

KIC 007352776

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})
007352776-01	OBS	No	2.530803	131.701382	151.7	11.868	8.5	9.8	2.07	7678	4.34	7407.34

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007352776-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_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.

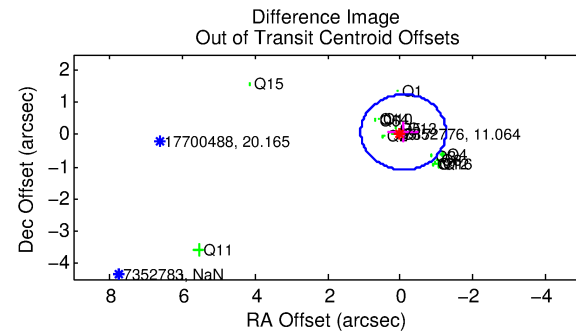
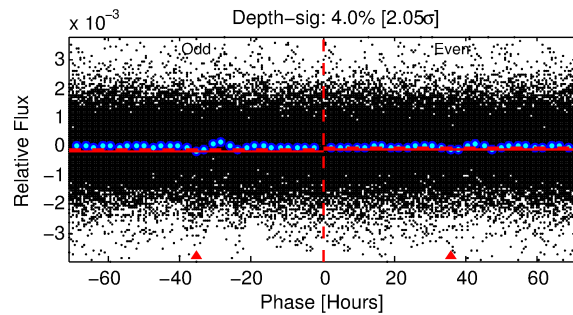
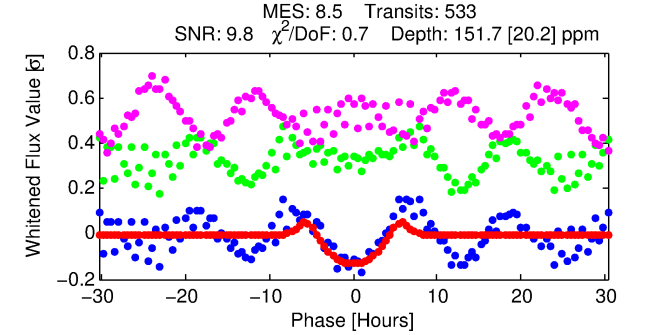
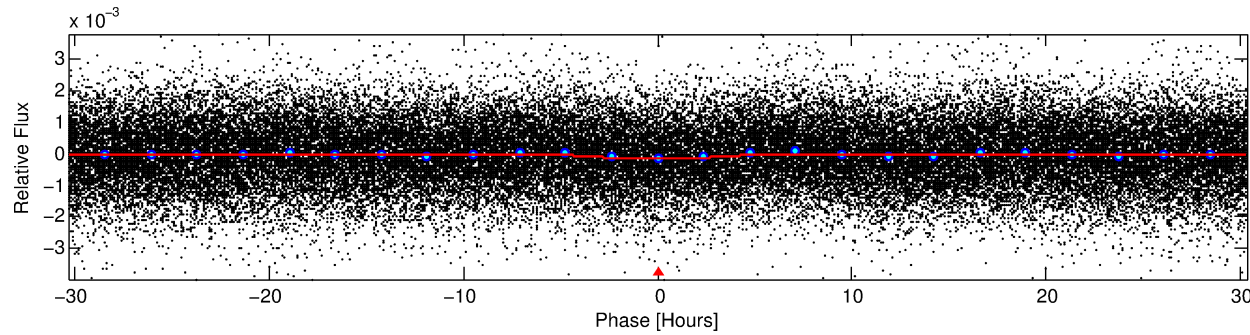
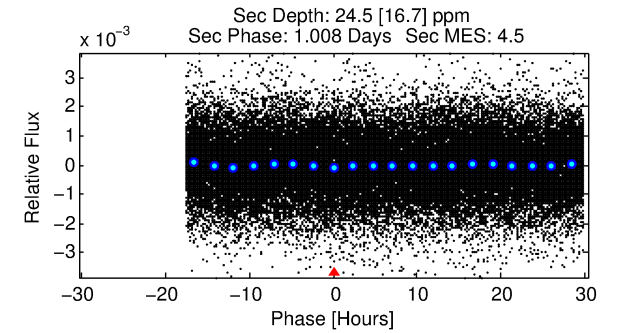
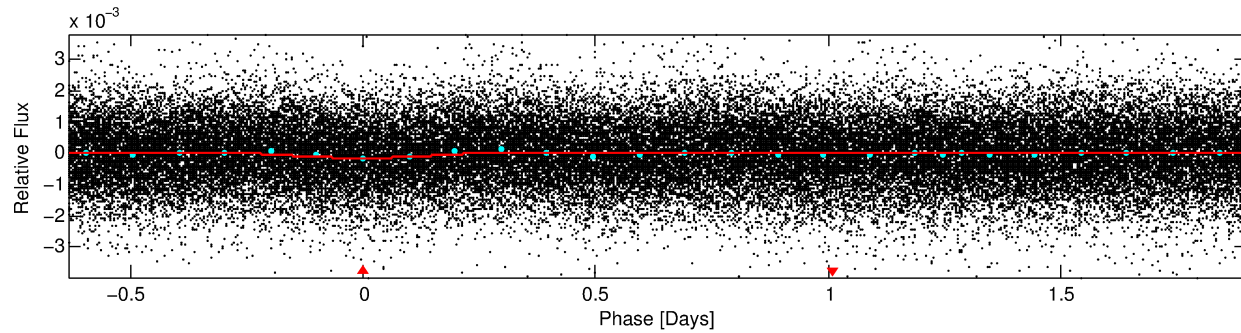
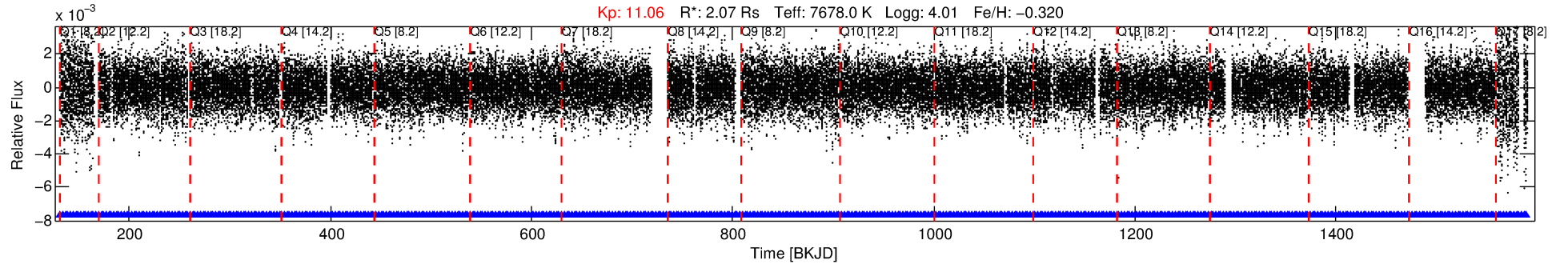
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007352776-01

No Significant Match Found

DV One-Page Summary

KIC: 7352776 Candidate: 1 of 1 Period: 2.531 d



DV Fit Results:

Period = 2.53080 [0.00005] d
Epoch = 131.7014 [0.0159] BKJD
Rp/R* = 0.0192 [0.0105]
a/R* = 1.07 [0.01]
b = 1.00 [0.02]
Seff = 7407.34 [3388.88]
Teq = 2366 [271] K
Rp = 4.34 [2.69] Re
a = 0.0425 [0.0115] AU
Ag = 1.29 [1.75] [0.17 σ]
Teffp = 3897 [1264] K [1.18 σ]

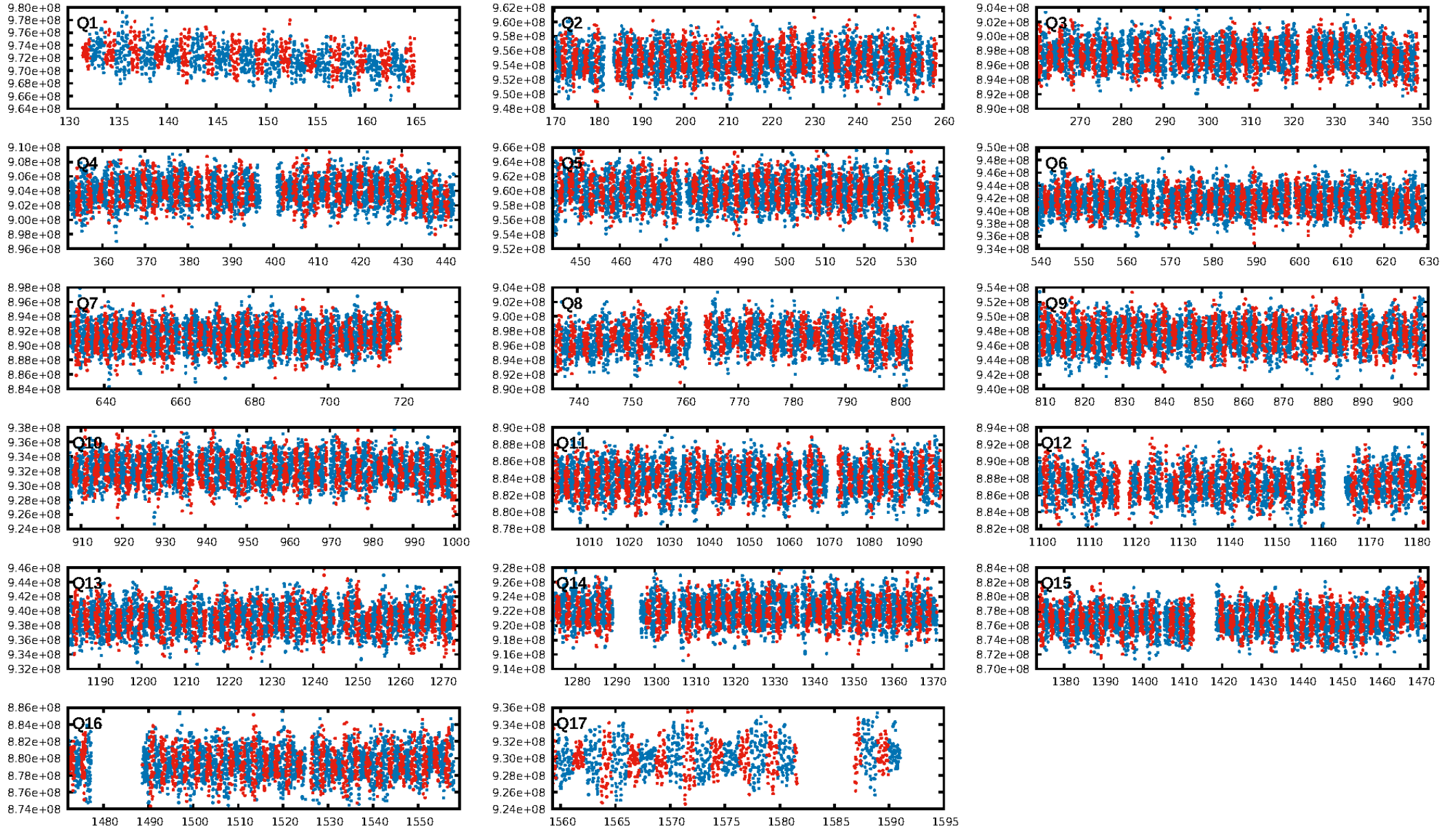
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.81e-09
RollingBand-fgt: 1.00 [508/508]
GhostDiagnostic-chr: 2.149
Centroid-sig: 1.1%
Centroid-so: 0.316 arcsec [3.17 σ]
OotOffset-rm: 0.116 arcsec [0.30 σ]
KicOffset-rm: 0.059 arcsec [0.16 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.12 [2/17]
DiffImageOverlap-fno: 1.00 [17/17]

