

KIC 008029848

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})
008029848-01	OBS	5463.01	1.206077	132.100585	1652.9	2.146	64.6	61.5	1.35	5657	9.10	3362.78

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008029848-01	OBS	FP	0.00	0	1	0	0	DEPTH_ODDEVEN_DV—DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_DV—DEEP_V_SHAPED—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.

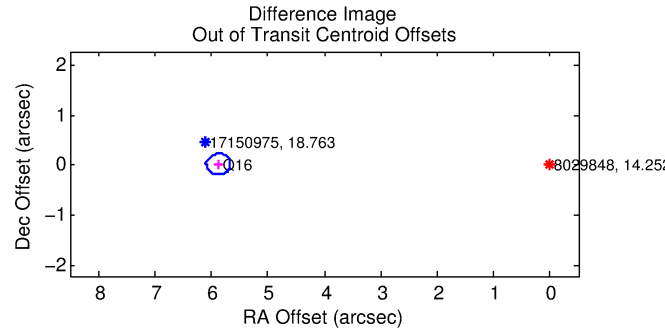
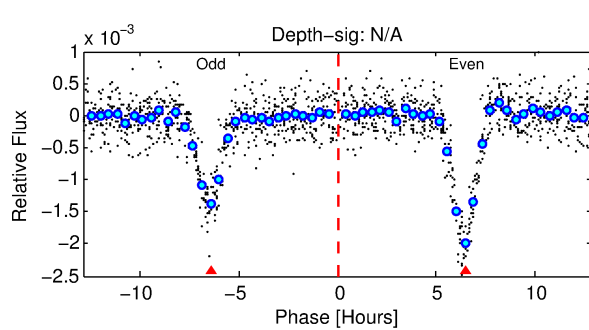
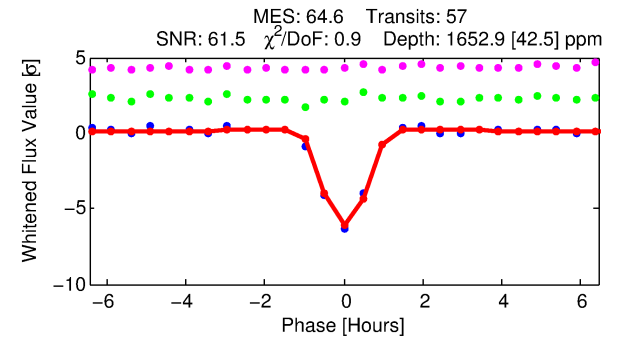
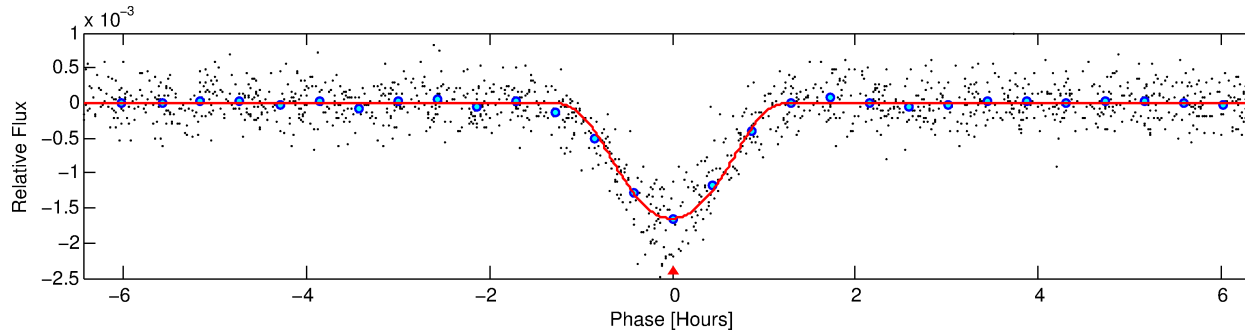
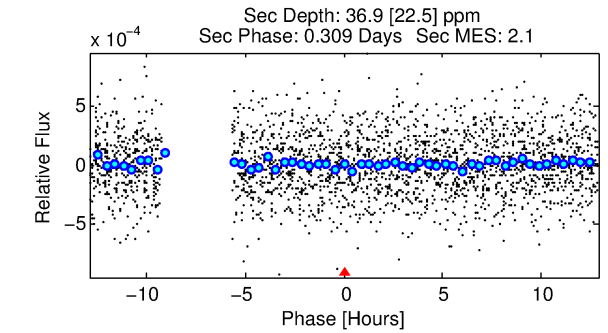
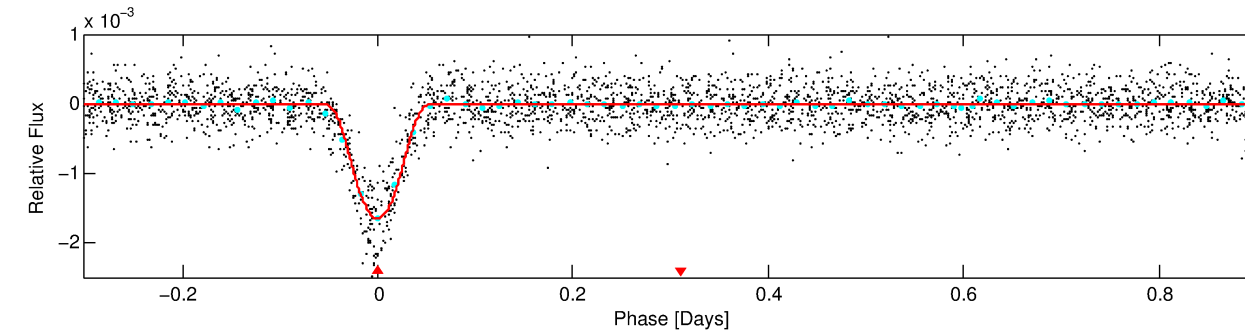
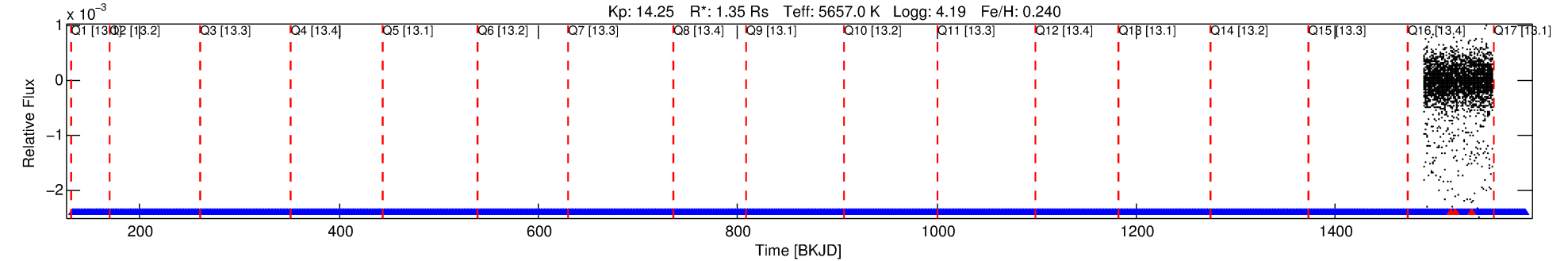
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008029848-01

No Significant Match Found

DV One-Page Summary

KIC: 8029848 Candidate: 1 of 1 Period: 1.206 d
KOI: K05463.01 Corr: 0.893



DV Fit Results:

