

KIC 007763509

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})
007763509-01	OBS	No	369.244709	233.796096	1303.4	30.581	7.6	9.2	0.89	5678	3.87	0.80

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007763509-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—ALL_TRANS_CHASES—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.

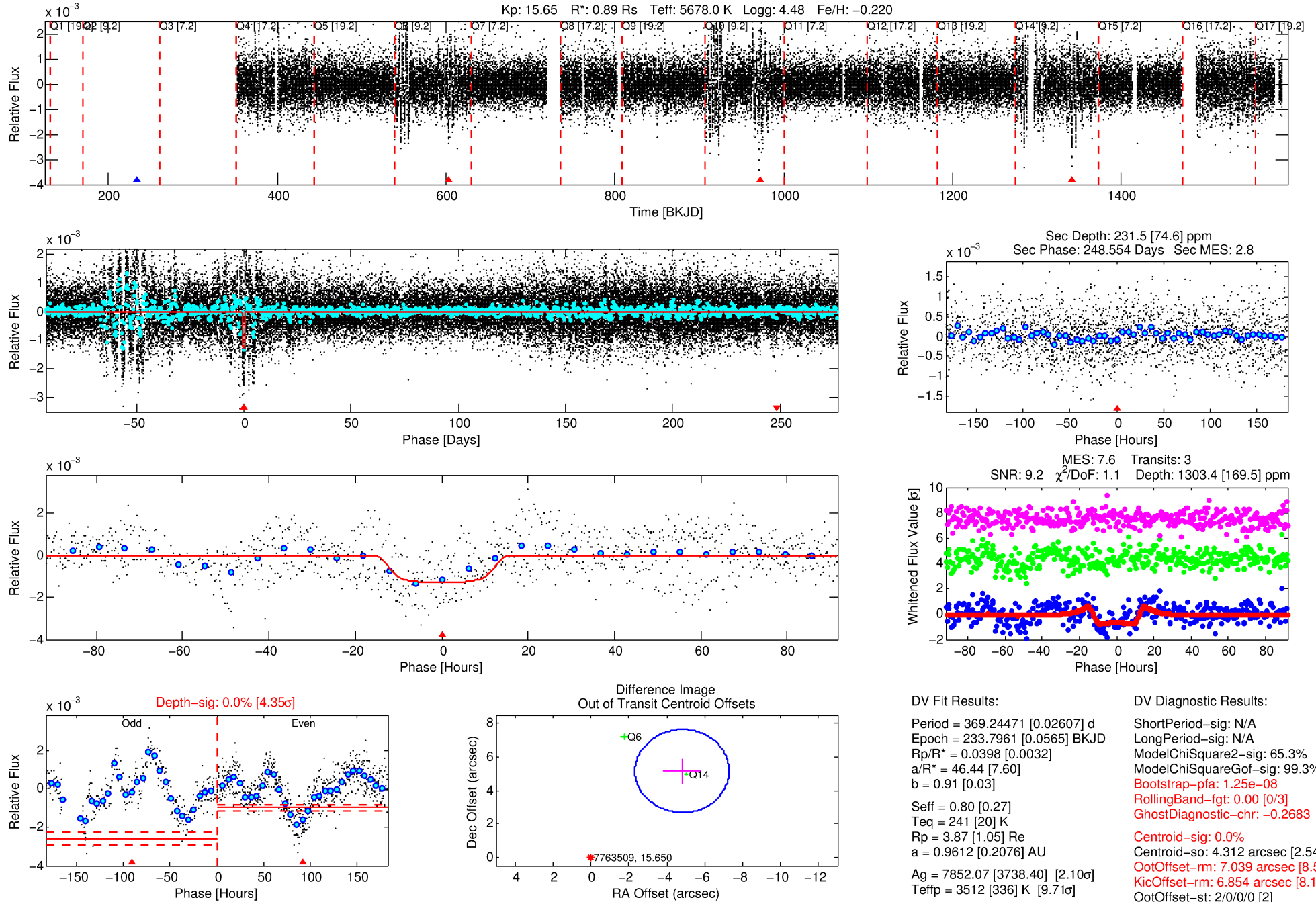
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007763509-01

No Significant Match Found

DV One-Page Summary

KIC: 7763509 Candidate: 1 of 1 Period: 369.245 d



DV Fit Results:

Period = 369.24471 [0.02607] d
Epoch = 233.7961 [0.0565] BKJD
Rp/R* = 0.0398 [0.0032]
a/R* = 46.44 [7.60]
b = 0.91 [0.03]
Seff = 0.80 [0.27]
Teq = 241 [20] K
Rp = 3.87 [1.05] Re
a = 0.9612 [0.2076] AU
Ag = 7852.07 [3738.40] [2.10 σ]
Teffp = 3512 [336] K [9.71 σ]

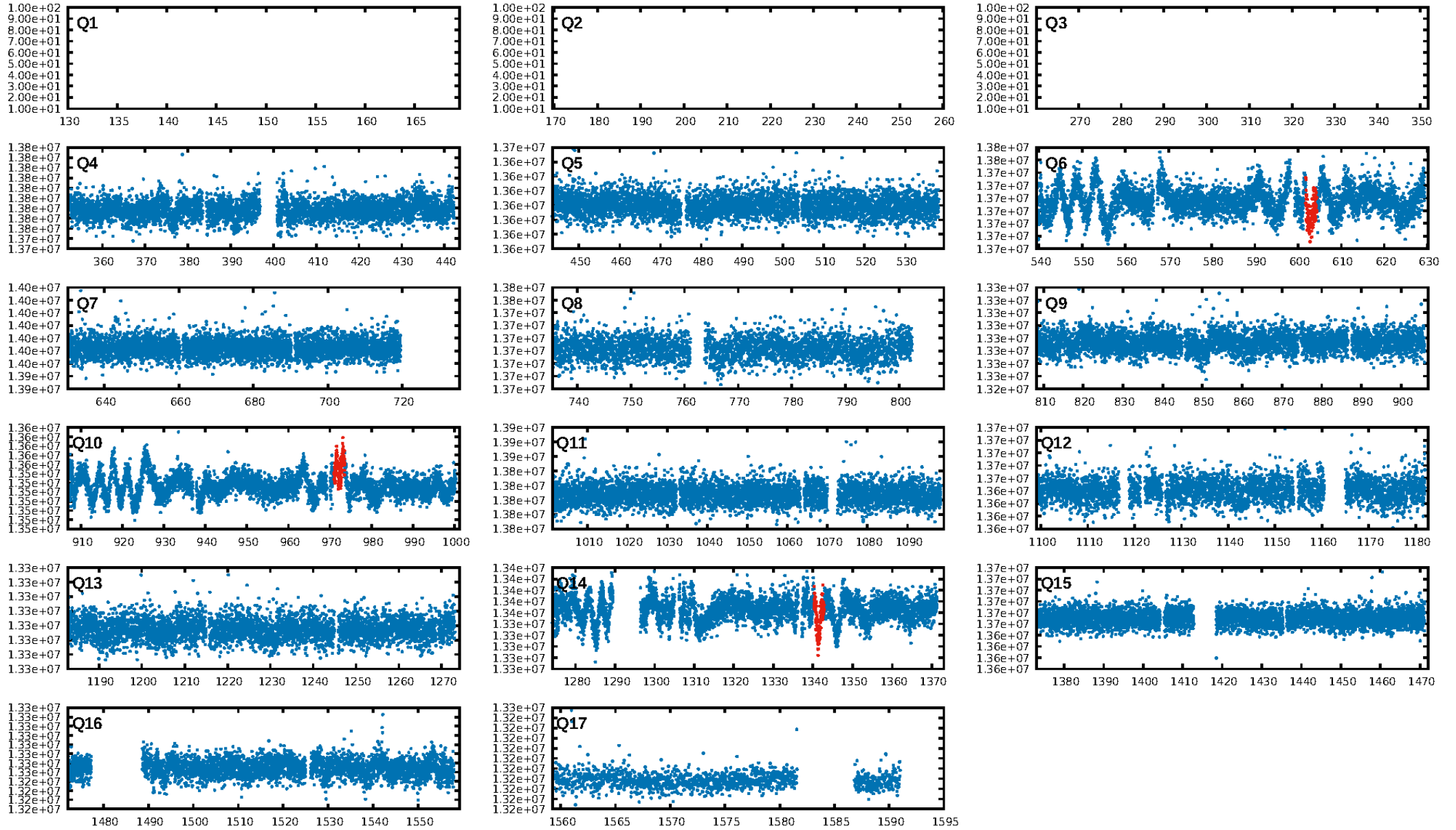
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 65.3%
ModelChiSquareGof-sig: 99.3%
Bootstrap-pfa: 1.25e-08
RollingBand-fgt: 0.00 [0/3]
GhostDiagnostic-chr: -0.2683
Centroid-sig: 0.0%
Centroid-so: 4.312 arcsec [2.54 σ]
OotOffset-rm: 7.039 arcsec [8.53 σ]
KicOffset-rm: 6.854 arcsec [8.18 σ]
OotOffset-st: 2/0/0/0 [2]
KicOffset-st: 2/0/0/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [2/2]

