

KIC 006391733

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})
006391733-01	OBS	No	0.627465	131.730514	13.8	3.656	7.4	9.1	2.09	9135	0.85	79551.85

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006391733-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_KIC_POS

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

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

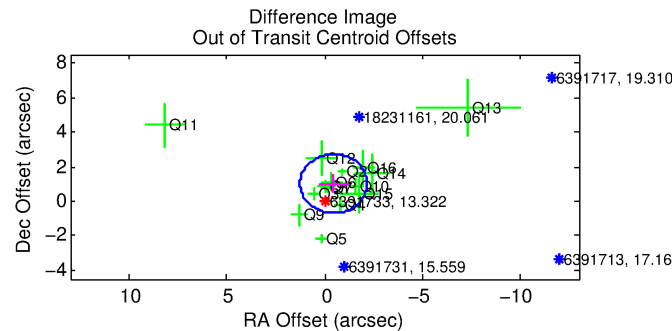
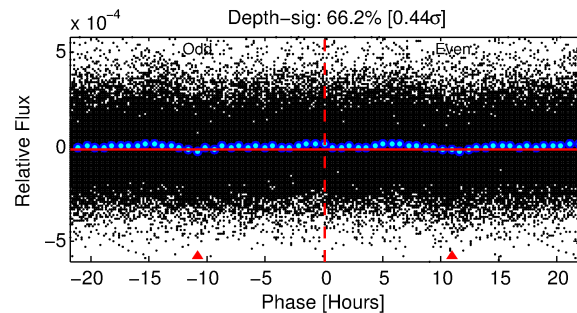
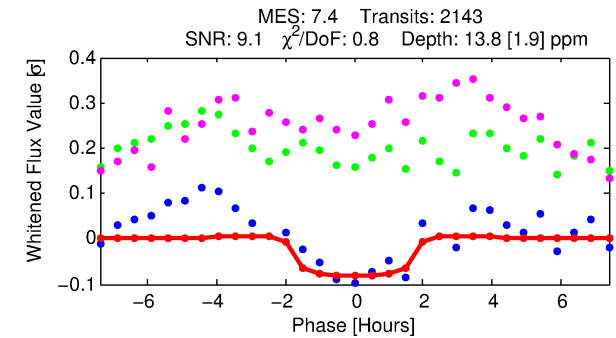
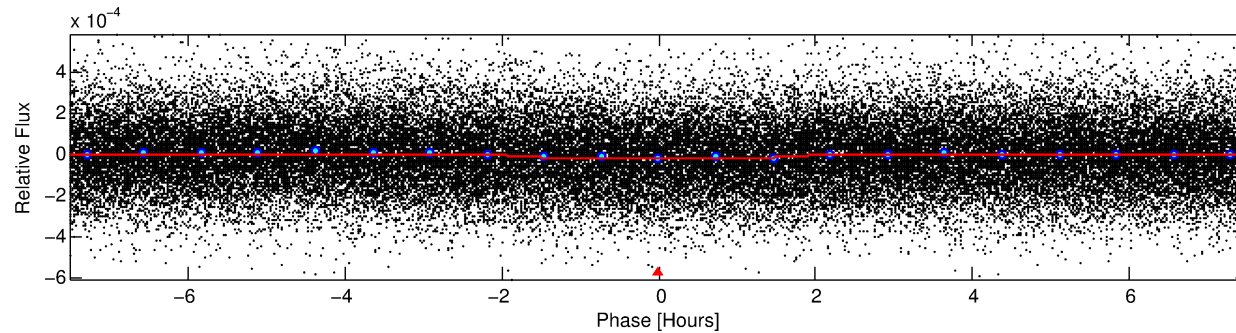
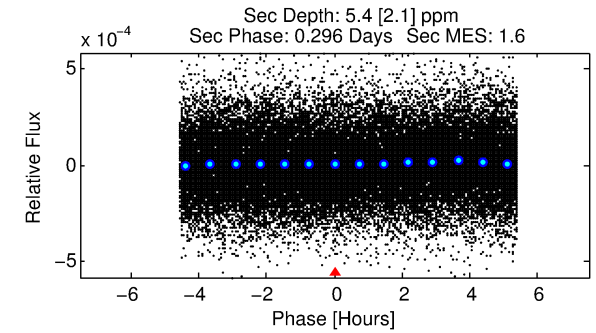
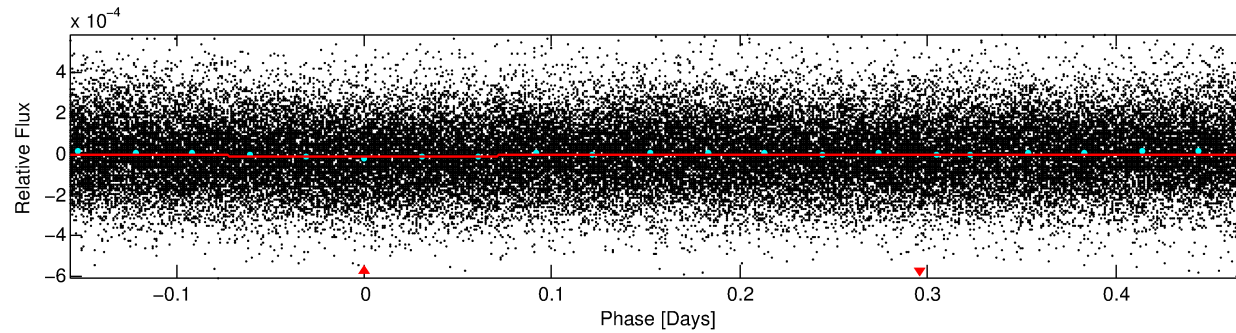
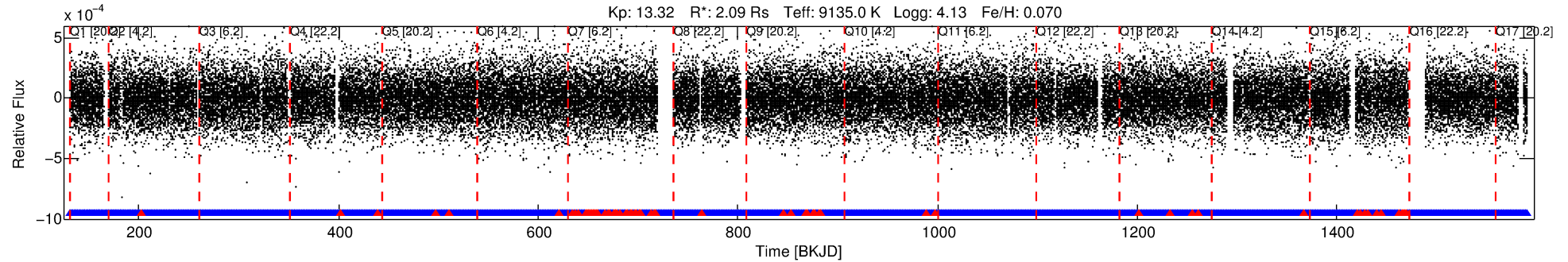
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006391733-01

No Significant Match Found

DV One-Page Summary

KIC: 6391733 Candidate: 1 of 1 Period: 0.627 d



DV Fit Results:

Period = 0.62747 [0.00001] d
Epoch = 131.7305 [0.0043] BKJD
Rp/R* = 0.0037 [0.0010]
a/R* = 1.21 [0.68]
b = 0.77 [0.95]
Seff = 79551.85 [33004.62]
Teff = 4282 [444] K
Rp = 0.85 [0.37] Re
a = 0.0185 [0.0050] AU
Ag = 1.42 [1.06] [0.39σ]
Teffp = 7225 [1223] K [2.26σ]

