

KIC 005566536

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})
005566536-01	OBS	No	1.178772	132.100796	40.1	13.150	13.6	19.4	1.78	8028	1.14	16841.44

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005566536-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_FEW_DIFFS

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

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

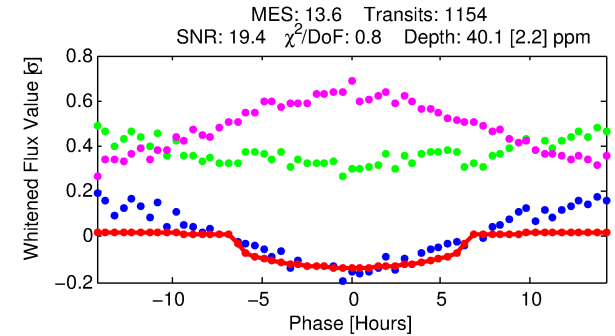
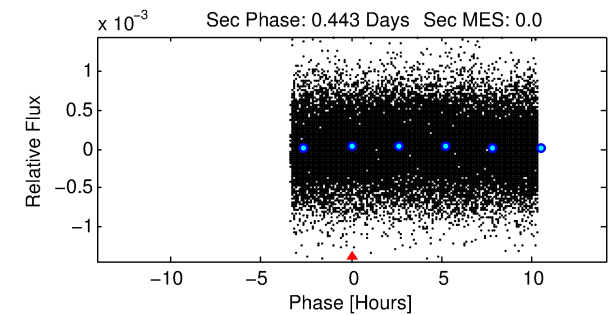
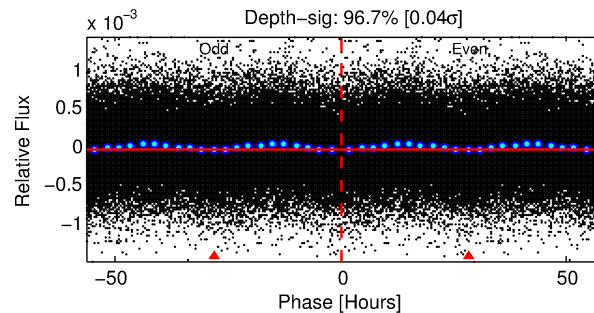
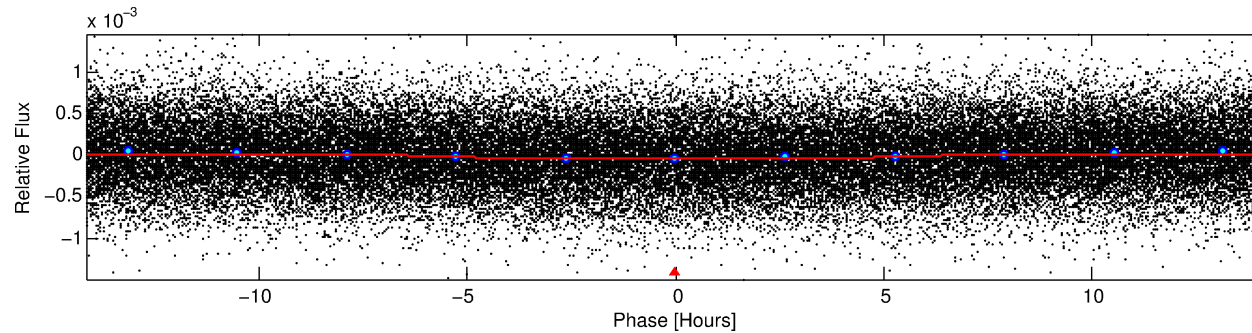
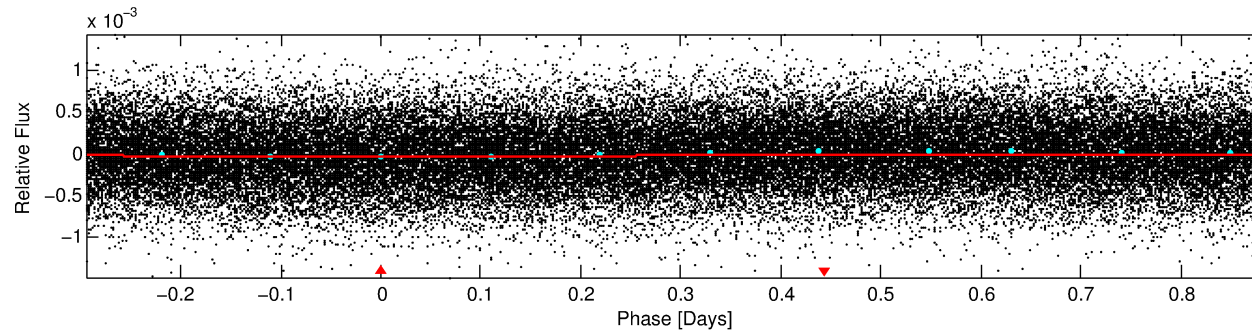
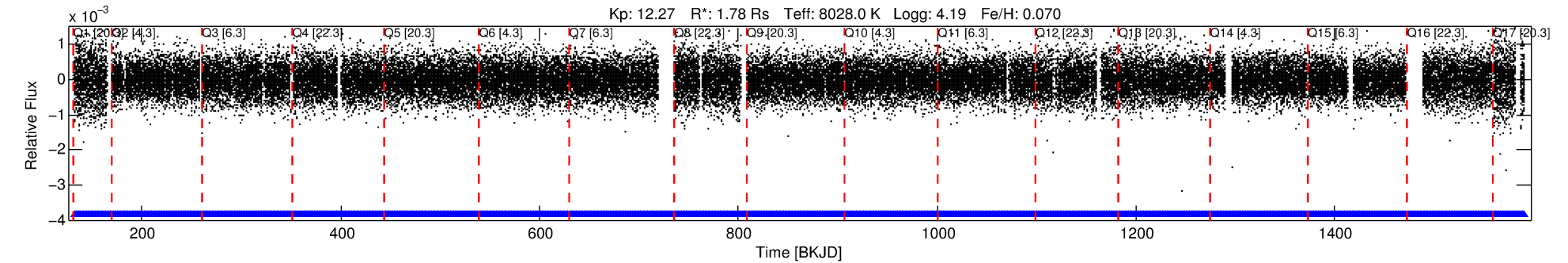
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005566536-01

No Significant Match Found

DV One-Page Summary

KIC: 5566536 Candidate: 1 of 1 Period: 1.179 d



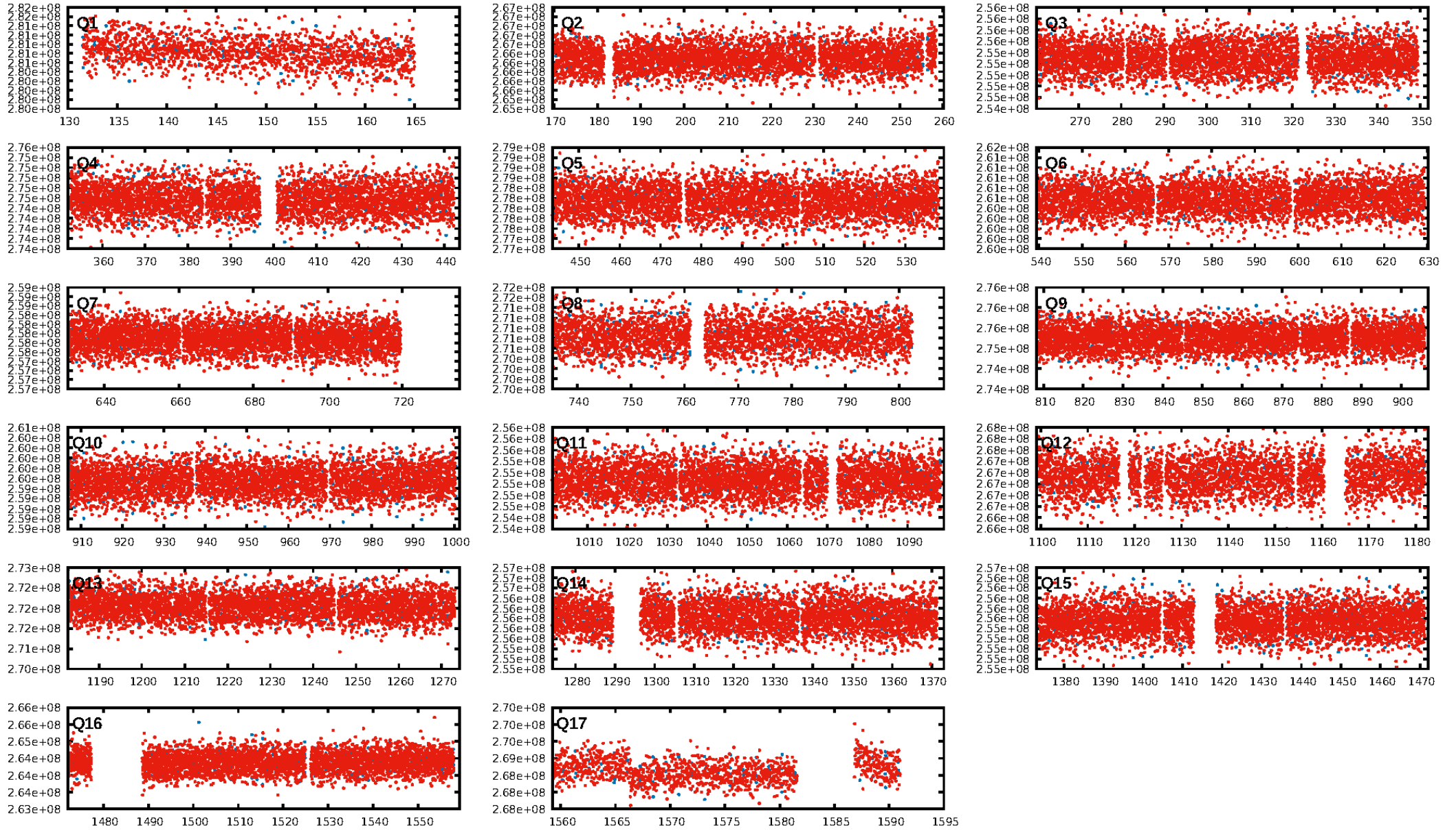
DV Fit Results:

