

KIC 008711794

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})
008711794-01	OBS	0105.01	8.981004	136.650087	1056.8	1.932	183.9	187.0	0.97	5666	3.46	141.86

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008711794-01	OBS	PC	1.00	0	0	0	0	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.

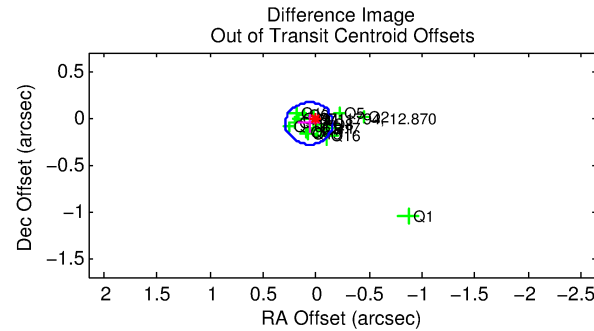
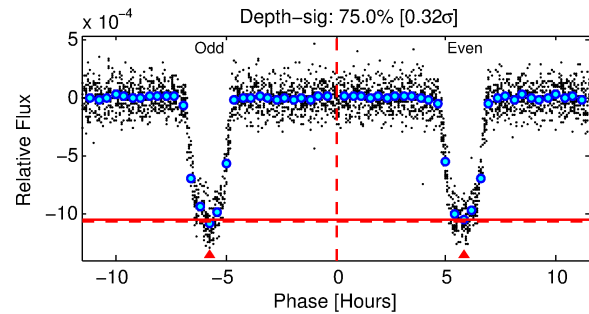
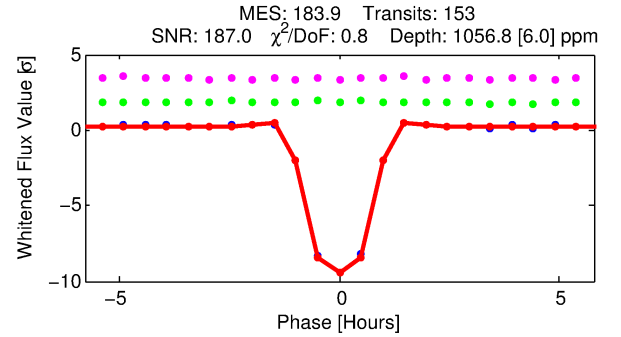
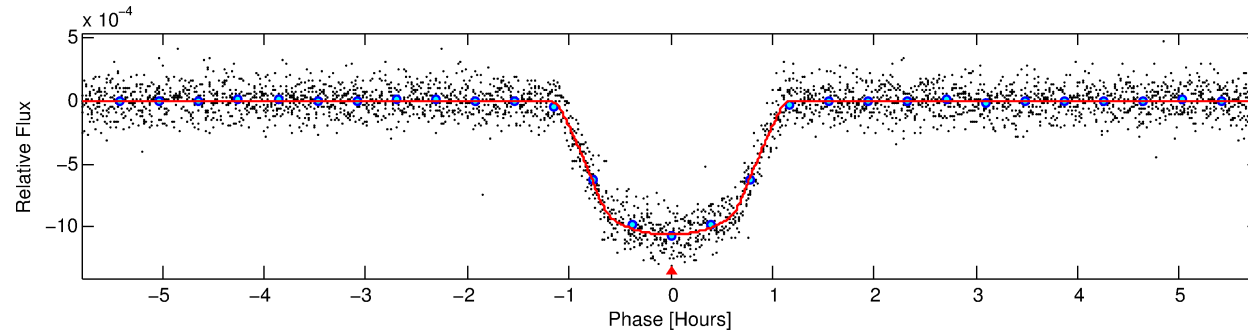
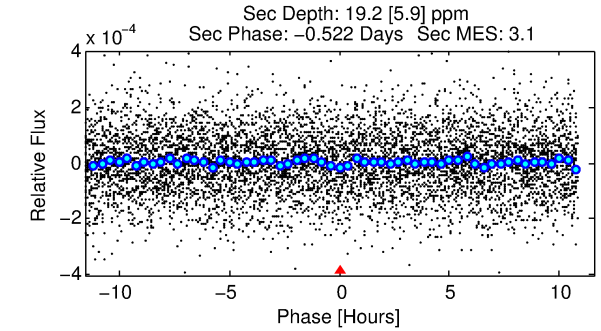
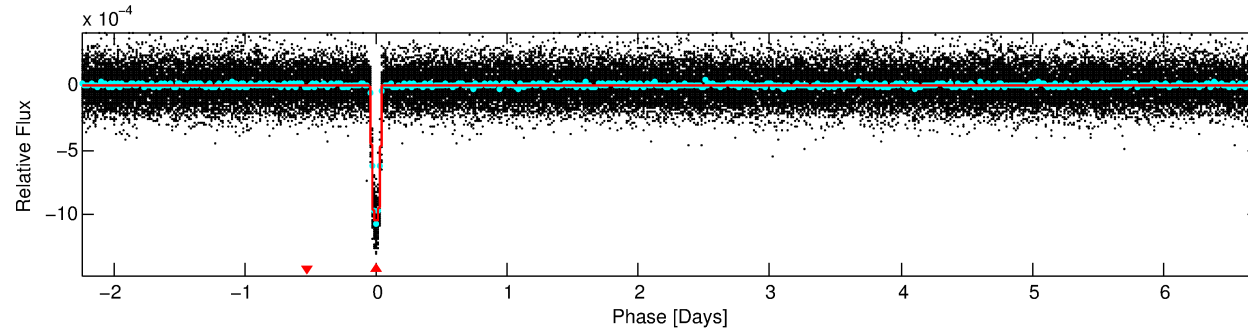
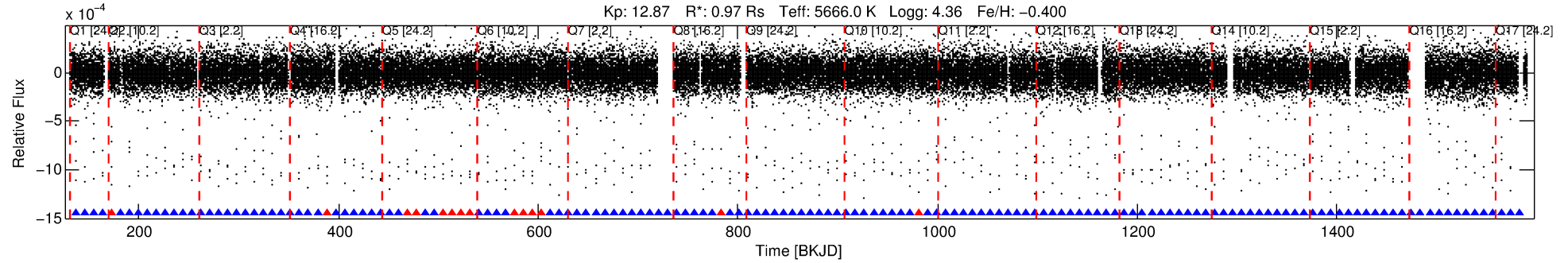
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008711794-01

No Significant Match Found

DV One-Page Summary

KIC: 8711794 Candidate: 1 of 1 Period: 8.981 d
KOI: K00105.01 Corr: 0.984



DV Fit Results:

Period = 8.98100 [0.00000] d
Epoch = 136.6501 [0.0002] BKJD
Rp/R* = 0.0328 [0.0016]
a/R* = 24.10 [5.30]
b = 0.78 [0.11]
Seff = 141.86 [38.92]
Teq = 880 [60] K
Rp = 3.46 [0.55] Re
a = 0.0780 [0.0122] AU
Ag = 5.35 [2.21] [1.97 σ]
Teffp = 2069 [172] K [6.52 σ]

