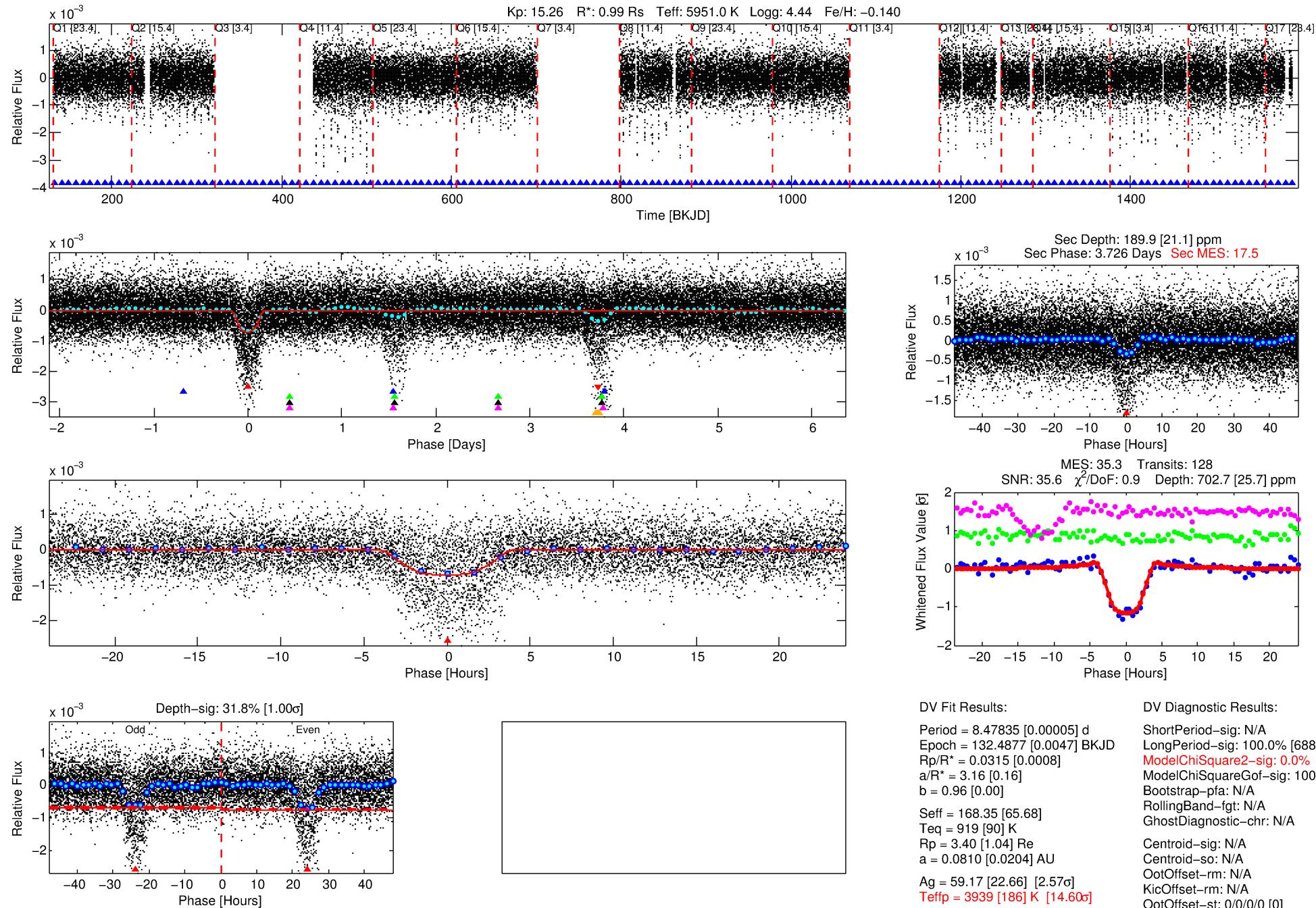


**WARNING: THIS DATA IS  
SIMULATED, NOT OBSERVED**

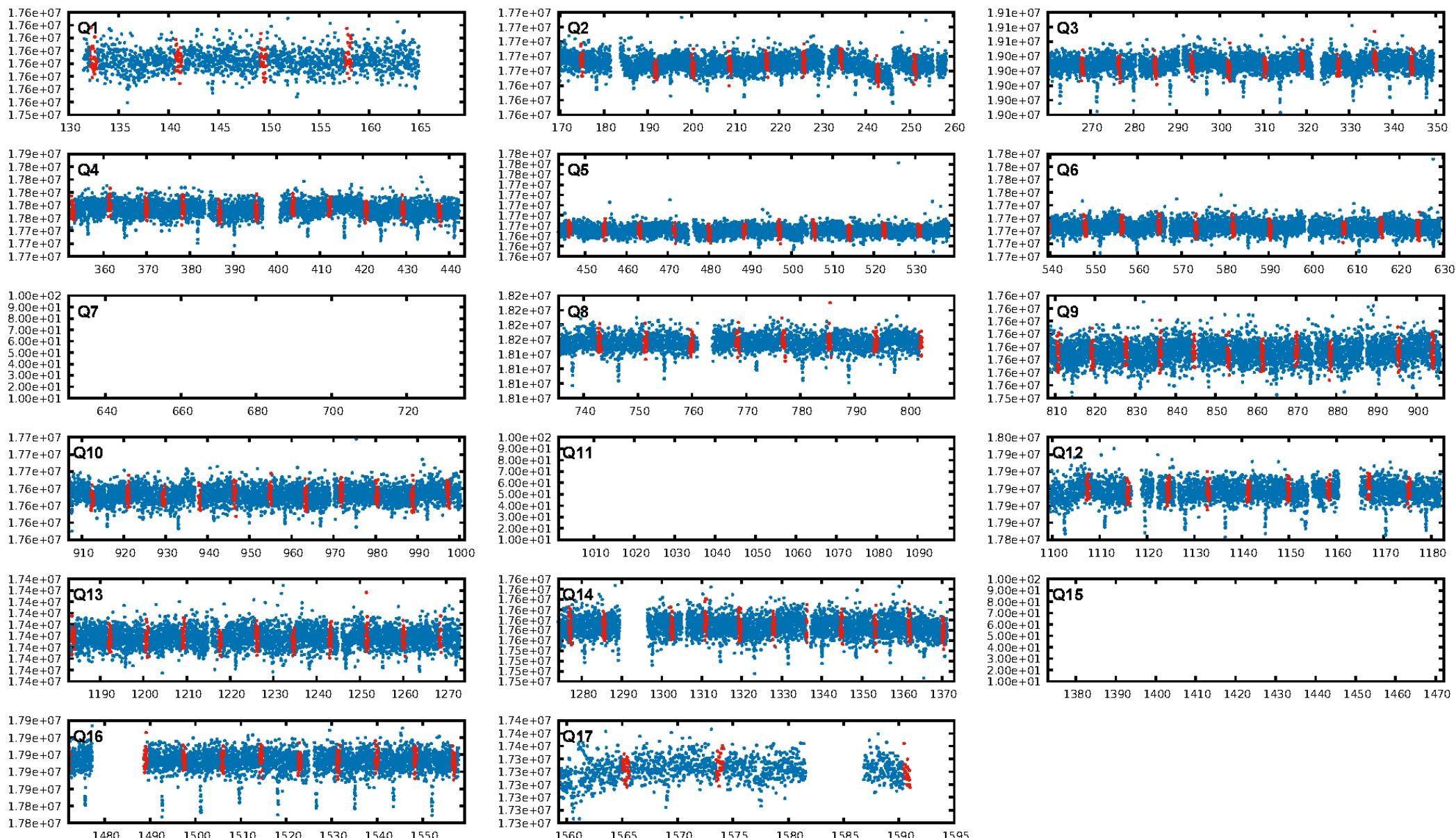
## DV One-Page Summary

KIC: 9851226 Candidate: 1 of 6 Period: 8.478 d

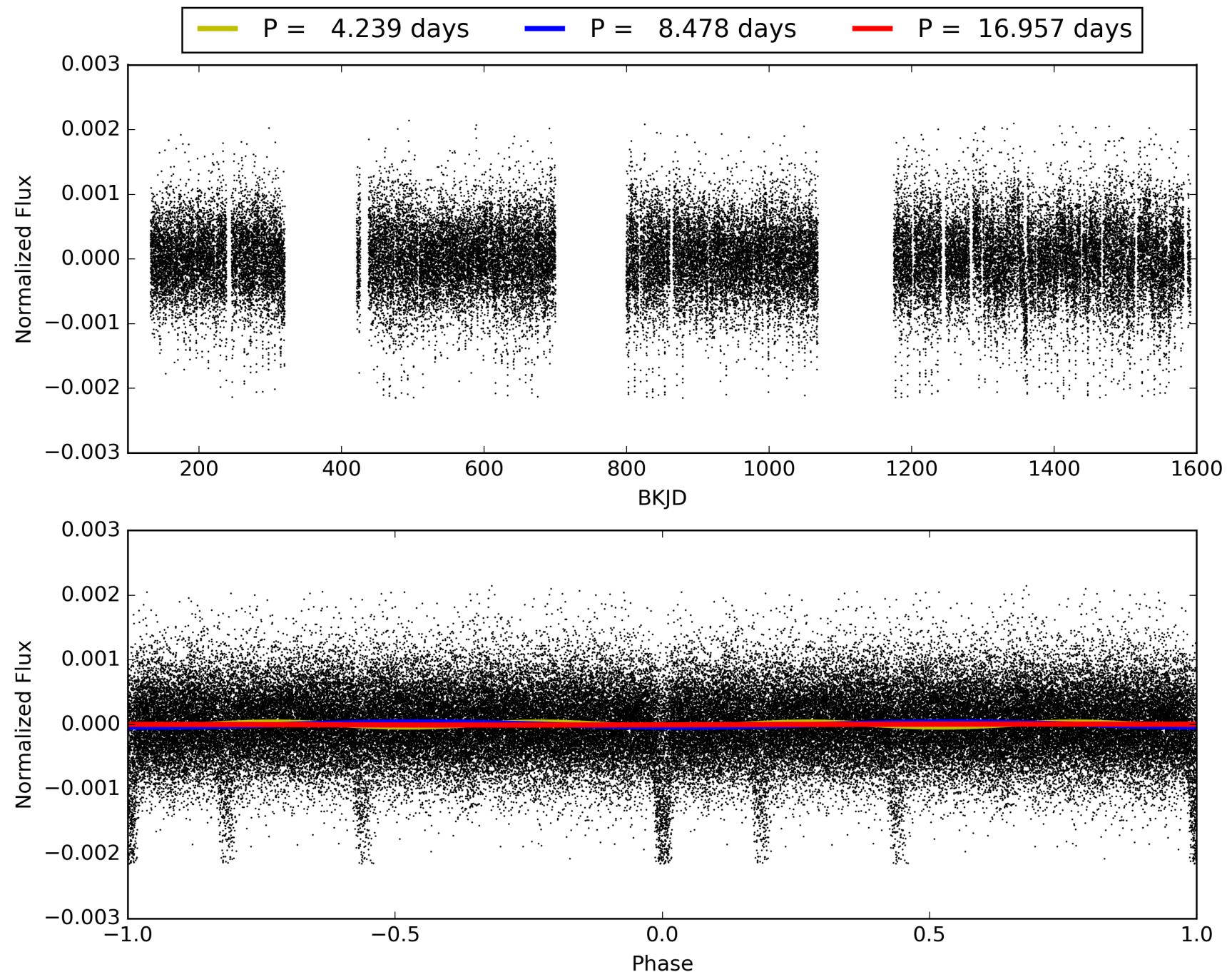
**WARNING: THIS DATA IS  
SIMULATED, NOT OBSERVED**



## TCE 009851226-01, PDC Light Curves

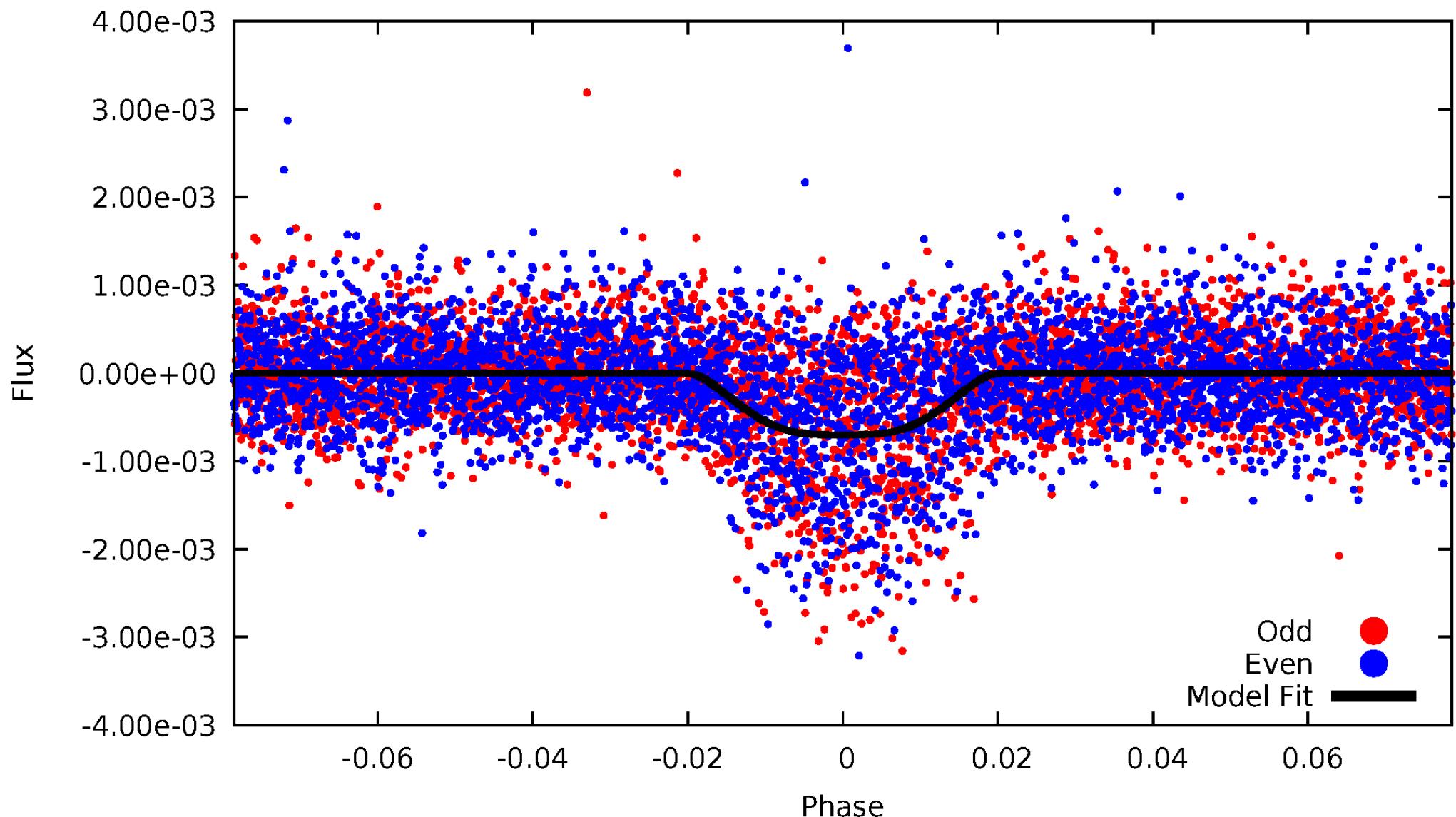


# TCE 009851226-01



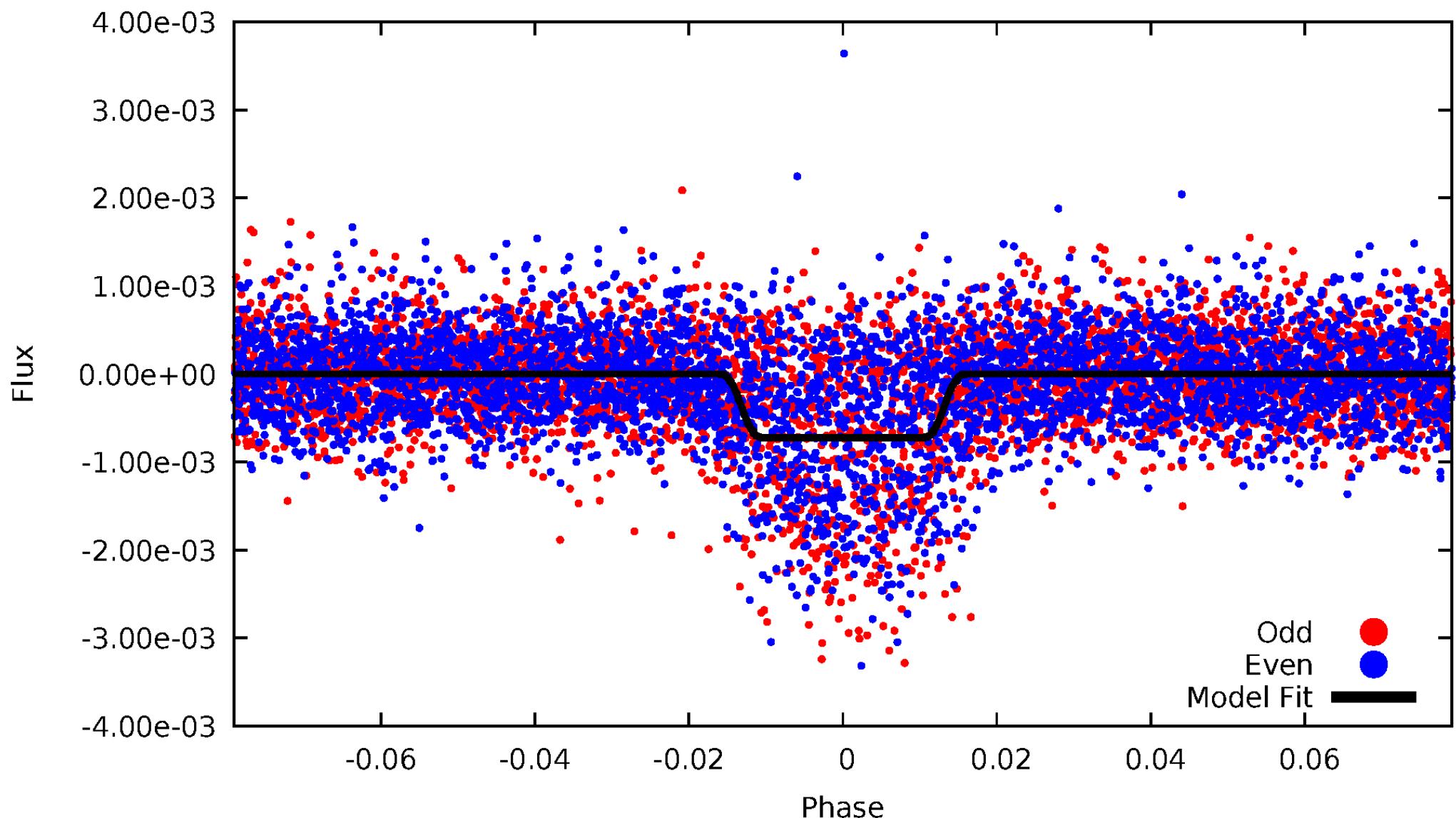
# DV Odd/Even

TCE 009851226-01

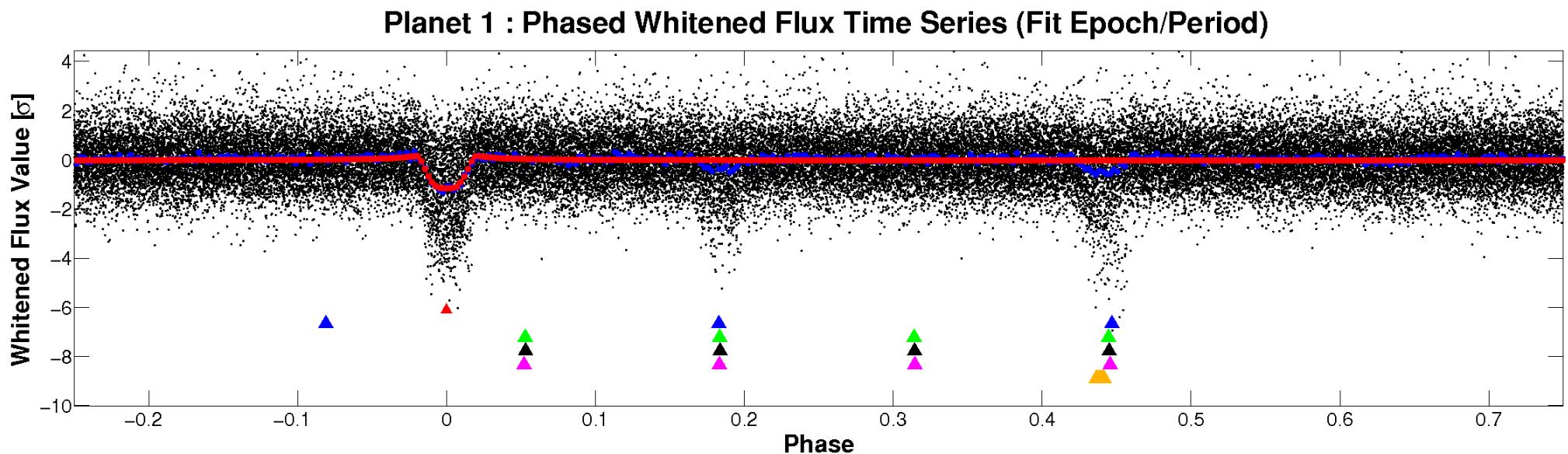
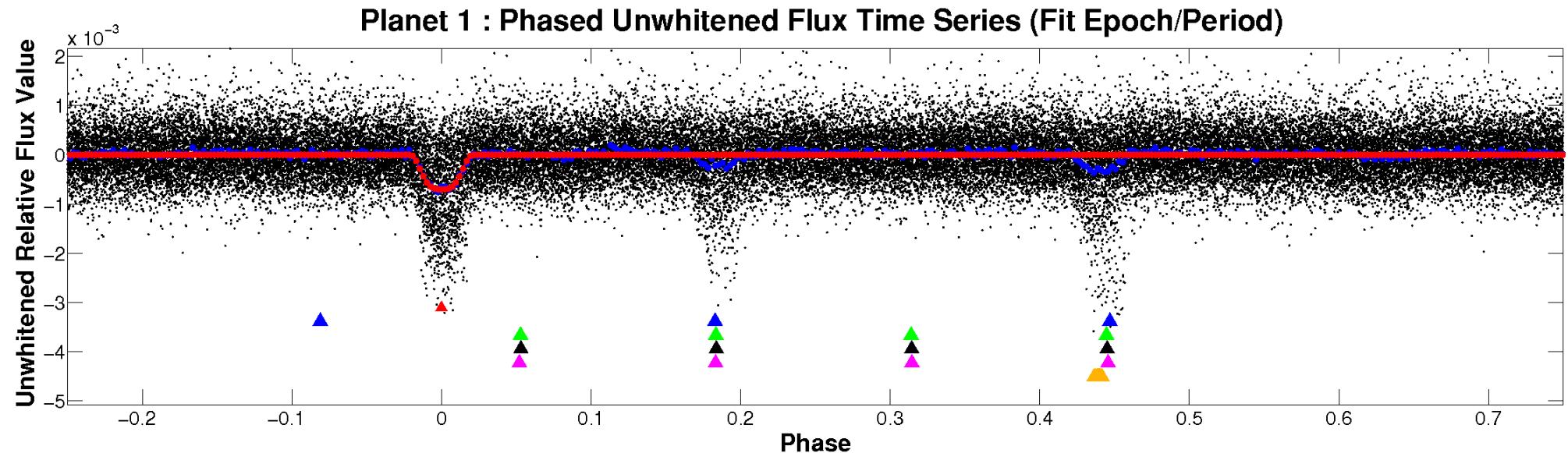


# ALT Odd/Even

TCE 009851226-01

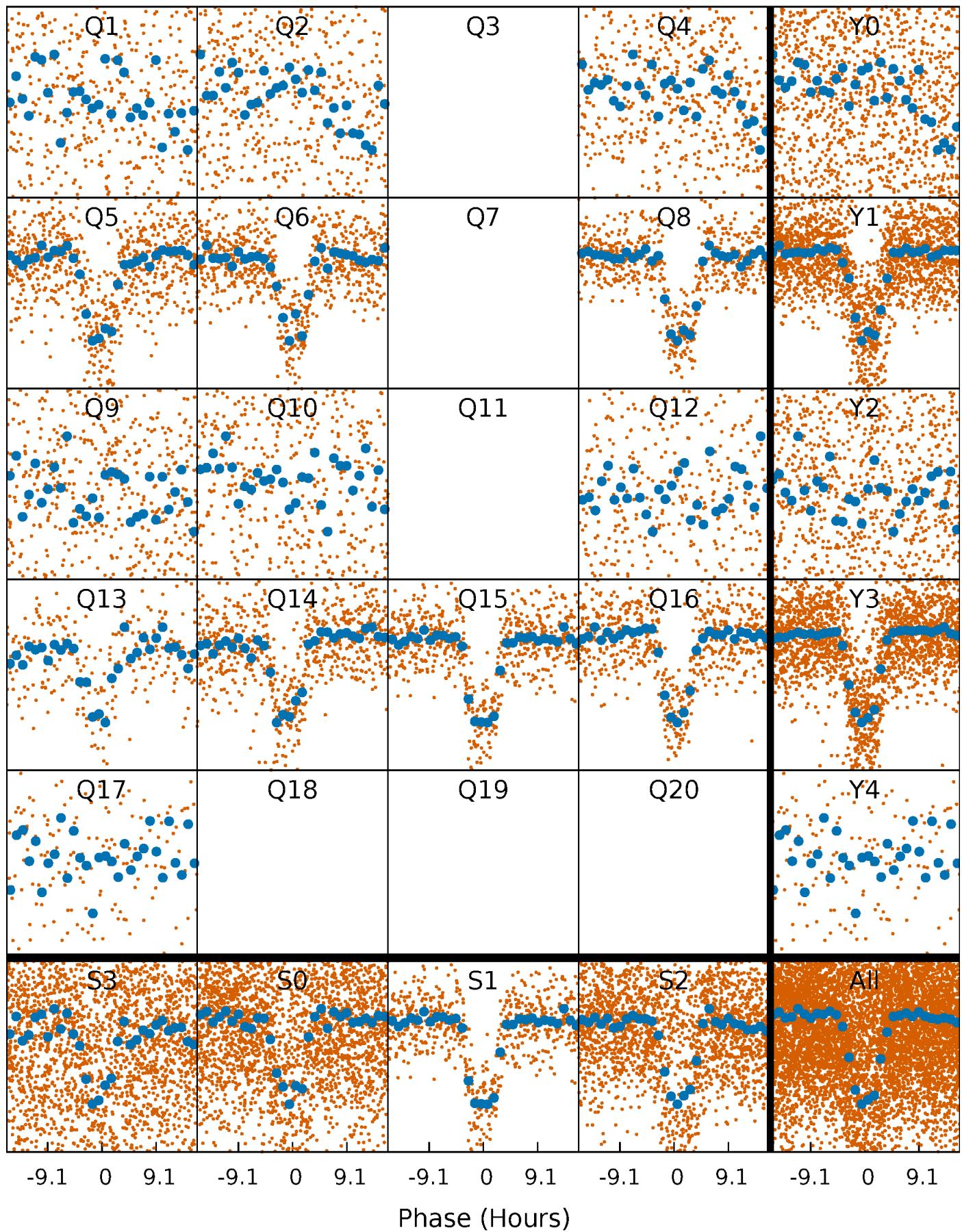


# Non-Whitened Vs. Whitened Light Curve



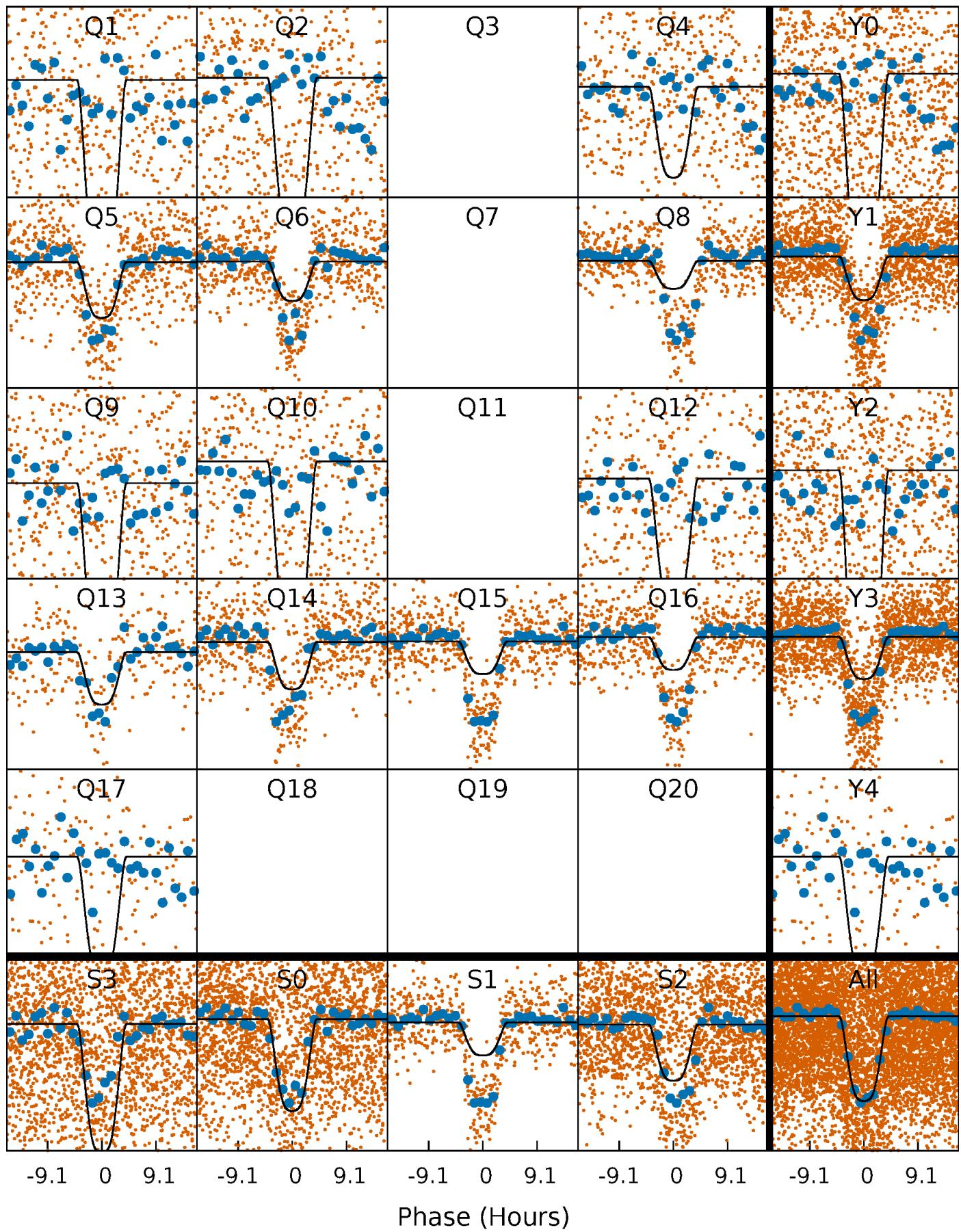
# PDC Quarter-Phased Transit Curves

TCE 009851226-01   P= 8.478350 Days    $T_0=132.487688$  (BKJD)



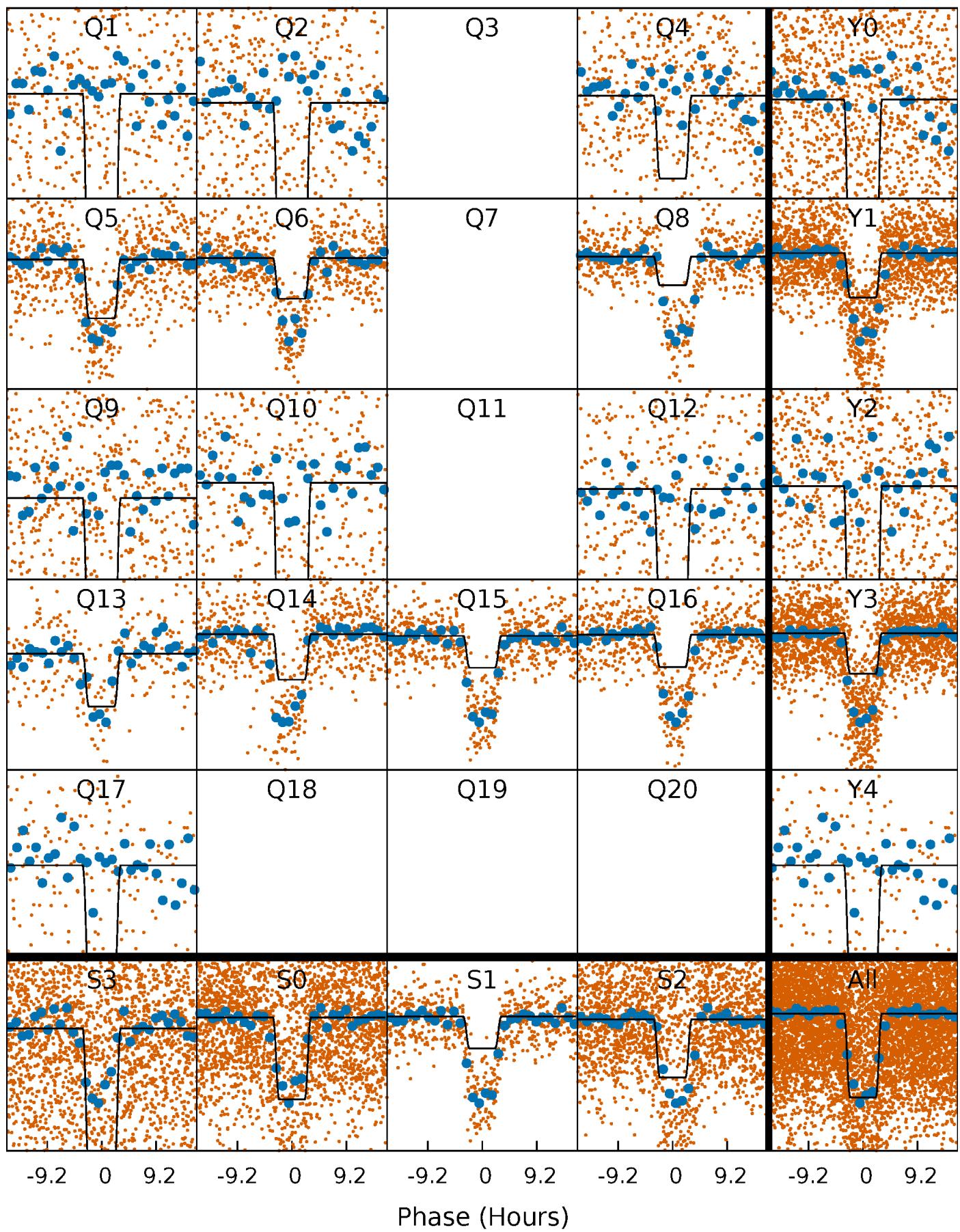
# DV Quarter-Phased Transit Curves

TCE 009851226-01 P= 8.478350 Days  $T_0=132.487688$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

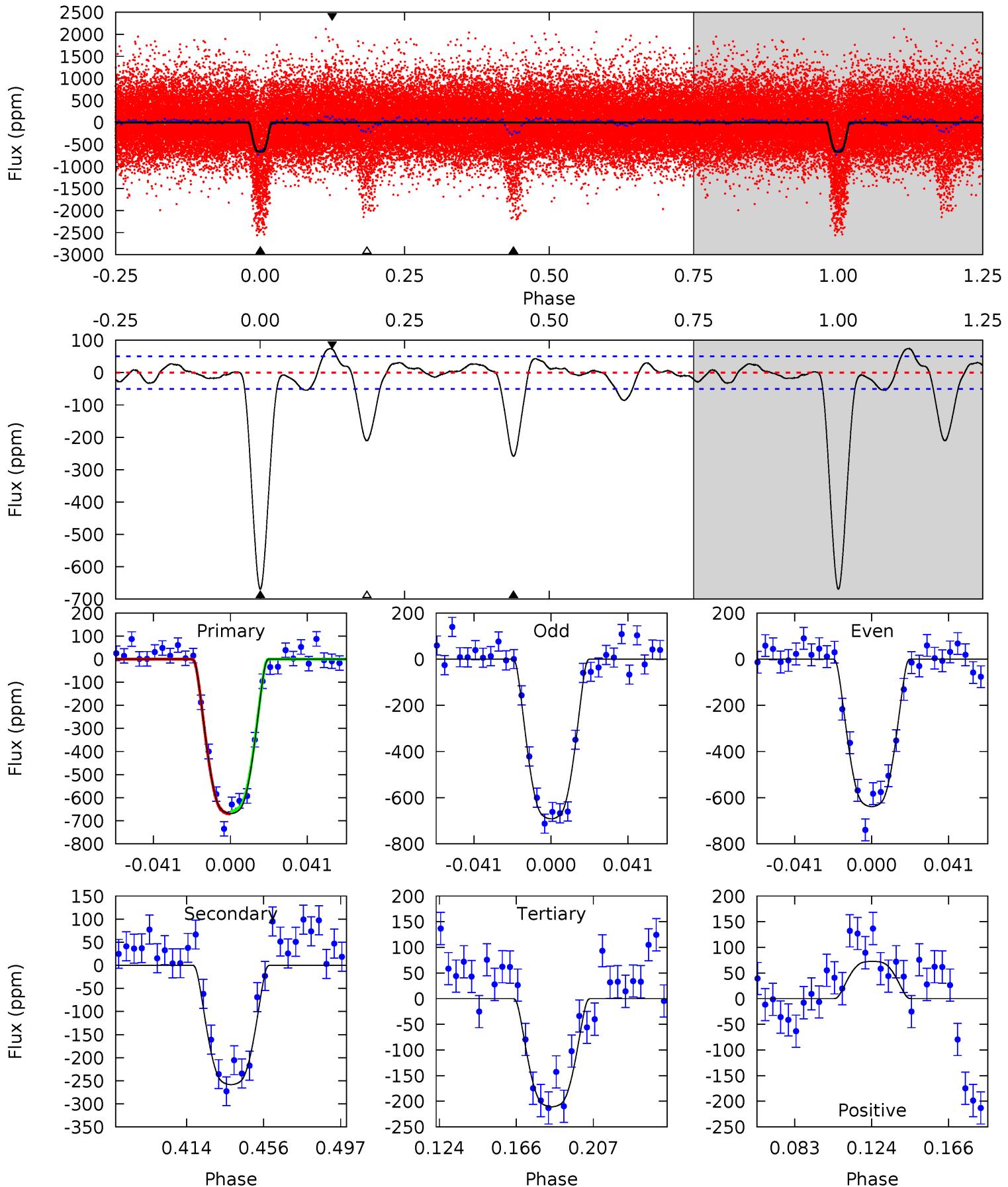
TCE 009851226-01 P= 8.478269 Days  $T_0=132.497208$  (BKJD)



