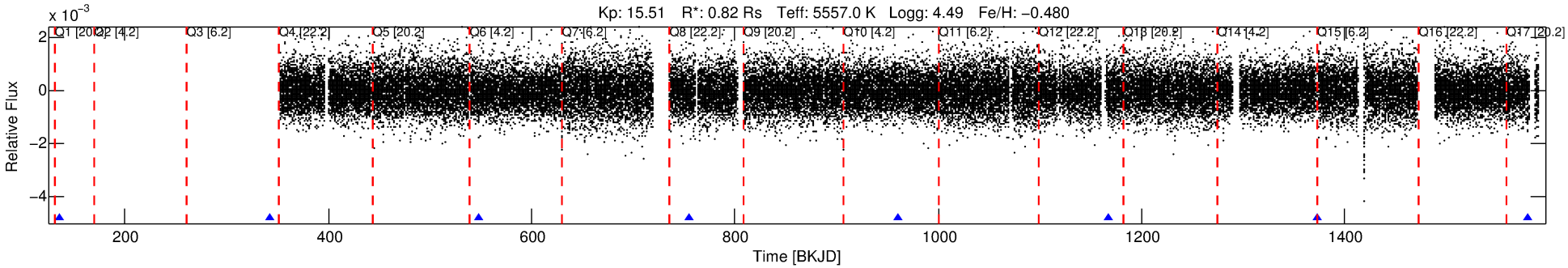
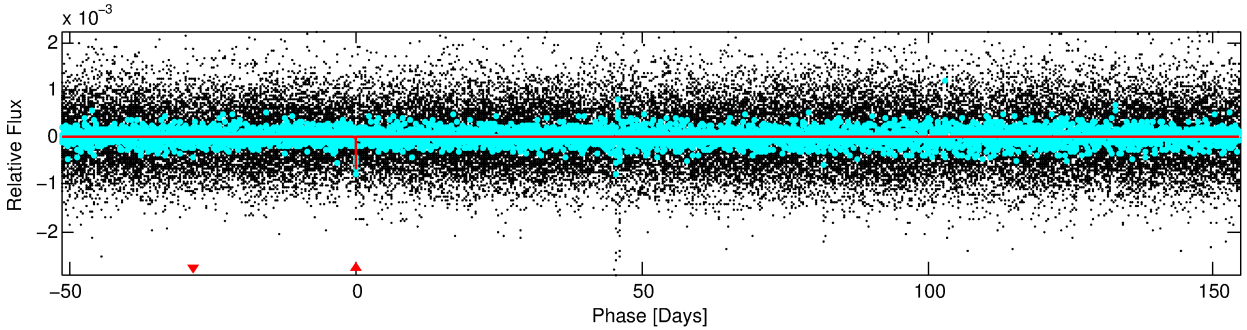
WARNING: THIS DATA IS SIMULATED, NOT OBSERVED

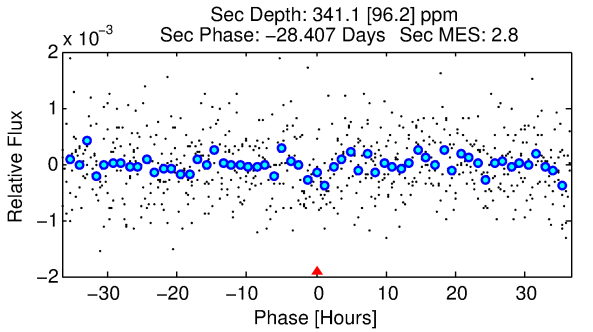
DV One-Page Summary

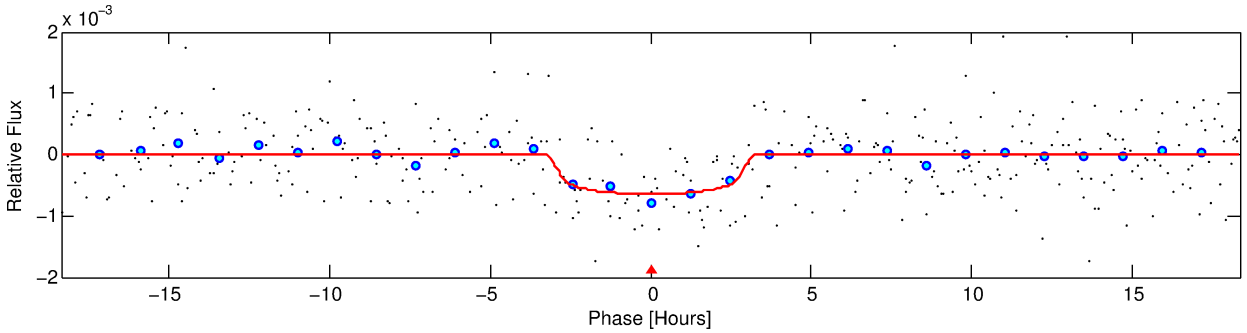
KIC: 6633664 Candidate: 1 of 1 Period: 206.168 d

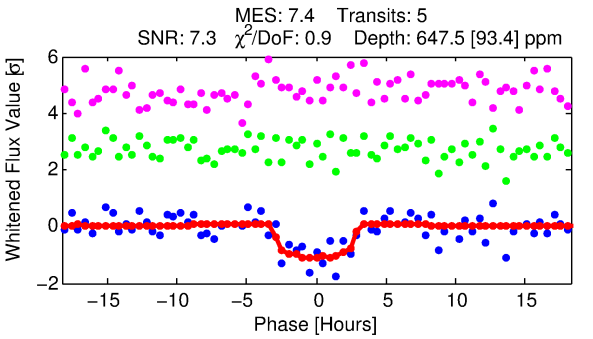
WARNING: THIS DATA IS SIMULATED, NOT OBSERVED

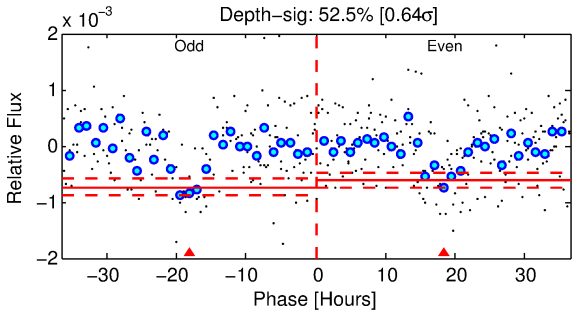


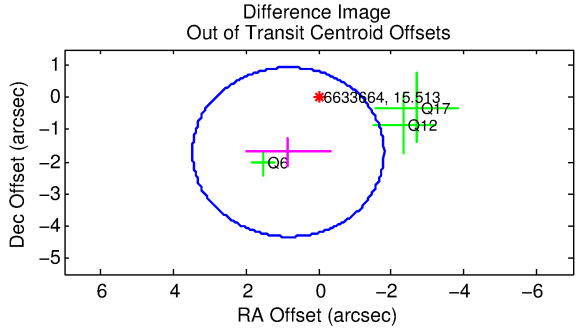












DV Fit Results:

Period = 206.16784 [0.00453] d
Epoch = 136.1575 [0.0220] BKJD
Rp/R* = 0.0242 [0.0331]
a/R* = 215.85 [1311.36]
b = 0.59 [6.82]

Seff = 1.47 [0.41]
Teq = 281 [20] K
Rp = 2.16 [2.99] Re
a = 0.6218 [0.1040] AU

Ag = 15581.01 [43059.99] [0.36σ]
Teffp = 4854 [3345] K [1.37σ]

DV Diagnostic Results:

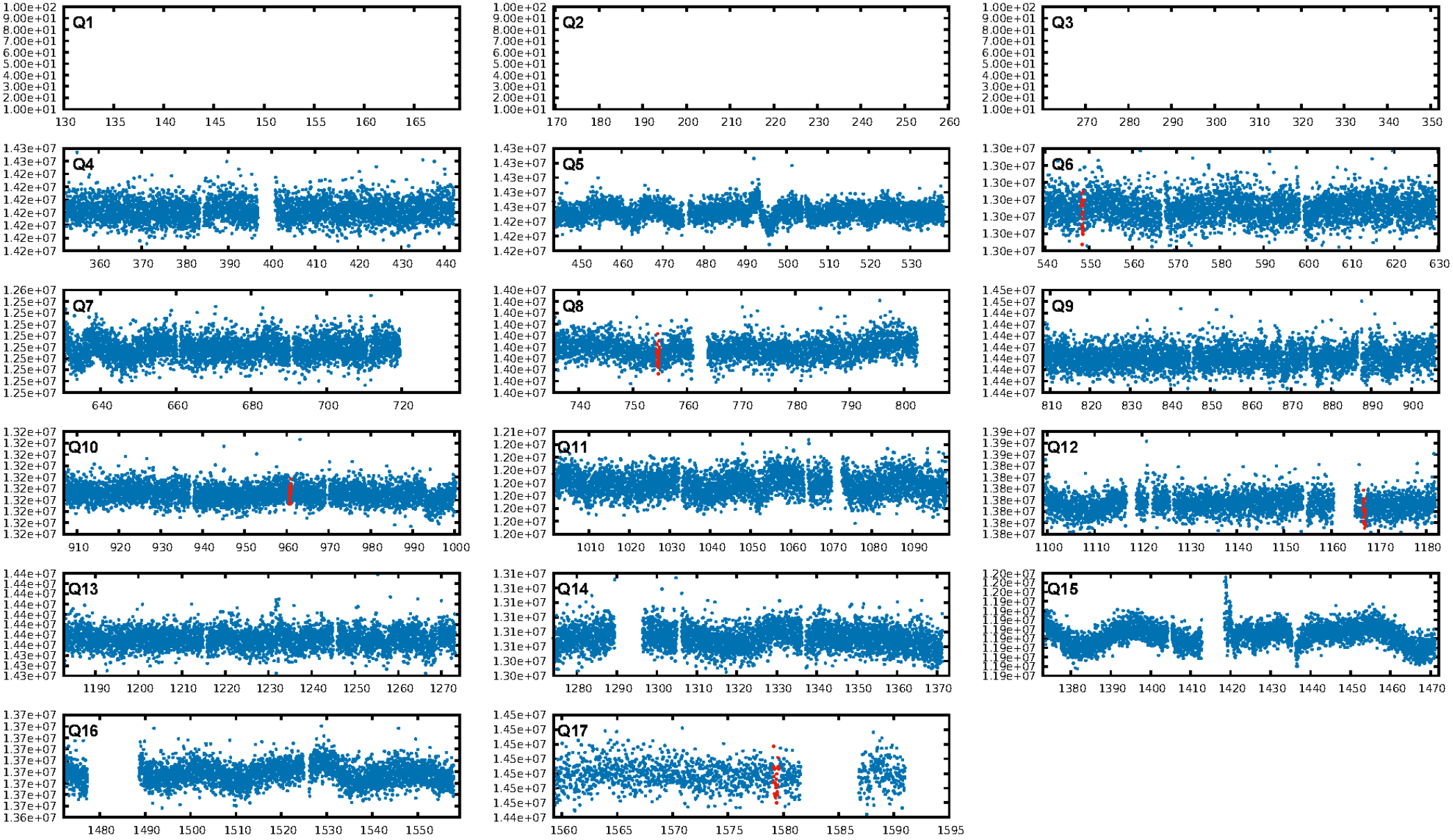
ShortPeriod−sig: N/A
LongPeriod−sig: N/A
ModelChiSquare2−sig: 9.5%
ModelChiSquareGof−sig: 99.9%
Bootstrap−pfa: 3.06e−14
RollingBand−fgt: 1.00 [4/4]
GhostDiagnostic−chr: 10.9

