

KIC 010924096

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})
010924096-01	OBS	No	453.787695	159.485319	438.2	8.375	7.2	7.5	5.50	5060	12.63	9.31

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010924096-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL

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

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

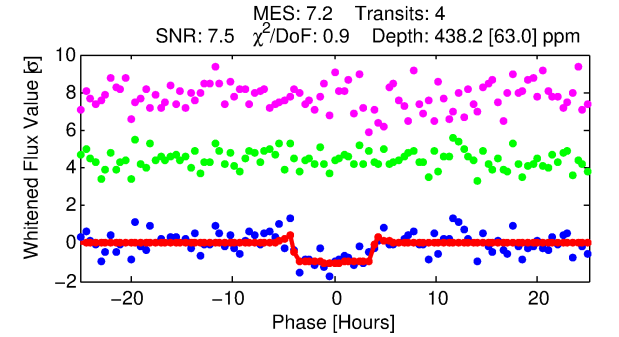
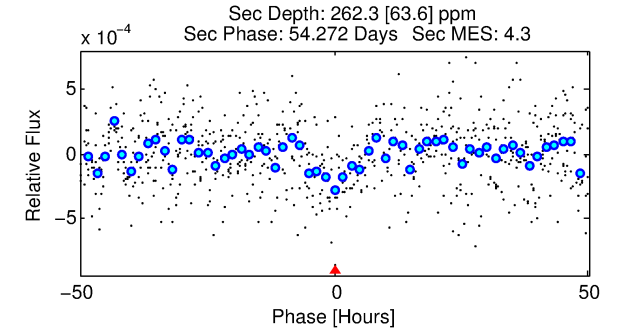
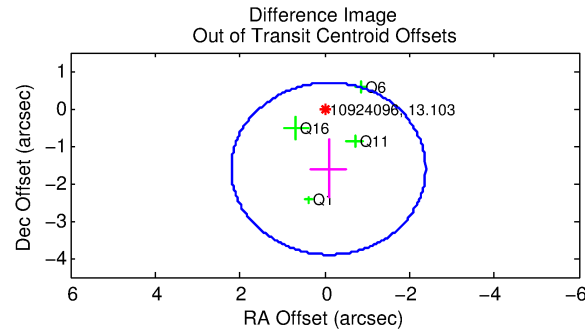
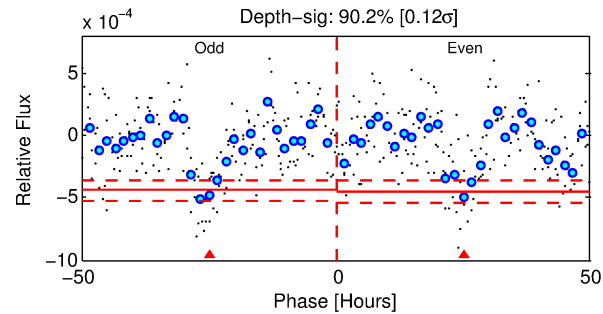
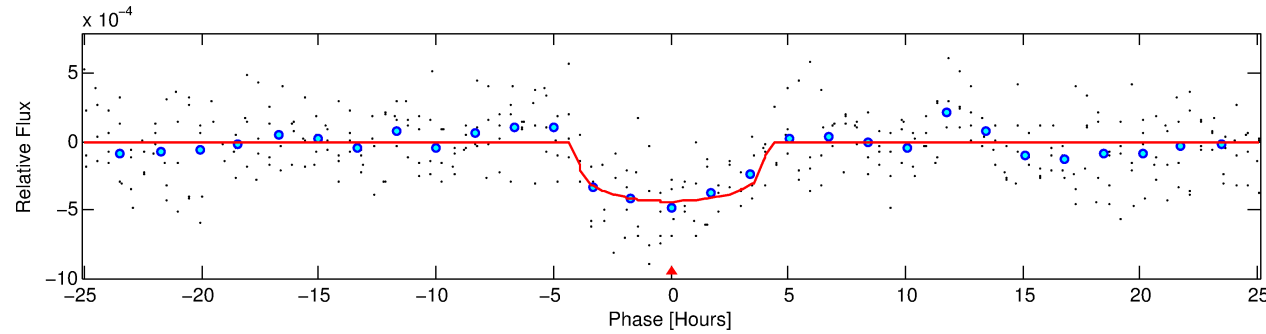
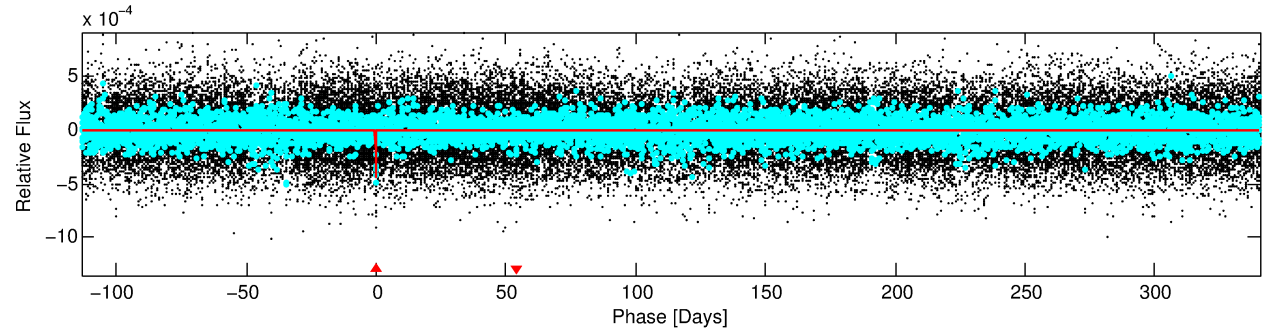
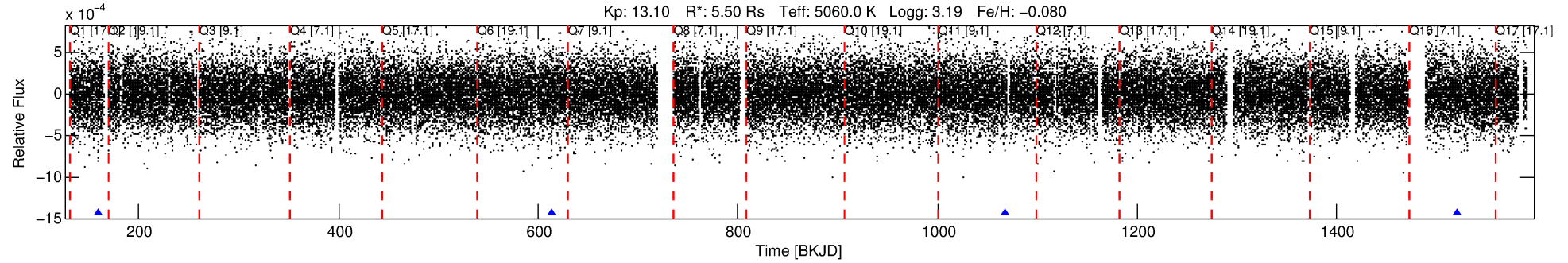
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010924096-01

No Significant Match Found

DV One-Page Summary

KIC: 10924096 Candidate: 1 of 1 Period: 453.788 d



DV Fit Results:

Period = 453.78770 [0.00500] d
Epoch = 159.4853 [0.0102] BKJD
Rp/R* = 0.0211 [0.0146]
a/R* = 278.88 [736.01]
b = 0.77 [1.43]
Seff = 9.31 [4.09]
Teq = 445 [49] K
Rp = 12.63 [9.78] Re
a = 1.3806 [0.4016] AU
Ag = 1723.17 [2534.68] [0.68 σ]
Teffp = 4438 [1567] K [2.55 σ]