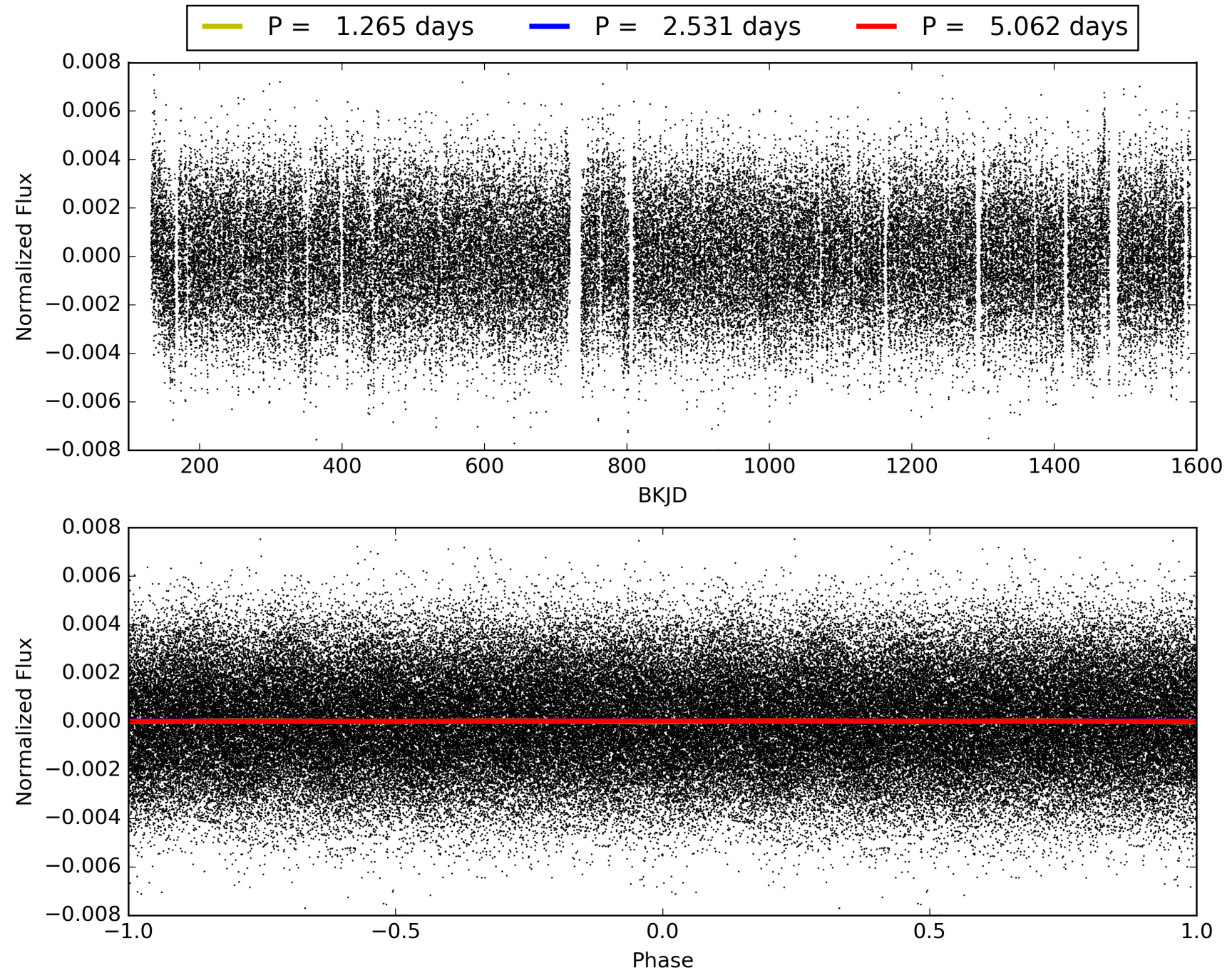
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:04:58 Z

