

KIC 005298310

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})
005298310-01	OBS	No	0.979231	131.618643	42.7	4.637	8.1	7.8	0.89	5541	0.57	1889.41

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005298310-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET

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

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

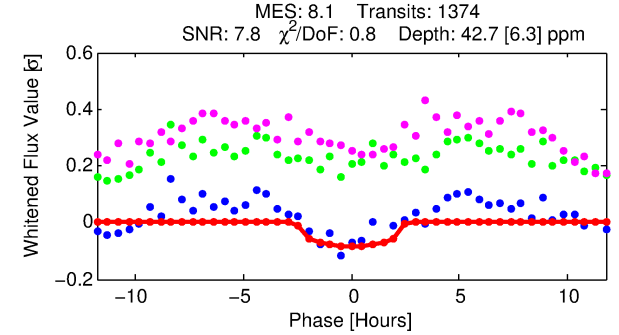
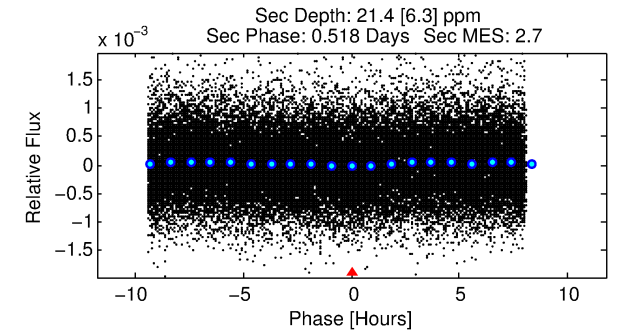
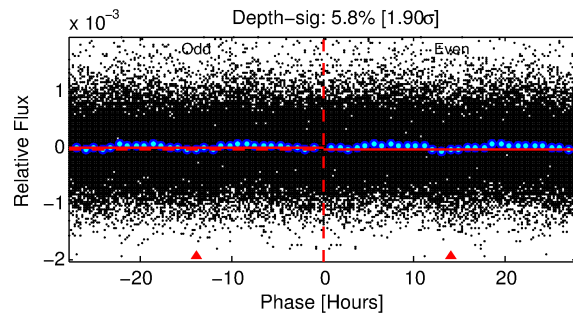
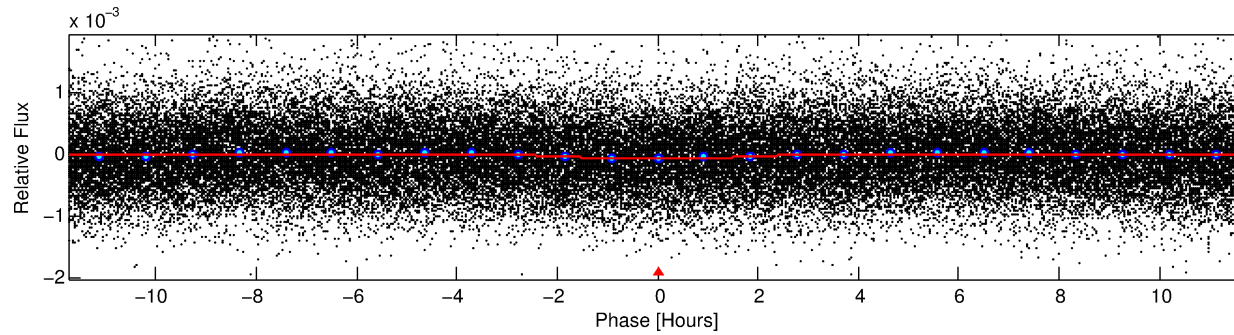
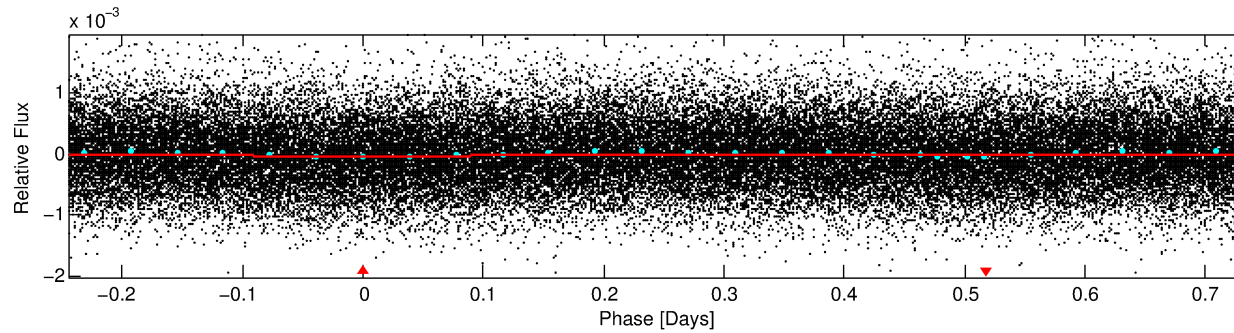
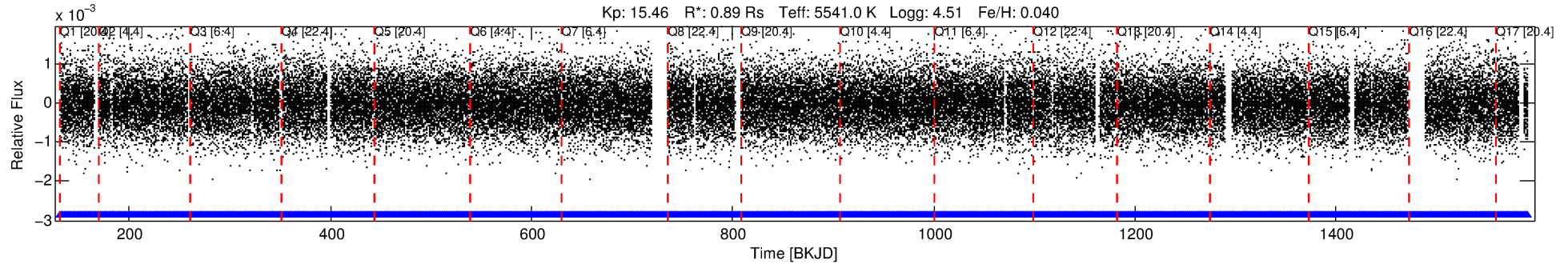
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005298310-01

No Significant Match Found

DV One-Page Summary

KIC: 5298310 Candidate: 1 of 1 Period: 0.979 d



DV Fit Results:

Period = 0.97923 [0.00002] d
Epoch = 131.6186 [0.0075] BKJD
Rp/R* = 0.0059 [0.0142]
a/R* = 1.72 [11.09]
b = 0.14 [71.23]
Seff = 1889.41 [636.66]
Teff = 1681 [142] K
Rp = 0.57 [1.38] Re
a = 0.0188 [0.0040] AU
Ag = 12.71 [61.27] [0.19 σ]
Teffp = 4908 [5904] K [0.55 σ]

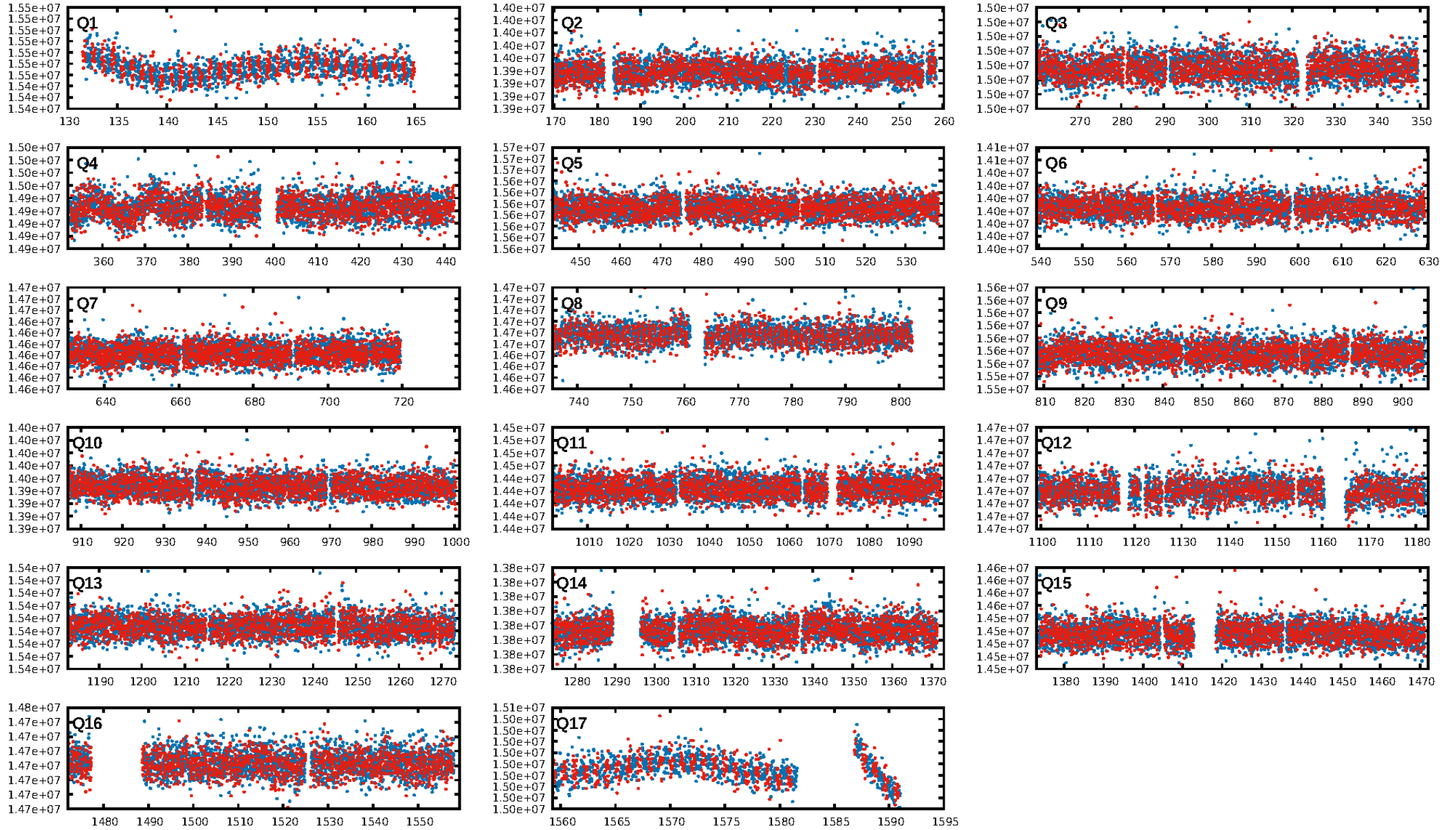
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 4.05e-14
RollingBand-fgm: 1.00 [1311/1311]
GhostDiagnostic-chr: -0.9857
Centroid-sig: 0.0%
Centroid-so: 11.614 arcsec [6.43 σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [17/17]

