

KIC 007971319

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})
007971319-01	OBS	No	361.357322	186.478546	390.8	20.399	7.7	6.0	1.03	6044	2.10	1.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007971319-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—INCONSISTENT_TRANS—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.

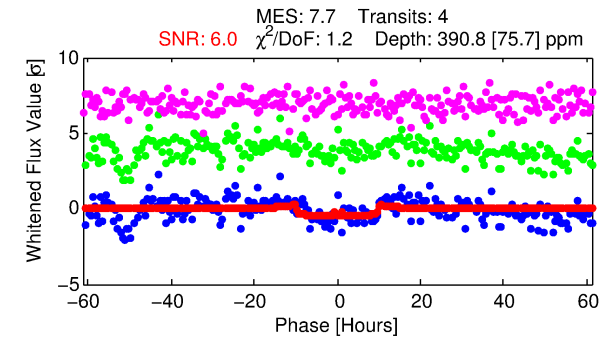
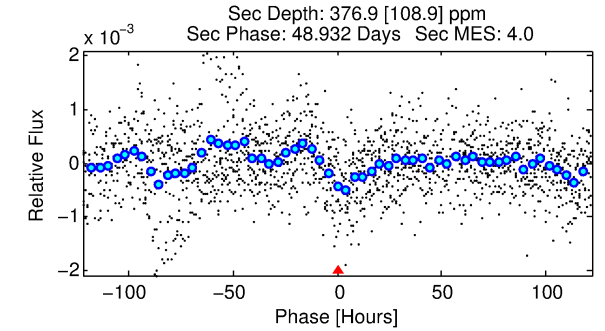
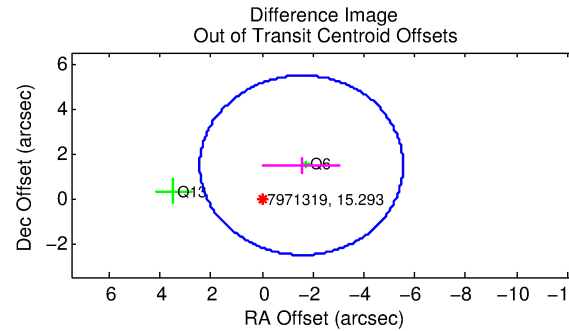
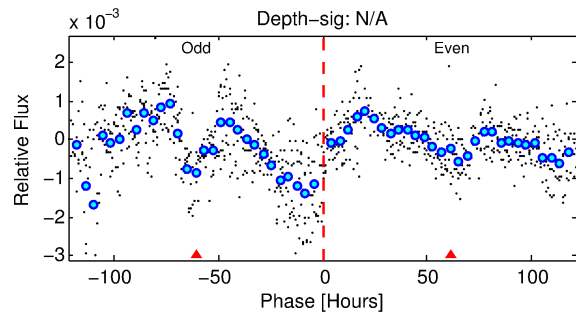
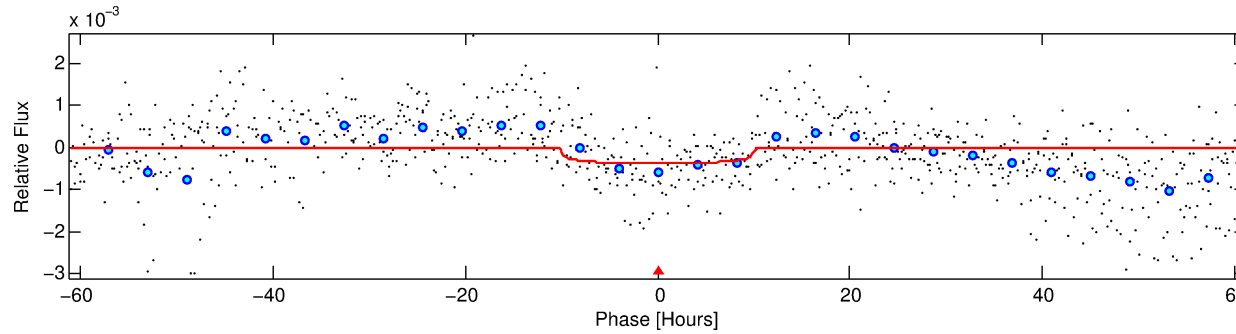
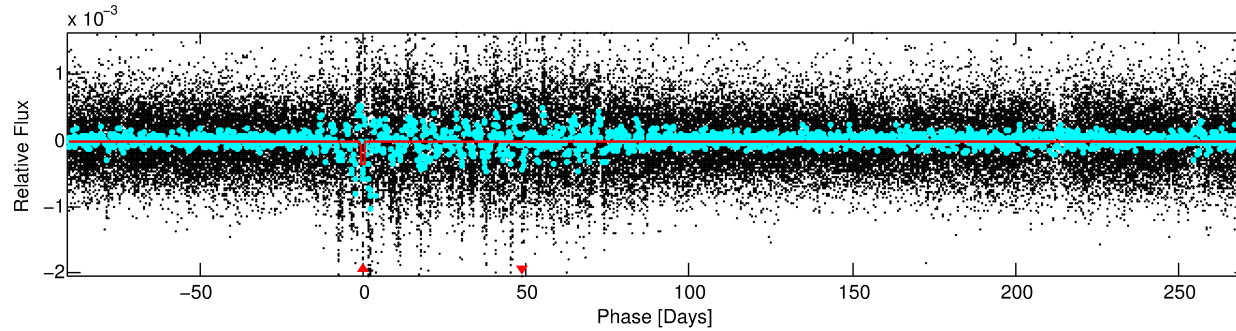
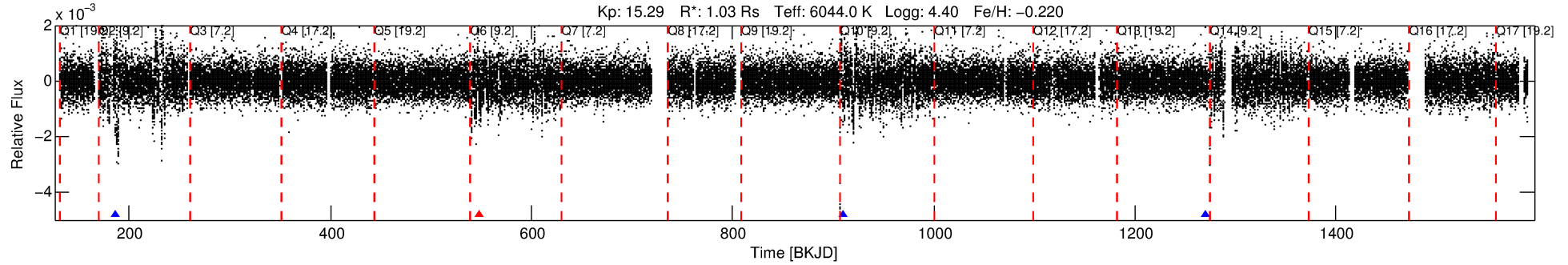
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007971319-01

No Significant Match Found

DV One-Page Summary

KIC: 7971319 Candidate: 1 of 1 Period: 361.357 d



DV Fit Results:

Period = 361.35732 [0.01639] d
Epoch = 186.4785 [0.0329] BKJD
Rp/R* = 0.0187 [0.0114]
a/R* = 118.01 [348.57]
b = 0.53 [4.07]
Seff = 1.30 [0.50]
Teq = 272 [26] K
Rp = 2.10 [1.42] Re
a = 0.9855 [0.2419] AU
Ag = 45834.69 [59947.46] [0.76σ]
Teffp = 6161 [1950] K [3.02σ]