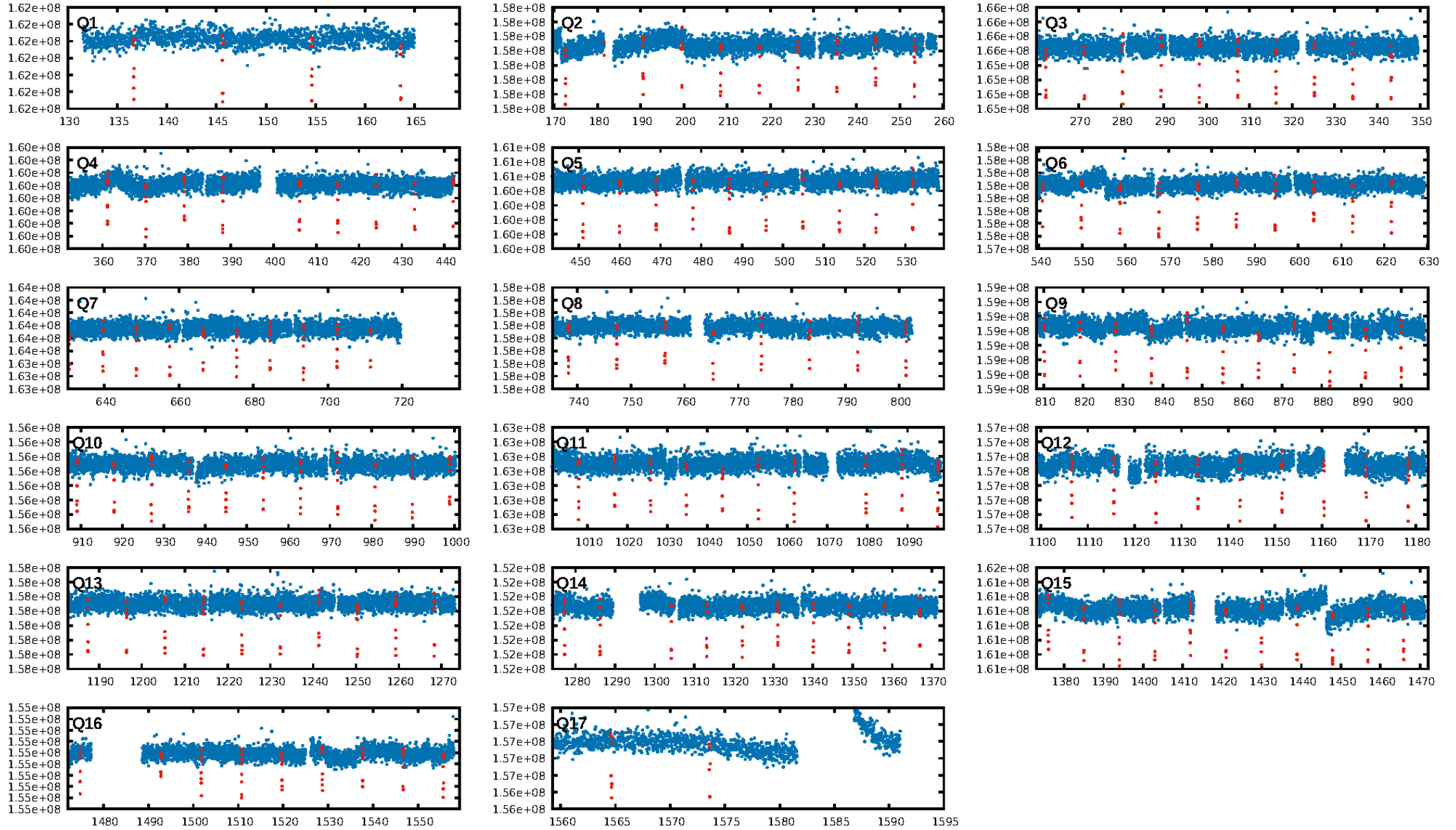
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.90 [133/147]
GhostDiagnostic-chr: 9.221
Centroid-sig: 17.1%
Centroid-so: 0.375 arcsec [4.33 σ]
OotOffset-rm: 0.090 arcsec [1.20 σ]
KicOffset-rm: 0.356 arcsec [3.41 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

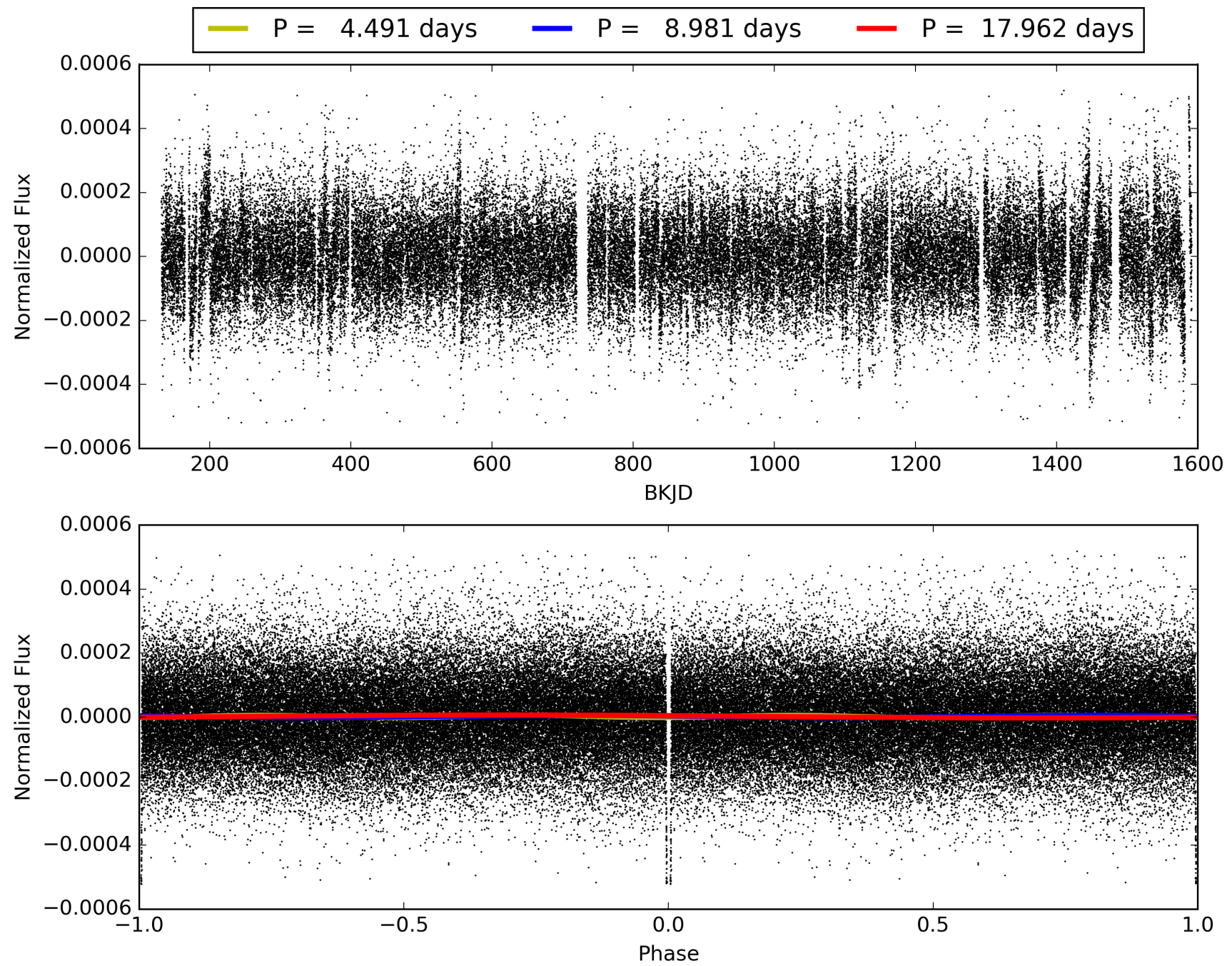
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 17:52:15 Z

