

KIC 007597641

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})
007597641-01	OBS	No	485.322148	520.919690	1049.2	6.344	8.6	8.5	0.85	4897	3.04	0.29

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007597641-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—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.

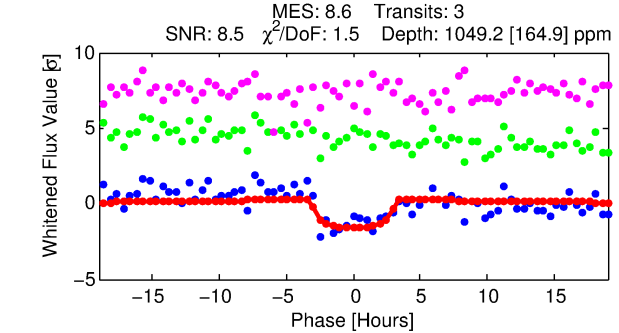
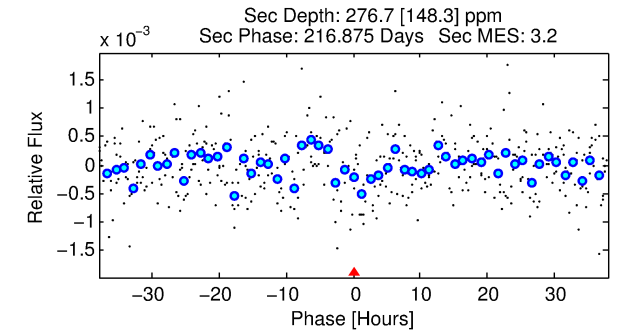
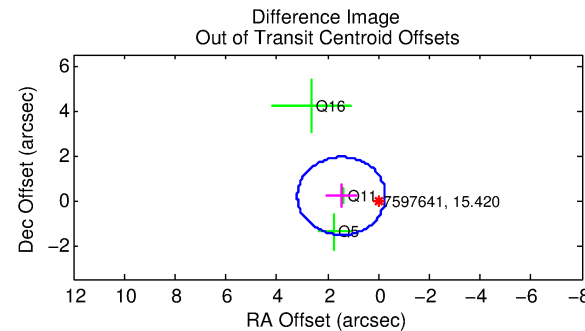
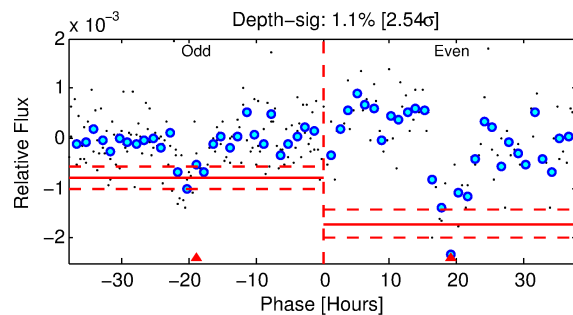
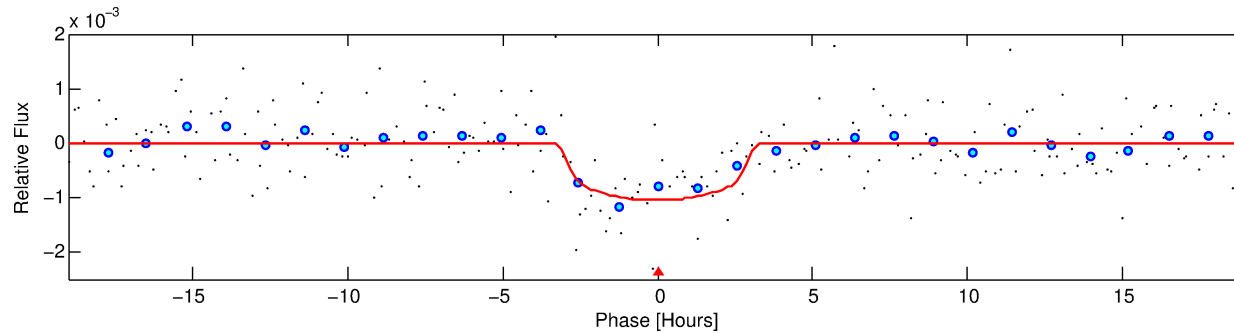
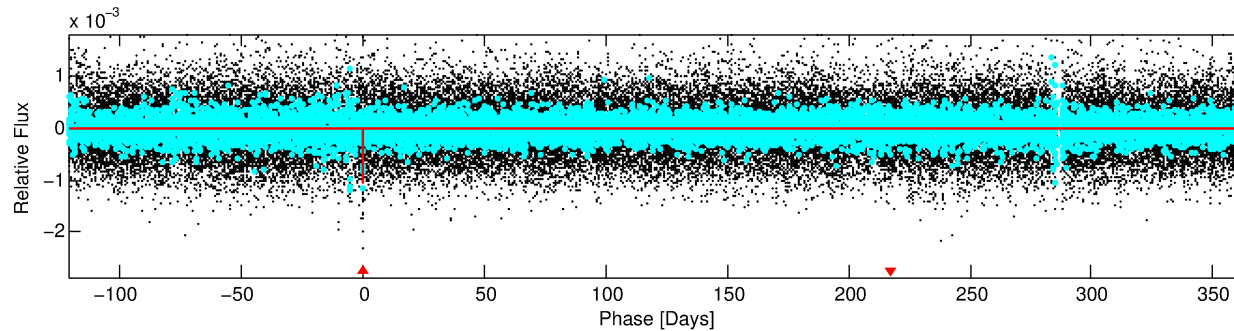
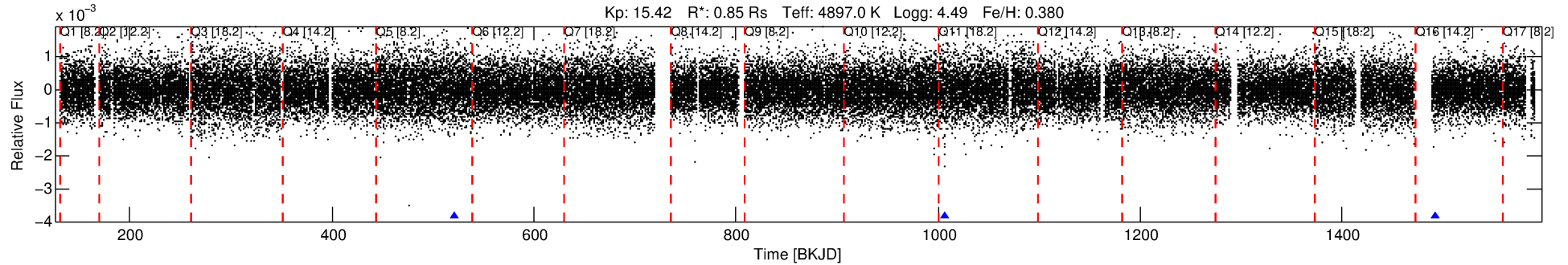
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007597641-01

No Significant Match Found

DV One-Page Summary

KIC: 7597641 Candidate: 1 of 1 Period: 485.322 d



DV Fit Results:

Period = 485.32215 [0.01151] d
Epoch = 520.9197 [0.0160] BKJD
Rp/R* = 0.0327 [0.0250]
a/R* = 405.22 [1030.63]
b = 0.77 [1.41]
Seff = 0.30 [0.06]
Teq = 188 [10] K
Rp = 3.04 [2.36] Re
a = 1.1281 [0.1173] AU
Ag = 20902.45 [34127.78] [0.61] σ
Teffp = 3494 [1423] K [2.32] σ

