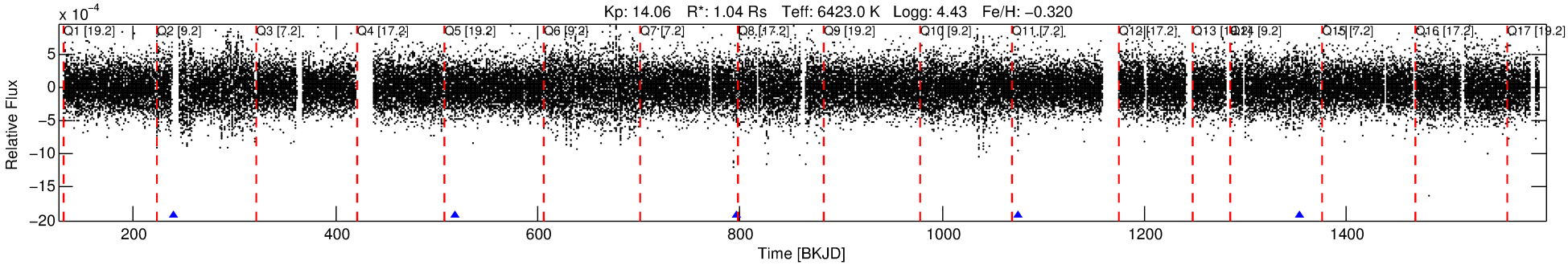
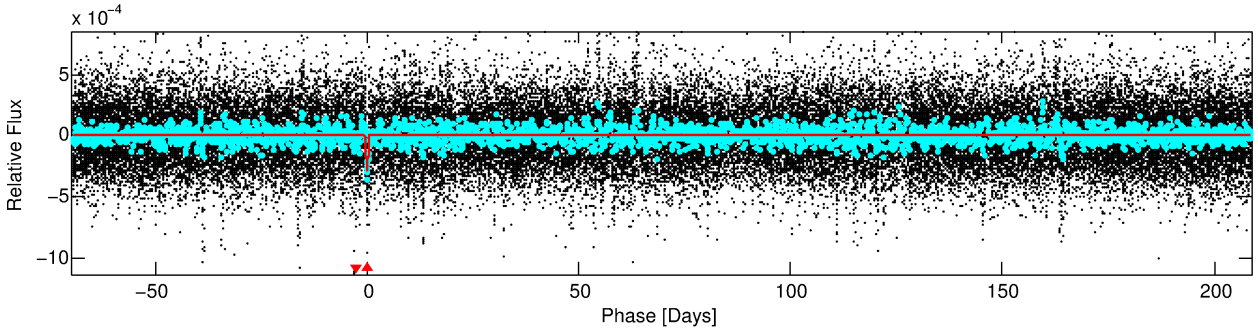
WARNING: THIS DATA IS SIMULATED, NOT OBSERVED

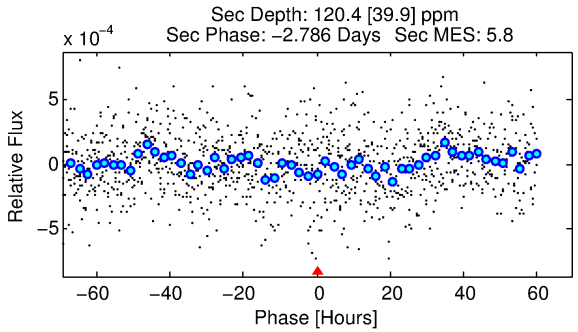
DV One-Page Summary

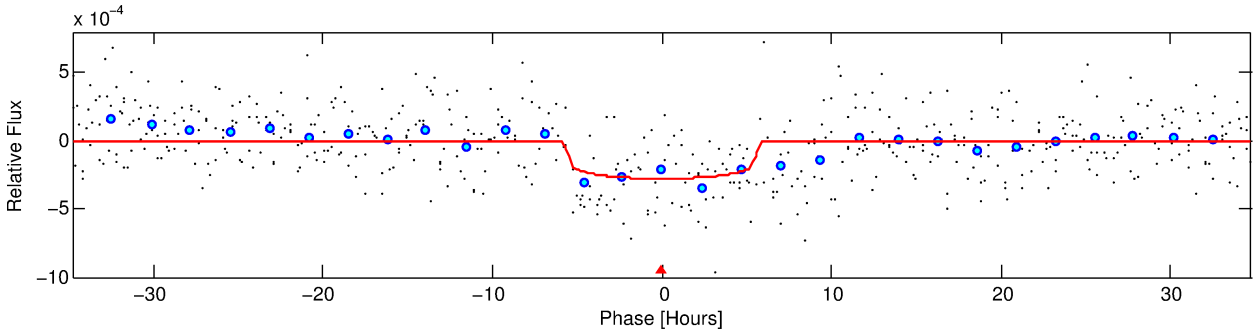
KIC: 8307440 Candidate: 1 of 1 Period: 278.452 d

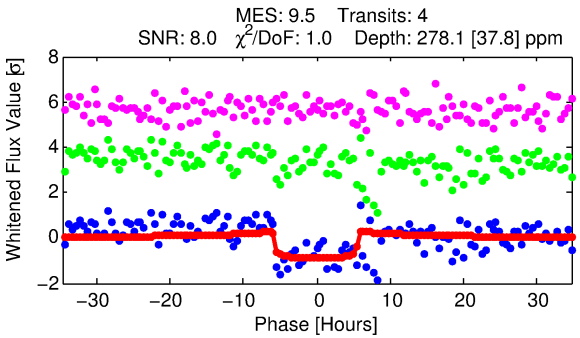
WARNING: THIS DATA IS SIMULATED, NOT OBSERVED

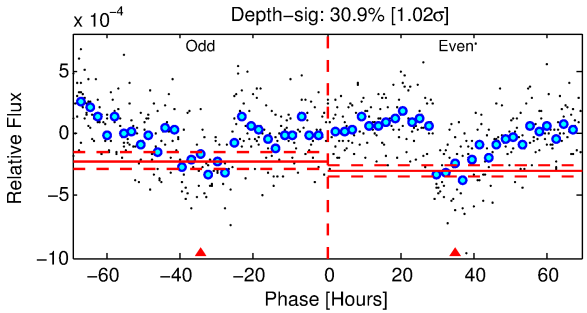












DV Fit Results:

Period = 278.45230 [0.01023] d
Epoch = 239.4853 [0.0325] BKJD
Rp/R* = 0.0164 [0.0110]
a/R* = 132.59 [481.35]
b = 0.72 [2.51]

Seff = 2.26 [0.95]
Teq = 313 [33] K
Rp = 1.87 [1.40] Re
a = 0.8558 [0.2365] AU

Ag = 13894.51 [19988.70] [0.70σ]
Teffp = 5251 [1823] K [2.71σ]

