

KIC 008297083

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})
008297083-01	OBS	No	374.523524	262.424850	2299.2	66.127	10.5	17.8	0.85	5135	6.04	0.51

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008297083-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—CENT_FEW_DIFFS—HALO_GHOST

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

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

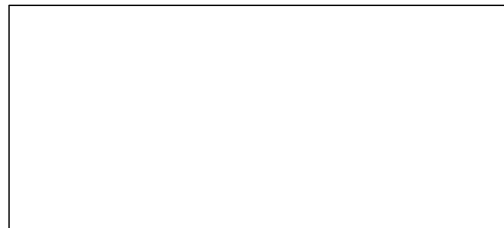
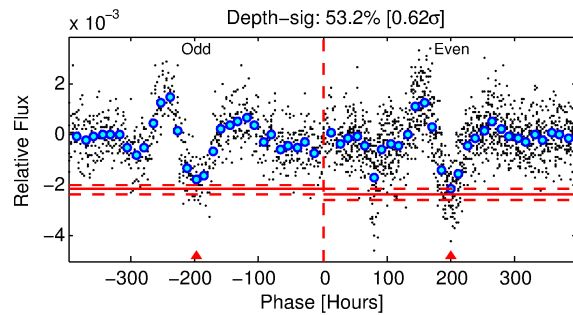
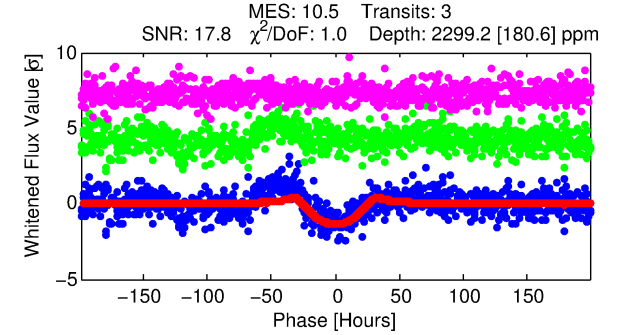
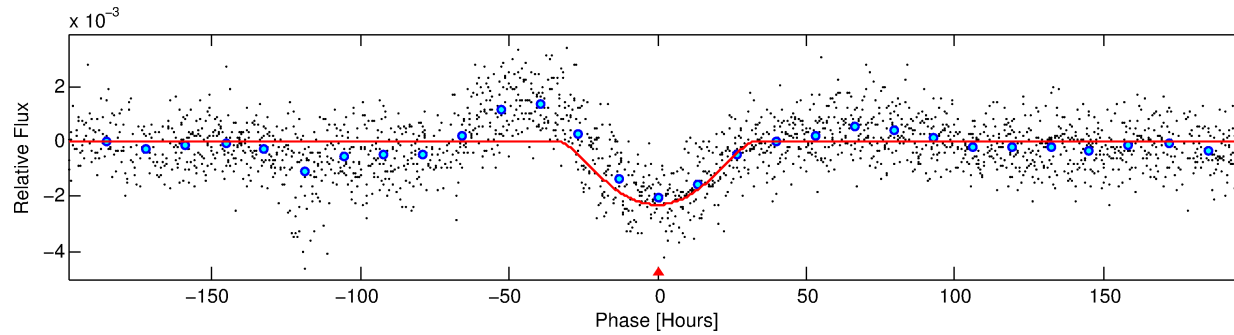
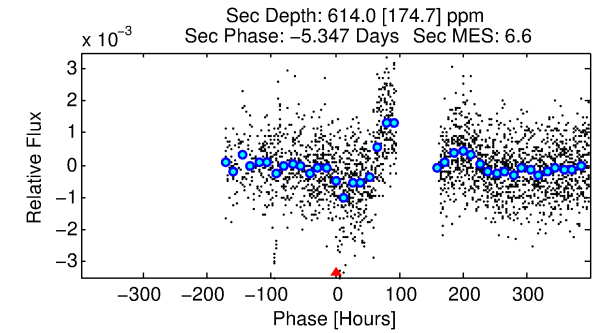
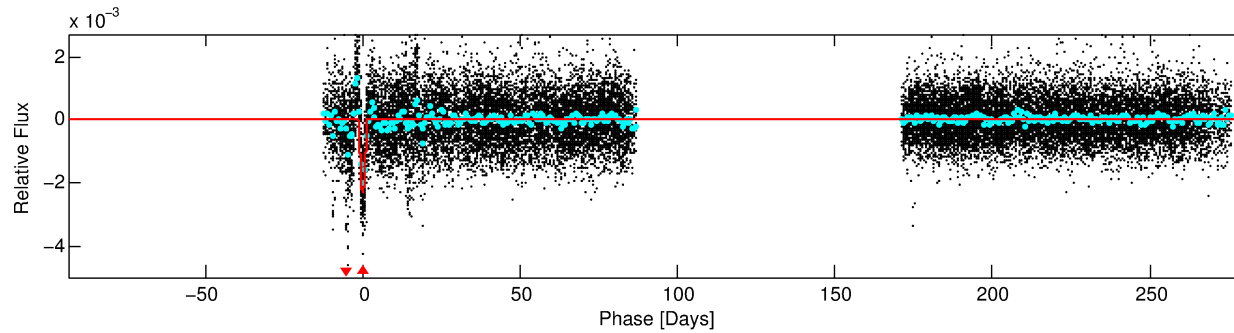
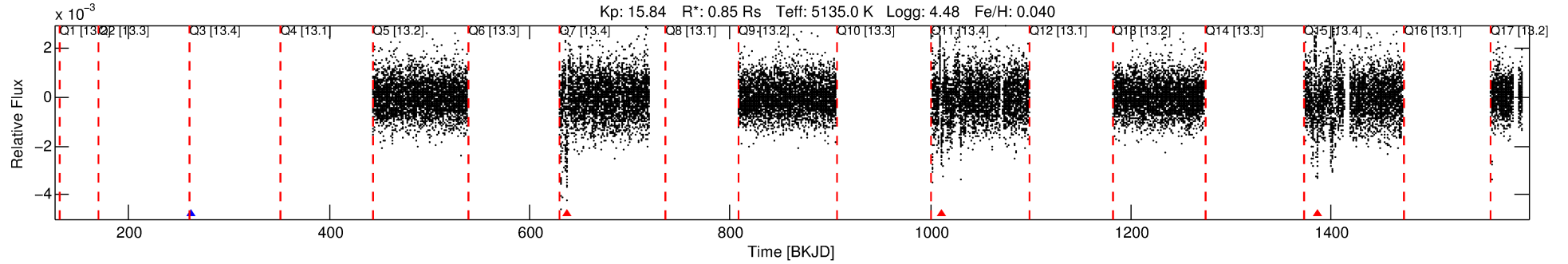
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008297083-01

