

KIC 005474533

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})
005474533-01	OBS	No	1.026527	132.417008	59.0	9.982	9.2	6.0	1.04	6309	0.82	3664.74

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005474533-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT

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

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

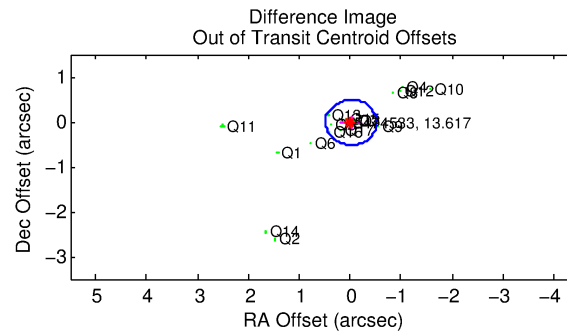
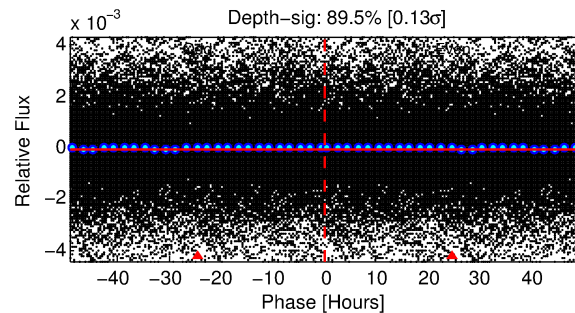
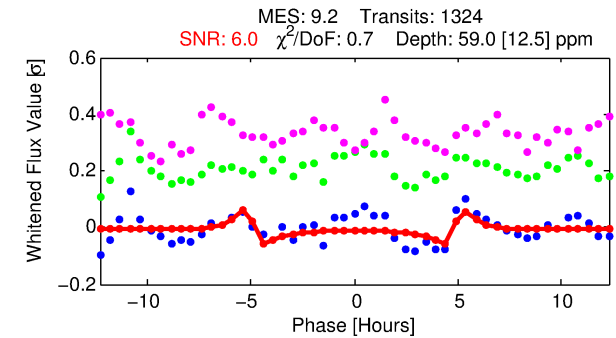
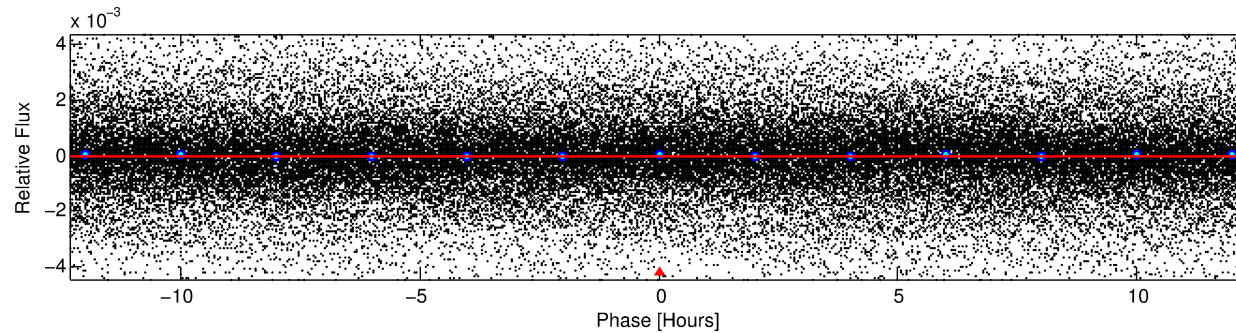
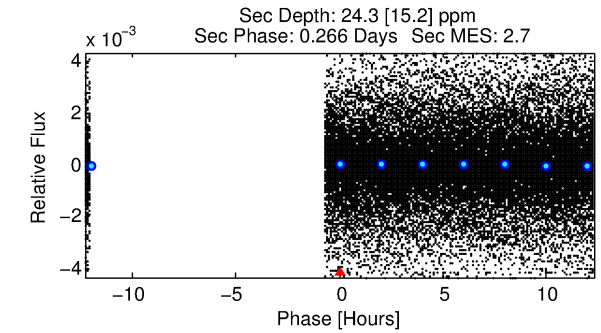
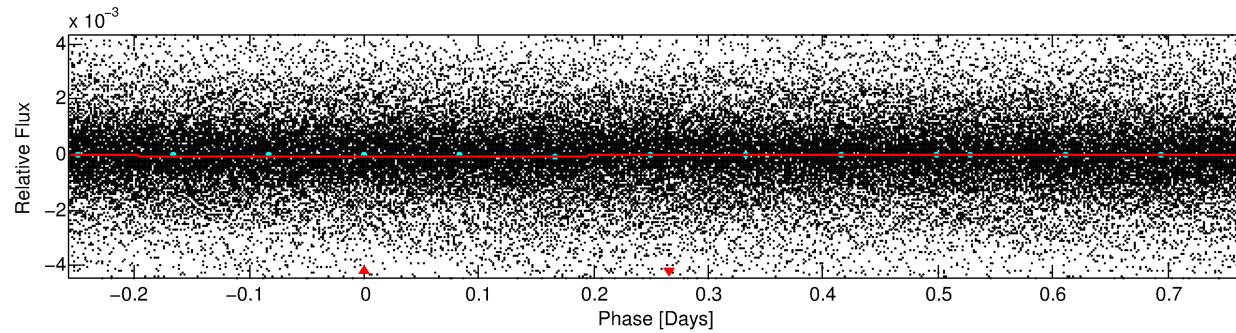
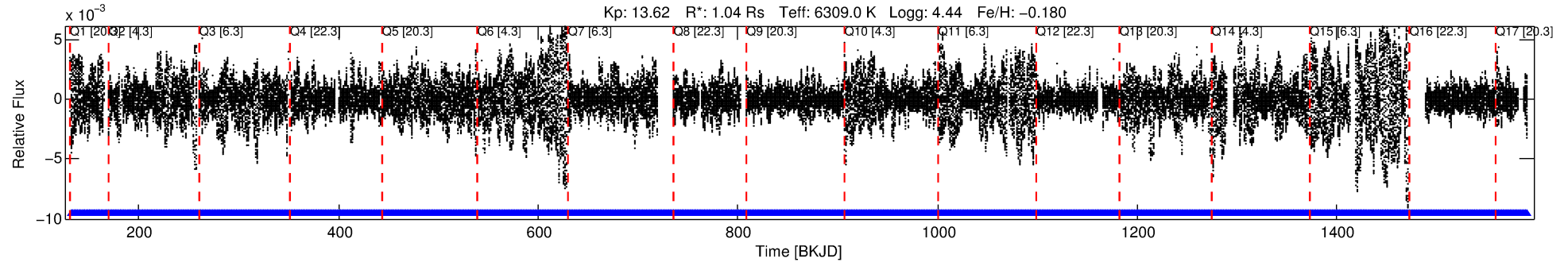
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005474533-01

No Significant Match Found

DV One-Page Summary

KIC: 5474533 Candidate: 1 of 1 Period: 1.027 d



DV Fit Results:

Period = 1.02653 [0.00002] d
Epoch = 132.4170 [0.0028] BKJD
Rp/R* = 0.0072 [0.0031]
a/R* = 1.05 [0.20]
b = 0.41 [4.64]
Seff = 3664.74 [1496.44]
Teff = 1984 [203] K
Rp = 0.82 [0.44] Re
a = 0.0205 [0.0055] AU
Ag = 8.43 [9.55] [0.78σ]
Teffp = 5227 [1401] K [2.29σ]

