

AIR MASS

A large section of the troposphere with uniform properties of temperature and moisture in the horizontal. An air mass may be several thousands of miles across.

CLASSIFICATION

Air Masses are classified by moisture and temperature:

Continental (c)	-	-	dry
Maritime (m)	-	-	moist
Arctic (A)	-	-	cold
Polar (P)	-	-	moderate
Tropical (T)	-	-	hot

PRINCIPAL AIR MASSES OF CANADA

Continental Arctic (cA)

- forms over the arctic
- dry and cold
- remains over land as it moves south
- very low Tropopause

Maritime Arctic (mA)

- spends short time over North Pacific or North Atlantic Oceans
- forms in the arctic
- moist and cold
- low tropopause

Maritime Polar (mP)

- forms in the arctic
- spends a longer time over Pacific/Atlantic oceans
- moist and cool
- medium tropopause

Maritime Tropical (mT)

- forms over the South Pacific and Atlantic oceans
- causes fog that effects Atlantic Provinces
- moist and hot
- high tropopause

CHARACTERISTICS OF AIR MASSES

COLD AIR MASS:

- inherently stable but heating from below creates instability
- turbulent
- good visibility
- cumuliform clouds
- shower type precipitation
- thunderstorms may occur

WARM AIR MASS:

- stable
- smooth air
- poor visibility
- stratiform clouds
- steady type precipitation

Air masses take on the characteristics of the surface over which they form but are modified, in whole or in part, as they move over different surfaces.

If the modification is extensive the air mass may be given a new name.