# DV Model-Shift Uniqueness Test

009851226-01,  $P = 8.478350$  Days,  $E = 124.009338$  Days

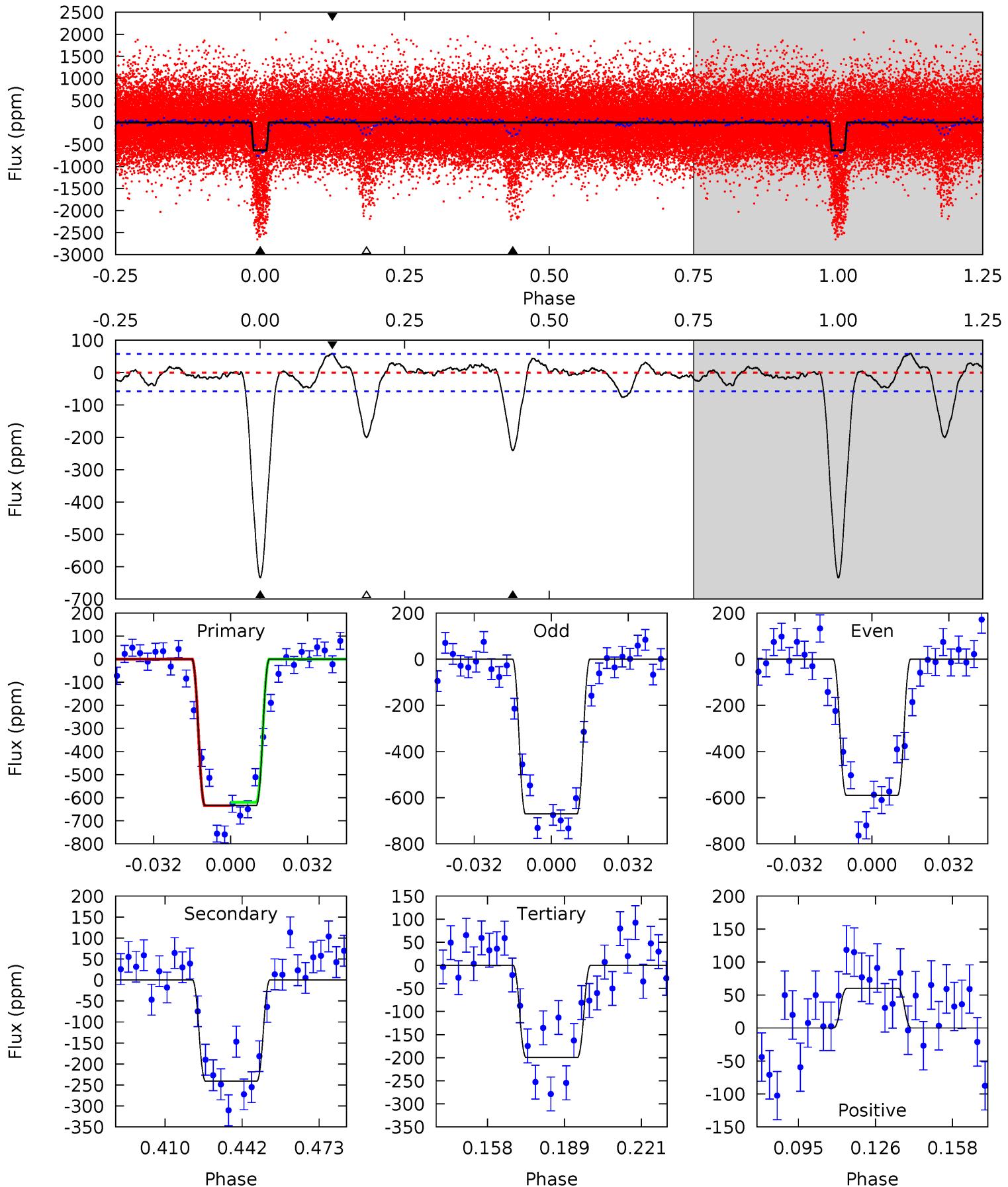
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
63.1	24.3	19.8	6.86	4.75	2.04	3.96	43.2	56.2	4.50	17.5	2.49	1.32	0.10	0.51



# Alt Model-Shift Uniqueness Test

009851226-01,  $P = 8.478269$  Days,  $E = 124.018939$  Days

Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
52.6	20.0	16.6	4.98	4.80	2.15	3.05	36.0	47.6	3.42	15.0	3.38	1.00	0.09	0.55



## Stellar Parameters For KIC 009851226

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$5951^{+178}_{-214}$	$4.439^{+0.084}_{-0.196}$	$-0.140^{+0.300}_{-0.300}$	$0.991^{+0.301}_{-0.129}$	$0.983^{+0.132}_{-0.119}$	$1.423^{+0.524}_{-0.742}$
	$+3\%/-4\%$	$+2\%/-4\%$	$+214\%/-214\%$	$+30\%/-13\%$	$+13\%/-12\%$	$+37\%/-52\%$
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 009851226-01 / KOI 1468.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (\text{K})$	$T_{obs} (\text{K})$	$A_{obs}$
DV	$-258 \pm 11$	$3.45^{+0.56}_{-0.31}$	$1304^{+89}_{-76}$	$4448^{+126}_{-136}$	$77^{+15}_{-19}$
Alt.	$-241 \pm 12$	$2.98^{+0.48}_{-0.27}$	$1304^{+94}_{-69}$	$4665^{+134}_{-151}$	$96^{+20}_{-23}$

$T_{max}$  = Theoretical Maximum Planetary Temperature

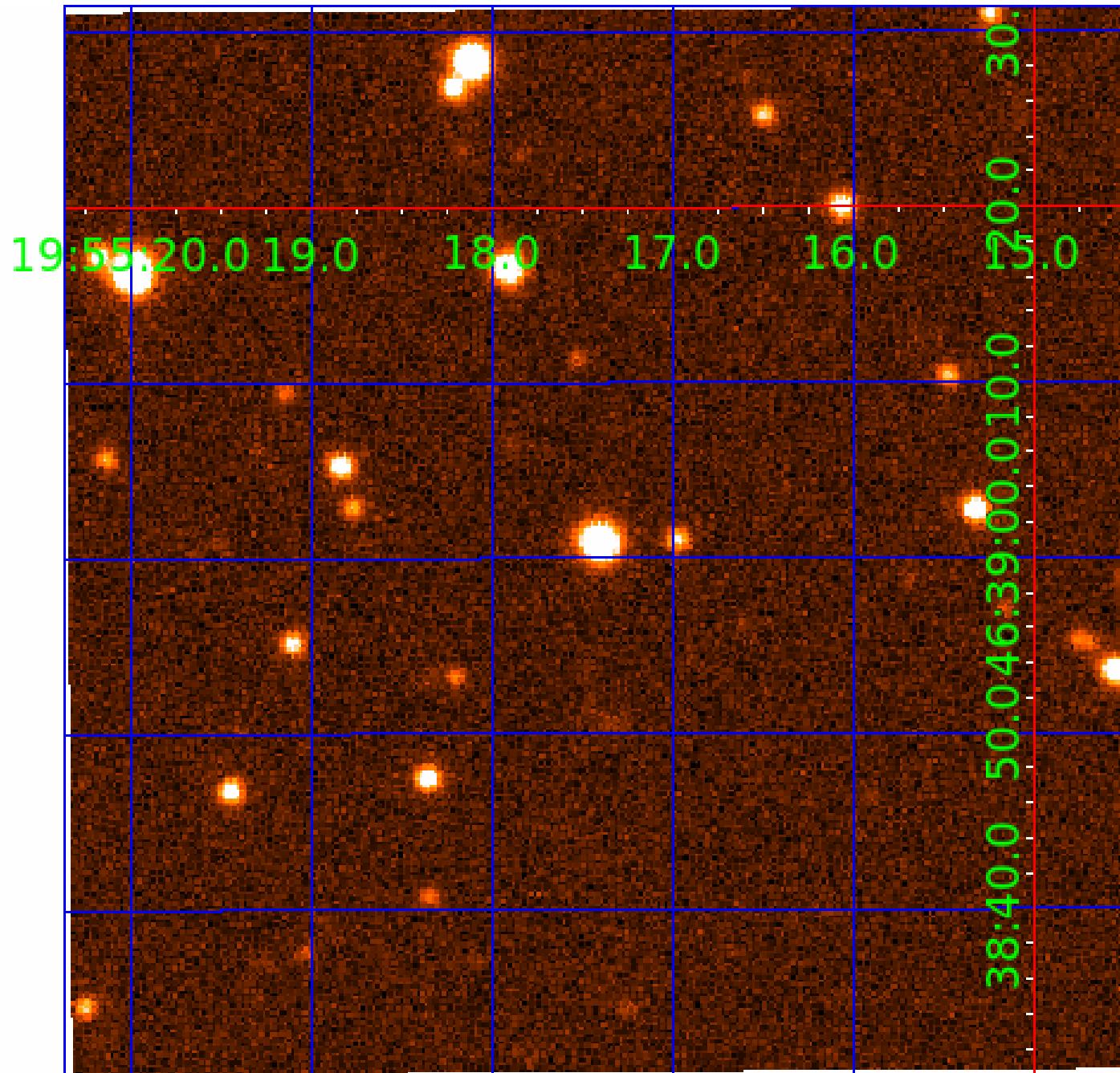
$T_{obs}$  = Observed Planetary Temperature (Assuming  $A=0.3$ )

$A_{obs}$  = Observed Albedo (Assuming  $T=0$ )

If a secondary eclipse is present, the system is likely an EB if  $T_{obs} \gg T_{max}$  AND  $A_{obs} \gg 1.0$

UKIRT Image

Declination



# KIC 009851226

## Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	$R_*$ ( $R_{\odot}$ )	$T_*$ (K)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
009851226-01	SCR	No	8.478350	132.487688	702.7	7.987	35.3	35.6	0.99	5951	3.40	168.35
009851226-02	SCR	No	523.419859	500.845720	1658.4	6.747	17.1	14.0	0.99	5951	4.04	0.69
009851226-03	SCR	No	371.940315	441.478085	1644.5	5.319	17.4	12.9	0.99	5951	4.18	1.09
009851226-04	SCR	No	371.939708	449.960057	2246.7	8.155	15.2	14.5	0.99	5951	8.81	1.09
009851226-05	SCR	No	354.978324	466.922213	2368.6	7.738	12.8	15.0	0.99	5951	6.06	1.16
009851226-06	SCR	No	271.298456	212.536870	1788.0	4.500	12.0	-1.0	0.99	5951	4.18	1.66

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009851226-01	SCR	FP	0.00	1	0	0	1	LPP_DV—EPHEM_MATCH
009851226-02	SCR	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—INCONSISTENT_TRANS
009851226-03	SCR	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—INCONSISTENT_TRANS
009851226-04	SCR	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—INCONSISTENT_TRANS—SAME_NTL_PERIOD
009851226-05	SCR	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—INCONSISTENT_TRANS
009851226-06	SCR	FP	0.10	1	0	0	0	INCONSISTENT_TRANS

**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](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

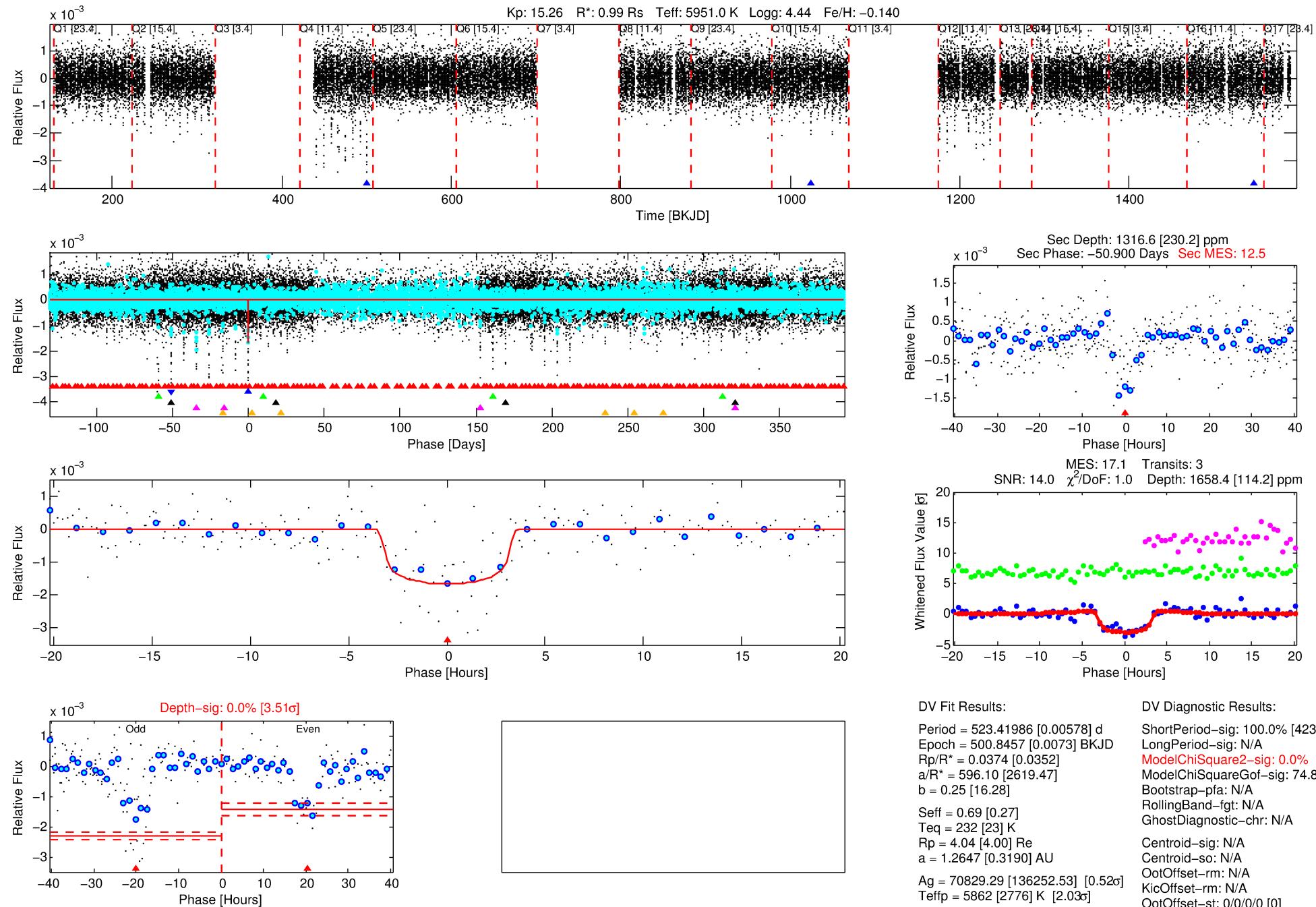
## Ephemeris Match Information For 009851226-02

No Significant Match Found

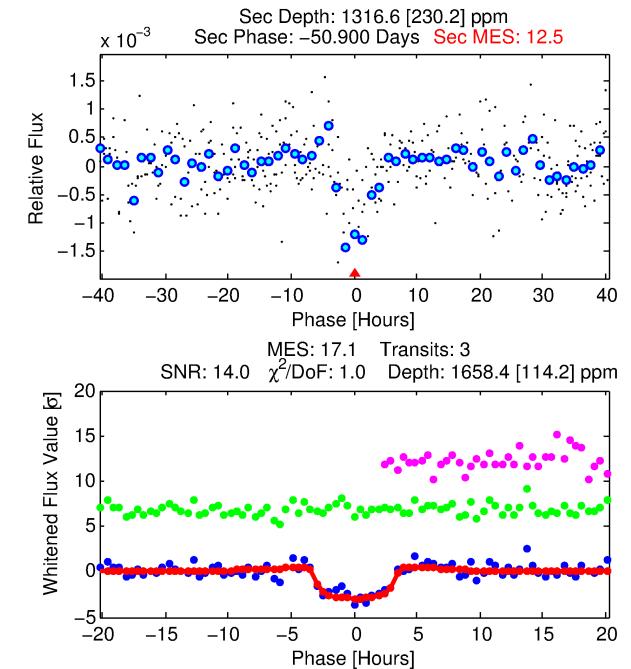
**WARNING: THIS DATA IS  
SIMULATED, NOT OBSERVED**

## DV One-Page Summary

KIC: 9851226 Candidate: 2 of 6 Period: 523.420 d



**WARNING: THIS DATA IS  
SIMULATED, NOT OBSERVED**



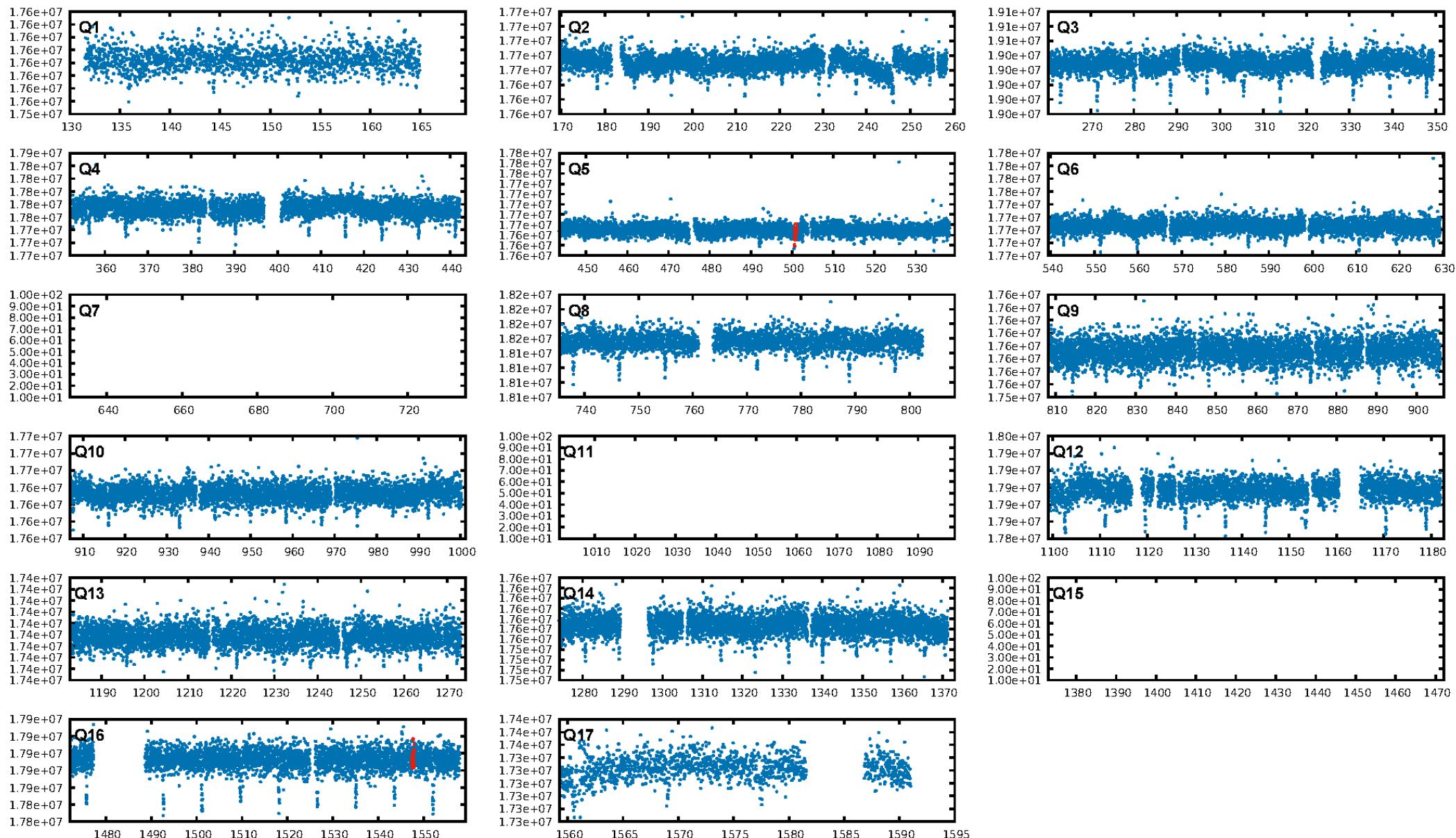
### DV Fit Results:

Period = 523.41986 [0.00578] d  
Epoch = 500.8457 [0.0073] BKJD  
Rp/R\* = 0.0374 [0.0352]  
a/R\* = 596.10 [2619.47]  
b = 0.25 [16.28]  
Seff = 0.69 [0.27]  
Teq = 232 [23] K  
Rp = 4.04 [4.00] Re  
a = 1.2647 [0.3190] AU  
Ag = 70829.29 [136252.53] [0.520]  
Teffp = 5862 [2776] K [2.03 $\sigma$ ]

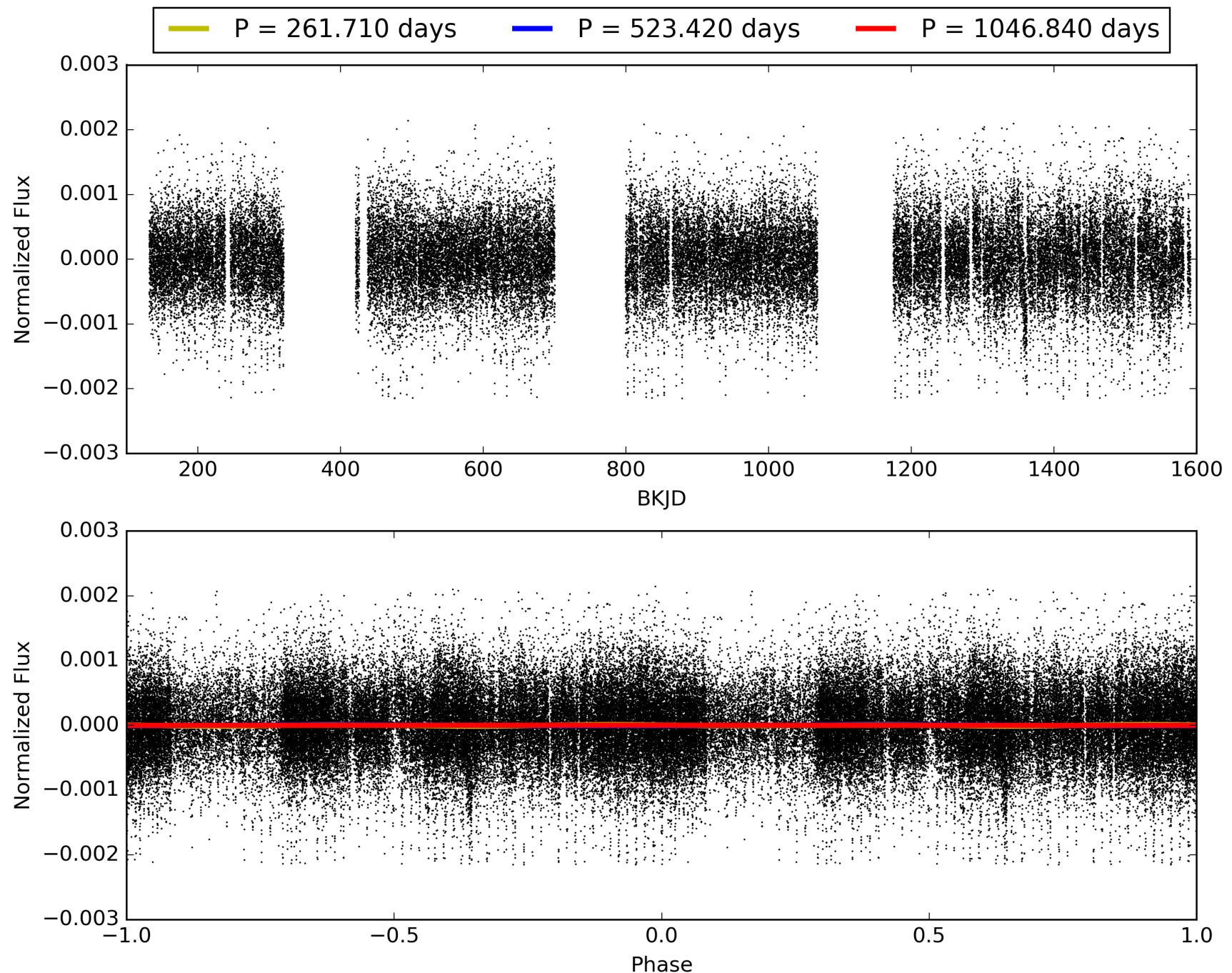
### DV Diagnostic Results:

ShortPeriod-sig: 100.0% [423.18 $\sigma$ ]  
LongPeriod-sig: N/A  
**ModelChiSquare2-sig: 0.0%**  
ModelChiSquareGof-sig: 74.8%  
Bootstrap-pfa: N/A  
RollingBand-fgt: N/A  
GhostDiagnostic-chr: N/A  
Centroid-sig: N/A  
Centroid-so: N/A  
OotOffset-rm: N/A  
KicOffset-rm: N/A  
OotOffset-st: 0/0/0 [0]  
KicOffset-st: 0/0/0 [0]  
DiffImageQuality-fgm: N/A  
DiffImageOverlap-fnc: N/A