No Significant Match Found

DV One-Page Summary

KIC: 8297083 Candidate: 1 of 1 Period: 374.524 d



DV Fit Results:

Period = 374.52352 [0.04869] d
Epoch = 262.4249 [0.1005] BKJD
Rp/R* = 0.0652 [0.0276]
a/R* = 19.52 [3.21]
b = 0.97 [0.05]
Seff = 0.51 [0.13]
Teq = 215 [14] K
Rp = 6.04 [2.67] Re
a = 0.9411 [0.1173] AU
Ag = 8196.00 [7494.47] [1.09σ]
Teffp = 3165 [717] K [4.11σ]

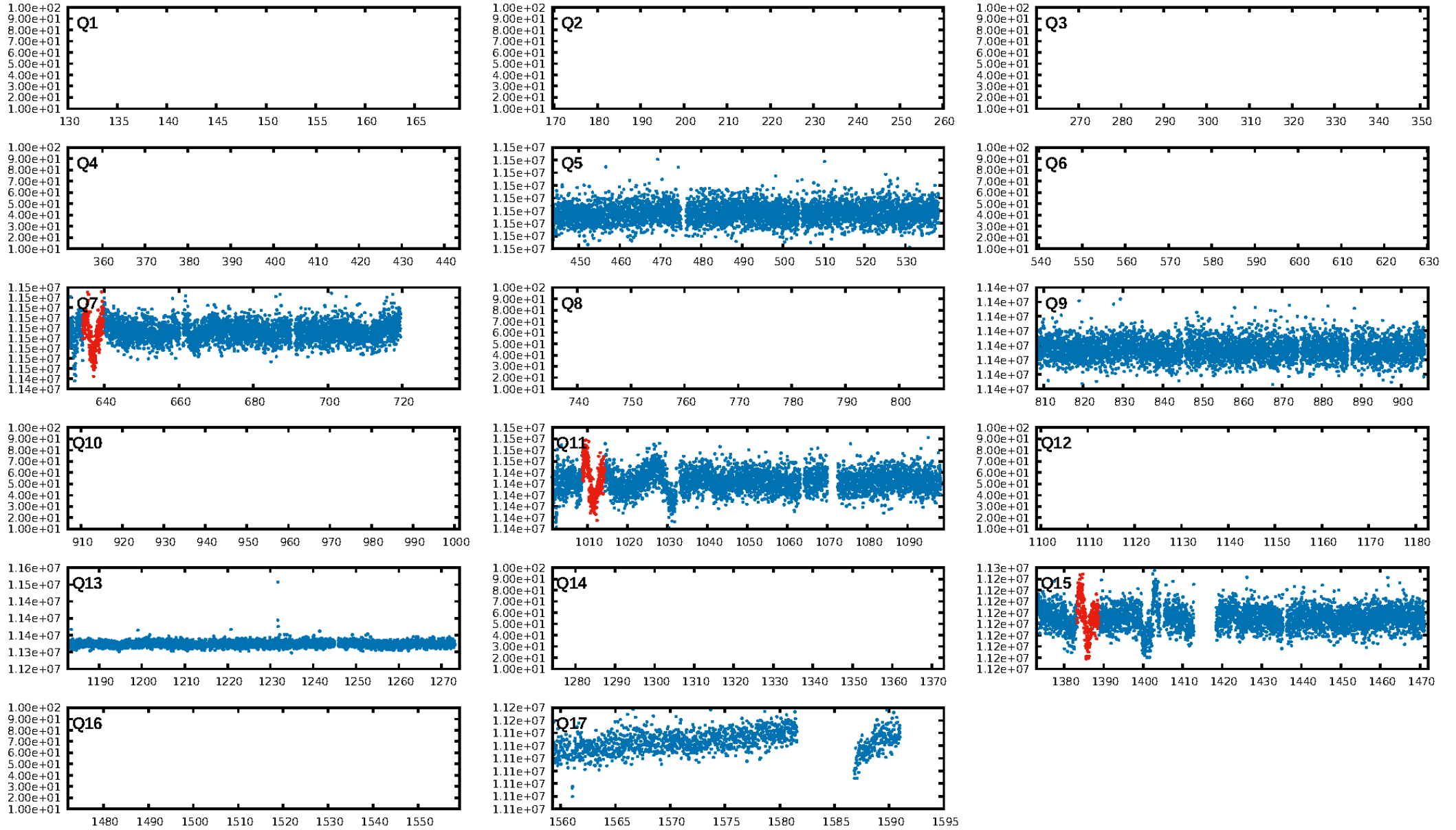
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 32.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 5.70e-11
RollingBand-fgt: 0.00 [0/3]
GhostDiagnostic-chr: -0.2228
Centroid-sig: 0.0%
Centroid-so: 2.733 arcsec [3.67σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: N/A

