PROSPECT FOR INTERNATIONAL STANDARDIZATION

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Summary The prospects for international standardization depend largely on activities of a number of official and semi-official international programs for standards. Many of the national standards developed by the technologically advanced countries are proposed for international standardization and the process of compromise and modification is necessary to make specific standards acceptable on a broad basis. A second area of dialogue is necessary for education so that the parties to a standardization effort are capable of talking at the same level of technological detail. And, thirdly, the specific types of standards that are needed fall into areas which range from easily quantifiable to agreements on communication and national standardization are on a continuum which ranges from technical refinement to preliminary discussion and candidate standard identification.

Basic Background The international standards development arena can be divided generally into three major areas. The first of these is the area of national agreements where bi- or multi-lateral agreements establish standards for the purposes of trade or systems development. The second major area is the development of standards through international treaty organizations. Examples of these include the International Consultative Committee on Telephony and Telegraphy (CCITT) and the International Consultative Committee on Radio (CCIR). The third area is the set of organizations dealing with international voluntary standards. Of particular interest are the International Organization for Standardization (ISO) and the International Electro-Technical Commission (IEC).

The development of candidates for international standardization is usually done on a domestic level by one of two types of activity. The first of these if Governmentally sponsored activity flowing from the agency or agencies having technological responsibility for the subject matter and standard. Examples of this type of candidates are atomic safety, metrication, and the like. The second source for candidates is from the voluntary standards organizations such as the American National Standares Institute (ANSI) under whose aegis numerous standards are developed through joint cooperation of the using industry, the suppliers, and the Government.

The types of standards that are broadly the subject of current international standardization include those relating to measurement, the basic building blocks of all other standards;

those which can be used for procurement purposes, that is, included in procurement specifications; those which can be used for performance measurement and, therefore, in systems design; and those which are used primarily as a means of communication on a man-to-man basis concerning elements of systems; or, those which are used for communication between man and machine such as programming languages and communication protocols.

The specific organization within ISO related to telemetry is the Technical Committee 97, Commputers and Information Processing. Its subcommittees work on development of standards for media, such as instrumentation magnetic tape, computer magnetic tape, cassettes, cartridges and disks and other media of special interest for specific end use. Programming languages of broad and general utility are developed including such languages as ALGOL, COBOL, FORTRAN and PL-1. The area of data communication is one in which codes, conventions and specifications for digital data communications are prescribed.

The membership of the Technical Committee includes most of the technologically advanced nations and Participating members and many others including the development nations as observer members. In many of the member nations the development of an international standard has a concomitant adoption of that standard as a domestic and required standard. Thus, as international standards develop, their adoption and use will be sponsored by many of the member nations of ISO and we shall see increasing use of the standards and, in all probability, increasing time and effort required in defining and getting agreement on detailed standards for the technology.