

KIC 005175633

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})
005175633-01	OBS	No	0.871717	132.258439	0.0	9.394	7.9	0.0	1.88	6731	0.04	16076.84

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005175633-01	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.

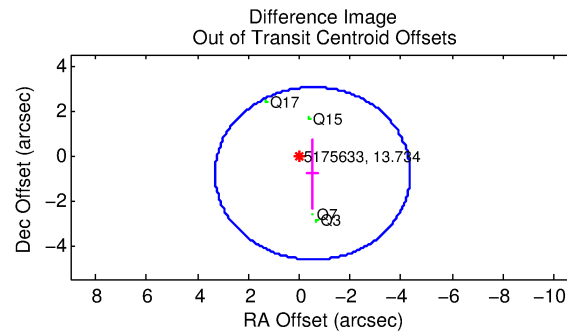
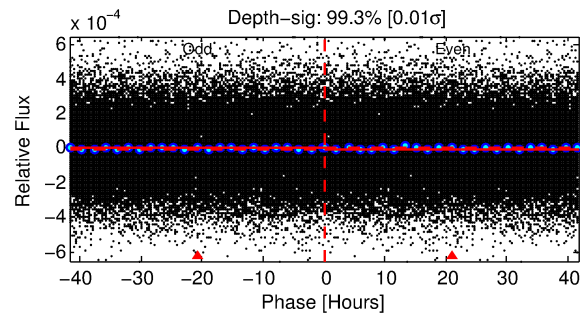
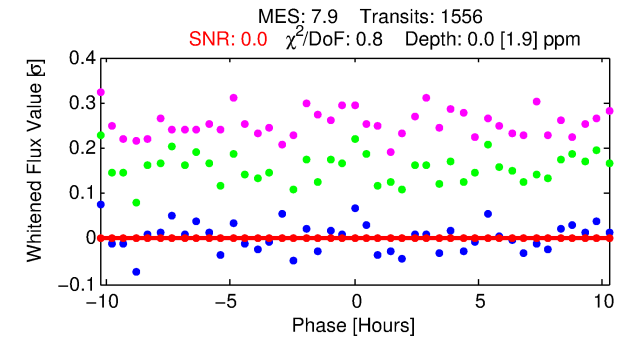
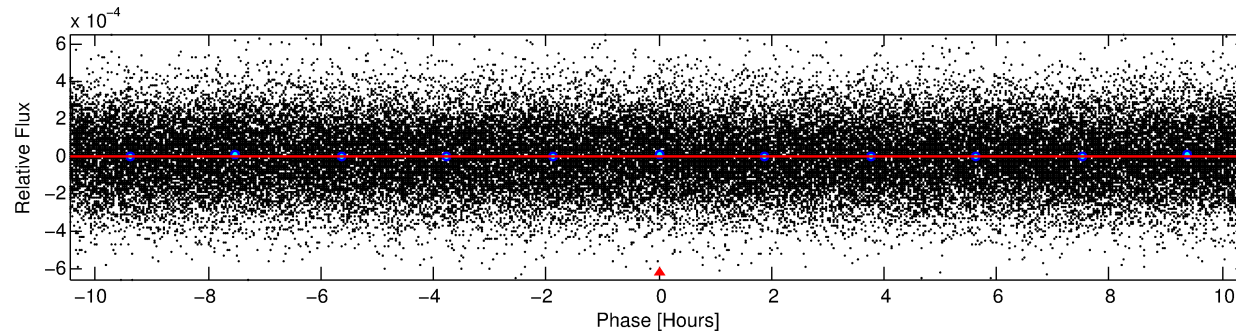
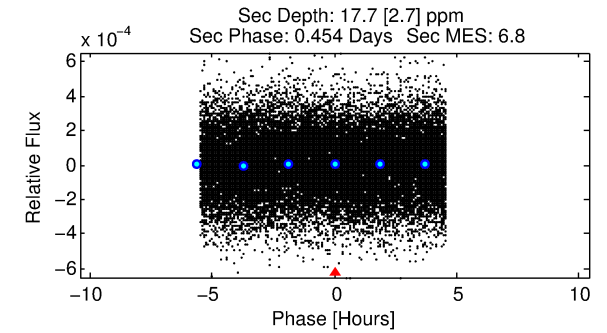
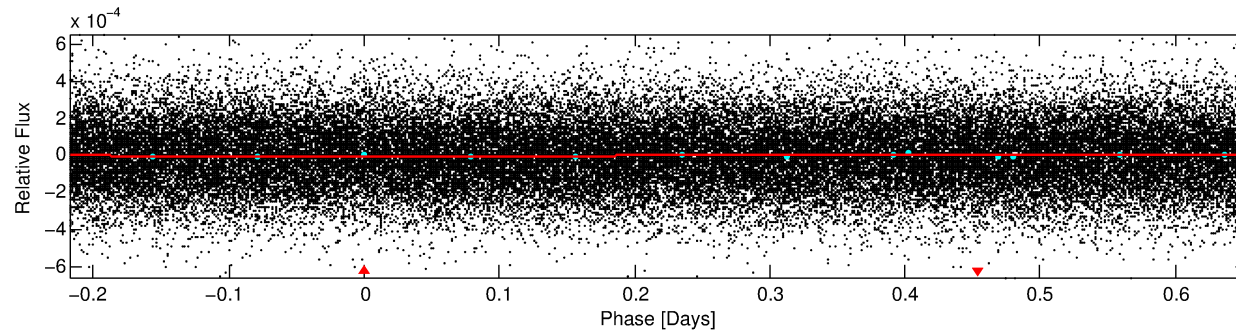
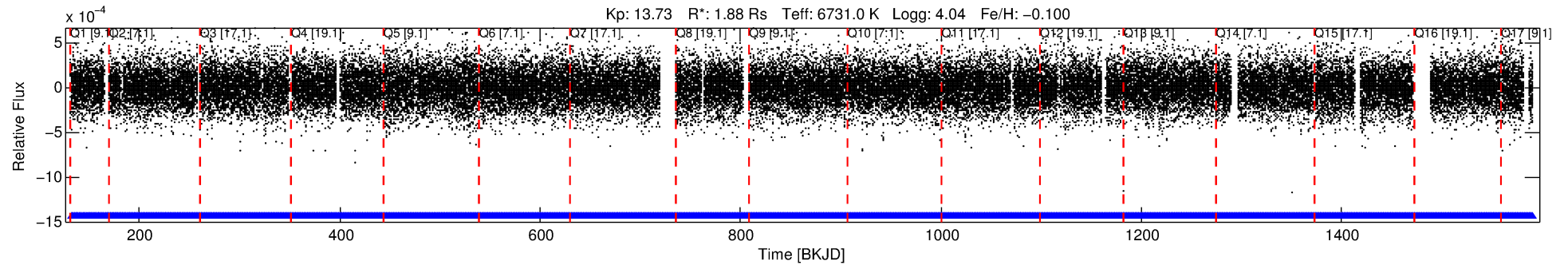
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005175633-01

No Significant Match Found

DV One-Page Summary

KIC: 5175633 Candidate: 1 of 1 Period: 0.872 d



DV Fit Results:

Period = 0.87172 [0.00666] d
Epoch = 132.2584 [2.4613] BKJD
Rp/R* = 0.0002 [0.0348]
a/R* = 1.01 [24.30]
b = 0.26 [3635.93]
Seff = 16076.84 [6999.64]
Teq = 2871 [313] K
Rp = 0.04 [7.13] Re
a = 0.0201 [0.0054] AU
Ag = 2444.03 [871030.63] [0.00σ]
Teffp = 31214 [2781068] K [0.01σ]

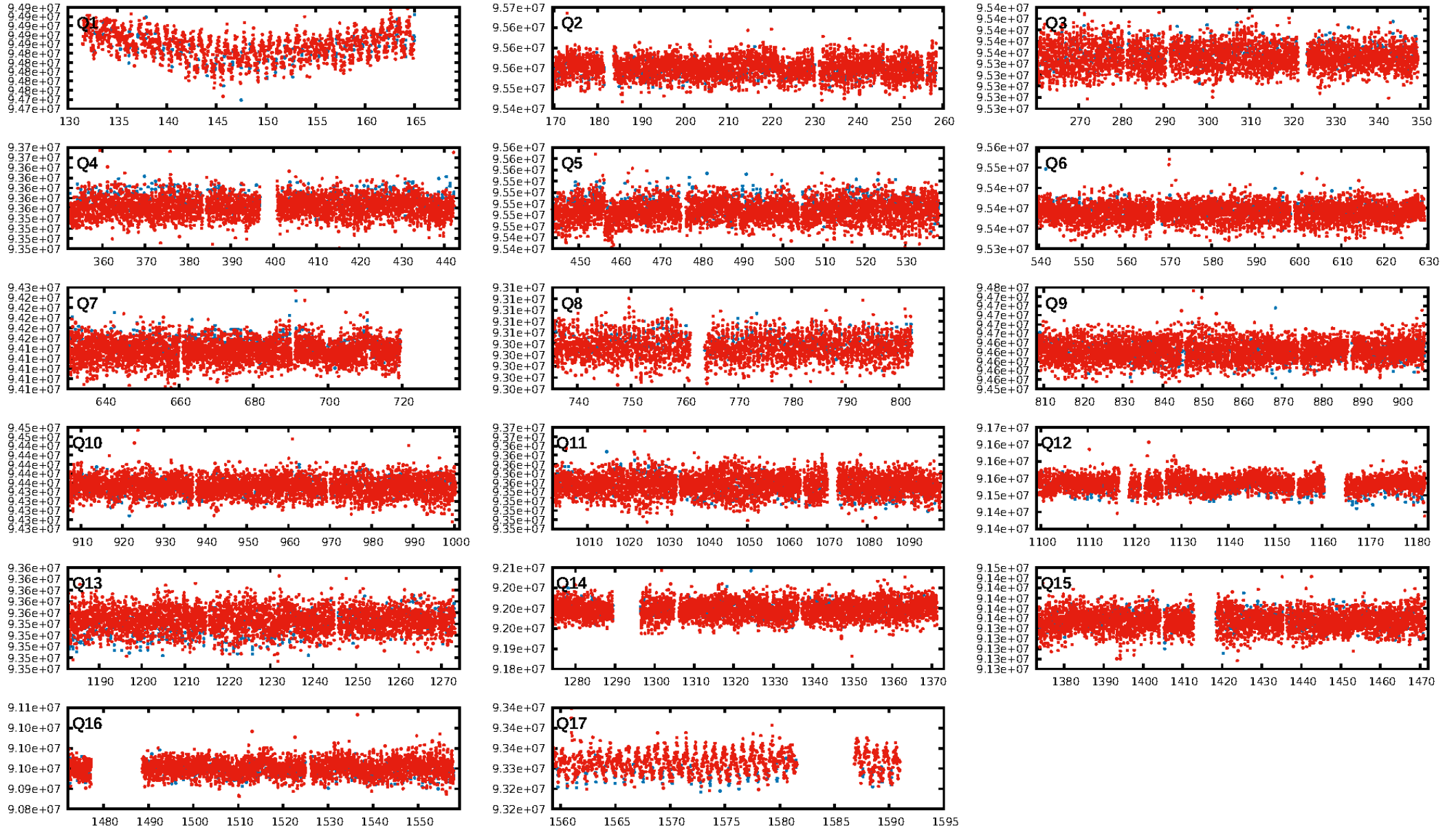
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1486/1486]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.965 arcsec [0.75σ]
KicOffset-rm: 0.948 arcsec [0.73σ]
OotOffset-st: 0/3/0/1 [4]
KicOffset-st: 0/3/0/1 [4]
DiffImageQuality-fgm: 0.00 [0/4]
DiffImageOverlap-fno: 1.00 [17/17]