# TCE 009851226-02, PDC Light Curves

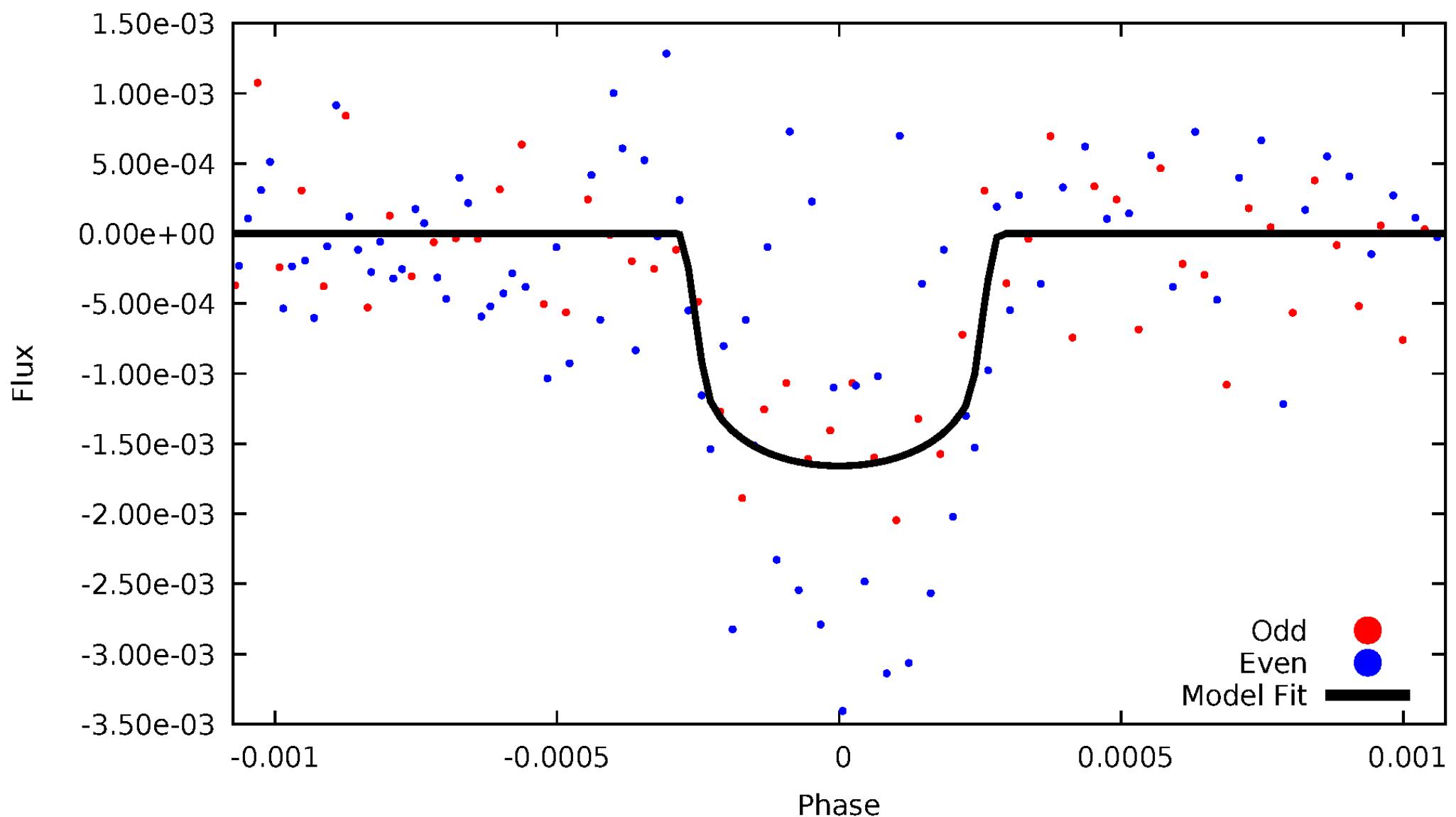


# TCE 009851226-02



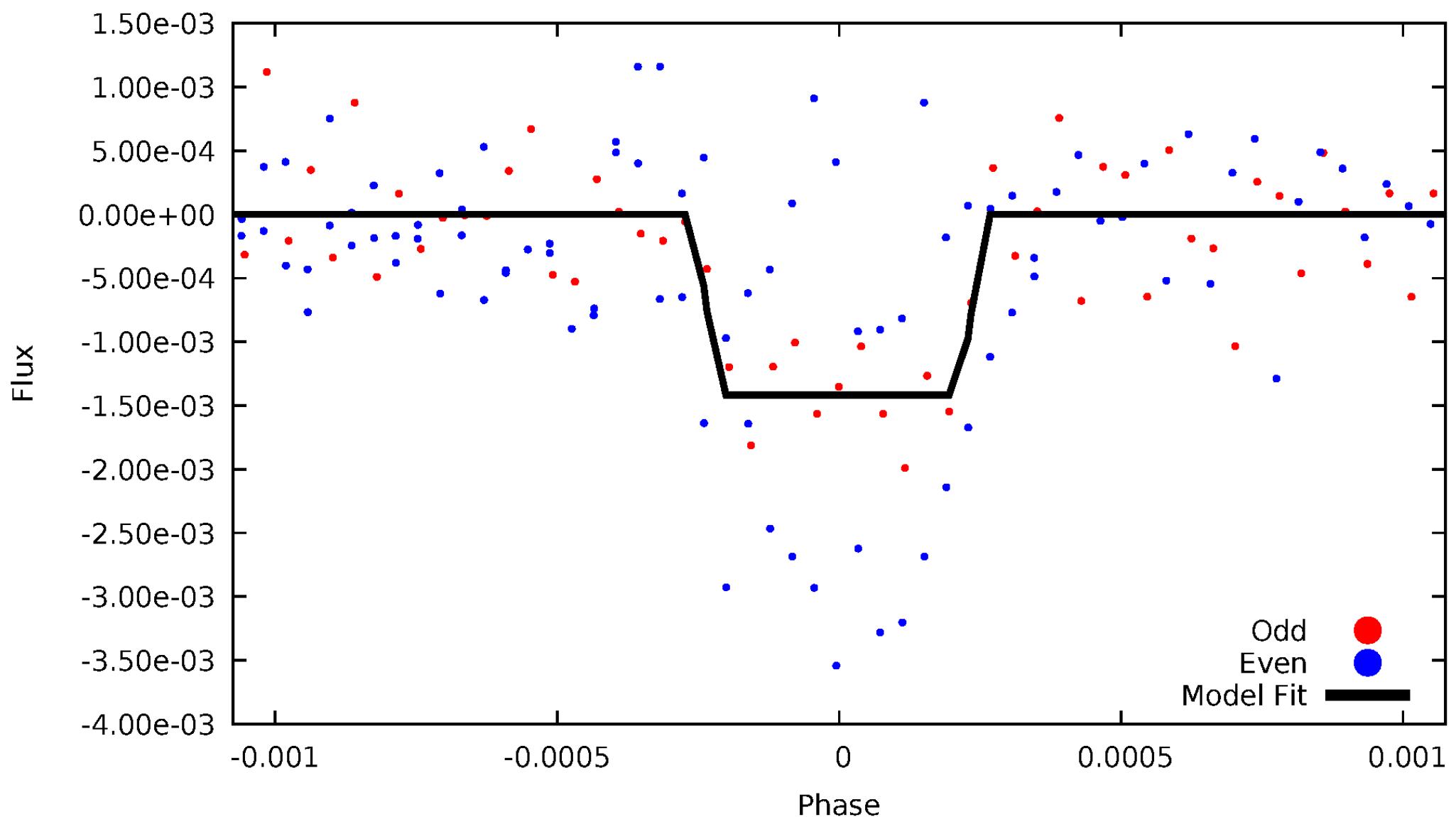
# DV Odd/Even

TCE 009851226-02

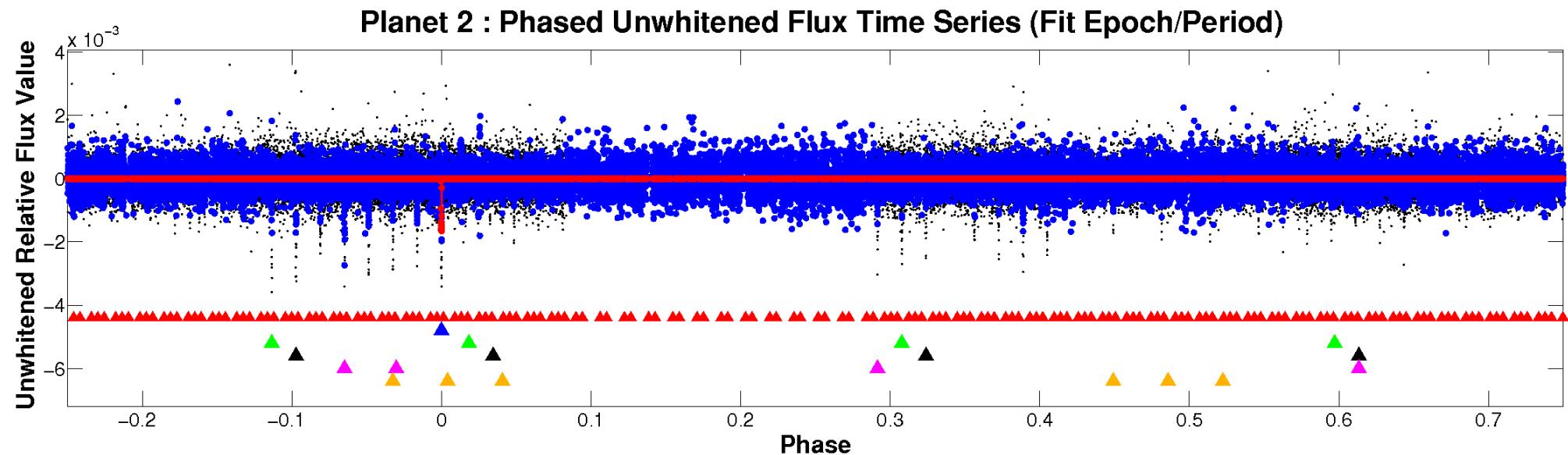


# ALT Odd/Even

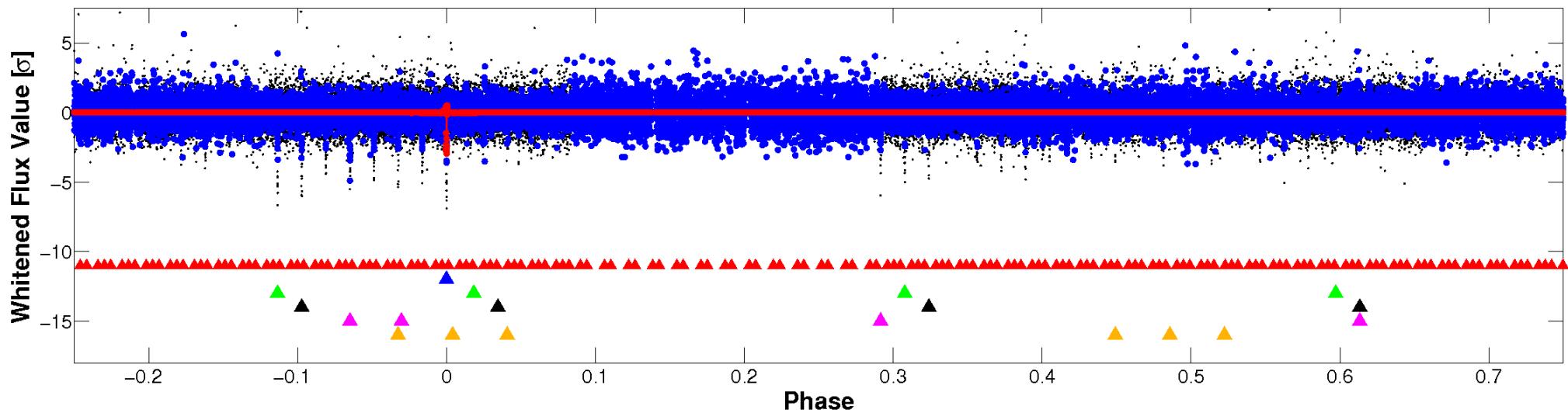
TCE 009851226-02



# Non-Whitened Vs. Whitened Light Curve

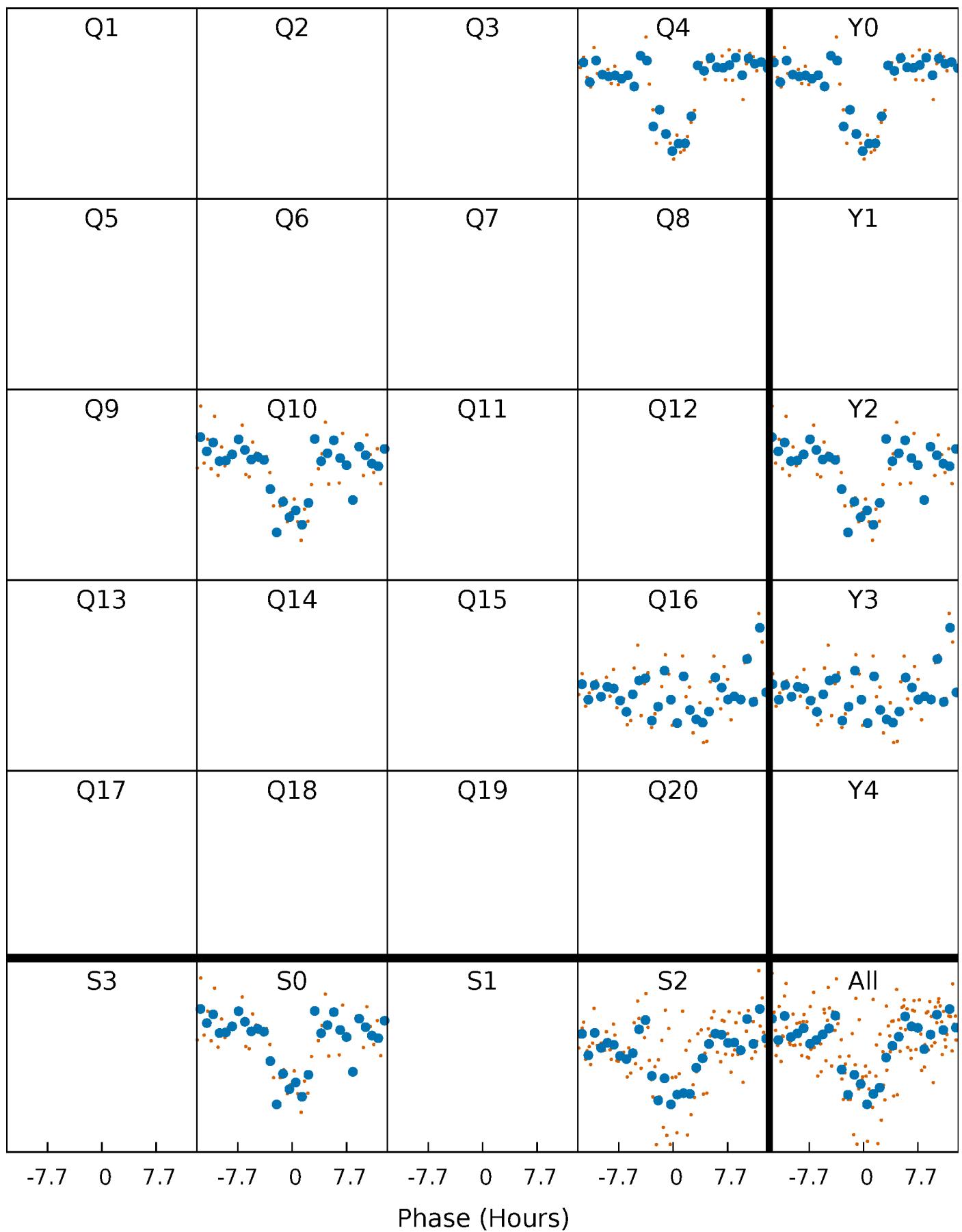


**Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)**



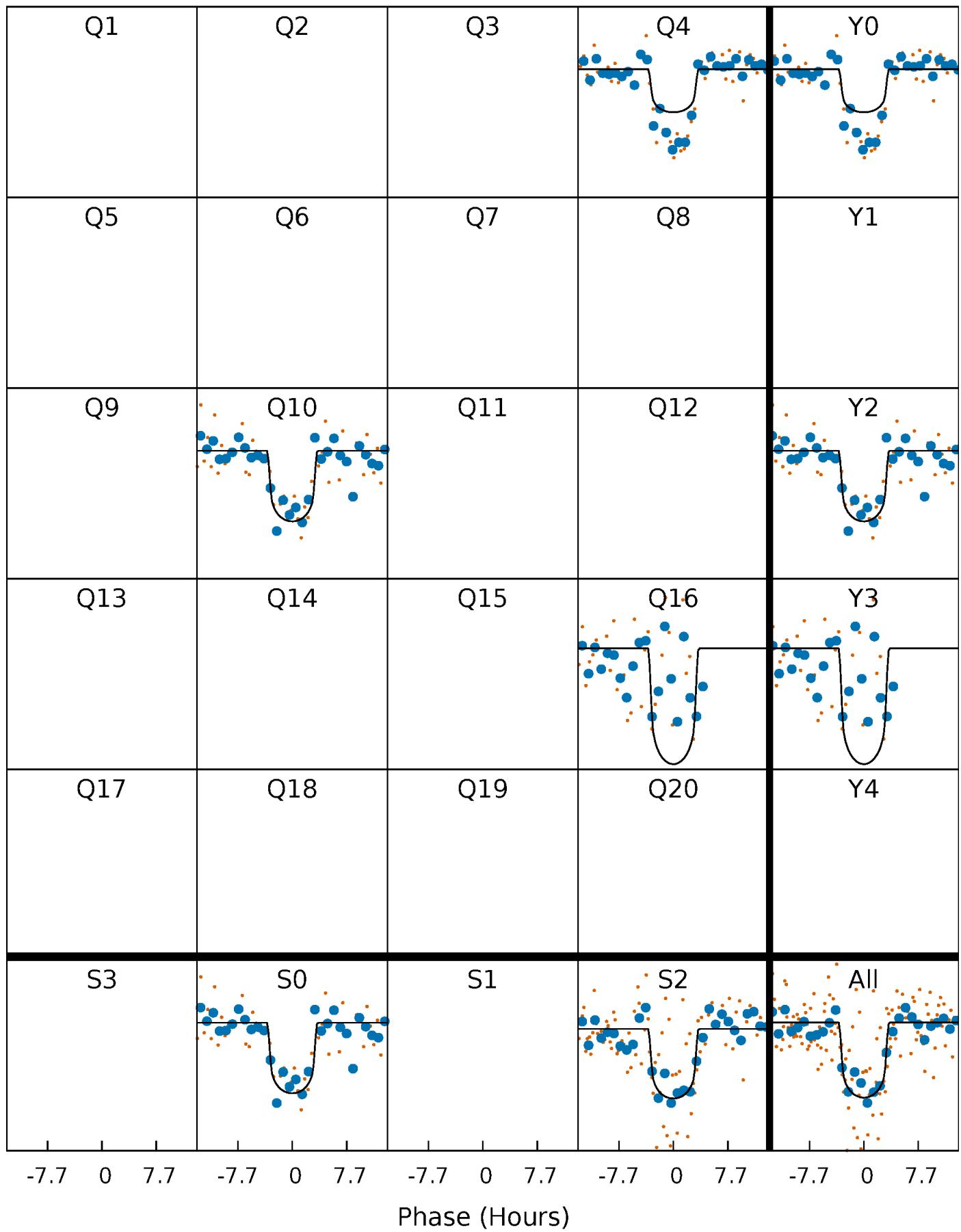
# PDC Quarter-Phased Transit Curves

TCE 009851226-02   P=523.419859 Days    $T_0=500.845720$  (BKJD)



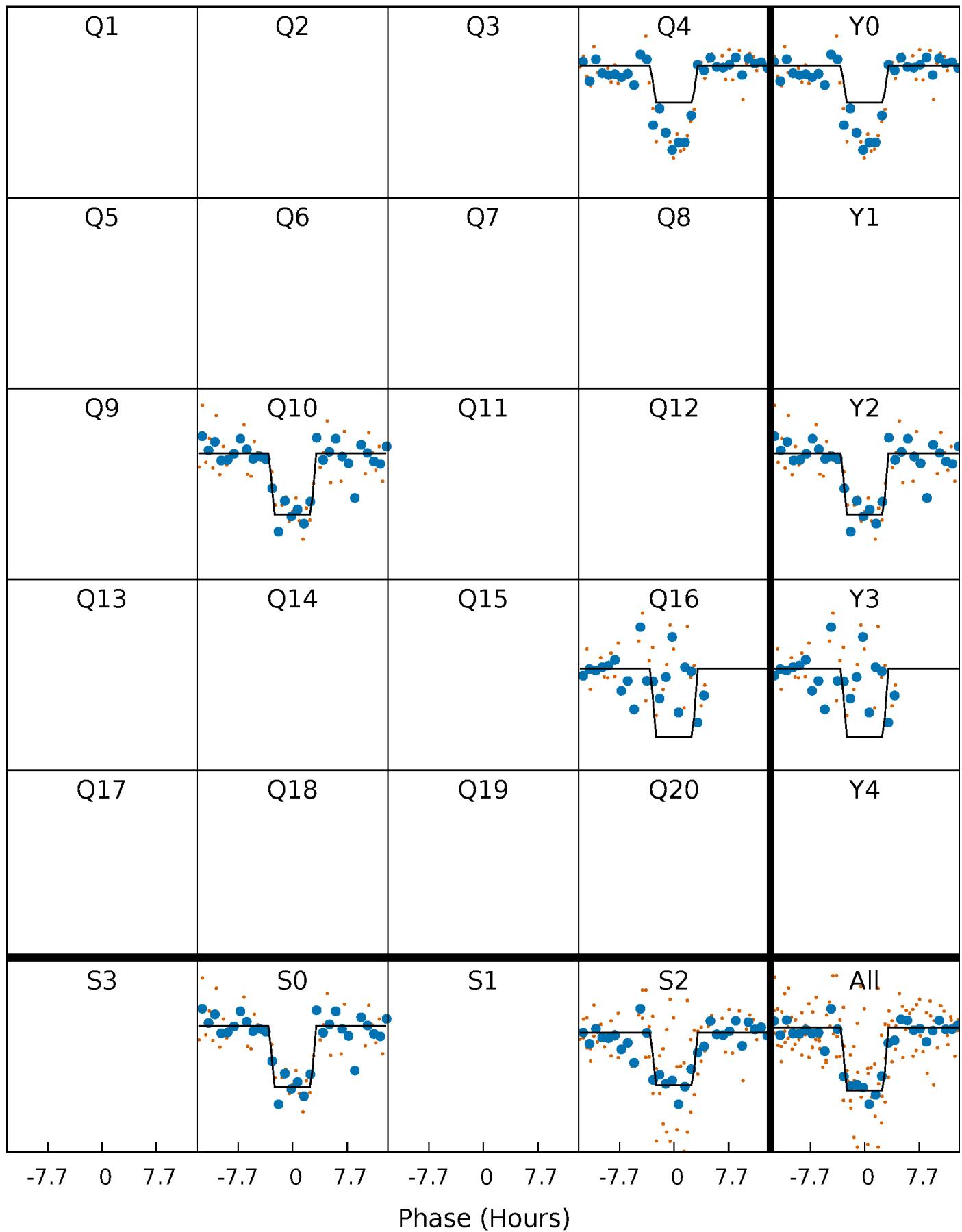
# DV Quarter-Phased Transit Curves

TCE 009851226-02   P=523.419859 Days    $T_0=500.845720$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

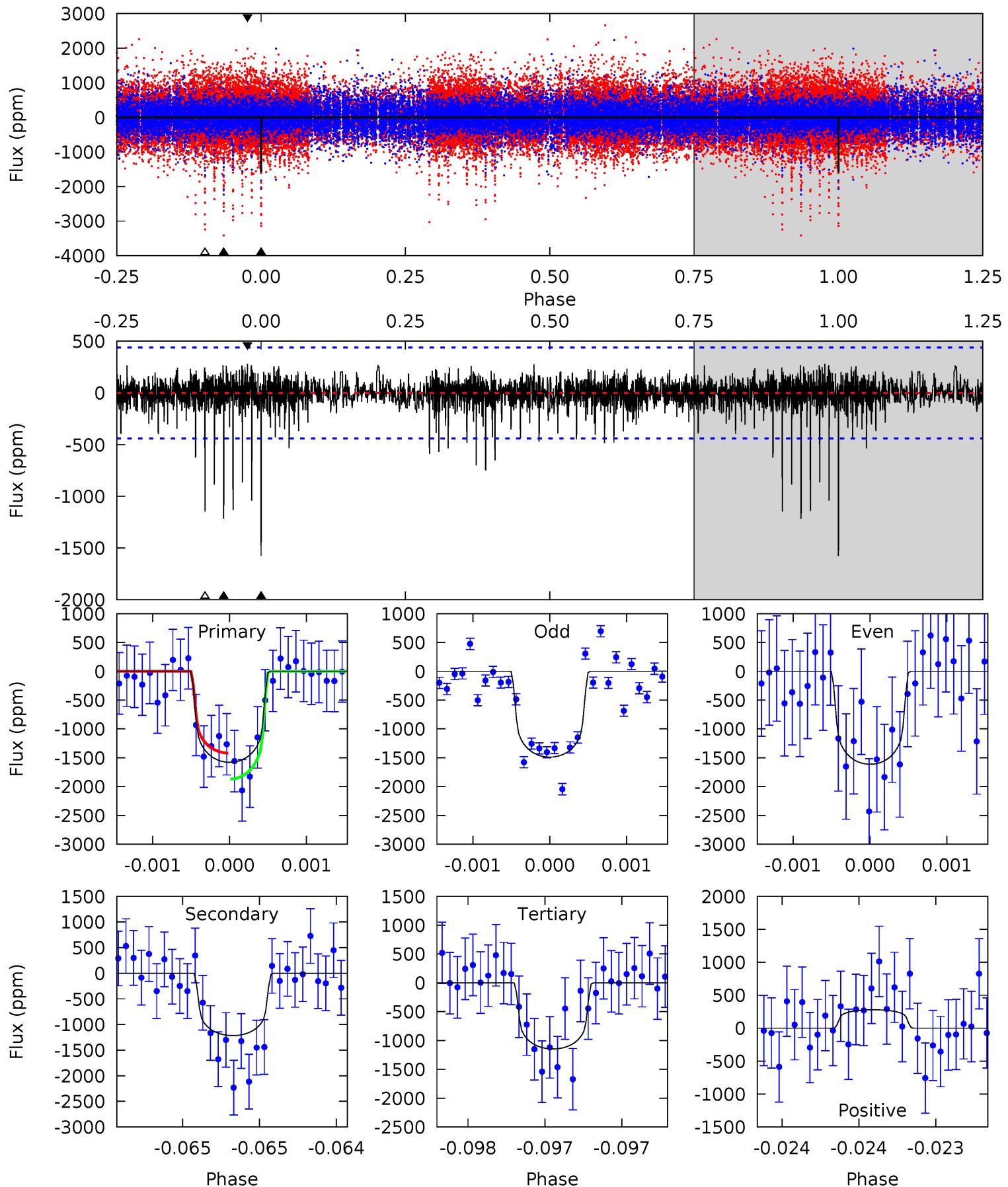
TCE 009851226-02   P=523.405639 Days    $T_0=500.851709$  (BKJD)



# DV Model-Shift Uniqueness Test

009851226-02,  $P = 523.419859$  Days,  $E = 500.845720$  Days

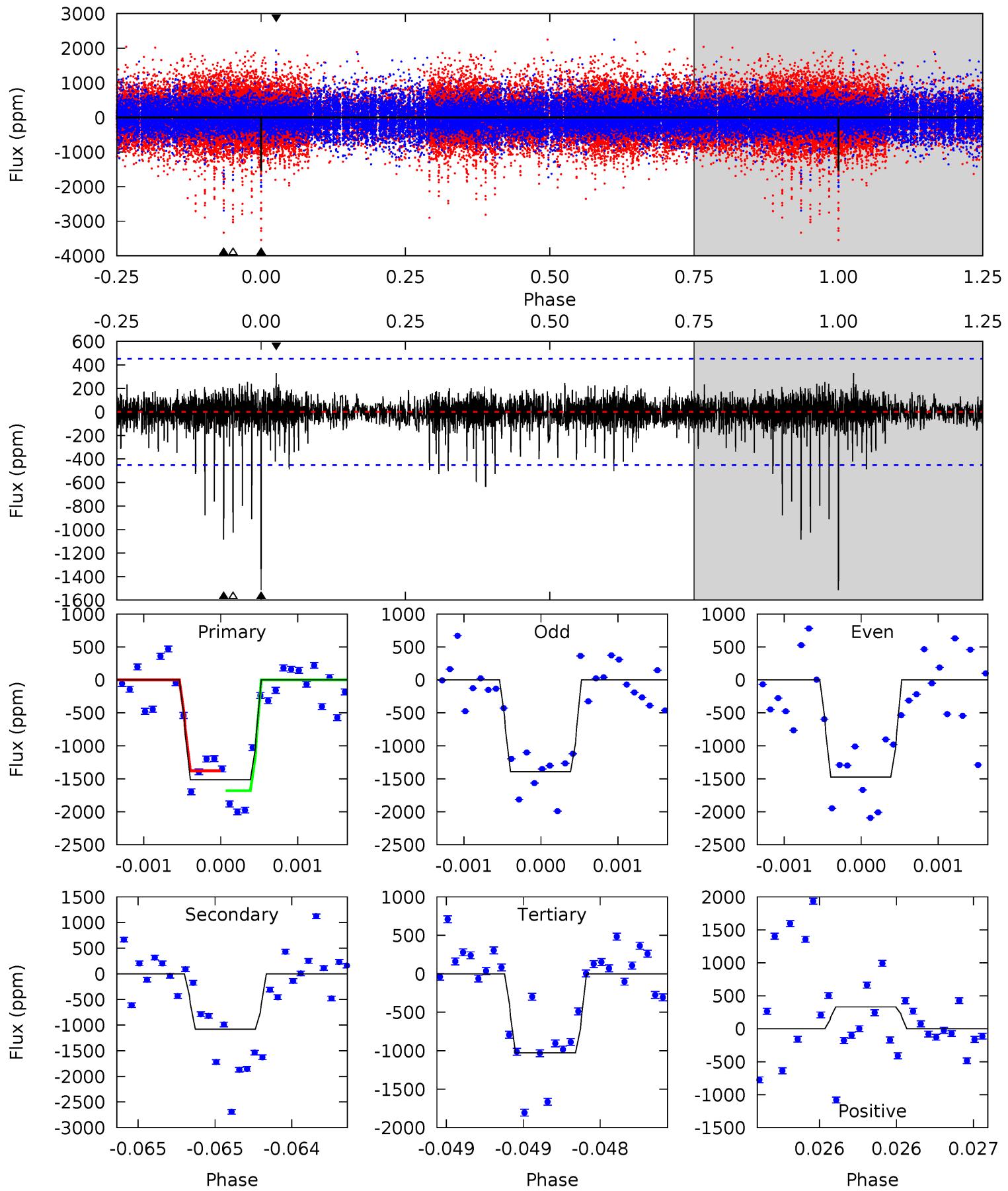
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.9	15.4	14.5	3.53	5.55	3.45	1.48	5.47	16.4	0.89	11.8	0.76	1.05	0.15	2.89



# Alt Model-Shift Uniqueness Test

009851226-02,  $P = 523.405639$  Days,  $E = 500.851709$  Days

Pri	Sec	Ter	Pos	$FA_1$	$FA_2$	$F_{Red}$	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.6	13.3	12.6	4.06	5.57	3.48	1.23	6.01	14.6	0.69	9.26	0.48	1.04	0.18	1.88



## Stellar Parameters For KIC 009851226

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$5951^{+178}_{-214}$	$4.439^{+0.084}_{-0.196}$	$-0.140^{+0.300}_{-0.300}$	$0.991^{+0.301}_{-0.129}$	$0.983^{+0.132}_{-0.119}$	$1.423^{+0.524}_{-0.742}$
	$+3\%/-4\%$	$+2\%/-4\%$	$+214\%/-214\%$	$+30\%/-13\%$	$+13\%/-12\%$	$+37\%/-52\%$
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 009851226-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (\text{K})$	$T_{obs} (\text{K})$	$A_{obs}$
DV	$-1215 \pm 79$	$4.87^{+3.85}_{-3.06}$	$329^{+23}_{-19}$	$5403^{+3813}_{-1152}$	$46471^{+281360}_{-32149}$
Alt.	$-1083 \pm 81$	$4.80^{+3.63}_{-2.95}$	$329^{+25}_{-17}$	$5269^{+3488}_{-1123}$	$40689^{+233946}_{-27859}$

$T_{max}$  = Theoretical Maximum Planetary Temperature

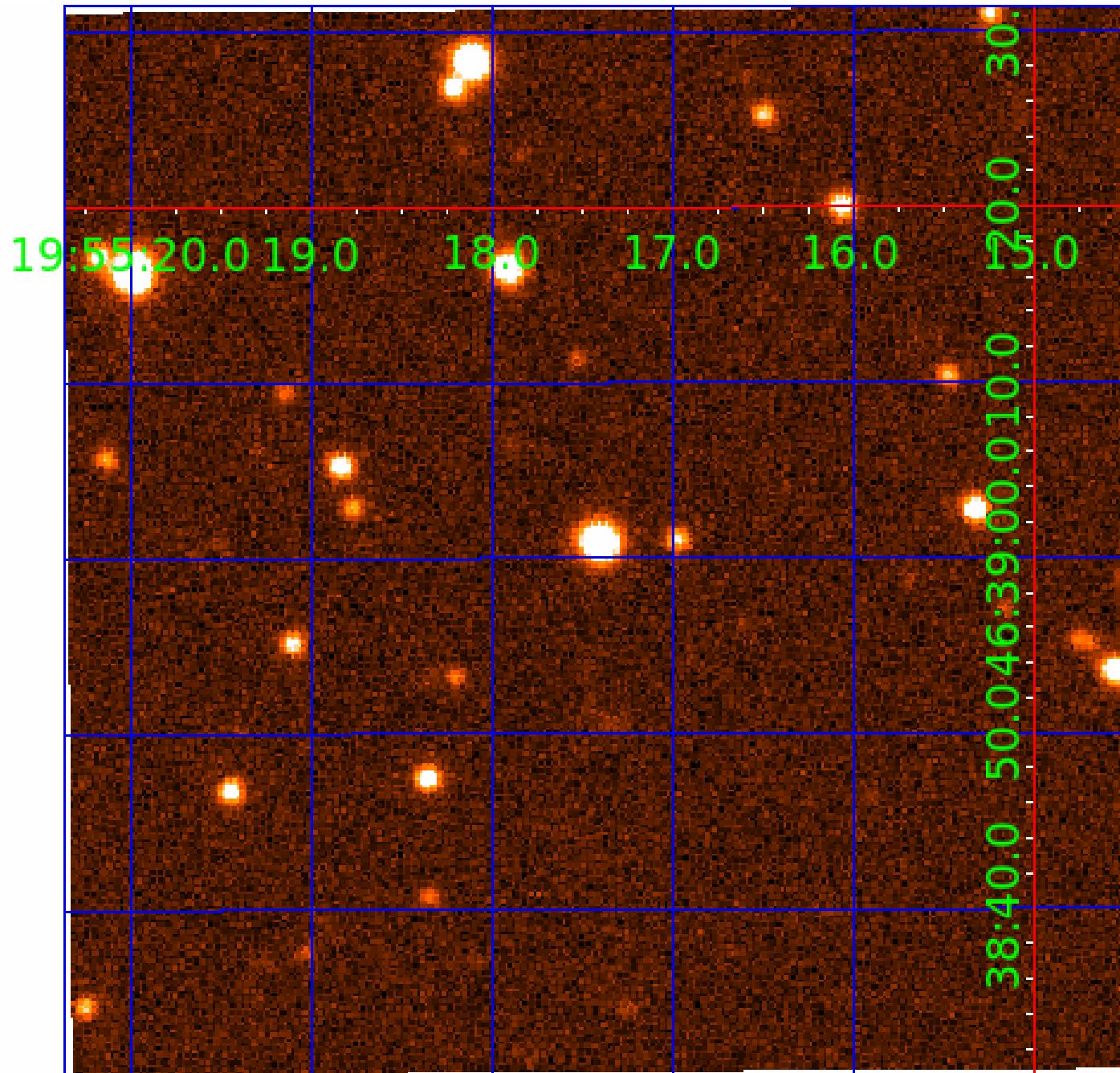
$T_{obs}$  = Observed Planetary Temperature (Assuming  $A=0.3$ )

$A_{obs}$  = Observed Albedo (Assuming  $T=0$ )

If a secondary eclipse is present, the system is likely an EB if  $T_{obs} \gg T_{max}$  AND  $A_{obs} \gg 1.0$

UKIRT Image

Declination



# KIC 009851226

## 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)	$R_p$ ( $R_\oplus$ )	$S_p$ ( $S_\oplus$ )
009851226-01	SCR	No	8.478350	132.487688	702.7	7.987	35.3	35.6	0.99	5951	3.40	168.35
009851226-02	SCR	No	523.419859	500.845720	1658.4	6.747	17.1	14.0	0.99	5951	4.04	0.69
009851226-03	SCR	No	371.940315	441.478085	1644.5	5.319	17.4	12.9	0.99	5951	4.18	1.09
009851226-04	SCR	No	371.939708	449.960057	2246.7	8.155	15.2	14.5	0.99	5951	8.81	1.09
009851226-05	SCR	No	354.978324	466.922213	2368.6	7.738	12.8	15.0	0.99	5951	6.06	1.16
009851226-06	SCR	No	271.298456	212.536870	1788.0	4.500	12.0	-1.0	0.99	5951	4.18	1.66

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009851226-01	SCR	FP	0.00	1	0	0	1	LPP_DV—EPHEM_MATCH
009851226-02	SCR	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—INCONSISTENT_TRANS
009851226-03	SCR	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—INCONSISTENT_TRANS
009851226-04	SCR	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—INCONSISTENT_TRANS—SAME_NTL_PERIOD
009851226-05	SCR	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—INCONSISTENT_TRANS
009851226-06	SCR	FP	0.10	1	0	0	0	INCONSISTENT_TRANS

**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](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

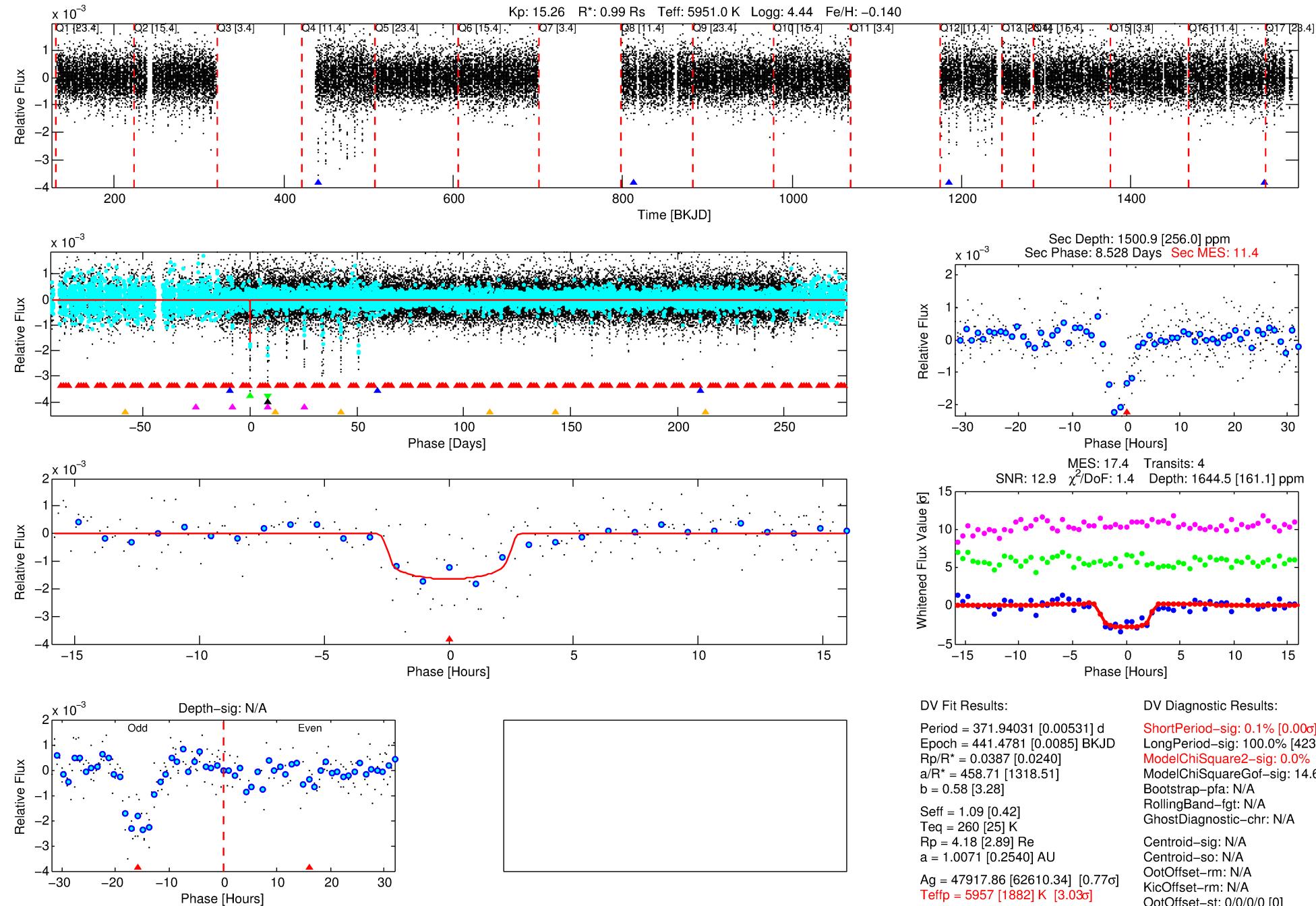
## Ephemeris Match Information For 009851226-03

No Significant Match Found

**WARNING: THIS DATA IS  
SIMULATED, NOT OBSERVED**

## DV One-Page Summary

KIC: 9851226 Candidate: 3 of 6 Period: 371.940 d



**WARNING: THIS DATA IS  
SIMULATED, NOT OBSERVED**

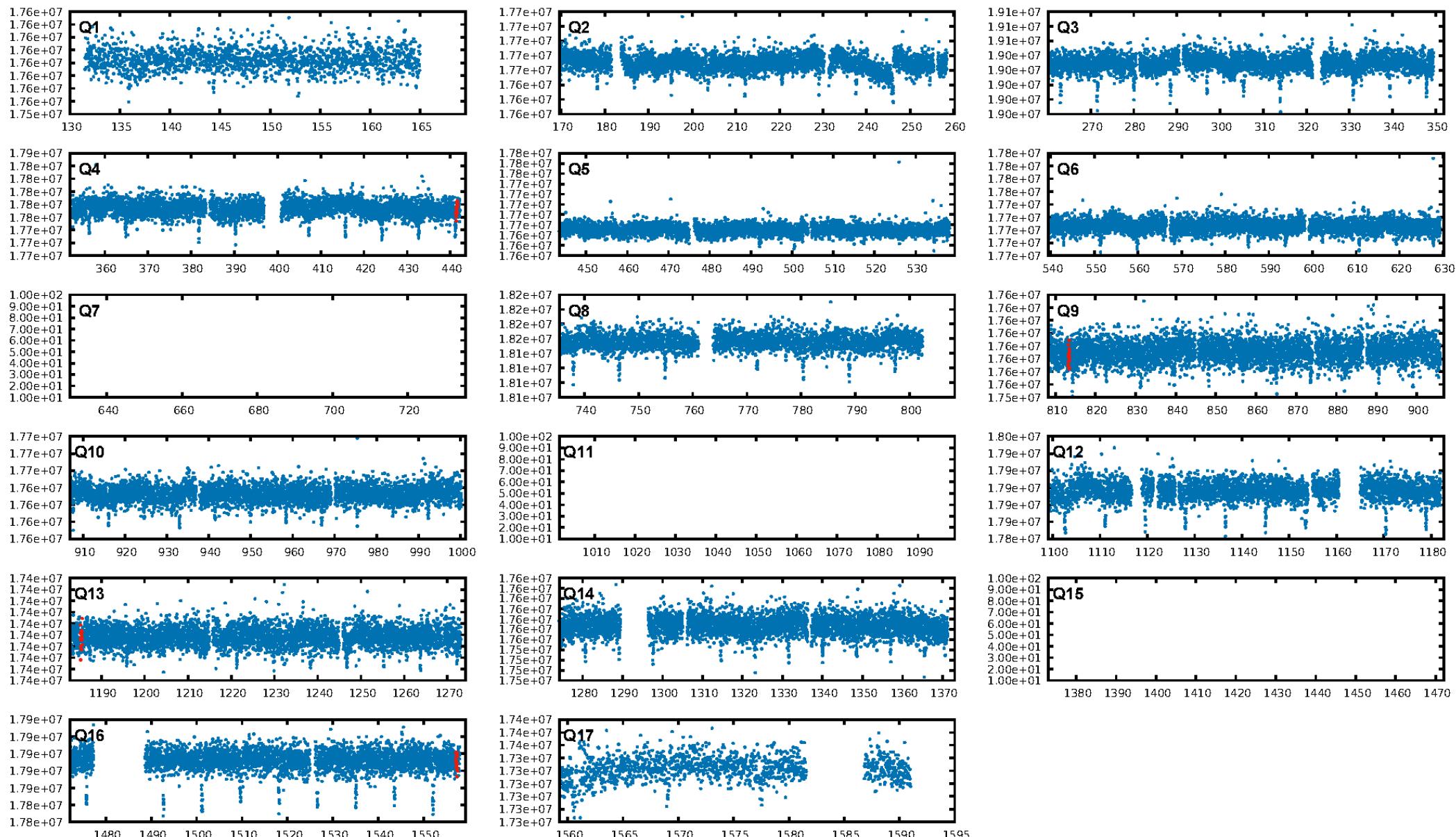
DV Fit Results:

Period = 371.94031 [0.00531] d  
Epoch = 441.4781 [0.0085] BKJD  
Rp/R\* = 0.0387 [0.0240]  
a/R\* = 458.71 [1318.51]  
b = 0.58 [3.28]  
Seff = 1.09 [0.42]  
Teq = 260 [25] K  
Rp = 4.18 [2.89] Re  
a = 1.0071 [0.2540] AU  
Ag = 47917.86 [62610.34] [0.77 $\sigma$ ]  
Teffp = 5957 [1882] K [3.03 $\sigma$ ]