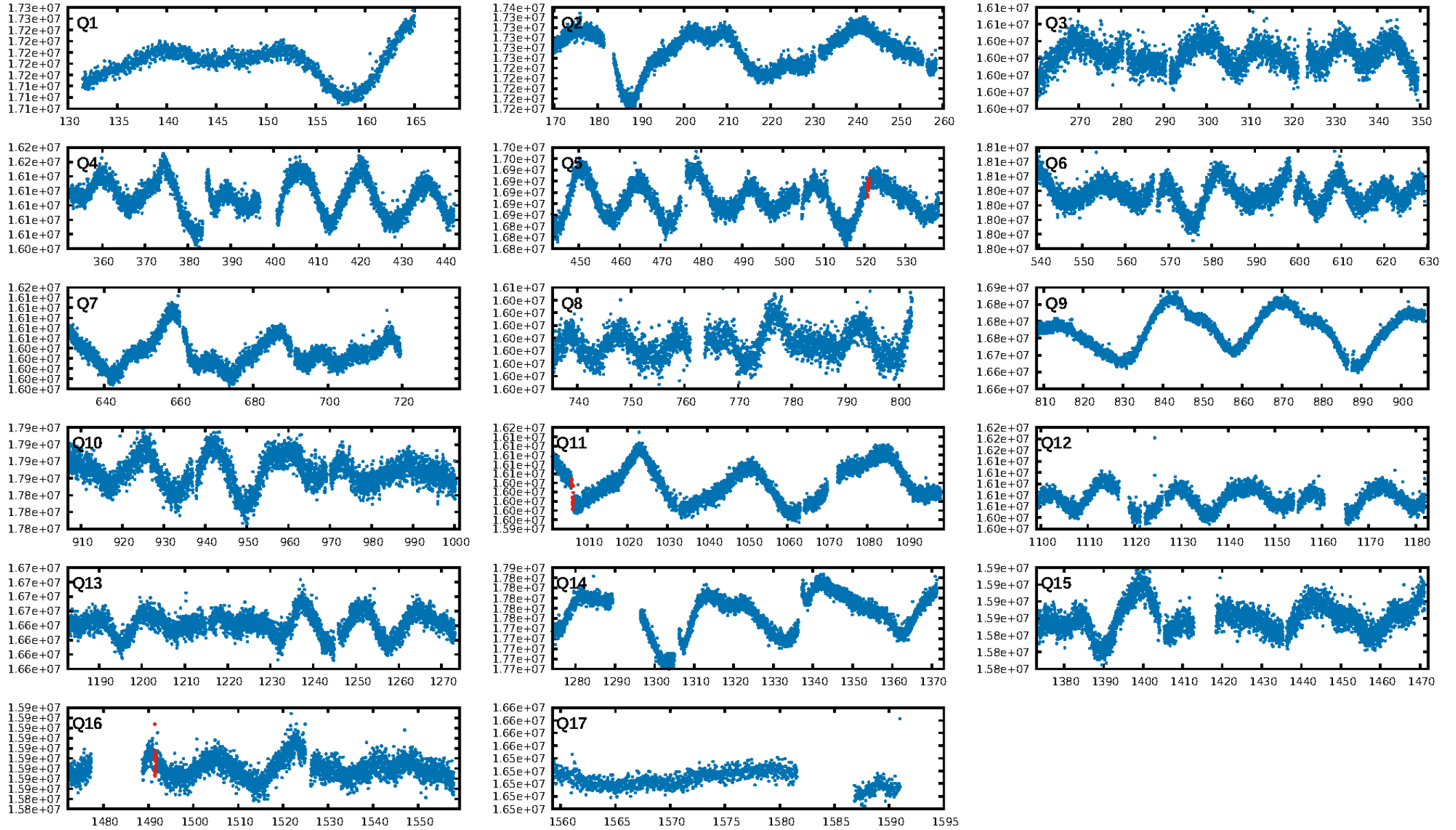
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.2%
ModelChiSquareGof-sig: 70.1%
Bootstrap-pfa: 5.91e-14
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.044
Centroid-sig: 5.5%
Centroid-so: 2.022 arcsec [1.56 σ]
OotOffset-rm: 1.469 arcsec [2.55 σ]
KicOffset-rm: 1.447 arcsec [2.52 σ]
OotOffset-st: 0/1/1/1 [3]
KicOffset-st: 0/1/1/1 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [3/3]

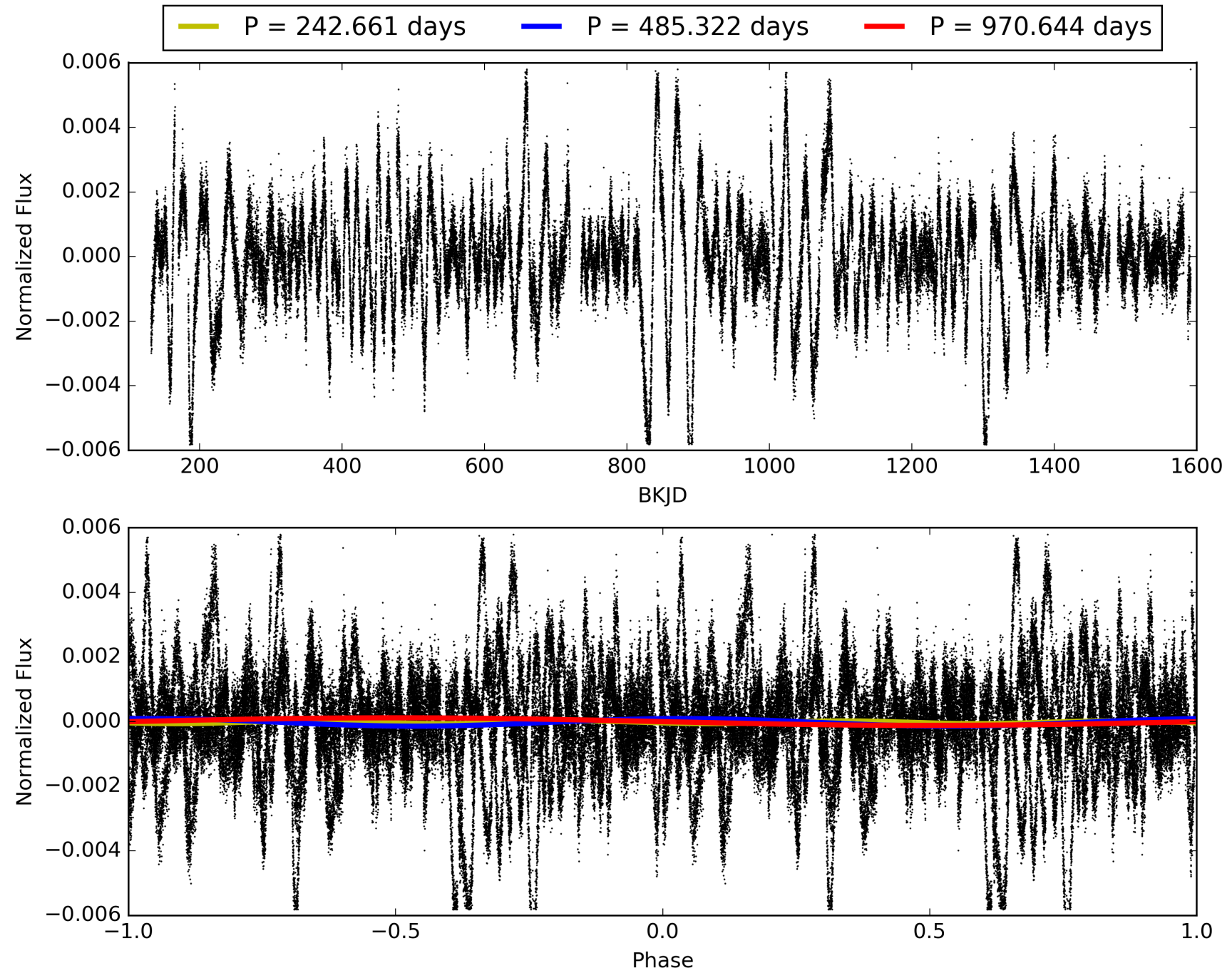
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 14:58:27 Z