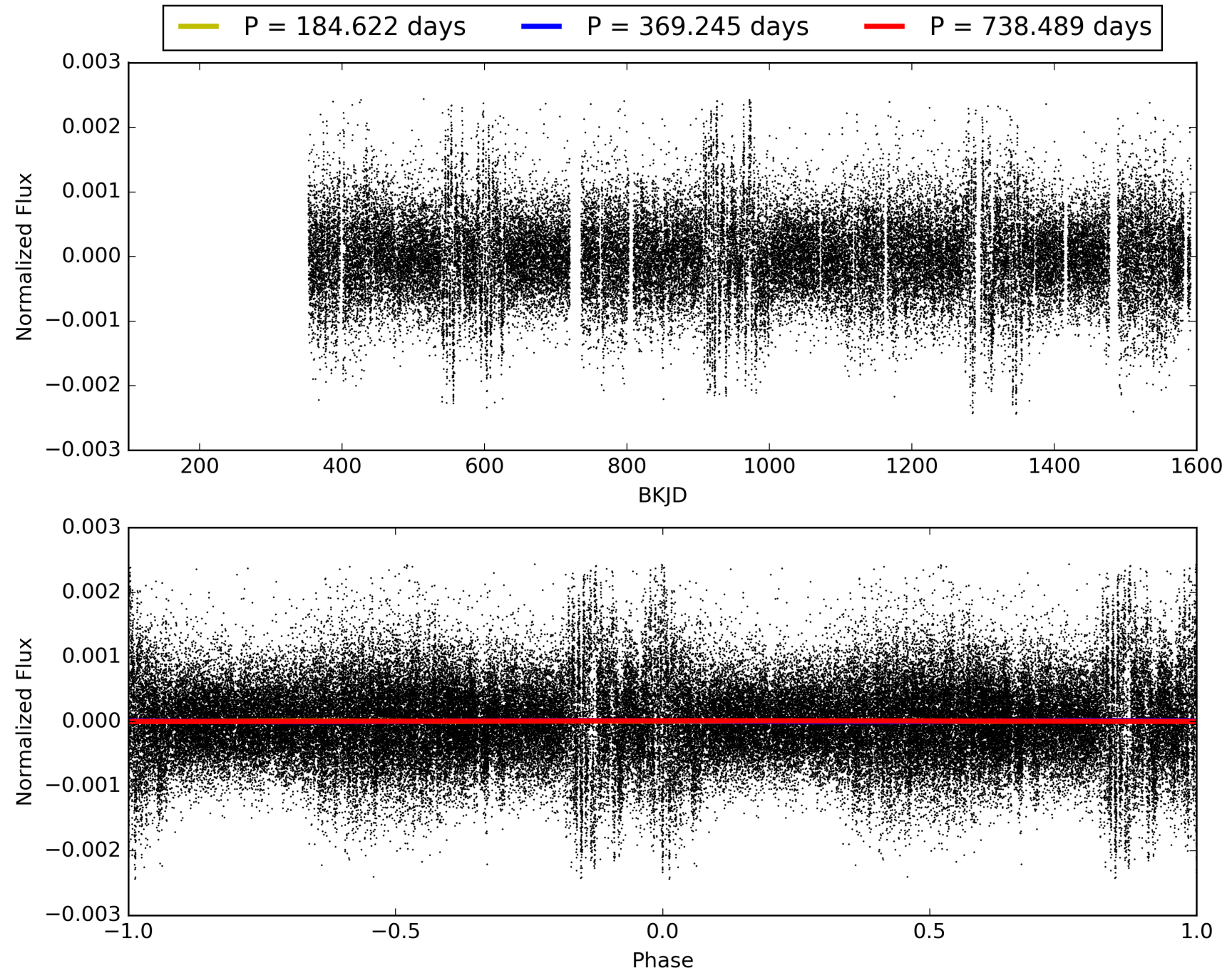
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 00:59:52 Z

