

KIC 003760002

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})
003760002-01	OBS	No	0.915861	132.277931	62.4	6.023	11.8	14.6	2.04	7269	1.65	22324.10

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003760002-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_SATURATED

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

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

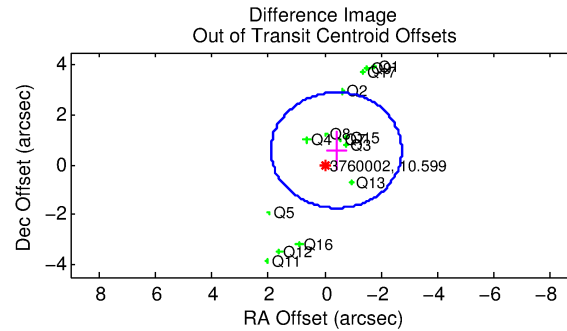
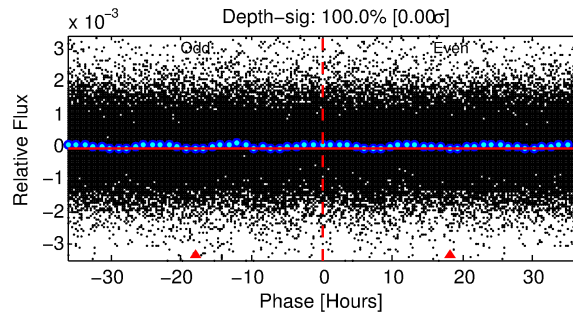
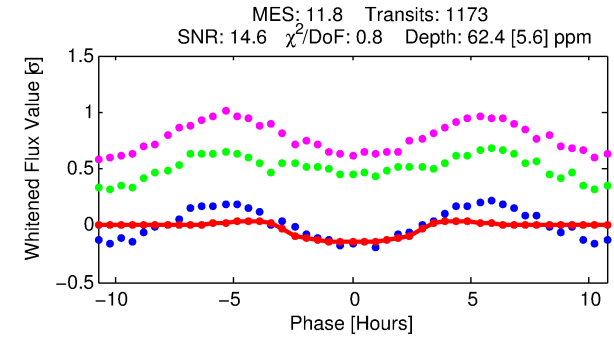
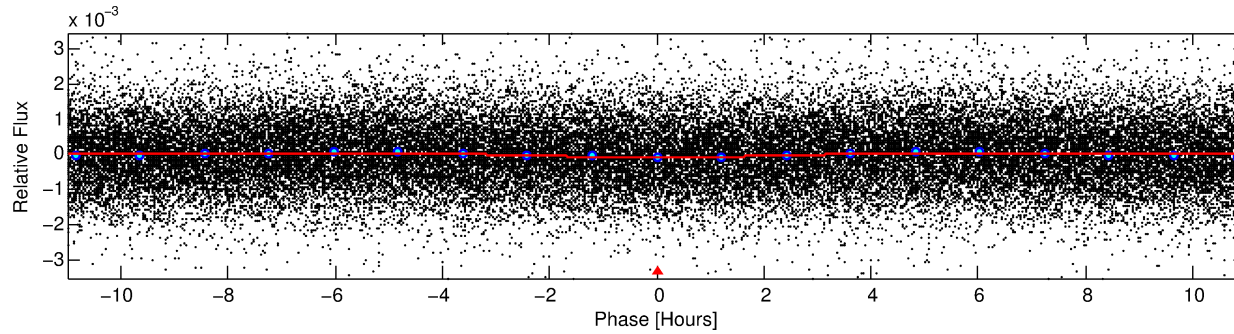
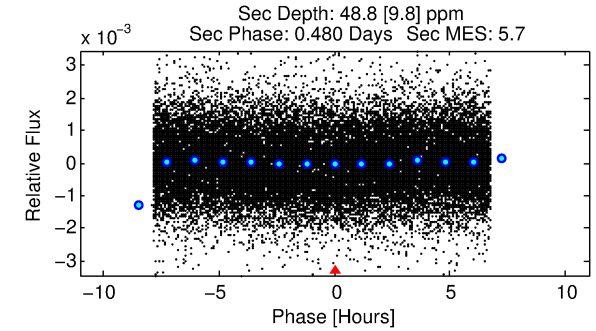
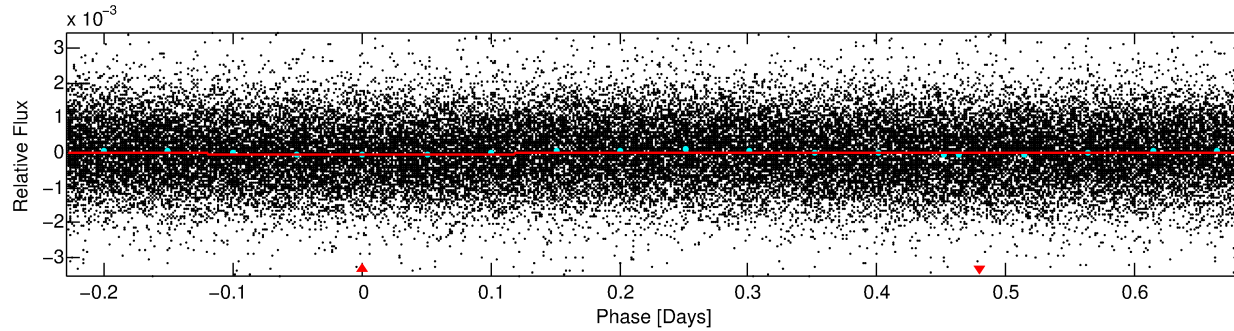
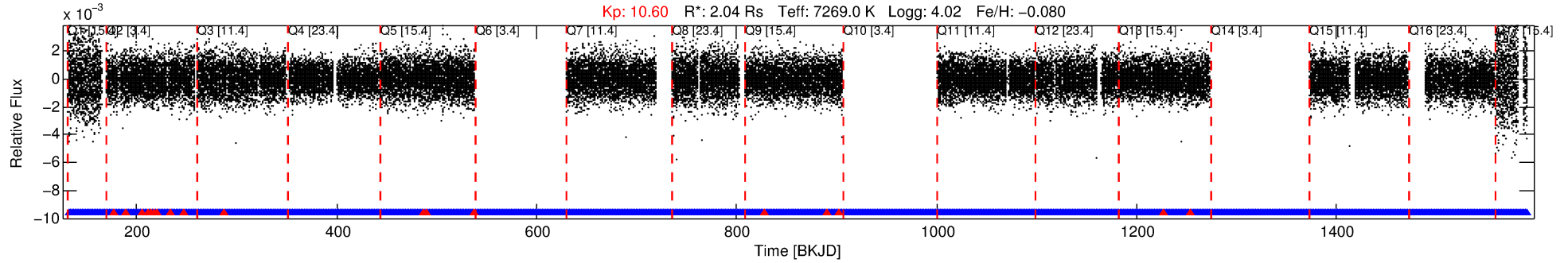
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003760002-01

No Significant Match Found

DV One-Page Summary

KIC: 3760002 Candidate: 1 of 1 Period: 0.916 d



DV Fit Results:

Period = 0.91586 [0.00001] d
Epoch = 132.2779 [0.0053] BKJD
Rp/R* = 0.0074 [0.0081]
a/R* = 1.30 [3.42]
b = 0.30 [19.67]
Seff = 22324.10 [9520.75]
Teq = 3117 [332] K
Rp = 1.65 [1.85] Re
a = 0.0216 [0.0054] AU
Ag = 4.62 [10.28] [0.35σ]
Teffp = 7067 [3882] K [1.01σ]

