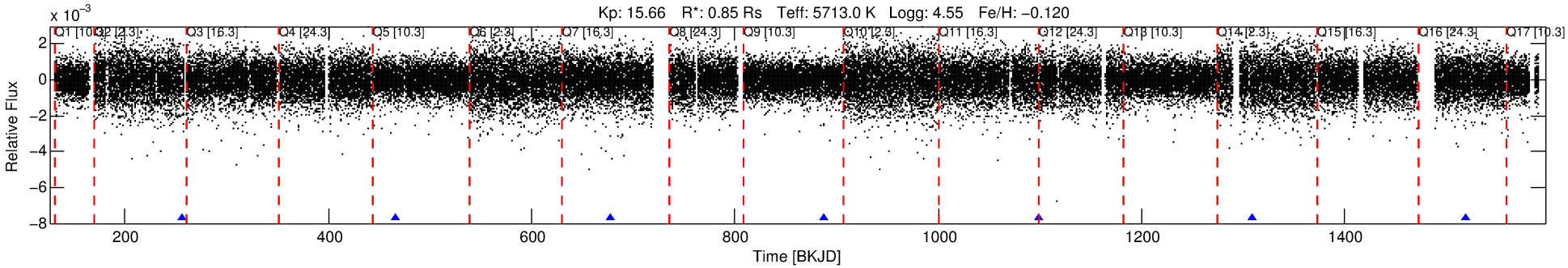
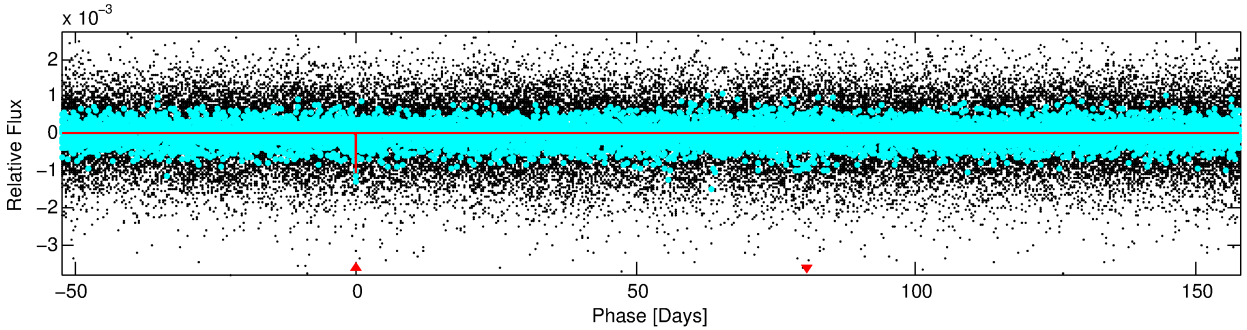
WARNING: THIS DATA IS SIMULATED, NOT OBSERVED

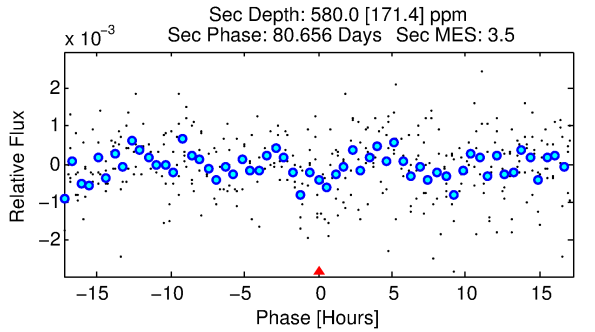
DV One-Page Summary

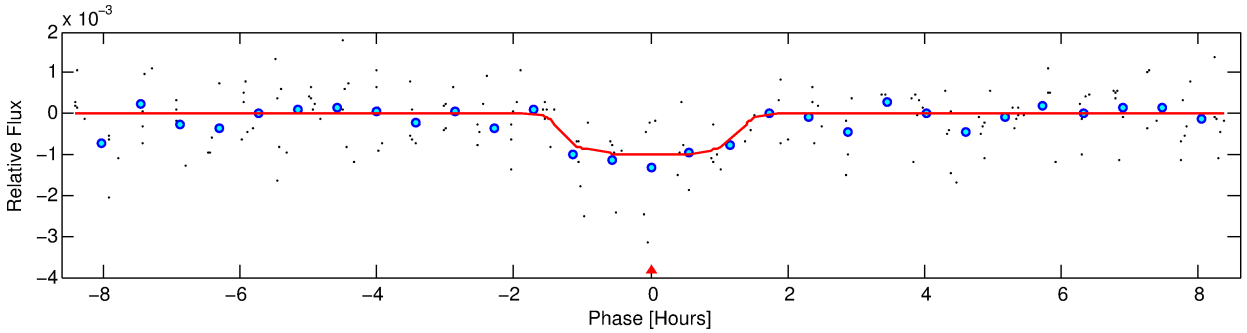
KIC: 3124286 Candidate: 1 of 1 Period: 210.547 d

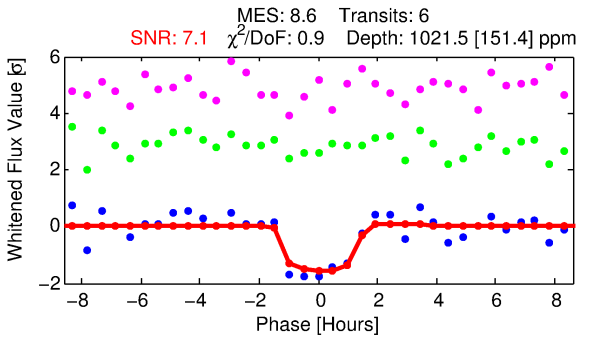
WARNING: THIS DATA IS SIMULATED, NOT OBSERVED

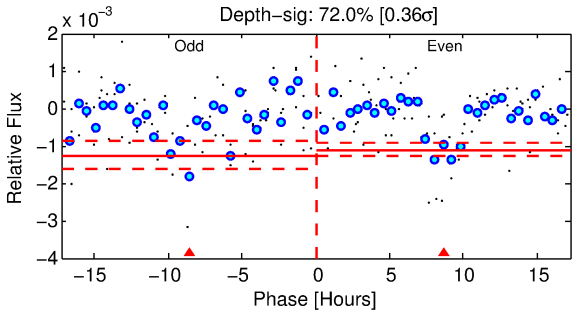


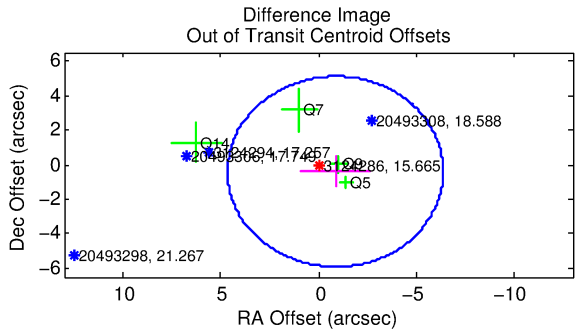












DV Fit Results:

Period = 210.54724 [0.00324] d
Epoch = 256.1804 [0.0104] BKJD
Rp/R* = 0.0315 [0.0450]
a/R* = 411.10 [2539.07]
b = 0.72 [4.15]

Seff = 1.49 [0.47]
Teq = 282 [22] K
Rp = 2.93 [4.23] Re
a = 0.6801 [0.1329] AU

Ag = 17199.05 [49595.11] [0.35σ]
Teffp = 4992 [3584] K [1.31σ]

DV Diagnostic Results:

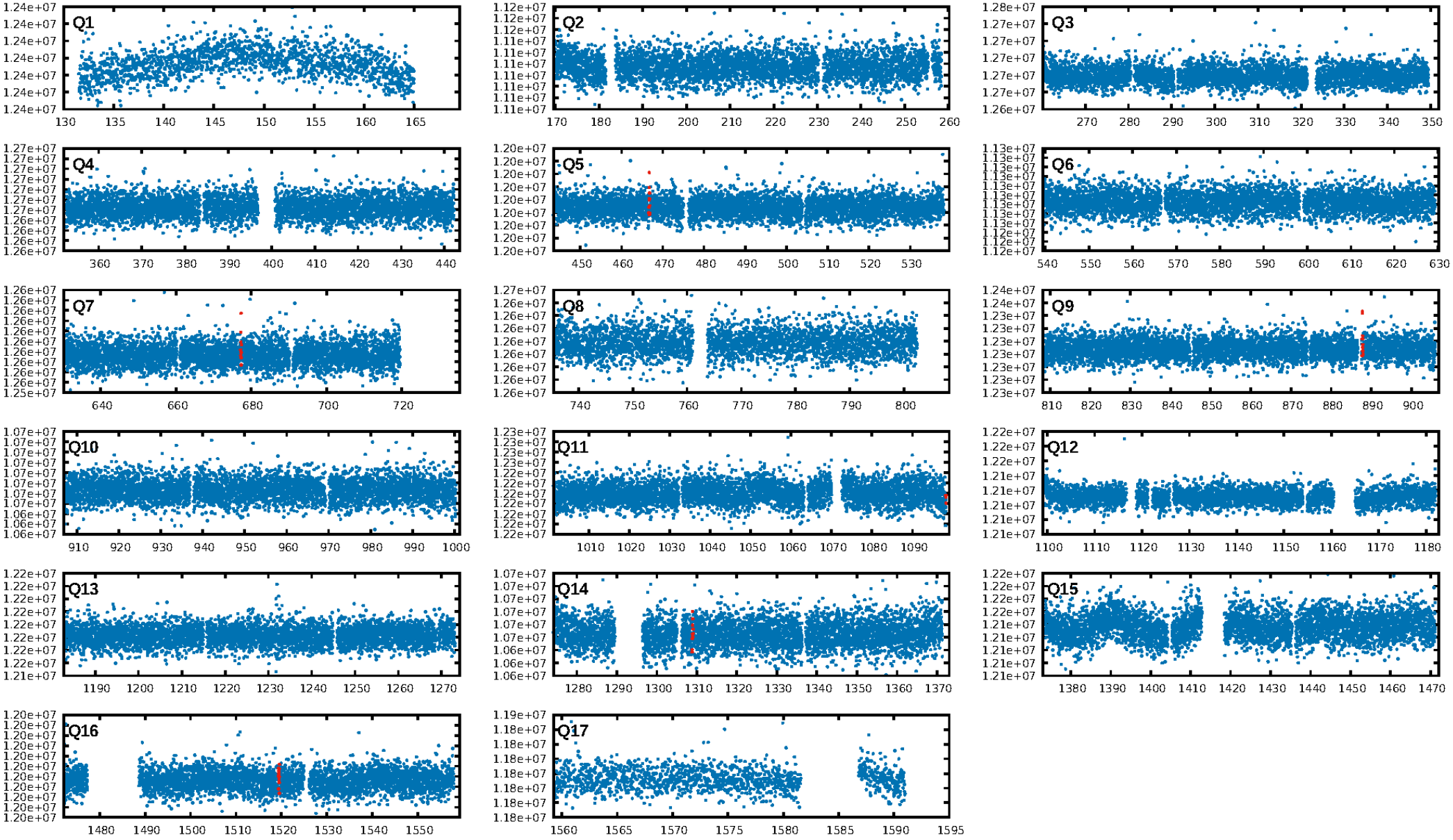
ShortPeriod−sig: N/A
LongPeriod−sig: N/A
ModelChiSquare2−sig: 93.1%
ModelChiSquareGof−sig: 99.9%
Bootstrap−pfa: 4.13e−15
RollingBand−fgt: 1.00 [6/6]
GhostDiagnostic−chr: 1.553

