

Ground De – icing / Anti – Icing Aircraft General All aircraft which are expected to operate in icing conditions are equipped with Anti – icing or De – icing systems (Note ; Anti– ice prevents ice forming , De – ice removes it when it has formed) .A typical de – icing scheme may require the application of heated Type I undiluted or Type II or IV diluted , to remove ice and snow (de – icing) , followed by an application of unheated undiluted Type II or IV to prevent further ice formation (anti – icing) .These systems (which are described in detail in Module 11) are designed to remove or prevent the formation of ice on a limited area of the wings , tail and engine nacelles and would not normally be effective in removing deposits that have accumulated while the aircraft is stationary .Methods of De – icing Each of the fluids may be applied diluted with water or undiluted and heated or unheated , depending on the conditions and requirements .This may be applied by brush but is more usually sprayed , particularly on large aircraft .Care should also be exercised to prevent fluid from contaminating the aircraft windscreen and cabin windows as it will damage them .Any measure taken to remove frozen deposits on the ground must prevent the possible re – freezing of liquid during taxiing and the initial stages of flight when the in – flight de – icing or anti – icing systems are either not functioning or not yet fully effective .Delayed departure at extreme low temperatures may require repeated anti – icing treatments .Lower temperatures , heavier precipitation and higher wind speed will all reduce the holdover time of a particular fluid .