

KIC 008307599

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})
008307599-01	OBS	No	369.641780	234.116895	3785.2	23.873	11.5	11.8	0.68	4739	8.20	0.26

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008307599-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—INCONSISTENT_TRANS—CENT_FEW_MEAS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

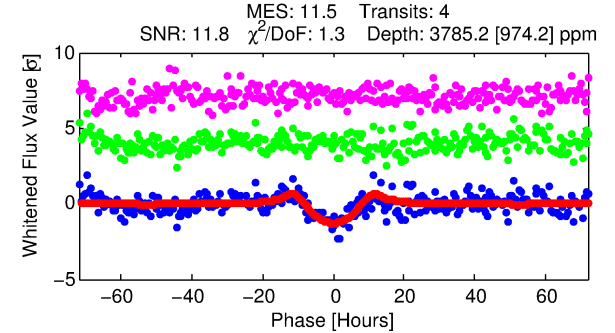
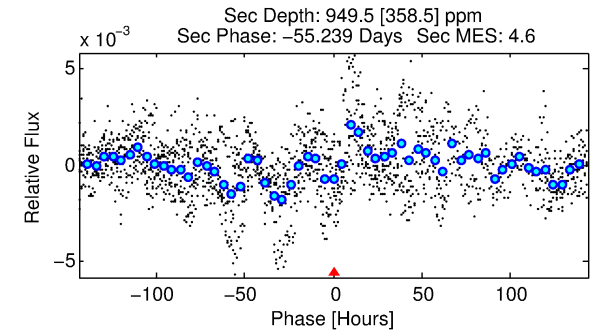
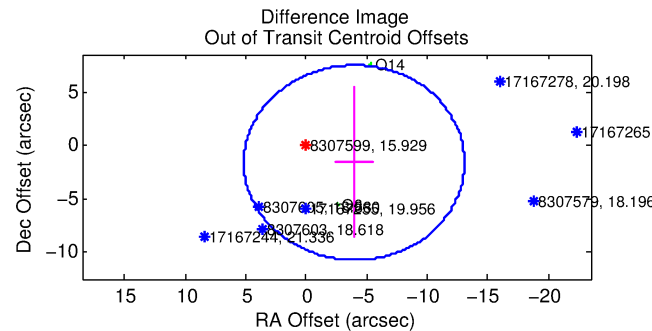
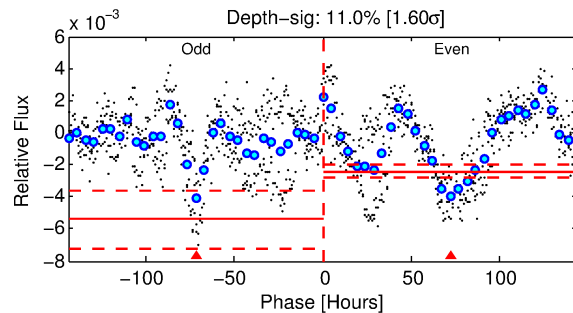
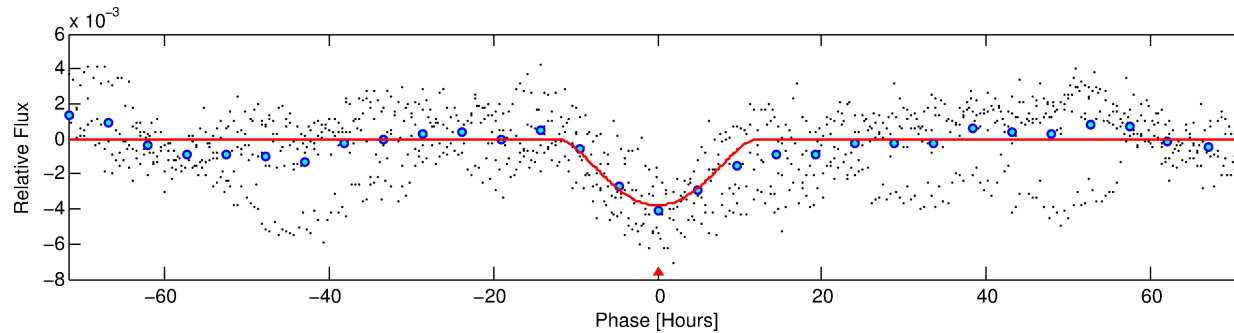
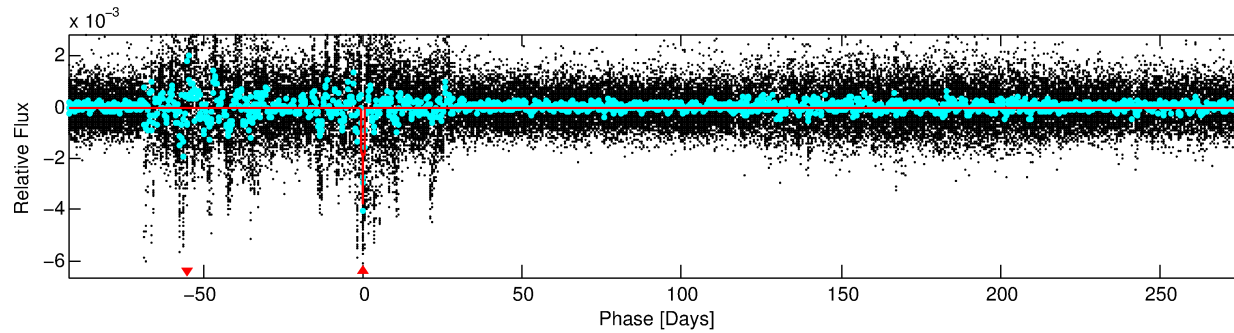
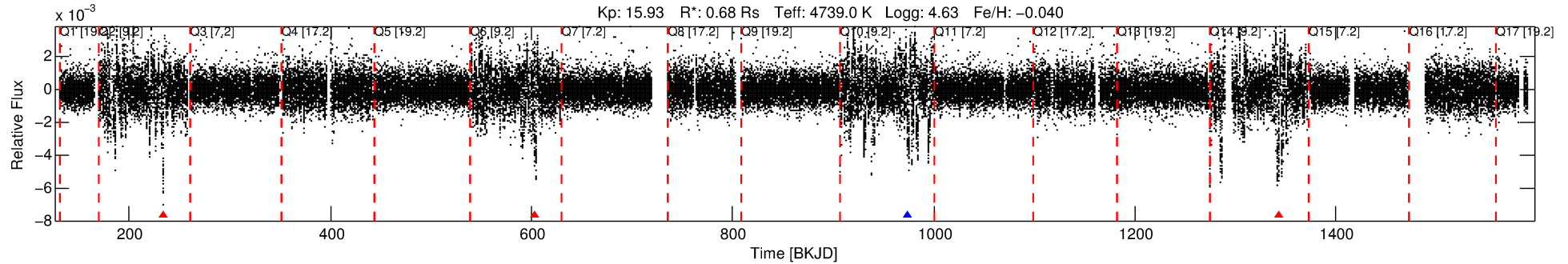
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008307599-01

No Significant Match Found

DV One-Page Summary

KIC: 8307599 Candidate: 1 of 1 Period: 369.642 d



DV Fit Results:

Period = 369.64178 [0.01673] d
Epoch = 234.1169 [0.0300] BKJD
Rp/R* = 0.1098 [0.2210]
a/R* = 56.98 [20.56]
b = 1.00 [0.33]
Seff = 0.26 [0.04]
Teq = 181 [7] K
Rp = 8.19 [16.52] Re
a = 0.9091 [0.0726] AU
Ag = 6428.11 [26003.48] [0.25 σ]
Teffp = 2511 [2539] K [0.92 σ]