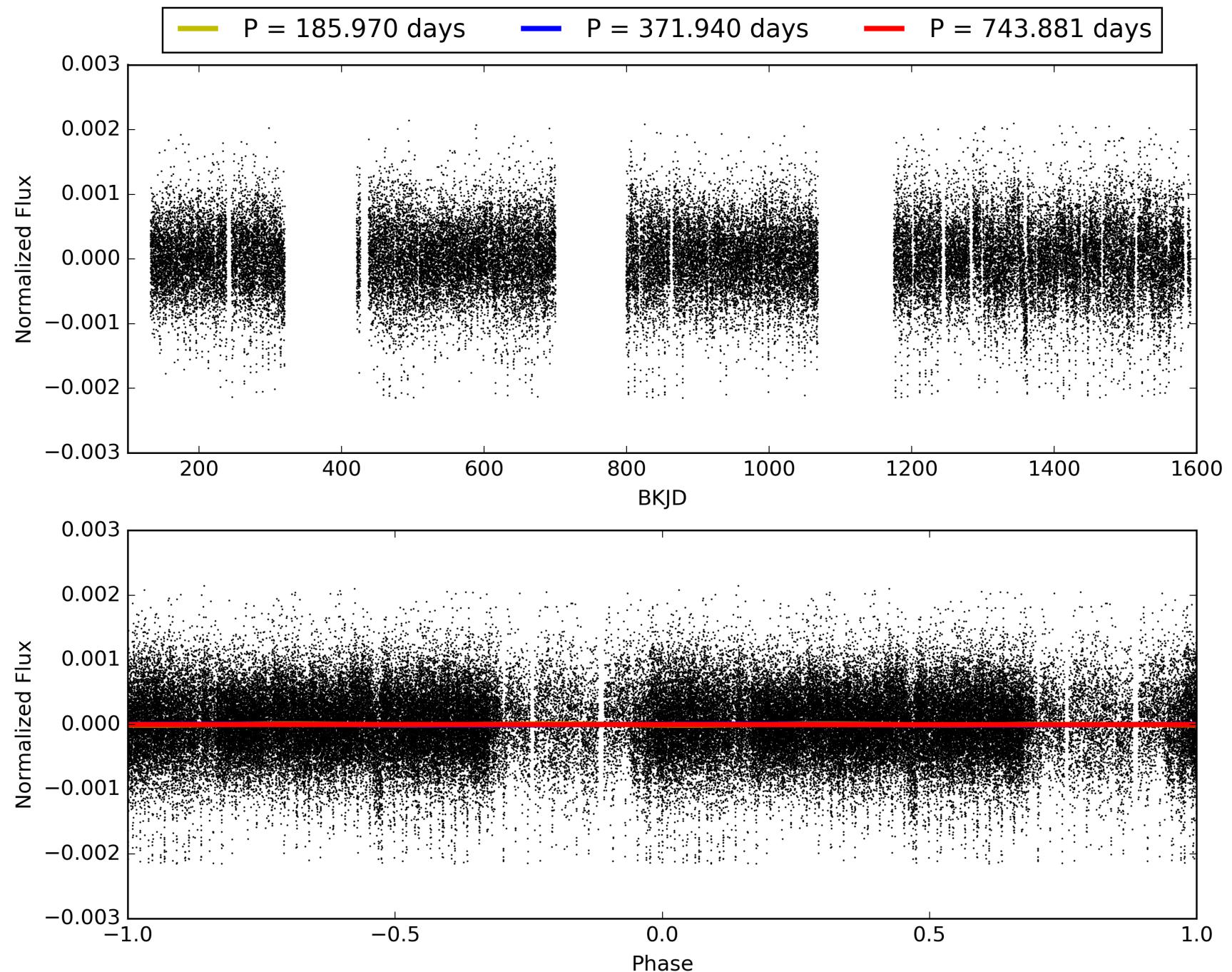
DV Diagnostic Results:

ShortPeriod-sig: 0.1% [0.00 $\sigma$ ]	LongPeriod-sig: 100.0% [423.18 $\sigma$ ]
ModelChiSquare2-sig: 0.0%	ModelChiSquareGof-sig: 14.6%
Bootstrap-pfa: N/A	RollingBand-fgt: N/A
GhostDiagnostic-chr: N/A	
Centroid-sig: N/A	
Centroid-so: N/A	
OotOffset-rm: N/A	
KicOffset-rm: N/A	
OotOffset-st: 0/0/0/0 [0]	
KicOffset-st: 0/0/0/0 [0]	
DifflImageQuality-fgm: N/A	
DifflImageOverlap-fno: N/A	

# TCE 009851226-03, PDC Light Curves

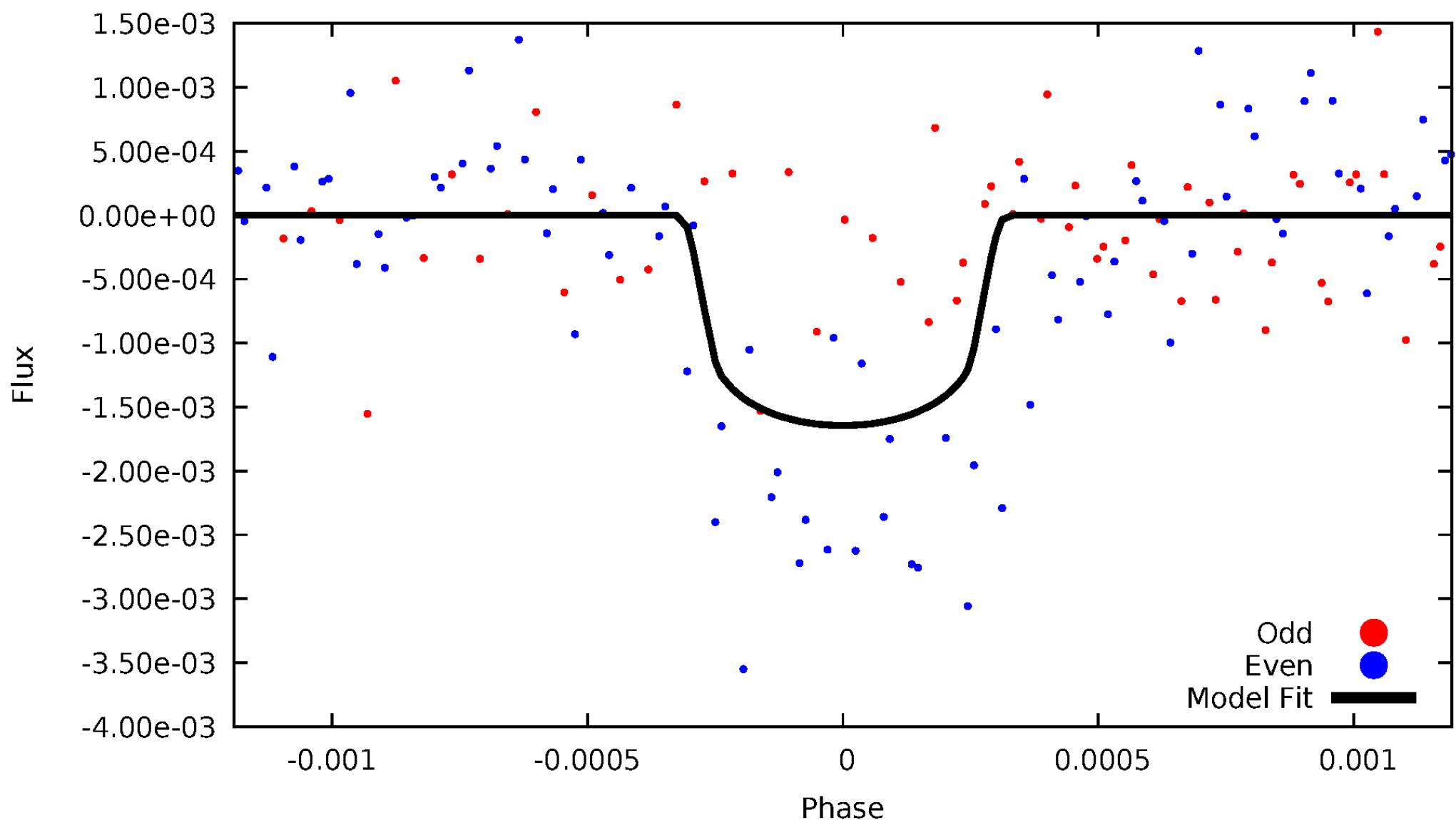


# TCE 009851226-03



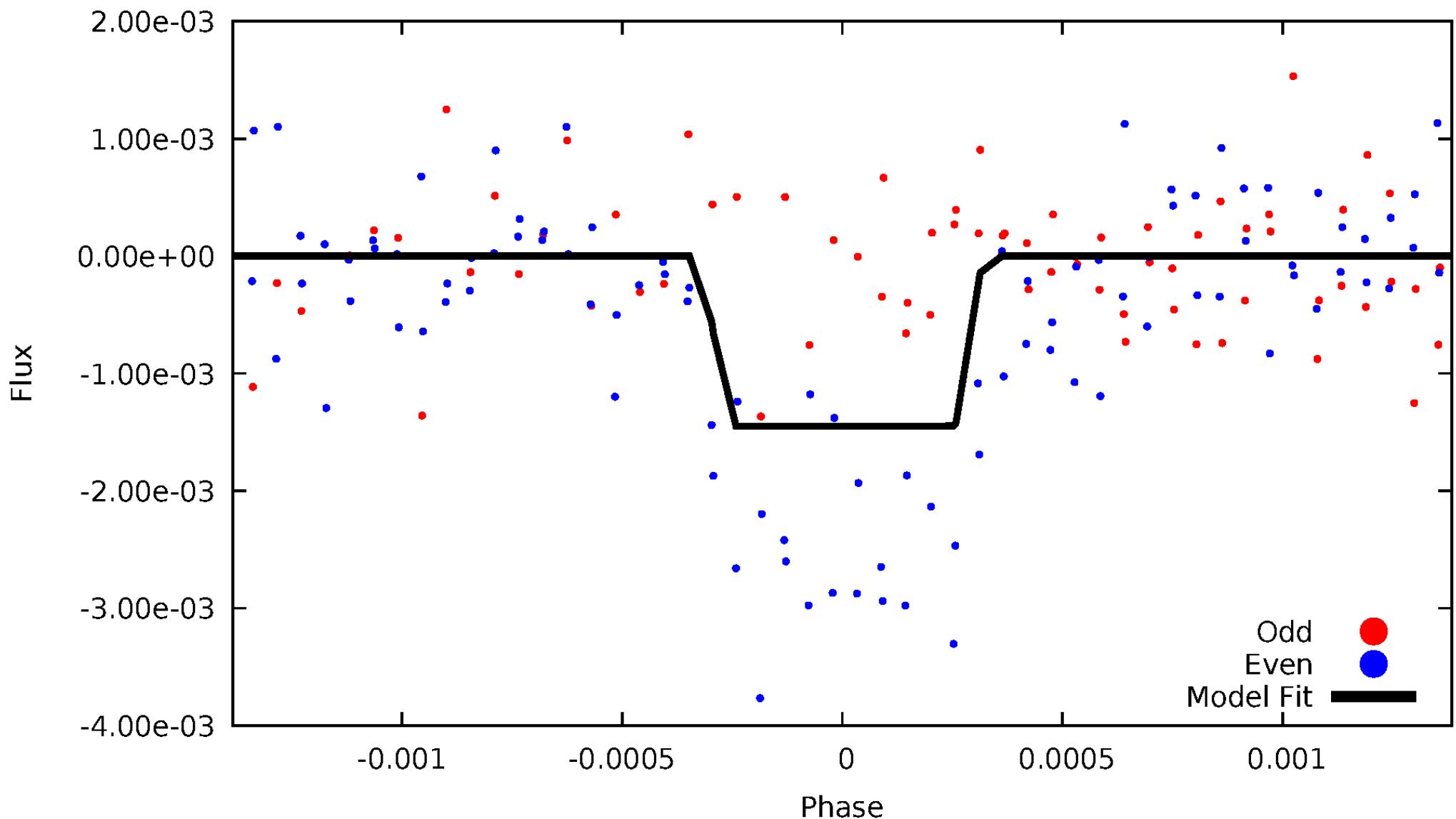
## DV Odd/Even

TCE 009851226-03

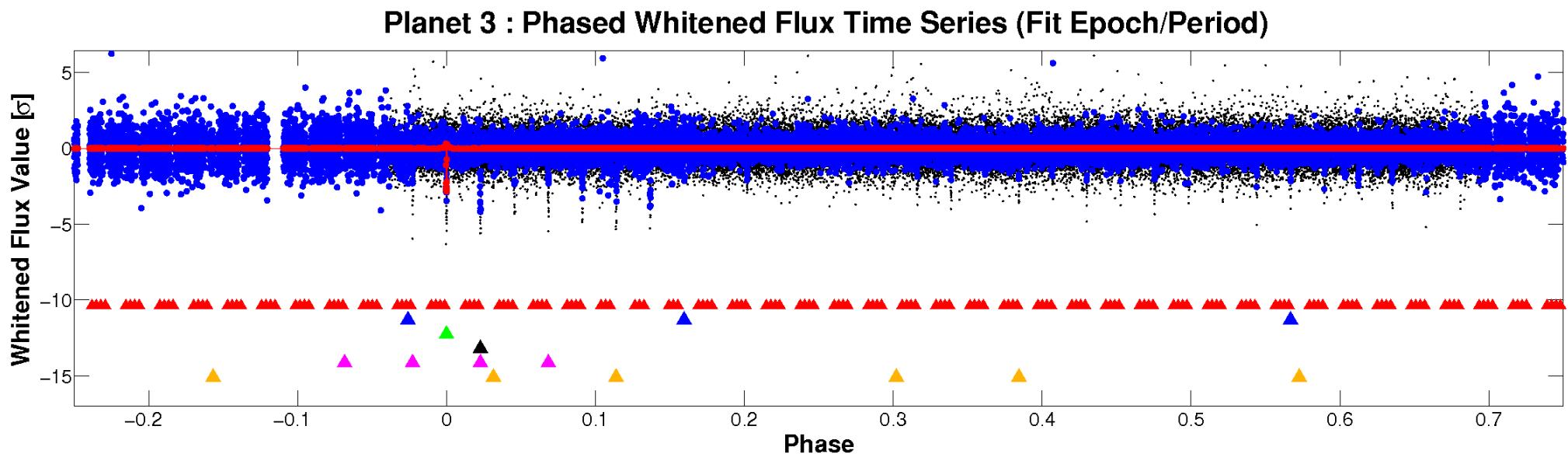
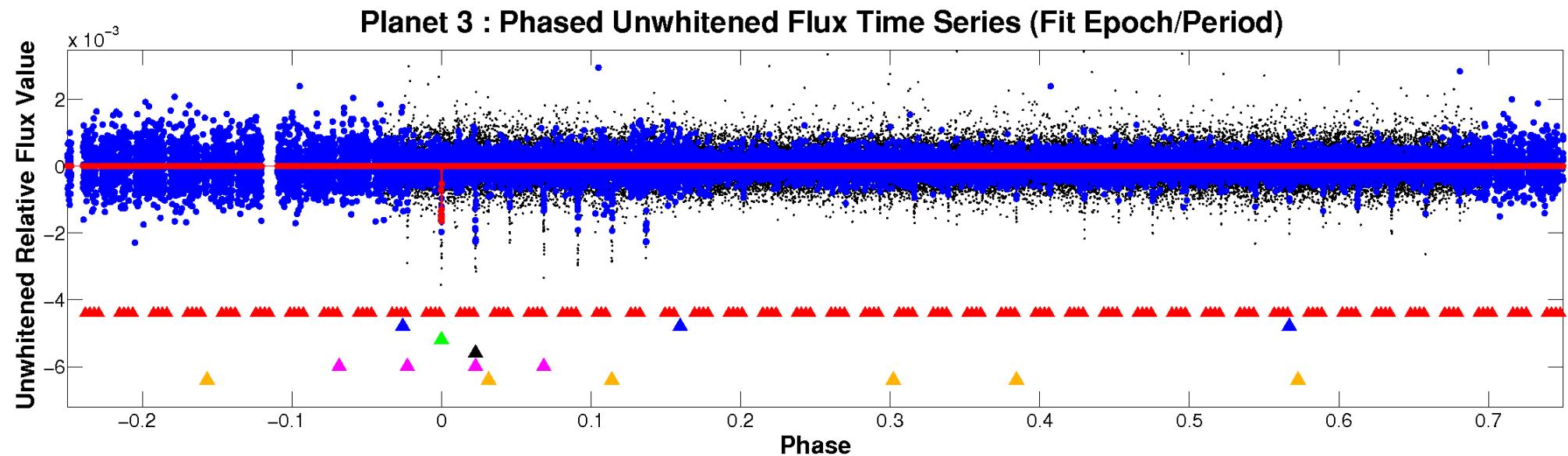


# ALT Odd/Even

TCE 009851226-03

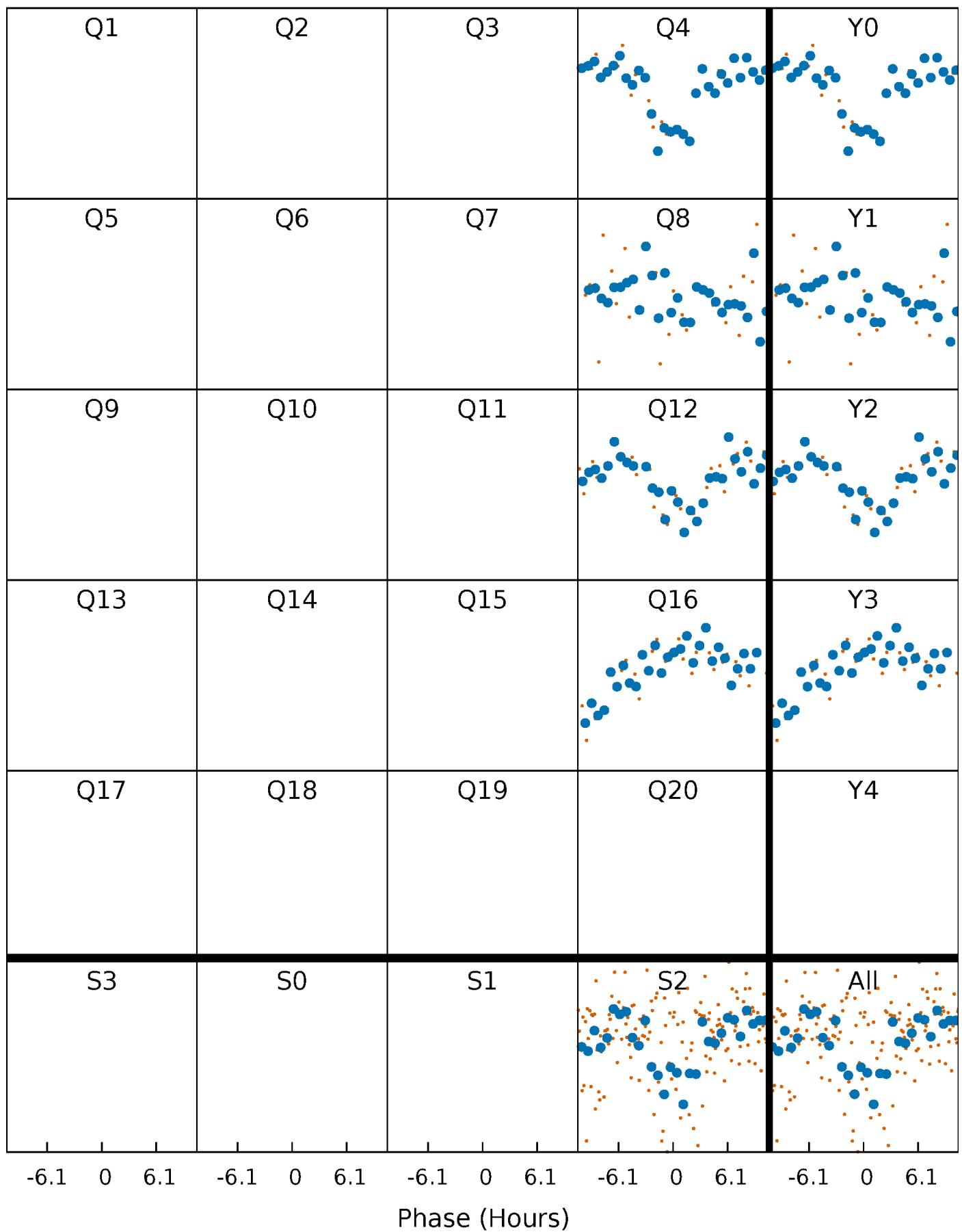


# Non-Whitened Vs. Whitened Light Curve



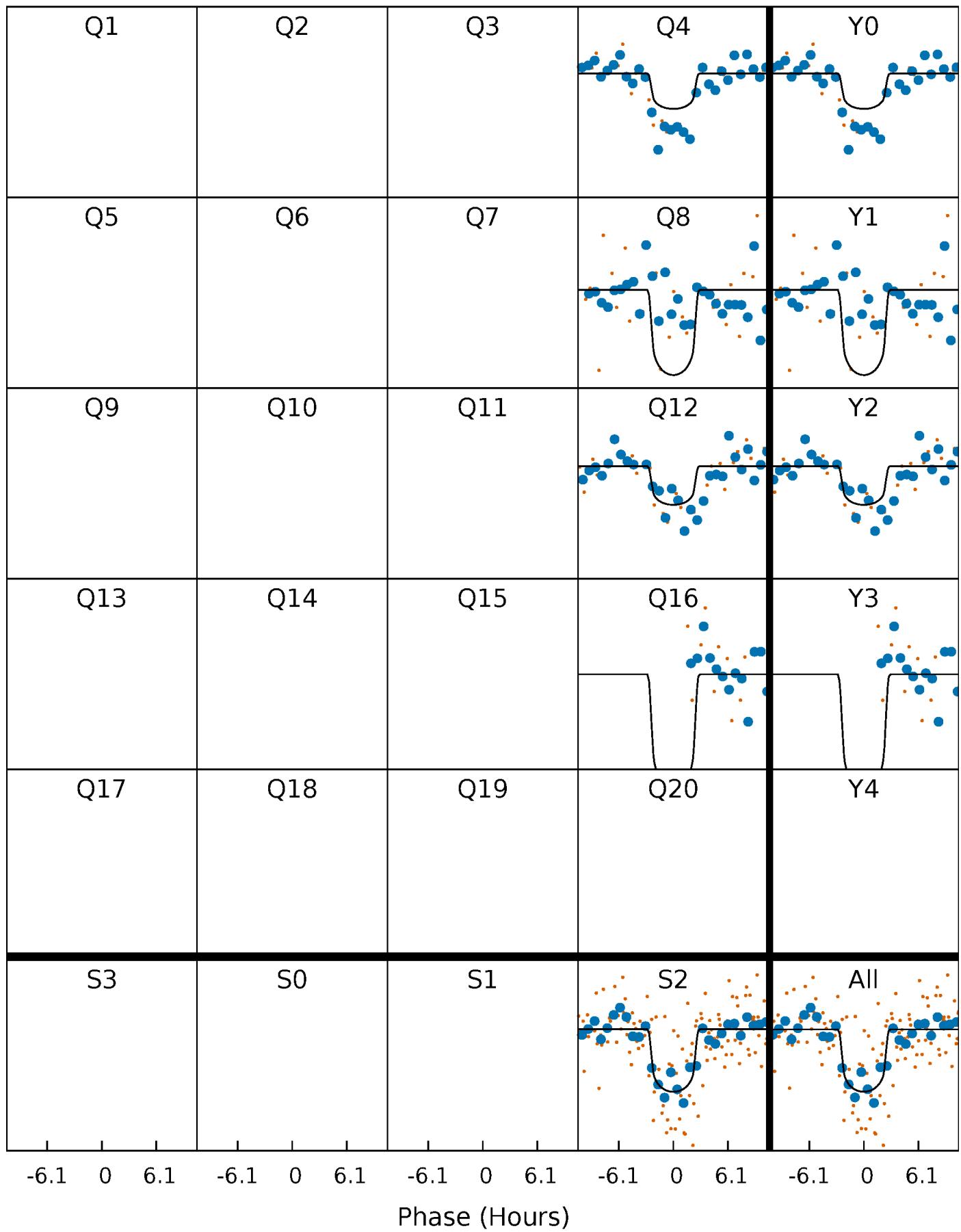
# PDC Quarter-Phased Transit Curves

TCE 009851226-03     $P=371.940315$  Days     $T_0=441.478085$  (BKJD)



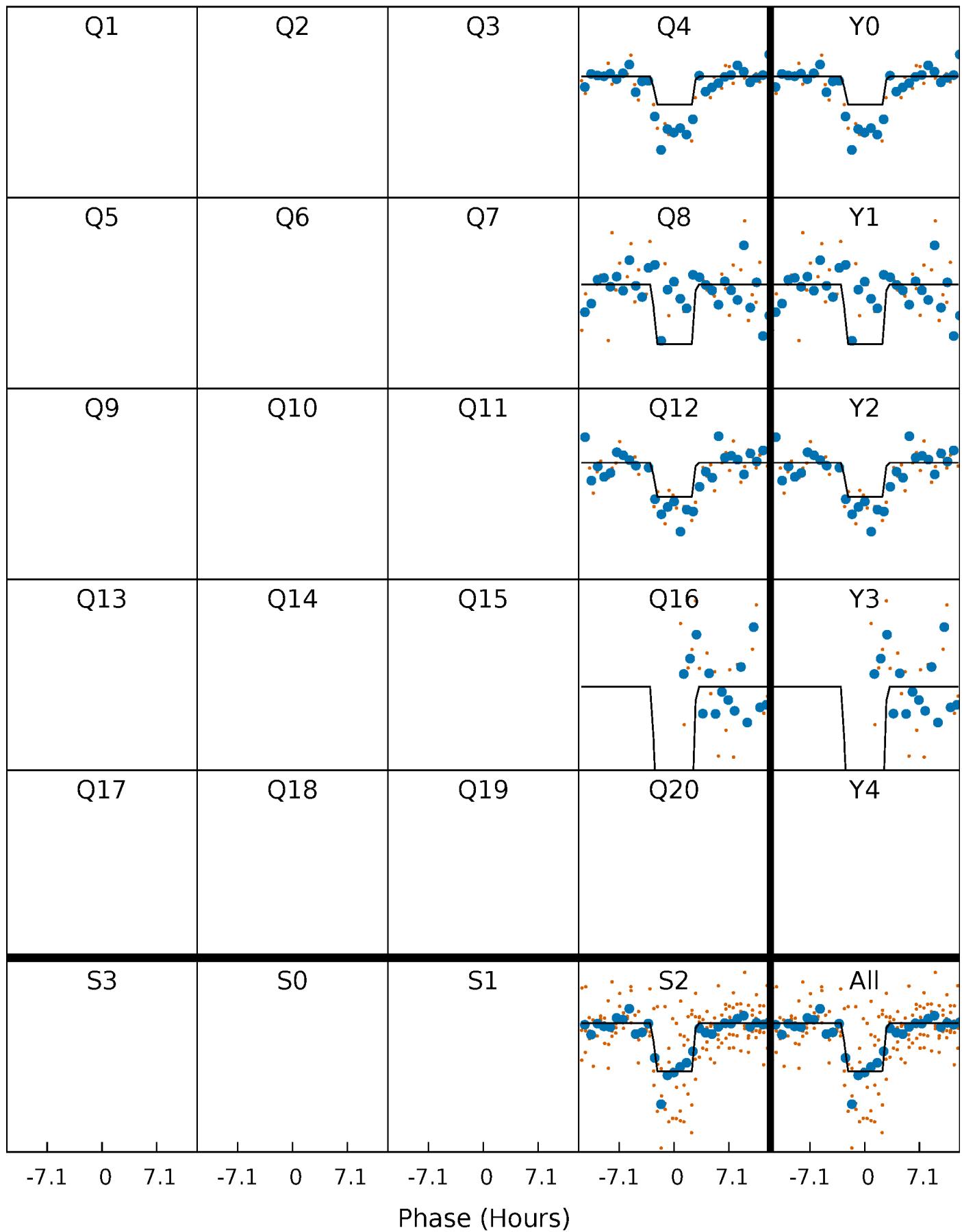
# DV Quarter-Phased Transit Curves

TCE 009851226-03     $P=371.940315$  Days     $T_0=441.478085$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

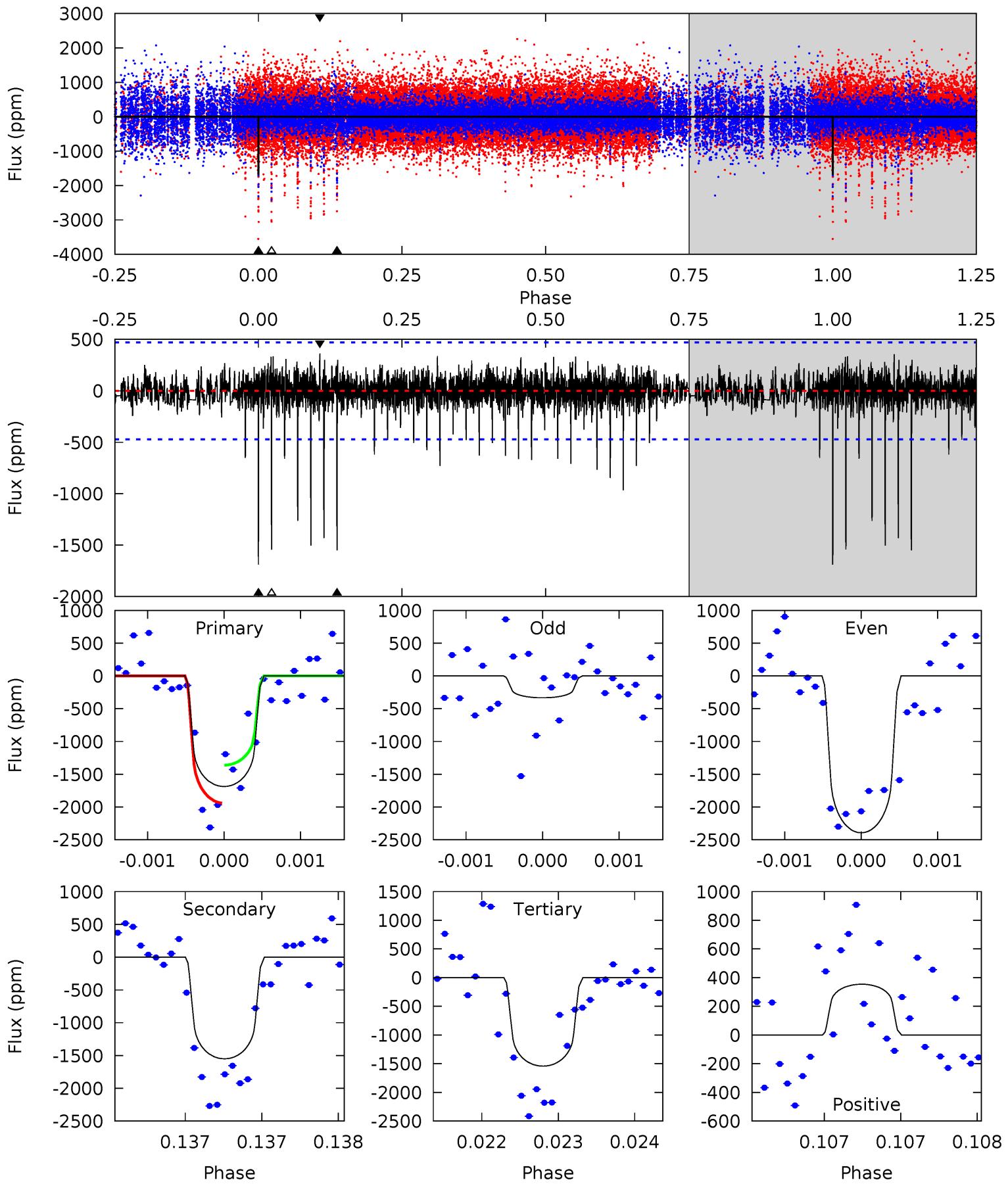
TCE 009851226-03     $P=371.952093$  Days     $T_0=441.475015$  (BKJD)



# DV Model-Shift Uniqueness Test

009851226-03,  $P = 371.940315$  Days,  $E = 69.537770$  Days

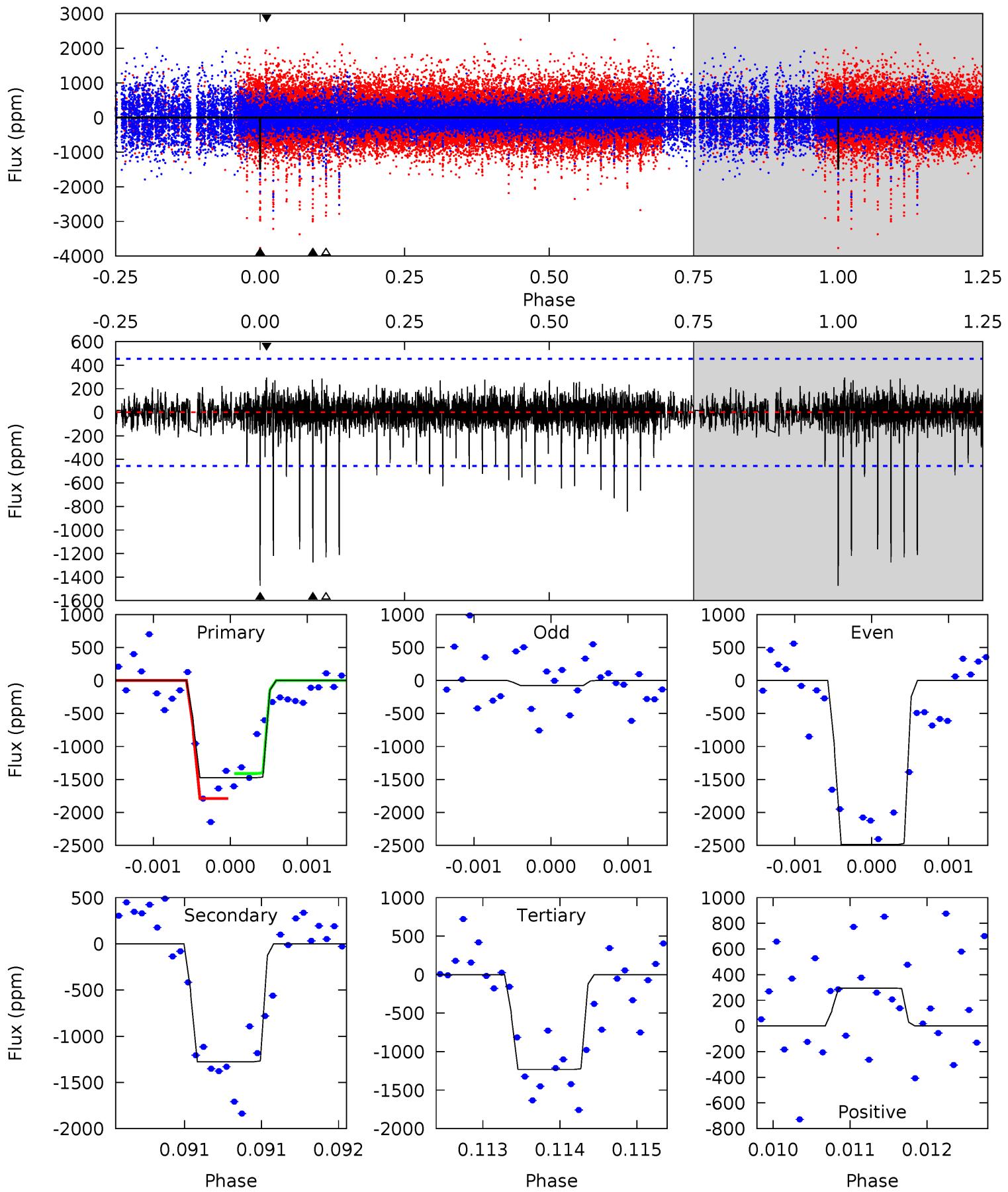
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.8	18.2	18.1	4.16	5.53	3.41	1.56	1.70	15.6	0.09	14.0	12.2	1.07	0.17	3.33



# Alt Model-Shift Uniqueness Test

009851226-03,  $P = 371.952093$  Days,  $E = 69.522922$  Days

Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.9	15.5	15.0	3.58	5.54	3.43	1.35	2.95	14.4	0.54	11.9	14.9	1.11	0.17	2.22



## Stellar Parameters For KIC 009851226

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$5951^{+178}_{-214}$	$4.439^{+0.084}_{-0.196}$	$-0.140^{+0.300}_{-0.300}$	$0.991^{+0.301}_{-0.129}$	$0.983^{+0.132}_{-0.119}$	$1.423^{+0.524}_{-0.742}$
	$+3\%/-4\%$	$+2\%/-4\%$	$+214\%/-214\%$	$+30\%/-13\%$	$+13\%/-12\%$	$+37\%/-52\%$
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 009851226-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (\text{K})$	$T_{obs} (\text{K})$	$A_{obs}$
DV	$-1551 \pm 85$	$4.44^{+2.83}_{-2.23}$	$368^{+27}_{-20}$	$5841^{+2729}_{-1025}$	$41844^{+128808}_{-25085}$
Alt.	$-1276 \pm 82$	$4.62^{+2.83}_{-2.27}$	$369^{+28}_{-20}$	$5579^{+2446}_{-995}$	$33207^{+96945}_{-20244}$