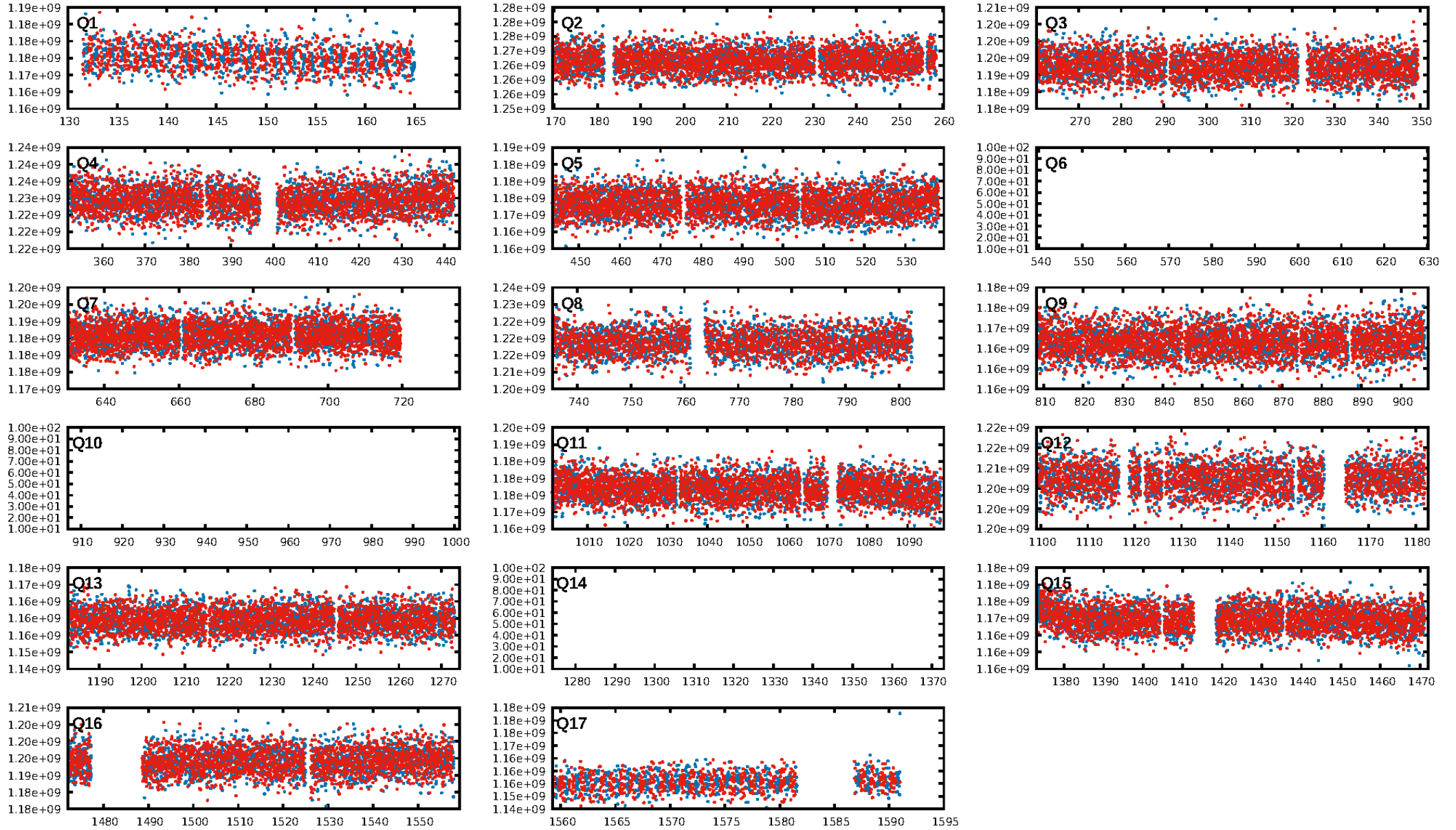
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.58e-27
RollingBand-fgt: 0.98 [1089/1108]
GhostDiagnostic-chr: 2.235
Centroid-sig: 23.6%
Centroid-so: 0.204 arcsec [1.06σ]
OotOffset-rm: 0.712 arcsec [0.92σ]
OotOffset-st: 1/4/4/5 [14]
KicOffset-rm: 0.875 arcsec [1.29σ]
KicOffset-st: 1/4/4/5 [14]
DiffImageQuality-fgm: 0.29 [4/14]
DiffImageOverlap-fno: 1.00 [14/14]

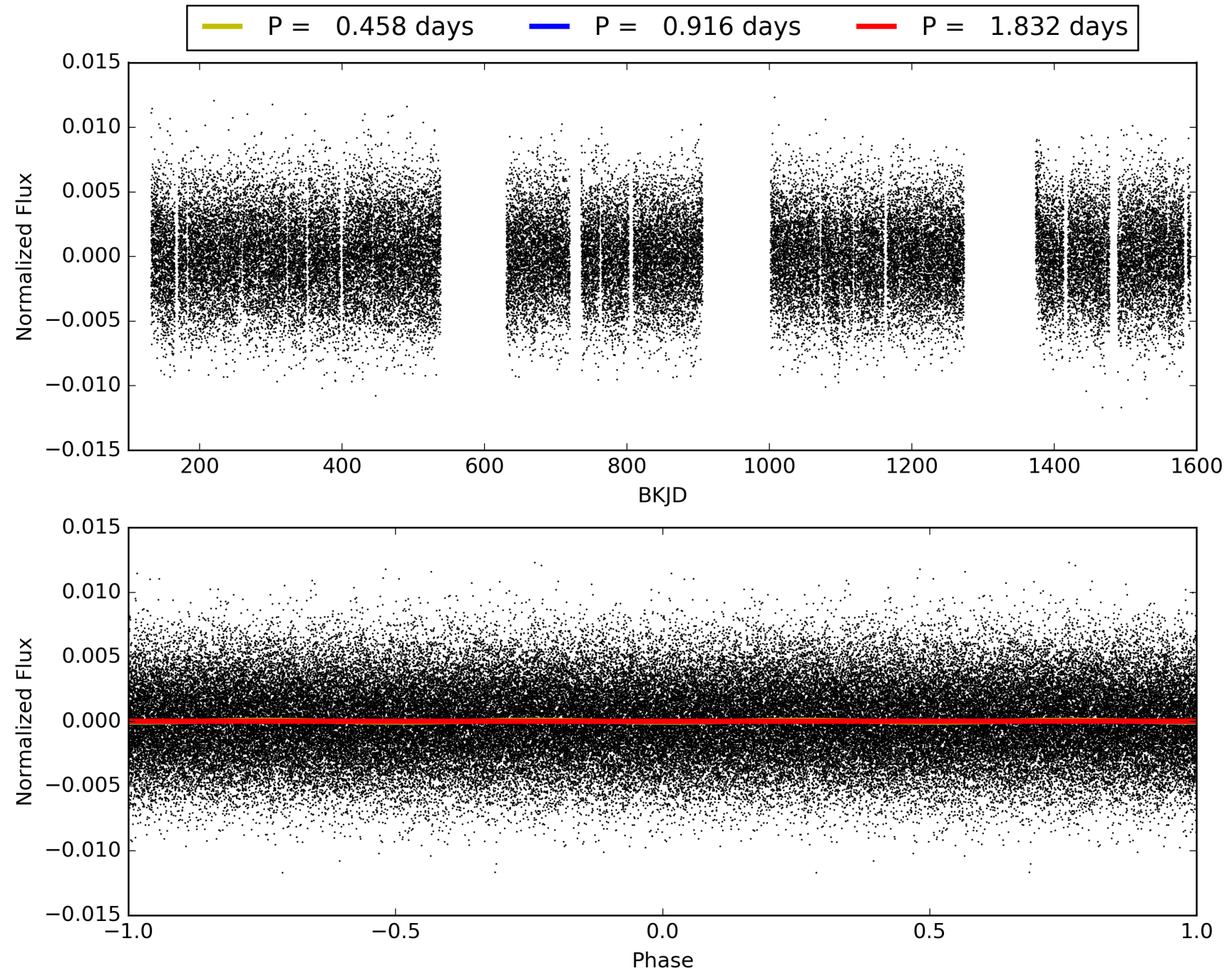
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:01:41 Z