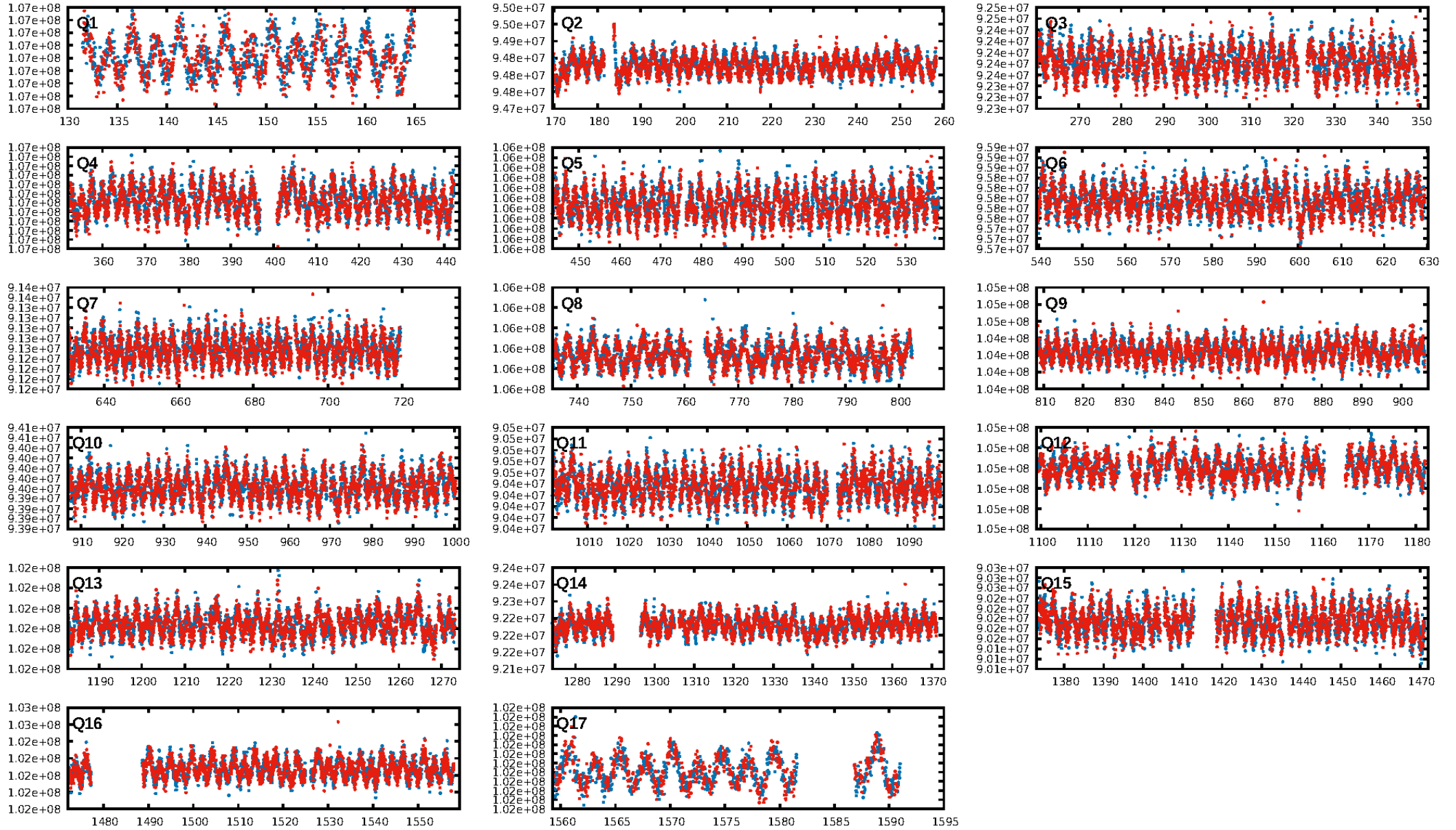
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 8.38e-10
RollingBand-fgt: 0.97 [1975/2046]
GhostDiagnostic-chr: 1.058
Centroid-sig: N/A
Centroid-so: 0.702 arcsec [0.57σ]
OotOffset-rm: 1.110 arcsec [1.95σ]
OotOffset-st: 4/4/3/4 [15]
KicOffset-rm: 0.860 arcsec [1.41σ]
KicOffset-st: 4/4/3/4 [15]
DiffImageQuality-fgm: 0.60 [9/15]
DiffImageOverlap-fno: 1.00 [17/17]

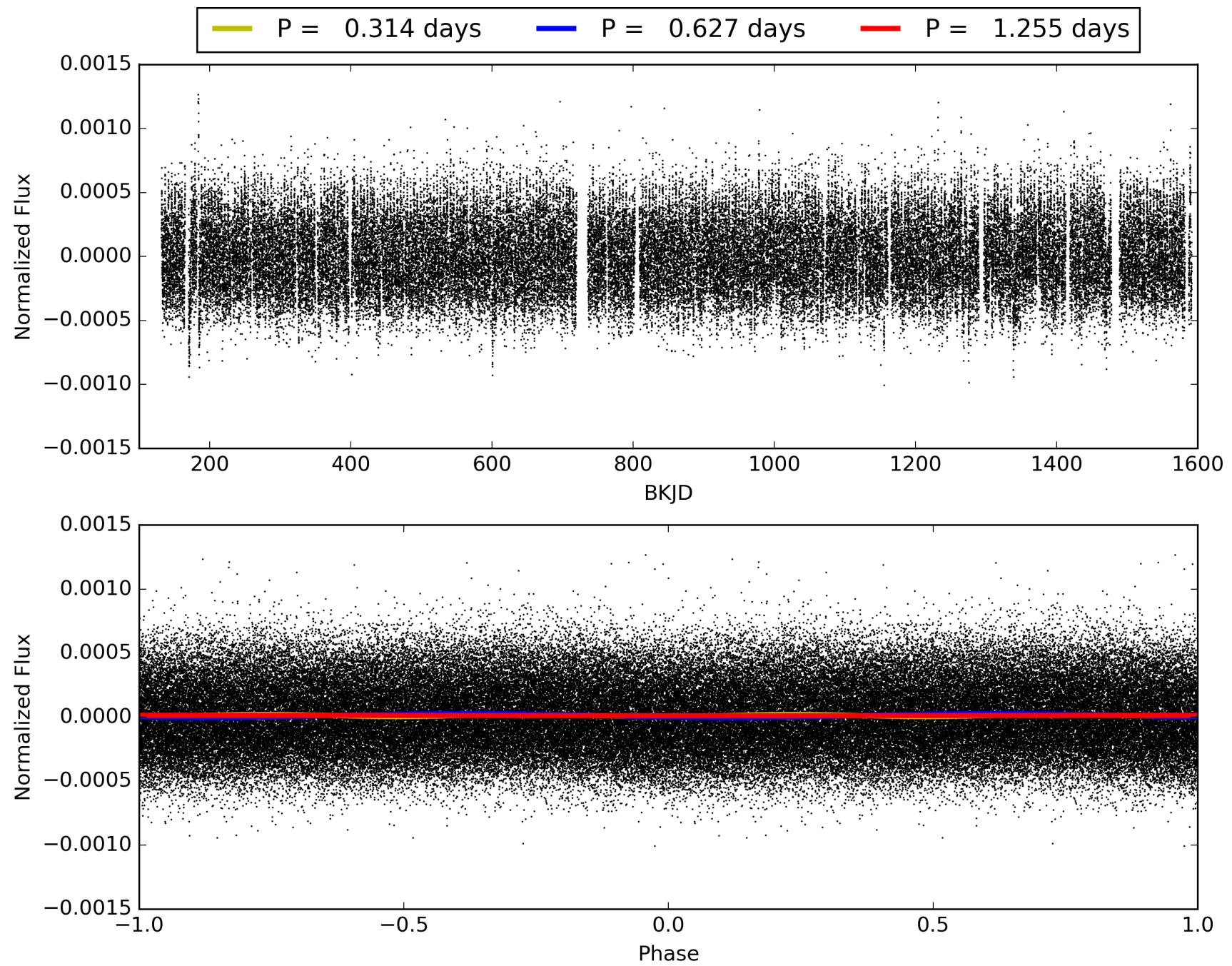
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 02:59:53 Z