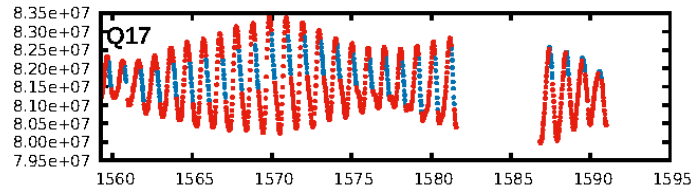
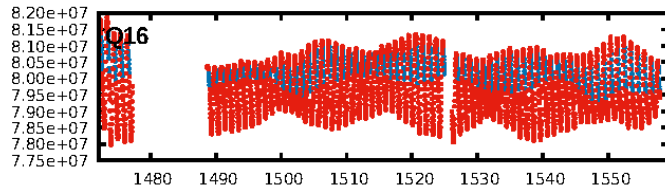
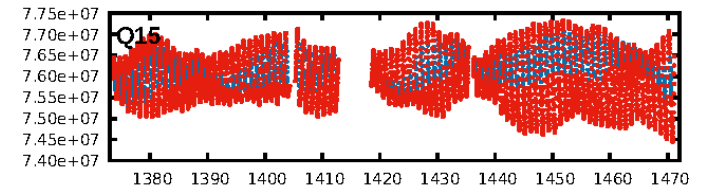
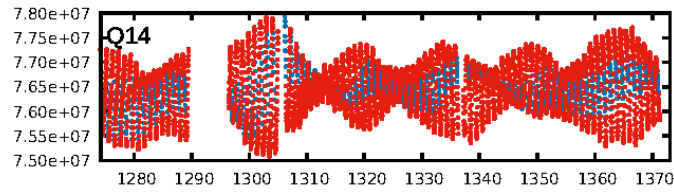
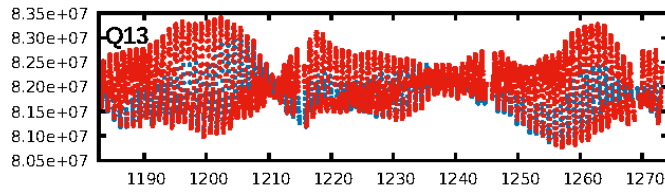
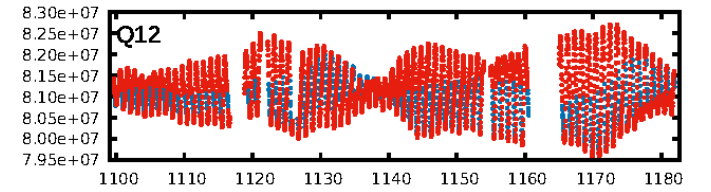
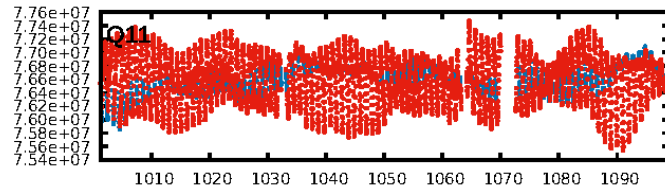
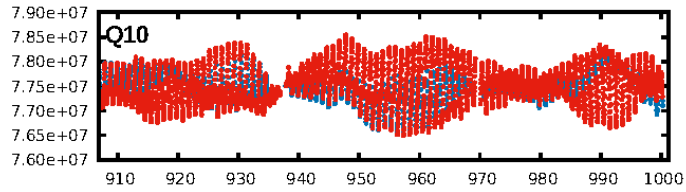
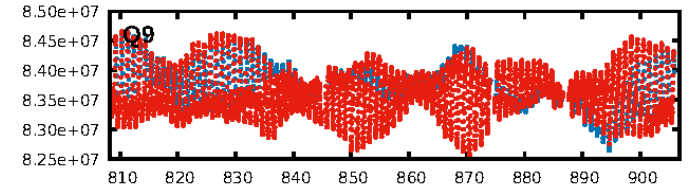
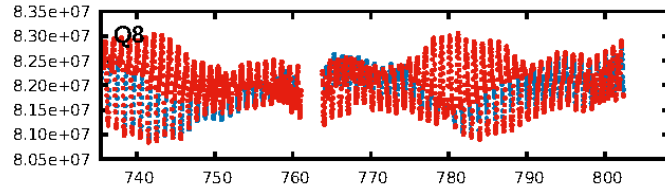
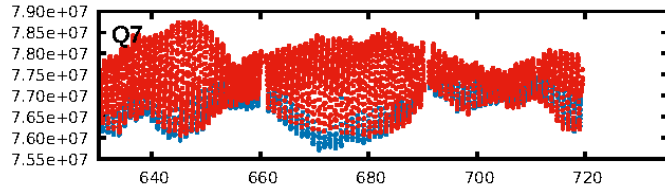
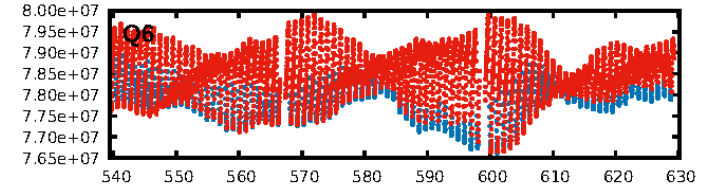
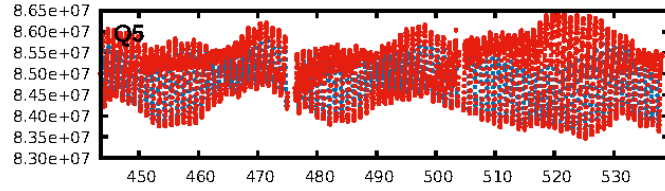
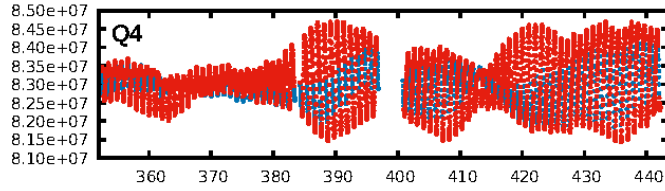
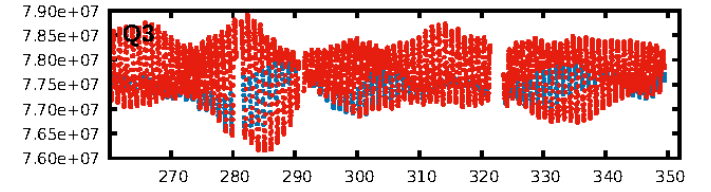
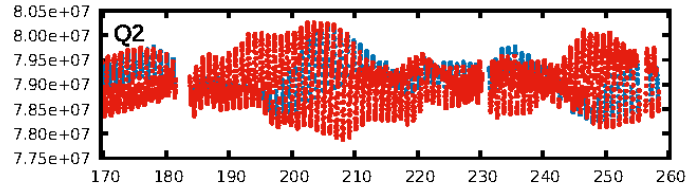
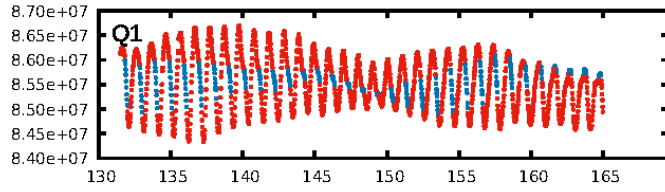
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1264/1264]
GhostDiagnostic-chr: 2.292
Centroid-sig: 0.0%
Centroid-so: 1.344 arcsec [3.50σ]
OotOffset-rm: 0.023 arcsec [0.14σ]
KicOffset-rm: 0.046 arcsec [0.19σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.35 [6/17]
DiffImageOverlap-fno: 1.00 [17/17]

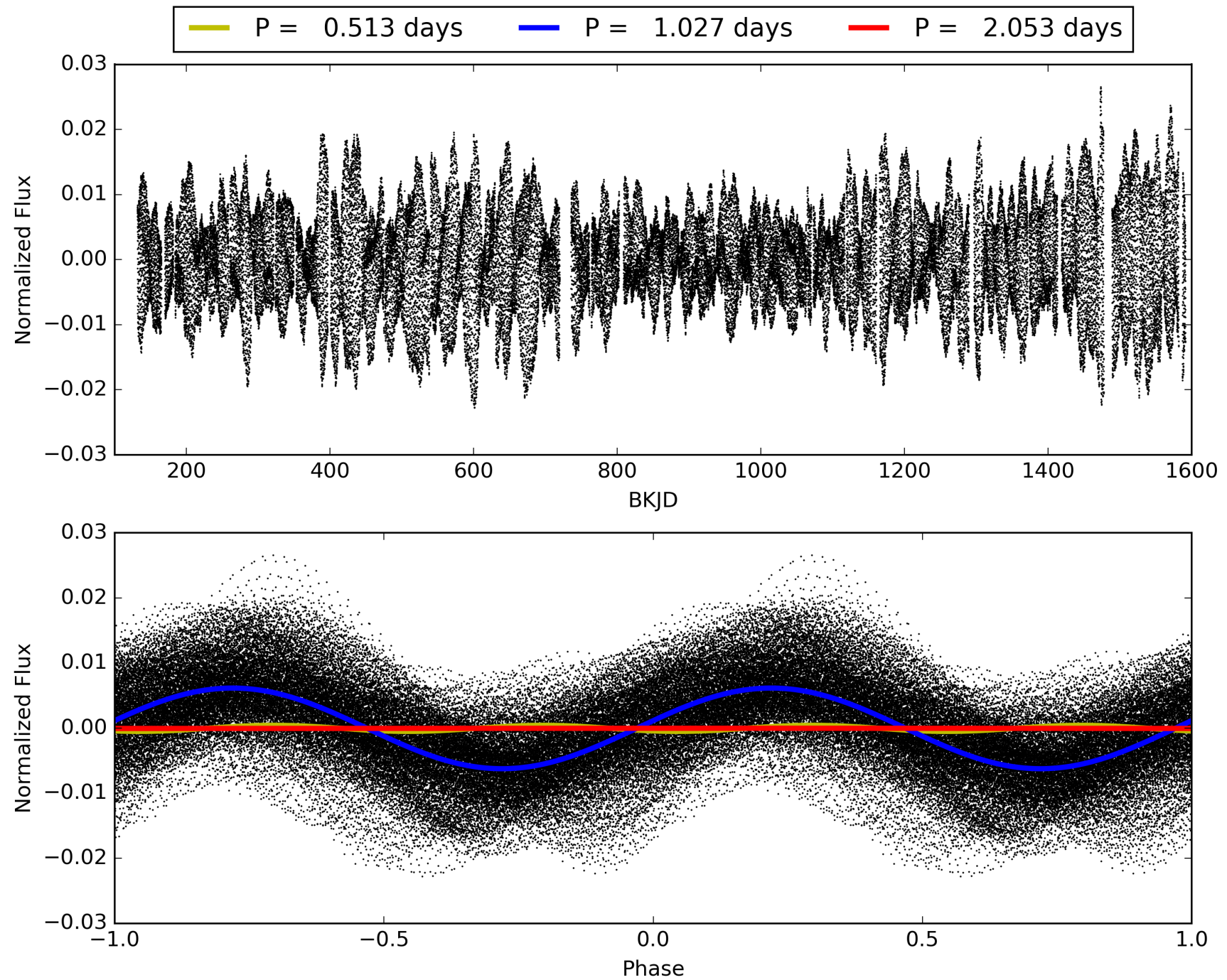
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 09:09:16 Z

