

KIC 007619236

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})
007619236-02	OBS	No	472.466035	233.564855	197.6	24.633	7.5	7.0	1.22	5565	1.75	0.90

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007619236-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE—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.

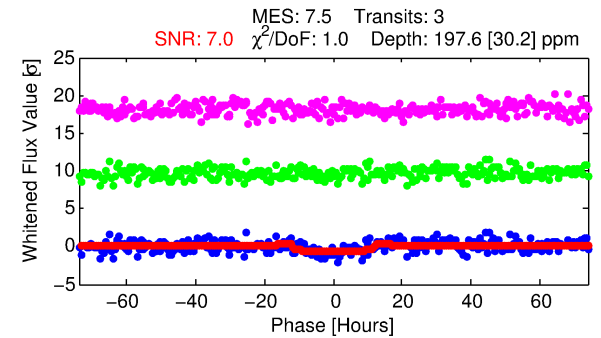
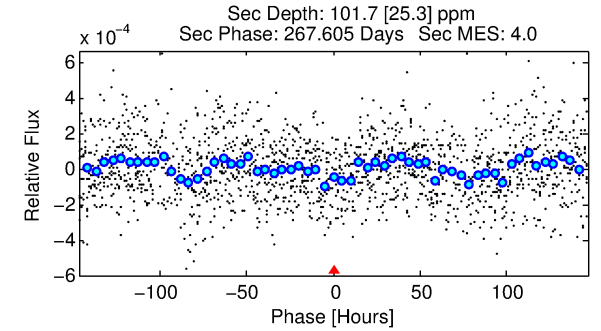
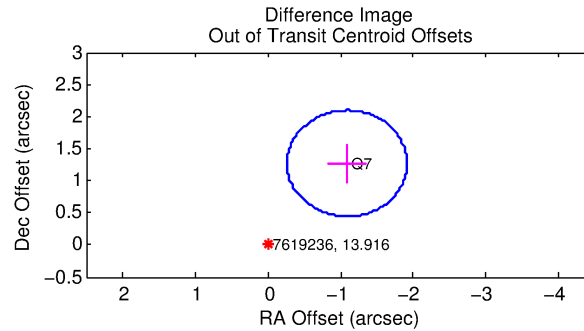
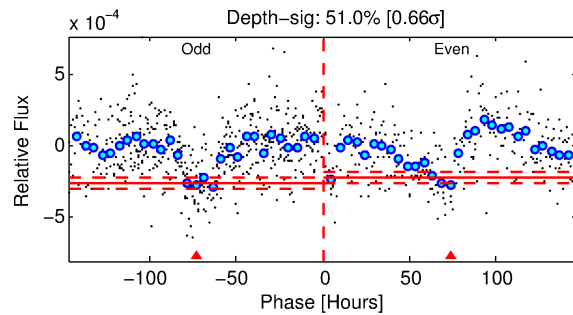
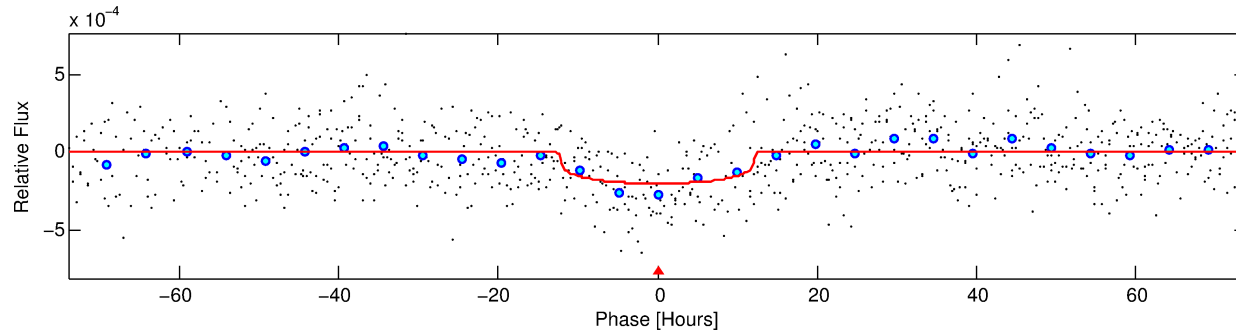
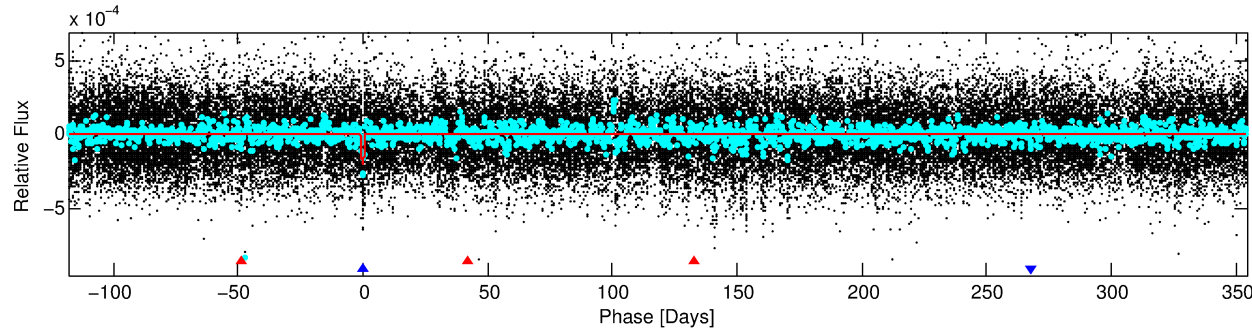
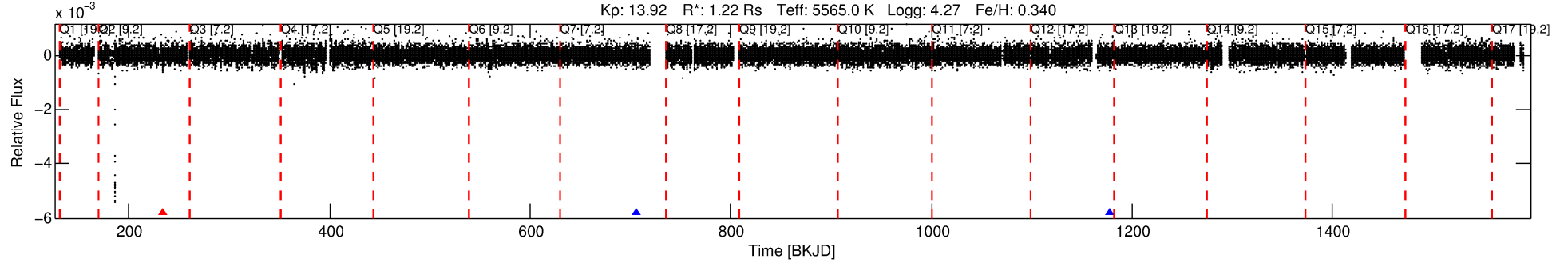
Ephemeris Match Information For 007619236-02

