

KIC 010971633

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})
010971633-01	OBS	No	3.980648	135.046087	11.8	10.351	9.6	7.9	2.70	9189	1.12	10799.17

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010971633-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL — LPP_DV — MOD_NONUNIQ_DV — CENT_SATURATED

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

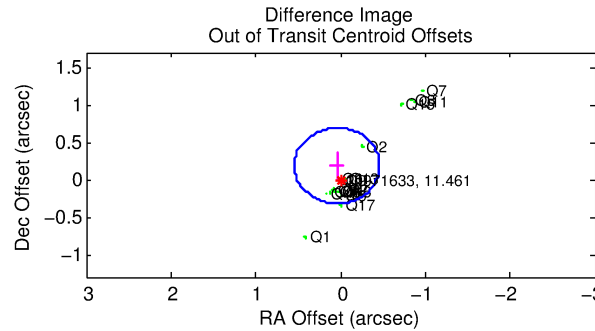
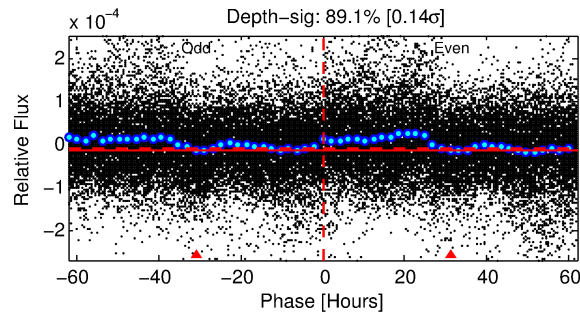
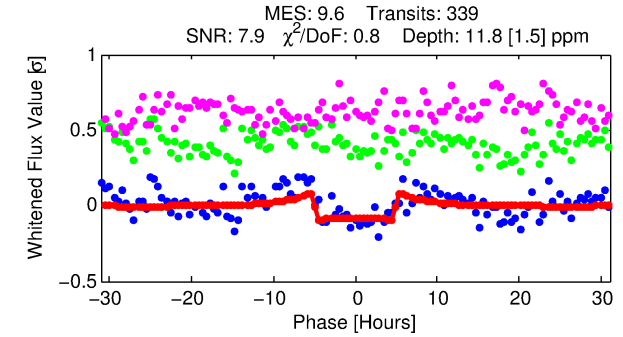
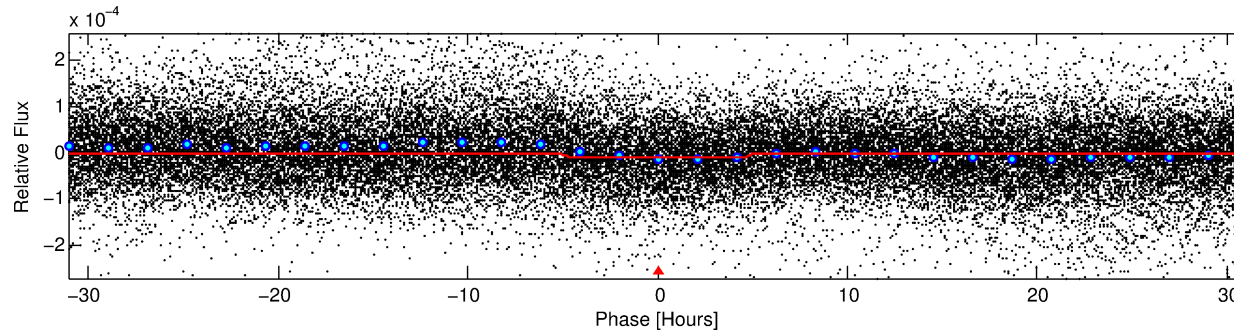
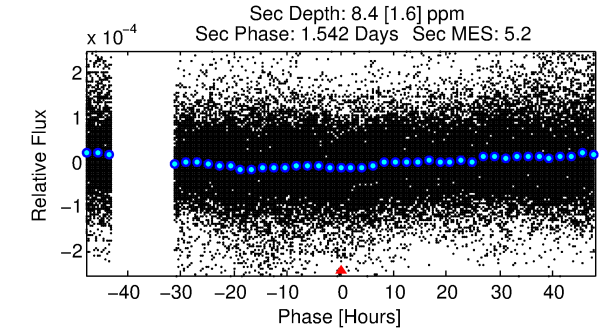
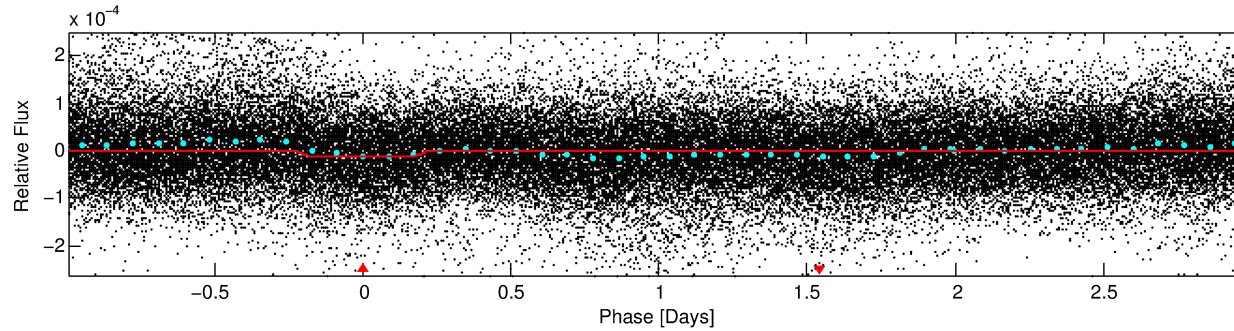
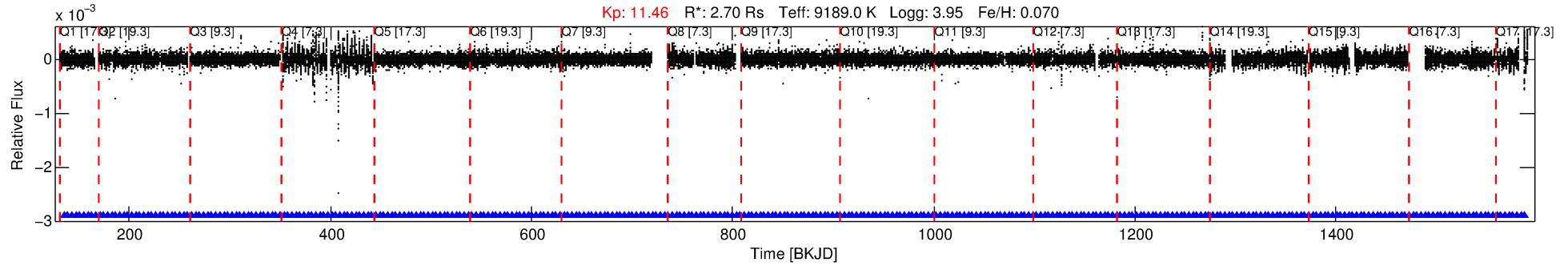
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010971633-01

No Significant Match Found

DV One-Page Summary

KIC: 10971633 Candidate: 1 of 1 Period: 3.981 d



DV Fit Results:

Period = 3.98065 [0.00004] d
Epoch = 135.0461 [0.0071] BKJD
Rp/R* = 0.0038 [0.0004]
a/R* = 1.31 [0.29]
b = 0.96 [0.05]
Seff = 10799.17 [5563.76]
Teq = 2599 [335] K
Rp = 1.12 [0.45] Re
a = 0.0656 [0.0215] AU
Ag = 15.72 [8.64] [1.70σ]
Teffp = 8003 [653] K [7.36σ]