$T_{max}$  = Theoretical Maximum Planetary Temperature

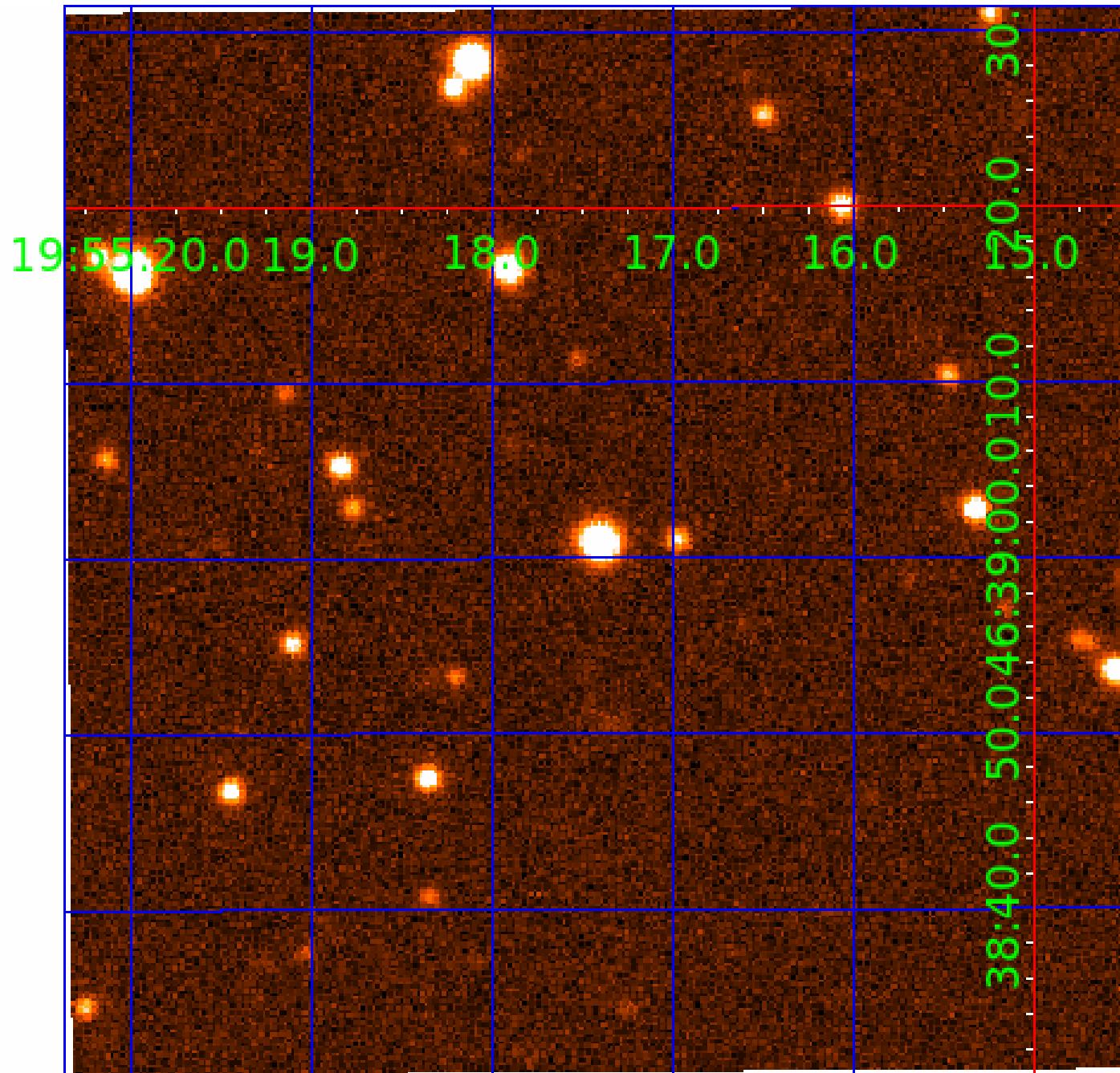
$T_{obs}$  = Observed Planetary Temperature (Assuming  $A=0.3$ )

$A_{obs}$  = Observed Albedo (Assuming  $T=0$ )

If a secondary eclipse is present, the system is likely an EB if  $T_{obs} \gg T_{max}$  AND  $A_{obs} \gg 1.0$

UKIRT Image

Declination



# KIC 009851226

## Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	$R_*$ ( $R_{\odot}$ )	$T_*$ (K)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
009851226-01	SCR	No	8.478350	132.487688	702.7	7.987	35.3	35.6	0.99	5951	3.40	168.35
009851226-02	SCR	No	523.419859	500.845720	1658.4	6.747	17.1	14.0	0.99	5951	4.04	0.69
009851226-03	SCR	No	371.940315	441.478085	1644.5	5.319	17.4	12.9	0.99	5951	4.18	1.09
009851226-04	SCR	No	371.939708	449.960057	2246.7	8.155	15.2	14.5	0.99	5951	8.81	1.09
009851226-05	SCR	No	354.978324	466.922213	2368.6	7.738	12.8	15.0	0.99	5951	6.06	1.16
009851226-06	SCR	No	271.298456	212.536870	1788.0	4.500	12.0	-1.0	0.99	5951	4.18	1.66

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009851226-01	SCR	FP	0.00	1	0	0	1	LPP_DV—EPHEM_MATCH
009851226-02	SCR	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—INCONSISTENT_TRANS
009851226-03	SCR	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—INCONSISTENT_TRANS
009851226-04	SCR	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—INCONSISTENT_TRANS—SAME_NTL_PERIOD
009851226-05	SCR	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—INCONSISTENT_TRANS
009851226-06	SCR	FP	0.10	1	0	0	0	INCONSISTENT_TRANS

**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](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

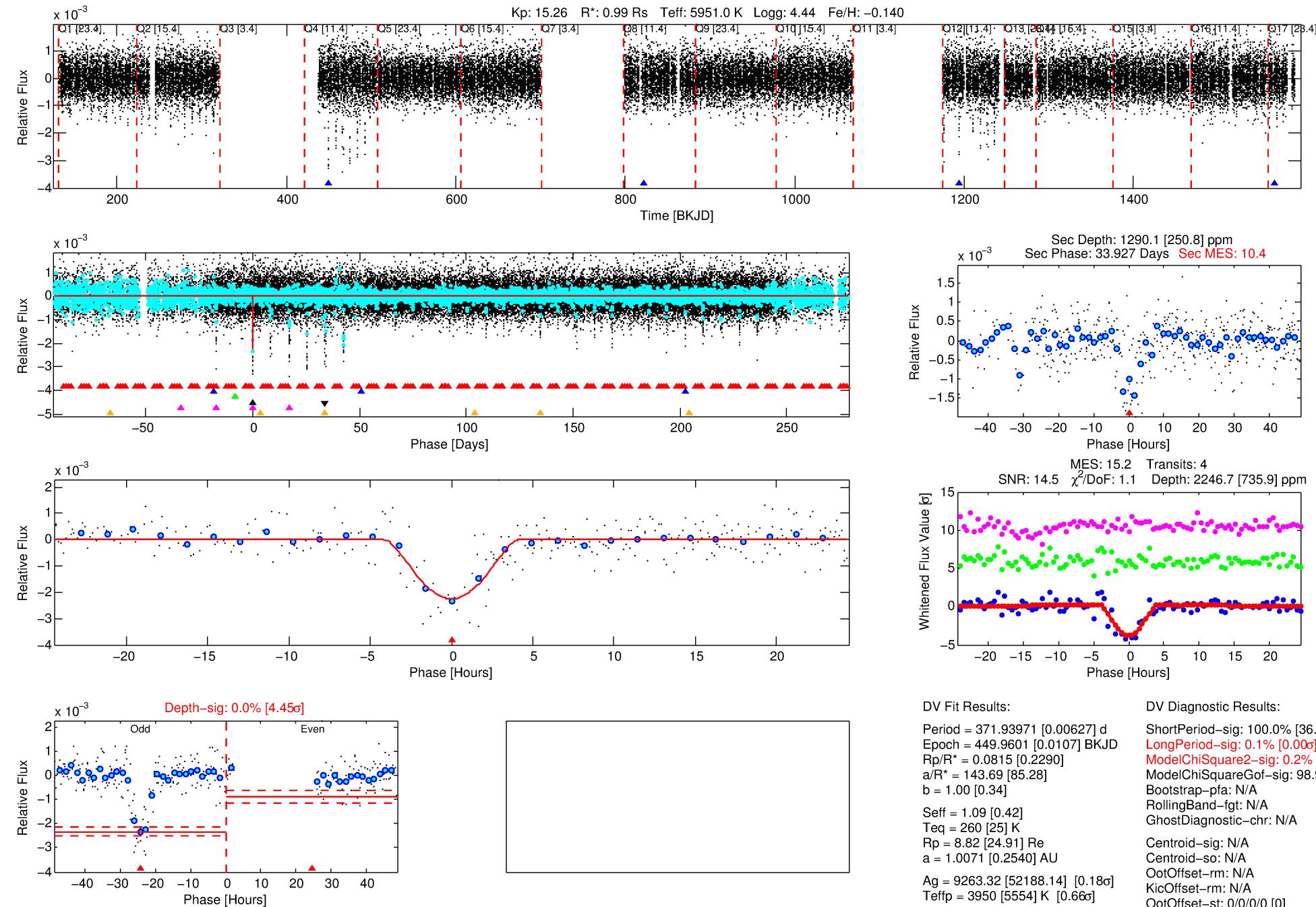
## Ephemeris Match Information For 009851226-04

No Significant Match Found

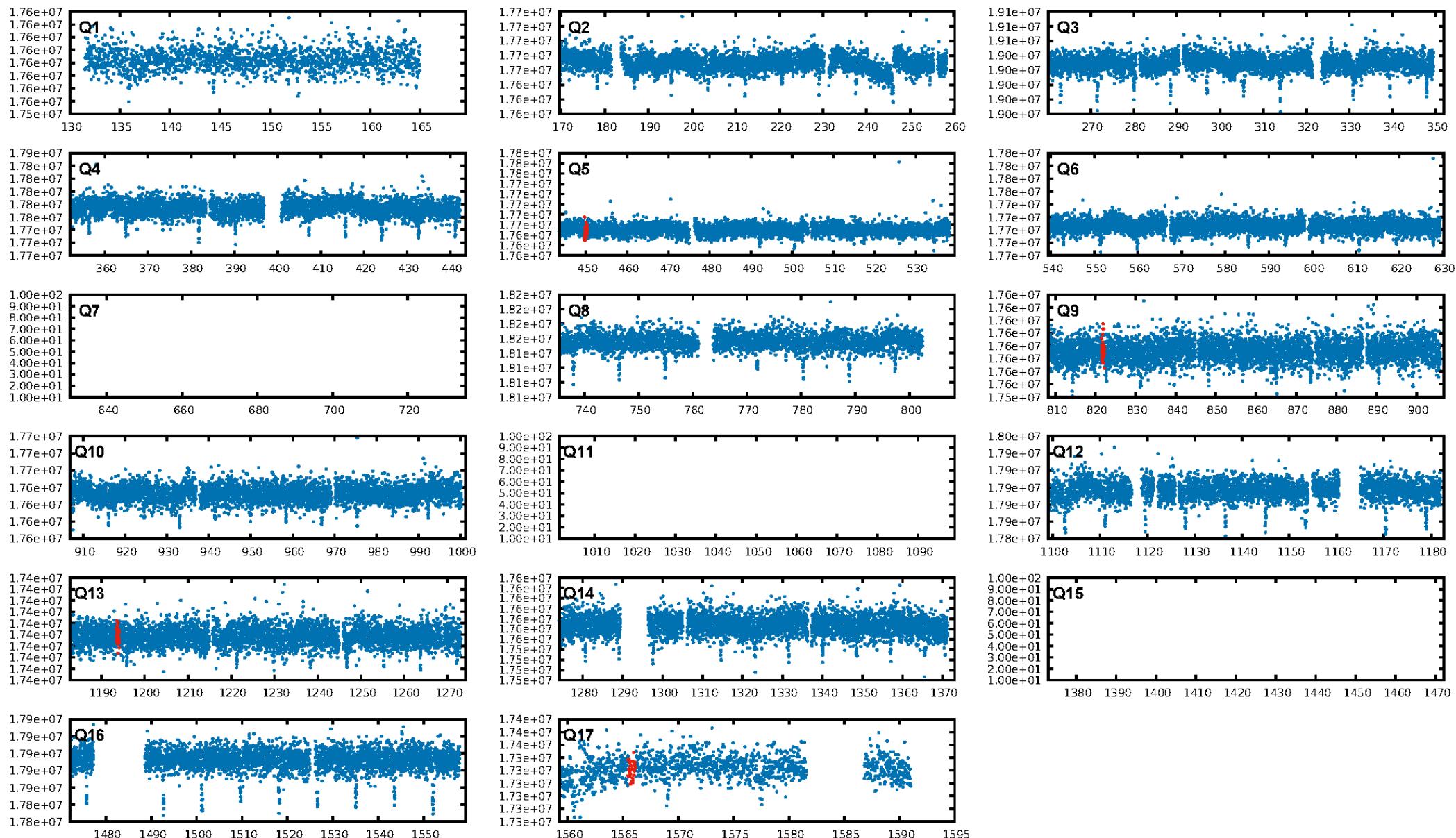
**WARNING: THIS DATA IS  
SIMULATED, NOT OBSERVED**

## DV One-Page Summary

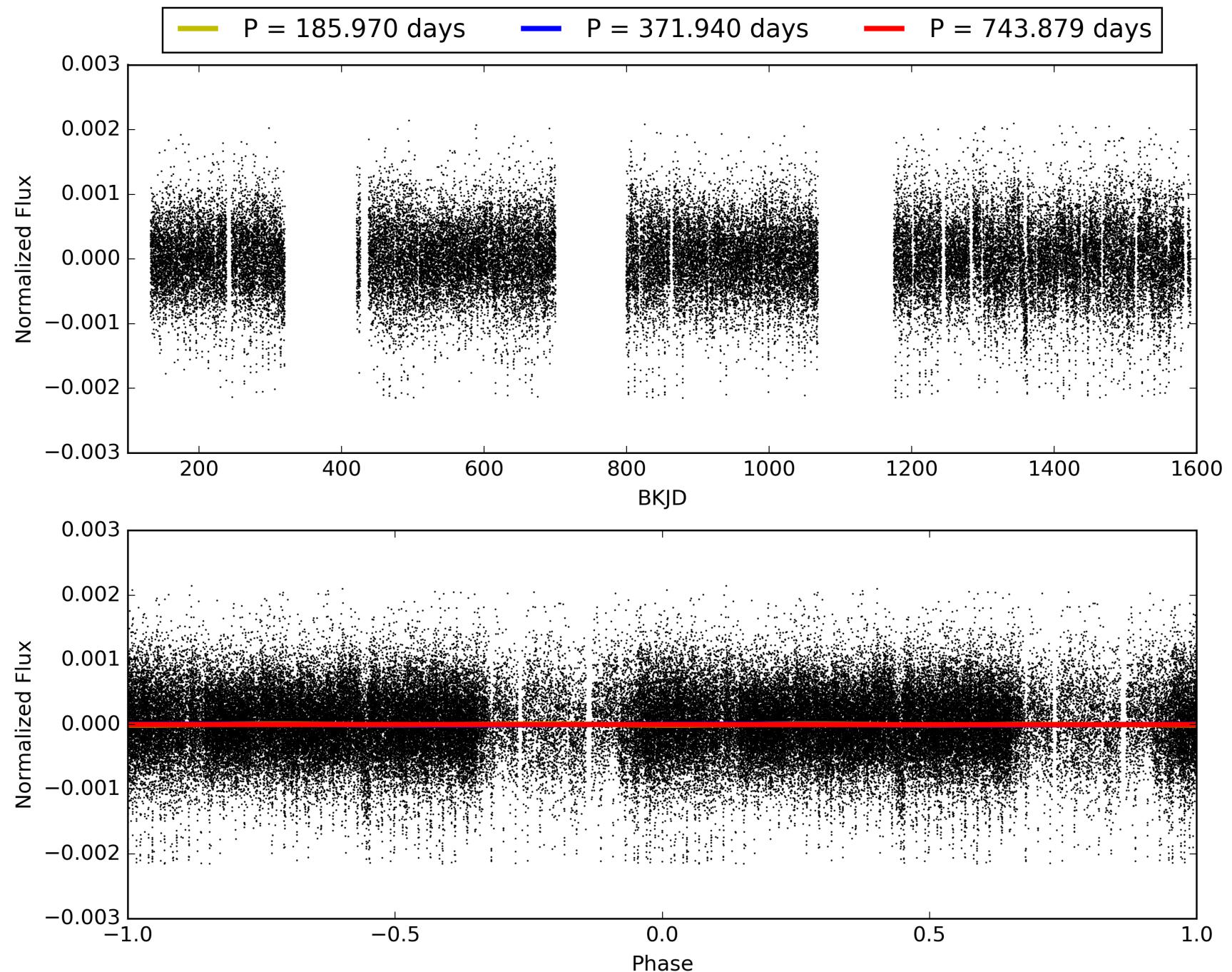
KIC: 9851226 Candidate: 4 of 6 Period: 371.940 d



# TCE 009851226-04, PDC Light Curves

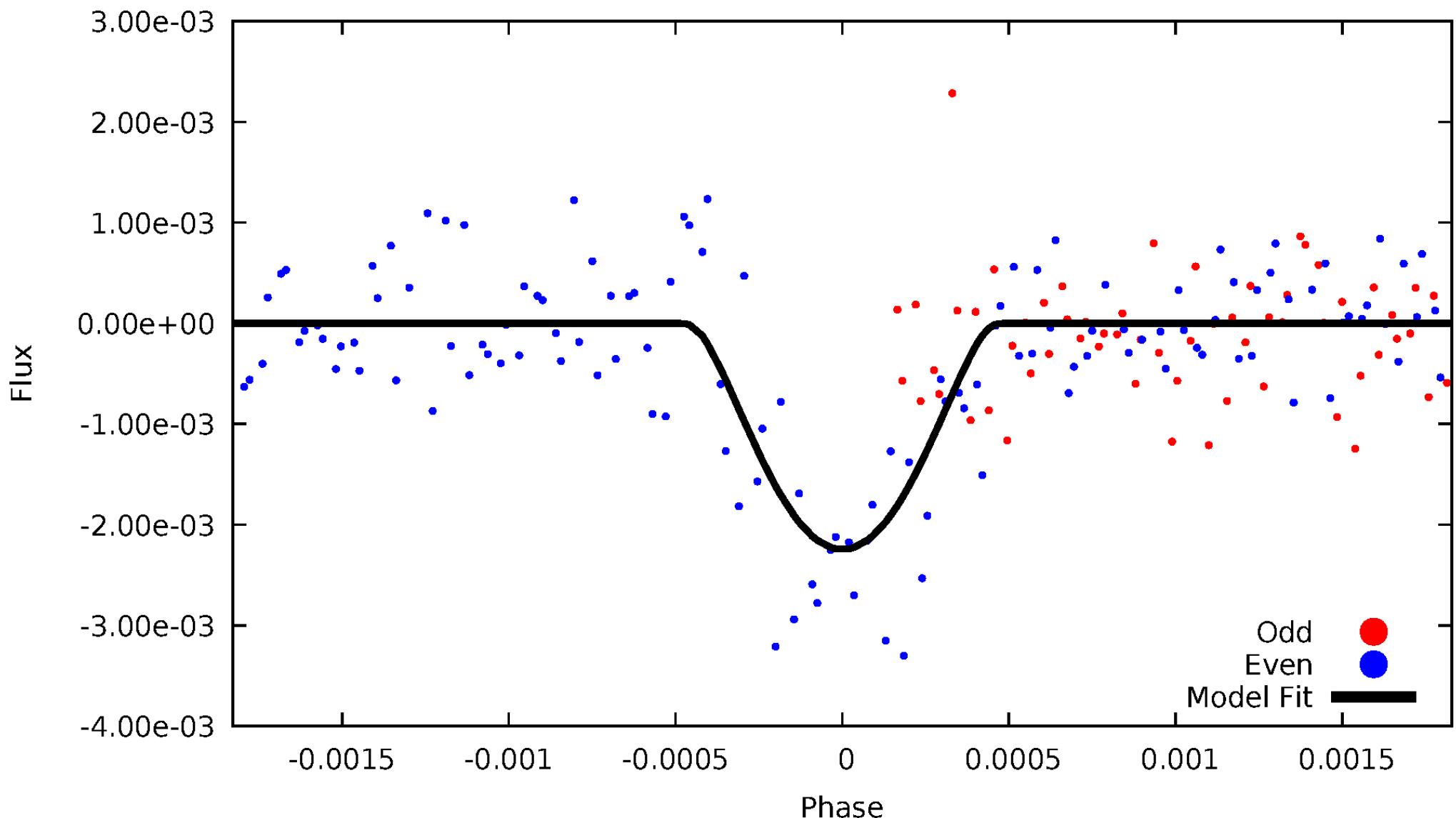


# TCE 009851226-04



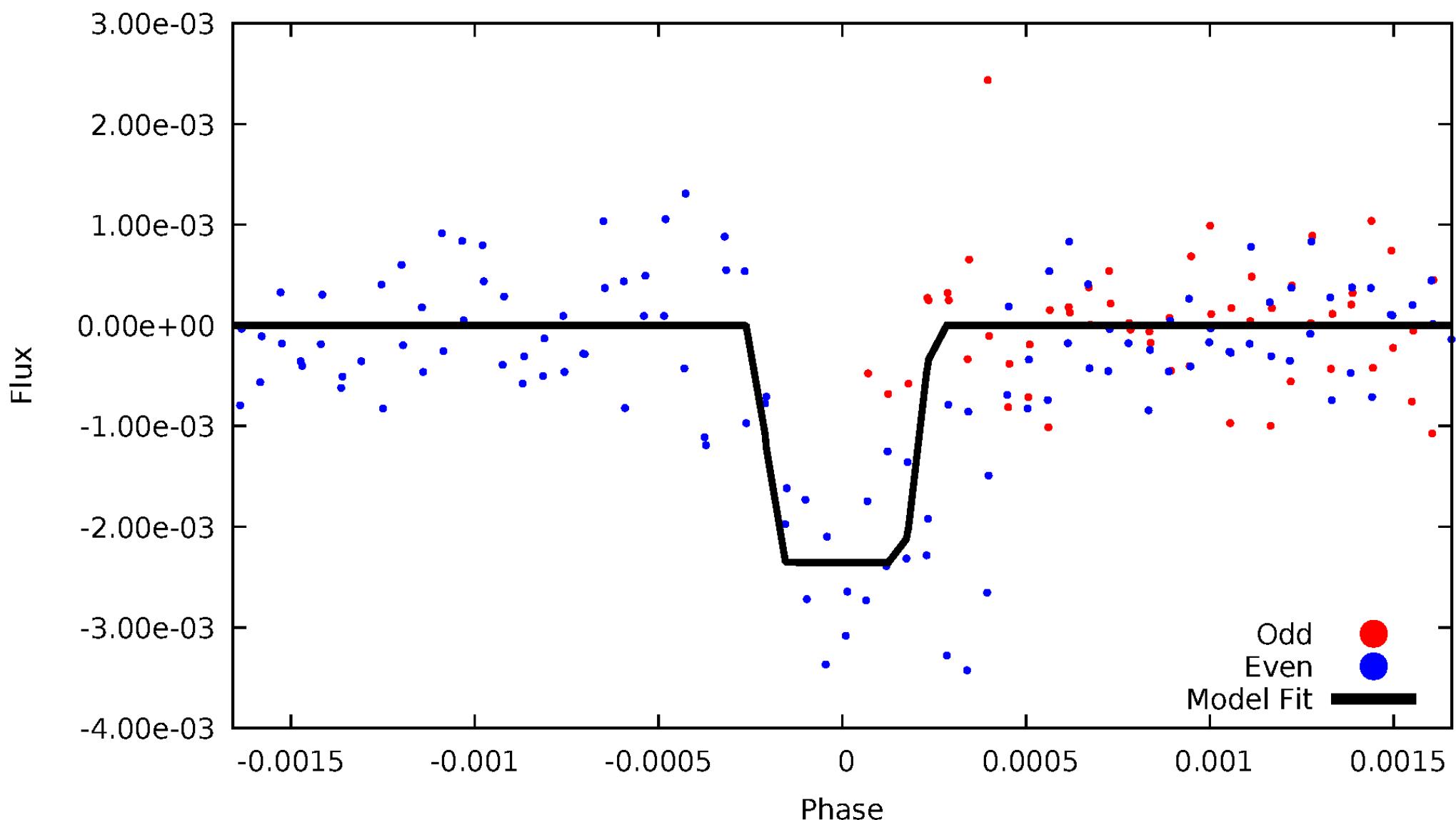
## DV Odd/Even

TCE 009851226-04

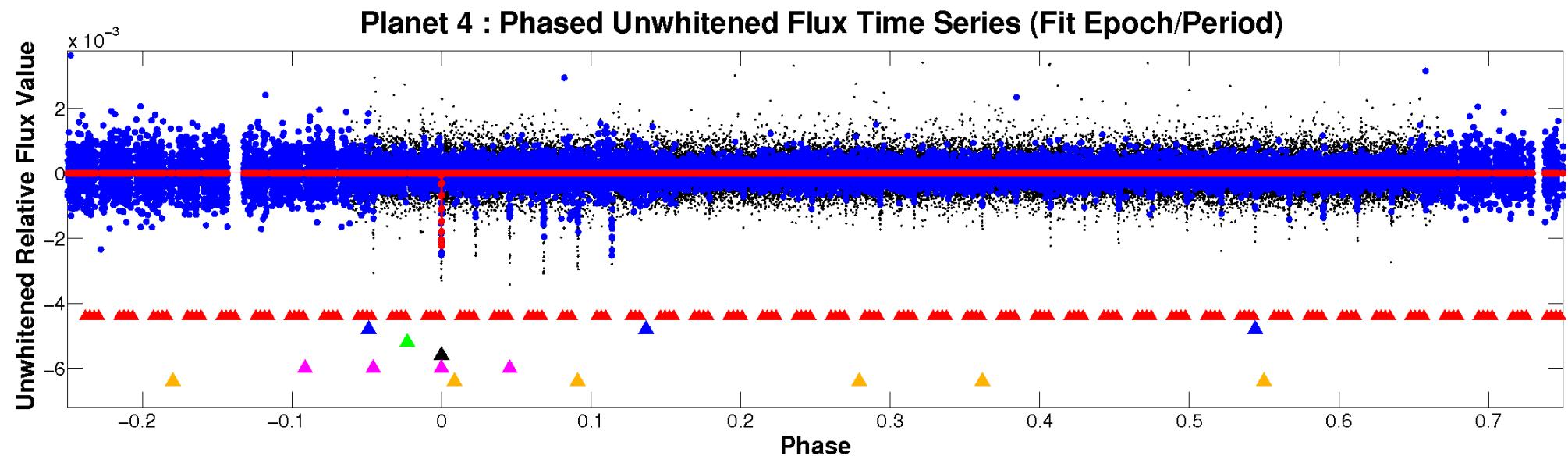


# ALT Odd/Even

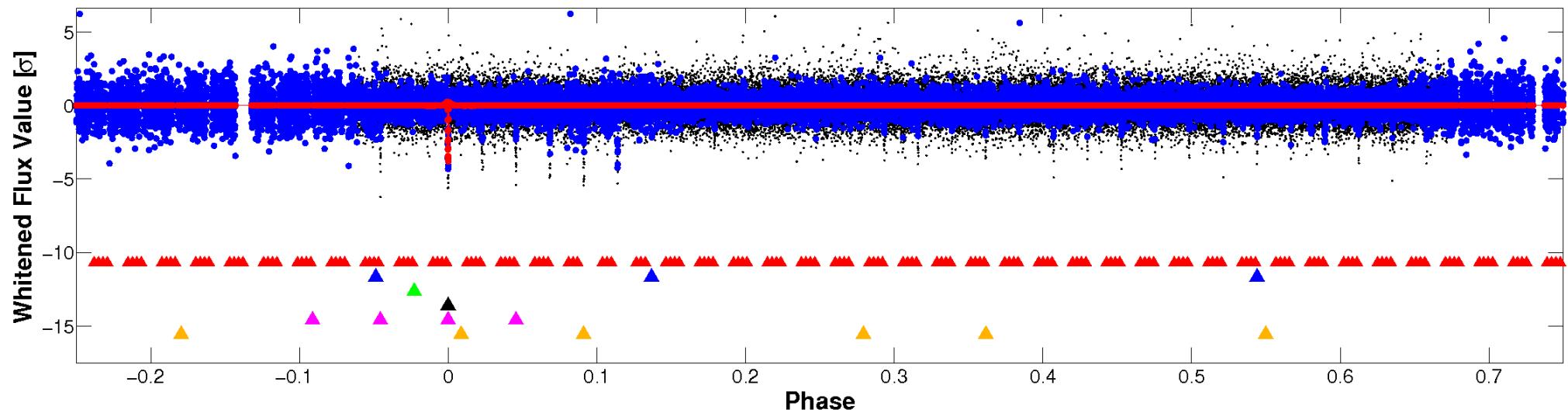
TCE 009851226-04



# Non-Whitened Vs. Whitened Light Curve

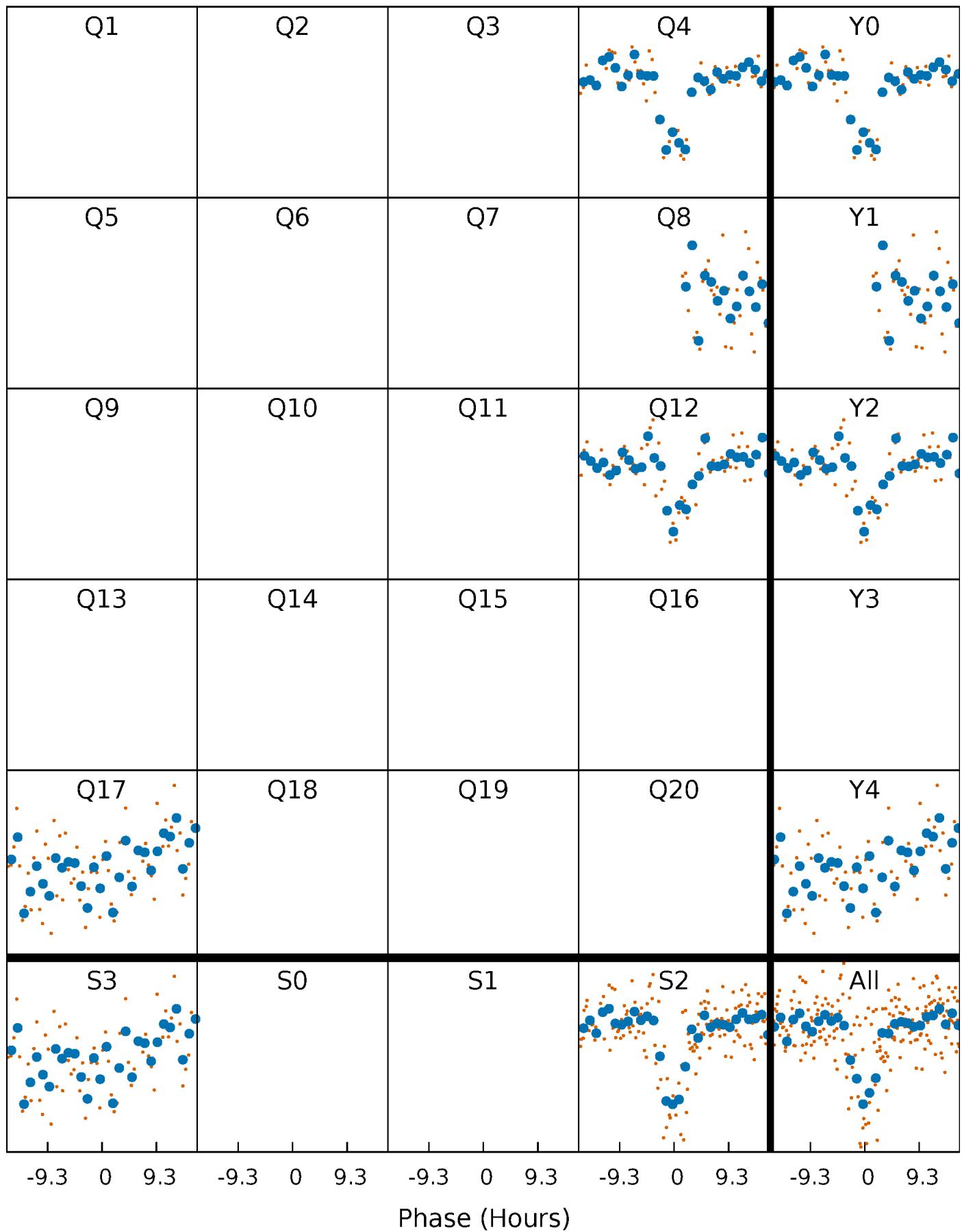


**Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)**



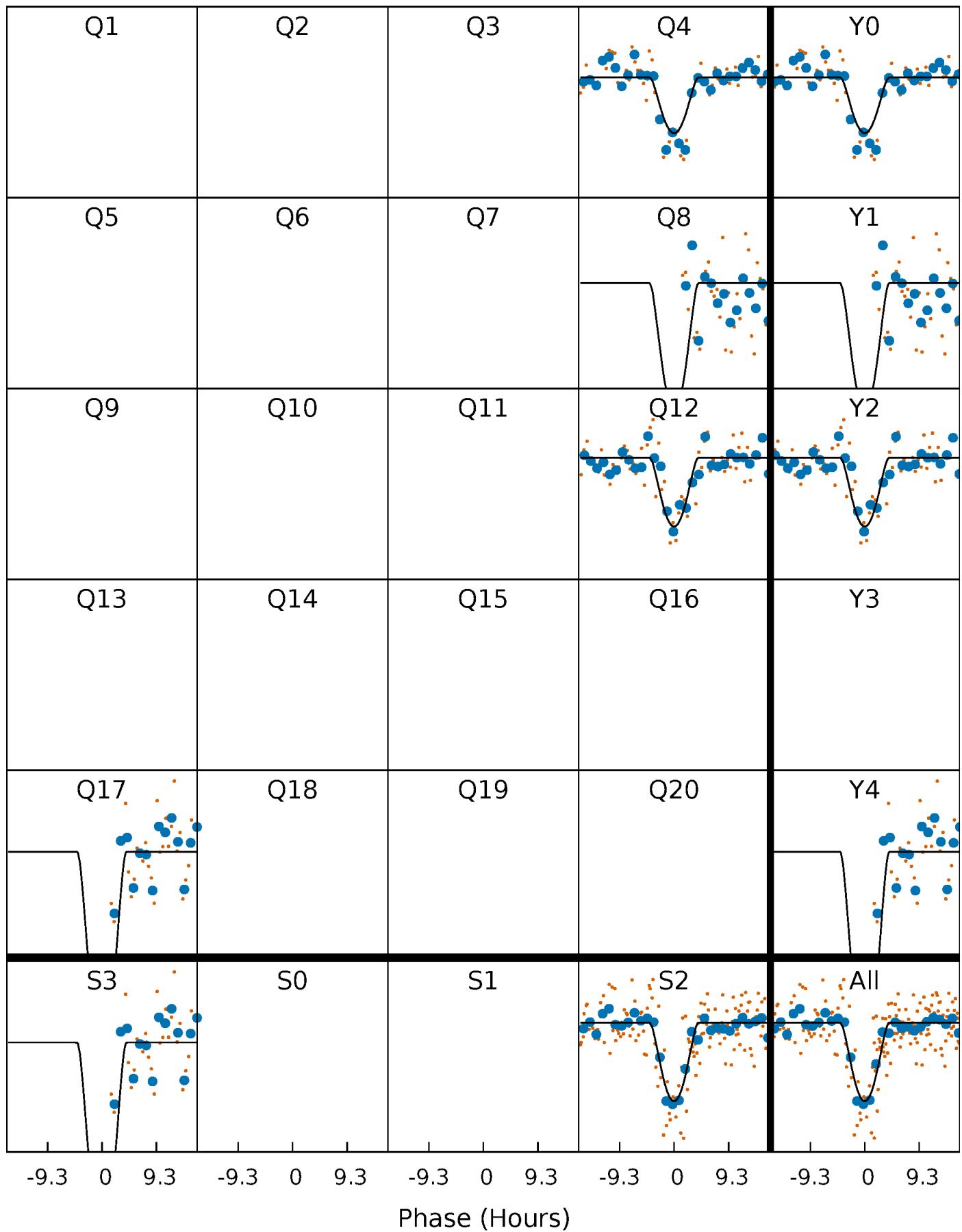
# PDC Quarter-Phased Transit Curves

TCE 009851226-04     $P=371.939708$  Days    $T_0=449.960057$  (BKJD)



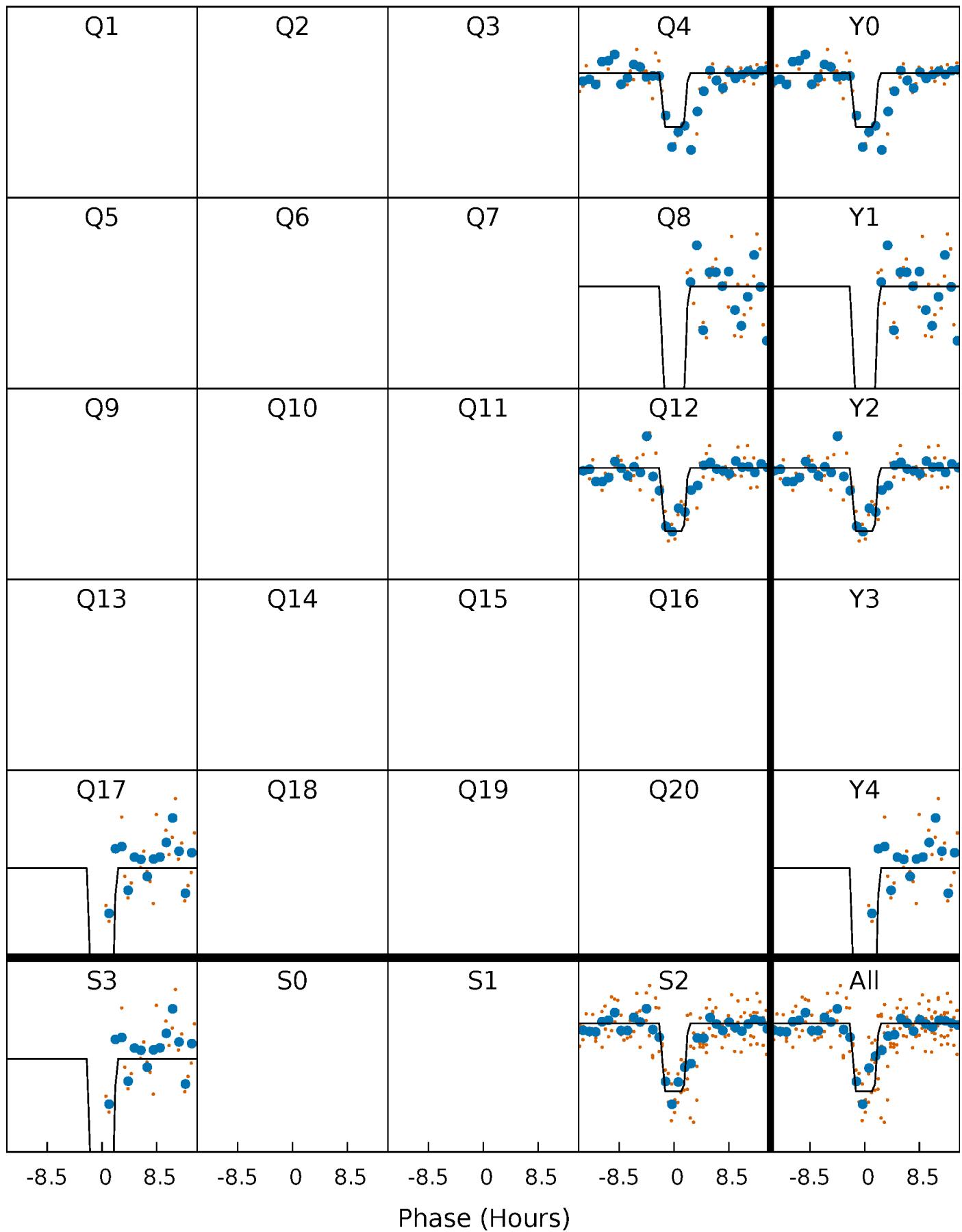
# DV Quarter-Phased Transit Curves

TCE 009851226-04     $P=371.939708$  Days    $T_0=449.960057$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