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

TCE 007763509-01, PDC Light Curves

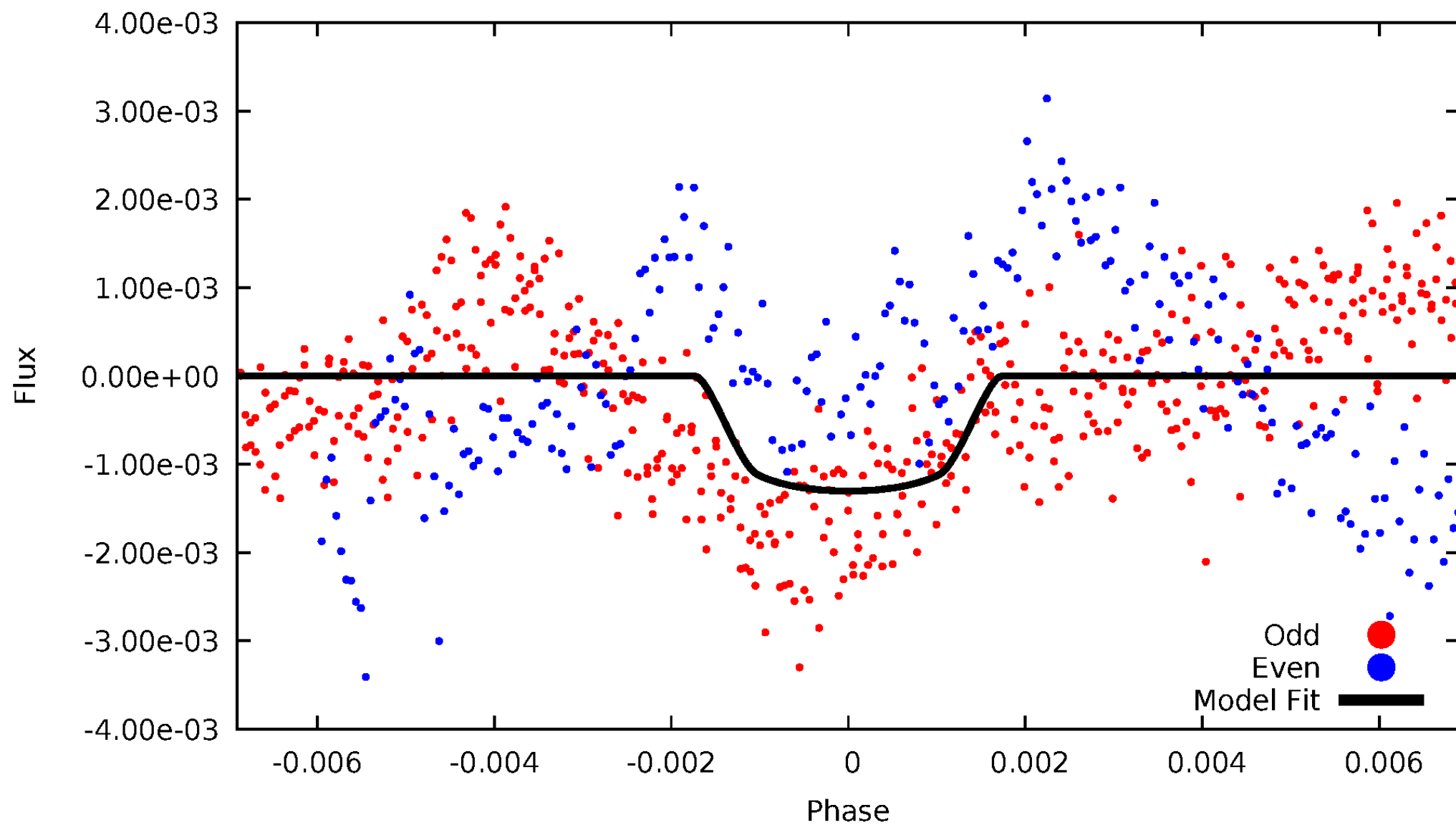


TCE 007763509-01



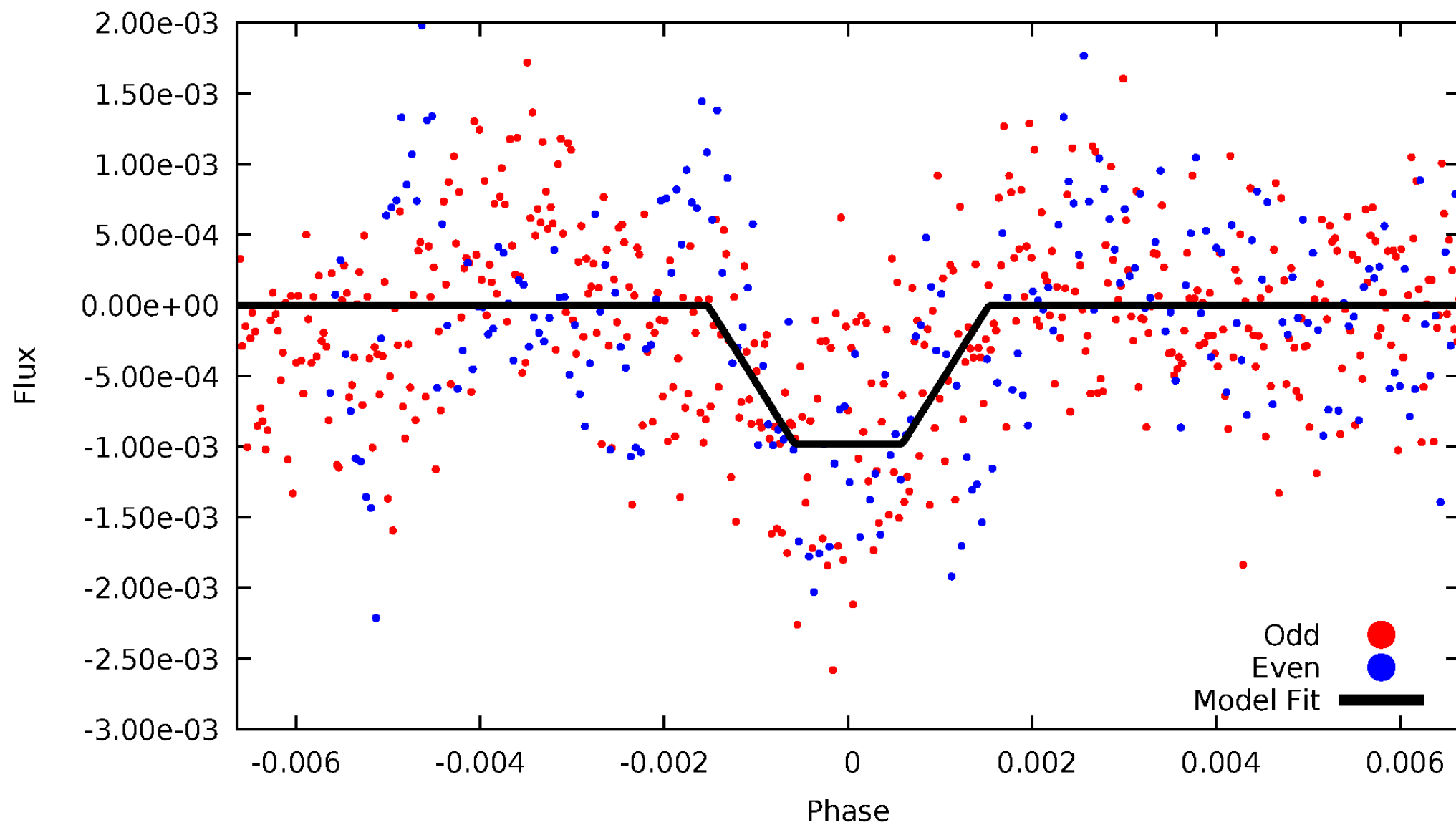
DV Odd/Even

TCE 007763509-01

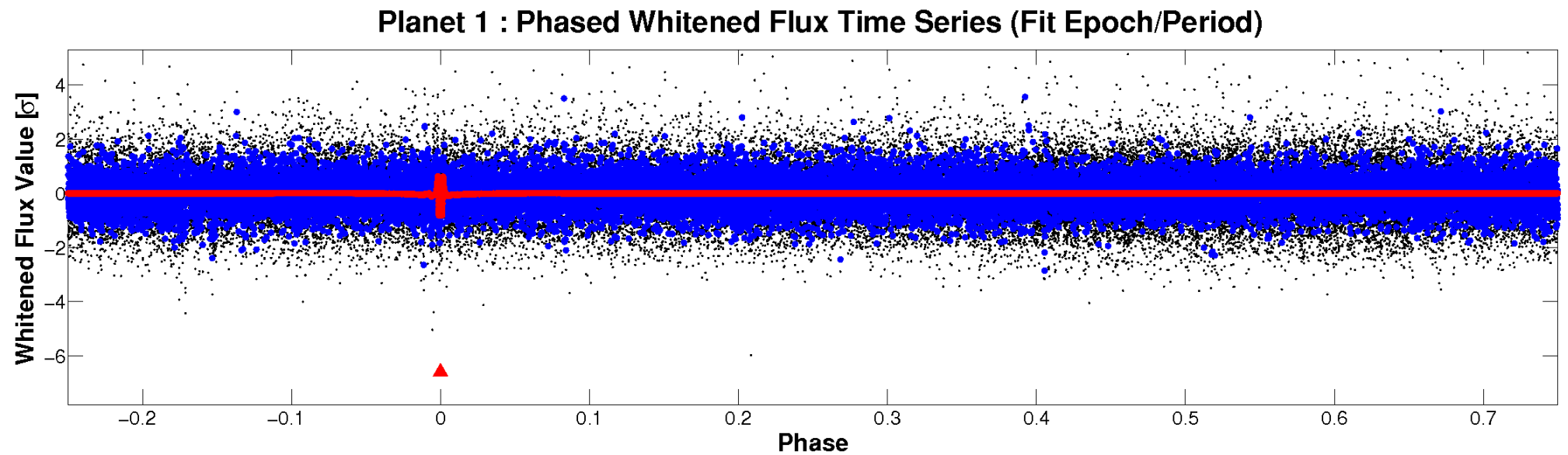