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

TCE 006391733-01, PDC Light Curves

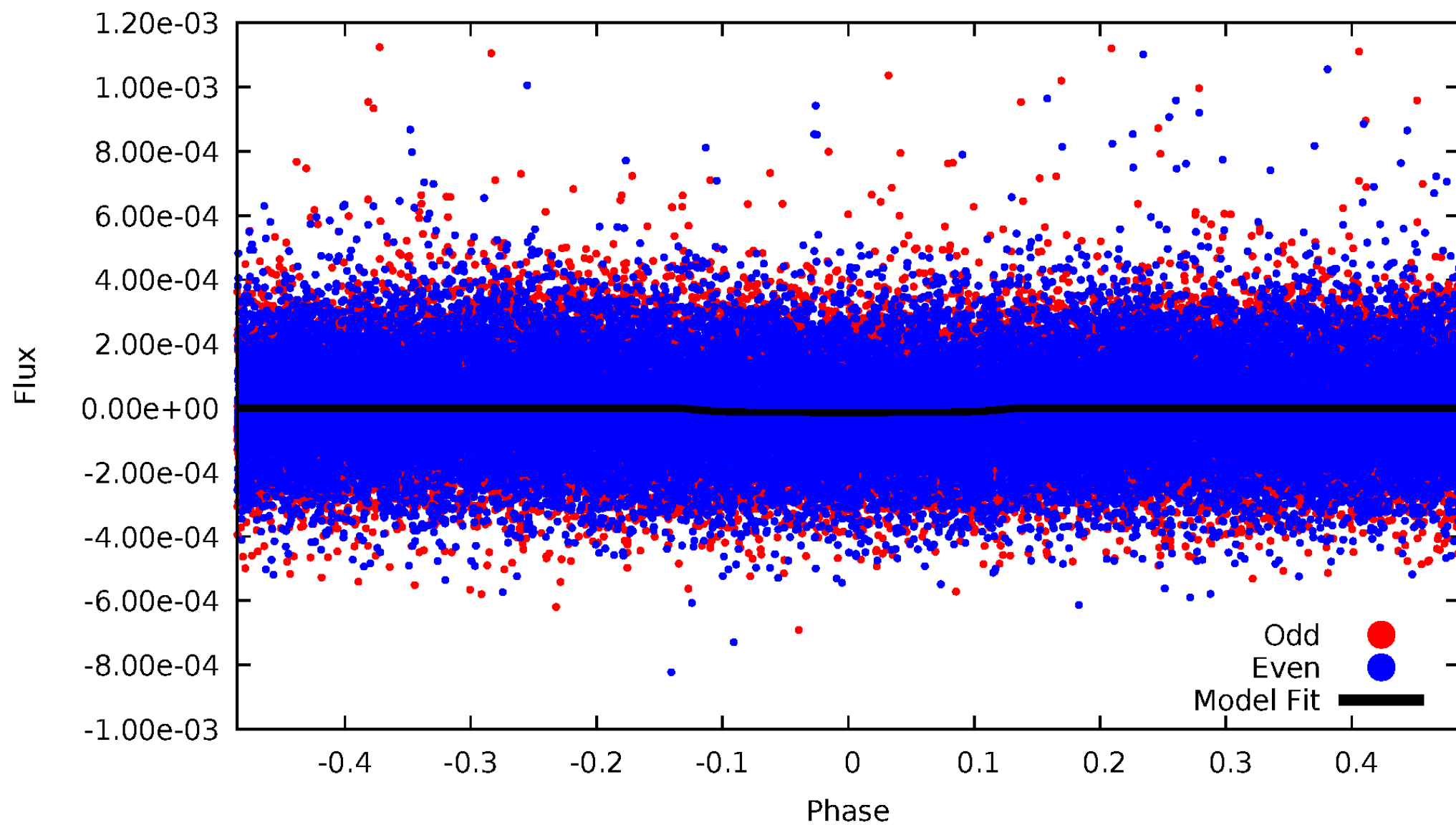


TCE 006391733-01



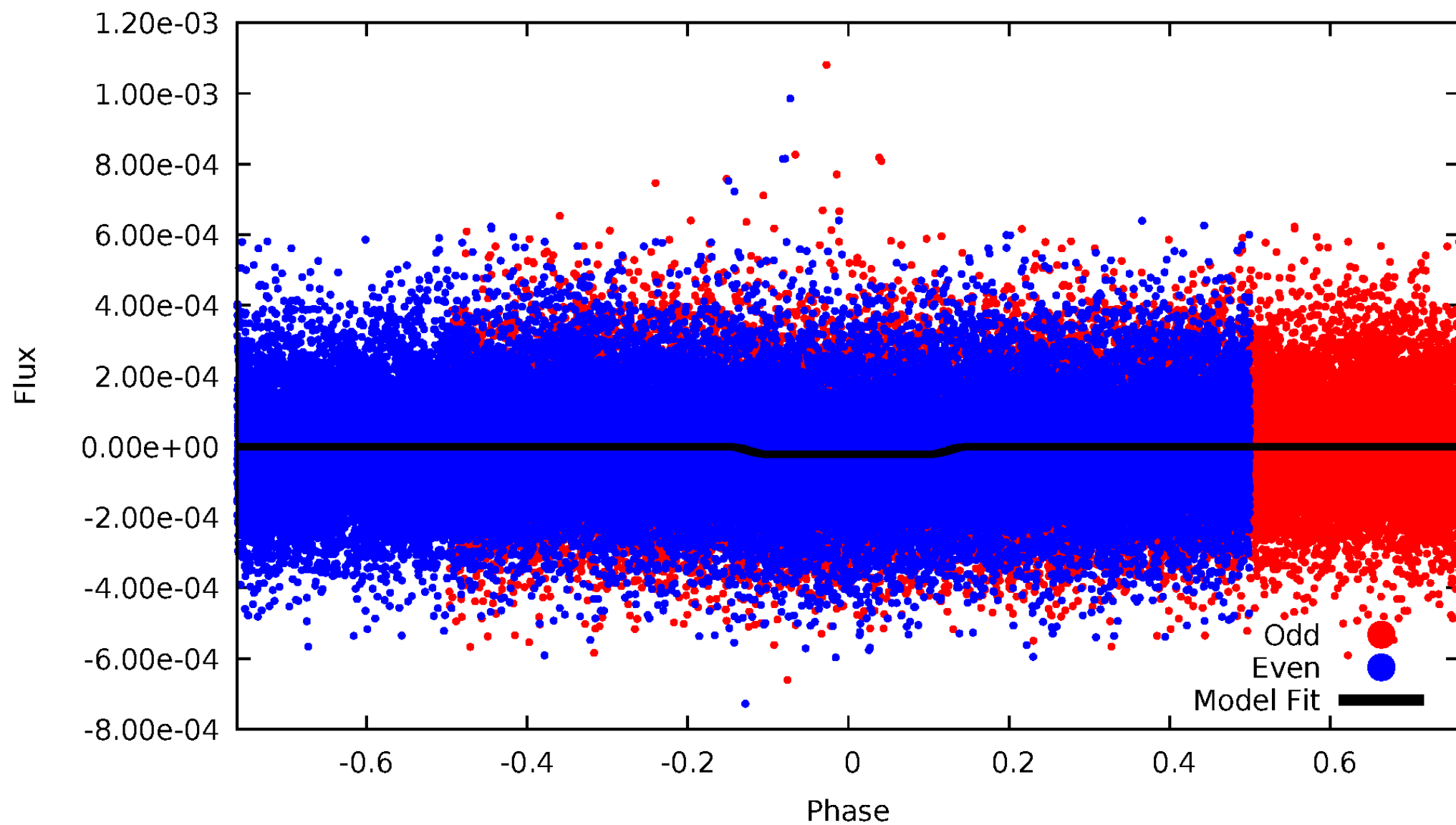
DV Odd/Even

TCE 006391733-01



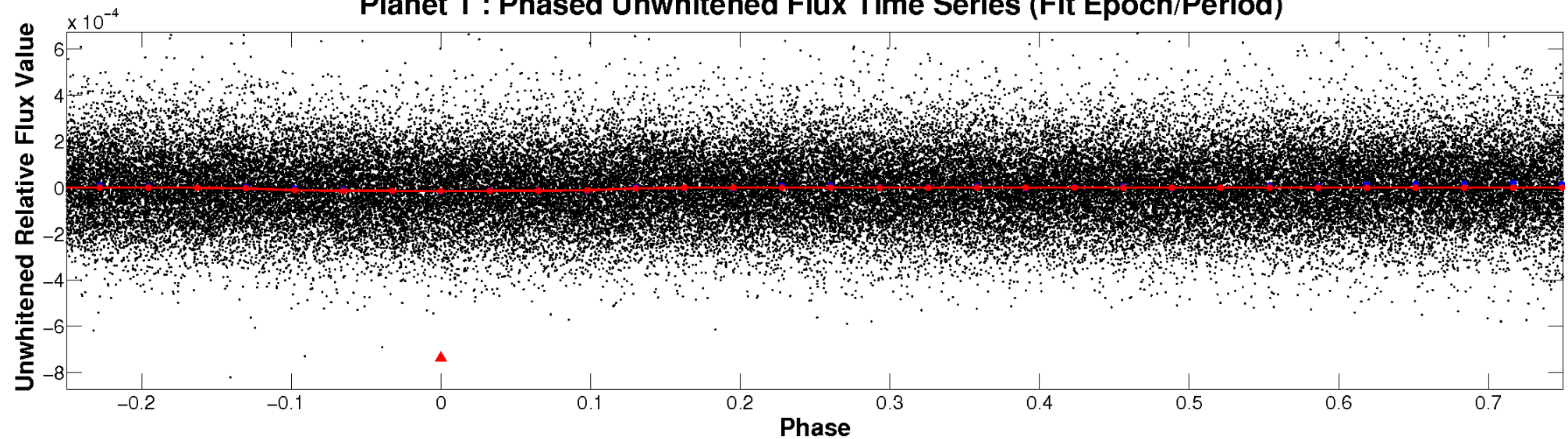
ALT Odd/Even

TCE 006391733-01

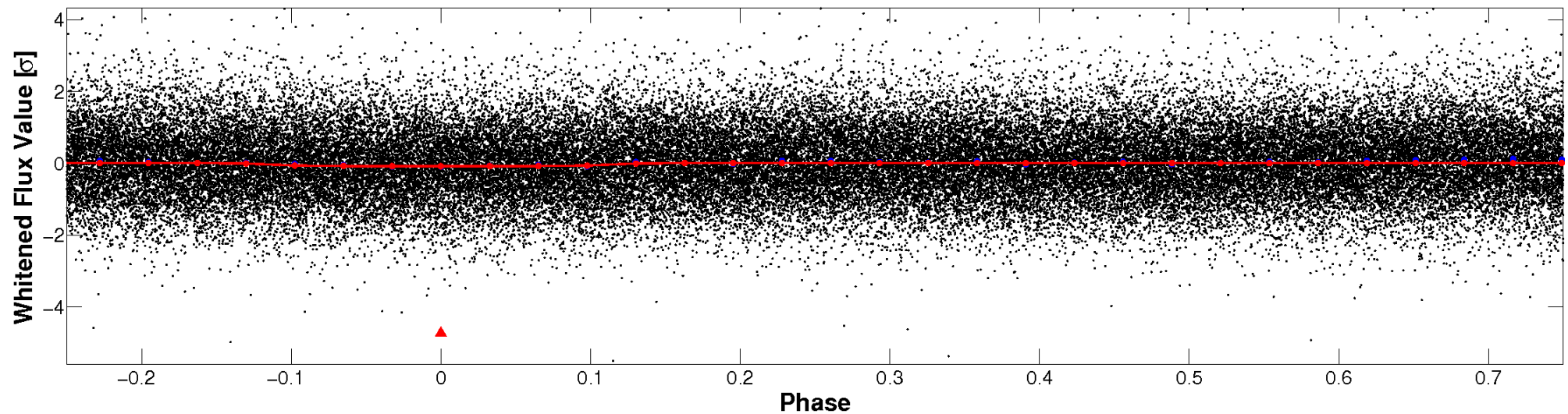


