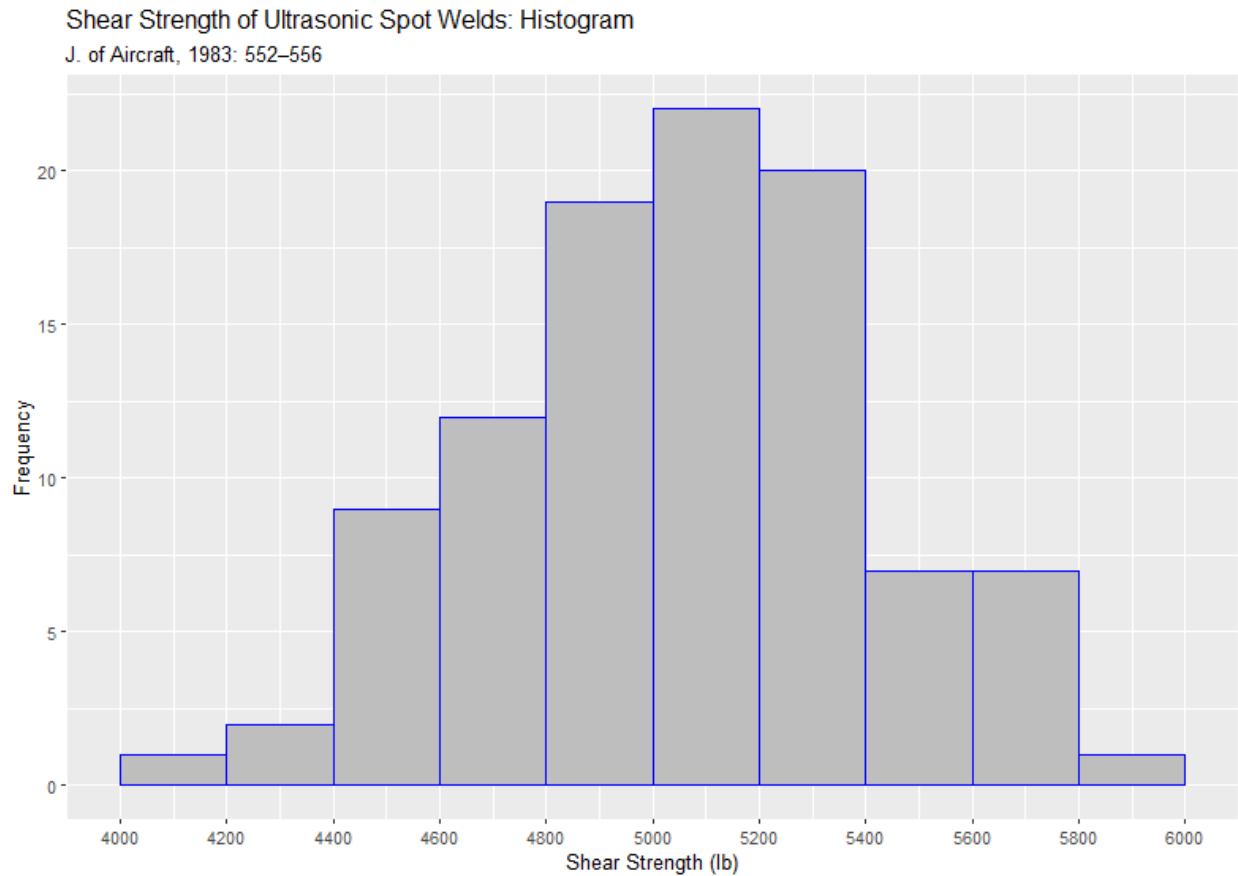
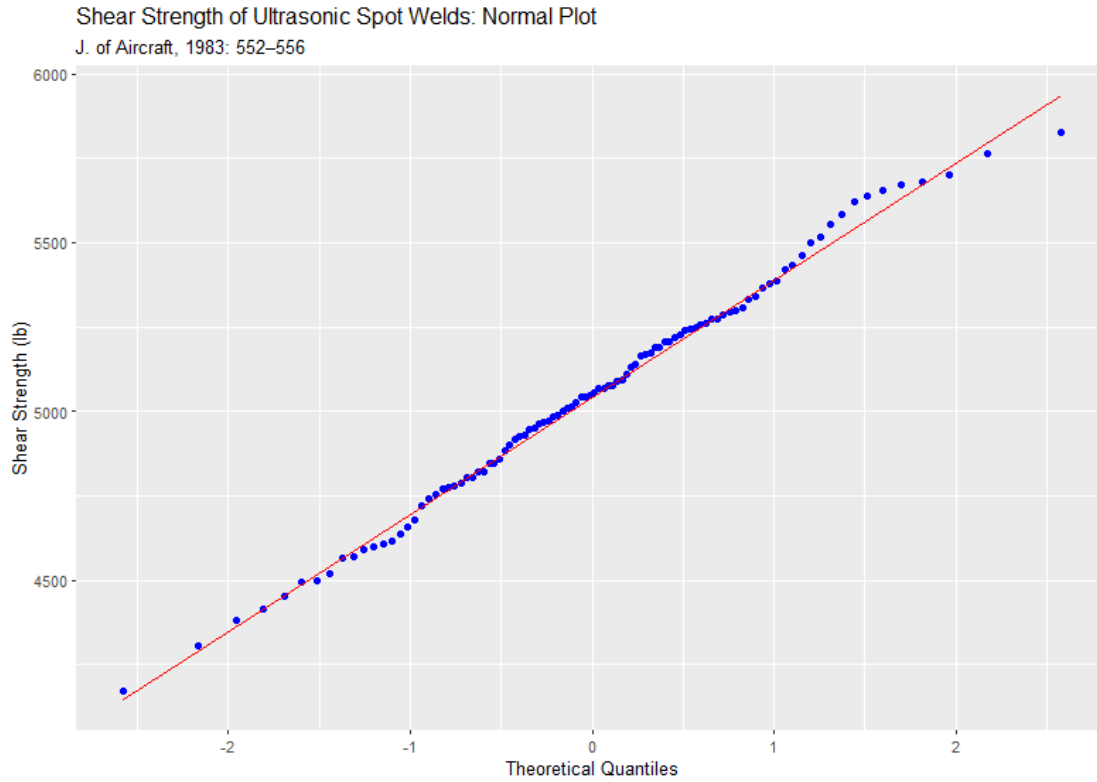