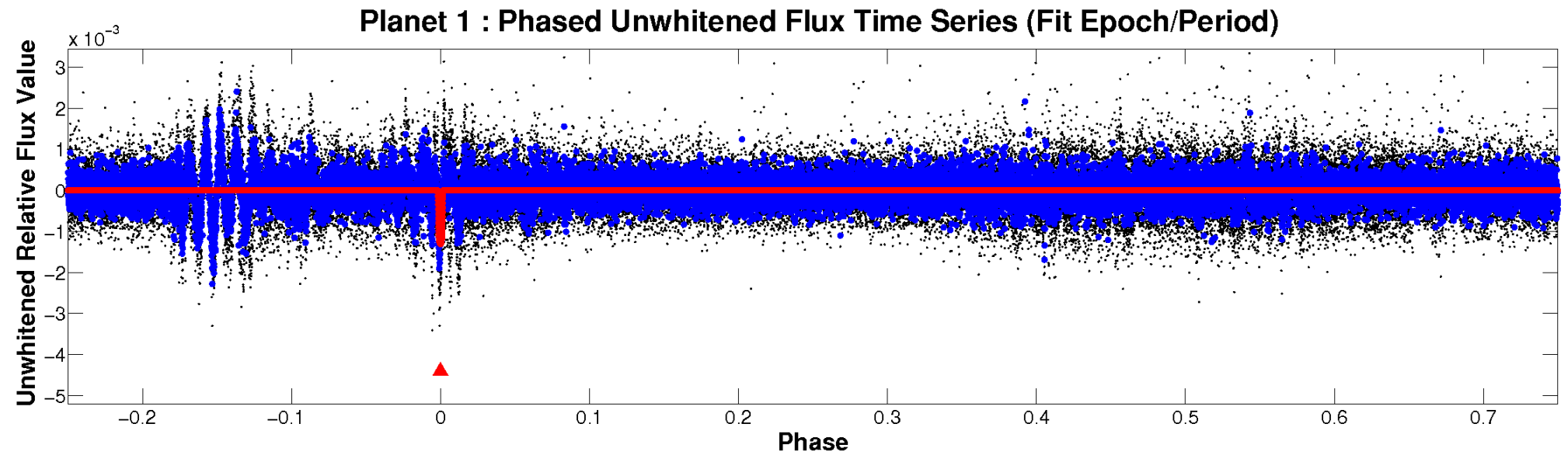


ALT Odd/Even

TCE 007763509-01

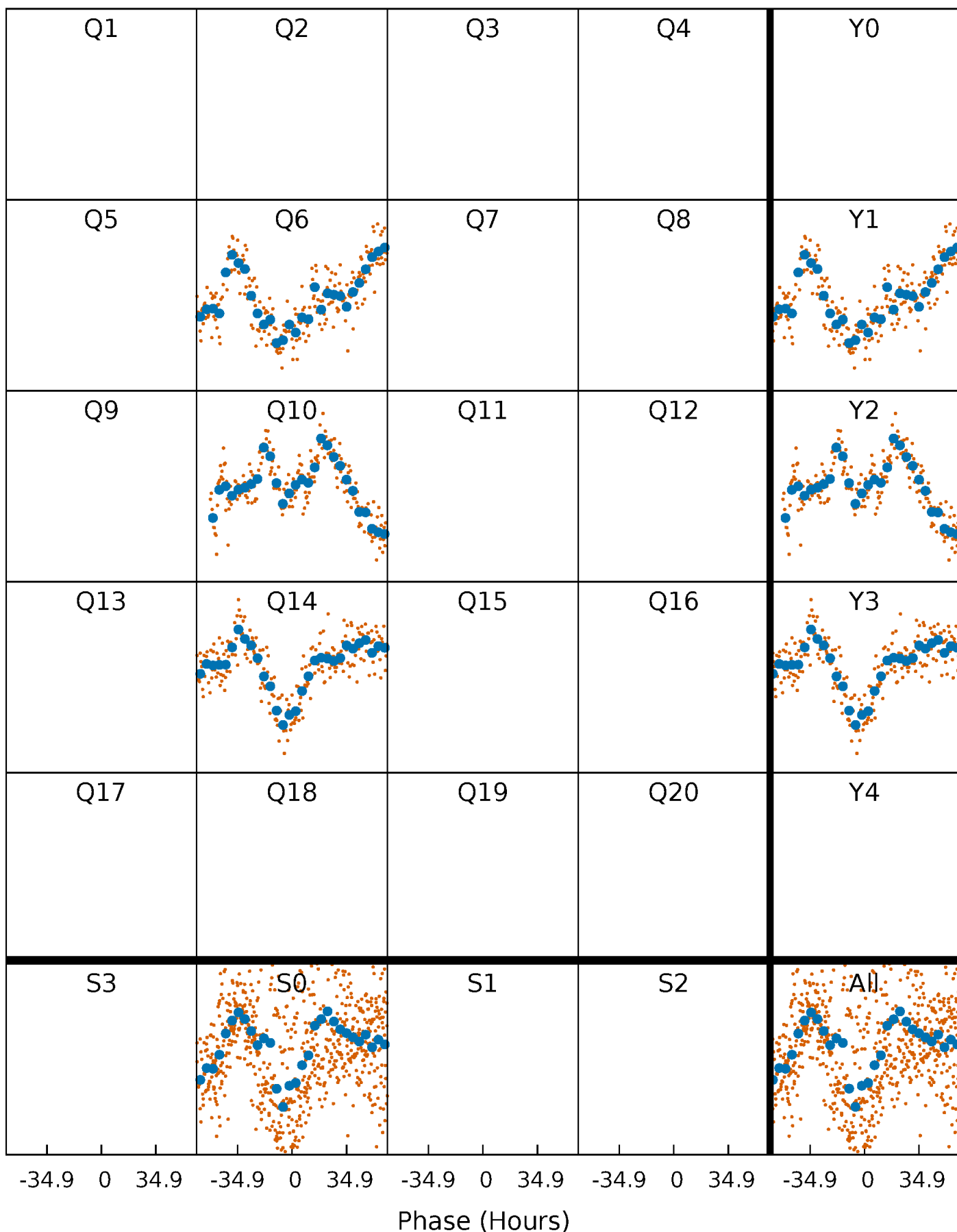


Non-Whitened Vs. Whitened Light Curve



PDC Quarter-Phased Transit Curves

TCE 007763509-01 P=369.244709 Days $T_0=233.796096$ (BKJD)