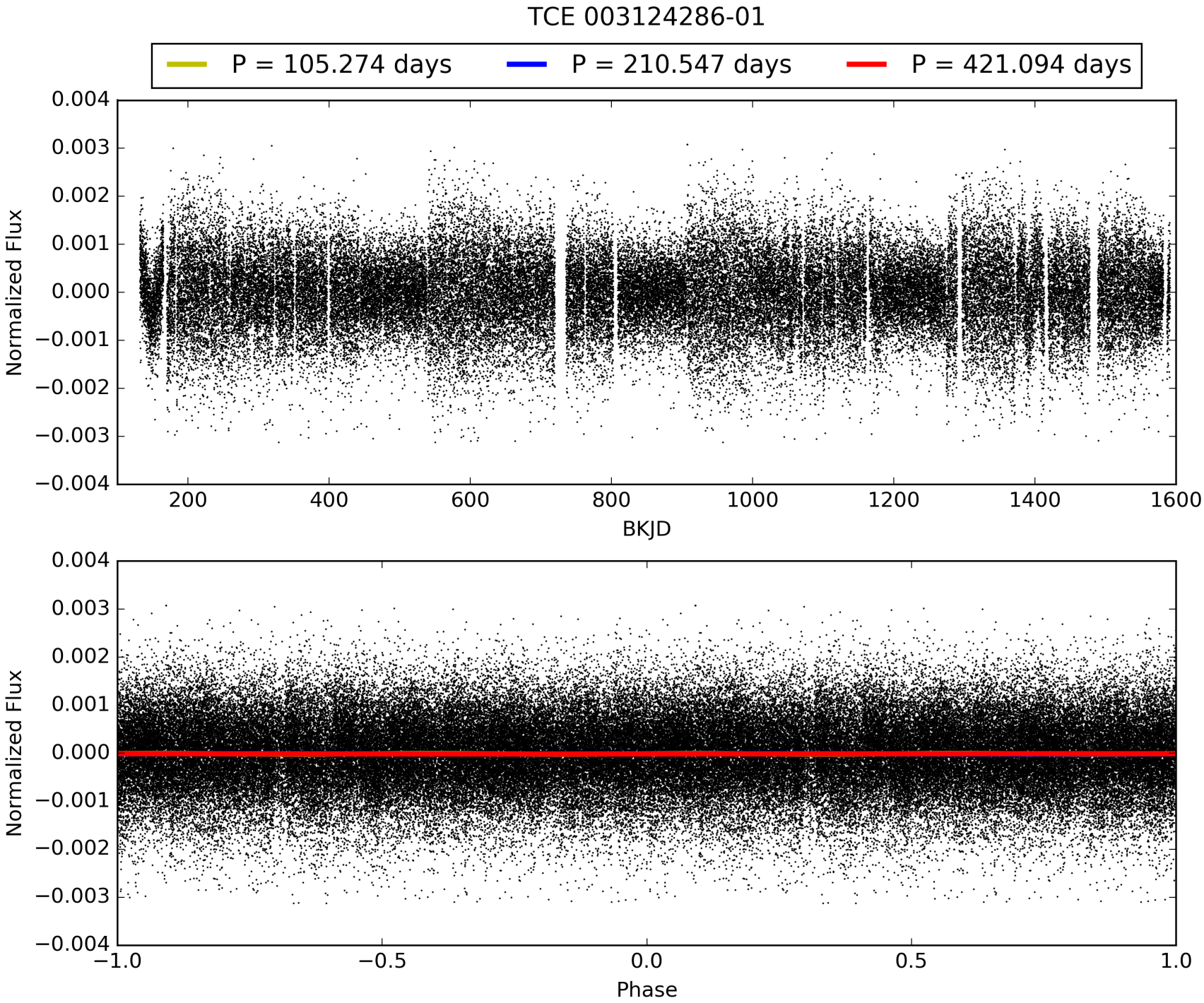
Centroid−sig: 11.9%
Centroid−so: 3.766 arcsec [1.72σ]
OotOffset−rm: 0.952 arcsec [0.52σ]
KicOffset−rm: 0.818 arcsec [0.59σ]
OotOffset−st: 1/1/0/2 [4]
KicOffset−st: 1/1/0/2 [4]
DiffImageQuality−fgm: 0.25 [1/4]
DiffImageOverlap−fno: 1.00 [5/5]

Software Revision: svn+ssh://murzim/repo/soc/branches/integ/ksop−2320@61025 −− Date Generated: 11−Mar−2016 04:23:14 Z

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

TCE 003124286-01, PDC Light Curves

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P = 105.274 days
P = 210.547 days
P = 421.094 days
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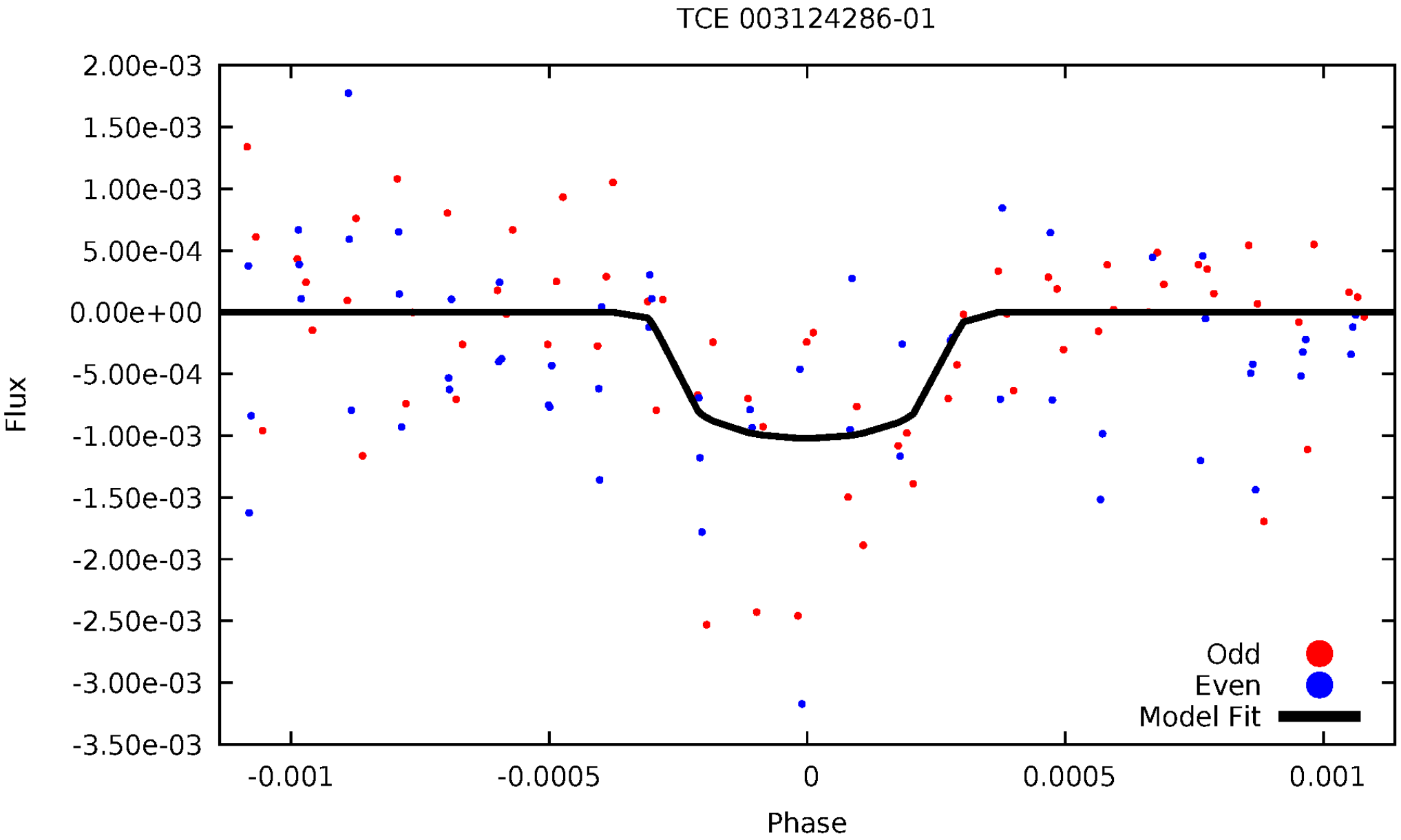
0.003
0.002
0.001
0.000
−0.001
−0.002
−0.003
−0.004
200
400
600
800
1000
1200
1400
1600
BKJD
Normalized Flux
0.004
0.003
0.002
0.001
0.000
−0.001
−0.002
−0.003
−0.004
−1.0
−0.5
0.0
0.5
1.0
Phase

DV Odd/Even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2.00e-03
1.50e-03
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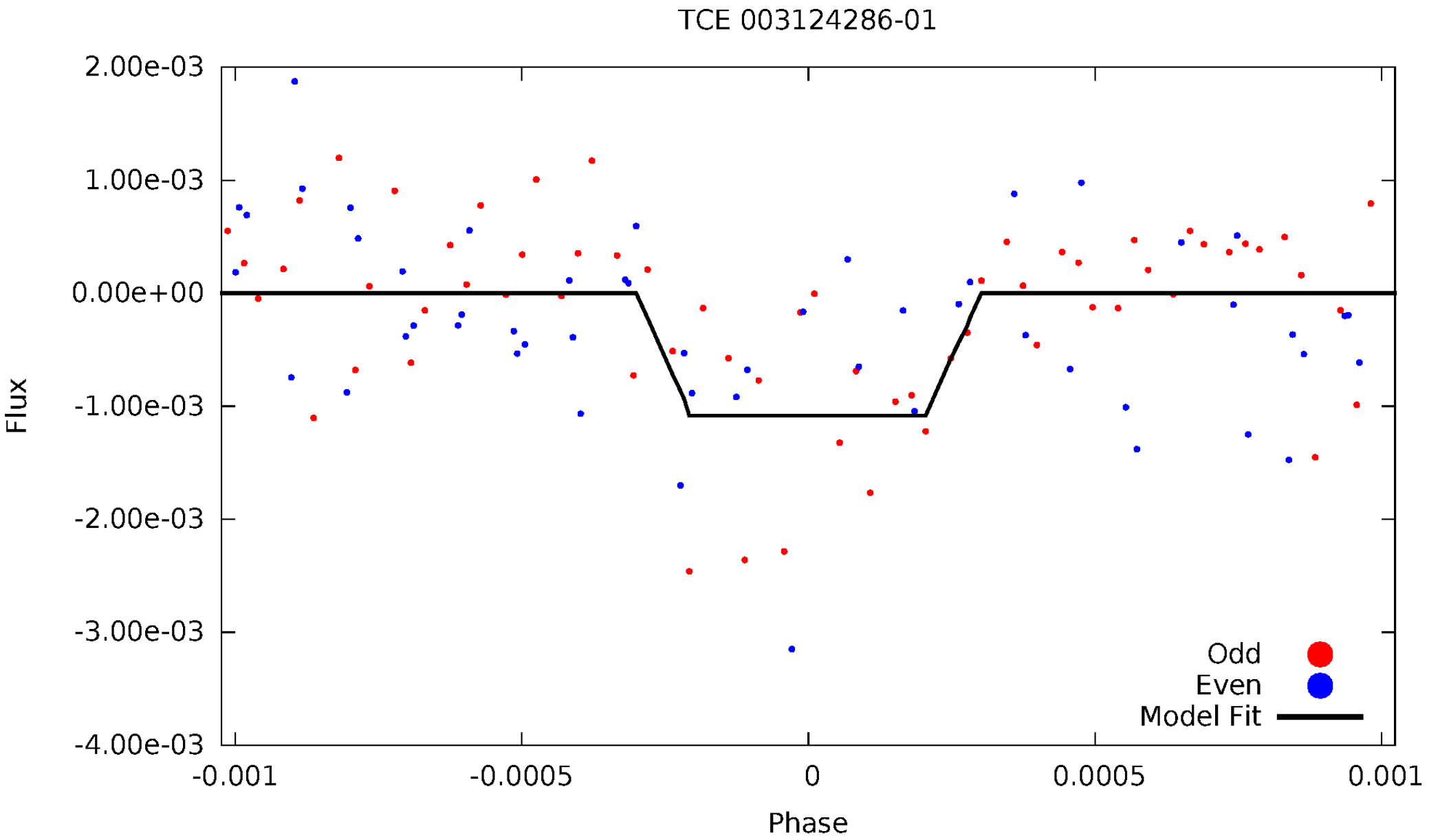
5.00e-04
0.00e+00
-5.00e-04
-1.00e-03
-1.50e-03
-2.00e-03
-2.50e-03
-3.00e-03
-3.50e-03
Flux
-0.001
-0.0005
0
0.0005
0.001
Phase
Odd
Even
Model Fit