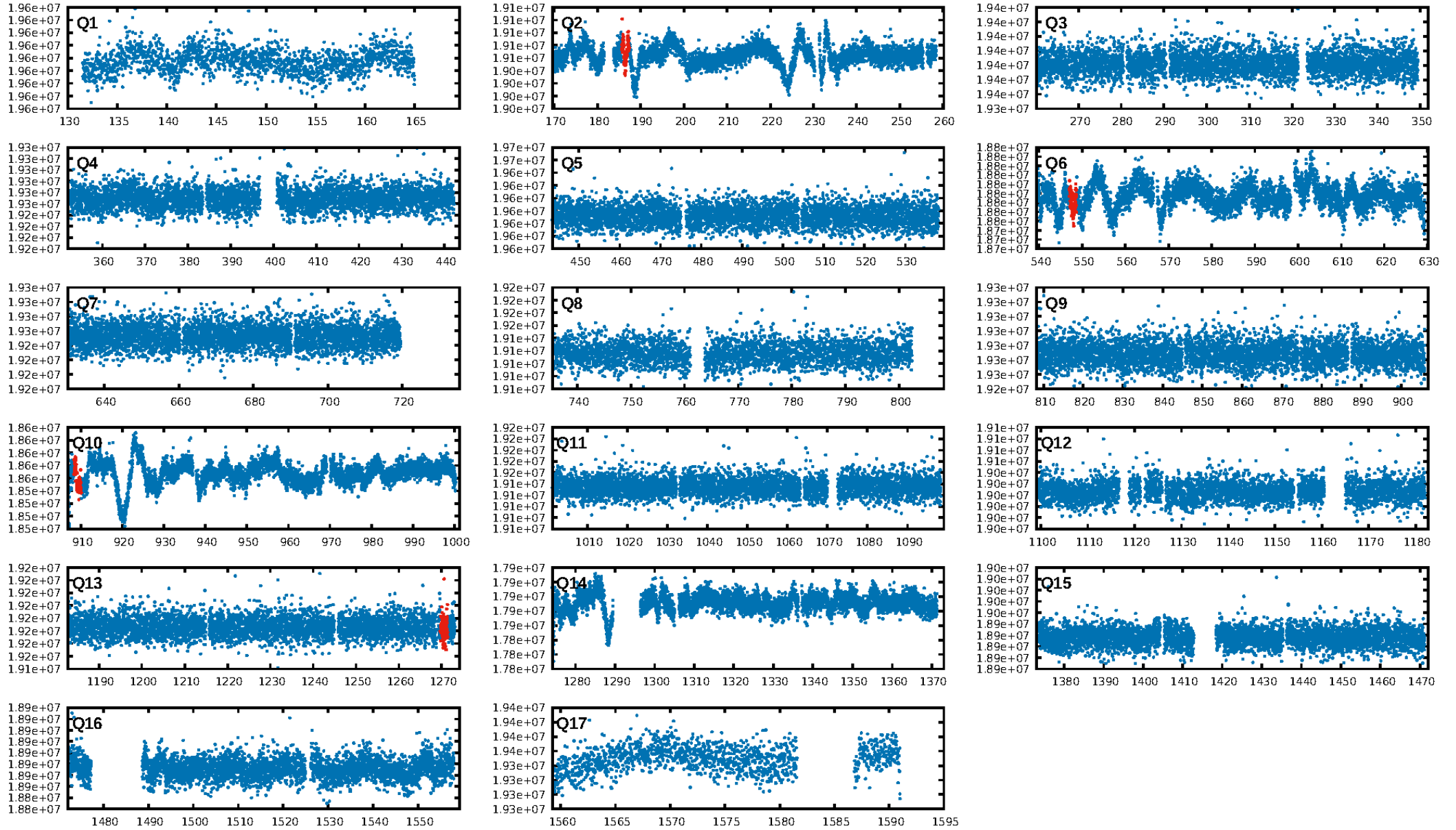
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.1%
ModelChiSquareGof-sig: 99.2%
Bootstrap-pfa: 4.27e-09
RollingBand-fgt: 0.75 [3/4]
GhostDiagnostic-chr: 1.756
Centroid-sig: 42.9%
Centroid-so: 1.605 arcsec [0.59σ]
OotOffset-rm: 2.142 arcsec [1.61σ]
OotOffset-st: 1/0/0/1 [2]
KicOffset-rm: 2.170 arcsec [1.91σ]
KicOffset-st: 1/0/0/1 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [4/4]

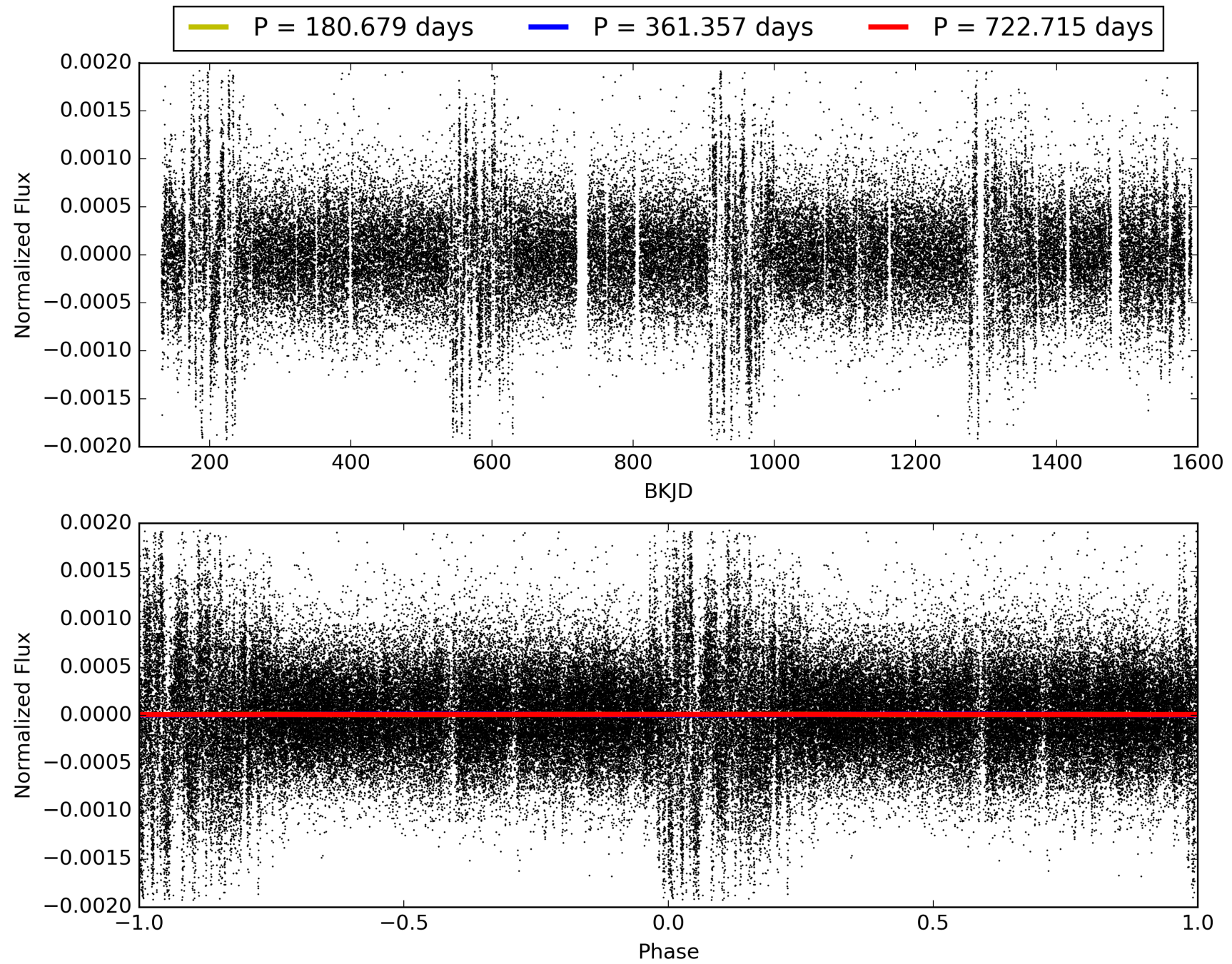
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 00:23:47 Z