DV Diagnostic Results:

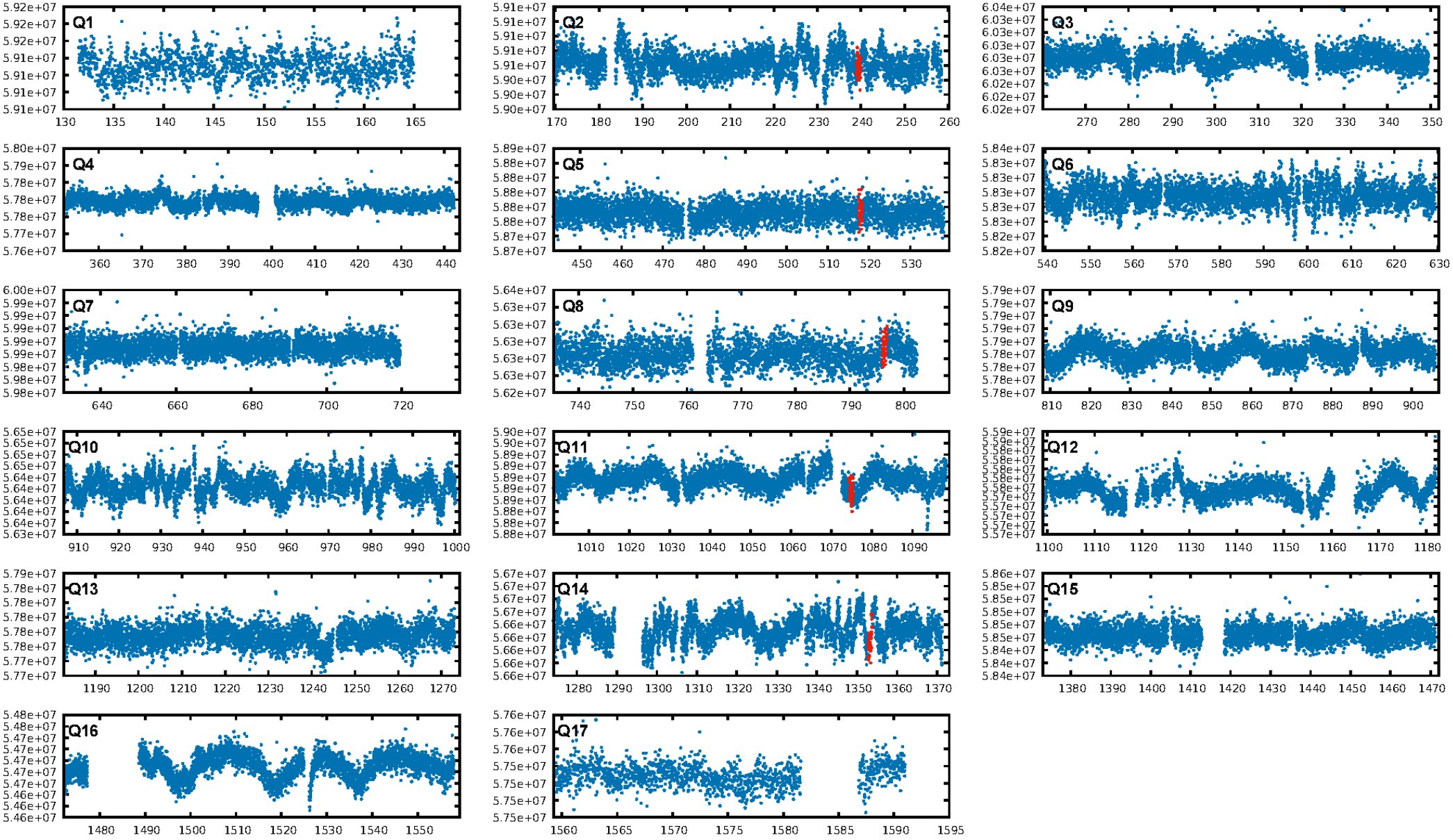
ShortPeriod−sig: N/A
LongPeriod−sig: N/A
ModelChiSquare2−sig: 4.3%
ModelChiSquareGof−sig: 99.6%
Bootstrap−pfa: 5.02e−15
RollingBand−fgt: N/A
GhostDiagnostic−chr: N/A

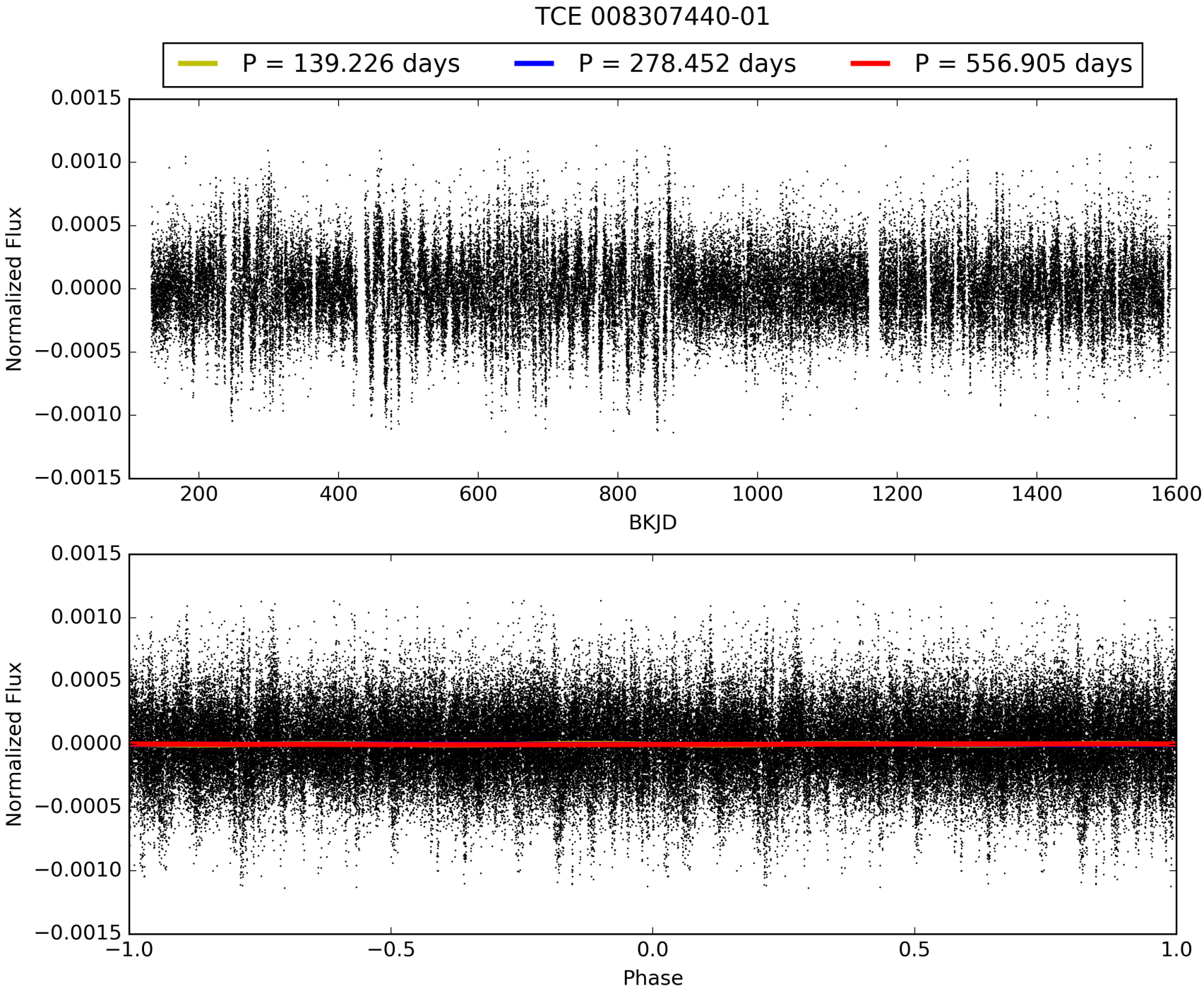
Centroid−sig: N/A
Centroid−so: N/A
OotOffset−rm: N/A
KicOffset−rm: N/A
OotOffset−st: 0/0/0/0 [0]
KicOffset−st: 0/0/0/0 [0]
DiffImageQuality−fgm: N/A
DiffImageOverlap−fno: N/A

