

KIC 002711114

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})
002711114-01	OBS	6290.01	1.429451	132.742617	3024.6	2.253	529.5	586.7	1.37	6491	9.16	4425.27

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002711114-01	OBS	FP	0.00	0	1	0	0	DEPTH_ODDEVEN_DV—DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_DV—MOD_ODDEVEN_ALT—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.

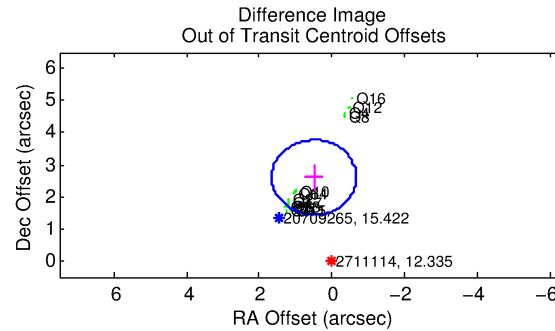
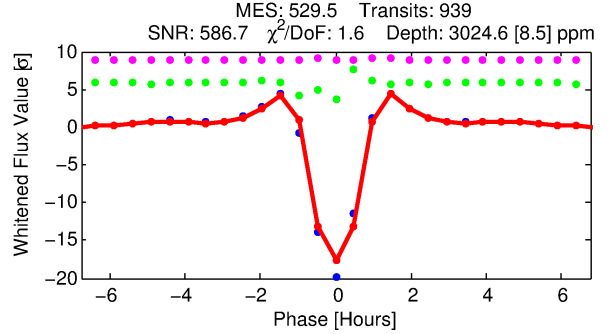
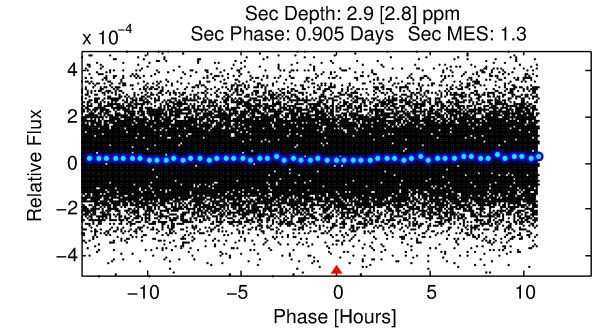
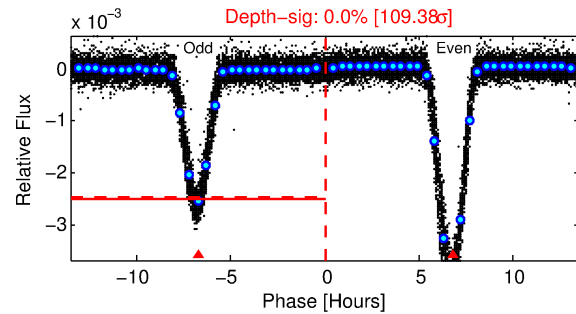
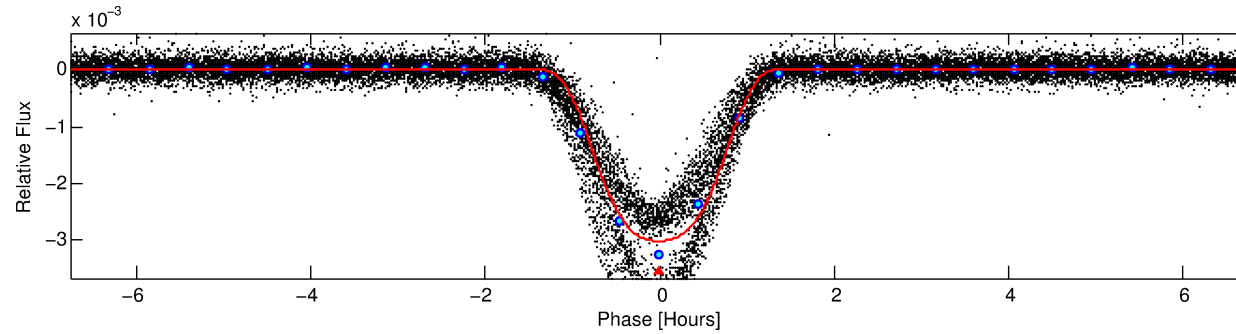
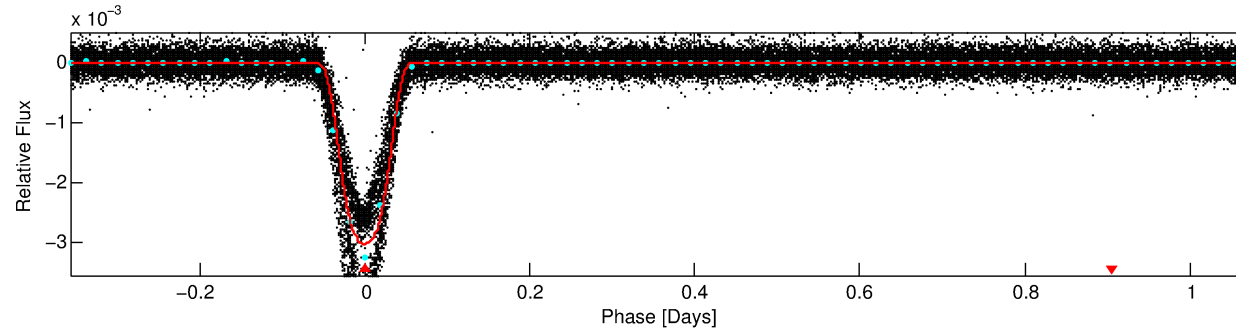
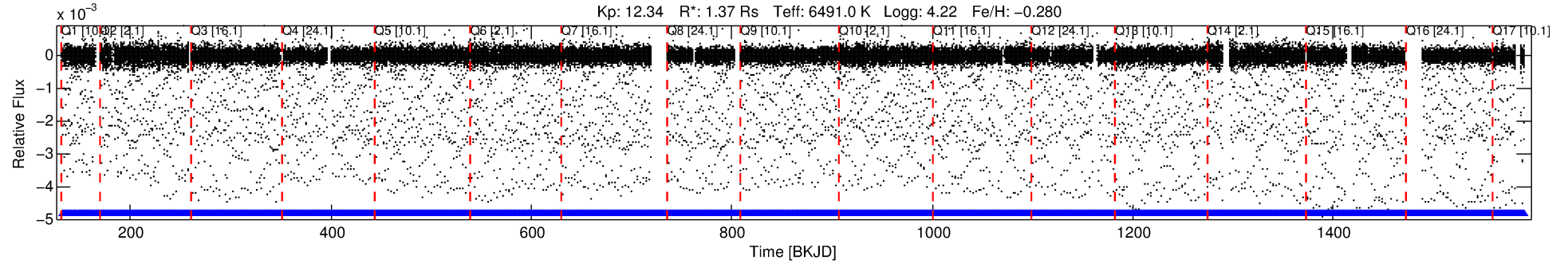
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 002711114-01

No Significant Match Found

DV One-Page Summary

KIC: 2711114 Candidate: 1 of 1 Period: 1.429 d
KOI: K06290.01 Corr: 0.957



DV Fit Results:

Period = 1.42945 [0.00000] d
Epoch = 132.7426 [0.0000] BKJD
Rp/R* = 0.0612 [0.0001]
a/R* = 2.66 [0.01]
b = 0.93 [0.00]
Seff = 4425.27 [1602.88]
Teff = 2080 [188] K
Rp = 9.16 [2.55] Re
a = 0.0260 [0.0061] AU
Ag = 0.01 [0.01] [-74.95σ]
Teffp = 1084 [262] K [-3.08σ]

