

KIC 007834913

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})
007834913-01	OBS	No	302.506893	206.200040	1672.7	10.137	10.2	7.1	0.80	5613	3.21	0.79

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007834913-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV

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

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

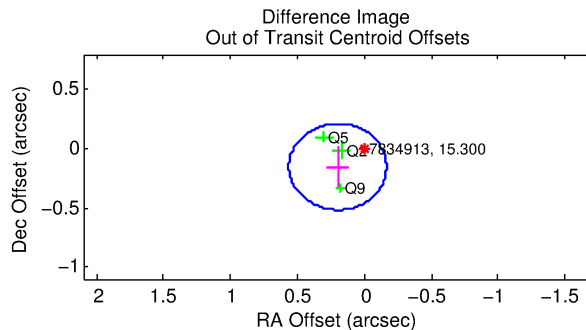
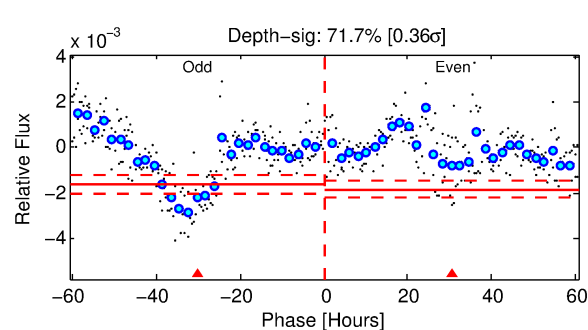
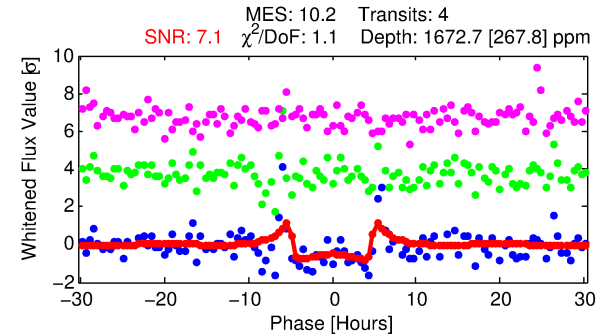
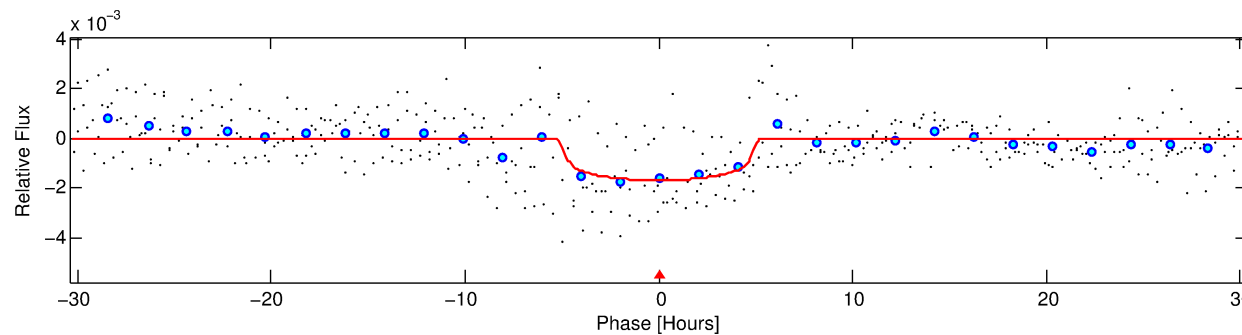
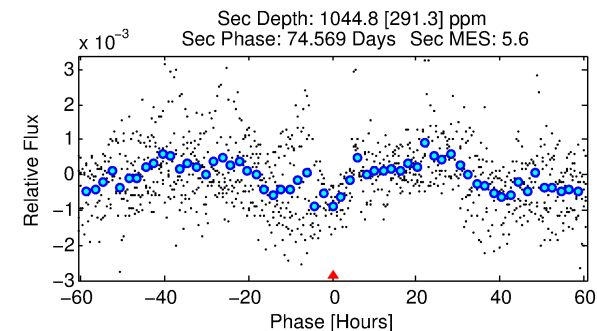
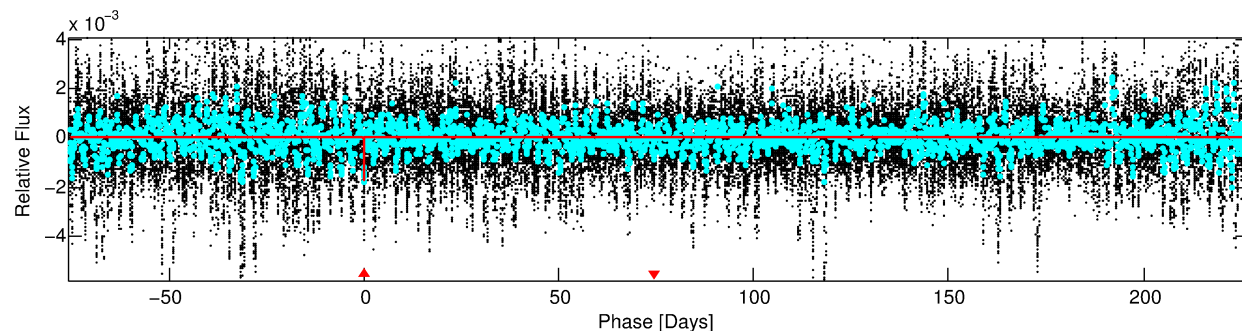
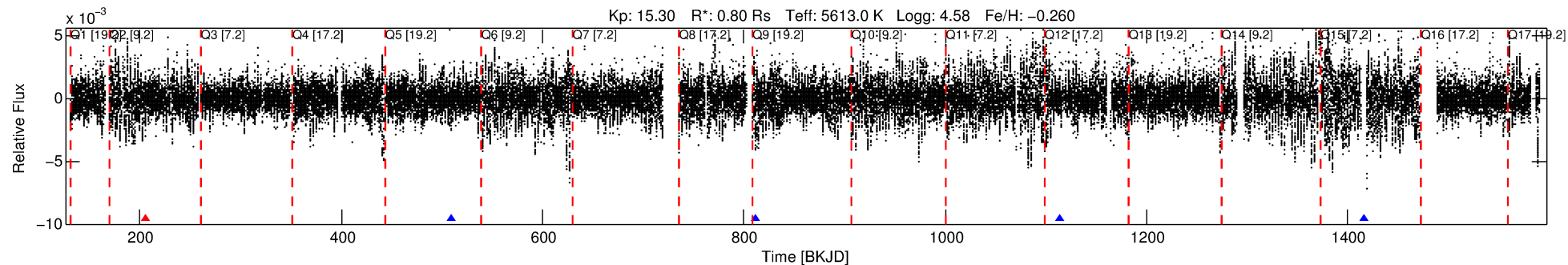
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007834913-01

No Significant Match Found

DV One-Page Summary

KIC: 7834913 Candidate: 1 of 1 Period: 302.507 d



DV Fit Results:

Period = 302.50689 [0.00436] d
Epoch = 206.2000 [0.0077] BKJD
Rp/R* = 0.0370 [0.0142]
a/R* = 236.38 [365.10]
b = 0.02 [76.87]
Seff = 0.79 [0.25]
Teq = 240 [19] K
Rp = 3.21 [1.46] Re
a = 0.8448 [0.1722] AU
Ag = 39739.59 [34379.69] [1.16σ]
Teffp = 5244 [1078] K [4.64σ]