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

TCE 003760002-01, PDC Light Curves

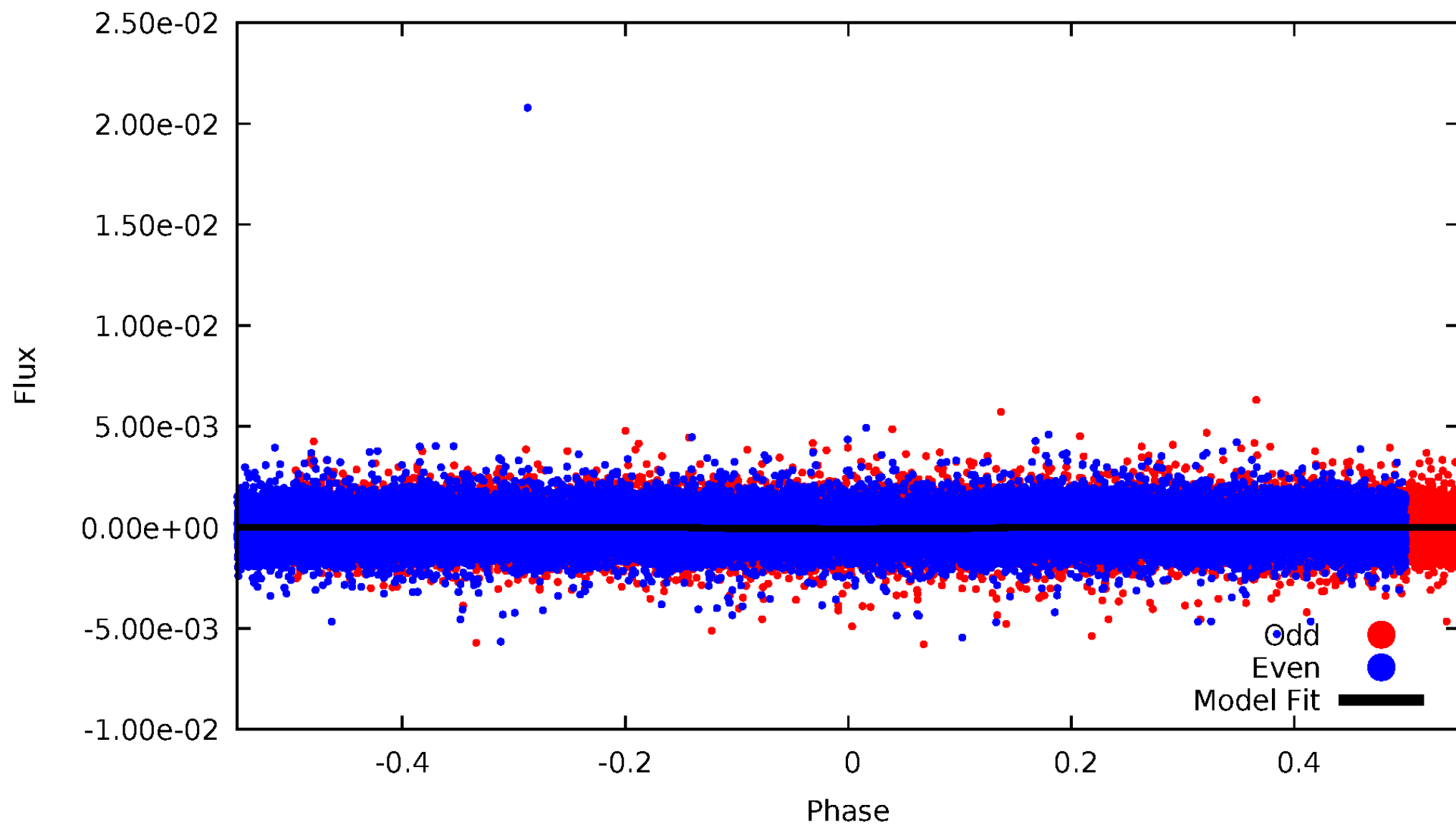


TCE 003760002-01



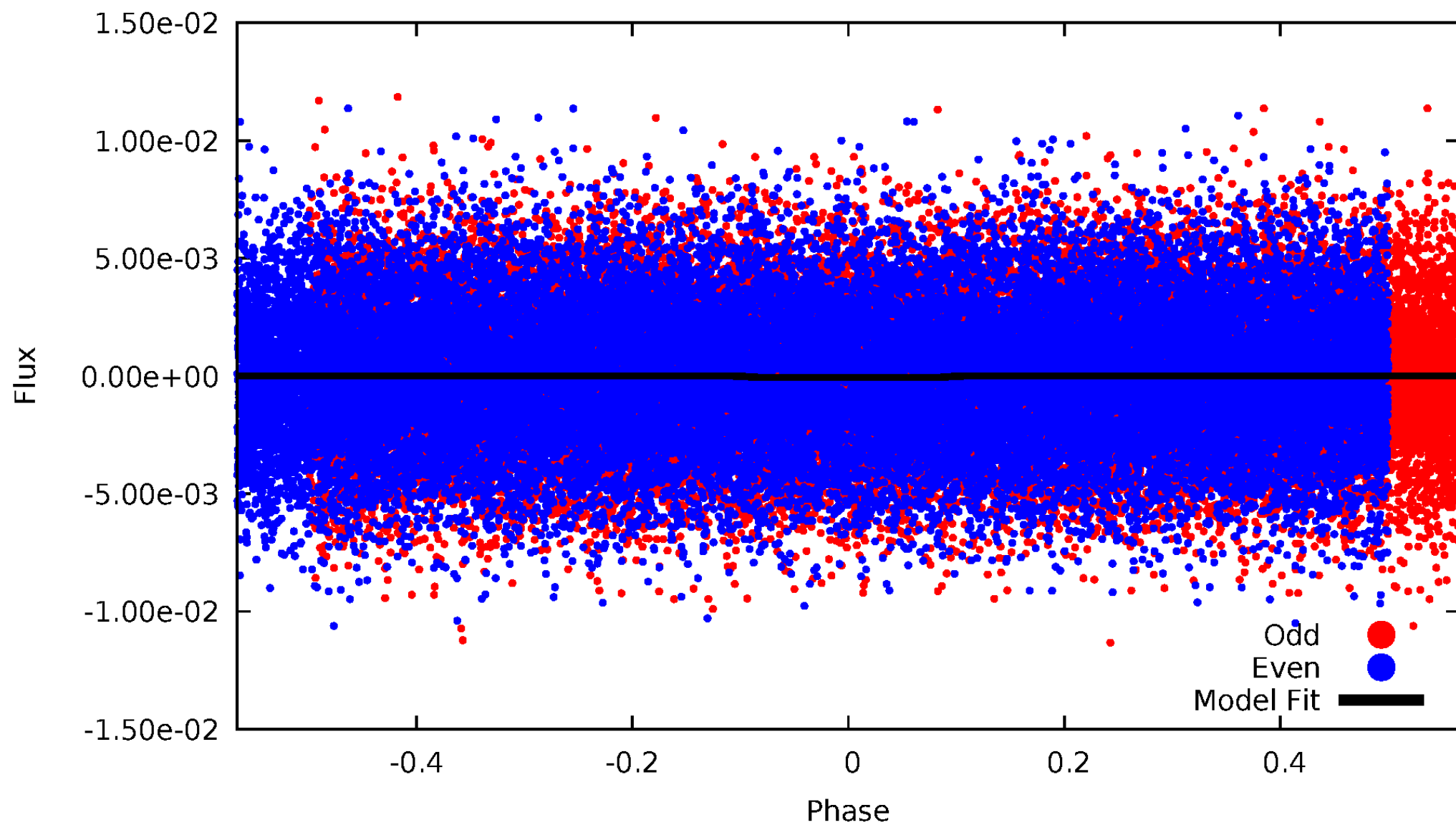
DV Odd/Even

TCE 003760002-01



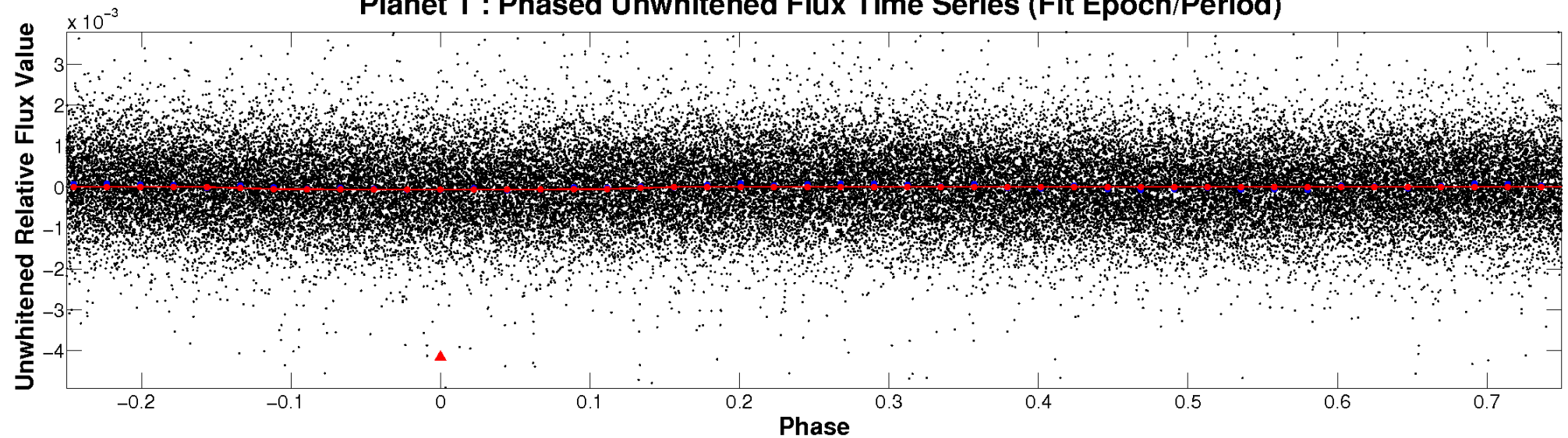
ALT Odd/Even

TCE 003760002-01

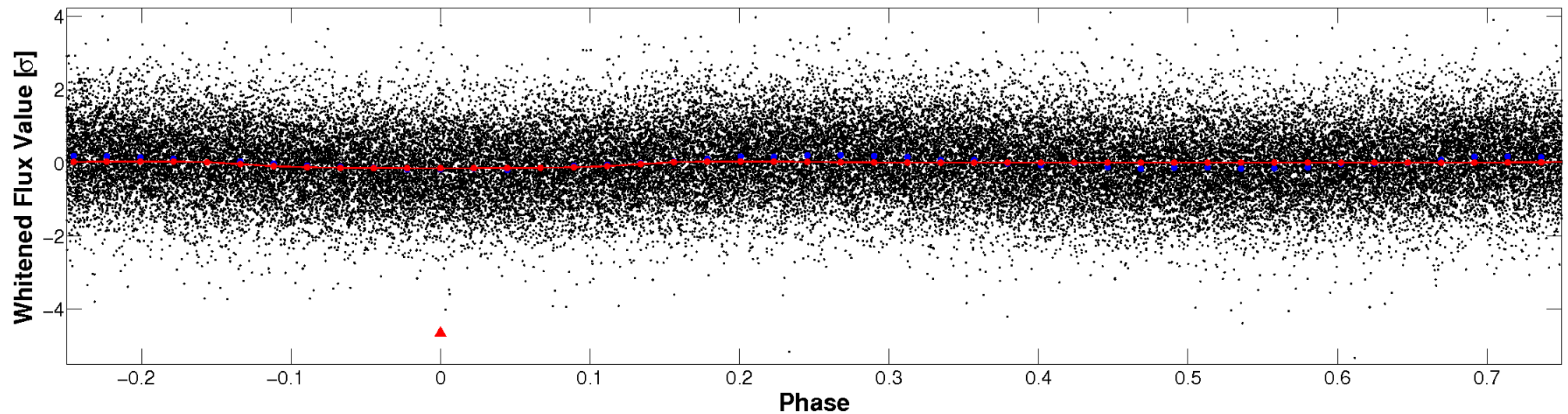


