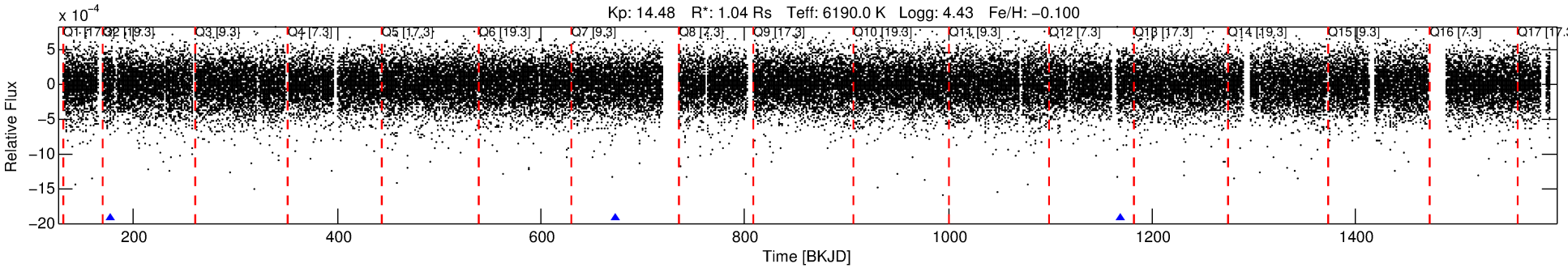
WARNING: THIS DATA IS SIMULATED, NOT OBSERVED

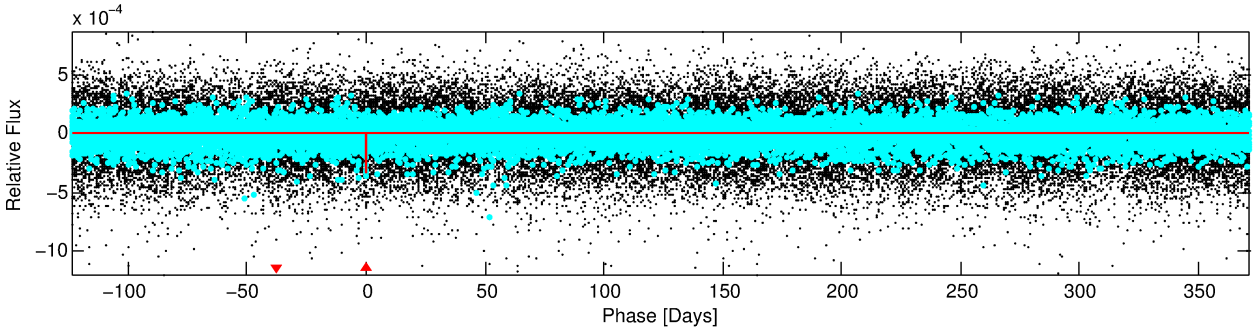
DV One-Page Summary

KIC: 11401313 Candidate: 1 of 1 Period: 495.586 d

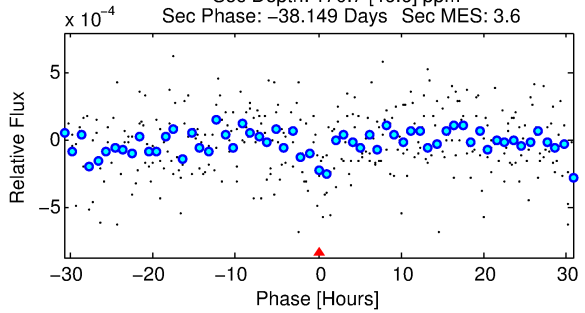
WARNING: THIS DATA IS SIMULATED, NOT OBSERVED

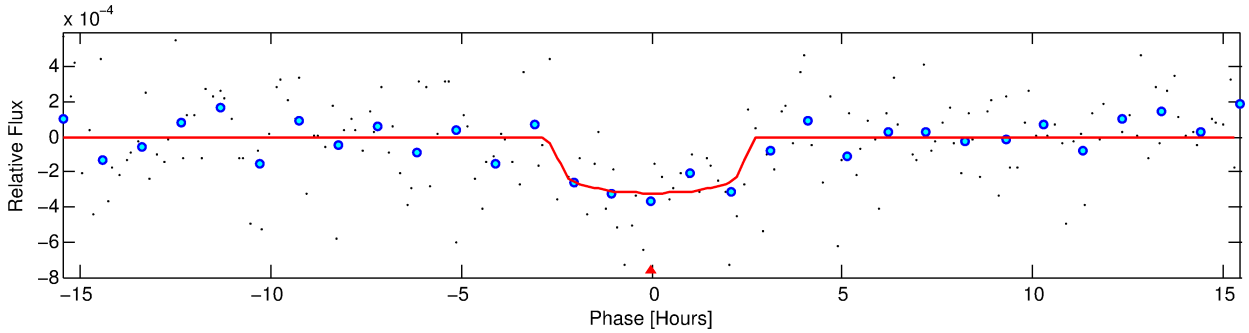
Kp: 14.48 R*: 1.04 Rs Teff: 6190.0 K Logg: 4.43 Fe/H: −0.100



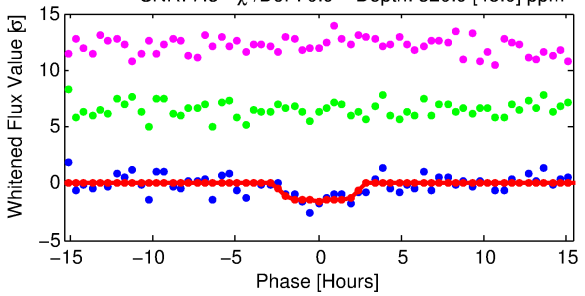


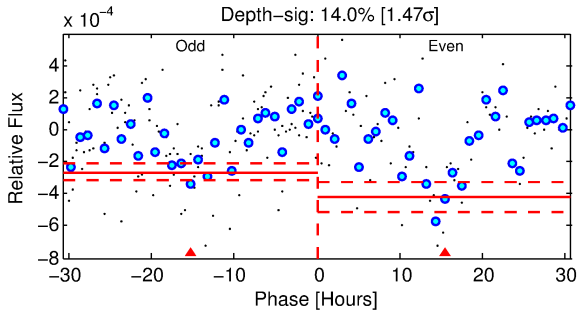
Sec Depth: 170.7 [46.6] ppm
Sec Phase: −38.149 Days Sec MES: 3.6

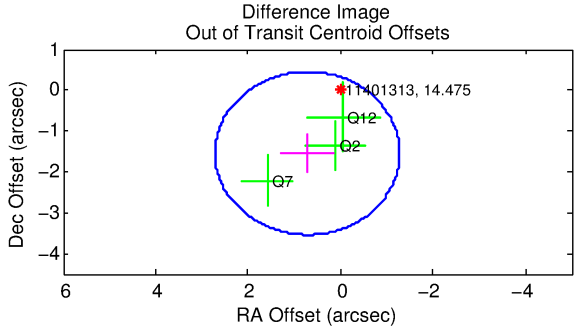




MES: 7.1 Transits: 3
SNR: 7.3 χ^2/DoF: 0.9 Depth: 320.9 [48.0] ppm







DV Fit Results:

Period = 495.58604 [0.00979] d
Epoch = 177.5885 [0.0137] BKJD
Rp/R* = 0.0174 [0.0267]
a/R* = 565.95 [4378.50]
b = 0.67 [6.55]

Seff = 0.91 [0.39]
Teq = 249 [27] K
Rp = 1.98 [3.12] Re
a = 1.2537 [0.3486] AU

Ag = 37492.91 [116714.36] [0.32σ]
Teffp = 5364 [4144] K [1.23σ]

DV Diagnostic Results:

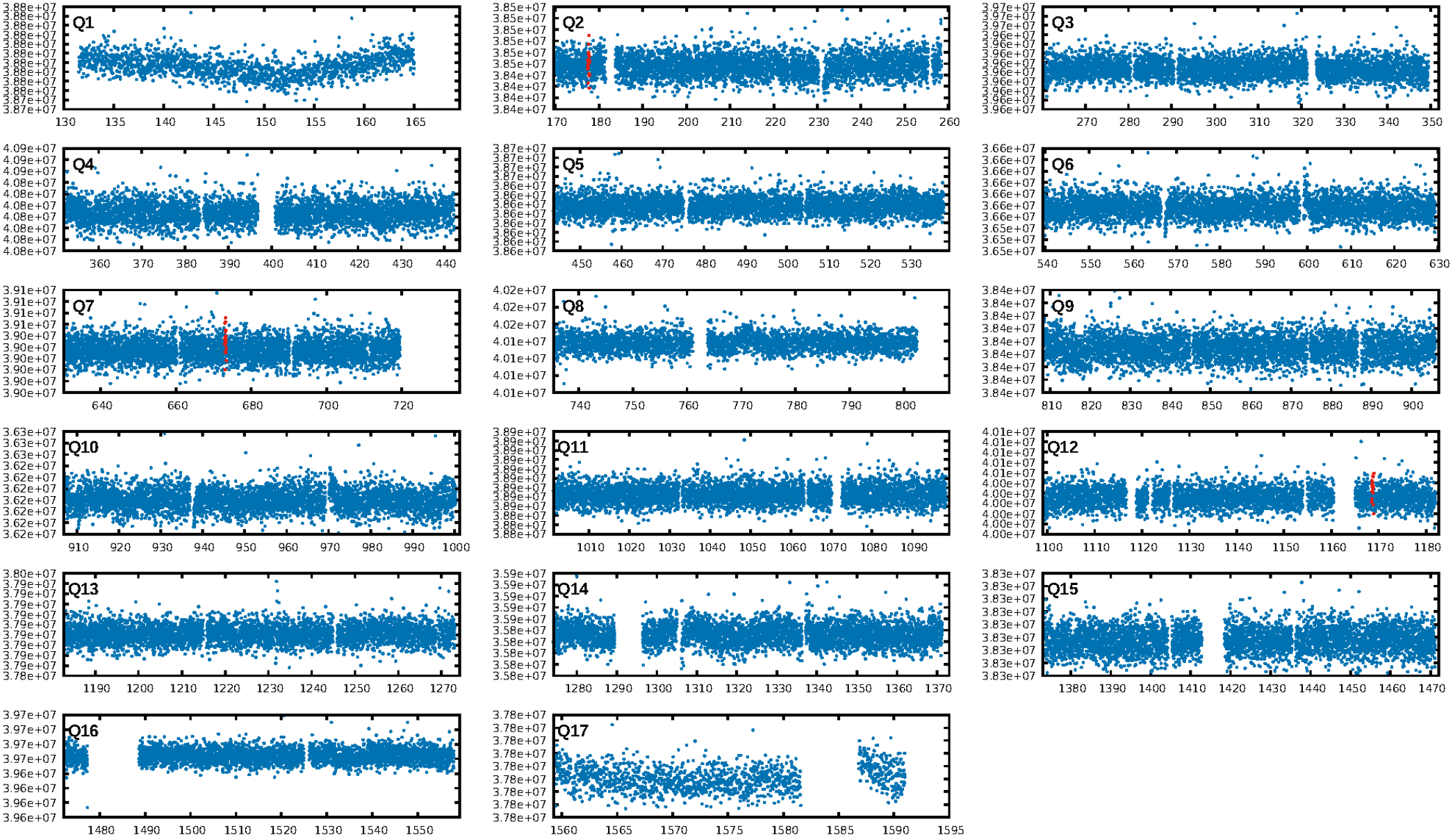
ShortPeriod−sig: N/A
LongPeriod−sig: N/A
ModelChiSquare2−sig: 36.7%
ModelChiSquareGof−sig: 99.8%
Bootstrap−pfa: 1.31e−10
RollingBand−fgt: 1.00 [3/3]
GhostDiagnostic−chr: 3.074

