

KIC 003240141

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})
003240141-01	OBS	No	410.687238	196.124640	87087.1	6.010	393.3	289.1	0.83	5302	32.81	0.46

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003240141-01	OBS	FP	0.00	1	0	0	1	INDIV_TRANS_MARSHALL_SKYE--CENT_FEW_DIFFS--EPHEM_MATCH

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.

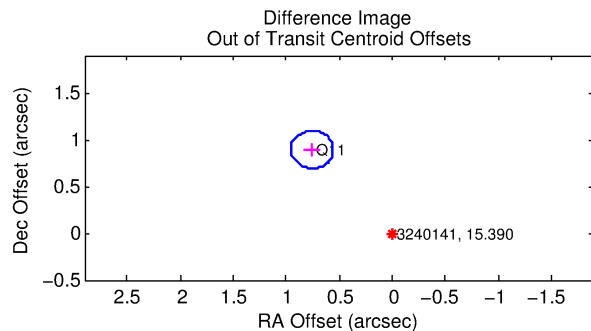
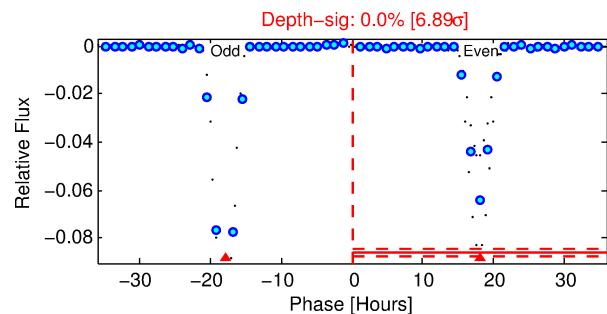
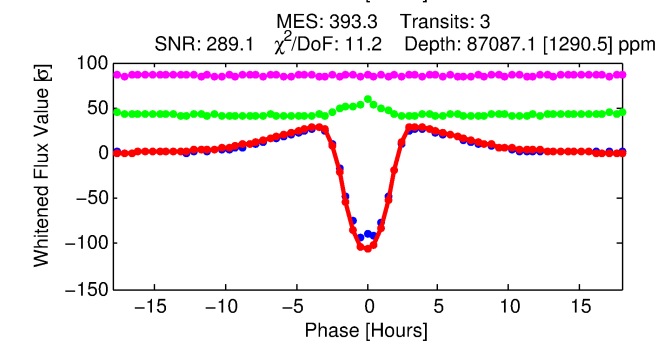
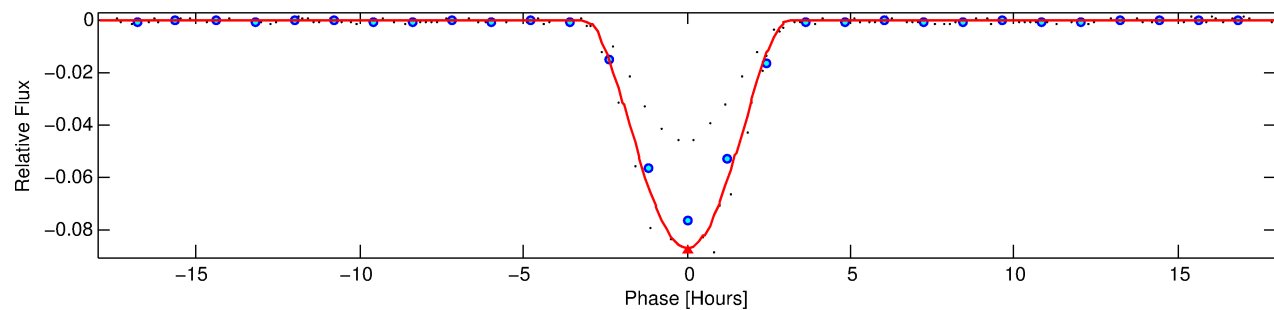
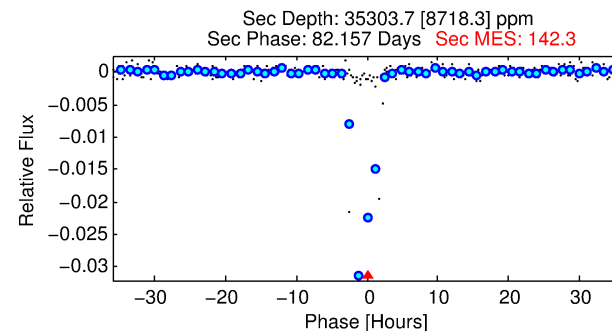
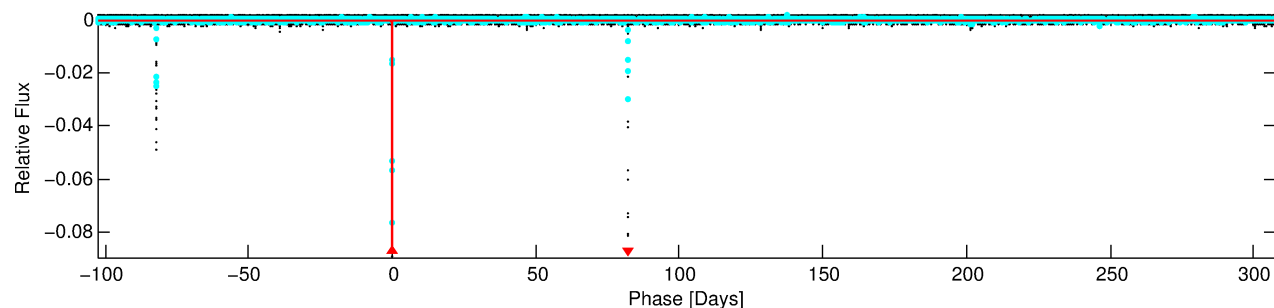
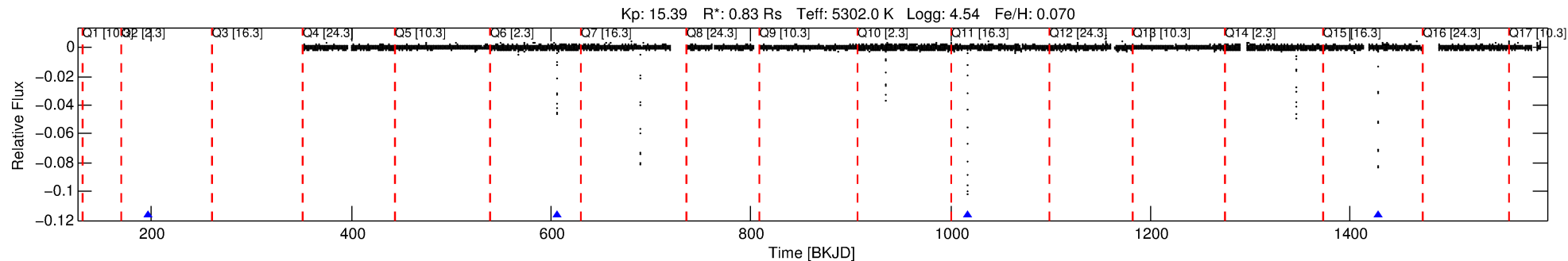
Ephemeris Match Information For 003240141-01

TCE (1)	KIC	Parent (2)	Parent KIC	P ₁ :P ₂	Dist ($''$)	Δ Row	Δ Col	m ₂	m ₁	D ₂ /D ₁	Mechanism	Flag	σ_P	σ_T
003240141-01	3240141	003240159-pri	3240159	5:1	14.7	-2	3	12.26	15.39	2.40	Direct-PRF	0	0.22	0.05

Notes: P₁:P₂ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m₂ and m₁ are the magnitudes of the parent and child. D₂/D₁ is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 3240141 Candidate: 1 of 1 Period: 410.687 d



DV Fit Results:

Period = 410.68724 [0.00087] d
Epoch = 196.1246 [0.0020] BKJD
Rp/R* = 0.3601 [0.1465]
a/R* = 555.06 [12.71]
b = 0.85 [0.24]
Seff = 0.46 [0.12]
Teq = 210 [14] K
Rp = 32.81 [14.58] Re
a = 1.0347 [0.1552] AU
Ag = 19311.98 [16949.80] [1.14σ]
Teff = 3830 [825] K [4.39σ]

