

KIC 006863683

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})
006863683-01	OBS	No	0.501096	131.633193	2842.7	0.857	75.6	108.2	1.18	6234	7.54	13481.65
006863683-02	OBS	No	0.501121	131.966779	2783.9	0.760	89.7	90.6	1.18	6234	7.65	13480.75
006863683-03	OBS	No	0.501114	131.726619	3741.0	1.500	111.1	-1.0	1.18	6234	7.28	13480.98

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006863683-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_FEW_DIFFS
006863683-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_FEW_DIFFS
006863683-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_NOFITS

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

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

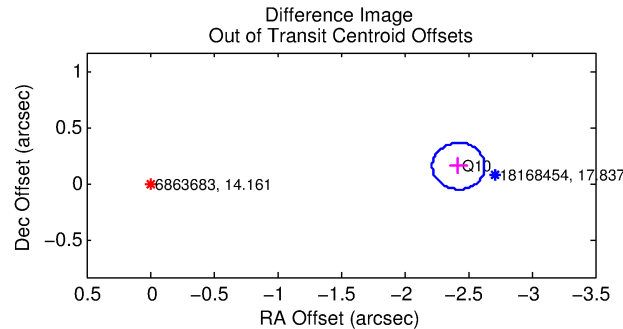
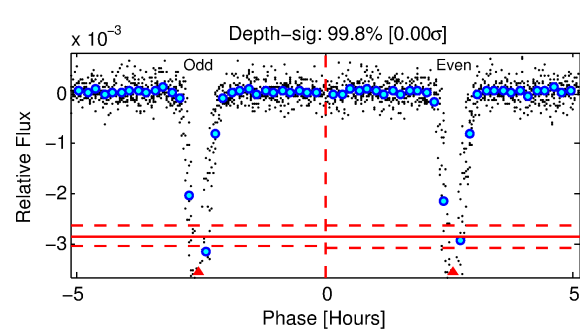
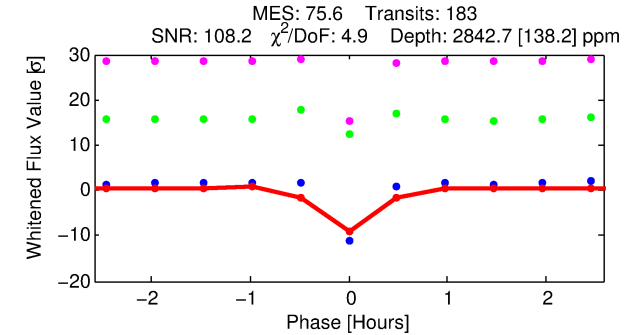
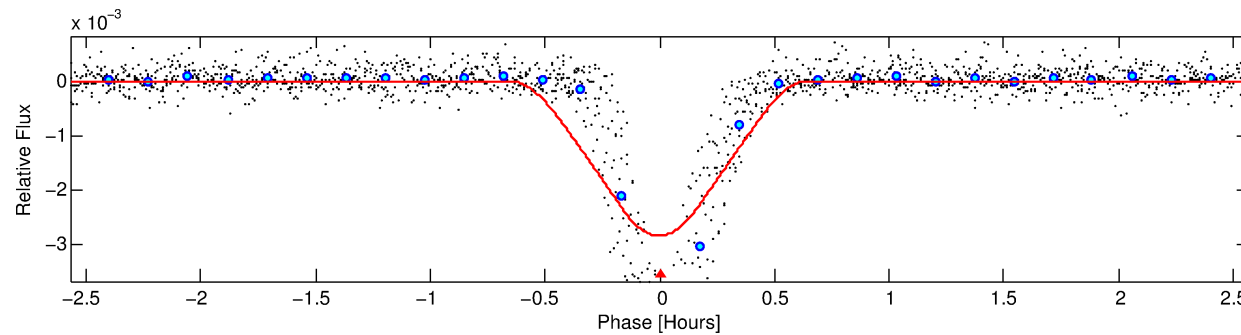
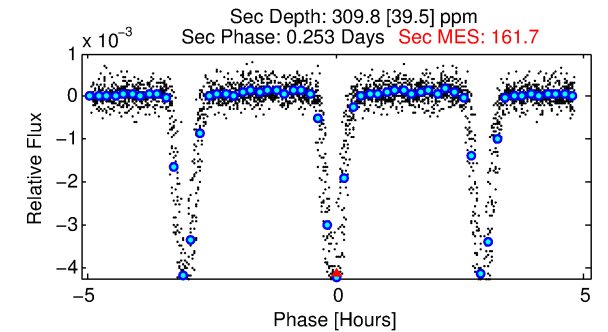
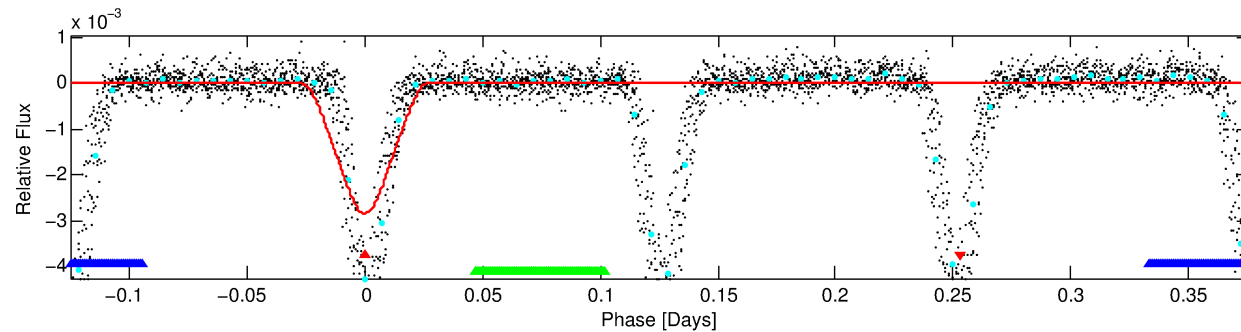
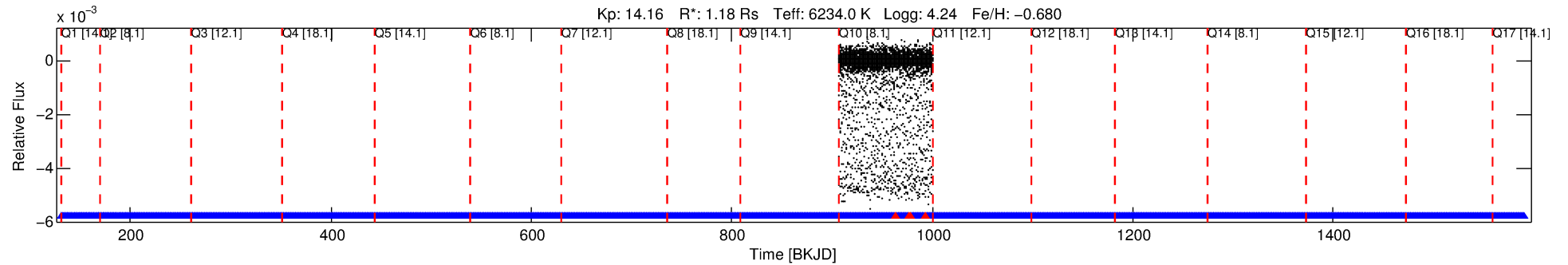
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006863683-01

No Significant Match Found

DV One-Page Summary

KIC: 6863683 Candidate: 1 of 3 Period: 0.501 d



DV Fit Results:

Period = 0.50110 [0.00000] d
Epoch = 131.6332 [0.0003] BKJD
Rp/R* = 0.0586 [0.0057]
a/R* = 2.66 [0.81]
b = 0.90 [0.08]
Seff = 13481.65 [6135.40]
Teq = 2748 [313] K
Rp = 7.54 [2.10] Re
a = 0.0118 [0.0031] AU
Ag = 0.42 [0.21] [-2.84σ]
Teffp = 3416 [232] K [1.72σ]

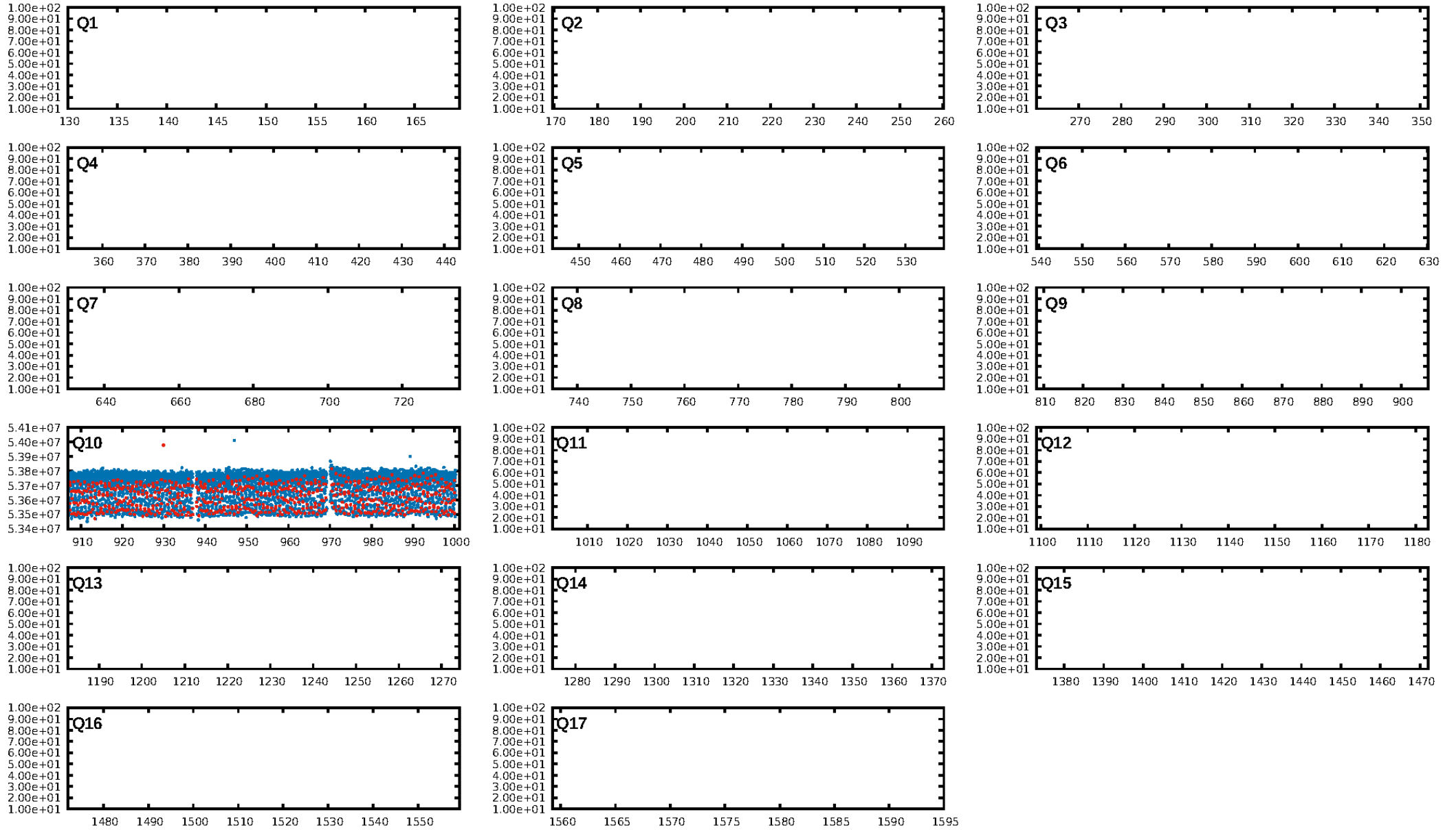
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGot-sig: 0.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 0.98 [179/183]
GhostDiagnostic-chr: 0.8539
Centroid-sig: N/A
Centroid-so: 0.430 arcsec [3.33σ]
OotOffset-rm: 2.430 arcsec [35.18σ]
KicOffset-rm: 2.771 arcsec [40.12σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 0.00 [0/1]

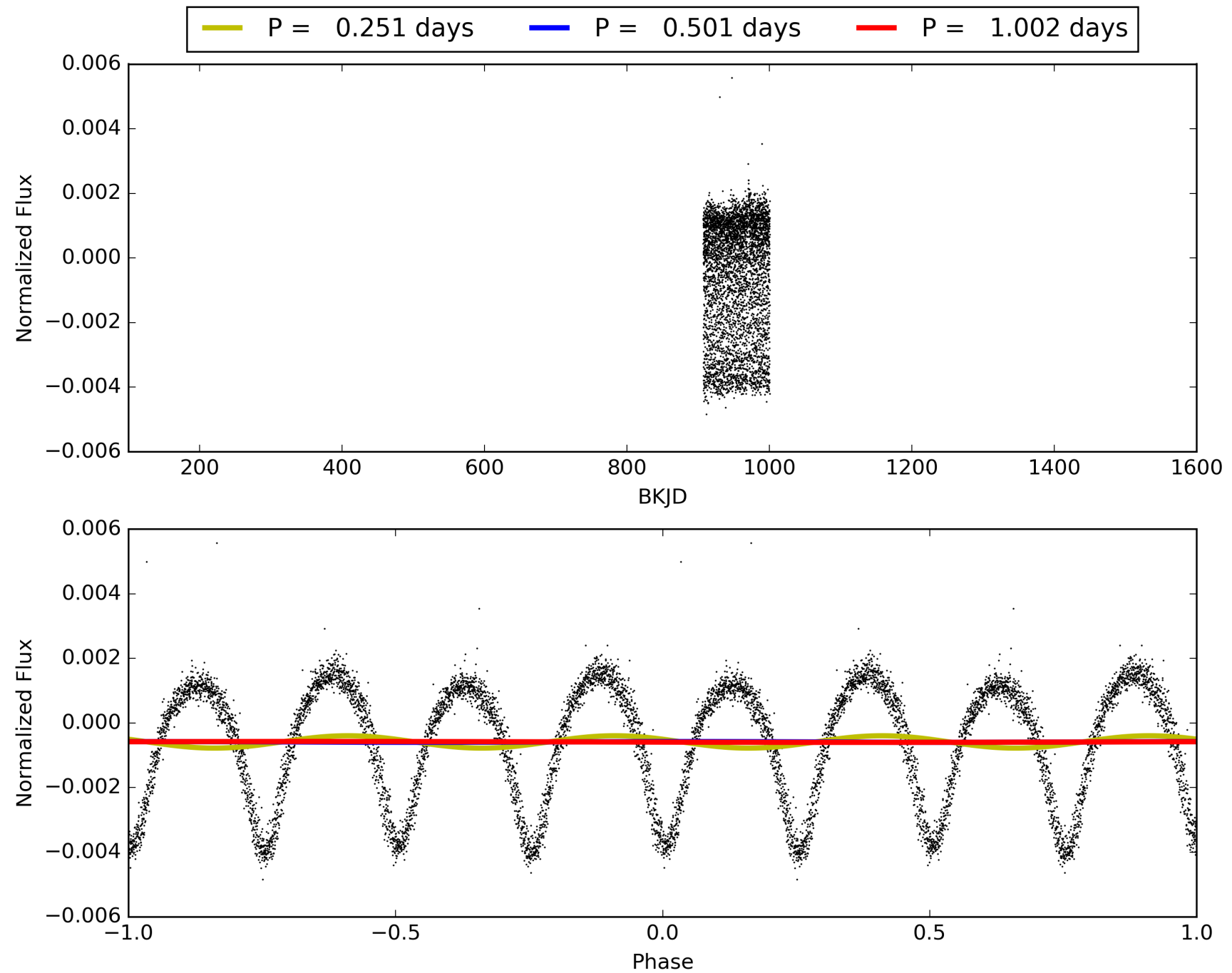
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:09:51 Z