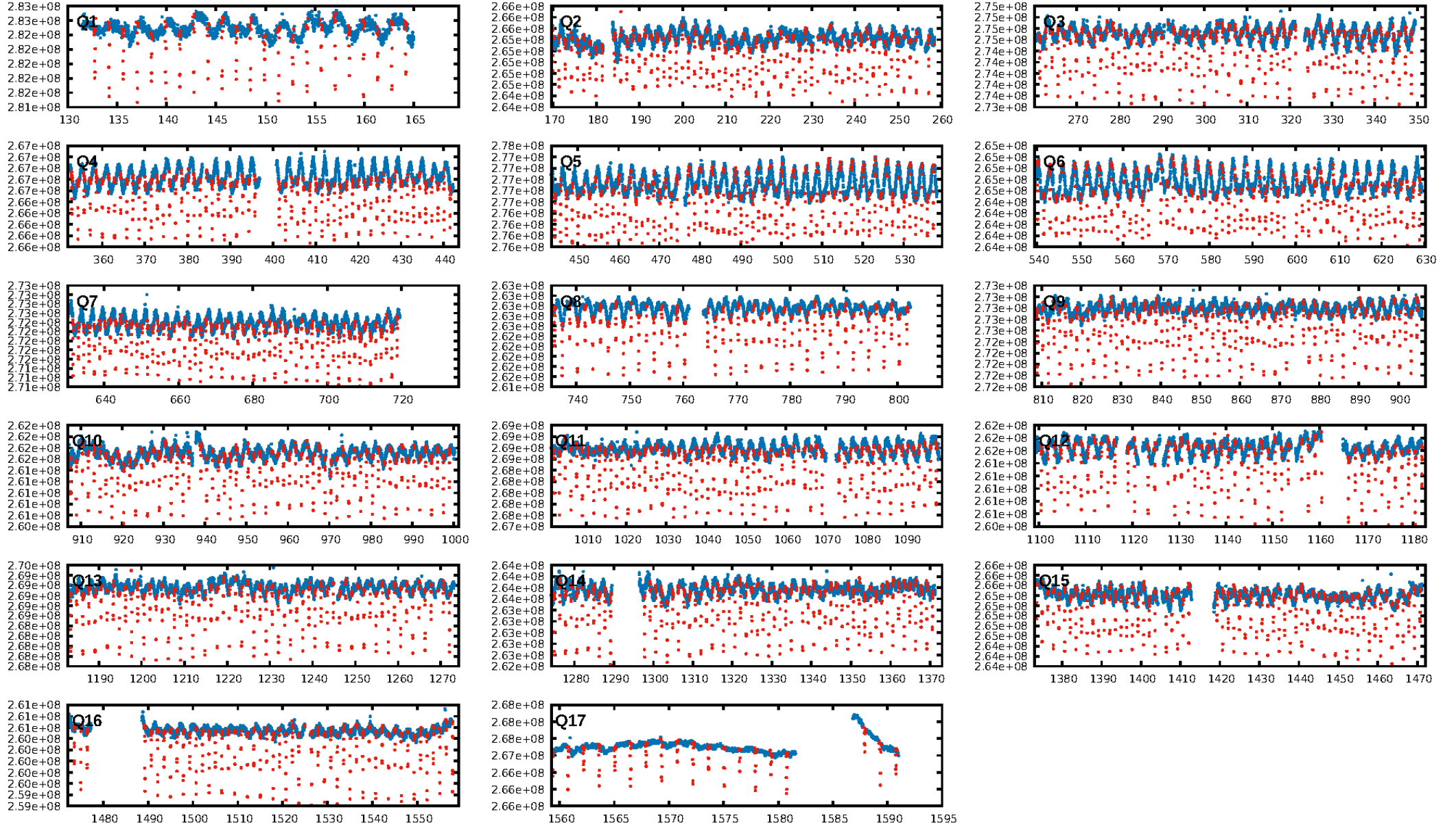
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [897/897]
GhostDiagnostic-chr: 7.065
Centroid-sig: 0.0%
Centroid-so: 1.551 arcsec [107.33σ]
OotOffset-rm: 2.651 arcsec [6.83σ]
KicOffset-rm: 1.819 arcsec [26.14σ]
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]

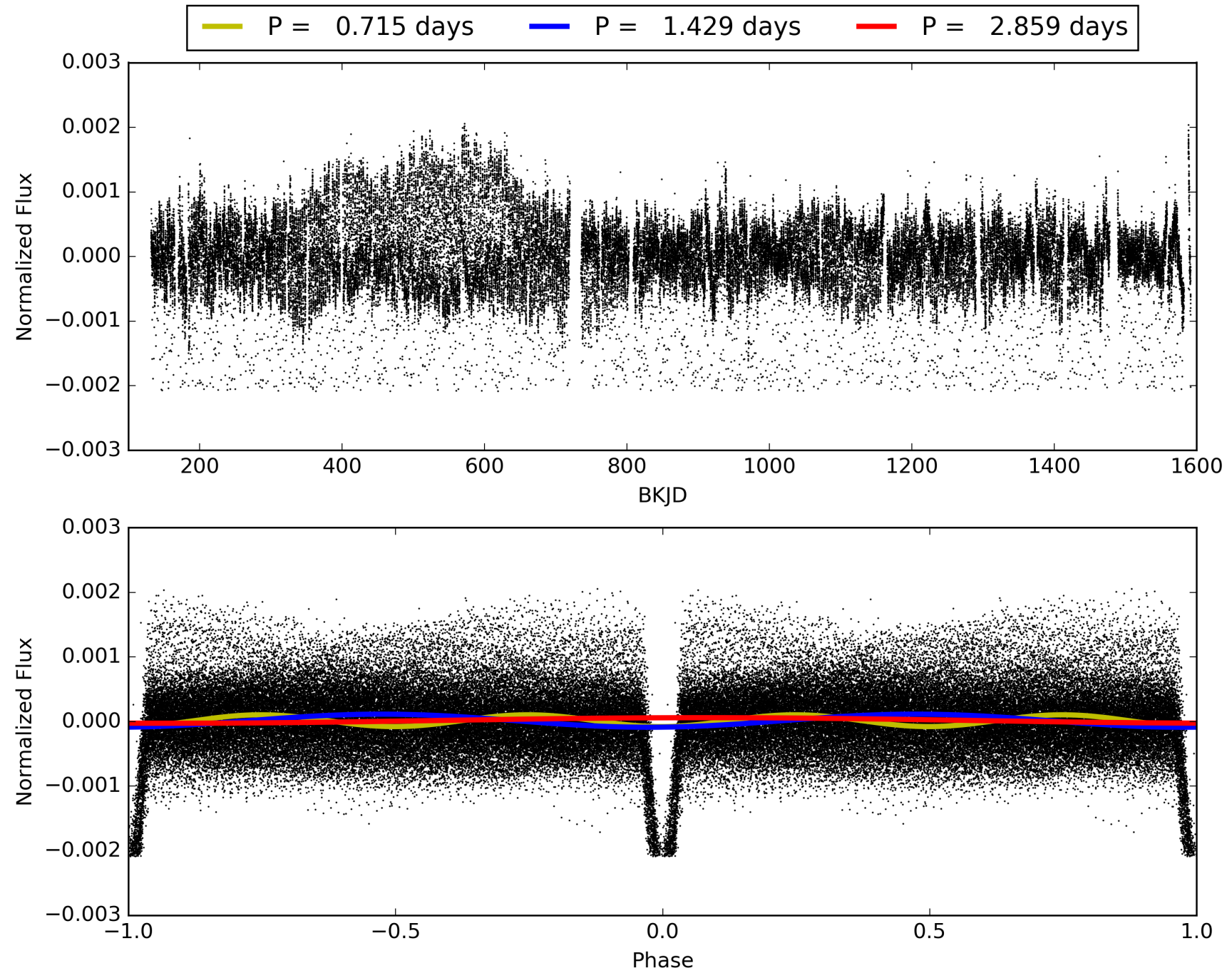
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 20:10:17 Z