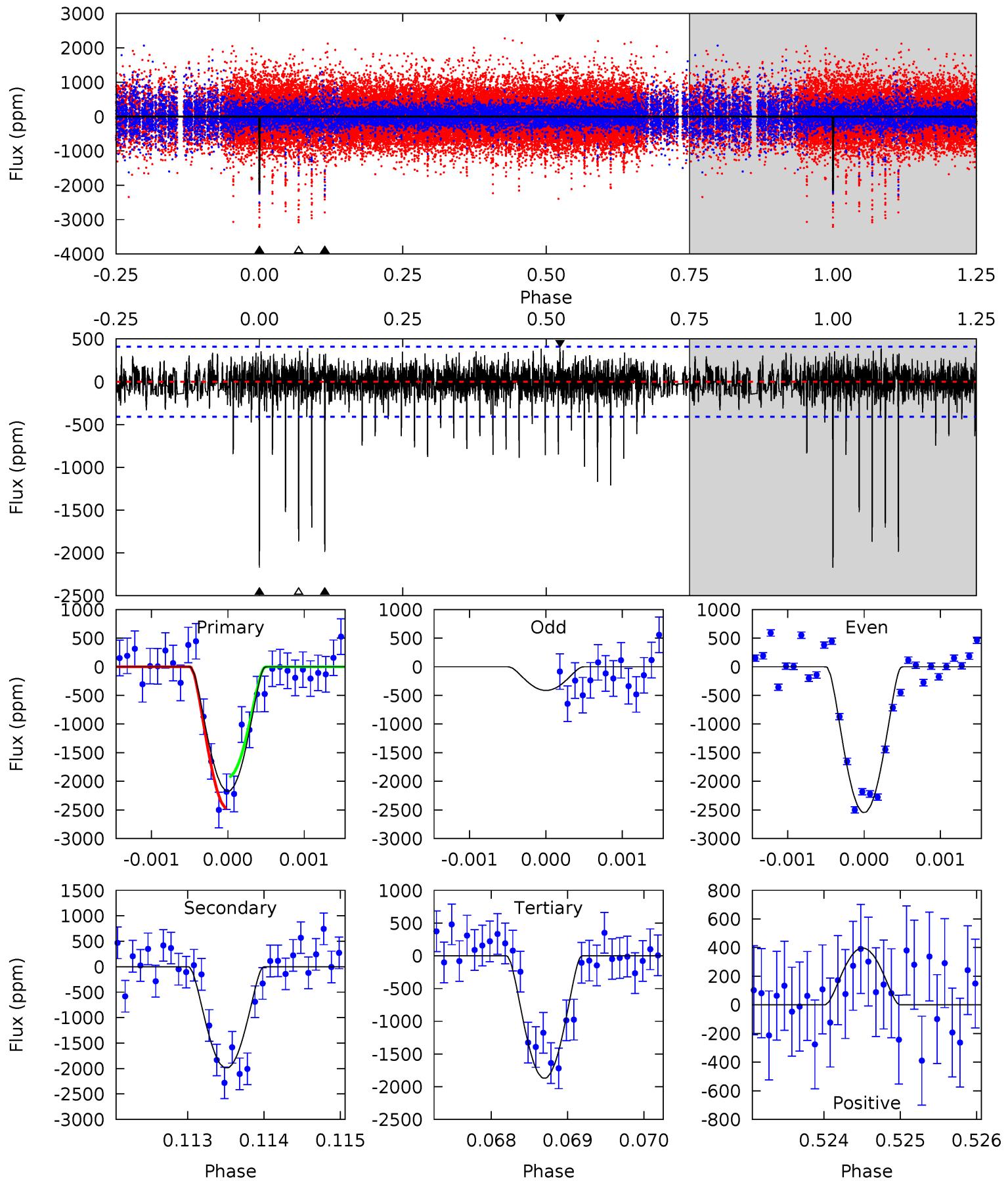
TCE 009851226-04 P=371.972526 Days  $T_0=449.902574$  (BKJD)



# DV Model-Shift Uniqueness Test

009851226-04,  $P = 371.939708$  Days,  $E = 78.020349$  Days

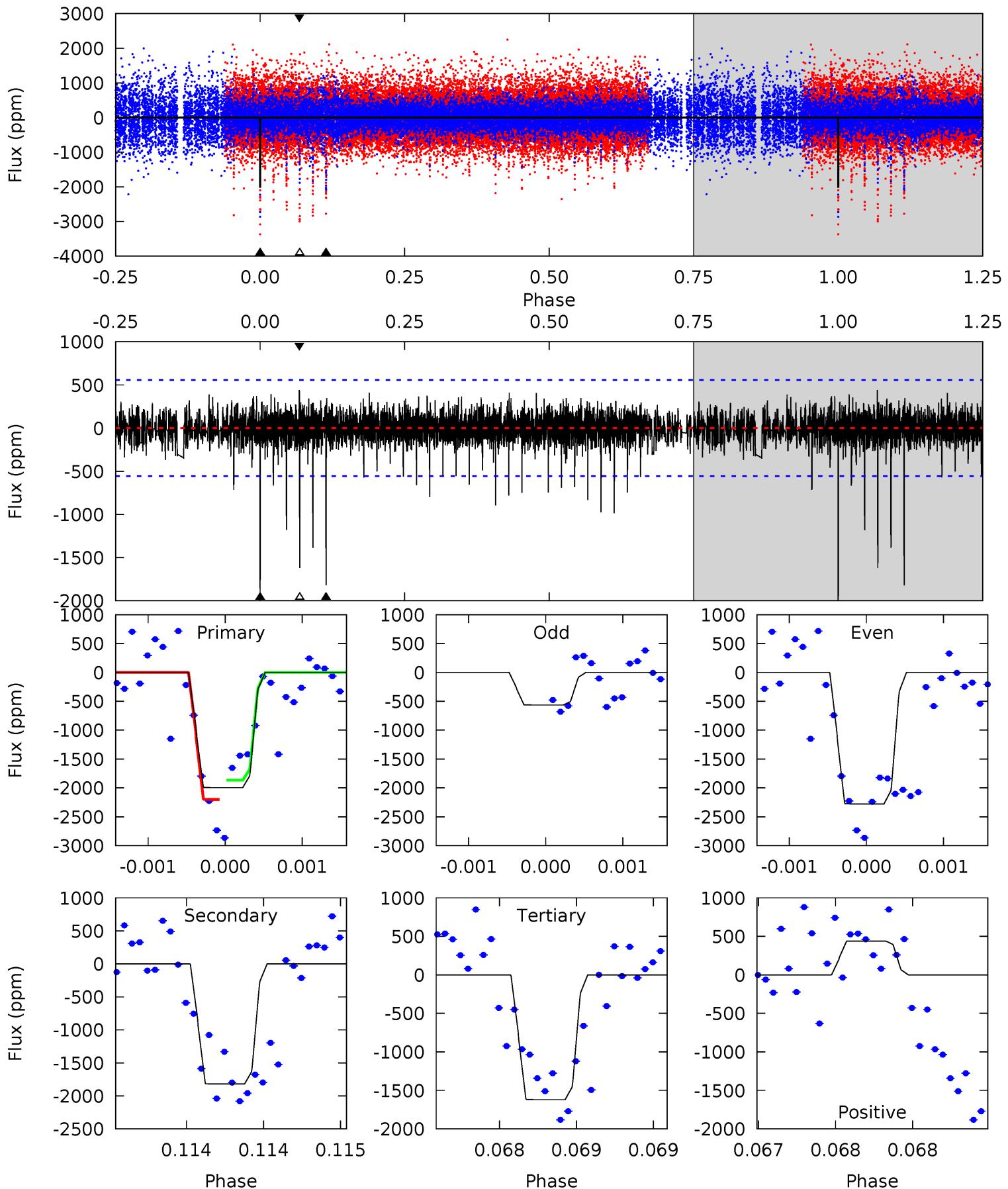
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
28.9	26.5	24.9	5.29	5.46	3.30	2.17	4.02	23.6	1.61	21.2	12.5	0.94	0.15	3.49



# Alt Model-Shift Uniqueness Test

009851226-04,  $P = 371.972526$  Days,  $E = 77.930048$  Days

Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.9	18.1	16.2	4.39	5.56	3.46	1.41	3.75	15.5	1.99	13.8	6.99	0.87	0.18	1.60



## Stellar Parameters For KIC 009851226

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$5951^{+178}_{-214}$	$4.439^{+0.084}_{-0.196}$	$-0.140^{+0.300}_{-0.300}$	$0.991^{+0.301}_{-0.129}$	$0.983^{+0.132}_{-0.119}$	$1.423^{+0.524}_{-0.742}$
	$+3\%/-4\%$	$+2\%/-4\%$	$+214\%/-214\%$	$+30\%/-13\%$	$+13\%/-12\%$	$+37\%/-52\%$
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 009851226-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (\text{K})$	$T_{obs} (\text{K})$	$A_{obs}$
DV	$-1988 \pm 75$	$22.19^{+18.93}_{-15.37}$	$369^{+27}_{-19}$	$3372^{+1756}_{-565}$	$2219^{+20422}_{-1571}$
Alt.	$-1819 \pm 100$	$19.65^{+21.25}_{-13.42}$	$368^{+27}_{-21}$	$3429^{+1829}_{-666}$	$2608^{+22981}_{-2003}$

$T_{max}$  = Theoretical Maximum Planetary Temperature

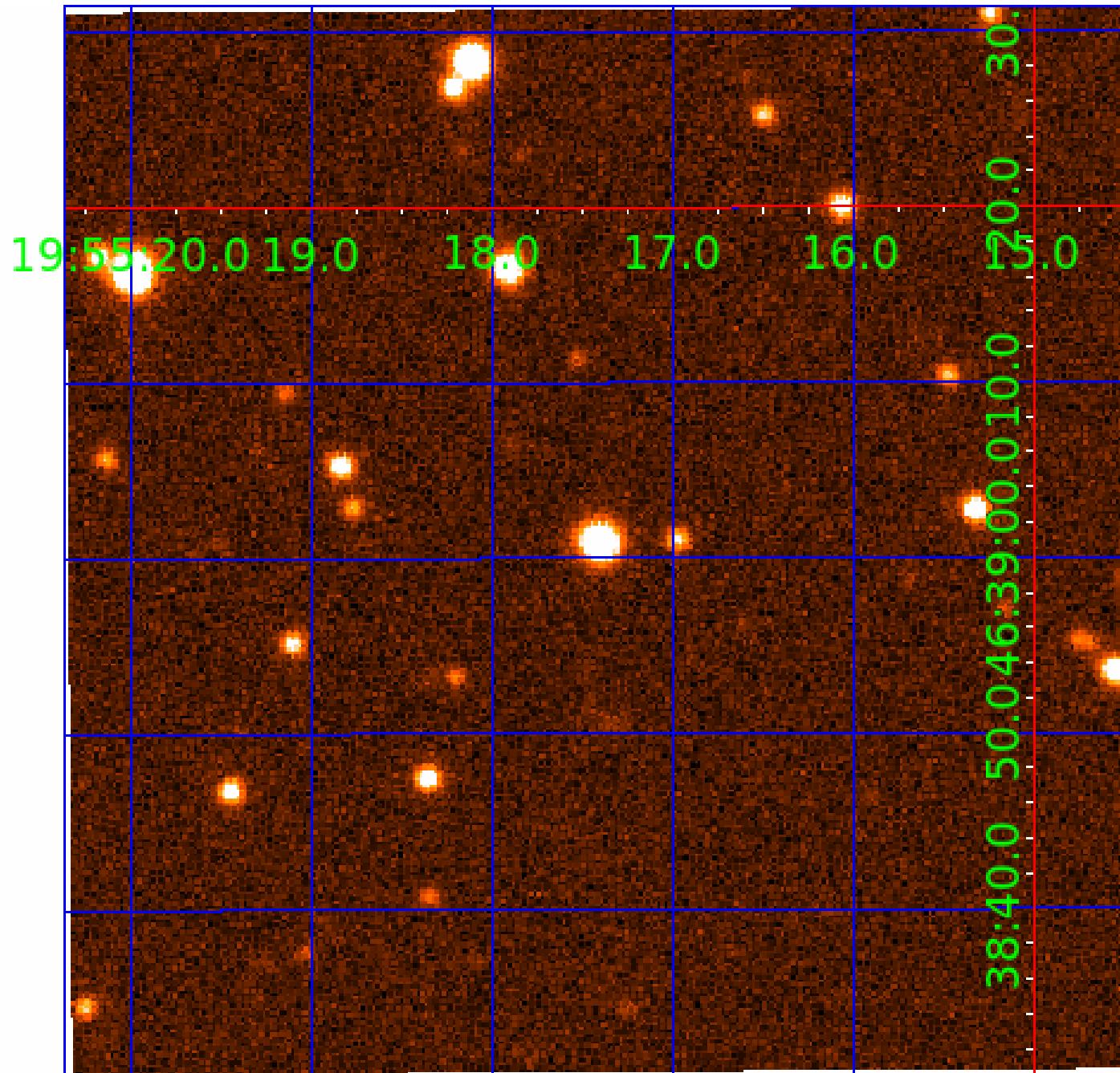
$T_{obs}$  = Observed Planetary Temperature (Assuming  $A=0.3$ )

$A_{obs}$  = Observed Albedo (Assuming  $T=0$ )

If a secondary eclipse is present, the system is likely an EB if  $T_{obs} \gg T_{max}$  AND  $A_{obs} \gg 1.0$

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Declination



# KIC 009851226

## Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	$R_*$ ( $R_{\odot}$ )	$T_*$ (K)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
009851226-01	SCR	No	8.478350	132.487688	702.7	7.987	35.3	35.6	0.99	5951	3.40	168.35
009851226-02	SCR	No	523.419859	500.845720	1658.4	6.747	17.1	14.0	0.99	5951	4.04	0.69
009851226-03	SCR	No	371.940315	441.478085	1644.5	5.319	17.4	12.9	0.99	5951	4.18	1.09
009851226-04	SCR	No	371.939708	449.960057	2246.7	8.155	15.2	14.5	0.99	5951	8.81	1.09
009851226-05	SCR	No	354.978324	466.922213	2368.6	7.738	12.8	15.0	0.99	5951	6.06	1.16
009851226-06	SCR	No	271.298456	212.536870	1788.0	4.500	12.0	-1.0	0.99	5951	4.18	1.66

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009851226-01	SCR	FP	0.00	1	0	0	1	LPP_DV—EPHEM_MATCH
009851226-02	SCR	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—INCONSISTENT_TRANS
009851226-03	SCR	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—INCONSISTENT_TRANS
009851226-04	SCR	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—INCONSISTENT_TRANS—SAME_NTL_PERIOD
009851226-05	SCR	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—INCONSISTENT_TRANS
009851226-06	SCR	FP	0.10	1	0	0	0	INCONSISTENT_TRANS

**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](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 009851226-05

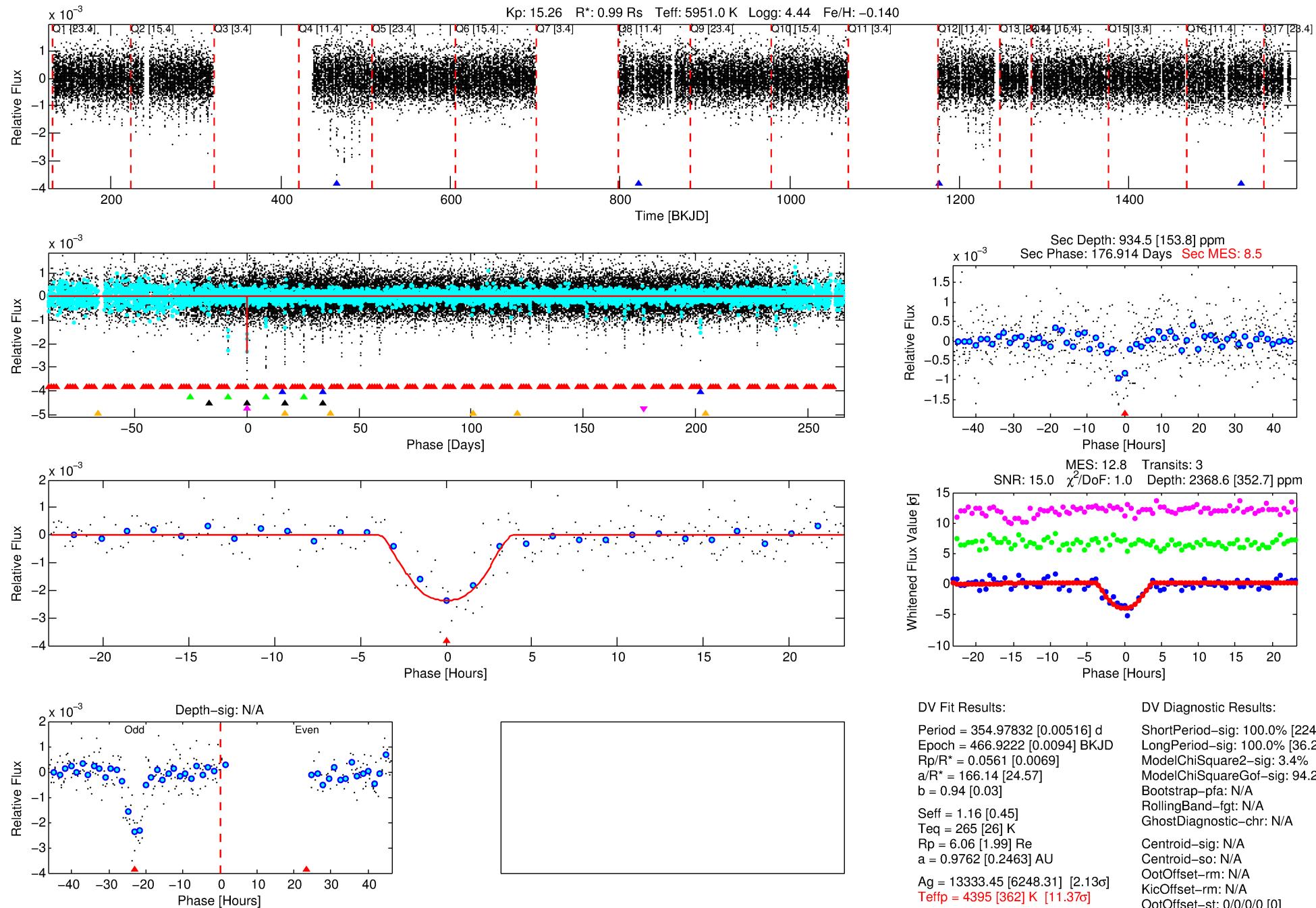
No Significant Match Found

**WARNING: THIS DATA IS  
SIMULATED, NOT OBSERVED**

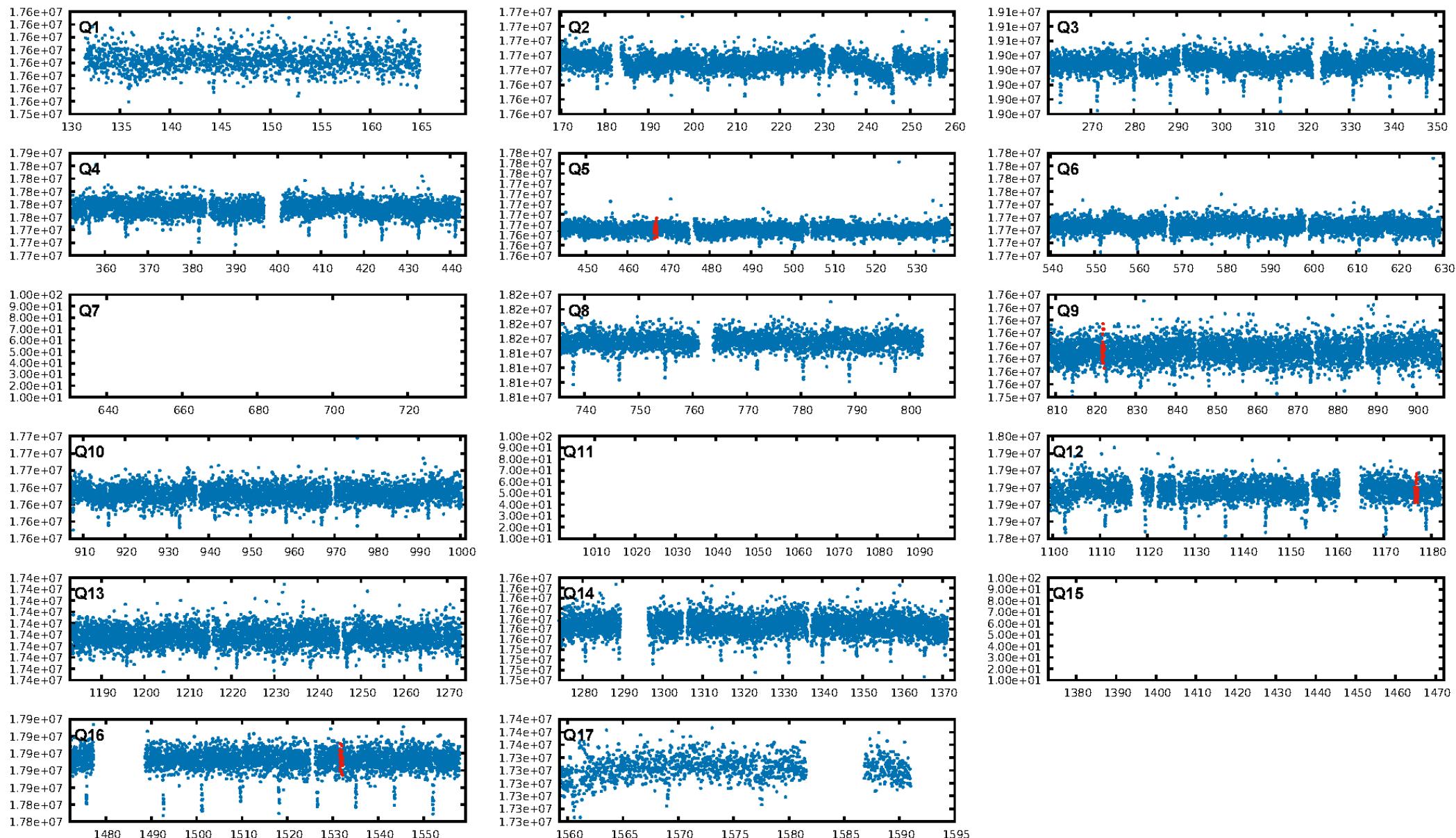
## DV One-Page Summary

KIC: 9851226 Candidate: 5 of 6 Period: 354.978 d

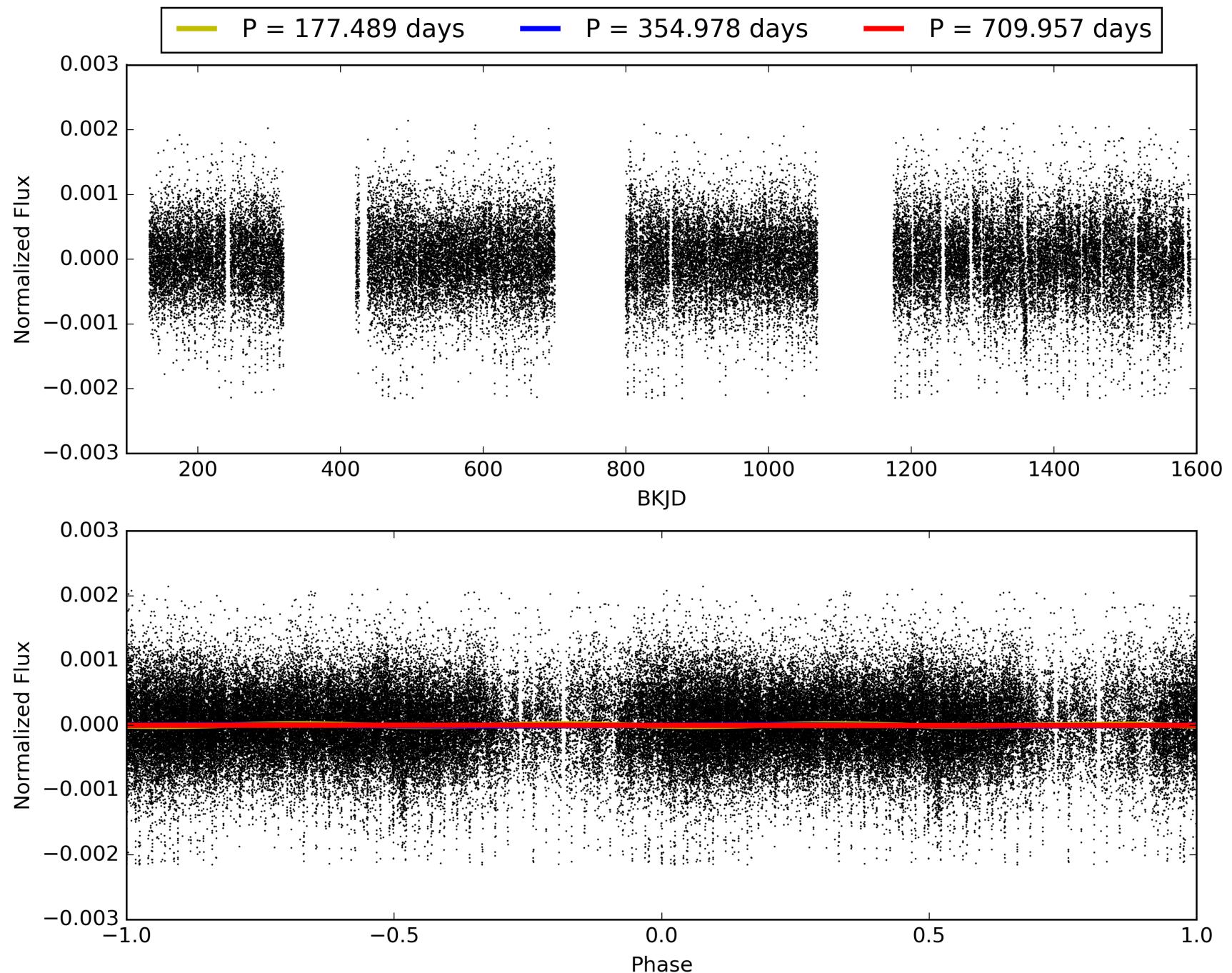
**WARNING: THIS DATA IS  
SIMULATED, NOT OBSERVED**



# TCE 009851226-05, PDC Light Curves

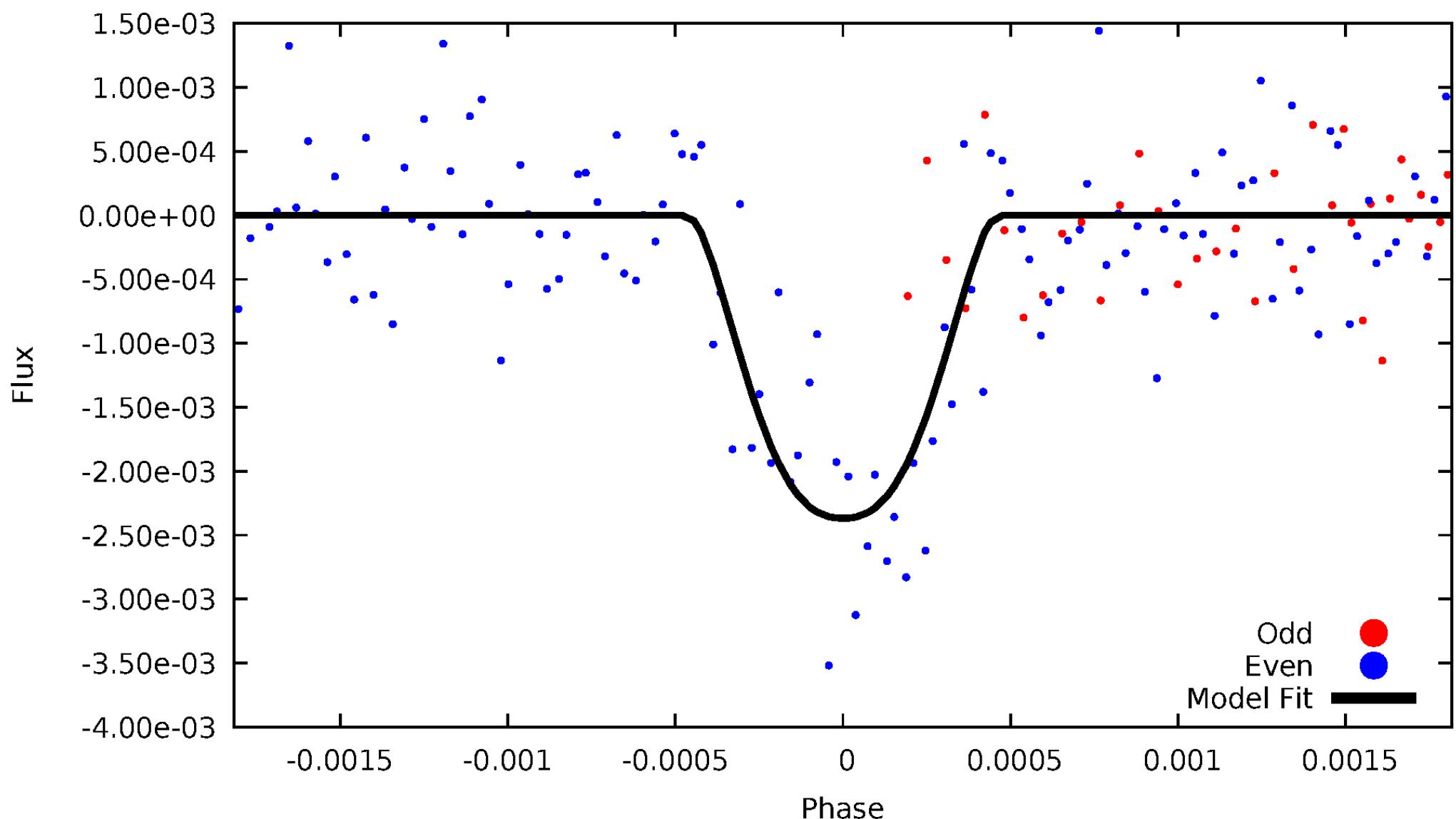


# TCE 009851226-05



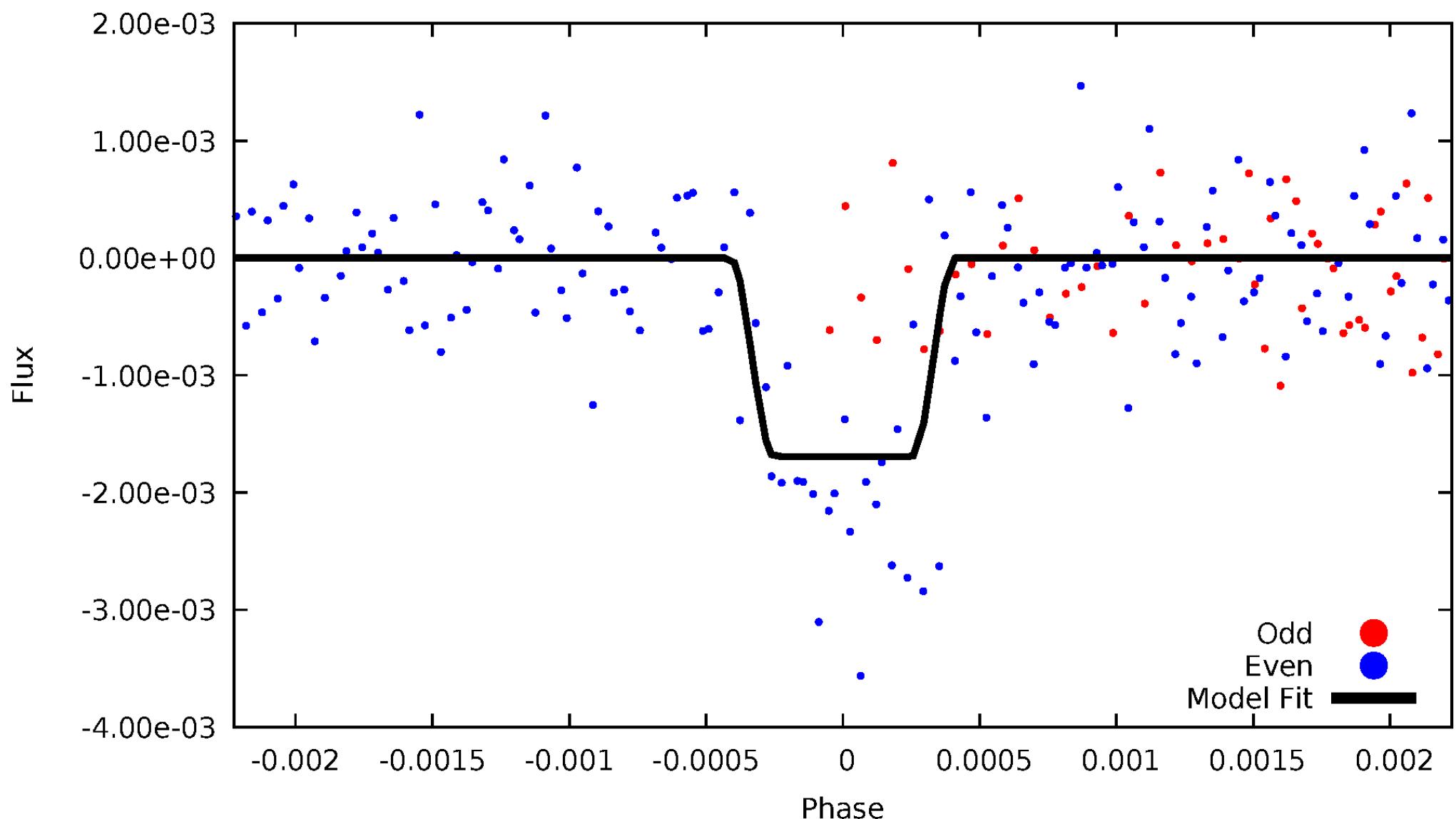
## DV Odd/Even

TCE 009851226-05

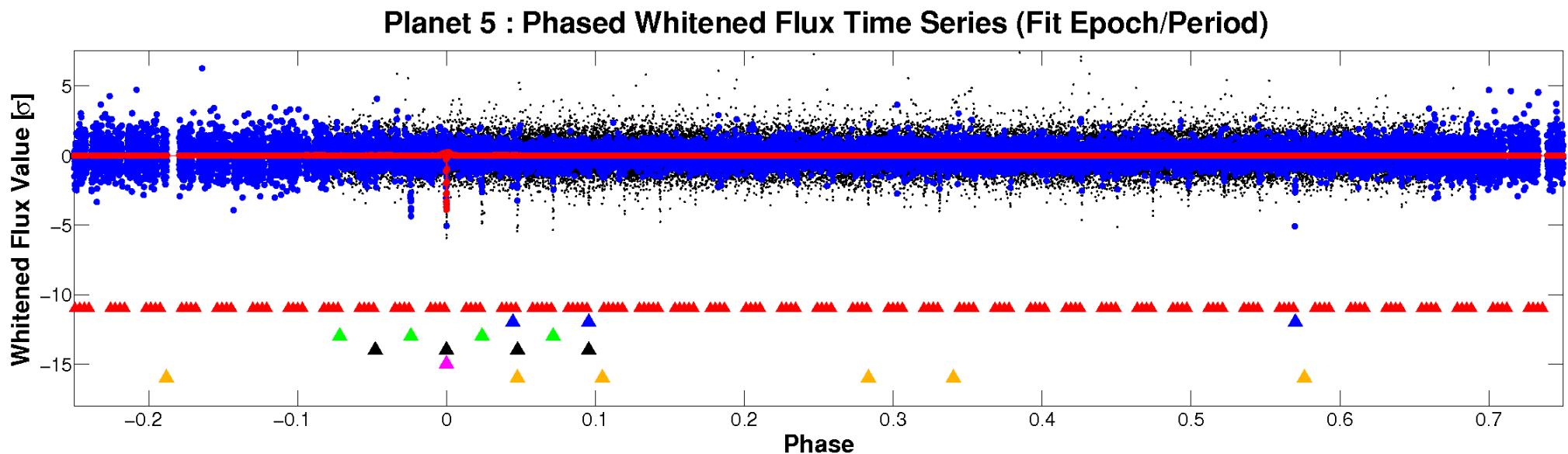
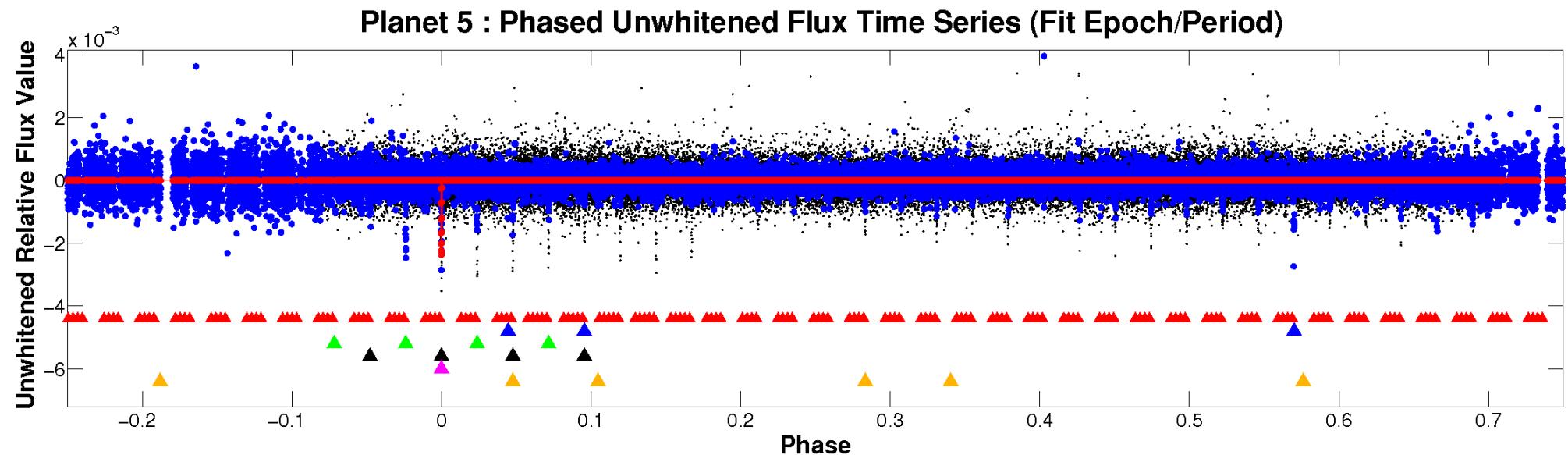


