

Reducing field service representatives while maintaining operational force capacity

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This article is a platform seeking to collect data from experienced leaders and users.

Previous and expected decreases in funding require the Army to employ cost effective and sustainable systems on the battlefield now more than ever before.

Army leaders face the challenge of reducing field service representatives while maintaining Soldier proficiency in operating communication and mission command systems.

We are a cadet run team under the supervision of an officer advisor from the Department of Systems Engineering at the United States Military Academy at West Point. Our team is working in conjunction with the Program Executive Office Command Control Communications-Tactical (Readiness Management

Division) dedicated to identify methods in order to increase combat effectiveness in the Army.

The purpose of this collaboration is to mitigate the impact on operational readiness due to the reduction of FSRs, and maximize unit capacity on mission command and communications systems.

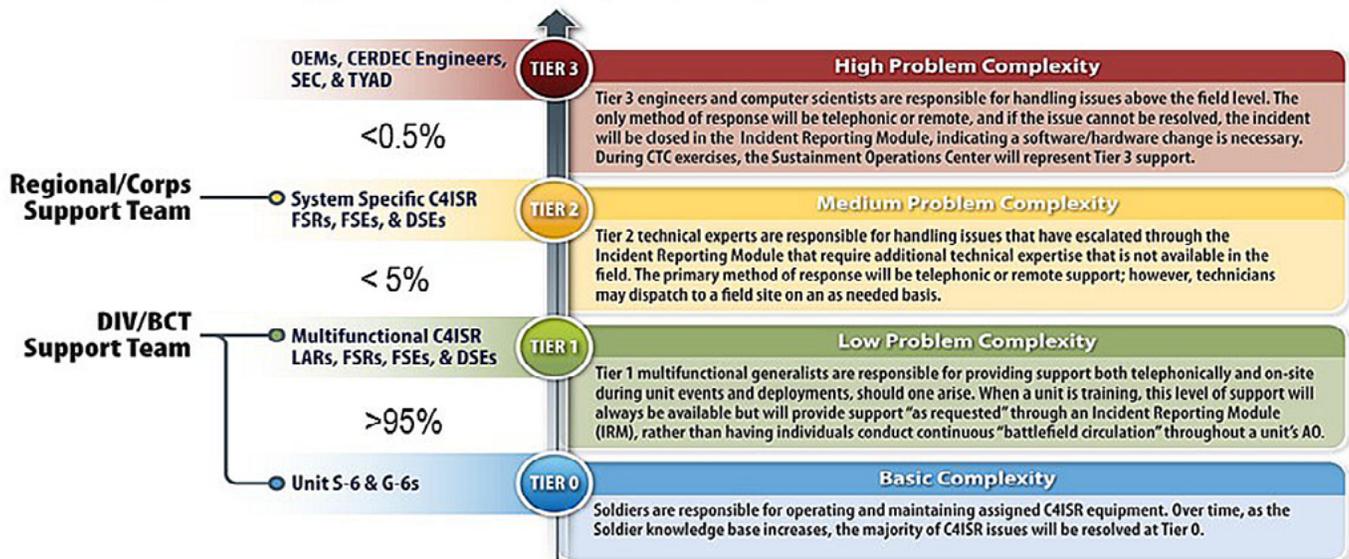
PEO C3T's current progress to right-size the FSR force structure demonstrates their compliance to meeting mandated cutbacks.

Figure 1 depicts the forecasted reduction of FSR personnel in the upcoming years due to budgetary constraints. While PEO C3T is committed to supporting the efforts of reducing FSR support personnel on its systems, they are taking deliberate action to find ways to sustain soldier proficiency and ensure effectiveness of mission command within each unit.

Although our research provides a general overview of the operational and training challenges in regards to fielding many of these systems, such as WIN-T, insight from experienced officers and

C4ISR Field Support Vision

- Based on observations during various site visits and data analysis drawn from over 15,000 SIF/IRM trouble tickets, the following tiered field support structure was proposed, tested, and implemented in the field:

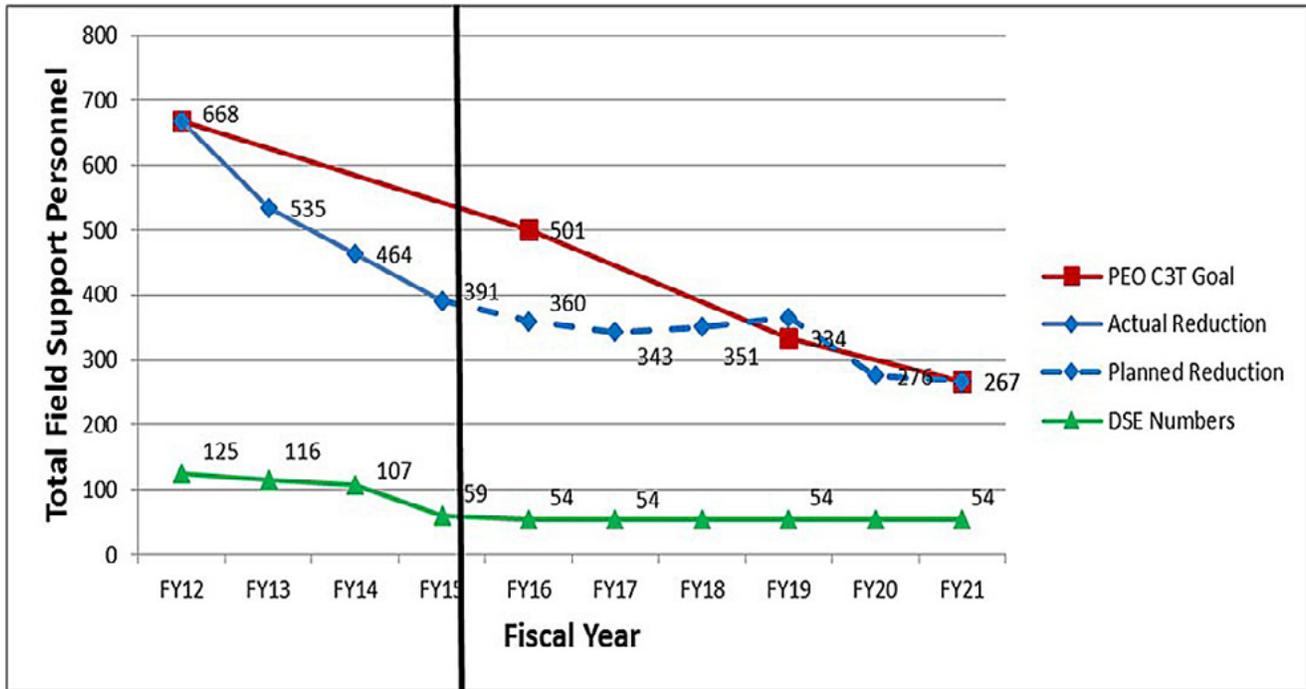


- The Tiered Field Support Concept was piloted and validated at NTC and JRTC with **no operational impact to the units**
- Based on the success of the CTC pilots, the C4ISR community is implementing this construct at CONUS posts, camps, and stations
- The PILOT Unit, 2/1 ID, just recently completed a successful NTC rotation with ~40% less support personnel with **no operational impact**

Figure 1. Field Support Personnel Projections



PEO C3T FSR Right-Sizing



Implementation of the Tiered Field Support Process is key in reaching FY 21 Goals

Figure 2. Revised Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) Field Support Tiers2

noncommissioned officers will provide an invaluable, real world perspective. Your insight will help us create a more accurate and detailed representation of what communications system utilization challenges a unit may face, and ultimately a roadmap to guide an S6 and unit leaders to be able to install/operate/maintain their equipment with limited outside support.

Although Army leaders are developing methods to mitigate effects of these cutbacks, the communications field will continue to be challenged to maintain operational readiness as new equipment and Increments are fielded. This restructuring leaves many units to operate without the full effective capabilities of their warfighter mission command

systems. This research effort will focus on providing a framework to assist and train Soldiers while mitigating the impact of fewer FSRs. Our team and PEO C3T are working in conjunction to assist the Army by creating a more cost effective and self sustaining ground force. The focus of this project is to further develop a unit's ability to operate and maintain their mission command and communication systems with improved self-sustainability. It is rapidly becoming more urgent to increase unit effectiveness, and maintain combat readiness under the current budget constraints.

Our research strategy will focus on collecting relevant information by analyzing historical data, conducting stakeholder interviews, and surveys. This technique provides a necessary

understanding of difficulties with training implementation of similar systems in the past. We aim to provide users with autonomy and ability to sustain PEO C3T systems with minimal reliance on FSRs in order to increase soldier proficiency and unit capacity. In addition to recommending who, what, or how the Army trains on PEO C3T supported equipment, having both the Unit Commander's and User's buy-in are as crucial to success as the solution itself.

Army leaders have implemented certain procedures and methods to increase effectiveness of PEO C3T systems during brigade or division level exercises at combat training centers. The PEO C3T MilTech

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Solutions' Single Interface to the Field addresses the issue, but does not completely mitigate the effects of decreasing FSRs. This system features an 11-item incident reporting form for Soldiers to quickly fill in the information for a support ticket. This process enables Soldiers to obtain support for any system managed by the Army's Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance. Although a useful tool, SIF does not replace a soldier's proficiency on maintenance and operation of the system C4ISR. Another technique is the tier system, outlined in Figure 2, which identifies pertinent personnel and categorizes deficiencies to optimize repair and maintenance time.

Our methodology to approach this problem is divided into four distinct phases; defining the problem, designing a solution, making the critical decisions, and implementing the solution. We are currently in the problem definition phase, gathering information and conducting our analysis on stakeholder needs and wants. We will use the information we collect to generate and modify potential courses of action. Once we develop substantial alternatives, we will conduct a

performance analysis of each solution and assign a scoring value to determine which course of action will be most effective. Then we introduce the final recommendation to our client and provide a plan of action to facilitate implementation.

We are asking for your assistance. Participation from experienced officers and noncommissioned officers will drive this research and facilitate recommendation design. After action review comments and experiences from field exercises with WIN-T and mission command systems (such as CPOF, AFATDS, DCGS-A, etc.) will be extremely useful. Determining the number of "touches" a system operator needs in order to be proficient is key to our research and any other training recommendations on these systems would also be helpful. Our team greatly appreciates participation and insight.

The research team consists of four cadets from the United States Military Academy at West Point majoring in Department of Systems Engineering academic programs.

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research efforts.*

ACRONYM QuickScan

AFATDS – Advanced Field Artillery Tactical Data System
C4ISR – Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance
CPOF – Command Post of the Future

DCGS-A – Distributed Common Ground System-Army
NCO – Noncommissioned officer
PEO C3T (RMD) – Program Executive Office Command Control Communications-

Tactical (Readiness Management Division)
SIF – Single Interface to the Field
WIN-T – Warfighter Information Network-Tactical

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