Period = 1.20608 [0.00000] d
Epoch = 132.1006 [0.0004] BKJD
Rp/R* = 0.0615 [0.0317]
a/R* = 2.01 [0.22]
b = 0.98 [0.05]
Seff = 3362.78 [1618.46]
Teq = 1942 [234] K
Rp = 9.10 [5.39] Re
a = 0.0224 [0.0064] AU
Ag = 0.12 [0.16] [-5.56σ]
Teffp = 1778 [535] K [-0.28σ]

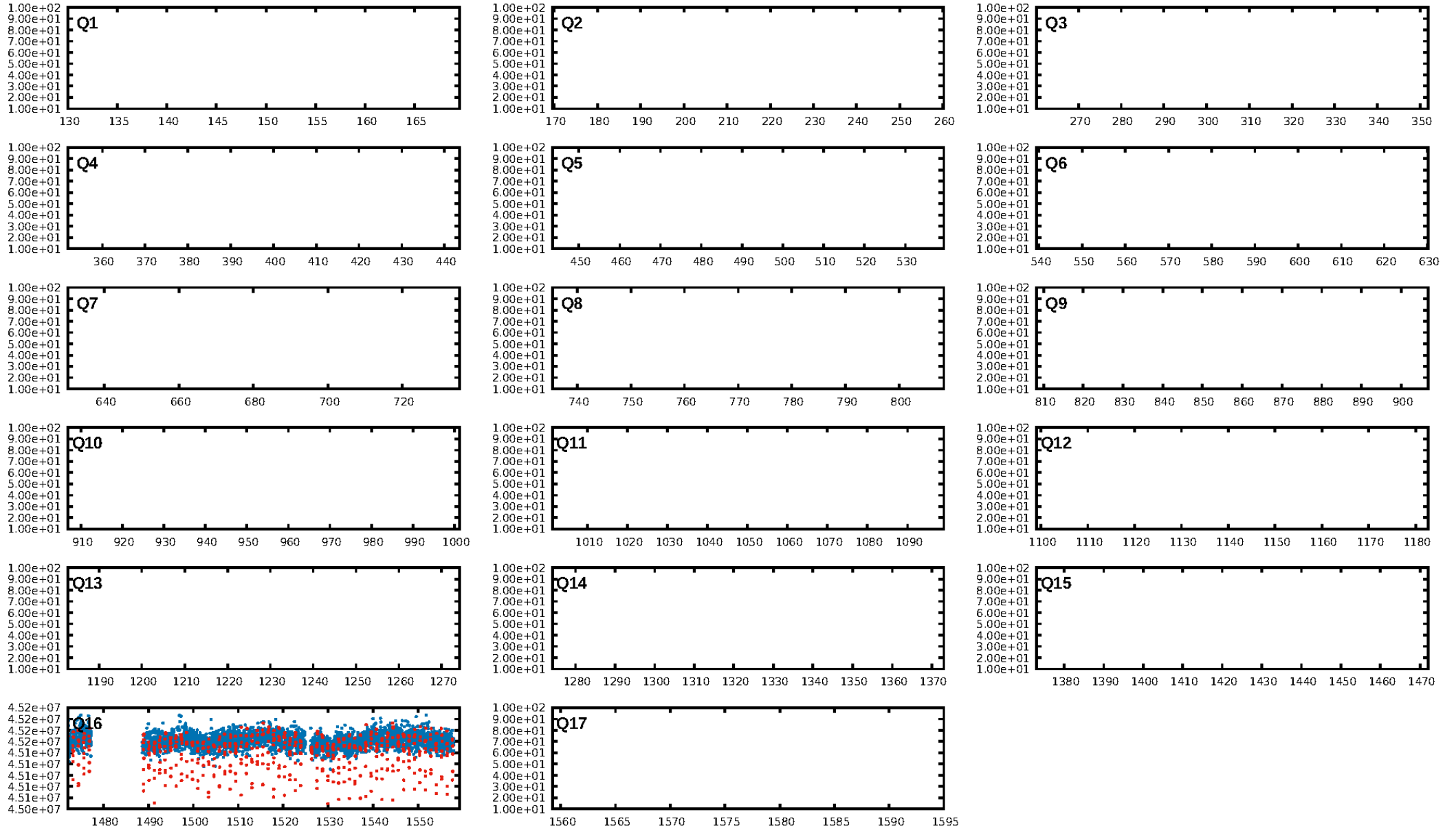
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 0.95 [54/57]
GhostDiagnostic-chr: 0.3863
Centroid-sig: 0.0%
Centroid-so: 6.307 arcsec [35.37σ]
OotOffset-rm: 5.875 arcsec [83.86σ]
KicOffset-rm: 6.099 arcsec [87.05σ]
OotOffset-st: 0/0/1/0 [1]
KicOffset-st: 0/0/1/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [1/1]

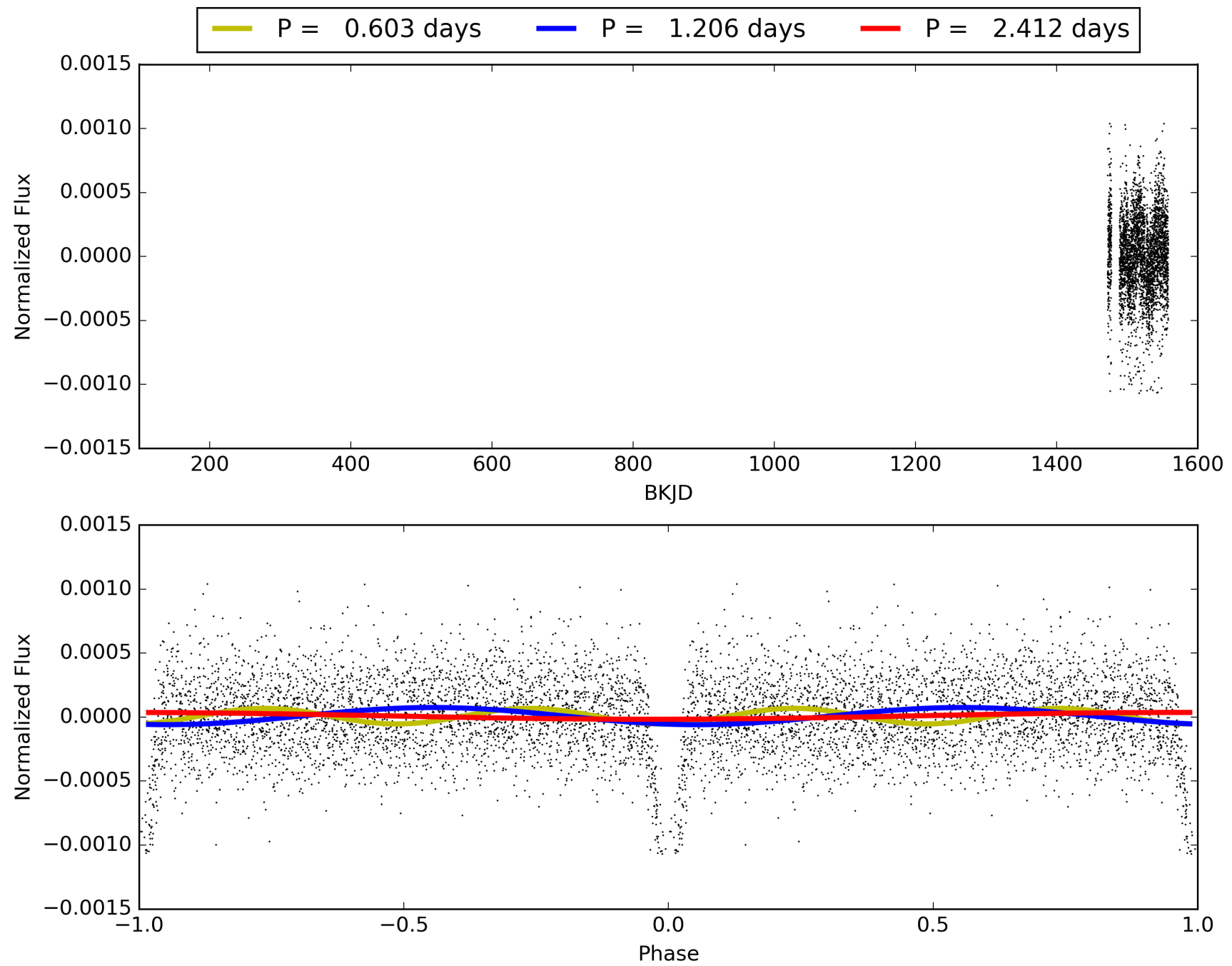
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 16:57:13 Z