ALT Odd/Even


TCE 003124286-01
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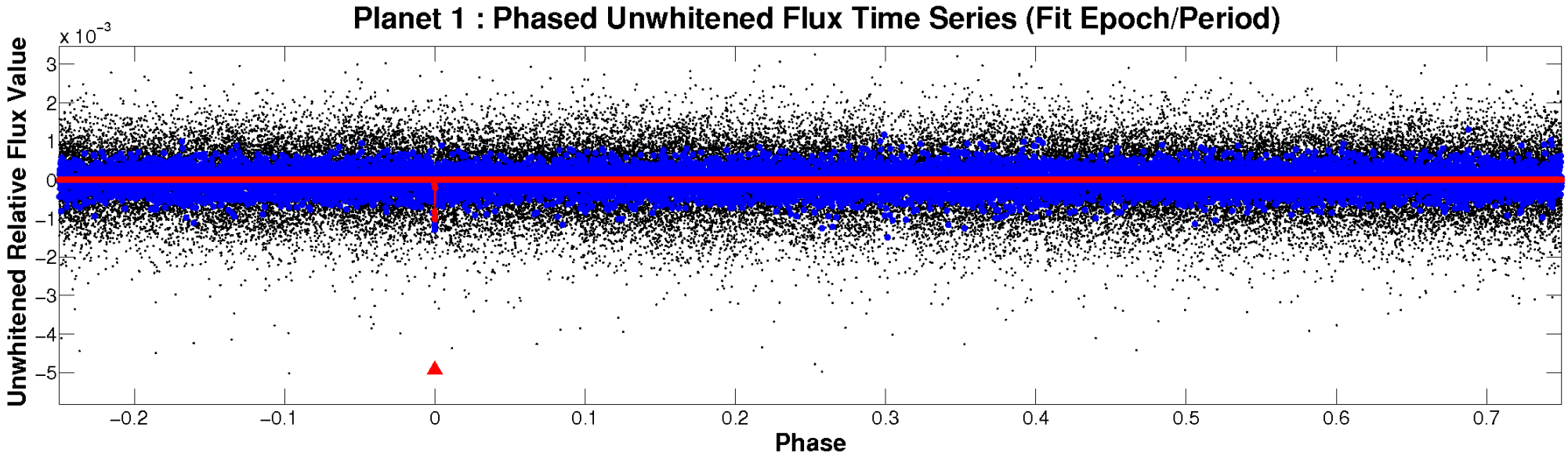
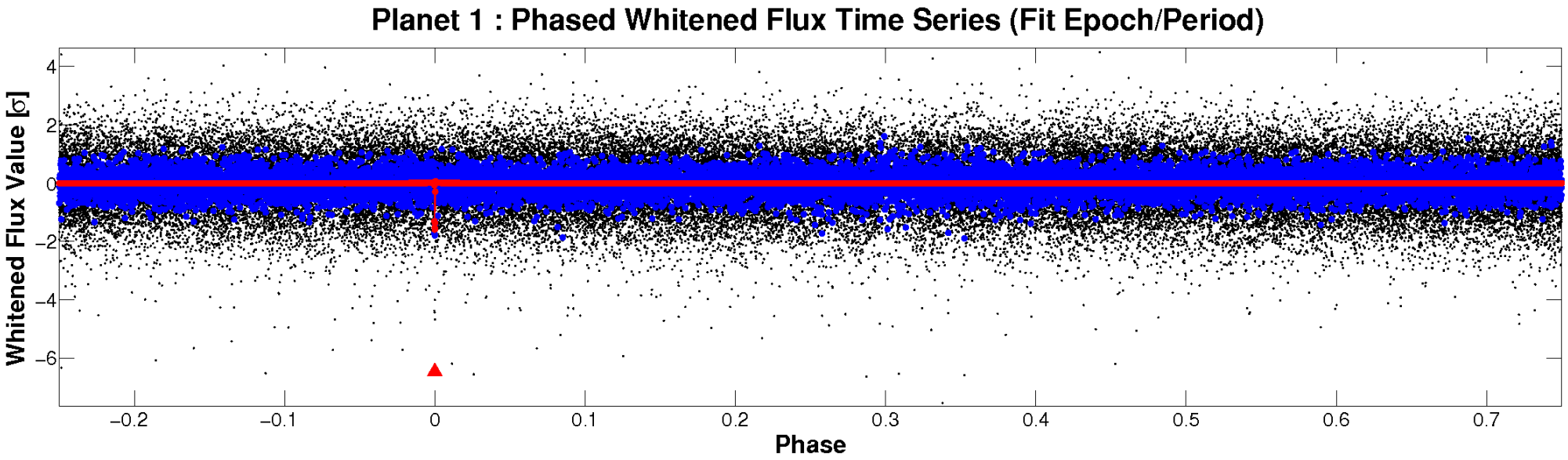
1.00e-03
0.00e+00
-1.00e-03
-2.00e-03
-3.00e-03
-4.00e-03
Flux
-0.001
-0.0005
0
0.0005
0.001
Phase
Odd
Even
Model Fit

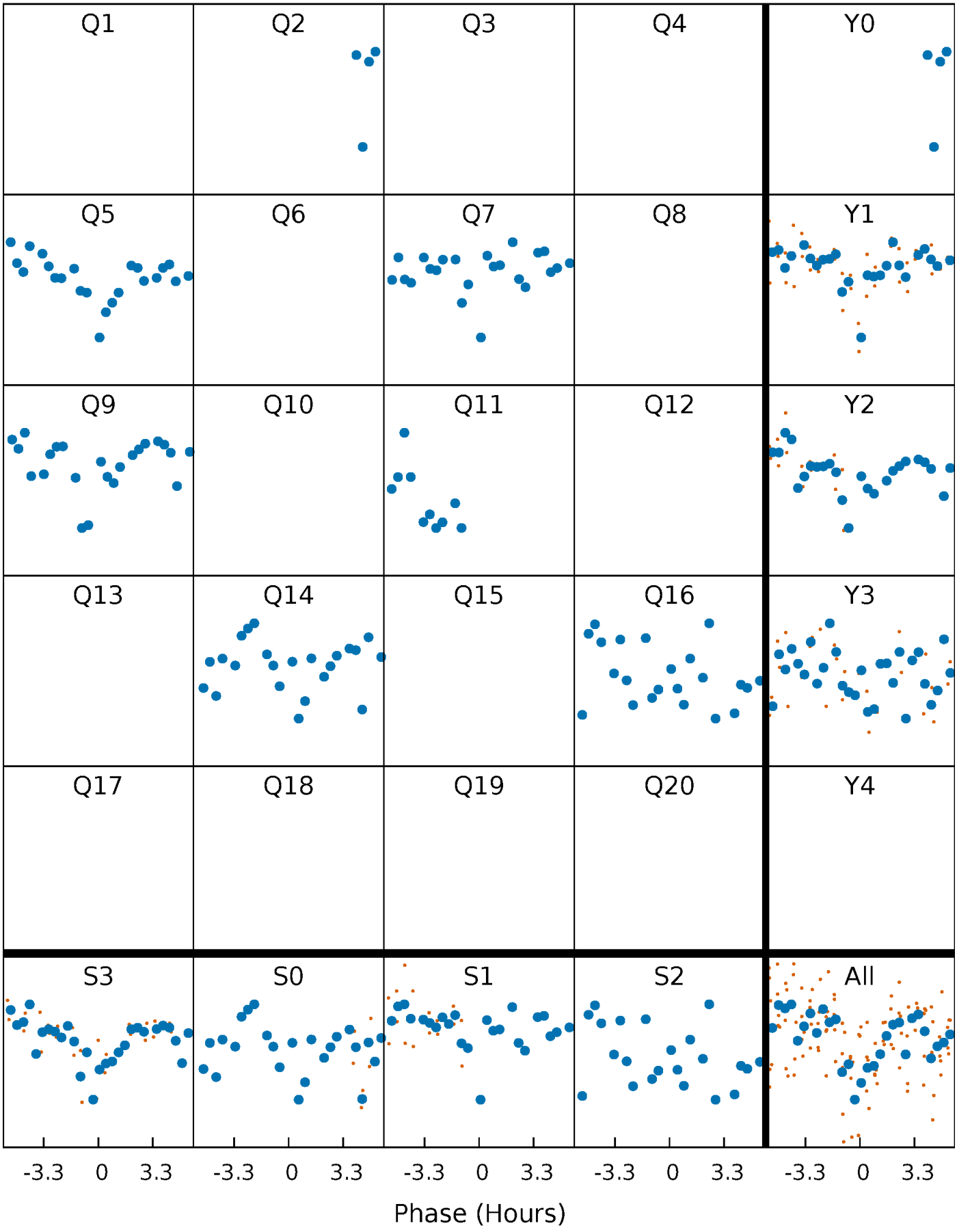
Non-Whitened Vs. Whitened Light Curve





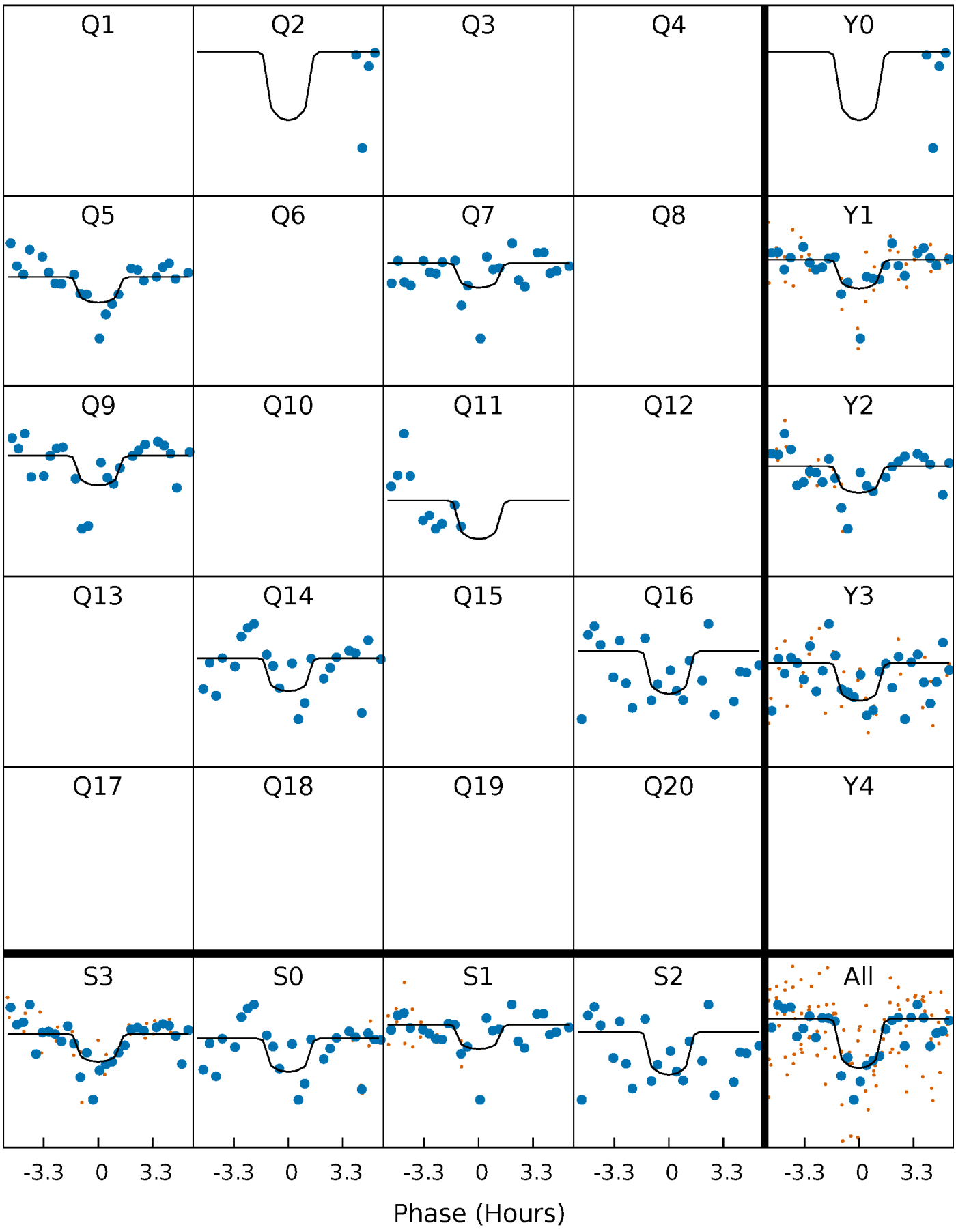
PDC Quarter-Phased Transit Curves

TCE 003124286-01 P=210.547245 Days T_0=256.180425 (BKJD)