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

TCE 005474533-01, PDC Light Curves

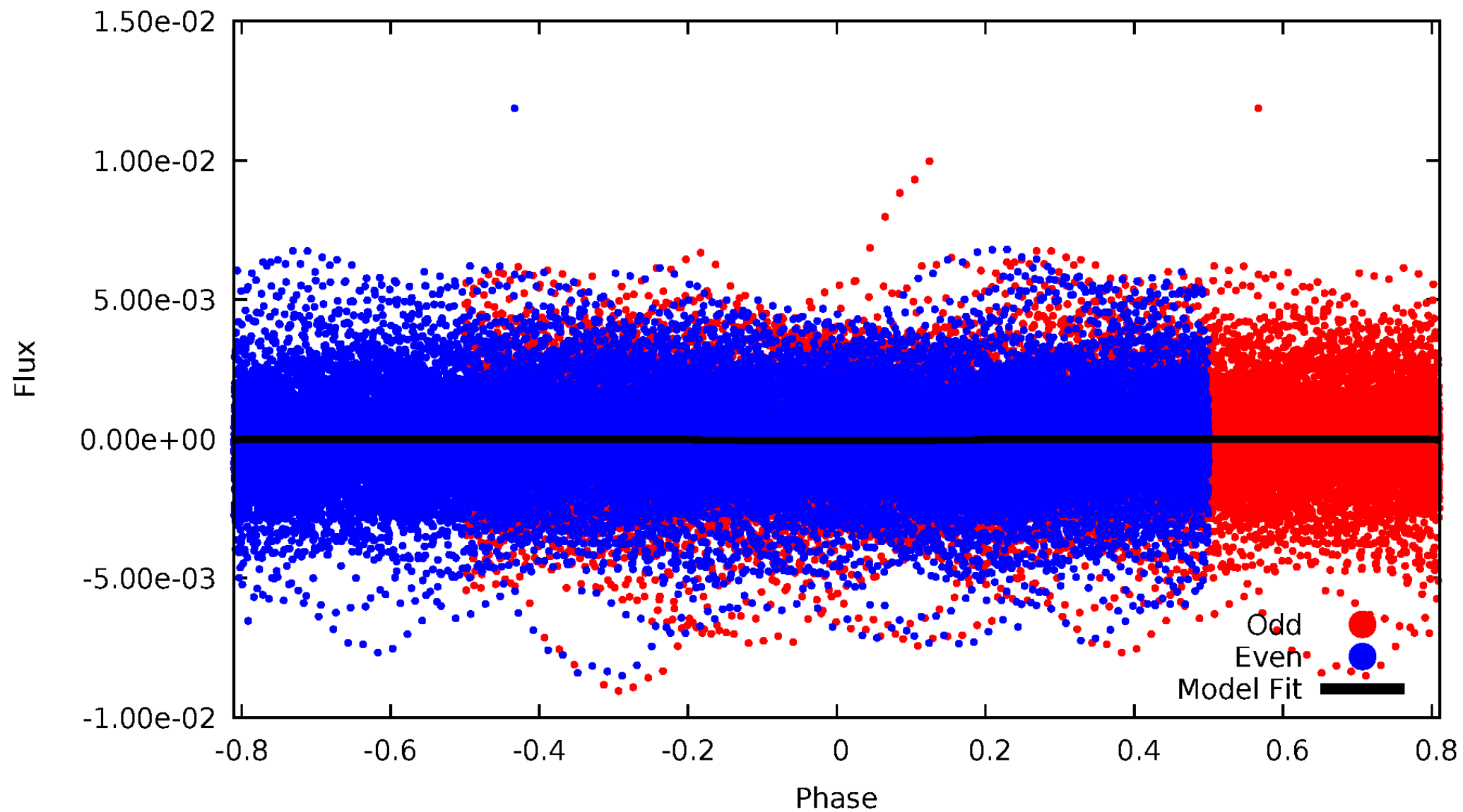


TCE 005474533-01



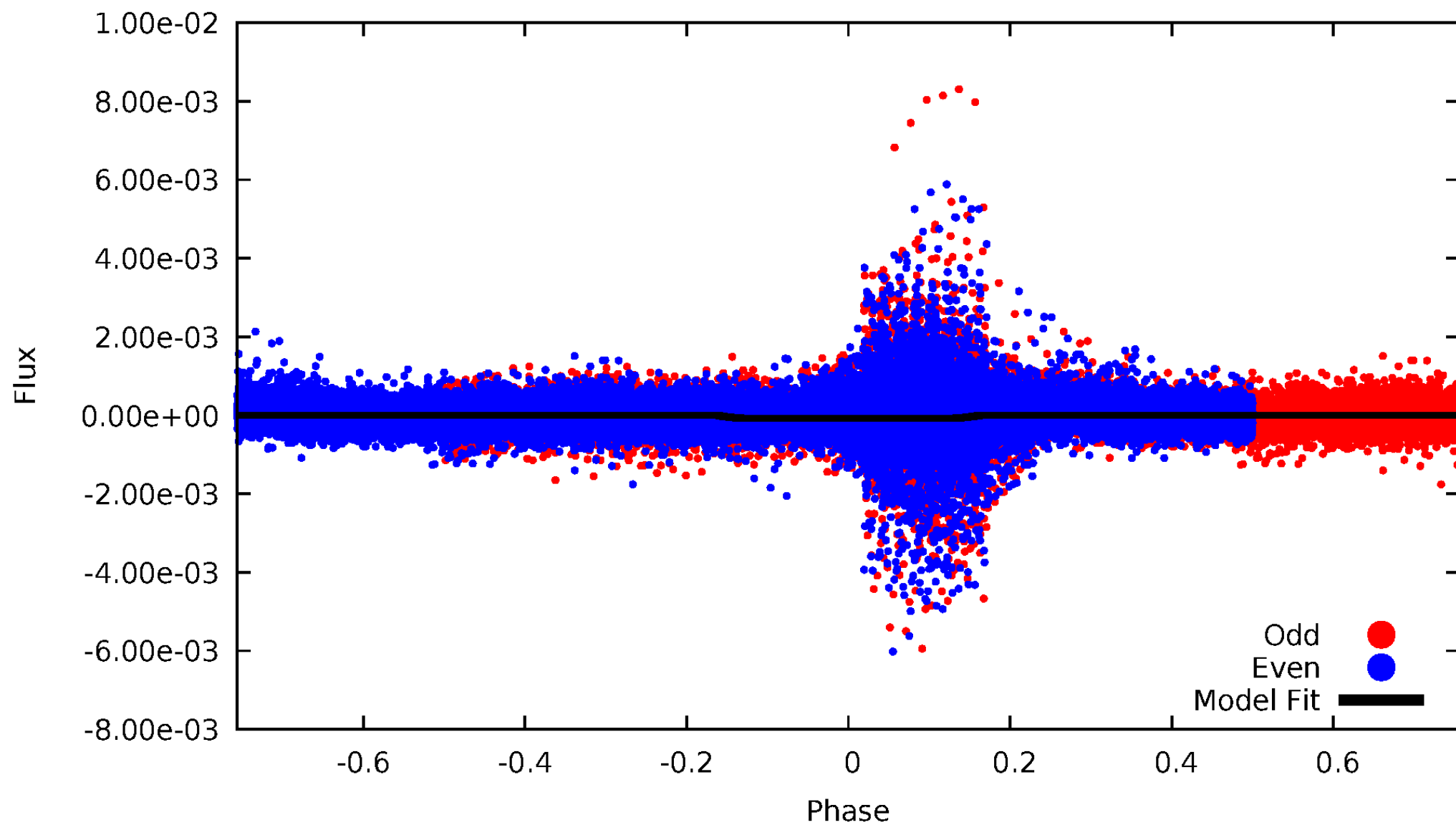
DV Odd/Even

TCE 005474533-01



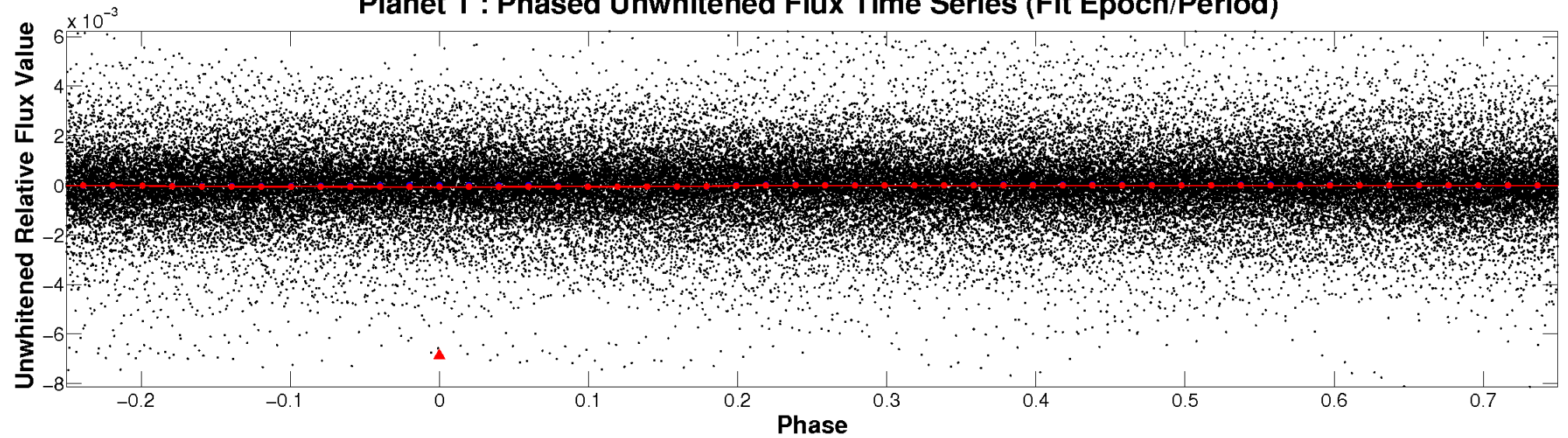
ALT Odd/Even

TCE 005474533-01

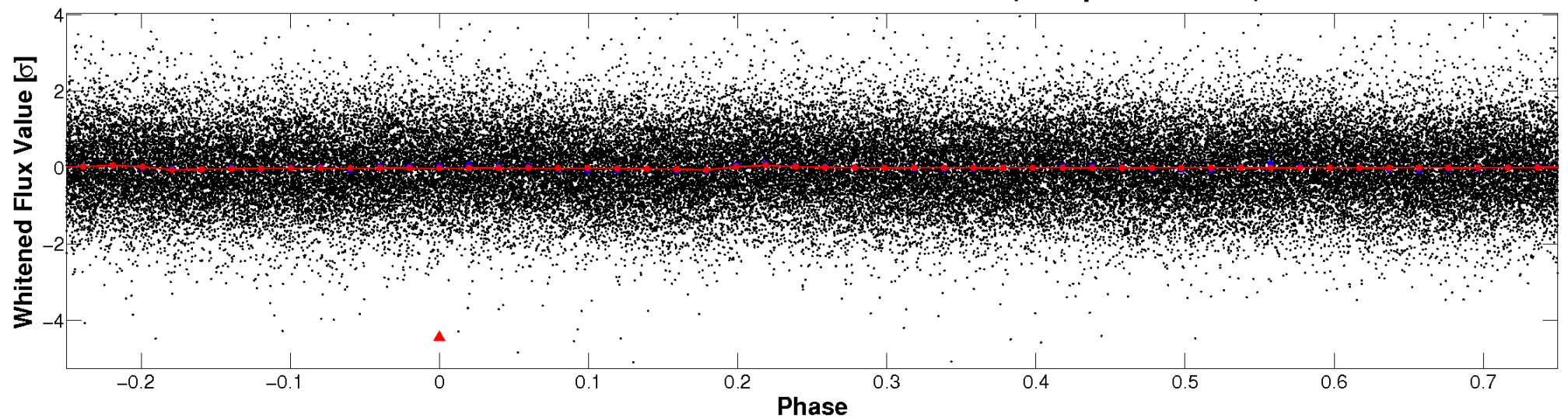