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

TCE 007352776-01, PDC Light Curves

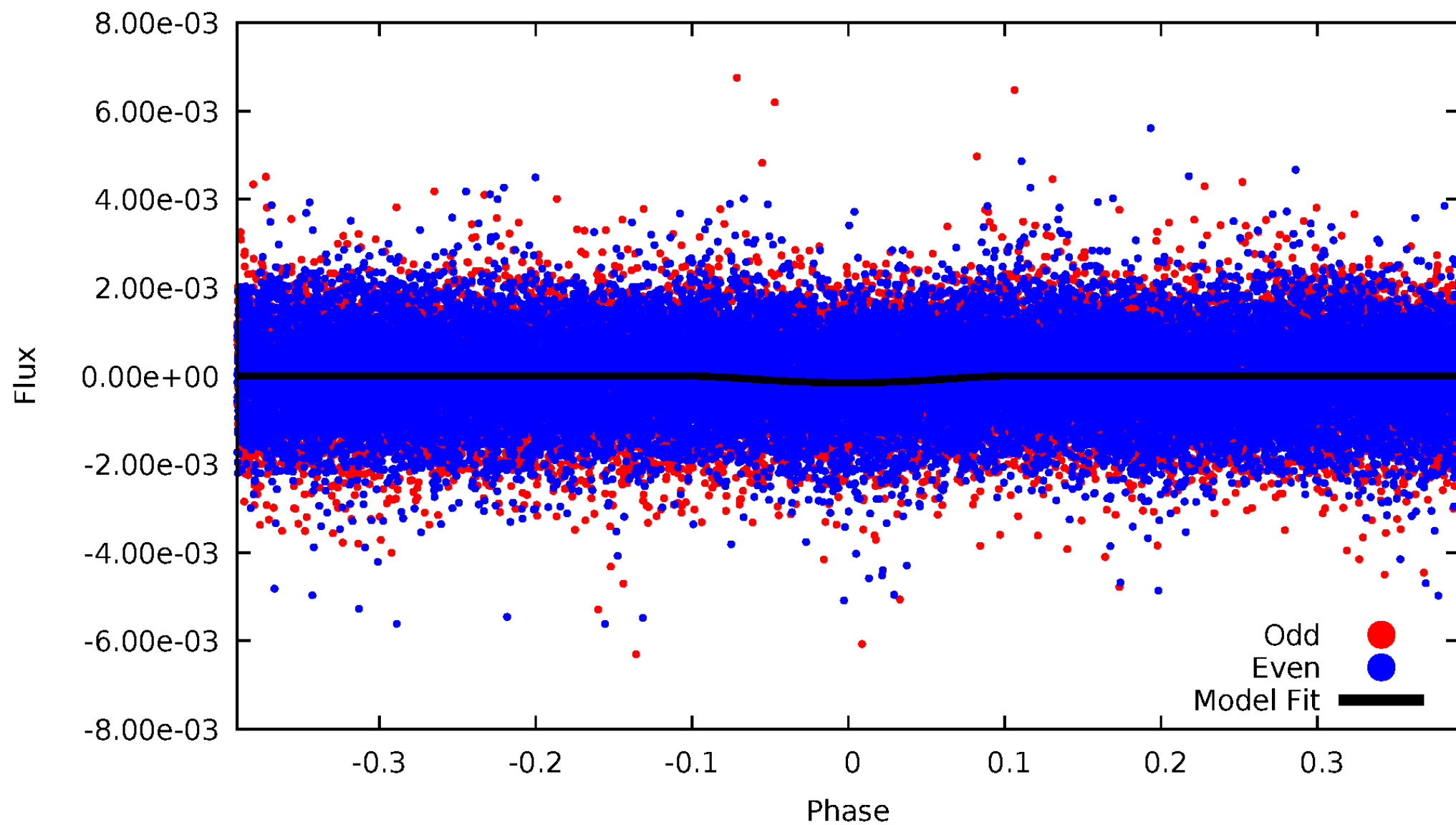


TCE 007352776-01



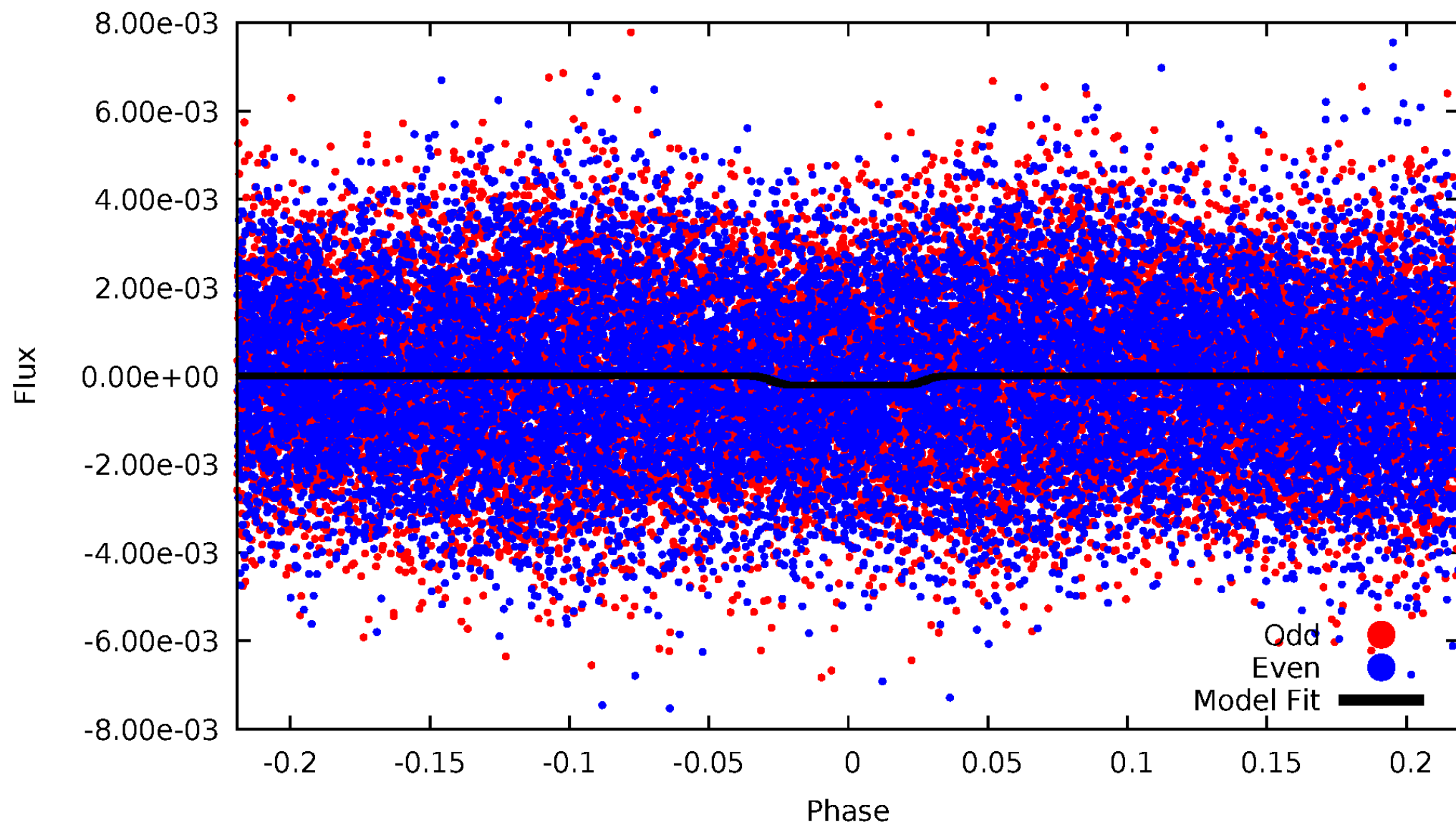
DV Odd/Even

TCE 007352776-01



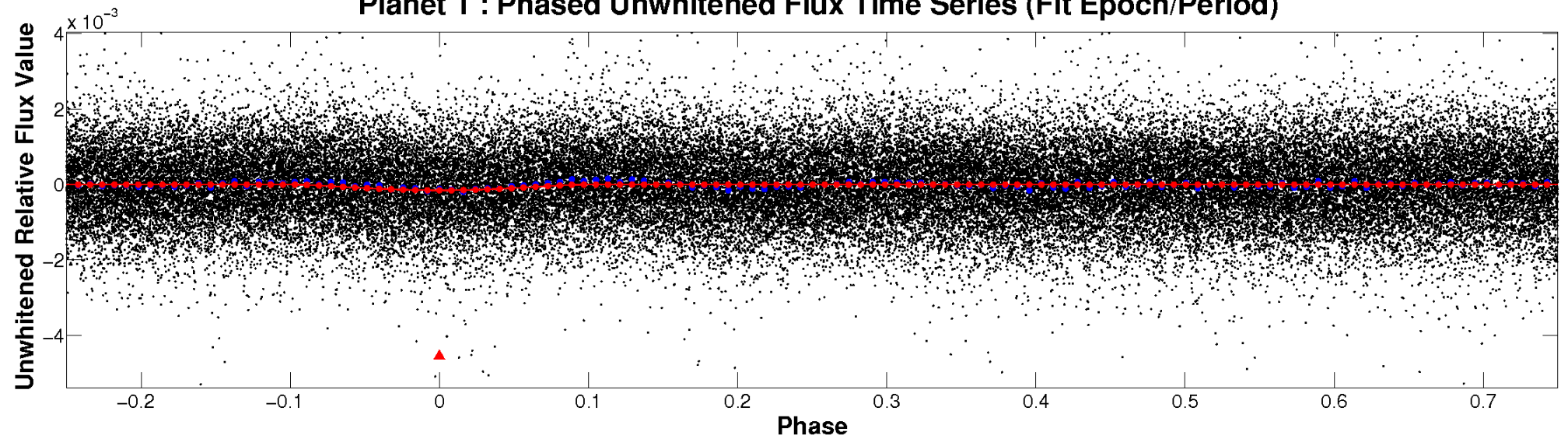
ALT Odd/Even

TCE 007352776-01

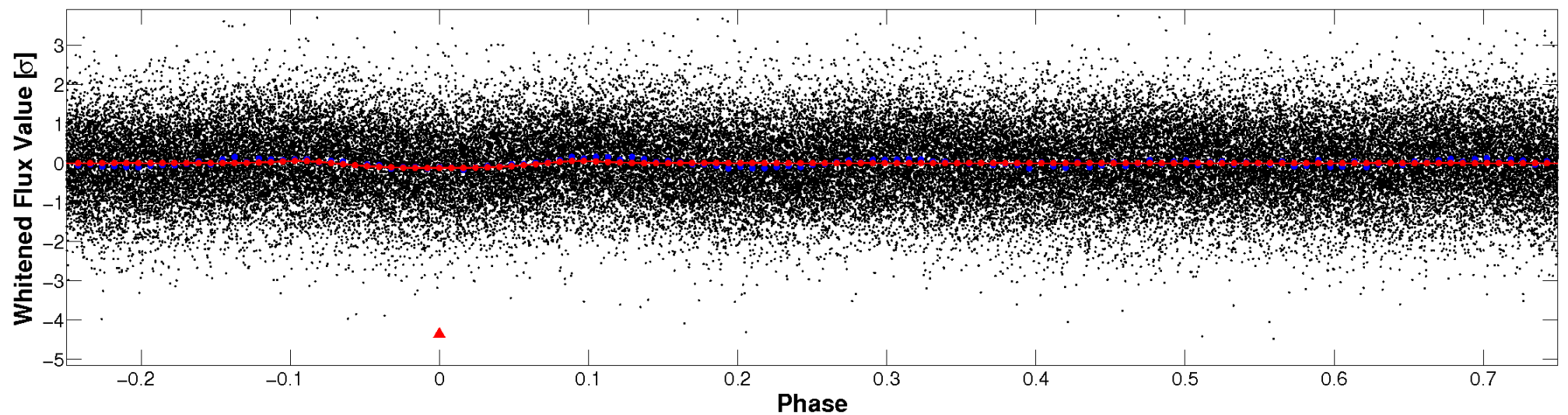


Non-Whitened Vs. Whitened Light Curve

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

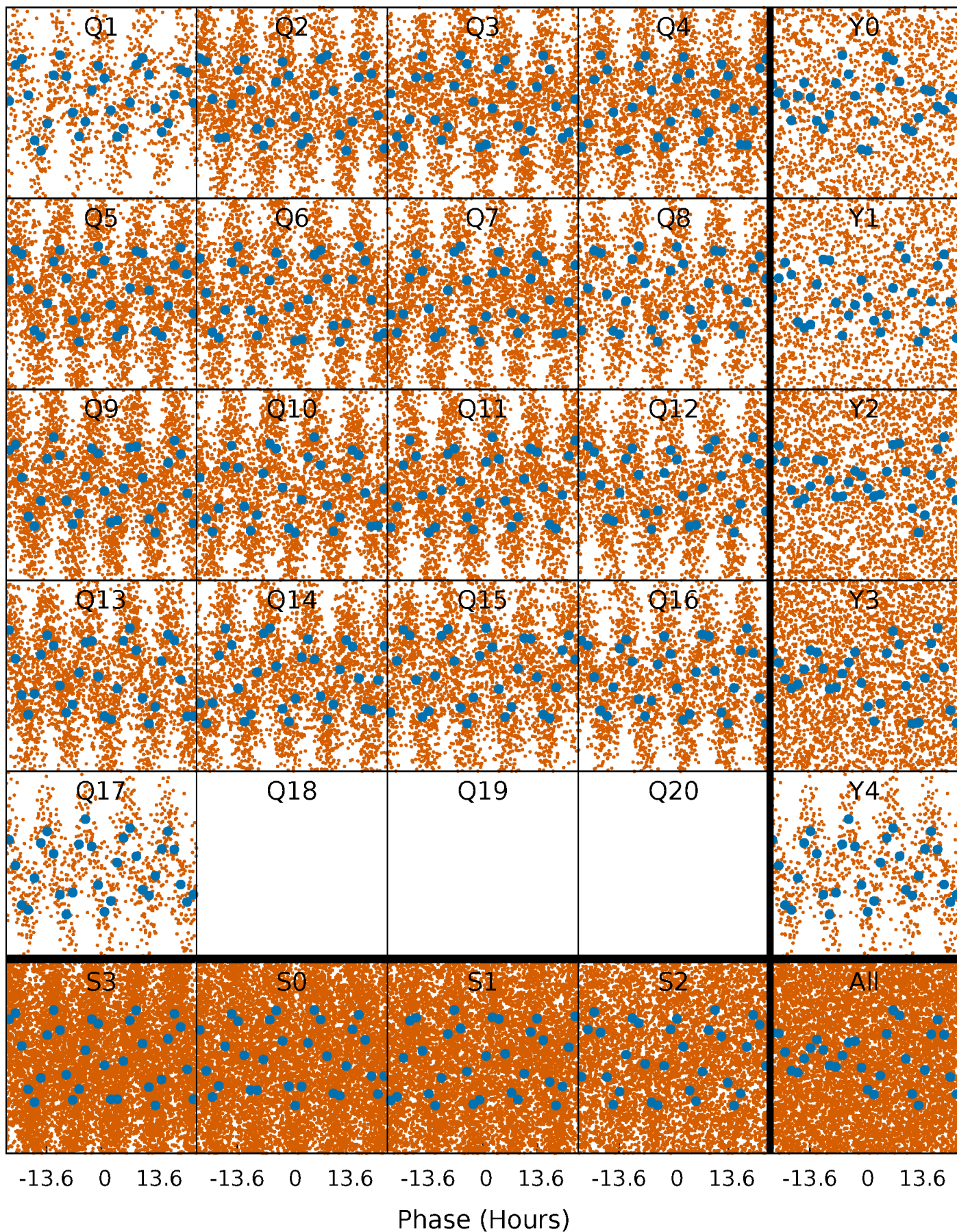


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



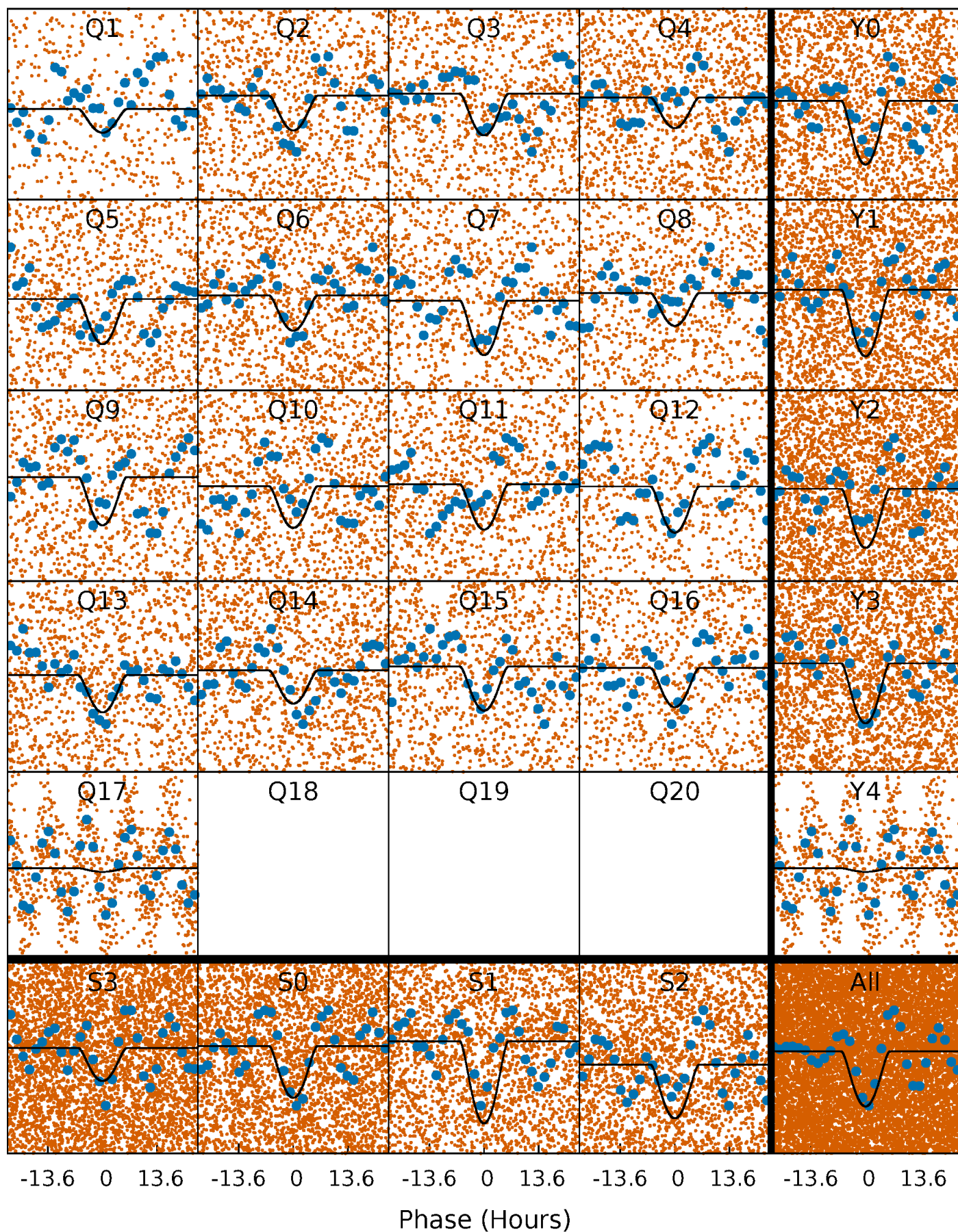
PDC Quarter-Phased Transit Curves

TCE 007352776-01 P= 2.530803 Days $T_0=131.701382$ (BKJD)



