he **Expeditionary Combat Support System** (**ECSS**) was a failed [enterprise resource planning](https://en.wikipedia.org/wiki/Enterprise_resource_planning) software project undertaken by the [United States Air Force](https://en.wikipedia.org/wiki/United_States_Air_Force) (USAF) between 2005 and 2012. The goal of the project was to automate and streamline the USAF's [logistics](https://en.wikipedia.org/wiki/Military_logistics) operations by, in part, consolidating and replacing over 200 separate [legacy systems](https://en.wikipedia.org/wiki/Legacy_system).

The project was undertaken to develop a single integrated enterprise resource planning system built using commercial off-the-shelf software, aimed at tracking all of its physical assets and making efficiency savings.

The purpose of the system was to enable the organisation to track all of its physical assets including airplanes, fuel, and even spare parts. The ECSS program was established through two main contracts. The first contract was with the database software company [Oracle](https://en.wikipedia.org/wiki/Oracle_Corporation), to supply the [commercial off-the-shelf](https://en.wikipedia.org/wiki/Commercial_off-the-shelf) (COTS) software. The second contract was with the [Computer Science Corporation](https://en.wikipedia.org/wiki/Computer_Sciences_Corporation) (CSC), to amalgamate the COTS software into the existing Air Force infrastructure.

After spending $1.1 billion on its development, the USAF concluded in 2012 that the system, "has not yielded any significant military capability" and estimated that, "it would require an additional $1.1B for about a quarter of the original scope to continue and fielding would not be until 2020." Based on that conclusion, the USAF canceled the program in November 2012. [United States Senate Committee on Armed Services](https://en.wikipedia.org/wiki/United_States_Senate_Committee_on_Armed_Services) members [Carl Levin](https://en.wikipedia.org/wiki/Carl_Levin) and [John McCain](https://en.wikipedia.org/wiki/John_McCain) characterized the failed project as "one of the most egregious examples of mismanagement in recent memory."

<https://en.wikipedia.org/wiki/Expeditionary_Combat_Support_System>

“We learn from failure, not from success!”

Well, if we apply [Dracula author Bram Stoker's](http://en.wikipedia.org/wiki/Bram_Stoker) maxim to the U.S. Air Force, it could make the case that it has learned the most of all the U.S. military services.

A few weeks ago, the Air Force finally released the [executive summary](http://apps.federaltimes.com/projects/files/ECSS-111313.pdf) [pdf] of its investigation into its [Expeditionary Combat Support System (ECSS).](https://spectrum.ieee.org/riskfactor/aerospace/military/us-air-force-blows-1-billion-on-failed-erp-project)The system was a development blunder that the service mercifully terminated last year after spending US $1.03 billion over seven years and producing a system—if you can even call it that—without “[any significant military capability.”](http://www.fiercegovernmentit.com/node/22075/print)   The  [ECSS project  began in 2004](https://www.fbo.gov/index?s=opportunity&mode=form&id=c7228c31a02ca9b73a8255962805dbf6&tab=core&_cview=1) as an ambitious and risky effort to replace some 240 outdated Air Force computer systems with a single integrated enterprise resource planning  (ERP) system aimed at modernizing the service's global supply chain. It was also meant to help provide the core financial information required to meet a Congressional mandate that demanded an auditable set of books by 2017.

The investigation was demanded last December by Senators Carl Levin and John McCain, respectively the chairman and ranking member of the Senate Armed Services Committee, who wanted to know the root causes of what was “[one of the most egregious examples of mismanagement in recent memory](http://www.levin.senate.gov/newsroom/press/release/senators-levin-and-mccain-seek-answers-on-1-billion-expeditionary-combat-support-system/).” The Air Force only released the executive summary,  stamping the full document written by its Acquisition Incident Review (AIR) Team “For Official Use Only.” After reading through the summary, you can understand why: too many people would be at risk from having a heart attack either from anger, laughing themselves silly, or both simultaneously at the host of blunders highlighted.