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

TCE 006863683-01, PDC Light Curves

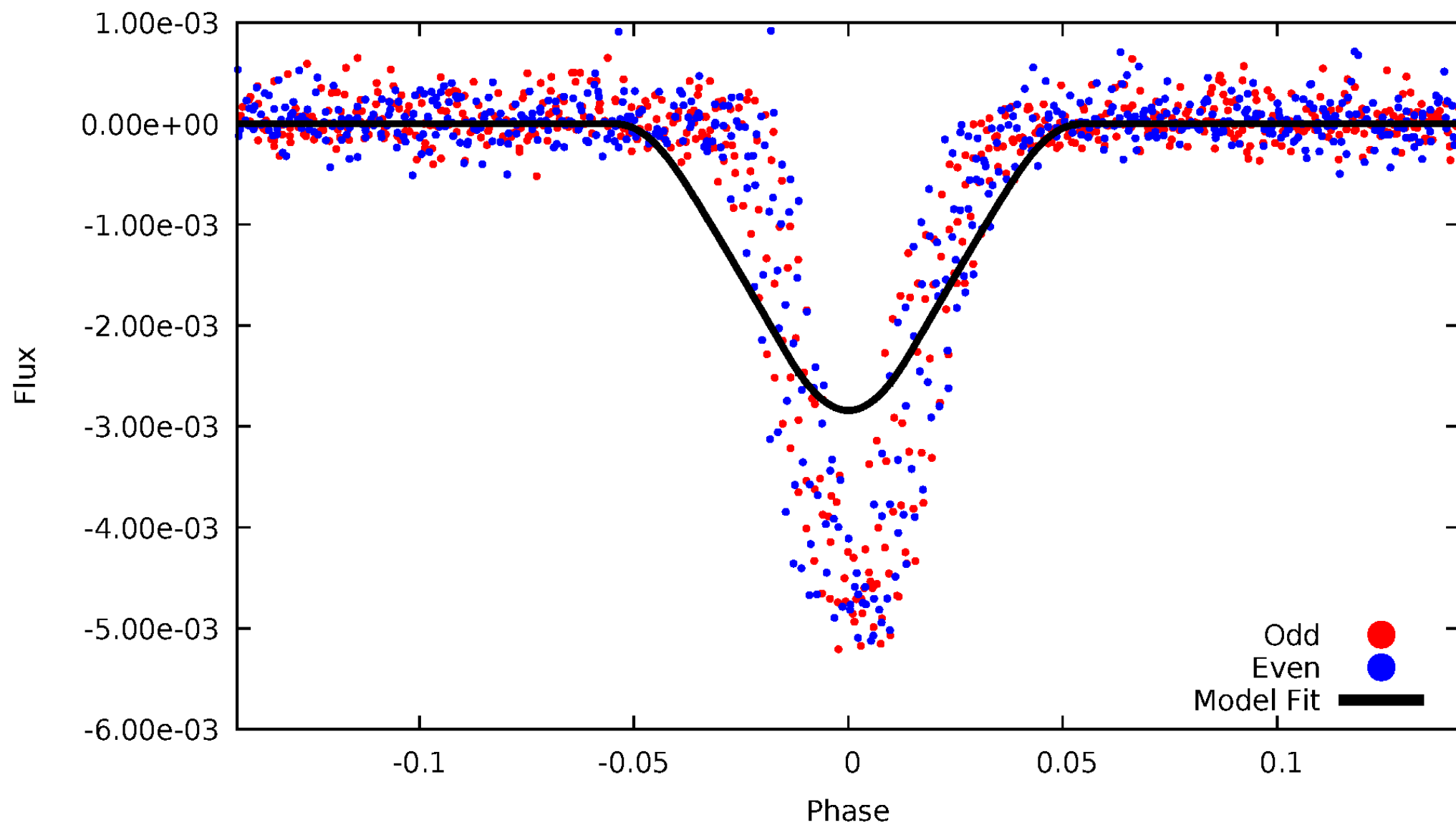


TCE 006863683-01



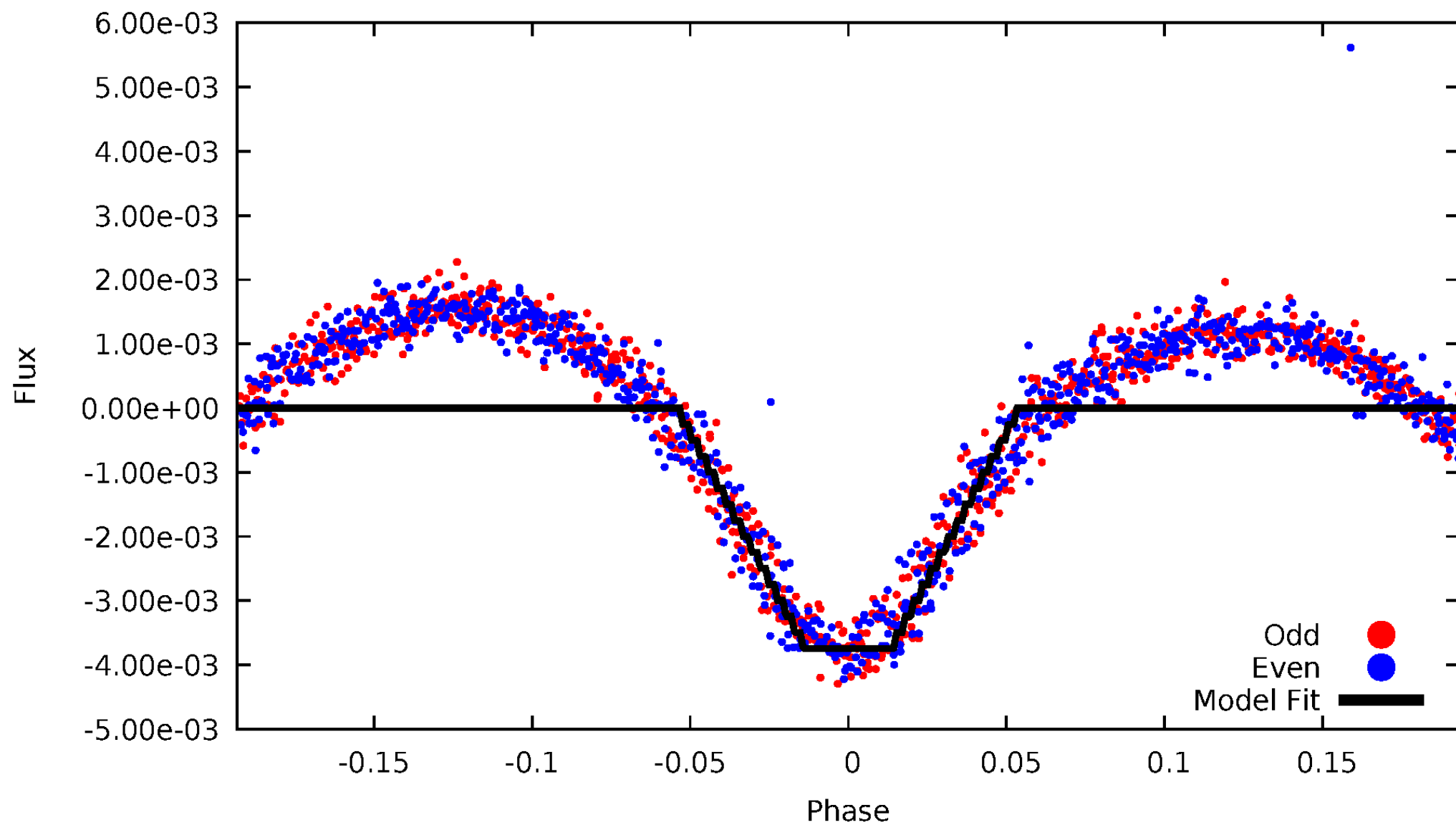
DV Odd/Even

TCE 006863683-01



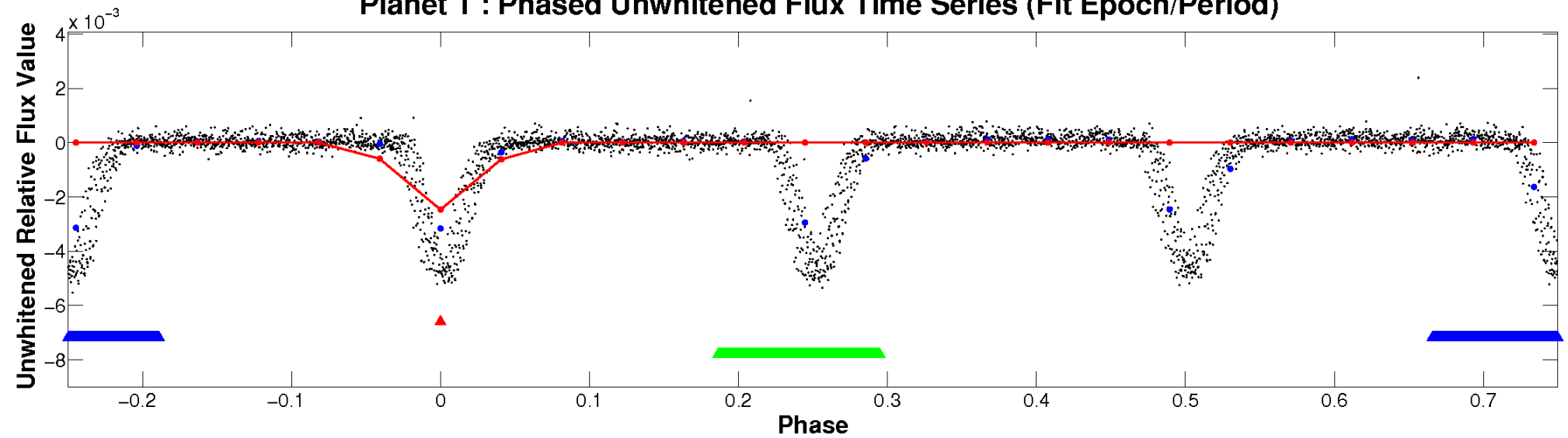
ALT Odd/Even

TCE 006863683-01

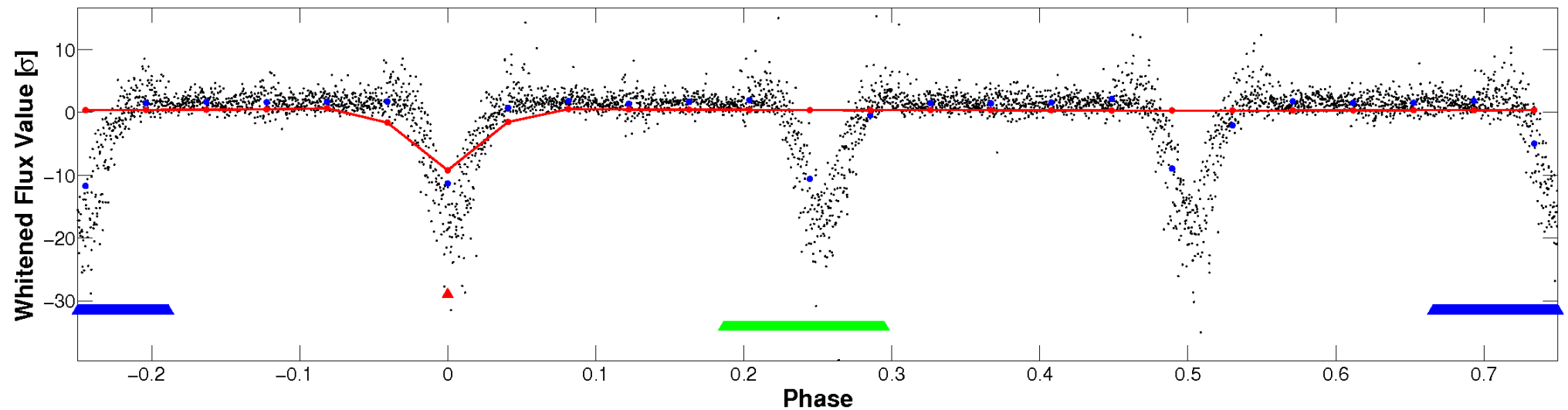


Non-Whitened Vs. Whitened Light Curve

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

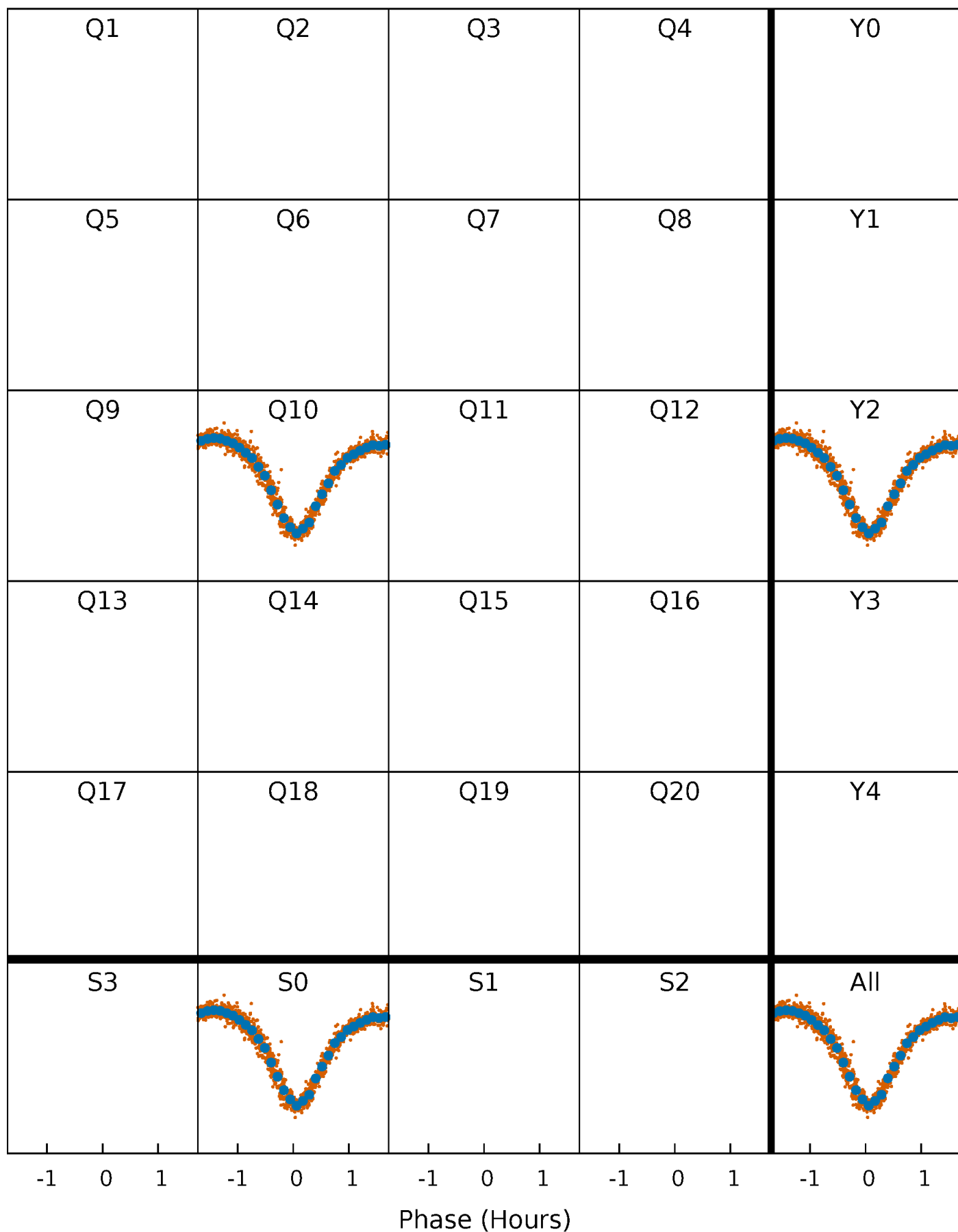


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



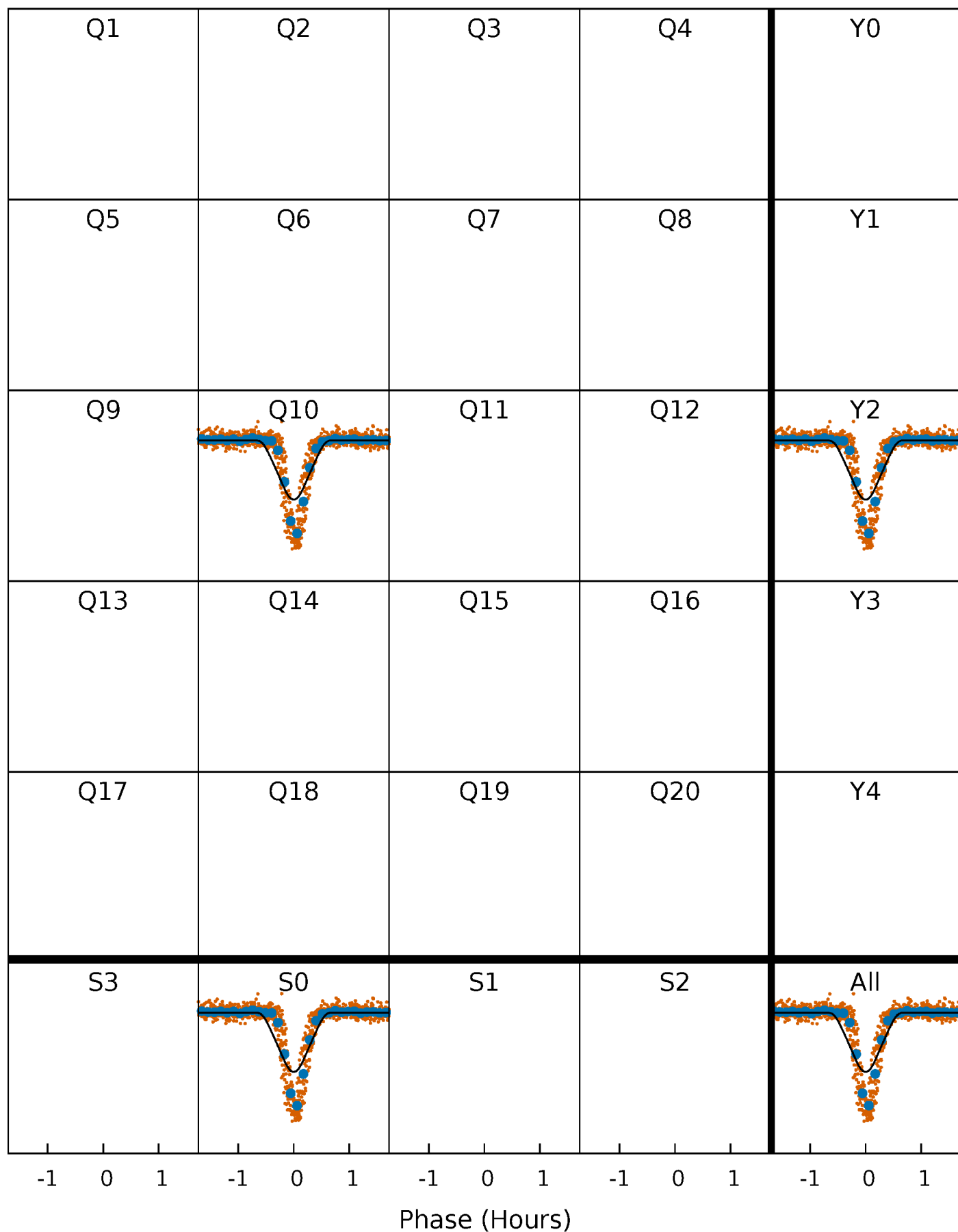
PDC Quarter-Phased Transit Curves

TCE 006863683-01 P= 0.501096 Days $T_0=131.633193$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 006863683-01 P= 0.501096 Days $T_0=131.633193$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

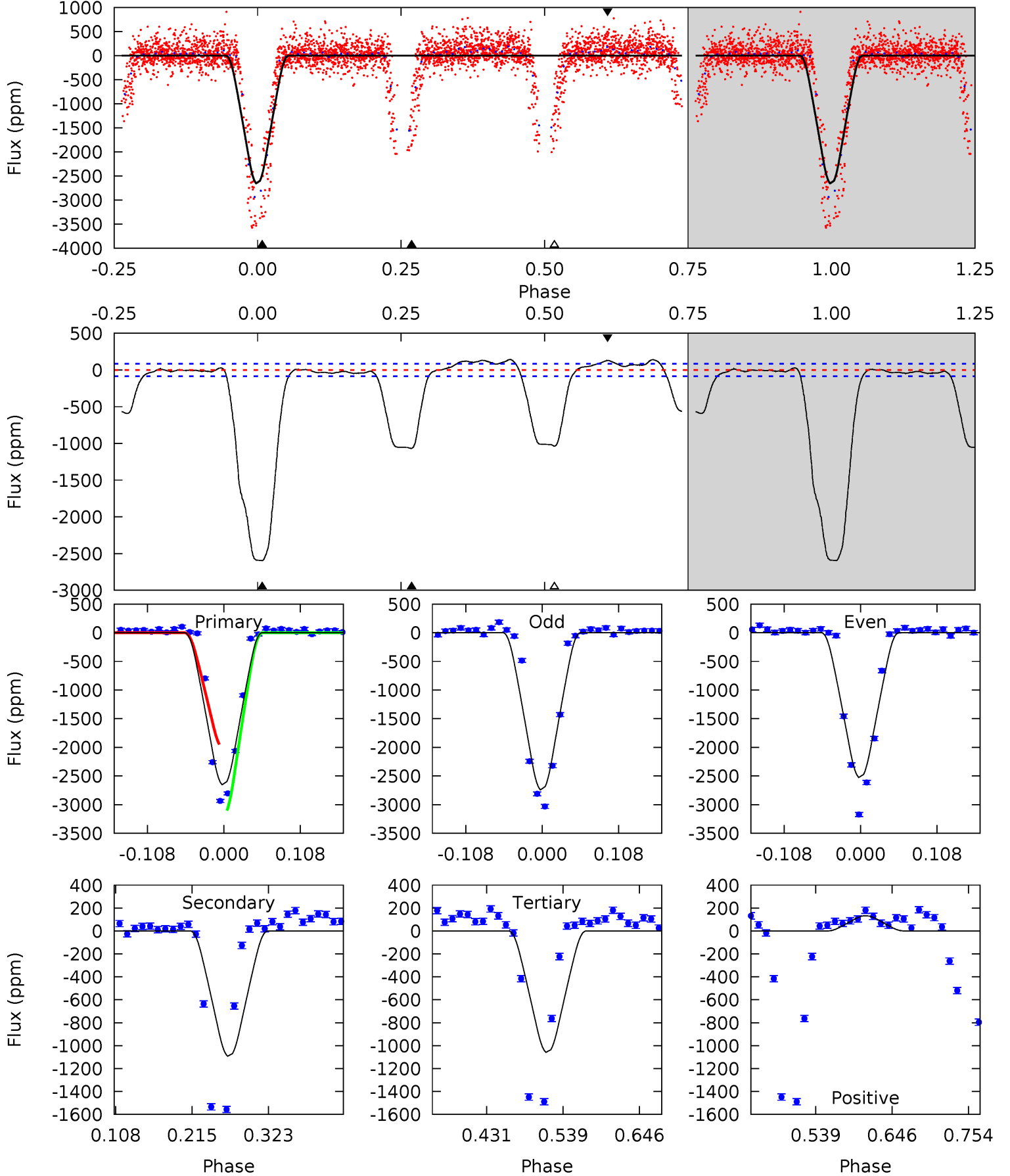
TCE 006863683-01 P= 0.501097 Days $T_0=131.634095$ (BKJD)



DV Model-Shift Uniqueness Test

006863683-01, P = 0.501096 Days, E = 131.633193 Days

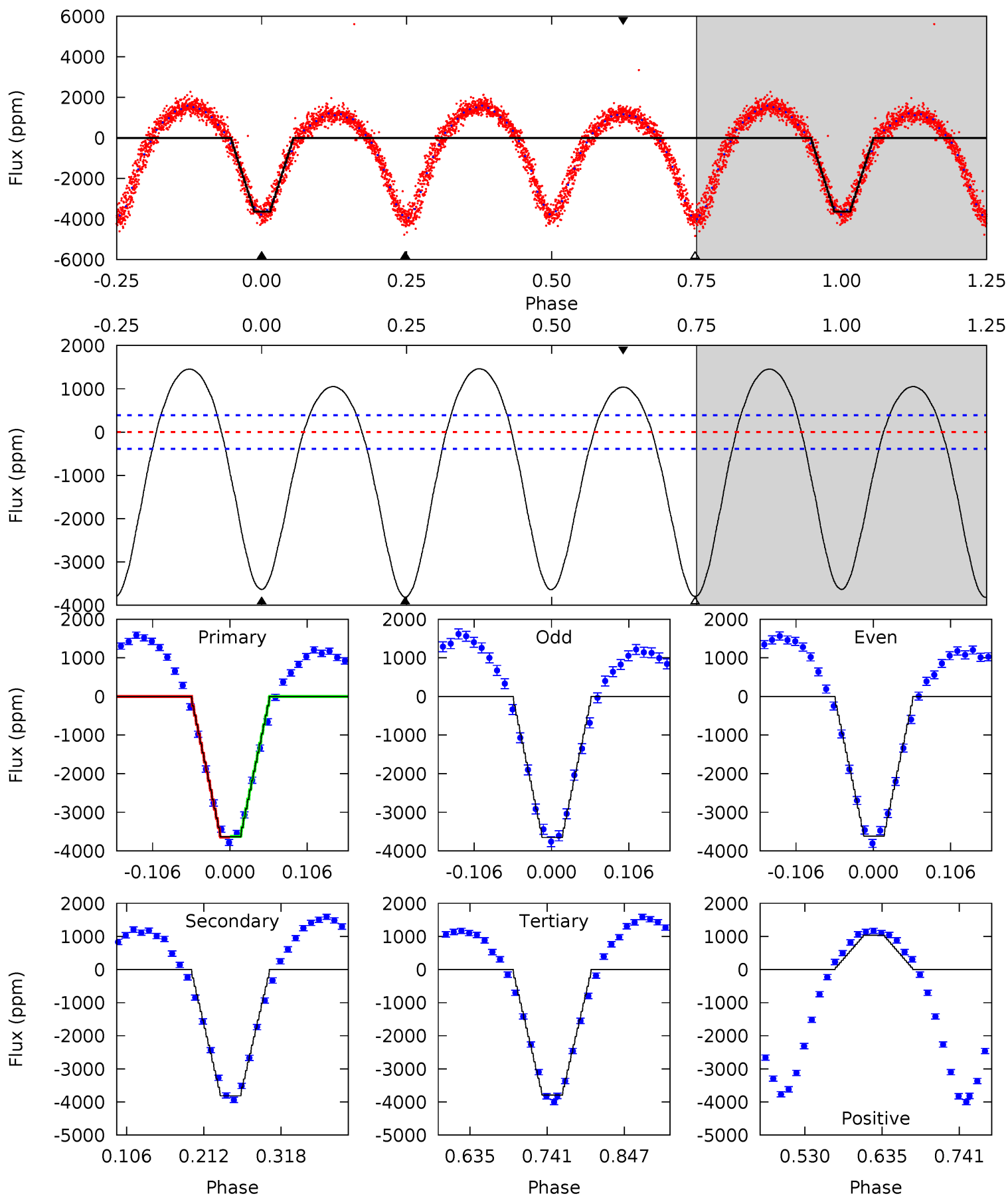
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
138.7	57.1	55.4	6.96	4.55	1.61	13.2	83.4	131.8	1.76	50.2	5.82	0.96	0.05	0



Alt Model-Shift Uniqueness Test

006863683-01, P = 0.501097 Days, E = 131.634095 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
42.6	44.7	44.5	12.2	4.55	1.62	20.9	-1.85	30.4	0.24	32.5	0.20	1.00	0.28	0.14



Stellar Parameters For KIC 006863683

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6234^{+198}_{-220}	$4.237^{+0.258}_{-0.172}$	$-0.680^{+0.300}_{-0.300}$	$1.179^{+0.308}_{-0.308}$	$0.875^{+0.113}_{-0.076}$	$0.752^{+1.007}_{-0.351}$
	+3%/-4%	+6%/-4%	+44%/-44%	+26%/-26%	+13%/-9%	+134%/-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 006863683-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1069 ± 19	$7.42^{+1.46}_{-1.22}$	3818^{+281}_{-306}	4572^{+272}_{-267}	$1.499^{+0.625}_{-0.431}$
Alt.	-3814 ± 85	$7.80^{+1.41}_{-1.31}$	3820^{+303}_{-309}	6165^{+408}_{-340}	$4.875^{+2.138}_{-1.353}$

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

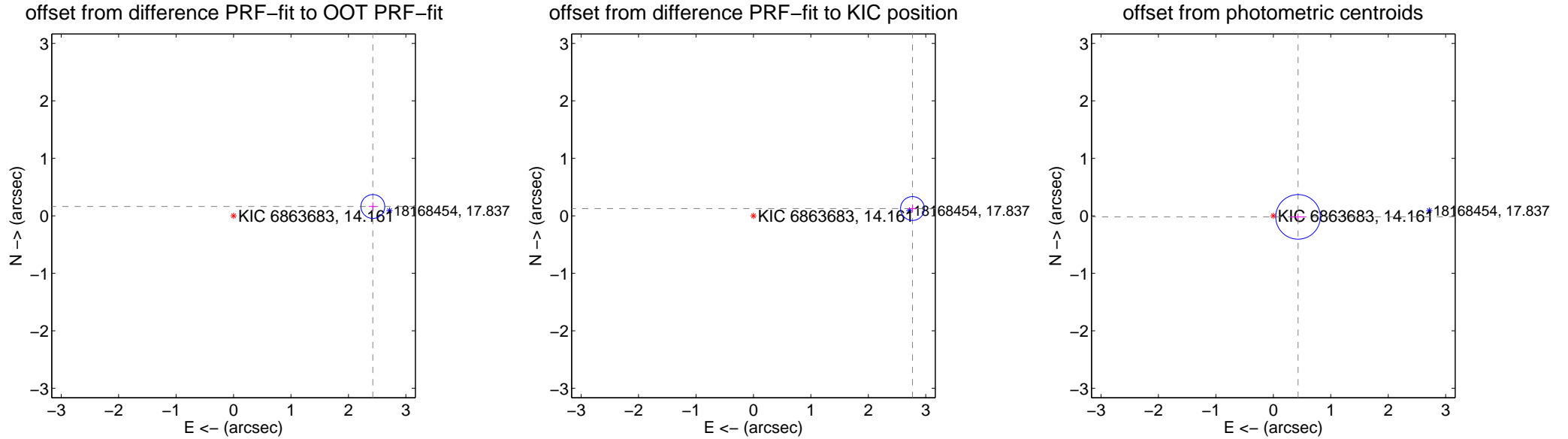
DV Centroid Data

Supplemental centroid analysis for 006863683-01. Kepler magnitude: 14.16. Transit SNR 108.17

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.35 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.430 ± 0.069	35.18	-2.425 ± 0.069	0.162 ± 0.070
PRF-fit source offset from KIC position	2.771 ± 0.069	40.12	-2.769 ± 0.069	0.127 ± 0.070
photometric centroid source offset	0.43 ± 0.13	3.33	-0.43 ± 0.13	-0.02 ± 0.06



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.