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

TCE 008711794-01, PDC Light Curves

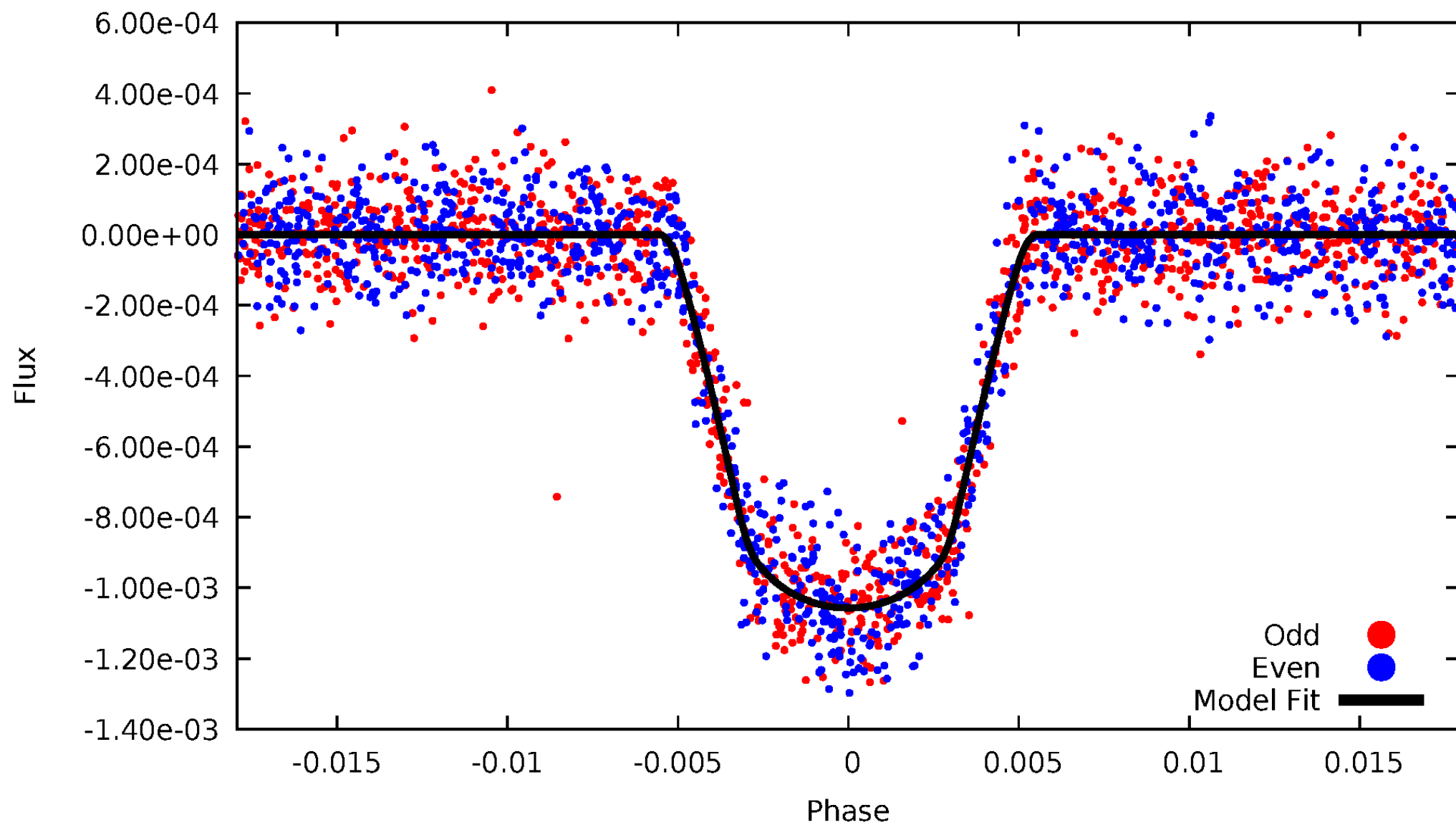


TCE 008711794-01



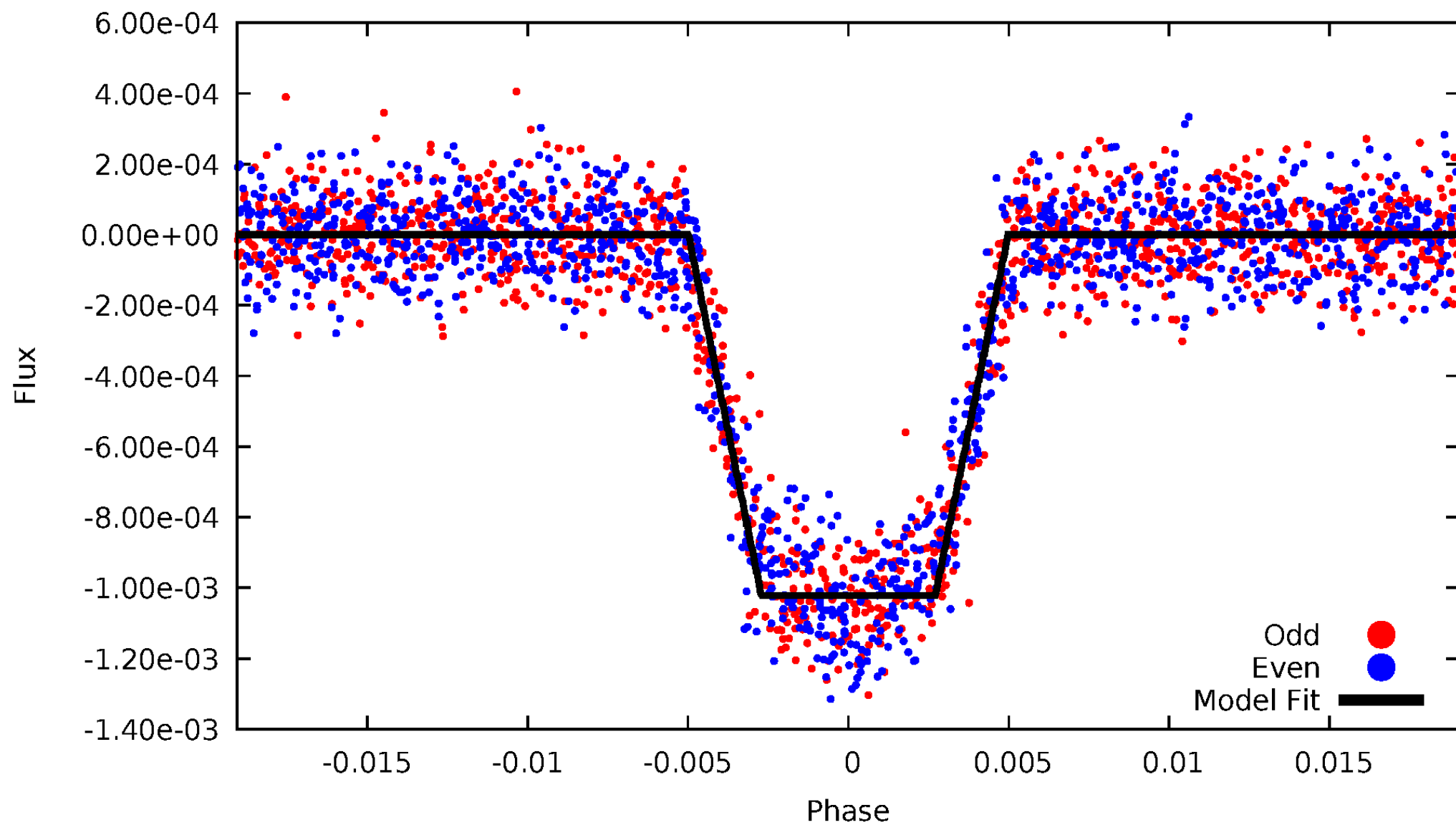
DV Odd/Even

TCE 008711794-01



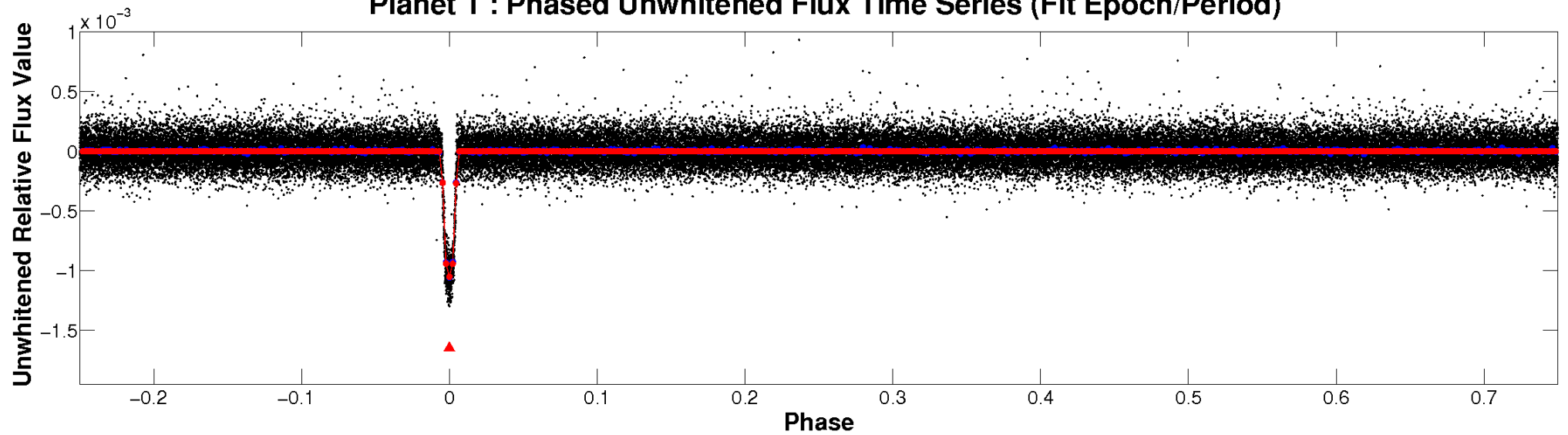
ALT Odd/Even

TCE 008711794-01

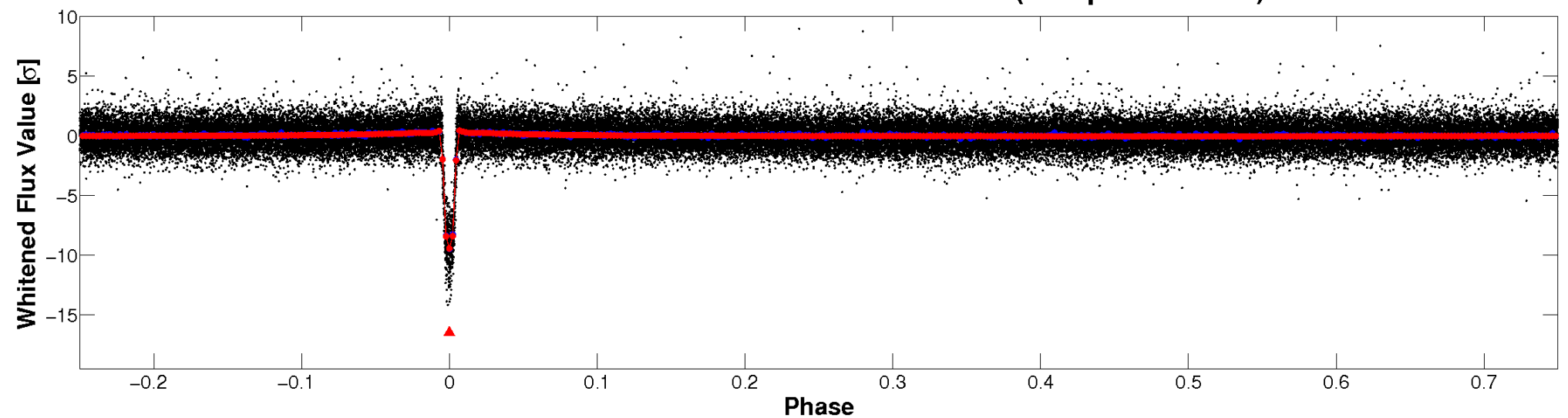


Non-Whitened Vs. Whitened Light Curve

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