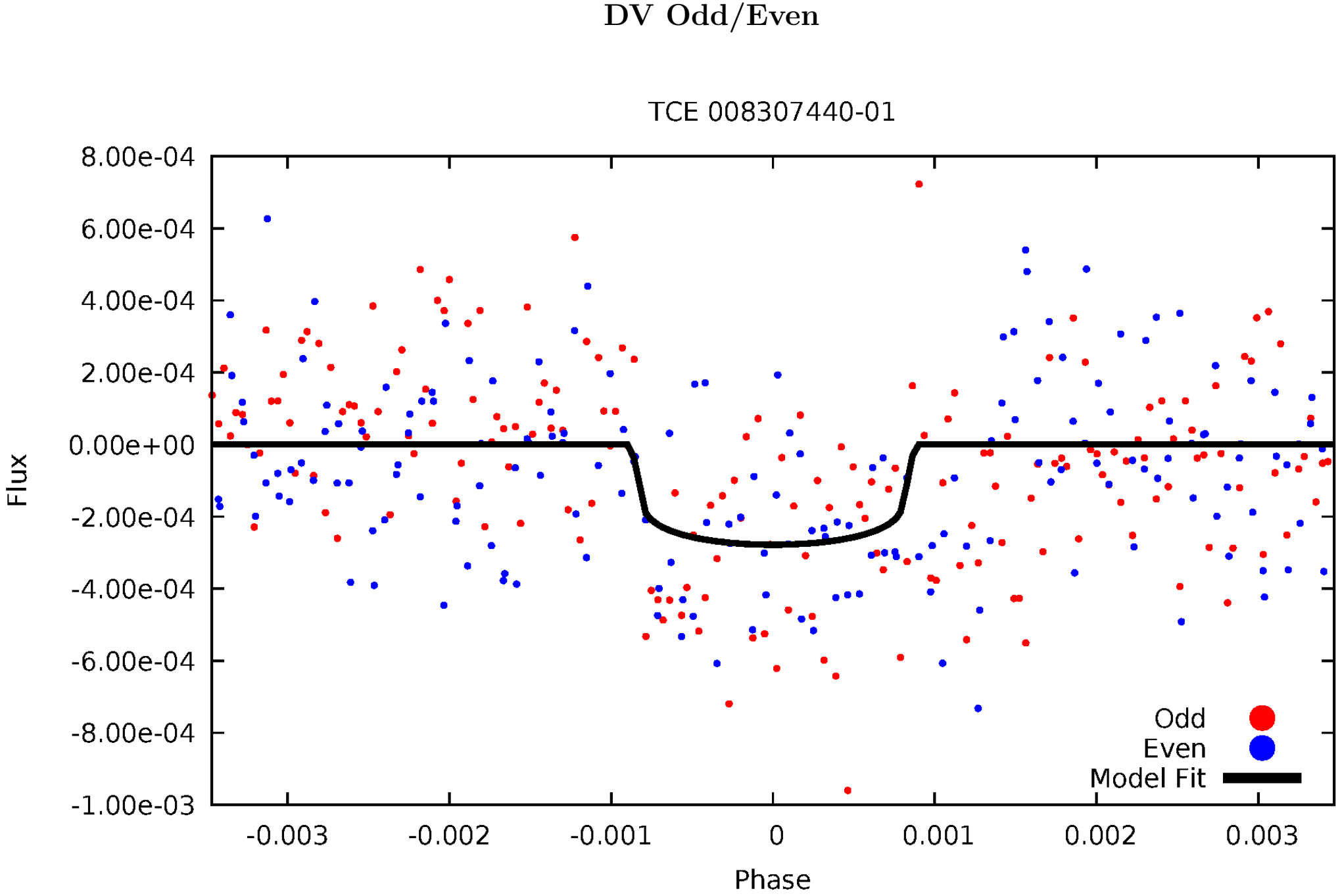
Software Revision: svn+ssh://murzim/repo/soc/branches/integ/ksop−2602@61285 −− Date Generated: 02−Jun−2016 07:29:20 Z

