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Combination of spectra in Common Data Files from ESDU Aircraft Noise Data Items

Associated software: ESDUpac A0818



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THE PREPARATION OF THIS DATA ITEM

The work on this particular Data Item was monitored and guided by the Aircraft Noise Committee. This Committee first met in 1971 and now has the following membership:

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Mr R. Pinker — Independent

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COMBINATION OF SPECTRA IN COMMON DATA FILES FROM ESDU AIRCRAFT NOISE DATA ITEMS

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COMBINATION OF SPECTRA IN COMMON DATA FILES FROM ESDU AIRCRAFT NOISE DATA ITEMS

1. NOTATION

f_{lower}	lower one-third octave band centre frequency limit
f_{upper}	upper one-third octave band centre frequency limit
M	flight Mach number
p_0	ambient pressure at reception point
r, θ, ϕ	spherical coordinates (see Sketch 1.1)
T_0	ambient temperature
Δf_n	frequency shift [= $10 \log f_n / f_{lower}$, where f_n is the first tonal frequency at location n]

Subscripts

m	refers to m th SPL
n	refers to n th receiver location