2022 第十届中国指挥控制大会 特邀专题论坛简介

特邀专题名称

多域指挥控制理论与技术

召集人的姓名、职称、单位和邮箱

张维明,教授,国防科技大学,wmzhang@nudt.edu.cn

特邀专题简介(背景、目的、意见和内容)

随着世界新军事变革的日趋深入,主要军事强国都在推进军事转型,多域作战的概念应运而生。多域作战强调在多个域中战胜对手,通过时间和空间上的态势塑造、多域力量的编组和部署、跨域能力汇聚等方式达成目的。近年来,多域作战概念正在快速迭代,逐步从概念走向现实。与此同时,指挥控制的信息化、精确化、无人化特点更加凸显,战场更加透明,行动接近实时,发现、判断、决策、打击周期大大缩短。指挥控制是实现多域作战的核心和枢纽。作战理论与新兴技术的发展既为多域作战中的指挥控制带来了新机会,也带来了新挑战,需要从基础理论上突破现有束缚,在关键技术上大胆创新,有效解决多域指挥控制面临的难题,为指控系统能力提升、作战体系高效构建、跨域能力协同聚合等提供理论基础和方法指导。

本特邀专题邀请以下与"多域指挥控制理论与技术"主题相关的包含创新思想、概念、新发现、改进以及新应用的原创论文。

- 多域指挥控制基础理论
- 多域指挥控制体系设计
- 多域态势认知
- 多域任务规划
- 多域行动控制
- 多域指挥控制体系集成与评估

C2-China 2022 Invited Session Summary

Title of Session

Theory and Technology on Multi-domain Command and Control

Name, Salutation, Affiliation and Email of Organizers

Weiming Zhang, Professor, National University of Defense Technology, wmzhang@nudt.edu.cn

Details of Session (background, purpose, significance and scope)

With the deepening of new military revolution in the world, major military powers are undertaking transformations. The concept of multi-domain operations emerged at the historic moment. Multi-domain operations emphasize on defeating opponents in multiple domains, and achieve their goals through situational aggregating in both time and space, organizing and deploying multi-domain forces, and converging cross-domain capabilities. In recent years, the concept of multidomain warfare is developing rapidly and gradually moving from concept to reality. At the same time, command and control has become more digital, precise and unmanned, the battlefield has become more transparent, operations are close to realtime, and the cycle of discovery, judgment, decision making and strike has been greatly shortened. Command and control are the core and the hub of multi-domain operations. The development of operational theory and emerging technologies has brought both new opportunities and new challenges to command and control in multidomain operations. Thus, it is necessary to break through the existing constraints in basic theories, develop new innovations in key technologies, and effectively solve the problems and challenges of multi-domain command and control, so as to provide theoretical basis and methodological guidance for improving the C2 capability, constructing the combat SoS, and coordinating and aggregating the cross-domain capabilities.

This special session invites original contributions on innovative ideas, concepts, discoveries, improvements, and applications related to the topic "Theory and Technology on Multi-domain Command and Control".

Basic theory of multi-domain command and control

- Multi-domain command and control system of systems architecting
- Multi-domain situational awareness
- Multi-domain task planning
- Multi-domain action control
- Integration and evaluation of multi-domain command and control system