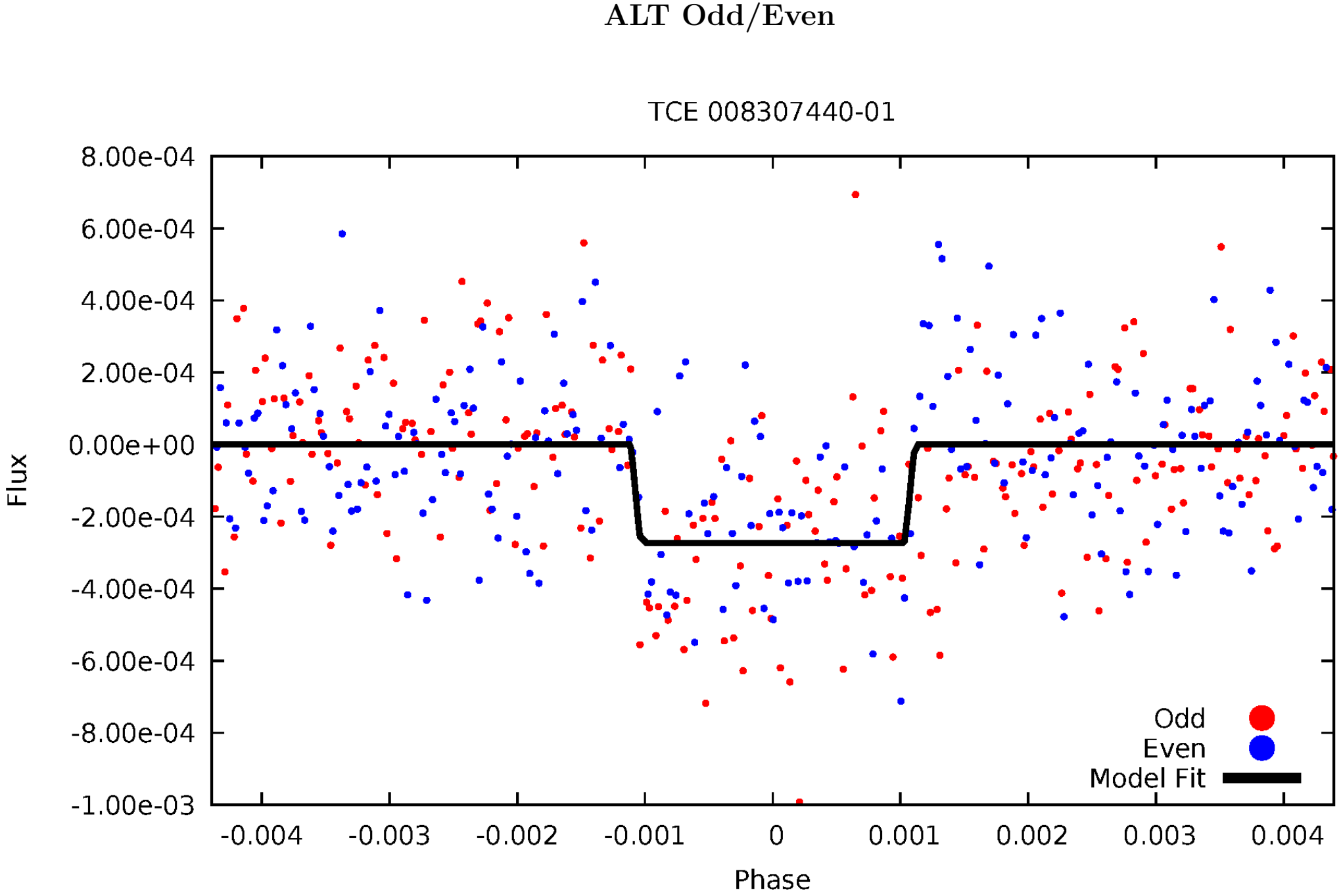
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 008307440-01, PDC Light Curves

