

KIC 007686895

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})
007686895-01	OBS	No	204.157567	147.670711	278.5	9.465	7.8	7.8	0.66	4797	1.17	0.57

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007686895-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—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.

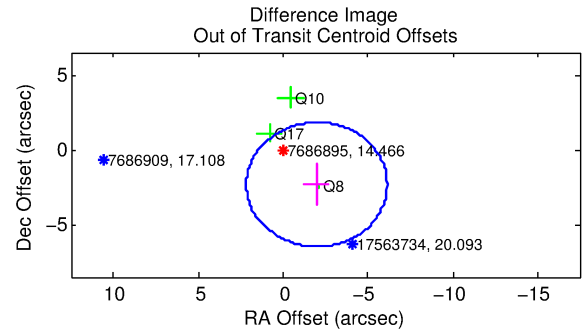
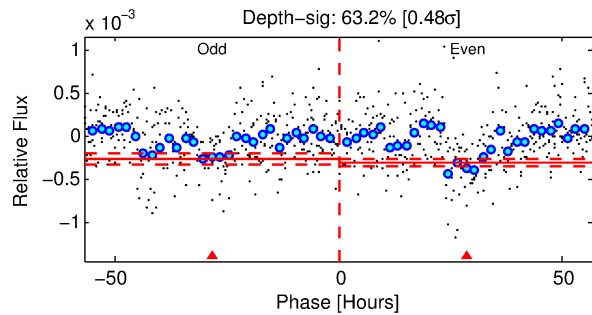
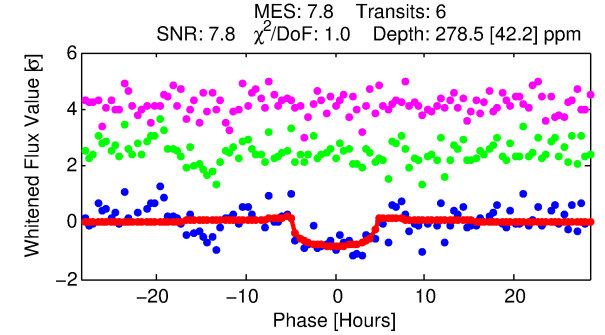
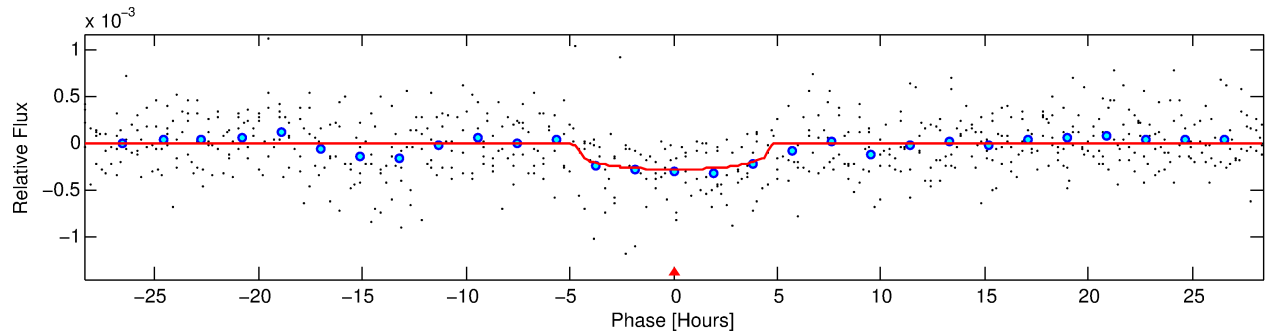
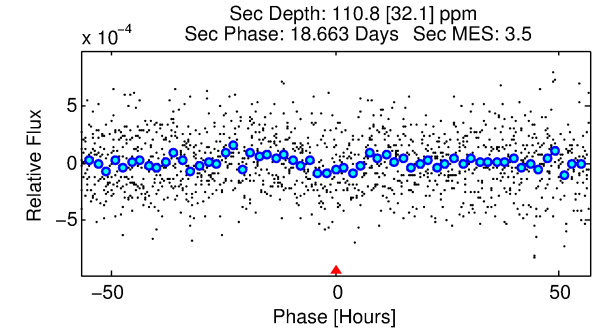
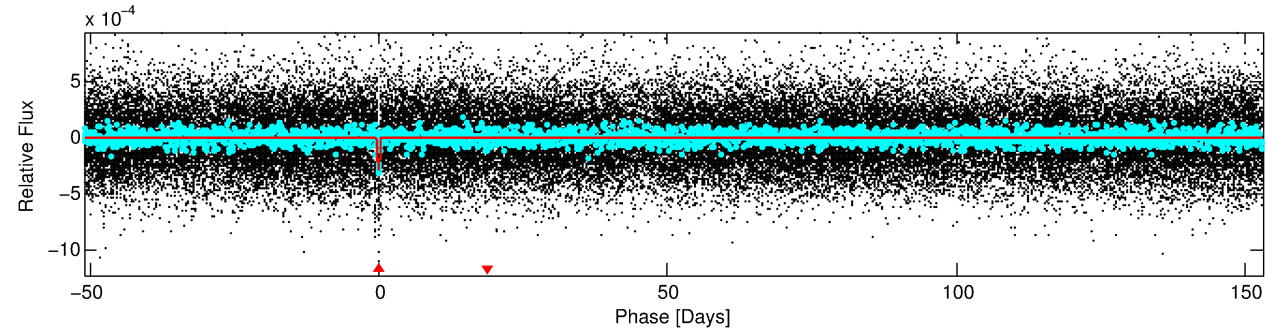
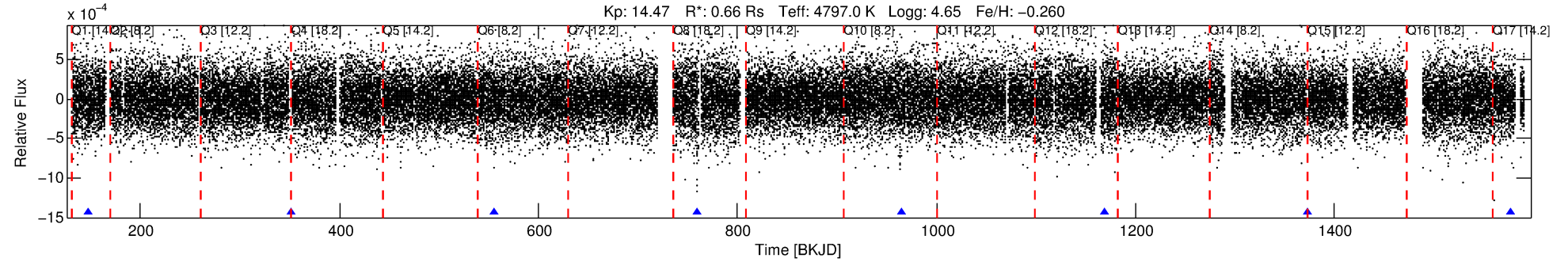
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007686895-01

No Significant Match Found

DV One-Page Summary

KIC: 7686895 Candidate: 1 of 1 Period: 204.158 d



DV Fit Results:

Period = 204.15757 [0.00441] d
Epoch = 147.6707 [0.0198] BKJD
Rp/R* = 0.0161 [0.0193]
a/R* = 125.77 [510.76]
b = 0.67 [3.40]
Seff = 0.57 [0.09]
Teq = 221 [9] K
Rp = 1.17 [1.41] Re
a = 0.6078 [0.0506] AU
Ag = 16506.53 [39946.37] [0.41 σ]
Teffp = 3876 [2346] K [1.56 σ]

