

KIC 007901784

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})
007901784-01	OBS	No	369.017195	233.026606	1504.1	33.888	10.2	13.2	0.78	5221	5.97	0.44

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007901784-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—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.

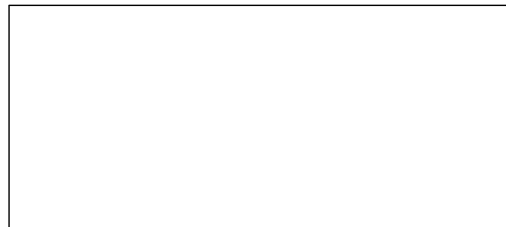
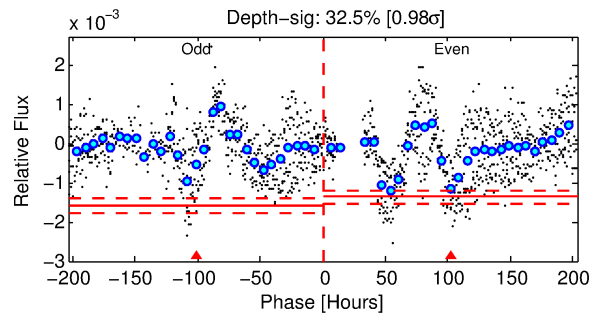
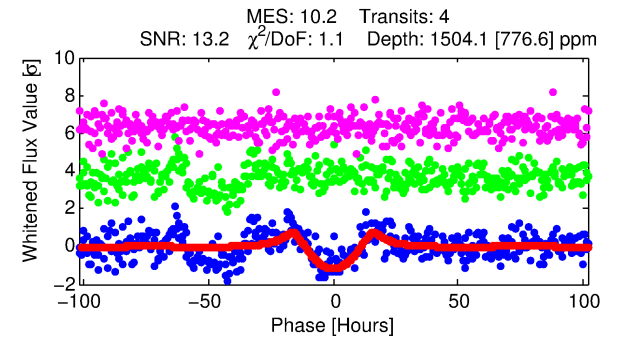
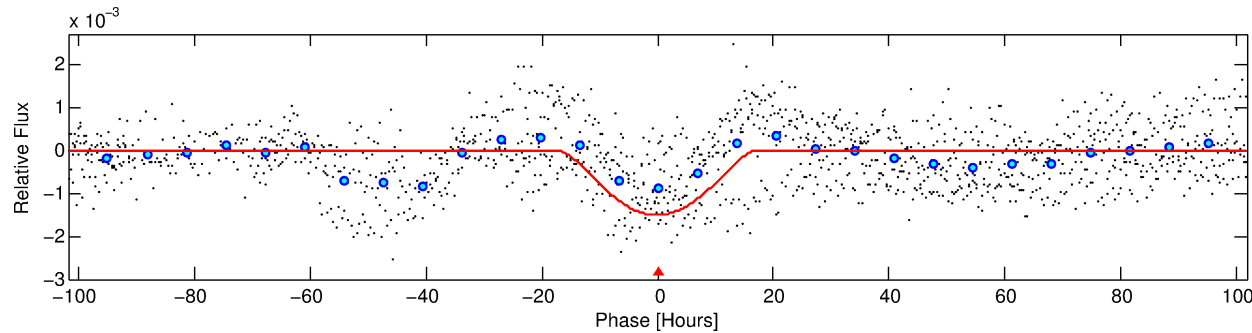
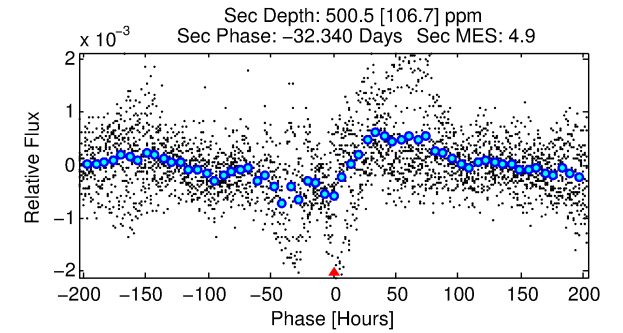
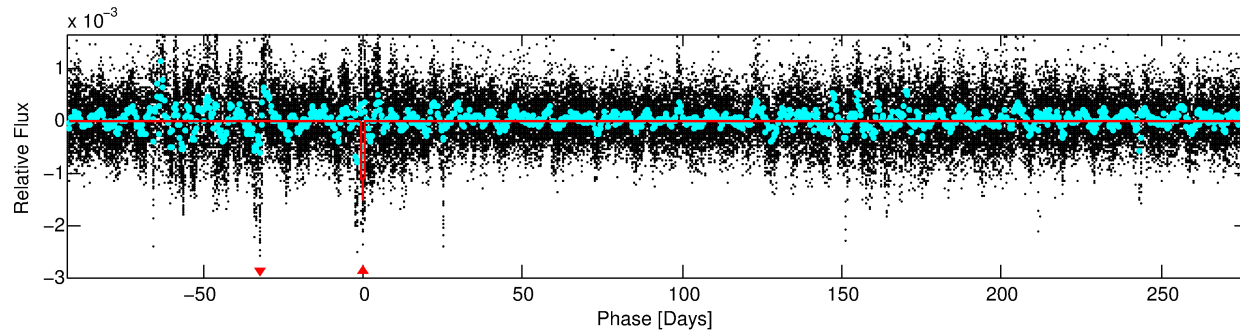
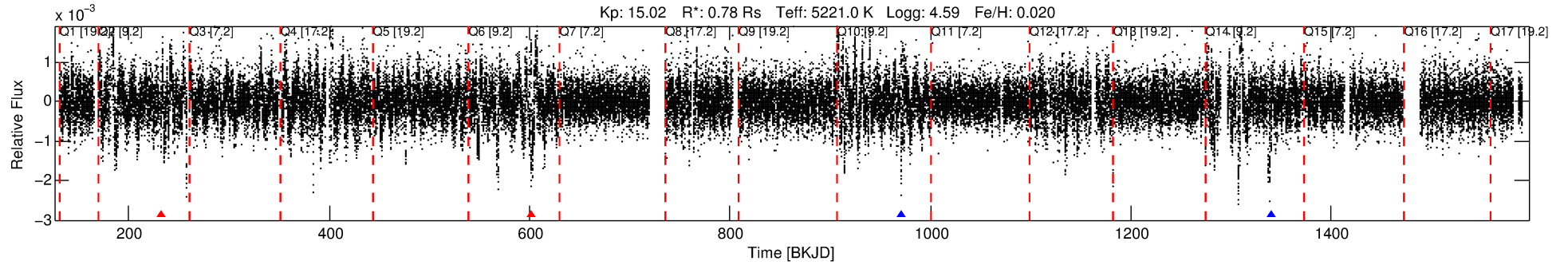
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007901784-01

No Significant Match Found

DV One-Page Summary

KIC: 7901784 Candidate: 1 of 1 Period: 369.017 d



DV Fit Results:

Period = 369.01719 [0.01922] d
Epoch = 233.0266 [0.0373] BKJD
Rp/R* = 0.0704 [0.0977]
a/R* = 31.77 [9.57]
b = 1.00 [0.16]
Seff = 0.44 [0.10]
Teq = 208 [12] K
Rp = 5.97 [8.35] Re
a = 0.9573 [0.1259] AU
Ag = 7071.10 [19736.30] [0.36σ]
Teffp = 2944 [2051] K [1.33σ]