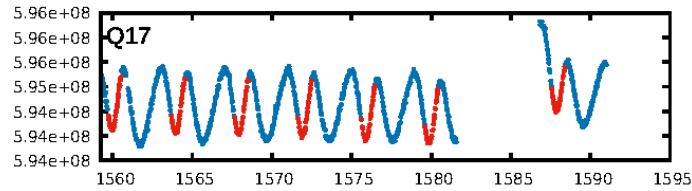
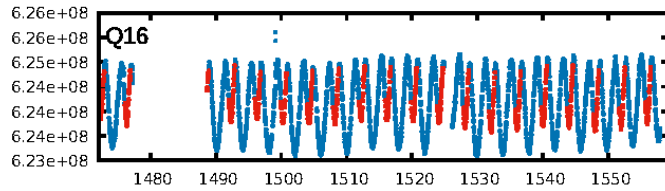
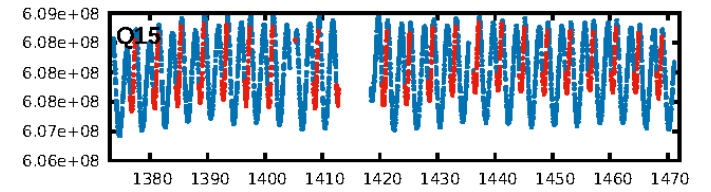
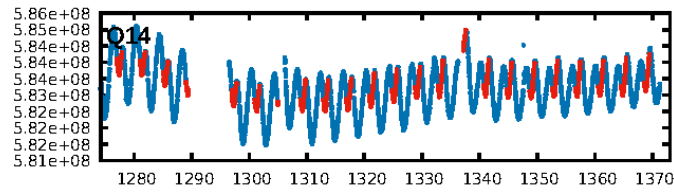
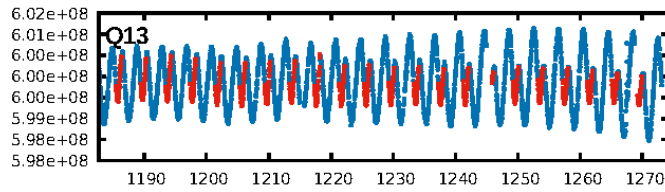
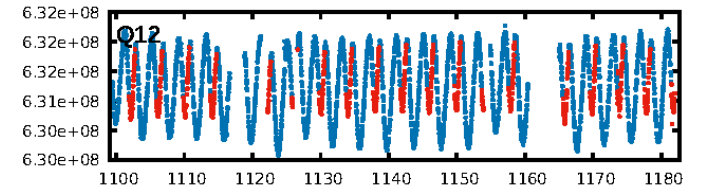
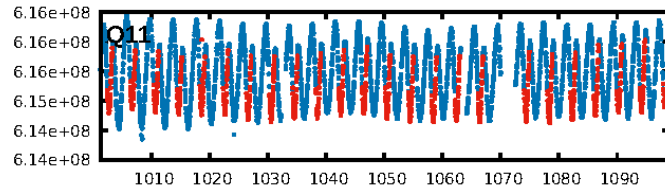
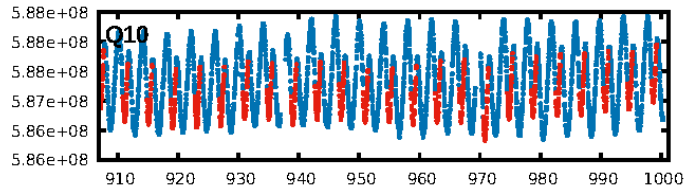
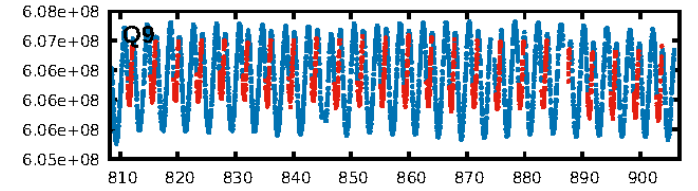
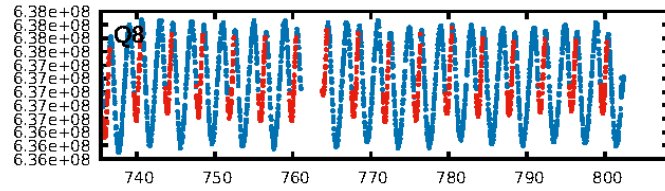
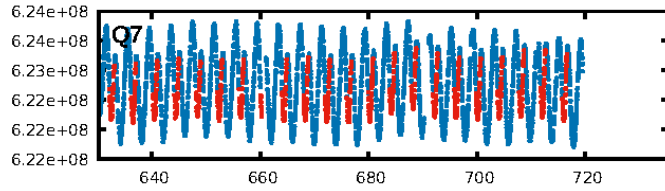
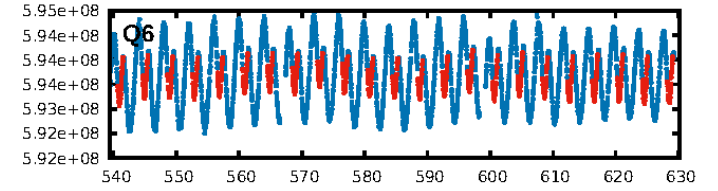
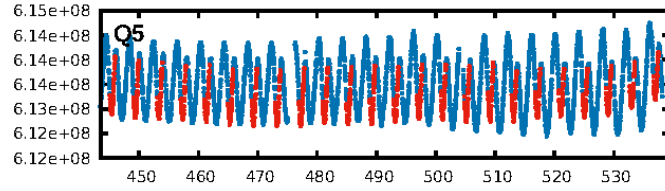
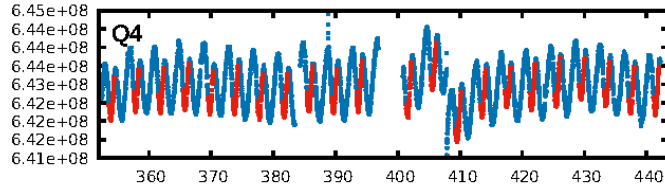
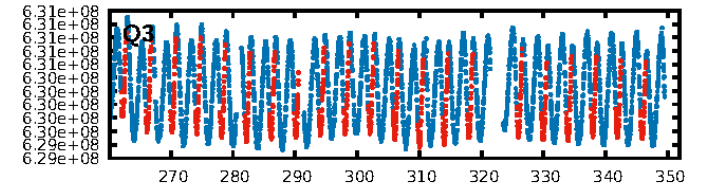
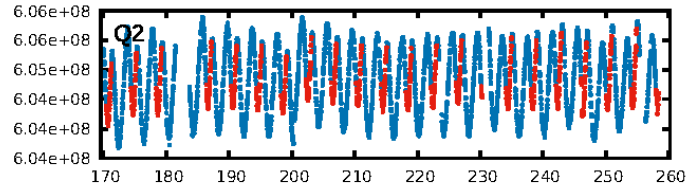
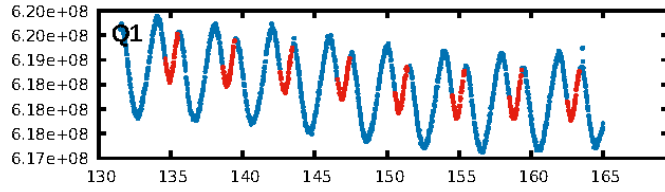
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.83e-17
RollingBand-fgt: 1.00 [324/324]
GhostDiagnostic-chr: 0.5195
Centroid-sig: N/A
Centroid-so: 2.009 arcsec [1.89σ]
OotOffset-rm: 0.189 arcsec [1.12σ]
KicOffset-rm: 0.326 arcsec [1.56σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.88 [15/17]
DiffImageOverlap-fno: 1.00 [17/17]

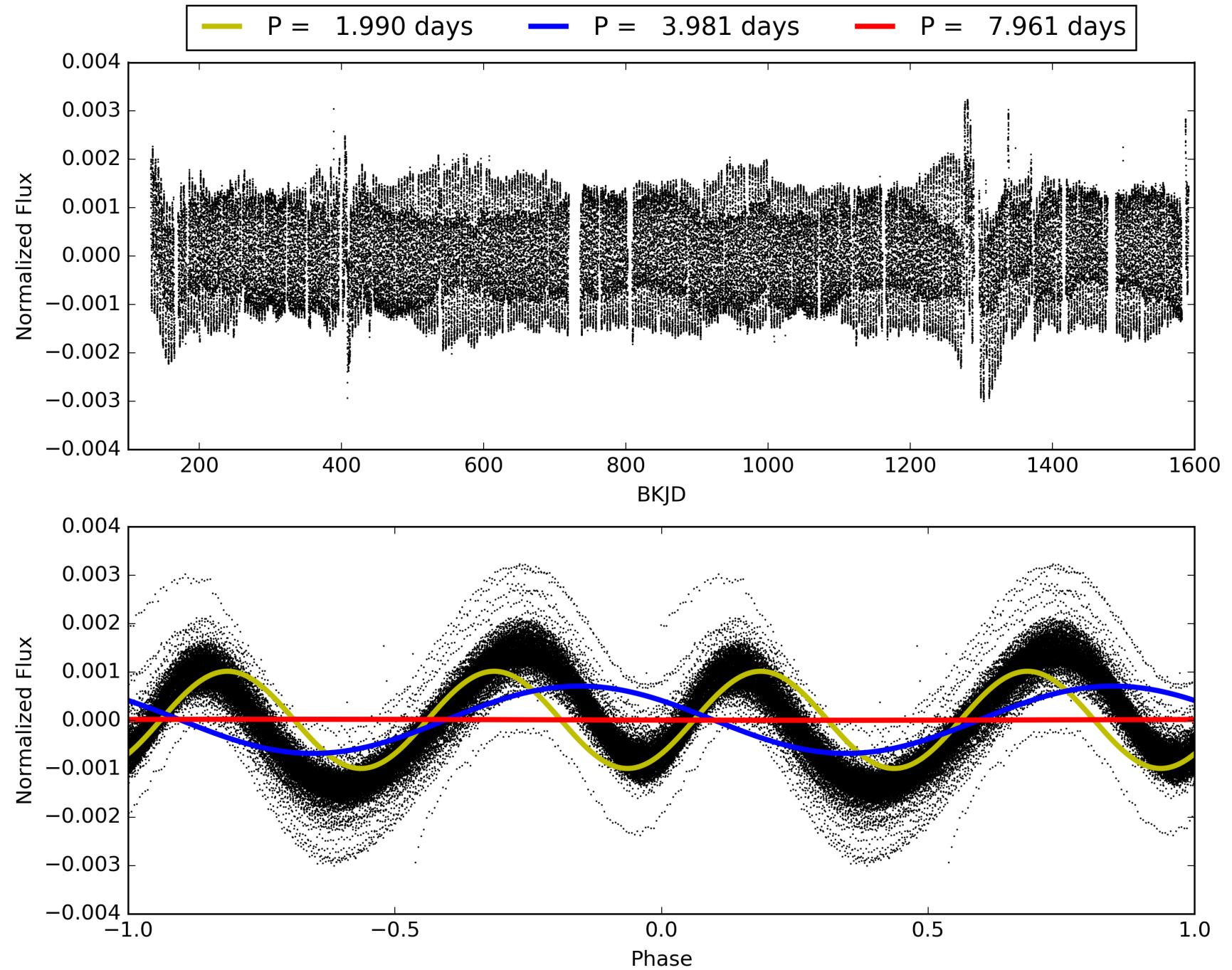
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 06:24:22 Z

