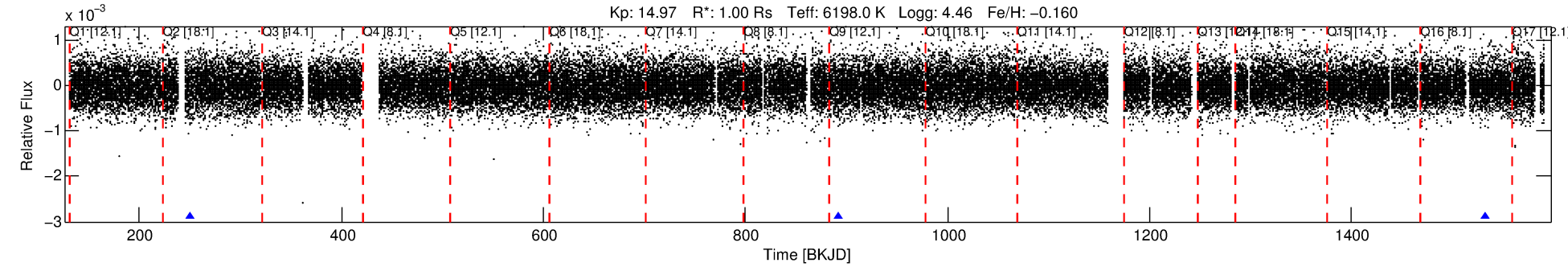
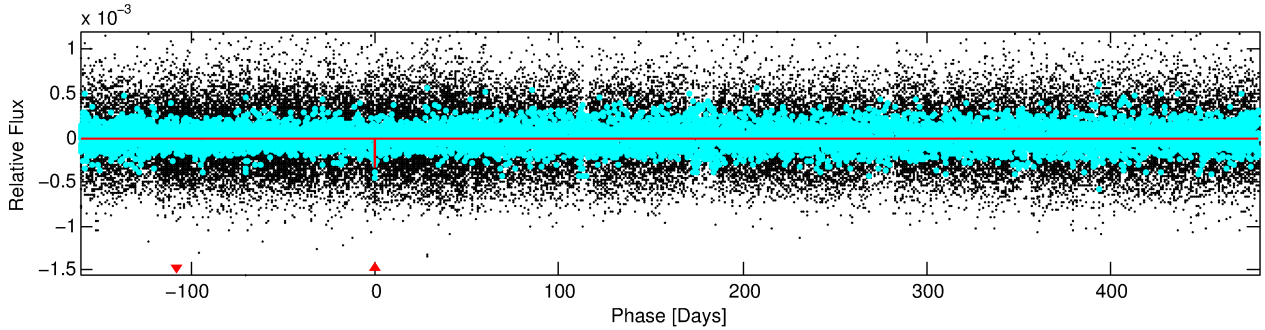
WARNING: THIS DATA IS SIMULATED, NOT OBSERVED

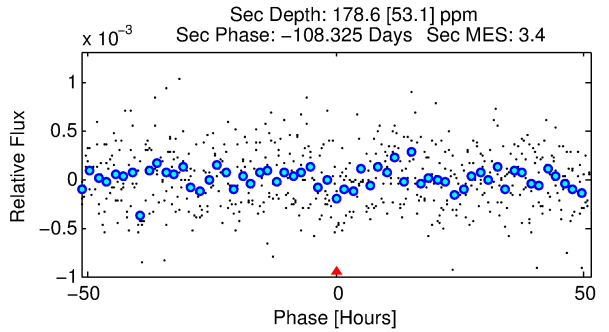
DV One-Page Summary

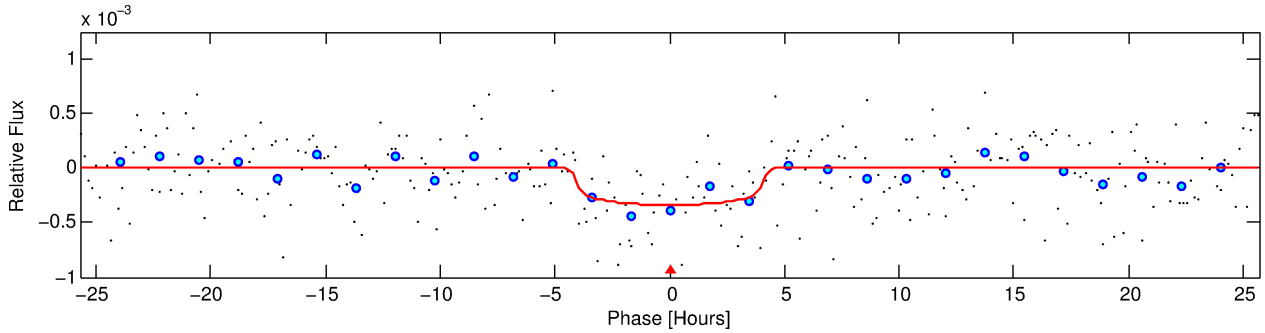
KIC: 9947980 Candidate: 1 of 1 Period: 640.883 d

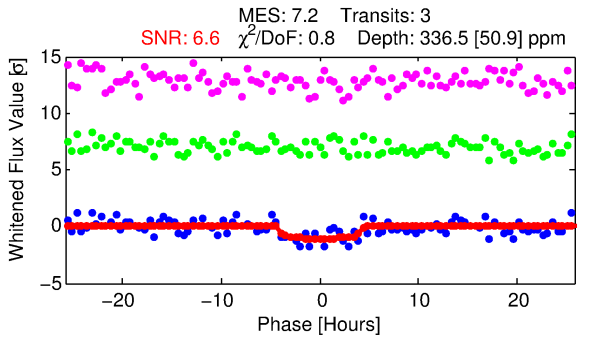
WARNING: THIS DATA IS SIMULATED, NOT OBSERVED