Period = 1.17877 [0.00001] d
Epoch = 132.1008 [0.0072] BKJD
Rp/R* = 0.0059 [0.0030]
a/R* = 1.01 [0.07]
b = 0.00 [2820.86]
Seff = 16841.44 [6360.52]
Teff = 2905 [274] K
Rp = 1.14 [0.67] Re
a = 0.0264 [0.0062] AU
Ag = N/A
Teffp = N/A

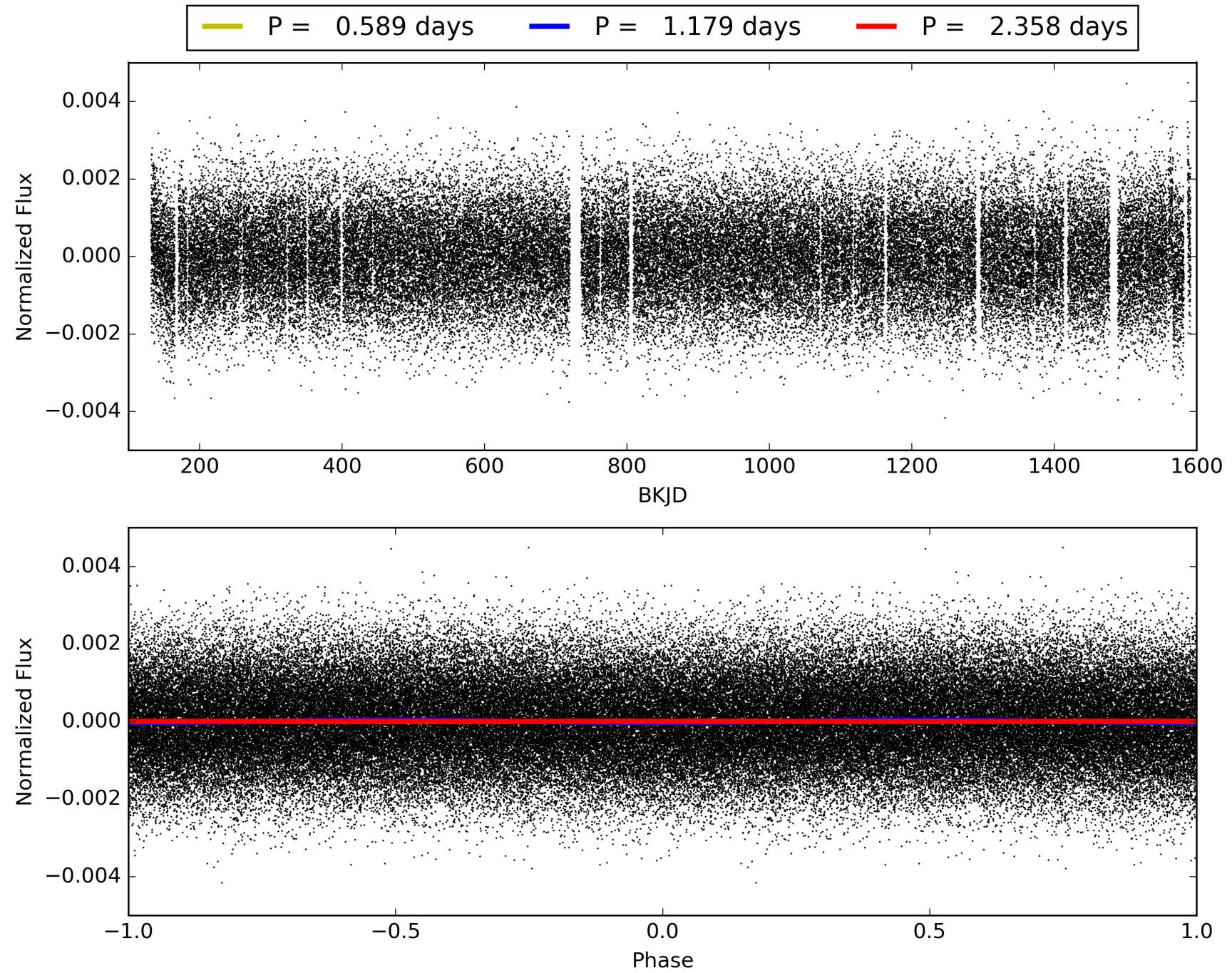
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1102/1102]
GhostDiagnostic-chr: 2.28
Centroid-sig: 0.1%
Centroid-so: 0.513 arcsec [1.61σ]
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]