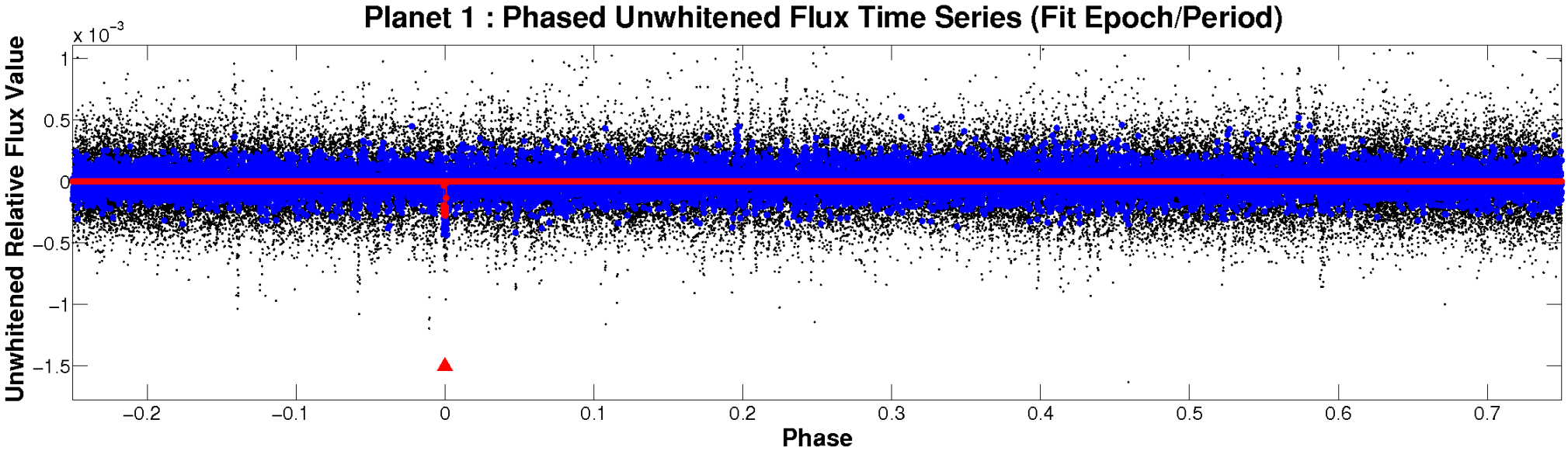


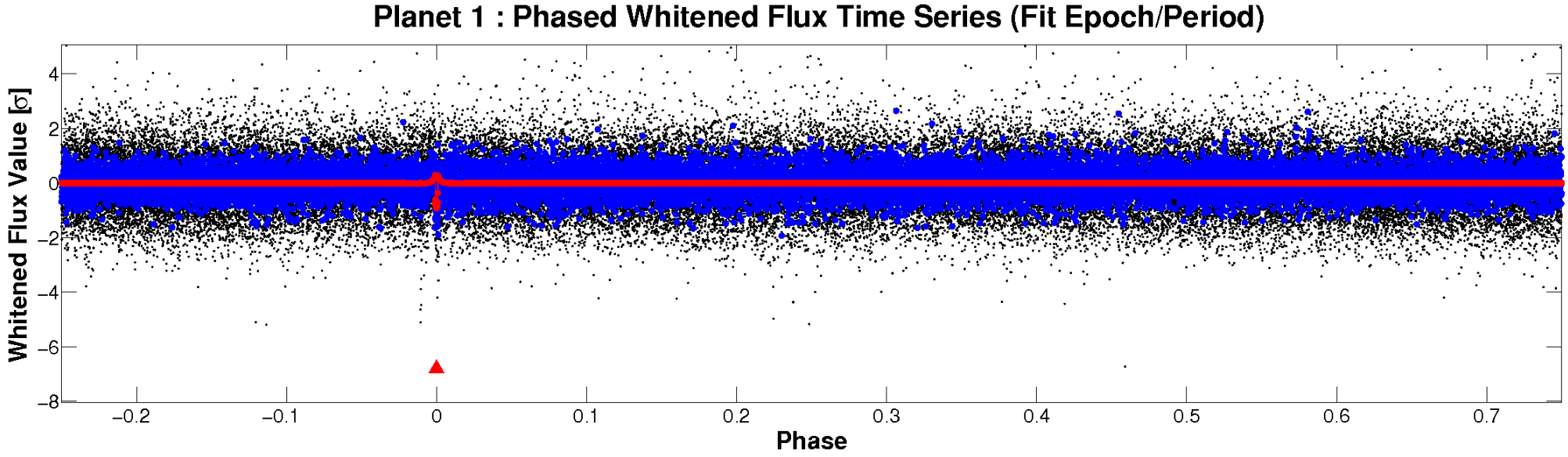

TCE 008307440-01
P = 139.226 days
P = 278.452 days
P = 556.905 days
Normalized Flux
0.0015
0.0010
0.0005
0.0000
−0.0005
−0.0010
−0.0015
200
400
600
800
1000
1200
1400
1600
BKJD
Normalized Flux
0.0015
0.0010
0.0005
0.0000
−0.0005
−0.0010
−0.0015
−1.0
−0.5
0.0
0.5
1.0
Phase


DV Odd/Even
TCE 008307440-01
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
-0.003
-0.002
-0.001
0
0.001
0.002
0.003
Phase
Odd
Even
Model Fit


ALT Odd/Even
TCE 008307440-01
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
-0.004
-0.003
-0.002
-0.001
0
0.001
0.002
0.003
0.004
Phase
Odd
Even
Model Fit

