

KIC 010339461

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})
010339461-01	OBS	No	472.591531	171.554939	340.5	31.894	8.8	6.1	0.87	5671	1.90	0.51

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010339461-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—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.

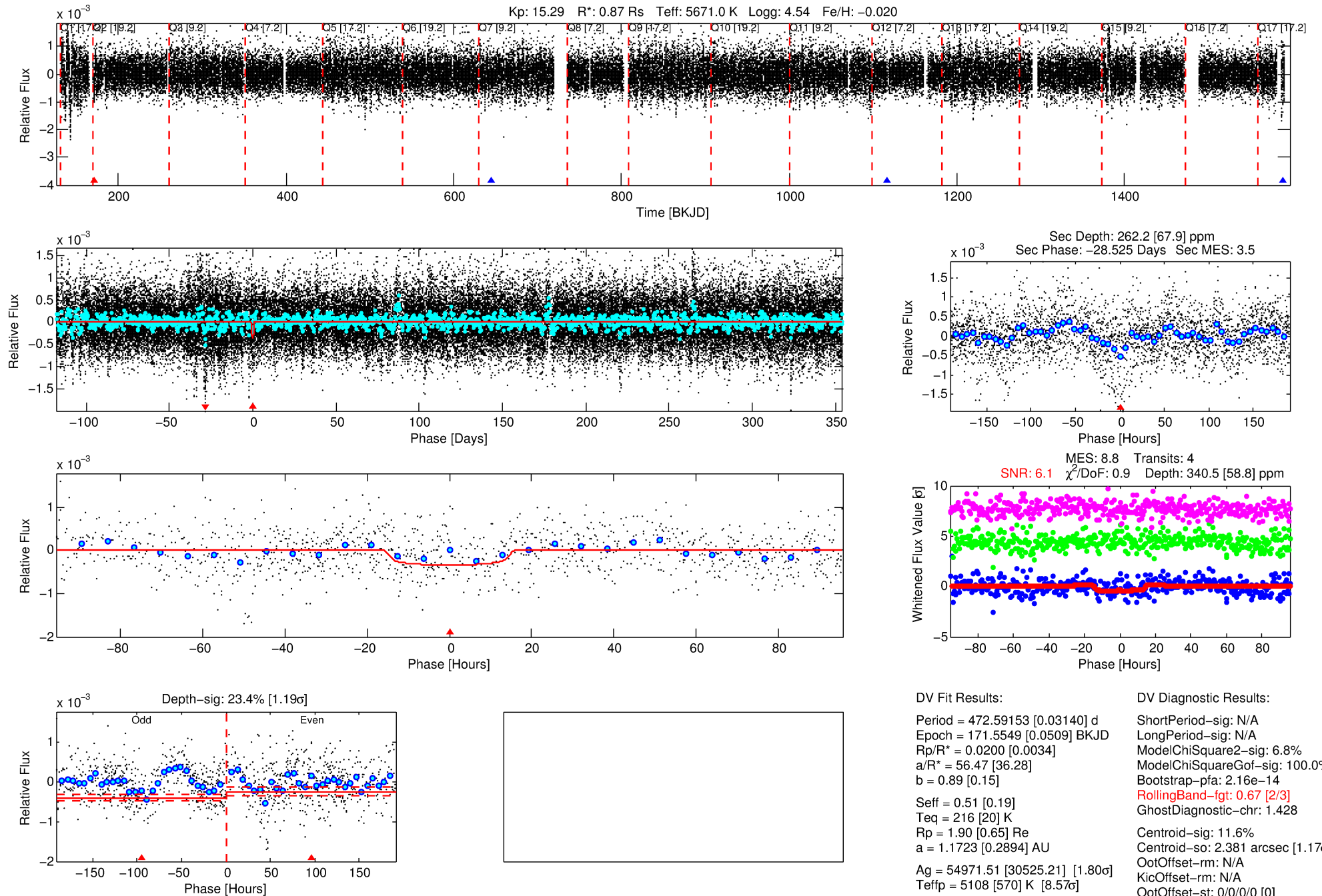
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010339461-01