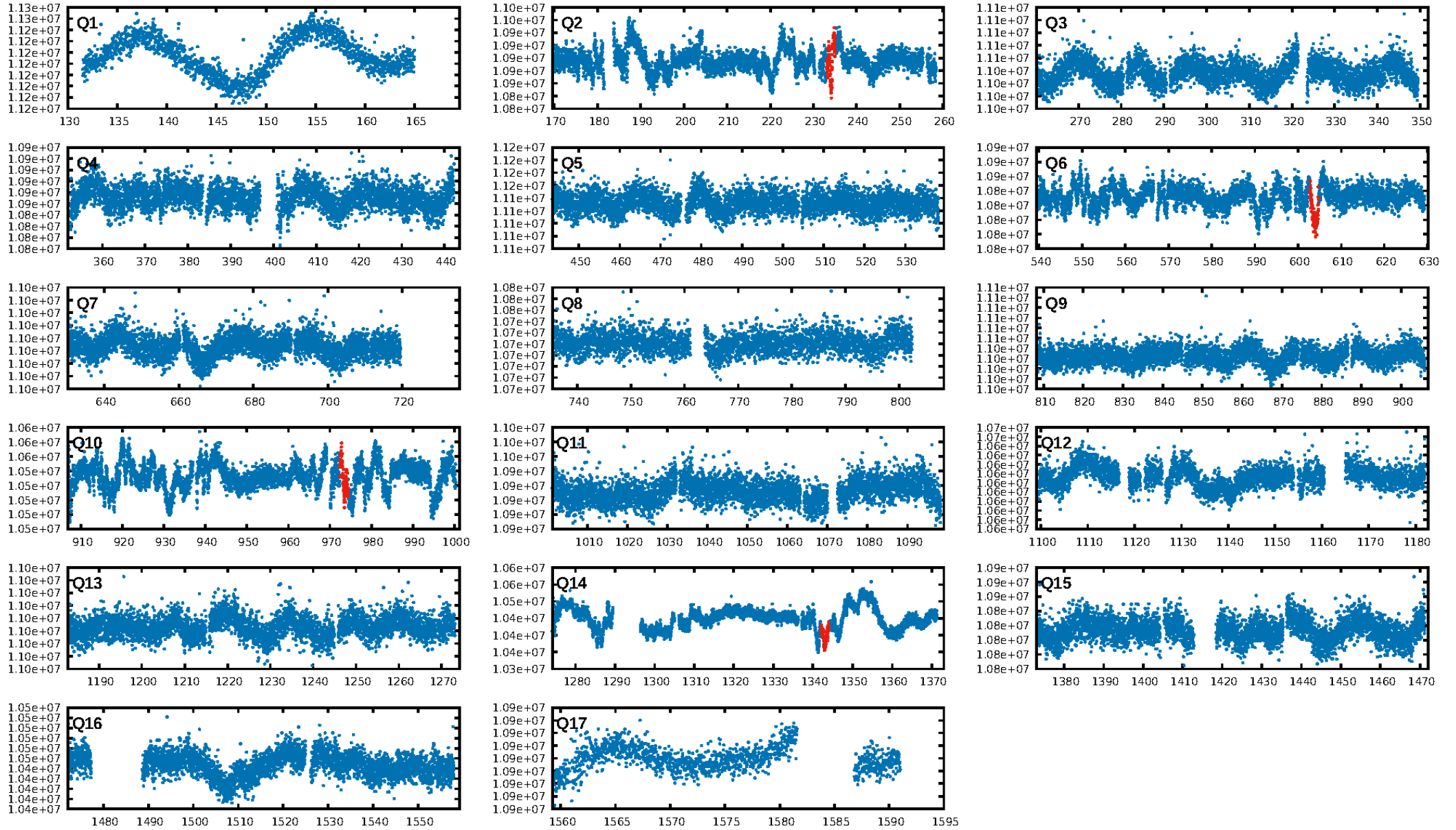
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 61.7%
Bootstrap-pfa: 6.12e-14
RollingBand-fgt: 0.25 [1/4]
GhostDiagnostic-chr: 1.666
Centroid-sig: 0.0%
Centroid-so: 5.311 arcsec [3.58 σ]
OotOffset-rm: 4.286 arcsec [1.41 σ]
KicOffset-rm: 4.418 arcsec [1.37 σ]
OotOffset-st: 2/0/0/0 [2]
KicOffset-st: 2/0/0/0 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [4/4]

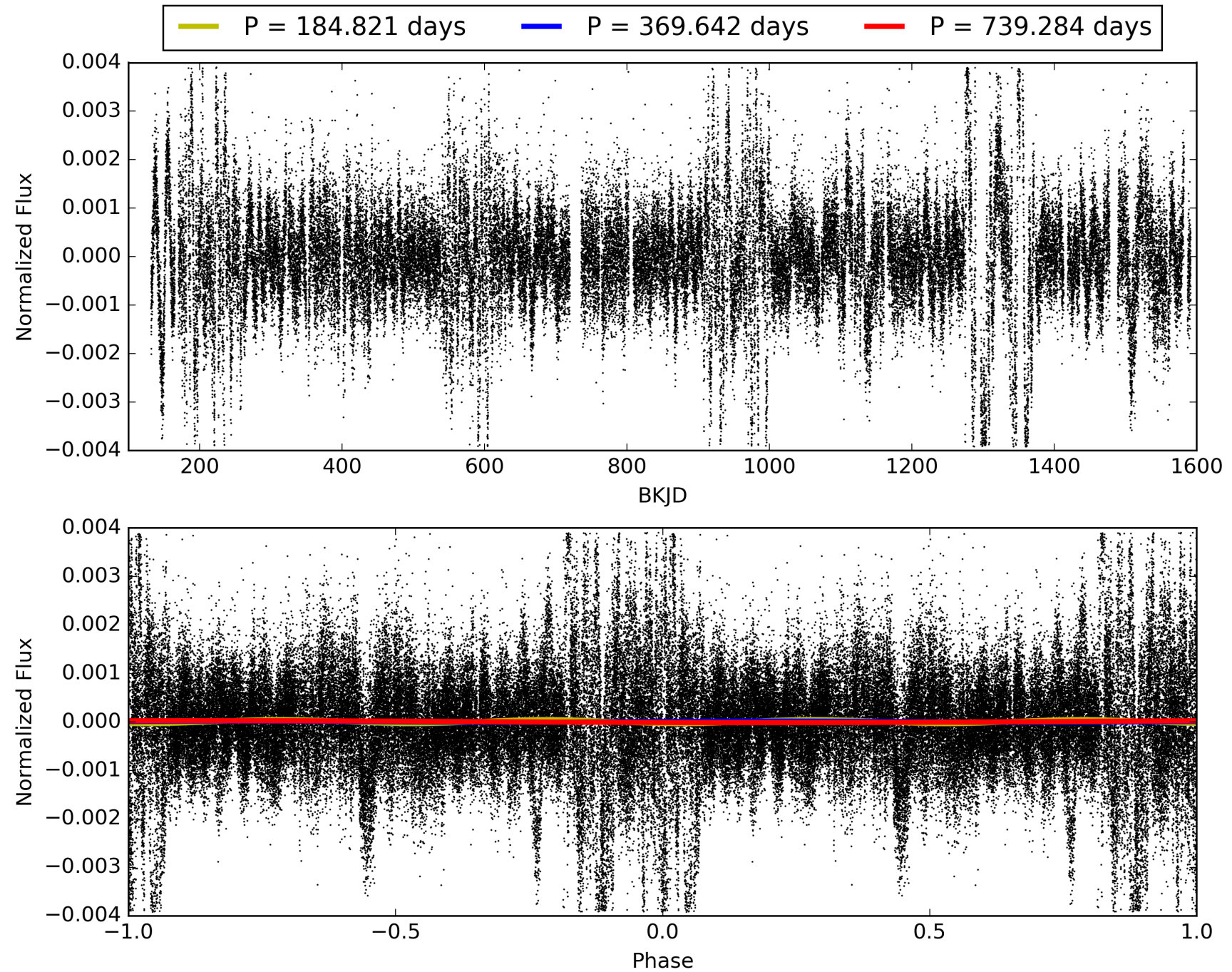
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 01:21:26 Z

