

KIC 010675847

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})
010675847-01	OBS	No	63.326625	187.409325	969.8	7.787	8.5	5.4	19.09	4837	62.62	846.55

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010675847-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

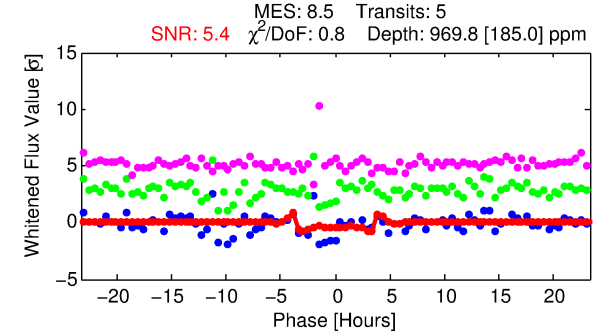
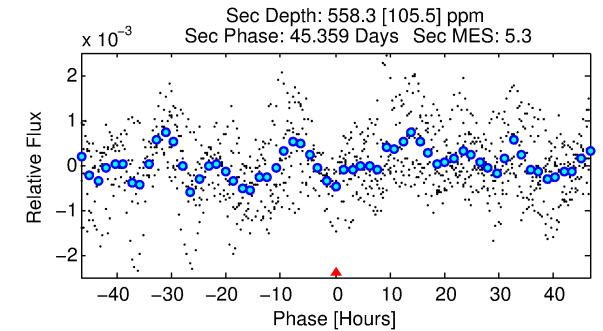
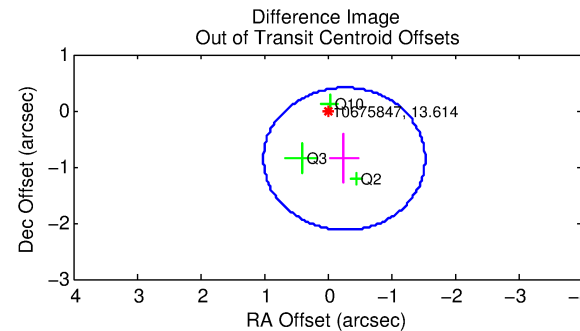
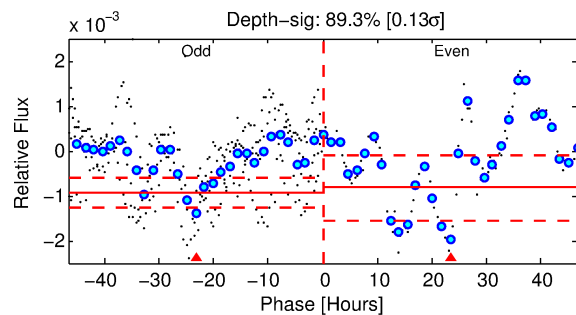
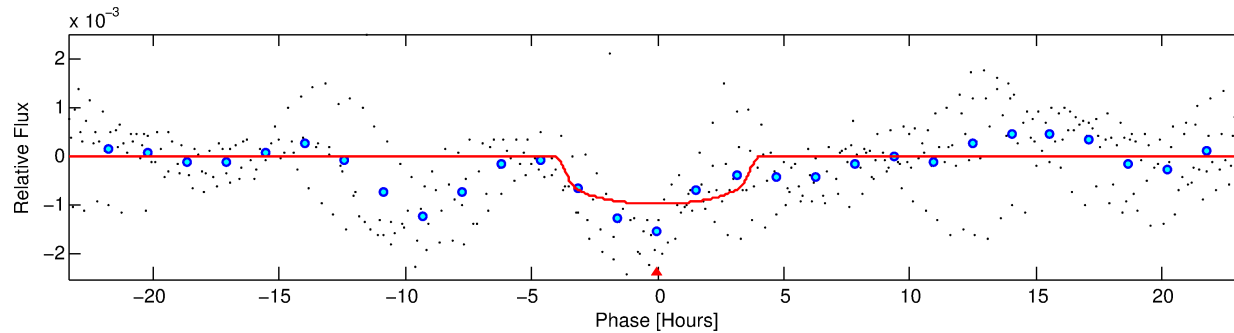
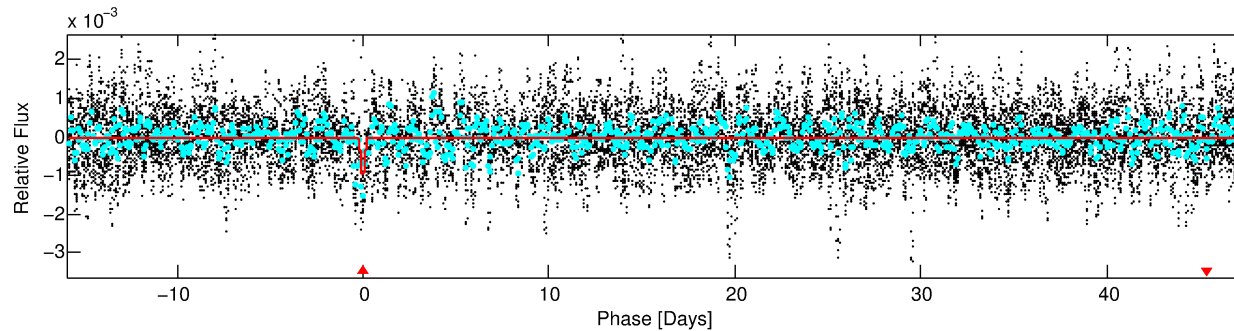
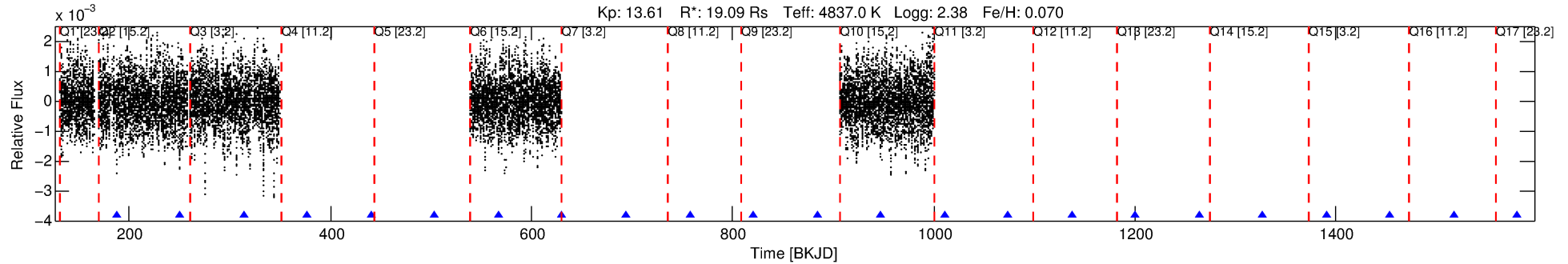
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010675847-01

No Significant Match Found

DV One-Page Summary

KIC: 10675847 Candidate: 1 of 1 Period: 63.327 d



DV Fit Results:

Period = 63.32663 [0.00082] d
Epoch = 187.4093 [0.0034] BKJD
Rp/R* = 0.0301 [0.0104]
a/R* = 48.72 [53.61]
b = 0.67 [0.92]
Seff = 846.55 [259.79]
Teq = 1375 [106] K
Rp = 62.62 [32.21] Re
a = 0.4595 [0.1171] AU
Ag = 16.54 [12.61] [1.23 σ]
Teffp = 4289 [789] K [3.66 σ]