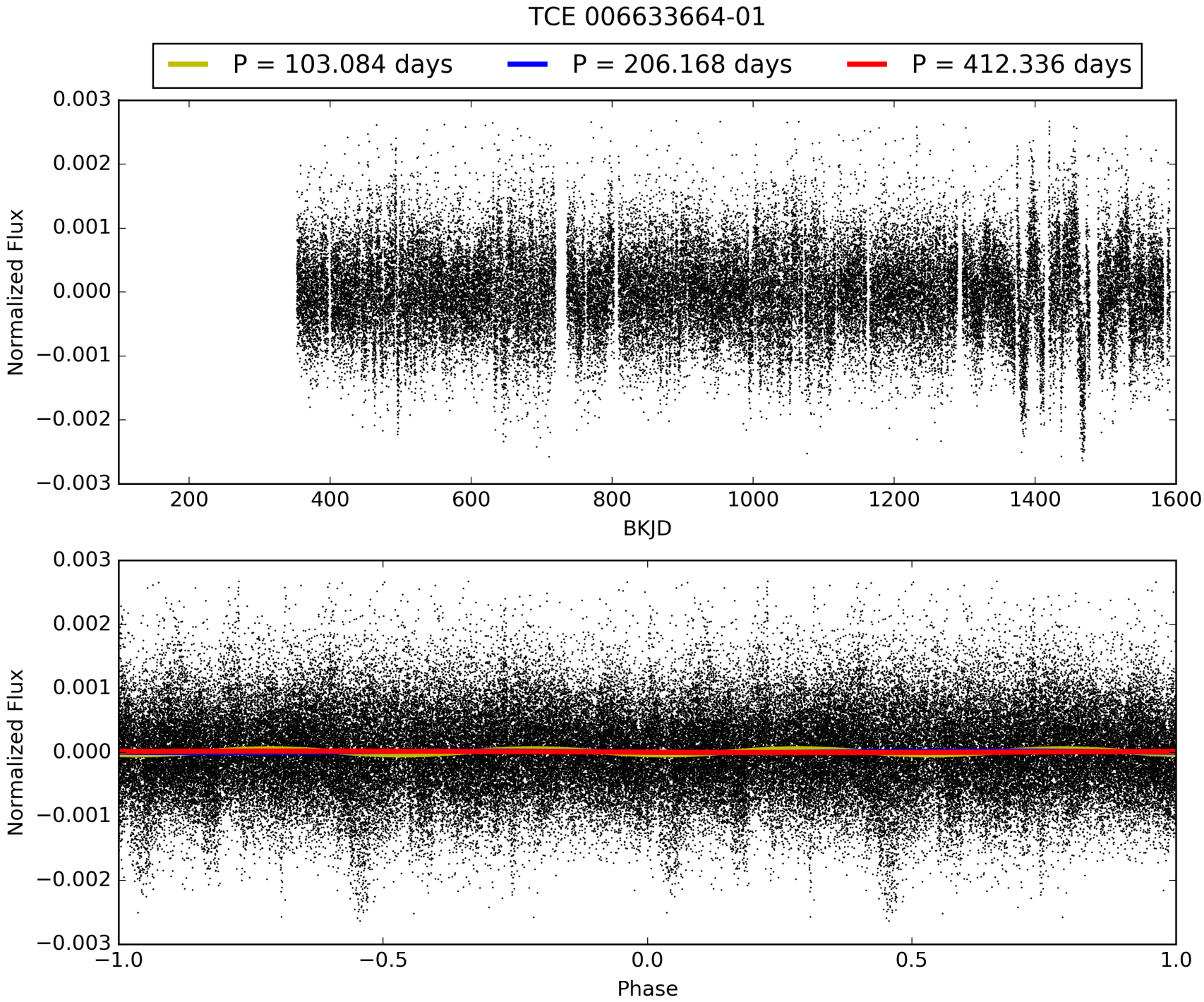
Centroid−sig: 87.7%
Centroid−so: 1.767 arcsec [1.47σ]
OotOffset−rm: 1.895 arcsec [2.15σ]
KicOffset−rm: 2.565 arcsec [4.00σ]
OotOffset−st: 1/0/1/1 [3]
KicOffset−st: 1/0/1/1 [3]
DiffImageQuality−fgm: 0.67 [2/3]
DiffImageOverlap−fno: 1.00 [5/5]

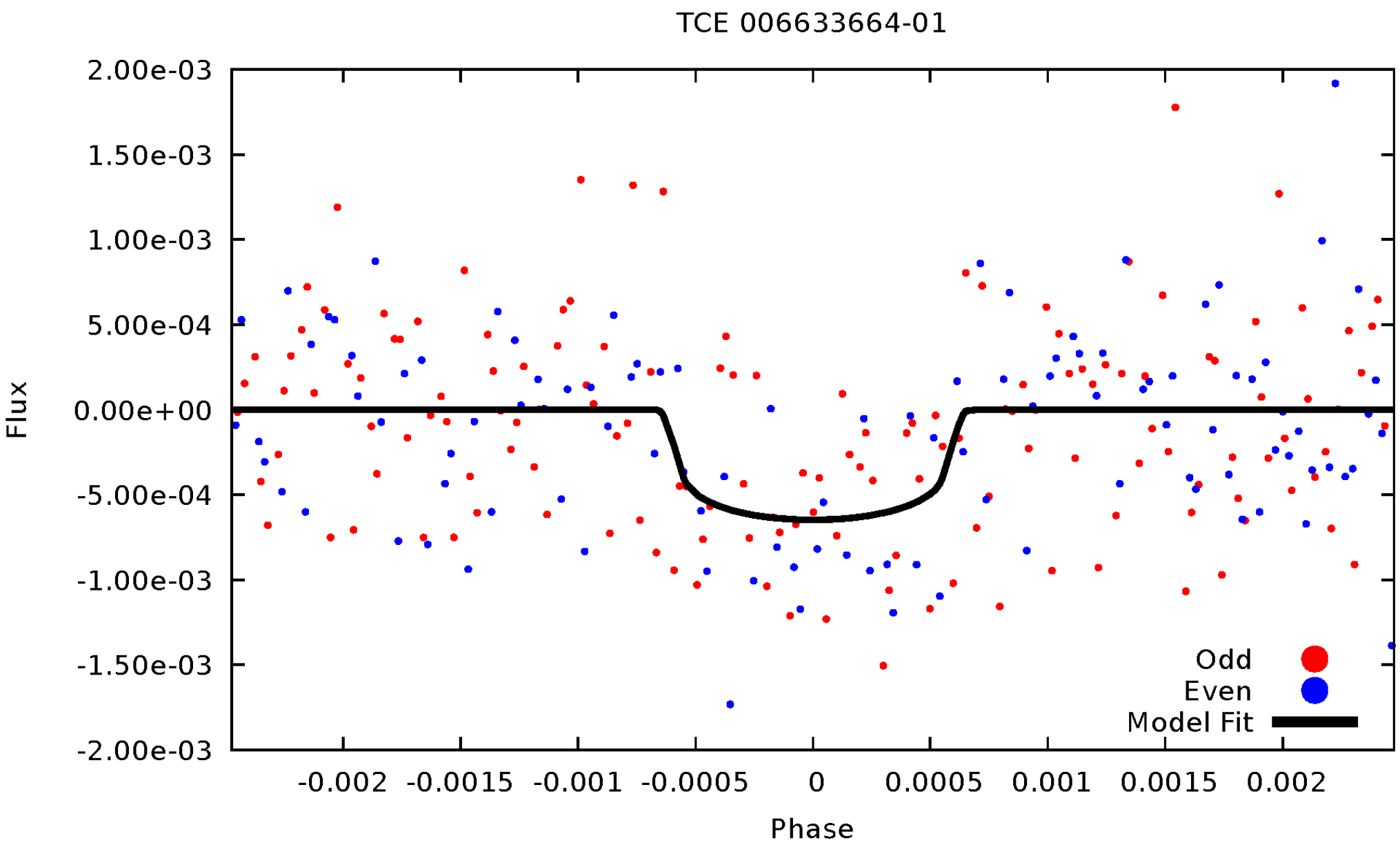
Software Revision: svn+ssh://murzim/repo/soc/branches/integ/ksop−2174@60968 −− Date Generated: 05−Mar−2016 15:40:59 Z

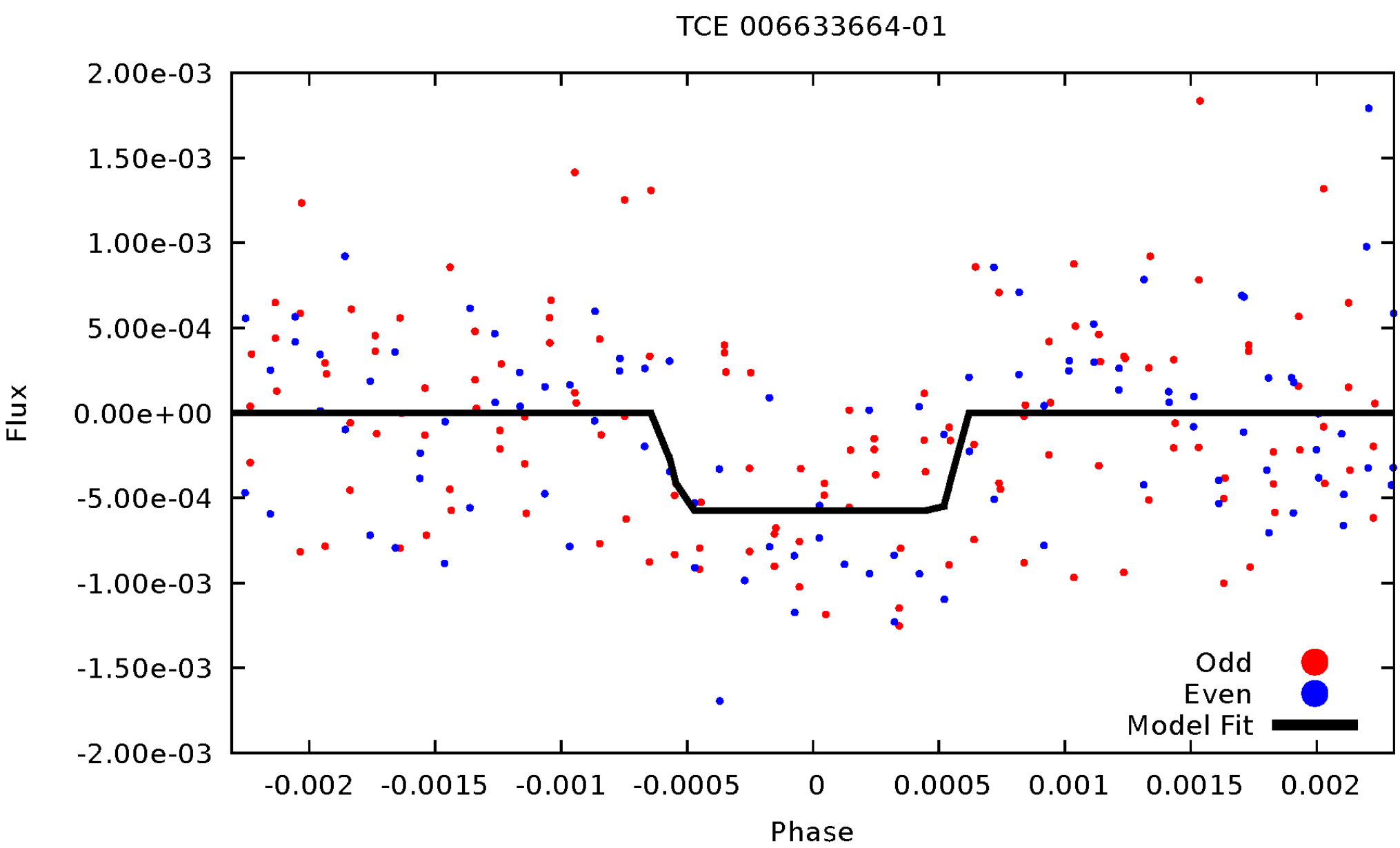
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006633664-01, PDC Light Curves

