

ASPECTS OF LOGISTIC PLANNING IN A MILITARY UNIT AT PEACETIME

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The inter-conditioning of the management processes within the economic domain with those belonging to military logistics generates a modern approach of logistics management, in the context of creating the necessary circumstances for fulfilling the objectives of interoperability with the western military structures. Logistic planning proves useful in identifying risks and accurately determining the costs and benefits implied by providing logistic support at the appropriate time and place. Without clear and consistent focus on efficient logistic planning, the military organization might be caught in the whirlwind of unpredictable events, not being able to influence them properly, in order to fulfill in an adequate manner its operational goals. Thus, through the aspects revealed below, we set out to deal only with the relevant issues outlining the concept and process of logistics management and present the details of the planning activity in the military unit at peacetime.

Key words: *logistics management; logistics foresight; logistics planning; rationality; optimum; balance; logistics planning documents.*

1. INTRODUCTION

The logistics management of a military organization is the complex and continuous process aimed at accomplishing logistic goals through the most efficient manner of using human potential. At the same time, as a concept, logistics management is the science and the art of employing material and financial resources and of *leading the people whose positions*

and roles are varied and specialized, but who cooperate continuously in order to reach the established logistic objectives.

Actually, the logistics management of a military structure presupposes the compulsory accomplishment of the specific management process integrated within the military organizational one.

Thus, the logistics management process is explained by the action

of the managing sub-system upon the managed sub-system, following the performance of all activities (foresight, decision, organization, command, coordination and control-assessment) conducted by logistics managers, in order to establish and accomplish the specific goals (of procurement, transport, maintenance, assistance, insurance etc.) of units and major units at

peacetime (Figure 1). All these actions actually reflect the functions or attributes of management applied to the logistics domain which – if fulfilled efficiently – determine the accomplishment of logistics missions at peacetime. If we explain each function separately and if we analyze them all, as a whole, we will have the complete image of the logistics management process.

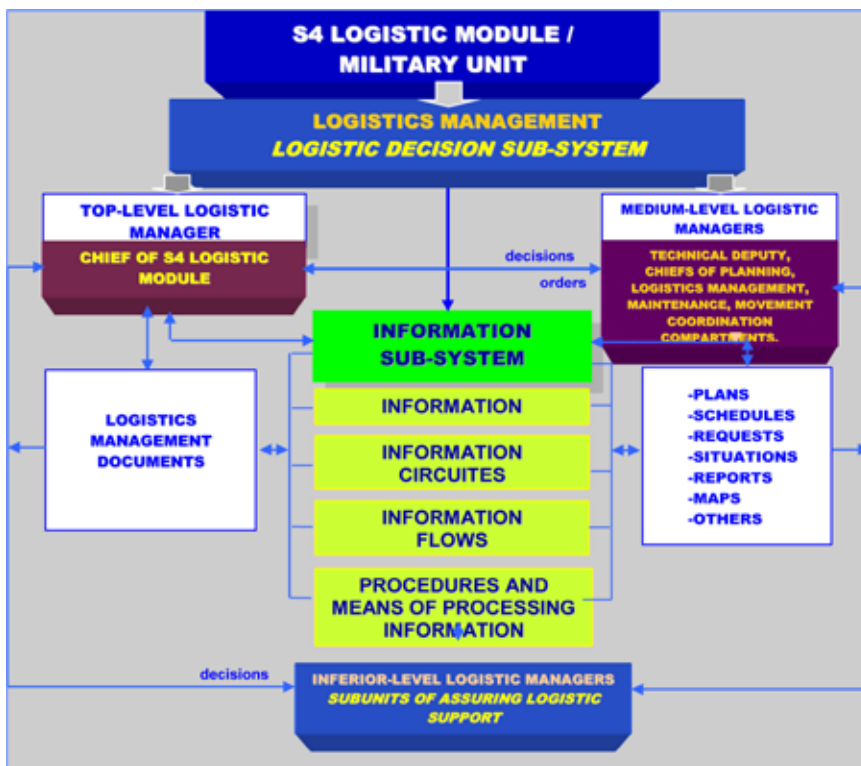


Fig. no. 1. Mechanism of logistics management

The foresight function consists of the entire range of actions leading to foreseeing the main goals (on long, medium, or short term) of units' (major units') logistics and of its domains, as well as the main necessary resources and means. Depending on

the time frame in which they occur, we can outline three components of logistics foresight: *prognosis*, *planning*, *scheduling*.