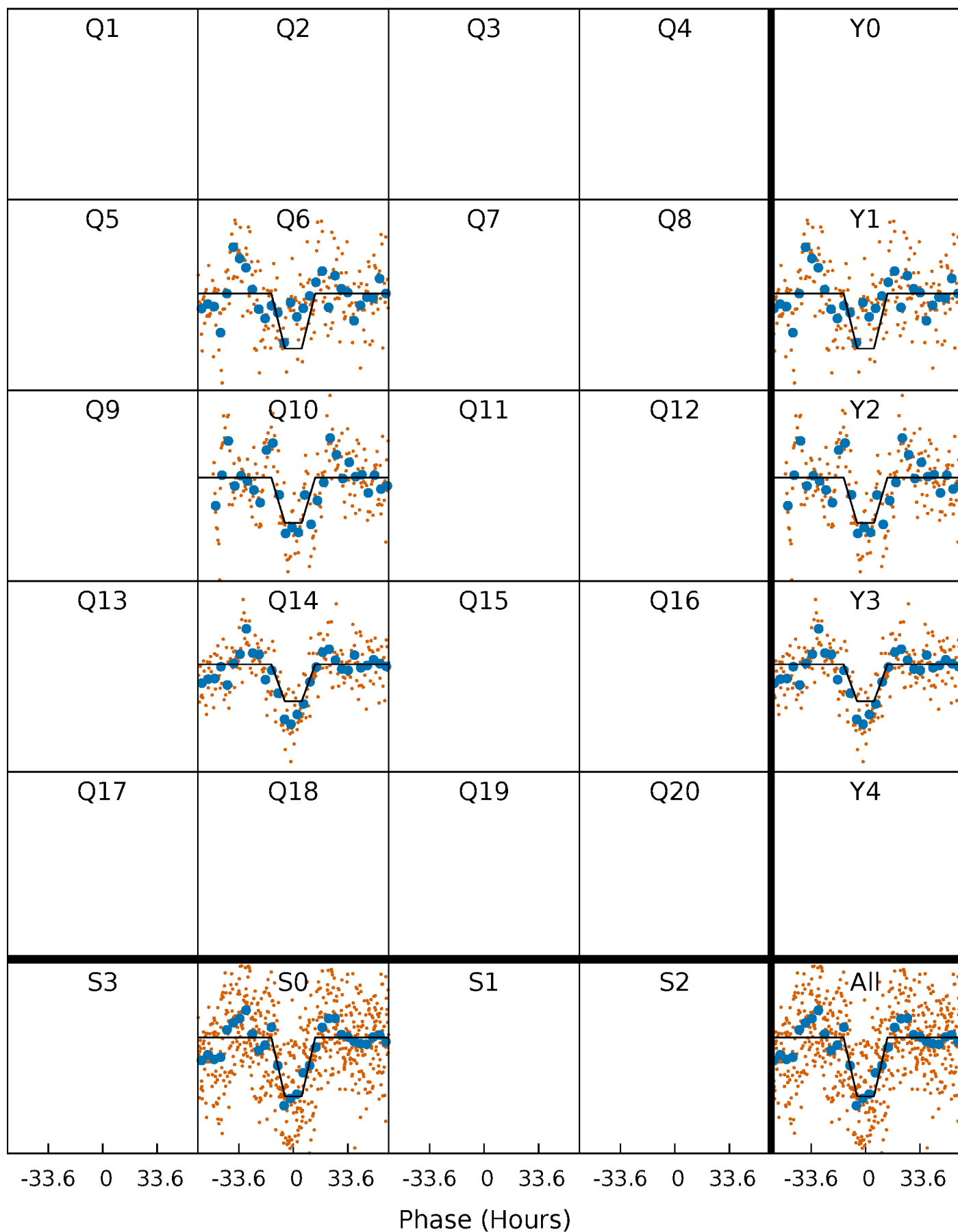
DV Quarter-Phased Transit Curves

TCE 007763509-01 P=369.244709 Days $T_0=233.796096$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

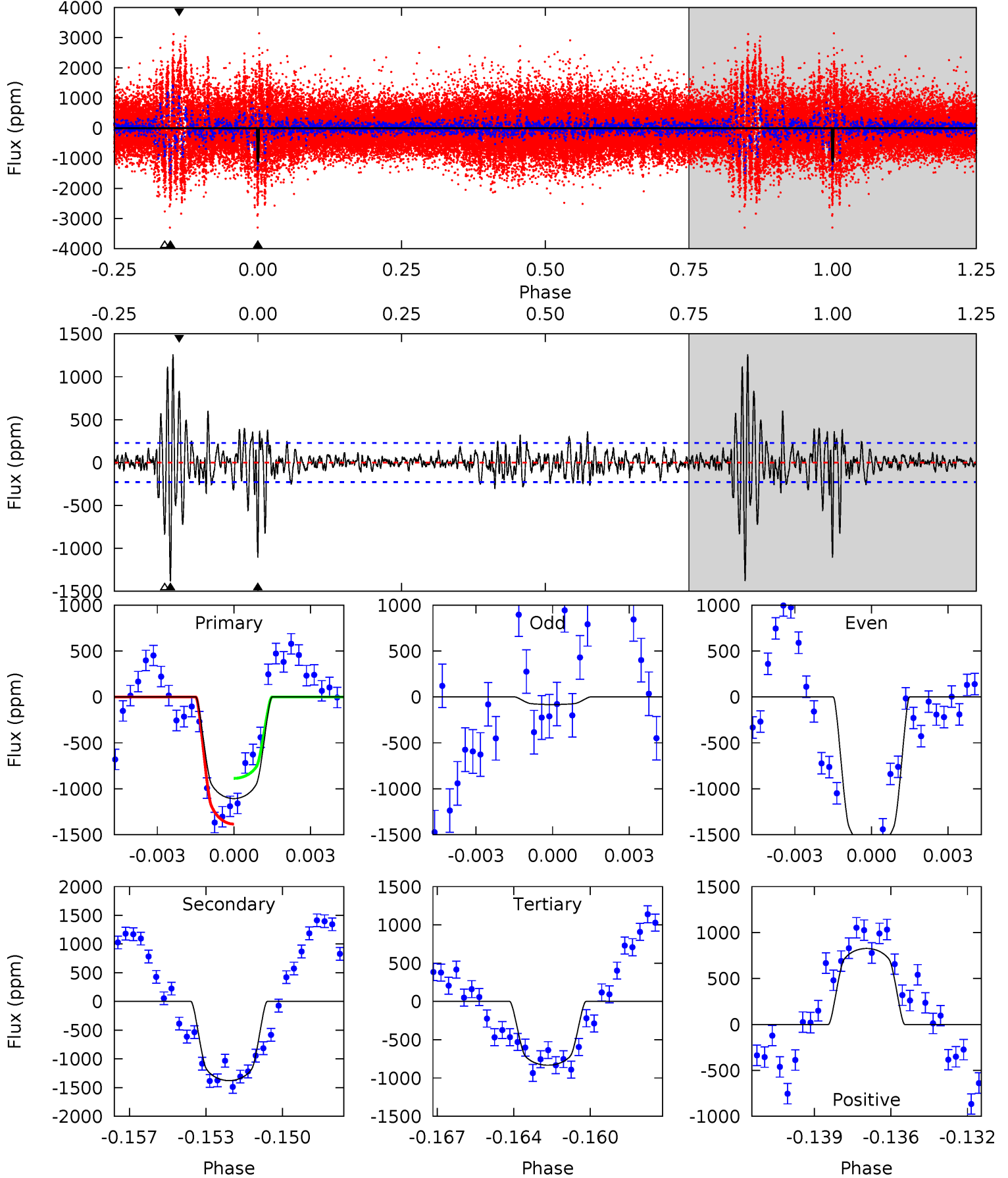
TCE 007763509-01 P=369.220807 Days $T_0=233.726074$ (BKJD)