Non-Whitened Vs. Whitened Light Curve

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

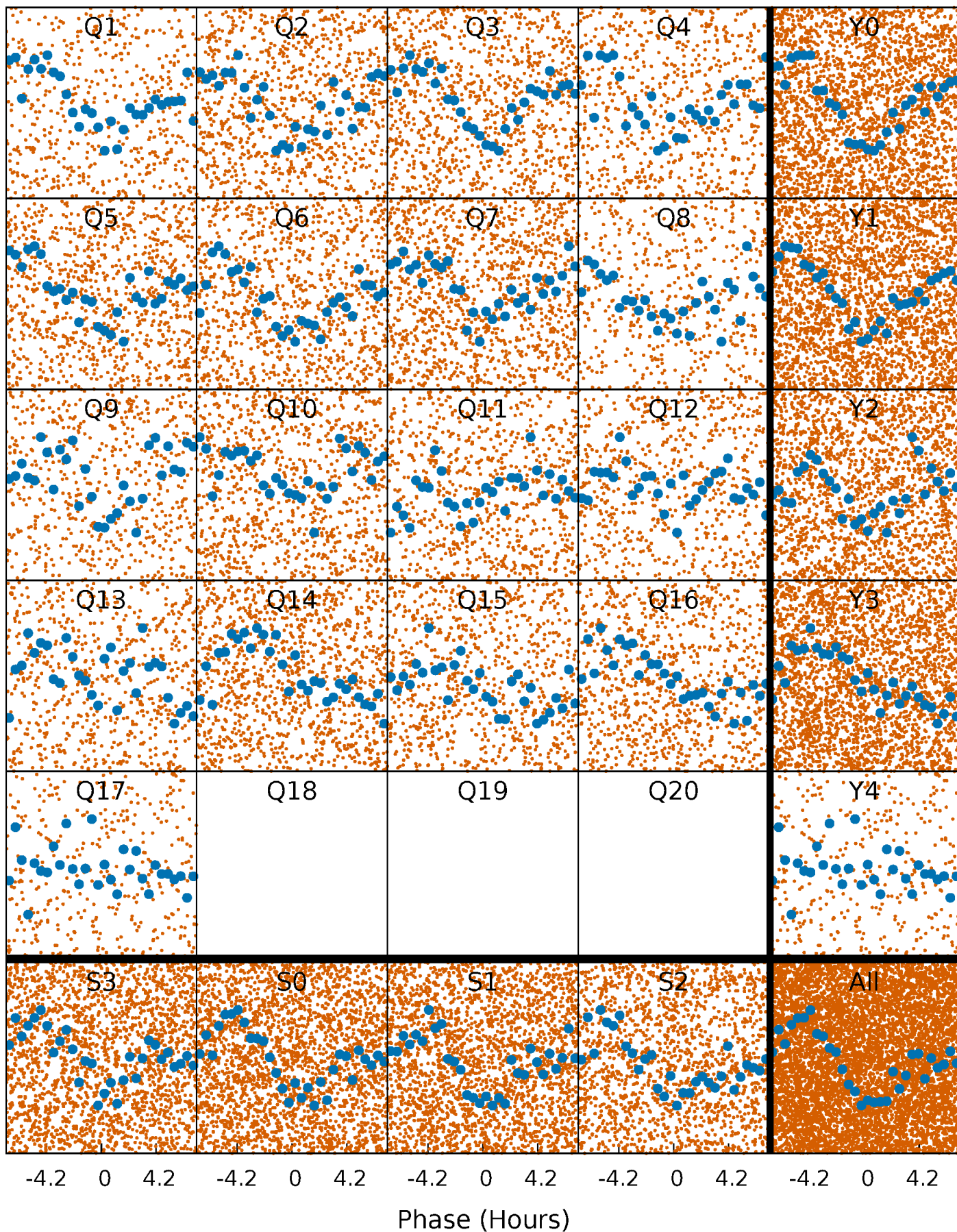


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



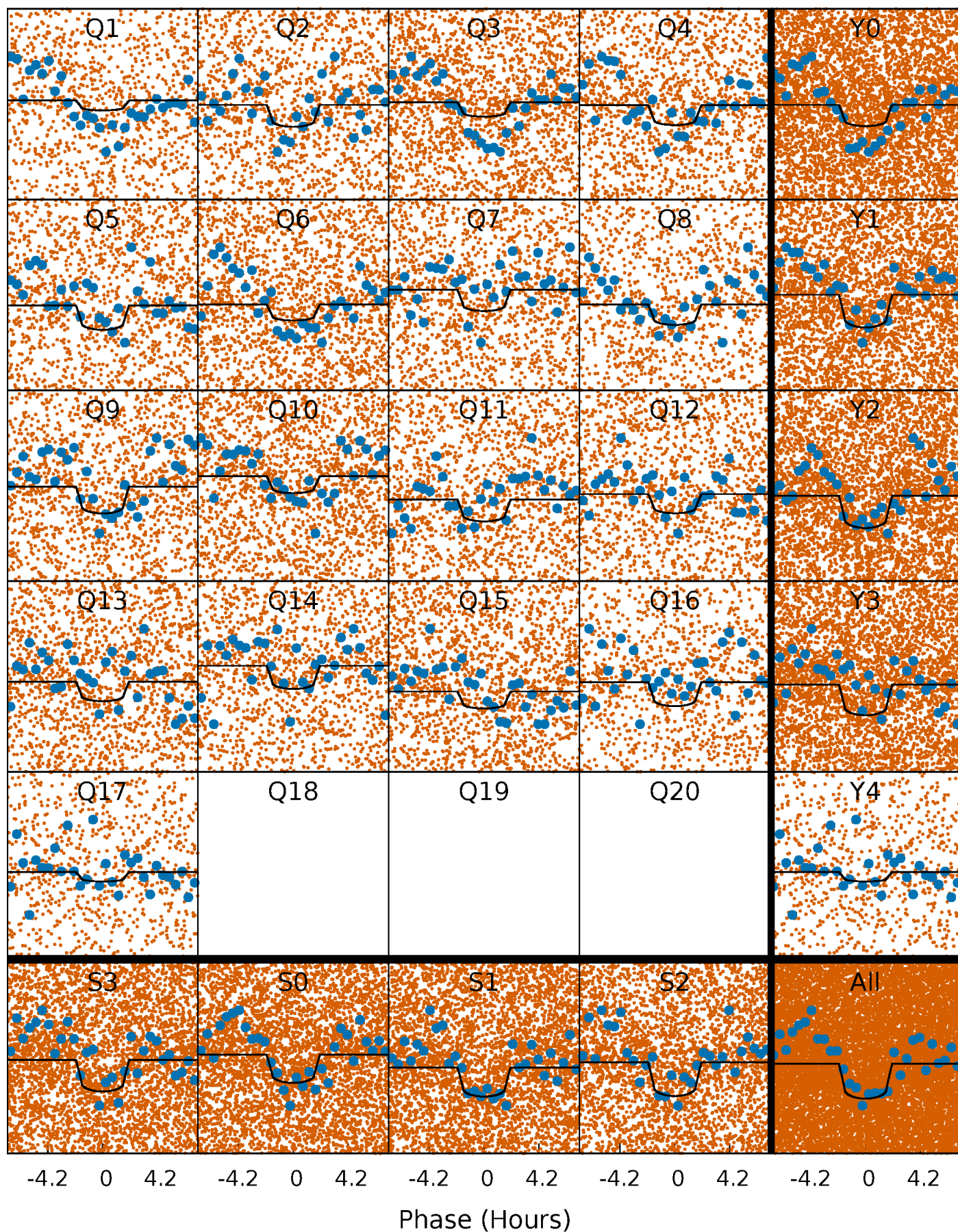
PDC Quarter-Phased Transit Curves

TCE 006391733-01 P= 0.627465 Days $T_0=131.730514$ (BKJD)