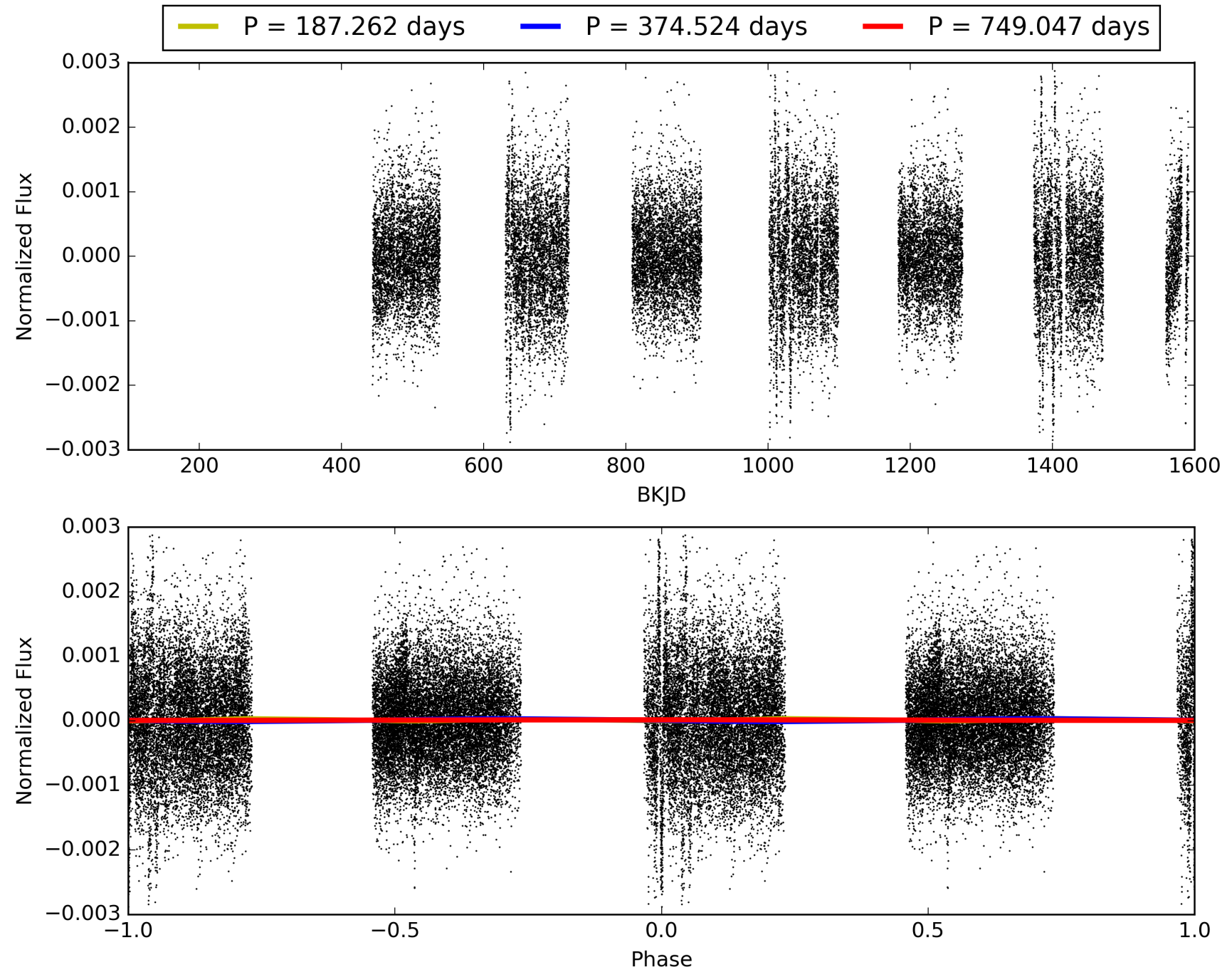
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 12:06:22 Z