The AIR Team’s executive summary begins by providing a short history of the program, including the several unsuccessful attempts at trying to resuscitate it. It goes on to identify four contributing causes along with six root causes as to why the ECSS project was cancelled. The four contributing causes listed are:

1. governance
2. tactics, techniques, and procedures
3. difficulty of change
4. personnel and organizational churn

In terms of **governance**, the AIR Team says that there existed “a confusing and, at times, ineffectual governance structure” which was “evident throughout the life of the program.” Different and competing acquisition guidance methods were used throughout the program’s development, sometimes concurrently, leading to “needless” delay, frustration, and decision uncertainty at the program executive level.

As far as **tactics, techniques, and procedures**, the AIR Team found that the Air Force’s ECSS management team was in over their heads. The ECSS team underestimated “the sophistication needed in tackling the enormous and complex effort." This led it to inappropriate use of, for example, a firm fixed price contract for a “significant” development effort that “lacked defined requirements.” Firm fixed price contracts are most appropriate when the acquisition and technical risks are low, not sky high, as in the ECSS program. According to the AIR Team, the ECSS acquisition was [at least 28 times larger](http://www.acq.osd.mil/parca/docs/2013-08-28%20PARCA%20RCA%20ECSS%20FINAL.pdf) [pdf] than any similar ERP system development ever attempted by the Defense Department. (And it was probably 100 times larger than the Air Force has ever successfully delivered.)

In addition, the objectives and enormity of the ECSS program meant that virtually all U.S. Air Force logistics organizations (and their contractors) would need to change fundamentally how they did business, which few were prepared for or anxious to do. This led to the AIR Team’s third contributing factor, the **difficulty of (implementing organizational) change**. Not only did ECSS represent major, disruptive change, but the lack of early program success only served to amplify the doubts the affected Air Force logistics organizations had that moving to ECCC would still allow them to achieve their operational missions.

The final contributing factor was **personnel and organizational churn**, which actually resembled organizational chum. According to the AIR Team, the ECSS program:

*experienced six program manager changes in eight years; five Program Executive Officers in six years; ten different organizational constructs; and the Expeditionary Combat Support System Logistics Transformation Office was staffed with term positions, not permanent positions, leading to high turnover. [emphasis mine]*

A Martian asking someone on the ECSS team, “take me to your leader,” would be left standing around for a good long time. This constant churn, the AIR Team says in a bit of understatement, made the ECSS program’s success "elusive.”

What the high turn-over rate actually looks like is that many Air Force officers and managers viewed the ECSS program as a[ticket-punch station on their way to future promotion](http://nation.time.com/2013/01/21/why-cant-the-u-s-military-grow-better-leaders/). Or, alternatively, they knew it was an inevitable disaster and couldn't wait to find a way to escape it.

While the contributing factors the AIR Team listed were the heat and flames generated from the Air Force billion dollar bonfire, the real fuel is found in the six root causes of failure the team exposed. The **first root cause** discussed and strongly emphasized in the summary was that the ECSS acquisition team did not thoroughly understand the data. The summary states:

*All of the data must be understood, not just the data we thought we had, and not just the data we wanted to address, but all of it. This matter cannot be solved by doing Legacy Deconstruction at the same time as blueprinting, at the same time as building the new ‘To-Be’ solution.*

In other words, it would have helped if someone actually understood the business processes and data across all those 240 or so systems that were to be replaced, before the hardware, software, and prime contractor were selected.

The **second** root cause was that the ECSS team did not define or comprehend in any meaningful way the current as well as future architecture. The AIR Team reported that, “the Air Force didn’t understand the ‘As-Is’ or the ‘To-Be’ architectures.”  The team found that even after they were through with their investigation, “the number of systems [the] Expeditionary Combat Support System was to replace is *unknown"* [italics in the original]. Ponder that statement for a few moments.

A **third** root cause was not being able to define a transition plan from the “As-Is” to the “To-Be” system. The AIR Team points this is no great surprise, since without knowing what the data are, or the “As-Is” to the “To-Be” architectures, “arriving at a transition plan was impossible.”

