

KIC 003762750

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})
003762750-01	OBS	7668.01	2.509343	133.113864	182.7	1.841	7.7	8.6	1.08	6278	1.71	1144.59

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003762750-01	OBS	PC	0.77	0	0	0	0	NO_COMMENT

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

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

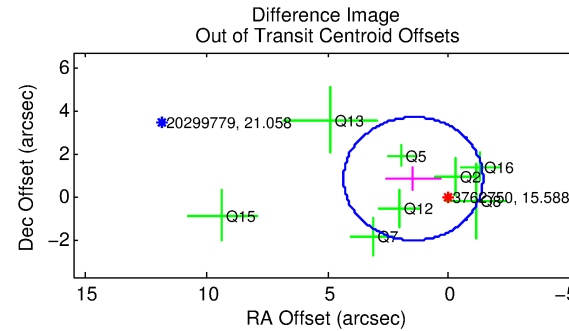
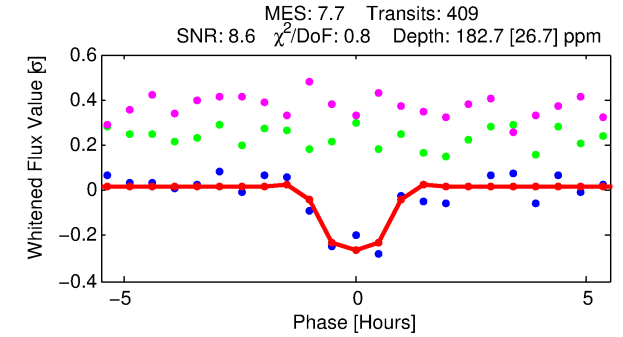
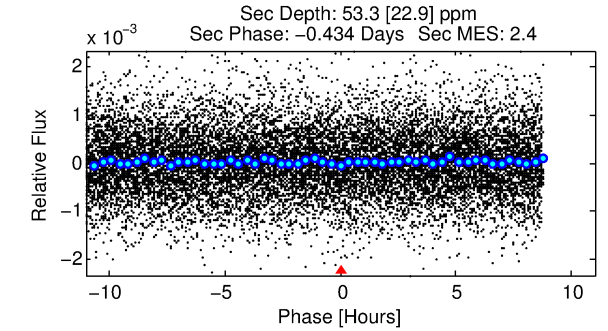
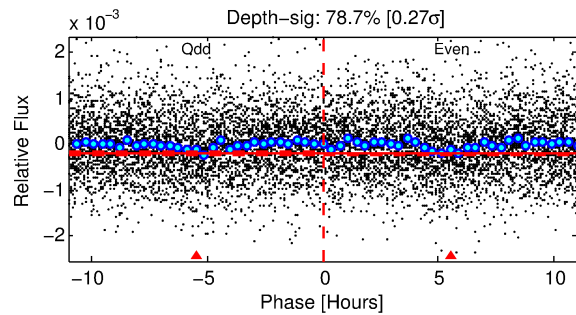
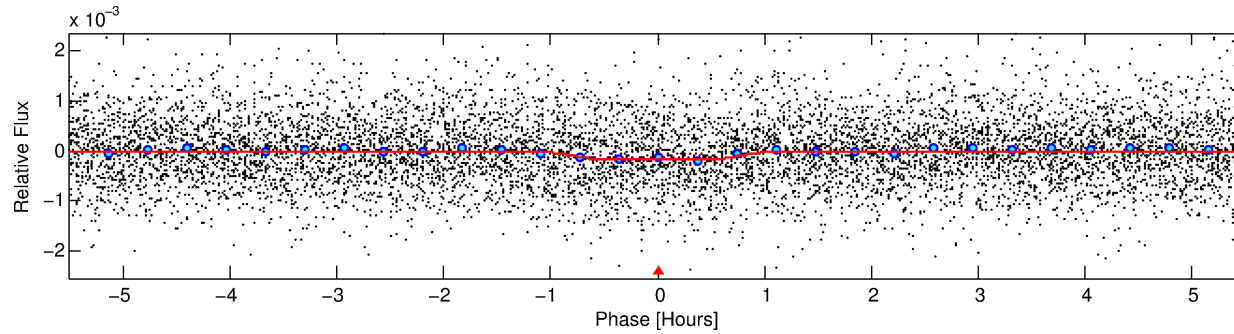
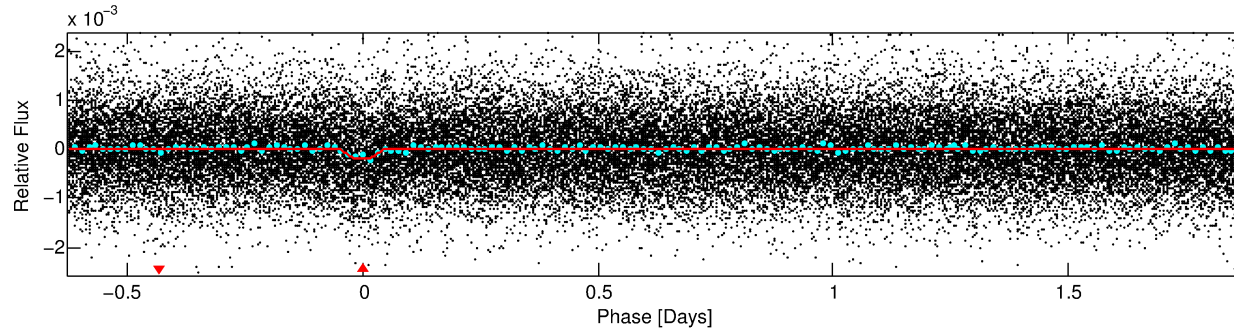
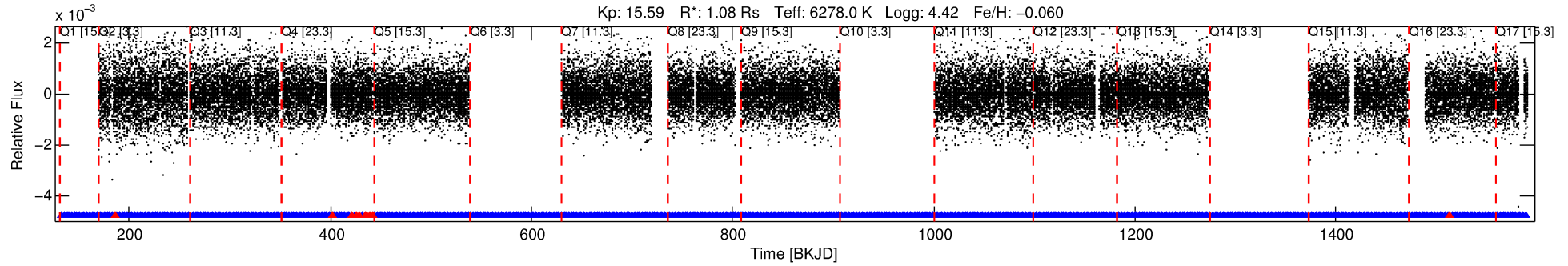
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003762750-01

No Significant Match Found

DV One-Page Summary

KIC: 3762750 Candidate: 1 of 1 Period: 2.509 d



DV Fit Results:

Period = 2.50934 [0.00002] d
Epoch = 133.1139 [0.0034] BKJD
Rp/R* = 0.0145 [0.0100]
a/R* = 5.02 [17.94]
b = 0.90 [0.82]
Seff = 1144.59 [455.58]
Teq = 1483 [148] K
Rp = 1.71 [1.29] Re
a = 0.0377 [0.0095] AU
Ag = 14.18 [21.12] [0.62 σ]
Teffp = 4450 [1618] K [1.83 σ]

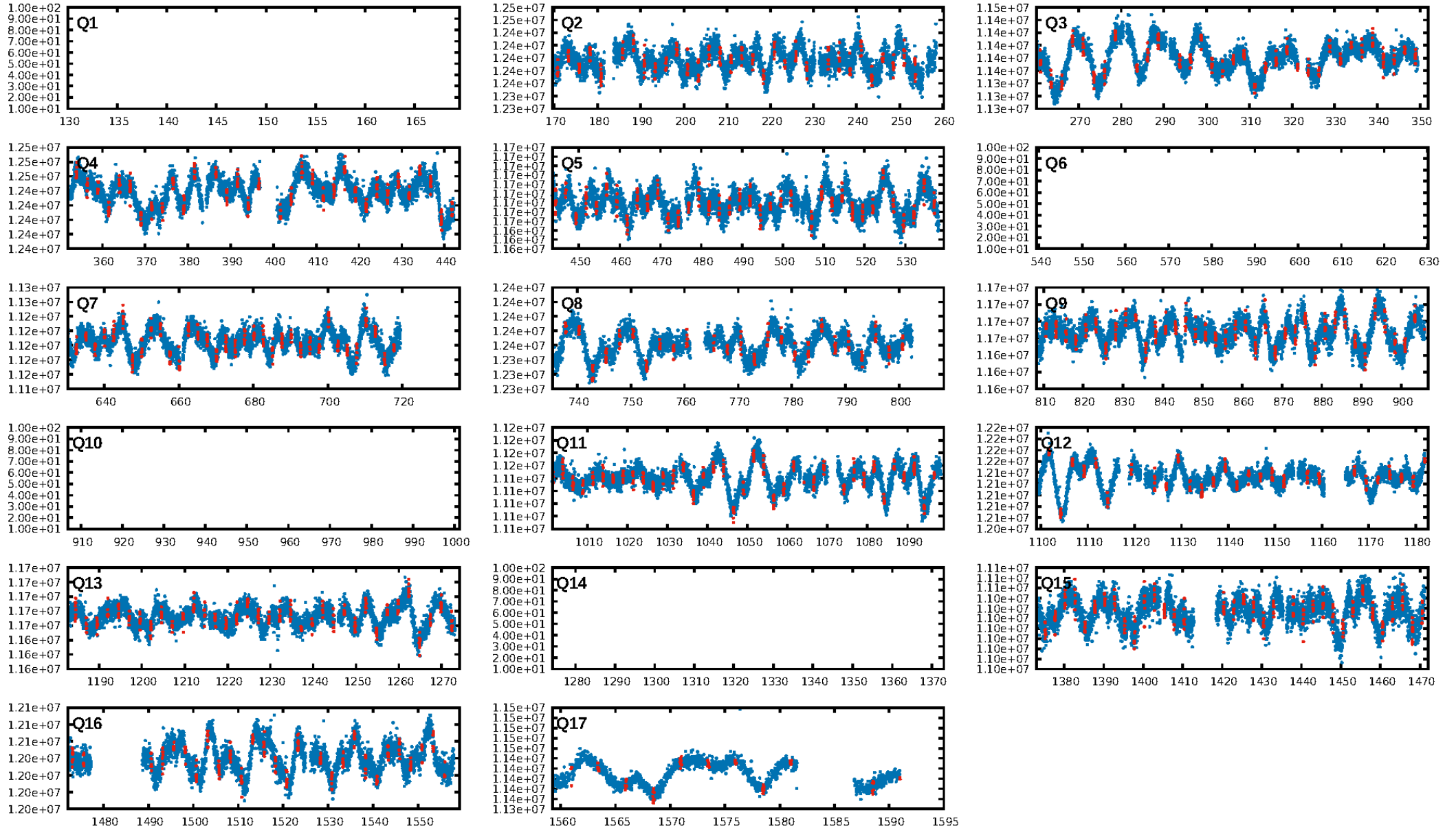
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.21e-14
RollingBand-fgt: 0.97 [388/398]
GhostDiagnostic-chr: 0.8099
Centroid-sig: 3.1%
Centroid-so: 2.650 arcsec [1.52 σ]
OotOffset-rm: 1.685 arcsec [1.76 σ]
OotOffset-st: 1/2/3/2 [8]
KicOffset-rm: 1.623 arcsec [1.54 σ]
KicOffset-st: 1/2/3/2 [8]
DiffImageQuality-fgm: 0.25 [2/8]
DiffImageOverlap-fno: 1.00 [13/13]