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

TCE 008307599-01, PDC Light Curves

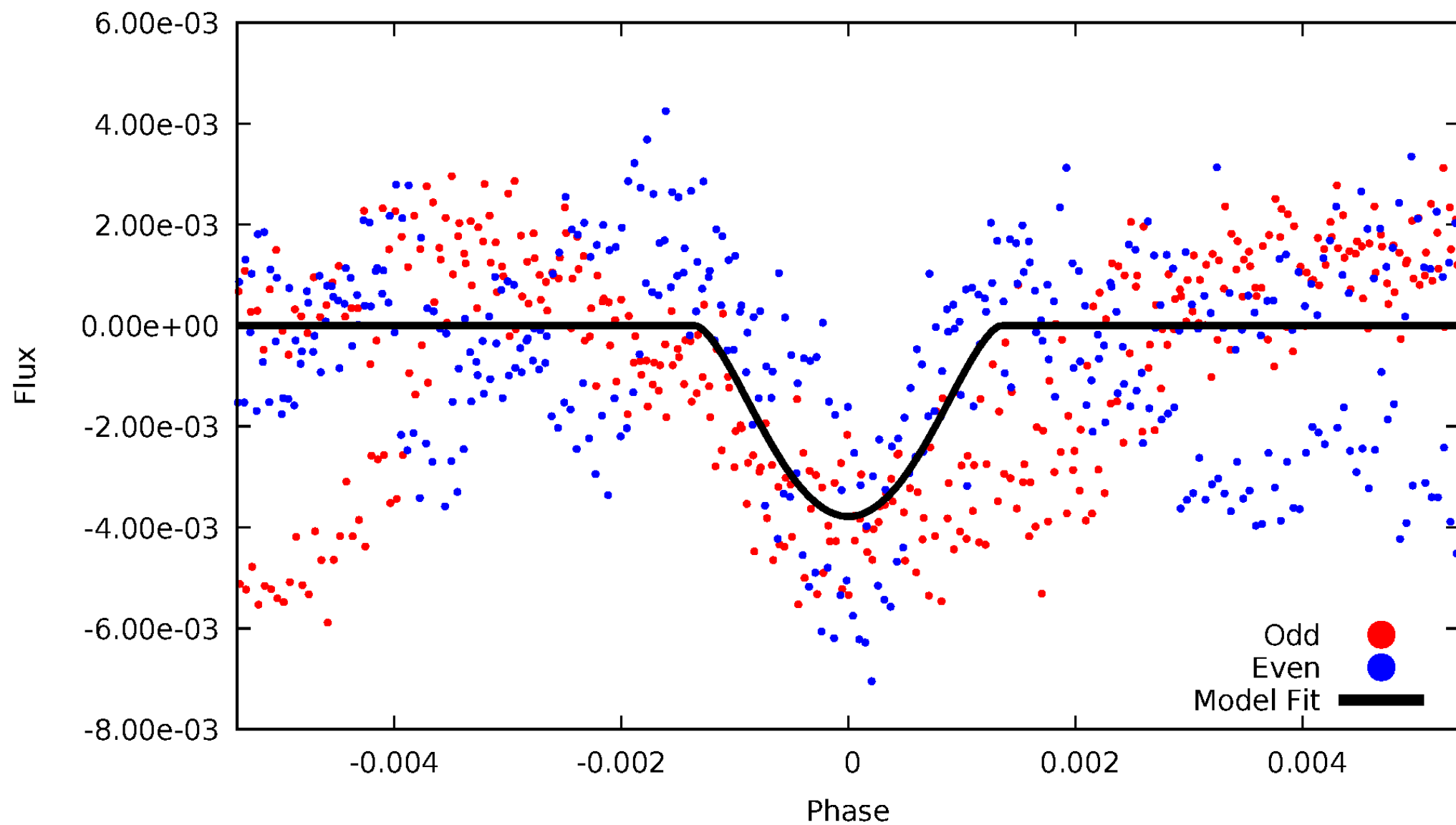


TCE 008307599-01



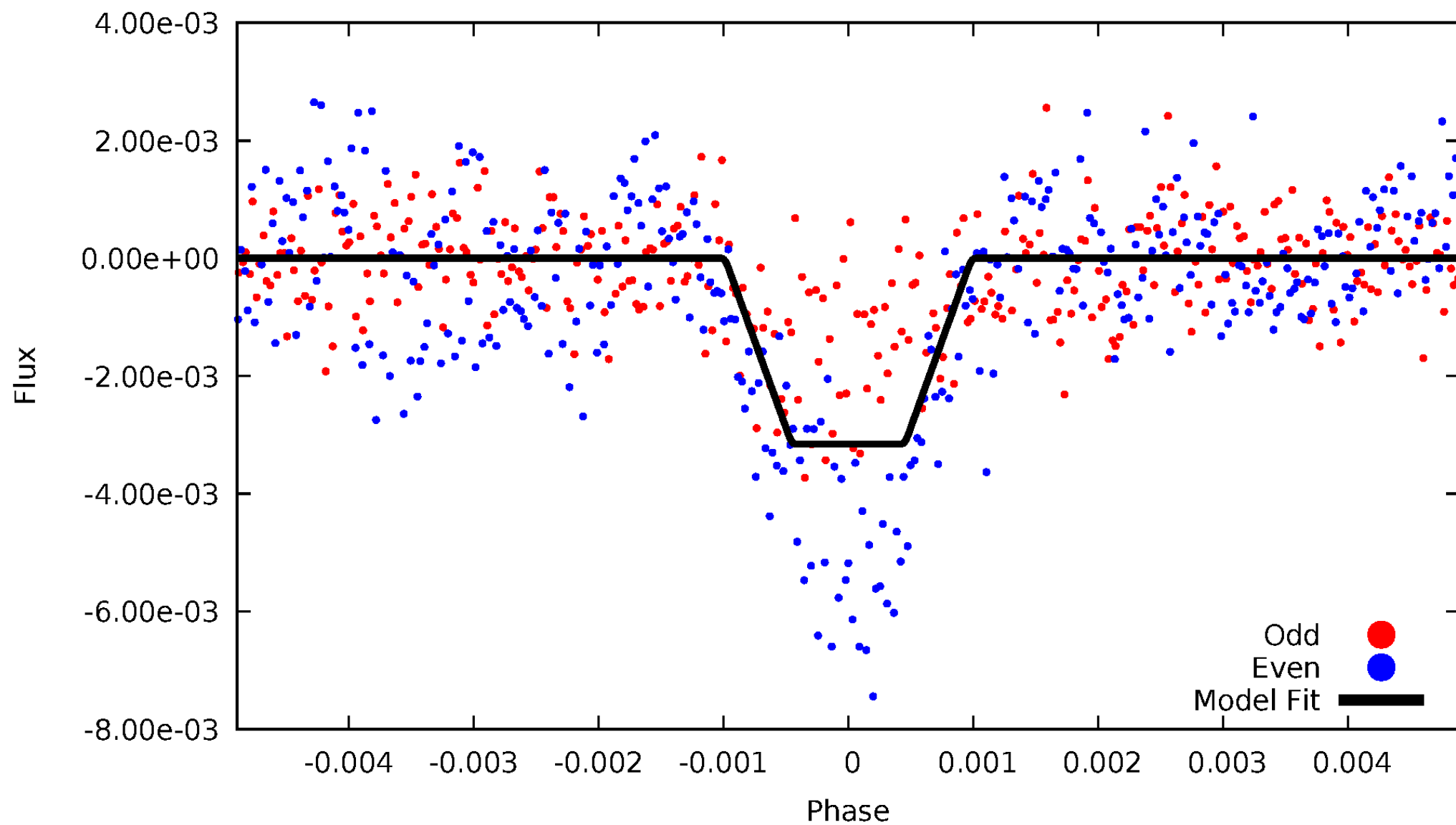
DV Odd/Even

TCE 008307599-01



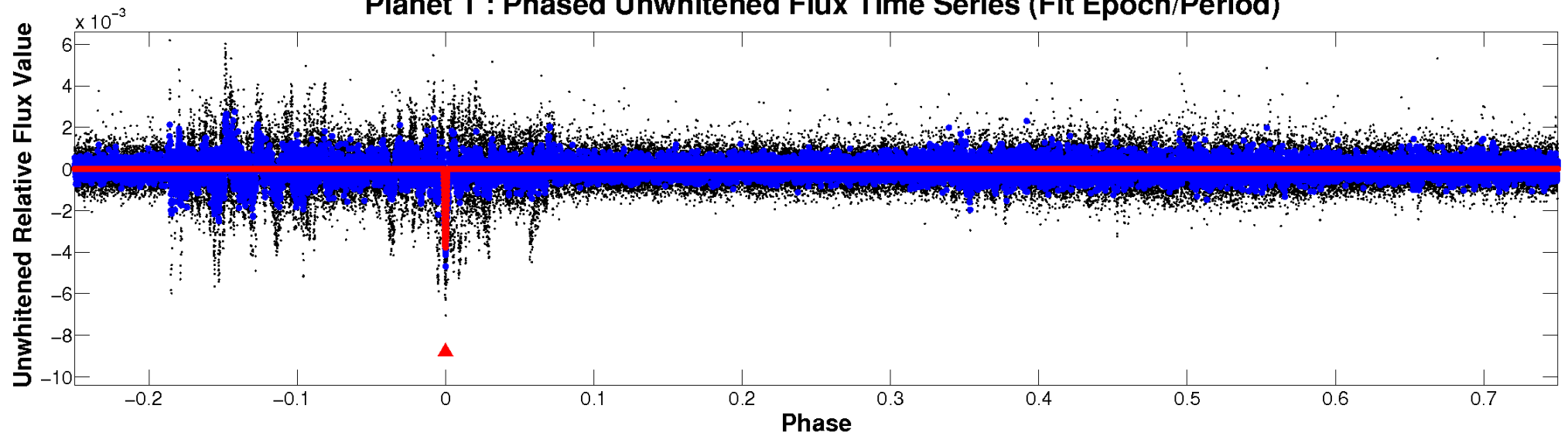
ALT Odd/Even

TCE 008307599-01

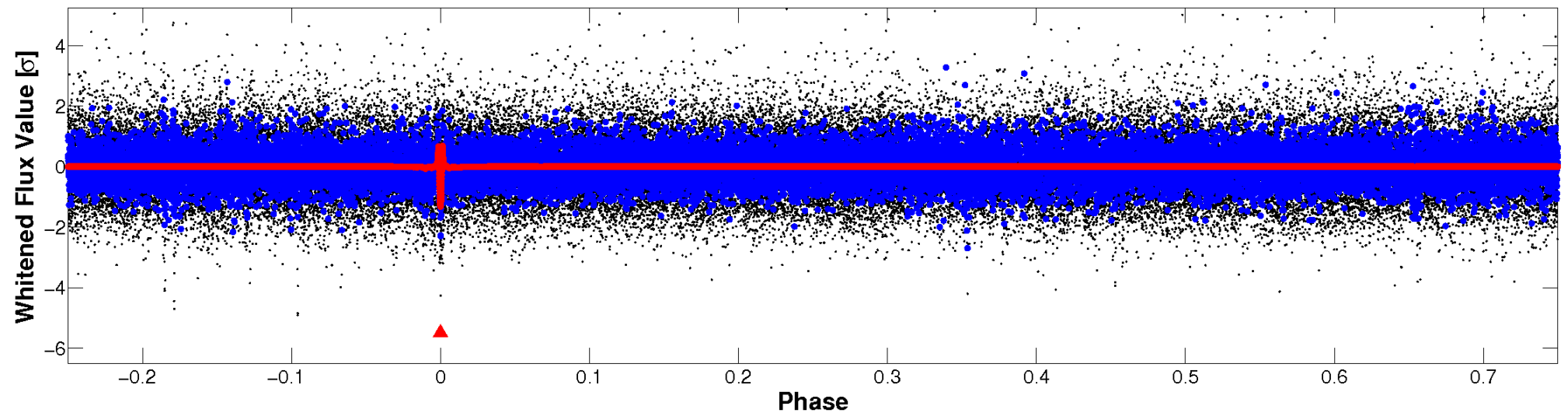


Non-Whitened Vs. Whitened Light Curve

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