Non-Whitened Vs. Whitened Light Curve

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

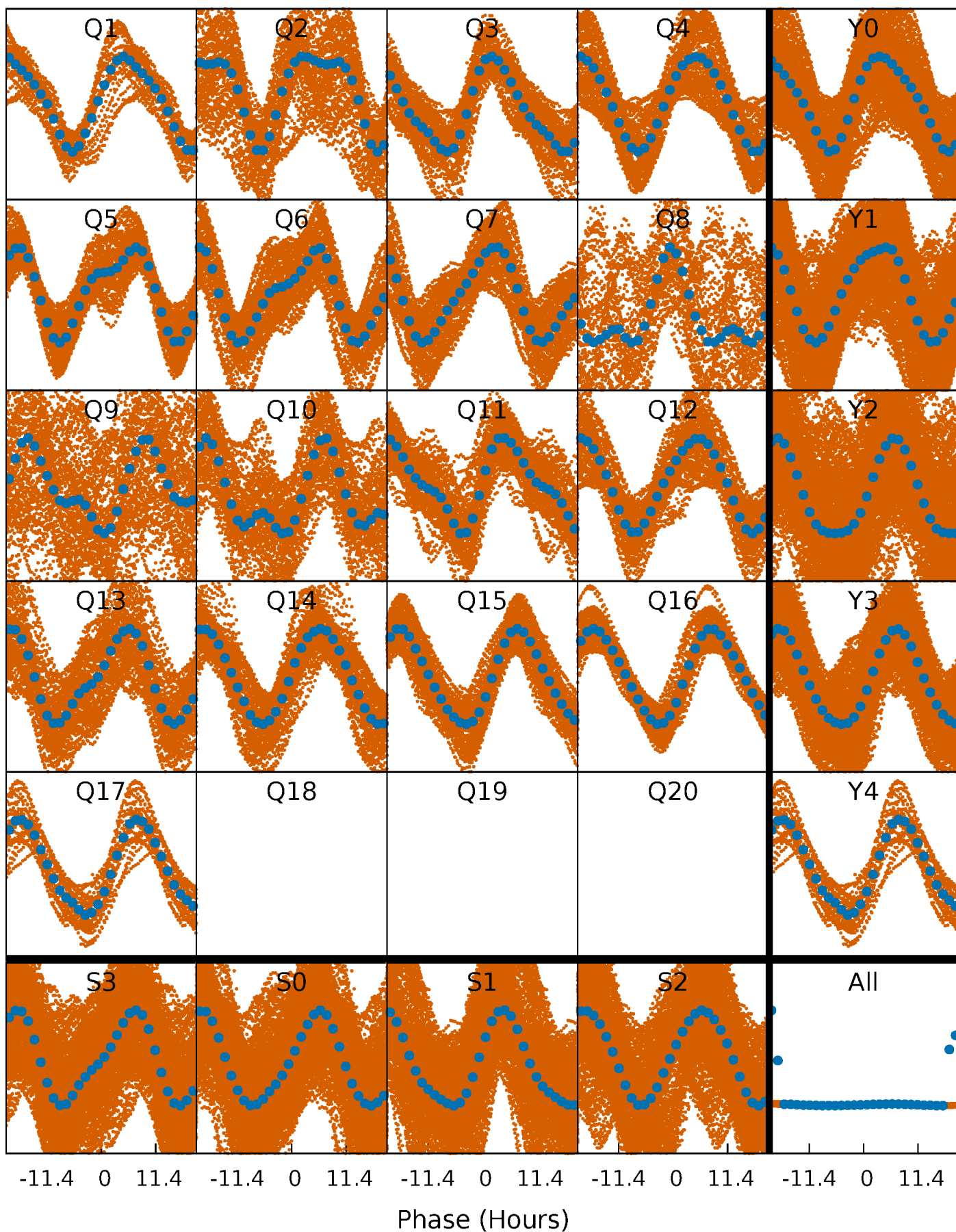


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



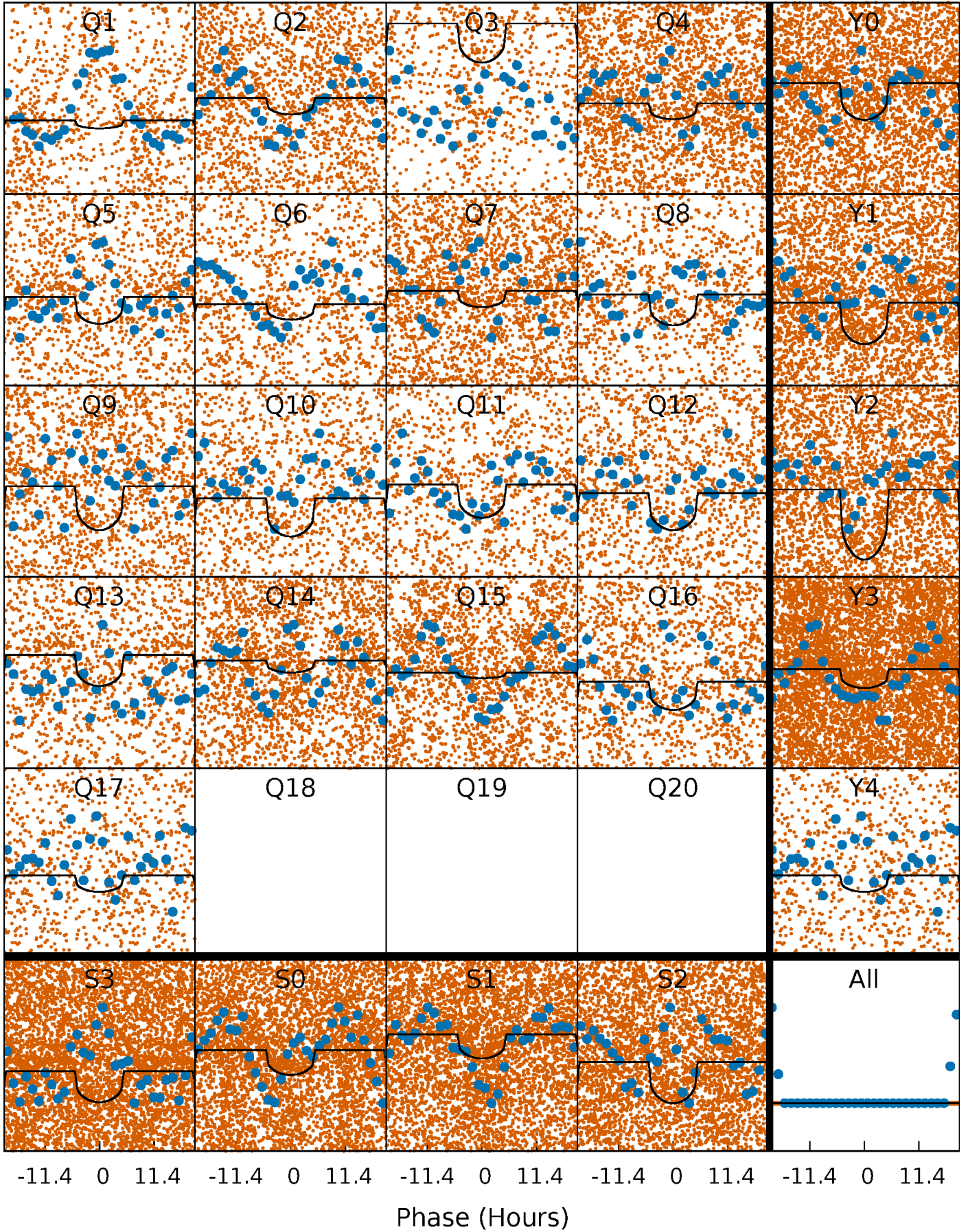
PDC Quarter-Phased Transit Curves

TCE 005474533-01 P= 1.026527 Days $T_0=132.417008$ (BKJD)