No Significant Match Found

DV One-Page Summary

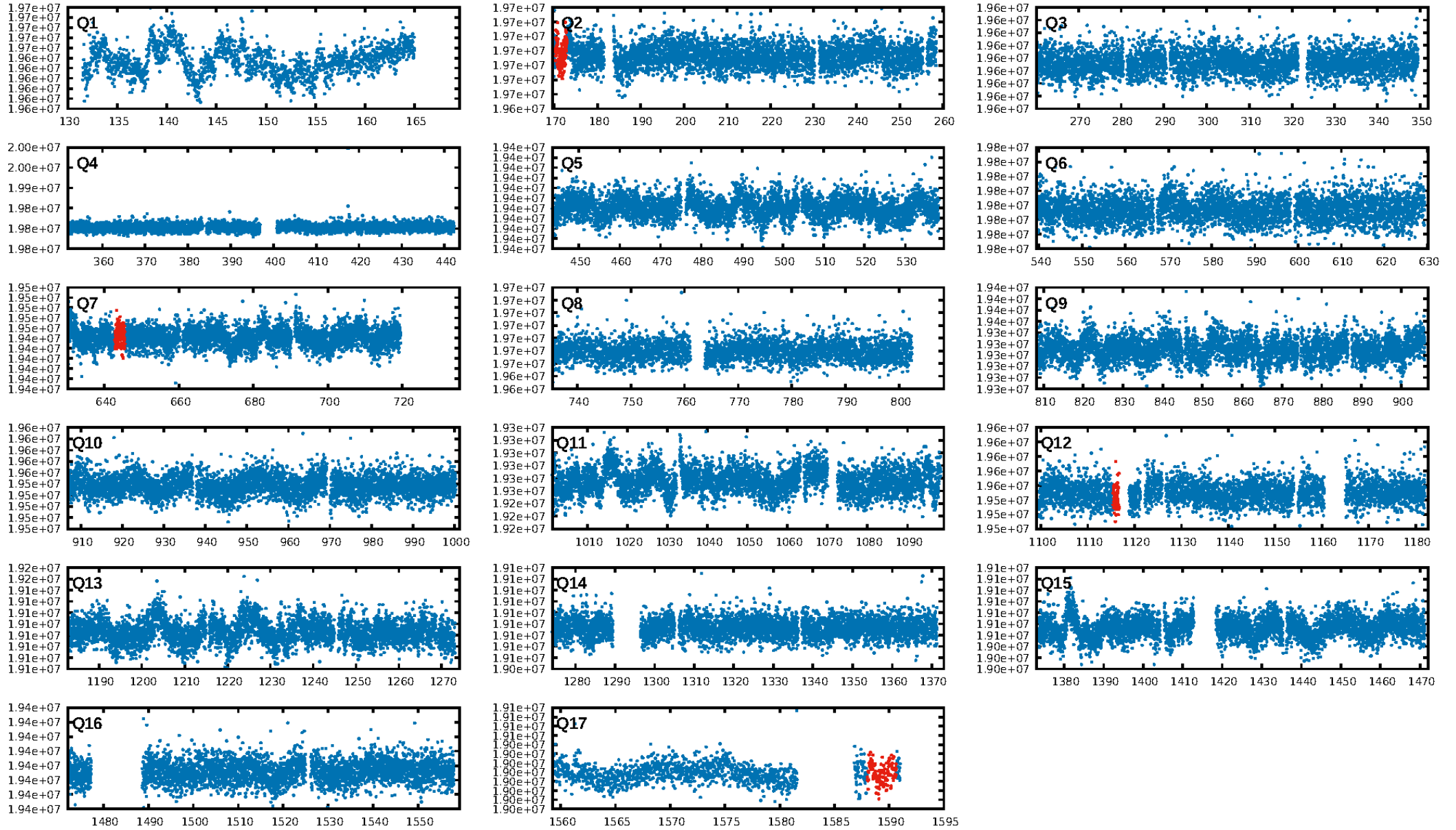
KIC: 10339461 Candidate: 1 of 1 Period: 472.592 d



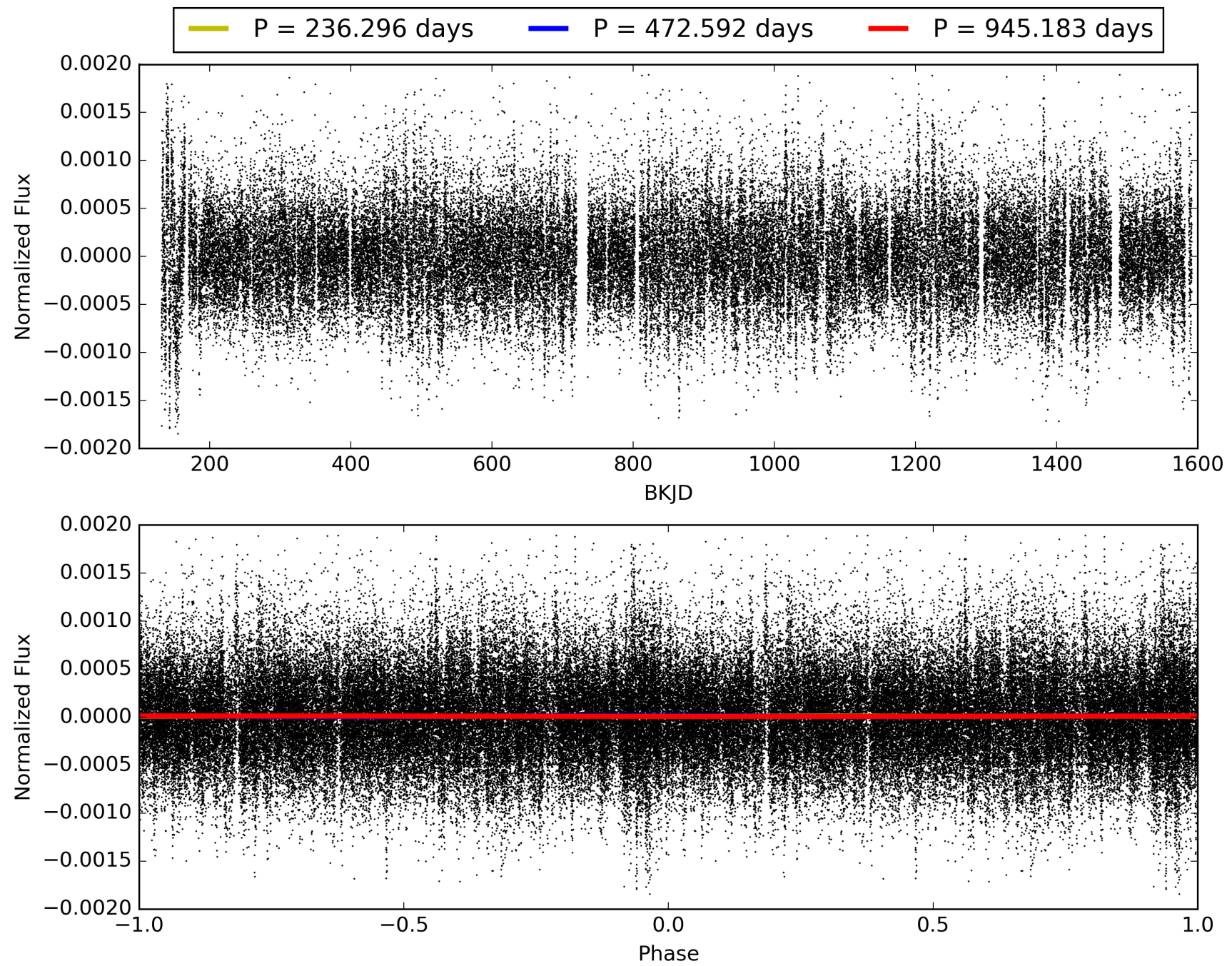
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 21:23:43 Z