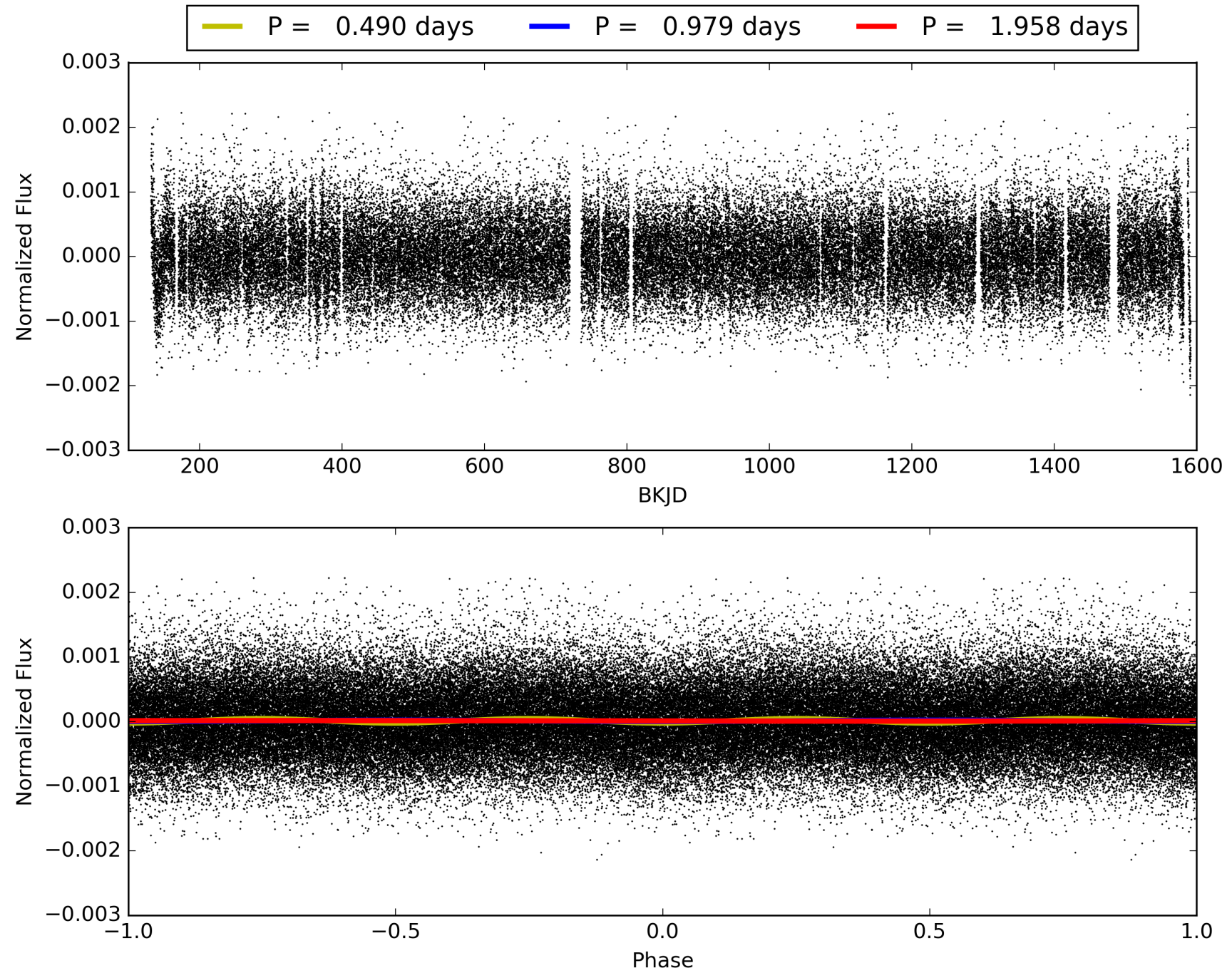
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 09:41:55 Z