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

TCE 008297083-01, PDC Light Curves

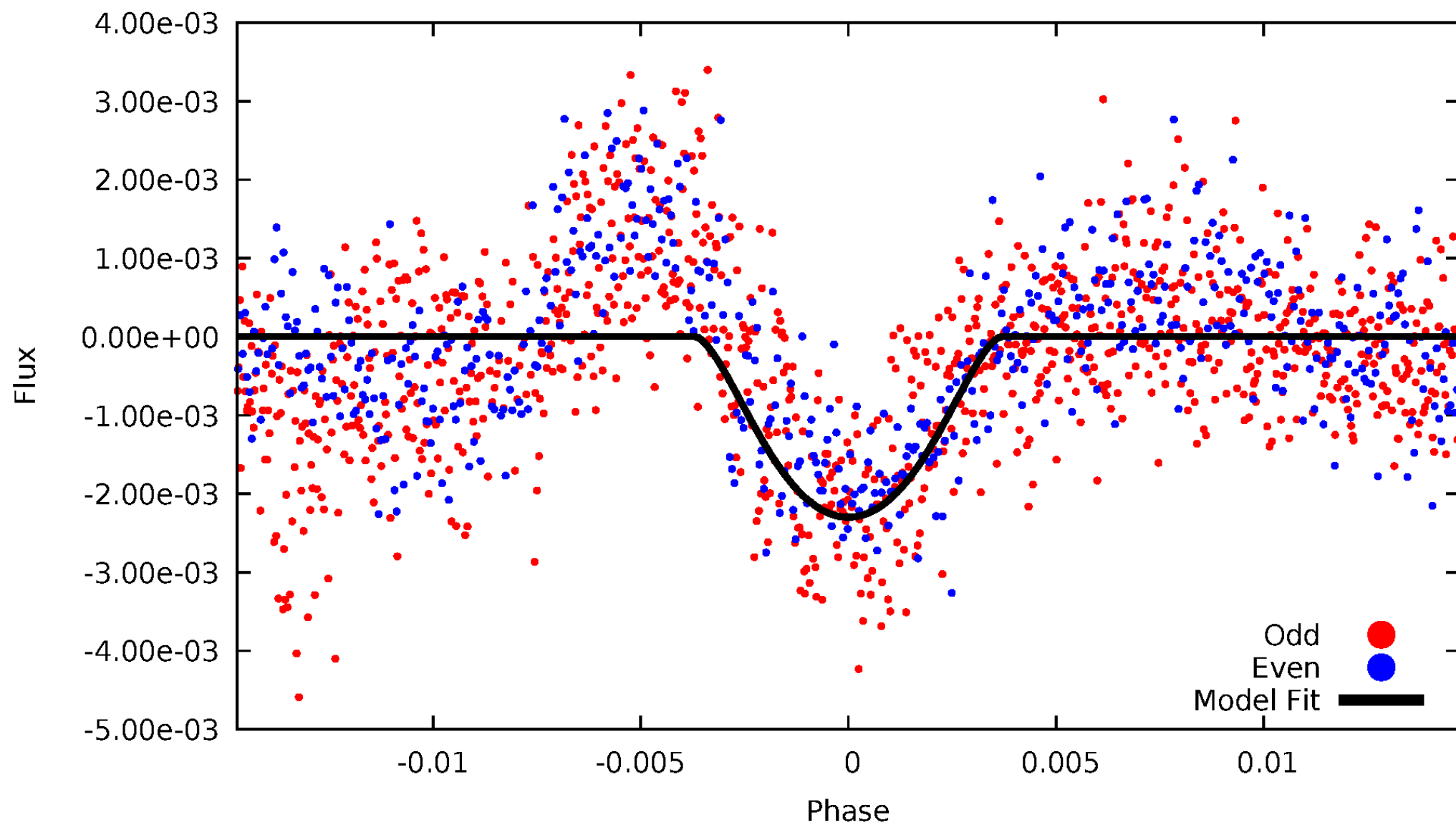


TCE 008297083-01



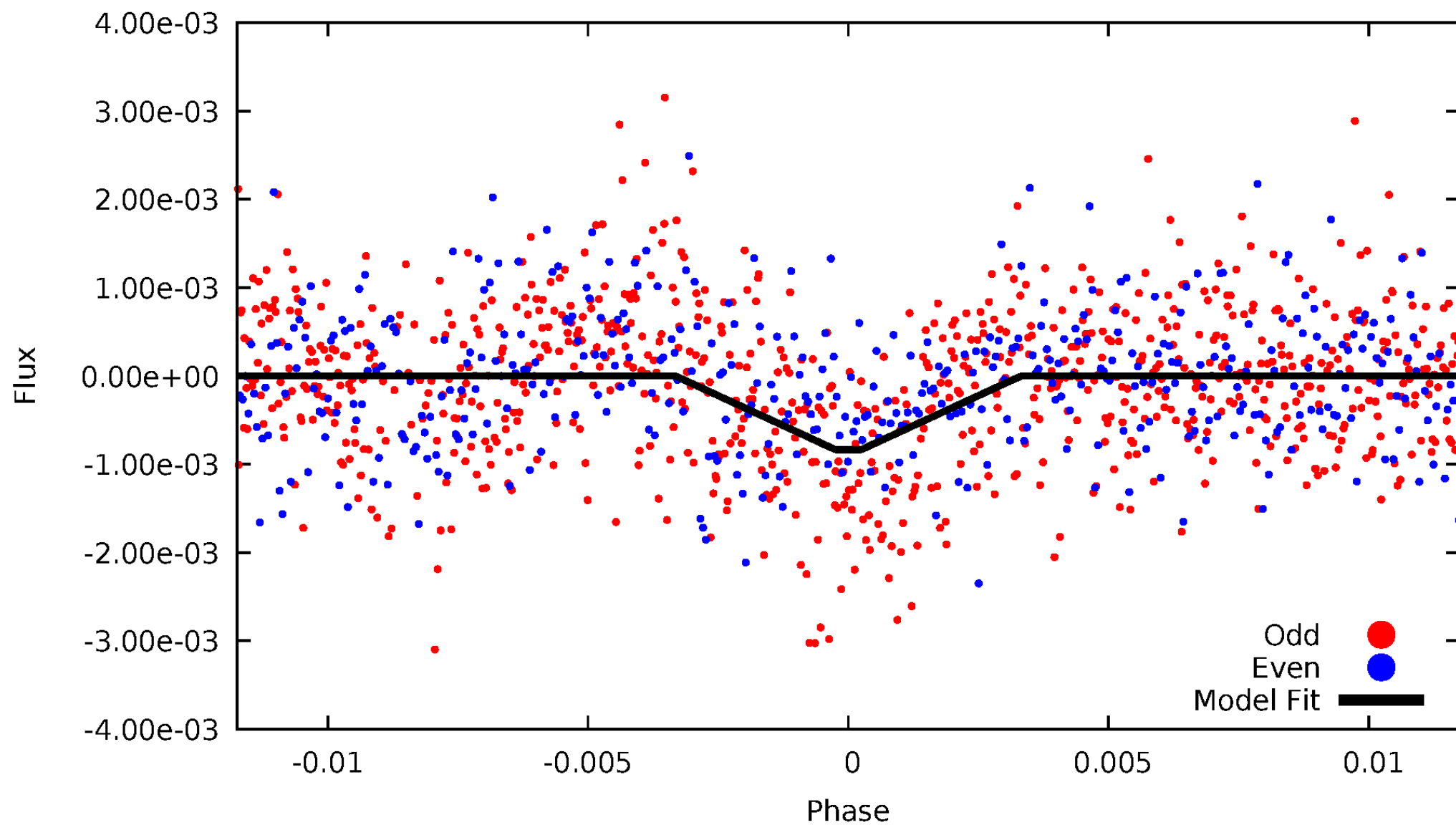
DV Odd/Even

TCE 008297083-01



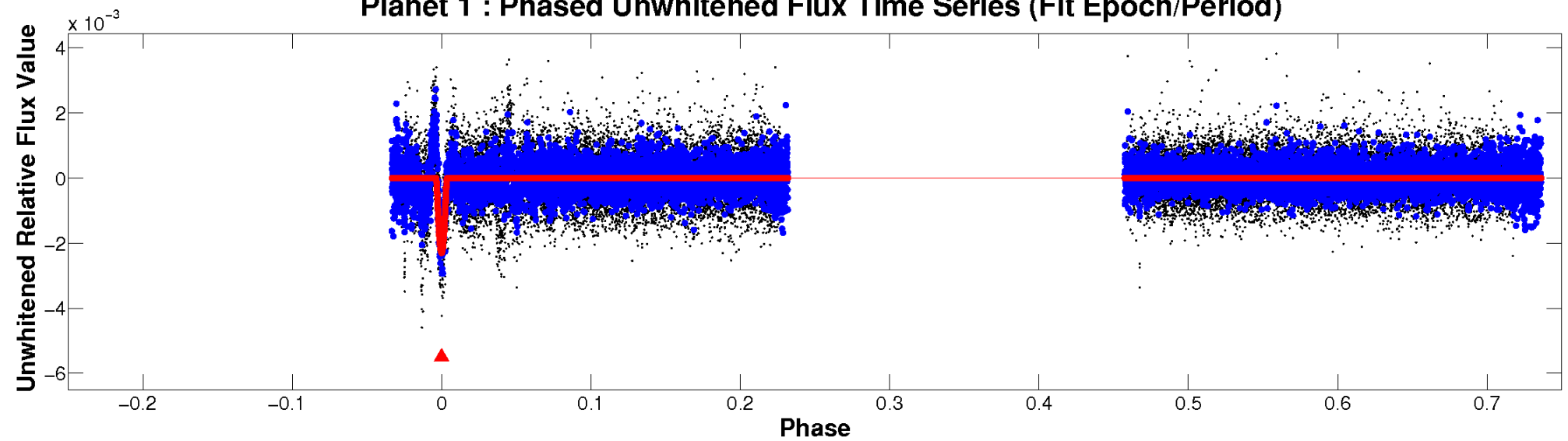
ALT Odd/Even

TCE 008297083-01