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

TCE 007971319-01, PDC Light Curves

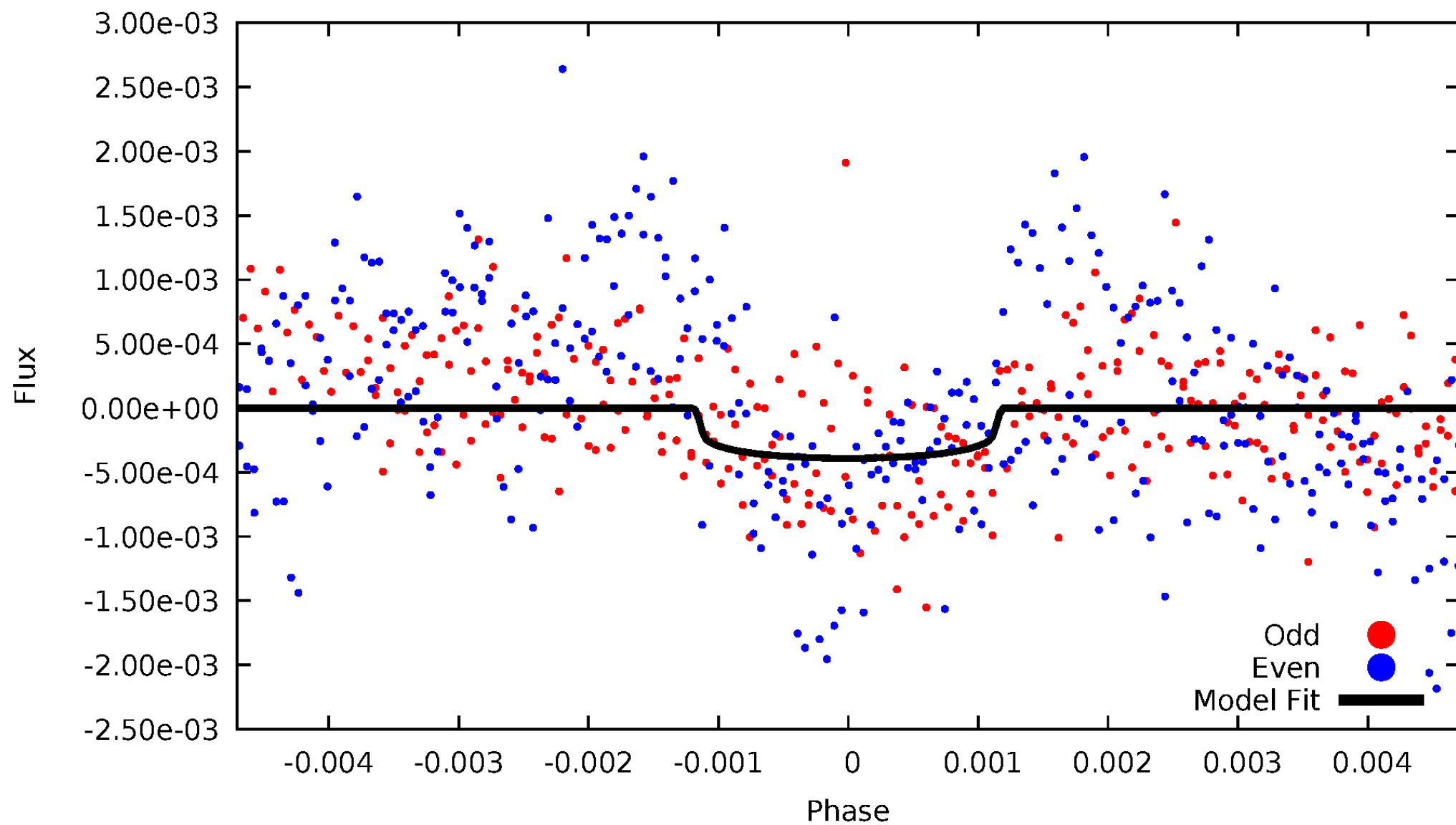


TCE 007971319-01



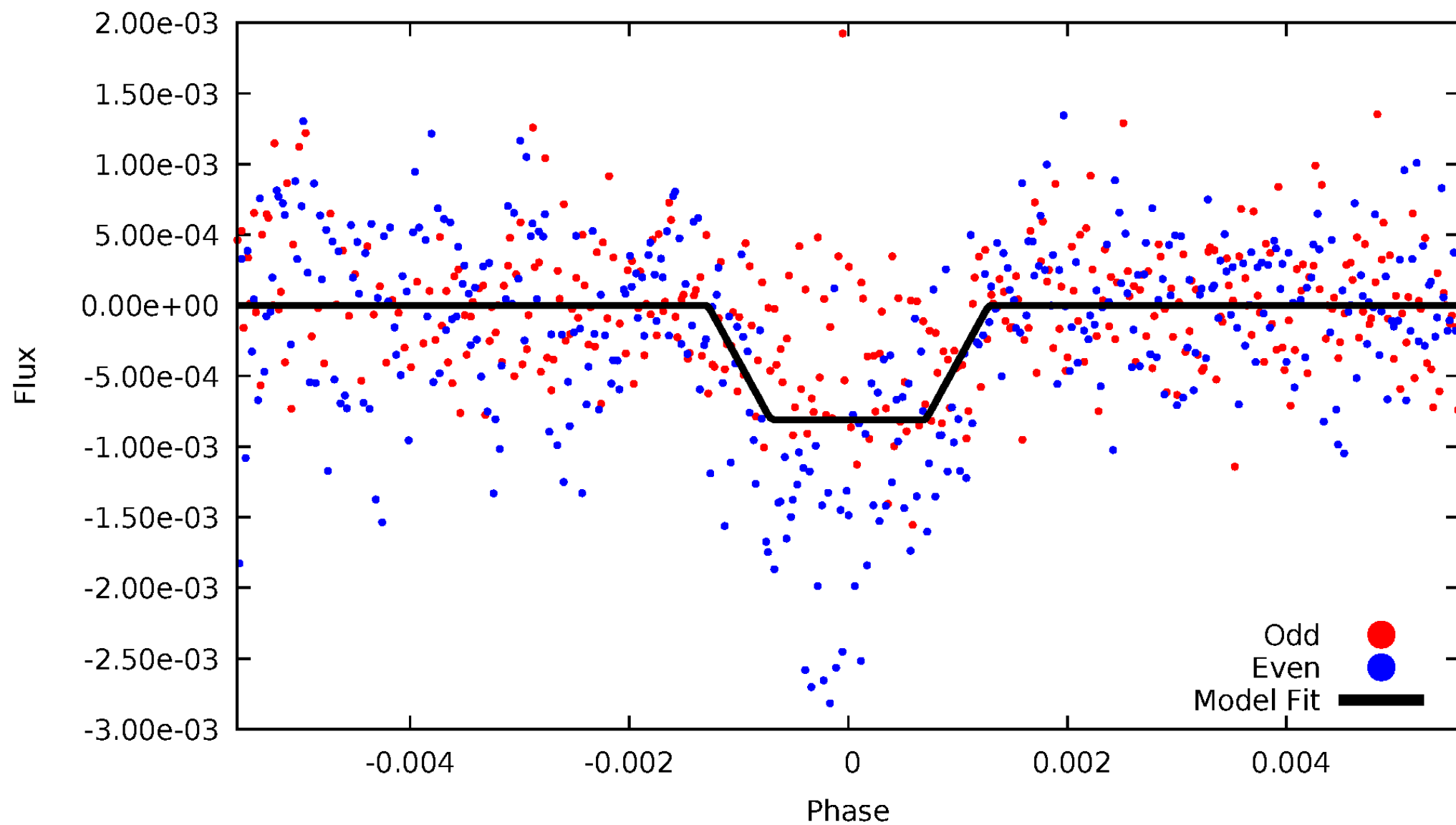
DV Odd/Even

TCE 007971319-01



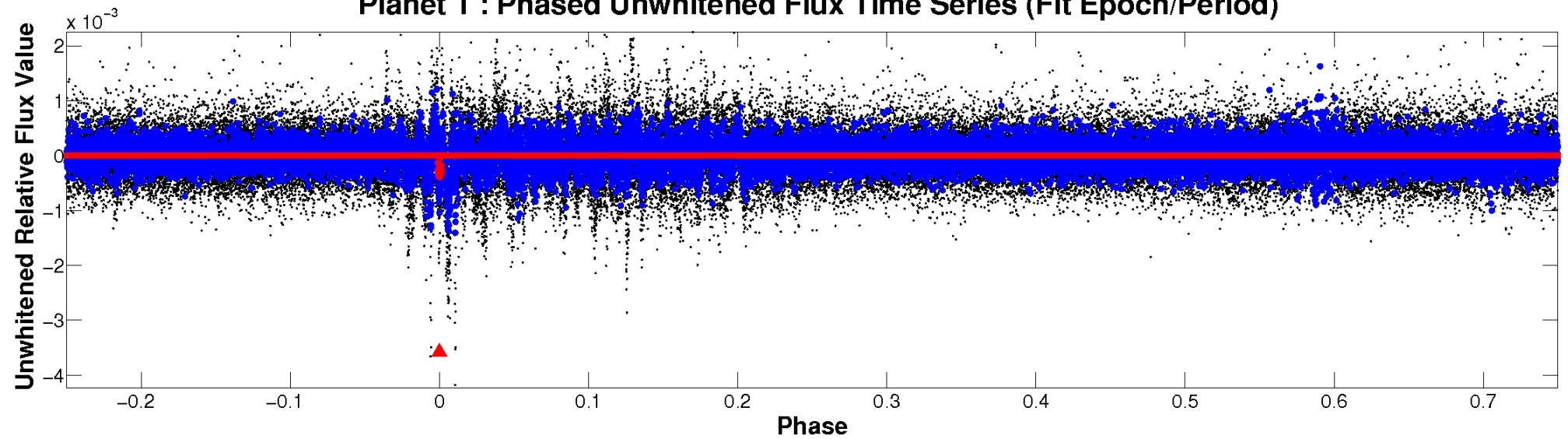
ALT Odd/Even

TCE 007971319-01

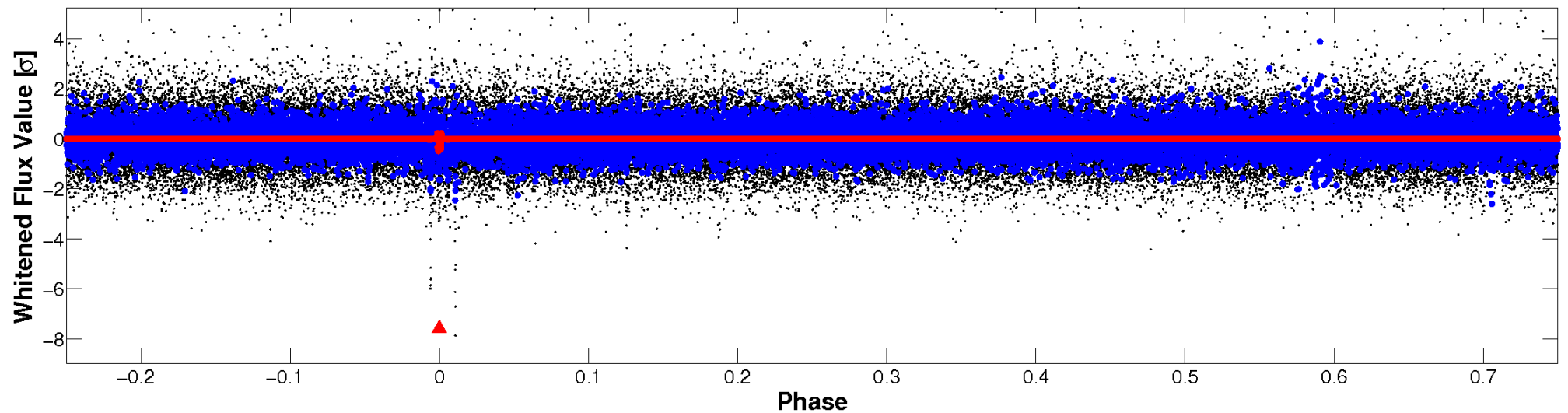


