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**COMMAND AND CONTROL IN THE EU OPERATIONS**

*Cerny JIRI*

**ABSTRACT**

*The author describes characteristics, principles and types of Command and Control (C2) in expeditionary operations of the European Union (EU) in the first part of this paper. In the second part, there are some aspects of C2 structure of an EU Battle Group with a view to the Organization of Command and Control (Command Agencies and Command Posts) presented.*

**THE ROLE OF ADVANCED COMMUNICATION AND INFORMATION  
TECHNOLOGIES**

**IN THE DEVELOPMENT OF THE COMMUNICATION AND INFORMATION SYSTEMS  
OF THE BULGARIAN ARMED FORCES**

*Jivko Hristov PRODANOV*

**ABSTRACT**

*This paper presents the architecture of the Stationary Digital Integrated Communication and Information System of the Bulgarian Armed Forces. The building of military Communication and Information System (CIS) requires the definition of three architectures. The system architecture has been described in details. The focus is on the role of the advanced communication and information technologies in the transfer of information. The aim is to build a territorially deployed communication network based on Asynchronous Transfer Mode (ATM). The network includes the following digital networks: ISDN, LAN/WAN, Ethernet, Frame Relay and etc. The "backbone" of the system is built by radio relay and fibre optic communication lines.*

**SECURITY AND NATIONAL DEFENCE**

*Prof. Neculai STOINA, PhD*

**ABSTRACT**

*Ages ago people realized that in order to exist, live together and evolve, they need an optimal degree of security to be felt at all the levels from the lowest – individual, community, collectivity – to the highest – national, sub-regional, continental and even global.*

*Nowadays when the current political, economic, social, religious and military conditions that define the new military and political concepts of the new world order of the 21st century, when even the judicial principles of international law seem to have interpreted so as to help to achieve the interests and objectives aimed at by certain states or groups/alliances, the issue of national defence and security has gained in importance, being placed at the centre of public attention.*

**HOW DOES TECHNOLOGY AFFECT LEADERSHIP IN THE 21ST CENTURY  
MILITARY CONFRONTATIONS**

*COL Marius-Dumitru CRACIUN, PhD*

**ABSTRACT**

*The purpose of our scientific endeavour in the present paper is to identify how modern technology, especially digital equipment but also the new concepts present in the modern battle-space at the beginning of 21st Century, Network Centric Operations (NCO) and Effect Based Approach to Operations (EBO) are influencing leadership in combat.*

*We have based our present work on the Romanian Armed Forces Transformation postulate that "re-dimensioning the decision making process, based on information superiority and the*

*implementation of effect based operations concept, using network enabled capabilities is considered the key transformational element, communication systems playing here a decisive role” [1]. We analyzed the available information on recent military conflicts trying to identify trends and ways to correct some negative influence that we believe technology has on sound leadership in the battle-space of 21st Century. We also identified ways and means to train the future leaders in using the available military technology, both the hardware and the software in such a way that the basic principle of leadership in combat – “Follow me” is still applied.*

## **QUALITATIVE DYNAMICS OF THE DEFENCE MECHANISM INVOLVED IN TENSIONAL ADJUSTMENT. A GEOMETRICAL APPROACH**

***Prof. Alin Gilbert SUMEDREA, PhD***

### **ABSTRACT**

*Defence mechanism dynamics has an important role in preserving psychological statuses. It is also important in the transition between normal psychological statuses and altered ones. But, defence mechanisms are essential in maintaining the fundamental psychological state. These mechanisms oppose the natural dynamics of the psychological measures which generally present an entropic tendency. This paper – representing a personal point of view - proposes to identify the domain of the apperception in which the strength of the defence mechanism involved in the modulation of the tensional state is starting to weaken. What are the levels of the apperception which determine the strongest defence mechanism and the weakest one? These are other interesting questions to which this paper will offer answers. The study focuses on identifying the mathematical formulae which describe the dynamics of the amplitude of tensional state and the dynamics of the ratio between the neuro-psychological activation and the minimal one needed for the activation of attention function in apperception.*

## **ASPECTS ON RESOURCE ALLOCATION WITHIN LOCAL RADIO NETWORKS**

***Assoc.Prof.Eng. Paul BECHET, PhD***

***Eng. Radu MITRAN***

***Eng. Iulian ILIES***

### **ABSTRACT**

*As a part of the management activity specified from modern frequency hopping radio systems, the study of interference includes the Adjacent Channel Interference (ACI) level and the Co-Channel Interference (CCI) level. The paper is focused on these levels of interference and draws some conclusions regarding the use of frequency hopping radio systems. We will compare the use of radio hopping systems in two representative operating modes: fixed secure frequency and frequency hopping. The final aim of the paper is to improve the electromagnetic compatibility in a complex radio network offering a guide to assign and allocate radio resources.*