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

TCE 005298310-01, PDC Light Curves

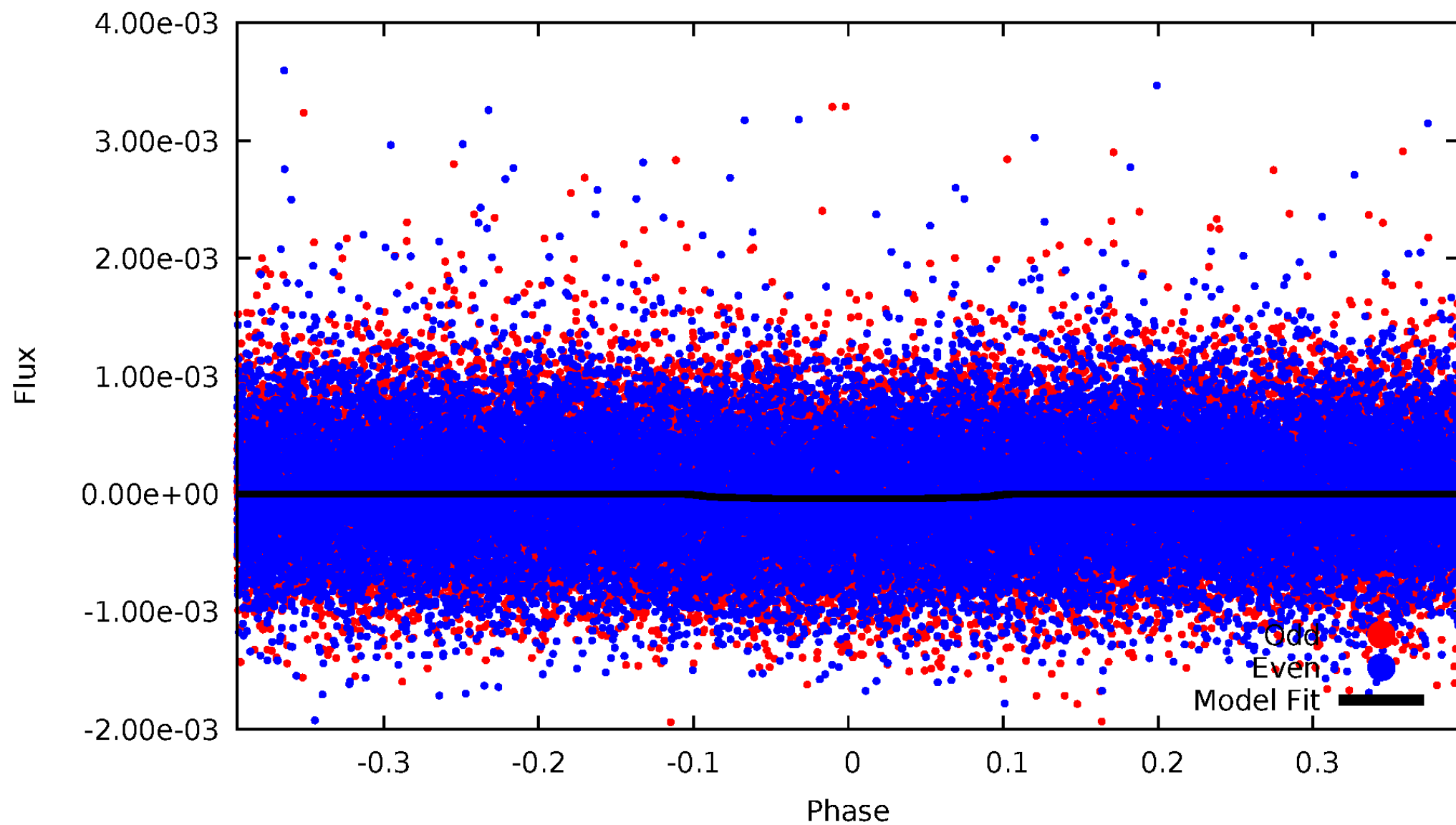


TCE 005298310-01



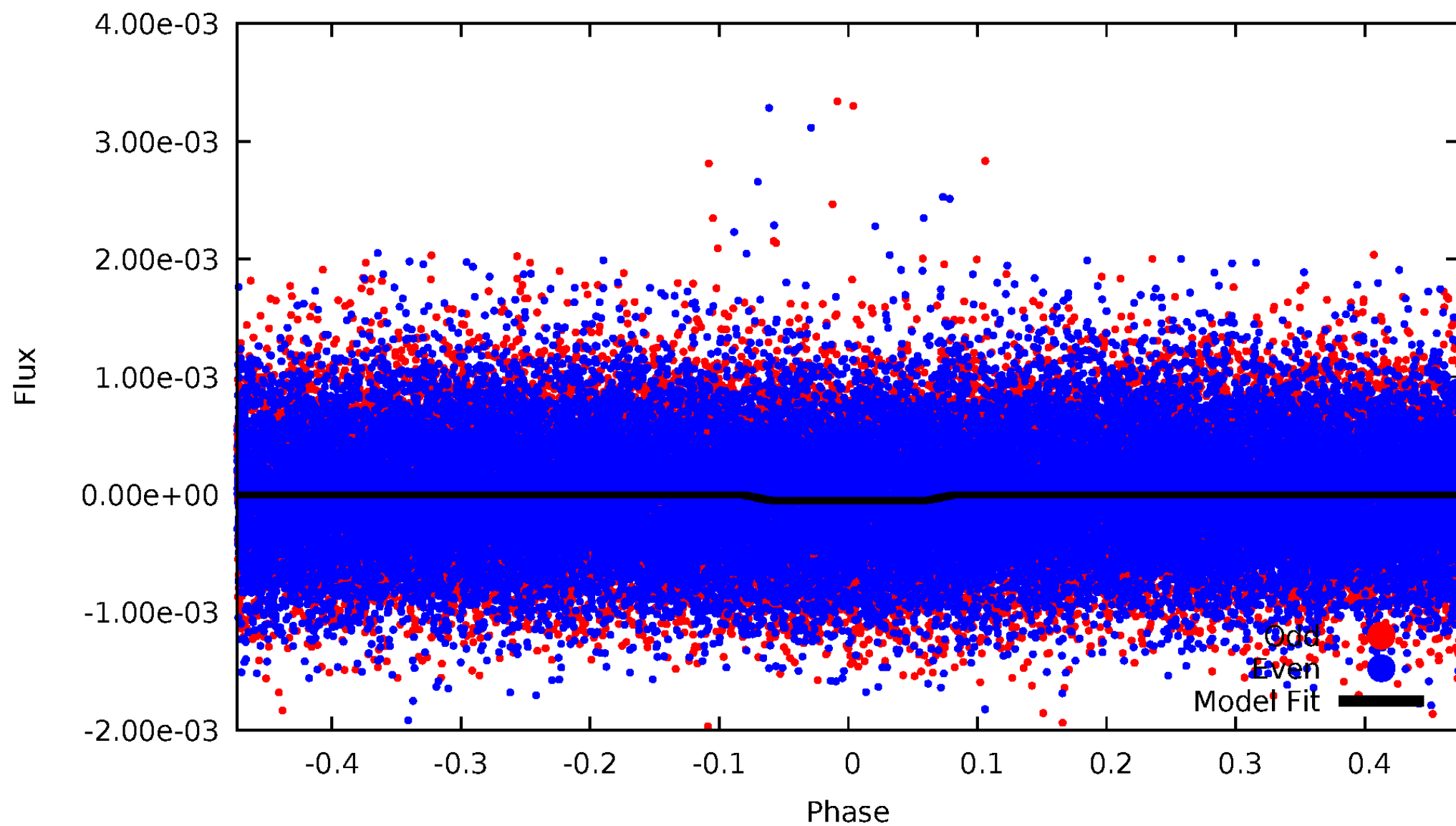
DV Odd/Even

TCE 005298310-01

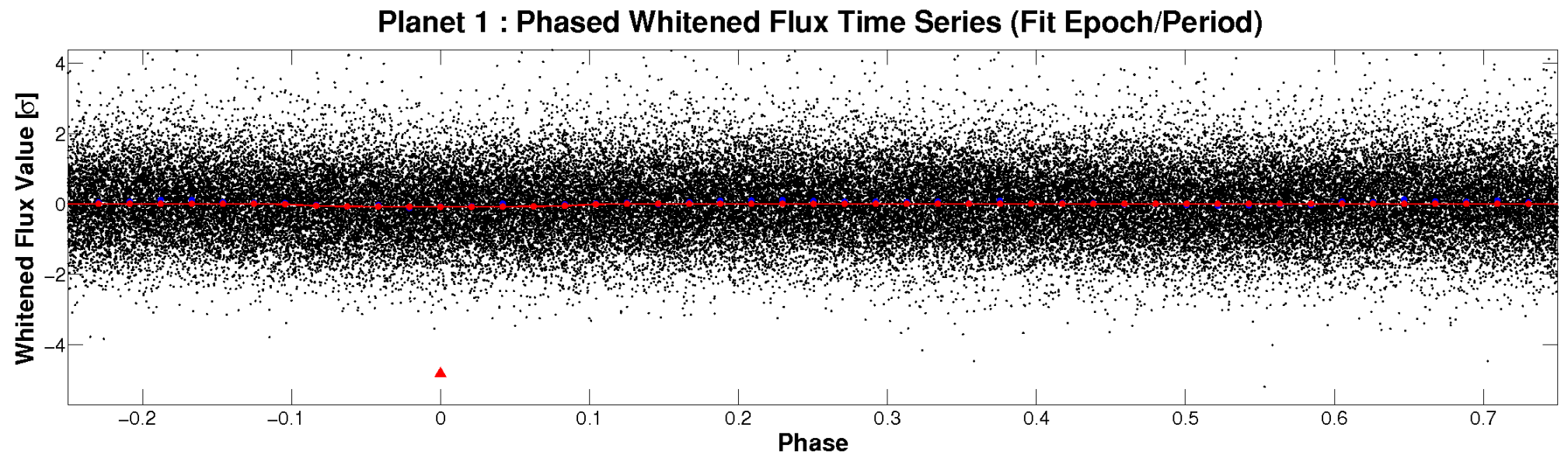
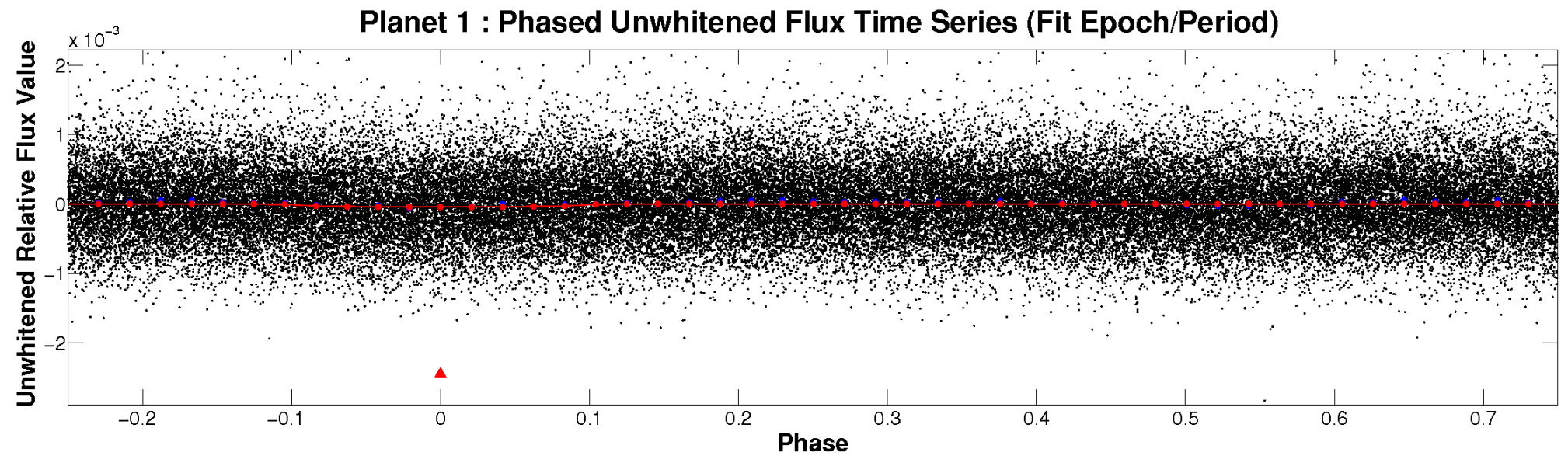