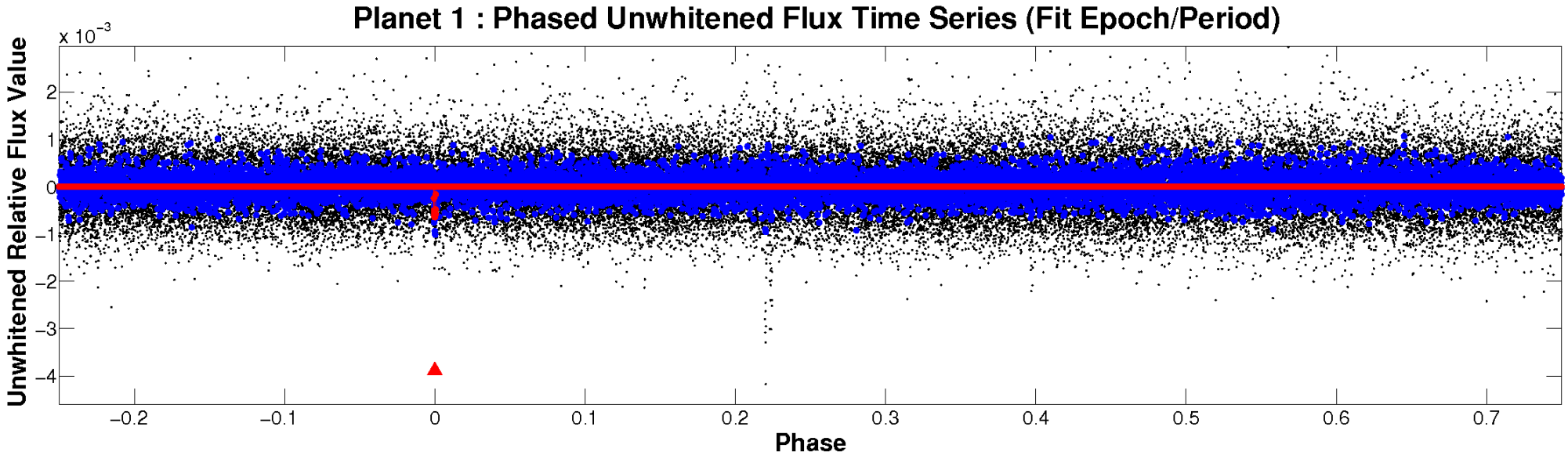


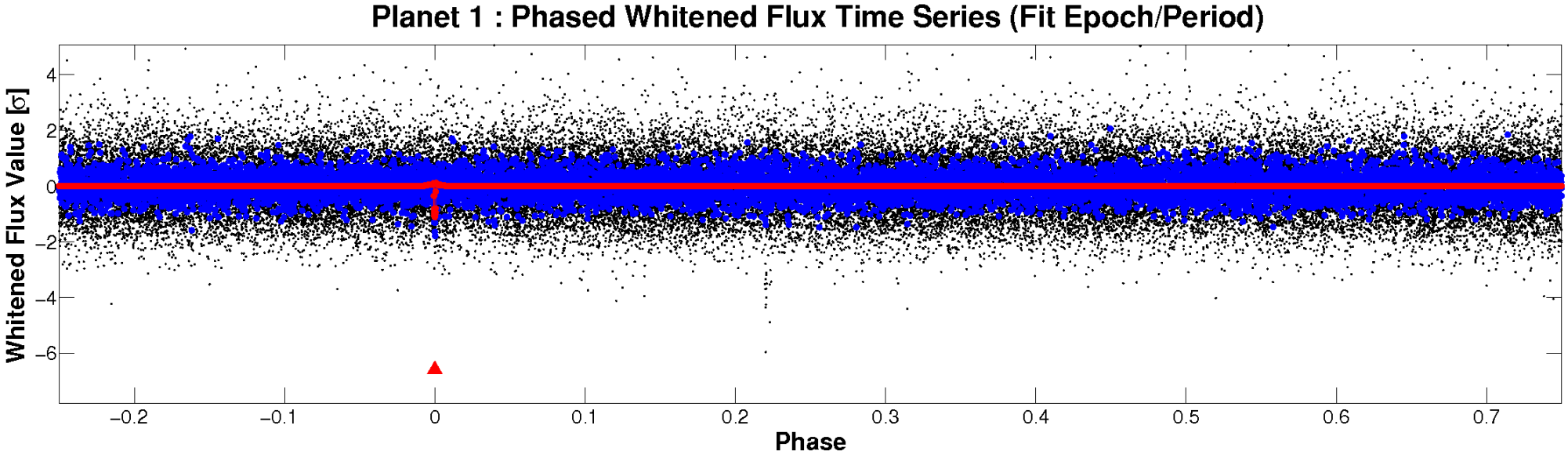

TCE 006633664-01
P = 103.084 days
P = 206.168 days
P = 412.336 days
Normalized Flux
0.003
0.002
0.001
0.000
−0.001
−0.002
−0.003
200
400
600
800
1000
1200
1400
1600
BKJD
Normalized Flux
0.003
0.002
0.001
0.000
−0.001
−0.002
−0.003
−1.0
−0.5
0.0
0.5
1.0
Phase


DV Odd/Even
TCE 006633664-01
2.00e-03
1.50e-03
1.00e-03
5.00e-04
0.00e+00
-5.00e-04
-1.00e-03
-1.50e-03
-2.00e-03
Flux
-0.002
-0.0015
-0.001
-0.0005
0
0.0005
0.001
0.0015
0.002
Phase
Odd
Even
Model Fit


ALT Odd/Even
TCE 006633664-01
2.00e-03
1.50e-03
1.00e-03
5.00e-04
0.00e+00
-5.00e-04
-1.00e-03
-1.50e-03
-2.00e-03
Flux
-0.002
-0.0015
-0.001
-0.0005
0
0.0005
0.001
0.0015
0.002
Phase
Odd
Even
Model Fit