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

TCE 010339461-01, PDC Light Curves

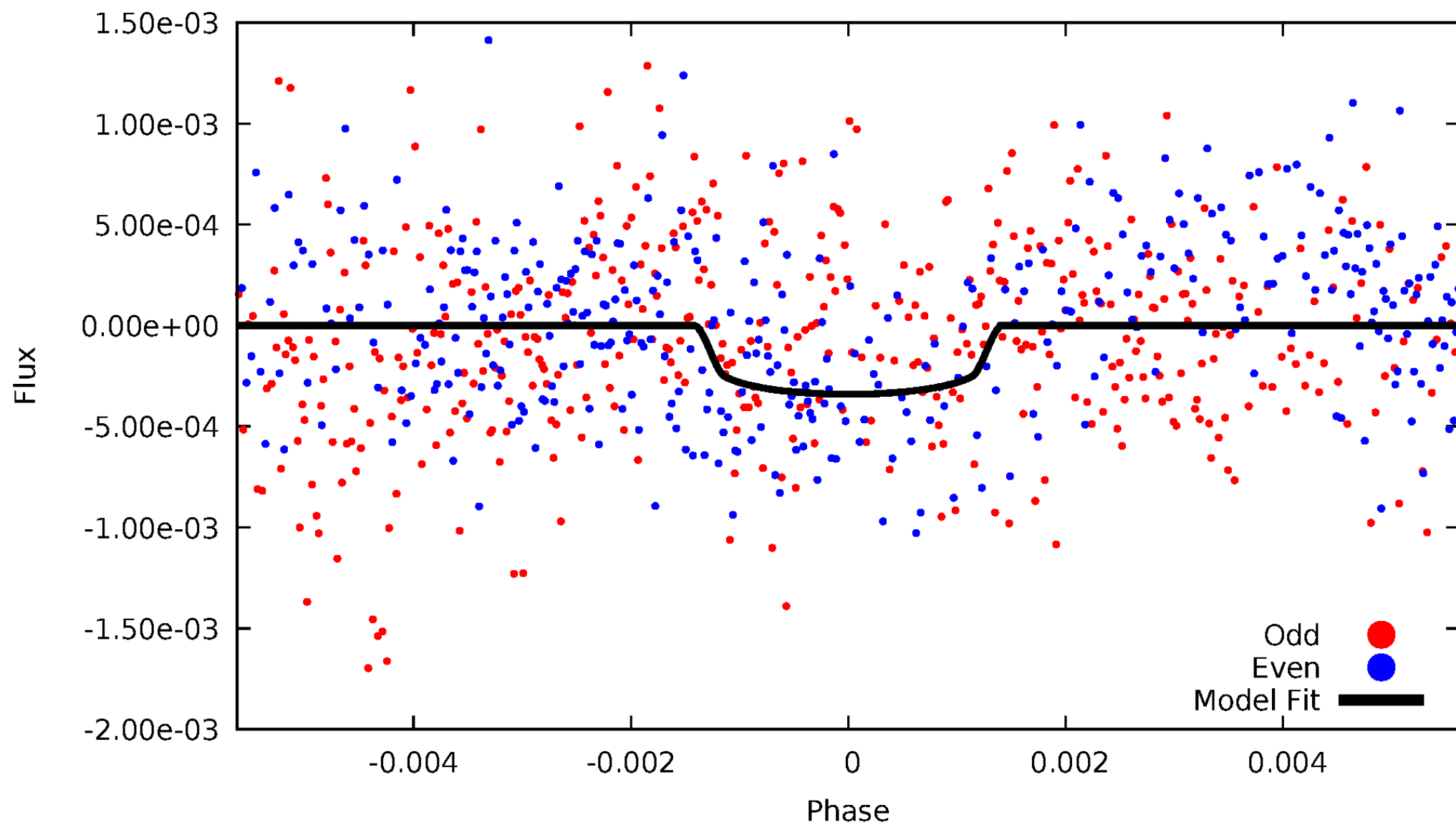


TCE 010339461-01



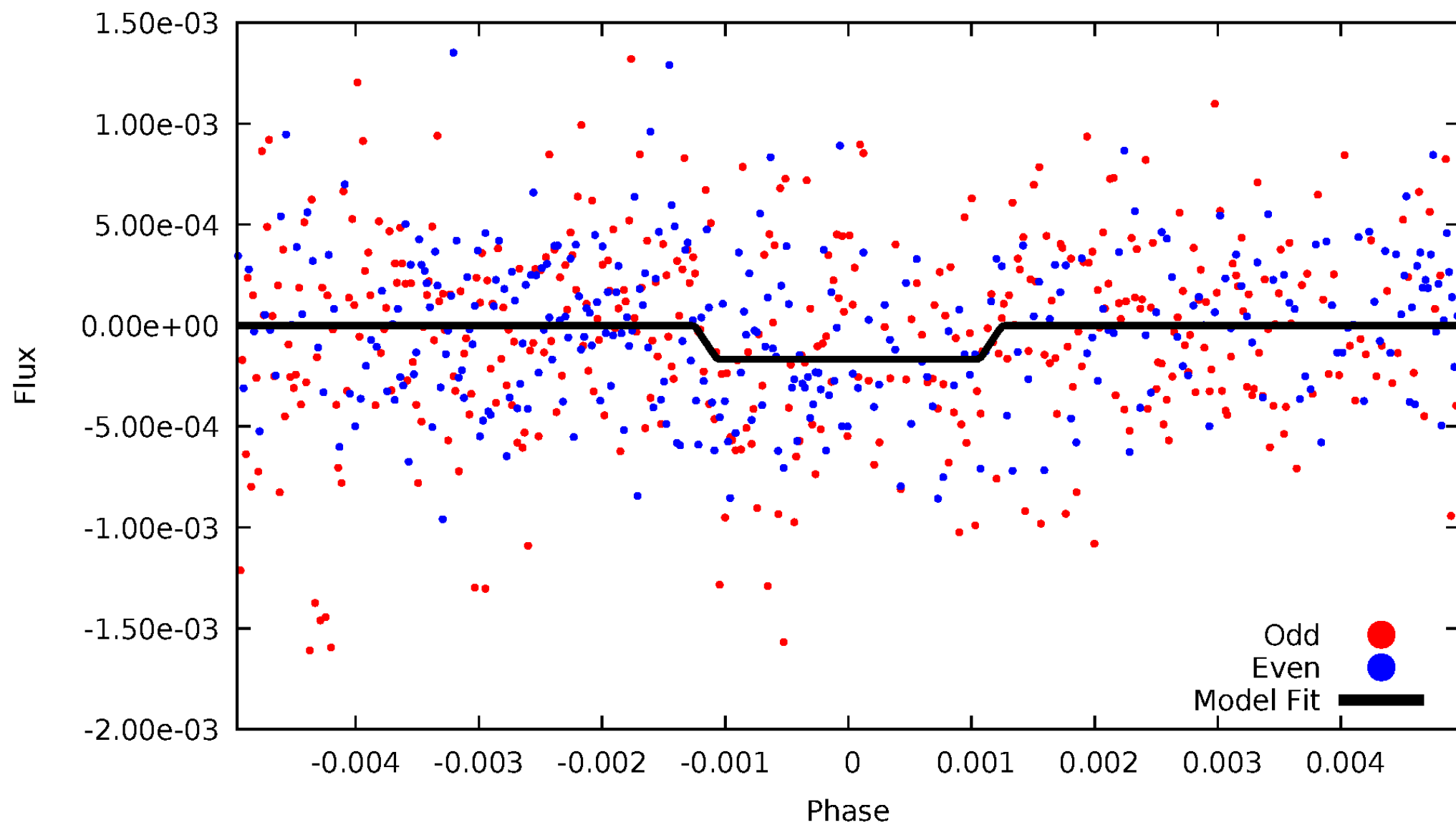
DV Odd/Even

TCE 010339461-01



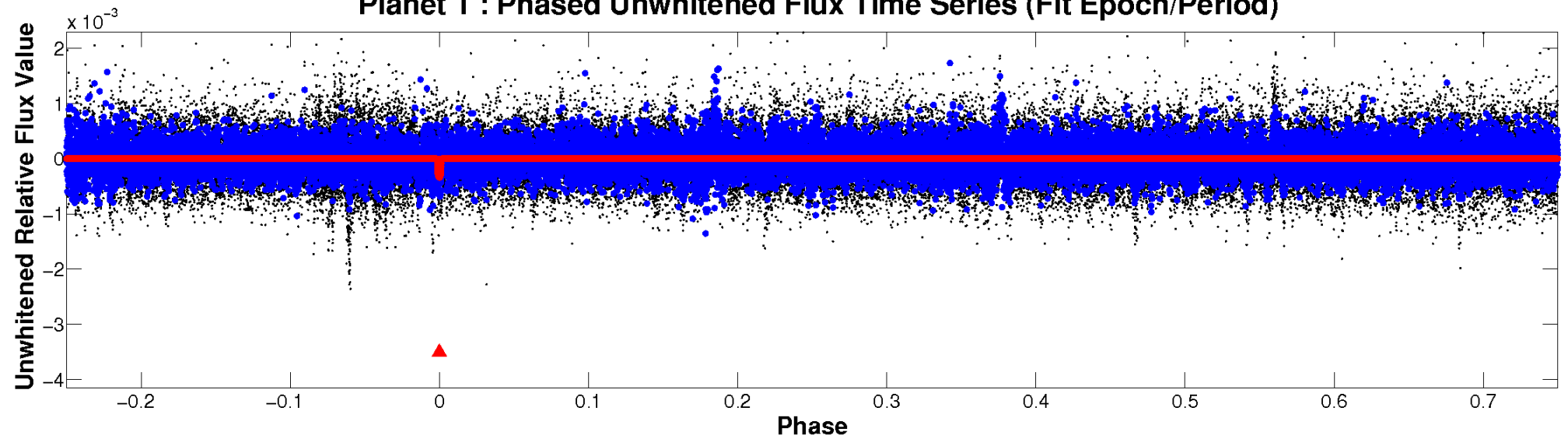
ALT Odd/Even

TCE 010339461-01