# ALT Odd/Even

TCE 009851226-05

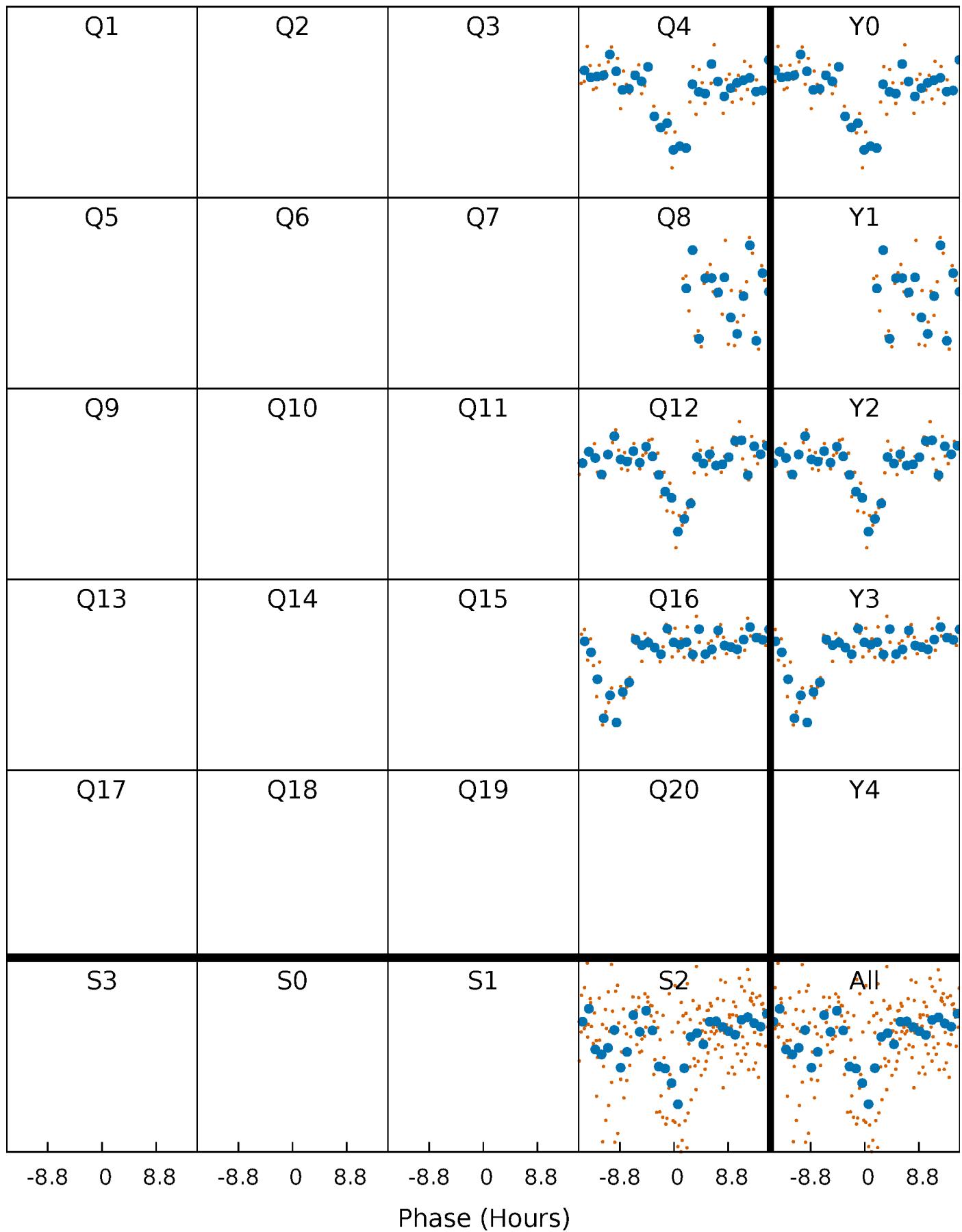


# Non-Whitened Vs. Whitened Light Curve



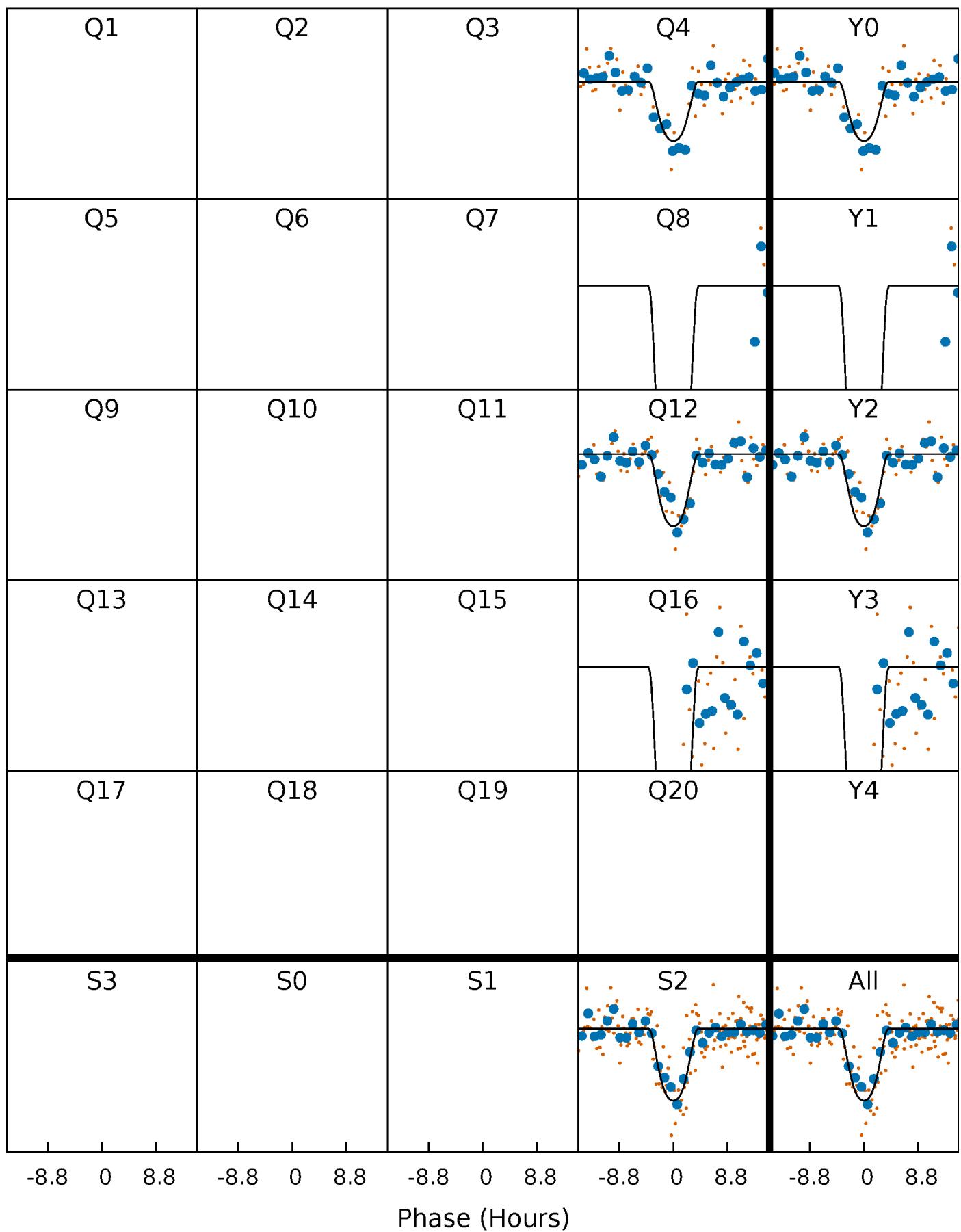
# PDC Quarter-Phased Transit Curves

TCE 009851226-05     $P=354.978324$  Days    $T_0=466.922213$  (BKJD)



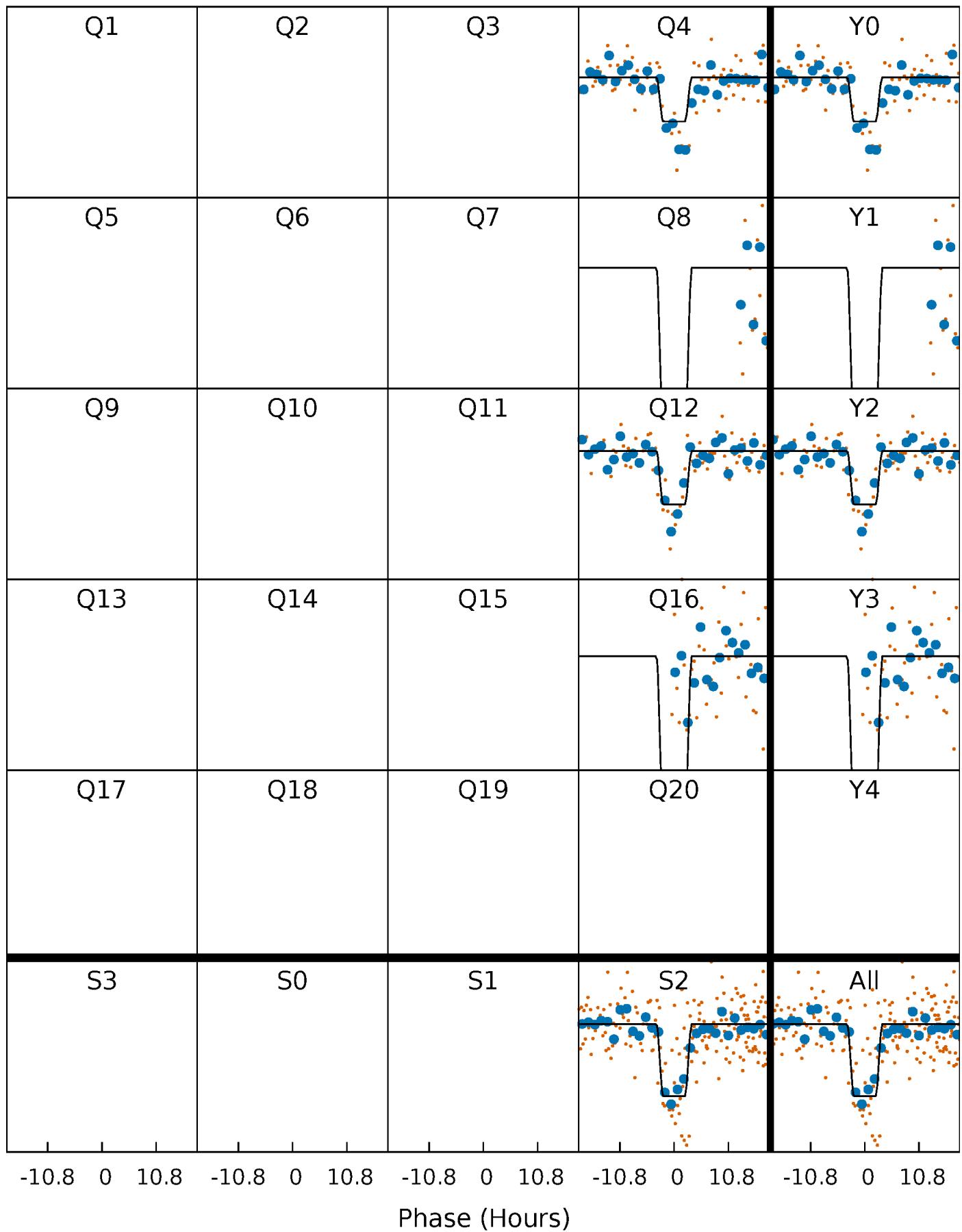
# DV Quarter-Phased Transit Curves

TCE 009851226-05   P=354.978324 Days    $T_0=466.922213$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

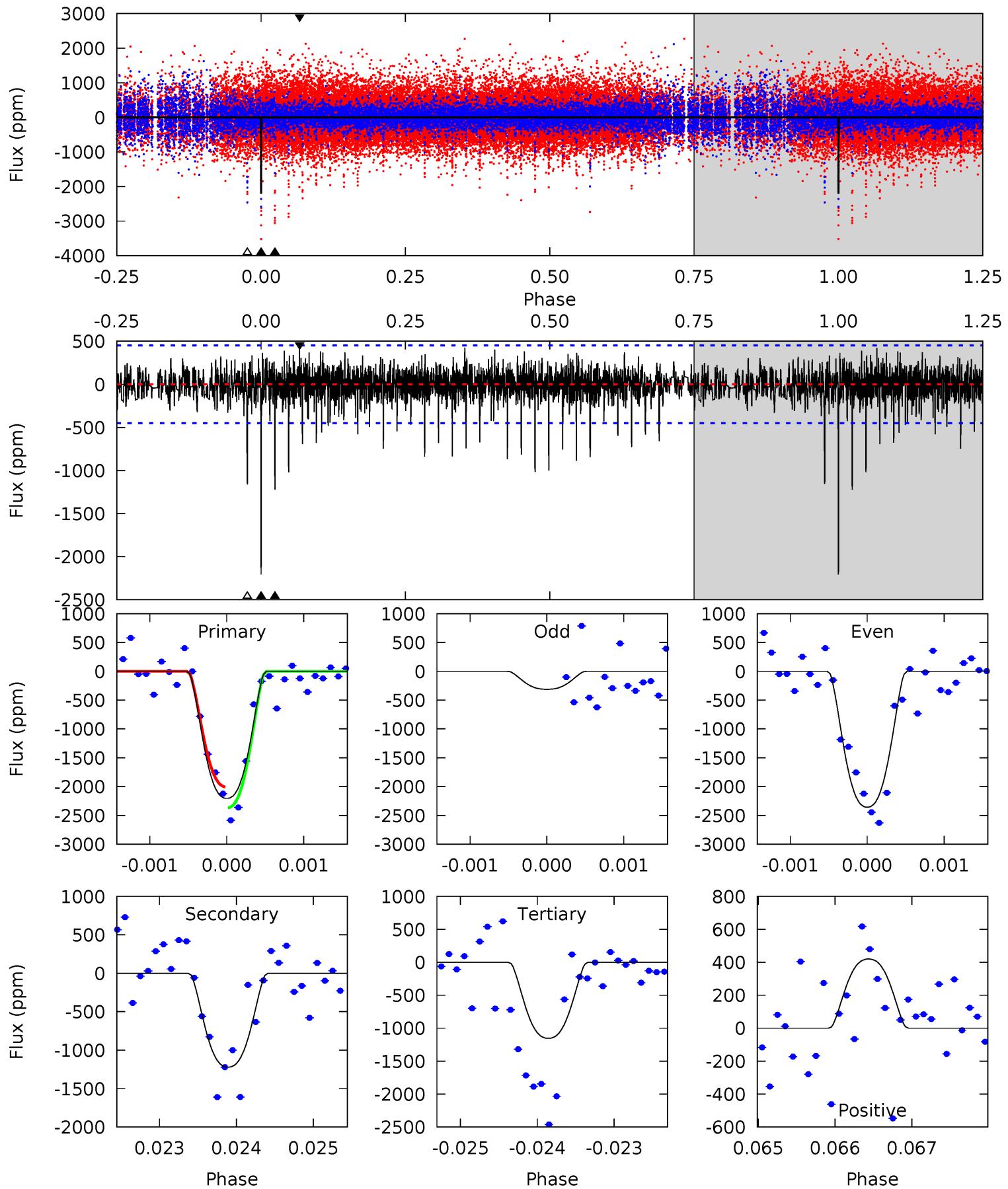
TCE 009851226-05   P=355.019483 Days    $T_0=466.884696$  (BKJD)



# DV Model-Shift Uniqueness Test

009851226-05,  $P = 354.978324$  Days,  $E = 111.943889$  Days

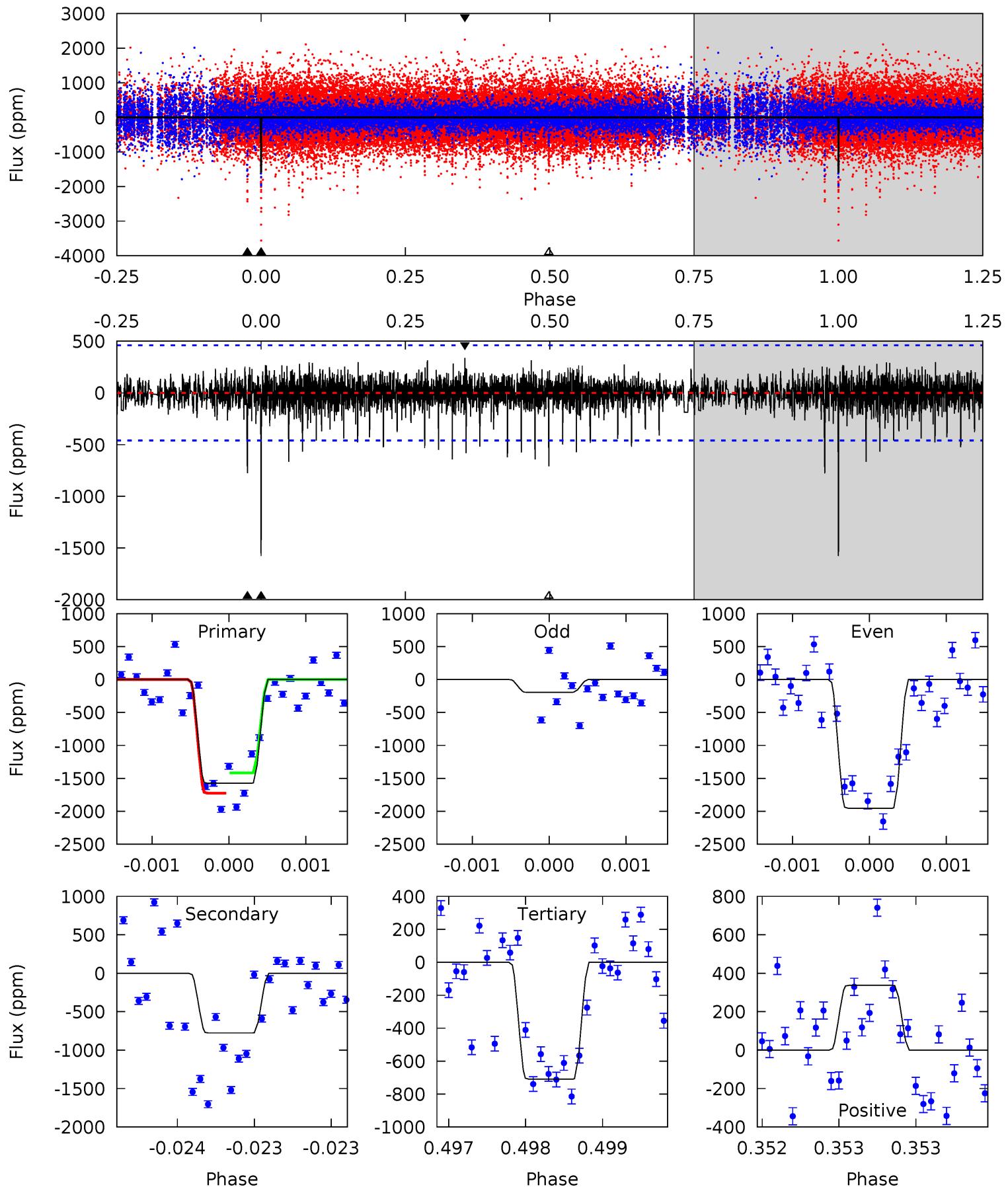
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.7	14.8	14.0	5.09	5.47	3.31	1.78	12.7	21.6	0.81	9.71	8.66	0.83	0.16	2.16



# Alt Model-Shift Uniqueness Test

009851226-05,  $P = 355.019483$  Days,  $E = 111.865213$  Days

Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.8	9.27	8.47	4.02	5.49	3.35	1.27	10.3	14.8	0.80	5.25	9.02	0.83	0.18	1.78



## Stellar Parameters For KIC 009851226

	T <sub>eff</sub> (K)	log(g)	[Fe/H]	R (R <sub>⊕</sub> )	M(M <sub>⊕</sub> )	p <sub>star</sub> (g·cm <sup>-3</sup> )
	5951 <sup>+178</sup> <sub>-214</sub>	4.439 <sup>+0.084</sup> <sub>-0.196</sub>	-0.140 <sup>+0.300</sup> <sub>-0.300</sub>	0.991 <sup>+0.301</sup> <sub>-0.129</sub>	0.983 <sup>+0.132</sup> <sub>-0.119</sub>	1.423 <sup>+0.524</sup> <sub>-0.742</sub>
	+3%/-4%	+2%/-4%	+214%/-214%	+30%/-13%	+13%/-12%	+37%/-52%
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 009851226-05 / KOI

Detrend	Depth (ppm)	R <sub>p</sub> (R <sub>⊕</sub> )	T <sub>max</sub> (K)	T <sub>obs</sub> (K)	A <sub>obs</sub>
DV	-1220±82	6.28 <sup>+1.14</sup> <sub>-0.98</sub>	374 <sup>+31</sup> <sub>-19</sub>	4797 <sup>+301</sup> <sub>-250</sub>	15998 <sup>+6092</sup> <sub>-4854</sub>
Alt.	-777±84	4.60 <sup>+0.98</sup> <sub>-0.90</sub>	375 <sup>+29</sup> <sub>-19</sub>	4985 <sup>+473</sup> <sub>-357</sub>	19369 <sup>+9445</sup> <sub>-6429</sub>

T<sub>max</sub> = Theoretical Maximum Planetary Temperature

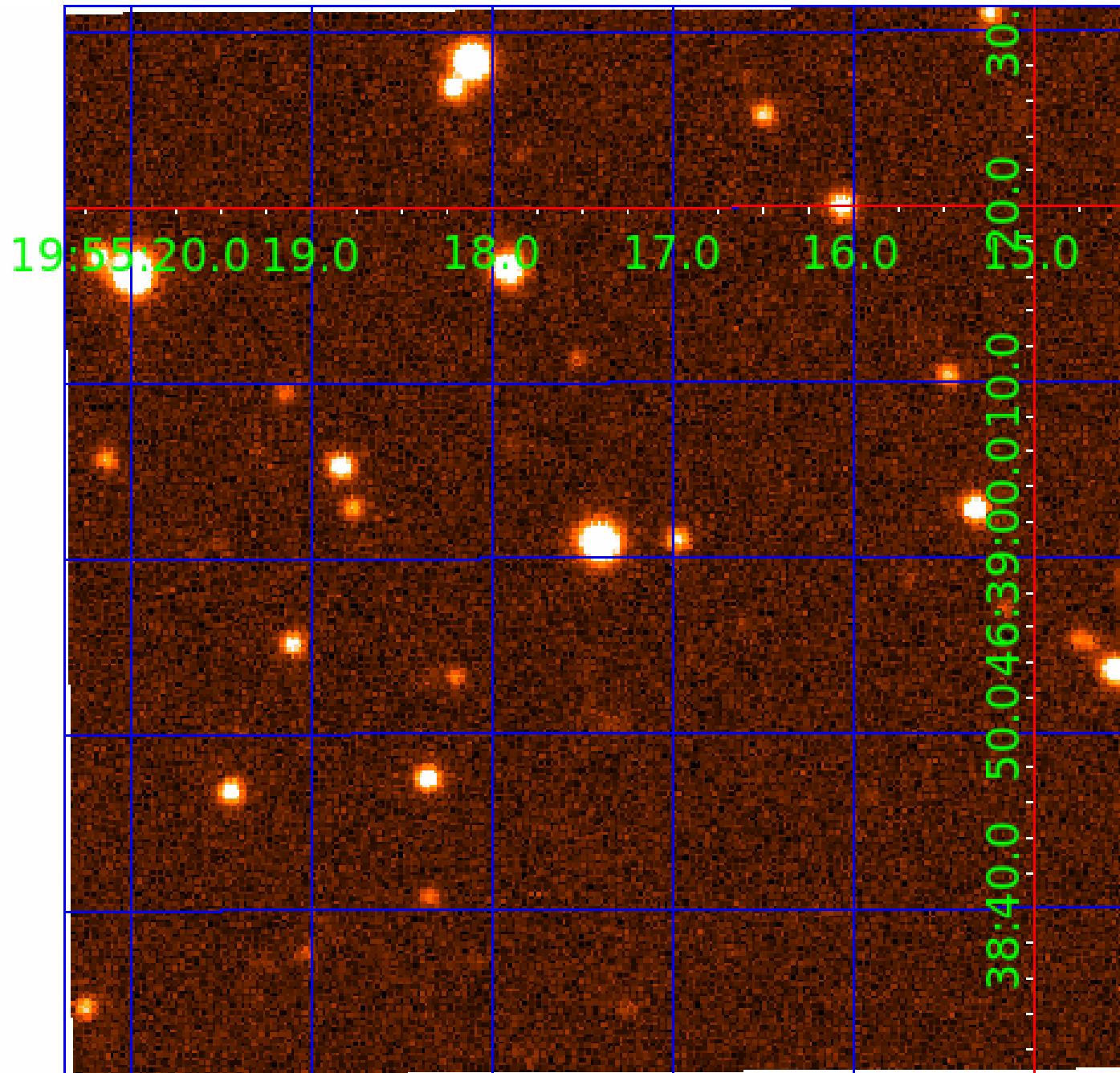
T<sub>obs</sub> = Observed Planetary Temperature (Assuming A=0.3)

A<sub>obs</sub> = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if T<sub>obs</sub> ≫ T<sub>max</sub> AND A<sub>obs</sub> ≫ 1.0

UKIRT Image

Declination



# KIC 009851226

## 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)	$R_p$ ( $R_\oplus$ )	$S_p$ ( $S_\oplus$ )
009851226-01	SCR	No	8.478350	132.487688	702.7	7.987	35.3	35.6	0.99	5951	3.40	168.35
009851226-02	SCR	No	523.419859	500.845720	1658.4	6.747	17.1	14.0	0.99	5951	4.04	0.69
009851226-03	SCR	No	371.940315	441.478085	1644.5	5.319	17.4	12.9	0.99	5951	4.18	1.09
009851226-04	SCR	No	371.939708	449.960057	2246.7	8.155	15.2	14.5	0.99	5951	8.81	1.09
009851226-05	SCR	No	354.978324	466.922213	2368.6	7.738	12.8	15.0	0.99	5951	6.06	1.16
009851226-06	SCR	No	271.298456	212.536870	1788.0	4.500	12.0	-1.0	0.99	5951	4.18	1.66

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009851226-01	SCR	FP	0.00	1	0	0	1	LPP_DV—EPHEM_MATCH
009851226-02	SCR	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—INCONSISTENT_TRANS
009851226-03	SCR	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—INCONSISTENT_TRANS
009851226-04	SCR	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—INCONSISTENT_TRANS—SAME_NTL_PERIOD
009851226-05	SCR	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—INCONSISTENT_TRANS
009851226-06	SCR	FP	0.10	1	0	0	0	INCONSISTENT_TRANS

**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](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 009851226-06

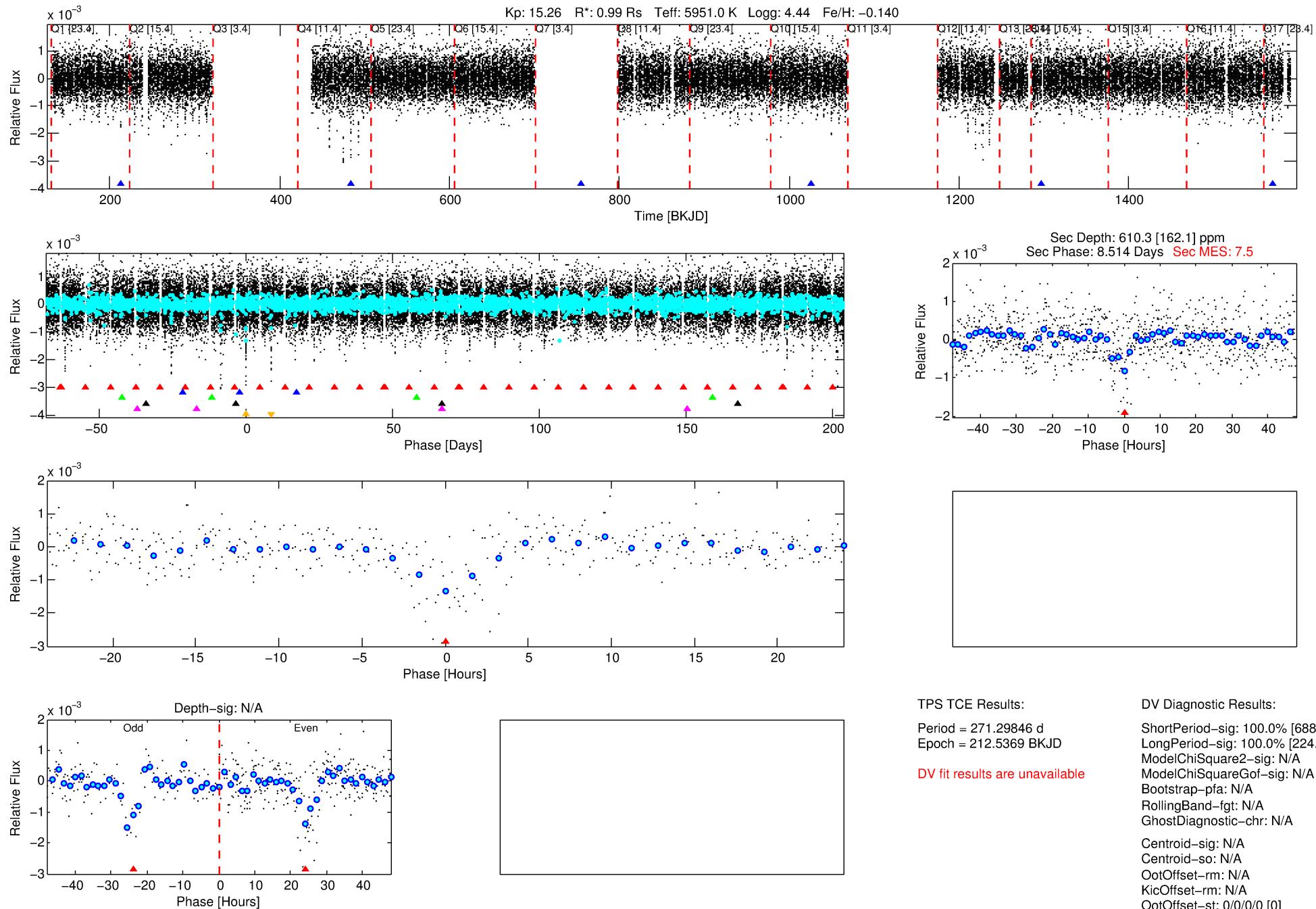
No Significant Match Found

**WARNING: THIS DATA IS  
SIMULATED, NOT OBSERVED**

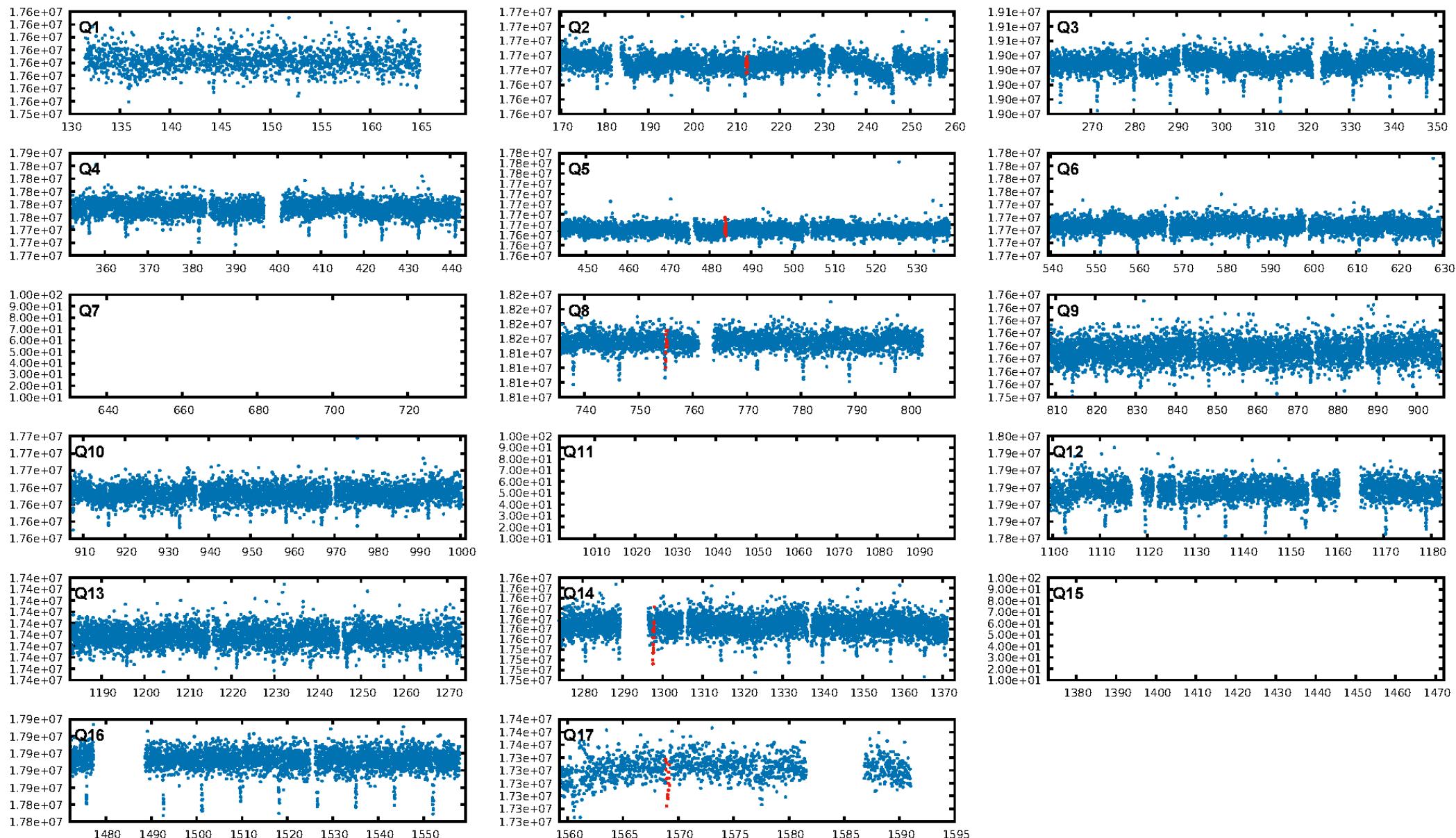
## DV One-Page Summary

KIC: 9851226 Candidate: 6 of 6 Period: 271.298 d

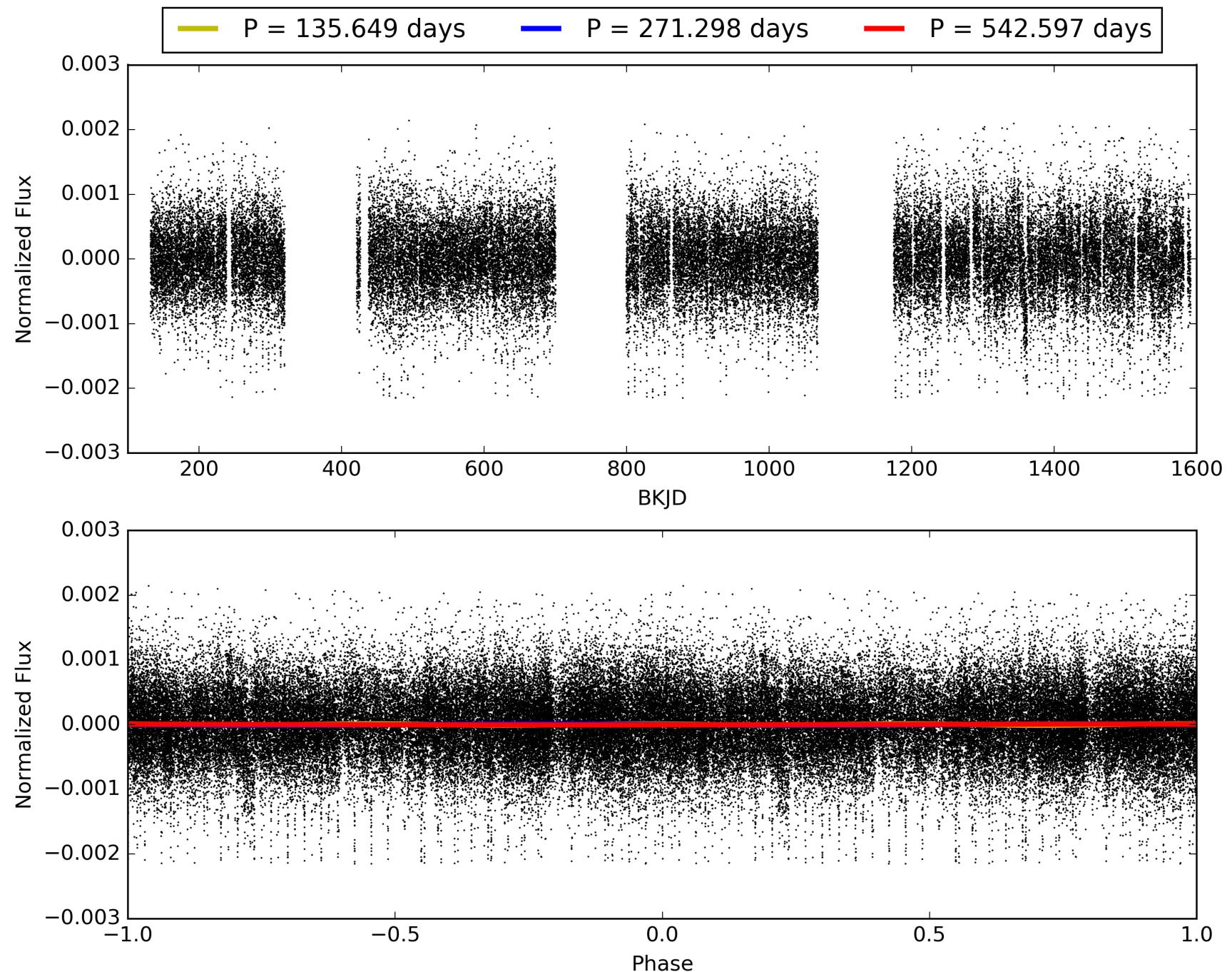
**WARNING: THIS DATA IS  
SIMULATED, NOT OBSERVED**