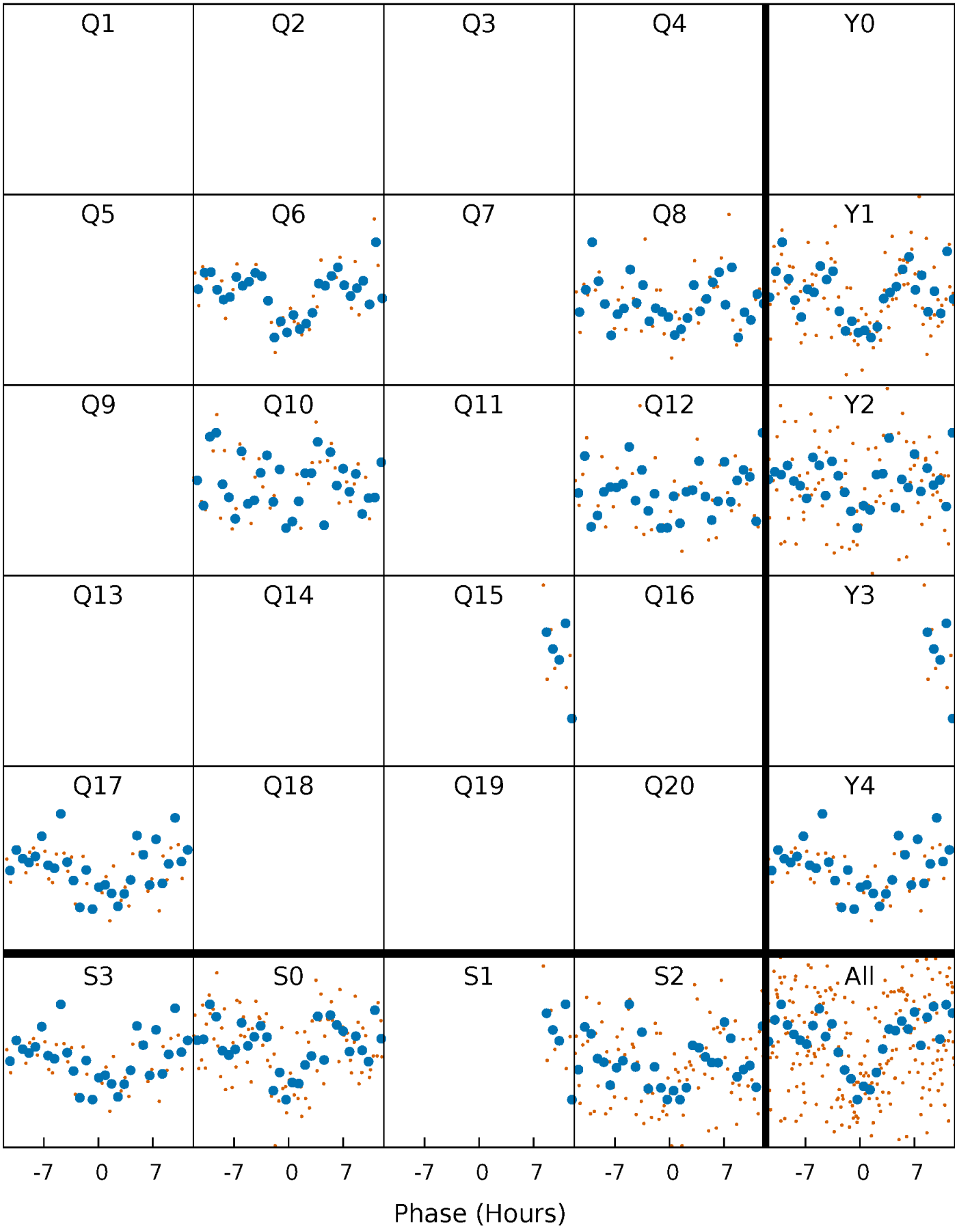
Non-Whitened Vs. Whitened Light Curve





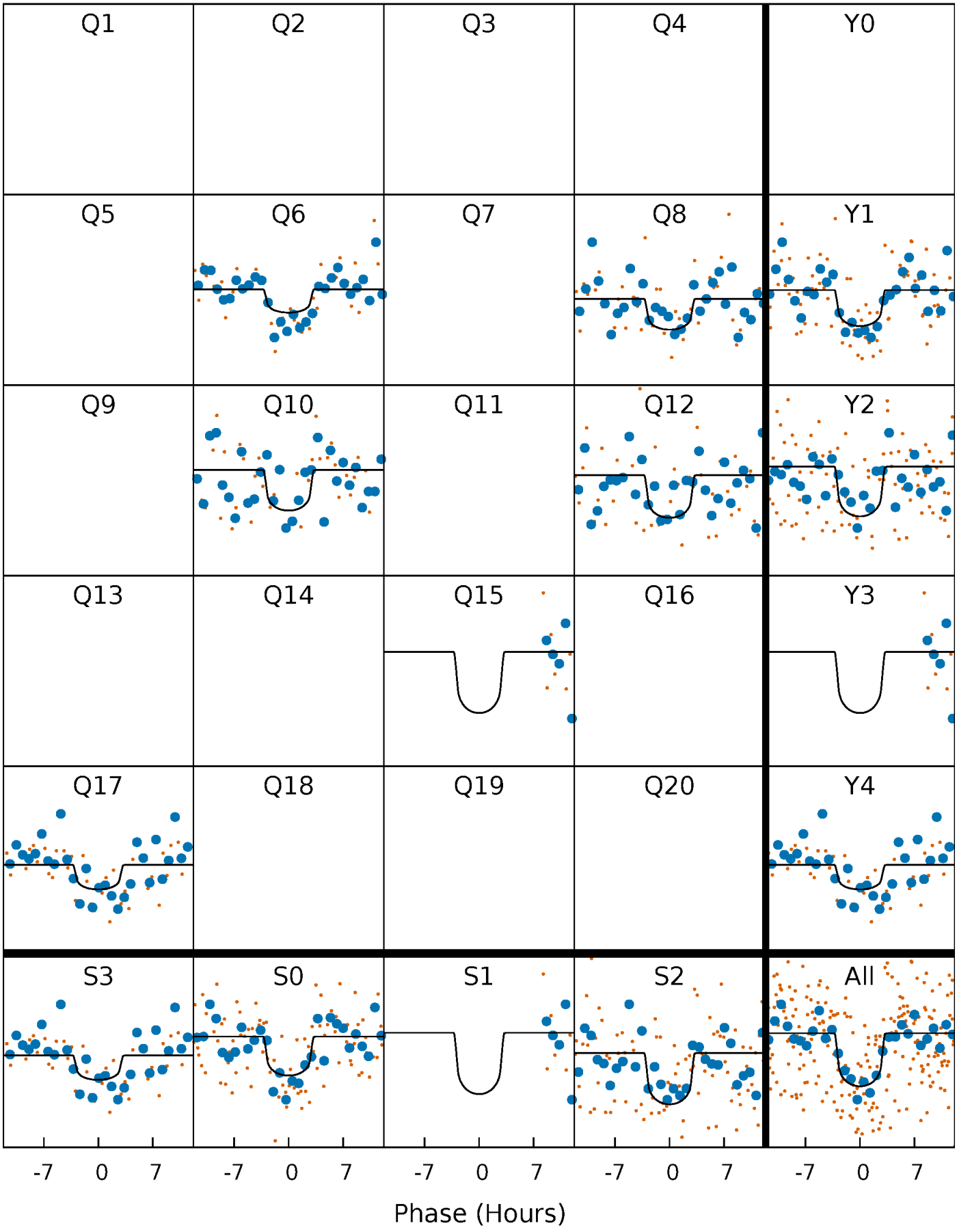
PDC Quarter-Phased Transit Curves

TCE 006633664-01 P=206.167836 Days T_0=136.157481 (BKJD)



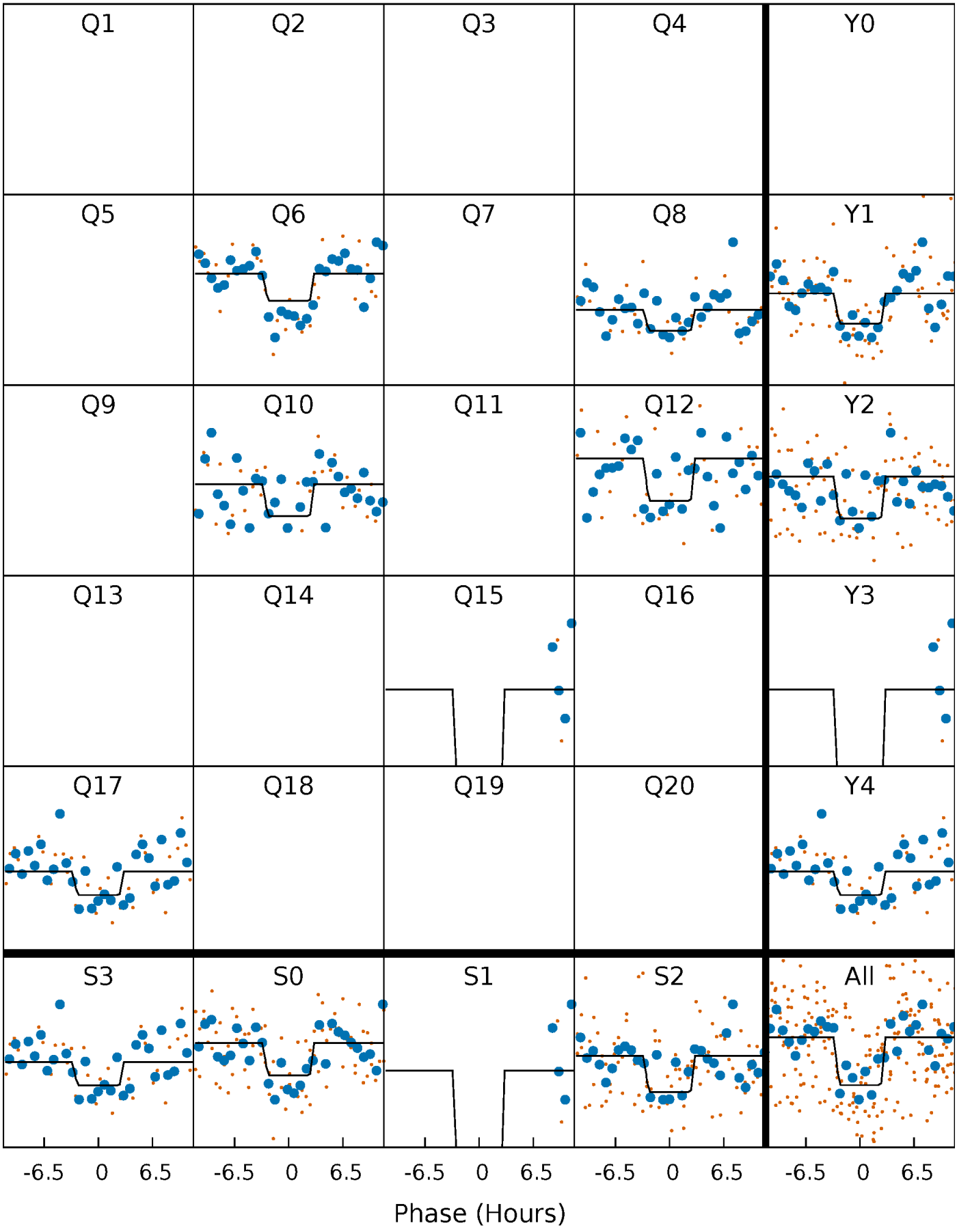
DV Quarter-Phased Transit Curves

TCE 006633664-01 P=206.167836 Days T_0=136.157481 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

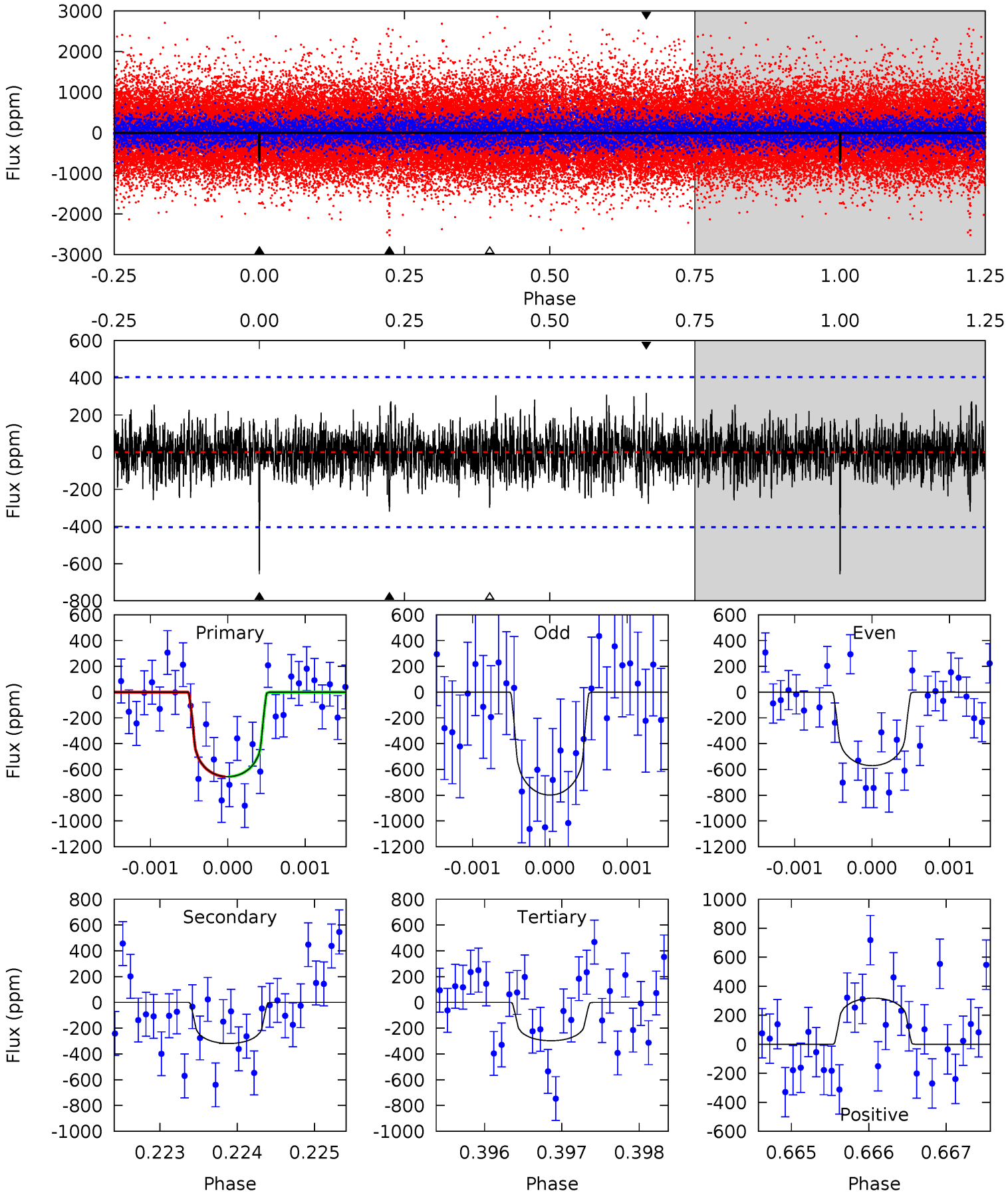
TCE 006633664-01 P=206.165323 Days T_0=136.166254 (BKJD)