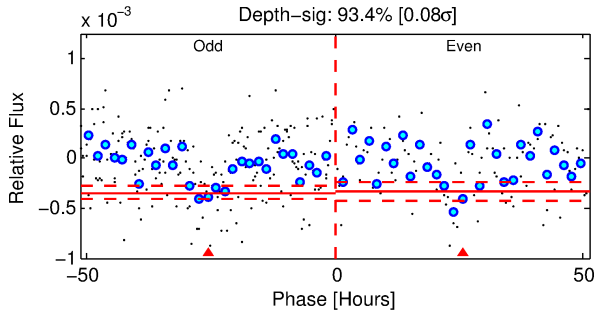












DV Fit Results:

Period = 640.88331 [0.01450] d
Epoch = 250.8542 [0.0192] BKJD
Rp/R* = 0.0184 [0.0115]
a/R* = 380.57 [1216.34]
b = 0.77 [1.70]

Seff = 0.60 [0.25]
Teq = 225 [23] K
Rp = 2.01 [1.42] Re
a = 1.4893 [0.4019] AU

Ag = 53666.08 [72279.92] [0.74σ]
Teffp = 5286 [1712] K [2.96σ]

DV Diagnostic Results:

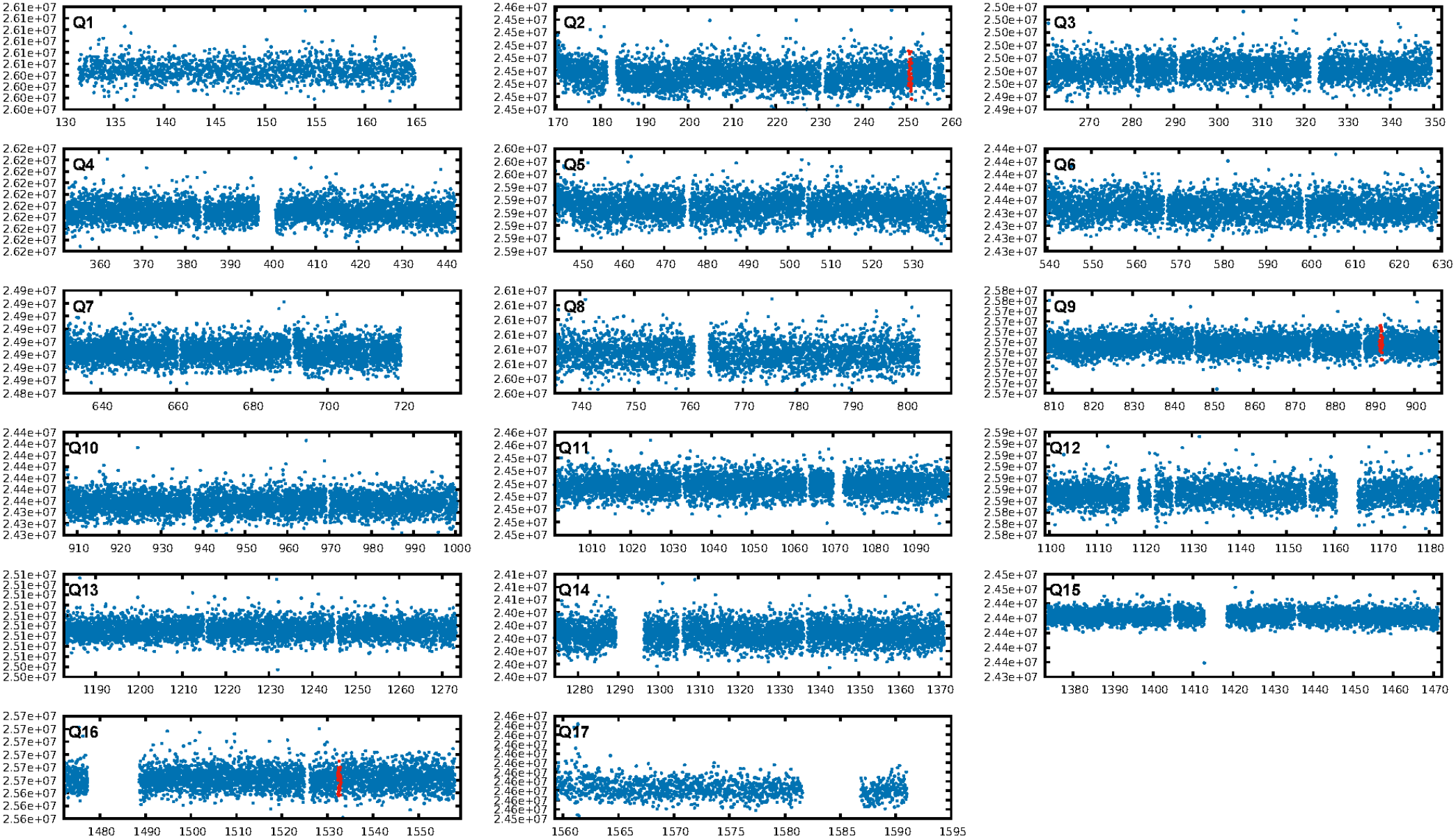
ShortPeriod−sig: N/A
LongPeriod−sig: N/A
ModelChiSquare2−sig: 100.0%
ModelChiSquareGof−sig: 99.9%
Bootstrap−pfa: 2.10e−11
RollingBand−fgt: N/A
GhostDiagnostic−chr: N/A

