

KIC 008747633

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})
008747633-01	OBS	No	370.866563	230.385159	491.9	16.532	9.5	7.9	1.03	6241	2.41	1.33

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008747633-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE—INCONSISTENT_TRANS—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.

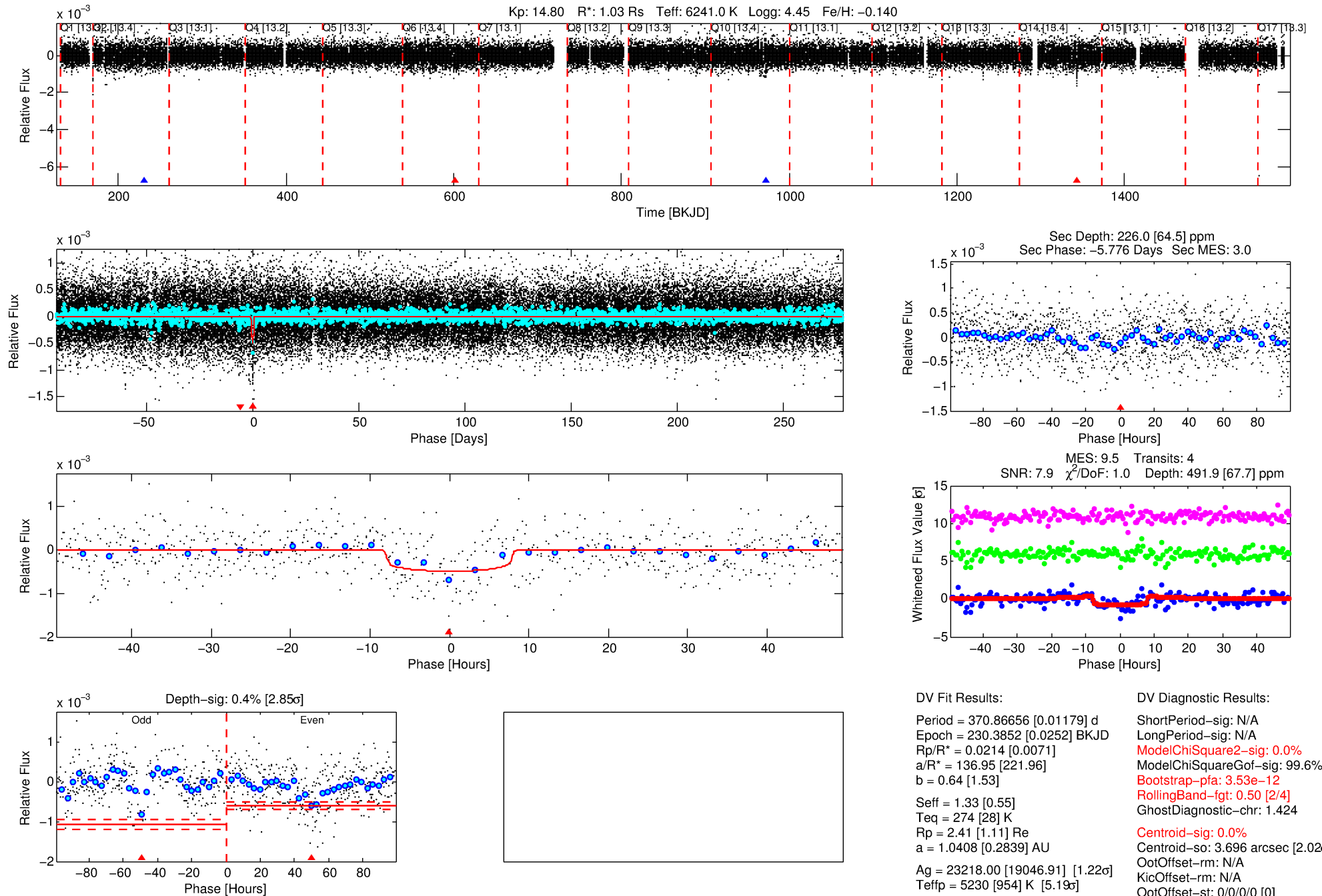
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008747633-01

No Significant Match Found

DV One-Page Summary

KIC: 8747633 Candidate: 1 of 1 Period: 370.867 d



DV Fit Results:

Period = 370.86656 [0.01179] d
Epoch = 230.3852 [0.0252] BKJD
Rp/R* = 0.0214 [0.0071]
a/R* = 136.95 [221.96]
b = 0.64 [1.53]
Seff = 1.33 [0.55]
Teq = 274 [28] K
Rp = 2.41 [1.11] Re
a = 1.0408 [0.2839] AU
Ag = 23218.00 [19046.91] [1.22 σ]
Teffp = 5230 [954] K [5.19 σ]

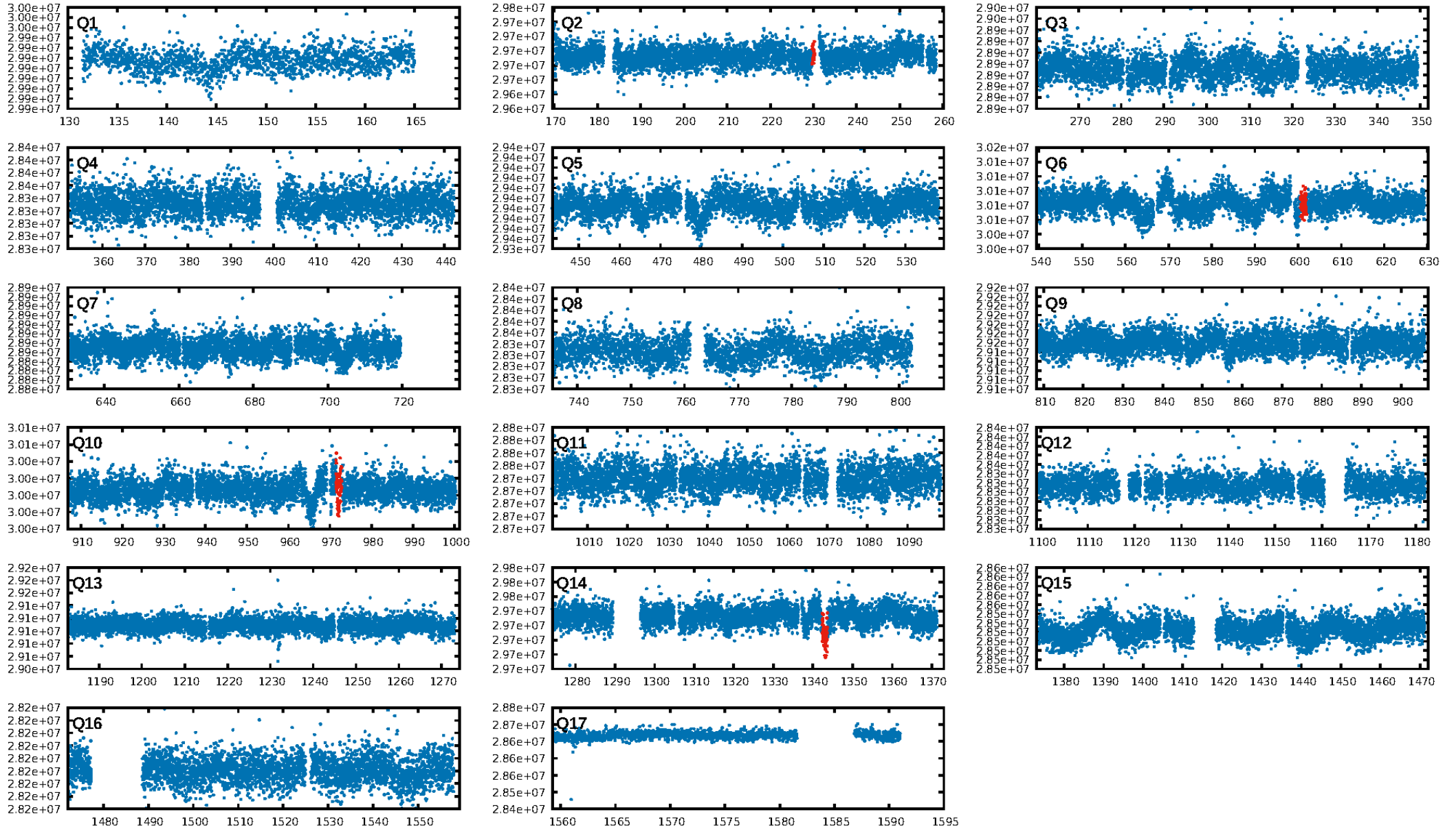
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 99.6%
Bootstrap-pfa: 3.53e-12
RollingBand-fgt: 0.50 [2/4]
GhostDiagnostic-chr: 1.424
Centroid-sig: 0.0%
Centroid-so: 3.696 arcsec [2.02 σ]
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: 1.00 [1/1]