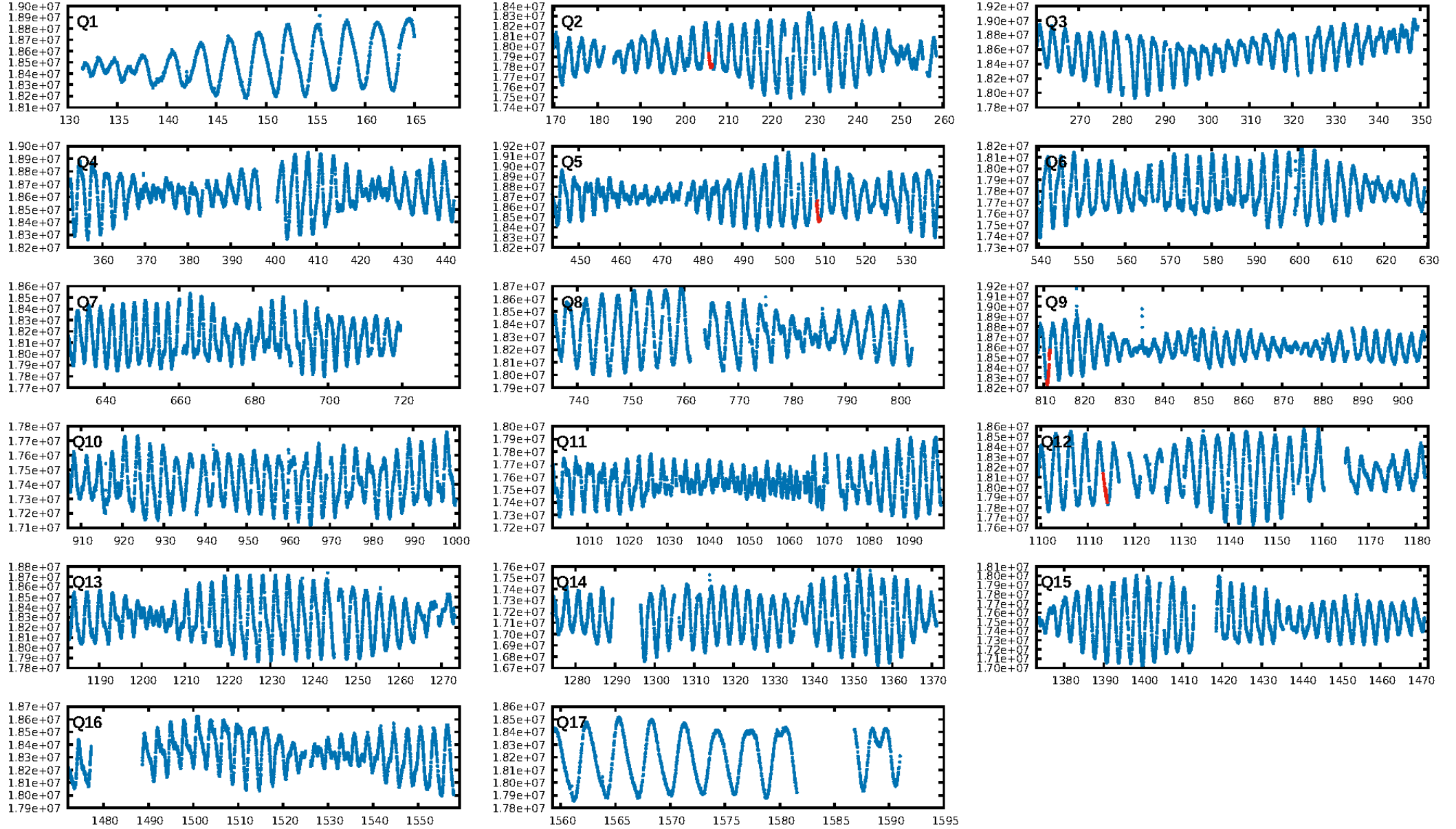
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 20.2%
ModelChiSquareGof-sig: 99.7%
Bootstrap-pfa: 2.18e-10
RollingBand-fgt: 0.75 [3/4]
GhostDiagnostic-chr: 2.805
Centroid-sig: 0.2%
Centroid-so: 0.928 arcsec [0.85σ]
OotOffset-rm: 0.250 arcsec [2.06σ]
KicOffset-rm: 0.367 arcsec [2.02σ]
OotOffset-st: 1/0/0/2 [3]
KicOffset-st: 1/0/0/2 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

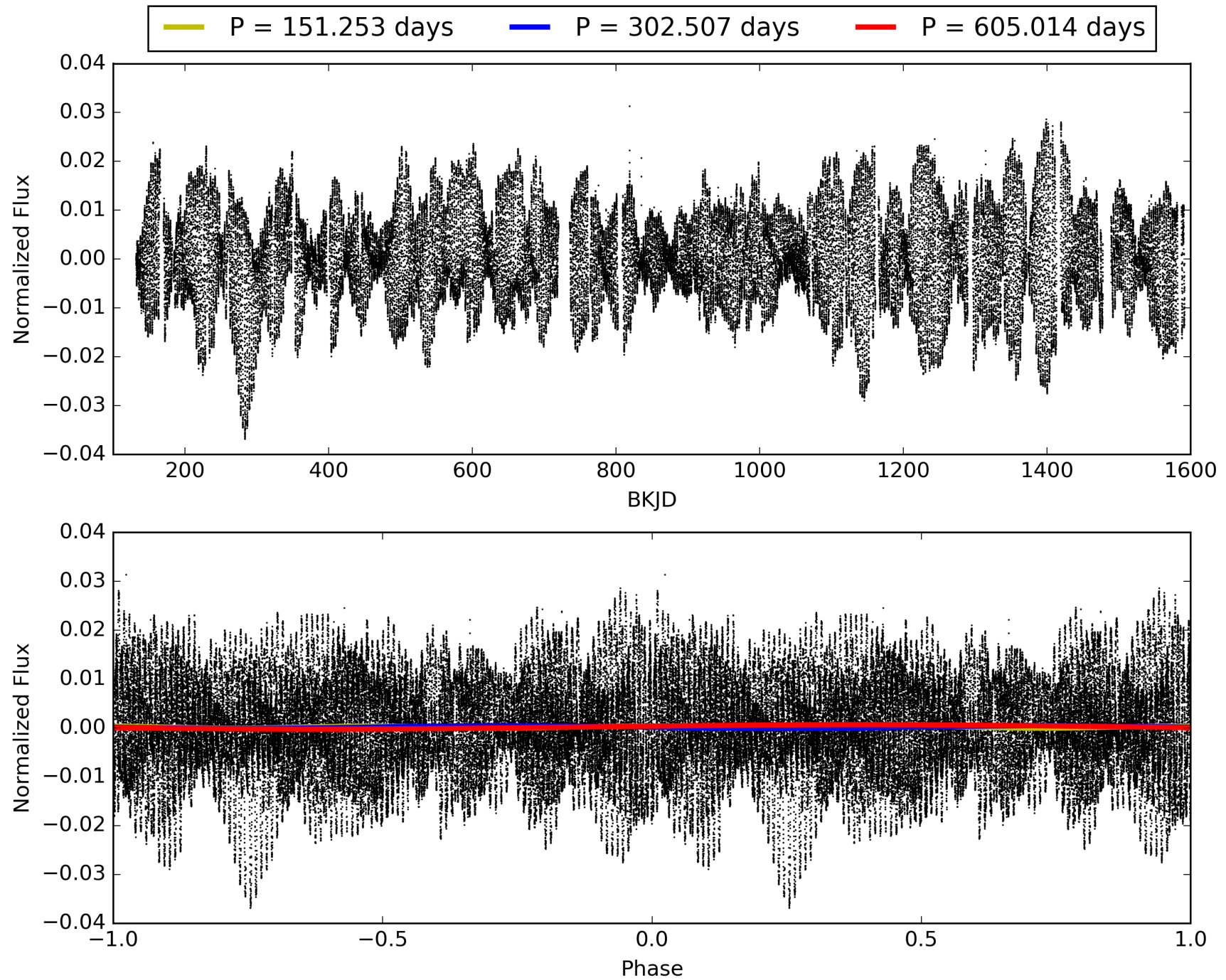
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 03:16:15 Z