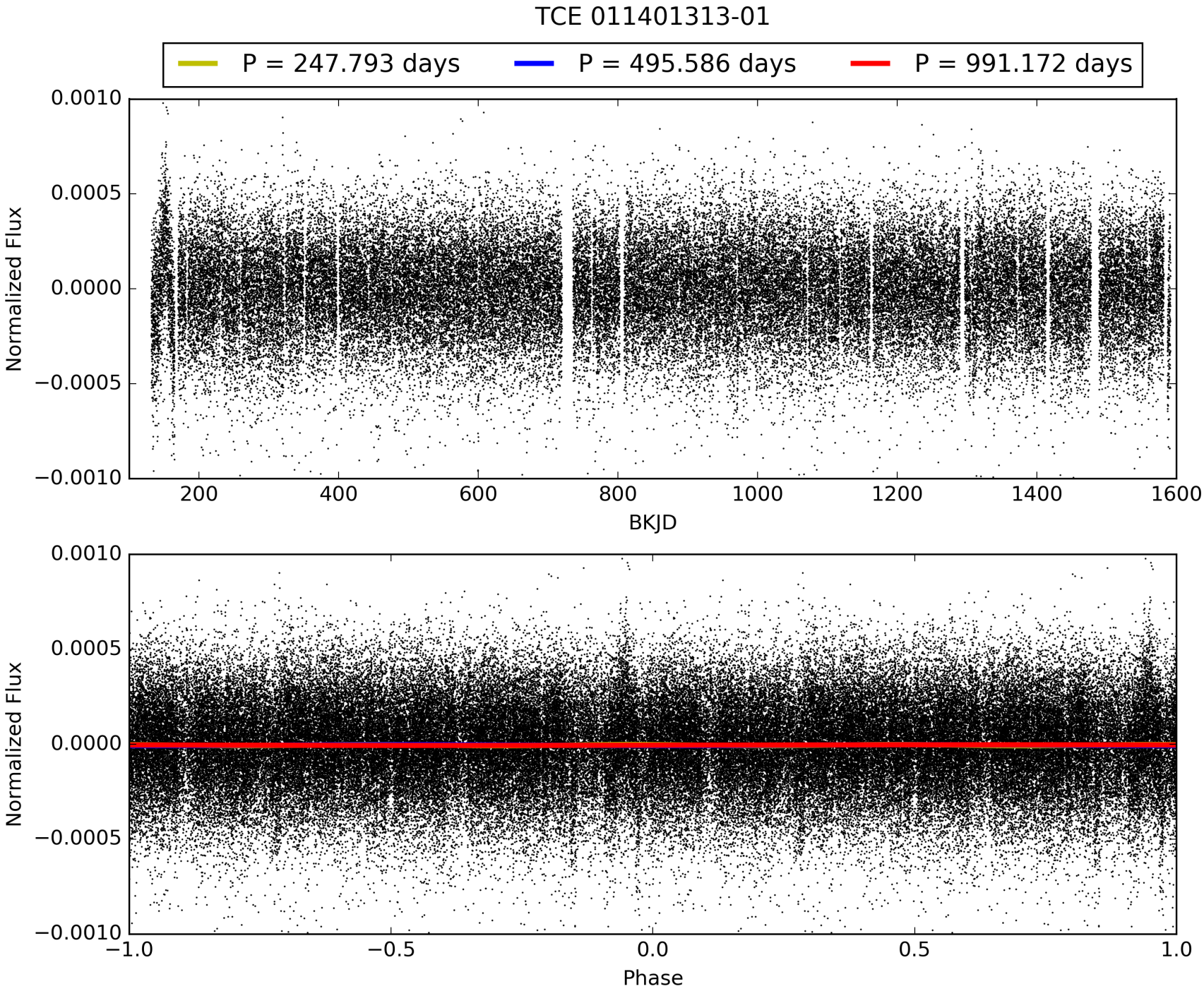
Centroid−sig: 29.0%
Centroid−so: 2.881 arcsec [1.35σ]
OotOffset−rm: 1.706 arcsec [2.57σ]
KicOffset−rm: 1.810 arcsec [3.62σ]
OotOffset−st: 1/1/1/0 [3]
KicOffset−st: 1/1/1/0 [3]
DiffImageQuality−fgm: 0.67 [2/3]
DiffImageOverlap−fno: 1.00 [3/3]

Software Revision: svn+ssh://murzim/repo/soc/branches/integ/ksop−2320@61025 −− Date Generated: 03−Mar−2016 23:44:10 Z

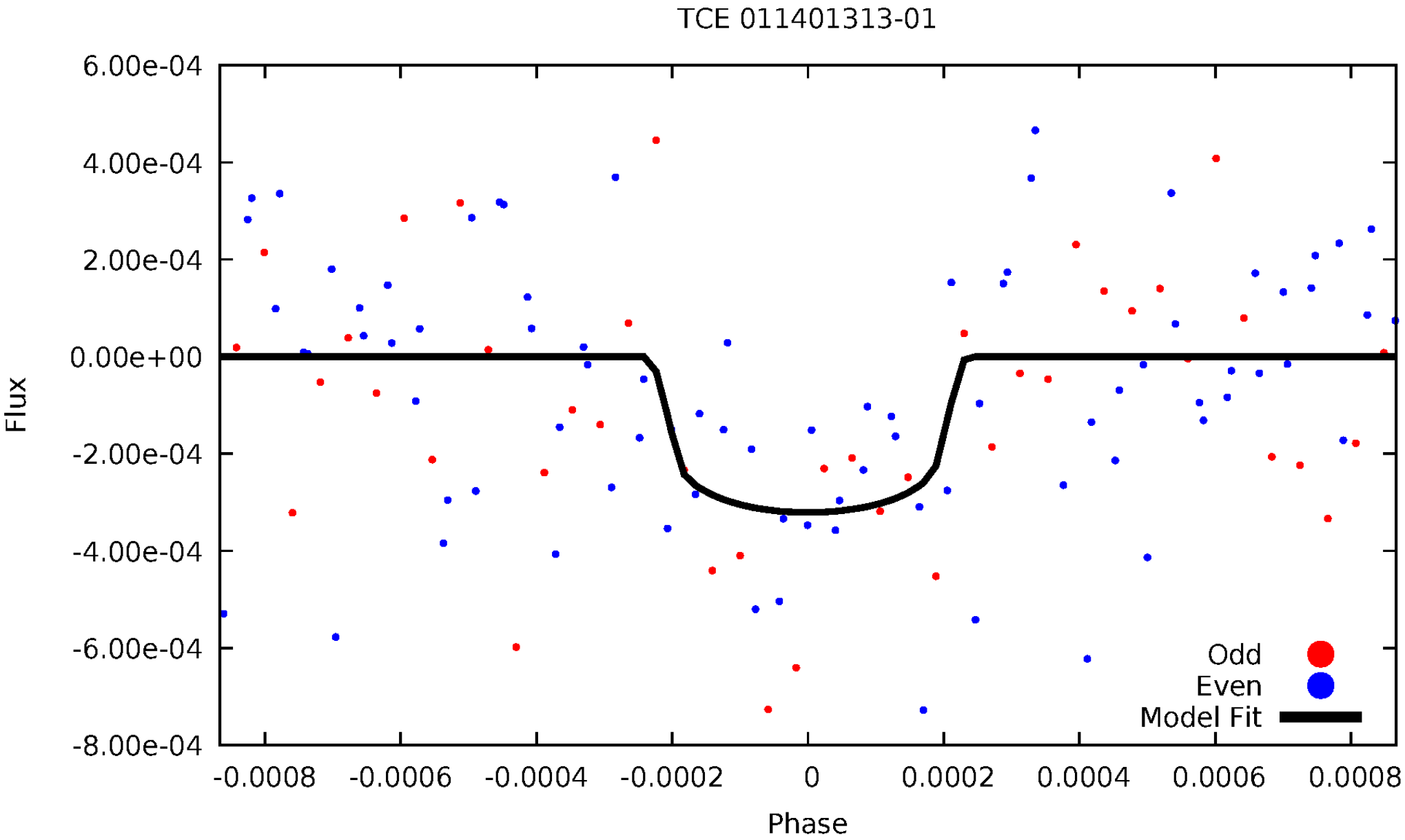
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