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

TCE 010971633-01, PDC Light Curves

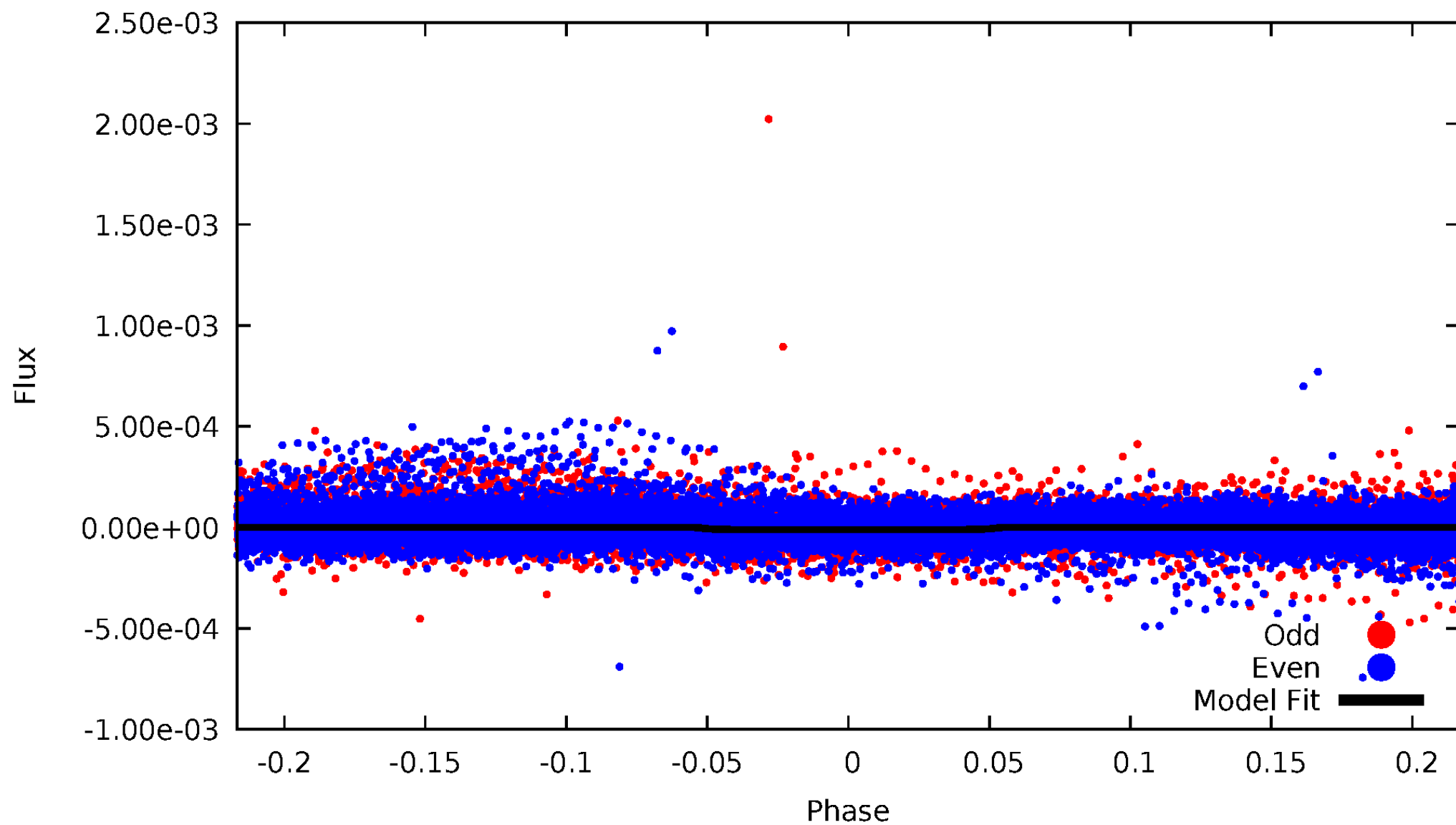


TCE 010971633-01



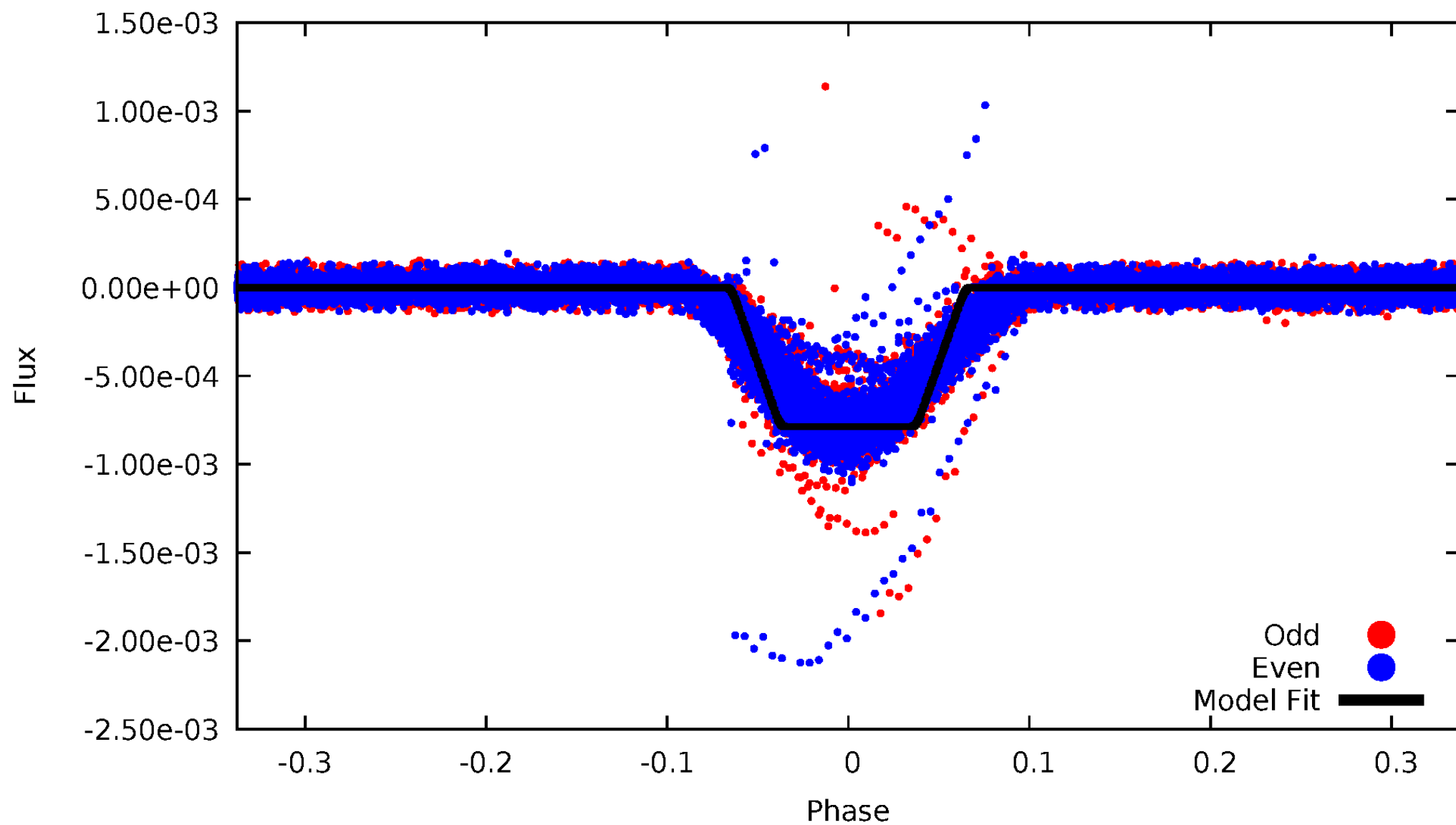
DV Odd/Even

TCE 010971633-01



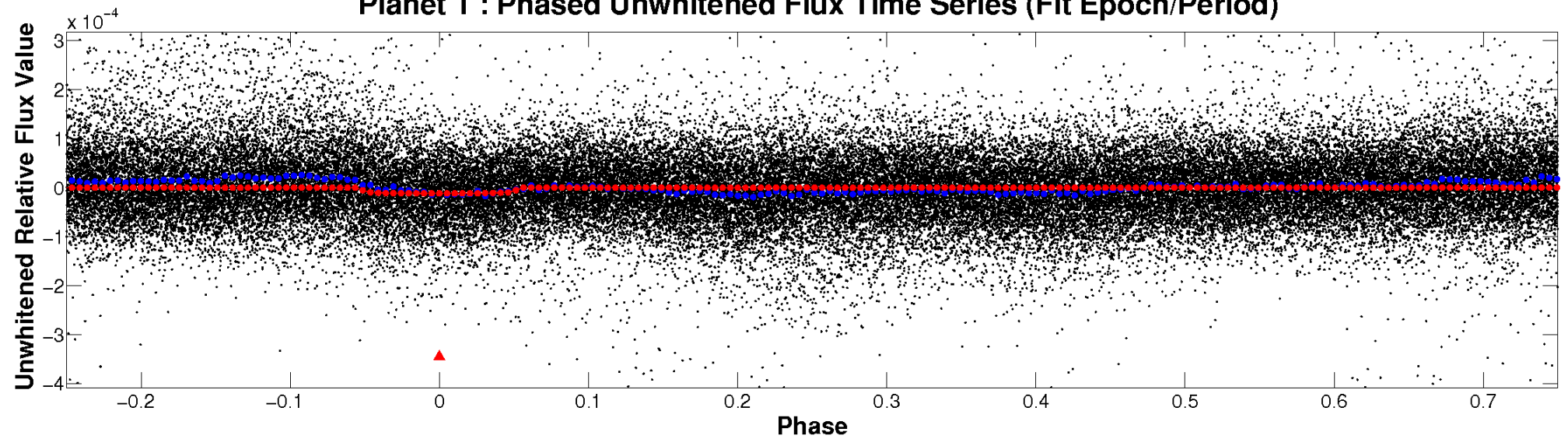
ALT Odd/Even

TCE 010971633-01

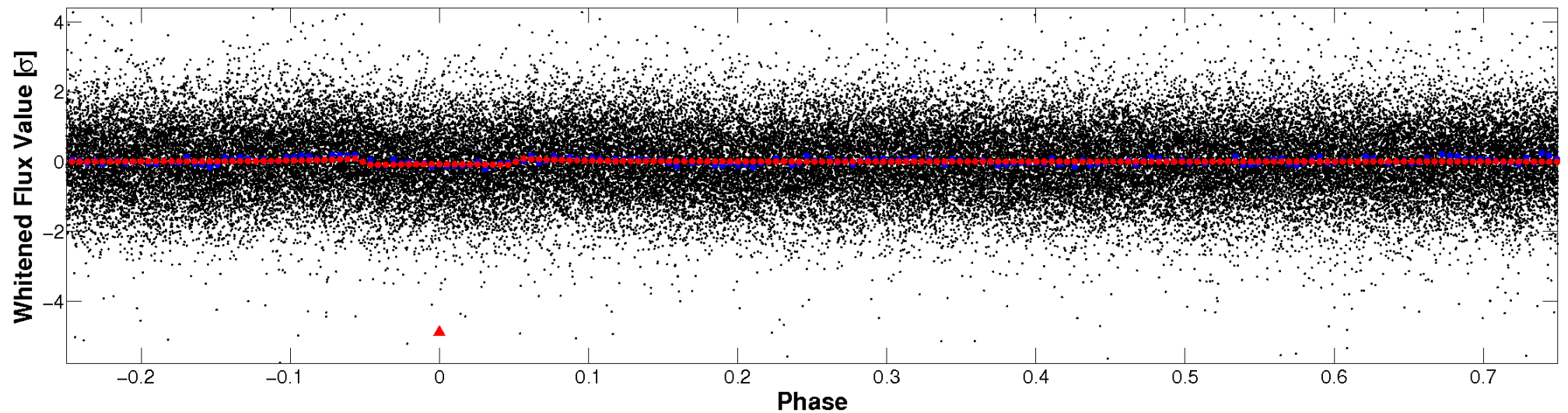