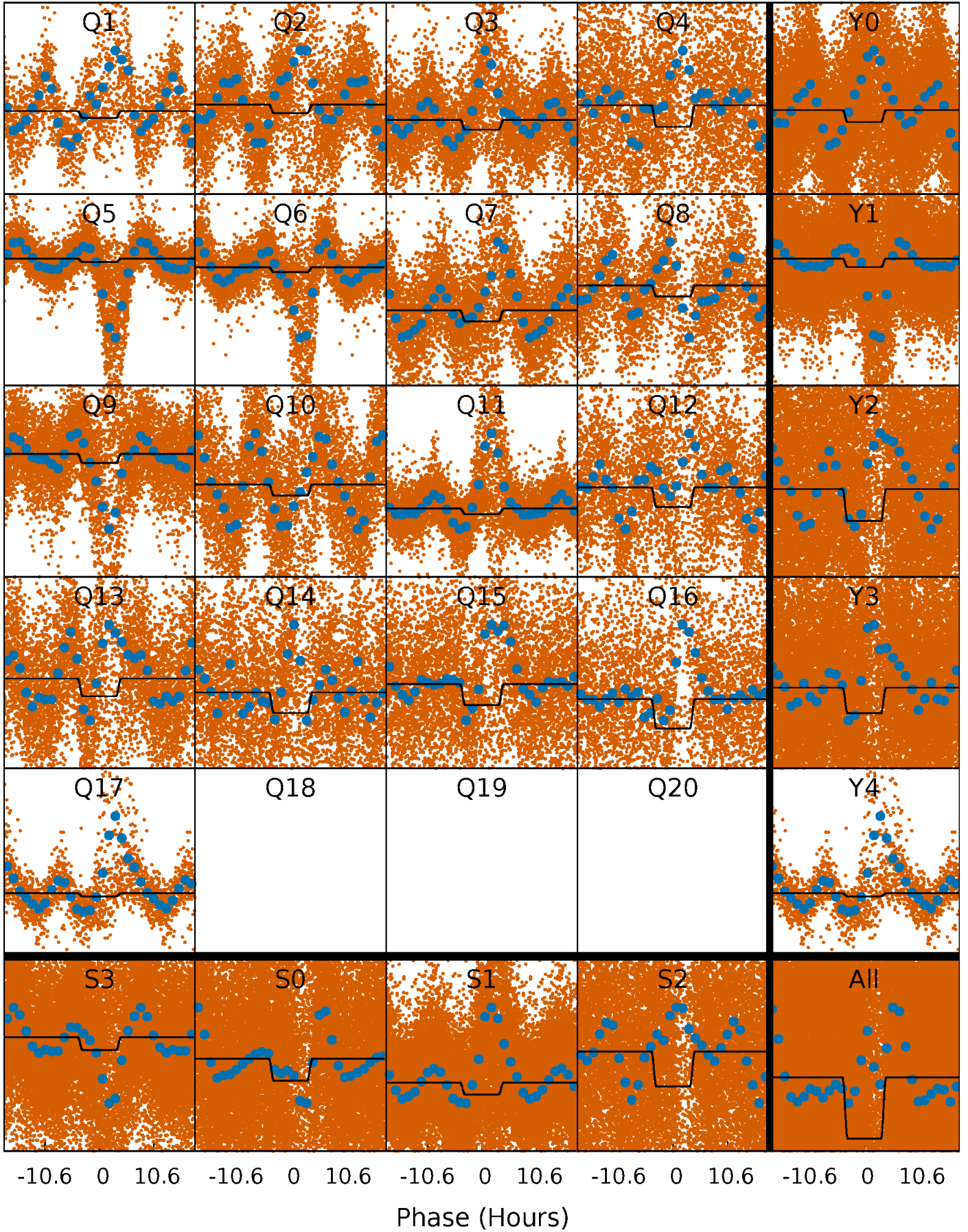
DV Quarter-Phased Transit Curves

TCE 005474533-01 P= 1.026527 Days $T_0=132.417008$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

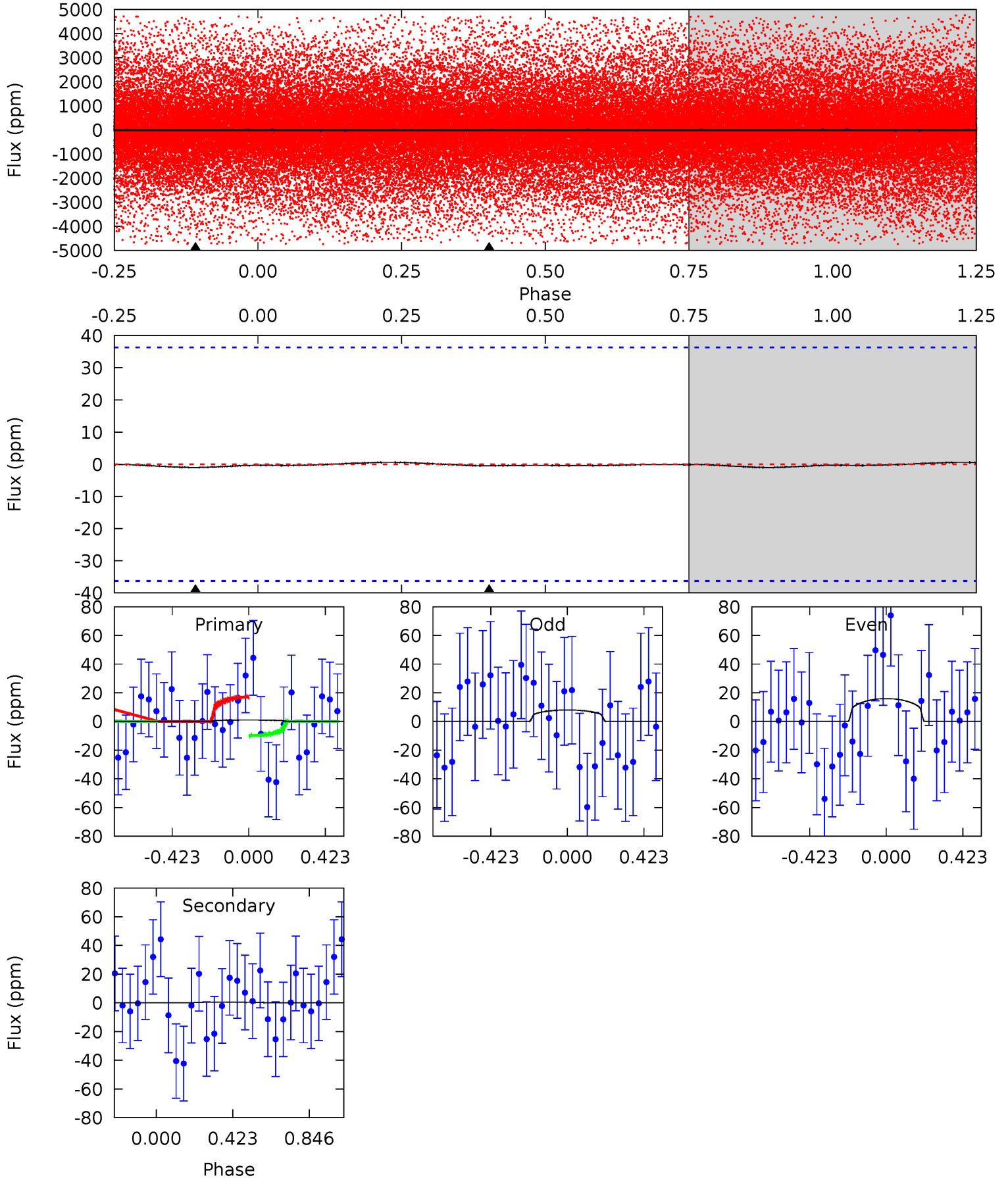
TCE 005474533-01 P= 1.026596 Days $T_0=132.394823$ (BKJD)



