

KIC 007693721

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})
007693721-01	OBS	No	370.831270	230.523335	527.9	25.847	8.8	8.7	1.02	6180	4.54	1.38

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007693721-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_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.

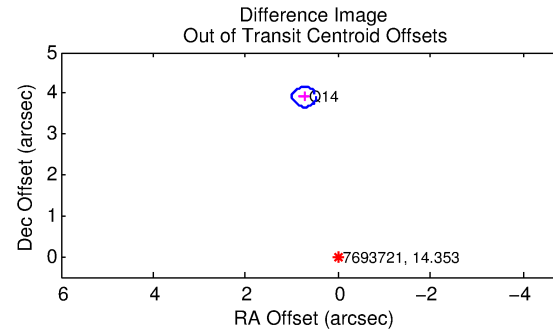
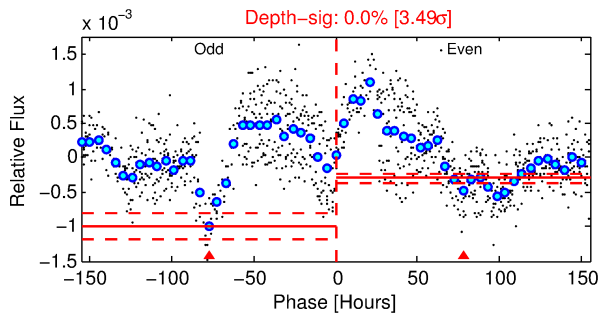
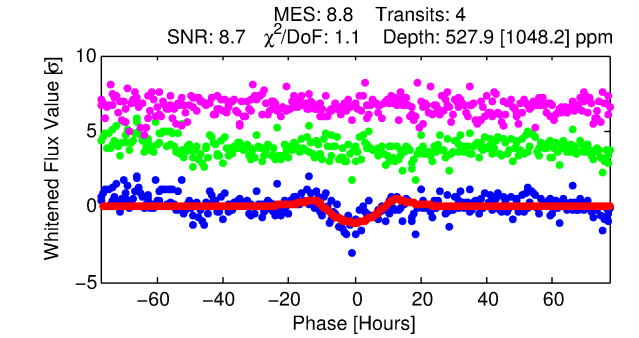
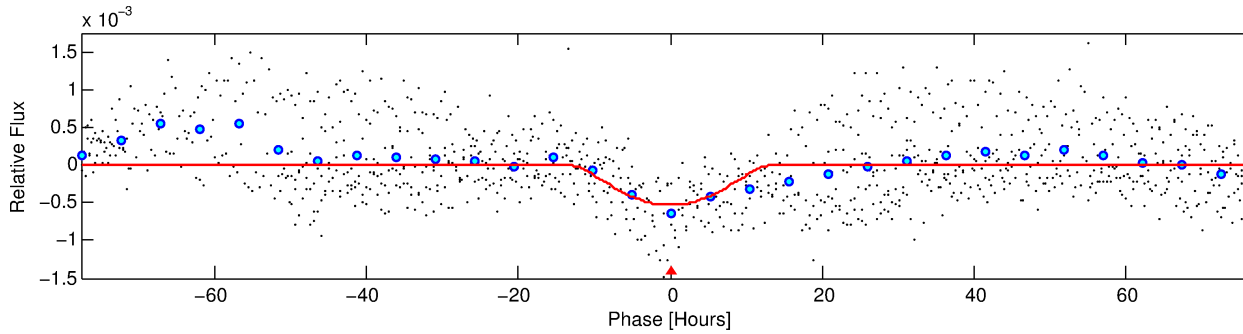
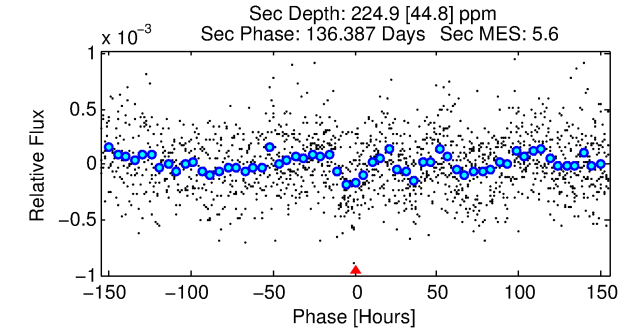
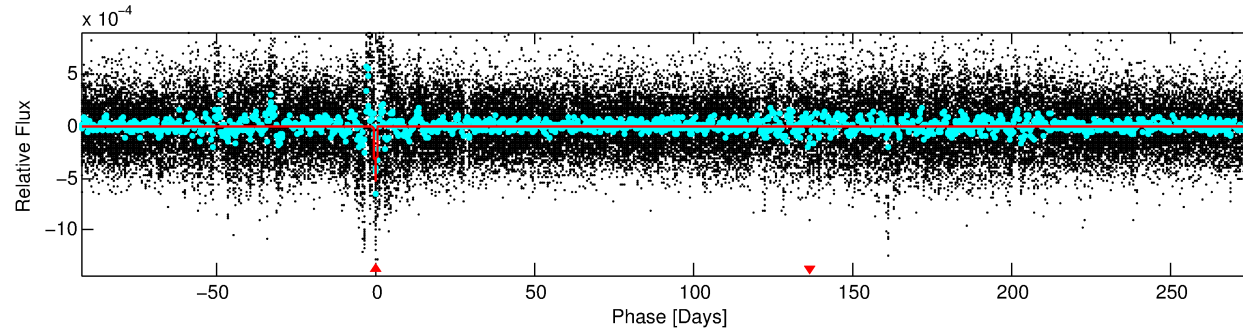
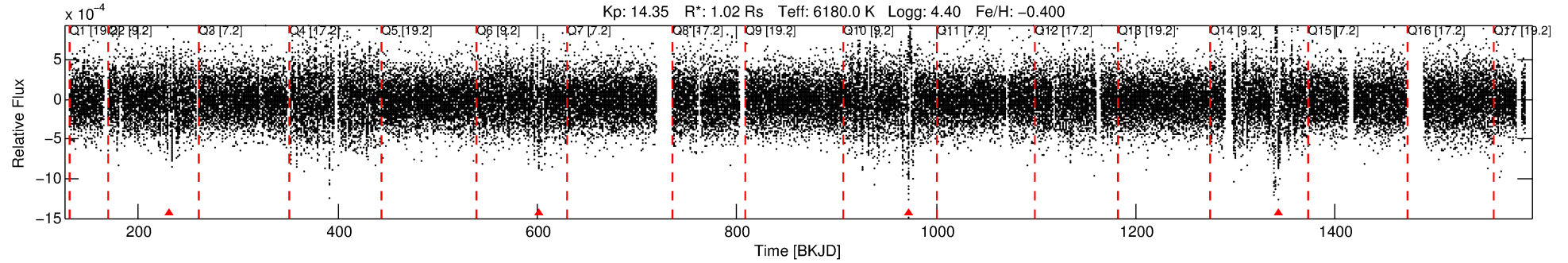
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007693721-01

No Significant Match Found

DV One-Page Summary

KIC: 7693721 Candidate: 1 of 1 Period: 370.831 d



DV Fit Results:

Period = 370.83127 [0.02744] d
Epoch = 230.5233 [0.0552] BKJD
Rp/R* = 0.0407 [0.0998]
a/R* = 31.62 [19.46]
b = 1.00 [0.09]
Seff = 1.38 [0.52]
Teq = 276 [26] K
Rp = 4.54 [11.18] Re
a = 0.9944 [0.2401] AU
Ag = 5948.13 [29234.46] [0.20σ]
Teffp = 3749 [4597] K [0.76σ]