In logistics, *prognosis* means anticipating the evolution of a military structure on the long term, envisaging

a period that goes over ten years, and relying on specific investigation methods and procedures of certain economic and technical processes. Usually, prognoses are conducted by the logistics compartments of higher echelons, especially by those to be found at strategic level.

The prognosis-making process is mainly based on the following requests: conceiving logistic variants applicable in the future; making a retrospective analysis of processes subject to prognosis and their trends under the impact of the general restructuring of the military organization and especially of the logistic system; the complex analysis of the logistic domain investigated from economic, scientific, technological, professional, managerial perspectives etc. [1].

2. ASPECTS OF LOGISTIC PLANNING IN THE MILITARY ORGANIZATION AT PEACETIME

Logistic planning refers to a provisional activity on long, medium, and short term, which formally takes from one month to one year. This planning process results in the logistic plans conceived within any military structure. In military units, the planning process usually covers a short term (one month), a medium term (from one month to a trimester), or a long term (from one trimester to one year). The detail degree of

these plans are in inverse ratio to the time frame they cover, therefore short-term plans are explicit, while the plans made for one year only comprise the fundamental goals (activities) and the main resources. Plans are made according to the specific features of each domain of military unit logistics, according to the missions it has to accomplish at peacetime.

2.1. Aspects regarding the content and accomplishment of logistic planning

The shifts produced in the settlement and organization of each echelon prove the adjustment of logistic functions and missions to change. Within the new functional background, planning becomes a complex and essential activity of logistics management, integrated within the foresight function. It reveals the coordinated process of S4 logistic module for detailing and managing all the specific activities, according to the attributes it gets.

Regardless of the echelon at which it is performed, logistic planning at peacetime is defined as the exploitation of every opportunity (obvious possibility) in order to assure the effective and efficient completion of the activities mentioned in the *annual plan with the main activities of the military unit*, by allocating time, resources and responsibilities needed to reach the goals subordinated to the accomplishment of continuous and timely provision of logistic support.

Logistic planning is a complex, continuous process, integrated within the whole planning process of the military unit's peacetime missions that rely on the detailed acknowledgement of the number and condition of troops, products, technique, armament and materiel at a certain moment, as well as on the capacity of foreseeing the likely evolution of the specific activities undertaken by the military organization in the future. Consequently, in order to have a proper orientation, logistic planning has as starting points the data and information resulting from diagnosing the state of the logistic

system at a certain moment and foreseeing the complex activities specific to the logistic domain of the respective military unit at peacetime.

The constant correlation between the level of complexity of the military structures' peacetime missions with the material and financial resources available require abiding by certain principles of elaboration and efficient undertaking of logistic planning. Thus, the efficient performance of logistic activities is given by the *rationality, optimum and balance* of procurement and use of financial and material resources in the existing economic circumstances (Figure 2).

