

KIC 005038493

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})
005038493-01	OBS	No	7.925274	136.002396	110.2	23.713	11.6	12.1	1.15	6484	2.15	311.51

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005038493-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT

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

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

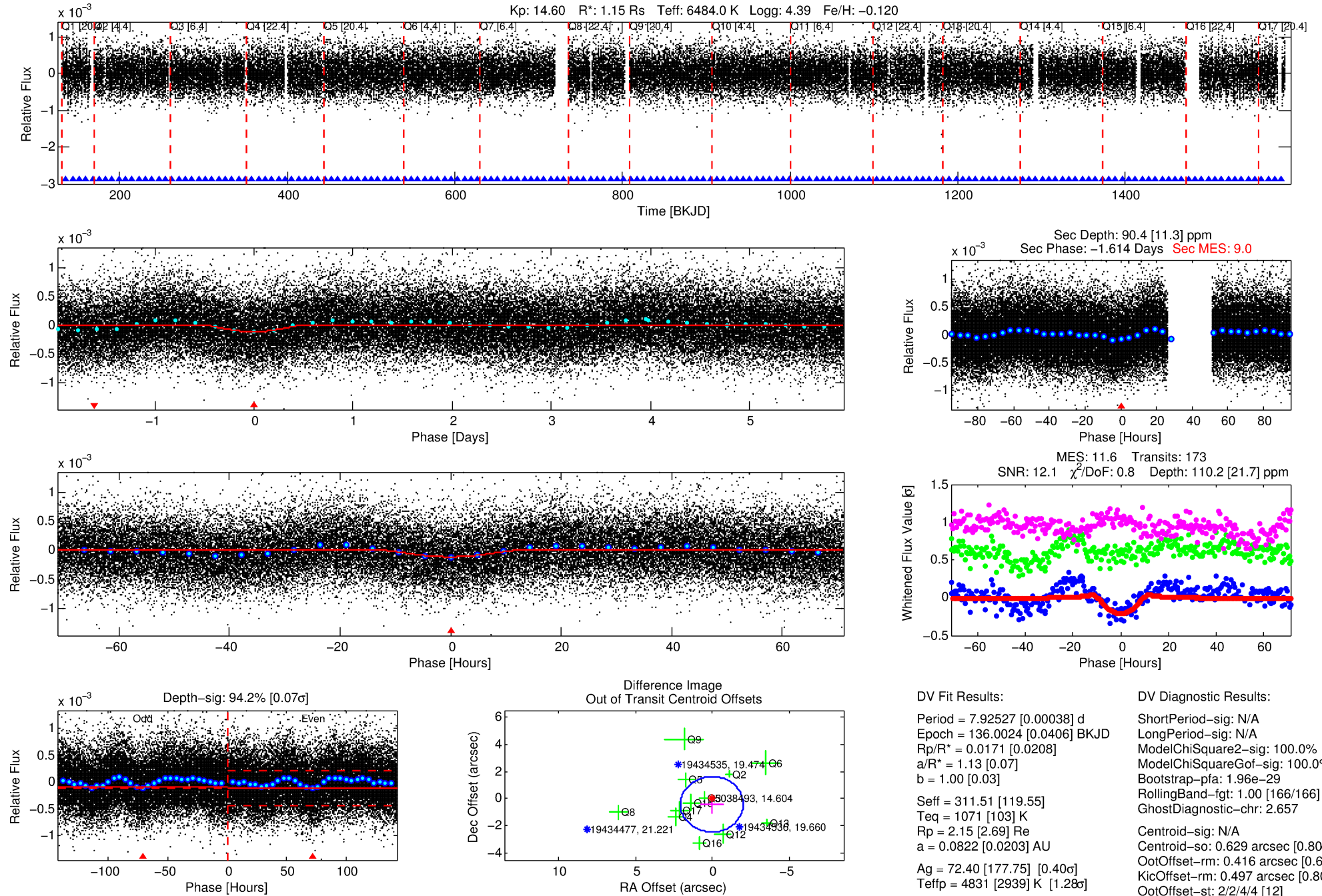
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005038493-01

No Significant Match Found

DV One-Page Summary

KIC: 5038493 Candidate: 1 of 1 Period: 7.925 d



DV Fit Results:

Period = 7.92527 [0.00038] d
Epoch = 136.0024 [0.0406] BKJD
Rp/R* = 0.0171 [0.0208]
a/R* = 1.13 [0.07]
b = 1.00 [0.03]
Seff = 311.51 [119.55]
Teff = 1071 [103] K
Rp = 2.15 [2.69] Re
a = 0.0822 [0.0203] AU
Ag = 72.40 [177.75] [0.40σ]
Teffp = 4831 [2939] K [1.28σ]

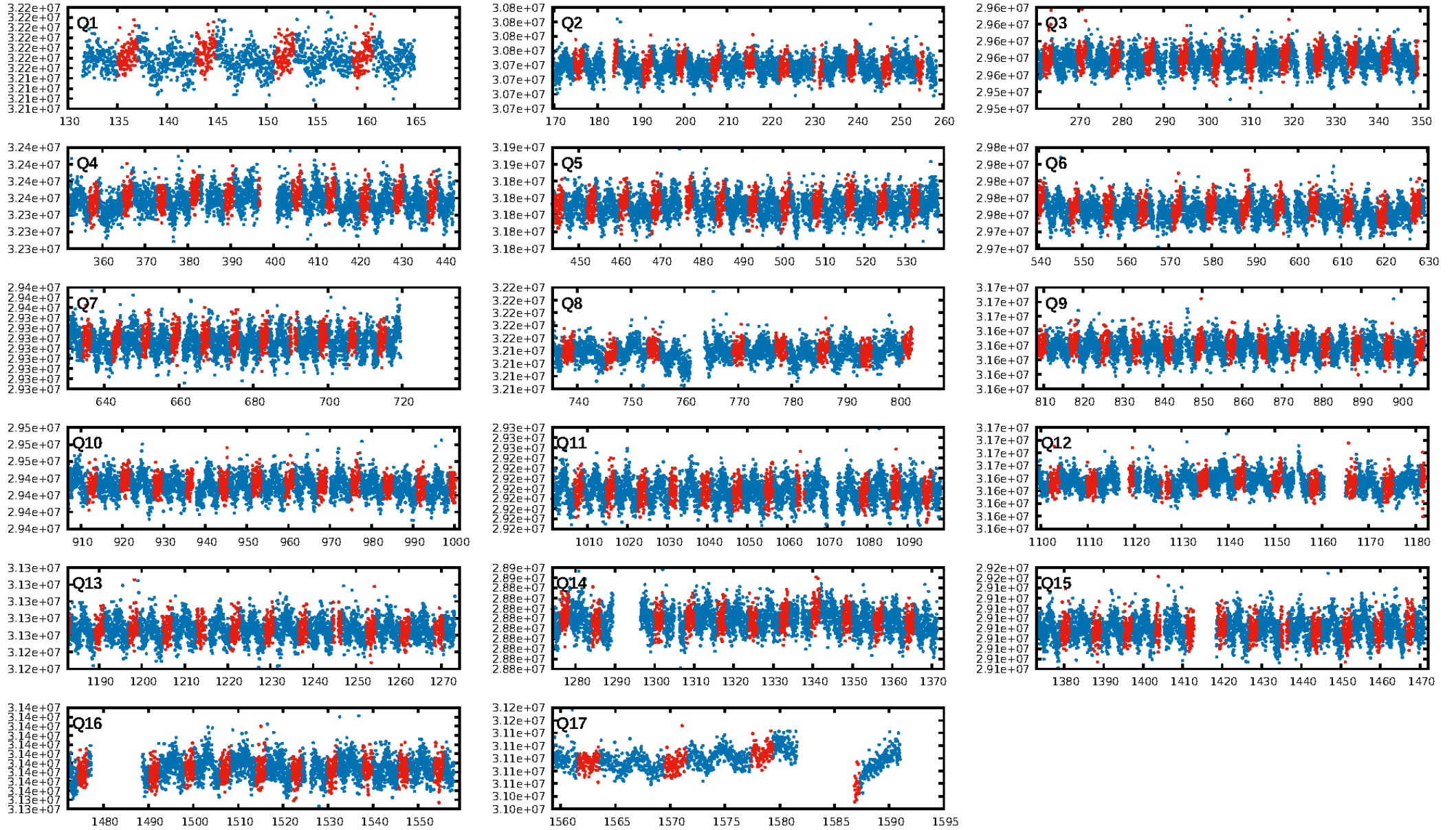
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 100.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.96e-29
RollingBand-fgt: 1.00 [166/166]
GhostDiagnostic-chr: 2.657
Centroid-sig: N/A
Centroid-so: 0.629 arcsec [0.80σ]
OotOffset-rm: 0.416 arcsec [0.61σ]
KicOffset-rm: 0.497 arcsec [0.80σ]
OotOffset-st: 2/2/4/4 [12]
KicOffset-st: 2/2/4/4 [12]
DiffImageQuality-fgm: 0.67 [8/12]
DiffImageOverlap-fno: 1.00 [17/17]