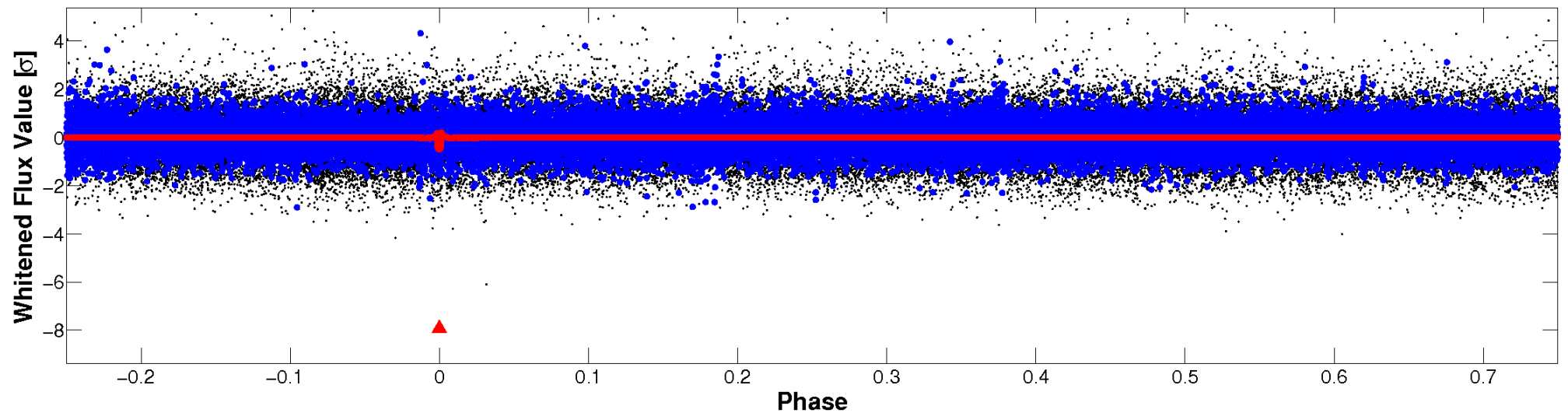


Non-Whitened Vs. Whitened Light Curve

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 010339461-01 P=472.591531 Days $T_0=171.554939$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 010339461-01 P=472.591531 Days $T_0=171.554939$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