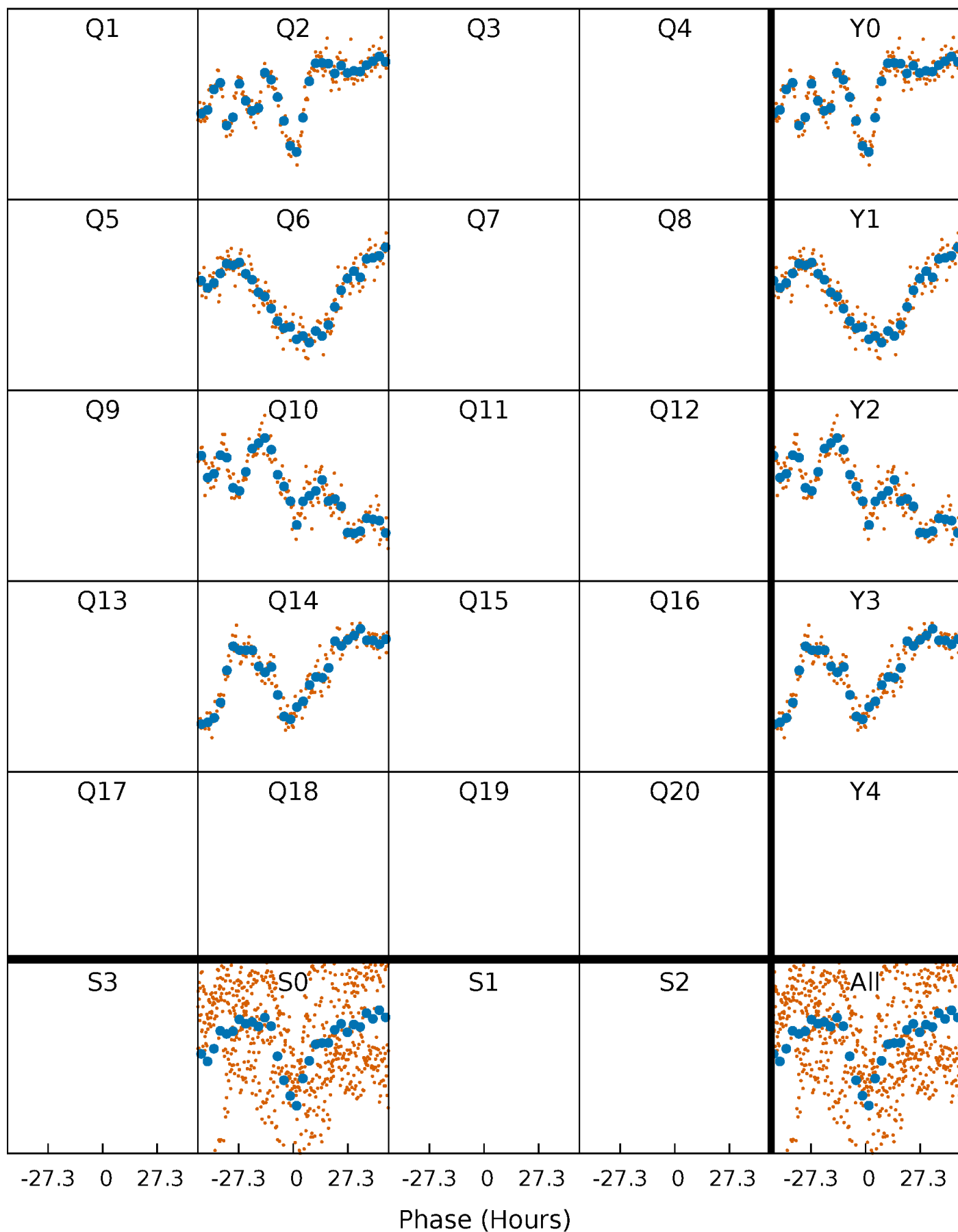


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



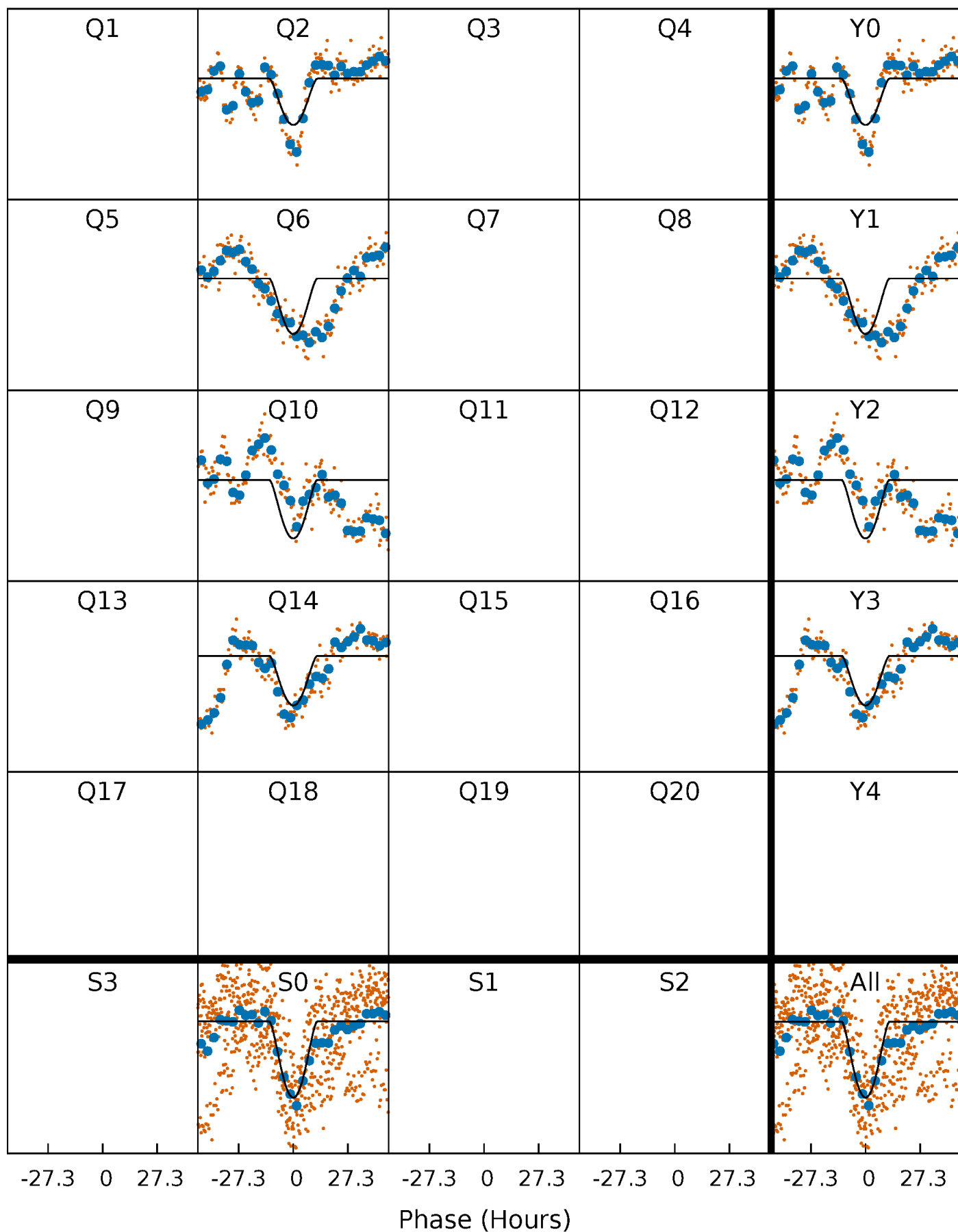
PDC Quarter-Phased Transit Curves

TCE 008307599-01 P=369.641780 Days $T_0=234.116895$ (BKJD)



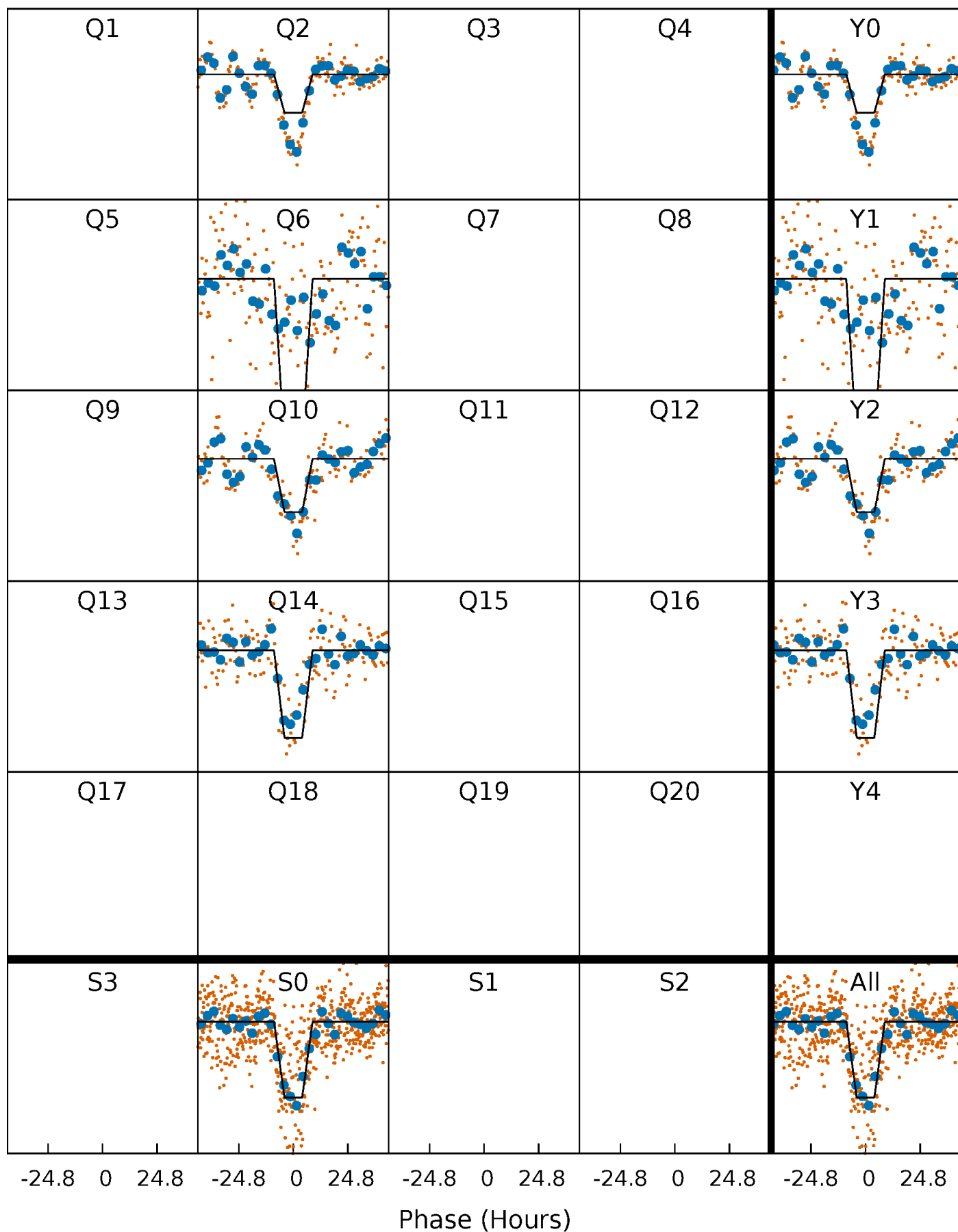
DV Quarter-Phased Transit Curves

TCE 008307599-01 P=369.641780 Days $T_0=234.116895$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