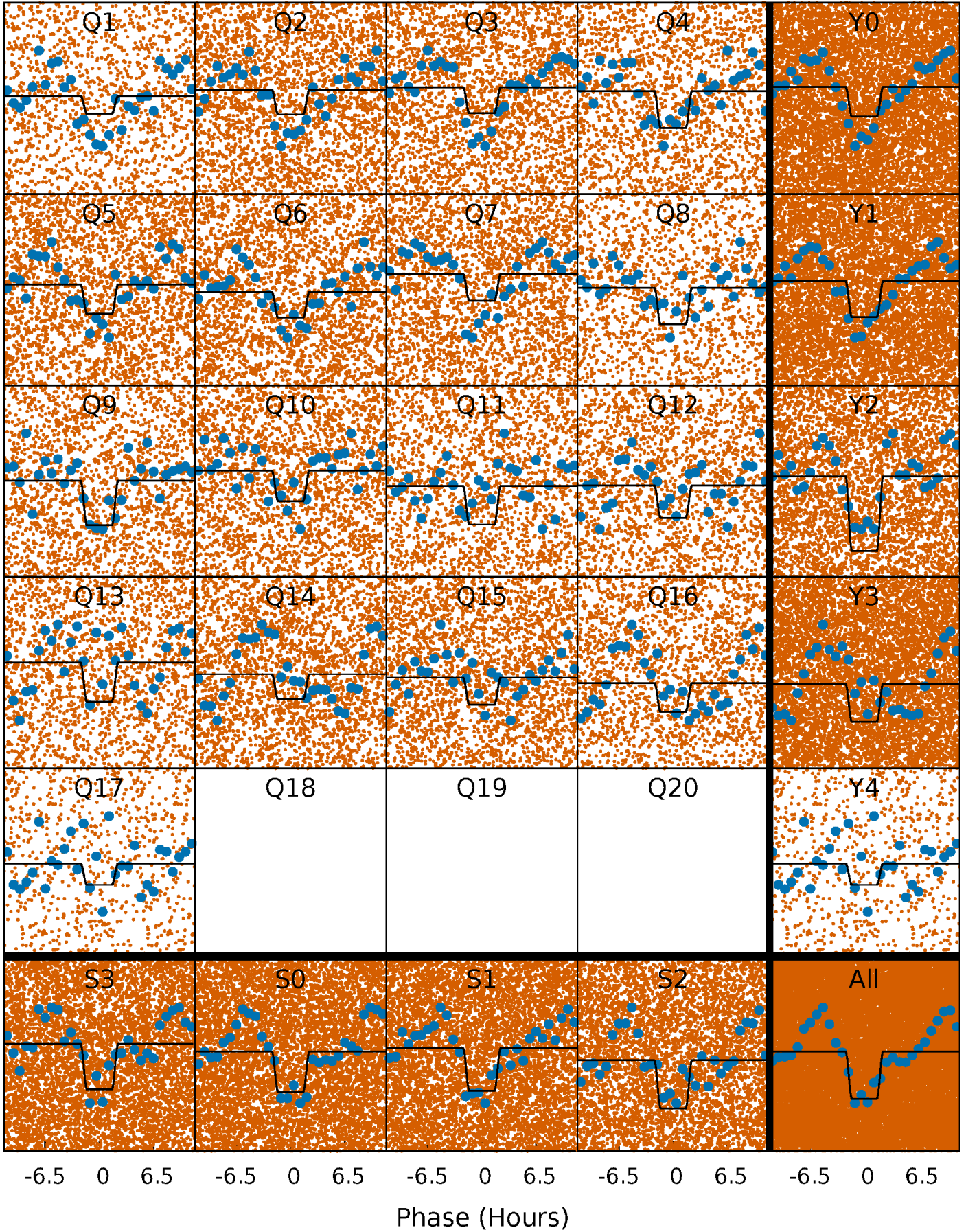
DV Quarter-Phased Transit Curves

TCE 006391733-01 P= 0.627465 Days $T_0=131.730514$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

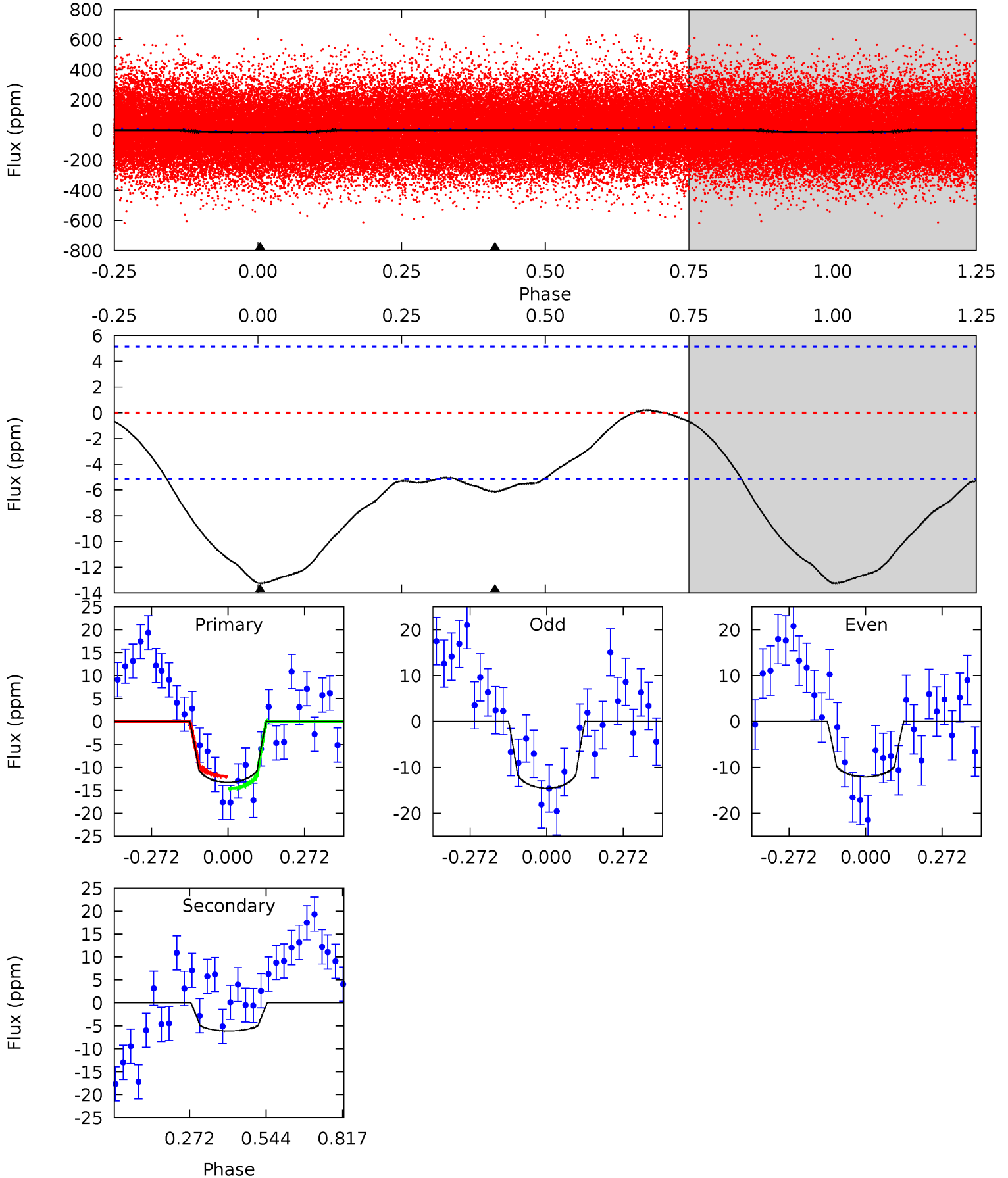
TCE 006391733-01 P= 0.627472 Days $T_0=131.751272$ (BKJD)