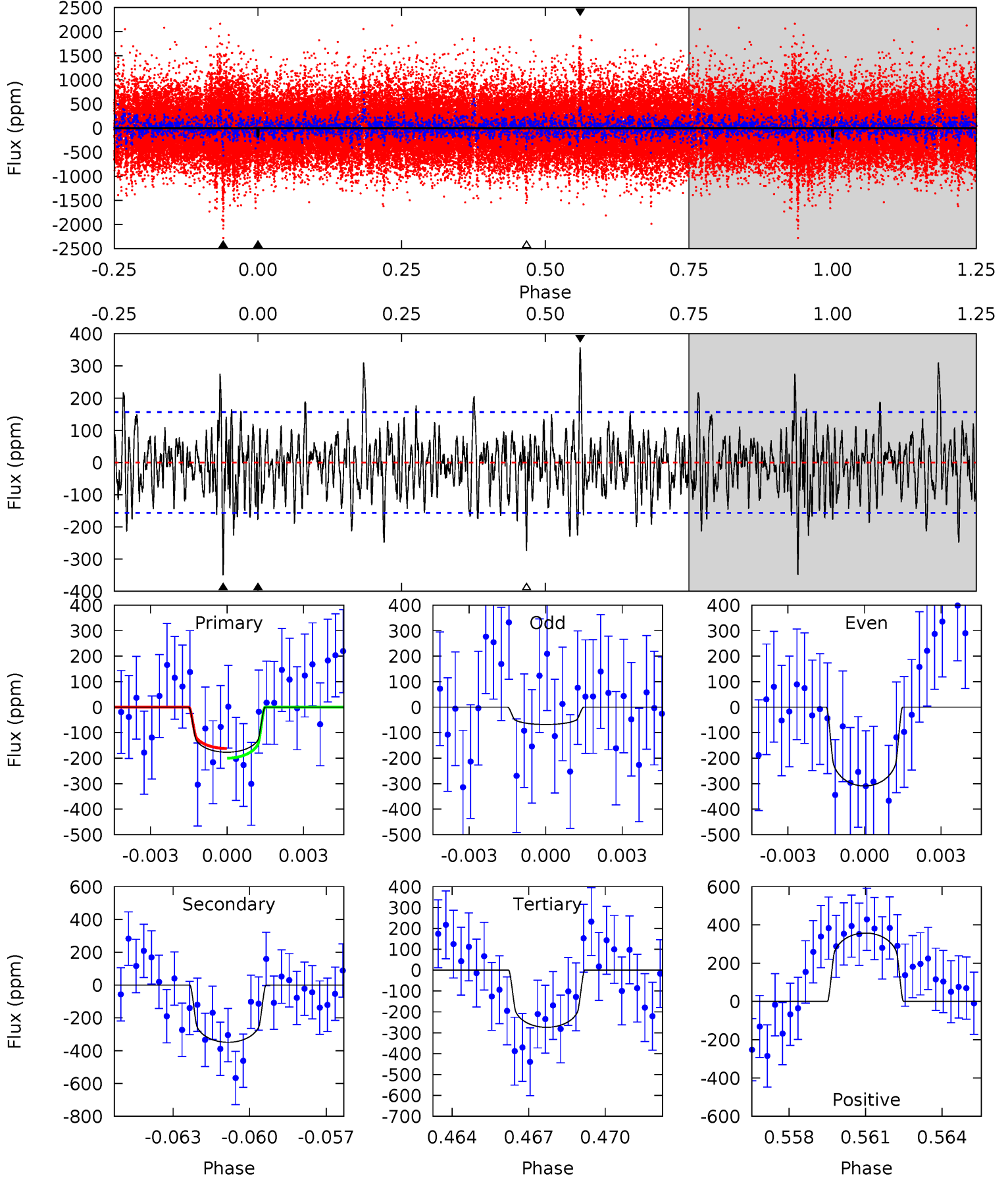
TCE 010339461-01 P=472.600998 Days $T_0=171.505497$ (BKJD)



DV Model-Shift Uniqueness Test

010339461-01, P = 472.591531 Days, E = 171.554939 Days