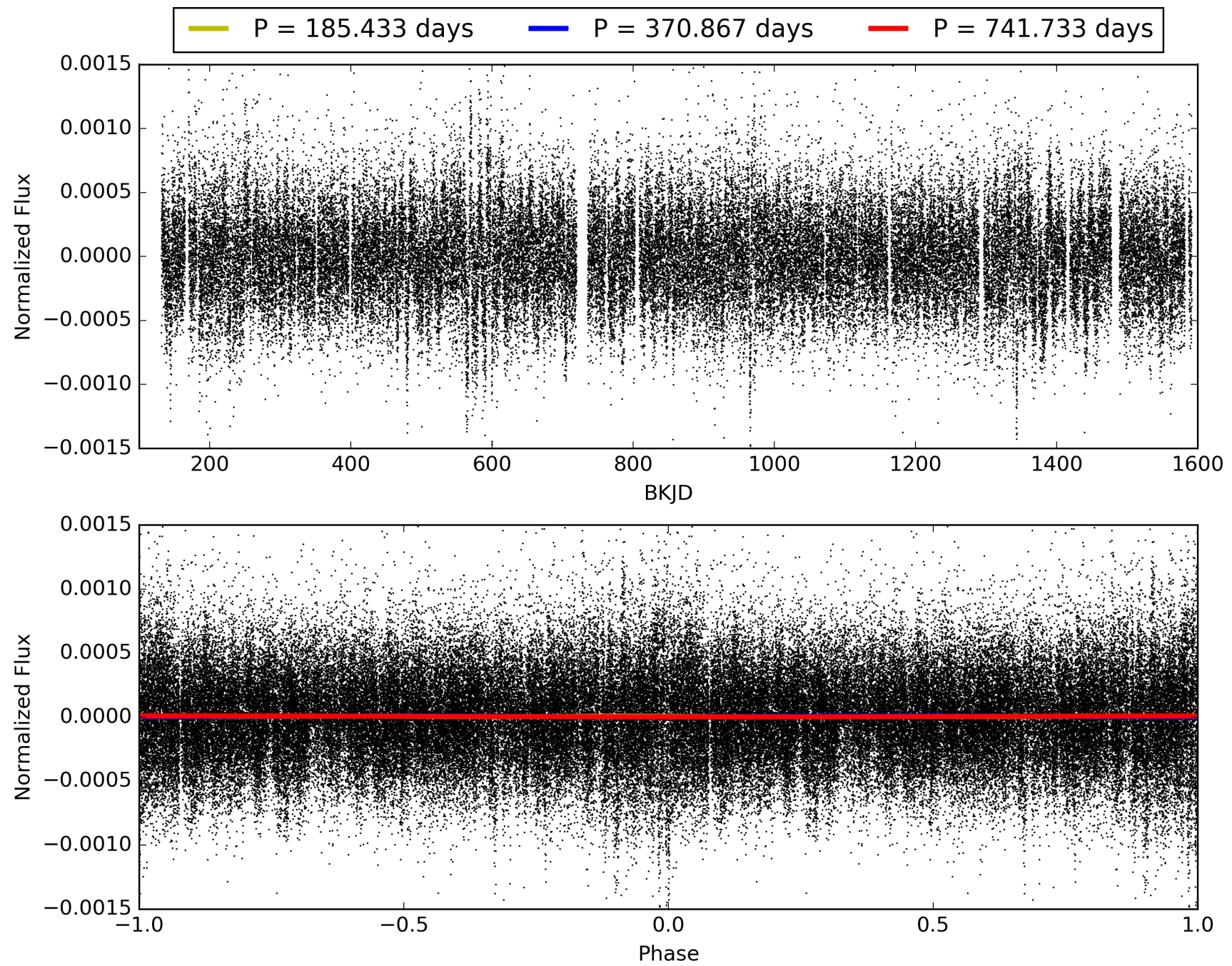
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:45:30 Z