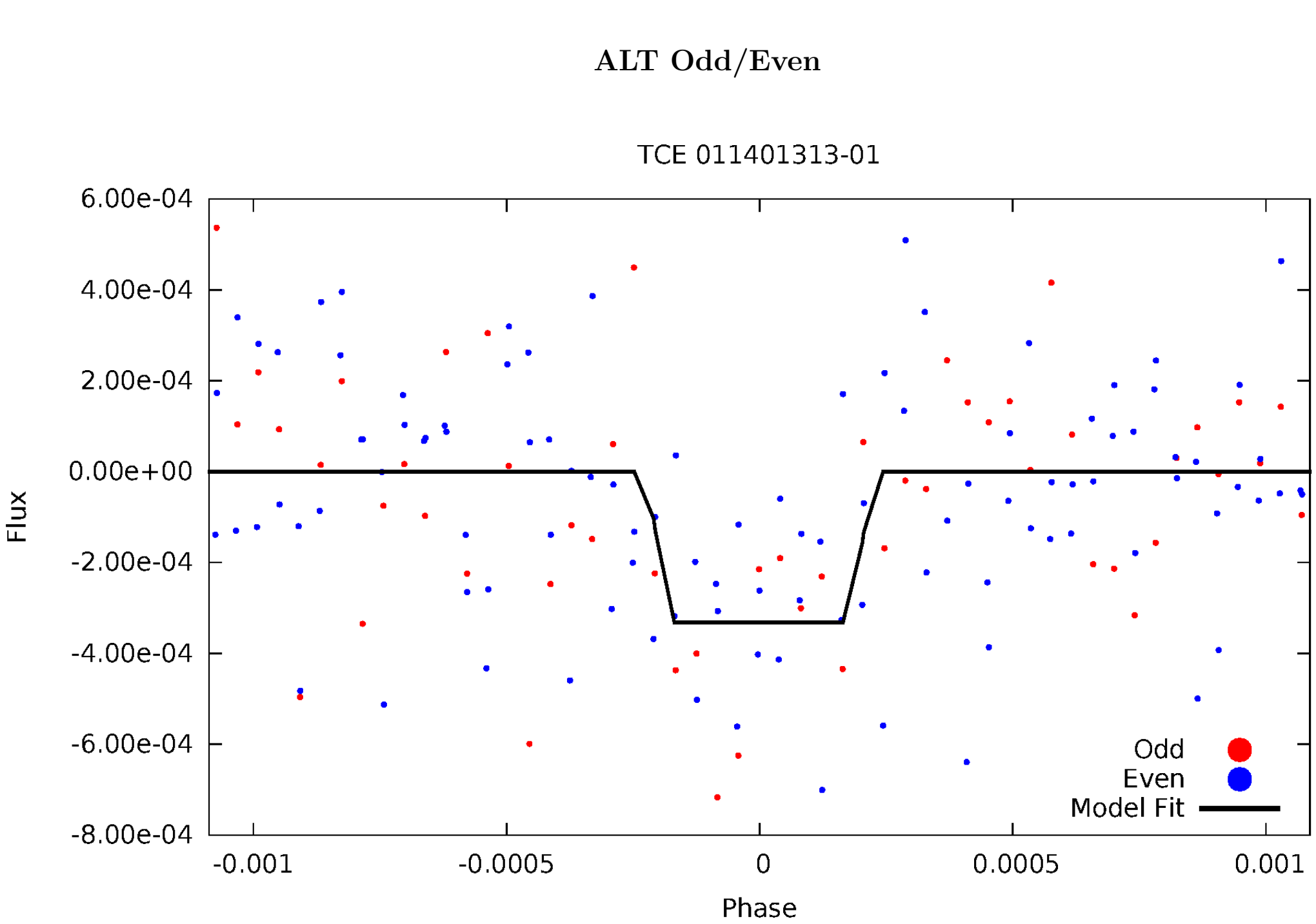
TCE 011401313-01, PDC Light Curves



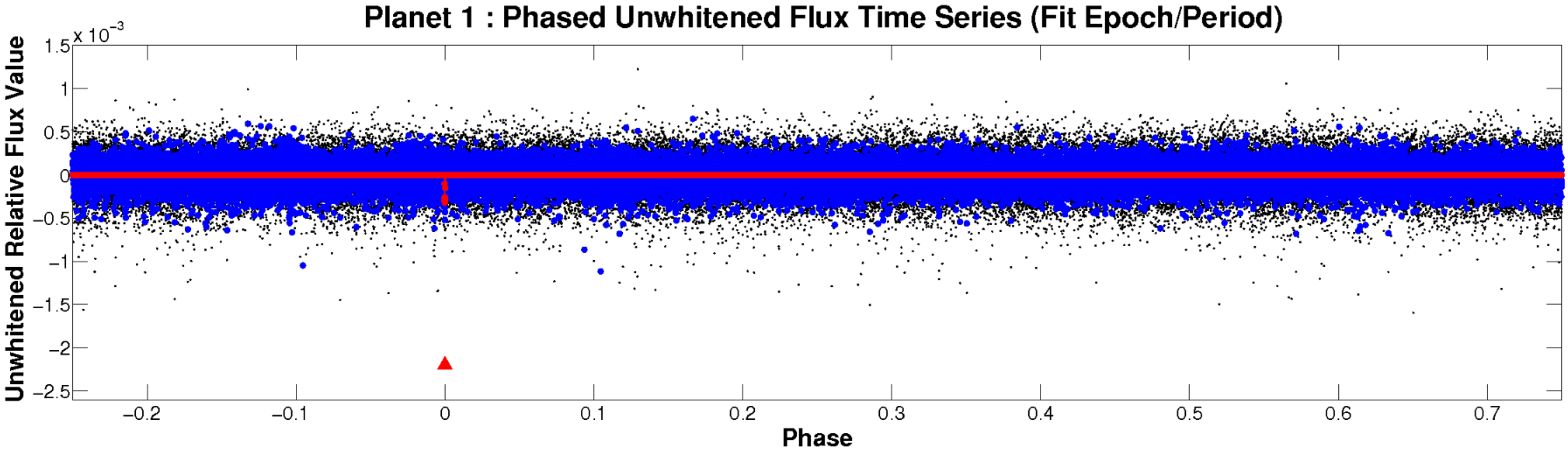

TCE 011401313-01
P = 247.793 days
P = 495.586 days
P = 991.172 days
Normalized Flux
0.0010
0.0005
0.0000
−0.0005
−0.0010
200
400
600
800
1000
1200
1400
1600
BKJD
Normalized Flux
0.0010
0.0005
0.0000
−0.0005
−0.0010
−1.0
−0.5
0.0
0.5
1.0
Phase

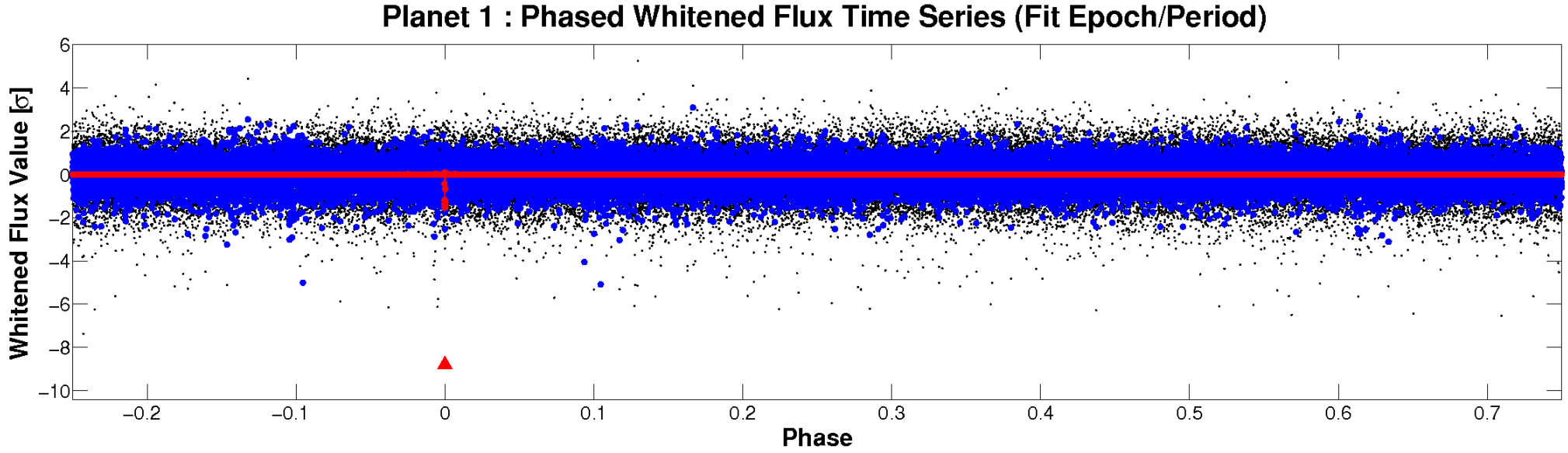
DV Odd/Even


TCE 011401313-01
6.00e-04
4.00e-04
2.00e-04
0.00e+00
-2.00e-04
-4.00e-04
-6.00e-04
-8.00e-04
Flux
-0.0008
-0.0006
-0.0004
-0.0002
0
0.0002
0.0004
0.0006
0.0008
Phase
Odd
Even
Model Fit


ALT Odd/Even
TCE 011401313-01
6.00e-04
4.00e-04
2.00e-04
0.00e+00
-2.00e-04
-4.00e-04
-6.00e-04
-8.00e-04
Flux
-0.001
-0.0005
0
0.0005
0.001
Phase
Odd
Even
Model Fit