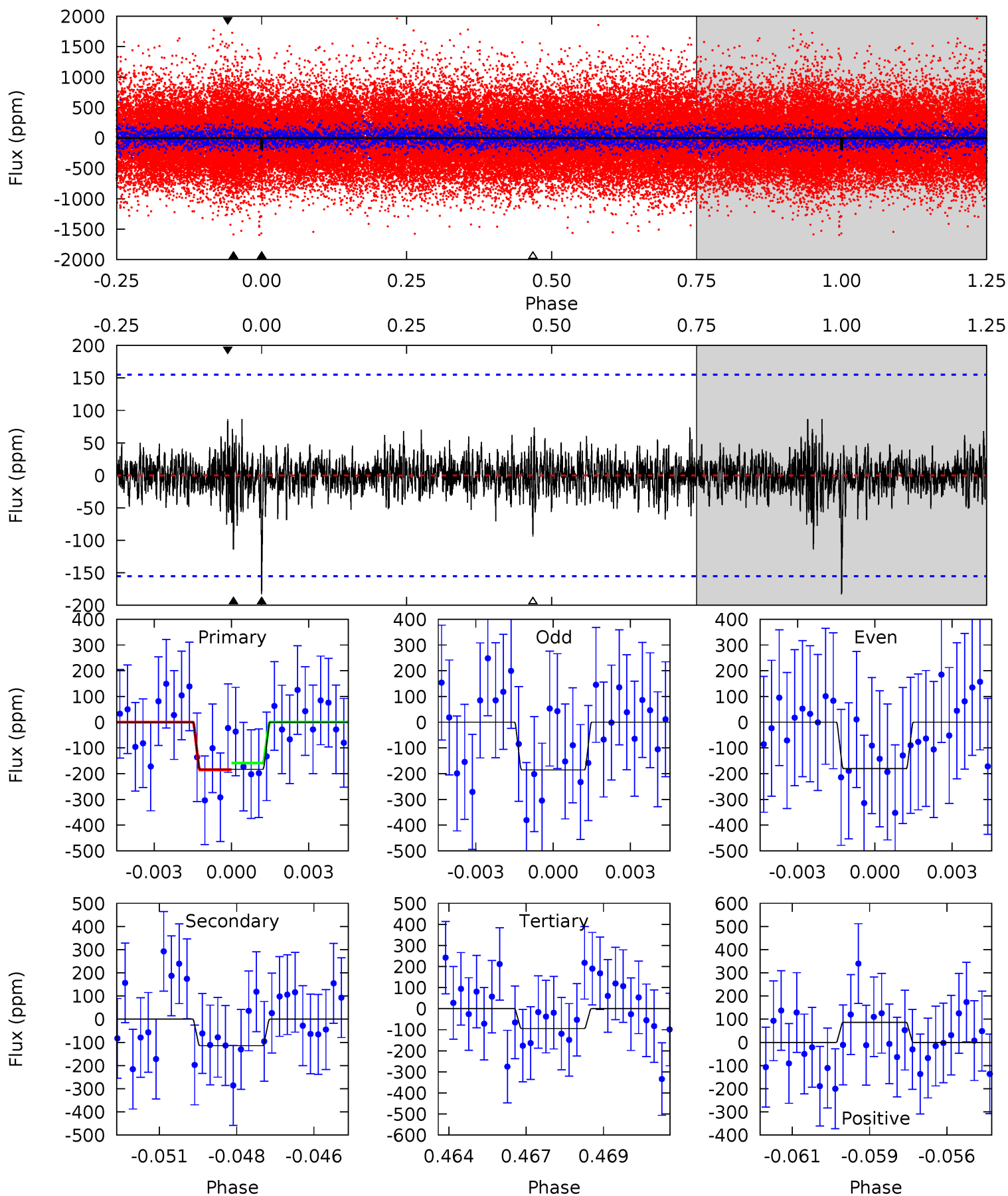
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.95	11.7	9.21	12.0	5.26	2.98	2.63	-3.26	-6.07	2.53	-0.28	4.04	1.01	0.51	0.63



