

RECOMMENDATION ITU-R SNG.1152

**USE OF DIGITAL TRANSMISSION TECHNIQUES FOR
SATELLITE NEWS GATHERING (SNG) (SOUND)**

(Question ITU-R 227/4)

(1995)

The ITU Radiocommunication Assembly,

considering

- a) that the very nature of Satellite News Gathering (SNG) requires that earth stations are used for short periods of time and for specific news gathering purposes and hence must be activated in an expedient manner;
- b) that highly portable transmit/receive stations are essential for sound news gathering operations under conditions where other forms of communications of the needed quality are not readily available;
- c) that low bit rate coding methods, such as ISO/IEC 11172-3 layers II and III, are already defined that provide various levels of audio quality for sound news gathering;
- d) that these stations could provide data communications for exchange of text;
- e) that technologies exist that could provide this service,

further considering

- f) that single channel per carrier (SCPC) transmitting equipment offers a possibility for SNG (sound) on satellites in the FSS bands;
- g) that some equipment and services for SNG (sound) purposes are already used in the mobile-satellite service (MSS) bands under special license from some administrations (e.g. INMARSAT-A, INMARSAT-B and INMARSAT-M systems);
- h) that technology is advancing rapidly in the area of sound encoding techniques, permitting higher quality sound at reduced bit rates;
- j) that further studies are needed to develop uniform technical standards for digital SNG (sound) earth station transmission and to investigate issues, such as cascading of codecs,

recommends

- 1** that the services and equipments used for SNG (sound) purposes should have the general characteristics as indicated in Annex 1.

General characteristics of SNG (sound) systems

SNG (sound) should have the following general characteristics:

1 Technical attributes

- *Audio quality:* Range of systems from a “minimum-level-of-service” system providing acceptable voice-only audio quality to a “full-level-of-service” system providing feeds of remote concerts with CD-quality stereo audio.
- *Interoperability:* All systems of a specified “level-of-service” shall interoperate.
- *Standards:* Use internationally recognized standards.
- *Coordination:* Provides two-way communications to coordinate the feeds.
- *Other services:* Supports transmission of fax and data.
- *Maintainability:* Self-testing, maintainable by operator and soft fail modes of operation.
- *Area of service:* Can be used throughout the world including remote areas.
- *Extension:* Provides for graceful evolution to include new features and new technology and standards.

2 Physical attributes

- *Electrical characteristics:* Operates on commercial power standards throughout the world. Operates with battery (DC) voltages for several hours.
 - *Environmental characteristics:* Operates in temperatures of $-25\text{ }^{\circ}\text{C}$ to $+55\text{ }^{\circ}\text{C}$ and humidity of 95% non-condensing at $40\text{ }^{\circ}\text{C}$. Tolerant of dust and shocks.
 - *Size and weight:* Transportable by one individual for a “minimum-level-of-service” system or by no more than two individuals for a “full-level-of-service” system.
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