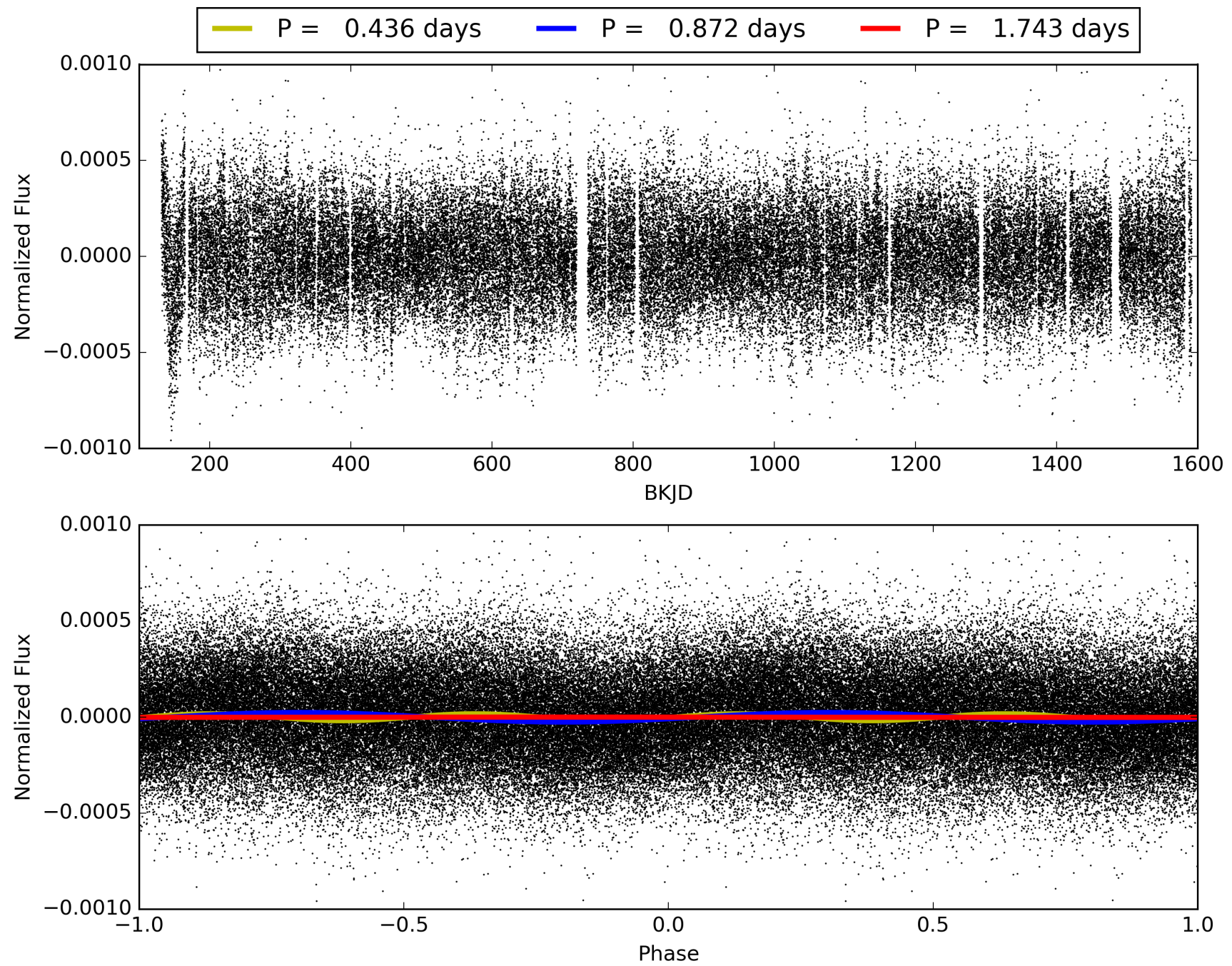
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 18:53:24 Z