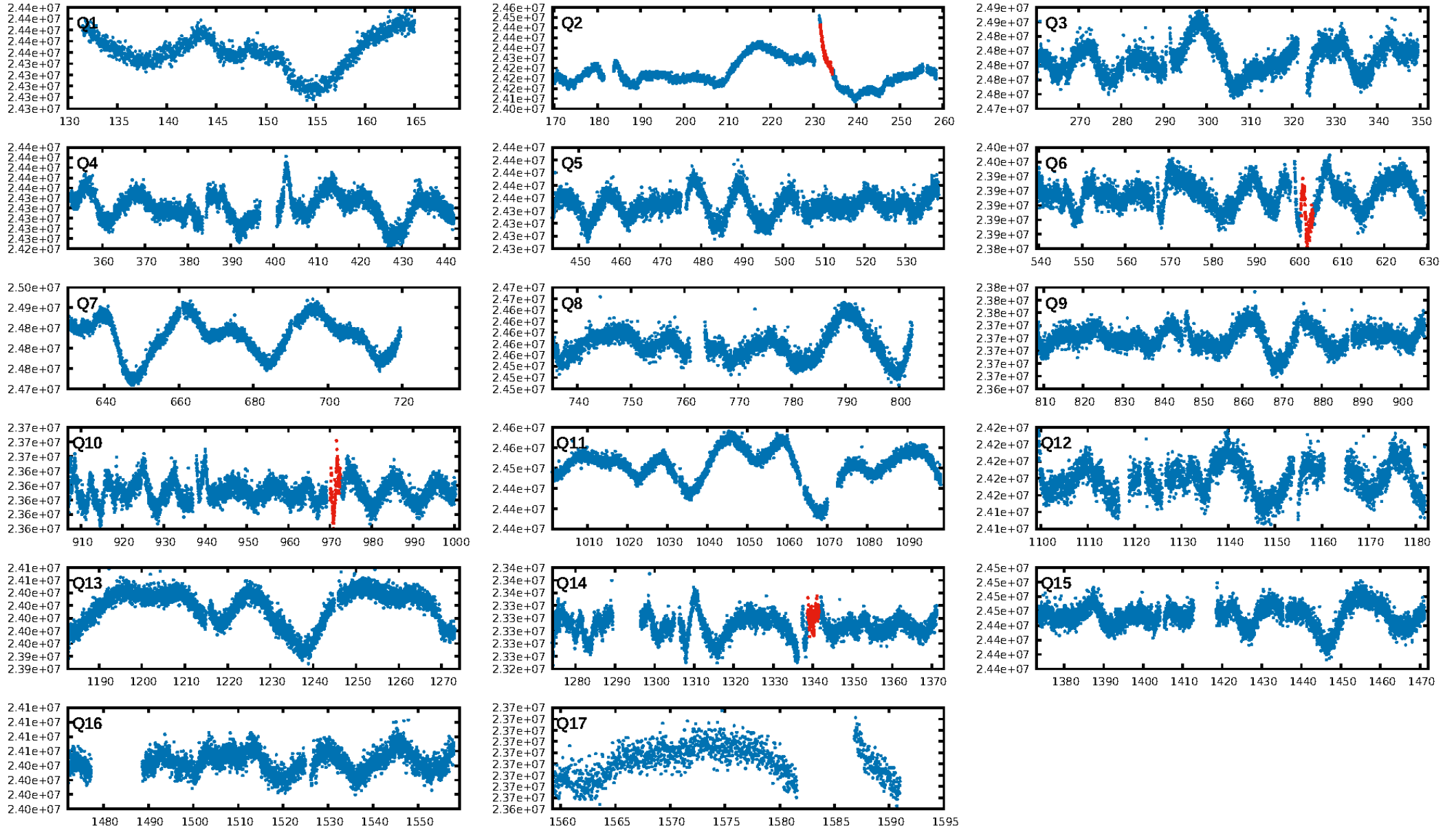
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGoF-sig: 98.5%
Bootstrap-pfa: 7.37e-12
RollingBand-fgt: 0.50 [2/4]
GhostDiagnostic-chr: 0.7978
Centroid-sig: 2.0%
Centroid-so: 2.316 arcsec [2.41σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: N/A

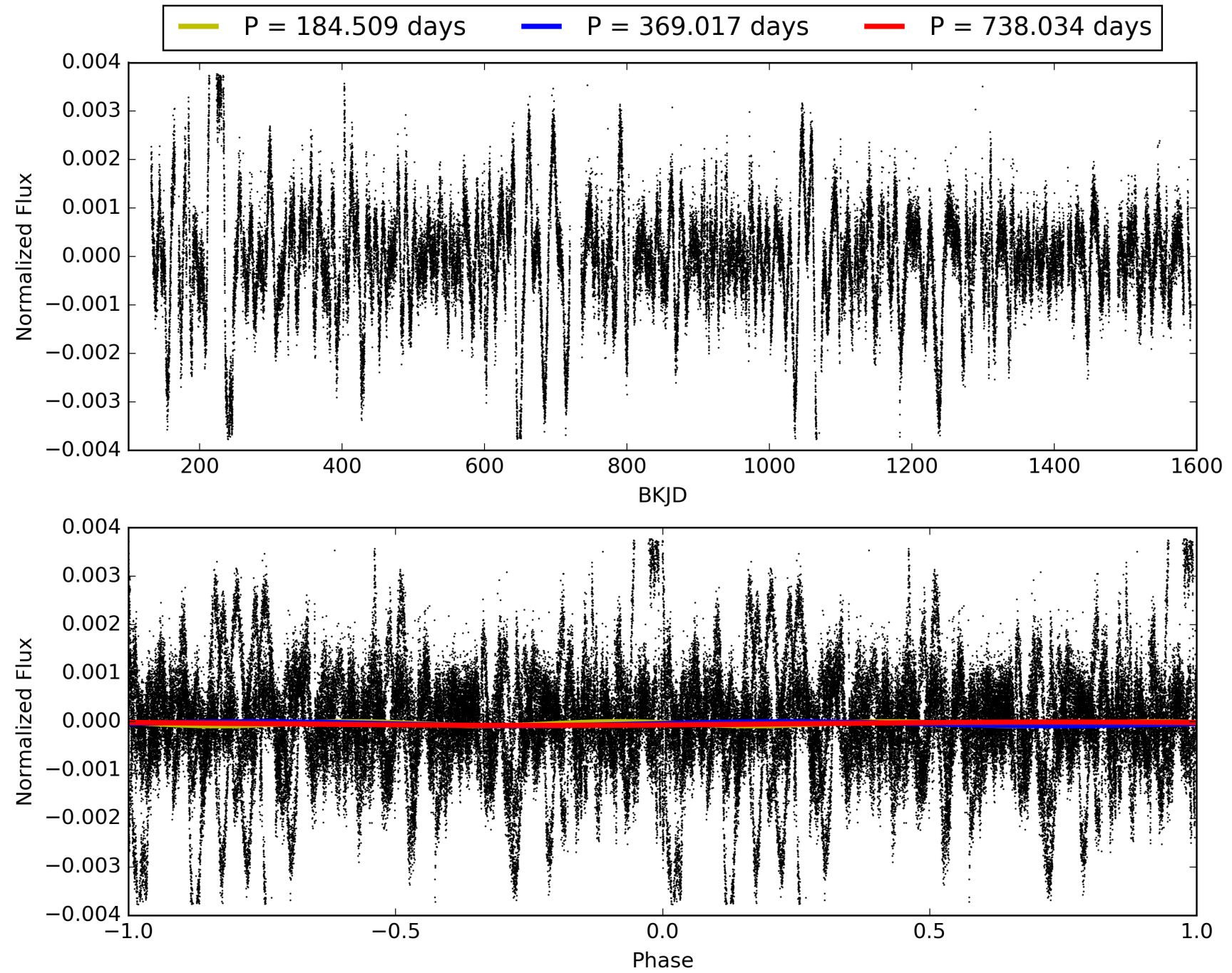
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 01:16:31 Z