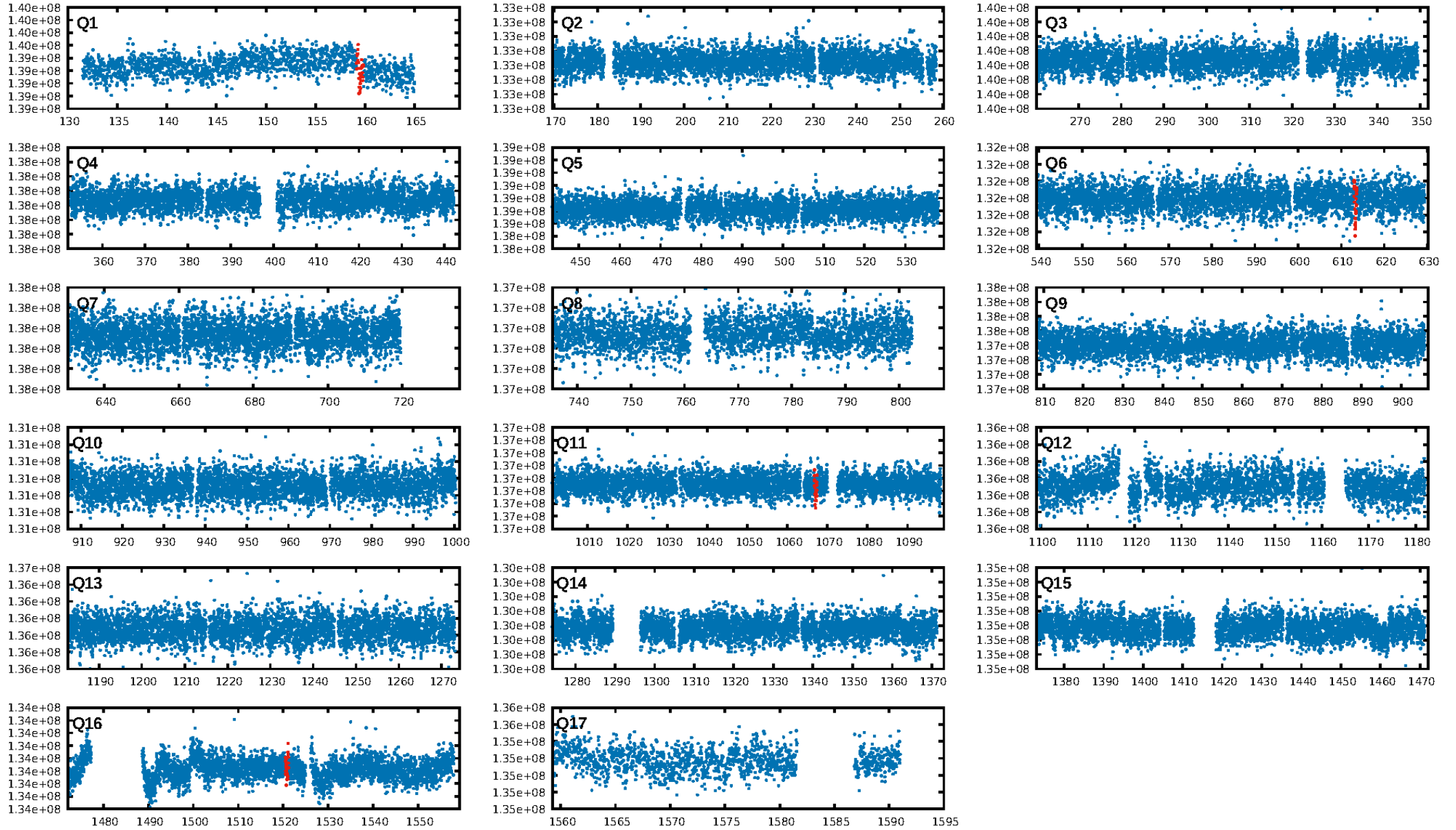
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 62.8%
ModelChiSquareGof-sig: 99.7%
Bootstrap-pfa: 9.36e-12
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -1.781
Centroid-sig: 3.0%
Centroid-so: 0.670 arcsec [1.24 σ]
OotOffset-rm: 1.612 arcsec [2.11 σ]
KicOffset-rm: 1.421 arcsec [1.92 σ]
OotOffset-st: 1/1/1/1 [4]
KicOffset-st: 1/1/1/1 [4]
DiffImageQuality-fgm: 1.00 [4/4]
DiffImageOverlap-fno: 1.00 [4/4]

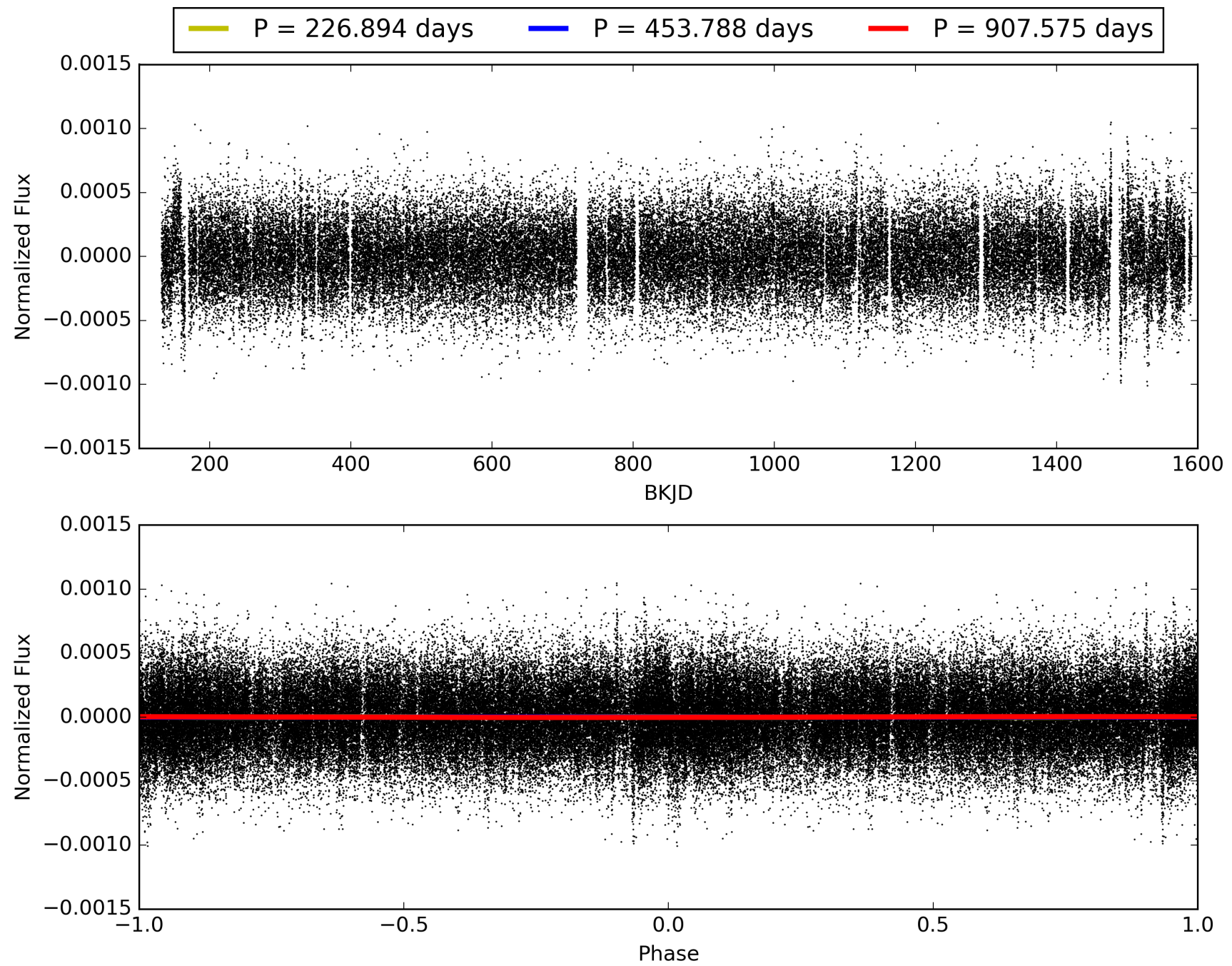
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 21:26:58 Z