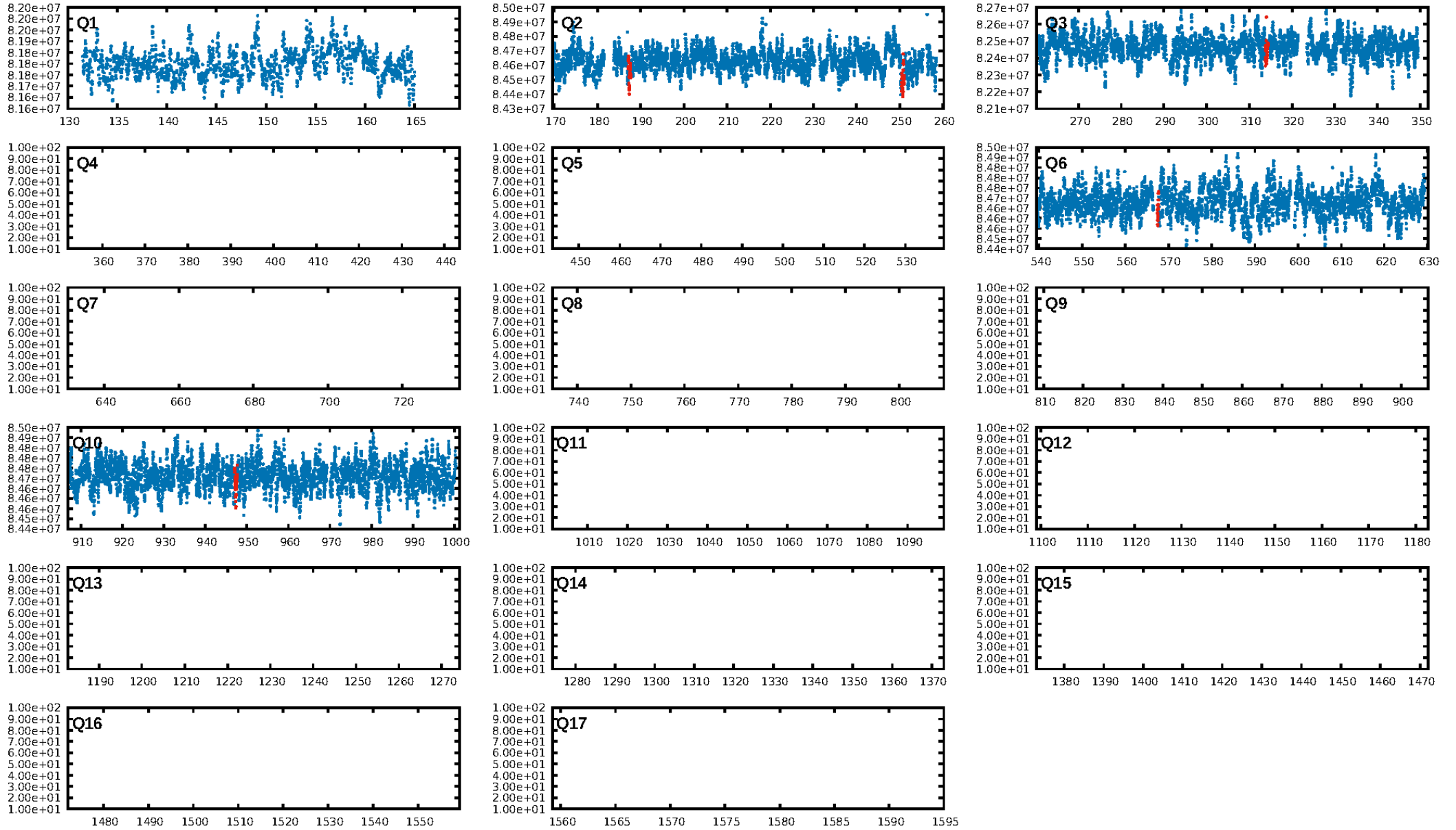
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 83.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.81e-15
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: 14.7
Centroid-sig: 41.7%
Centroid-so: 0.156 arcsec [0.47 σ]
OotOffset-rm: 0.901 arcsec [2.13 σ]
OotOffset-st: 2/1/0/0 [3]
KicOffset-rm: 0.852 arcsec [2.05 σ]
KicOffset-st: 2/1/0/0 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

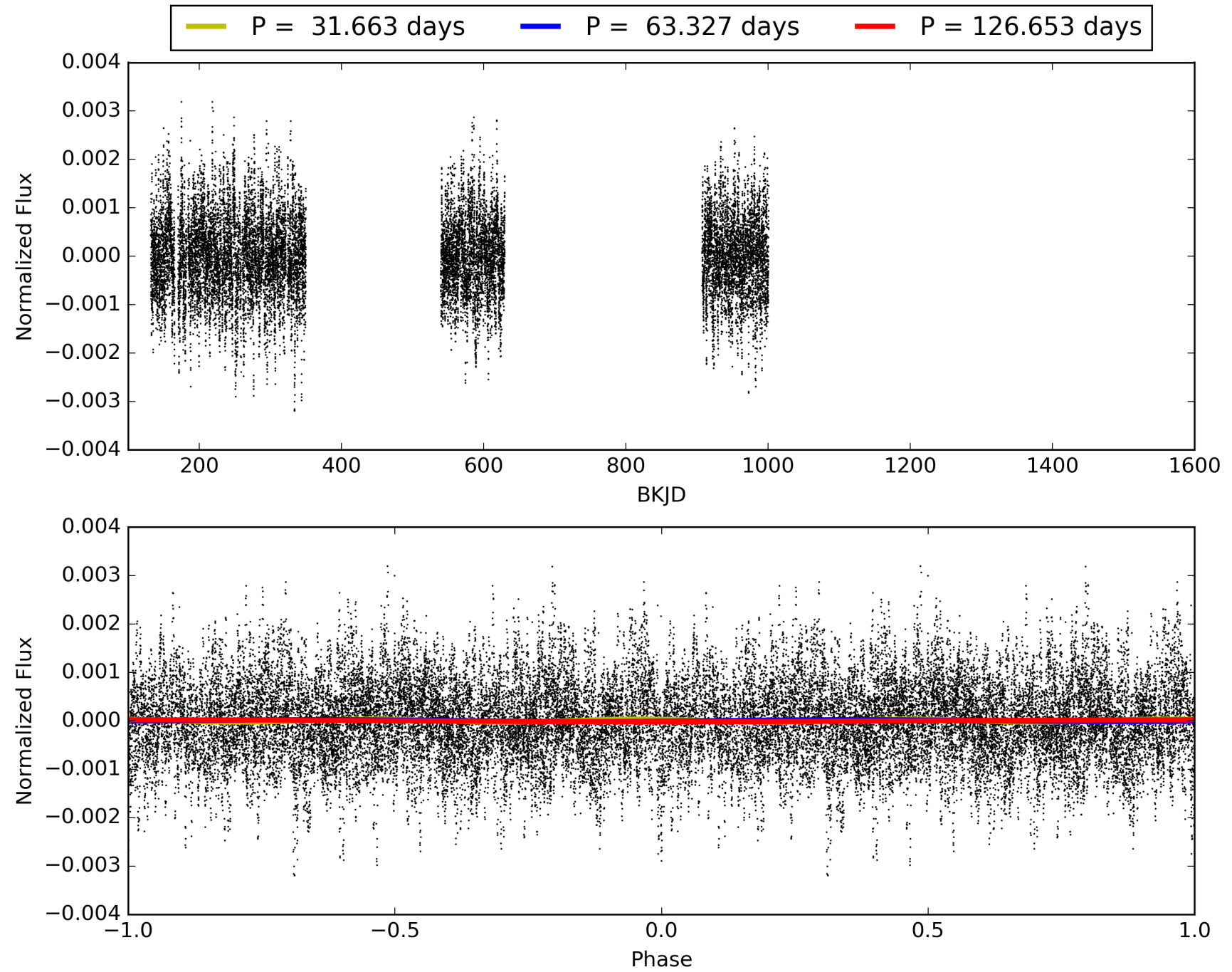
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 19:57:11 Z