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

TCE 007834913-01, PDC Light Curves

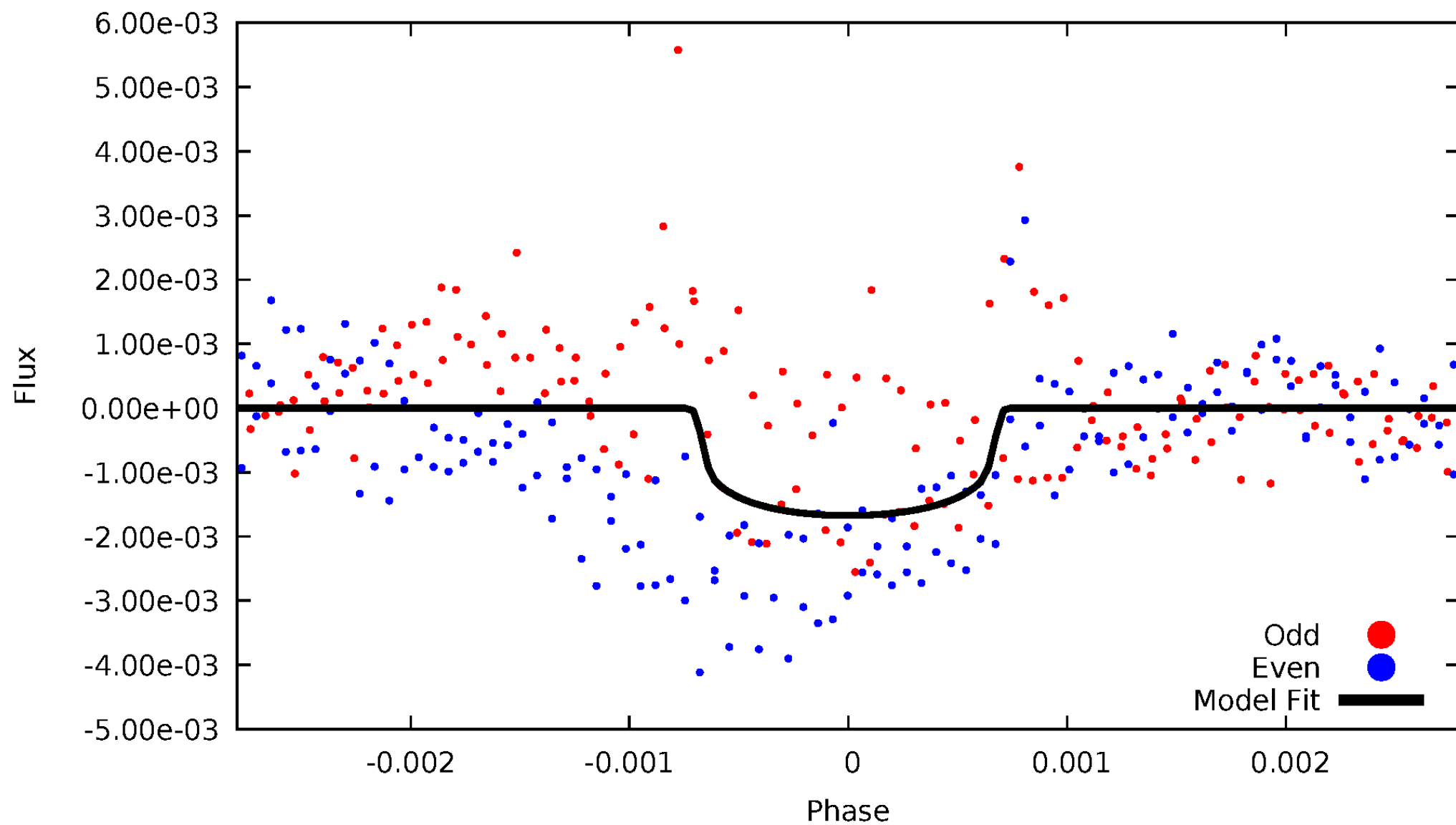


TCE 007834913-01