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

TCE 005175633-01, PDC Light Curves

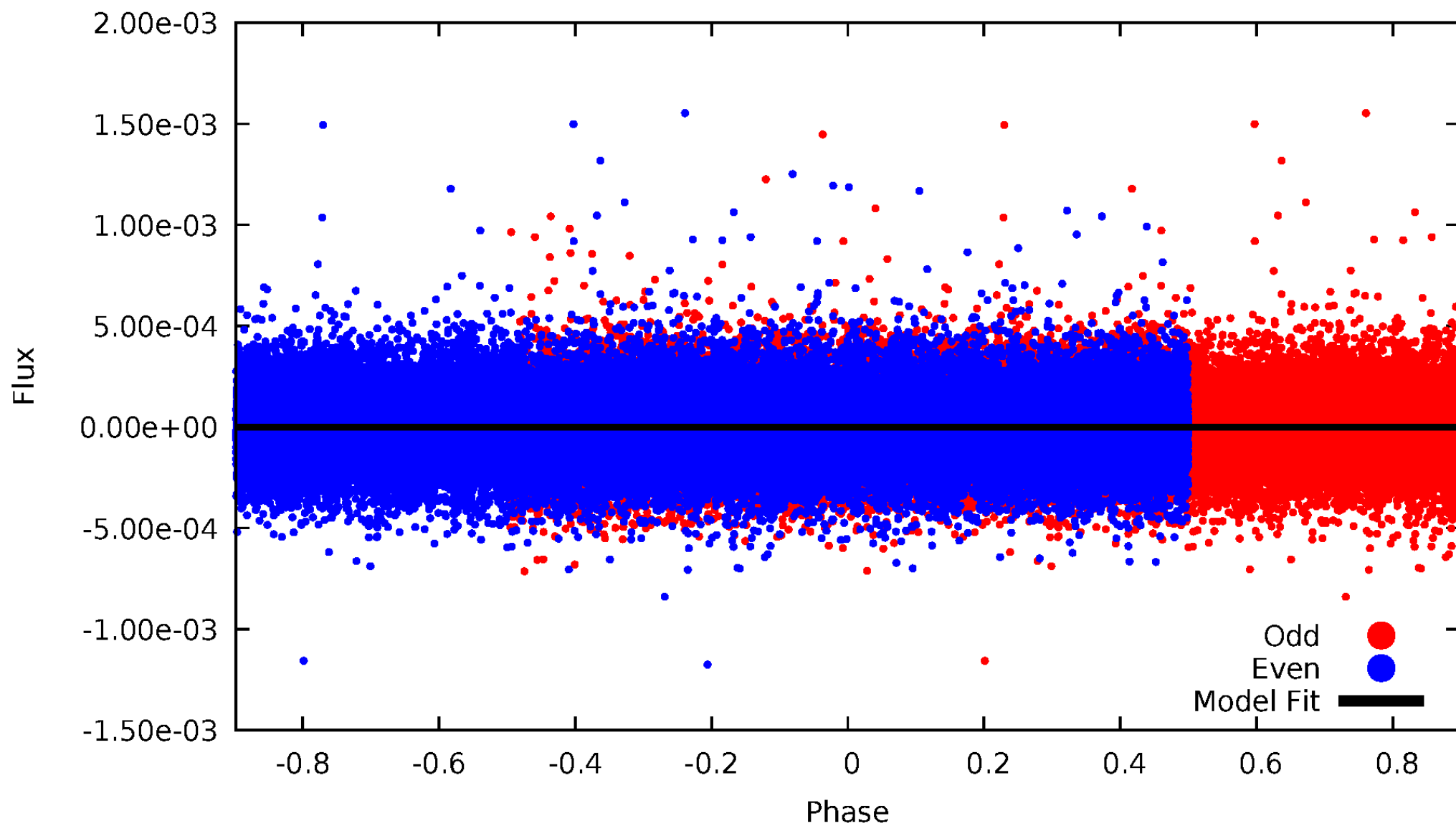


TCE 005175633-01



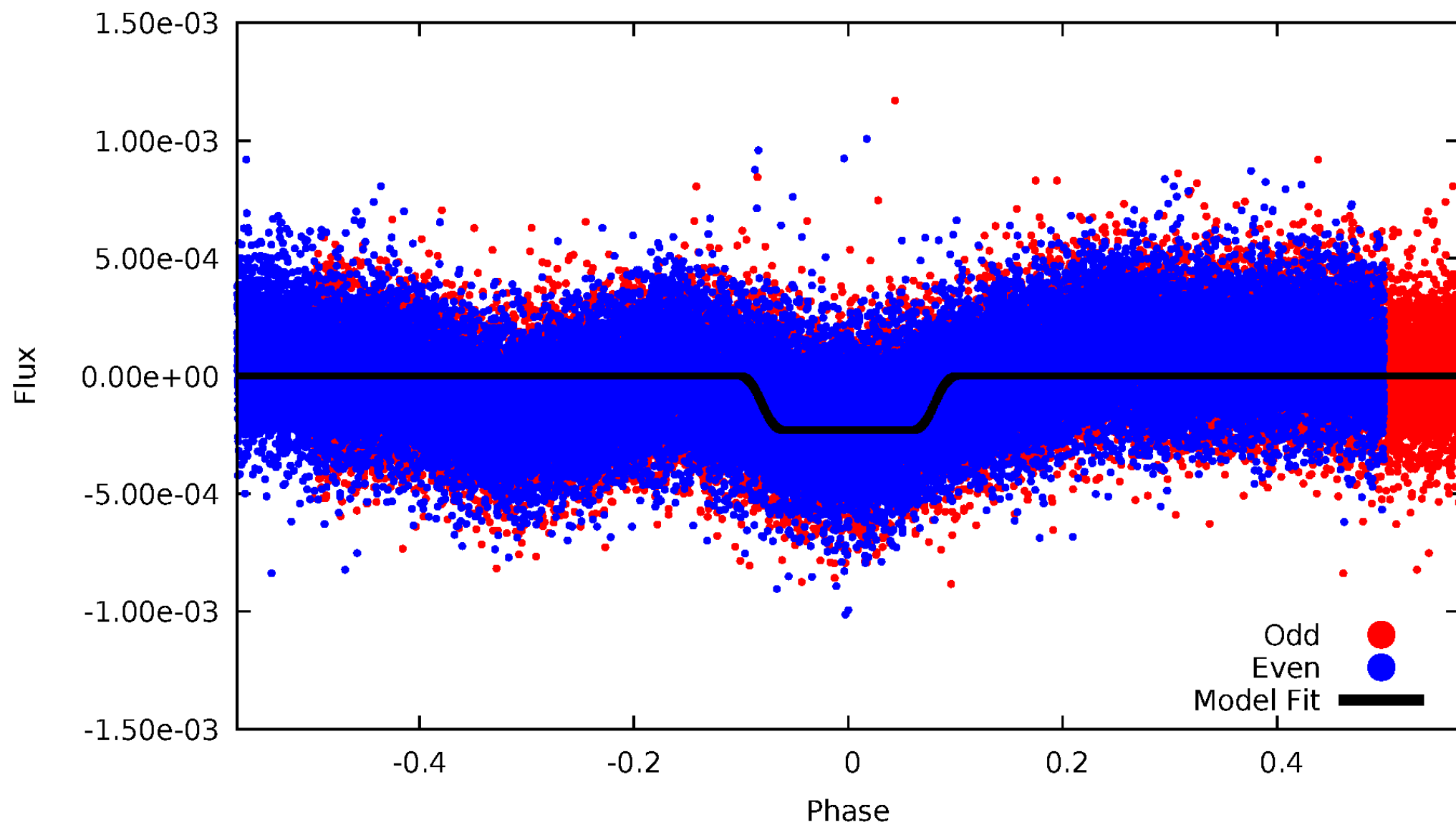
DV Odd/Even

TCE 005175633-01



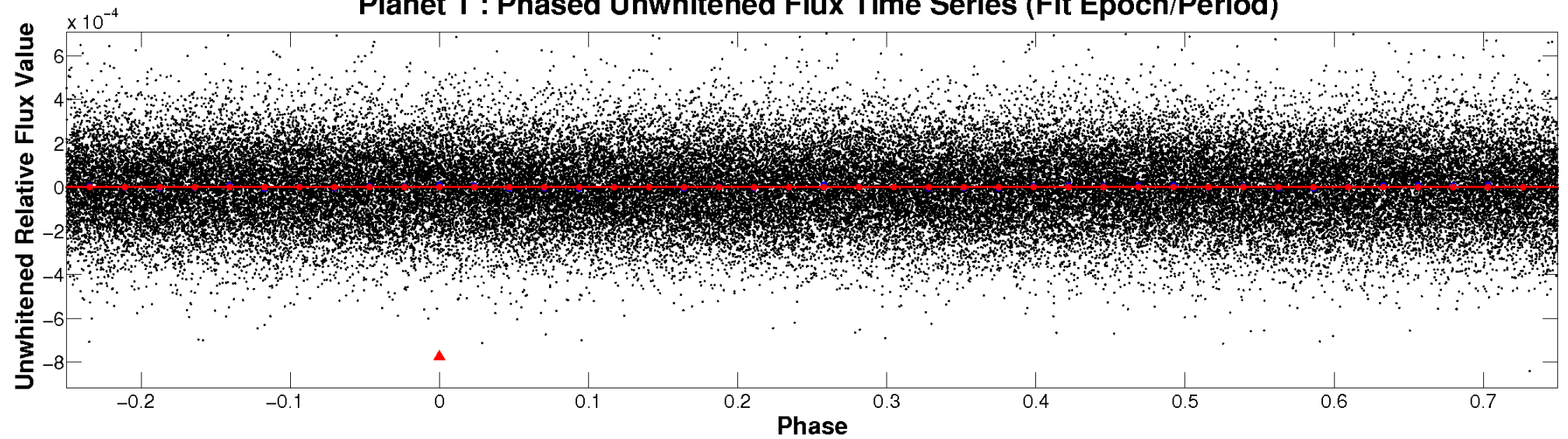
ALT Odd/Even

TCE 005175633-01

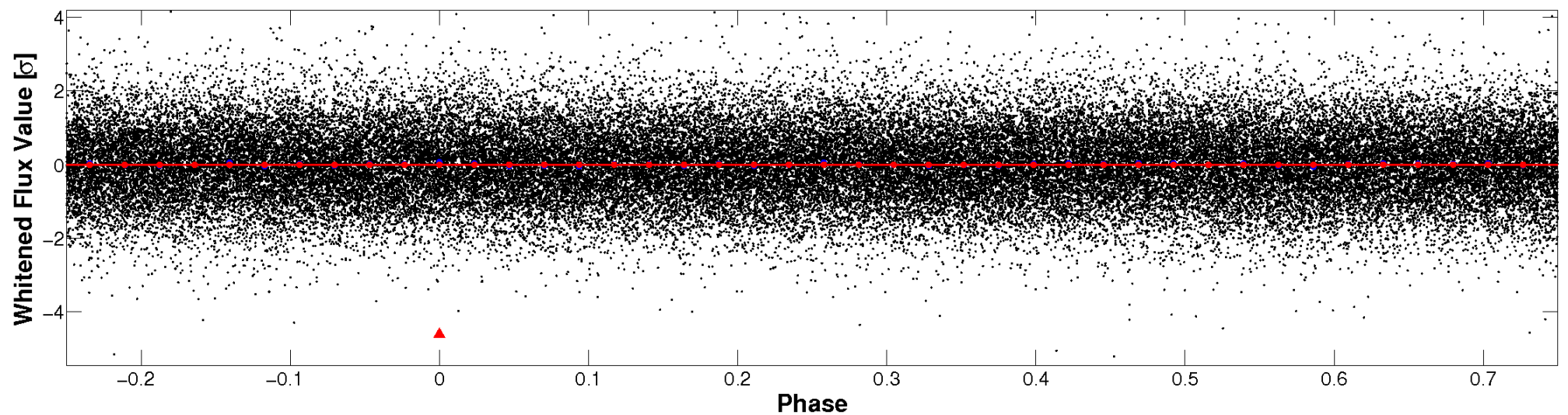


Non-Whitened Vs. Whitened Light Curve

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