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

TCE 007901784-01, PDC Light Curves

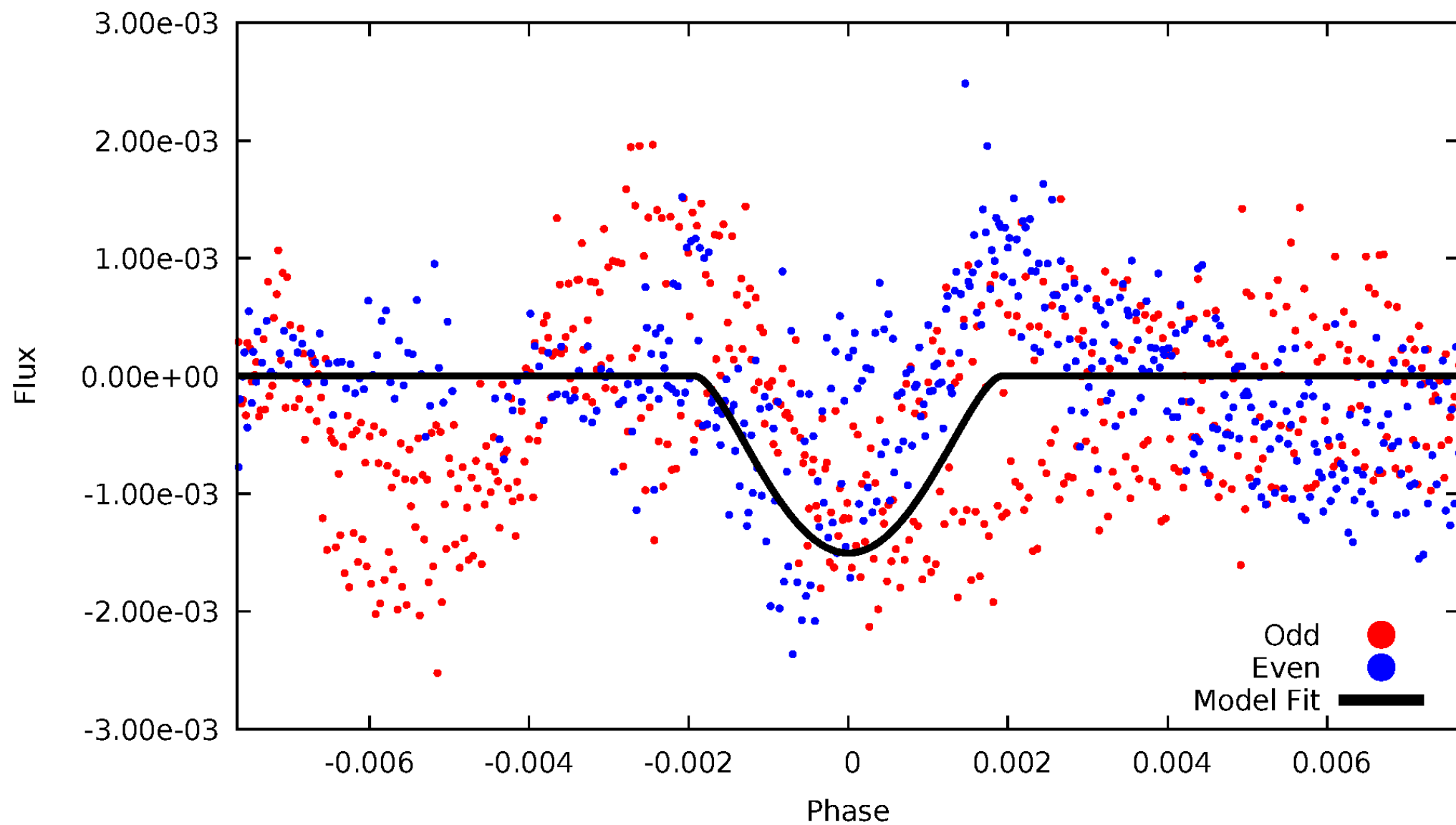


TCE 007901784-01



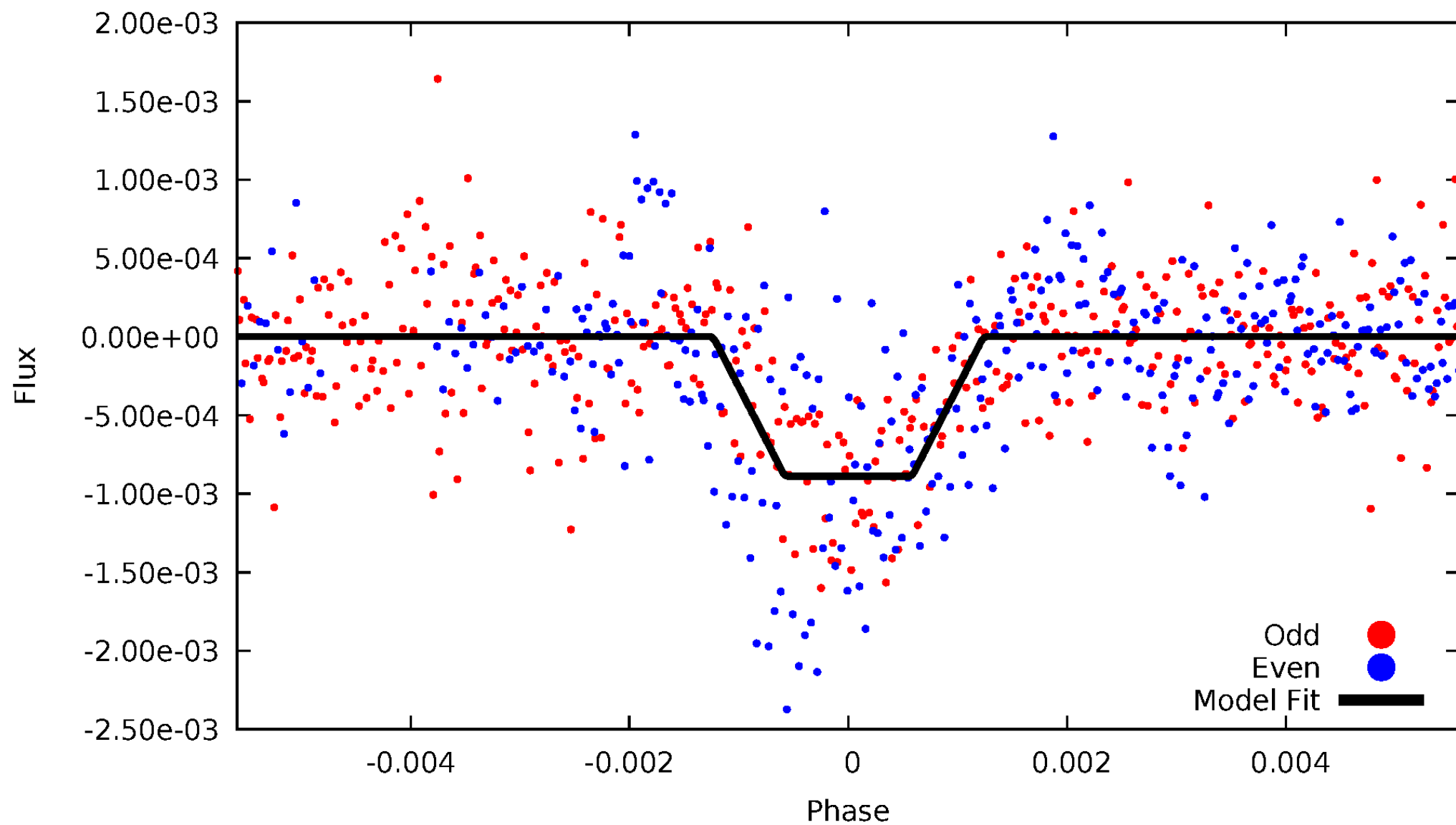
DV Odd/Even

TCE 007901784-01



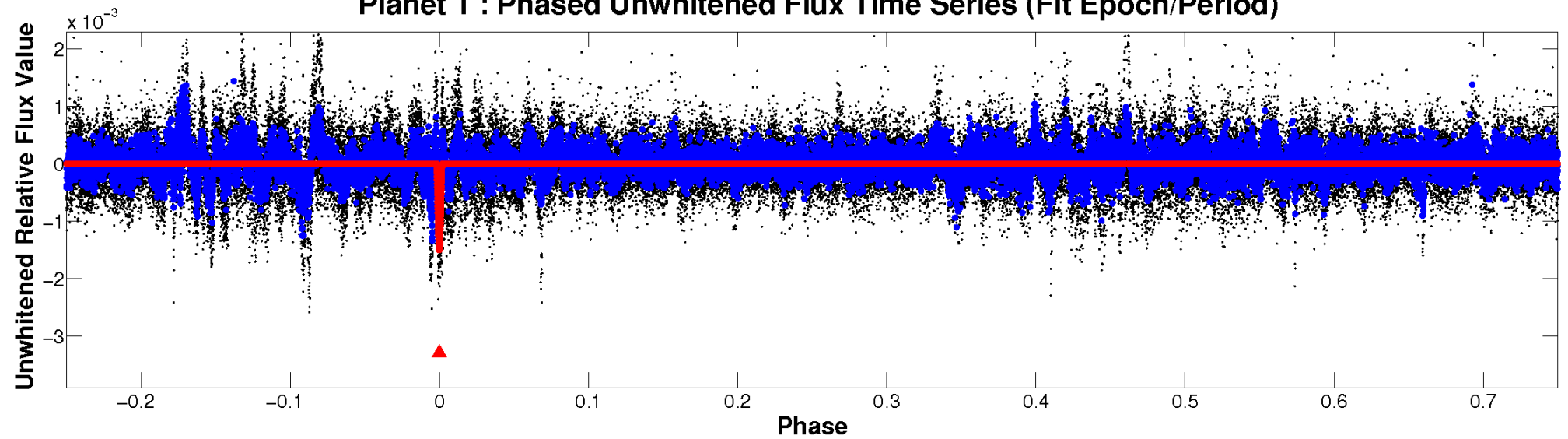
ALT Odd/Even