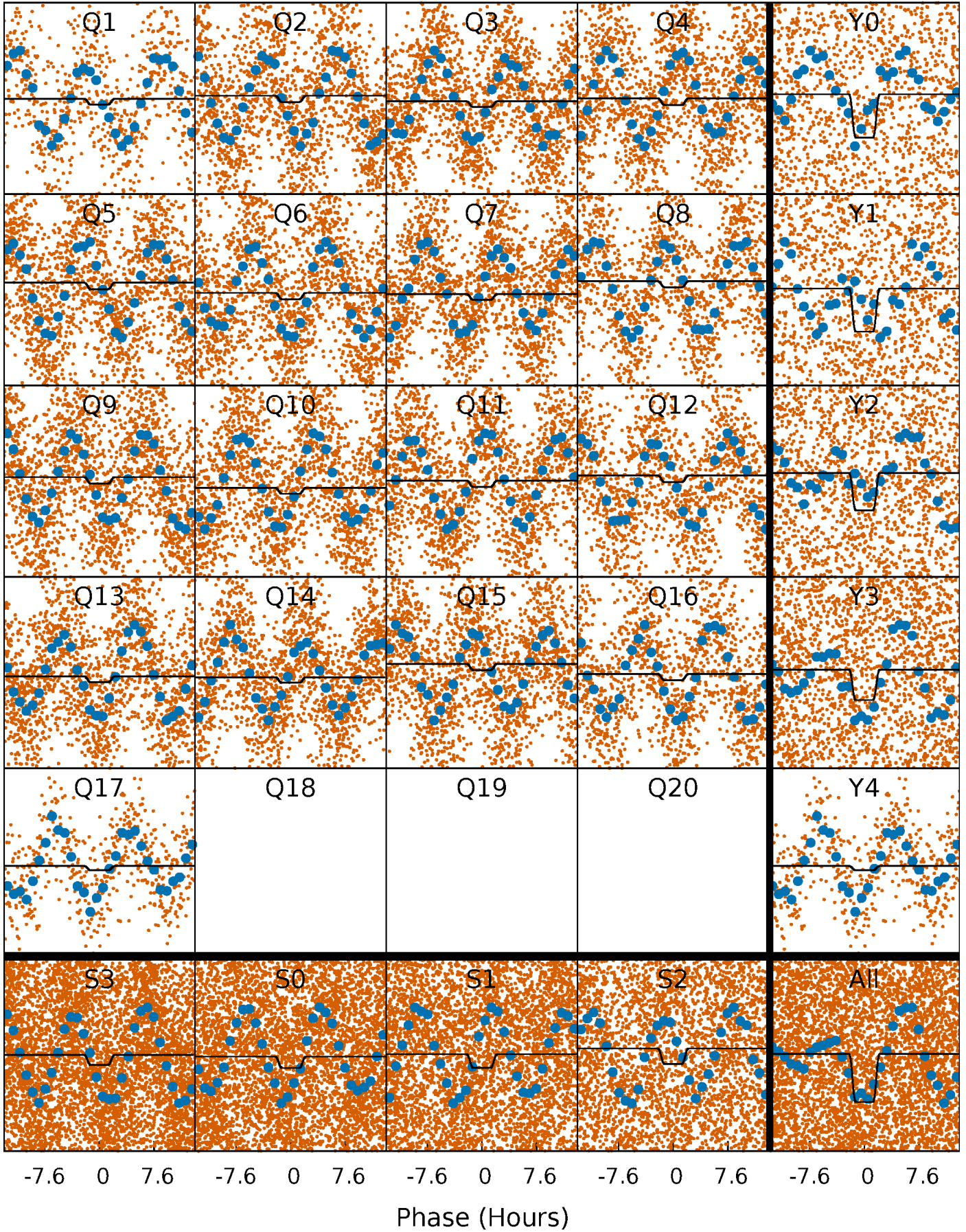
DV Quarter-Phased Transit Curves

TCE 007352776-01 P= 2.530803 Days $T_0=131.701382$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

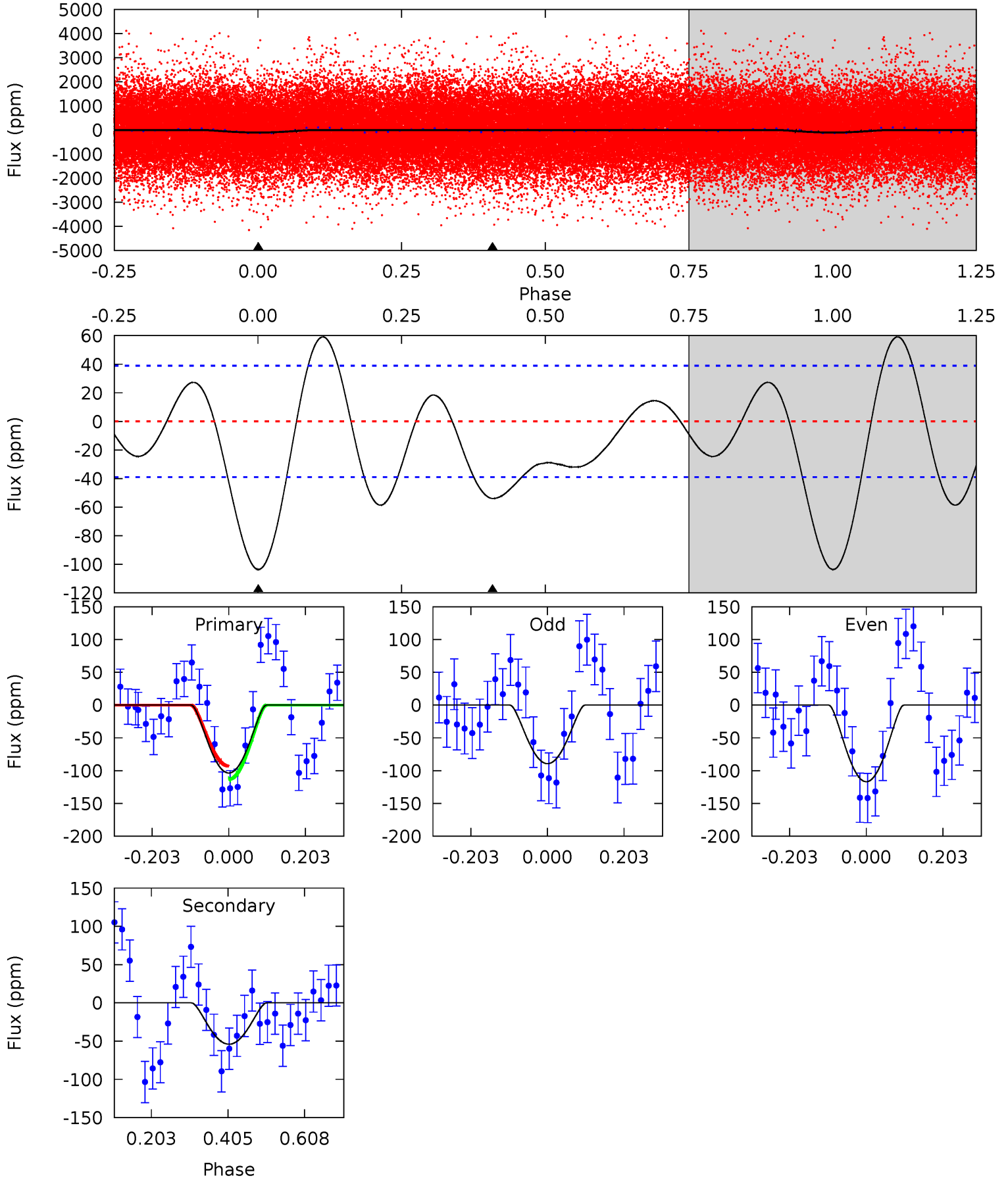
TCE 007352776-01 P= 2.530865 Days $T_0=131.757192$ (BKJD)