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

TCE 008747633-01, PDC Light Curves

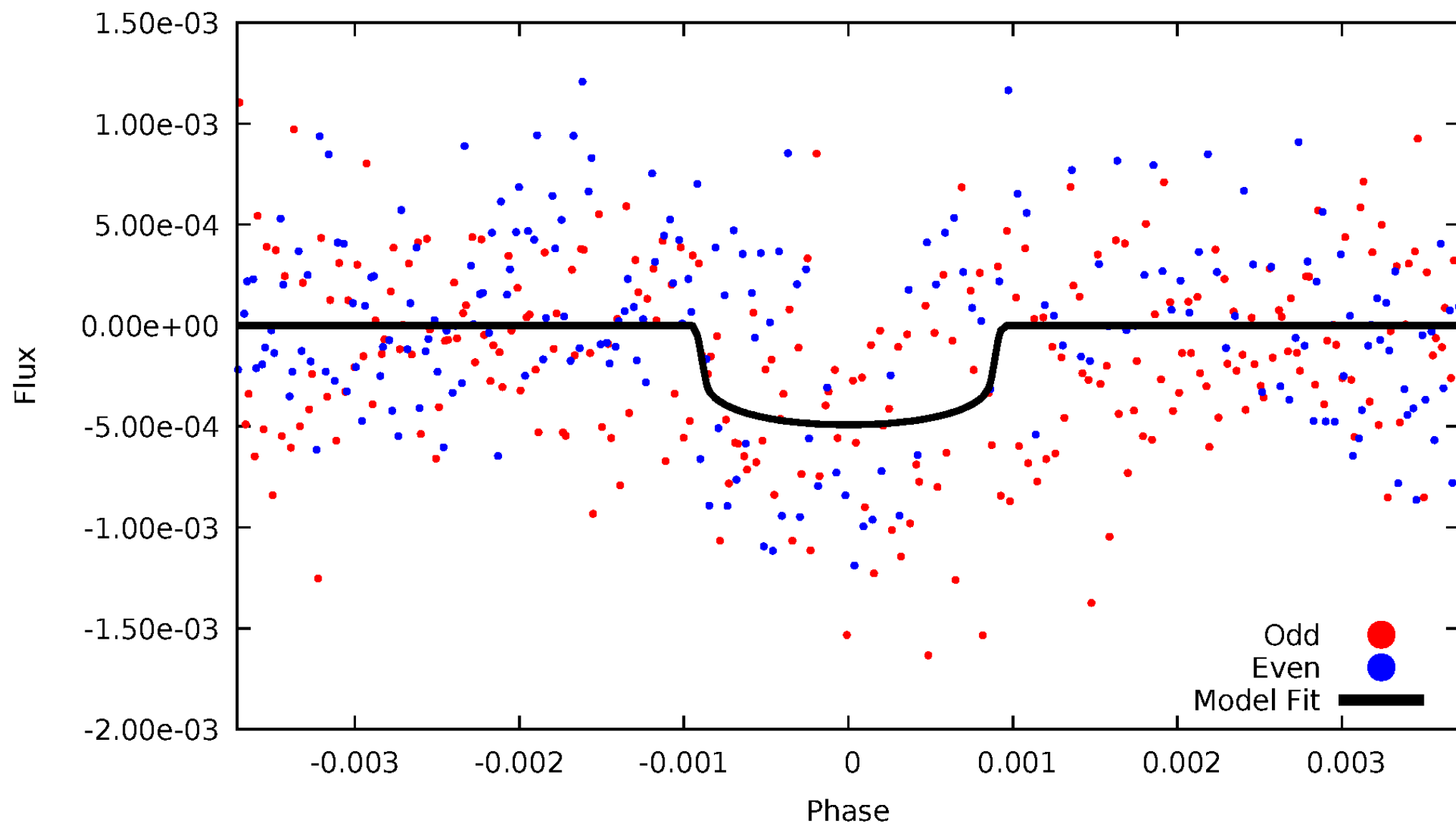


TCE 008747633-01



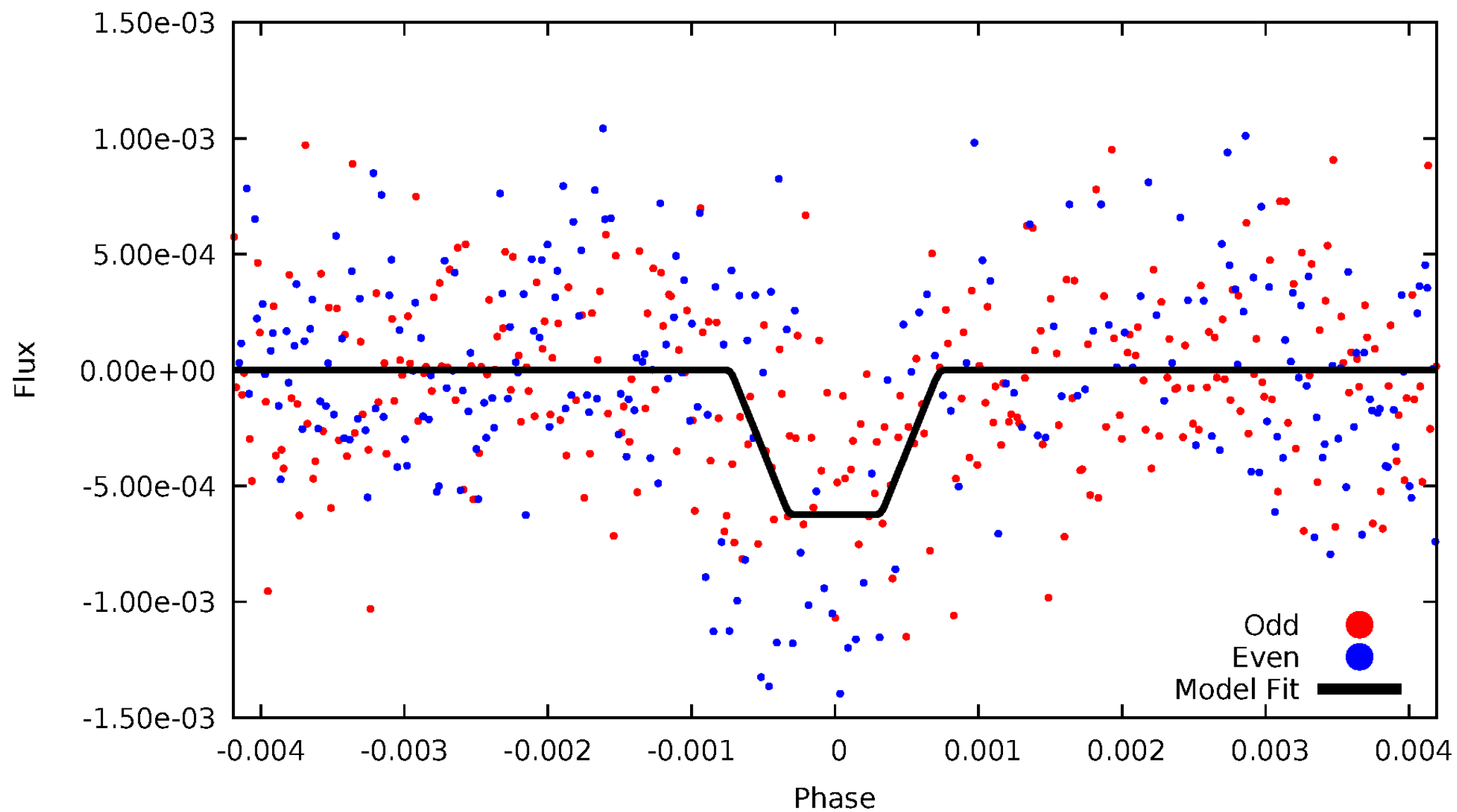
DV Odd/Even

TCE 008747633-01



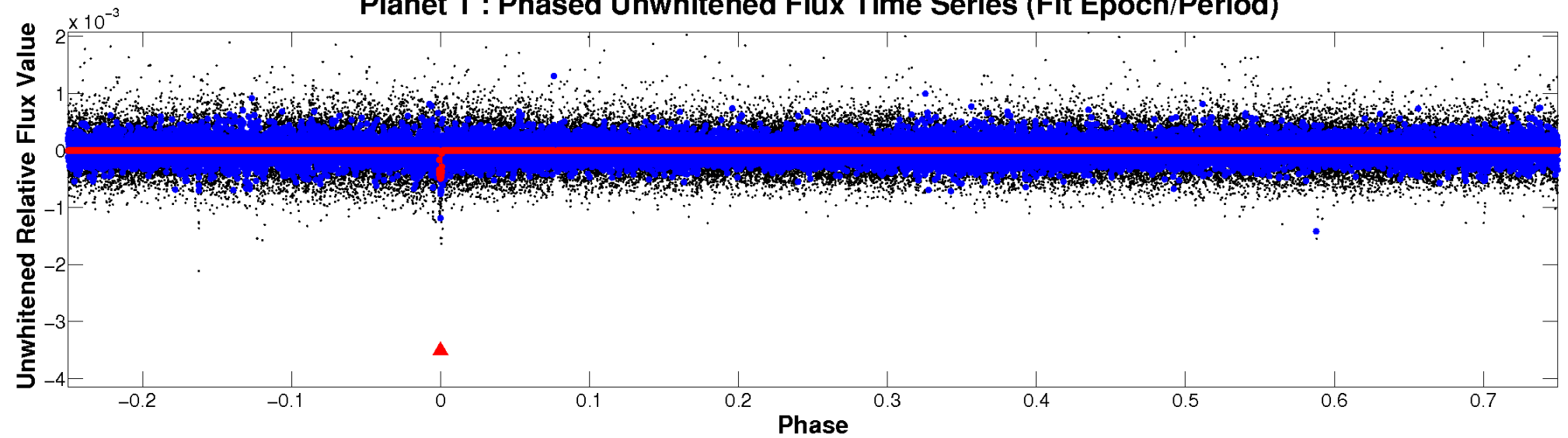
ALT Odd/Even