DV Model-Shift Uniqueness Test

007763509-01, P = 369.244709 Days, E = 233.796096 Days

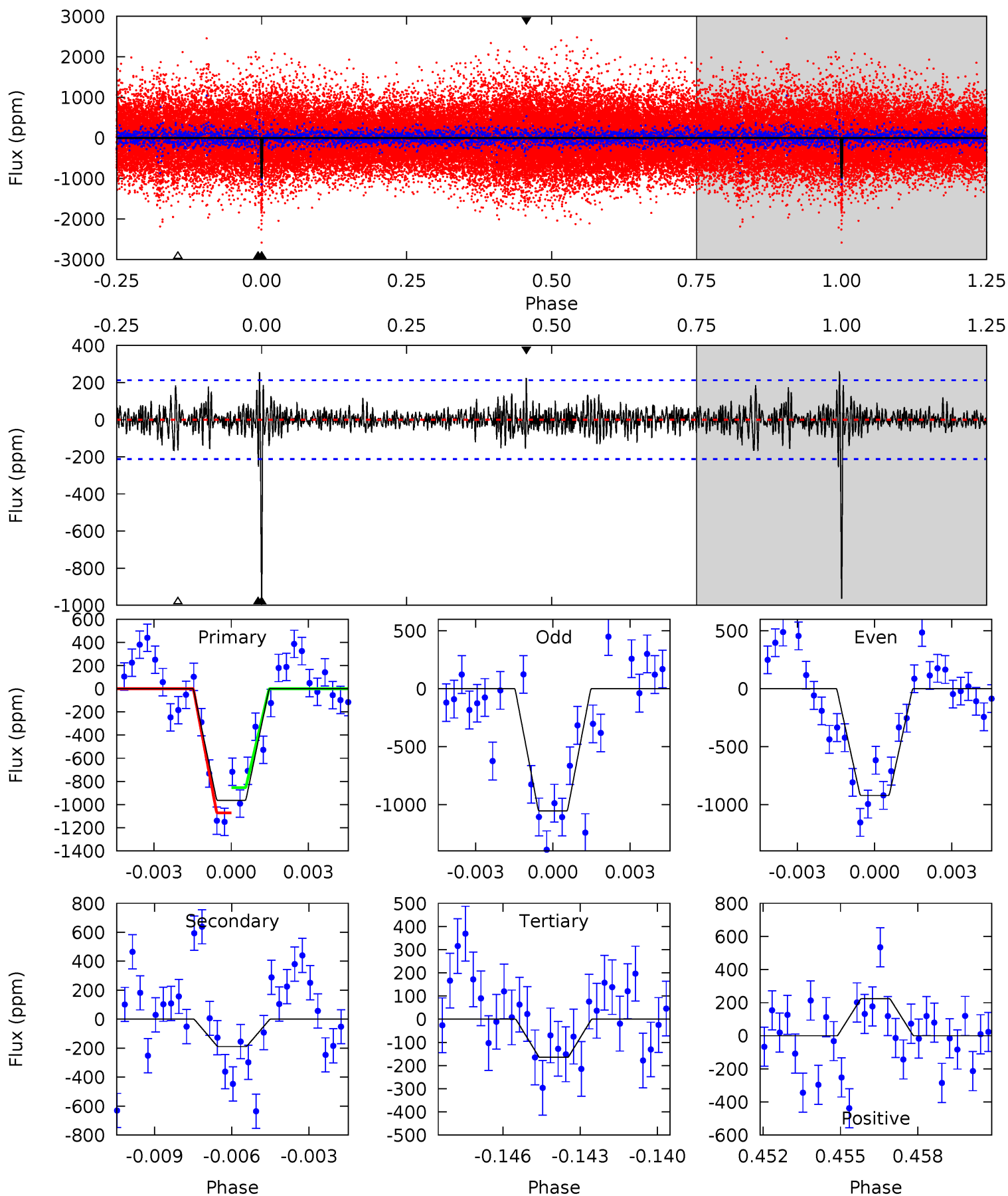
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.4	31.6	19.1	18.9	5.22	2.92	3.67	6.29	6.42	12.5	12.6	16.6	0.76	0.48	5.72



Alt Model-Shift Uniqueness Test

007763509-01, P = 369.220807 Days, E = 233.726074 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.8	4.66	4.06	5.52	5.25	2.96	1.11	19.7	18.3	0.60	-0.86	1.54	0.92	0.21	2.70



Stellar Parameters For KIC 007763509

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5678^{+186}_{-186}	$4.476^{+0.091}_{-0.169}$	$-0.220^{+0.300}_{-0.300}$	$0.892^{+0.231}_{-0.107}$	$0.869^{+0.112}_{-0.082}$	$1.728^{+0.687}_{-0.805}$
	+3%/-3%	+2%/-4%	+136%/-136%	+26%/-12%	+13%/-9%	+40%/-47%
Source	KIC0	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 007763509-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1378 ± 44	$3.95^{+0.58}_{-0.45}$	340^{+25}_{-17}	5479^{+291}_{-247}	44844^{+11567}_{-10555}
Alt.	-189 ± 41	$3.14^{+0.51}_{-0.42}$	341^{+24}_{-17}	4055^{+242}_{-239}	9654^{+4079}_{-3143}