TCE 005566536-01, PDC Light Curves

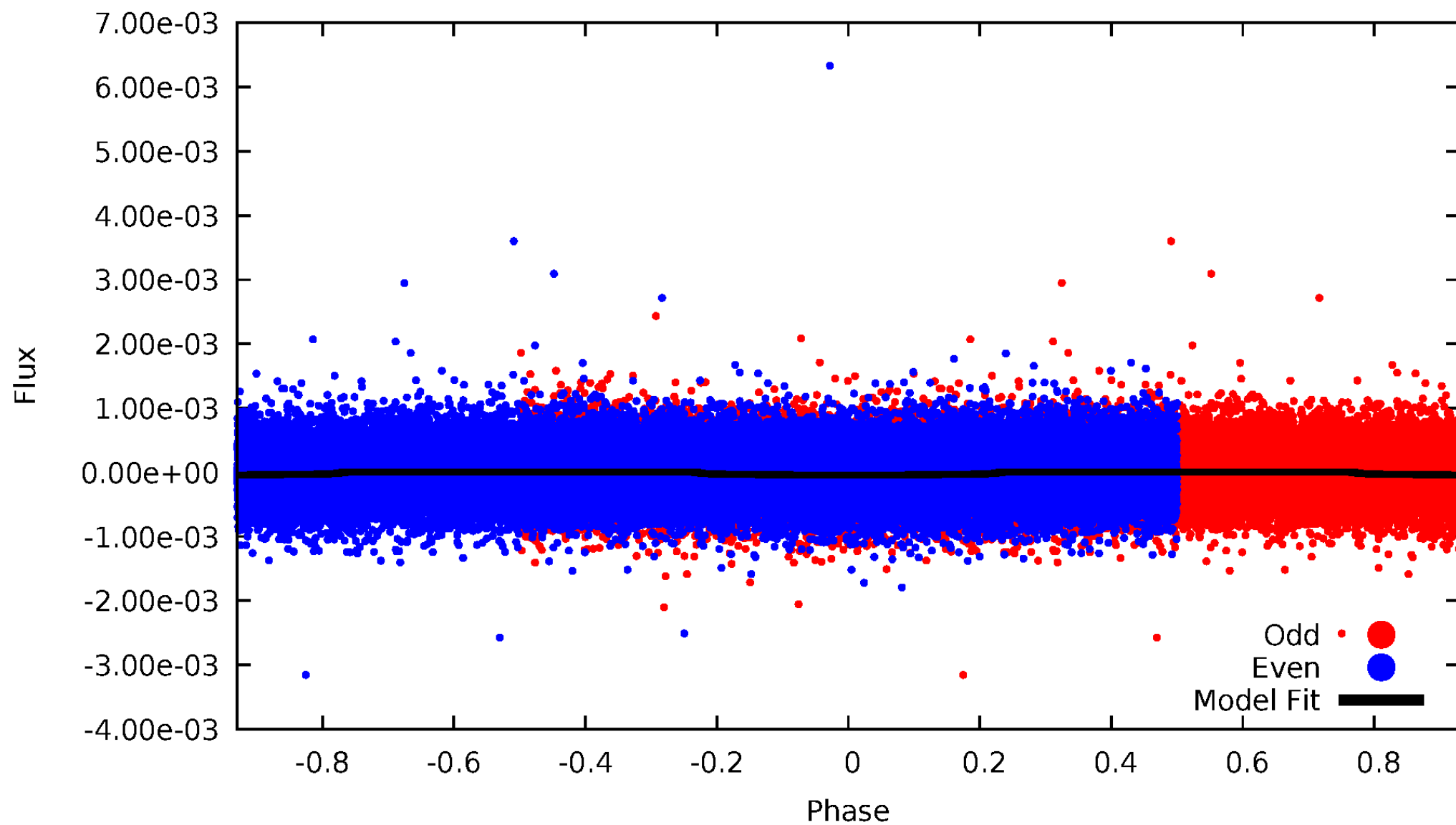


TCE 005566536-01



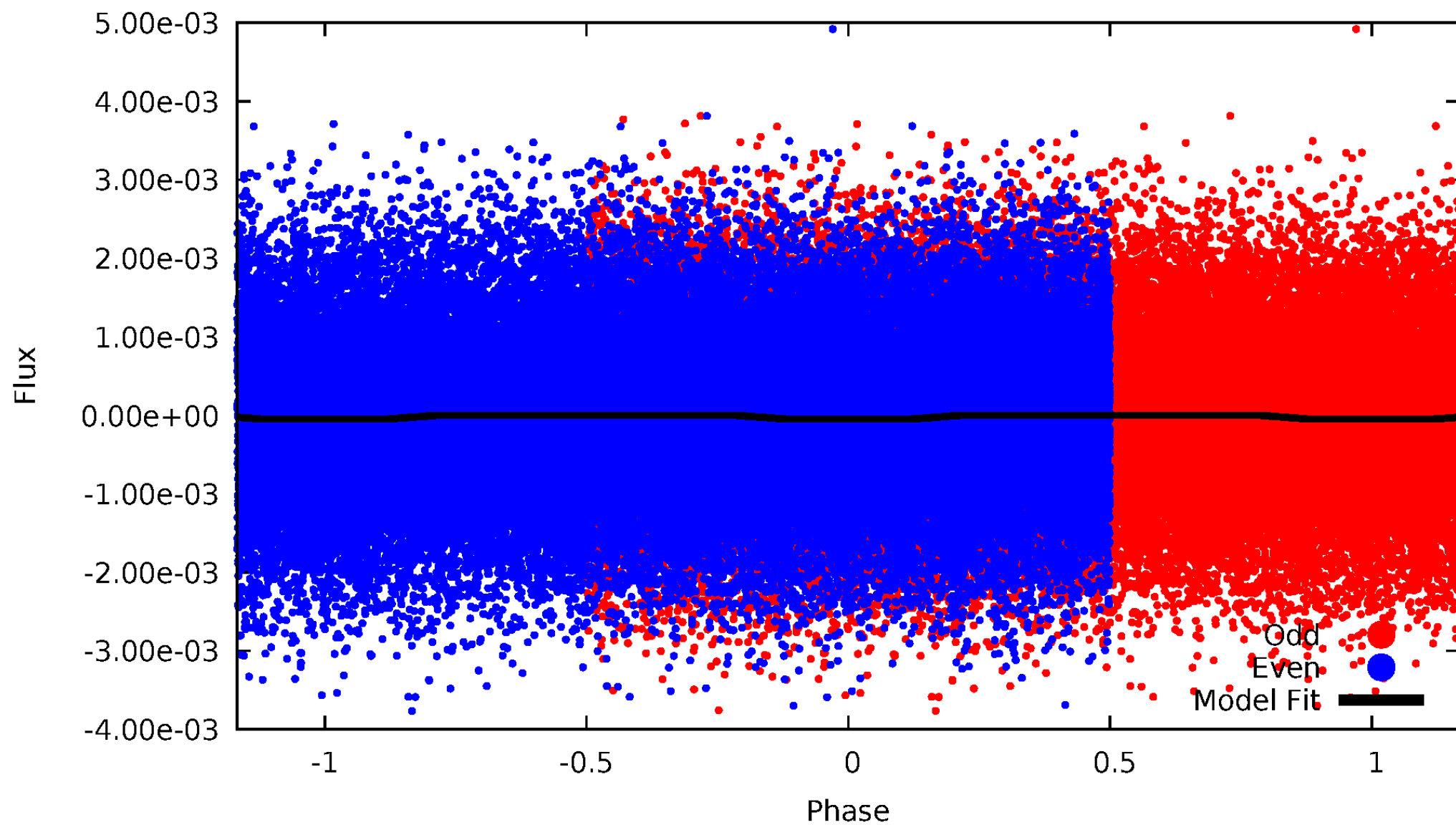
DV Odd/Even

TCE 005566536-01



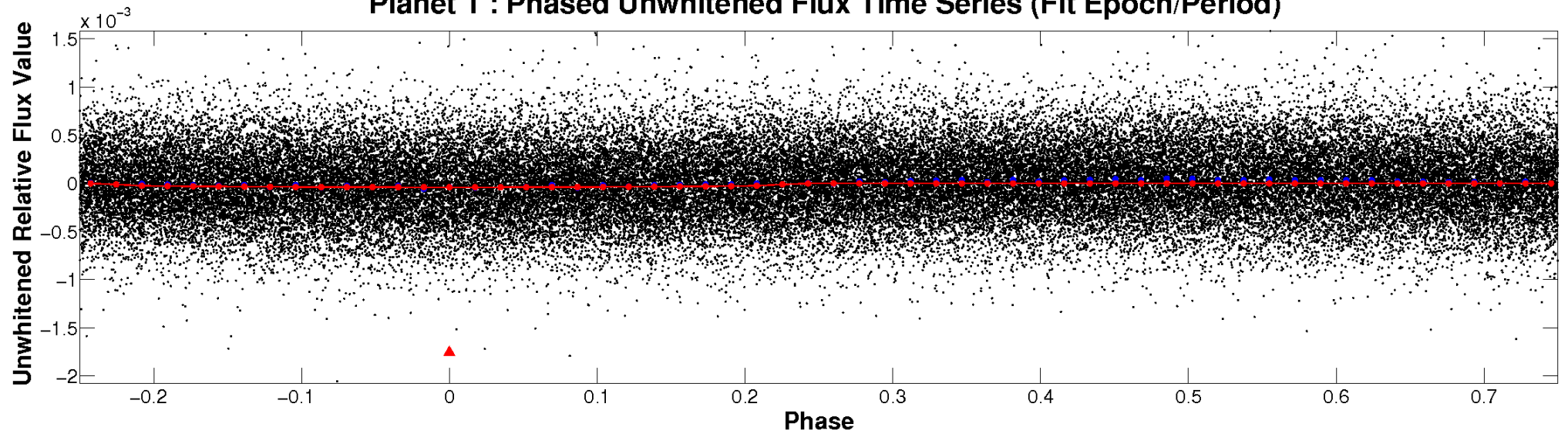
ALT Odd/Even

TCE 005566536-01

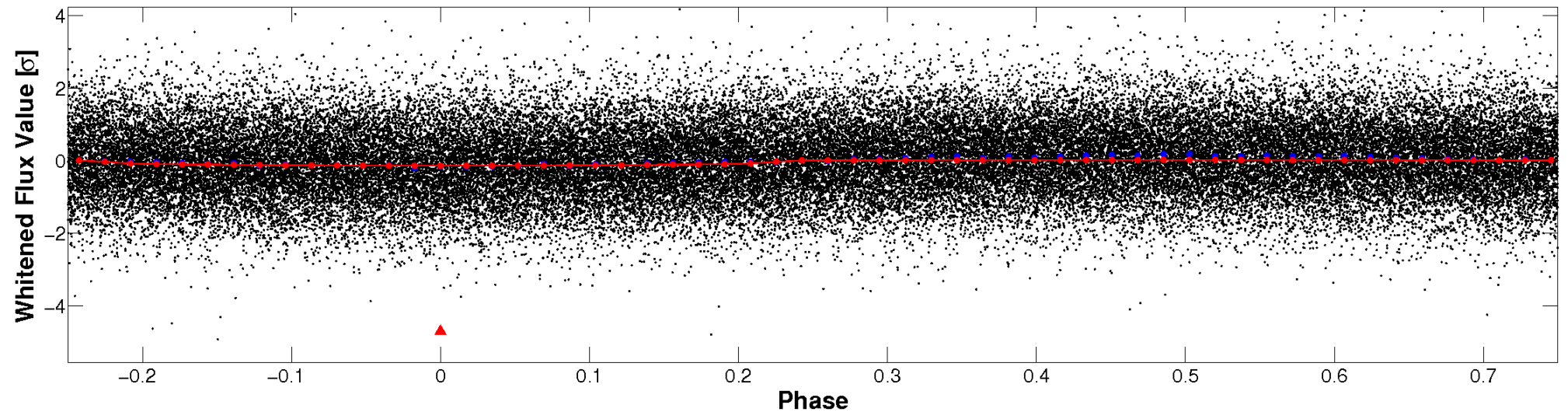


Non-Whitened Vs. Whitened Light Curve