DV Model-Shift Uniqueness Test

007352776-01, P = 2.530803 Days, E = 129.170579 Days

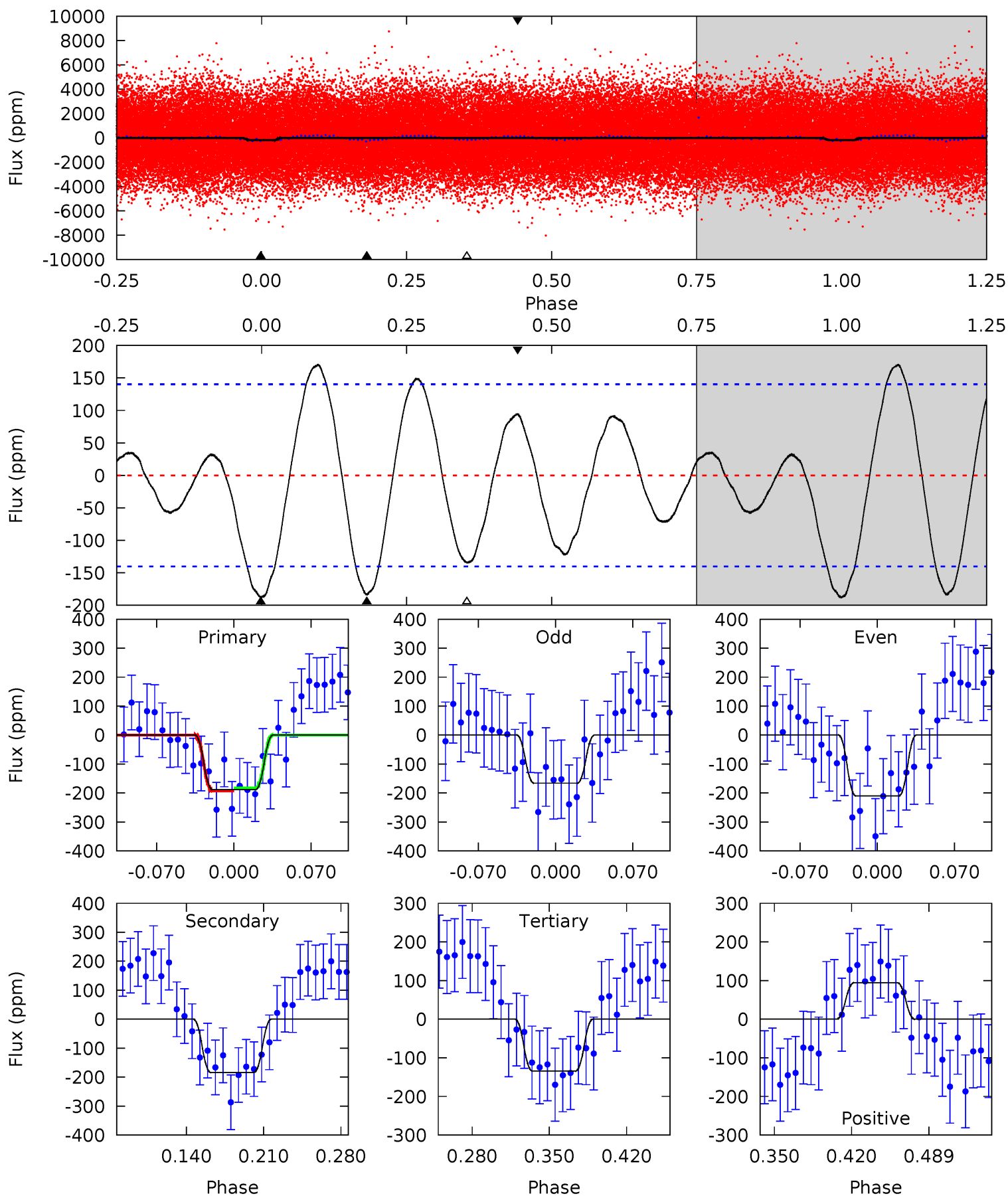
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.7	6.12	0	0	4.41	1.27	1.62	11.7	11.7	6.12	6.12	1.56	1.14	0.36	1.18



Alt Model-Shift Uniqueness Test

007352776-01, P = 2.530865 Days, E = 129.226327 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.22	6.08	4.44	3.13	4.64	1.81	2.57	1.78	3.10	1.64	2.95	0.72	1.03	0.47	0.16



Stellar Parameters For KIC 007352776

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7678^{+239}_{-319}	$4.008^{+0.247}_{-0.152}$	$-0.320^{+0.250}_{-0.300}$	$2.071^{+0.495}_{-0.605}$	$1.590^{+0.181}_{-0.295}$	$0.252^{+0.390}_{-0.110}$
	+3%/-4%	+6%/-4%	+78%/-94%	+24%/-29%	+11%/-19%	+155%/-43%
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 007352776-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-54 ± 9	$4.11^{+2.58}_{-2.09}$	3260^{+250}_{-258}	4673^{+1905}_{-862}	$3.108^{+9.551}_{-1.946}$
Alt.	-184 ± 30	$3.32^{+2.40}_{-1.85}$	3279^{+228}_{-276}	7017^{+5842}_{-1613}	16^{+68}_{-10}

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

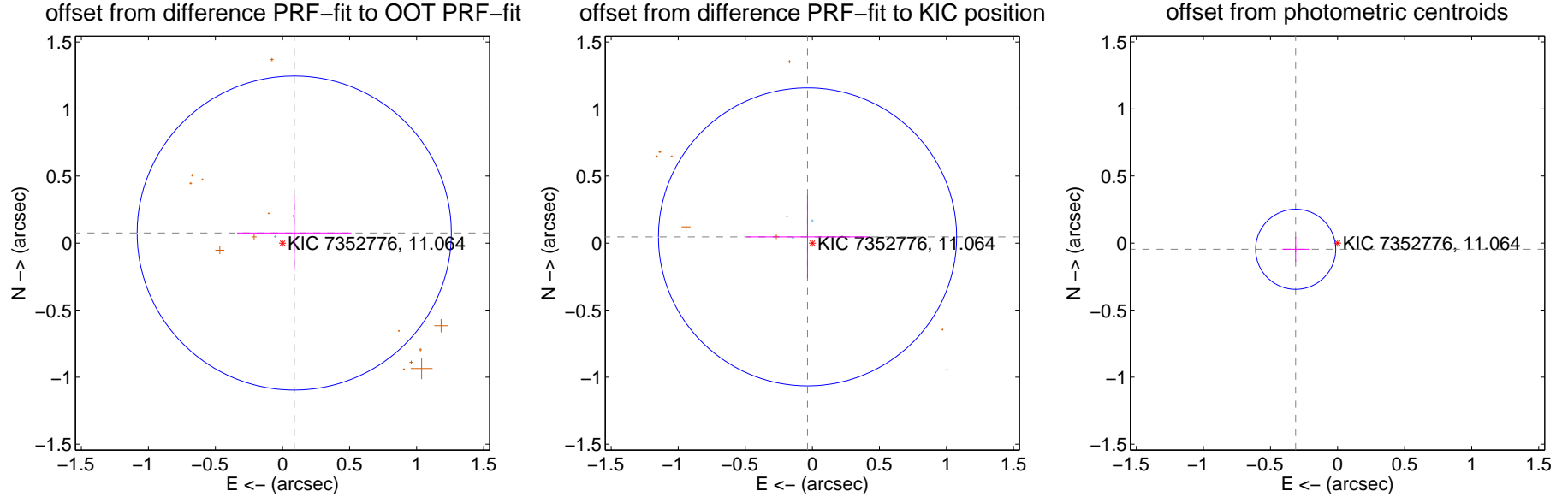
DV Centroid Data

Supplemental centroid analysis for 007352776-01. **Kepler magnitude: 11.06.** Transit SNR 9.81

There are 2 quarters with good PRF difference image offsets

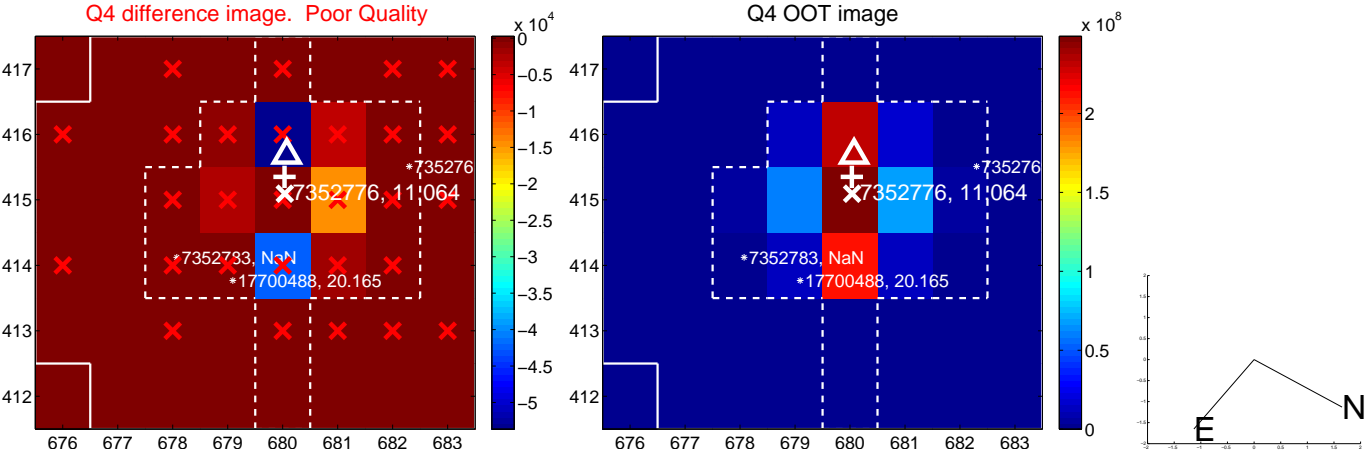
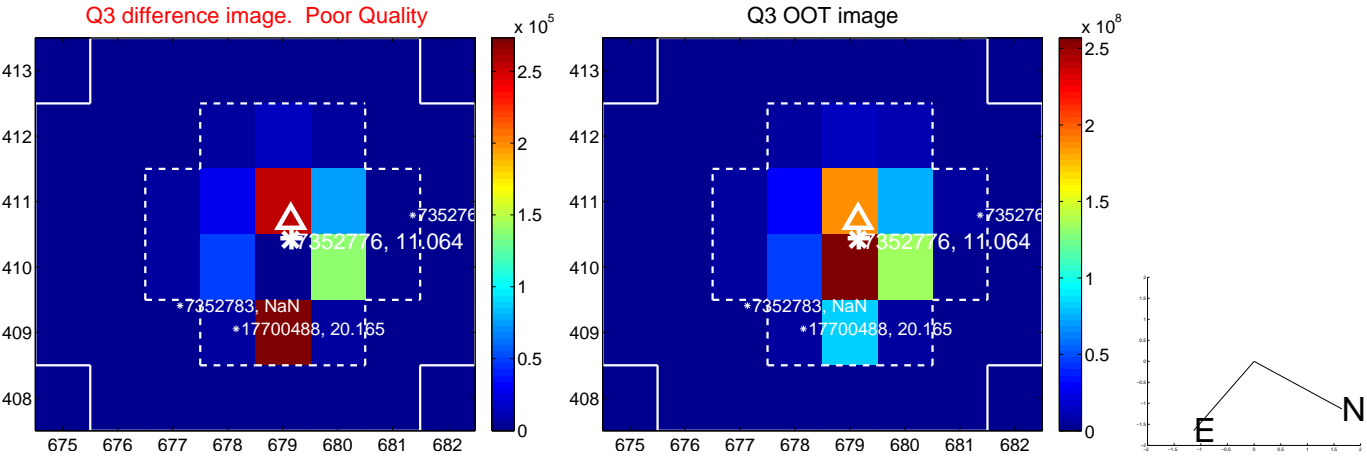
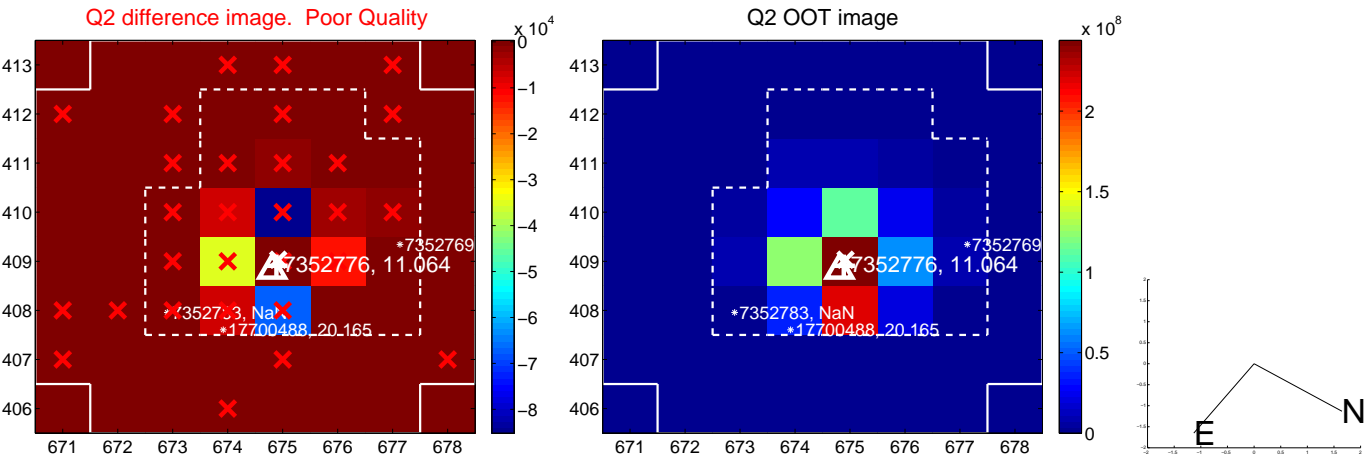
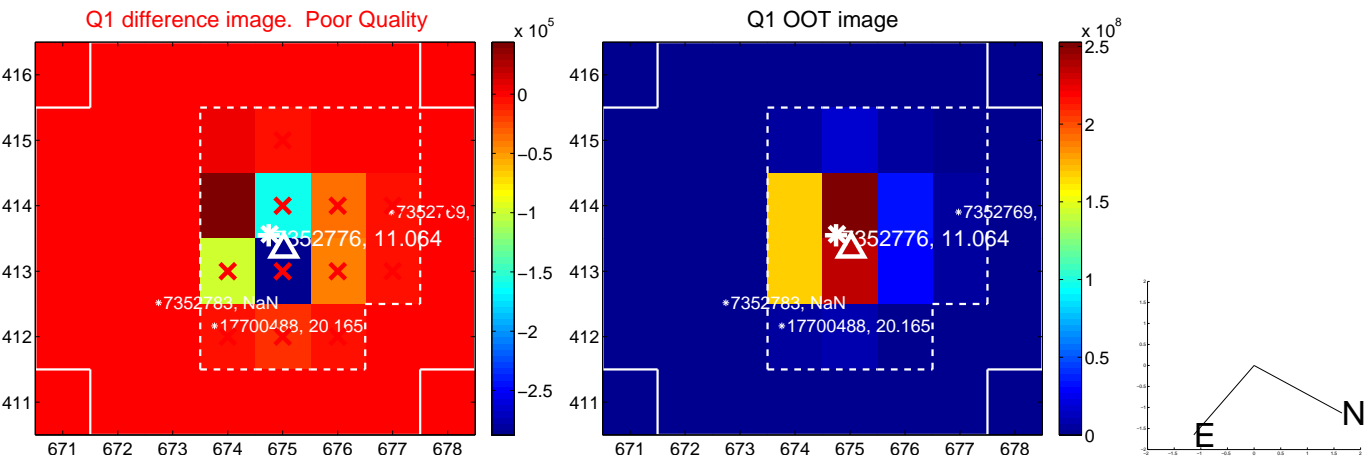
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.116 ± 0.390	0.30	-0.087 ± 0.426	0.076 ± 0.278
PRF-fit source offset from KIC position	0.059 ± 0.371	0.16	0.036 ± 0.455	0.047 ± 0.308
photometric centroid source offset	0.32 ± 0.10	3.17	0.31 ± 0.10	-0.05 ± 0.09