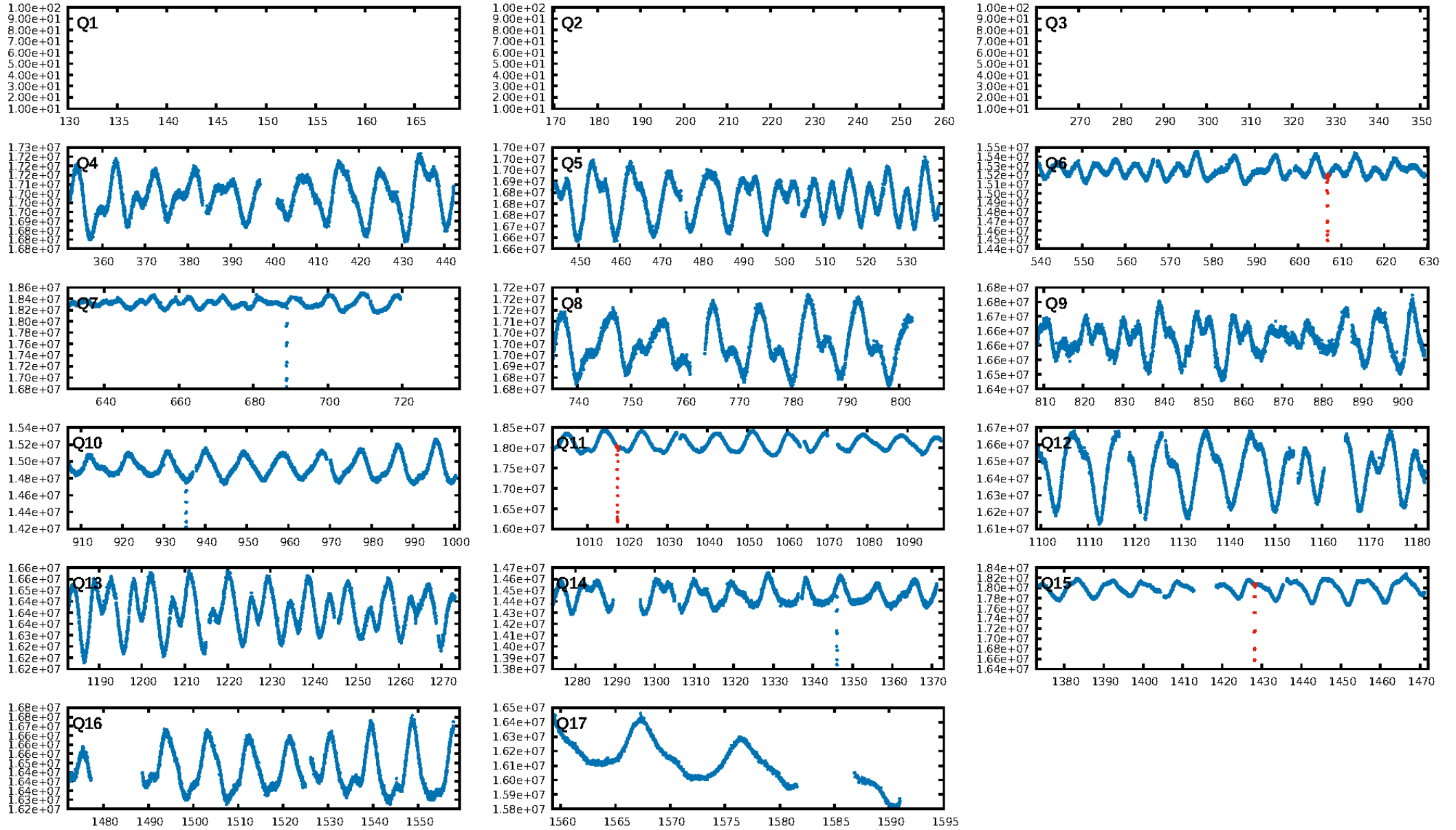
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -1.432
Centroid-sig: 0.0%
Centroid-so: 5.381 arcsec [276.63σ]
OotOffset-rm: 1.169 arcsec [17.52σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-rm: 11.275 arcsec [169.02σ]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [3/3]

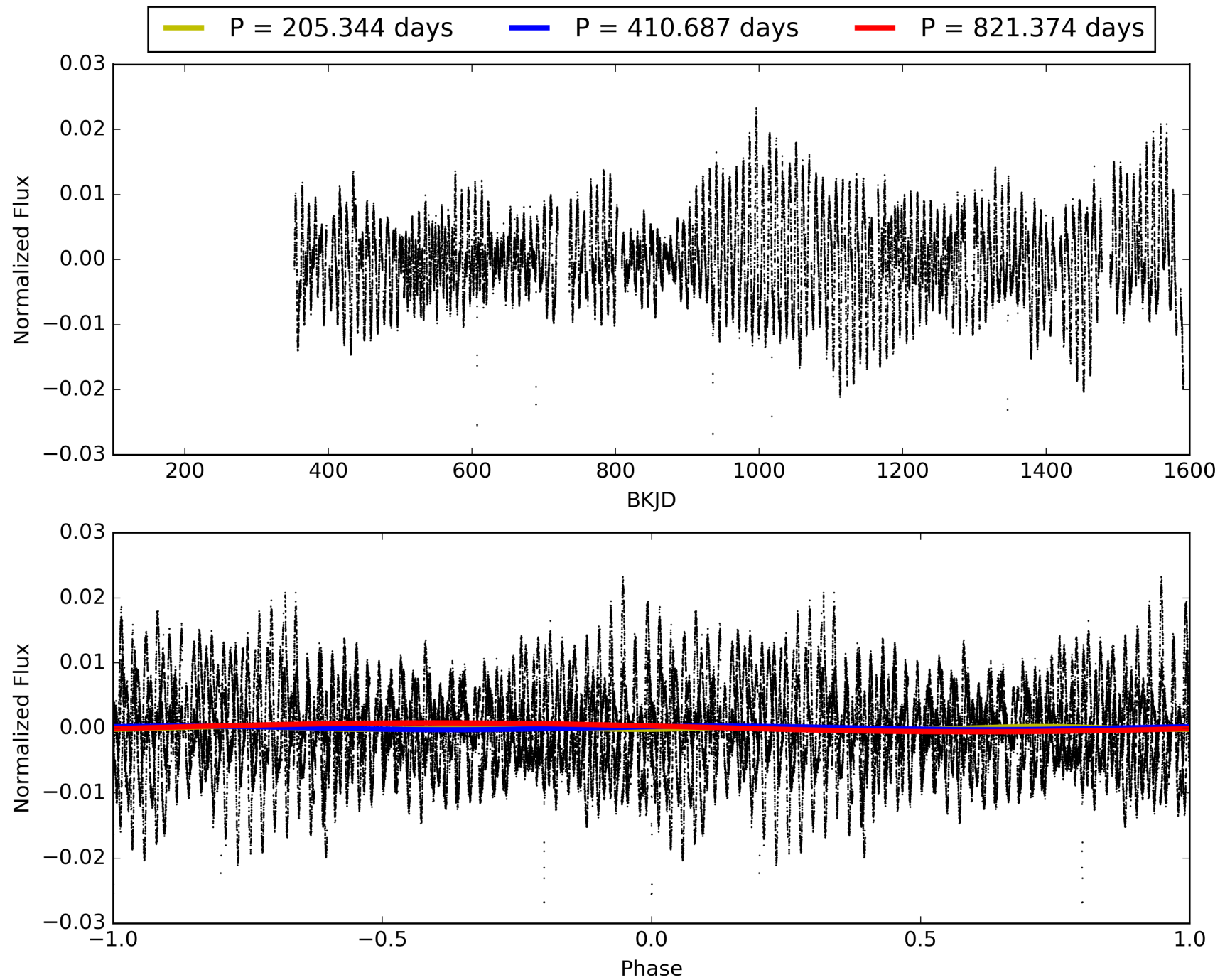
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 18:39:38 Z