Non-Whitened Vs. Whitened Light Curve

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

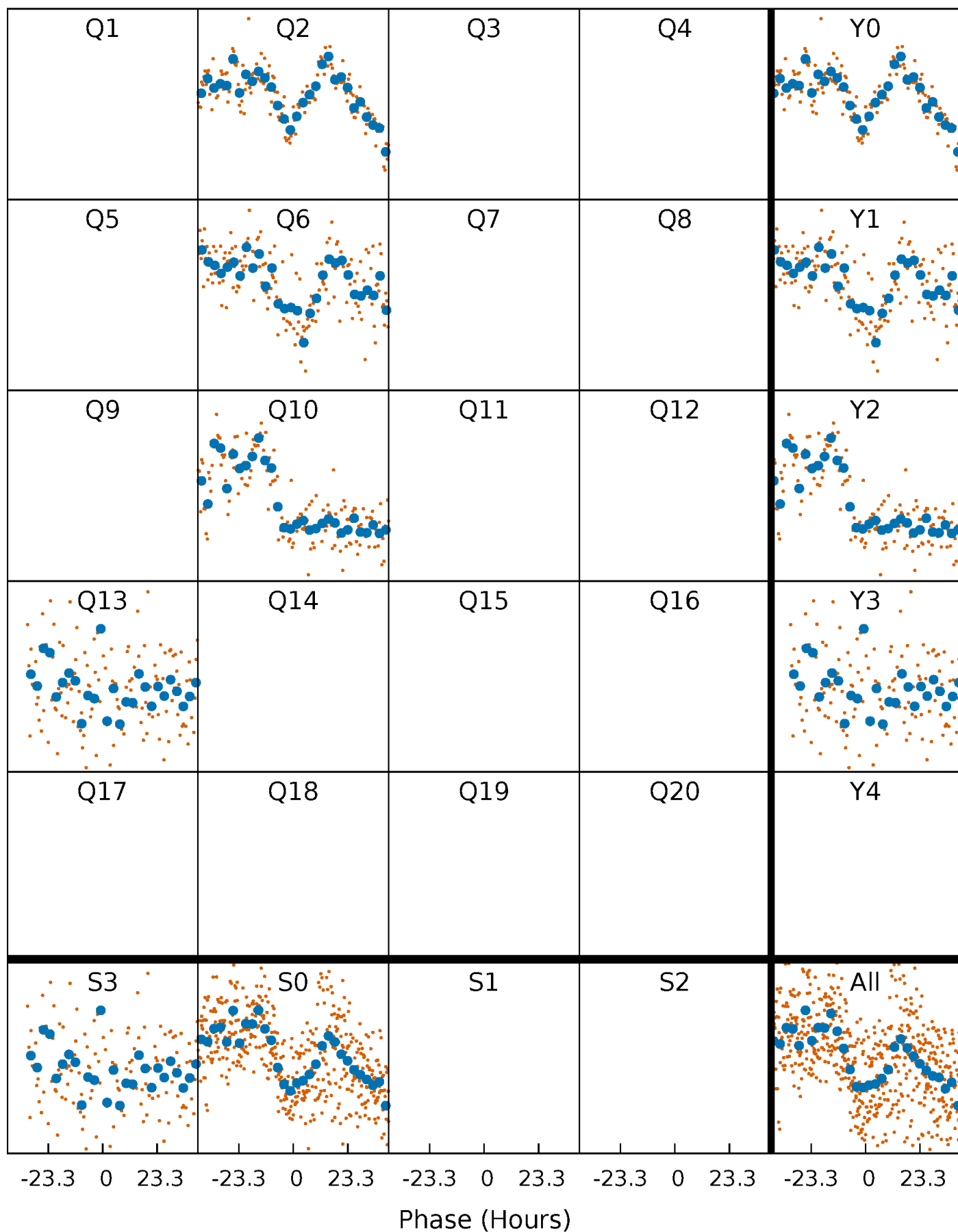


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



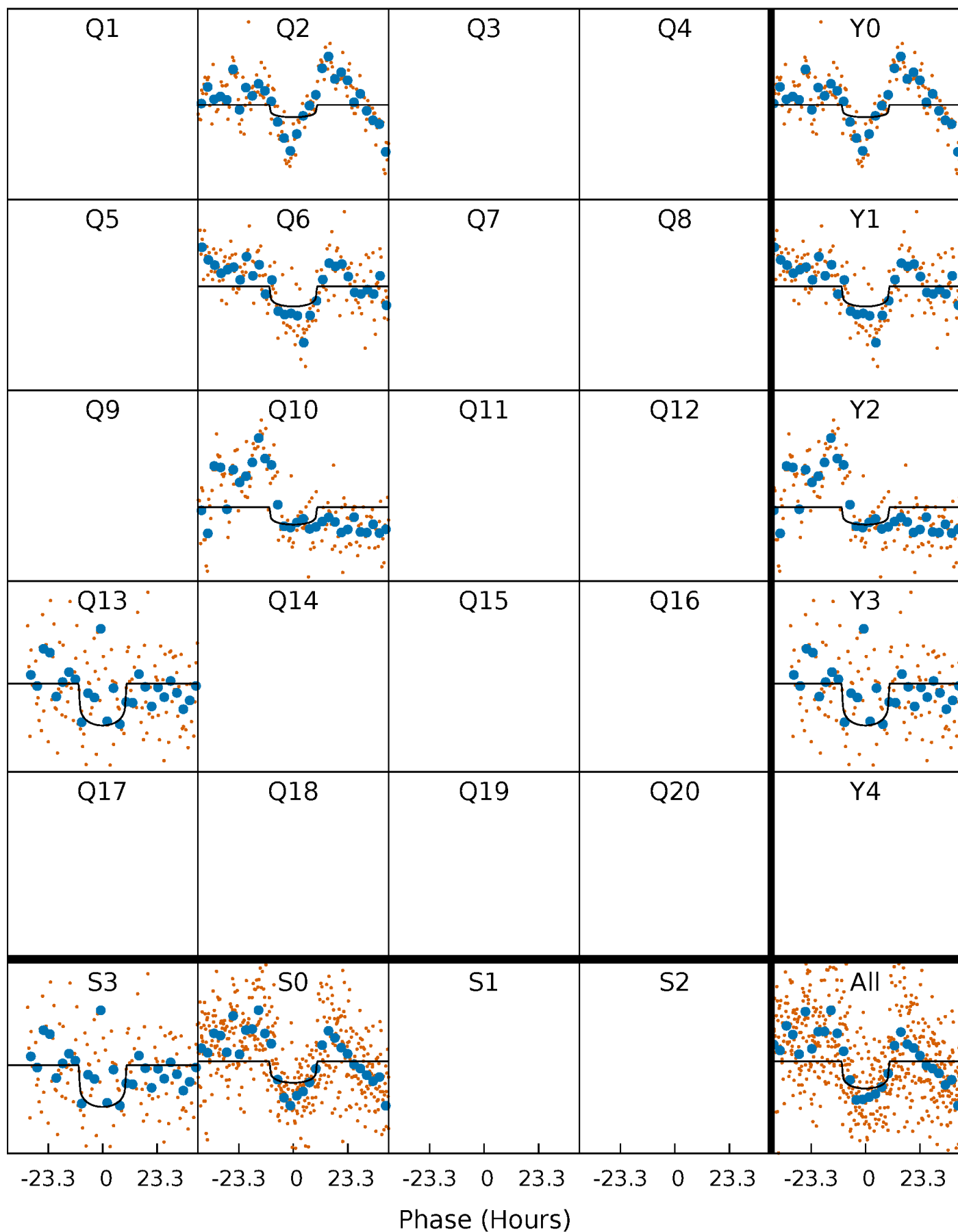
PDC Quarter-Phased Transit Curves

TCE 007971319-01 P=361.357322 Days $T_0=186.478546$ (BKJD)



