

INCOSE TECHNICAL BOARD
LIAISON ADVISORY STATEMENTS
(INCOSE-TA-2003-001-01)

Approved by the INCOSE Technical Board on May 29, 2003

A. Name of Liaison Effort -

ISO/IEC/JTC1/SC7/WG7 liaison

B. INCOSE Liaison Representative –

Kenneth V. Crowder

C. INCOSE point of contact and participants -

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D. Description of proposed standard or liaison activity

IS15288 (System Life Cycle Processes) has endured a laborious development cycle. However, following its successful publication in November 2002, WG7 has embarked on an effort to harmonize IS15288 and IS12207 (Software Life Cycle Processes). It is expected that this harmonization of the System and Software Life Cycle Process standards will be followed by further harmonization with other available Systems Engineering standards, e.g., IEEE 1220 and EIA 632.

E. INCOSE's level of participation

Continue to support ISO/IEC/JTC1/SC7/WG7, in a Category A Liaison mode, by attending and participating in at least two Working Group meetings a year. Also provide review of standards and guides as requested by WG7.

F. Justification, including relevance to INCOSE and its members

Establishes INCOSE as an internationally recognized and respected participant in Systems Engineering.

G. Objectives satisfied or to be satisfied

Unknown

H. Dependencies, risks, and issues

Unknown

I. Anticipated schedule

Attend two Working Group meetings each year. Meetings are conducted in 2nd and 4th quarter of each year.

J. Relationship to existing/planned collaborations and other standards activities

Integrated with the recently initiated cooperative IEEE/INCOSE update to IEEE 1220 System Engineering standard.

K. Relationship to INCOSE Technical Operating Plan, if any

Unknown

L. Expected Duration of Effort

No known termination date to liaison effort for ISO/IEC/JTC1/SC7 support.

M. INCOSE privileges and other benefits (e.g. price discounts, name/logo on cover, etc.)

None known.

N. Draft Joint Working Agreement (or plan for developing), as required

Unknown.

O. Key Issues and INCOSE Advisories

With the successful publication of IS15288, the previous publication of IS12207:2001, and combined with the expected successful ballot and publication of TR19760 (Systems Engineering – A Guide for the application of ISO/IEC 15288 System Life Cycle Processes) the WG7 harmonization effort is of major significance. The pressing issues that pertain to this WG7 effort are:

Issue #1 – Planning and implementing the harmonization effort for the next five years.
Committee Position and INCOSE Advisory – It is critical that a well thought out plan and approach to implementation of the harmonization effort be prepared and vetted with all of the WG7 National Bodies. This plan is a key step in assuring that all current WG7 members recognize the long-term (five years at least) commitment that they must engage in for the success of the harmonization effort. This is critical to enable continued rapid progress to be made toward achieving Version 2 and 3 of IS15288 and IS12207 respectively.

Issue #2 – Development of “use cases” for the resultant harmonized products.
Committee Position and INCOSE Advisory – Continued development of the use cases is heartily endorsed. These use cases must span the spectrum of possible uses by all INCOSE constituents in terms of application domains, technical disciplines, and functional specialties. It must also span the spectrum of industry, government, and academia. It must accommodate new approaches to complex systems development (eg, spiral development, model-driven development, simulation-based acquisition, knowledge management, enterprise architecting, etc.).

Issue #3 – Establishing processes, identifying criteria, and selecting tools to perform comparisons between IS15288 and IS12207.

Committee Position and INCOSE Advisory – Establishing processes, identifying criteria, and selecting tools are fundamental to preparing a sound foundation for a successful harmonization effort. In fact, it is strongly urged that WG7 engage in a “prototype” effort to assure that the processes, criteria, and tools will yield the desired results. INCOSE enthusiastically stands ready to support and participate in this “prototyping” effort. To be successful, the systems and software processes must be modeled using modern process modeling tools and techniques. These models must be validated using dynamic simulation under “real world” conditions to test the integrity (i.e., completeness and consistency) of the models.

Issue #4 – Identifying how to efficiently and effectively develop, in parallel with the harmonization effort, TR19760 (Guide to IS15288) and TR15271 (Guide to IS12207).

Committee Position and INCOSE Advisory – This issue is inextricably intertwined with Issue 1. The pair of these issues must be addressed together to assure a successful harmonization of IS15288, IS12207 and TR19760, TR 15271. INCOSE strongly encourages that TR19760 and TR15271 be developed as closely as possible to the development of IS15288 and IS12207.

Issue #5 – Making the harmonized processes compatible with process capability assessment standards like ISO 15504 and CMMI/SE/SW.

Committee Position and INCOSE Advisory – The issues of process improvement, process metrics, and capability assessment must be addressed to ensure that the processes can be effectively used in an environment of process improvement and process capability assessments. The processes must be compatible with the currently available standards and practices in this area.

Issue #6 – Making the harmonized processes compatible with quality management and project management approaches.

Committee Position and INCOSE Advisory – The systems and software processes must be consistent with quality management systems as specified in such standards like ISO 9000. They must also be compatible with project management standards like the Guide to the Project Management Body of Knowledge (PMBOK), which is an ANSI standard. The processes should also be compatible with the systems management approaches described in the INCOSE SE Handbook for such things as risk management, technical reviews, technical performance measurement, and so on.

Approved by the INCOSE Technical Board William F. Mackey, Chairman

Date: May 29, 2003