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

TCE 007597641-01, PDC Light Curves

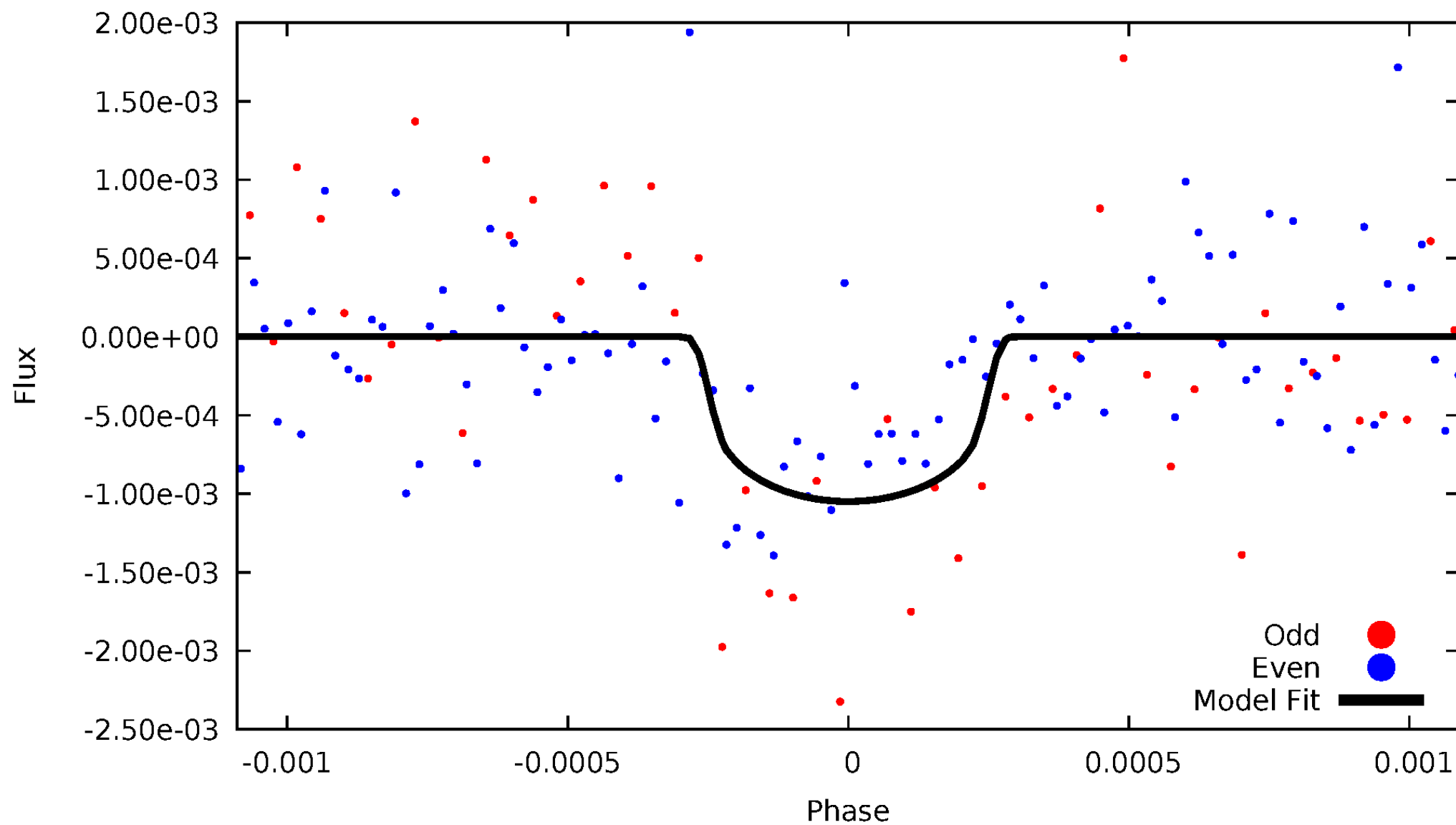


TCE 007597641-01



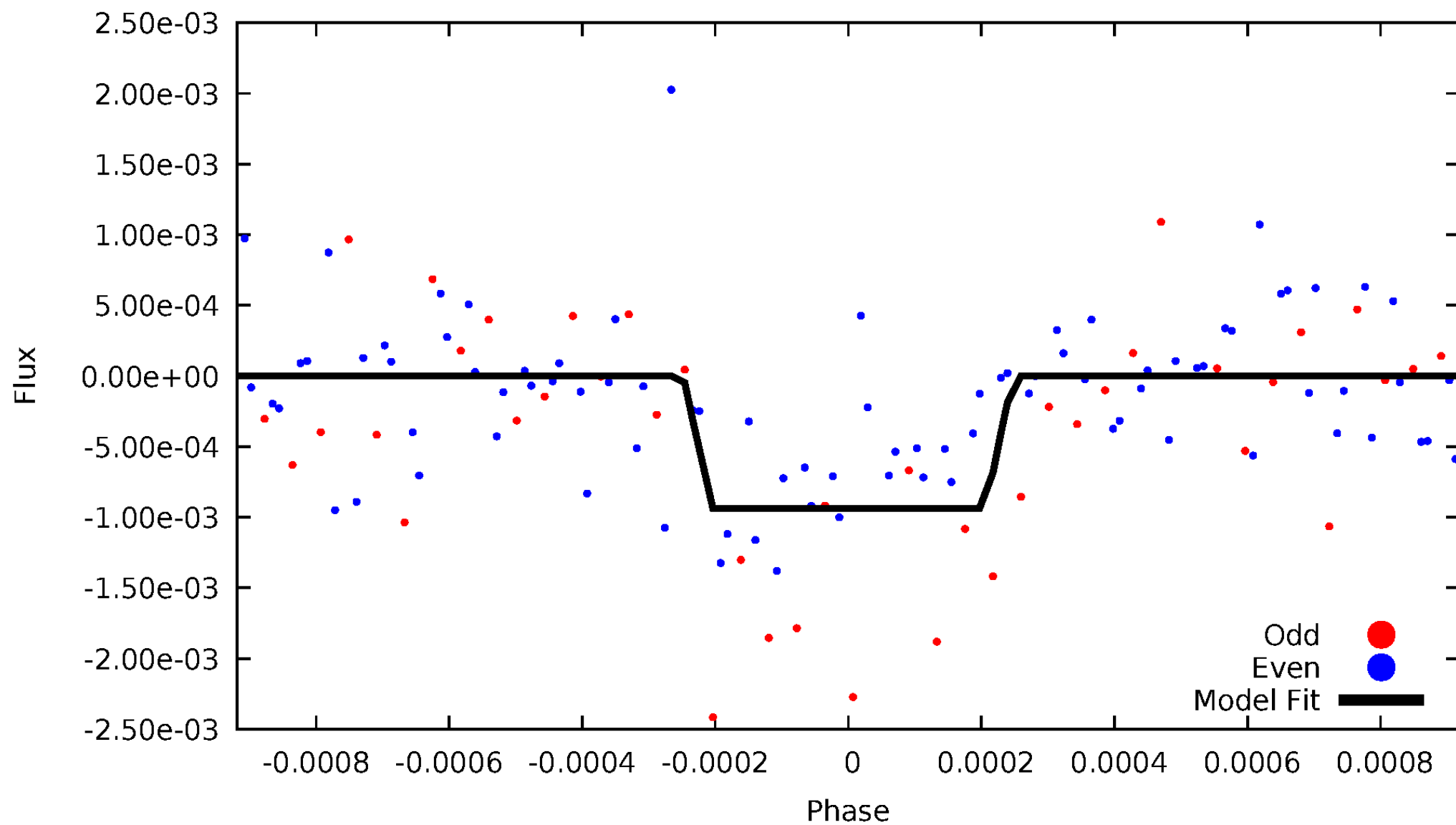
DV Odd/Even

TCE 007597641-01



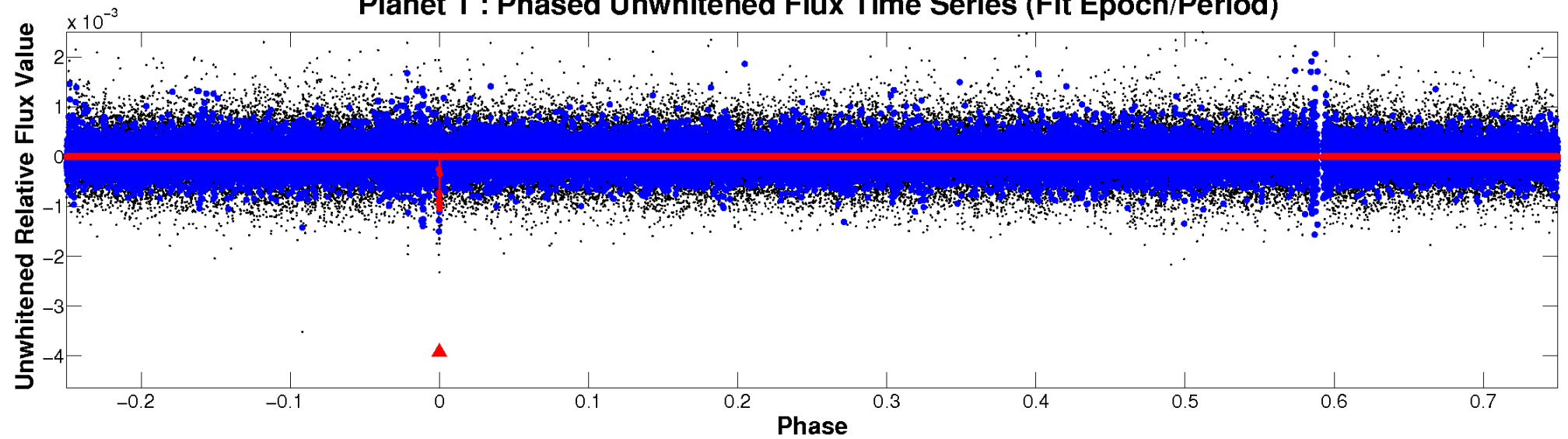
ALT Odd/Even

TCE 007597641-01