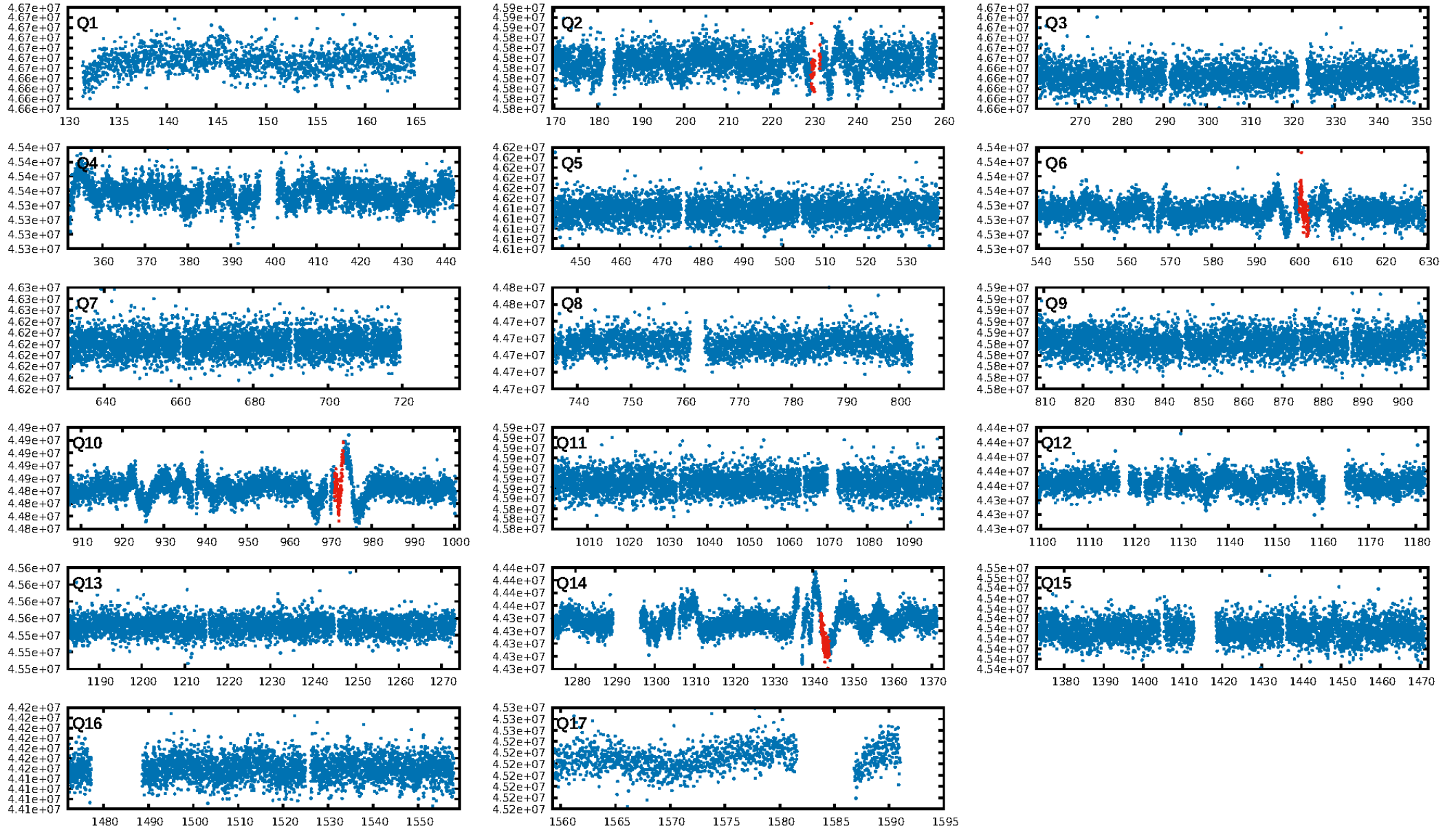
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.35e-11
RollingBand-fgt: 0.00 [0/4]
GhostDiagnostic-chr: 1.385
Centroid-sig: 0.0%
Centroid-so: 7.636 arcsec [2.93σ]
OotOffset-rm: 3.979 arcsec [47.88σ]
KicOffset-rm: 3.940 arcsec [47.42σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [1/1]

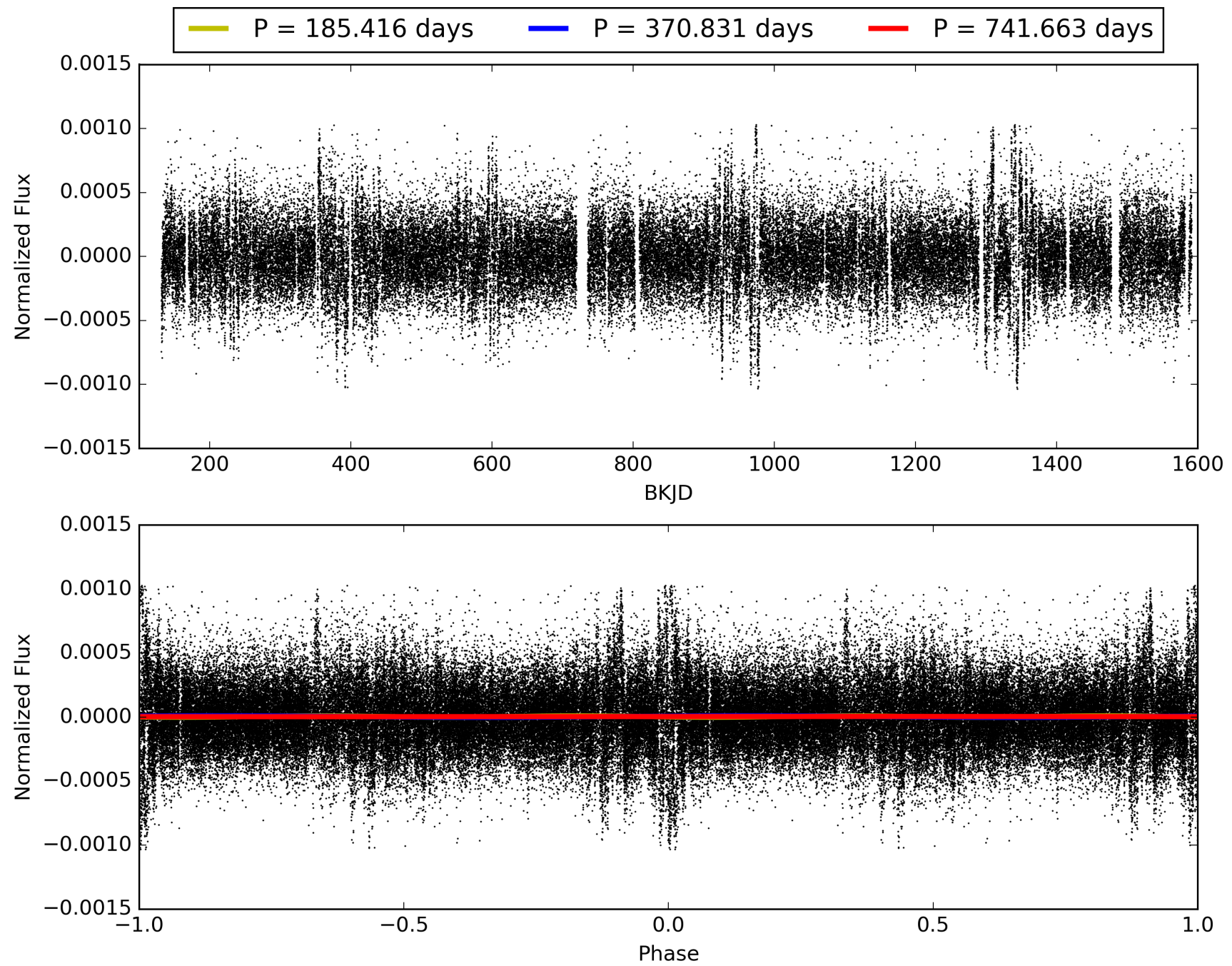
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 00:34:41 Z

