We'd like to thank the reviewer for their helpful feedback. We have made our objectives clearer in the introduction section. The wind tunnel velocity profile and characteristics are difficult for us to determine, and the closest data to a velocity profile is given on page 11742 lines 25+ (we understand the reviewer is already aware of this data). We would like to clarify our experimental arrangement: the shear region is 10 cm and the drop size is ~6 mm. Over this shear region we measured a difference in wind of 12.6-10.4=2.2 m/s so the percentage gradient in shear across the dimension of the drop is: 6/100*2.2/10.4 = ~1% and not 10% as the referee suggested. There are two additional factors we would point out about our experimental setup and what we observed: a) other reviewers feel that the collisional kinetic energy of drop interactions is more important to the resulting breakup, as they have argued that it is a more direct representation of the system—drops become unstable naturally after collision, despite the range of possible aerodynamic conditions; b) neither a detailed aerodynamic analysis nor the collisional kinetic energy may be as crucial as thought for our experimental setup for reasons discussed below. Firstly, dealing with a): We've re-examined the collisional kinetic energy (CKE) of our drop collisions using the equation presented in the Low and List paper and compared them to the values expected if the collision had occurred in nature at their terminal velocities. We found that the values are within an order of magnitude, to the limits of the sensitivity our measurements allowed. Thus we are probably consistent with those collisions occurring in nature. Dealing with b): Differences between our observations and those of others are likely due to larger drops being used. Significant variation in oscillation behaviour and lengths of time before breakup after a collision-coalescence event, despite some similar pre-collision conditions, leads us to conclude that for larger drops, the direct importance of collisional kinetic energy to the resulting breakup drop-size distribution is in question. Once the drop configured itself where it became clear a given breakup mode will occur, the resulting fragments for that breakup type followed a similar distribution on average (see the videos at http://youtu.be/3lxOFufnQZg). Our observations suggest that either collisional kinetic energy or earlier drop interaction history may not necessarily be directly important to the resulting post-breakup fragment distributions in our experimental setup, and that they may only be indirectly important through possibly influencing the eventual breakup type. Only the breakup type itself seems to directly determine the resulting drop-size distribution. Whether this is true for other types of experimental approach is open to debate and further study. This is made considerably clearer in the revised manuscript.

The scope of this short study was to examine the size distribution of the drops after collision and subsequent breakup. An examination of the drop shapes or oscillation frequencies/amplitudes falls within this short study's remit—particularly in light of the above observation of the outcome being independent of earlier history once a given breakup type gets established. However, the videos that were recorded are available on my YouTube channel for examination: http://youtu.be/3lxOFufnQZg.

The reason the levitating speed of our drops was ~10.4 m/s was due to the nature of the air motion in the wind tunnel. The combination of use of a wire grate and upper plate to provide a back-pressure generated a stagnation well where the drops oscillate. The relative vertical height of this hover point depends on the air speed used, and 10.4 m/s was somewhat arbitrary. It is not a direct measure of the terminal fall speed of a drop, particularly as the drop oscillates vertically in this well as discussed further in section 2 of the revised manuscript.

The point regarding the difference in our experimental setup leading to smaller drops impacting from above onto larger drops—oppositely to nature—is a limitation of our wind tunnel. However, we feel the implications of this have been addressed above regarding the breakup observations.

We accept that 25 drops constitutes a relatively low sample number; however, we can estimate the sample size required to estimate the results at some level of significance by using the z-statistic:

$$z = \frac{E\sqrt{n}}{s}$$

Where E is the margin of error, n the sample size and s the standard deviation. Rearranging for n

$$n = \left(\frac{z \times s}{E}\right)^2$$

If we assign a significance level of 10% or z=1.28 (so we are 90% confident in our results) and a margin or error, E, of less than 5 drops, and also using our data, the standard deviation on the number of drops for the bag break ups is s=~20 drops, using the formula above to estimate n gives n=~29, if we choose 25% significance we get n=~7 samples need to be taken for adequate stats. Smaller standard deviations were seen in each bin so stratifying the data by bin produced more favourable statistics. From this, we feel that the statistics are sufficient to provide meaningful conclusions. The large size of drops used in collisions here was deliberate—it is a size that has not been studied before and such large drops do occur in nature as discussed in the paper. We have clarified this point in the introduction objectives.

The reviewer requests estimates of how frequently collisions between the larger drop sizes used here occurs. This and the percentage of the total distribution provided by breakup of such interacting drop-pairs has been thoroughly examined and formed a significant part of the paper; we refer the reviewer to sections 3.2 and 4.2 and figure 3.5.

Comparisons have now been done using the parameterisations of McFarquhar and are presented in the revised manuscript.