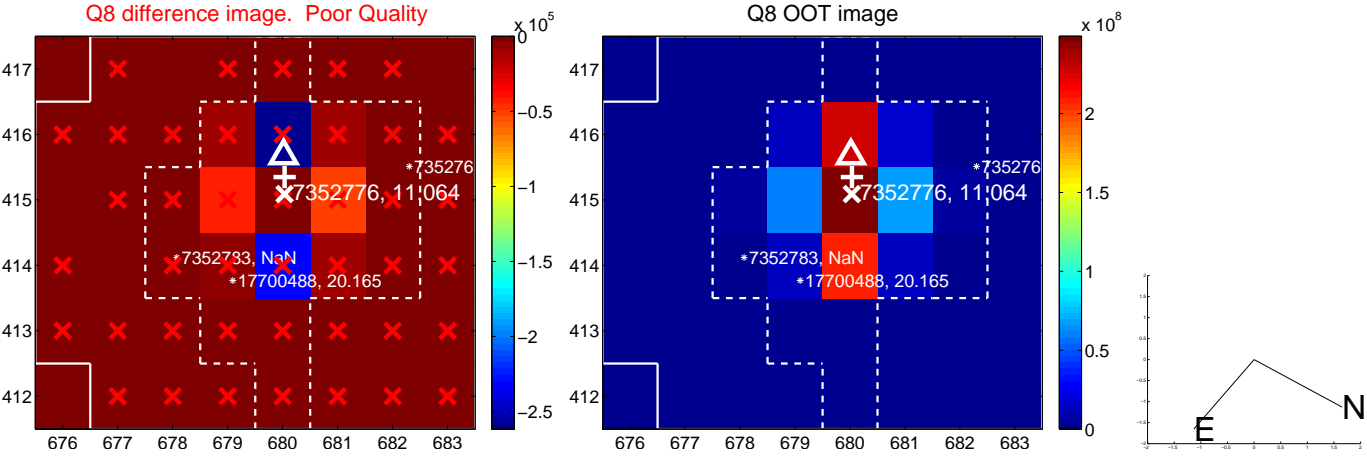
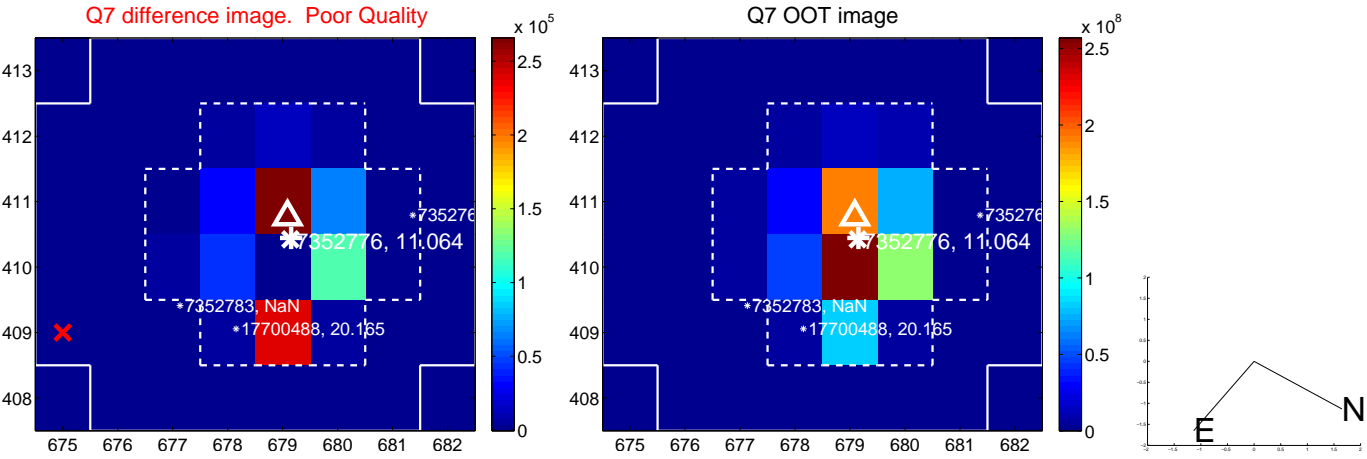
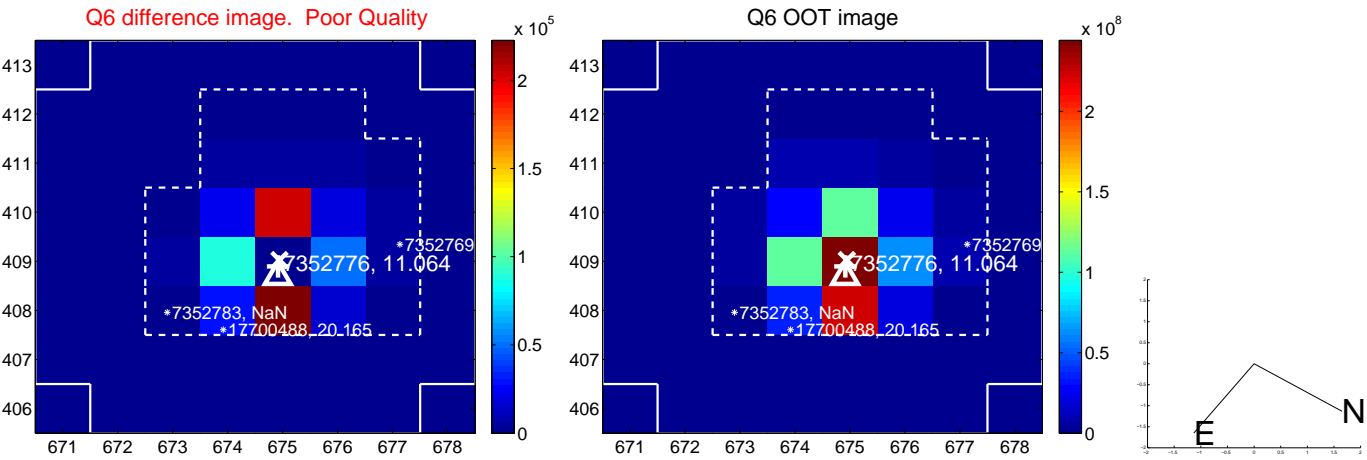
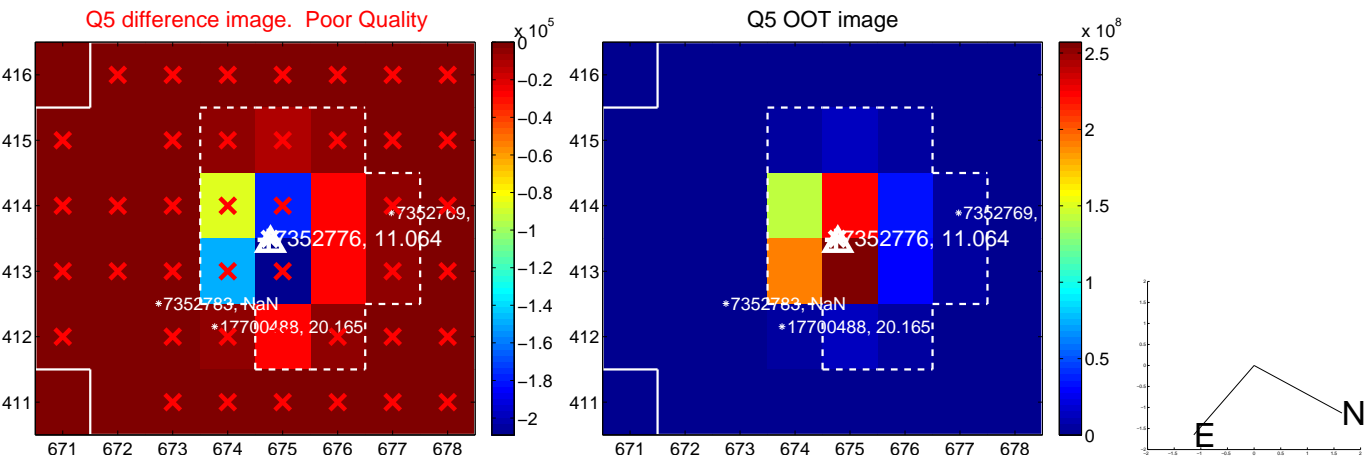