DV Model-Shift Uniqueness Test

005474533-01, P = 1.026527 Days, E = 131.390481 Days

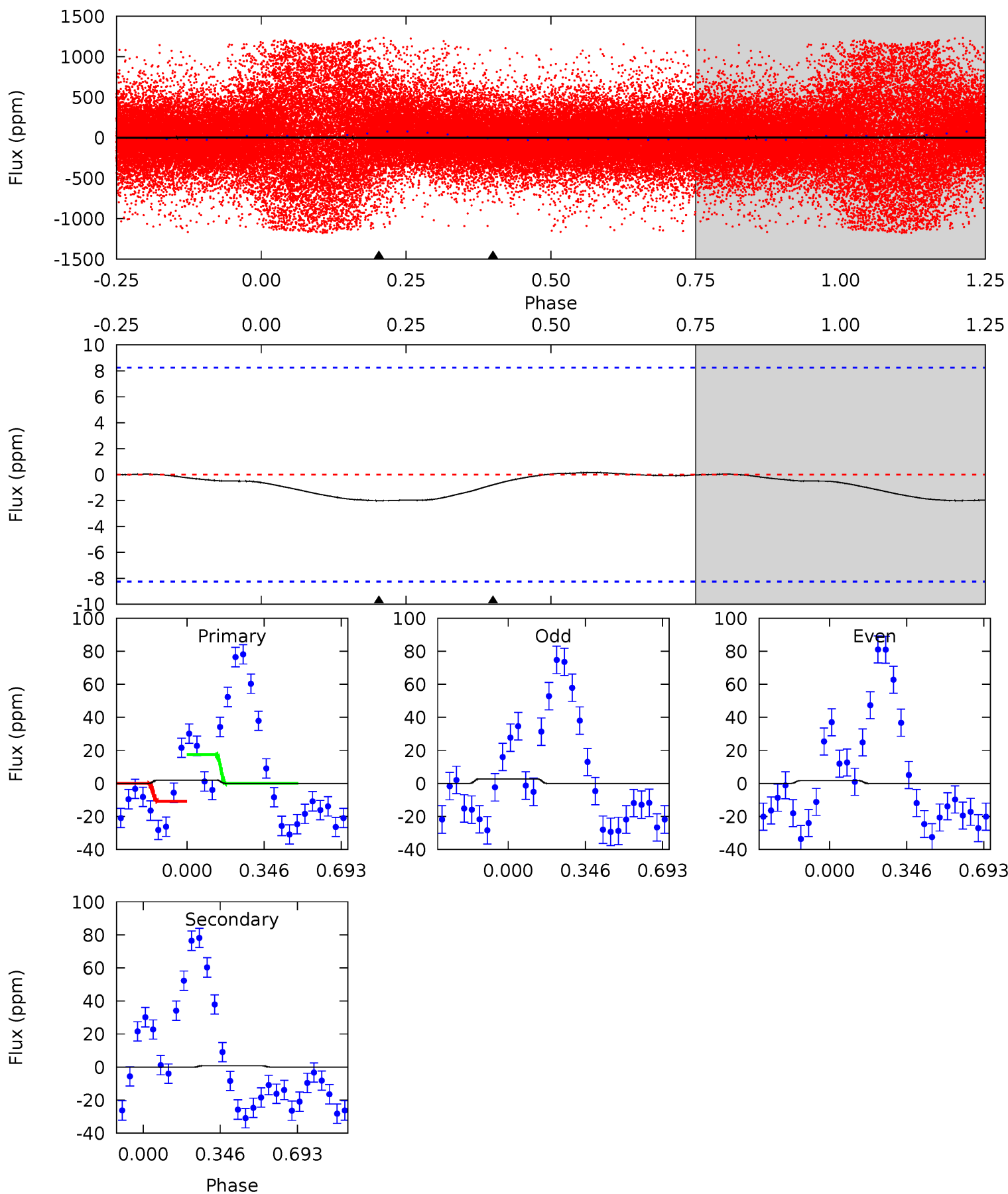
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.12	0.05	0	0	4.25	0.80	0.02	0.12	0.12	0.05	0.05	0.48	1.70	0.38	0.44



Alt Model-Shift Uniqueness Test

005474533-01, P = 1.026596 Days, E = 131.368227 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.05	0.41	0	0	4.30	0.94	0.02	1.05	1.05	0.41	0.41	0.25	1.08	0.07	1.48



Stellar Parameters For KIC 005474533

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6309^{+169}_{-206}	$4.441^{+0.056}_{-0.210}$	$-0.180^{+0.250}_{-0.300}$	$1.044^{+0.335}_{-0.112}$	$1.096^{+0.154}_{-0.154}$	$1.355^{+0.383}_{-0.706}$
	+3%/-3%	+1%/-5%	+139%/-167%	+32%/-11%	+14%/-14%	+28%/-52%
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 005474533-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-0 ± 9	$0.83^{+0.42}_{-0.37}$	2829^{+211}_{-151}	2599^{+2046}_{-6950}	$0.397^{+4.187}_{-3.067}$
Alt.	-1 ± 2	$0.99^{+0.42}_{-0.38}$	2832^{+187}_{-143}	-2715^{+5971}_{-605}	$0.159^{+0.679}_{-0.439}$

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

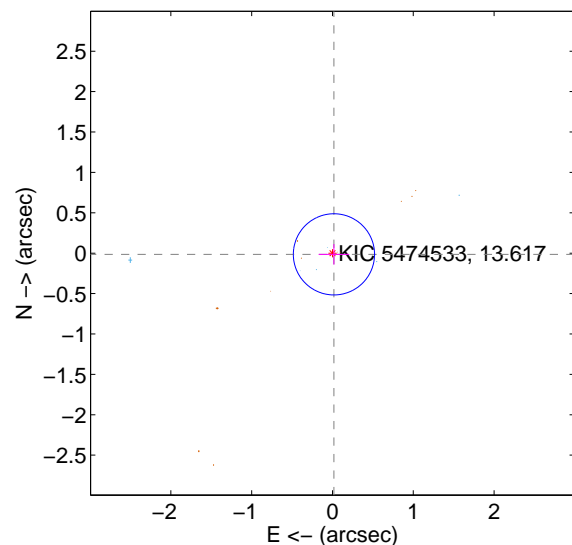
Supplemental centroid analysis for 005474533-01. Kepler magnitude: 13.62. Transit SNR 6.00

There are 6 quarters with good PRF difference image offsets

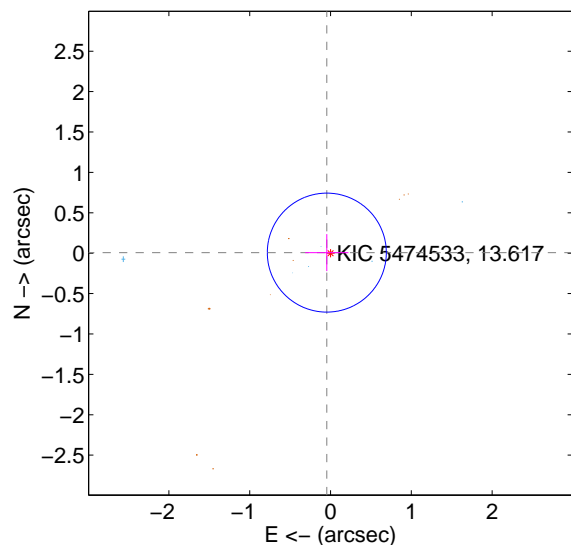
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.023 ± 0.168	0.14	-0.018 ± 0.189	-0.015 ± 0.127
PRF-fit source offset from KIC position	0.046 ± 0.245	0.19	0.046 ± 0.268	0.007 ± 0.229
photometric centroid source offset	1.34 ± 0.38	3.50	-1.16 ± 0.37	0.68 ± 0.41

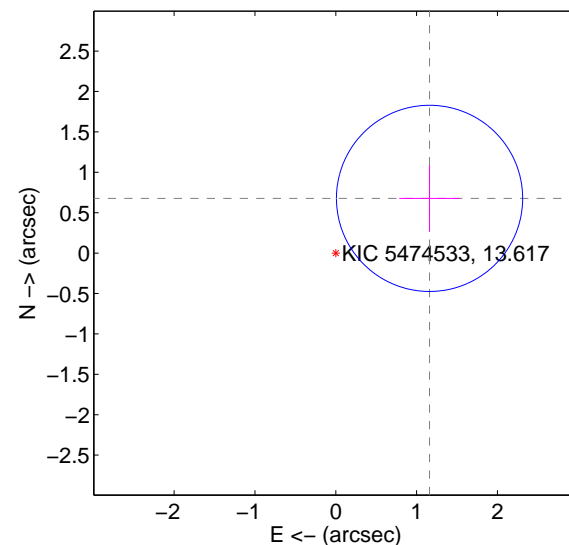
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