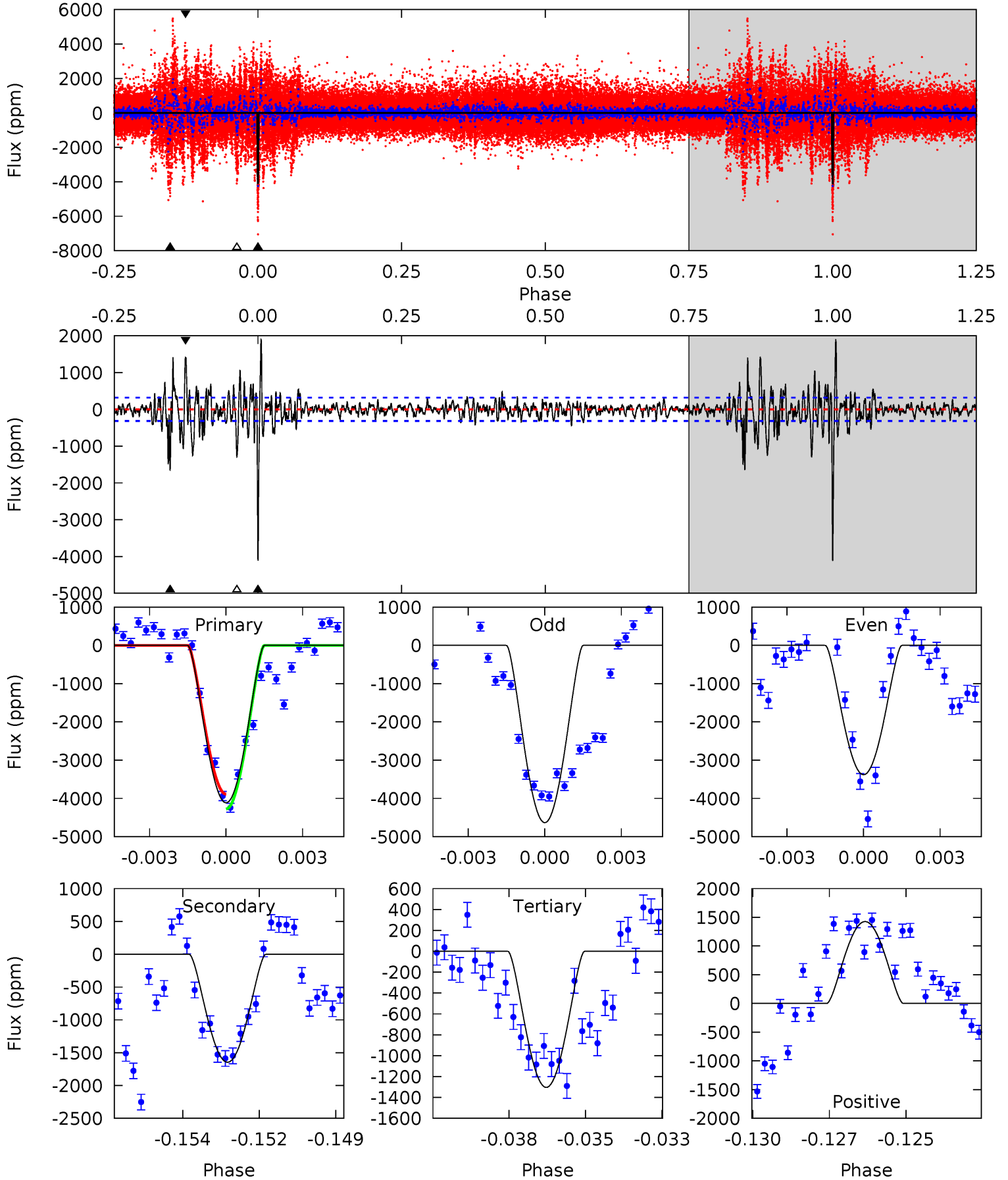
TCE 008307599-01 $P=369.629478$ Days $T_0=234.119558$ (BKJD)



DV Model-Shift Uniqueness Test

008307599-01, P = 369.641780 Days, E = 234.116895 Days

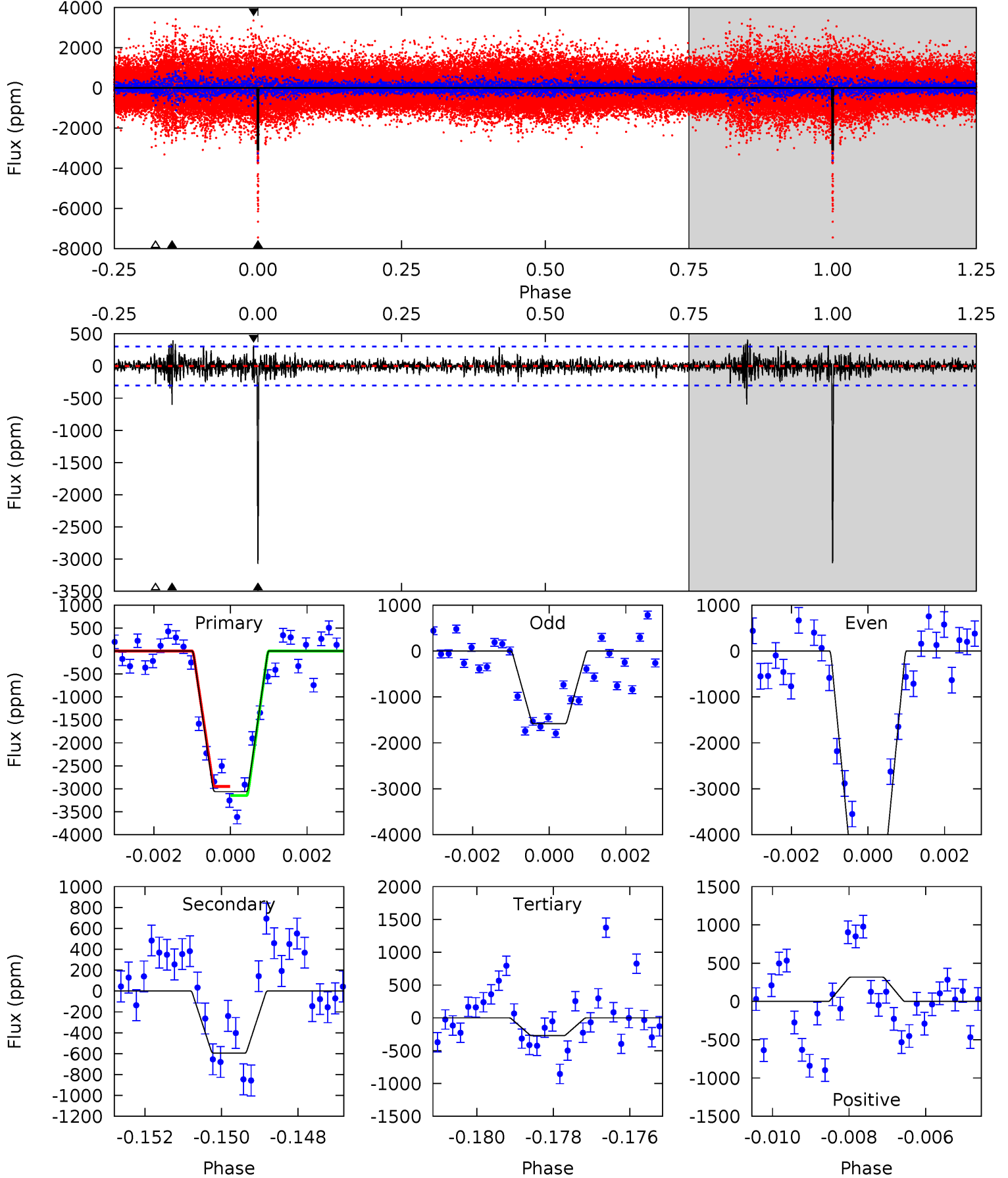
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
68.2	27.3	21.6	23.6	5.27	3.00	4.34	46.6	44.6	5.66	3.64	10.2	0.86	0.32	3.20



Alt Model-Shift Uniqueness Test

008307599-01, P = 369.629478 Days, E = 234.119558 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
53.6	10.4	4.75	5.57	5.32	3.09	1.14	48.9	48.1	5.65	4.83	26.8	1.01	0.12	1.71