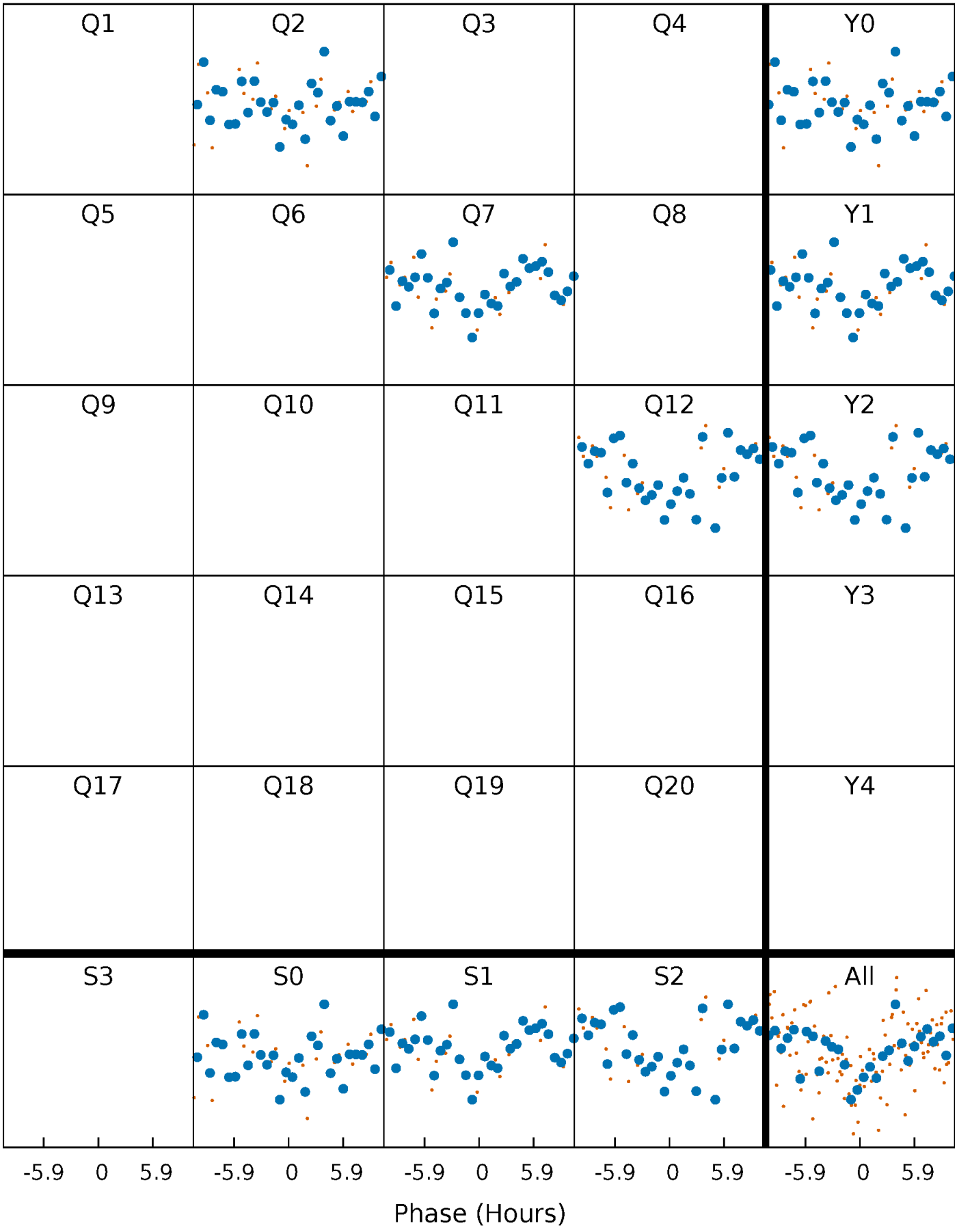
Non-Whitened Vs. Whitened Light Curve





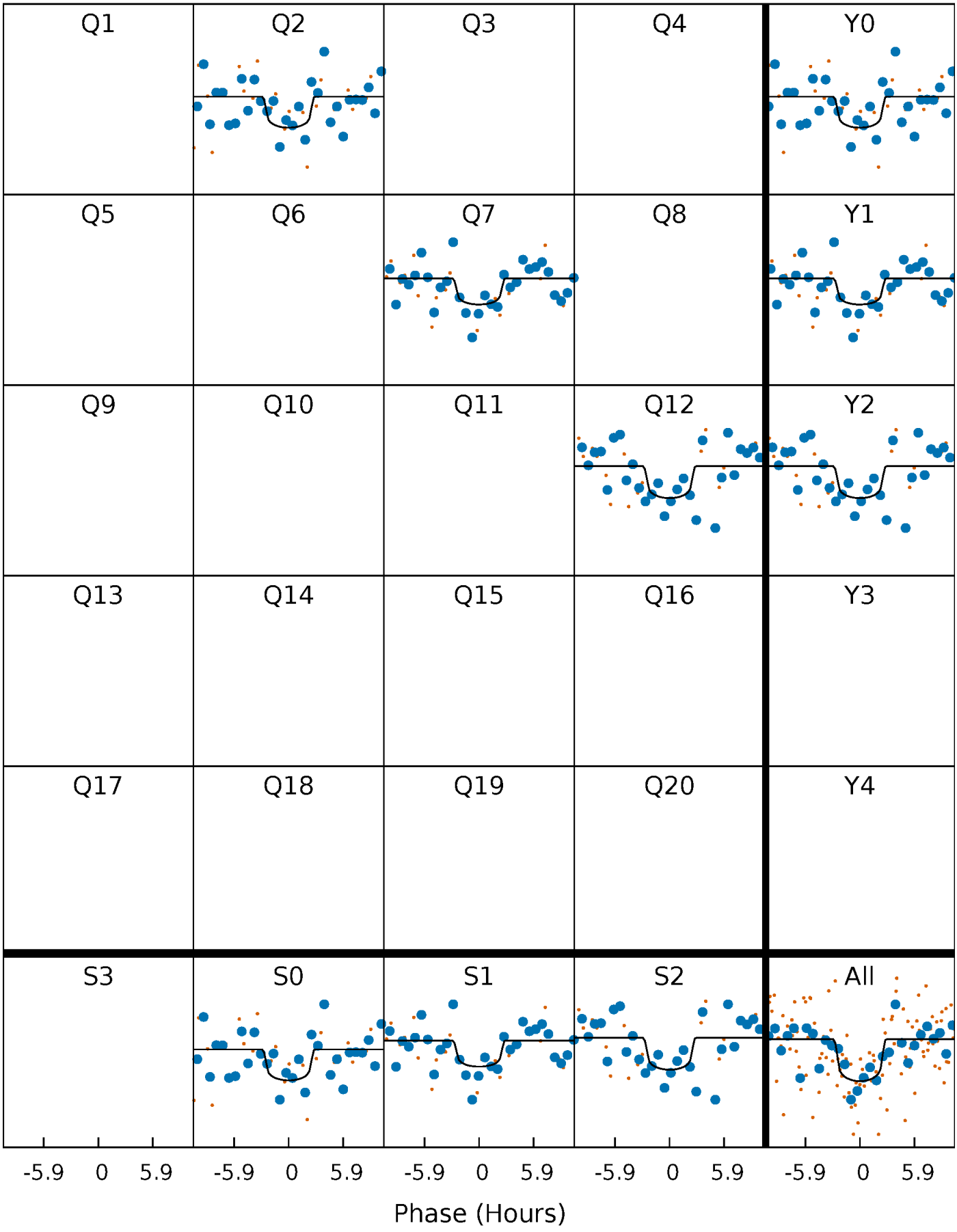
PDC Quarter-Phased Transit Curves

TCE 011401313-01 P=495.586044 Days T_0=177.588505 (BKJD)



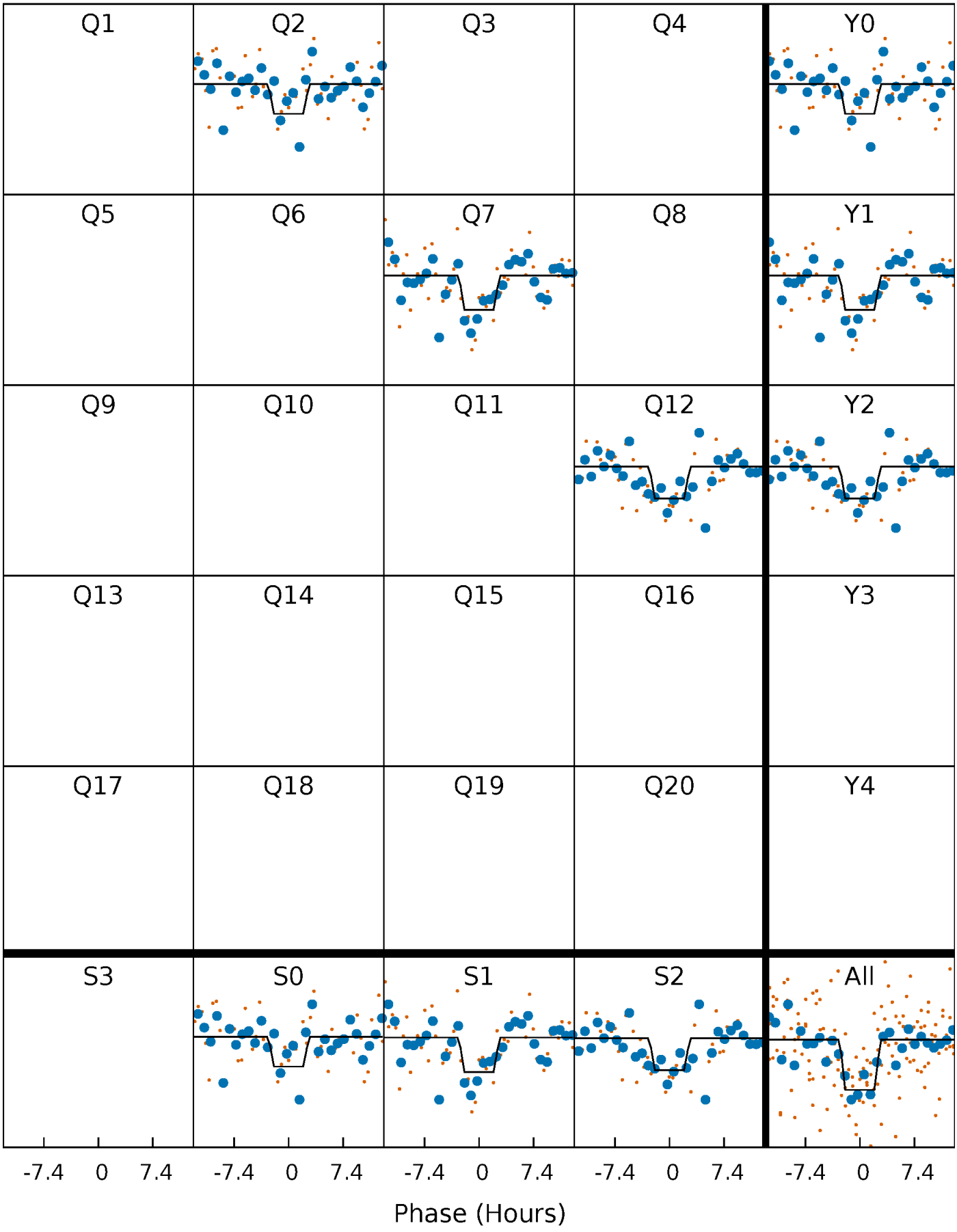
DV Quarter-Phased Transit Curves

TCE 011401313-01 P=495.586044 Days T_0=177.588505 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

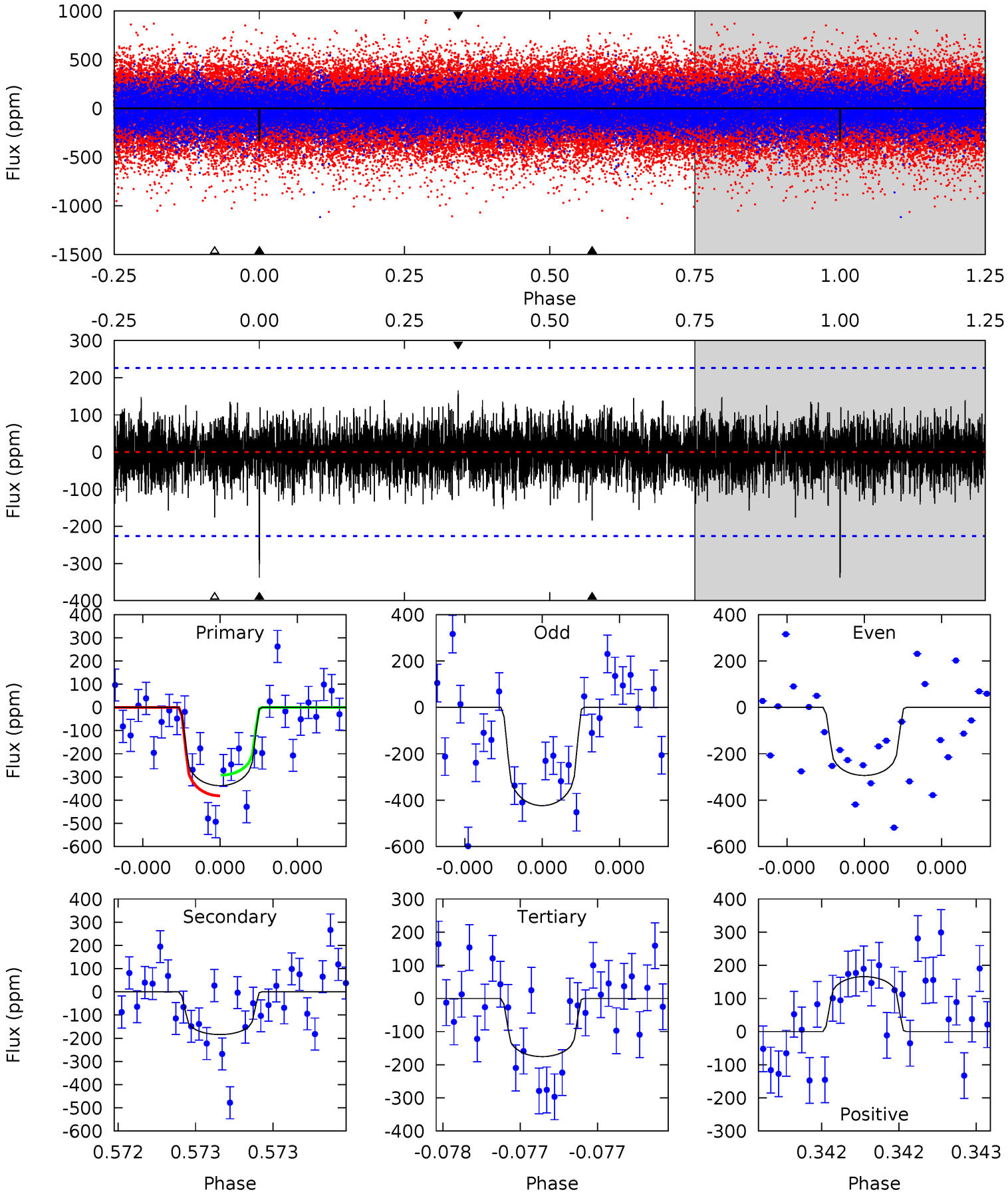
TCE 011401313-01 P=495.575131 Days T_0=177.611704 (BKJD)