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

TCE 010675847-01, PDC Light Curves

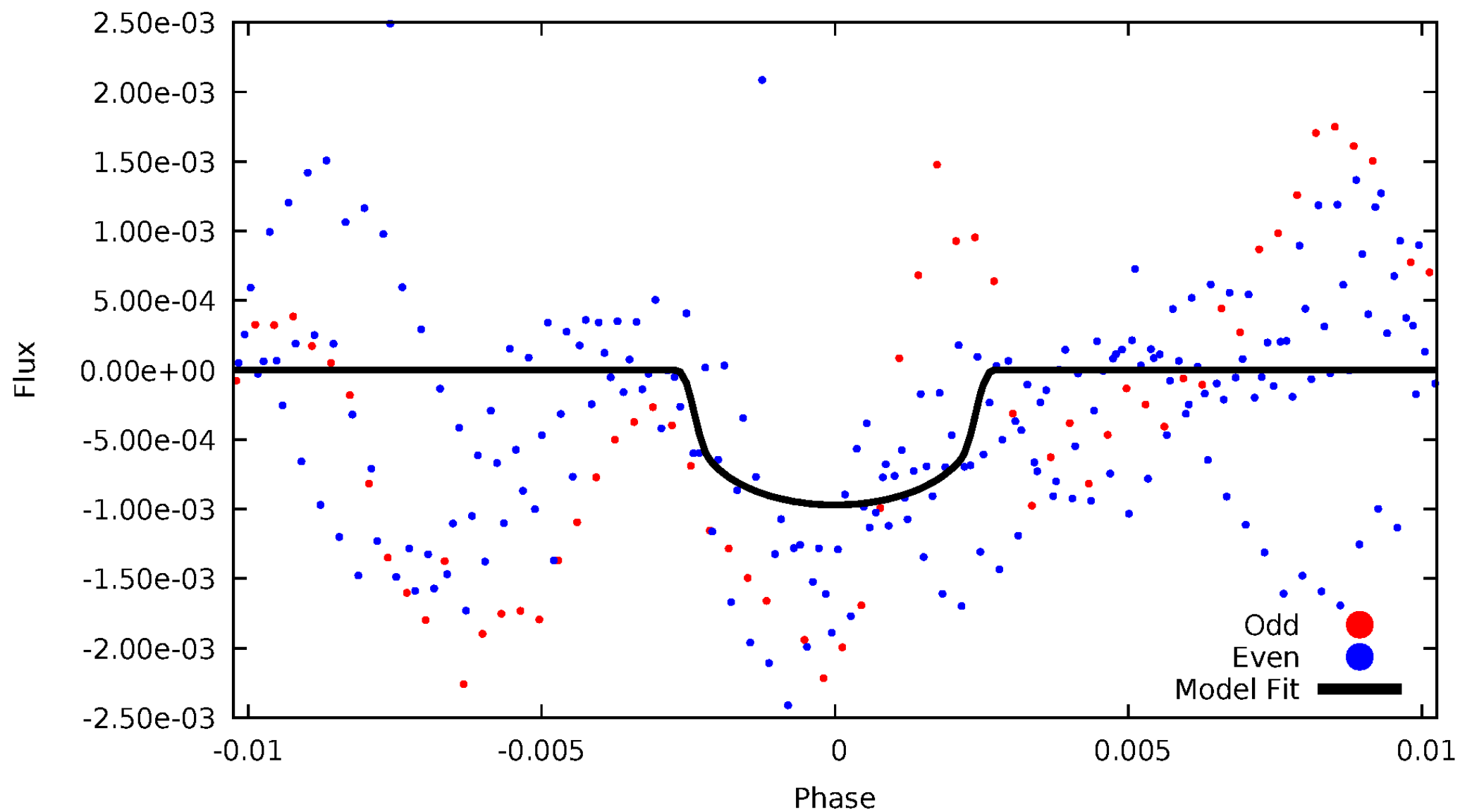


TCE 010675847-01