TCE 007901784-01

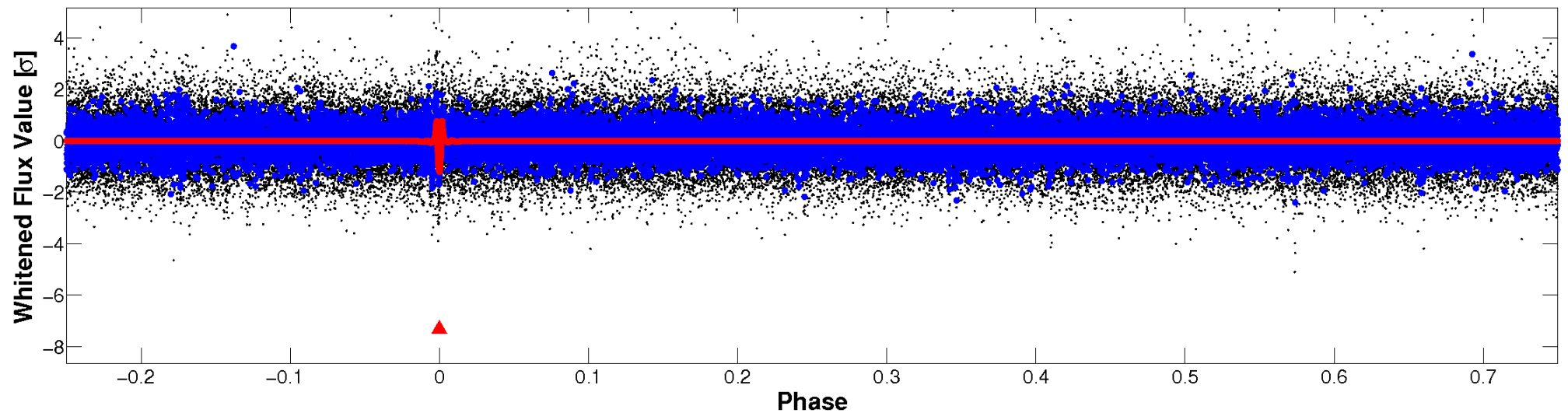


Non-Whitened Vs. Whitened Light Curve

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

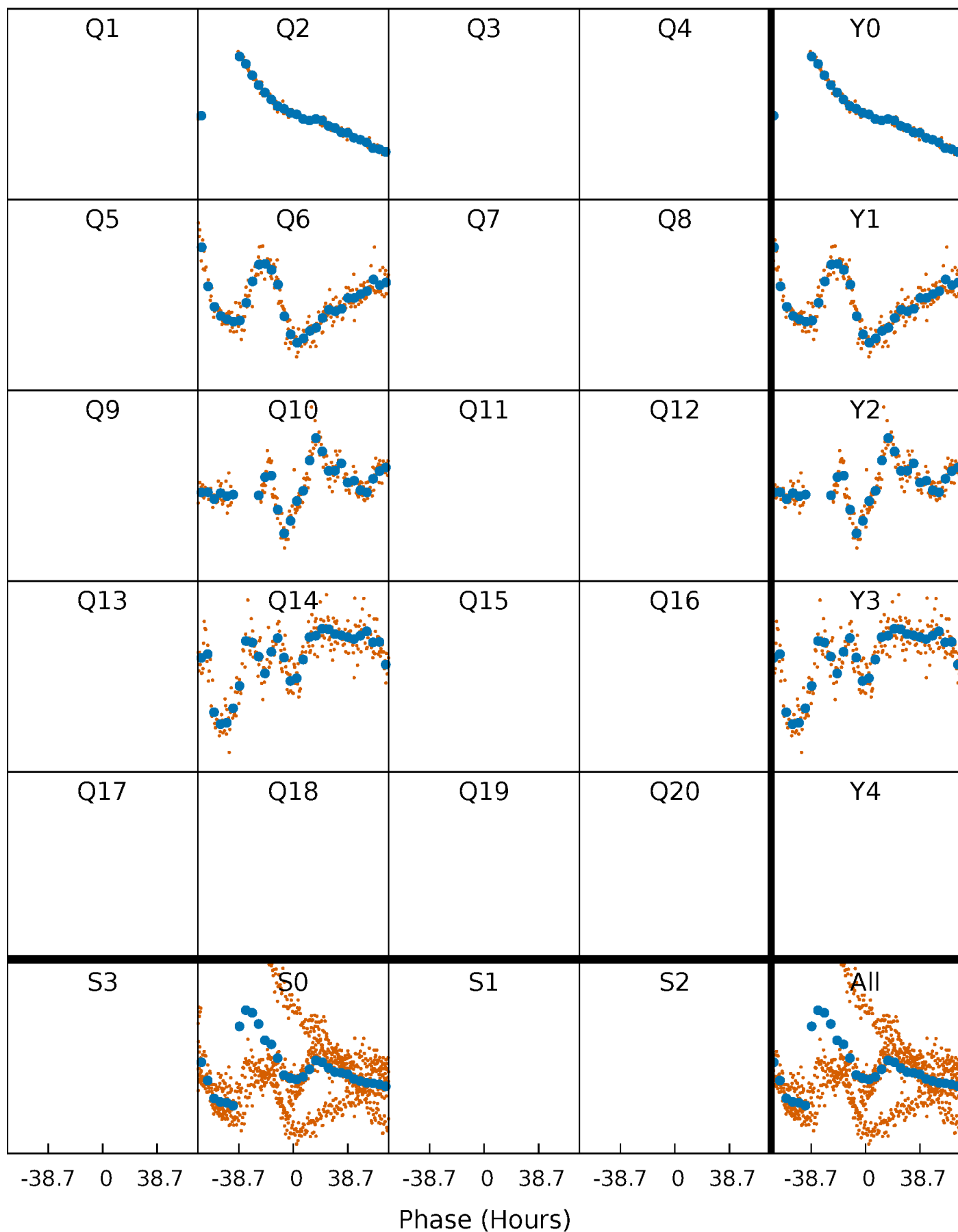


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



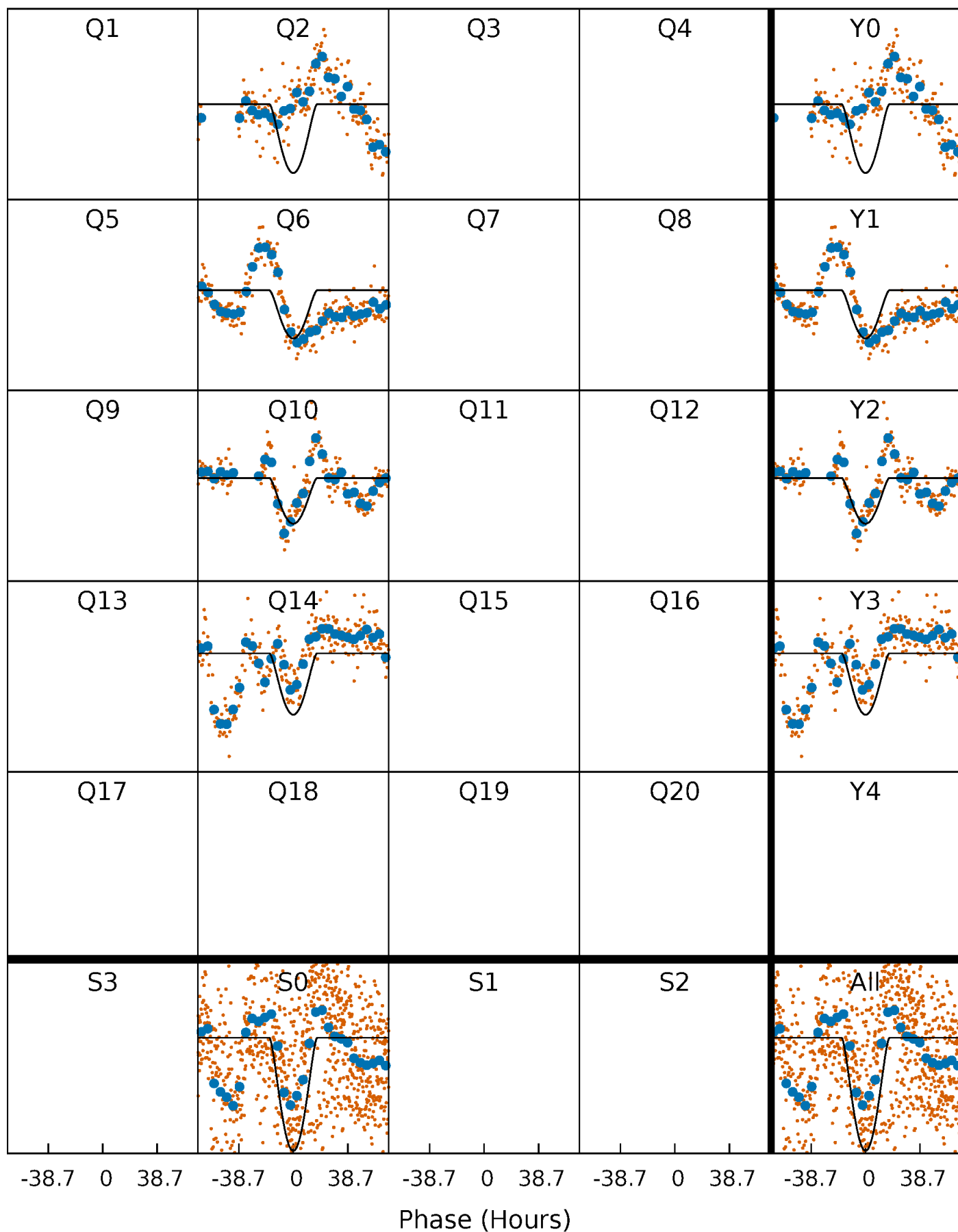