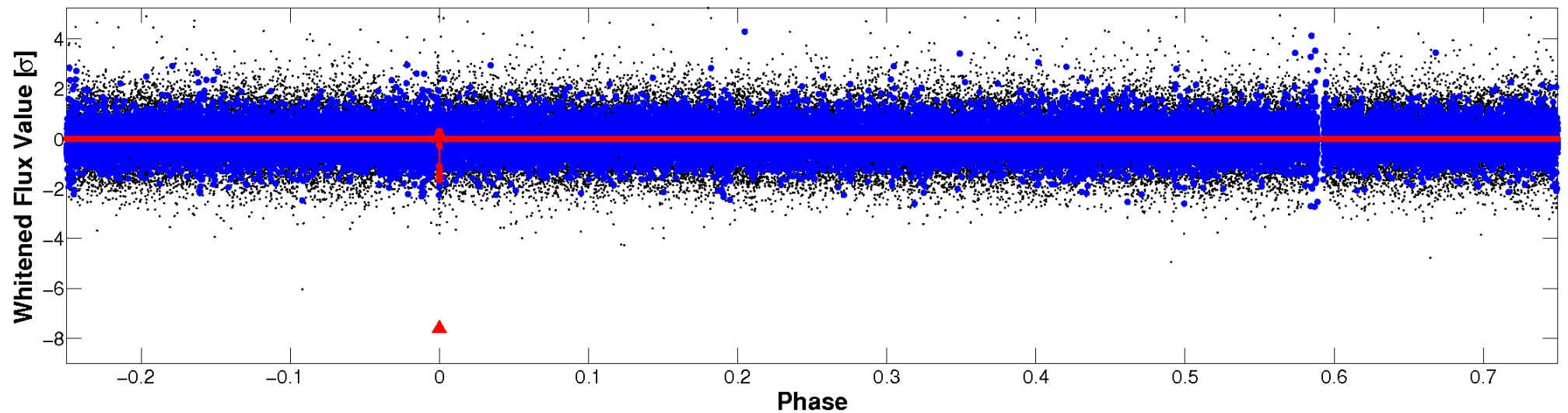


Non-Whitened Vs. Whitened Light Curve

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

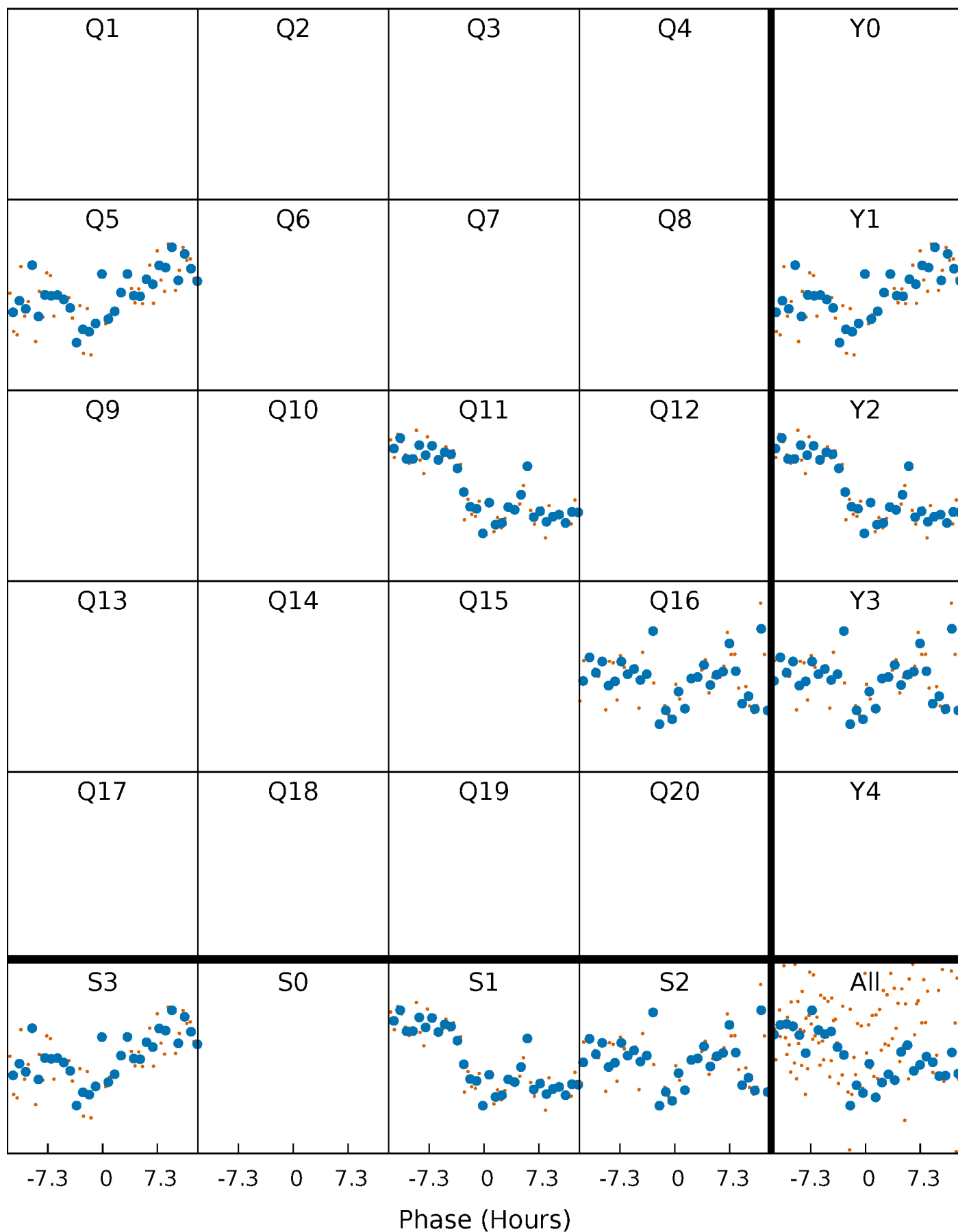


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



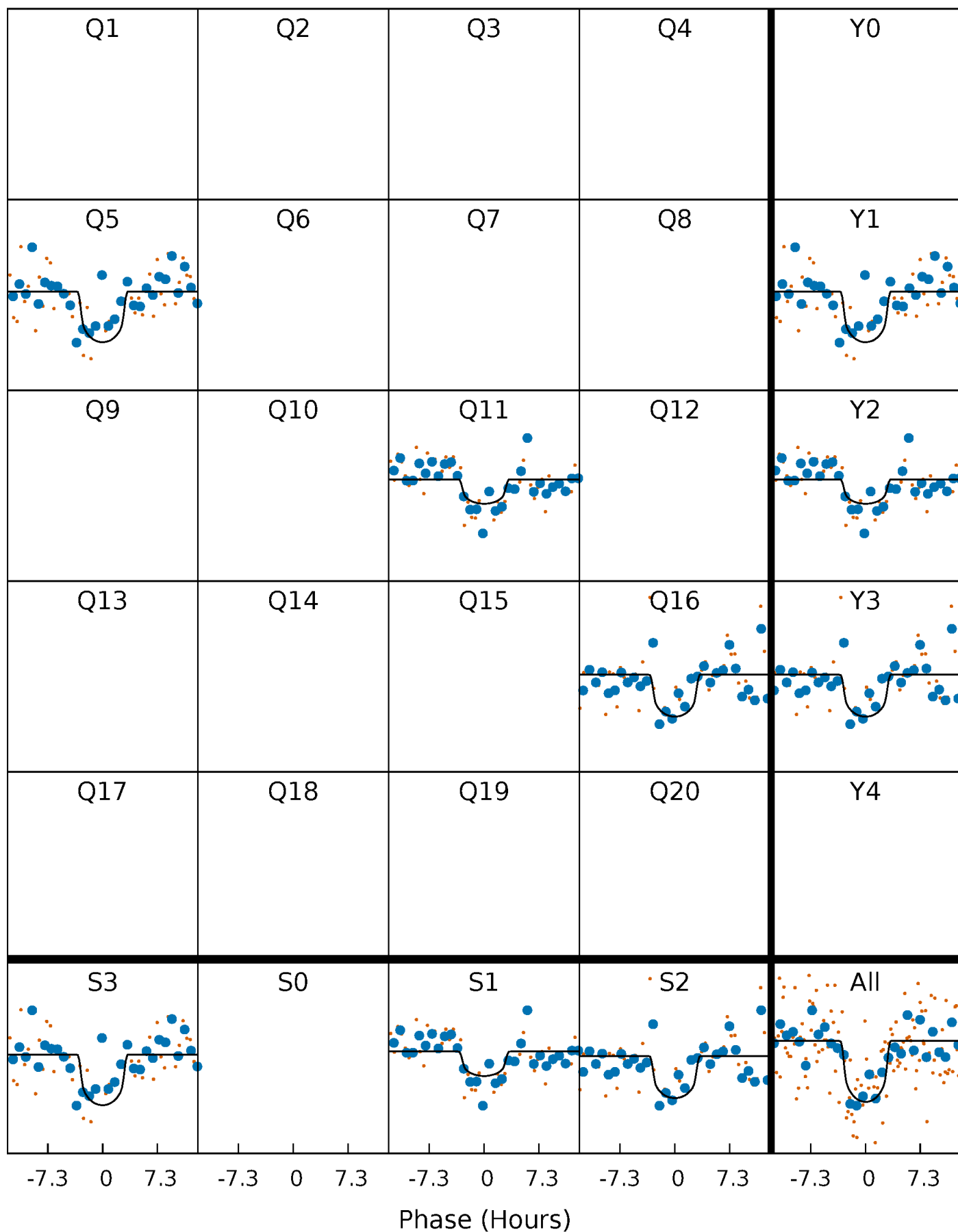
PDC Quarter-Phased Transit Curves