No Significant Match Found

DV One-Page Summary

KIC: 7619236 Candidate: 2 of 2 Period: 472.466 d

KOI: K00682 Corr: No Ephemeris Match



DV Fit Results:

Period = 472.46604 [0.01908] d
Epoch = 233.5649 [0.0256] BKJD
Rp/R* = 0.0131 [0.0112]
a/R* = 127.18 [425.36]
b = 0.52 [4.68]
Seff = 0.90 [0.25]
Teq = 249 [17] K
Rp = 1.75 [1.52] Re
a = 1.1921 [0.1944] AU
Ag = 25927.86 [45109.69] [0.57 σ]
Teffp = 4877 [2099] K [2.20 σ]

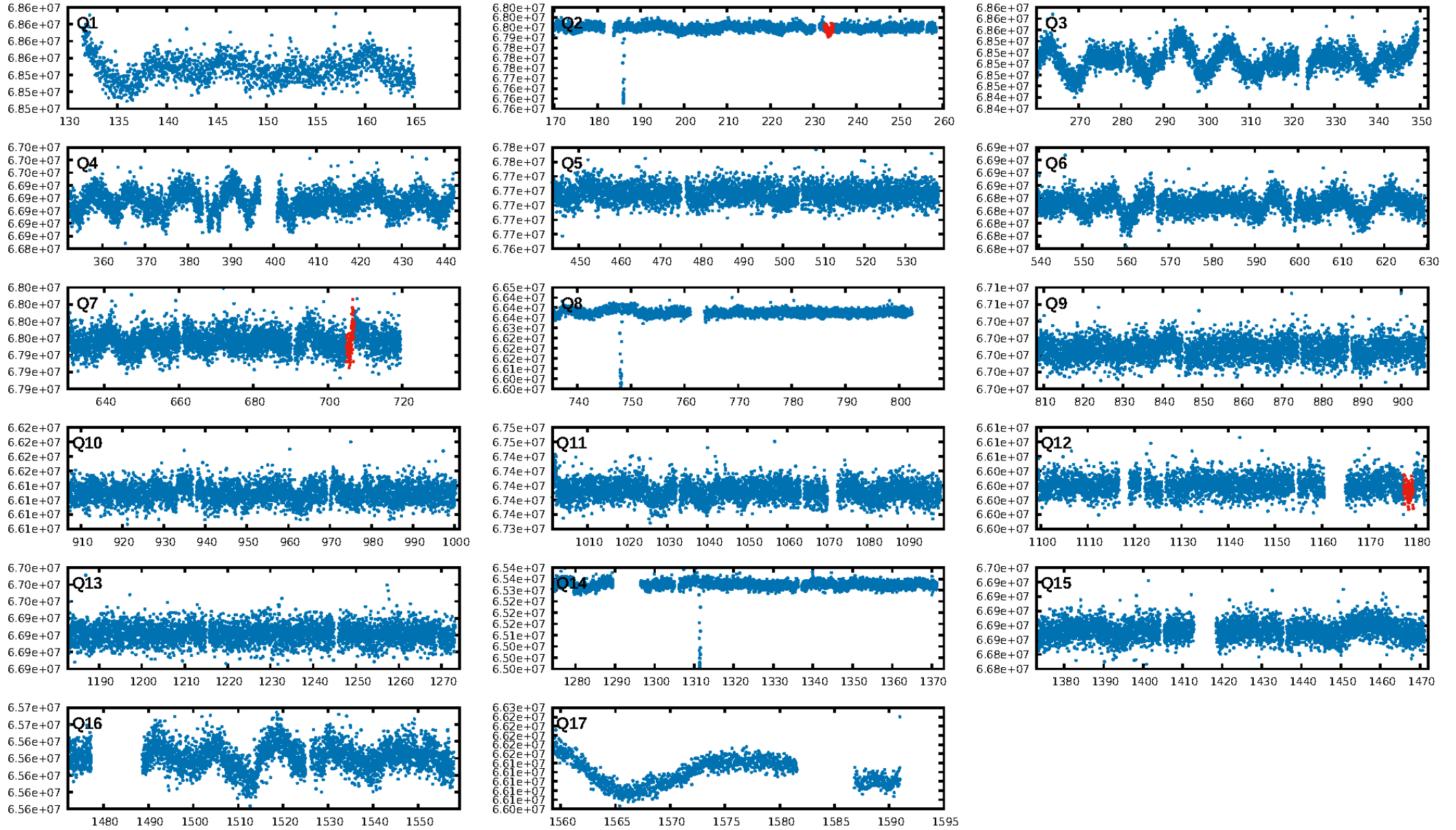
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [82.06 σ]
ModelChiSquare2-sig: 32.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 7.31e-08
RollingBand-fgt: 0.67 [2/3]
GhostDiagnostic-chr: 120.3
Centroid-sig: 9.6%
Centroid-so: 2.581 arcsec [1.32 σ]
OotOffset-rm: 1.672 arcsec [6.07 σ]
KicOffset-rm: 1.738 arcsec [6.26 σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [1/1]