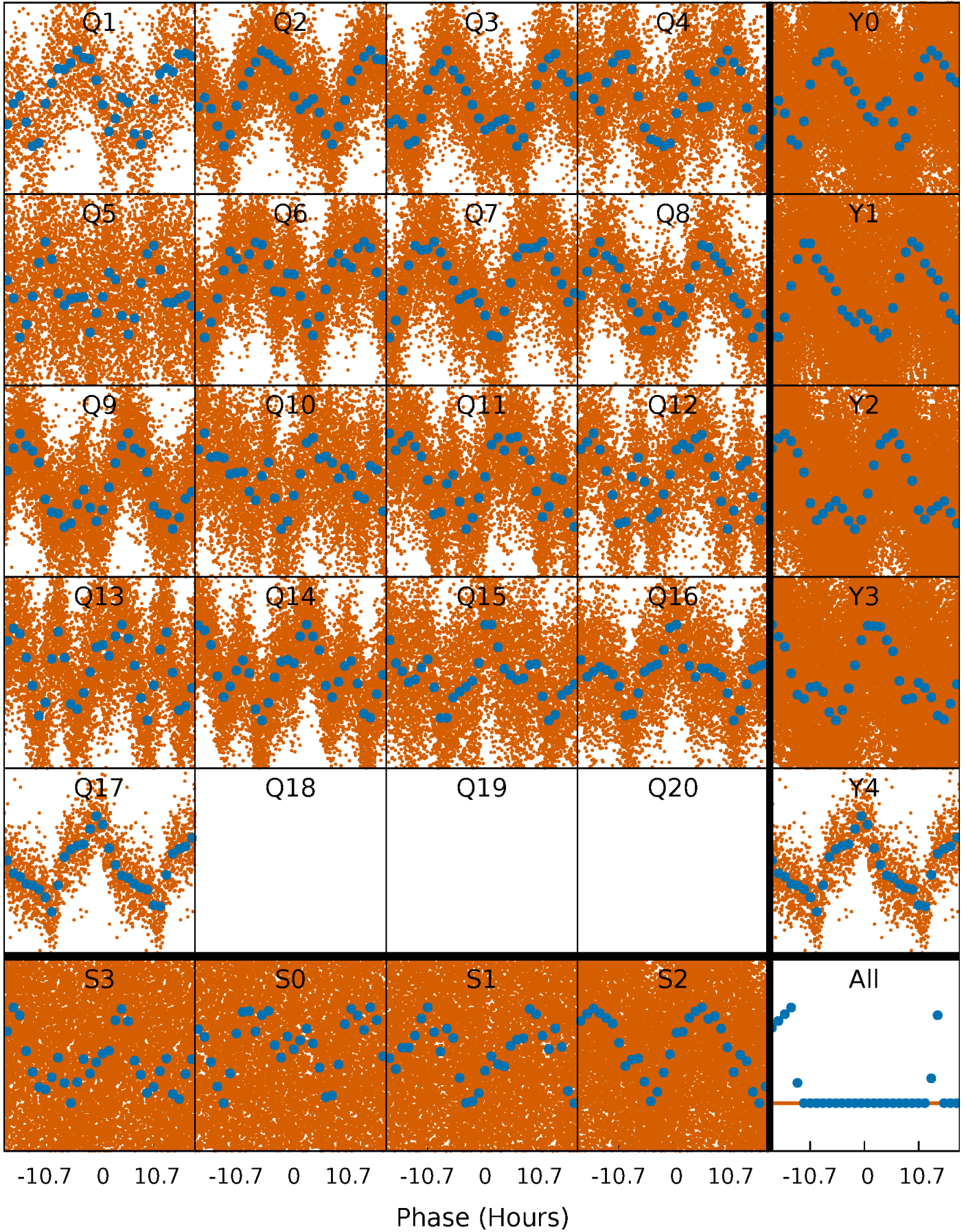


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



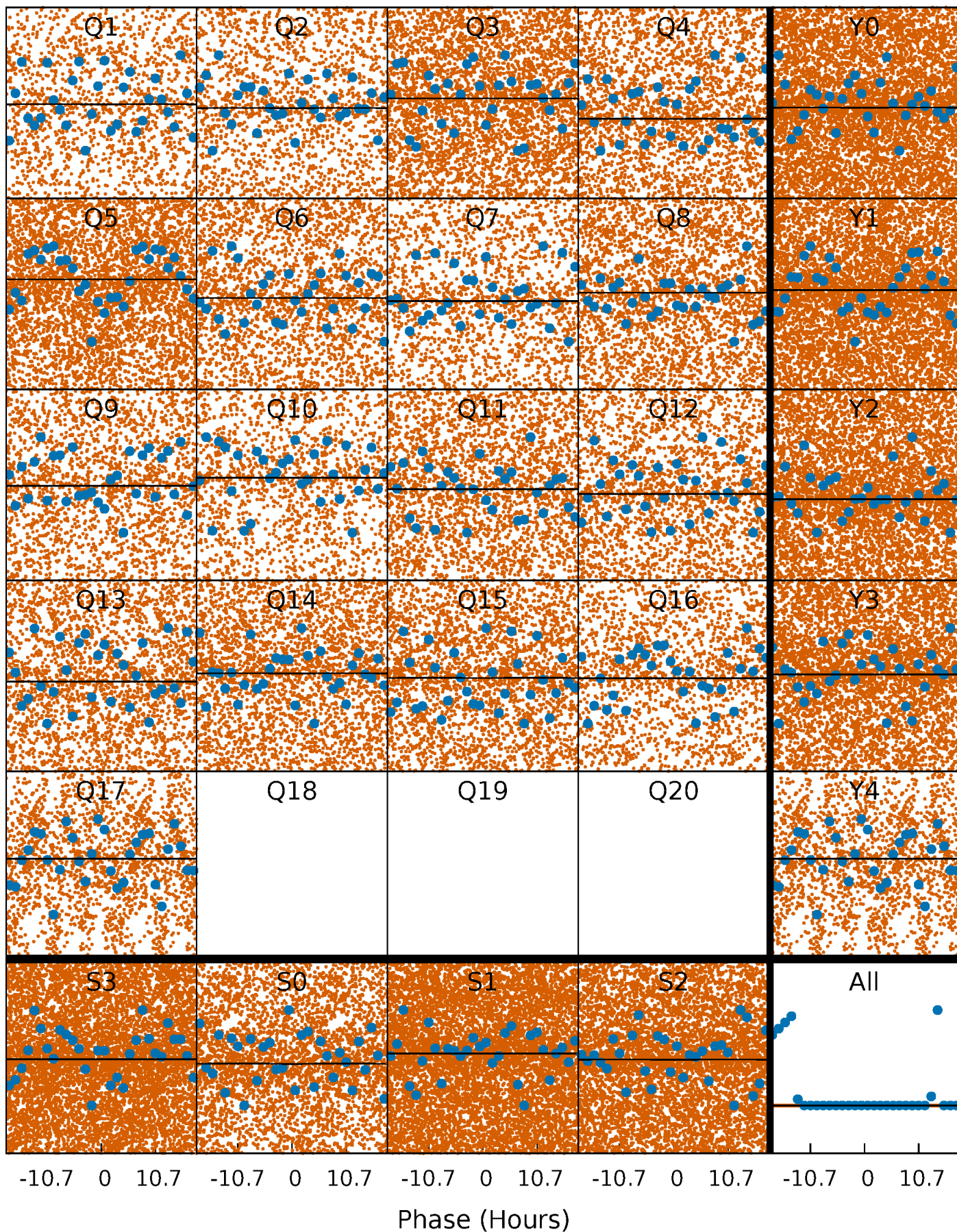
PDC Quarter-Phased Transit Curves

TCE 005175633-01 P= 0.871717 Days $T_0=132.258439$ (BKJD)



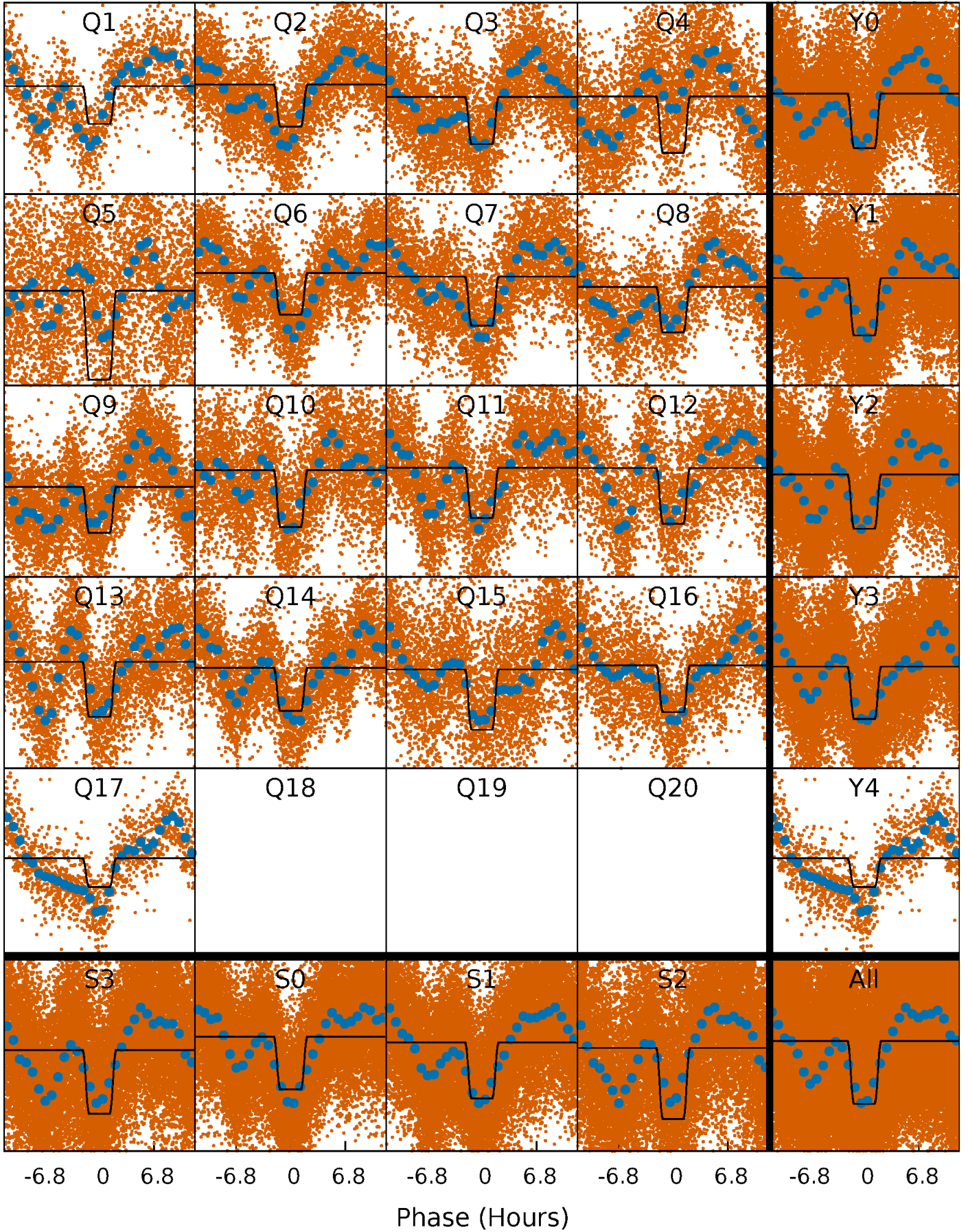
DV Quarter-Phased Transit Curves

TCE 005175633-01 P= 0.871717 Days $T_0=132.258439$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