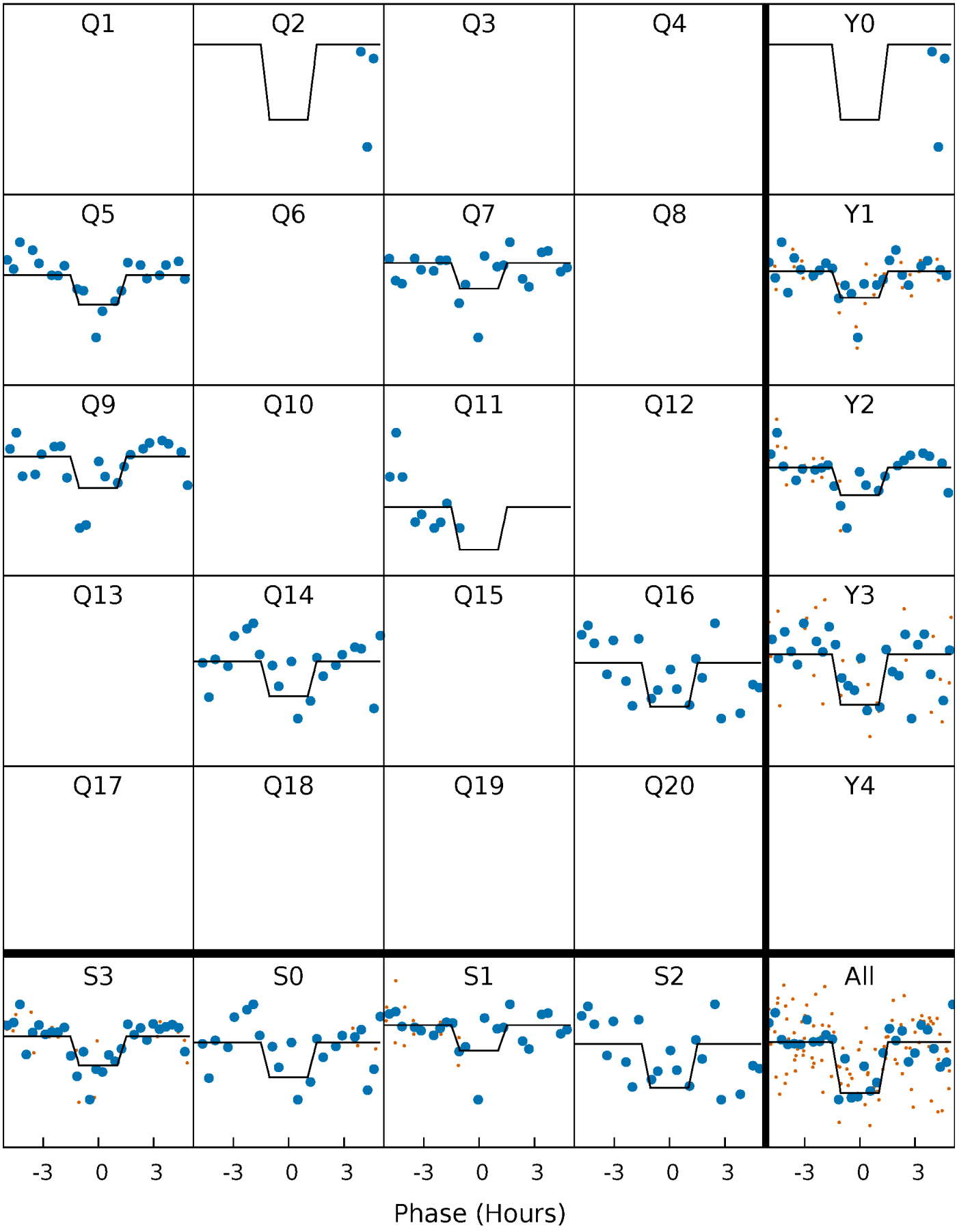
DV Quarter-Phased Transit Curves

TCE 003124286-01 P=210.547245 Days T_0=256.180425 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

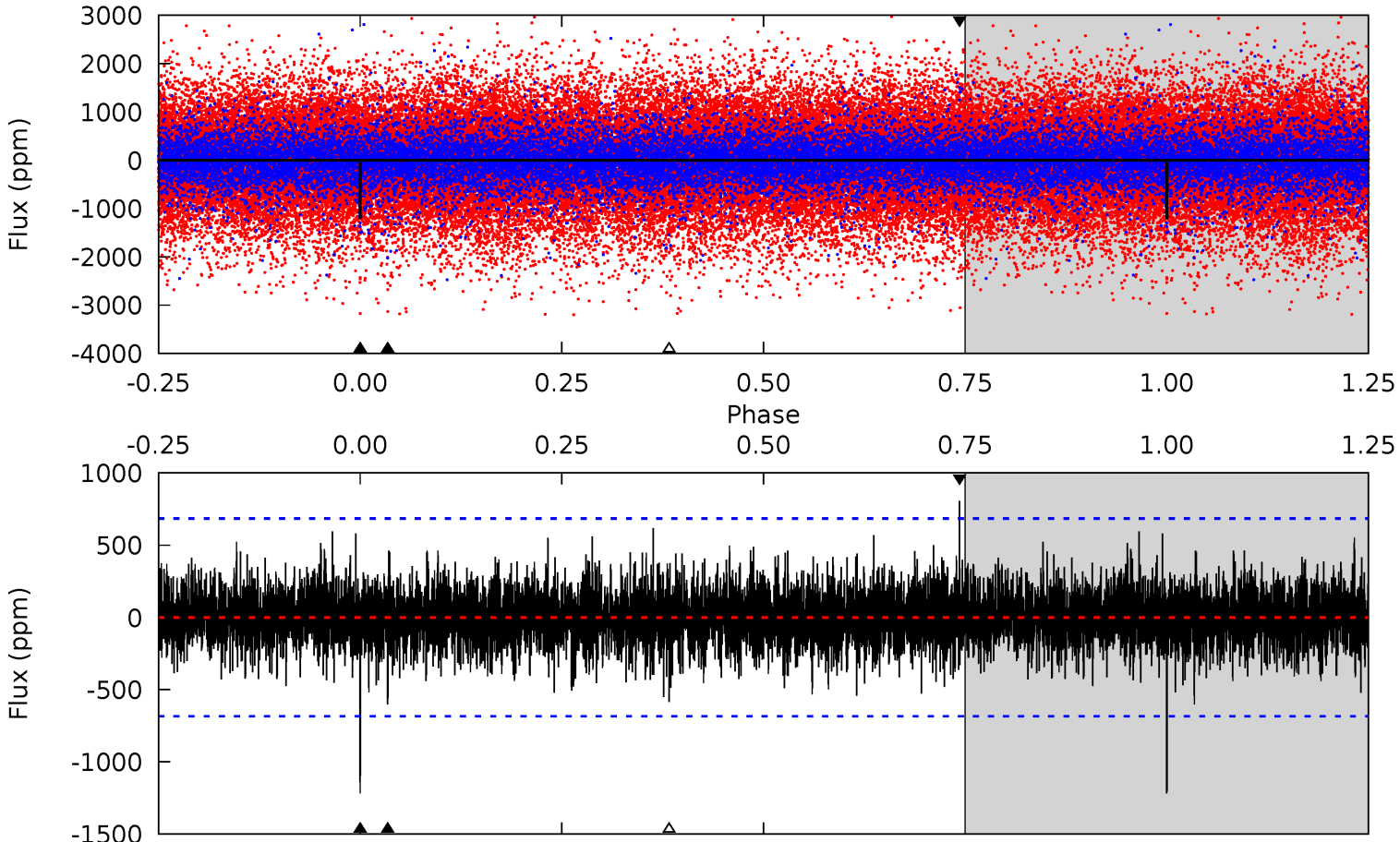
TCE 003124286-01 P=210.546007 Days T_0=256.186836 (BKJD)

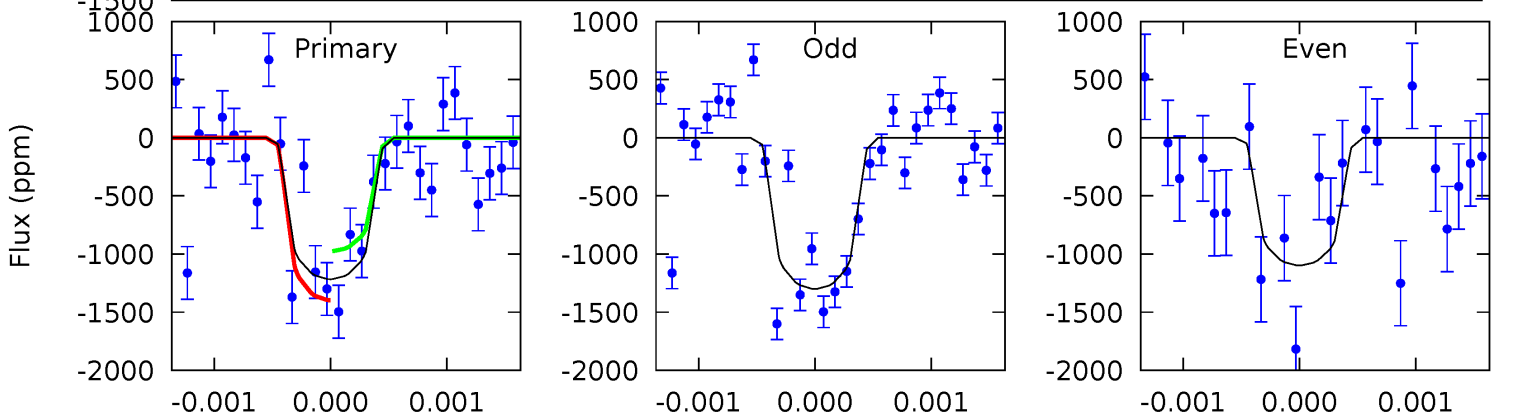


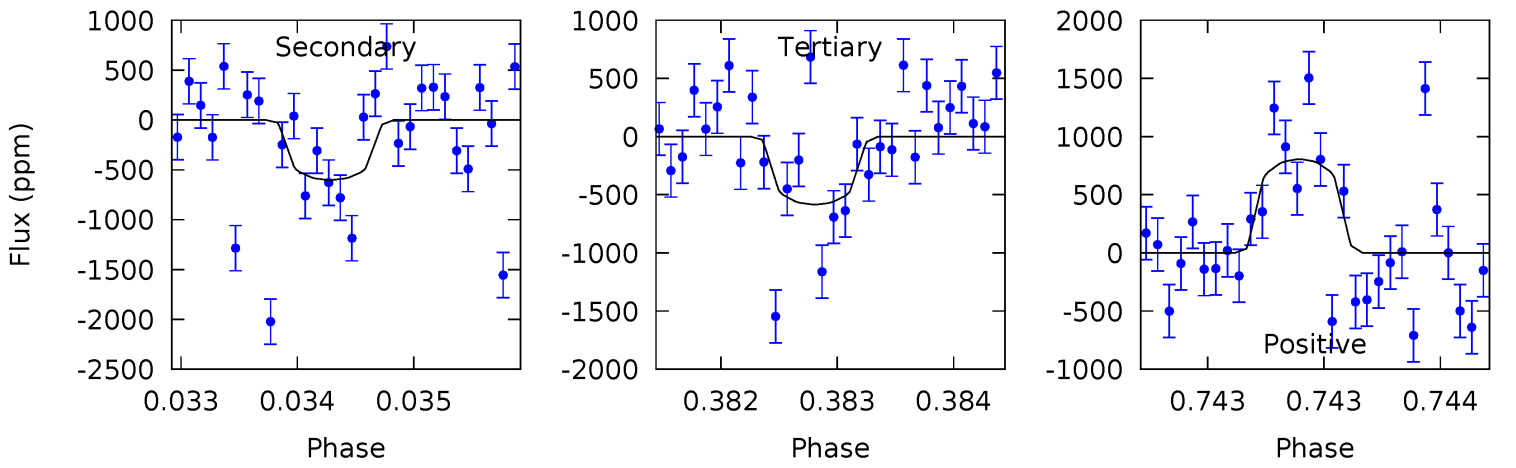
DV Model-Shift Uniqueness Test

003124286-01, P = 210.547245 Days, E = 45.633180 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.81	4.86	4.71	6.50	5.52	3.40	1.25	5.10	3.32	0.14	-1.64	0.81	1.04	0.40	1.69