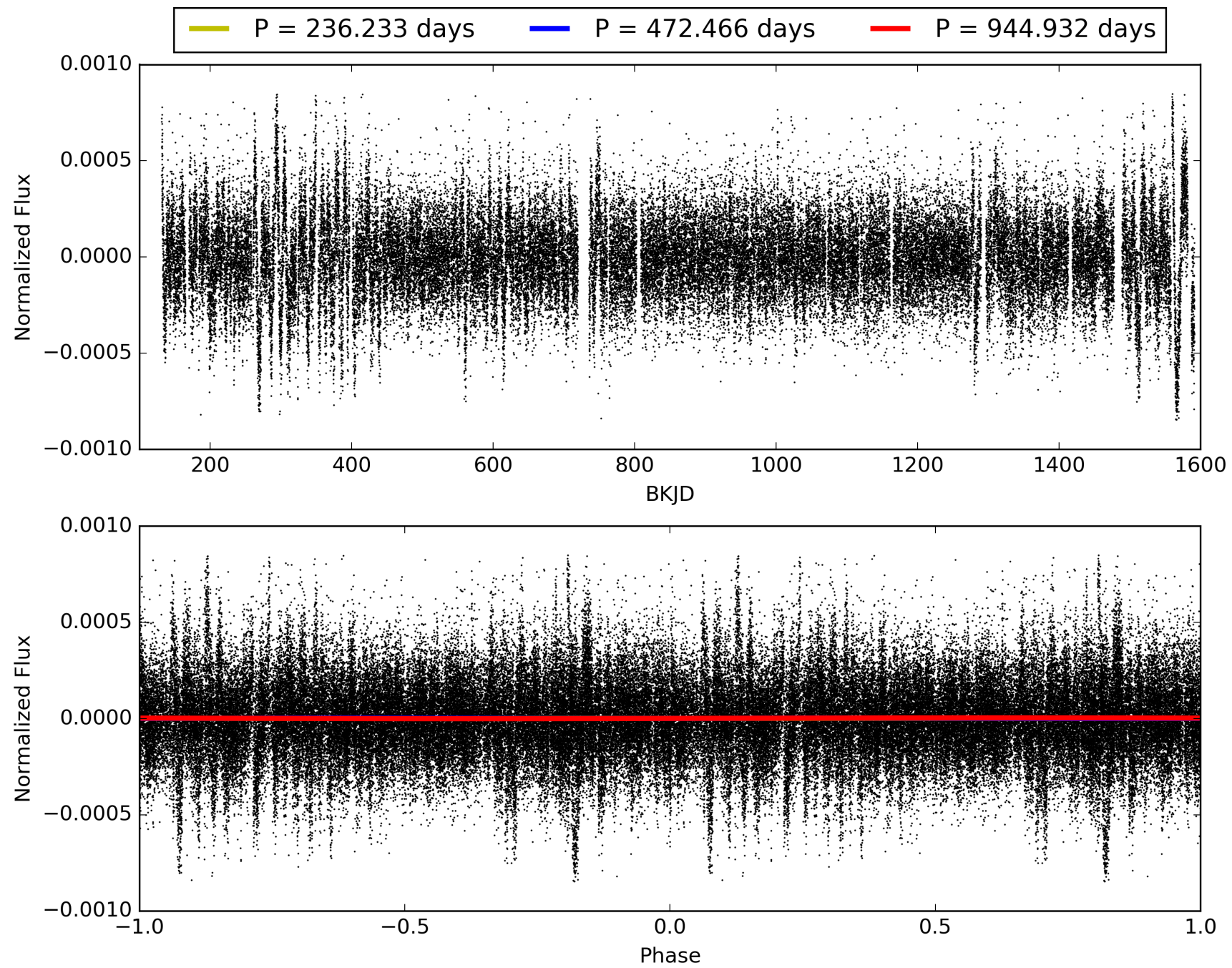
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 07:33:36 Z