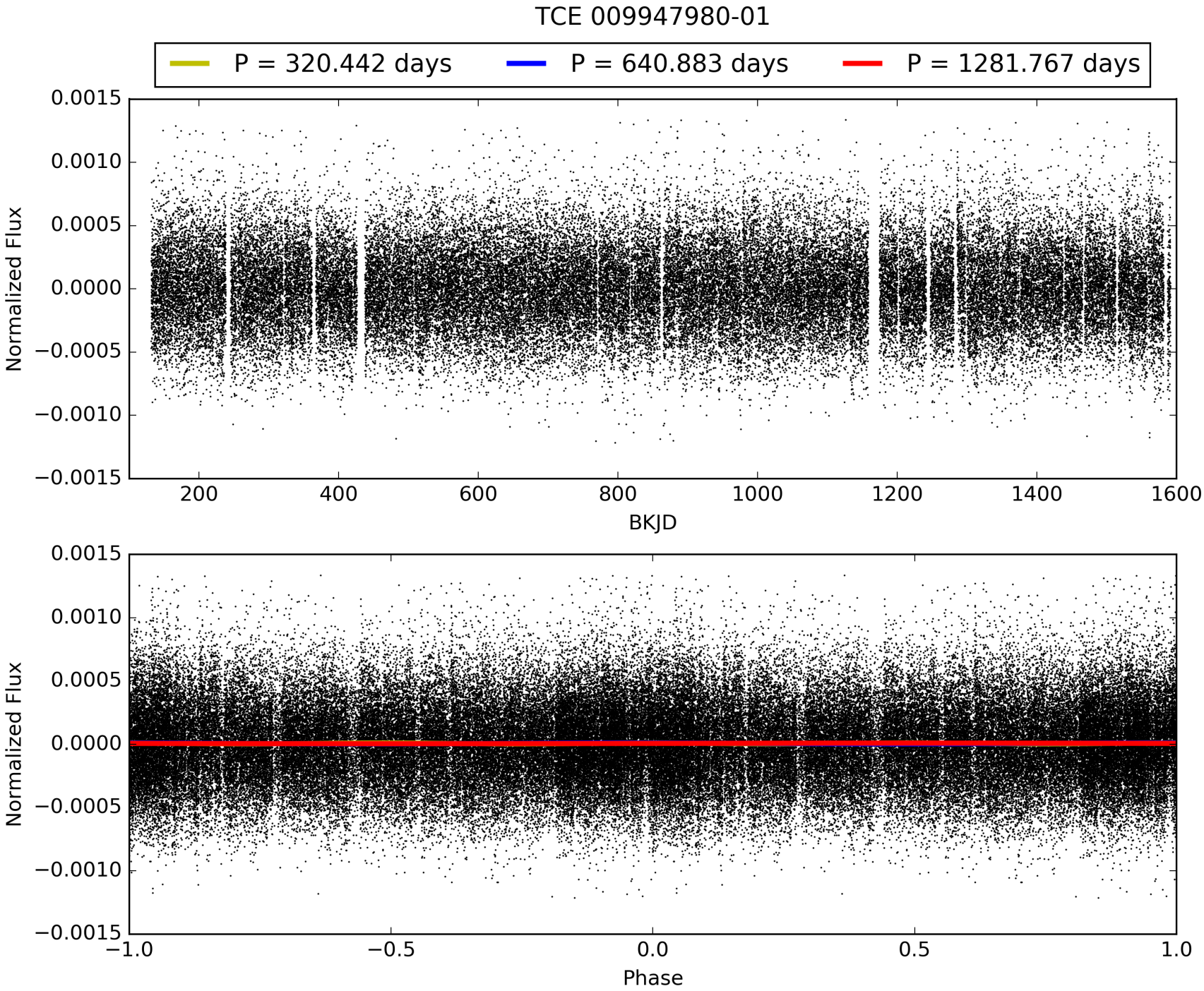
Centroid−sig: N/A
Centroid−so: N/A
OotOffset−rm: N/A
KicOffset−rm: N/A
OotOffset−st: 0/0/0/0 [0]
KicOffset−st: 0/0/0/0 [0]
DiffImageQuality−fgm: N/A
DiffImageOverlap−fno: N/A

Software Revision: svn+ssh://murzim/repo/soc/branches/integ/ksop−2602@61285 −− Date Generated: 02−Jun−2016 01:40:03 Z

