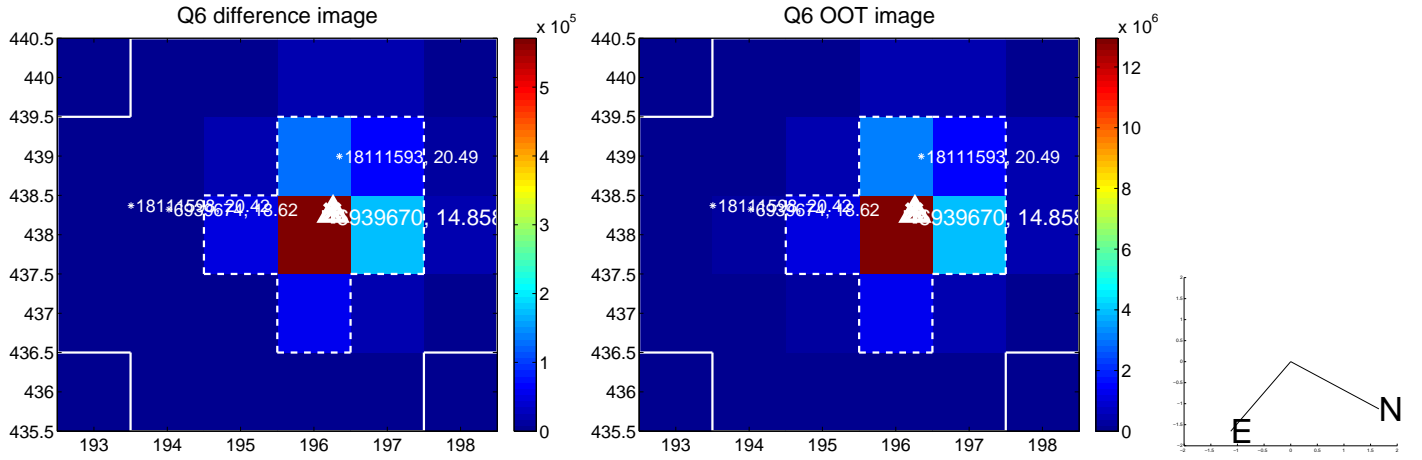
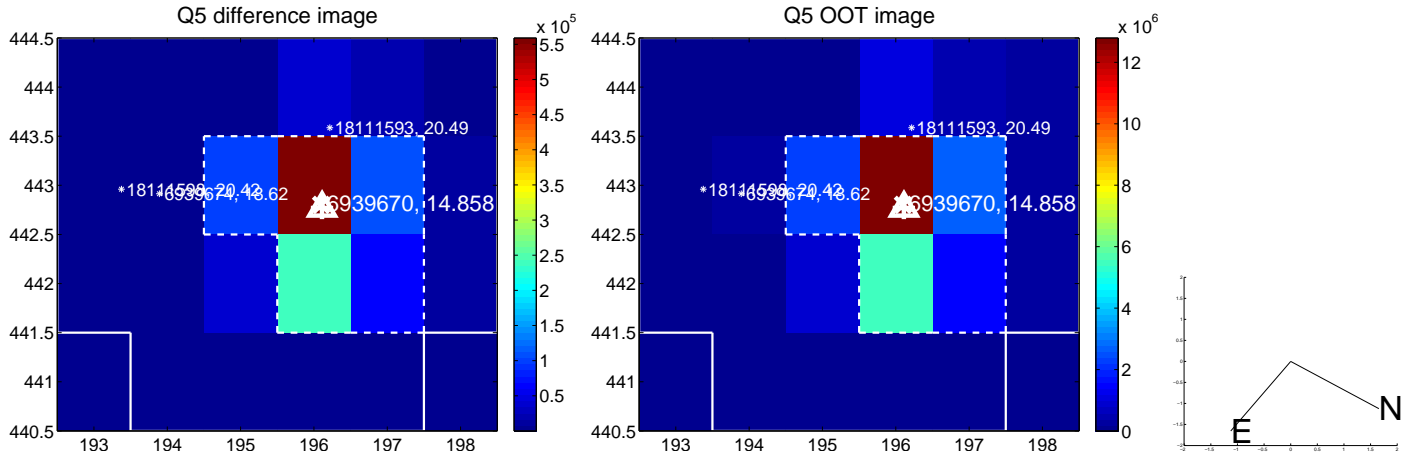


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