The **fourth** root cause was a lack of the right execution plan. “Even had the Air Force had a transition plan from the ‘As-Is’ to the ‘To-Be' architecture," the AIR Team reports, the Air Force “lacked a way to properly execute it.”

The **fifth** root cause listed was an unrealistic development environment that didn’t “mirror the reality of the operational environment.” The importance of this particular root cause wasn’t, and still apparently isn’t, appreciated by the Air Force, the AIR Team states to its apparent bewilderment.

The **final** root cause—or puntilla—was not having the “right culture” of trust within the Air Force logistics organizations to accept ECSS and what it represented as the new way of doing business. In addition, ECSS program management failed to assure these logistic organizations that the program would try as hard as possible to minimize the impacts to operational mission effectiveness, which made the task of getting organizational buy-in to ECSS difficult if not impossible. In other words, mistrust was rampant, [regardless of all the public happy talk about the program](http://www.afmc.af.mil/news/story.asp?id=123217091).

The AIR Team’s summary also contains a series of short-term, intermediate, and long-term recommendations on how to address each contributing factor and root cause. You can read them for yourself, but I will just point out that many of the recommendations addressing the root causes fall in the intermediate and long-term categories—in other words, they are never to be heard of again until the next bonfire celebrating the Air Force’s vanity.

Why a bonfire to its vanity, you ask? Well, if the Air Force had ever bothered to learn the lessons from the debacle that preceded ECSS—namely the massively over-budget, late, and incomplete Depot Maintenance Management System (DMMS) that started in the mid-1980s and eventually ran out of steam in the late 1990s, or its predecessor fiasco the Advanced Logistics System (ALS), which was also massively over-budget, late, and ineffective—the Air Force by now might have had at least a fighting chance. If one digs through the [Government Accountability Office reports](http://www.gao.gov/) from the time of those troubled projects, you’ll find nearly identical contributing and root causes identified, as well as very similar recommendations. The AIR Team might have pointed this out as a root cause as well—the Air Force’s vain belief that it can successfully build an even larger, more complex integrated logistics system than the last one that failed miserably.

One final point: the summary has the mandatory upbeat and positive ending that all internal DoD reports critical of the Department are obliged to finish with. This one, which I wonder how many on the team would privately agree with, states:

*The Acquisition Incident Review Team doesn’t want to leave the reader with a completely bleak outlook.  Much of the work that was done on the Expeditionary Combat Support System effort can be reused.  The progress made on legacy deconstruction and the spin ups to blueprinting can be the basis for the data work ahead. While reluctant to put a percentage on potential reuse, the Acquisition Incident Review Team suspects reusable data will be more than people think. Expeditionary Combat Support System wasn’t the failure people think it was; it was the first step to truly understanding the enormous task the Air Force has ahead of itself.*

I guess by that measure, neither DMMS nor ALS were failures either, just useful, albeit expensive, initial learning experiences. I, for one, find cold comfort in the very real fact that it took over a billion dollars to get to the “first step” of “understanding” how difficult it is trying to build an ERP system 28 times larger than ever attempted before by an organization with a demonstrated track record of failure involving similar systems.

<https://spectrum.ieee.org/the-us-air-force-explains-its-billion-ecss-bonfire>

**The US Air Force launched its Expeditionary Combat Support System programme in 2004. The Air Force's aim was to create a single, unified logistics and supply chain management system that would allow it to track all of its physical assets and make efficiency savings. It was implemented by two private integrators, overseen by Air Force personnel. However, the project suffered from poor process and planning and was cancelled in 2012 without having achieved any of its intended benefits.**

The initiative

The Air Force launched the Expeditionary Combat Support System (ECSS) programme in 2004, with the goal of creating a single, unified logistics and supply-chain management ERP system. It was intended to enable the organisation to track all of its physical assets from airplanes to fuel to spare parts. “The scope of the ECSS system included: advanced planning and scheduling; material management, contracting and logistics finance; configuration and bill of material; repair and maintenance; product lifecycle management; customer relationship management; order management; distribution and transportation; decision support; facilities management; quality control; document management and budgeting.”[[3]](http://calleam.com/WTPF/?p=4914)