Alt Model-Shift Uniqueness Test

010339461-01, P = 472.600998 Days, E = 171.505497 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.23	3.89	3.21	2.95	5.28	3.02	0.72	3.02	3.28	0.68	0.94	0.09	1.11	0.32	0.45



Stellar Parameters For KIC 010339461

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5671^{+169}_{-186}	$4.540^{+0.036}_{-0.192}$	$-0.020^{+0.300}_{-0.300}$	$0.872^{+0.259}_{-0.086}$	$0.963^{+0.094}_{-0.115}$	$2.041^{+0.396}_{-1.043}$
	+3%/-3%	+1%/-4%	+1500%/-1500%	+30%/-10%	+10%/-12%	+19%/-51%
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 010339461-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-349 ± 30	$2.00^{+0.46}_{-0.39}$	309^{+22}_{-14}	5478^{+590}_{-442}	65480^{+34053}_{-21699}
Alt.	-114 ± 29	$1.30^{+0.39}_{-0.34}$	309^{+19}_{-15}	5181^{+897}_{-593}	49084^{+49194}_{-22043}

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

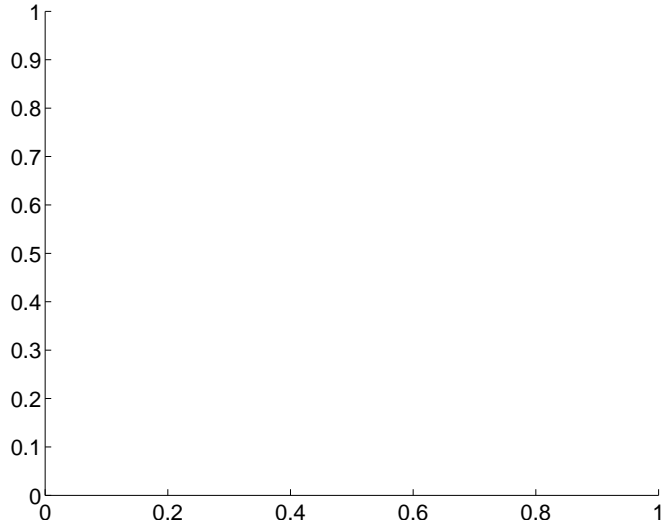
Supplemental centroid analysis for 010339461-01. Kepler magnitude: 15.29. Transit SNR 6.14

There are 0 quarters with good PRF difference image offsets

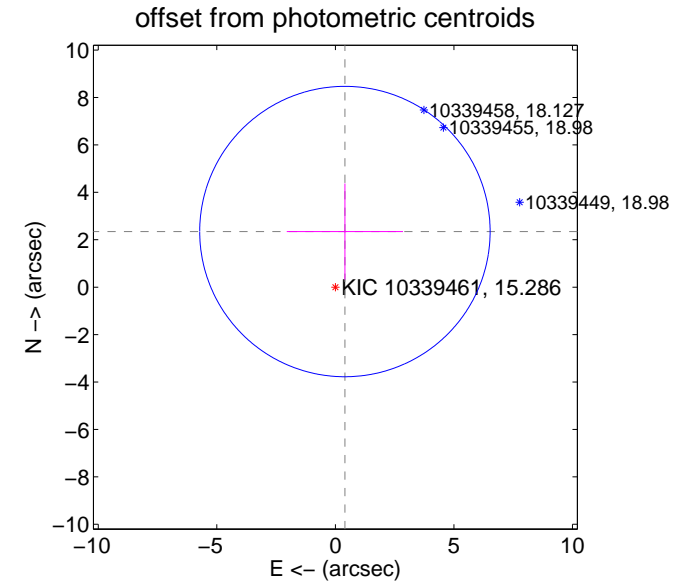
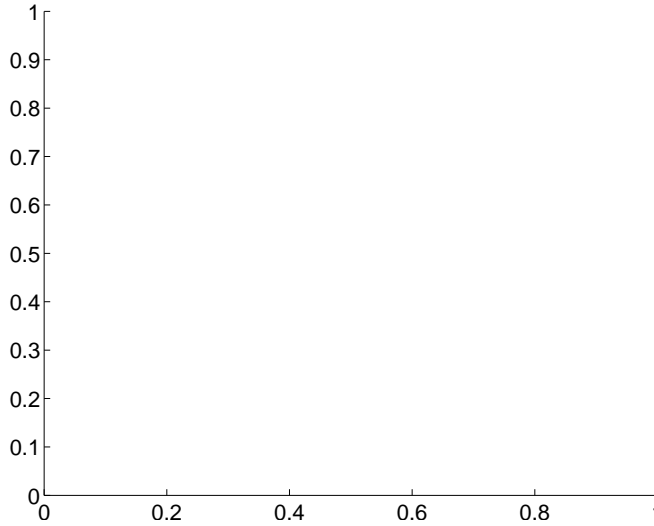
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	2.38 ± 2.04	1.17	-0.40 ± 2.45	2.35 ± 2.03