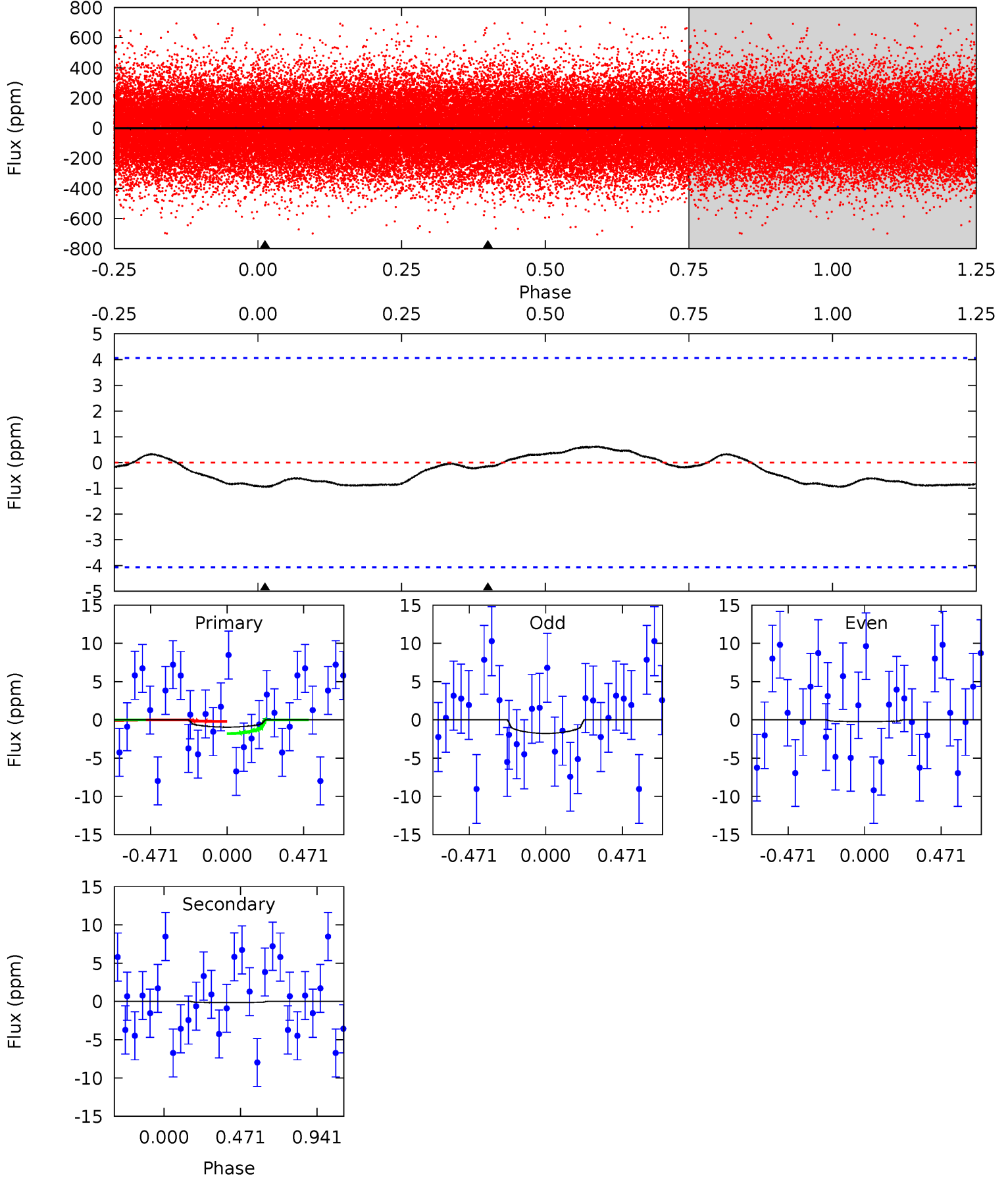
TCE 005175633-01 P= 0.871233 Days $T_0=131.792161$ (BKJD)



DV Model-Shift Uniqueness Test

005175633-01, P = 0.871717 Days, E = 131.386722 Days

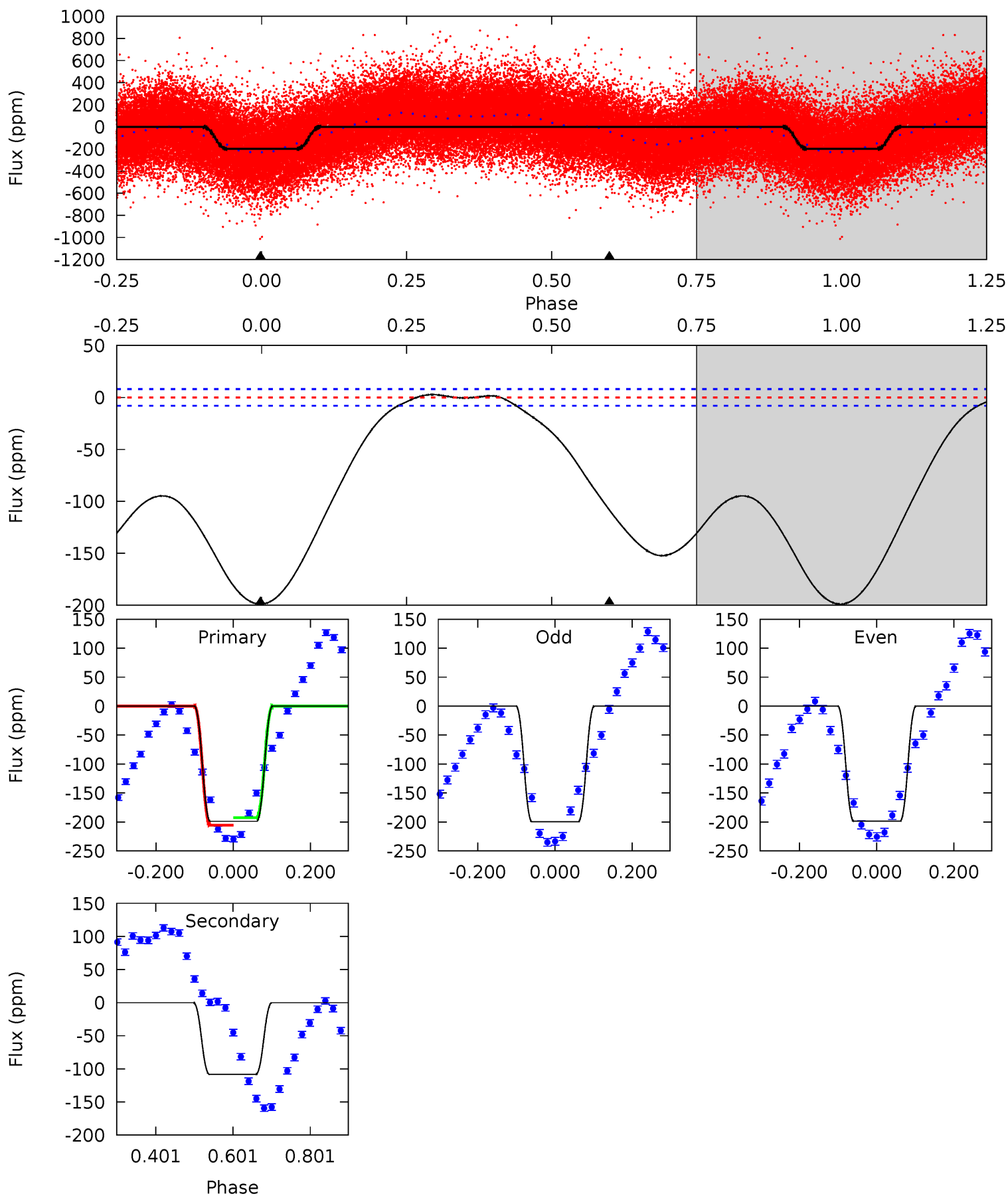
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.98	0.16	0	0	4.23	0.72	0.19	0.98	0.98	0.16	0.16	0.81	-0.06	0.40	0.83



Alt Model-Shift Uniqueness Test

005175633-01, P = 0.871233 Days, E = 130.920928 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
109.5	59.6	0	0	4.42	1.28	3.71	109.5	109.5	59.6	59.6	0.25	0.97	0.01	3.55



Stellar Parameters For KIC 005175633

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6731^{+189}_{-259}	$4.043^{+0.231}_{-0.168}$	$-0.100^{+0.250}_{-0.300}$	$1.876^{+0.563}_{-0.563}$	$1.420^{+0.220}_{-0.269}$	$0.303^{+0.433}_{-0.146}$
	+3%/-4%	+6%/-4%	+250%/-300%	+30%/-30%	+15%/-19%	+143%/-48%
Source	PHO54	PHO54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 005175633-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-0 ± 1	$4.89^{+4.93}_{-3.44}$	3947^{+346}_{-292}	-3650^{+232}_{-248}	$0.001^{+0.020}_{-0.013}$
Alt.	-108 ± 2	$5.71^{+6.12}_{-3.89}$	3984^{+295}_{-362}	3867^{+3126}_{-7086}	$0.730^{+6.354}_{-0.562}$

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

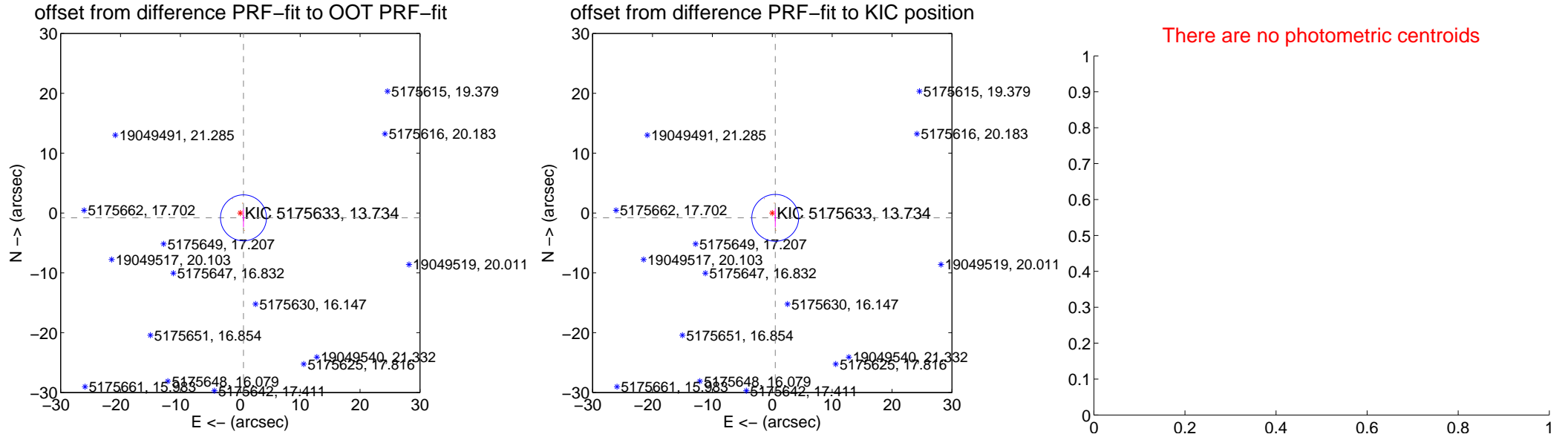
DV Centroid Data

Supplemental centroid analysis for 005175633-01. Kepler magnitude: 13.73. Transit SNR 0.03