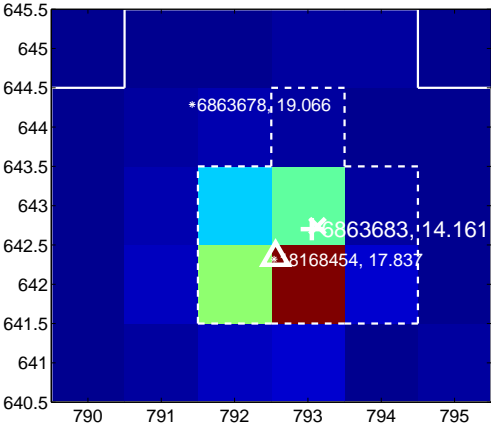
Q9 no difference image



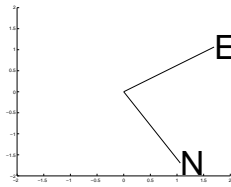
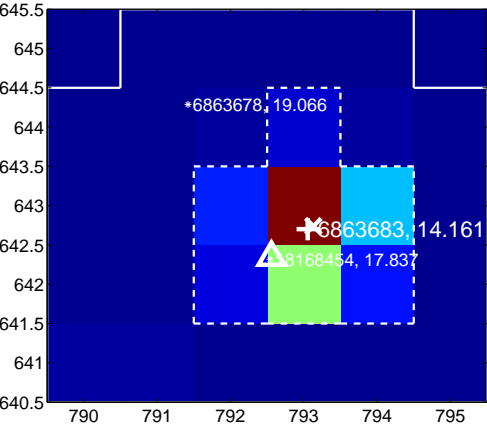
Q9 no OOT image



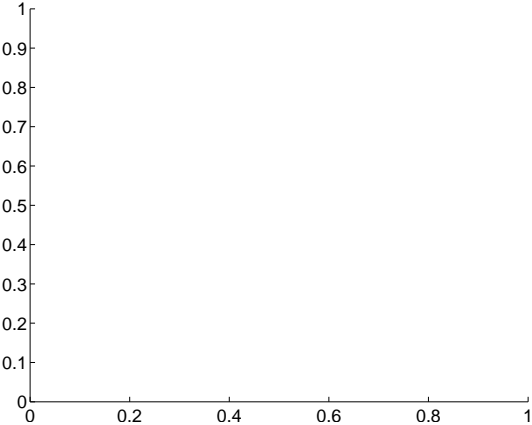
Q10 difference image



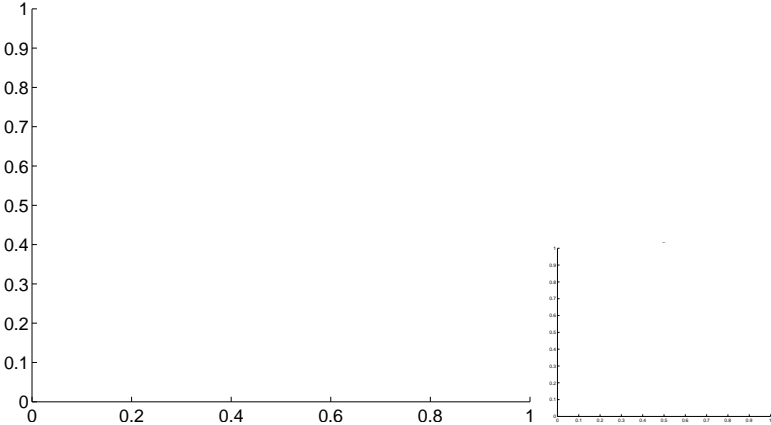
Q10 OOT image



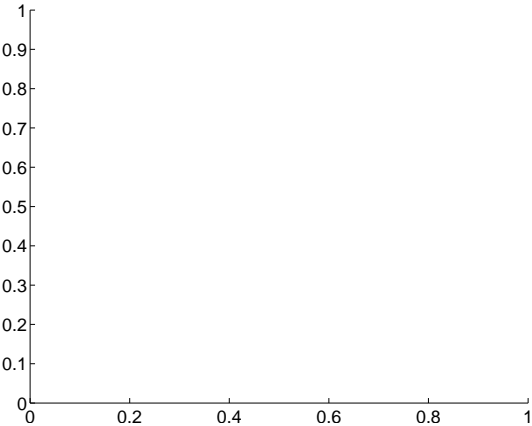
Q11 no difference image



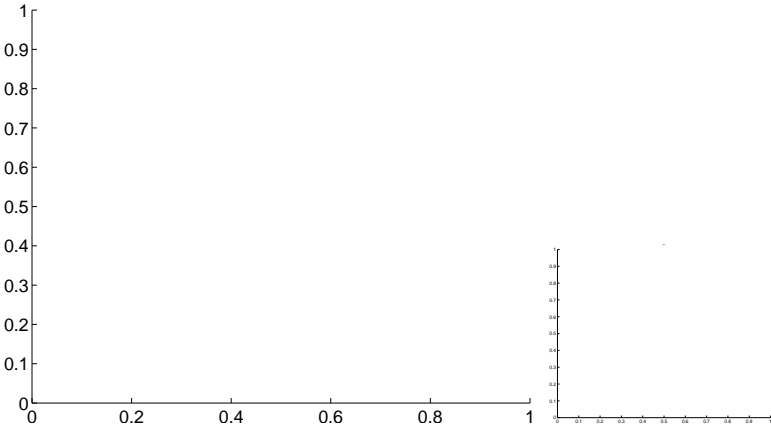
Q11 no OOT image



Q12 no difference image



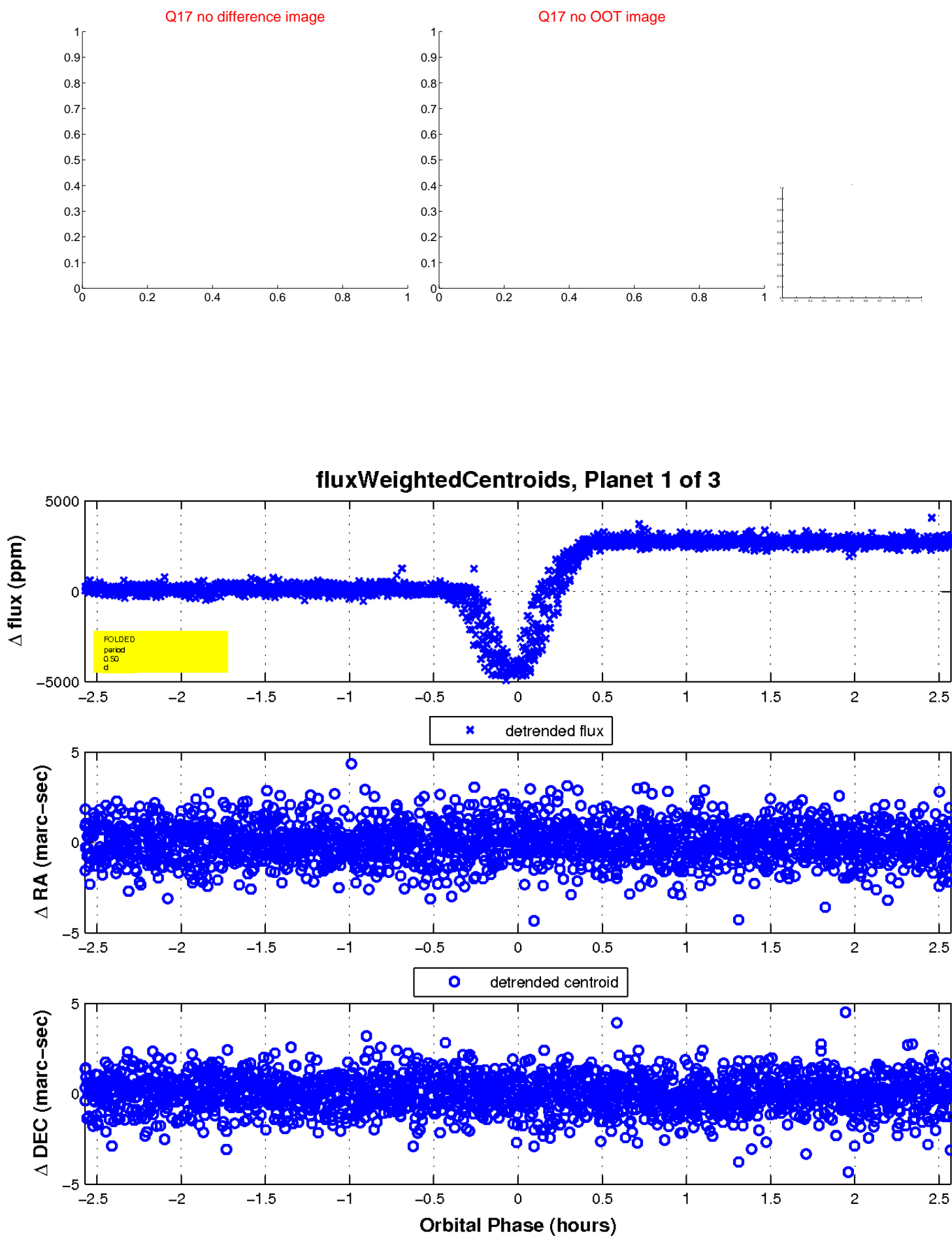
Q12 no OOT image



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

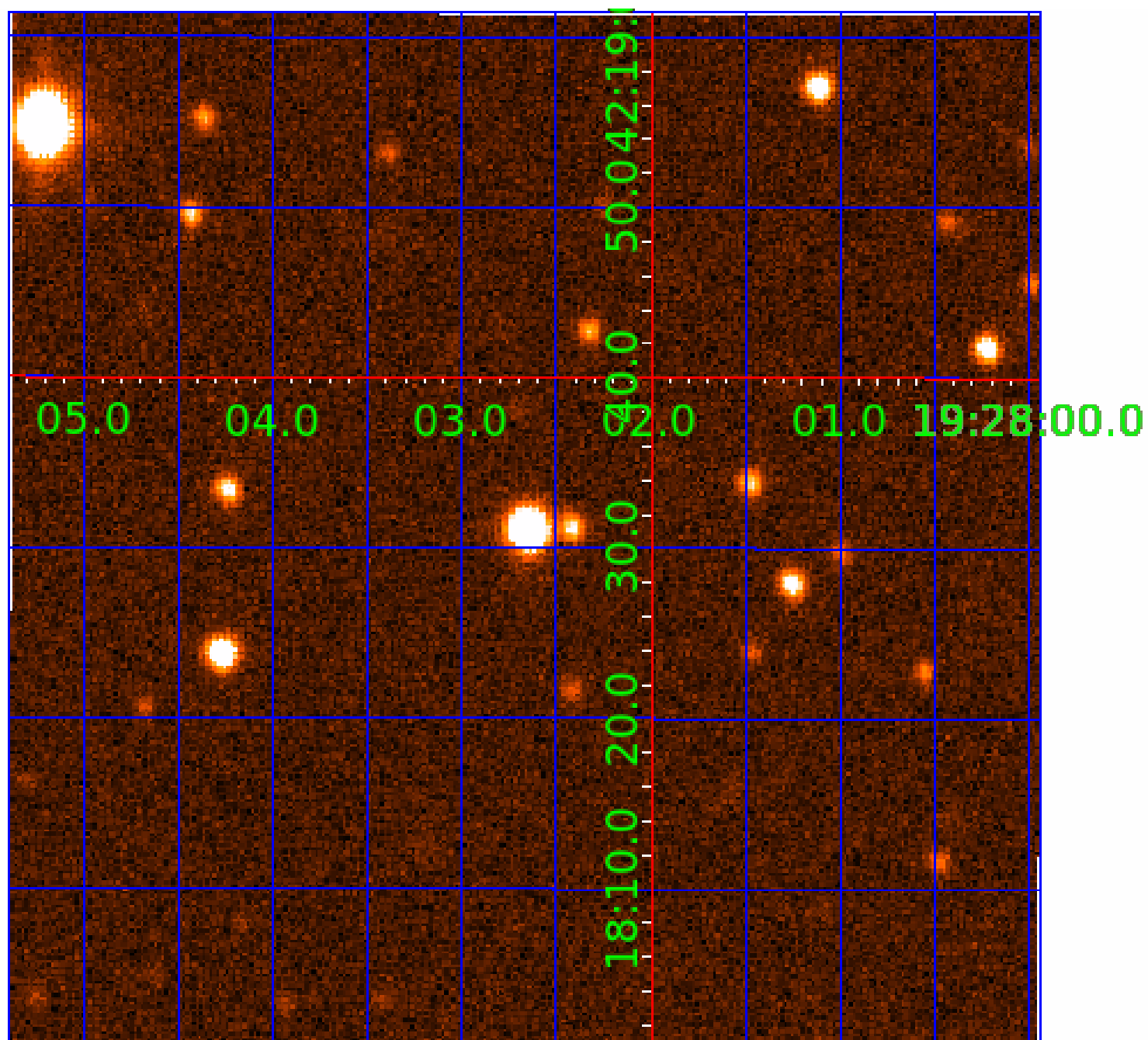


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006863683

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})
006863683-01	OBS	No	0.501096	131.633193	2842.7	0.857	75.6	108.2	1.18	6234	7.54	13481.65
006863683-02	OBS	No	0.501121	131.966779	2783.9	0.760	89.7	90.6	1.18	6234	7.65	13480.75
006863683-03	OBS	No	0.501114	131.726619	3741.0	1.500	111.1	-1.0	1.18	6234	7.28	13480.98

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006863683-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_FEW_DIFFS
006863683-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_FEW_DIFFS
006863683-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_NOFITS

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

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

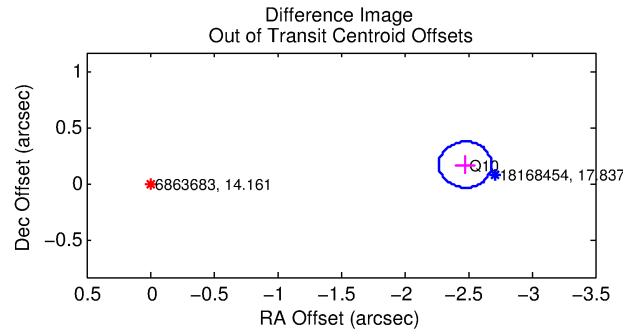
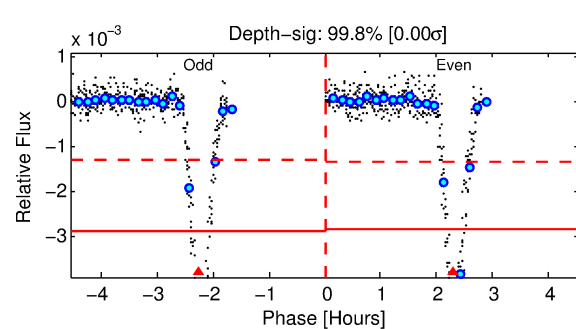
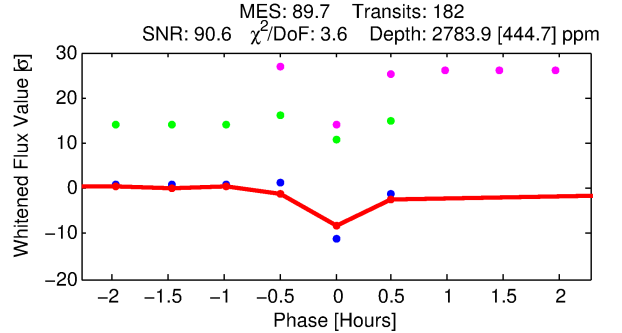
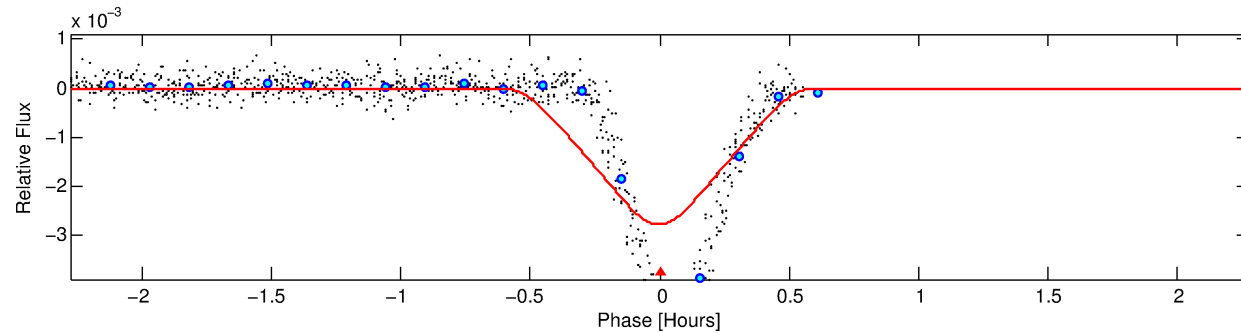
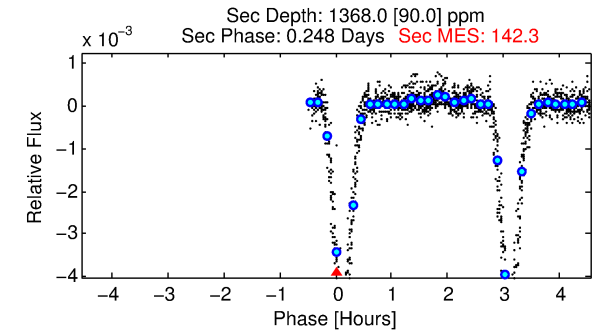
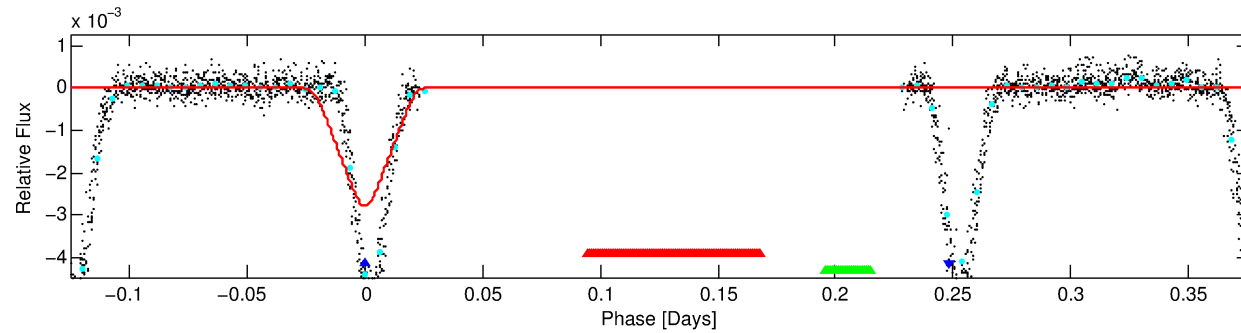
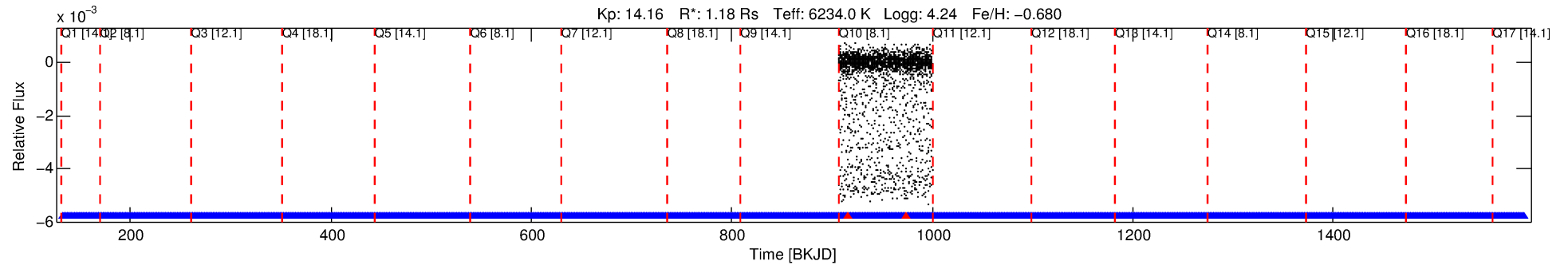
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006863683-02

No Significant Match Found

DV One-Page Summary

KIC: 6863683 Candidate: 2 of 3 Period: 0.501 d



DV Fit Results:

Period = 0.50112 [0.00002] d
Epoch = 131.9668 [0.0003] BKJD
Rp/R* = 0.0594 [0.0072]
a/R* = 2.91 [0.77]
b = 0.91 [0.07]
Seff = 13480.75 [6134.99]
Teq = 2748 [313] K
Rp = 7.65 [2.20] Re
a = 0.0118 [0.0031] AU
Ag = 1.80 [0.90] [0.89σ]
Teff = 4917 [354] K [4.59σ]