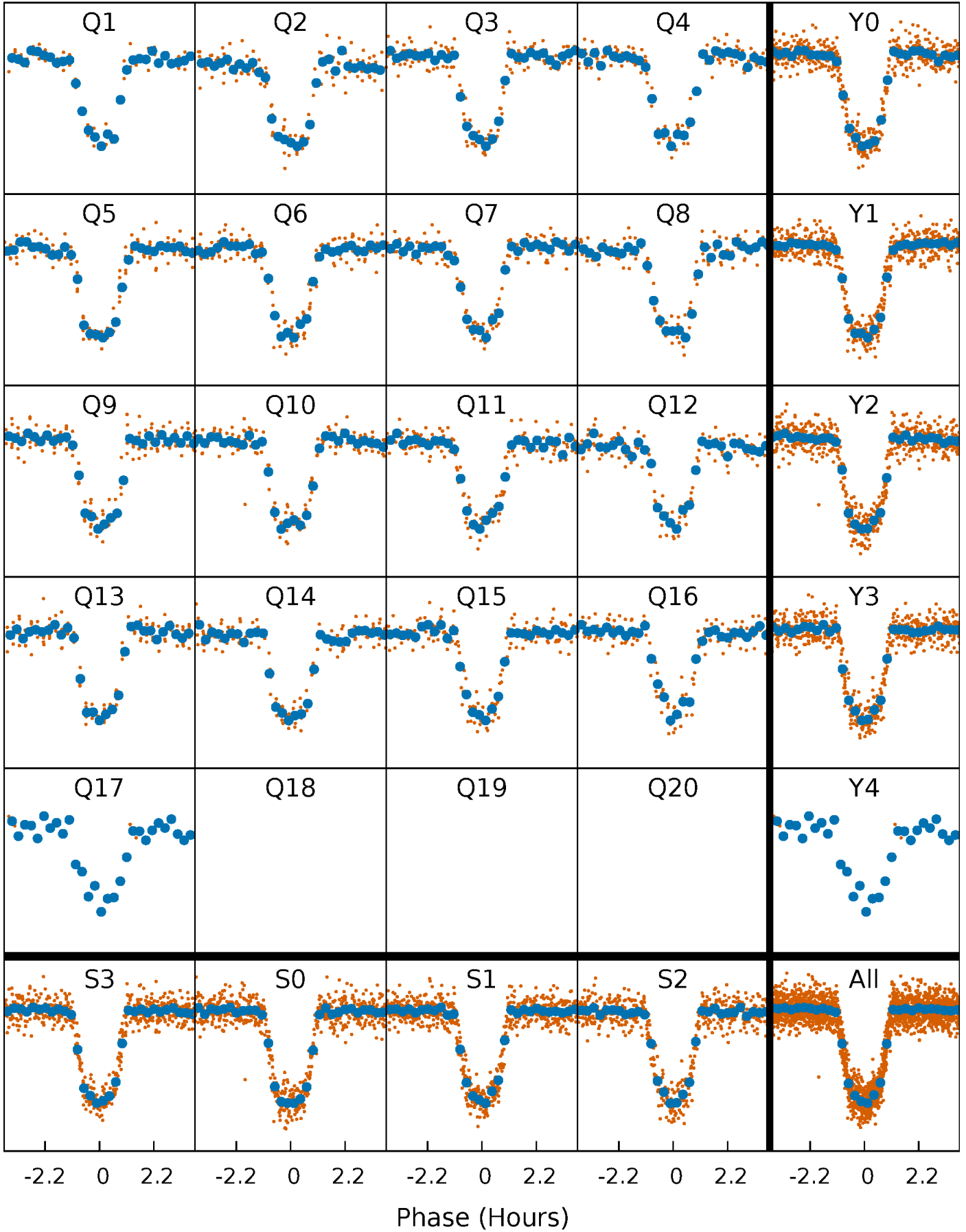


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



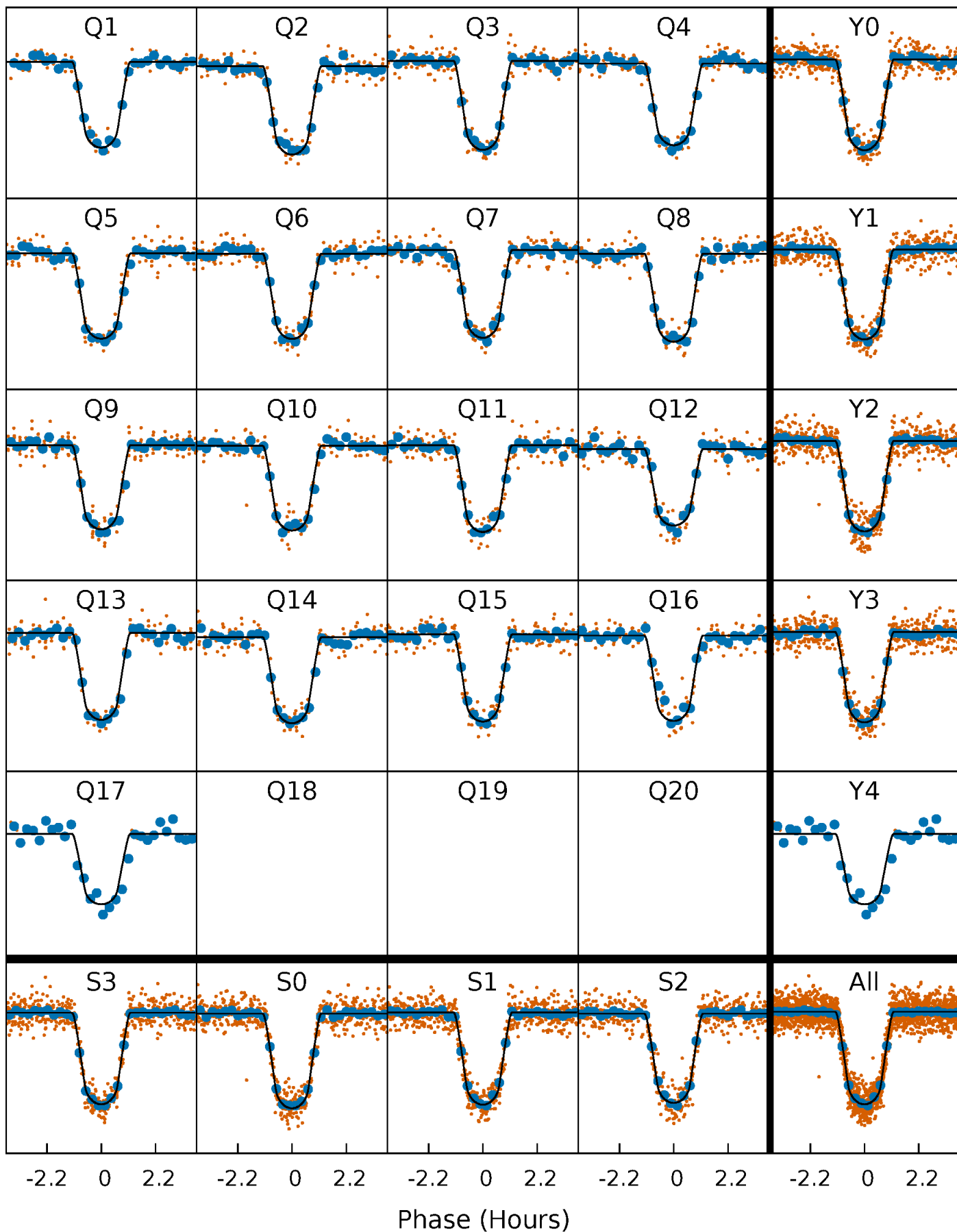
PDC Quarter-Phased Transit Curves

TCE 008711794-01 P= 8.981004 Days $T_0=136.650086$ (BKJD)



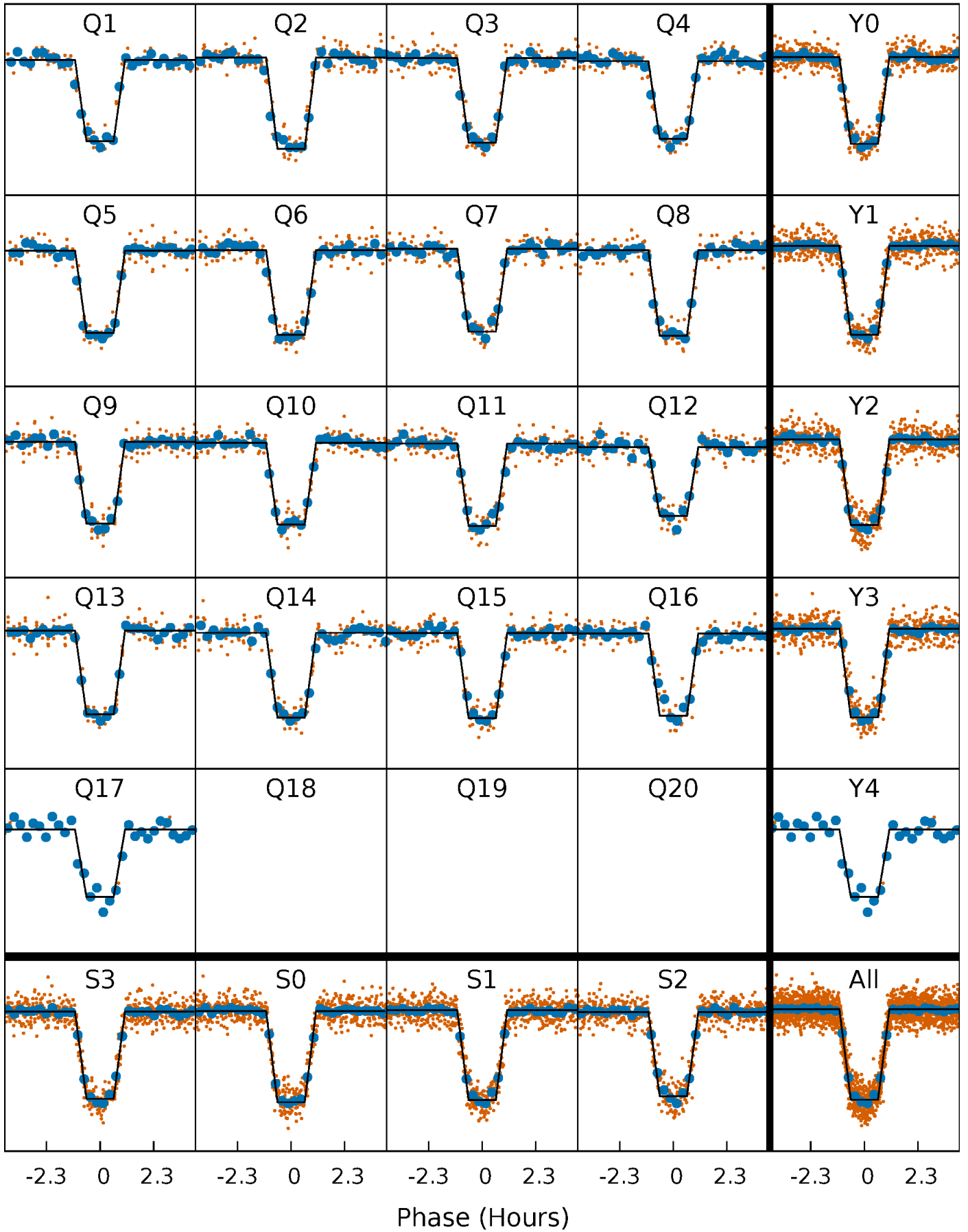
DV Quarter-Phased Transit Curves

TCE 008711794-01 P= 8.981004 Days $T_0=136.650086$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