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

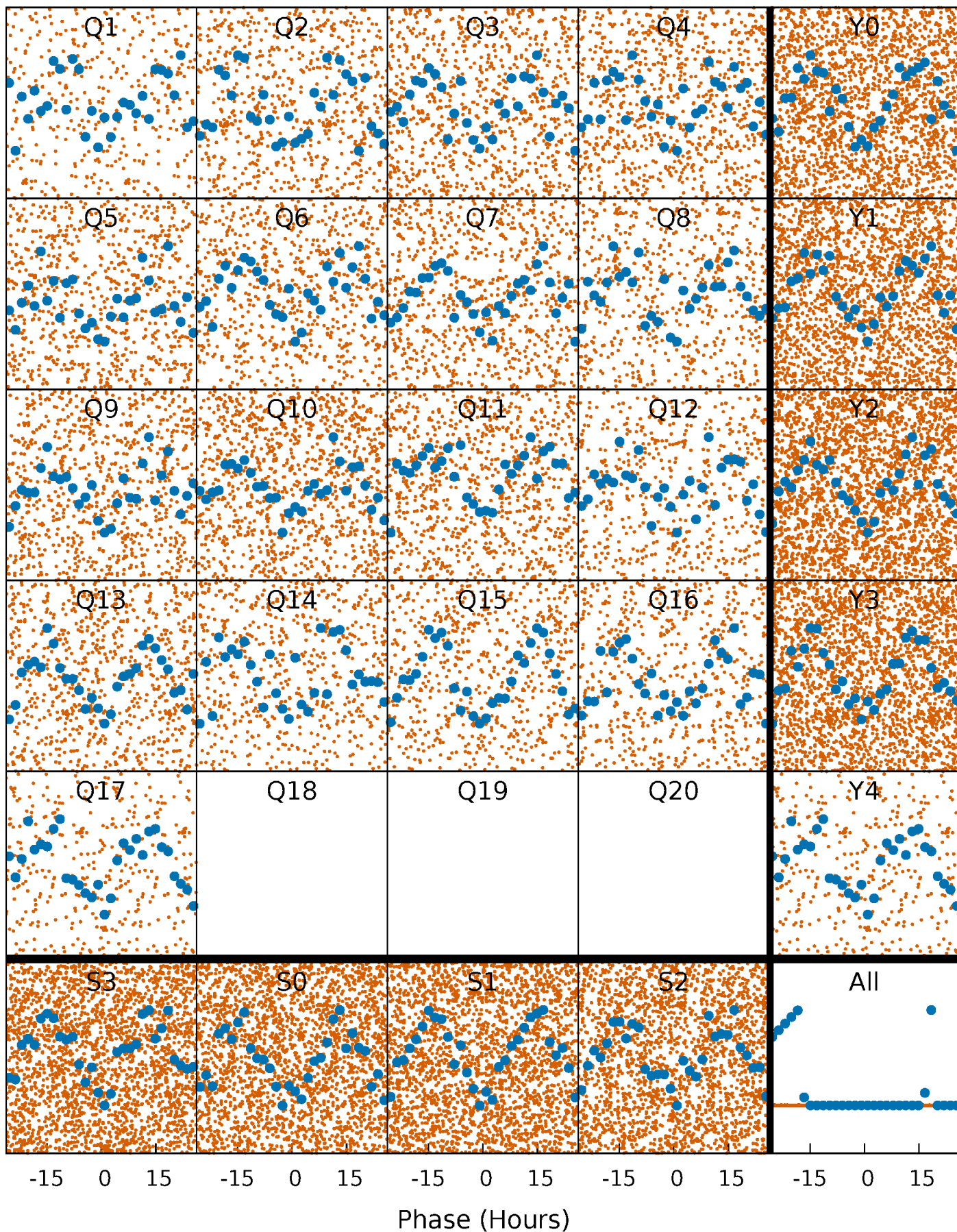


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



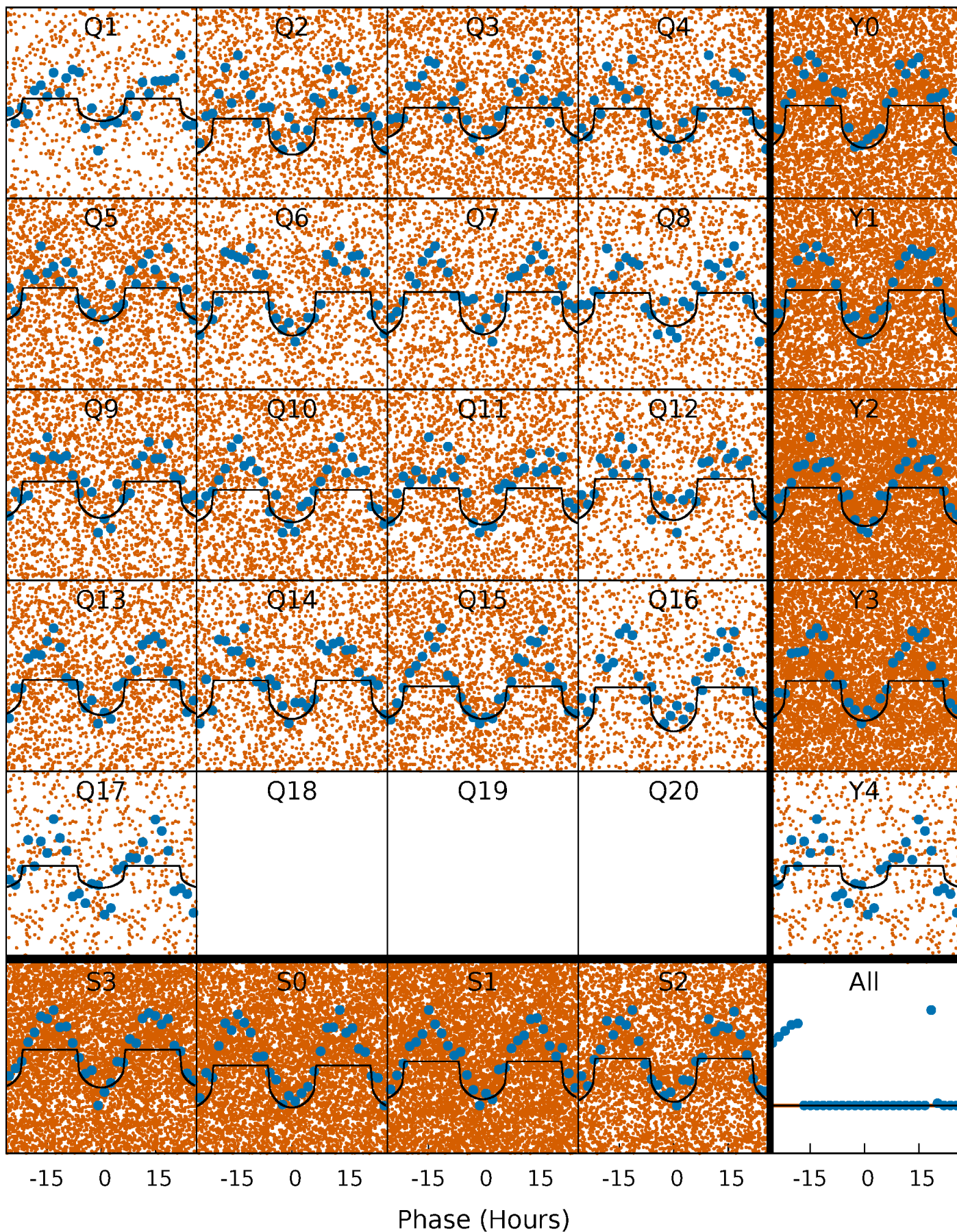
PDC Quarter-Phased Transit Curves

TCE 005566536-01 P= 1.178772 Days $T_0=132.100797$ (BKJD)