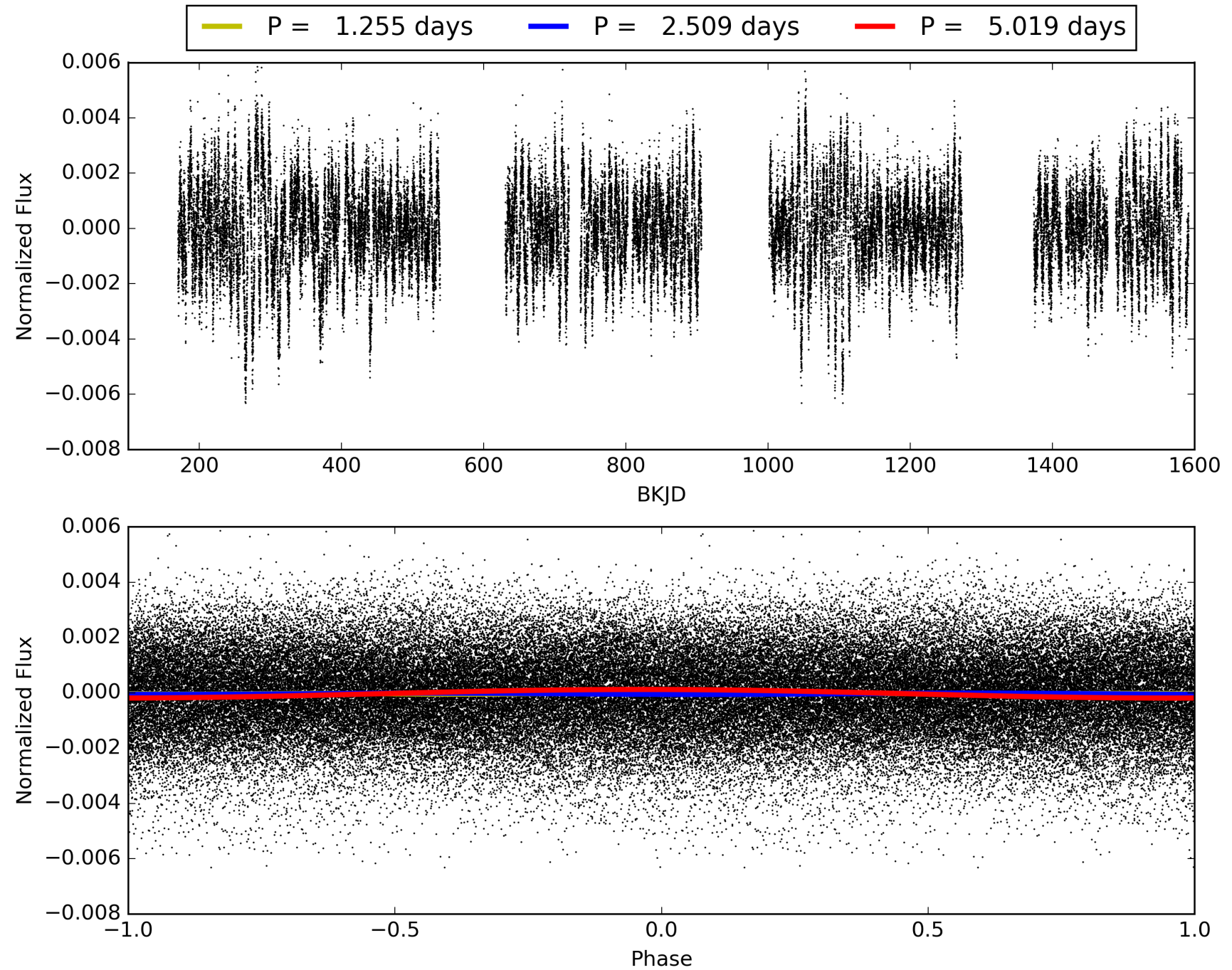
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 21:47:42 Z