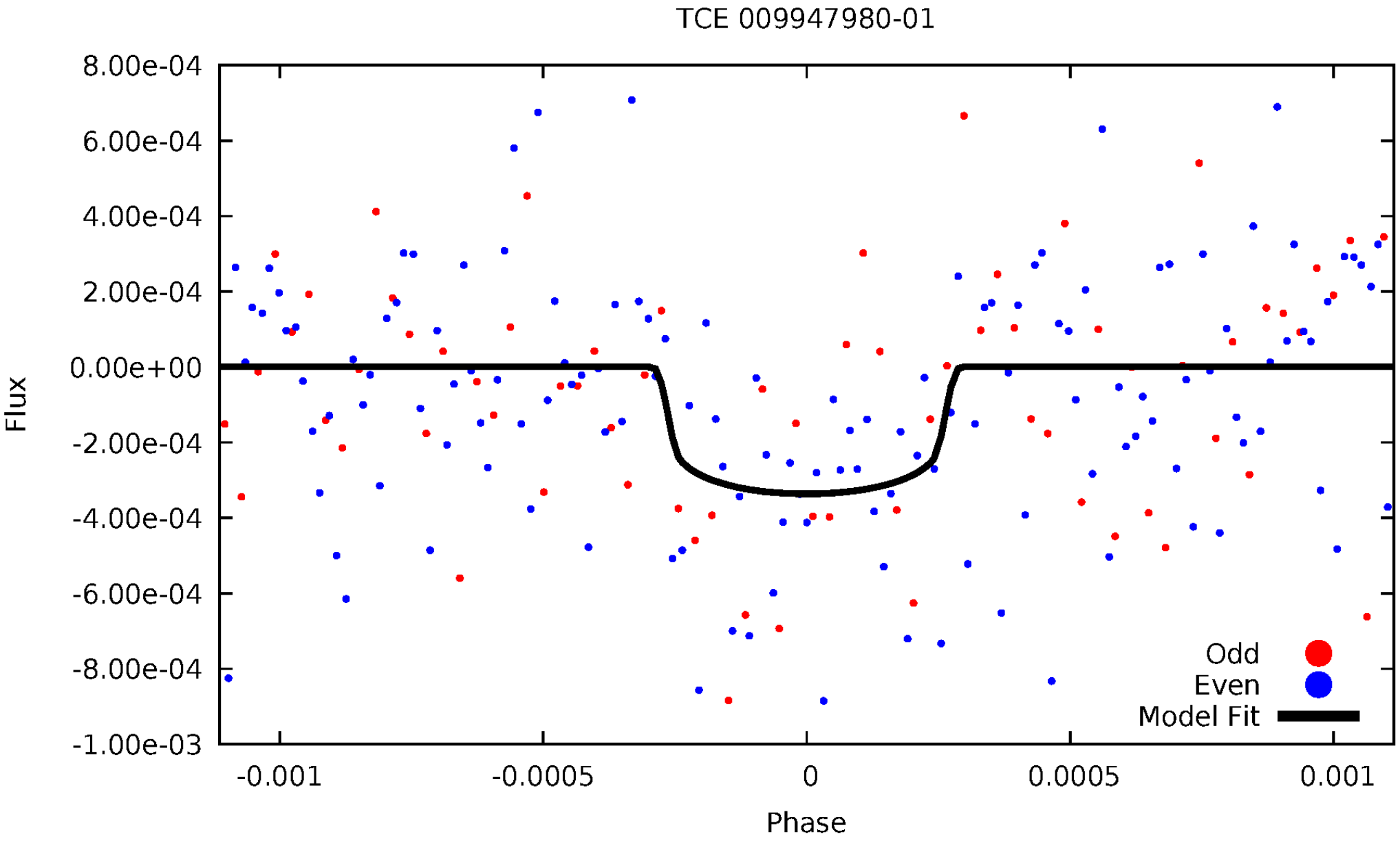
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