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

TCE 007693721-01, PDC Light Curves

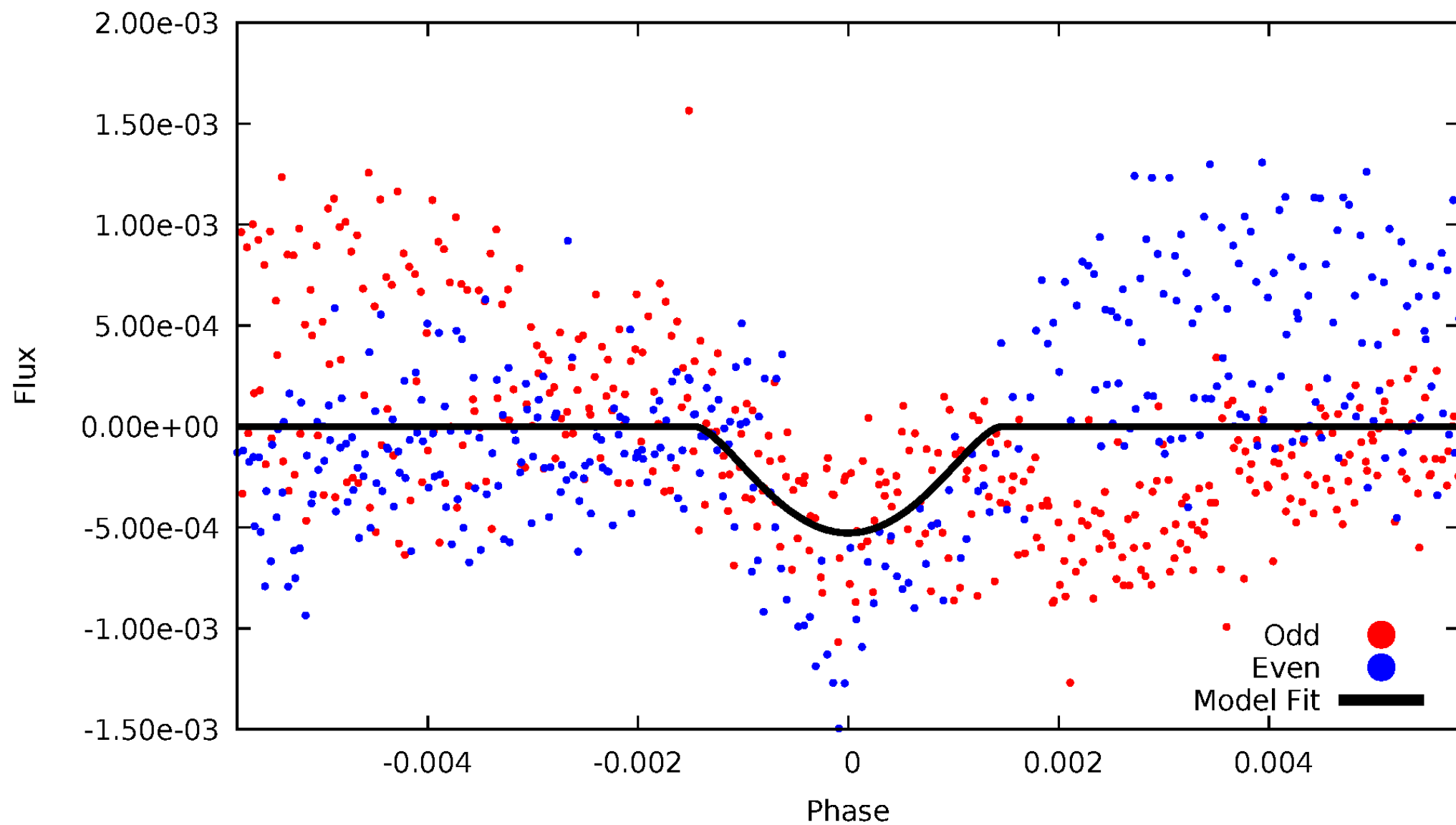


TCE 007693721-01



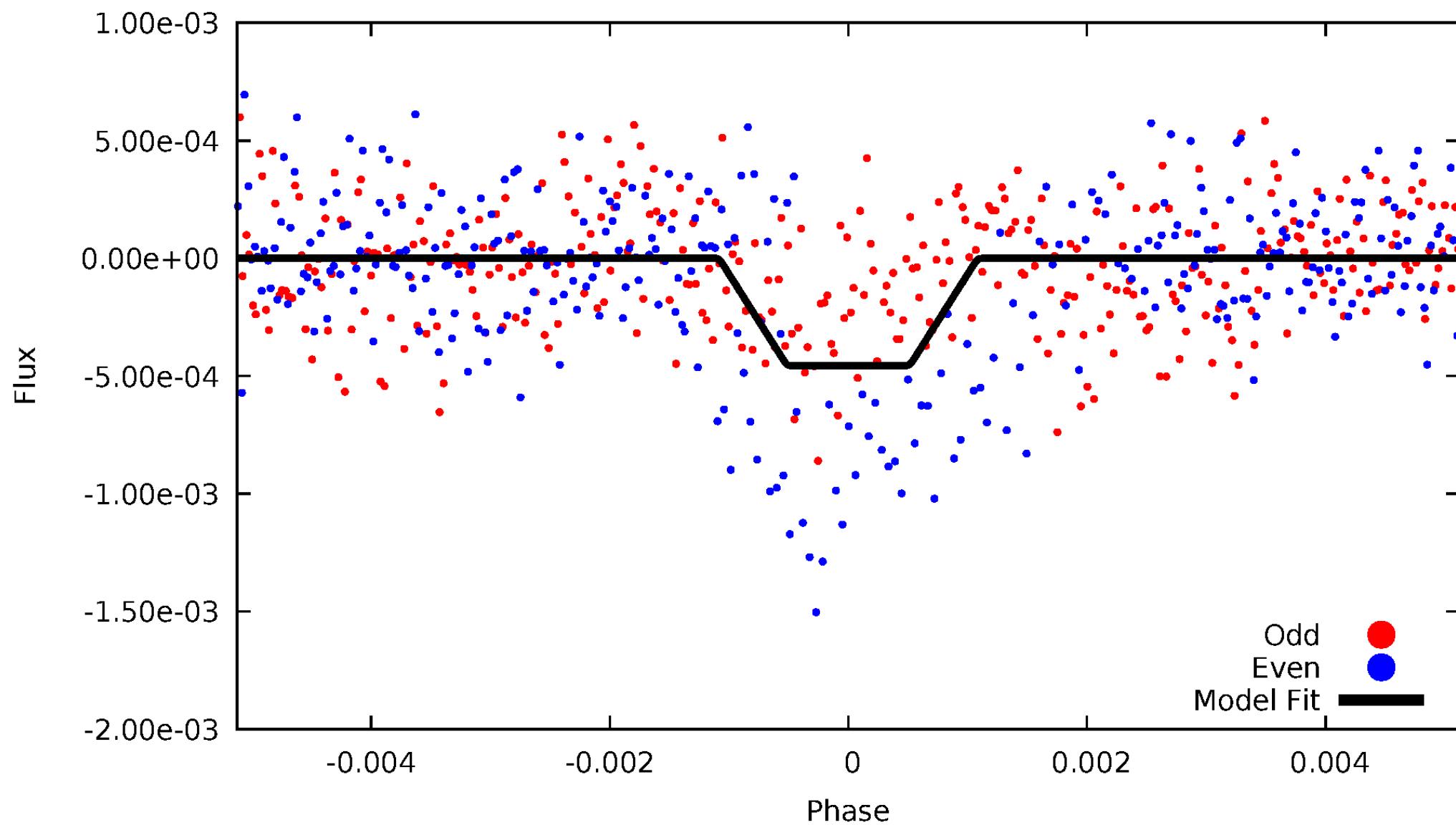
DV Odd/Even

TCE 007693721-01



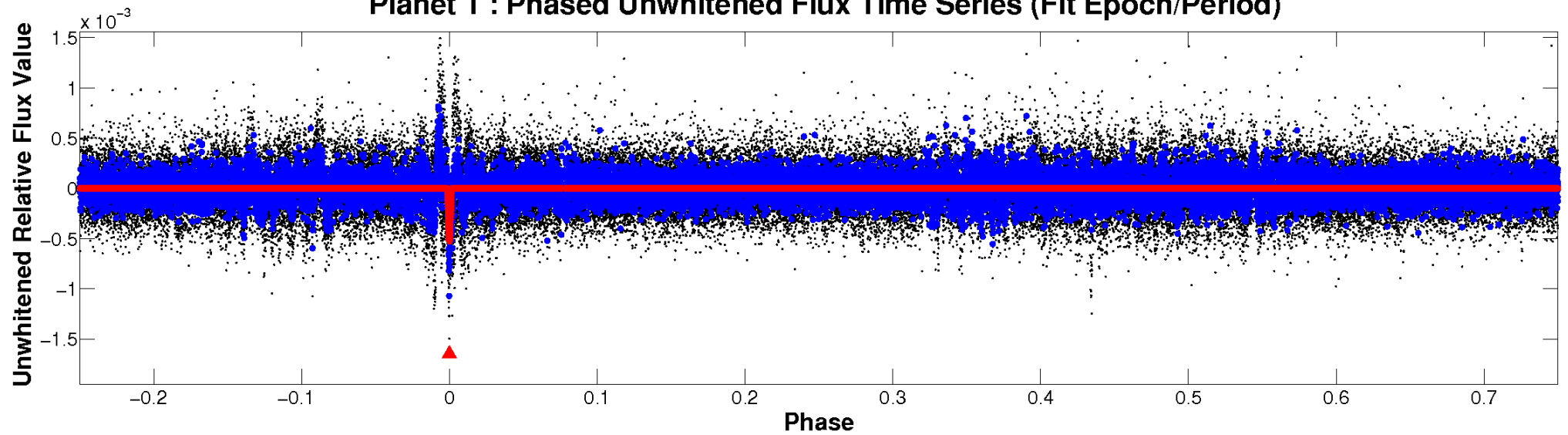
ALT Odd/Even