Non-Whitened Vs. Whitened Light Curve

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

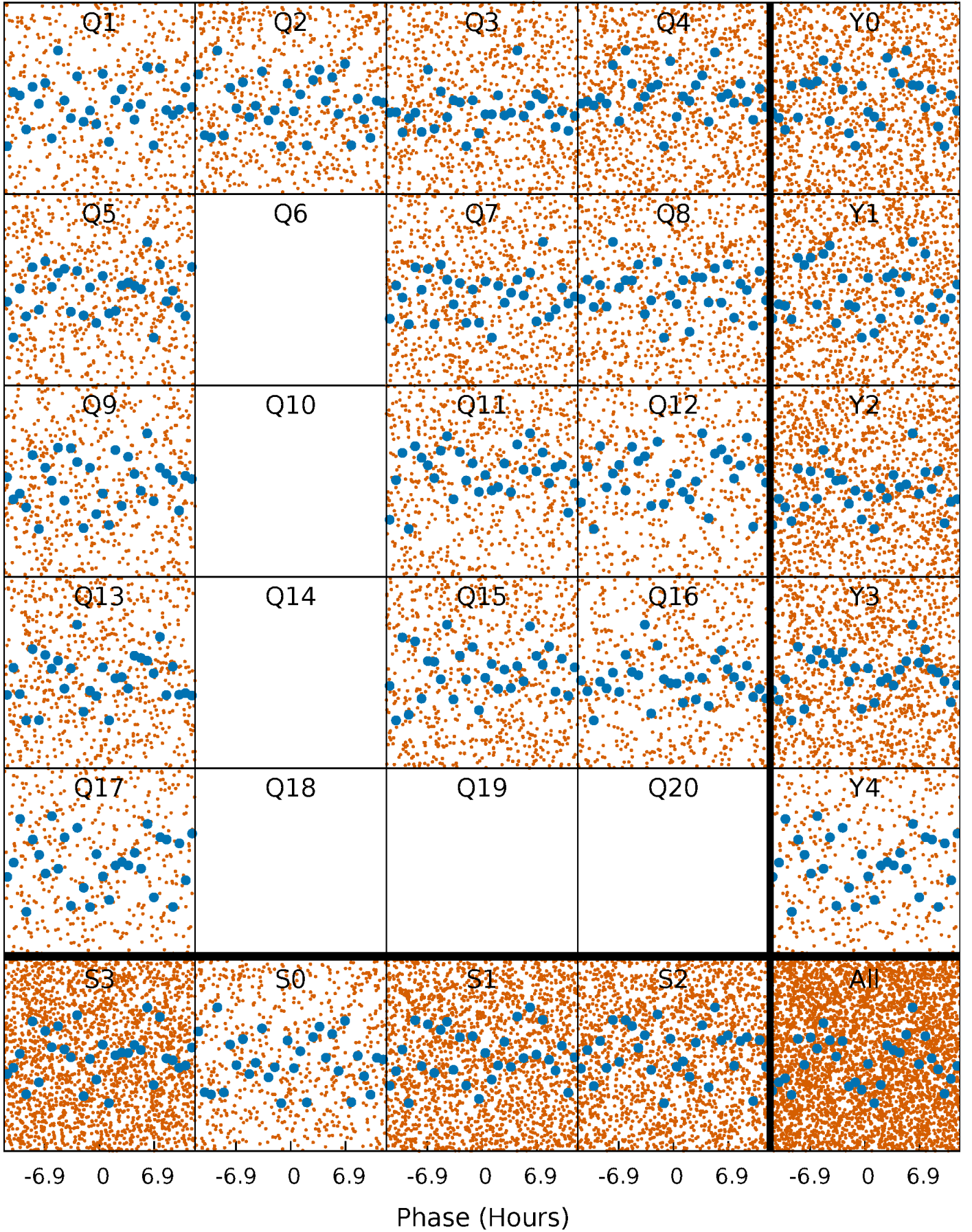


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



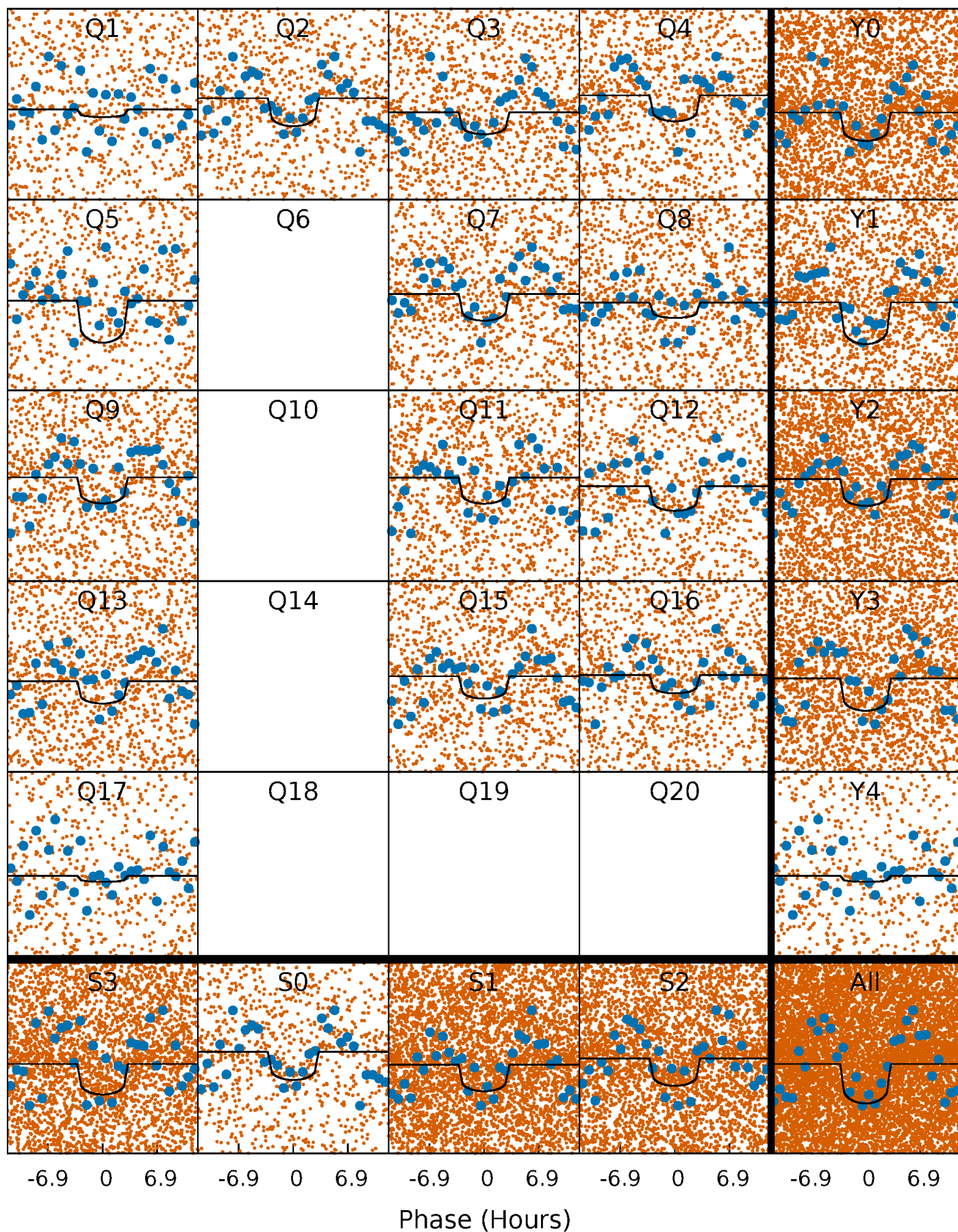
PDC Quarter-Phased Transit Curves

TCE 003760002-01 P= 0.915861 Days $T_0=132.277931$ (BKJD)