ALT Odd/Even

TCE 005298310-01

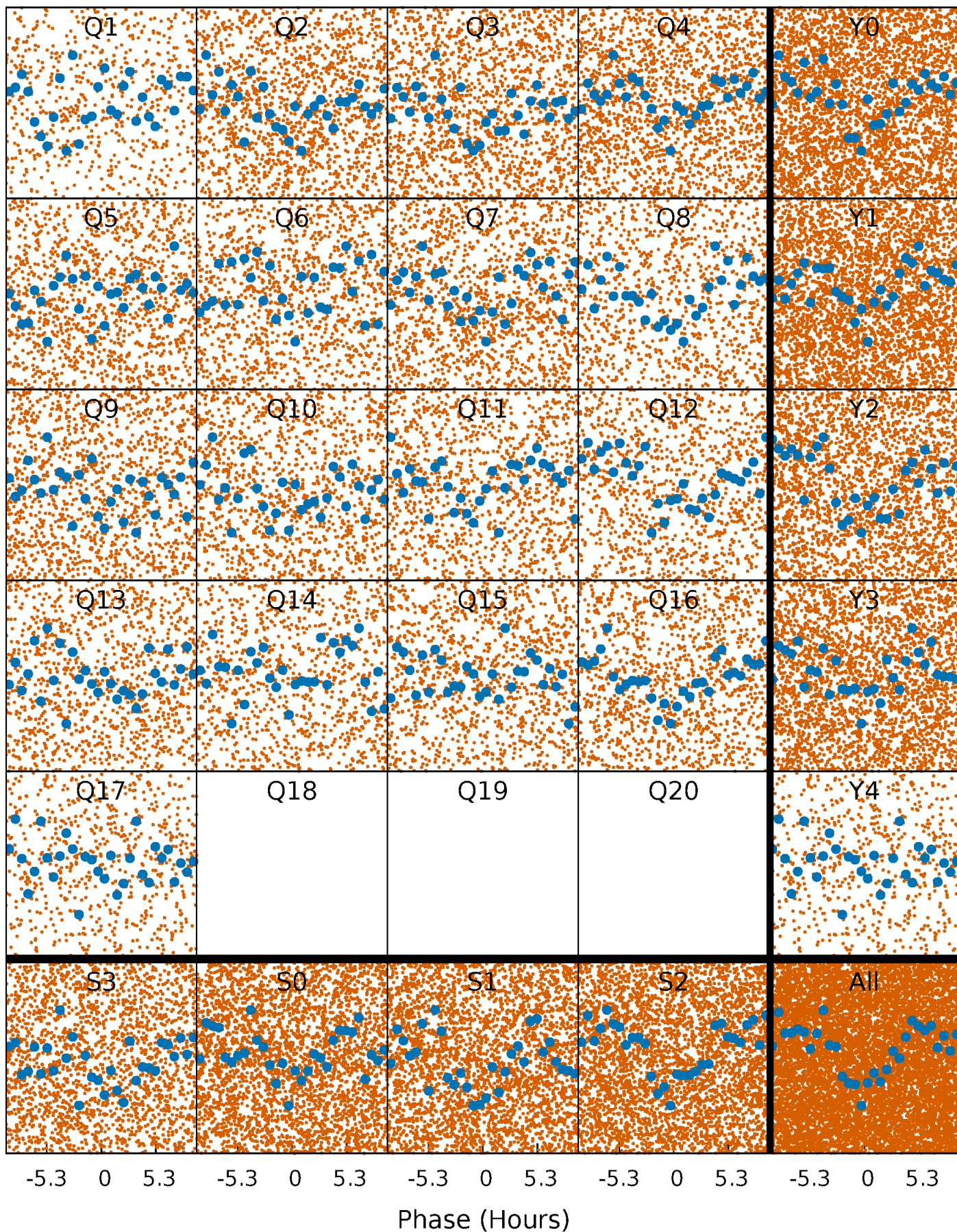


Non-Whitened Vs. Whitened Light Curve



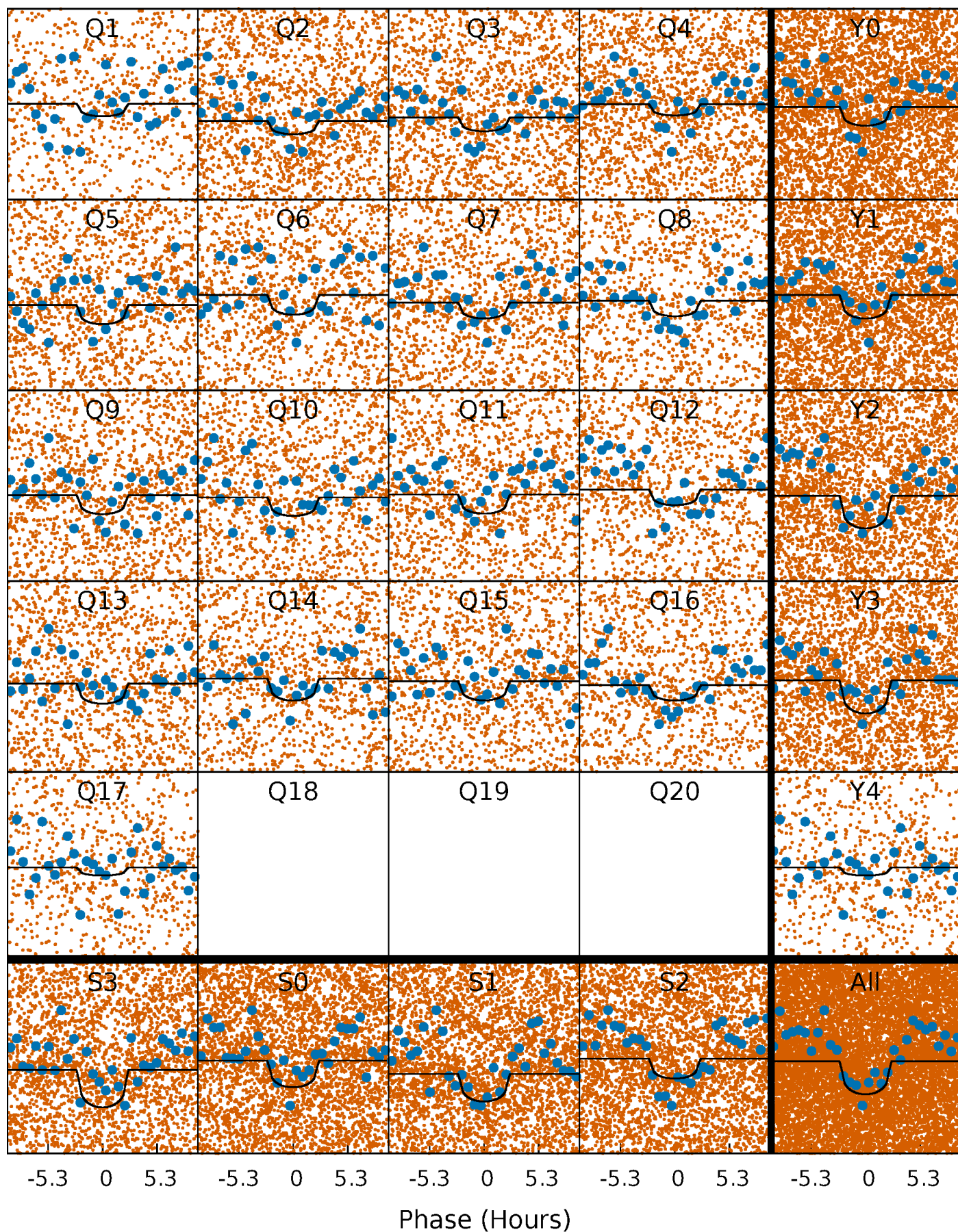
PDC Quarter-Phased Transit Curves

TCE 005298310-01 P= 0.979231 Days $T_0=131.618643$ (BKJD)



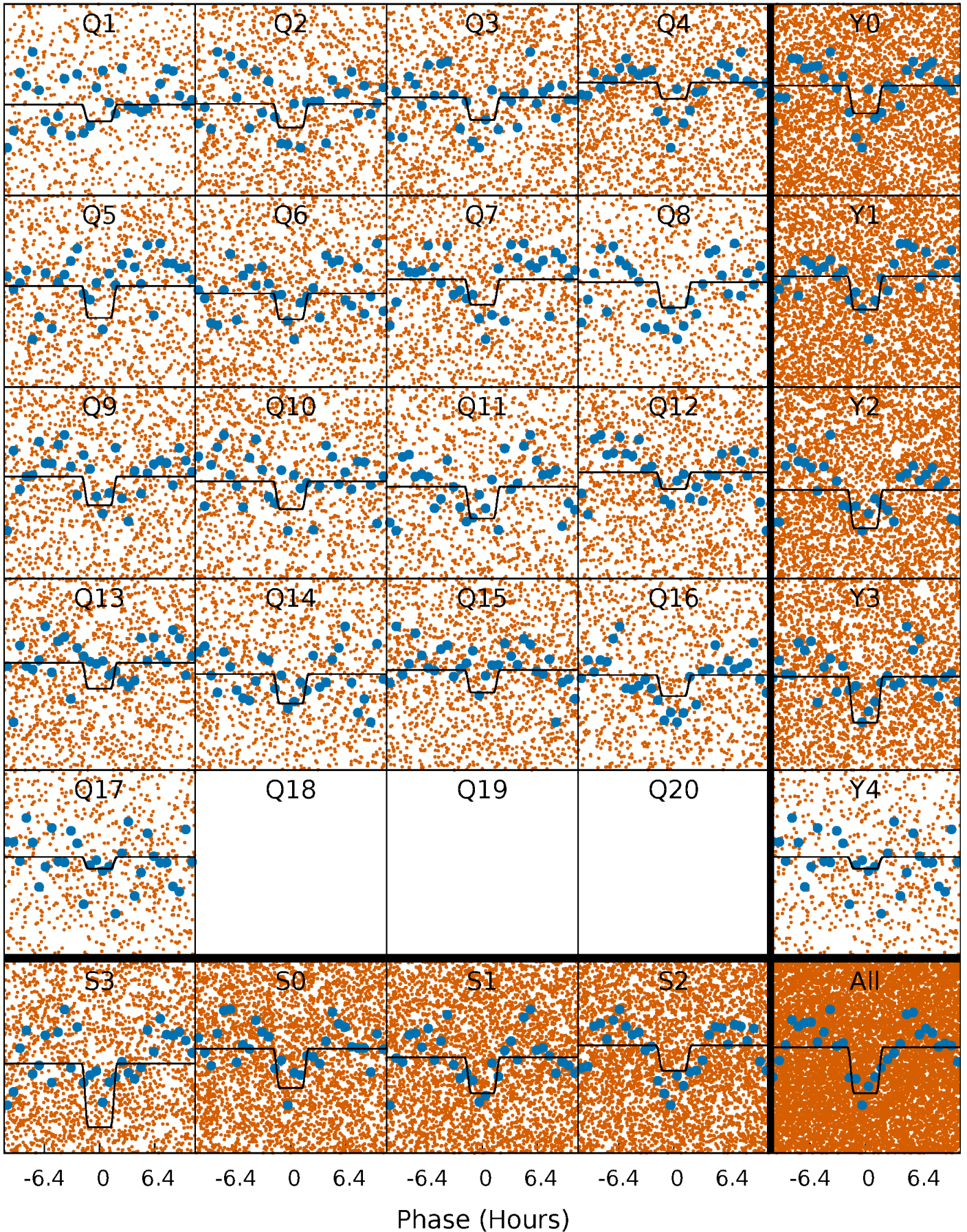
DV Quarter-Phased Transit Curves

TCE 005298310-01 P= 0.979231 Days $T_0=131.618643$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