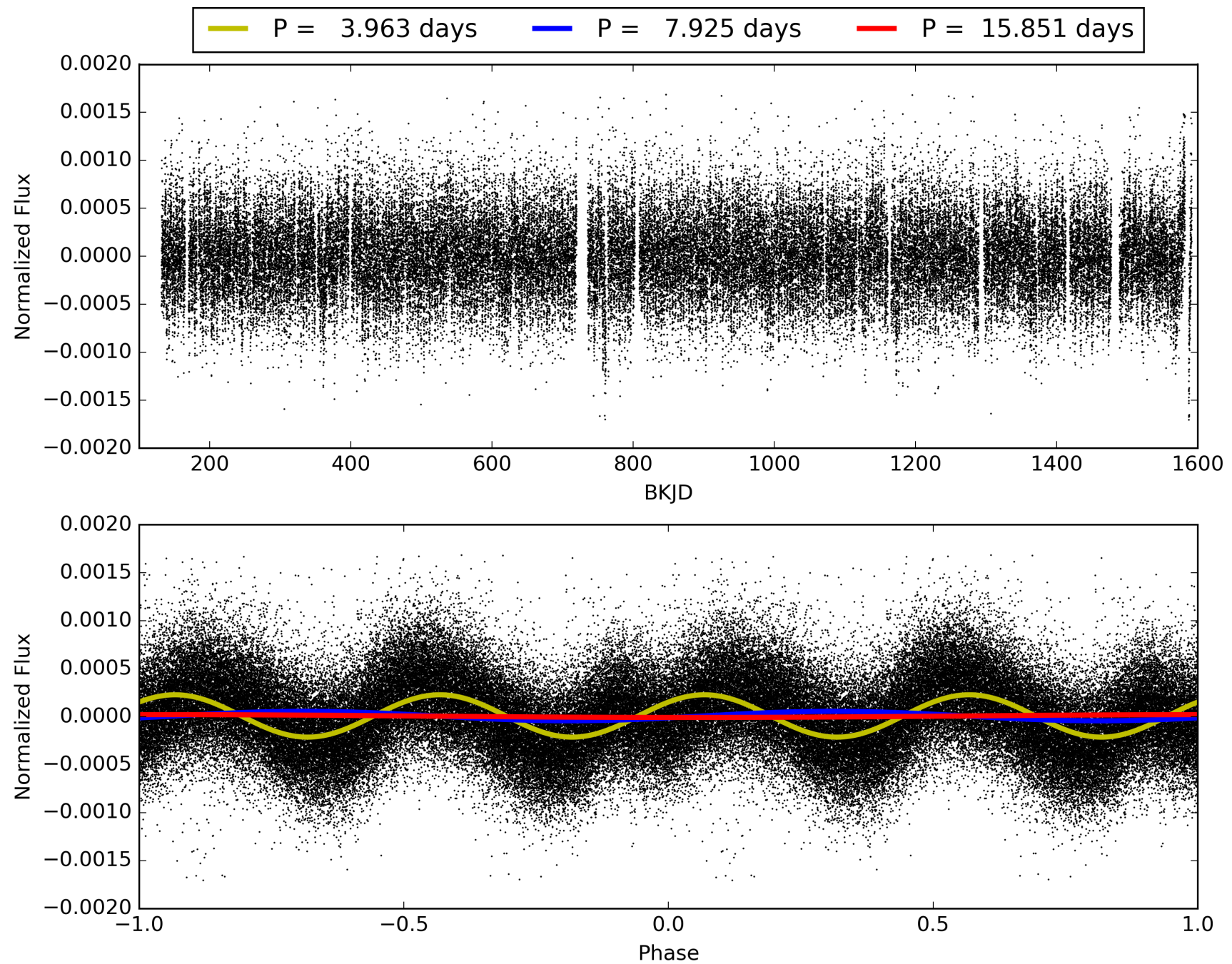
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 13:02:40 Z