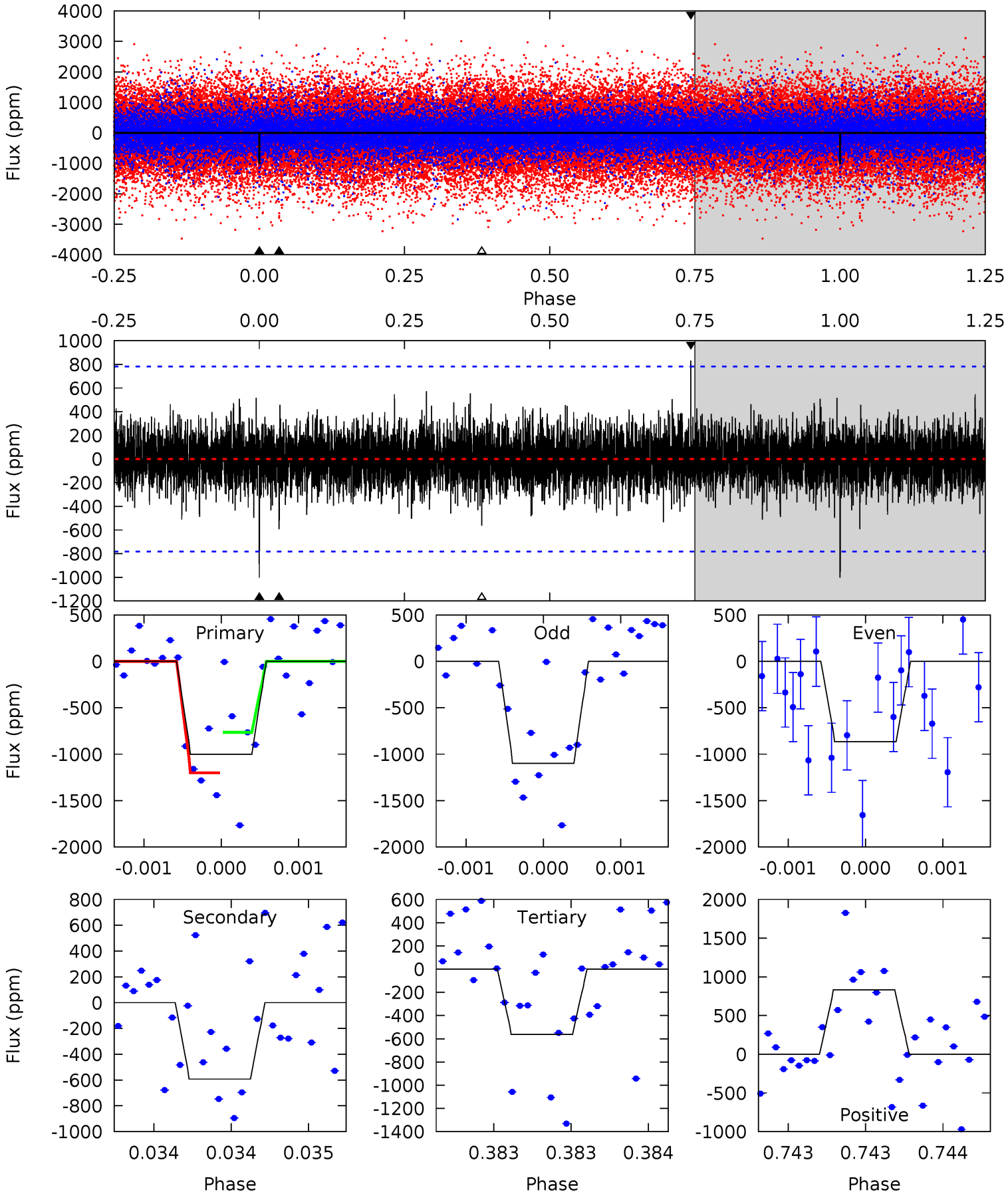




Alt Model-Shift Uniqueness Test

003124286-01, P = 210.546007 Days, E = 45.640829 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.14	4.22	4.01	5.93	5.57	3.47	1.03	3.13	1.21	0.21	-1.71	0.84	0.92	0.45	1.55



Stellar Parameters For KIC 003124286

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	5713^{+153}_{-170}	$4.554^{+0.040}_{-0.160}$	$-0.120^{+0.300}_{-0.300}$	$0.851^{+0.194}_{-0.069}$	$0.948^{+0.095}_{-0.116}$	$2.164^{+0.449}_{-0.932}$
	+3%/-3%	+1%/-4%	+250%/-250%	+23%/-8%	+10%/-12%	+21%/-43%
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 003124286-01 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-602±124	$4.23^{+3.55}_{-2.78}$	400^{+23}_{-16}	4488^{+2746}_{-936}	8548^{+63157}_{-6262}
Alt.	-592±140	$4.27^{+3.88}_{-2.82}$	402^{+21}_{-18}	4440^{+2840}_{-969}	7773^{+60616}_{-5724}

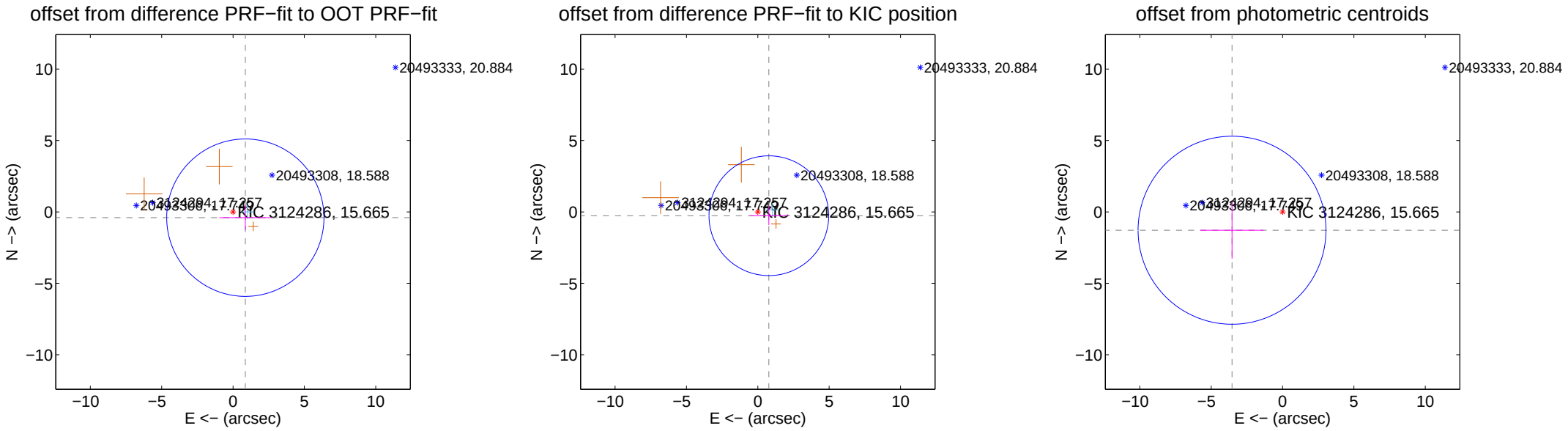
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

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

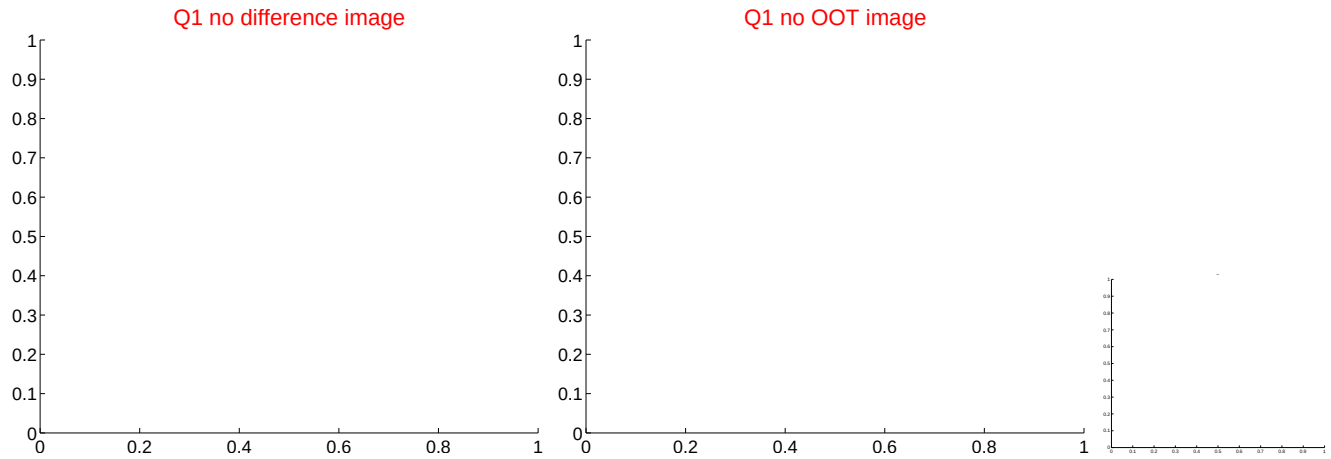
Supplemental centroid analysis for 003124286-01. Kepler magnitude: 15.66. Transit SNR 7.05
There are 1 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.64 arcsec

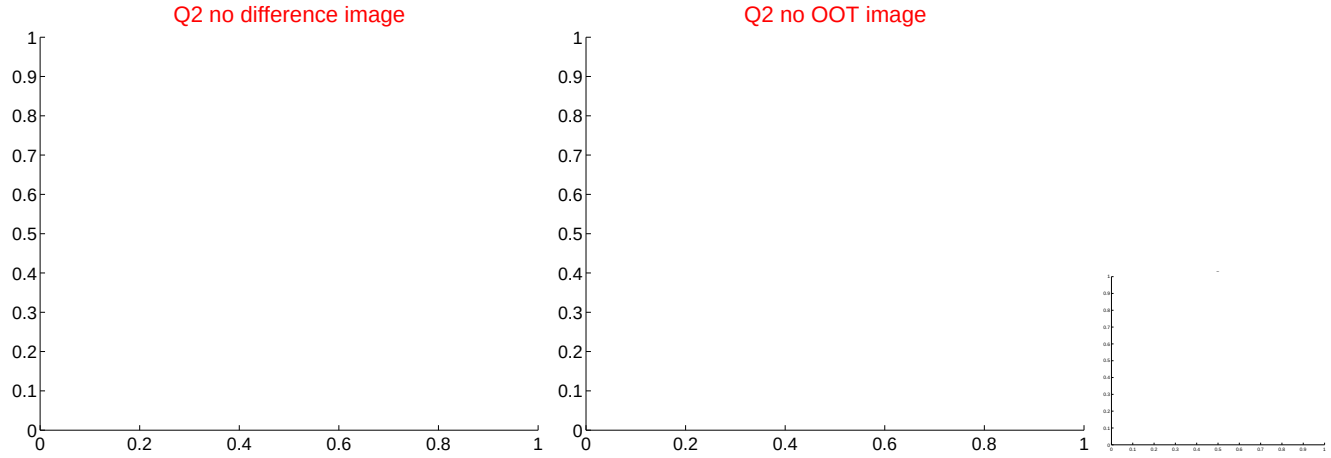
	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.952 ± 1.836	0.52	-0.862 ± 1.812	-0.404 ± 0.862
PRF-fit source offset from KIC position	0.818 ± 1.397	0.59	-0.773 ± 1.330	-0.266 ± 0.659
photometric centroid source offset	3.77 ± 2.19	1.72	3.54 ± 2.22	-1.28 ± 2.00