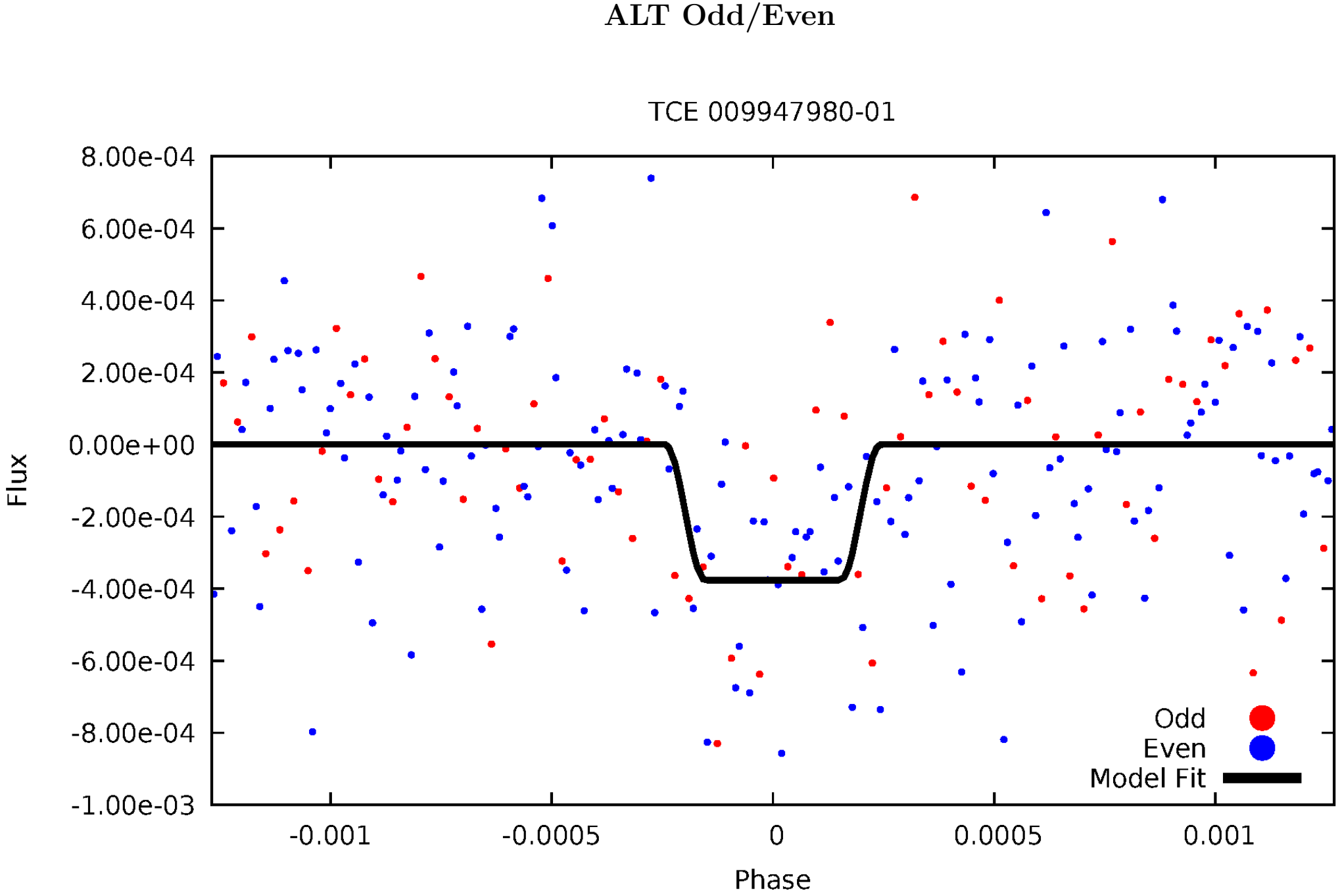
TCE 009947980-01, PDC Light Curves



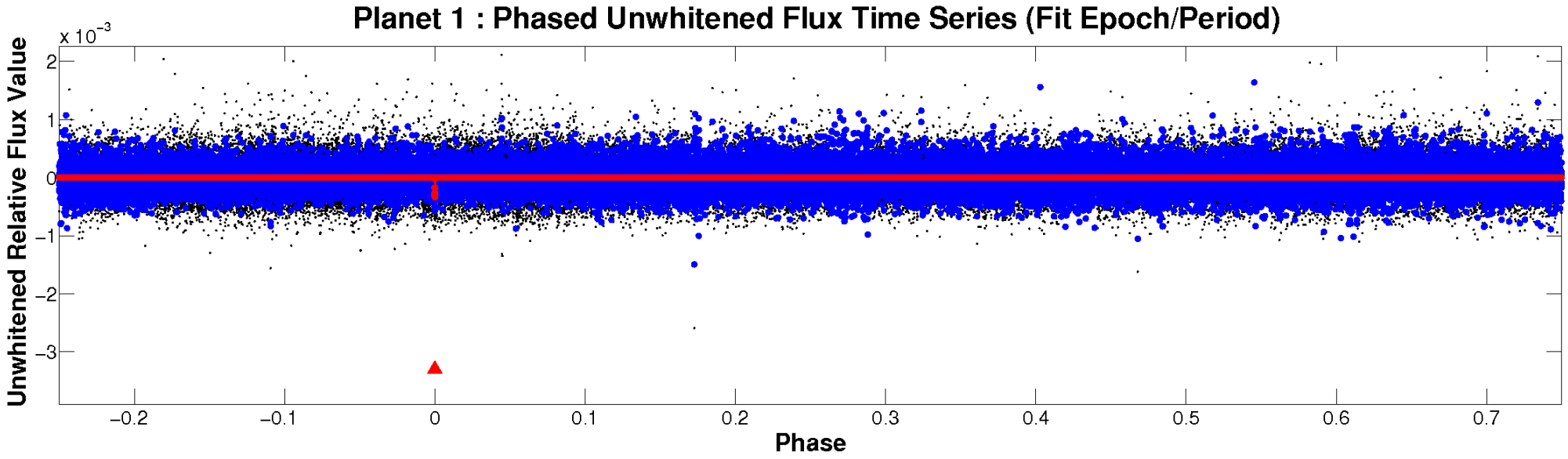

TCE 009947980-01
P = 320.442 days
P = 640.883 days
P = 1281.767 days
Normalized Flux
0.0015
0.0010
0.0005
0.0000
−0.0005
−0.0010
−0.0015
200
400
600
800
1000
1200
1400
1600
BKJD
Normalized Flux
−1.0
−0.5
0.0
0.5
1.0
Phase

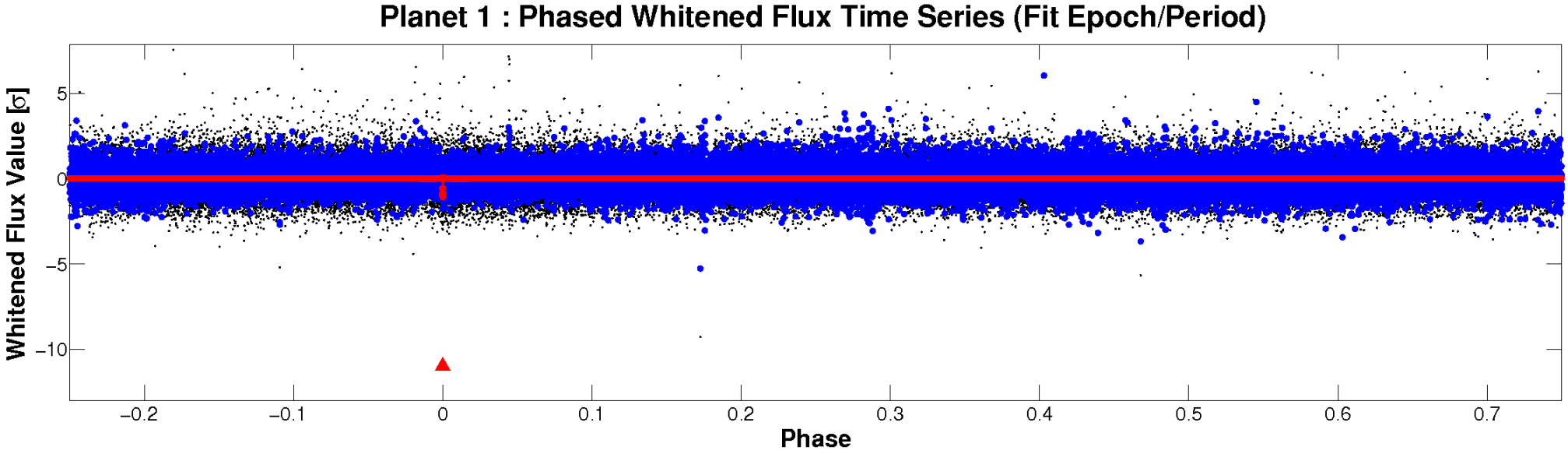
DV Odd/Even


TCE 009947980-01
8.00e-04
6.00e-04
4.00e-04
2.00e-04
0.00e+00
-2.00e-04
-4.00e-04
-6.00e-04
-8.00e-04
-1.00e-03
Flux
-0.001
-0.0005
0
0.0005
0.001
Phase
Odd
Even
Model Fit


ALT Odd/Even
TCE 009947980-01
8.00e-04
6.00e-04
4.00e-04
2.00e-04
0.00e+00
-2.00e-04
-4.00e-04
-6.00e-04
-8.00e-04
-1.00e-03
Flux
-0.001
-0.0005
0
0.0005
0.001
Phase
Odd
Even
Model Fit