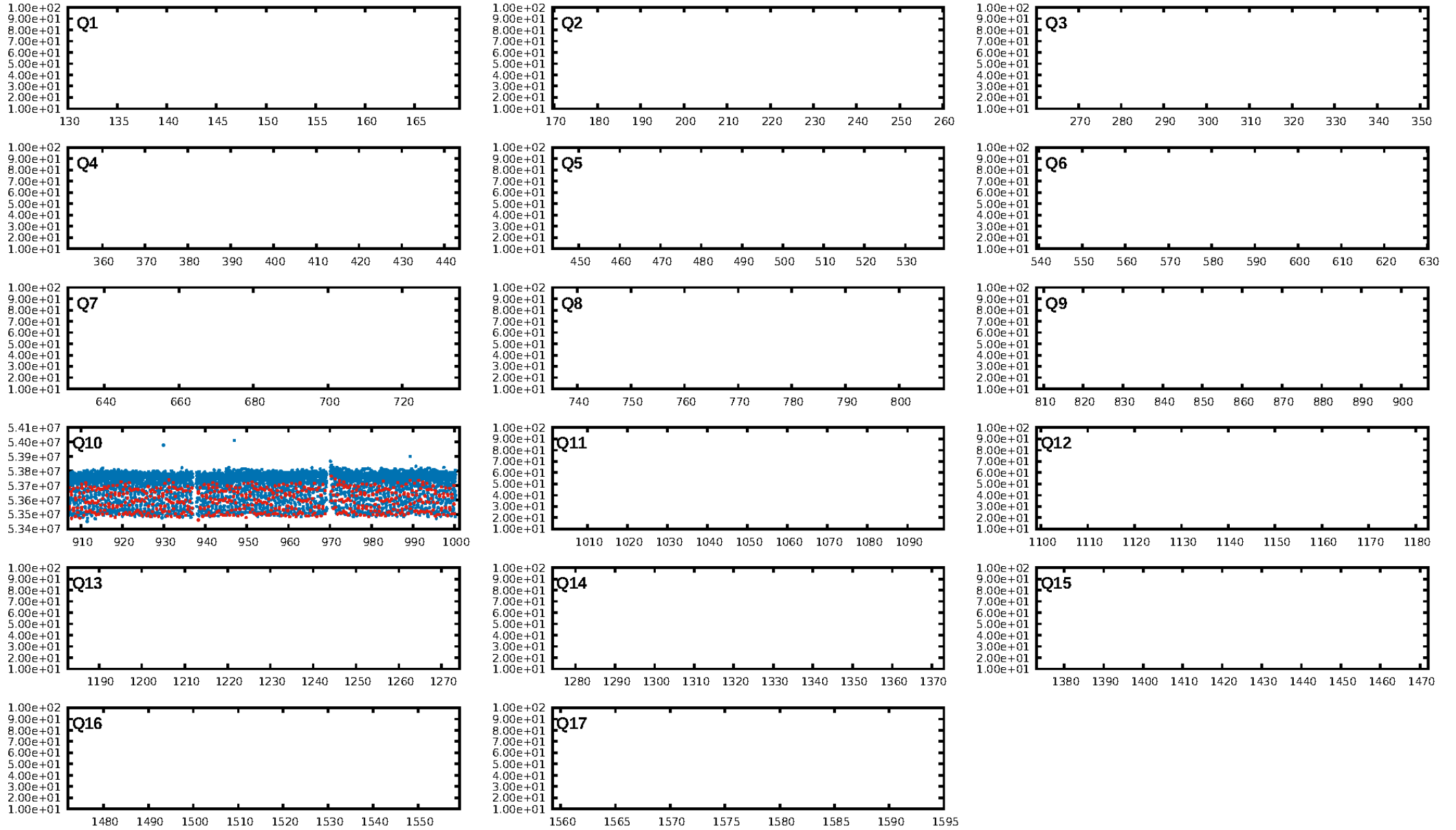
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGoF-sig: 0.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 0.99 [180/182]
GhostDiagnostic-chr: 14.78
Centroid-sig: N/A
Centroid-so: 0.508 arcsec [3.71σ]
OotOffset-rm: 2.484 arcsec [36.32σ]
KicOffset-rm: 2.826 arcsec [41.31σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
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DiffImageOverlap-fno: 0.00 [0/1]

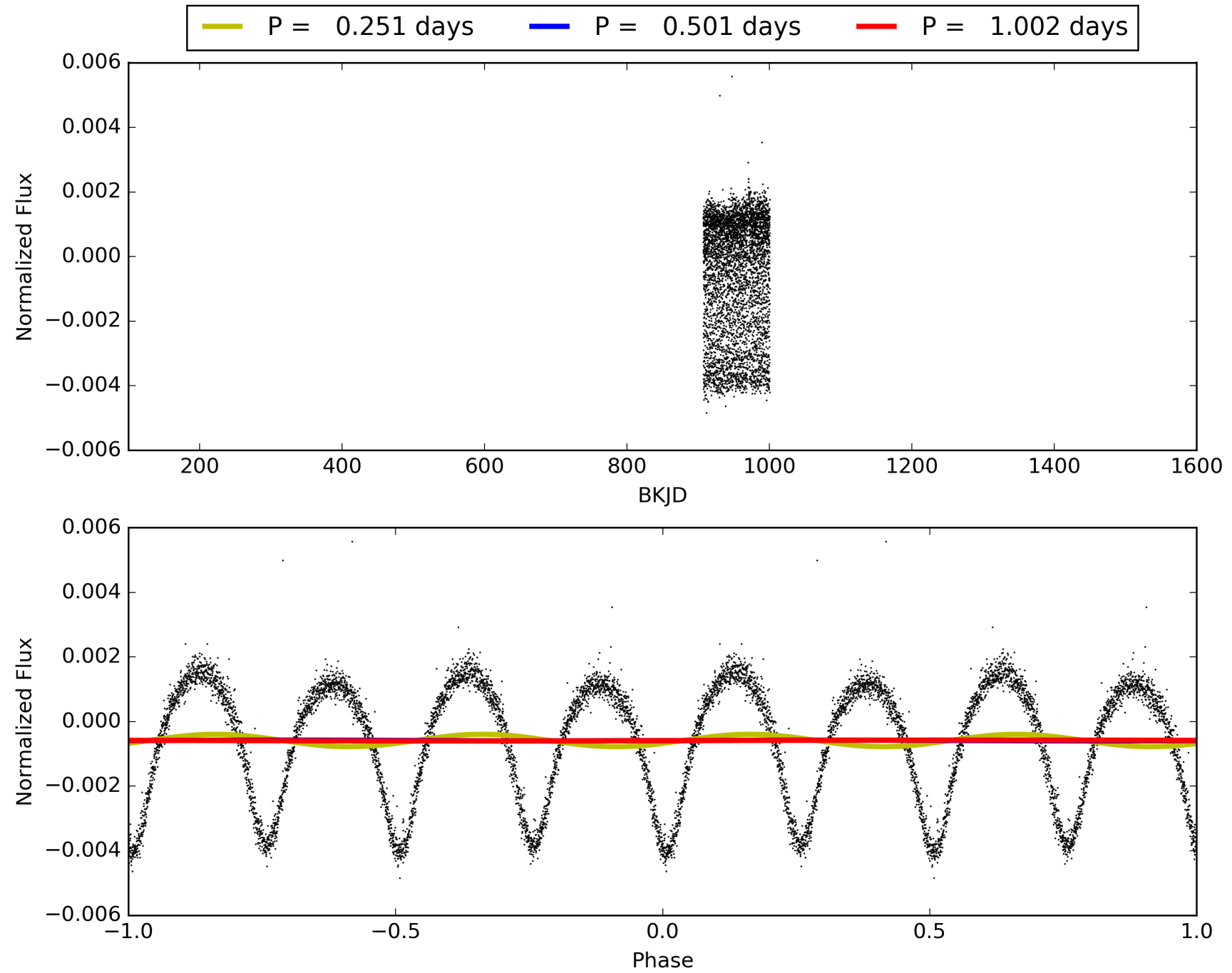
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:09:56 Z

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

TCE 006863683-02, PDC Light Curves

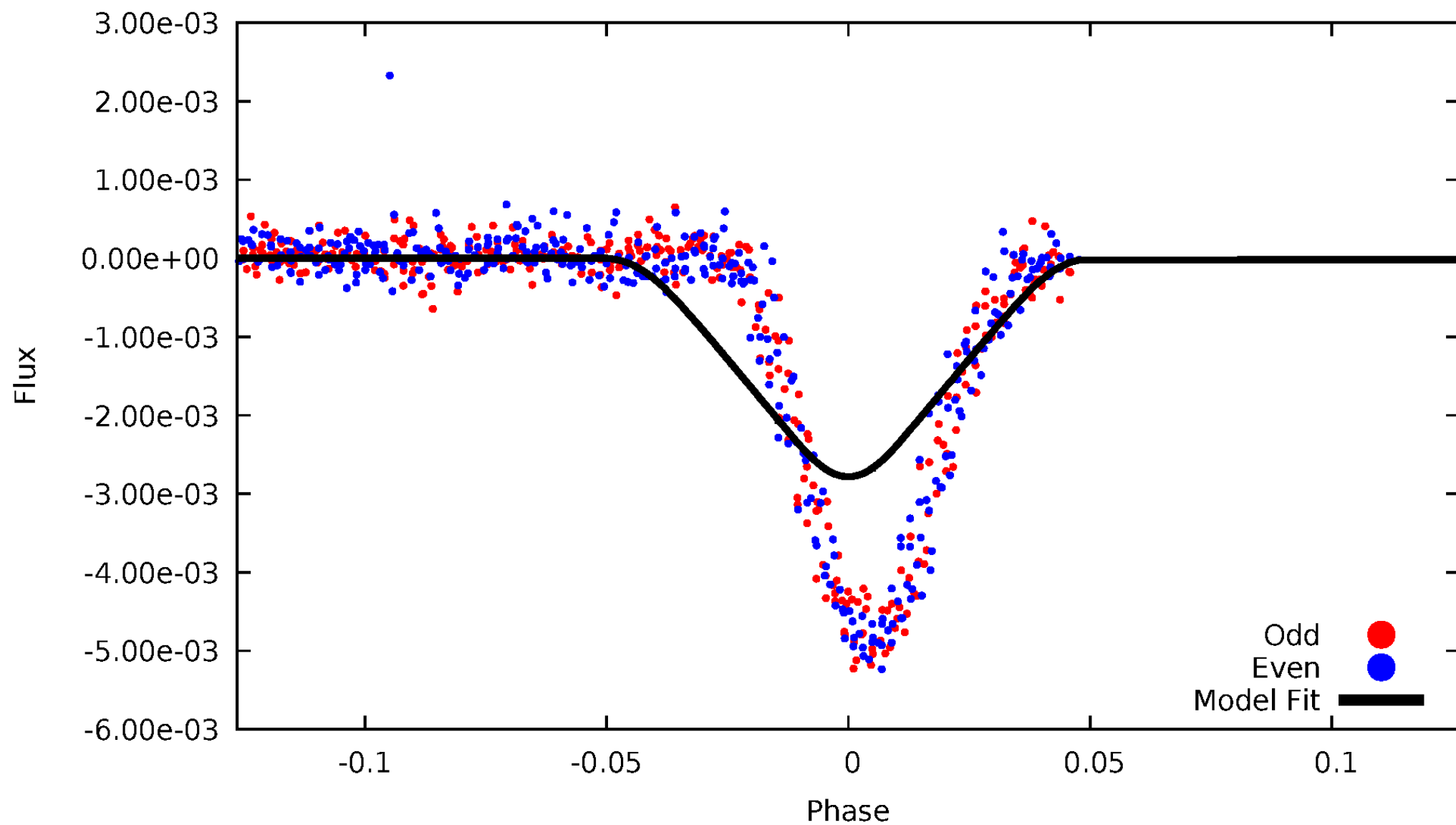


TCE 006863683-02



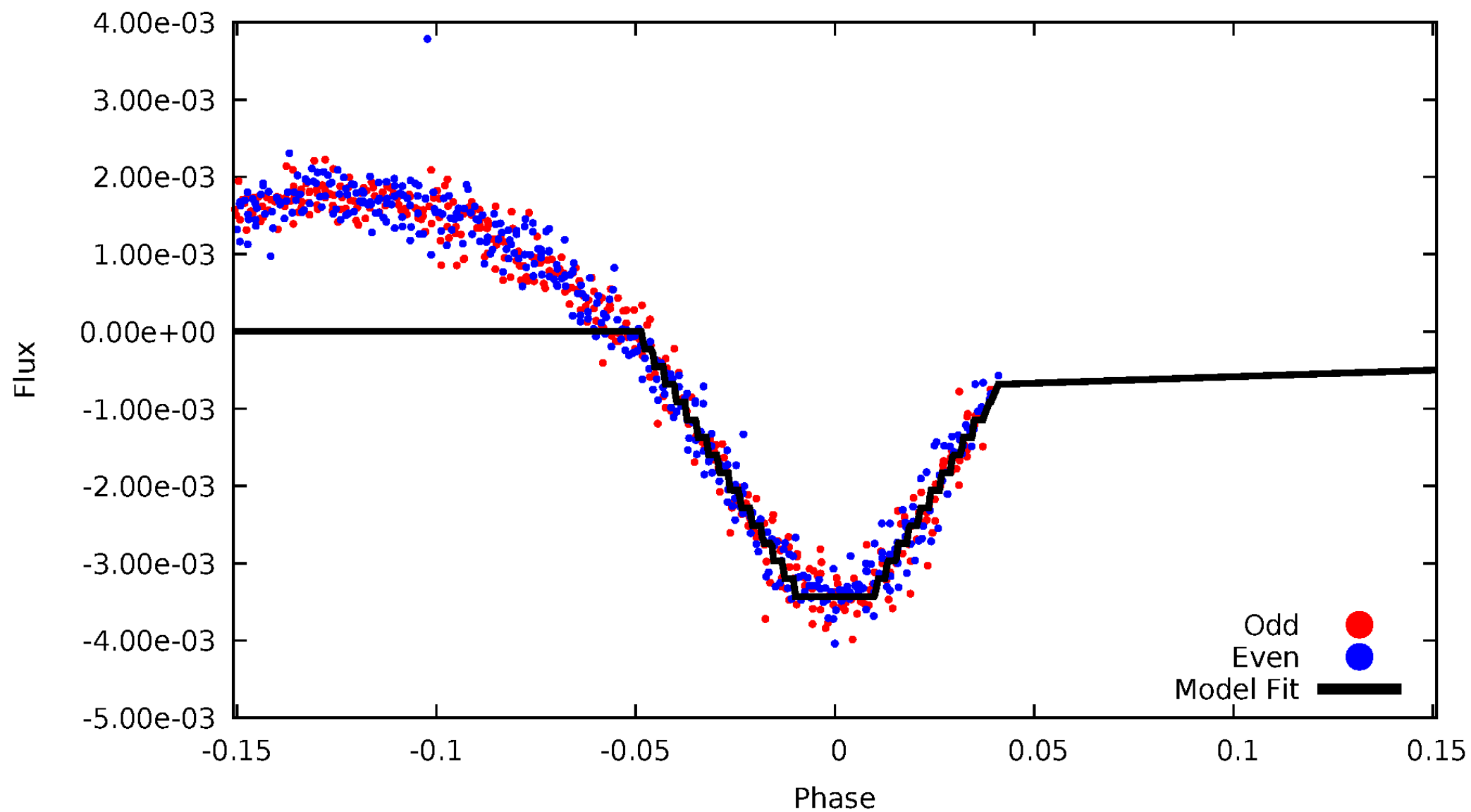
DV Odd/Even

TCE 006863683-02



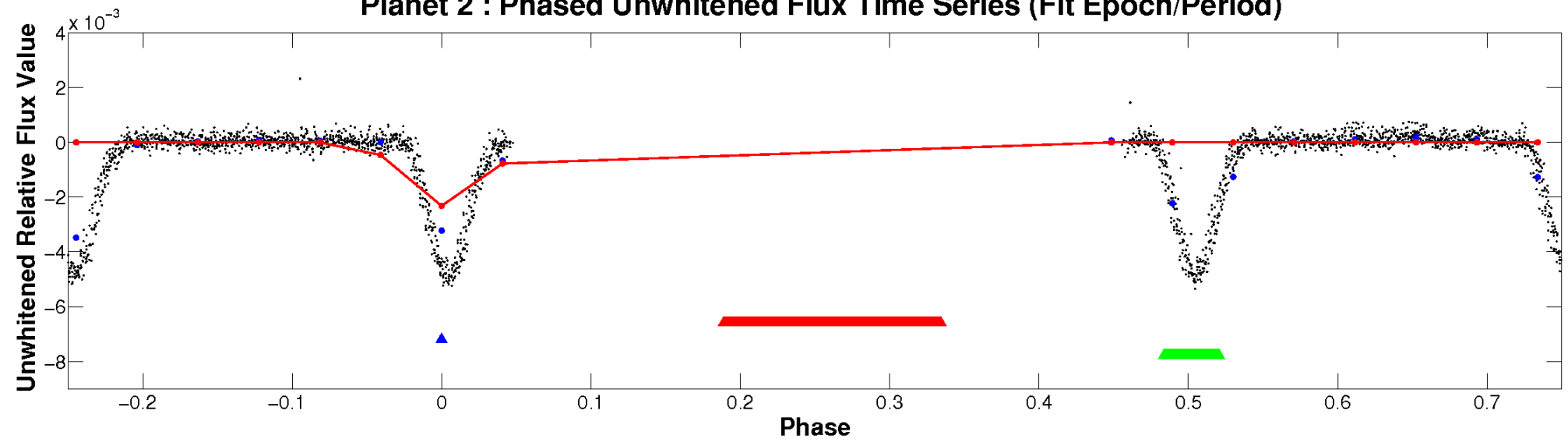
ALT Odd/Even

TCE 006863683-02

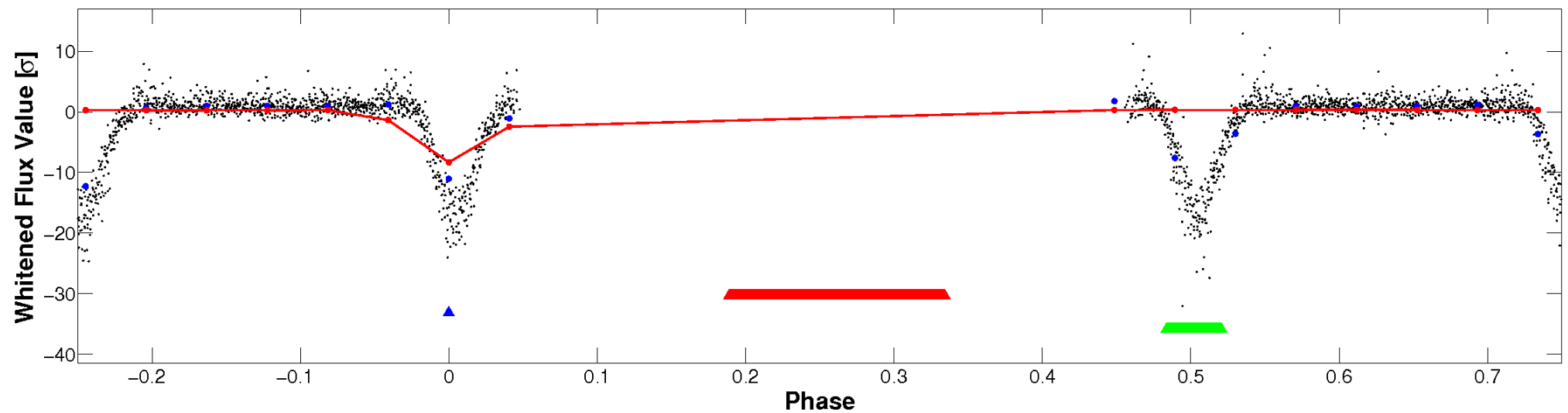


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

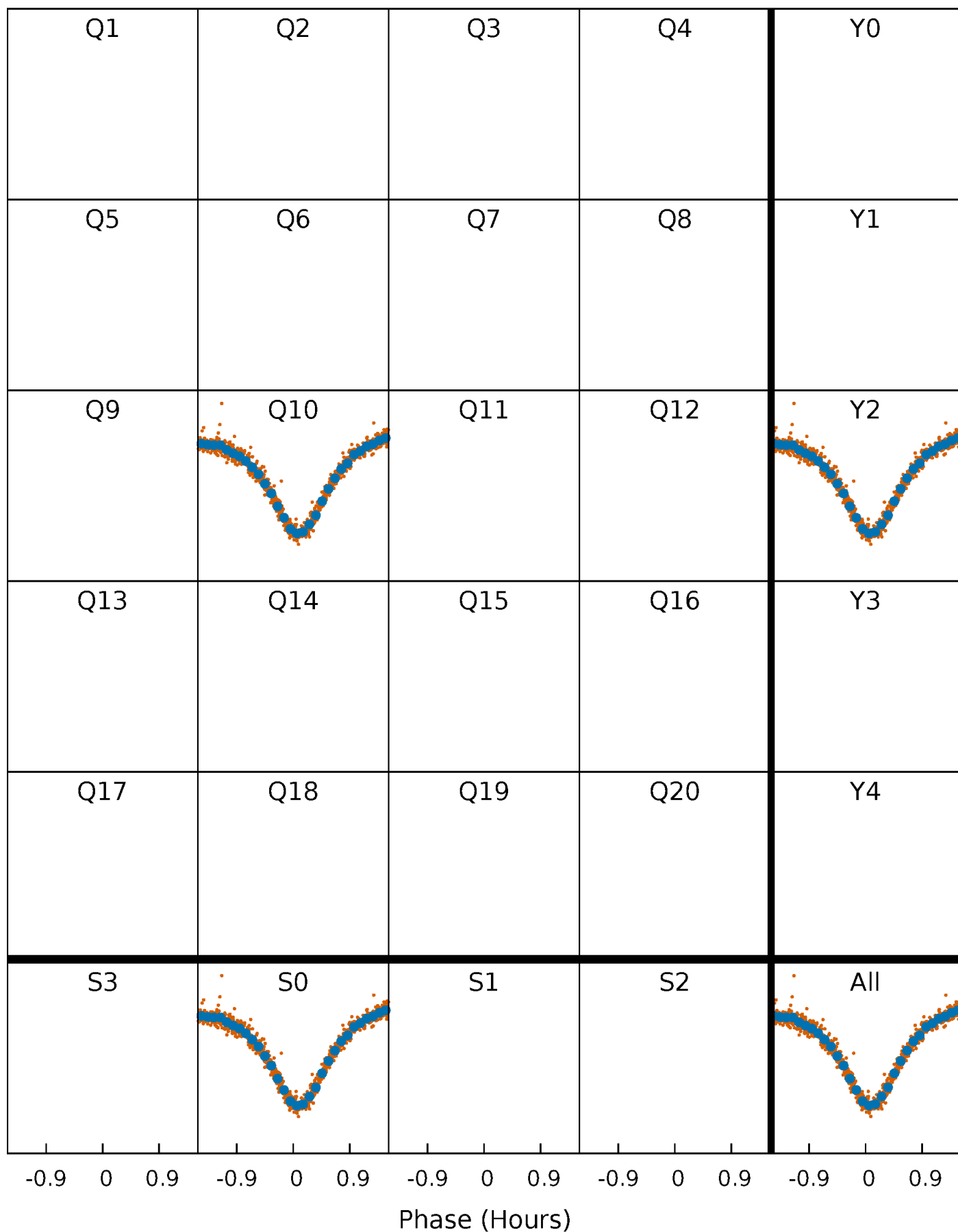


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



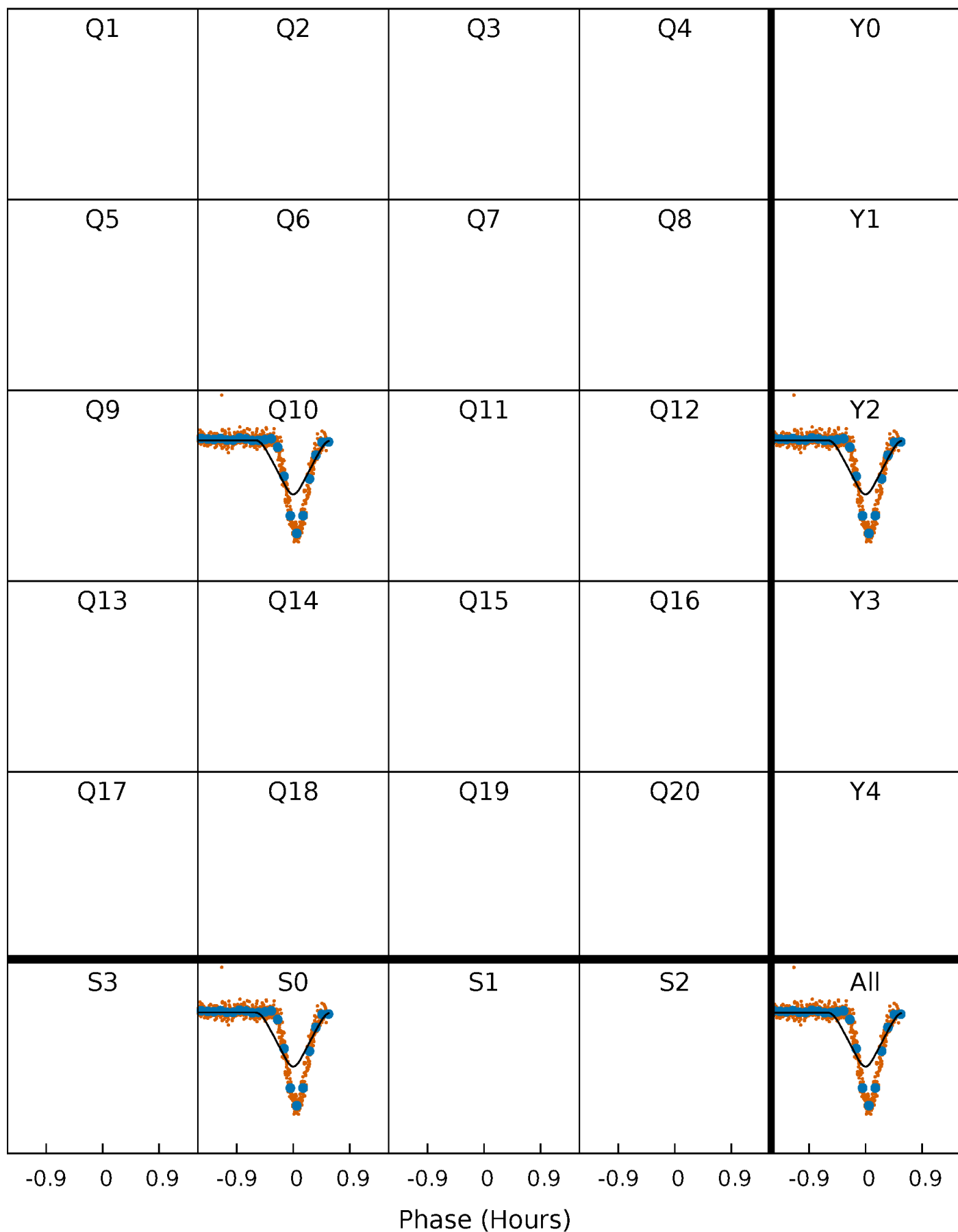
PDC Quarter-Phased Transit Curves

TCE 006863683-02 $P = 0.501121$ Days $T_0 = 131.966779$ (BKJD)