DV Model-Shift Uniqueness Test

006633664-01, P = 206.167836 Days, E = 136.157481 Days

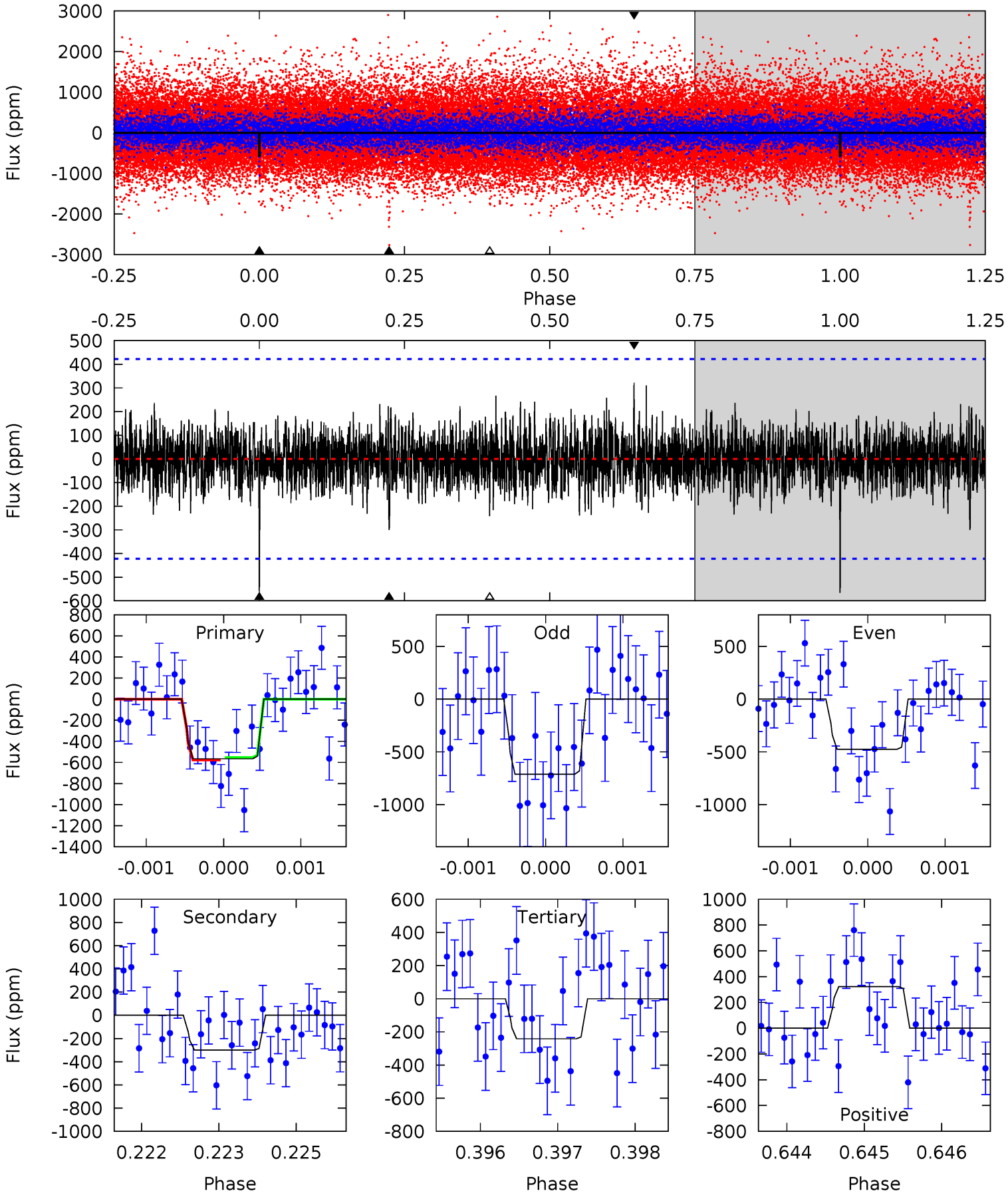
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.80	4.27	3.99	4.26	5.41	3.22	1.13	4.81	4.53	0.28	0.01	1.50	1.38	0.33	0.01



Alt Model-Shift Uniqueness Test

006633664-01, P = 206.165323 Days, E = 136.166254 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.26	3.85	3.10	4.14	5.42	3.24	0.96	4.16	3.12	0.75	-0.29	1.46	1.21	0.36	0.13



Stellar Parameters For KIC 006633664

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	5557^{+194}_{-194}	$4.491^{+0.108}_{-0.132}$	$-0.480^{+0.300}_{-0.300}$	$0.817^{+0.163}_{-0.109}$	$0.754^{+0.110}_{-0.047}$	$1.950^{+0.901}_{-0.722}$
	+3%/-3%	+2%/-3%	+62%/-62%	+20%/-13%	+15%/-6%	+46%/-37%
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 006633664-01 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-319±75	$3.07^{+2.69}_{-2.09}$	395^{+25}_{-21}	4323^{+2822}_{-898}	7627^{+61929}_{-5637}
Alt.	-300±78	$3.12^{+2.79}_{-2.11}$	395^{+24}_{-19}	4175^{+2597}_{-803}	6580^{+51756}_{-4768}

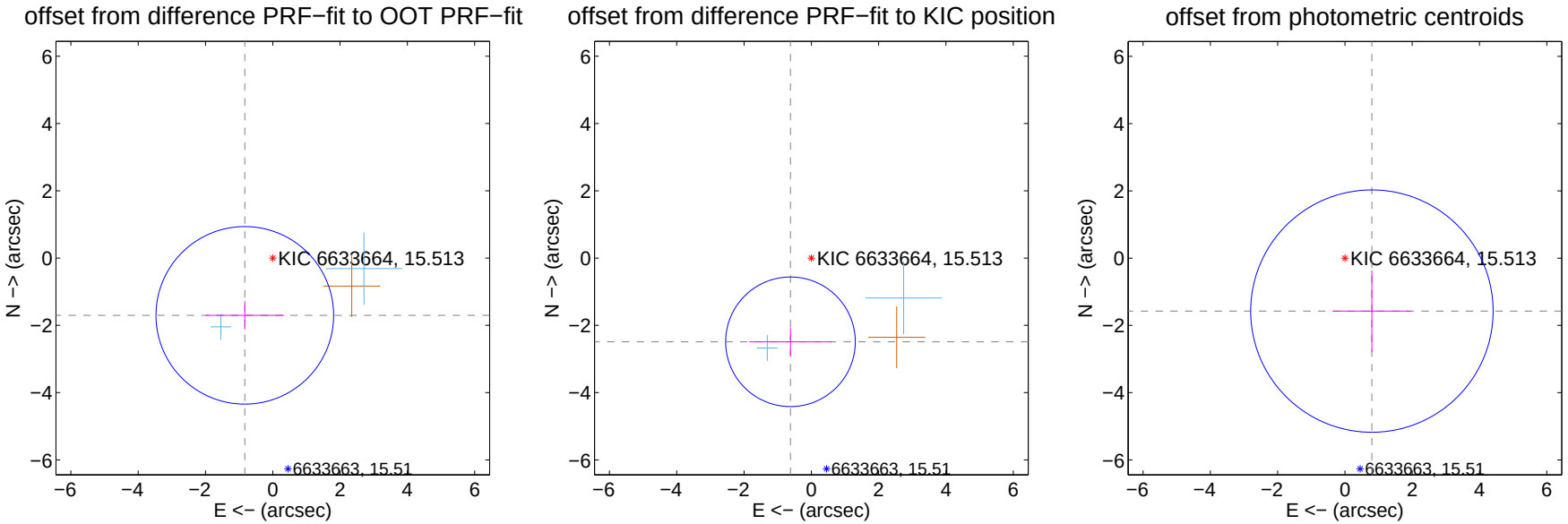
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

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

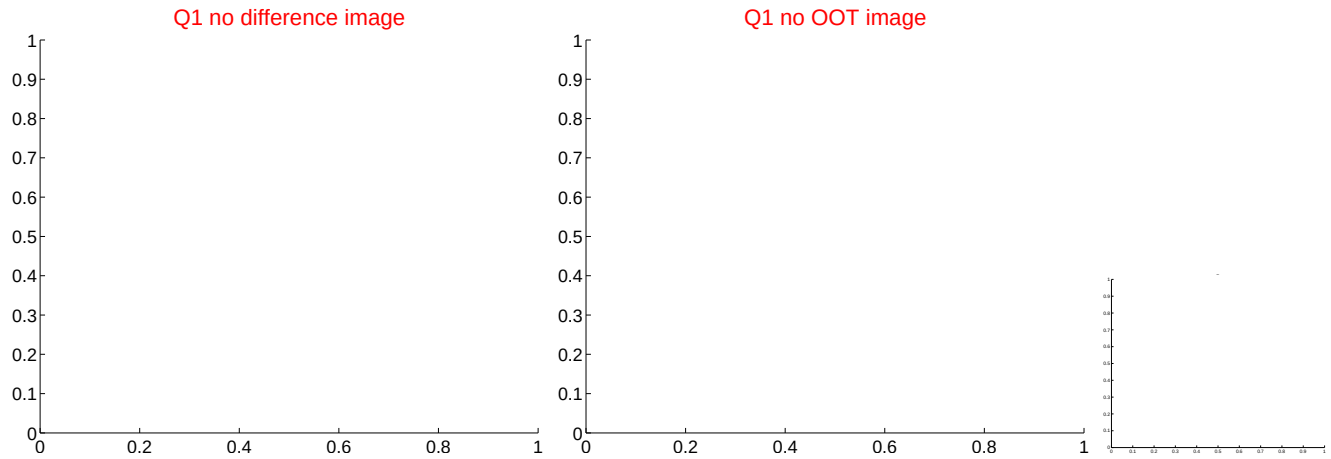
Supplemental centroid analysis for 006633664-01. Kepler magnitude: 15.51. Transit SNR 7.25
There are 2 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.87 arcsec

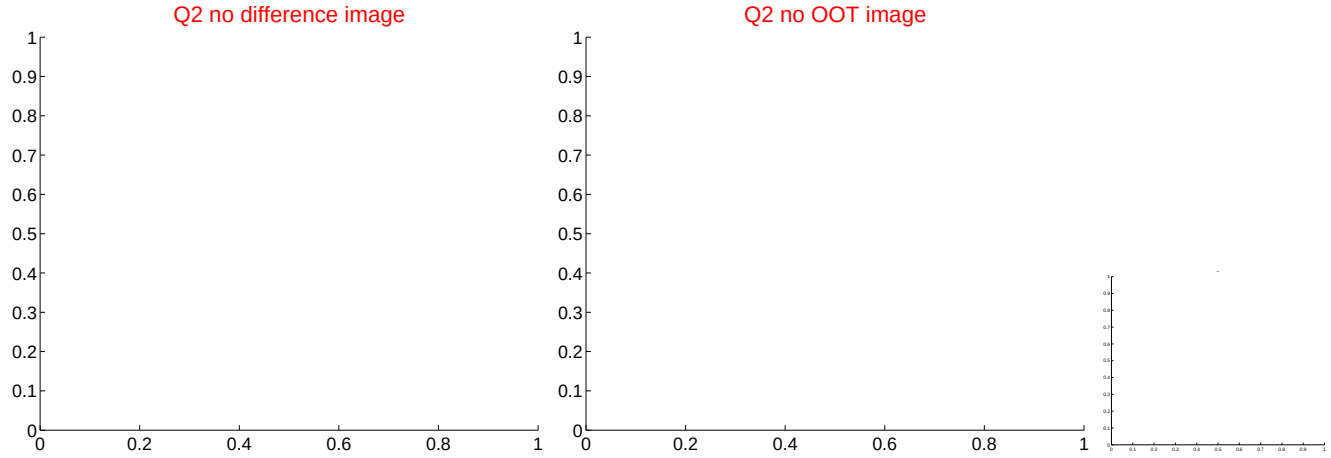
	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.895 ± 0.880	2.15	0.831 ± 1.162	-1.703 ± 0.420
PRF-fit source offset from KIC position	2.565 ± 0.642	4.00	0.620 ± 1.222	-2.489 ± 0.421
photometric centroid source offset	1.77 ± 1.20	1.47	-0.80 ± 1.17	-1.57 ± 1.21