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

TCE 010924096-01, PDC Light Curves

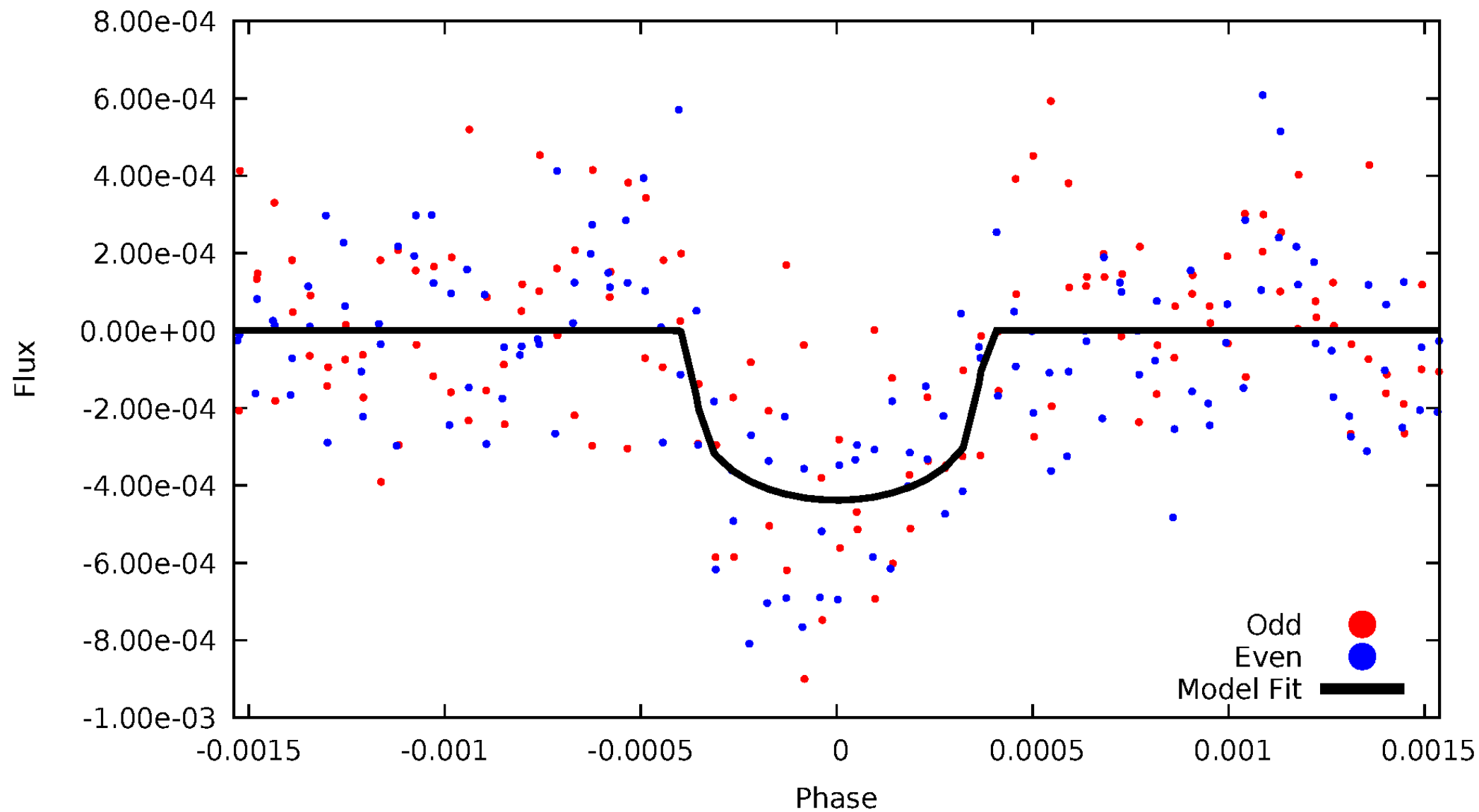


TCE 010924096-01



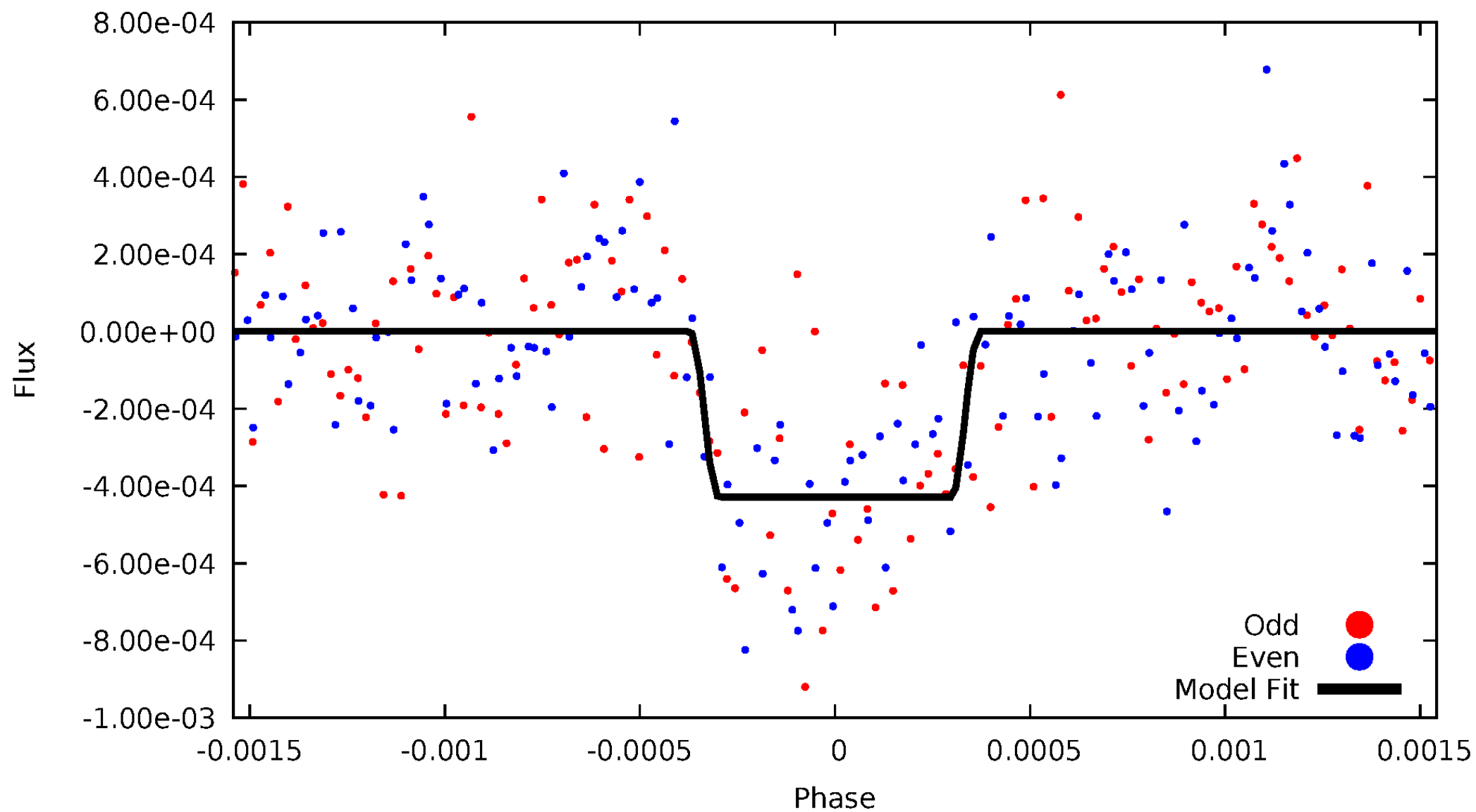
DV Odd/Even

TCE 010924096-01

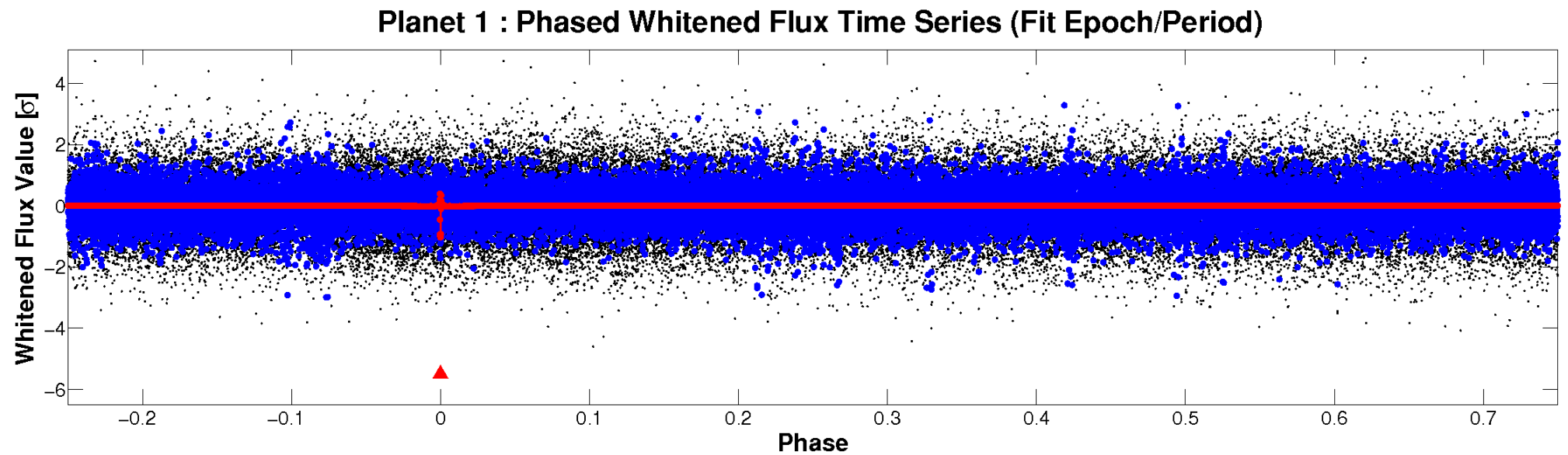
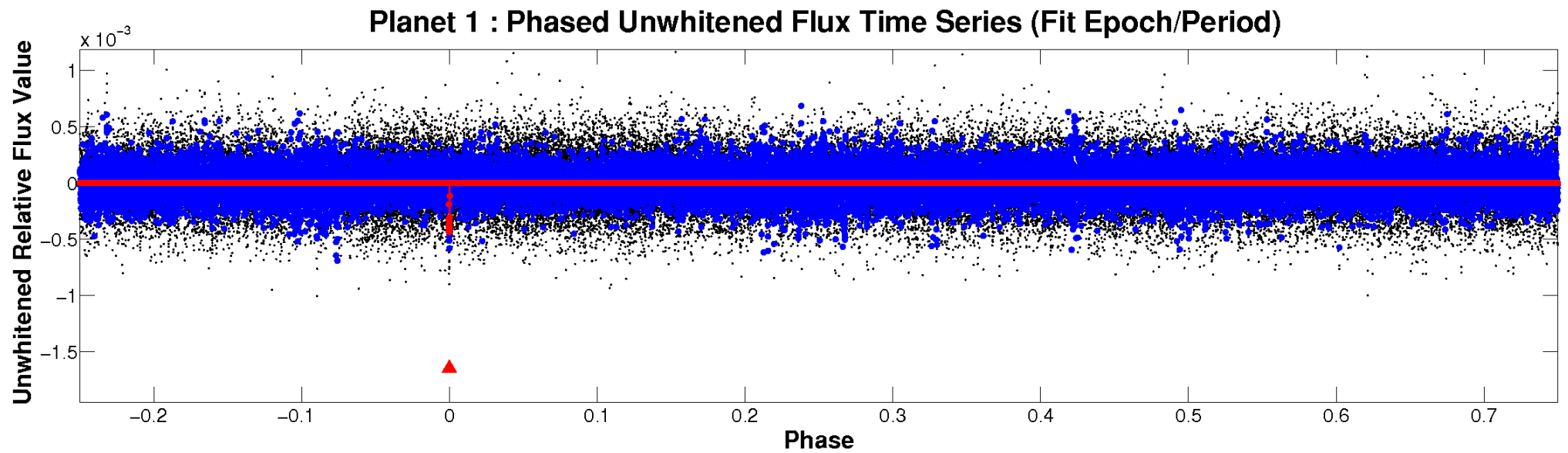