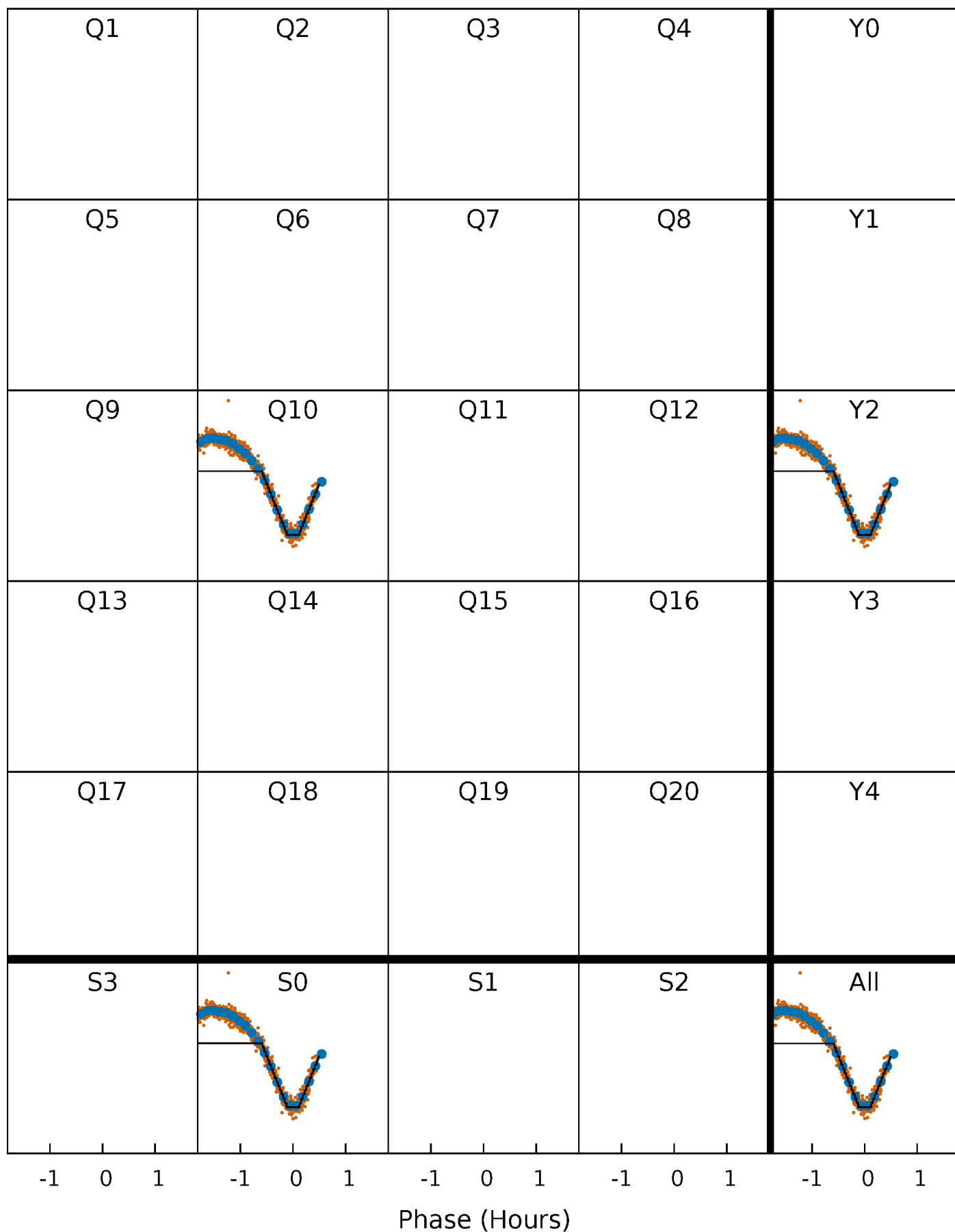
DV Quarter-Phased Transit Curves

TCE 006863683-02 $P = 0.501121$ Days $T_0 = 131.966779$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

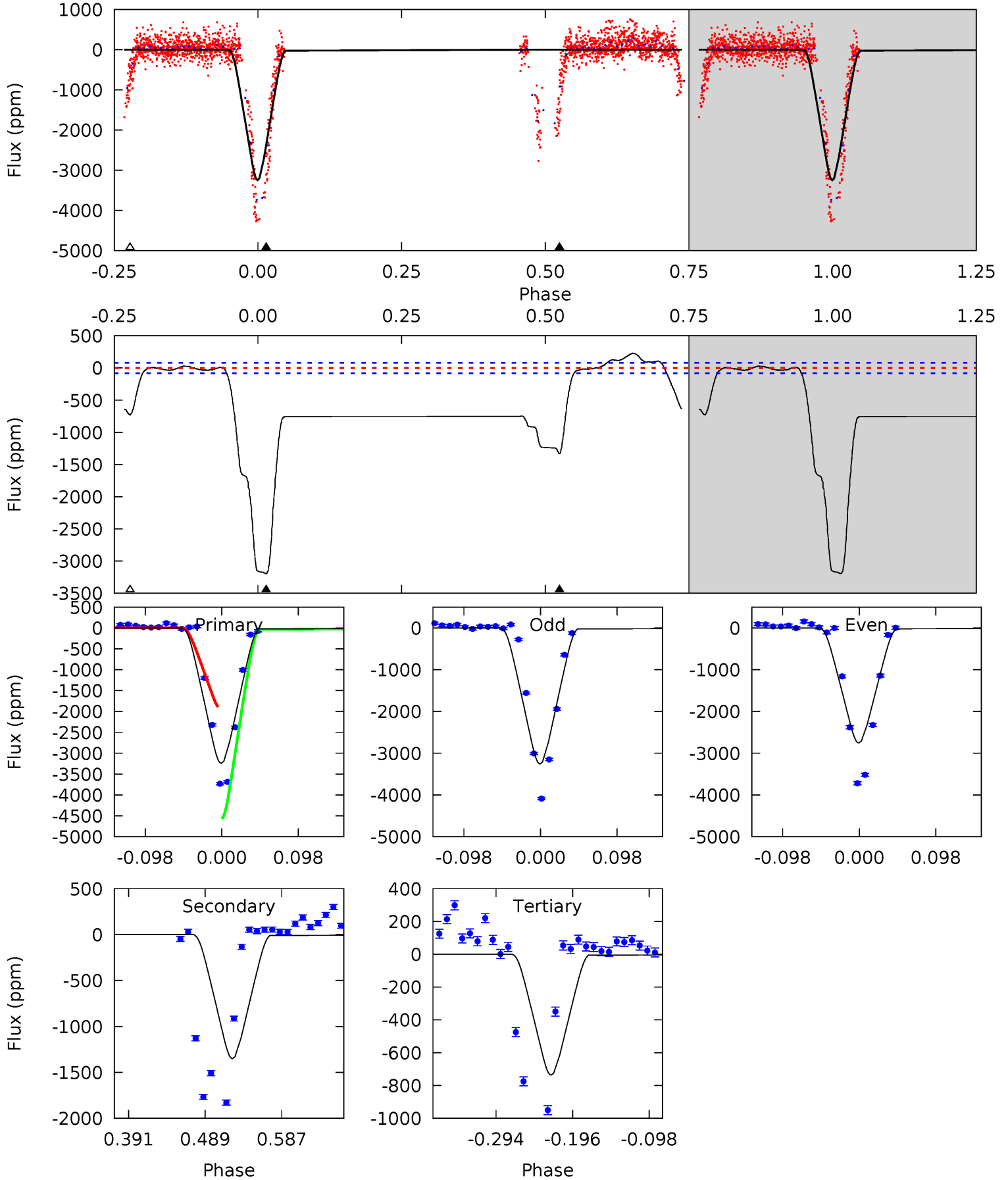
TCE 006863683-02 P= 0.501123 Days $T_0=131.966744$ (BKJD)



DV Model-Shift Uniqueness Test

006863683-02, P = 0.501121 Days, E = 131.966779 Days

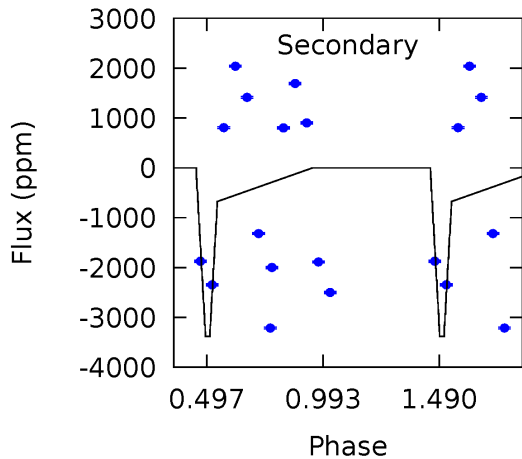
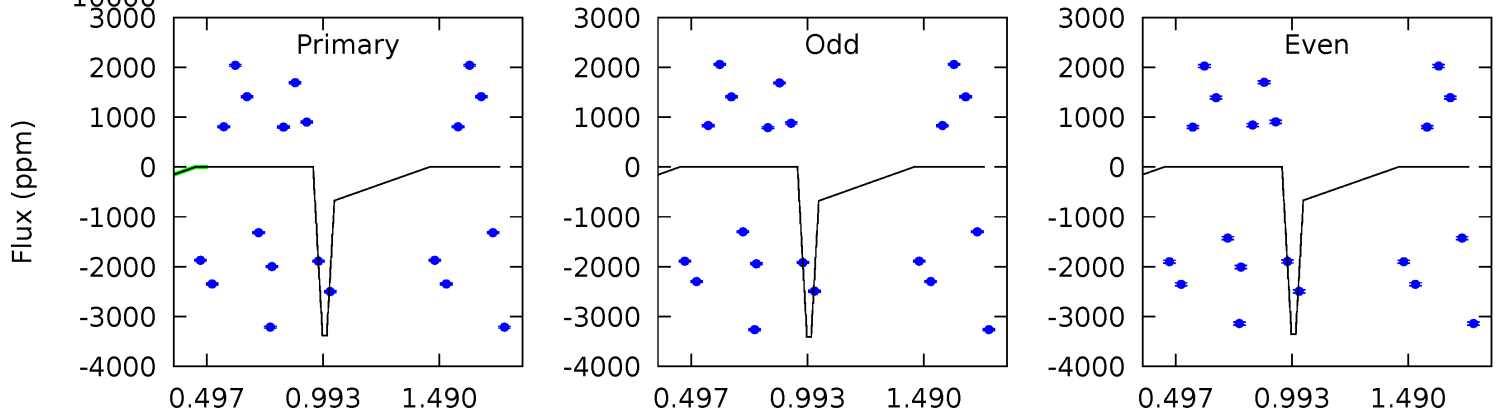
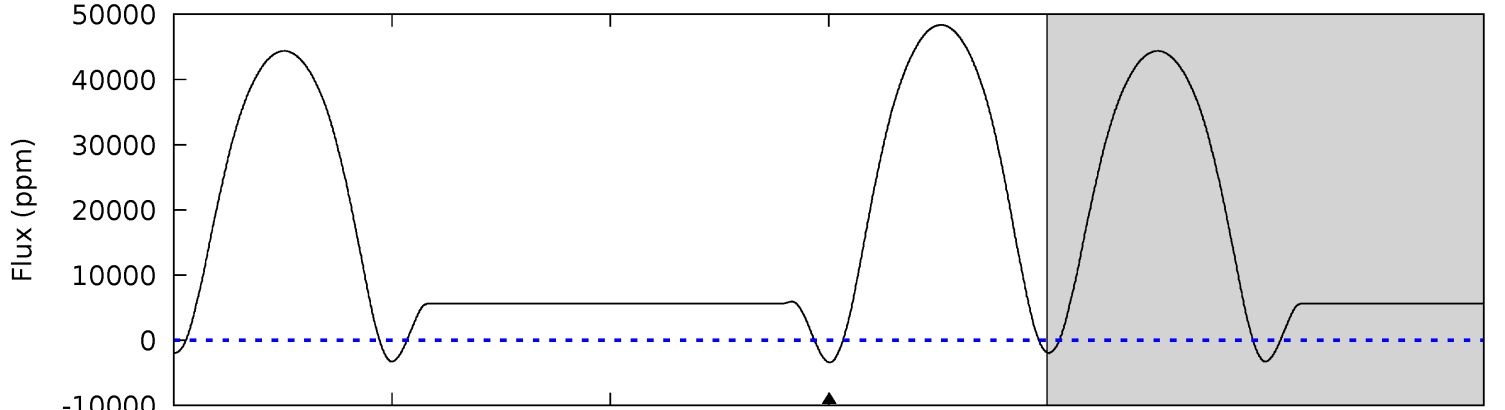
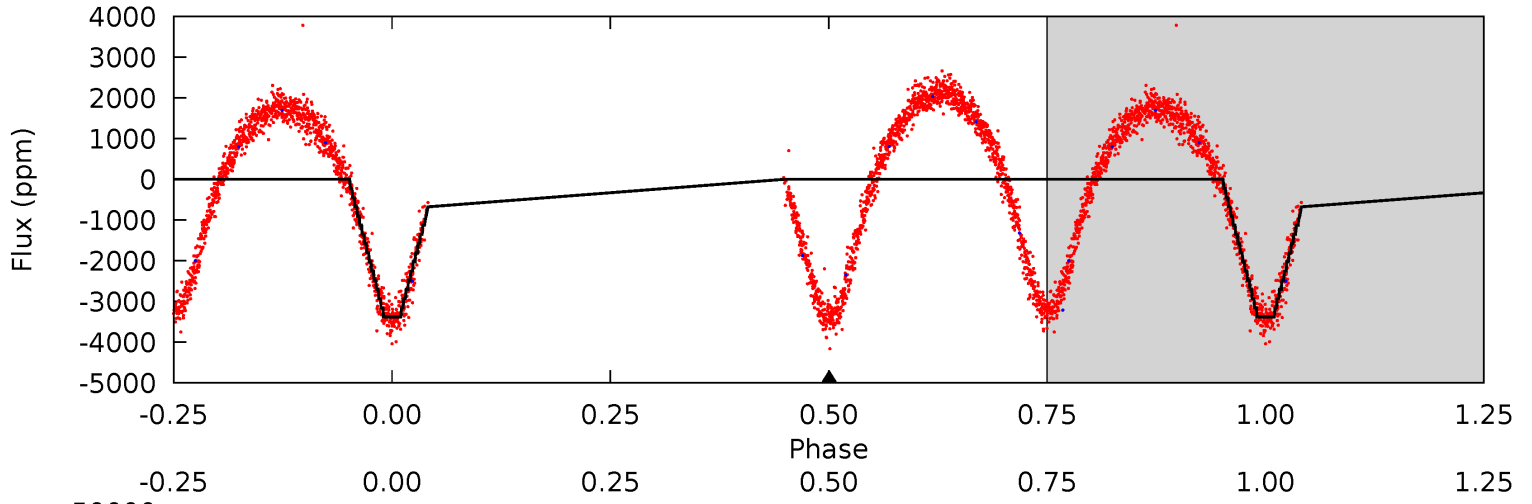
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
178.4	74.3	40.5	0	4.57	1.66	12.2	137.9	178.4	33.8	74.3	13.4	0.96	0.07	0



Alt Model-Shift Uniqueness Test

006863683-02, P = 0.501123 Days, E = 131.966744 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
232.0	232.0	0	0	4.22	0.68	198.1	232.0	232.0	232.0	232.0	0.75	1.00	0.93	0.94



Stellar Parameters For KIC 006863683

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6234^{+198}_{-220}	$4.237^{+0.258}_{-0.172}$	$-0.680^{+0.300}_{-0.300}$	$1.179^{+0.308}_{-0.308}$	$0.875^{+0.113}_{-0.076}$	$0.752^{+1.007}_{-0.351}$
	+3%/-4%	+6%/-4%	+44%/-44%	+26%/-26%	+13%/-9%	+134%/-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 006863683-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1330 ± 18	$7.54^{+1.41}_{-1.33}$	3821^{+282}_{-298}	4790^{+366}_{-292}	$1.809^{+0.815}_{-0.533}$
Alt.	-3381 ± 15	$7.44^{+1.60}_{-1.36}$	3839^{+278}_{-356}	6098^{+523}_{-390}	$4.791^{+2.355}_{-1.542}$

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

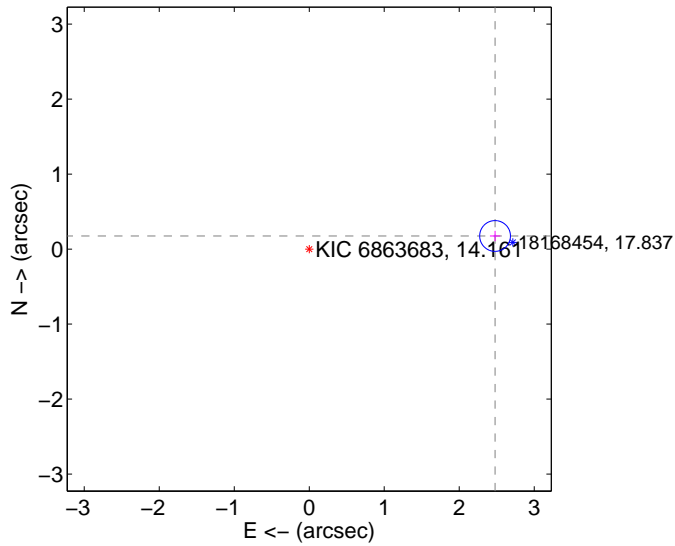
Supplemental centroid analysis for 006863683-02. Kepler magnitude: 14.16. Transit SNR 90.61

There are 1 quarters with good PRF difference image offsets

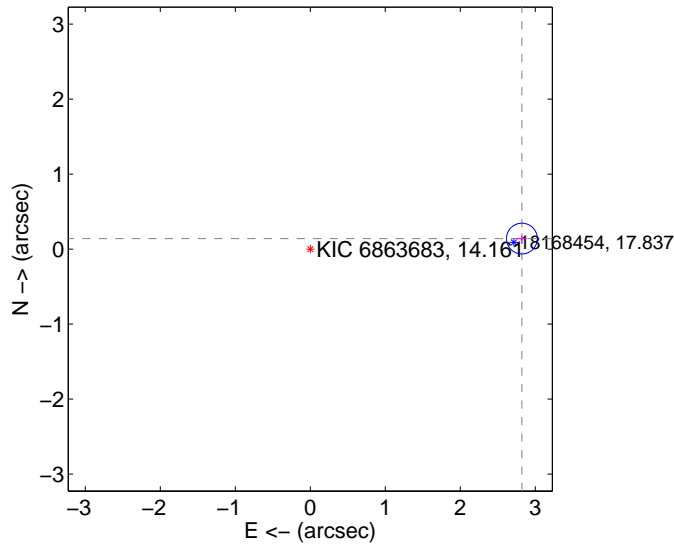
The direct PRF centroid is offset from the target star catalog position by about 0.35 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.484 ± 0.068	36.32	-2.478 ± 0.068	0.175 ± 0.069
PRF-fit source offset from KIC position	2.826 ± 0.068	41.31	-2.822 ± 0.068	0.140 ± 0.069
photometric centroid source offset	0.51 ± 0.14	3.71	-0.50 ± 0.14	0.09 ± 0.06

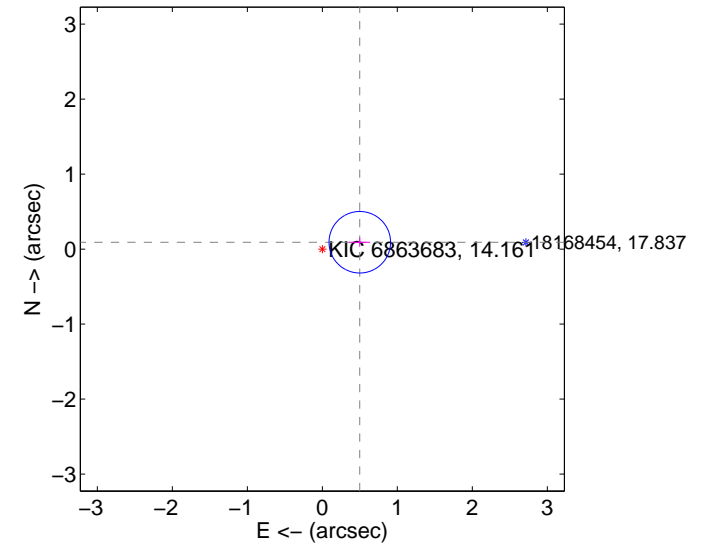
offset from difference PRF-fit to OOT PRF-fit



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.

