

KIC 009291368

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})
009291368-01	OBS	7155.01	3.794997	131.909448	517869.1	6.000	3443.7	-1.0	3.07	8117	74.75	10446.08
009291368-02	OBS	7155.02	3.798004	132.698856	64618.0	10.701	403.8	319.6	3.07	8117	120.33	10435.06
009291368-03	OBS	No	3.821527	133.799553	2918.3	10.500	121.8	-1.0	3.07	8117	16.76	10349.50

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009291368-01	OBS	FP	0.00	0	1	0	0	SWEET_EB—MOD_SEC_ALT—CENT_NOFITS
009291368-02	OBS	FP	0.00	0	1	0	0	SWEET_EB—DEEP_V_SHAPED—CENT_FEW_DIFFS
009291368-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—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 009291368-01

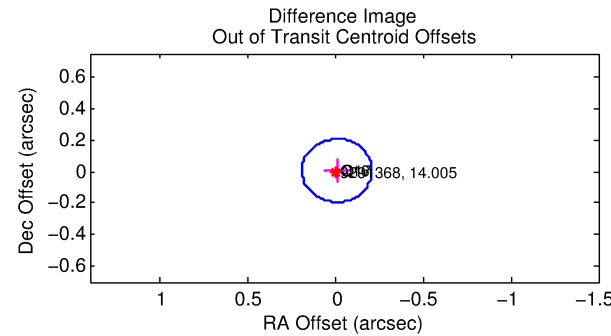
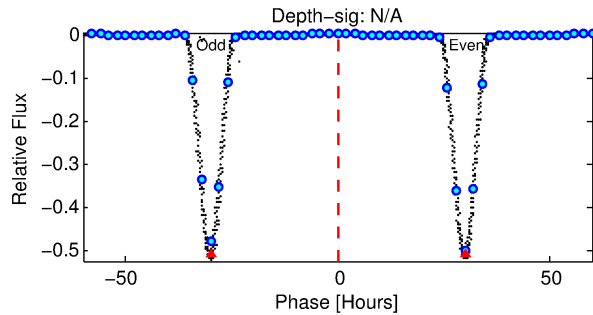
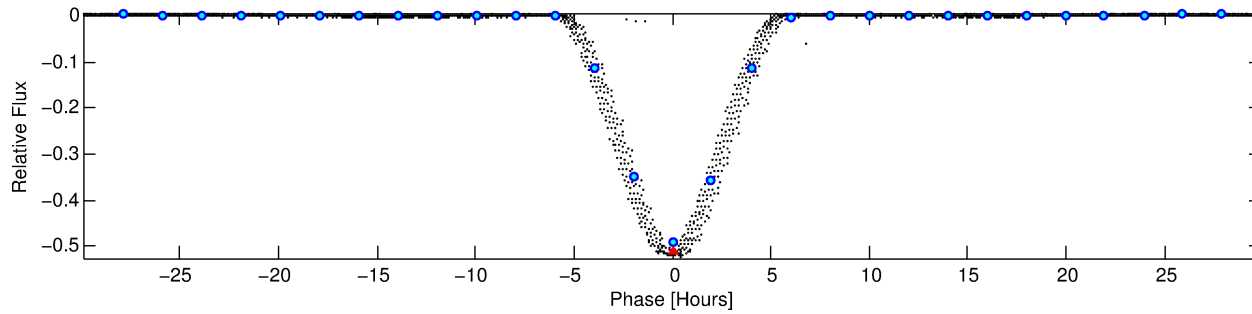
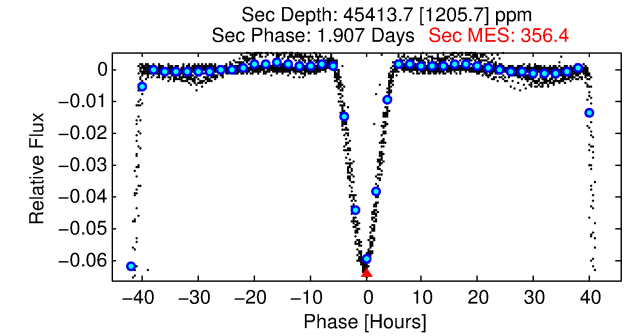
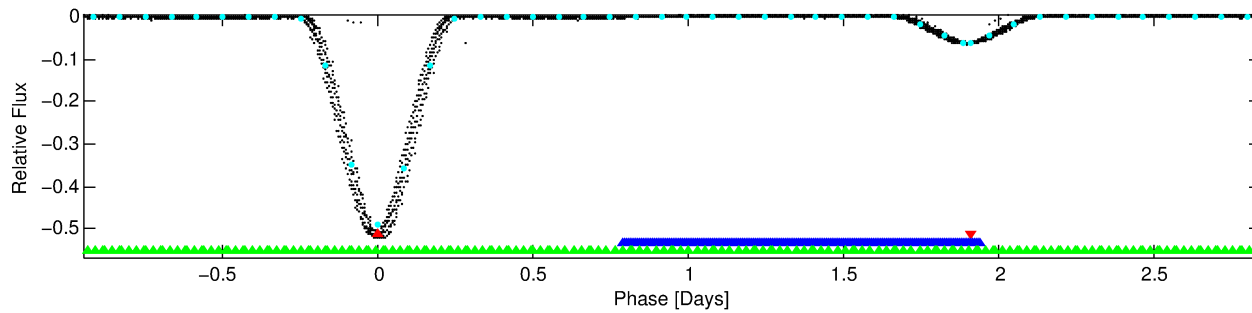
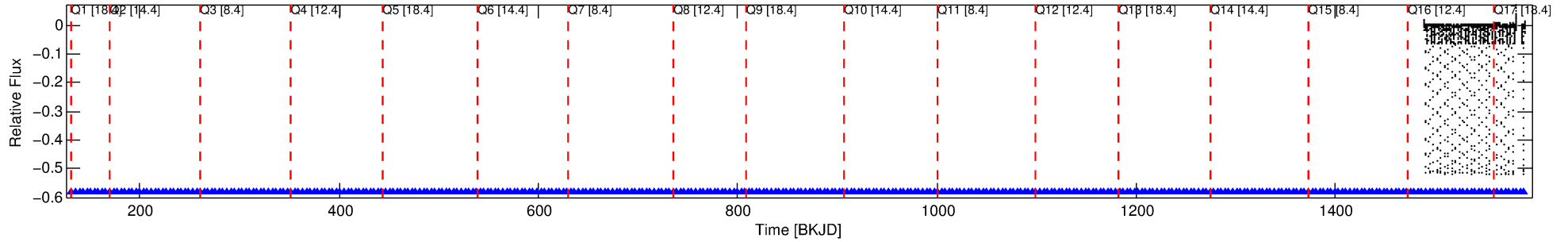
No Significant Match Found

DV One-Page Summary

KIC: 9291368 Candidate: 1 of 3 Period: 3.795 d

KOI: K07155 Corr: No Ephemeris Match

Kp: 14.01 R*: 3.07 Rs Teff: 8117.0 K Logg: 3.75 Fe/H: -0.420



TPS TCE Results:

Period = 3.79500 d
Epoch = 131.9094 BKJD

DV fit results are unavailable

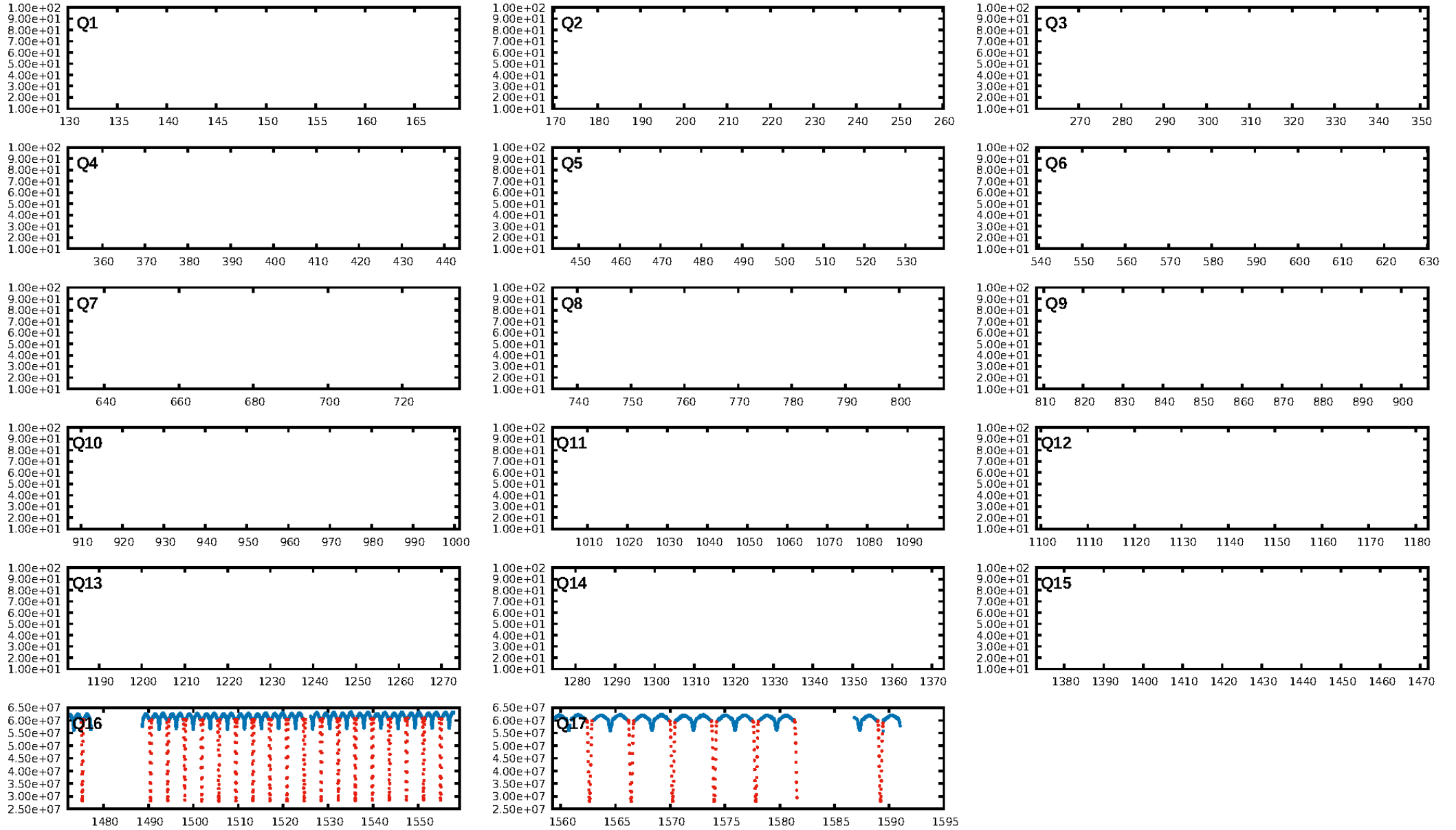
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.5% [0.01σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [18/18]
GhostDiagnostic-chr: 1.547
Centroid-sig: N/A
Centroid-so: 0.295 arcsec [214.09σ]
OotOffset-rm: 0.012 arcsec [0.18σ]
KicOffset-rm: 0.113 arcsec [1.44σ]
OotOffset-st: 0/0/1/1 [2]
KicOffset-st: 0/0/1/1 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 0.00 [0/2]

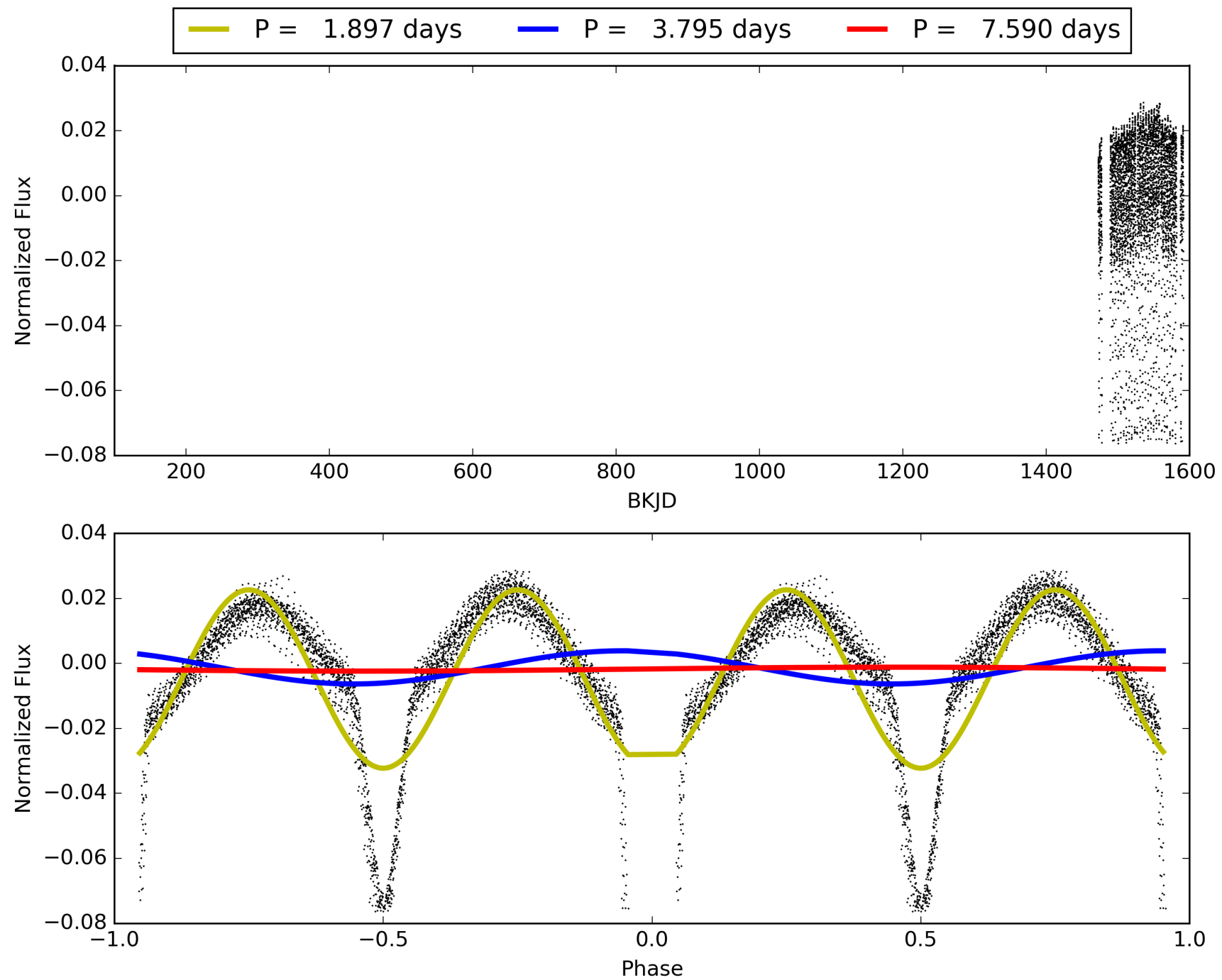
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 07:57:58 Z