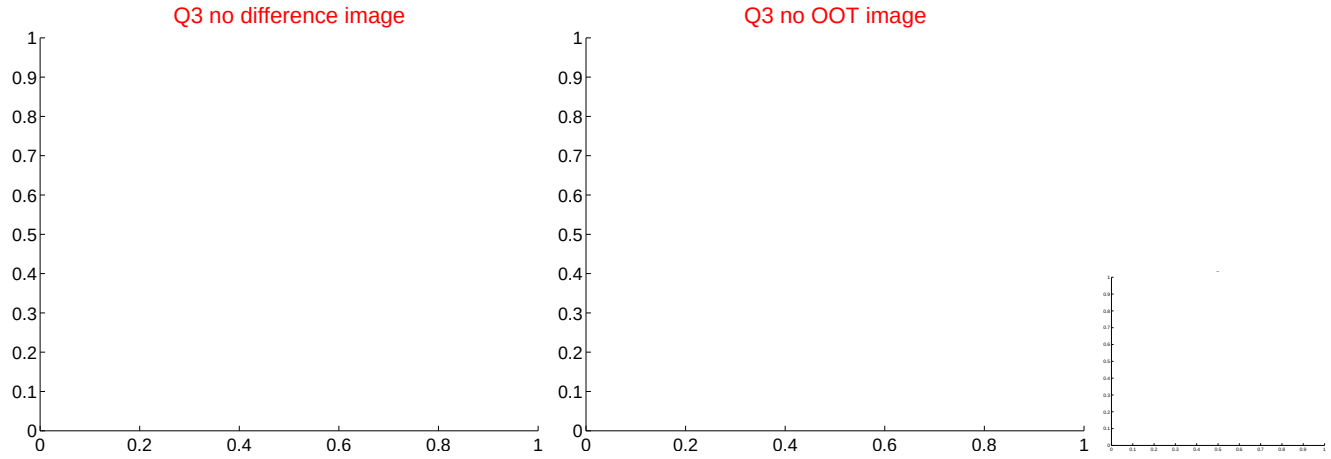


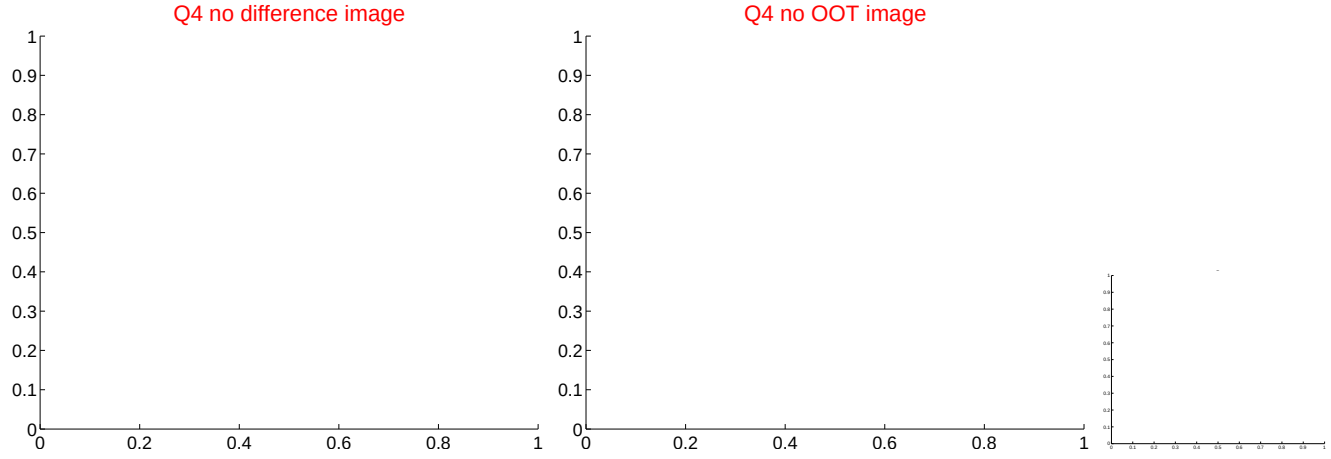
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red *: 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 ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

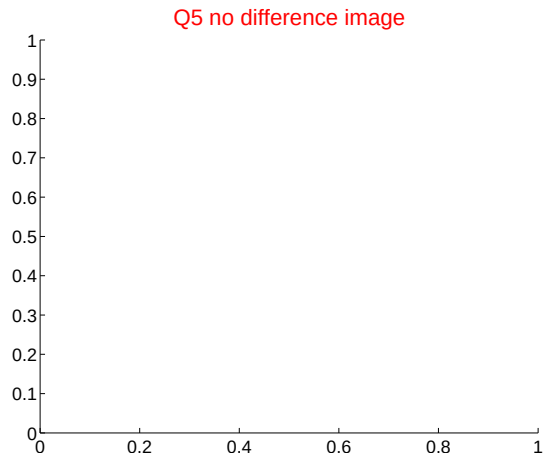


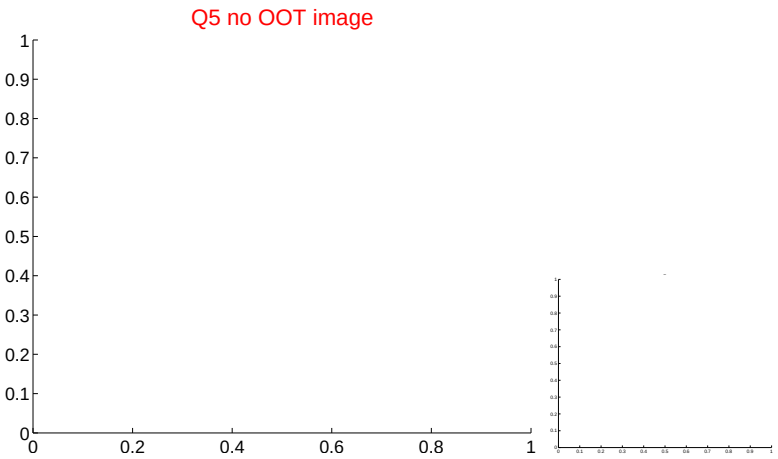


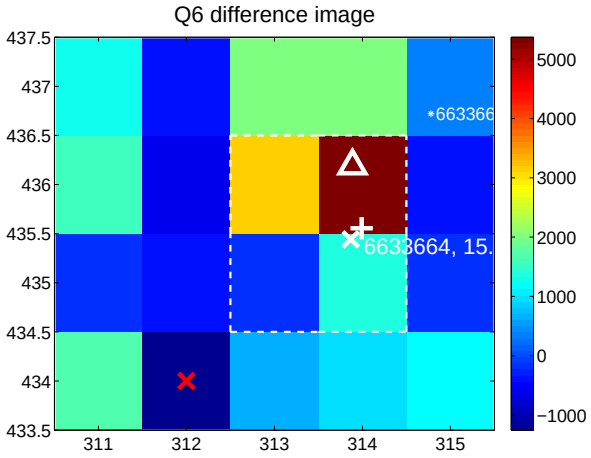


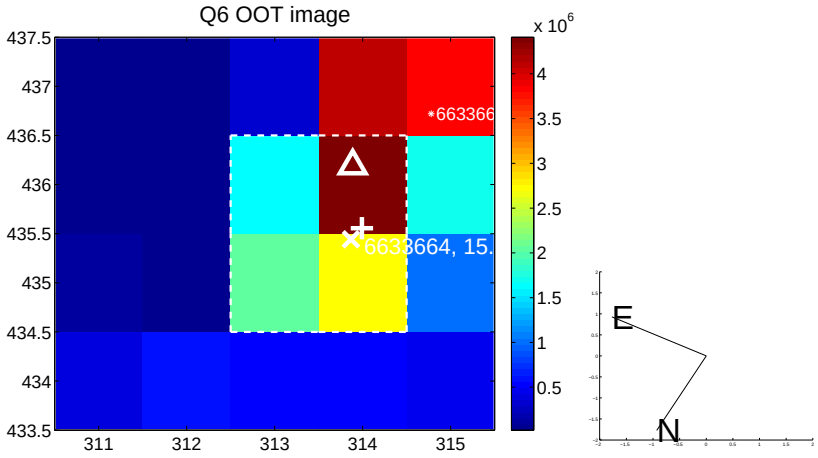


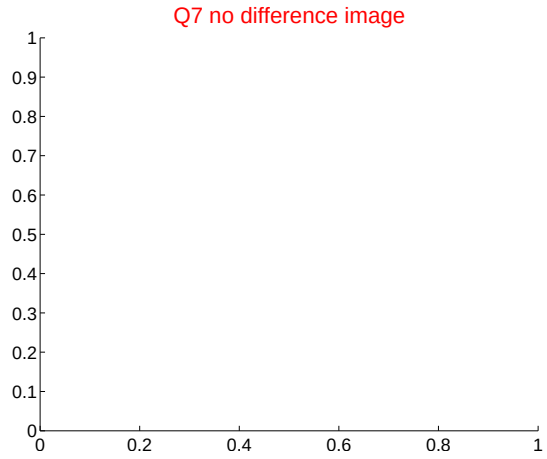
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