DV Model-Shift Uniqueness Test

006391733-01, P = 0.627465 Days, E = 131.103049 Days

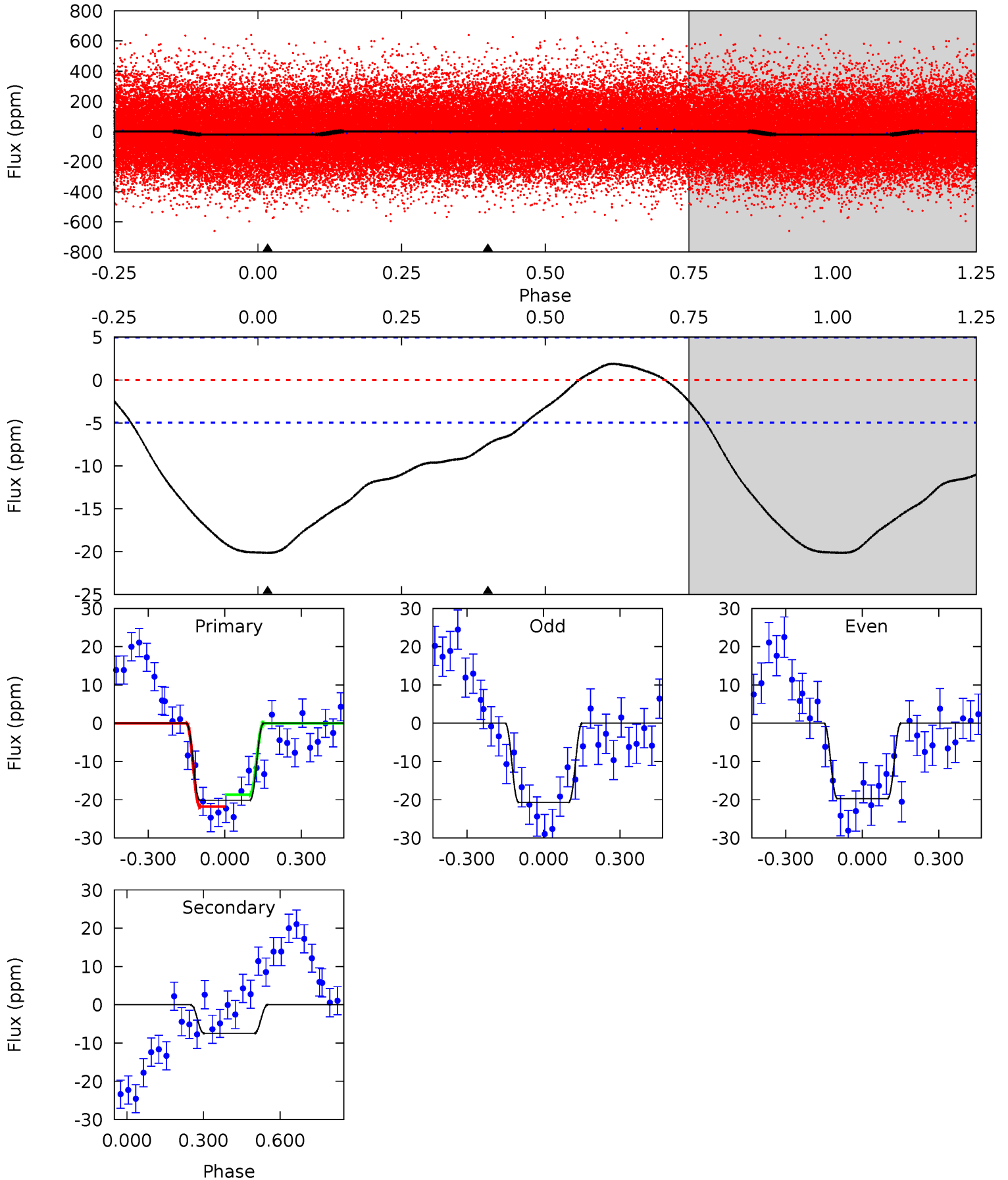
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.2	5.19	0	0	4.35	1.10	0.27	11.2	11.2	5.19	5.19	1.04	0.94	0.02	1.14



Alt Model-Shift Uniqueness Test

006391733-01, P = 0.627472 Days, E = 131.123800 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.6	6.52	0	0	4.33	1.04	1.15	17.6	17.6	6.52	6.52	0.41	0.98	0.09	1.37



Stellar Parameters For KIC 006391733

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	9135^{+292}_{-438}	$4.130^{+0.124}_{-0.186}$	$0.070^{+0.150}_{-0.700}$	$2.092^{+0.728}_{-0.485}$	$2.152^{+0.379}_{-0.521}$	$0.331^{+0.252}_{-0.165}$
	+3%/-5%	+3%/-5%	+214%/-1000%	+35%/-23%	+18%/-24%	+76%/-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 006391733-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-6 ± 1	$0.86^{+0.28}_{-0.24}$	6036^{+472}_{-426}	6606^{+1613}_{-1059}	$1.541^{+1.521}_{-0.686}$
Alt.	-7 ± 1	$1.07^{+0.30}_{-0.26}$	6020^{+466}_{-427}	6050^{+1188}_{-806}	$1.159^{+0.892}_{-0.435}$

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

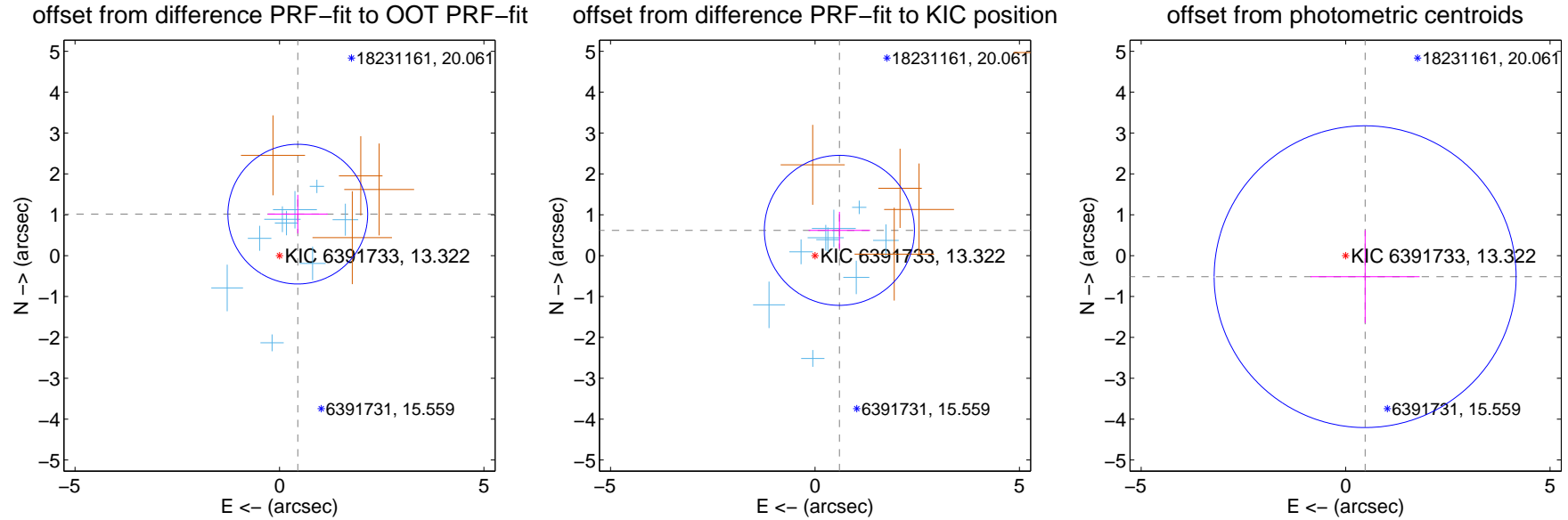
DV Centroid Data

Supplemental centroid analysis for 006391733-01. Kepler magnitude: 13.32. Transit SNR 9.11