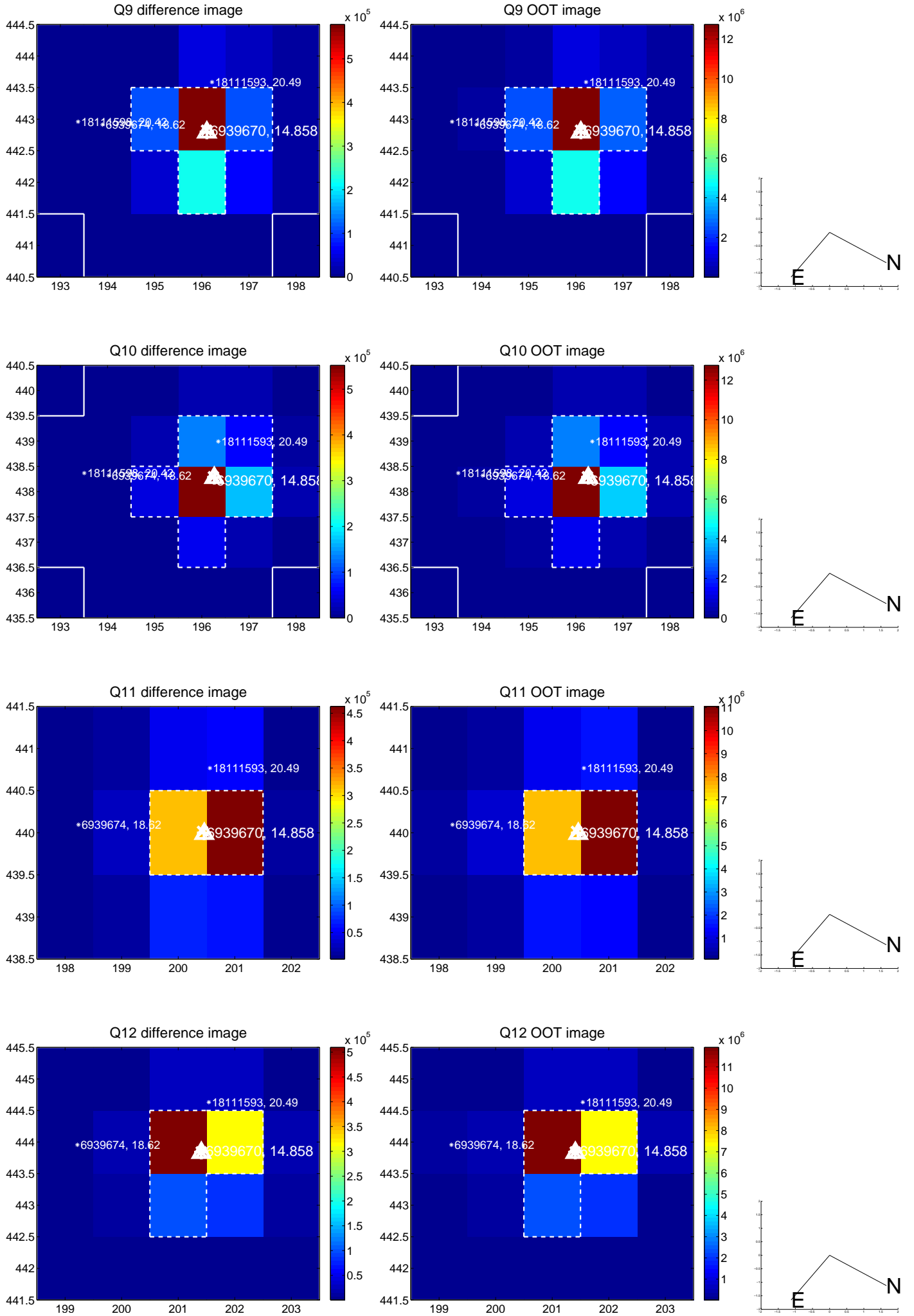
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