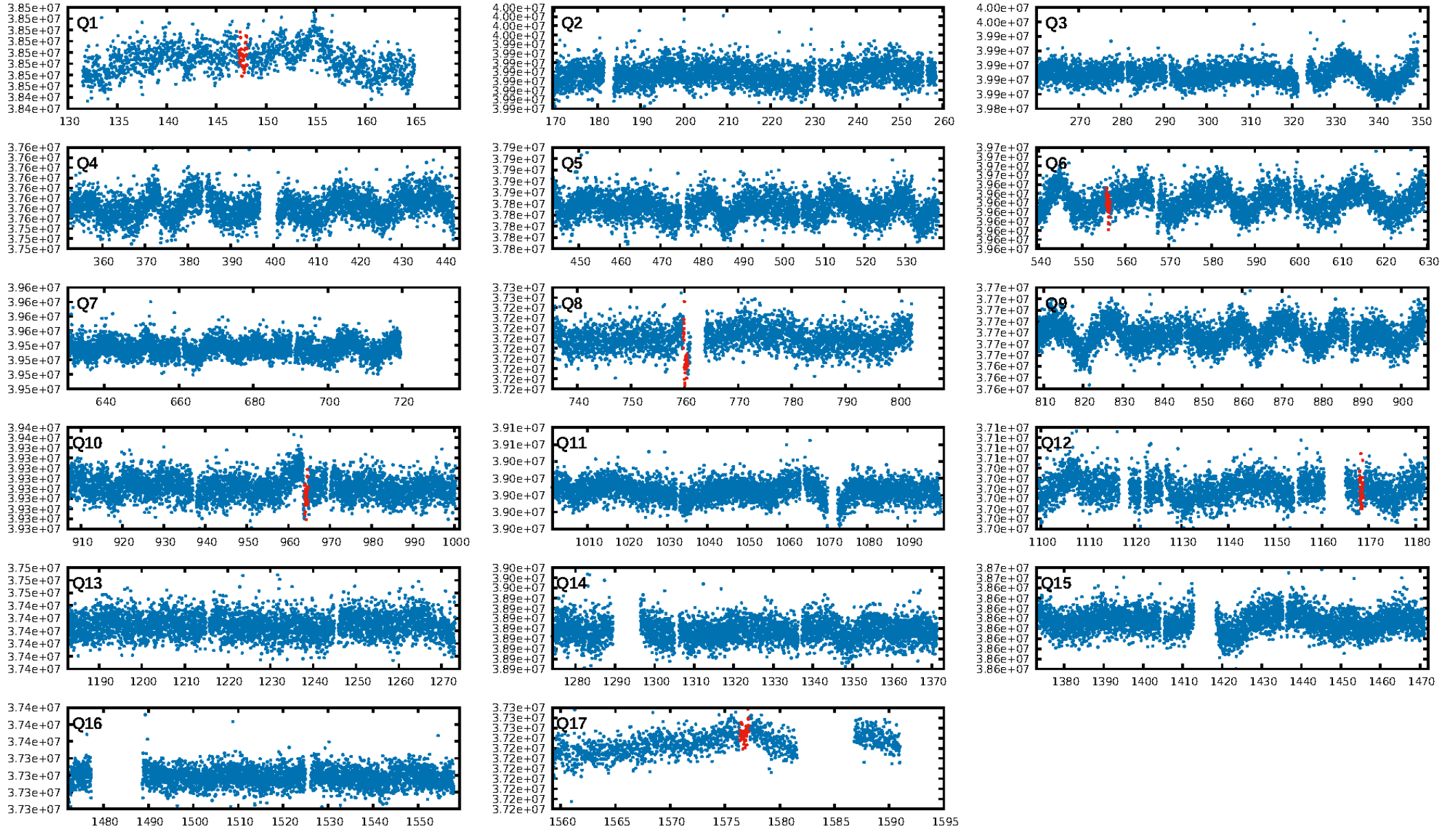
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 2.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 9.24e-16
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -0.8638
Centroid-sig: 2.3%
Centroid-so: 1.966 arcsec [1.41 σ]
OotOffset-rm: 3.065 arcsec [2.21 σ]
KicOffset-rm: 3.172 arcsec [2.23 σ]
OotOffset-st: 1/0/1/1 [3]
KicOffset-st: 1/0/1/1 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [6/6]

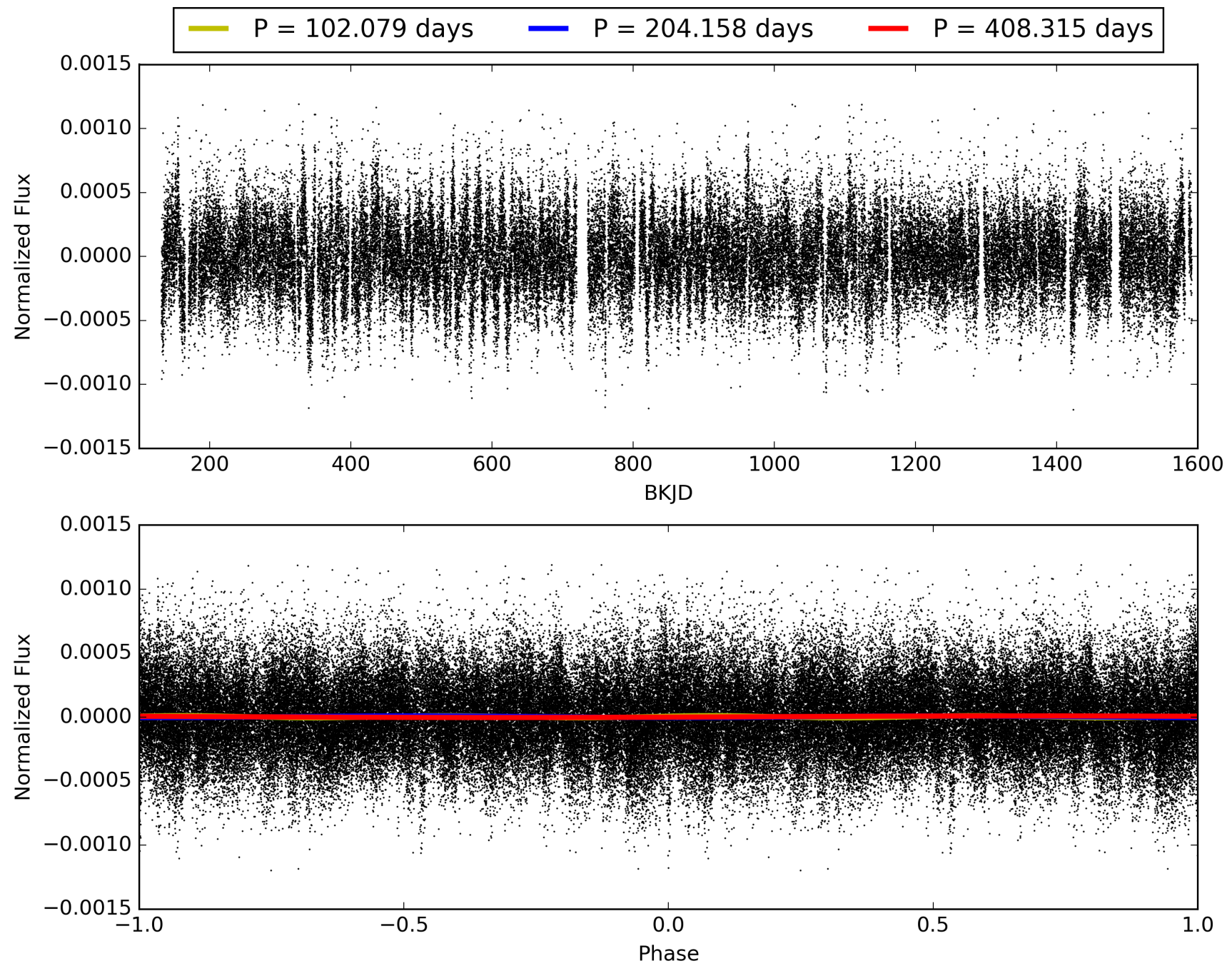
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 03:30:56 Z