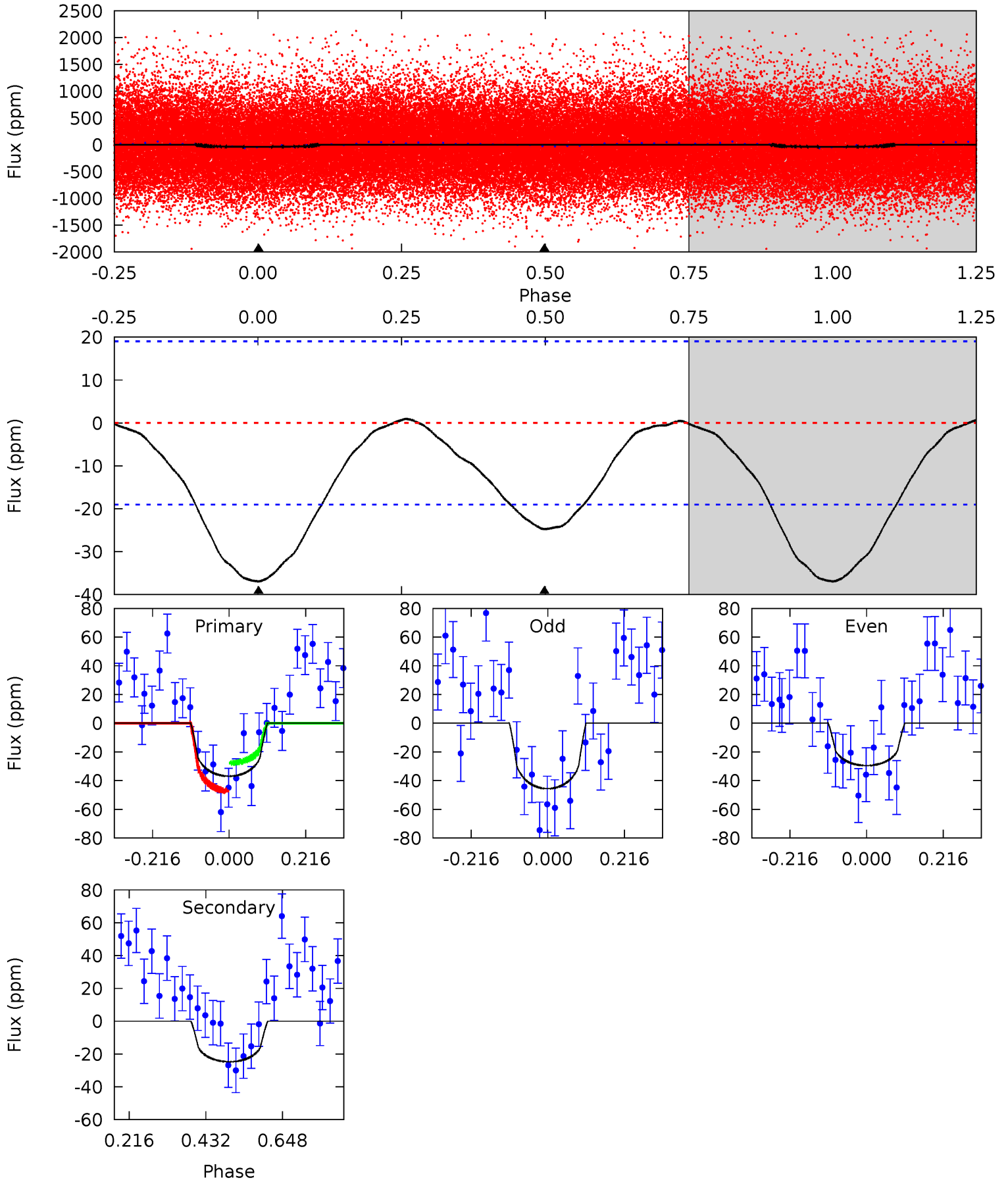
TCE 005298310-01 P= 0.979228 Days $T_0=131.616835$ (BKJD)



DV Model-Shift Uniqueness Test

005298310-01, P = 0.979231 Days, E = 130.639412 Days

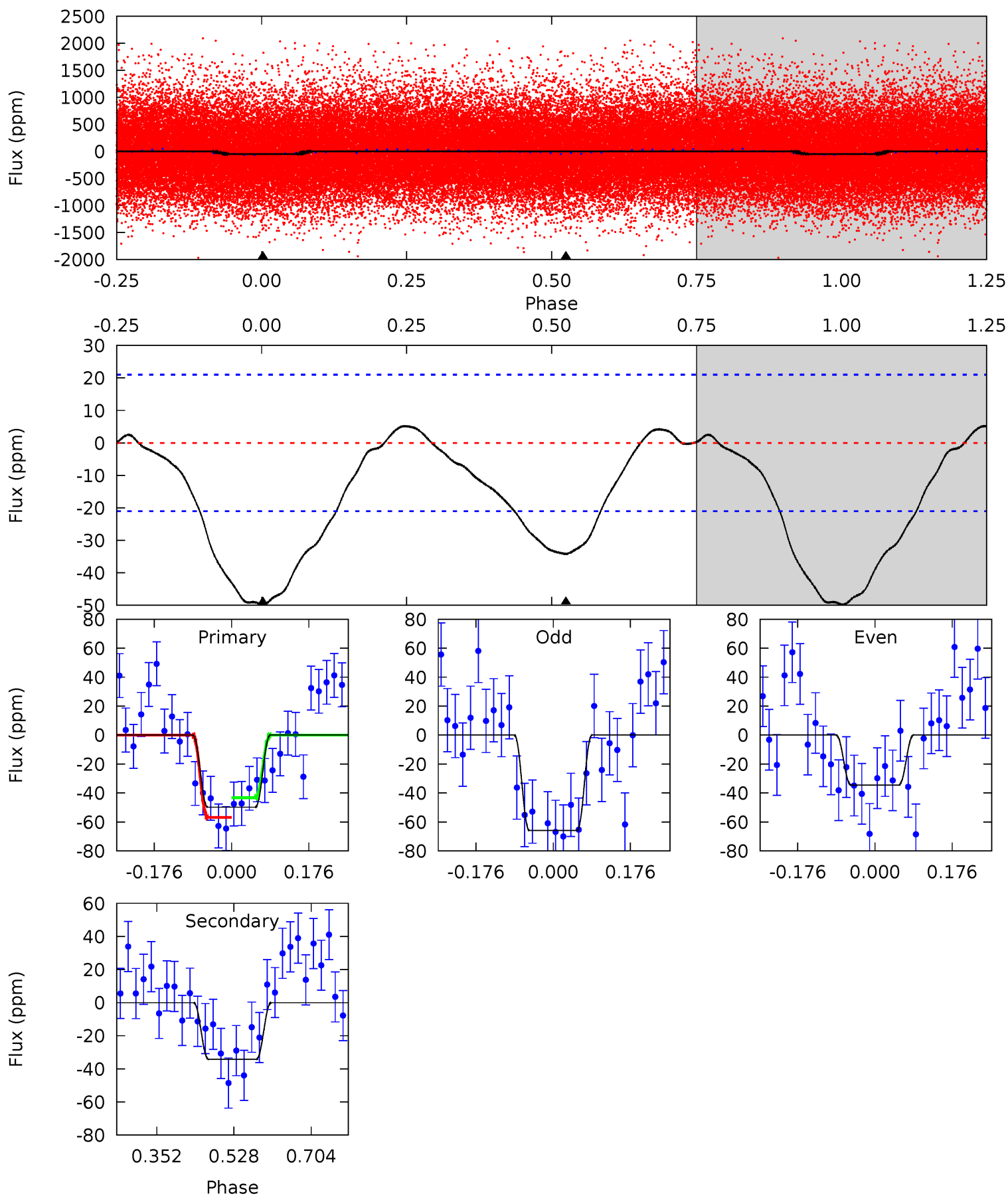
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.55	5.73	0	0	4.40	1.24	0.17	8.55	8.55	5.73	5.73	1.86	0.84	0.03	2.25



Alt Model-Shift Uniqueness Test

005298310-01, P = 0.979228 Days, E = 130.637607 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.5	7.23	0	0	4.44	1.35	0.66	10.5	10.5	7.23	7.23	3.30	1.03	0.09	1.44



Stellar Parameters For KIC 005298310

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5541^{+166}_{-166}	$4.506^{+0.058}_{-0.173}$	$0.040^{+0.250}_{-0.300}$	$0.890^{+0.226}_{-0.090}$	$0.926^{+0.092}_{-0.092}$	$1.852^{+0.446}_{-0.844}$
	+3%/-3%	+1%/-4%	+625%/-750%	+25%/-10%	+10%/-10%	+24%/-46%
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 005298310-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-25 ± 4	$1.24^{+1.13}_{-0.83}$	2383^{+149}_{-100}	3789^{+2338}_{-844}	$3.109^{+26.583}_{-2.281}$
Alt.	-34 ± 5	$1.24^{+1.31}_{-0.80}$	2380^{+166}_{-105}	4010^{+2585}_{-931}	$4.075^{+31.062}_{-3.060}$