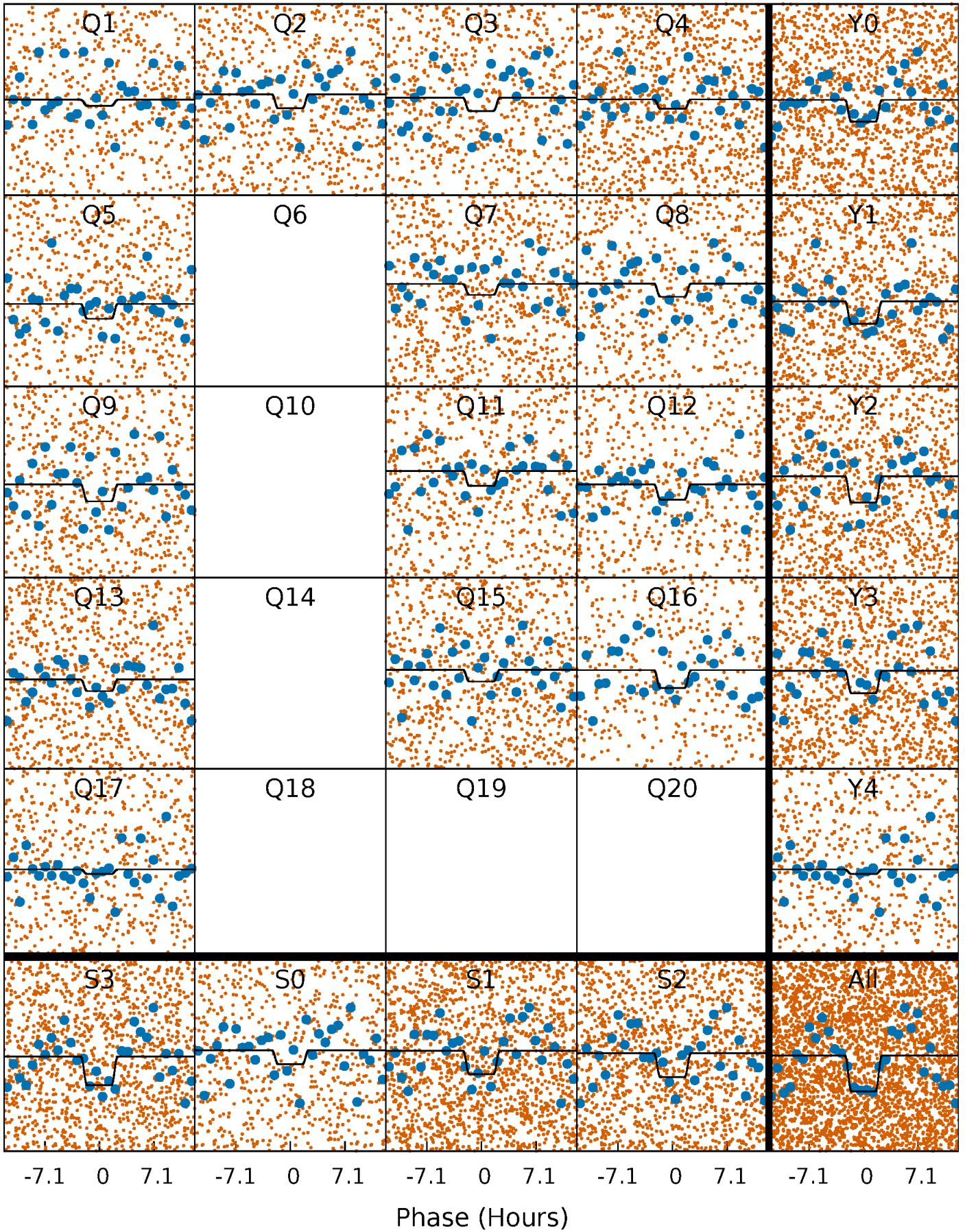
DV Quarter-Phased Transit Curves

TCE 003760002-01 P= 0.915861 Days $T_0=132.277931$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

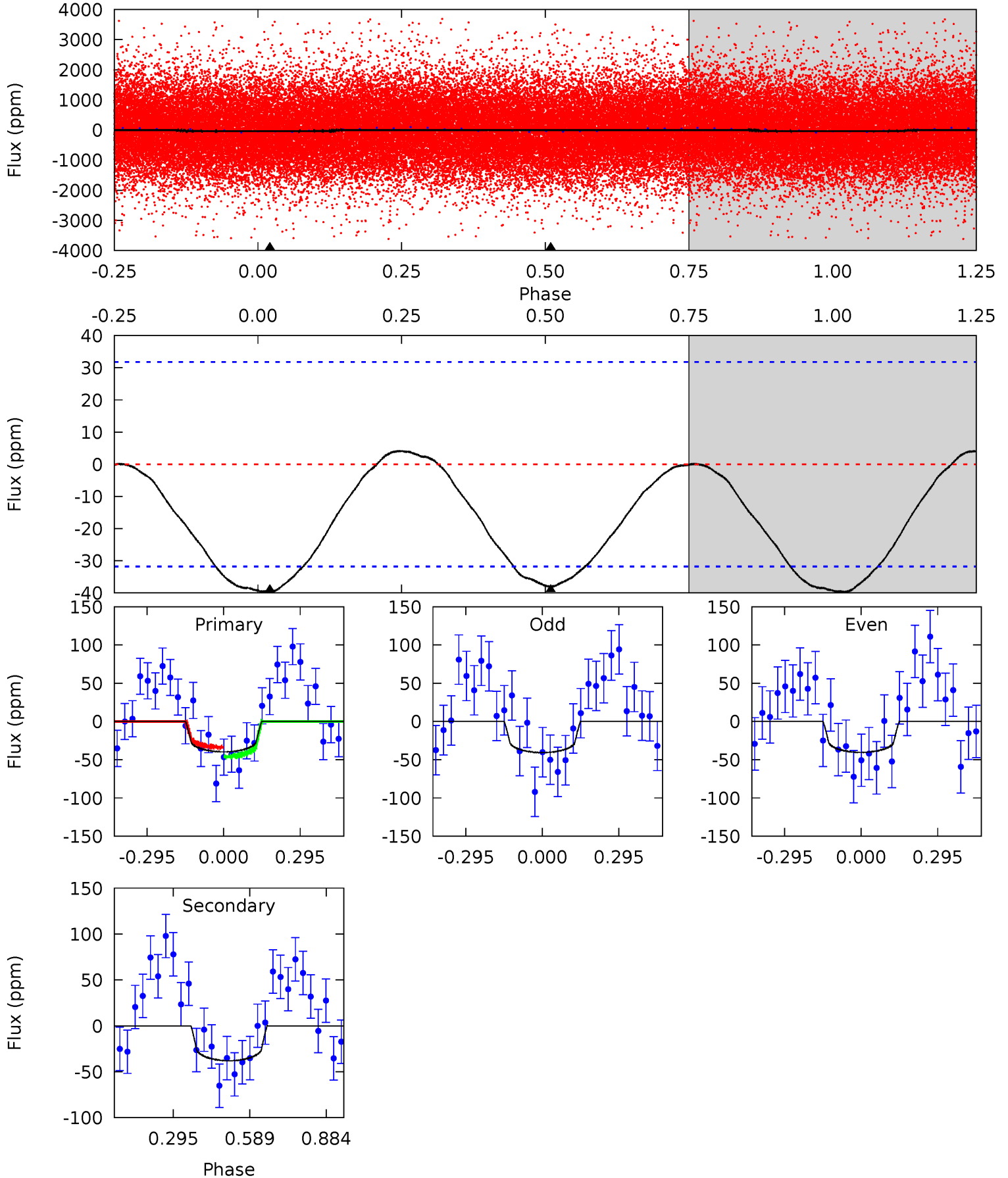
TCE 003760002-01 P= 0.915912 Days $T_0=132.242706$ (BKJD)



DV Model-Shift Uniqueness Test

003760002-01, P = 0.915861 Days, E = 131.362070 Days

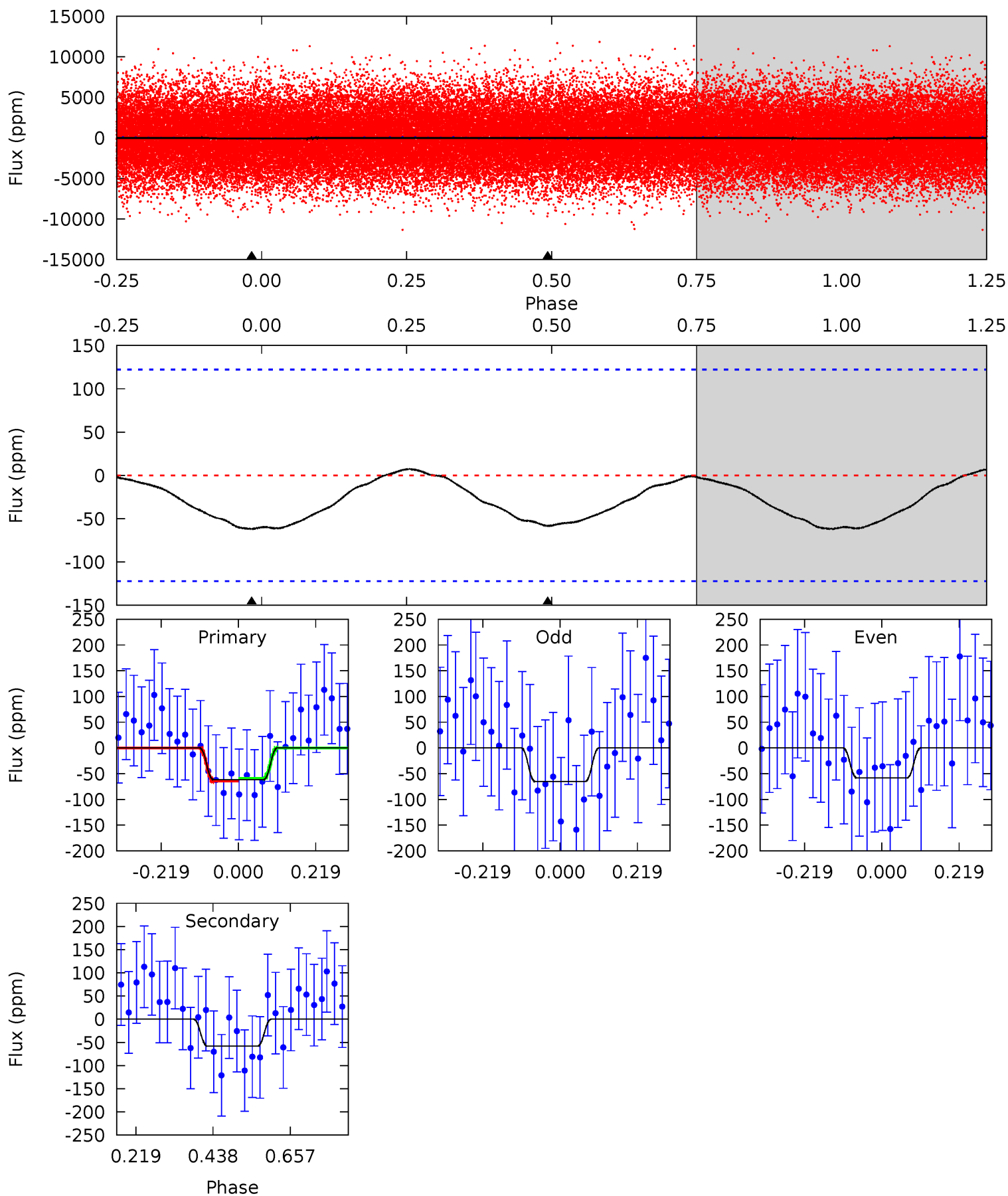
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.42	5.19	0	0	4.33	1.05	0.28	5.42	5.42	5.19	5.19	0.02	1.09	0.09	0.86