There are 0 quarters with good PRF difference image offsets

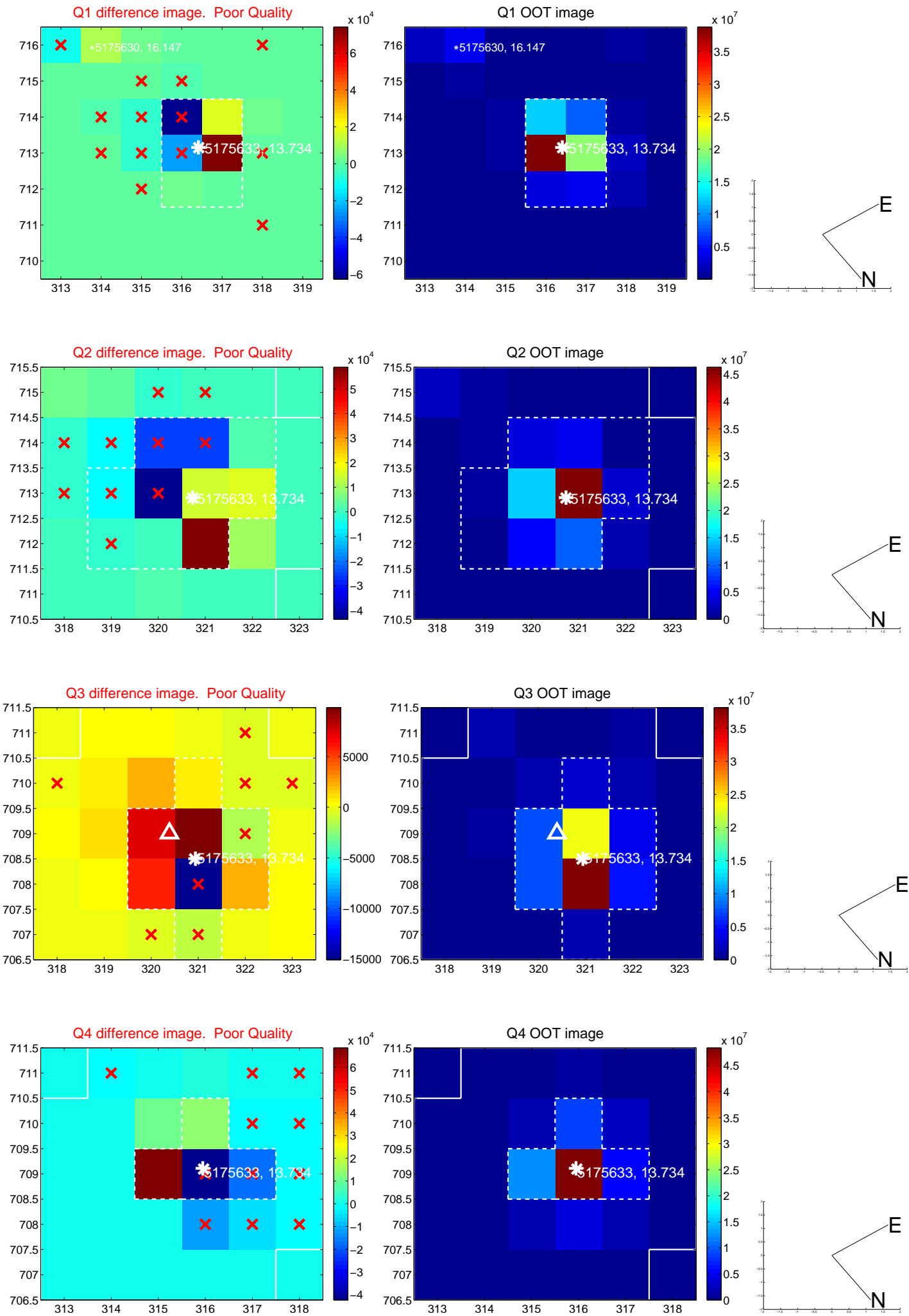
The direct PRF centroid is offset from the target star catalog position by about 0.01 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.965 ± 1.280	0.75	-0.532 ± 0.202	-0.806 ± 1.528
PRF-fit source offset from KIC position	0.948 ± 1.305	0.73	-0.498 ± 0.196	-0.807 ± 1.529
photometric centroid source offset	—	—	—	—

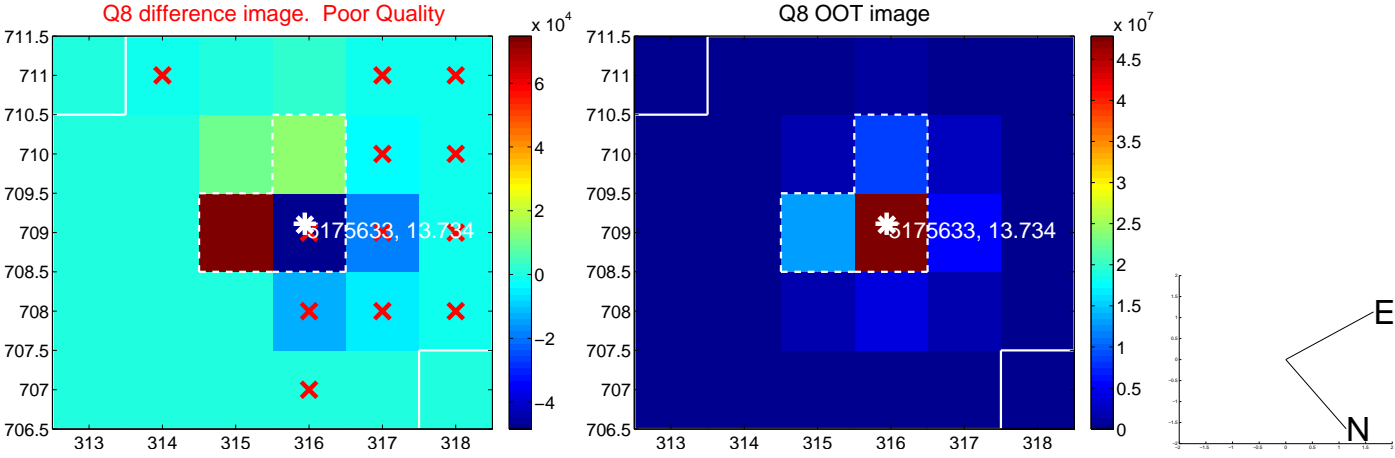
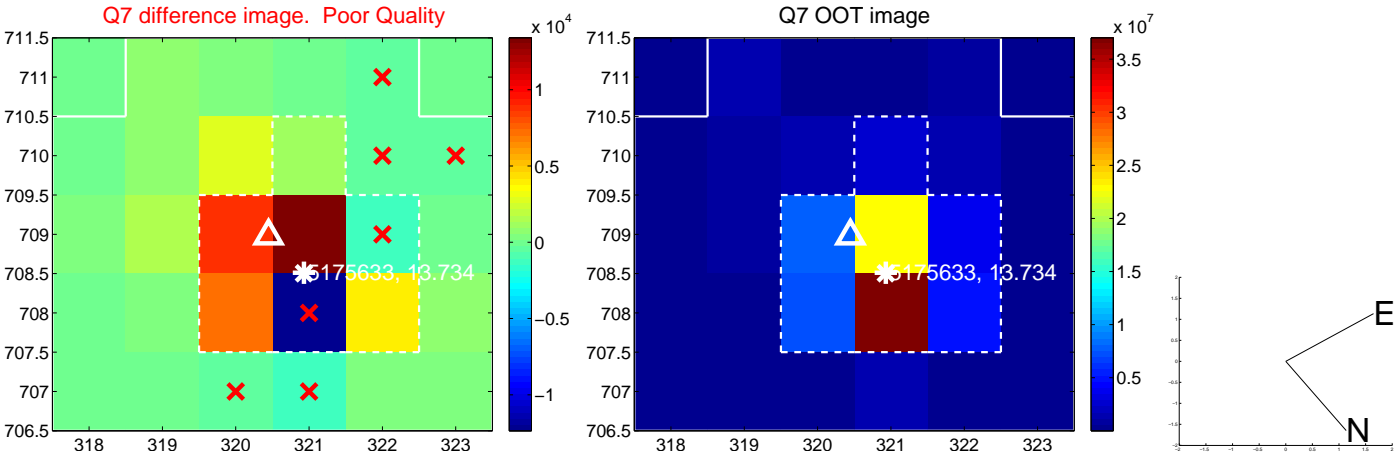
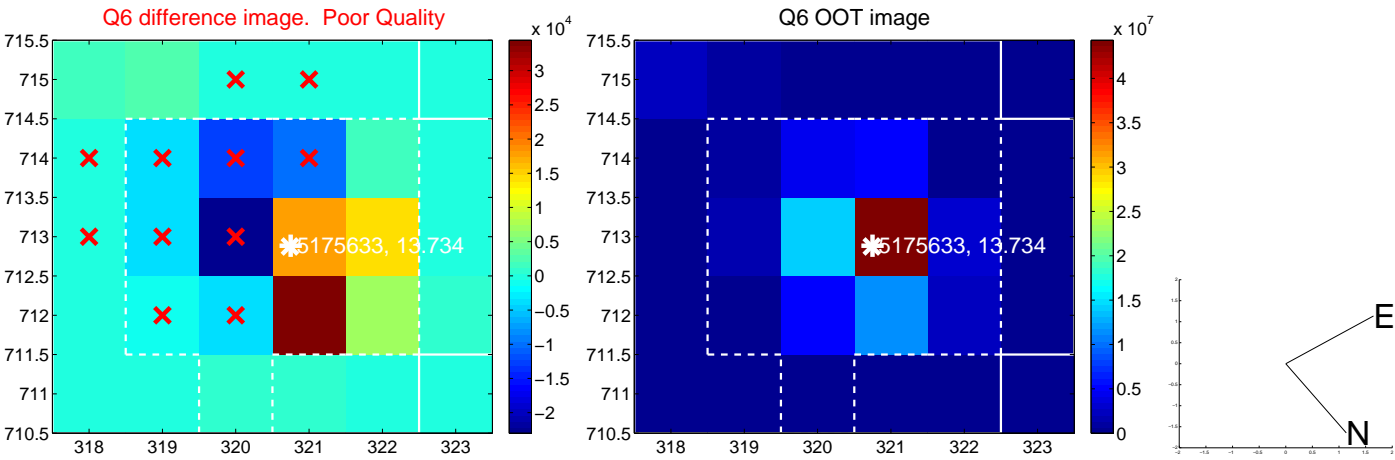
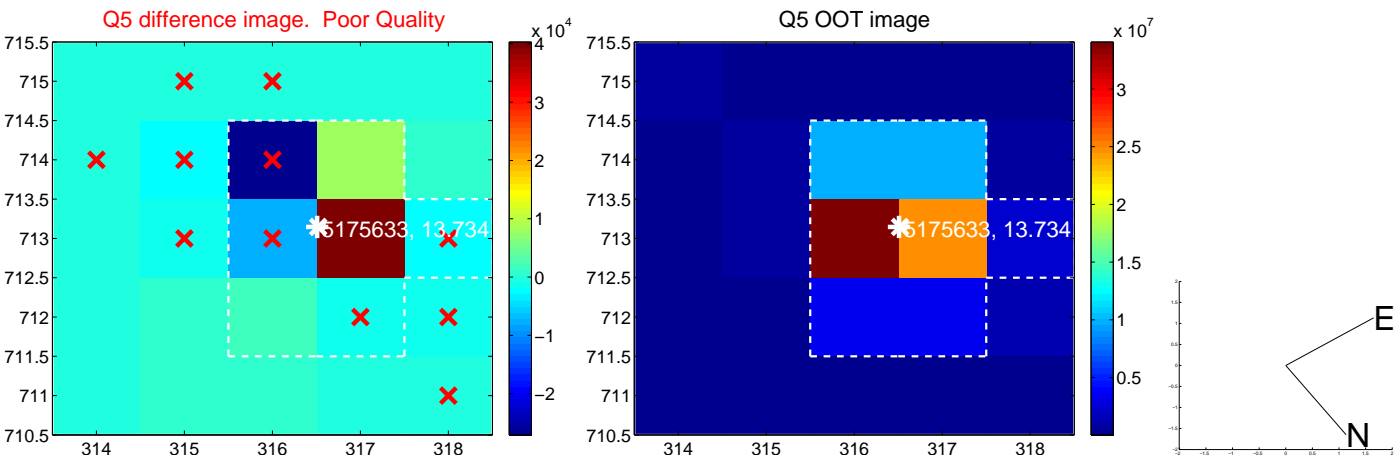