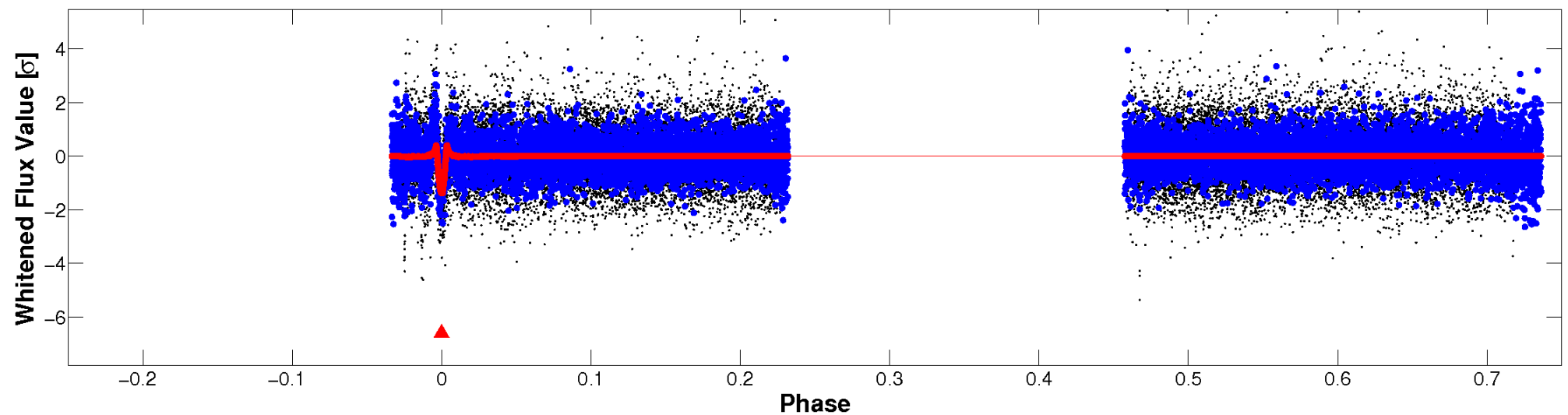


Non-Whitened Vs. Whitened Light Curve

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

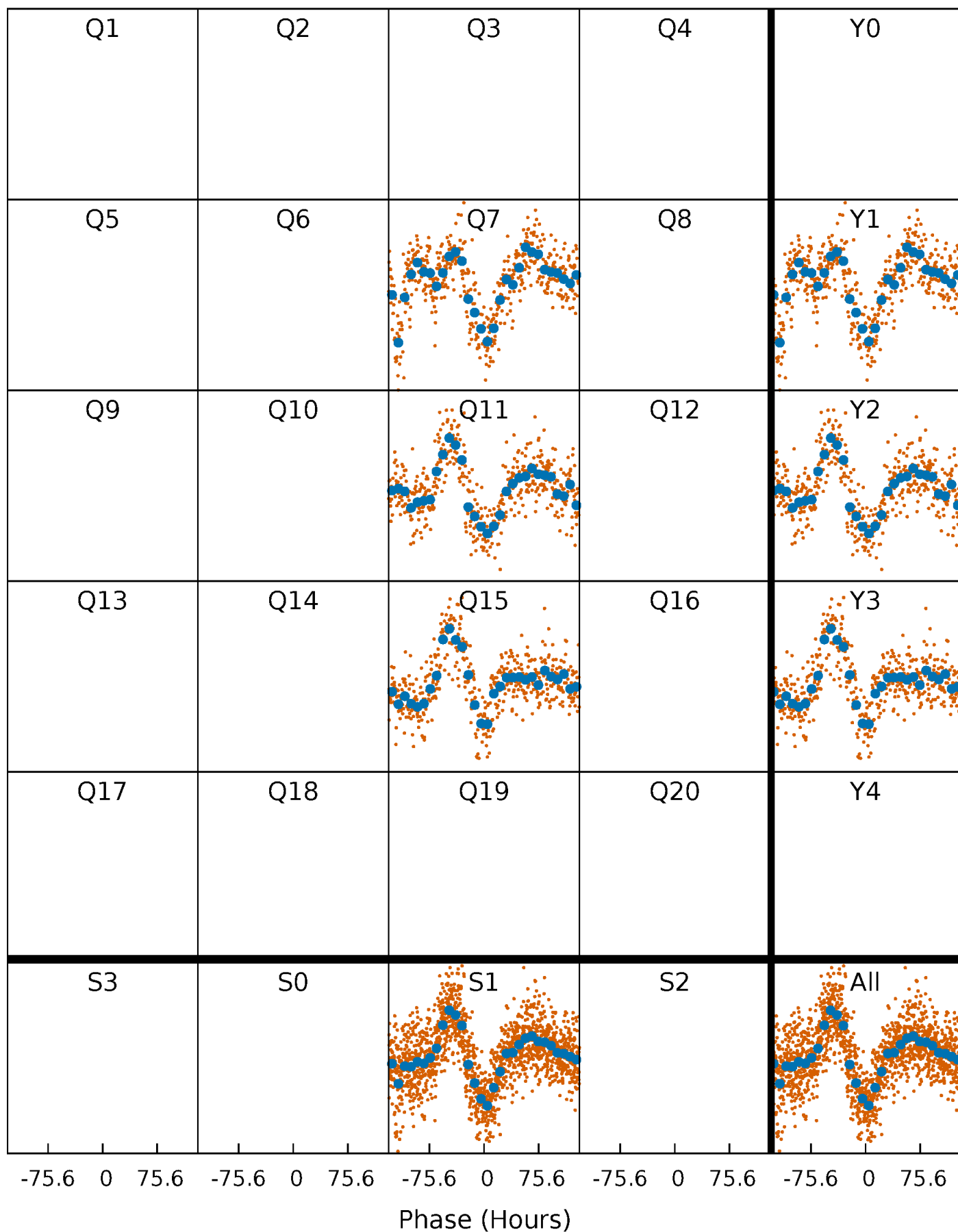


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



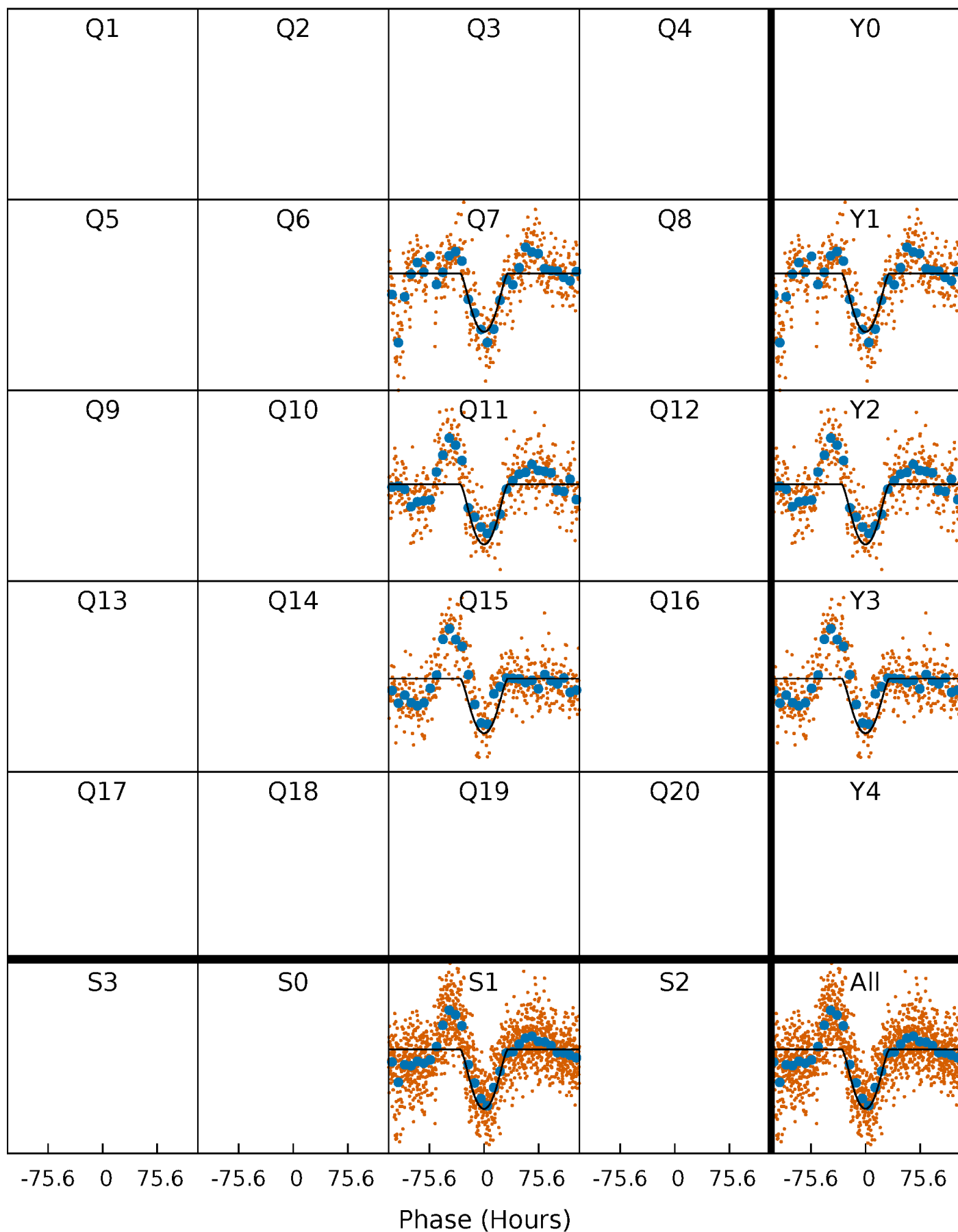
PDC Quarter-Phased Transit Curves