DV Model-Shift Uniqueness Test

011401313-01, P = 495.586044 Days, E = 177.588505 Days

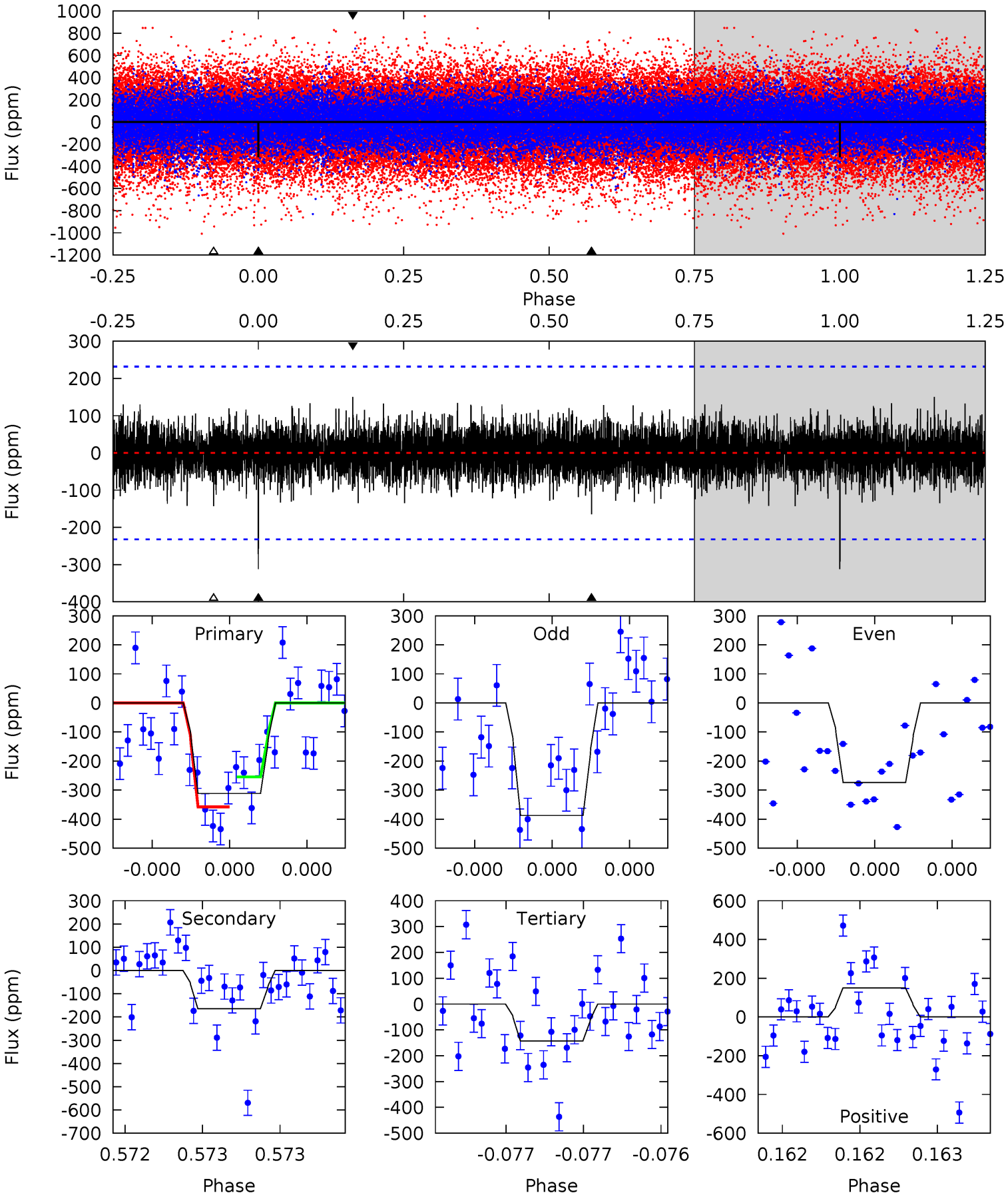
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.34	4.55	4.34	4.10	5.59	3.51	1.11	4.00	4.25	0.21	0.46	1.53	1.06	0.33	1.10



Alt Model-Shift Uniqueness Test

011401313-01, P = 495.575131 Days, E = 177.611704 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.53	3.98	3.45	3.63	5.61	3.53	0.95	4.07	3.90	0.53	0.35	1.30	0.92	0.33	1.25



Stellar Parameters For KIC 011401313

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	6190^{+166}_{-222}	$4.429^{+0.072}_{-0.217}$	$-0.100^{+0.250}_{-0.300}$	$1.045^{+0.349}_{-0.116}$	$1.064^{+0.168}_{-0.137}$	$1.313^{+0.402}_{-0.726}$
	+3%/-4%	+2%/-5%	+250%/-300%	+33%/-11%	+16%/-13%	+31%/-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 011401313-01 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-184±40	$3.19^{+2.96}_{-2.12}$	354^{+27}_{-18}	4554^{+3316}_{-959}	$14370^{+123861}_{-10348}$
Alt.	-165±41	$3.01^{+3.02}_{-1.99}$	355^{+27}_{-19}	4586^{+3069}_{-1030}	$15494^{+119192}_{-11676}$

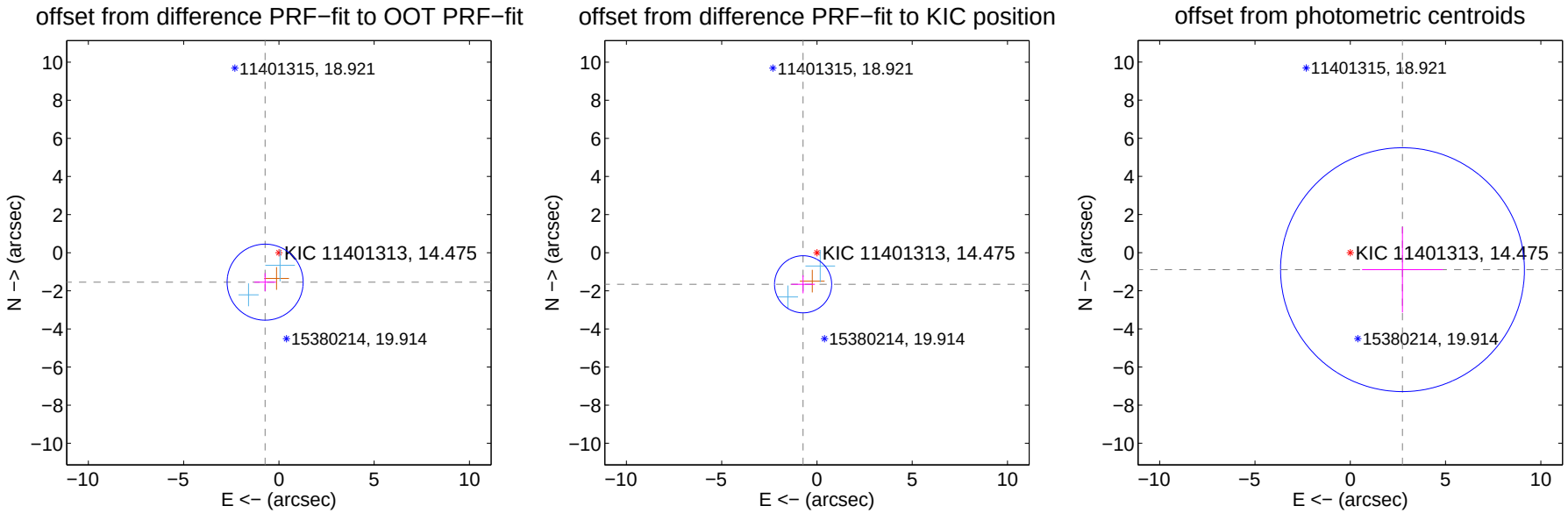
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