TCE 007693721-01

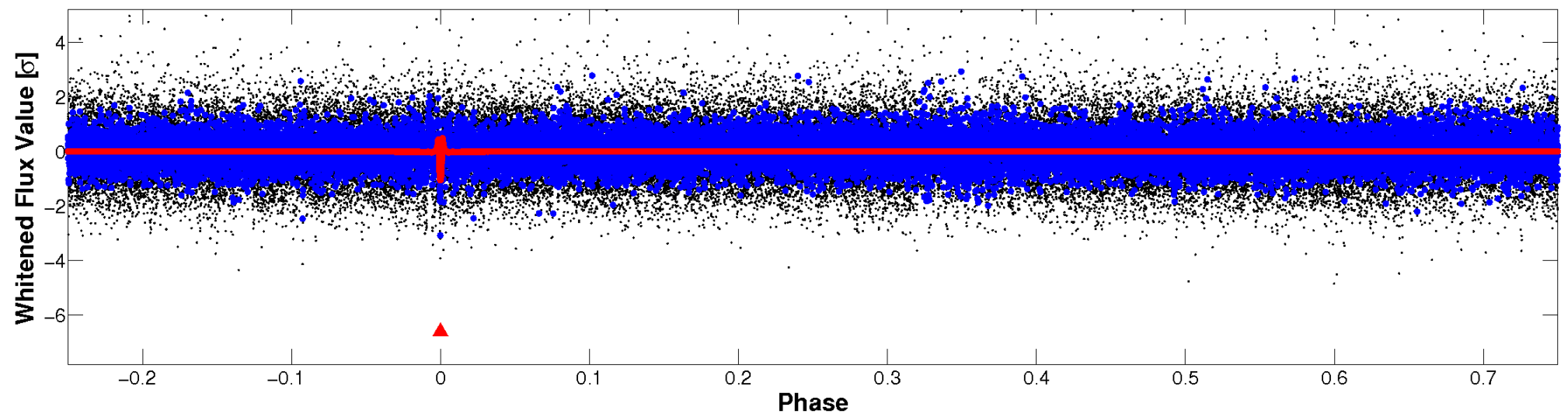


Non-Whitened Vs. Whitened Light Curve

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

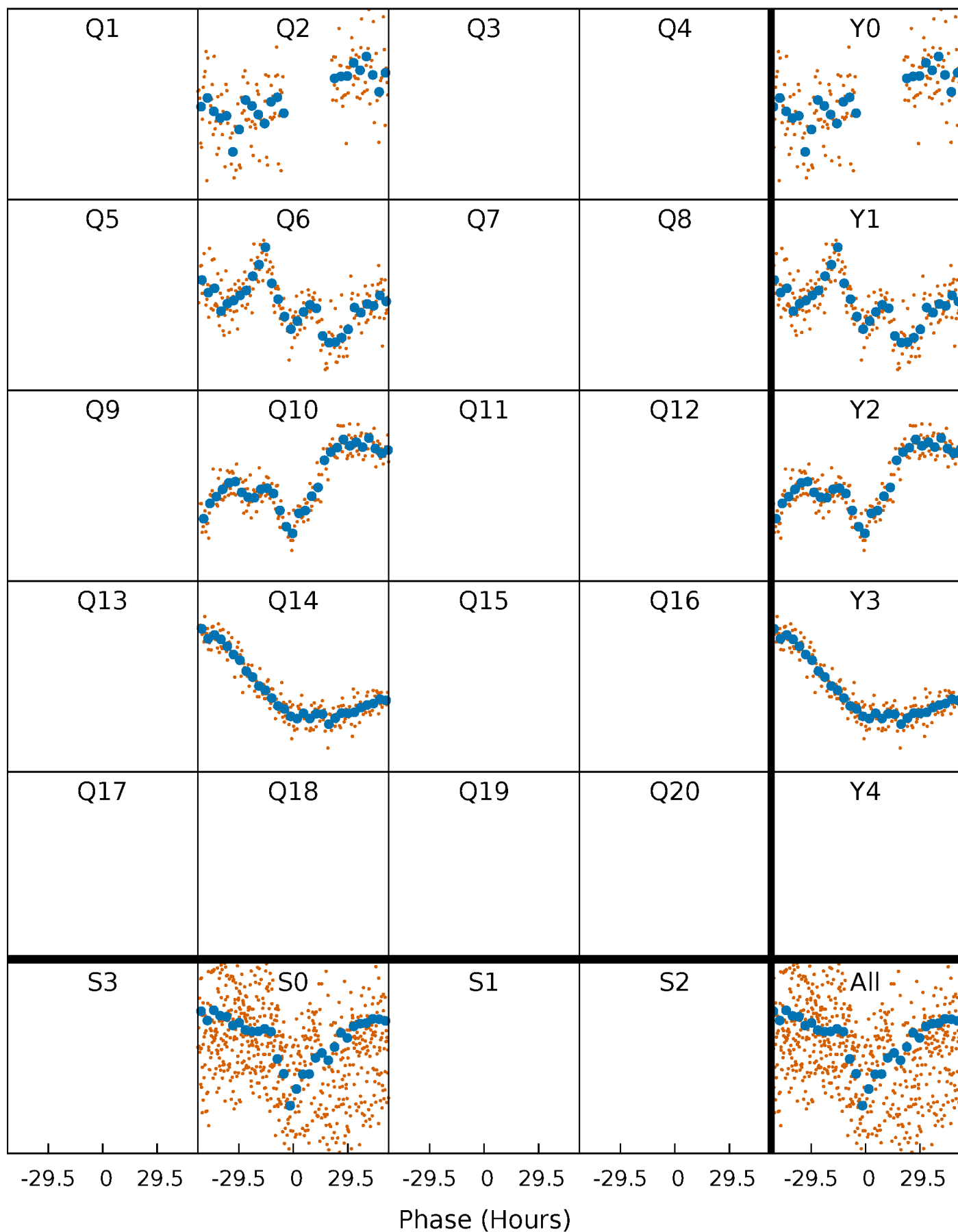


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



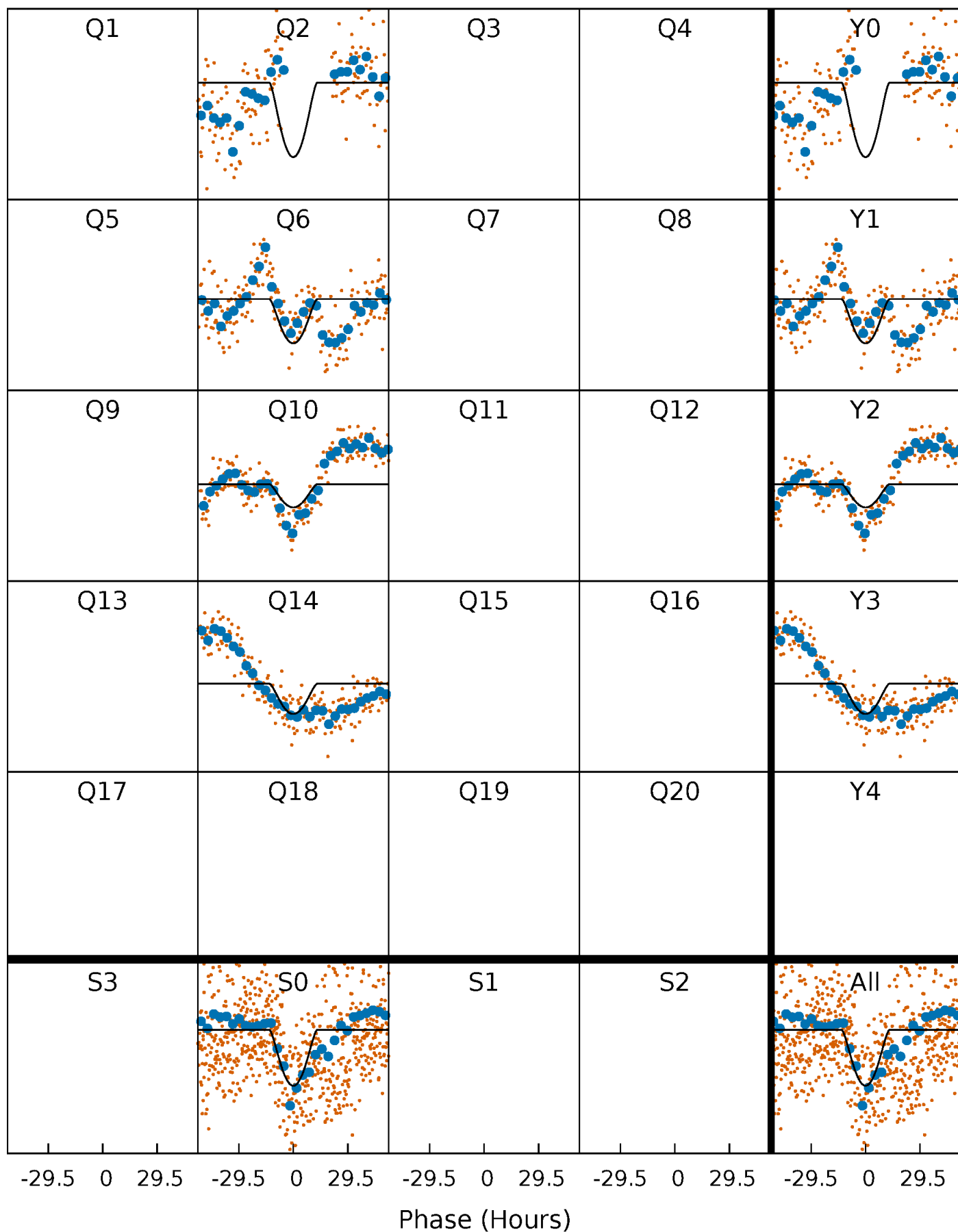
