

ROLE OF THE JOINT LOGISTICS COMMANDERS JOINT TECHNICAL COORDINATING GROUP
ON SIMULATORS AND TRAINING DEVICES (JTCG-STD)

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ABSTRACT

The Joint Logistics Commanders (JLC) are composed of the commanders of the US Army Materiel Readiness and Development Command, Air Force Logistics Command, and Air Force Systems Command as well as the Chief of Naval Material. The JLC meet regularly with the Deputy Secretary of Defense. Their purpose is to resolve common concerns and, where possible, to achieve efficiencies by combining efforts. The day-to-day activities of the JLC are carried out by joint panels and groups.

One such group is the Joint Technical Coordinating Group on Simulators and Training Devices (JTCG-STD). Its purpose, as stated in its charter from the JLC, is to identify opportunities to coordinate or consolidate programs in research and development, acquisition, and operation and support of training devices and to implement plans to reduce the cost and/or increase the effectiveness of military simulators and training devices.

That is a large order. To accomplish it requires breaking it into manageable tasks. Each year the JTCG-STD will review proposals for efforts which have high payoffs to two or more services. The best of these will be chosen to be presented to the JLC as candidates for JLC sponsorship. JLC sponsored tasks will be managed by a single command with assistance from the others.

The first three tasks chosen for JLC sponsorship are to develop (1) a standard Defense Mapping Agency data base transformation program, (2) a library of standard electronic warfare threat data bases, and (3) standard training device software acquisition management procedures. The efforts will commence in FY 84 and FY 85. Future initiatives for JLC sponsorship are solicited, and the method for submitting them to the JTCG-STD is outlined.

INTRODUCTION

In the mid-1960s the military services became greatly interested in each others acquisition, supply, and maintenance capabilities. Out of that interest and cooperation grew a structure known today as the Joint Logistics Commanders, or JLC. The early efforts involved such areas as munitions effectiveness and depot maintenance interservicing. Other efforts have been added, and many have been completed. When the 1973 oil embargo caused an upsurge in interest in training simulators, the JLC formed a group to coordinate activities in the realm of training equipment.

The purpose of this paper is to familiarize the training equipment community with the group that has evolved from those early efforts and to solicit ideas on how the services can improve training effectiveness through interservice cooperation. Effective interservice initiatives can benefit the operating commands, the

acquisition and support organizations, the training industry, and ultimately, the taxpayers.

THE JOINT LOGISTICS COMMANDERS

The Joint Logistics Commanders (JLC) consist of the commanders of the US Army Materiel Development and Readiness Command, Air Force Systems Command and Air Force Logistics Command and the Chief of Naval Material. USMC liaison is provided by the Headquarters USMC Deputy Chief of Staff for Installations and Logistics. The current members of the JLC are pictured in Figure 1.

While this joint arrangement has no legal authority, other than that delegated to each Commander to accomplish his assigned mission, the JLC management concept has been endorsed by the Chiefs of the Military Departments, the Service Secretaries and the Secretary of Defense. The JLC meet formally at least quarterly and periodically report to the Deputy Secretary of Defense, the Under-Secretary of Defense for Research and Engineering (who is

the Defense Acquisition Executive) and the Assistant Secretary of Defense for Manpower, Reserve Affairs and Logistics.

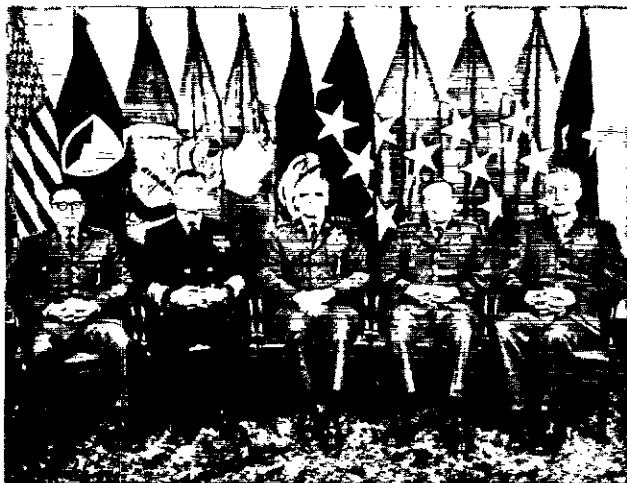


Figure 1. The Joint Logistics Commanders (l to r: Gen Robert T. Marsh, USAF (AFSC); Adm J. G. Williams, Jr., USN (NMC); Gen James P. Mullins, USAF (AFLC); Gen Donald R. Keith, USA (DARCOM); Lt Gen H. A. Hatch, USMC)

Since the JLC are not an official body, there is no JLC staff. Instead, each commander has a member of his special staff who is designated as Assistant for Joint Service Activities. These five are known collectively as the Joint Secretariat, and they carry out day-to-day administrative activities on behalf of the JLC. The JLC themselves meet at least quarterly with each commander taking his turn to host the others.