Stellar Parameters For KIC 008307599

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4739^{+125}_{-139}	$4.633^{+0.024}_{-0.056}$	$-0.040^{+0.300}_{-0.300}$	$0.684^{+0.069}_{-0.046}$	$0.757^{+0.051}_{-0.077}$	$3.327^{+0.426}_{-0.712}$
	+3%/-3%	+1%/-1%	+750%/-750%	+10%/-7%	+7%/-10%	+13%/-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 008307599-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1646 ± 60	$15.44^{+15.06}_{-10.06}$	255^{+9}_{-9}	2798^{+1040}_{-429}	3195^{+23270}_{-2377}
Alt.	-594 ± 57	$12.82^{+14.20}_{-8.98}$	256^{+9}_{-9}	2574^{+1074}_{-413}	1630^{+16623}_{-1261}

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

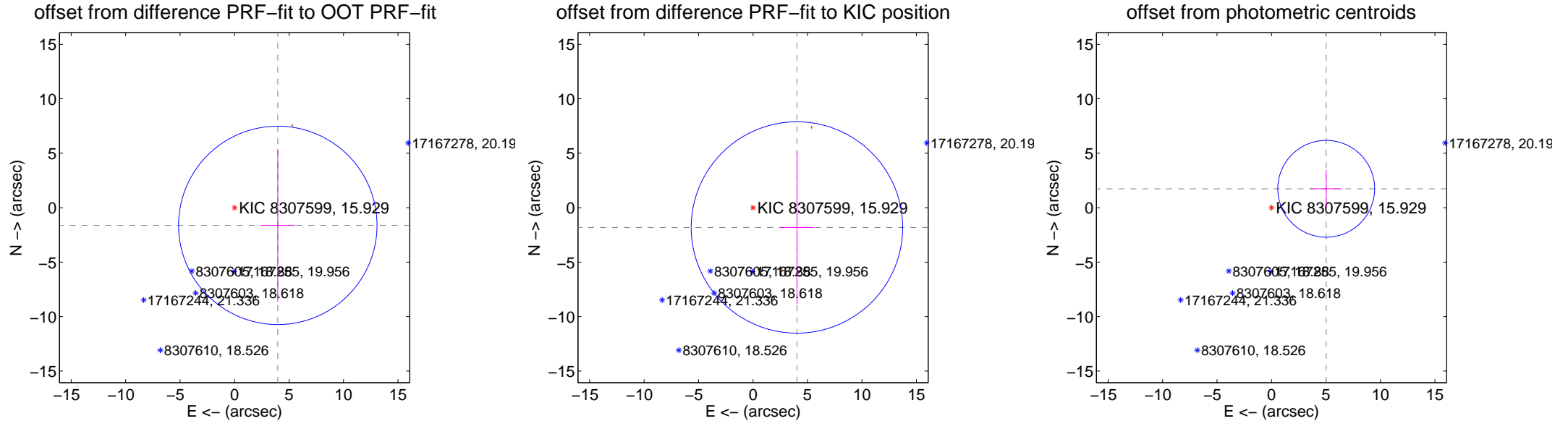
DV Centroid Data

Supplemental centroid analysis for 008307599-01. Kepler magnitude: 15.93. Transit SNR 11.84

There are 0 quarters with good PRF difference image offsets

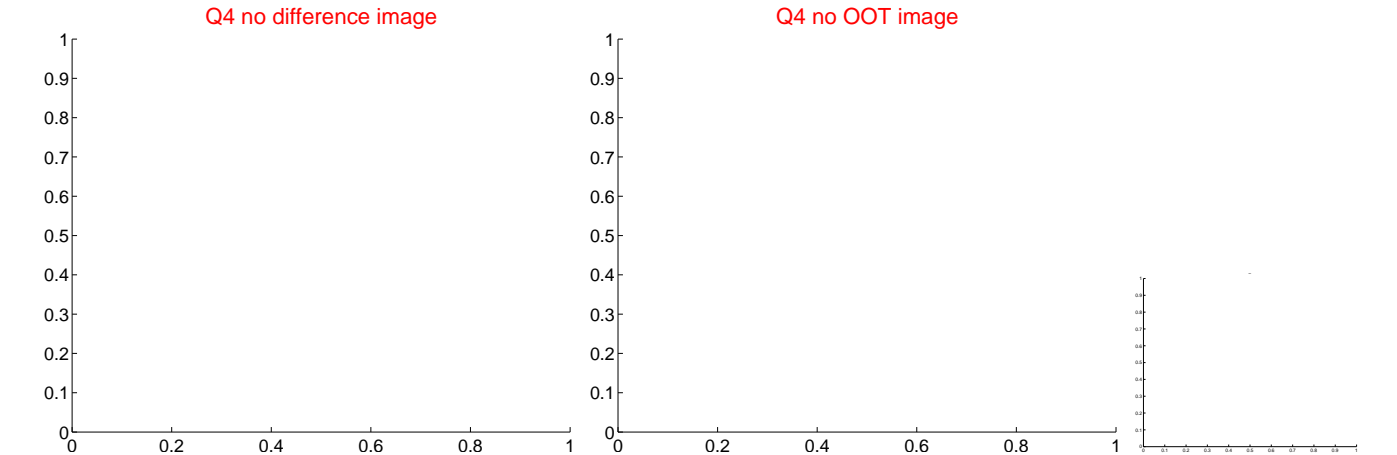
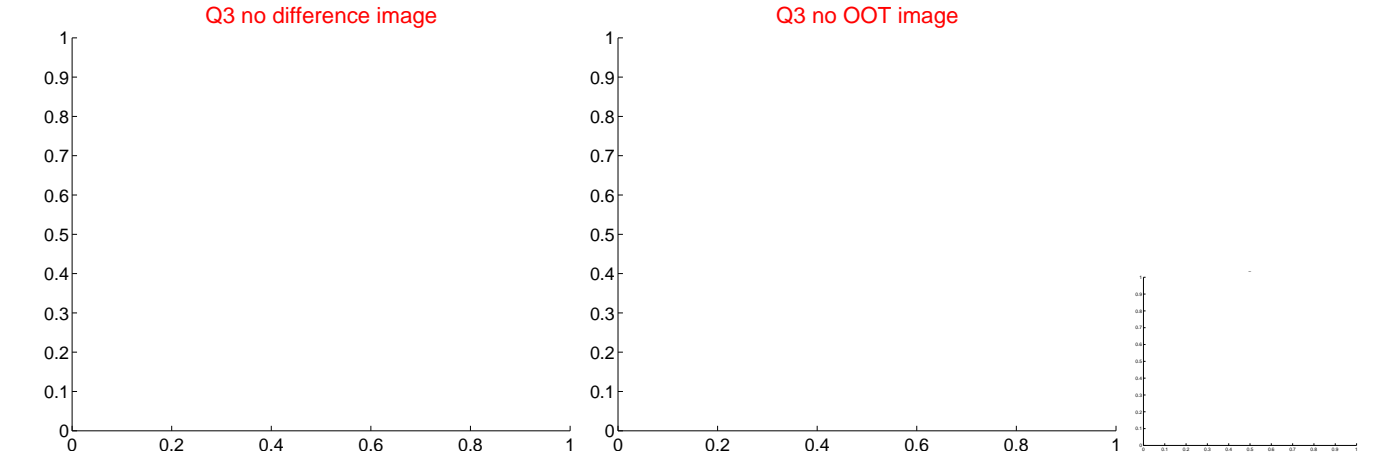
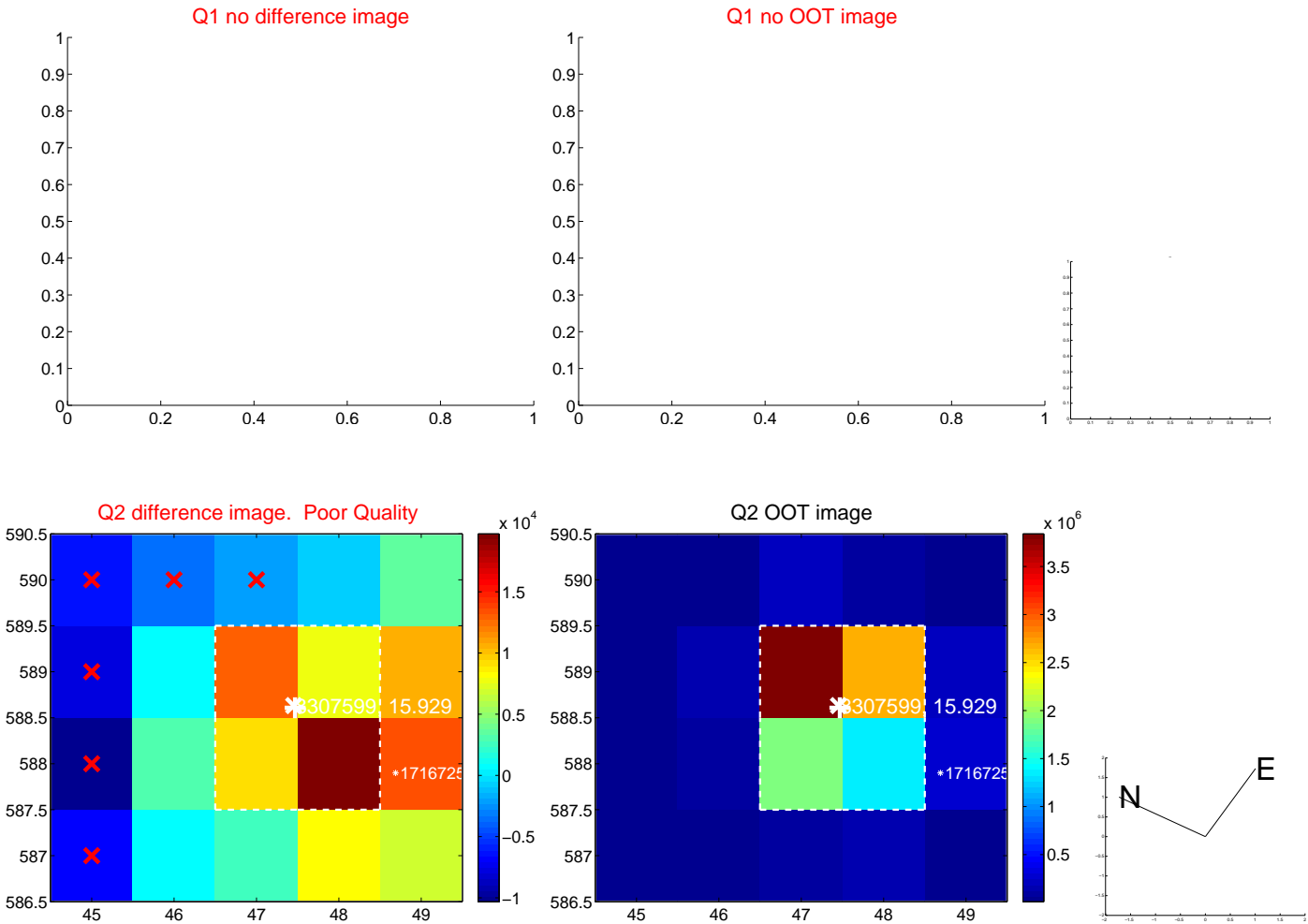
The direct PRF centroid is offset from the target star catalog position by about 0.19 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.286 ± 3.036	1.41	-3.967 ± 1.582	-1.624 ± 7.023
PRF-fit source offset from KIC position	4.418 ± 3.235	1.37	-4.027 ± 1.590	-1.817 ± 7.033
photometric centroid source offset	5.31 ± 1.48	3.58	-5.02 ± 1.45	1.73 ± 1.72