TCE 008747633-01

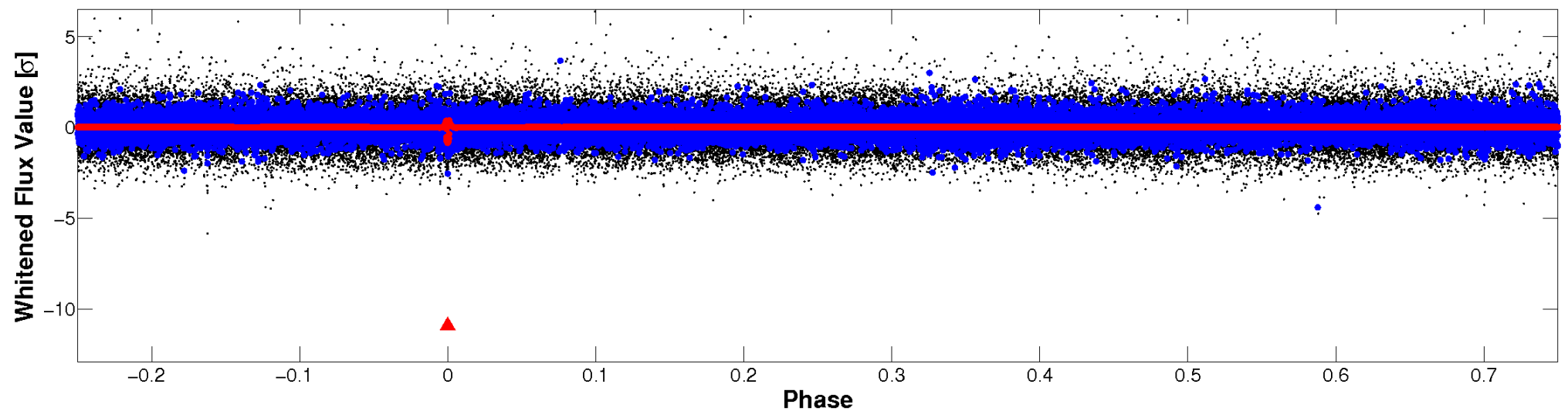


Non-Whitened Vs. Whitened Light Curve

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

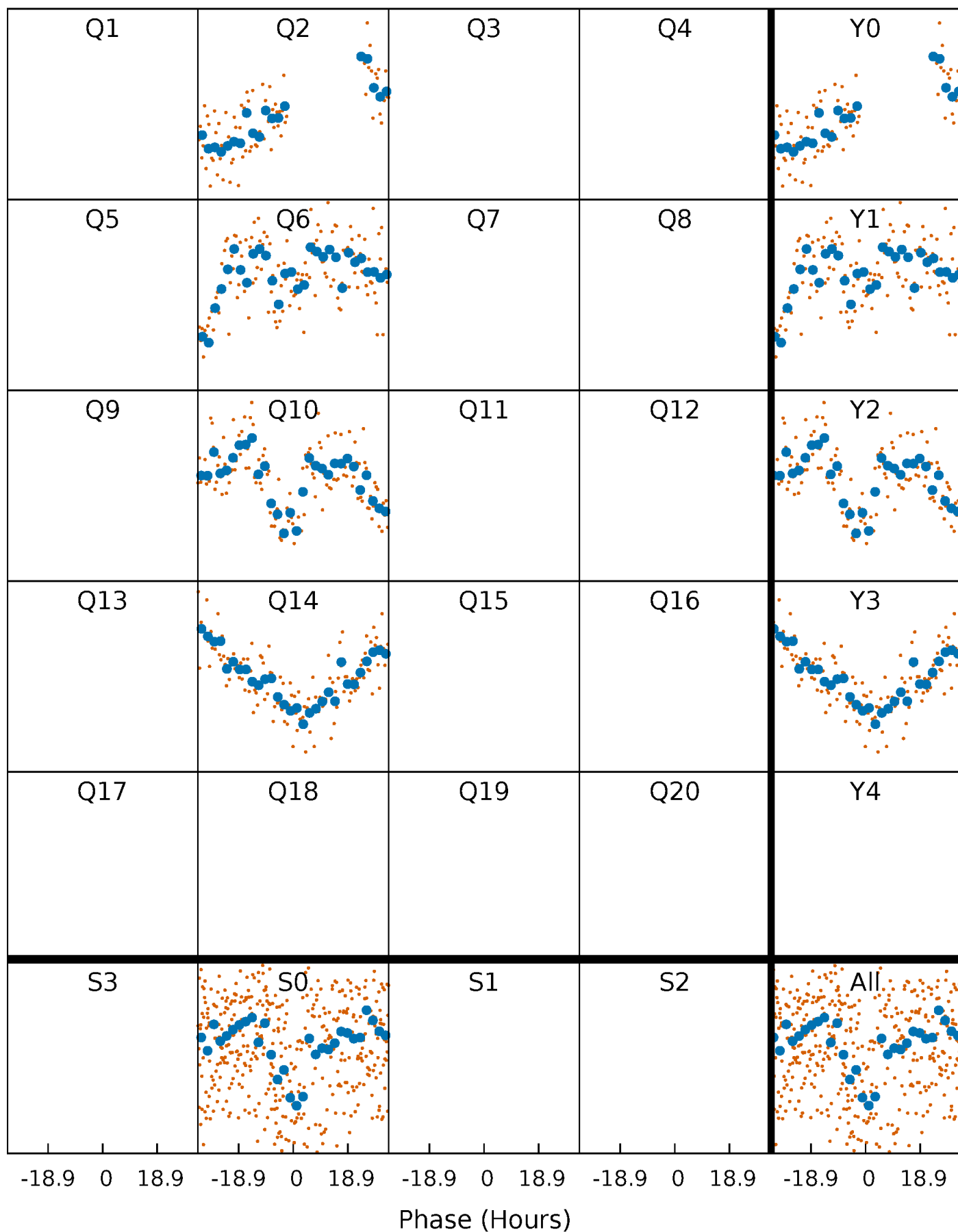


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



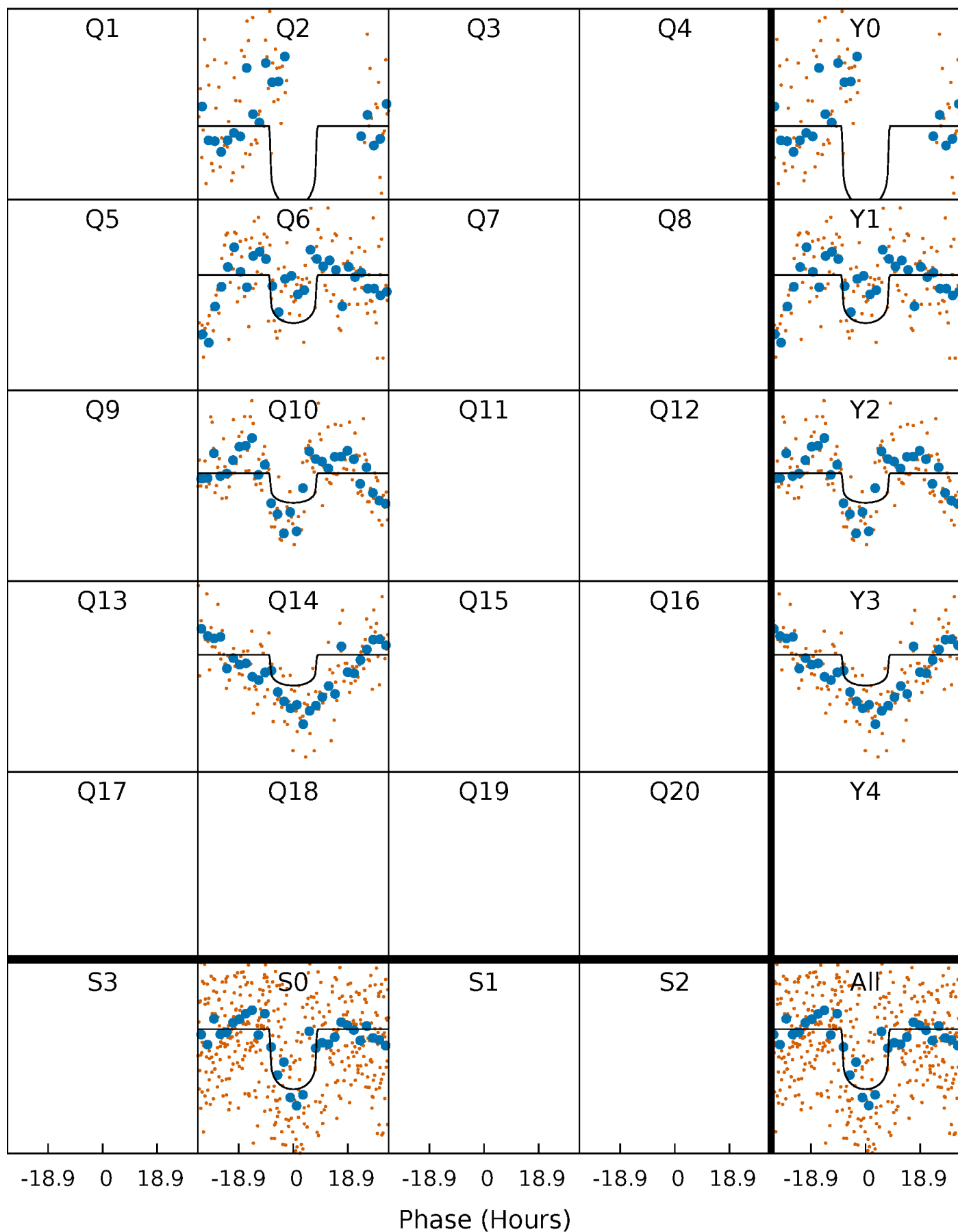