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

TCE 003240141-01, PDC Light Curves

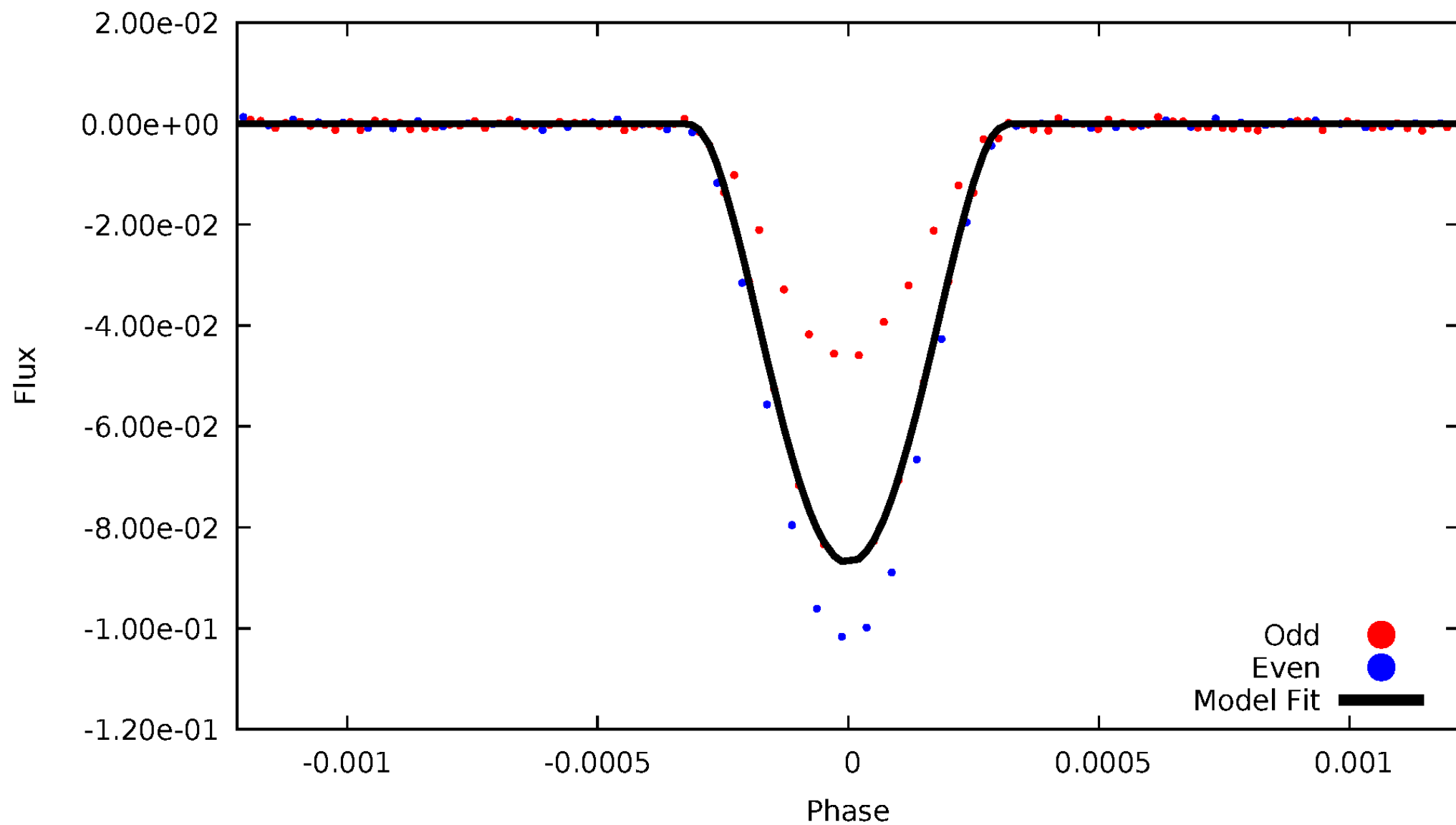


TCE 003240141-01



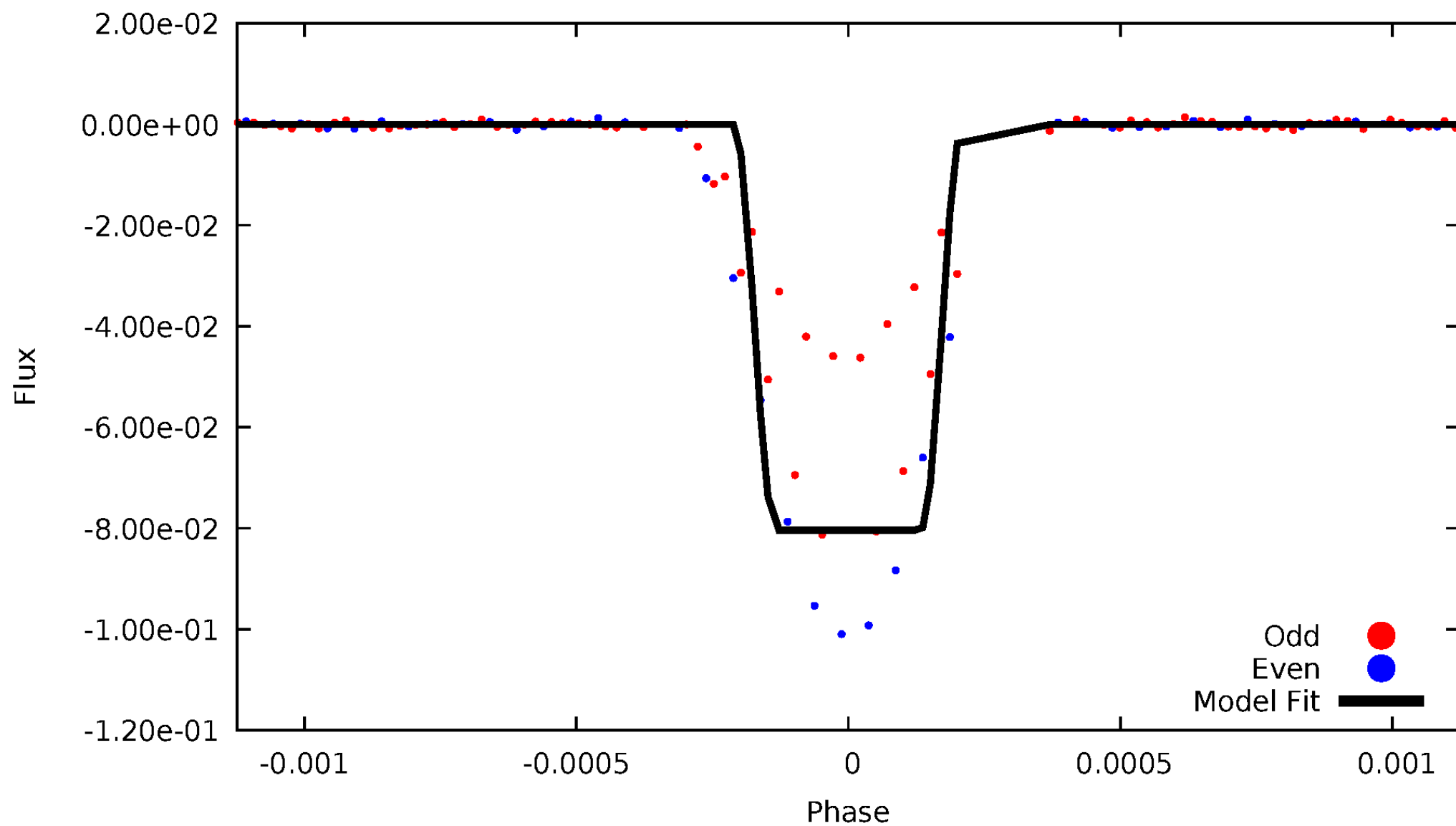
DV Odd/Even

TCE 003240141-01



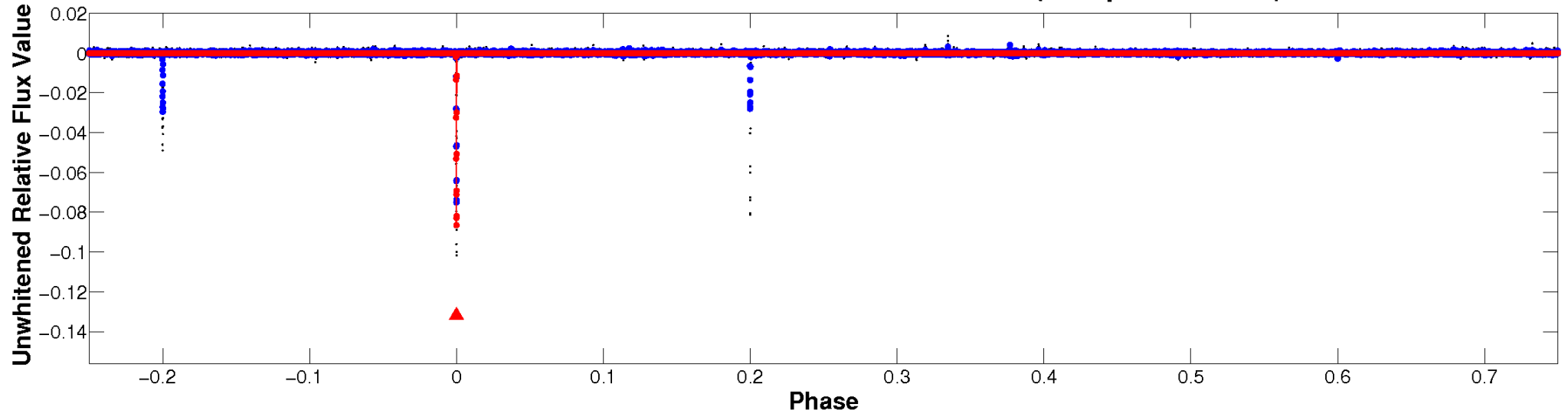
ALT Odd/Even

TCE 003240141-01

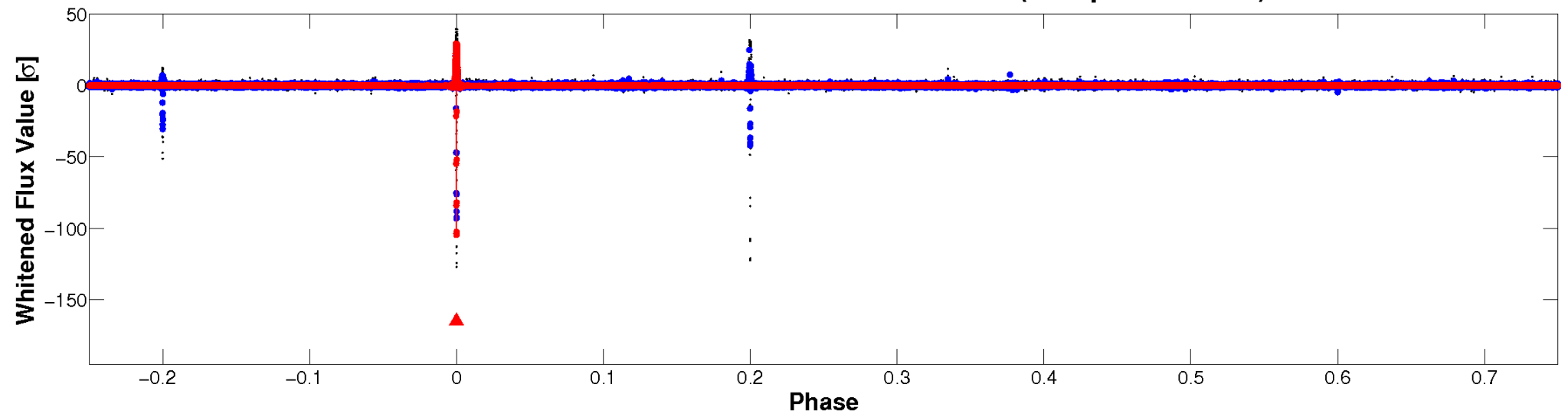