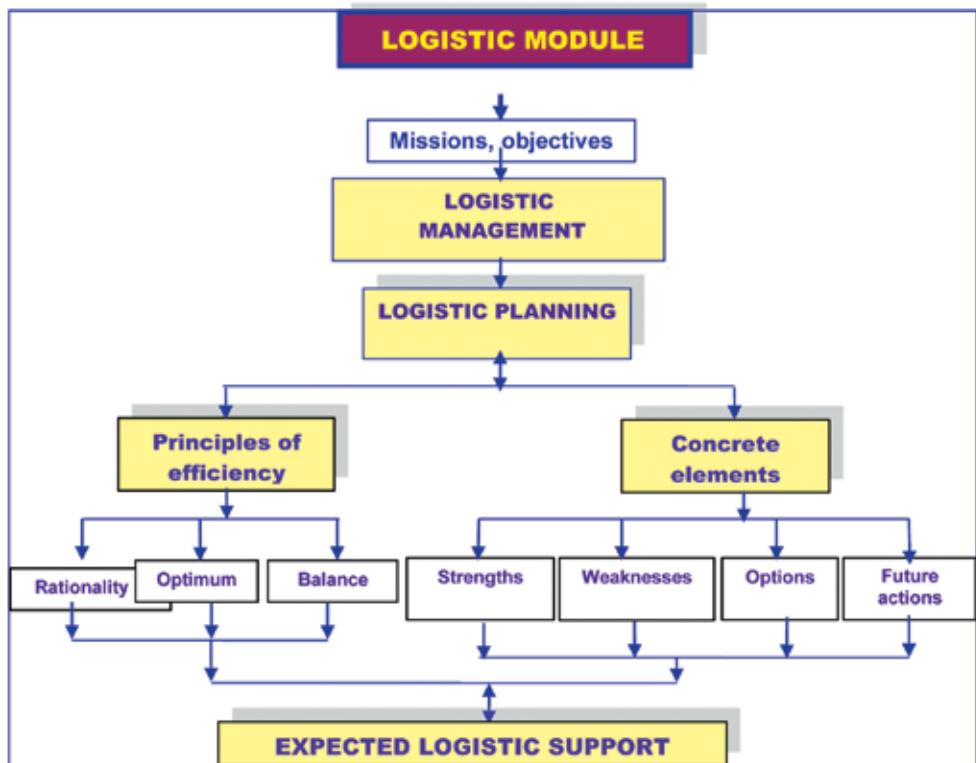


Fig.no. 2. Principles of efficiency and determined elements of logistic planning

At present, when the trend of inflation rate is not at all optimistic, the application of *rationality* in logistic planning is the result of a consistent attitude of the specific bodies so as to avoid risk and uncertainty, in order to assure the normal functioning of military structures [2].

In order to provide the logistic support necessary for troops' peacetime preparation for armed conflict situations, we consider that an adequate *economic optimum* should be assured. Optimizing the supply activities have to do more with the competence, ability and correctness of the specialists involved in the efficient spending of financial resources, in the appropriate administration, use and consumption of material means (resources). Under these circumstances, due to uncertain or unsettled local economic environments, logistic managers have to design and concretize flexible logistic plans able to permanently place the procurement / consumption relationship in an efficiency-determined framework [3].

The *balance* created, as a result of logistic planning, embodies the principle according to which there should be interdependence among consumption, available financial means, used purchase prices and allocated budget. Balance is given by the level of the consumer's capacity (military unit), as a legal entity, to spend rationally and in accordance to the planned missions in order to accomplish them. Attaining logistic goals imply planning and spending

function of the allotted budget. Certainly, the effects of an economic crisis may determine restructurings and giving up on some activities (military actions) in favor of others, so as to establish a permanent balance between goals, currently available means and future possibilities of logistic support [4].

Starting from these principles, we consider that in order to avoid the situations hard to overcome, at operational level, within the logistic domain it is important for decision-makers to foresee and identify *strengths, weaknesses, future options and actions* that will have to be taken into account in designing and conducting logistic planning, as depicted in **Figure 1**.

- **Strengths (decisive points)** mainly encompass the following: dynamics of troops related to food and equipment rights; the equipment and armament in the organization list and their operational state; the stock level (daily, weekly, monthly, quarterly, annually); the financial resources necessary for procurement; satisfying under normal conditions the internal consumption, regardless of budgetary constraints; initiating, preserving and developing favorable selling-buying relationships with competitive providers; correct and timely gathering of information with respect to providers and products on offer or that are about to be delivered etc [5].