Alt Model-Shift Uniqueness Test

003760002-01, P = 0.915912 Days, E = 131.326794 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.22	2.10	0	0	4.40	1.23	0.15	2.22	2.22	2.10	2.10	0.12	0.89	0.10	0.09



Stellar Parameters For KIC 003760002

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7269^{+201}_{-327}	$4.023^{+0.222}_{-0.167}$	$-0.080^{+0.200}_{-0.400}$	$2.040^{+0.559}_{-0.559}$	$1.597^{+0.212}_{-0.318}$	$0.265^{+0.332}_{-0.131}$
	+3%/-4%	+6%/-4%	+250%/-500%	+27%/-27%	+13%/-20%	+125%/-49%
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 003760002-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-38 ± 7	$2.08^{+1.58}_{-1.31}$	4316^{+315}_{-357}	5512^{+4589}_{-1456}	$2.242^{+13.547}_{-1.559}$
Alt.	-58 ± 28	$2.15^{+1.81}_{-1.34}$	4307^{+350}_{-337}	5922^{+5538}_{-1810}	$2.863^{+18.544}_{-2.135}$

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

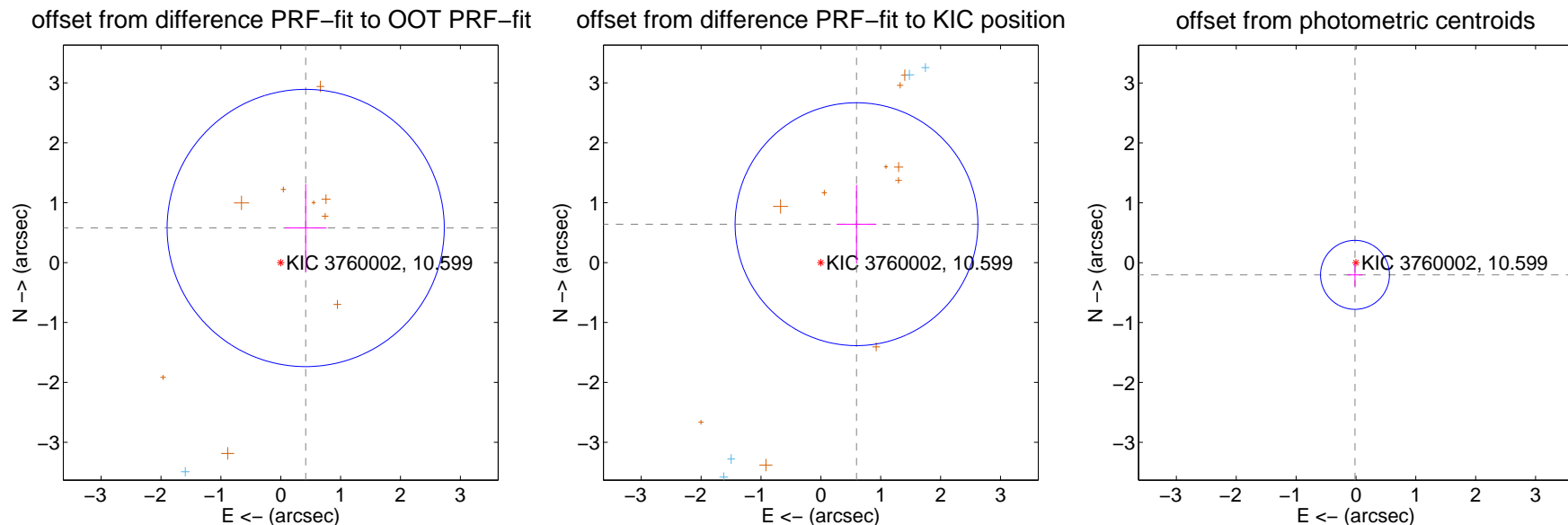
DV Centroid Data

Supplemental centroid analysis for 003760002-01. **Kepler magnitude: 10.60.** Transit SNR 14.64

There are 4 quarters with good PRF difference image offsets

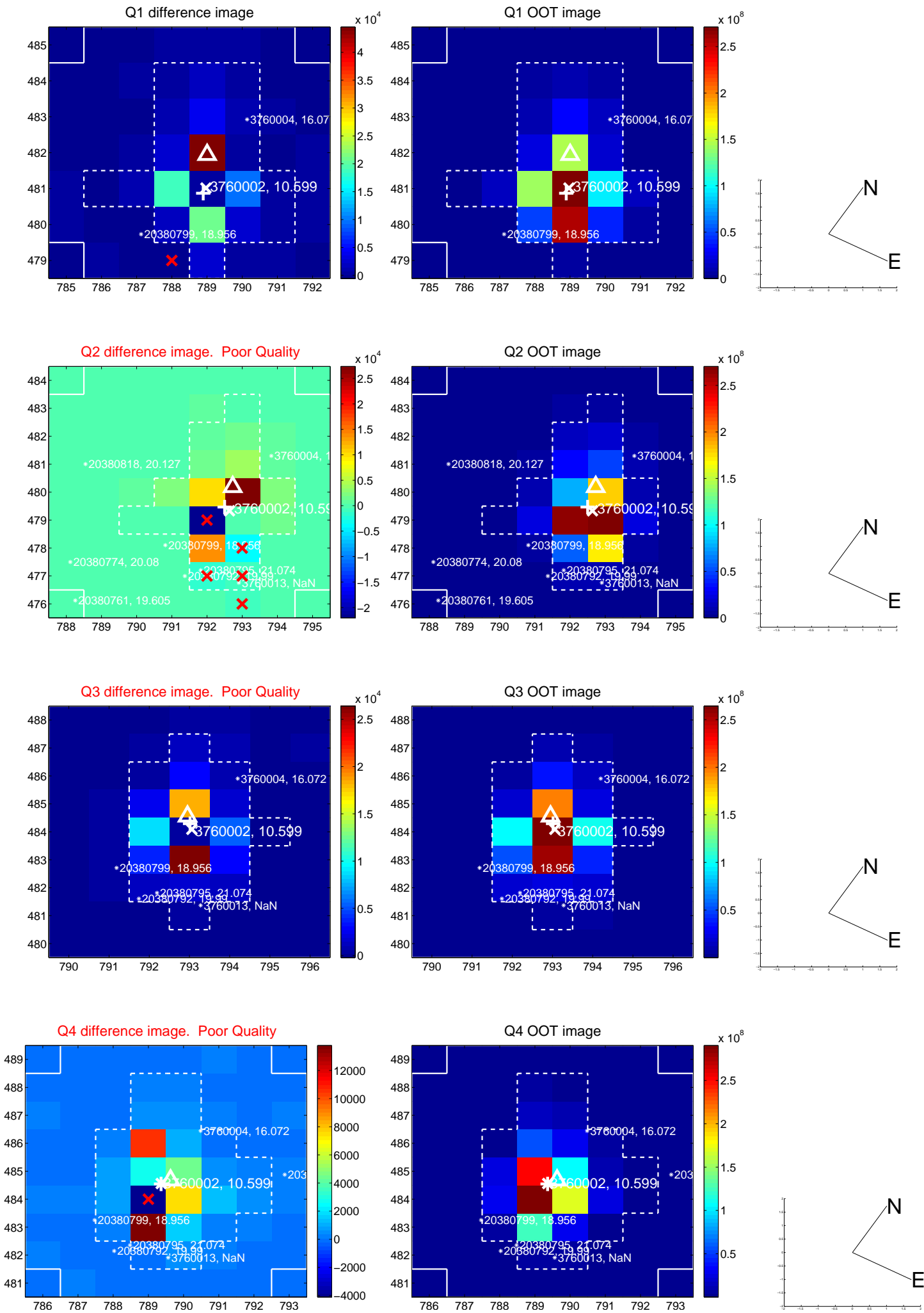
The direct PRF centroid is offset from the target star catalog position by about 0.75 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.712 ± 0.771	0.92	-0.417 ± 0.348	0.578 ± 0.729
PRF-fit source offset from KIC position	0.875 ± 0.676	1.29	-0.595 ± 0.333	0.641 ± 0.656
photometric centroid source offset	0.20 ± 0.19	1.06	0.02 ± 0.13	-0.20 ± 0.19