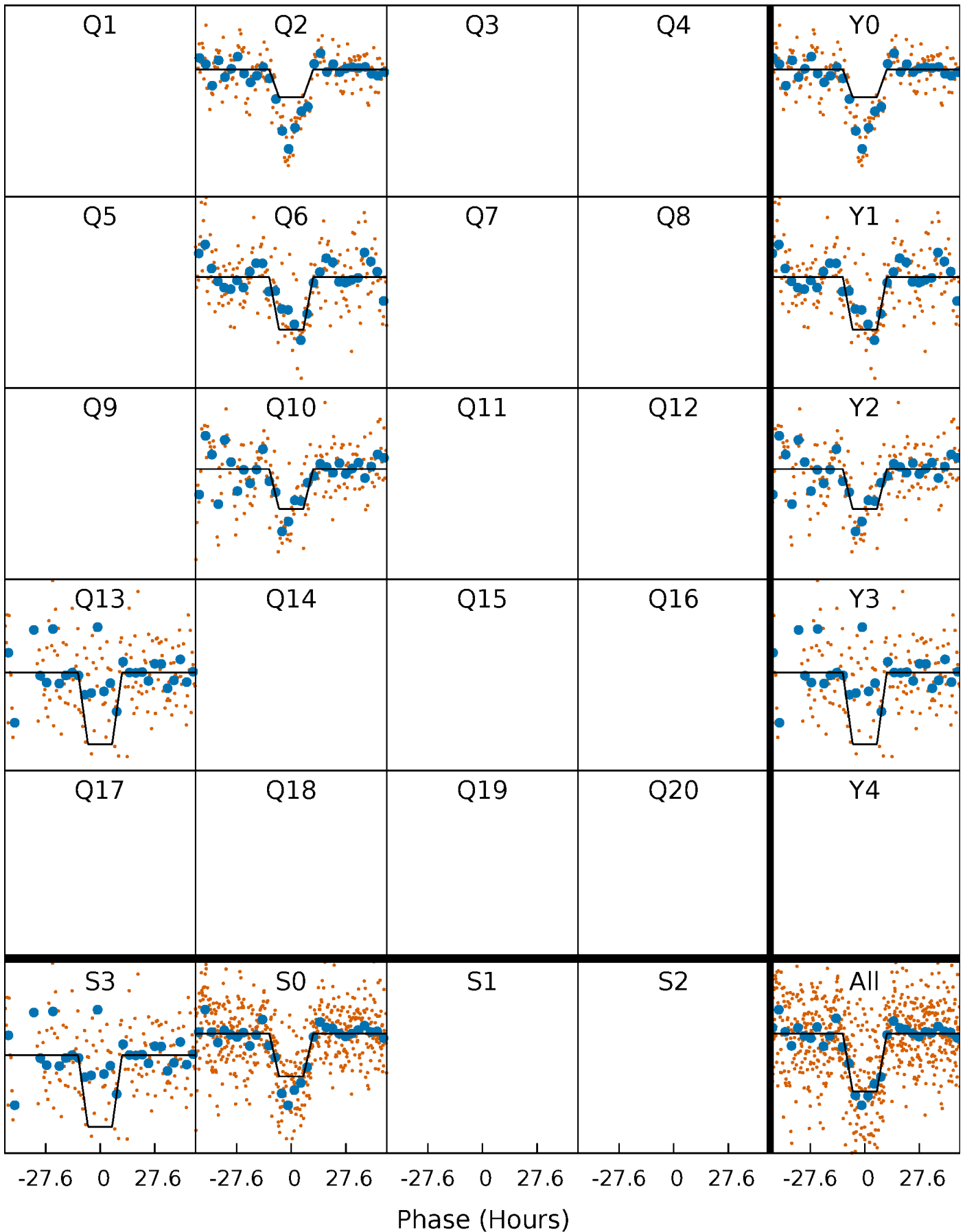
DV Quarter-Phased Transit Curves

TCE 007971319-01 P=361.357322 Days $T_0=186.478546$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

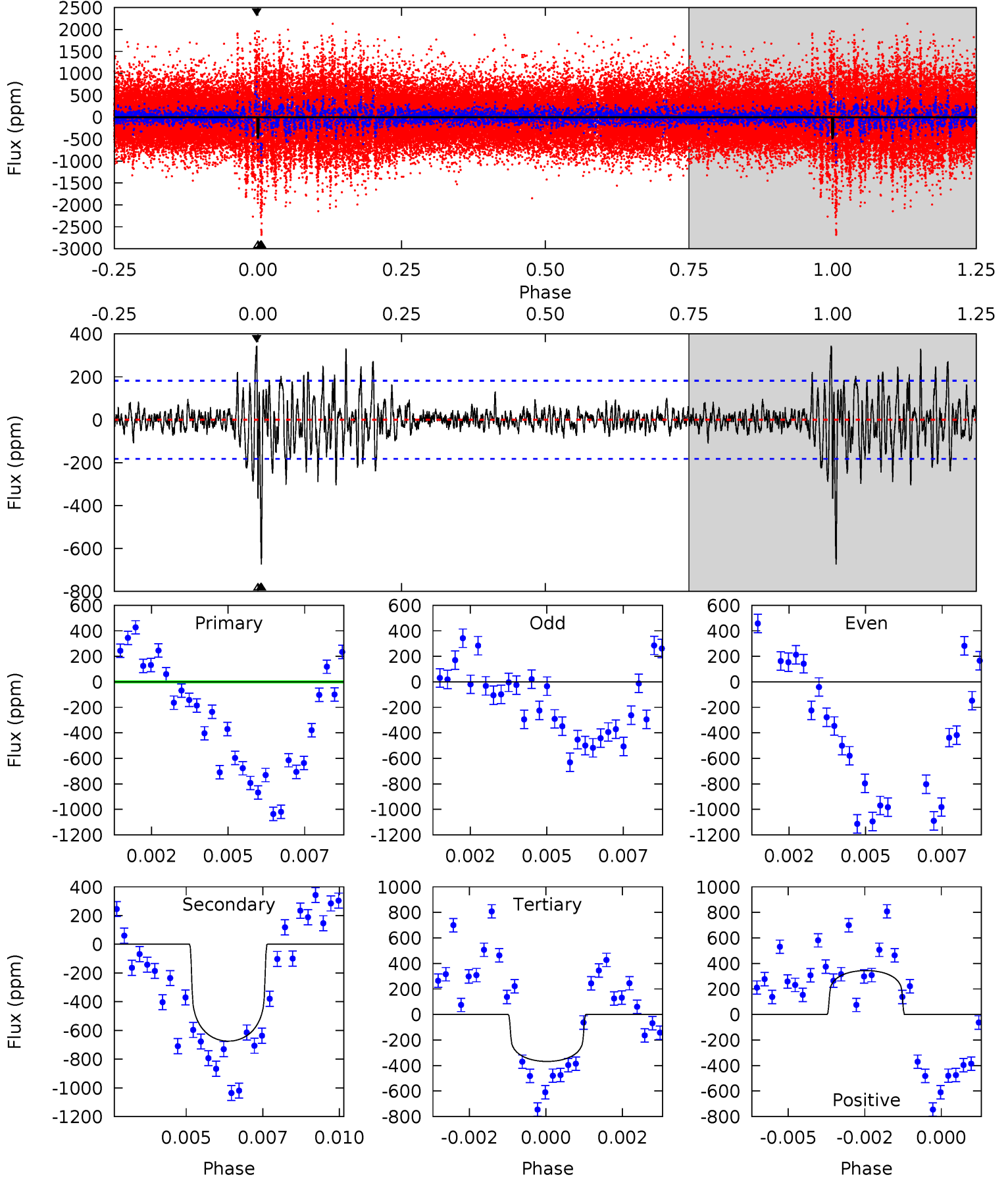
TCE 007971319-01 P=361.360697 Days $T_0=186.479640$ (BKJD)