Non-Whitened Vs. Whitened Light Curve

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

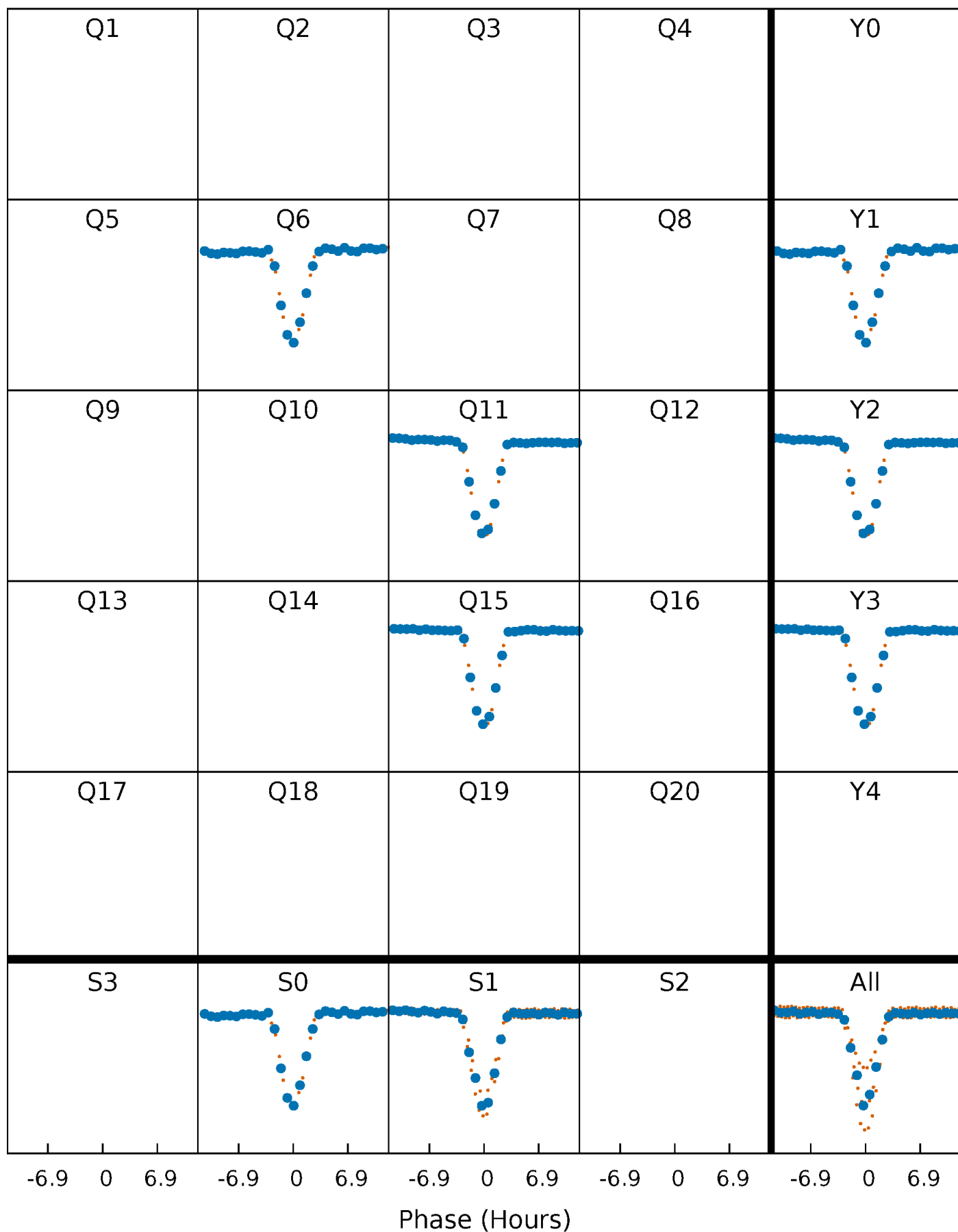


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



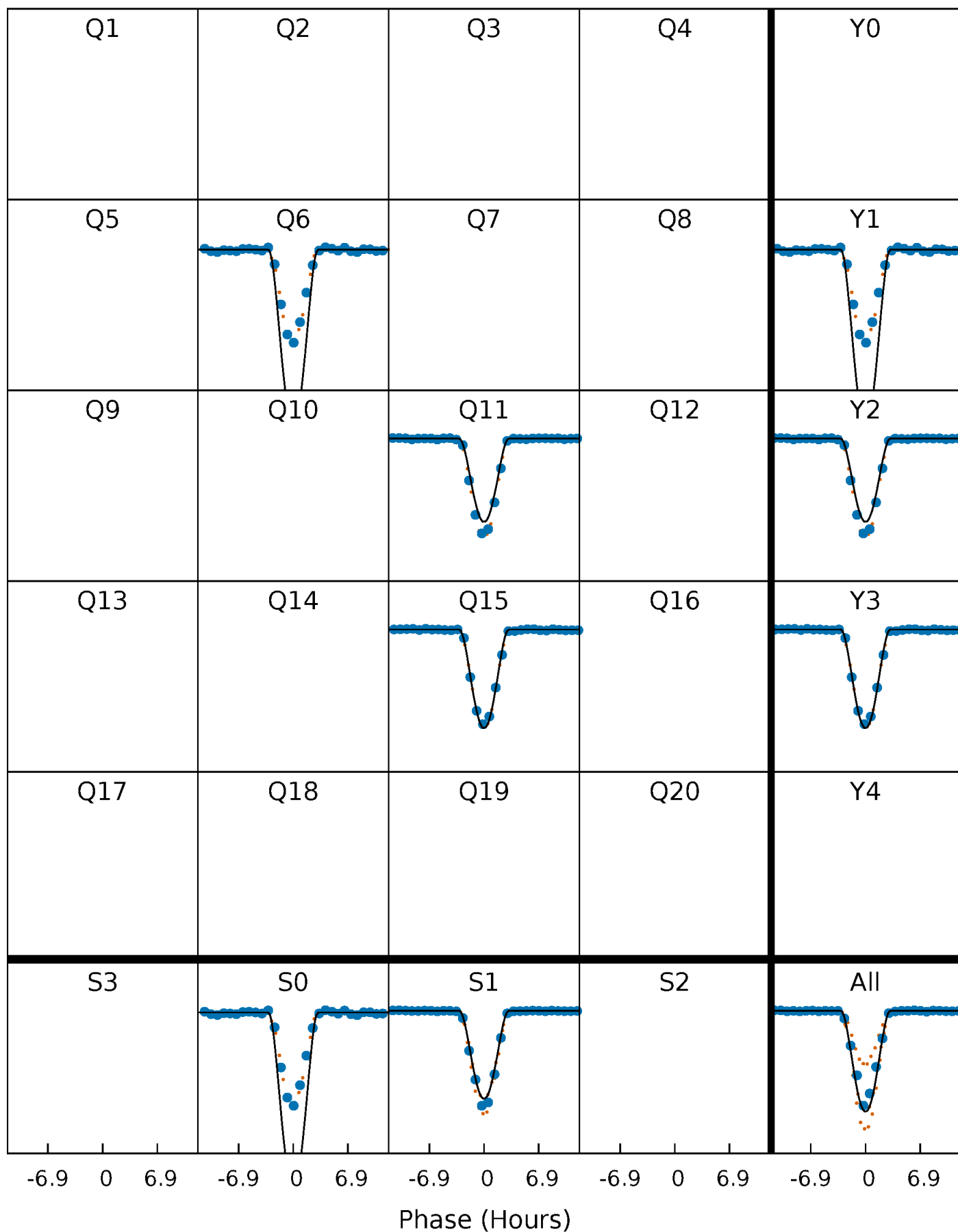
PDC Quarter-Phased Transit Curves

TCE 003240141-01 P=410.687238 Days $T_0=196.124640$ (BKJD)