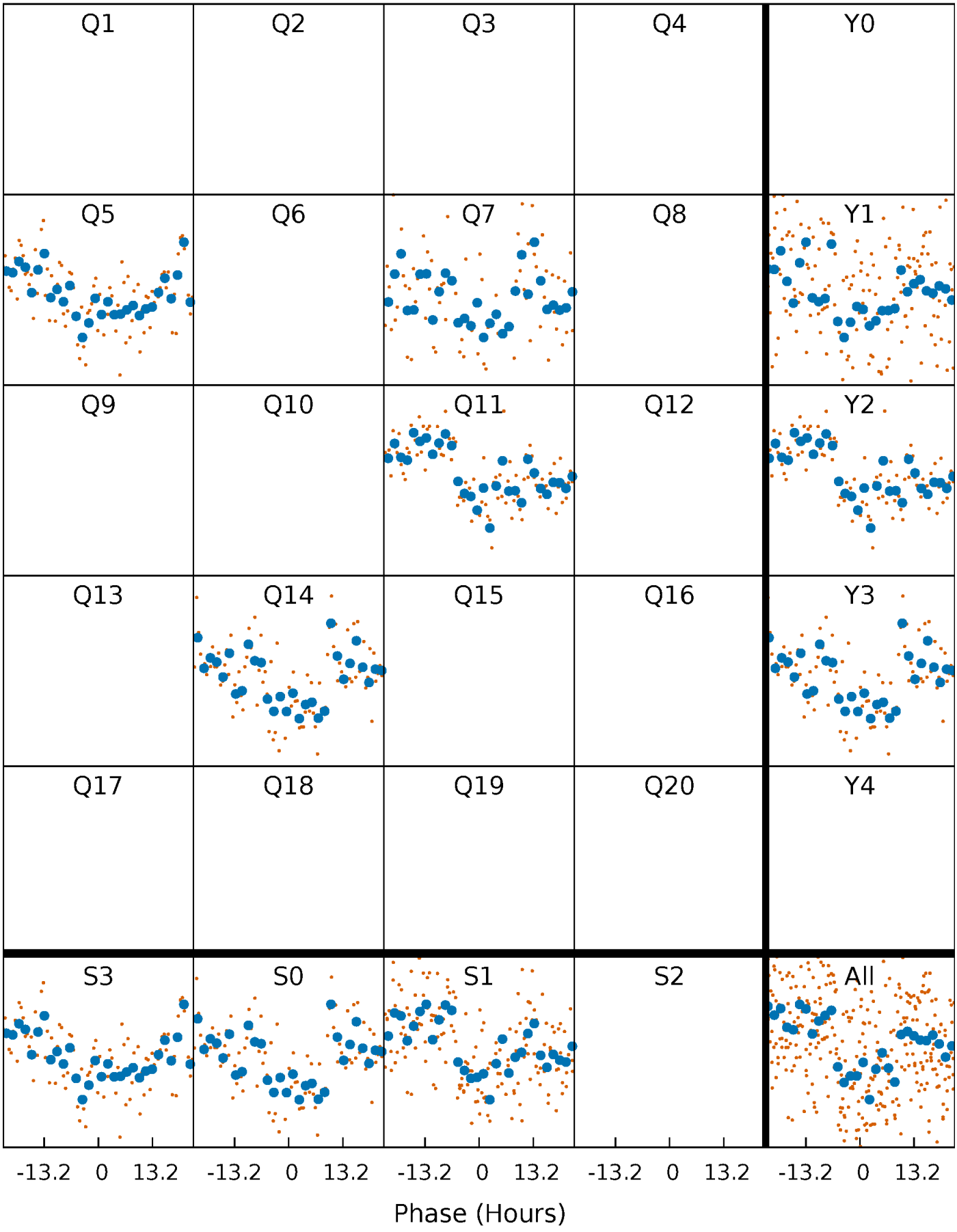
Non-Whitened Vs. Whitened Light Curve





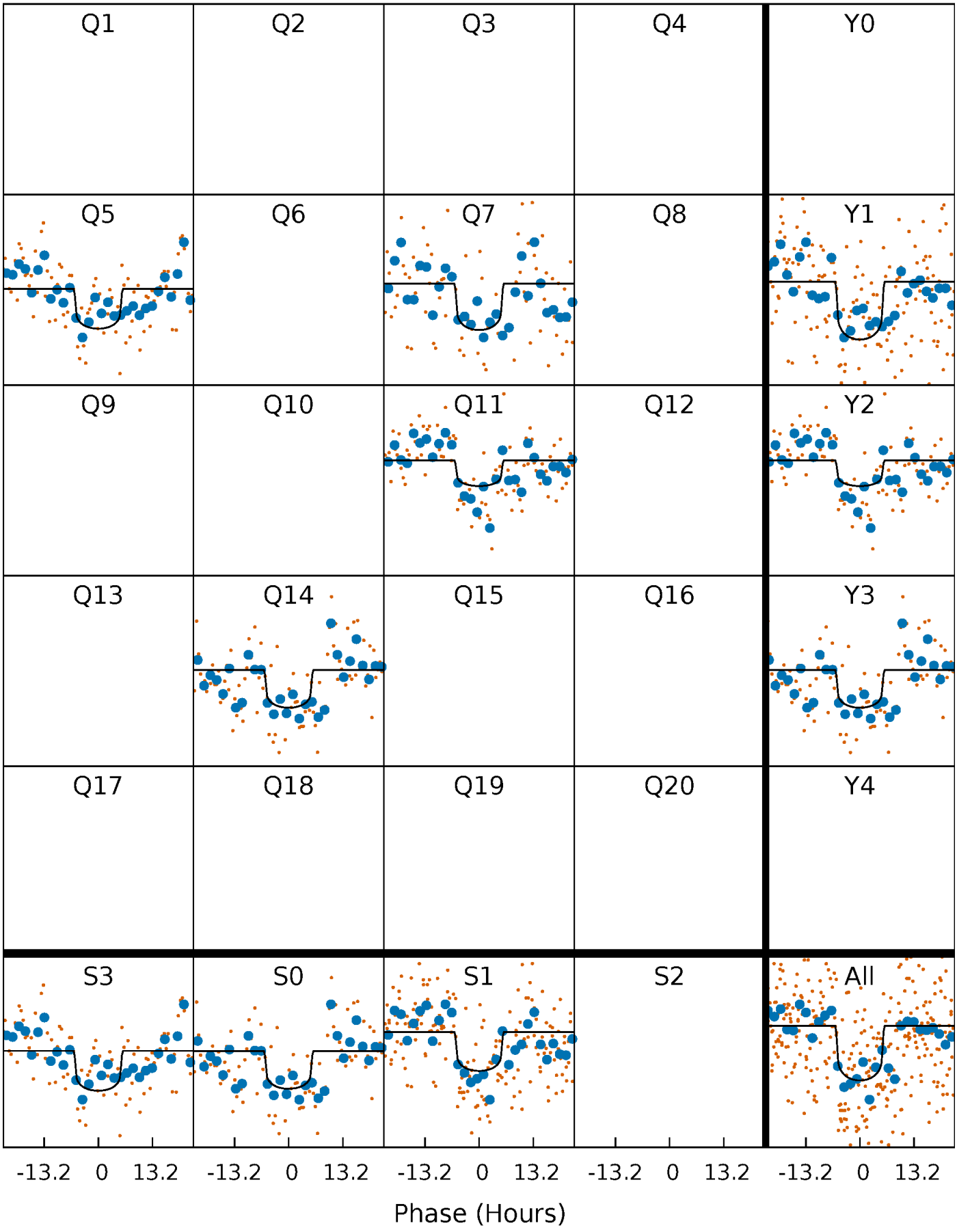
PDC Quarter-Phased Transit Curves

TCE 008307440-01 P=278.452298 Days T_0=239.485294 (BKJD)



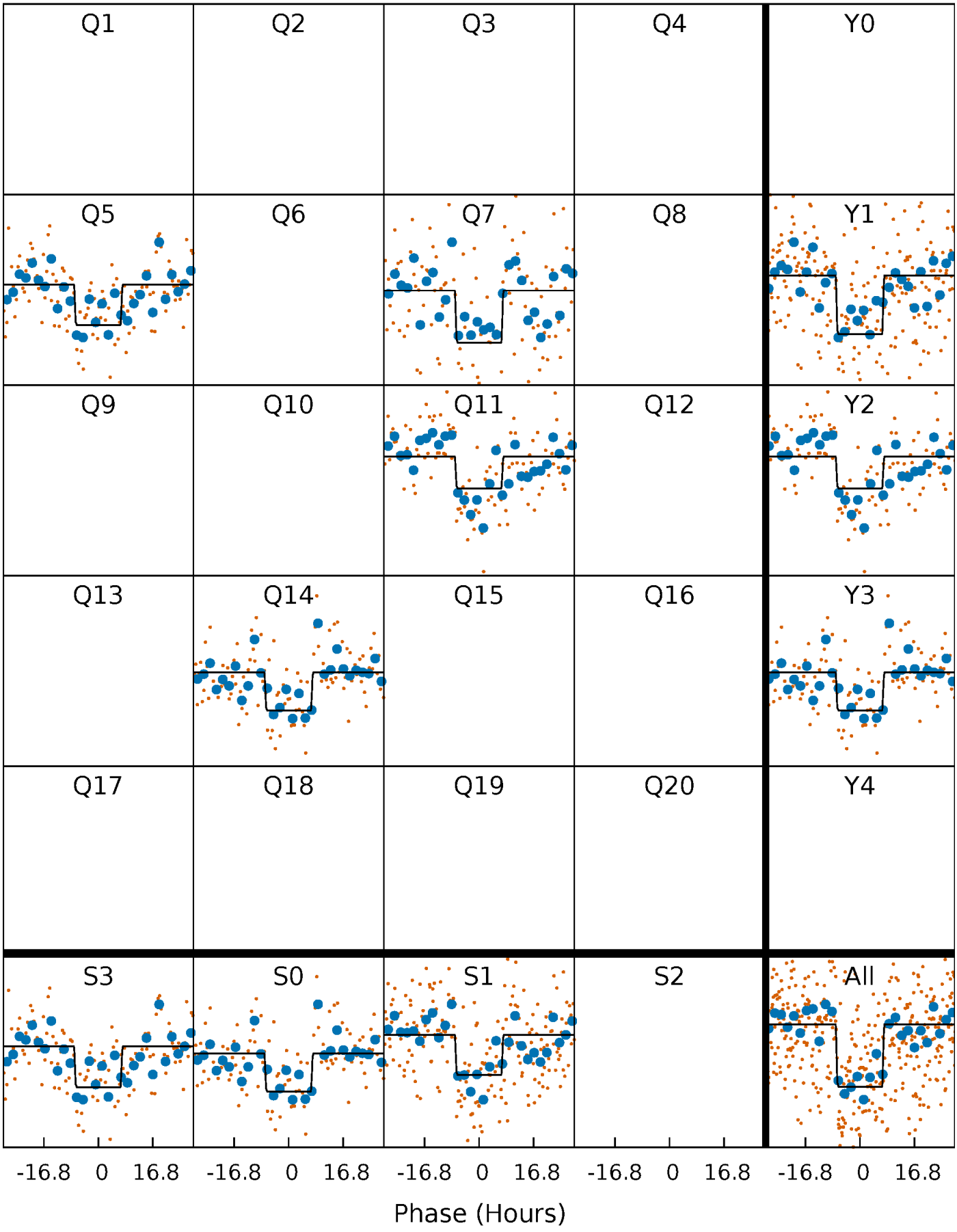
DV Quarter-Phased Transit Curves

TCE 008307440-01 P=278.452298 Days T_0=239.485294 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