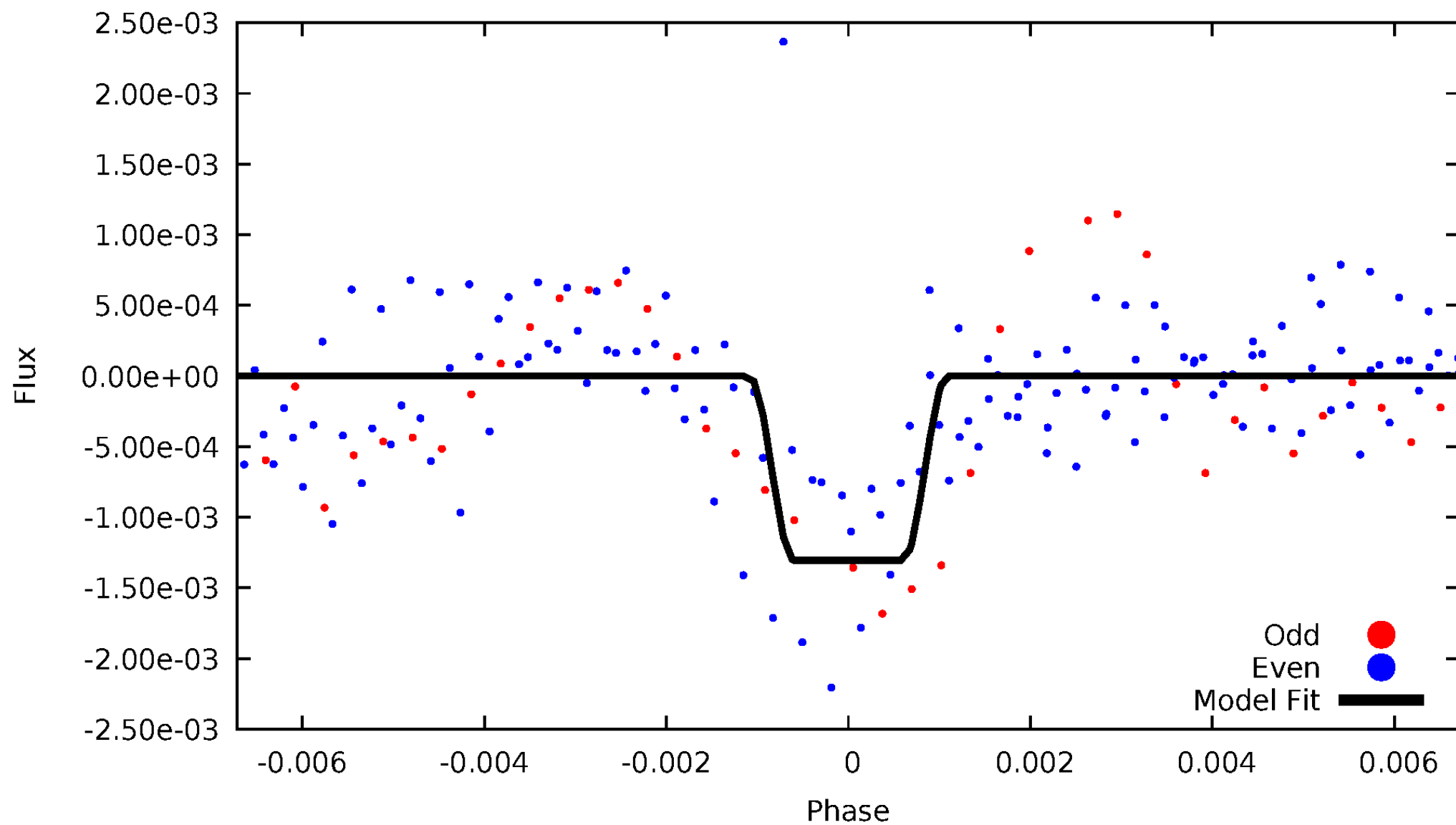
DV Odd/Even

TCE 010675847-01

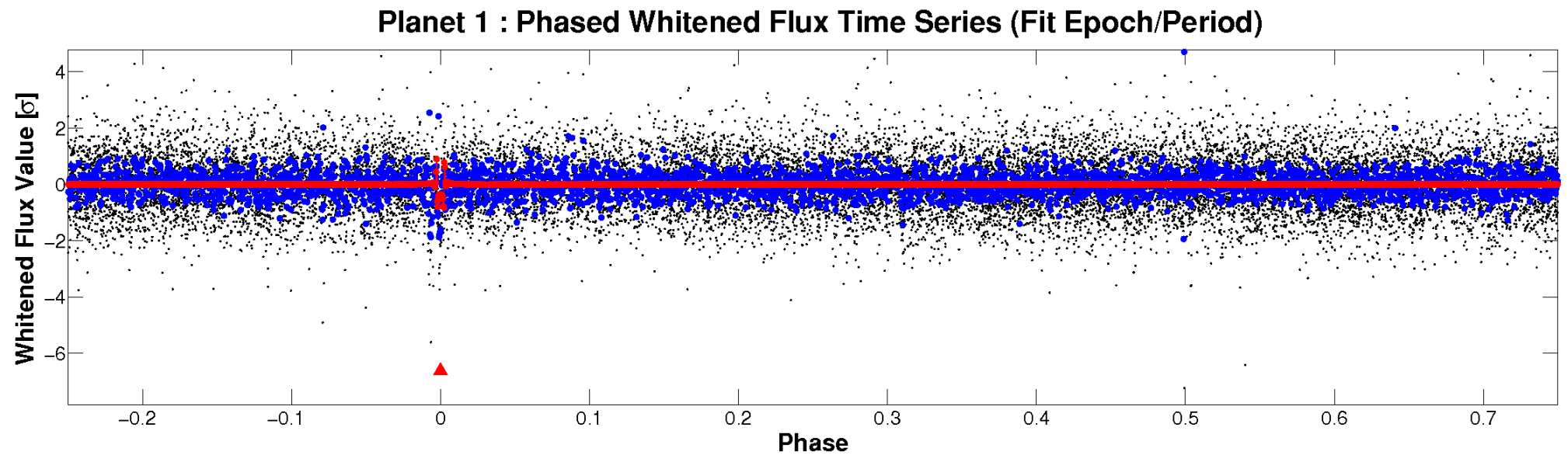
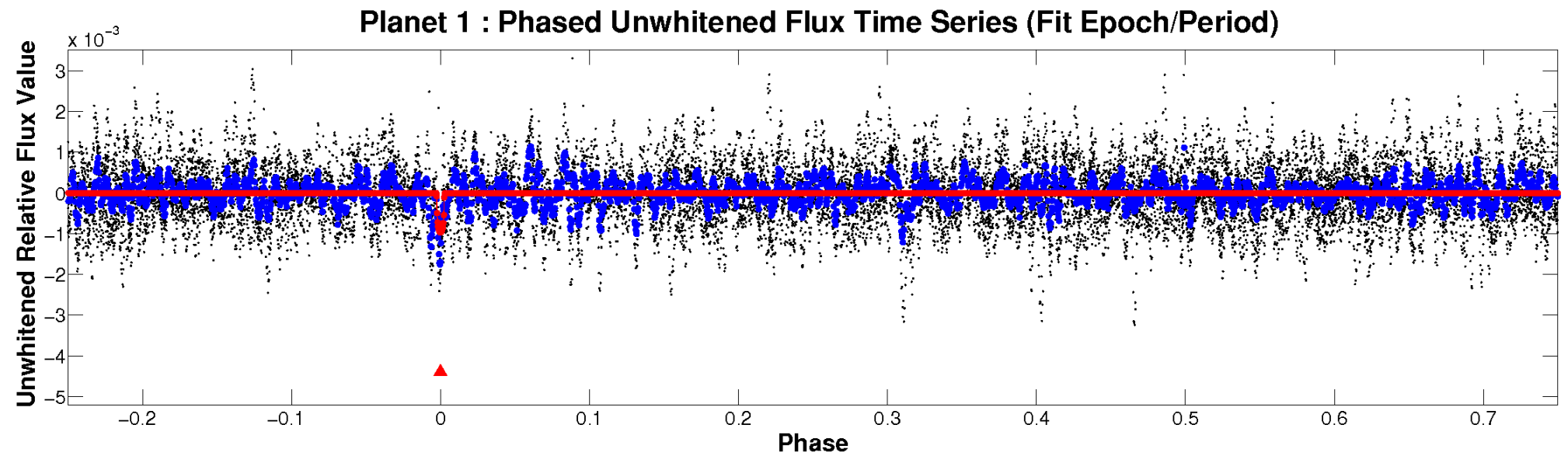