PDC Quarter-Phased Transit Curves

TCE 008747633-01 P=370.866563 Days $T_0=230.385159$ (BKJD)



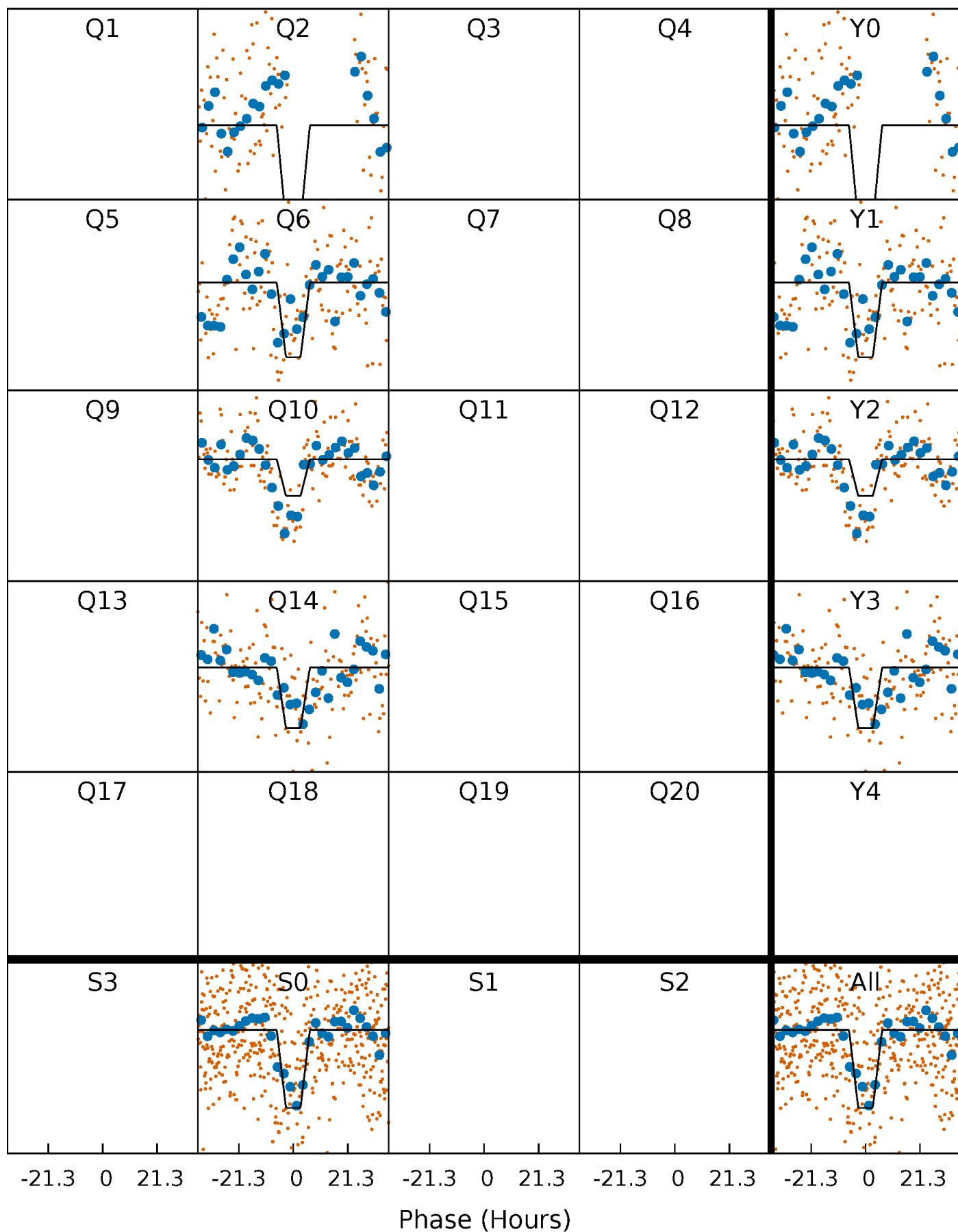
DV Quarter-Phased Transit Curves

TCE 008747633-01 P=370.866563 Days $T_0=230.385159$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

