

SUMMARY OF RECOMMENDATIONS

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The major recommendations submitted by the three Workshop Panels are summarized as follows:

Panel on In-Flight Measurements recommended:

1. Determination of the attenuation of ambient ozone in the cabin air systems for several different types of aircraft to further define the overall problem. (Required by design engineers)
2. Evaluation of new ozone destruction devices during airline operations.
3. The health complaints compilation submitted at Workshop by representatives of the flight attendants be assembled with measured ozone levels where available during a given flight.
4. Statistical data on ambient ozone be provided for flight planning and design engineers.
5. Determination of the dependency of ambient ozone attenuation on cabin load factors.
6. Relative humidity in the cabin be measured using the GASP water vapor instrument.

Panel on Flight Planning to Avoid High Ozone recommended:

1. Measured ozone concentrations be correlated with regularly acquired meteorological variables to refine present ozone forecast techniques.
2. For more accurate and quantitative ozone forecasting, meteorologists need:
 - a. Better tropopause height reports.
 - b. Understanding of relationship between high ozone and corresponding measured meteorological variables.
 - c. NMC hemispheric meteorological data at all available levels including vertical motion fields in the stratosphere.
 - d. Satellite total ozone data.

3. Development and verification of an operational ozone model.
(The Panel noted that these recommendations would be limited to flights during certain months of the year at higher latitudes and at altitudes at or above the tropopause. Available data indicate that a large majority of flights are at latitudes, altitudes, and seasons where ozone exposure is a negligible risk.)

Panel on Ozone Destruction Techniques recommended:

1. Development and characterization of new and improved materials to reduce weight, size, and cost of ozone removal devices.
2. Study of catalyst bed lifetime.
3. Study of influence of contamination on catalyst bed efficiency.
4. Study of kinetics and mechanisms by which ozone is destroyed on selected catalysts.