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

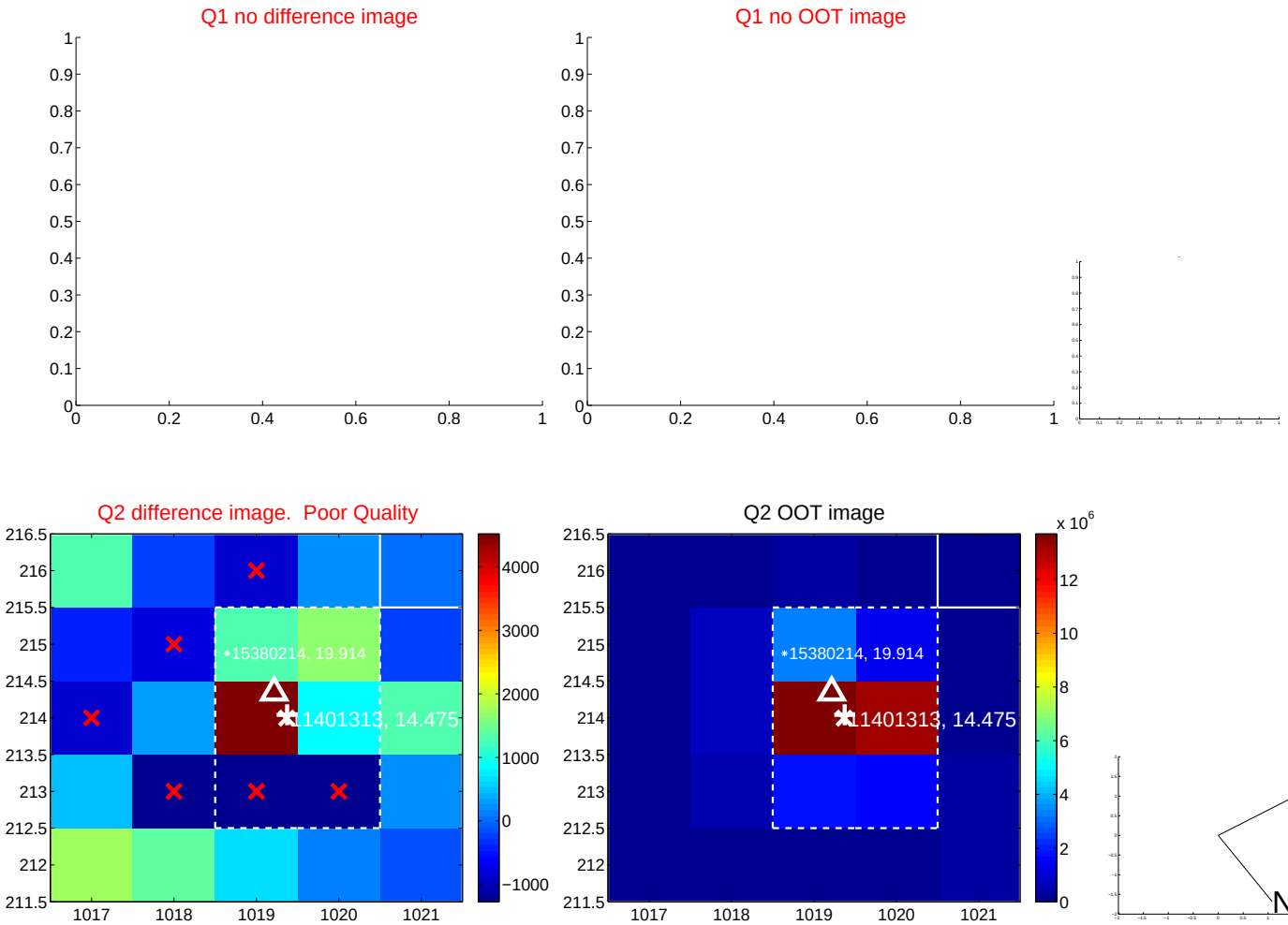
Supplemental centroid analysis for 011401313-01. Kepler magnitude: 14.47. Transit SNR 7.30
There are 2 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.706 ± 0.665	2.57	0.723 ± 0.574	-1.546 ± 0.476
PRF-fit source offset from KIC position	1.810 ± 0.500	3.62	0.728 ± 0.618	-1.657 ± 0.473
photometric centroid source offset	2.88 ± 2.13	1.35	-2.74 ± 2.12	-0.89 ± 2.25

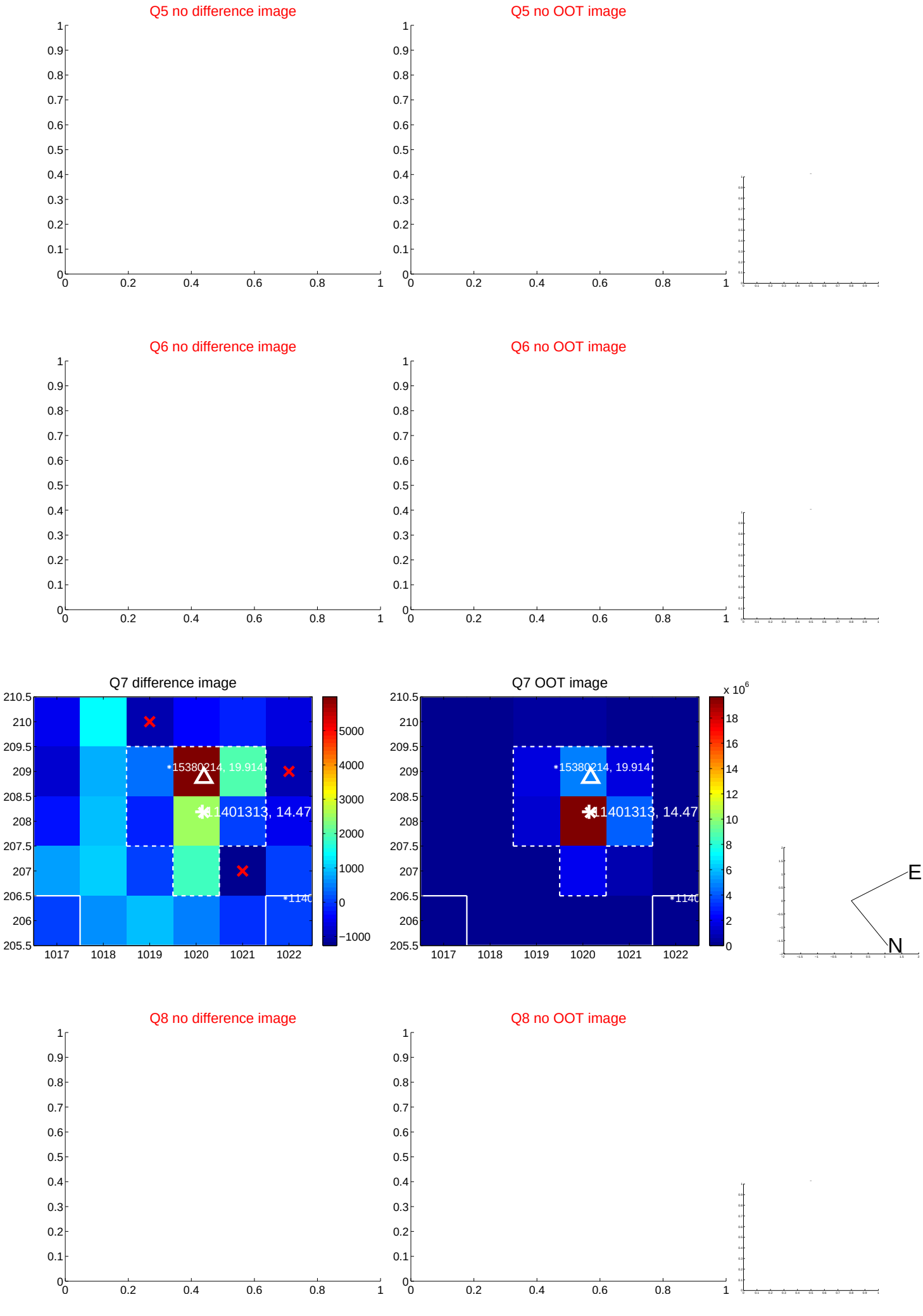


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red *: 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.

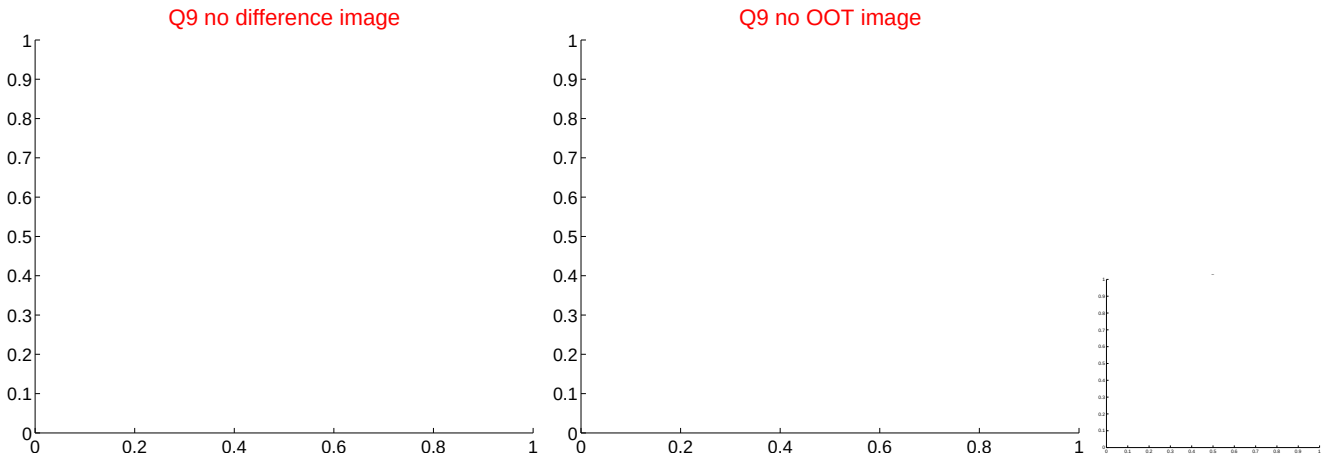
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