ALT Odd/Even

TCE 010924096-01

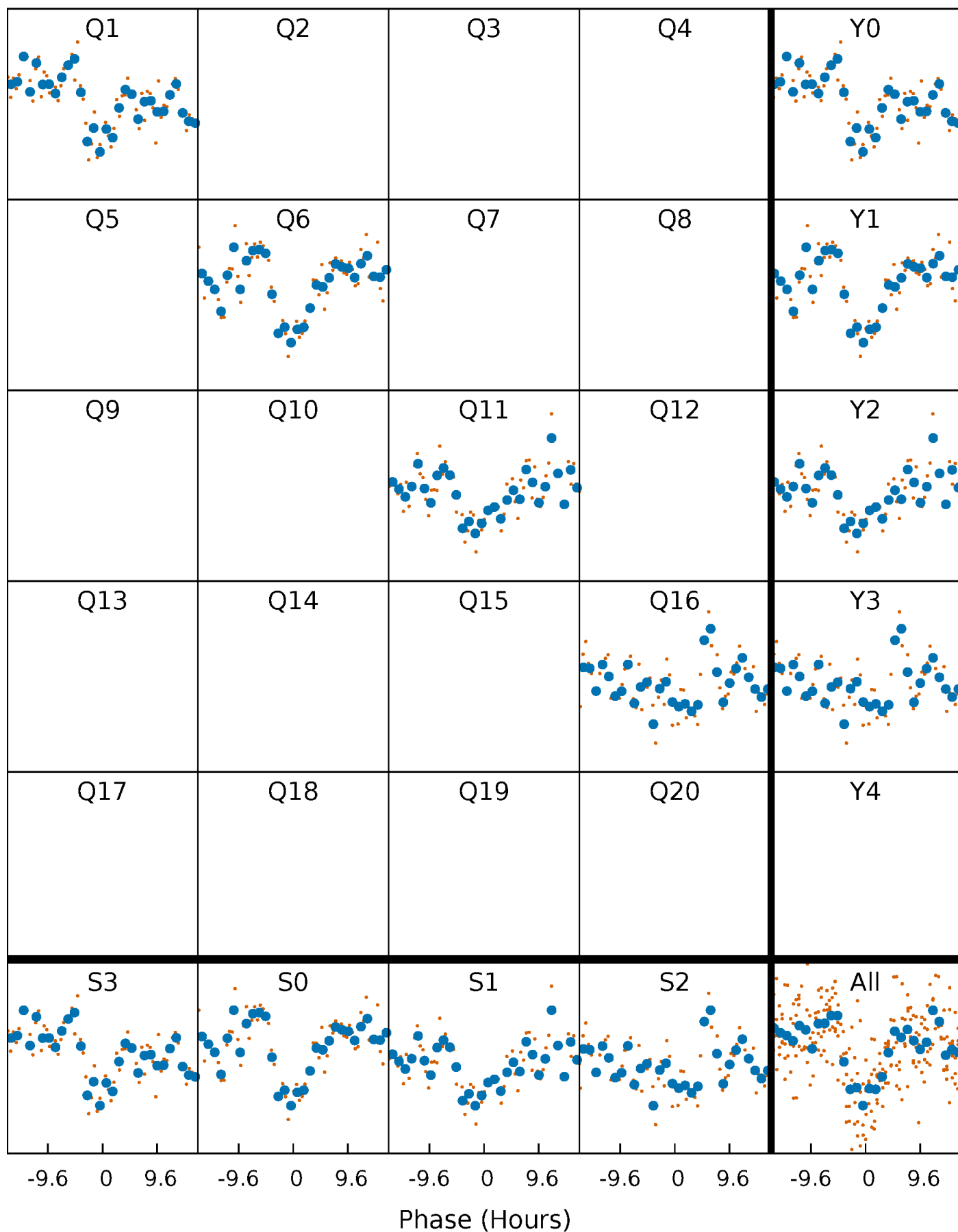


Non-Whitened Vs. Whitened Light Curve



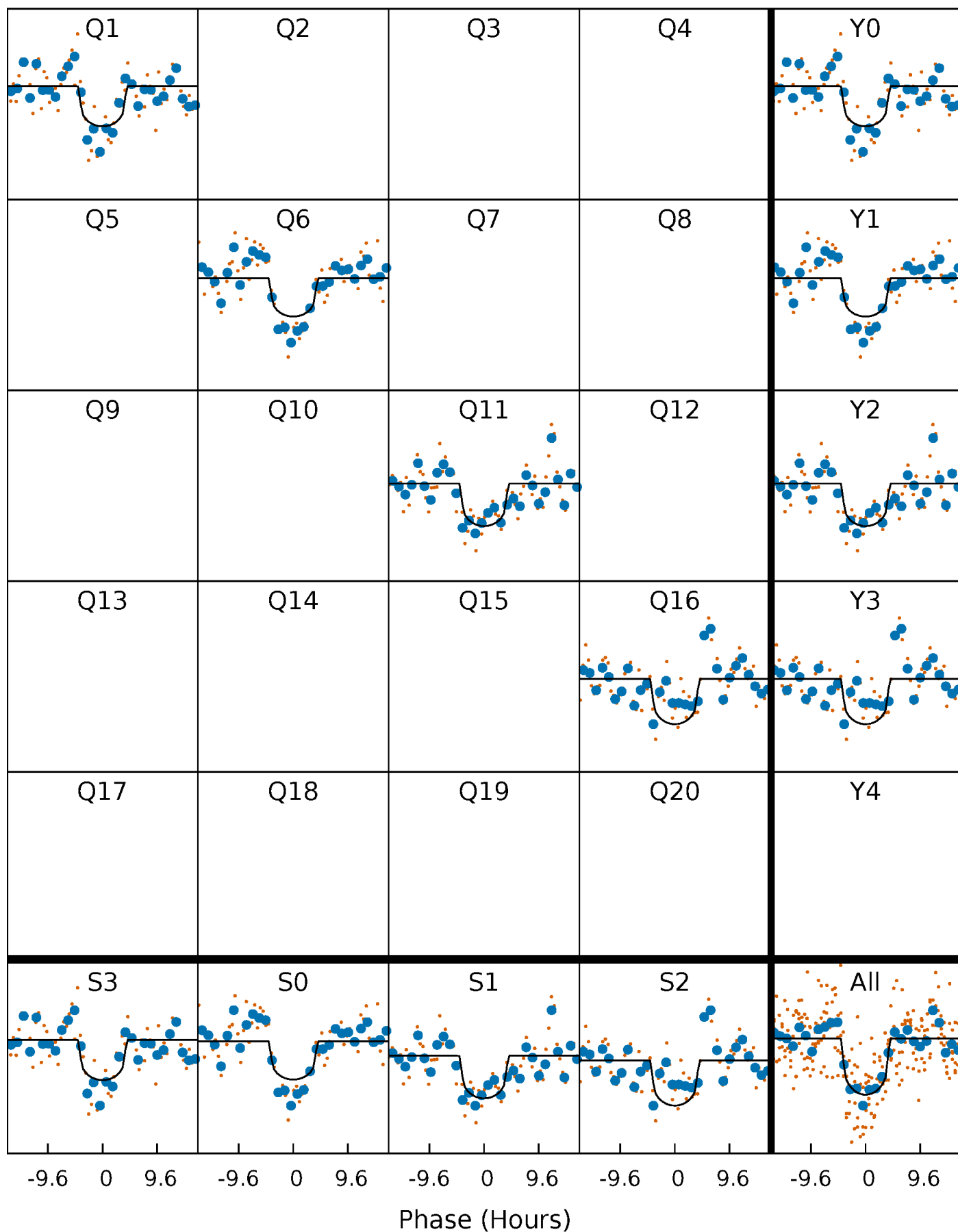
PDC Quarter-Phased Transit Curves

TCE 010924096-01 P=453.787695 Days $T_0=159.485319$ (BKJD)