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

TCE 009291368-01, PDC Light Curves

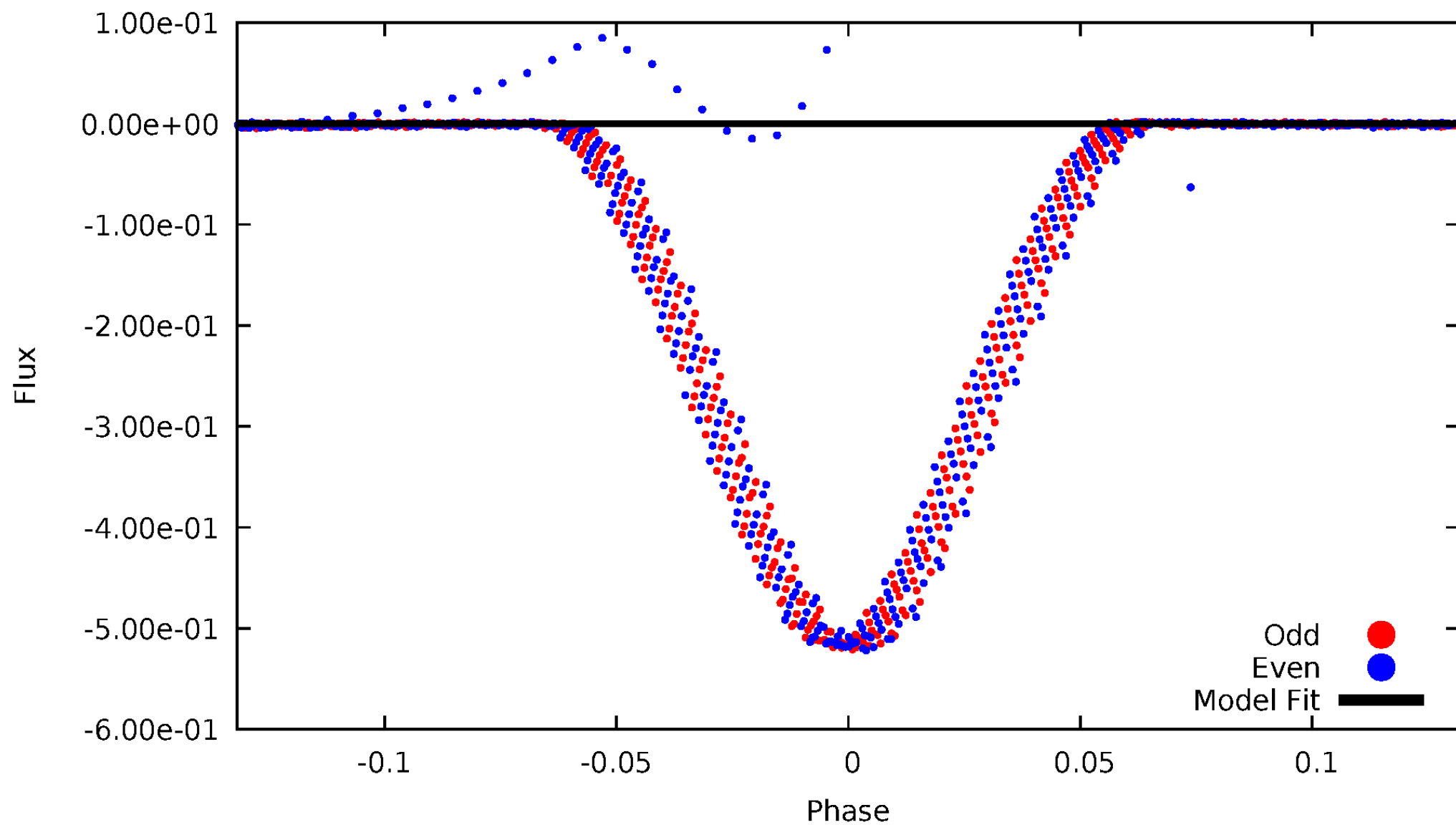


TCE 009291368-01



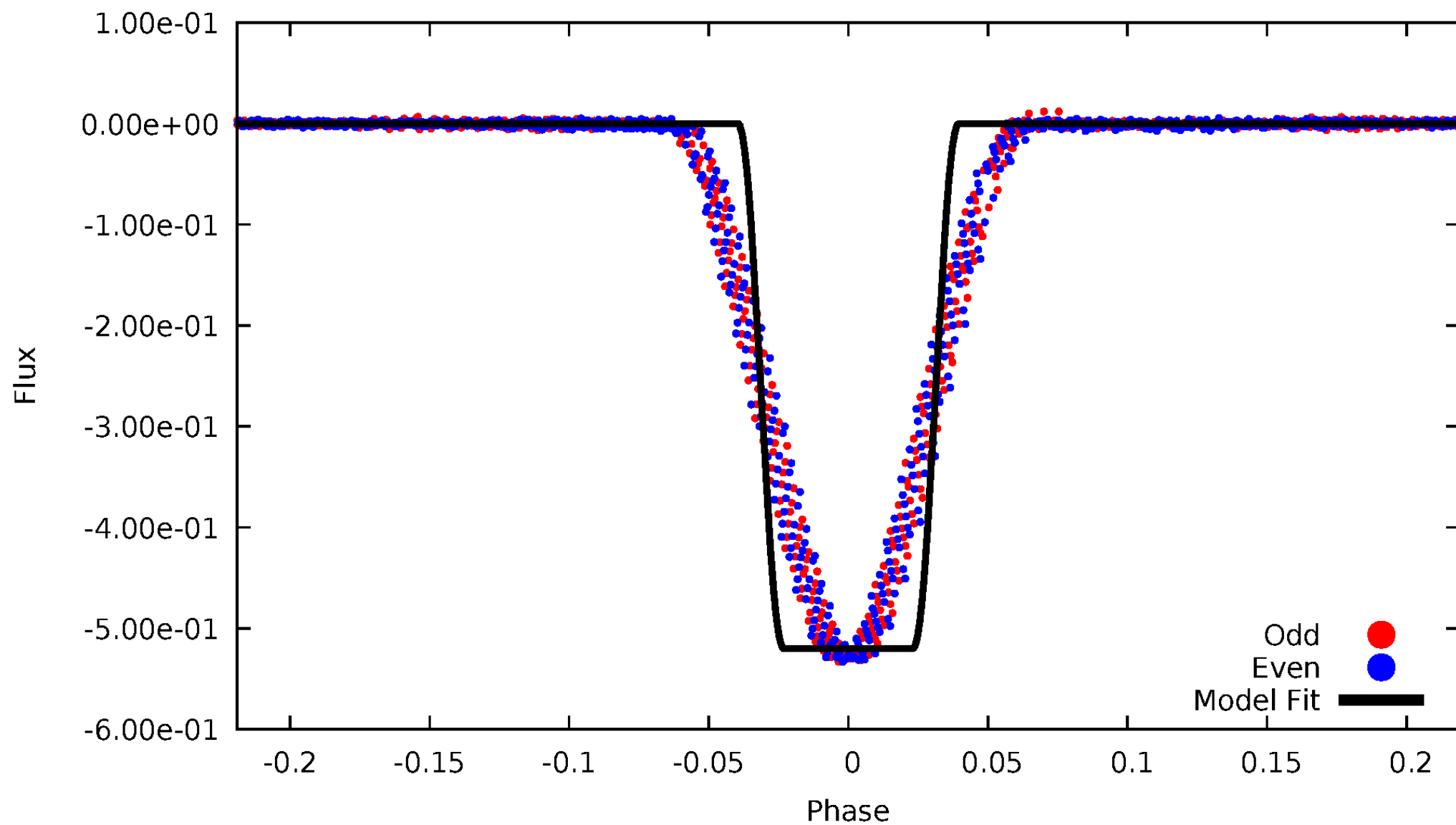
DV Odd/Even

TCE 009291368-01



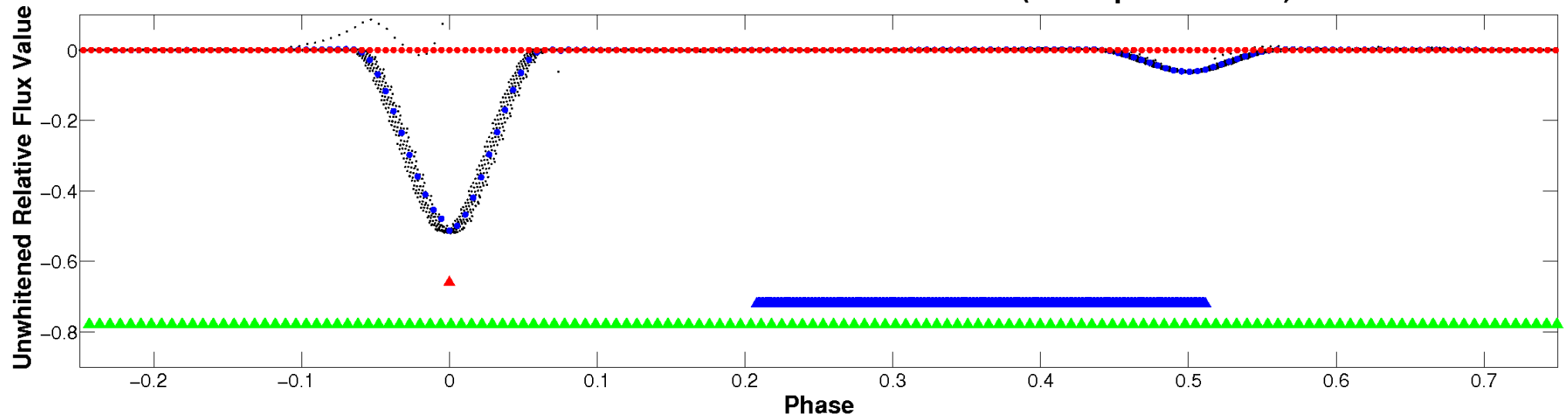
ALT Odd/Even

TCE 009291368-01



Non-Whitened Vs. Whitened Light Curve

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

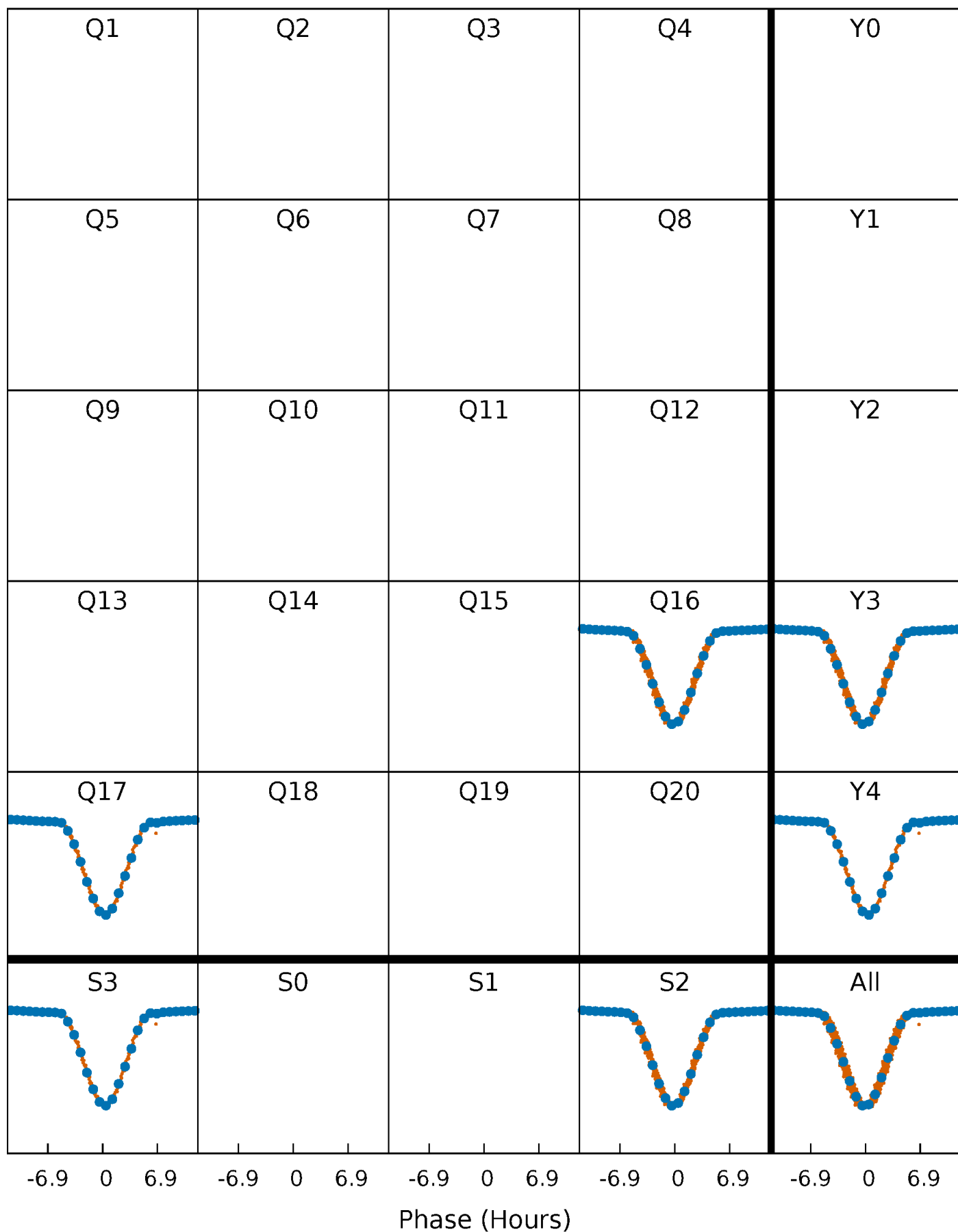


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



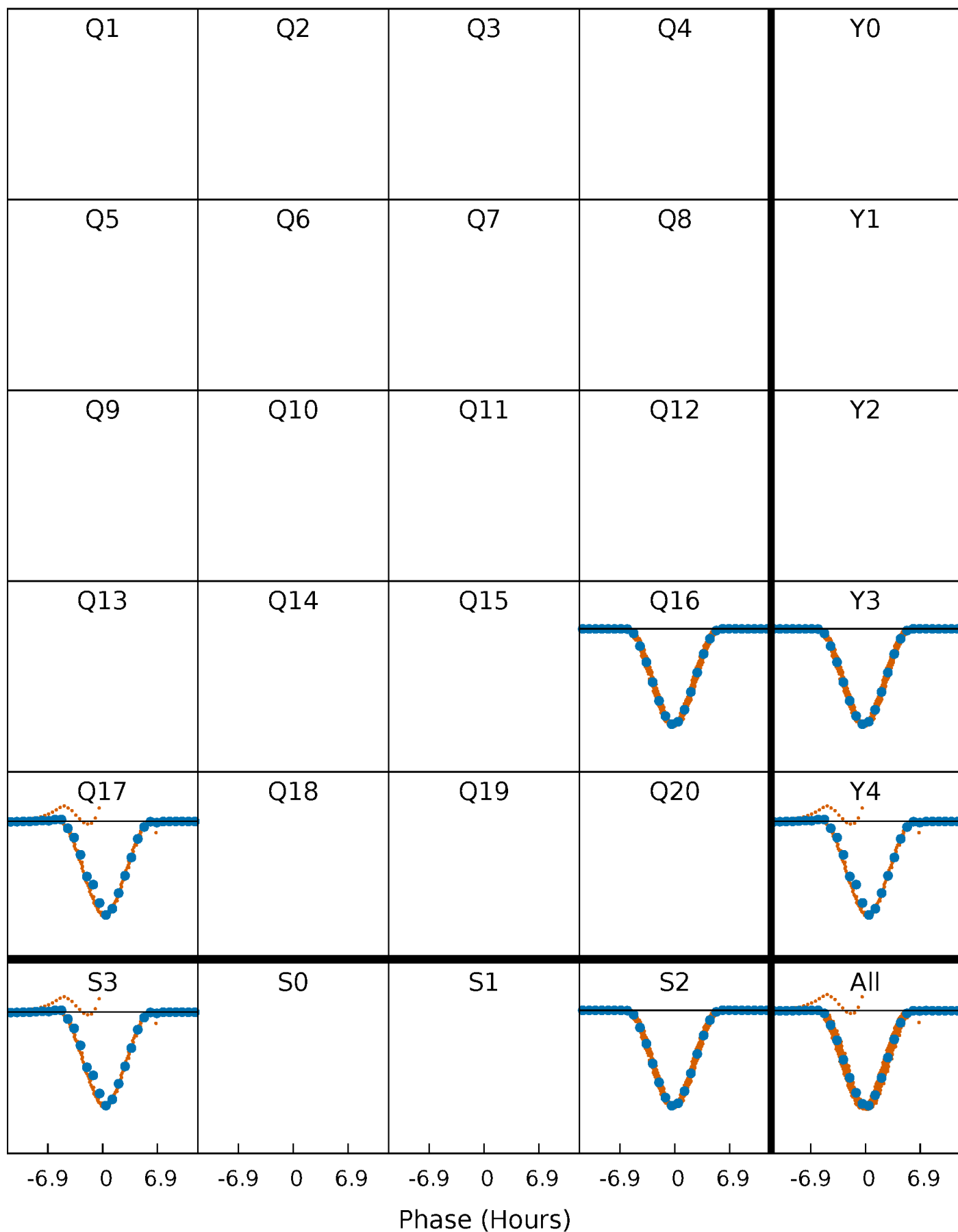
PDC Quarter-Phased Transit Curves

TCE 009291368-01 P= 3.794997 Days $T_0=131.909448$ (BKJD)



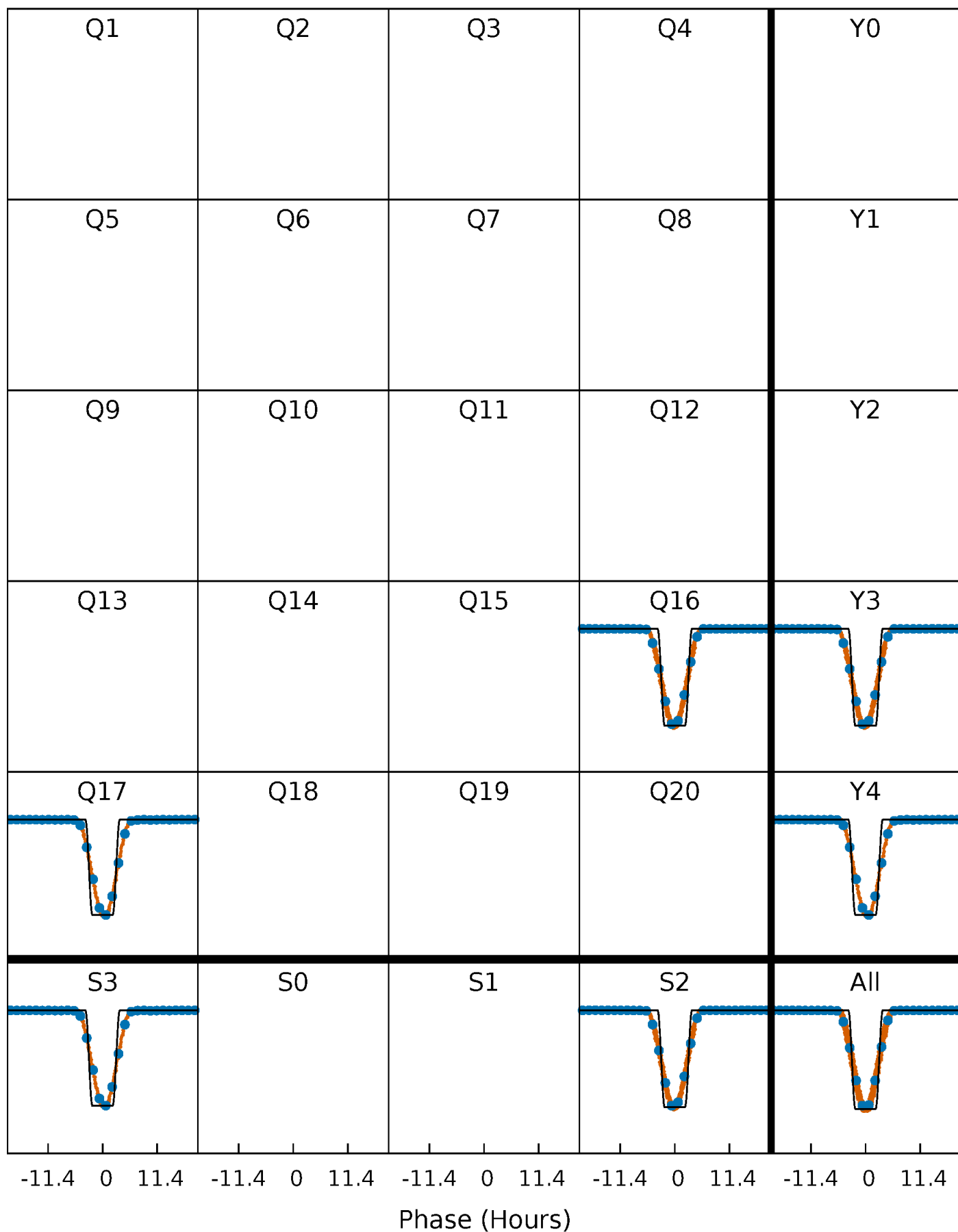
DV Quarter-Phased Transit Curves

TCE 009291368-01 P= 3.794997 Days $T_0=131.909448$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

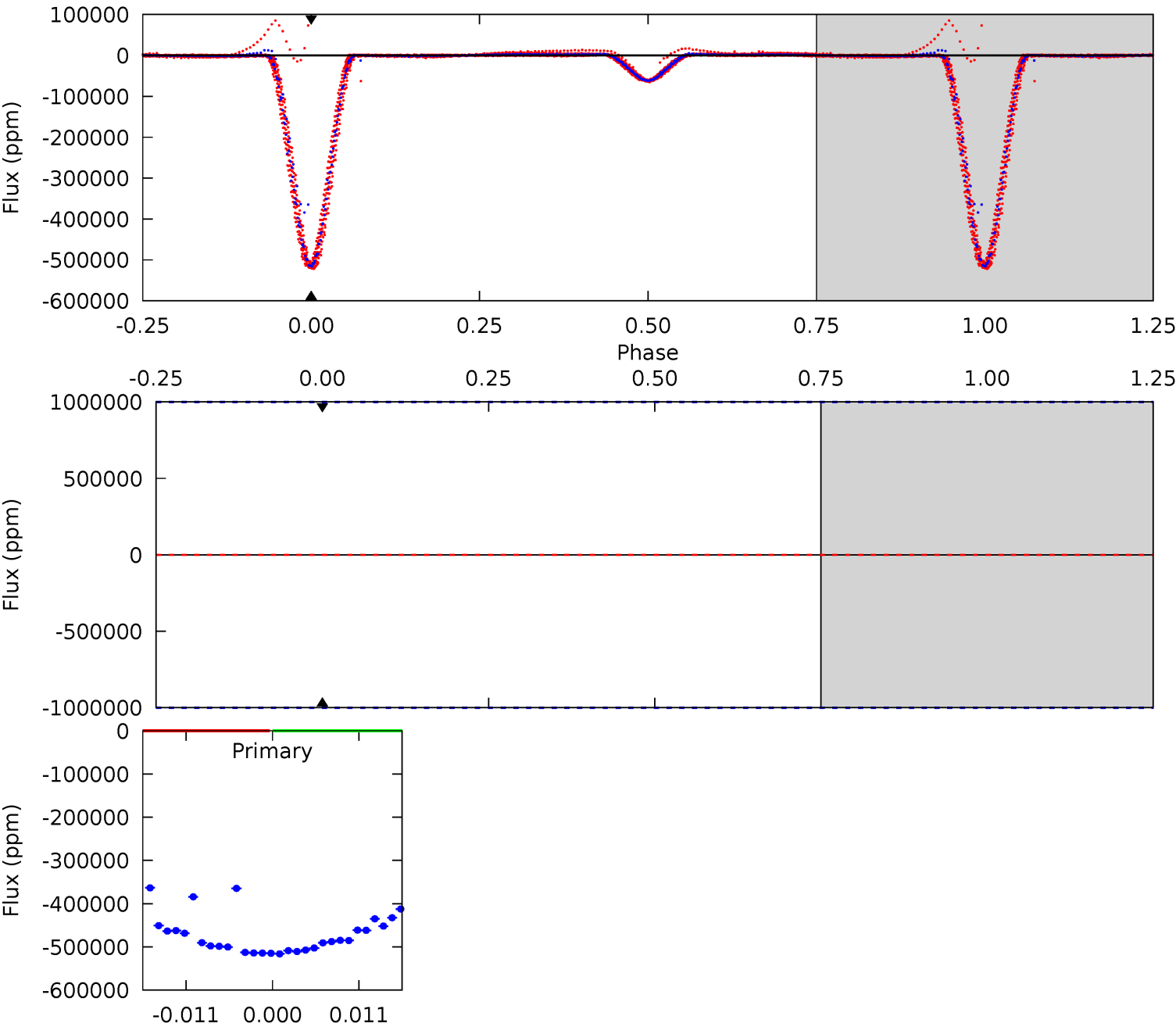
TCE 009291368-01 P= 3.794997 Days $T_0=131.908034$ (BKJD)



DV Model-Shift Uniqueness Test

009291368-01, P = 3.794997 Days, E = 131.909448 Days

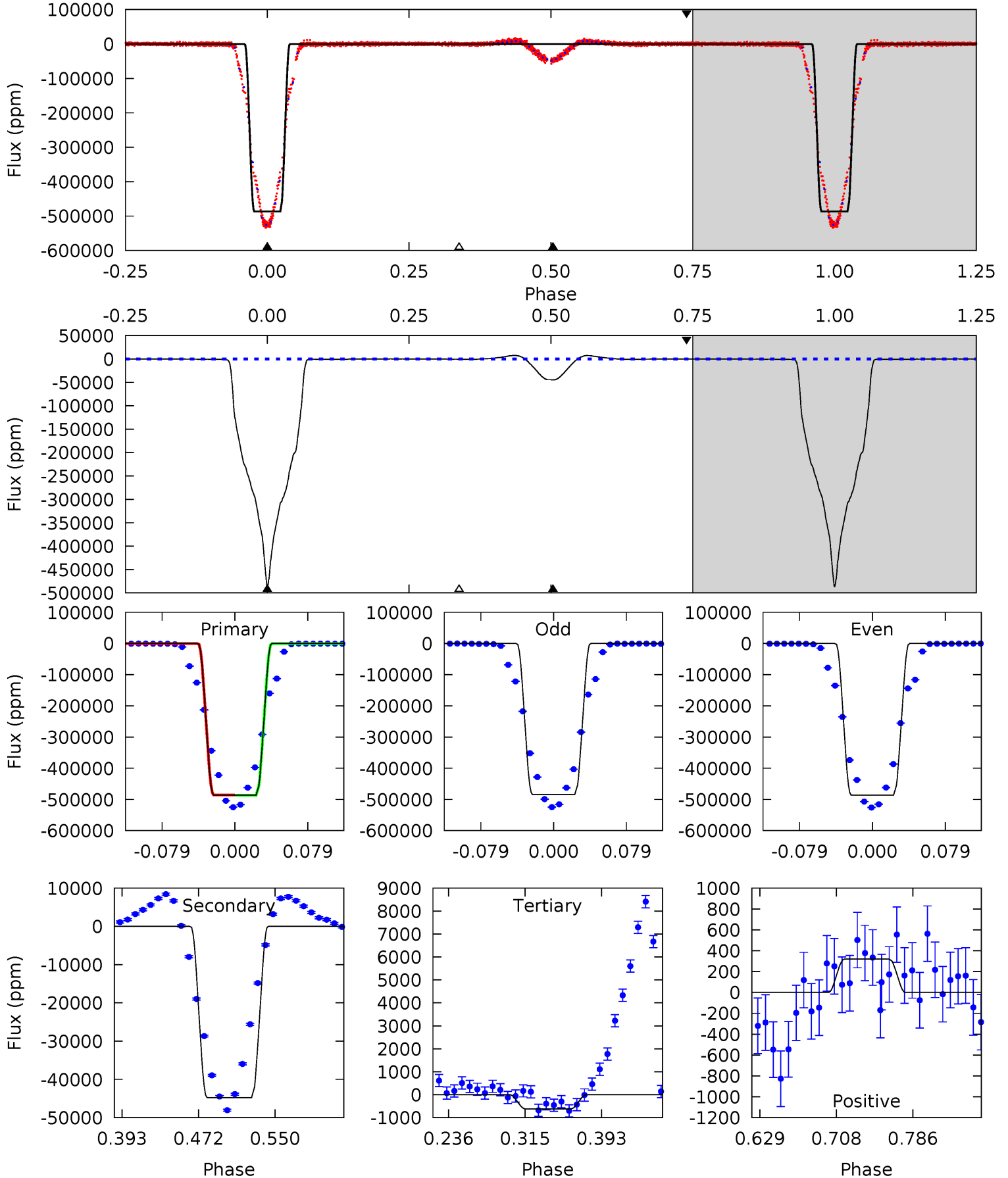
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

009291368-01, P = 3.794997 Days, E = 131.908034 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2250	207.0	2.88	1.48	4.61	1.76	4.94	2248	2249	204.1	205.5	4.74	0.99	0.02	2.14