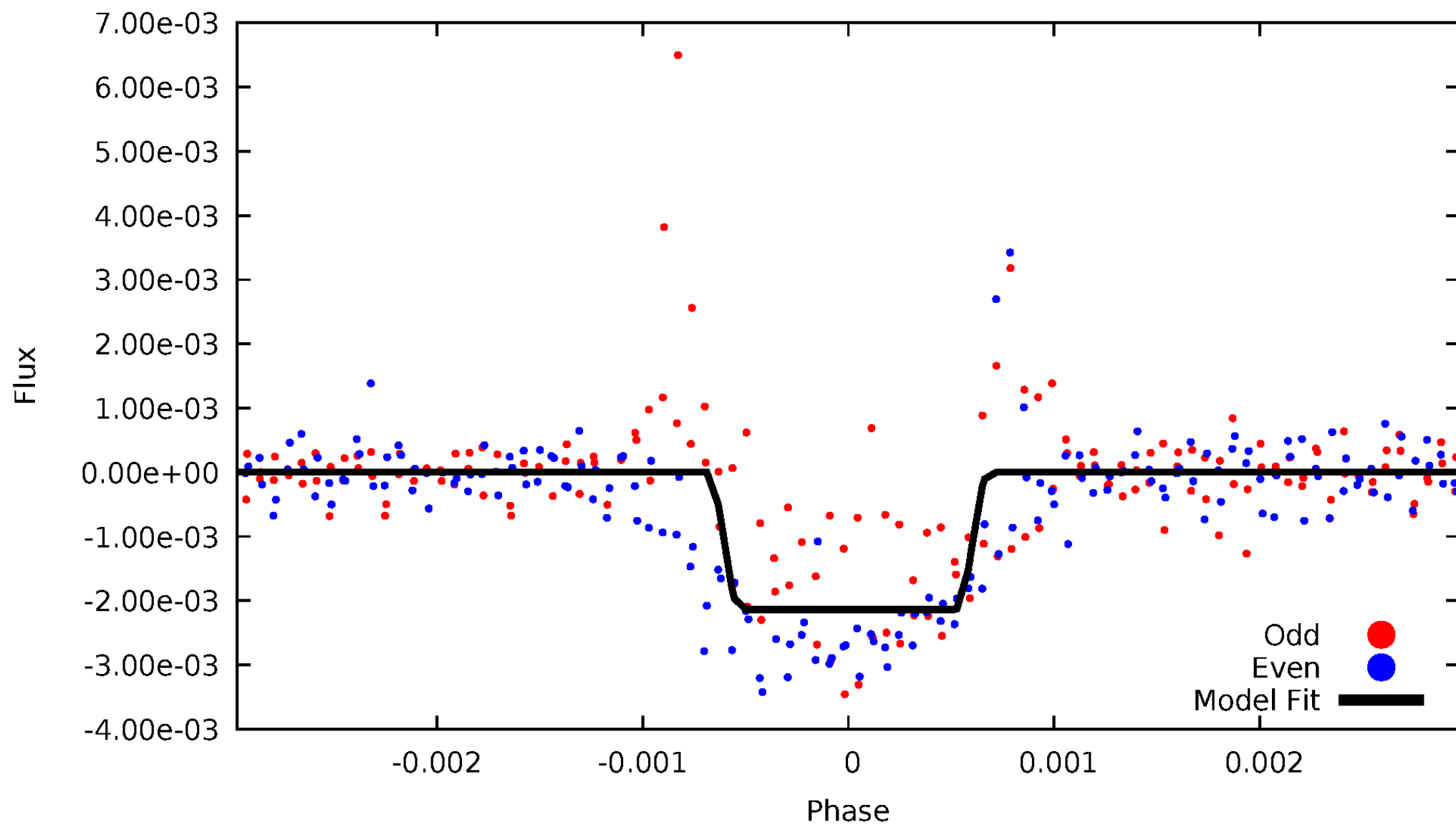
DV Odd/Even

TCE 007834913-01

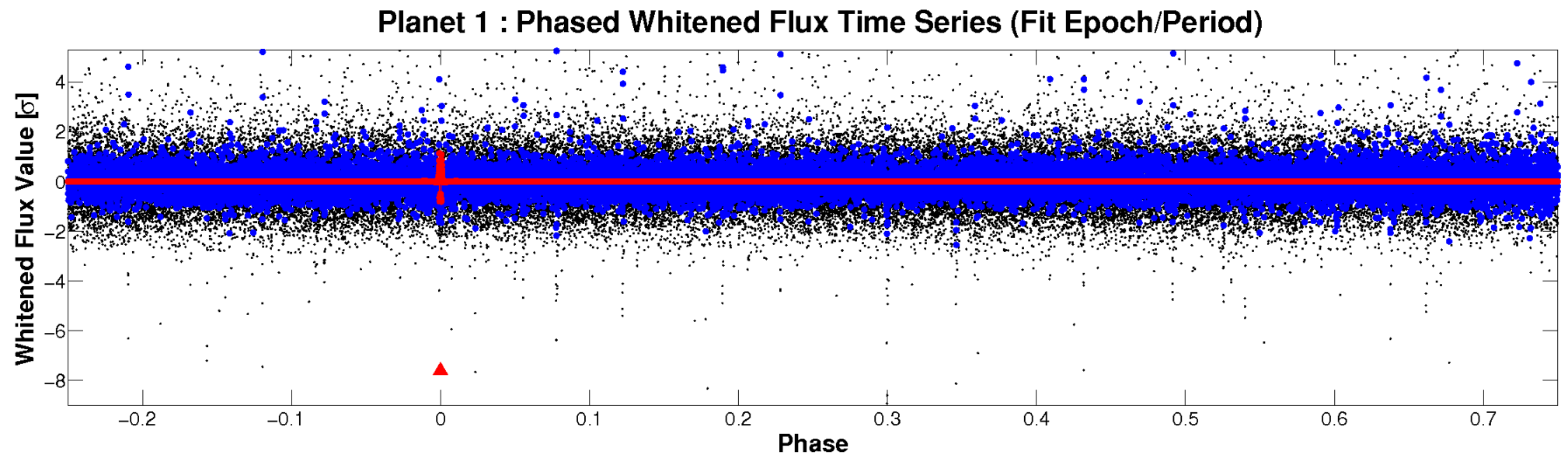
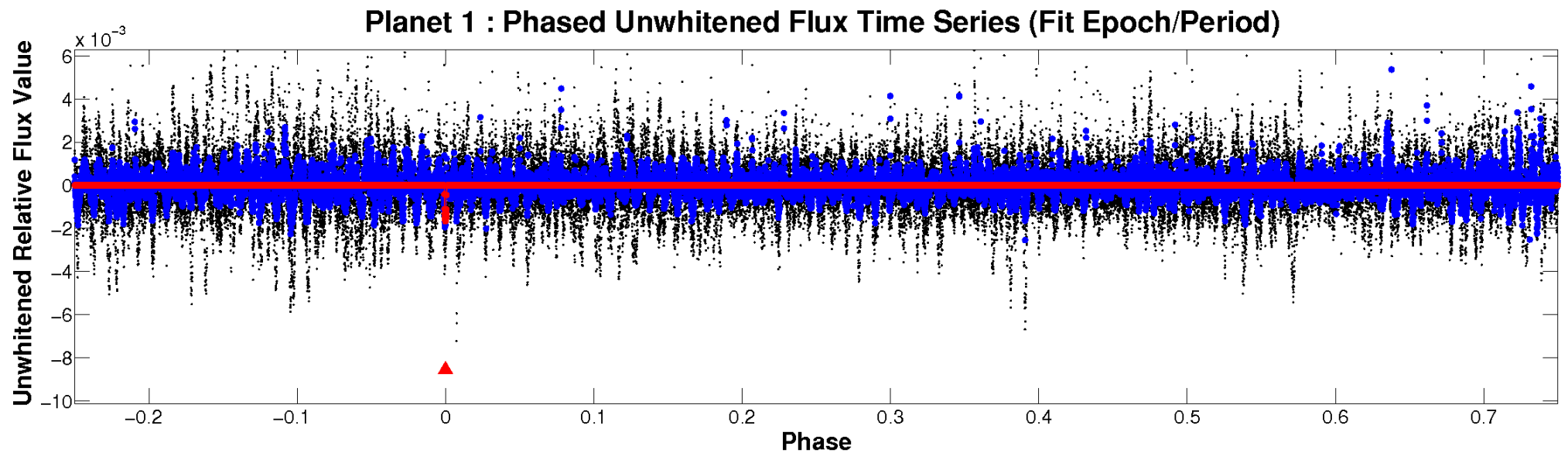