Non-Whitened Vs. Whitened Light Curve

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

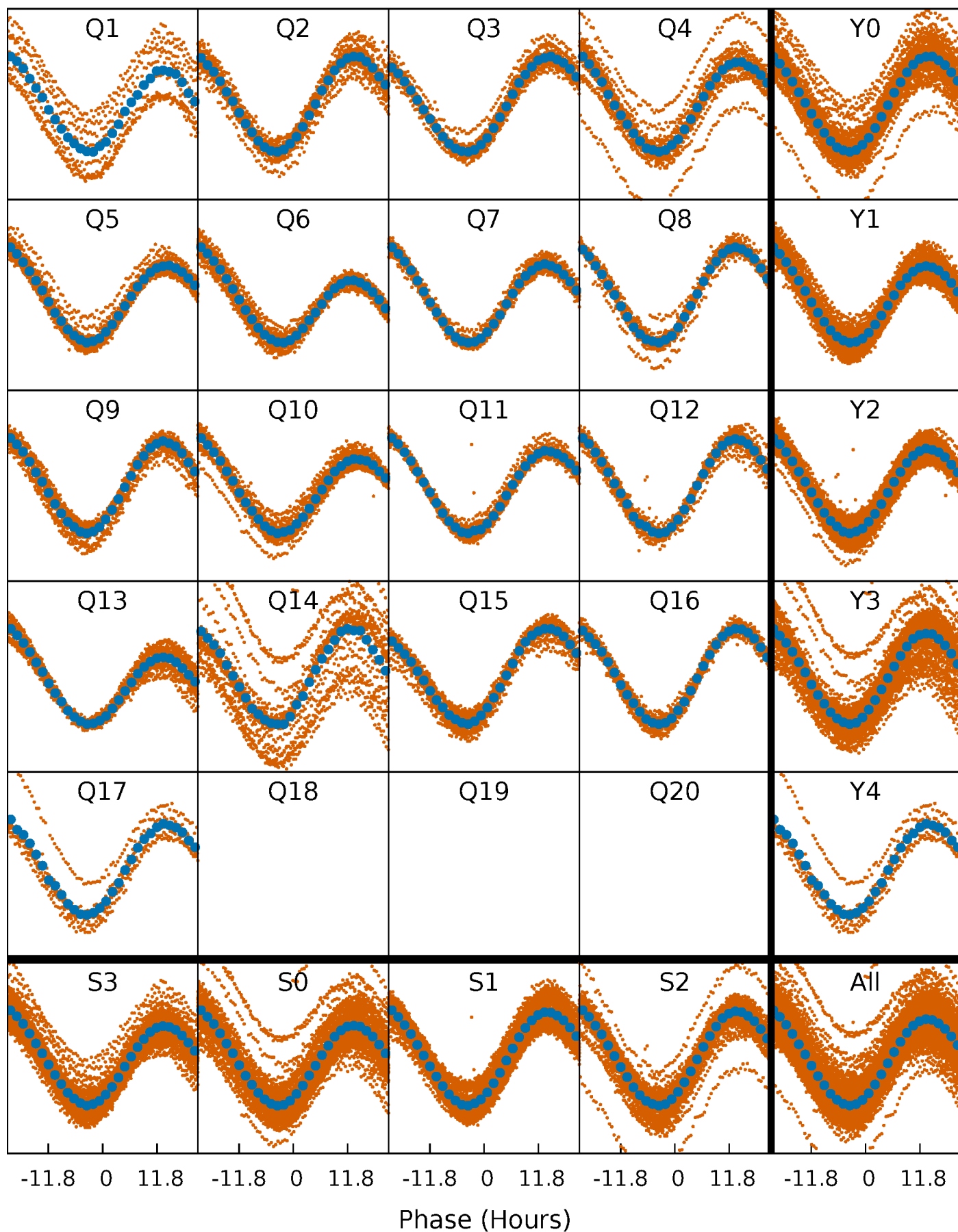


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



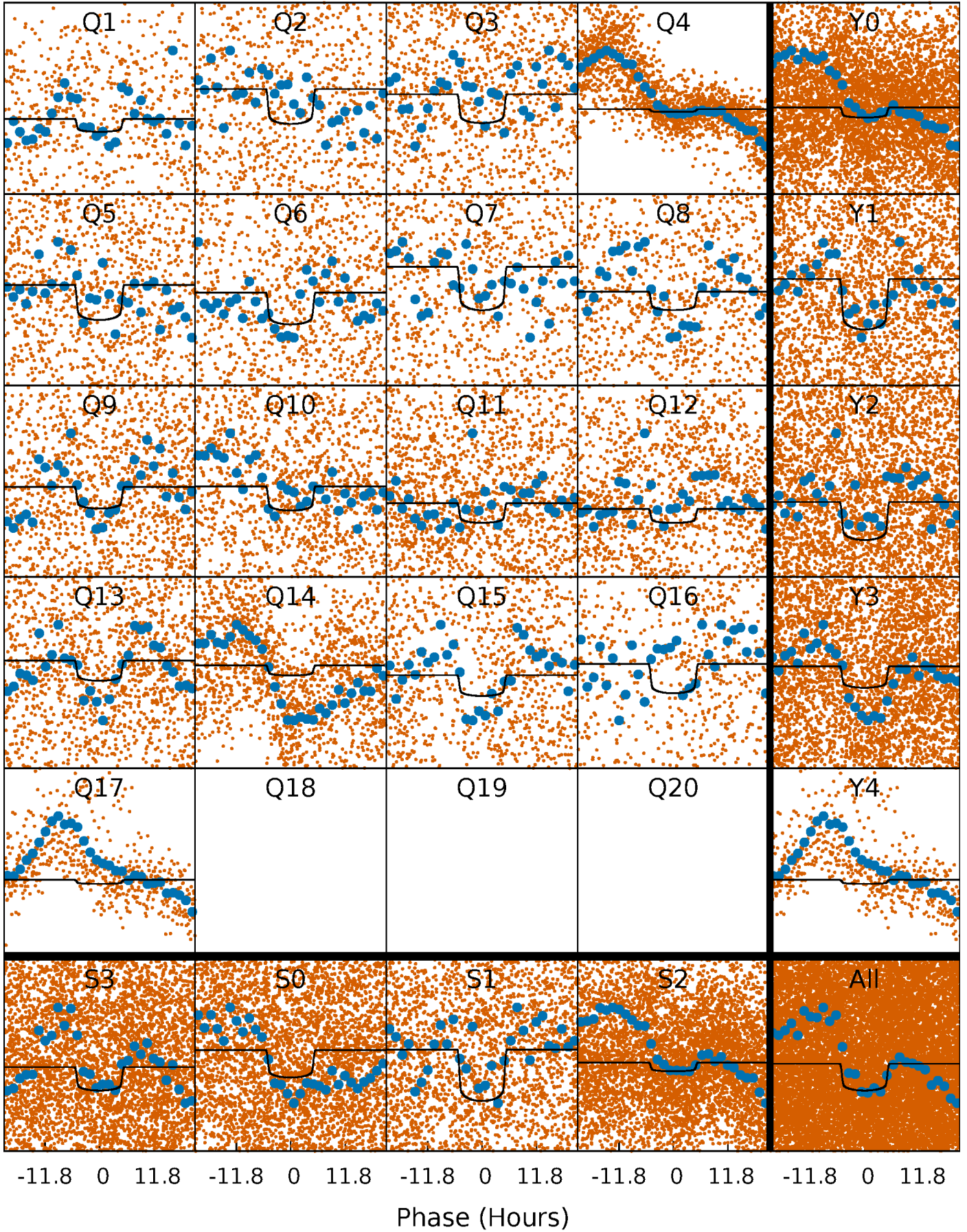
PDC Quarter-Phased Transit Curves

TCE 010971633-01 P= 3.980648 Days $T_0=135.046087$ (BKJD)