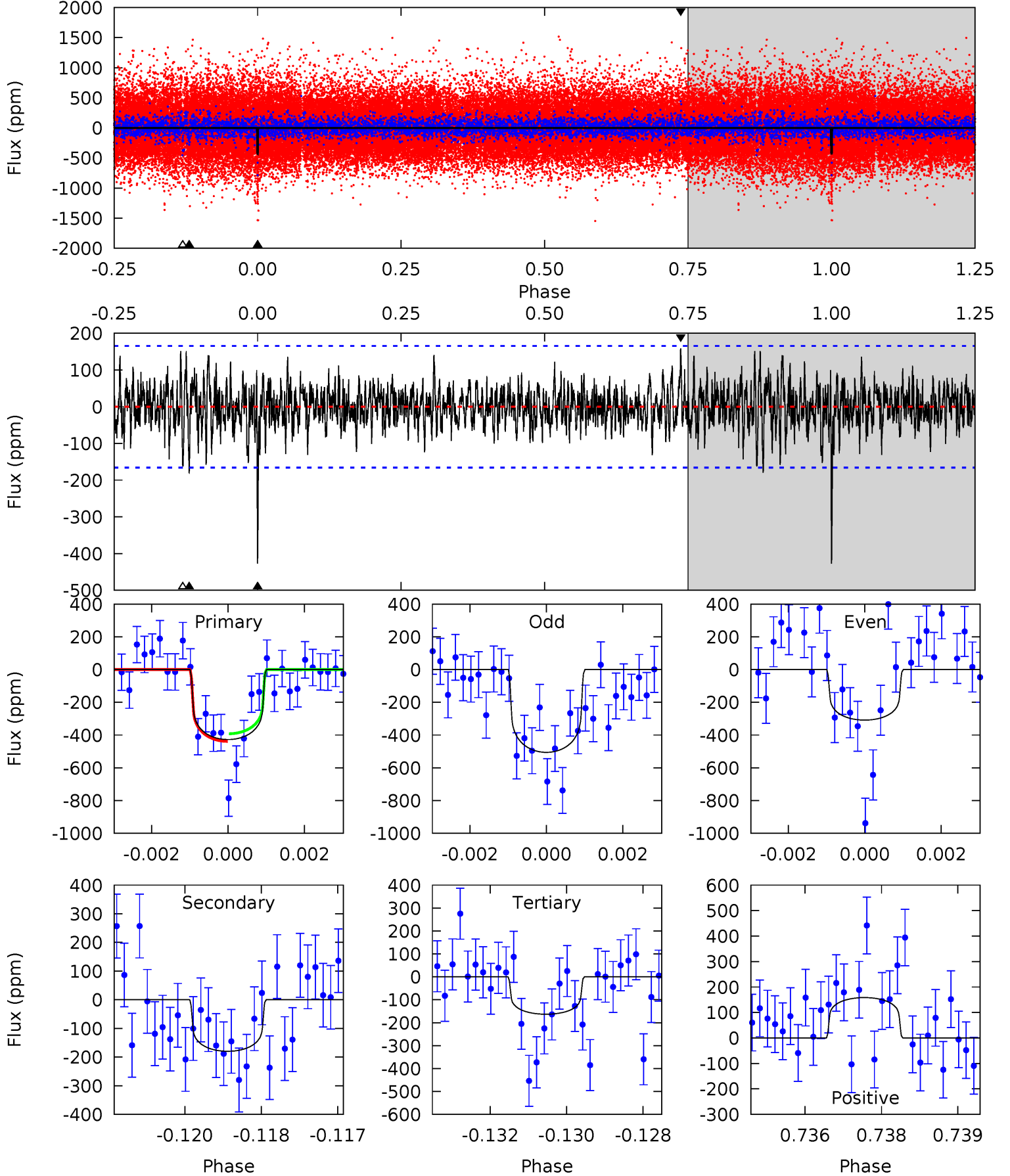
TCE 008747633-01 P=370.862303 Days $T_0=230.394026$ (BKJD)



DV Model-Shift Uniqueness Test

008747633-01, P = 370.866563 Days, E = 230.385159 Days

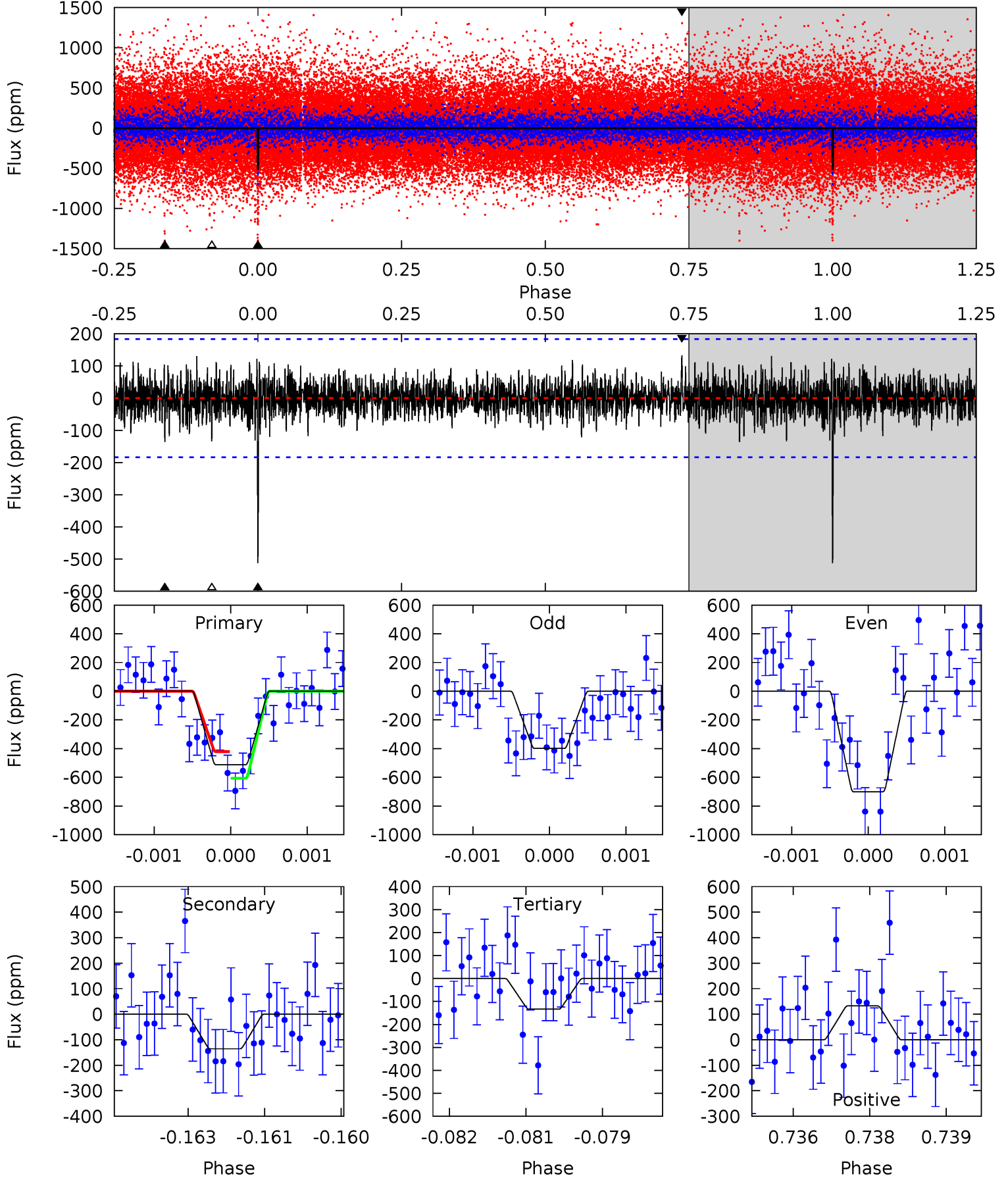
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.8	5.79	5.25	5.10	5.34	3.10	1.44	8.51	8.66	0.54	0.68	3.15	0.91	0.27	0.75



Alt Model-Shift Uniqueness Test

008747633-01, P = 370.862303 Days, E = 230.394026 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.0	3.98	3.92	3.89	5.38	3.18	1.10	11.1	11.1	0.06	0.09	4.32	0.84	0.21	2.72



Stellar Parameters For KIC 008747633

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6241^{+175}_{-197}	$4.450^{+0.054}_{-0.216}$	$-0.140^{+0.250}_{-0.300}$	$1.031^{+0.335}_{-0.112}$	$1.088^{+0.158}_{-0.144}$	$1.400^{+0.408}_{-0.753}$
	+3%/-3%	+1%/-5%	+179%/-214%	+32%/-11%	+15%/-13%	+29%/-54%
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 008747633-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-180 ± 31	$2.52^{+0.88}_{-0.91}$	391^{+27}_{-20}	5033^{+1092}_{-570}	16325^{+23378}_{-7487}
Alt.	-136 ± 34	$2.97^{+0.92}_{-0.82}$	392^{+29}_{-19}	4430^{+617}_{-465}	8681^{+8581}_{-4033}