The ECSS programme was established through two separate contracts. The first, a contract with Oracle Corporation, was to supply the COTS [commercial off-the-shelf] software. The second, with Computer Sciences Corporation (CSC), was to integrate the COTS software into the existing Air Force infrastructure.[[4]](https://www.hsgac.senate.gov/download/report_-air-forces-expeditionary-combat-support-system-ecss-program)

Original estimates indicated that the project would take eight years to reach full deployment and would cost USD3 billion. Work was to be started in 2004 and completed by 2012, but due to contracting disputes with the various bidders, work did not begin until 2007. The project team grew quickly and at one point reached more than 1,000 team members, claiming at the time to be the world's largest ERP project. By 2010, signs of major problems had surfaced, and between 2010 and early 2012 the project went through at least three project "resets".[[5]](http://calleam.com/WTPF/?p=4914)

The challenge

The US Air Force is one of the services within the Department of the Air Force, one of the three military departments of the Department of Defense (DoD). It has one of the largest and most complex supply chains in the world. Like commercial supply chains, it includes delivery, transport, maintenance, repair, procurement, inventory management and product lifecycle management of both inexpensive consumable items and very expensive equipment with long lifecycles.

To manage such logistics, the Air Force used a complex web of IT systems. These systems were built over many years, and formed a patchwork of components rather than a clearly thought through and structured IT architecture. By 2000, overlapping functions and disconnected databases meant that the Air Force was struggling to achieve the desired operational capabilities, efficiencies, and financial transparency. "The Air Force IT environment includes over 700 systems. Many are duplicative, standalone and ineffective. There is also a multitude of metrics with competing goals. Non-standardised reporting exists, causing credibility issues and time inefficiencies. In addition, there is limited visibility across the supply chain. No one knows what parts are available at different sites and personnel can't plan for maintenance.”[[1]](http://calleam.com/WTPF/?p=4914)

In 2001, the Air Force initiated the Global Combat Support System-Air Force (GCSSAF) programme as a foundation for modernising the way it did business. The goal of the GCSS-AF plan was to consolidate these independent legacy systems into a more centralised, cohesive enterprise resource planning (ERP) system.[[2]](https://www.hsgac.senate.gov/download/report_-air-forces-expeditionary-combat-support-system-ecss-program)

The public impact

The project did not produce any of its intended impact, as it was cancelled after the expenditure of billions of (taxpayer) dollars:

* In 2012, the US Secretary of Defense cancelled ECSS after the Air Force had spent “over USD1 billion of taxpayer funds on the programme without it fielding any usable capability. In fact, at the time of the cancellation, ECSS would have cost an additional USD1 billion to yield only 25 percent of the capability the Air Force originally sought."[[6]](https://www.hsgac.senate.gov/download/report_-air-forces-expeditionary-combat-support-system-ecss-program)
* As of 2014, when a review report was launched by a committee on investigations, the Air Force was still unable to confirm how many legacy systems would have been phased out by implementing ECSS.
* After the DoD cancelled the ECSS programme, Air Force personnel reverted to using the legacy systems that the ECSS programme was supposed to replace and they continue to use these outdated systems.
* “The ECSS's failure resulted in a waste of USD1.1 billion, eight years of lost time, and the same insufficient legacy logistics system remained in place.”[[7]](http://info.envistacorp.com/blog/how-to-avoid-an-erp-implementation-failure)
* A separate report from the Institute for Defense Analysis quotes the Government Accountability Office (GAO) October 2010 report of the estimated cost of the ECSS as having increased from USD3.0 billion in 2008 to USD5.2 billion. This was a much larger figure than reported in other sources.[[8]](http://www.acq.osd.mil/parca/docs/2011-ida-rca-ecss-p-4732.pdf)

Stakeholder engagement

The programme was led by the DoD, through the Air Force, with Oracle and CSC as the main systems developers. The other main stakeholders were the ECSS users.