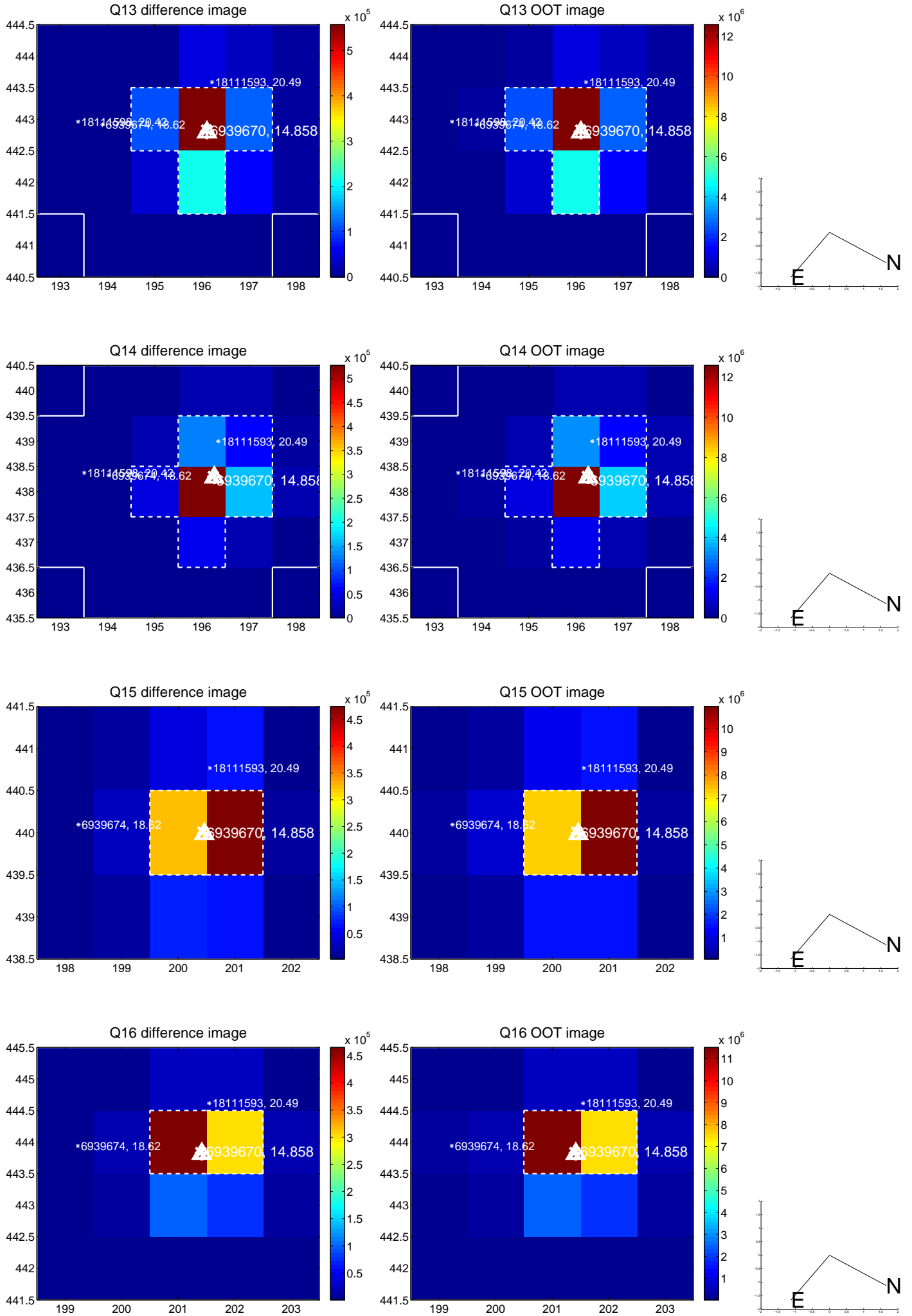
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