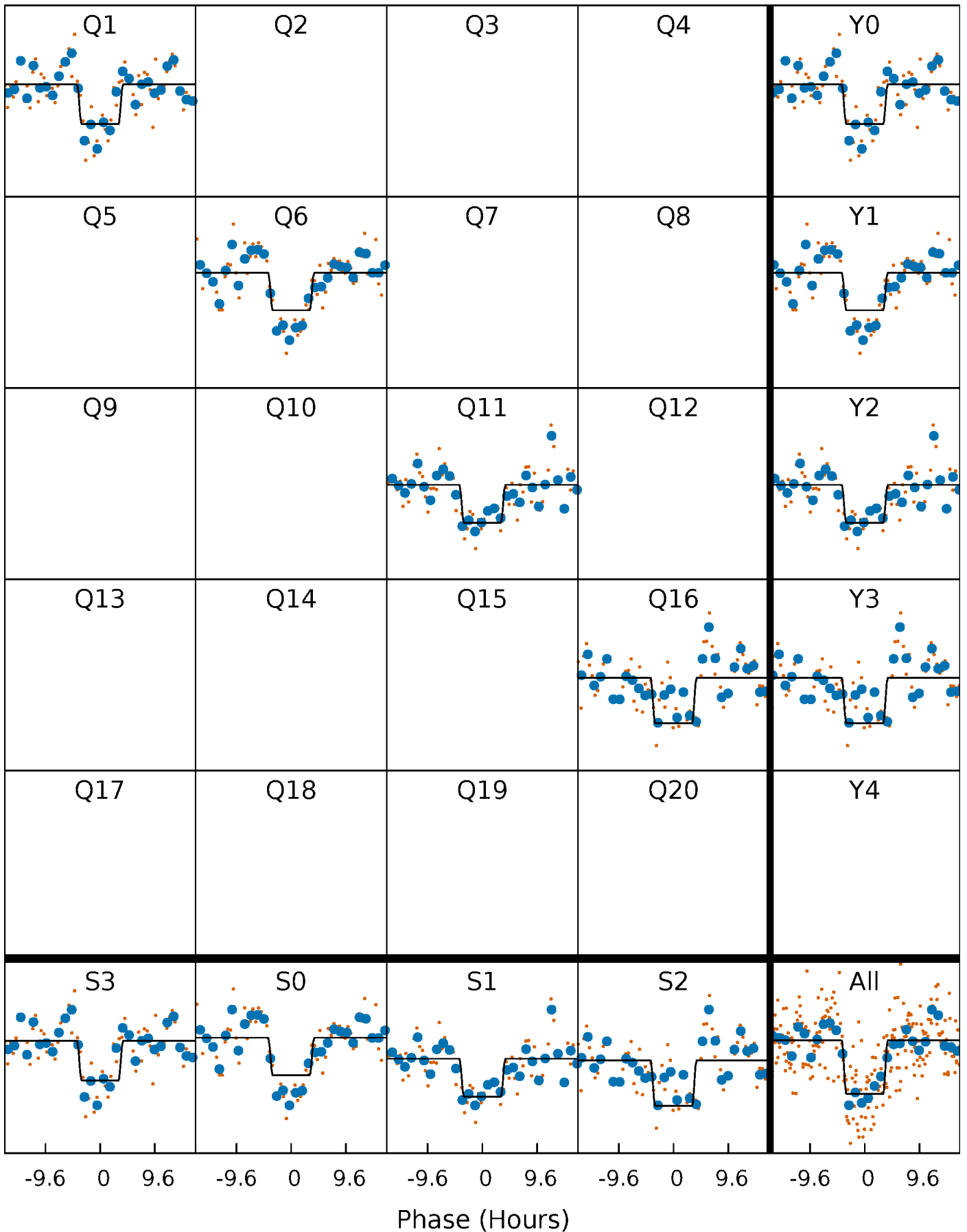
DV Quarter-Phased Transit Curves

TCE 010924096-01 $P=453.787695$ Days $T_0=159.485319$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

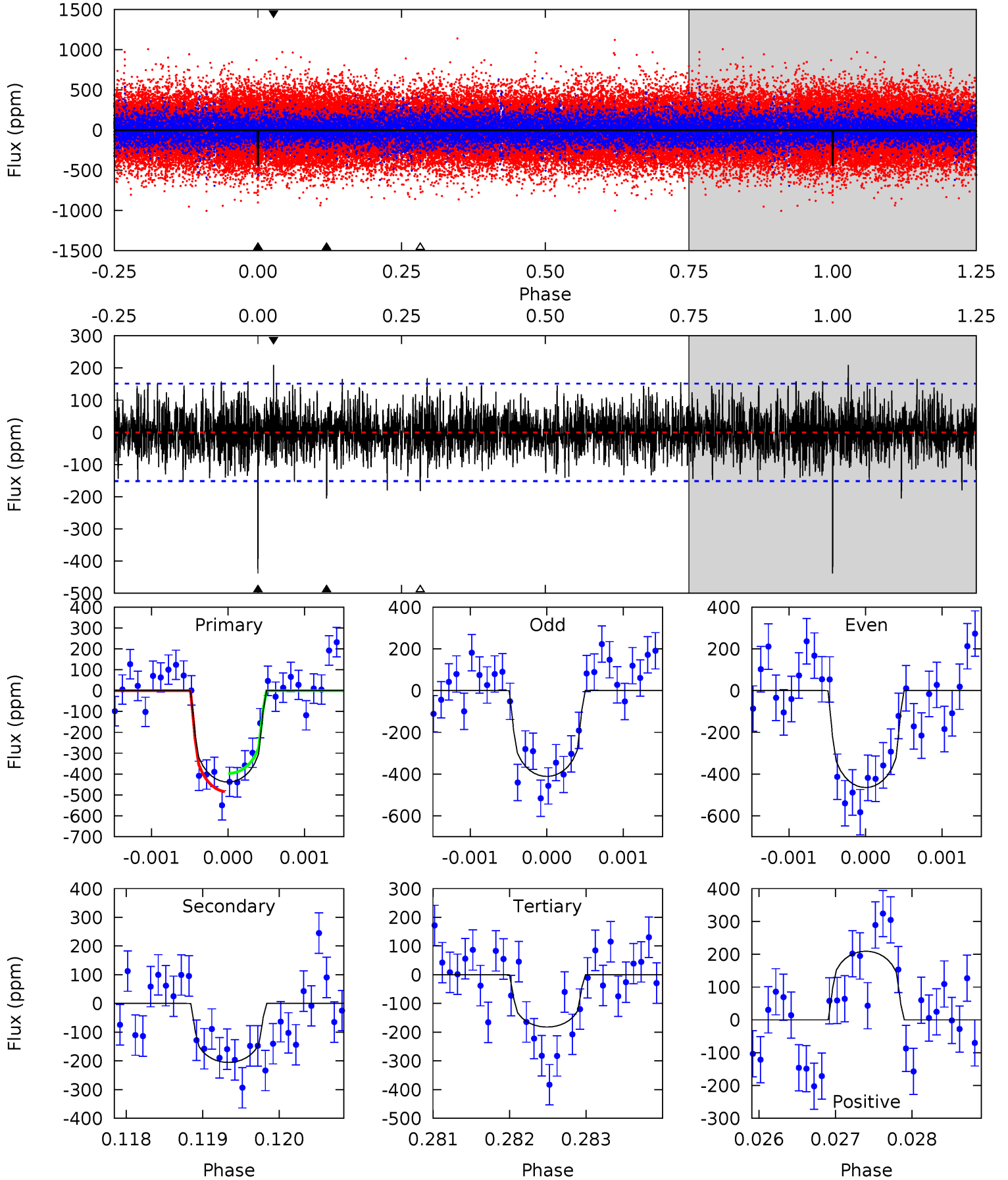
TCE 010924096-01 P=453.781689 Days $T_0=159.488771$ (BKJD)



DV Model-Shift Uniqueness Test

010924096-01, P = 453.787695 Days, E = 159.485319 Days

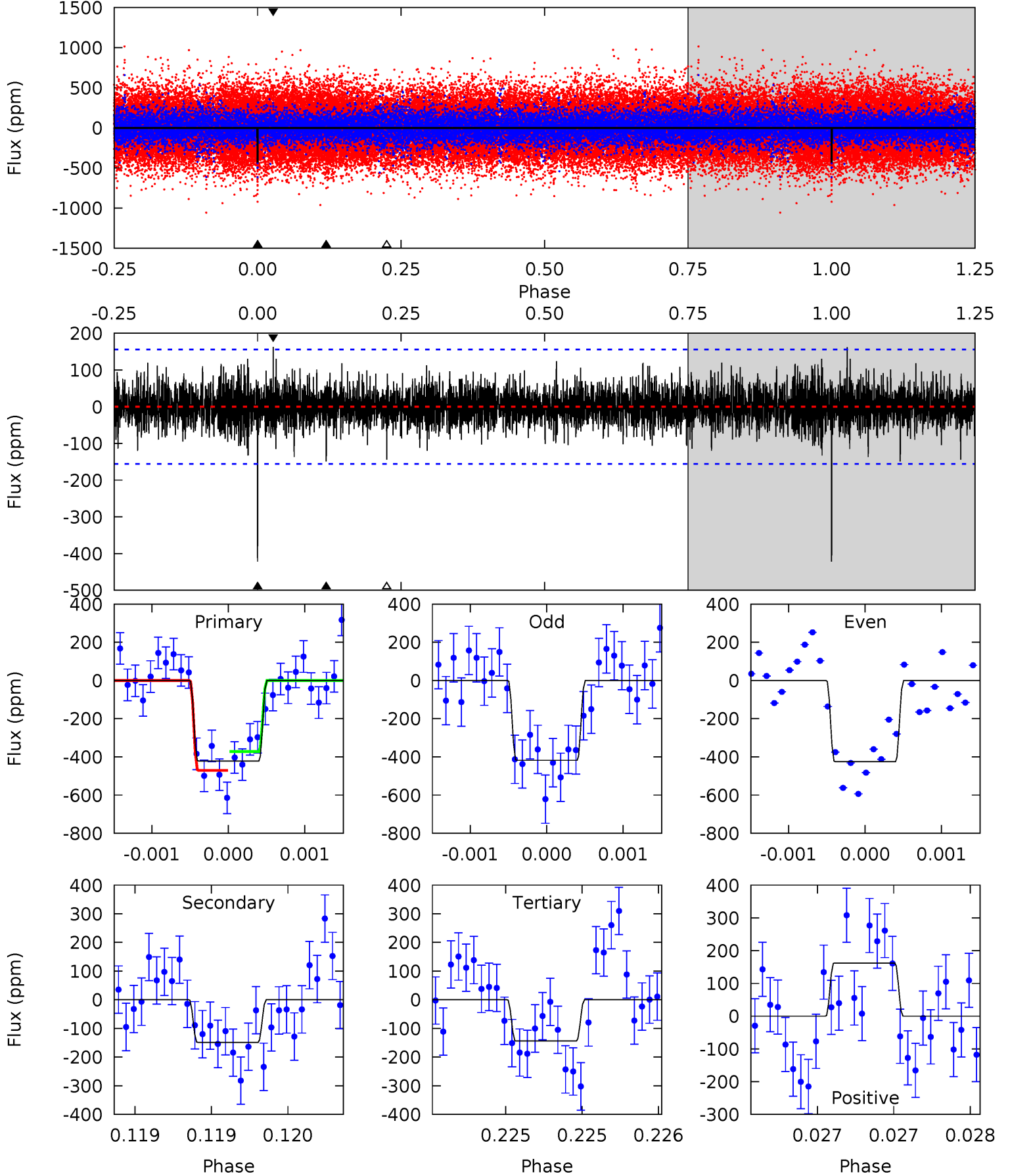
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.9	7.45	6.60	7.58	5.49	3.35	1.83	9.28	8.30	0.84	-0.14	0.96	0.95	0.32	1.58