There are 9 quarters with good PRF difference image offsets

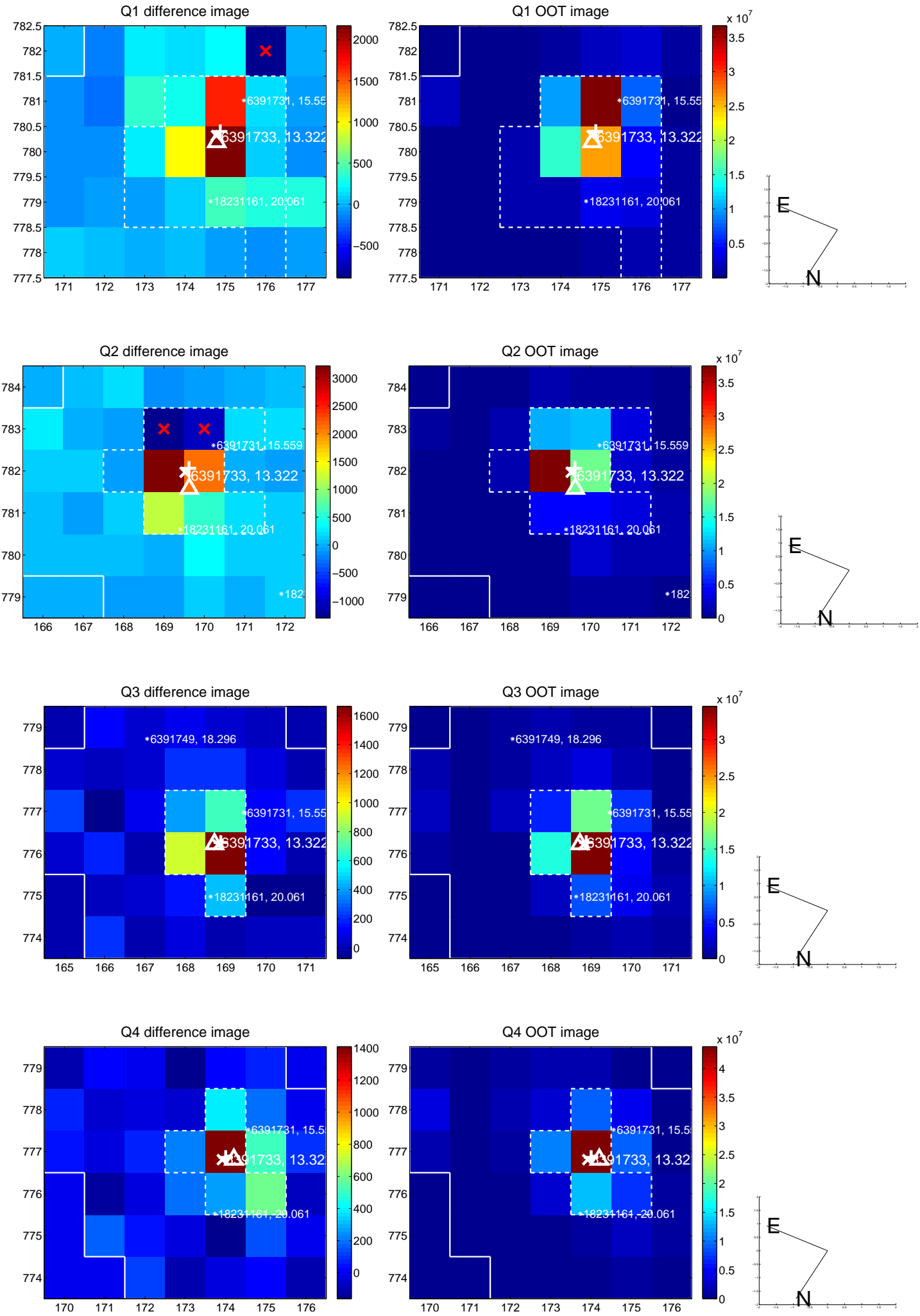
The direct PRF centroid is offset from the target star catalog position by about 0.32 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.110 ± 0.570	1.95	-0.447 ± 0.733	1.016 ± 0.473
PRF-fit source offset from KIC position	0.860 ± 0.612	1.41	-0.597 ± 0.753	0.619 ± 0.452
photometric centroid source offset	0.70 ± 1.23	0.57	-0.48 ± 1.33	-0.51 ± 1.13