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

TCE 008029848-01, PDC Light Curves

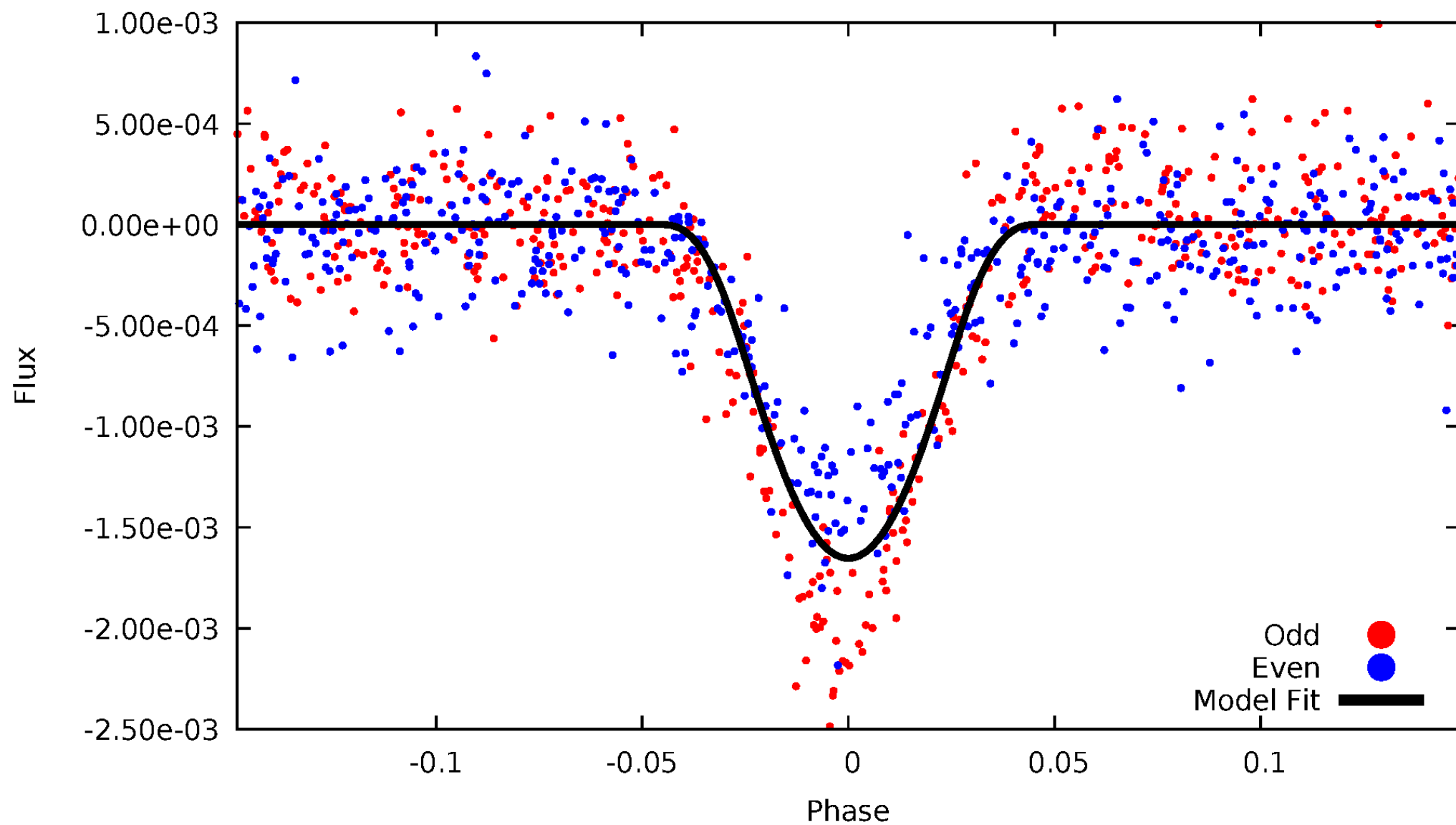


TCE 008029848-01



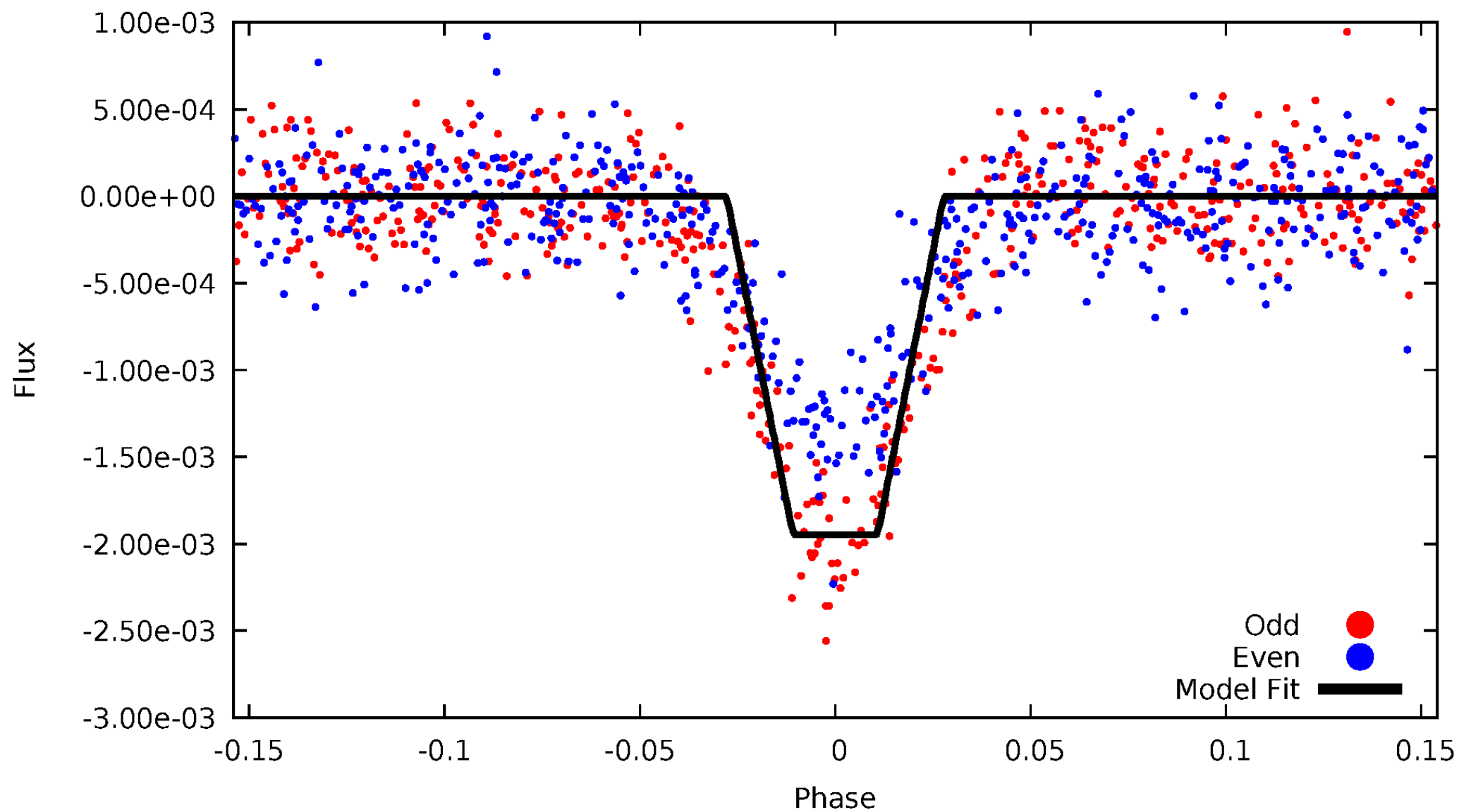
DV Odd/Even

TCE 008029848-01