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

TCE 002711114-01, PDC Light Curves

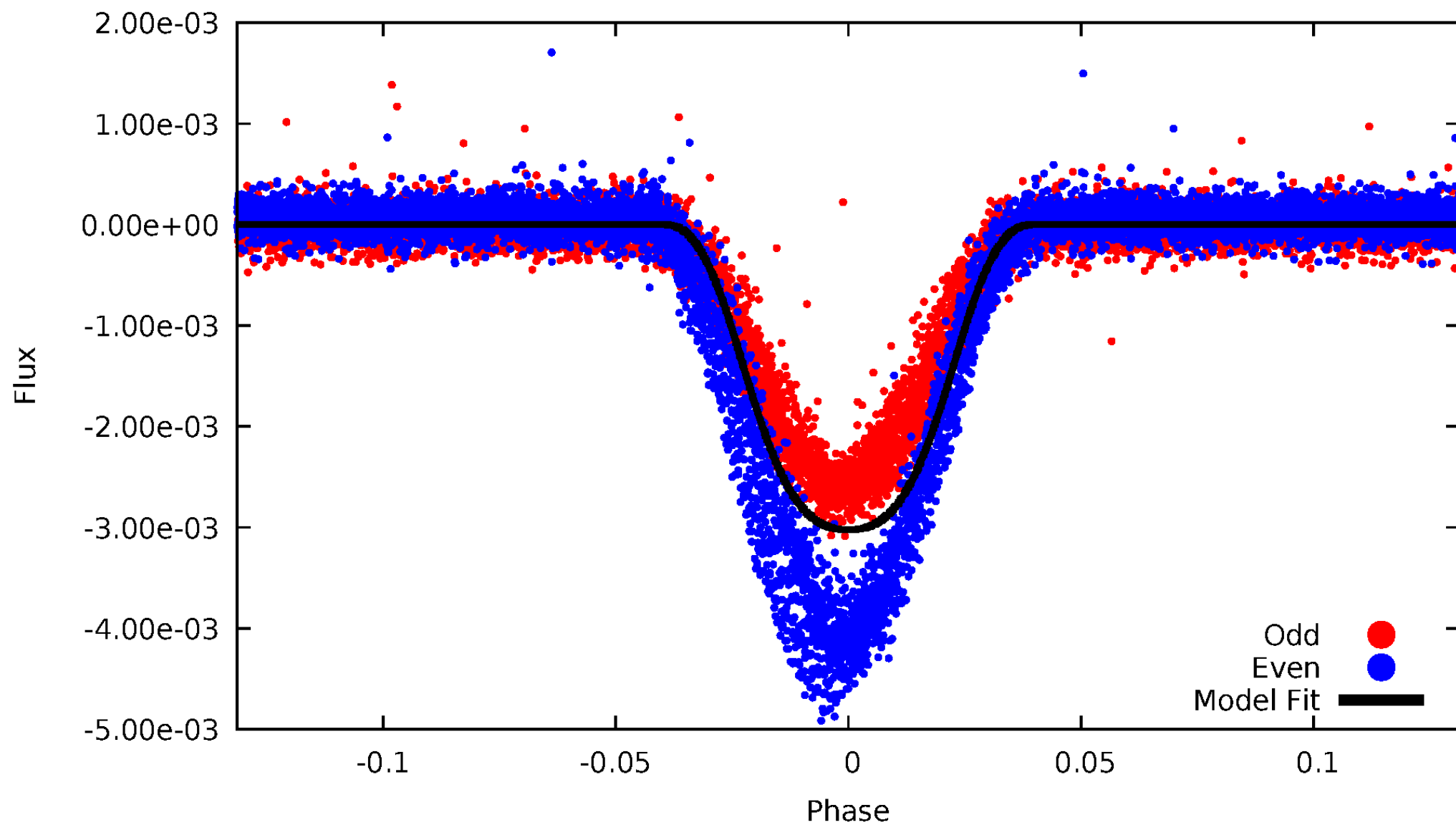


TCE 002711114-01



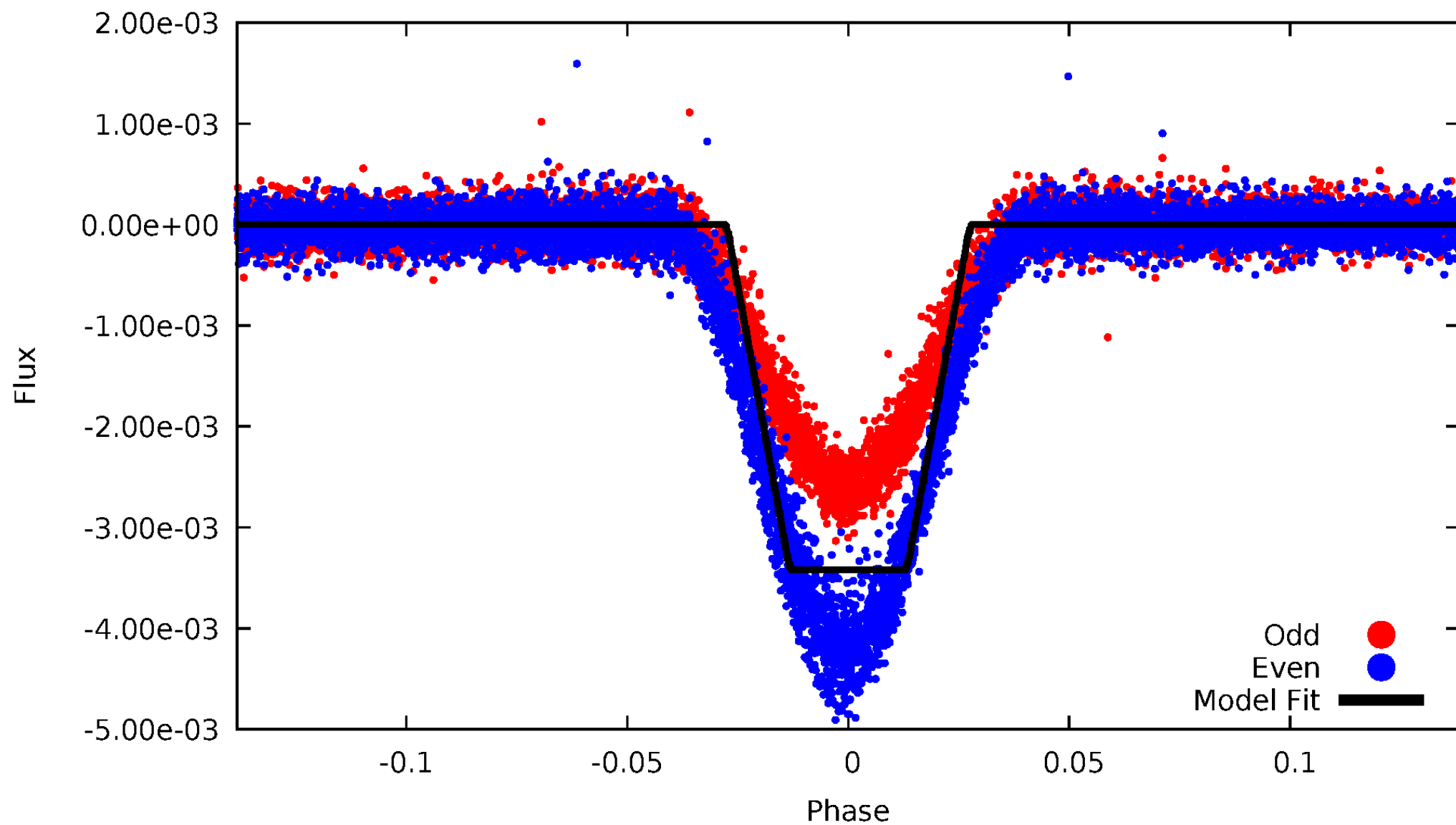
DV Odd/Even

TCE 002711114-01



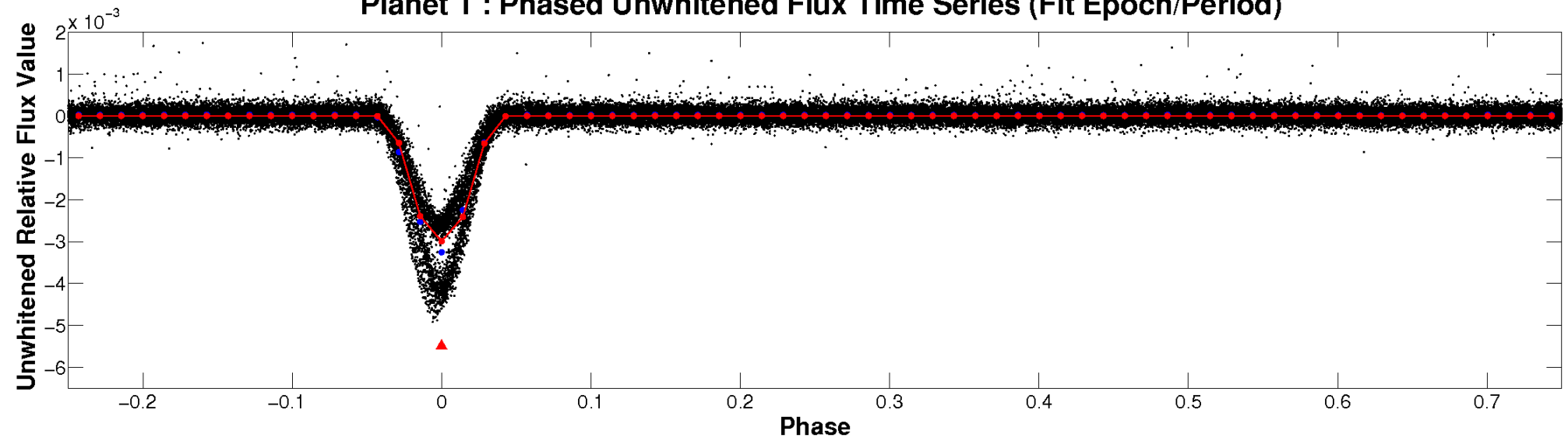
ALT Odd/Even

TCE 002711114-01

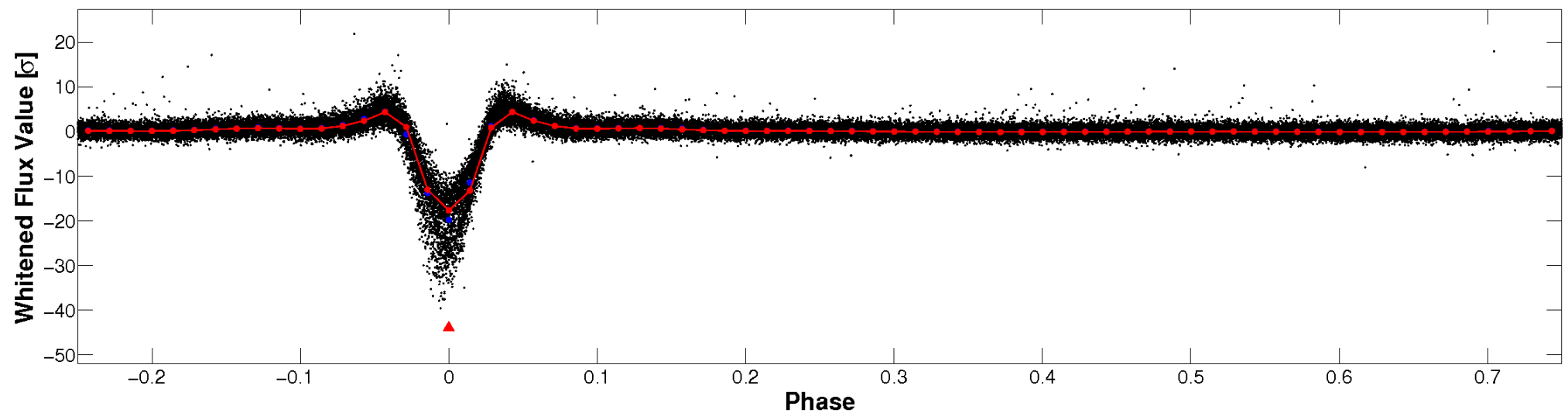