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

TCE 005038493-01, PDC Light Curves

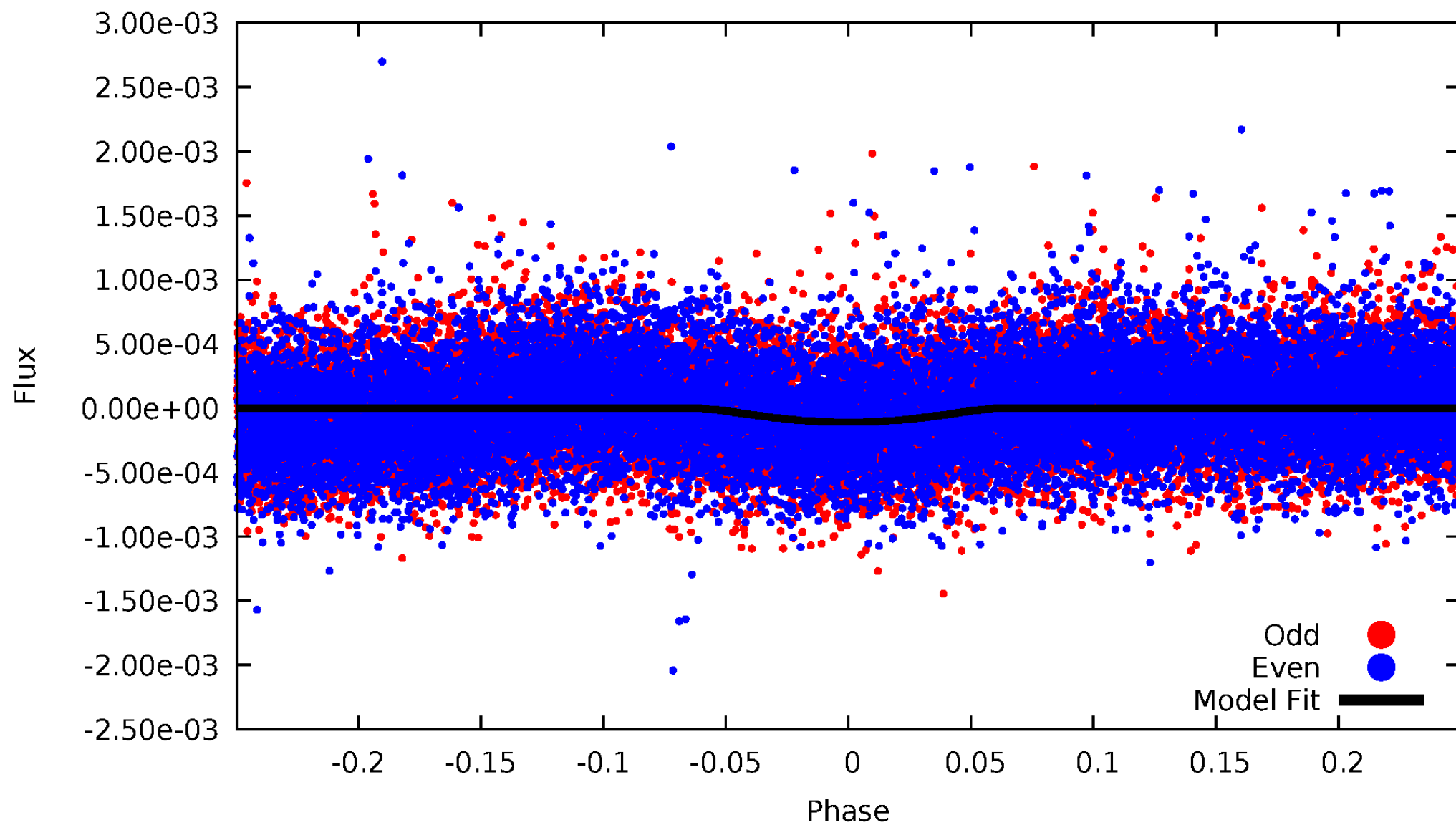


TCE 005038493-01



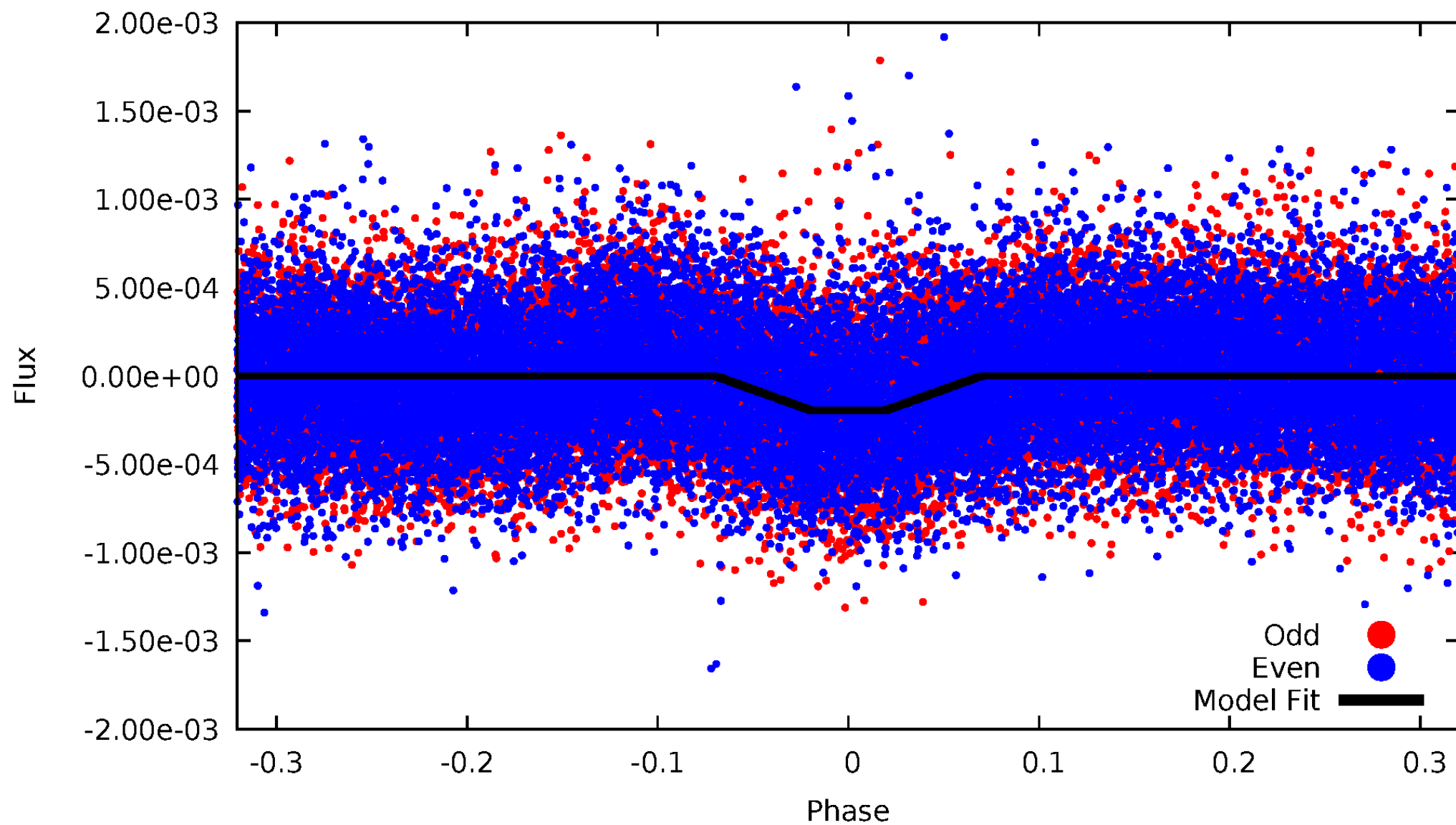
DV Odd/Even

TCE 005038493-01



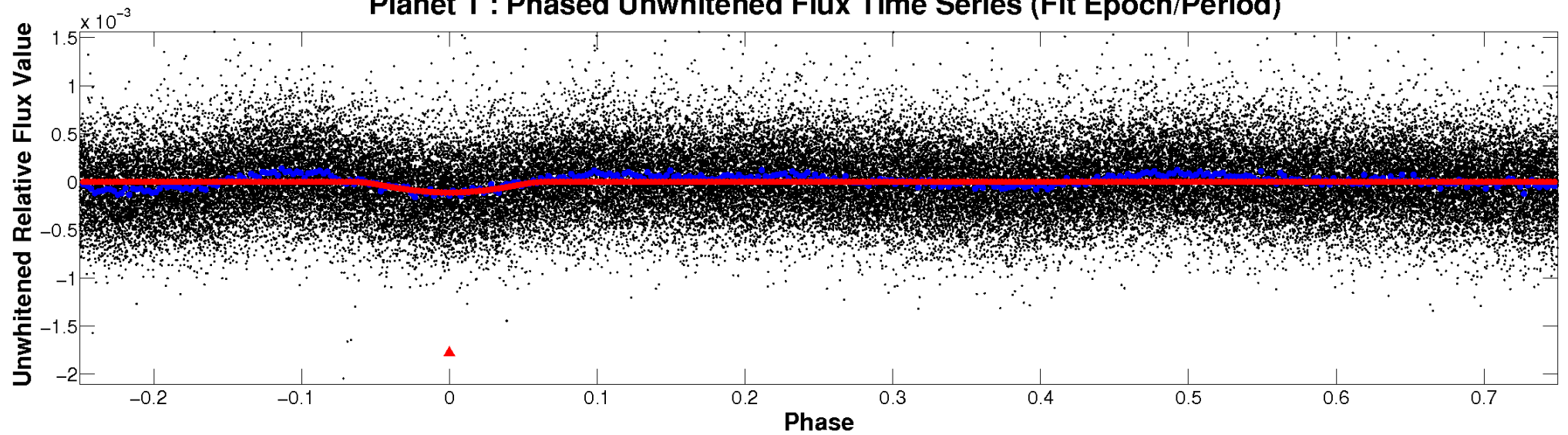
ALT Odd/Even

TCE 005038493-01

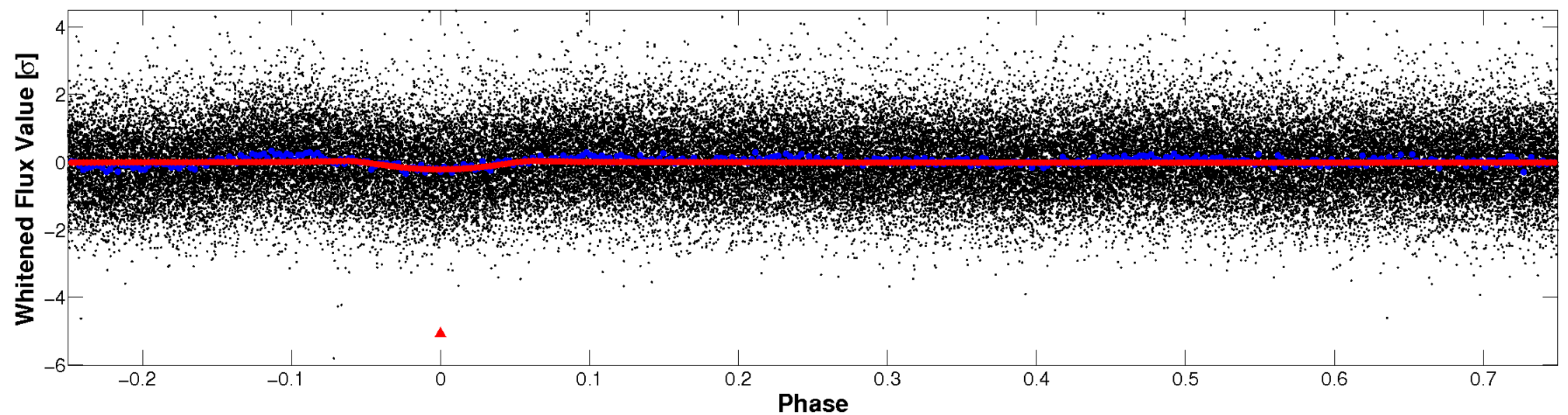