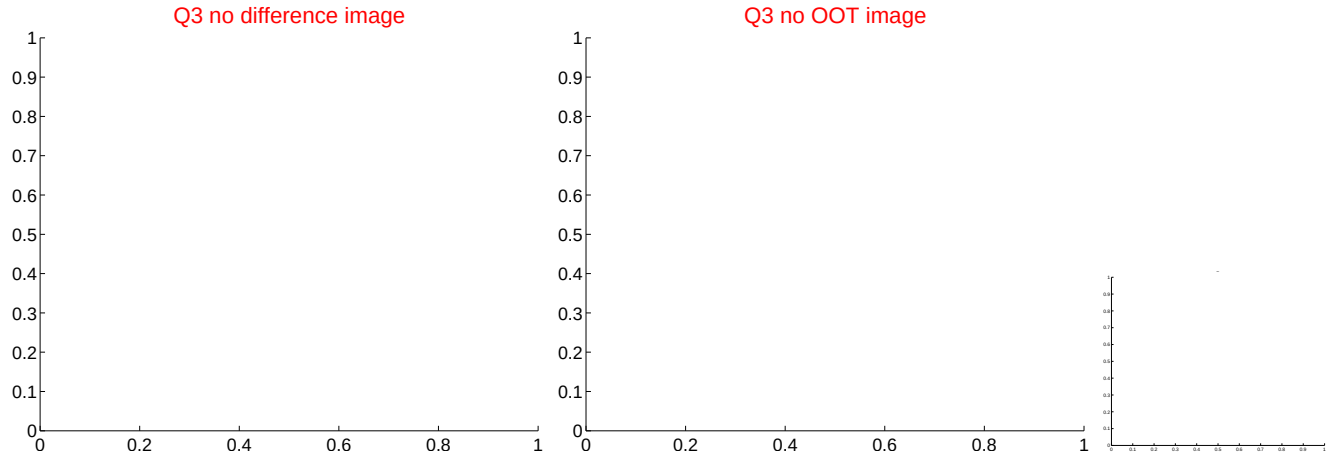


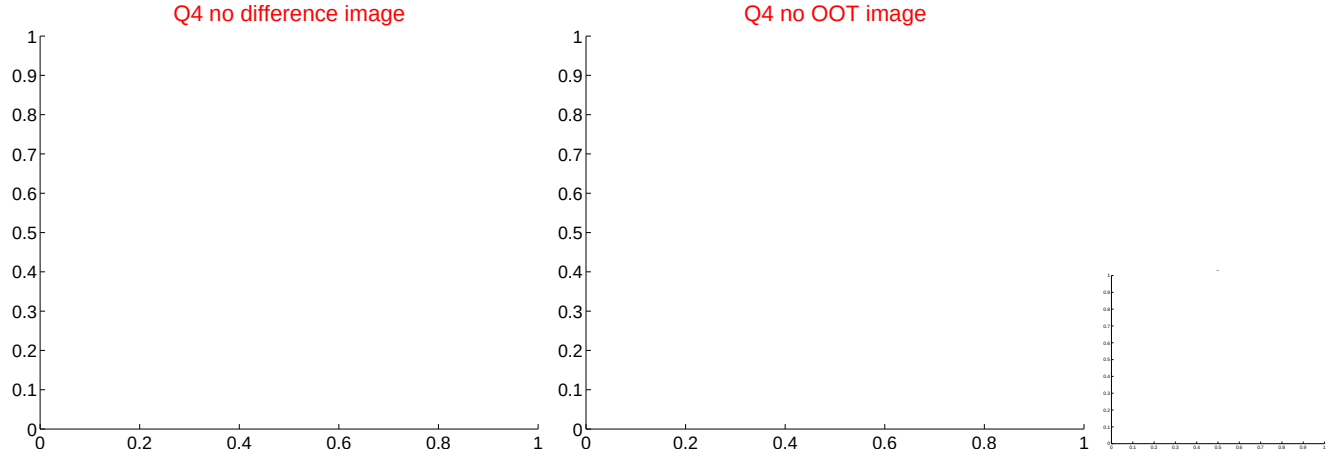
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red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