DV Model-Shift Uniqueness Test

007971319-01, P = 361.357322 Days, E = 186.478546 Days

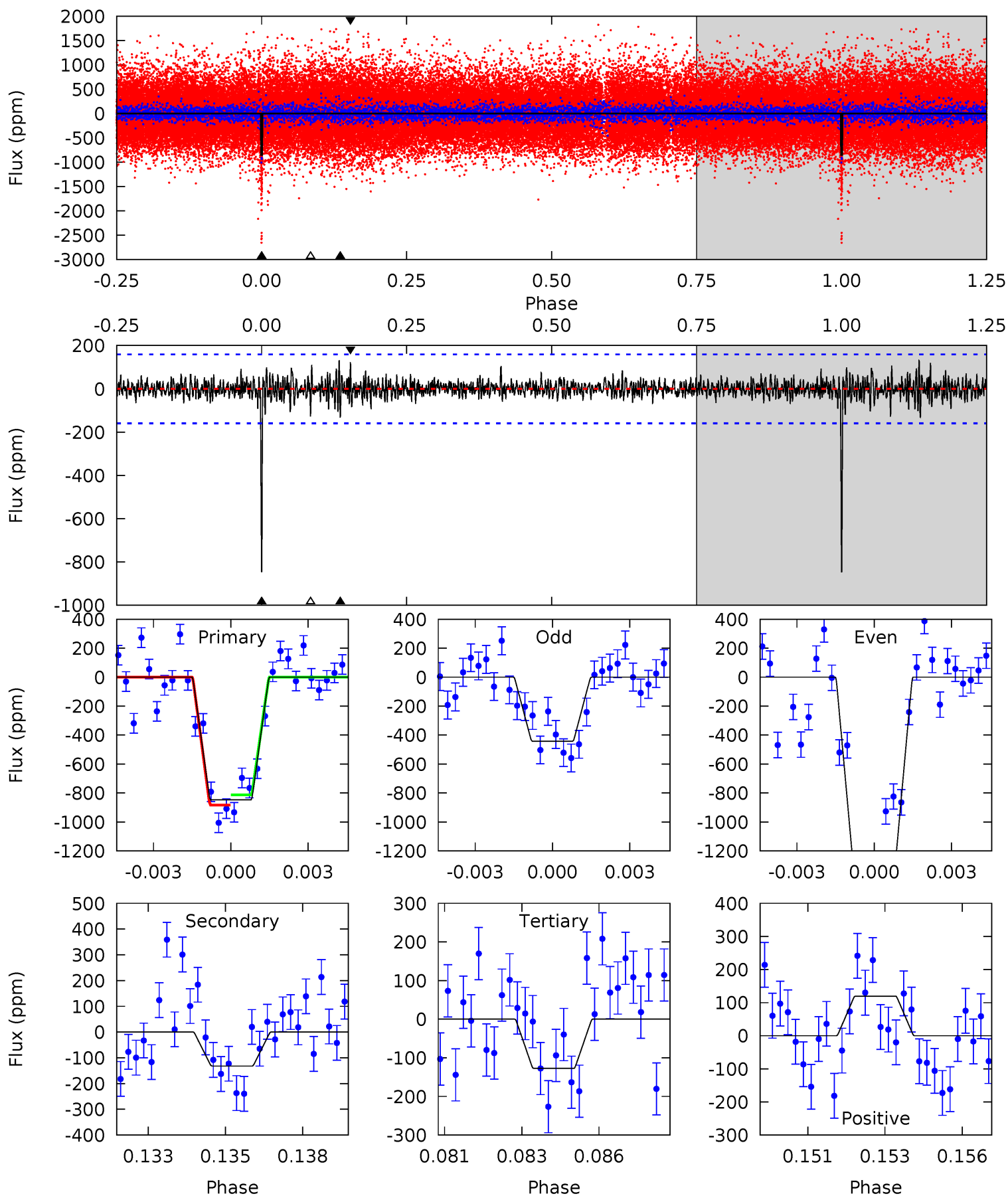
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.5	19.6	10.7	10.00	5.30	3.04	2.05	2.86	3.55	8.91	9.60	0.86	0.99	0.34	0



Alt Model-Shift Uniqueness Test

007971319-01, P = 361.360697 Days, E = 186.479640 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
28.1	4.38	4.23	3.97	5.28	3.01	0.95	23.9	24.1	0.15	0.41	14.3	1.11	0.13	1.17



Stellar Parameters For KIC 007971319

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6044^{+190}_{-211}	$4.404^{+0.090}_{-0.195}$	$-0.220^{+0.300}_{-0.300}$	$1.028^{+0.300}_{-0.138}$	$0.976^{+0.143}_{-0.117}$	$1.265^{+0.598}_{-0.656}$
	+3%/-3%	+2%/-4%	+136%/-136%	+29%/-13%	+15%/-12%	+47%/-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 007971319-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-675 ± 34	$2.30^{+1.35}_{-1.16}$	385^{+29}_{-22}	6946^{+4273}_{-1423}	$68634^{+216017}_{-41435}$
Alt.	-132 ± 30	$3.32^{+1.32}_{-1.46}$	385^{+27}_{-21}	4112^{+971}_{-502}	6366^{+13219}_{-3343}

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 $A_{obs} \gg 1.0$

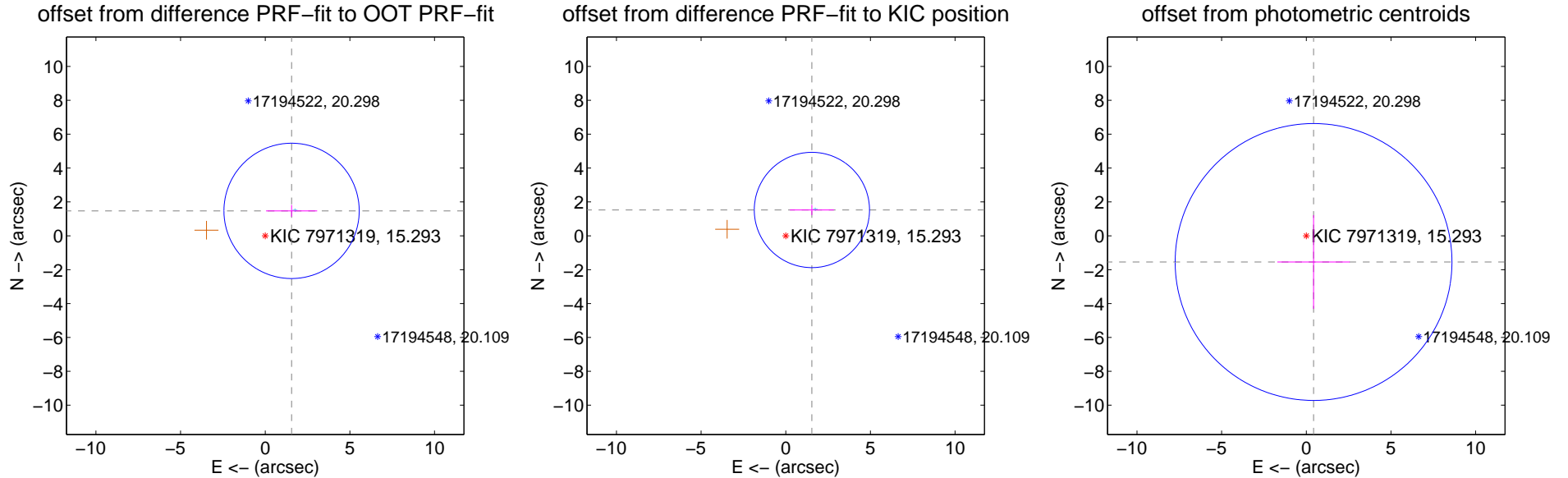
DV Centroid Data

Supplemental centroid analysis for 007971319-01. Kepler magnitude: 15.29. Transit SNR 5.99