The design of the system was conducted after a competitive tendering process, where the DoD provided the guidelines and private contractors submitted their proposals. "The high level capabilities are documented by the DoD without any bias towards any ERP package. The end goal can be met if there are metrics to evaluate the improvements desired in the processes. The DoD followed a two-step acquisition process: a) COTS Package selection and b) Selection of contractor. The first step is the selection of COTS package after a list of desired capabilities is identified."[[9]](http://web.mit.edu/smadnick/www/wp/2012-04.pdf)

The Air Force and CSC conducted surveys of the approximately 250,000 prospective users of ECSS, and they indicated a lack of user engagement. Responses suggested that training plans were flawed, and the respondents were also critical about the proposed software, for example:

* “Communication about ECSS is usually a bunch of generalisations, and fairly condescending without enough specifics to give anyone a warm fuzzy about the ECSS team. I haven't heard anything from the ECSS team that tells me what the real issues are."
* “Have heard ECSS will change policies and processes, but aren't really seeing many actual examples of what is changing.”[[10]](https://www.hsgac.senate.gov/download/report_-air-forces-expeditionary-combat-support-system-ecss-program)

An April 2011 survey found that only 37.7 percent of participating ECSS endusers felt informed about how they would use ECSS to do their jobs more effectively.

Political commitment

It is a good example of political commitment because the DoD saw a need for an ERP system in the Air Force and worked on the framework of the project in 2003 and 2004. The DoD spent around USD1 billion towards the project. Even after the ECSS strategy failed, the DoD maintained their efforts to implement their Defense Enterprise Accounting and Management System (DEAMS) to make the project successful.

The government had several practical reasons to push for the update of the system. Apart from modernising the Air Force's global supply chain, ECSS was also intended to:

* Help provide the core financial information required to meet a congressional mandate for auditable set of books by 2017.[[11]](http://spectrum.ieee.org/riskfactor/aerospace/military/the-us-air-force-explains-its-billion-ecss-bonfire)
* Streamline processes and bring billions of dollars in savings.[[12]](https://www.hsgac.senate.gov/download/report_-air-forces-expeditionary-combat-support-system-ecss-program)
* Transform the way logistics was done in the Air Force, With ECSS as an enabling tool.[[13]](http://www.acq.osd.mil/parca/docs/2011-ida-rca-ecss-p-4732.pdf)

Although ECSS was eventually cancelled, DEAMS continued to be an active Air Force programme. As of September 2013, the Air Force had received about USD427 million for developing DEAMS, with DoD approval for approximately USD1.6 billion more.[[14]](https://www.hsgac.senate.gov/download/report_-air-forces-expeditionary-combat-support-system-ecss-program)

Public confidence

Given that ECSS was meant for the internal use of the Air Force, there is no information available on the public's opinion of the project.

Clarity of objectives

ECSS had broad operational objectives that were identified at the outset. However, for such a complex technology project these were neither clearly defined nor measurable, so there was little clarity on what the outcomes should be and when they would be delivered.

The system was intended to provide the Air Force with a single, integrated logistics system, including transportation, supply, maintenance and repair, engineering and acquisition, and with the financial management and accounting functions for its working capital fund operations.[[15]](http://www.gao.gov/new.items/d1153.pdf)

Although some challenges were identified initially, there was neither a stable set of system requirements nor a consistent approach to risk management. “The Air Force initially identified a number of risks associated with the ECSS programme, including lack of cultural acceptance of new business processes by Air Force personnel, as well as undefined programme requirements, which meant that the Air Force did not establish a stable set of objectives throughout ECSS's lifecycle. The Air Force did not effectively address those risks. Ultimately, many of the risks identified at the programme's inception came to fruition and ultimately contributed to ECSS's failure."[[16]](https://www.hsgac.senate.gov/download/report_-air-forces-expeditionary-combat-support-system-ecss-program)

Strength of evidence

Although there is mention of previous failed ERP initiatives within the Air Force before ECSS, there is no evidence of any examples being used in the development of this programme. It did integrate, however, a pilot programme in 2010, which provided some insights into the challenges of the project.