## **DIFFERENT DERIVATIZATION PROCEDURES APPLIED TO LEWISITE 1 DUE TO ITS DIFFICULT IDENTIFICATION BY GC/MS**

***3rd S.S.Eng. Nicoleta GRIGORIU, PhD***

***LTC 3rd S.S.Eng. Gabriel EPURE***

***MAJ Asst.Prof.Eng. Danut MOSTEANU, PhD***

***CAPT Scientist Eng. Constantin TOADER***

***Scientist Eng. Panaghia DELIU***

### **ABSTRACT**

*Lewisite 1 (L-1) is very difficult to gas chromatography, requiring high concentration levels (several thousands  $\mu\text{g/ml}$ ) using very clean systems with a new column, a specially prepared injection port liner, and on-column injection. Therefore, derivatization is necessary for reliable analysis. There were several derivatization reagents reported in this article: 3,4-dimercaptotoluene; 1-propanthiol; 1,2-ethanedithiol; and 1-butanthiol). These reagents all react*

*with Lewisite 1 in the same manner, the chlorine attached to the arsenic are displaced by the sulphides of the reagent molecule.*

## **RESILIENCE AND SPECIALISTS' TRAINING FOR EMERGENCY SITUATIONS IN CANADA**

***Prof. Mircea COSMA, PhD  
TA Brandusa COSMA  
SA Amalia LEBU***

### **ABSTRACT**

*Community is not only a social-human entity, whose members are bound together by the same housing area and constant social traditional relationships but also a place where the relationship involves a feeling of trust, and identification, i.e. a sense of community consciousness. The community characterized by a high concern for the community problems, respect for others and the need for connection is more likely to be resilient. As shown in the present study, the disaster can often destroy community consciousness, whereas in some cases the threat to the community may increase the cohesion and solidarity. The Institute for Health Research in Canada is dealing largely with the study of resilience, whereas the Faculty of Social Sciences of Laval University is doing research on community resilience. The main objective of this paper is to analyze the place and role of Canadian federal agents in the management of emergencies and development of resilience of the population to such situations.*

## **CONSUMER AND HIS BEHAVIOUR IN THE POST-MODERN ERA**

***Asst.Prof. Marieta STANCIU, PhD  
Asst.Prof. Carmen PUIU, PhD***

### **ABSTRACT**

*The process of passing to the market economy contained besides some pre-modern elements, numerous post-modern aspects. This has kept its pre-modern sense, of returning or restoring and that is why they are called by Habermans 'recovering revolutions'. Accepting inequalities in society is a first post-modern element of transition to market economy. Bauman Zygmunt thinks that the transition to market economy marked the replacement of illuminist ideal on total knowledge with postmodernist ideal of choice obsession after its own variant [1].*

## **USAGE CONCEPT CHARACTERISTICS OF POLICE STRUCTURES WITHIN STABILITY OPERATIONS**

***Chief Commissioner Asst.Prof. Merisor CERANU, PhD***

### **ABSTRACT**

*A distinctive characteristic of police actions is the high level at which the political objectives influence operations. At peace, the engagement rules are governed by necessity and proportionality principles, the two elements of self-defence. According to the necessity principle, the recourse to armed forces for self-defence can only be performed as a reply to a hostile act or action or if a hostile intention is manifested by some military, paramilitary forces, or by terrorist groupings. The police units' actions aim at: discouraging wars, solving conflicts, promoting peace and supporting civil authorities. The affiance rules provide action directions for commanders but also for individuals regarding the use of force, based on legal, political and military grounds.*

## **KNOWLEDGE – THE BASE FOR THE ECONOMIC DEVELOPMENT AND MILITARY ORGANIZATION MODERNIZATION**

***COL Tudor BORCEA***

### **ABSTRACT**

*There has been a profession evolution coming from the intellectualized activities towards the interdisciplinary fields centre don humans an don the social and natural environment relationships.*

*From the institution point of view, we predict a switch from the classical type organization, to the research development innovation based partnership (RDI.)*

## **SLIDING BEARING FABRICATION OR RECONDITIONING ALTERNATIVE TECHNOLOGIES**

*Assoc.Prof. Roxana NEDELCU, PhD*

### **ABSTRACT**

*Sliding bearings are important machinery elements which sustained other members (spindles or cranked shafts) to send motions. By sliding surfaces, the bearings are taking over radial, axial and combined forces and, in the same time, they allow the spindle to have rotary motions or oscillations. The relative motion between bearing and spindle is faced with a resistance, due to friction, which the overcome necessitate energy input. In the paper, we will present metal spraying protection fabrication and reconditioning methods of pins or bearing (rotary engine components). Metal spraying technology, with powder or wire, using chemical, electrical or plasma energy, consists in some main operations: cleaning and surface preparing, metal spraying, mechanical processing and control.*

## **CULTURAL TOURISM ATTRACTIONS AND ENVIRONMENTAL PERFORMANCE**

*Asst.Prof. Cosmin TILEAGA, PhD*

### **ABSTRACT**

*Essentially, cultural tourism attractions need to operate within the natural capacity of the destination, i.e. to adopt the principles o sustainable development. A key to this is careful and considered planning within which cultural tourism is not treated in isolation from the rest of the local economy, and particularly from the community.*

## **PUBLIC ORDER COMMAND AND CONTROL IN CERTAIN COUNTRIES WITH ADVANCED DEMOCRACY**

*Police Chief Commissioner Catalina UDEANU*

### **ABSTRACT**

*Public order, as part of the national security, is one of the supreme state values. People cannot act in a constructive and moral way, unless they are in a political and social environment, seamlessly functioning, thoroughly juristically organized, not tensioned and protected by insecurity factors. Therefore, the security and order need requires every state to totally answer for this, to undergo all necessary steps in order to assure and guarantee it.*