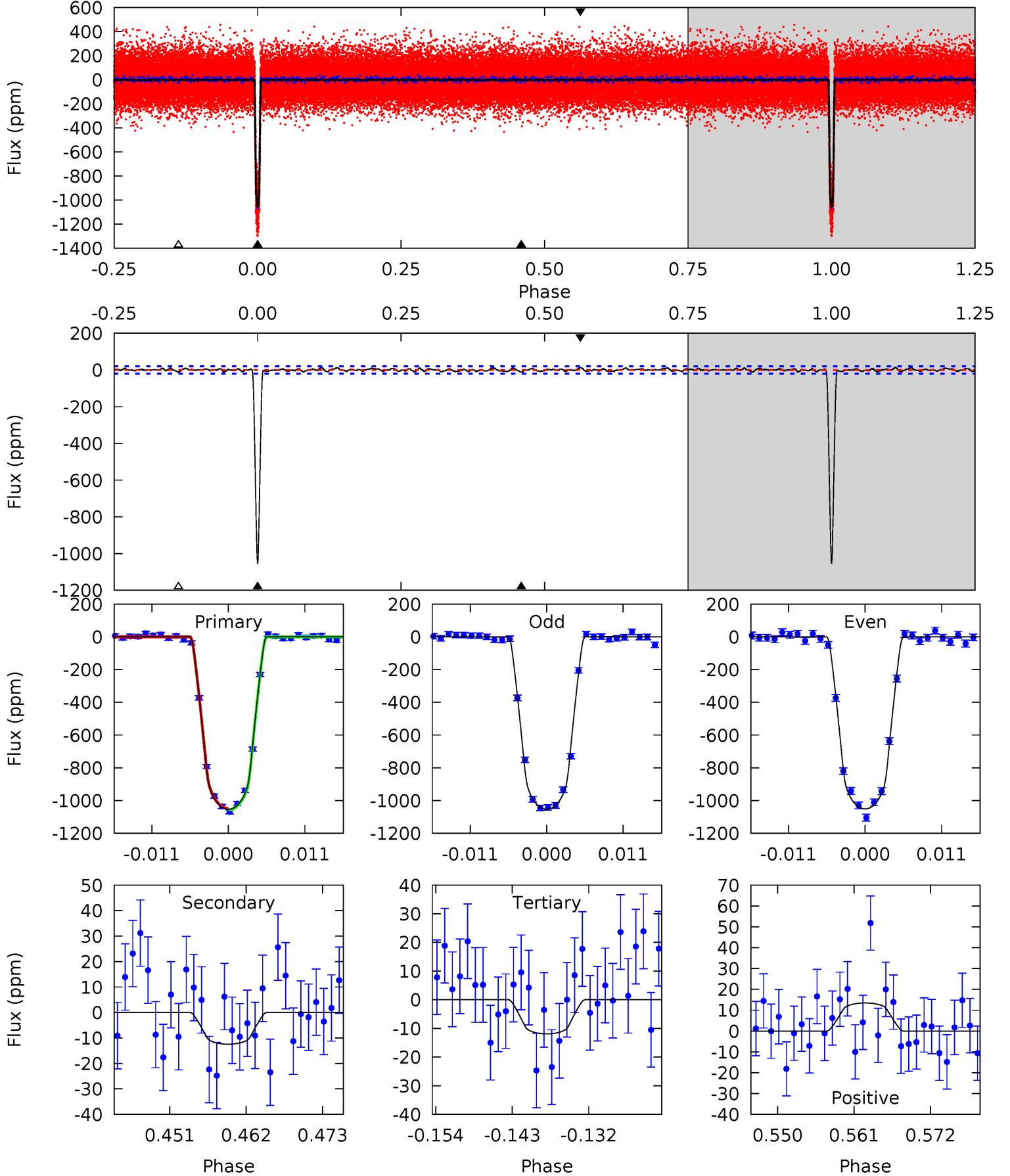
TCE 008711794-01 P= 8.980977 Days $T_0=136.652309$ (BKJD)



DV Model-Shift Uniqueness Test

008711794-01, P = 8.981004 Days, E = 127.669082 Days

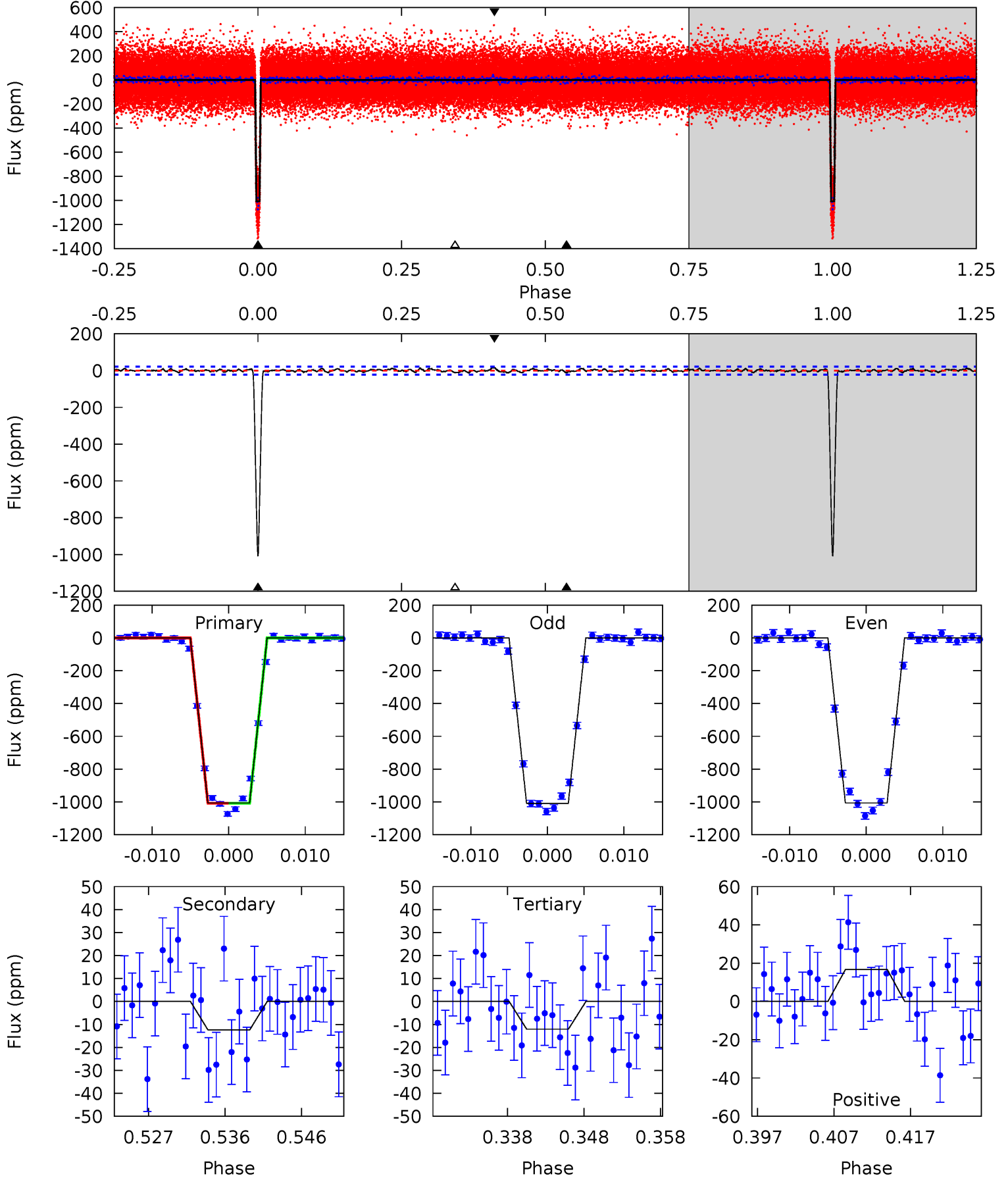
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
259.1	3.06	2.93	3.31	5.01	2.54	1.19	256.1	255.8	0.13	-0.25	0.29	1.00	0.01	1.09



Alt Model-Shift Uniqueness Test

008711794-01, P = 8.980977 Days, E = 127.671332 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
232.6	2.86	2.79	3.87	5.03	2.58	1.14	229.8	228.7	0.08	-1.00	0.35	1.00	0.02	0.06



Stellar Parameters For KIC 008711794

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5666^{+124}_{-102}	$4.362^{+0.156}_{-0.104}$	$-0.400^{+0.150}_{-0.100}$	$0.967^{+0.133}_{-0.147}$	$0.785^{+0.073}_{-0.028}$	$1.223^{+0.876}_{-0.370}$
	+2%/-2%	+4%/-2%	+37%/-25%	+14%/-15%	+9%/-4%	+72%/-30%
Source	SPE59	SPE59	SPE59	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 008711794-01 / KOI 0105.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-12 ± 4	$3.44^{+0.35}_{-0.35}$	1226^{+51}_{-63}	2629^{+114}_{-149}	$3.597^{+1.537}_{-1.338}$
Alt.	-12 ± 4	$3.35^{+0.39}_{-0.32}$	1225^{+60}_{-58}	2633^{+123}_{-140}	$3.597^{+1.703}_{-1.288}$