The Air Force Operational Test and Evaluation Center (AFOTEC) conducted an Early Operational Assessment (EOA) during a contractor-led developmental test event of Release 1, Pilot A of the Expeditionary Combat Support System (ECSS) in 2010. In the first release of the assessment, the AFOTEC conducted three pilots:

* Pilot A - Foundational Configuration and Tools and Vehicles Management
* Pilot B - Equipment Management
* Pilot C - Base Supply Chain

The data provided by the pilot was, however, insufficient to determine if the programme was developing successfully. “Due to the limited scope of Pilot A (with less than one-tenth of the planned Release 1 capability), AFOTEC was not able to collect sufficient quantitative data to determine if the programme was on track to deliver desired performance at the conclusion of Release 1. However, interviews with functional SMEs and analysis of the limited data enabled testers to identify several areas requiring attention, including data quality, data conversion, handheld scanner needs, interoperability, usability, information assurance, and requirements testability.”[[17]](http://www.globalsecurity.org/military/library/budget/fy2010/dot-e/af/2010ecss.pdf) After the completion of the EOA, the programme office took action to address identified shortfalls and conducted further tests to mitigate the concerns that had been identified.

Feasibility

The ECSS implementation faced very basic structural challenges from the outset, as it failed to baseline existing practices or establish effective measures for delivering the software. Similarly, resources and timelines were inadequate, and staff were not provided with the necessary support to adopt the changes to working practice.

The project estimates in terms of funding and time proved inaccurate. "Originally estimates indicated that the project would take eight years to reach full deployment and would cost USD3 billion. Work was to be started in 2004 and was to be completed by 2012. Due to contracting disputes with the various bidders, work did not begin in earnest until 2007. The project team grew quickly and at one point with more than 1,000 team members ECSS claimed to be the world's largest ERP project."[[18]](http://calleam.com/WTPF/?p=4914)

The leadership of the initiative identified cultural resistance to the changes the project would bring about, and carried out risk management analysis and surveys to gauge the situation. "With over 250,000 users potentially affected by ECSS, the Air Force was aware that a potential risk area included its personnel resisting the transition to a new system. Yet it was unable to develop an effective plan to overcome that resistance. In accordance with business process re-engineering guidelines, the Air Force requested that training plans be developed by CSC to teach leadership and endusers about the benefits of transitioning to ECSS and its expected improvements to long-term operations.”[[19]](https://www.hsgac.senate.gov/download/report_-air-forces-expeditionary-combat-support-system-ecss-program) Feedback indicated that the resources and training made available to Air Force staff were inadequate.

Management

The DoD was responsible for the high-level oversight of ECSS, but it was implemented by two private contractors, and managed within the Air Force.

The programme's deviation from the DoD's business process guidelines was one of the main reasons identified for its failure. “ECSS's failure resulted, in large measure, from the Air Force's systemic deviation from widely-endorsed organisational guidelines. Those guidelines, which comprise a set of management principles called business process reengineering (BPR), are mandated by several legislative and internal DoD directives and are designed to ensure a successful and seamless transition from old methods to new, more efficient ways of doing business.”[[20]](https://www.hsgac.senate.gov/download/report_-air-forces-expeditionary-combat-support-system-ecss-program)

There was also a lack of leadership and continuity in the management of the project. “The Air Force lacked strong, continuous leadership, as called for by BPR. During the eight years that the Air Force tried to implement ECSS, this programme had six programme managers and five programme executive officers, which led to communication gaps and a loss of institutional knowledge about ECSS's progression through the acquisition process. Additionally, according to CSC, the Air Force permitted contractor staff to make programme decisions, which could not always represent the Air Force's views in the decision-making process."[[21]](https://www.hsgac.senate.gov/download/report_-air-forces-expeditionary-combat-support-system-ecss-program)