Non-Whitened Vs. Whitened Light Curve

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

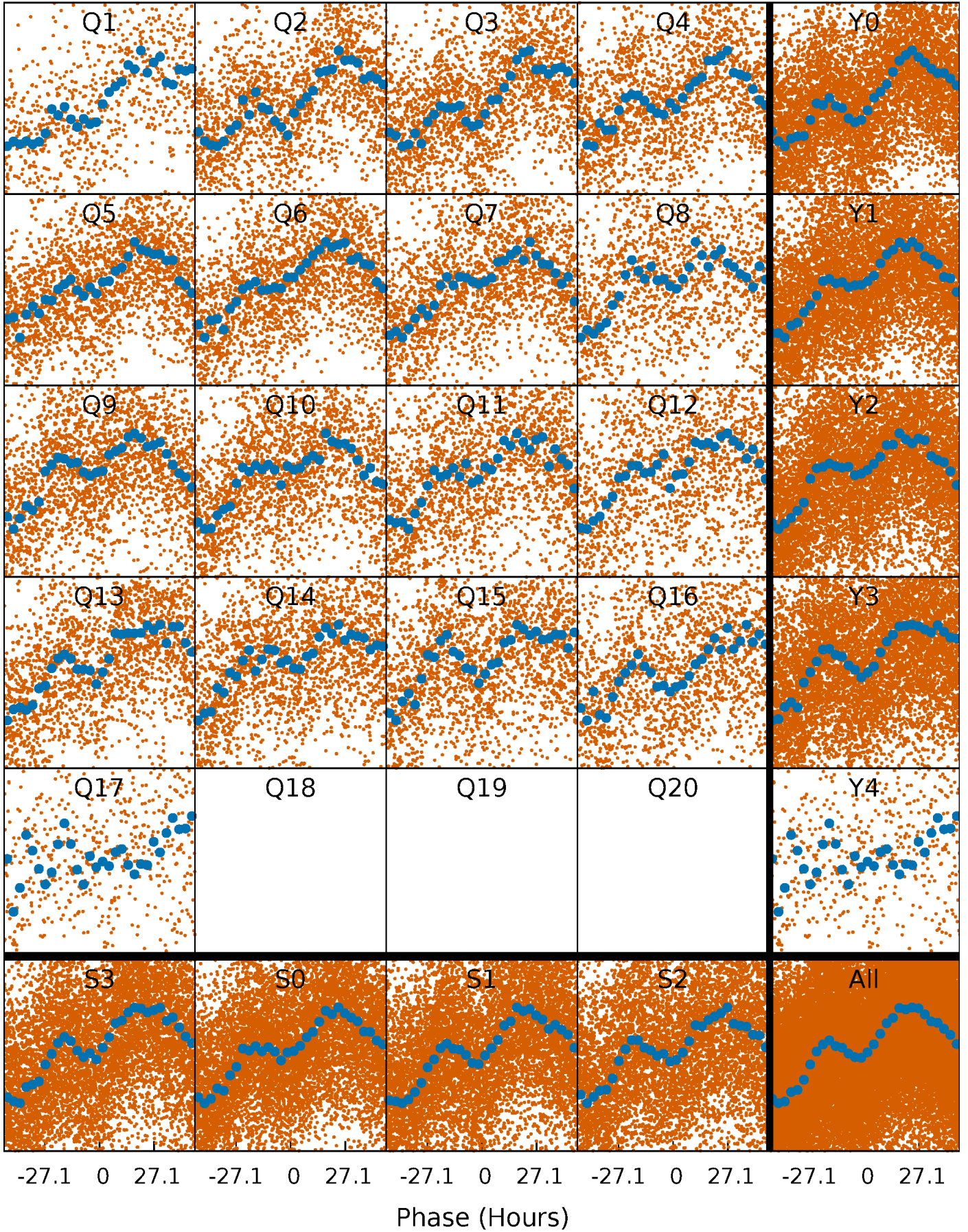


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



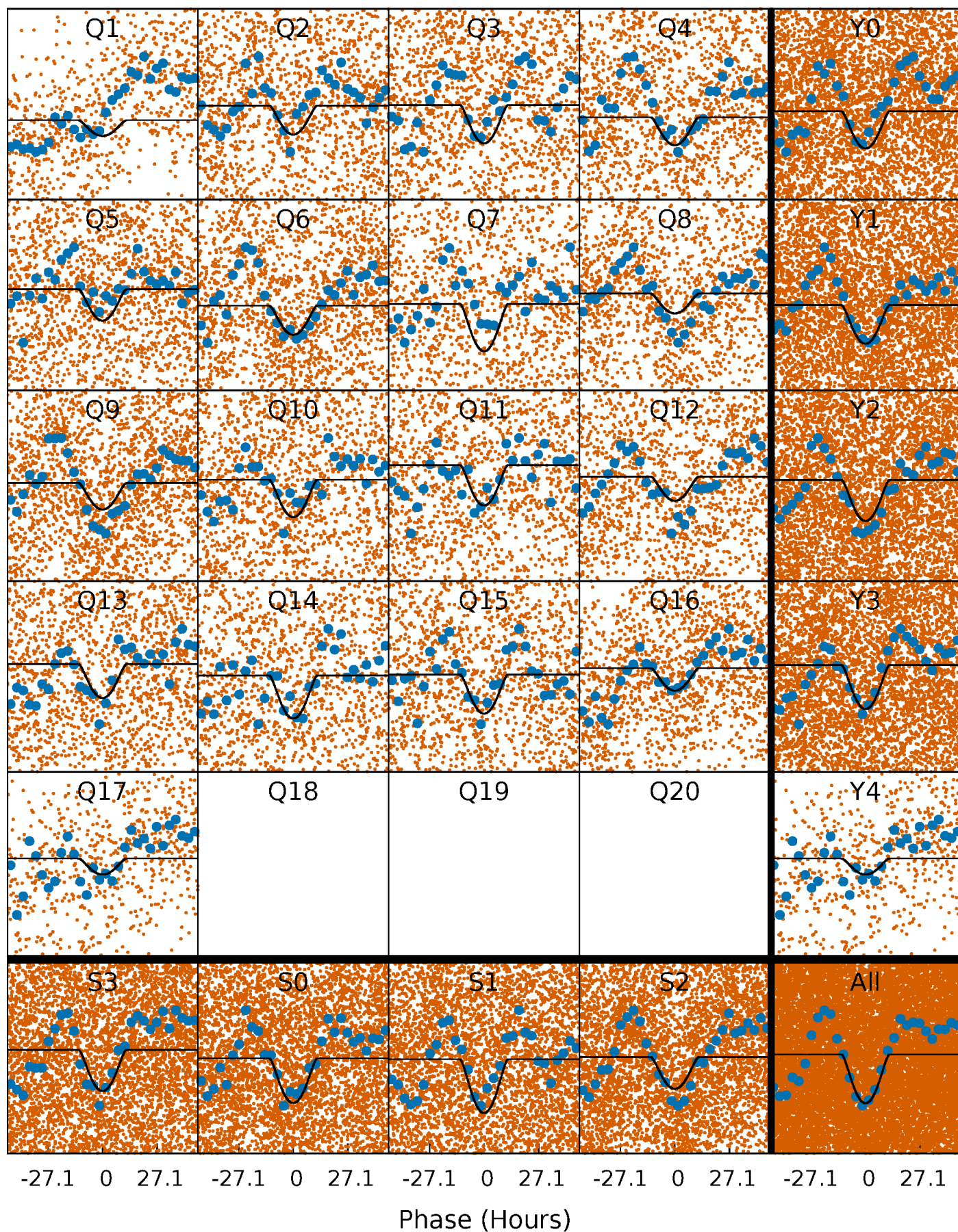
PDC Quarter-Phased Transit Curves

TCE 005038493-01 P= 7.925274 Days $T_0=136.002396$ (BKJD)