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

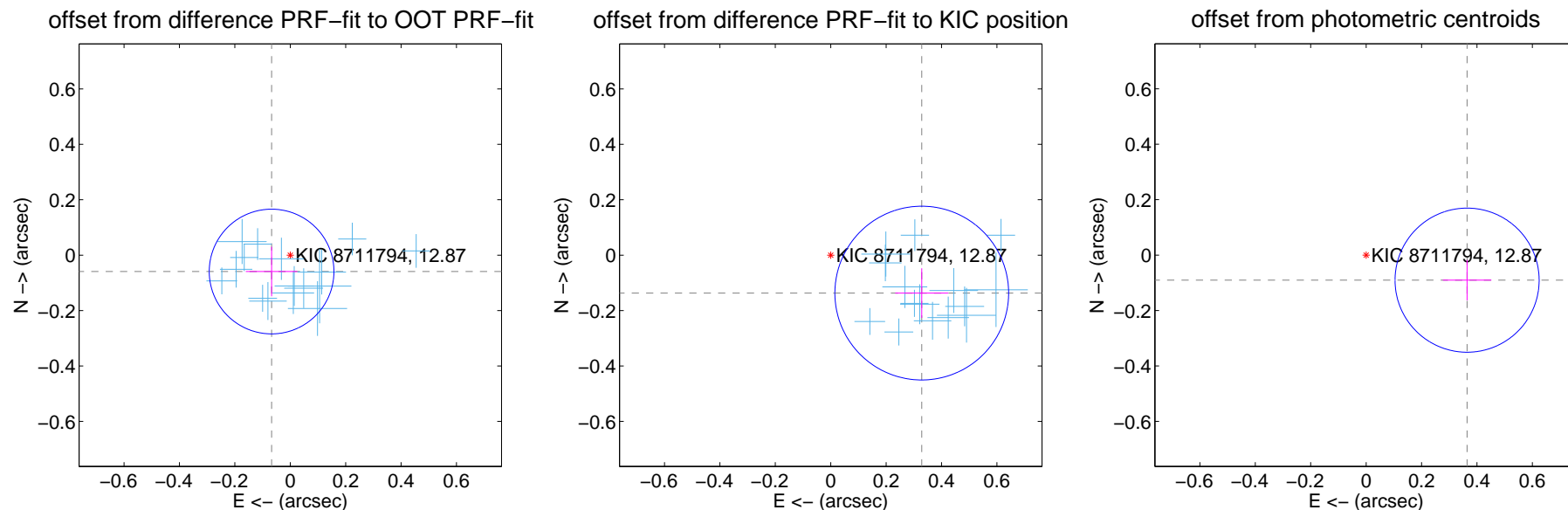
DV Centroid Data

Supplemental centroid analysis for 008711794-01. Kepler magnitude: 12.87. Transit SNR 187.02

There are 17 quarters with good PRF difference image offsets

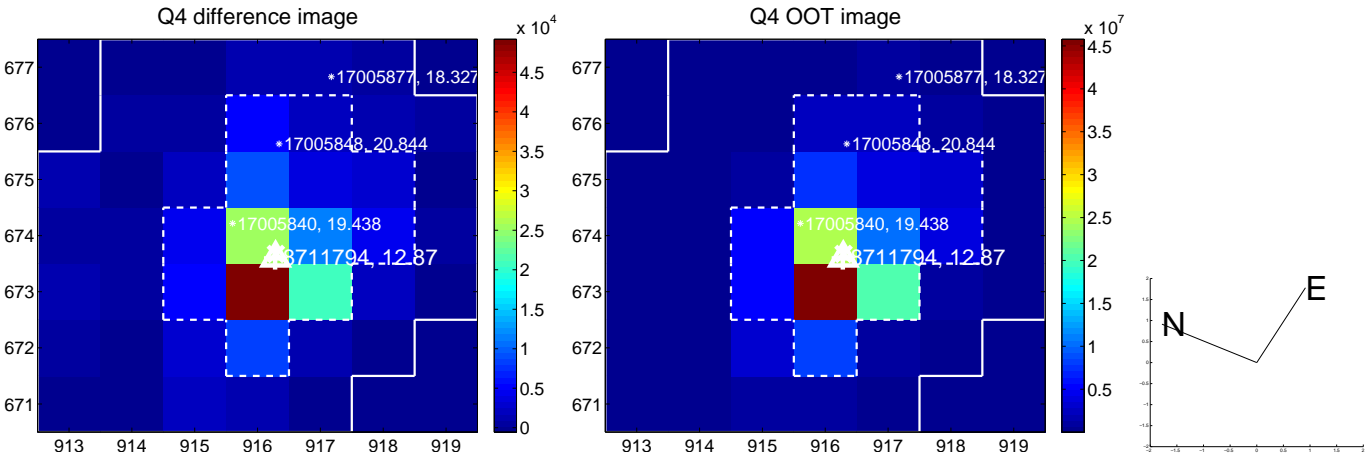
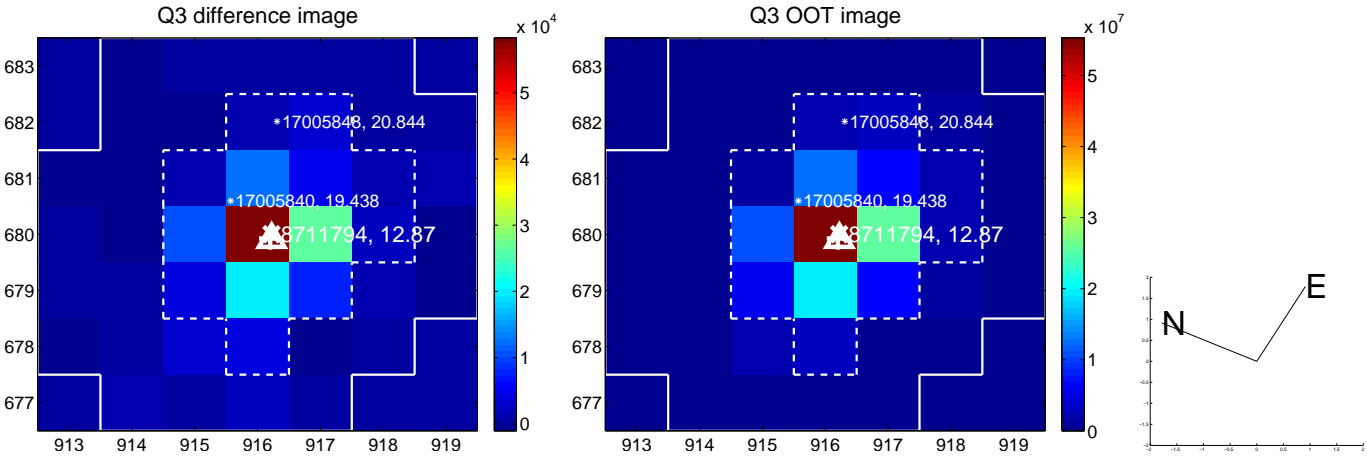
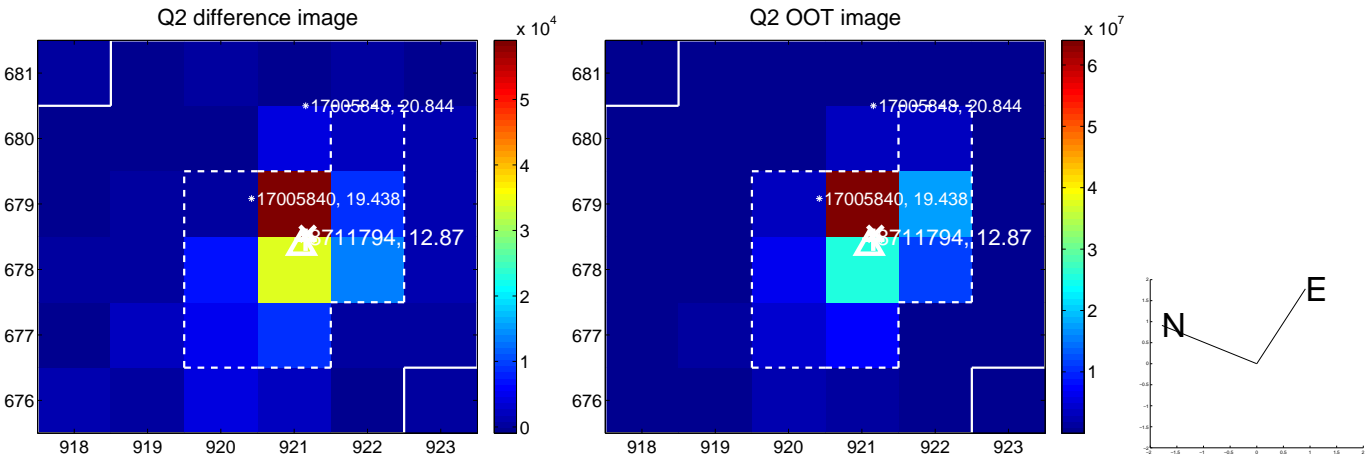
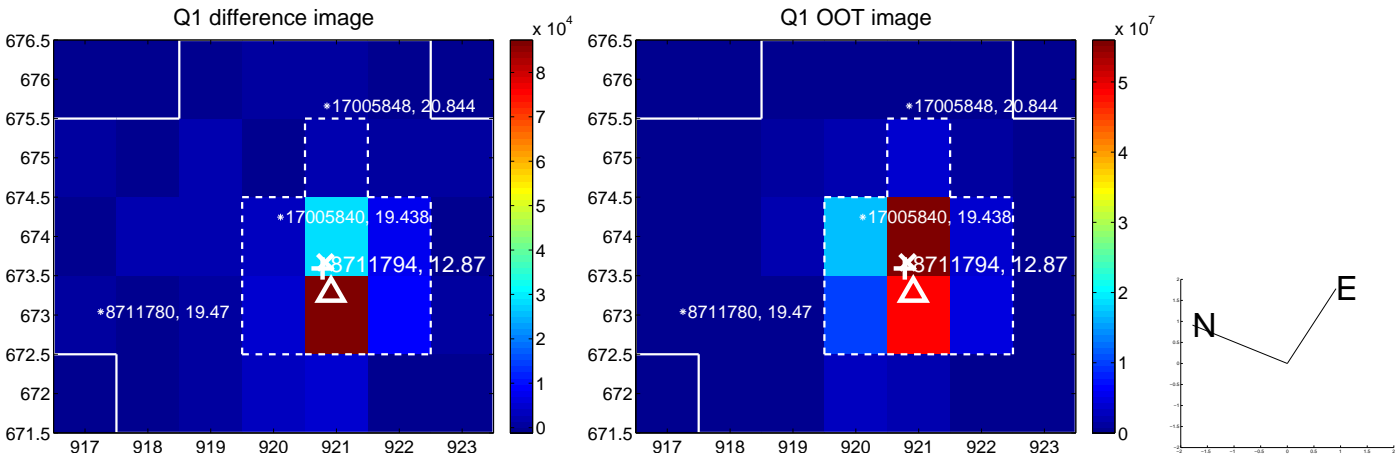
The direct PRF centroid is offset from the target star catalog position by about 0.49 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.090 ± 0.075	1.20	0.067 ± 0.093	-0.059 ± 0.089
PRF-fit source offset from KIC position	0.356 ± 0.105	3.41	-0.329 ± 0.096	-0.137 ± 0.089
photometric centroid source offset	0.38 ± 0.09	4.33	-0.36 ± 0.09	-0.09 ± 0.07

