



# COVERING NOTE

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GENERAL SECRETARIAT INTERNATIONAL TELECOMMUNICATION UNION

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Geneva, 30 September 2003

ITU – TELECOMMUNICATION  
STANDARDIZATION SECTOR

**Subject: Amendment 1 (09/2003) to**

ITU-T Recommendation P.330 (03/2003), *Speech processing devices for acoustic enhancement*

**In clause 4.5.1, Acoustic echo path**

*All the text at the end of the paragraph belongs to the NOTE. It should be indented and amended as follows:*

NOTE – It is recommended to avoid extremely long rooms (Length  $\gg$  Width, Height) and rooms with extremely low ceilings (Height  $\ll$  Length, Width), and also rooms with all the side dimensions nearly identical.

Large, flat, parallel room-limiting surfaces, and surface areas that provide broadband sound reflection, and in particular reflecting wall surfaces at an average height of 0.8 m to 1.8 m above the floor should be avoided, since they can cause flutter echoes and flutter-echo-like disturbances (echoing, roughness), especially if the test setup is in an unfavourable position.

Measuring the local frequency-dependent distribution of sound pressure levels within a selected room in the steady state can help to determine the optimum position of the test setup.

As a general measure, the minimum distance between the test setup and room limiting surfaces should be 1 m, regardless of the acoustic properties of these surfaces. This can prevent disturbances due to initial reflections and the rise in sound pressure level that can occur locally at low frequencies. The same recommendation applies to geometrically large furniture surfaces that may reflect sound.