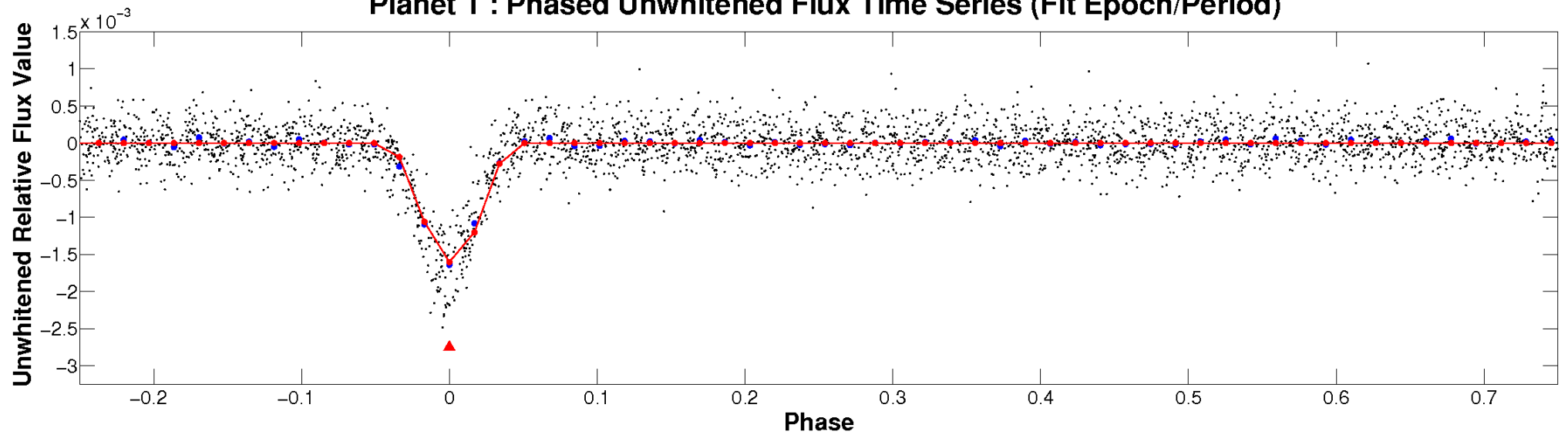
ALT Odd/Even

TCE 008029848-01

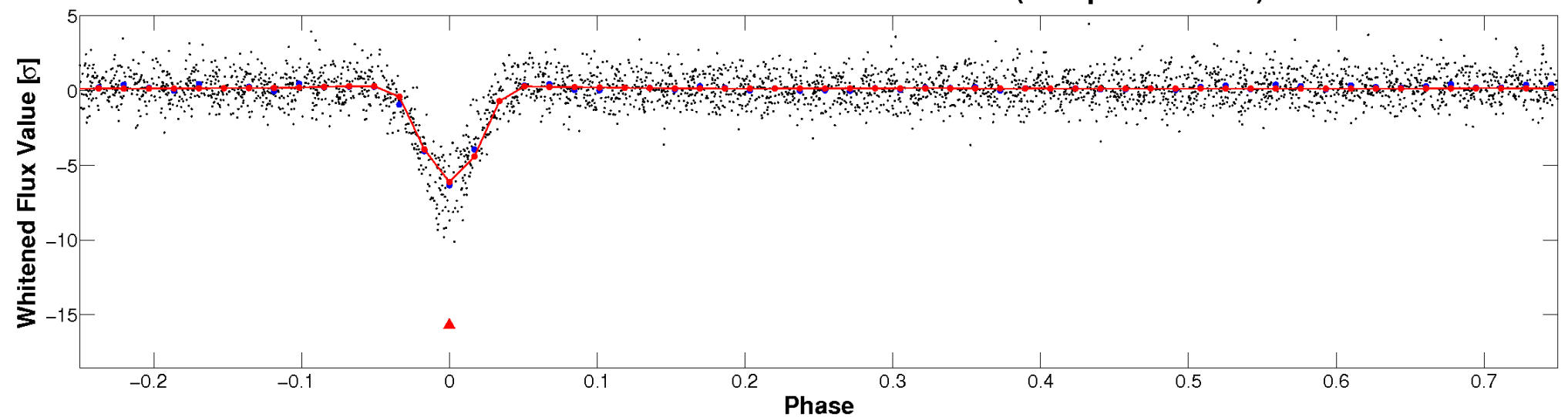


Non-Whitened Vs. Whitened Light Curve

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