The efforts which the JLC direct are carried out through various groups and panels. Some of these are created for specific short term tasks and pass out of existence in a matter of months. Others have a continuing mission. Regardless of the duration of the task, each panel or group consists of a principal member from each command, alternate members as required, and an invited USMC participant if the subject is of interest to the Marines. One principal member serves as chairman. The groups and panels report to the JLC through the Joint Secretariat. The group of specific interest to the training community is the Joint Technical Coordinating Group on Simulators and Training Devices (JTTCG-STD).

THE JOINT TECHNICAL COORDINATING GROUP ON SIMULATORS AND TRAINING DEVICES

The JTTCG-STD was chartered originally in 1976 to minimize duplication in research and development efforts. The problem with that charter was that it did not permit doing something new which would have multi-service payoff. During a five-year-point review of progress, all parties agreed that a potential existed for high payoffs from interservice efforts in the simulator and training device area. The question was how to achieve them.

Several principles were adhered to in laying out the new approach. First, efforts would have to be discrete and measurable, in keeping with the philosophy that the way to eat an elephant is one bite at a time. Second, implementing efforts would have to be done within the framework of existing management systems such as the Planning, Programming, and Budgeting System (PPBS). Third, two or more services would have to share in the benefits. Finally, priority would go to those efforts with the highest return on investment; return being defined as a combination of increased training effectiveness with reduced cost.

Out of these principles grew the concept of "JLC sponsored" tasks. Each year the JTTCG-STD will review possible efforts. Those with the greatest payoff will be reviewed by the Joint Secretariat and presented to the JLC. If the JLC agree that the tasks should be pursued, they will adopt them as JLC sponsored. The lead command, with the cooperation of the others, will then enter the task into the PPBS as a high priority new start. Once the system has been operating for several years, each year will see the completion of some tasks, continuation of others, initiation of more, and approval of additional ones.

All of these principles are embodied in the 31 March 1982 JTTCG-STD charter which is reproduced in Figure 2. Perhaps the best way to illustrate how the JTTCG-STD is operating is to briefly examine three JLC-sponsored tasks initiated by the JTTCG-STD.

JLC SPONSORED TASKS

Standard DMA Data Base Transformation Program

Air Force Systems Command is the lead command for this effort, which will be managed by the Deputy for Simulators at Aeronautical Systems Division. It is funded in FY 84 and beyond and the request for proposal will be issued in FY 83. The objective is to reduce the proliferation of transformation programs for Defense Mapping Agency (DMA) digital data. Changes in the DMA specification would be more easily accommodated, and data bases, whether radar, visual, or infrared, would be transportable among training devices. Furthermore, data base enhancements developed for a Navy simulator could be used directly for an Army or Air Force simulator.

Library of Standard Electronic Warfare Threat Data Bases

Naval Material Command is the lead command for this effort, which will be managed by the Naval Training Equipment Center. It will be an FY 85 start with preliminary activities in FY 84. The objective is to be able to produce or update EW threat models once and then distribute the model to all users. Whether this will be done by use of a standard specification or a model library is yet to be determined.

Standard Training Device Software Acquisition Management Procedures

US Army Materiel Development and Readiness Command is the lead command for this effort, which



CHARTER
FOR
JOINT DARCOM/NMC/AFLC/AFSC COMMANDERS
JOINT TECHNICAL COORDINATING GROUP
ON
SIMULATORS AND TRAINING DEVICES

I. PURPOSE.

A Joint Technical Coordinating Group on Simulators and Training Devices (JTCG-STD) is hereby established. Because the services share the same population base as a source of trainees, the same industrial base as a source of training equipment, and the same potential adversaries as a standard against which training results must be measured, there exist numerous opportunities to coordinate or consolidate programs in research and development, acquisition, and operation and support of training devices. The purpose of the JTCG-STD is to identify such opportunities and to implement plans to reduce the cost and/or increase the effectiveness of military simulators and training devices.

II MISSION.

The mission of the JTCG-STD is to maintain oversight of all activities within the four logistics commands which involve research and development, acquisition, or support of simulators and training devices. Based on this knowledge of planned and on-going activities, the JTCG-STD will identify specific projects for JLC sponsorship which offer high pay-off to two or more services from consolidating efforts into a single, JLC-sponsored initiative. In those instances where JLC sponsorship of a joint initiative is not warranted, the JTCG-STD will insure coordination and exchange of information between and among the services to minimize or eliminate duplication of effort. In addition, the JTCG-STD will facilitate the exchange of information such as technical reports and contractor past performance between and among agencies of the logistics commands to improve the efficiency of operations.