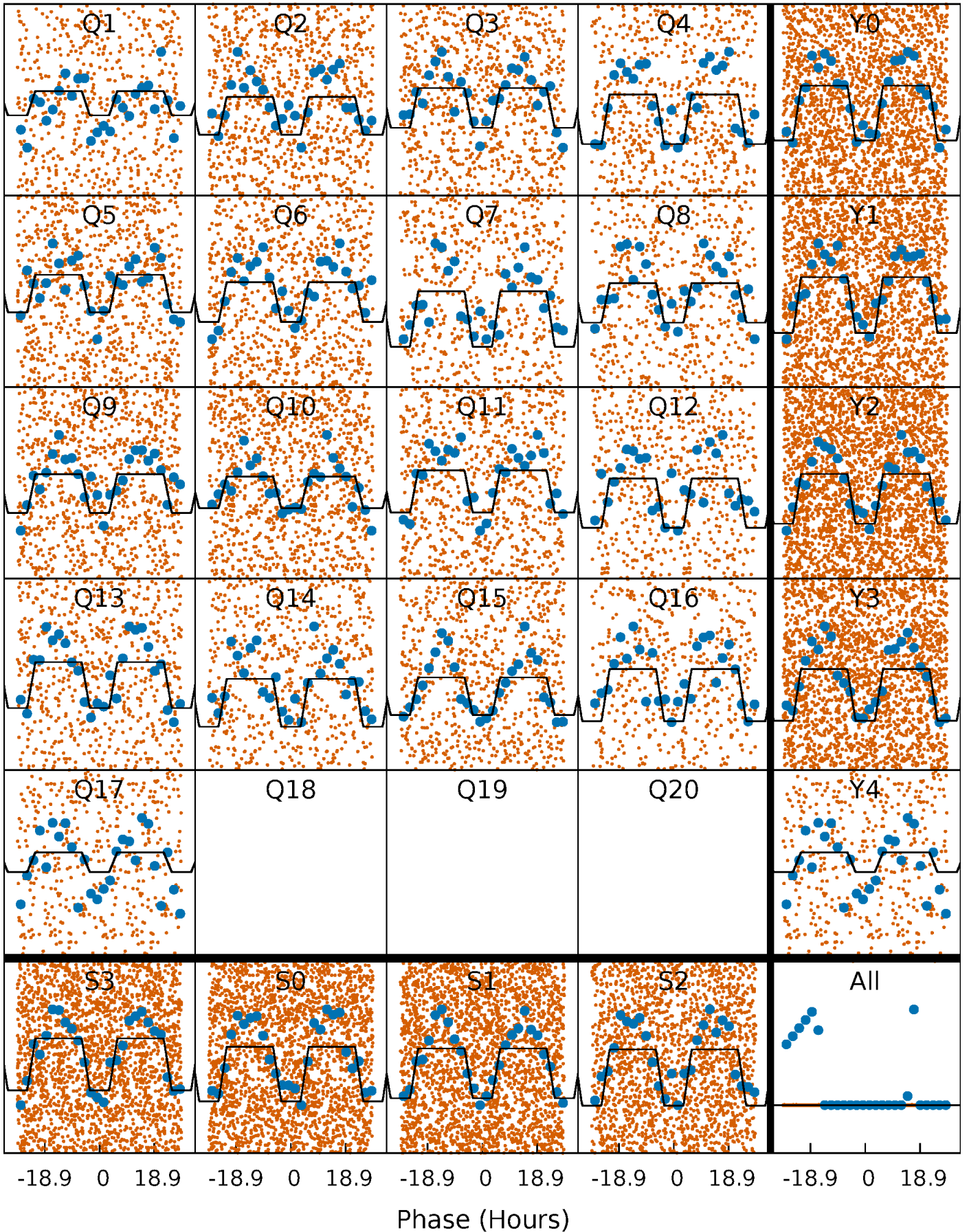
DV Quarter-Phased Transit Curves

TCE 005566536-01 P= 1.178772 Days $T_0=132.100797$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

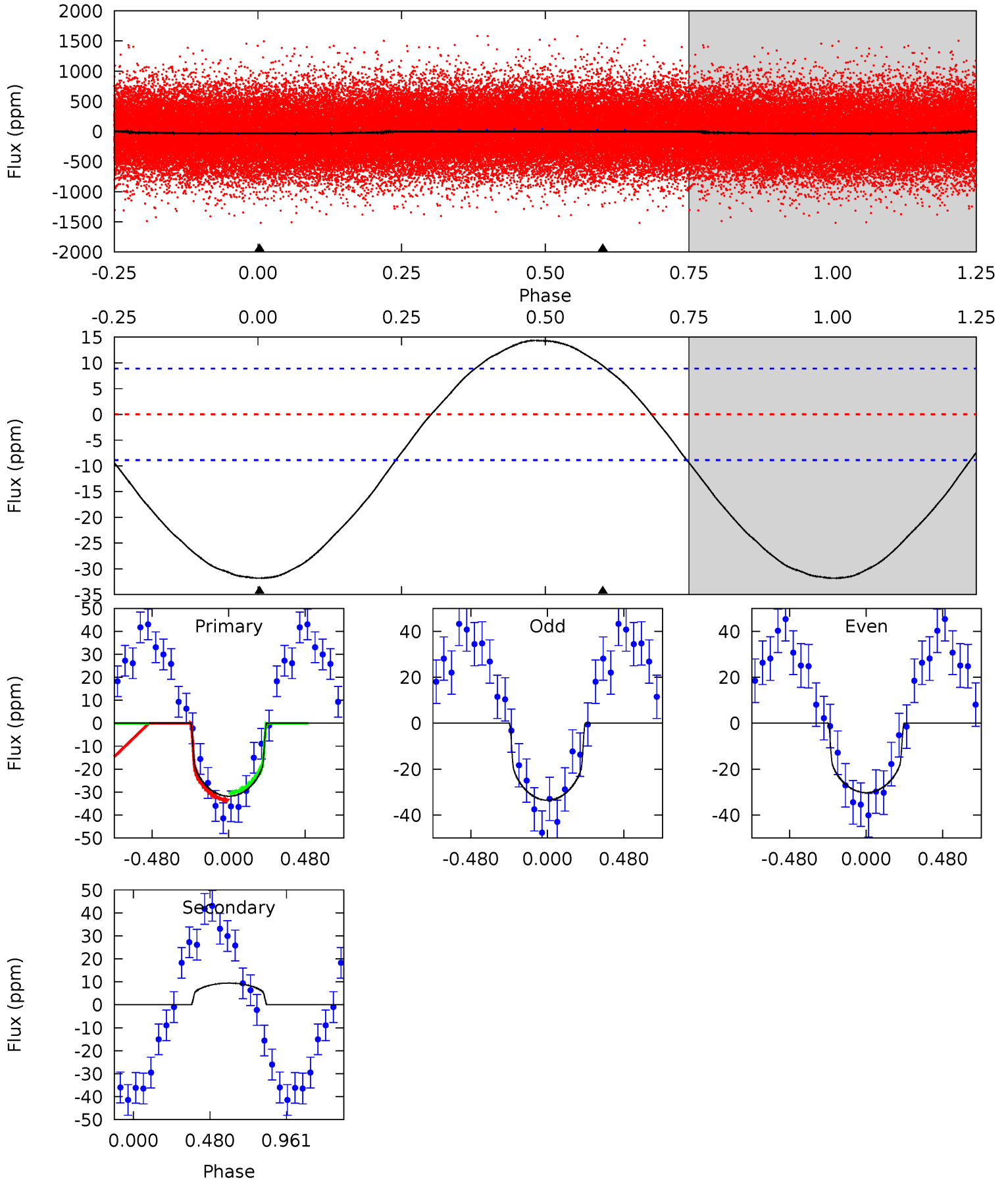
TCE 005566536-01 P= 1.178788 Days $T_0=132.084688$ (BKJD)



DV Model-Shift Uniqueness Test

005566536-01, P = 1.178772 Days, E = 130.922025 Days

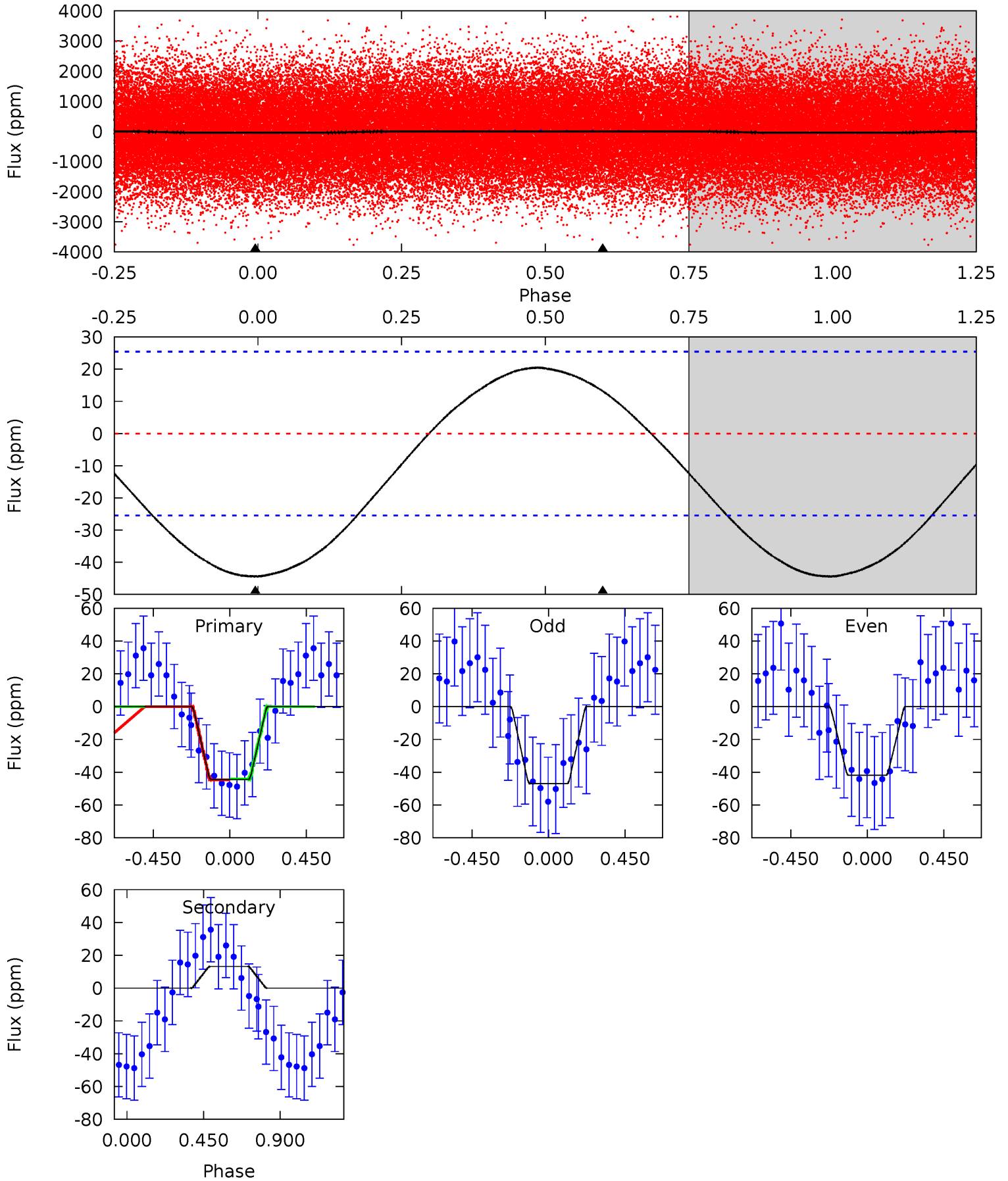
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.1	-4.49	0	0	4.22	0.71	1.87	15.1	15.1	-4.49	-4.49	0.79	0.92	0.31	0.75