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

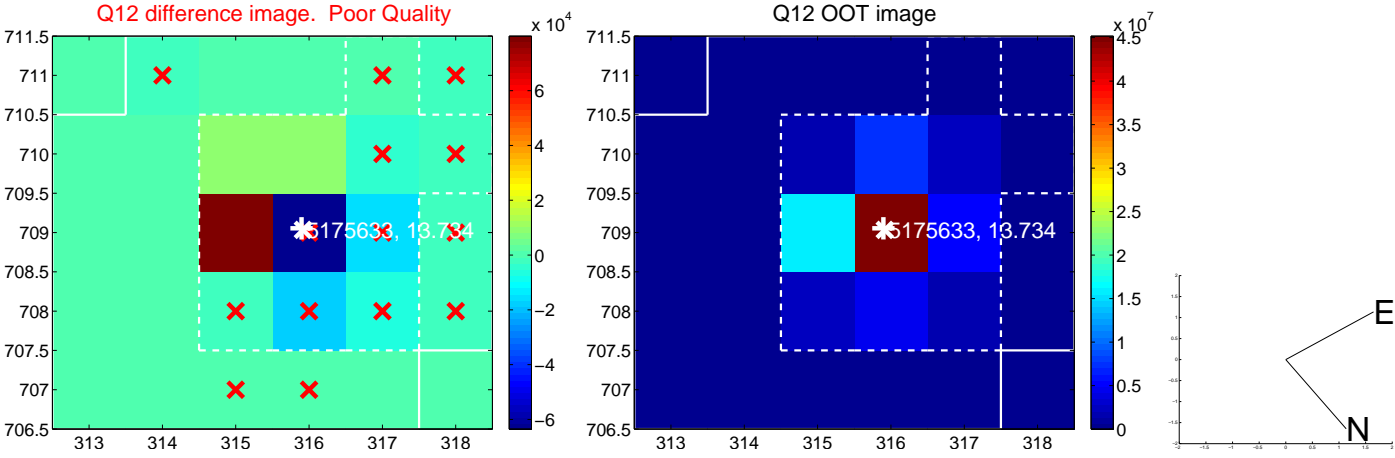
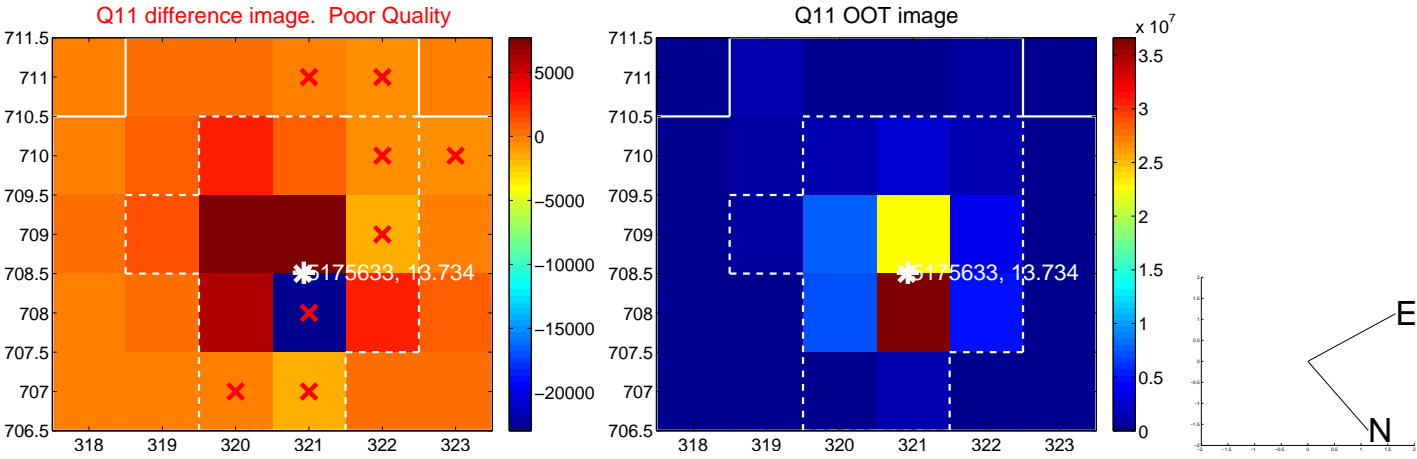
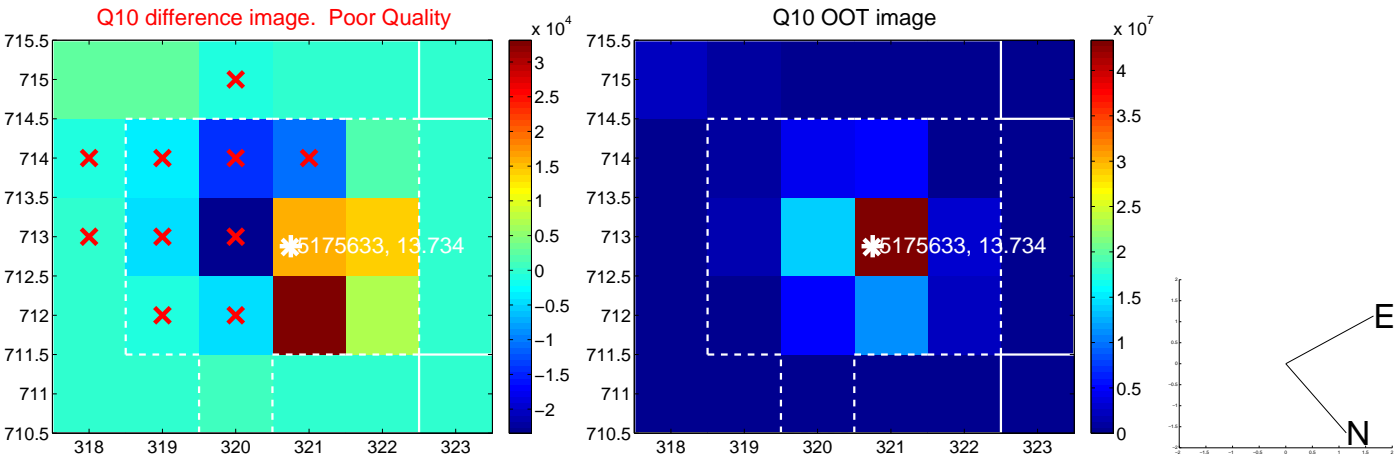
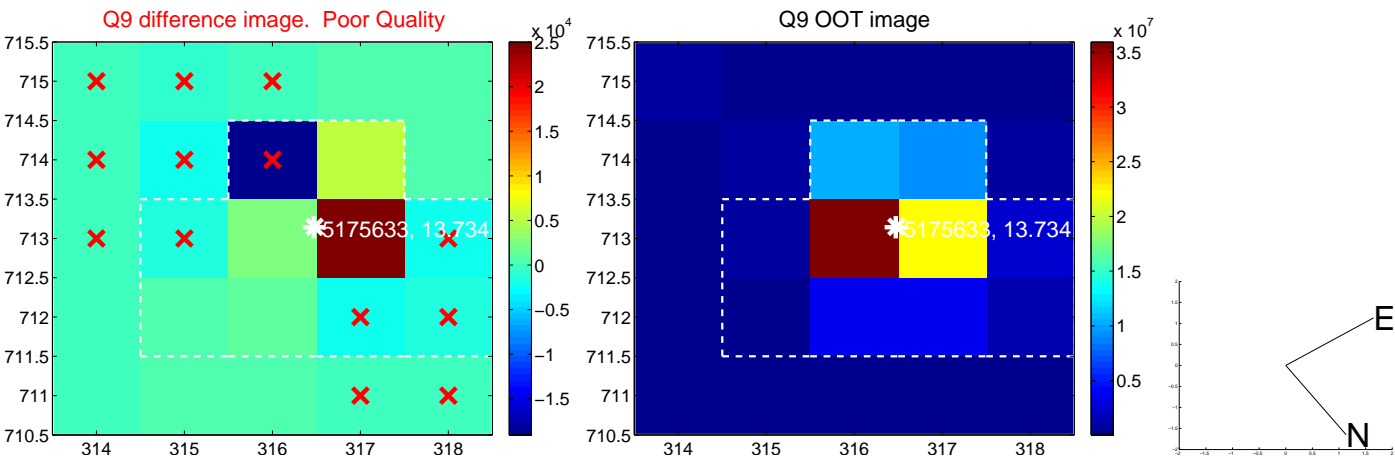
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



