



NAVAL POSTGRADUATE SCHOOL



Jeff Dunlap, CAPT USN (ret)

Lecturer at Graduate School of Defense Management

Jeffrey.dunlap@nps.edu

**The challenges we face in Software Acquisitions are
nothing new...**

What do we do now?



DoD and Congress have a rich history of asking experts to assess the state of DoD software capabilities and recommend how to improve them

To a large extent the problems of the past were not that we did not know what to do, *but that we simply were not doing it!*



Report
of the
Defense Science Board
Task Force on

MILITARY SOFTWARE

SEPTEMBER 1987



DTIC
ELECTE
DEC 14 1987
S H D

Office of the Under Secretary of Defense for Acquisition
Washington, D.C. 20301

050

DISTRIBUTION STATEMENT A

Approved for public release;
Distribution is unlimited.

“Many previous studies have provided an abundance of valid conclusions and detailed recommendations.

Most remain unimplemented.

If the military software problem is real, it is not perceived as urgent.”

“Today's major problems with military software development are not technical problems, but management problems.”





Report of the

**DEFENSE SCIENCE BOARD
TASK FORCE ON
DEFENSE SOFTWARE**



NOVEMBER 2000

DISTRIBUTION STATEMENT A
Approved for Public Release
Distribution Unlimited

Office of the Under Secretary of Defense
For Acquisition and Technology
Washington, D.C. 20301-3140

“The Task Force determined that the majority of problems associated with DOD software development programs are a result of undisciplined execution.”

“Every effort should be made to understand the inhibitors that prevented previous recommendations.”

“Numerous prior studies contain valid recommendations that could significantly and positively impact DOD software development programs. However the majority of these recommendations have not been implemented.”



DEPARTMENT OF DEFENSE
DEFENSE SCIENCE BOARD

DESIGN AND ACQUISITION OF SOFTWARE FOR DEFENSE SYSTEMS

February 2018



CLEARED FOR OPEN PUBLICATION
February 14, 2018
DEPARTMENT OF DEFENSE
OFFICE OF PREPUBLICATION AND SECURITY REVIEW

OFFICE OF THE UNDER SECRETARY OF DEFENSE FOR RESEARCH AND ENGINEERING
WASHINGTON, D.C. 20301-3140

“Problems associated with software development continue to plague major DoD acquisition programs.

This results in long delays in fielding, significant cost overruns, and, in some cases, program cancellation.”

“The problems appear to be caused by the same software development issues that have occurred in programs over the last two decades”



Software Is Never Done

Refactoring the Acquisition Code
for Competitive Advantage



Defense Innovation Board
May 3, 2019

“I have questioned the usefulness of the myriad studies and reports on technology authorized by Congress and DoD over the years.”

“These mandates are often executed in a vacuum and the recommendations rarely seen through to implementation”

“The current approach to software development is broken and is a leading source of risk to DoD: it takes too long, is too expensive, and exposes warfighters to unacceptable risk by delaying their access to tools they need to ensure mission success”



Software Is Never Done

Refactoring the Acquisition Code
for Competitive Advantage



Defense Innovation Board
May 3, 2019

“DoD must be able to develop, procure, assure, deploy, and continuously improve software faster than our adversaries.

a large amount of DoD’s software takes too long, costs too much, and is too brittle to be competitive in the long run.”

“If DoD does not take steps to modernize its software acquisition and development practices, we will no longer have the best military in the world, no matter how much we invest or how talented and dedicated our armed forces may be.”