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

TCE 003762750-01, PDC Light Curves

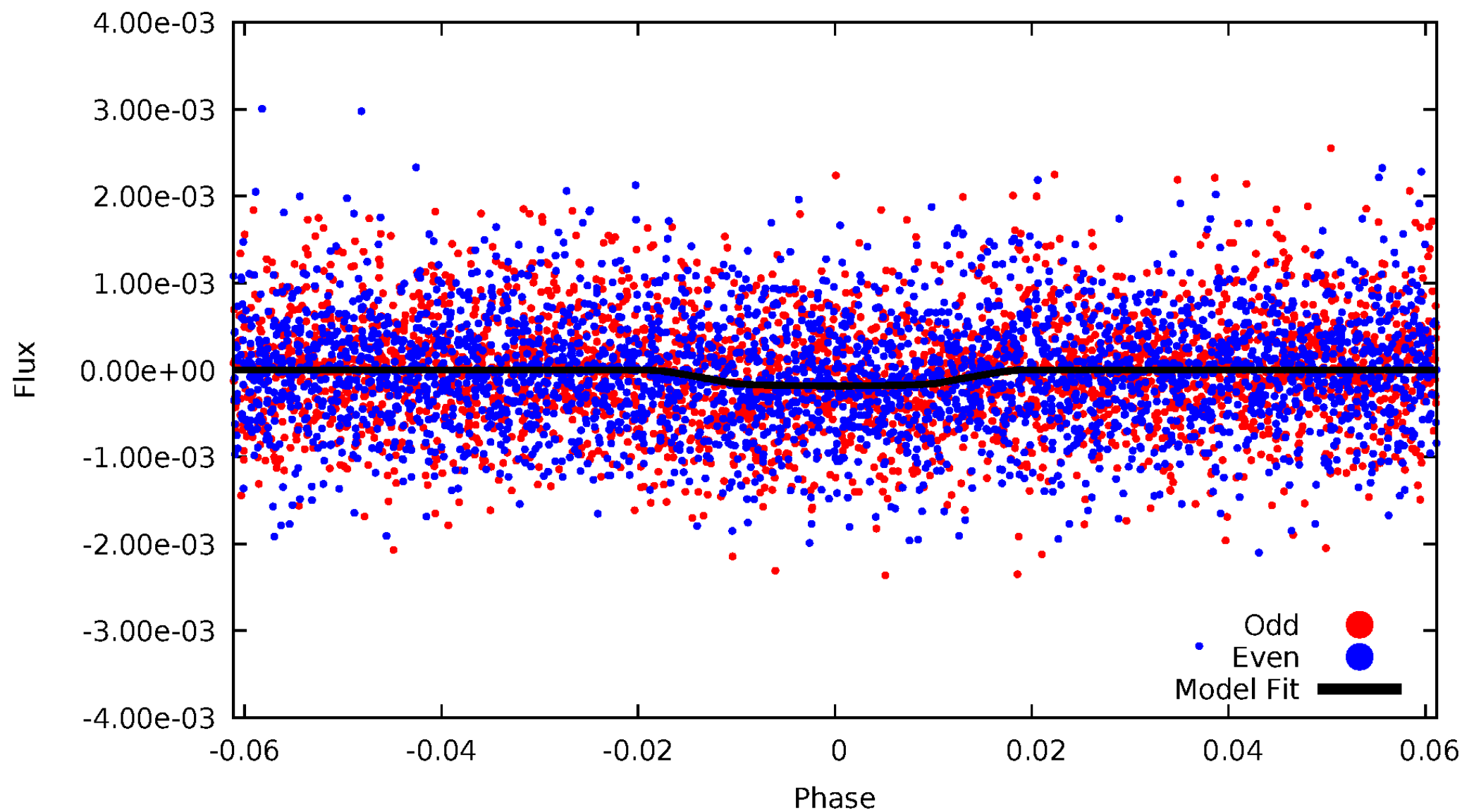


TCE 003762750-01



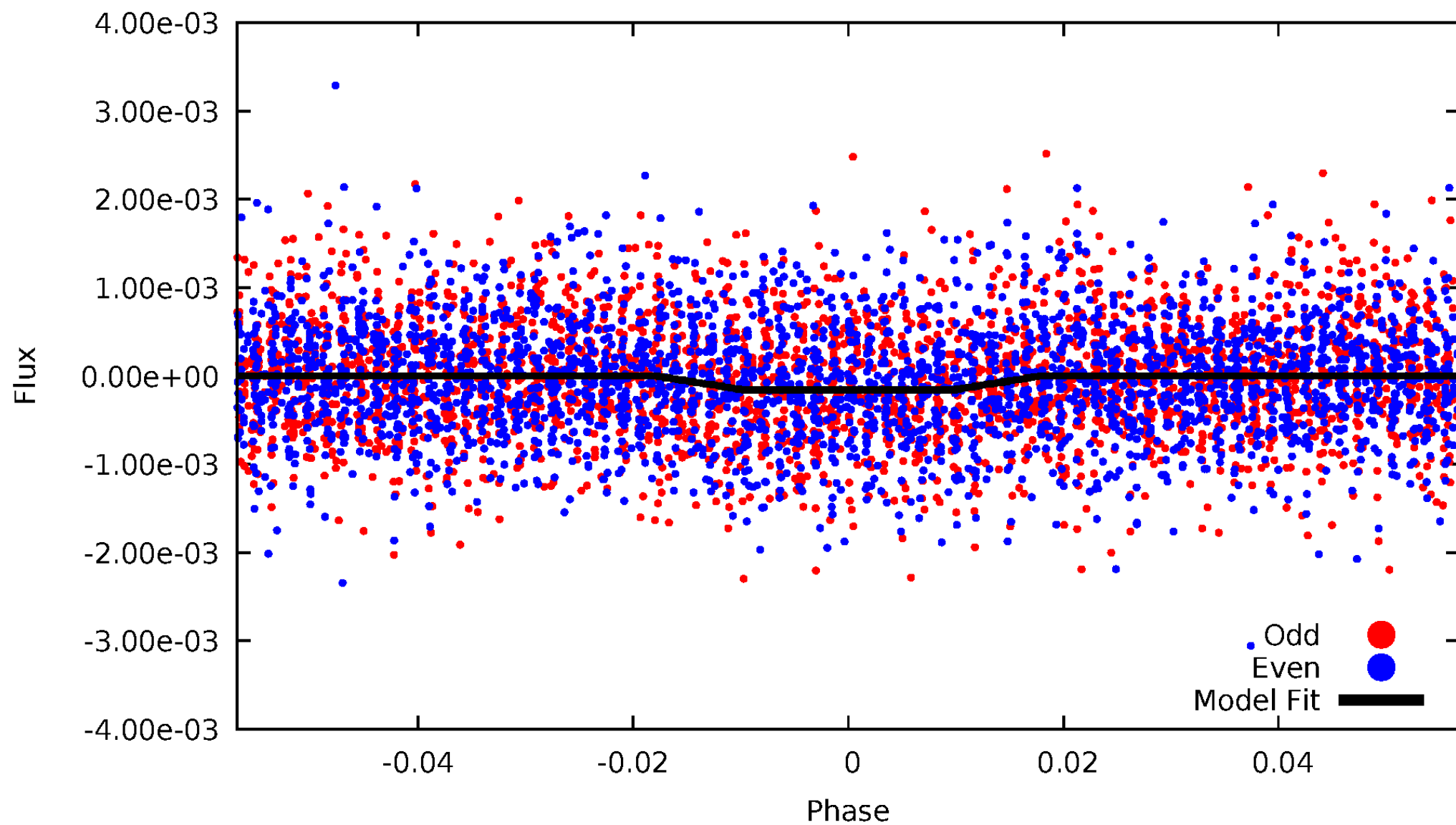
DV Odd/Even

TCE 003762750-01



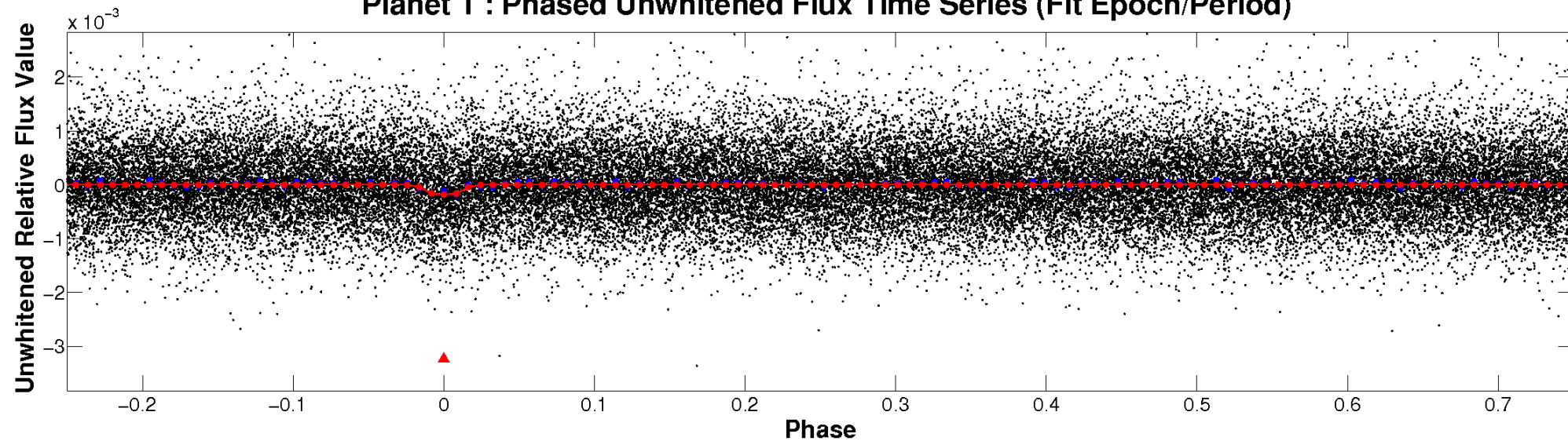
ALT Odd/Even

TCE 003762750-01

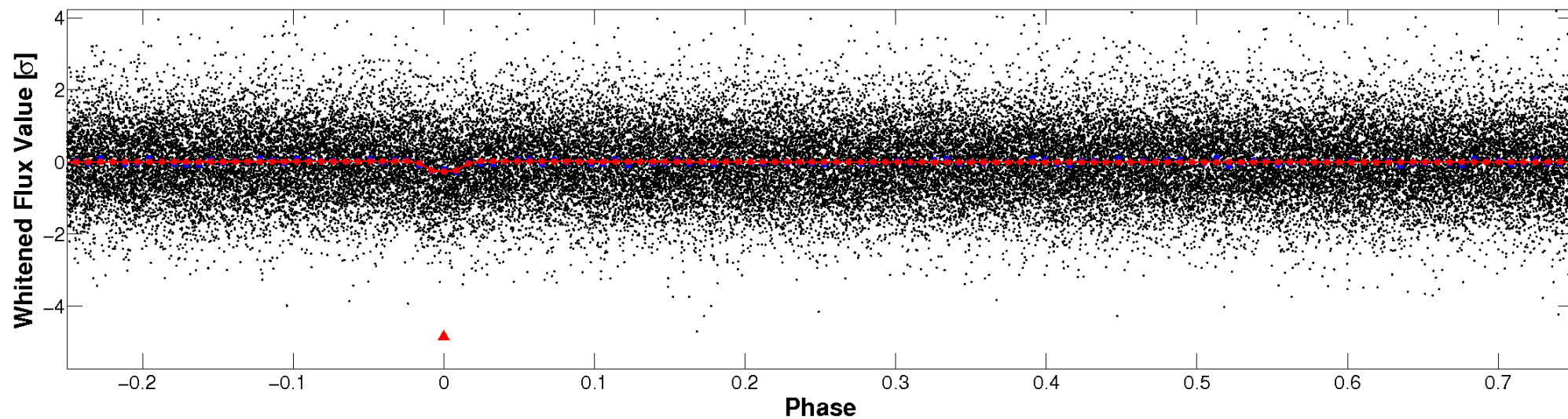


Non-Whitened Vs. Whitened Light Curve

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

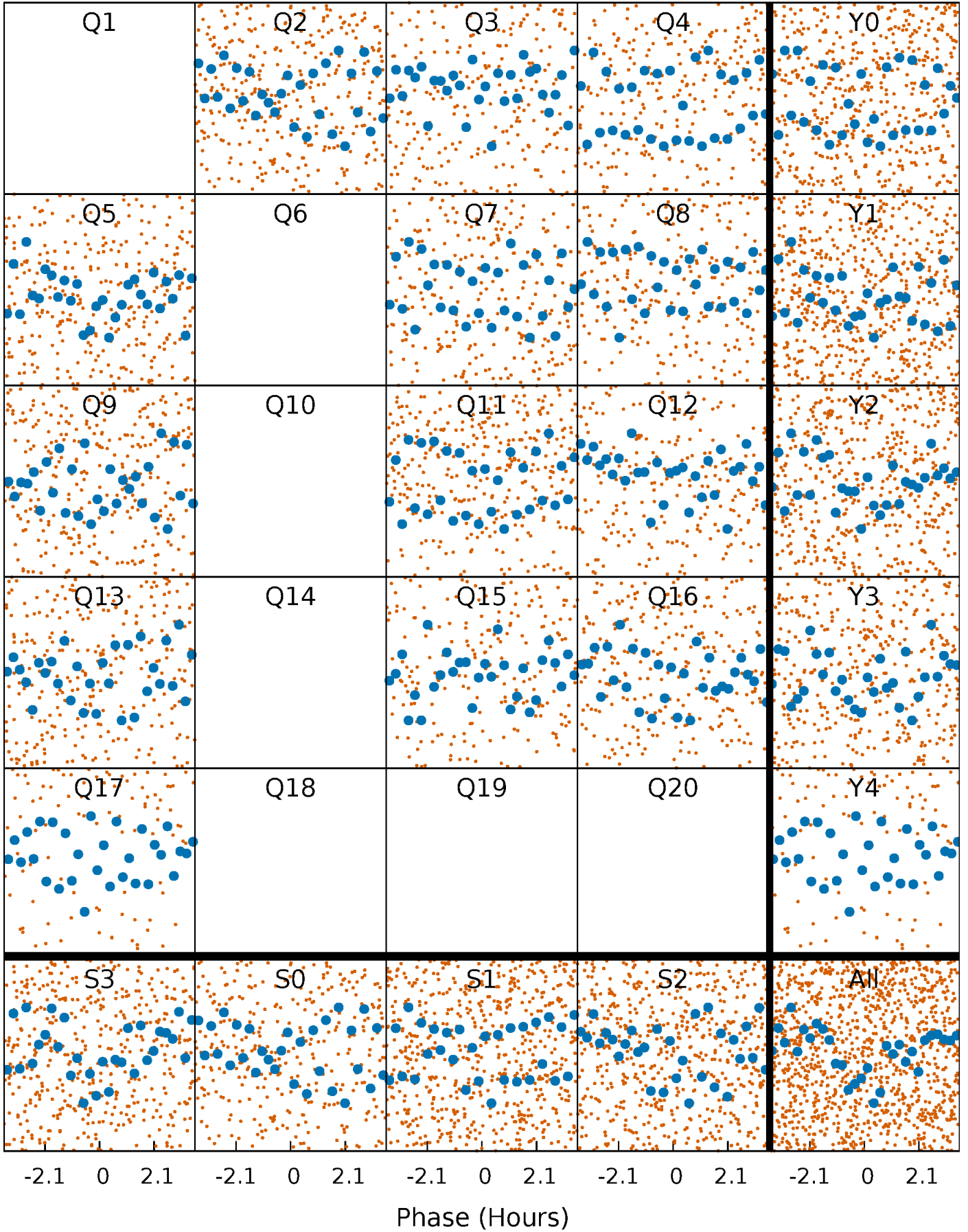