PDC Quarter-Phased Transit Curves

TCE 007693721-01 $P=370.831270$ Days $T_0=230.523335$ (BKJD)



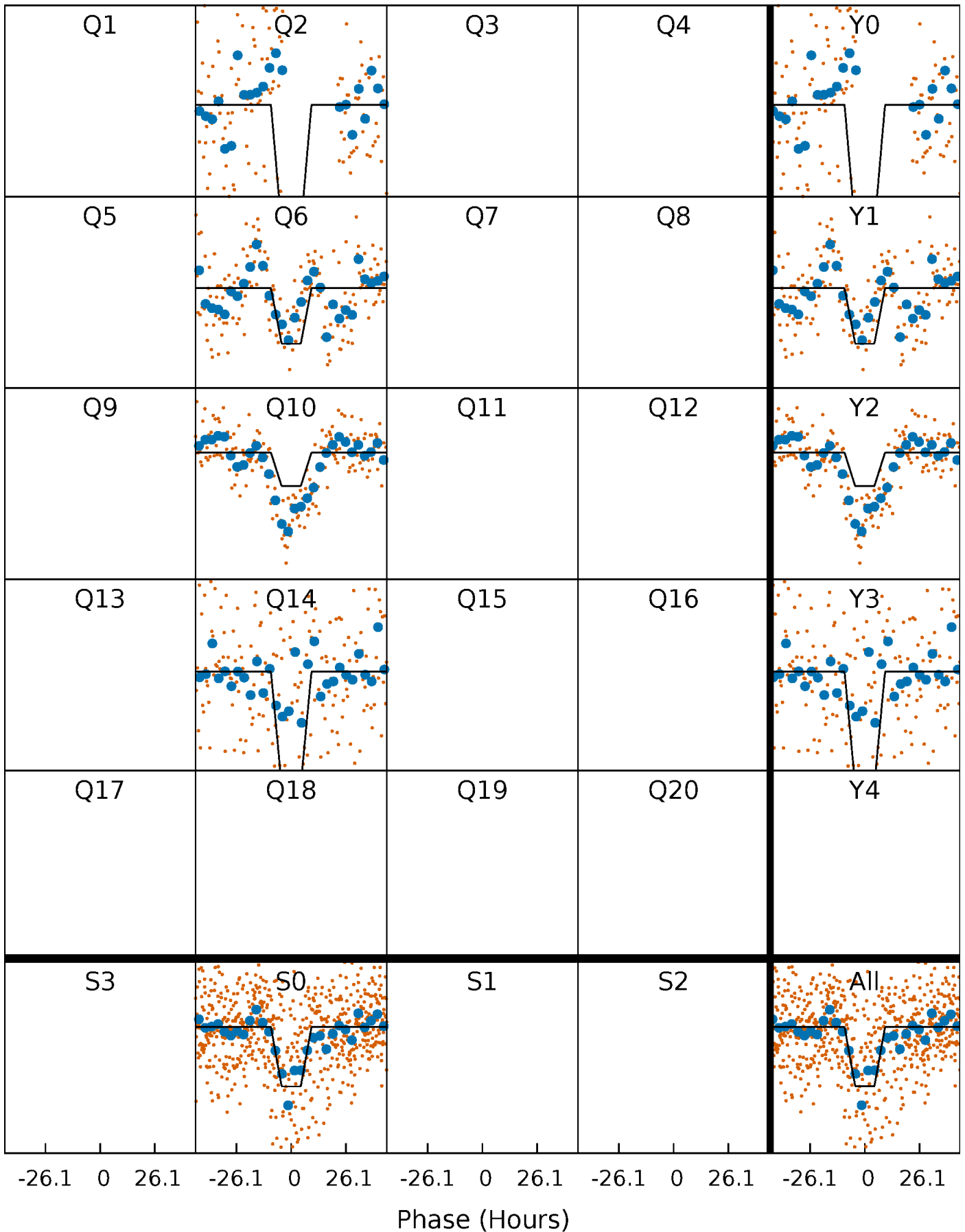
DV Quarter-Phased Transit Curves

TCE 007693721-01 P=370.831270 Days $T_0=230.523335$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