Non-Whitened Vs. Whitened Light Curve

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

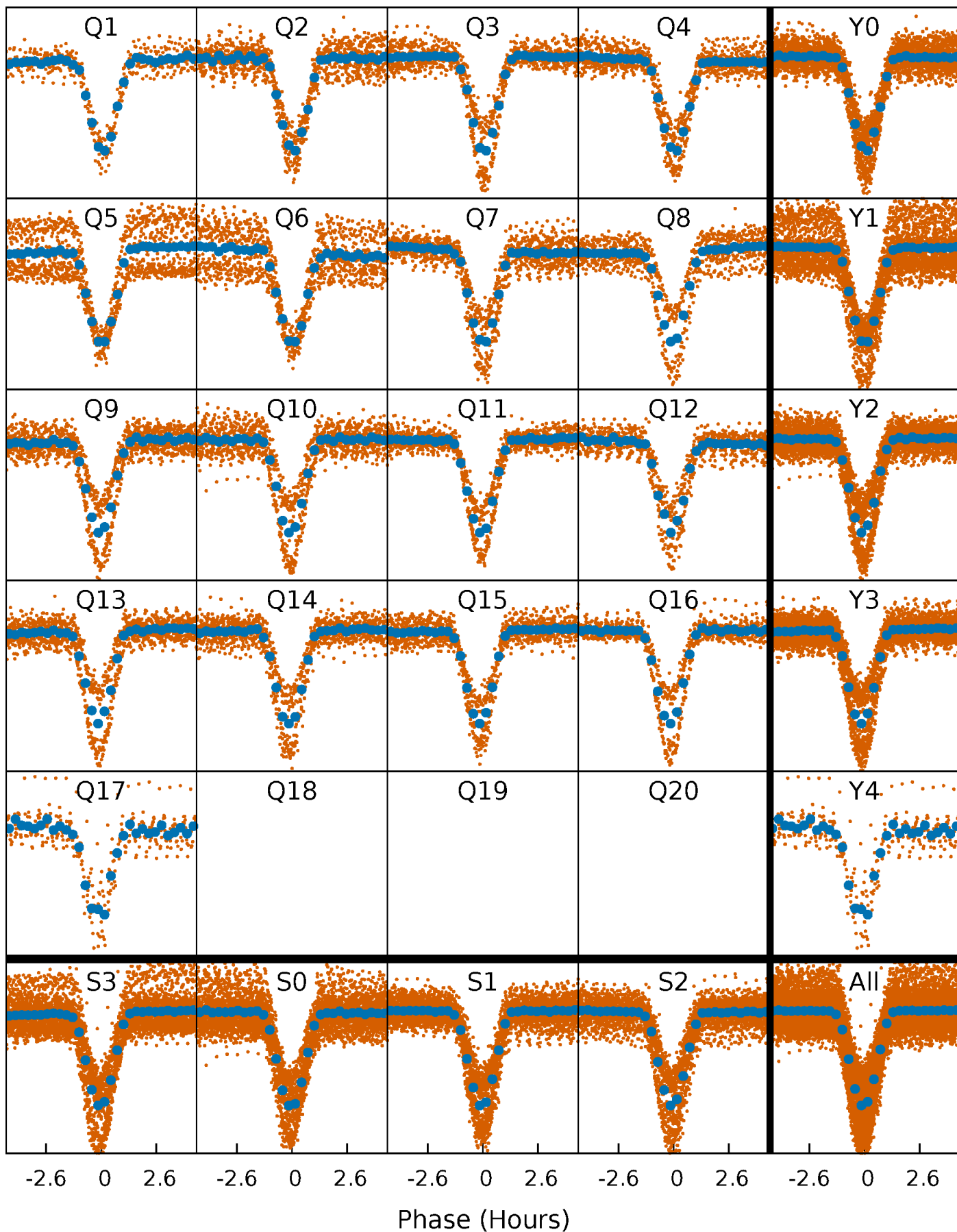


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



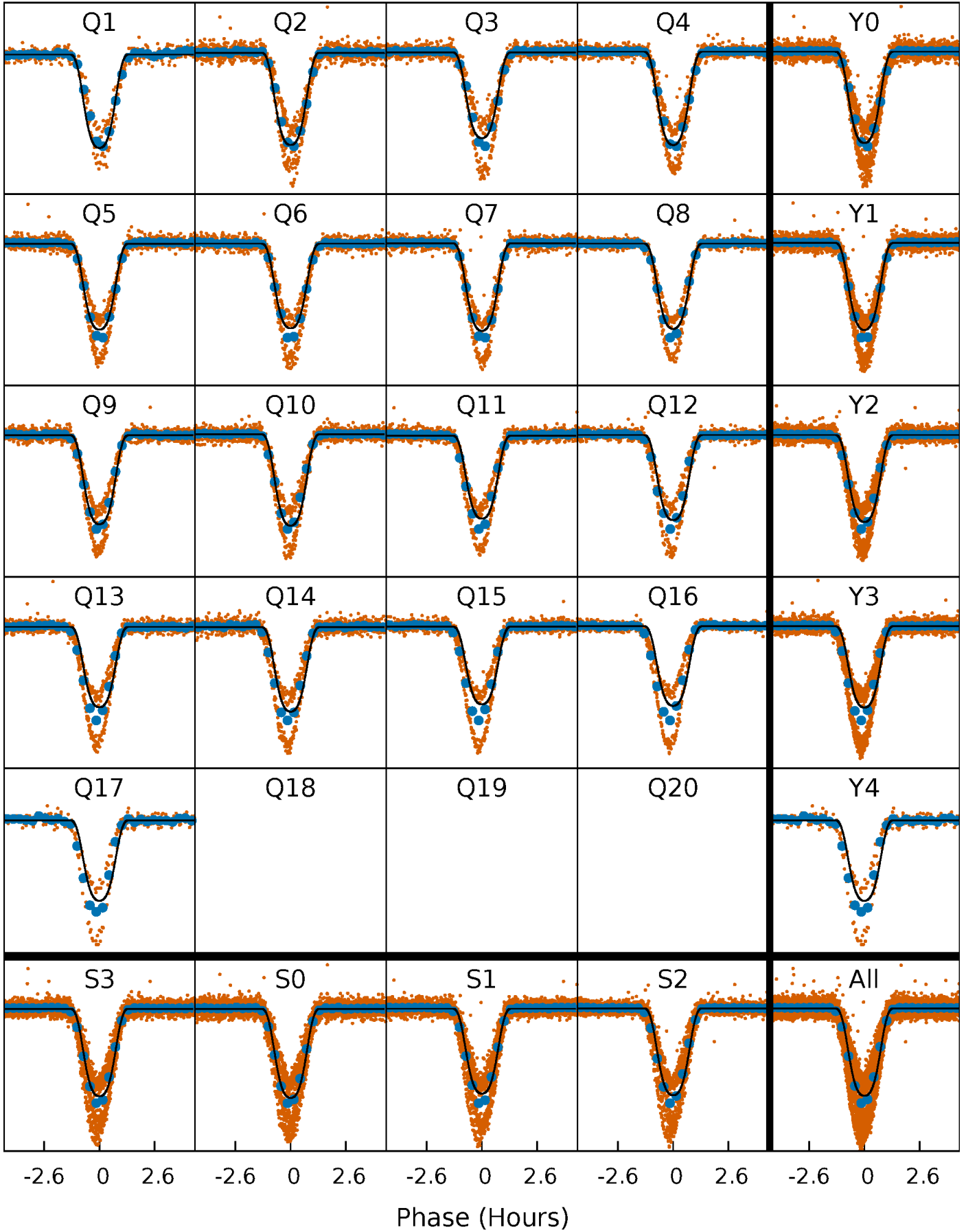
PDC Quarter-Phased Transit Curves

TCE 002711114-01 P= 1.429451 Days $T_0=132.742617$ (BKJD)



