

## ICE SHAPES



### Definitions

The certification requires safe operation in maximum ice accretion conditions. Since those conditions might be difficult to encounter during flight tests, artificial ice shapes are installed on all leading edge surfaces that do not have anti-ice protection systems fitted to simulate maximum ice accretion conditions.

Anti-ice systems failure scenarios are also considered with less severe artificial ice shapes on leading edges.

### Purpose of the Flight Tests

Ice accretion affects the stall conditions, reducing the stall AOA and lift coefficient. The purpose of the ice shape tests is to make sure the stall warning remains properly set up and the normal law AOA protection remains effective with ice shapes corresponding to the maximum ice accretion conditions. The tests may result in stall warning and/or AOA protection adjustments. Tests of anti-icing system failure conditions are also taken into account.

### Application to Line Operations

Real icing conditions remain a risk in aviation and have to be considered as a real threat. However, the certification requirements minimize this risk and flight crews should be confident that correctly following the relevant operational procedures ensures safe operations of the aircraft.

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