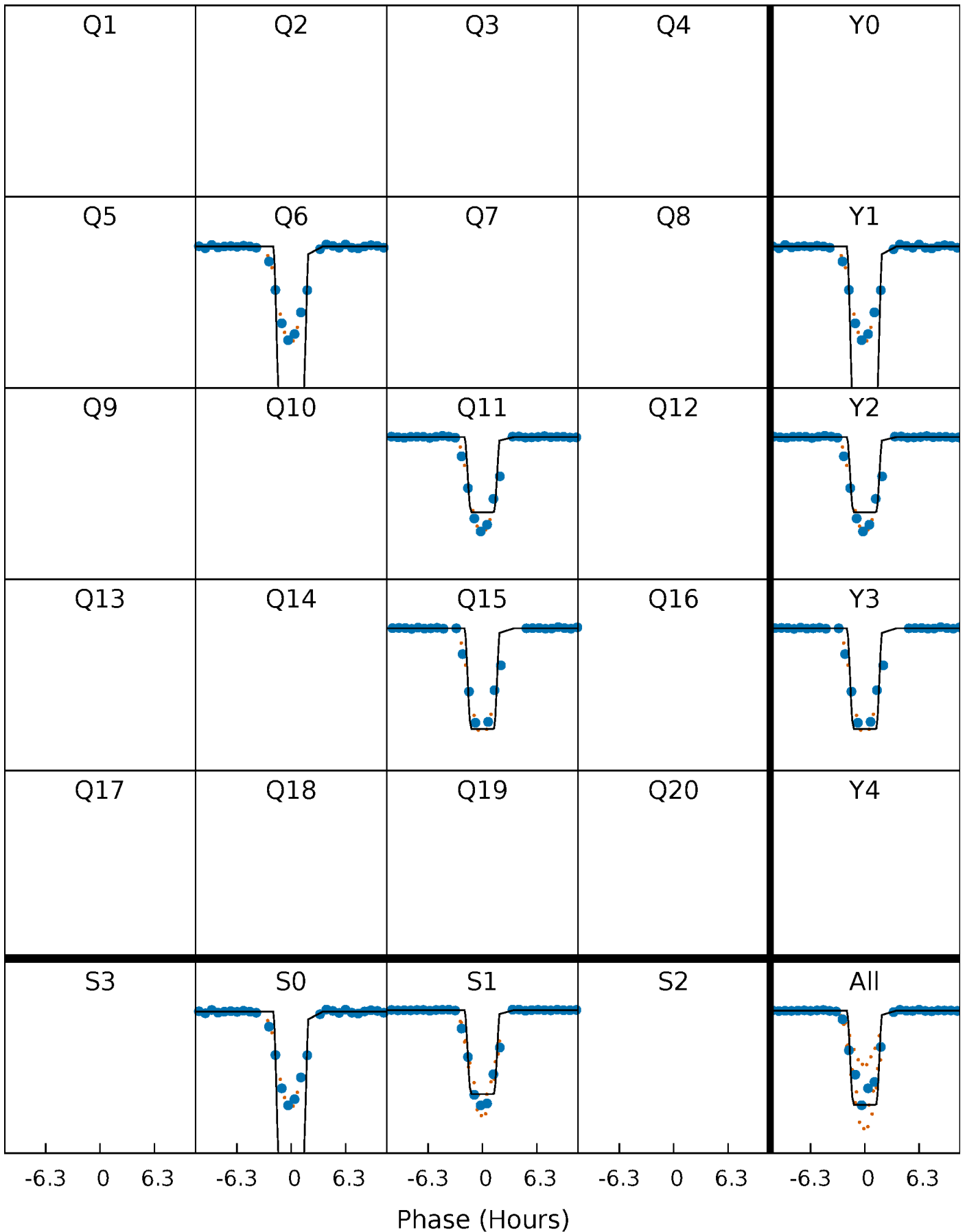
DV Quarter-Phased Transit Curves

TCE 003240141-01 P=410.687238 Days $T_0=196.124640$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

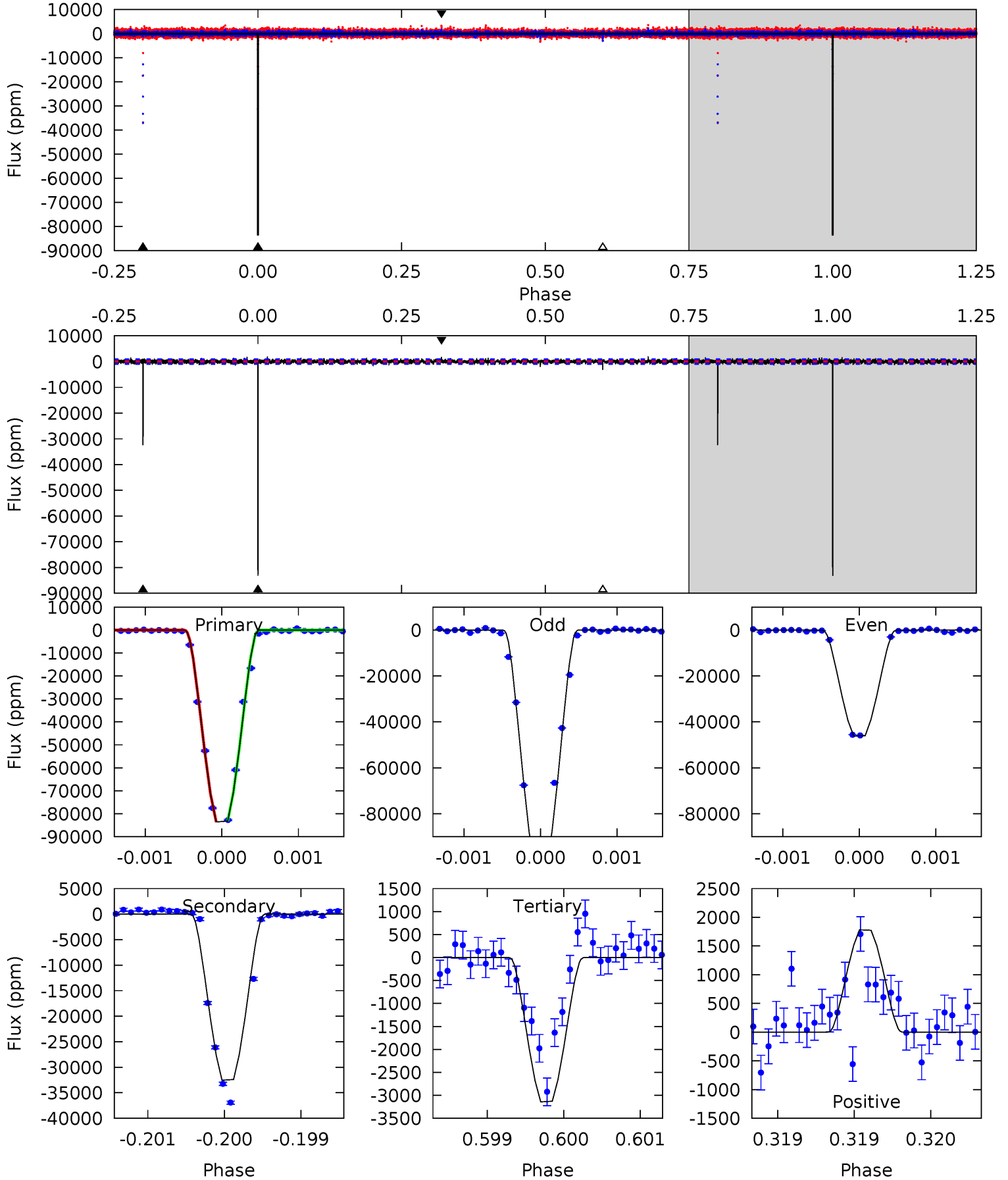
TCE 003240141-01 P=410.687311 Days $T_0=196.124217$ (BKJD)