ALT Odd/Even

TCE 010675847-01

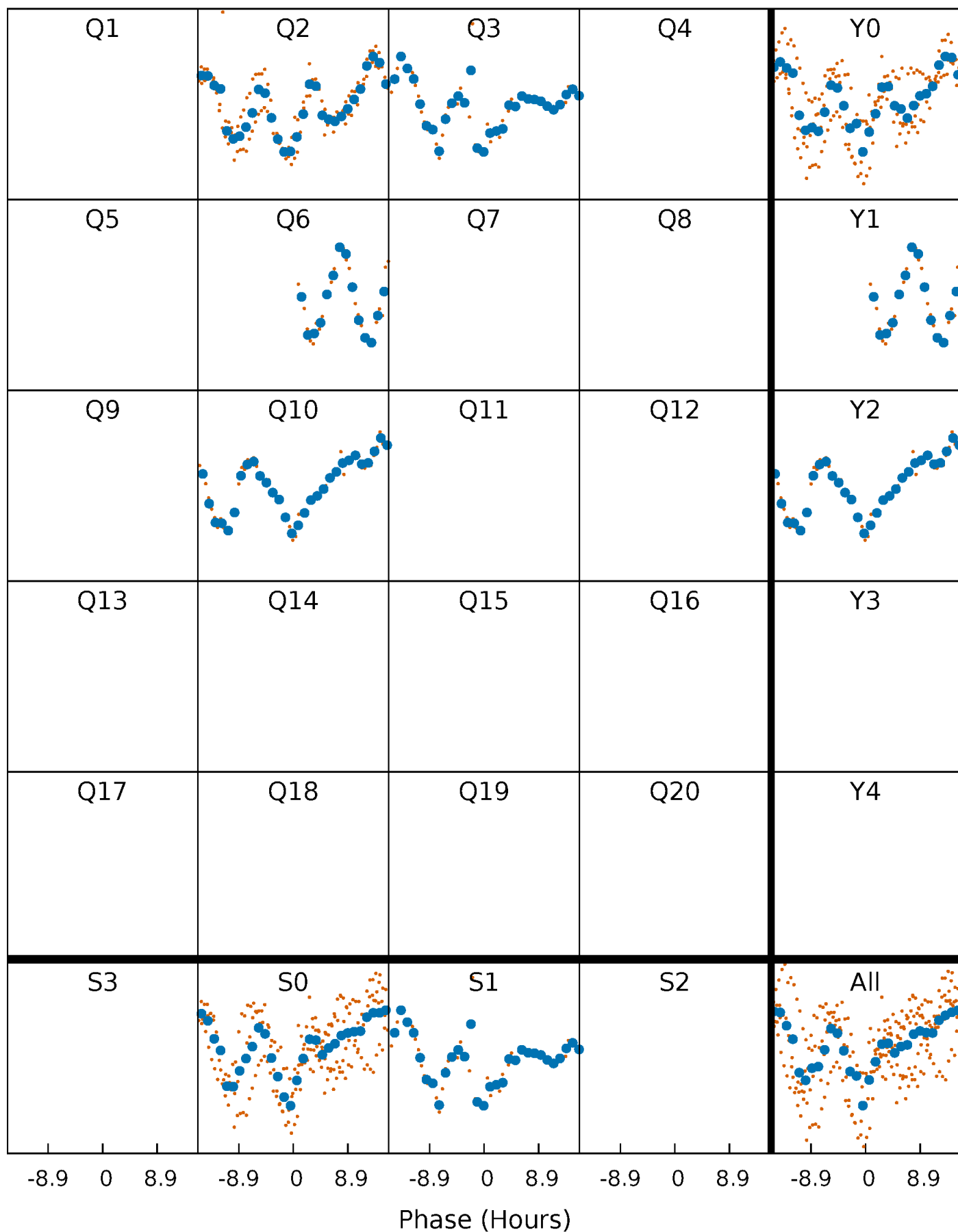


Non-Whitened Vs. Whitened Light Curve



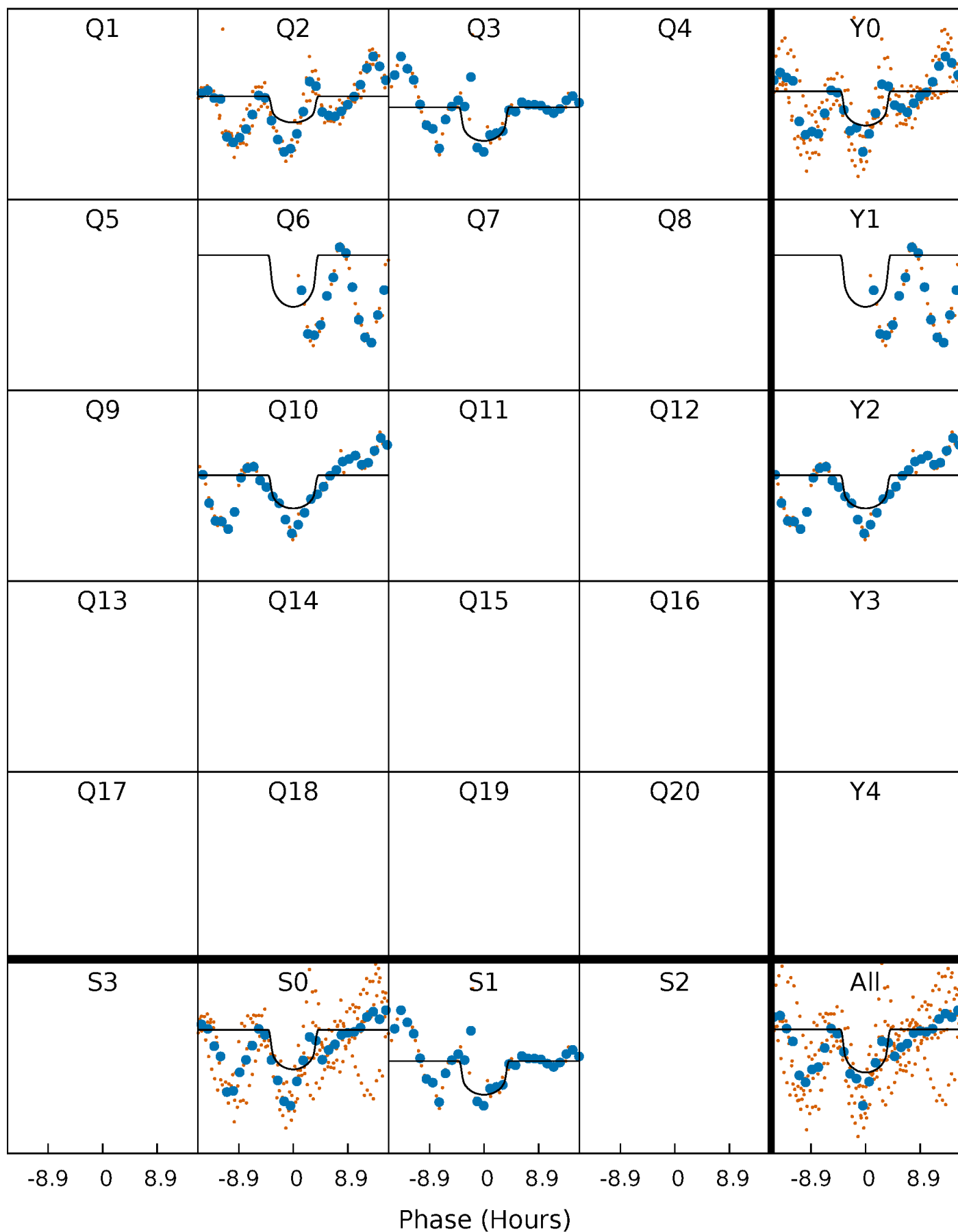
PDC Quarter-Phased Transit Curves

TCE 010675847-01 P= 63.326625 Days $T_0=187.409325$ (BKJD)



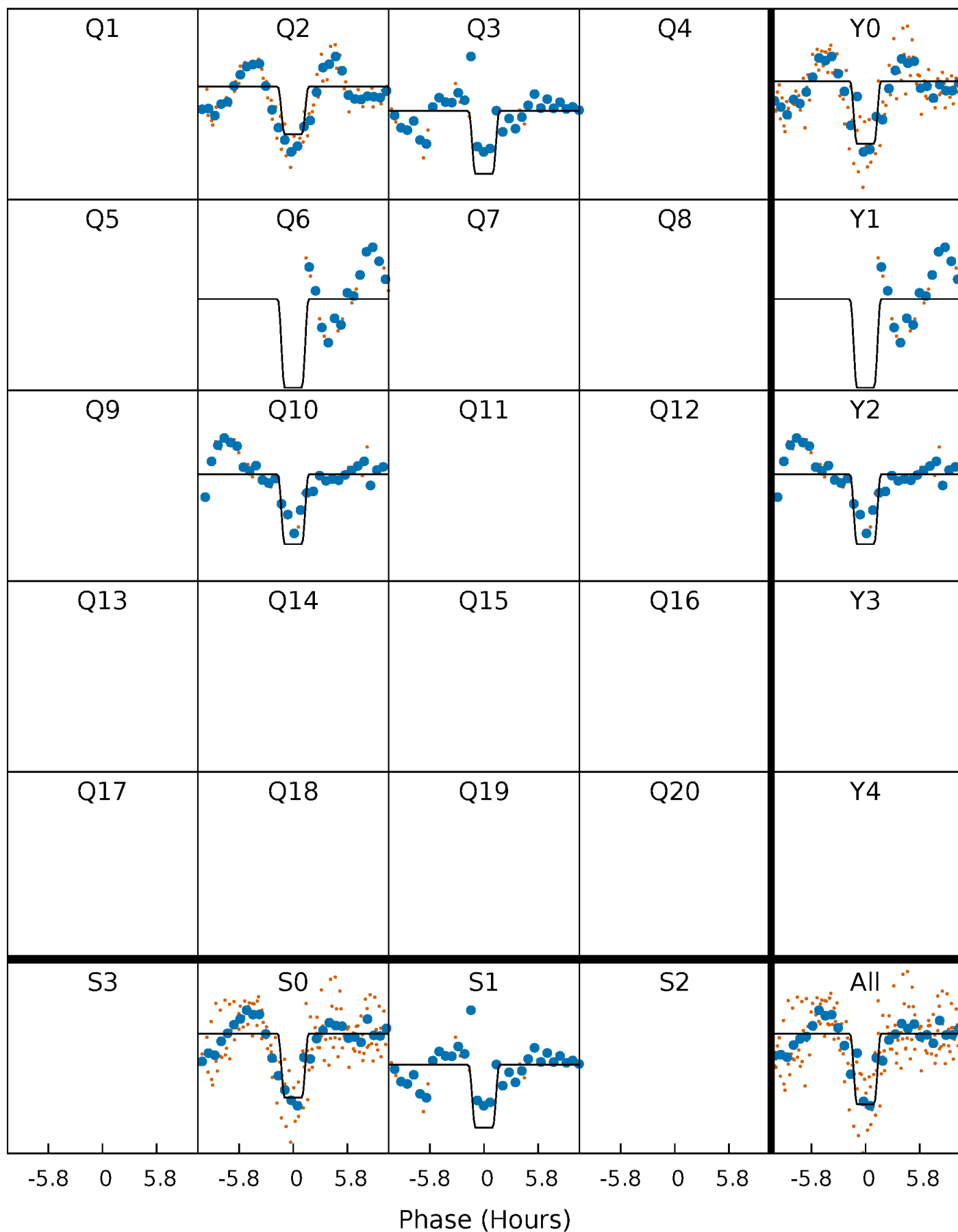
DV Quarter-Phased Transit Curves

TCE 010675847-01 P= 63.326625 Days $T_0=187.409325$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

