Paragraphs from Eurocopter Service Letter No. 1270-00-96: Protection and use of helicopters in cold weather and in damp conditions Footnote26

1. Precautions for parking in the open

   It is advisable to always install the air intake and exhaust pipe blanks on a helicopter parked in the open.
   This is mandatory for a helicopter parked in cold weather, likely to be exposed to snow or rain fall during all or part of the parking period.

   After arriving on a parking area in cold weather in falling snow or rain, it is recommended to install the air intake blank rapidly following engine shutdown.
   The exhaust pipe blank can be installed subsequently, as soon as the exhaust pipe temperature is acceptable.
2. Pre-flight precautions

   If the helicopter has been parked in the open in cold weather in falling snow or rain, and whether it is equipped with specific engine air intake snow protection or not (snow filter or sand filter or multipurpose air intake), the following steps must be taken:

   a. Carefully remove the snow or ice from the helicopter, in particular around the air intakes (especially from the engine air intake).
   b. Remove the engine air intake blank then remove any snow and ice that may have accumulated on the air intake and the air intake screen or the filter system (if the helicopter is thus equipped).
   c. Check the inside of the engine air supply system; it may be necessary to remove a screen or filter or cowling

(according to the type of helicopter). Any accumulation of snow or ice must be removed.

d. Before closing or reinstalling the engine air supply system, perform a complete check using an electric lamp where necessary (in case of poor light conditions or back light) and if necessary by looking from different angles to have a complete view of the engine air intake system.
e. Check that there is no snow or ice on the air vents, the static ports, the drains and scuppers. Any snow or ice must be removed.
f. It may be necessary to warm the area to remove the ice. A hot air blower can be used. In this case, all the water from thawing must be wiped off thoroughly to prevent an accumulation of water and the risk of subsequent refreezing.
g. In particular, there must be no accumulation of water in the engine air supply system (screen or filter) which could freeze again subsequently.

These operations must be performed at the last moment before engine starting.

3. Additional precautions before takeoff

If the helicopter is not equipped with specific engine air intake snow protection (no snow filter or sand filter or multipurpose air intake), and in the following cases, the engine air intake must be checked again before takeoff:

a. In light or moderate falling snow or sleet conditions, if the waiting or taxiing phase is long (as an indication: more than 20 minutes for a Super Puma).

b. In blown or heavy-falling snow or sleet conditions, regardless of the taxiing or waiting phase. Heavy snowfall conditions are characterized by a horizontal visibility of less than 400 meters. In these conditions, the takeoff must be performed quickly after checking the engine air supply system and very quickly after starting the engine(s), taking into account of course the minimum engine or MGB oil temperature limits possibly specified in the Flight Manual for the helicopter concerned.

4. Precautions in flight

Even after complying with the precautionary measures above, the crew must give their full attention to the inflight operating procedures in icing or snowy atmospheric conditions, as reminded below:

a. Comply with the VFR flight limitations, sufficient visibility for visual flight rules.
b. Comply with the Flight Manual regarding the restrictions or flight limitations in icing conditions or in falling snow. Some helicopters are equipped with specific options which waive compliance with these restrictions or limitations.
c. If the helicopter is equipped with multipurpose air intakes, and for flight in icing conditions or in snow, the bullets must be kept closed until the engines are fully shut down. This is to prevent flame-out or damage to the engine.