PDC Quarter-Phased Transit Curves

TCE 007901784-01 P=369.017195 Days $T_0=233.026605$ (BKJD)



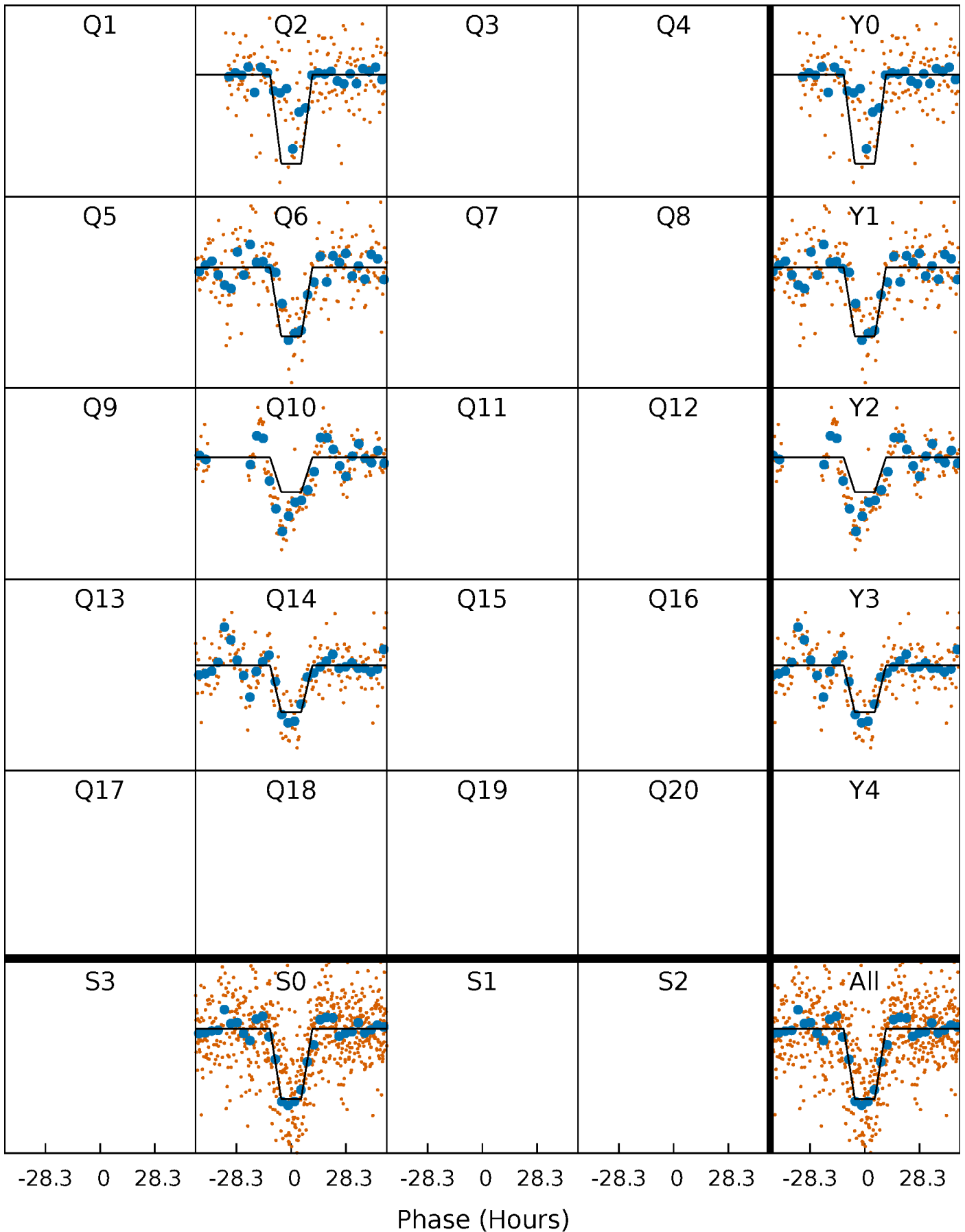
DV Quarter-Phased Transit Curves

TCE 007901784-01 P=369.017195 Days $T_0=233.026605$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

