

PRINCIPLES OF OPERATIONAL COMMUNICATIONS SYSTEM

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Abstract: This article includes a brief analysis of the principles of tactical and operational communication systems used in modern combat space, highlighting their requirements and qualities in ensuring an optimal information flow for the development of complex military actions. They are the core around which they develop and satisfy the requirements for command and control, as well as for complex integrated systems (C3I, C4I, C4ISR, C4IRISTA. etc.) being substantiated and developed in the following period. The continuously growing information requirements and the explosive technological developments in the field require the highest priority approach to the study, design and realization in record time of the means for these integrated systems.

Keywords: command and control, integrated system, information requirements, connectivity, transfer.

1. Introduction

The big operative and tactical units require a secure, robust, and reliable communications system to assimilate information, communicate and exercise authority, and direct forces in large geographic areas and a wide range of conditions. A communications system must provide connectivity from the strategic to tactical levels in order to plan, conduct, and sustain operations, and enable information superiority¹.

The communications system is main tool to collect, process, store, disseminate, and manage information; supports the development and dissemination of the commander's intent and planning guidance, fostering decentralized execution. The communications system enables the inter-connection (networking) of geographically separated forces, which permits network-enabled operations to exploit information and networking technology to integrate dispersed human decision makers, situational and targeting sensors, forces and weapons into a comprehensive system. Network connectivity is mission-critical and can determine mission viability during planning and execution².

2. Operational Communications System Principles

Big unit employment decisions are influenced by the communications system's ability to network the force, and this links

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¹ JP6-0, *Joint Communications System*, Joint Staff, Washington, DC, 2015, pp. I-4 to I-8.

² FINCKE DALE, *Principles of Military Communications for C3I*, Army Command and General Staff, Fort Leavenworth, Kansas, 1986, pp. 5-9, 22-23, 31-32.