- **Weaknesses** mainly reveal the following aspects of interest in the military unit: the lack of correlation between the foreseen supply of food

products with a distant expiration date and fuels and lubricants; not taking into consideration the changes in terms of troops and technique, having direct consequences upon demanding and assuring financial and material resources in a de-centralized system; the military unit having to pay larger amounts, as compared to those paid by other buyers for the purchased products; unfavorable time limit for payment set by providers (for instance too many incomplete deliveries; negotiations that are insufficiently detailed and uncertain regarding price growth) and so on [6].

Only an objective re-evaluation of the strengths and weaknesses made by the habilitated logistic bodies could make it possible to correctly identify the options specific to each logistic compartment (office) individually, in order to perform specific planning so as to reach the designed standards of interoperability [7].

- **Options** represent, from our point of view, various measures that could be taken in order to accomplish future logistic objectives. They aim, for instance, at improving the standing plans and making new plans [8].

In order to accomplish the management-marketing goals, options refer to: selecting the most appropriate providers; assuring the standard price-quality ratio; adequately cutting down the price while the contract unfolds, through intermediate negotiations; identifying and choosing new providers and so on [9].

- **Future actions** usually refer to performing under new circumstances

the planned actions and identifying new actions and resources. In order to assure the appropriate accomplishment of procurement logistic missions, future actions are especially aimed at the following: developing, starting from the good standing relationships, the cooperation with current providers, to the purpose of ensuring *timely delivery*; negotiating within the legal framework (when competition allows it) smaller prices for products, based on long-term contracts, keeping the time limits for already established payments; improving the payment conditions with occasional providers; enforcing penalties for incomplete deliveries and so on [10].

The careful examination of the supply issue and of the other components within logistics structures lead us to the belief that, in order to be efficient, *logistic planning* will mainly respect the requirements referring to the following: reflecting the consumption peculiarities of military units; conceiving it so as to use for procurement suppliers legally accepted as convenient and valuable; its purpose to respect consumption principles (rationality, optimum, balance), to develop the strong points and eliminate the weak ones; to outline in a realistic manner the objectives, limits and necessary resources; the best options, checked against risks or the periodic revision of these options [11; 12].

Unlike in the case of logistic planning performed during an armed conflict, logistic planning at

peacetime can be applied due to the influence of the other functions of logistics management (organization, command, coordination, control and evaluation), which are taken into account separately [13].

2.2. Main logistic planning documents

Generally speaking, the logistic planning of military units and major units at peacetime relies on a predictive activity on medium term (from one year to a trimester; from one trimester to a month).

Plans are built on the components of the unit's / major unit's logistics, according to the specific features and missions they have to accomplish at peacetime. In this respect, the main documents of management, for the decisional and operational levels, within the military structures mentioned above are the following:

- *The chapter entitled "Logistics" and the corresponding annexes from the Annual plan with the main activities of the military unit;*

- *The chapter entitled "Logistics" and the corresponding annexes from the Order of drills of the military unit no... for year...;*

- *The plan with the main activities of S4 logistic module for month... – made by the Chief of logistic planning compartment;*

- *Annual supply plan with class 1 – 5 materials;*

- *Annual movement plan;*

- *Annual transport plan;*

- *Annual engine-resources plan;*

- *Annual maintenance plan;*
- *Annual medical support plan;*
- *Annual sanitary-veterinary assistance plan;*
- *Annual infrastructure plan;*
- *Annual income and spending budget.*

We will detail below the purpose of each document of management taken separately.

- *The chapter entitled "Logistics" and the corresponding annexes from the Annual plan with the main activities of the military unit* is made, at the level of S4 logistic module, yearly, by the chief of logistics of the respective military structure. The document is based on the project of the plan with the main activities, made by the military unit's staff.

The format of *the chapter entitled "Logistics" and the corresponding annexes from the Annual plan with the main activities of the military unit* comprises the following elements: number; task; calendar with time limits (yearly); allocated resources (human, material, financial); responsibilities; manner of verification (control) of task completion.