Stellar Parameters For KIC 009291368

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8117^{+251}_{-334}	$3.748^{+0.442}_{-0.078}$	$-0.420^{+0.200}_{-0.300}$	$3.070^{+0.270}_{-1.440}$	$1.922^{+0.084}_{-0.501}$	$0.094^{+0.405}_{-0.024}$
	+3%/-4%	+12%/-2%	+48%/-71%	+9%/-47%	+4%/-26%	+433%/-26%
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 009291368-01 / KOI 7155.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$67.88^{+39.34}_{-32.08}$	3514^{+223}_{-432}	3200^{+8249}_{-13693}	$0.536^{+56.926}_{-46.648}$
Alt.	-44757 ± 216	$227.55^{+44.79}_{-53.96}$	3519^{+228}_{-382}	4315^{+310}_{-273}	$1.719^{+1.070}_{-0.504}$

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 $A_{obs} \gg 1.0$

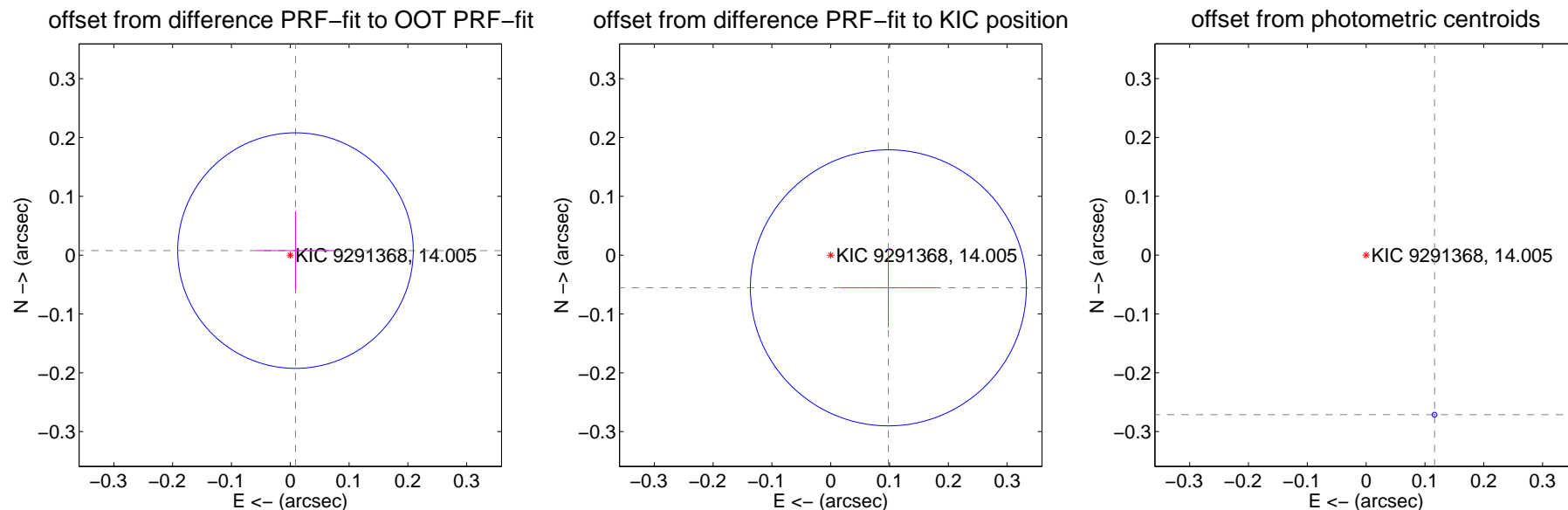
DV Centroid Data

Supplemental centroid analysis for 009291368-01. Kepler magnitude: 14.01. Transit SNR -1.00

There are 2 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.012 ± 0.067	0.18	-0.009 ± 0.067	0.008 ± 0.067
PRF-fit source offset from KIC position	0.113 ± 0.078	1.44	-0.098 ± 0.082	-0.056 ± 0.067
photometric centroid source offset	0.30 ± 0.00	214.09	-0.12 ± 0.00	-0.27 ± 0.00



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.



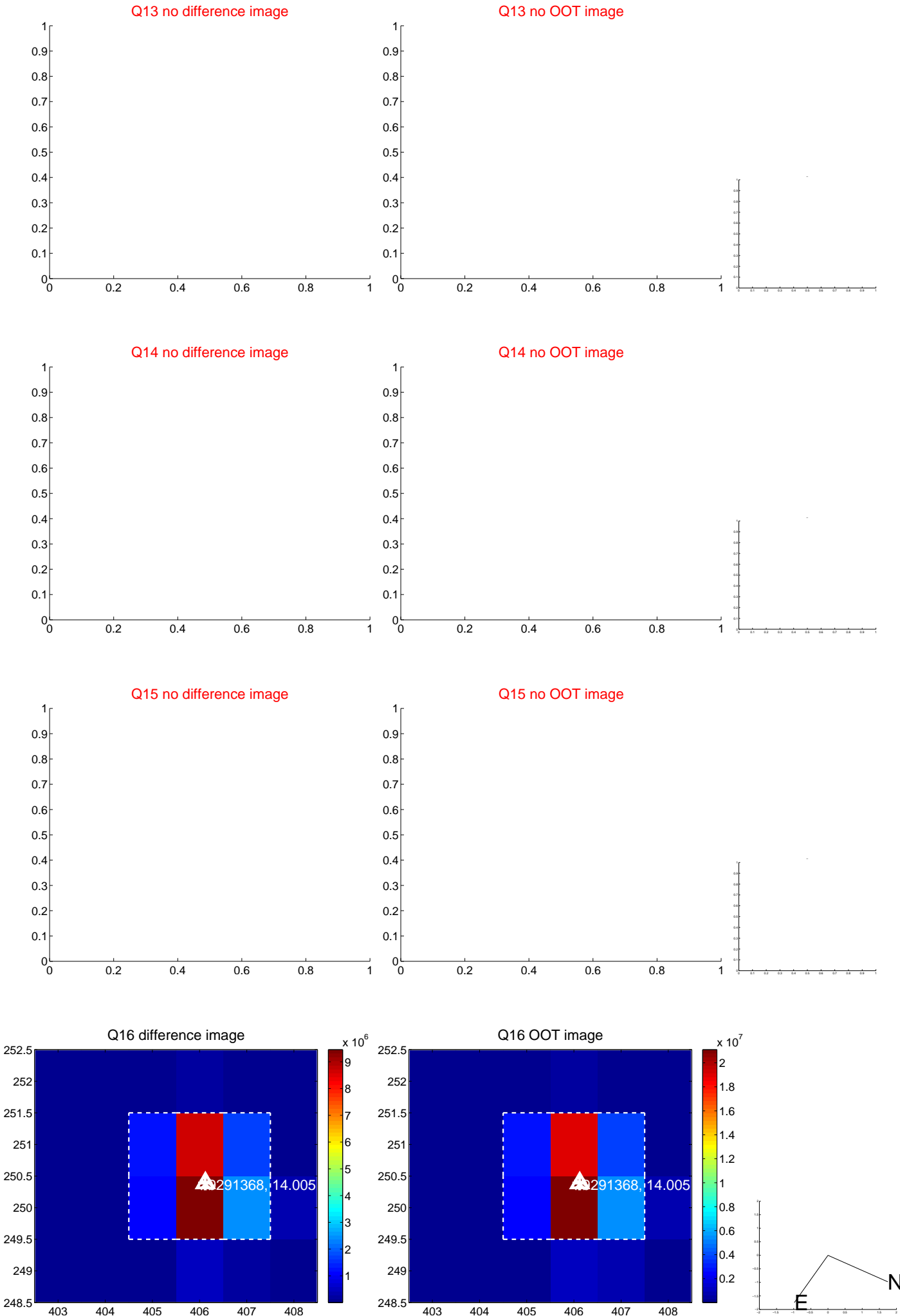
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



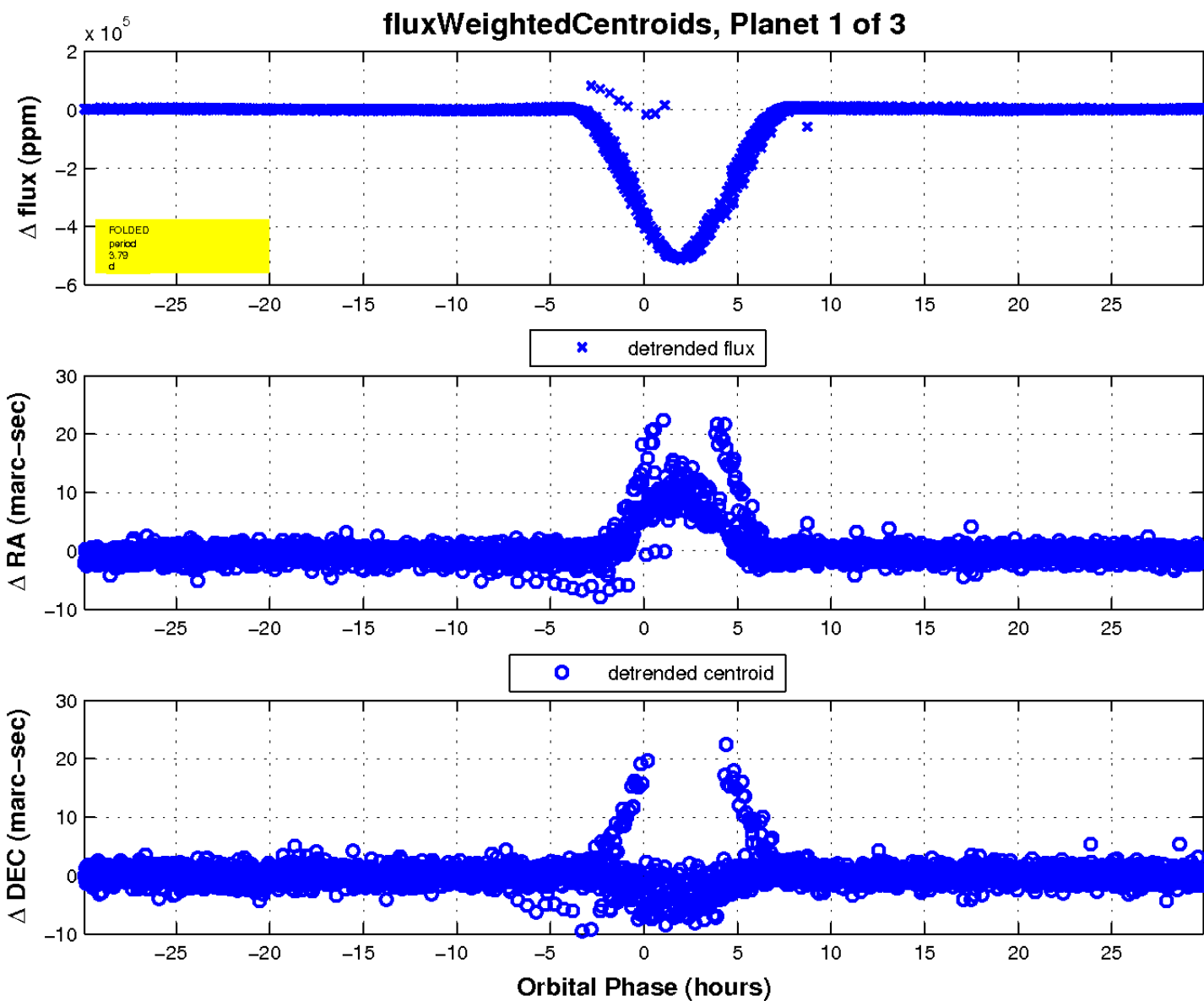
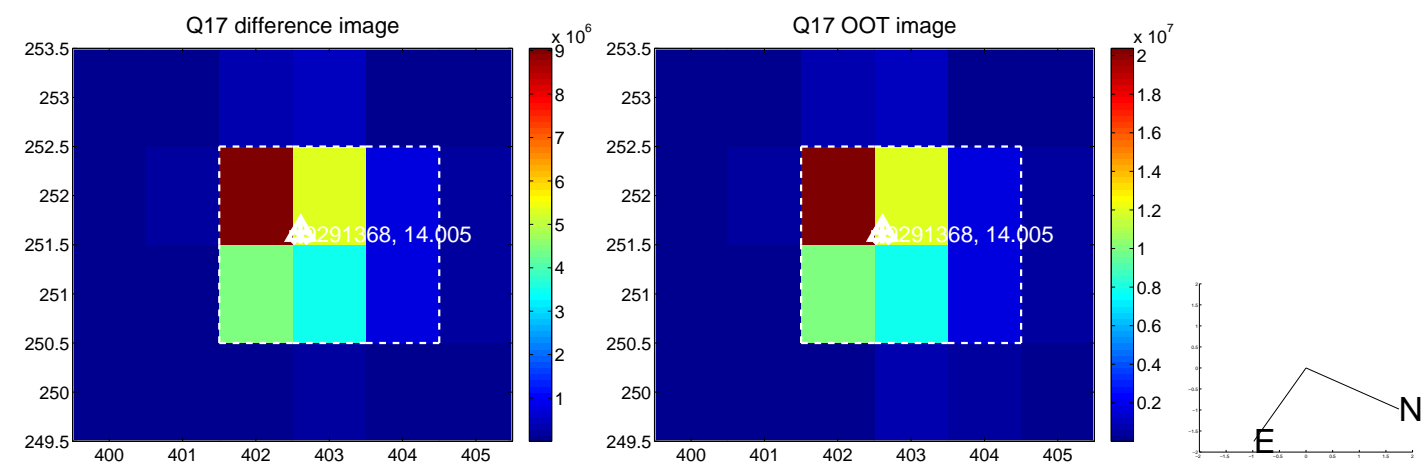
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

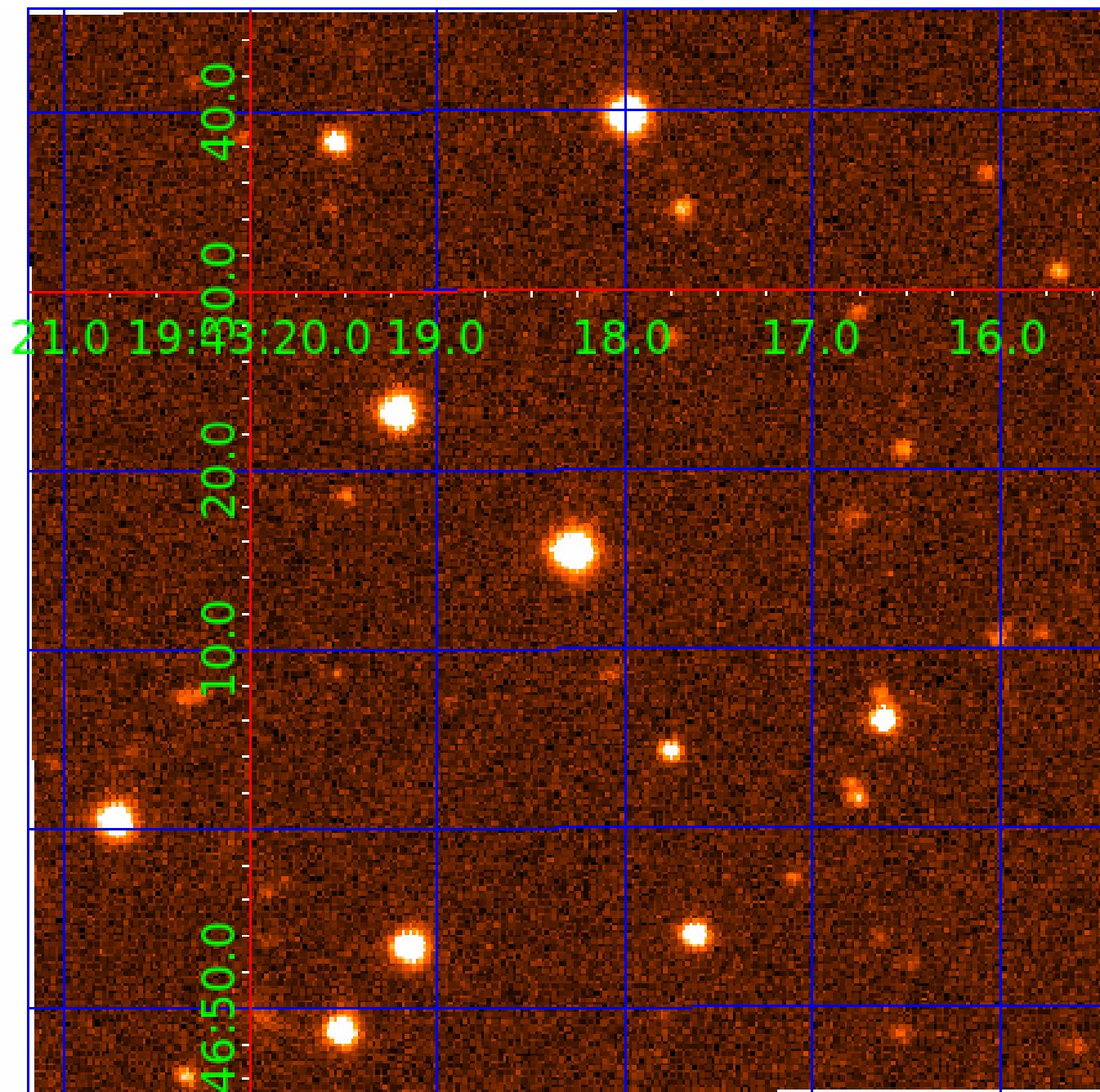


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 009291368

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})
009291368-01	OBS	7155.01	3.794997	131.909448	517869.1	6.000	3443.7	-1.0	3.07	8117	74.75	10446.08
009291368-02	OBS	7155.02	3.798004	132.698856	64618.0	10.701	403.8	319.6	3.07	8117	120.33	10435.06
009291368-03	OBS	No	3.821527	133.799553	2918.3	10.500	121.8	-1.0	3.07	8117	16.76	10349.50

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009291368-01	OBS	FP	0.00	0	1	0	0	SWEET_EB—MOD_SEC_ALT—CENT_NOFITS
009291368-02	OBS	FP	0.00	0	1	0	0	SWEET_EB—DEEP_V_SHAPED—CENT_FEW_DIFFS
009291368-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—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.

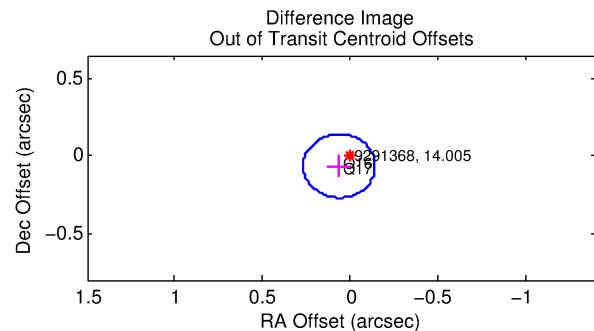
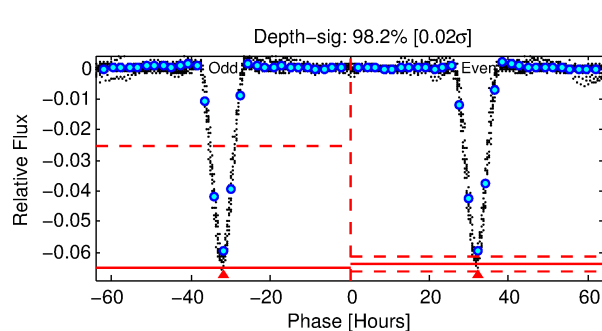
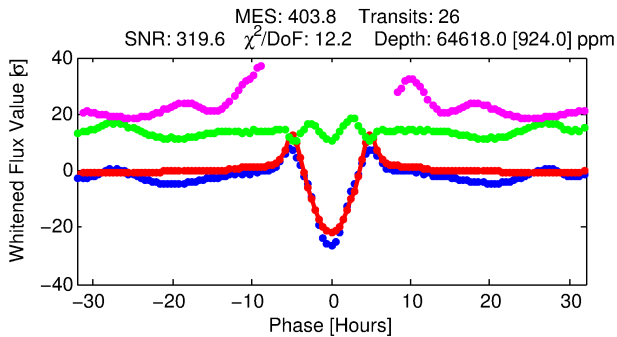
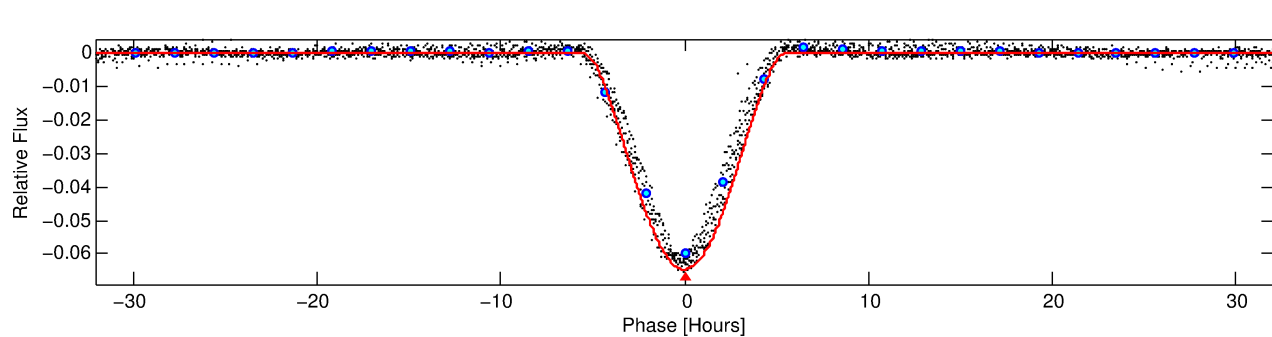
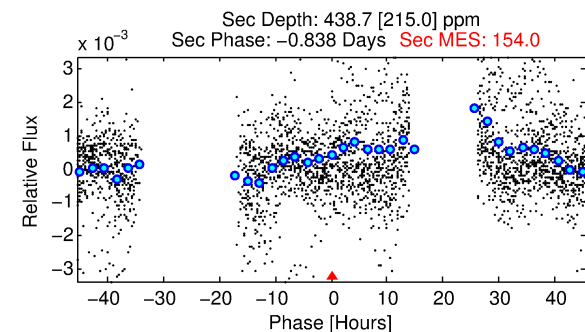
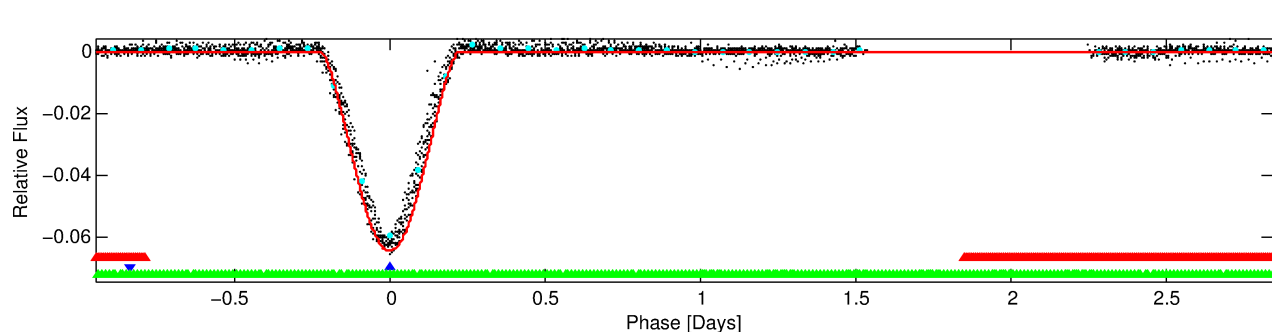
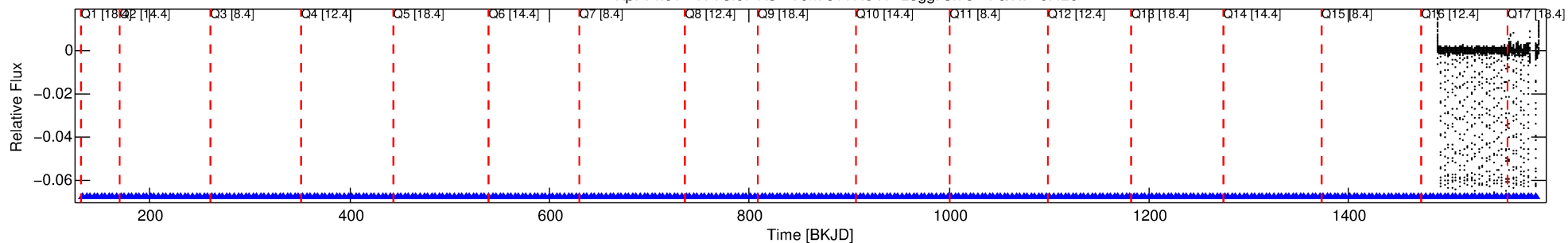
Ephemeris Match Information For 009291368-02