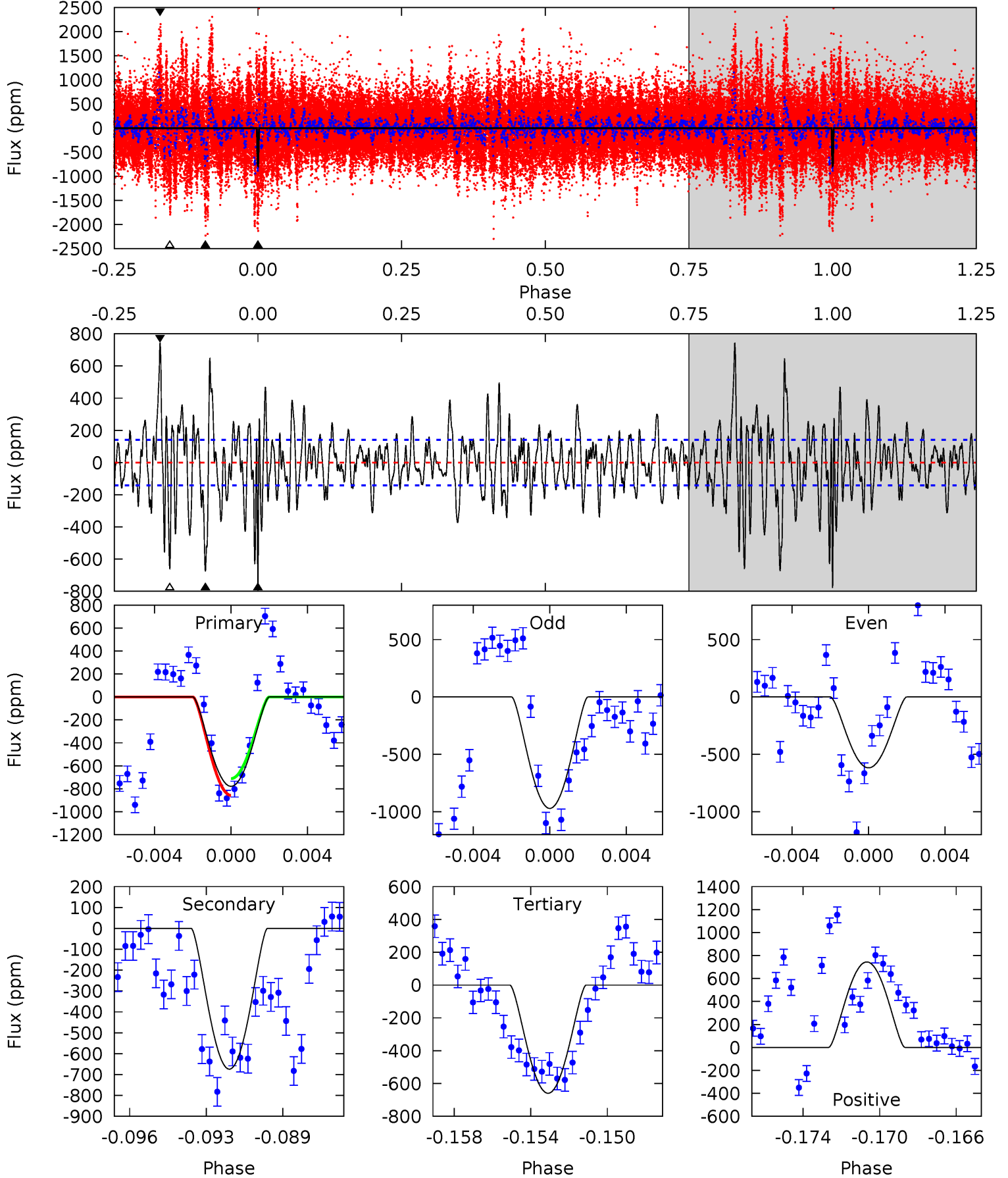
TCE 007901784-01 P=369.105017 Days $T_0=232.801436$ (BKJD)



DV Model-Shift Uniqueness Test

007901784-01, P = 369.017195 Days, E = 233.026605 Days

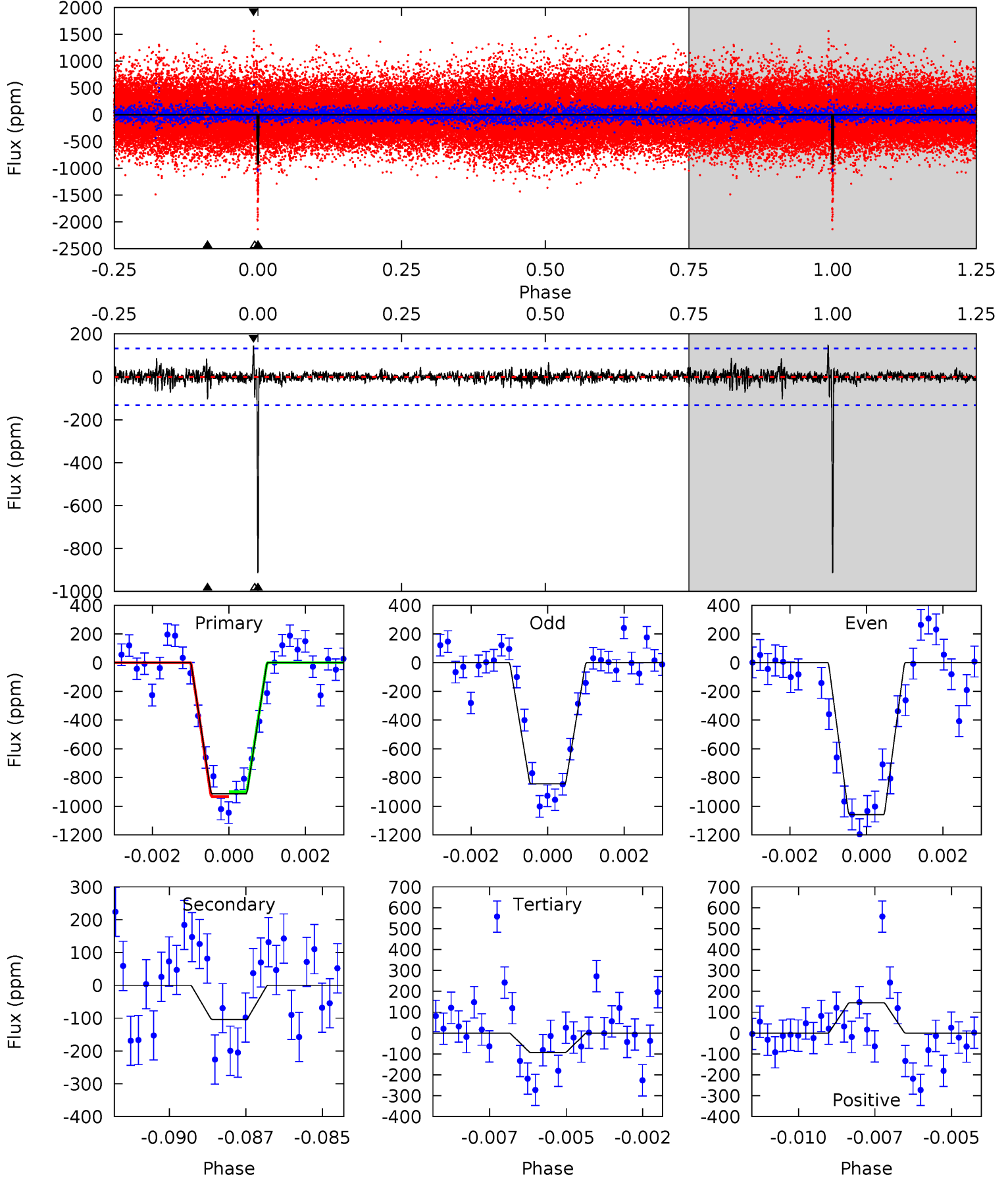
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
28.7	24.9	24.3	27.4	5.21	2.89	6.23	4.38	1.27	0.54	-2.57	6.47	0.89	0.49	2.68