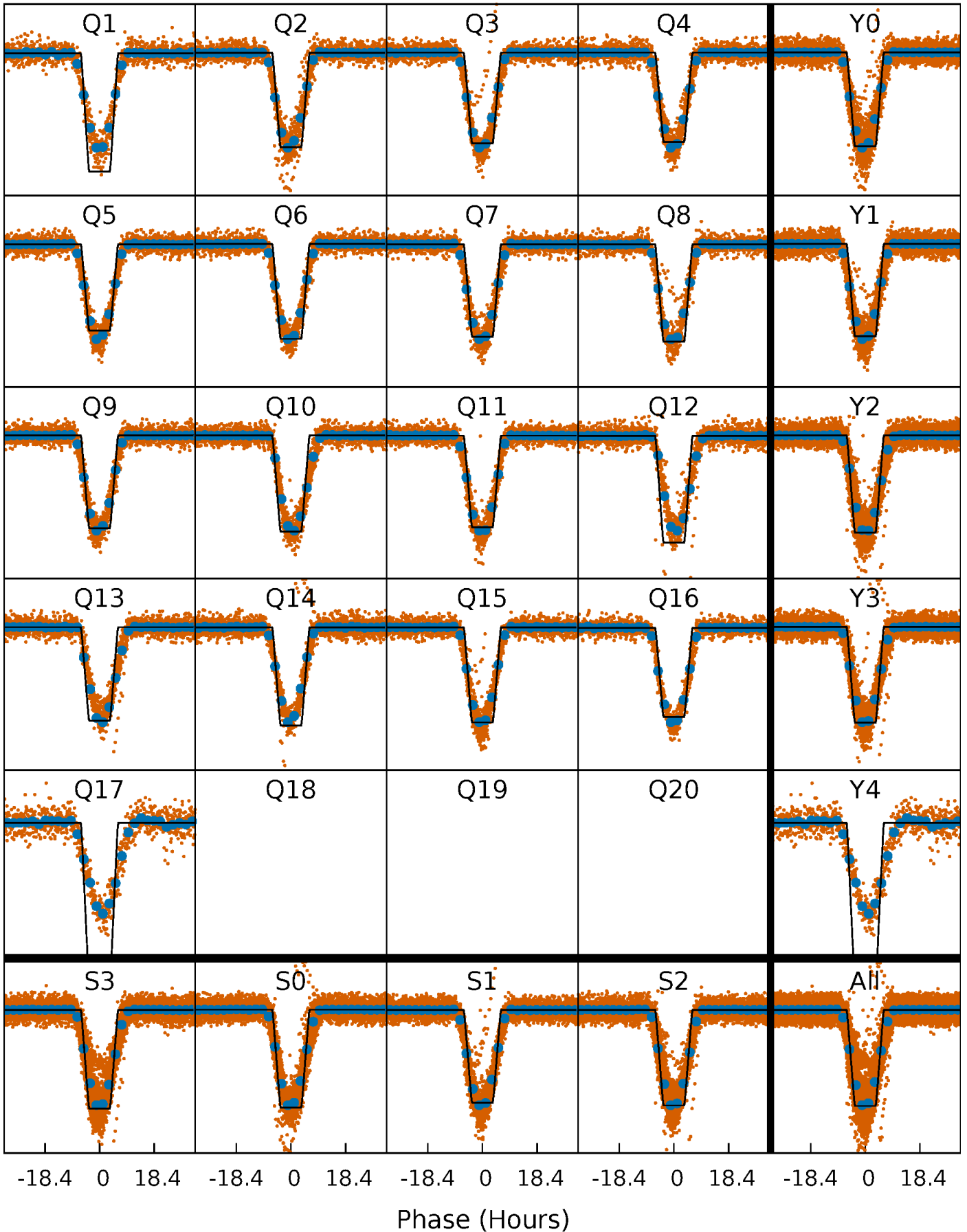
DV Quarter-Phased Transit Curves

TCE 010971633-01 P= 3.980648 Days $T_0=135.046087$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

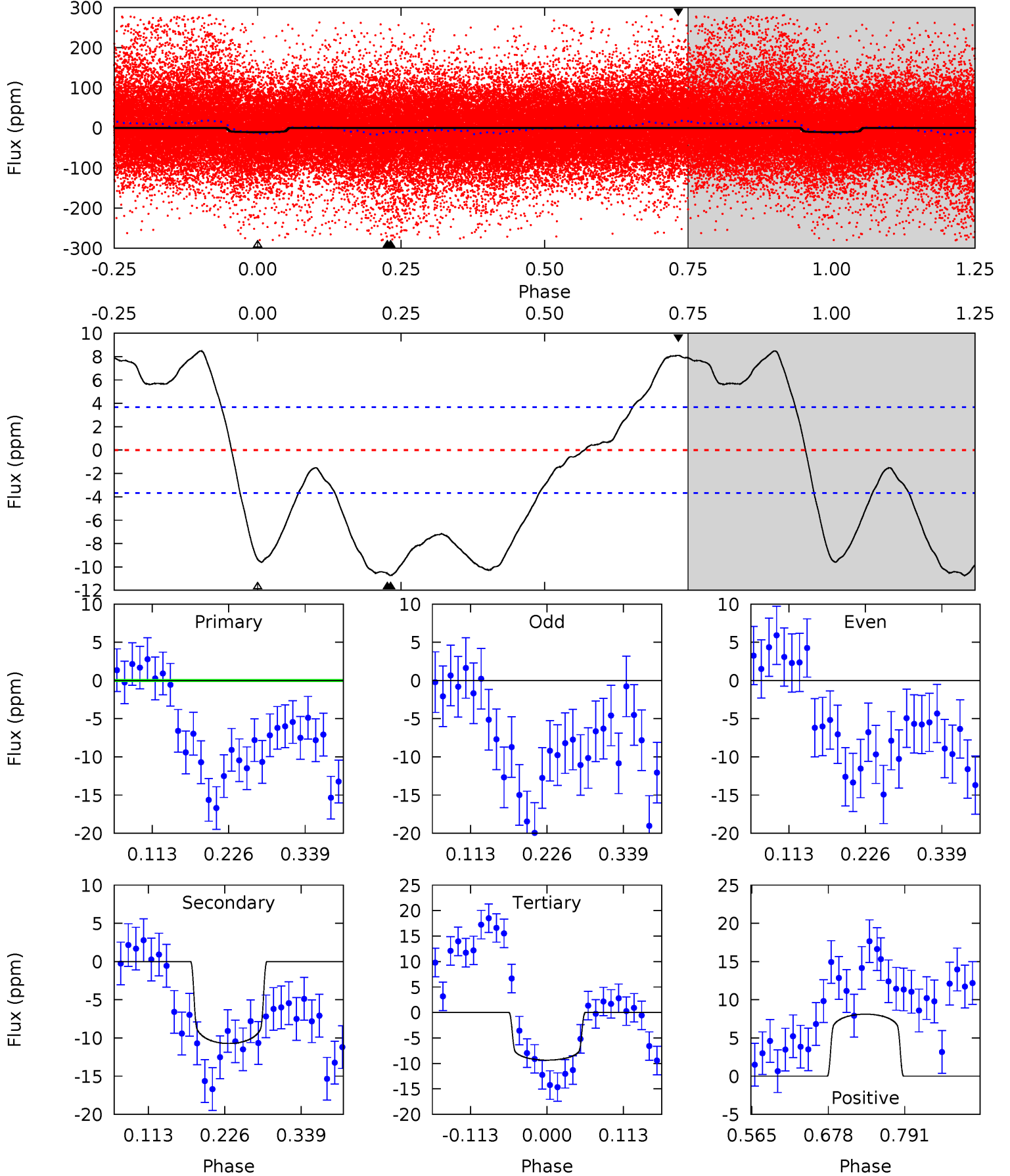
TCE 010971633-01 P= 3.980557 Days $T_0=135.004342$ (BKJD)



DV Model-Shift Uniqueness Test

010971633-01, P = 3.980648 Days, E = 131.065439 Days

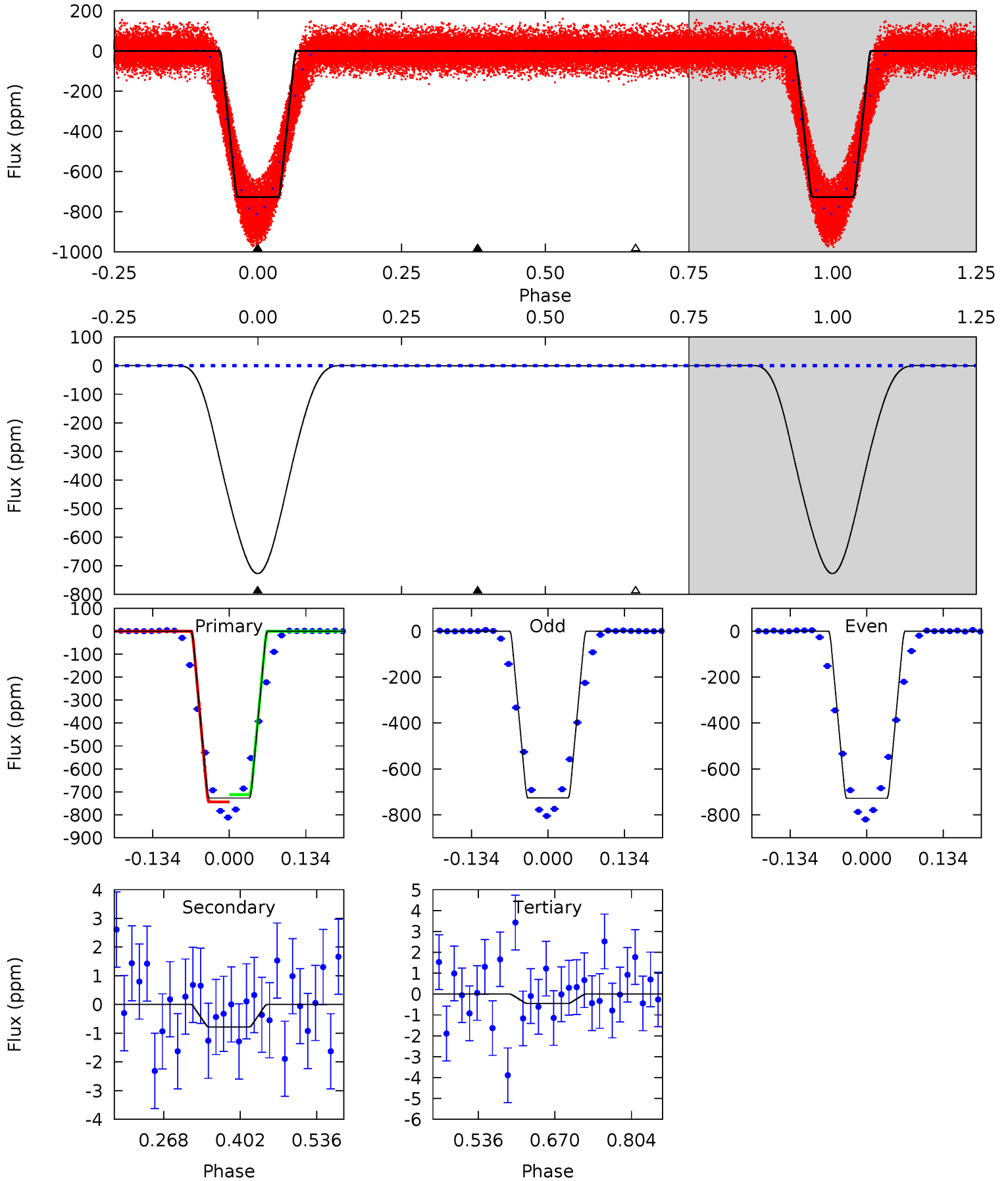
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.0	13.3	11.6	10.0	4.54	1.58	7.72	1.50	3.02	1.70	3.23	1.49	1.06	0.44	2.67