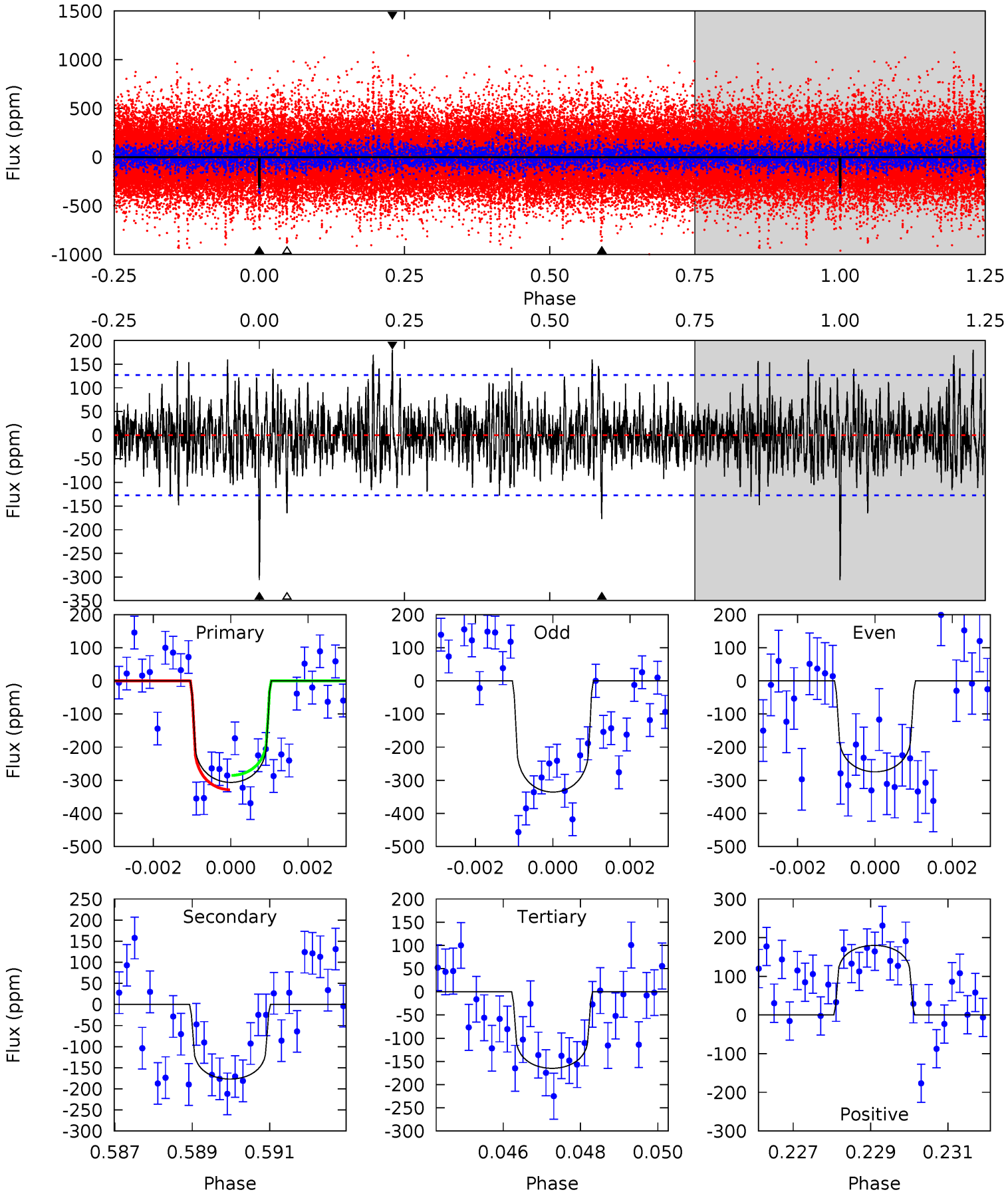
TCE 008307440-01 P=278.454933 Days T_0=239.548356 (BKJD)



DV Model-Shift Uniqueness Test

008307440-01, P = 278.452298 Days, E = 239.485294 Days

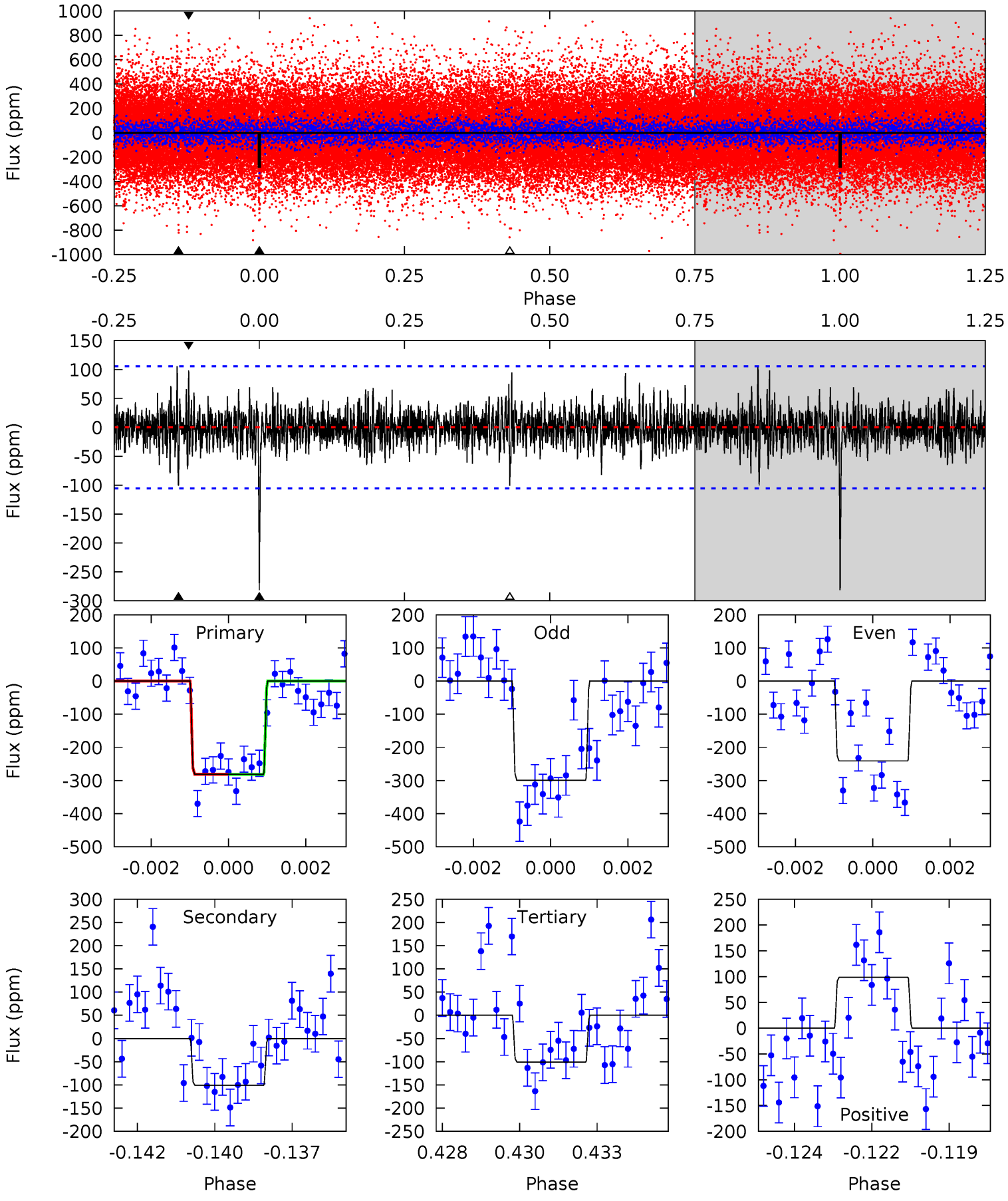
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.9	7.45	6.95	7.58	5.35	3.13	1.86	5.96	5.33	0.50	-0.13	1.30	1.12	0.37	0.91