Alt Model-Shift Uniqueness Test

010924096-01, P = 453.781689 Days, E = 159.488771 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.9	5.25	5.09	5.73	5.50	3.37	1.31	9.80	9.16	0.16	-0.48	0.12	1.00	0.28	1.75



Stellar Parameters For KIC 010924096

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5060^{+87}_{-137}	$3.189^{+0.234}_{-0.156}$	$-0.080^{+0.200}_{-0.300}$	$5.498^{+1.016}_{-1.887}$	$1.705^{+0.216}_{-0.649}$	$0.014^{+0.023}_{-0.005}$
	+2%/-3%	+7%/-5%	+250%/-375%	+18%/-34%	+13%/-38%	+158%/-35%
Source	PHO1	FLK73	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 010924096-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-205 ± 28	$13.11^{+8.40}_{-7.13}$	622^{+38}_{-47}	4194^{+1553}_{-652}	1184^{+4811}_{-747}
Alt.	-149 ± 28	$12.56^{+8.88}_{-7.84}$	617^{+42}_{-51}	3999^{+1894}_{-613}	964^{+5159}_{-636}

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

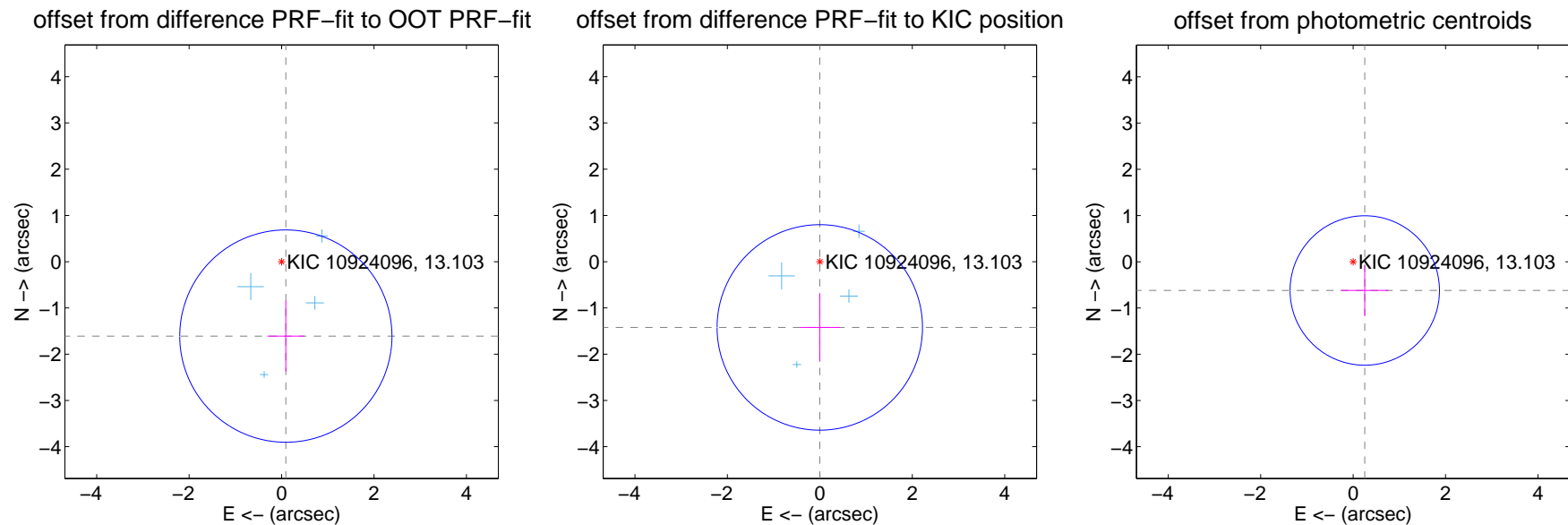
DV Centroid Data

Supplemental centroid analysis for 010924096-01. Kepler magnitude: 13.10. Transit SNR 7.48

There are 4 quarters with good PRF difference image offsets

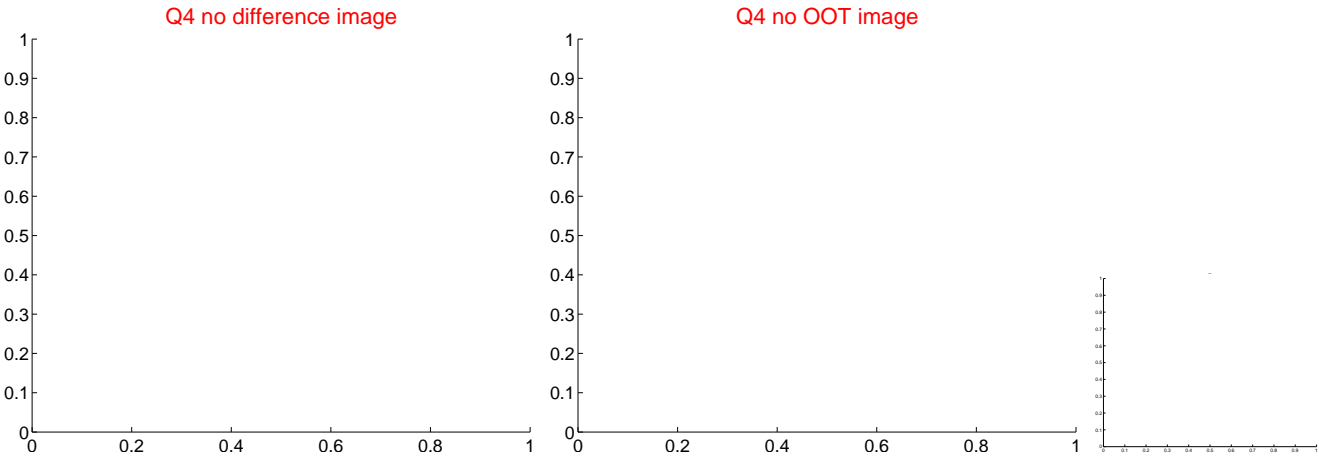
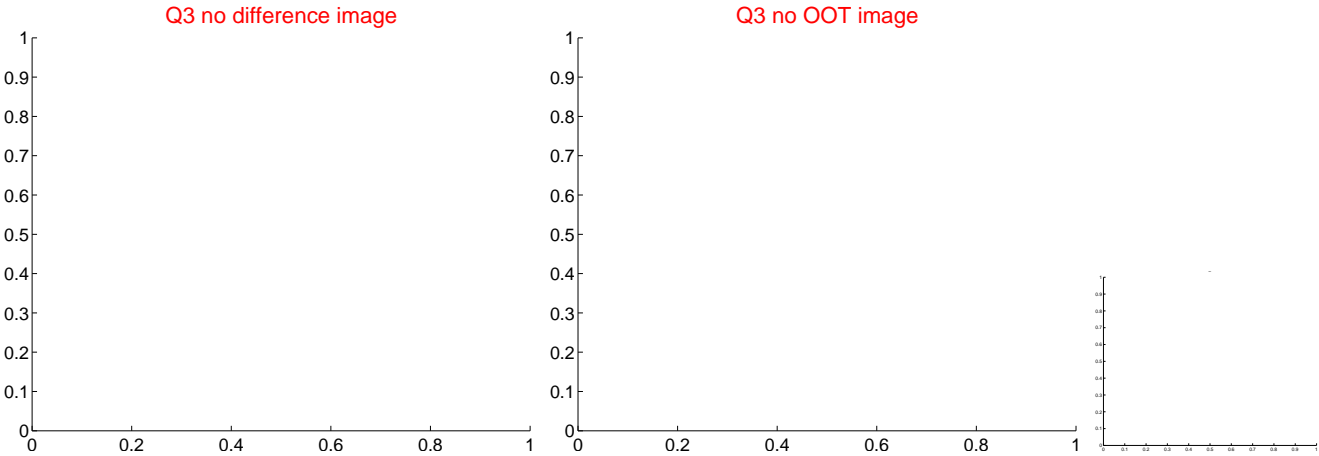
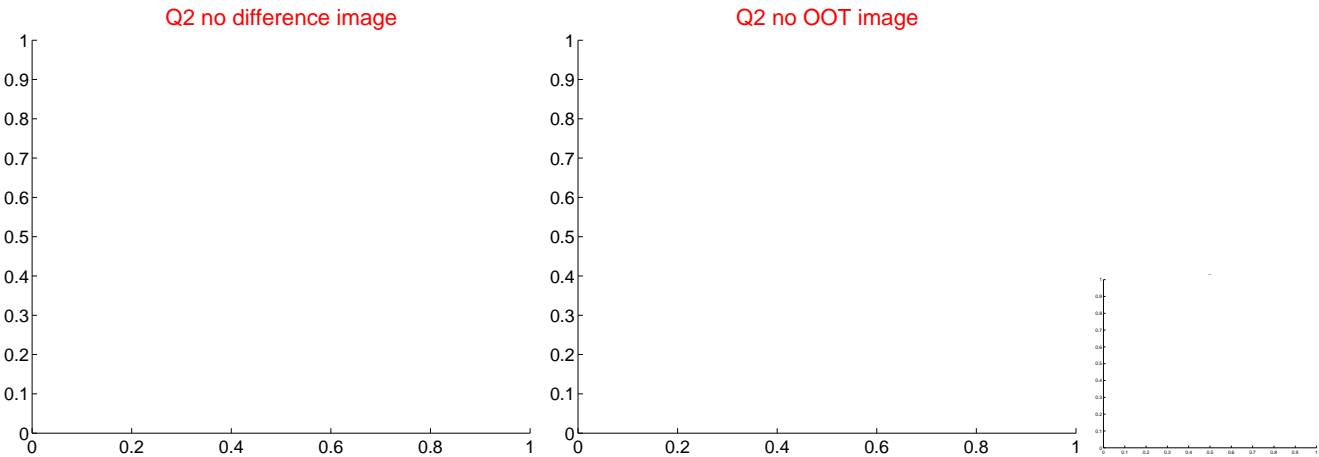
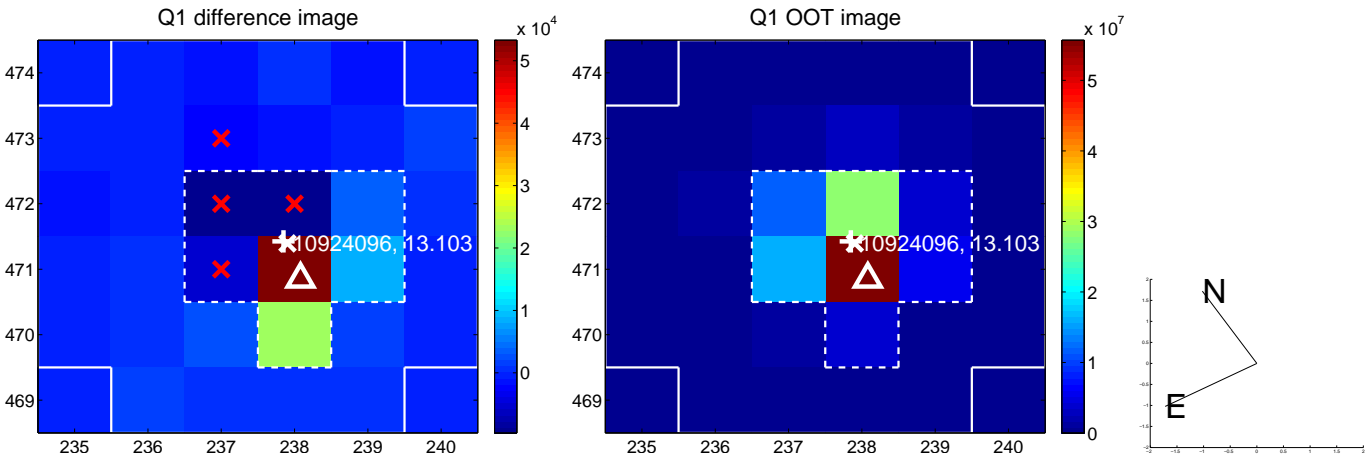
The direct PRF centroid is offset from the target star catalog position by about 0.28 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.612 ± 0.765	2.11	-0.093 ± 0.402	-1.609 ± 0.766
PRF-fit source offset from KIC position	1.421 ± 0.741	1.92	0.001 ± 0.428	-1.421 ± 0.741
photometric centroid source offset	0.67 ± 0.54	1.24	-0.25 ± 0.52	-0.62 ± 0.54