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

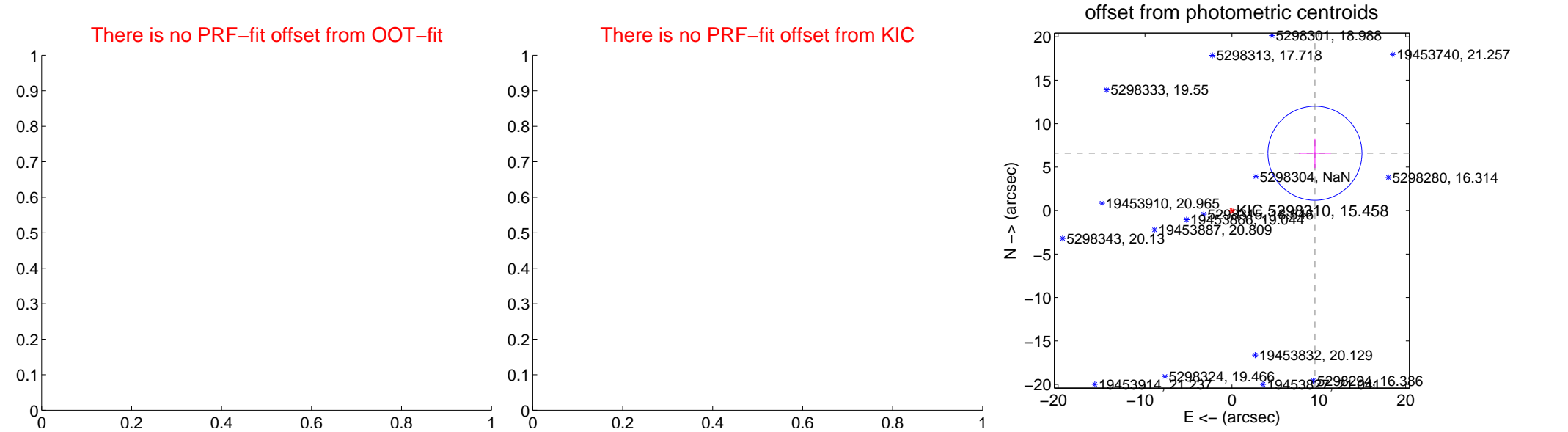
DV Centroid Data

Supplemental centroid analysis for 005298310-01. Kepler magnitude: 15.46. Transit SNR 7.82

There are 0 quarters with good PRF difference image offsets

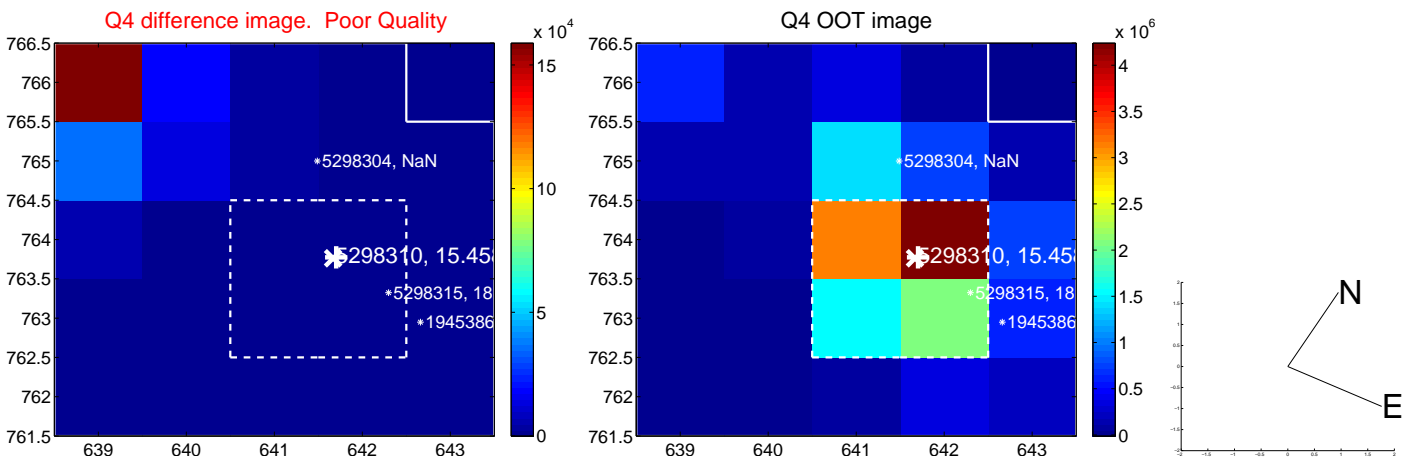
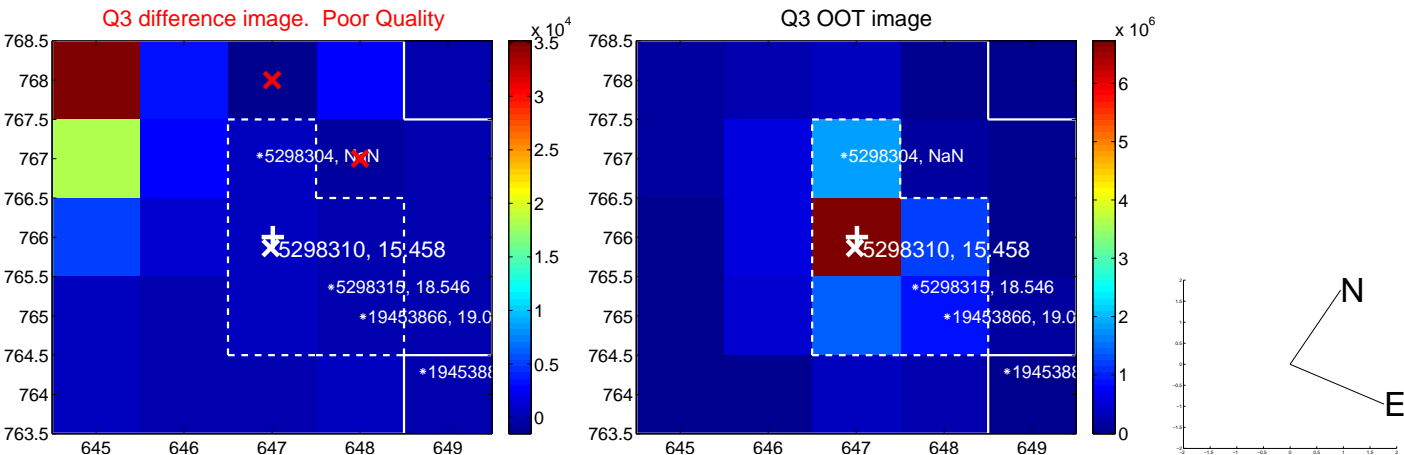
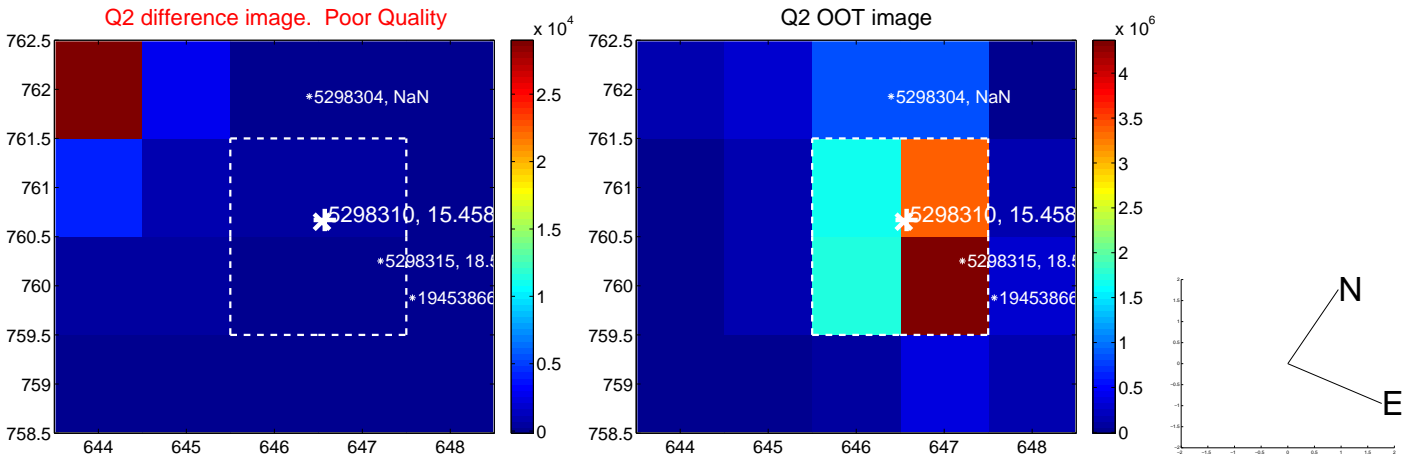
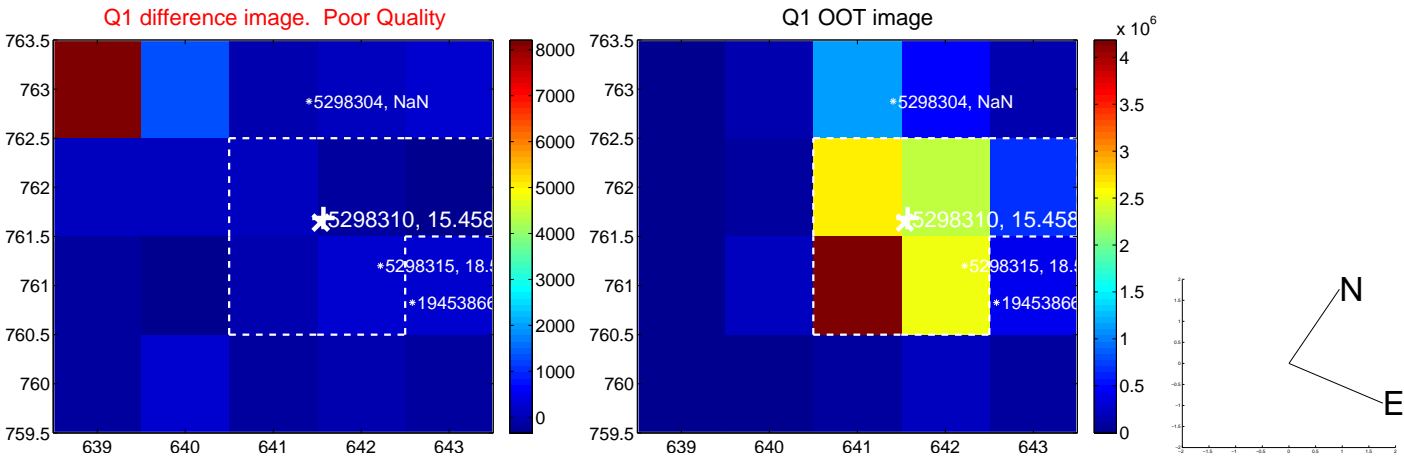
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	11.61 ± 1.81	6.43	-9.56 ± 1.85	6.60 ± 1.71