Alt Model-Shift Uniqueness Test

008307440-01, P = 278.454933 Days, E = 239.548356 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.1	5.05	5.05	4.95	5.31	3.05	1.15	9.07	9.17	0.00	0.10	1.47	1.09	0.27	0.00



Stellar Parameters For KIC 008307440

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	6423^{+152}_{-209}	$4.434^{+0.067}_{-0.216}$	$-0.320^{+0.250}_{-0.300}$	$1.043^{+0.346}_{-0.115}$	$1.077^{+0.152}_{-0.137}$	$1.336^{+0.385}_{-0.710}$
	+2%/-3%	+2%/-5%	+78%/-94%	+33%/-11%	+14%/-13%	+29%/-53%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

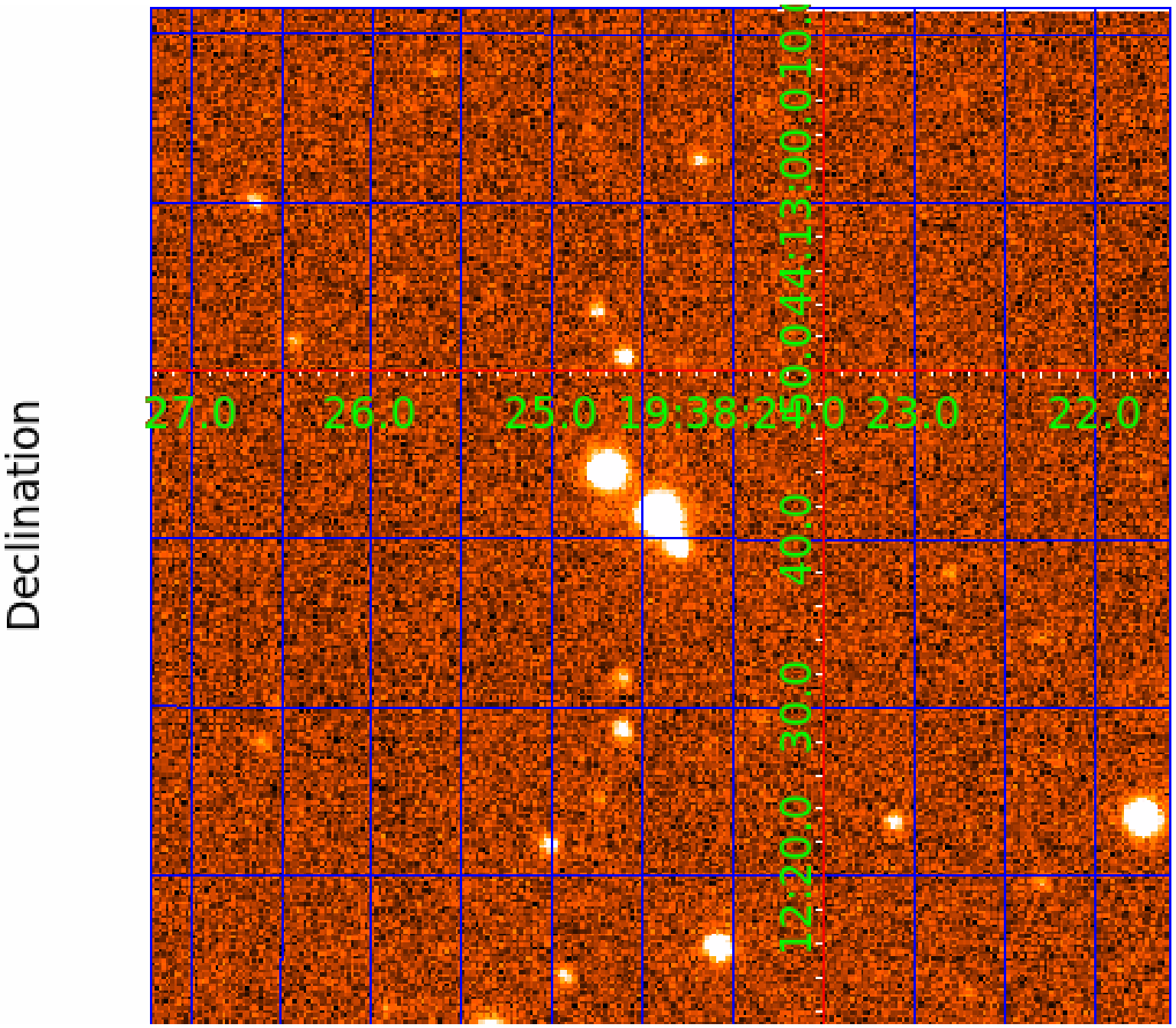
Secondary Eclipse Parameters for KIC 008307440-01 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-177±24	$2.08^{+1.20}_{-1.15}$	444^{+30}_{-23}	5614^{+3020}_{-998}	16229^{+63909}_{-9626}
Alt.	-101±20	$2.09^{+1.39}_{-1.14}$	443^{+33}_{-21}	4883^{+2284}_{-818}	8924^{+32679}_{-5625}

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
27.0
26.0
25.0
19:38:24.0
23.0
22.0
44:13:00.0
40.0
30.0
12:20.0