# TCE 009851226-06, PDC Light Curves

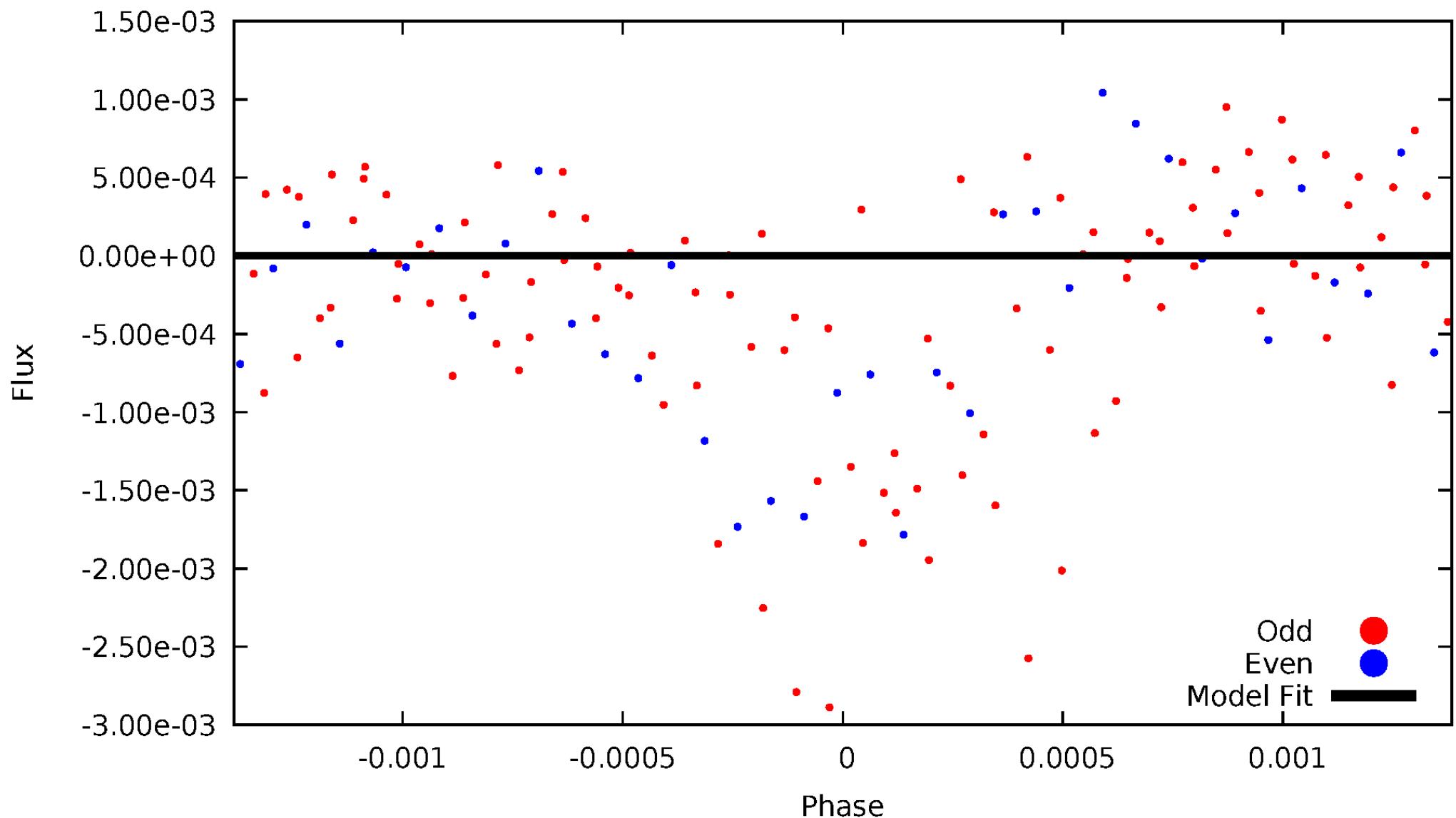


# TCE 009851226-06



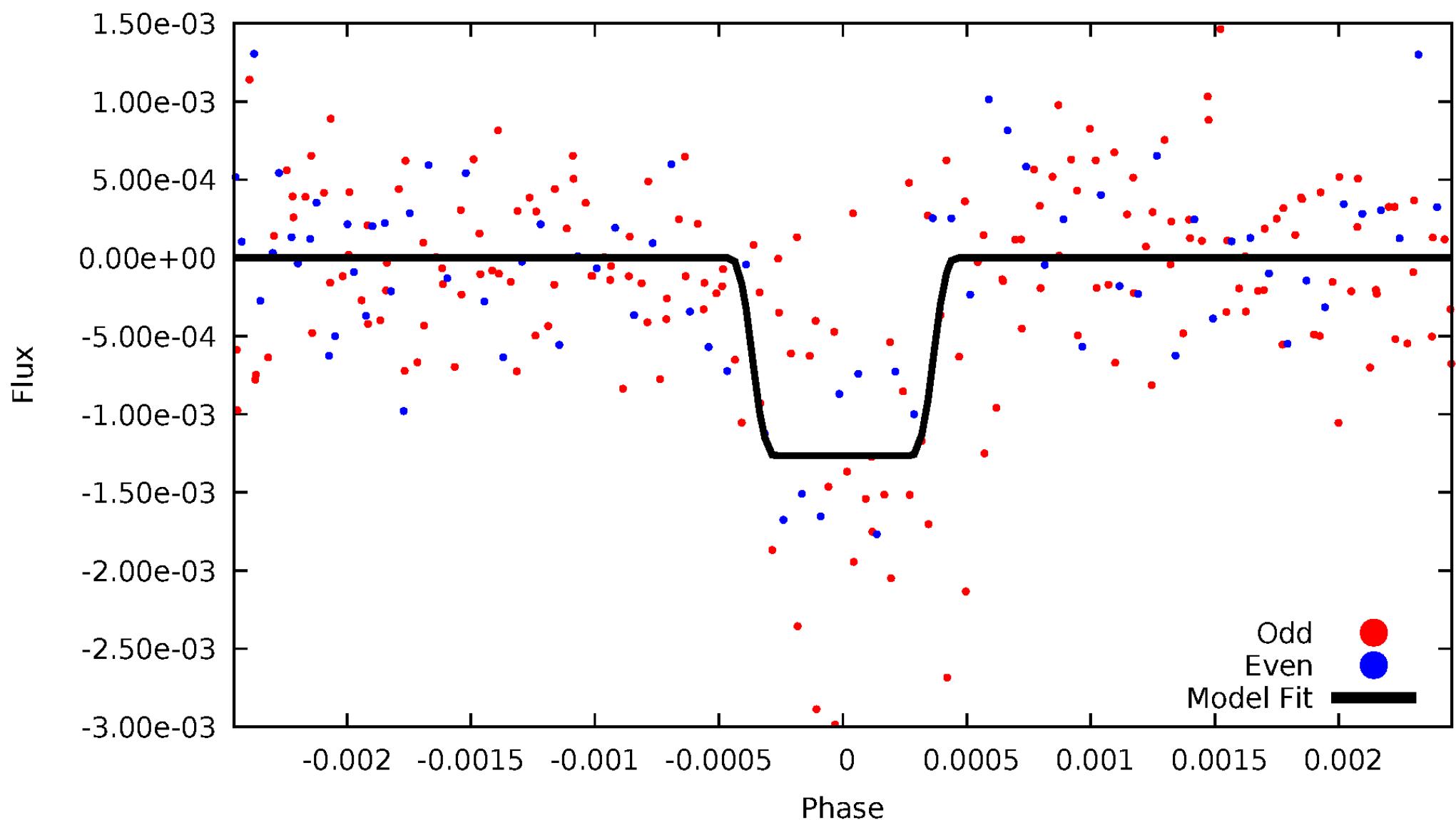
# DV Odd/Even

TCE 009851226-06

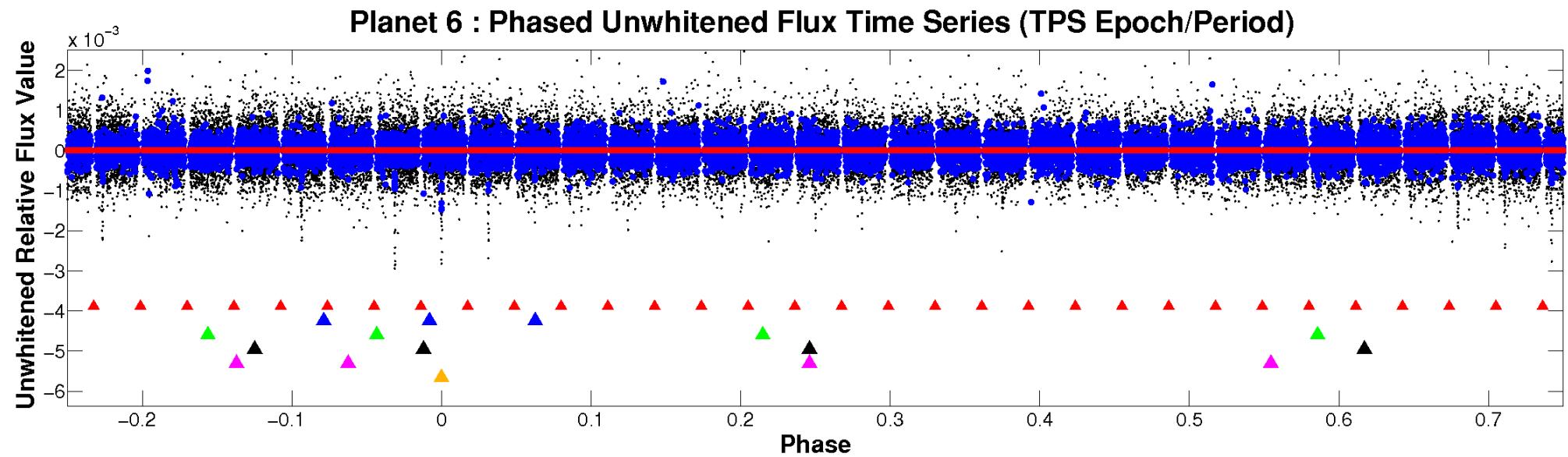


# ALT Odd/Even

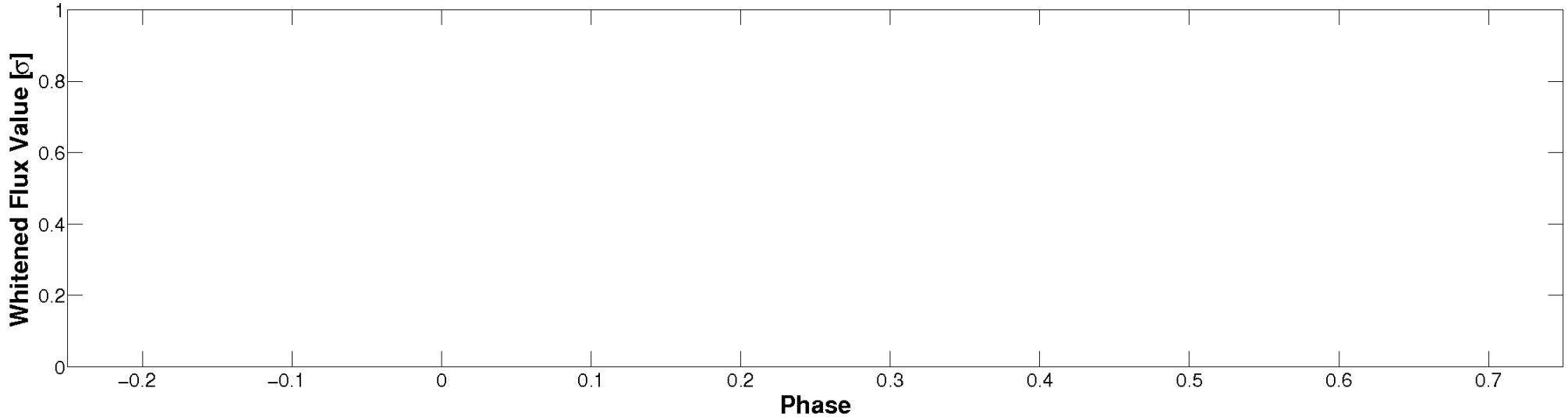
TCE 009851226-06



## Non-Whitened Vs. Whitened Light Curve

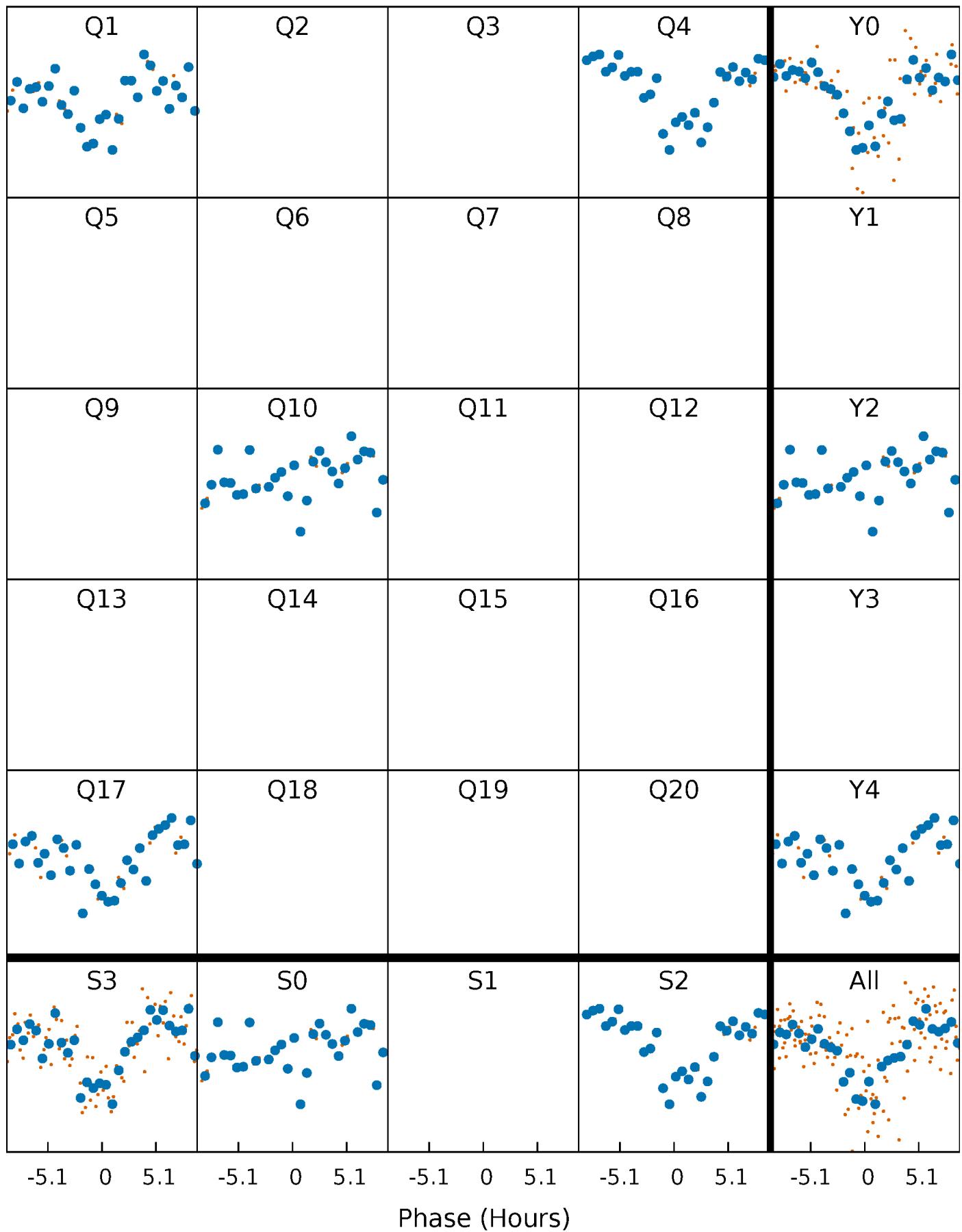


**Planet 6 : Phased Whitened Flux Time Series (TPS Epoch/Period)**



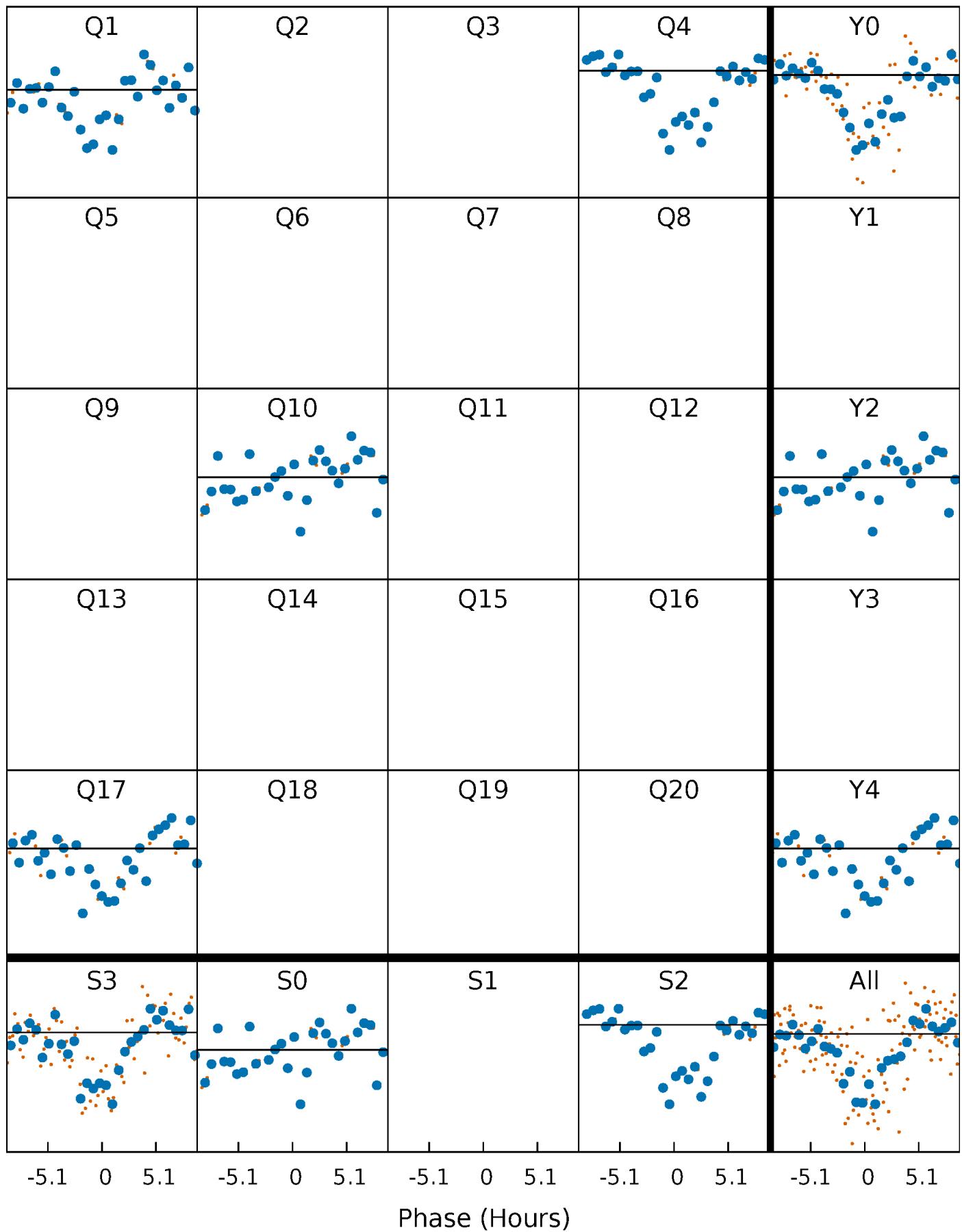
# PDC Quarter-Phased Transit Curves

TCE 009851226-06   P=271.298456 Days    $T_0=212.536870$  (BKJD)



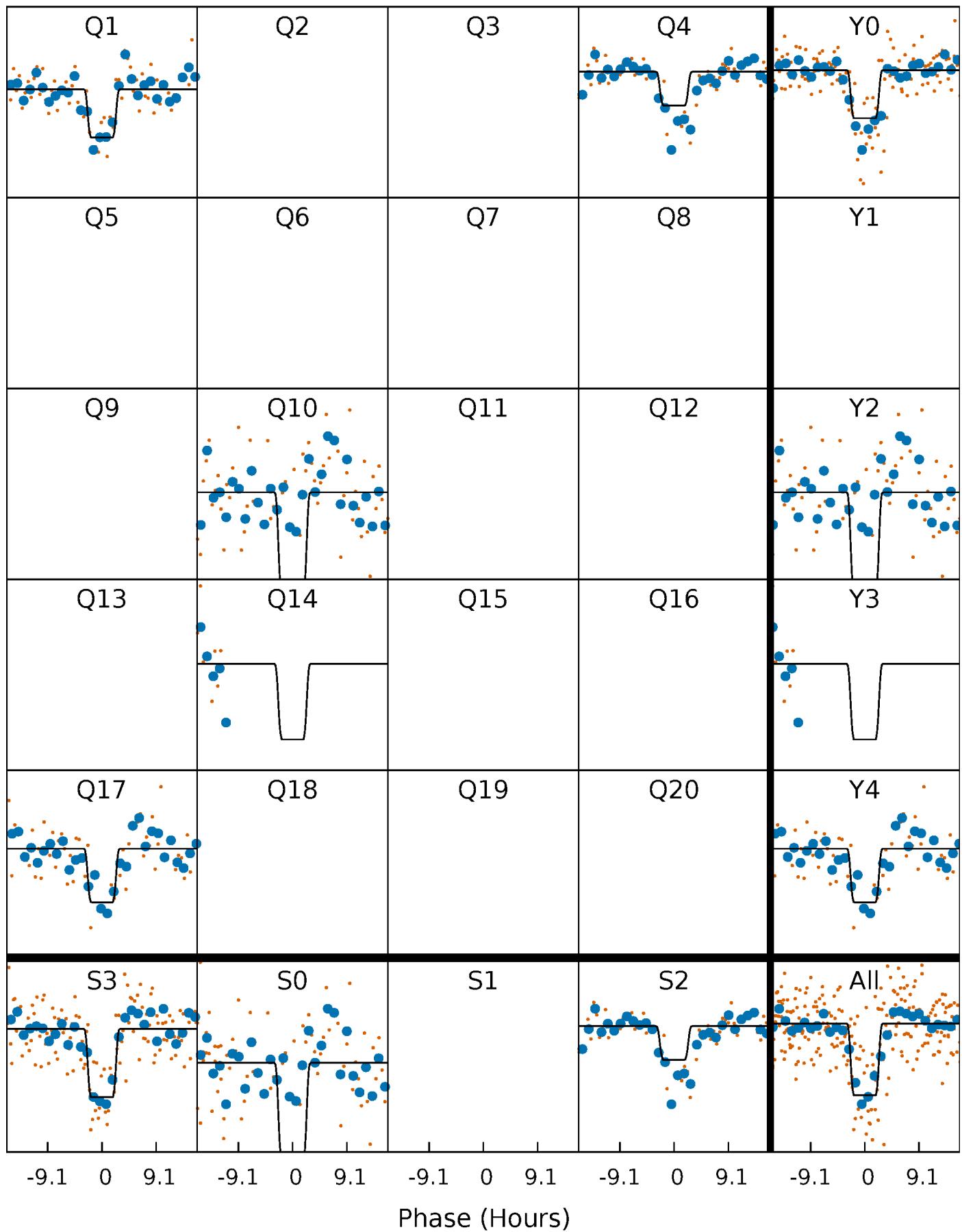
# DV Quarter-Phased Transit Curves

TCE 009851226-06 P=271.298456 Days  $T_0=212.536870$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

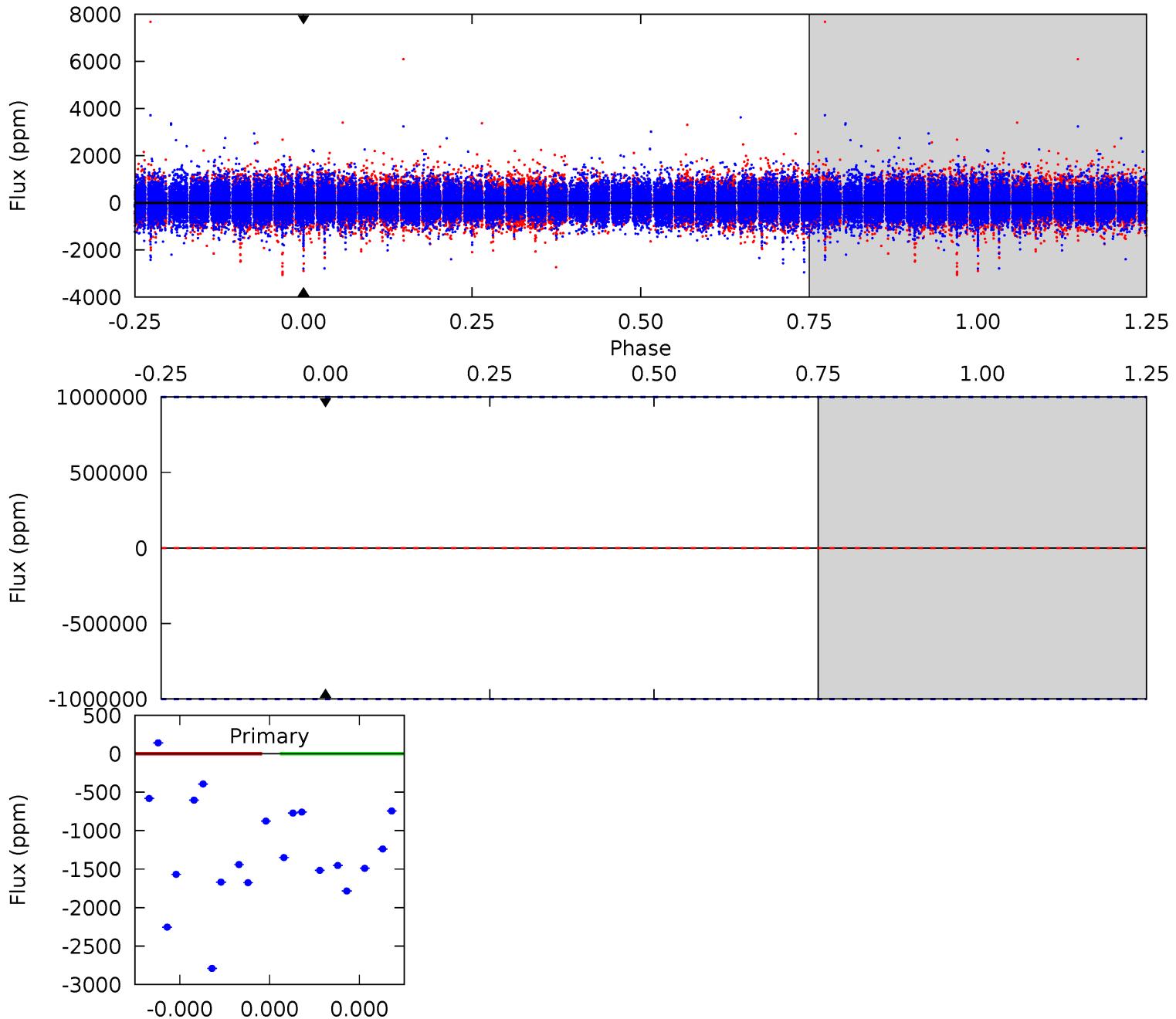
TCE 009851226-06 P=271.298456 Days  $T_0=212.537174$  (BKJD)



# DV Model-Shift Uniqueness Test

009851226-06, P = 271.298456 Days, E = 212.536870 Days

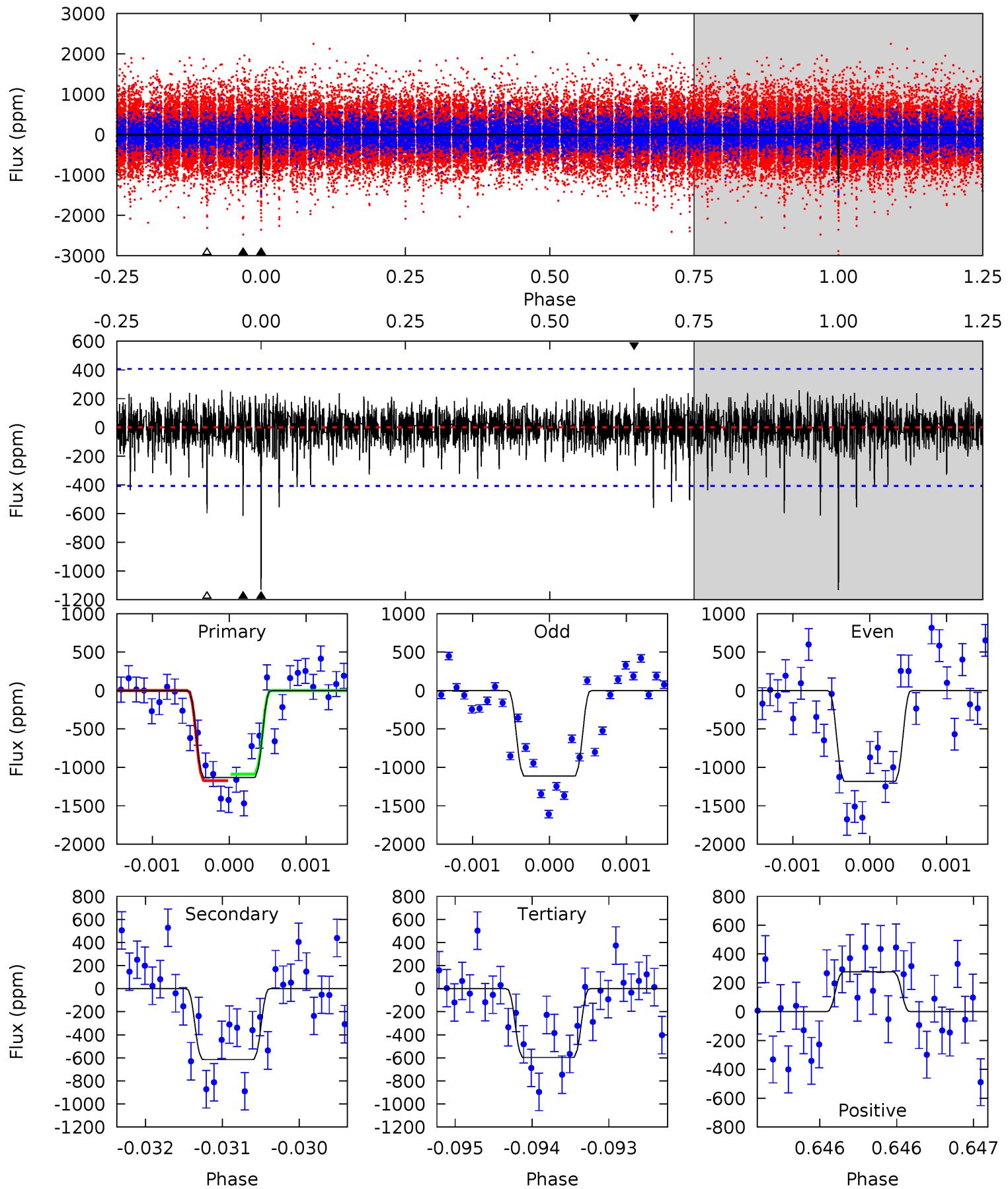
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



# Alt Model-Shift Uniqueness Test

009851226-06,  $P = 271.298456$  Days,  $E = 212.537174$  Days

Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.2	8.27	8.03	3.71	5.48	3.34	1.26	7.21	11.5	0.24	4.56	0.42	0.96	0.20	0.57



## Stellar Parameters For KIC 009851226

	T <sub>eff</sub> (K)	log(g)	[Fe/H]	R (R <sub>⊕</sub> )	M(M <sub>⊕</sub> )	p <sub>star</sub> (g·cm <sup>-3</sup> )
	5951 <sup>+178</sup> <sub>-214</sub>	4.439 <sup>+0.084</sup> <sub>-0.196</sub>	-0.140 <sup>+0.300</sup> <sub>-0.300</sub>	0.991 <sup>+0.301</sup> <sub>-0.129</sub>	0.983 <sup>+0.132</sup> <sub>-0.119</sub>	1.423 <sup>+0.524</sup> <sub>-0.742</sub>
	+3%/-4%	+2%/-4%	+214%/-214%	+30%/-13%	+13%/-12%	+37%/-52%
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 009851226-06 / KOI

Detrend	Depth (ppm)	R <sub>p</sub> (R <sub>⊕</sub> )	T <sub>max</sub> (K)	T <sub>obs</sub> (K)	A <sub>obs</sub>
DV	0±1000000	9.42 <sup>+9.20</sup> <sub>-6.71</sub>	409 <sup>+26</sup> <sub>-21</sub>	-3993 <sup>+25432</sup> <sub>-15187</sub>	-2750.238 <sup>+853214.108</sup> <sub>-747934.032</sub>
Alt.	-614±74	9.36 <sup>+8.60</sup> <sub>-6.39</sub>	409 <sup>+31</sup> <sub>-22</sub>	3688 <sup>+2079</sup> <sub>-698</sub>	2577 <sup>+21381</sup> <sub>-1909</sub>

T<sub>max</sub> = Theoretical Maximum Planetary Temperature

T<sub>obs</sub> = Observed Planetary Temperature (Assuming A=0.3)

A<sub>obs</sub> = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if T<sub>obs</sub> ≫ T<sub>max</sub> AND A<sub>obs</sub> ≫ 1.0

UKIRT Image

Declination