No Significant Match Found

DV One-Page Summary

KIC: 9291368 Candidate: 2 of 3 Period: 3.798 d
KOI: K07155.02 Corr: 0.975

Kp: 14.01 R*: 3.07 Rs Teff: 8117.0 K Logg: 3.75 Fe/H: -0.420



DV Fit Results:

Period = 3.79800 [0.00001] d
Epoch = 132.6989 [0.0028] BKJD
Rp/R* = 0.3592 [0.0802]
a/R* = 2.86 [0.03]
b = 0.95 [0.12]
Seff = 10435.06 [7982.85]
Teq = 2577 [493] K
Rp = 120.33 [62.52] Re
a = 0.0593 [0.0273] AU
Ag = 0.06 [0.06] [-16.10σ]
Teffp = 1960 [335] K [-1.04σ]

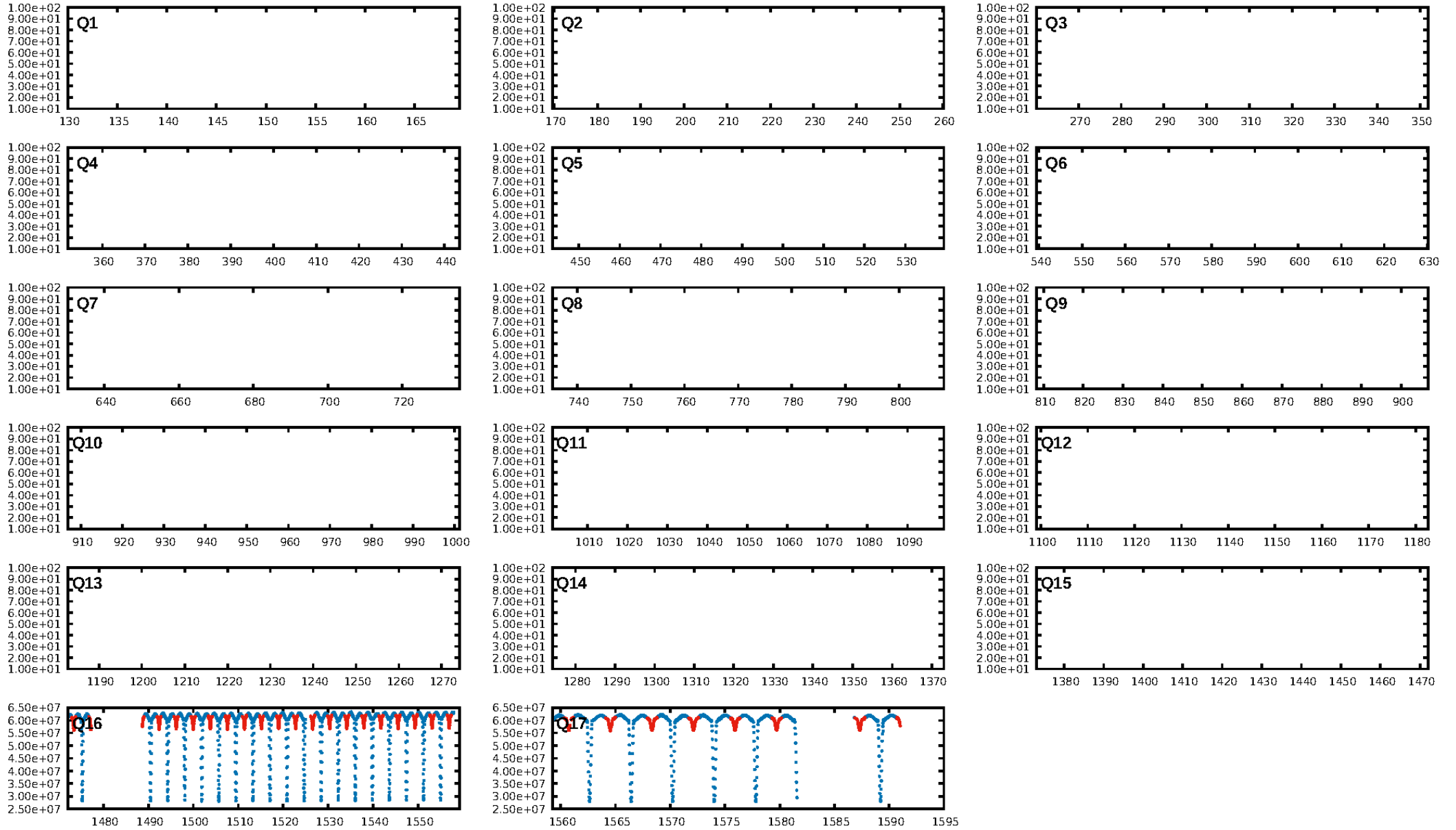
DV Diagnostic Results:

ShortPeriod-sig: 0.5% [0.01σ]
LongPeriod-sig: 3.0% [0.04σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [19/19]
GhostDiagnostic-chr: 0.9183
Centroid-sig: N/A
Centroid-so: 0.291 arcsec [47.73σ]
OotOffset-rm: 0.091 arcsec [1.33σ]
KicOffset-rm: 0.127 arcsec [1.75σ]
OotOffset-st: 0/0/1/1 [2]
KicOffset-st: 0/0/1/1 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [2/2]

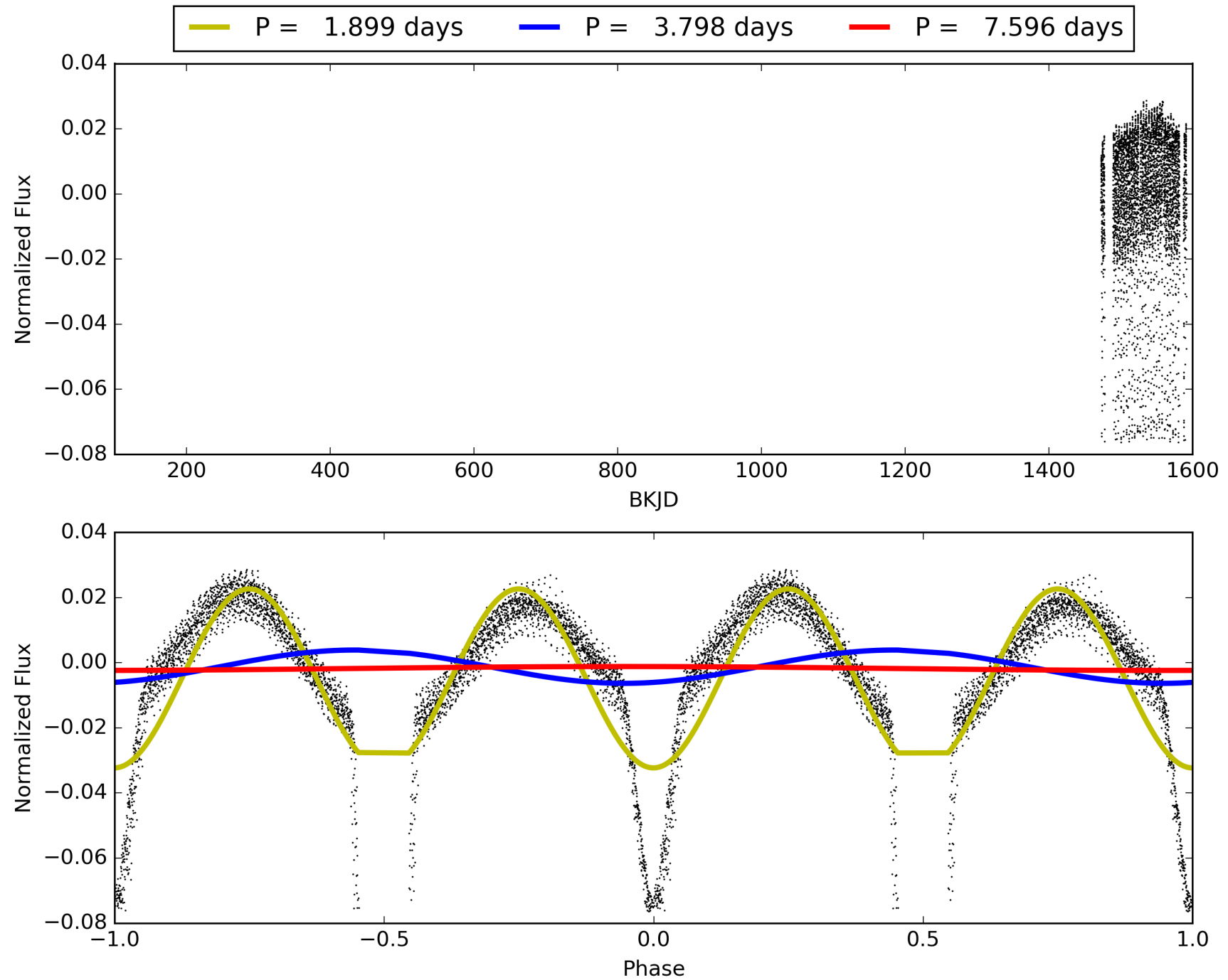
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 07:58:03 Z