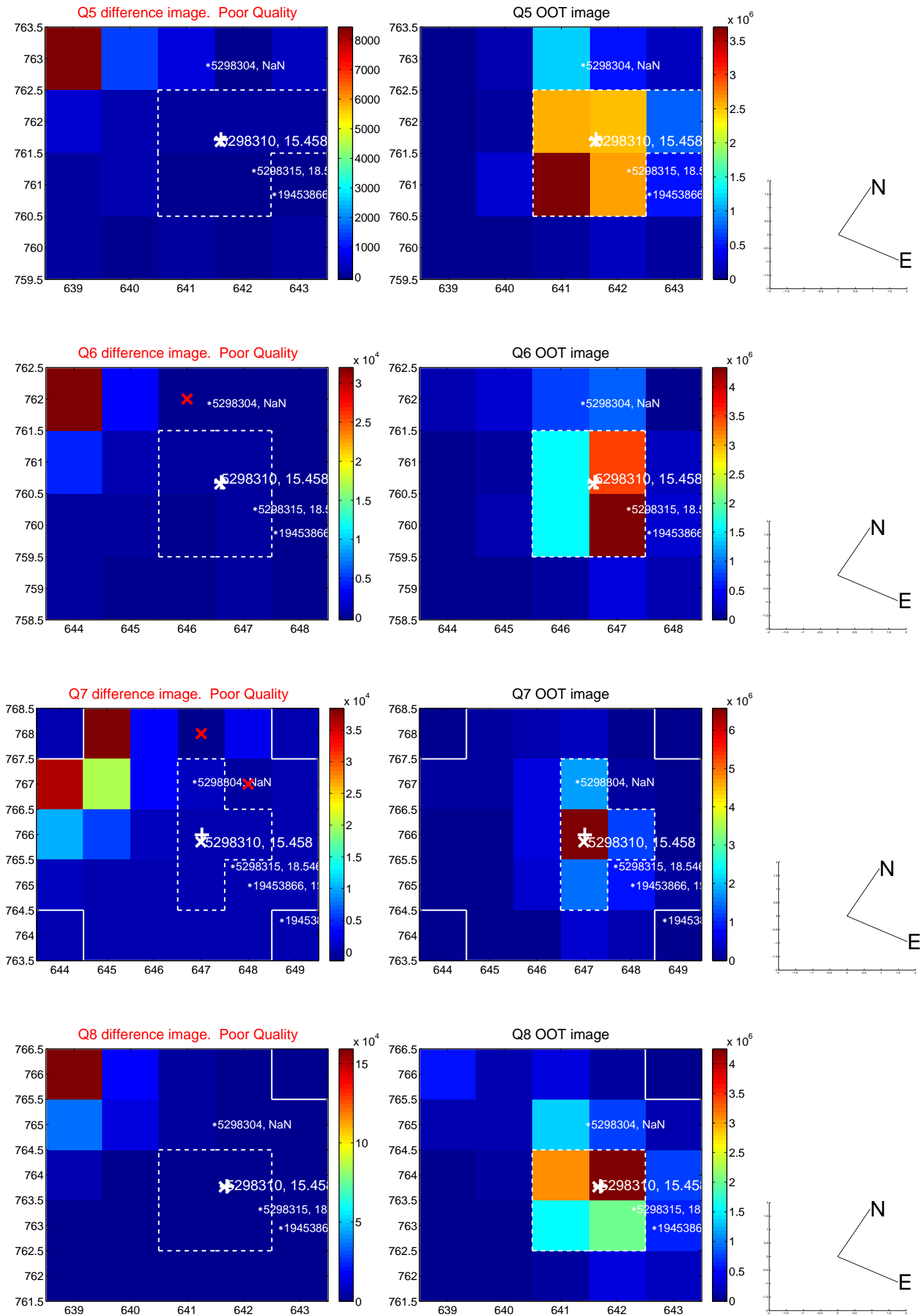


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

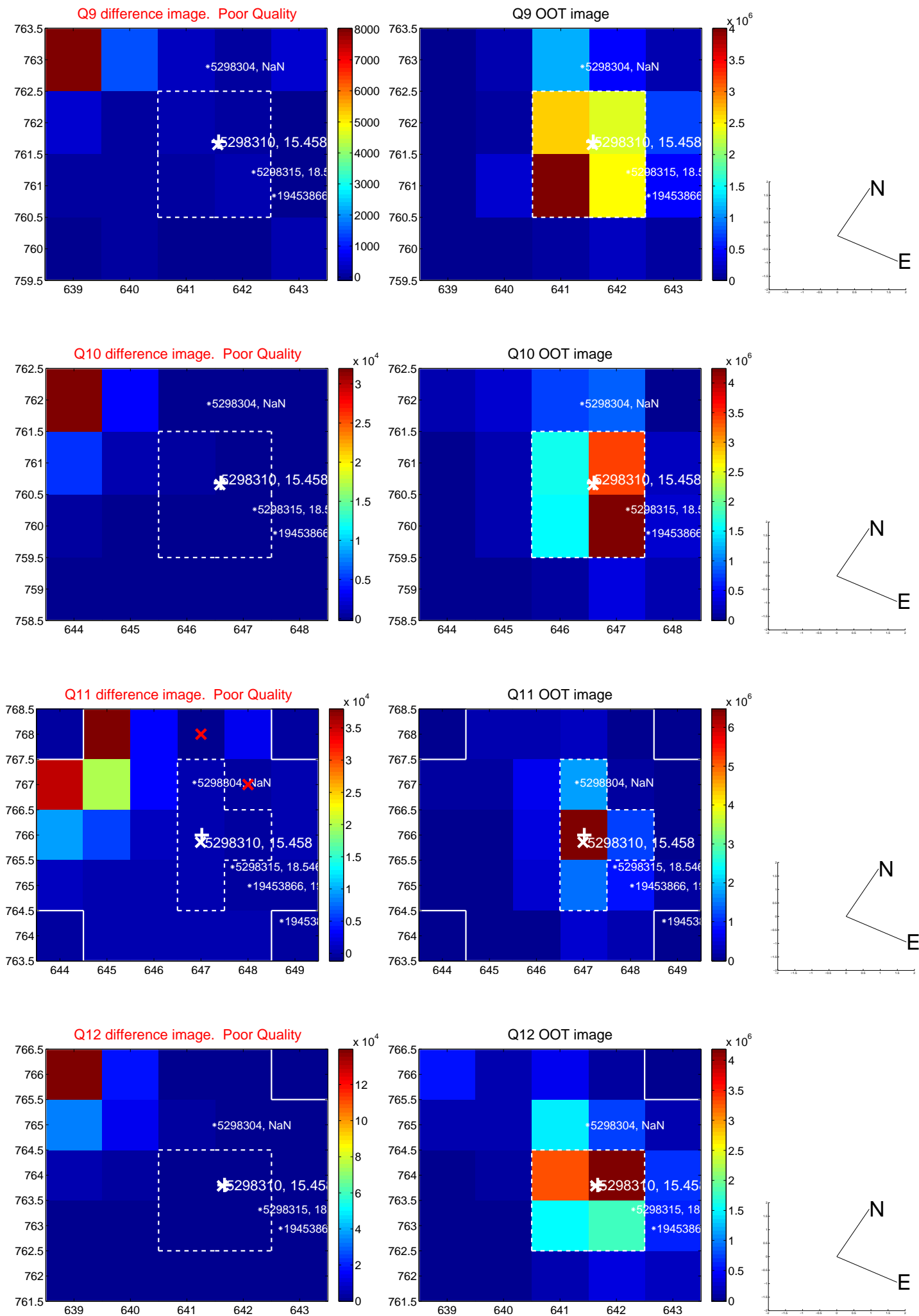
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