Alt Model-Shift Uniqueness Test

005566536-01, P = 1.178788 Days, E = 130.905900 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.40	-2.19	0	0	4.24	0.76	0.91	7.40	7.40	-2.19	-2.19	0.41	1.09	0.32	0.04



Stellar Parameters For KIC 005566536

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8028^{+225}_{-338}	$4.186^{+0.084}_{-0.182}$	$0.070^{+0.200}_{-0.450}$	$1.776^{+0.507}_{-0.312}$	$1.768^{+0.166}_{-0.285}$	$0.444^{+0.199}_{-0.223}$
	+3%/-4%	+2%/-4%	+286%/-643%	+29%/-18%	+9%/-16%	+45%/-50%
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 005566536-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	9 ± 2	$1.19^{+0.63}_{-0.56}$	4109^{+282}_{-243}	-5705^{+820}_{-2262}	$-2.414^{+1.452}_{-6.527}$
Alt.	13 ± 6	$1.38^{+0.66}_{-0.60}$	4117^{+291}_{-246}	-5662^{+822}_{-2063}	$-2.309^{+1.385}_{-6.435}$

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 $A_{obs} \gg 1.0$

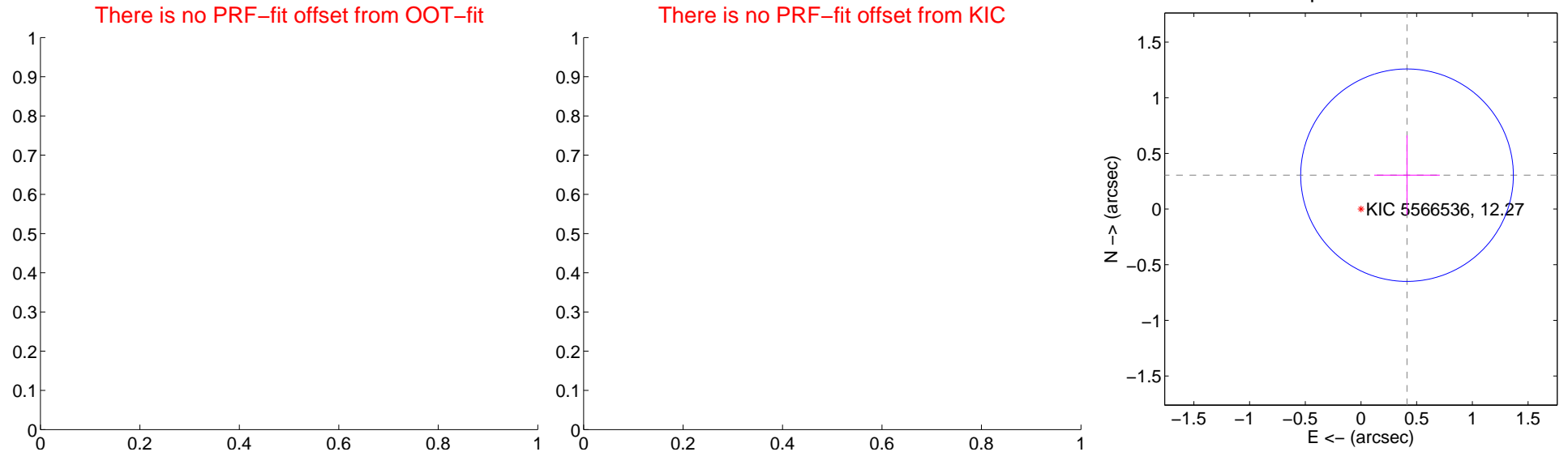
DV Centroid Data

Supplemental centroid analysis for 005566536-01. Kepler magnitude: 12.27. Transit SNR 19.41

There are 0 quarters with good PRF difference image offsets

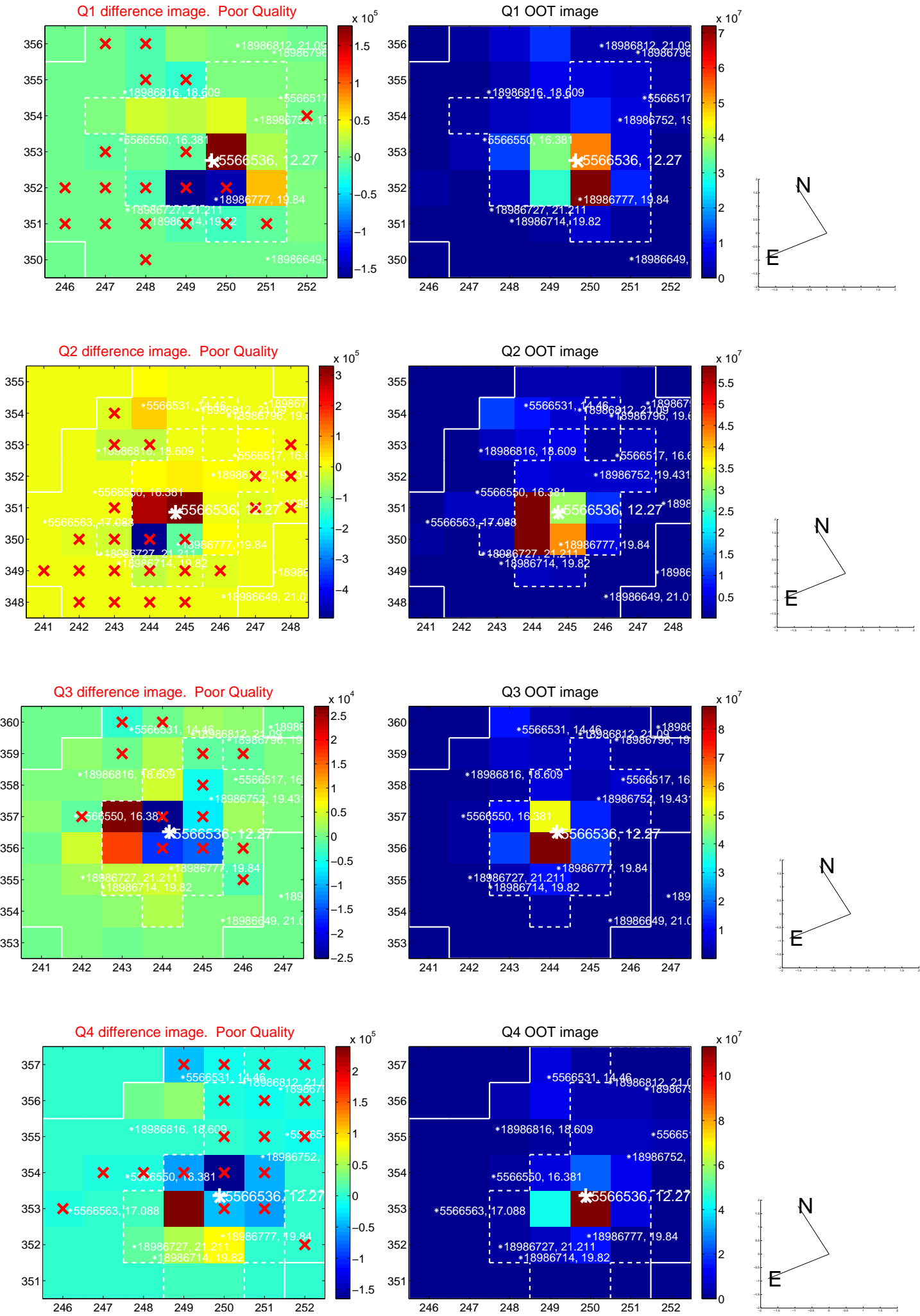
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	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	0.51 ± 0.32	1.61	-0.41 ± 0.29	0.30 ± 0.36