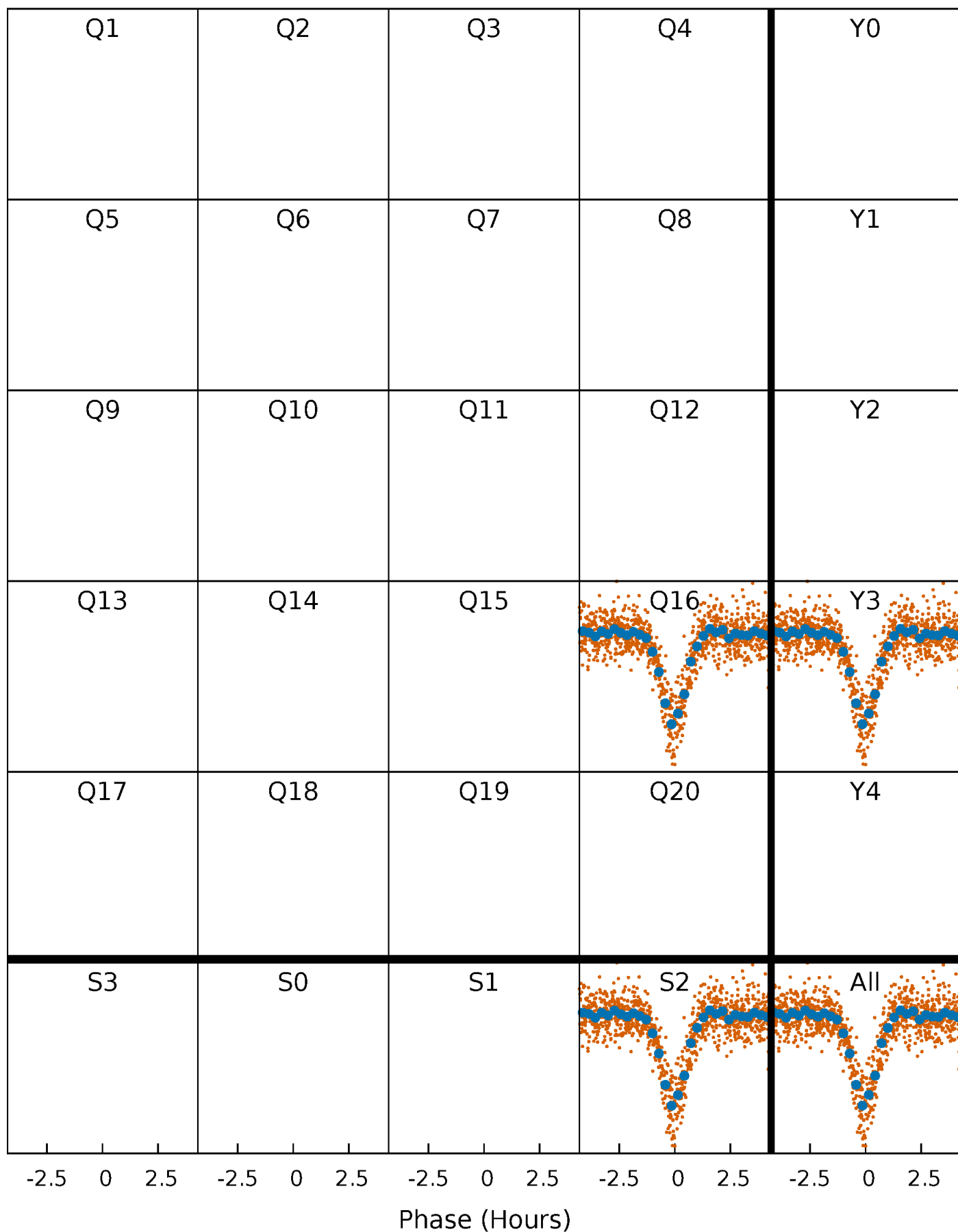


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



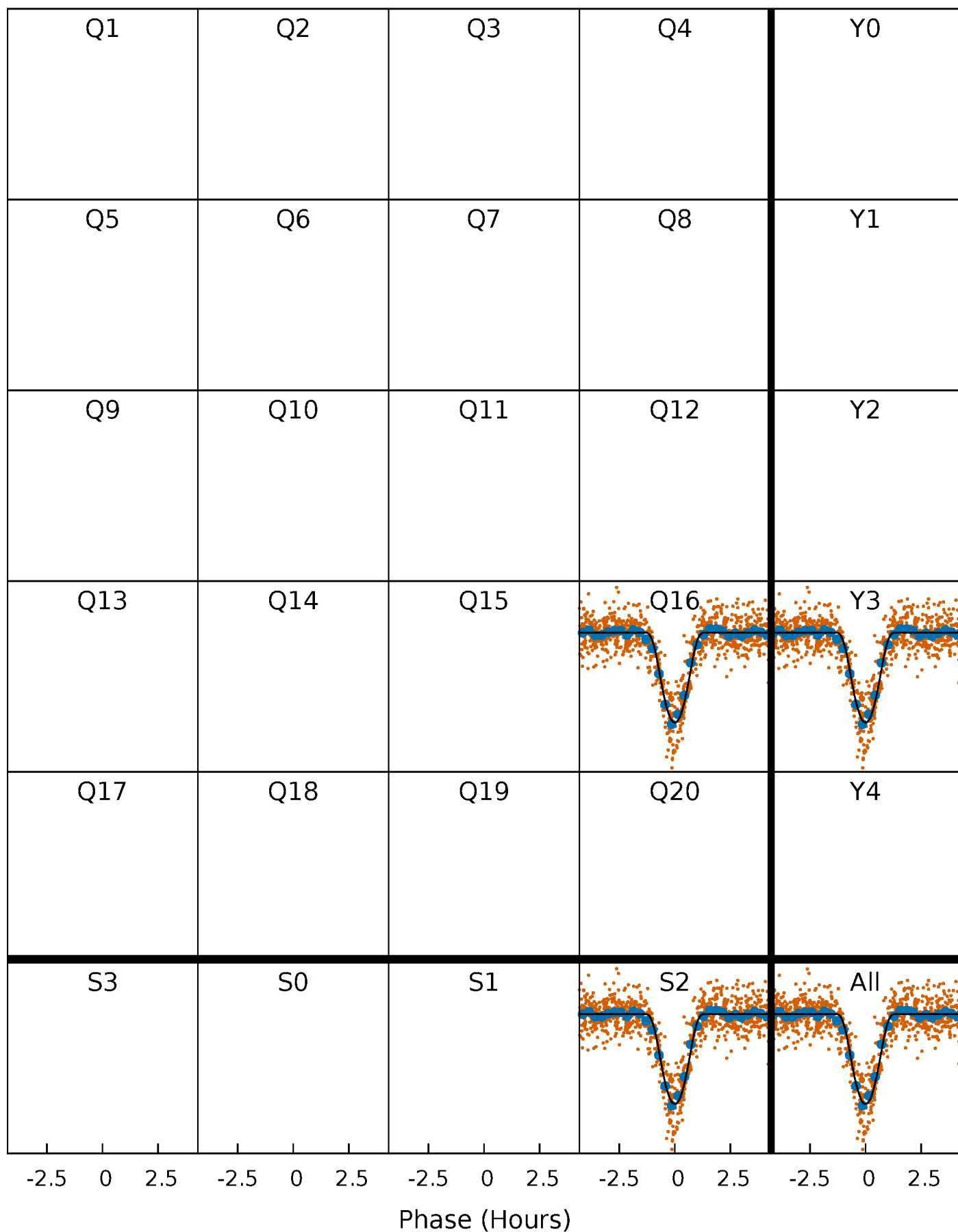
PDC Quarter-Phased Transit Curves

TCE 008029848-01 P= 1.206077 Days $T_0=132.100585$ (BKJD)



