数据中某些属性的缺失值较多，但是提供的数据较少只有300条，随便删除数据会导致信息极大的缺失，且数据的完整性保证了我们采用的秩和比、TOPSIS、模糊综合评判算法的结果，所以我们对缺失值进行了填补。针对三种数据缺失的情况（缺失值很少、缺失值较多并和其他的属性有较大相关关系、缺失值较多和其他属性相关性较少）我们采取了三种不同的方式：

1. 针对Height、Speed、Length，这三类数据缺失个数少于等于5个。缺失的数据对于整体没有太大的影响，所以我们采用均值填补的方式。
2. 针对Duration、G Force、Vertical Angle，这三个属性的缺失值较多并且和其他的属性相关性较小，所以我们无法通过其他的属性值来得到这三个数值。因此我们在该属性中未缺失数据构成的分布中进行采样来填补缺失值。为了防止极端数据的出现增加算法误差影响最终的排名，我们采用了3 sigma原则：当采样得到的数据超过3sigma的范围的时候重新进行采样，直到数据满足3 sigma原则。
3. 针对Drop，因为其和Length、Speed的线性相关性较高，所以进行多元线性回归得到系数，得到如下公式来进行填补：

There are many missing values of some attributes in the data, but only 300 pieces of data are provided, so deleting the data casually will lead to a great loss of information.And the integrity of the data to ensure that we use the Comprehensive Evaluation of Rank Sum Ratio, TOPSIS, Fuzzy Comprehensive Evaluation Method algorithm results as ranking, so we filled in the missing value.There are three types of attributes of missing data (fewer missing values, more missing values with greater correlation with other attributes, more missing values but less correlation with other attributes) and we took three different approaches:  
The number of missing data is less than or equal to 5 for Height, Speed and Length.The missing data doesn't have much impact on the overall picture, so we used the mean-filled approach.

Because of the high linear correlation between Drop, and Length, Speed.We used multivariate regression, the coefficients are obtained by multivariate linear regression, and the following formula is used to fill in:  
Drop=0.7290\*Length+0.6101\*Speed  
There are more missing values for Duration, G Force, and Vertical Angle, attributes but less correlation with other attributes. So we can't get these three values from other attribute values.Therefore, we took samples from the distribution of the missing data in the attribute to fill the missing values.In order to prevent the occurrence of extreme data to increase the algorithm error and affect the final ranking, we adopted the 3 sigma principle: when the sampled data exceed the range of 3 sigma, the data will be re-sampled until the data meet the 3 sigma principle.