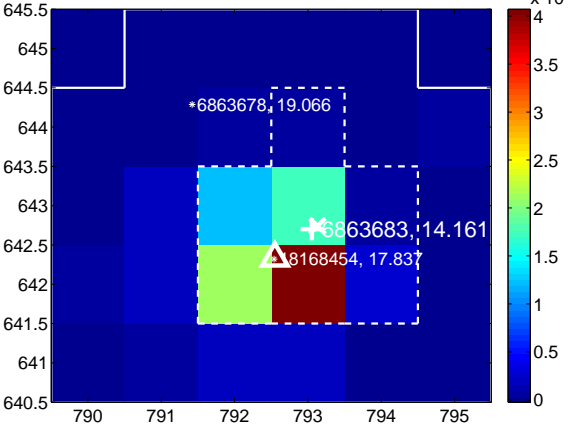
Q9 no difference image



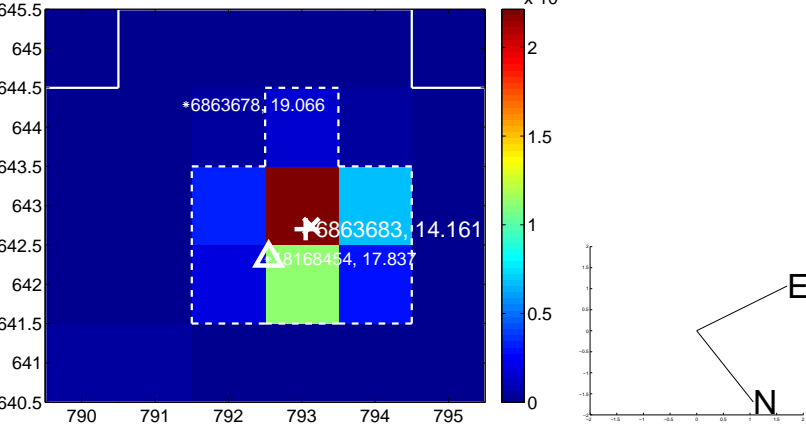
Q9 no OOT image



Q10 difference image



Q10 OOT image



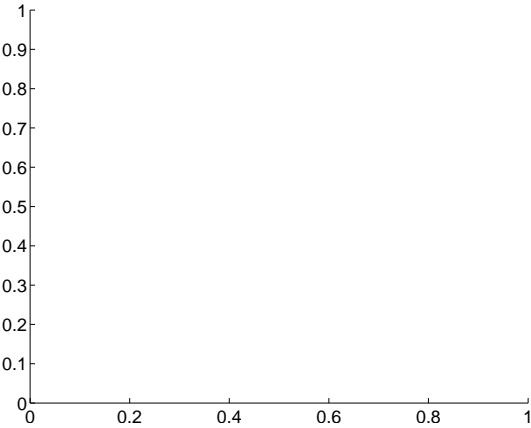
Q11 no difference image



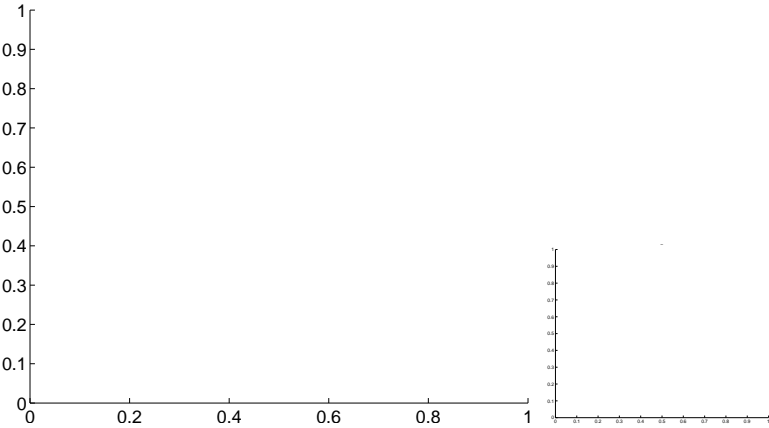
Q11 no OOT image



Q12 no difference image



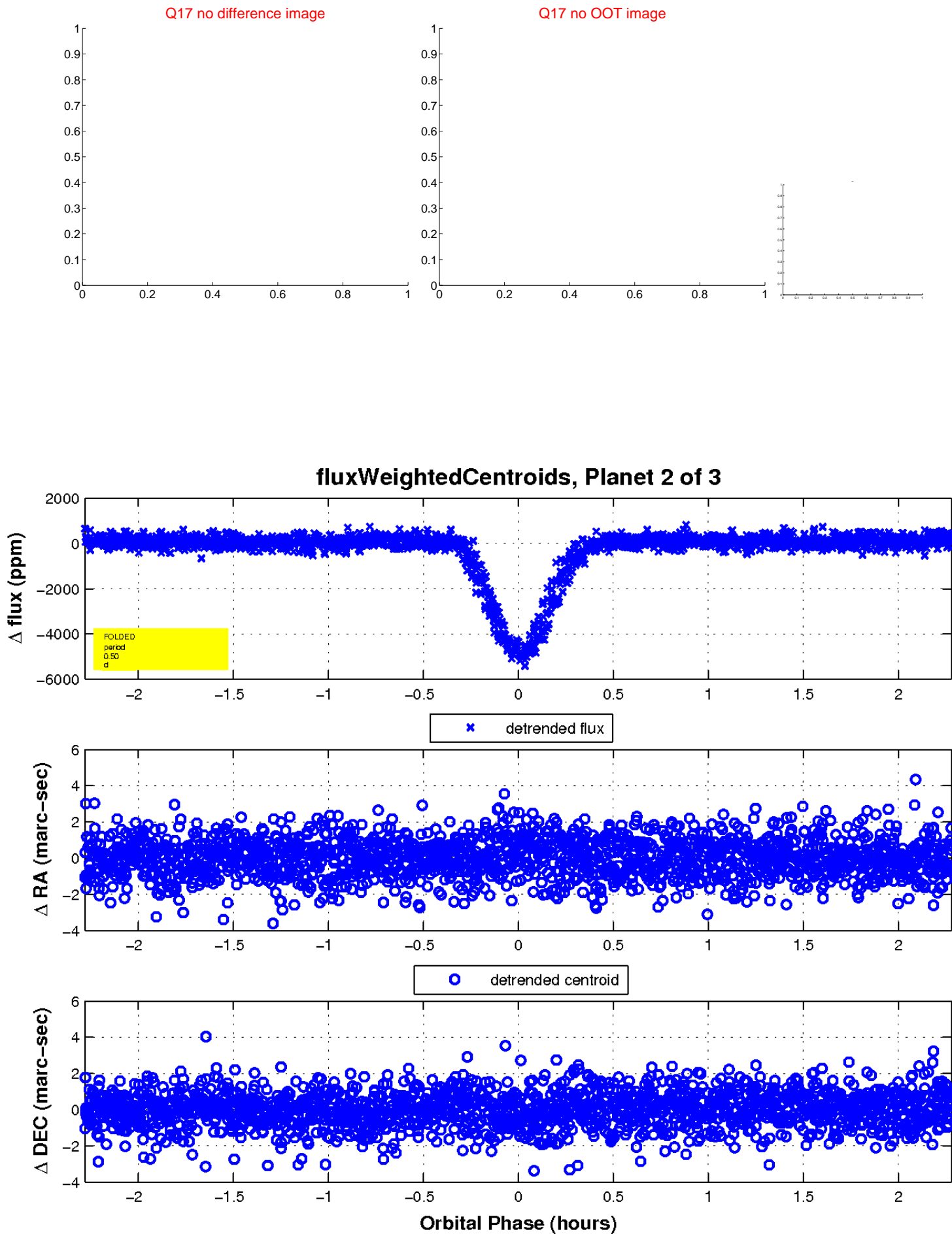
Q12 no OOT image



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

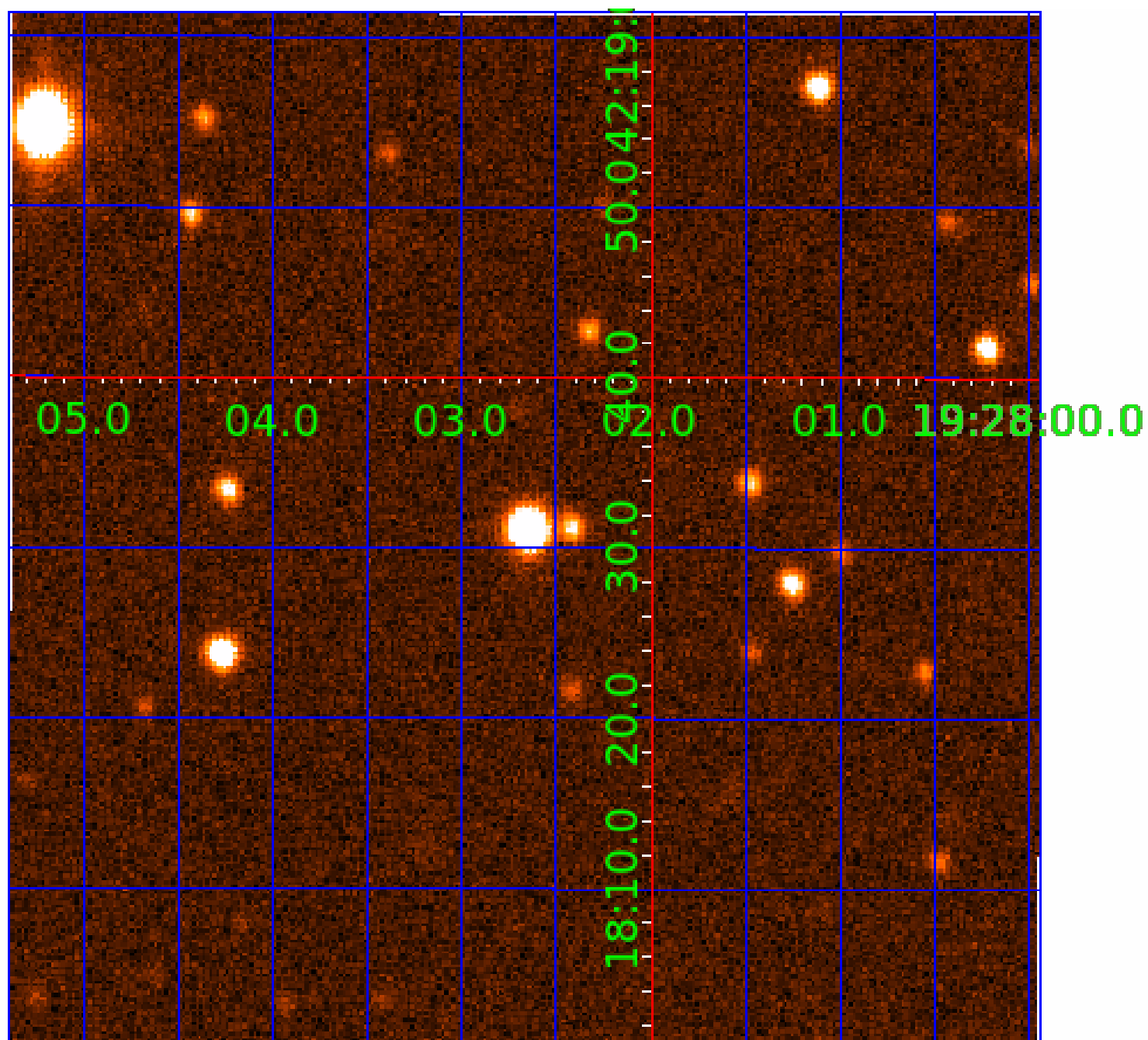


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006863683

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})
006863683-01	OBS	No	0.501096	131.633193	2842.7	0.857	75.6	108.2	1.18	6234	7.54	13481.65
006863683-02	OBS	No	0.501121	131.966779	2783.9	0.760	89.7	90.6	1.18	6234	7.65	13480.75
006863683-03	OBS	No	0.501114	131.726619	3741.0	1.500	111.1	-1.0	1.18	6234	7.28	13480.98

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006863683-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_FEW_DIFFS
006863683-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_FEW_DIFFS
006863683-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_NOFITS

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

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

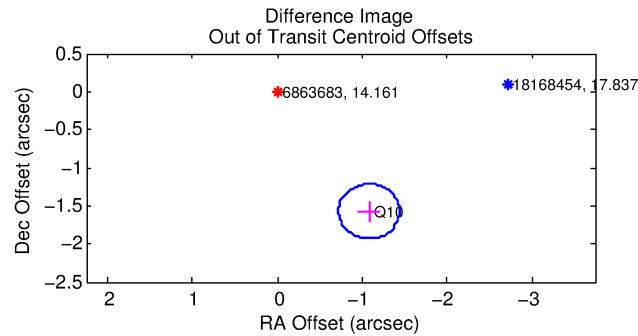
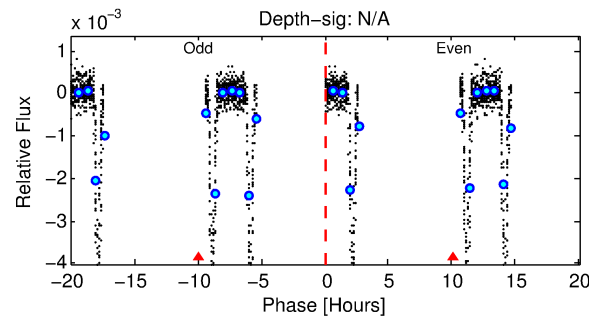
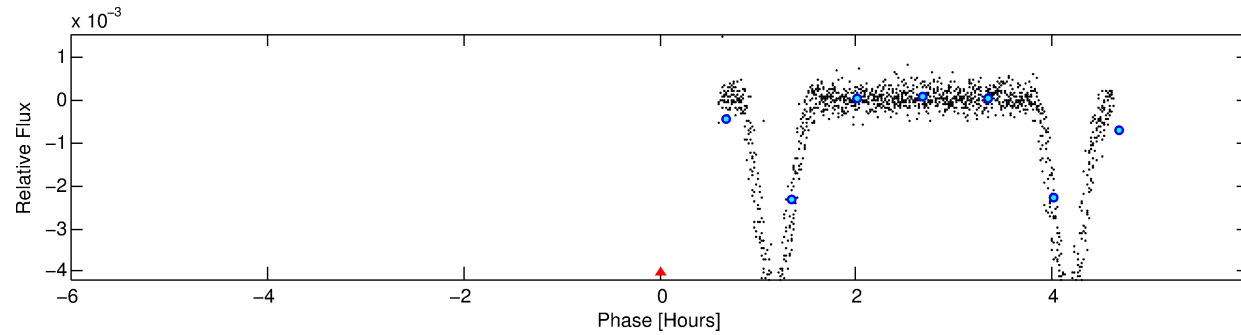
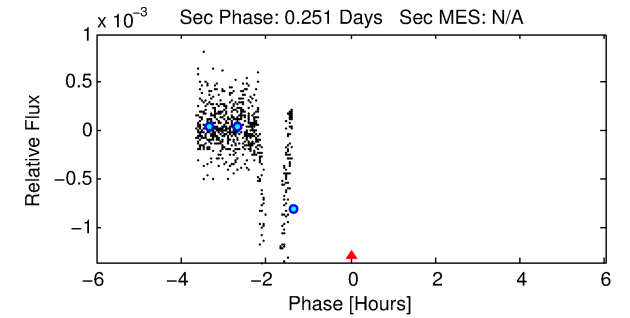
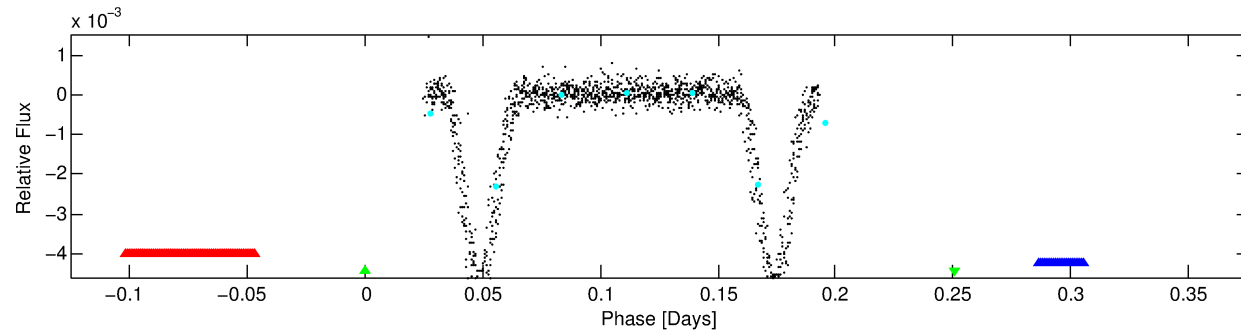
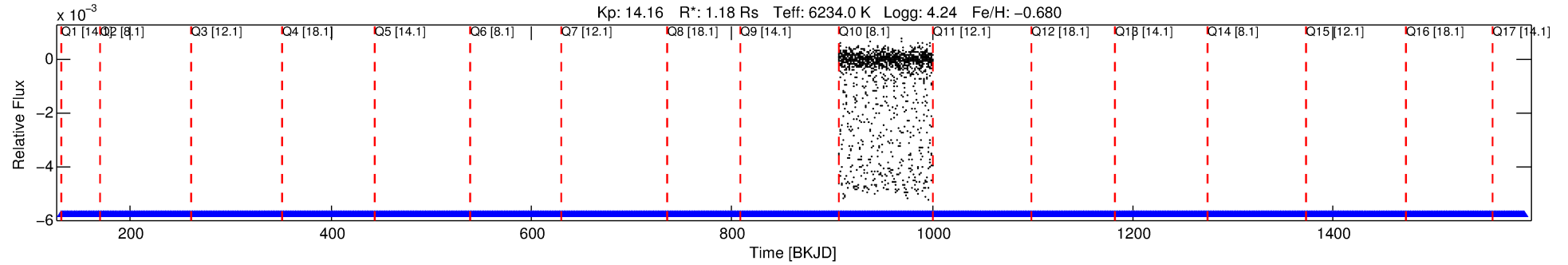
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006863683-03

No Significant Match Found

DV One-Page Summary

KIC: 6863683 Candidate: 3 of 3 Period: 0.501 d



TPS TCE Results:

Period = 0.50111 d
Epoch = 131.7266 BKJD

DV fit results are unavailable

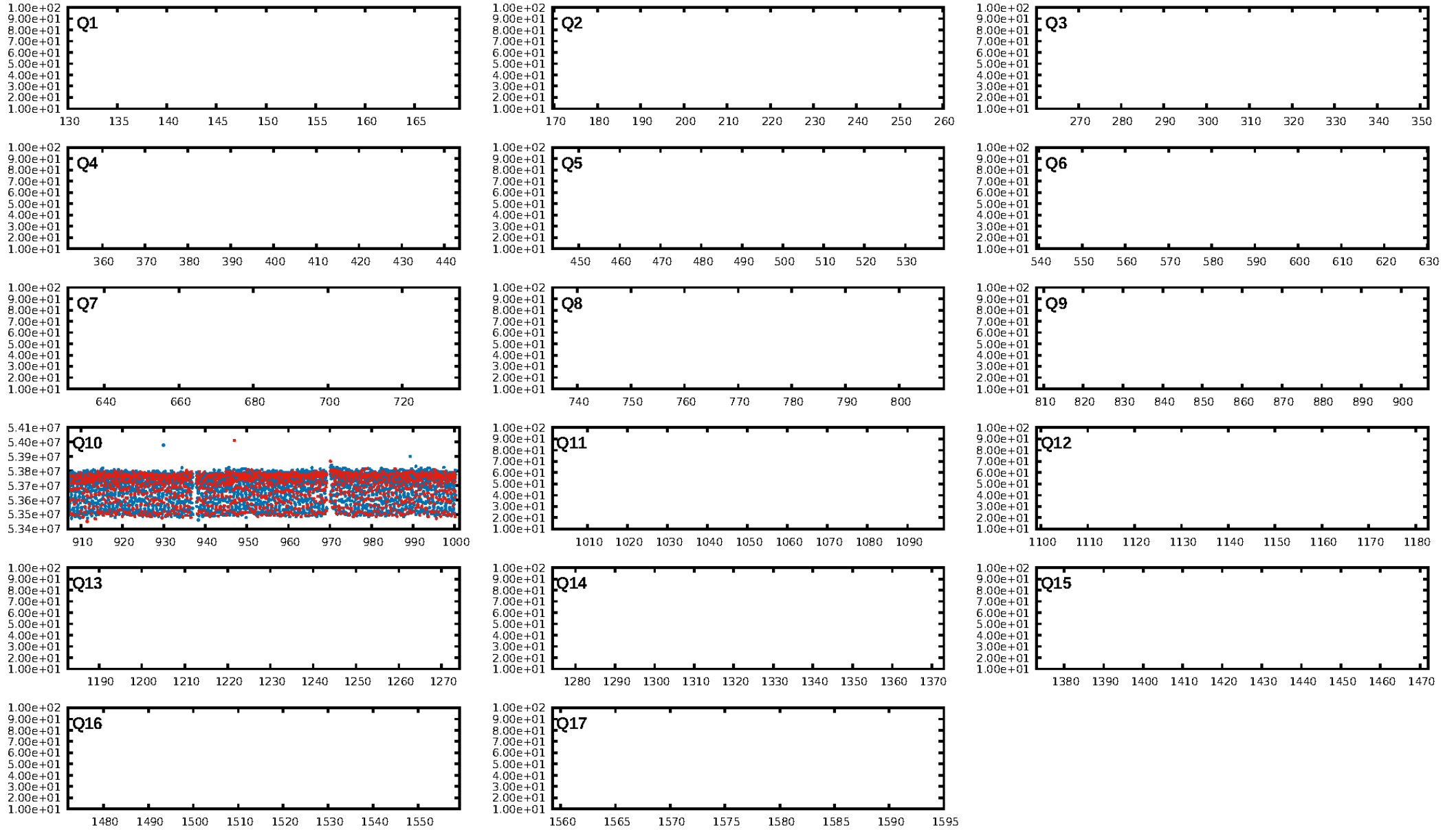
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00 σ]
LongPeriod-sig: 0.0% [0.00 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [184/184]
GhostDiagnostic-chr: 7.318
Centroid-sig: N/A
Centroid-so: 0.421 arcsec [7.91 σ]
OotOffset-rm: 1.909 arcsec [15.96 σ]
KicOffset-rm: 2.149 arcsec [18.12 σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 0.00 [0/1]