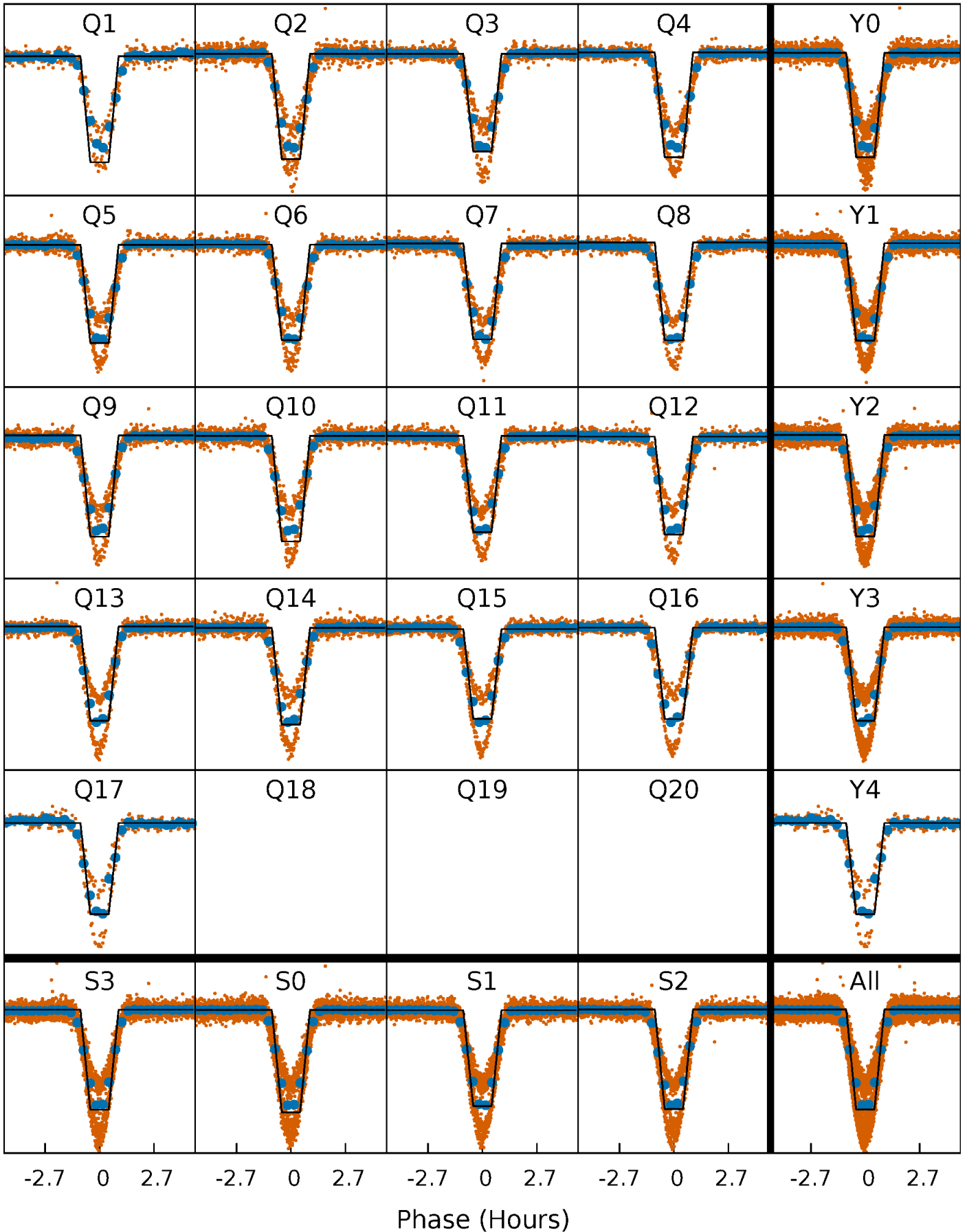
DV Quarter-Phased Transit Curves

TCE 002711114-01 P= 1.429451 Days $T_0=132.742617$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

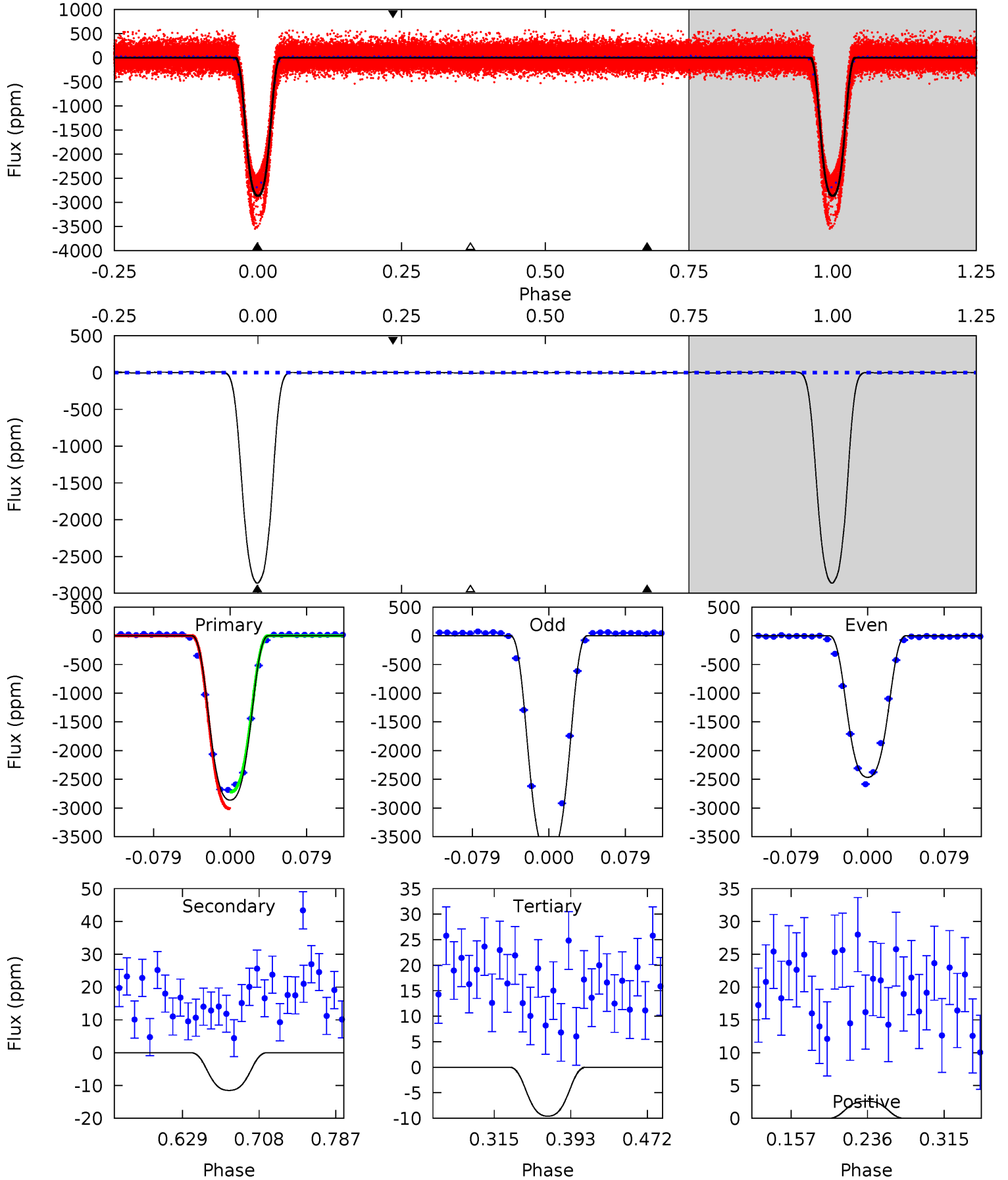
TCE 002711114-01 P= 1.429445 Days $T_0=132.743958$ (BKJD)



DV Model-Shift Uniqueness Test

002711114-01, P = 1.429451 Days, E = 131.313166 Days

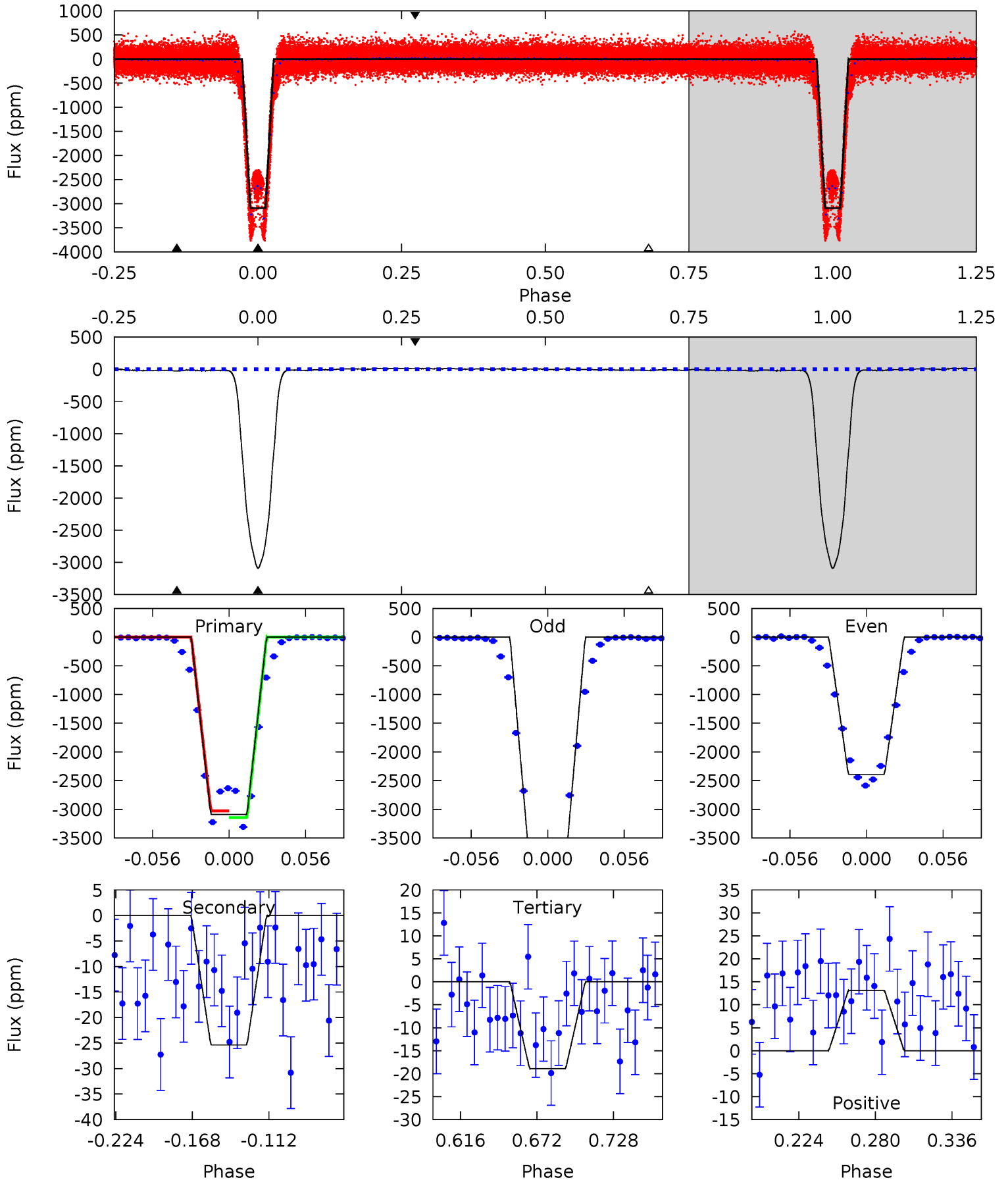
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1285	5.17	4.30	1.17	4.61	1.76	1.91	1281	1284	0.86	4.00	346.4	1.09	0.00	0