ALT Odd/Even

TCE 007834913-01

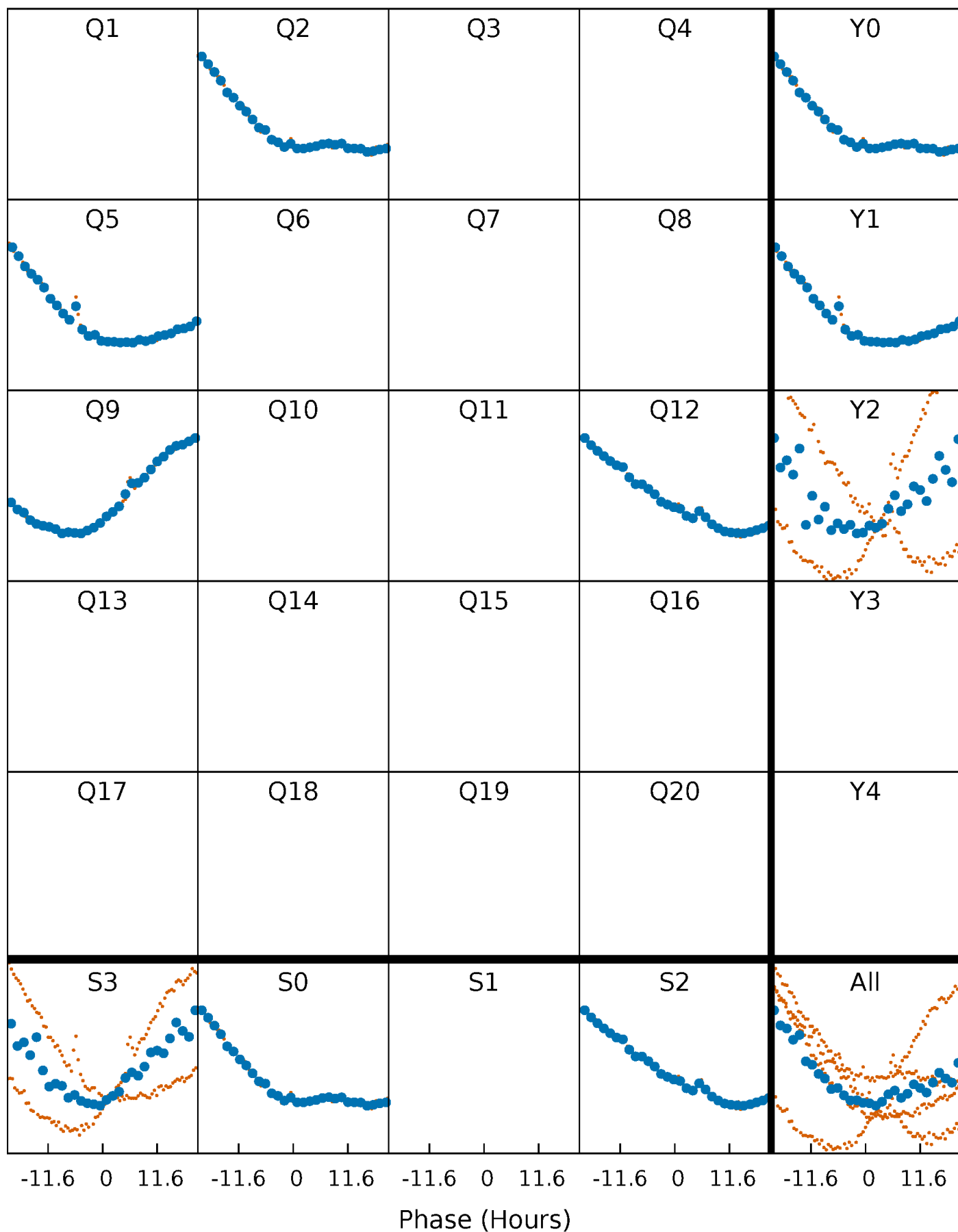


Non-Whitened Vs. Whitened Light Curve



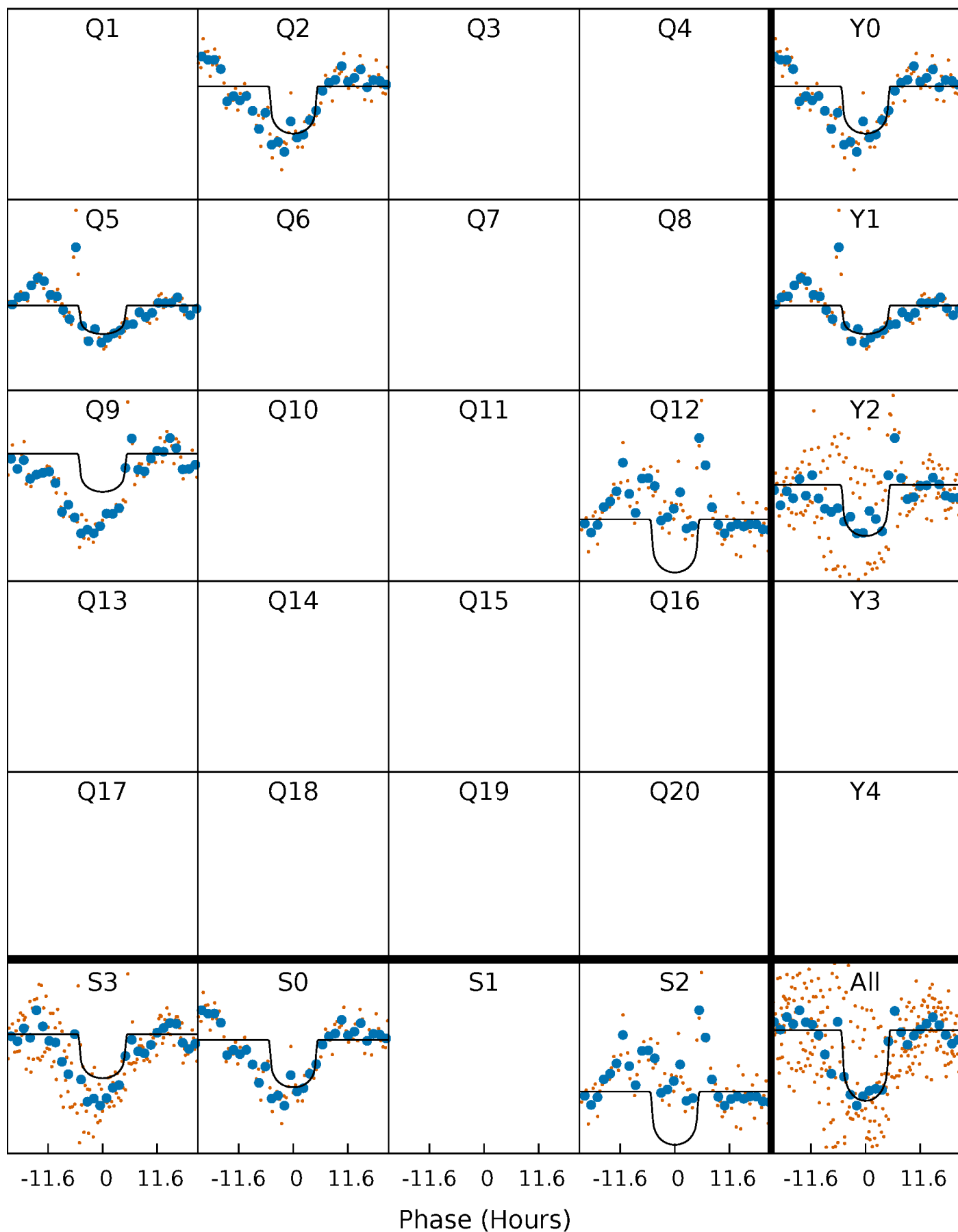
PDC Quarter-Phased Transit Curves

TCE 007834913-01 P=302.506893 Days $T_0=206.200041$ (BKJD)



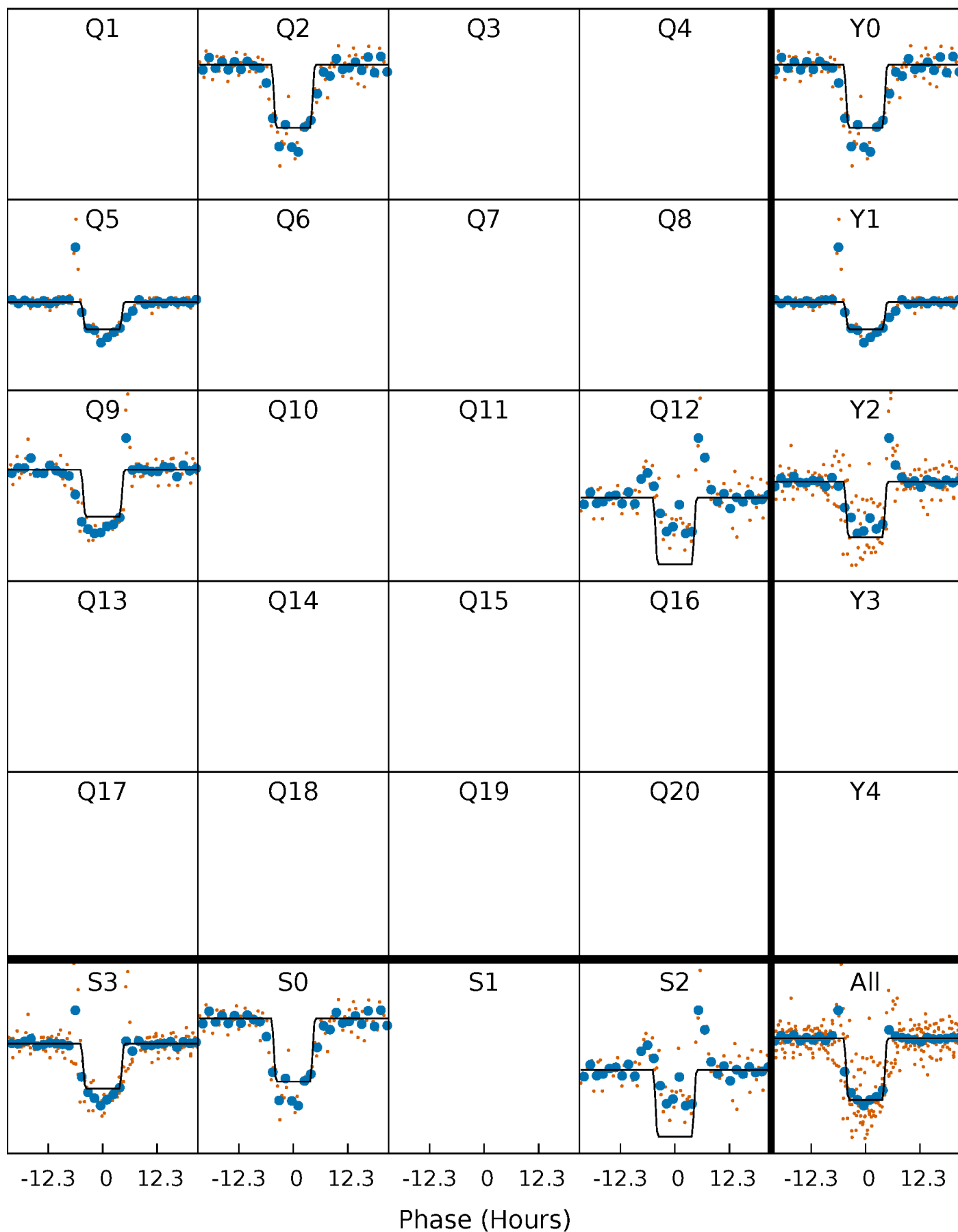
DV Quarter-Phased Transit Curves

TCE 007834913-01 P=302.506893 Days $T_0=206.200041$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