III. GUIDANCE.

The JTCG-STD shall:

- A. Be task oriented. As such it will identify and sponsor discrete tasks with high pay-off to two or more services. These tasks, or initiatives, will be of finite duration with measurable goals.
- B. Communicate with appropriate groups and panels of the Interservice Training Review Organization (ITRO) to reduce or eliminate duplication of effort.
- C. Coordinate with the Directorate of Research and Technology, Office of the Under Secretary of Defense, Research and Engineering to eliminate duplication between the JTCG and the Simulator Technical Advisory Group (SIMTAG).
- D. Communicate with other major commands such as TRADOC, ATC; and CNET which are also involved in training device acquisition to maximize the benefits of interservice cooperation.

Figure 2. JTCG-STD Charter

- E. Encourage the use of the annual Interservice/Industry Training Equipment Conference as a primary vehicle for the interservice exchange of information among members of the military training device community.
- F. Establish formal means of communication between the JTCG and service peculiar simulator and training device coordinating organizations such as the USAF Simulator Advisory Group (SAG).

IV. REQUIREMENTS.

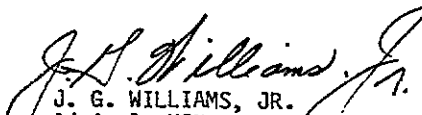
- A. Annually, in time to influence preparation of the service Program Objective Memoranda, the JTCG-STD shall identify to the Joint Secretariat new joint service initiatives for JLC sponsorship. Initiatives shall be documented in the format of Appendix II to the Handbook for Joint Logistics Commanders Panels/Groups.
- B. Annually, on-going JTCG-STD sponsored initiatives shall be reviewed to determine whether continued JLC sponsorship is warranted. If not, the JTCG-STD shall recommend to the Joint Secretariat that JLC sponsorship should be withdrawn.

V. ADMINISTRATION.

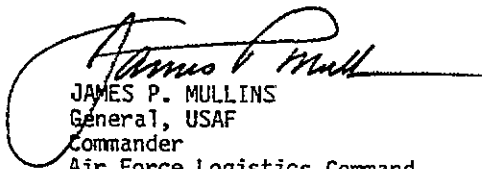
- A. Periodic reports will be submitted in accordance with the Handbook for Joint Logistics Commanders Panels/Groups.
- B. Funding for a JTCG-STD sponsored initiative will be programmed and budgeted by the lead logistics command for that initiative. Support of the initiative by the other logistics commands will be from existing resources.
- C. JTCG-STD initiatives approved by the JLC will be supported by the logistics commands to the extent necessary to assure that the benefits of interservice cooperation will be realized.
- D. Lead command responsibility for JTCG-STD initiatives will be equitably distributed provided sufficient expertise exists within a command to effectively lead the effort.
- E. Subgroups may be established from time to time with the specific approval of the OPRs in accordance with the Handbook for Joint Logistics Commanders Panels/Groups.
- F. In order to identify areas for coordination or consolidation of efforts, the JTCG-STD may review planned and on-going simulator and training device programs at meetings of the JTCG.
- G. Adequate resources including travel funds will be allocated to JTCG-STD activities to permit timely and effective operations.



DONALD R. KEITH
General, USA
Commanding
U.S. Army Materiel Development
and Readiness Command



J. G. WILLIAMS, JR.
Admiral, USN
Chief of Naval Material
Naval Material Command



JAMES P. MULLINS
General, USAF
Commander
Air Force Logistics Command



ROBERT T. MARSH
General, USAF
Commander
Air Force Systems Command

DATE: 31 March 1982

Figure 2. Continued

JTCG-STD INITIATIVE FOR A STANDARD
DMA DATA BASE TRANSFORMATION PROGRAM

PROBLEM

A new, unique transformation program has been procured for every simulator and training device whose radar or visual system uses Defense Mapping Agency (DMA) data. Worse, when DMA changes the specification to which it digitizes world-wide data, each previously procured transformation program must be revised to accept DMA data which meets the new specification.

BACKGROUND

The Defense Mapping Agency integrates a variety of data sources to produce a digitized data base. This data base is used in training devices to present the outside-the-cockpit scene to the aircrew as visual, ground-mapping radar, infra-red, or other sensor information. However, the ones and zeroes which compose the digitized data base cannot be presented directly; they must be manipulated to return them to a real world form. A data base transformation program performs this function.

Any data base which DMA produces is formatted and detailed according to the specification in effect at the time of production. Any change in that specification requires changes in the transformation programs which will be used to process the data base. The specification has been changed every three or four years on the average.

