**Summary Sheet for Part B**

B2. The value of the Total SS is 302569.8777

B3. The p-value is 0.0001008

What can you conclude at the 5% level of significance?

Since the p-value 0.0001008 < α = 0.05, the null hypotheses of no difference among treatment means is rejected. We conclude that there exists at least 1 difference between treatment means.

B4. What conclusions can be made based on the Tukeys HSD test?

Tukey multiple comparisons of means

95% family-wise confidence level

factor levels have been ordered

Fit: aov(formula = Distance.travelled.cm ~ Treatment)

$Treatment

diff lwr upr p adj

Control-Recovery 10.99027 -33.05562 55.03616 0.8215212

Air-Recovery 73.48643 29.44054 117.53231 0.0004718

Air-Control 62.49615 23.33003 101.66228 0.0008425

Conclusions

B5. What possible violations are suggested by the boxplots?

B6. The value of the F test statistic is 8.3418

The p-value for the F test statistic is 0.000589

What conclusions can you draw for this response variable?

B7. The F-stat value for Length.mm is 0.4559 and for Weight.mg is 1.4675

The p-value for Length.mm is 0.6359 and for Weight.mg is 0.2379

Do the population means differ among treatments?