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

TCE 007686895-01, PDC Light Curves

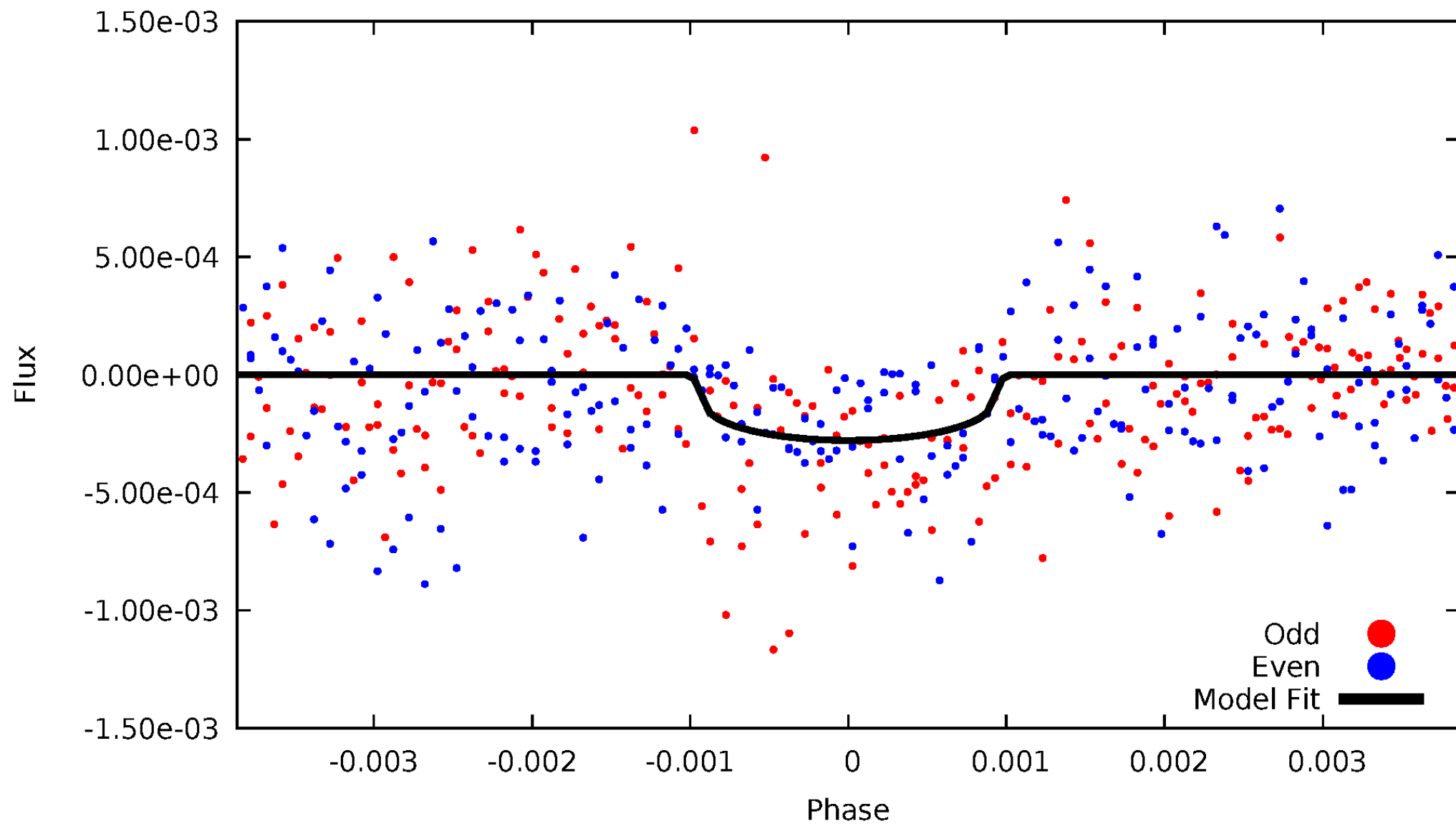


TCE 007686895-01



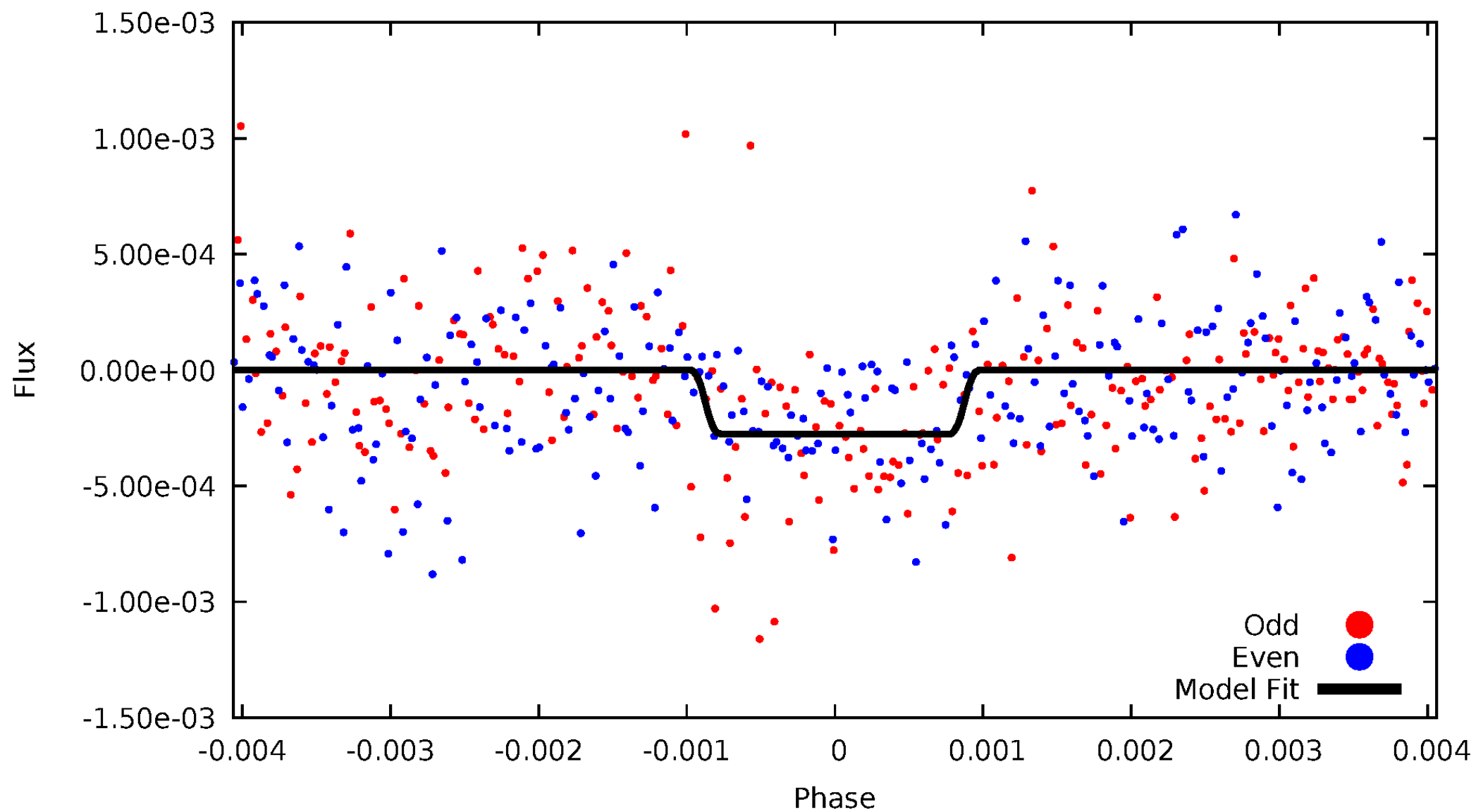
DV Odd/Even

TCE 007686895-01

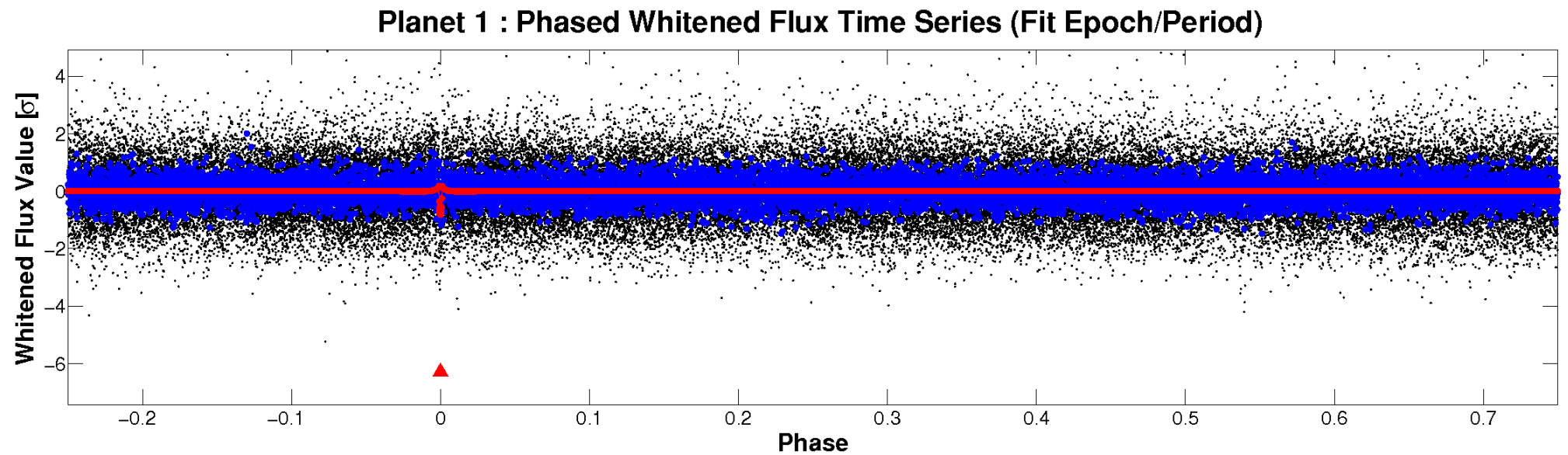
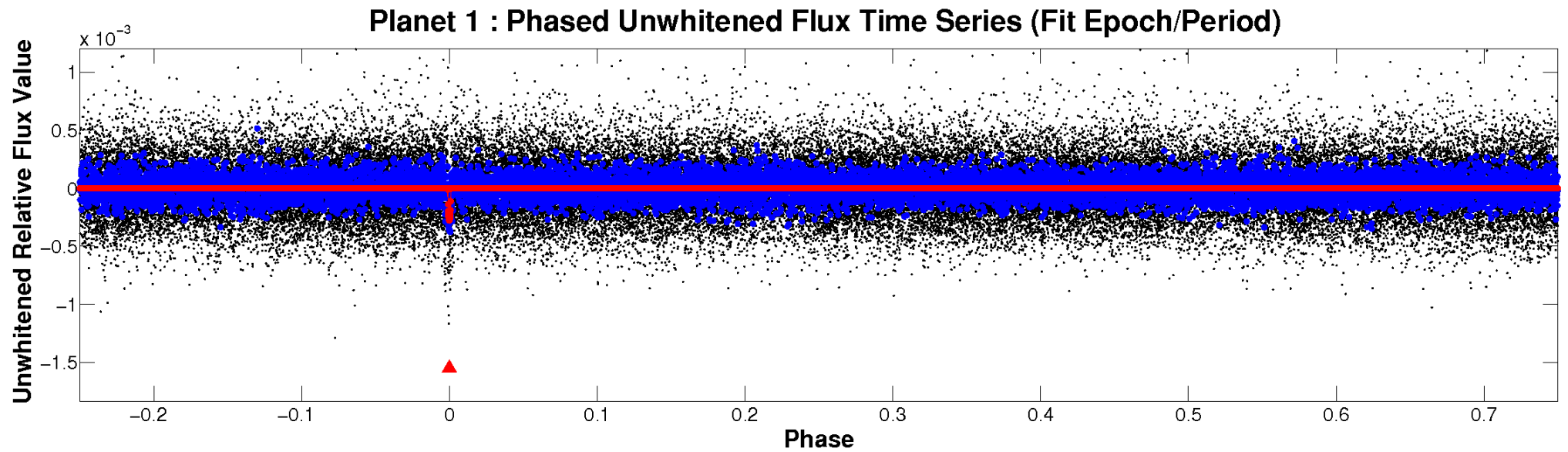