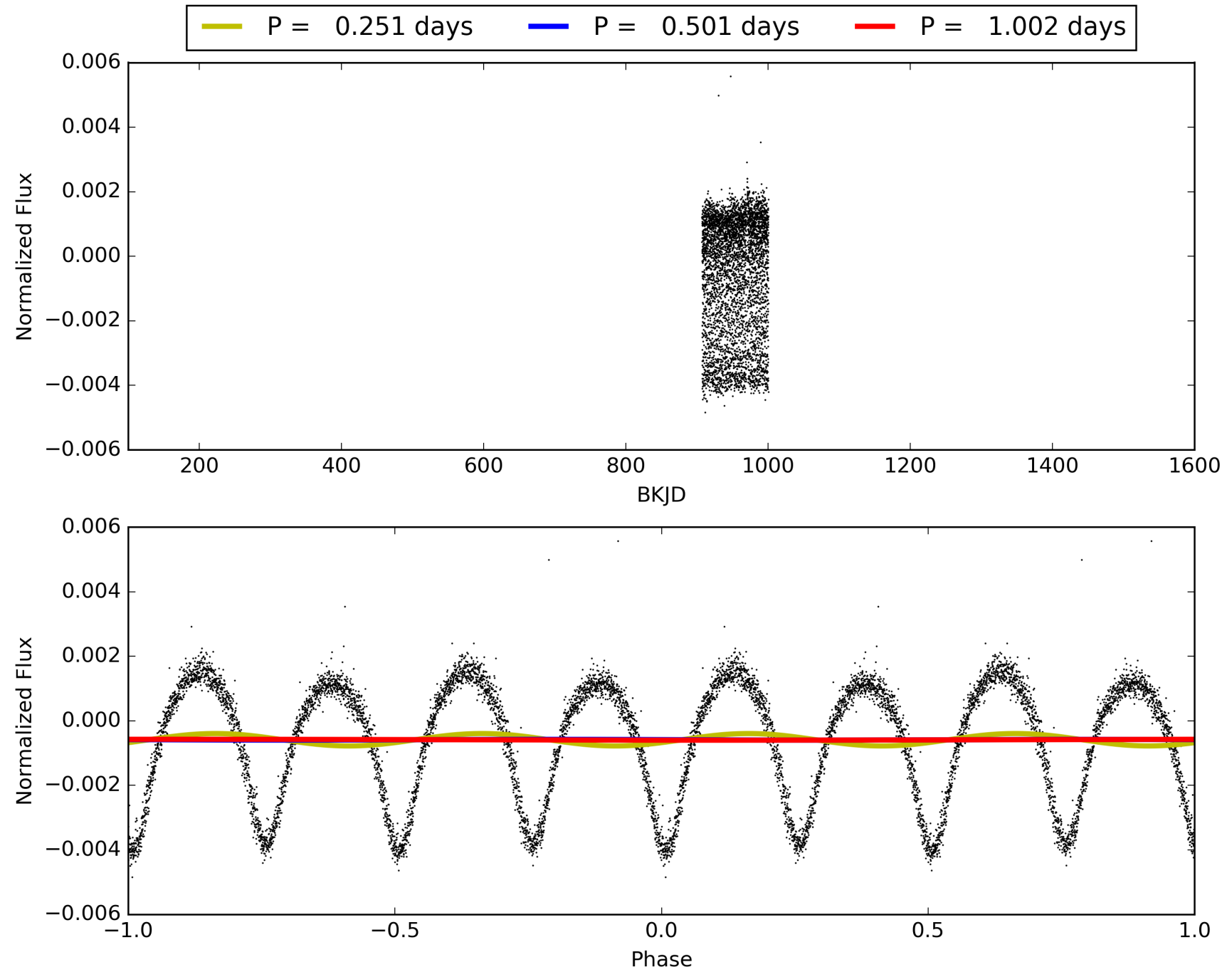
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:10:03 Z

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

TCE 006863683-03, PDC Light Curves

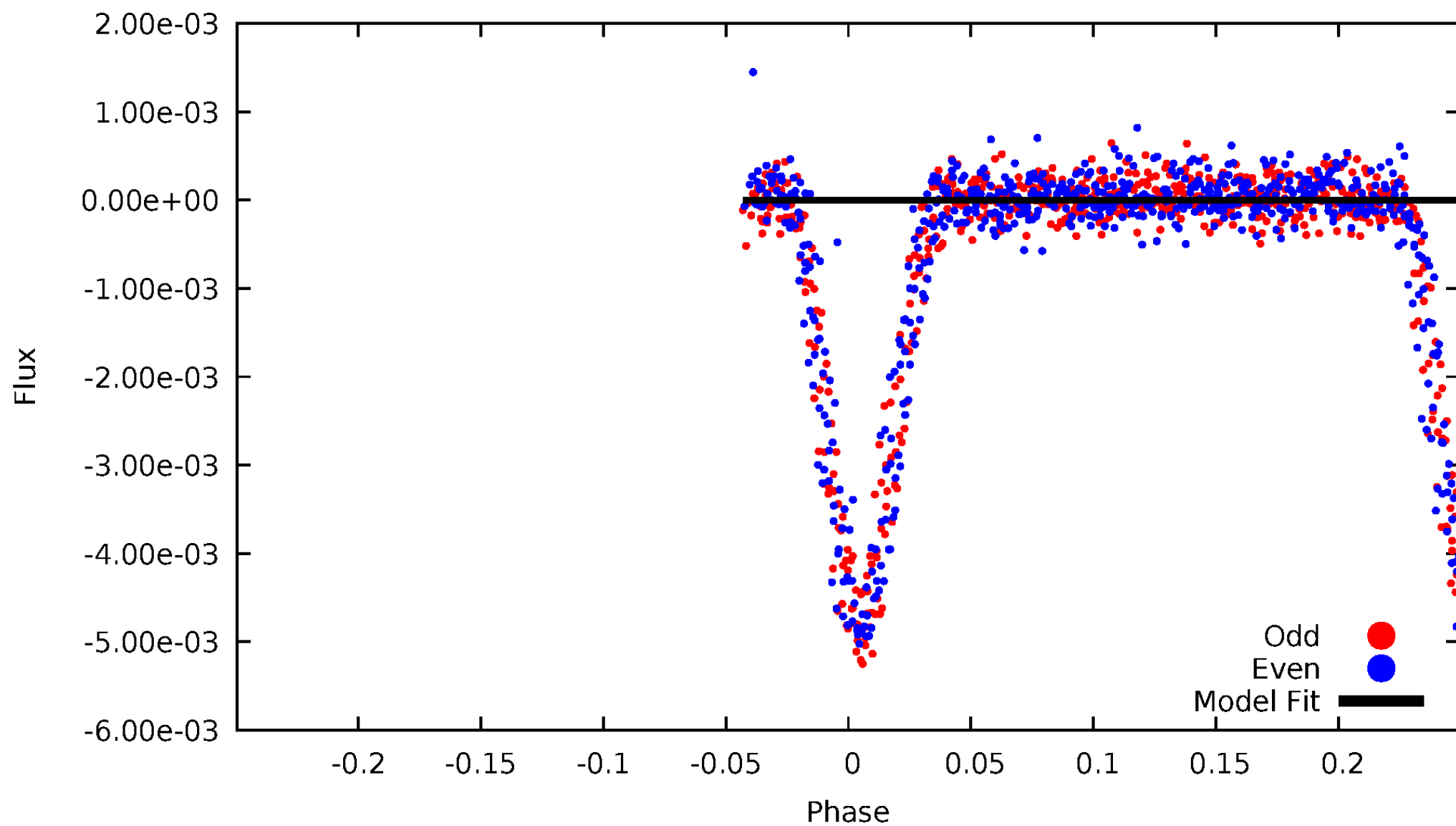


TCE 006863683-03



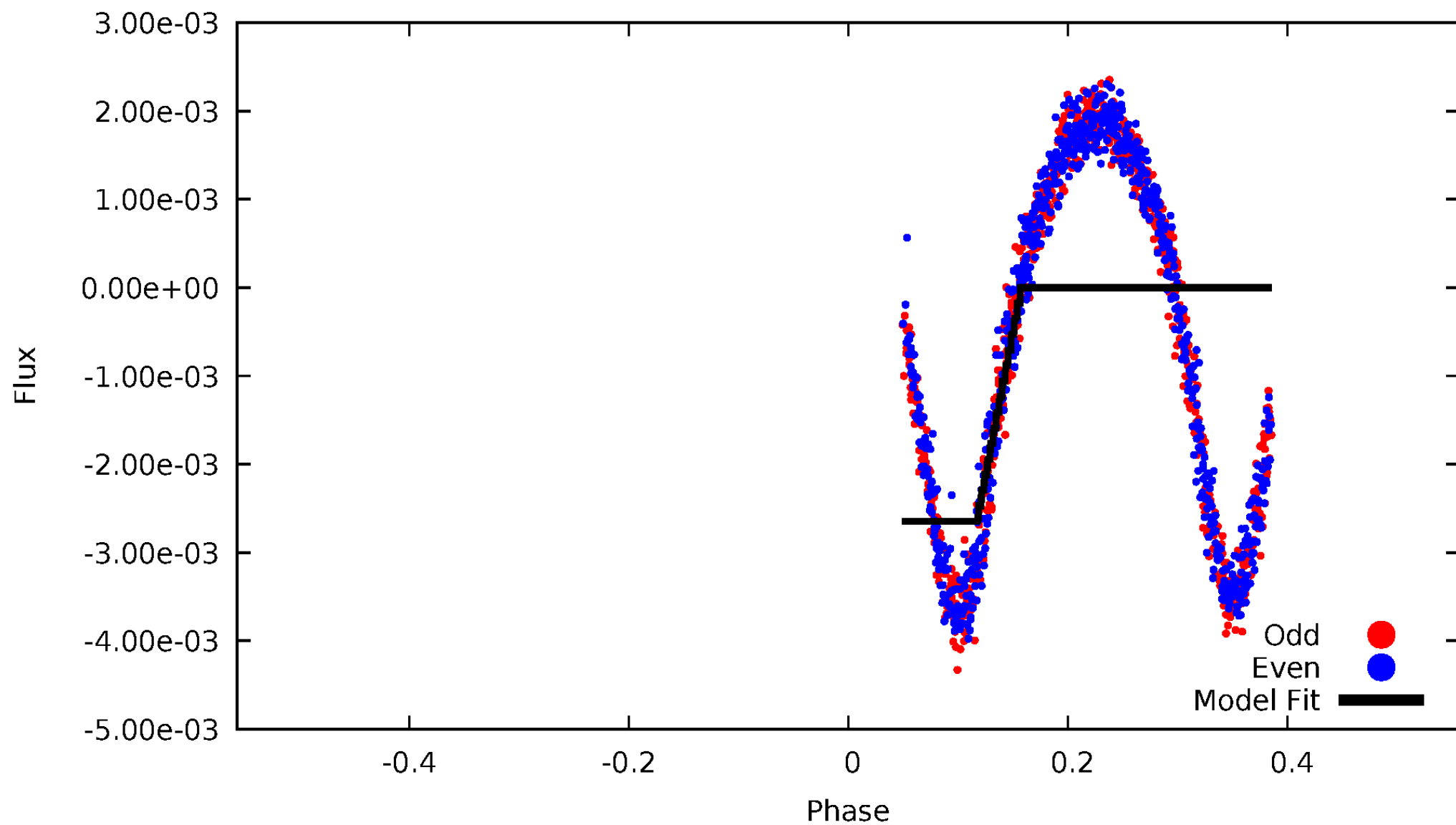
DV Odd/Even

TCE 006863683-03



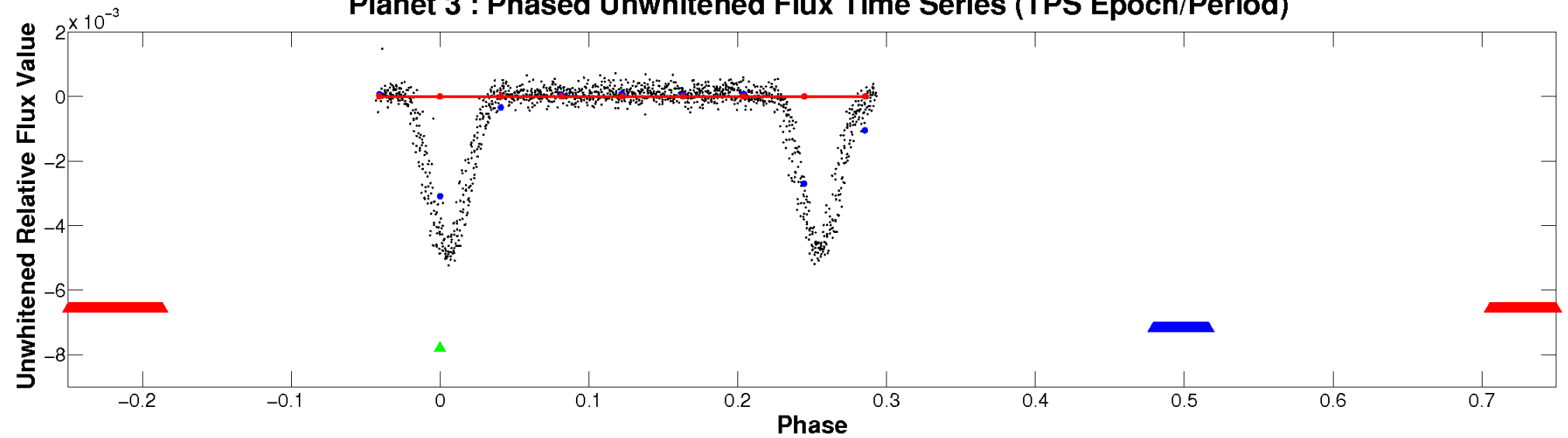
ALT Odd/Even

TCE 006863683-03

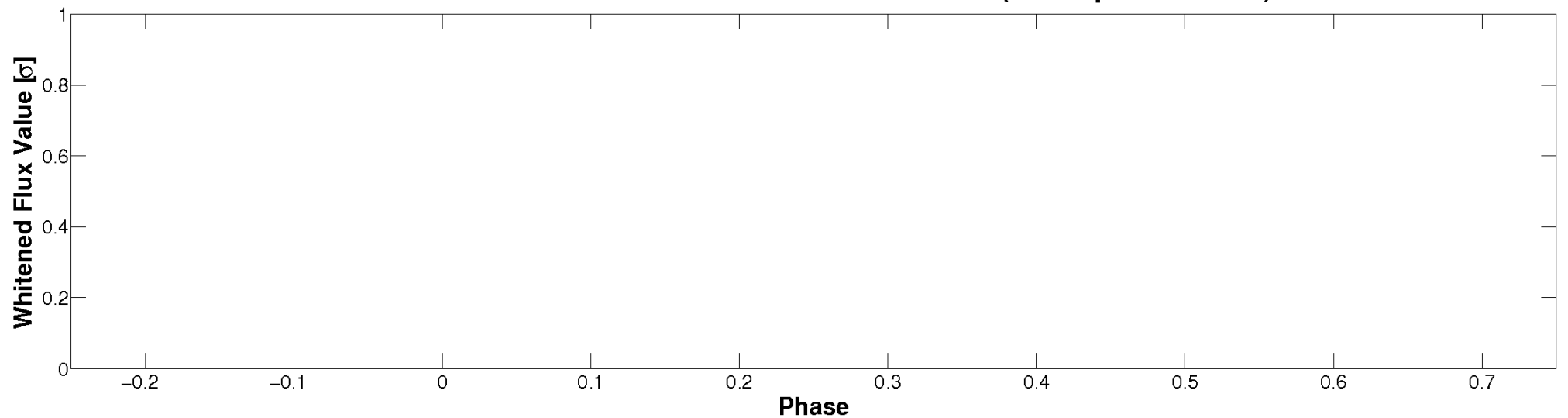


Non-Whitened Vs. Whitened Light Curve

Planet 3 : Phased Unwhitened Flux Time Series (TPS Epoch/Period)

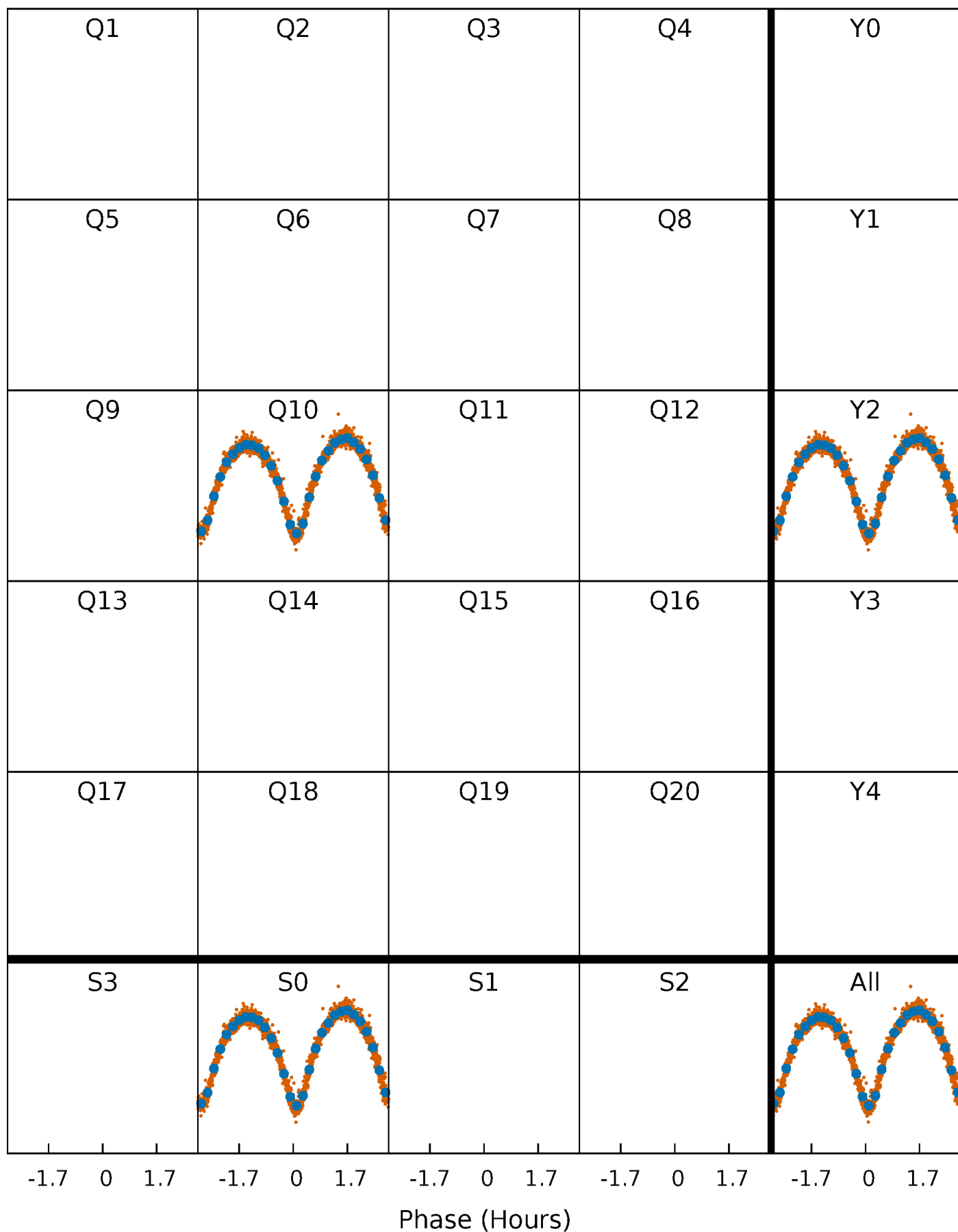


Planet 3 : Phased Whitened Flux Time Series (TPS Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 006863683-03 P= 0.501114 Days $T_0=131.726619$ (BKJD)



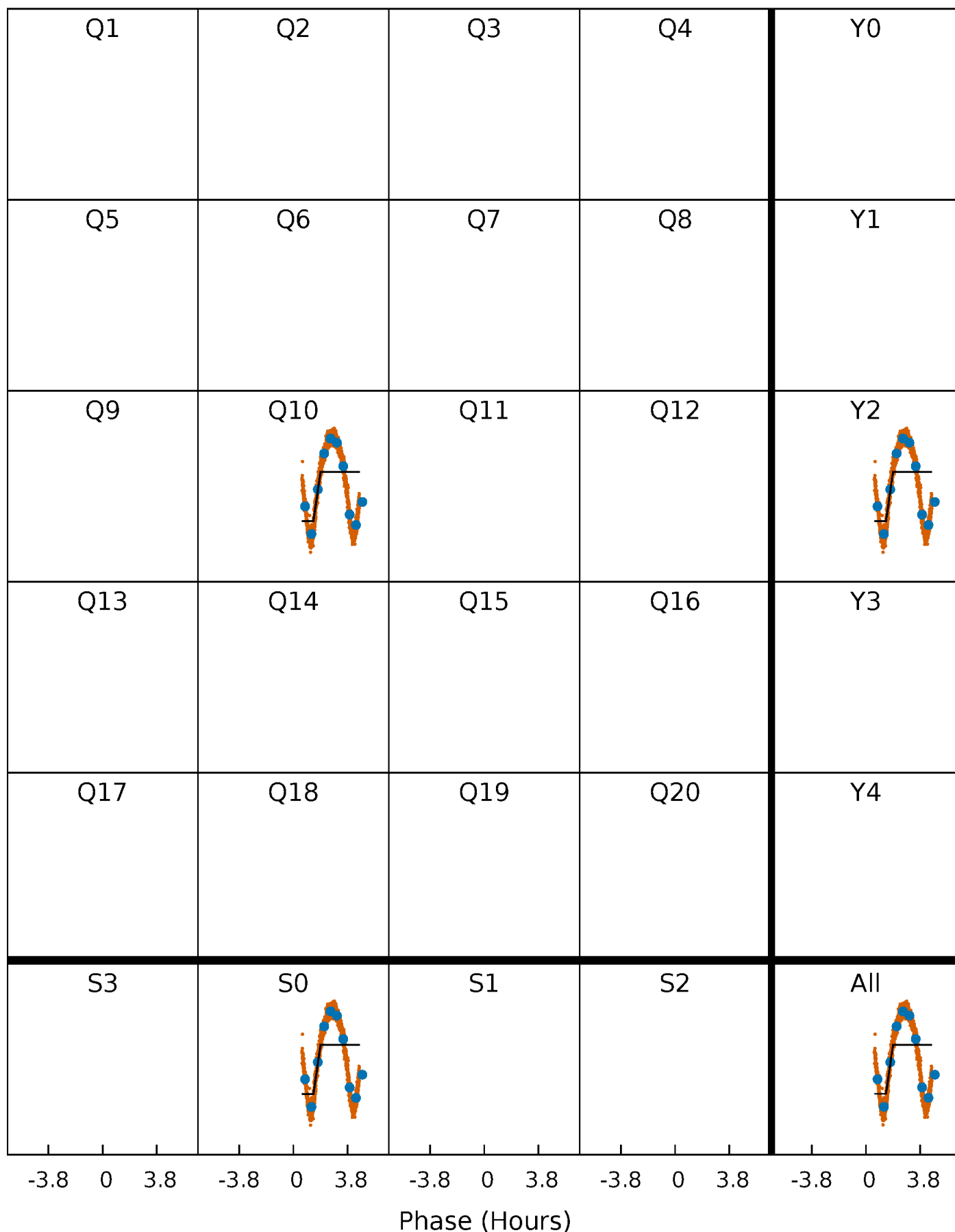
DV Quarter-Phased Transit Curves

TCE 006863683-03 P= 0.501114 Days $T_0=131.726619$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