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 $A_{obs} \gg 1.0$

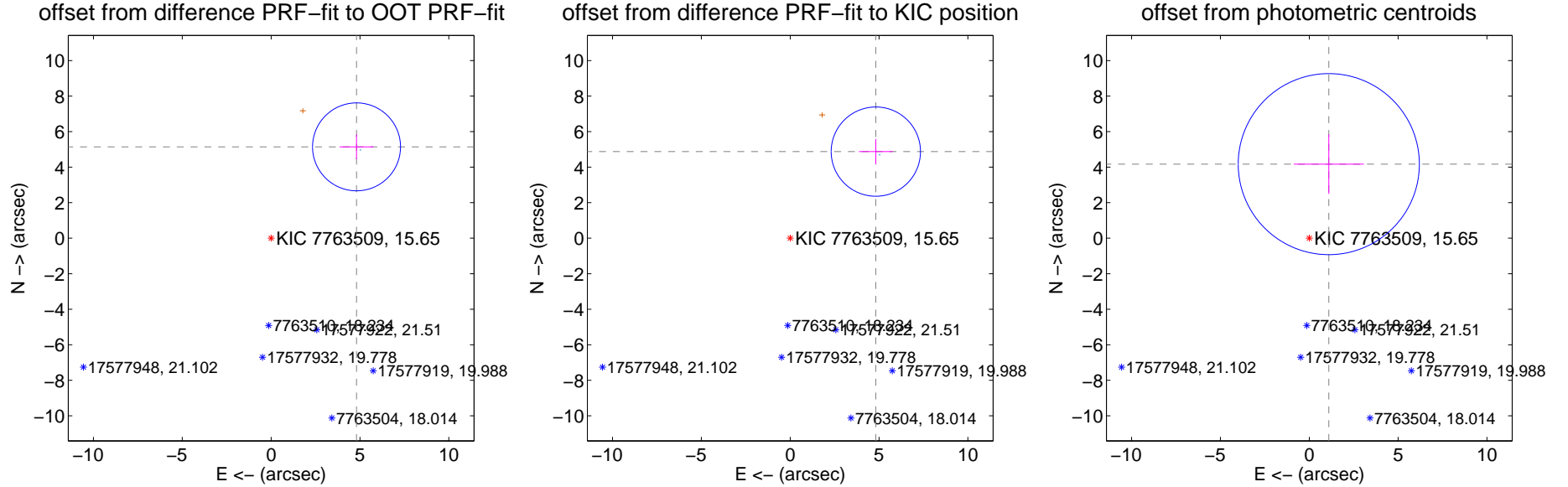
DV Centroid Data

Supplemental centroid analysis for 007763509-01. Kepler magnitude: 15.65. Transit SNR 9.19

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.27 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.039 ± 0.825	8.53	-4.806 ± 0.952	5.143 ± 0.695
PRF-fit source offset from KIC position	6.854 ± 0.838	8.18	-4.819 ± 0.953	4.874 ± 0.707
photometric centroid source offset	4.31 ± 1.70	2.54	-1.10 ± 1.97	4.17 ± 1.68