ALT Odd/Even

TCE 007686895-01

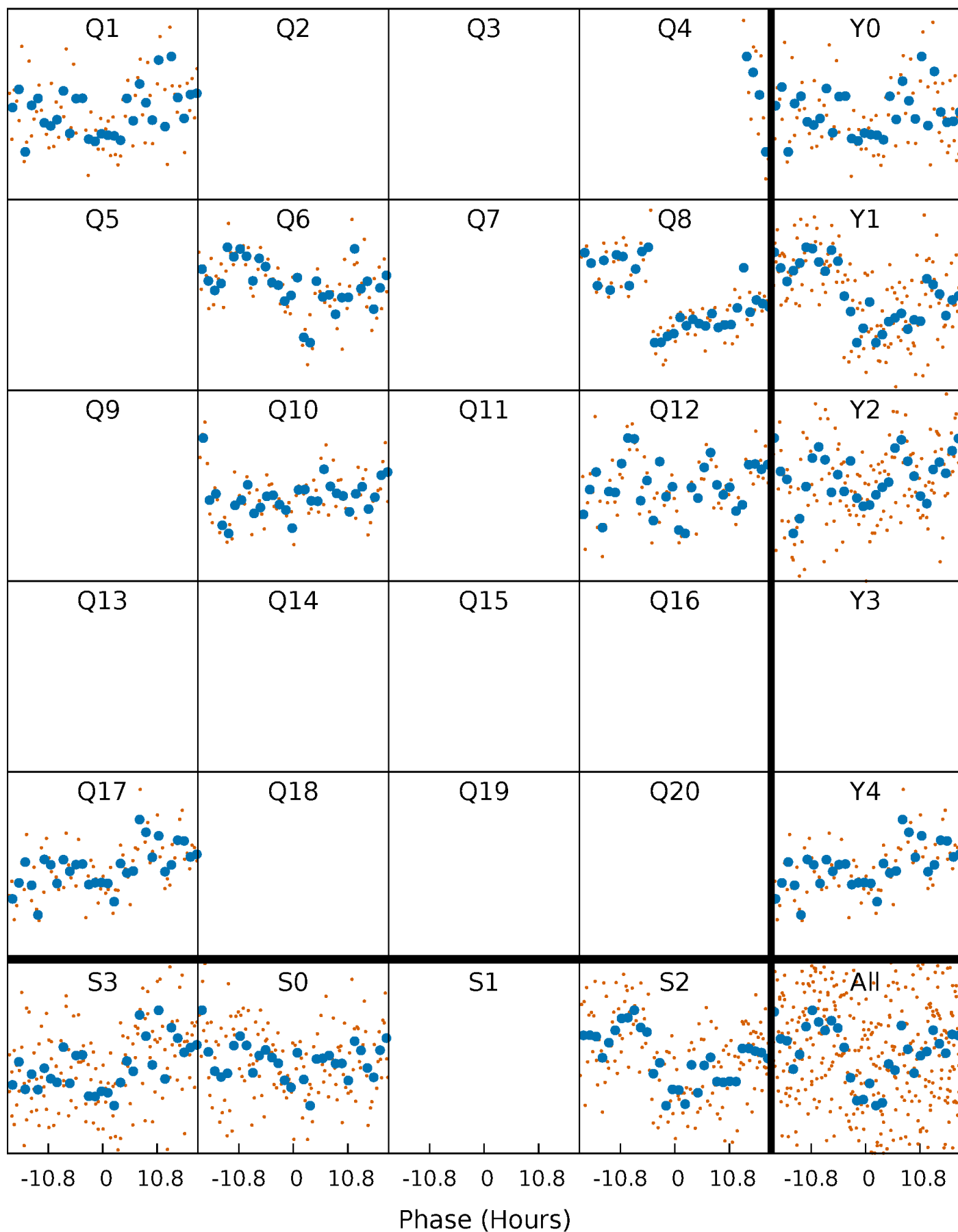


Non-Whitened Vs. Whitened Light Curve



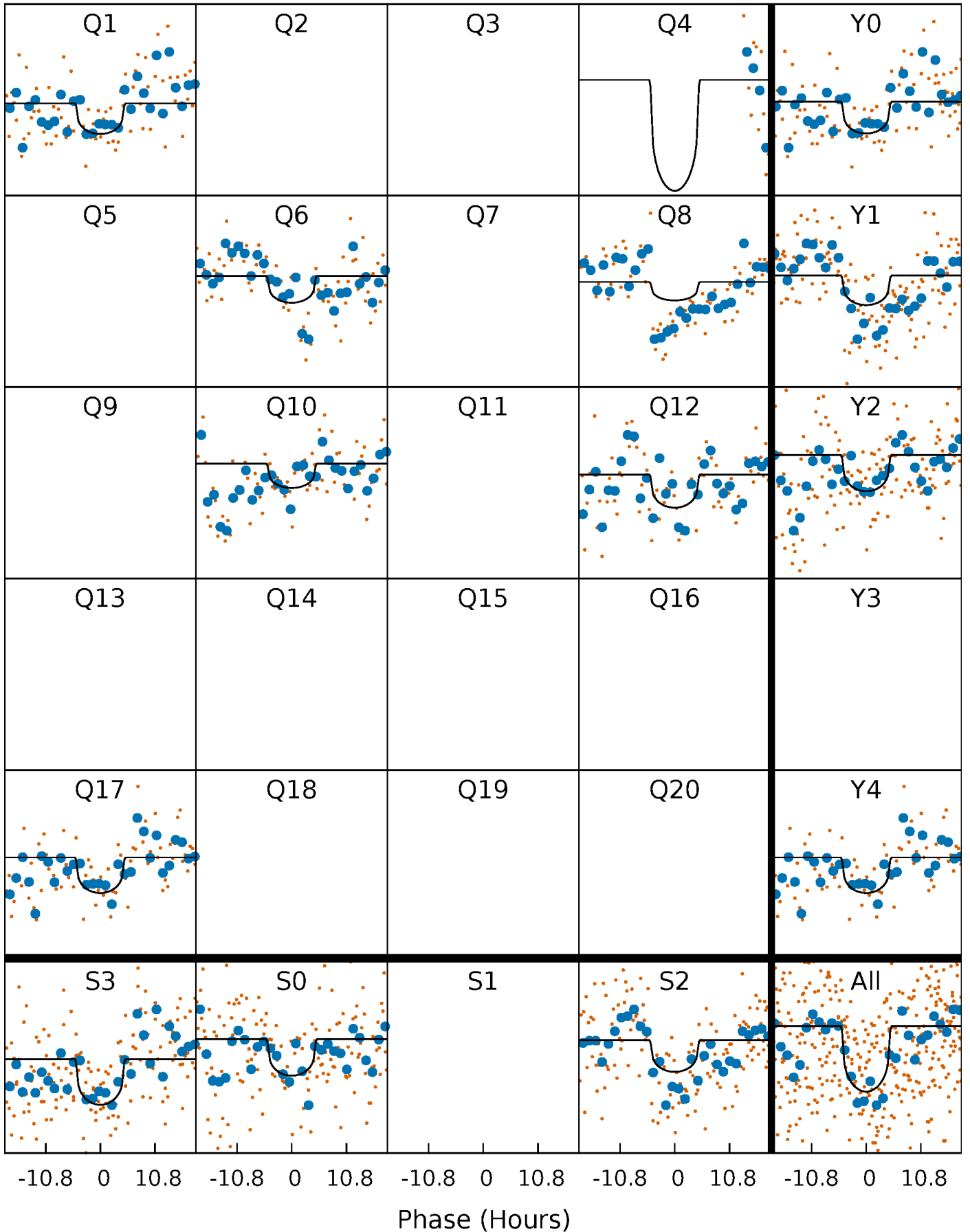
PDC Quarter-Phased Transit Curves

TCE 007686895-01 P=204.157567 Days $T_0=147.670711$ (BKJD)