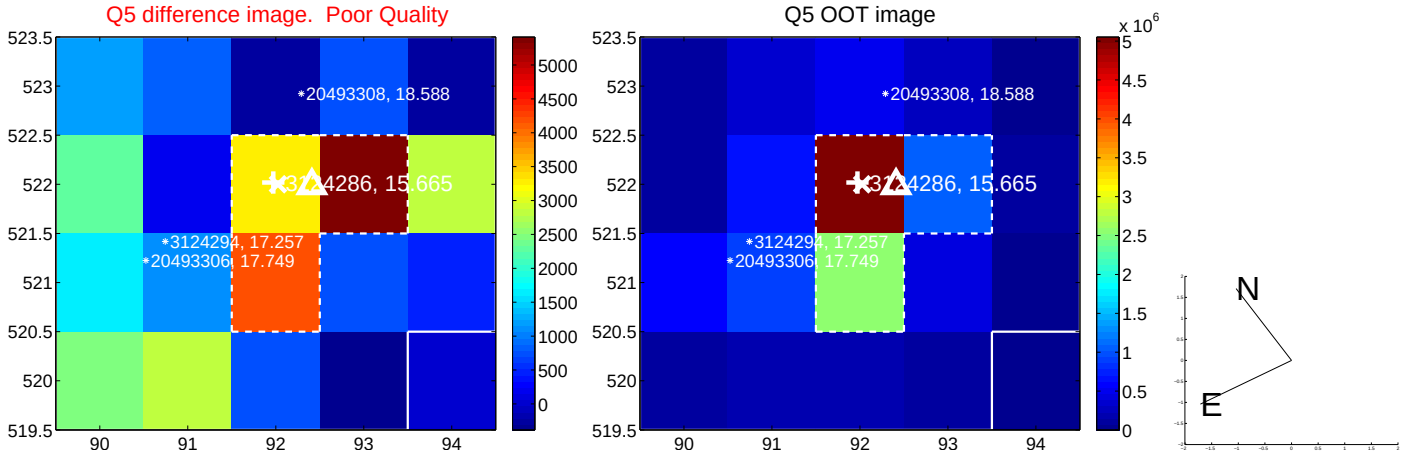


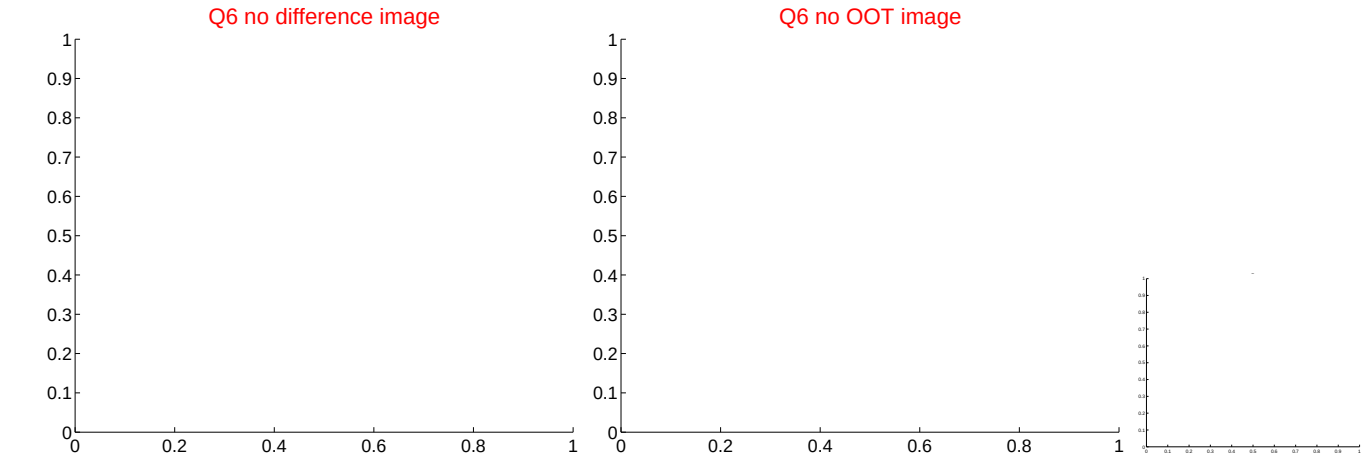


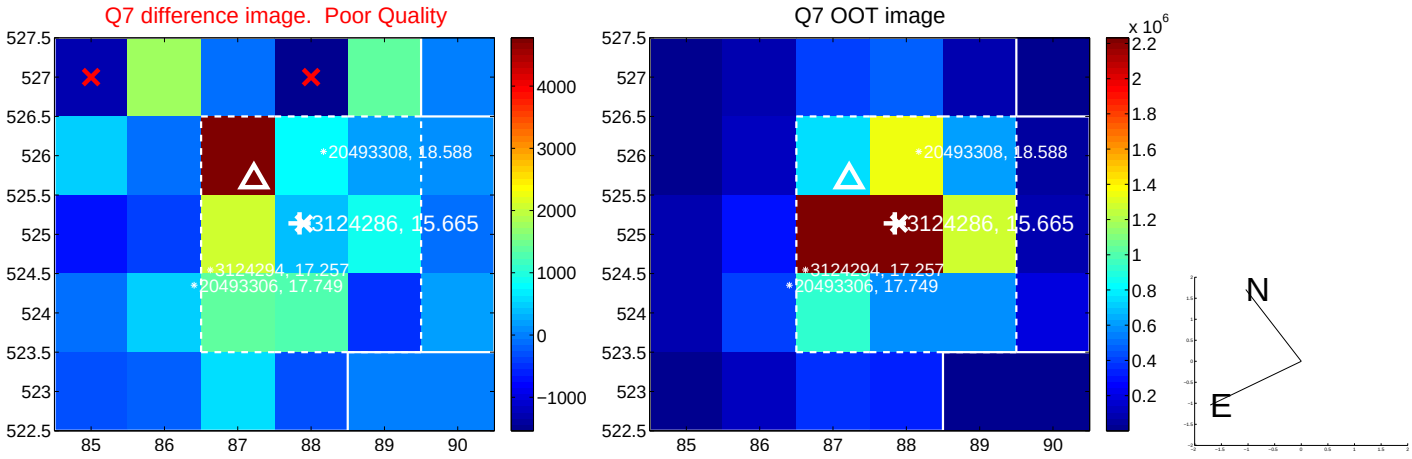


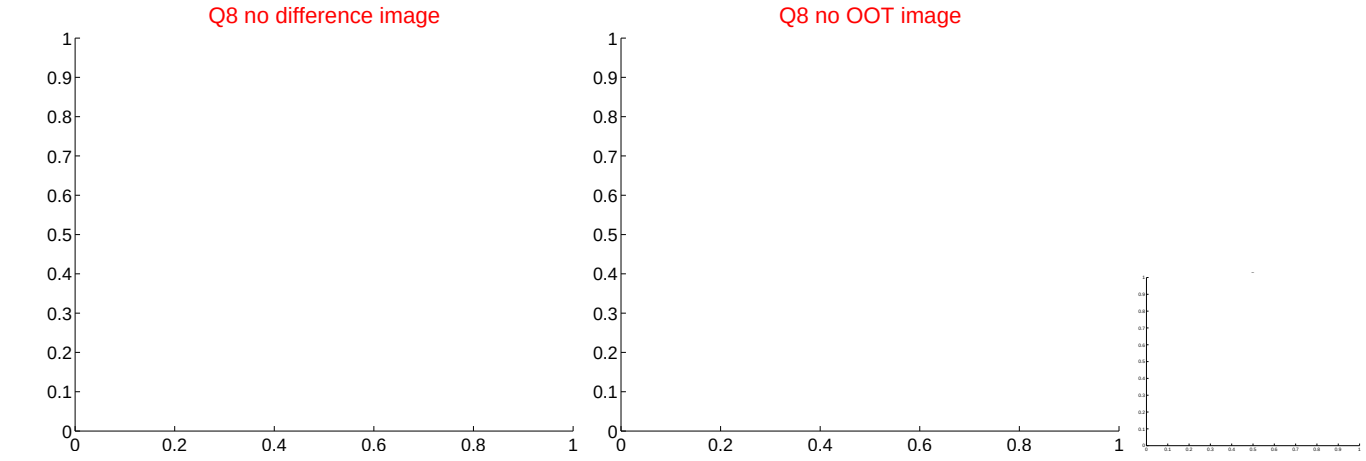


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

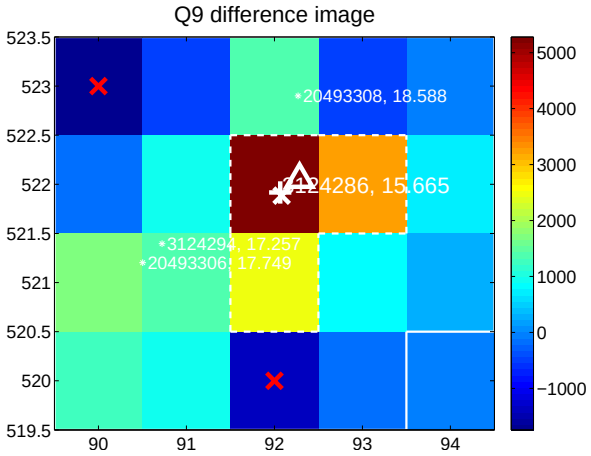


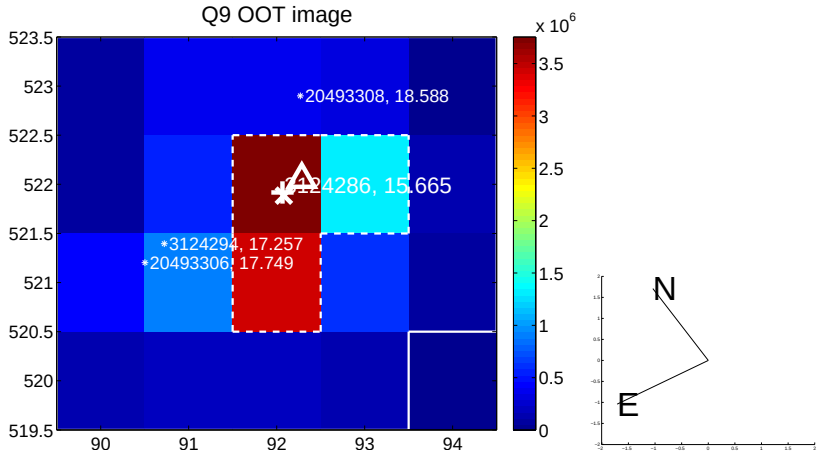


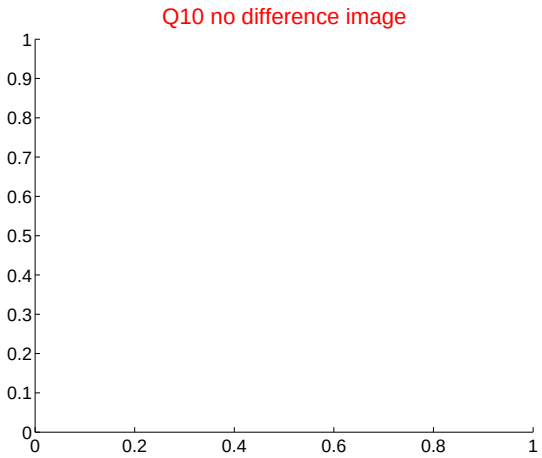


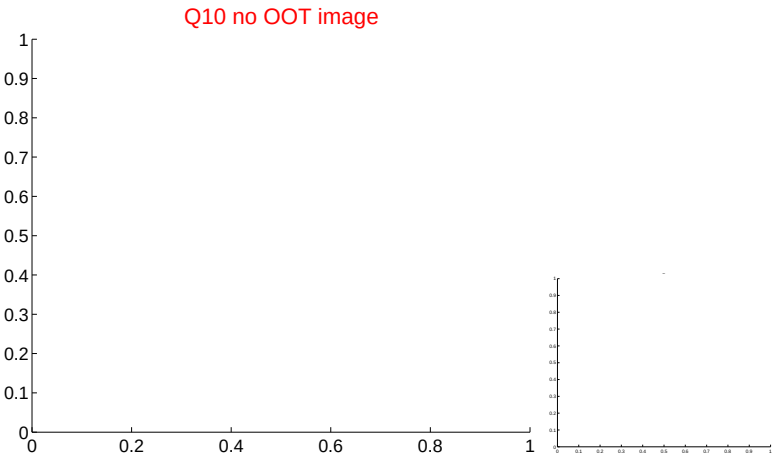


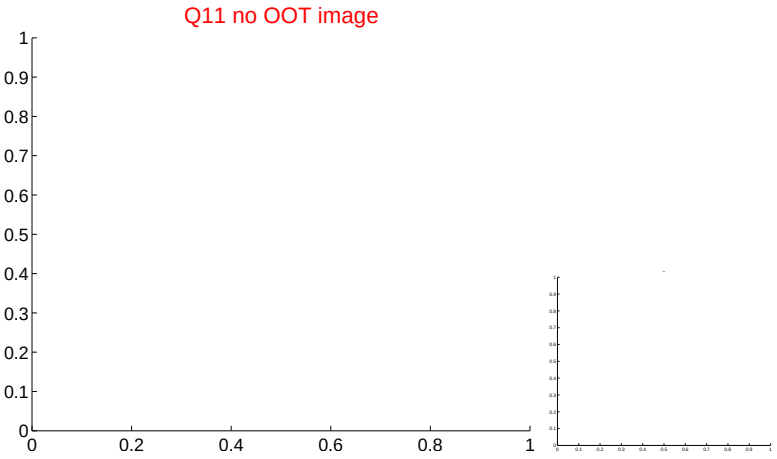
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

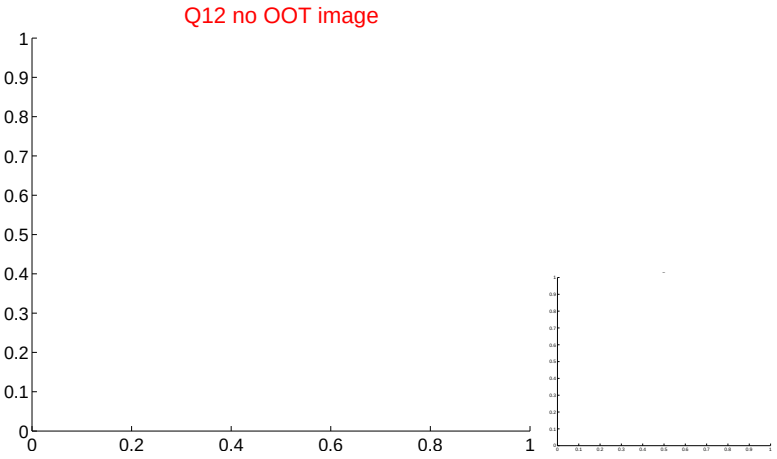




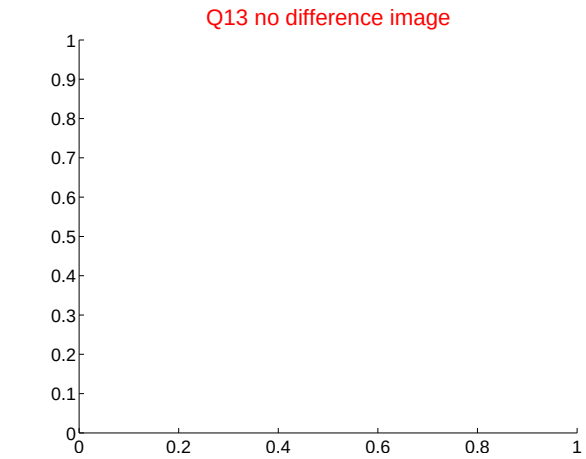


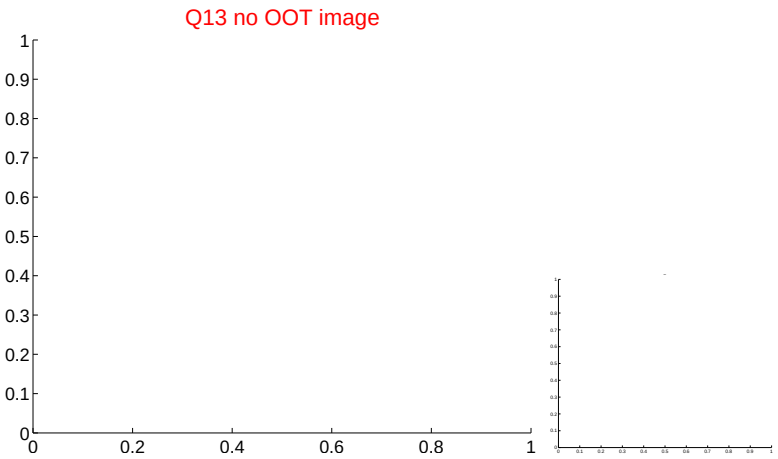


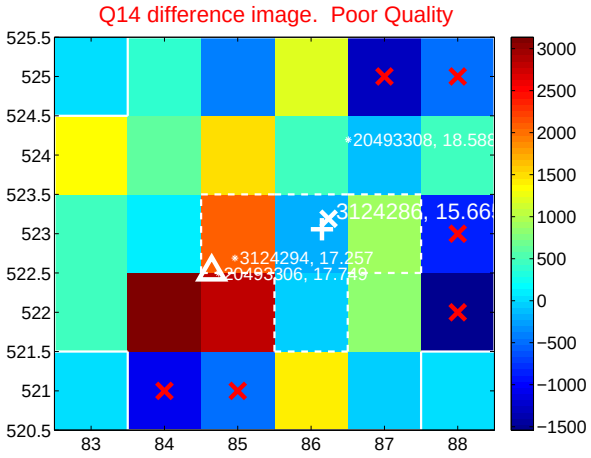


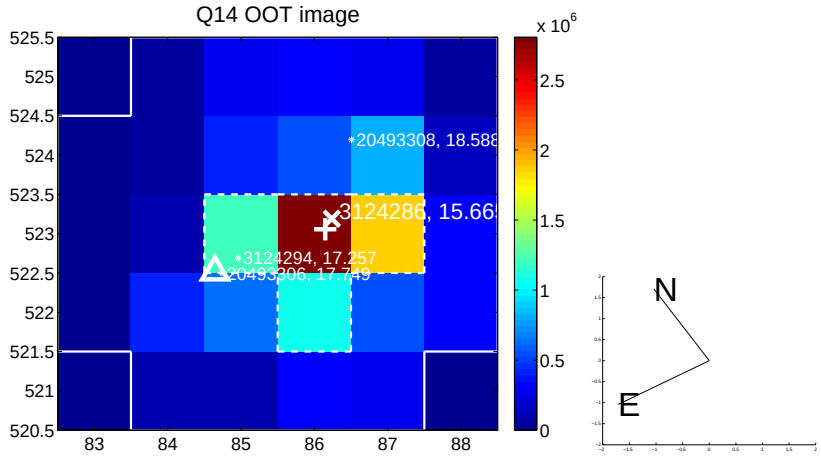


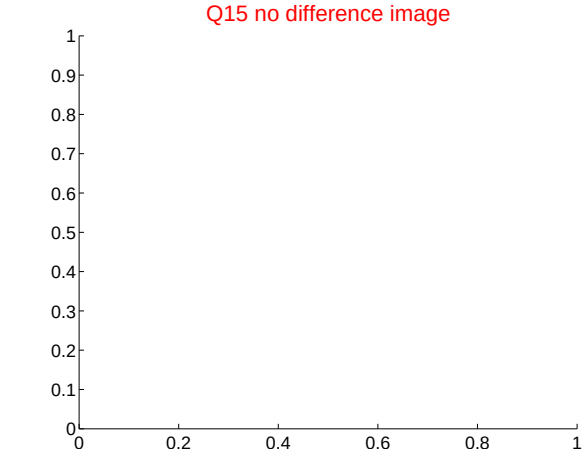
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