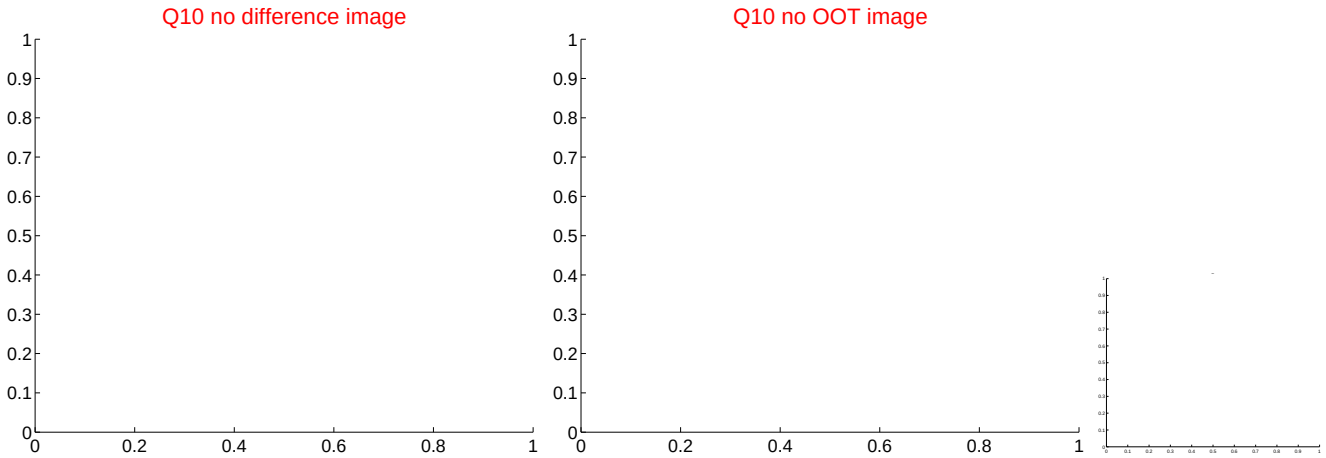


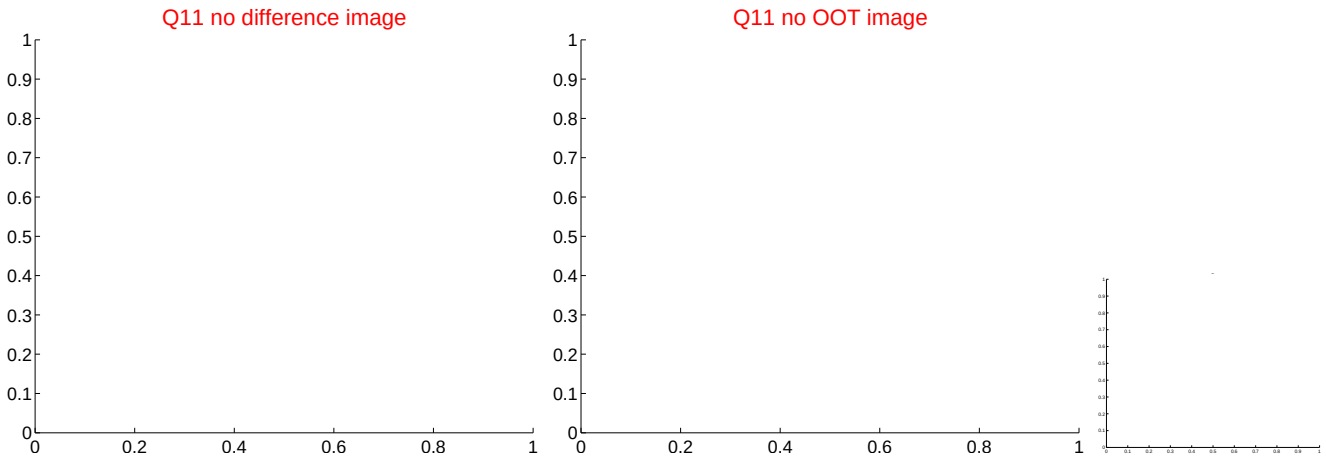
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