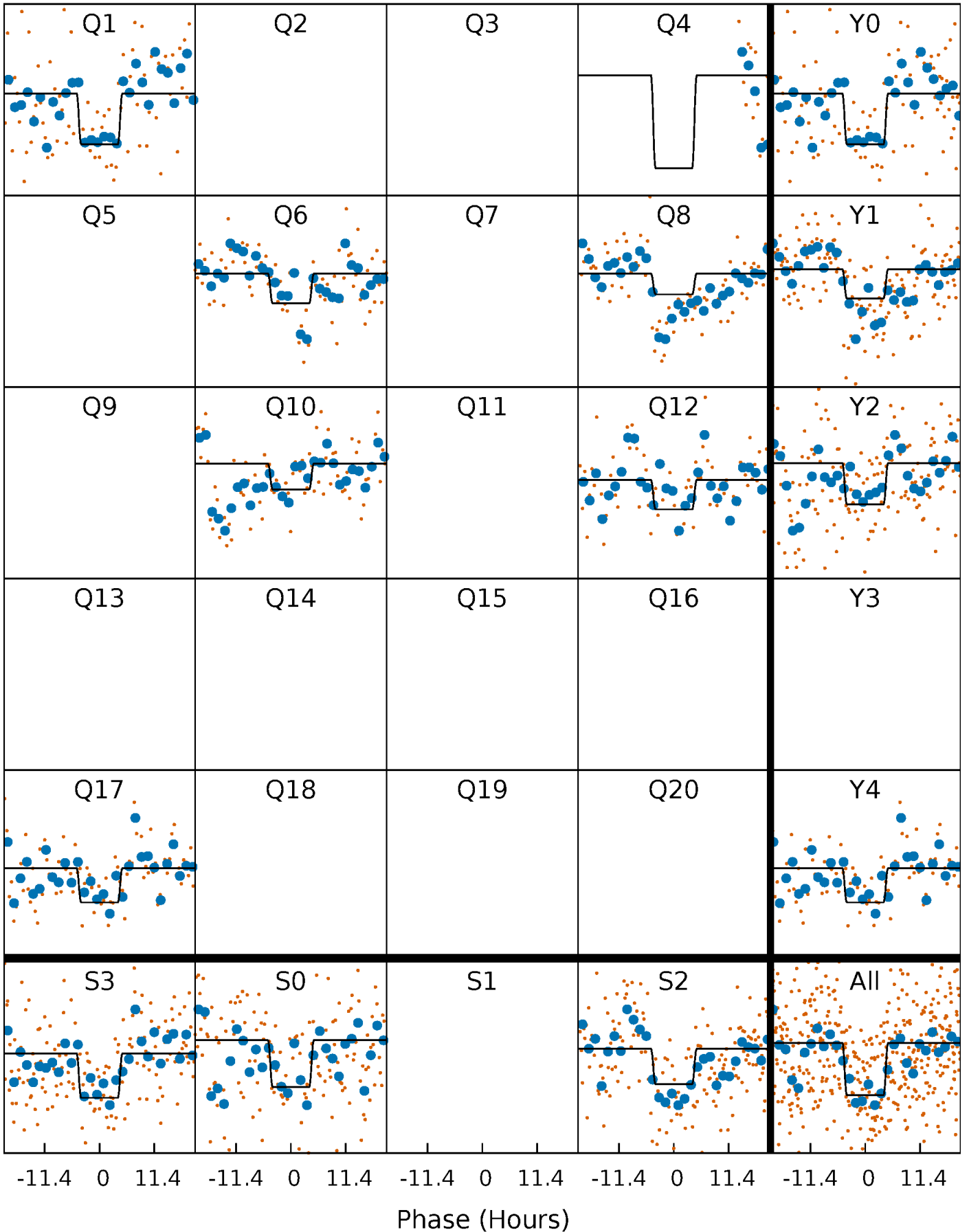
DV Quarter-Phased Transit Curves

TCE 007686895-01 P=204.157567 Days $T_0=147.670711$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

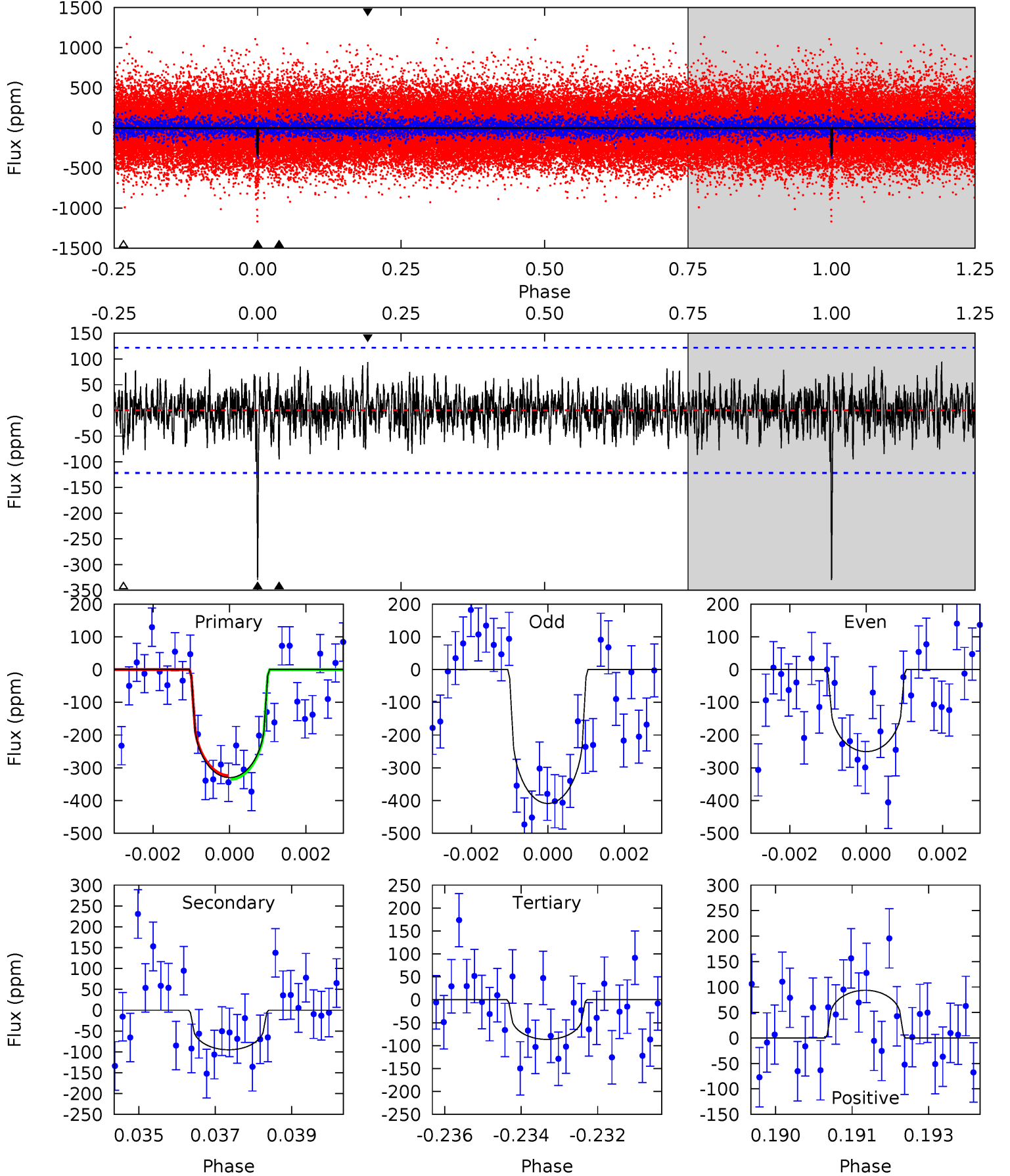
TCE 007686895-01 P=204.158509 Days $T_0=147.674980$ (BKJD)