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



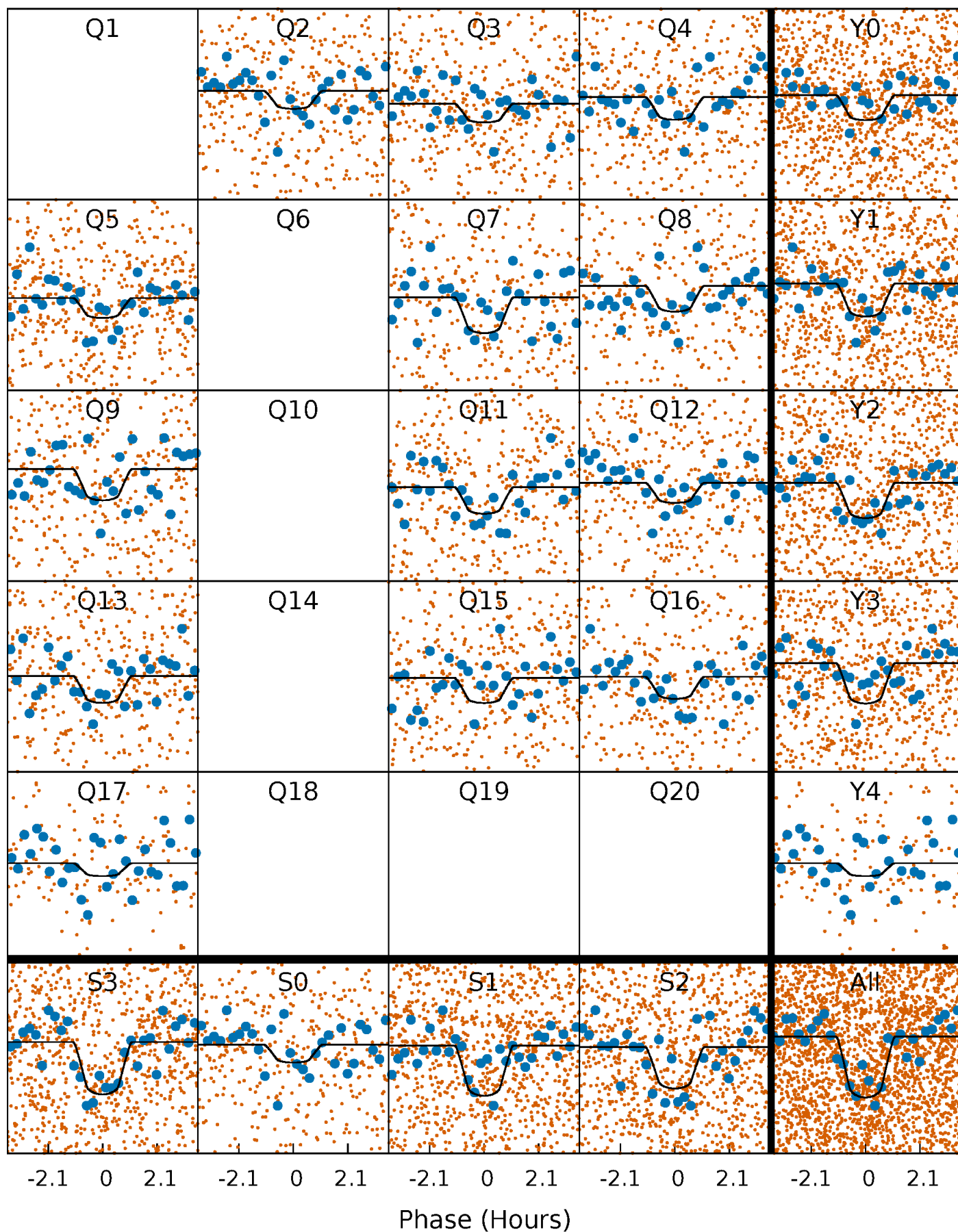
PDC Quarter-Phased Transit Curves

TCE 003762750-01 P= 2.509343 Days $T_0=133.113864$ (BKJD)



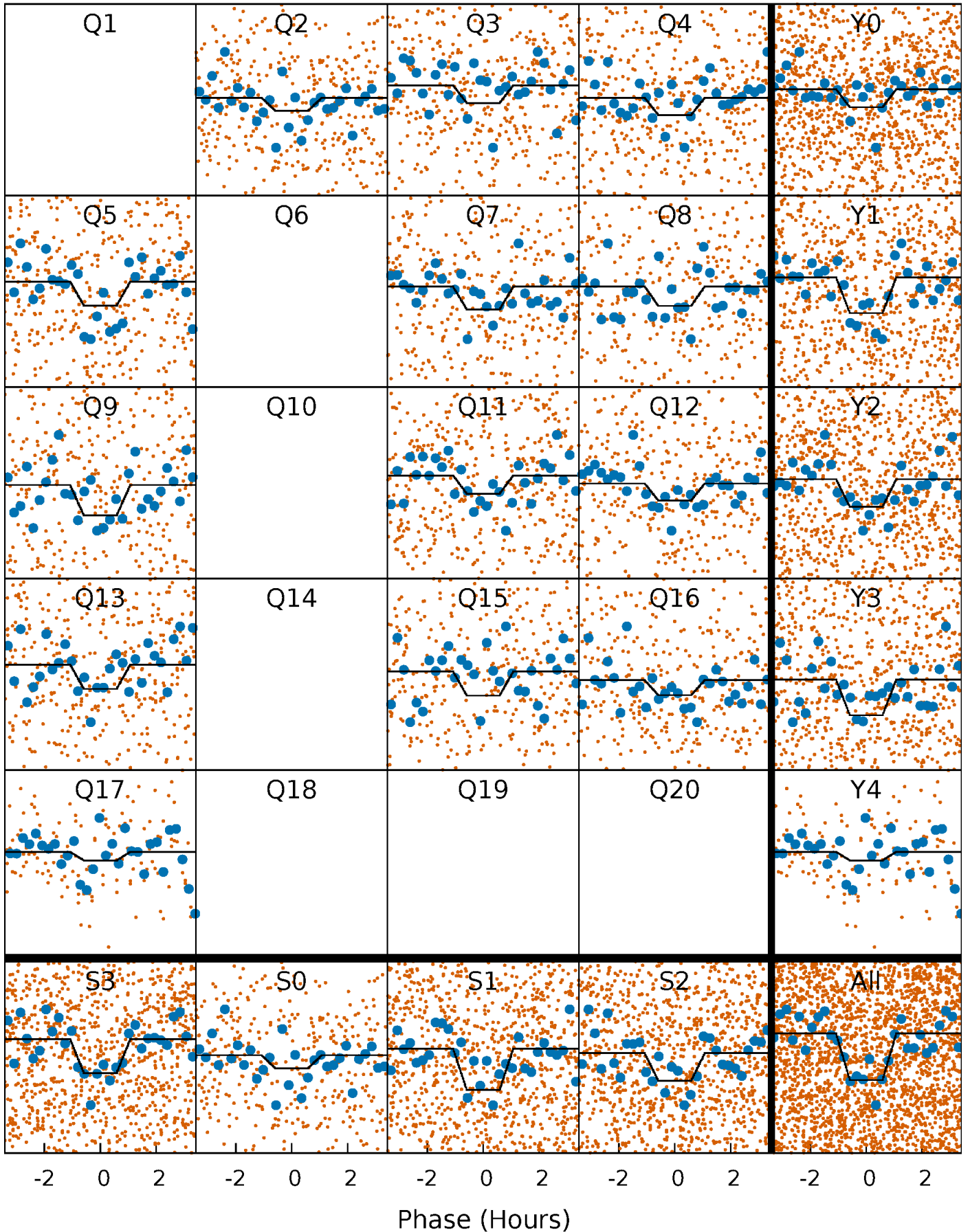
DV Quarter-Phased Transit Curves

TCE 003762750-01 P= 2.509343 Days $T_0=133.113864$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

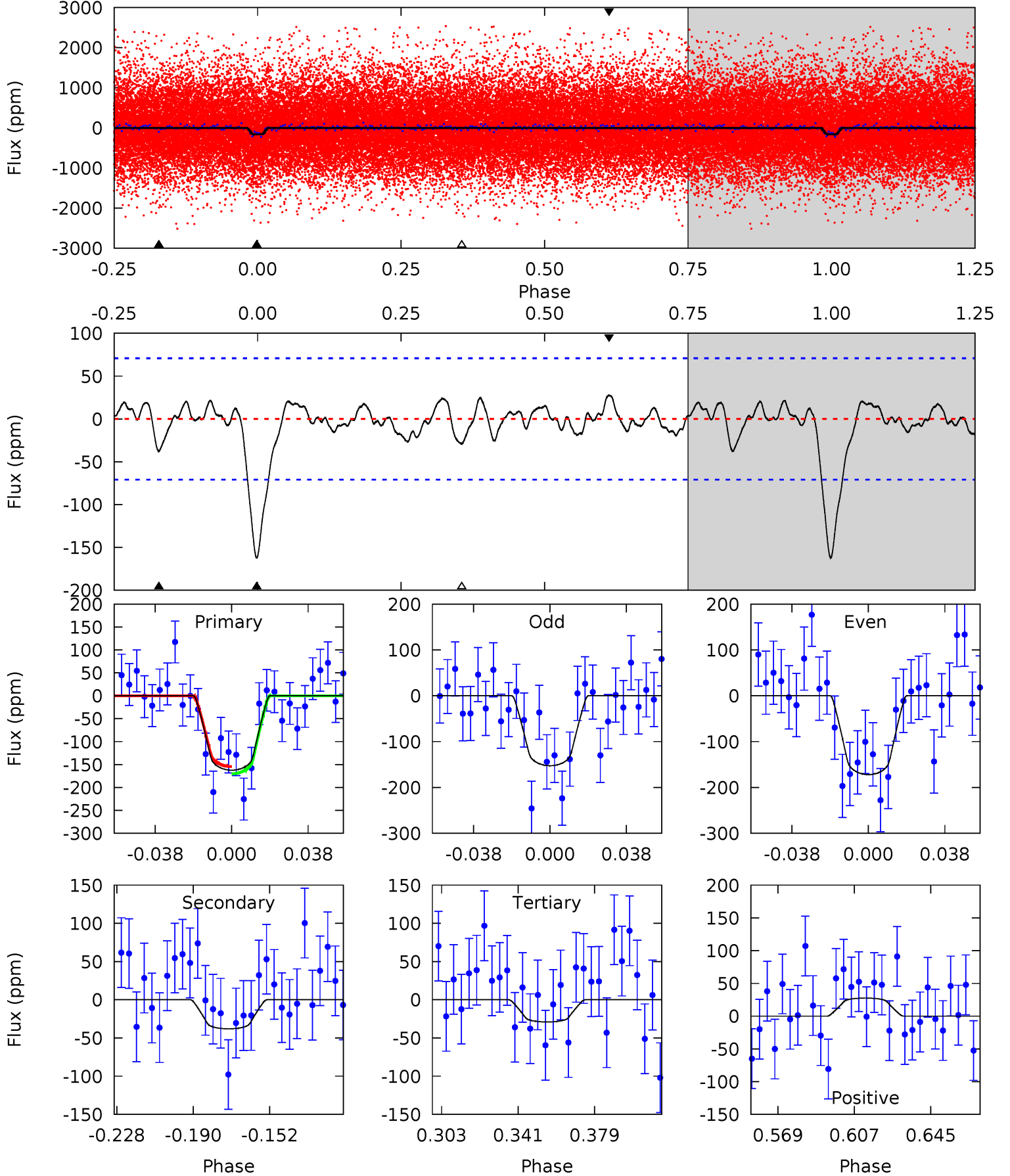
TCE 003762750-01 P= 2.509329 Days $T_0=133.113393$ (BKJD)