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

DV Centroid Data

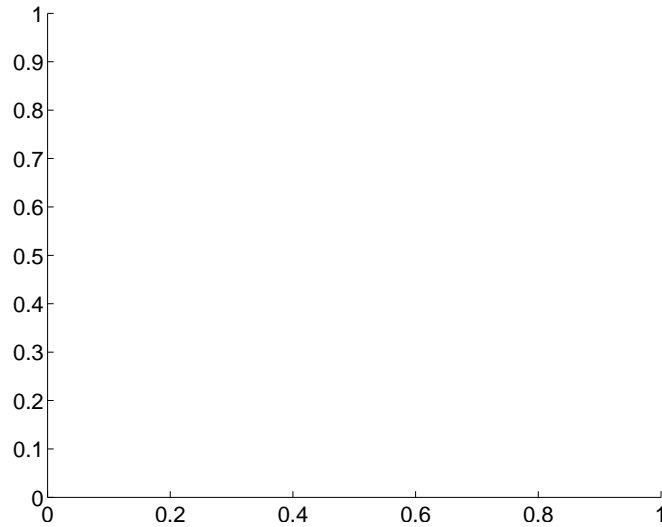
Supplemental centroid analysis for 008747633-01. Kepler magnitude: 14.80. Transit SNR 7.92

There are 0 quarters with good PRF difference image offsets

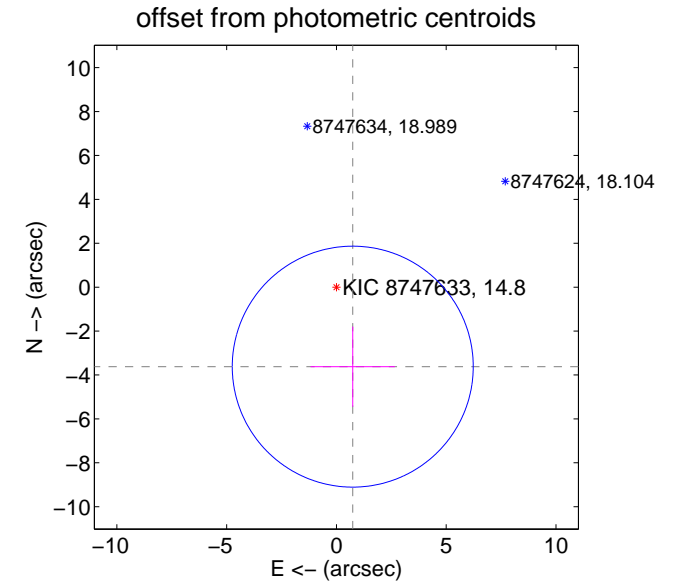
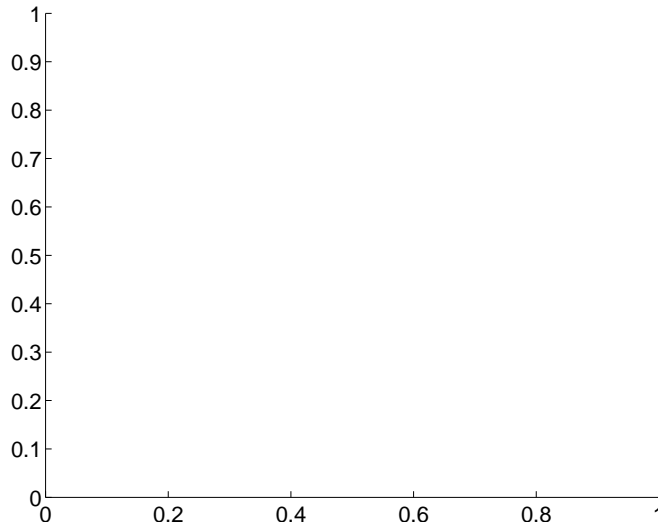
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	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	3.70 ± 1.83	2.02	-0.74 ± 1.92	-3.62 ± 1.83

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.