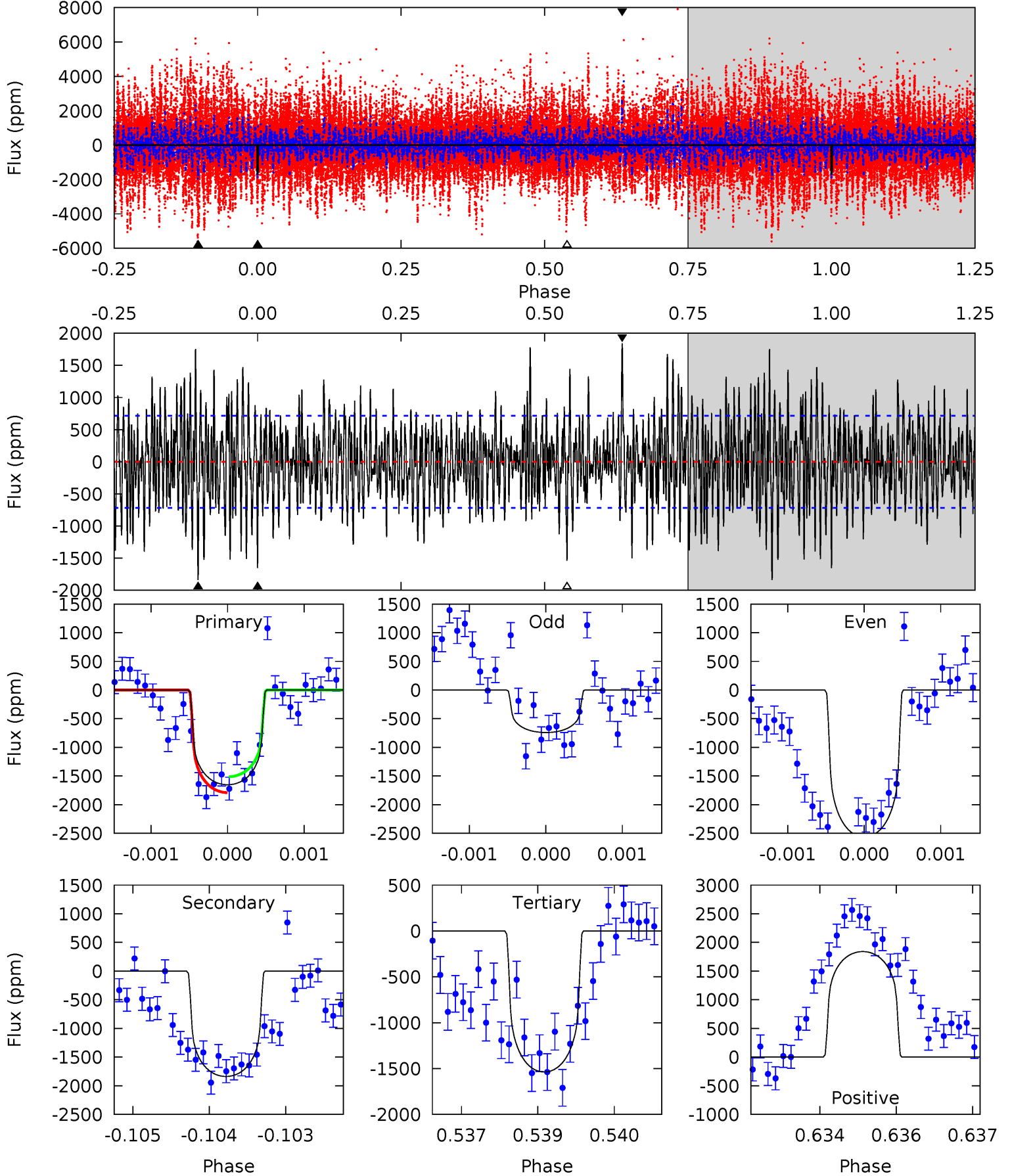
TCE 007834913-01 P=302.498422 Days $T_0=206.223432$ (BKJD)



DV Model-Shift Uniqueness Test

007834913-01, P = 302.506893 Days, E = 206.200041 Days

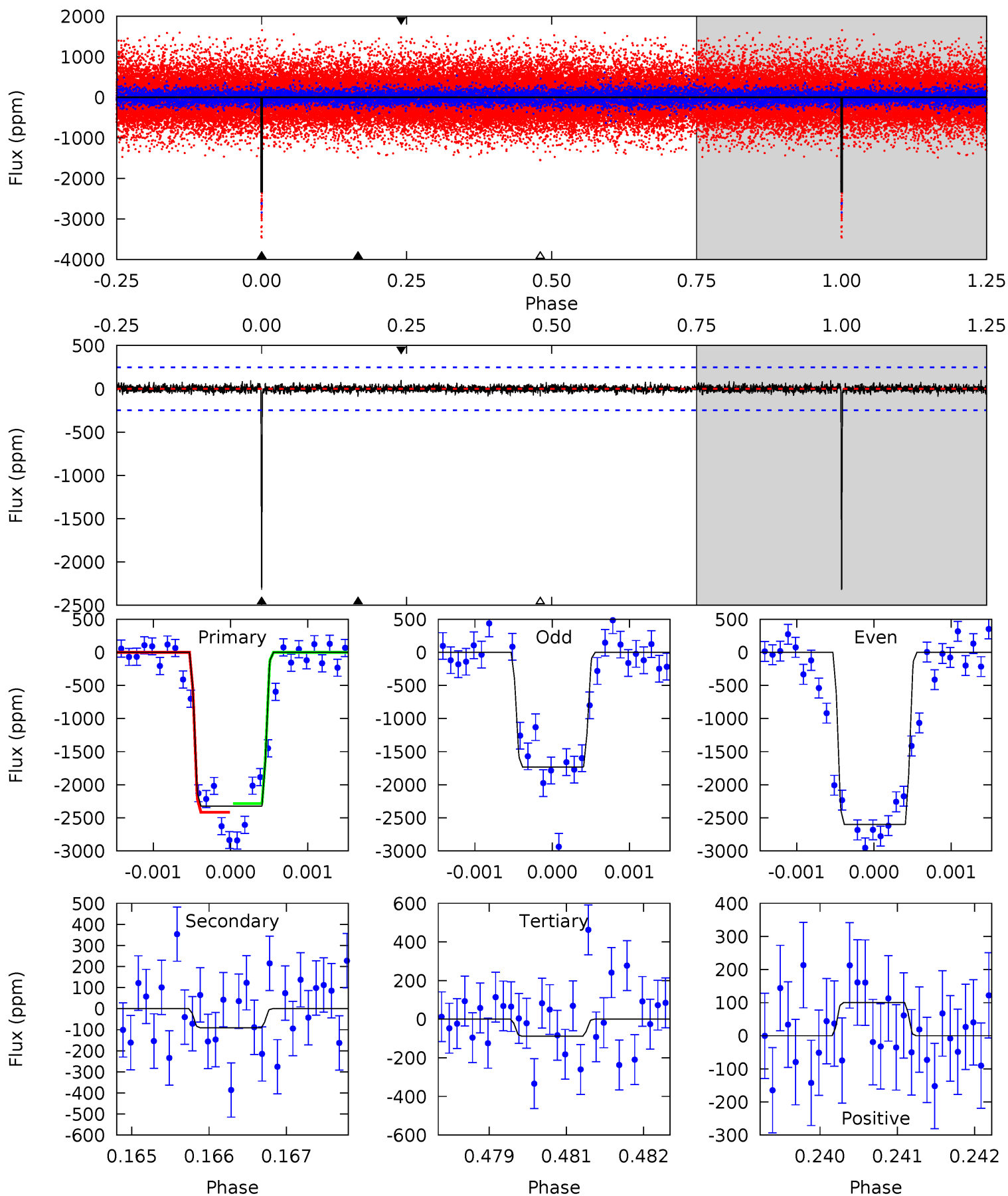
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.4	13.8	11.6	13.8	5.39	3.19	3.94	0.87	-1.41	2.26	-0.02	6.73	0.87	0.50	1.03