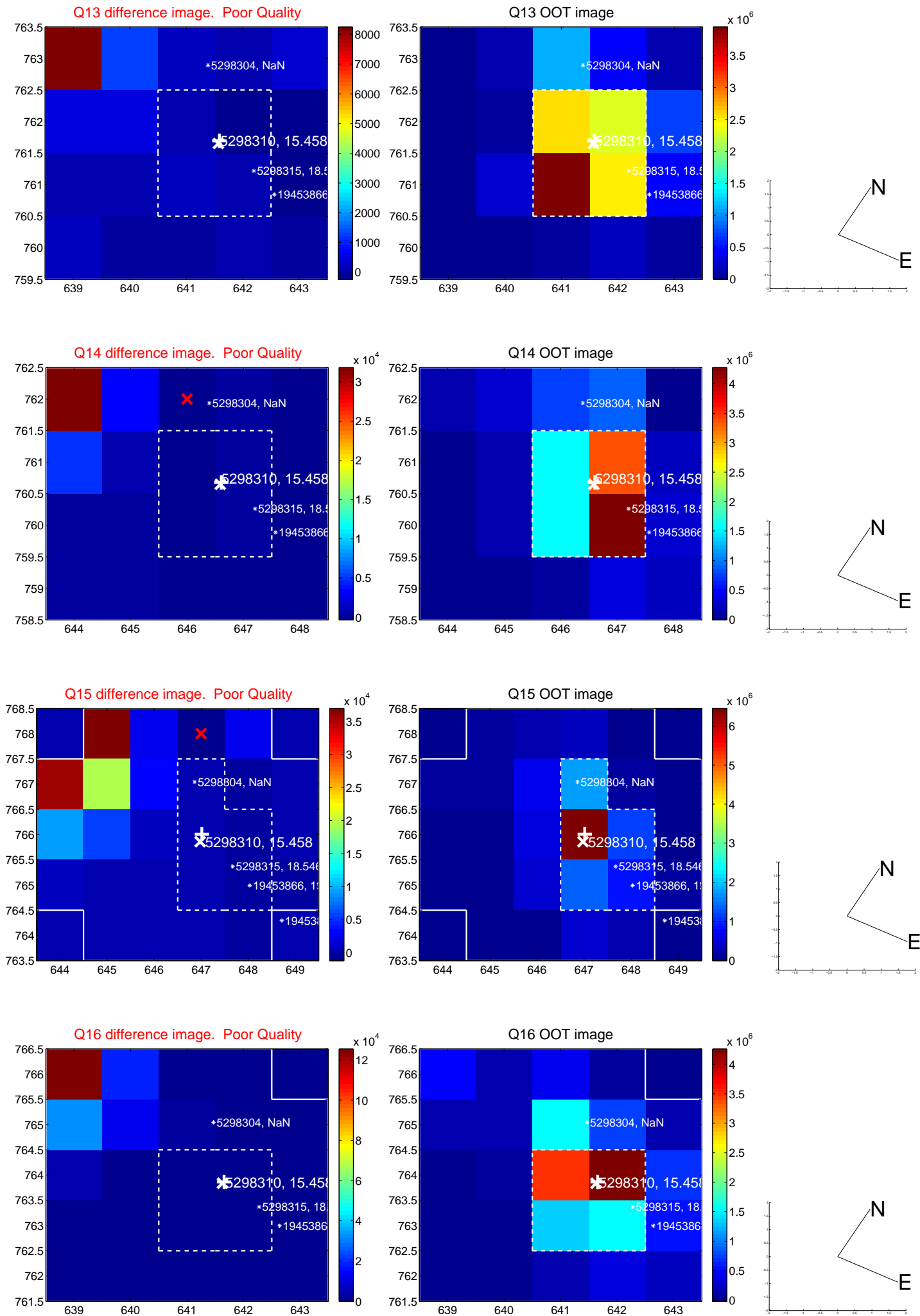
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



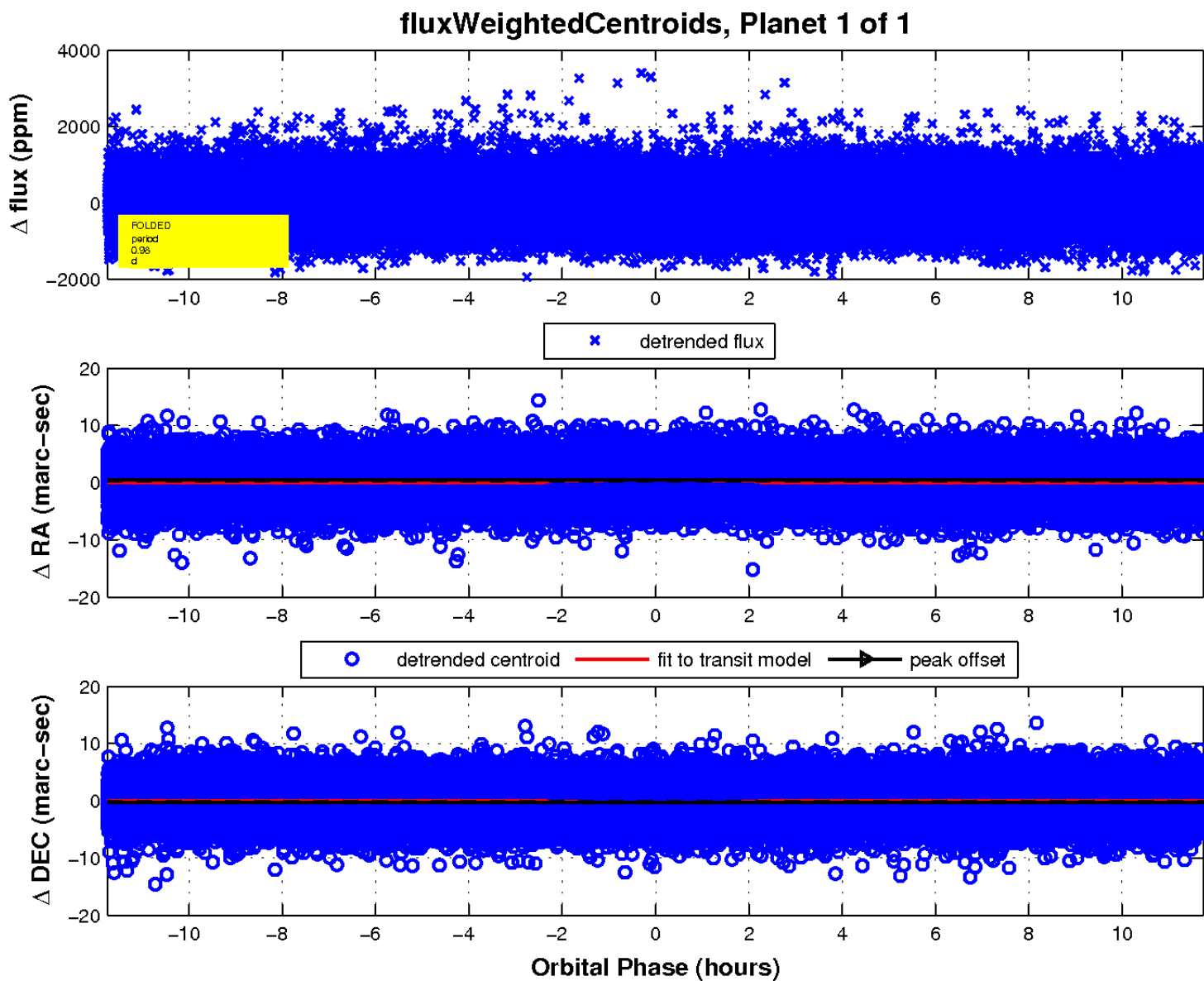
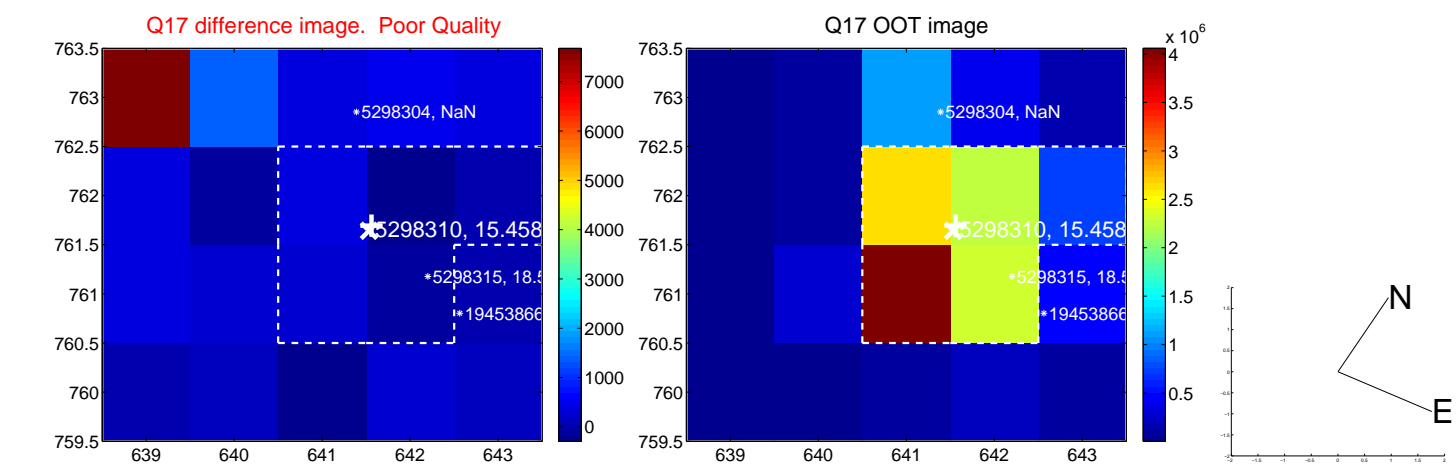
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