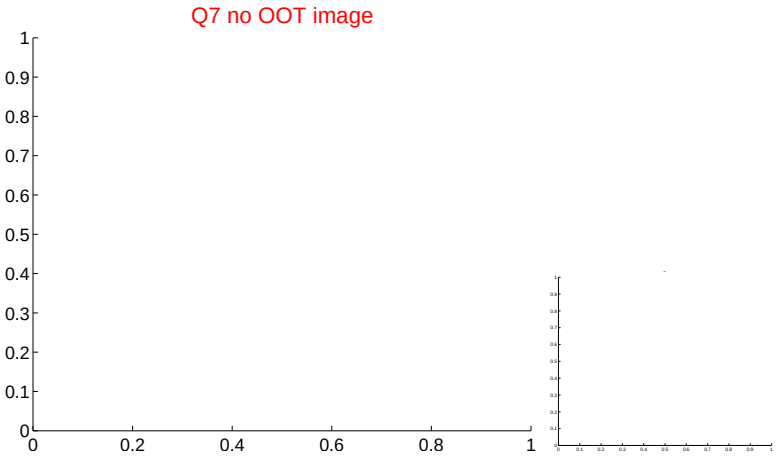


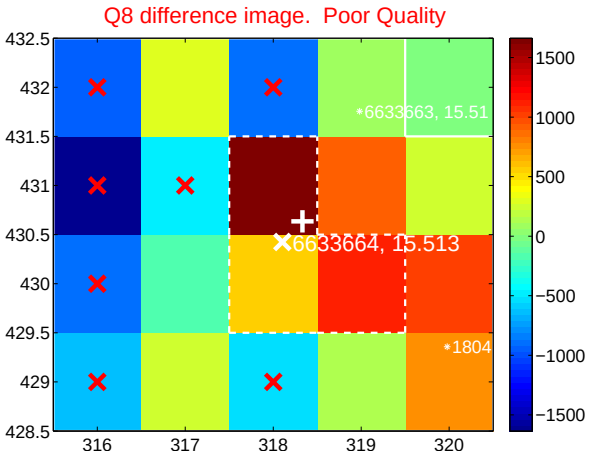


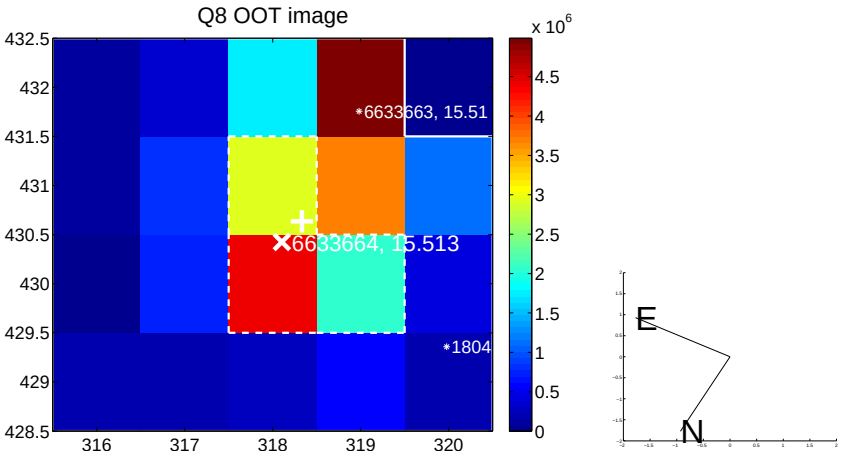




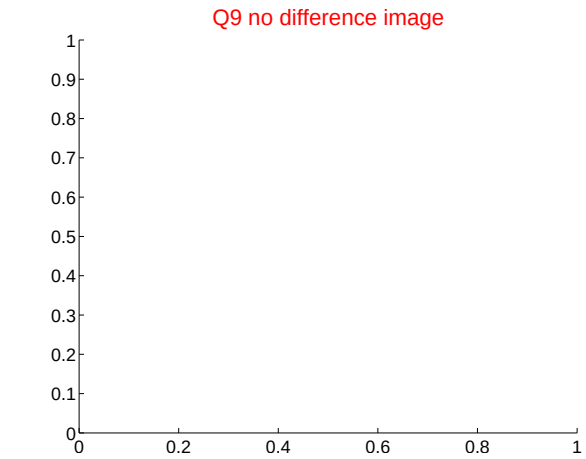


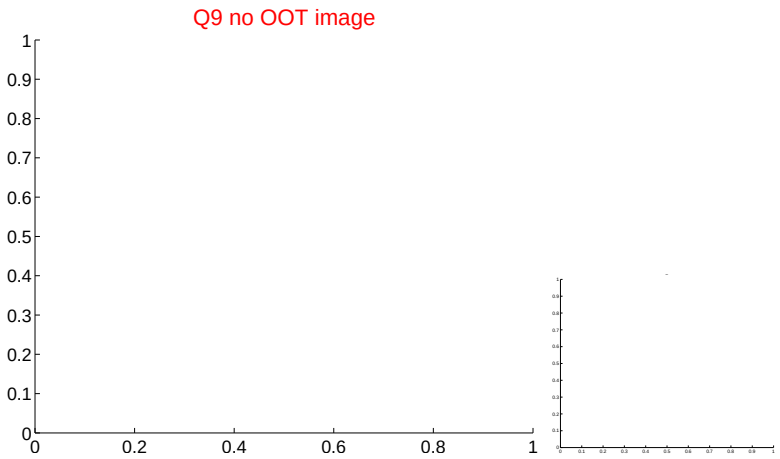


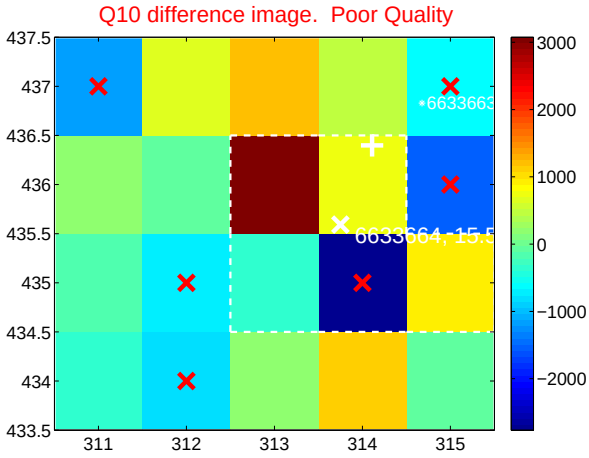


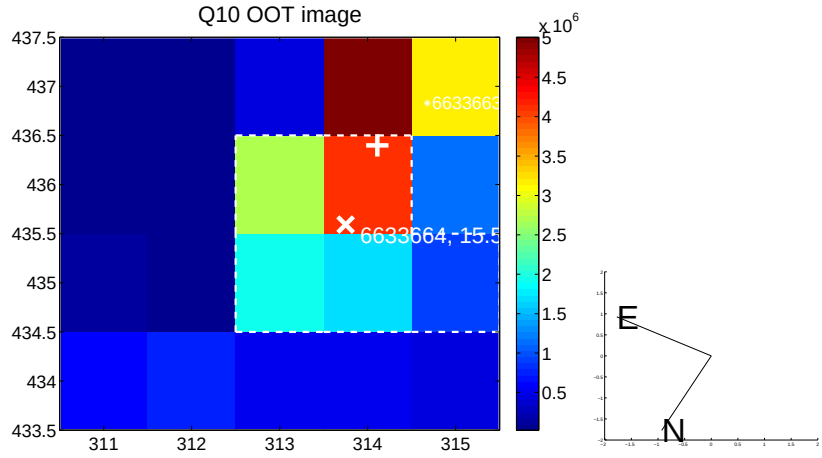


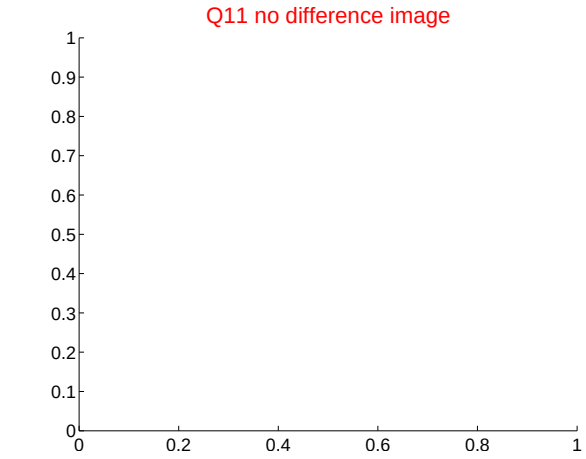
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