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

TCE 009291368-02, PDC Light Curves

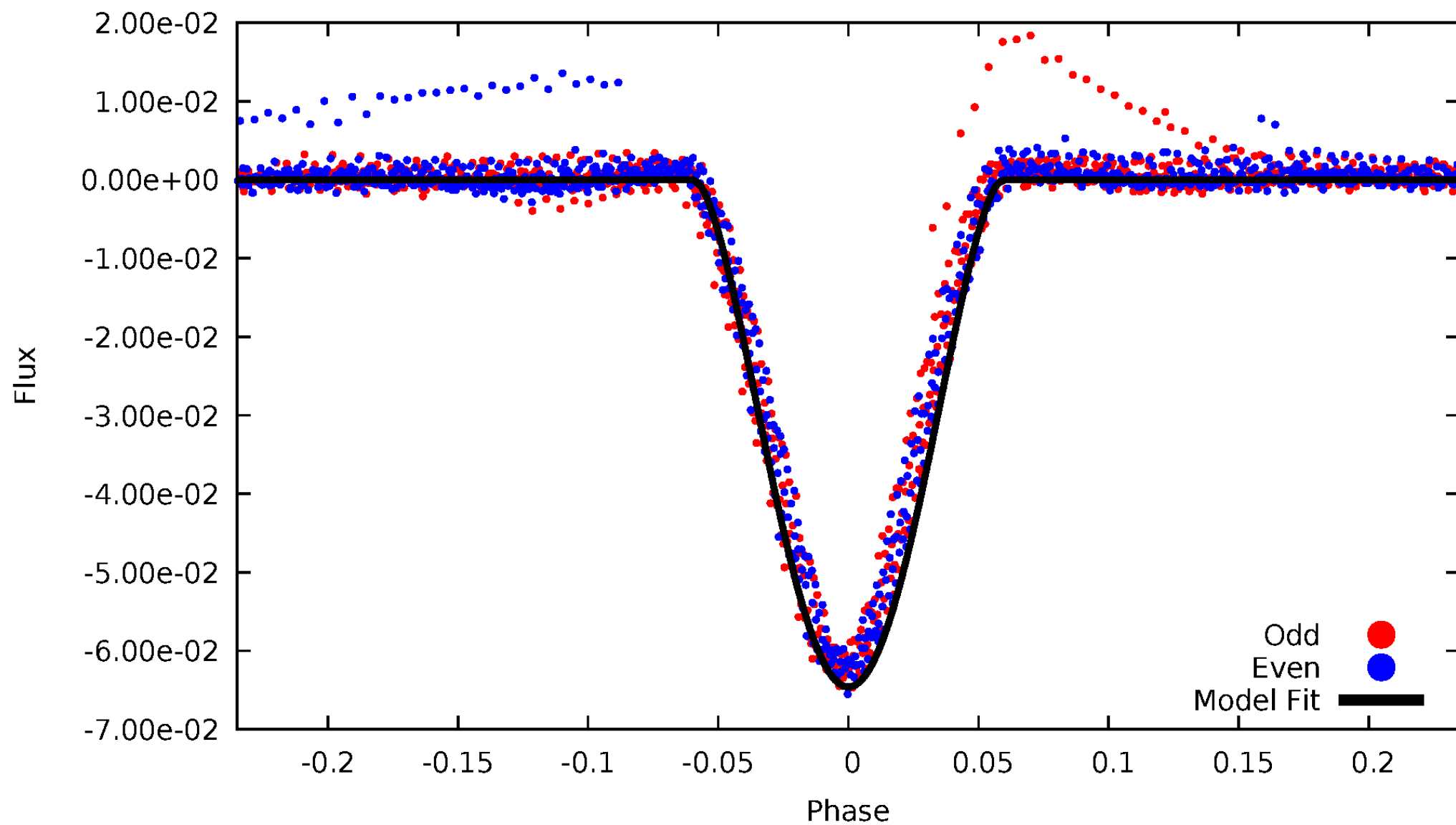


TCE 009291368-02



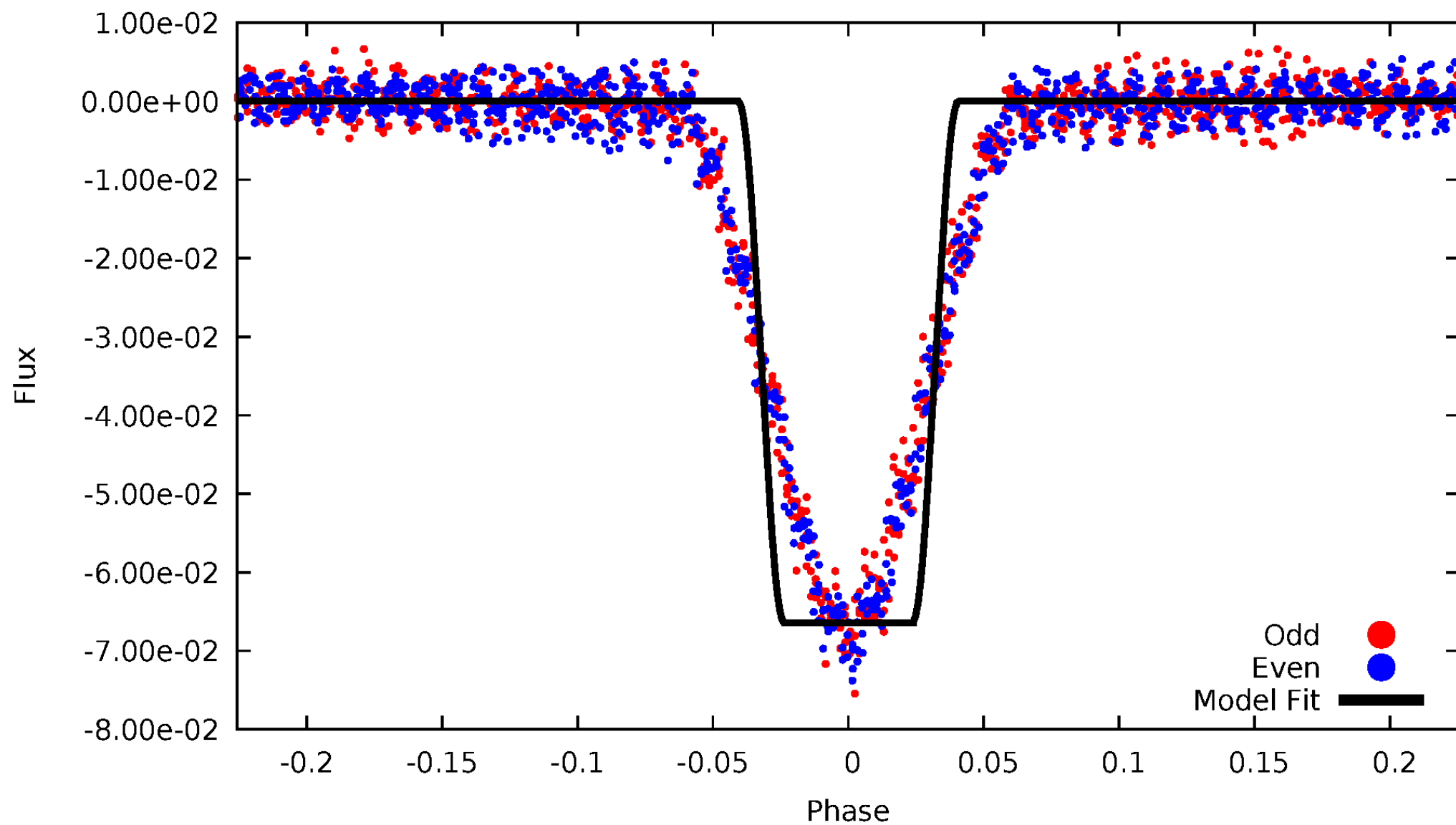
DV Odd/Even

TCE 009291368-02



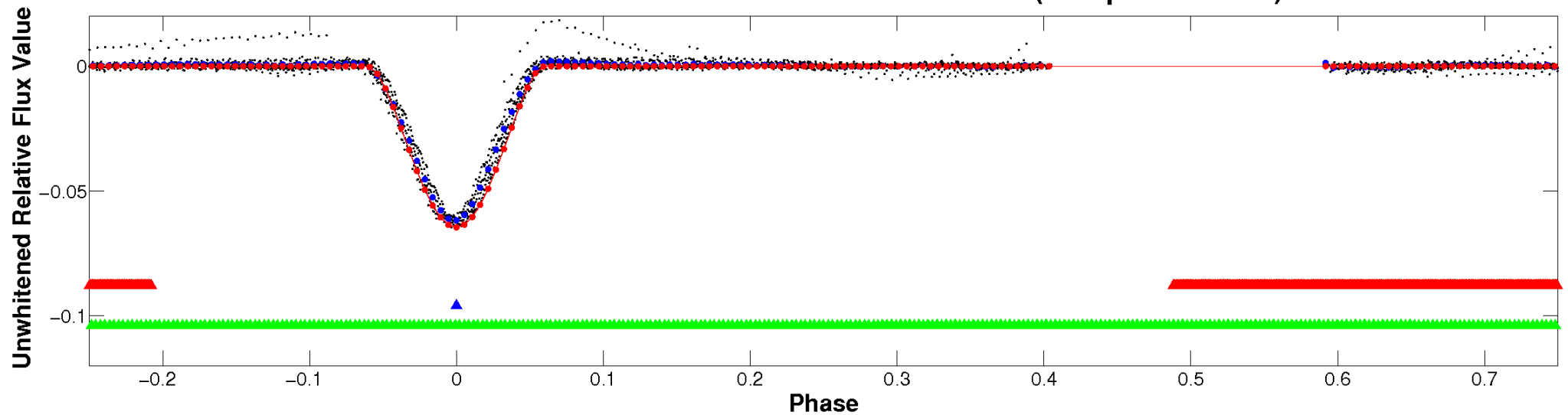
ALT Odd/Even

TCE 009291368-02

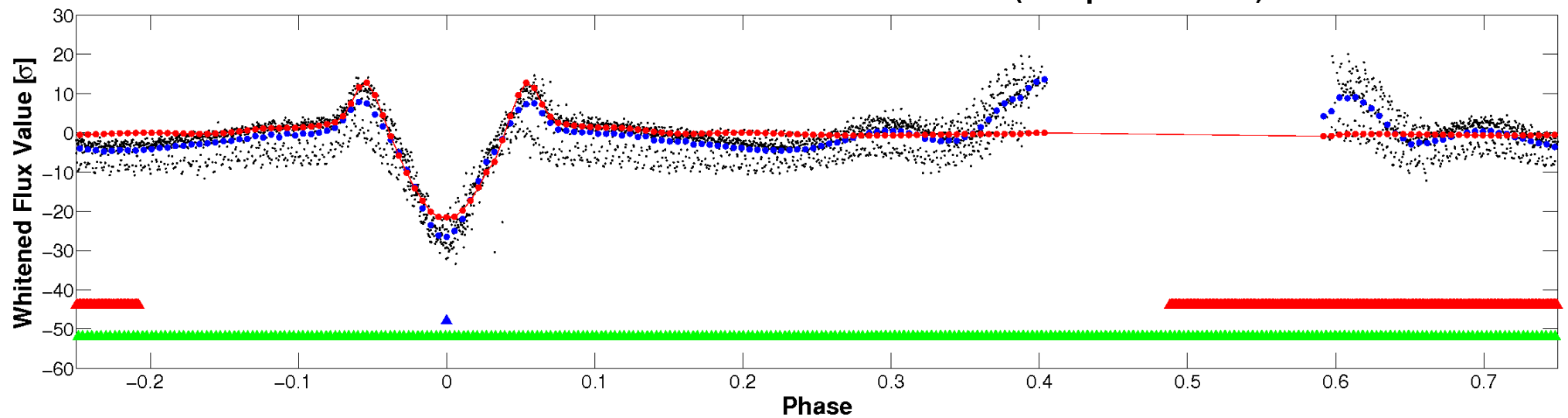


Non-Whitened Vs. Whitened Light Curve

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

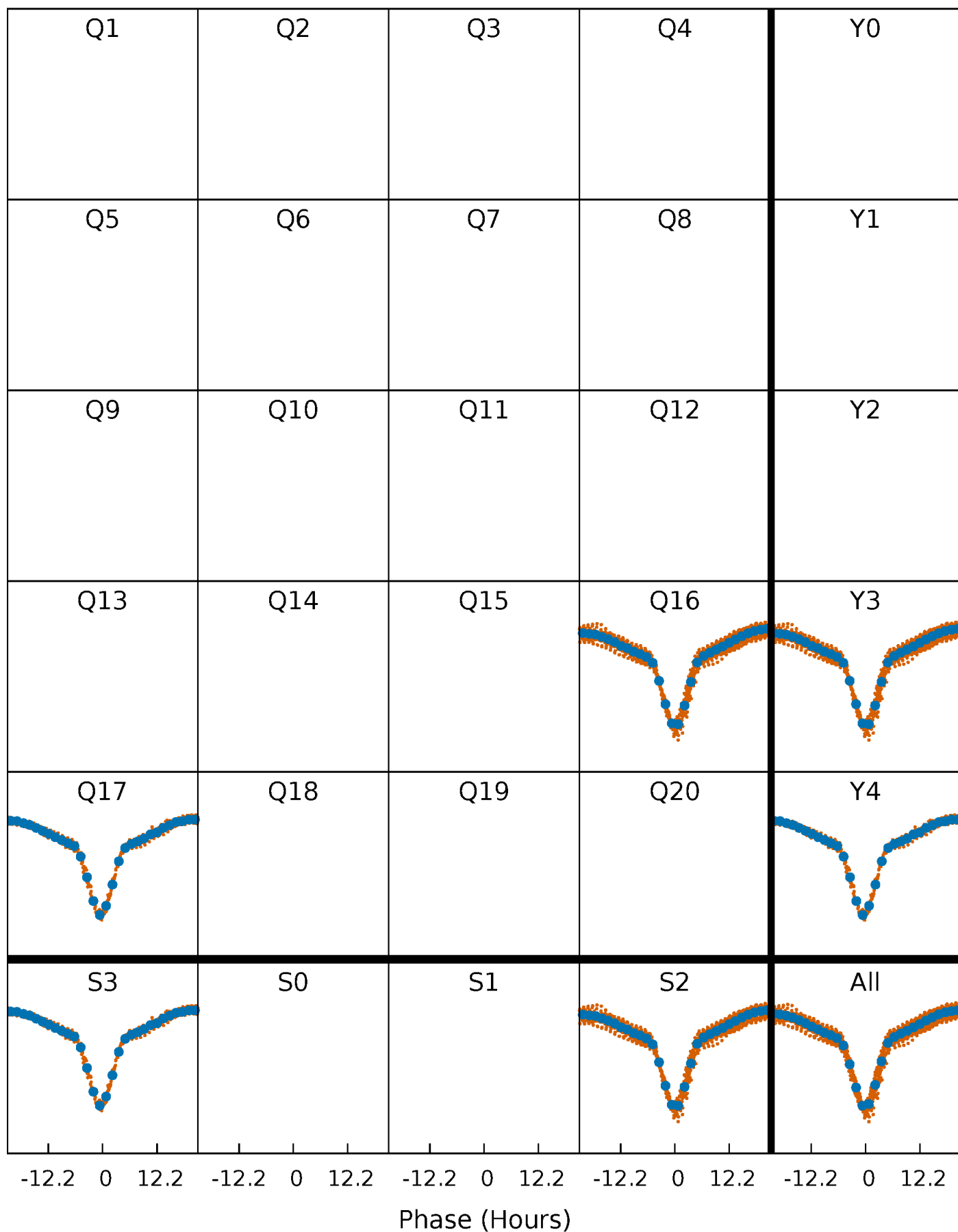


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



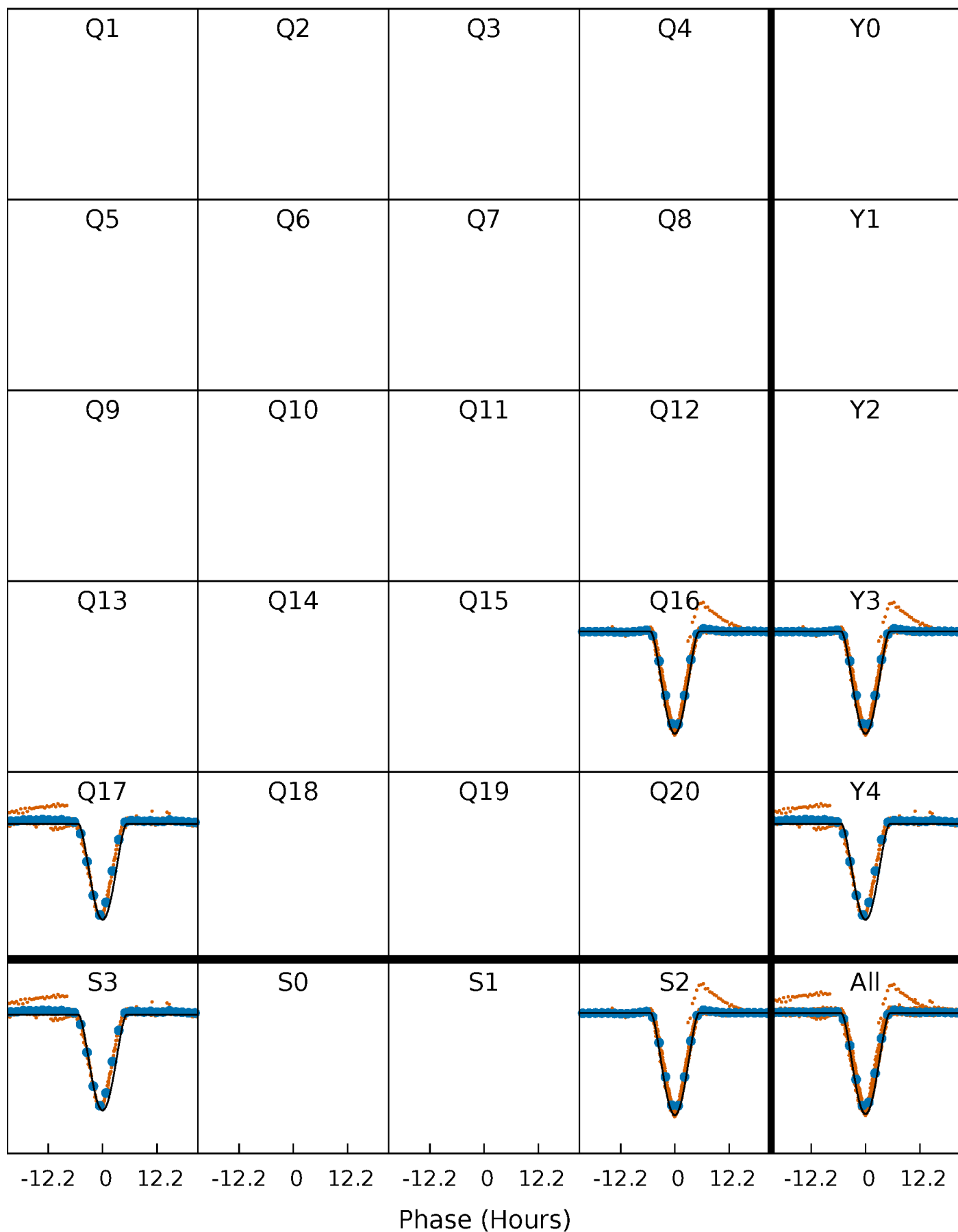
PDC Quarter-Phased Transit Curves

TCE 009291368-02 P= 3.798004 Days $T_0=132.698856$ (BKJD)



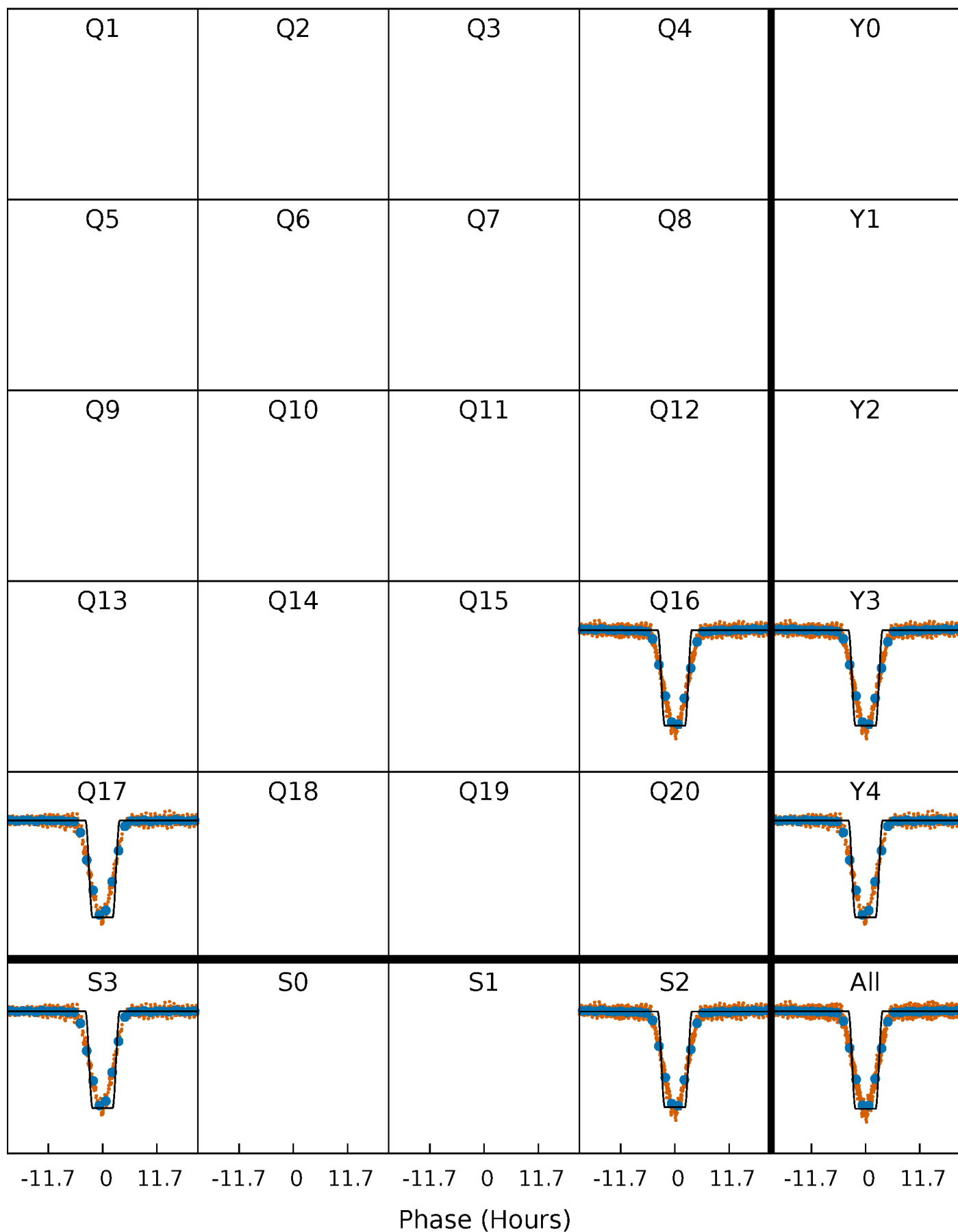
DV Quarter-Phased Transit Curves

TCE 009291368-02 P= 3.798004 Days $T_0=132.698856$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

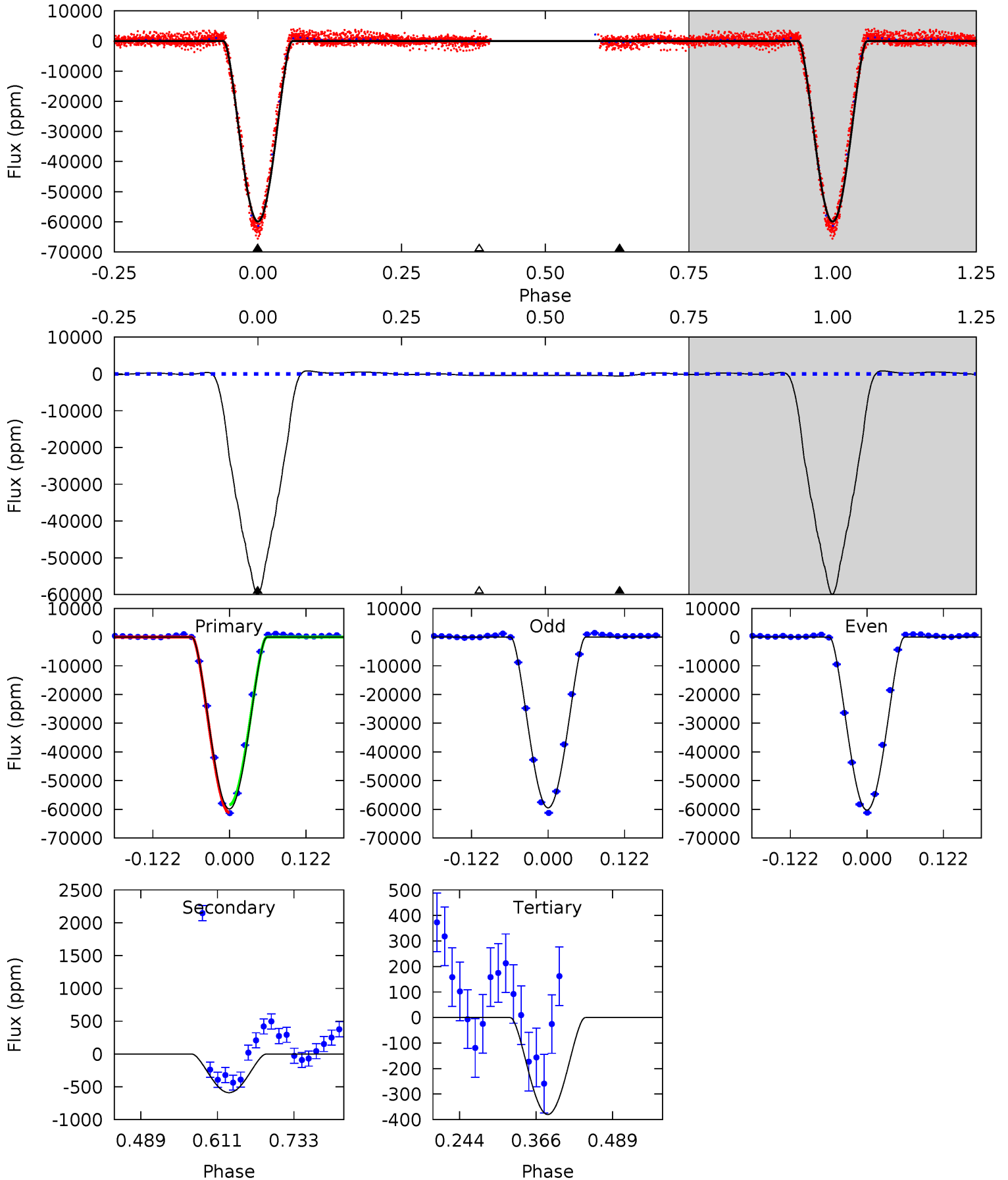
TCE 009291368-02 P= 3.797306 Days $T_0=132.952011$ (BKJD)



DV Model-Shift Uniqueness Test

009291368-02, P = 3.798004 Days, E = 132.698856 Days

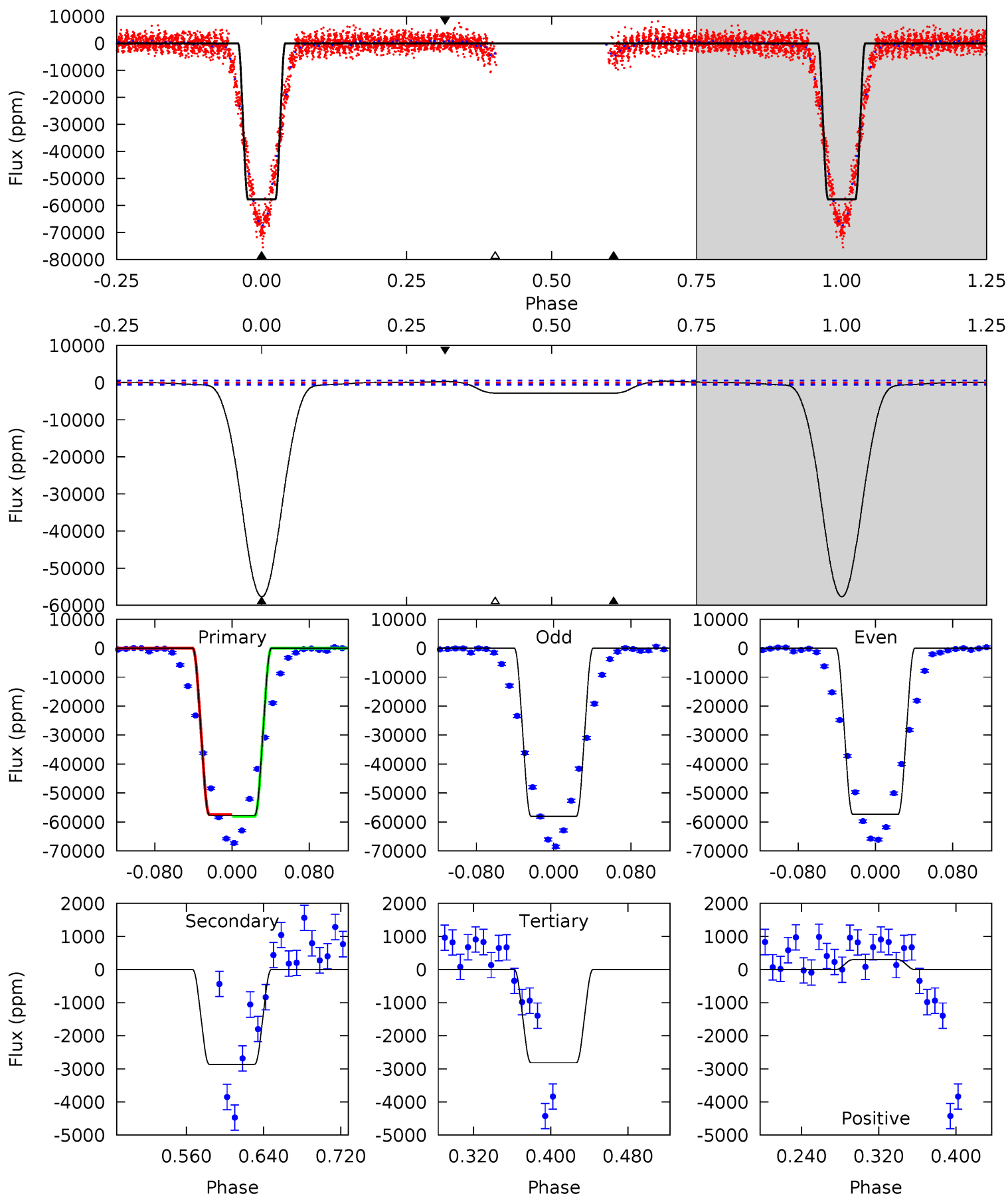
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1204	11.8	7.64	0	4.52	1.55	5.06	1196	1204	4.20	11.8	7.85	0.96	0.01	27.0



Alt Model-Shift Uniqueness Test

009291368-02, P = 3.797306 Days, E = 132.952011 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
485.3	24.1	23.7	2.50	4.61	1.75	5.37	461.6	482.8	0.40	21.6	2.84	1.01	0.01	2.79



Stellar Parameters For KIC 009291368

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8117^{+251}_{-334}	$3.748^{+0.442}_{-0.078}$	$-0.420^{+0.200}_{-0.300}$	$3.070^{+0.270}_{-1.440}$	$1.922^{+0.084}_{-0.501}$	$0.094^{+0.405}_{-0.024}$
	+3%/-4%	+12%/-2%	+48%/-71%	+9%/-47%	+4%/-26%	+433%/-26%
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 009291368-02 / KOI 7155.02

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-589 ± 50	$109.79^{+34.21}_{-31.17}$	3521^{+228}_{-401}	-3156^{+401}_{-181}	$0.091^{+0.081}_{-0.037}$
Alt.	-2864 ± 119	$79.19^{+29.29}_{-27.99}$	3517^{+223}_{-397}	3653^{+634}_{-540}	$0.858^{+1.120}_{-0.379}$

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 $A_{obs} \gg 1.0$

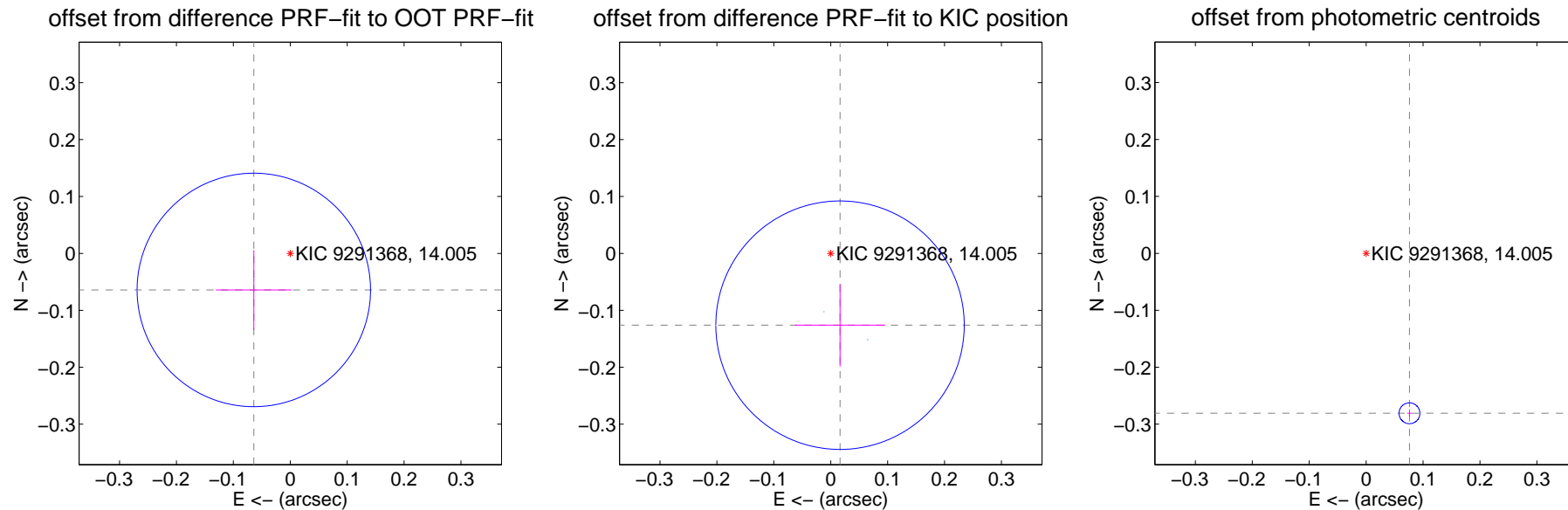
DV Centroid Data

Supplemental centroid analysis for 009291368-02. Kepler magnitude: 14.01. Transit SNR 319.60

There are 2 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.091 ± 0.068	1.33	0.064 ± 0.067	-0.064 ± 0.070
PRF-fit source offset from KIC position	0.127 ± 0.073	1.75	-0.016 ± 0.079	-0.126 ± 0.073
photometric centroid source offset	0.29 ± 0.01	47.73	-0.08 ± 0.00	-0.28 ± 0.01



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.