Alt Model-Shift Uniqueness Test

007901784-01, P = 369.105017 Days, E = 232.801436 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
36.5	4.15	3.74	5.80	5.29	3.02	0.64	32.8	30.7	0.41	-1.65	4.31	1.07	0.14	0.66



Stellar Parameters For KIC 007901784

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5221^{+155}_{-155}	$4.590^{+0.026}_{-0.104}$	$0.020^{+0.250}_{-0.300}$	$0.778^{+0.122}_{-0.061}$	$0.868^{+0.064}_{-0.092}$	$2.600^{+0.369}_{-0.807}$
	+3%/-3%	+1%/-2%	+1250%/-1500%	+16%/-8%	+7%/-11%	+14%/-31%
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 007901784-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-674 ± 27	$8.89^{+7.23}_{-5.40}$	295^{+13}_{-11}	3198^{+1229}_{-467}	4257^{+23440}_{-2929}
Alt.	-104 ± 25	$6.80^{+6.95}_{-4.76}$	295^{+12}_{-10}	2671^{+1107}_{-428}	1156^{+11278}_{-900}

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 $A_{obs} \gg 1.0$

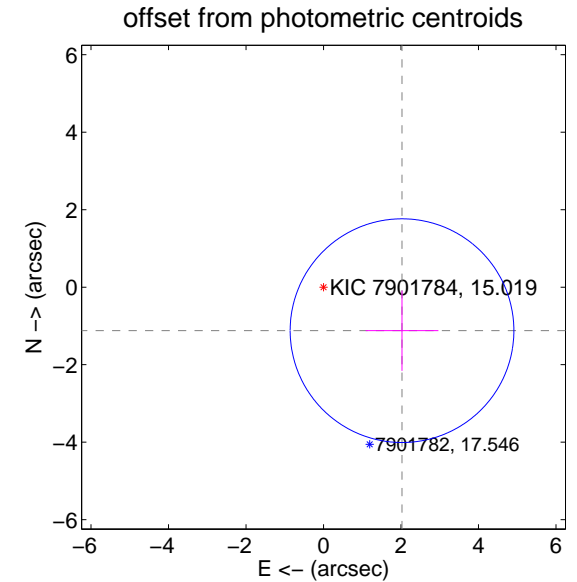
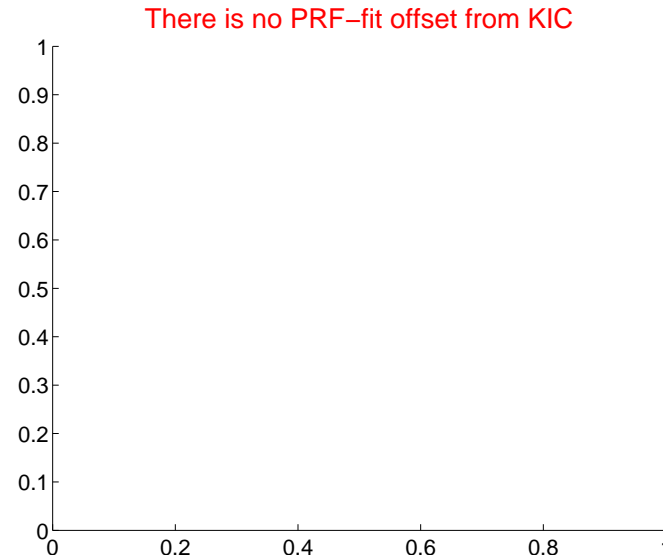
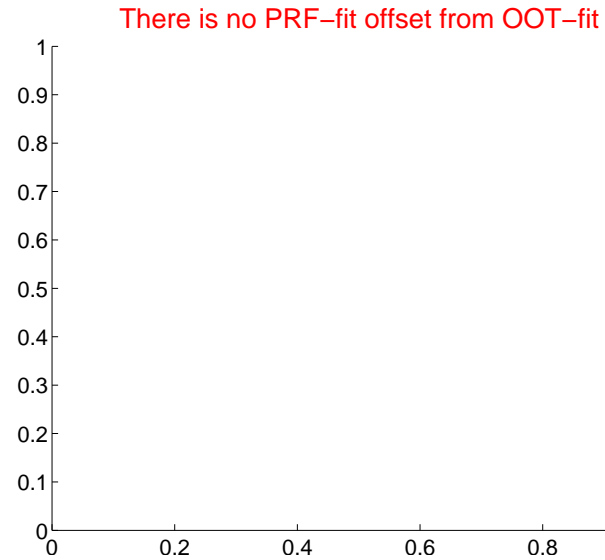
DV Centroid Data

Supplemental centroid analysis for 007901784-01. Kepler magnitude: 15.02. Transit SNR 13.18

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	2.32 ± 0.96	2.41	-2.03 ± 0.94	-1.12 ± 1.03



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.