TCE 008297083-01 P=374.523524 Days $T_0=262.424850$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 008297083-01 P=374.523524 Days $T_0=262.424850$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

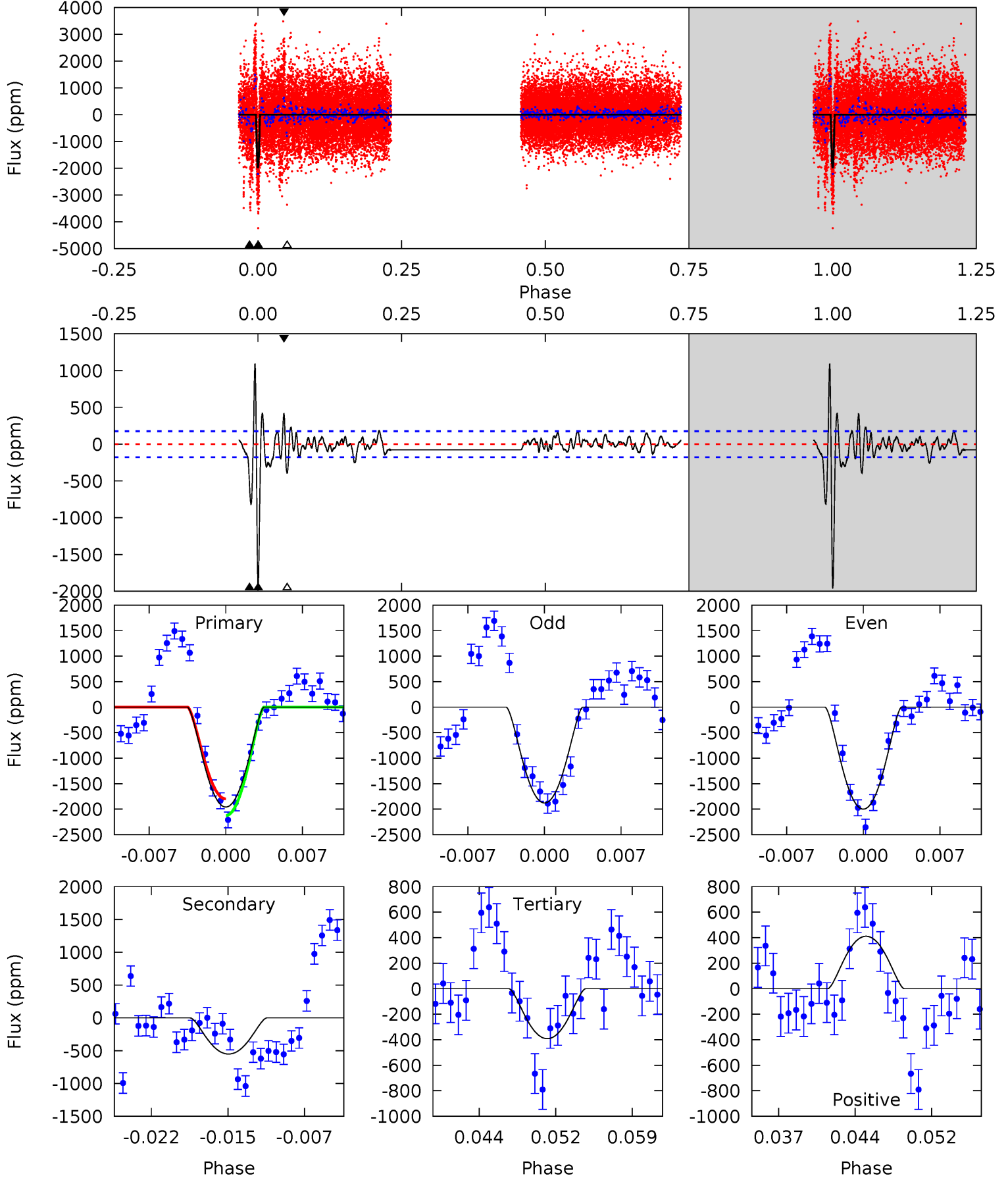
TCE 008297083-01 P=374.376875 Days $T_0=262.714461$ (BKJD)