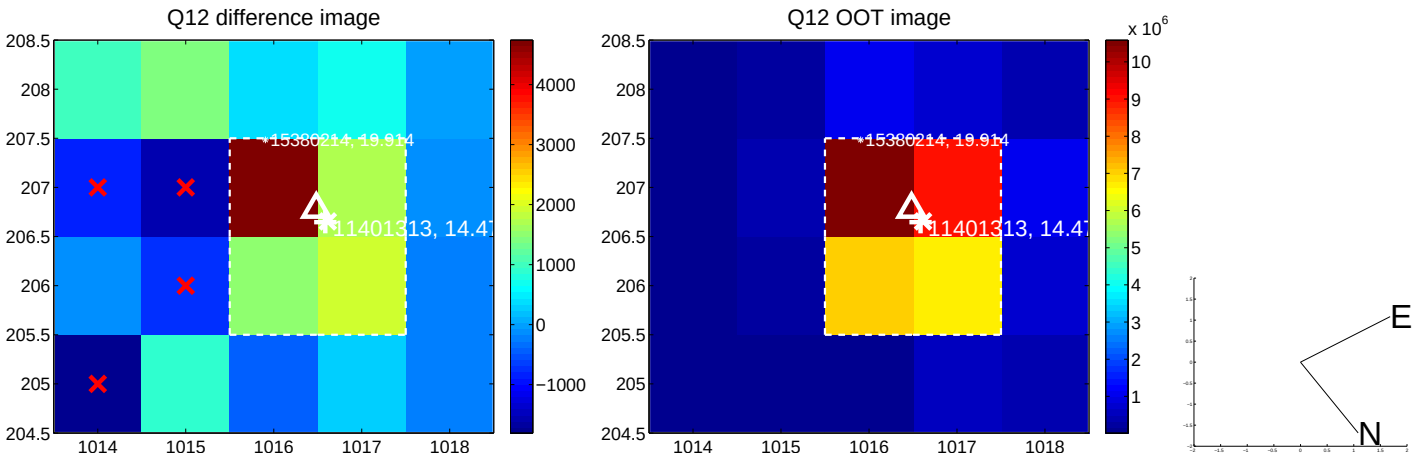


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

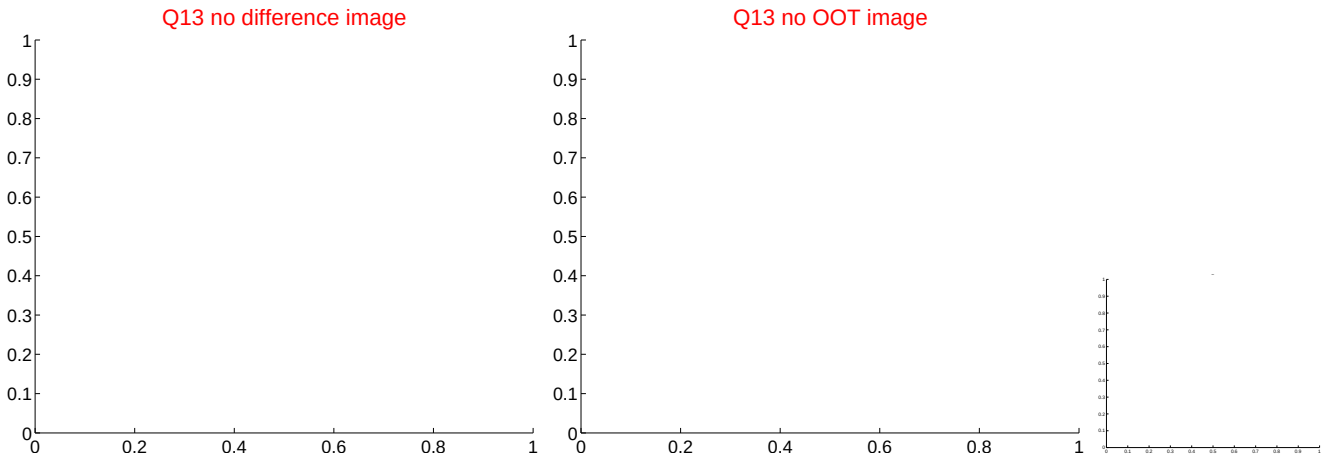


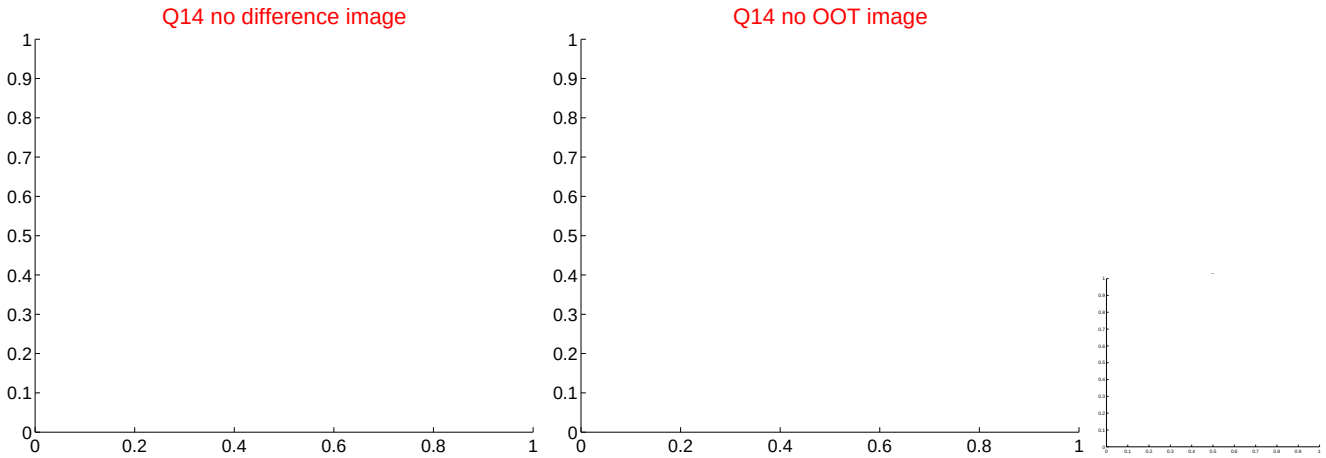


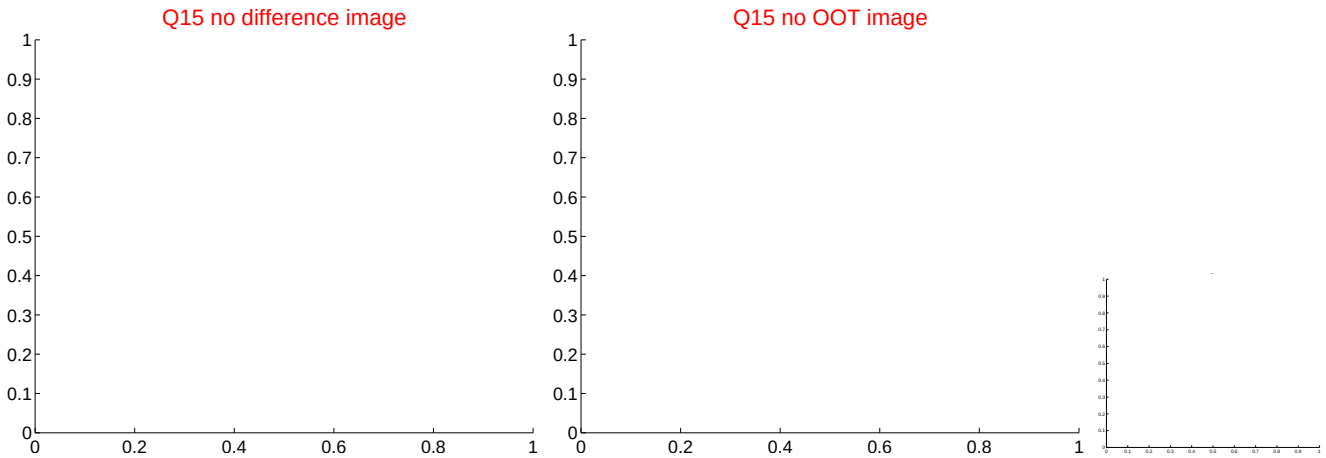


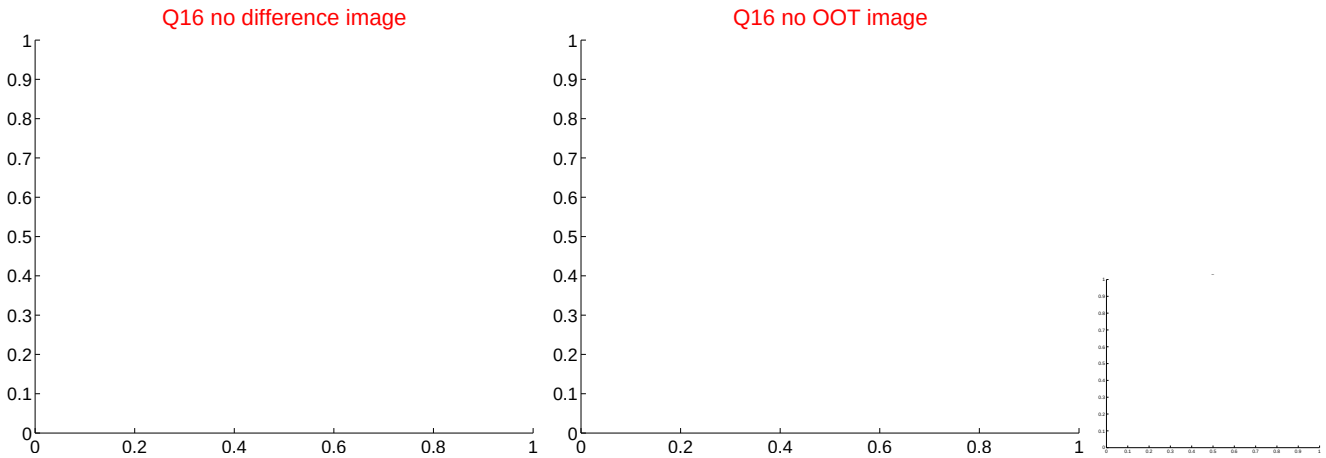


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

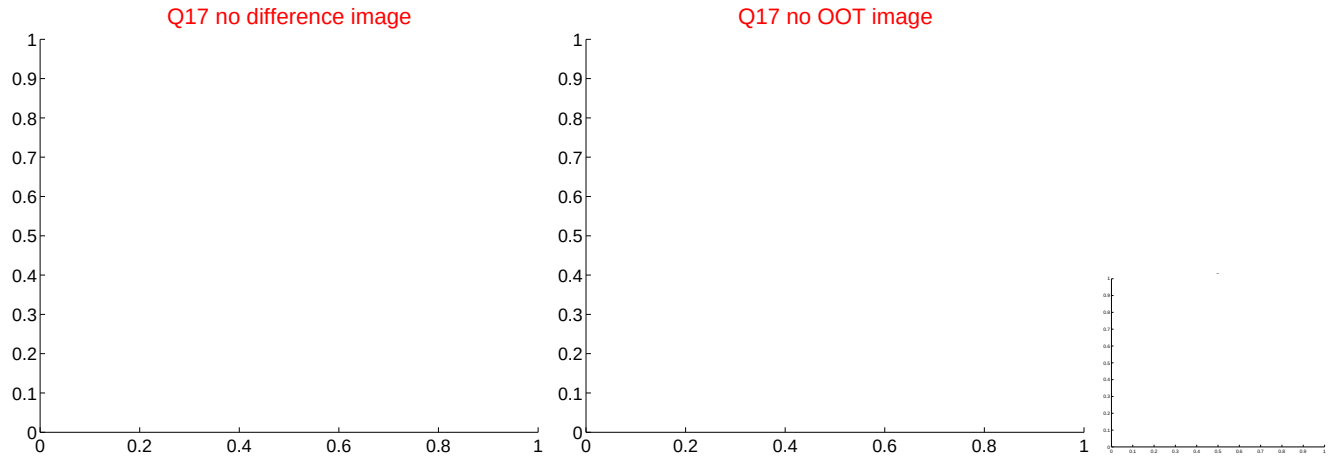


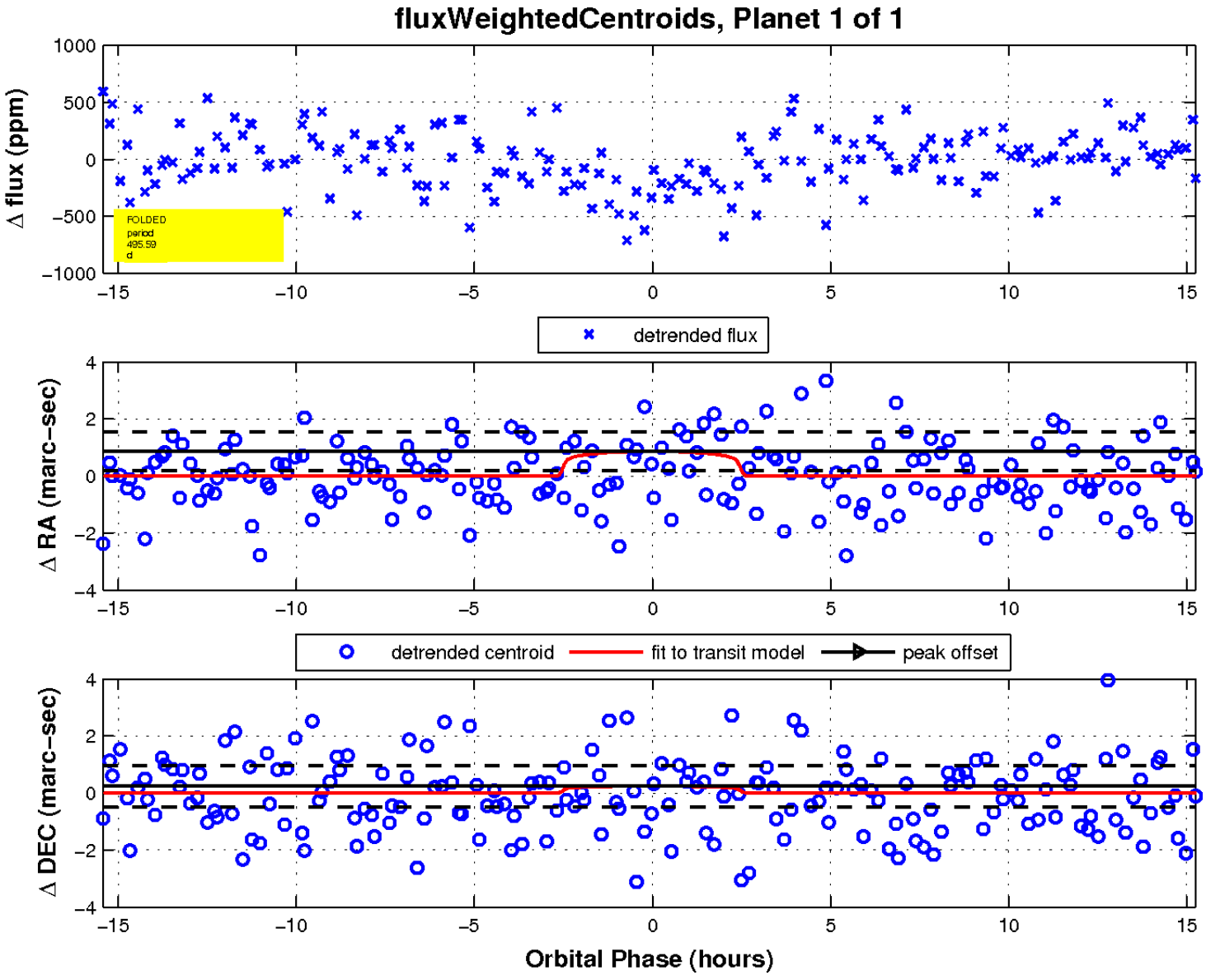




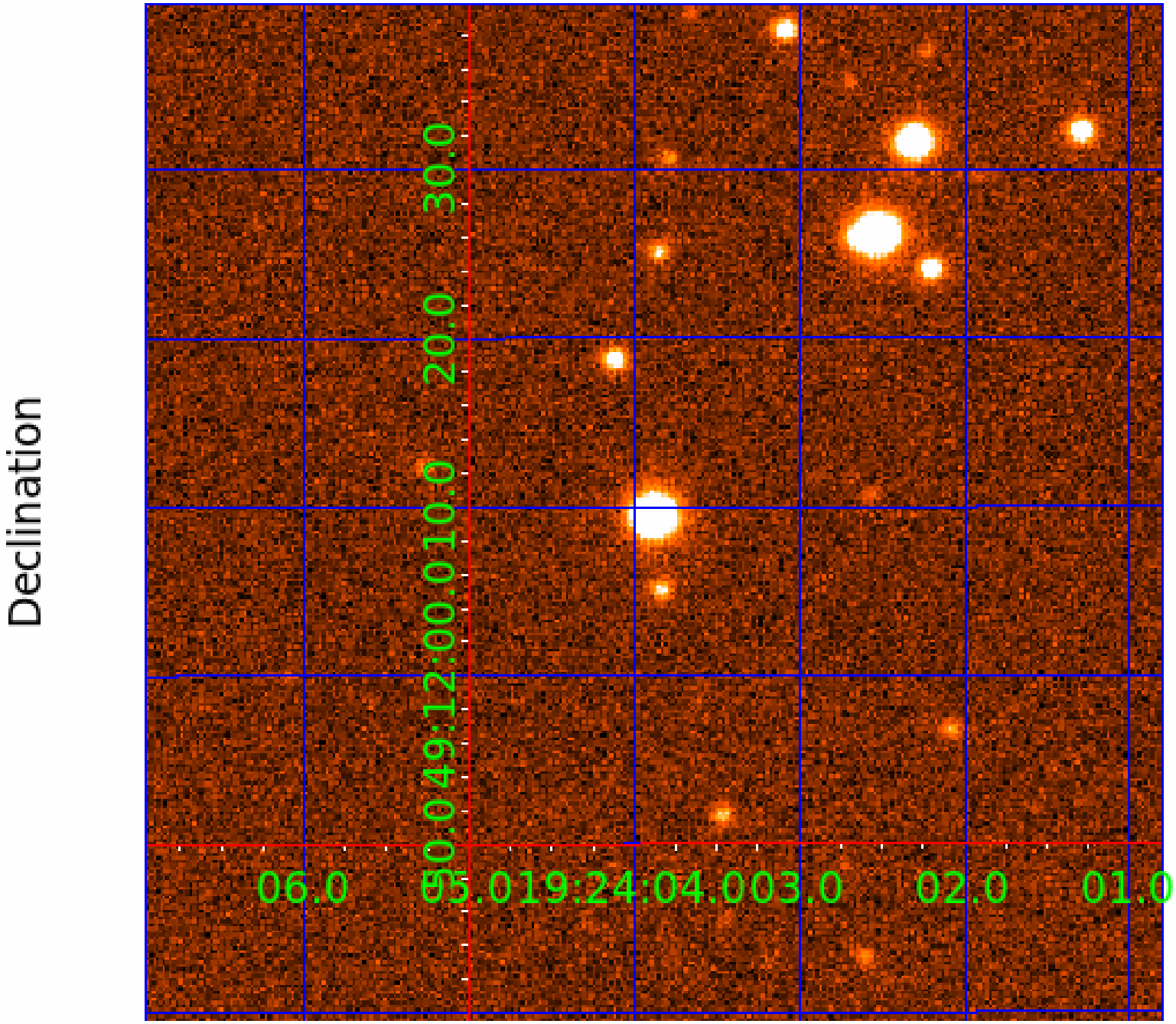


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.





UKIRT Image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01.0