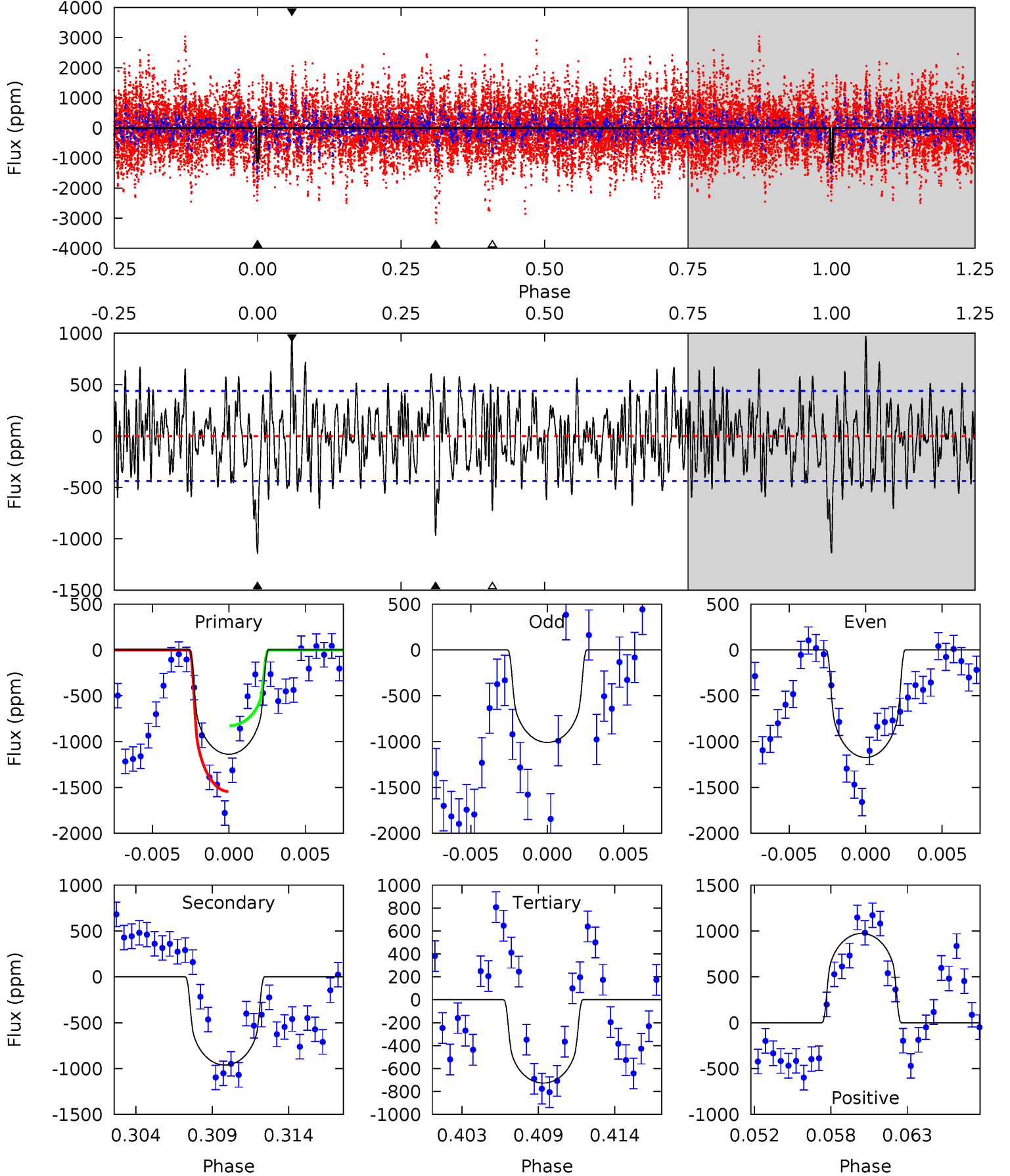
TCE 010675847-01 P= 63.329436 Days $T_0=187.370277$ (BKJD)



DV Model-Shift Uniqueness Test

010675847-01, $P = 63.326625$ Days, $E = 124.082700$ Days

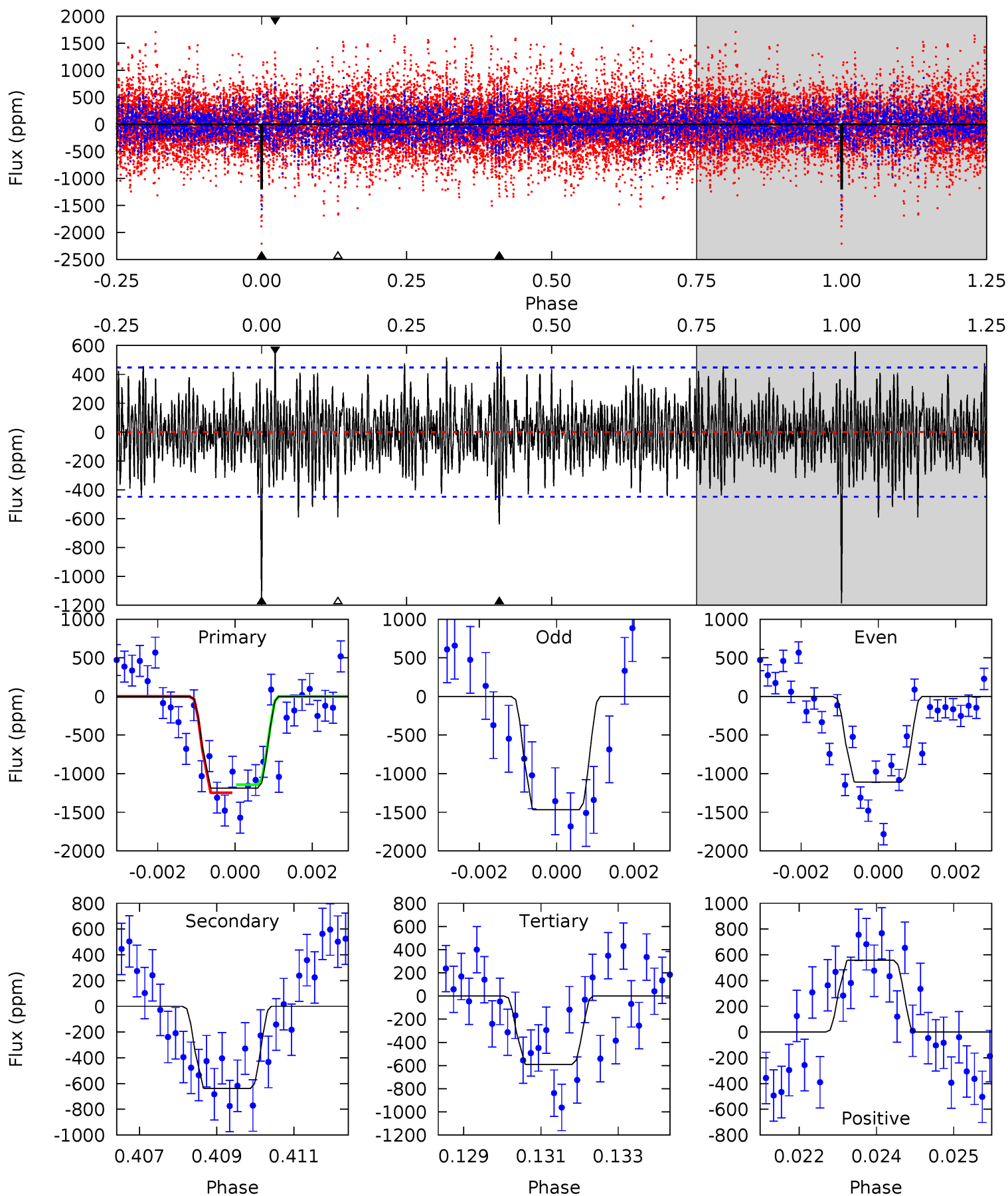
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.3	11.3	8.52	11.4	5.15	2.79	3.12	4.83	1.93	2.76	-0.13	0.80	0.89	0.46	4.17