DV Model-Shift Uniqueness Test

003762750-01, P = 2.509343 Days, E = 133.113864 Days

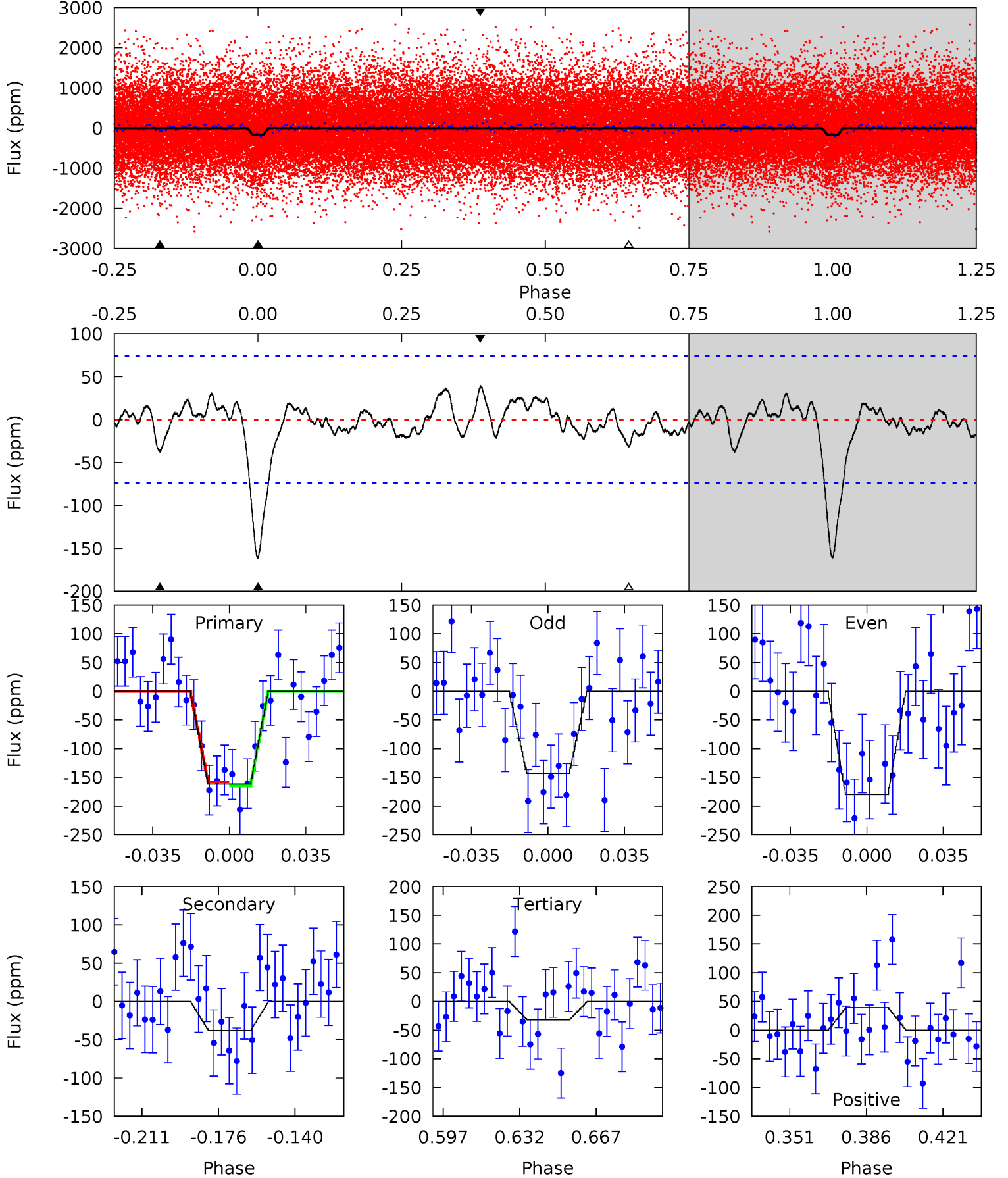
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.9	2.56	1.96	1.86	4.76	2.08	0.84	8.97	9.07	0.60	0.70	0.66	0.96	0.15	0.53



Alt Model-Shift Uniqueness Test

003762750-01, P = 2.509329 Days, E = 133.113393 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.5	2.45	2.07	2.53	4.78	2.11	0.95	8.39	7.92	0.38	-0.08	1.19	1.04	0.20	0.23



Stellar Parameters For KIC 003762750

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6278^{+174}_{-261}	$4.425^{+0.065}_{-0.195}$	$-0.060^{+0.250}_{-0.300}$	$1.081^{+0.329}_{-0.141}$	$1.132^{+0.157}_{-0.157}$	$1.264^{+0.430}_{-0.621}$
	+3%/-4%	+1%/-4%	+417%/-500%	+30%/-13%	+14%/-14%	+34%/-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 003762750-01 / KOI 7668.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-38 ± 15	$1.86^{+1.28}_{-1.04}$	2098^{+148}_{-115}	4148^{+1663}_{-796}	$8.047^{+32.306}_{-5.617}$
Alt.	-38 ± 15	$1.70^{+1.19}_{-1.04}$	2109^{+151}_{-115}	4341^{+2353}_{-873}	$9.688^{+55.102}_{-6.804}$

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

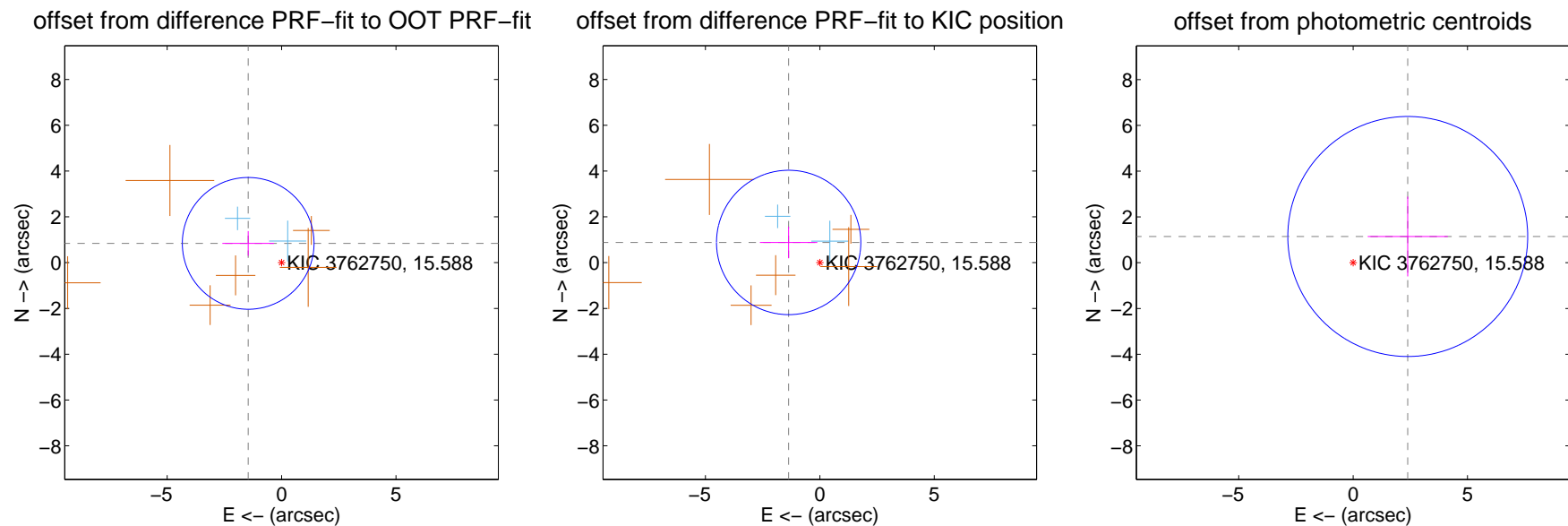
DV Centroid Data

Supplemental centroid analysis for 003762750-01. Kepler magnitude: 15.59. Transit SNR 8.58

There are 2 quarters with good PRF difference image offsets

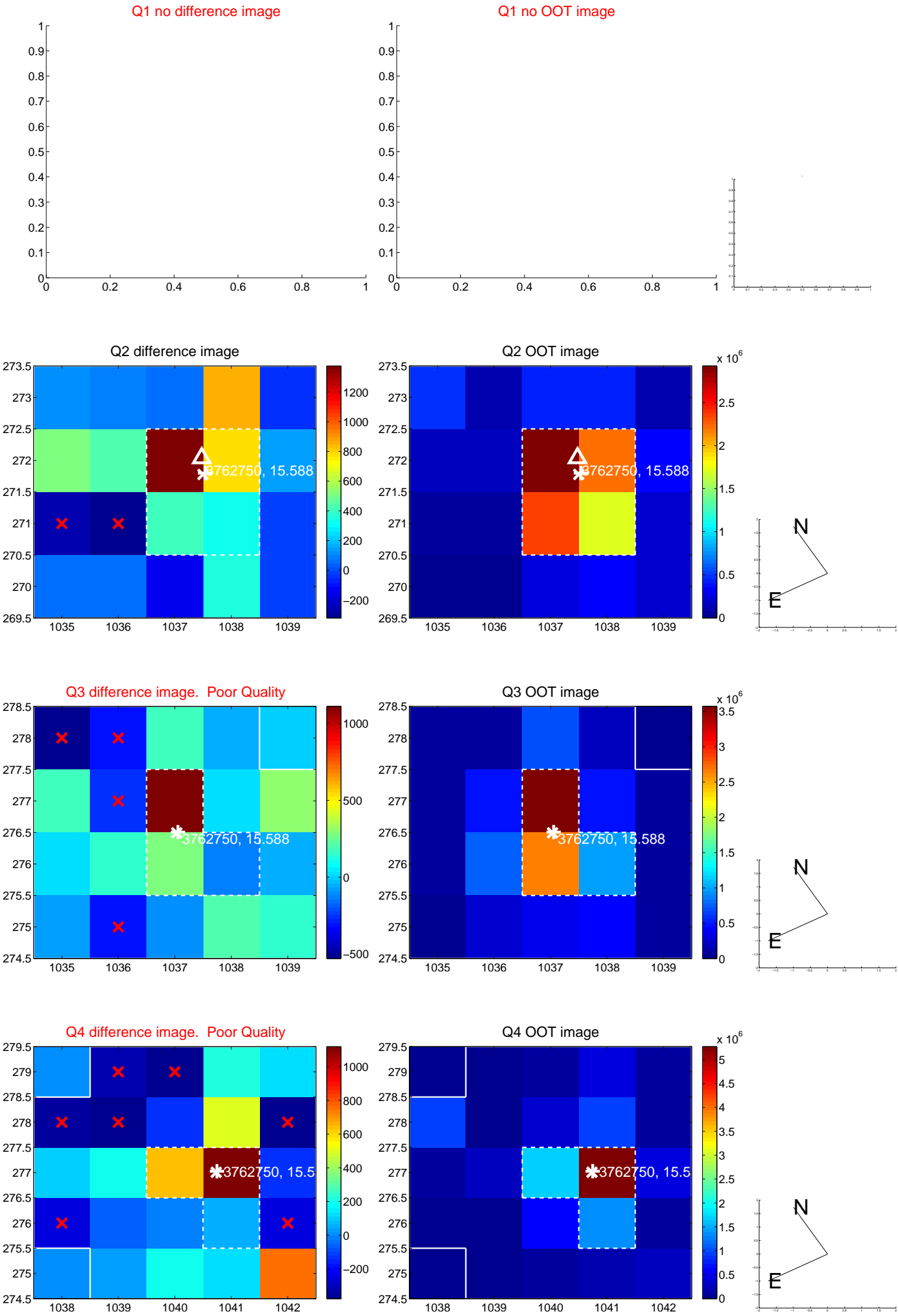
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.685 ± 0.959	1.76	1.459 ± 1.127	0.841 ± 0.537
PRF-fit source offset from KIC position	1.623 ± 1.051	1.54	1.363 ± 1.255	0.882 ± 0.690
photometric centroid source offset	2.65 ± 1.75	1.52	-2.39 ± 1.75	1.15 ± 1.74