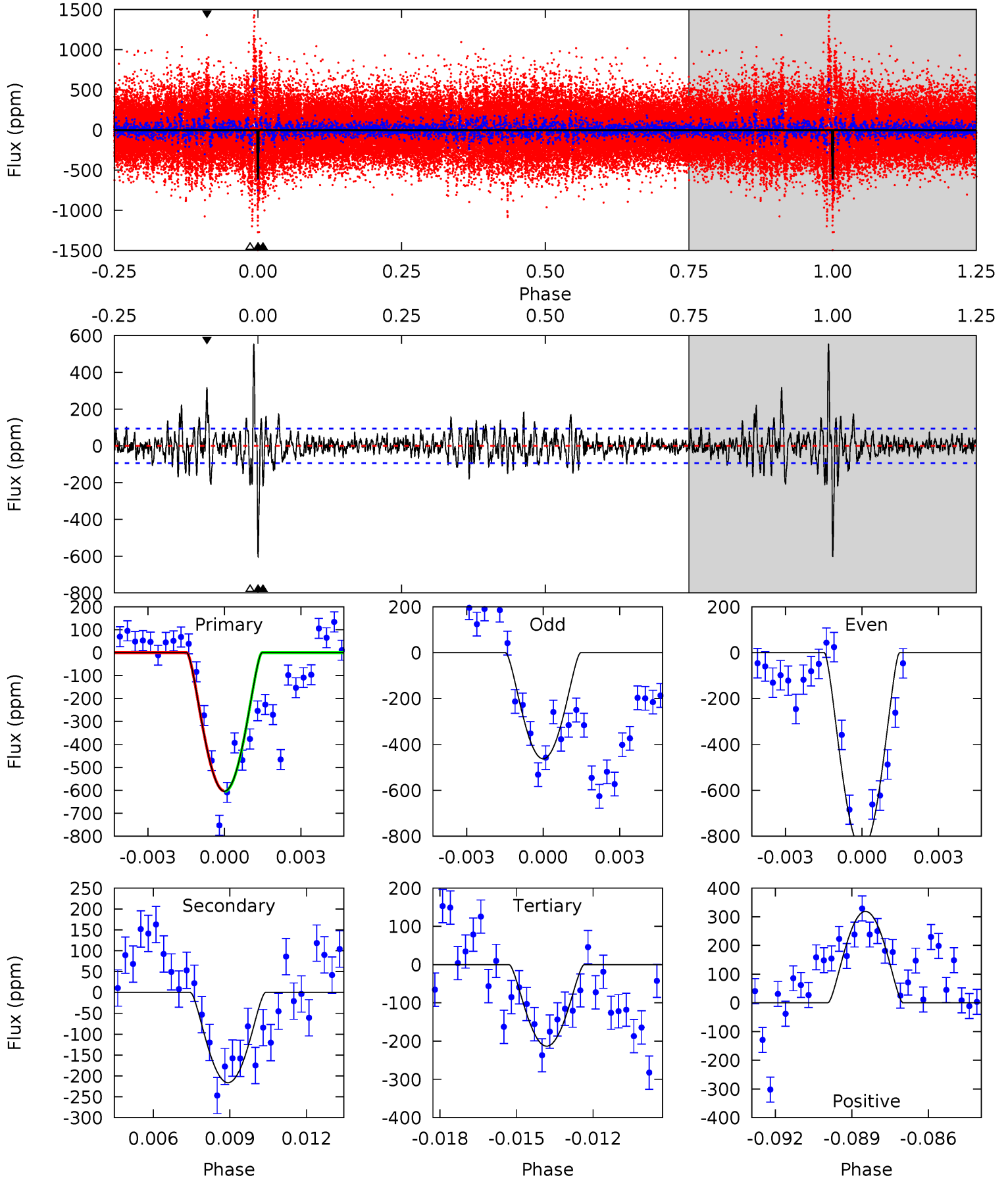
TCE 007693721-01 P=370.896359 Days $T_0=230.460103$ (BKJD)



DV Model-Shift Uniqueness Test

007693721-01, P = 370.831270 Days, E = 230.523335 Days

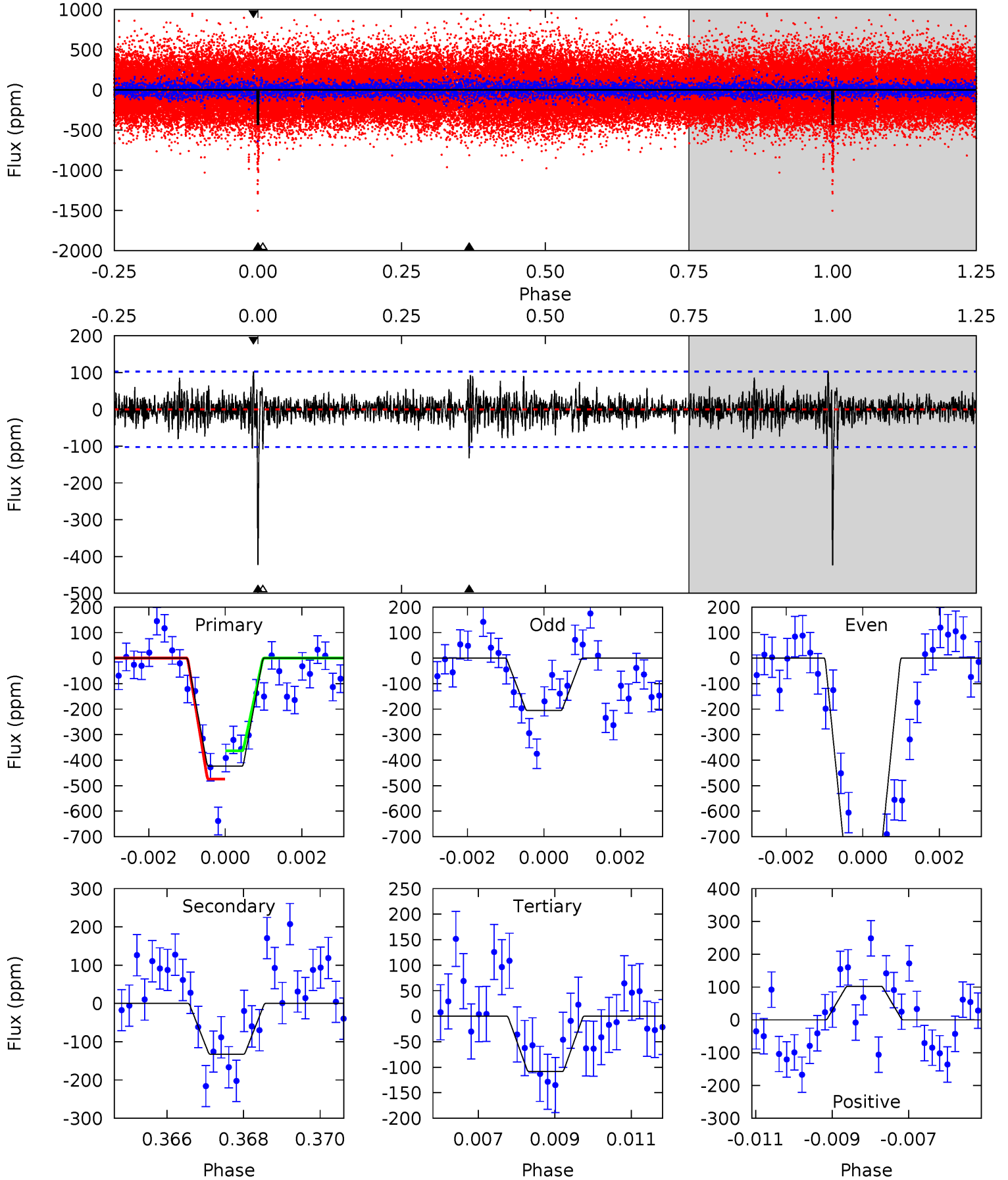
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
33.7	12.1	11.9	17.8	5.25	2.97	3.28	21.8	15.9	0.18	-5.72	10.7	0.90	0.48	0.08