You should use packages ggplot2 and ggpvr to complete the following problems.

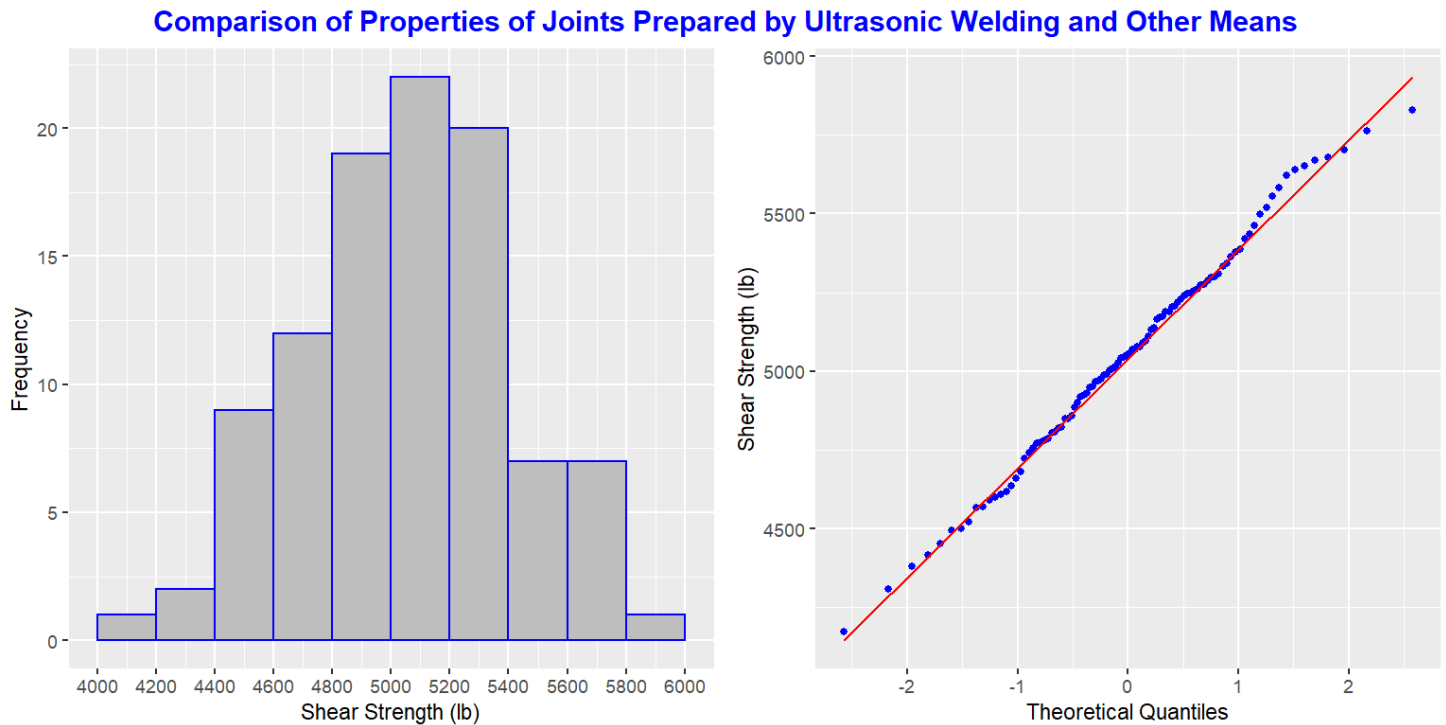
1. (16 points) The accompanying data set consists of observations on shear strength (lb) of ultrasonic spot welds made on a certain type of alclad sheet.
  - a. (5 points) Construct a frequency histogram based on ten equal-width classes with boundaries 4000, 4200, 4400, ..., 6000. [The histogram will agree with the one in **“Comparison of Properties of Joints Prepared by Ultrasonic Welding and Other Means”** (*J. of Aircraft*, 1983: 552–556).] Your histogram should be the same as the one provided below.



- b. (5 points) Make the normal probability plot for shear strength. Your plot should be identical to the one page 2.



- c. (1 point) What can you conclude about the distribution of shear strengths?
- d. (5 points) Use package ggpubr to combine the plots. The resulting picture is given below.



J. of Aircraft, 1983: 552-556

2. (5 points) The dataset `InsectSprays` (in 'datasets') contains the counts of insects in agricultural experimental units (some plants) treated with different insecticides. Use `ggplot2` to produce the following plot (next page please):