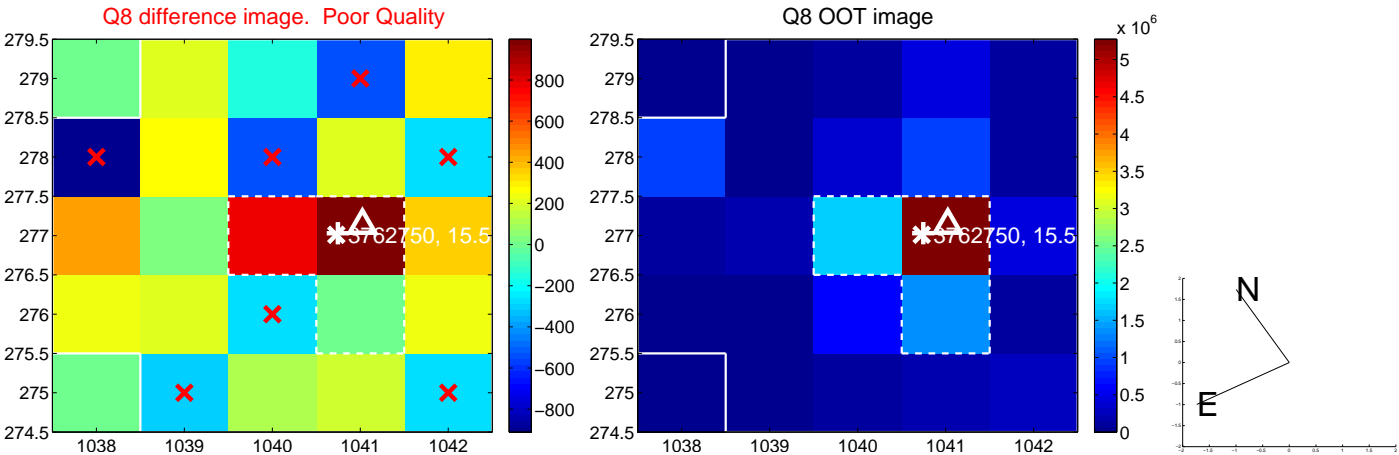
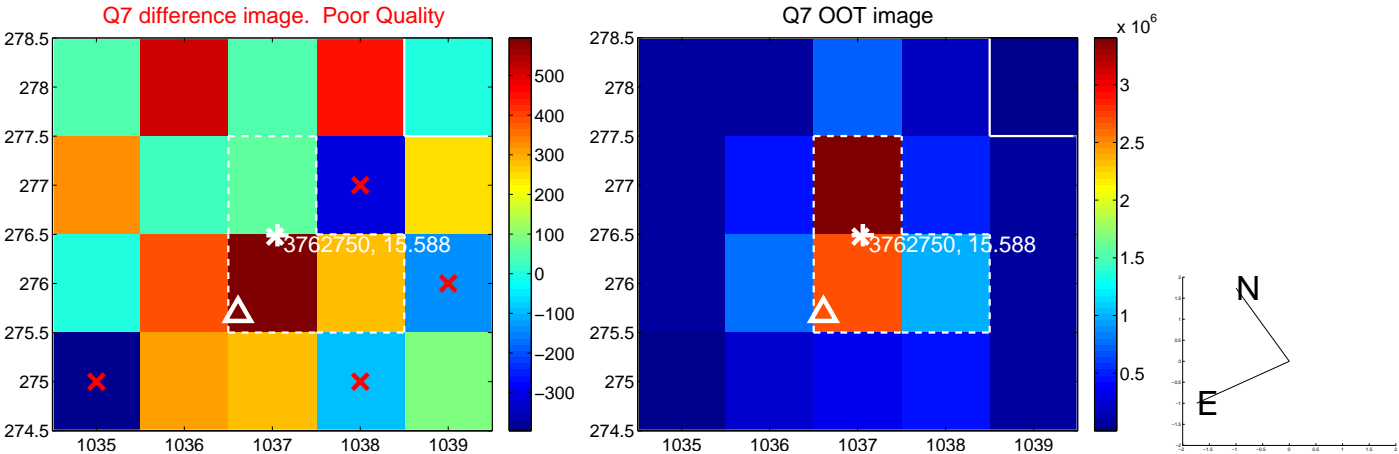
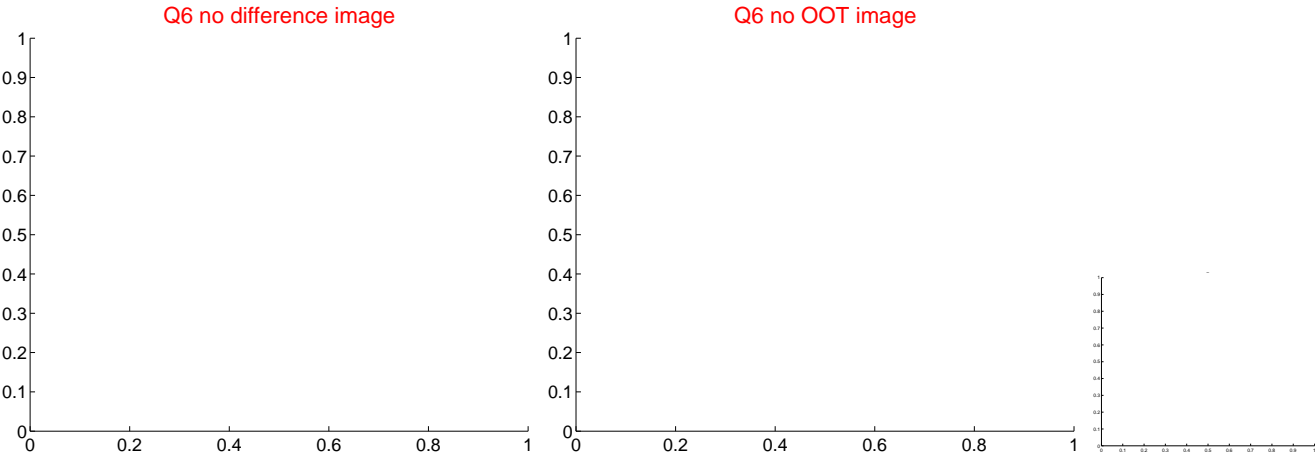
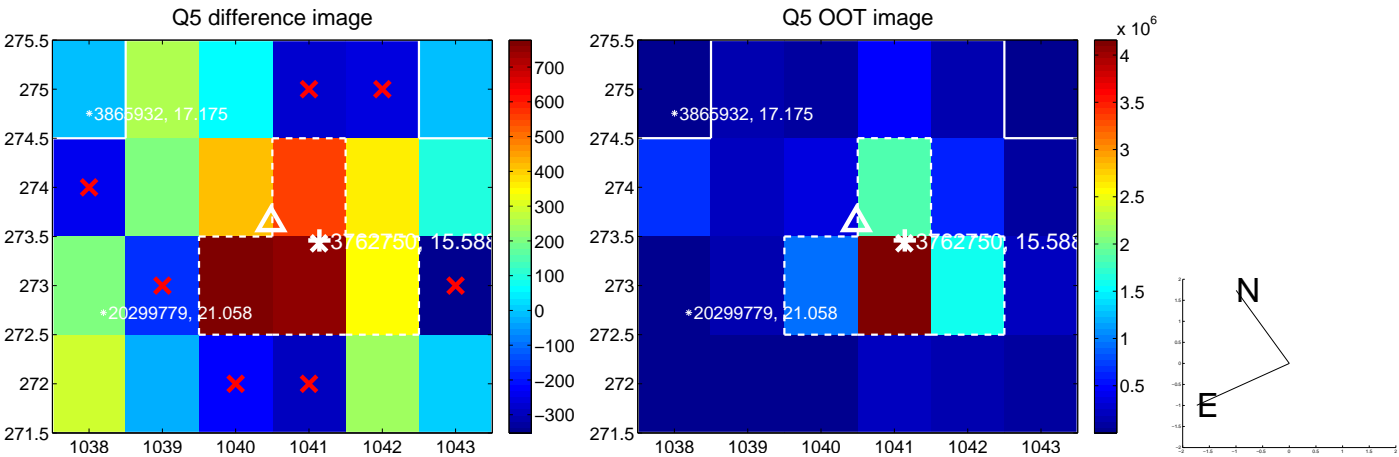