Frequent changes in management also created gaps in knowledge about the history of the initiative, leaving incoming staff less prepared to deal with challenges efficiently. “Programme managers who made key management decisions - rightly or wrongly - were constantly transitioned out of the ECSS programme, leaving other key decisions or their consequences to new personnel with less familiarity with, and historical knowledge of, the ECSS programme."[[22]](https://www.hsgac.senate.gov/download/report_-air-forces-expeditionary-combat-support-system-ecss-program)

Measurement

There was very little monitoring and control during the implementation of ECSS. Only very basic aspects, such as cost and effort, were recorded, but they were not measured against any targets. In addition, the lack of clarity regarding the programme gave little visibility even on the number of legacy systems that were being retired.

Normally for DoD programmes, it is common to use contract performance reports and contractor cost data reports to track the cost of work. However, these were not used for ECSS. “The ECSS programme manager and some other ERP experts argued that for an ERP it does not make sense to track progress relative to a work breakdown structure, as these reports require. Although we do not have a position with regard to that statement, the fact remains that there is currently almost no cost reporting in DoD ERP acquisitions, and there probably will not be any cost reporting unless the regulations governing these acquisitions are overhauled."[[23]](http://www.acq.osd.mil/parca/docs/2011-ida-rca-ecss-p-4732.pdf)

A report on the programme's execution was particularly critical of the failure to measure the number of legacy systems targeted for replacement. "When the Air Force began planning for ECSS, it did not even know how many legacy systems the new system would replace. The Air Force has, on different occasions, used wildly different estimates on the number of existing legacy programmes, ranging from '175 legacy systems' to 'hundreds of legacy systems' to 'over 900 legacy systems'. Two years after the termination of ECSS, and after two major investigations, the Air Force was still unable to provide the exact number of legacy systems ECSS would have replaced."[[24]](http://spectrum.ieee.org/riskfactor/computing/it/bipartisan-senate-condemns-us-air-force-ecss-program-managements-incompetence)

Alignment

There was weak alignment between the public and private sector organisations that were responsible for implementing ECSS, as well as between the developers and the staff who were the prospective endusers. The Air Force also caused redundancy and confusion by following two different programme governance schemes:

* The DoD Instruction (DODI) traditionally used for all acquisition programmes
* The Business Capabilities Lifecycle (BCL), a new structure that had been designed specifically for defence business system acquisition efforts.

Some of the main reasons identified for the lack of alignment between the developers and endusers included:

* “The hierarchical decision-making structures in the military were poorly aligned with the governance structure in use by the project (functional sponsors were at times lower in rank than the people whose groups were impacted by the changes).
* “Challenges in aligning and integrating functions across organisational boundaries and a failure to put in place a governance structure at a senior enough level to overcome those boundaries.
* “Lack of trust between groups.”[[25]](http://calleam.com/WTPF/?p=4914)
* The Air Force and CSC failed to communicate the long-term objectives and benefits of the new programme clearly to the Air Force endusers.

This lack of communication, combined with a poorly-implemented training regimen, exacerbated the cultural resistance to changing business processes among Air Force personnel who were more familiar and comfortable with older legacy systems.[[26]](https://www.hsgac.senate.gov/download/report_-air-forces-expeditionary-combat-support-system-ecss-program)

Even after the programme was terminated, the organisations partnering with the Air Force in the ECSS programme - CSC and Oracle - held very different views about what (if any) capability the Air Force had gained from ECSS. Oracle contended that instead of serving as the foundation for the ECSS system, its commercial software was reconfigured for use with the existing legacy systems after the programme was terminated; CSC argued that it provided a number of capabilities the Air Force could use to build new ERP systems in the future.[[27]](https://www.hsgac.senate.gov/download/report_-air-forces-expeditionary-combat-support-system-ecss-program)

<https://www.centreforpublicimpact.org/case-study/air-forces-expeditionary-combat-support-system-ecss>

very good PDF file

https://www.hsgac.senate.gov/imo/media/doc/PSI%20REPORT%20-%20The%20Air%20Force's%20ECSS%20(July%207%202014).pdf