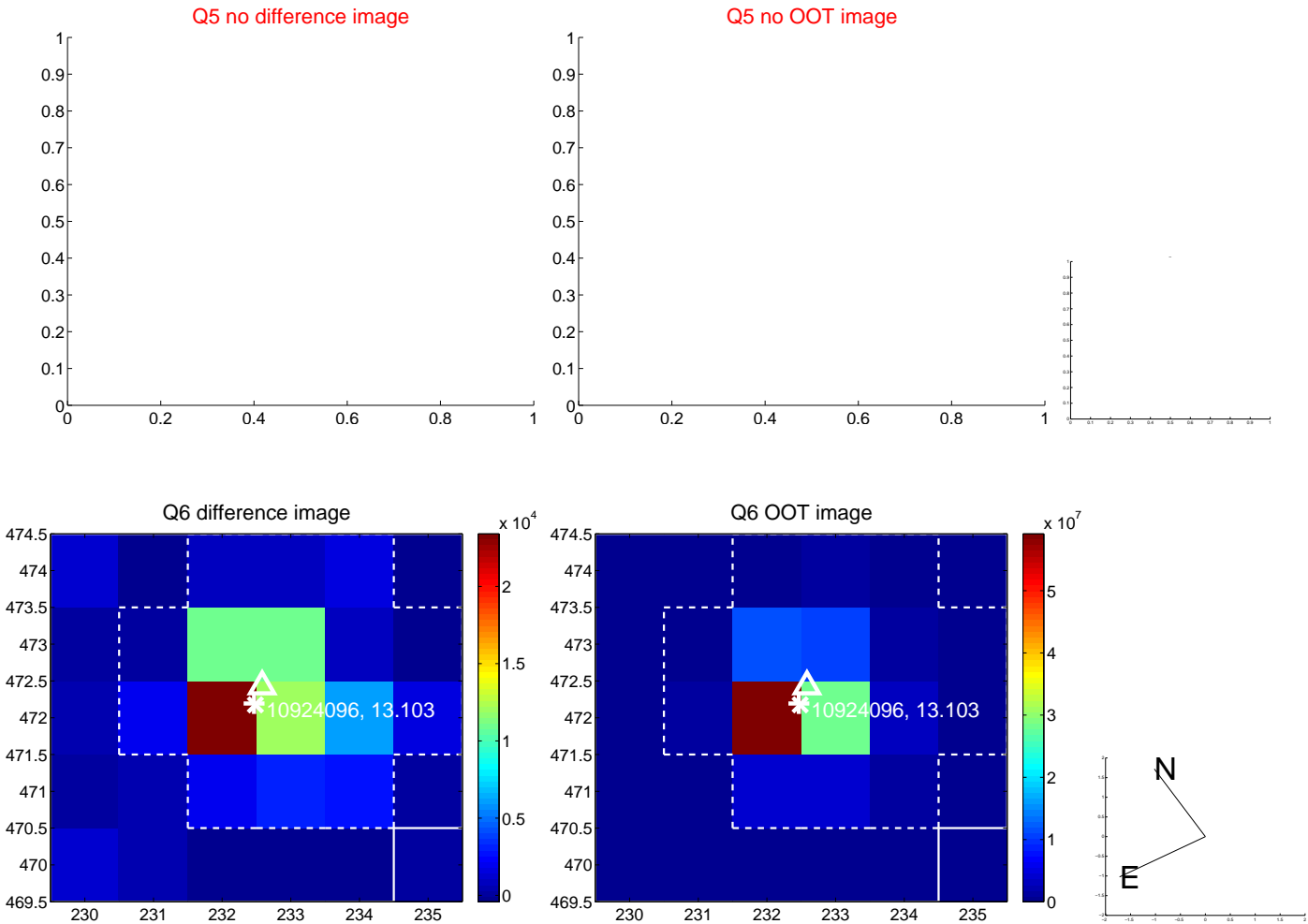


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

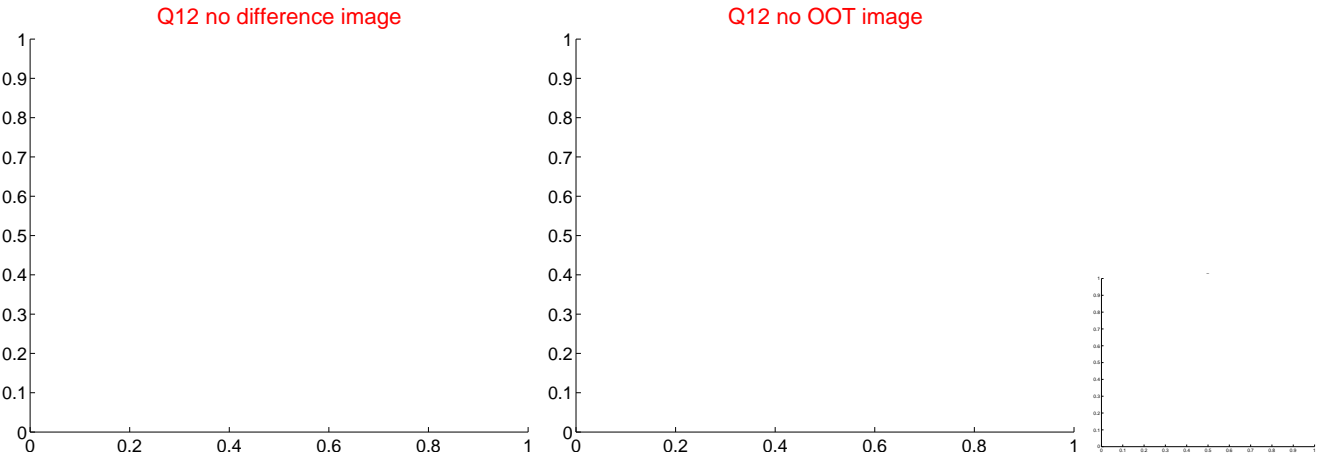
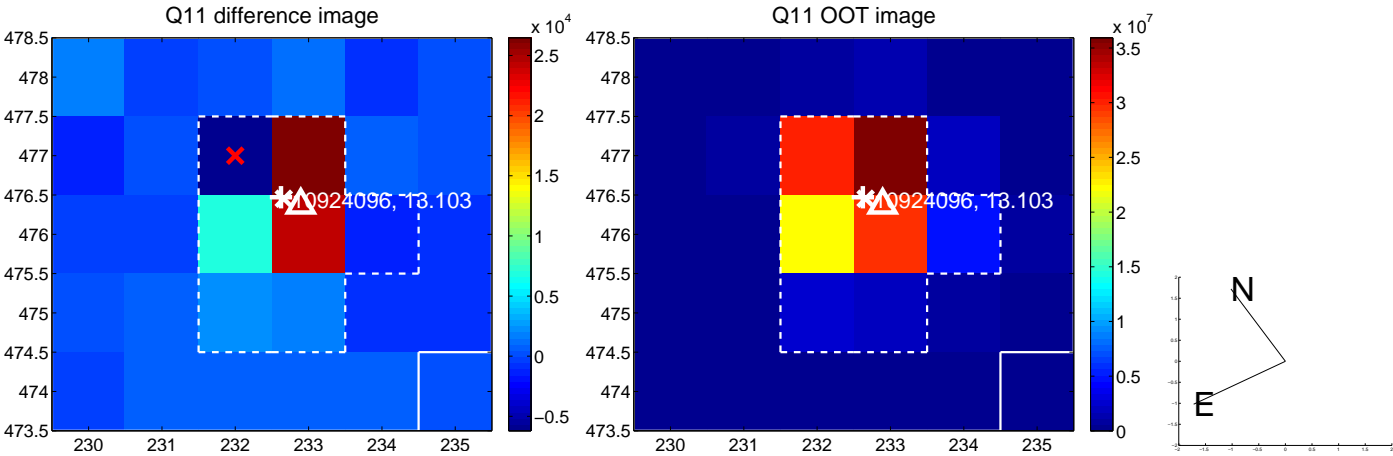
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