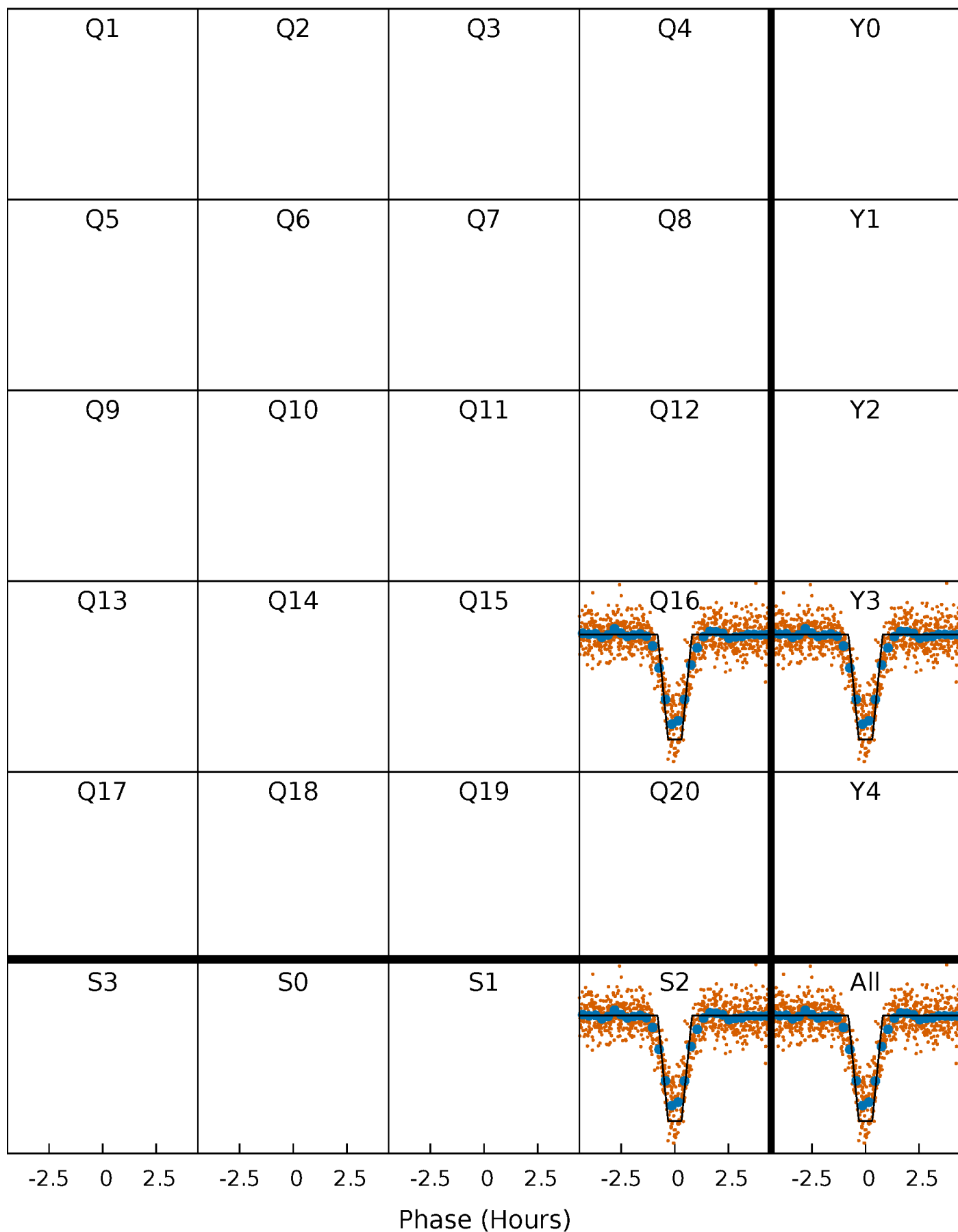
DV Quarter-Phased Transit Curves

TCE 008029848-01 P= 1.206077 Days $T_0=132.100585$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

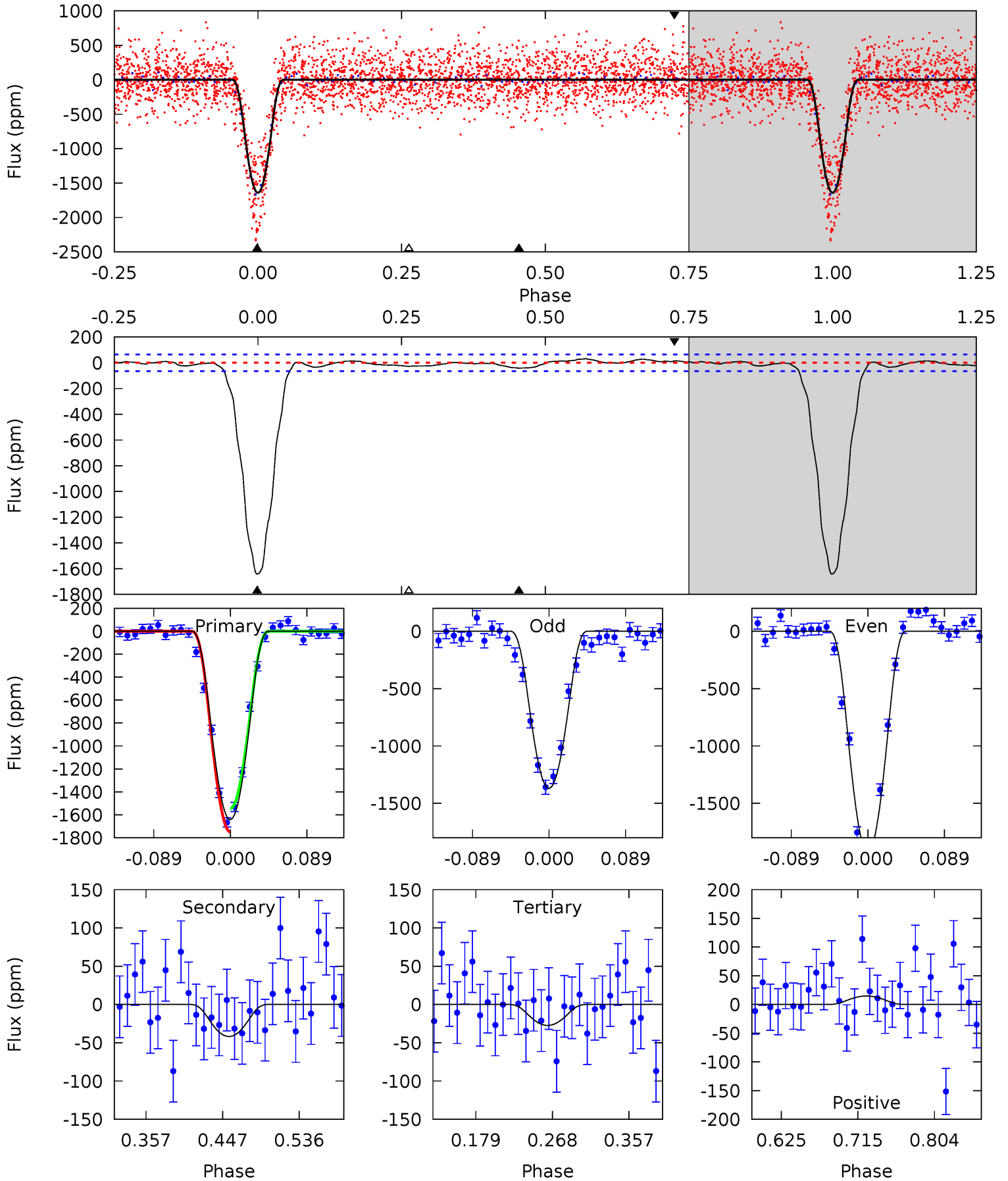
TCE 008029848-01 P= 1.206049 Days $T_0=132.131087$ (BKJD)