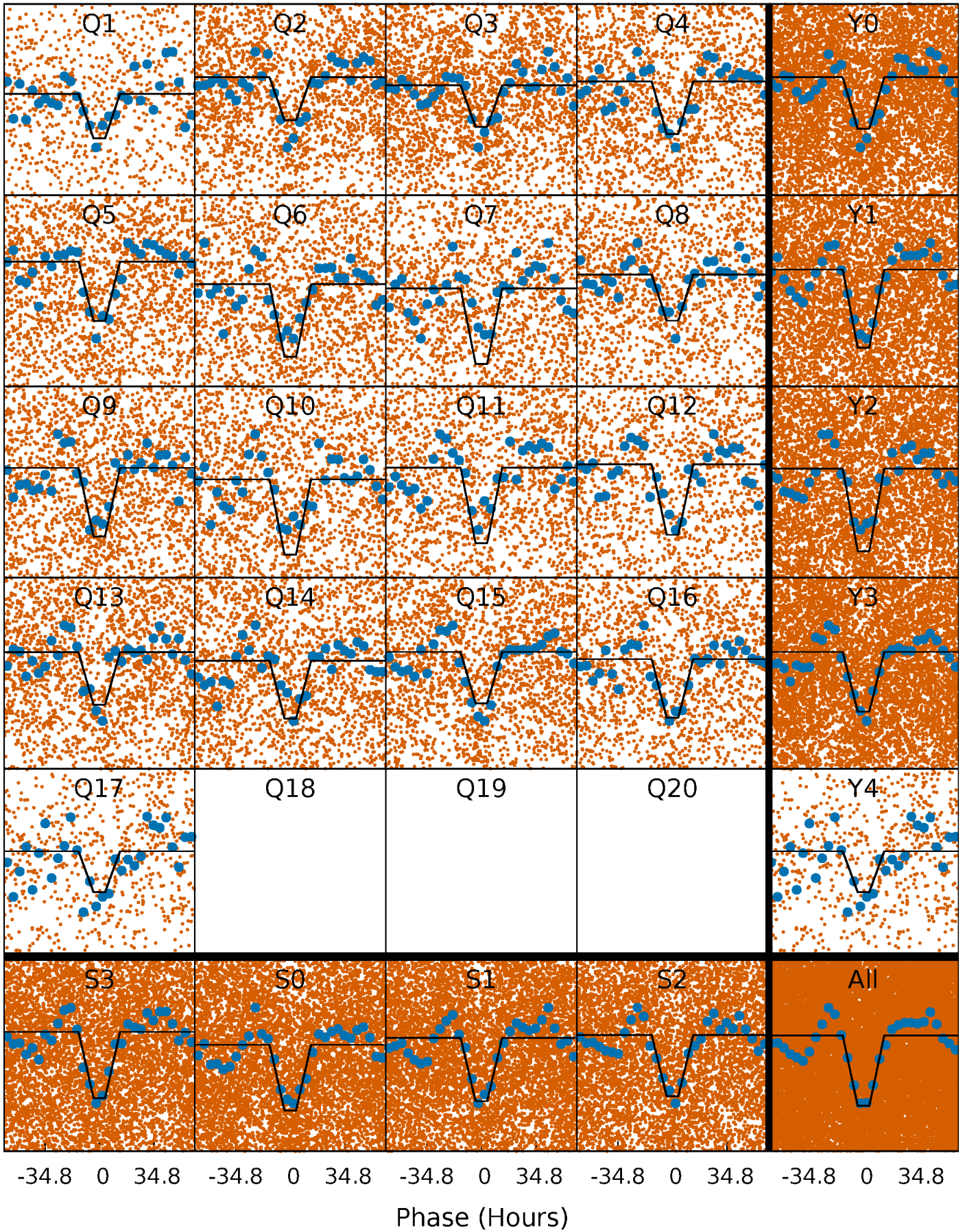
DV Quarter-Phased Transit Curves

TCE 005038493-01 P= 7.925274 Days $T_0=136.002396$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

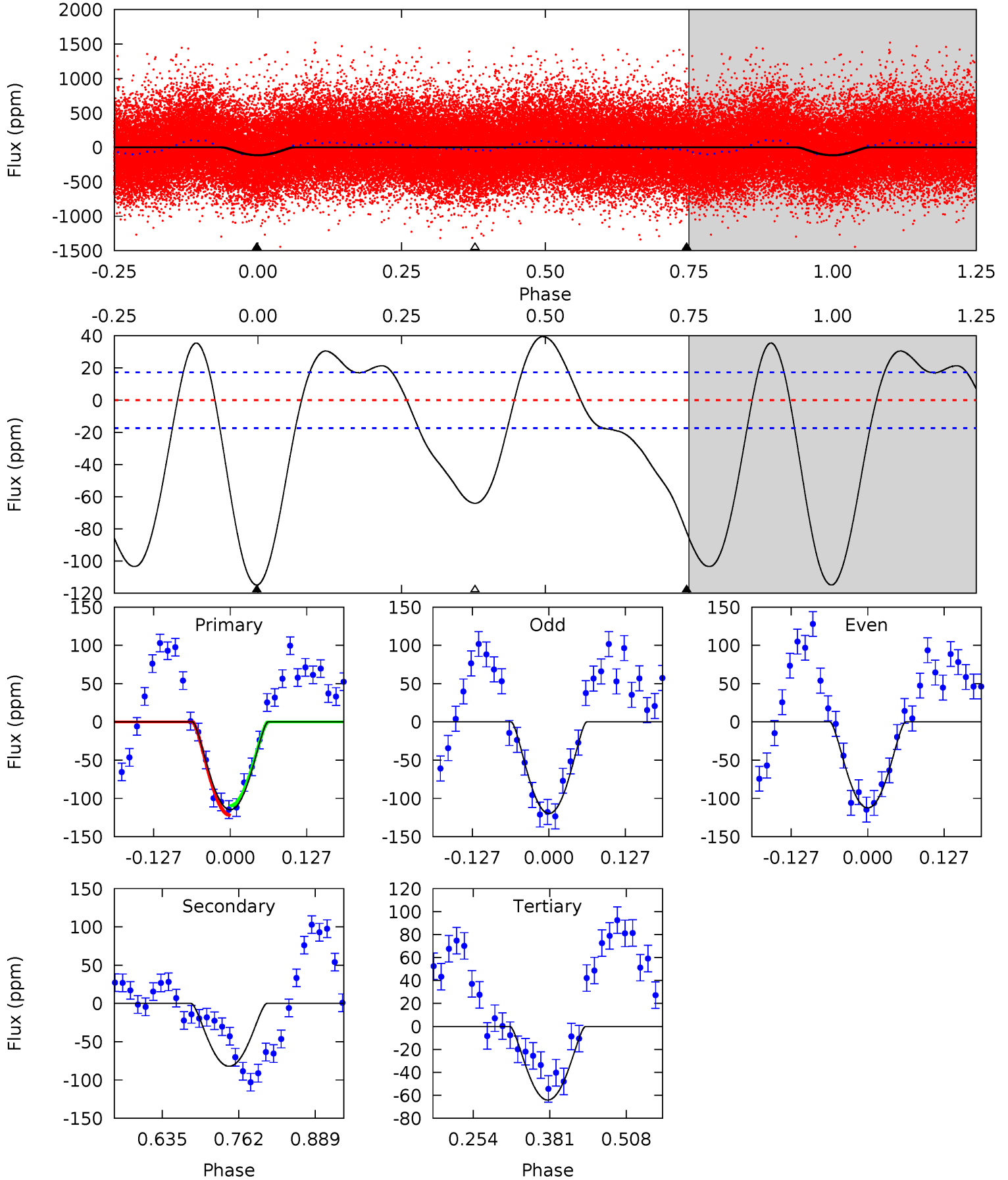
TCE 005038493-01 P= 7.925953 Days $T_0=135.936515$ (BKJD)



DV Model-Shift Uniqueness Test

005038493-01, P = 7.925274 Days, E = 128.077122 Days

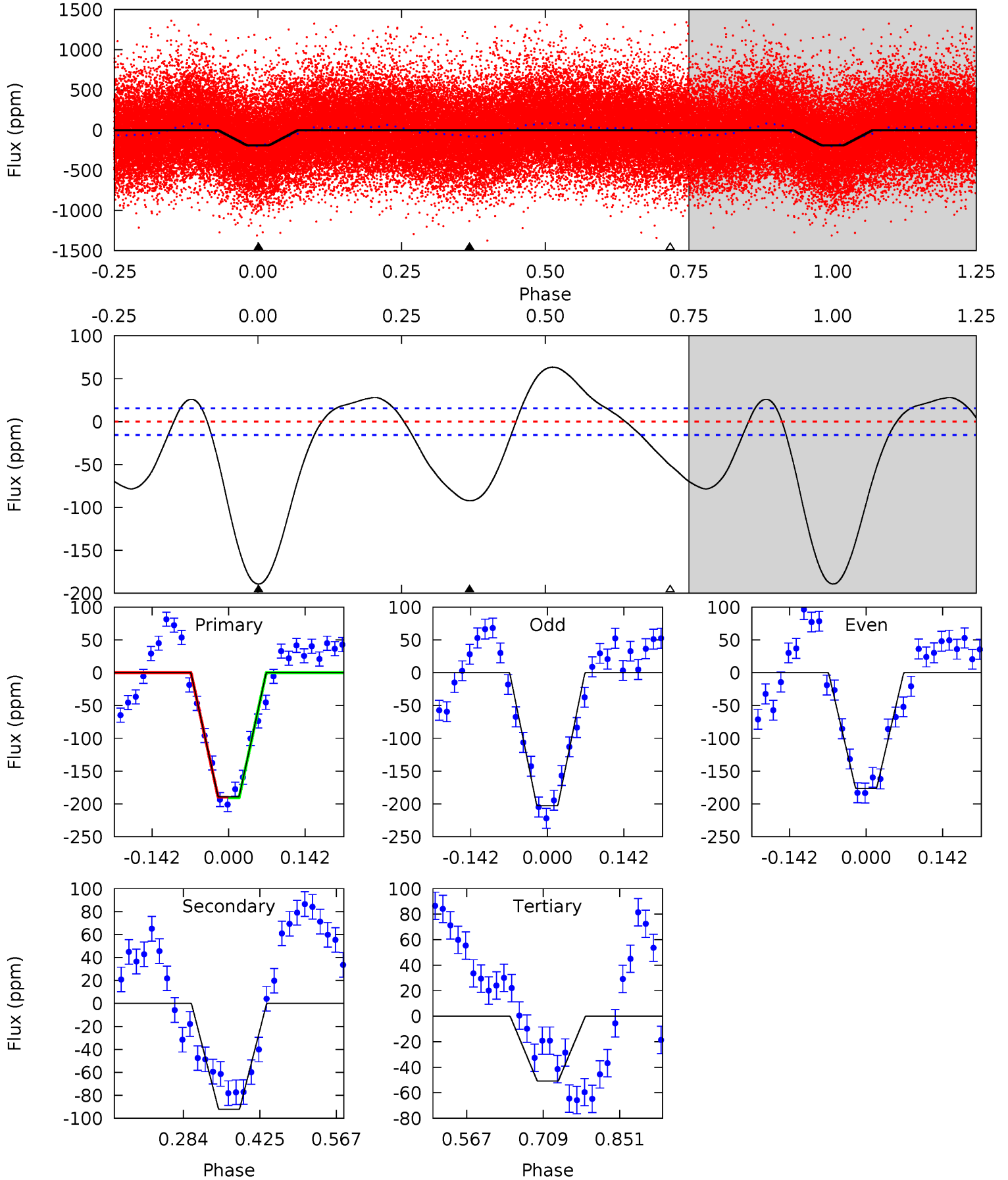
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
29.9	21.4	16.7	0	4.51	1.53	8.30	13.2	29.9	4.67	21.4	0.95	0.96	0.26	1.63