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

TCE 007619236-02, PDC Light Curves

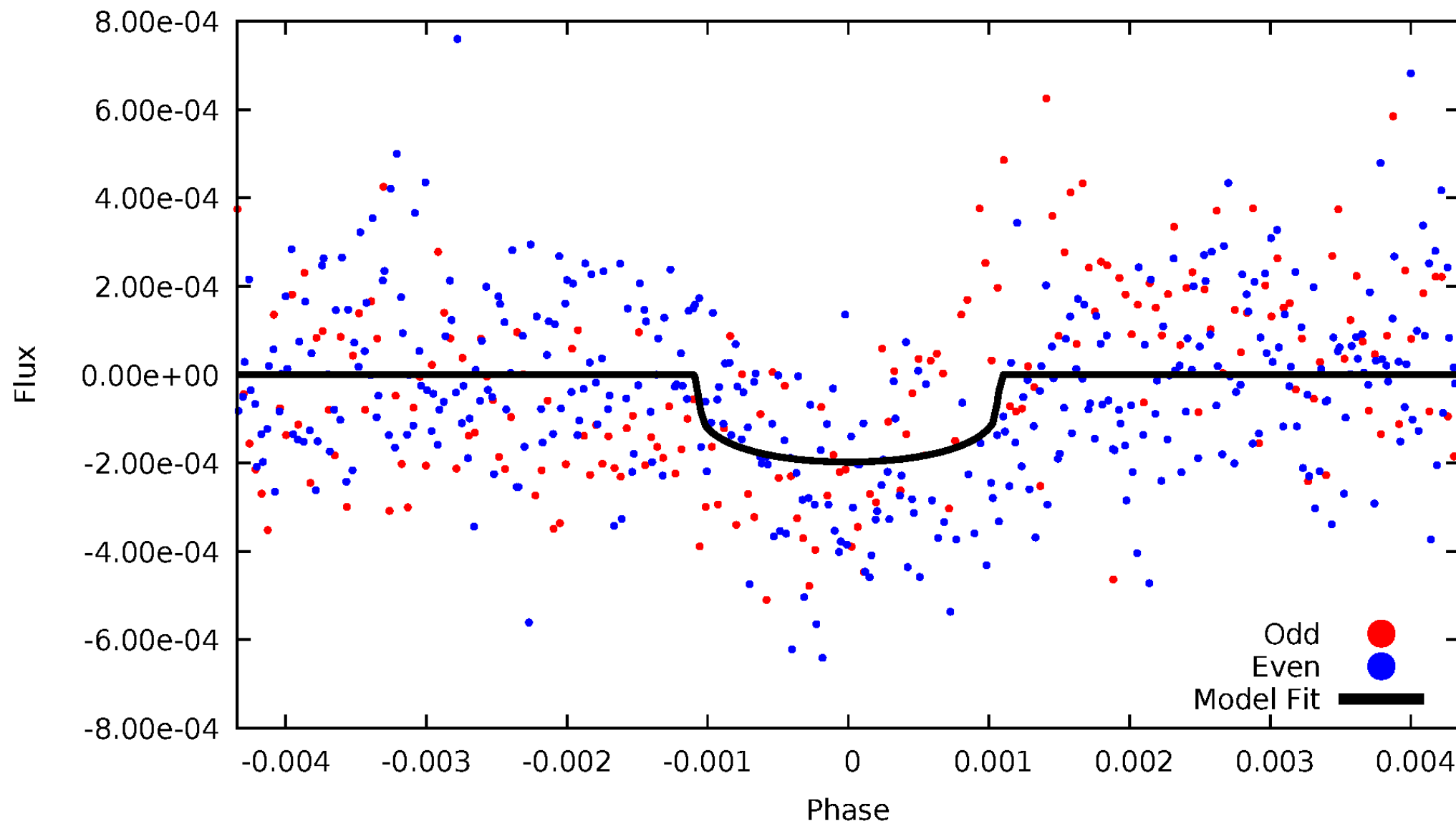


TCE 007619236-02



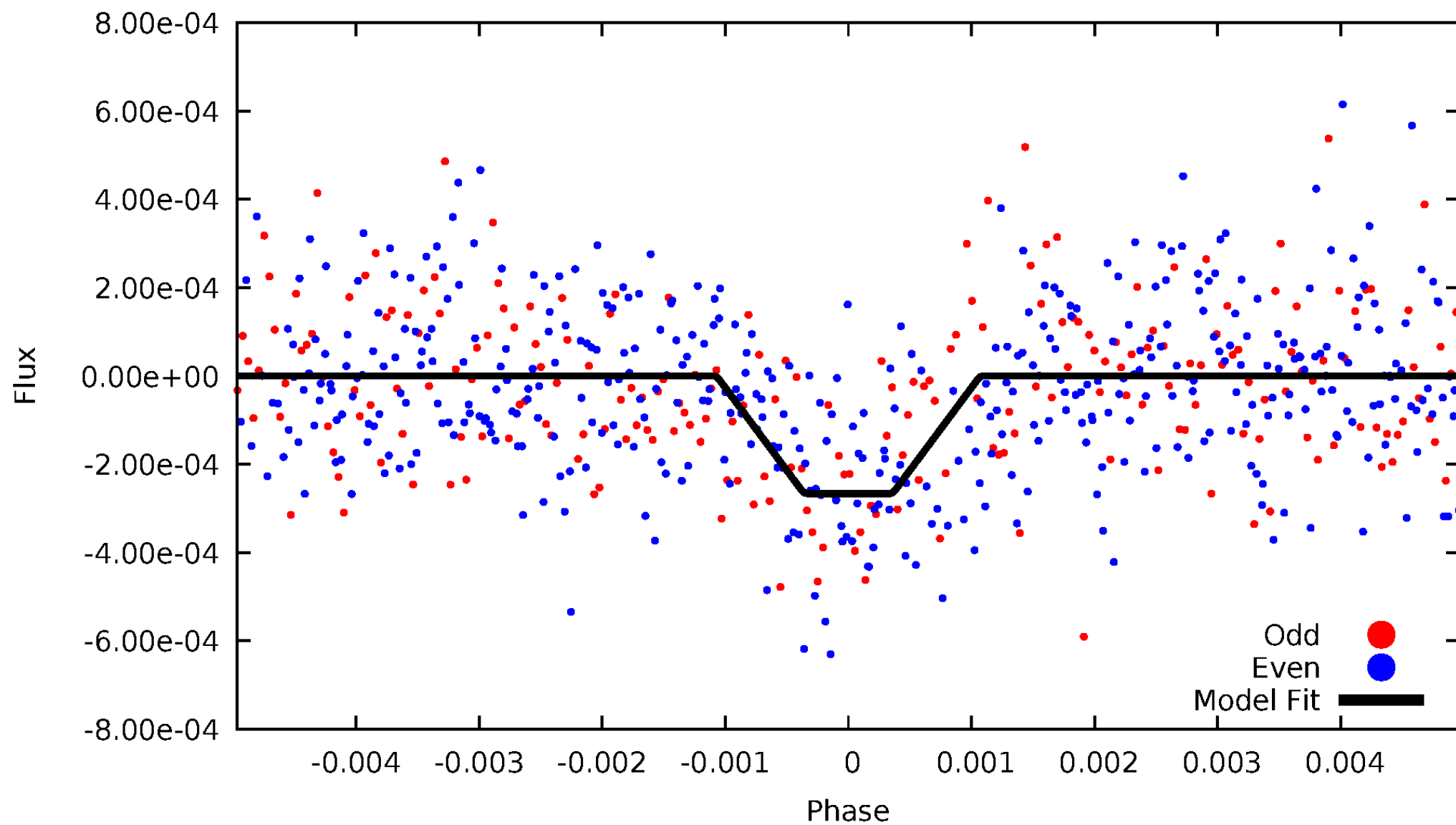
DV Odd/Even

TCE 007619236-02



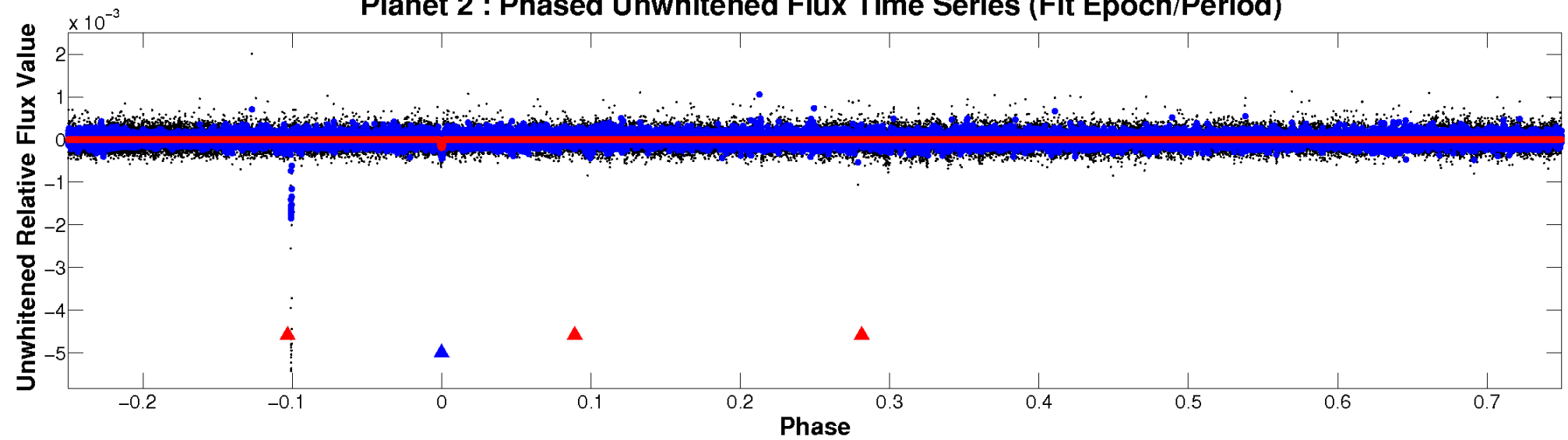
ALT Odd/Even

TCE 007619236-02

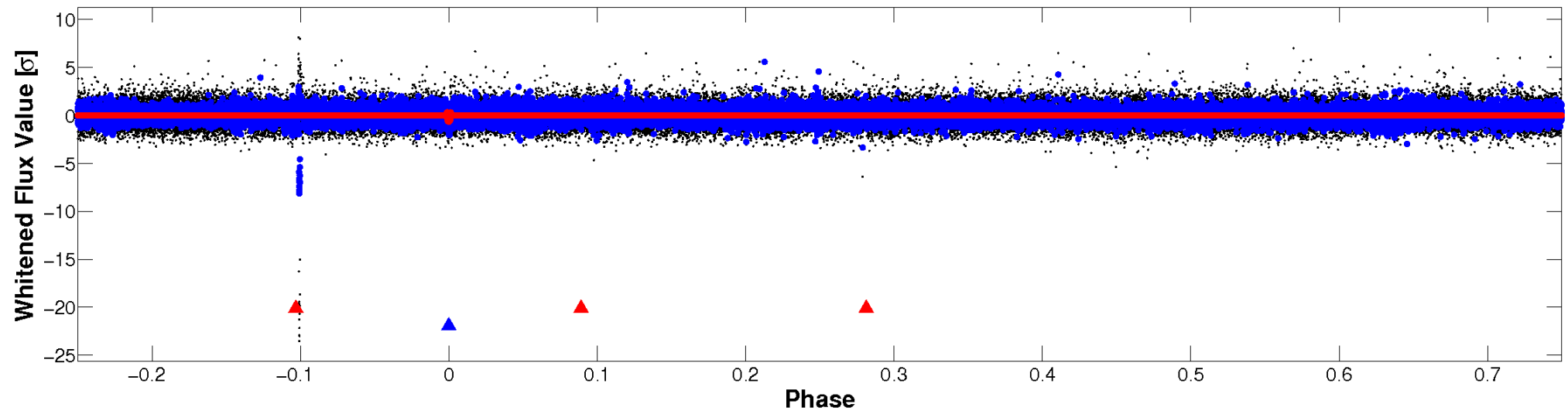