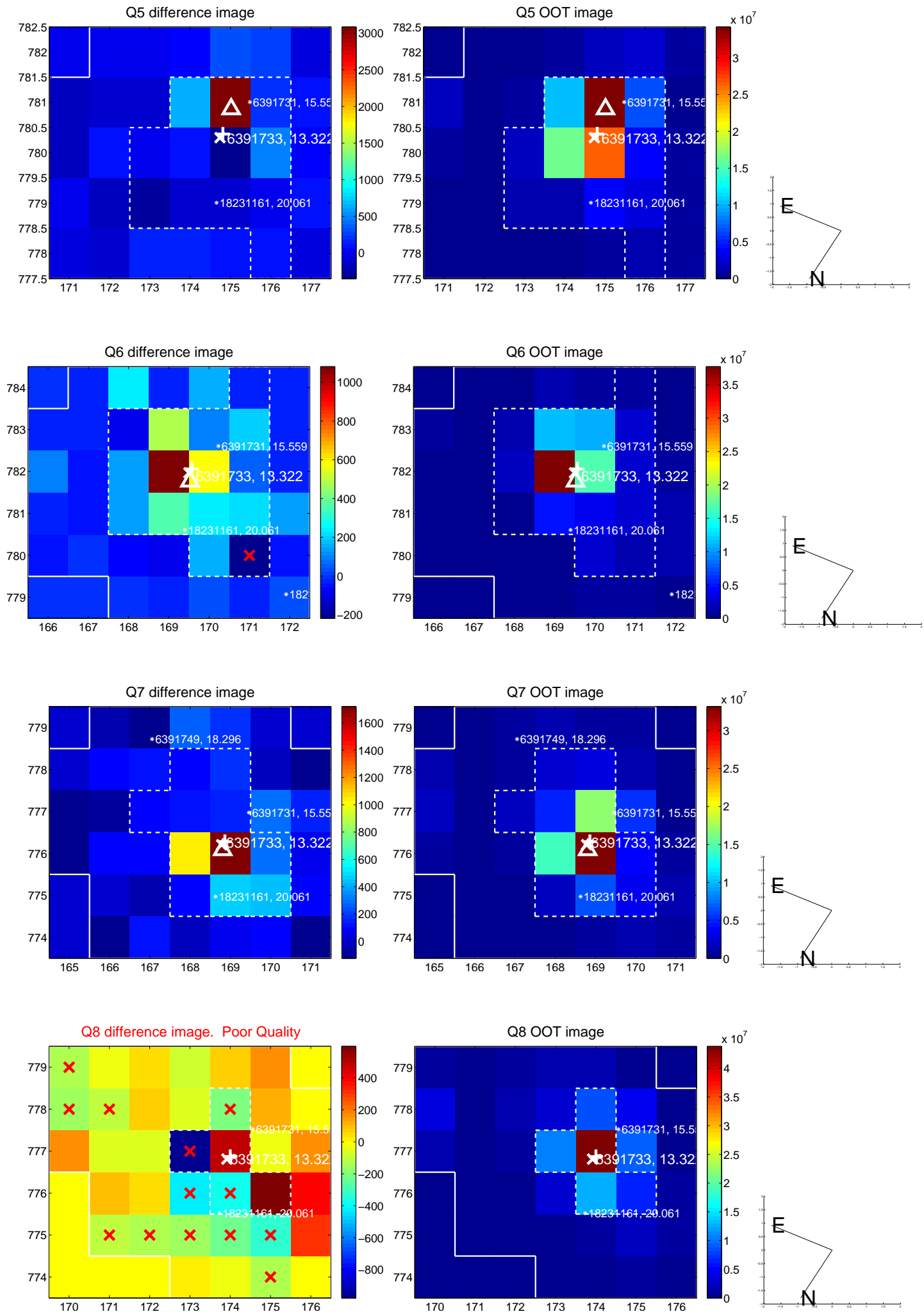


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

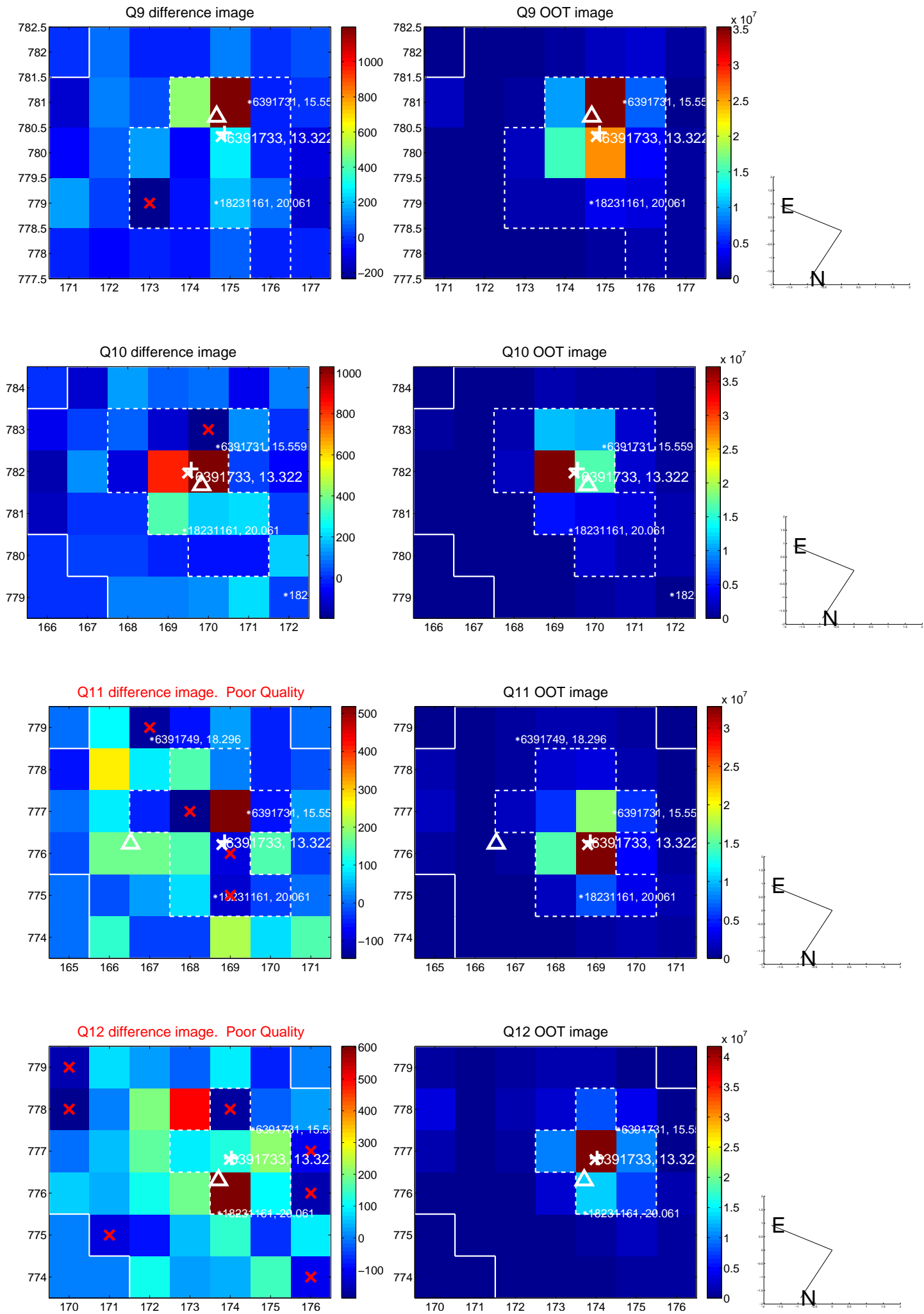
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



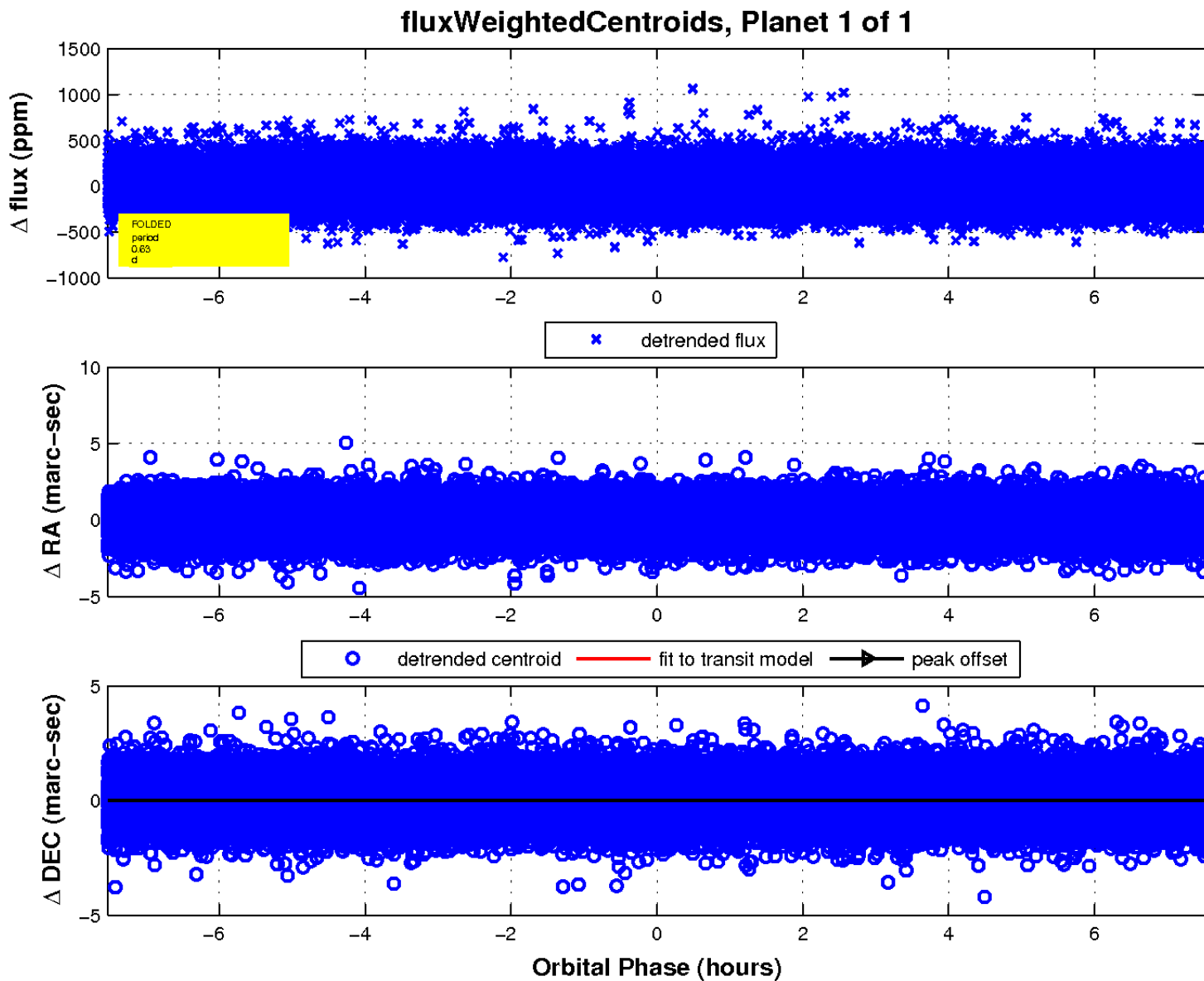
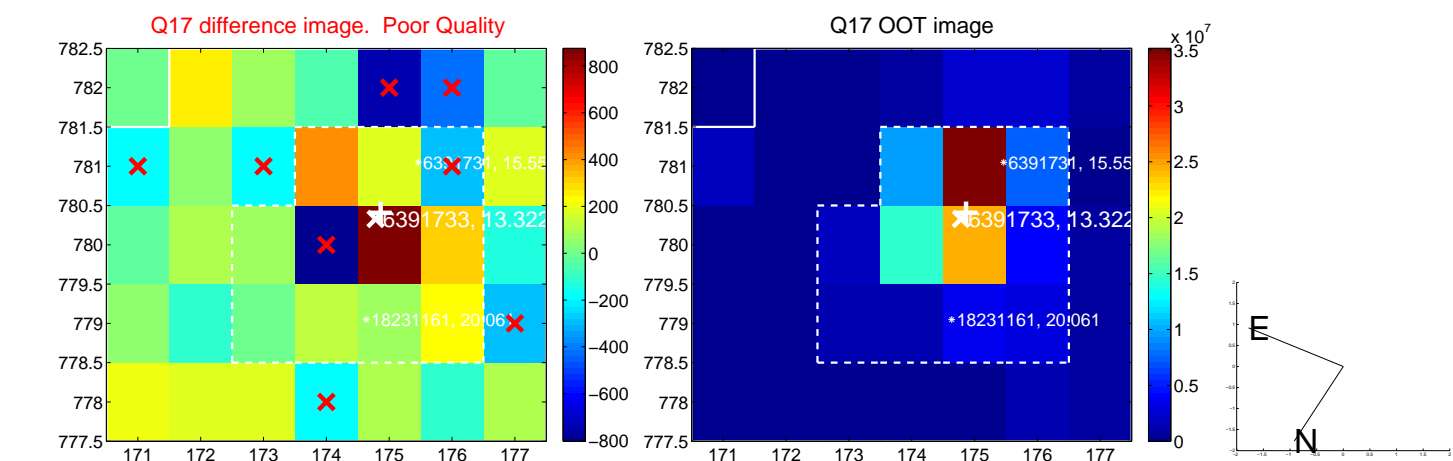
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