Alt Model-Shift Uniqueness Test

007693721-01, P = 370.896359 Days, E = 230.460103 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.9	6.85	5.61	5.30	5.31	3.06	1.19	16.3	16.6	1.25	1.55	14.6	1.45	0.19	2.86



Stellar Parameters For KIC 007693721

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6180^{+169}_{-206}	$4.400^{+0.105}_{-0.195}$	$-0.400^{+0.300}_{-0.300}$	$1.020^{+0.290}_{-0.156}$	$0.953^{+0.136}_{-0.111}$	$1.263^{+0.590}_{-0.647}$
	+3%/-3%	+2%/-4%	+75%/-75%	+28%/-15%	+14%/-12%	+47%/-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 007693721-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-216 ± 18	$9.92^{+9.35}_{-6.92}$	390^{+28}_{-21}	3167^{+1589}_{-530}	1210^{+11615}_{-896}
Alt.	-132 ± 19	$8.79^{+8.48}_{-6.15}$	388^{+27}_{-22}	3040^{+1504}_{-512}	926^{+9348}_{-688}

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 $A_{\text{obs}} \gg 1.0$

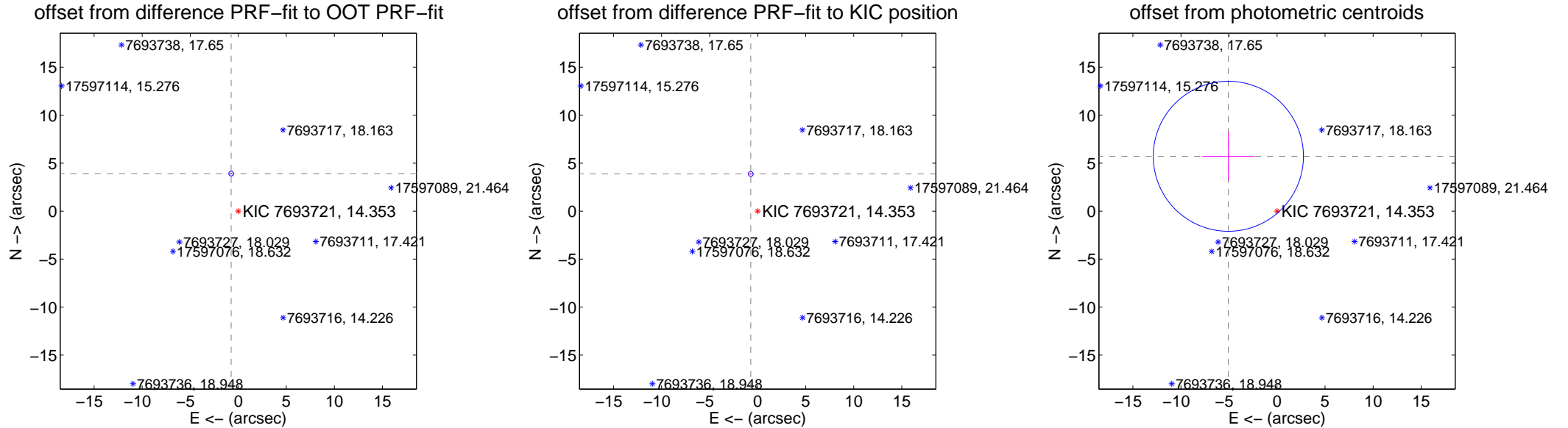
DV Centroid Data

Supplemental centroid analysis for 007693721-01. Kepler magnitude: 14.35. Transit SNR 8.66

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.979 ± 0.083	47.88	0.741 ± 0.084	3.909 ± 0.083
PRF-fit source offset from KIC position	3.940 ± 0.083	47.42	0.718 ± 0.084	3.874 ± 0.083
photometric centroid source offset	7.64 ± 2.60	2.93	5.07 ± 2.72	5.71 ± 2.51



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.



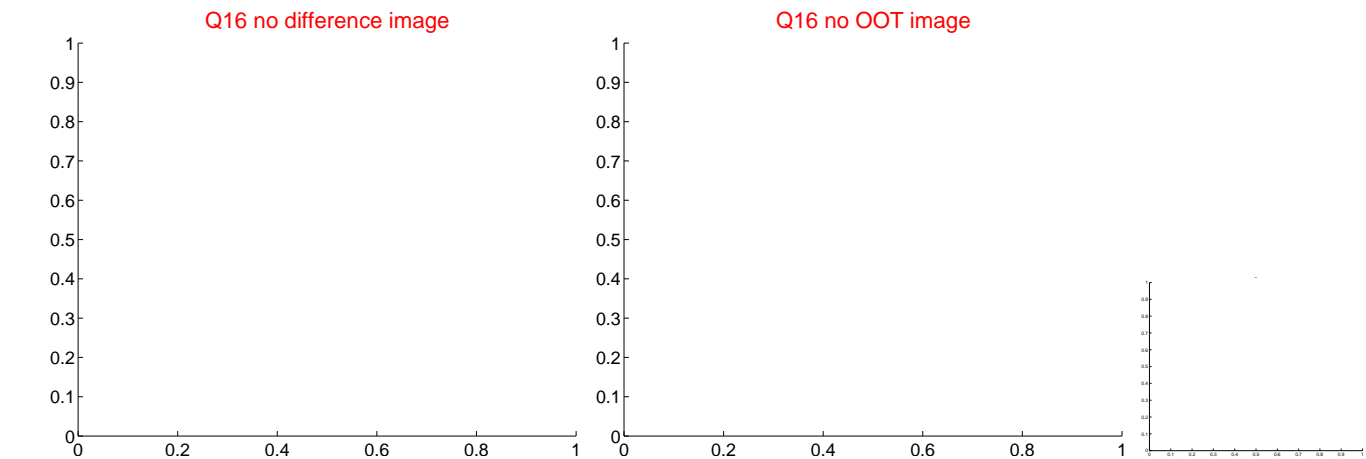
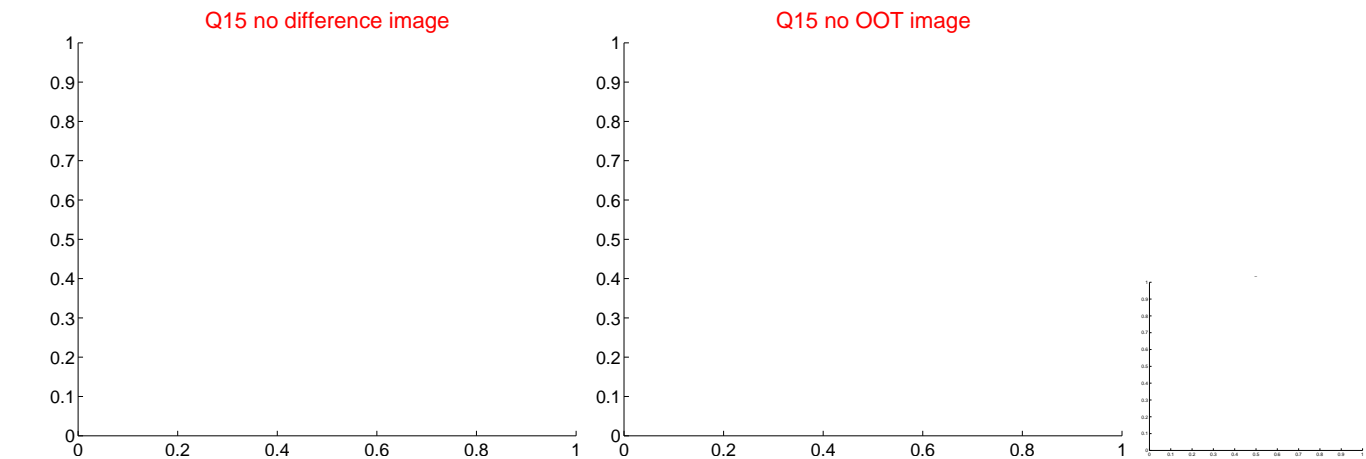
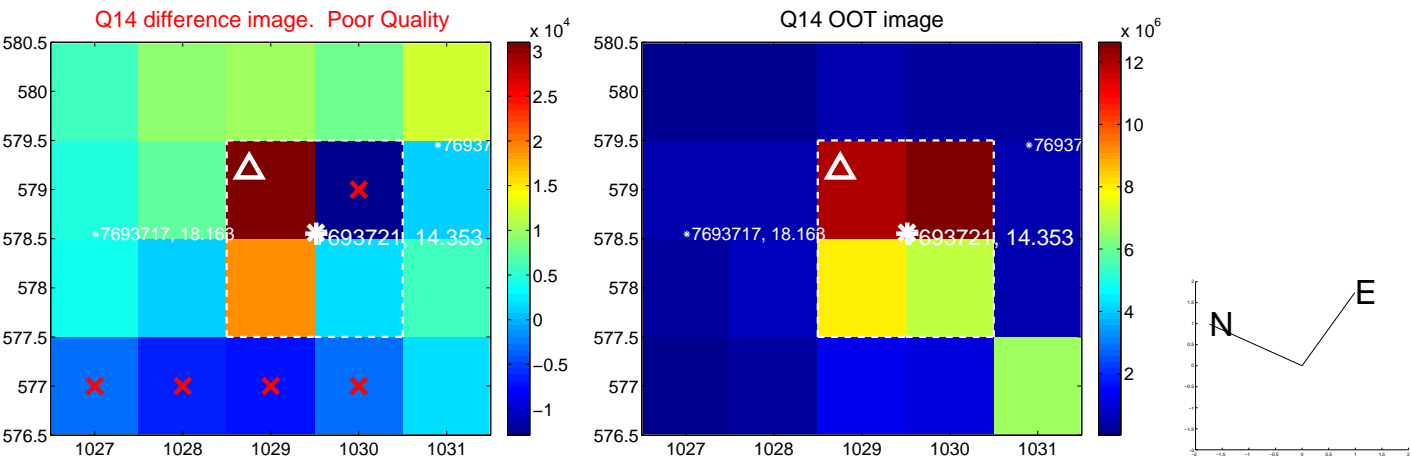
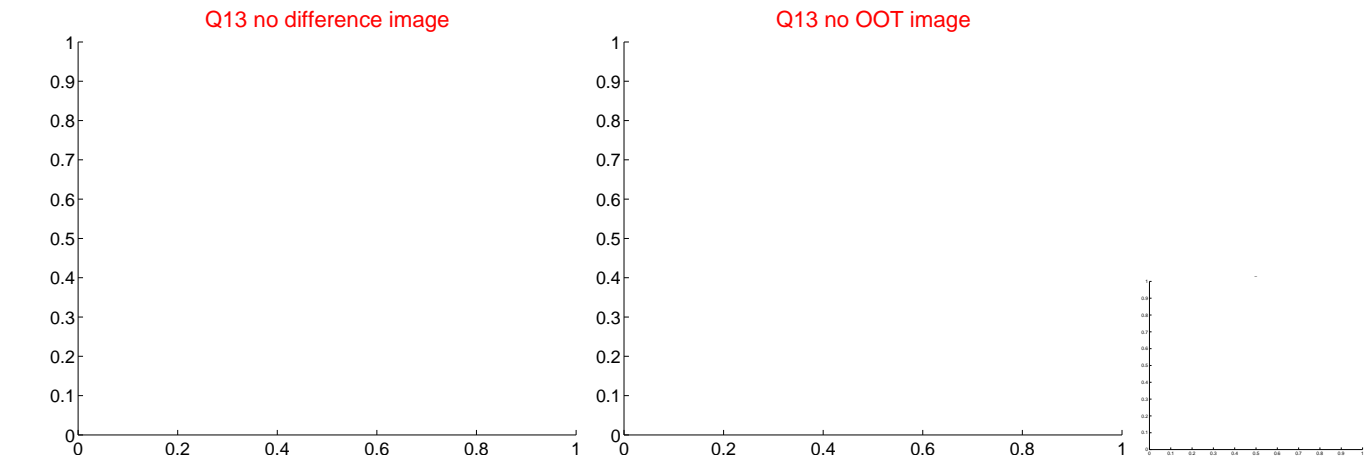
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