DV Model-Shift Uniqueness Test

008297083-01, P = 374.523524 Days, E = 262.424850 Days

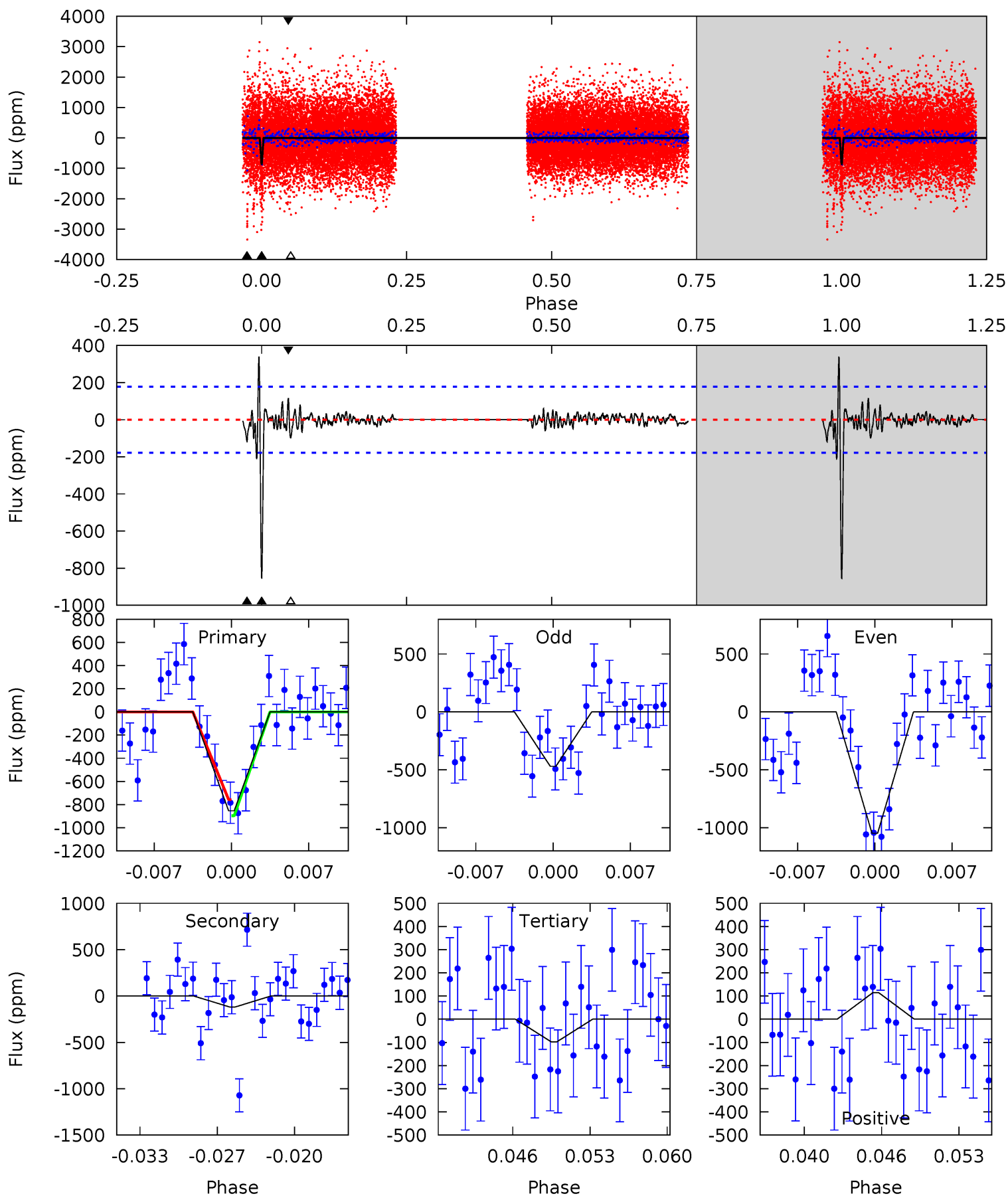
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
56.1	15.8	11.2	11.8	5.08	2.68	2.85	44.9	44.4	4.58	4.02	1.64	1.04	0.36	4.61



Alt Model-Shift Uniqueness Test

008297083-01, P = 374.376875 Days, E = 262.714461 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.5	3.39	2.80	3.29	5.10	2.71	0.80	21.7	21.2	0.59	0.11	7.95	1.14	0.28	1.97



Stellar Parameters For KIC 008297083

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5135^{+198}_{-162}	$4.479^{+0.105}_{-0.116}$	$0.040^{+0.250}_{-0.300}$	$0.849^{+0.111}_{-0.100}$	$0.792^{+0.104}_{-0.056}$	$1.822^{+0.726}_{-0.569}$
	+4%/-3%	+2%/-3%	+625%/-750%	+13%/-12%	+13%/-7%	+40%/-31%
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 008297083-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-551 ± 35	$6.08^{+2.52}_{-2.42}$	303^{+16}_{-15}	3534^{+676}_{-358}	7443^{+12945}_{-3794}
Alt.	-118 ± 35	$3.26^{+2.24}_{-1.95}$	302^{+14}_{-15}	3333^{+1293}_{-485}	5135^{+26955}_{-3426}