Alt Model-Shift Uniqueness Test

005038493-01, P = 7.925953 Days, E = 128.010562 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
54.7	26.6	14.7	0	4.49	1.47	12.4	40.0	54.7	11.9	26.6	3.84	1.10	0.25	0.12



Stellar Parameters For KIC 005038493

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6484^{+158}_{-225}	$4.386^{+0.065}_{-0.195}$	$-0.120^{+0.250}_{-0.300}$	$1.153^{+0.339}_{-0.145}$	$1.178^{+0.164}_{-0.164}$	$1.084^{+0.363}_{-0.530}$
	+2%/-3%	+1%/-4%	+208%/-250%	+29%/-13%	+14%/-14%	+33%/-49%
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 005038493-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-82 ± 4	$2.95^{+2.38}_{-1.96}$	1529^{+103}_{-81}	4305^{+2889}_{-794}	34^{+280}_{-23}
Alt.	-92 ± 3	$2.82^{+2.38}_{-1.94}$	1520^{+110}_{-78}	4499^{+3442}_{-890}	43^{+382}_{-31}

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

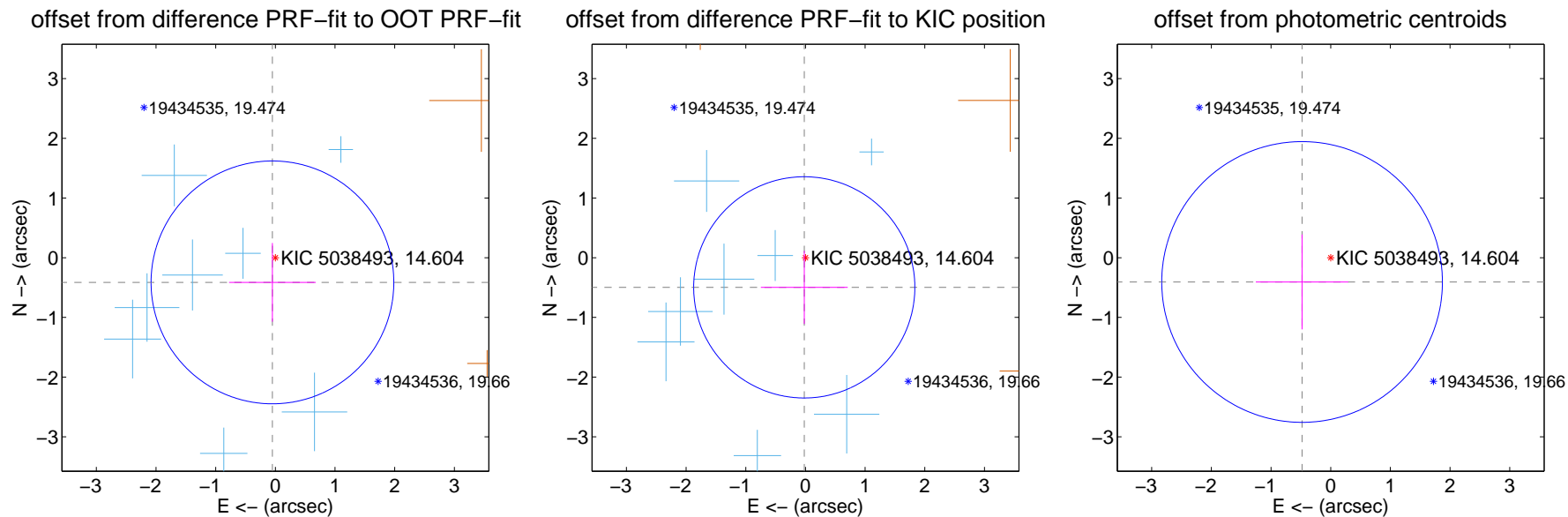
DV Centroid Data

Supplemental centroid analysis for 005038493-01. Kepler magnitude: 14.60. Transit SNR 12.14

There are 8 quarters with good PRF difference image offsets

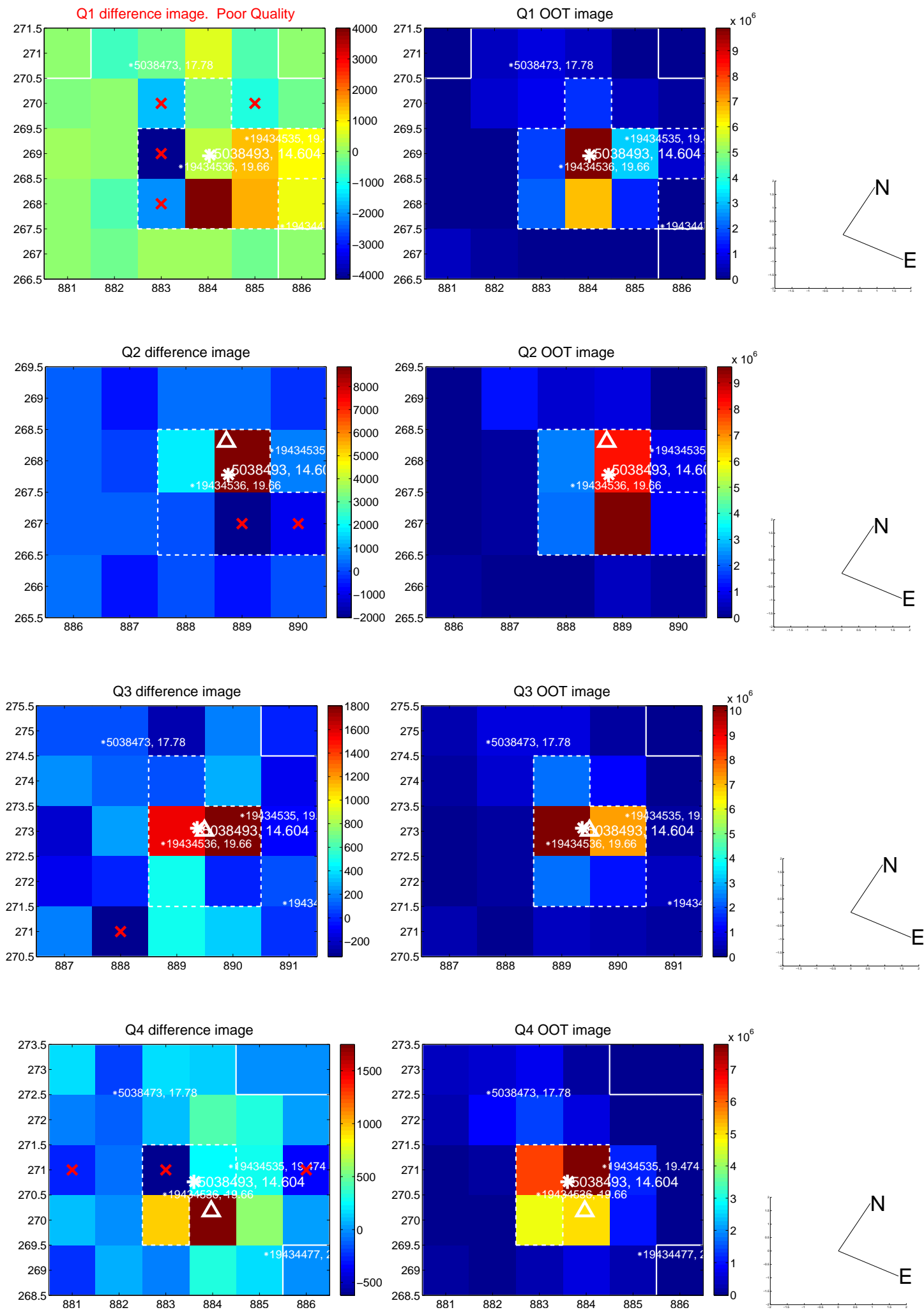
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.416 ± 0.678	0.61	0.049 ± 0.726	-0.414 ± 0.659
PRF-fit source offset from KIC position	0.497 ± 0.618	0.80	0.020 ± 0.728	-0.497 ± 0.613
photometric centroid source offset	0.63 ± 0.78	0.80	0.48 ± 0.78	-0.41 ± 0.79