There are 1 quarters with good PRF difference image offsets

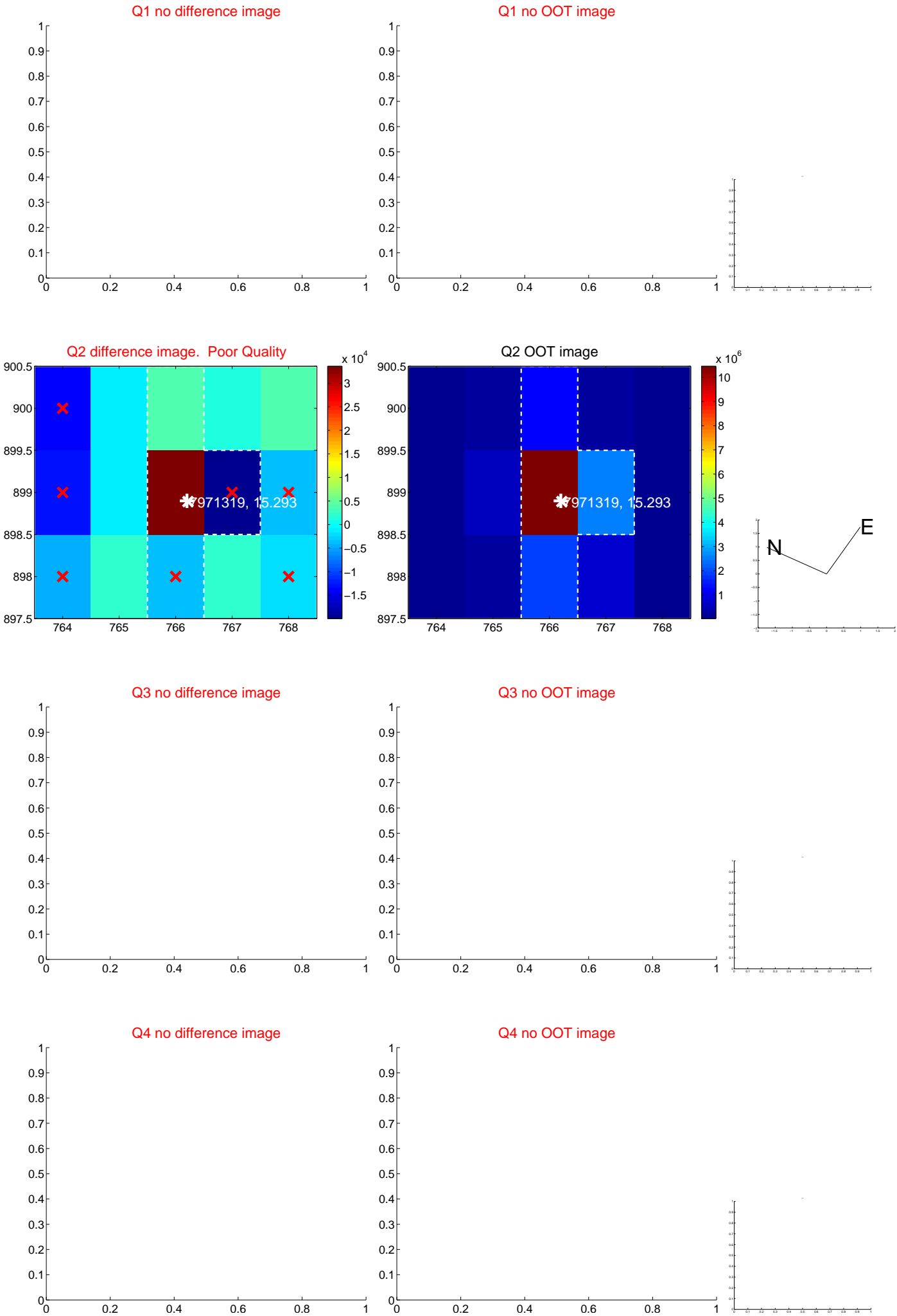
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.142 ± 1.332	1.61	-1.557 ± 1.510	1.472 ± 0.347
PRF-fit source offset from KIC position	2.170 ± 1.134	1.91	-1.544 ± 1.303	1.524 ± 0.302
photometric centroid source offset	1.61 ± 2.73	0.59	-0.43 ± 2.14	-1.55 ± 2.76