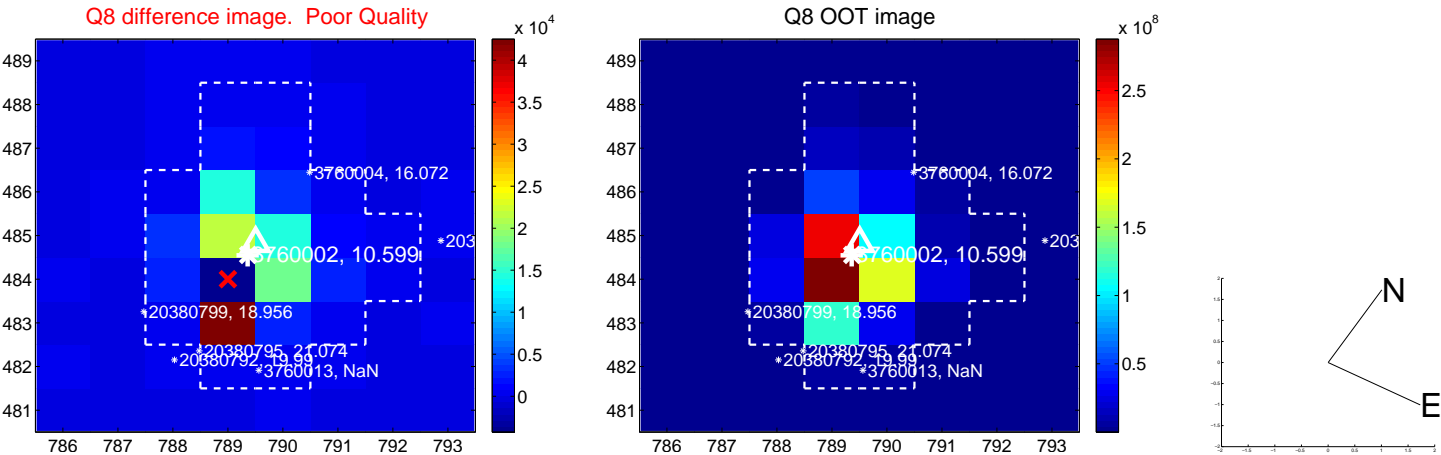
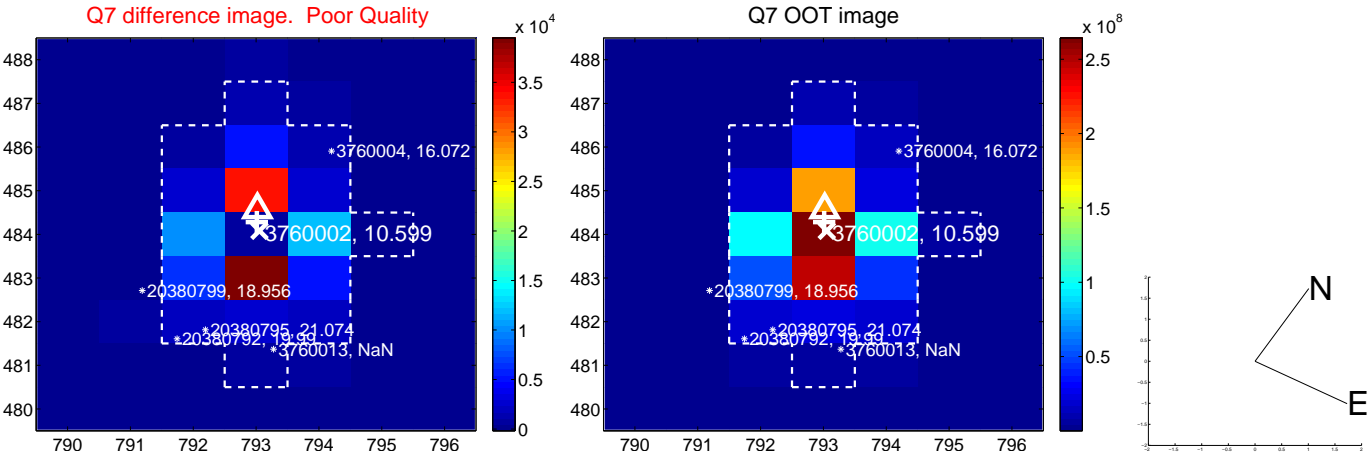
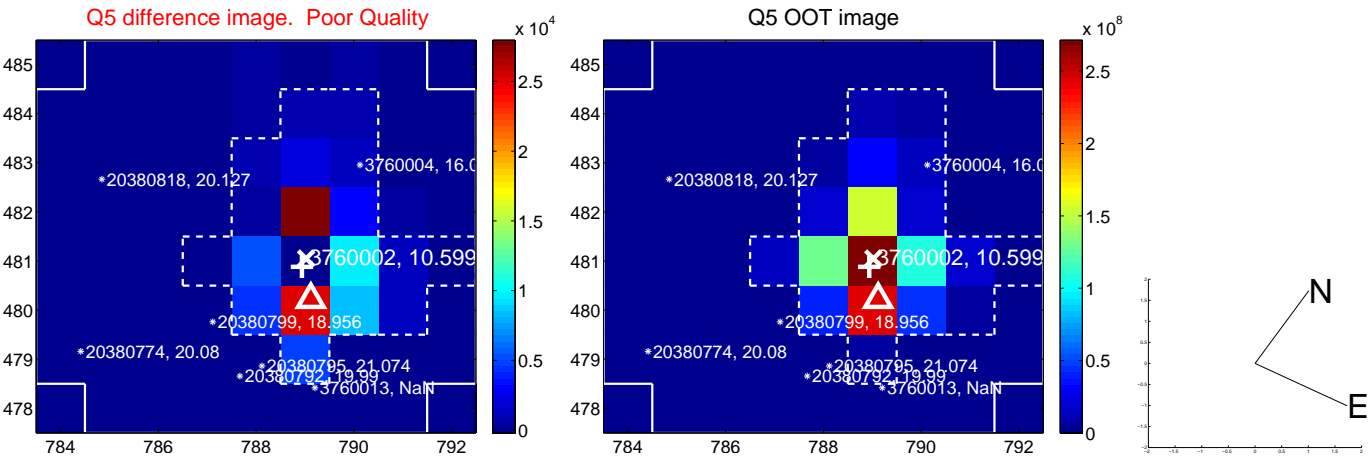


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

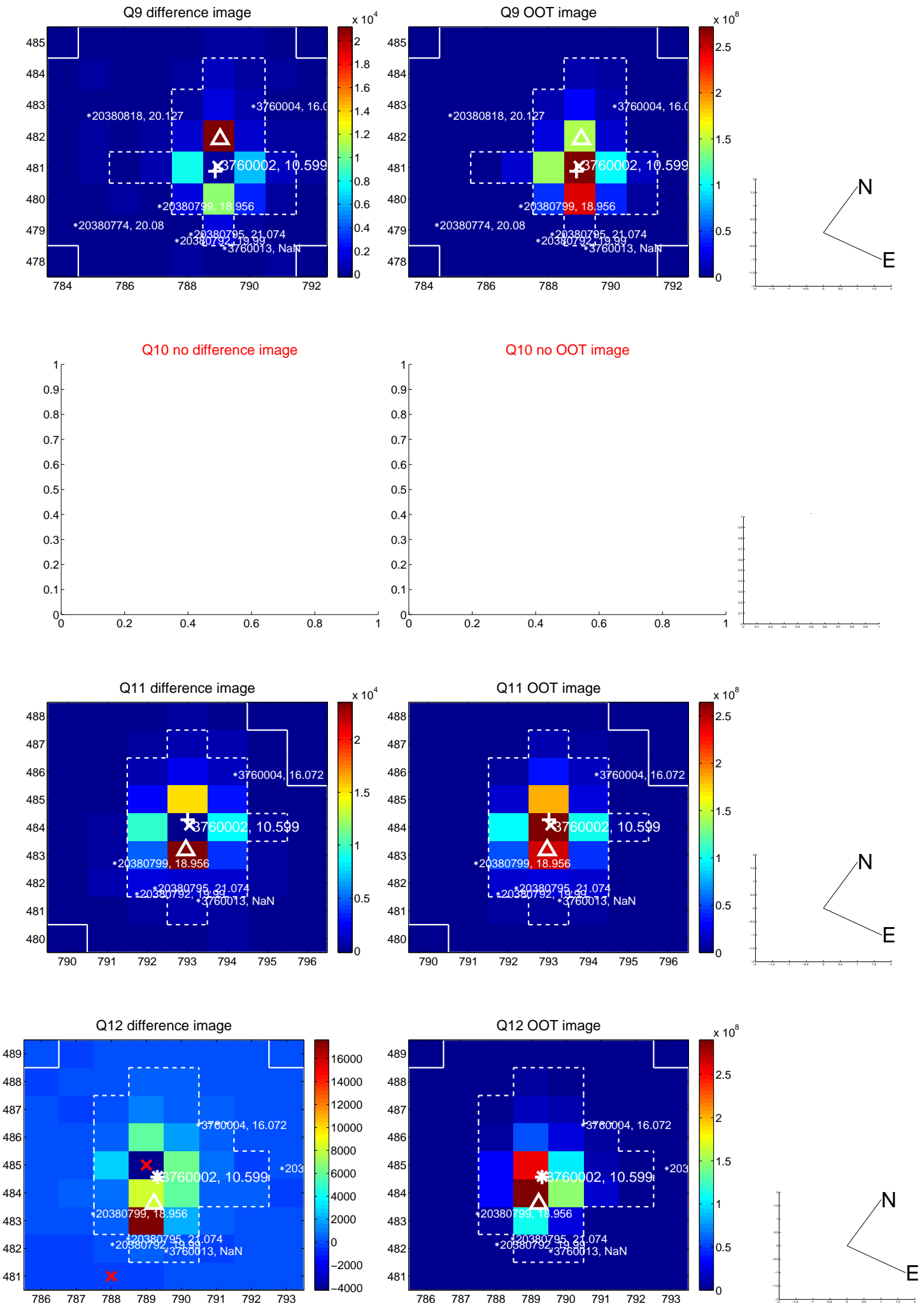
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