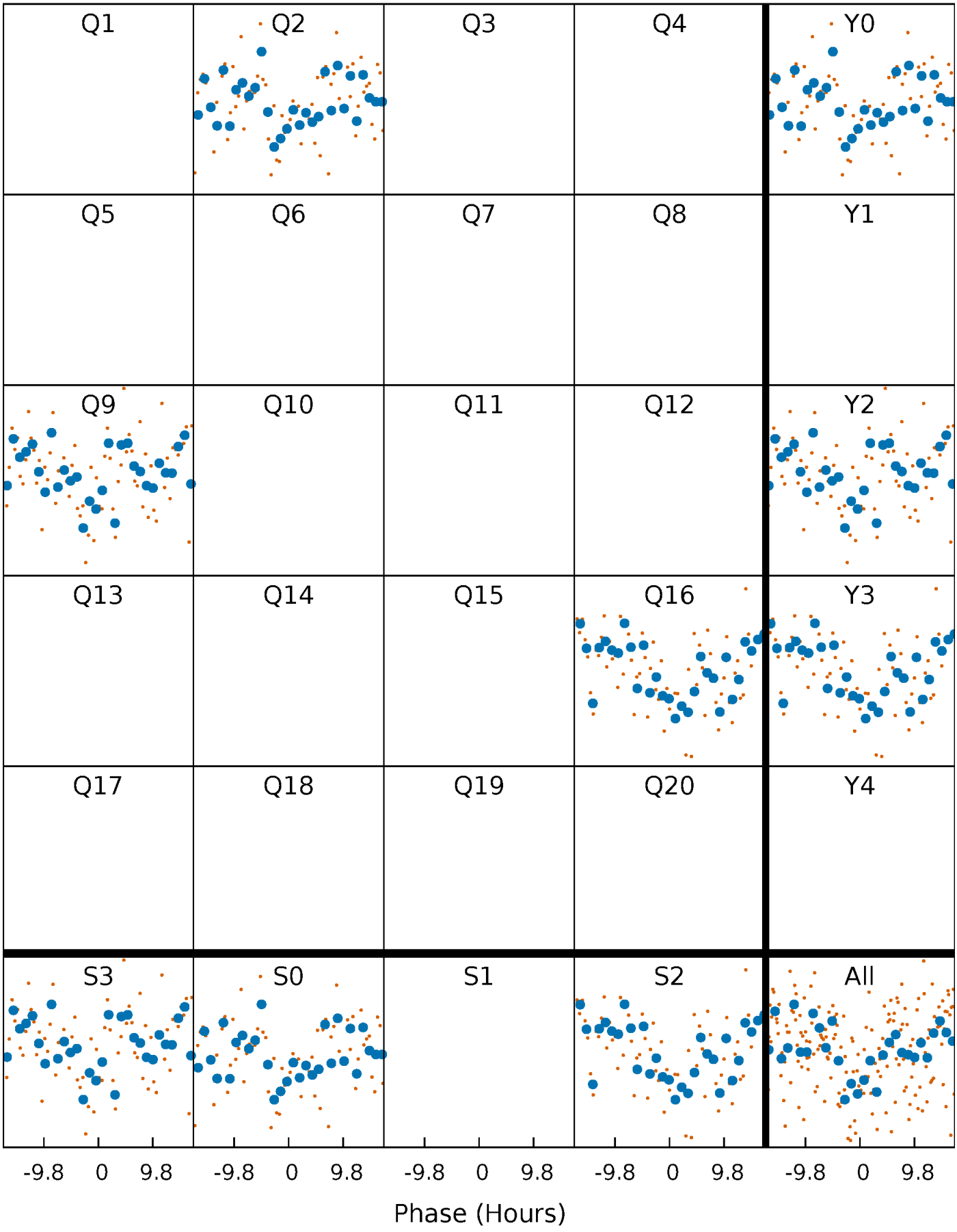
Non-Whitened Vs. Whitened Light Curve





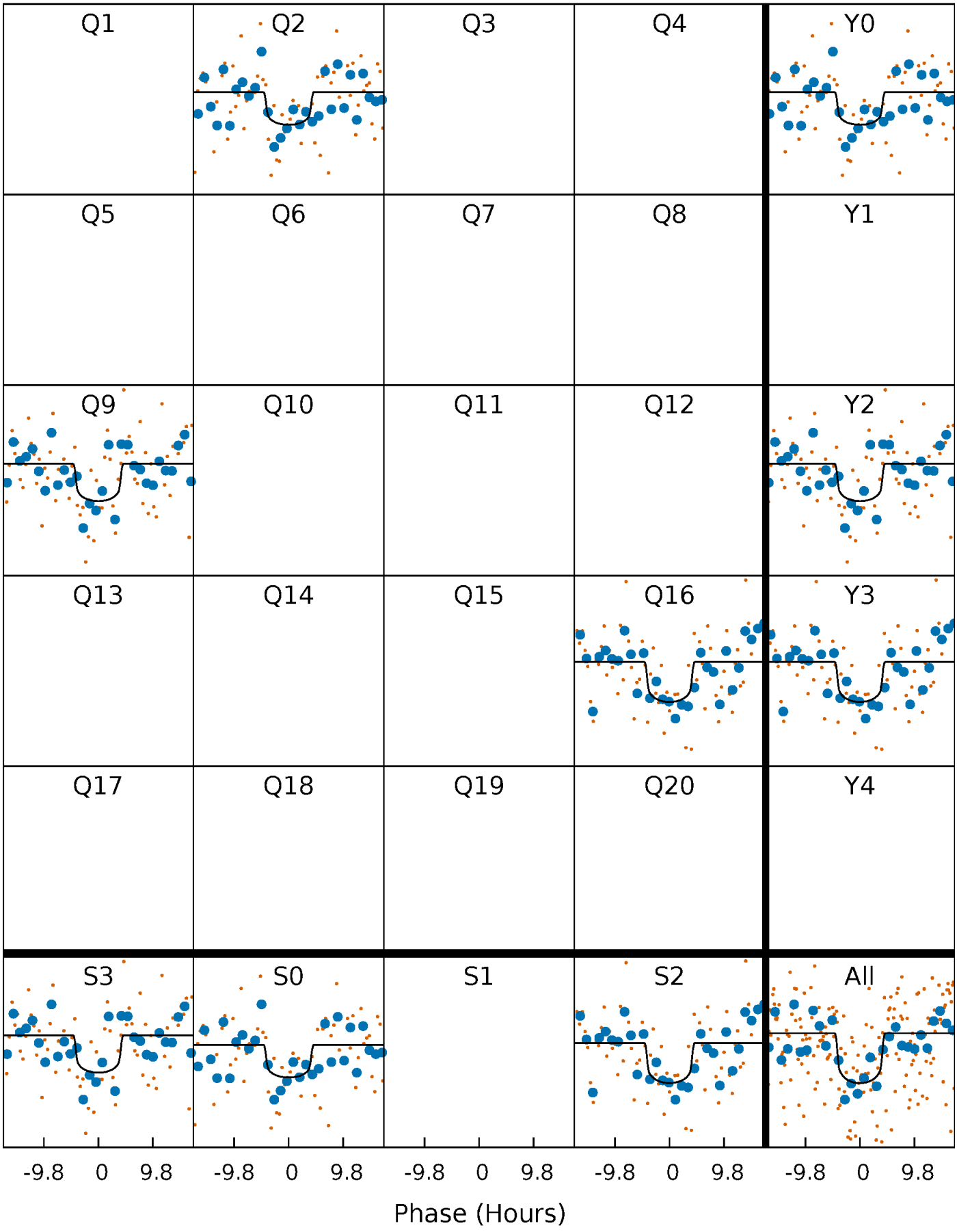
PDC Quarter-Phased Transit Curves

TCE 009947980-01 P=640.883310 Days T_0=250.854201 (BKJD)