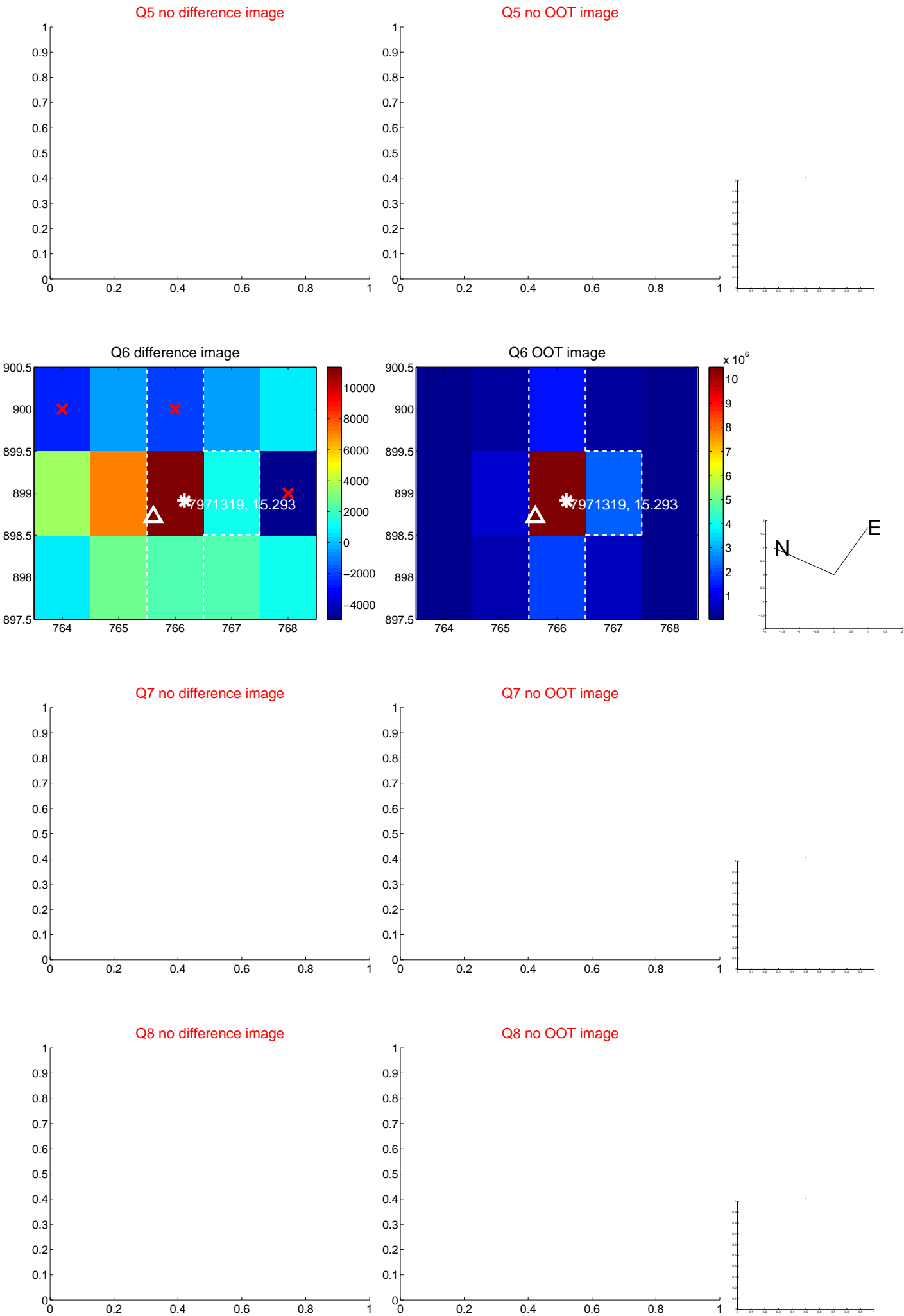


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

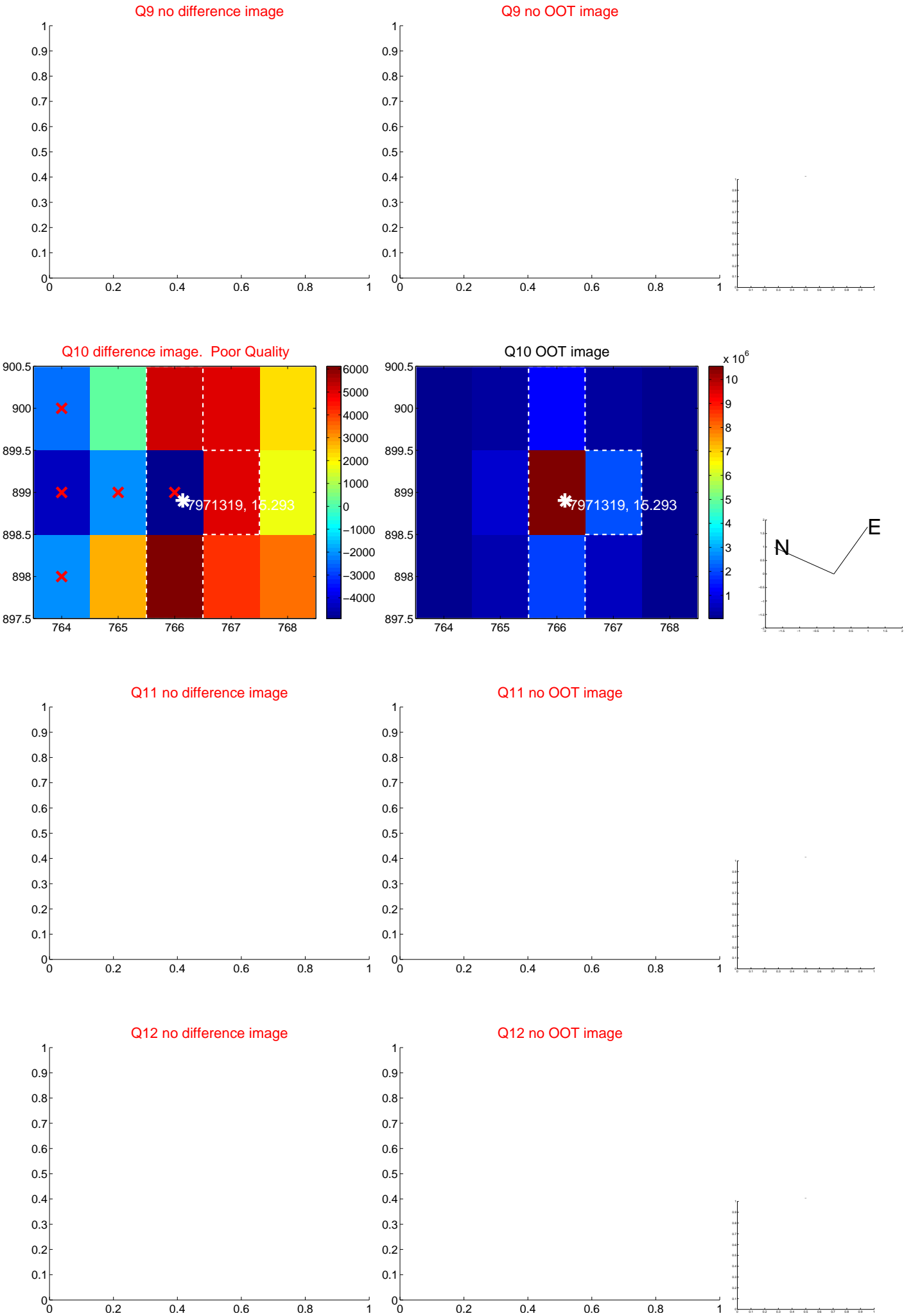
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



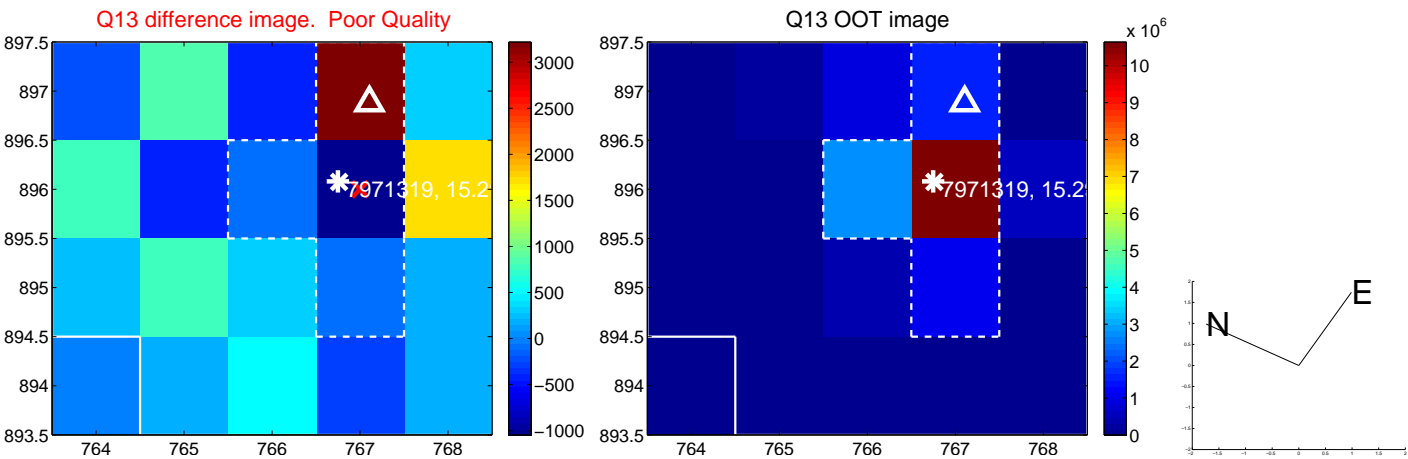
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



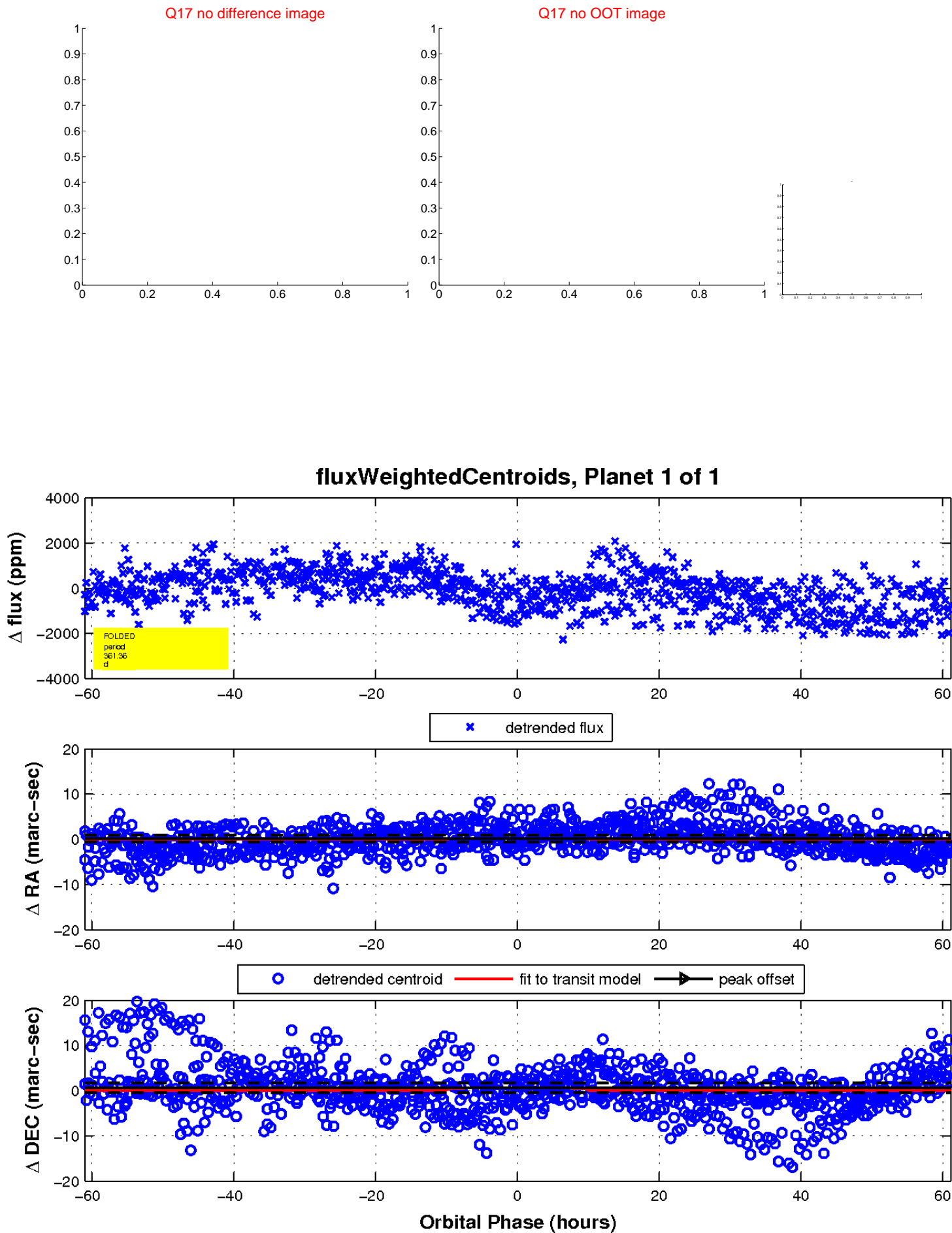
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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.



UKIRT Image

Declination