DV Model-Shift Uniqueness Test

003240141-01, P = 410.687238 Days, E = 196.124640 Days

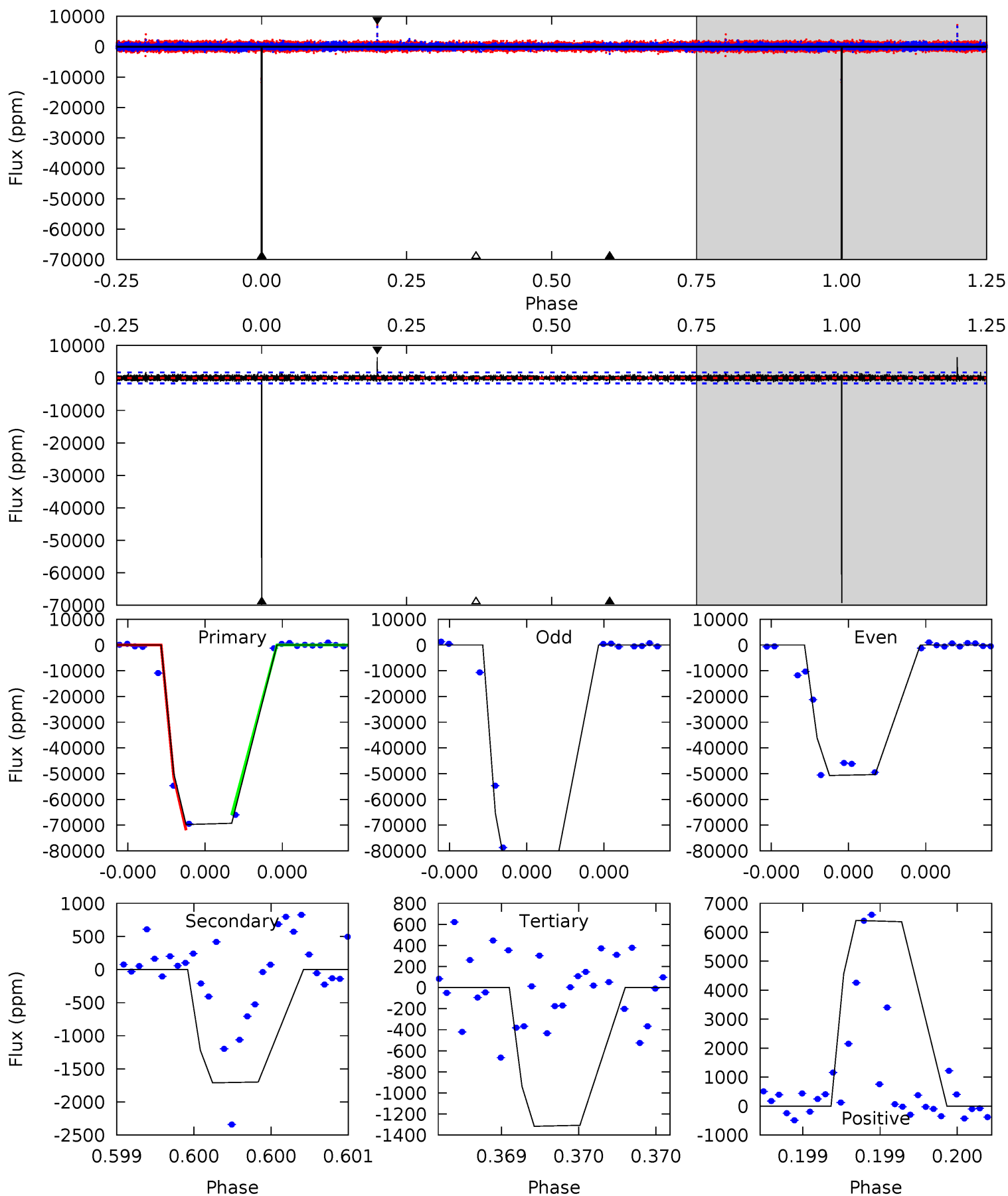
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
547.9	213.3	20.6	11.7	5.52	3.40	2.21	527.3	536.3	192.7	201.6	200.9	0.90	0.02	0



Alt Model-Shift Uniqueness Test

003240141-01, P = 410.687311 Days, E = 196.124217 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
229.7	5.63	4.34	21.1	5.61	3.54	1.08	225.3	208.6	1.30	-15.5	126.3	0.95	0.08	0



Stellar Parameters For KIC 003240141

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5302^{+185}_{-185}	$4.537^{+0.051}_{-0.119}$	$0.070^{+0.250}_{-0.300}$	$0.835^{+0.149}_{-0.080}$	$0.877^{+0.074}_{-0.082}$	$2.120^{+0.448}_{-0.718}$
	+3%/-3%	+1%/-3%	+357%/-429%	+18%/-10%	+8%/-9%	+21%/-34%
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 003240141-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-32404 ± 152	$33.67^{+13.79}_{-13.34}$	298^{+15}_{-14}	4040^{+905}_{-431}	17580^{+30166}_{-8864}
Alt.	-1699 ± 302	$27.46^{+14.24}_{-13.44}$	298^{+16}_{-14}	2753^{+574}_{-293}	1304^{+3833}_{-749}

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 $A_{obs} \gg 1.0$

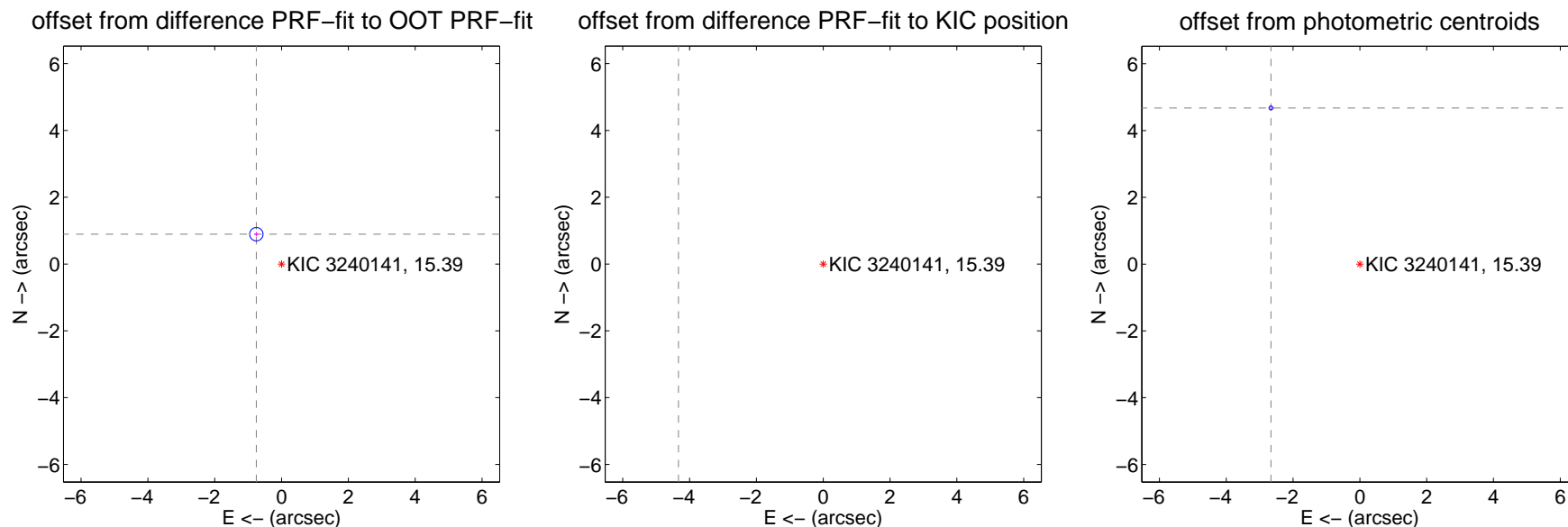
DV Centroid Data

Supplemental centroid analysis for 003240141-01. Kepler magnitude: 15.39. Transit SNR 289.10

There are 1 quarters with good PRF difference image offsets

The OOT PRF centroid is offset from the target star catalog position by about 10.17 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.169 ± 0.067	17.52	0.754 ± 0.067	0.893 ± 0.067
PRF-fit source offset from KIC position	11.275 ± 0.067	169.02	4.334 ± 0.067	10.409 ± 0.067
photometric centroid source offset	5.38 ± 0.02	276.63	2.66 ± 0.02	4.68 ± 0.02

