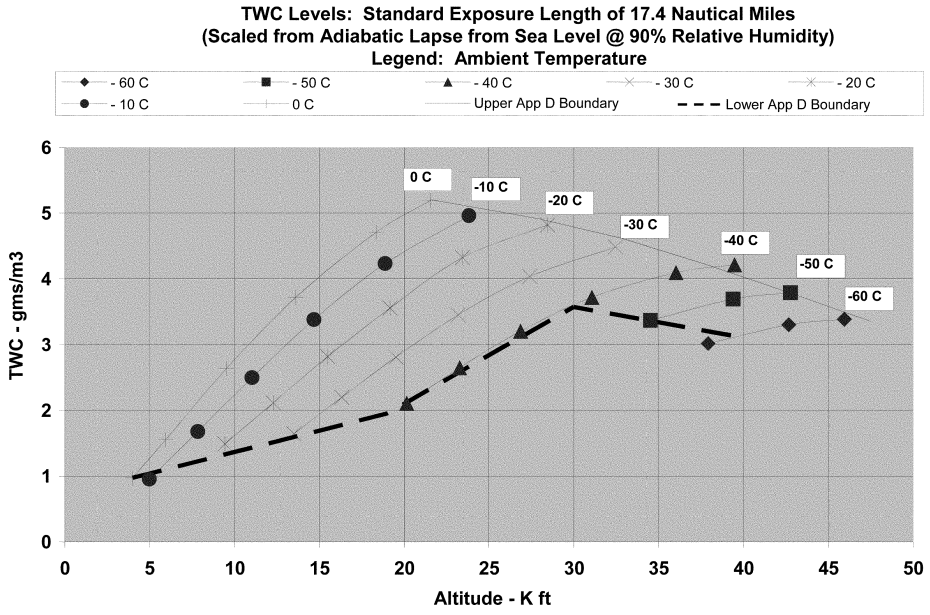
Within the envelope, total water content (TWC) in g/m³ has been determined based upon the adiabatic lapse defined by the convective rise of 90% relative humidity air from sea level to higher altitudes and scaled by a factor of 0.65 to a standard cloud length of 17.4 nautical miles. Figure D2 of this Appendix displays TWC for this distance over a range of ambient temperature within the boundaries of the ice crystal envelope specified in Figure D1 of this Appendix.

FIGURE D2 — Total Water Content



Ice crystal size median mass dimension (MMD) range is 50–200 microns (equivalent spherical size) based upon measurements near convective storm cores.

The TWC can be treated as completely glaciated (ice crystal) except as noted in the Table 1 of this Appendix.

TABLE 1—SUPERCOOLED LIQUID PORTION OF TWC

Temperature range—deg C	Horizontal cloud length—nautical miles	LWC—g/m³
0 to −20	≤50	≤1.0

TABLE 1—SUPERCOOLED LIQUID PORTION OF TWC—Continued

Temperature range—deg C	Horizontal cloud length—nautical miles	LWC—g/m³
0 to −20	Indefinite	≤0.5
< −20		0

The TWC levels displayed in Figure D2 of this Appendix represent TWC values for a standard exposure distance (horizontal cloud length) of 17.4 nautical miles that must be adjusted with length of icing exposure.