In order to allow the timely completion of the planned tasks according to the allocated resources, it is useful to include two rubrics in the "Logistics" chapter from the *Annual plan with the main activities of the military unit: order of the activities planned, function of their urgency; number of the next activity (task).*

- *The chapter entitled "Logistics" and the corresponding annexes from*

the Order of drills of the military unit no... for year... is made yearly, at the level of S4 logistic module, by the chief of logistics of the respective military structure. This document is based on *“Logistics” and the corresponding annexes from the Annual plan with the main activities of the military unit.*

The format of *the chapter entitled “Logistics” and the corresponding annexes from the Order of drills of the military unit no... for year...* comprises: number; task name; calendar with time limits (yearly); allocated resources (human, material, financial); responsibilities; manner of verification (control) of task completion.

- ***The plan with the main activities of S4 logistic module for month...*** is made by the Chief of logistic planning compartment, according to the specificities and missions of every unit at peacetime.

The document is based on *the chapter entitled „Logistics” and the corresponding annexes from the Order of drills of the military unit no... for year...* that has as a purpose determining the main activities necessary to the proper functioning of the respective S4 logistic module, in the respective year.

The chapters from *the plan with the main activities of S4 logistic module for month...* refer to: planning specific activities and planning controls according to the missions and objectives each compartment in the S4 logistic module has to fulfill within the military organization at peacetime.

The activities planned (yearly, monthly) specific to logistic components will be grouped according to three categories: common to all compartments, specific to the compartment and other activities. The respective plans will be approved, after filling, by the commander (head) of military structure.

The document comprises the two rubrics mentioned above, that is, *the order of the planned actions, function of their urgency; the number of the next activity (task).*

- ***The annual movement plan.*** At peacetime, the movement of a military unit implies dislocation and re-deployment for conducting tactical exercises on national territory or outside it. In order to plan for the movement of the military unit (at peacetime) the *annual movement plan* is made so as to mainly comprise the activities, capabilities, resources, time limits and responsibilities necessary to force re-deployment, equipment, military technique and materiel. Each movement activity requires specific planning (scheduling).

- ***The annual transport plan*** is made in order to move all the types of technique and materiel (according to the respective classes) from the supply sources to the beneficiary (subunit, unit), using own transportation means.

This plan usually comprises all the actions, resources, terms and responsibilities necessary for the movement of material

goods (equipment) from providers (economic operators, maintenance sections, military warehouses etc) to the beneficiary units (subunits). The act of completing this document requires the involvement of all the structures in the respective military organization, that will use transport means in the respective year, taking into consideration the types of goods (equipment) that need to be transported and the types of necessary transportation means. The tasks specified in this plan are correlated with those in the *movement plan*, as well as those in the *annual engine-sources plan*. Each transport task requires specific planning (scheduling).

● ***The annual supply plan with class 1 – 5 materials*** is actually the most specific document of military unit supply management at peacetime. The document gathers all the profile data in the military unit and comprises all material goods that have to be supplied by the structures of the military unit during a whole year, divided into trimesters and months, which are at the same time evaluated financially.

For the decentralized supply of different types of products, the instructions in effect nominate the logistic products and materials that will be ordered, contracted, supplied and reimbursed by units and major units. In this respect, it is necessary for each military organization to make a *supply plan* and an *annual plan of public procurement*, correlated with the data from the “Notes comprising

indicators and justification calculus” that will comprise, on budgetary articles, all the products and services evaluated that are to be purchased organizationally in the planned year.

Moreover, the document allows the following: *the re-evaluation of future costs and possibilities of procurement locally; the estimation and planning of procurement procedures that are to be used; the demand for funds necessary to constant supply; the human and material resources that will be employed; the comparison of results obtained in the supplying process with the foresight made to this purpose [14].*

● ***The annual engine-resources plan*** is the management document resulting in the planning of transport means in separate drives, periodically, function of the needs, during a certain year.

At the level of military unit, the document is elaborated by the officer (non-commissioned officer/NCO) responsible for coordinating S4 logistic movement/module, following the setting of a calculus database, which depicts: the type of activity (combat training, transport to/from the unit, running-in new technique and so on), cars, vehicles and aggregates used for these activities, the number of engine-run kilometers resulting for each unit (hours of running – for aggregates).