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

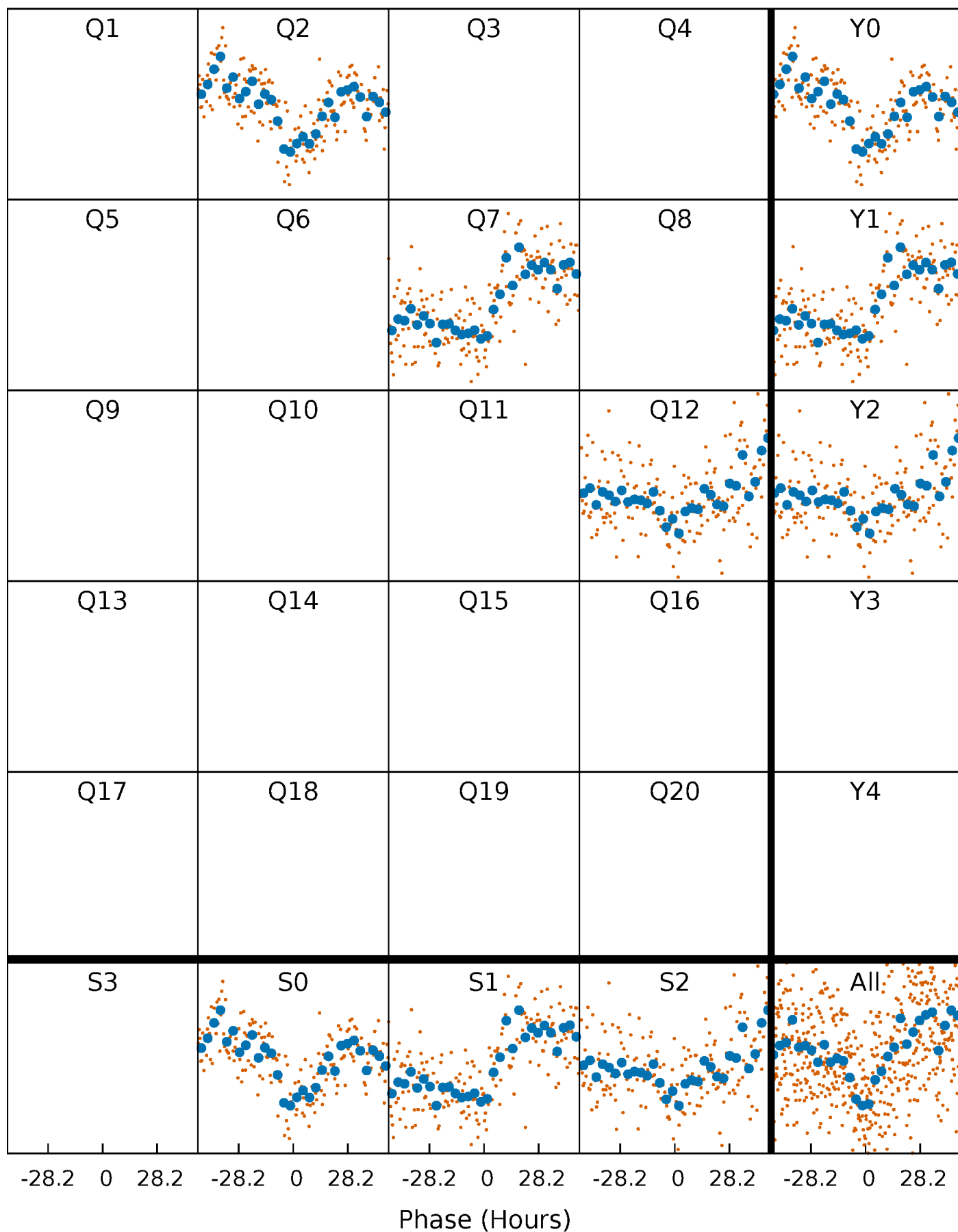


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 007619236-02 P=472.466035 Days $T_0=233.564855$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007619236-02 P=472.466035 Days $T_0=233.564855$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