Alt Model-Shift Uniqueness Test

002711114-01, P = 1.429445 Days, E = 131.314513 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1034	8.48	6.32	4.40	4.69	1.91	3.12	1027	1029	2.16	4.08	317.0	1.07	0.00	19.1



Stellar Parameters For KIC 002711114

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6491^{+146}_{-194}	$4.223^{+0.153}_{-0.187}$	$-0.280^{+0.250}_{-0.300}$	$1.371^{+0.382}_{-0.278}$	$1.147^{+0.174}_{-0.157}$	$0.628^{+0.495}_{-0.324}$
	+2%/-3%	+4%/-4%	+89%/-107%	+28%/-20%	+15%/-14%	+79%/-52%
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 002711114-01 / KOI 6290.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-12 ± 2	$9.16^{+1.45}_{-1.01}$	2907^{+195}_{-178}	-2960^{+121}_{-130}	$0.050^{+0.017}_{-0.014}$
Alt.	-25 ± 3	$8.83^{+1.49}_{-1.07}$	2909^{+224}_{-174}	-2825^{+153}_{-183}	$0.120^{+0.036}_{-0.033}$

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 $A_{obs} \gg 1.0$

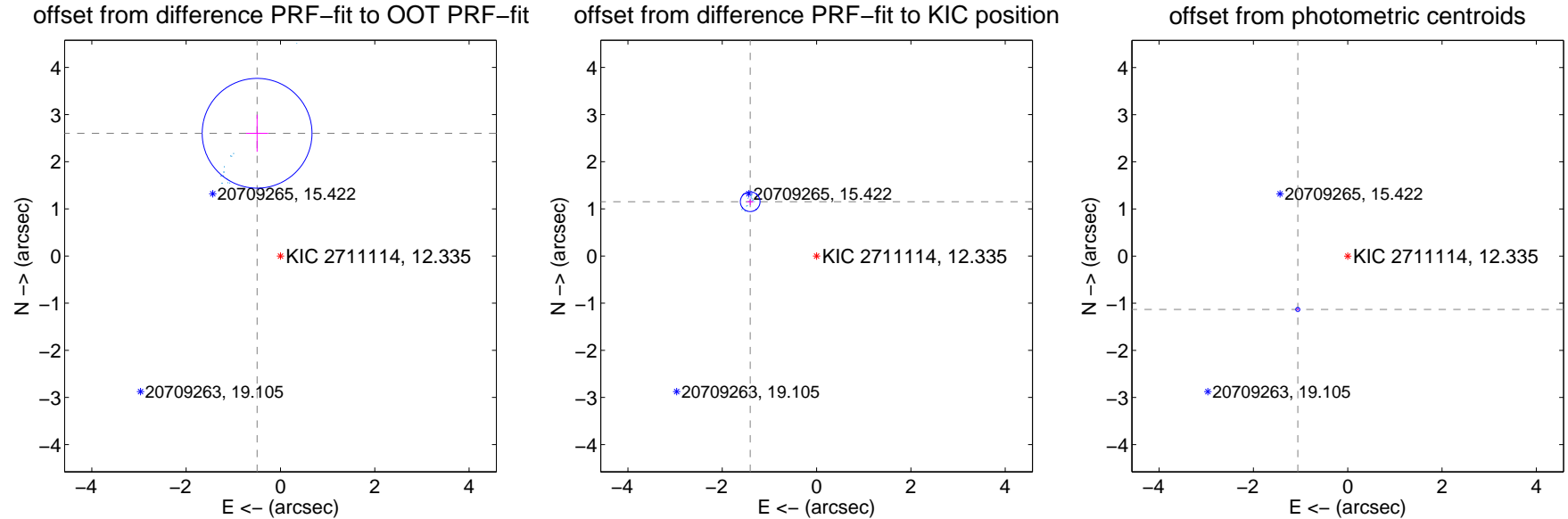
DV Centroid Data

Supplemental centroid analysis for 002711114-01. Kepler magnitude: 12.34. Transit SNR 586.72

There are 17 quarters with good PRF difference image offsets

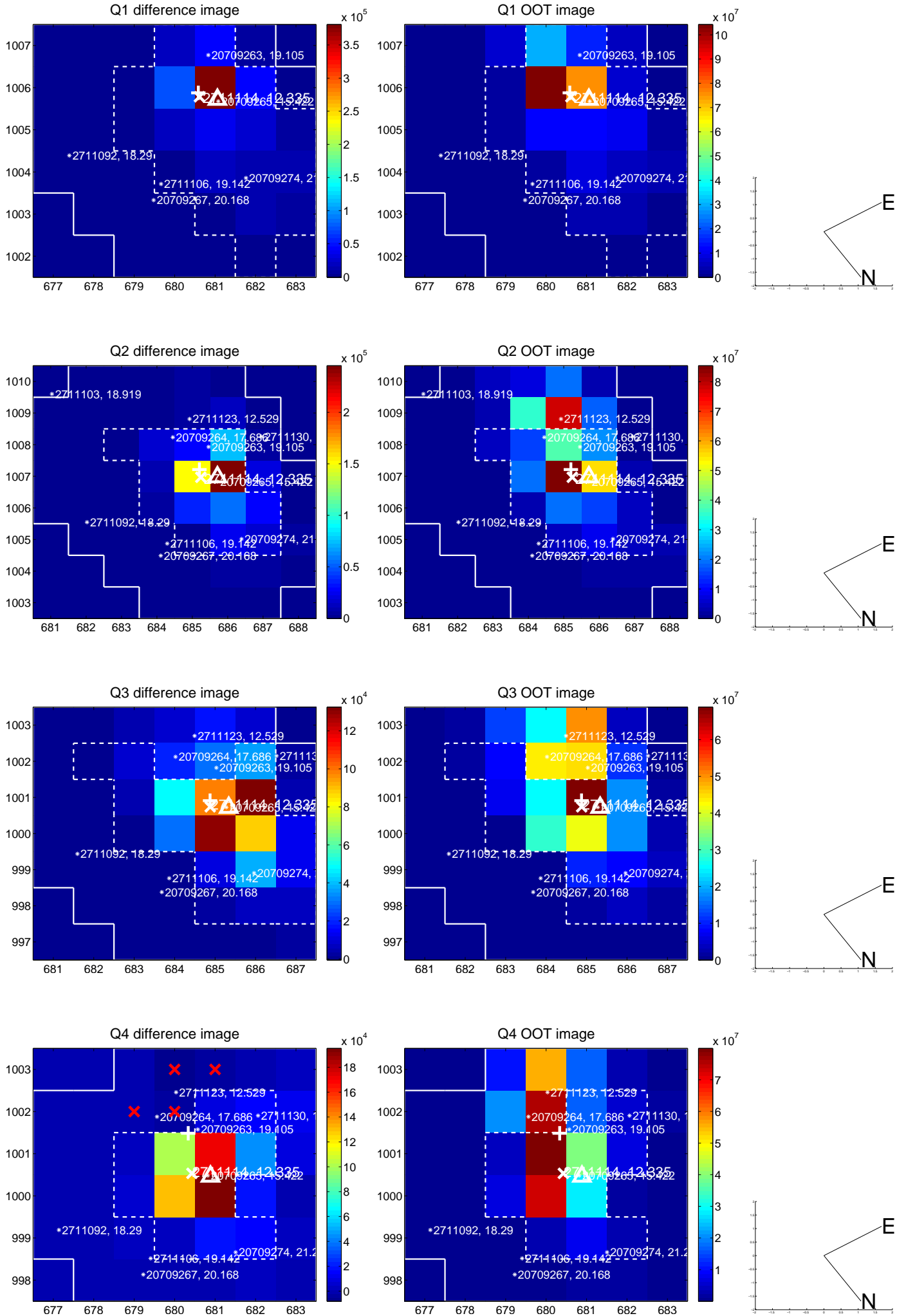
The direct PRF centroid is offset from the target star catalog position by about 0.53 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.651 \pm 0.388	6.83	0.496 \pm 0.234	2.604 \pm 0.393
PRF-fit source offset from KIC position	1.819 \pm 0.070	26.14	1.408 \pm 0.069	1.152 \pm 0.071
photometric centroid source offset	1.55 \pm 0.01	107.33	1.06 \pm 0.01	-1.13 \pm 0.02