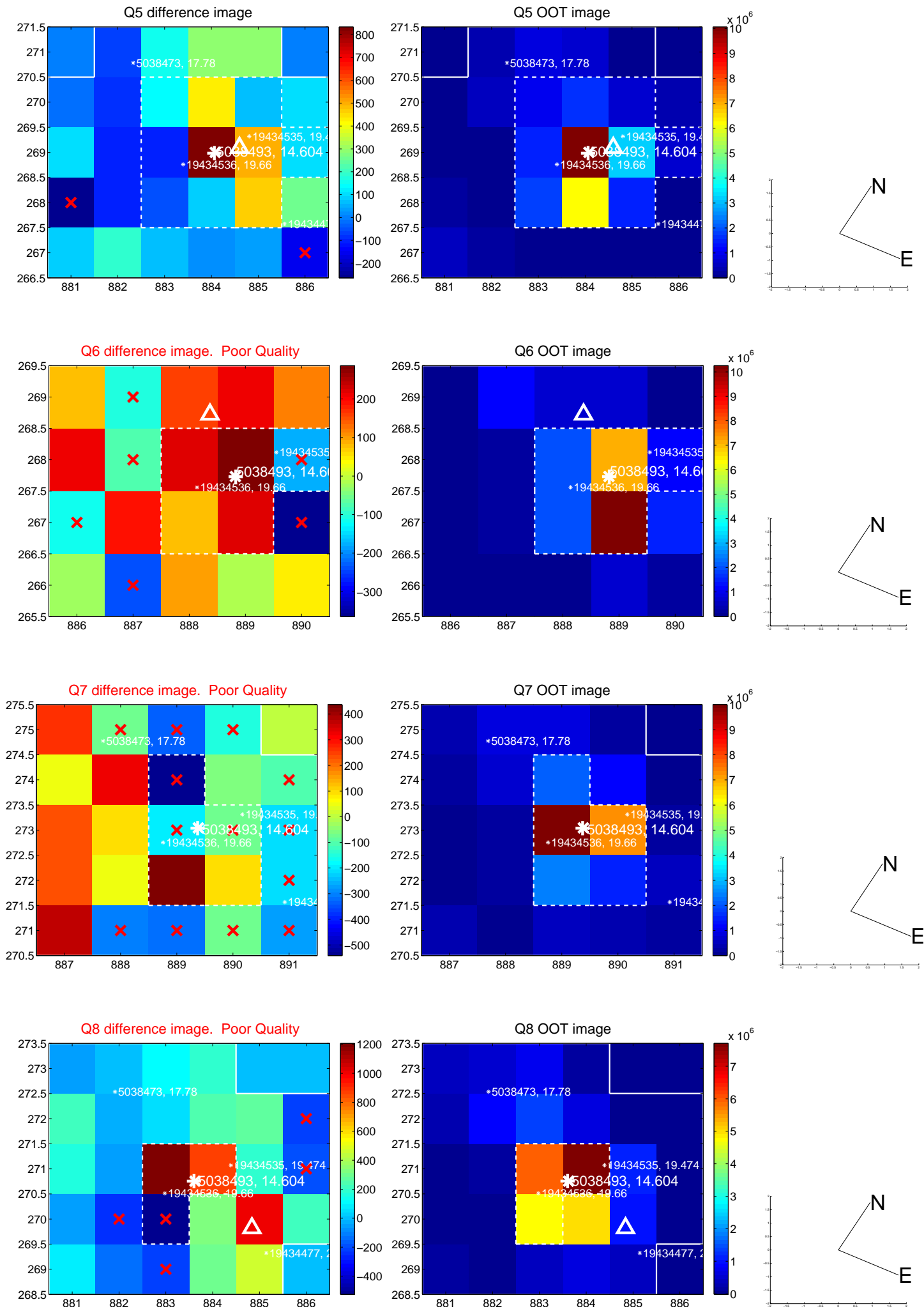


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

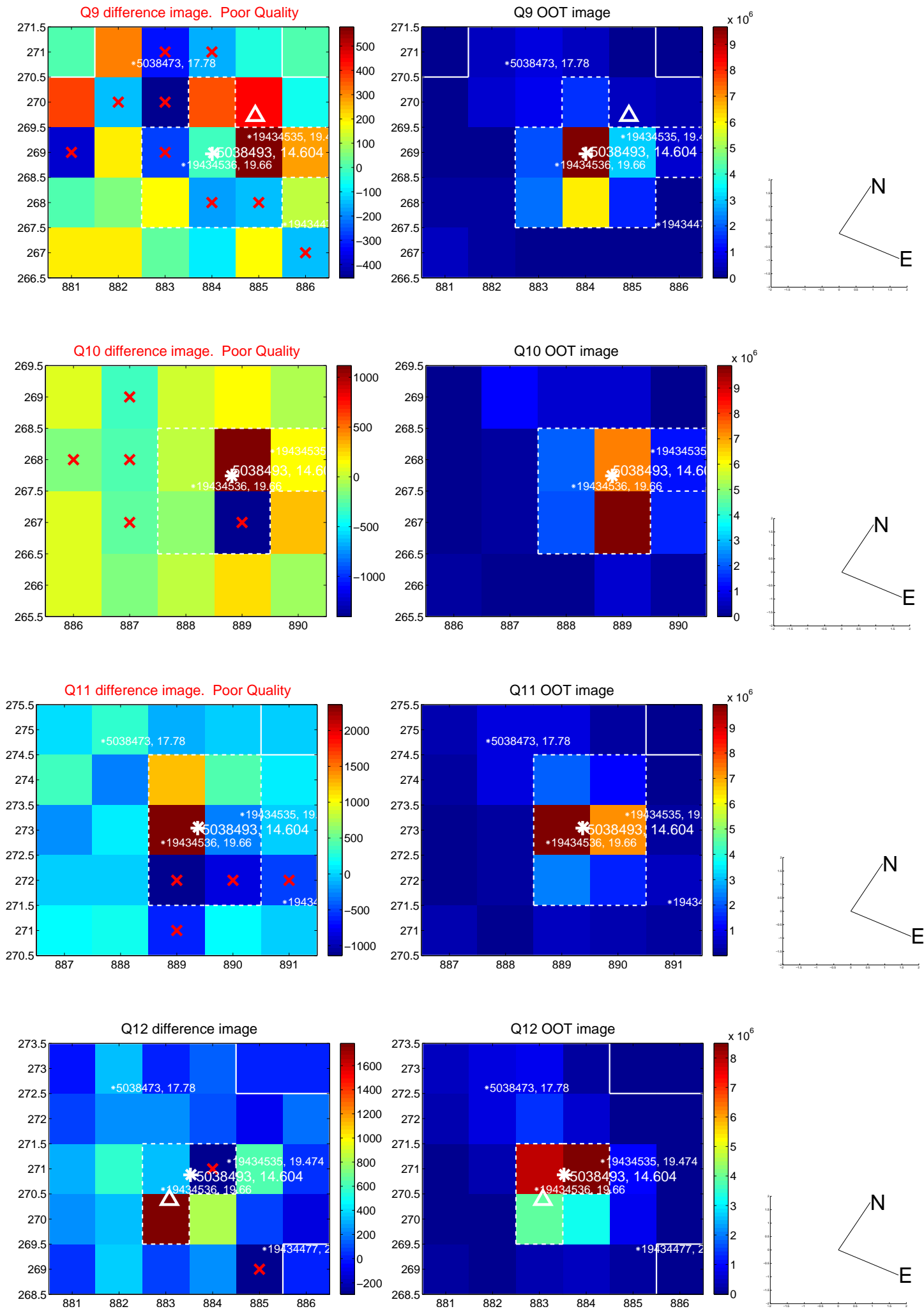
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