DV Model-Shift Uniqueness Test

007686895-01, P = 204.157567 Days, E = 147.670711 Days

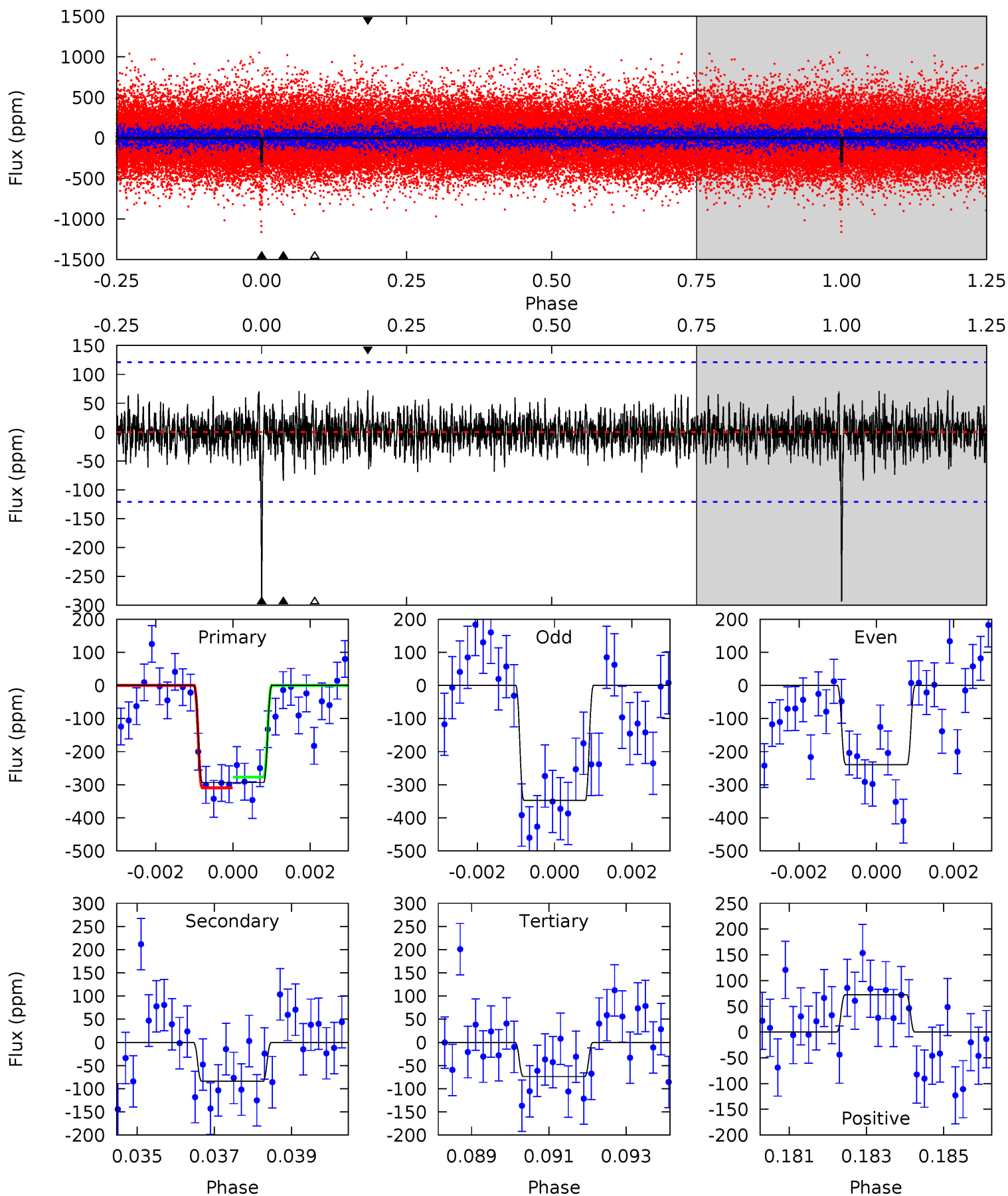
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.4	4.16	3.79	4.10	5.33	3.10	1.21	10.7	10.3	0.38	0.06	3.49	1.40	0.22	0.25



Alt Model-Shift Uniqueness Test

007686895-01, P = 204.158509 Days, E = 147.674980 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.9	3.71	3.25	3.20	5.33	3.10	0.94	9.69	9.74	0.46	0.51	2.39	1.25	0.20	0.71



Stellar Parameters For KIC 007686895

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4797^{+144}_{-130}	$4.650^{+0.031}_{-0.054}$	$-0.260^{+0.300}_{-0.300}$	$0.664^{+0.072}_{-0.048}$	$0.733^{+0.053}_{-0.086}$	$3.535^{+0.490}_{-0.758}$
	+3%/-3%	+1%/-1%	+115%/-115%	+11%/-7%	+7%/-12%	+14%/-21%
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 007686895-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-95 ± 23	$1.58^{+1.33}_{-0.92}$	310^{+11}_{-9}	3586^{+1362}_{-603}	7665^{+36901}_{-5466}
Alt.	-84 ± 23	$1.66^{+1.18}_{-1.06}$	311^{+11}_{-10}	3476^{+1544}_{-536}	6179^{+42185}_{-4123}

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

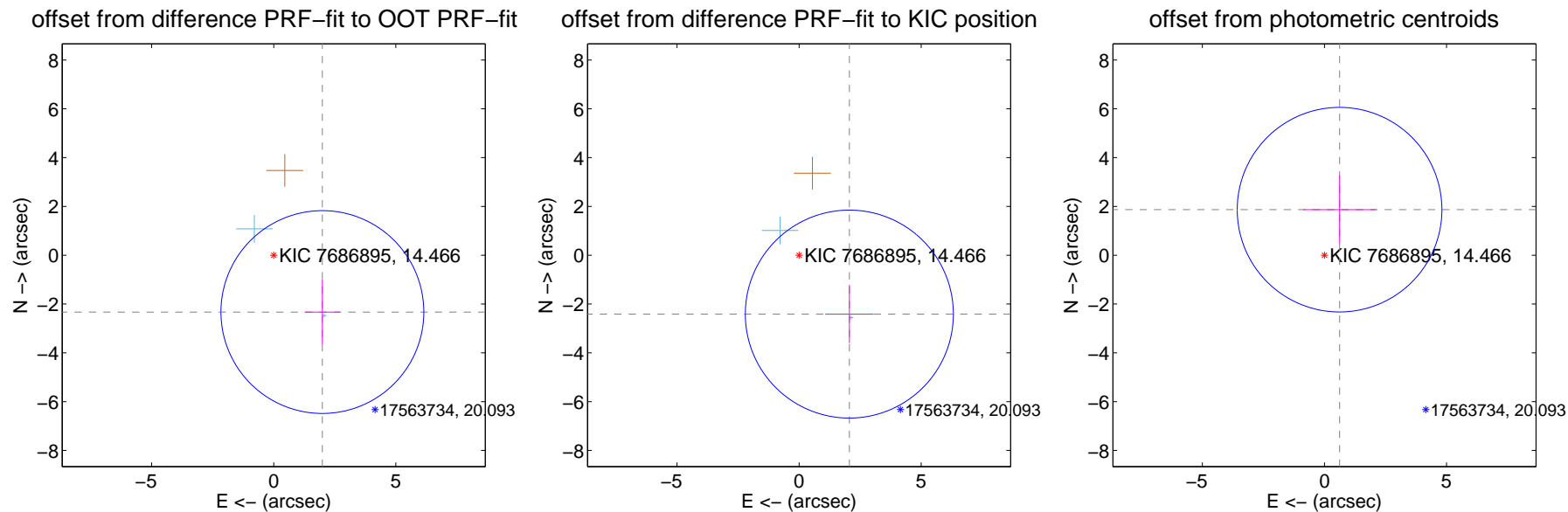
DV Centroid Data

Supplemental centroid analysis for 007686895-01. Kepler magnitude: 14.47. Transit SNR 7.77