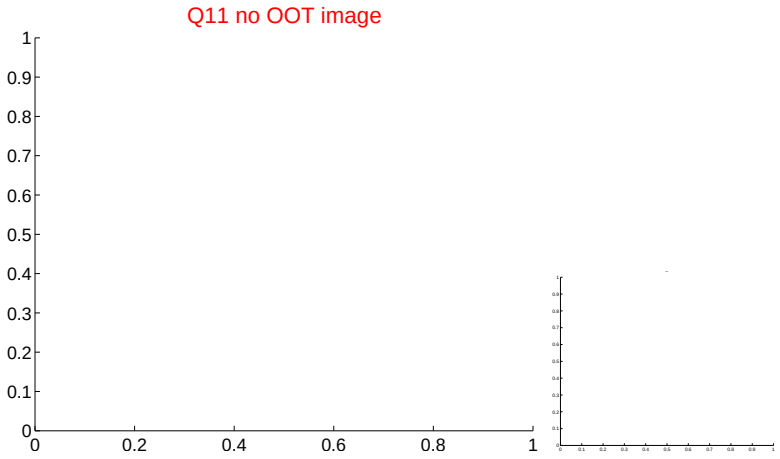


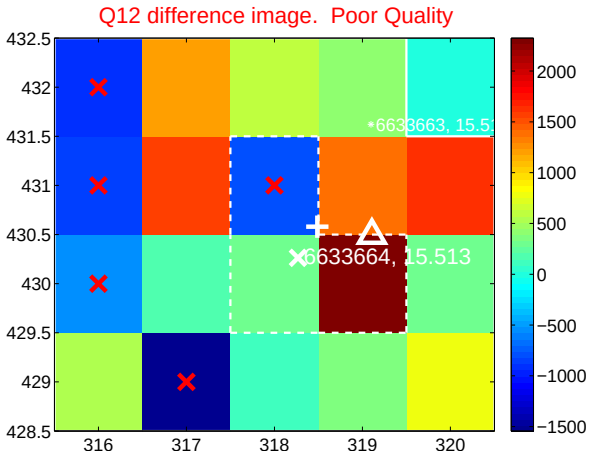


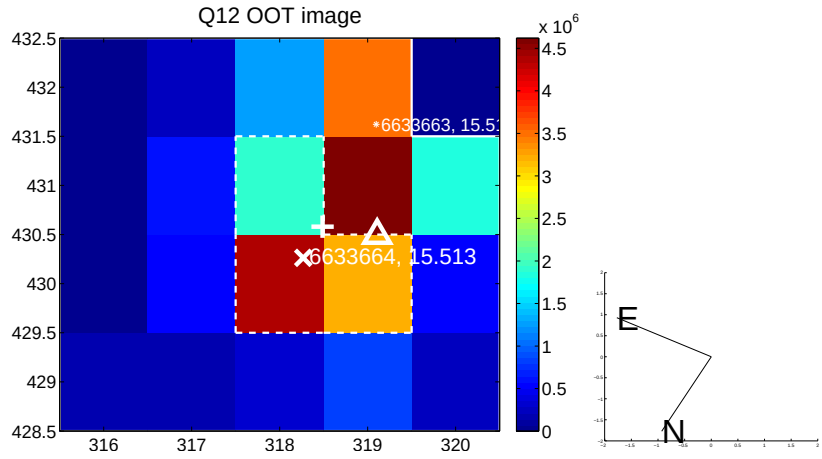




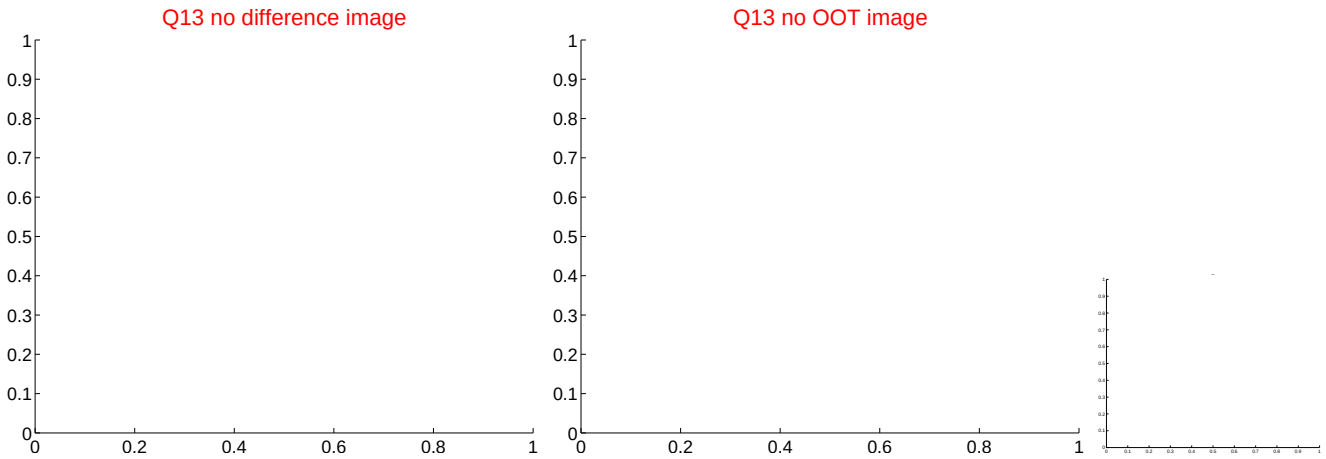


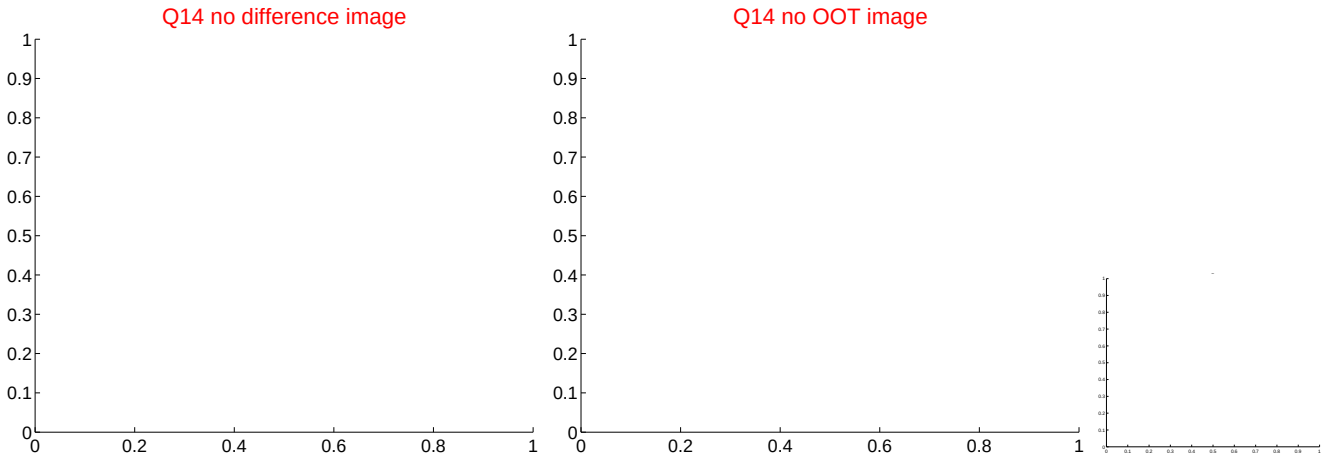


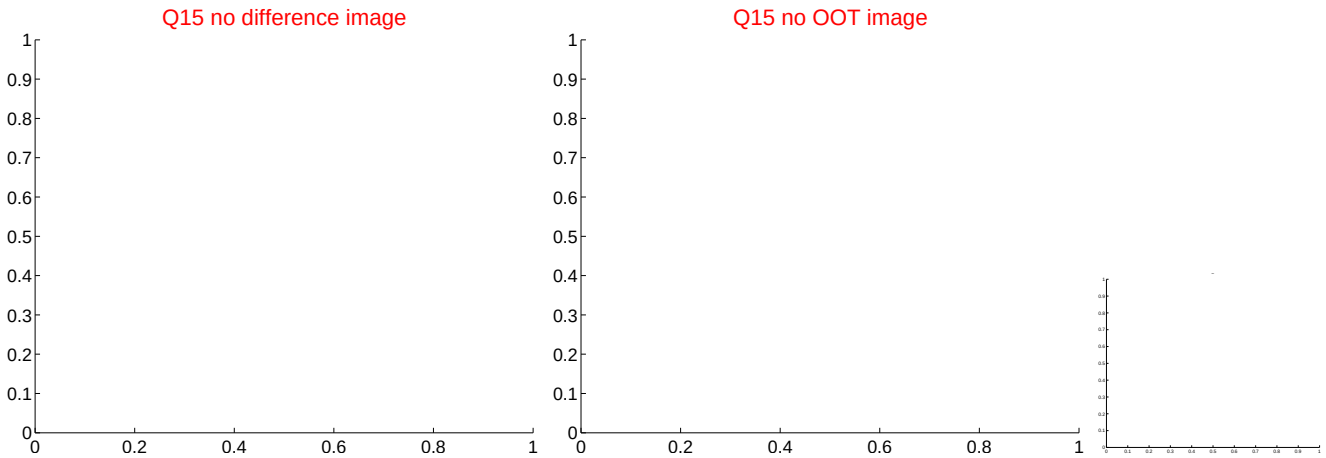


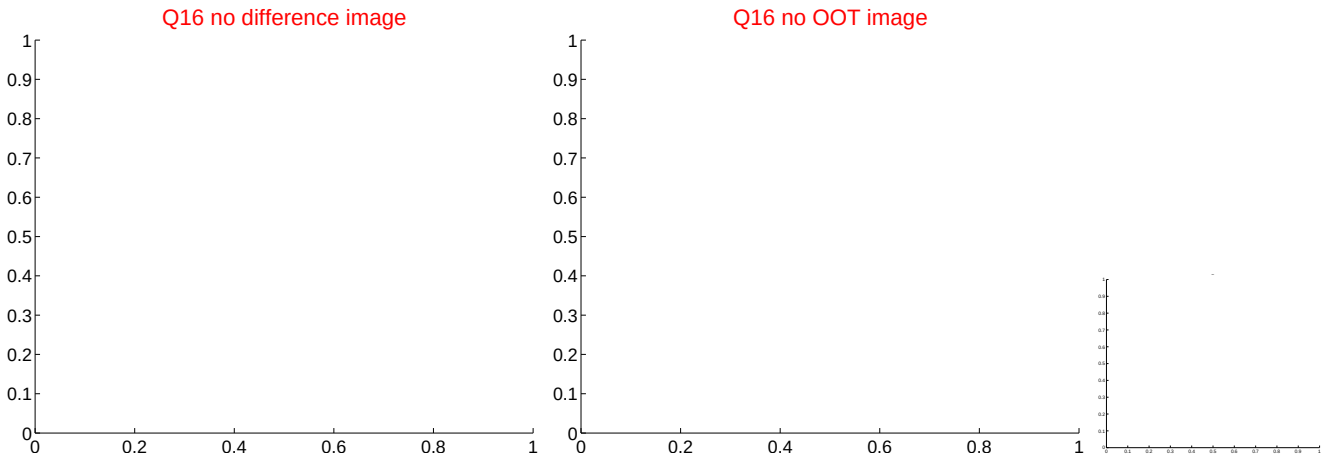


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

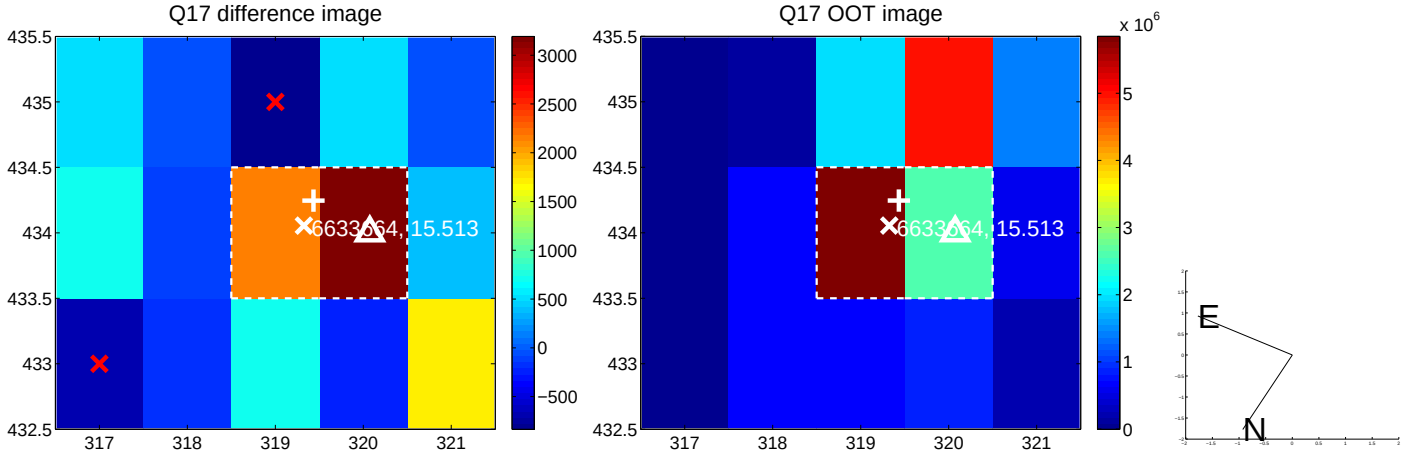


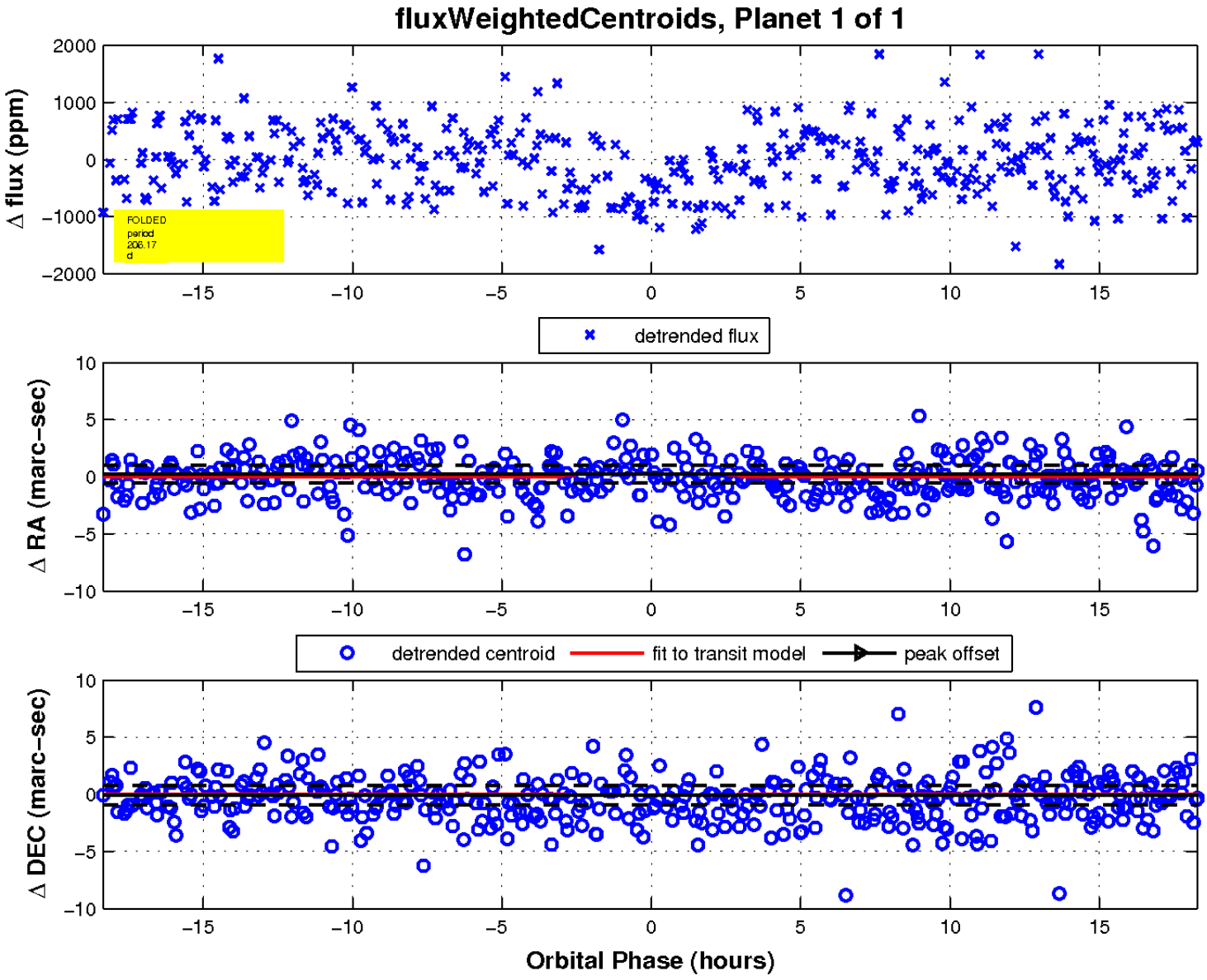






white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.





UKIRT Image