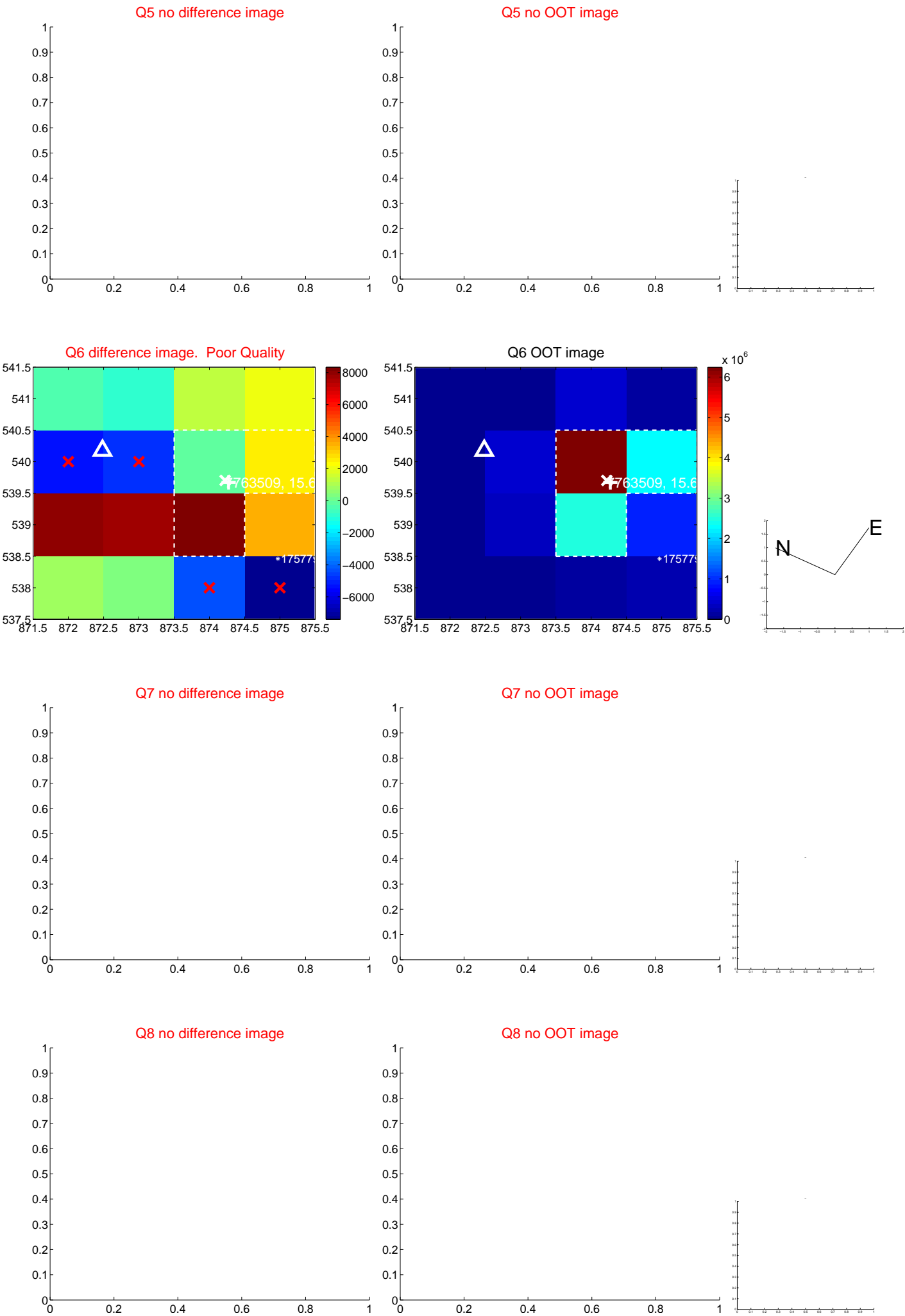


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



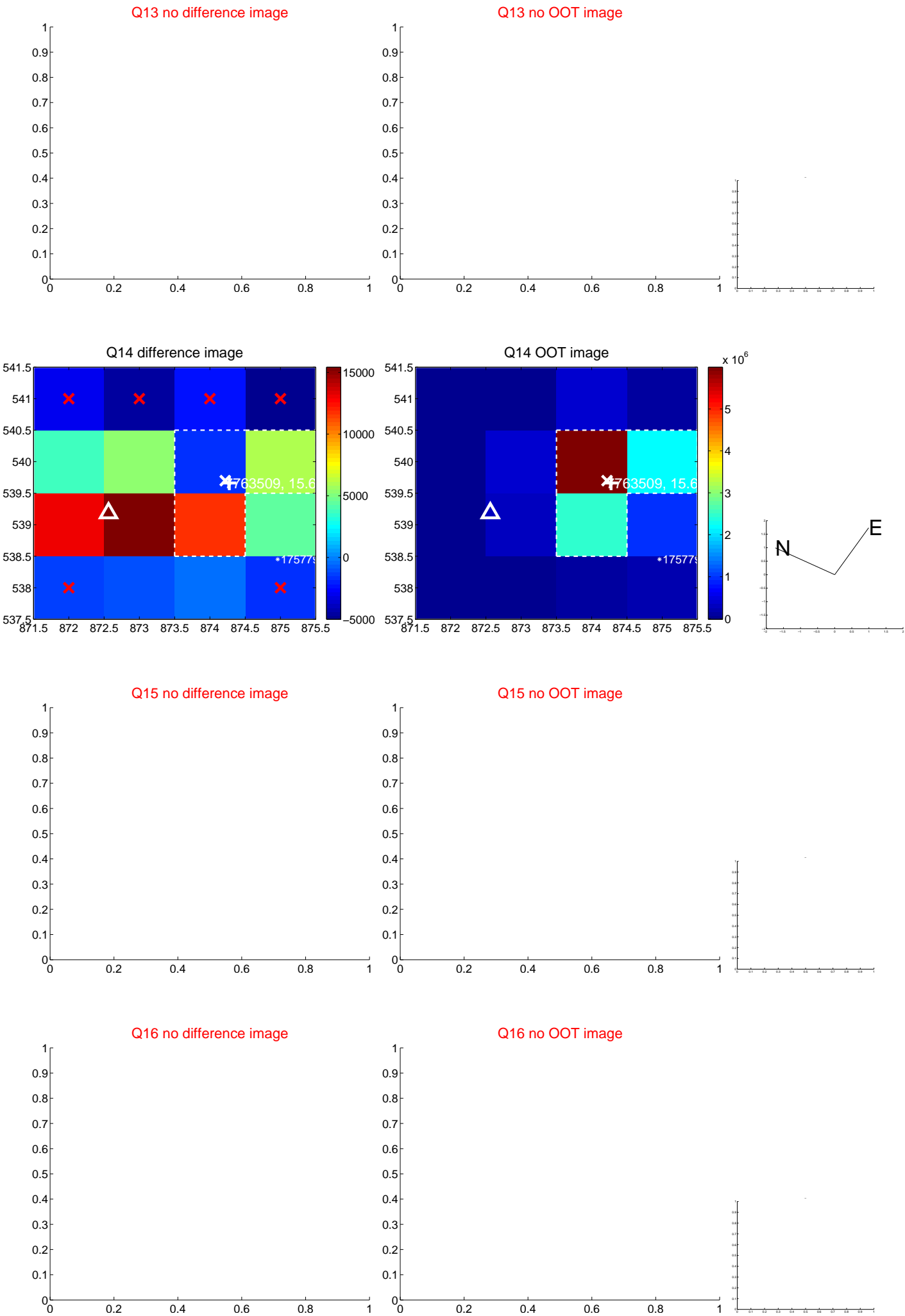
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



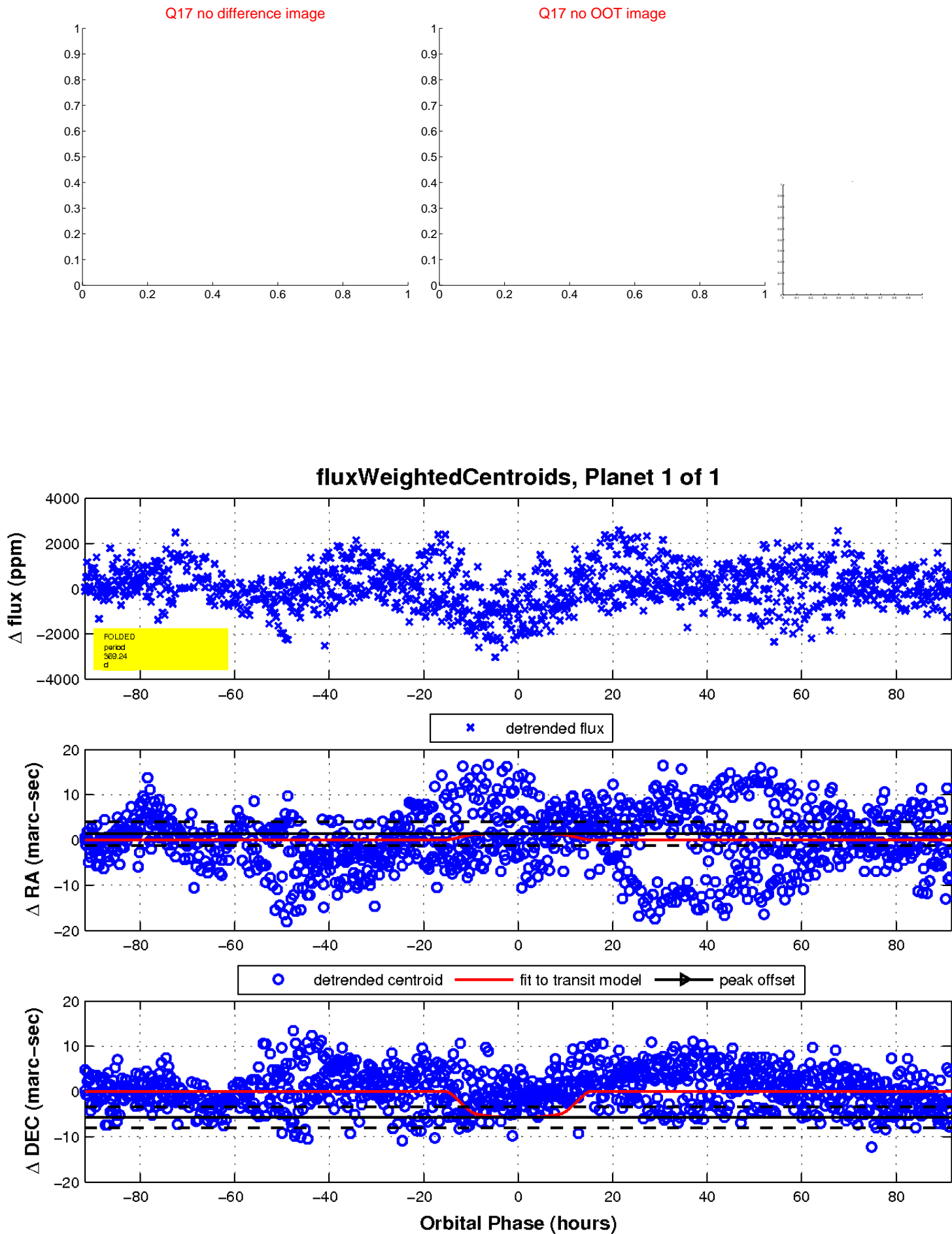
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: 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