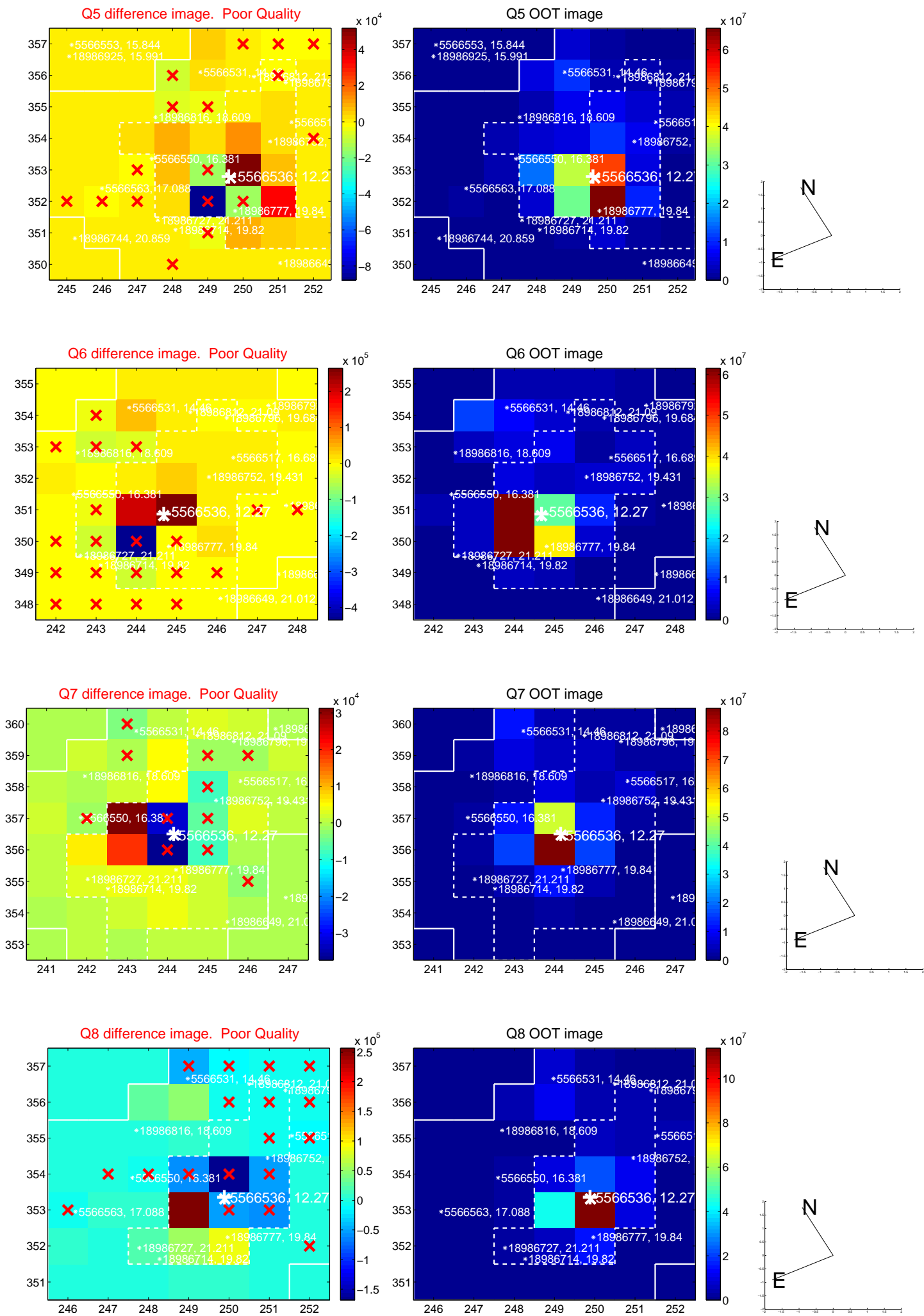


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

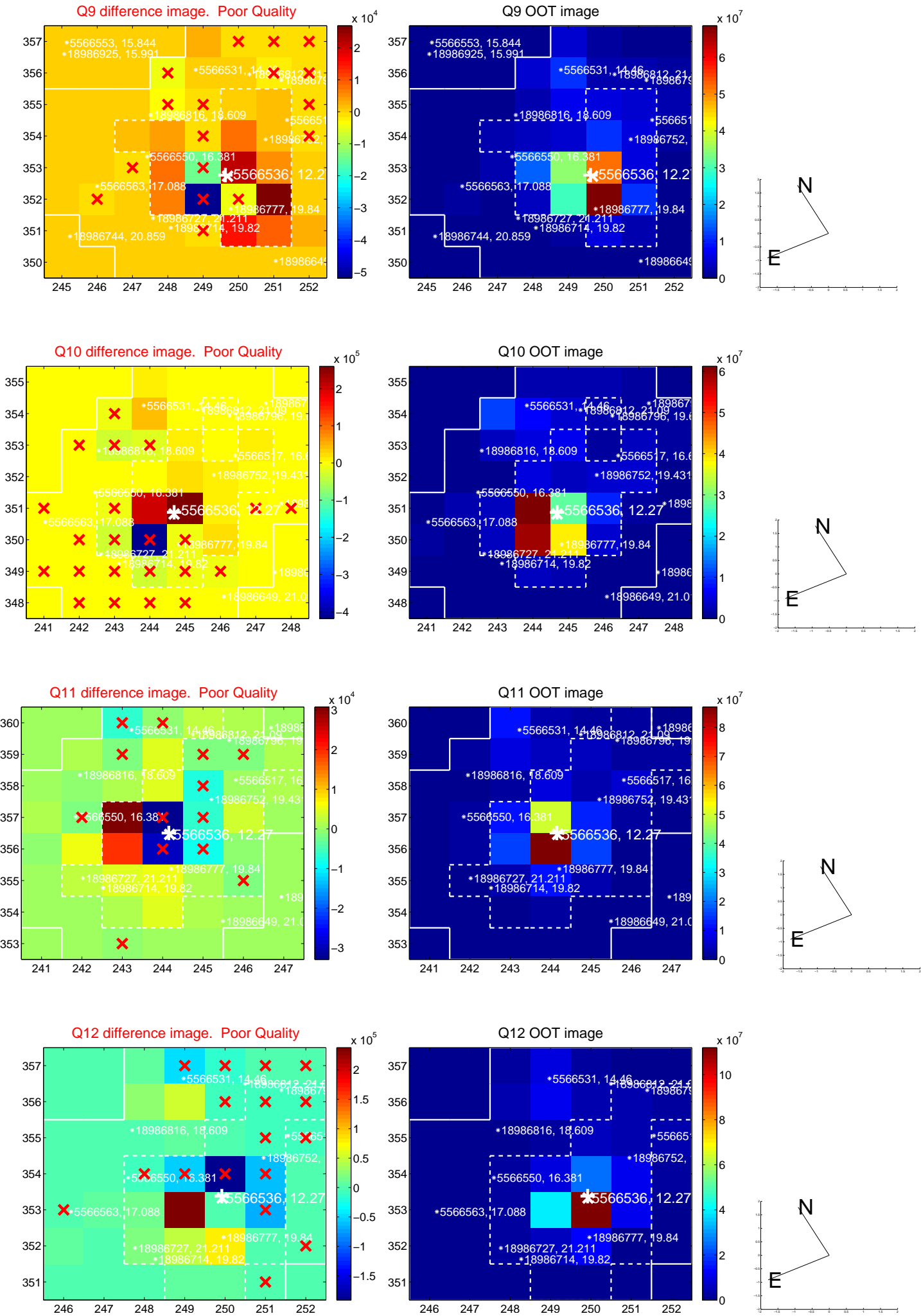
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



