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HF Broadcasting System Design Handbook



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HF Broadcasting System Design Handbook

Short-Wave broadcasting, also known as "HF broadcasting", has existed for many years and has been subject to considerable changes. The HF transmission medium has provided a means of disseminating information on a very wide variety of topics to audiences of the order of hundreds of millions of people, throughout the world.

Valuable scientific, engineering and practical experience has been accumulated over decades in the complex aspects of HF broadcasting station planning and design. This Handbook provides a concise and comprehensive overview and guidance of paramount importance. It is focused specifically on the management aspects of HF Broadcasting station planning and design as well as its operation and maintenance.

The Handbook provides practical and illustrative guidance (even to radio engineers not having been previously exposed to the specific task of HF broadcasting service planning). Considerable effort has been made to meet the expectations of HF broadcasting station engineers from the developing world where, generally, such experience is very limited.

Within the Tropical Zone there are special problems to be faced. Natural noise levels are high because of the large number of thunderstorms and this creates special reception problems. There is increased usage of the HF bands because of noise problems at medium-wave frequencies (MF) and, regrettably, the relative lack of development of VHF/FM broadcasting services in a number of countries. Some of these problems may be resolved at a later date by increasing the use of Digital Audio Broadcasting (DAB) satellite transmissions but, in the meantime, the HF bands must continue to be used.

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