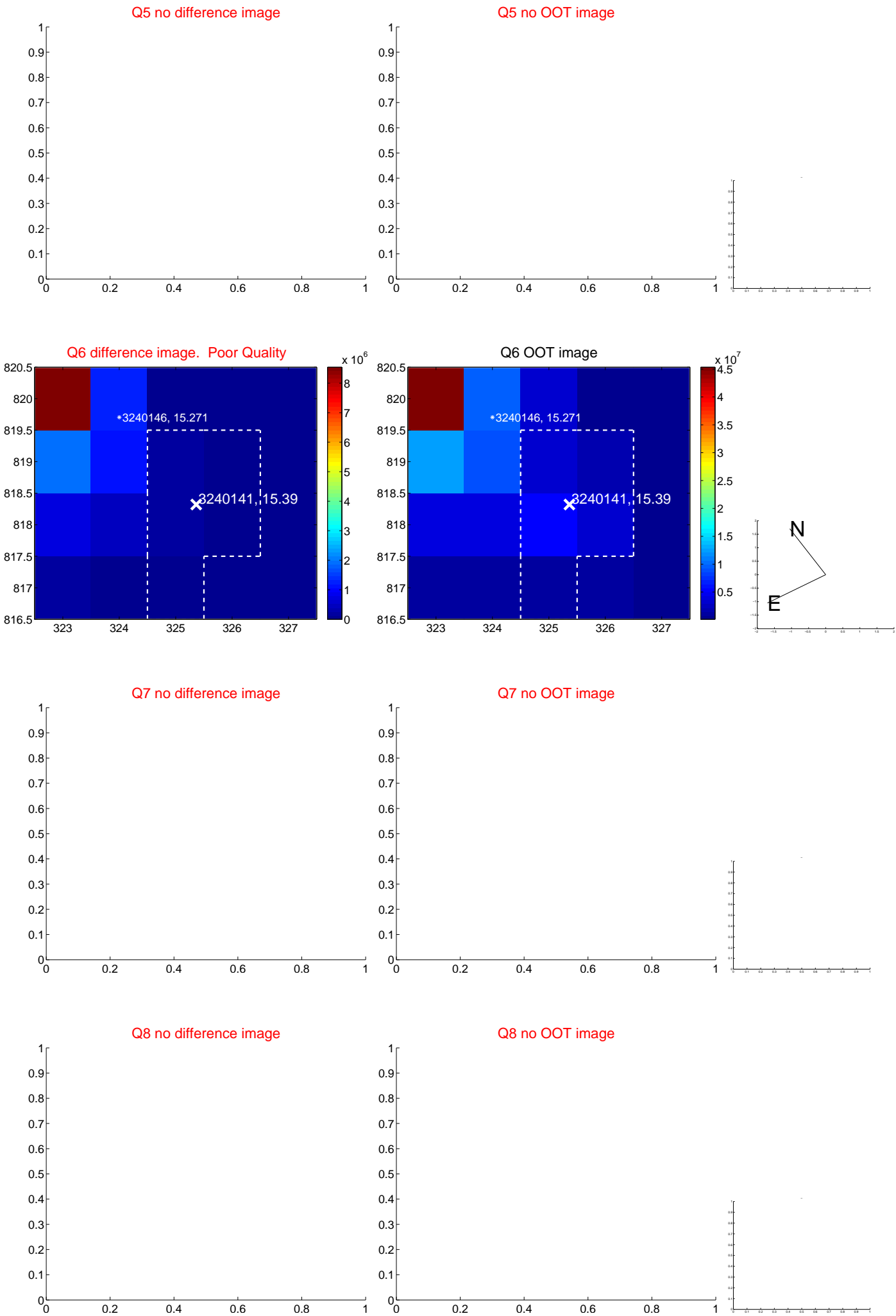


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

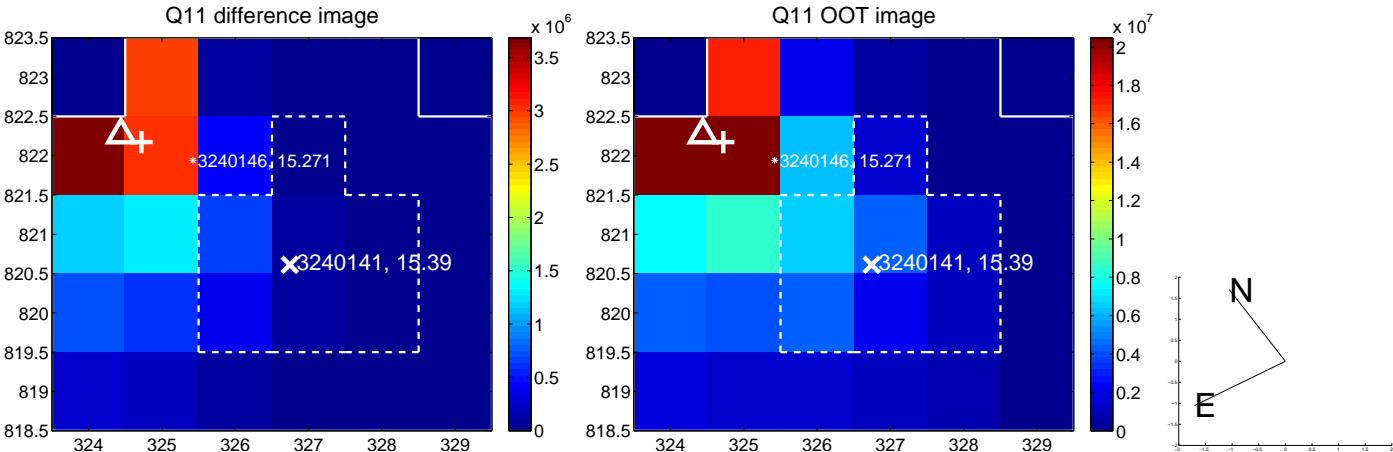
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



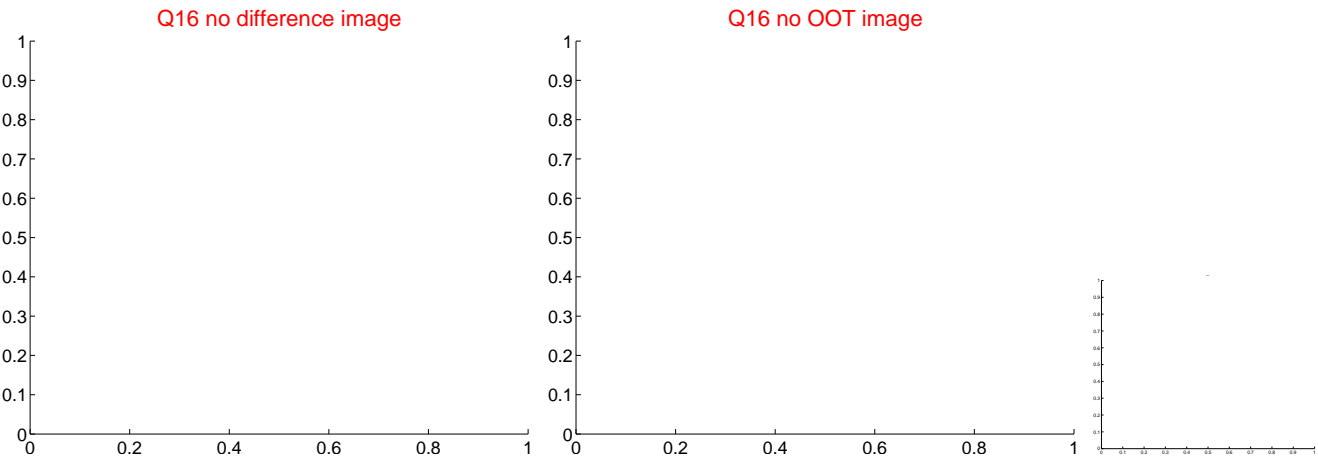
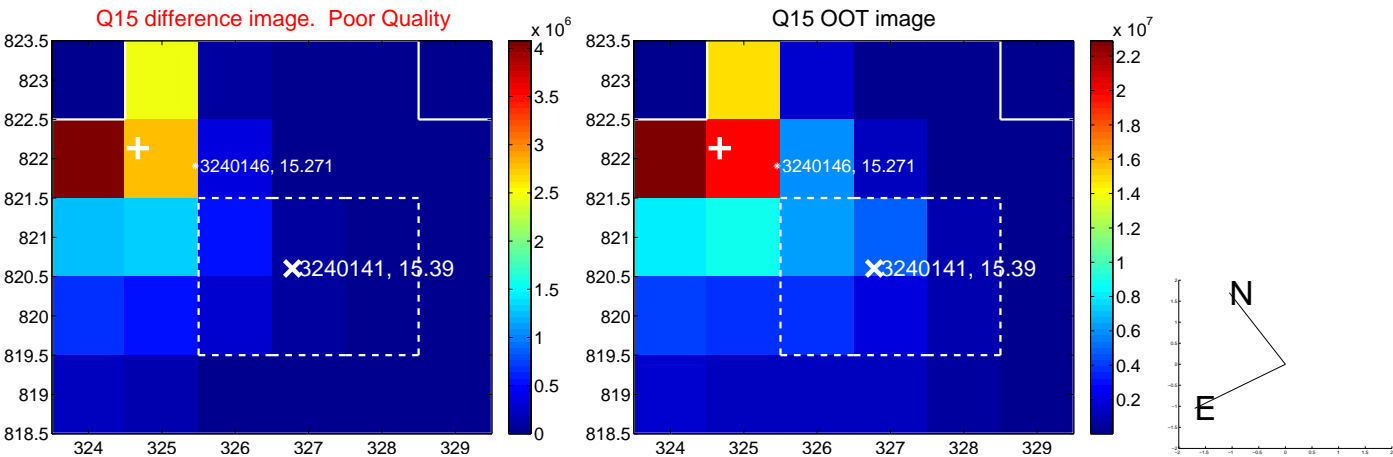
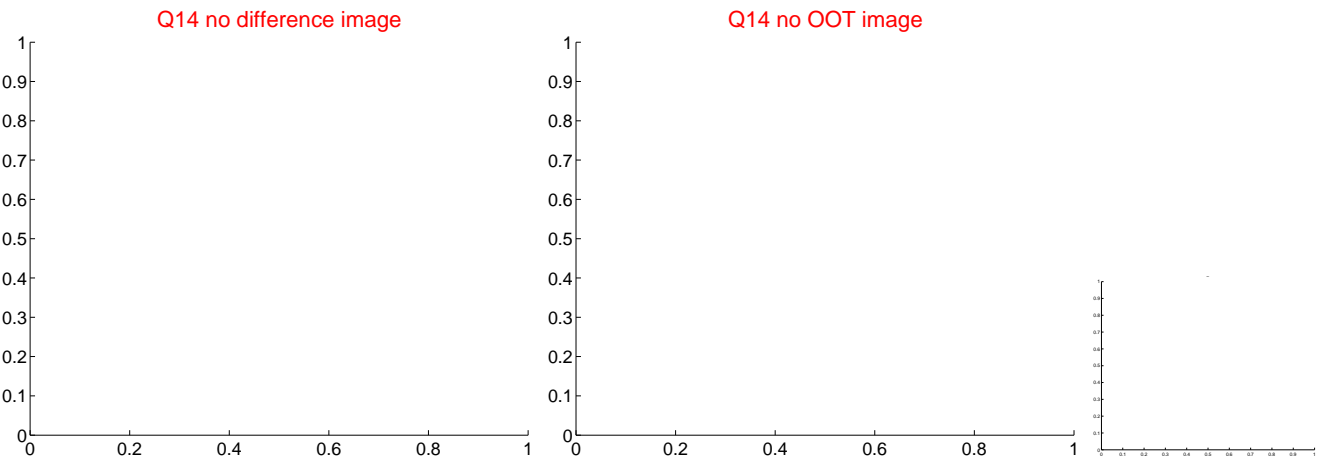
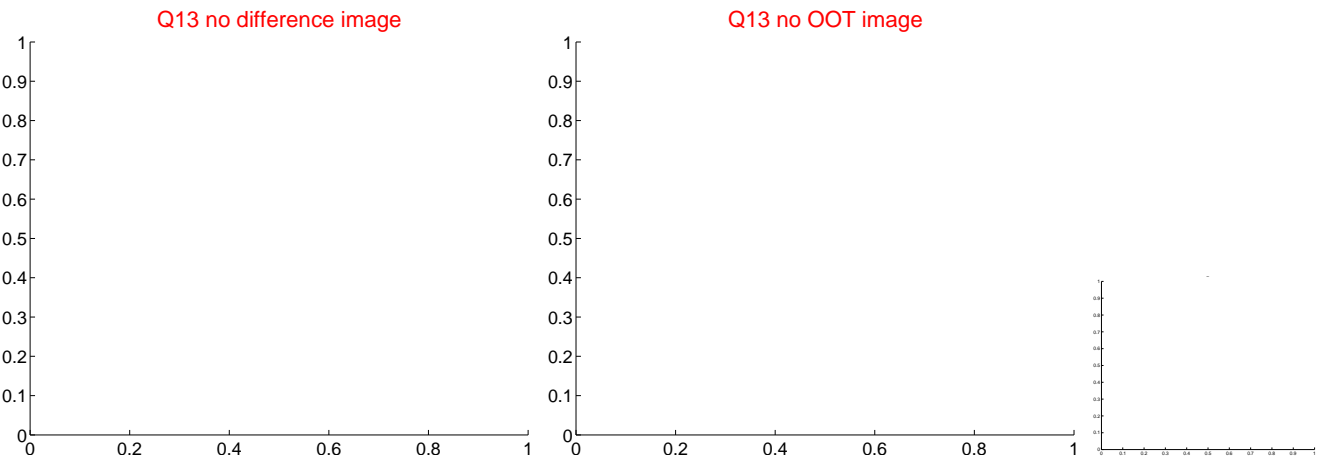
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