Alt Model-Shift Uniqueness Test

010675847-01, P = 63.329436 Days, E = 124.040841 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.1	7.59	7.02	6.63	5.33	3.10	1.98	7.09	7.48	0.58	0.96	1.70	0.95	0.33	0.62



Stellar Parameters For KIC 010675847

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4837^{+72}_{-201}	$2.385^{+0.030}_{-0.027}$	$0.070^{+0.200}_{-0.450}$	$19.092^{+1.283}_{-7.269}$	$3.224^{+0.235}_{-1.997}$	$0.001^{+0.000}_{-0.000}$
	+1%/-4%	+1%/-1%	+286%/-643%	+7%/-38%	+7%/-62%	+62%/-11%
Source	PHO1	AST9	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 010675847-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-962 ± 85	$63.91^{+21.67}_{-21.71}$	1919^{+48}_{-79}	4822^{+948}_{-591}	28^{+33}_{-13}
Alt.	-638 ± 84	$74.92^{+23.59}_{-22.36}$	1917^{+47}_{-83}	4149^{+622}_{-395}	13^{+14}_{-5}

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

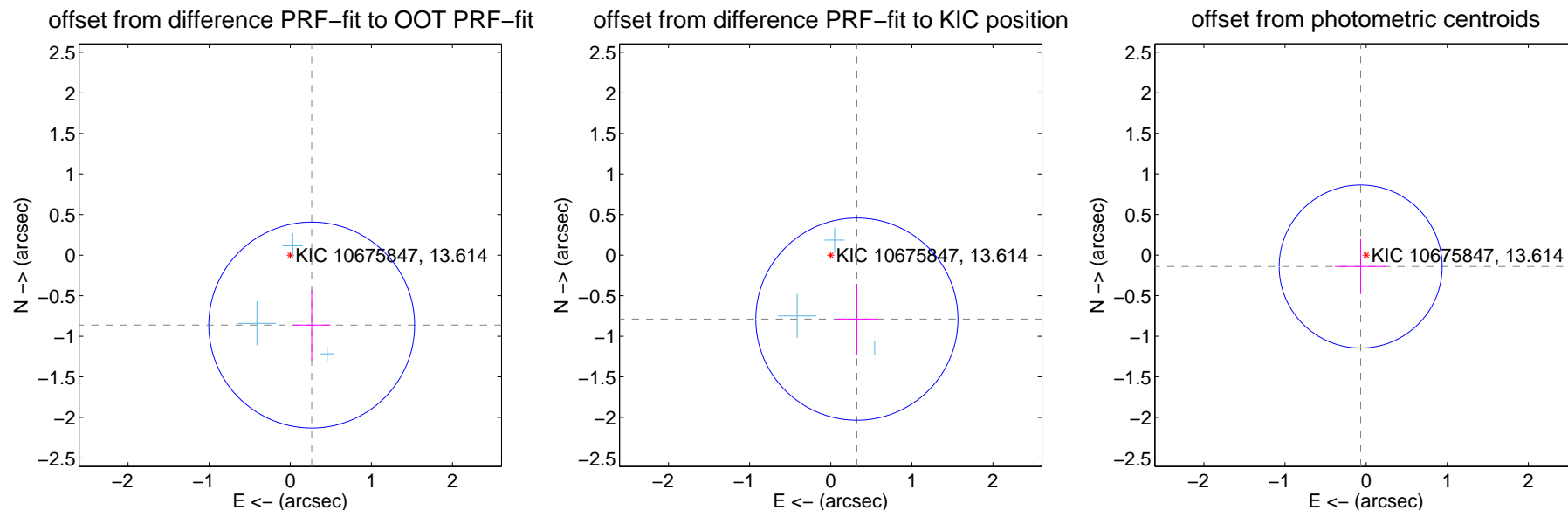
DV Centroid Data

Supplemental centroid analysis for 010675847-01. Kepler magnitude: 13.61. Transit SNR 5.38

There are 3 quarters with good PRF difference image offsets

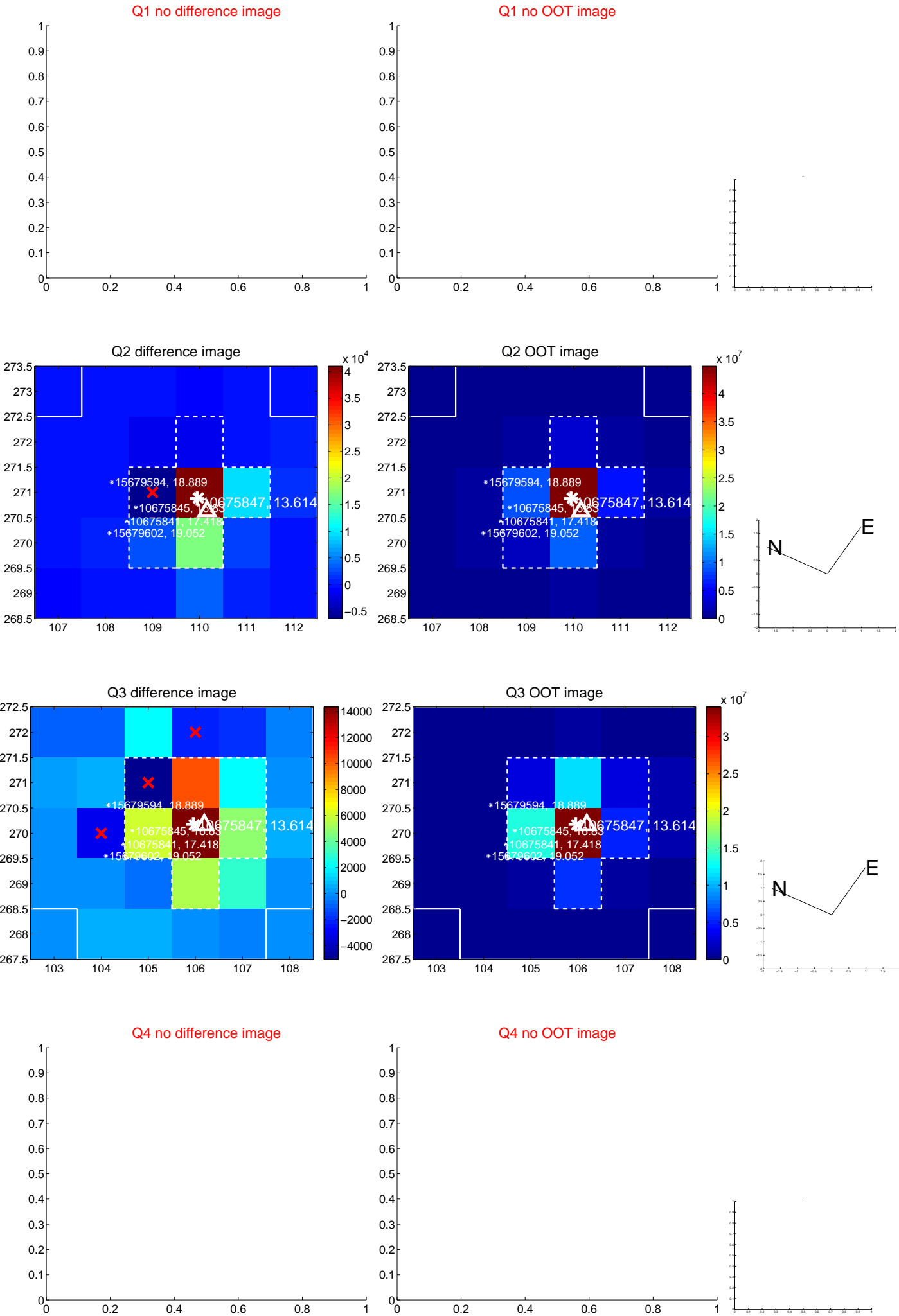
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.901 ± 0.423	2.13	-0.264 ± 0.233	-0.862 ± 0.437
PRF-fit source offset from KIC position	0.852 ± 0.415	2.05	-0.323 ± 0.262	-0.788 ± 0.436
photometric centroid source offset	0.16 ± 0.33	0.47	0.07 ± 0.32	-0.14 ± 0.34



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.