There are 2 quarters with good PRF difference image offsets

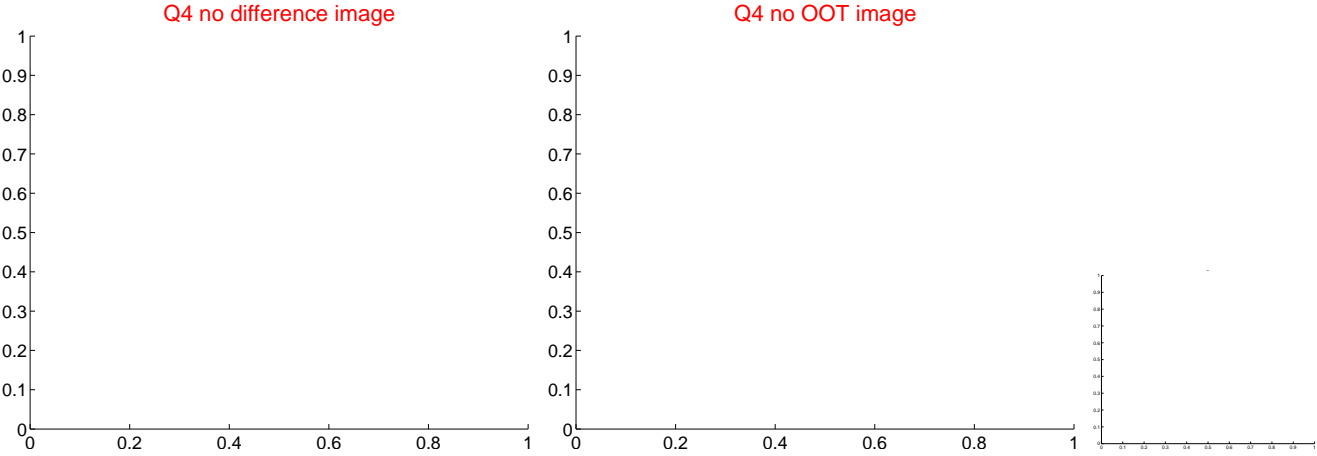
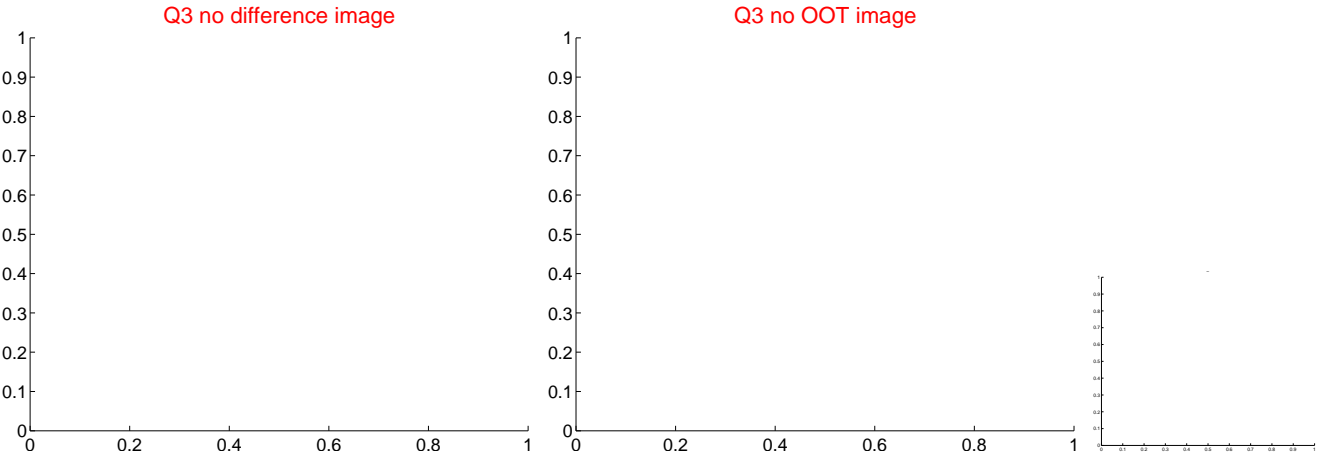
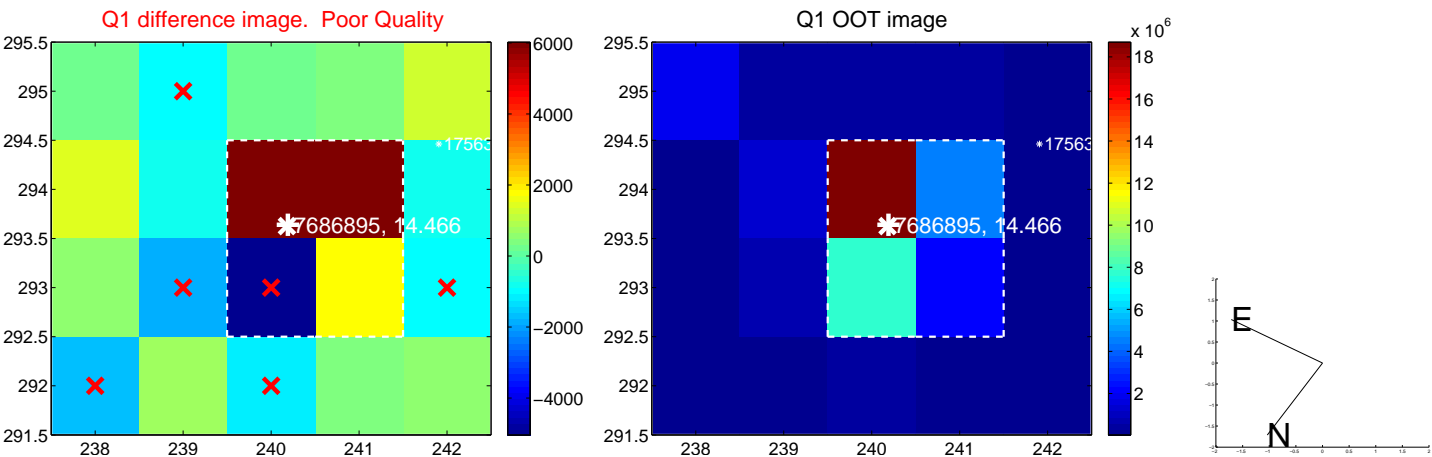
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.065 ± 1.385	2.21	-1.993 ± 0.723	-2.329 ± 1.330
PRF-fit source offset from KIC position	3.172 ± 1.420	2.23	-2.059 ± 0.988	-2.413 ± 1.191
photometric centroid source offset	1.97 ± 1.40	1.41	-0.62 ± 1.49	1.87 ± 1.39