Function of the activities included in *Annual plan with the main activities of the military unit (also comprised in the “Logistics” Chapter from the*

same plan) and in the *Monthly plan with the main activities of S4 logistic module*, the number of engine-run kilometers will be divided quarterly and then monthly.

The *annual engine-resource plan* is useful to the officer (or NCO) responsible for fuel and lubricants supply within the logistics management/S4 logistic module, that balances the number of engine-run kilometers established on categories of activities and types of consumers with the daily consumption rates and with an average quotient of road trips, generating the whole necessary amount of gas and diesel fuel, as well as the funds that have to be demanded for the following year [14].

After the approvals are obtained from the higher echelon for engine-resources and fuels-lubricants, the logistic compartment (office) will establish a certain correlation between the annual engine-resource plan and the annual plan of fuels-lubricants supply.

Periodically, the chief of S4 logistic module will report to the commander of the military unit within the working group, to justify consumption set out as engine-run kilometers and oil resources (gas, diesel engine, oils etc). Starting from this plan, the specialized bodies make quarterly and yearly analyses regarding planning and performing engine-resource consumptions.

• **The annual maintenance plan** is the document stipulating all the measures and activities necessary to maintaining or re-establishing

the normal characteristics of functioning specific to the equipment and armament in the endowment of the military unit. In this respect, the maintenance plan allows the employment, maintenance and repairs of equipment and armament repairs during one year.

In order to fulfill the plan, the chief of S4 logistic module together with the technical deputy and the maintenance compartment put together the necessary resources (spare pieces, maintenance materials, funds and so on) with the existing ones, fact for which they perform the following activities: *they establish the number of technical maintenance and periodical repairs, on types of equipment and armament, as well as their setting in time; the way the equipment and armament are used according to the destination of the planned activities and allocated resources; they establish the types of equipment and armament that are to be preserved; they adequately foresee the future resource consumption, as well as the technical and maintenance state of technique and armament [14].*

In order to fill out the annual maintenance plan, the chief of staff of the military unit together with the deputy of the commander establish the necessities of technique, armament and resources separated on training activities, on months, on sub-units, on types of equipment and armament, on parks and destination groups.

The technical deputy of S4 logistic module together with the

respective compartment make the annual maintenance plan starting from the data received from the general staff and the actual military technique and resources, for assuring an appropriate functioning and maintenance.

For the next year, the maintenance plan is made after receiving the necessary material resources (spare parts, maintenance materials) and the financial resources (for procuring materials from the economic agents), so as the document might be approved by the commander in the first half of December of the financial year. The plan stipulates, divided on periods, the necessary amounts for technical maintenance, technical inspections, needed repairs (of current, medium, capital complexity), as well as general revisions.

In order to prevent losing the right to allocated resources, the manner in which the annual maintenance plan is put into practice will be analyzed periodically, thus:

- *monthly* – working groups meetings will evaluate the following: the allocated material and financial resource consumption; the consumption and spending made; the causes for not fulfilling the plan and the measures that need to be taken for fulfilling it, also taking into consideration the alterations made;

- *quarterly* – the units will gather all the data in an analysis that clearly shows the manner of fulfillment of the plan [14].

- ***The annual plan of medical support*** is the management document

starting from which the medical personnel from military units plan and perform all the activities necessary for keeping the health of personnel, preventing the occurrence and spreading of diseases, providing timely first aid, qualified or specialized medical aid.

The one responsible for the correct fulfillment of the plan, with all the activities involved, according to unit specificities, is the chief medical officer of the unit. The document has to be made every December for the next year, in order to be endorsed by the chief of S4 logistic module and approved by the commander of the respective military structure.

To have a basis for the annual plan of medical support, the chief medical officer has to coordinate the specific activities according to the following areas: the hygienic-sanitary assistance and living conditions of the troops; the medical assistance of the personnel (curative, prophylactic activity, anti-epidemic activity); the analysis of morbidity in the unit or major unit (dominant ailments; consultations, treatments, hospitalization; analyzing absences from work because of illnesses); the medical assistance of conscripts, of reduced term conscripts and course-takers (if the case be); the medical assistance of personnel participating in exercises and firing-range practice; medicine and sanitary materials procurement; military and medical training of medical personnel; efficiency of direction and control work made by the higher echelons in the domain of medical assistance.