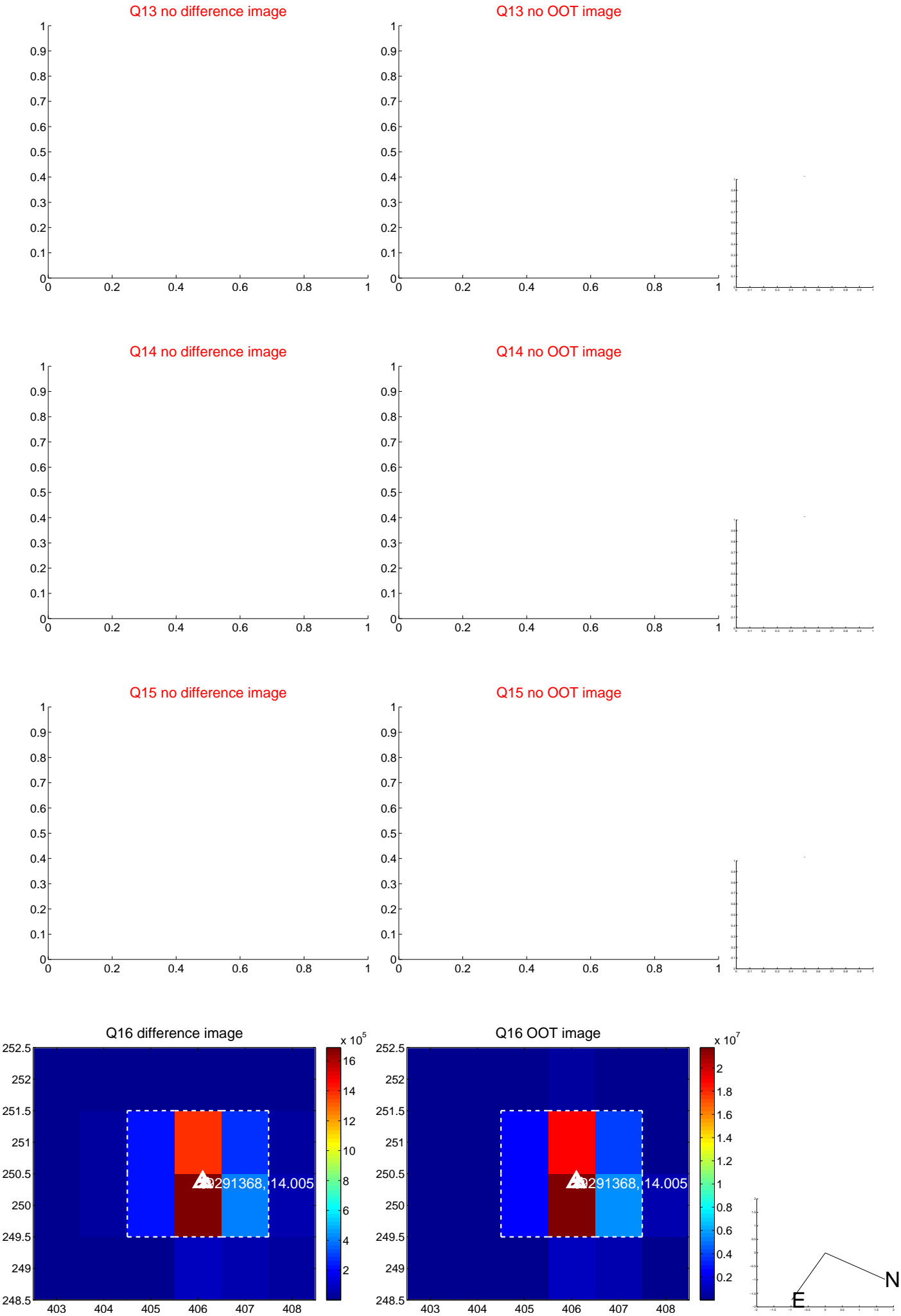
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



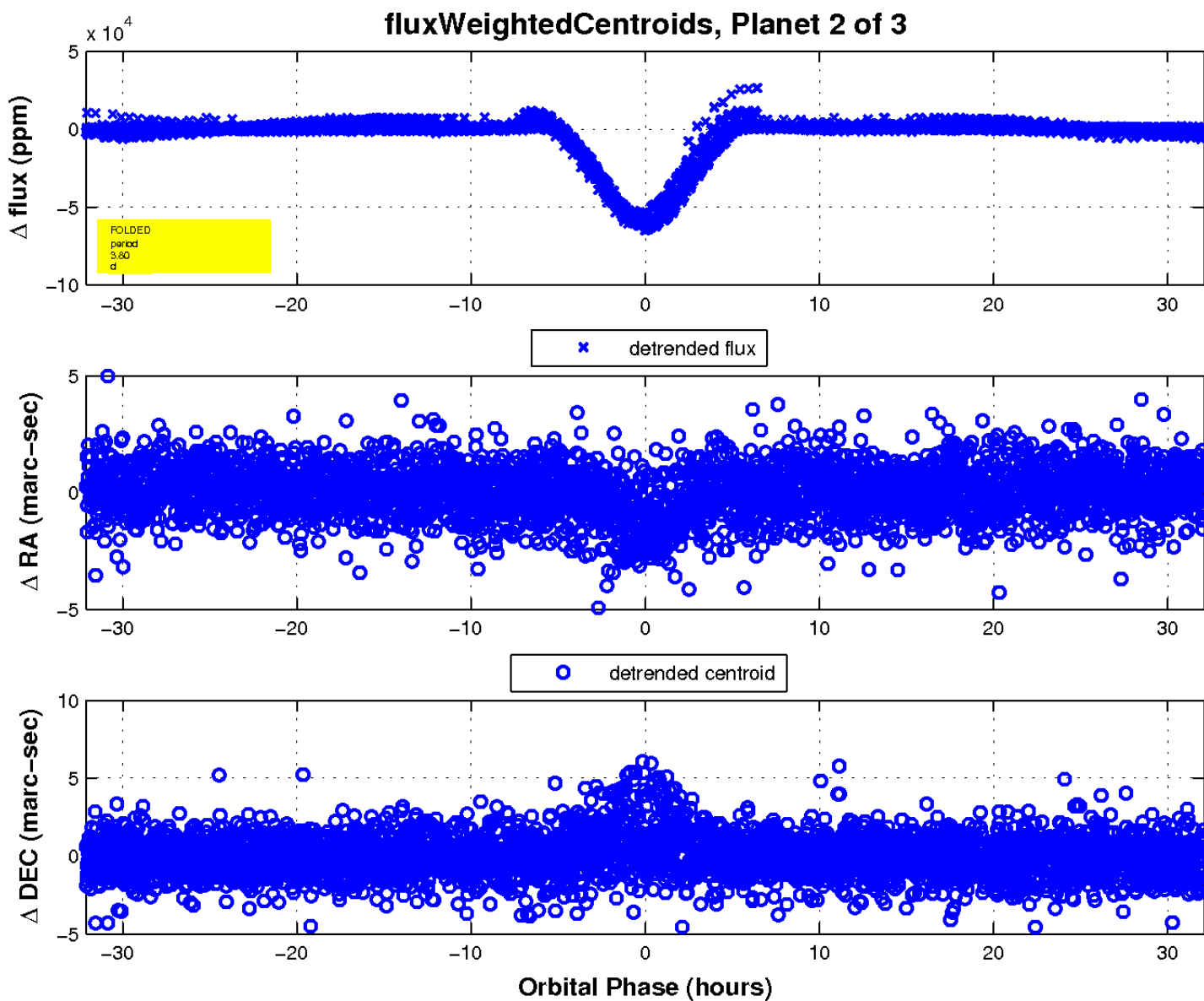
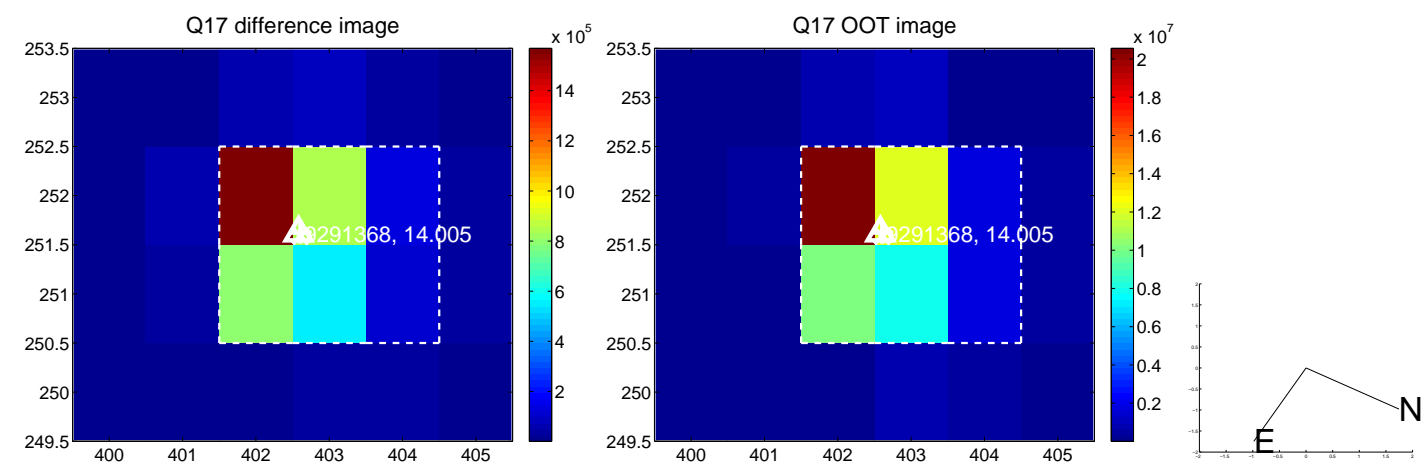
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

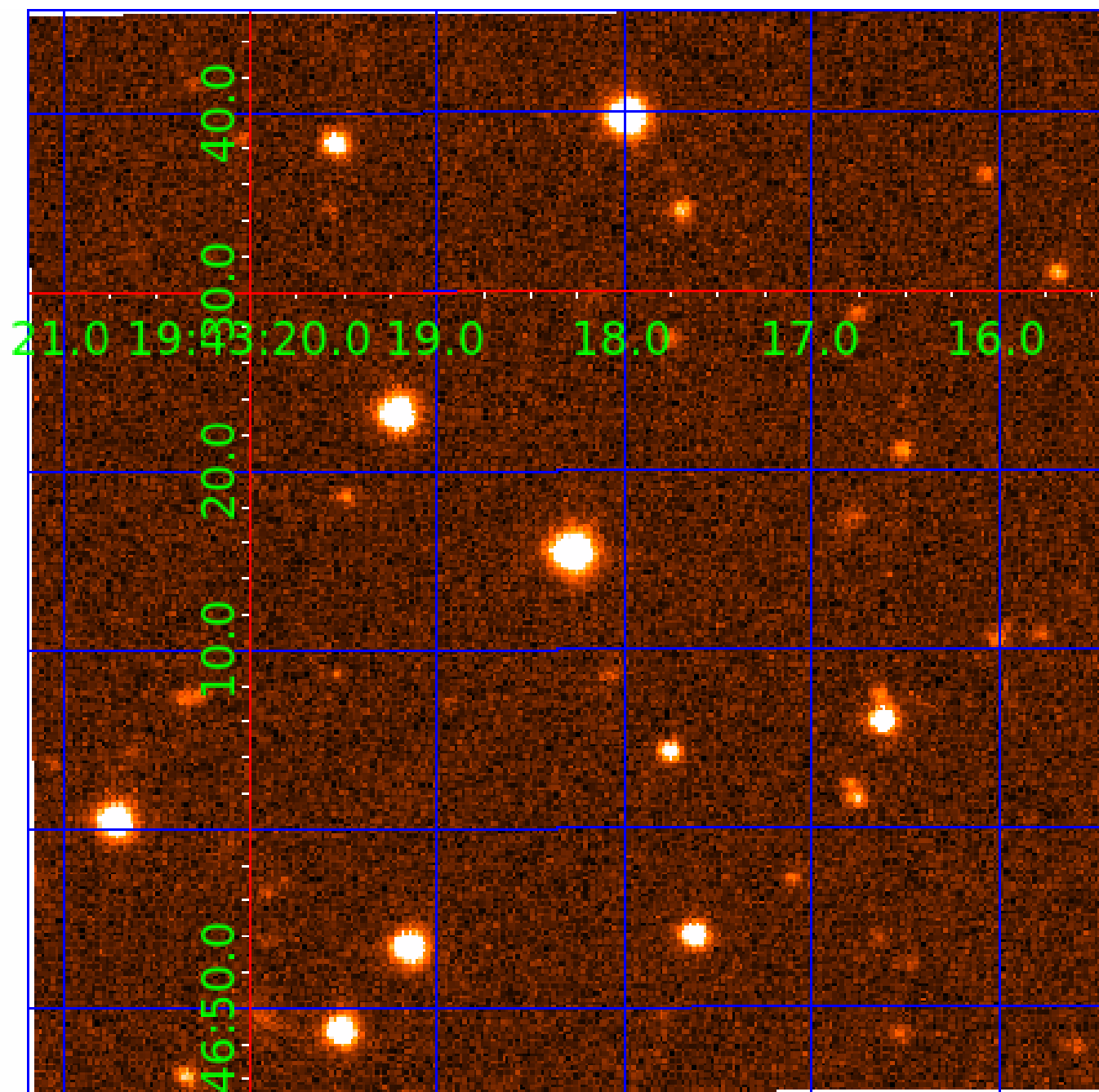


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 009291368

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})
009291368-01	OBS	7155.01	3.794997	131.909448	517869.1	6.000	3443.7	-1.0	3.07	8117	74.75	10446.08
009291368-02	OBS	7155.02	3.798004	132.698856	64618.0	10.701	403.8	319.6	3.07	8117	120.33	10435.06
009291368-03	OBS	No	3.821527	133.799553	2918.3	10.500	121.8	-1.0	3.07	8117	16.76	10349.50

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009291368-01	OBS	FP	0.00	0	1	0	0	SWEET_EB—MOD_SEC_ALT—CENT_NOFITS
009291368-02	OBS	FP	0.00	0	1	0	0	SWEET_EB—DEEP_V_SHAPED—CENT_FEW_DIFFS
009291368-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—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 009291368-03

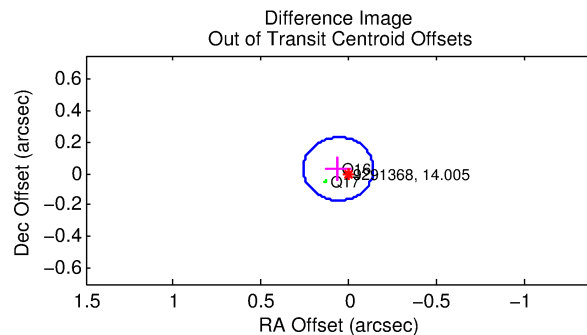
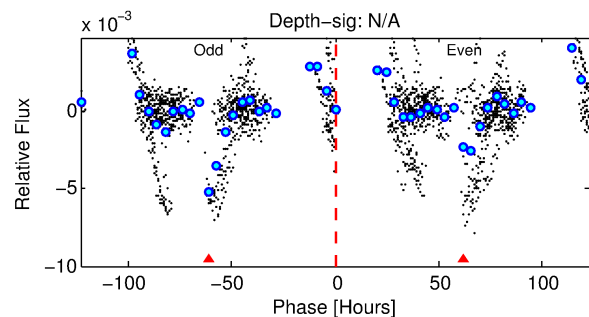
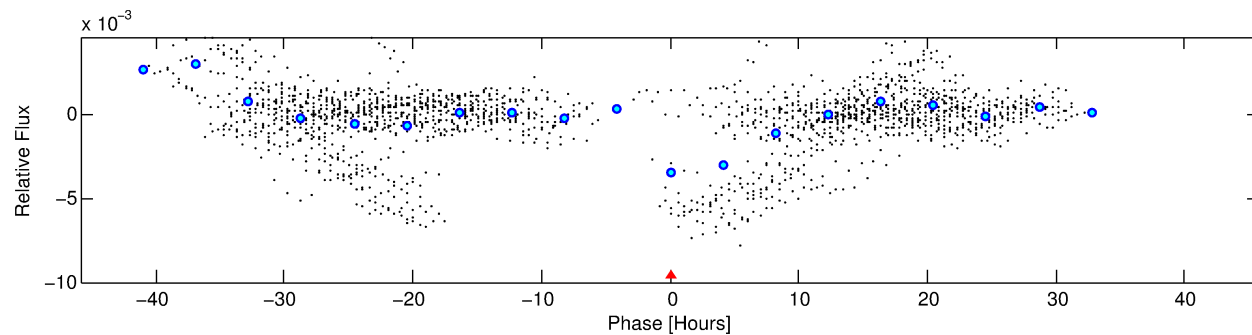
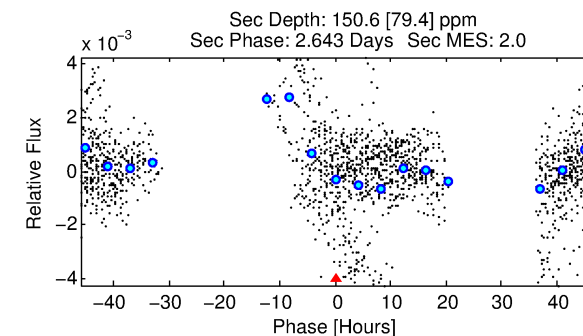
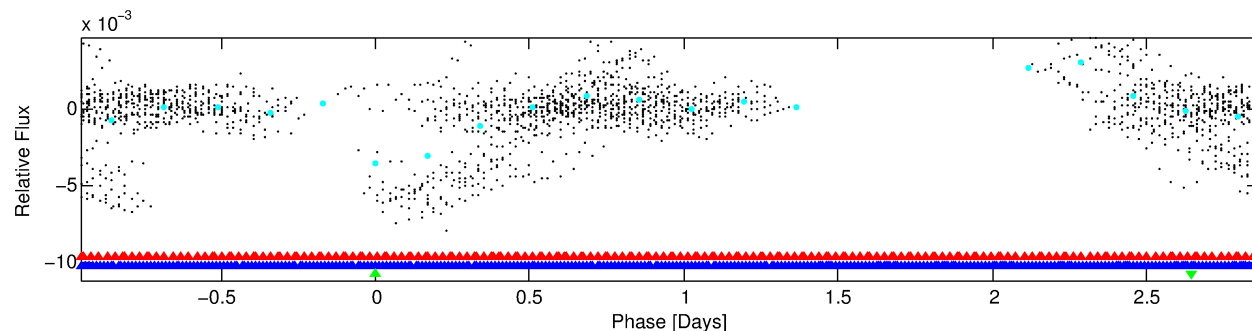
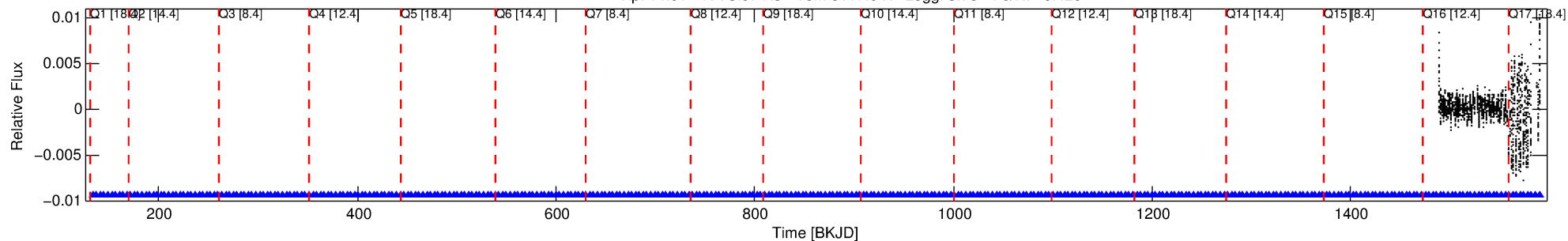
No Significant Match Found

DV One-Page Summary

KIC: 9291368 Candidate: 3 of 3 Period: 3.822 d

KOI: K07155 Corr: No Ephemeris Match

Kp: 14.01 R*: 3.07 Rs Teff: 8117.0 K Logg: 3.75 Fe/H: -0.420



TPS TCE Results:

Period = 3.82153 d
Epoch = 133.7996 BKJD

DV fit results are unavailable

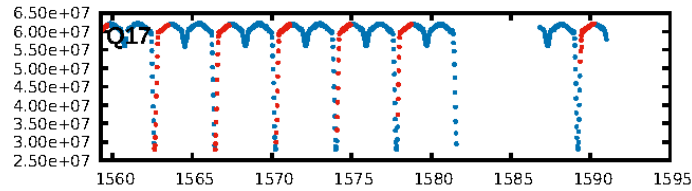
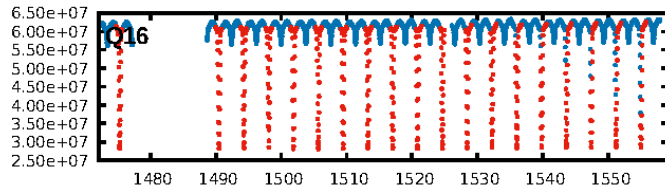
DV Diagnostic Results:

ShortPeriod-sig: 3.0% [0.04 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [17/17]
GhostDiagnostic-chr: 5.793
Centroid-sig: N/A
Centroid-so: 0.356 arcsec [10.22 σ]
OotOffset-rm: 0.069 arcsec [1.03 σ]
KicOffset-rm: 0.027 arcsec [0.33 σ]
OotOffset-st: 0/0/1/1 [2]
KicOffset-st: 0/0/1/1 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 0.00 [0/2]

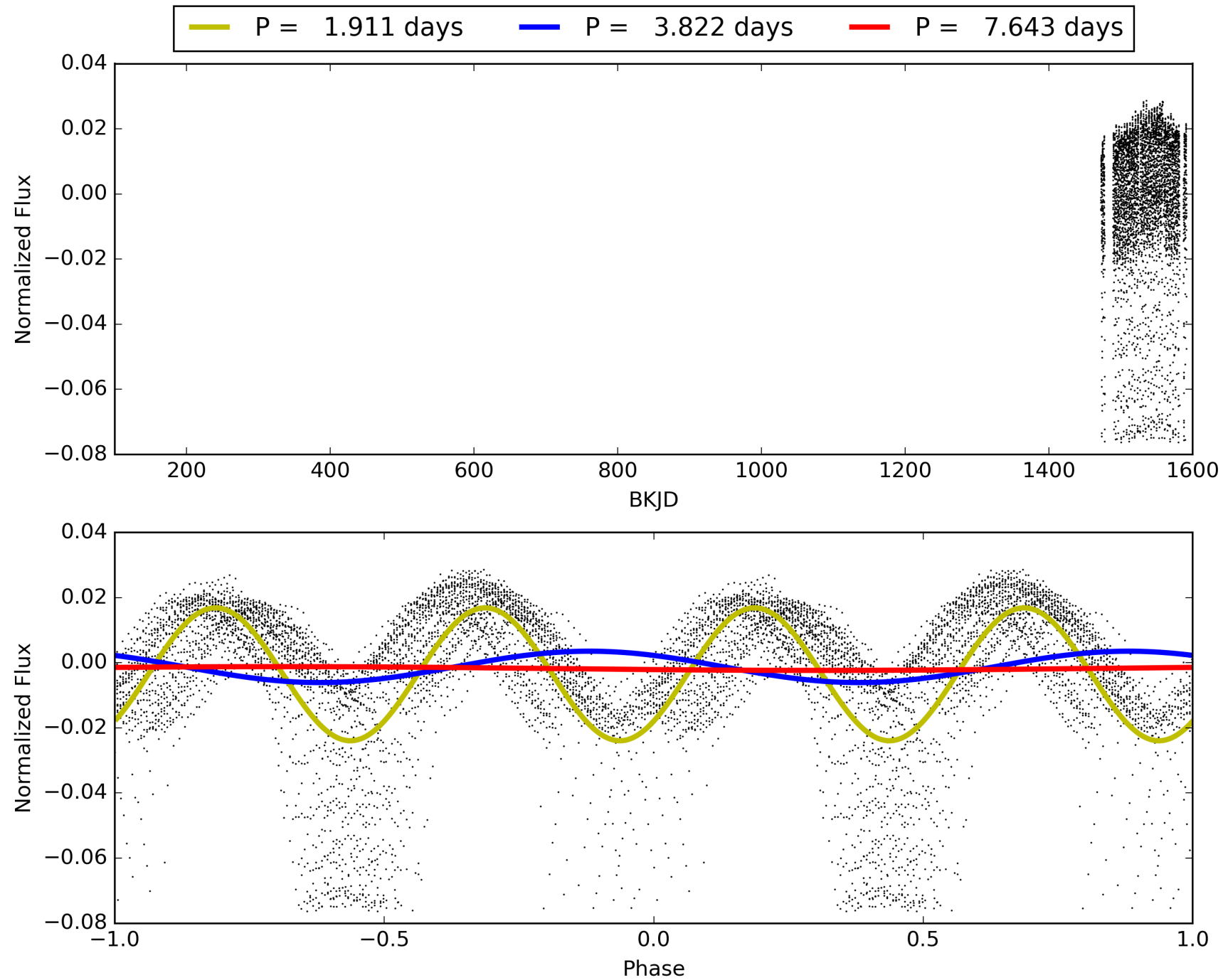
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 07:58:09 Z

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

TCE 009291368-03, PDC Light Curves

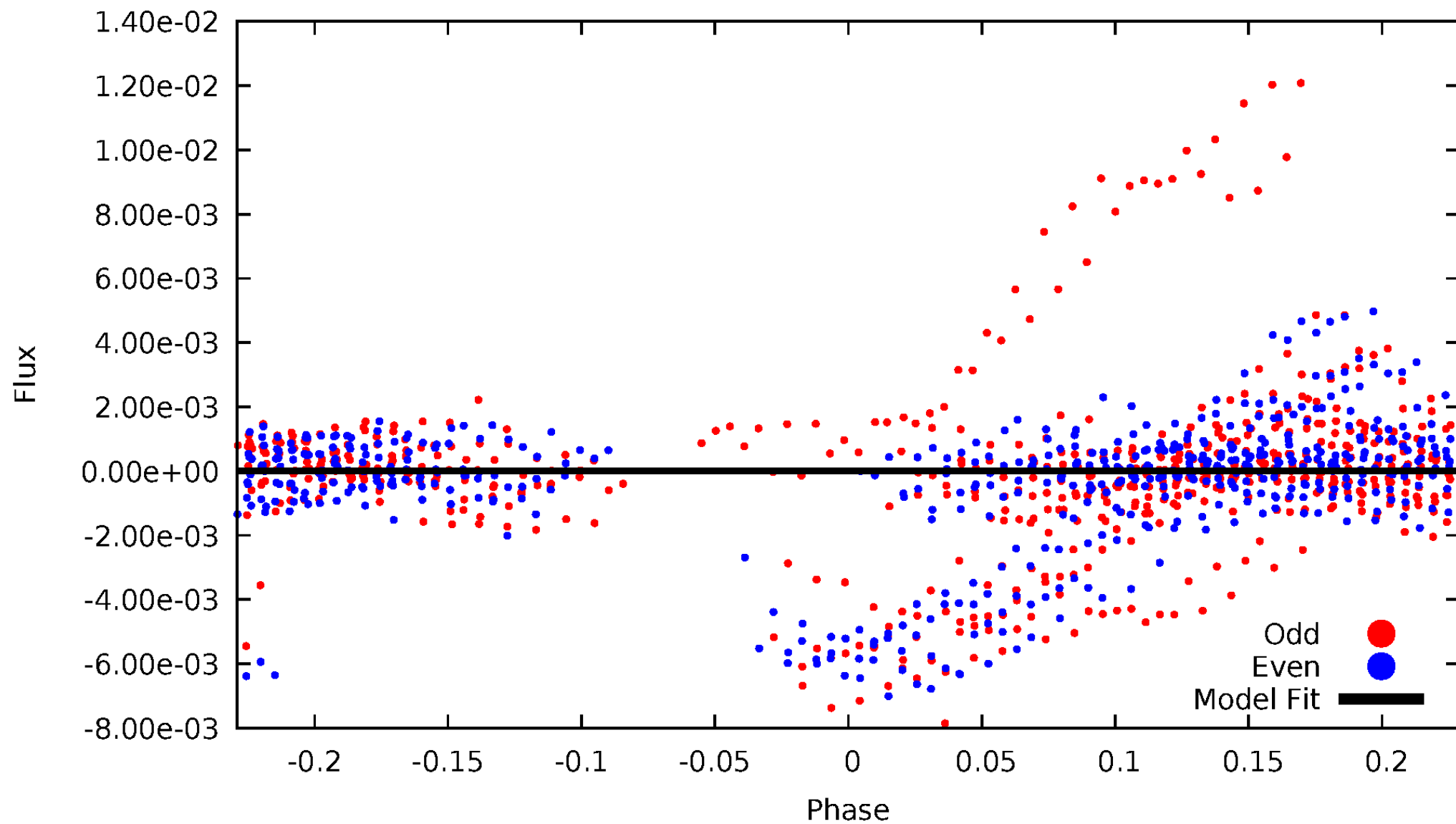


TCE 009291368-03



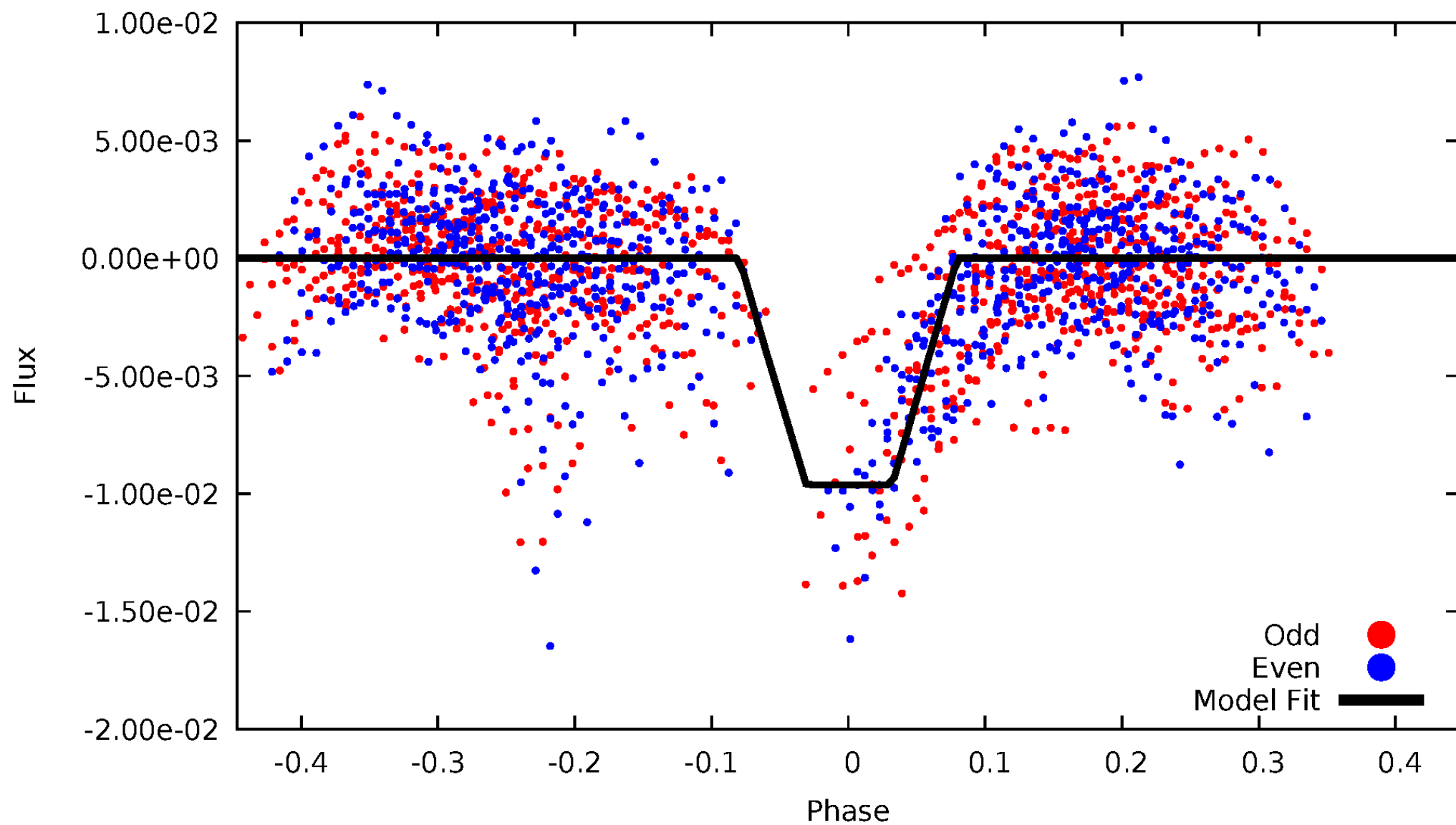
DV Odd/Even

TCE 009291368-03



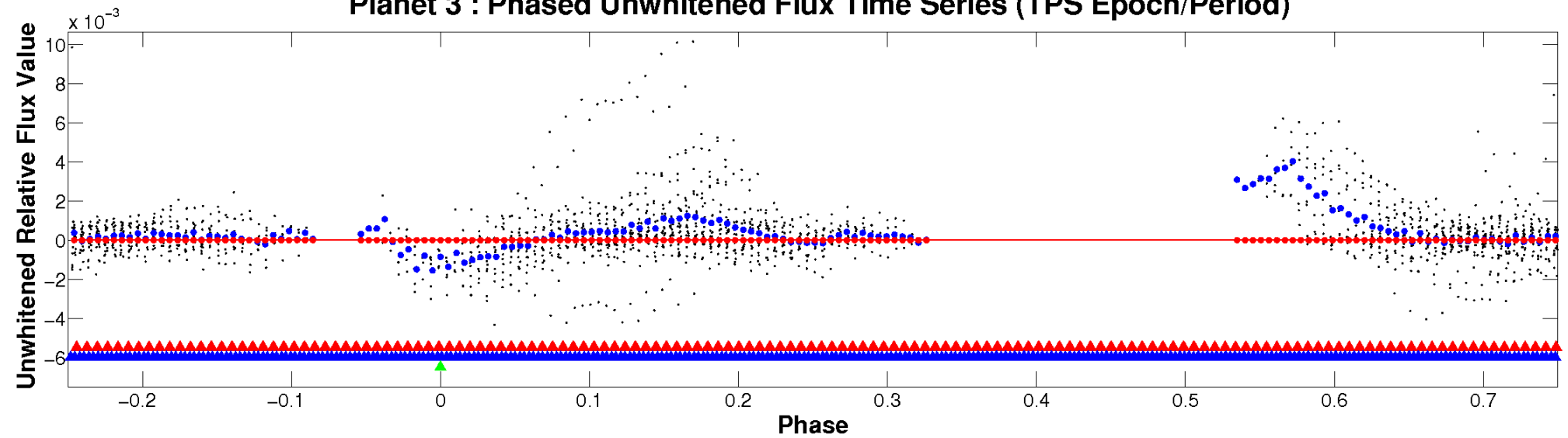
ALT Odd/Even

TCE 009291368-03



Non-Whitened Vs. Whitened Light Curve

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

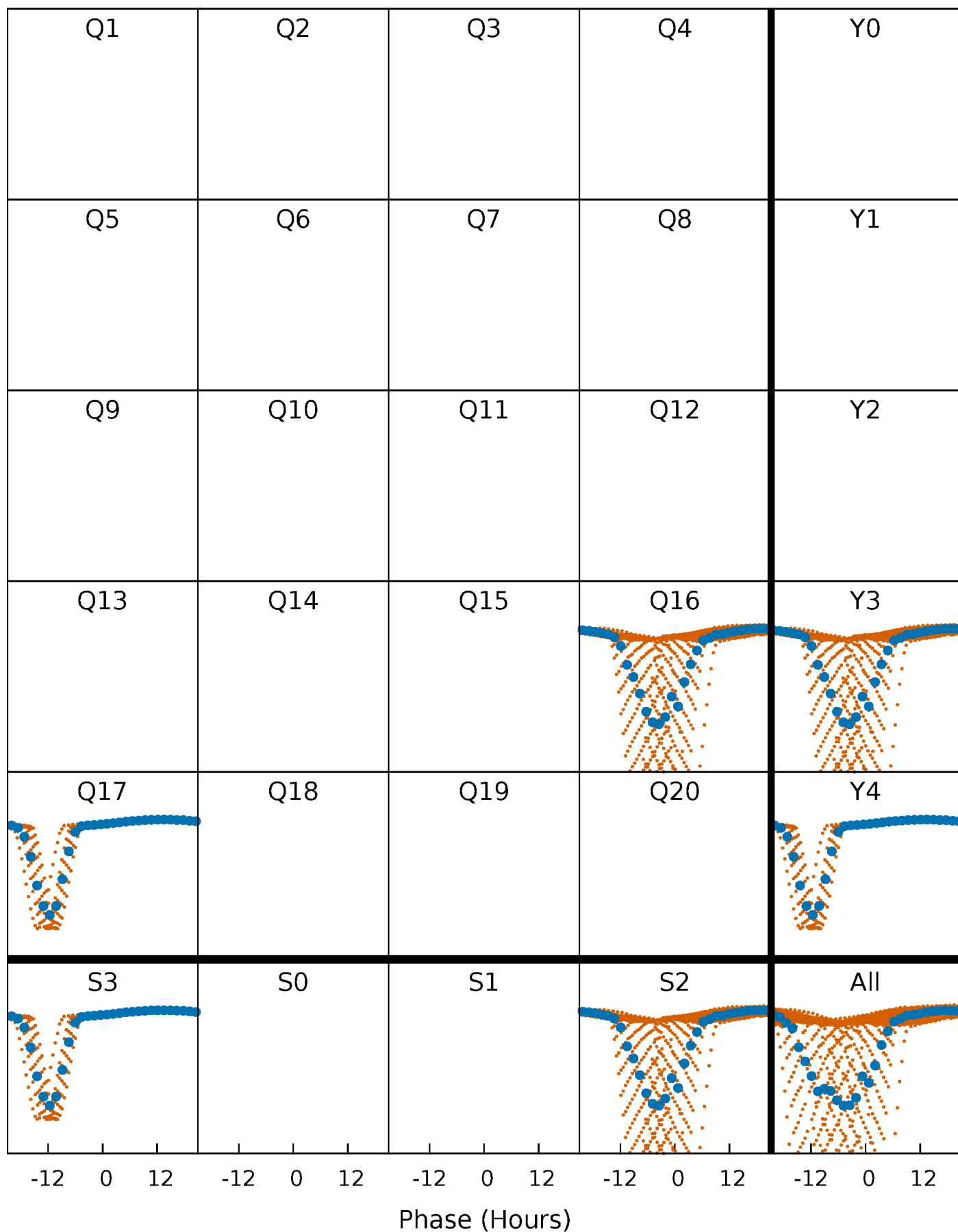


Planet 3 : Phased Whitened Flux Time Series (TPS Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 009291368-03 P= 3.821527 Days $T_0=133.799553$ (BKJD)



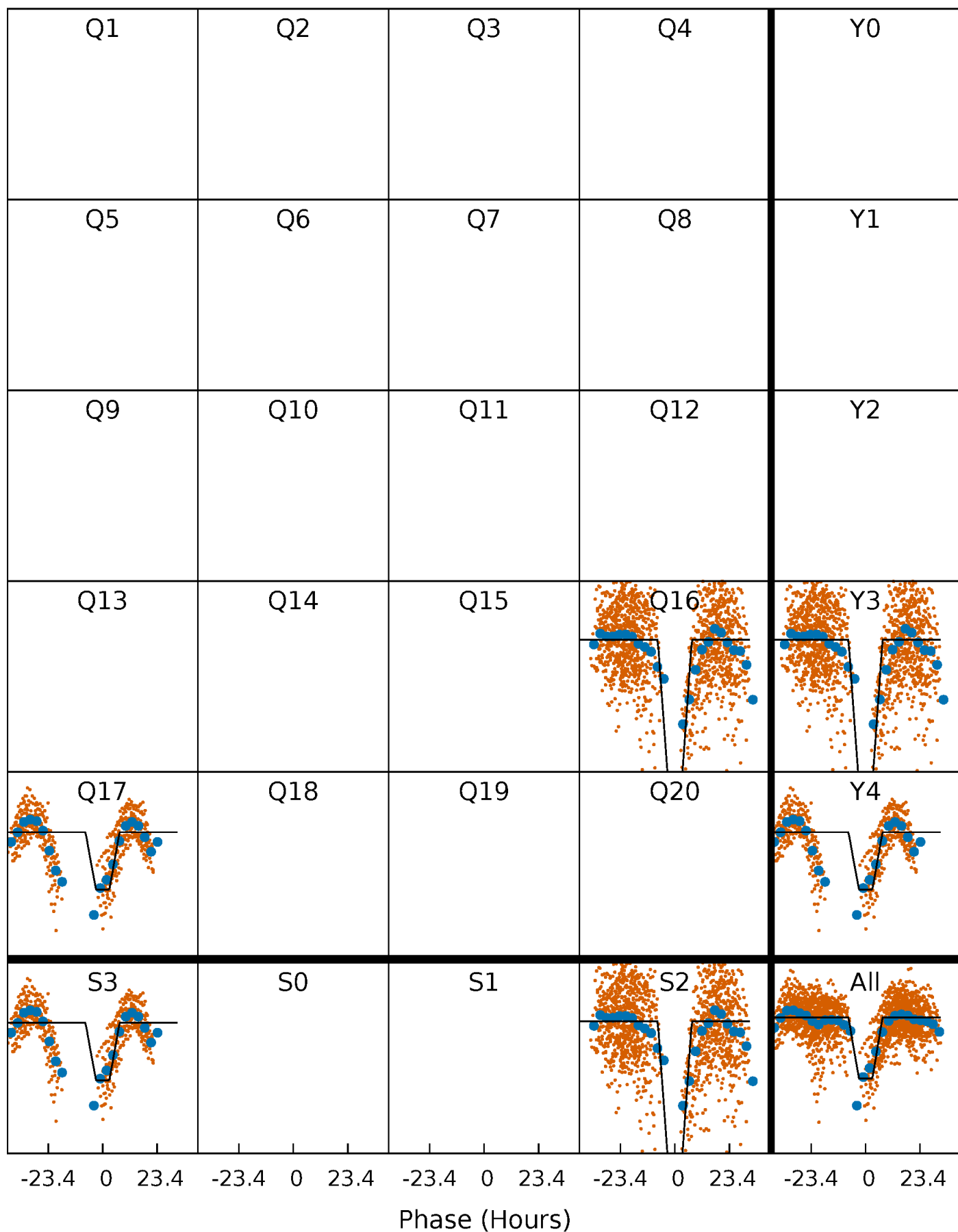
DV Quarter-Phased Transit Curves

TCE 009291368-03 P= 3.821527 Days $T_0=133.799553$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