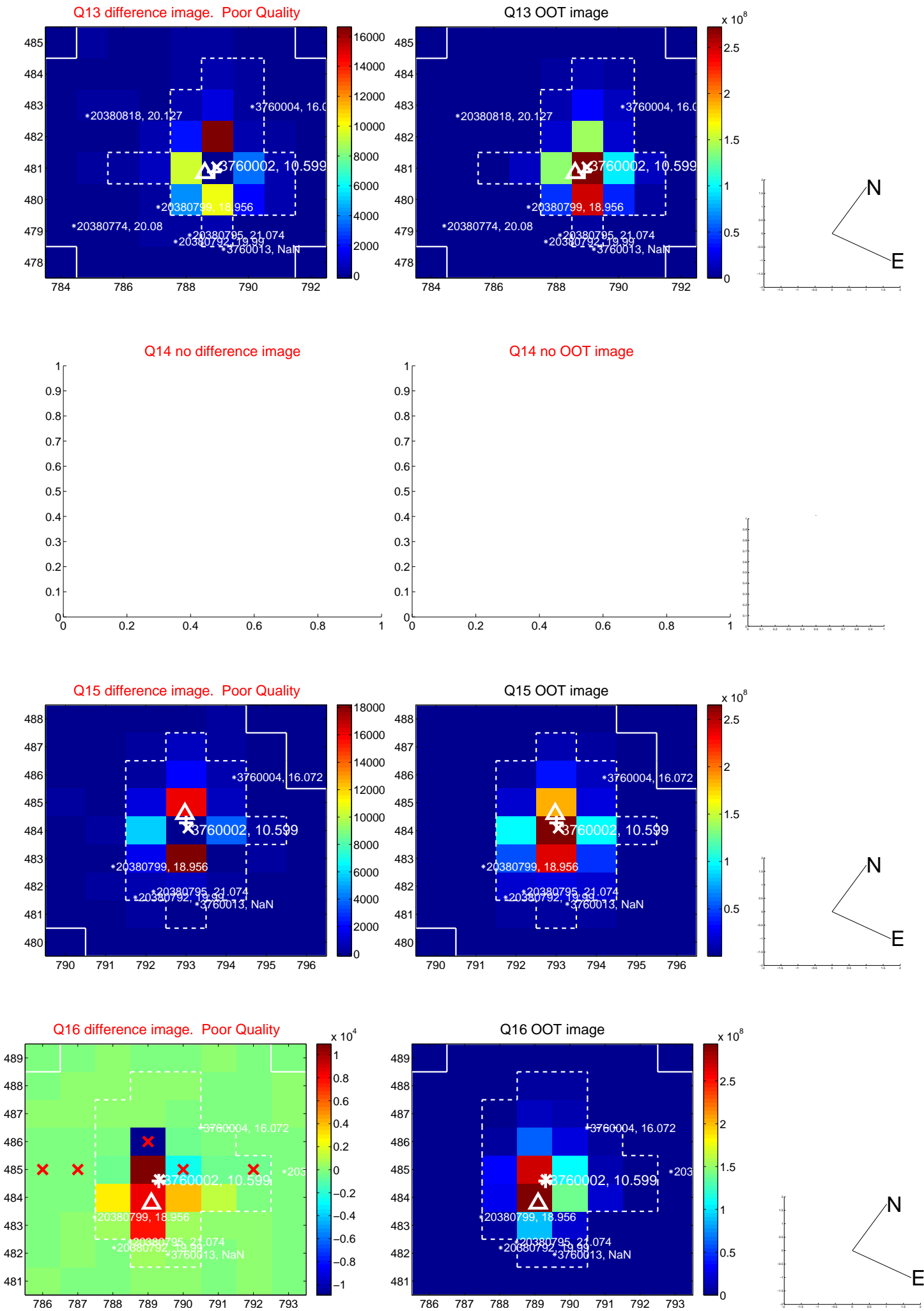
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



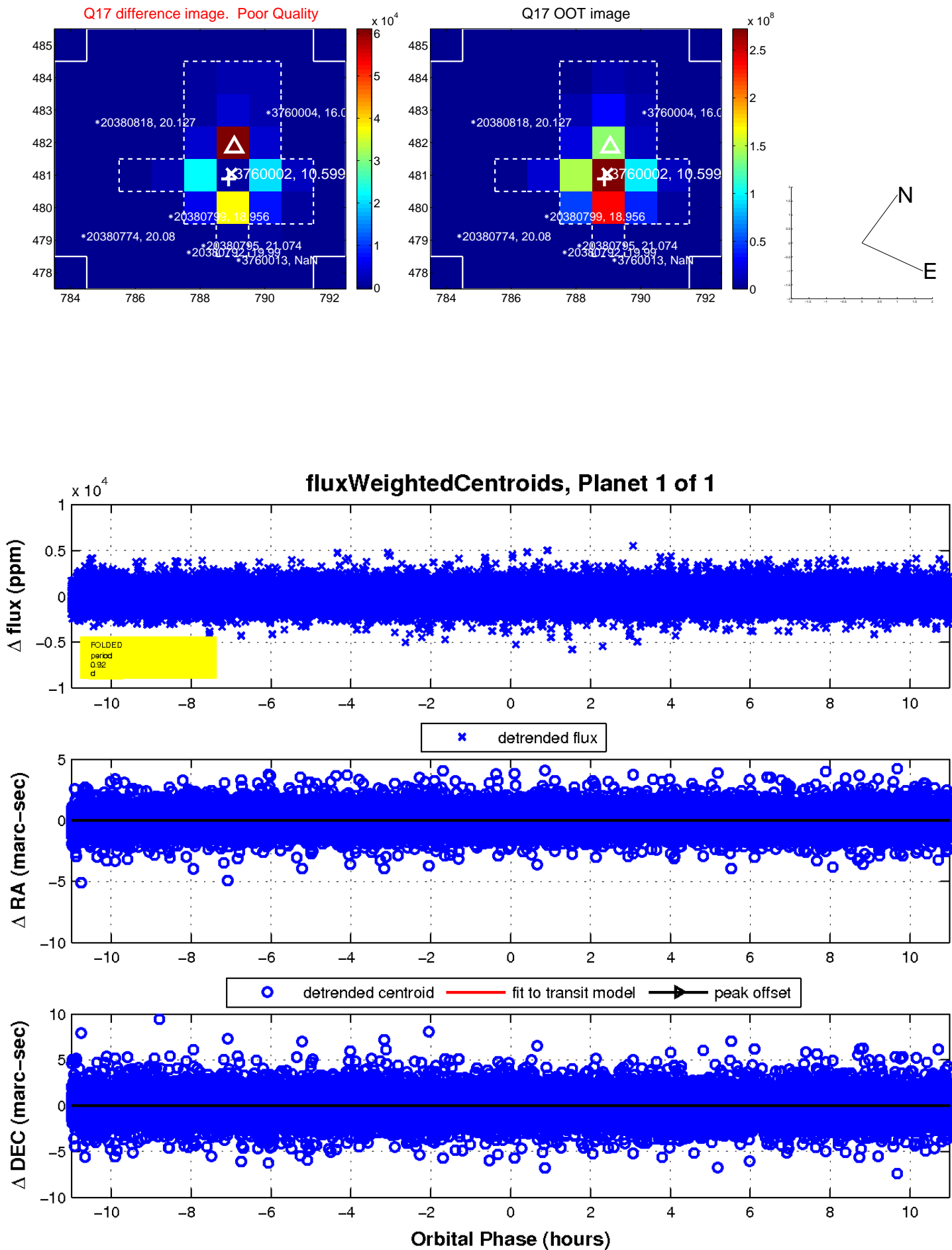
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