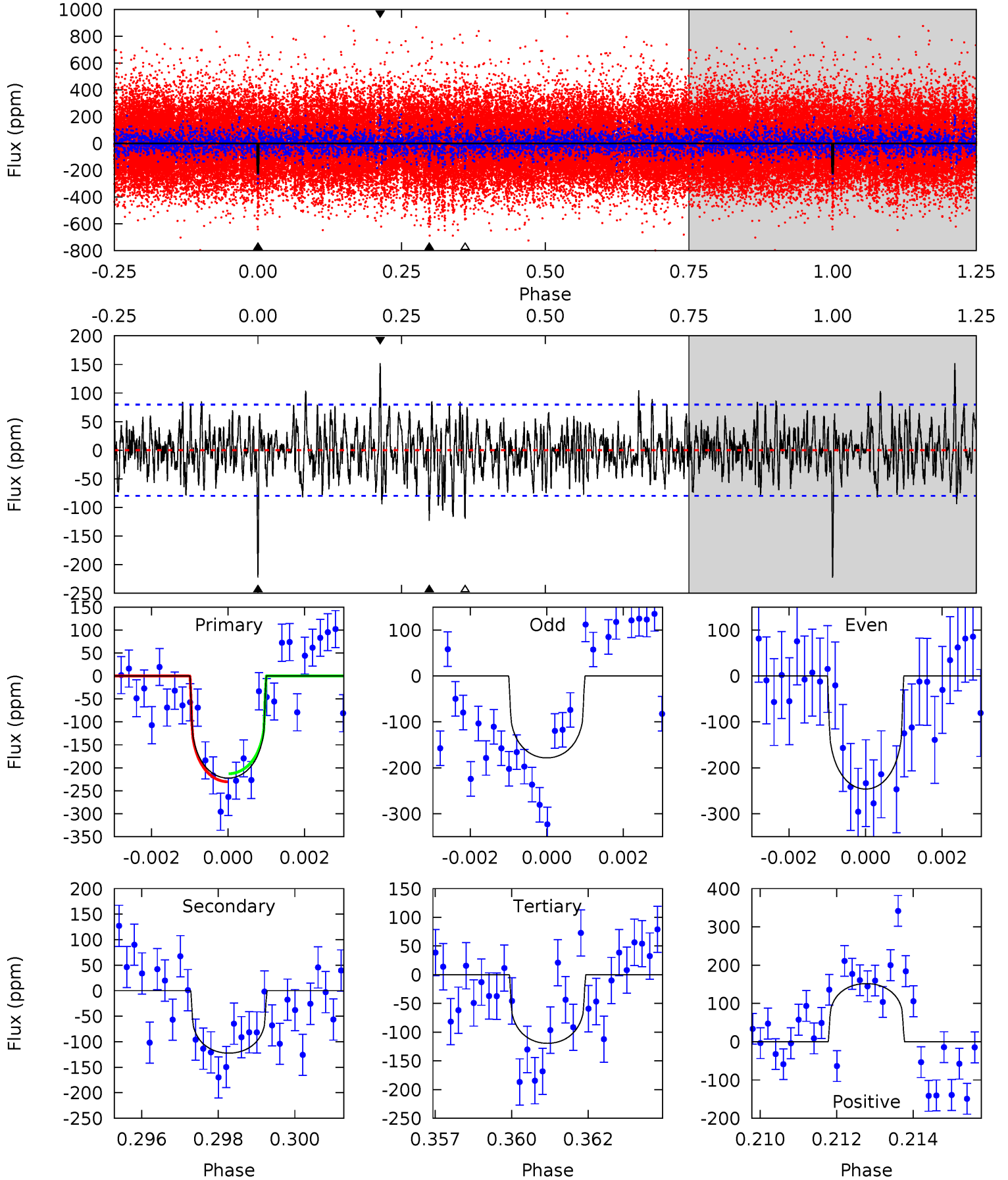
TCE 007619236-02 P=472.471586 Days $T_0=233.545482$ (BKJD)



DV Model-Shift Uniqueness Test

007619236-02, P = 472.466035 Days, E = 233.564855 Days

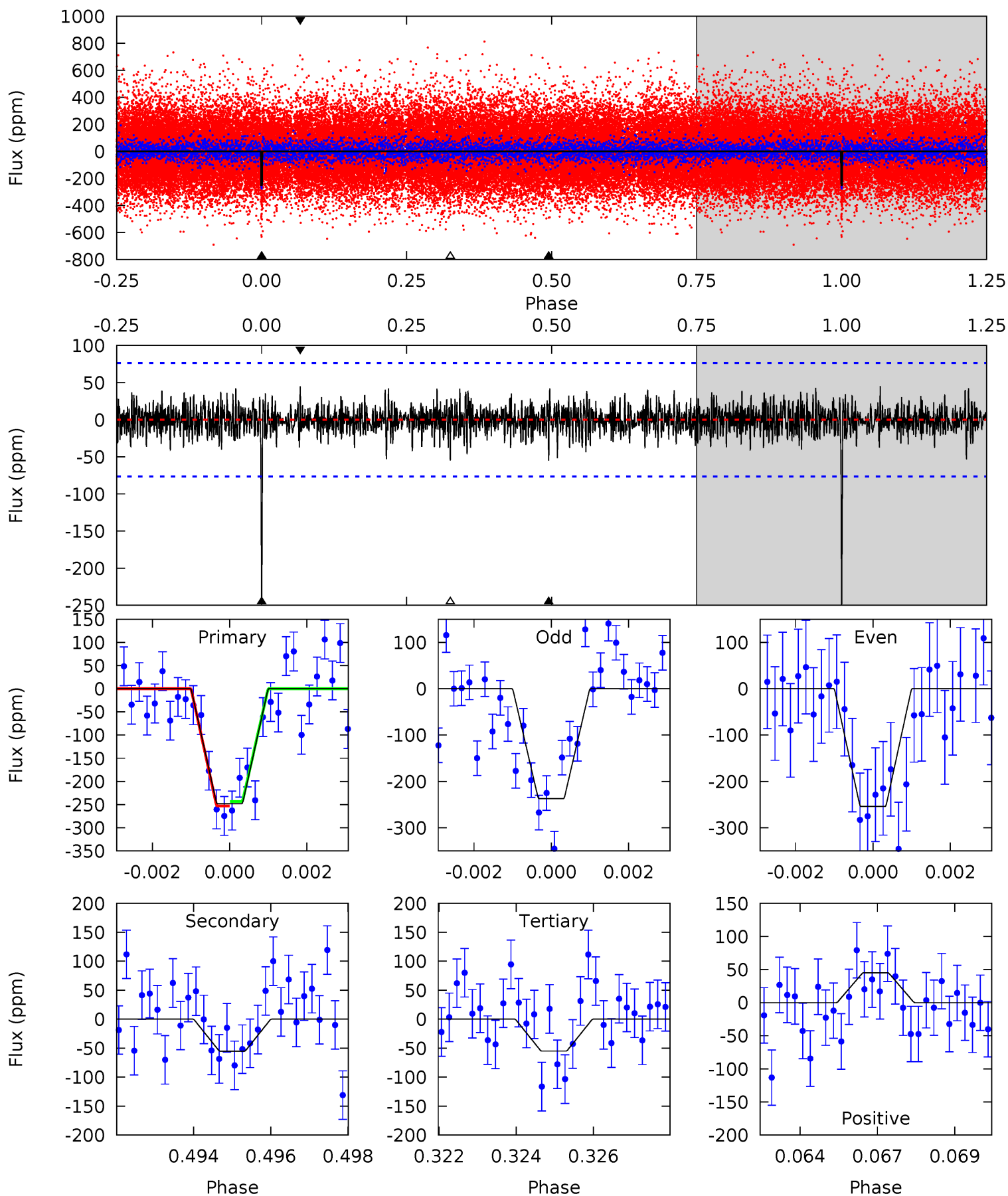
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.8	8.15	7.96	10.1	5.31	3.06	2.19	6.85	4.69	0.19	-1.97	2.17	1.22	0.41	0.58