DISCUSSION

There are no theoretical reasons why DOD could not maintain a single data base transformation program. The government could then provide the program to training device manufacturers as GFE and could revise it concurrently with data base specification changes. Thus, the services would no longer be paying for multiple programs and multiple updates. Furthermore, some of the products themselves (for example, enhancements to the DMA data base) would then be transportable between training devices.

In practice, the number of data base transformation programs required might be two or three, depending on application (radar, visual, infra-red) or device sophistication (part task trainer, full mission trainer). However, even a reduction to two or three data base transformation programs would result in substantial savings to DOD.

CONCLUSION

An effort to develop a standard DMA data base transformation program is required.

ORIGINATOR

Name, complete mailing address, phone number (AUTOVON for DOD personnel).

Figure 3. Abstract format

will be managed by the Project Manager for Training Devices. It will begin as soon as planning can be completed since it will be done primarily within the government. The objective is to reduce costs to us by allowing a contractor to apply the same software management procedures, reviews, and data items to all the Defense Department training device contracts in his plant. The team which undertakes this task will coordinate its work with the JLC's Joint Policy Coordinating Group on Computer Resources Management (JPCG-CRM). Training device software and computers are exempt from the requirements applied to embedded computer resources, but the JPCG-CRM work is a useful starting point for training device efforts. Needless to say, the JTCG-STD will work with industry on this task.

CHALLENGE TO THE TRAINING COMMUNITY

Those three JLC sponsored tasks illustrate the broad features of the sort of efforts the JTCG-STD is chartered to undertake. But the JTCG-STD has no monopoly on ideas. The JTCG-STD needs your help. If you have an idea to solve a problem and it meets the general criteria outlined in this paper, the JTCG-STD wants to know about it.

The initial review requires only a one page abstract in the format of Figure 3. Based on the abstract, the JTCG-STD will return it because it does not meet the criteria, hold it for future sponsorship, ask for additional information, or recommend it for JLC sponsorship.

Send your abstract to the appropriate address listed below.

If you are Army:

US Army Project Manager for Training Devices
DRCPM-TND-E
Attn: Dr. R. Hofer
Orlando, FL 32813

If you are Air Force:

Ogden Air Logistics Center
OO-ALC/MMF
Attn: Mr. W. Haugen
Hill AFB, UT 84406

If you are Navy, USMC, or Defense Agency:

Commander, Naval Air Systems Command
NAIR-4131
Attn: Mr. J. Schreiber
Washington, DC 20360

If you are outside the Department of Defense:

Headquarters Air Force Systems Command
HQ AFSC/SDTA
Attn: Lt Col G. Winters
Andrews AFB, DC 20334

CONCLUSION

As the military services view the world of training, many things look the same--because they are the same. We share the same threats. We share the same pool of potential trainees. We

share the same training device industrial base. We share the need to provide effective training at an optimum cost. As a result, the services could do much together.

The Joint Logistics Commanders have accepted the challenge to do more together in the training device area and have chartered a Joint Technical Coordinating Group on Simulators and Training Devices to make it happen. In turn, the JTCG-STD needs the help of the training community. Together we can achieve the goals the JLC have established. The services, the industry, and the nation will be the beneficiaries.

ABOUT THE AUTHORS

LIEUTENANT COLONEL GEORGE R. WINTERS is Air Force Systems Command (AFSC) principal member of the JTCG-STD and serves as its chairman. He is Chief of the Avionics and Training Systems Division in the DCS/Systems at Headquarters AFSC. His previous assignment was as program manager of the Tactical Combat Trainer Program (Project 2360) at the Deputy for Simulators, Aeronautical Systems Division. He received a Bachelor of Metallurgical Engineering degree from Cornell University and a Master of Science in Aerospace Engineering degree from the U.S. Air Force Institute of Technology. He is a graduate of the Program Management Course of the Defense Systems Management College and is a registered Professional Engineer.

DOCTOR RONALD HOFER is the US Army Materiel Development and Readiness Command principal member of the JTCG-STD and is a past chairman. He is Chief Engineer for the Air Project Manager for Training Devices and Chief of the Operations Research and Engineering Management Division. His previous assignments have included program management and laboratory efforts at Fort Monmouth. He received BSEE, MSEE, and Ph.D. degrees from Purdue University.

JON SCHREIBER is the Naval Material Command principal member of the JTCG-STD. He is Head of the Attack Training Branch in the Weapons Training Division of Naval Air Systems Command. He received a Bachelor of Engineering degree from Youngstown State University and a Master of Engineering Administration degree from George Washington University. He was honored by the Navy with a fellowship as legislative assistant to Senator Jeremiah Denton of Alabama.

WILLARD D. HAUGEN is the Air Force Logistics Command principal member of the JTCG-STD. He is Chief of the Systems Management Section in the Training Devices System Management Division, Ogden Air Logistics Center. He has completed numerous courses at Weber State College.