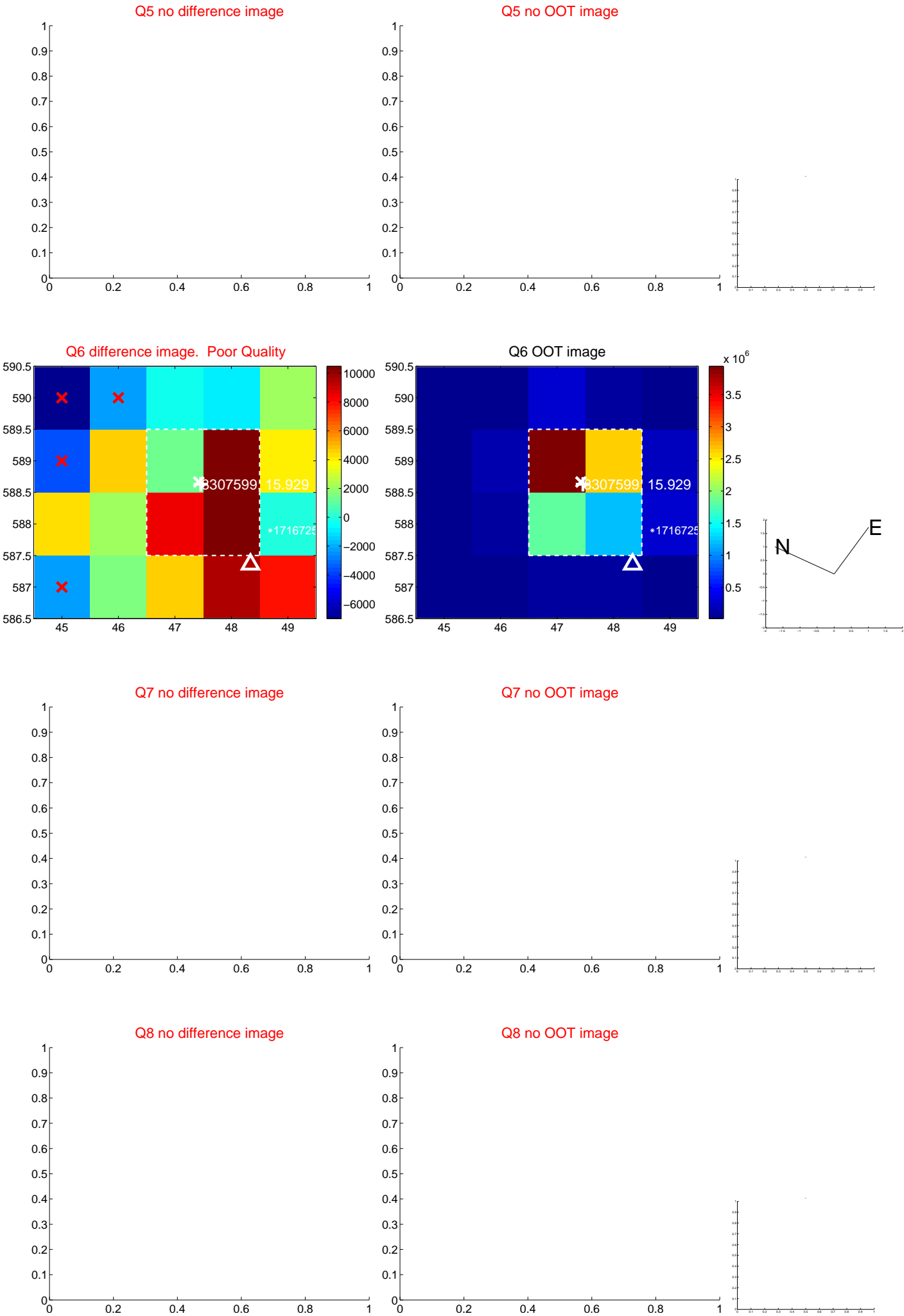


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

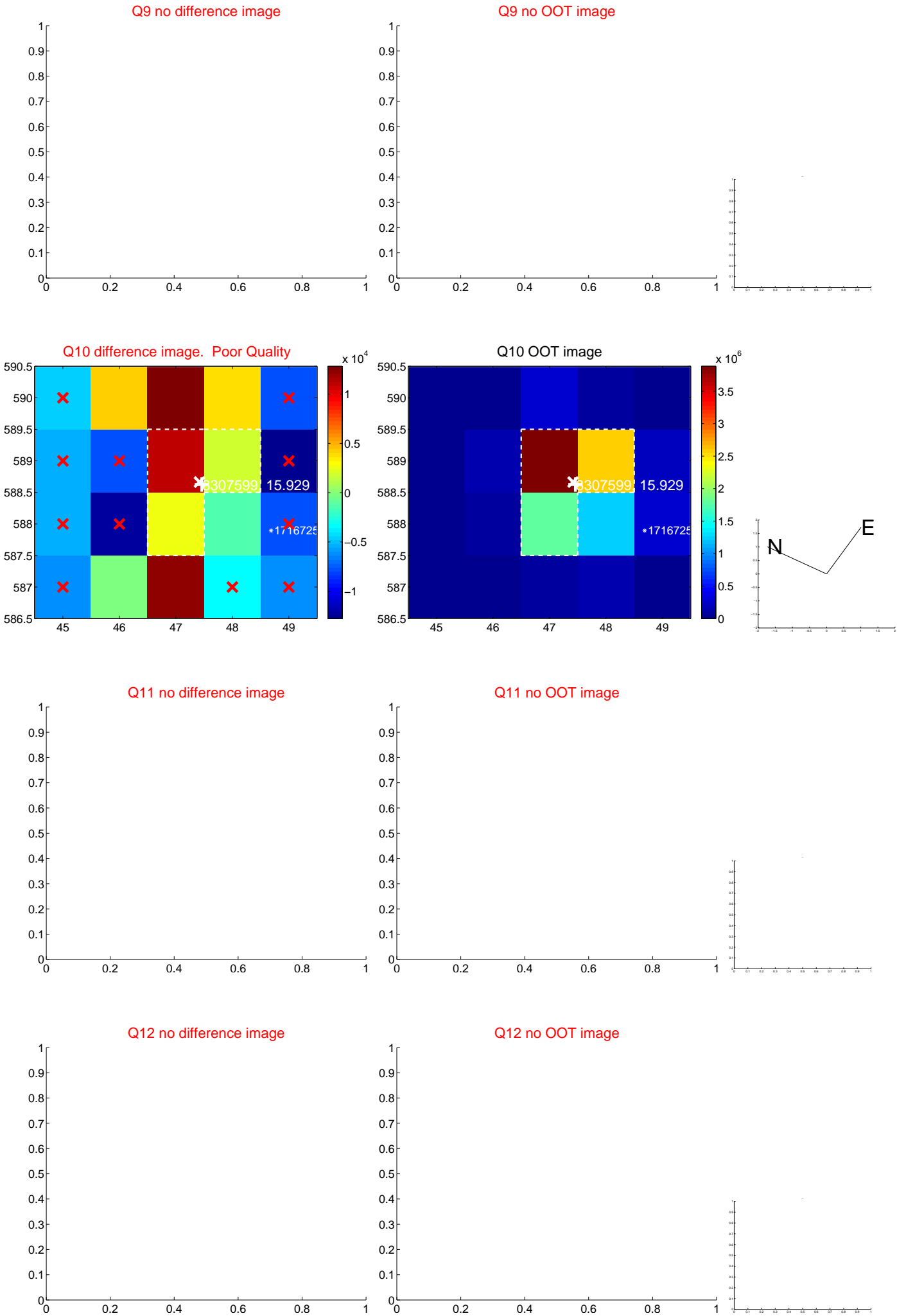
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