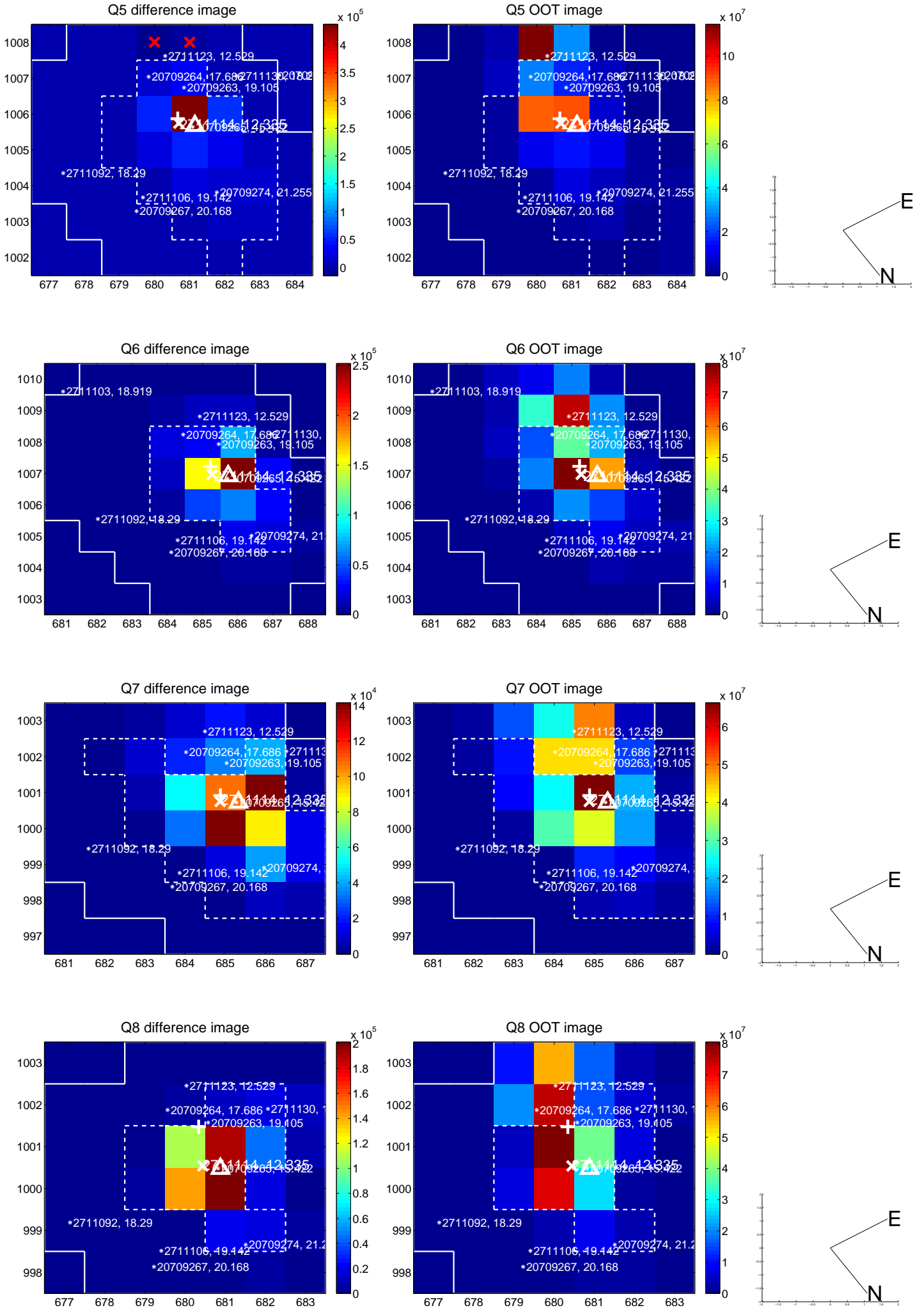


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000 are from the UKIRT catalog.

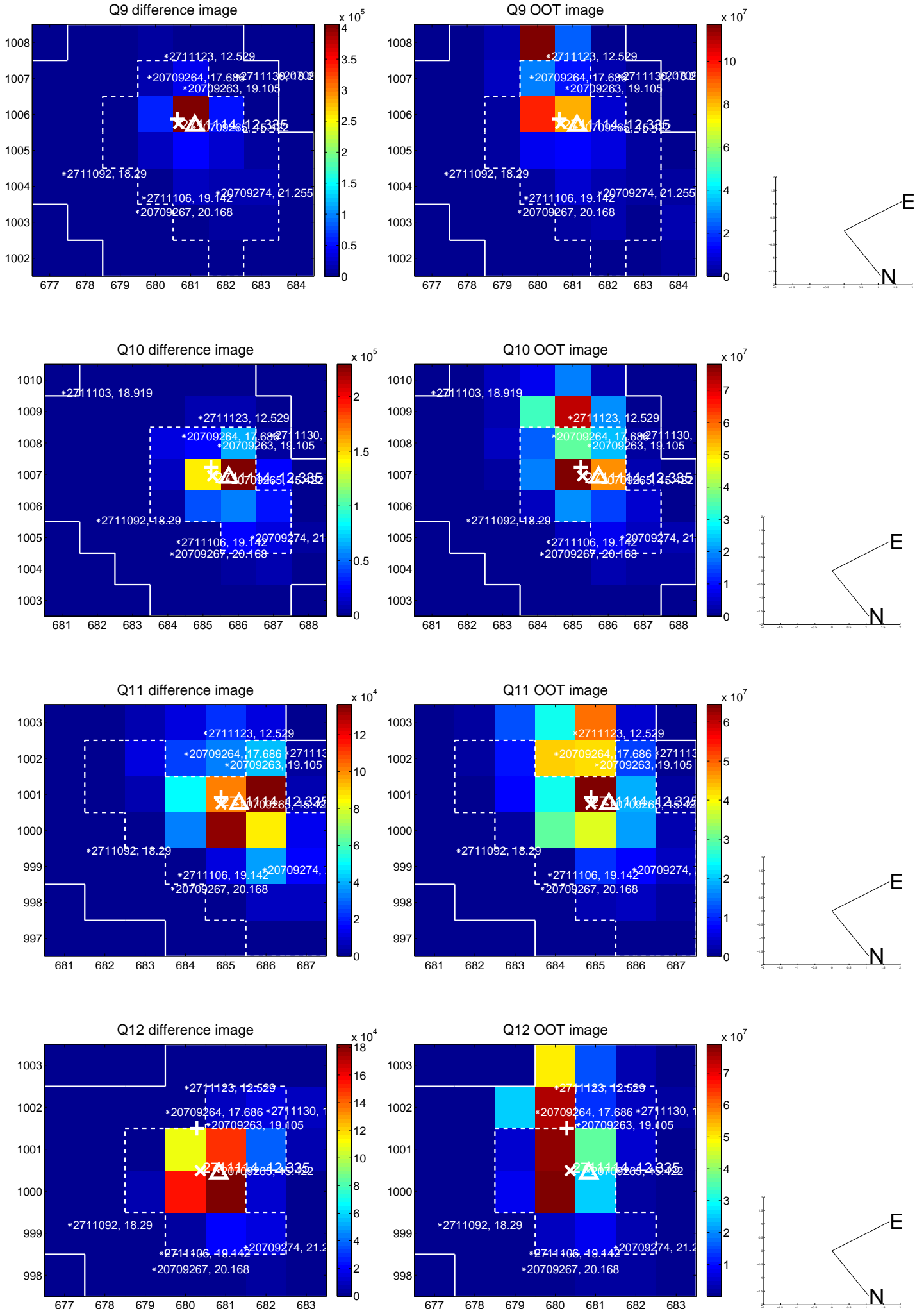
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