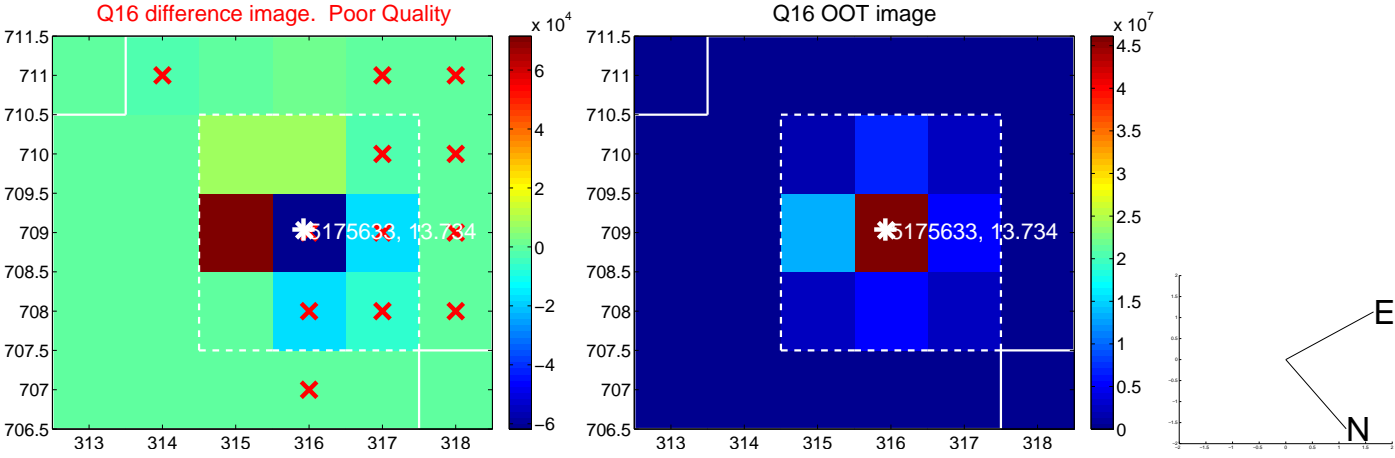
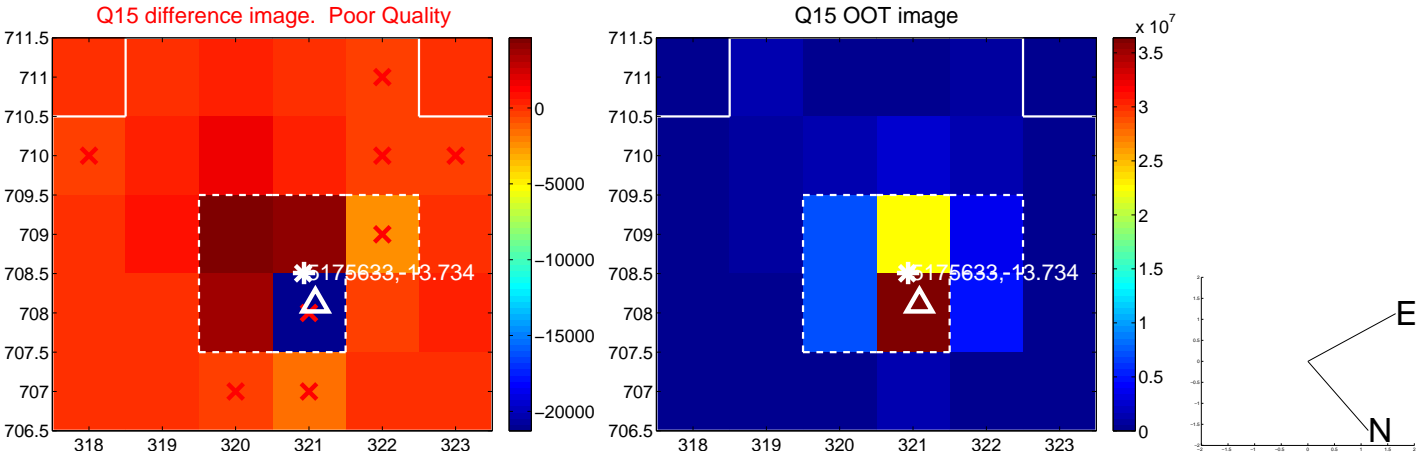
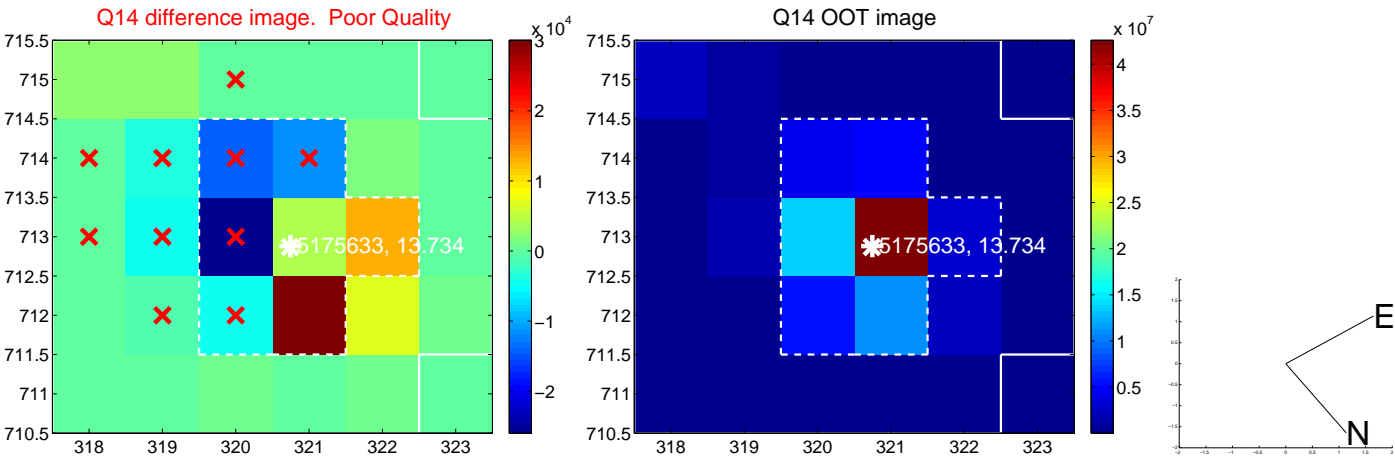
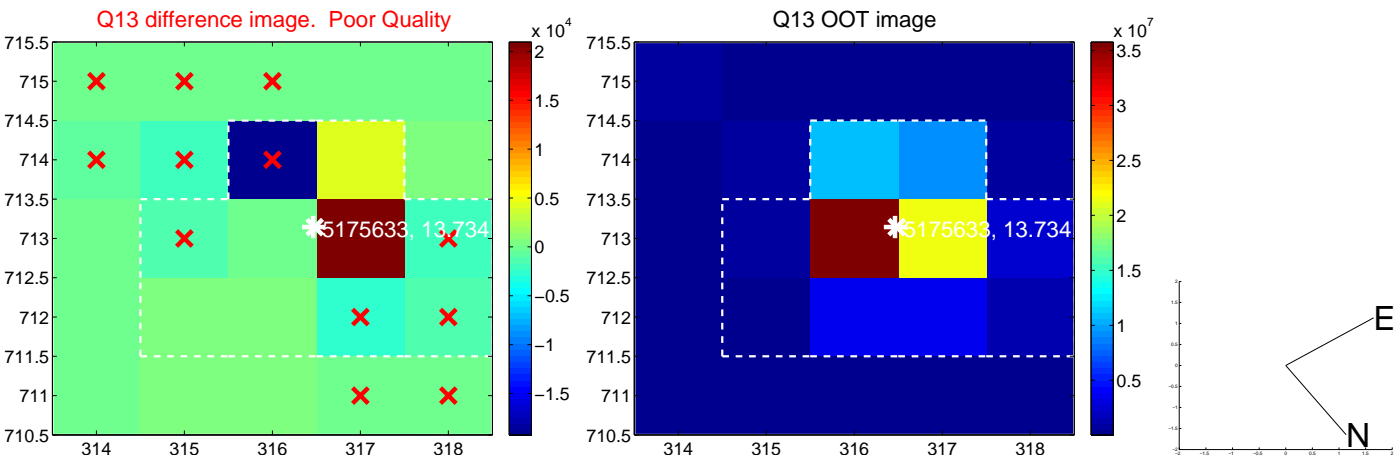
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



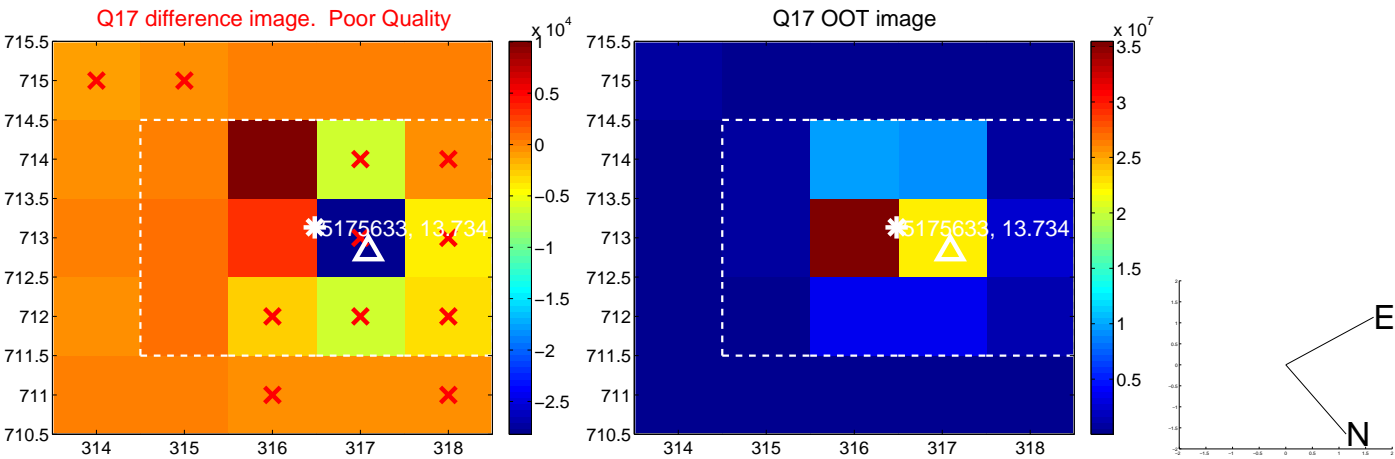
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



folded centroid time series figure for this object.

UKIRT Image

Declination