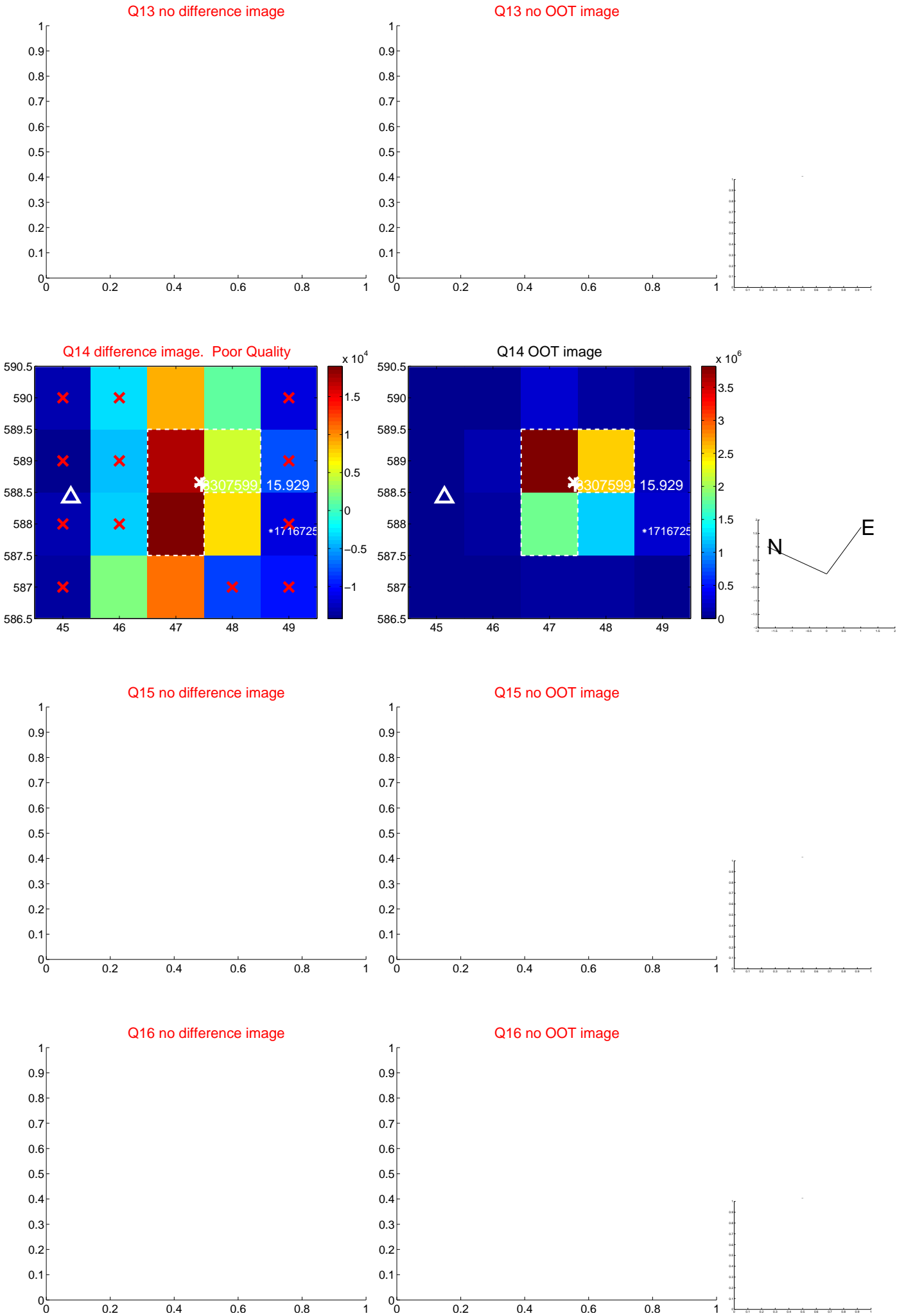
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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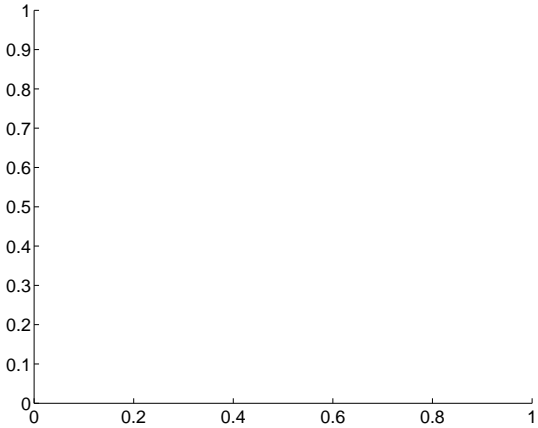


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

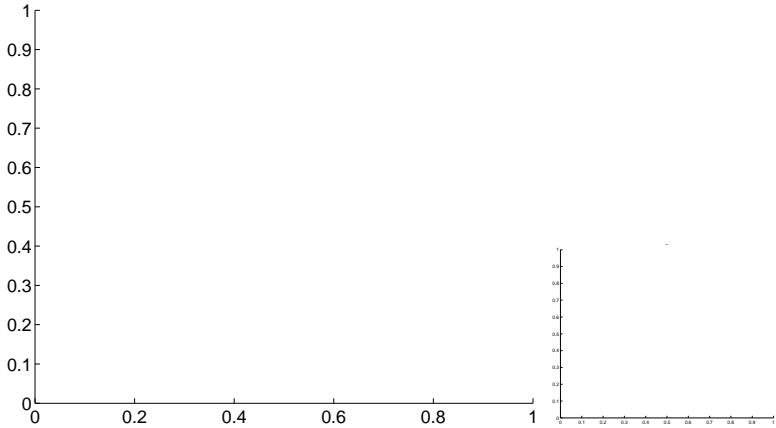


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

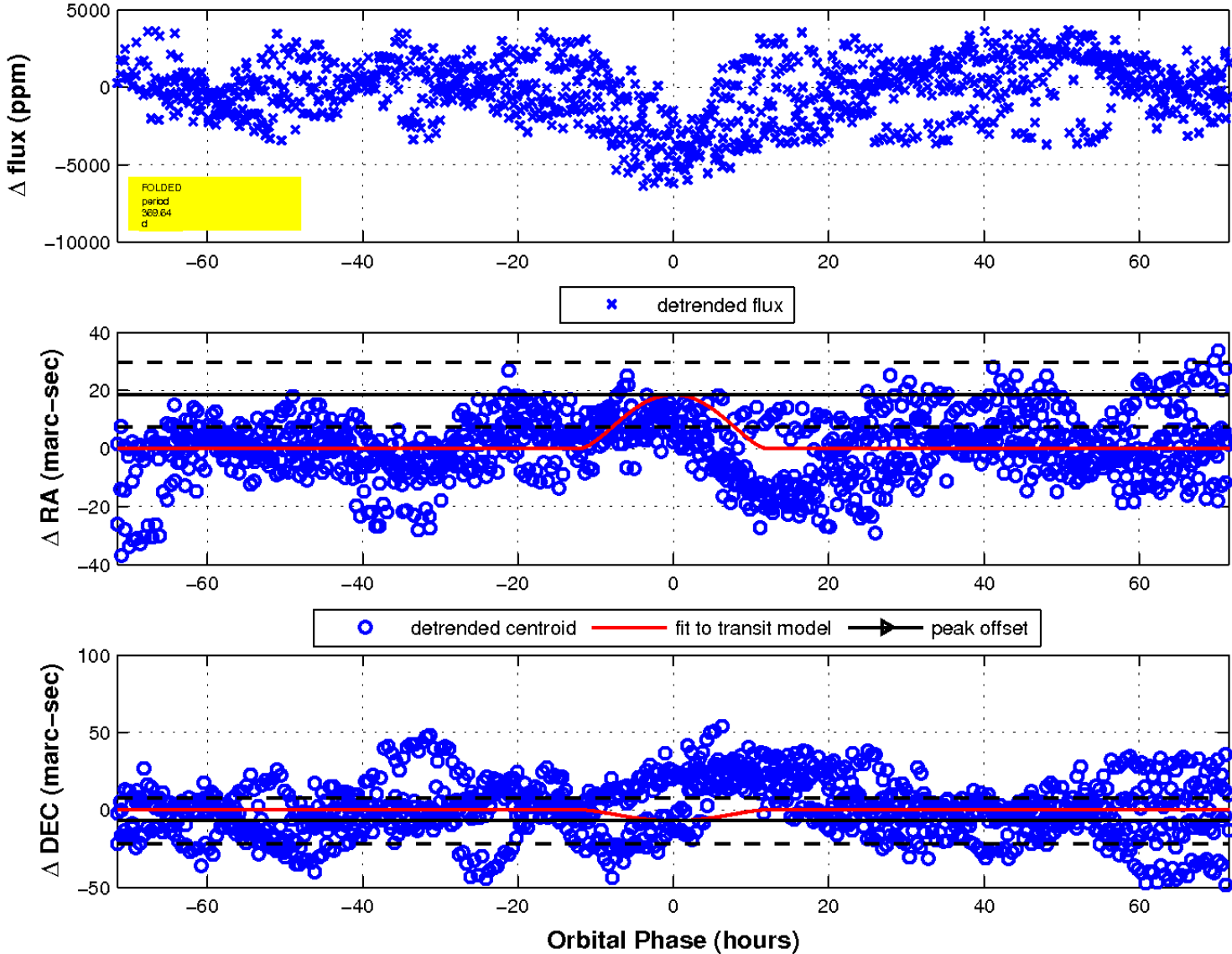
Q17 no difference image



Q17 no OOT image



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