Alt Model-Shift Uniqueness Test

007834913-01, P = 302.498422 Days, E = 206.223432 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
50.6	1.98	1.92	2.18	5.41	3.22	0.47	48.7	48.4	0.06	-0.20	9.91	0.85	0.04	1.43



Stellar Parameters For KIC 007834913

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5613^{+152}_{-169}	$4.581^{+0.040}_{-0.160}$	$-0.260^{+0.300}_{-0.300}$	$0.795^{+0.194}_{-0.065}$	$0.888^{+0.088}_{-0.107}$	$2.492^{+0.498}_{-1.096}$
	+3%/-3%	+1%/-3%	+115%/-115%	+24%/-8%	+10%/-12%	+20%/-44%
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 007834913-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1839 ± 133	$3.27^{+1.46}_{-1.21}$	343^{+19}_{-15}	6050^{+1837}_{-862}	$65462^{+104038}_{-33097}$
Alt.	-91 ± 46	$4.19^{+1.38}_{-1.31}$	341^{+20}_{-14}	3132^{+441}_{-365}	1939^{+2695}_{-1162}

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 $A_{obs} \gg 1.0$

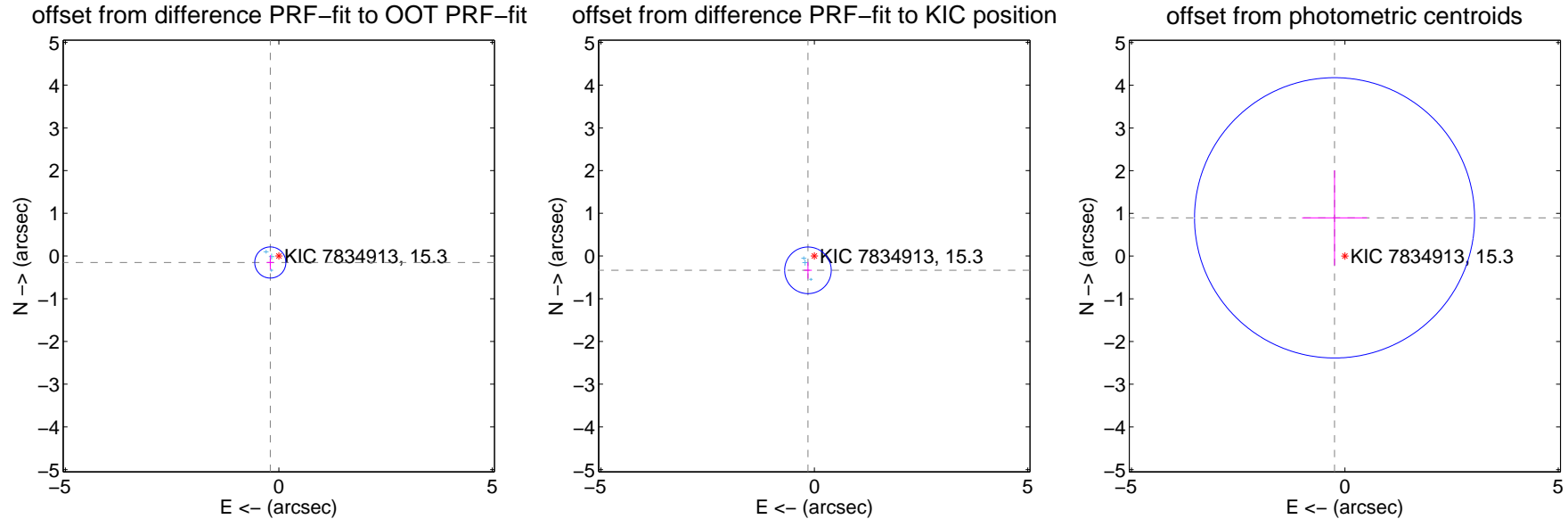
DV Centroid Data

Supplemental centroid analysis for 007834913-01. Kepler magnitude: 15.30. Transit SNR 7.05

There are 3 quarters with good PRF difference image offsets

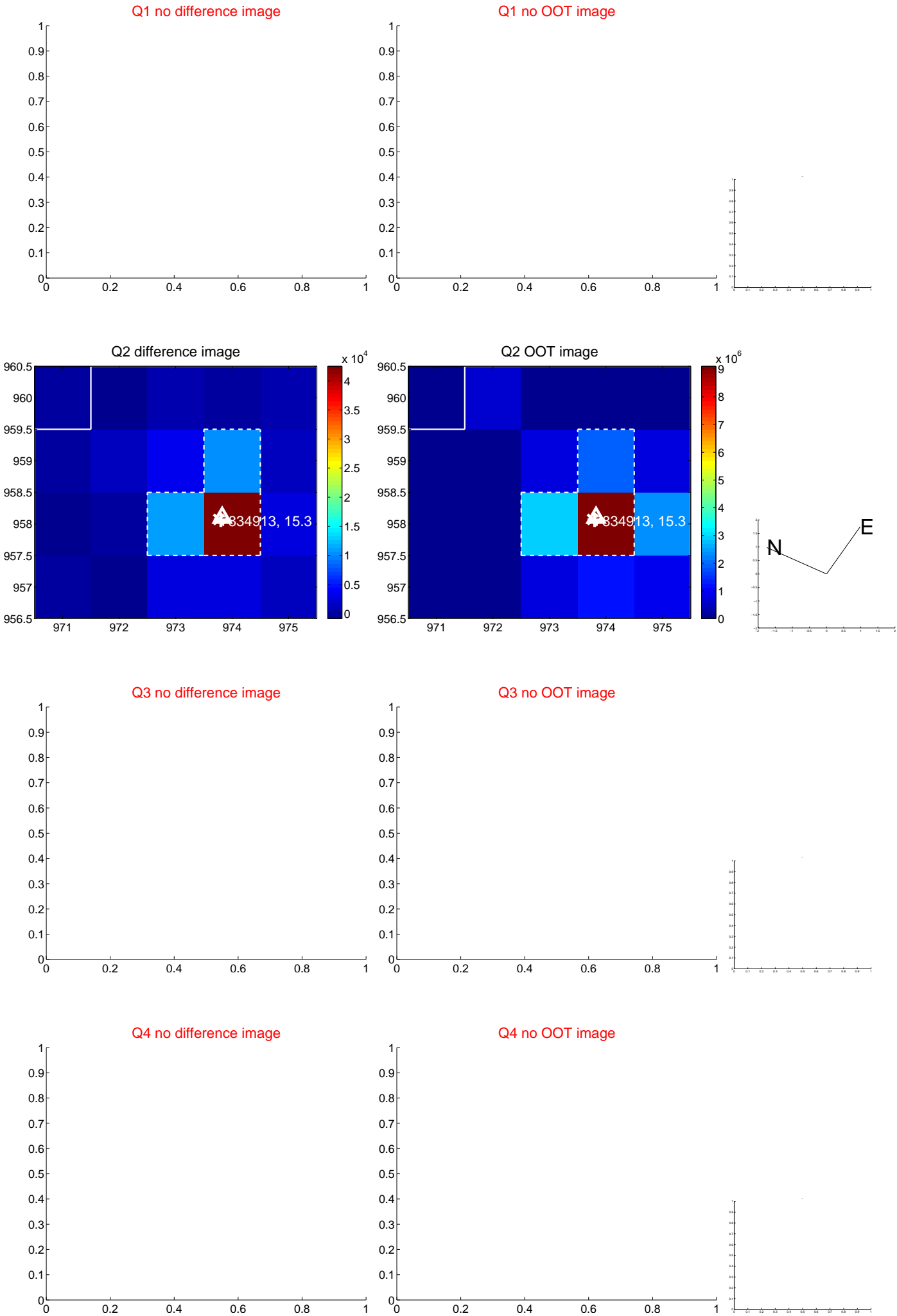
The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.250 ± 0.122	2.06	0.200 ± 0.080	-0.151 ± 0.171
PRF-fit source offset from KIC position	0.367 ± 0.182	2.02	0.150 ± 0.092	-0.335 ± 0.195
photometric centroid source offset	0.93 ± 1.09	0.85	0.24 ± 0.76	0.90 ± 1.11