TCE 007597641-01 P=485.322149 Days $T_0=520.919690$ (BKJD)



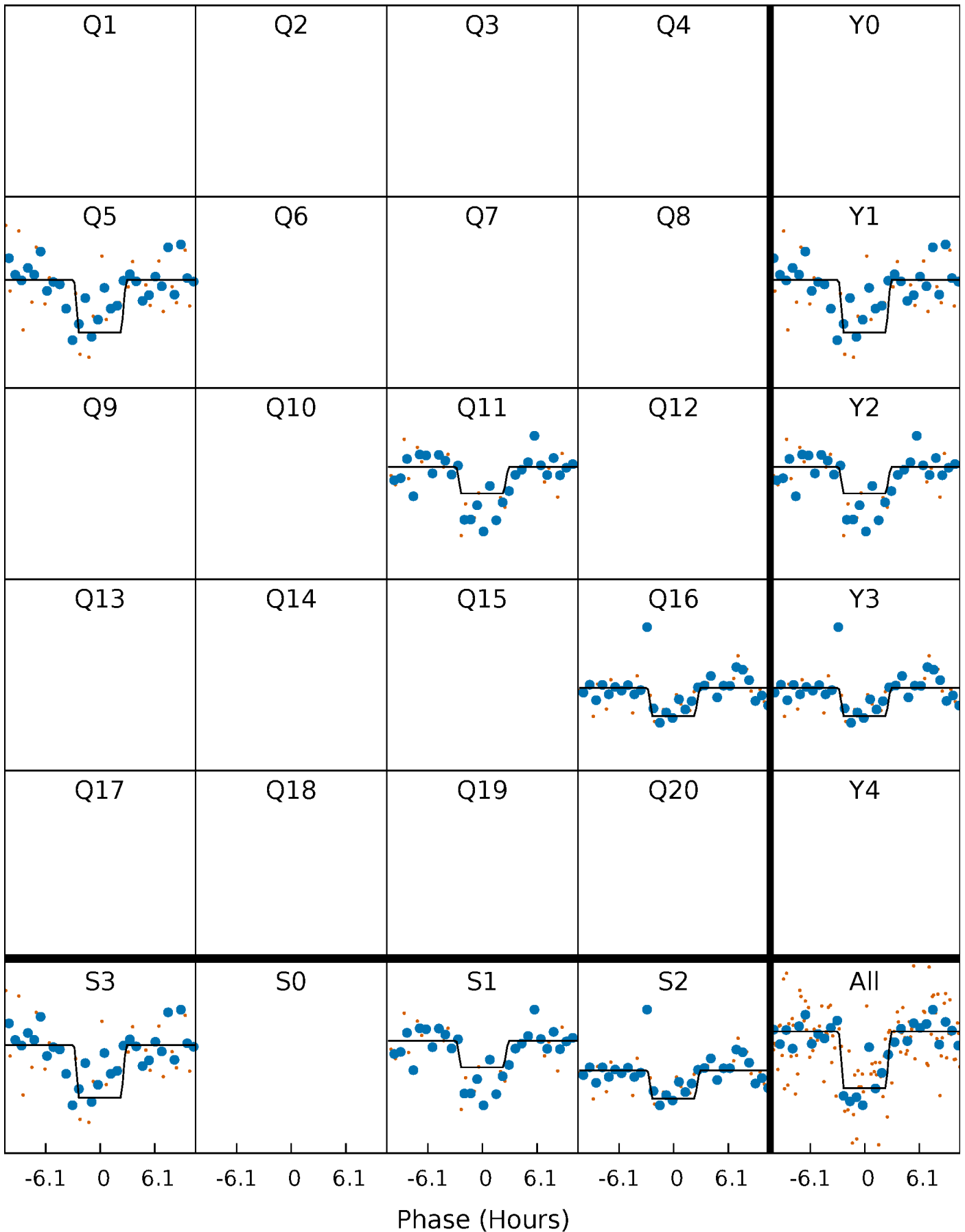
DV Quarter-Phased Transit Curves

TCE 007597641-01 P=485.322149 Days $T_0=520.919690$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

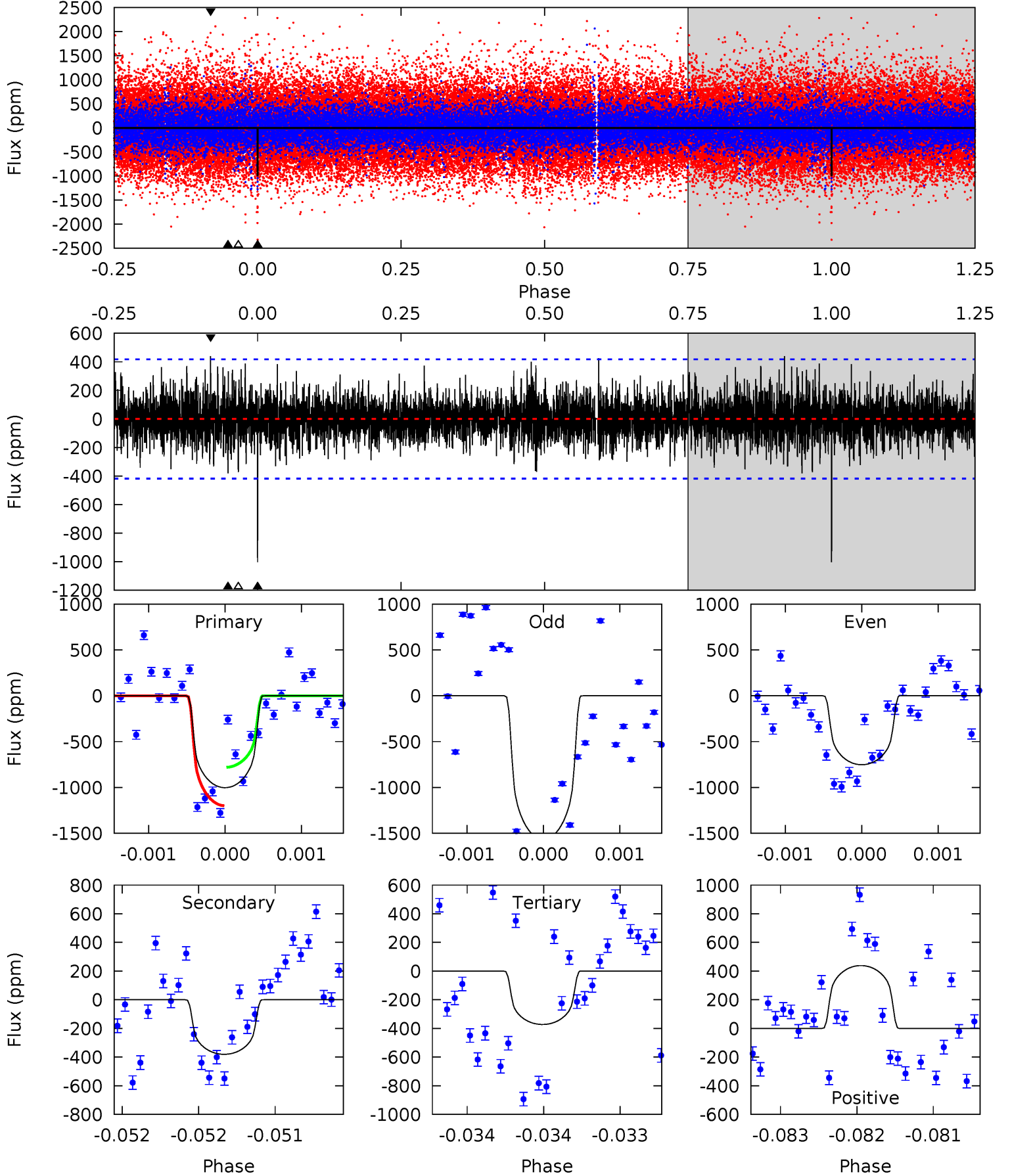
TCE 007597641-01 P=485.324295 Days $T_0=520.907190$ (BKJD)