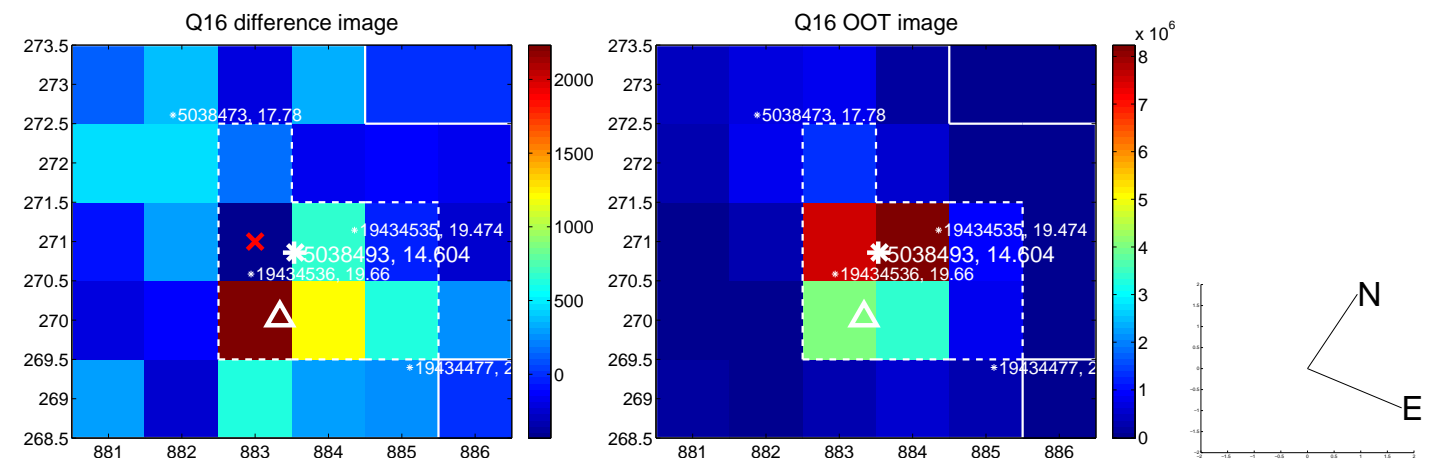
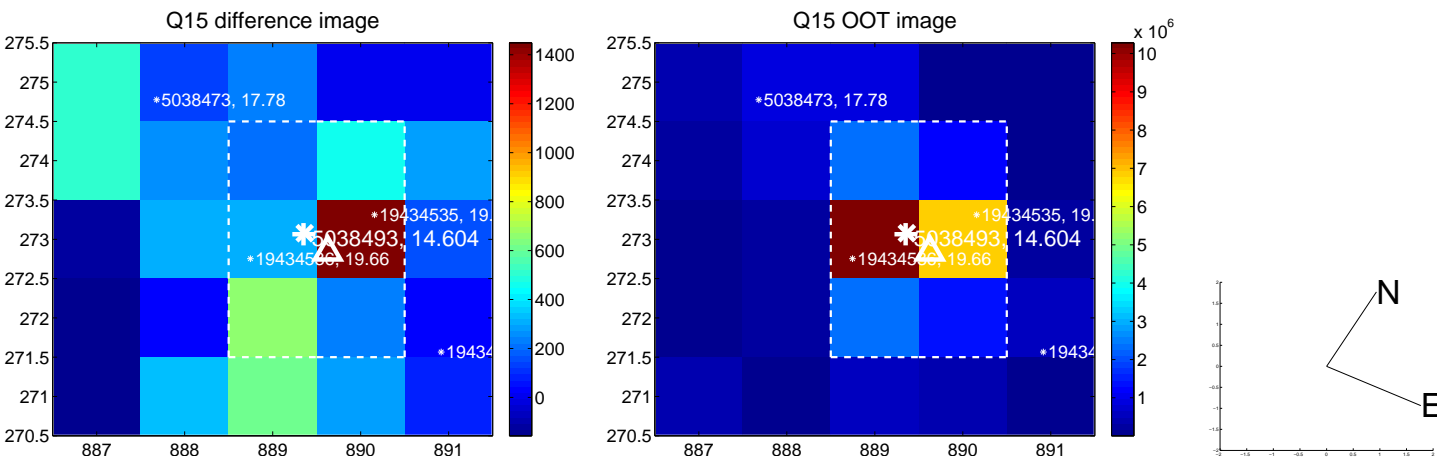
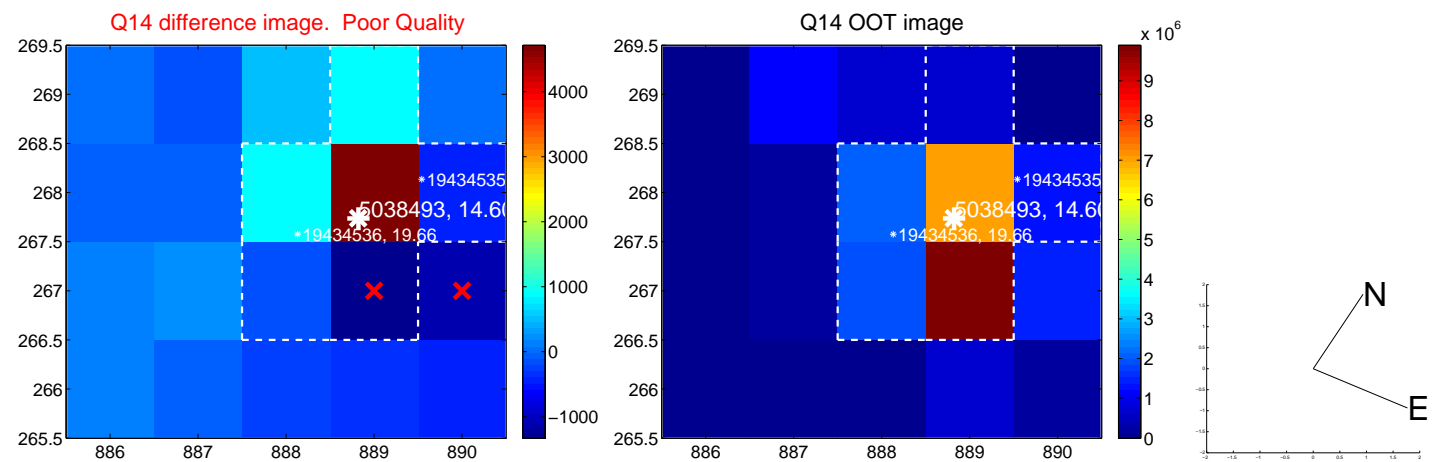
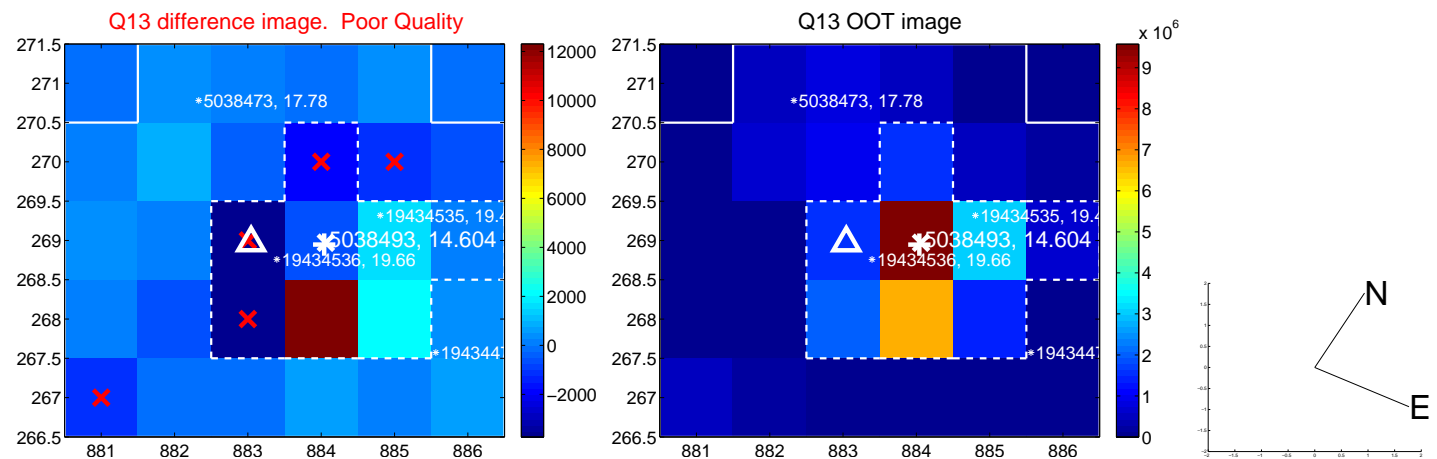
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