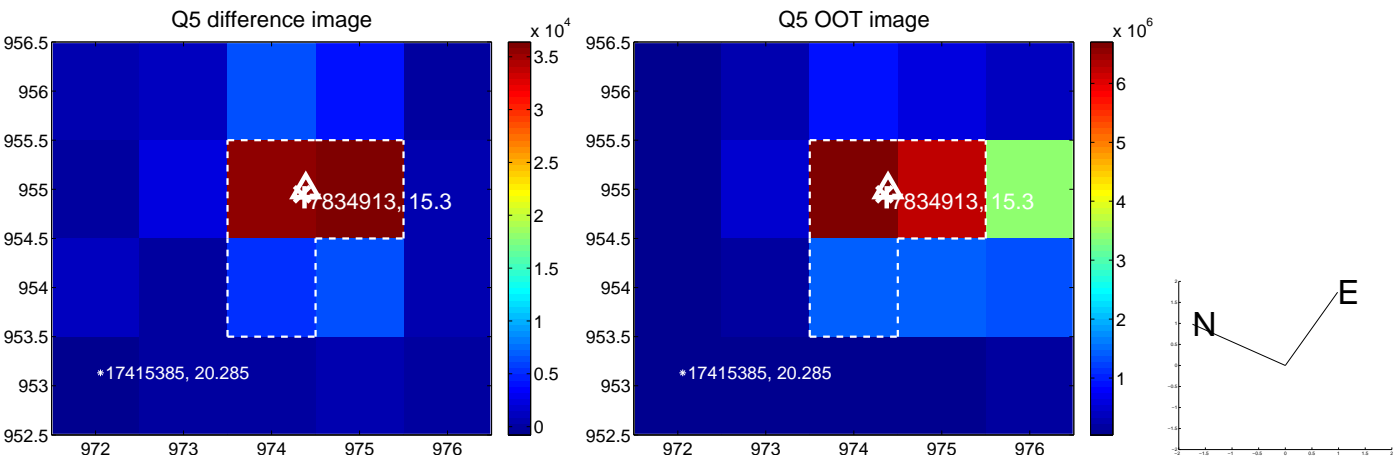


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

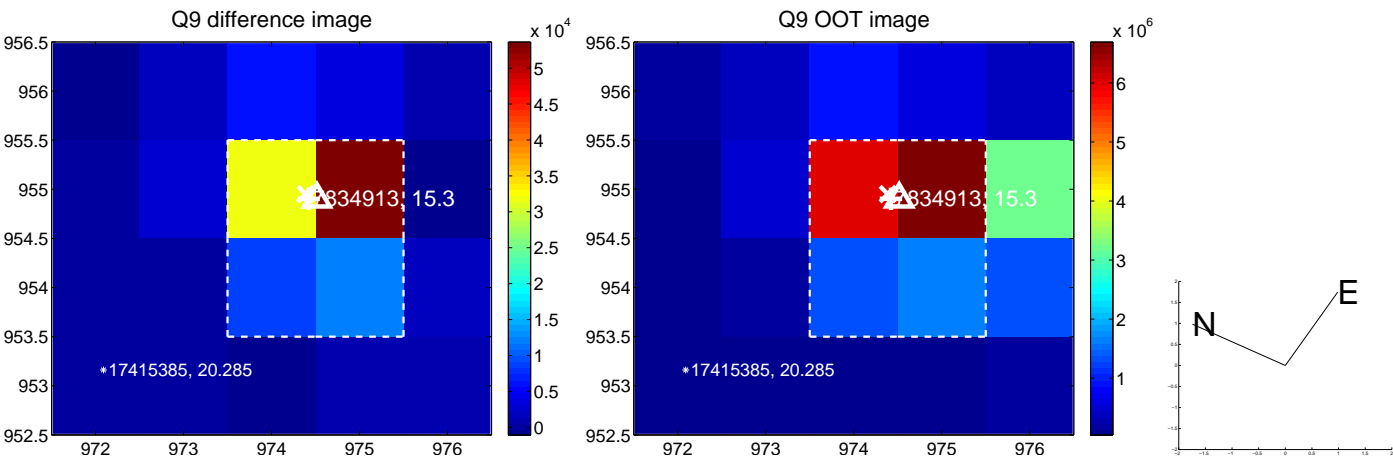
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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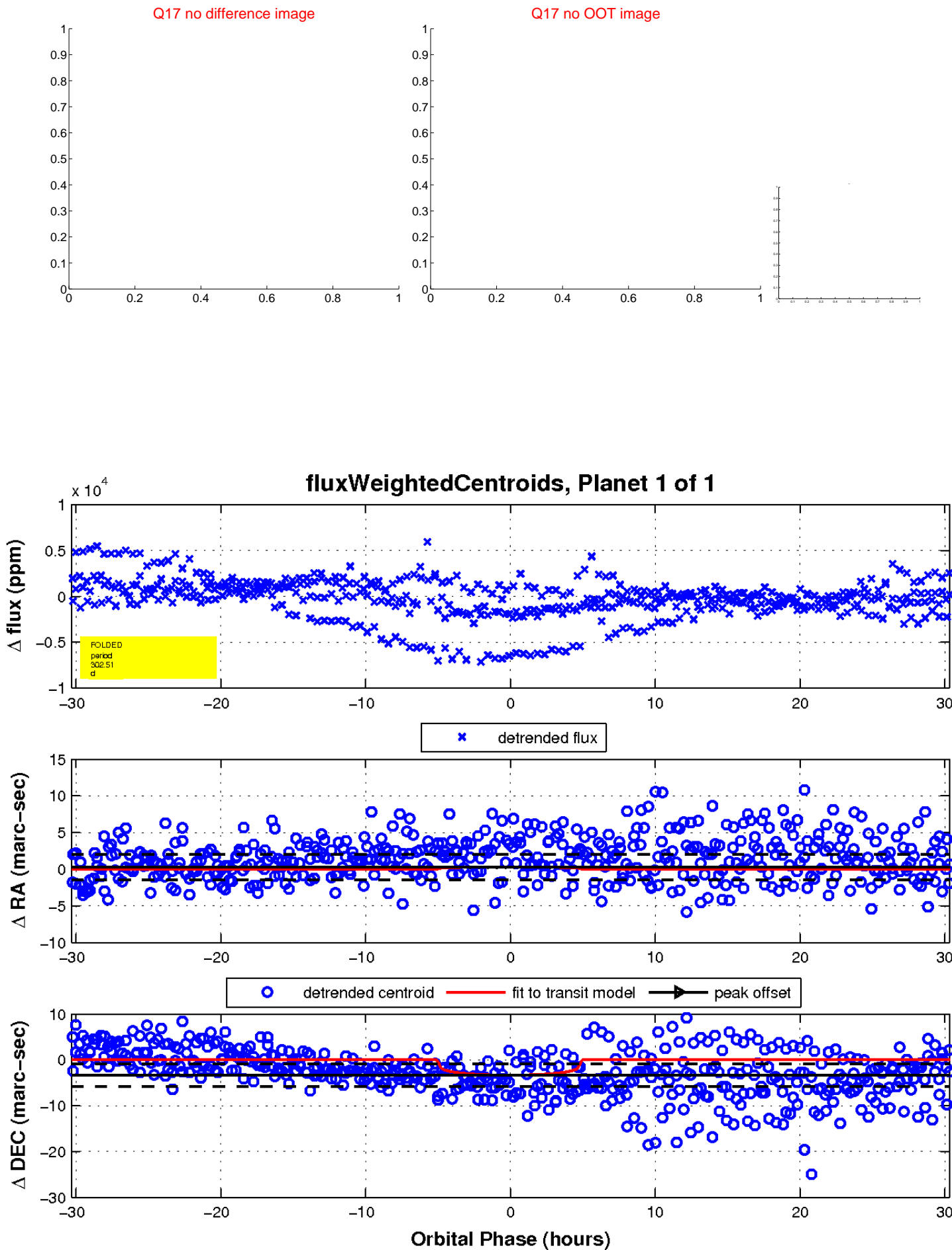
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