DV Quarter-Phased Transit Curves

TCE 009947980-01 P=640.883310 Days T_0=250.854201 (BKJD)



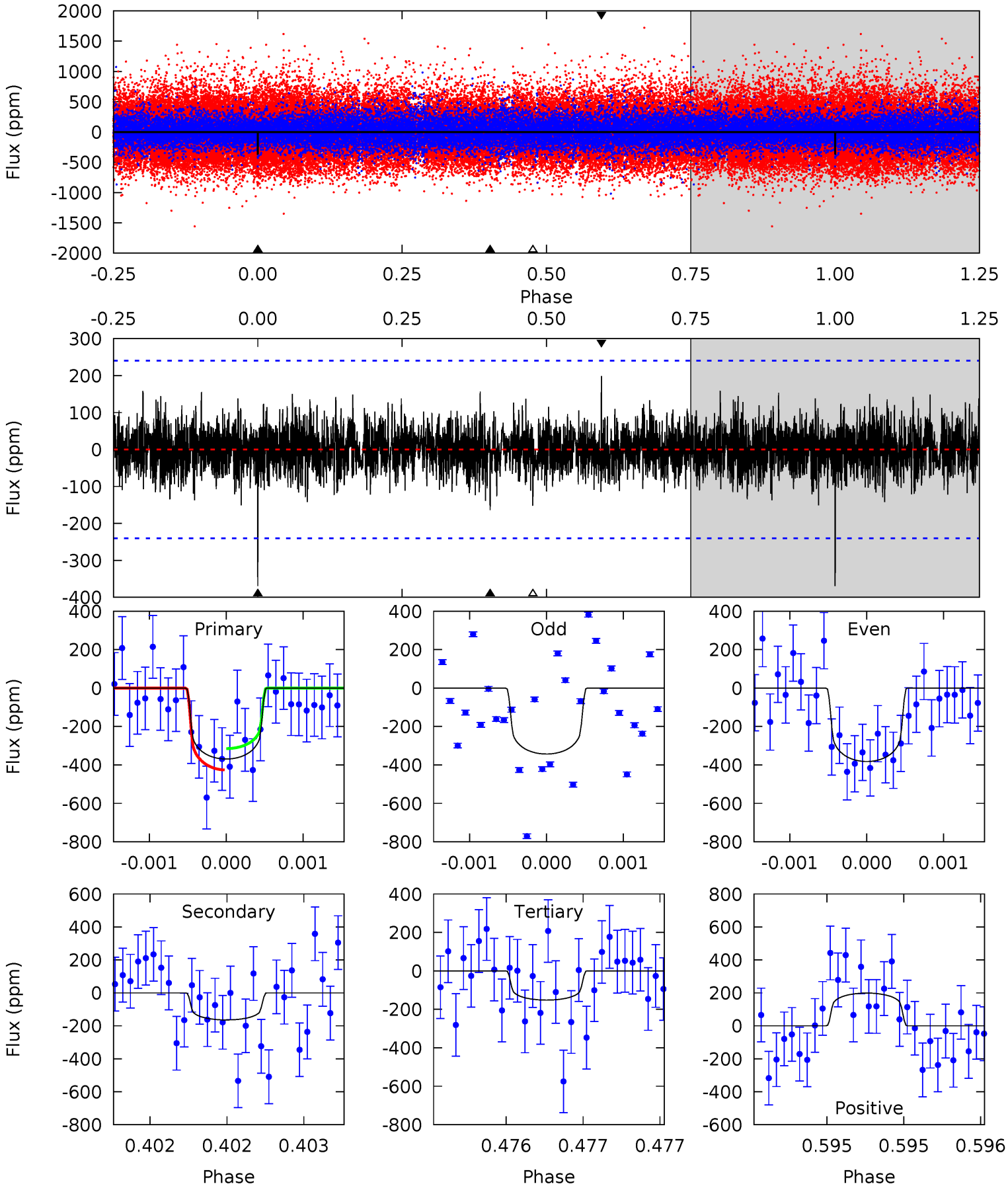
Alt. Detrend Quarter-Phased Transit Curves