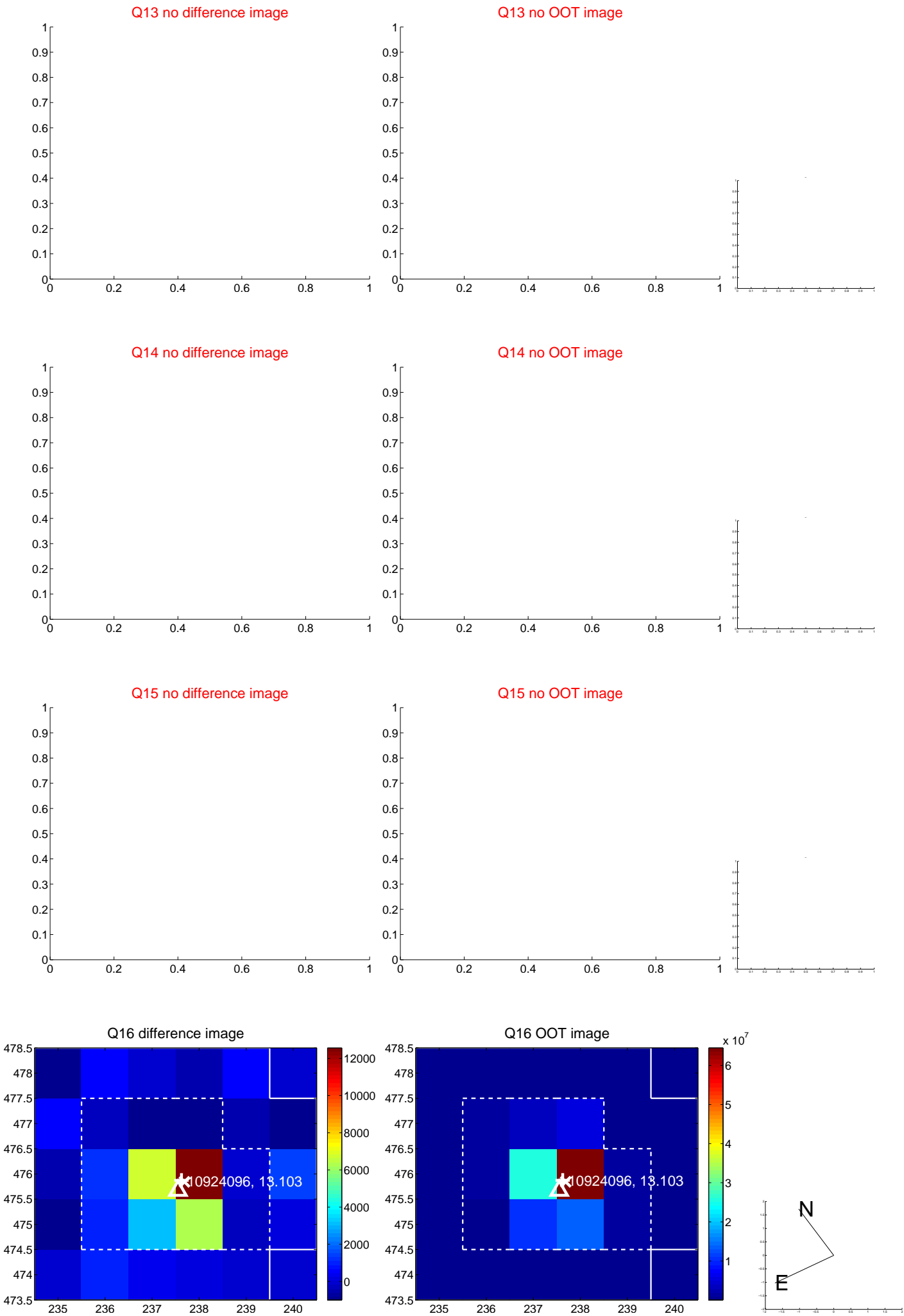
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



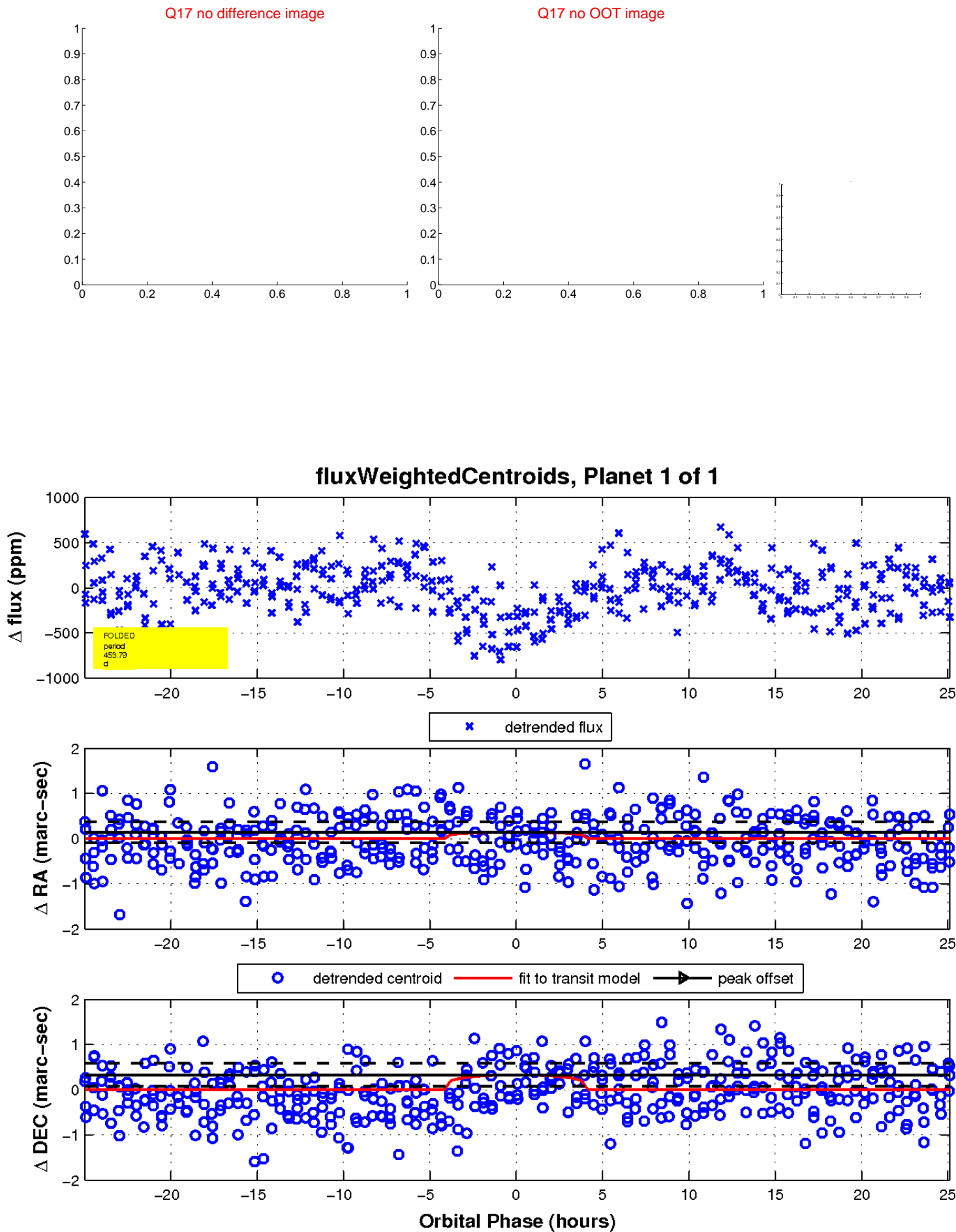
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