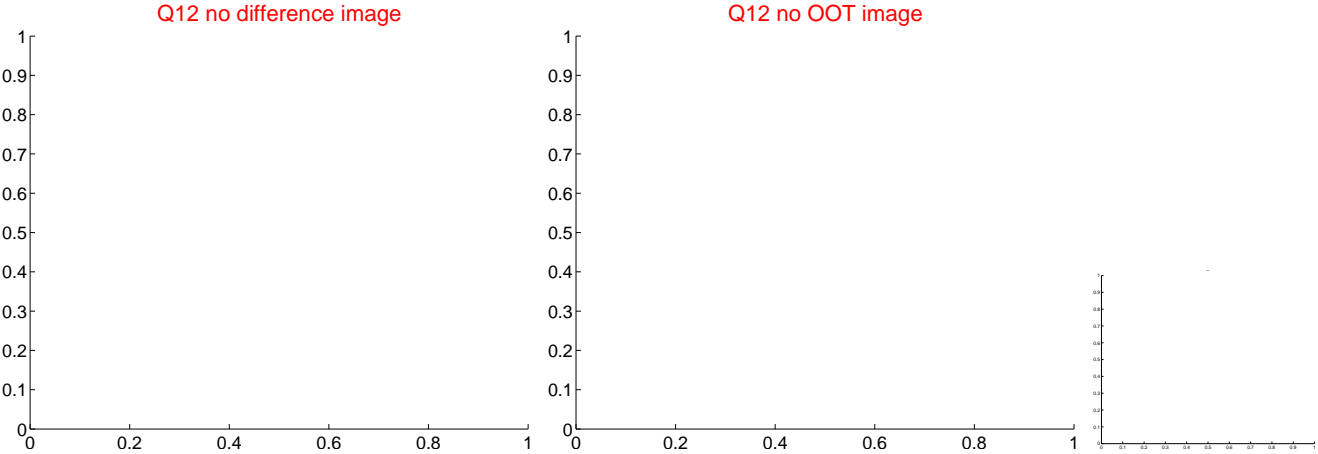
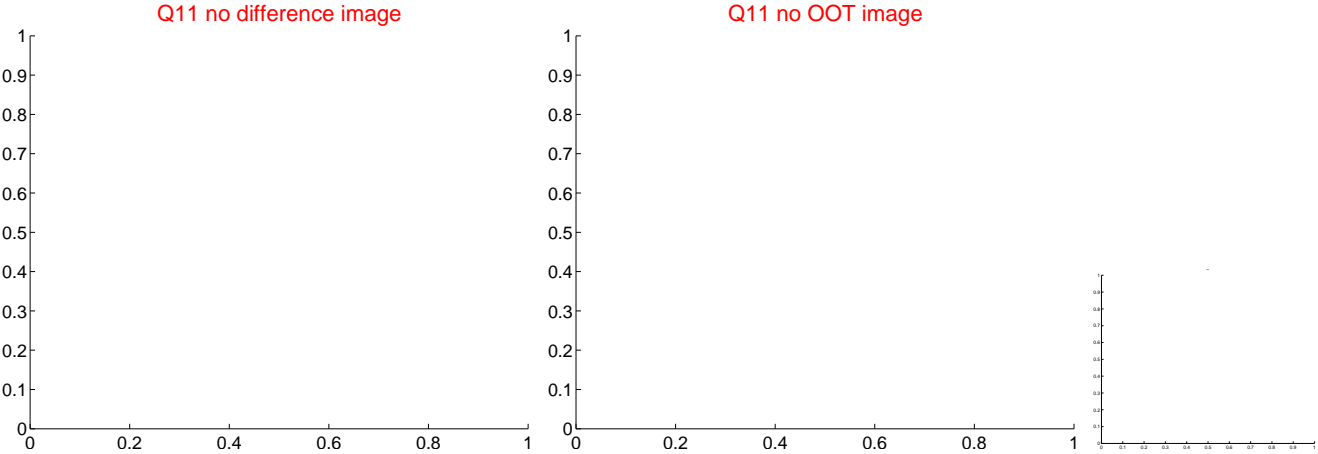
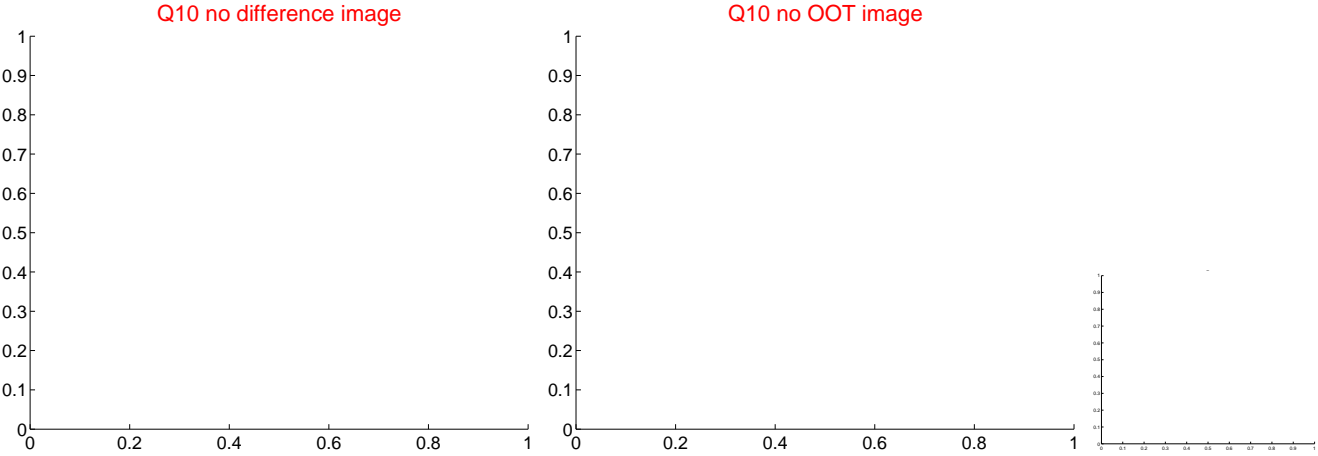
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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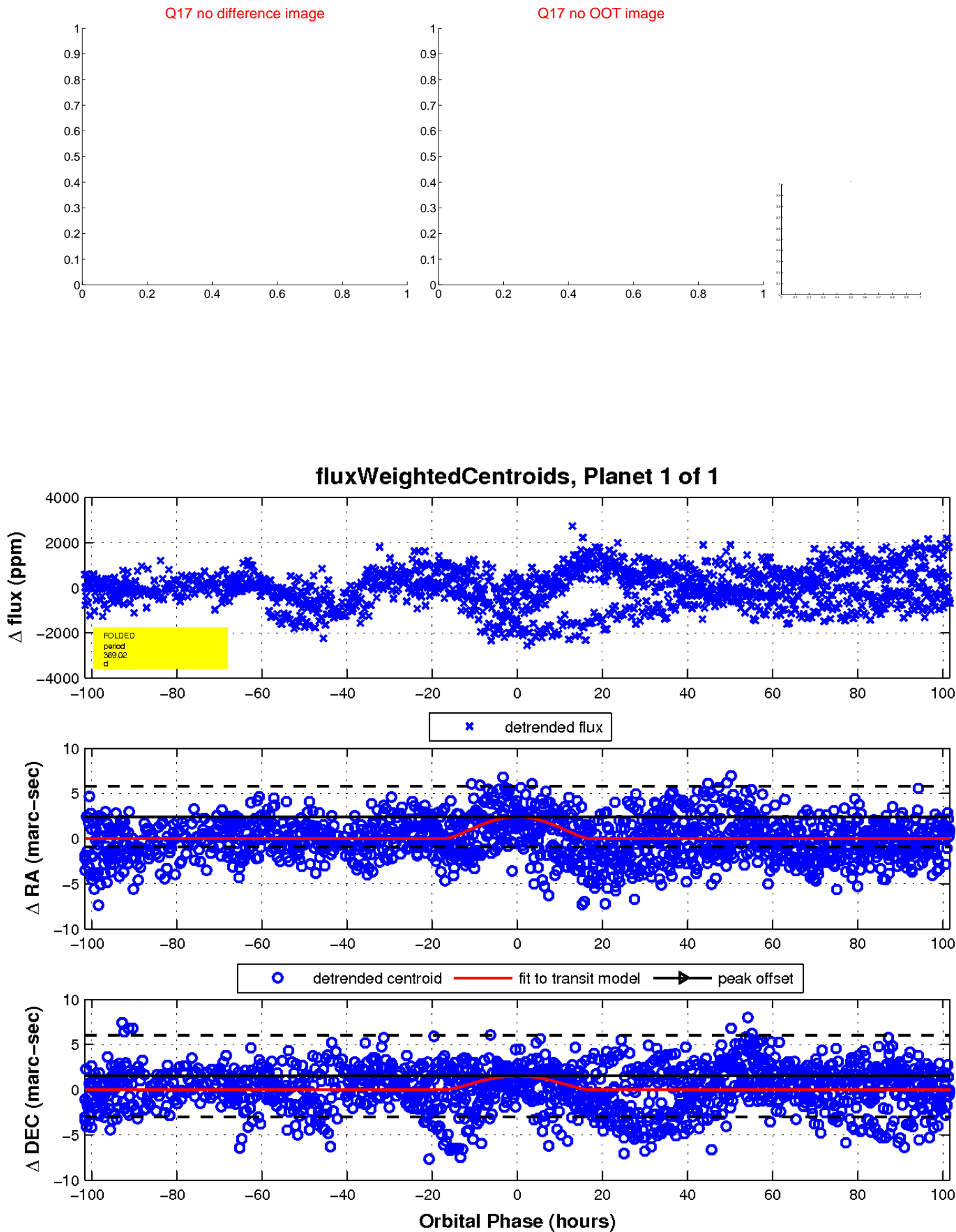
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