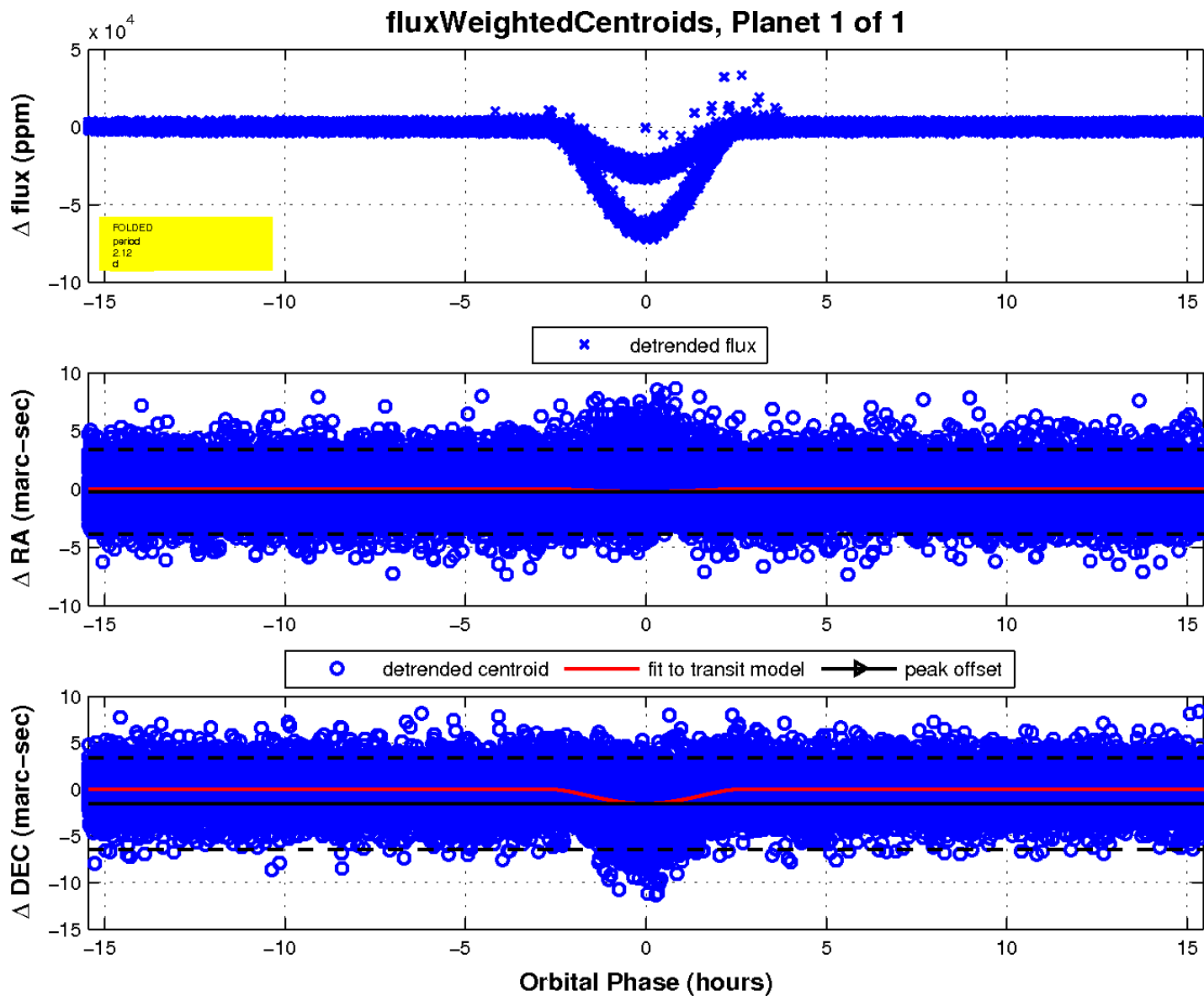
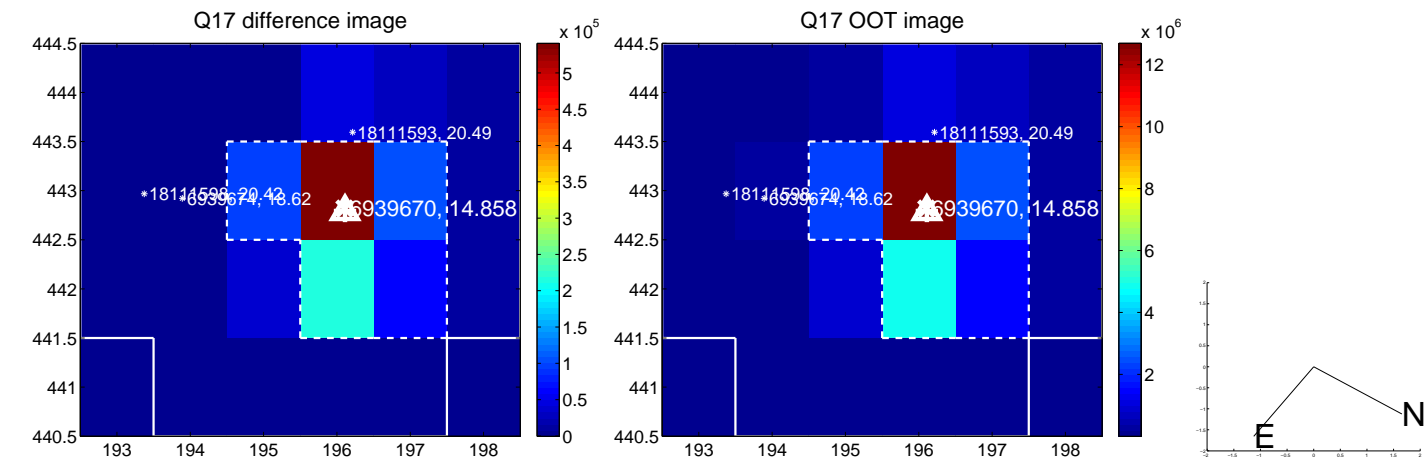
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