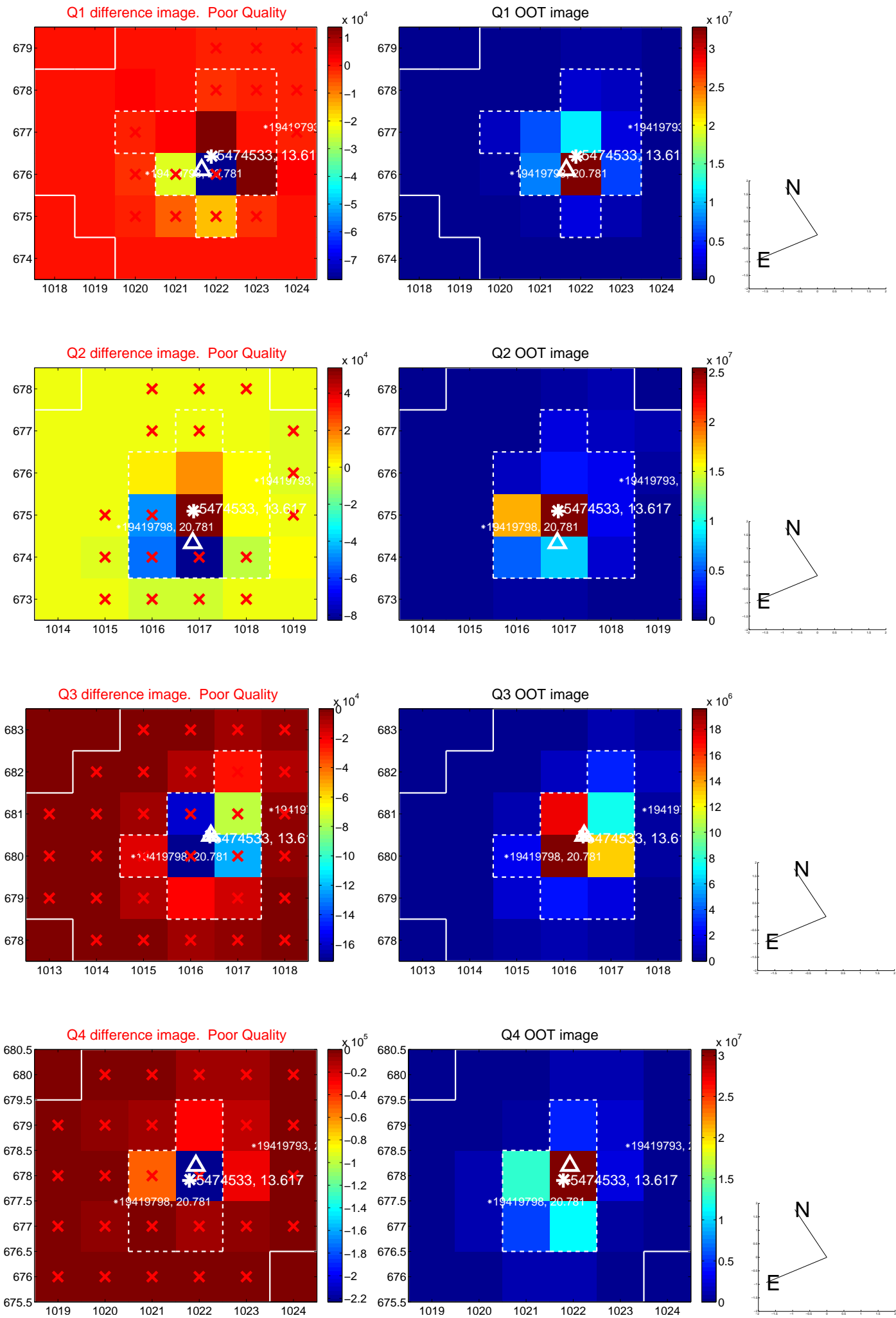


offset from photometric centroids

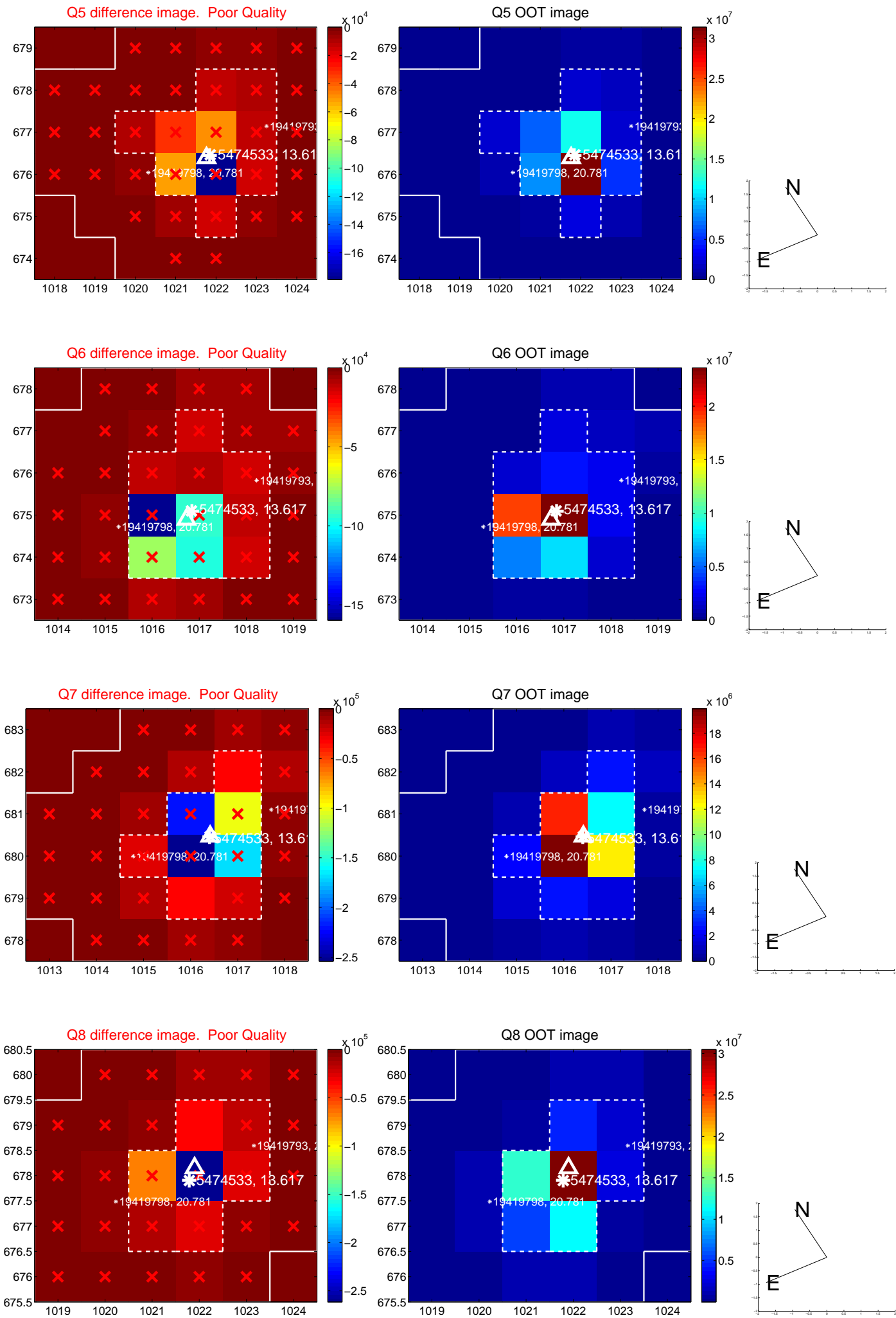


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

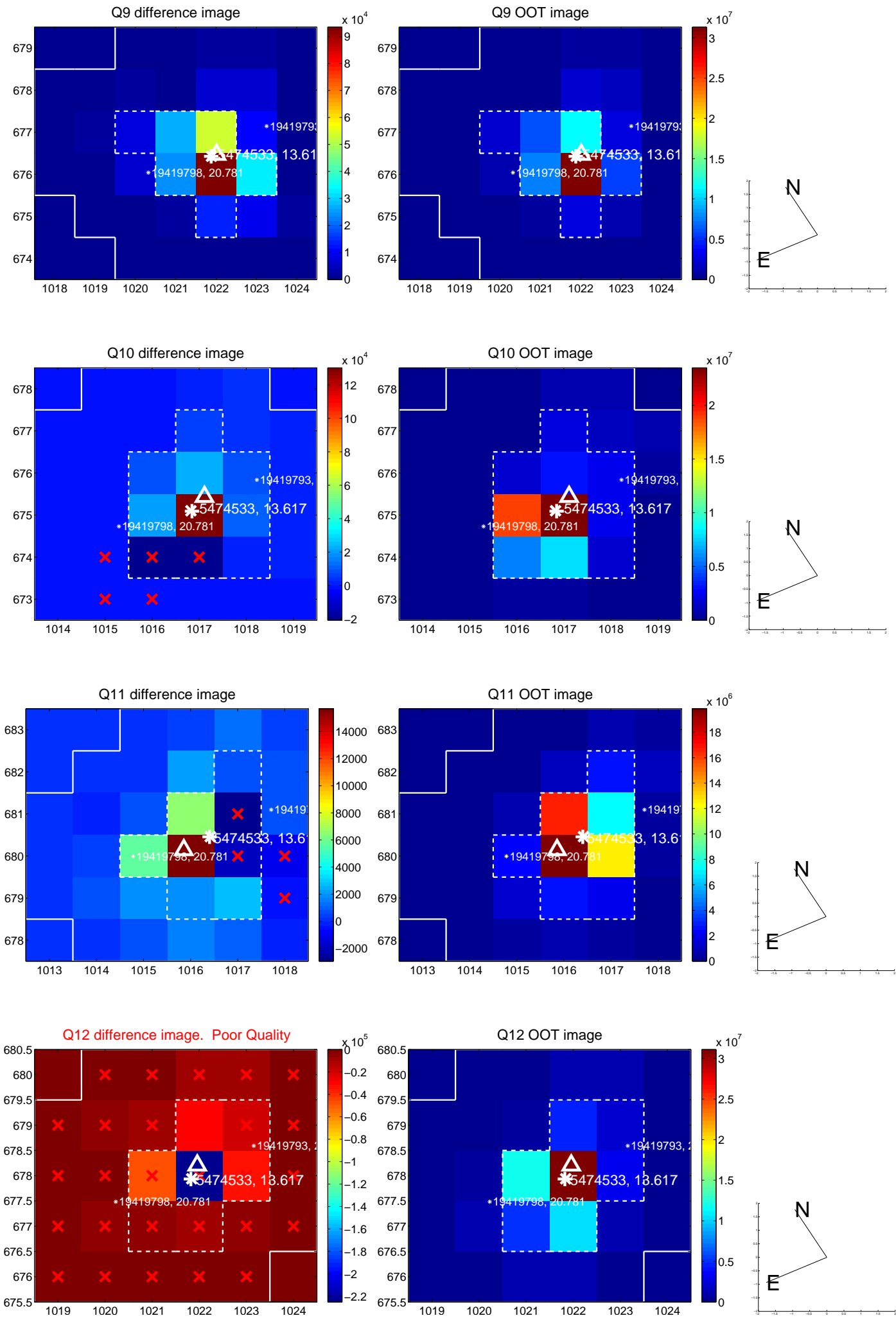
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