There is no PRF-fit offset from OOT-fit



There is no PRF-fit offset from KIC



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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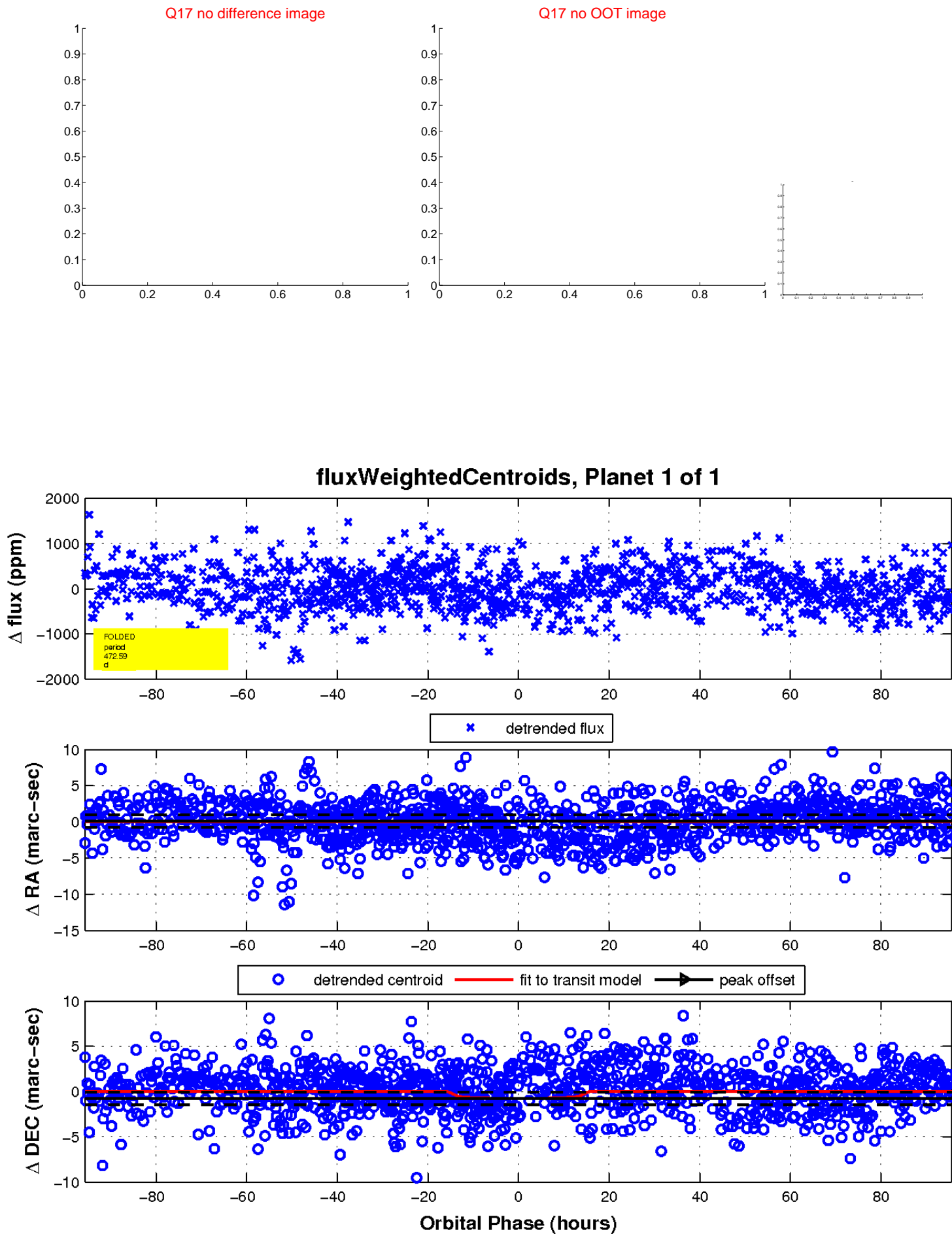
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UKIRT Image

Declination