DV Model-Shift Uniqueness Test

008029848-01, P = 1.206077 Days, E = 132.100585 Days

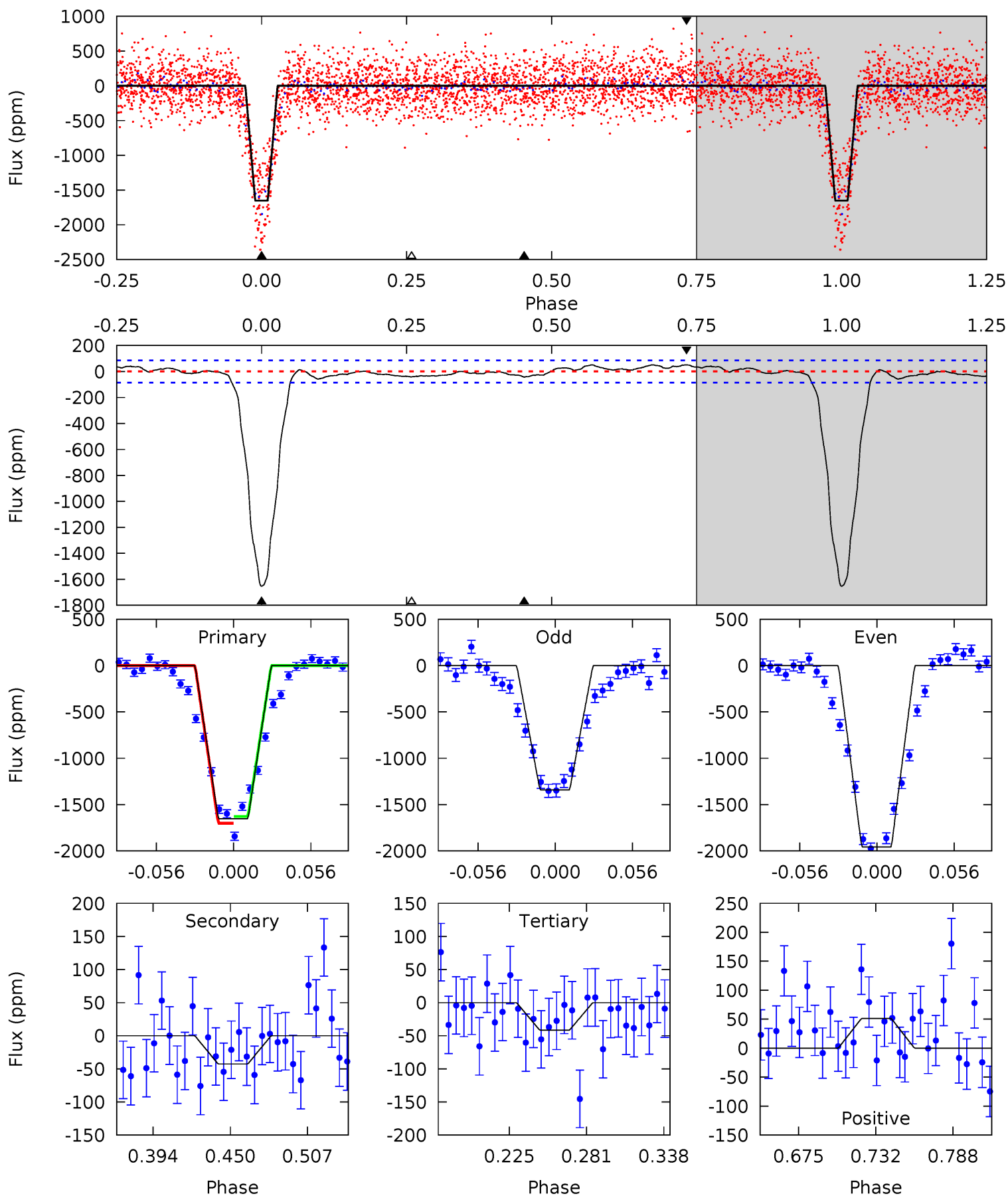
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
116.4	2.97	1.94	1.05	4.59	1.70	1.14	114.5	115.4	1.03	1.92	19.9	1.00	0.02	7.16



Alt Model-Shift Uniqueness Test

008029848-01, P = 1.206049 Days, E = 132.131087 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
90.4	2.33	2.28	2.81	4.68	1.91	1.50	88.1	87.6	0.06	-0.47	17.0	1.01	0.03	1.97



Stellar Parameters For KIC 008029848

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5657^{+171}_{-188}	$4.186^{+0.273}_{-0.147}$	$0.240^{+0.150}_{-0.300}$	$1.355^{+0.362}_{-0.398}$	$1.028^{+0.122}_{-0.111}$	$0.582^{+0.892}_{-0.273}$
	+3%/-3%	+7%/-4%	+62%/-125%	+27%/-29%	+12%/-11%	+153%/-47%
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 008029848-01 / KOI 5463.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-42 ± 14	$8.79^{+4.75}_{-4.24}$	2662^{+223}_{-238}	-2604^{+5424}_{-269}	$0.147^{+0.419}_{-0.094}$
Alt.	-43 ± 18	$7.00^{+4.28}_{-4.16}$	2689^{+195}_{-211}	-2336^{+5847}_{-473}	$0.242^{+1.335}_{-0.166}$

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

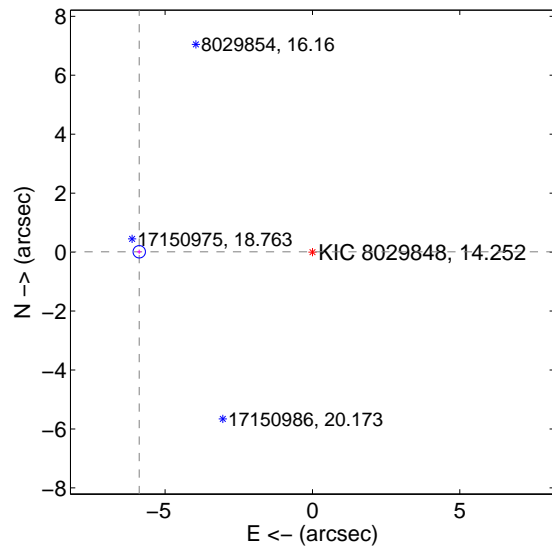
Supplemental centroid analysis for 008029848-01. Kepler magnitude: 14.25. Transit SNR 61.49

There are 1 quarters with good PRF difference image offsets

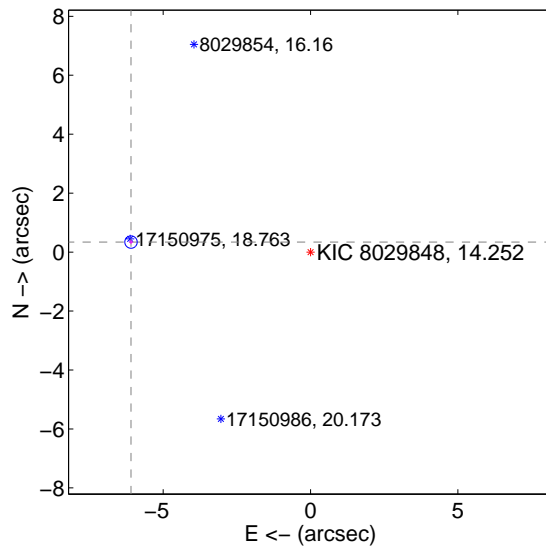
The direct PRF centroid is offset from the target star catalog position by about 0.39 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.875 ± 0.070	83.86	5.875 ± 0.070	0.011 ± 0.072
PRF-fit source offset from KIC position	6.099 ± 0.070	87.05	6.090 ± 0.070	0.340 ± 0.072
photometric centroid source offset	6.31 ± 0.18	35.37	6.30 ± 0.18	-0.27 ± 0.17

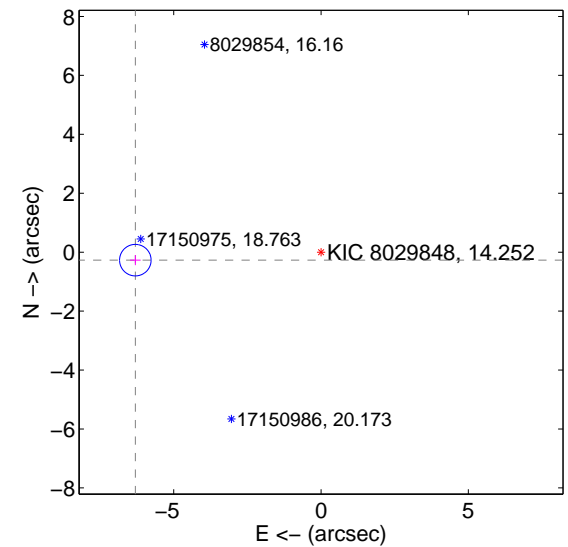
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids



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.