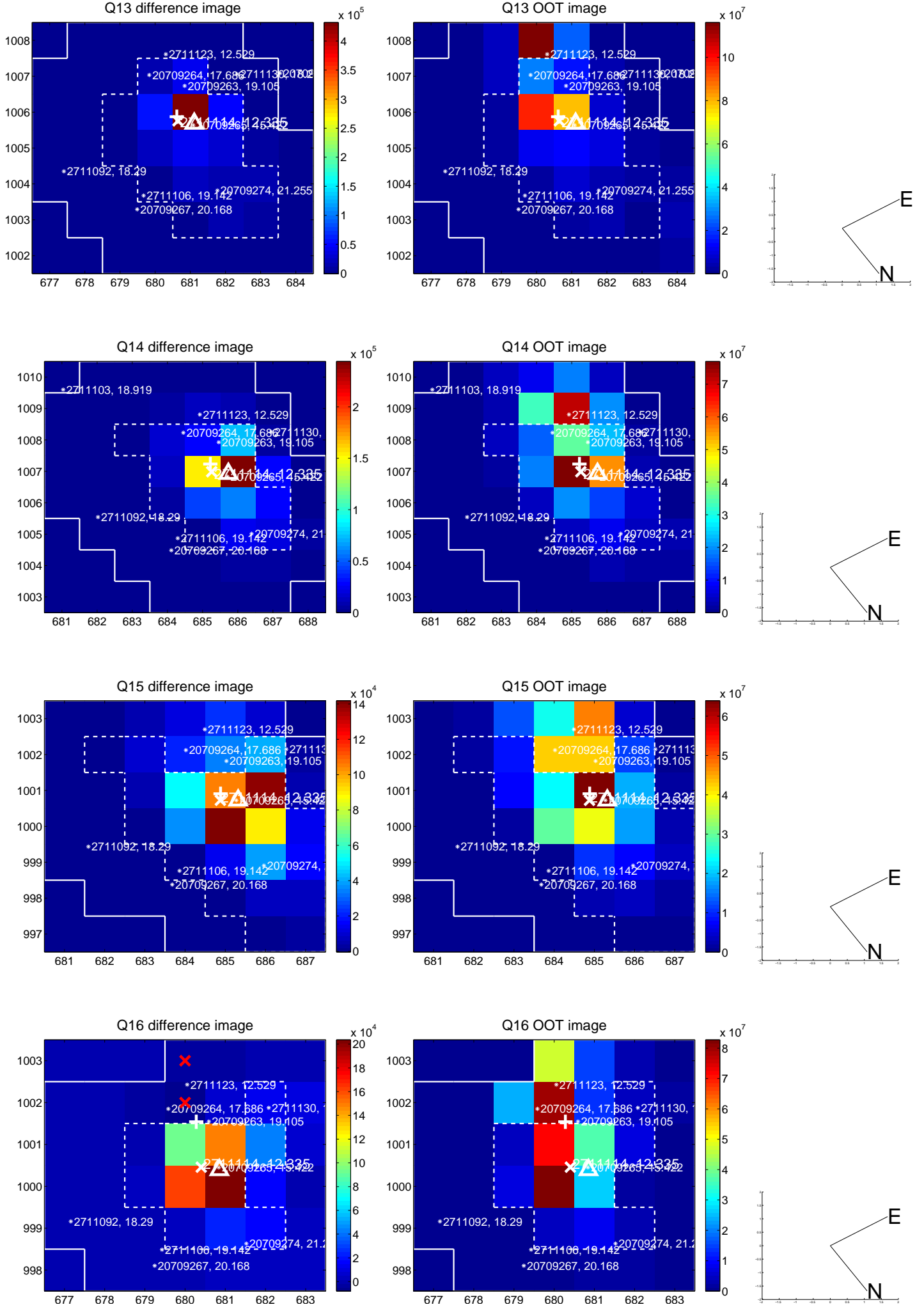
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



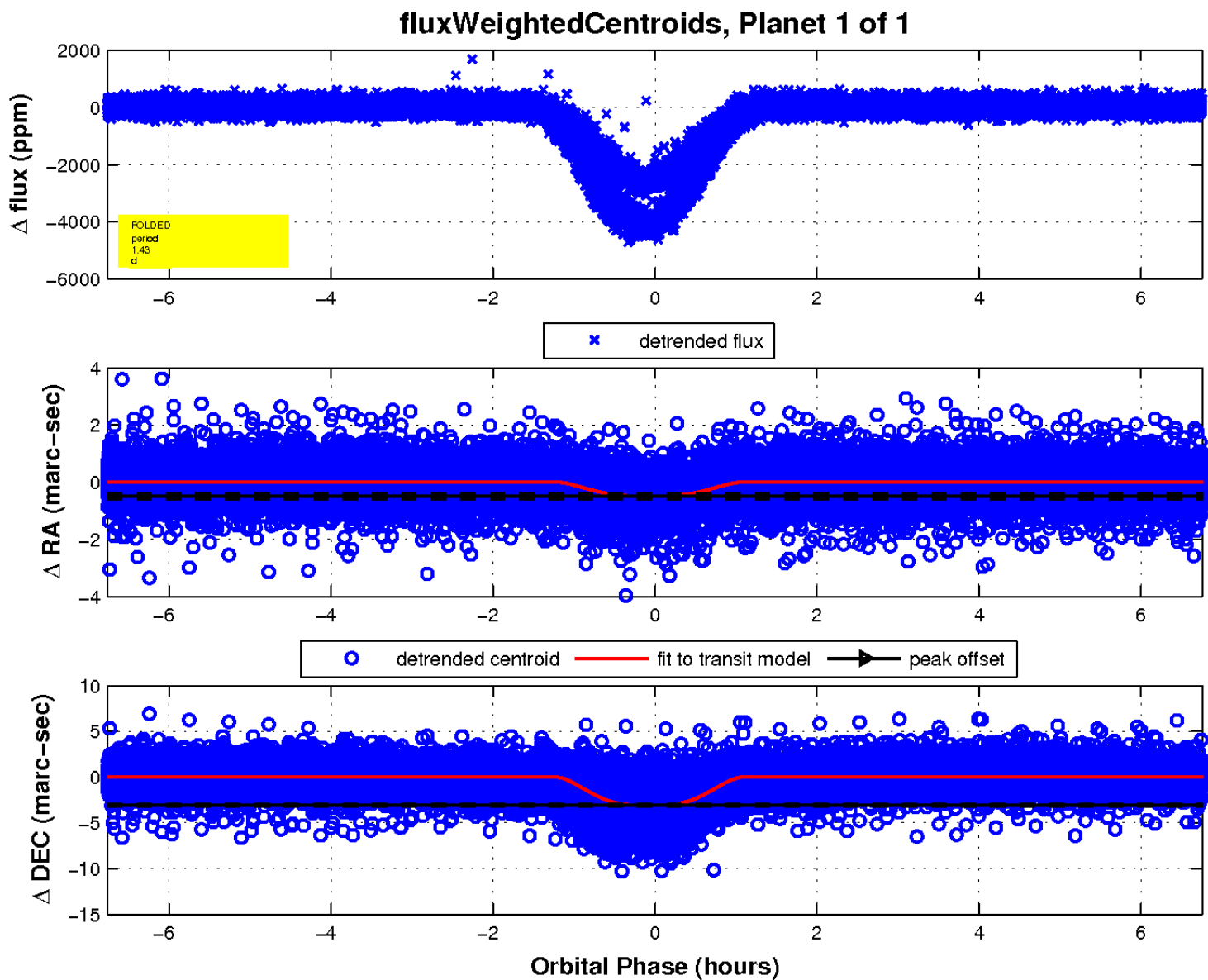
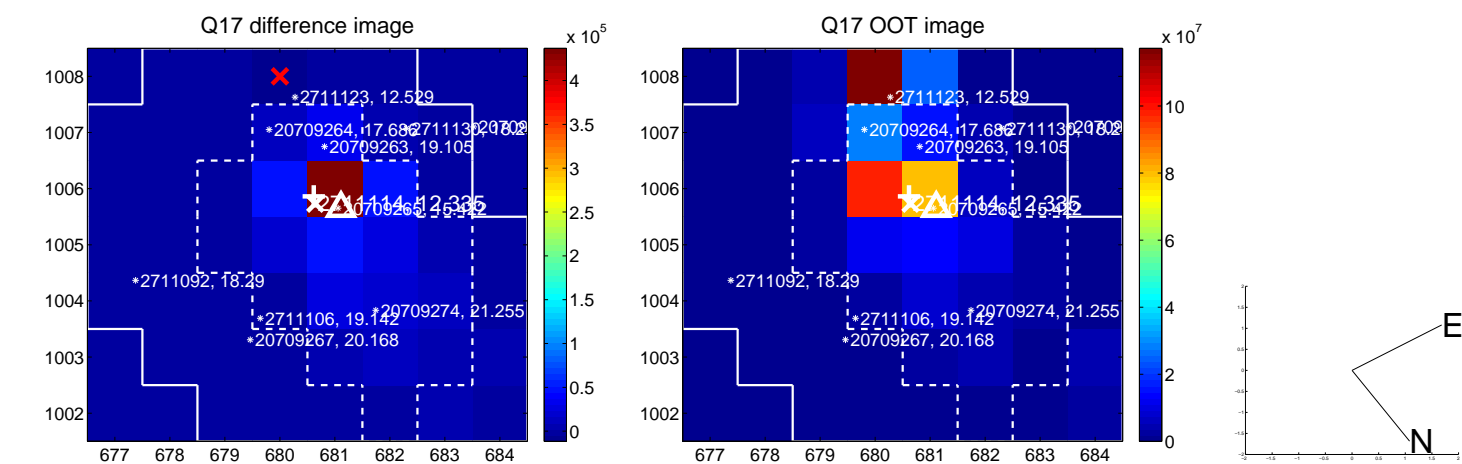
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white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

