Boxplot of ARL<sub>1</sub> for Various Models on Streaming Data with z and alpha: z:1.6449 alpha:2.5, Mean Gap Size of 10 (Outliers in out-of-control Period) 20.0 17.5 15.0 2.5 CTM (Z:1.6449, a:2.5, (0.15, 10))

CTM (Z:1.6449, a:2.5, (0.15, 10))

M-CTM (Z:1,6449, 2:2.5, (0.1,20)) WM (2:1.6449, a:2.5, (0.1., 10)) CTM (Z:1,6449, 3:2,5,10.1, 10)) CTM (Z:1,6449, 3:2.5, (0.1, 15)) WM (Z:1.6449, 8:2.5, (0.1, 20)) TM (Z:1,6449,3:2.5,(0.15,10)) WM (Z:1.6449, a:2.5, (0.15, 10)) TM (Z:1.6449, a:2.5, (0.15, 15)) CTM (Z:1.64A9, a:2.5, (0.15, 15)) TM (2:1.6449, a:2.5, (0.15, 20)) WM (Z:1,6449,2:2.5,10.15,20)) CTM (2:1.6449, a:2.5, (0.15, 20)) CTM (Z:1,6449, 2:2.5, (0.2, 10)) WM (2:1,6449, a:2.5, (0.2, 15)) CTM (Z:1,6449,3:2.5,10.2,15)) TM (Z:1,6449,a:2.5,10.1,15)) WM (2:1,6449, a:2.5, (0.1, 15)) SWM (Z.1.6449, 2.25,20) TM (2:1.6449, a:2.5, (0.1, 20)) SWM (2.1. 6449, a.2.5,25) TM (Z:1,6449,3:2.5, (0.2, 10)) WM (2:1.64A9, a:2.5, (0.2, 10)) TM (Z:1,6449,2:2.5,10.2,15))

Model (Parameters)

 $ARL_1$