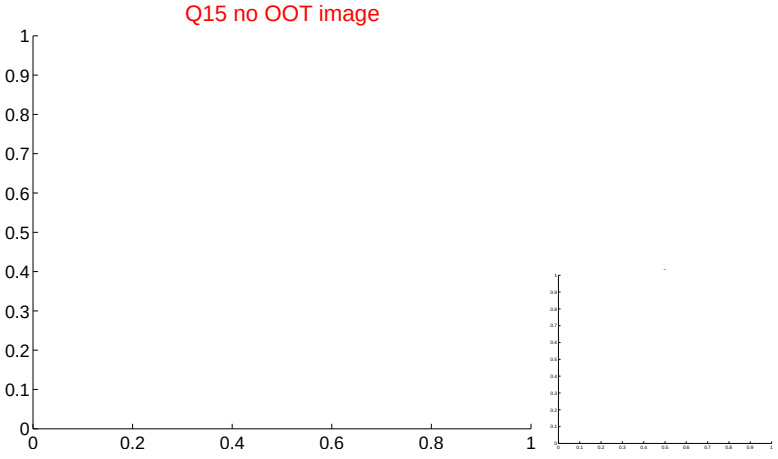


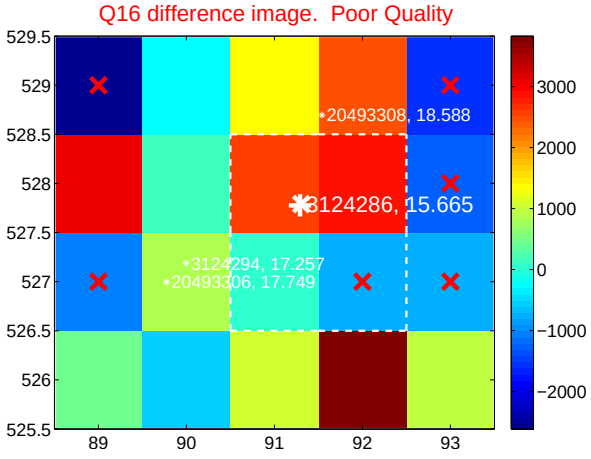


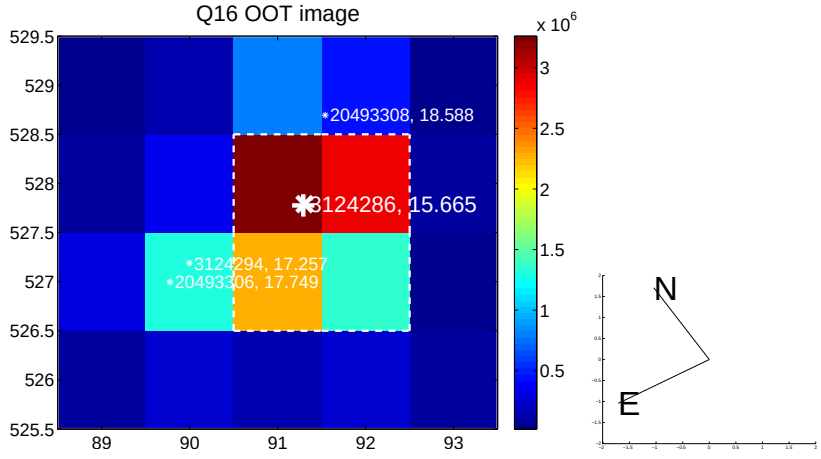




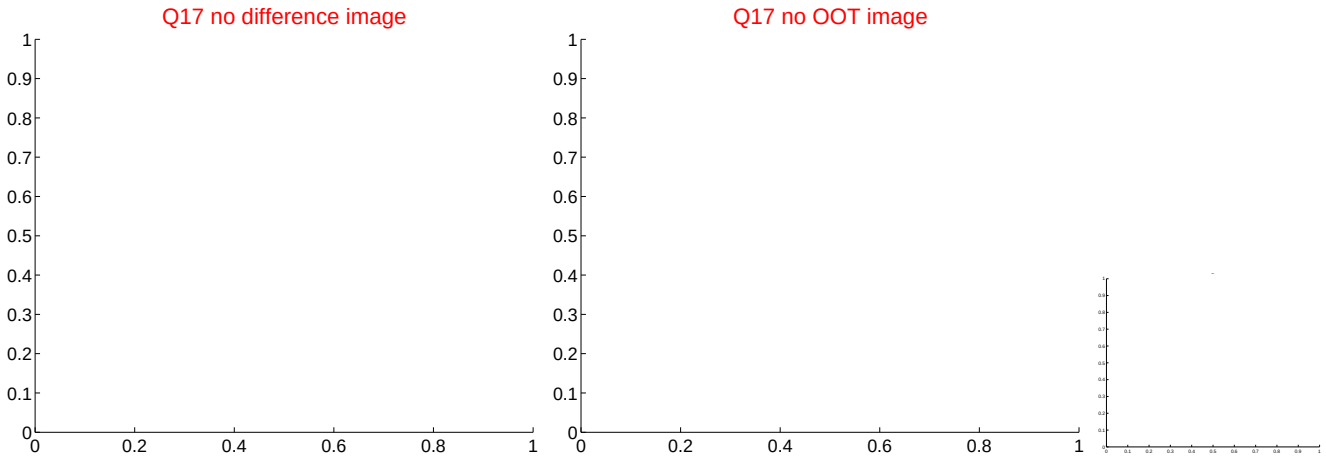


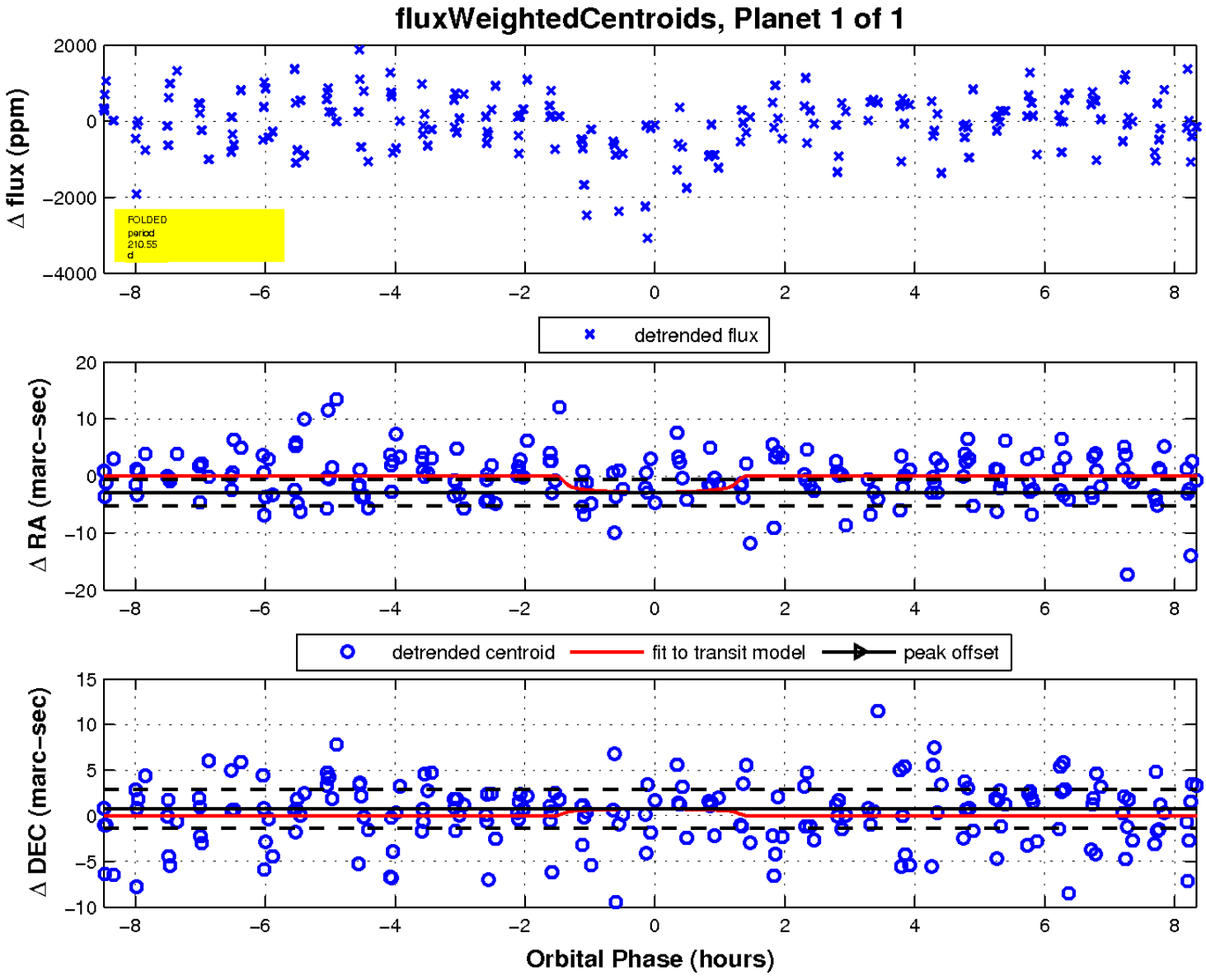




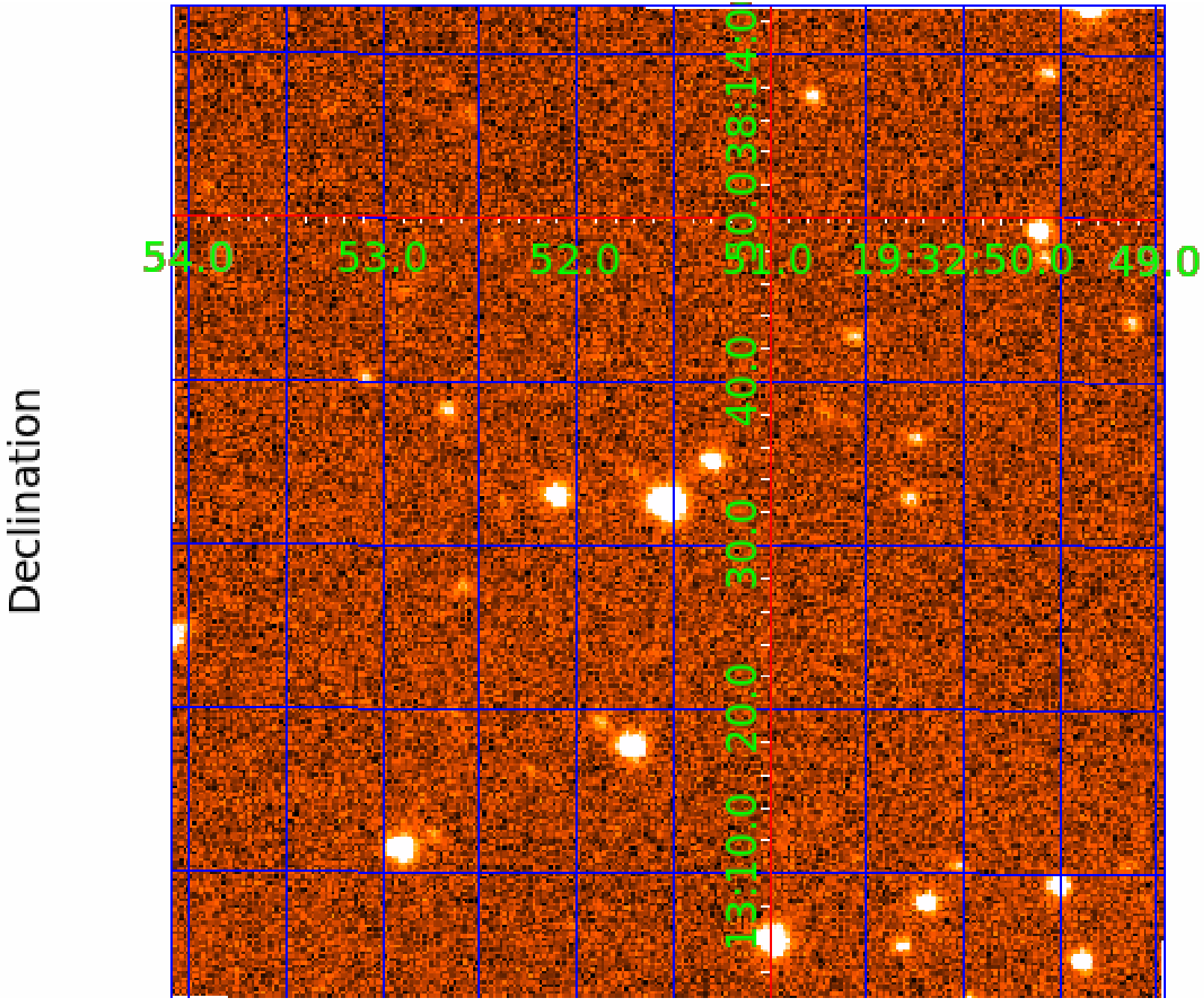


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.





UKIRT Image



Declination