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

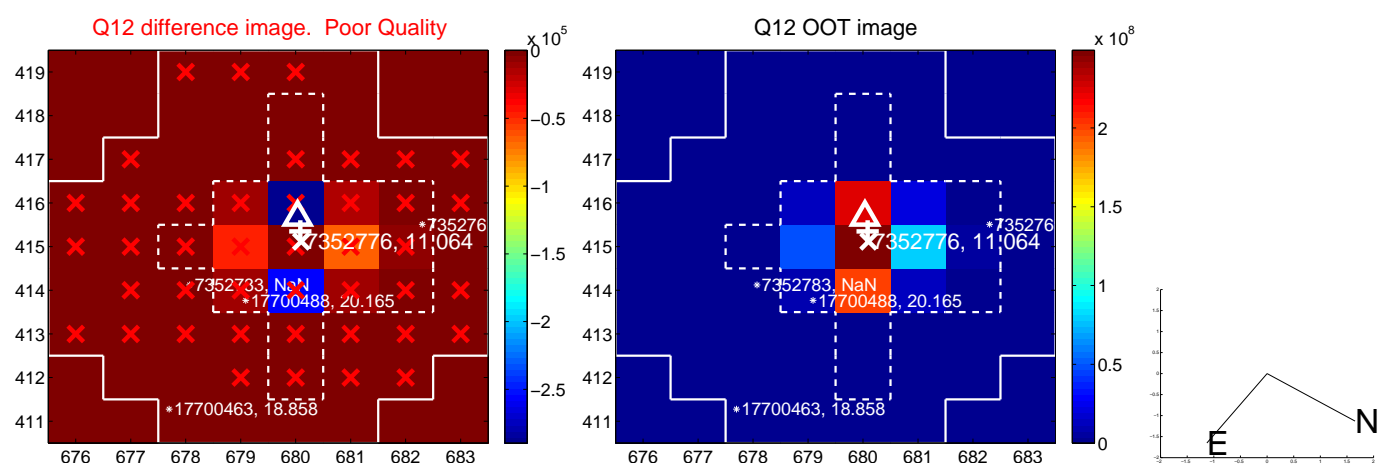
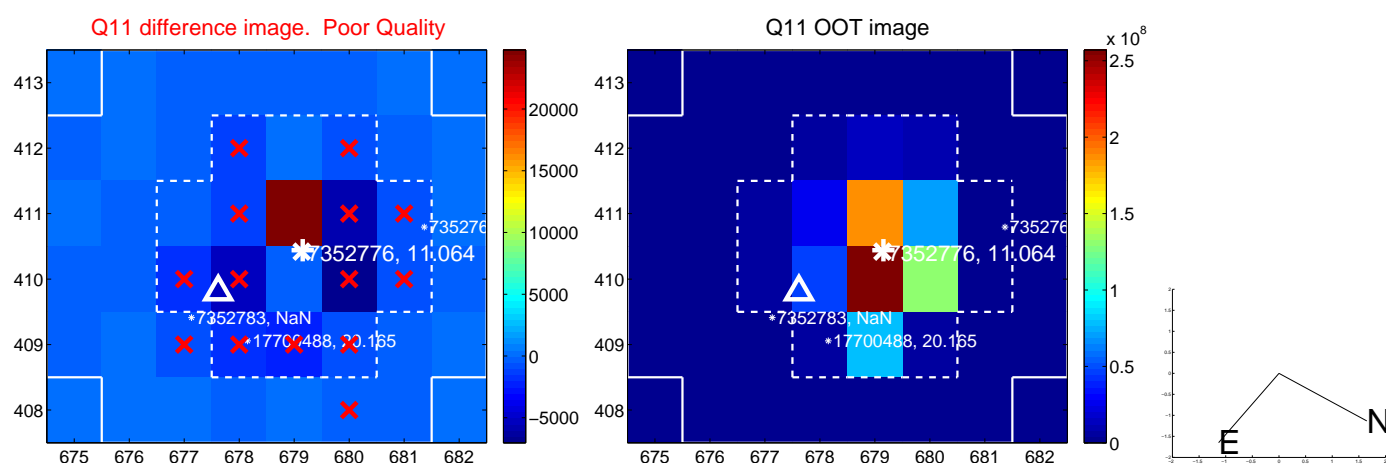
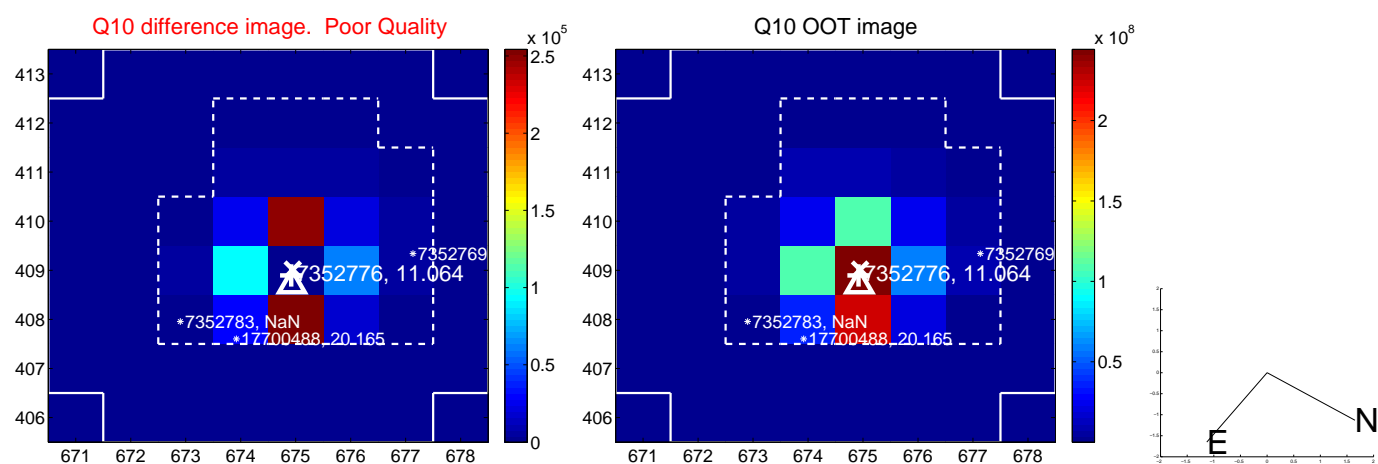
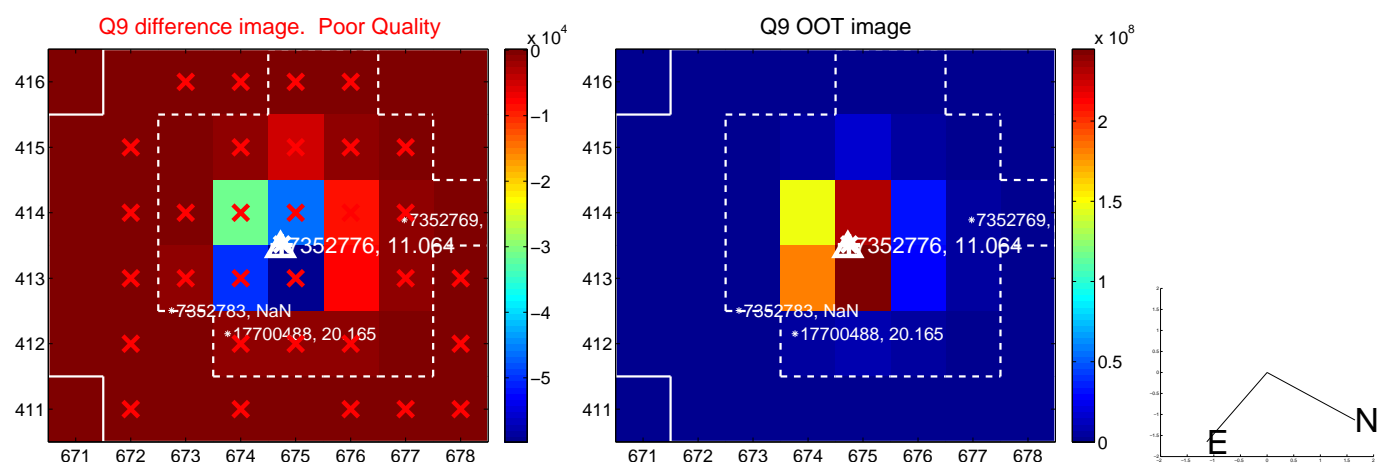
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