We consider that periodically, during the working group meeting, heed must be paid to the manner of accomplishing the planned tasks, taking the necessary measures, according to the respective situation, both regarding medical support and the way of assuring material and financial support for fulfilling all the planned actions.

Starting from the plan, quarterly and annual reports are made regarding the objectives and actions specific to medical support, that are submitted at the stipulated deadlines through orders given by the medical compartments of higher echelons.

- ***The annual sanitary-veterinary assistance plan*** is the management document based on which the military units that have animals benefit from specialized actions aimed at: protecting the health of the animals in their service; treating ailing animals; ensuring sanitary inspection of animal origin food products.

The responsibility of making the annual sanitary-veterinary plan belongs to the veterinarian working full time within the respective military unit. When this position in the payroll is not filled or there is no function in the unit's organization, the document will be filled out by the veterinarian of the territorial sanitary-veterinarian practice to which the military unit is circumscribed.

In order to produce this document, the military vet (or the circumscription vet) will work together with the chief of S4 logistic module and with the

chief of procurement compartment in the respective military structure.

Regarding its structure, the annual sanitary-veterinary action plan include the following tasks grouped under the following headings: sampling during the year for screening in order to detect the possible diseases that may affect animals and other pathogen germs; preventing infectious – contagious and parasitic diseases at animals through periodical immunizations, according to sanitary-veterinary norms; preventive and curative anti-parasitic treatments; current preventive and curative treatments; food and fodder control [14].

The annual sanitary-veterinary plan is filled out either at the end of December of current year or the beginning of January (of the year planned for). Starting from this document, veterinary compartments make quarterly and yearly reports regarding the way the sanitary-veterinary actions that were planned were also performed. At the same time, this plan also represents the basis for putting together the needs of sanitary materials and medicines for treatments and prophylactic measures. Moreover, the periodical analysis of plan fulfillment by the responsible bodies show the medicine and material consumption, the spending and the efficiency of each sanitary-veterinary action taken separately.

- ***The annual income and spending budget*** made at the level of the military unit is the document

meant to ensure the undertaking of financial-accounting tasks, to strengthen the orderly and exact following of financial and accounting plans in managing financial means, the maximal mobilization of the existing resources and increasing spending efficiency.

The budget project is made by each financial-accounting structure in the respective military unit, it is signed by its commander (chief) who, according to the law, has the quality of tertiary credit release authority, and by the chief accountant, after an initial analysis made together with the chiefs of the modules (S1, S2, S3, S4, S6). After it is filled out, the budget project signed by the authorized people and accompanied by documents and detailed explanations both for extra-budgetary income and for spending are submitted for centralization to the hierarchically superior credit releasing authority, at the respective time limits [14].

3. CONCLUSIONS

The complexity of activities related to logistic support requires flexible planning for the timely and optimal accomplishment of the specific missions by the structures of management and execution of force logistic support.

Through planning, the activity of operational logistics management shows, regardless of the operational structures within which it is conducted, the effort of logistic forces

involved made in order to reach the purpose and goals of military actions and obtain optimal effects resulting from the maximal efficiency of all available resources.

In the domain of military logistics, just as in any economic domain, logistic planning is worked out through scheduling, based on a reduced interval of time – decade, week, day, shift, hour – including a lot of details regarding the actions performed, the means and resources used for accomplishing the plans logistics-wise. For conducting current logistic activities, the people in charge with logistics issues make schedules with own activities they perform daily, within the timetable made by the commander and, sometimes, beyond it.

In order to be able to reach the objectives and specific activities of the military unit at peacetime, *planning and scheduling* are especially relevant for logisticians, as they need to have management and specialized knowledge; professional experience; adequate communication capacity both within the logistic system and outside it with representatives of different companies, organizations and public institutions; functional authorities in the field and so on.

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