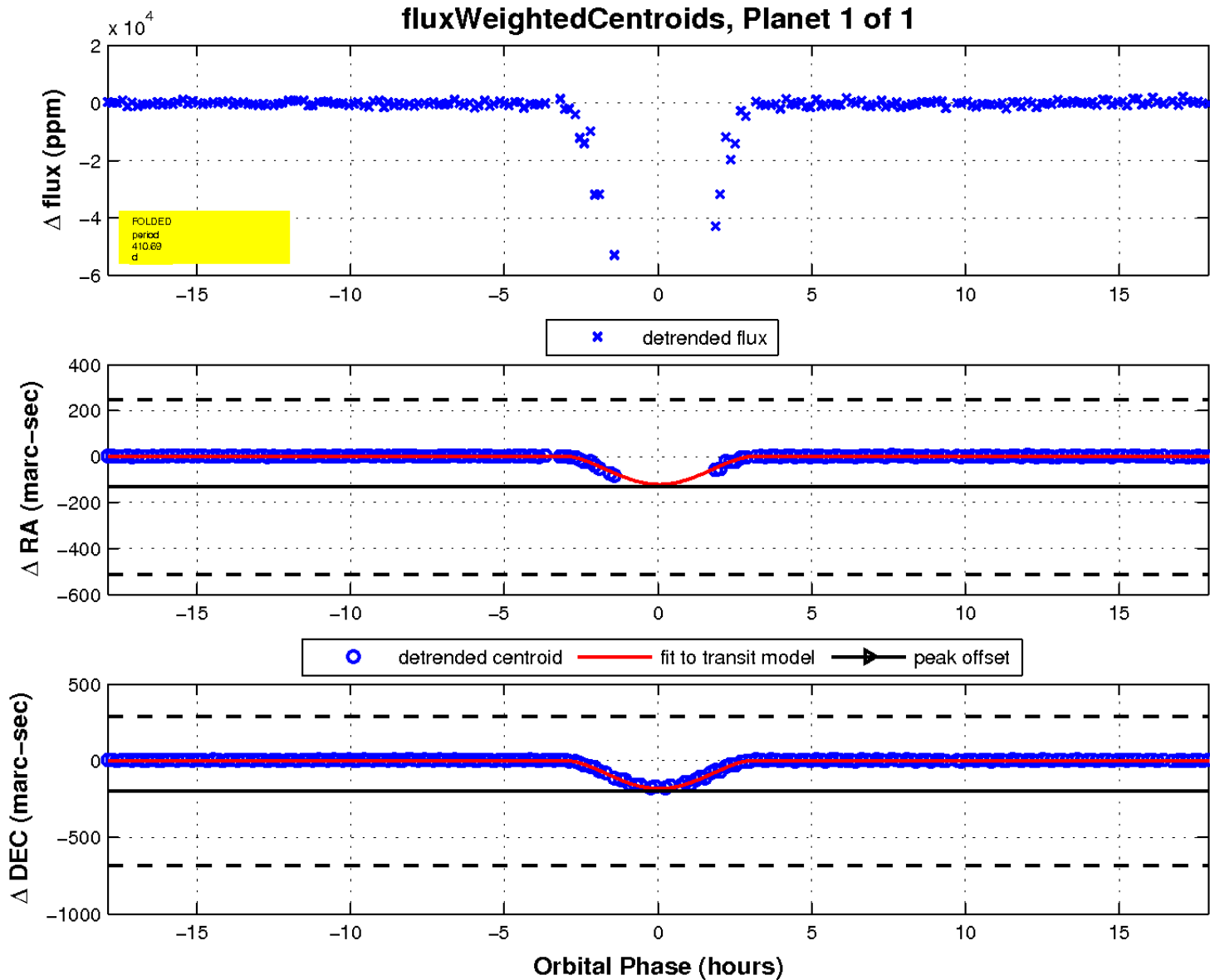
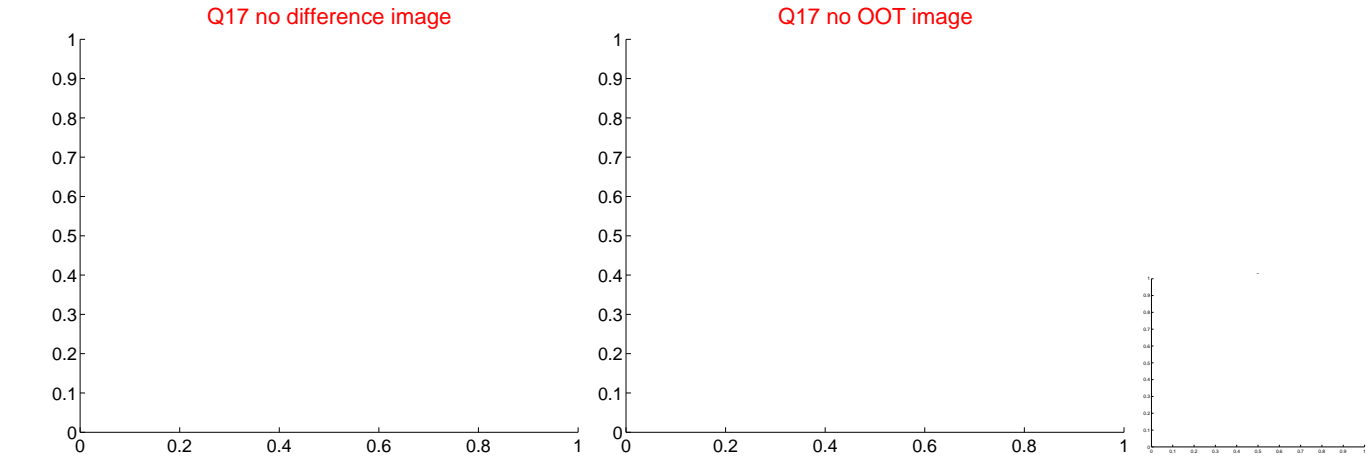
white \times : KIC target position; $+$: OOT centroid; Δ : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