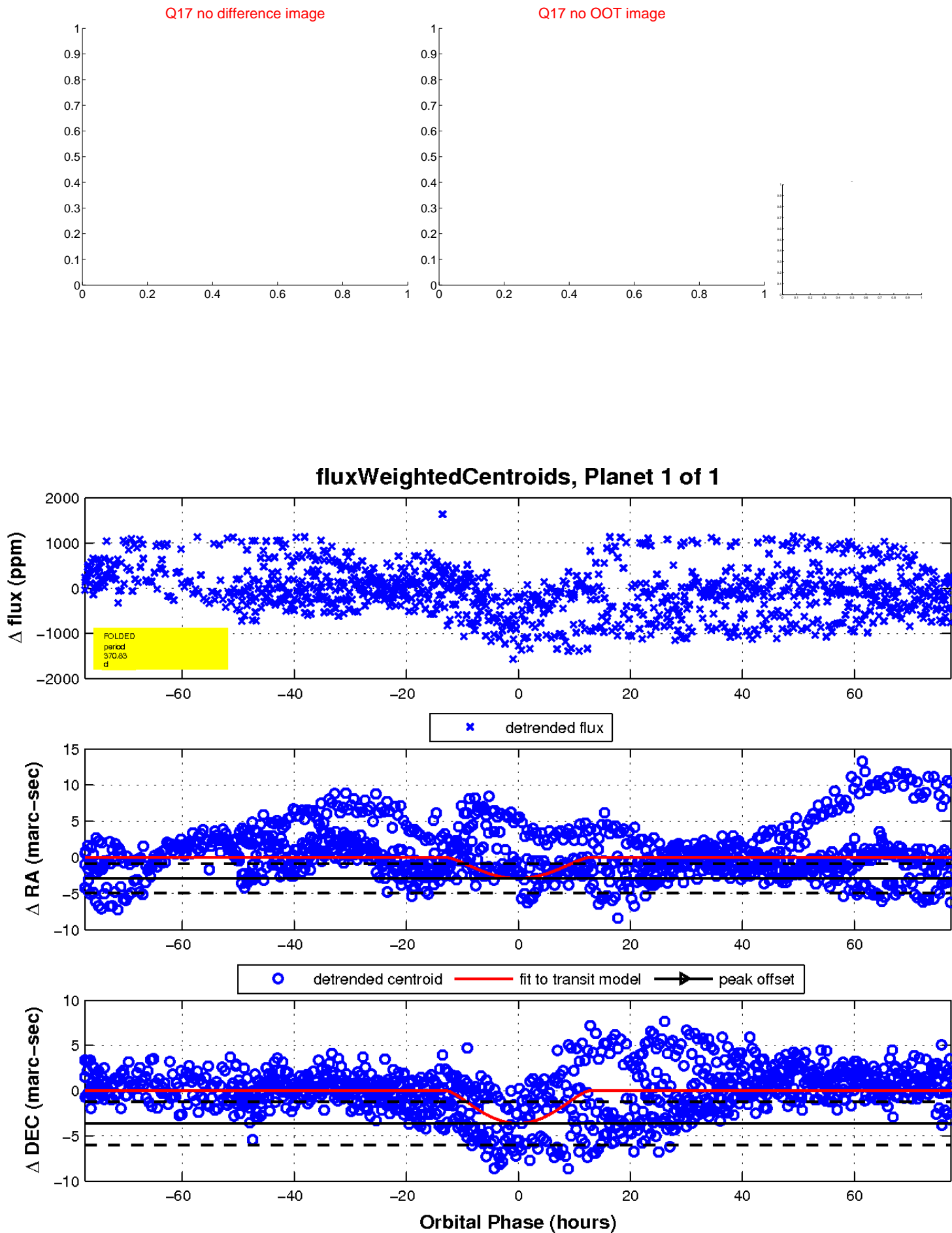
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UKIRT Image

Declination