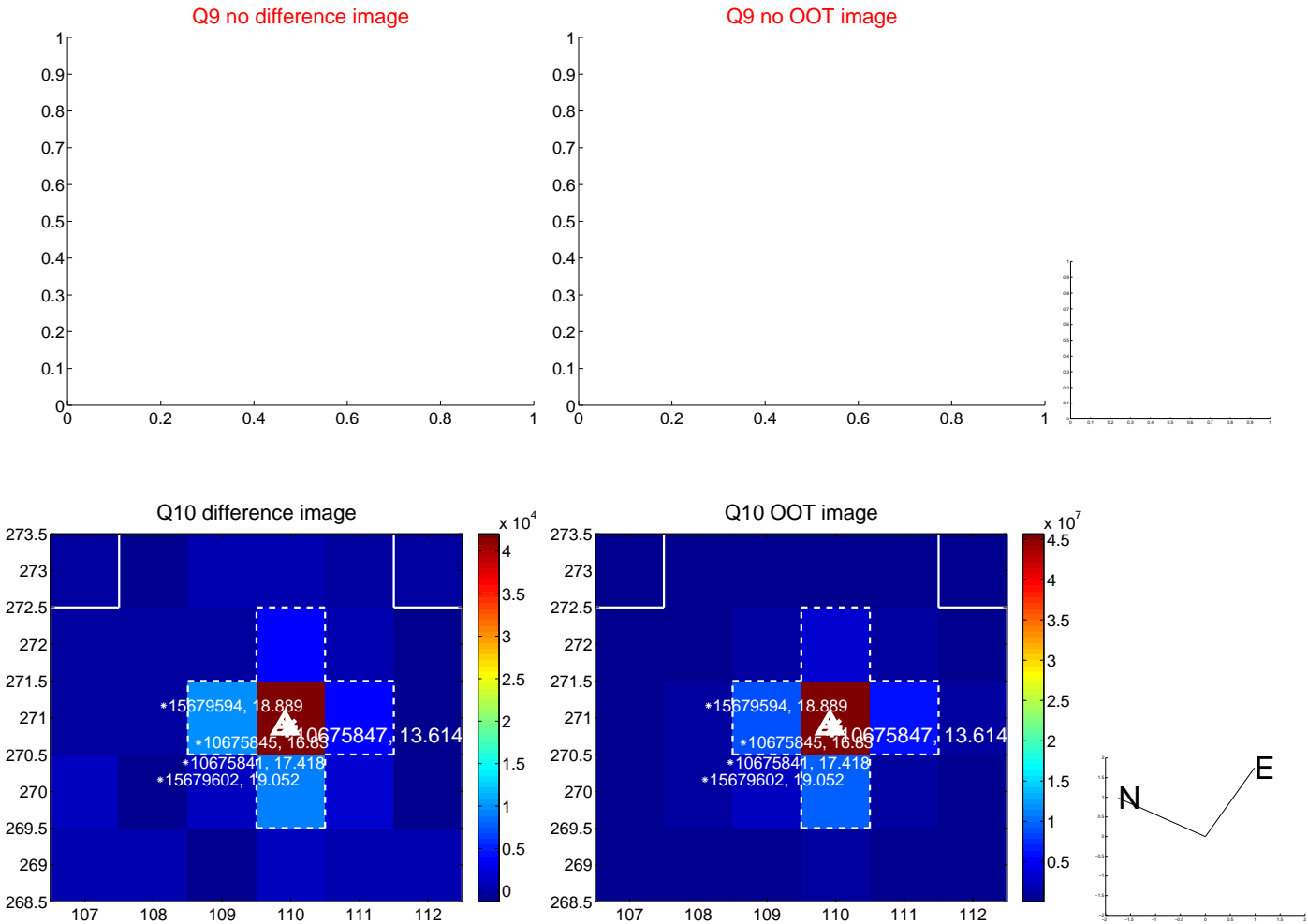
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



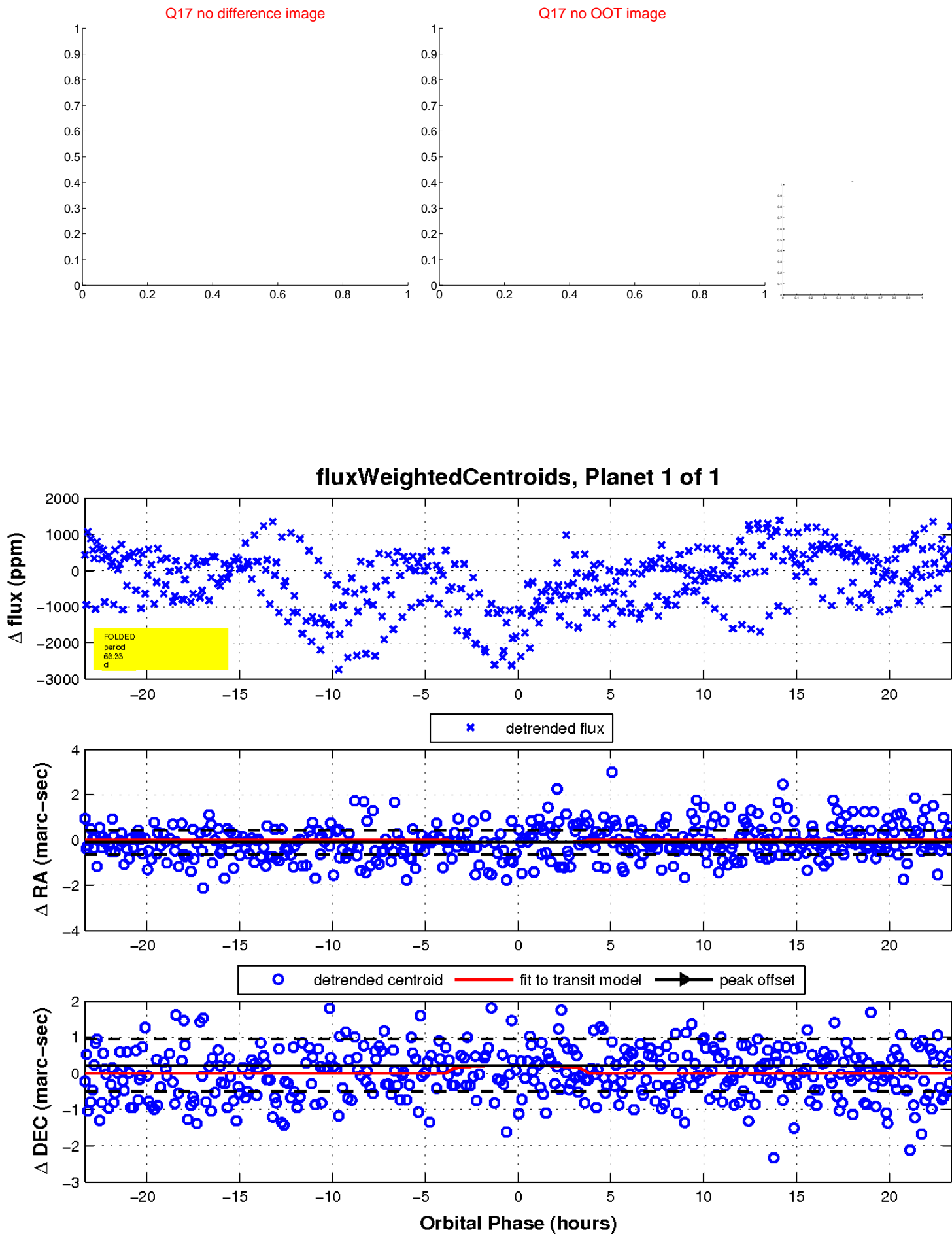
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \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.



UKIRT Image

Declination