DV Model-Shift Uniqueness Test

007597641-01, P = 485.322149 Days, E = 35.597541 Days

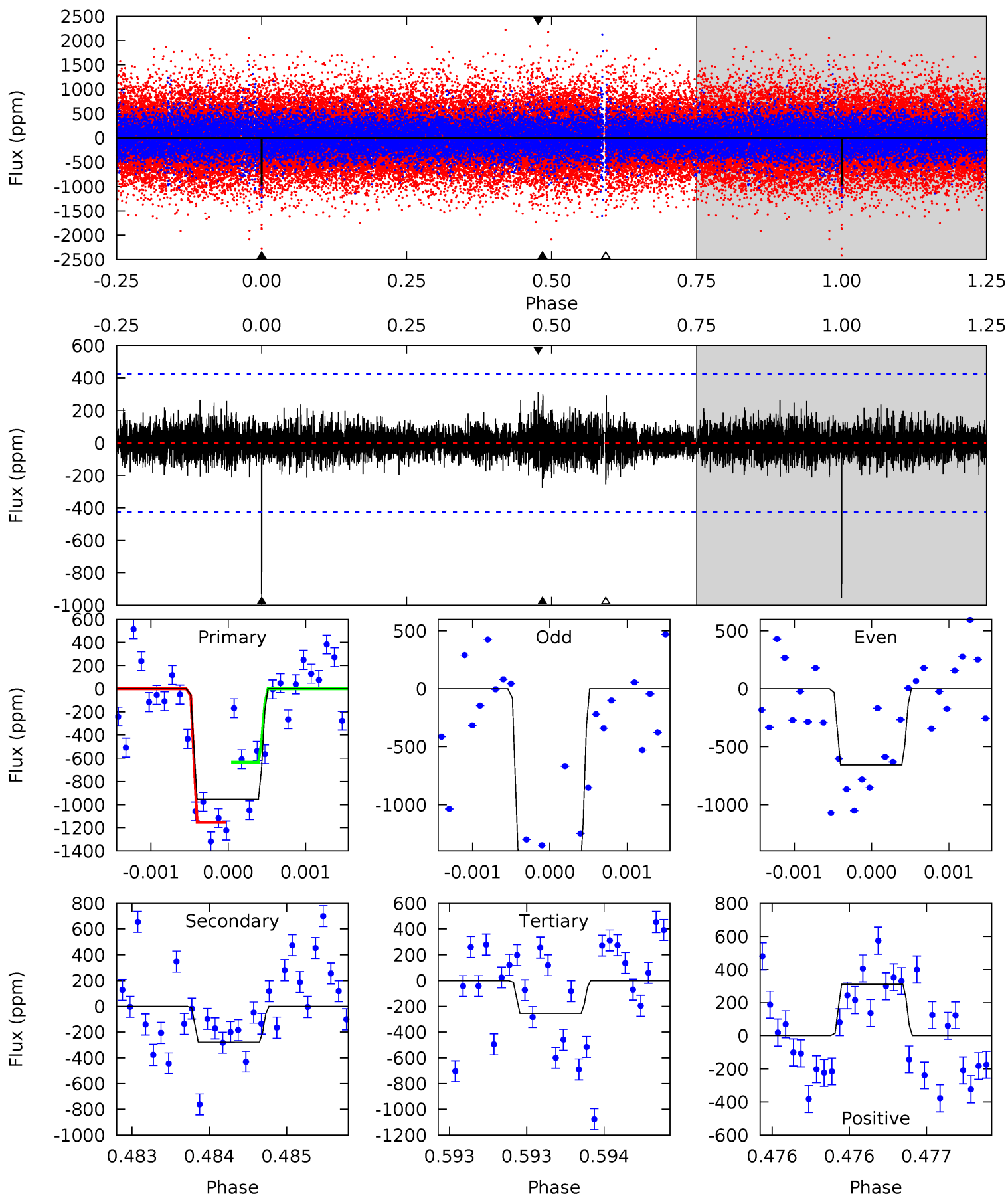
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.3	5.05	4.94	5.82	5.54	3.44	1.40	8.36	7.49	0.11	-0.77	5.08	1.24	0.30	2.78



Alt Model-Shift Uniqueness Test

007597641-01, P = 485.324295 Days, E = 35.582895 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.5	3.63	3.34	4.08	5.57	3.48	0.82	9.16	8.41	0.30	-0.45	5.67	1.36	0.25	3.35



Stellar Parameters For KIC 007597641

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4897^{+145}_{-145}	$4.485^{+0.097}_{-0.060}$	$0.380^{+0.050}_{-0.300}$	$0.854^{+0.062}_{-0.093}$	$0.812^{+0.052}_{-0.047}$	$1.839^{+0.750}_{-0.348}$
	+3%/-3%	+2%/-1%	+13%/-79%	+7%/-11%	+6%/-6%	+41%/-19%
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 007597641-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-381 ± 75	$3.24^{+2.22}_{-1.88}$	261^{+10}_{-10}	3920^{+1638}_{-645}	$24648^{+121070}_{-16136}$
Alt.	-277 ± 76	$3.14^{+2.13}_{-1.87}$	262^{+10}_{-10}	3737^{+1462}_{-586}	18878^{+90070}_{-12197}

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

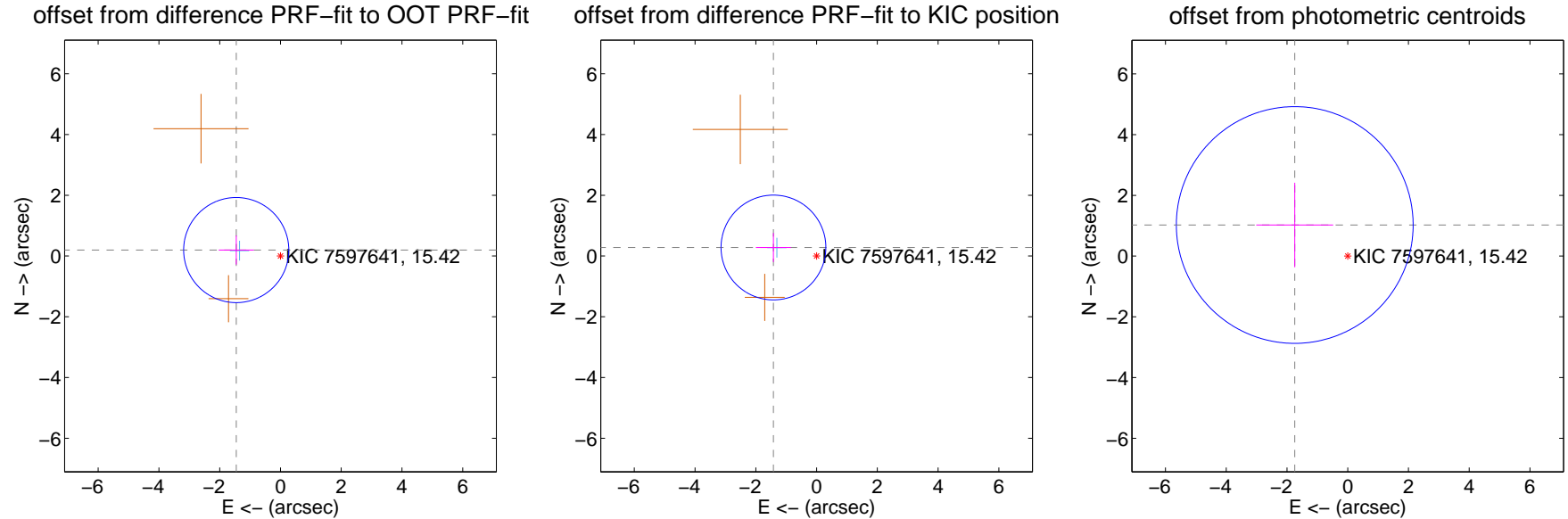
DV Centroid Data

Supplemental centroid analysis for 007597641-01. Kepler magnitude: 15.42. Transit SNR 8.53