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

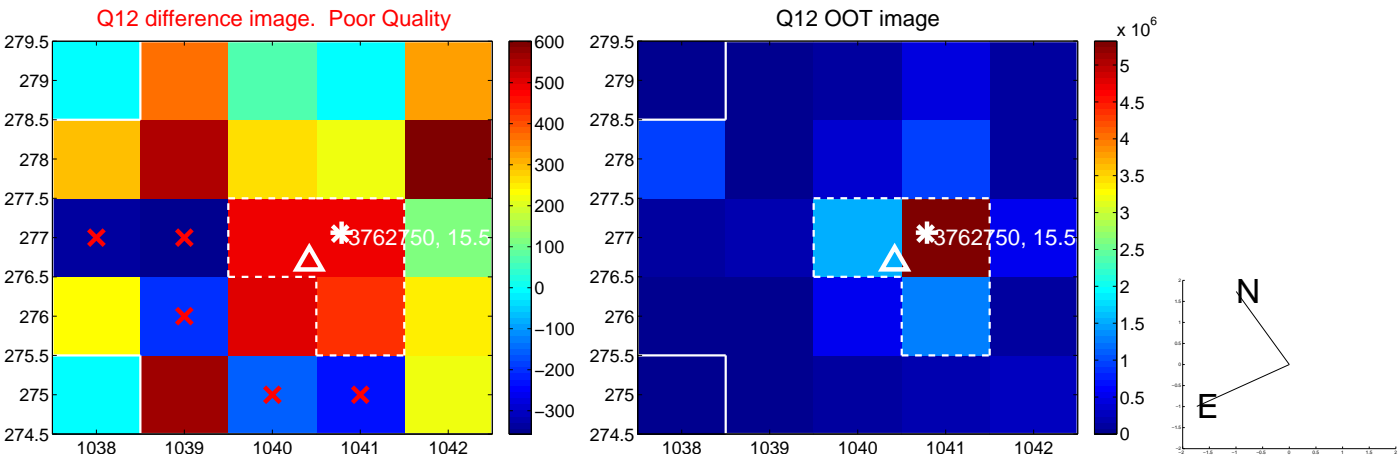
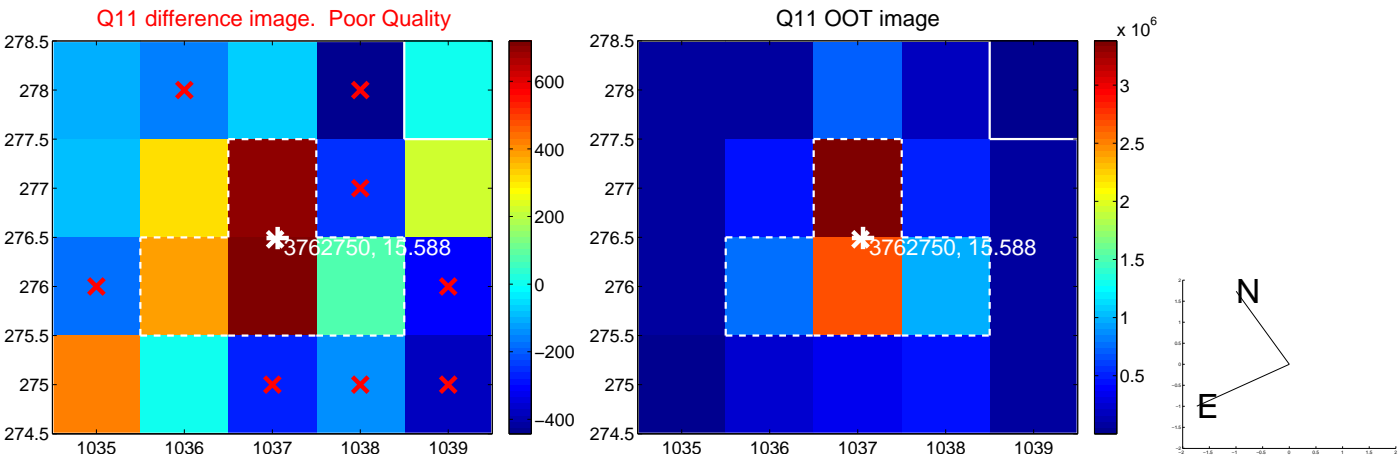
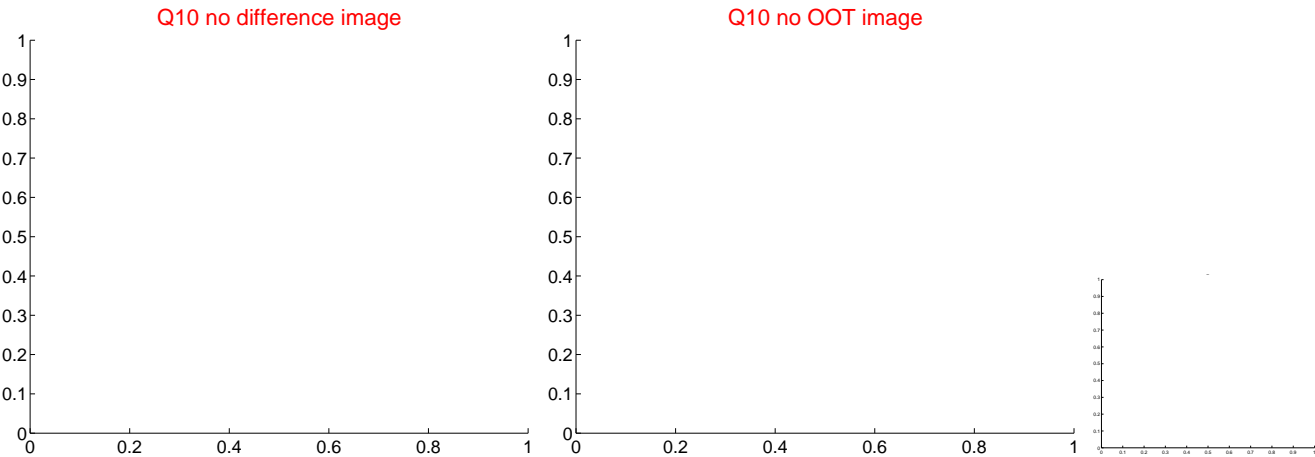
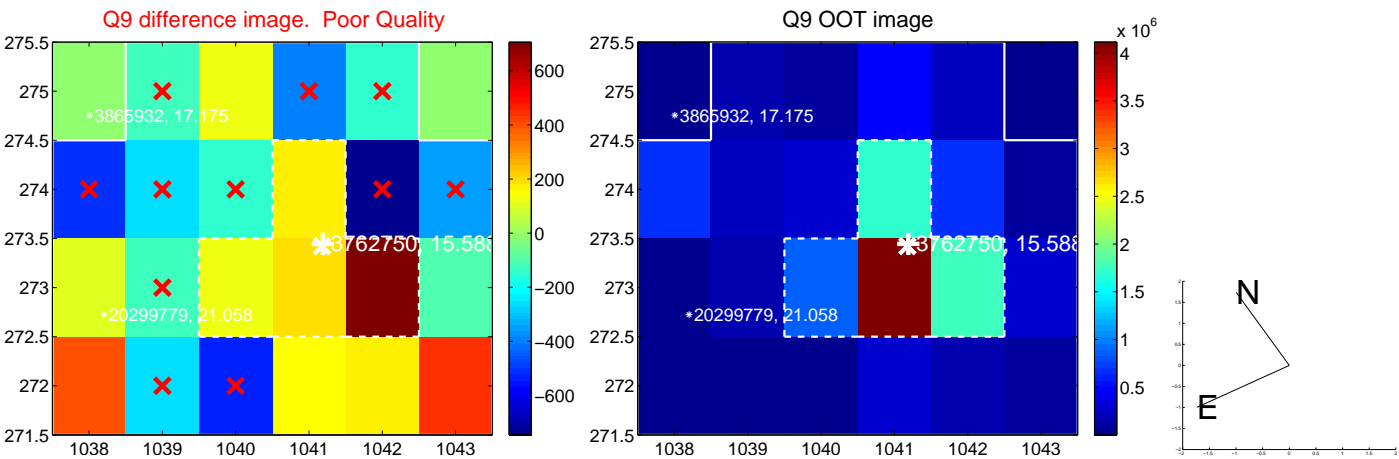
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