TCE 009947980-01 P=640.905421 Days T_0=250.817971 (BKJD)

DV Model-Shift Uniqueness Test

009947980-01, P = 640.883310 Days, E = 250.854201 Days

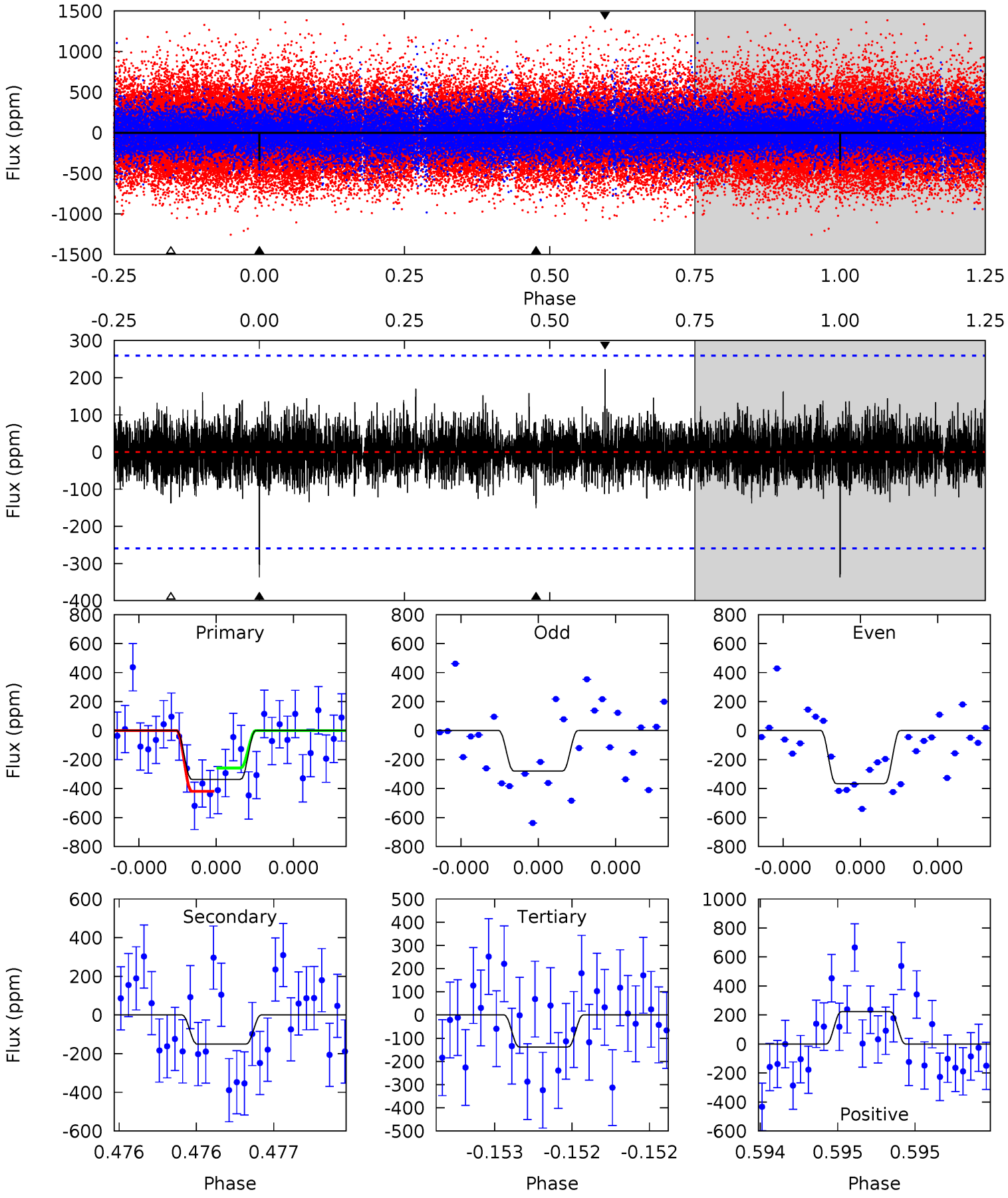
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.53	3.79	3.51	4.59	5.55	3.45	1.02	5.02	3.94	0.29	-0.79	0.42	0.97	0.35	1.29



Alt Model-Shift Uniqueness Test

009947980-01, P = 640.905421 Days, E = 250.817971 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.24	3.25	2.97	4.80	5.58	3.49	0.92	4.28	2.44	0.28	-1.55	0.86	0.93	0.40	1.73



Stellar Parameters For KIC 009947980

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	6198^{+174}_{-218}	$4.464^{+0.054}_{-0.216}$	$-0.160^{+0.250}_{-0.300}$	$1.005^{+0.321}_{-0.107}$	$1.072^{+0.144}_{-0.144}$	$1.489^{+0.420}_{-0.819}$
	+3%/-4%	+1%/-5%	+156%/-188%	+32%/-11%	+13%/-13%	+28%/-55%
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 009947980-01 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-164±43	$2.17^{+1.34}_{-1.19}$	321^{+25}_{-17}	5163^{+2427}_{-915}	$40866^{+149336}_{-25230}$
Alt.	-151±47	$2.28^{+1.31}_{-1.21}$	321^{+23}_{-17}	4937^{+2220}_{-848}	$34346^{+110751}_{-22178}$

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

43.0
42.0
41.0
19:21:40.0
39.0
38.0
50.0
40.0
30:04:50.0
20.0
10.0
Declination