Alt Model-Shift Uniqueness Test

010971633-01, P = 3.980557 Days, E = 131.023785 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1675	1.81	1.04	0	4.50	1.50	1.08	1674	1675	0.76	1.81	2.16	0.99	0.00	0



Stellar Parameters For KIC 010971633

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	9189^{+286}_{-430}	$3.952^{+0.264}_{-0.176}$	$0.070^{+0.200}_{-0.700}$	$2.698^{+0.852}_{-1.041}$	$2.376^{+0.339}_{-0.734}$	$0.170^{+0.309}_{-0.084}$
	+3%/-5%	+7%/-4%	+286%/-1000%	+32%/-39%	+14%/-31%	+181%/-49%
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 010971633-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-11 ± 1	$1.10^{+0.24}_{-0.23}$	3582^{+327}_{-338}	8210^{+663}_{-560}	21^{+12}_{-6}
Alt.	-1 ± 0	$8.16^{+1.49}_{-1.54}$	3595^{+319}_{-336}	-3277^{+187}_{-187}	$0.028^{+0.021}_{-0.017}$

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

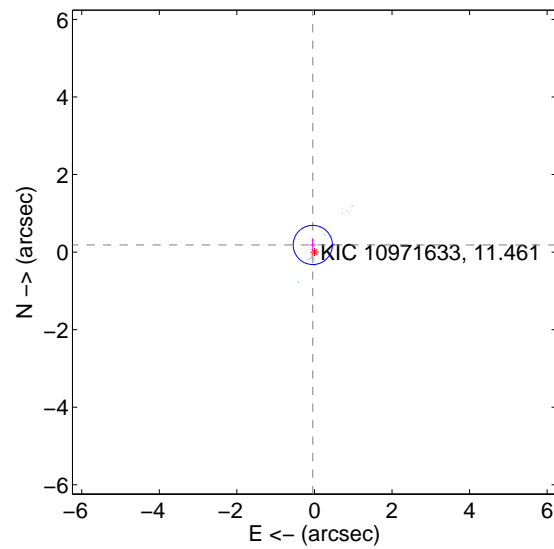
Supplemental centroid analysis for 010971633-01. **Kepler magnitude: 11.46.** Transit SNR 7.92

There are 15 quarters with good PRF difference image offsets

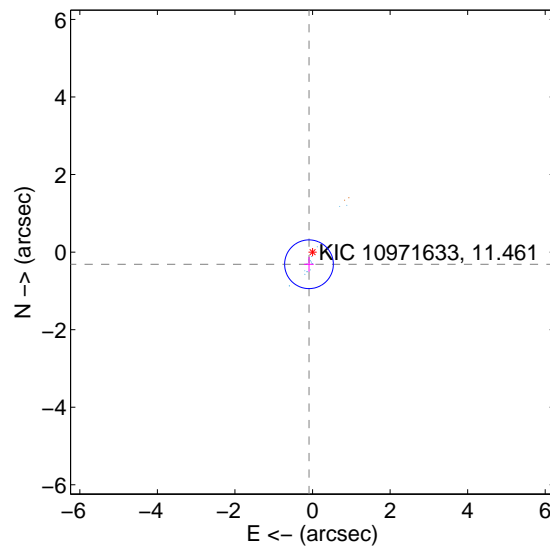
The direct PRF centroid is offset from the target star catalog position by about 0.22 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.189 ± 0.168	1.12	0.042 ± 0.078	0.185 ± 0.172
PRF-fit source offset from KIC position	0.326 ± 0.209	1.56	0.091 ± 0.123	-0.313 ± 0.189
photometric centroid source offset	2.01 ± 1.06	1.89	0.65 ± 0.95	-1.90 ± 1.08

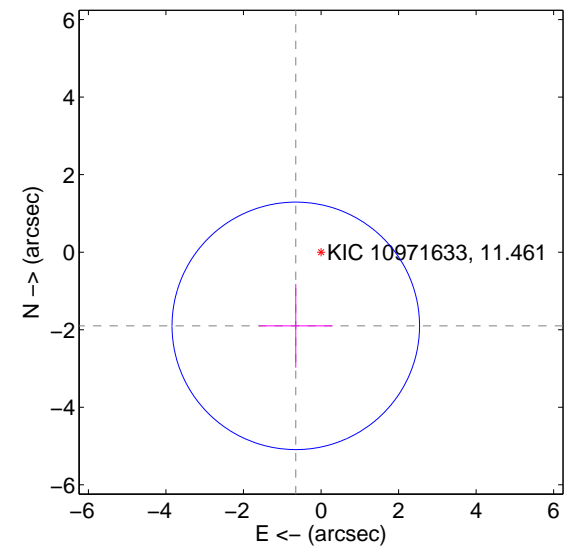
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