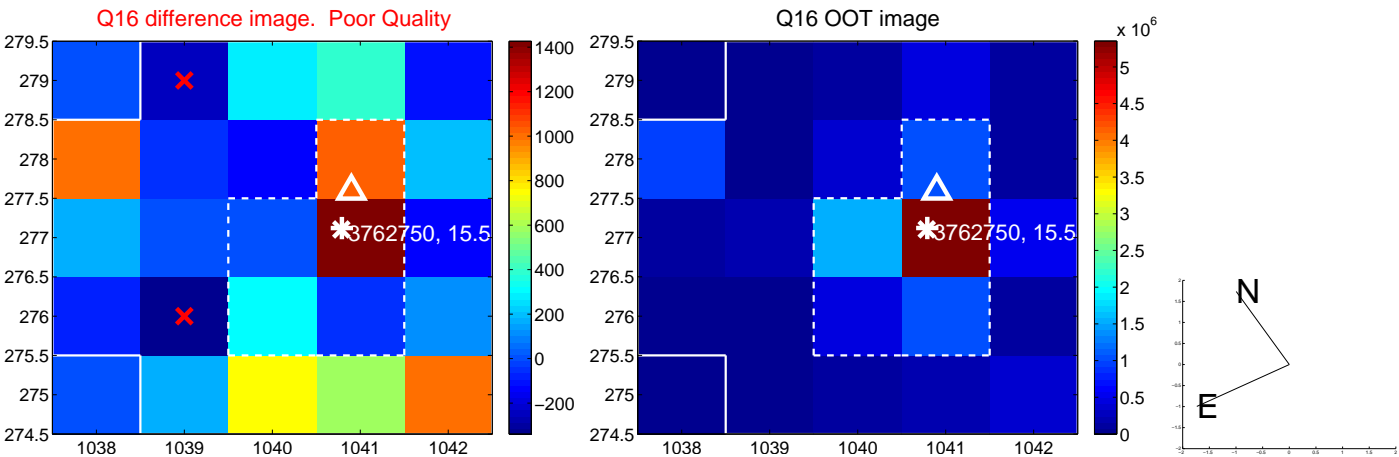
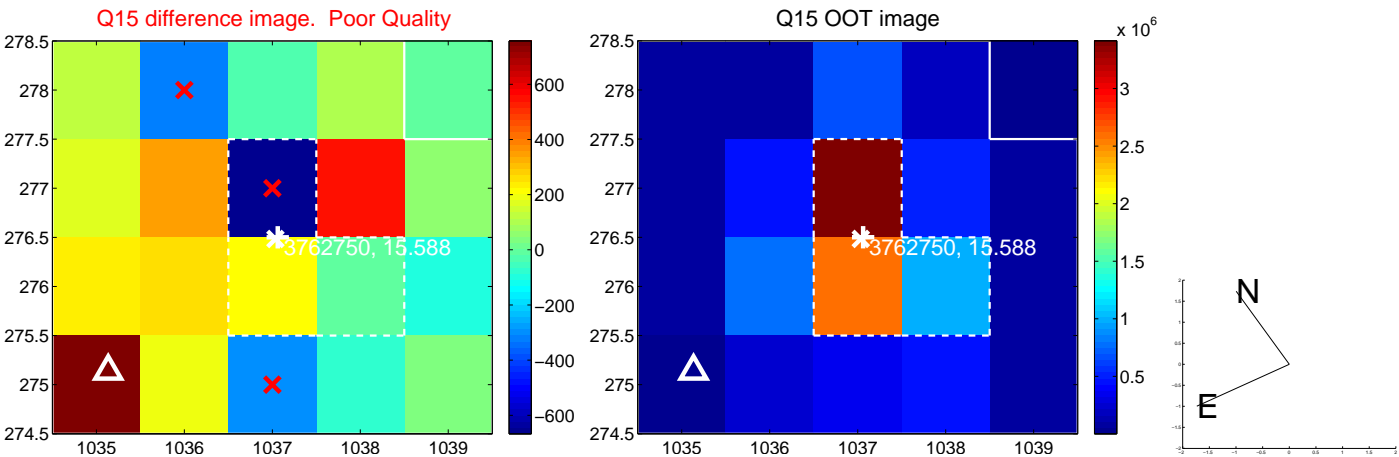
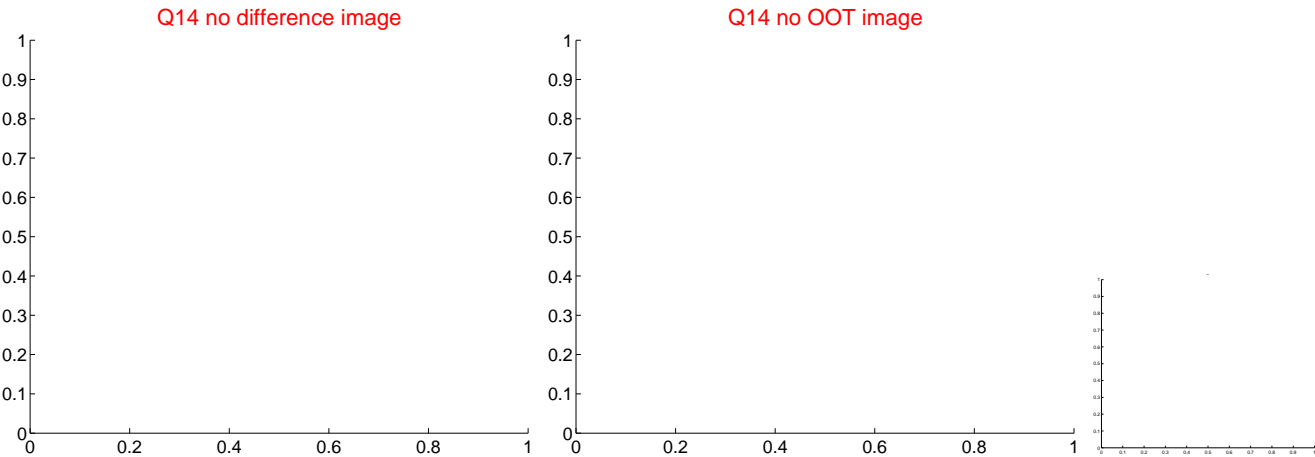
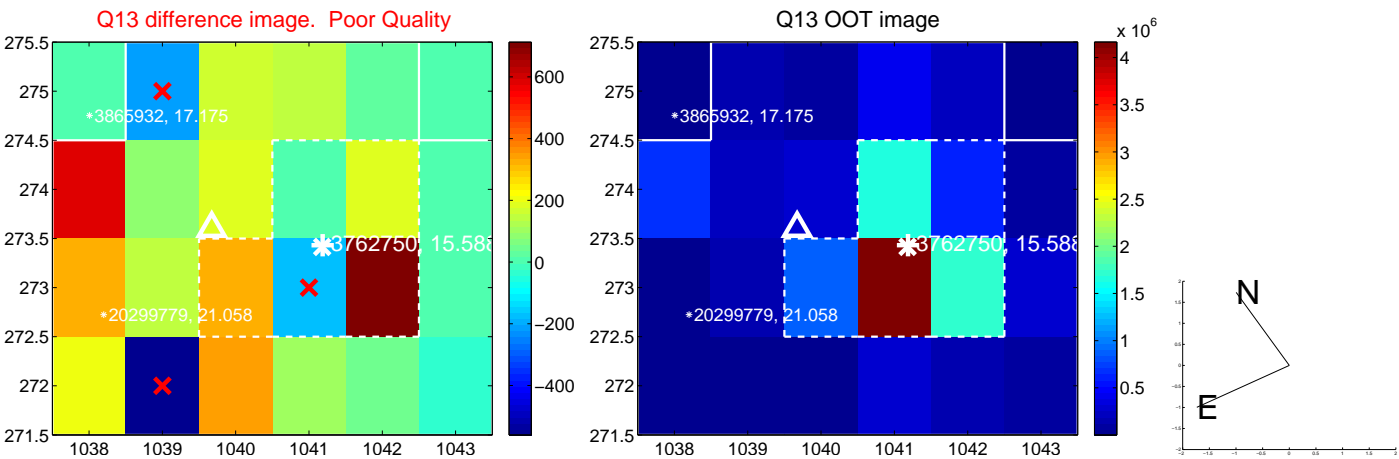
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



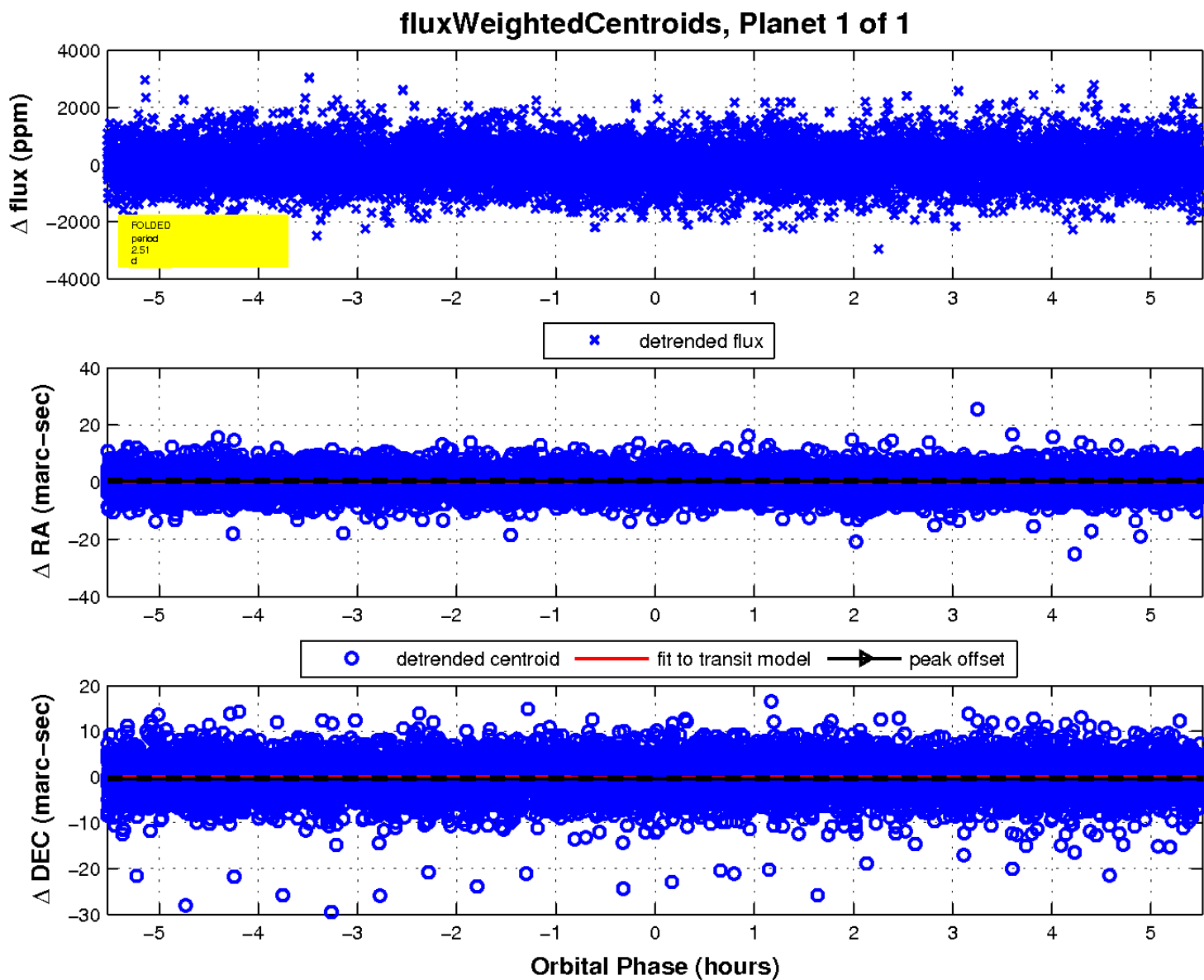
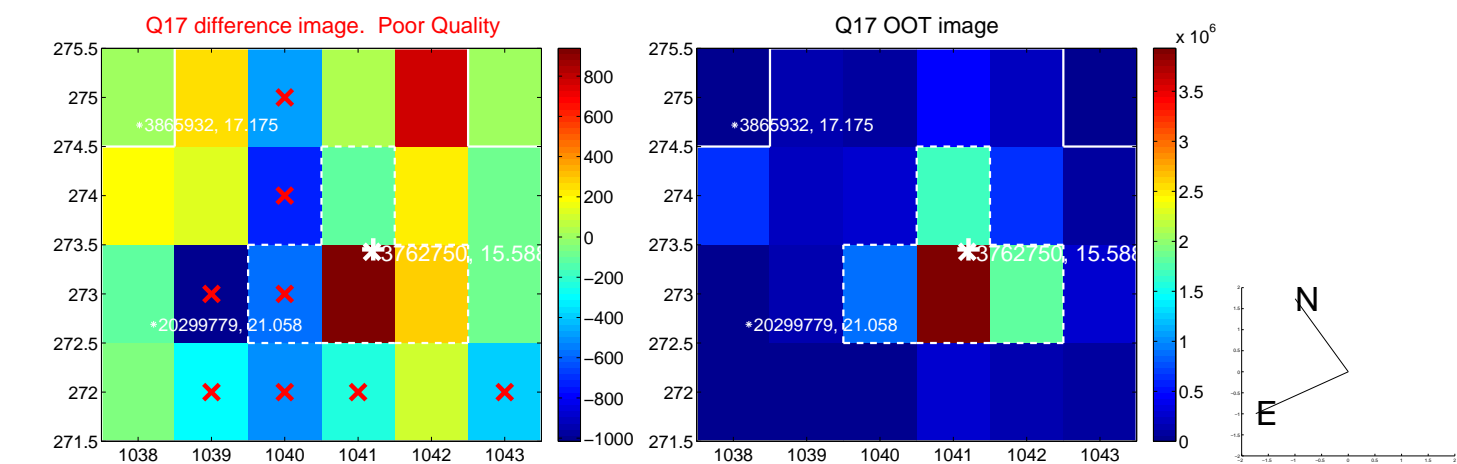
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