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.469 ± 0.577	2.55	1.456 ± 0.578	0.196 ± 0.478
PRF-fit source offset from KIC position	1.447 ± 0.575	2.52	1.419 ± 0.578	0.281 ± 0.478
photometric centroid source offset	2.02 ± 1.30	1.56	1.74 ± 1.27	1.02 ± 1.39

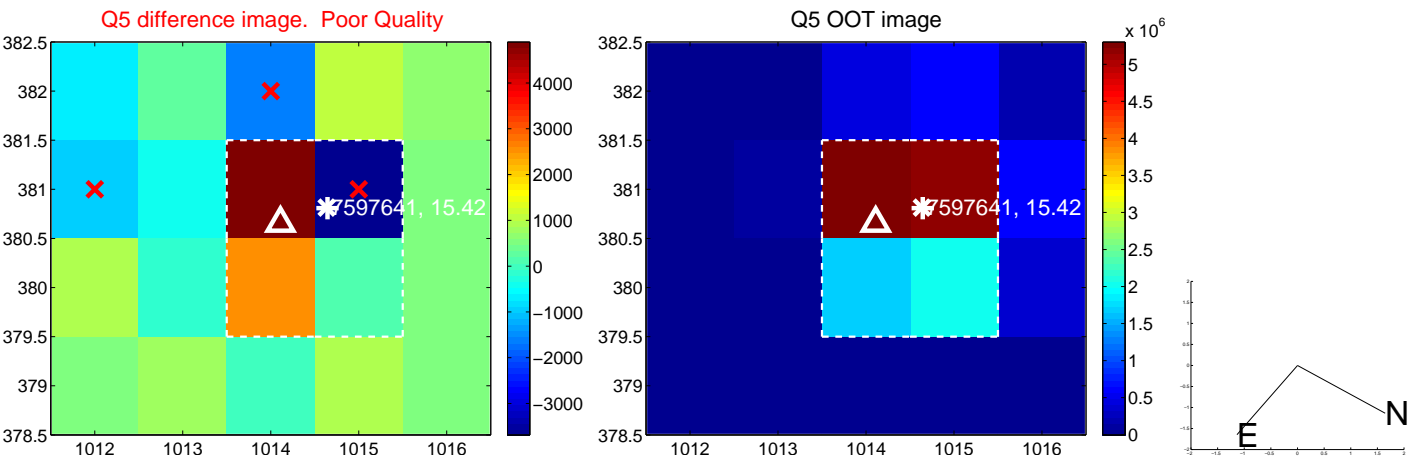


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

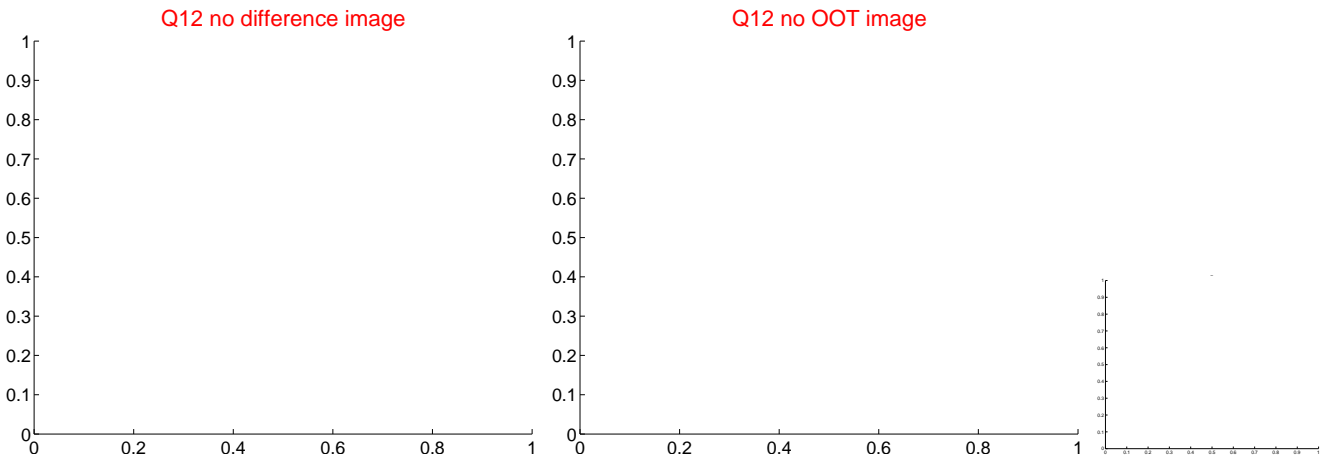
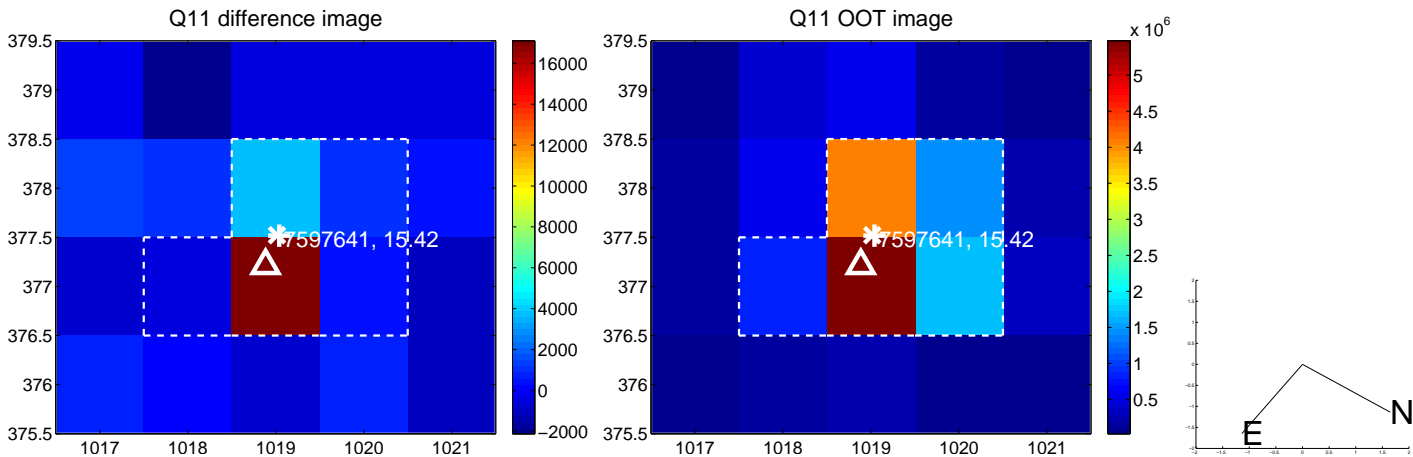
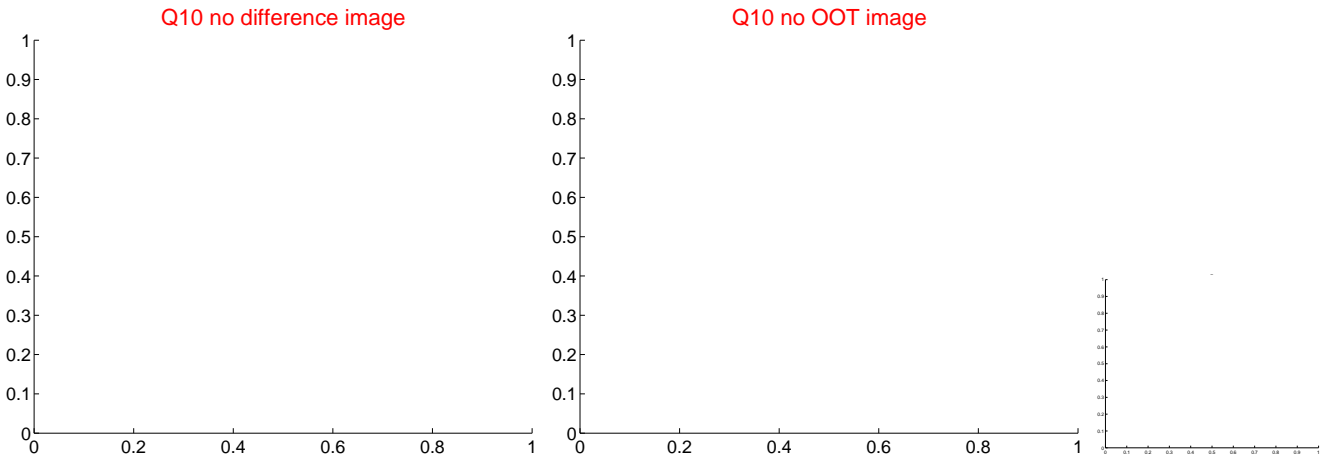
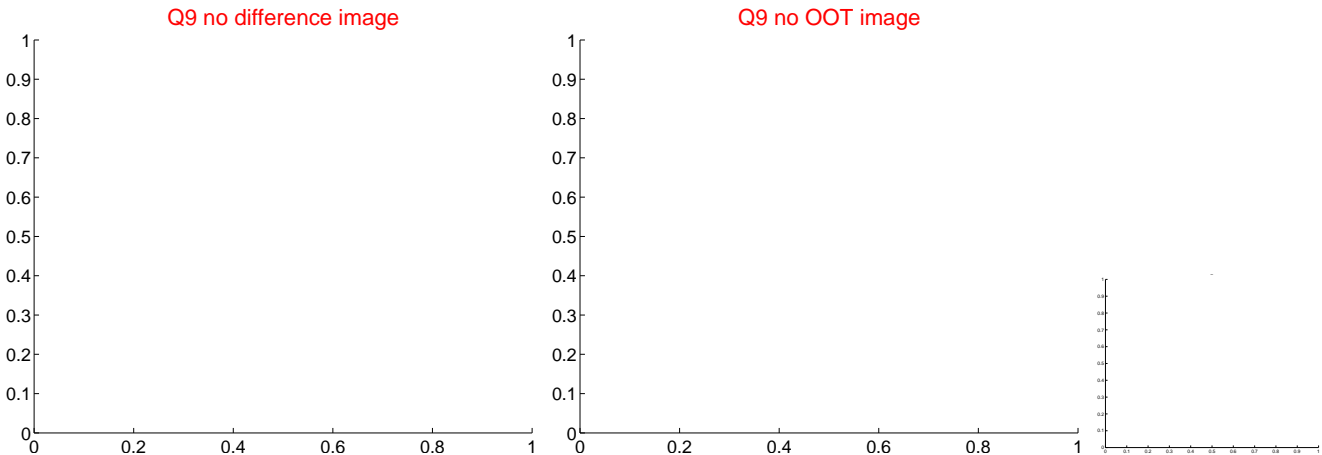
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