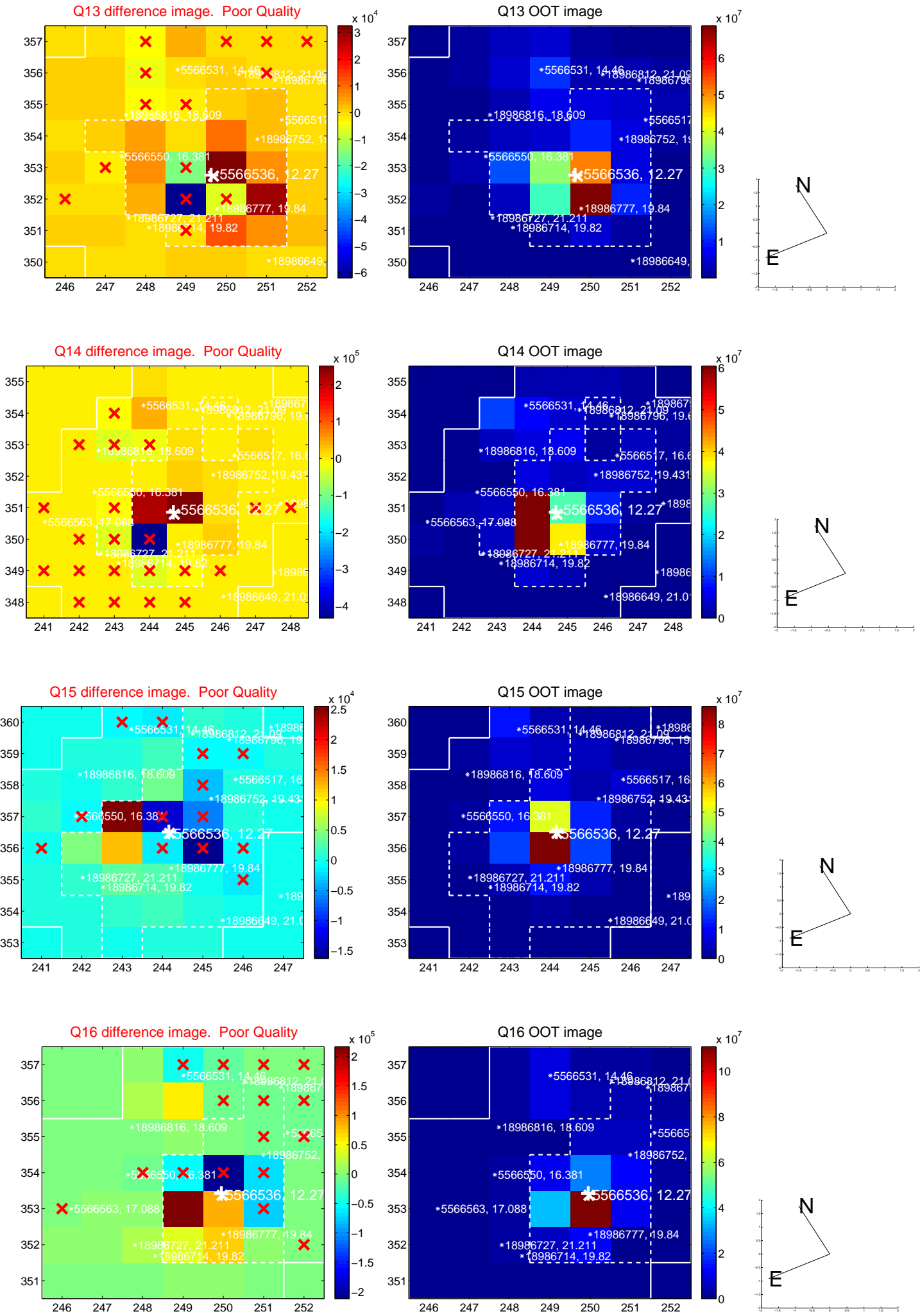
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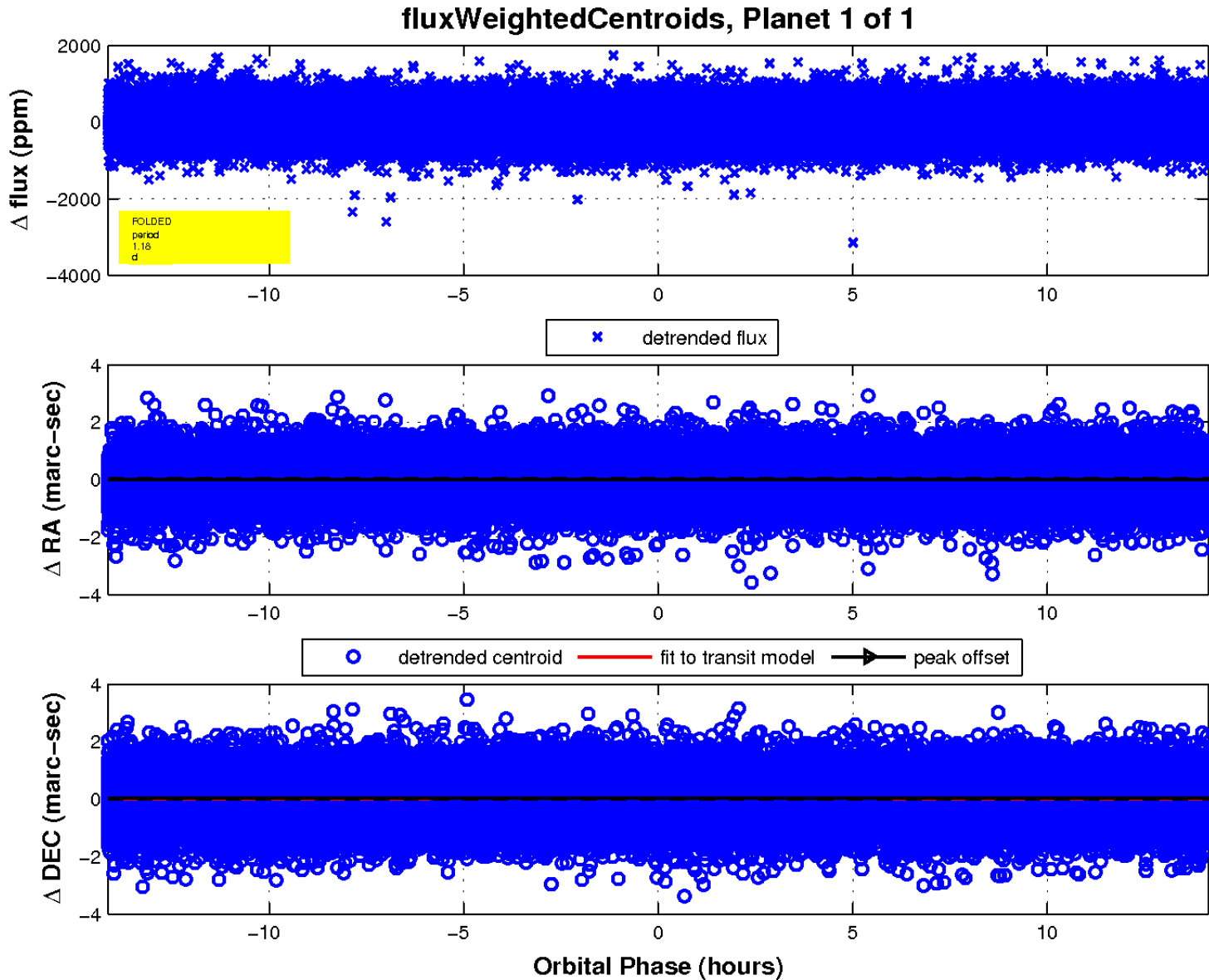
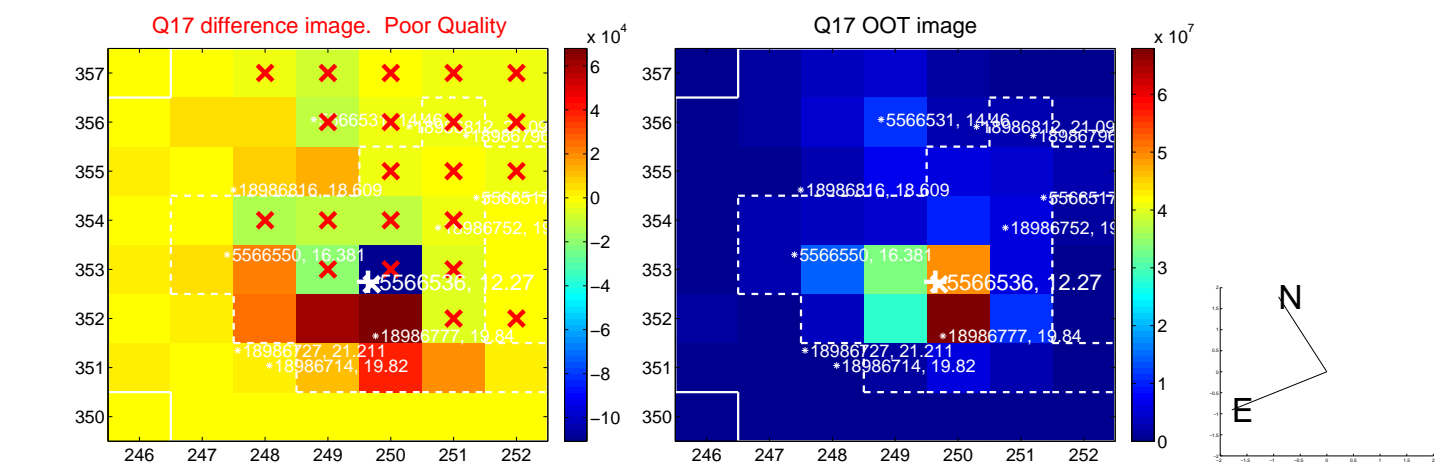
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