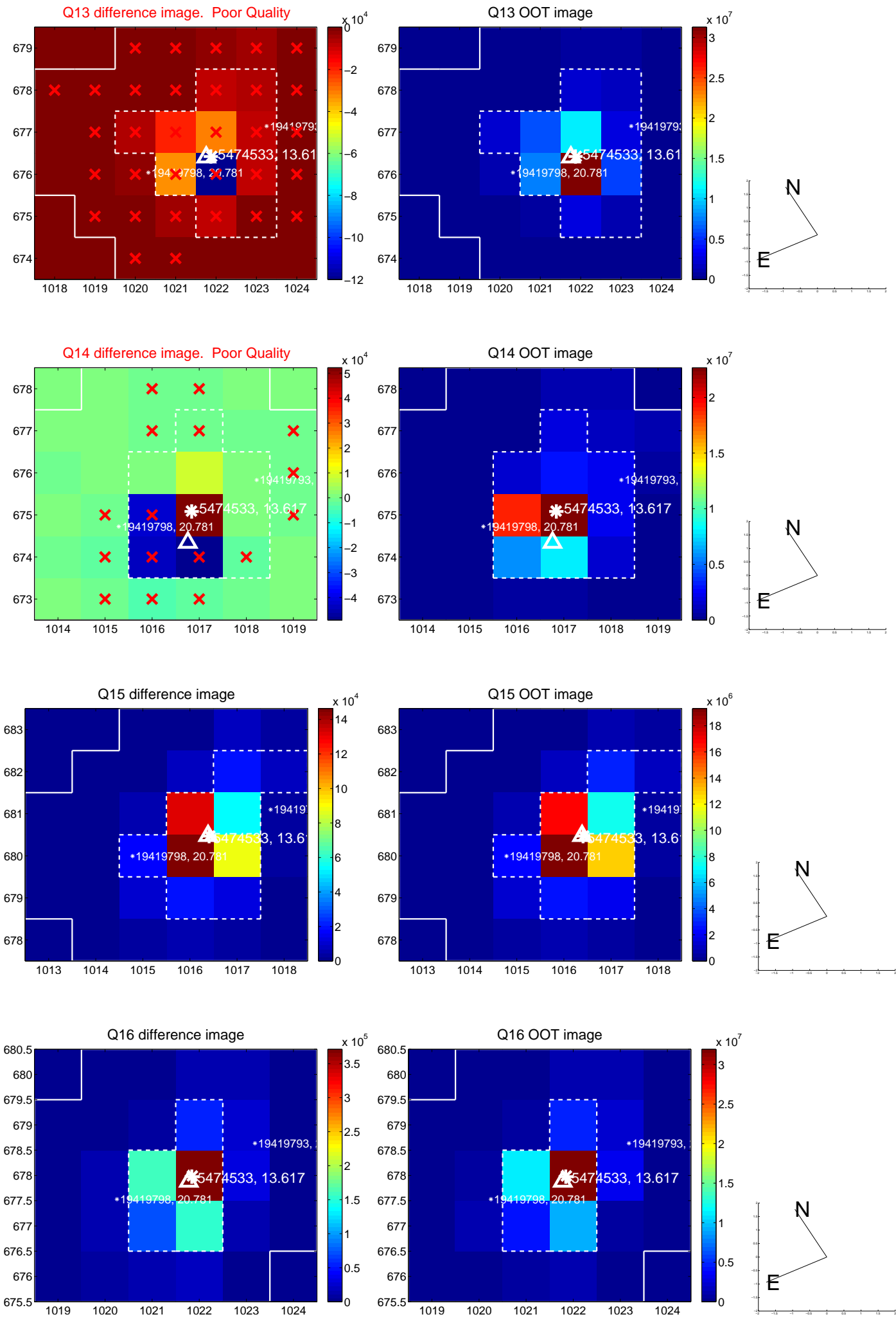
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



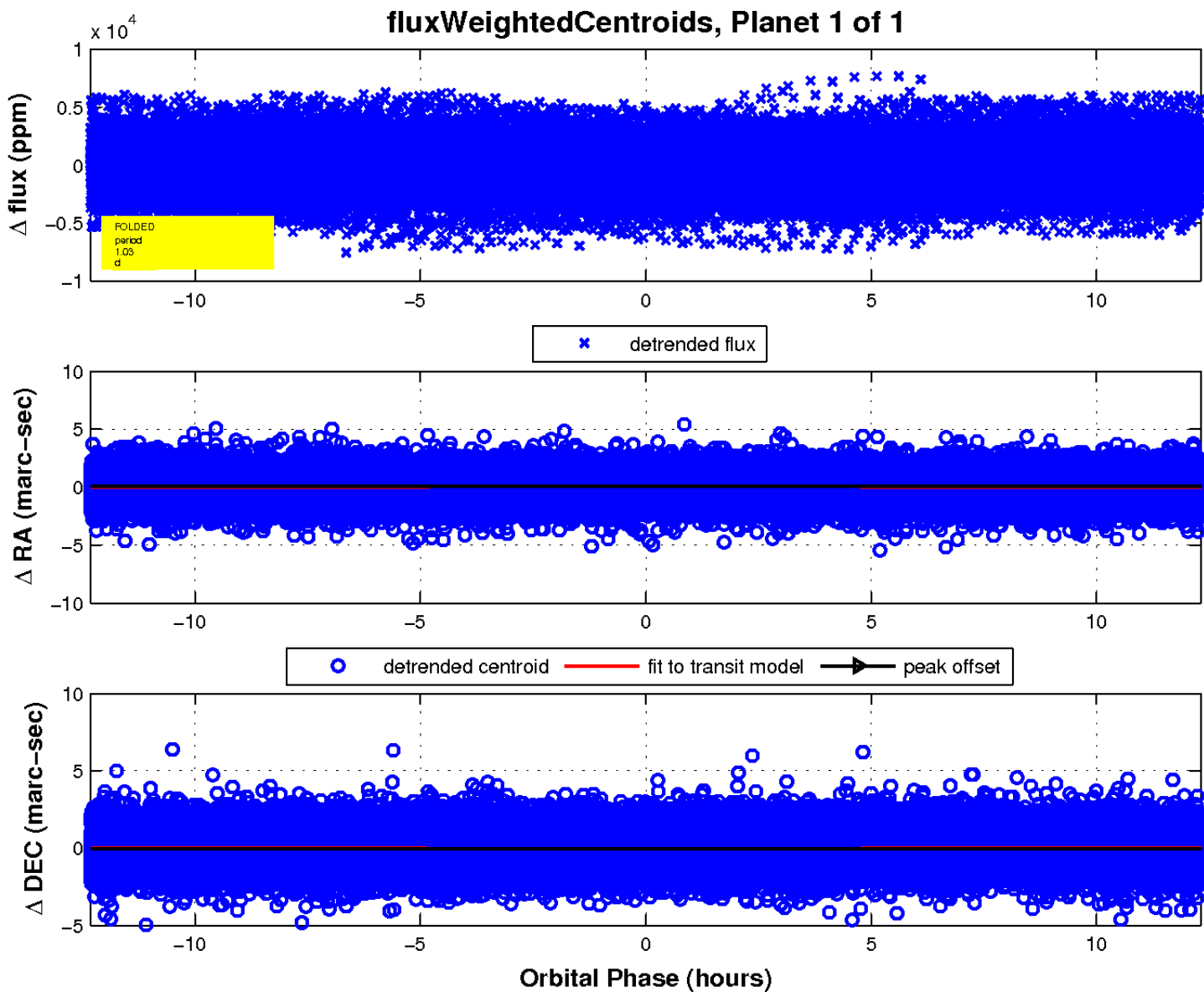
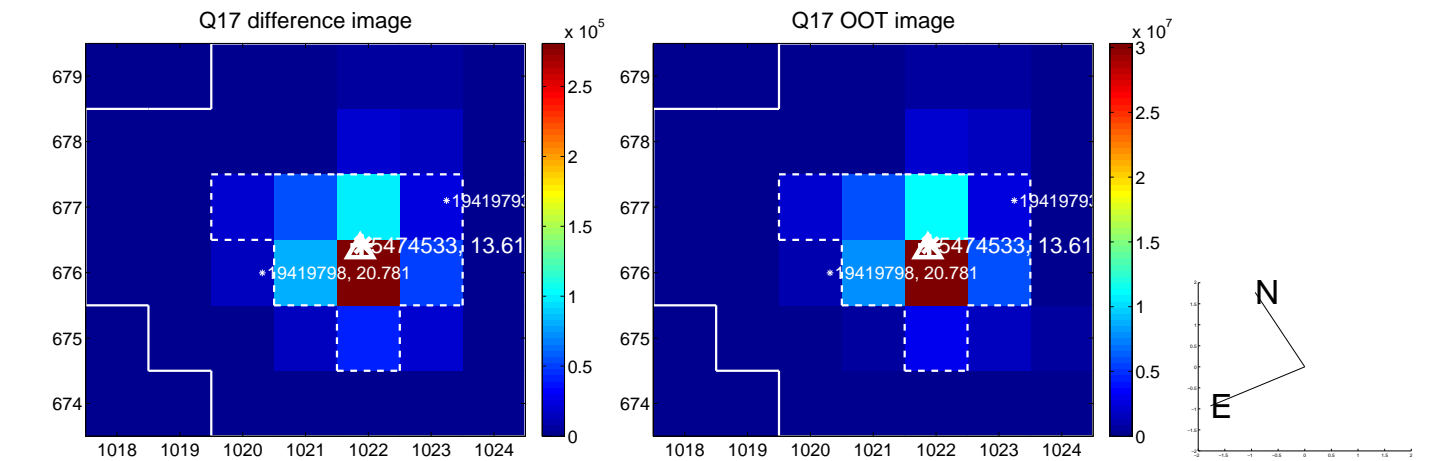
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