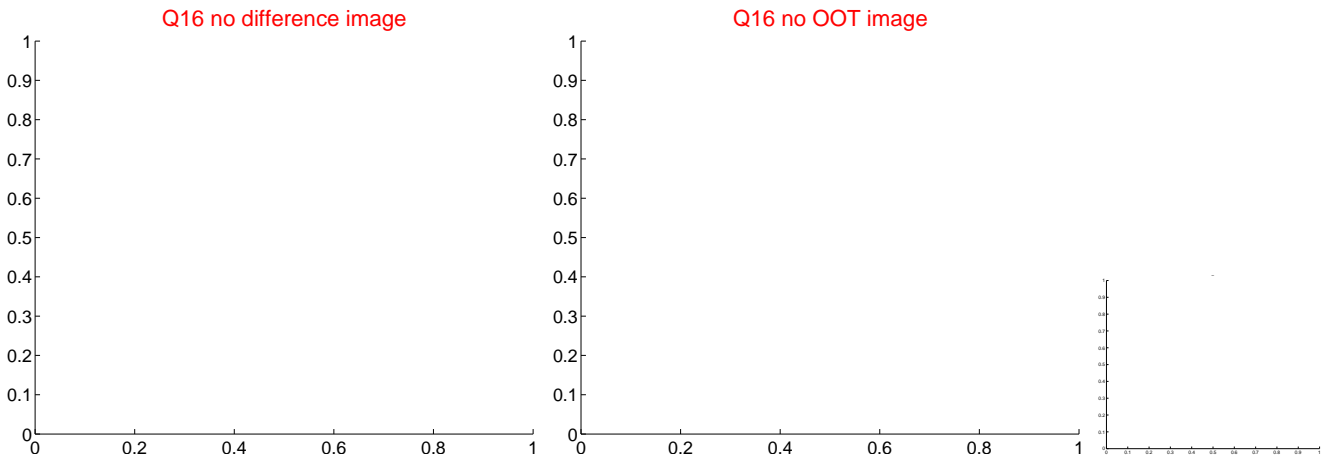
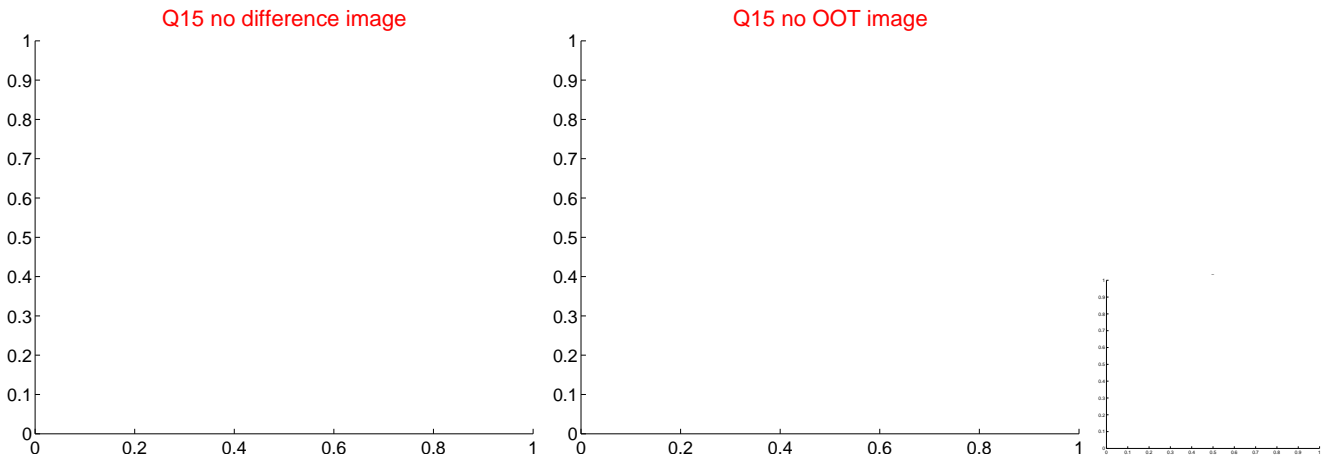
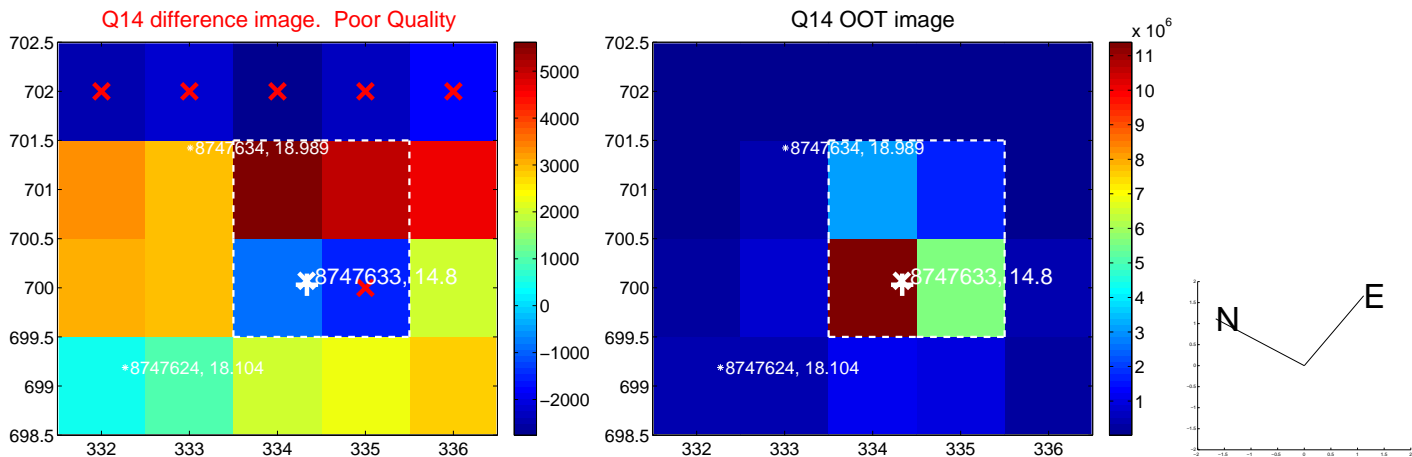
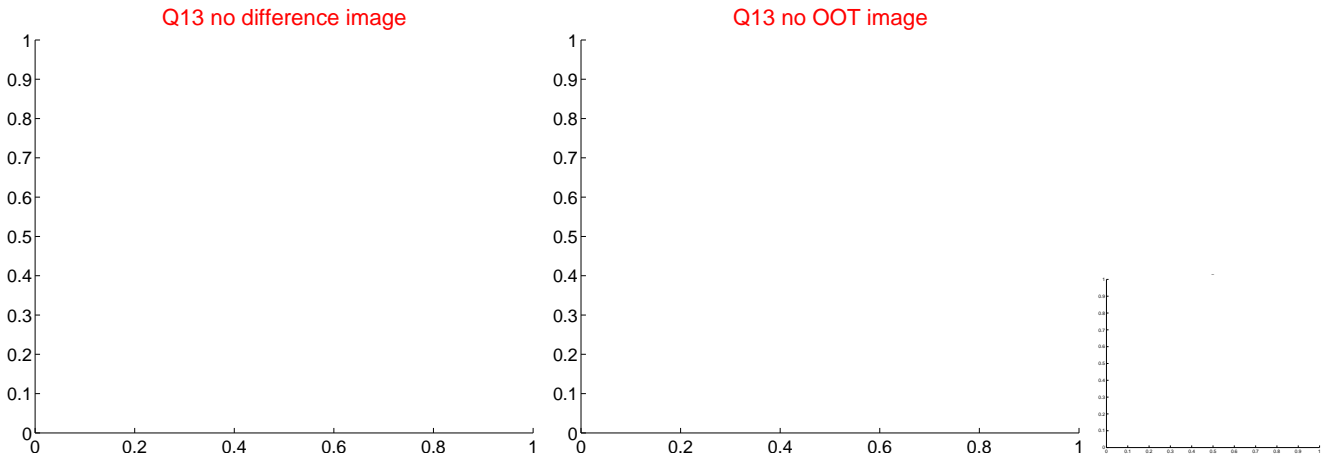
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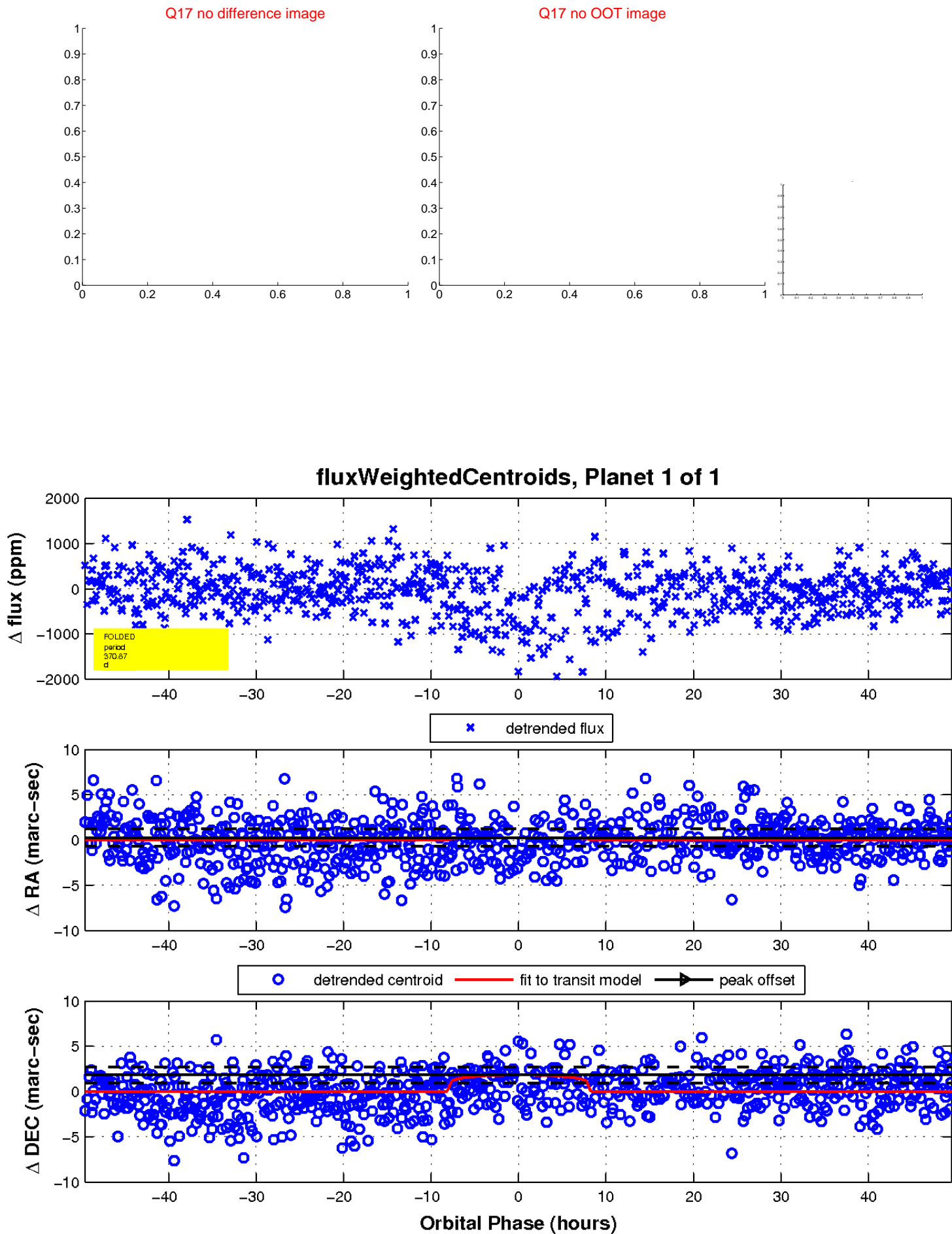
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UKIRT Image

Declination