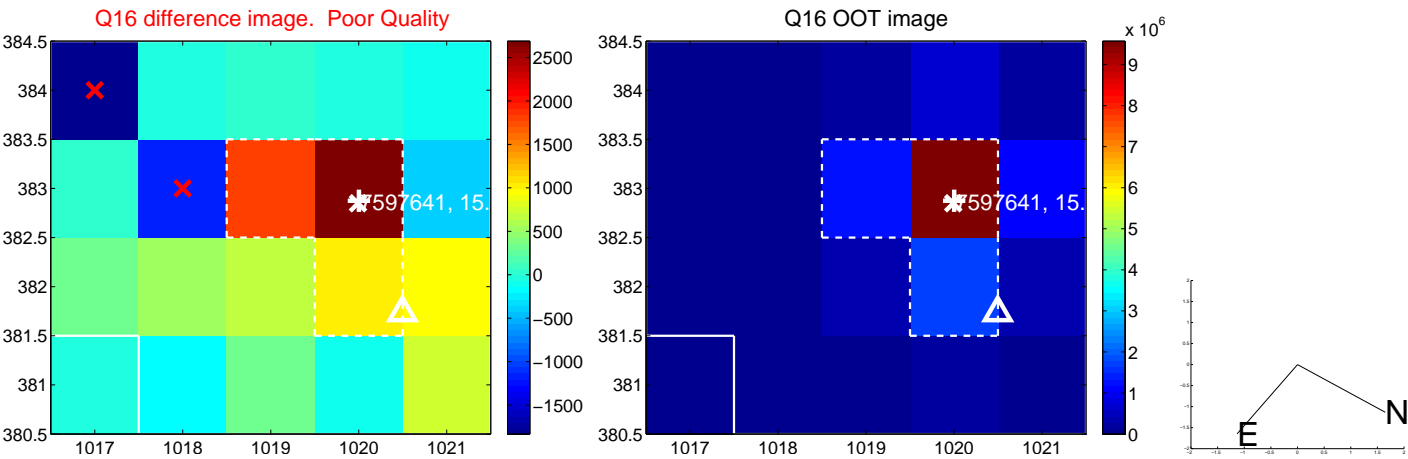
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



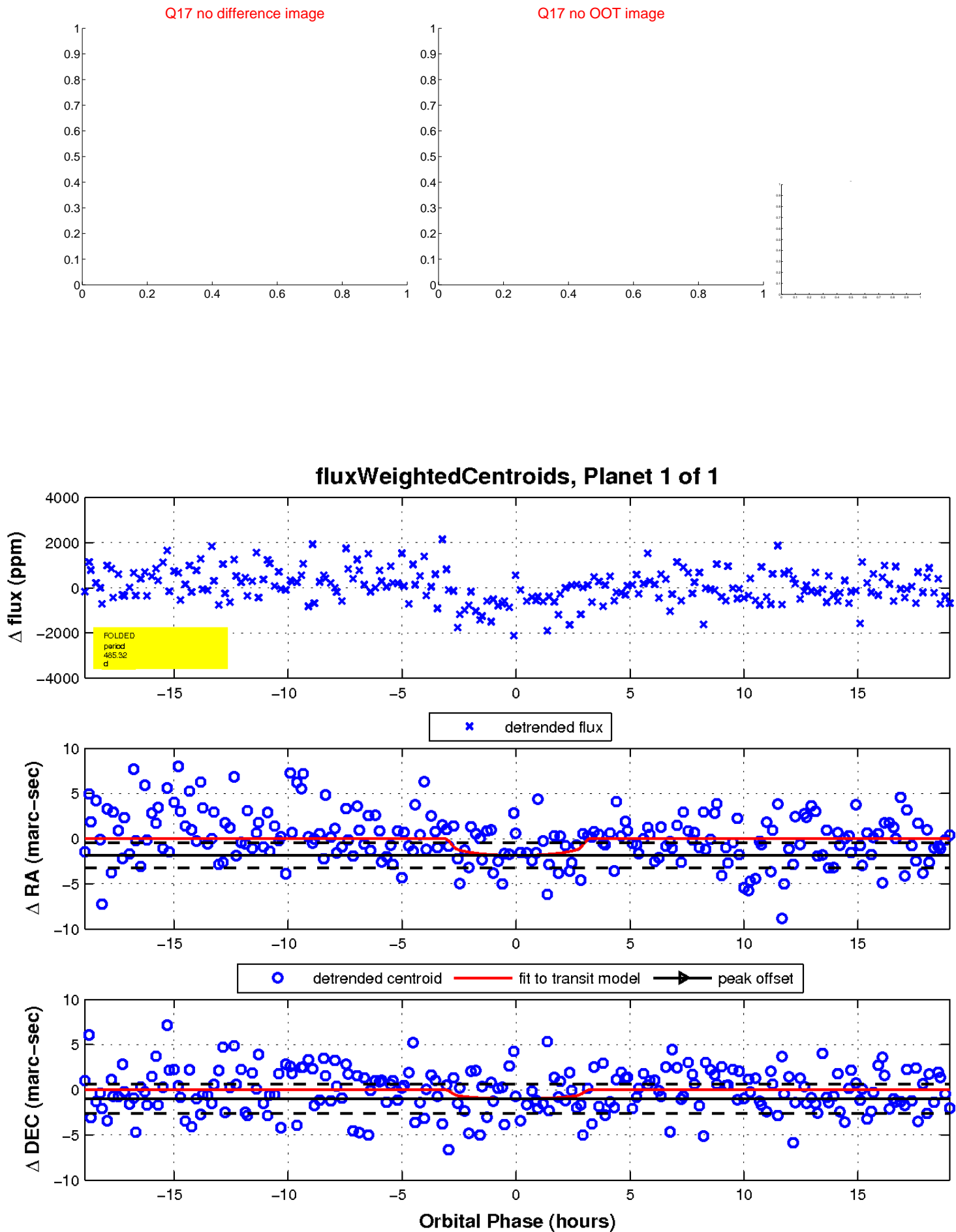
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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