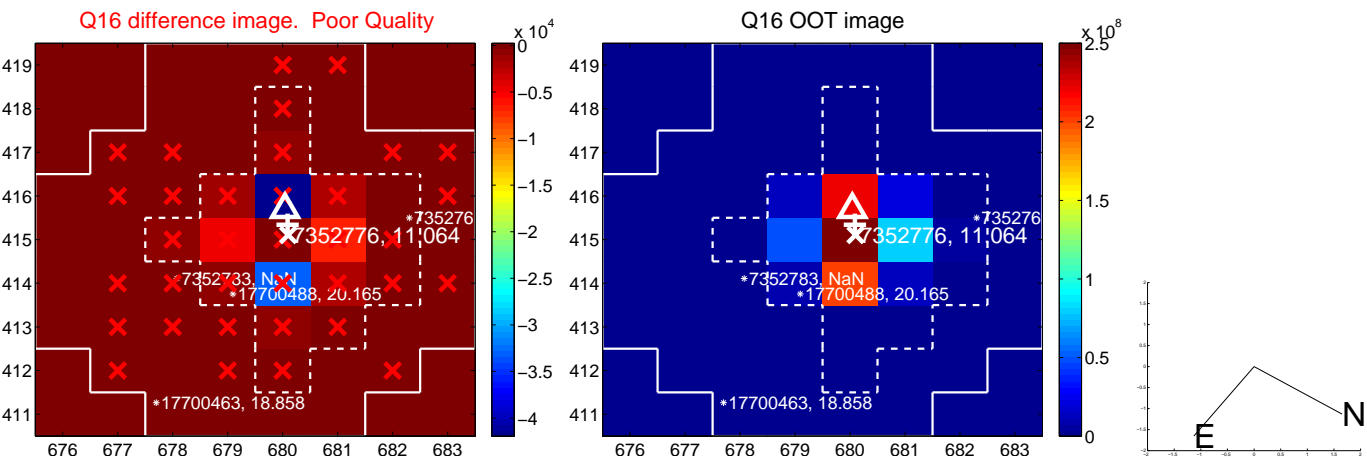
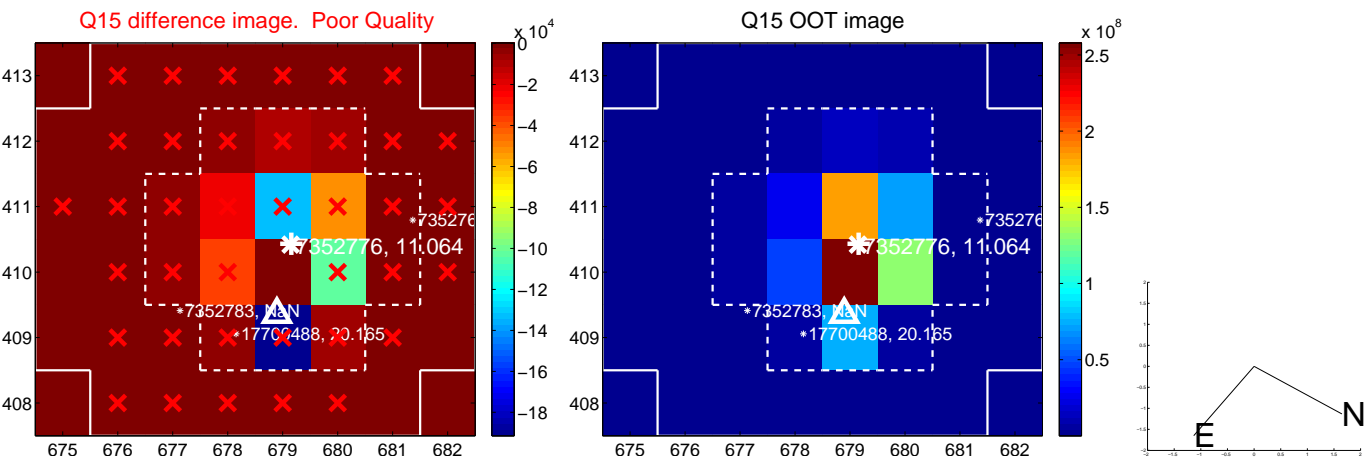
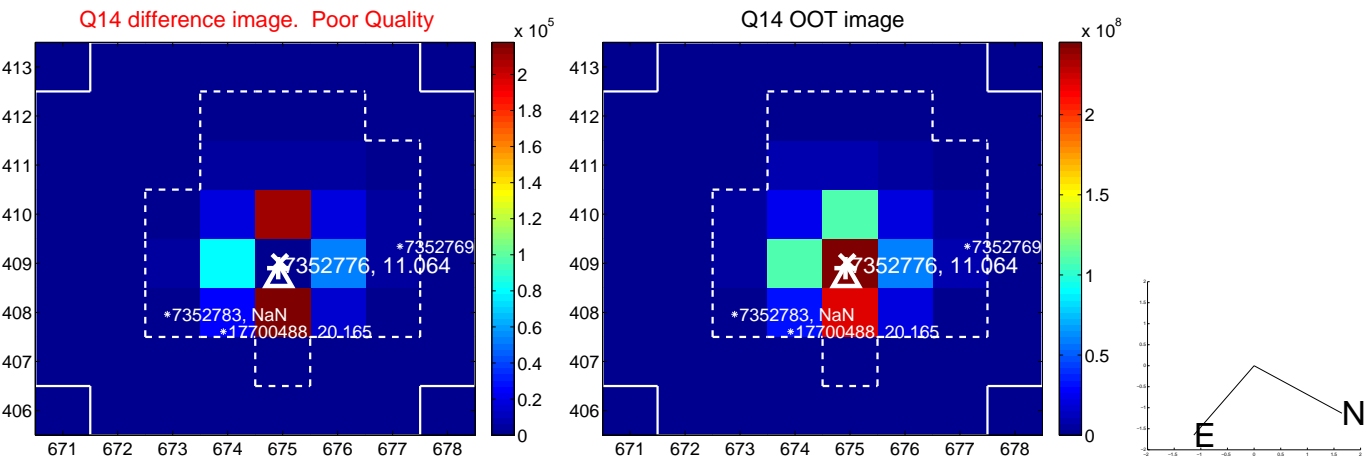
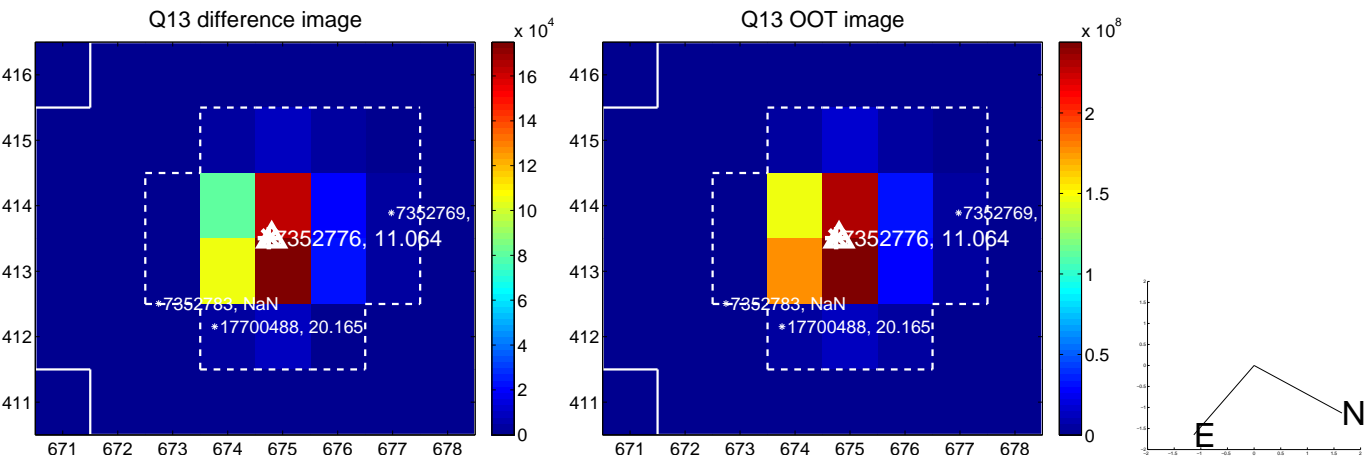
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



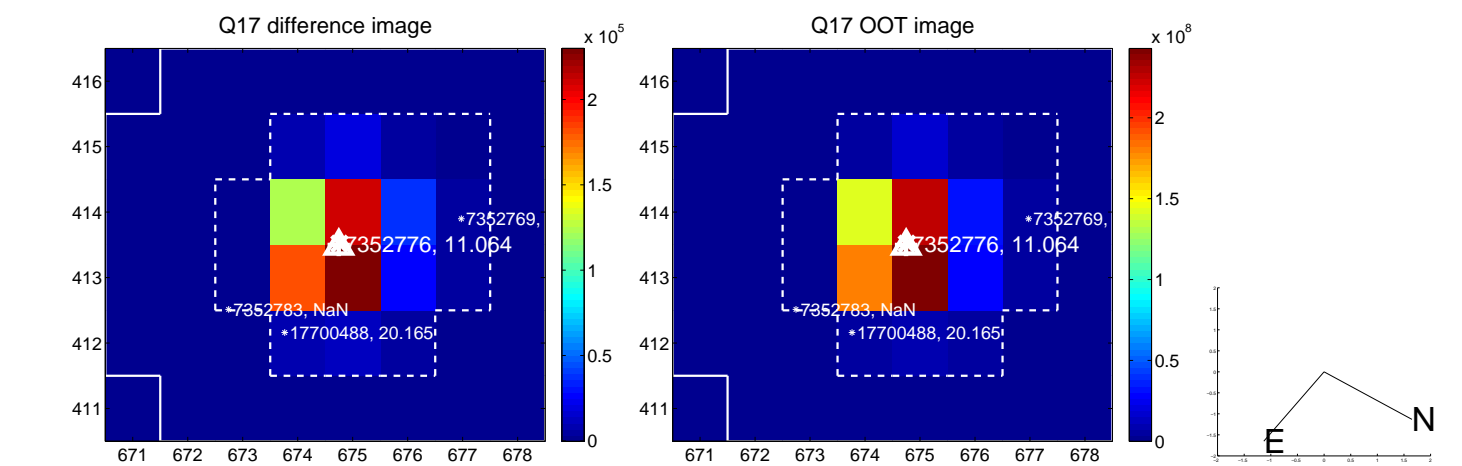
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



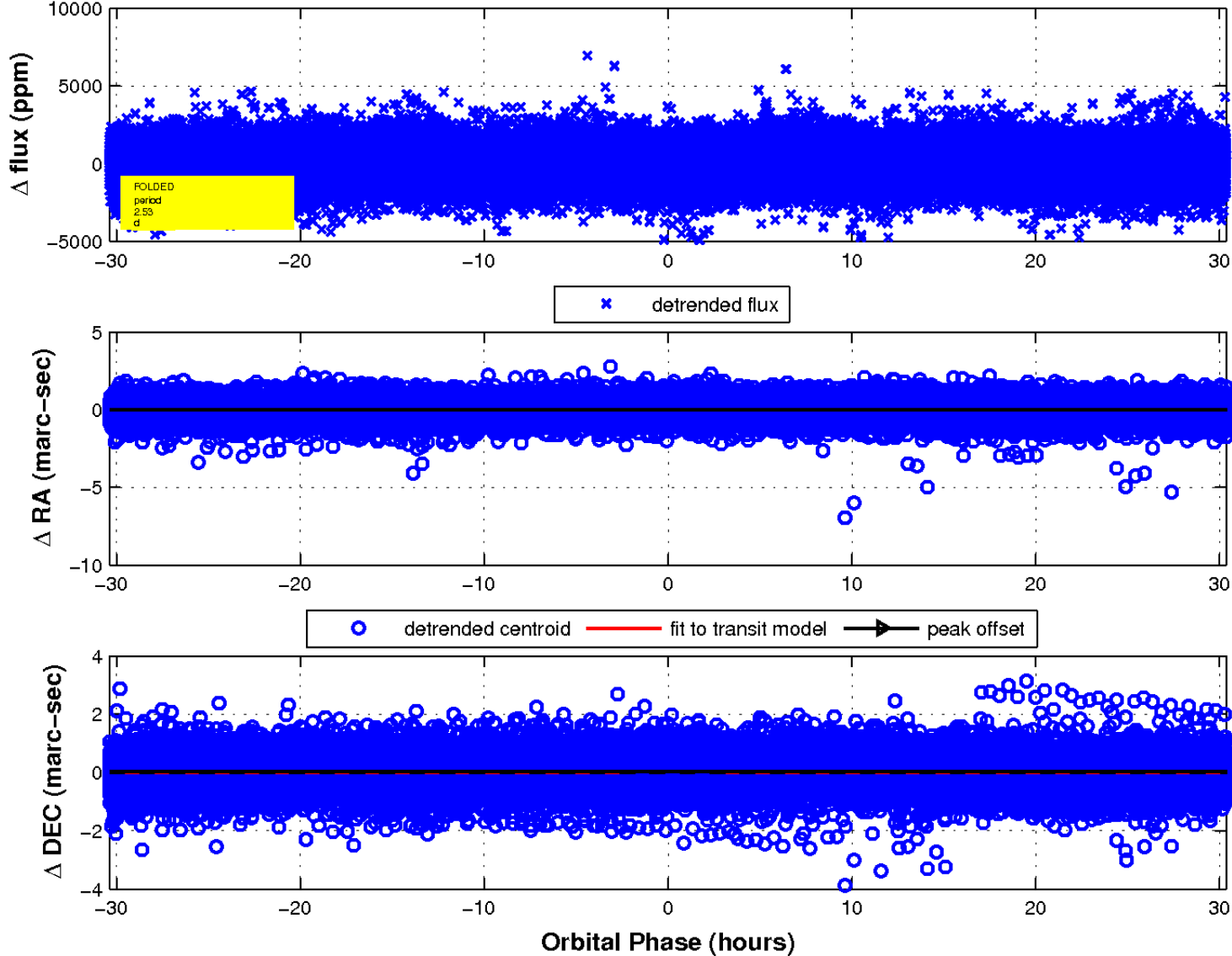
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