Alt Model-Shift Uniqueness Test

007619236-02, P = 472.471586 Days, E = 233.545482 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.3	3.84	3.82	3.13	5.31	3.07	0.99	13.4	14.1	0.01	0.70	0.56	1.03	0.15	0.34



Stellar Parameters For KIC 007619236

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5565^{+113}_{-101}	$4.269^{+0.156}_{-0.104}$	$0.340^{+0.100}_{-0.150}$	$1.222^{+0.183}_{-0.203}$	$1.012^{+0.069}_{-0.062}$	$0.781^{+0.520}_{-0.243}$
	+2%/-2%	+4%/-2%	+29%/-44%	+15%/-17%	+7%/-6%	+67%/-31%
Source	SPE59	SPE59	SPE59	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007619236-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-122±15	$1.89^{+1.37}_{-1.22}$	347^{+16}_{-17}	4944^{+3513}_{-907}	$26467^{+187582}_{-17512}$
Alt.	-55±14	$2.24^{+1.37}_{-1.20}$	345^{+16}_{-18}	3998^{+1415}_{-604}	8692^{+30400}_{-5470}

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 $A_{obs} \gg 1.0$

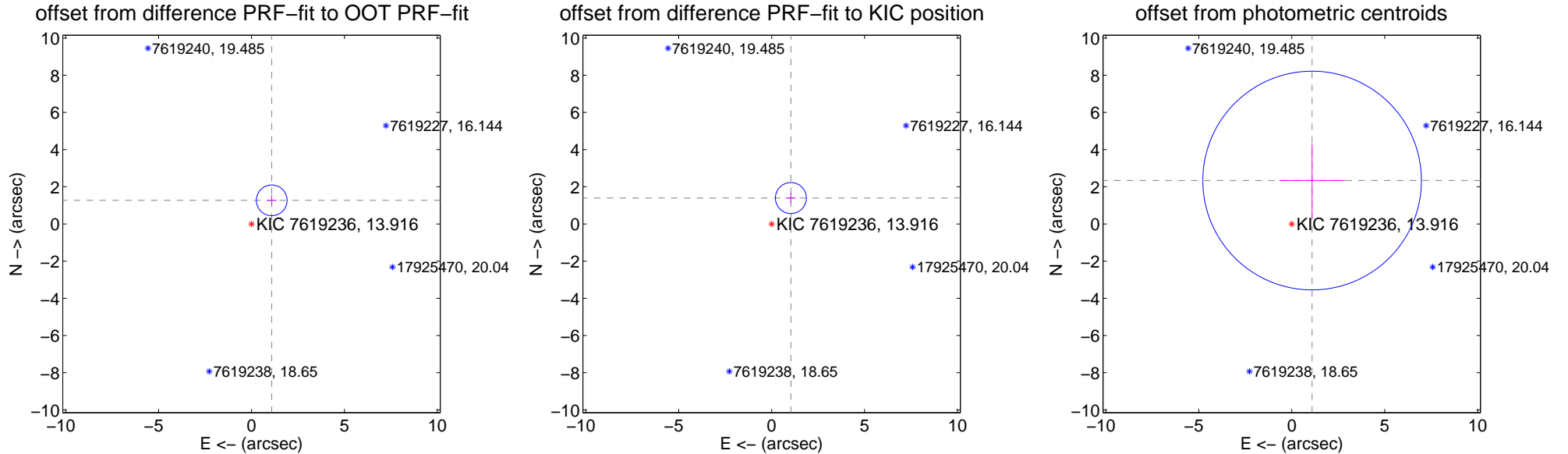
DV Centroid Data

Supplemental centroid analysis for 007619236-02. Kepler magnitude: 13.92. Transit SNR 6.97

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.672 ± 0.275	6.07	-1.088 ± 0.255	1.270 ± 0.290
PRF-fit source offset from KIC position	1.738 ± 0.278	6.26	-1.037 ± 0.255	1.395 ± 0.290
photometric centroid source offset	2.58 ± 1.96	1.32	-1.10 ± 1.76	2.34 ± 2.00