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 $A_{obs} \gg 1.0$

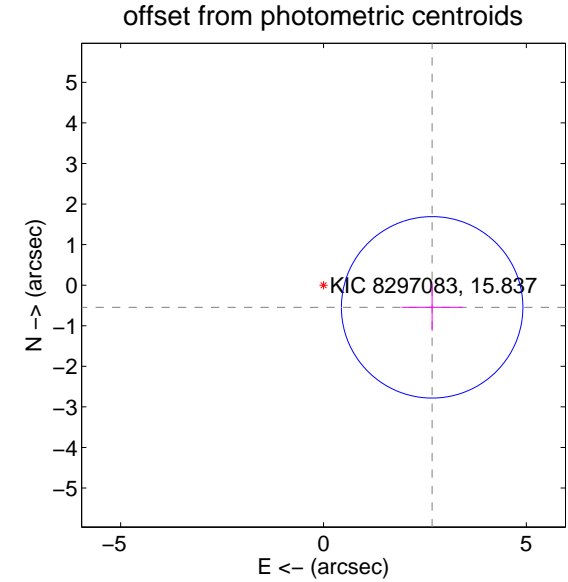
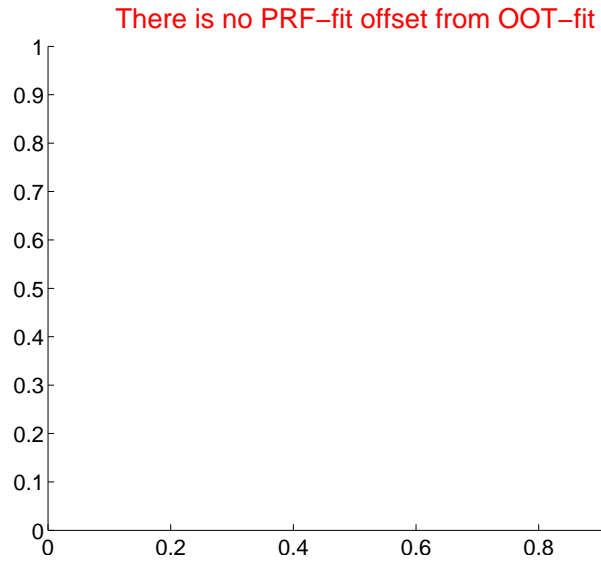
DV Centroid Data

Supplemental centroid analysis for 008297083-01. Kepler magnitude: 15.84. Transit SNR 17.75

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	2.73 ± 0.75	3.67	-2.68 ± 0.75	-0.55 ± 0.58



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.



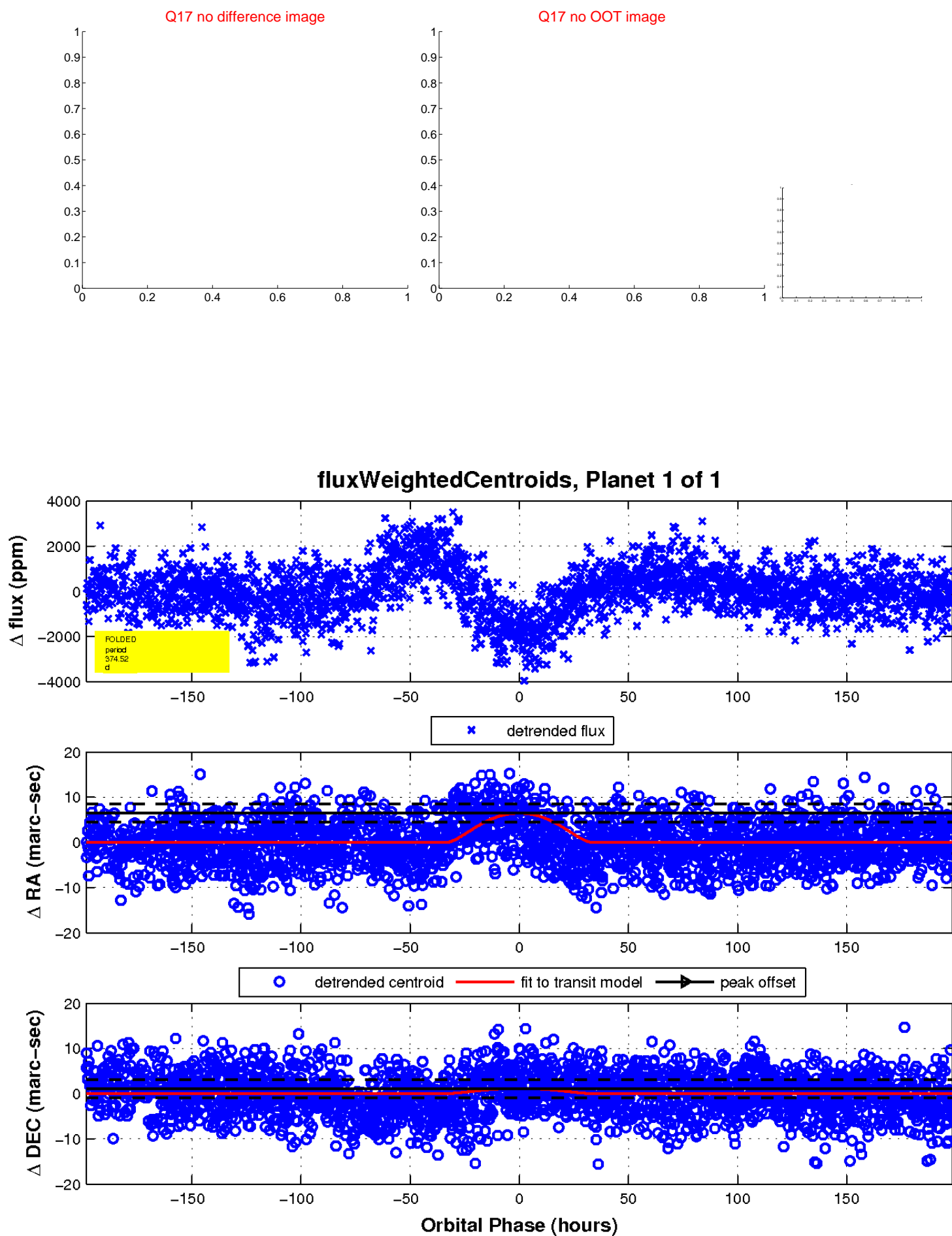
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