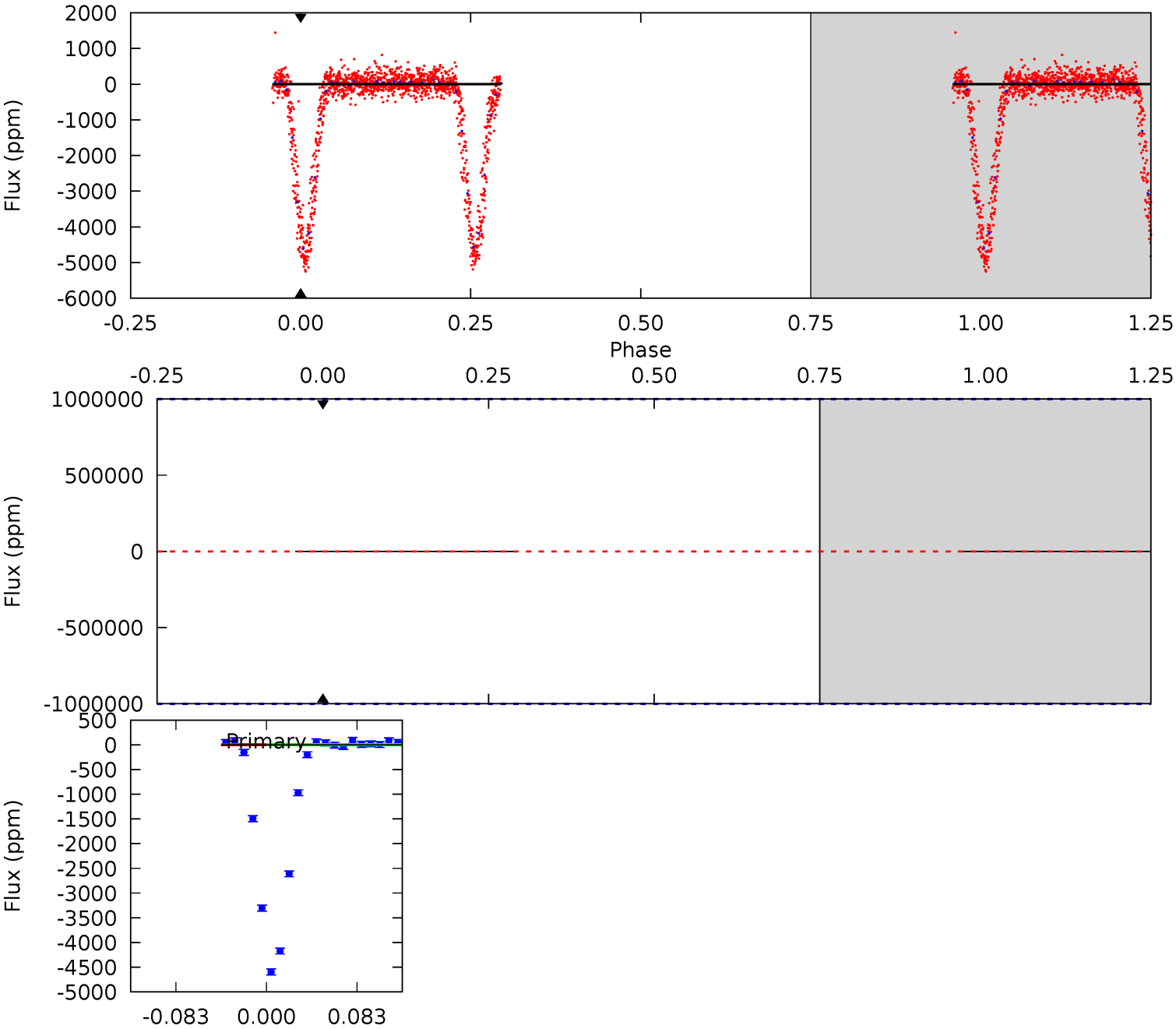
TCE 006863683-03 $P = 0.501114$ Days $T_0 = 131.680344$ (BKJD)



DV Model-Shift Uniqueness Test

006863683-03, P = 0.501114 Days, E = 131.726619 Days

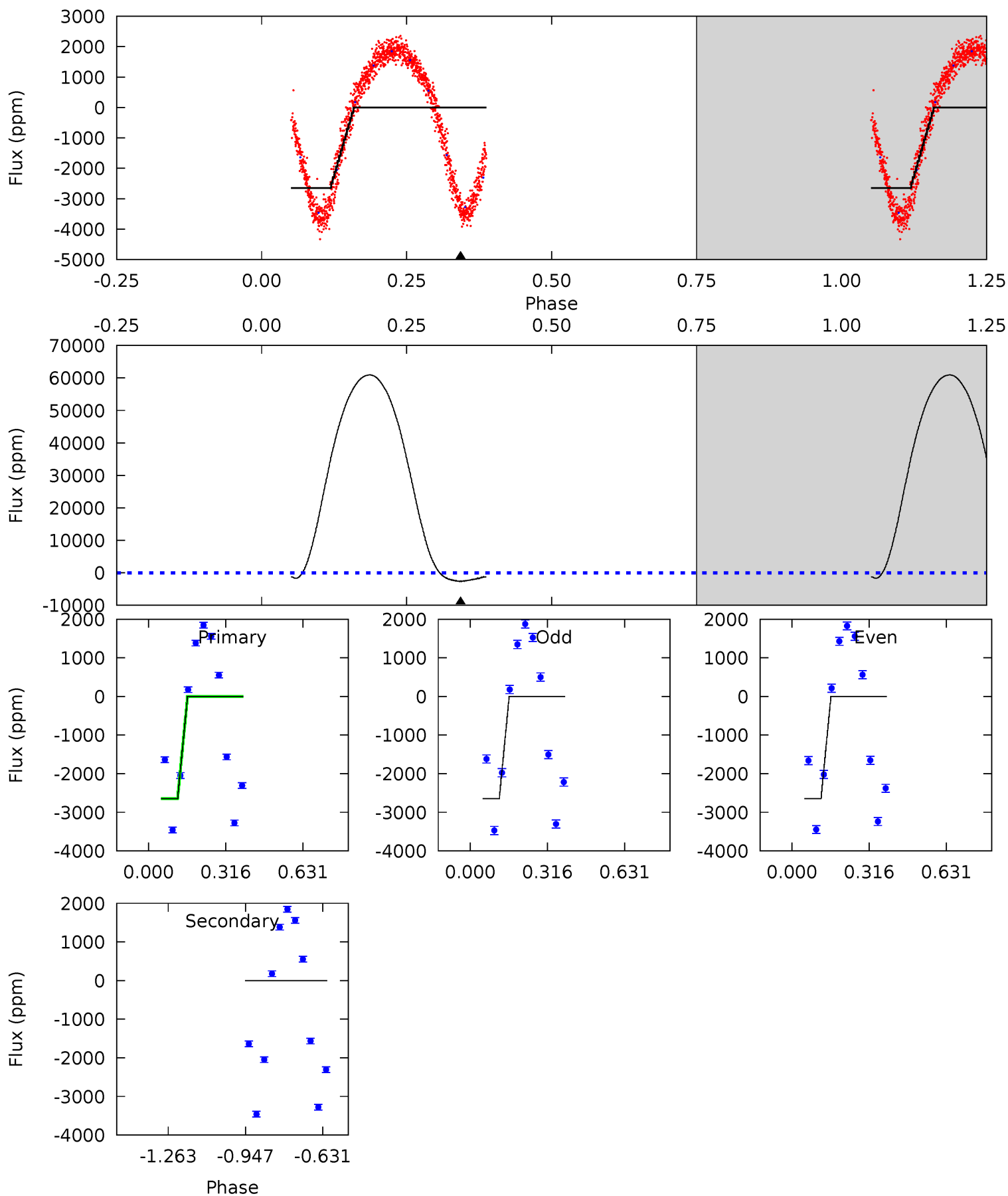
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

006863683-03, P = 0.501114 Days, E = 131.680344 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
48.4	0	0	0	4.32	1.00	55.2	48.4	48.4	0	0	0.04	1.00	0.96	0



Stellar Parameters For KIC 006863683

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6234^{+198}_{-220}	$4.237^{+0.258}_{-0.172}$	$-0.680^{+0.300}_{-0.300}$	$1.179^{+0.308}_{-0.308}$	$0.875^{+0.113}_{-0.076}$	$0.752^{+1.007}_{-0.351}$
	+3%/-4%	+6%/-4%	+44%/-44%	+26%/-26%	+13%/-9%	+134%/-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 006863683-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$11.86^{+11.92}_{-7.96}$	3802^{+312}_{-312}	3957^{+17574}_{-19812}	$0.823^{+123.969}_{-69.597}$
Alt.	0 ± 55	$10.84^{+10.34}_{-6.74}$	3819^{+311}_{-304}	-3586^{+290}_{-256}	$0.001^{+0.057}_{-0.054}$

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

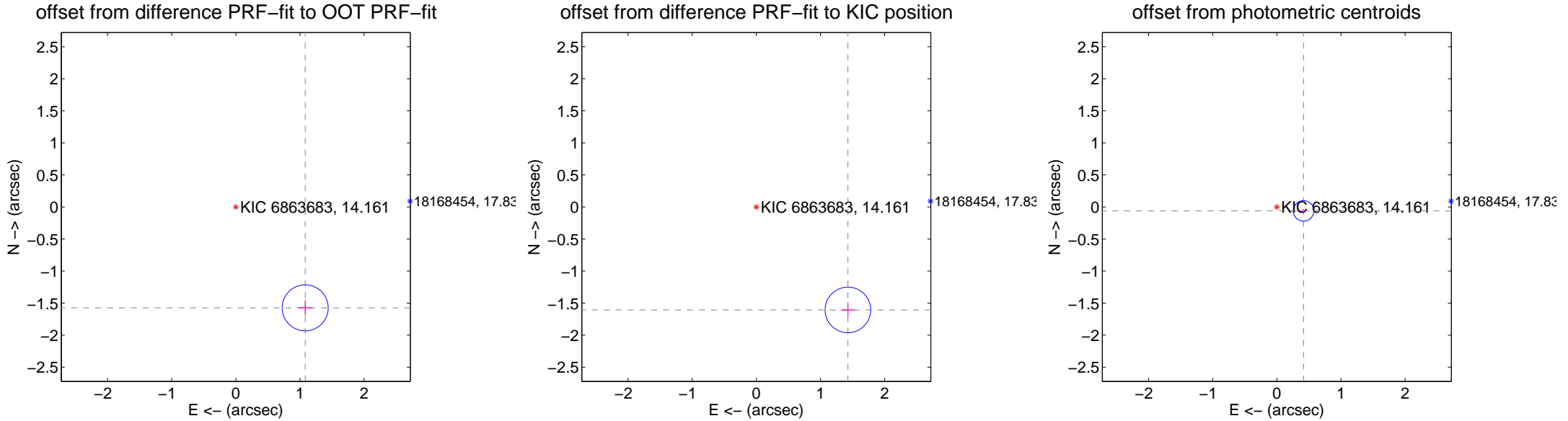
DV Centroid Data

Supplemental centroid analysis for 006863683-03. Kepler magnitude: 14.16. Transit SNR -1.00

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.35 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.909 ± 0.120	15.96	-1.081 ± 0.113	-1.574 ± 0.122
PRF-fit source offset from KIC position	2.149 ± 0.119	18.12	-1.427 ± 0.113	-1.606 ± 0.122
photometric centroid source offset	0.42 ± 0.05	7.91	-0.42 ± 0.05	-0.06 ± 0.02



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.

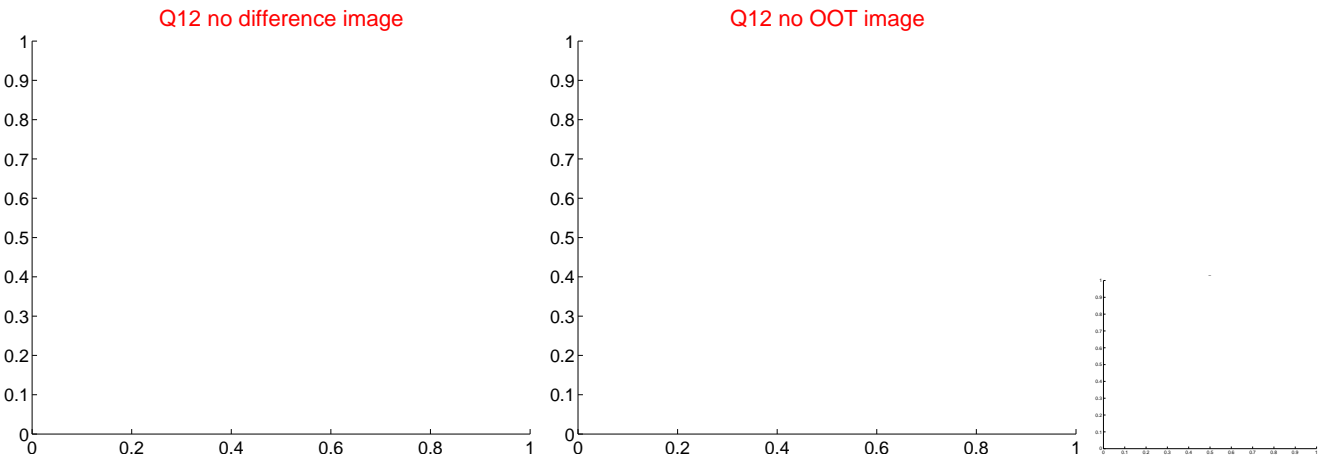
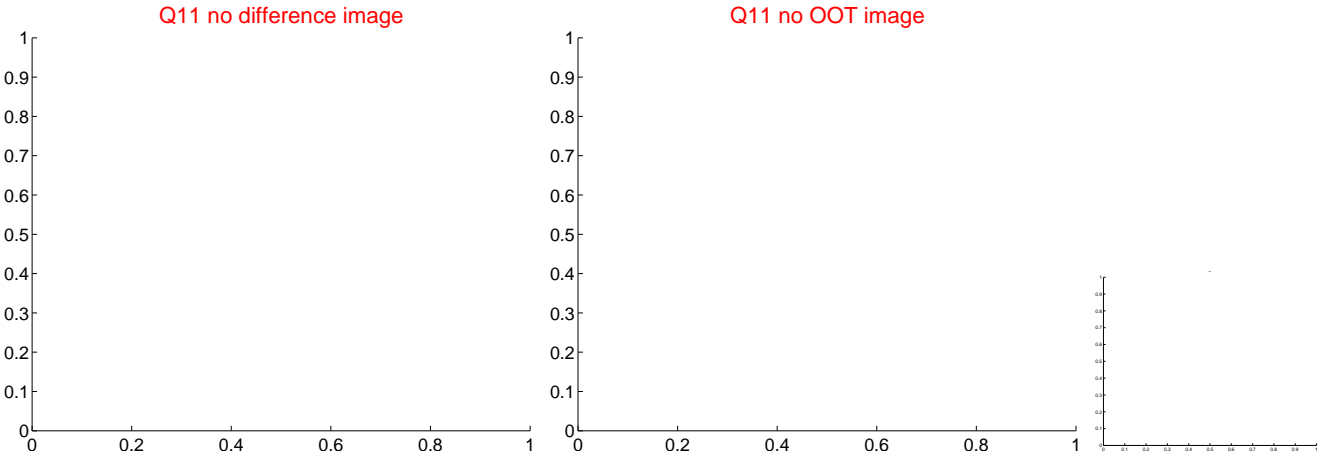
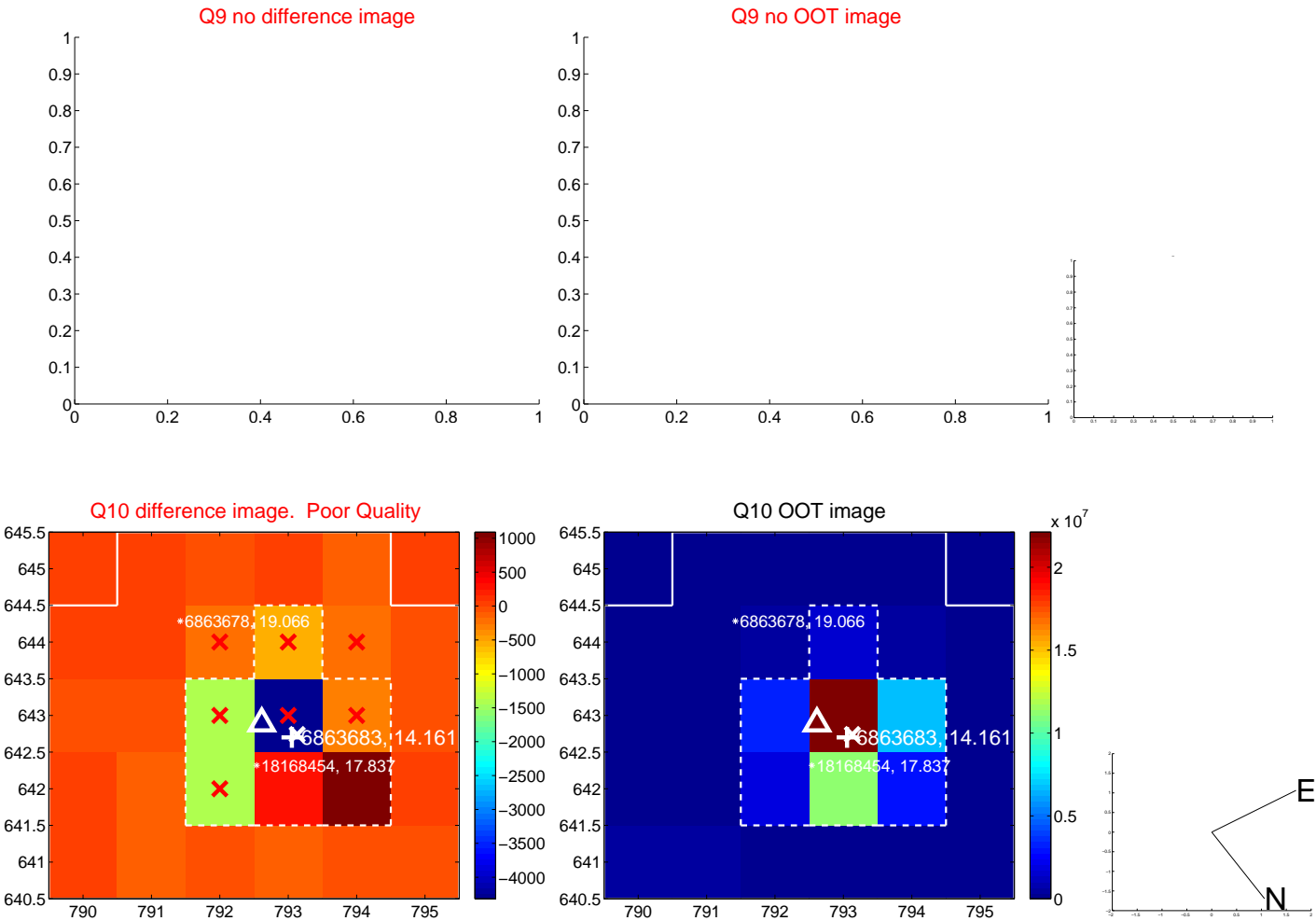
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



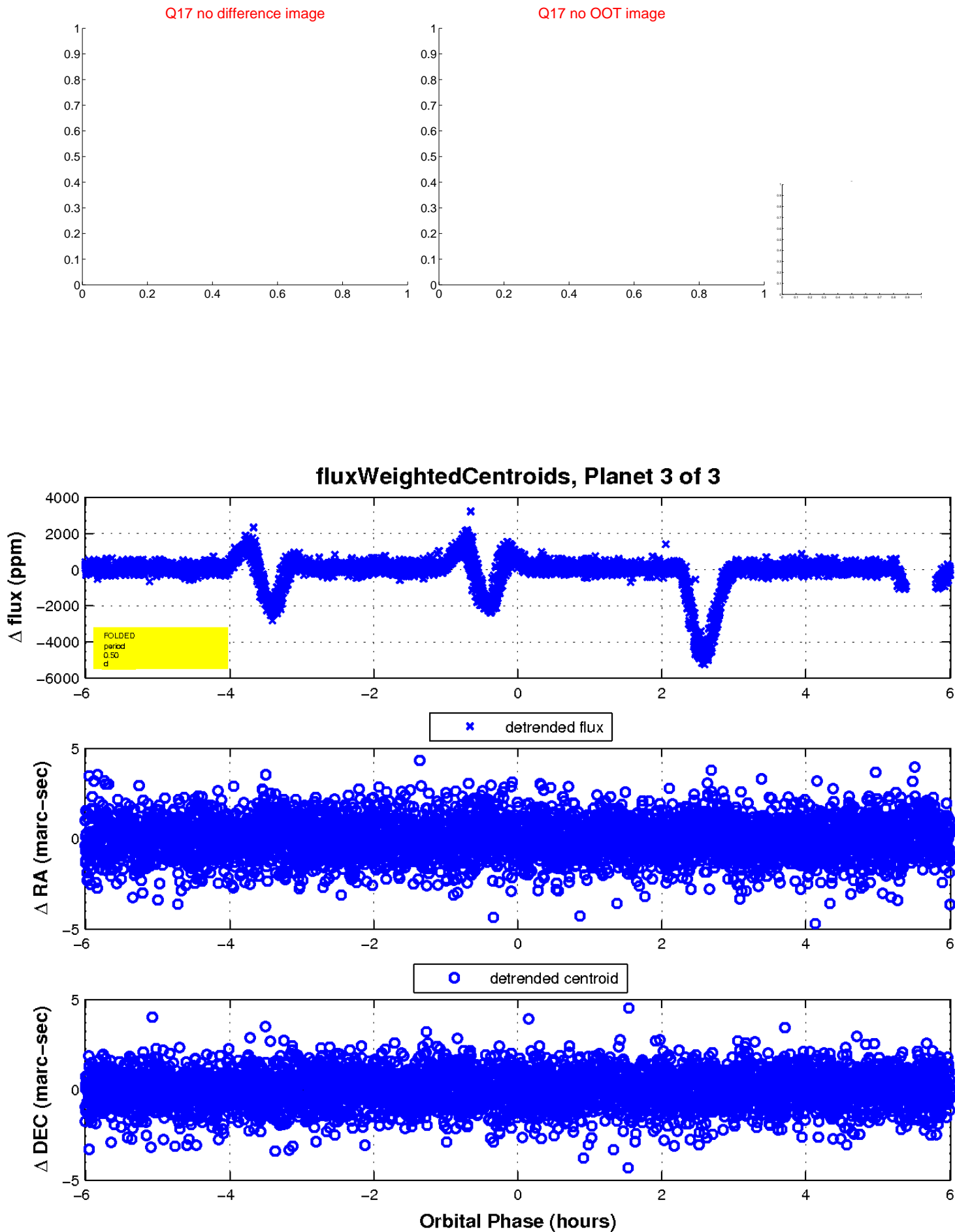
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