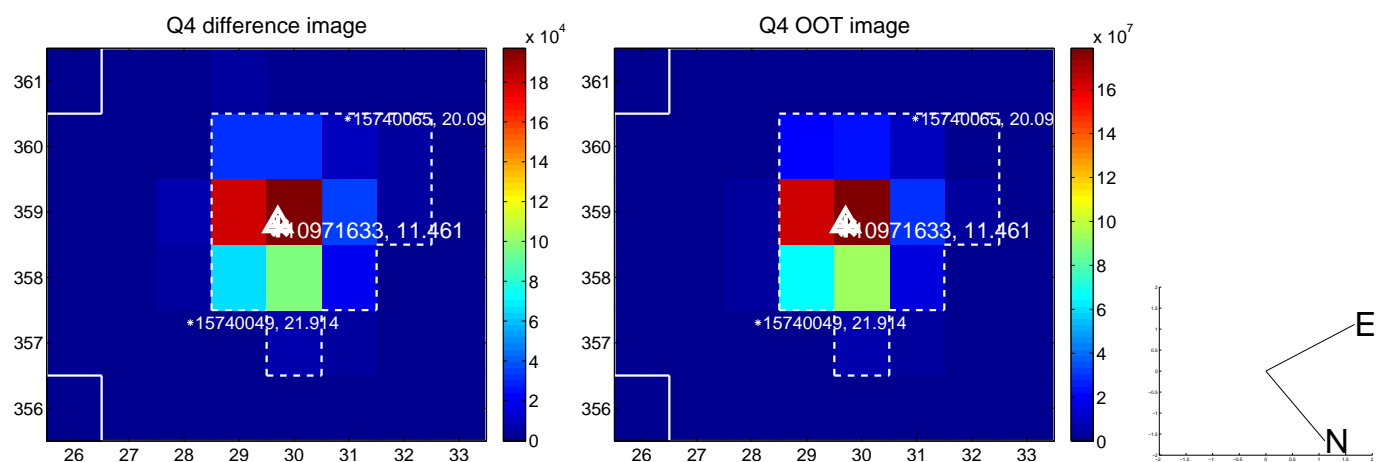
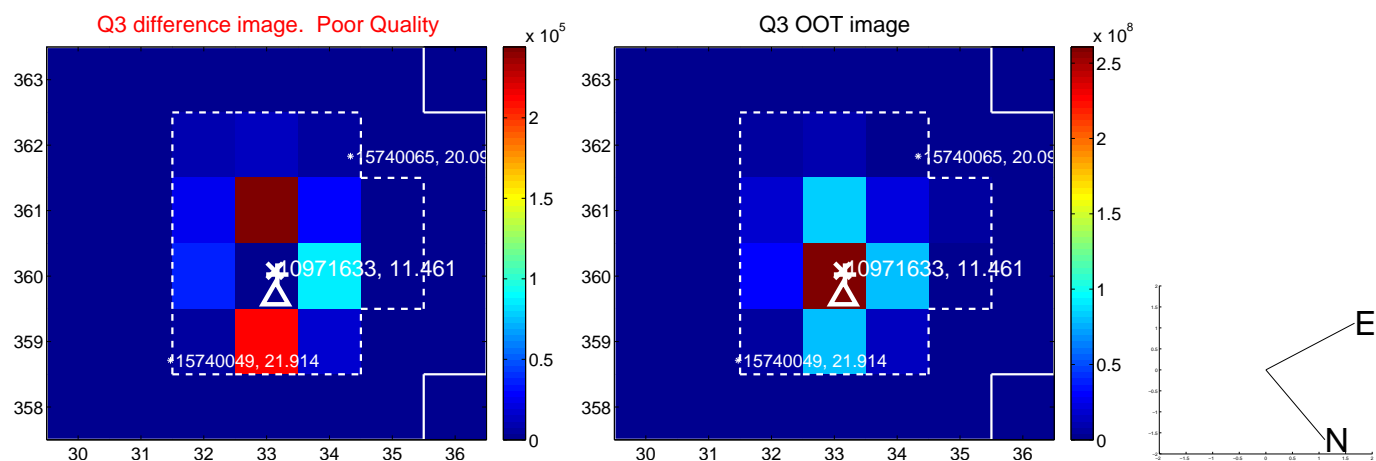
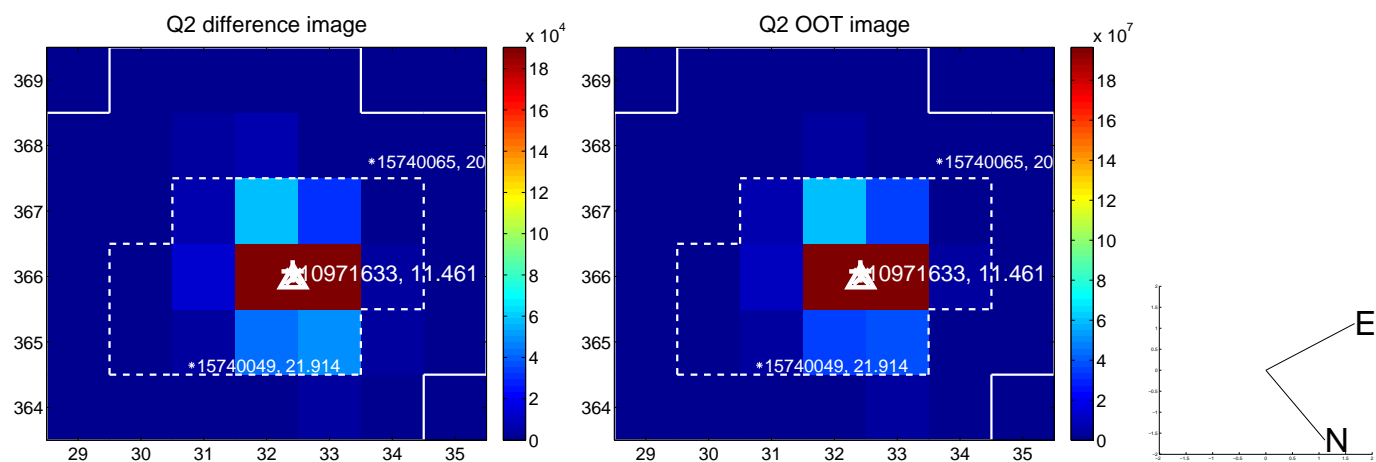
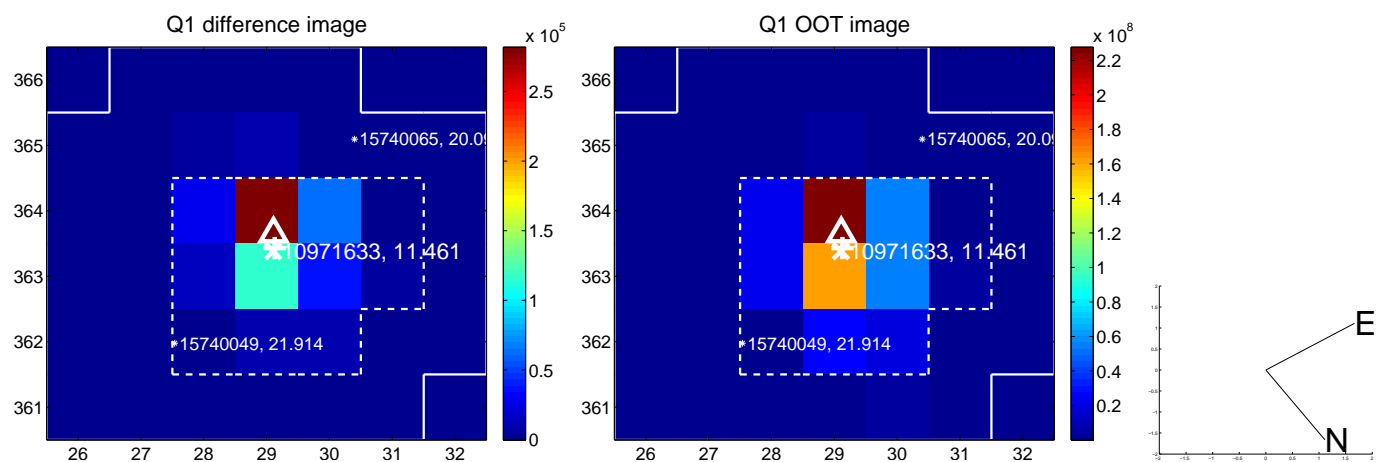