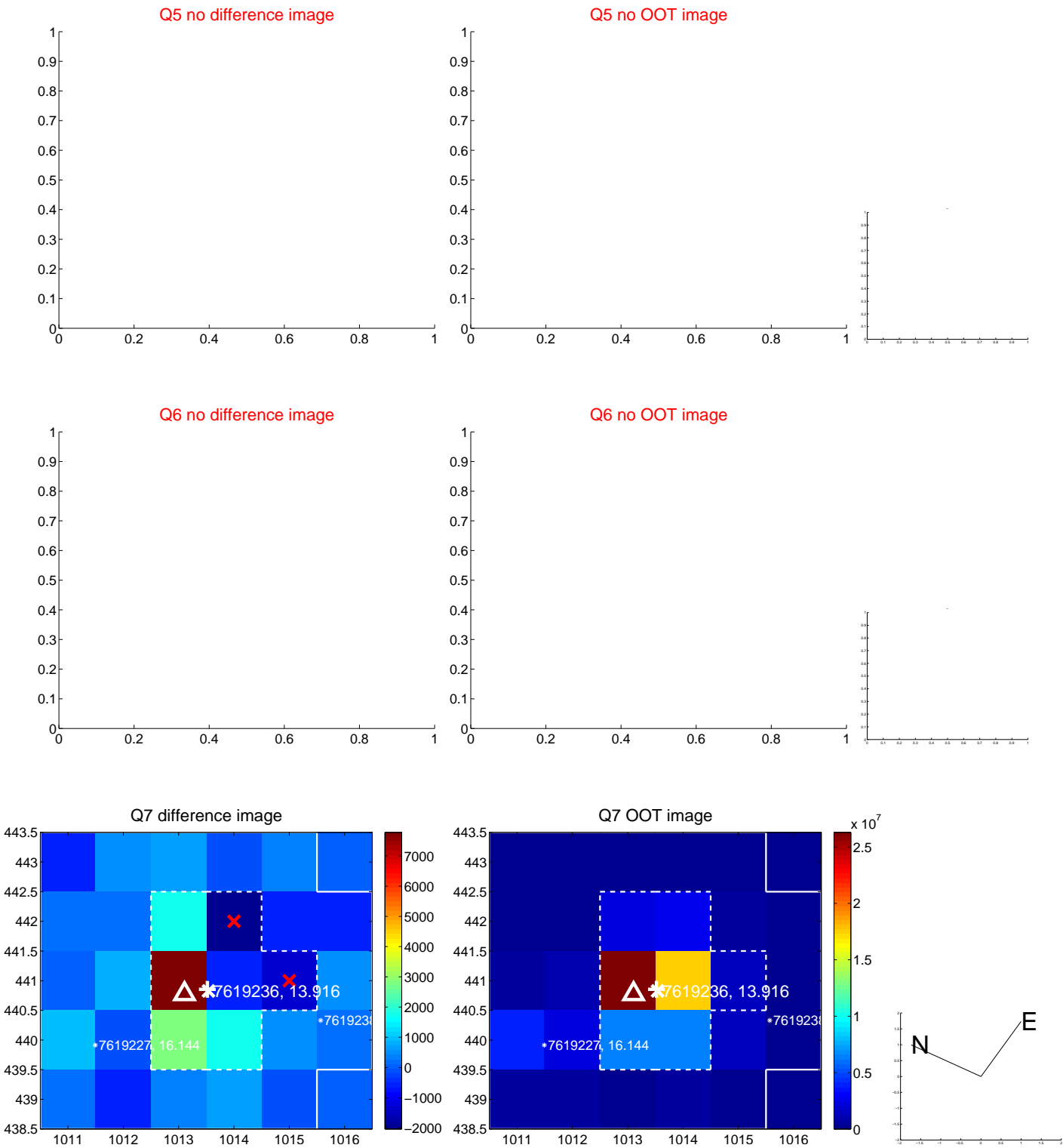


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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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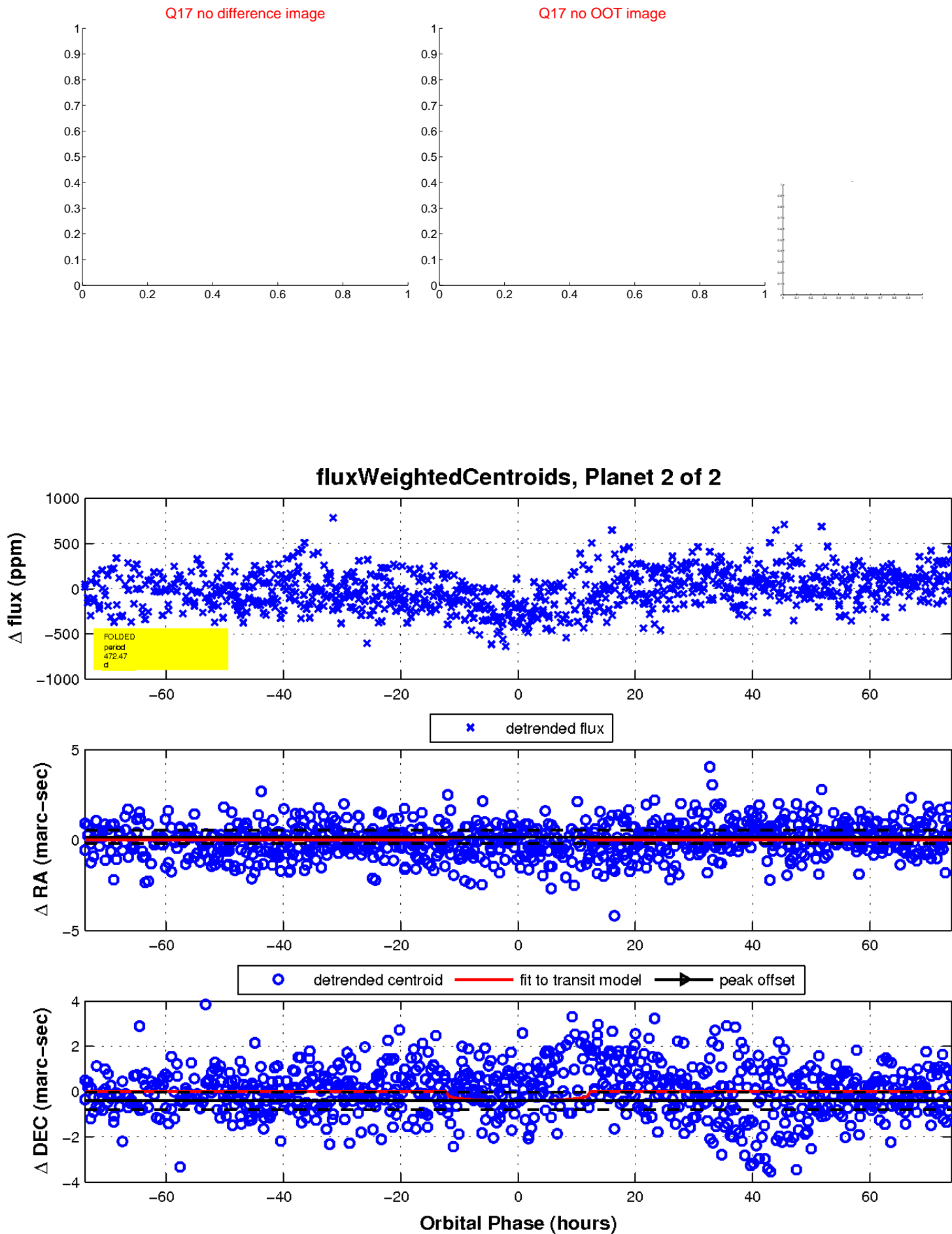
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