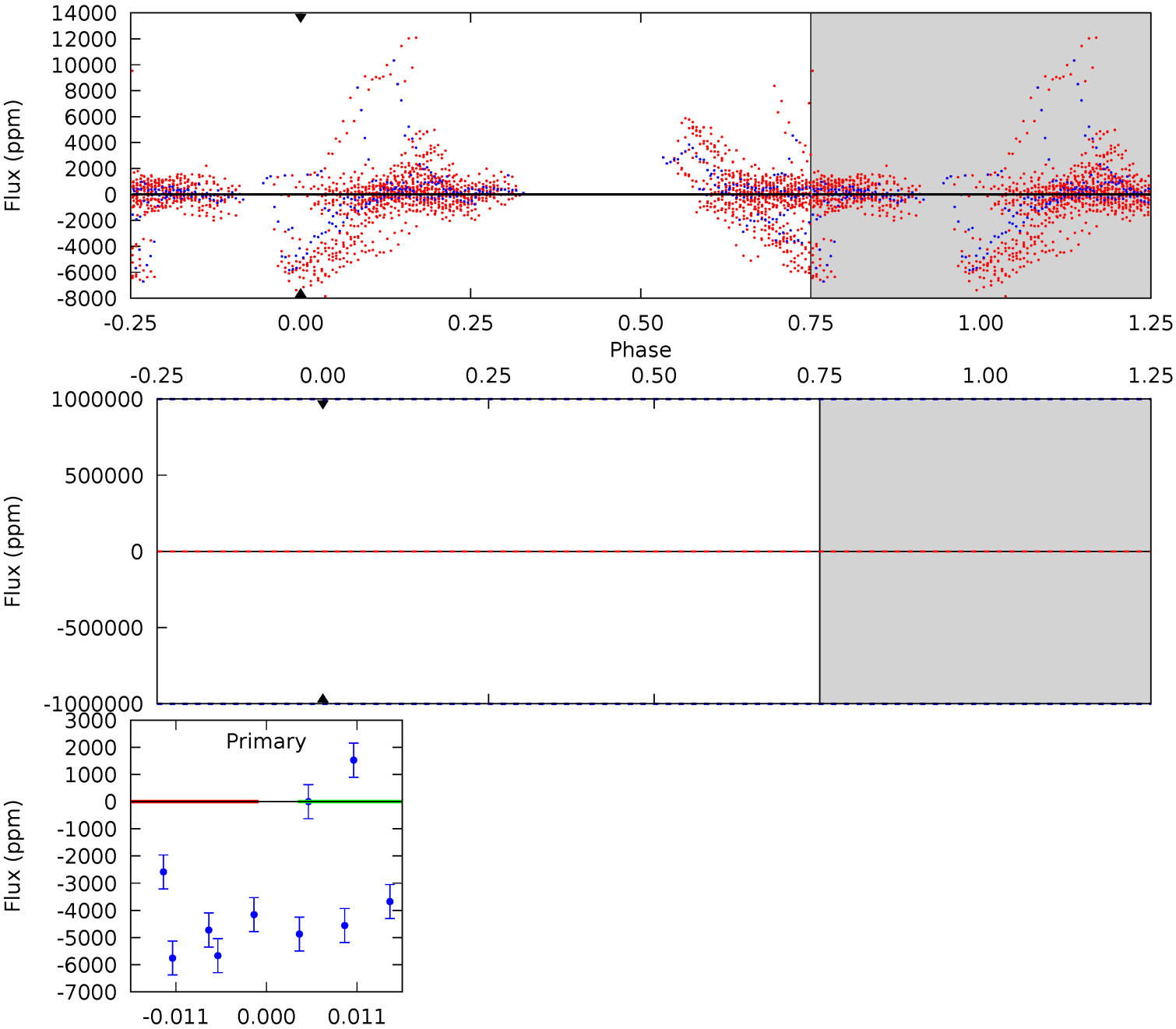
TCE 009291368-03 P= 3.821527 Days $T_0=133.707886$ (BKJD)



DV Model-Shift Uniqueness Test

009291368-03, P = 3.821527 Days, E = 133.799553 Days

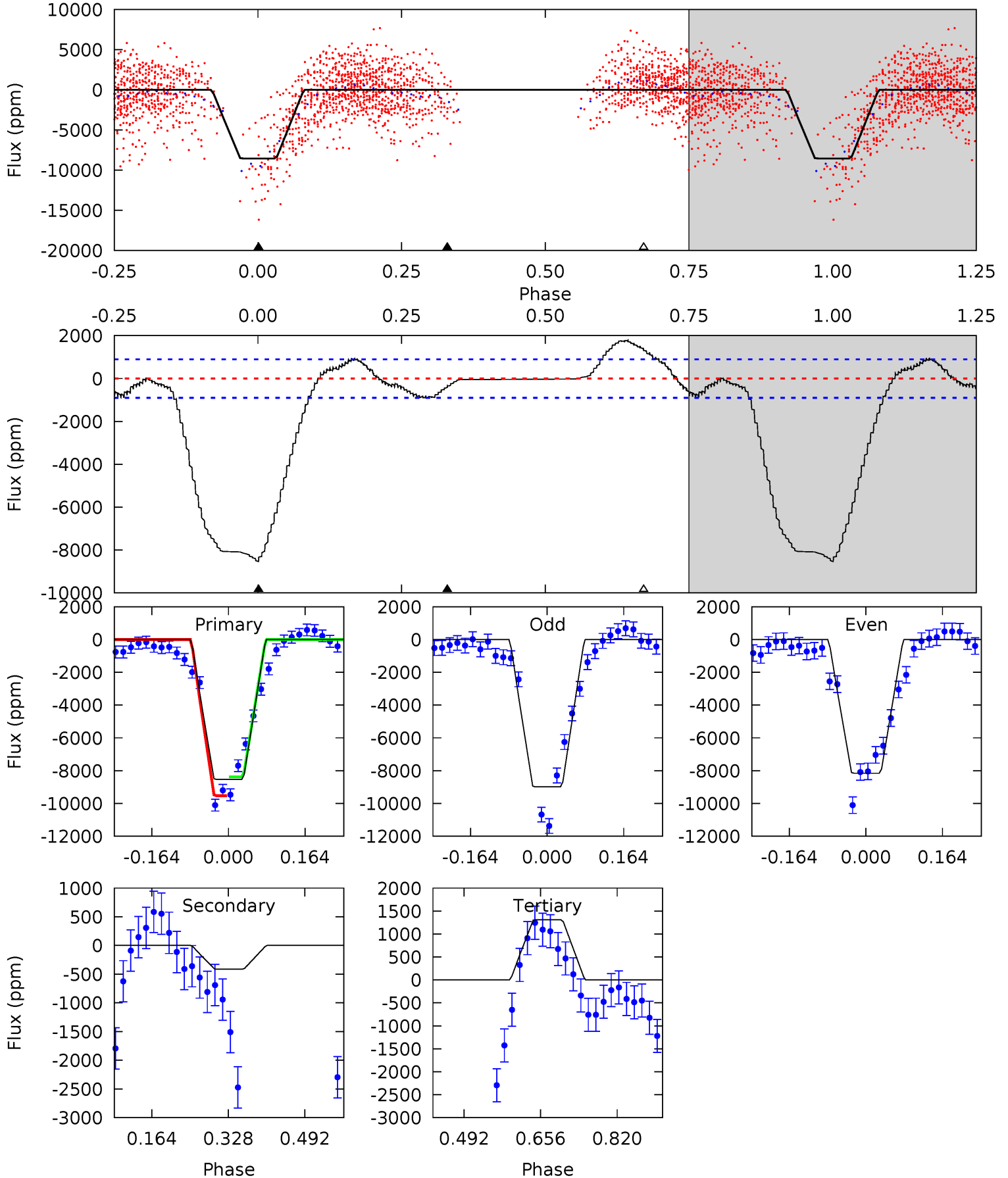
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

009291368-03, P = 3.821527 Days, E = 133.707886 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
42.4	2.04	-6.50	0	4.46	1.39	4.08	48.8	42.4	8.54	2.04	2.09	1.29	0.17	1.83



Stellar Parameters For KIC 009291368

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8117^{+251}_{-334}	$3.748^{+0.442}_{-0.078}$	$-0.420^{+0.200}_{-0.300}$	$3.070^{+0.270}_{-1.440}$	$1.922^{+0.084}_{-0.501}$	$0.094^{+0.405}_{-0.024}$
	+3%/-4%	+12%/-2%	+48%/-71%	+9%/-47%	+4%/-26%	+433%/-26%
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 009291368-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$25.87^{+27.60}_{-17.12}$	3500^{+219}_{-394}	-4876^{+41683}_{-28676}	$-1.929^{+463.625}_{-394.287}$
Alt.	-412 ± 202	$37.26^{+29.81}_{-24.46}$	3507^{+225}_{-417}	3105^{+1848}_{-6225}	$0.532^{+3.311}_{-0.414}$

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 $A_{obs} \gg 1.0$

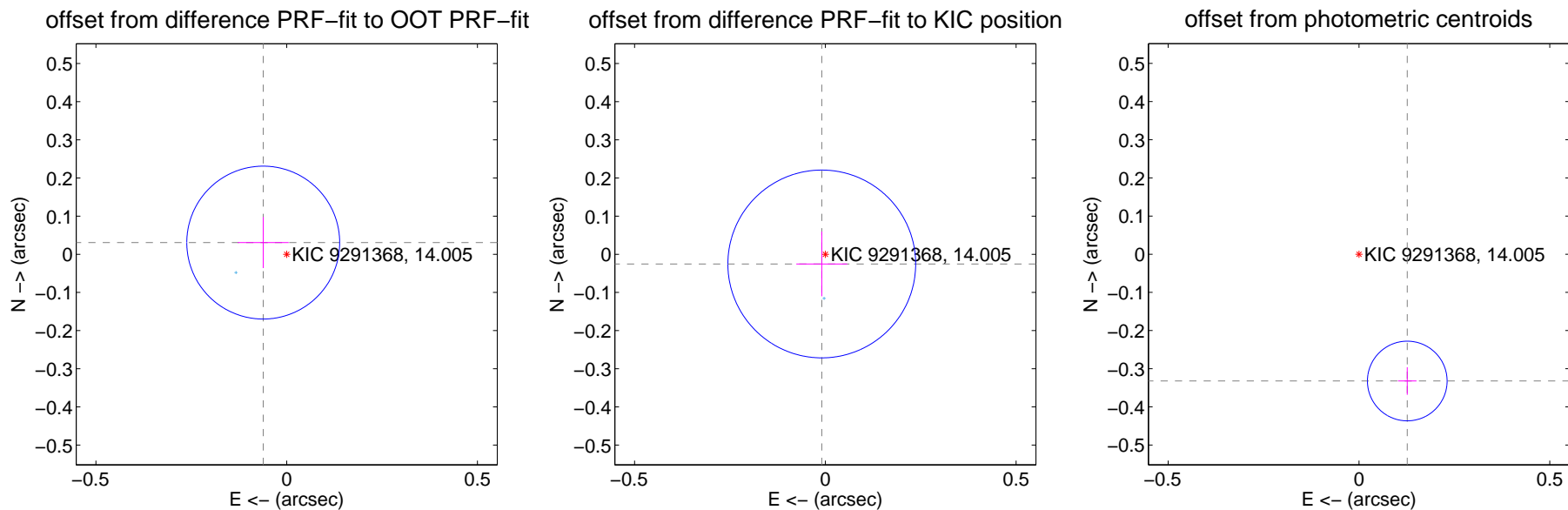
DV Centroid Data

Supplemental centroid analysis for 009291368-03. Kepler magnitude: 14.01. Transit SNR -1.00

There are 2 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.069 ± 0.067	1.03	0.062 ± 0.067	0.031 ± 0.067
PRF-fit source offset from KIC position	0.027 ± 0.082	0.33	0.009 ± 0.067	-0.025 ± 0.085
photometric centroid source offset	0.36 ± 0.03	10.22	-0.13 ± 0.02	-0.33 ± 0.04



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.



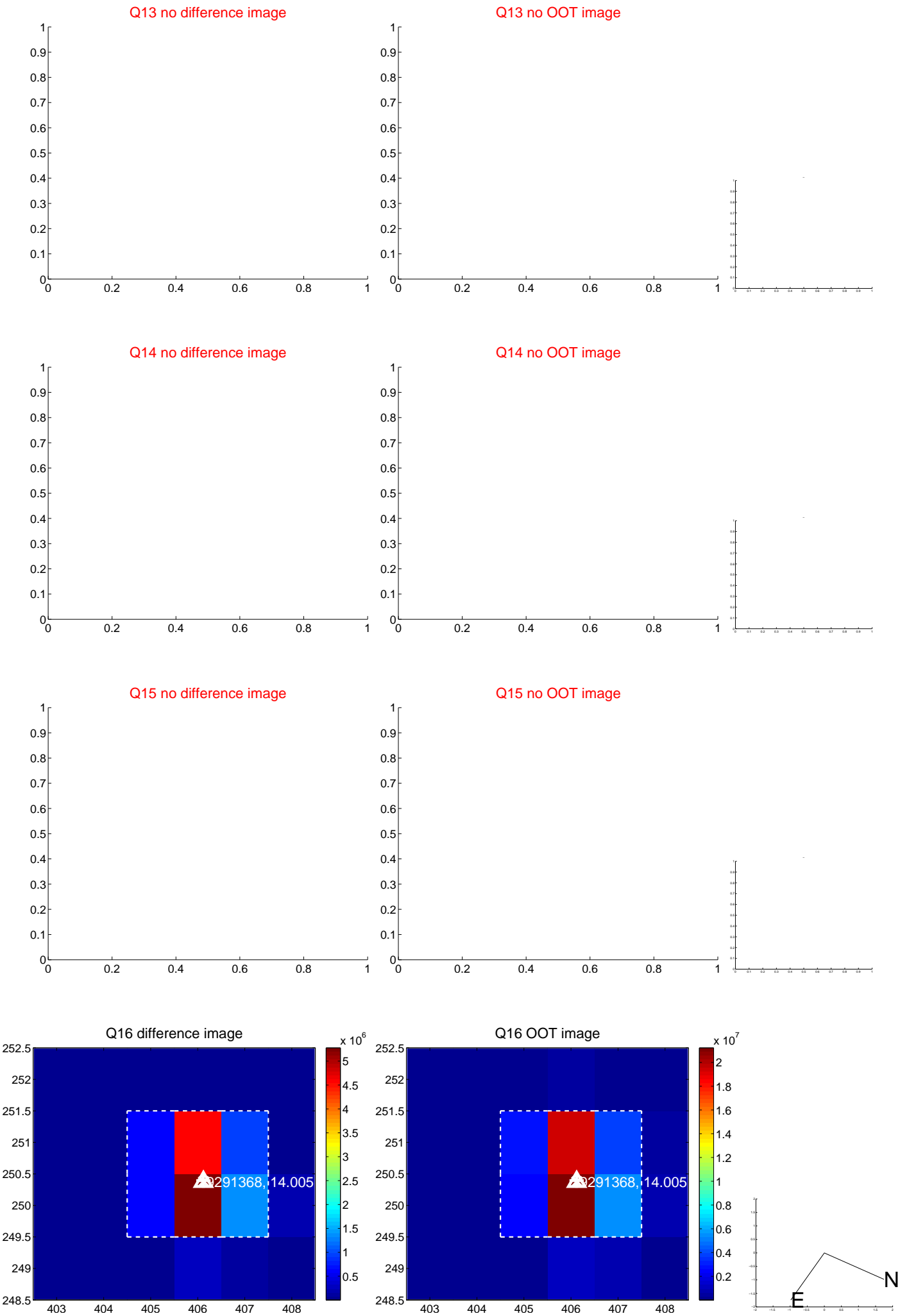
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



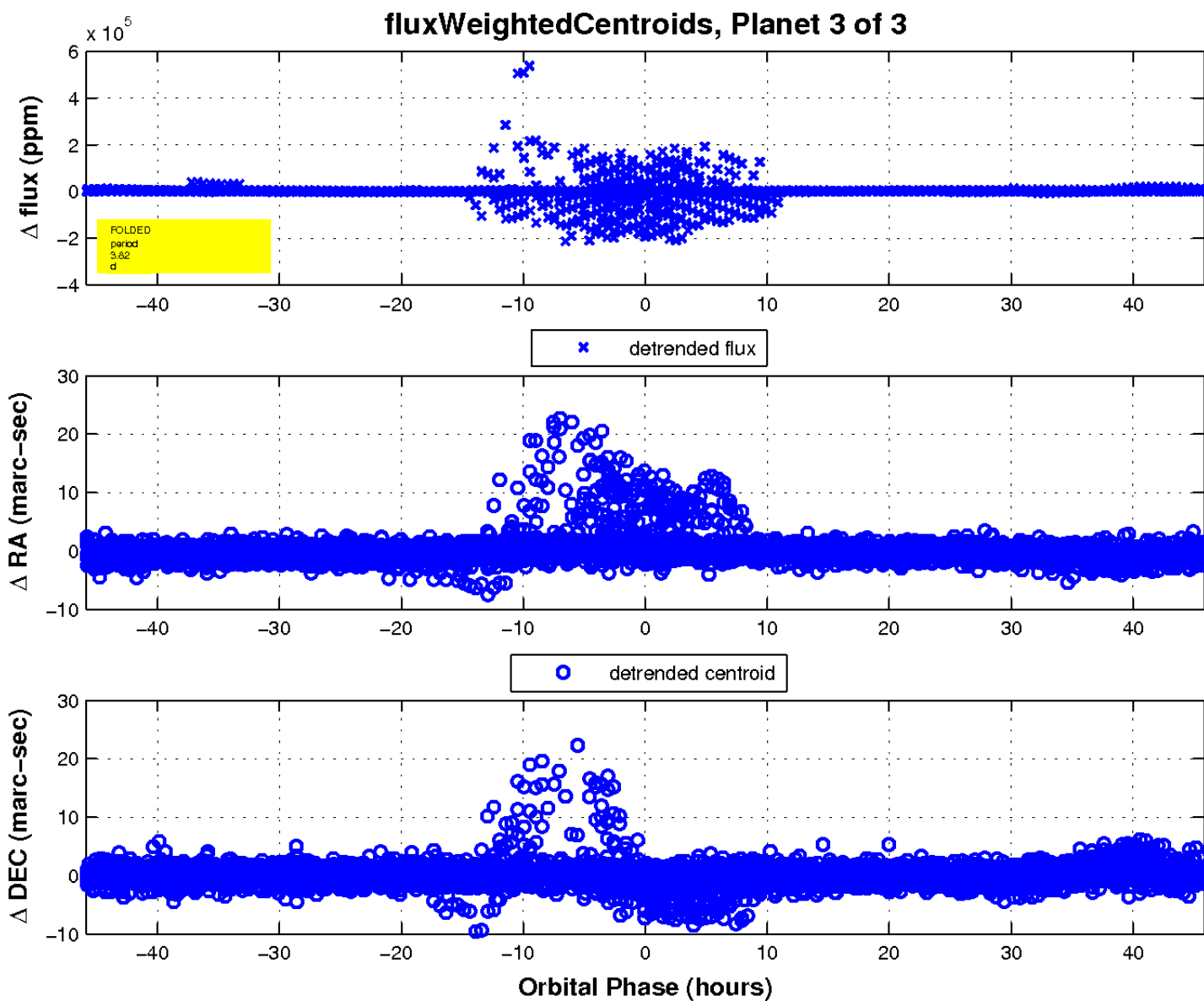
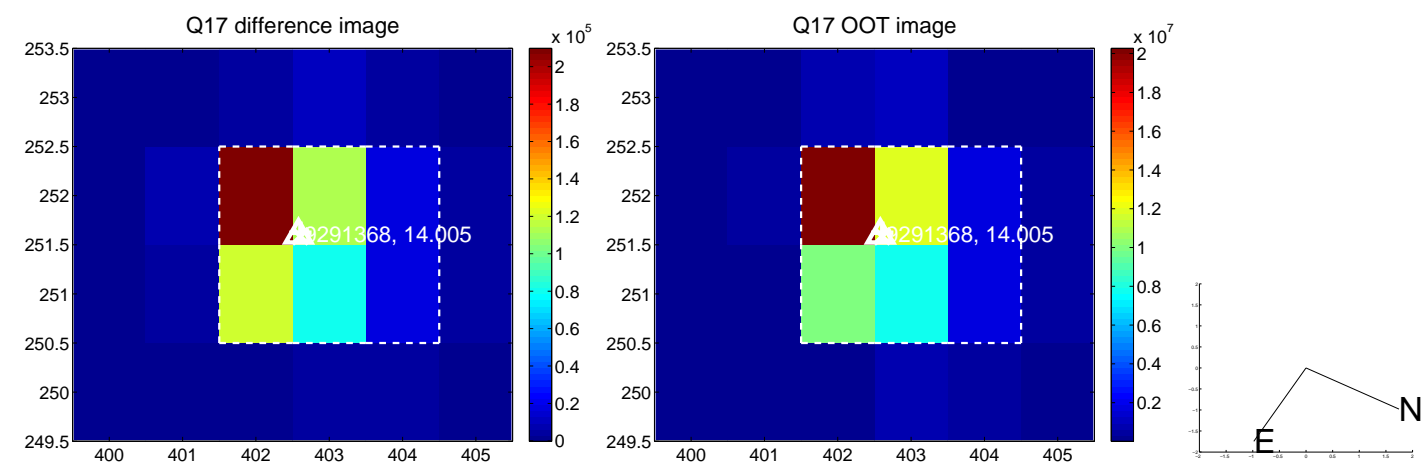
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