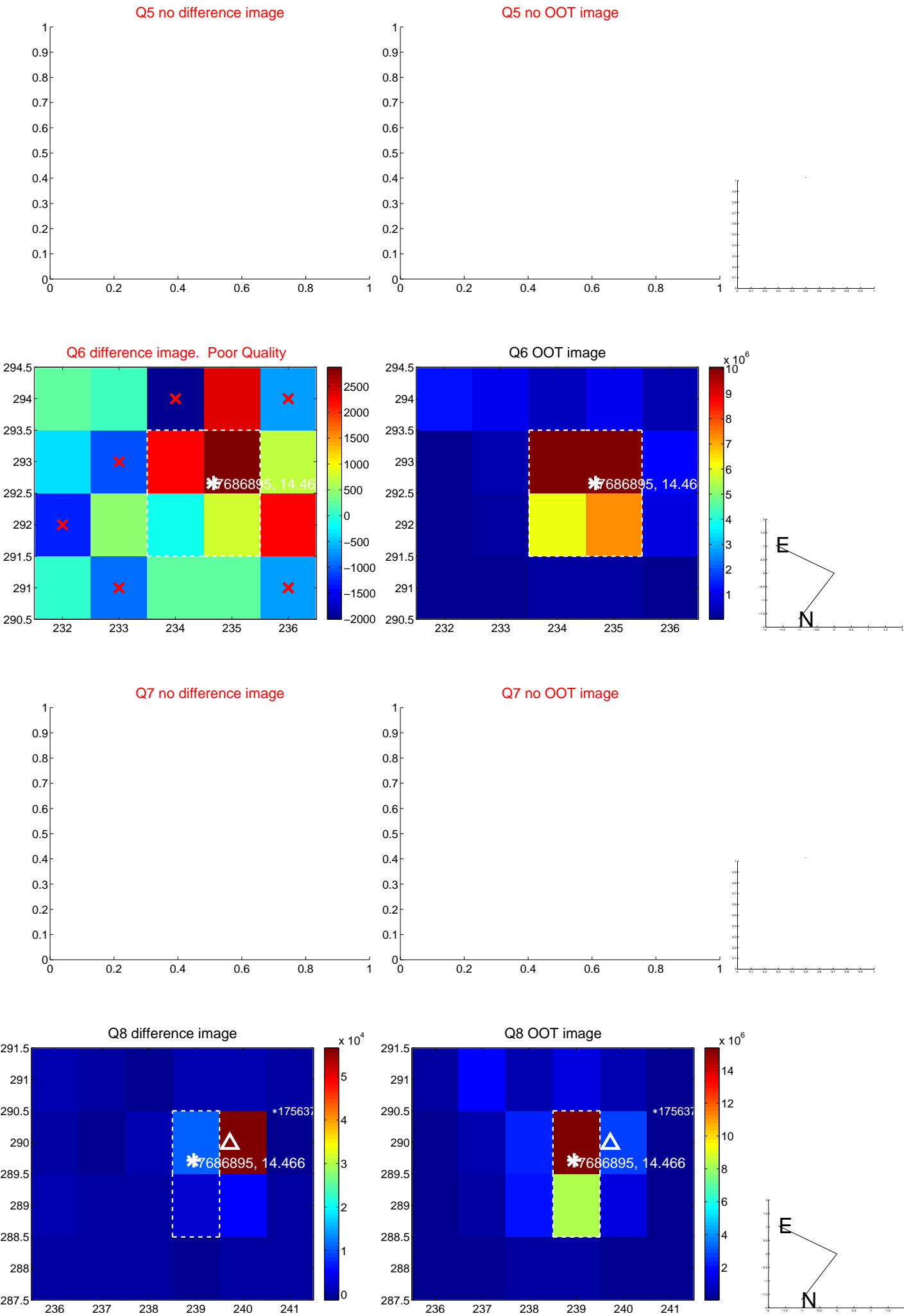


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

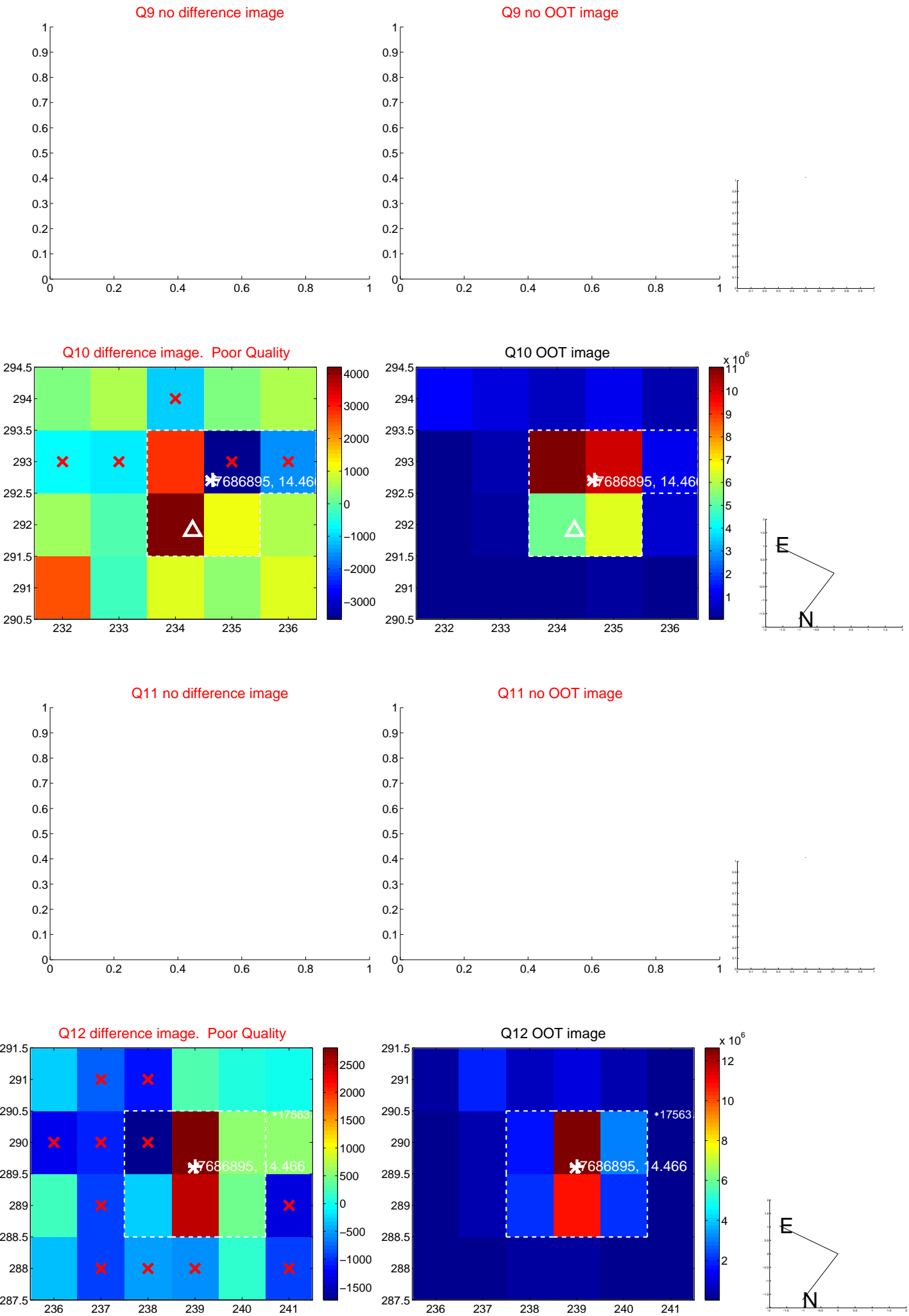
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



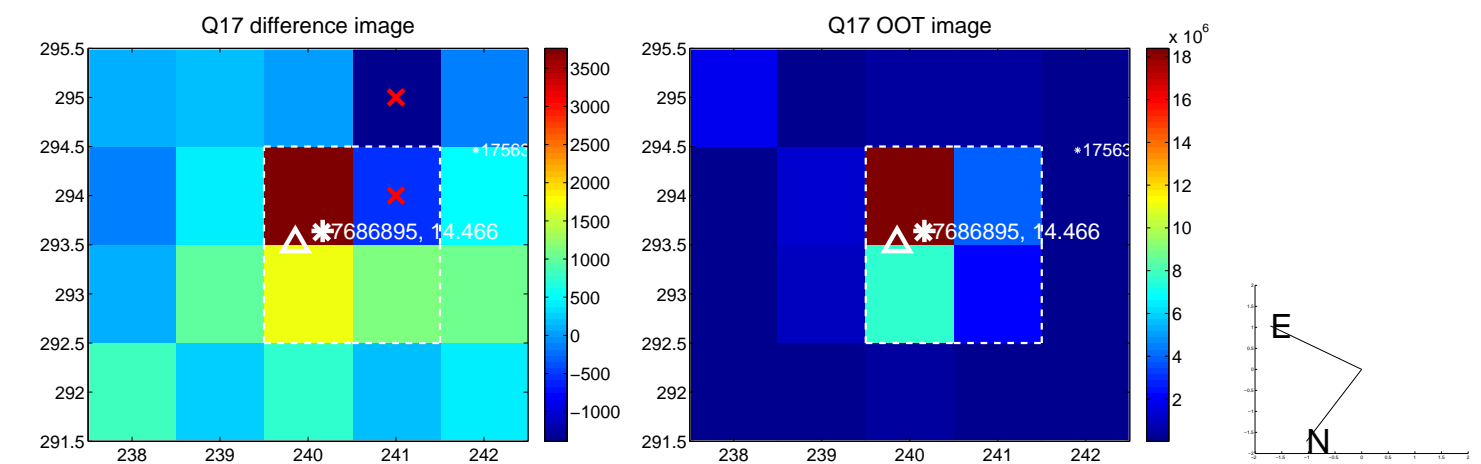
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



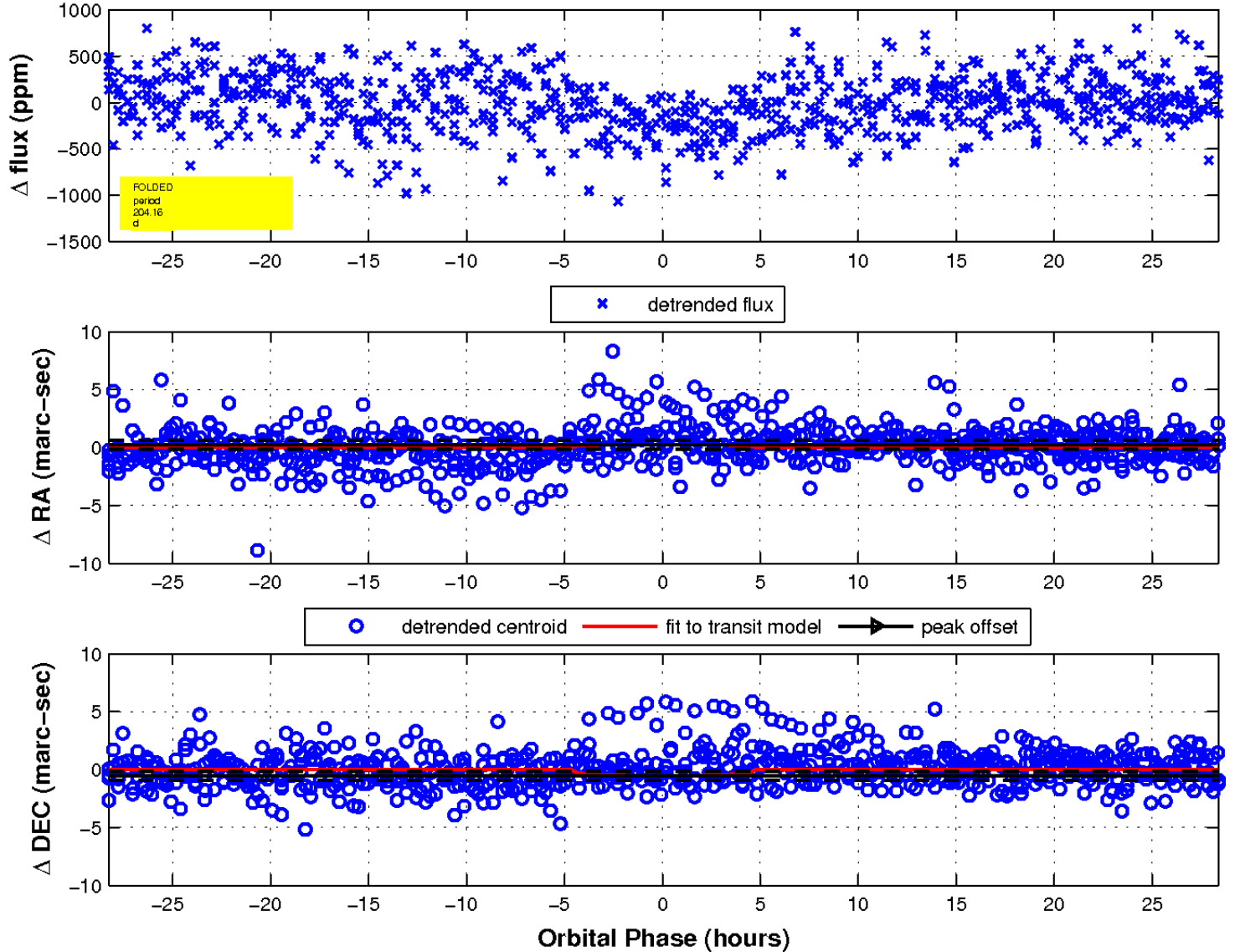
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