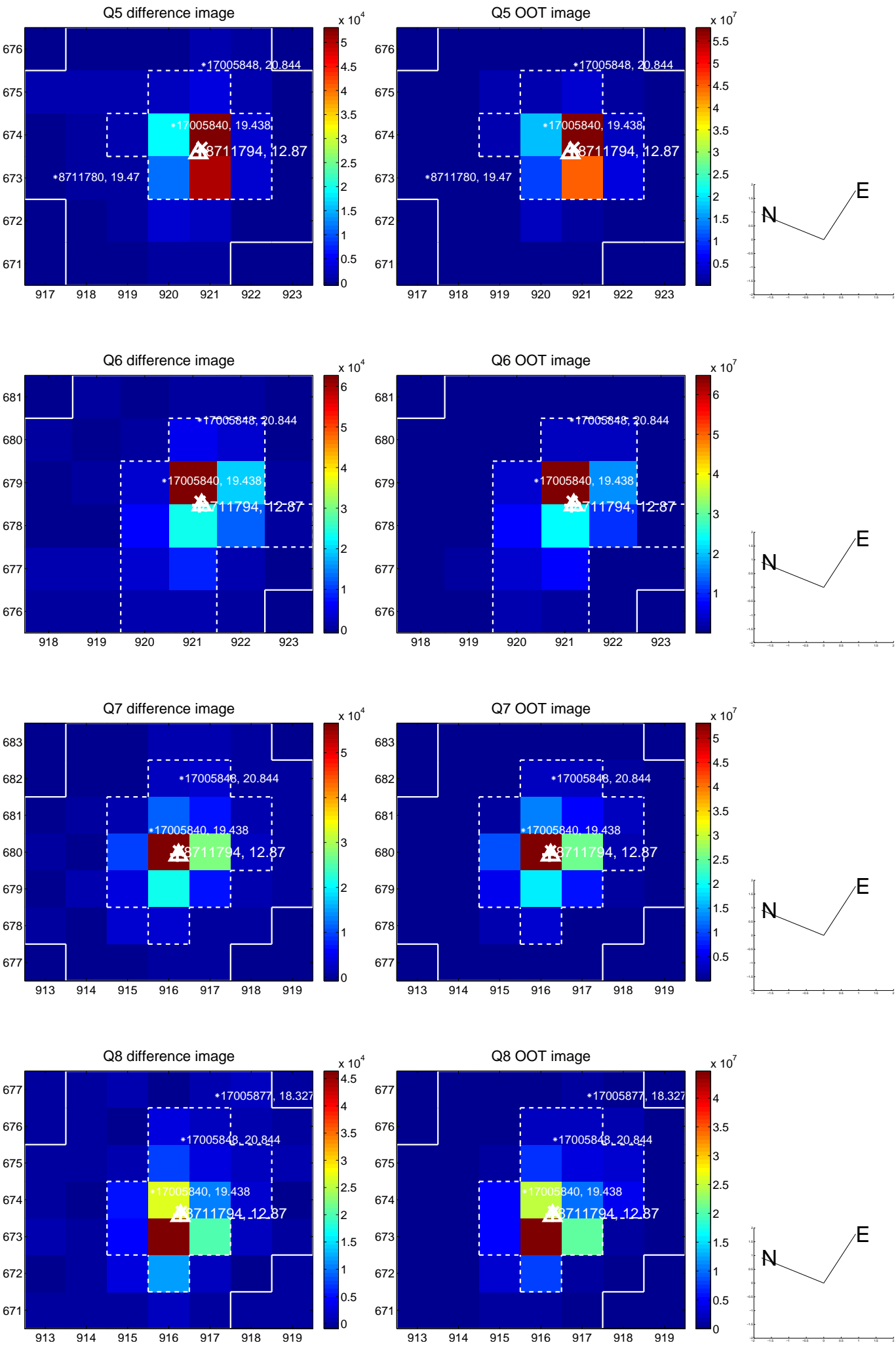


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

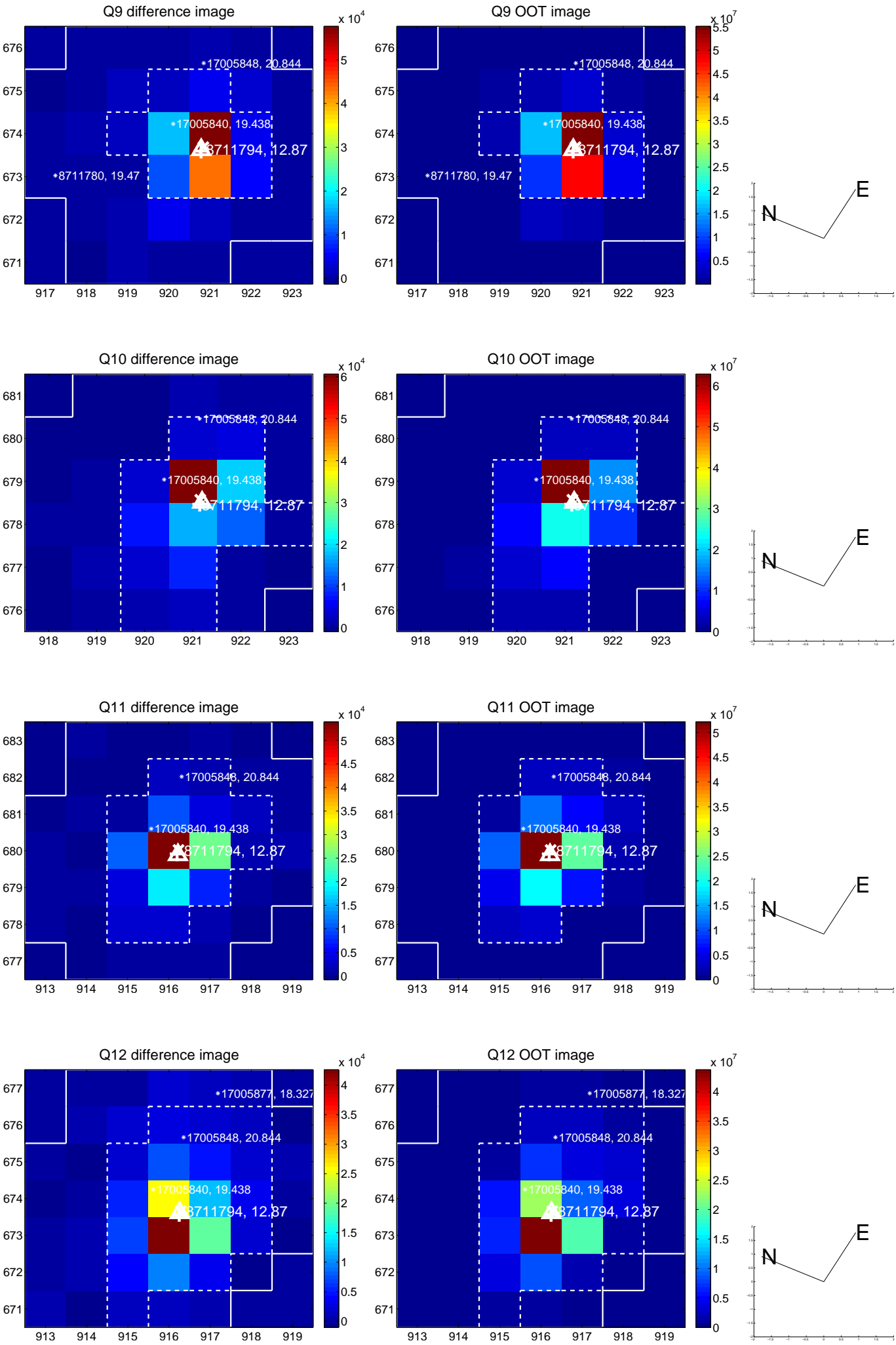
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