offset from photometric centroids

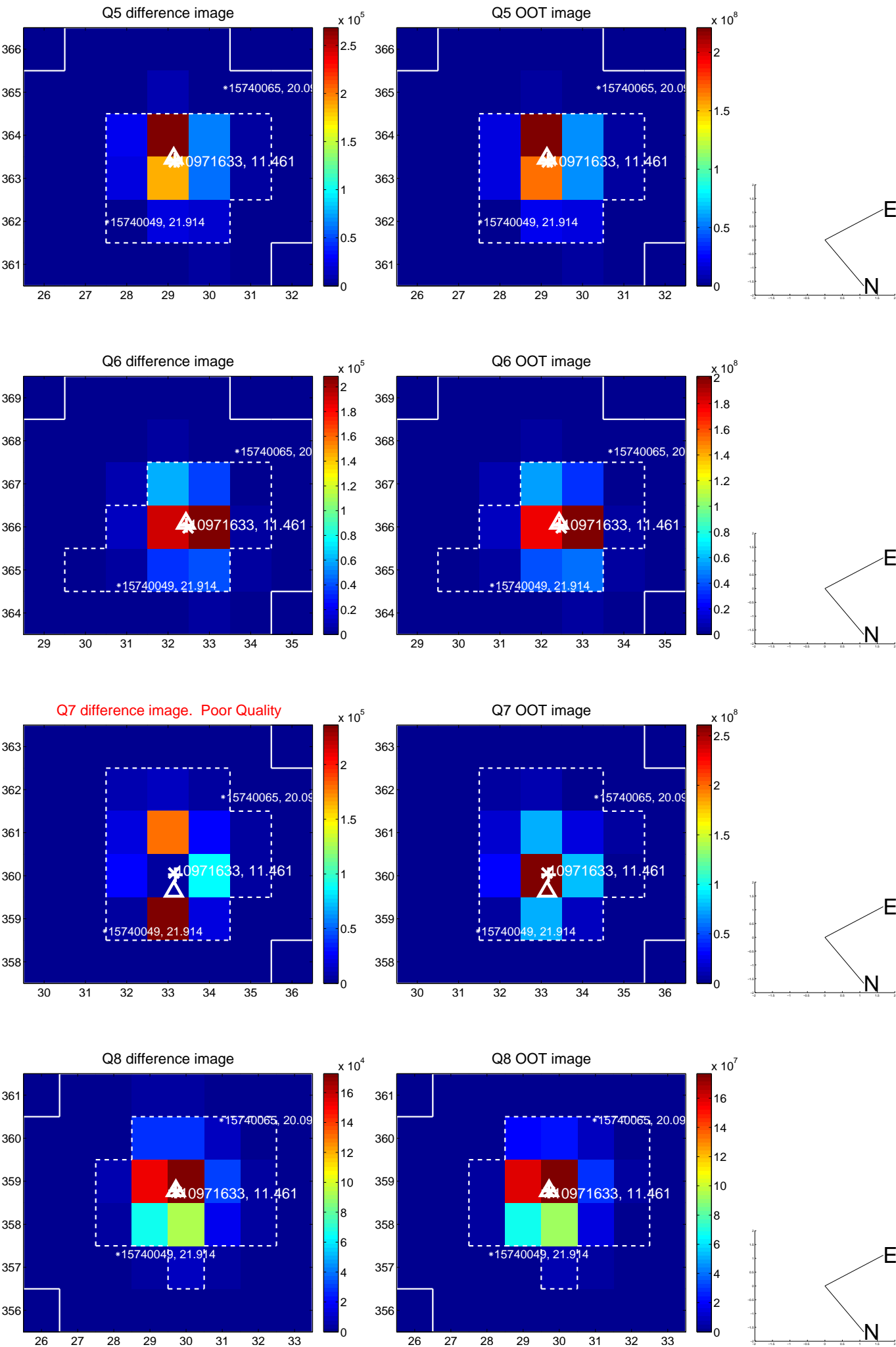


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

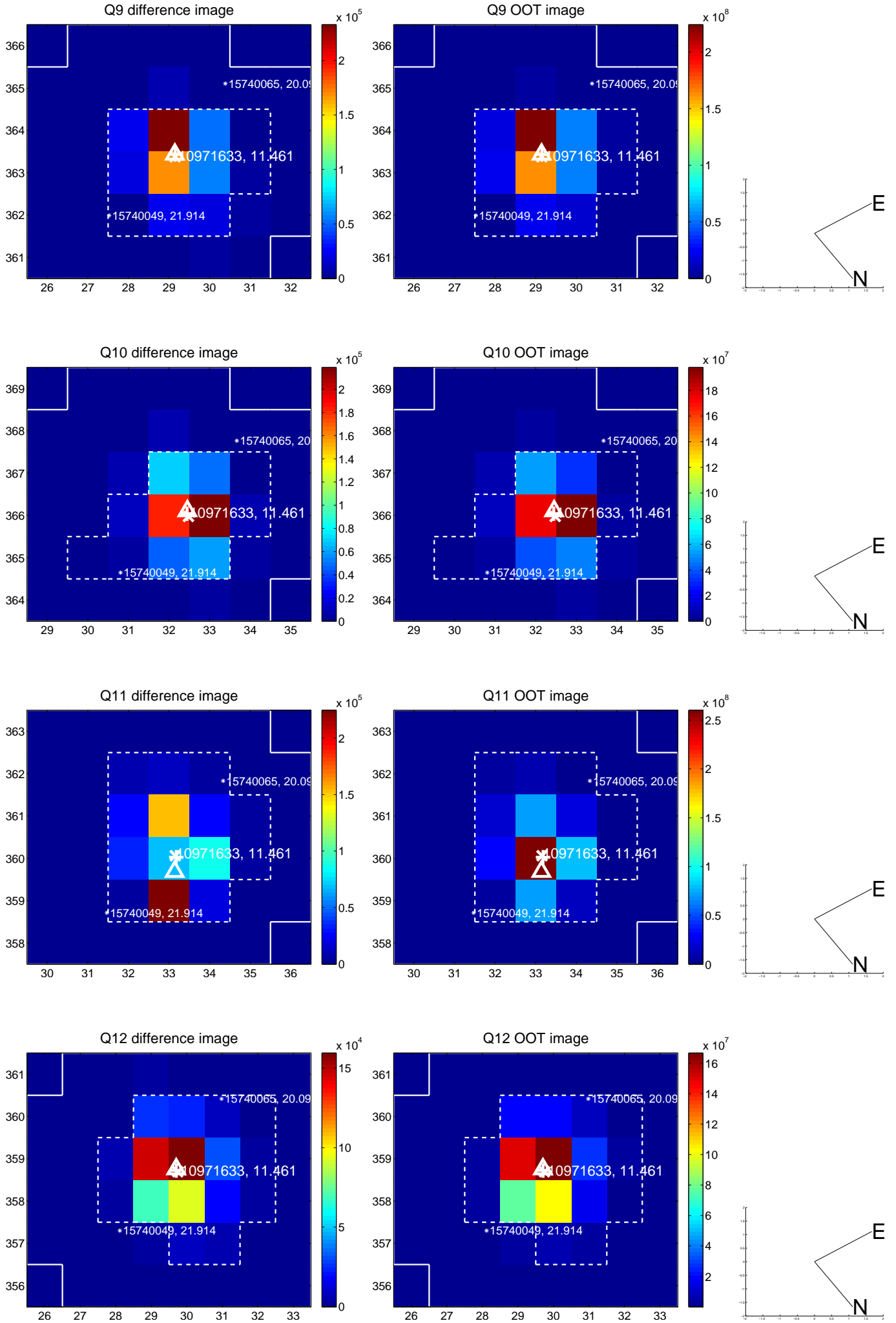
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



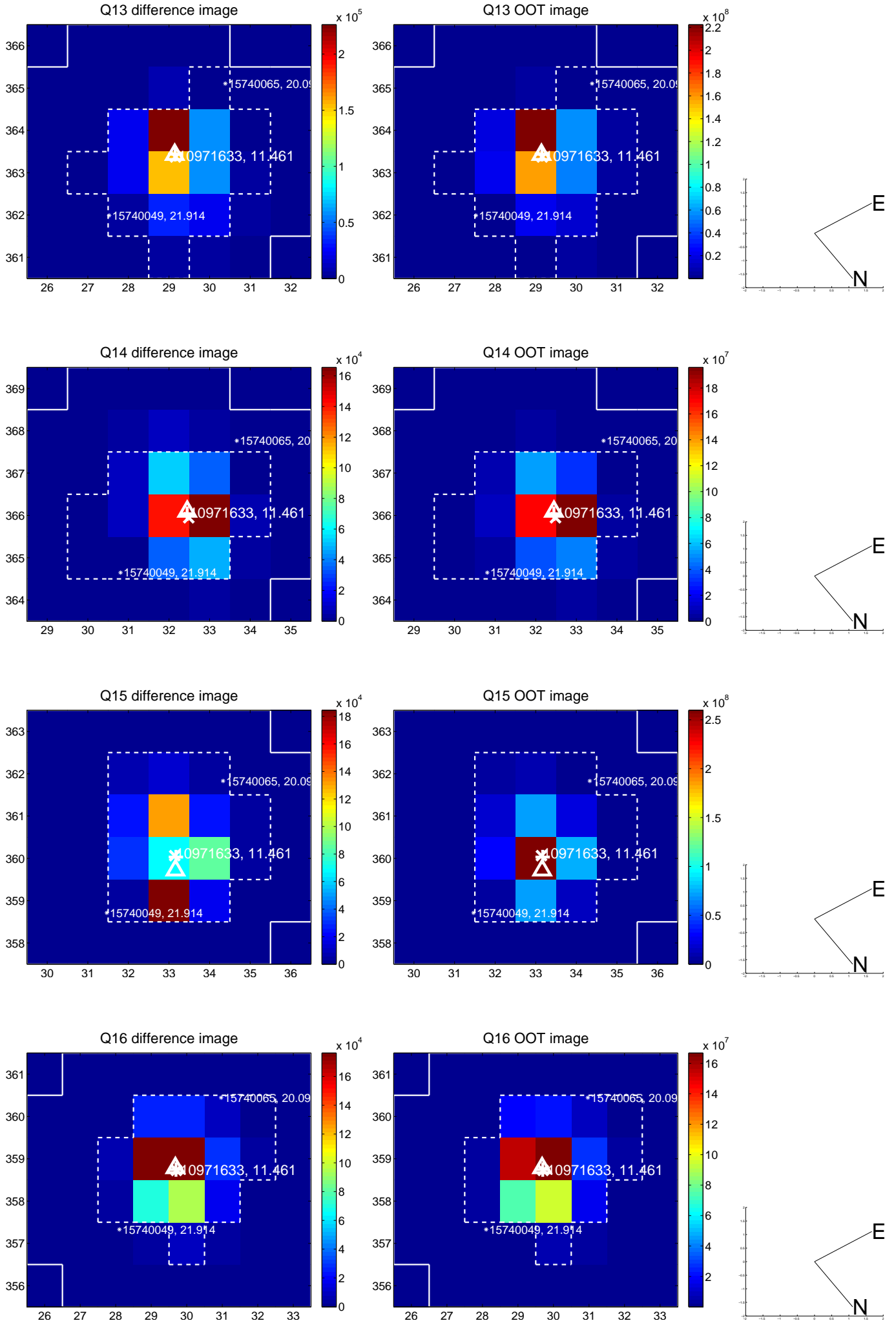
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



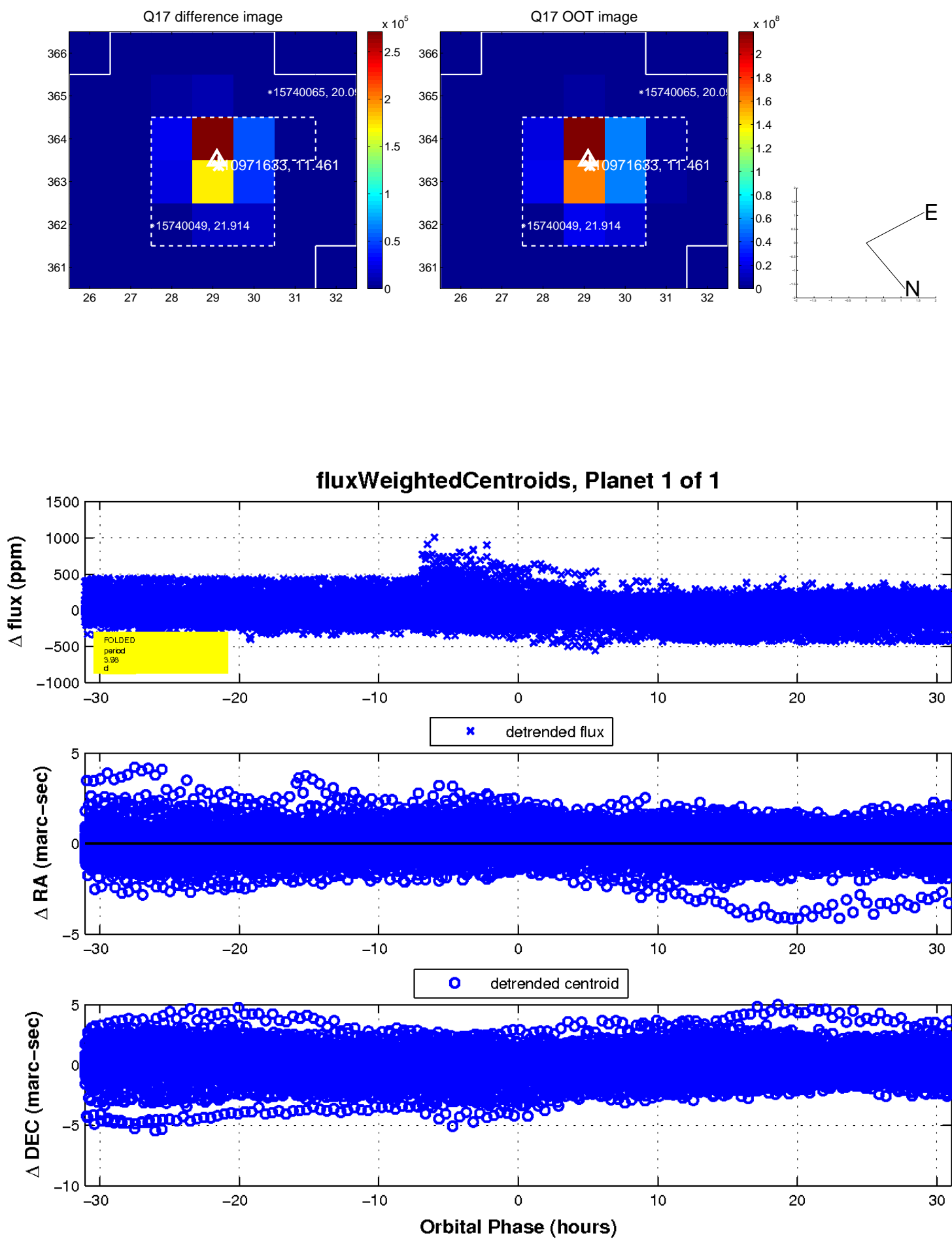
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