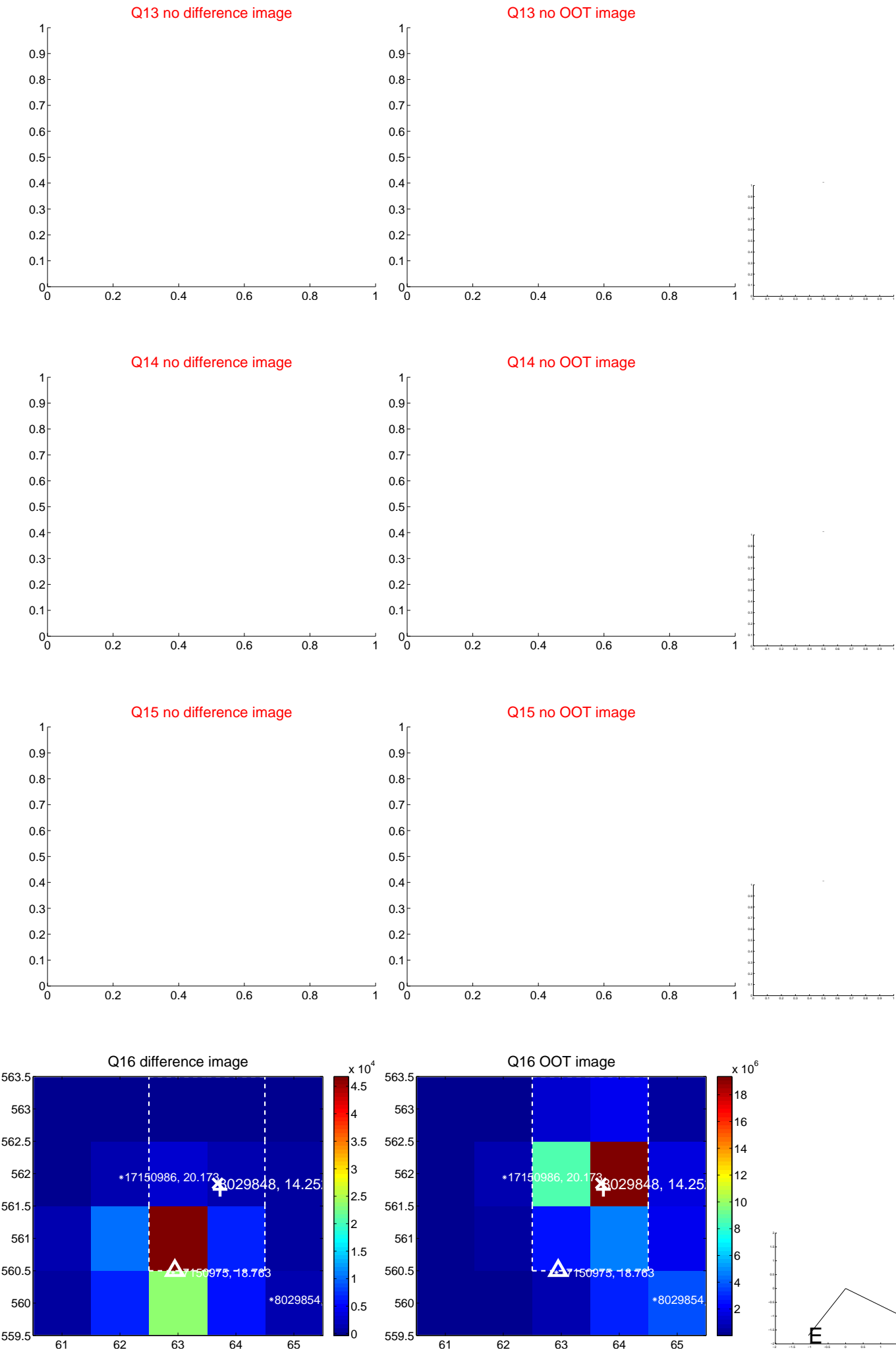
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



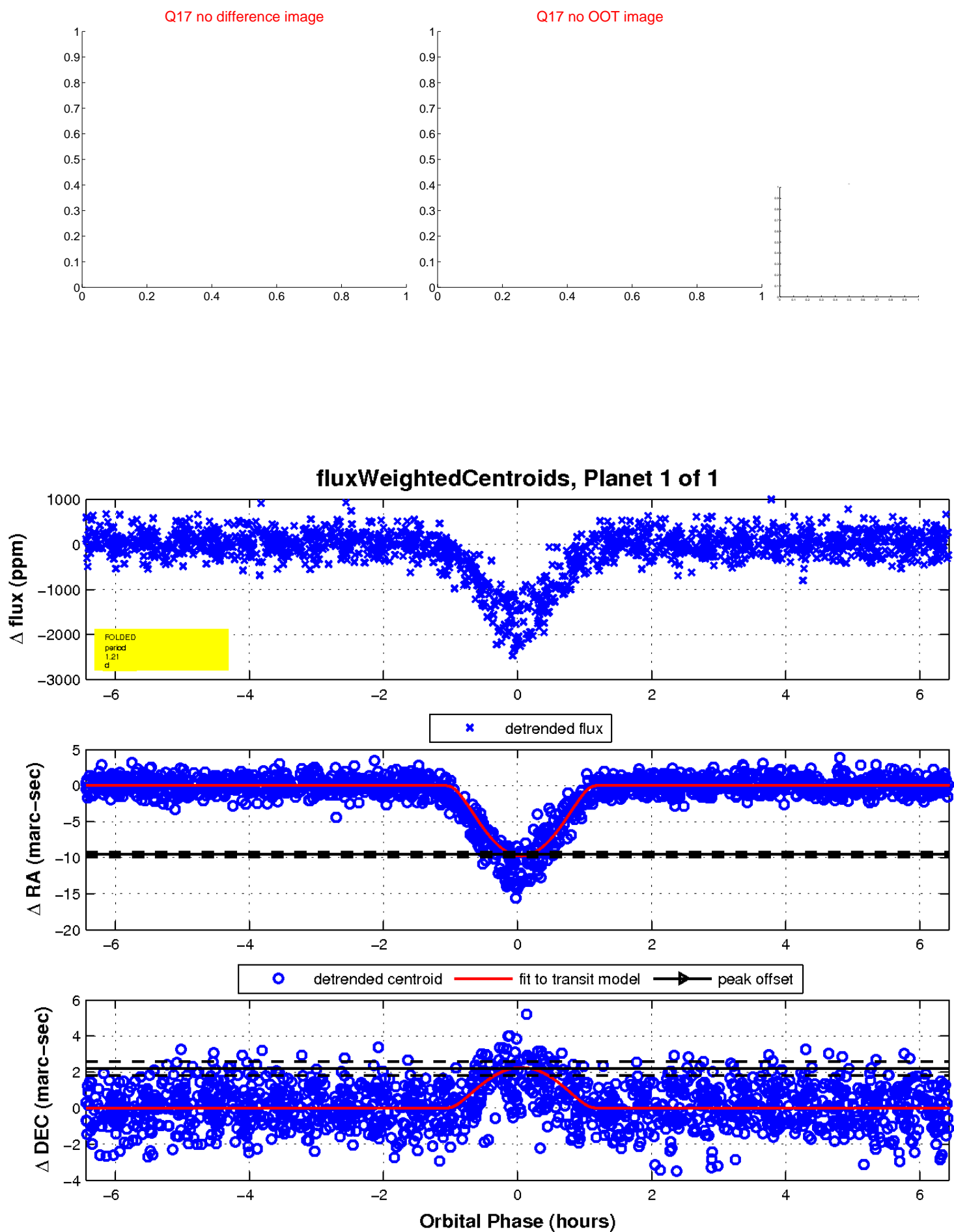
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



UKIRT Image

Declination