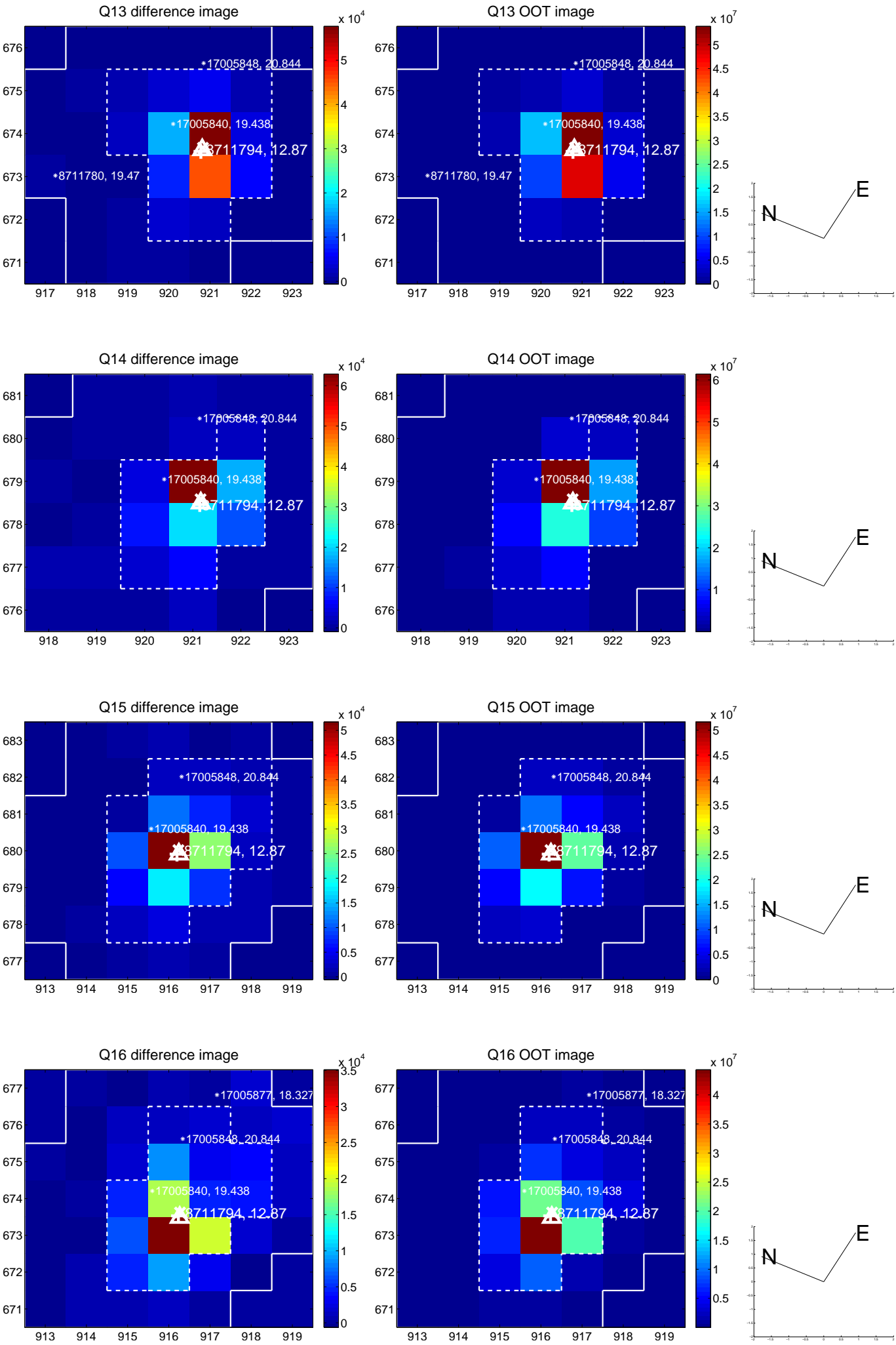
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



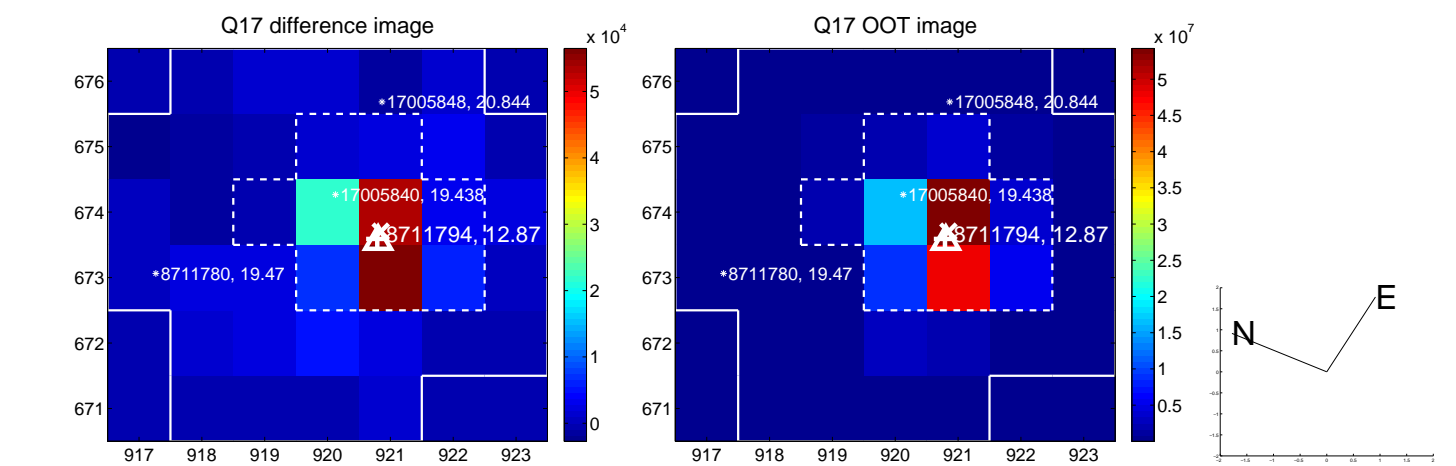
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



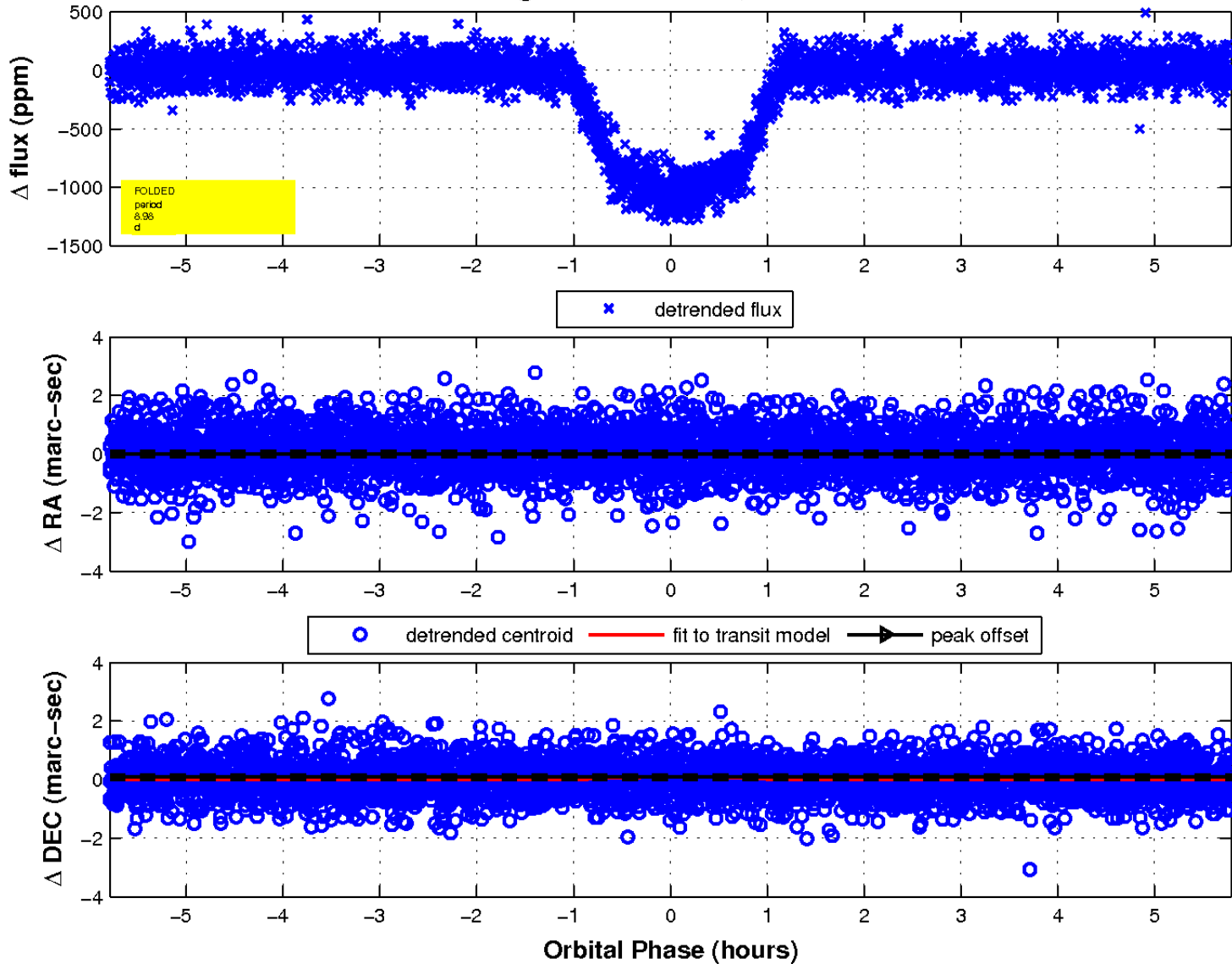
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

